ATTACHMENT 2

DA 821/2002 & 825/2002

Bundabah

ROAD & DRAINAGE DESIGN PLANS

Designed By TATTERSALL SURVEYORS PTY. LIMITED
DEVELOPMENT CONSULTANTS IN ENGINEERING, SURVEYING & PLANNING
DX 21403 RAYMOND TERRACE Phone (02) 4987 1500

V

GENERAL NOTES

1. This plan is to be read in conjunction with other engineering plans and any written instructions that may be issued.

2. The contractor shall implement all soil erosion and sediment control measures prior to disturbance of the related catchment area and to the satisfaction of the Superintendent.

3. The location of "silt" fences, barrier fences, sediment traps, basins and other devices are indicative only and final locations are to be decided on site. Variations will be permitted to best suit the circumstances.

4. Cleared vegetation must be disposed of by :–
   i) chipping or mulching for future landscaping and usage, or
   ii) transport to an approved landfill facility.

5. Temporary crossbanks (bunds constructed with earth, straw bales or sandbags), shall be constructed during roadworks to limit slope length, where possible, to 80 metres. These shall be constructed immediately prior to forecast rain and during temporary closure of the site, including weekends.

6. Temporary rehabilitation should be undertaken on disturbed areas where works have stopped and soils are expected to remain exposed for two months.

7. Sediment barriers (e.g. sandbags or straw bales) should be located upstream of stormwater inlet pits prior to the road surface being paved and lands upslope being rehabilitated.

8. At the conclusion of each day sand bags are to be placed at the end of completed sections of road pavement to prevent scouring.

9. The contractor will inspect all erosion and pollution control works at least weekly and following every rainfall event greater than 5mm, providing particular attention to the following matters :
   (a) Ensure drains operate effectively and initiate repair as required.
   (b) Remove spilled sand (or other materials) from hazard areas, including lands closer than 5 metres from likely areas of concentrated or high velocity flows such as waterways and paved areas.
   (c) Ensure rehabilitated lands have effectively reduced the erosion hazard and initiate upgrading or repair as appropriate.
   (d) Construct additional erosion and/or sediment control works as might become necessary to ensure the desired protection is given to downslope lands and waterways, i.e. make ongoing changes to the plan.
   (e) Maintain erosion and sediment control measures in a functioning condition until all earthwork activities are completed and the site is rehabilitated.
   (f) Remove temporary soil conservation structures as a last activity in the rehabilitation program.

10. Utilise a single access only to the stock pile sites.

11. Do not taint clean catchment water with silt from the works.

12. Rehabilitate the site as soon as possible after the completion of construction activities and within 10 working days.
    Lands where works are not to continue for more than 20 working days must be rehabilitated. Such rehabilitation shall involve the spraying of a straw–bitumen mulch to the disturbed lands or equivalent.

13. Access areas limited to a maximum width of 10 (preferably 5) metres.

14. All positions shown are approximate and are best determined on site in conjunction with the superintendent.

15. Conformity with this plan shall in no way reduce the responsibility of the Contractor to protect against water damage during the course of the contract.

16. Topsoil and spoil shall be stockpiled in non–hazard areas and protected from surface run–off by diversion drains or similar. Stockpiles shall be surrounded on downstream sides by silt fencing. Stockpiles shall be suitably compacted to inhibit erosion. Where the stockpiling period exceeds four (4) weeks, the stockpile shall be seeded to encourage vegetation growth.

17. Topsoil shall be respread and stabilised as soon as possible. Disturbed areas shall be left with a scarified surface to encourage water infiltration and assist keying in topsoil.

18. The contractor shall maintain grass cover until all works have been completed including the maintainance period, by frequent watering and mowing where required.

19. All drainage works shall be constructed and stabilised as quickly as possible to minimise risk of erosion.

20. Vehicular traffic shall be controlled during construction confining access where possible to proposed or existing road alignments plus 3 metres. Areas to be left undisturbed shall be marked off.

21. Site access shall be restricted to a nominated point. The construction of a shake-down area will be required at the entry to the site.

22. Facilities and/or equipment must be provided for the application of water to disturbed areas to minimise the generation of airborne dust from any area disturbed by construction activities.

23. Material removed from sediment control structures must be disposed of in a way that does not pollute waters or bushland.

24. Waste disposal containers must be provided on site for the collection and disposal of all industrial and domestic type wastes generated on site.

25. Concrete wastes or washings from any concrete mixture or deliveries must not be deposited in any location where they can flow or be washed into waters.

26. Runoff from vehicle, construction plant or mobile plant maintenance and cleaning areas must be contained, collected and disposed of in a manner to prevent entry into any waters, including sediment retention ponds.

27. Fuelling of vehicles and construction plant must be carried out with an operator or driver present, and in a way that prevents any spillage occuring.

1	Issued Plans for Construction	RA	RA	BM	R	7/04/01	
REV	DETAILS OF AMEND		DRAWN	CHECKED	APPROVED	DATE	

TATTERSALL SURVEYORS

SCALE = AS SHOWN

SHEET No. 02 of 29

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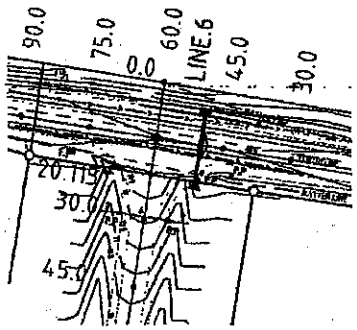
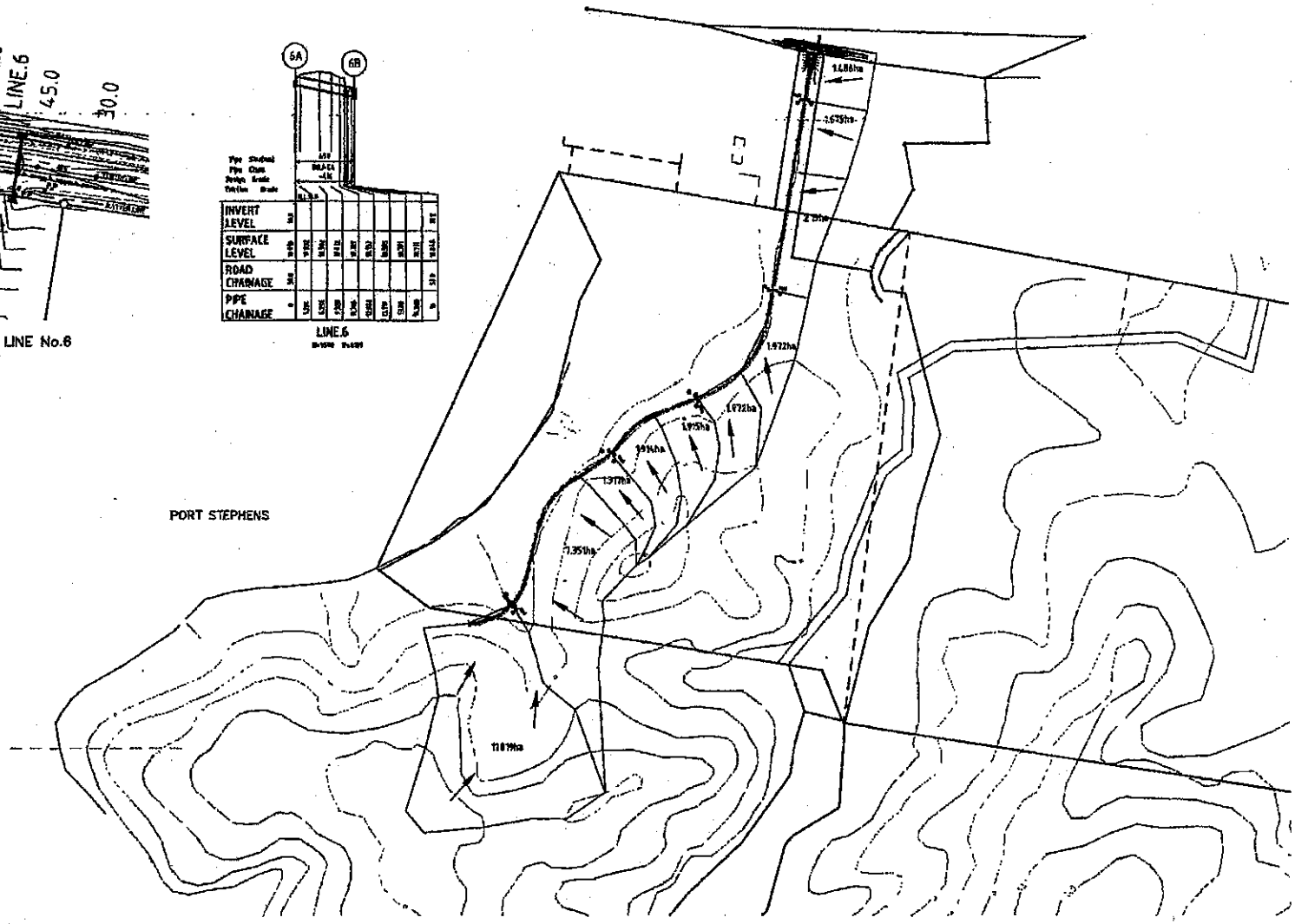


DRAINAGE LINE No.6

LINE.6



DRAINAGE CATCHMENT PLAN

SCALE : 1:4000

1	Drainage Plan Submission	DB	TA	DB	BL	20/9/94	
REV	REVISION OF	DRAWN	CHKD	PROJ ENG	APPROVED	DATE	

TATTERSALL SURVEYORS

SCALE : AS SHOWN

SHEET No. 18 of 29

JOB No. : 2456/94

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DATE : 14/09/94 10:12:18

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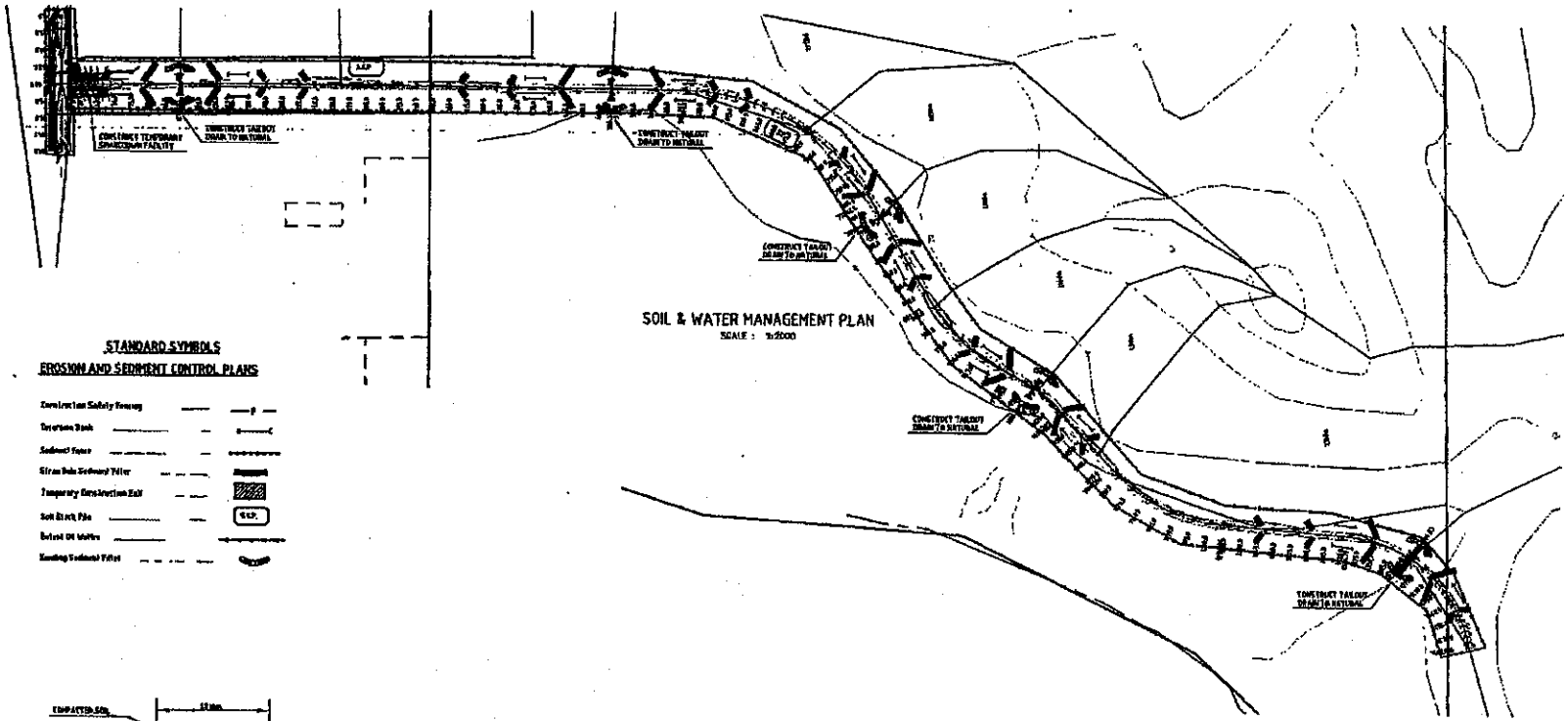
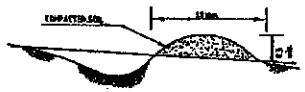


STANDARD SYMBOLS
EROSION AND SEDIMENT CONTROL PLANS

Construction Safety Fencing
Diversion Bank
Sediment Fence
Straw Bale Sediment Filter
Temporary Construction Exit
Soil Stock Pile
Dewat Oil Water
Existing Sediment Filter



TYPICAL DIVERSION DRAIN
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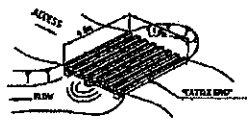

TEMPORARY CONSTRUCTION EXIT
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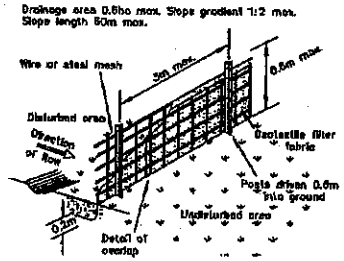
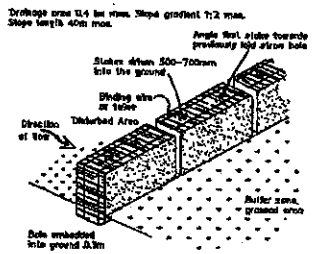


GEOFABRIC SEDIMENT FENCE
NOT TO SCALE



STRAW BALE SEDIMENT FILTER
NOT TO SCALE

NOTE:
1. ALL FILLING TO BE PLACED IN ACCORDANCE WITH AS3798
2. MAKE SMOOTH JUNCTION WITH ALL EXISTING WORKS.

1	Preliminary Issue		TM	VA	BR	RL	7/APR
2	Issued for approval	TD	DRAWN	DESIGN	CHECKED	APPROVED	DATE

TATTERSALL SURVEYORS
SURVEYORS & CONSULTANTS

SCALE : AS SHOWN
SHEET No. 19 of 20
FILE : 2334969
LGD No : 293298
DATE : Plotted 01:52 01/05/06
A1
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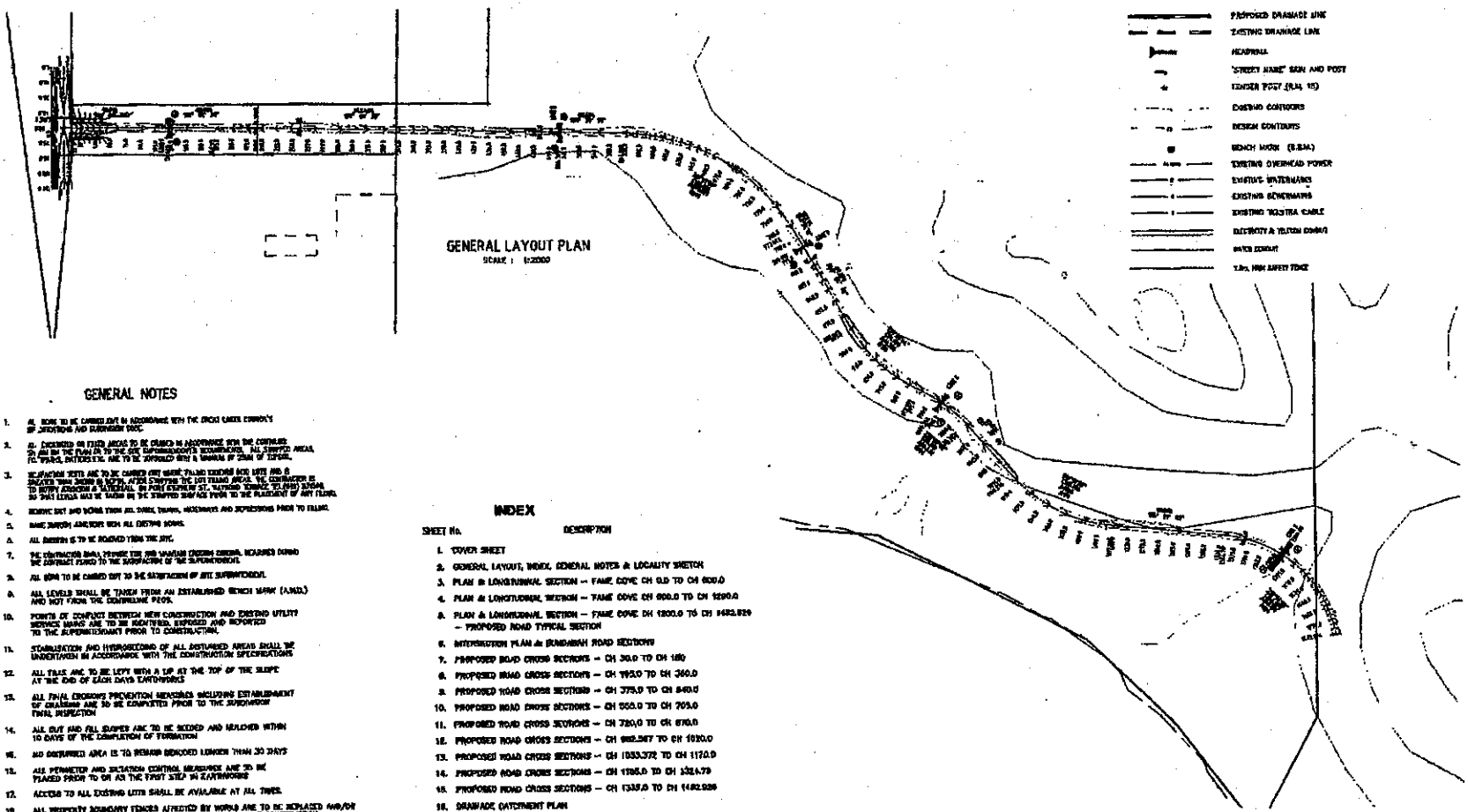

LEGEND

- PROPOSED DRAINAGE LINE
- EXISTING DRAINAGE LINE
- HEADWALL
- "STREET NAME" SIGN AND POST
- TENDER POST (R.M. 15)
- EXISTING CONTOURS
- DESIGN CONTOURS
- BENCH MARK (B.B.M.)
- EXISTING OVERHEAD POWER
- EXISTING WATERMAINS
- EXISTING SEWERMAINS
- EXISTING TELSTRA CABLE
- ELECTRICITY & TELSTRA CONDUIT
- GAS CONDUIT
- 1.8m HIGH SAFETY FENCE

GENERAL NOTES

1. ALL WORK TO BE CARRIED OUT IN ACCORDANCE WITH THE ERICH CARES COUNCIL'S SPECIFICATIONS AND SUPERVISION CODE.
2. ALL EXCAVATED OR FILLED AREAS TO BE COMPACTED IN ACCORDANCE WITH THE CONTOURS SHOWN ON THE PLAN OR TO THE SITE SUPERINTENDENT'S SATISFACTION. ALL COMPACTED AREAS, FILL TRENCH, EXCAVATIONS, ETC. ARE TO BE SUPPLIED WITH A MINIMUM OF 25mm OF TOPSOIL.
3. INSPECTION PITS ARE TO BE CARRIED OUT WHERE FILLING EXCEEDS 300 MTS AND IS GREATER THAN 300mm IN DEPTH. AFTER STRIPPING THE LOT FILLING AREAS, THE CONTRACTOR IS TO REMOVE EXCESSIVE MATERIAL, SO THAT OVERHEAD ST. TAYNOR TENDER TO FIND SUITABLE SO THAT LEVELS MAY BE TAKEN ON THE STRIPPED SURFACE PRIOR TO THE PLACEMENT OF ANY FILLING.
4. REMOVE DEBRIS AND WORK FROM ALL DRAINS, DRAINS, MANHOLES AND DEPRESSIONS PRIOR TO FILLING.
5. MAKE SMOOTH JUNCTIONS WITH ALL EXISTING WORKS.
6. ALL DIMENSIONS ARE TO BE ROUNDED FROM THE SITE.
7. THE CONTRACTOR SHALL PROVIDE THE PER VARIANT DESIGN DRAWING, MEASURES DURING THE CONTRACT PRIOR TO THE SATISFACTION OF THE SUPERINTENDENT.
8. ALL WORK TO BE CARRIED OUT TO THE SATISFACTION OF SITE SUPERINTENDENT.
9. ALL LEVELS SHALL BE TAKEN FROM AN ESTABLISHED BENCH MARK (A.H.D.) AND NOT FROM THE CONTROLINE PEGS.
10. POINTS OF CONFLICT BETWEEN NEW CONSTRUCTION AND EXISTING UTILITY SERVICE MAINS ARE TO BE IDENTIFIED, EXPOSED AND REPORTED TO THE SUPERINTENDENT PRIOR TO CONSTRUCTION.
11. STABILISATION AND HYDROSEEDING OF ALL DISTURBED AREAS SHALL BE UNDERTAKEN IN ACCORDANCE WITH THE CONSTRUCTION SPECIFICATIONS
12. ALL TALUS ARE TO BE LEFT WITH A LIP AT THE TOP OF THE SLOPE AT THE END OF EACH DAYS EARTHWORKS
13. ALL FINAL EROSION PREVENTION MEASURES INCLUDING ESTABLISHMENT OF DRAINAGE ARE TO BE COMPLETED PRIOR TO THE SUPERVISOR FINAL INSPECTION
14. ALL CUT AND FILL SLOPES ARE TO BE SEEDED AND MULCHED WITHIN 10 DAYS OF THE COMPLETION OF FORMATION
15. NO DISTURBED AREA IS TO REMAIN EXPOSED LONGER THAN 30 DAYS
16. ALL PERIMETER AND SEDIMENTATION CONTROL MEASURES ARE TO BE PLACED PRIOR TO OR AS THE FIRST STEP IN EARTHWORKS
17. ACCESS TO ALL EXISTING LOTS SHALL BE AVAILABLE AT ALL TIMES.
18. ALL PROPERTY BOUNDARY FENCES AFFECTED BY WORKS ARE TO BE REPLACED AND/OR RELOCATED ONTO BOUNDARY LINE BEFORE COMMENCEMENT OF CONSTRUCTION.
19. TRAFFIC CONTROL MEASURES TO BE IN ACCORDANCE WITH TRAFFIC MANAGEMENT MANAGEMENT PLAN AND READ IN CONJUNCTION WITH R.T.A. FORM 1005.
20. IT IS THE CONTRACTORS RESPONSIBILITY TO ASCERTAIN IN THE FIELD THE LOCATION AND LEVEL OF ALL EXISTING SERVICES (TELECOM, UNDERGROUND POWER, SEWER, WATER, ETC) AND ANY OTHER FEATURE OR STRUCTURE LIKELY TO BE AFFECTED BY THE WORKS AND TO TAKE APPROPRIATE MEASURES TO ENSURE NO DAMAGE OCCURS. ANY DAMAGE SHALL BE MADE GOOD AT NO COST TO THE PROPRIETOR.
21. APPROPRIATE EROSION CONTROL MEASURES SHALL BE PLACED IN ACCORDANCE WITH SEDIMENT CONTROL PLAN 3 IN THIS SET OF DRAWINGS AND IN THE CENTRES IN THE TOP OF FORMED TABLE DRAINS OR DISTURBED DRAINAGE PATHS.

WARNING:
PUBLIC UTILITY SERVICES MAY EXIST ON OR ADJACENT TO THE SITE OF WORKS. THESE SERVICES MAY NOT BE SHOWN WITHIN DEDICATED EASEMENTS. STANDARD PLACEMENTS ELSEWHERE IN CORRECT LOCATION ON THESE PLANS IT IS THE CONTRACTORS RESPONSIBILITY TO VERIFY THE LOCATION OF ALL SERVICES PRIOR TO CONSTRUCTION WORKS AND TO AVOID DISTURBANCE OF THE SERVICES.

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2.	GENERAL LAYOUT, INDEX, GENERAL NOTES & LOCALITY SKETCH
3.	PLAN & LONGITUDINAL SECTION – FAME COVE CH 0.0 TO CH 600.0
4.	PLAN & LONGITUDINAL SECTION – FAME COVE CH 600.0 TO CH 1200.0
5.	PLAN & LONGITUDINAL SECTION – FAME COVE CH 1200.0 TO CH 1482.929 – PROPOSED ROAD TYPICAL SECTION
6.	INTERSECTION PLAN & BUNDABAH ROAD SECTIONS
7.	PROPOSED ROAD CROSS SECTIONS – CH 30.0 TO CH 180
8.	PROPOSED ROAD CROSS SECTIONS – CH 195.0 TO CH 360.0
9.	PROPOSED ROAD CROSS SECTIONS – CH 375.0 TO CH 540.0
10.	PROPOSED ROAD CROSS SECTIONS – CH 555.0 TO CH 705.0
11.	PROPOSED ROAD CROSS SECTIONS – CH 720.0 TO CH 870.0
12.	PROPOSED ROAD CROSS SECTIONS – CH 885.567 TO CH 1030.0
13.	PROPOSED ROAD CROSS SECTIONS – CH 1033.372 TO CH 1170.0
14.	PROPOSED ROAD CROSS SECTIONS – CH 1195.0 TO CH 1324.79
15.	PROPOSED ROAD CROSS SECTIONS – CH 1335.0 TO CH 1482.929
16.	DRAINAGE CATCHMENT PLAN
17.	DRAINAGE LONG SECTIONS – LINE No. 1, 2, 3 & 4
18.	DRAINAGE LONGITUDINAL SECTION – LINE No. 5 – SCHEDULE OF DRAINAGE STRUCTURES – HYDRAULIC DESIGN TABLES
19.	SOIL AND WATER MANAGEMENT PLAN
20.	SOIL AND WATER MANAGEMENT GENERAL NOTES

TATTERSALL SURVEYORS PTY LTD

Registered Surveyor.

NOTE:
1. ALL FILLING TO BE PLACED IN ACCORDANCE WITH AS3798
2. MAKE SMOOTH JUNCTION WITH ALL EXISTING WORKS.

ORIGIN OF LEVELS
PM 56864 R.L. 19.91 (AHD)
Source
[illegible]

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REV	DESCRIPTION	DRAWN	CHECKED	APPROVED	DATE
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2	DEVELOPER DP AMENDMENTS	[illegible]	[illegible]	[illegible]	[illegible]

* Based On original signature and date when certain was issued

TATTERSALL SURVEYORS
DEVELOPMENT CONSULTANTS
ENGINEERING, SURVEYING & PLANNING
[illegible]

DA 821/2002 & 825/2002
Bundabah
ROAD & DRAINAGE DESIGN PLANS

COUNCIL: GREAT LAKES
REFERENCE: 2010167
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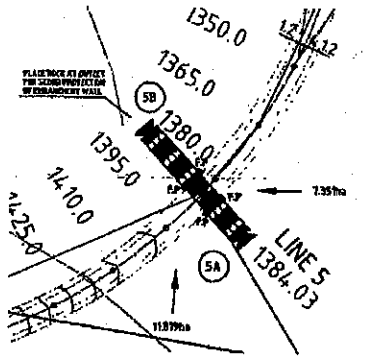

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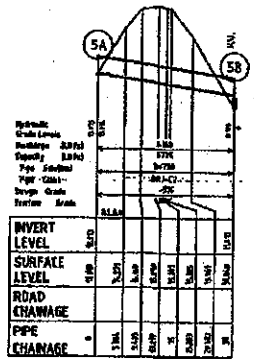


LINE 5

HYDROLOGICAL DESIGN SHEET

PIT	LOCATION	FLOW LENGTH	SLOPE	"n"	TYPE	TIME	INTENSITY	RUNOFF	FREQUENCY	AREA	C.A.	SUM AREA	"n"	"n" AVG	TOTAL R/W	EXISTING SLOPE	SUM LENGTH	PIT TYPE	LENGTH	WIDTH	PIT FLOW	TYPE	KINEMATIC PRETTIE 2 MAX TIME 20 MAINS REST	REMARKS
		m	%			min	min	mm/hr				ha	ha		m	%	m		m	m	m			
1A	1 / 1	78 / 115	1.5 / 1.1	0.132	1/1 / 1/1	3	106 / 101	0.83 / 0.8	0.845 / 0.817	0.845 / 0.817	1.129 / 0.62	3.321	0.72		0.72	4	4.878	5		0.5		1		
2A	1 / 1	120 / 90	1.8 / 3.5	0.132 / 0.132	1/1 / 1/1	3.4	103 / 101	0.8 / 0.8	0.847 / 0.817	2.169 / 1.992	1.129 / 1.066	2.838	0.72		0.72	4	3.997	5		0.72		2A		
3A	1 / 1	80 / 80	1.1 / 3.9	0.132 / 0.132	1/1 / 1/1	3	106 / 101	0.8 / 0.8	0.847 / 0.817	1.972 / 1.92	1.129 / 1.066	2.693	0.72		0.72	5	3.972	5		0.72		3A		
4A	1 / 1	110 / 70	1.1 / 2.3	0.132 / 0.132	1/1 / 1/1	3	106 / 101	0.8 / 0.8	0.847 / 0.817	1.974 / 1.92	1.129 / 1.066	2.693	0.72		0.72	5	3.972	5		0.72		4A		
5A	1 / 1	200 / 300	2 / 2	0.132 / 0.132	1/1 / 1/1	3.5	105 / 101	0.8 / 0.8	0.848 / 0.817	2.541 / 0.89	1.129 / 0.966	3.377	0.72		0.72	4	3.341			0.72		5A		

HYDRAULIC DESIGN SHEET

PIT	"n"	INTENSITY	AREA	FLOW	LENGTH	SLOPE (%)	GRADE	HYD. GRADE	VEL. O/A	"n"	HEAD LOSS	TOTAL GRP	PIPE VEL	PIPE CAP	PIPE SIZE	TYPICAL INFORMATION MAINTIME 20 MAINS REST BY PRESSURE AREA-ADP-B	REMARKS
		mm/hr	ha	L/s	m		mm	%	m/s		m	m/s	m/s	L/s	mm		
LINE 1 1A-1B	0	80 STY	2.99	0.2	11.8 (0.2%)	2.5 / 3	2	0.845	1.129	3.3	0.39	3.29	1.12	283	600		
LINE 2 2A-2B	0.1	83 STY	2.93	0.2	5.4 (0.2%)	2.5 / 3	2	0.8	1.144	3.5	0.072	3.29	2.11	283	600		
LINE 3 3A-3B	0	80 STY	2.693	0.2	6.3 (0.2%)	2.5 / 3	2	0.8	1.172	3.1	0.39	3.29	2.9	283	600		
LINE 4 4A-4B	0	80 STY	2.693	0.2	6.3 (0.2%)	2.5 / 3	2	0.8	1.172	3.1	0.348	3.29	2.9	283	600		
LINE 5 5A-5B	0.1	79 STY	3.377	0.2	20 (0.2%)	1.43 / 3	2	0.81	0.866			4.377	1.38	0.94	671		

SCHEDULE OF DRAINAGE STRUCTURES

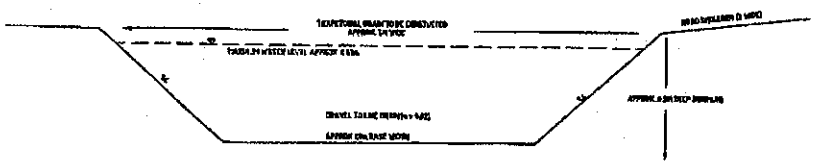
No.	TYPE	LINTEL	DESCRIPTION
1A.	RM B	–	HEADWALL TO SUIT TRIPLE 525ø RRJ-C2 PIPES
1B.	RM A	–	HEADWALL TO SUIT TRIPLE 525ø RRJ-C2 PIPES
2A.	RM B	–	HEADWALL TO SUIT TRIPLE 525ø RRJ-C2 PIPES
2B.	RM A	–	HEADWALL TO SUIT TRIPLE 525ø RRJ-C2 PIPES
3A.	RM B	–	HEADWALL TO SUIT TRIPLE 525ø RRJ-C2 PIPES
3B.	RM A	–	HEADWALL TO SUIT TRIPLE 525ø RRJ-C2 PIPES
4A.	RM B	–	HEADWALL TO SUIT TRIPLE 525ø RRJ-C2 PIPES
4B.	RM A	–	HEADWALL TO SUIT TRIPLE 525ø RRJ-C2 PIPES
5A.	RM B	–	HEADWALL TO SUIT TRIPLE 750ø RRJ-C2 PIPES
5B.	RM B	–	HEADWALL TO SUIT TRIPLE 750ø RRJ-C2 PIPES
6A.	RM B	–	HEADWALL TO SUIT 450ø RRJ-C3 PIPE
6B.	RM B	–	HEADWALL TO SUIT 450ø RRJ-C3 PIPE

LAND USE CODES

1. [illegible]
2. [illegible]
3. [illegible]
4. [illegible]
5. [illegible]
6. [illegible]

PIT TYPE CODES

1. [illegible]
2. [illegible]
3. [illegible]
4. [illegible]
5. [illegible]



TYPICAL CROSS SECTION OF DRAIN
NOT TO SCALE

5% FLOW CALCULATION FOR TRAPEZOIDAL DRAIN

b) Solve for depth given Q and channel dimensions

Base Width (B):	1	m
Side Slopes (SS):	4	H:1V
Mannings 'n':	0.02	
Bed Slope (S):	2.0000%	
Flow Rate (Q):	4.2	cu.m/s
Flow Depth (d):	0.48	m
Flow Area (A):	1.38	sq. m
Wetted perimeter (P):	4.93	m
Flow Velocity (v):	3.03	m/s
Flow is:	Supercritical	
Critical Depth (Yc):	0.69	m
Sediment transport size (D75):	61.8	mm, approx

NOTE:
CONSTRUCTION TO COMPLY WITH

NOTE:
ALL PIPWORK TO BE PLACED IN ACCORDANCE WITH AS3725

DRAINAGE LAYOUT PLAN & HYDRAULIC DESIGN TABLES

SCALE : AS SHOWN

1	Revised issue for Council			JA	JA	BB	BL	27/08/04
ISSU	ISSUED FOR			PREPARED	DRAWN	CHECKED	APPROVED	DATE

TATTERSALL SURVEYORS
PROJECT MANAGERS

SCALE : AS SHOWN
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JOB No. : 2024TB
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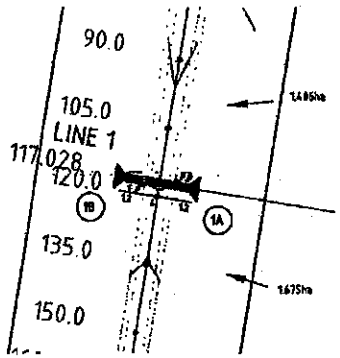
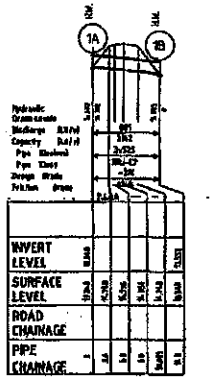
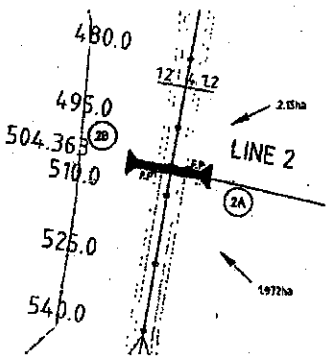


DRAINAGE LINE No.1



LINE.1



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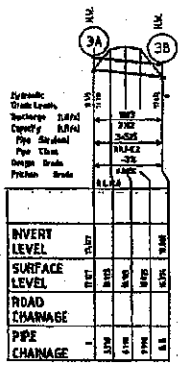

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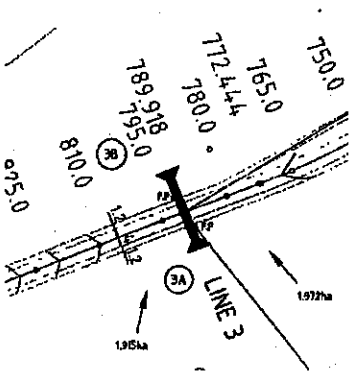

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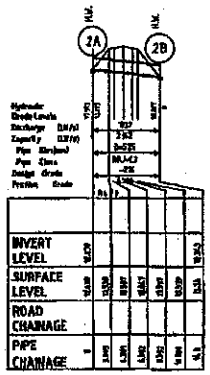

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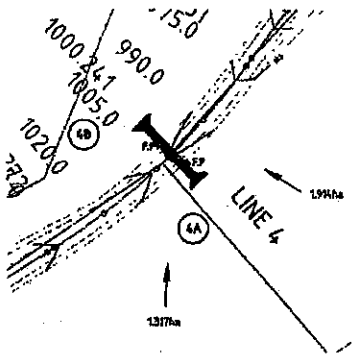

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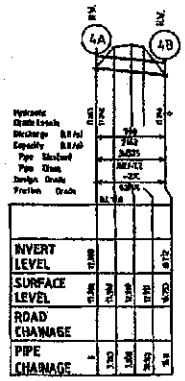


LINE.4

DRAINAGE LAYOUT PLAN

SCALE : AS SHOWN

1	Original Issue for Consultation	RA	RA	RA	RA	7/09/01	
REV	DETAILS OF AMENDMENT	DRAWN	DRAWN	CHECKED	APPROVED	DATE	

TATTERSALL SURVEYORS

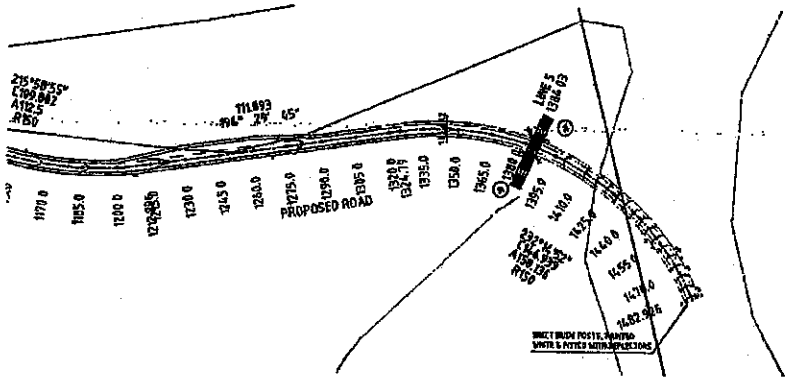
SCALE : AS SHOWN

SHEET No. 19 of 29

JOB No. 1 2001/19

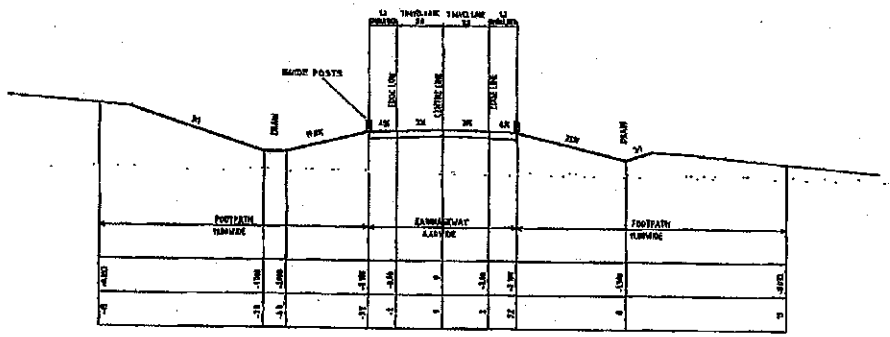
DATE : Plotted at 2:16:15 12/9/01

A1



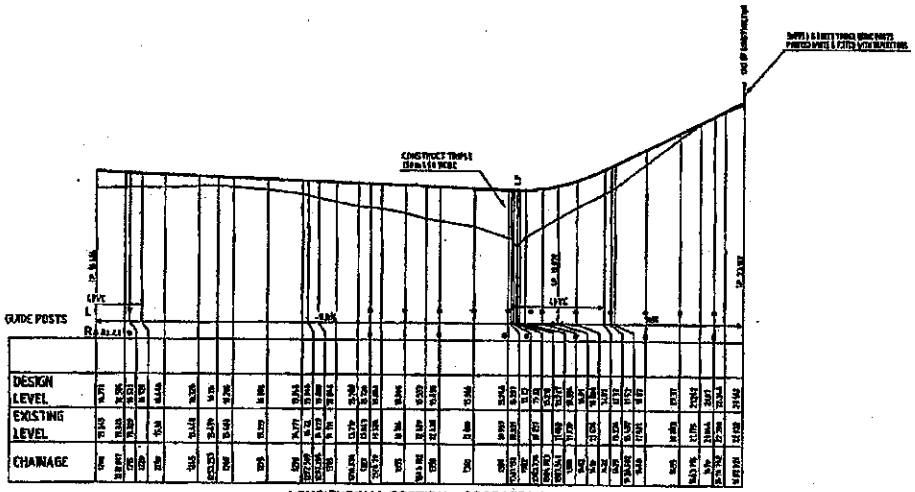
ROAD LAYOUT PLAN

SCALE : 1:1000



TYPICAL SECTION - PROPOSED ROAD

SCALE : 1:200



LONGITUDINAL SECTION - PROPOSED ROAD

1V:25H V:1:200

PROPOSED ROAD

TABLE 1 - Material Quality and Compaction Requirements			
Pavement Layer	Material Quality	Compaction	Testing
Wearing Course	To conform to RLC requirements	To conform to RLC	To conform to RLC requirements.
Subbase	High quality crushed rock or best quality gravel with CBR > 30%, PI < 6%	Compact to at least 98% dry density ratio Modified (AS 1289.5.2.1, Ref 4)	
Subbase	Sub-base quality gravel with CBR > 30%, PI < 15%	Compact to at least 95% dry density ratio Modified (AS 1289.5.2.1, Ref 4)	
Subgrade (Improved)	CBR > 15%	Minimum density value of 100% (AS 1289.5.1.1, Ref 4)	

PAVEMENT DETAILS - PROPOSED ROAD (SUBGRADE CBR 10).

1. 2 COAT BITUMINOUS SEAL TO COUNCIL'S SPECIFICATIONS (30mm 14 SEALED)
2. 100mm DGB20 APPROVED BASE COURSE MATERIAL
3. 250mm APPROVED SUB-BASE COURSE MATERIAL

NOTE: PAVEMENT MATERIAL THICKNESS, QUALITY & COMPACTION REQUIREMENTS AS PER COFFEY GEOSCIENCES PTY LTD REPORT No. 17219/1-AD DATED "7 FEBRUARY 2000"

PAVEMENT DETAILS - PROPOSED ROAD (SUBGRADE CBR 3.5).

1. 2 COAT BITUMINOUS SEAL TO COUNCIL'S SPECIFICATIONS (30mm 14 SEALED)
2. 100mm DGB20 APPROVED BASE COURSE MATERIAL
3. 350mm APPROVED SUB-BASE COURSE MATERIAL

NOTE: PAVEMENT MATERIAL THICKNESS, QUALITY & COMPACTION REQUIREMENTS AS PER COFFEY GEOSCIENCES PTY LTD REPORT No. 17219/1-AD DATED "7 FEBRUARY 2000"

NOTE
THICKNESSES REFLECT REPORT TO INCREASE IN 0.5 m IF MATERIAL NEEDS ON SITE

1	Detailed Issue for Construction	RA	RA	RA	A	7/2000	
ISSUE	DESCRIPTION OF AMENDMENT	DRAWN	DATE	CHECKED	APPROVED	DATE	

TATTERSALL SURVEYORS

SURVEYORS & CONSULTANTS

SCALE : AS SHOWN

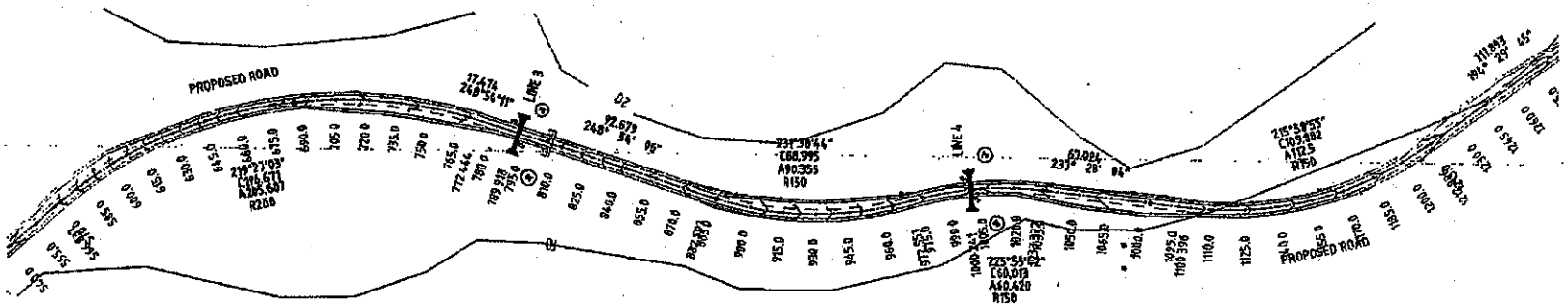
SHEET No. 1 of 20

JOB No. 213199

FILE : 213199

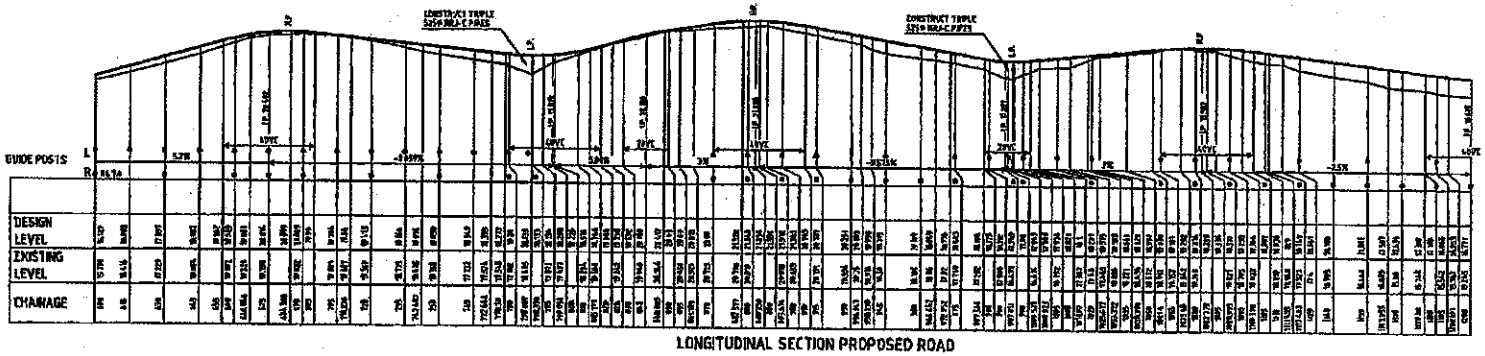
DATE : Plotted 20-11-2000

A1



ROAD LAYOUT PLAN

SCALE : 1:1000



LONGITUDINAL SECTION PROPOSED ROAD

H:1:1000 V:1:200

1	Issued Plan for Construction							7/8/01
REV	INSTALLED BY AW	VZ	CHECKED	DRAWN	CHECKED	APPROVED	DATE

TATTERSALL SURVEYORS

SCALE : AS SHOWN

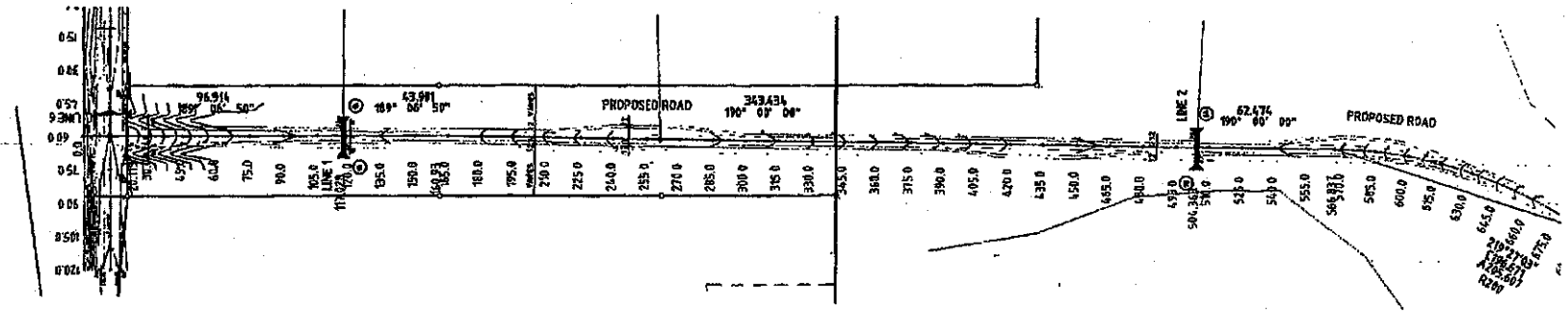
SHEET No. 1 of 3

FILE : 2001/96

JOB No. : 2004/99

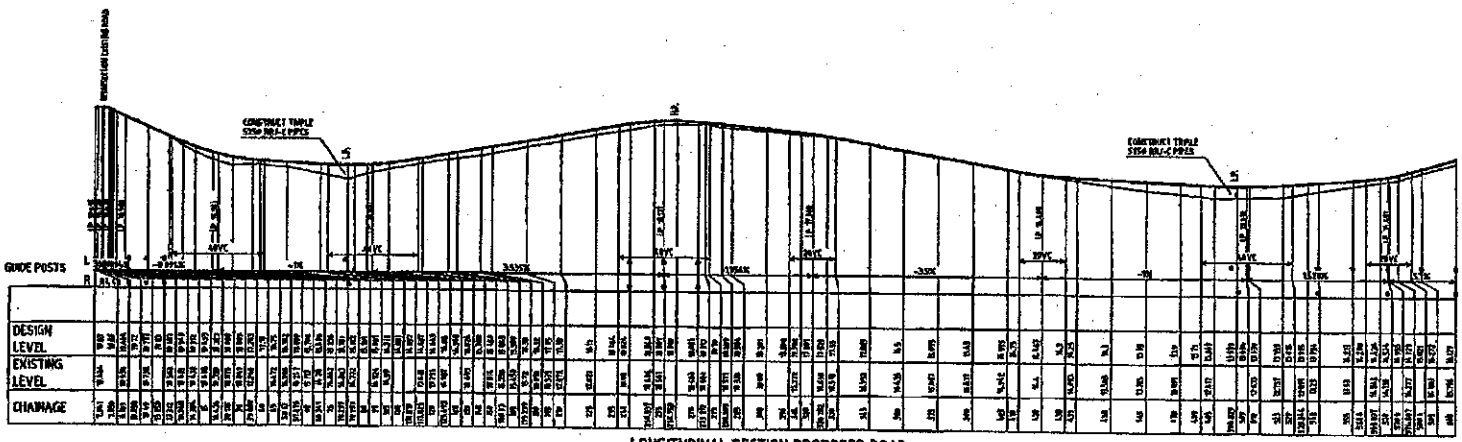
DATE : Plotted 09:43 07/12/01

COMPUTER FILE : E:\Visual\PROJECTS\2001\96\Survey\DRAWING - STANDARDS.dwg



ROAD LAYOUT PLAN

SCALE : 1:1000



LONGITUDINAL SECTION PROPOSED ROAD

4	Submitted for Construction	RA	RA	GB		27/09/01	
3/01	DETAILS RE AMD						
2	Details revised						

TATTERSALL SURVEYORS

SCALE : AS SHOWN

SHEET No. 3B of 20

FILE : 2024/03

JOB No. : 2024/56

DATE : Plotted 14.12.01/17/04

A1

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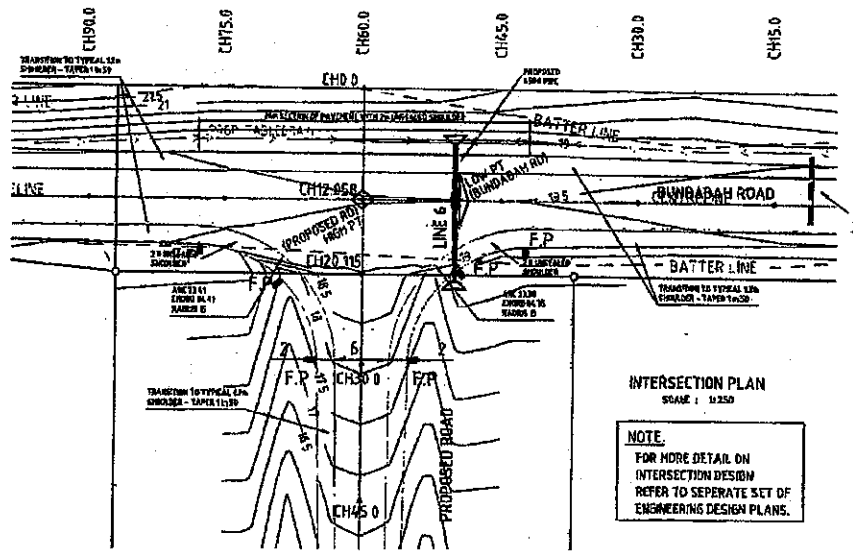
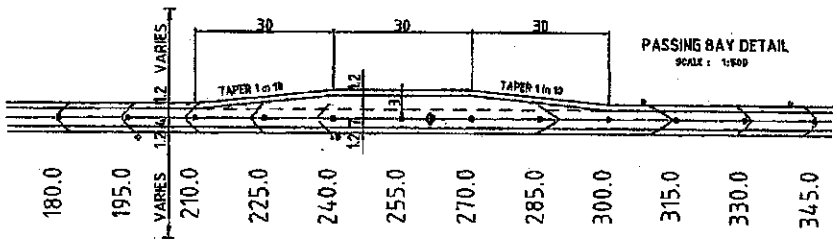


INTERSECTION PLAN
SCALE : 1:250

NOTE.
FOR MORE DETAIL ON INTERSECTION DESIGN REFER TO SEPERATE SET OF ENGINEERING DESIGN PLANS.



PASSING BAY DETAIL
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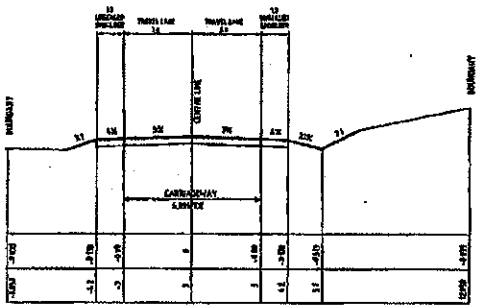

TYPICAL SECTION - BUNDABAH ROAD
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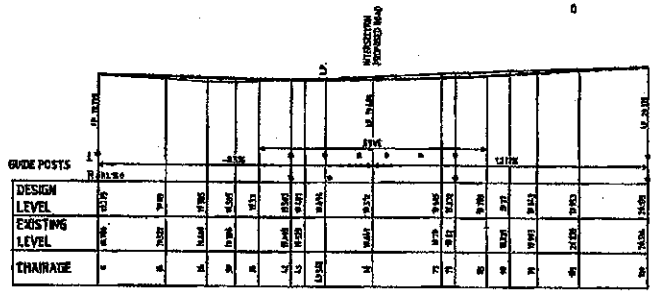
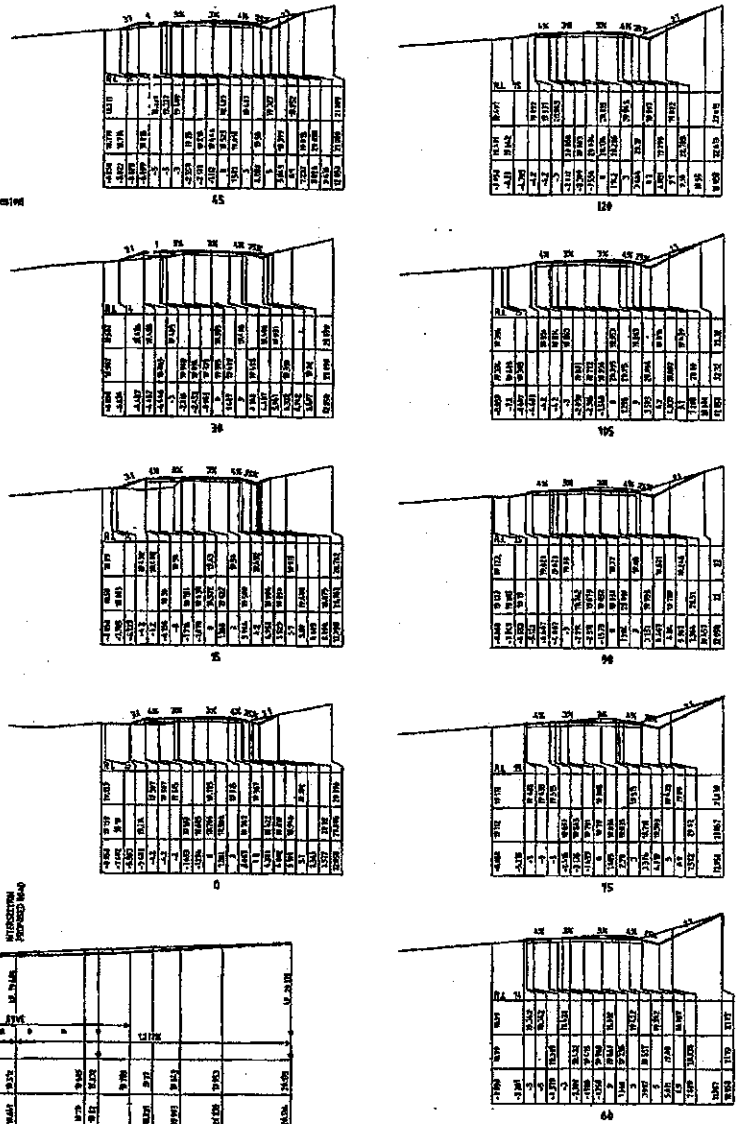


BUNDABAH ROAD



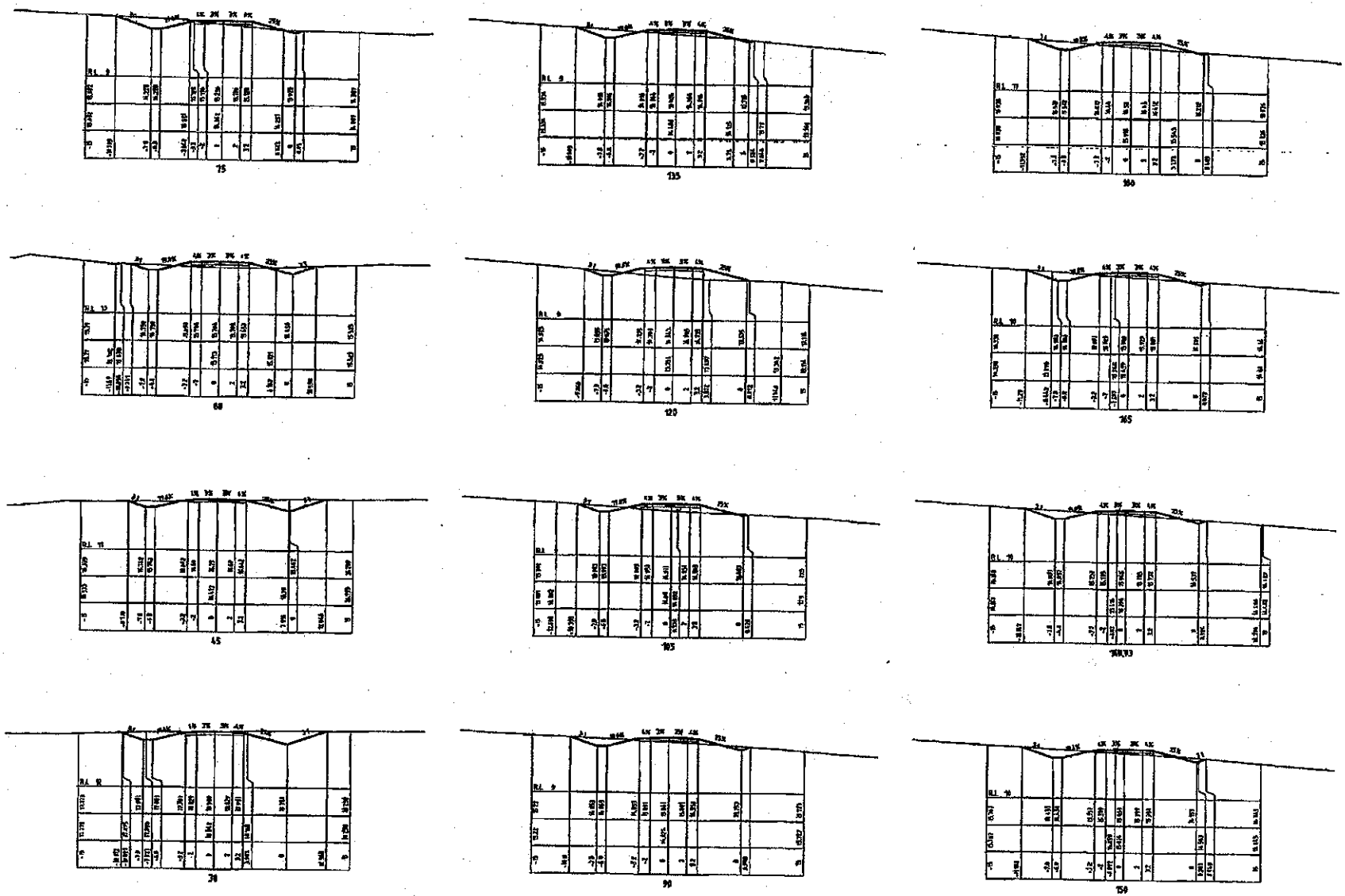
BUNDABAH ROAD SECTIONS – CH 0.0 TO CH 120.0

REV	DATE	DR	CH	AP	DATE
1	Original Issue for Construction				2/08/04

TATTERSALL SURVEYORS

SCALE : AS SHOWN

A1



PROPOSED ROAD SECTIONS – CH 30.0 TO CH 180

REV	DATE	DRAWN	DESIGN	CHECKED	APPROVED	DATE
1	Original Issue for Construction	RA	RA	GH	JC	7/09/16

TATTERSALL SURVEYORS

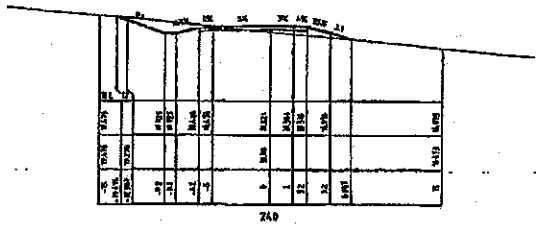
SCALE: 1:200

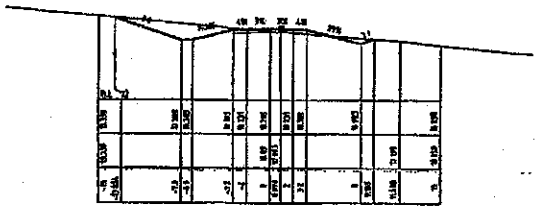
SHEET No. (1) of (1)

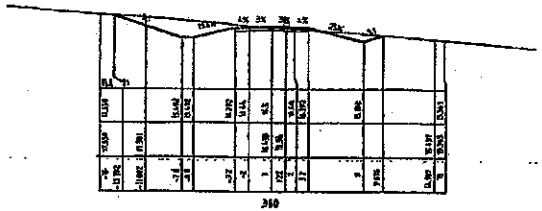
JOB No.: 70249

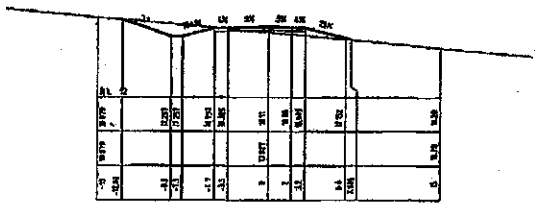
DATE: Plotted 11:15 07/07/16

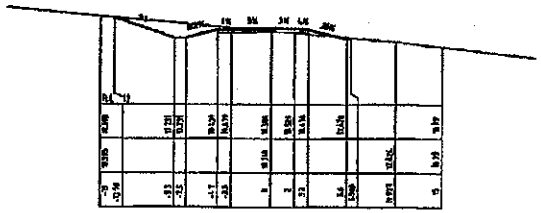
SIZE: A1

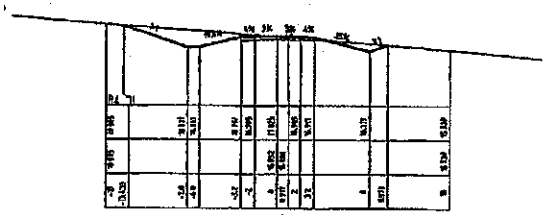


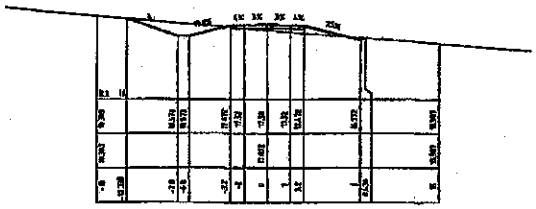


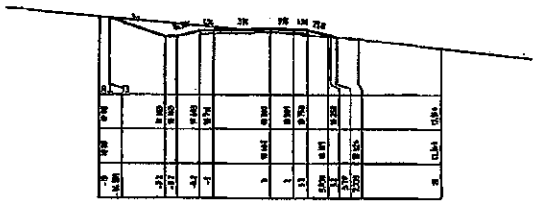


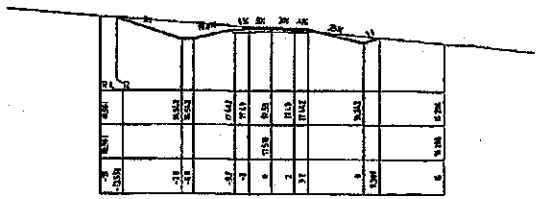


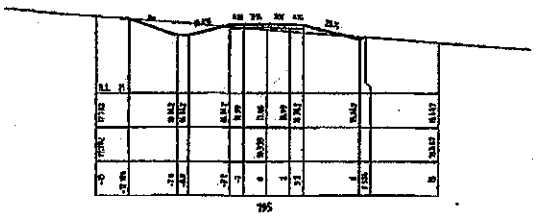


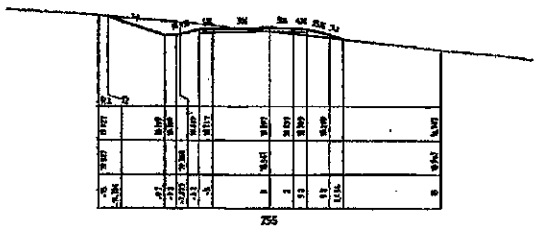


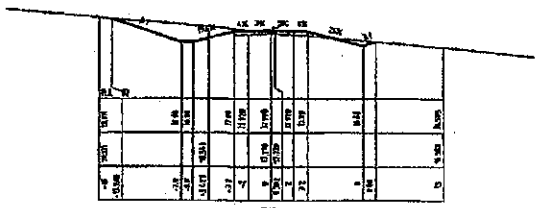












PROPOSED ROAD SECTIONS – CH 195.0 TO CH 360.0

REV	DESCRIPTION	DR	DN	CK	AP	DATE
1	Original Issue for Engineering	BA	BA	DM	RL	7/30/09
REV	DESCRIPTION	DR	DESIGNED	DRAWN	CHECKED	APPROVED	DATE
*	Details like origin					

TATTERSALL SURVEYORS
SURVEYORS

SCALE : 1:200

SHEET No. 130 of 33
JOB No. : 203495

DATE : 30/09/2009

COMPUTER FILE : S:\Civil\MEDIUM\Model\0130 - 203495\0130.dwg

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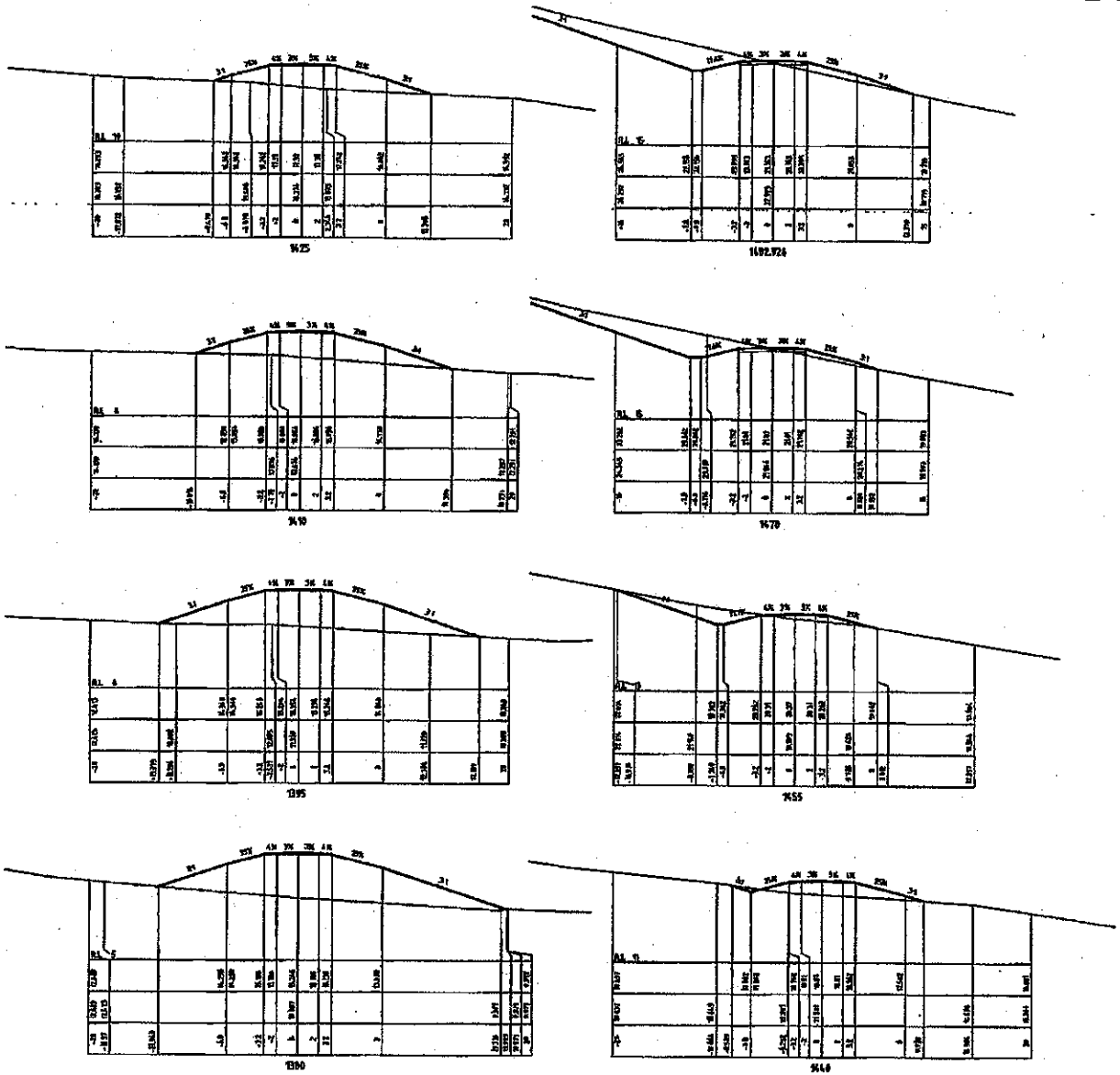

PROPOSED ROAD SECTIONS – CH 1380.0 TO CH 1482.926

1	Subject Issue for Stakeholder	RA	TA	BM	BL	7/09/01
REV	DETAILS OF CHANGE	DRAWN	DESIGN	CHECKED	APPROVED	DATE

TATTERSALL SURVEYORS

SCALE : 1:200

SHEET No. 15 of 25

JOB No. : 2134-01

FILE : 2134-01

DATE : Plotted 10:34 6/07/01

A1

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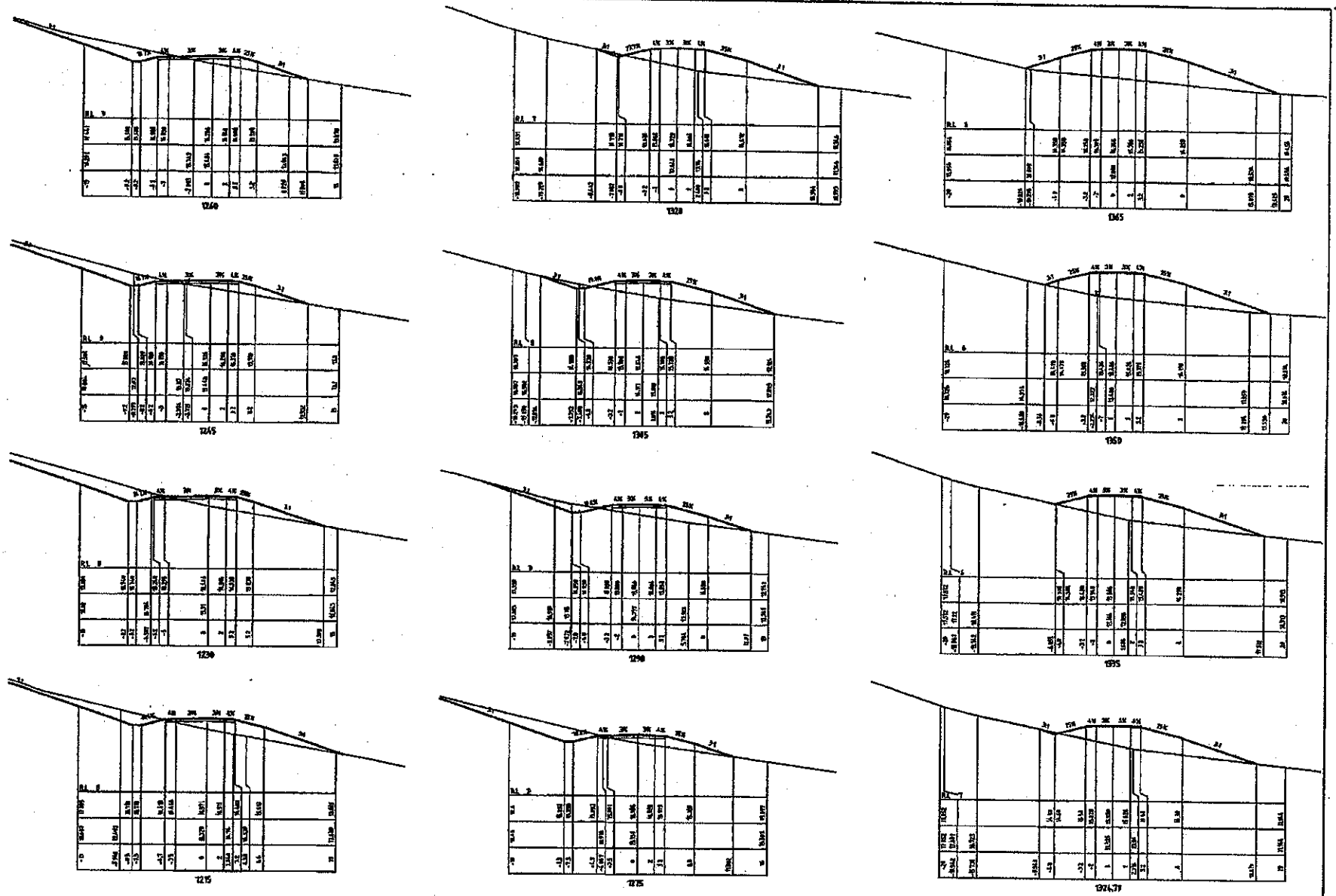

PROPOSED ROAD SECTIONS – CH 1215.0 TO CH 1365.0

1	Original Issue For Final Approval	RA	RA	PF	JL	7/08/08	
REV	DETAILS OF REVISION	CKD	APPROVED	DRAWN	CHECKED	APPROVED	DATE

TATTERSALL SURVEYORS
DEVELOPER'S CONSULTANTS

SCALE: 1:200

SHEET No. 24 of 29

JOB No.: 2001/10

FILE: 2104WK

DATE: Plotted 07/10/08

A1

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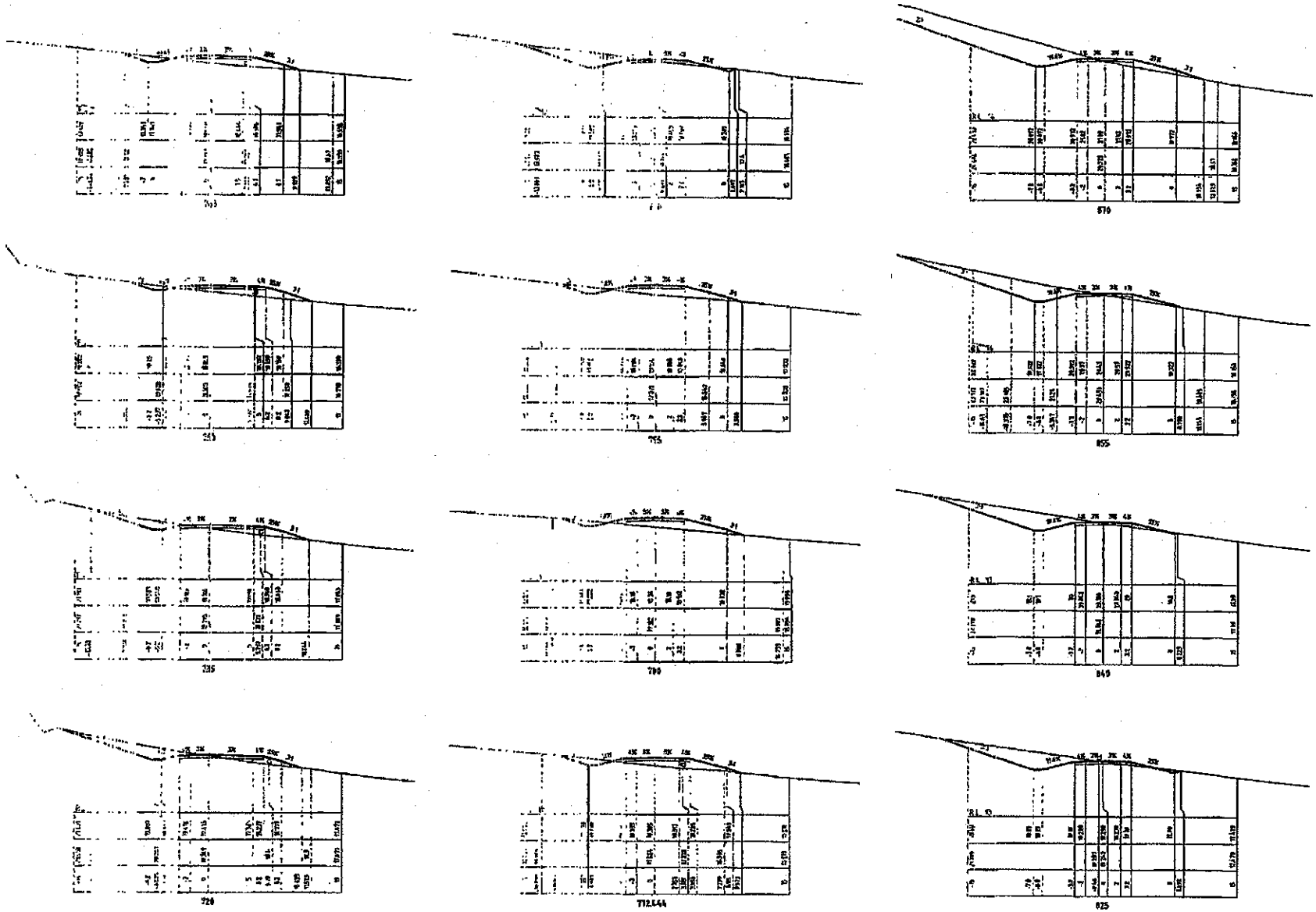
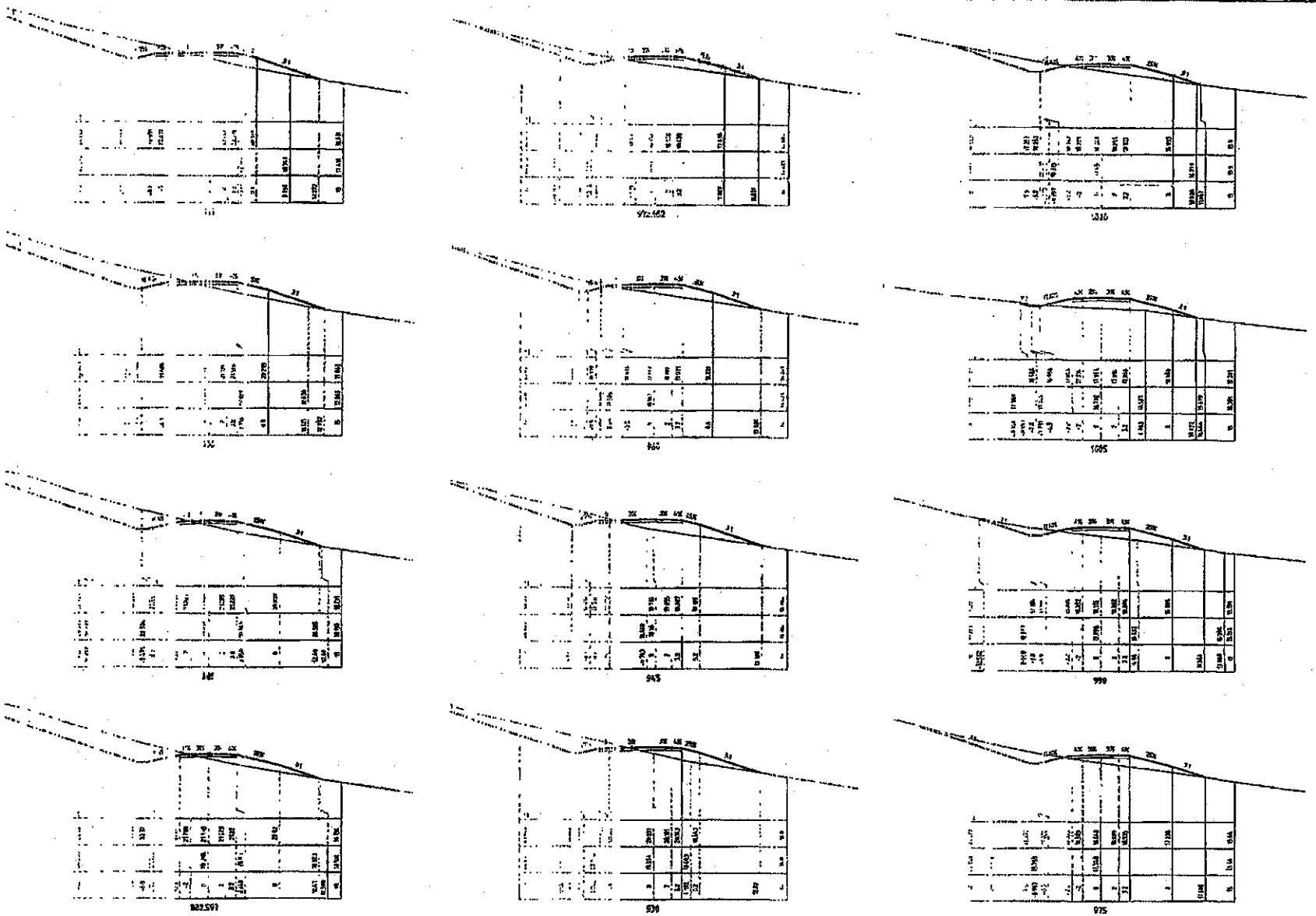


PROPOSED ROAD SECTIONS – CH 720.0 TO CH 1730.0

WATTERSALL SURVEYORS

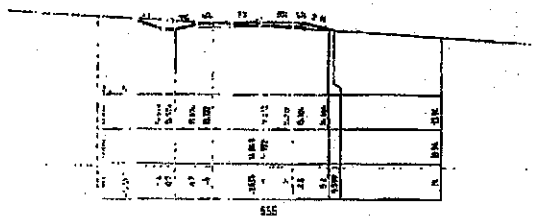
1:200

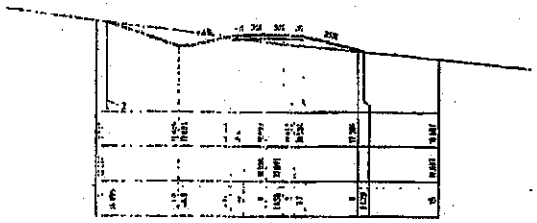
A1

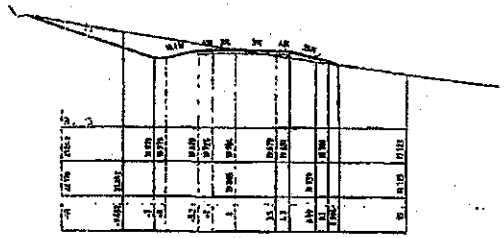


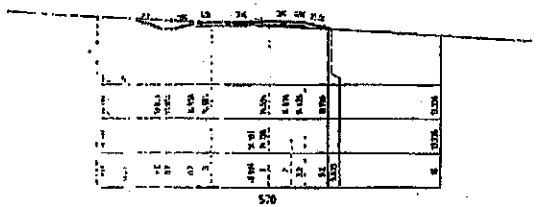
PROPOSED ROAD SECTIONS – CH 882.[illegible] TO [illegible]

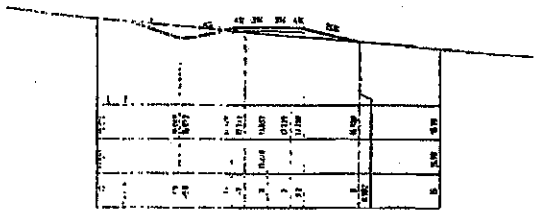
SCALE: 1:200	SHEET No. [illegible] of 29	FILE: [illegible]	
	JOB No: [illegible]	DATE: [illegible]	A1

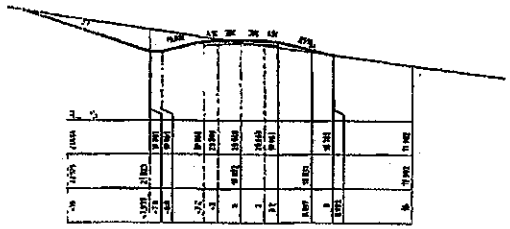


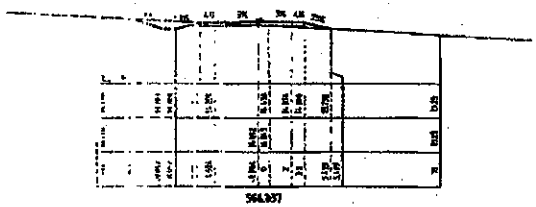


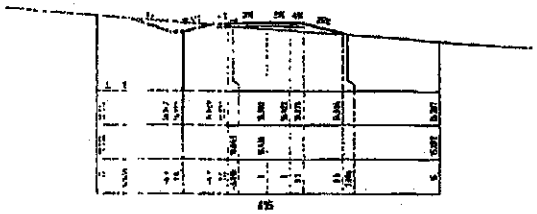


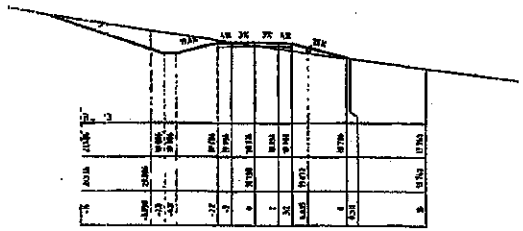


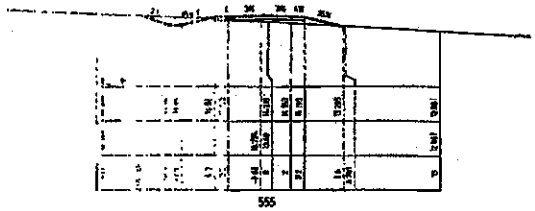


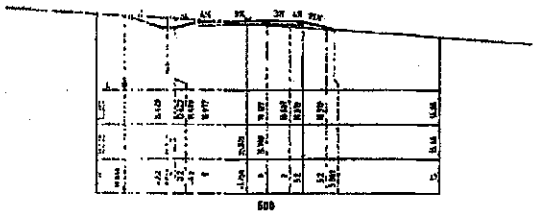


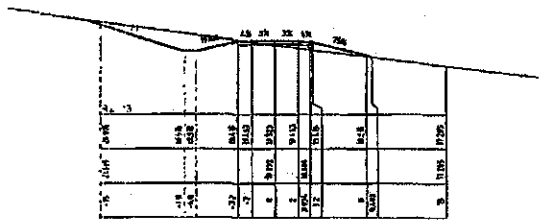












PROPOSED ROAD SECTIONS - CH 555.0 TO CH 705.0

TATTERSALL SURVEYORS

SCALE : 1:200

SHEET No. 19 of 20

JOB No. : 293/98

DATE : Revised 09/12/97/98

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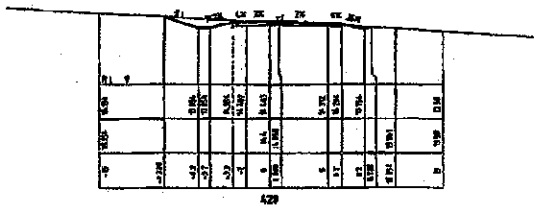

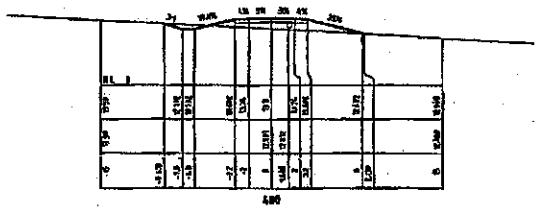

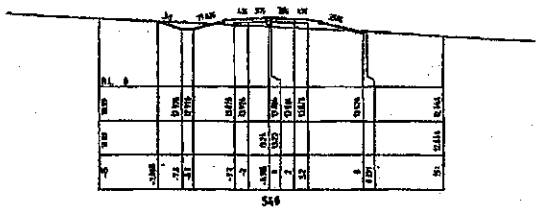

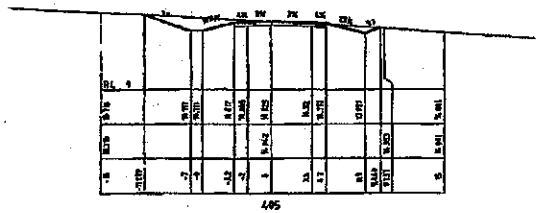

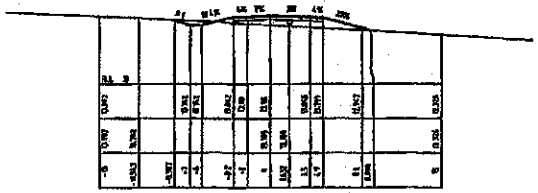

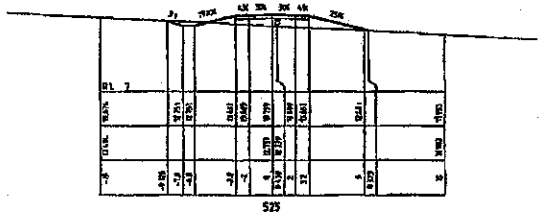

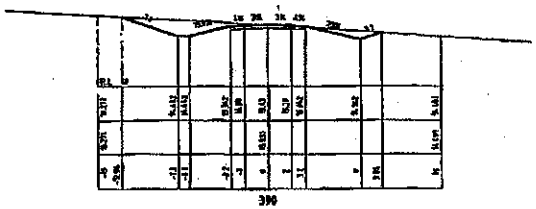

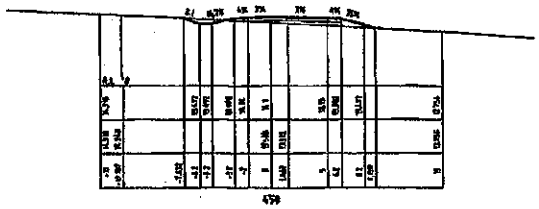

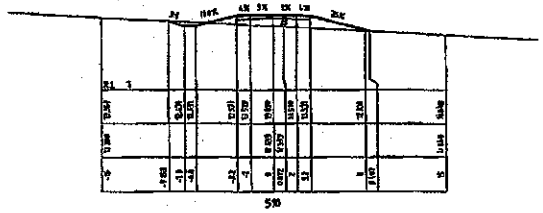

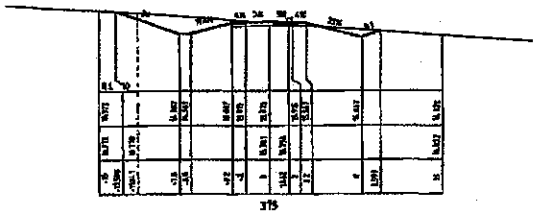

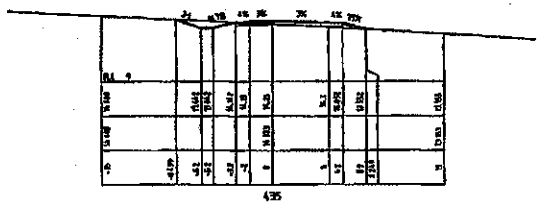

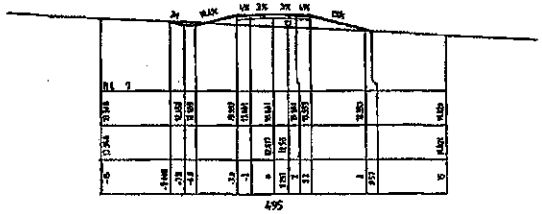

PROPOSED ROAD SECTIONS – CH 375.0 TO CH 540.0

REV	DETAILS OF CHANGE	DRAWN	CHECKED	DRAWN	CHECKED	APPROVED	DATE
1	Original Issue for Construction	RA	RA	RA	RA		7/09/01

TATTERSALL SURVEYORS

SCALE : 1:200

SHEET No. (1) of 23

JOB No. : 2034.99

FILE : 2034.99

DATE : Plotted at 8:41 5/11/04

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