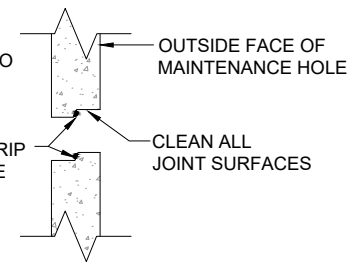


**PRECAST MAINTENANCE HOLE WITH PRE-CAST BASE**  
(FOR COMPONENT DEPTH 1200 TO 5000)  
SCALE 1:50 (A3)

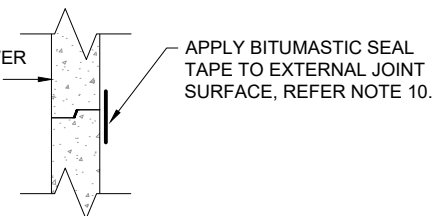
**STEP 1:**

INSPECT COMPONENTS TO ENSURE THERE IS NO DAMAGE TO JOINT SURFACES AND ATTACH BITUMASTIC SEALANT STRIP TO EITHER SLOPING FACE



**STEP 2:**

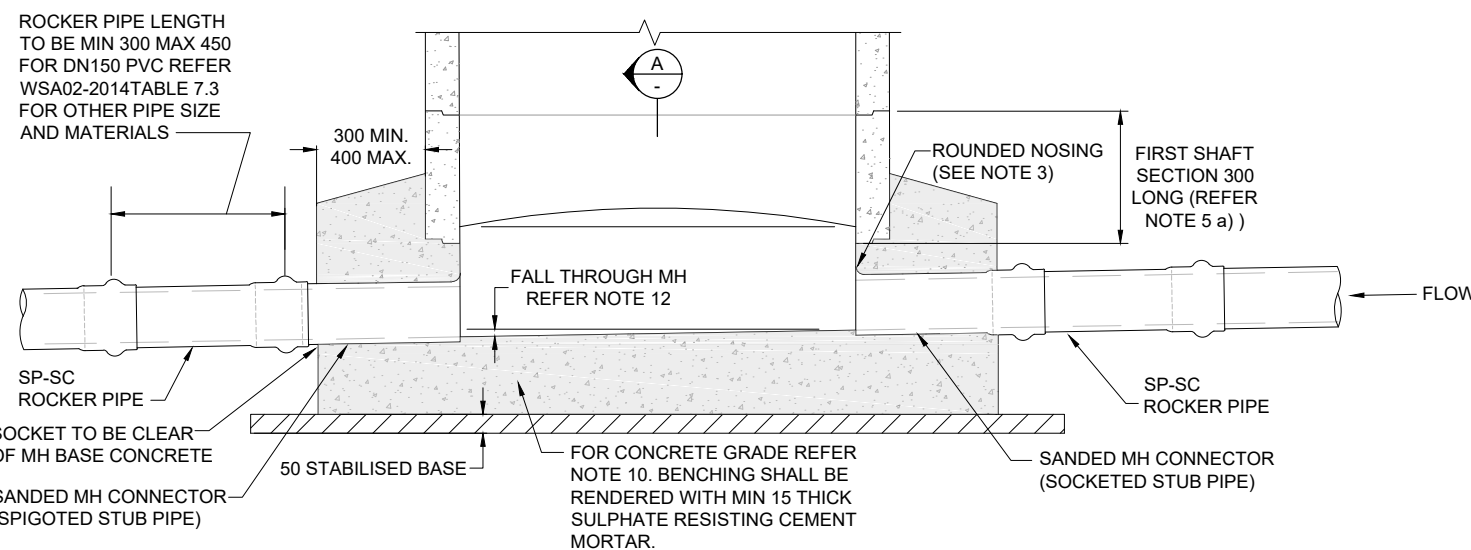
ALIGN COMPONENTS CONCENTRICALLY & LOWER TOP UNIT INTO POSITION



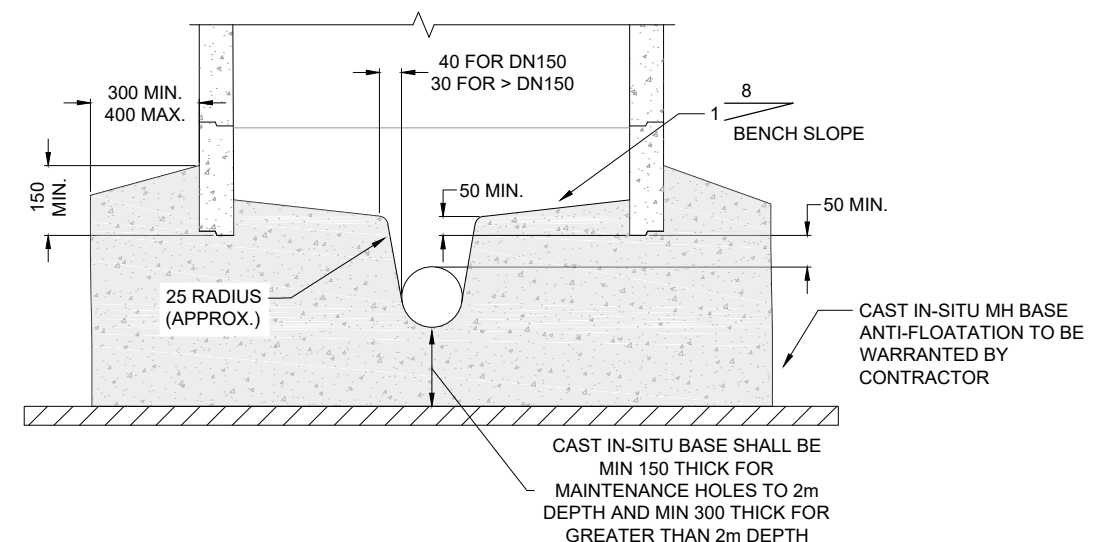
**MASTIC JOINT DETAILS**  
NOT TO SCALE

**NOTES:**

- ALL DIMENSIONS IN MILLIMETERS UNLESS NOTED OTHERWISE.
- MAINTENANCE HOLES (MH) SHALL NOT EXCEED 5m DEPTH.
- PROVIDE ROUNDED NOSING ON INLET & OUTLET PIPES TO PREVENT DAMAGE TO JETTING EQUIPMENT & CCTV GUIDES & CABLES.
- CONSTRUCTION MAY BE A COMBINATION OF PRECAST AND IN-SITU TO SUIT APPLICATION.
  - PRECAST MH REQUIREMENTS REFER TSC C402.38.
  - WHERE SEWER GRADES ARE 5% OR LESS PRE CAST MH BASES SHALL BE USED UNLESS AUTHORISED BY TSC W&WW UNIT. CAST IN-SITU MH BASES MAY BE USED WHERE A NEW MH IS REQUIRED OVER AN EXISTING SEWER.
  - CAST IN-SITU MH BASES SHALL BE USED WHERE THE SEWER GRADE IS STEEPER THAN 5% UNLESS AUTHORISED BY TSC W&WW UNIT.
- FOR IN-SITU CONSTRUCTION FIRST SHAFT SECTION SHALL:
  - BE 300 HIGH TO ALLOW FORMING OF CHANNEL & BENCH.
  - PRIMED 200 FROM BOTTOM WITH CEMENT SLURRY.
- BACKFILL AROUND MANHOLE:
  - THE METHOD OF BACKFILL & COMPACTION AROUND MH TO BE GENERALLY AS FOR PIPE EMBEDMENT.
  - EMBEDMENT MATERIAL TO TSC 401.26
  - TAKE CARE TO RAISE SELECT FILL EQUALLY ALL AROUND THE MH TO AVOID UNBALANCED LATERAL LOADING.
- FOR ALL MH'S, STEP IRONS OR LADDERS ARE PROHIBITED.
- CONCRETE FOR CAST IN-SITU MH BASE AND BENCHING SHALL BE MIN 25MPa EXCEPT WHERE:
  - ACID SULPHATE SOILS ARE PRESENT WITH pH>4 USE SCC40 TO WSA 114:2002.
  - SOIL pH IS ≤ 4 A SPECIAL DESIGN SHALL BE SUBMITTED TO TSC W&WW UNIT FOR APPROVAL.
- MH BASE AND BENCHING SHALL BE RENDERED WITH MINIMUM 15 THICK SULPHATE RESISTING CEMENT MORTAR IN ACCORDANCE WITH WSA 02-2014 CLAUSE 17.2.4.
- APPLY AN EXTERNAL BITUMASTIC SEAL TAPE 150 WIDE OVER A COAT OF MANUFACTURERS RECOMMENDED PRIME SEAL TO ALL JOINTS.
- FOR MH COVER CLASS SELECTION & FINISHED LEVELS REFER TO TSC D12 SPECIFICATIONS.
- FALL THROUGH MHs SHALL BE IN ACCORDANCE WITH WSA01-2014 SECTION 5.6.6. INCLUDING:
  - MIN 30mm WHERE DEFLECTION LESS THAN 90°C
  - MIN 80mm WHERE DEFLECTION MORE THAN 90°C
  - FALL SHALL NOT EXCEED GREATER OF 150mm OR DIFFERENCE BETWEEN IN/OUT PIPE DN
- CONCRETE SURROUND AND COVER MUST BE ACCOMPANIED BY A DEVICE TO CREATE WATER TIGHT SEAL.
- DUCTILE IRON SURROUNDS & COVERS SHALL BE HINGED WITH RUBBER WATER TIGHT SEAL (MAESTRO OR SIMILAR)
- MANHOLE BASE SHALL BE DESIGNED TO ALLOW SMOOTH TRANSITION OF FLOW. THE MAXIMUM VERTICAL DEFLECTION OF PIPES SHALL BE 13% UNLESS IT IS STRAIGHT THROUGH MANHOLE.



**ALTERNATE CAST IN-SITU BASE - GRADES EXCEEDING 7%**  
(FOR COMPONENT DEPTH 1200 TO 5000)  
SCALE 1:50 (A3)



**SECTION A**  
SCALE 1:50

B	FULL DRAWING REVISION	S.K.J	R.W	15.03.19
A	ORIGINAL ISSUE	O.N.	J.M.M.	11.10.16
ISSUE	AMENDMENT DETAILS	DRAWN	CHECK	DATE

SCALE: A1 SHEET 1:25, A3 SHEET 1:50  
0 0.5 1 1.5 2 2.5m

**DESIGN UNIT**

COUNCIL OFFICES  
TUMBULGUM ROAD,  
MURWILLUMBAH NSW 2484.

PHONE 02 66702400  
FAX 02 66727513  
WEBSITE www.tweed.nsw.gov.au



DESIGNED	P.H.	11.10.16	DATE	15.03.19
DRAWN	O.N.	11.10.16	COORDS ADOPTED	
CHECKED	S.G.	11.10.16	EASTING	
HORIZONTAL DATUM	MGA		NORTHING	
VERTICAL DATUM	AHD		R.L.	

PROJECT: SEWERAGE WORKS STANDARDS

PLAN TITLE: MAINTENANCE HOLES FOR SEWERS

PROJECT NUMBER: **S.D.278**

DRAWING NUMBER	ISSUE
<b>S.D.278</b>	<b>B</b>