

Development Engineering Supplement to the Sydney Water Edition of the “Sewerage Code of Australia”. WSC 1st Version.

Wyong Shire Council has adopted the Sewerage Code of Australia WSA 02 – 2002-2.2 Sydney Water Edition Version 3 for the Planning, Design and Construction of sewerage networks across the Wyong Shire Area.

When using the code in The Wyong Shire Area for Development related works the adopted version shall be subject to the following amendments and supplementary information.

INTRODUCTION

CODE PURPOSE

Delete the sixth paragraph and replace with:

“Any reference to the Sewerage Code of Australia(“the Code”) shall be deemed to refer to the latest version of the Sydney Water Edition of the Code as amended by the latest version of the Wyong Shire Council Supplement. The Code specifies mandatory requirements for the planning, design and construction of sewerage assets within the Wyong Shire Local Government area.”

In the seventh paragraph, replace all references to “Sydney Water” with “Wyong Shire Council”.

Part 0: Glossary of Terms, Abbreviations and References

Include the following abbreviation:

ABBREVIATION	INTERPRETATION
“ WSC	Wyong Shire Council”

Part 1: Planning and Design

1.1 SCOPE

Before the first paragraph insert:

*“Where this Code requires “Water Agency” approval, input or intervention in relation to development design issues, the appropriate WSC Council contact person shall be the Principal Development Design Engineer.
Any gravity sewer network that will be operated and/or maintained by WSC shall be designed and constructed in accordance with the Code.”*

Part 1: Planning and Design (continued)

1.1 SCOPE

At the end of the clause add:

"In general all references to Sydney Water in Part 1 shall be replaced with WSC unless noted otherwise."

1.4 SEWER SYSTEM DESIGN APPROACH

Delete SW 1.4.4 and insert:

SW 1.4.4 Safety in Design

Safety in Design shall be considered as required by the Work Health and Safety Act.

4.2 DETAIL DESIGN CONSIDERATIONS

4.2.3 Sewer layout

Delete the two paragraphs under the heading "**Preferred Gravity Sewer Location**" and insert:

"The preferred location for gravity sewer mains is:

- a. *1.0m from rear boundary to centreline of pipe.*
- b. *1.5m from rear boundary to centreline of pipe when located parallel to inter allotment storm water drainage.*
- c. *1.0m from side boundary to centreline of pipe.*
- d. *1.0m to 4.0m from front boundary to centreline of pipe. "*

Delete all paragraphs under the heading "**Alternate Locations**" and insert:

"Alternative locations for gravity sewer mains shall be discussed with WSC's Principal Development Design Engineer."

Delete the heading "**Industrial Areas**" and the first two paragraphs under this heading.

4.2.4 Environmental considerations

4.2.4.1 General

Delete "EIA" and insert "Development Approval".

Delete the second paragraph

4.2.4.2 Urban Salinity

Delete the second paragraph

4.2.5 Easements

Delete the last paragraph and insert:

"Easements are not normally required for gravity sewer main, but may be necessary in some situations. Any require for an easement over a gravity sewer main will nominated by Wyong Shire Council in Development approval or Water Authority Requirements for a particular project."

Part 1: Planning and Design (continued)

4.3 HORIZONTAL ALIGNMENT OF SEWERS

4.3.7 Horizontal Curves in Sewers

4.3.7.1 General and 4.3.7.2 Reticulation Sewers and all paragraphs under these clauses shall be deleted and replaced with:

"WSC may consider using long radius horizontal or vertical bends outside a MH, MS or TMS in reticulation sewers in exceptional circumstances. Each circumstance will be assessed on a case by case basis in order for WSC to determine if such a bend is suitable."

4.8 STEEL SEWERS

Add at the start of this clause:

"The specification of Steel Sewer mains on designs will only be considered for approval by WSC in circumstance where there are not other options or where other options are cost prohibitive as determined by WSC."

6.1 TYPES OF MAINTENANCE STRUCTURES

In (a) and (b) delete all references to DN300 MS and TMS and insert :

"WSC may consider the use of DN150(with DN225 riser) and DN225(with DN300 riser) MS and TMS on a case by case basis."

6.3 SPACING OF MAINTENANCE STRUCTURES

Amend TABLE 6.1 as follows:

- (a) For "Reticulation sewers/change of grade at same level" application, delete reference to using vertical bend in "MS" option.
- (b) For "Change in grade at different levels" application, insert NO for "MS" and "TMS" options.
- (c) For "Change in sewer horizontal direction" application, insert NO for "TMS" option.
- (d) Delete Note 2.

6.3.2 Maintenance structure spacing – Reticulation sewers

Delete the contents of this clause and replace with:

"For reticulation sewers, the maximum distance between any two consecutive MHs shall be 120 metres and subject to the provisions of clause 6.3.1.

The maximum distance between a MH and any other MS shall be 60m.

At permanent end of line sewers, the distance from the end of the line MS to the nearest downstream MH shall not exceed 60m.

A maintenance structure shall be installed at the end of a line (terminating sewer), unless the distance from the end of the line to the nearest downstream maintenance structure is less than 40 metres."

Part 1: Planning and Design (continued)

6.3.3 Maintenance structure spacing – Branch and trunk sewers

In the first paragraph delete "180m" and insert "120m".

6.4 SPECIAL CONSIDERATIONS FOR LOCATION OF MAINTENANCE STRUCTURES

In the first paragraph delete "1m" and insert "1.5m".

6.7 MAINTENANCE SHAFTS (MS)

6.7.1 General

In the first line delete "DN150, DN225, and DN300" and replace with "DN150 and DN225".

6.7.2 Design parameters for for MSs and TMS's

Delete the first two paragraphs and replace with the following:

"WSC may consider MSs and TMSs in the sizes of DN150(with DN225 riser) and DN225(with DN300 riser) on a case by case basis.

MSs and TMSs shall only be used at the design locations detailed in table 6.1(as amended by WSC supplement). Directional and gradient changes at MSs shall be achieved only by using MS units specifically manufactured for specific horizontal and/or vertical angles to suit design requirements.

WSC may consider using long radius horizontal or vertical bend outside a MH, MS or TMS in reticulation sewers in exceptional circumstances. Each situation will be assessed on a case by case basis and will require WSC approval prior to finalisation of the design.

An MS shall not incorporate any higher level incoming reticulation sewers."

7.2 WATER SEALS, BOUNDARY TRAPS AND WATER SEALED MHs

7.2.1 General Design Parameters

Delete the first, second, third and fourth paragraphs and insert:

"WSC requires the property owner/customer to install boundary traps prior to connection to the sewer. Any additional water sealing devices will be as specified or approved by WSC"

7.2.2 Water seals on reticulation sewers entering branch or trunk sewers

Delete this clause.

Part 1: Planning and Design (continued)

7.5 VENTILATION

7.5.2 Design parameters for vents

Delete all paragraphs after the second paragraph and replace with:

"Venting requirements for each specific project shall be determined in consultation with WSC. The final location, colour, and type of vent shaft to be used shall be as approved by WSC.

The design requirements of educts will be determined on a case by case basis. The arrangements shown on standard drawings SEW-1408 and SEW-1451-S are acceptable but will require prior approval of WSC as will any alternative design."

7.6 NEAR-HORIZONTAL BORE HOLES

7.6.1 General

Delete the second paragraph and insert:

"WSC should be consulted in determining requirements for bore holes"

7.7 VORTEX INLETS AND SEWER CUSHIONS

Delete reference in the third paragraph to "Blue Mountains"

8.10 BULKHEADS AND TRENCHSTOPS

Delete the last sentence of the first paragraph and insert:

"Spacing of trench stops shall be in accordance with the requirement at the end of this clause as required by the WSC supplement."

Delete the last paragraph regarding native fill.

Insert the following after table 8.1:

Trench stop spacing requirements

Where gravitational sewers(except for PVC pipes in trenched into rock or other impermeable material) are laid on granular bedding at a grade of two and a half percent or steeper trench stops shall be constructed.

The distance between trench stops shall be determined by:

$$D=30/G$$

Where D = distance between trench stops

G= grade of pipe expressed as a percentage

Where PVC pipes in trenched into rock or other impermeable material and bedded on granular material at a grade of one and a half percent or steeper trench stops shall be provided.

The distance between trench stops in this case shall be determined by:

$$D=20/G$$

Where D = distance between trench stops

G= grade of pipe expressed as a percentage

Part 1: Planning and Design (continued)

9 DESIGN REVIEW AND DRAWINGS

Add "All gravity sewer design drawings shall include WSC's Gravity Sewer Construction notes". Copy of notes appended to this supplement

9.2 DESIGN DRAWINGS

Delete the last sentence.

9.2.4 Structures - Delete item (j).

Part 2: Products and Materials

10.1 PURPOSE

Insert the following after the second paragraph in the shaded box:

"WSC will generally only consider pipeline systems that have been appraised by WSAA and/or approved by Sydney Water. The use of any other product will require the prior written approval of WSC."

Part 3: Construction

11.1 SCOPE

In the second paragraph delete:

" specific project contract documents, general conditions of contract e.g AS2124"

Add a third paragraph:

" In the absence of a project specific specification this part of the code and referenced drawings shall be the specification."

11.2 INTERPRETATION

In the definitions:

"Specified" delete *"and/or by the Superintendent"*.

"Water Agency" shall mean Wyong Shire Council

Delete the definition of **"Superintendent"**

12 QUALITY

In section 12 all references to *"Superintendent"* shall be replaced with *"Water Agency"* or *"Wyong Shire Council"*.

12.1 QUALITY ASSURANCE

The heading **"QUALITY ASSURANCE"** shall be replaced with **"CONSTRUCTOR AND QUALITY CONTROL REQUIREMENTS"**.

The first paragraph shall be replaced with:

"This section covers the requirements for Constructors, quality control testing and inspections of the works by the Wyong Shire Council."

Part 3: Construction (continued)

12.1.1. General

Delete the two paragraphs under this heading and insert:

"The Constructor shall be experienced in the construction of all types of sewerage works covered by this code. Evidence of the Constructors experience and references from other Water Agency type organisations may be required to be provided to Council prior to a Constructor being accepted by Wyong Shire Council as being suitable to construct the required sewerage works. All Constructors shall carry appropriate levels of Public Liability Insurance and address the requirements of Part 1 and Part 2 and any other part of Wyong Shire Council's "Civil Construction Specification" that is applicable to the required construction."

12.1.2 Quality System

Delete the two paragraphs under this heading and insert:

"The Constructor shall plan and allow for the provision of all testing required by the code. The Constructor shall obtain all documentation from suppliers of materials as required by the code to confirm quality of materials to be incorporated into the works. All test results and product quality certification from suppliers shall be provided to Council upon request and in all cases a copy of all test certificates, reports and product certification shall be provided to Wyong Shire Council with Work as Constructed Drawings at the completion of the works. All documentation must be provided and accepted by Wyong Shire Council prior to Council issuing any certification confirming acceptance of the works.

The Constructor shall not incorporate into the works any materials that do not comply to the requirements of this code without first obtaining the approval of Wyong Shire Council. The Constructor shall immediately notify Council of any testing carried out on the works that do not comply with the requirements of this code. Failure to notify Wyong Shire Council of any non-compliance prior to covering up the subject section of works will result in Wyong Council not accepting the works until the non – compliance has been rectified. Council may consider acceptance of non-complying works in exceptional circumstance as determined by Wyong Shire Council."

12.1.3 Project Management Plan

Delete this clause.

12.1.4 Inspection and test plans

Delete this clause.

12.1.5 Quality Tests

In the first paragraph delete *"under the contract"* and delete *"of the contract"* and replace with *"of this code"*.

In the second paragraph delete *"the Superintendent"* and insert *"Wyong Shire Council"*

12.1.6 Quality Audits - Delete this clause

Part 3: Construction (continued)

12.1.8 Quality Records

In the first paragraph delete "*the Superintendent*" and replace with "*Wyong Shire Council*" and delete "*period of the Contract*" and replace with "*the works and up to acceptance of the works by Wyong Shire Council*".

In the second paragraph delete "*practical completion*" and replace with "*Council acceptance of the works*".

Delete the last three paragraphs.

12.1.9 Inspections

Delete "*The Superintendent*" and replace with "*Wyong Shire Council*".

Add the following paragraph:

"Inspections will be carried out by Wyong Shire Council during construction of the works to confirm that various elements of the work are being constructed in accordance with the requirements of the approved design drawings and this code. Where works are found to not to comply with the requirements of the drawings and this code the Constructors may be issued with an instruction to remedy the non-compliance except in the case that the non-compliance is necessary as determined by Council."

12.2 PERSONNEL QUALIFICATIONS

Delete this clause

13 GENERAL CONSTRUCTION

In section 13 all references to "*Superintendent*" shall be replaced with "*Water Agency*" or "*Wyong Shire Council*".

13.3 CONTRACT INTERFACE

Delete "*Contract Interface*" and insert "*extent of works*".

13.4 CUSTOMER FOCUS

13.4.1 General

Delete the first sentence.

13.4.2 Resolution of Complaints

In the second paragraph insert "*and*" between "*promptly*" and "*sensitively*" and delete all words after "*sensitively*".

13.5 PROTECTION OF PEOPLE, PROPERTY AND ENVIRONMENT

13.5.1 Safety of People

In the third paragraph delete "*In accordance with the requirements designated by the Water Agency*".

In the sixth and seventh paragraphs delete "*OH&S*" and insert "*WHS*".

Part 3: Construction (continued)

13.5.4.2 Traffic Management

In the first paragraph delete *"to an approved national course"* and insert *" by the Roads and Maritime Services"*.

Delete the second paragraph.

13.5.6.1 General

In the first sentence of the first paragraph delete *" in the project REF or EIS"* and replace with *" in documentation referred to or forming part of the development approval and/ or the Water Management Act Approval."*

In the second sentence of the first paragraph delete *"the contract or development agreement"* and replace with *"the development approval and/ or the Water Management Act Approval."*

13.5.6.5 Acid Sulphate and contaminated soils

Delete the last sentence of the second paragraph

SW13.5.6.8 Recycled/Waste materials

Delete the paragraph and replace with:

"Any recycled waste materials used for pipe bedding, backfill or other purposes must have a resource recovery exemption."

14 PRODUCTS AND MATERIALS

In section 14 all references to *"Superintendent"* shall be replaced with *"Water Agency"* or *"Wyong Shire Council."*

15 EXCAVATION

In section 15 all references to *"Superintendent"* shall be replaced with *"Water Agency"* or *"Wyong Shire Council."*

15.1 SAFETY

In the first sentence delete reference to *"Code of Practice: Excavation 2000"* and replace with *"the current Code of Practice for Excavation."*

15.6 SUPPORT OF TRENCHES

Delete the first two paragraphs and replace with *"Support of excavations shall be in accordance with the current code of practice for excavation works issued by Work Cover Authority."*

Part 3: Construction (continued)

15.8 FOUNDATIONS AND FOUNDATION STABILISATION

In the second paragraph delete *"from the Superintendent"* and insert *" from the Consultant Geotechnical Engineer"*.

Delete the third paragraph.

16.3 PLACEMENT OF BEDDING

Delete *"design"* in the first sentence and replace with *"standard"*.

16.4 SPECIAL PIPE SUPPORT FOR NON-SUPPORTIVE SOILS

Add to the end of the first sentence *"on the design drawings or by the Geotechnical Consultant."*

16.6 BEDDING FOR MAINTENANCE HOLES

In the second paragraph delete *" instruction from the Superintendent"* and replace with *"advice from the Consultant Geotechnical Engineer"*.

Delete references to standard drawings.

17 PIPE LAYING AND JOINTING

In section 17 all references to *"Superintendent"* shall be replaced with *"Water Agency"* or *"Wyang Shire Council."*

17.1.1 General

In the last sentence of the first paragraph delete *"the Water Agency"* and change *"OHS"* to *"WHS"*.

17.2.5 Compound Curves

Delete *"Sydney Water"* and replace with *"Wyang Shire Council"*

22 ACCEPTANCE TESTING

In section 22 all references to *"Superintendent"* shall be replaced with *"Water Agency"* or *"Wyang Shire Council."*

22.1 GENERAL

At the start of this clause insert *"Wyang Shire Council shall not accept any new development related works without appropriate testing having been completed to the satisfaction of Council's Principal Development Construction Engineer or his/her nominated representative."*

22.4.1 General

Delete *"Sydney Water"* and insert *"Wyang Shire Council"*.

22.7 CCTV INSPECTION

Delete *"as directed by Sydney Water"* in the first and third paragraphs.

25 RESTORATION

Under this heading insert *"Restoration shall be carried out in accordance with this section unless more specific restoration requirements are required in Wyong Shire Council's Civil Works Construction Specification"*.

Part 4: Standard Drawings

In PART 4 all references to *"the Superintendent"* shall be replaced with *"Wyang Shire Council"*.

27.1 GENERAL

At the start of this clause add *"Sydney Water requirements contained in this part shall be the same as Wyong Shire Council Requirements"*

29.5 SEW-1106 AND SEW -1107 – PROPERTY CONNECTION DETAILS _ METHODS

Delete the first paragraph and replace with:

"Wyang Shire Council uses the "Buried Interface" method. Use of the IO interface method requires specific approval from Wyong Shire Council."

STANDARD DRAWINGS AND DRAWINGS

All references to *"Sydney Water"* shall be replaced with *"Wyang Shire Council"*.

SEW - 1107

Add the notes:

"7. The base of all riser assemblies is to be concrete encased in 20Mpa concrete

8. Double connections to risers are not allowed in Wyong Shire Council with specific approval."

SEW – 1109

This drawing to be used for the *"Location Marking System"* and *" Alternative Base Arrangement"*

Add the note: *"5. The base of all riser assemblies is to be concrete encased in 20Mpa concrete."*

SEW – 1108

This arrangement on this drawing is not used by Wyong Shire Council.

SEW – 1201

This drawing shall only be referenced for trench fill requirements and the general trench arrangement. Refer to SEW – 1251 –S for other trench details.

SEW – 1202

Add to note 2 " and SEW – 1251 – S".

Delete note 9

SEW – 1306 – V

Add the note: *"6. Specific approval will be required from Wyong Shire Council for the use of an internal drop."*

SEW – 1308 – V

Replace note 6. With *"6. Covers may be metal, metal with concrete infill or concrete."*

SEW – 1314 – V

Add the note: *"6. A maintenance shaft shall not be used to create a drop in sewer reticulation mains. A property junction may connect to the riser of a maintenance shaft."*

Part 4: Standard Drawings (continued)

SEW – 1315 – V

Add the note:

"Wyong Shire Council may consider using long radius horizontal or vertical bends outside a MH, MS or TMS in reticulation sewers only in exceptional circumstances. Each circumstance will be assessed on a case by case basis and will require specific approval."

SEW – 1316 – V

Add the note:

"7. A MS or TMS shall not be used to create a drop in sewer reticulation mains. A property junction may connect to the riser of a maintenance shaft."

Delete the following drawings:

SEW – 1351 – S

SEW – 1352 – S

SEW – 1409

SEW – 1411

APPENDICES

APPENDIX SW1

Delete all wording in the appendix and replace with:

Environmental impact for development related water and sewer reticulation works will generally be addressed as required under the Environmental Planning and Assessment Act. Recommendations and conditions of any approval resulting from the determination of any application made under the Environmental Planning and Assessment Act shall be addressed as part of the design and construction process.

Project specific documentation including but not limited to an Environmental Impact Assessments, Environmental Impact Statements, Review of Environmental Factors and Statements of Environmental Effects shall be reviewed and any recommendations within those documents shall be addressed as part of the design and construction of water and sewer reticulation works.

APPENDIX SW2

This appendix shall be read for general information only. The Designer of water and sewer reticulation works shall obtain site specific geotechnical advice were required in order to provide adequate specifications for construction. Where adequate specifications for construction have not been provided and it becomes necessary during construction to obtain geotechnical advice that advice shall be arranged by the Developer and/or their Contractors. Copies of all advices shall be provided to Wyong Shire Council.

Wyong Shire Council may at the design stage request the designer to obtain geotechnical engineering advice prior to issuing design approvals.

APPENDICES (continued)

APPENDIX SW3

Note: All gravity sewer design drawings shall include WSC's Gravity Sewer Construction notes. Copy of notes appended to this supplement

Replace all references to "Sydney Water" with "Wyong Shire Council".
Delete any references to "Work Number, Project Number or Case Number".
Delete any reference to "stormwater plans".

1 PLAN FORMS AND CASE/PROJECT NUMBERS

Delete this clause.

2 CAD REQUIREMENTS

Delete this clause

3 SCALE

In the first paragraph delete "*and storm water channels*".

7 WORK SCHEDULE NOTATION – SEWER/STORMWATER PLANS

Delete this clause

9 SYDNEY WATER CATCHMENTS AND STORMWATER GROUPINGS

Delete this clause

13 WORK AS CONSTRUCTED PLANS

In the second paragraph delete "*and using the Sydney Water drafting package*".

Add the following paragraph:

Sewer as constructed drawings shall also show junction information as described on Wyong Shire Council's Standard drawing SD 71A.(attached to this supplement).

14 SAMPLE STANDARD DRAWINGS

Insert after the first paragraph:

"Drawing Title blocks do not have to be in accordance with the standard drawings. However information shown in the sample drawing title blocks, other than the "case no.", will generally be required on most plans."

Delete all standard drawings related to storm water channels.

15 STORMWATER CHANNEL DESIGN DRAWINGS

Delete this clause

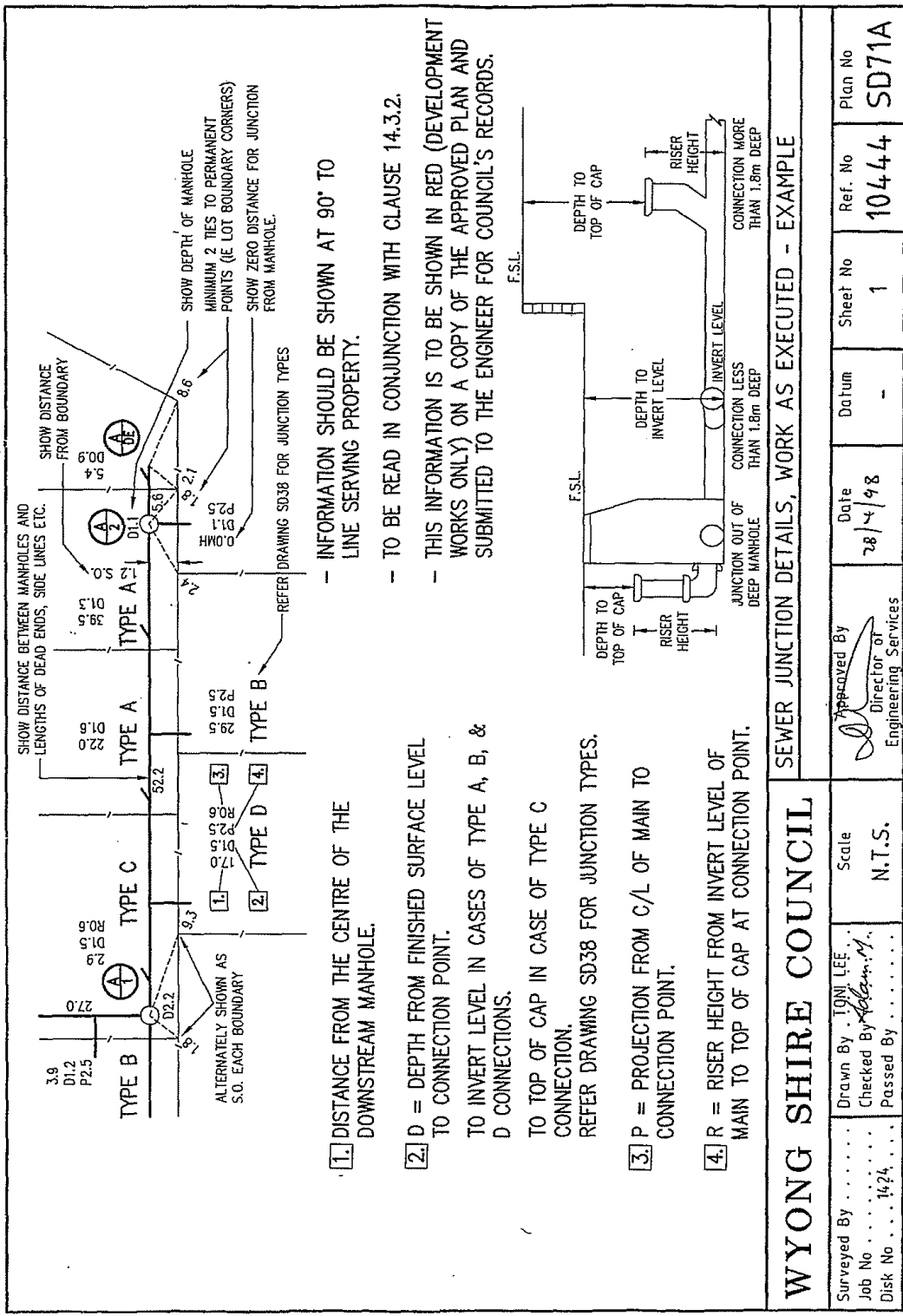
APPENDIX SW4

Replace all reference to "Sydney Water" with "Wyong Shire Council".

Wyong Shire Council Development Engineering Design Drawing Notes - Gravity Sewer Construction

1. Construction of gravity sewer lines shall be in accordance with the Sydney Water Edition of the "Sewerage Code of Australia" WSA02-2002 with Wyong Shire Council Supplements. These notes specify Wyong Shire Council's particular requirements in these documents in relation to the construction of gravity sewer mains and associated maintenance structures.
2. Pipe for gravity sewer mains shall generally be flexible pipes with rubber ring joints. The type of pipe material and class of pipe shall be as specified on the drawings. Pipe must be a minimum class SN8. Pipes in mine subsidence areas shall not be greater than 3m in length, shall incorporate flexible joints and have a smooth external surface. Pipes to be used in mine subsidence areas shall be certified by the pipe supplier to be suitable for the predicted ground strains as advised by the Mine Subsidence Board. Profiled/ribbed pipes are not permitted in mine subsidence areas.
3. Pipe embedment shall be as specified on the drawings and in accordance with standard drawings SEW-1251-S, SEW-1202, SEW-1203, SEW-1204 and SEW-1205-V. Should ground conditions encountered not be suitable for the specified embedment then the embedment type shall be changed to suit the site conditions. Trench fill under areas of existing road pavement shall be stabilised sand in accordance with section 4.9 of Wyong Shire Council's "Civil Construction Specification".
4. Requirements for trench stops and bulkheads shall be as specified on the design drawings and in accordance with standard drawings SEW-1206 and SEW-1207-V.
5. All property connections shall be in accordance with the "Buried Interface Method" as described on standard drawing SEW-1107 with the following amendments:
 - a. Double connections from vertical risers are not allowed
 - b. Add note "7. The base of all riser assemblies shall be concrete encased in 20 MPa concrete".
6. Maintenance Holes (MH) shall be constructed in accordance with standard drawings SEW-1300-V to SEW-1302-V, SEW-1303, SEW-1304-V, SEW-1305 and SEW-1306-V to SEW-1308-V. The use of internal drops as shown on standard drawing SEW-1306-V will only be allowed if specified on the design drawings or specific approval has been obtained from Wyong Shire Council. In regards to standard drawing SEW-1308-V covers may be metal, metal with concrete infill, or concrete. In regards to standard drawings SEW-1300-V replace note 14. with "Any special requirements for maintenance holes with RMS/Classified Road will be advised by Wyong Shire Council". Rocker pipes (shorts) of 600mm length will be required on all pipe lines at manholes for all pipe types.
7. Maintenance Shafts (MS) and Terminal Maintenance Shafts(TMS) where shown on the design drawings shall be constructed in accordance with standard drawings SEW-1314-V, SEW-1315, SEW-1316-V and SEW-1317. MS's or TMS's shall not be used to create a drop in a sewer reticulation main. A TMS shall be constructed at the ends of all terminating sewers unless the distance from the end of the line to the nearest downstream maintenance structure is less than 40m.
8. Acceptance testing of sewer mains shall be arranged by the Contractor. Acceptance testing shall be in accordance with WSA-02 Part 3 Section 22 and include:
 - a. Compaction testing of trench fill
 - b. Pressure testing or vacuum testing of pipelines
 - c. Vacuum testing of maintenance holes
 - d. CCTV inspection
 - e. Deflection (ovality) for mains >300mm diameter.

9. Sewers and Associated structures shall be constructed to the tolerances detailed in WSA-02 Part 3 Section 23.
10. Surface restoration and pavement restoration shall be in accordance with the requirements of Wyong Shire Council's "Civil Works Construction Specification". Pavement restoration in existing road pavements shall be in accordance with section 4.9 of Wyong Shire Council's "Civil Construction Specification".
11. Clarification of construction requirements should be obtained from Council's Principal Development Construction Engineer where requirements are not clear on the approved design drawings, these notes and/or the Sydney Water Version of WSA-02.
12. The Contractor is to submit to Council's Principal Development Construction Engineer details of materials/products proposed to be used in the construction of sewer gravity mains and associated structures for Council's acceptance prior to any works on site. These details shall include as a minimum:
 - a. Pipes supplier, type and class.
 - b. Embedment and backfill material.
 - c. Maintenance structure components.
13. Work as Executed (WAE) drawings shall be prepared using the Council approved design drawings as a base. In addition to providing WAE level information, location and junction information shall be provided. Refer to Wyong Shire Council's Development Engineering Supplement to the Sydney Water Edition of the "Sewerage Code of Australia" for requirements.
14. Evidence of the Contractor's experience and references from other Water Agency type organisations may be required to be provided to Wyong Shire Council prior to a Contractor being accepted by Wyong Shire Council as being suitable to construct the required sewerage works. All Contractors shall carry appropriate levels of Public Liability Insurance and address the requirements of Part 1 and Part 2 and any other part of Wyong Shire Council's "Civil Construction Specification" that is applicable to the required construction."
15. Connection of new gravity sewer mains to existing Council mains shall be carried out by Council unless specific approval is given for the Developer's Contractor to carry out this work. An application for connection is to be made by Developer or their Contractor. Council will provide a quotation/estimate for the connection(s). The quoted/estimated fee is to be paid prior to the connection taking place. Applications are to be made well in advance of this work being required.



- INFORMATION SHOULD BE SHOWN AT 90° TO LINE SERVING PROPERTY.
- TO BE READ IN CONJUNCTION WITH CLAUSE 14.3.2.
- THIS INFORMATION IS TO BE SHOWN IN RED (DEVELOPMENT WORKS ONLY) ON A COPY OF THE APPROVED PLAN AND SUBMITTED TO THE ENGINEER FOR COUNCIL'S RECORDS.

- 1] DISTANCE FROM THE CENTRE OF THE DOWNSTREAM MANHOLE.
- 2] D = DEPTH FROM FINISHED SURFACE LEVEL TO CONNECTION POINT.
TO INVERT LEVEL IN CASES OF TYPE A, B, & D CONNECTIONS.
TO TOP OF CAP IN CASE OF TYPE C CONNECTION.
REFER DRAWING SD38 FOR JUNCTION TYPES.
- 3] P = PROJECTION FROM C/L OF MAIN TO CONNECTION POINT.
- 4] R = RISER HEIGHT FROM INVERT LEVEL OF MAIN TO TOP OF CAP AT CONNECTION POINT.

WYONG SHIRE COUNCIL			
SEWER JUNCTION DETAILS, WORK AS EXECUTED - EXAMPLE			
Surveyed By	Drawn By TGM LEE	Date	Sheet No
Job No	Checked By	7/8/4/98	1
Disk No 1424	Passed By		
	Approved By	Ref. No	Plan No
	Director of Engineering Services	10444	SD71A