



October 2006

### White City Redevelopment

The area is 1-2m above sea level, CBR's of 0-2, contaminated materials silt / mud soils, tidal flow effects due to the North Esk being a stones throw away. You would probably guess its Invermay.

The dish-lickers have moved to the top of the hill and the White City area is undergoing a transformation into a much needed light industrial site right in the middle of Invermay. The soft soils of the site have created some problems for designers GHD and project manager Phil Bowden. The pavement has been designed with a 40mm wearing course, 150mm Sub-Base 1, a layer of geotextile, 300mm Sub-Base 2 also sitting on geotextile and geogrid. In some areas where encapsulation of contaminated soils has occurred under the pavement an additional layer of Bentonite has been installed.

With the road completed, Phil had to look at constructing a sewer up to 4m deep in silt and mud with constant water ingress. The very costly traditional method of open trenches with shields was not necessary when Road Bore Tasmania suggested that their new directional drill would be able to install the deep sewers at a cost far cheaper than traditional methods. The uPVC main was changed to a HDPE pipe line and drilling commenced from a shored entry pit 6m deep where the pump station was ultimately to be installed.

With pumps running 24 hours a day drilling commenced. The longest directional drill run was approximately 210m with a constant grade of 1½ % with 4 changes in horizontal alignment to suit the curved roadways. The pipe was installed without trouble, much to the delight of every one involved.

### **Hudson Civil is proud to have supplied:**

- Geotextiles & Geogrids.
- Bentonite Geotextile.
- Drainage pipes.
- Precast Pits and manhole components.
- HDPE pipes for sewer.
- PVC pipe for both the water and rising sewer.





## Longford Flood Protection – Back Creek Gate Structure.

Hudson Civil Products has completed the gate structure on Back Creek as part of the flood protection currently being installed to protect Longford from flooding. This gate structure is designed to be closed when the South Esk River is rising to prevent the flood waters from overflowing the North Western areas of Longford including the large Longford Meatworks site. When waters begin to recede the gates are opened allowing the water that has built up behind them from Back Creek (Western Tiers) to flow into the South Esk River. Although a small part of the overall project, it is vitally important that this one structure was designed and constructed to handle the large loads imposed on it when a full flood event takes place. These requirements involved the design and construction of 'Special' box culvert units along with the two sliding gates supplied by AWMA. As the levees were built around and eventually over us as the project progressed, a great deal of liaison was required between all parties involved including the levee builder Andrew Walter Constructions, HB Engineering (Walkway), Temby Civil (*Those DMR gumboots should be in a museum!*) who installed the Gabion structure as a subcontractor to Hudson Civil and Supervising Engineer for Council Nigel Bedford. Both Nigel and Geoff McKenna (AWC) were more than helpful considering we were smack bang in the middle of their main levee construction.

### Box Culvert Facts:

- 34 Culverts weighing 6 tonnes each measuring 3600 x 2400 x 1220mm Long
- 200 m3 of INSITU concrete Works
- Installation of 2 – 3600mm x 2400mm Clear opening gates and access Walkway.
- Stilling basin constructed from Gabion Baskets.





## Precast Pits and Top assemblies -

Grated Pits for Southern Tasmania are now available in full precast utilising the increasingly popular pits (with or without bases) and our range of precast top assembly units. The newest product to be released from our Hobart factory is the top assembly for a grated pit (KSD 3-06A). Our top assembly complies with all relevant dimensions on this standard drawing and eliminates the necessity of setting them up on site and trying to get all curves and heights true and correct. This unit is designed to sit atop our new 900 x 600 Side Entry Pit. This increasingly popular pit has increased wall thicknesses to comply with some Engineers requests and is available in 3 main models:

- 1 Full pit c/w base and blockouts
- 2 Full height riser – no base and with blockouts
- 3 Full height riser – no base and no blockouts.

These products are generally kept instock stock and are installed to the customers preference as they make the switch from pouring pits INSITU to utilising the speed and safety of precast.

If you are unaware of why the base is an issue, it is due to full benching being required in the Hobart Area, and some customers prefer to install an insitu base and benching with a 'slot' to lower a riser into after completion. This is a very effective combination of both precast and INSITU methods.



You may also note that ALL of the products purchased from Hudson Civil that contain steel items cast in are ALL Hot Dipped Galvanised after fabrication. A notice was sent out recently instructing that all items in the Kingborough area are to be as such. Hopefully the quality and increased use of our product helped in this decision coming about. This recent addition now means that Hudson Civil Products can supply components to manufacture structures as listed below ENTIRELY in Precast or with only the tray of the kerb required INSITU:

**KSD 3-06A GRATED PIT (Lintel also available separately)**



**KSD 3-07A GRATED DEFLECTOR PIT (Both Left and Right hand available)**



**KSD 3-03 GRATED STORMWATER PIT**



**KSD 3-04A SINGLE SIDE ENTRY PIT (900 x 900 pits)**

