

Notes:

1. FOR INFORMATION PURPOSES ONLY.
2. BOUNDARIES, CONTOURS AND OTHER BASE INFORMATION SHOWN IS INDICATIVE ONLY AND PRIMARILY INFORMED BY AERIAL LIDAR SURVEY BY SYNERGY POSITIONING SYSTEMS LTD IN APRIL 2016.
3. COORDINATES SHOWN ARE IN TERMS OF MT EDEN 2000 CIRCUIT AND LEVELS ARE RELATIVE TO THE AUCKLAND 1946 VERTICAL DATUM.
4. THE PROPOSED ROAD ALIGNMENT, TURBINE PLATFORMS, AND OVERALL EARTHWORKS ARE BASED ON AN INDICATIVE ROAD ALIGNMENT AND REMAIN SUBJECT TO DETAILED DESIGN.
5. VOLUME ESTIMATES BASED ON COMPARISON OF EXISTING & PROPOSED SURFACE LEVELS & DO NOT ACCOUNT FOR SUBGRADE CUT, BULKING OR COMPACTION FACTORS. OVERALL AREA & VOLUME ESTIMATES INCLUDE 20% CONTINGENCY FOR ADDITIONAL EARTHWORKS IF NECESSARY THROUGH DETAILED DESIGN.

LEGEND

- EXISTING PARCEL BOUNDARY
- JACKSON PROPERTY BOUNDARY
- ROTOKOHU FARMS PROPERTY BOUNDARY
- DENIZE BROTHERS PROPERTY BOUNDARY
- HDC/MPDC TERRITORIAL BOUNDARY
- EXISTING MAJOR CONTOUR
- EXISTING MINOR CONTOUR
- PROPOSED MAJOR CONTOUR
- PROPOSED MINOR CONTOUR
- EXTENT OF EARTHWORK
- PROPOSED TURBINE LOCATION
- EXISTING TRANSPOWER NATIONAL GRID LINES
- PROPOSED ROAD CENTER LINE AND EDGE OF CARRIAGEWAY
- EXISTING FENCE
- INDICATIVE QUARRY SITE
- INDICATIVE CLEANFILL SITE
- EXISTING CULVERT
- PROPOSED UPGRADED CULVERT
- STREAM (WRC REGIONAL MAP)
- EXISTING SLOPE TRIANGLE GREATER THAN 25°

A | ADDITIONAL PLAN FOR S92 RESPONSE | LT | 16.10.18

REV: DESCRIPTION: BY: DATE:
 STATUS: **RESOURCE CONSENT**

TEKTUS Consultants Ltd
 PO Box 80212 Green Bay
 Auckland 0643 NZ
 p. 09 827 1191
 m. 021 1434 874
 www.tektus.nz

CLIENT:
 VENTUS ENERGY (NZ) LTD
 10/215 ROSEDALE ROAD, ALBANY
 AUCKLAND 0632

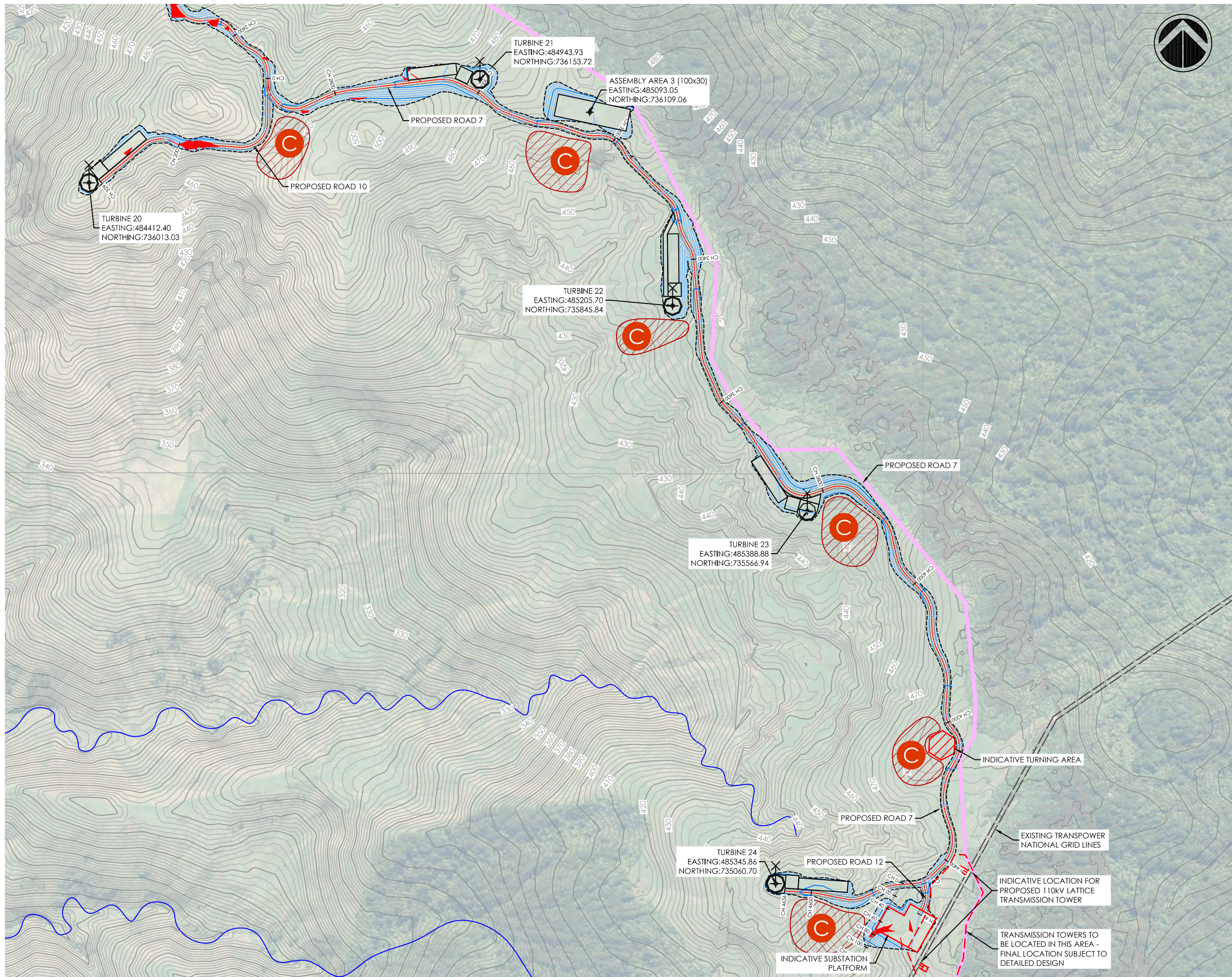
SURVEYOR:
 SYNERGY POSITIONING SYSTEMS LTD
 3/52 ARRENWAY DRIVE, ALBANY,
 AUCKLAND 0632

SITE:
 KAIMAI WIND FARM
 ROTOKOHU ROAD, PAEROA

TITLE:
 PRELIMINARY CIVIL ENGINEERING
 DRAWINGS

SUBTITLE:
 EROSION AND SEDIMENT CONTROL
 OVERVIEW DETAIL PLAN SHEET 5

SCALE AT A3: 1:5000	DATE: 16.10.18	DRAWN: LT	CHECKED: JT
PROJECT NO: T15022	DRAWING NO: 250-5	REVISION: A	



Notes:

1. FOR INFORMATION PURPOSES ONLY.
2. BOUNDARIES, CONTOURS AND OTHER BASE INFORMATION SHOWN IS INDICATIVE ONLY AND PRIMARILY INFORMED BY AERIAL LIDAR SURVEY BY SYNERGY POSITIONING SYSTEMS LTD IN APRIL 2016.
3. COORDINATES SHOWN ARE IN TERMS OF MT EDEN 2000 CIRCUIT AND LEVELS ARE RELATIVE TO THE AUCKLAND 1946 VERTICAL DATUM.
4. THE PROPOSED ROAD ALIGNMENT, TURBINE PLATFORMS, AND OVERALL EARTHWORKS ARE BASED ON AN INDICATIVE ROAD ALIGNMENT AND REMAIN SUBJECT TO DETAILED DESIGN.
5. VOLUME ESTIMATES BASED ON COMPARISON OF EXISTING & PROPOSED SURFACE LEVELS & DO NOT ACCOUNT FOR SUBGRADE CUT, BULKING OR COMPACTION FACTORS. OVERALL AREA & VOLUME ESTIMATES INCLUDE 20% CONTINGENCY FOR ADDITIONAL EARTHWORKS IF NECESSARY THROUGH DETAILED DESIGN.

LEGEND

- EXISTING PARCEL BOUNDARY
- JACKSON PROPERTY BOUNDARY
- ROTOKOHU FARMS PROPERTY BOUNDARY
- DENIZE BROTHERS PROPERTY BOUNDARY
- HDC/MPDC TERRITORIAL BOUNDARY
- EXISTING MAJOR CONTOUR
- EXISTING MINOR CONTOUR
- PROPOSED MAJOR CONTOUR
- PROPOSED MINOR CONTOUR
- - - EXTENT OF EARTHWORK
- ⊕ PROPOSED TURBINE LOCATION
- EXISTING TRANSPOWER NATIONAL GRID LINES
- PROPOSED ROAD CENTER LINE AND EDGE OF CARRIAGEWAY
- EXISTING FENCE
- ⊕ INDICATIVE QUARRY SITE
- ⊕ INDICATIVE CLEANFILL SITE
- EXISTING CULVERT
- PROPOSED UPGRADED CULVERT
- STREAM (WRC REGIONAL MAP)
- ▲ EXISTING SLOPE TRIANGLE GREATER THAN 25°

A | ADDITIONAL PLAN FOR S92 RESPONSE | LT | 16.10.18

REV: DESCRIPTION: BY: DATE:
STATUS: **RESOURCE CONSENT**

TEKTUS Consultants Ltd
PO Box 80212 Green Bay
Auckland 0643 NZ
p. 09 827 1191
m. 021 1434 874
www.tektus.nz

CLIENT: VENTUS ENERGY (NZ) LTD
10/215 ROSEDALE ROAD, ALBANY
AUCKLAND 0632

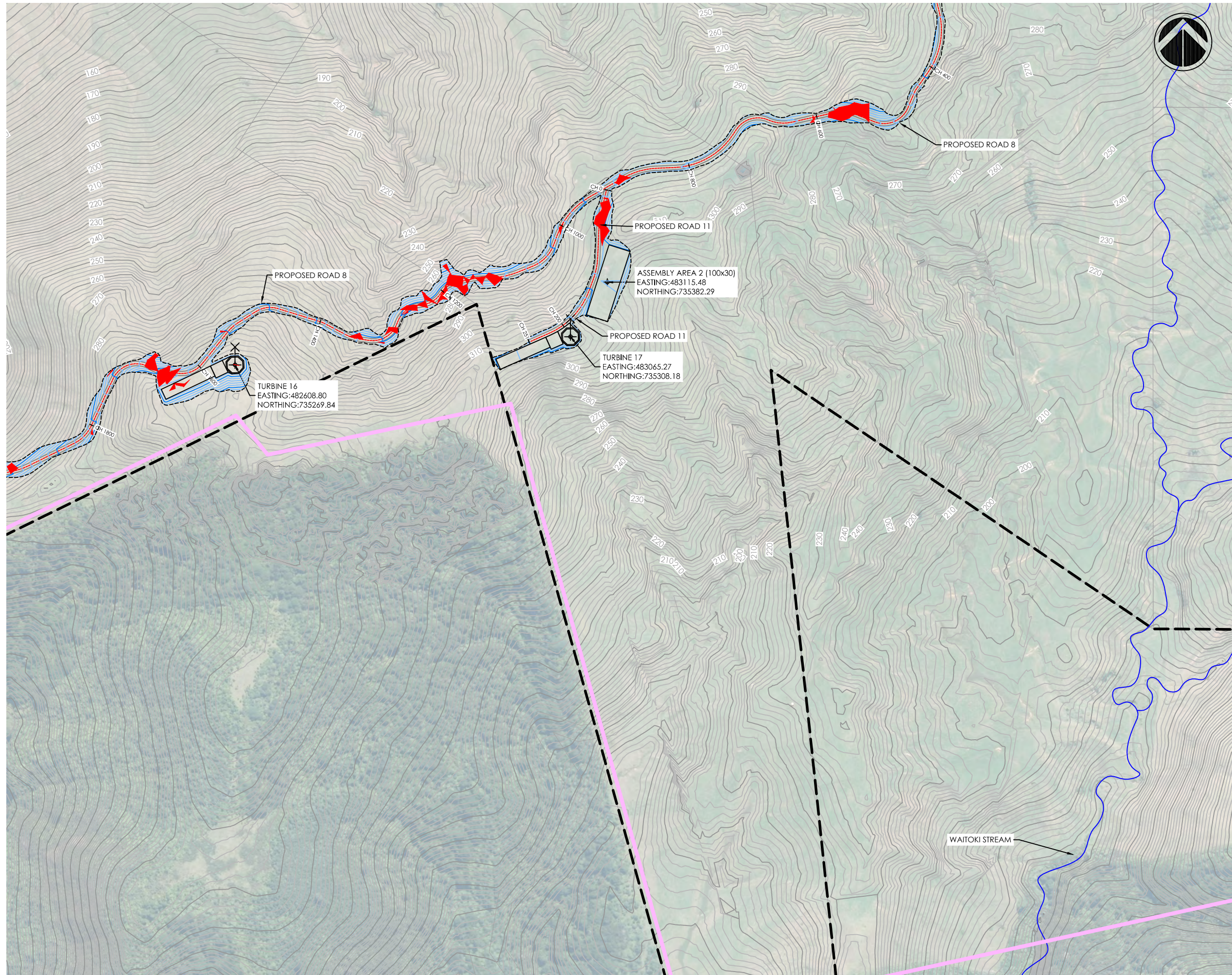
SURVEYOR: SYNERGY POSITIONING SYSTEMS LTD
3/52 ARRENWAY DRIVE, ALBANY,
AUCKLAND 0632

SITE: KAIMAI WIND FARM
ROTKOHU ROAD, PAEROA

TITLE: PRELIMINARY CIVIL ENGINEERING
DRAWINGS

SUBTITLE: EROSION AND SEDIMENT CONTROL
OVERVIEW DETAIL PLAN SHEET 6

SCALE AT A3: 1:5000	DATE: 16.10.18	DRAWN: LT	CHECKED: JT
PROJECT NO: T15022	DRAWING NO: 250-6	REVISION: A	



Notes:

1. FOR INFORMATION PURPOSES ONLY.
2. BOUNDARIES, CONTOURS AND OTHER BASE INFORMATION SHOWN IS INDICATIVE ONLY AND PRIMARILY INFORMED BY AERIAL LIDAR SURVEY BY SYNERGY POSITIONING SYSTEMS LTD IN APRIL 2016.
3. COORDINATES SHOWN ARE IN TERMS OF MT EDEN 2000 CIRCUIT AND LEVELS ARE RELATIVE TO THE AUCKLAND 1946 VERTICAL DATUM.
4. THE PROPOSED ROAD ALIGNMENT, TURBINE PLATFORMS, AND OVERALL EARTHWORKS ARE BASED ON AN INDICATIVE ROAD ALIGNMENT AND REMAIN SUBJECT TO DETAILED DESIGN.
5. VOLUME ESTIMATES BASED ON COMPARISON OF EXISTING & PROPOSED SURFACE LEVELS & DO NOT ACCOUNT FOR SUBGRADE CUT, BULKING OR COMPACTION FACTORS. OVERALL AREA & VOLUME ESTIMATES INCLUDE 20% CONTINGENCY FOR ADDITIONAL EARTHWORKS IF NECESSARY THROUGH DETAILED DESIGN.

LEGEND

- EXISTING PARCEL BOUNDARY
- JACKSON PROPERTY BOUNDARY
- ROTOKOHU FARMS PROPERTY BOUNDARY
- DENIZE BROTHERS PROPERTY BOUNDARY
- HDC/MPDC TERRITORIAL BOUNDARY
- EXISTING MAJOR CONTOUR
- EXISTING MINOR CONTOUR
- PROPOSED MAJOR CONTOUR
- PROPOSED MINOR CONTOUR
- EXTENT OF EARTHWORK
- PROPOSED TURBINE LOCATION
- EXISTING TRANSPOWER NATIONAL GRID LINES
- PROPOSED ROAD CENTER LINE AND EDGE OF CARRIAGEWAY
- EXISTING FENCE
- INDICATIVE QUARRY SITE
- INDICATIVE CLEANFILL SITE
- EXISTING CULVERT
- PROPOSED UPGRADED CULVERT
- STREAM (WRC REGIONAL MAP)
- EXISTING SLOPE TRIANGLE GREATER THAN 25°

A | ADDITIONAL PLAN FOR S92 RESPONSE | LT | 16.10.18

REV:	DESCRIPTION:	BY:	DATE:
STATUS:		RESOURCE CONSENT	

TEKTUS Consultants Ltd
 PO Box 80212 Green Bay
 Auckland 0643 NZ
 p. 09 827 1191
 m. 021 1434 874
 www.tektus.nz

CLIENT:
 VENTUS ENERGY (NZ) LTD
 10/215 ROSEDALE ROAD, ALBANY
 AUCKLAND 0632

SURVEYOR:
 SYNERGY POSITIONING SYSTEMS LTD
 3/52 ARRENWAY DRIVE, ALBANY,
 AUCKLAND 0632

SITE:
 KAIMAI WIND FARM
 ROTOKOHU ROAD, PAEROA

TITLE:
 PRELIMINARY CIVIL ENGINEERING
 DRAWINGS

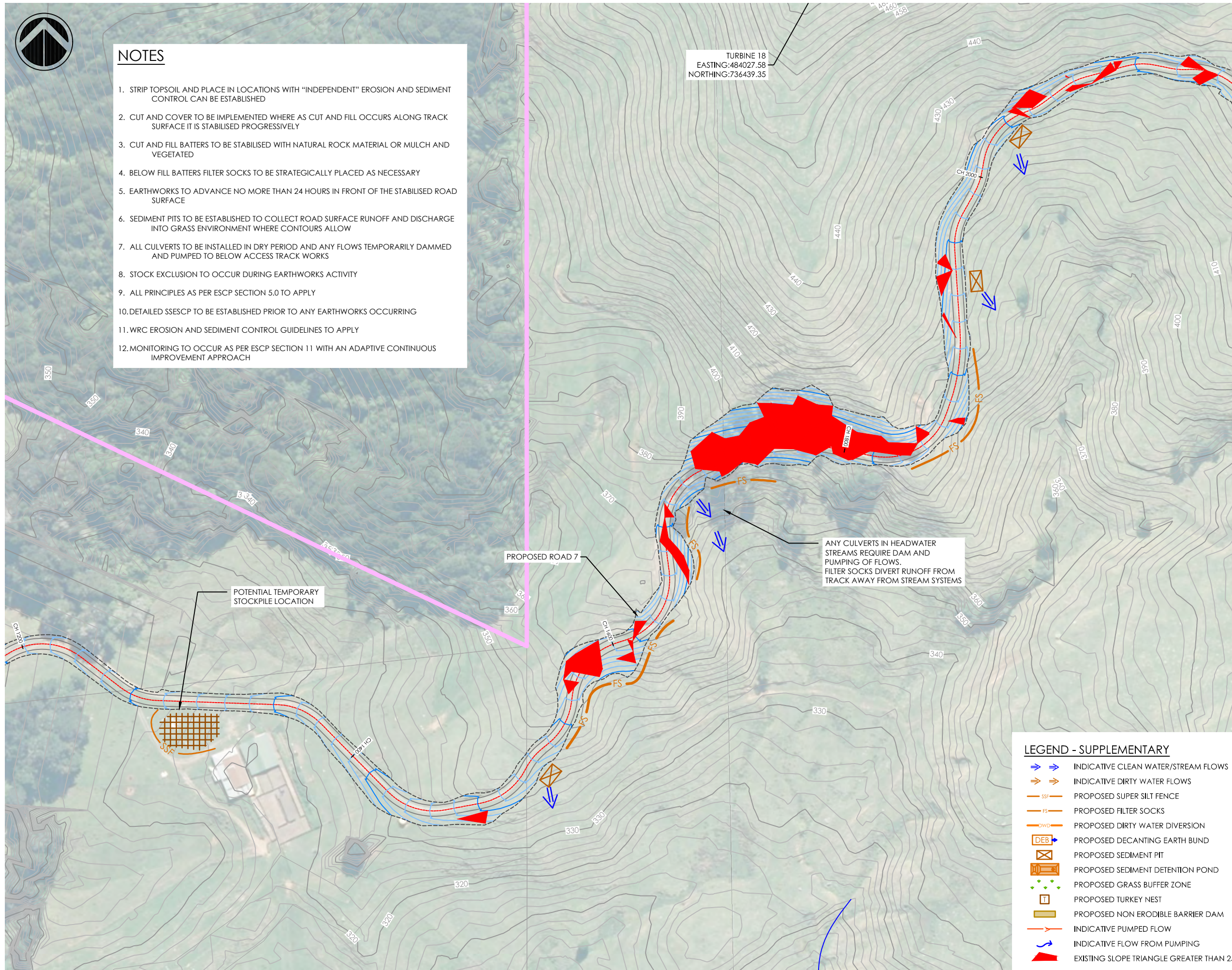
SUBTITLE:
 EROSION AND SEDIMENT CONTROL
 OVERVIEW DETAIL PLAN SHEET 7

SCALE AT A3:	DATE:	DRAWN:	CHECKED:
1:5000	16.10.18	LT	JT
PROJECT NO:	DRAWING NO:	REVISION:	
T15022	250-7	A	



NOTES

1. STRIP TOPSOIL AND PLACE IN LOCATIONS WITH "INDEPENDENT" EROSION AND SEDIMENT CONTROL CAN BE ESTABLISHED
2. CUT AND COVER TO BE IMPLEMENTED WHERE AS CUT AND FILL OCCURS ALONG TRACK SURFACE IT IS STABILISED PROGRESSIVELY
3. CUT AND FILL BATTERS TO BE STABILISED WITH NATURAL ROCK MATERIAL OR MULCH AND VEGETATED
4. BELOW FILL BATTERS FILTER SOCKS TO BE STRATEGICALLY PLACED AS NECESSARY
5. EARTHWORKS TO ADVANCE NO MORE THAN 24 HOURS IN FRONT OF THE STABILISED ROAD SURFACE
6. SEDIMENT PITS TO BE ESTABLISHED TO COLLECT ROAD SURFACE RUNOFF AND DISCHARGE INTO GRASS ENVIRONMENT WHERE CONTOURS ALLOW
7. ALL CULVERTS TO BE INSTALLED IN DRY PERIOD AND ANY FLOWS TEMPORARILY DAMMED AND PUMPED TO BELOW ACCESS TRACK WORKS
8. STOCK EXCLUSION TO OCCUR DURING EARTHWORKS ACTIVITY
9. ALL PRINCIPLES AS PER ESCP SECTION 5.0 TO APPLY
10. DETAILED SSES CP TO BE ESTABLISHED PRIOR TO ANY EARTHWORKS OCCURRING
11. WRC EROSION AND SEDIMENT CONTROL GUIDELINES TO APPLY
12. MONITORING TO OCCUR AS PER ESCP SECTION 11 WITH AN ADAPTIVE CONTINUOUS IMPROVEMENT APPROACH



TURBINE 18
EASTING:484027.58
NORTHING:736439.35

ANY CULVERTS IN HEADWATER STREAMS REQUIRE DAM AND PUMPING OF FLOWS. FILTER SOCKS DIVERT RUNOFF FROM TRACK AWAY FROM STREAM SYSTEMS

POTENTIAL TEMPORARY STOCKPILE LOCATION

PROPOSED ROAD 7

Notes:

1. FOR INFORMATION PURPOSES ONLY.
2. BOUNDARIES, CONTOURS AND OTHER BASE INFORMATION SHOWN IS INDICATIVE ONLY AND PRIMARILY INFORMED BY AERIAL LIDAR SURVEY BY SYNERGY POSITIONING SYSTEMS LTD IN APRIL 2016.
3. COORDINATES SHOWN ARE IN TERMS OF MT EDEN 2000 CIRCUIT AND LEVELS ARE RELATIVE TO THE AUCKLAND 1946 VERTICAL DATUM.
4. THE PROPOSED ROAD ALIGNMENT, TURBINE PLATFORMS, AND OVERALL EARTHWORKS ARE BASED ON AN INDICATIVE ROAD ALIGNMENT AND REMAIN SUBJECT TO DETAILED DESIGN.
5. VOLUME ESTIMATES BASED ON COMPARISON OF EXISTING & PROPOSED SURFACE LEVELS & DO NOT ACCOUNT FOR SUBGRADE CUT, BULKING OR COMPACTION FACTORS. OVERALL AREA & VOLUME ESTIMATES INCLUDE 20% CONTINGENCY FOR ADDITIONAL EARTHWORKS IF NECESSARY THROUGH DETAILED DESIGN.

LEGEND

- EXISTING PARCEL BOUNDARY
- JACKSON PROPERTY BOUNDARY
- ROKOKOHU FARMS PROPERTY BOUNDARY
- DENIZE BROTHERS PROPERTY BOUNDARY
- HDC/MPDC TERRITORIAL BOUNDARY
- EXISTING MAJOR CONTOUR
- EXISTING MINOR CONTOUR
- PROPOSED MAJOR CONTOUR
- PROPOSED MINOR CONTOUR
- EXTENT OF EARTHWORK
- PROPOSED TURBINE LOCATION
- EXISTING TRANSPOWER NATIONAL GRID LINES
- PROPOSED ROAD CENTER LINE AND EDGE OF CARRIAGEWAY
- EXISTING FENCE
- INDICATIVE QUARRY SITE
- INDICATIVE CLEANFILL SITE
- EXISTING CULVERT
- PROPOSED UPGRADED CULVERT
- STREAM (WRC REGIONAL MAP)

A	ADDITIONAL PLAN FOR S92 RESPONSE	LT	05.10.18
---	----------------------------------	----	----------

REV:	DESCRIPTION:	BY:	DATE:
	STATUS:		
	RESOURCE CONSENT		

TEKTUS Consultants Ltd
PO Box 80212 Green Bay
Auckland 0643 NZ
p. 09 827 1191
m. 021 1434 874
www.tektus.nz

CLIENT: VENTUS ENERGY (NZ) LTD
10/215 ROSEDALE ROAD, ALBANY
AUCKLAND 0632

SURVEYOR: SYNERGY POSITIONING SYSTEMS LTD
3/52 ARRENWAY DRIVE, ALBANY,
AUCKLAND 0632

SITE: KAIMAI WIND FARM
ROKOKOHU ROAD, PAEROA

TITLE: PRELIMINARY CIVIL ENGINEERING
DRAWINGS

SUBTITLE: EROSION AND SEDIMENT CONTROL
DETAIL SHEET 1 - ACCESS TRACK
ESTABLISHMENT - INDICATIVE ONLY

SCALE AT A3:	DATE:	DRAWN:	CHECKED:
1:2000	05.10.18	LT	JT
PROJECT NO:	DRAWING NO:		REVISION:
T15022	251-1		A

LEGEND - SUPPLEMENTARY

- INDICATIVE CLEAN WATER/STREAM FLOWS
- INDICATIVE DIRTY WATER FLOWS
- PROPOSED SUPER SILT FENCE
- PROPOSED FILTER SOCKS
- PROPOSED DIRTY WATER DIVERSION
- PROPOSED DECANTING EARTH BUND
- PROPOSED SEDIMENT PIT
- PROPOSED SEDIMENT DETENTION POND
- PROPOSED GRASS BUFFER ZONE
- PROPOSED TURKEY NEST
- PROPOSED NON ERODIBLE BARRIER DAM
- INDICATIVE PUMPED FLOW
- INDICATIVE FLOW FROM PUMPING
- EXISTING SLOPE TRIANGLE GREATER THAN 25°