DRAWINGS

235000 235500 236000 236500

809000

808500

808000

N

I2
I3b
I3a
I4
I1a
I1b
A
B
C
D
E
F
G
H
I
J
K
L
M
EXISTING SUBSTATION
PROPOSED LT94
EXISTING SGT4
PROPOSED LT92
FILTER DRAIN AND SOAKAWAY TO DISCHARGE FLOW FROM I4
AUCHTERAW BURN DISCHARGES TO RIVER OICH
DOWNSTREAM 1D NETWORK BOUNDARY AT TRACK CULVERTS REPRESENTED BY RATING CURVE
Auchteraw Burn
Sheepfold
Lundie Cottage
Talamh Carraig
Auchteraw Hostel
Auchteraw House
Torr Sionnaich
Whinhill
Forestry Nurs
Waterfalls
Drain
Weir
Path
FB
River
Track
0 50 100 150 200
Metres

NOTES

1. CONTOURS GENERATED FROM GETMAPPING 5m AP DERIVED DTM INTEGRATED WITH SLR TOPO SURVEY.

LEGEND

- SSE LAND OWNERSHIP BOUNDARY
- EXISTING PLATFORM BOUNDARY
- SGT4 PLATFORM EXTENT
- PROPOSED LT92 PLATFORM EXTENT
- PROPOSED LT94 PLATFORM EXTENT
- CULVERT + ID
- WATERCOURSE 1 - AUCHTERAW BURN
- WATERCOURSE 2 - ALLT NA FEARNA
- WATERCOURSE 3 - MINOR WATERCOURSE (ENGINEERED)
- WATERCOURSE 4 - MINOR WATERCOURSE (ENGINEERED)
- MODEL INFLOW LOCATION + ID
- UPSTREAM MODEL BOUNDARY LOCATION
- DOWNSTREAM MODEL BOUNDARY LOCATION
- WATERCOURSES RELEVANT TO STUDY (NOT MODELLED)
- SITE BUILDING
- 1m CONTOUR

SSE

SLR
4/5 LOCHSIDE VIEW
EDINBURGH PARK
EDINBURGH
EH12 9DH
T: +44 (0)131 335 6830
www.slrconsulting.com

FORT AUGUSTUS FRA

HYDRAULIC MODELLING REPORT

BASELINE MODEL NETWORK OVERVIEW

APP-B-1

Scale 1:5,000 @ A3

Date NOVEMBER 2017

00660.00047.18.APP-B-1.0 Baseline Model Overview

Contains Ordnance Survey data © Crown copyright and database rights (2017) 0100031673 Expires 14/11/2018

© This drawing and its content are the copyright of SLR Consulting Ltd and may not be reproduced or amended except by prior written permission. SLR Consulting Ltd accepts no liability for any amendments made by other persons.

235000 235500 236000 236500

809000

808500

808000

SECTION OF WATERCOURSE RE-PROFILED AND UPSIZED BETWEEN CULVERTS M AND D (REFER TO DRAWING NO APP-B-3 FOR DETAILS)

CULVERT M REPLACED WITH BOX CULVERT: DIMENSIONS = 3.36m(w) x 1.2m(h)

NEW CULVERT D (BOX CULVERT) DIMENSIONS = 4.5m(w) x 1.5m(h)

EXISTING CULVERT L RETAINED FOR MODEL BUT MAY NEED REPLACED

WATERCOURSE UPSIZED TO EFFECTIVELY INTERCEPT HILLSIDE RUNOFF (BETWEEN I3 AND CULVERT L)

10m STANDOFF FROM L94 PLATFORM TO DIVERTED WATERCOURSE 3. STANDOFF DISTANCE LIKELY TO BE INCREASED TO 15-20m

NEW WATERCOURSE 3 DIVERSION ROUTE (INITIAL DESIGN), REFER TO DRAWING NO APP-B-3 FOR DETAILS

NEW INTERCEPTION DRAIN WATERCOURSE (REFER TO DRAWING NO. APP-B-3 FOR DETAILS)

STEPPED PLATFORM ELEVATIONS

PROPOSED LT94

EXISTING SUBSTATION

EXISTING SGT4

PROPOSED LT92

STEPPED PLATFORM ELEVATIONS

EXISTING WATERCOURSE 3 TO BE DIVERTED TO ACCOMMODATE LT94 PLATFORM

AUCHTERAW BURN DISCHARGES TO RIVER OICH

DOWNSTREAM 1D NETWORK BOUNDARY AT TRACK CULVERTS REPRESENTED BY RATING CURVE

I1a I1b I2 I3 I4 J L M (NEW) D (NEW)

Waterfall Drain Sheepfold Path FB Forestry Nurs Lundie Cottage Talamh Carraig Auchteraw Hostel Tom Sionnaich Whinhill Auchteraw House Auchteraw Burn Track El Sub Sta

0 50 100 150 200 Metres

N

NOTES

1. CONTOURS GENERATED FROM GETMAPPING 5m AP DERIVED DTM INTEGRATED WITH SLR TOPO SURVEY.

2. LAYOUT AND DETAILS OF PROPOSED WATERCOURSE DIVERSIONS AND NEW WATERCOURSE ARE CONSIDERED INITIAL DESIGN AND SUBJECT TO REFINEMENT AT THE POST PLANNING STAGE.

LEGEND

- SSE LAND OWNERSHIP BOUNDARY
- EXISTING PLATFORM BOUNDARY
- SGT4 PLATFORM EXTENT
- PROPOSED LT92 PLATFORM EXTENT
- PROPOSED LT94 PLATFORM EXTENT
- CULVERT + ID
- WATERCOURSES RELEVANT TO STUDY (NOT MODELLED)
- WATERCOURSE 1 - AUCHTERAW BURN (UNCHANGED)
- WATERCOURSE 2 - ALLT NA FEARNA (UNCHANGED)
- WATERCOURSE 3 - REVISED DESIGN
- WATERCOURSE 4 - NEW INTERCEPTION DRAIN
- SITE BUILDING
- MODEL INFLOW LOCATION + ID
- UPSTREAM MODEL BOUNDARY LOCATION
- 1D DOWNSTREAM MODEL BOUNDARY LOCATION
- 1m CONTOUR

SSE

SLR
4/5 LOCHSIDE VIEW
EDINBURGH PARK
EDINBURGH
EH12 9DH
T: +44 (0)131 335 6830
www.slrconsulting.com

FORT AUGUSTUS

HYDRAULIC MODELLING REPORT

DEVELOPMENT MODEL NETWORK OVERVIEW

APP-B-2

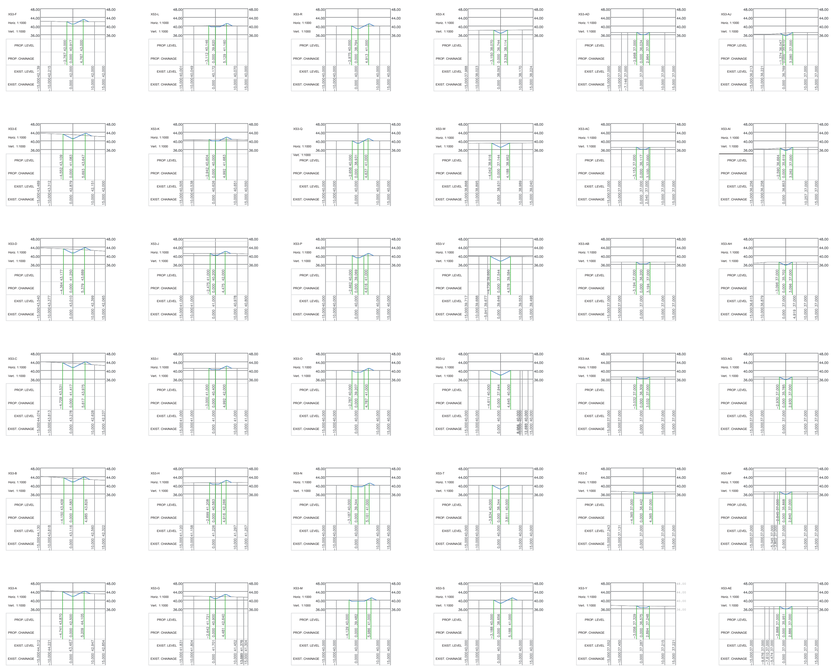
Scale 1:5,000 @ A3

Date NOVEMBER 2017

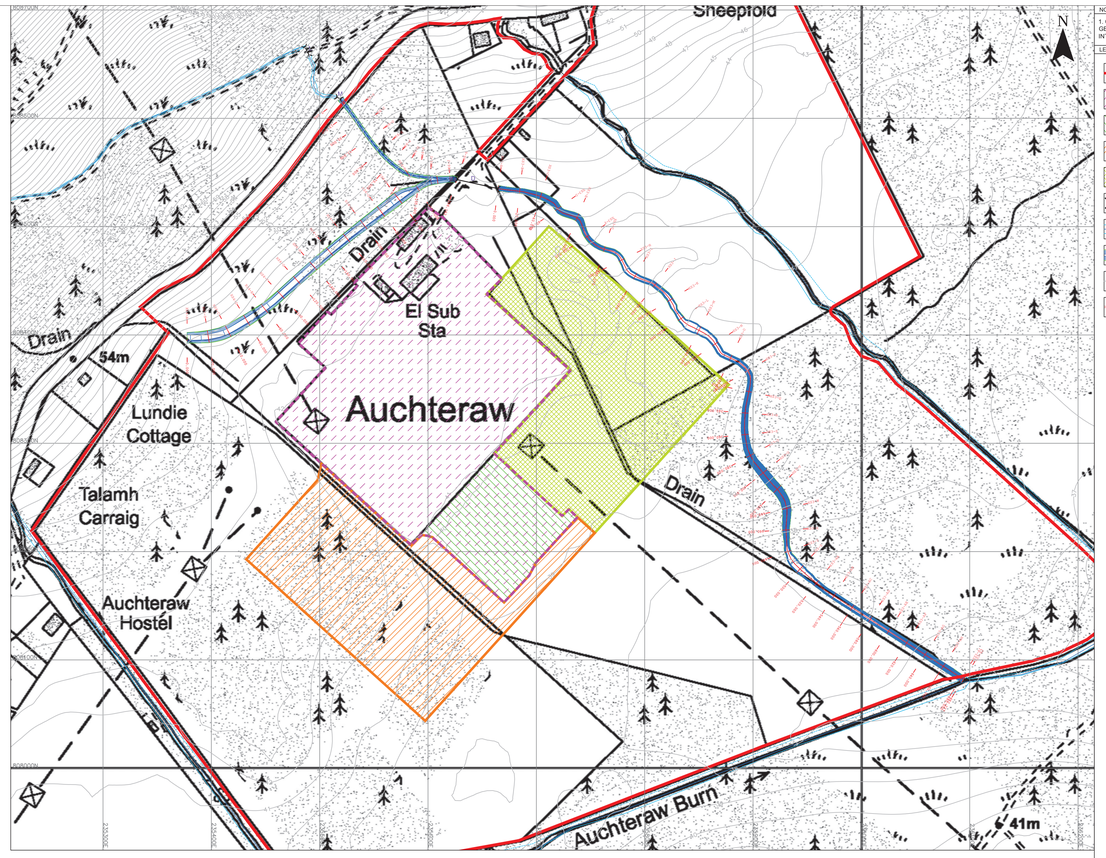
00660.00047.18.App-B-2.1 Development Model Overview

Contains Ordnance Survey data © Crown copyright and database rights (2017) 0100031673 Expires 14/11/2018

© This drawing and its content are the copyright of SLR Consulting Ltd and may not be reproduced or amended except by prior written permission. SLR Consulting Ltd accepts no liability for any amendments made by other persons.



WATERCOURSE 3 SECTION DETAILS



NOTES

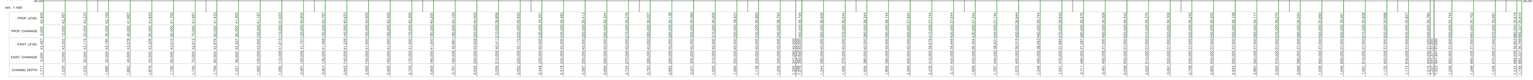
1. CONTOURS GENERATED FROM GETMAPPING 5m AP DERIVED DTM INTEGRATED WITH SLR TOPO SURVEY.

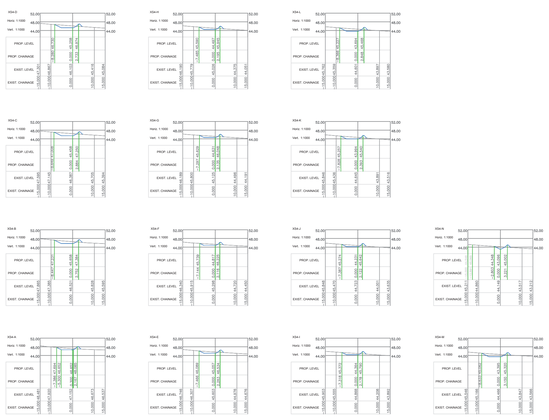
LEGEND

- SSE LAND OWNERSHIP BOUNDARY
- EXISTING PLATFORM BOUNDARY
- SGT4 PLATFORM EXTENT
- PROPOSED LT92 PLATFORM EXTENT
- PROPOSED LT94 PLATFORM EXTENT
- CULVERT + ID
- EXISTING MODELLED 1D WATERCOURSE NETWORK
- PROPOSED NEW 1D WATERCOURSE NETWORK
- 1m CONTOUR
- CROSS SECTION ID AND CHAINAGE

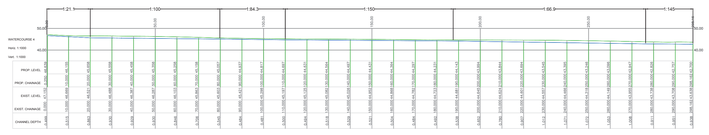
WATERCOURSE LOCATIONS

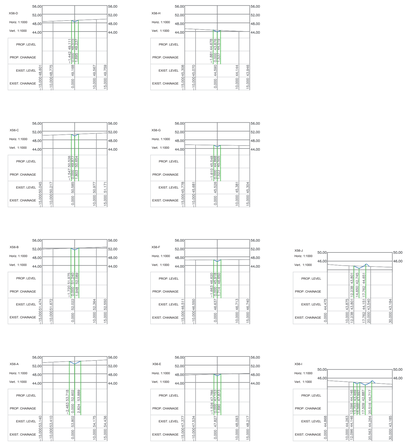
1:2000



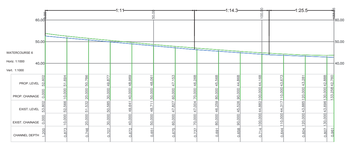


WATERCOURSE 4 SECTION DETAILS





WATERCOURSE 6 SECTION DETAILS



SLR
SLR Environmental Consulting
4/5 LOCHRIDE VIEW
EDINBURGH PARK
EDINBURGH
EH12 9DH
T: +44 (0)131 335 6830
www.slrconsulting.com

FORT AUGUSTUS FRA

HYDRAULIC MODELLING REPORT

NEW WATERCOURSE SECTION DETAILS

APP-B-4

Scale	Date
AS SHOWN @ A0	NOVEMBER 2017

© Crown copyright [and database rights] 2015 0100031673 Expires 15/11/18

© This drawing and its content are the copyright of SLR Consulting Ltd and may not be reproduced or amended except by prior written permission. SLR Consulting Ltd accepts no liability for any amendments made by other persons.

235500 236000 236500

809000

808500

808000

PEAK OUTFLOW AT 2D DOWNSTREAM BOUNDARY = 46.1m³/s

MODEL 1D DOWNSTREAM BOUNDARY AT TRACK CULVERTS

PEAK OUTFLOW AT 1D DOWNSTREAM BOUNDARY = 6.03m³/s (CULVERT CAPACITY)

MODEL 2D DOWNSTREAM BOUNDARY AT 26mAOD CONTOUR WHICH IS THE THRESHOLD FOR THE 1:1000 YEAR FLOODPLAIN EXTENT ON SEPA FLOOD MAP

Waterfall
Sheepfold
Forestry Nurseries
Picnic Area
Drain
Talamh Carraig
Whinhill
Allt Eileraw Burn
Eileanfada
CALEDONIAN CANAL
RIVER OICH

0 50 100 150 200
Metres

NOTES

1. CONTOURS GENERATED FROM GETMAPPING 5m AP DERIVED DTM INTEGRATED WITH SLR TOPO SURVEY.

LEGEND

- SSE LAND OWNERSHIP BOUNDARY
- EXISTING PLATFORM BOUNDARY
- SGT4 PLATFORM EXTENT
- PROPOSED LT92 PLATFORM EXTENT
- PROPOSED LT94 PLATFORM EXTENT
- EXISTING MODELLED 1D WATERCOURSE NETWORK
- CULVERT + ID
- SITE BUILDING
- 1D DOWNSTREAM MODEL BOUNDARY LOCATION
- MODEL 2D DOWNSTREAM BOUNDARY
- 1m CONTOUR

FLOOD DEPTH (m) FOR 200YR FLOOD EVENT

< 0.005 not displayed (water depth lost to natural processes)	0.5 - 1
0.005 - 0.05	1 - 1.5
0.05 - 0.1	1.5 - 2
0.1 - 0.15	2 - 2.5
0.15 - 0.2	2.5 - 3
0.2 - 0.25	3 - 3.5
0.25 - 0.5	3.5 - 4
	4 - 4.5

SSE

SLR
4/5 LOCHSIDE VIEW
EDINBURGH PARK
EDINBURGH
EH12 9DH
T: +44 (0)131 335 6830
www.slrconsulting.com

FORT AUGUSTUS FRA

HYDRAULIC MODELLING REPORT

BASELINE MODEL OUTPUTS 1:200 YEAR EVENT

APP-B-4a

Scale 1:5,000 @ A3

Date NOVEMBER 2017

00660.00047.18.APP-B-4a.0 Baseline Model Outputs 200

Contains Ordnance Survey data © Crown copyright and database rights (2017) 0100031673 Expires 14/11/2018

© This drawing and its content are the copyright of SLR Consulting Ltd and may not be reproduced or amended except by prior written permission. SLR Consulting Ltd accepts no liability for any amendments made by other persons.

235500 236000 236500

809000 808500

PEAK OUTFLOW AT 2D DOWNSTREAM BOUNDARY = 57.96m³/s

MODEL 1D DOWNSTREAM BOUNDARY AT TRACK CULVERTS

PEAK OUTFLOW AT 1D DOWNSTREAM BOUNDARY = 6.03m³/s (CULVERT CAPACITY)

MODEL 2D DOWNSTREAM BOUNDARY AT 26mAOD CONTOUR WHICH IS THE THRESHOLD FOR THE 1:1000 YEAR FLOODPLAIN EXTENT ON SEPA FLOOD MAP

A B C D E F G H I J K L M

Waterfall
Sheepfold
Forestry Nurseries
Picnic Area
Talamh Carraig
Whinhill
Drain
RIVER OICH
CALEDONIAN CANAL
Eilean Fada
41m
44m
48m

0 50 100 150 200
Metres

NOTES

1. CONTOURS GENERATED FROM GETMAPPING 5m AP DERIVED DTM INTEGRATED WITH SLR TOPO SURVEY.

LEGEND

- SSE LAND OWNERSHIP BOUNDARY
- EXISTING PLATFORM BOUNDARY
- SGT4 PLATFORM EXTENT
- PROPOSED LT92 PLATFORM EXTENT
- PROPOSED LT94 PLATFORM EXTENT
- EXISTING MODELLED 1D WATERCOURSE NETWORK
- CULVERT + ID
- SITE BUILDING
- 1D DOWNSTREAM MODEL BOUNDARY LOCATION
- MODEL 2D DOWNSTREAM BOUNDARY
- 1m CONTOUR

FLOOD DEPTH (m) FOR 200YR + 20% CC FLOOD EVENT

- < 0.005 not displayed (water depth lost to natural processes)
- 0.005 - 0.05
- 0.05 - 0.1
- 0.1 - 0.15
- 0.15 - 0.2
- 0.2 - 0.25
- 0.25 - 0.5
- 0.5 - 1
- 1 - 1.5
- 1.5 - 2
- 2 - 2.5
- 2.5 - 3
- 3 - 3.5
- 3.5 - 4
- 4 - 4.5

SSE

SLR
4/5 LOCHSIDE VIEW
EDINBURGH PARK
EDINBURGH
EH12 9DH
T: +44 (0)131 335 6830
www.slrconsulting.com

FORT AUGUSTUS FRA

HYDRAULIC MODELLING REPORT

BASELINE MODEL OUTPUTS 1:200 + 20% CC YEAR EVENT

APP-B-4b

Scale 1:5,000 @ A3

Date NOVEMBER 2017

00660.00047.18.APP-B-4b.0 Baseline Model Outputs 200 CC

Contains Ordnance Survey data © Crown copyright and database rights (2017) 0100031673 Expires 14/11/2018

© This drawing and its content are the copyright of SLR Consulting Ltd and may not be reproduced or amended except by prior written permission. SLR Consulting Ltd accepts no liability for any amendments made by other persons.