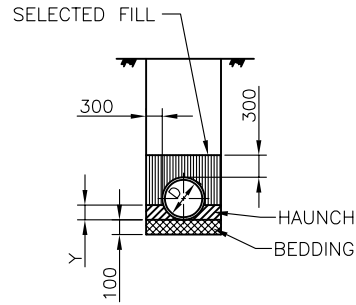


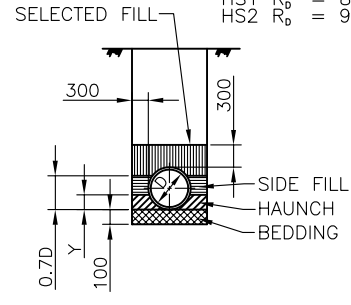
Y = 0.1 D FOR H1 TYPE  
 Y = 0.3 D FOR H2 TYPE  
 D = NOM. PIPE DIA.

Y = 0.1 D FOR HS1  
 Y = 0.3 D FOR HS2  
 D = NOM. PIPE DIA.

COMPACTION  
 HS1 R<sub>p</sub> = 85% (Std)  
 HS2 R<sub>p</sub> = 90% (Std)



TYPE H



TYPE HS

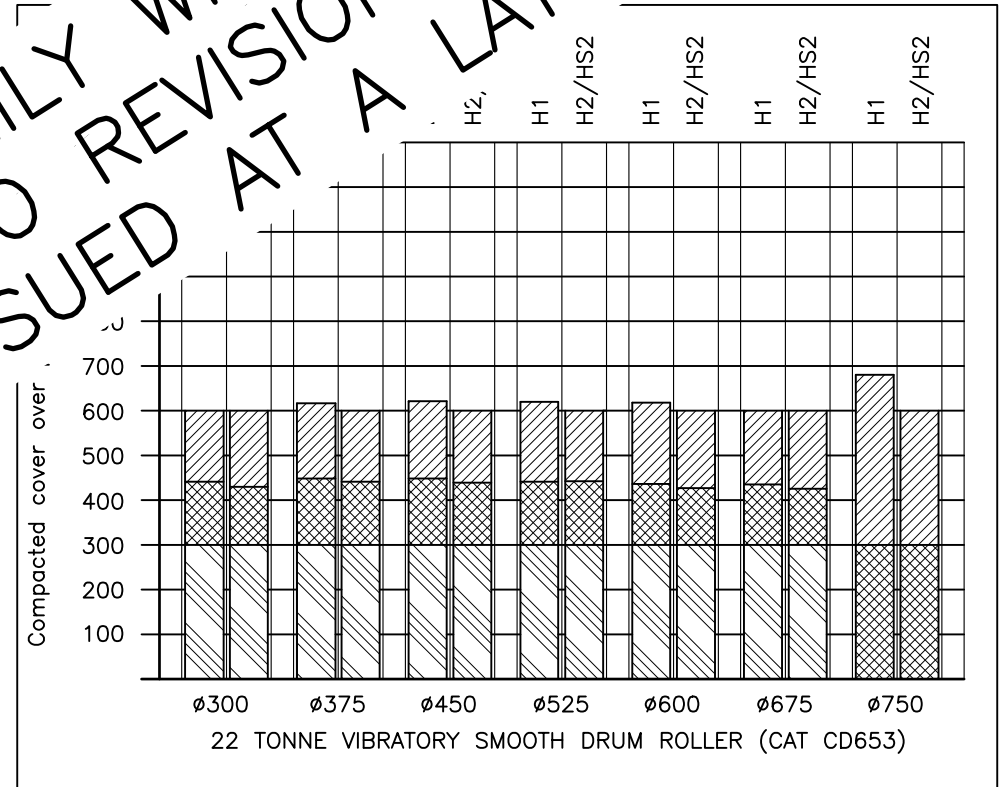
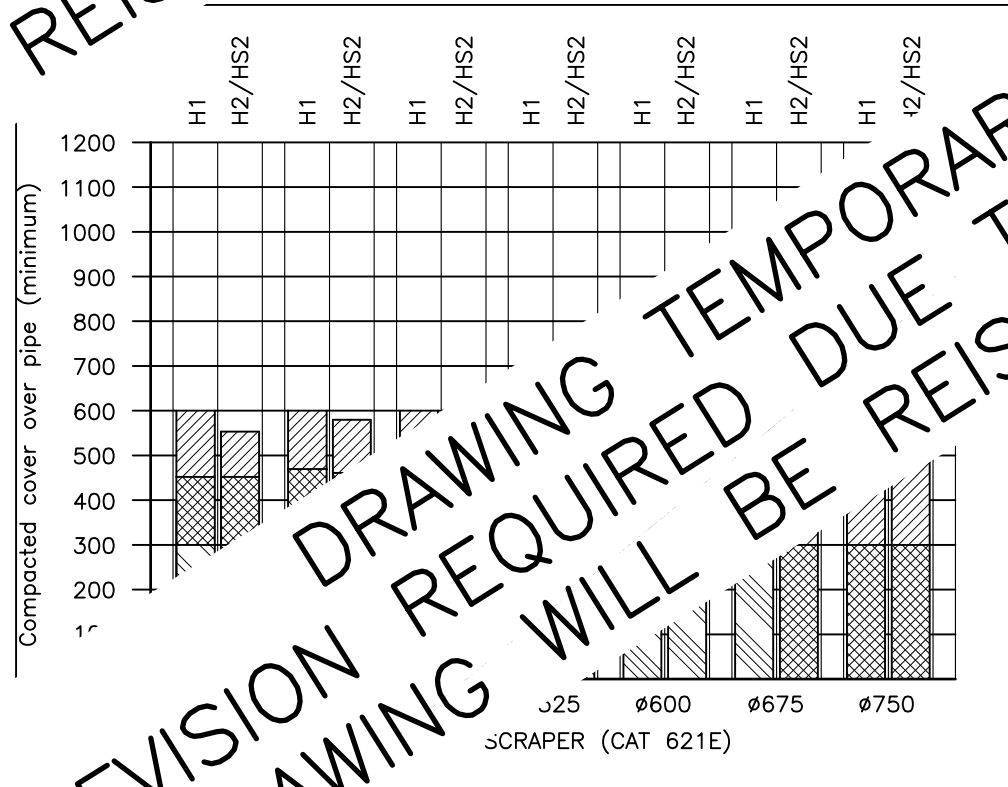
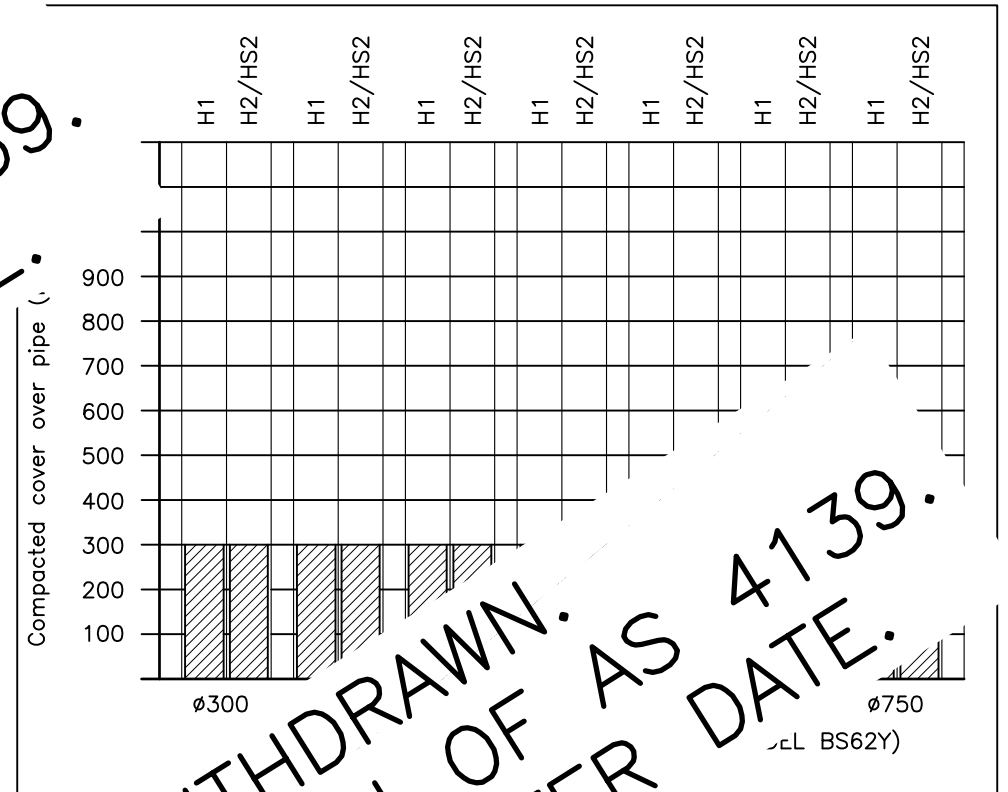
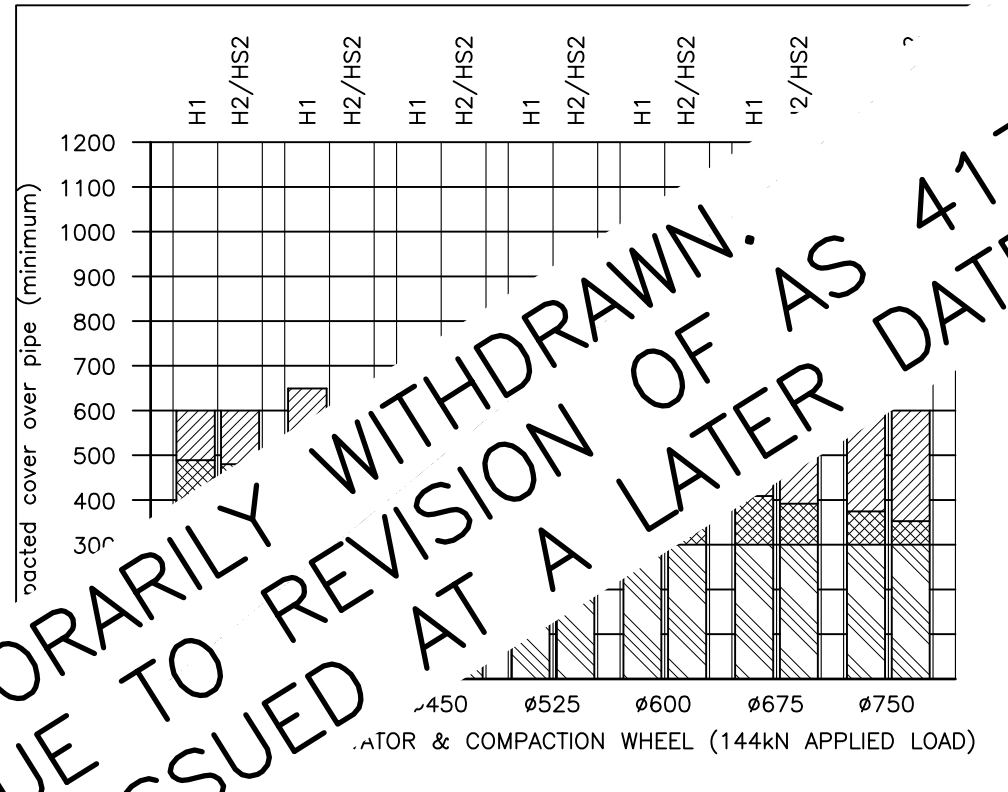
**NOTES:**

- THE VERTICAL PIPE LOAD CALCULATION IS APPLICABLE FOR CONSTRUCTION LOADING ONLY, AND DOES NOT INCORPORATE THE ULTIMATE SERVICE LOADING.
- THE CONTENT OF THIS DRAWING IS BASED ON INFORMATION SUPPLIED BY JAMES HARDIE FRC PIPES. THE LOAD CHARTS SHOULD BE USED FOR GUIDANCE ONLY.
- THE LOADING CALCULATIONS HAVE BEEN DERIVED FROM THE FOLLOWING ASSUMPTIONS:
  - PIPE SUPPORT CONFIGURATION AS DEFINED IN AS 4139. THE TRENCH SUPPORT GIVEN IS APPROX. EQUIVALENT TO THE TRENCH SUPPORT GIVEN IN AS 4139.
  - EVEN LOAD DISTRIBUTION WHEN THE PIPE IS FULL.
  - SOIL DENSITY OF 18kN/m<sup>3</sup>.
- FOR SPECIAL APPLICATIONS, THE LOADS SHOWN ON THE DRAWING WILL INCREASE. A REVIEW OF THE DRAWING IS REQUIRED.
- INCREASED LOADS MAY BE APPLIED TO THE SUPPORT (eg. VIBRATORY RAMMER OR SCRAPER) IN THE LONGITUDINAL SECTION.
- COMPACTION EQUIPMENT CAN BE USED TO COMPACT THE FILL TO THE STANDARD IN THE DRAWING. A 450mm DIA. CLASS 2 PIPE LAID WITH 1.0m FILL HEIGHT ABOVE THE PIPE WILL REQUIRE THE ULTIMATE SERVICE LOADING. THE LOAD CALCULATIONS INDICATE THAT A 3.3 TONNE VIBRATORY RAMMER MUST BE USED TO COMPACT THE 300-460mm FILL OVER THE PIPE. A 25 TONNE EXCAVATOR AND COMPACTION WHEEL MAY BE USED FOR FILL HEIGHT ABOVE 460mm.
- DIMENSIONS IN MILLIMETRES (UNO).

**LEGEND:**

PIPES MANUFACTURED TO AS 4139

- CLASS 1 PIPE
- CLASS 2 PIPE
- CLASS 3 PIPE



REVISION DRAWING TEMPORARILY WITHDRAWN. DRAWING REQUIRED DUE TO REVISION OF AS 4139. DRAWING WILL BE REISSUED AT A LATER DATE.

ISSUE	AMENDMENT	DRAWN DATE	CHK'D DATE	APPR'D DATE
B	Drawing Suspended from Use Awaiting Revision	DL Nov '05	BH Feb '06	PC 21/3/06
A	ORIGINAL ISSUE	April '01	May '01	June '01

DESIGN AUTHORISED FOR ISSUE B. BALL SIGNATURE ON ORIGINAL DATED 29/6/01	DESIGN	STD DWG GROUP	DATE	April '01
MANAGER ASSET SUPPORT - R.P.E.O: 3 8 5 2	DRAWN	CITY DESIGN	DATE	April '01
DESIGN APPROVED	CHECKED	M. STEER	DATE	May '01
B. HANSEN SIGNATURE ON ORIGINAL DATED 27/6/01	DRAWING FILENAME	UMS 302.dwg		
PRINCIPAL ASSET OFFICER ROADS & DRAINAGE	ASSOCIATED PLANS			



**BRISBANE CITY COUNCIL - URBAN MANAGEMENT DIVISION**

**MINIMUM PIPE COVER FOR CONSTRUCTION LOADS—FIBRE REINFORCED CONCRETE PIPES**

SCALE: NOT TO SCALE  
 DWG No. **UMS 302**  
 ORIGINAL SIZE: A3 REVISION: B