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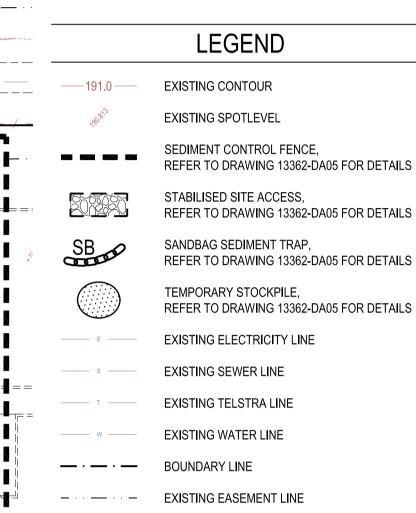
Sydney | Perth | Newcastle | Central Coast

5 Newton Street Broadmeadow NSW 2292 T: +61 2 49419900 E: mail@lindsaydynan.com.au

PROJECT

ABERDEEN VALLEY FAIR ABERDEEN NSW 2336

ENEF INVESTMENTS PTY LTD

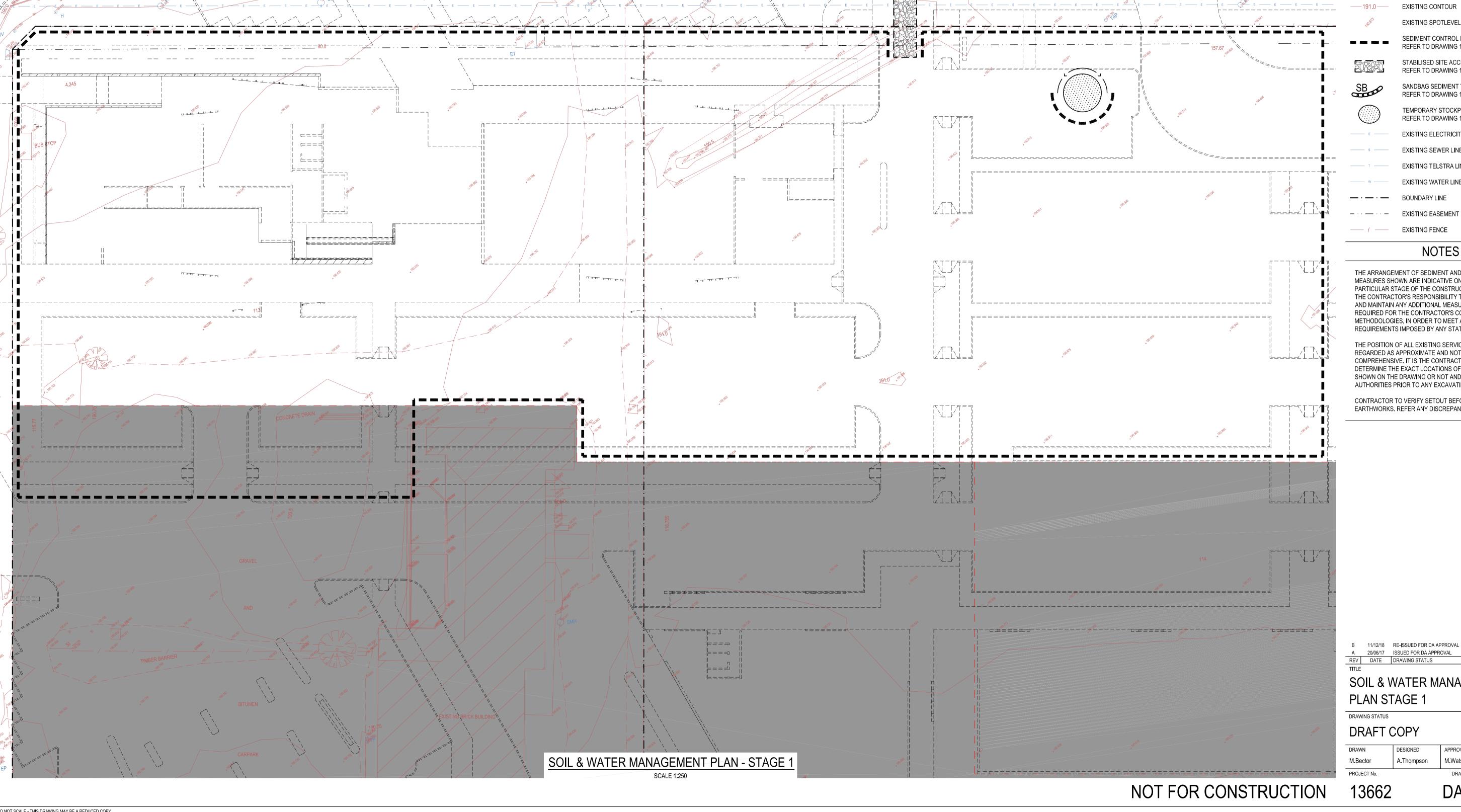


NOTES

EXISTING FENCE

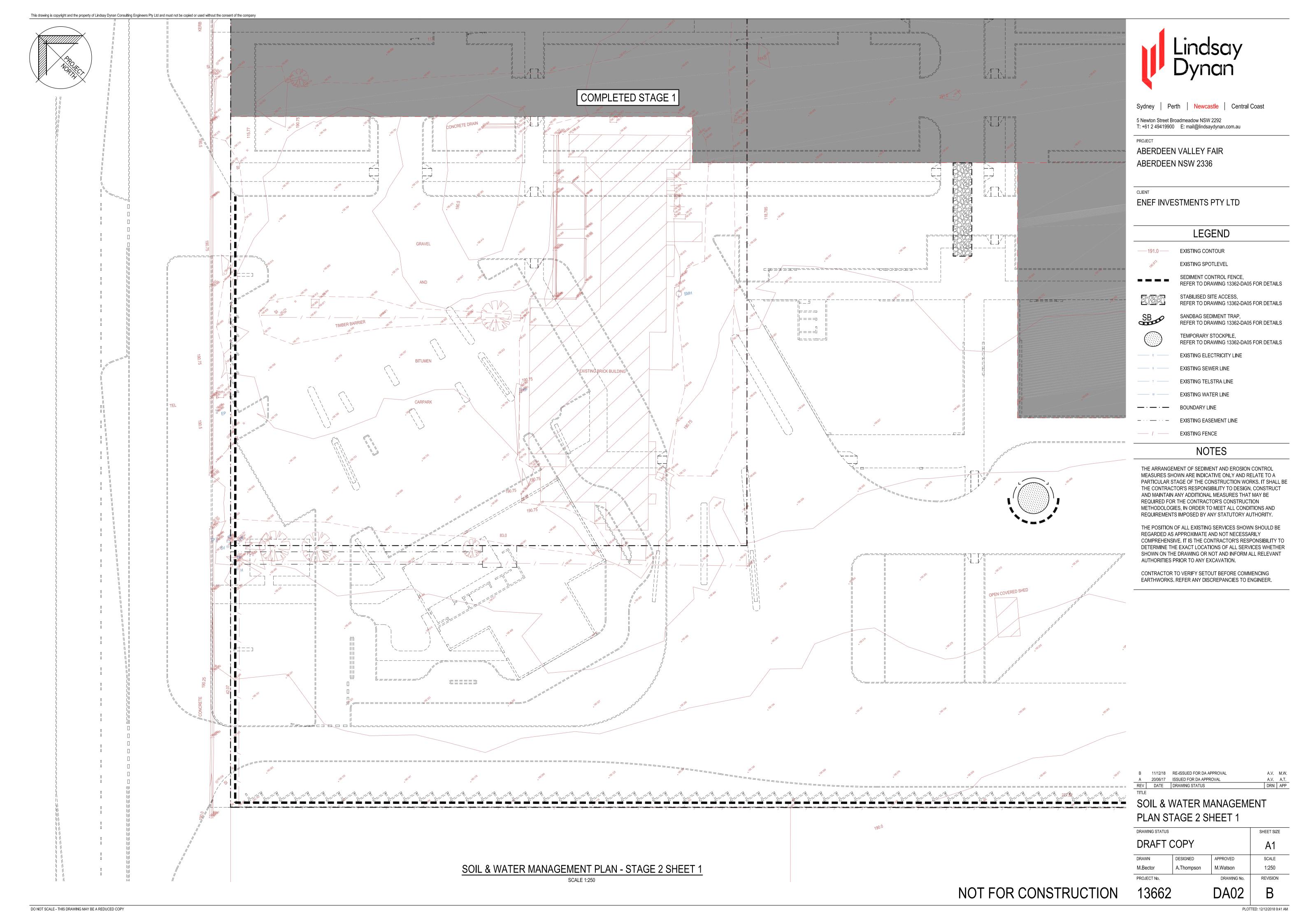
- THE ARRANGEMENT OF SEDIMENT AND EROSION CONTROL MEASURES SHOWN ARE INDICATIVE ONLY AND RELATE TO A PARTICULAR STAGE OF THE CONSTRUCTION WORKS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DESIGN, CONSTRUCT REQUIRED FOR THE CONTRACTOR'S CONSTRUCTION METHODOLOGIES, IN ORDER TO MEET ALL CONDITIONS AND
- REGARDED AS APPROXIMATE AND NOT NECESSARILY COMPREHENSIVE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE EXACT LOCATIONS OF ALL SERVICES WHETHER SHOWN ON THE DRAWING OR NOT AND INFORM ALL RELEVANT AUTHORITIES PRIOR TO ANY EXCAVATION.

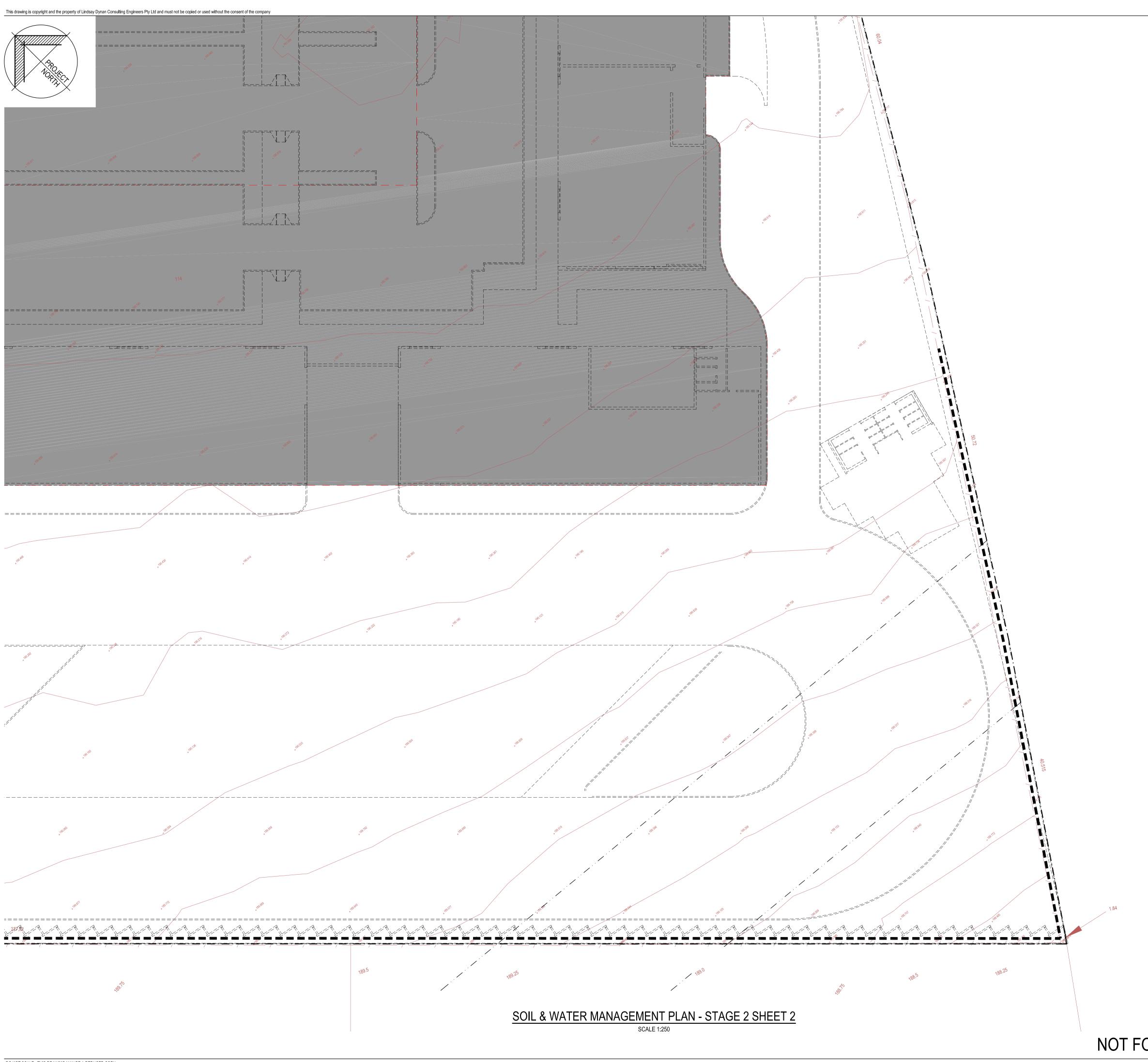
CONTRACTOR TO VERIFY SETOUT BEFORE COMMENCING EARTHWORKS. REFER ANY DISCREPANCIES TO ENGINEER.



DRAWING STATUS SHEET SIZE DRAFT COPY M.Bector A.Thompson M.Watson PROJECT No. DRAWING No. REVISION

DA01







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ROJECT

ABERDEEN VALLEY FAIR ABERDEEN NSW 2336

CLIENT

ENEF INVESTMENTS PTY LTD

LEGEND

——191.0— EXISTING CONTOUR

2/10/11/10 00/1/100/1

EXISTING SPOTLEVEL

SEDIMENT CONTROL FENCE,
REFER TO DRAWING 13362-DA05 FOR DETAILS

STABILISED SITE ACCESS,
REFER TO DRAWING 13362-DA05 FOR DETAILS

SANDBAG SEDIMENT TRAP,
REFER TO DRAWING 13362-DA05 FOR DETAILS

TEMPORARY STOCKPILE,

REFER TO DRAWING 13362-DA05 FOR DETAILS

EXISTING ELECTRICITY LINE

EXISTING SEWER LINE

EXISTING WATER LINE

EXISTING TELSTRA LINE

— · — · — BOUNDARY LINE

- · · · - EXISTING EASEMENT LINE

—— / —— EXISTING FENCE

NOTES

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 B
 11/12/18
 RE-ISSUED FOR DA APPROVAL

 A
 20/06/17
 ISSUED FOR DA APPROVAL

 REV
 DATE
 DRAWING STATUS

SOIL & WATER MANAGEMENT PLAN STAGE 2 SHEET 2

DRAFT COPY

DRAWN

DRAWN

DESIGNED

A1

DRAWN

SHEET SIZE

A1

M.Bector A.Thompson M.Watson

PROJECT No. DRAWING No.

NOT FOR CONSTRUCTION

PLOTTED: 12/12/2018 9:42 AM

1:250

REVISION

SOIL & WATER MANAGEMENT PLAN - STAGE 3

SCALE 1:250



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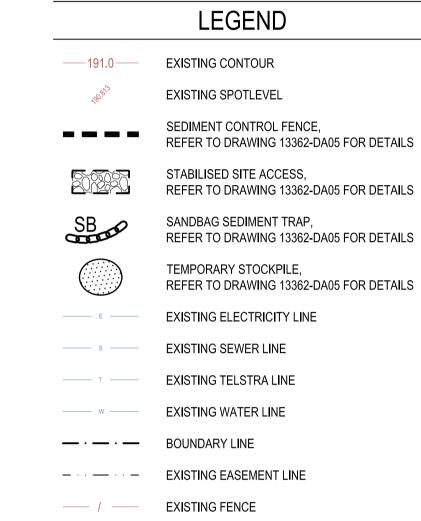
5 Newton Street Broadmeadow NSW 2292 T: +61 2 49419900 E: mail@lindsaydynan.com.au

ROJECT

ABERDEEN VALLEY FAIR ABERDEEN NSW 2336

CLIEN'

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NOTES

THE ARRANGEMENT OF SEDIMENT AND EROSION CONTROL MEASURES SHOWN ARE INDICATIVE ONLY AND RELATE TO A PARTICULAR STAGE OF THE CONSTRUCTION WORKS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DESIGN, CONSTRUCT AND MAINTAIN ANY ADDITIONAL MEASURES THAT MAY BE REQUIRED FOR THE CONTRACTOR'S CONSTRUCTION METHODOLOGIES, IN ORDER TO MEET ALL CONDITIONS AND REQUIREMENTS IMPOSED BY ANY STATUTORY AUTHORITY.

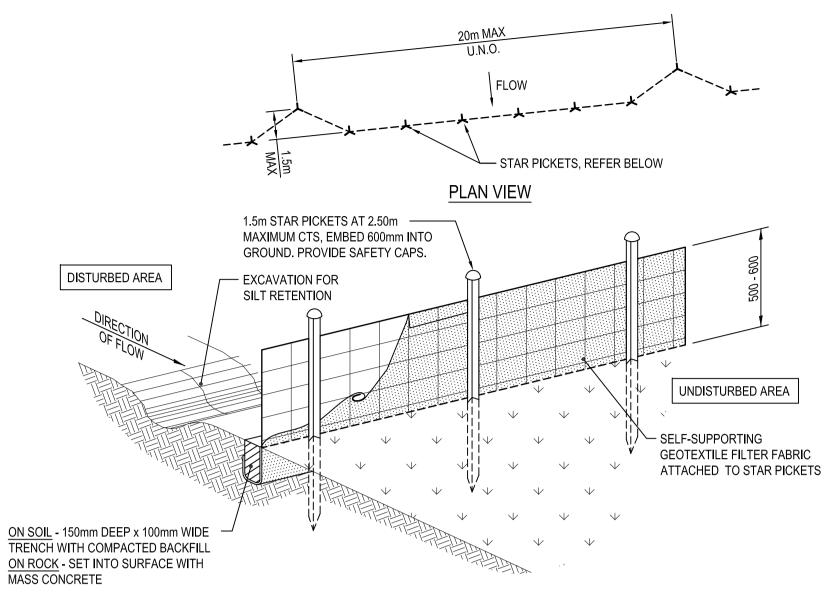
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REV	DATE	DRAWING STATUS	DRN	API
Α	20/06/17	ISSUED FOR DA APPROVAL	A.V.	A.T
В	11/12/18	RE-ISSUED FOR DA APPROVAL	A.V.	M.V

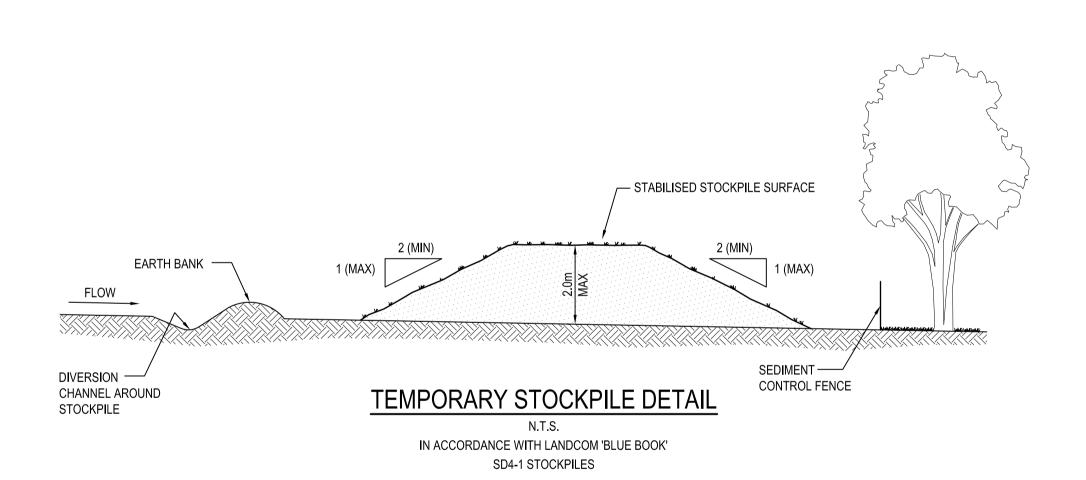
SOIL & WATER MANAGEMENT PLAN STAGE 3

DRAWING STATUS	SHEET SIZE		
DRAFT COPY			A1
DRAWN	DESIGNED	APPROVED	SCALE
M.Bector	A.Thompson	M.Watson	1:250
PROJECT No.		DRAWING No.	REVISION
13662		DA04	В

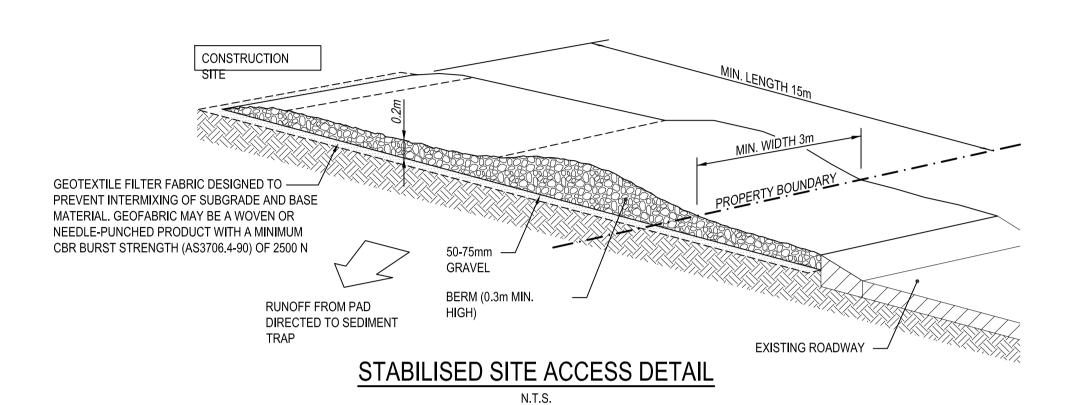


SEDIMENT CONTROL FENCE DETAIL

N.T.S. IN ACCORDANCE WITH LANDCOM 'BLUE BOOK' SD6-8 SEDIMENT FENCE

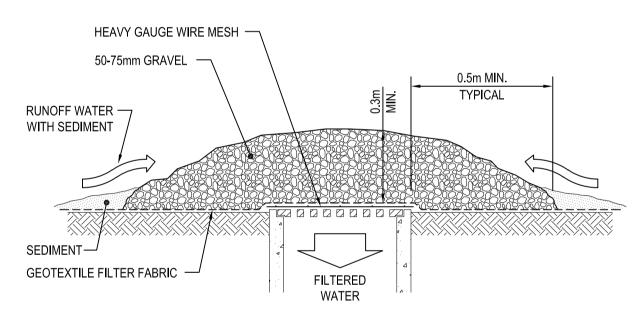


DO NOT SCALE - THIS DRAWING MAY BE A REDUCED COPY



IN ACCORDANCE WITH LANDCOM 'BLUE BOOK'

SD6-14 STABILISED SITE ACCESS



WIRE MESH AND GRAVEL DROP INLET PIT SEDIMENT TRAP DETAIL

SEDIMENT BASIN CALCULATION

THE SITE IS LOCATED IN THE DARTBROOK SOIL LANDSCAPE

 K-FACTOR OF 0.075* THREE (3) CATCHMENT AREAS WERE CONSIDERED TO DETERMINE IF SEDIMENT BASINS WERE REQUIRED TO TREAT SEDIMENT LADEN RUN OFF FROM THE SITES. THE AMOUNT OF POTENTIAL SOIL LOSS WAS CALCULATED BY APPLYING THE REVISED UNIVERSAL EQUATION (RUSLE) METHOD:

SOIL LOSS = RKLLSPC WHERE: R= RAINFALL EROSIVITY FACTOR = $164.74(1.1177)^S$ x S^{0.6444}

S = 2 YEAR, 6 HOUR STORM INTENSITY = 6.9mm/hr (ABERDEEN)

K = SOIL ERODIBILITY FACTOR = 0.075* LS = SLOPE LENGTH/GRADIENT FACTOR AS SHOWN BELOW

P = EROSION CONTROL PRACTISE (P-FACTOR) = 1.3 (TYPICAL)

C = GROUND COVER (C-FACTOR) = 1 (TYPICAL FOR STRIPPED SITE)

STAGE	SLOPE LENGTH	SLOPE GRADE	CATCHMENT AREA	LS FACTOR	SOIL LOSS	SOIL LOSS	SOIL LOSS	SEDIMENT BASIN REQUIRED**
1	90	0.5%	1.06 ha	0.20	24.0 t/yr/ha	18.5 m ³ /yr/ha	19.5 m ³ /yr	NO
2	140	1.7%	2.25 ha	0.52	62.5 t/yr/ha	41.8 m ³ /yr/ha	108.0 m ³ /yr	NO
3	87	2 1%	0.95 ha	0.41	49.3 t/vr/ha	37.9 m ³ /yr/ha	36.0 m ³ /vr	NO

* ASSUMED K FACTOR. TO BE CONFIRMED BY GEOTEC AT CC STAGE SEDIEMNT BASINS NOT REQIRED IF LESS THAN 150m³ OF SOIL LOSS PER YEAR

CONCEPT SUMMARY

THE PROPOSED WORKS AT ABERDEEN VALLEY FAIR, ABERDEEN INVOLVE;

DEMOLITION OF THE EXISTING SITE

 CONSTRUCTION OF: A TWO STORY RETAIL AND COMMERCIAL BUILDING, FOUR RETAIL/BULKY GOODS BUILDINGS AND A SERVICE CENTRE/FAST FOOD RESTAURANT.

CONSTRUCTION OF REQUIRED CAR PARKS AND ROADS

ASSOCIATED LANDSCAPING.

SITE STORMWATER DESIGN PHILOSOPHY

THE STORMWATER SYSTEM WAS DESIGN IN ACCORDANCE WITH THE UPPER HUNTER SHIRES DCP AND

IT IS PROPOSED THAT ALL STORMWATER WILL BE DIRECTED TO A SPEL STORMCHAMBER OSD SYSTEM (OR SIMILAR PROPRIETARY DEVICE) IN THE SOUTHERN CORNER OF THE SITE. THE STORMWATER WILL THEN BE DISCHARGED VIA A LEVEL SPREADER OVER THE BOUNDARY IN THE SOUTHERN CORNER, THIS HAS BEEN DESIGNED TO CONTROL UP TO AND INCLUDING THE 100 YEAR ARI STORM EVENT

MUSIC MODELLING WAS USED TO ENSURE THAT THE UPPER HUNTER SHIRE COUNCIL'S WATER QUALITY REQUIREMENTS WERE MET. THESE REQUIRE THAT THERE IS A MAXIMUM EVENT MEAN CONCENTRATION OF 100mg/L SEDIMENT, 500ug/L HYDROCARBONS, 1000ug/L TOTAL NITROGEN, 15ug/L AMMONIA AND 100ug/L PHOSPHORUS. TO MEET THESE REQUIREMENTS WATER FROM THE SITE WAS DIRECTED TO A SERIES OF BIO-RETENTION BASINS, SPEL STORMWATER TREATMENT DEVICES AND A GRASS SWALE ALONG THE SOUTH WESTERN BOUNDARY.

SITE DATA STAGE ONE: TOTAL SITE AREA $= 10020 \text{ m}^2$ NEW DEVELOPMENT AREA $= 10020 \text{ m}^2$ NEW ROOF AREA $= 2624 \text{ m}^2$ NEW IMPERVIOUS AREA $= 5497 \text{ m}^2$ NEW PERVIOUS AREA $= 1899 \text{ m}^2$ STAGE TWO: TOTAL SITE AREA $= 22392 \text{ m}^2$ NEW DEVELOPMENT AREA $= 22392 \text{ m}^2$ NEW ROOF AREA $= 2777 \text{ m}^2$ NEW IMPERVIOUS AREA $= 13593 \text{ m}^2$ NEW PERVIOUS AREA $= 6022 \text{ m}^2$ STAGE THREE: TOTAL SITE AREA $= 9405 \text{ m}^2$ NEW DEVELOPMENT AREA $= 9405 \text{ m}^2$ $= 3357 \text{ m}^2$ NEW ROOF AREA NEW IMPERVIOUS AREA $= 4088 \text{ m}^2$ NEW PERVIOUS AREA $= 1960 \text{ m}^2$

DRAINS WAS USED TO CALCULATE THE REQUIRED OSD VOLUMES FOR EACH STAGE. THE FOLLOWING

STAGE 1 $= 400 \text{ m}^3$ $= 900 \text{ m}^3$ STAGE 2 STAGE 3 $= 1200 \text{ m}^3$

NOT FOR CONSTRUCTION

B 11/12/18 RE-ISSUED FOR DA APPROVAL A.V. M.W. A 20/06/17 ISSUED FOR DA APPROVAL A.V. A.T. REV DATE DRAWING STATUS DRN APP

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5 Newton Street Broadmeadow NSW 2292

ABERDEEN VALLEY FAIR

ABERDEEN NSW 2336

PROJECT

T: +61 2 49419900 E: mail@lindsaydynan.com.au

ENEF INVESTMENTS PTY LTD

SOIL & WATER MANAGEMENT DETAILS

DRAWING STATUS			SHEET SIZE	
DRAFT (RAFT COPY			
DRAWN	DESIGNED	APPROVED	SCALE	
M.Bector	A.Thompson	M.Watson	N.T.S.	
PROJECT No.		DRAWING No.	REVISION	
13662		DA05	В	

PLOTTED: 12/12/2018 9:42 AM

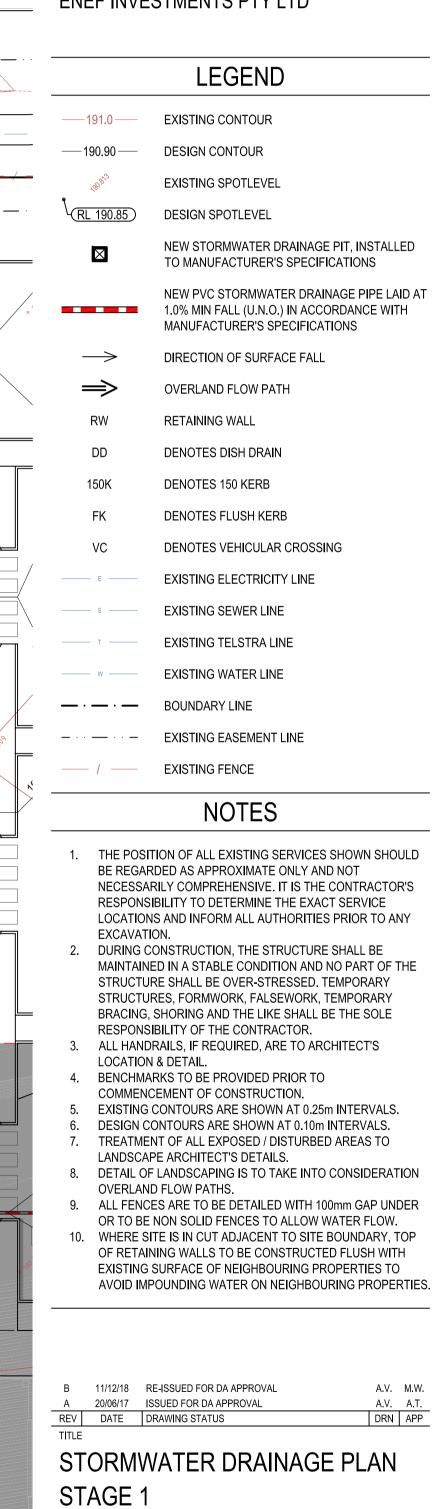




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ABERDEEN VALLEY FAIR **ABERDEEN NSW 2336**

ENEF INVESTMENTS PTY LTD



DESIGNED

A.Thompson

APPROVED

M.Watson

DRAWING No.

(RL 191.00) 🐉 K&G (RL 190.80) —(RL 190.75 (RL 190.60) (RL 190.39) (RL 190.39) RL 190.39 /(RL 190.80) RL 190.65 RL 190.80 (RL 190.61) (RL 190.39) (RL 190.54) RL 190.54 RL 190.64 - (RL-190.44) (RL 190.64) (RL 190.82) RL 190.70 (RL 190.65) -(RIL 191.08) RL 190.93 (RL 190.85) 20kL RWT RL 190.62 RL 190.90 RL 191.44 RL 190.89 (RL 190.90) RL 191.55 RL 190.90 (RL 191.55) RL 190.95 RL 190.95 (RL 190.60) RL 191.53 FFL 191.65 (RL 191.60) (RL 191.56) RL 191.53 FFL 191.00 (RL 191.60) (RL 191.60) (RL 191.60) (RL 191.54) (RL 191.55) (RL 191.53) FFL 191.00 (RL 191.60) RL 190.98 150KO RL 19077 (RL 190.55) RL 190.65 150KO SPEL STORMCEPTOR WATER — QUALITY DEVICE S.600/2900L RL 190.45 PROPOSED BIO-FILTRATION BASIN. TOTAL SURFACE AREA 150m² WITH 0.1m STORAGE DEPTH AND 20m² FILTER AREA RL 190.65 DRAWING STATUS DRAFT COPY DRAWN M.Bector STORMWATER DRAINAGE PLAN - STAGE 1 PROJECT No. NOT FOR CONSTRUCTION 13662

SHEET SIZE

Α1

SCALE

1:250

REVISION



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ABERDEEN VALLEY FAIR **ABERDEEN NSW 2336**

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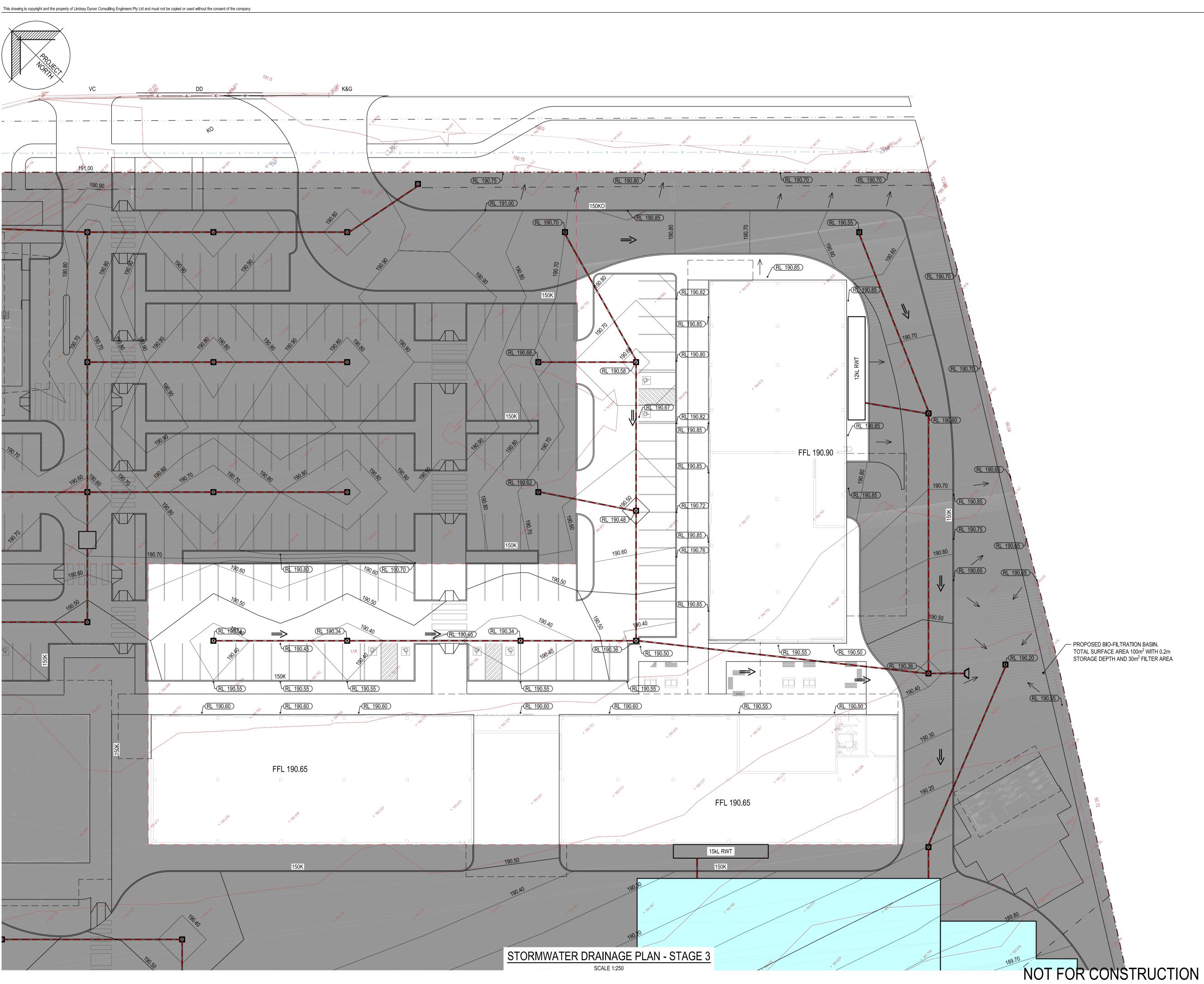
LEGEND					
——191.0—— EXISTING CONTOUR					
——190.90 ——	DESIGN CONTOUR				
180813	EXISTING SPOTLEVEL				
RL 190.85	DESIGN SPOTLEVEL				
×	NEW STORMWATER DRAINAGE PIT, INSTALLED TO MANUFACTURER'S SPECIFICATIONS				
	NEW PVC STORMWATER DRAINAGE PIPE LAID AT 1.0% MIN FALL (U.N.O.) IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS				
\rightarrow	DIRECTION OF SURFACE FALL				
\Longrightarrow	OVERLAND FLOW PATH				
RW	RETAINING WALL				
DD	DENOTES DISH DRAIN				
150K	DENOTES 150 KERB				
FK	DENOTES FLUSH KERB				
VC	DENOTES VEHICULAR CROSSING				
—— Е ——	EXISTING ELECTRICITY LINE				
s	EXISTING SEWER LINE				
— т —	EXISTING TELSTRA LINE				
w	EXISTING WATER LINE				
	BOUNDARY LINE				
-··-	EXISTING EASEMENT LINE				
/	EXISTING FENCE				
	NOTES				

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- 2. DURING CONSTRUCTION, THE STRUCTURE SHALL BE MAINTAINED IN A STABLE CONDITION AND NO PART OF THE STRUCTURE SHALL BE OVER-STRESSED. TEMPORARY STRUCTURES, FORMWORK, FALSEWORK, TEMPORARY BRACING, SHORING AND THE LIKE SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
- 3. ALL HANDRAILS, IF REQUIRED, ARE TO ARCHITECT'S LOCATION & DETAIL.
- 4. BENCHMARKS TO BE PROVIDED PRIOR TO
- COMMENCEMENT OF CONSTRUCTION.
 - 5. EXISTING CONTOURS ARE SHOWN AT 0.25m INTERVALS. 6. DESIGN CONTOURS ARE SHOWN AT 0.10m INTERVALS.
 - 7. TREATMENT OF ALL EXPOSED / DISTURBED AREAS TO LANDSCAPE ARCHITECT'S DETAILS.
 - 8. DETAIL OF LANDSCAPING IS TO TAKE INTO CONSIDERATION OVERLAND FLOW PATHS.
 - 9. ALL FENCES ARE TO BE DETAILED WITH 100mm GAP UNDER
 - OR TO BE NON SOLID FENCES TO ALLOW WATER FLOW.
 - 10. WHERE SITE IS IN CUT ADJACENT TO SITE BOUNDARY, TOP OF RETAINING WALLS TO BE CONSTRUCTED FLUSH WITH EXISTING SURFACE OF NEIGHBOURING PROPERTIES TO AVOID IMPOUNDING WATER ON NEIGHBOURING PROPERTIES.

В	11/12/18	RE-ISSUED FOR DA APPROVAL	A.V.	M.W.
Α	20/06/17	ISSUED FOR DA APPROVAL	A.V.	A.T.
REV	DATE	DRAWING STATUS	DRN	APP
TITLE				

STORMWATER DRAINAGE PLAN STAGE 2 SHEET 2

DRAWING STATUS			SHEET SIZE
DRAFT COPY			A1
DRAWN	DESIGNED	APPROVED	SCALE
M.Bector	A.Thompson	M.Watson	1:250
PROJECT No.	1	DRAWING No.	REVISION
13662) -	DA08	В





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LEGEND			
191.0 <i></i>	EXISTING CONTOUR		
——190.90 ——	DESIGN CONTOUR		
1808,00	EXISTING SPOTLEVEL		
RL 190.85	DESIGN SPOTLEVEL		
×	NEW STORMWATER DRAINAGE PIT, INSTALLED TO MANUFACTURER'S SPECIFICATIONS		
	NEW PVC STORMWATER DRAINAGE PIPE LAID AT 1.0% MIN FALL (U.N.O.) IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS		
\rightarrow	DIRECTION OF SURFACE FALL		
\Longrightarrow	OVERLAND FLOW PATH		
RW	RETAINING WALL		
DD	DENOTES DISH DRAIN		
150K	DENOTES 150 KERB		
FK	DENOTES FLUSH KERB		
VC	DENOTES VEHICULAR CROSSING		

NOTES

EXISTING ELECTRICITY LINE

EXISTING SEWER LINE

EXISTING TELSTRA LINE

EXISTING WATER LINE

— · — · — BOUNDARY LINE

— · · · — EXISTING EASEMENT LINE

EXISTING FENCE

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	Α	20/06/17	ISSUED FOR DA APPROVAL	A.V.	A.T.
Ī	REV	DATE	DRAWING STATUS	DRN	APP
•	TITLE				

STORMWATER DRAINAGE PLAN STAGE 3

DRAWING STATUS	SHEET SIZE		
DRAFT COPY			A1
DRAWN	DESIGNED	APPROVED	SCALE
M.Bector	A.Thompson	M.Watson	1:250
PROJECT No.		DRAWING No.	REVISION
13662		DA09	В