

Camp Drainage Project Summary

Camp Drainage Project Summary Report

Summary

The drainage of rain water from the A and B block areas of the McArthur River Mine (MRM) accommodation facility was identified as inadequate to cope with the volume of rain experienced during the wet season. This would cause a lot of excess water to pool in the A and B block area of the camp. Several safety, environment and health issues are associated with this water pooling including:

- The large water pools present a slips, trips and falls hazards
- The water is a contamination risk for persons feet, increasing risk of lower limb infections
- The water may provide a breeding site for mosquitoes, a hazard to health from mosquito borne diseases
- The water pooling increases silt on paths, further providing a slip and trip hazard
- The water on paths can accelerate the erosion and cracking of footpaths

Following several reported episodes of personnel slipping within the vicinity of the A and B blocks of the MRM accommodation facility, an action was assigned to investigate options improve the insufficient drainage of rain water from this area (SS # 27839).

The civil construction component of this project was carried out between December 12th – 29th 2011. MST department plumbers and electricians completed the plumbing and wiring of the drains in early 2012. The backfilling of the trenches is scheduled to be completed by MST operators in April 2012 after the wet season when the ground has hardened, to ensure earth moving equipment does not get bogged.

Scope of Work

The scope of the works for the Camp Drainage Project involved installing a total of six concrete pits / sumps and electrical pumps in specific areas around the A and B block accommodation areas. The pumps were then to be connected to 110mm poly pipe which would transport the water which had drained into the pits to two drainage

locations. However only five pits and pumps were installed, as access to the area behind the B-block laundry was too difficult for the excavator. Furthermore power cables were found directly adjacent to the existing pit at the Western end a the A1-10 block of rooms. Therefore this pit was left in situ and the pump from the other existing pit marked on Figure 1.0 was connected up. This pit was placed in an alternative location, on the northern side of the B 31-40 block.

The existing drainage location is under the main cattle grid and into a drain which runs off towards the airport. The cattle grid had to be cleaned free of debris from years of accumulated silt, mud, leaves and tree branches. On the opposite (airport) side of the cattle grid the water run off was blocked by a large mound of earth acting as a pedestrian access crossing for persons walking from the camp to the airport. This earth was penetrated by a small concrete pipe, which often would get blocked by dirt and other debris.

The large mound of earth was removed via an excavation process and a steel footbridge was relocated to the site to ensure pedestrian access to the airport was preserved. The footbridge was obtained from the metal recycling area, cleaned of all potential contamination, repaired, painted and marked with high visibility strips before being placed in its current location.

A second additional drainage location was created by laying 110mm poly pipe in a Northern direction across to the cattle grid at the entrance ring road.

Additional excavation work was carried out alongside the main access road adjacent to the cattle grid as in Figure 1.0 and 2.0. This was to improve the drainage at this location to prevent water from building up on the main camp access road and grass behind A-block.

Costs

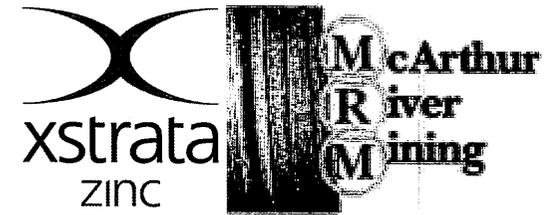
The total costs associated with the Camp Drainage Project are summarised below as per my records.

Supplier	Price
All Cast NT	12300
Thinkwater	3237.96

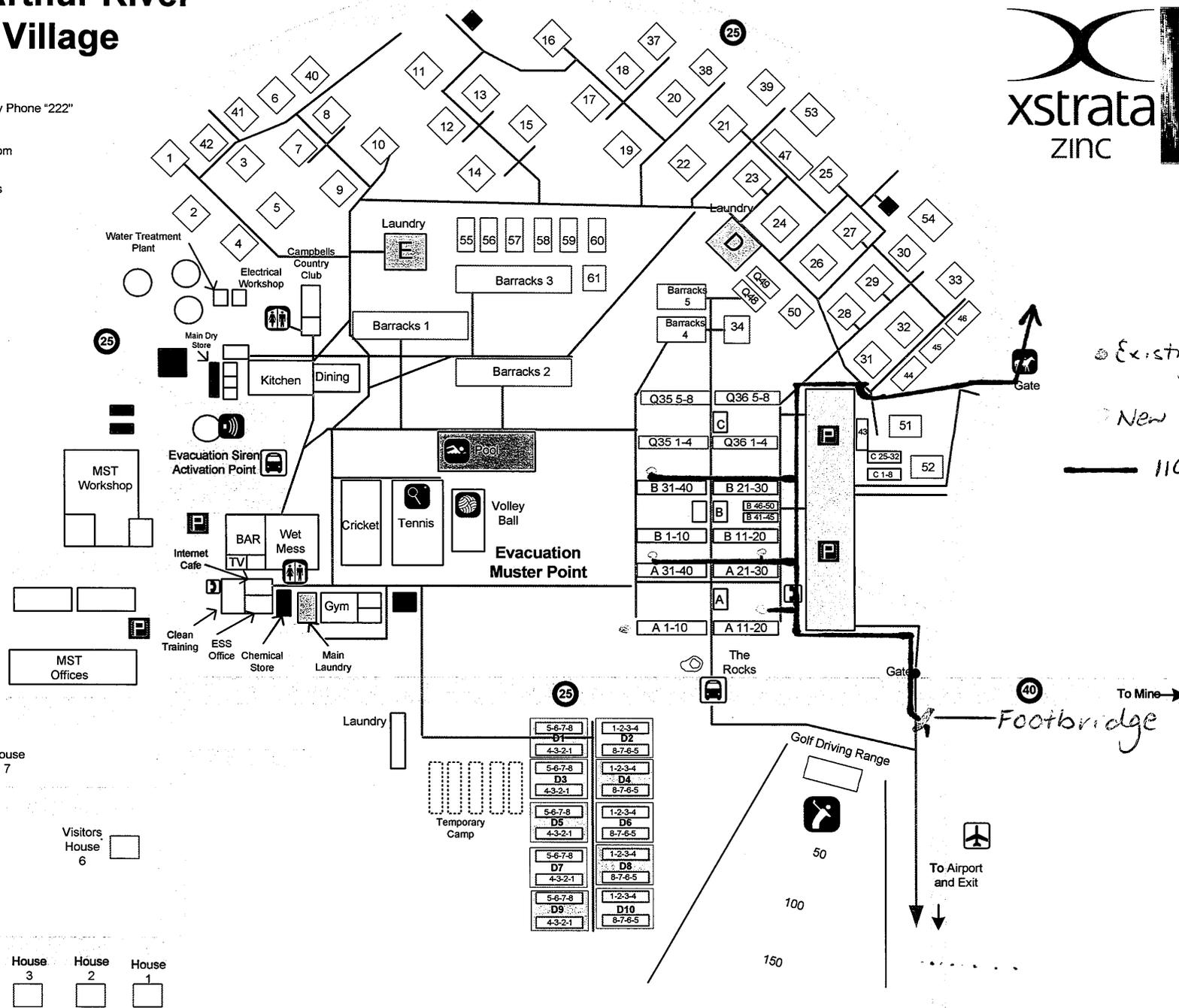
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Reece	9620
Reece	9620
Kennards	4072.73
stores	165.85
stores	142.5
Trade Building	
Supplies	495
stores	
stores	20
NTAP	3464.7
MSIR	6160
stores	107.37
	999.4
Reece bagot rd	738.72
workpac	2907
workpac	1173
workpac	3060
workpac	1063.75
Kennards	2000
Kennards	2184.09
Kennards	2000
TOTAL	65532.07

Figure 3 **McARTHUR RIVER Village**



- Emergency Phone "222"
- Store Room
- Laundries



● Existing Pit, New pump
 ○ New Pits and Pumps
 — 110mm Polypipe

REV	BY	DATE	REVISION DESCRIPTION	CURRENT REVISION	
A	JA	9 May 2009	Original	MCMARTHUR RIVER VILLAGE 2011	
B	JA	11 AUG 2011	Added D rooms, Q48-61		
-	-	-	-	DRAWN BY	JEREMY ATKINSON
				MRM Camp	