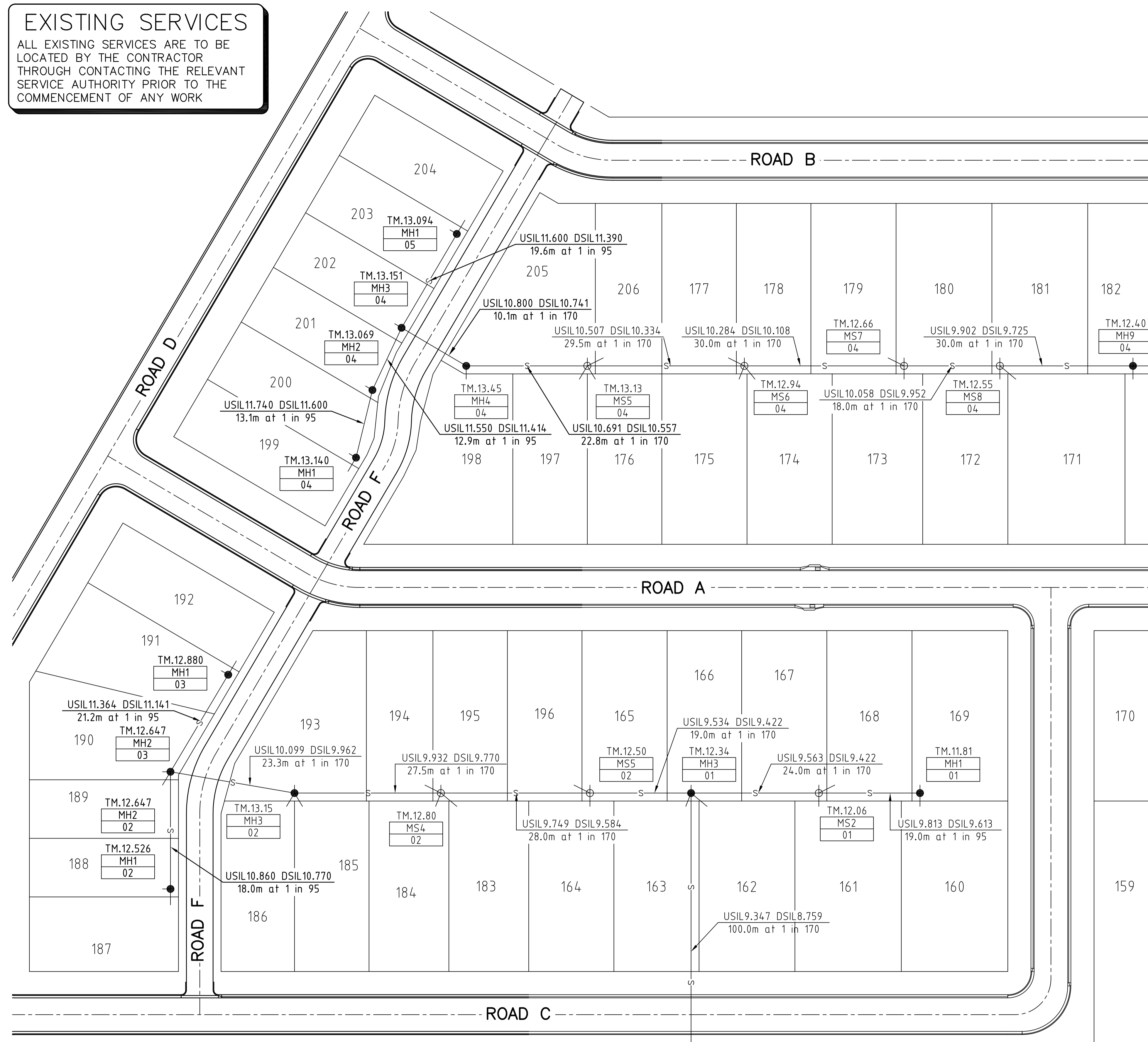


# EXISTING SERVICES

ALL EXISTING SERVICES ARE TO BE LOCATED BY THE CONTRACTOR THROUGH CONTACTING THE RELEVANT SERVICE AUTHORITY PRIOR TO THE COMMENCEMENT OF ANY WORK



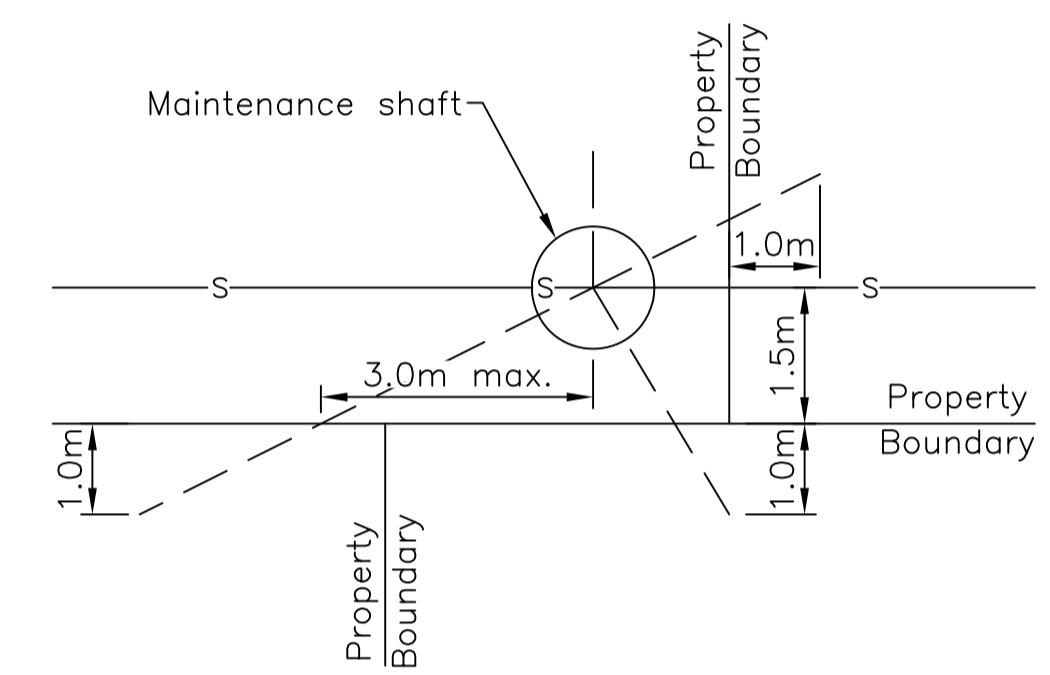
**PLAN**  
NOT TO SCALE

## LEGEND:

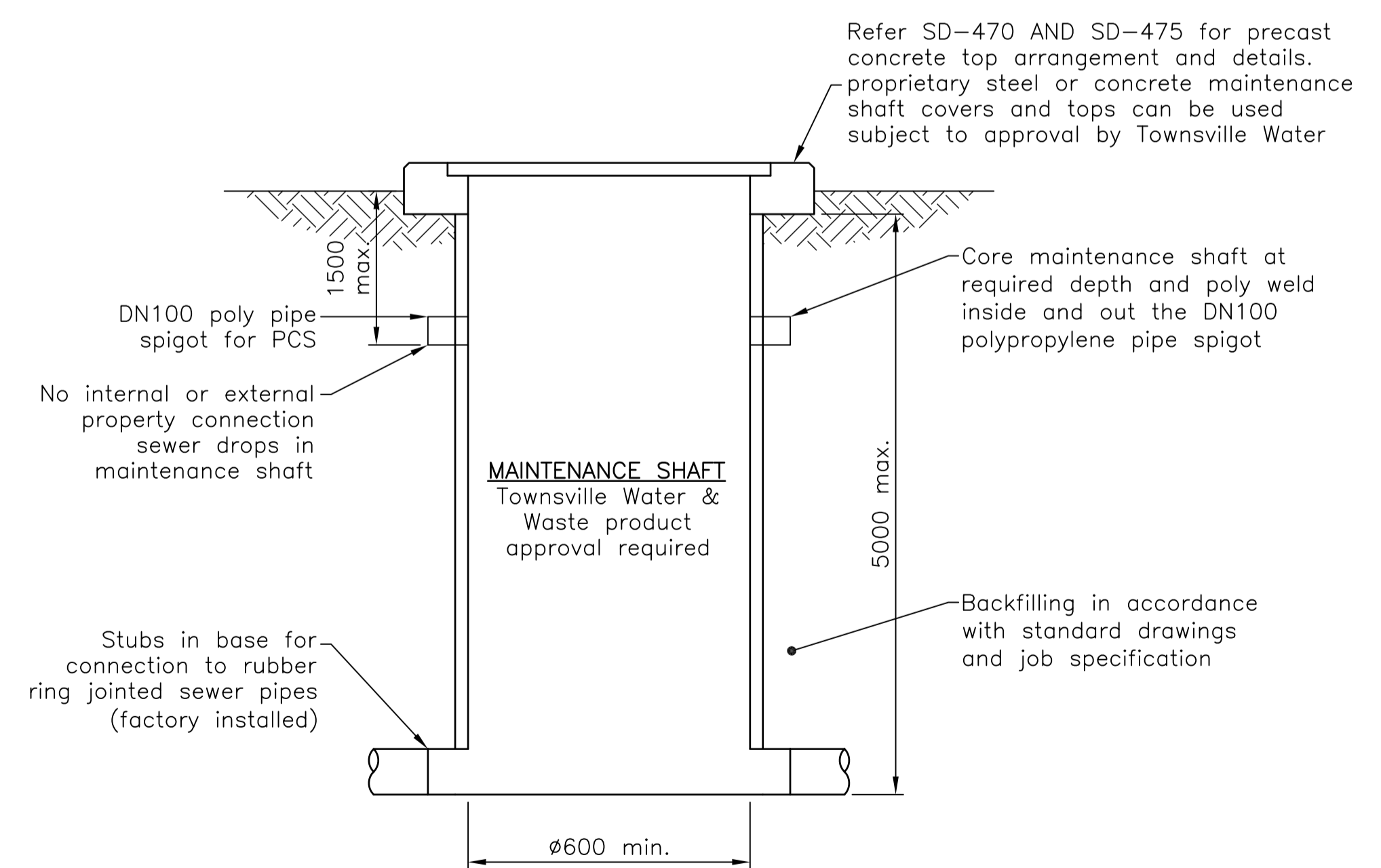
- Sewer Main and Maintenance Hole with Property Connection Sewer
- Sewer Main and Maintenance Shaft with Property Connection Sewer
- Gravity Sewer Grading
- TM.12.66 MH1 01  
Top of Maintenance Hole Level  
Maintenance Hole Number  
Line Number
- TM.12.50 MS1 01  
Top of Maintenance Shaft Level  
Maintenance Shaft Number  
Line Number

## NOTES:

1. This drawing is to be read in conjunction with other council standard drawings.
2. Only Townsville Water approved sewer maintenance shaft (MS) products to be used. Maintenance shaft to have minimum 600mm internal diameter.
3. Maximum sewer depth of 5.0m within properties.
4. Maximum of 4 connections to any maintenance shaft.
5. Maximum of 4 maintenance shaft between concrete maintenance hole with a maximum distance of 180m between maintenance holes.
6. Maintenance holes to be located at change in sewer direction and at any sewer junctions.
7. Property connection sewers to connect to maintenance holes and maintenance shafts only.



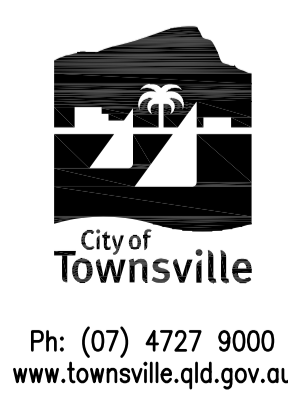
**TYPICAL SEWER MAINTENANCE SHAFT CONNECTION DETAIL**  
NOT TO SCALE



**TYPICAL MAINTENANCE SHAFT DETAILS**  
NOT TO SCALE

NOTES : BASED ON FORMER WSA A DRAWING SEW-1301

Full Size A1	DRAWN: Z. STROGUSZ	CHECKED: D. MOSELEY
Not to Scale	Design Engineer Approved: Original signed by D. MOSELEY	
	Date: 25/02/2014	
	Manager Approved: Original Signed by S. GRAY	
	Date: 25/02/2014	



# SEWER MAINTENANCE SHAFT TYPICAL LAYOUT

STANDARD DRAWING  
SEWERAGE

SD-411 | A

No.	DATE	DESCRIPTION	AP'D
A		ORIGINAL ISSUE	
REVISIONS			