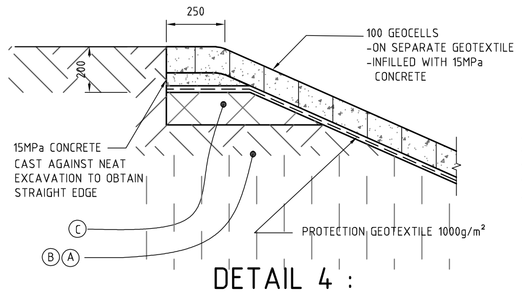
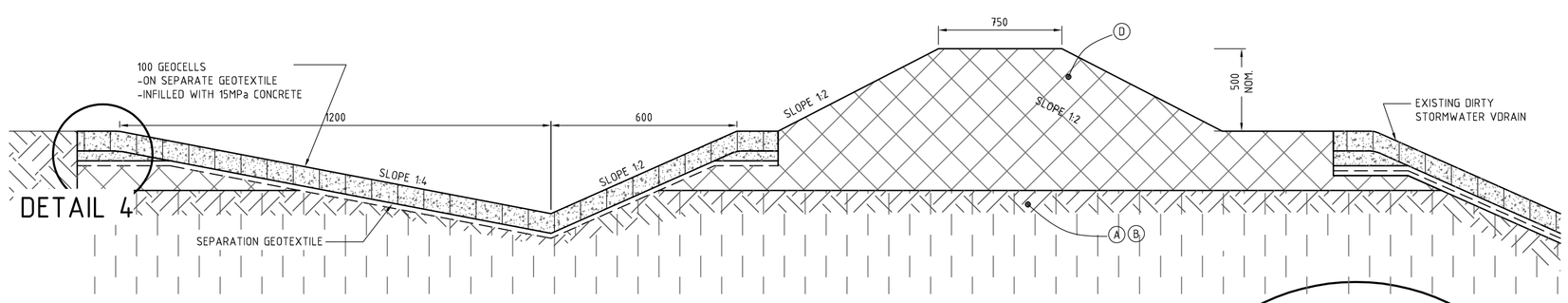


DETAIL 4 : TYPICAL SHOULDER OF EROSION PROTECTION



TYPICAL CLEAN STORMWATER DRAIN

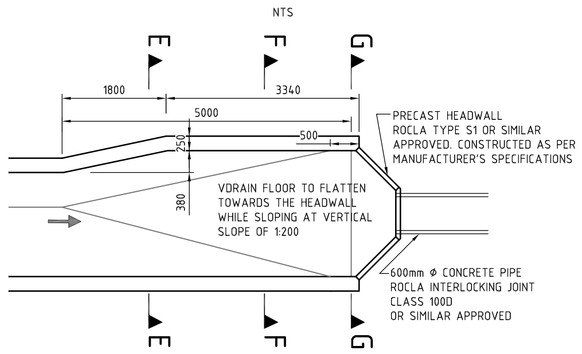
NTS

BASIC PAVEMENT DESIGN: ASHDUMP WORKSHOP ACCESS ROAD

LAYER NO.	DESCRIPTION	MATERIAL TYPE (TRH 14)	DENSITY % MOD AASHTO	G.M	P.I (MAX)	C.B.R. @ 93% MOD AASHTO (MIN)	U.C.S. @ 100% MOD AASHTO (MPa)	I.T.S. @ 100% MOD AASHTO (MIN) (KPa)	SWELL 100% MOD AASHTO	WDD (% LOSS) (MAX)	ICS
1	30mm AC TPA MEDIUM	AC									
2	150mm CEMENT STABILISED SUBBASE COMPACTED TO 95% MOD AASHTO DENSITY.	C4	97 %	2.6±GM±12	6	25	MIN: 0.75	200	0.5%	25	TO BE TESTED
3	150mm CEMENT STABILISED SUBBASE COMPACTED TO 95% MOD AASHTO DENSITY.	C4	95 %	2.6±GM±12	6	25	MIN: 0.75	200	0.5%	25	TO BE TESTED
4	INSITU MATERIAL: RIP 150mm AND RE-COMPACT TO 93% MODIFIED AASHTO DENSITY	G7	93 %	2.7±GM±0.75	12 or 3GM +10	15			1.5%		
5	FIG. 9 KERB										
6	EDGE BEAM										

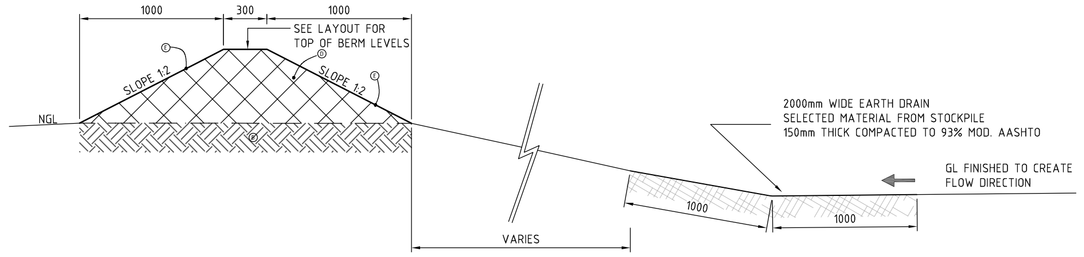
NOTES:

1. MIX DESIGN TO BE CONDUCTED USING THE INDICATED CEMENT AS WELL AS THOSE AVAILABLE IN THE AREA. THE MIX DESIGN SHALL CONTAIN ALL INFORMATION AS REQUIRED IN THE TRH 13. THIS SHALL BE SUBMITTED TO THE ENGINEER PRIOR TO CONSTRUCTION.
2. ICS TESTING SHALL INCLUDE BOTH THE INTERNAL CEMENTS AS WELL AS A SEPARATE TEST ON LIME AND SUBMITTED PRIOR TO CONSTRUCTION WITH THE DESIGN
3. IN PLACES WHERE THE IN-SITU MATERIALS ARE OF G5 QUALITY, THE IN-SITU MATERIALS CAN BE RIPPED AND RECOMPACTED TO THE SPECIFIED DENSITIES TO FORM THE SELECTED SUBGRADE LAYERS.
4. IF ROCK IS ENCOUNTERED THEN CLAUSE 1200DM 5.2.3.3 SHALL APPLY. REPLACE "ROADBED" WITH "UPPER SUBBASE" ICS (CONSUMPTION OF STABILIZER) +1% MINIMUM, ITS & UCS AS PER DRAWING.



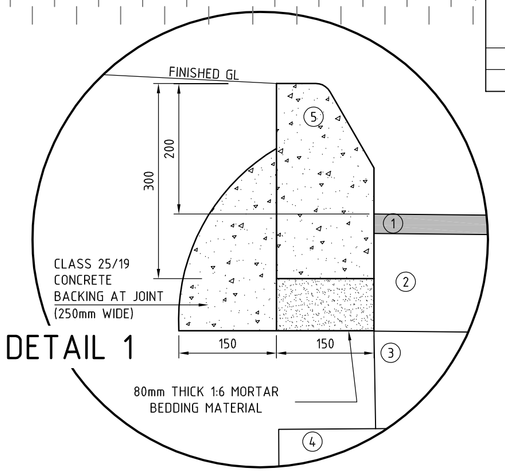
DETAIL 3

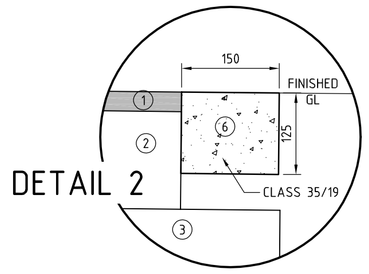
SCALE NTS

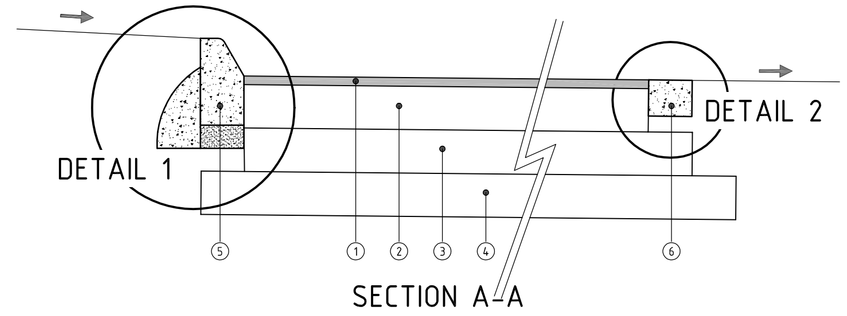


STORMWATER BERM DETAIL (SECTION C-C)

SCALE NTS

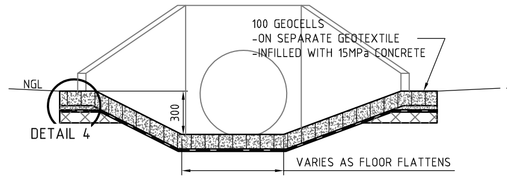






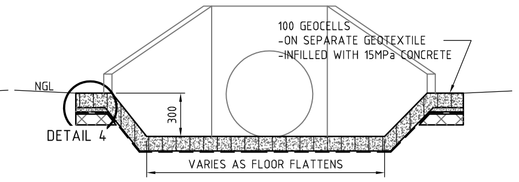
SECTION A-A

SCALE NTS



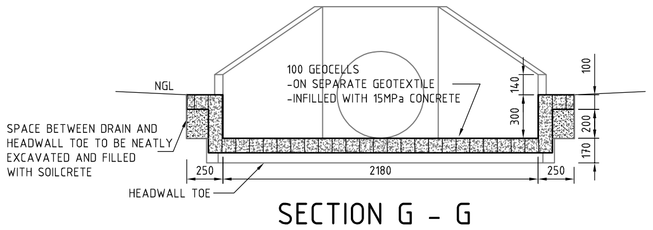
SECTION E - E

NTS



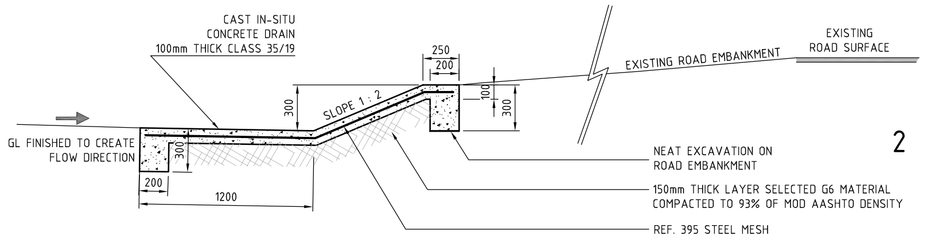
SECTION F - F

NTS



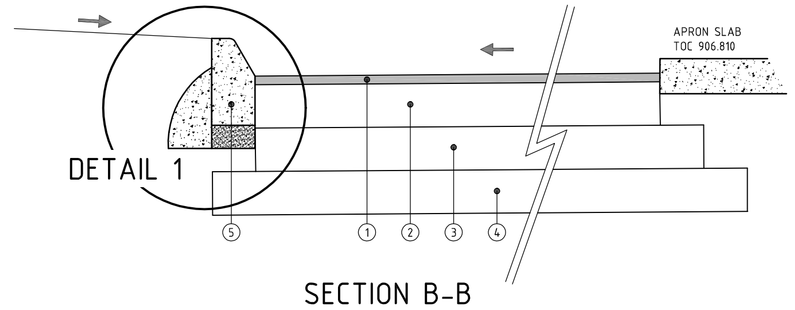
SECTION G - G

NTS



STORMWATER CONCRETE DRAIN DETAIL (SECTION D-D)

SCALE NTS



SECTION B-B

SCALE NTS

EARTHWORKS LEGEND

- (A) REMOVE VEGETATION AND TOPSOIL TO A DEPTH OF 300mm TO BE STOCKPILED IN DESIGNATED AREA.
- (B) SCARIFY 200mm DEEP, ADJUST MOISTURE CONTENT AND COMPACT IN-SITU MATERIAL
- (C) BACKFILL
  - SELECTED MATERIAL FROM STOCKPILE
  - PLACED IN 150mm THICK LAYERS
  - COMPACTED TO 93% MOD. AASHTO
- (D) SW BERMS
  - SELECTED MATERIAL FROM STOCKPILE
  - PLACED IN 200mm THICK LAYERS
  - COMPACTED TO 93% MOD. AASHTO
- (E) BERM SOIL EROSION PROTECTION
  - KAYTECH SOILSAVER OR SIMILAR APPROVED, INSTALL AS PER MANUFACTURERS SPECIFICATIONS
  - HYDROSEEDING TO BE APPLIED PRIOR TO PLACING OF SOILSAVER

LEGEND:

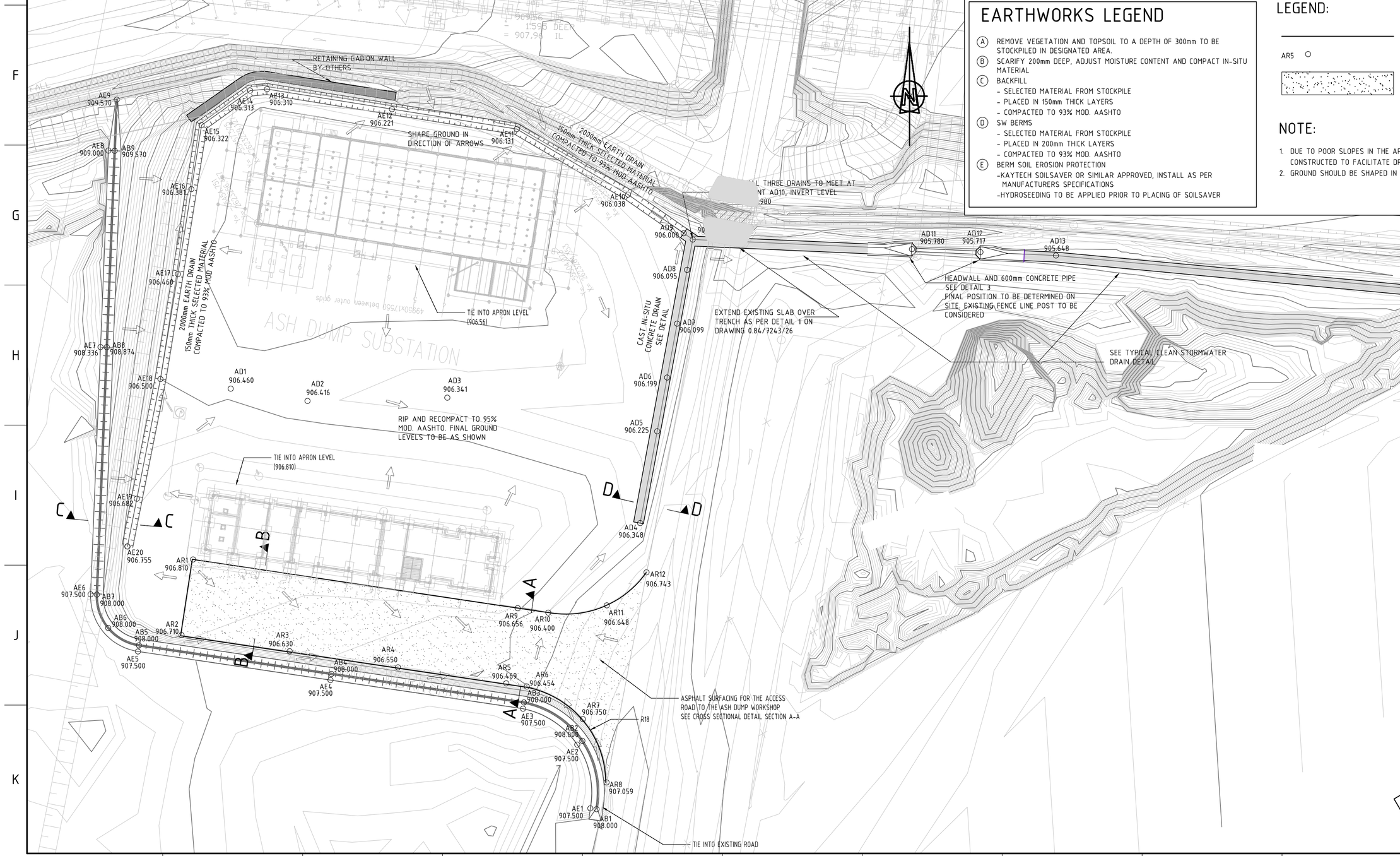
- AR5 ○ — FINISHED ROAD LINE
- SETTING OUT POINT WITH ELEVATION
- ASPHALT ROAD

NOTE:

1. DUE TO POOR SLOPES IN THE AREA, EXACT LEVELS SHALL BE CONSTRUCTED TO FACILITATE DRAINAGE
2. GROUND SHOULD BE SHAPED IN THE DIRECTION OF THE ARROWS

COORDINATES LIST - ASH DUMP ACCESS ROAD & DRAINAGE

POINT	Y	X	POINT	Y	X	POINT	Y	X	POINT	Y	X
AR1	-55442.789	2623317.925	AD3	-55489.241	2623288.388	AE3	-55503.080	2623345.186	AE17	-55440.008	2623265.791
AR2	-55440.665	2623331.746	AD4	-55524.488	2623311.287	AE4	-55467.888	2623339.962	AE18	-55436.823	2623284.981
AR3	-55460.448	2623334.683	AD5	-55527.595	2623294.528	AE5	-55432.704	2623334.739	AE19	-55432.504	2623306.831
AR4	-55480.231	2623337.620	AD6	-55529.417	2623284.693	AE6	-55424.053	2623324.292	AE20	-55429.481	2623322.124
AR5	-55500.015	2623340.557	AD7	-55531.240	2623274.863	AE7	-55425.868	2623279.138	AB1	-55516.527	2623363.537
AR6	-55503.761	2623341.114	AD8	-55533.062	2623265.031	AE8	-55427.312	2623243.229	AB2	-55513.920	2623351.055
AR7	-55514.024	2623347.087	AD9	-55532.456	2623258.341	AE9	-55428.833	2623233.939	AB3	-55503.263	2623344.051
AR8	-55518.360	2623358.641	AD10	-55534.100	2623259.480	AE10	-55522.266	2623251.279	AB4	-55468.068	2623338.826
AR9	-55502.127	2623326.813	AD11	-55574.082	2623261.239	AE11	-55501.956	2623239.328	AB5	-55432.873	2623333.601
AR10	-55507.713	2623327.638	AD12	-55586.678	2623261.795	AE12	-55479.125	2623235.668	AB6	-55427.263	2623330.439
AR11	-55518.391	2623326.311	AD13	-55600.487	2623262.403	AE13	-55456.295	2623232.009	AB7	-55425.202	2623324.338
AR12	-55525.655	2623320.275	AD14	-55749.837	2623276.348	AE14	-55453.219	2623232.295	AB8	-55427.016	2623279.158
AD1	-55449.665	2623286.736	AE1	-55515.384	2623363.389	AE15	-55444.333	2623238.623	AB9	-55428.458	2623243.275
AD2	-55463.709	2623288.981	AE2	-55512.995	2623351.740	AE16	-55442.478	2623250.275			



3	13/12/2018	AS BUILT	JM	DM	FG			
2	20/10/2014	SW PIPE & HEADWALL ADDED. BERM & EARTH CHANNEL REALIGNED, COORDS & NOTES UPDATED	DM	CM	CM			
1	11/09/2014	SW PIPE AND TRAPEZOIDAL CHANNEL OMITTED. NEW CHANNEL ALONG ROAD ADDED. EXISTING V-DRAIN EXTENDED, EARTH DRAINS AND BERM ADDED, ROAD REALIGNED, DETAILS ADDED, DWG SCALE CHANGED	DM	CM	CM			
			PN	CM	LJ			
0	12/12/2013	ISSUED FOR CONSTRUCTION	PN	CM	LJ			
D.O.	REV	DATE	** REVISION **	REV BY	CHKD BY	AUTH BY	KKS APP	REFERENCE DRAWINGS
			INDEX REFERENCE:					

AS BUILT

Designer: VS
PrEng no.: 201705103

DRG REGISTER		AUTHORISED FOR ESKOM BY	DATE
DESIGN APPROVED	12/12/2013 CM	FC VENTER	11/09/2014
KKS APP			
DD AUTH	12/12/2013 CM		
CHKD BY	12/12/2013 CM		
DRAWN BY	12/12/2013 DM		
SCALE	1:500		

2 Lynwood Galleries
354 Rosemary Road
Lynwood, Tshwane
Tel: (012) 361 3629
Fax: (012) 361 3525

MEDUPI POWER STATION
ASH DUMP
ACCESS ROAD & DRAINAGE LAYOUT

14031 - C - 418

0.84 / 7252

SHEET 12 REV 3

SIZE A1L