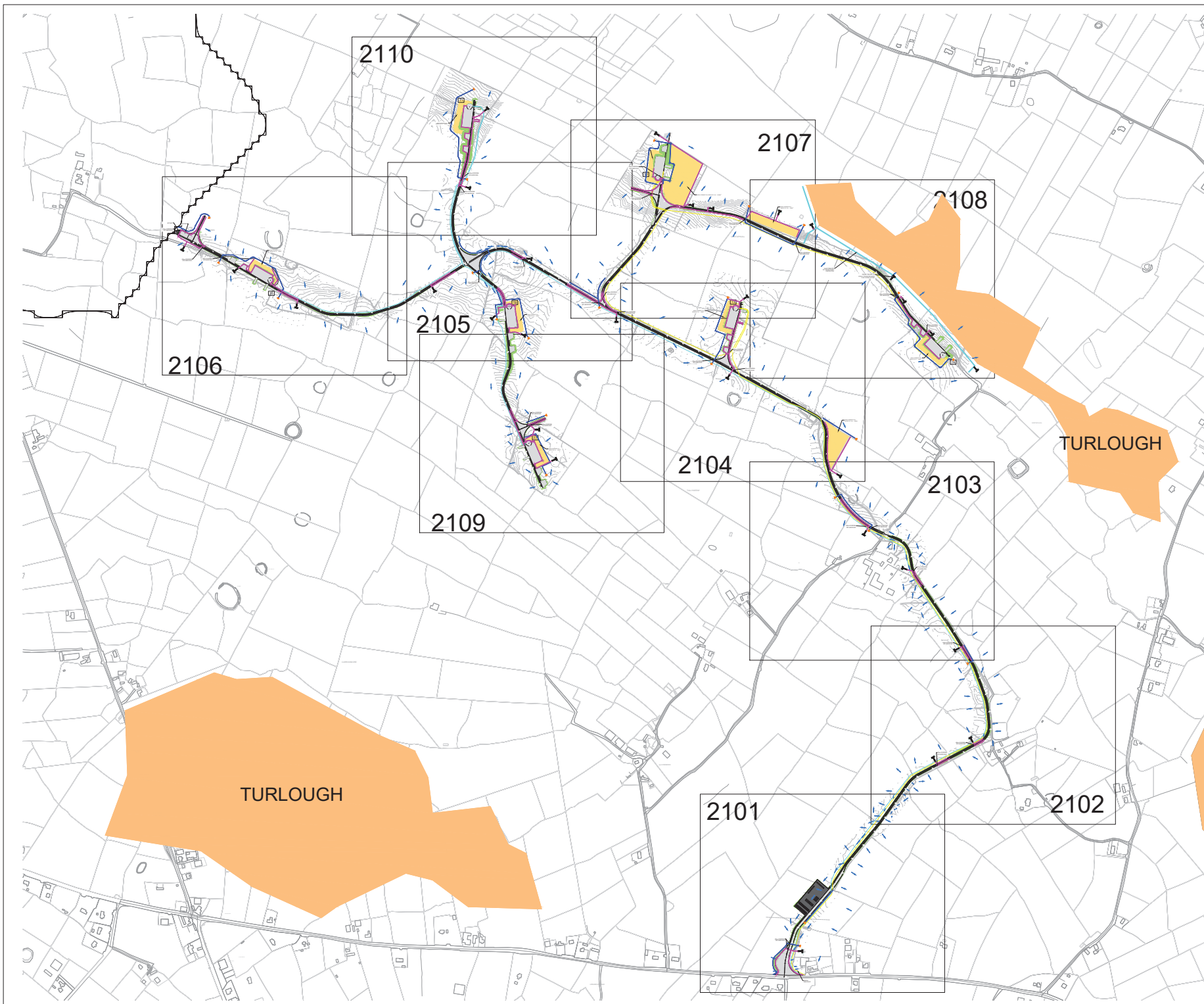




## **APPENDIX 4-2**

### **SITE DRAINAGE DRAWINGS**



DO NOT SCALE FROM THIS DRAWING. USE FIGURED DIMENSIONS IN ALL CASES. VERIFY DIMENSIONS ON SITE AND REPORT ANY DISCREPANCIES TO THE DESIGNERS IMMEDIATELY. THIS DRAWING IS COPYRIGHT AND MAY ONLY BE REPRODUCED WITH THE DESIGNERS PERMISSION.

NOTES:

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2. ALL LEVELS ARE IN METRES RELATED TO ORDNANCE DATUM MALIN HEAD.
3. ANY DISCREPANCIES BETWEEN THESE DOCUMENTS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER.
4. DRAWINGS ARE NOT TO BE SCALED.
5. ALL DIMENSIONS ARE IN METERS, UNLESS NOTED OTHERWISE.

LEGEND:

- SITE BOUNDARY
- OWNERSHIP BOUNDARY
- WORKS CORRIDOR
- ROAD/STONE CAPPED SURFACES
- EXTENT OF ROAD SIDE BERM
- CUT EMBANKMENT
- FILL EMBANKMENT
- HARD STAND
- STONE BERM
- TURLOUGH
- PEAT STORAGE
- DIRTY WATER DRAIN
- CLEAN WATER DRAIN
- EXISTING CUT-OFF DRAIN
- RUN OFF DRAIN WITH BUFFERED OUTFALL
- SETTLEMENT POND WITH BUFFERED OUTFALL
- DIRECTION OF FLOW OF SURFACE WATER
- LAND & STRUCTURE BOUNDARY
- INTERNAL CABLE ROUTE (Circuit 1)
- INTERNAL CABLE ROUTE (Circuit 2)
- INTERNAL CABLE ROUTE (Circuit 3)
- INTERNAL CABLE ROUTE (Circuit 4)
- INTERNAL CABLE ROUTE (Circuit 5)
- INTERNAL CABLE ROUTE (4 x circuits to Substation)

REV	DATE	DESCRIPTION	BY	APP
P0	10/10/22	REVISOR INFORMATION	PK	BS
P0	10/11/22	REVISOR INFORMATION	PK	BS

PROJECT:	SEVEN HILLS WIND FARM
----------	-----------------------

TITLE:	DRAINAGE & CABLE ROUTE LAYOUT - NORTH DRAWING LAYOUT PLAN
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CLIENT:	<b>energia</b> Switched on
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Malachy Walsh and Partners Engineering and Environmental Consultants Cork   Tralee   Limerick
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The Elm Suite, Loughmore Centre, Rahenee Business Park, Limerick, V94 R578
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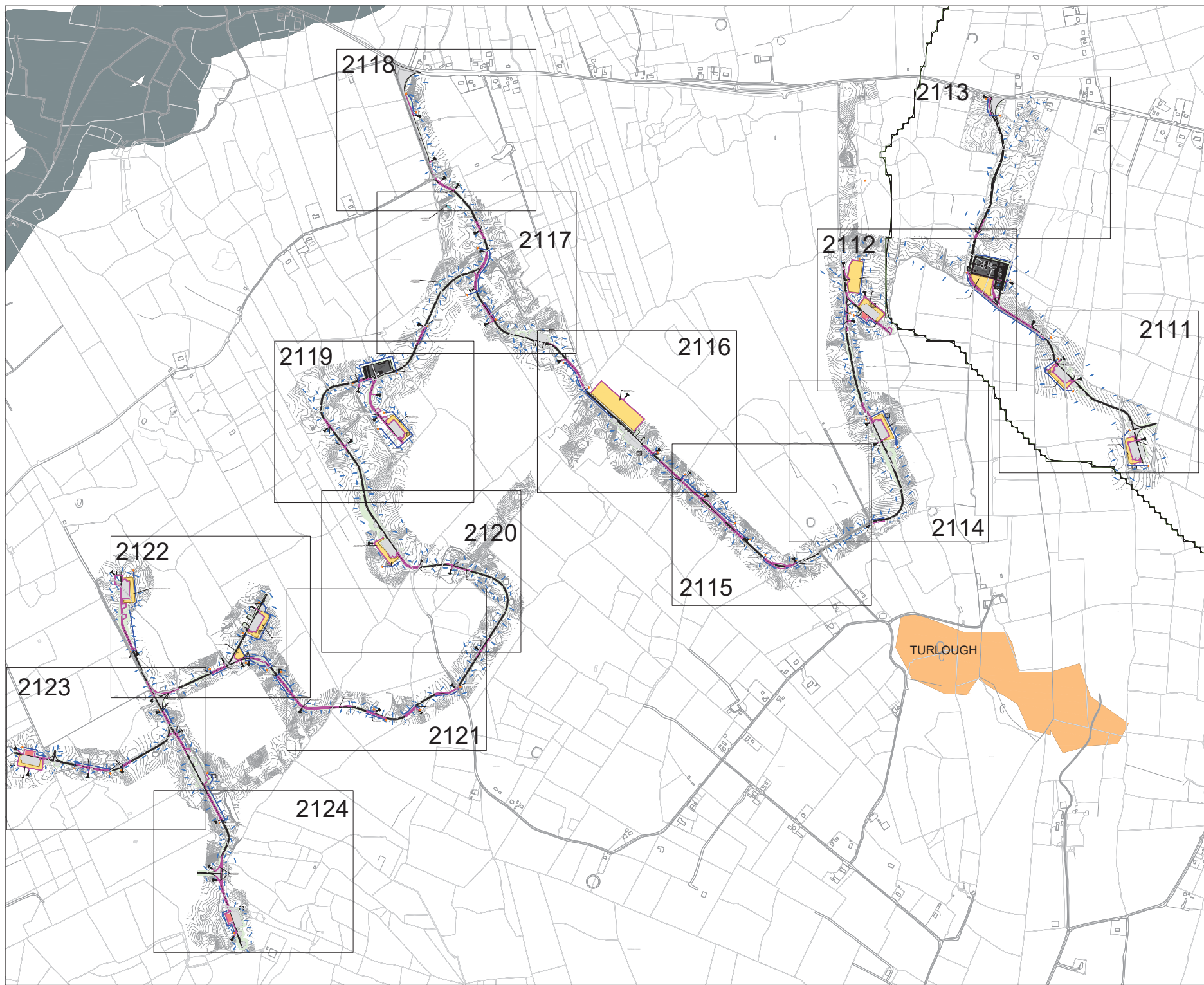
TEL: +353 (0) 84 489 954 FAX: +353 (0) 84 441 125 E-mail: <a href="mailto:info@malachywalsh.ie">info@malachywalsh.ie</a> Web: <a href="http://www.mwp.ie">www.mwp.ie</a>
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DRAWN: MW	CHECKED: PB	APPROVED: BS
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DATE: 01/06/22	SCALE @ A1: 1:5000
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PROJECT NUMBER: 21337	DRAWING STATUS: S2
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DRAWING NUMBER: 21337-MWP-00-00-DR-C-2125	REV: P02
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LEGEND:

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- CUT EMBANKMENT
- FILL EMBANKMENT
- HARD STAND
- STONE BERM
- TURLOUGH
- PEAT STORAGE
- DIRTY WATER DRAIN
- CLEAN WATER DRAIN
- EXISTING CUT-OFF DRAIN
- RUN OFF DRAIN WITH BUFFERED OUTFALL
- SETTLEMENT POND WITH BUFFERED OUTFALL
- DIRECTION OF FLOW OF SURFACE WATER
- LAND & STRUCTURE BOUNDARY
- INTERNAL CABLE ROUTE (Circuit 1)
- INTERNAL CABLE ROUTE (Circuit 2)
- INTERNAL CABLE ROUTE (Circuit 3)
- INTERNAL CABLE ROUTE (Circuit 4)
- INTERNAL CABLE ROUTE (Circuit 5)
- INTERNAL CABLE ROUTE (4 x circuits to Substation)

REV	DATE	SUB DESCRIPTION	BY	APP
01	10/06/22	SUB DESIGN/UPDATE	BS	BS
02	18/10/22	SUB DESIGN/UPDATE	BS	BS
03	10/11/22	REVISION/REVISION	BS	BS

PROJECT: SEVEN HILLS WF

TITLE: DRAINAGE & CABLE ROUTE LAYOUT - SOUTH DRAINING LOCATION PLAN

CLIENT: **enenergia** Switched on

**Malachy Walsh and Partners**  
Engineering and Environmental Consultants  
Cork | Tralee | Limerick

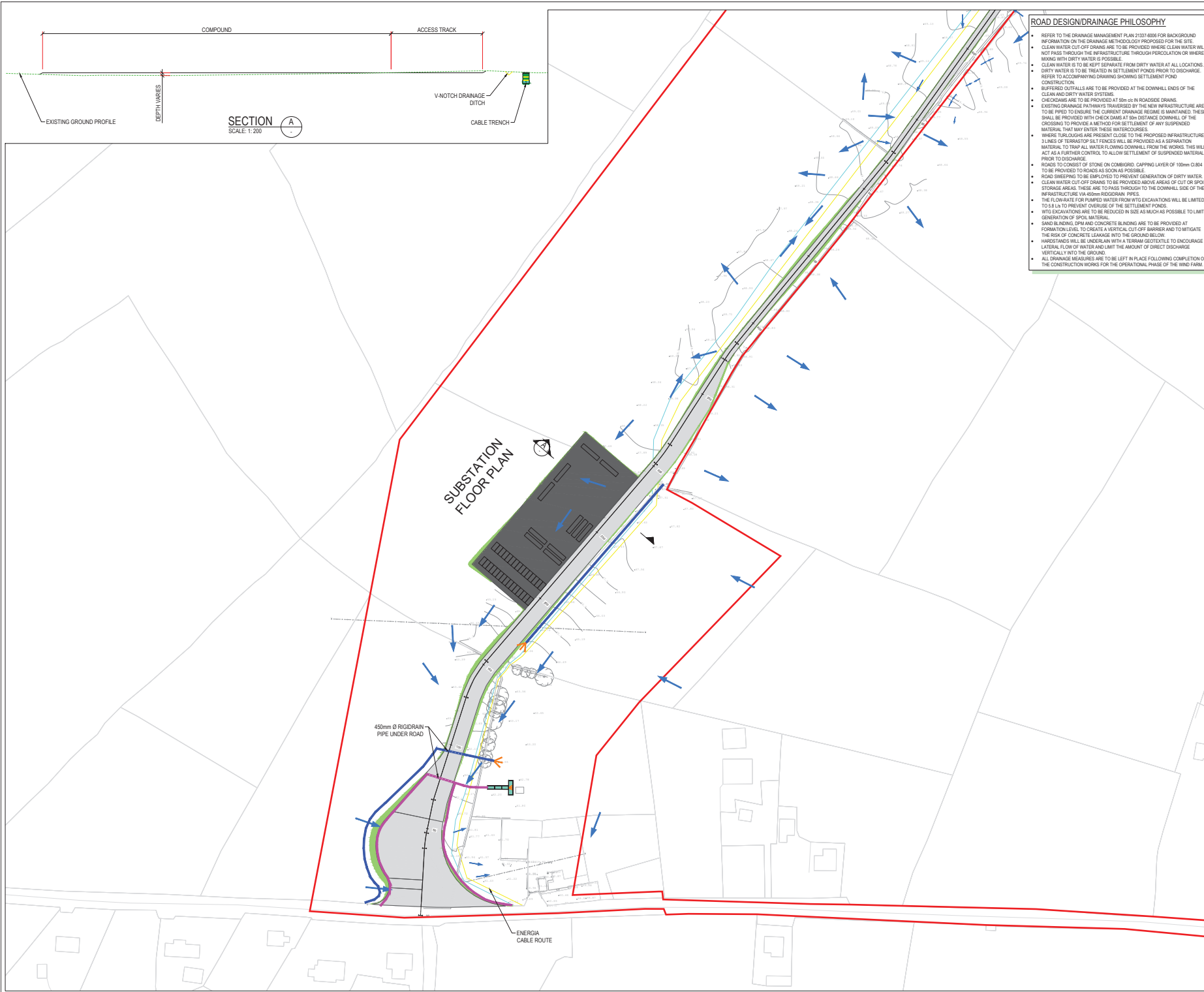
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Fax: +353 (0) 86 441120  
E-mail: [info@malachywalsh.ie](mailto:info@malachywalsh.ie)  
Web: [www.mwp.ie](http://www.mwp.ie)

DRAWN	PK	CHECKED	PB	APPROVED	BS
DATE:	01/06/22	SCALE @ A1:	1:1000		
PROJECT NUMBER:	21337	DRAWING STATUS:	S2		
DRAWING NUMBER:	21337-MWP-00-00-DR-C-2126	REV:	P03		

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#### ROAD DESIGN/ DRAINAGE PHILOSOPHY

- REFER TO THE DRAINAGE MANAGEMENT PLAN 21337-000 FOR BACKGROUND INFORMATION ON THE DRAINAGE METHODOLOGY PROPOSED FOR THE SITE.
- CLEAN WATER CUT-OFF DRAINS ARE TO BE PROVIDED WHERE CLEAN WATER WILL NOT PASS THROUGH THE INFRASTRUCTURE THROUGH PERCOLATION OR WHERE MIXING WITH DIRTY WATER IS POSSIBLE.
- CLEAN WATER IS TO BE KEPT SEPARATE FROM DIRTY WATER AT ALL LOCATIONS.
- DIRTY WATER IS TO BE TREATED IN SETTLEMENT PONDS PRIOR TO DISCHARGE. REFER TO ACCOMPANYING DRAWING SHOWING SETTLEMENT POND CONSTRUCTION.
- BUFFERED OUTFALLS ARE TO BE PROVIDED AT THE DOWNHILL ENDS OF THE CLEAN AND DIRTY WATER SYSTEMS.
- CHECKDAMS ARE TO BE PROVIDED AT 50m ON IN ROADSIDE DRAINS.
- EXISTING DRAINAGE PATHWAYS TRAVELLED BY THE NEW INFRASTRUCTURE ARE TO BE REPEATED TO ENSURE THE CURRENT DRAINAGE REGIME IS MAINTAINED. THESE SHALL BE PROVIDED WITH CHECKDAMS AT 50m DISTANCE DOWNHILL OF THE CROSSING TO PROVIDE A METHOD FOR SETTLEMENT OF ANY SUSPENDED MATERIAL THAT MAY ENTER THESE WATERCOURSES.
- WHERE TROUSERS ARE PRESENT CLOSE TO THE PROPOSED INFRASTRUCTURE LINES OF TERRASTOP SILT FENCES WILL BE PROVIDED AS A SEPARATION MATERIAL TO TRAP ALL WATER FLOWING DOWNHILL FROM THE WORKS. THIS WILL ACT AS A FURTHER CONTROL TO ALLOW SETTLEMENT OF SUSPENDED MATERIAL PRIOR TO DISCHARGE.
- ROADS TO CONSIST OF STONE ON COMBIBO: CAPPING LAYER OF 100mm CL804 TO BE PROVIDED TO ROADS AS SOON AS POSSIBLE.
- ROAD DRAINING TO BE EMPLOYED TO PREVENT GENERATION OF DIRTY WATER.
- CLEAN WATER CUT-OFF DRAINS TO BE PROVIDED ABOVE AREAS OF CUT OR SPILL STORAGE AREAS. THESE ARE TO PASS THROUGH TO THE DOWNHILL SIDE OF THE INFRASTRUCTURE VIA 400mm RIGIDRAIN PIPES.
- THE FLOW RATE FOR PUMPED WATER FROM WTD EXCAVATIONS WILL BE LIMITED TO 8 L/s TO PREVENT OVERUSE OF THE SETTLEMENT PONDS.
- WTD EXCAVATIONS ARE TO BE REDUCED IN SIZE AS MUCH AS POSSIBLE TO LIMIT GENERATION OF SPILL MATERIAL.
- SAND BLINDING, DPM AND CONCRETE BLINDING ARE TO BE PROVIDED AT FORMATION LEVEL TO CREATE A VERTICAL CUT-OFF BARRIER AND TO MITIGATE THE RISK OF CONCRETE LEAKAGE INTO THE GROUND BELOW.
- HARVESTERS WILL BE UNDERLAIN WITH A TERRAM GEOTEXTILE TO ENCOURAGE LATERAL FLOW OF WATER AND LIMIT THE AMOUNT OF DIRECT DISCHARGE VERTICALLY INTO THE GROUND.
- ALL DRAINAGE MEASURES ARE TO BE LEFT IN PLACE FOLLOWING COMPLETION OF THE CONSTRUCTION WORKS FOR THE OPERATIONAL PHASE OF THE WIND FARM.

DO NOT SCALE FROM THIS DRAWING. USE FIGURED DIMENSIONS IN ALL CASES. VERIFY DIMENSIONS ON SITE AND REPORT ANY DISCREPANCIES TO THE DESIGNER IMMEDIATELY. THIS DRAWING TO BE READ IN CONJUNCTION WITH THE DESIGNER'S SPECIFICATION. © THIS DRAWING IS COPYRIGHT AND MAY ONLY BE REPRODUCED WITH THE DESIGNER'S PERMISSION.

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#### LEGEND:

- SITE BOUNDARY
- OWNERSHIP BOUNDARY
- WORKS CORRIDOR
- ROAD/STONE CAPPED SURFACES
- EXTENT OF ROAD SIDE BERM
- CUT EMBANKMENT
- FILL EMBANKMENT
- SUBSTATION FLOOR PLAN
- STONE BERM
- PEAT STORAGE
- DIRTY WATER DRAIN
- CLEAN WATER DRAIN
- EXISTING CUT-OFF DRAIN
- RUN OFF DRAIN WITH BUFFERED OUTFALL
- SETTLEMENT POND WITH BUFFERED OUTFALL
- DIRECTION OF FLOW OF SURFACE WATER
- LAND & STRUCTURE BOUNDARY
- INTERNAL CABLE ROUTE (Circuit 1)
- INTERNAL CABLE ROUTE (Circuit 2)
- INTERNAL CABLE ROUTE (Circuit 3)
- INTERNAL CABLE ROUTE (Circuit 4)
- INTERNAL CABLE ROUTE (Circuit 5)
- INTERNAL CABLE ROUTE (4 x circuits to Substation)

#### REFERENCE DRAWINGS:

DRAWING No.	DRAWING TITLE
21337-MWP-WF-00-DR-C-2101	DRAINAGE LAYOUT SHEET 1
21337-MWP-WF-00-DR-C-2102	DRAINAGE LAYOUT SHEET 2
21337-MWP-WF-00-DR-C-2103	DRAINAGE LAYOUT SHEET 3
21337-MWP-WF-00-DR-C-2104	DRAINAGE LAYOUT SHEET 4
21337-MWP-WF-00-DR-C-2105	DRAINAGE LAYOUT SHEET 5
21337-MWP-WF-00-DR-C-2106	DRAINAGE LAYOUT SHEET 6
21337-MWP-WF-00-DR-C-2107	DRAINAGE LAYOUT SHEET 7
21337-MWP-WF-00-DR-C-2108	DRAINAGE LAYOUT SHEET 8
21337-MWP-WF-00-DR-C-2109	DRAINAGE LAYOUT SHEET 9
21337-MWP-WF-00-DR-C-2110	DRAINAGE LAYOUT SHEET 10
21337-MWP-WF-00-DR-C-2125	NORTH DRAINAGE KEYPLAN

REV	DATE	DESCRIPTION	BY	APP
R01	01/06/22	REVISION INFORMATION	BS	BS
R02	01/06/22	REVISION INFORMATION	BS	BS

PROJECT: SEVEN HILLS WIND FARM

TITLE: PROPOSED DRAINAGE LAYOUT SHEET 1

CLIENT: enenergia Switched on

Malachy Walsh and Partners  
Engineering and Environmental Consultants  
Cork | Tralee | Limerick

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Limerick,  
V94 R578

DRAWN: MW CHECKED: PB APPROVED: BS

DATE: 01/06/22 SCALE @ A1: 1:1000

PROJECT NUMBER: 21337 PREPARED STATUS: S2

DESIGNED: 21337-MWP-WF-00-DR-C-2101 PREP: P02





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#### LEGEND:

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- INTERNAL CABLE ROUTE (Circuit 2)
- INTERNAL CABLE ROUTE (Circuit 3)
- INTERNAL CABLE ROUTE (Circuit 4)
- INTERNAL CABLE ROUTE (Circuit 5)
- INTERNAL CABLE ROUTE (4 x circuits to Substation)

REV	DATE	DESCRIPTION	BY	APP
P0	10/06/22	REVISION INFORMATION	PK	BS
P1	01/07/22	REVISION INFORMATION	PK	BS

PROJECT: SEVEN HILLS WIND FARM

TITLE: PROPOSED DRAINAGE LAYOUT SHEET 2

CLIENT: **energia**  
Switched on

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Web: [www.malachywalsh.ie](http://www.malachywalsh.ie)

DRAWN: PK	CHECKED: PB	APPROVED: BS
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DATE: 01/06/22	SCALE @ A1: 1:1000
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PROJECT NUMBER: 21337	DRAWING STATUS: S2
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DRAWING NUMBER: 21337-MWP-ZZ-00-DR-C-2102	REV: P02
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LEGEND:

- SITE BOUNDARY
- OWNERSHIP BOUNDARY
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- EXTENT OF ROAD SIDE BERM
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- FILL EMBANKMENT
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- STONE BERM
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- LAND & STRUCTURE BOUNDARY
- INTERNAL CABLE ROUTE (Circuit 1)
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- INTERNAL CABLE ROUTE (Circuit 3)
- INTERNAL CABLE ROUTE (Circuit 4)
- INTERNAL CABLE ROUTE (Circuit 5)
- INTERNAL CABLE ROUTE (4 x circuits to Substation)

REV	DATE	DESCRIPTION	BY	APP
P0	10/06/22	REVISOR INFORMATION	PK	BS
P1	01/07/22	REVISOR INFORMATION	PK	BS

PROJECT: SEVEN HILLS WIND FARM

TITLE: PROPOSED DRAINAGE LAYOUT SHEET 3

CLIENT: **enenergia**  
Switched on

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Fax: +353 (0) 81 441 125  
E-mail: [info@malachywalsh.ie](mailto:info@malachywalsh.ie)  
Web: [www.mwp.ie](http://www.mwp.ie)

DRAWN: PK	CHECKED: PB	APPROVED: BS
DATE: 01/06/22	SCALE @ A1: 1:1000	
PROJECT NUMBER: 21337	DRAWING STATUS: S2	
DESIGNED: 21337-MWP-ZZ-00-DR-C-2103	REV: P02	

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- INTERNAL CABLE ROUTE (Circuit 4)
- INTERNAL CABLE ROUTE (Circuit 5)
- INTERNAL CABLE ROUTE (4 x circuits to Substation)

REV	DATE	DESCRIPTION	BY	APP
P0	10/10/22	REVISION INFORMATION	MM	BS
P0	12/10/22	REVISION INFORMATION	MM	BS
P0	01/06/22	REVISION INFORMATION	PK	BS

#### PROJECT:

SEVEN HILLS WIND FARM

#### TITLE:

PROPOSED DRAINAGE LAYOUT SHEET 4

#### CLIENT:

**enenergia**  
Switched on

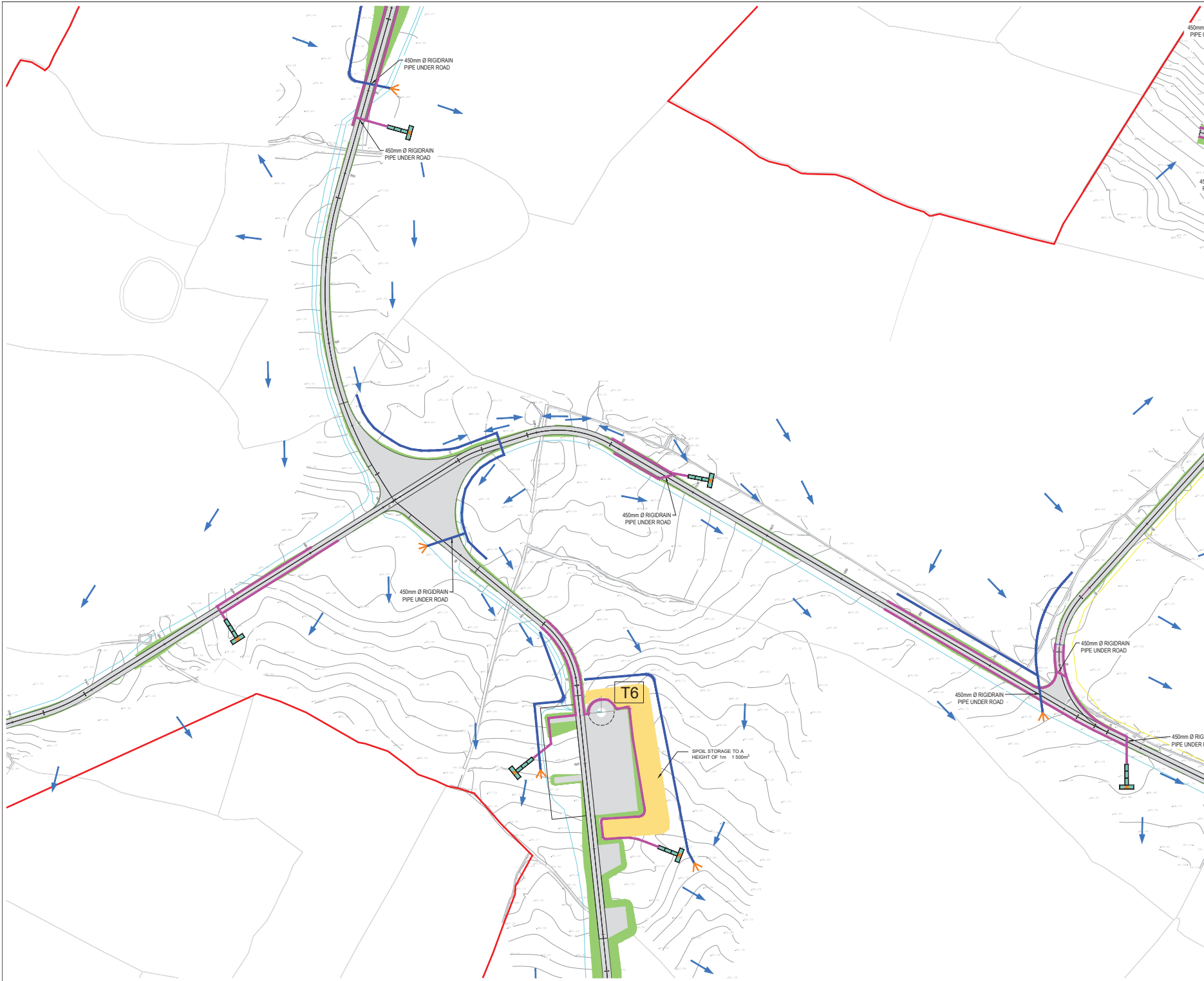
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DRAWN: PK	CHECKED: PB	APPROVED: BS
DATE: 01/06/22	SCALE @ A1: 1:1000	
PROJECT NUMBER: 21337	REVISION STATUS: S2	
DRAWING NUMBER: 21337-MWP-ZZ-00-DR-C-2104	REV: P03	





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- INTERNAL CABLE ROUTE (Circuit 3)
- INTERNAL CABLE ROUTE (Circuit 4)
- INTERNAL CABLE ROUTE (Circuit 5)
- INTERNAL CABLE ROUTE (4 x circuits to Substation)

REV	DATE	DESCRIPTION	BY	APP
P02	10/06/22	REVISION INFORMATION	PK	BS
REV	10/06/22	REVISION INFORMATION	PK	BS

PROJECT: SEVEN HILLS WIND FARM

TITLE: PROPOSED DRAINAGE LAYOUT SHEET 5

CLIENT: energia Switched on

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Fax: +353 (0) 85 441 125  
E-mail: info@malachywalsh.ie  
Web: www.mwp.ie

DRAWN	CHECKED	APPROVED
PK	PK	BS

DATE: 01/06/22 SCALE @ A1: 1:1000

PROJECT NUMBER: 21337 DRAWING STATUS: S2

DRAWING NUMBER: 21337-MWP-ZZ-00-DR-C-2105 REV: P02



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#### LEGEND:

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- CLEAN WATER DRAIN
- EXISTING CUT-OFF DRAIN
- RUN OFF DRAIN WITH BUFFERED OUTFALL
- SETTLEMENT POND WITH BUFFERED OUTFALL
- DIRECTION OF FLOW OF SURFACE WATER
- LAND & STRUCTURE BOUNDARY
- INTERNAL CABLE ROUTE (Circuit 1)
- INTERNAL CABLE ROUTE (Circuit 2)
- INTERNAL CABLE ROUTE (Circuit 3)
- INTERNAL CABLE ROUTE (Circuit 4)
- INTERNAL CABLE ROUTE (Circuit 5)
- INTERNAL CABLE ROUTE (4 x circuits to Substation)

REV	DATE	DESCRIPTION	BY	APP
P0	10/06/22	DESIGNER INFORMATION	JK	BS
P01	10/06/22	DESIGNER INFORMATION	JK	BS

PROJECT: SEVEN HILLS WIND FARM

TITLE: PROPOSED DRAINAGE LAYOUT SHEET 6

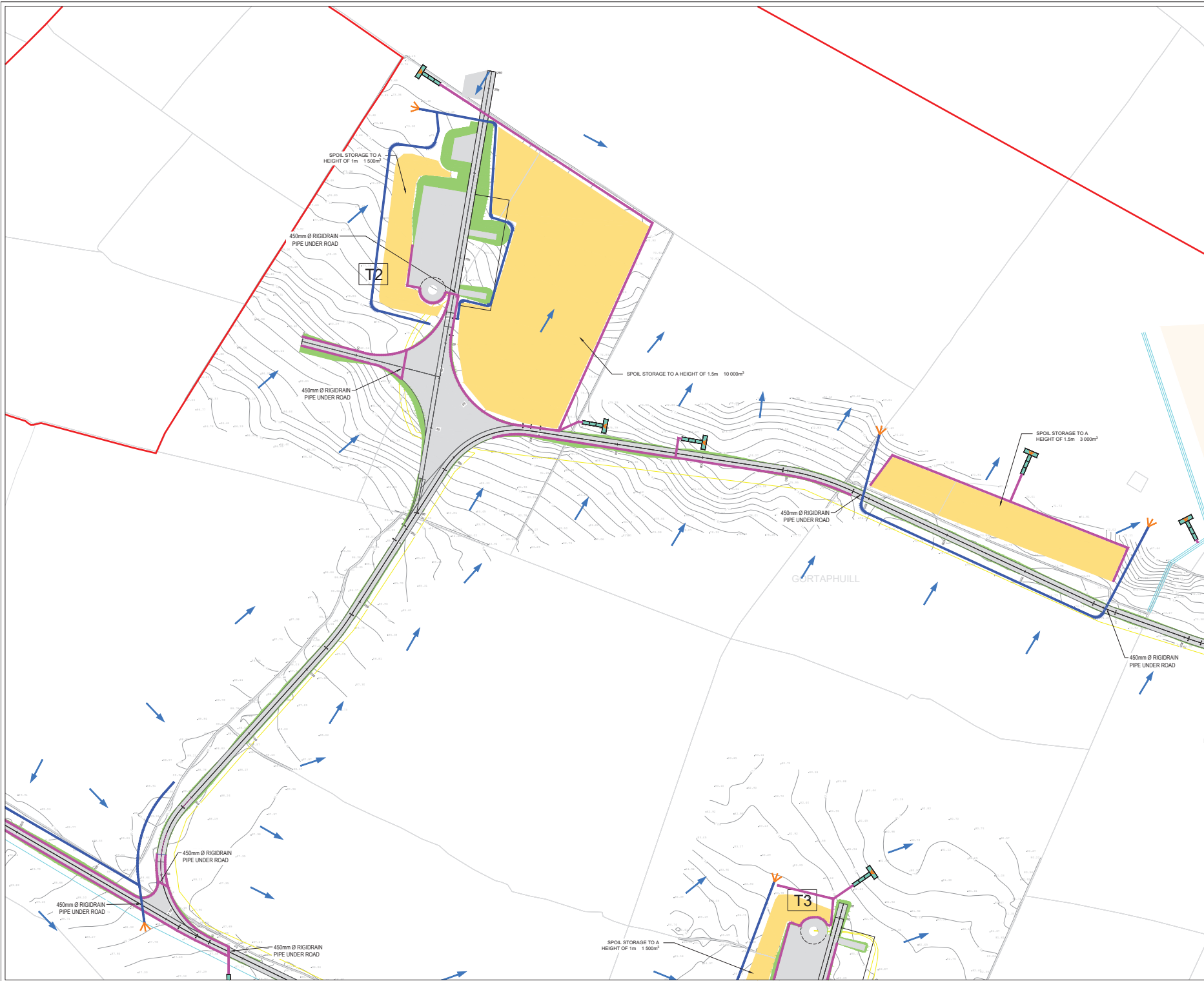
CLIENT: **enērgia**  
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DRAWN: PK	CHECKED: PB	APPROVED: BS
DATE: 01/06/22	SCALE @ A1: 1:1000	
PROJECT NUMBER: 21337	DRAWING STATUS: S2	
DESIGNER NUMBER: 21337-MWP-ZZ-00-DR-C-2106	REV: P02	



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#### LEGEND:

- SITE BOUNDARY
- OWNERSHIP BOUNDARY
- WORKS CORRIDOR
- ROAD/STONE CAPPED SURFACES
- EXTENT OF ROAD SIDE BERM
- CUT EMBANKMENT
- FILL EMBANKMENT
- SUBSTATION FLOOR PLAN
- STONE BERM
- PEAT STORAGE
- DIRTY WATER DRAIN
- CLEAN WATER DRAIN
- EXISTING CUT-OFF DRAIN
- RUN OFF DRAIN WITH BUFFERED OUTFALL
- SETTLEMENT POND WITH BUFFERED OUTFALL
- DIRECTION OF FLOW OF SURFACE WATER
- LAND & STRUCTURE BOUNDARY
- INTERNAL CABLE ROUTE (Circuit 1)
- INTERNAL CABLE ROUTE (Circuit 2)
- INTERNAL CABLE ROUTE (Circuit 3)
- INTERNAL CABLE ROUTE (Circuit 4)
- INTERNAL CABLE ROUTE (Circuit 5)
- INTERNAL CABLE ROUTE (4 x circuits to Substation)

REV	DATE	DESCRIPTION	BY	APP
01	10/10/22	REVISION INFORMATION	MB	BS
02	12/10/22	REVISION INFORMATION	MB	BS
03	10/11/22	REVISION INFORMATION	MB	BS

PROJECT:	SEVEN HILLS WIND FARM
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TITLE:	PROPOSED DRAINAGE LAYOUT SHEET 7
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CLIENT:	<b>energia</b> Switched on
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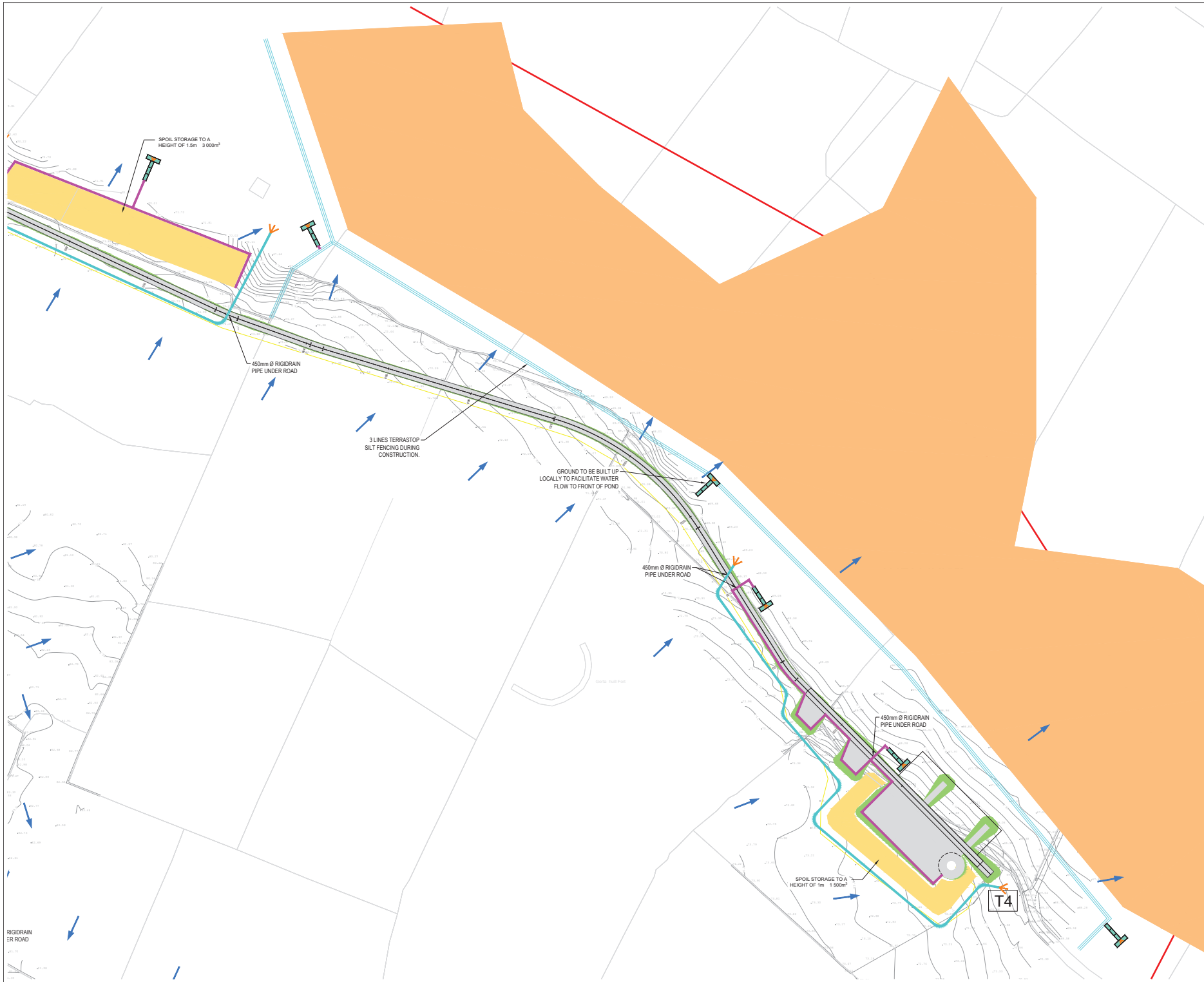
DRAWN: PK	CHECKED: PB	APPROVED: BS
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DATE: 01/06/22	SCALE @ A1: 1:1000
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PROJECT NUMBER: 21337	DRAWING STATUS: S2
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DRAWING NUMBER: 21337-MWP-ZZ-00-DR-C-2107	REV: P03
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#### LEGEND:

- SITE BOUNDARY
- OWNERSHIP BOUNDARY
- WORKS CORRIDOR
- ROAD/STONE CAPPED SURFACES
- EXTENT OF ROAD SIDE BERM
- CUT EMBANKMENT
- FILL EMBANKMENT
- SUBSTATION FLOOR PLAN
- STONE BERM
- TURLOUGH
- PEAT STORAGE
- DIRTY WATER DRAIN
- CLEAN WATER DRAIN
- EXISTING CUT-OFF DRAIN
- RUN OFF DRAIN WITH BUFFERED OUTFALL
- SETTLEMENT POND WITH BUFFERED OUTFALL
- DIRECTION OF FLOW OF SURFACE WATER
- LAND & STRUCTURE BOUNDARY
- INTERNAL CABLE ROUTE (Circuit 1)
- INTERNAL CABLE ROUTE (Circuit 2)
- INTERNAL CABLE ROUTE (Circuit 3)
- INTERNAL CABLE ROUTE (Circuit 4)
- INTERNAL CABLE ROUTE (Circuit 5)
- INTERNAL CABLE ROUTE (4 x circuits to Substation)

REV	DATE	DESCRIPTION	BY	APP
01	01/06/22	REVISOR INFORMATION	PK	BS
02	01/06/22	REVISOR INFORMATION	PK	BS

PROJECT: SEVEN HILLS WIND FARM

TITLE: PROPOSED DRAINAGE LAYOUT SHEET 6

CLIENT: energia Switched on

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DRAWN: PK	CHECKED: PB	APPROVED: BS
DATE: 01/06/22	SCALE @ A1: 1:1000	
PROJECT NUMBER: 21337	DRAWING STATUS: S2	
DESIGNER NUMBER: 21337-MWP-ZZ-00-DR-C-2108		REV: P02



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LEGEND:

- SITE BOUNDARY
- OWNERSHIP BOUNDARY
- WORKS CORRIDOR
- ROAD/STONE CAPPED SURFACES
- EXTENT OF ROAD SIDE BERM
- CUT EMBANKMENT
- FILL EMBANKMENT
- SUBSTATION FLOOR PLAN
- STONE BERM
- PEAT STORAGE
- DIRTY WATER DRAIN
- CLEAN WATER DRAIN
- EXISTING CUT-OFF DRAIN
- RUN OFF DRAIN WITH BUFFERED OUTFALL
- SETTLEMENT POND WITH BUFFERED OUTFALL
- DIRECTION OF FLOW OF SURFACE WATER
- LAND & STRUCTURE BOUNDARY
- INTERNAL CABLE ROUTE (Circuit 1)
- INTERNAL CABLE ROUTE (Circuit 2)
- INTERNAL CABLE ROUTE (Circuit 3)
- INTERNAL CABLE ROUTE (Circuit 4)
- INTERNAL CABLE ROUTE (Circuit 5)
- INTERNAL CABLE ROUTE (4 x circuits to Substation)

REV	DATE	DESCRIPTION	BY	APP
01	01/06/22	DESIGN INFORMATION	PK	BS
02	01/06/22	DESIGN INFORMATION	PK	BS

PROJECT: SEVEN HILLS WIND FARM

TITLE: PROPOSED DRAINAGE LAYOUT SHEET 9

CLIENT: **energia** Switched on

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DRAWN	CHECKED	APPROVED
PK	PK	BS

DATE: 01/06/22 SCALE @ A1: 1:1000

PROJECT NUMBER: 21337 DRAWING STATUS: S2

DESIGNED: 21337-MWP-ZZ-00-DR-C-2109



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5. ALL DIMENSIONS ARE IN METERS, UNLESS NOTED OTHERWISE.

LEGEND:

- SITE BOUNDARY
- OWNERSHIP BOUNDARY
- WORKS CORRIDOR
- ROAD/ STONE CAPPED SURFACES
- EXTENT OF ROAD SIDE BERM
- CUT EMBANKMENT
- FILL EMBANKMENT
- SUBSTATION FLOOR PLAN
- STONE BERM
- PEAT STORAGE
- DIRTY WATER DRAIN
- CLEAN WATER DRAIN
- EXISTING CUT-OFF DRAIN
- RUN OFF DRAIN WITH BUFFERED OUTFALL
- SETTLEMENT POND WITH BUFFERED OUTFALL
- DIRECTION OF FLOW OF SURFACE WATER
- LAND & STRUCTURE BOUNDARY
- INTERNAL CABLE ROUTE (Circuit 1)
- INTERNAL CABLE ROUTE (Circuit 2)
- INTERNAL CABLE ROUTE (Circuit 3)
- INTERNAL CABLE ROUTE (Circuit 4)
- INTERNAL CABLE ROUTE (Circuit 5)
- INTERNAL CABLE ROUTE (4 x circuits to Substation)

REV	DATE	DESCRIPTION	BY	APP
P02	10/06/22	DESIGNER INFORMATION	PK	BS
P01	10/06/22	DESIGNER INFORMATION	PK	BS

PROJECT:

SEVEN HILLS WIND FARM

TITLE:

PROPOSED DRAINAGE LAYOUT  
SHEET 10

CLIENT:

**energia**  
Switched on

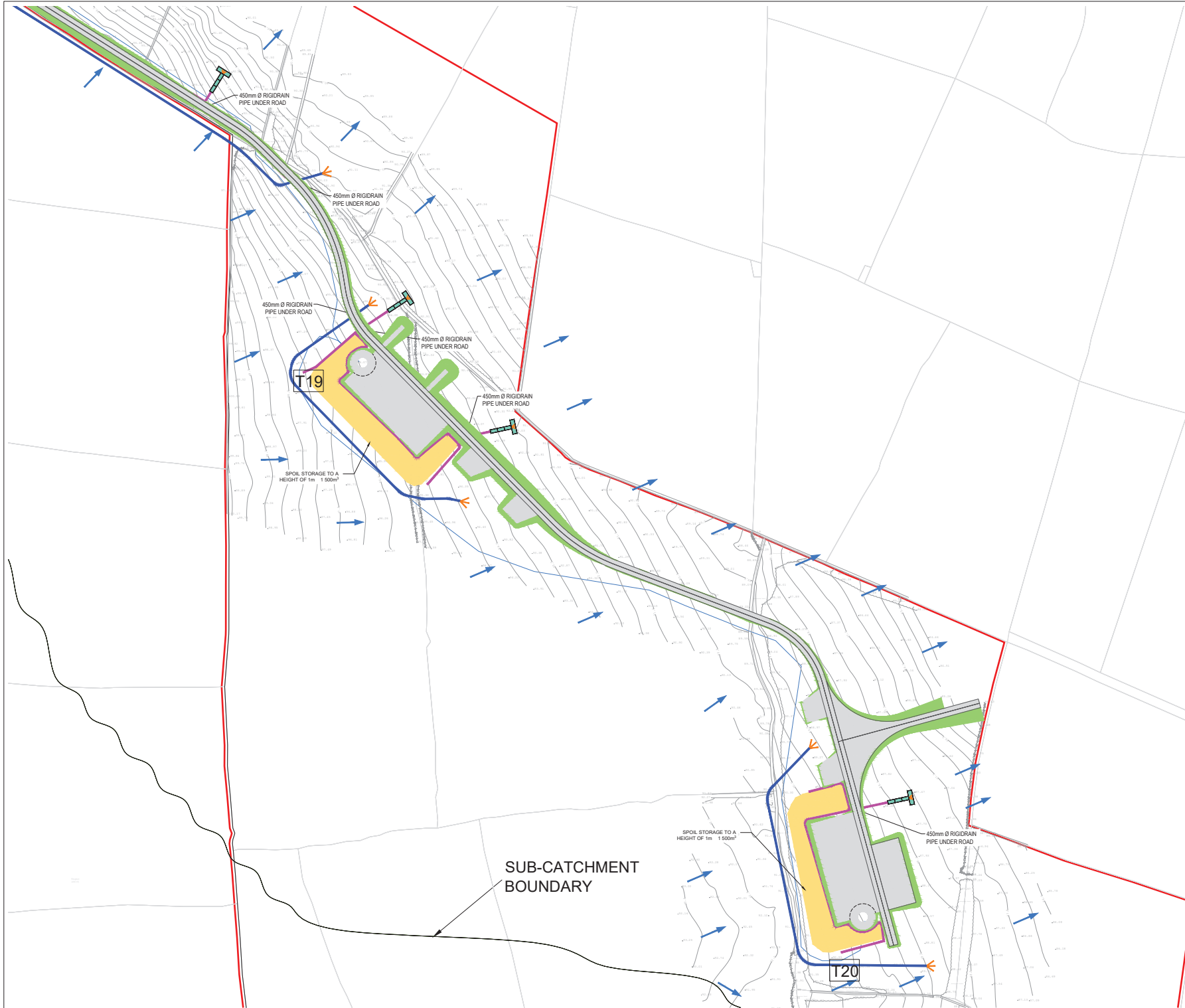
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DRAWN:	PK	CHECKED:	PK	APPROVED:	BS
DATE:	01/06/22	SCALE @ A1:	1:1000		
PROJECT NUMBER:	21337	DESIGN STATUS:	S2		
DRAWING NUMBER:	21337-MWP-ZZ-00-DR-C-2110	REV:	P02		





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5. ALL DIMENSIONS ARE IN METERS, UNLESS NOTED OTHERWISE.

#### LEGEND:

- SITE BOUNDARY
- OWNERSHIP BOUNDARY
- WORKS CORRIDOR
- ROAD STONE CAPPED SURFACES
- EXTENT OF ROAD SIDE BERM
- CUT EMBANKMENT
- FILL EMBANKMENT
- SUBSTATION FLOOR PLAN
- STONE BERM
- PEAT STORAGE
- DIRTY WATER DRAIN
- CLEAN WATER DRAIN
- EXISTING CUT-OFF DRAIN
- RUN OFF DRAIN WITH BUFFERED OUTFALL
- SETTLEMENT POND WITH BUFFERED OUTFALL
- DIRECTION OF FLOW OF SURFACE WATER
- LAND & STRUCTURE BOUNDARY
- INTERNAL CABLE ROUTE (Circuit 1)
- INTERNAL CABLE ROUTE (Circuit 2)
- INTERNAL CABLE ROUTE (Circuit 3)
- INTERNAL CABLE ROUTE (Circuit 4)
- INTERNAL CABLE ROUTE (Circuit 5)
- INTERNAL CABLE ROUTE (4 x circuits to Substation)

#### REFERENCE DRAWINGS:

DRAWING No.	DRAWING TITLE
21337-MWP-WF-00-DR-C-2111	DRAINAGE LAYOUT SHEET 11
21337MWP-WF-00-DR-C-2112	DRAINAGE LAYOUT SHEET 12
21337-MWP-WF-00-DR-C-2113	DRAINAGE LAYOUT SHEET 13
21337-MWP-WF-00-DR-C-2114	DRAINAGE LAYOUT SHEET 14
21337-MWP-WF-00-DR-C-2115	DRAINAGE LAYOUT SHEET 15
21337-MWP-WF-00-DR-C-2116	DRAINAGE LAYOUT SHEET 16
21337-MWP-WF-00-DR-C-2117	DRAINAGE LAYOUT SHEET 17
21337-MWP-WF-00-DR-C-2118	DRAINAGE LAYOUT SHEET 18
21337MWP-WF-00-DR-C-2119	DRAINAGE LAYOUT SHEET 19
21337MWP-WF-00-DR-C-2120	DRAINAGE LAYOUT SHEET 20
21337MWP-WF-00-DR-C-2121	DRAINAGE LAYOUT SHEET 21
21337MWP-WF-00-DR-C-2122	DRAINAGE LAYOUT SHEET 22
21337MWP-WF-00-DR-C-2123	DRAINAGE LAYOUT SHEET 23
21337MWP-WF-00-DR-C-2124	DRAINAGE LAYOUT SHEET 24
21337MWP-WF-00-DR-C-2126	SOUTH DRAINAGE LAYOUT

REV	DATE	DESCRIPTION	BY	APP
PK	BS			
PK	BS			

PROJECT: SEVEN HILLS WIND FARM

TITLE: PROPOSED DRAINAGE LAYOUT SHEET 11

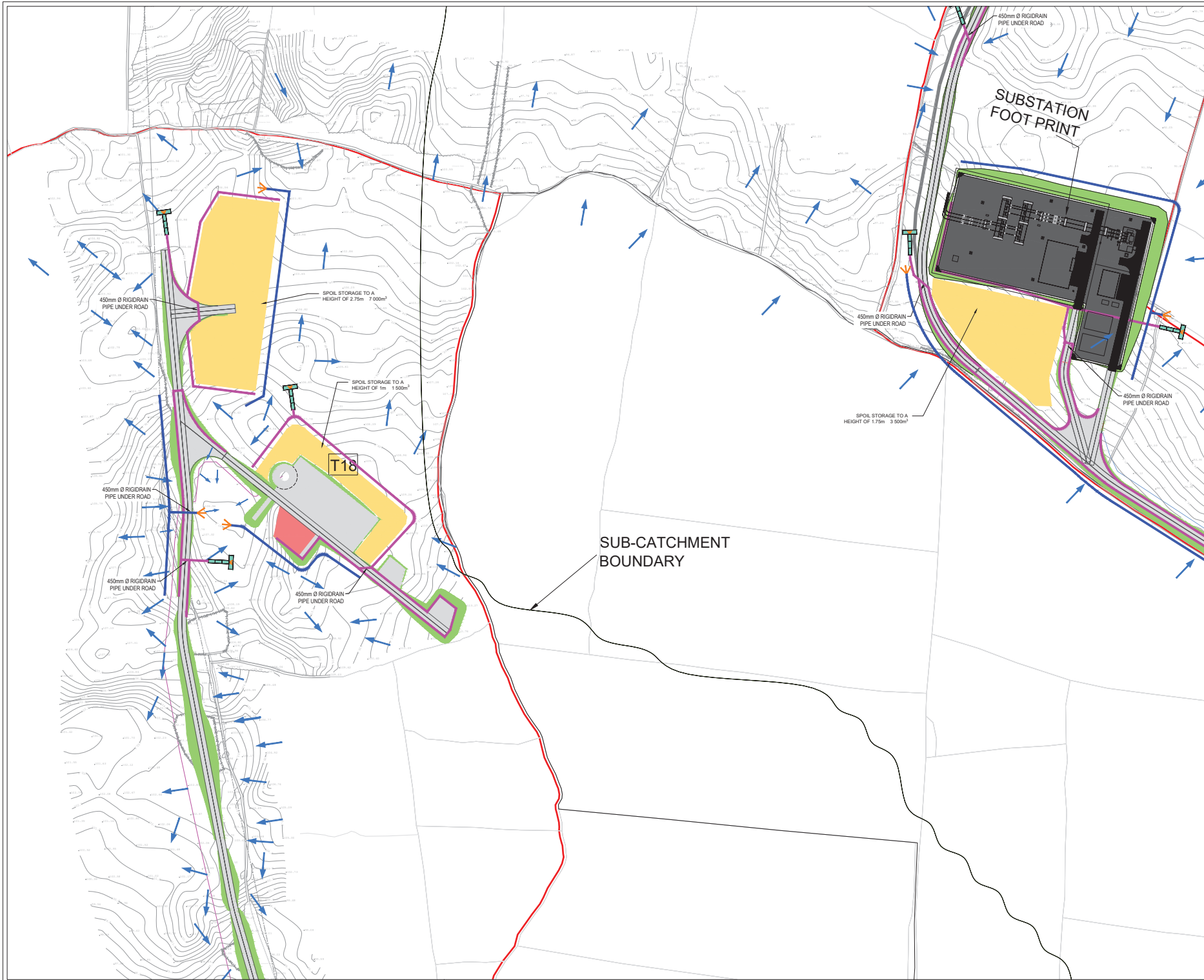
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DRAWN: PK	CHECKED: PB	APPROVED: BS
DATE: 01 / 06 / 22	SCALE @ A1: 1:1000	
PROJECT NUMBER: 21337	DRAWING STATUS: S2	
DRAWING NUMBER: 21337-MWP-00-00-DR-C-2111	REV: P02	



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**LEGEND:**

- SITE BOUNDARY
- OWNERSHIP BOUNDARY
- WORKS CORRIDOR
- ROAD/ STONE CAPPED SURFACES
- EXTENT OF ROAD SIDE BERM
- CUT EMBANKMENT
- FILL EMBANKMENT
- SUBSTATION FLOOR PLAN
- STONE BERM
- PEAT STORAGE
- DIRTY WATER DRAIN
- CLEAN WATER DRAIN
- EXISTING CUT-OFF DRAIN
- RUN OFF DRAIN WITH BUFFERED OUTFALL
- SETTLEMENT POND WITH BUFFERED OUTFALL
- DIRECTION OF FLOW OF SURFACE WATER
- LAND & STRUCTURE BOUNDARY
- INTERNAL CABLE ROUTE (Circuit 1)
- INTERNAL CABLE ROUTE (Circuit 2)
- INTERNAL CABLE ROUTE (Circuit 3)
- INTERNAL CABLE ROUTE (Circuit 4)
- INTERNAL CABLE ROUTE (Circuit 5)
- INTERNAL CABLE ROUTE (4 x circuits to Substation)

REV	DATE	DESCRIPTION	BY	APP
RS	01/08/22	ISSUED FOR INFORMATION	SW	SS
RM	12/08/22	ISSUED FOR INFORMATION	SW	SS
RS	19/08/22	SUBSTATION UPDATED	SW	SS
RM	30/08/22	SUBSTATION UPDATED	SW	SS
RS	01/09/22	ISSUED FOR INFORMATION	SW	SS

PROJECT: SEVEN HILLS WIND FARM

TITLE: PROPOSED DRAINAGE LAYOUT SHEET 12

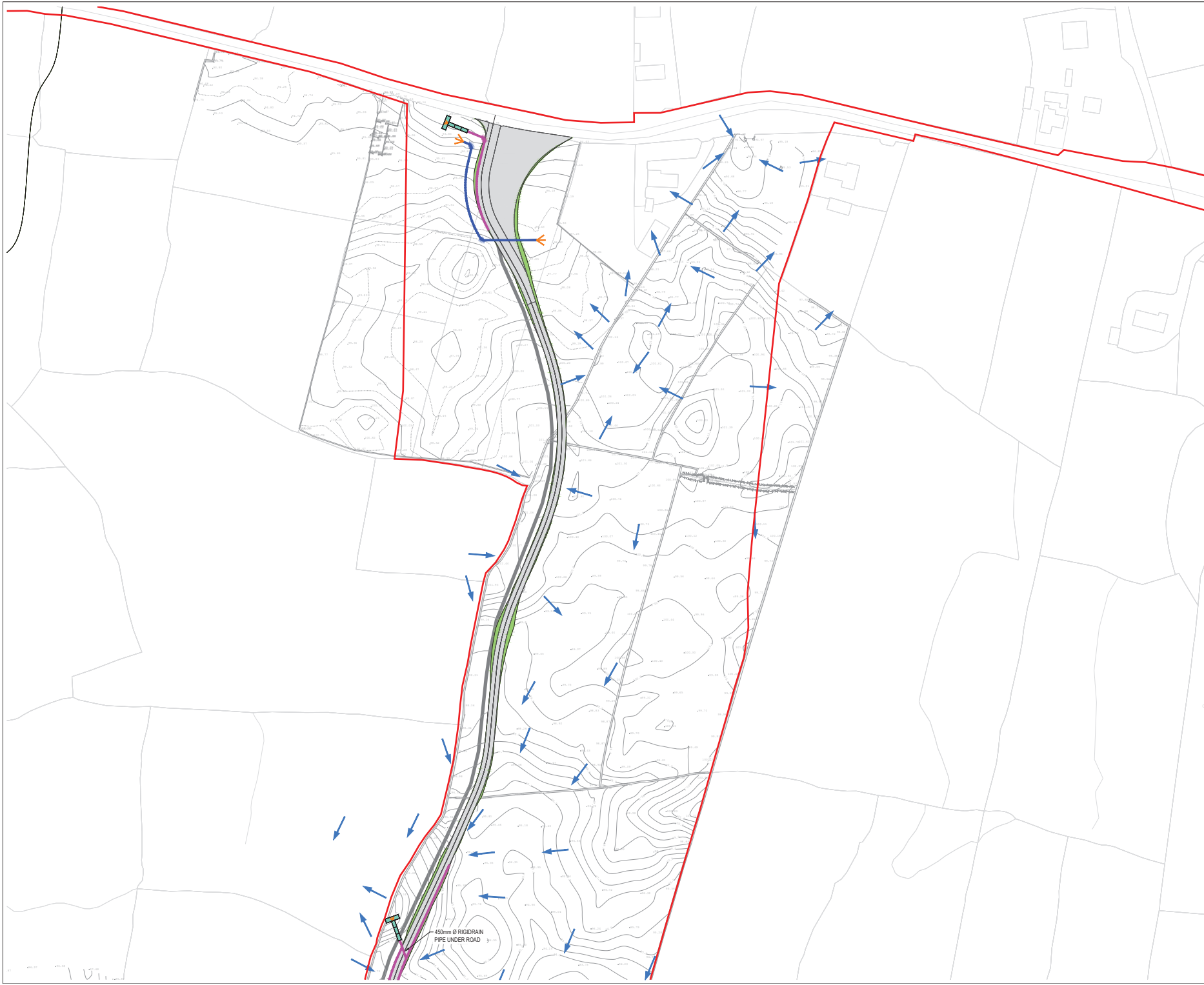
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DRAWN	PK	CHECKED	PB	APPROVED	SS
DATE	01/08/22	SCALE @ A1	1:1000		
PROJECT NUMBER	21337	DRAWING STATUS	S2		
DRAWING NUMBER	21337-MWP-00-00-DR-C-2112				P05



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- LEGEND:
- SITE BOUNDARY
  - OWNERSHIP BOUNDARY
  - WORKS CORRIDOR
  - ROAD/ STONE CAPPED SURFACES
  - EXTENT OF ROAD SIDE BERM
  - CUT EMBANKMENT
  - FILL EMBANKMENT
  - SUBSTATION FLOOR PLAN
  - STONE BERM
  - TURLOUGH
  - PEAT STORAGE
  - DIRTY WATER DRAIN
  - CLEAN WATER DRAIN
  - EXISTING CUT-OFF DRAIN
  - RUN OFF DRAIN WITH BUFFERED OUTFALL
  - SETTLEMENT POND WITH BUFFERED OUTFALL
  - DIRECTION OF FLOW OF SURFACE WATER
  - LAND & STRUCTURE BOUNDARY
  - INTERNAL CABLE ROUTE (Circuit 1)
  - INTERNAL CABLE ROUTE (Circuit 2)
  - INTERNAL CABLE ROUTE (Circuit 3)
  - INTERNAL CABLE ROUTE (Circuit 4)
  - INTERNAL CABLE ROUTE (Circuit 5)
  - INTERNAL CABLE ROUTE (4 x circuits to Substation)

REV	DATE	DESCRIPTION	BY	APP
01	01/08/22	DESIGN FOR CONSTRUCTION	PK	BS
02	01/08/22	DESIGN FOR CONSTRUCTION	PK	BS

PROJECT: SEVEN HILLS WIND FARM

TITLE: PROPOSED DRAINAGE LAYOUT  
SHEET 13

CLIENT: **energia**  
Switched on

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DRAWN: PK	CHECKED: PB	APPROVED: BS
DATE: 01/08/22	SCALE @ A1: 1:1000	
PROJECT NUMBER: 21337	DRAWING STATUS: S2	
DRAWING NUMBER: 21337-MWP-00-00-DR-C-2113		P02





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LEGEND:

- SITE BOUNDARY
- OWNERSHIP BOUNDARY
- WORKS CORRIDOR
- ROAD/ STONE CAPPED SURFACES
- EXTENT OF ROAD SIDE BERM
- CUT EMBANKMENT
- FILL EMBANKMENT
- SUBSTATION FLOOR PLAN
- STONE BERM
- PEAT STORAGE
- DIRTY WATER DRAIN
- CLEAN WATER DRAIN
- EXISTING CUT-OFF DRAIN
- RUN OFF DRAIN WITH BUFFERED OUTFALL
- SETTLEMENT POND WITH BUFFERED OUTFALL
- DIRECTION OF FLOW OF SURFACE WATER
- LAND & STRUCTURE BOUNDARY
- INTERNAL CABLE ROUTE (Circuit 1)
- INTERNAL CABLE ROUTE (Circuit 2)
- INTERNAL CABLE ROUTE (Circuit 3)
- INTERNAL CABLE ROUTE (Circuit 4)
- INTERNAL CABLE ROUTE (Circuit 5)
- INTERNAL CABLE ROUTE (4 x circuits to Substation)

REV	07/08/22	DESCRIPTION FOR REVISION	PK	BS
REV	01/07/23	DESCRIPTION FOR REVISION	PK	BS
REV	DATE	DESCRIPTION	BY	APP

PROJECT:

SEVEN HILLS WIND FARM

TITLE:

PROPOSED DRAINAGE LAYOUT  
SHEET 14

CLIENT:

**energia**  
Switched on

**Malachy Walsh and Partners**  
Engineering and Environmental Consultants  
Cork | Tralee | Limerick | Dublin

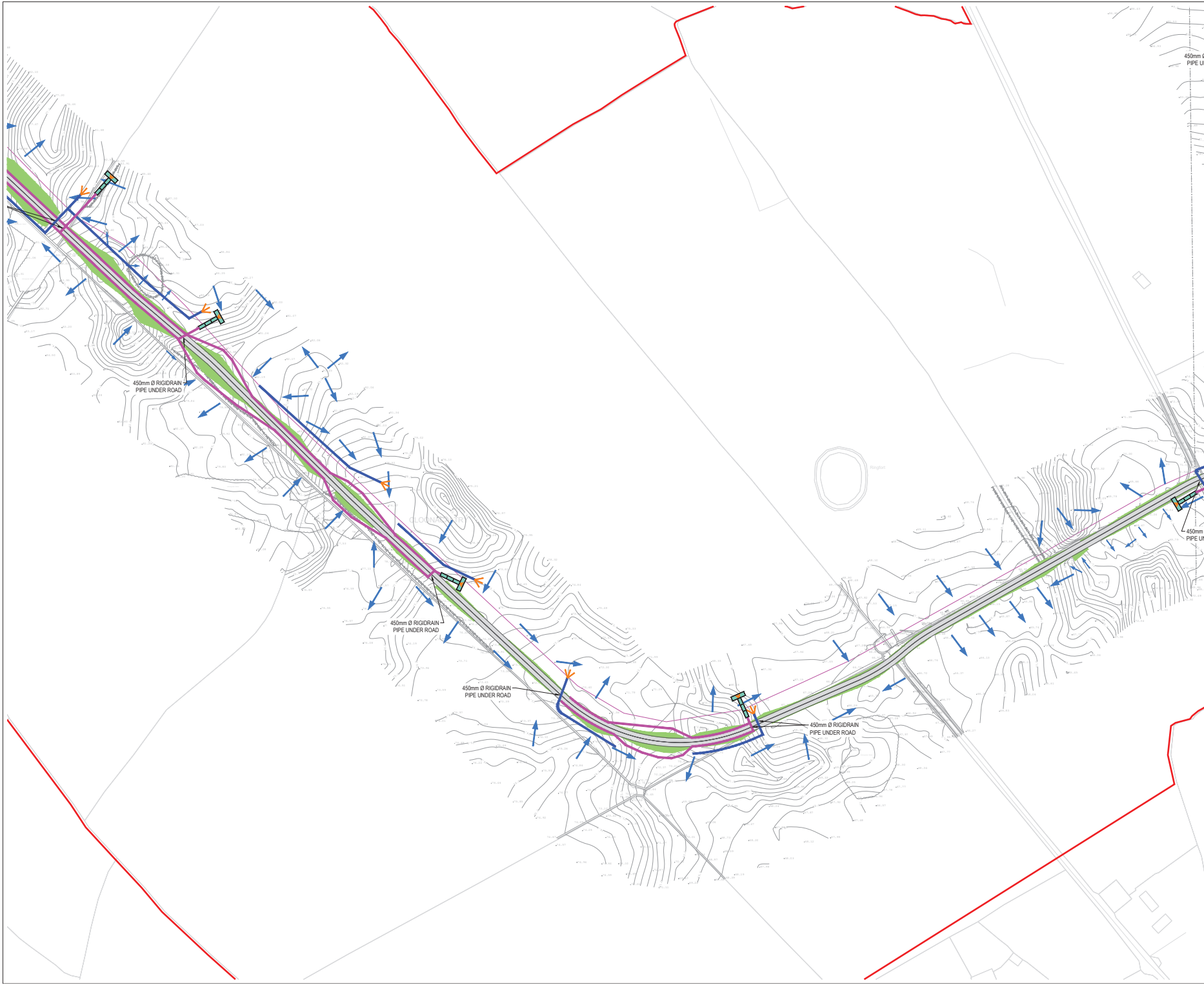
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Limerick,  
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Fax: +353 (0) 61 481129  
Email: [info@malachywalsh.ie](mailto:info@malachywalsh.ie)  
Web: [www.mwp.ie](http://www.mwp.ie)

DRAWN	PK	CHECKED	PB	APPROVED	BS
DATE:	01/08/22	SCALE @ A1:	1:1000		
PROJECT NUMBER:	21337	DRAWING STATUS:	S2		

DRAWING NUMBER: 21337-MWP-00-00-DR-C-2114

P02



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LEGEND:

- SITE BOUNDARY
- OWNERSHIP BOUNDARY
- WORKS CORRIDOR
- ROAD/ STONE CAPPED SURFACES
- EXTENT OF ROAD SIDE BERM
- CUT EMBANKMENT
- FILL EMBANKMENT
- SUBSTATION FLOOR PLAN
- STONE BERM
- PEAT STORAGE
- DIRTY WATER DRAIN
- CLEAN WATER DRAIN
- EXISTING CUT-OFF DRAIN
- RUN OFF DRAIN WITH BUFFERED OUTFALL
- SETTLEMENT POND WITH BUFFERED OUTFALL
- DIRECTION OF FLOW OF SURFACE WATER
- LAND & STRUCTURE BOUNDARY
- INTERNAL CABLE ROUTE (Circuit 1)
- INTERNAL CABLE ROUTE (Circuit 2)
- INTERNAL CABLE ROUTE (Circuit 3)
- INTERNAL CABLE ROUTE (Circuit 4)
- INTERNAL CABLE ROUTE (Circuit 5)
- INTERNAL CABLE ROUTE (4 x circuits to Substation)

REV	DATE	DESCRIPTION	BY	APP
01	01/08/22	ISSUED FOR PERIOD 1	PK	BS
02	01/08/22	ISSUED FOR PERIOD 2	PK	BS

PROJECT: SEVEN HILLS WIND FARM

TITLE: PROPOSED DRAINAGE LAYOUT SHEET 15

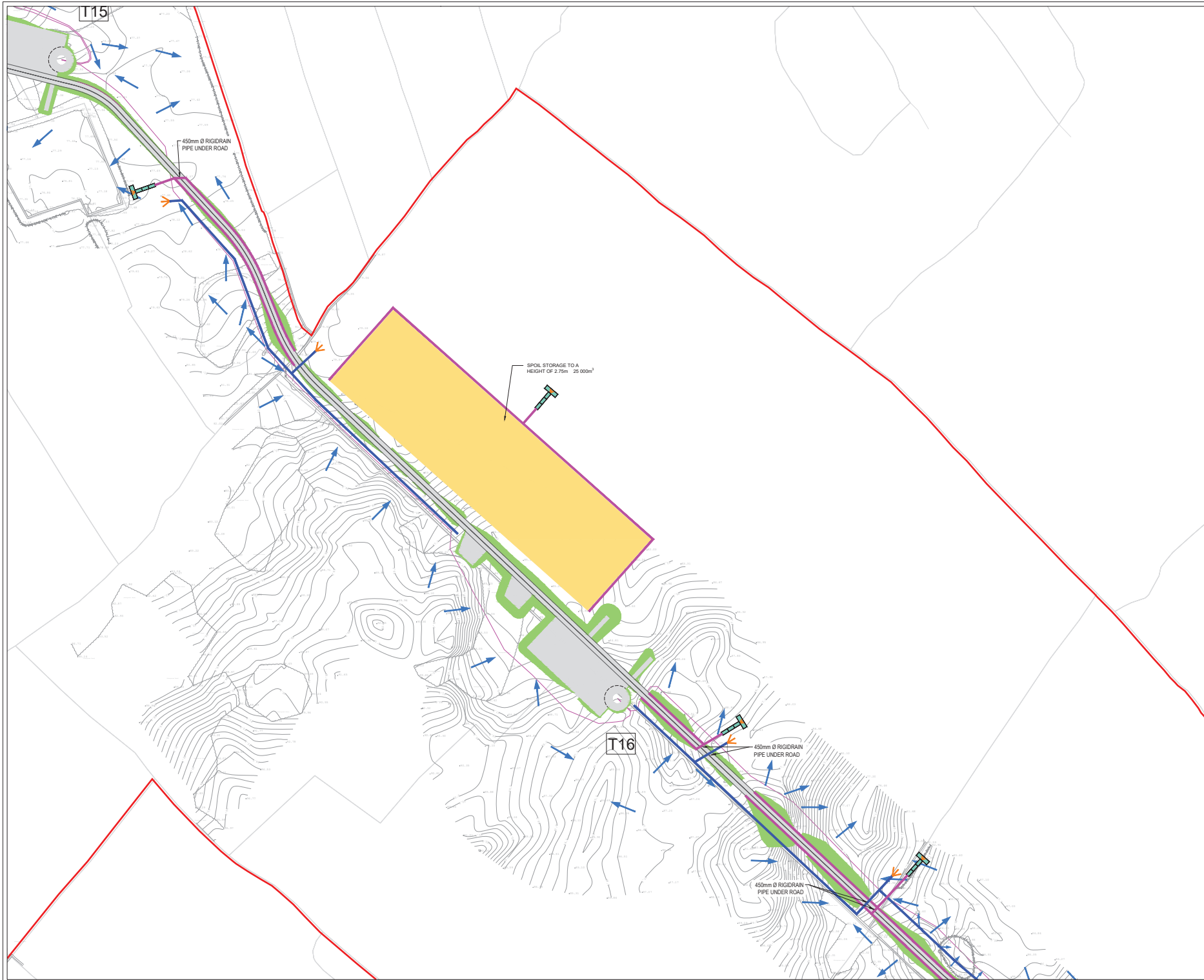
CLIENT: **energia** Switched on

**Malachy Walsh and Partners**  
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Web: [www.mwp.ie](http://www.mwp.ie)

DRAWN	PK	CHECKED	PB	APPROVED	BS
DATE:	01/08/22	SCALE @ A1:	1:1000		
PROJECT NUMBER:	21337	DRAWING STATUS:	S2		
DRAWING NUMBER:	21337-MWP-00-00-DR-C-2115				P02



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- LEGEND:
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  - OWNERSHIP BOUNDARY
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  - SETTLEMENT POND WITH BUFFERED OUTFALL
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  - LAND & STRUCTURE BOUNDARY
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  - INTERNAL CABLE ROUTE (Circuit 2)
  - INTERNAL CABLE ROUTE (Circuit 3)
  - INTERNAL CABLE ROUTE (Circuit 4)
  - INTERNAL CABLE ROUTE (Circuit 5)
  - INTERNAL CABLE ROUTE (4 x circuits to Substation)

REV	01/04/22	DESIGN FOR FOUNDATION	BY	LS
REV	12/04/22	DESIGN FOR FOUNDATION	BY	LS
REV	18/07/22	DESIGN FOR FOUNDATION	BY	LS
REV	DATE	DESCRIPTION	BY	APP

PROJECT: SEVEN HILLS WIND FARM

TITLE: PROPOSED DRAINAGE LAYOUT SHEET 16

CLIENT: **energia**  
Switched on

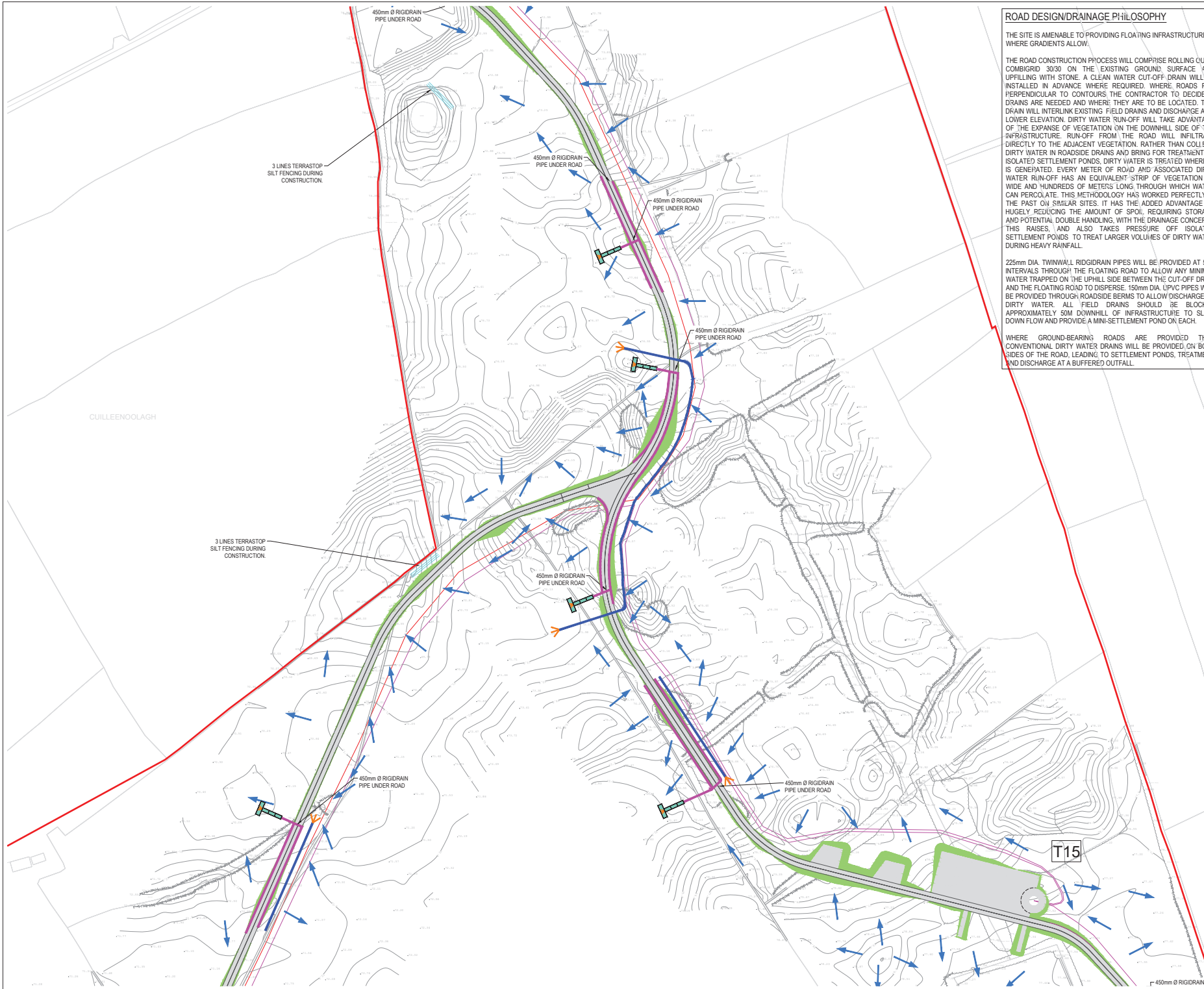
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DRAWN: PK	CHECKED: PB	APPROVED: SS
DATE: 01/08/22	SCALE @ A1: 1:1000	
PROJECT NUMBER: 21337	DRAWING STATUS: S2	
DRAWING NUMBER: 21337-MWP-00-00-DR-C-2116		P03





ROAD DESIGN/DRAINAGE PHILOSOPHY

THE SITE IS AMENABLE TO PROVIDING FLOATING INFRASTRUCTURE WHERE GRADIENTS ALLOW.

THE ROAD CONSTRUCTION PROCESS WILL COMPRISE ROLLING OUT A COMBIGRID 30/30 ON THE EXISTING GROUND SURFACE AND UPFILLING WITH STONE. A CLEAN WATER CUT-OFF DRAIN WILL BE INSTALLED IN ADVANCE WHERE REQUIRED. WHERE ROADS RUN PERPENDICULAR TO CONTOURS THE CONTRACTOR TO DECIDE IF DRAINS ARE NEEDED AND WHERE THEY ARE TO BE LOCATED. THIS DRAIN WILL INTERLINK EXISTING FIELD DRAINS AND DISCHARGE AT A LOWER ELEVATION. DIRTY WATER RUN-OFF WILL TAKE ADVANTAGE OF THE EXPANSE OF VEGETATION ON THE DOWNHILL SIDE OF THE INFRASTRUCTURE. RUN-OFF FROM THE ROAD WILL INFILTRATE DIRECTLY TO THE ADJACENT VEGETATION, RATHER THAN COLLECT DIRTY WATER IN ROADSIDE DRAINS AND BRING FOR TREATMENT TO ISOLATED SETTLEMENT PONDS. DIRTY WATER IS TREATED WHERE IT IS GENERATED. EVERY METER OF ROAD AND ASSOCIATED DIRTY WATER RUN-OFF HAS AN EQUIVALENT STRIP OF VEGETATION 1M WIDE AND HUNDREDS OF METERS LONG THROUGH WHICH WATER CAN PERCOLATE. THIS METHODOLOGY HAS WORKED PERFECTLY IN THE PAST ON SIMILAR SITES. IT HAS THE ADDED ADVANTAGE OF HUGELY REDUCING THE AMOUNT OF SPOIL, REQUIRING STORAGE AND POTENTIAL DOUBLE HANDLING, WITH THE DRAINAGE CONCERNS THIS RAISES, AND ALSO TAKES PRESSURE OFF ISOLATED SETTLEMENT PONDS TO TREAT LARGER VOLUMES OF DIRTY WATER DURING HEAVY RAINFALL.

225mm DIA. TWINWALL RIDGIDRAIN PIPES WILL BE PROVIDED AT 50m INTERVALS THROUGH THE FLOATING ROAD TO ALLOW ANY MINIMAL WATER TRAPPED ON THE UPHILL SIDE BETWEEN THE CUT-OFF DRAIN AND THE FLOATING ROAD TO DISPERSE. 150mm DIA. UPVC PIPES WILL BE PROVIDED THROUGH ROADSIDE BERMS TO ALLOW DISCHARGE OF DIRTY WATER. ALL FIELD DRAINS SHOULD BE BLOCKED APPROXIMATELY 50M DOWNHILL OF INFRASTRUCTURE TO SLOW DOWN FLOW AND PROVIDE A MINI-SETTLEMENT POND ON EACH.

WHERE GROUND-BEARING ROADS ARE PROVIDED THEN CONVENTIONAL DIRTY WATER DRAINS WILL BE PROVIDED ON BOTH SIDES OF THE ROAD, LEADING TO SETTLEMENT PONDS, TREATMENT AND DISCHARGE AT A BUFFERED OUTFALL.

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- INTERNAL CABLE ROUTE (Circuit 3)
- INTERNAL CABLE ROUTE (Circuit 4)
- INTERNAL CABLE ROUTE (Circuit 5)
- INTERNAL CABLE ROUTE (4 x circuits to Substation)

REV	DATE	DESCRIPTION	BY	APP
01	01/08/22	DESIGN FOR CONSTRUCTION	PK	BS
02	01/08/22	DESIGN FOR CONSTRUCTION	PK	BS

PROJECT: SEVEN HILLS WF

TITLE: PROPOSED DRAINAGE LAYOUT SHEET 17

CLIENT: **energia** Switched on

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DRAWN: PK	CHECKED: PB	APPROVED: BS
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DATE: 01/08/22 SCALE @ A1: 1:1000

PROJECT NUMBER: 21337 DRAWING STATUS: S2

DRAWING NUMBER: 21337-MWP-00-00-DR-C-2117 P02







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  - INTERNAL CABLE ROUTE (Circuit 2)
  - INTERNAL CABLE ROUTE (Circuit 3)
  - INTERNAL CABLE ROUTE (Circuit 4)
  - INTERNAL CABLE ROUTE (Circuit 5)
  - INTERNAL CABLE ROUTE (4 x circuits to Substation)

REV	01/06/22	ISSUED FOR INFORMATION	PK	BS
REV	20/01/22	ISSUED FOR INFORMATION	PK	BS
REV	DATE	DESCRIPTION	BY	APP

PROJECT: SEVEN HILLS WIND FARM

TITLE: PROPOSED DRAINAGE LAYOUT  
SHEET 19

CLIENT: **energia**  
Switched on

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E-mail: [info@malachywalsh.ie](mailto:info@malachywalsh.ie)  
Web: [www.mwp.ie](http://www.mwp.ie)

DRAWN	PK	CHECKED	PB	APPROVED	BS
DATE:	01/08/22	SCALE @:	1:1000		
PROJECT NUMBER:	21337	DRAWING STATUS:	S2		

DRAWING NUMBER: 21337-MWP-00-00-DR-C-2119 P02

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#### LEGEND:

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- LAND & STRUCTURE BOUNDARY
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- INTERNAL CABLE ROUTE (Circuit 3)
- INTERNAL CABLE ROUTE (Circuit 4)
- INTERNAL CABLE ROUTE (Circuit 5)
- INTERNAL CABLE ROUTE (4 x circuits to Substation)

REV	DATE	DESCRIPTION	BY	APP
01	01/07/22	DESIGN FOR CONSTRUCTION	PK	BS
02	01/07/22	DESIGN FOR CONSTRUCTION	PK	BS

PROJECT: SEVEN HILLS WIND FARM

TITLE: PROPOSED DRAINAGE LAYOUT  
SHEET 20

CLIENT: **energia**  
Switched on

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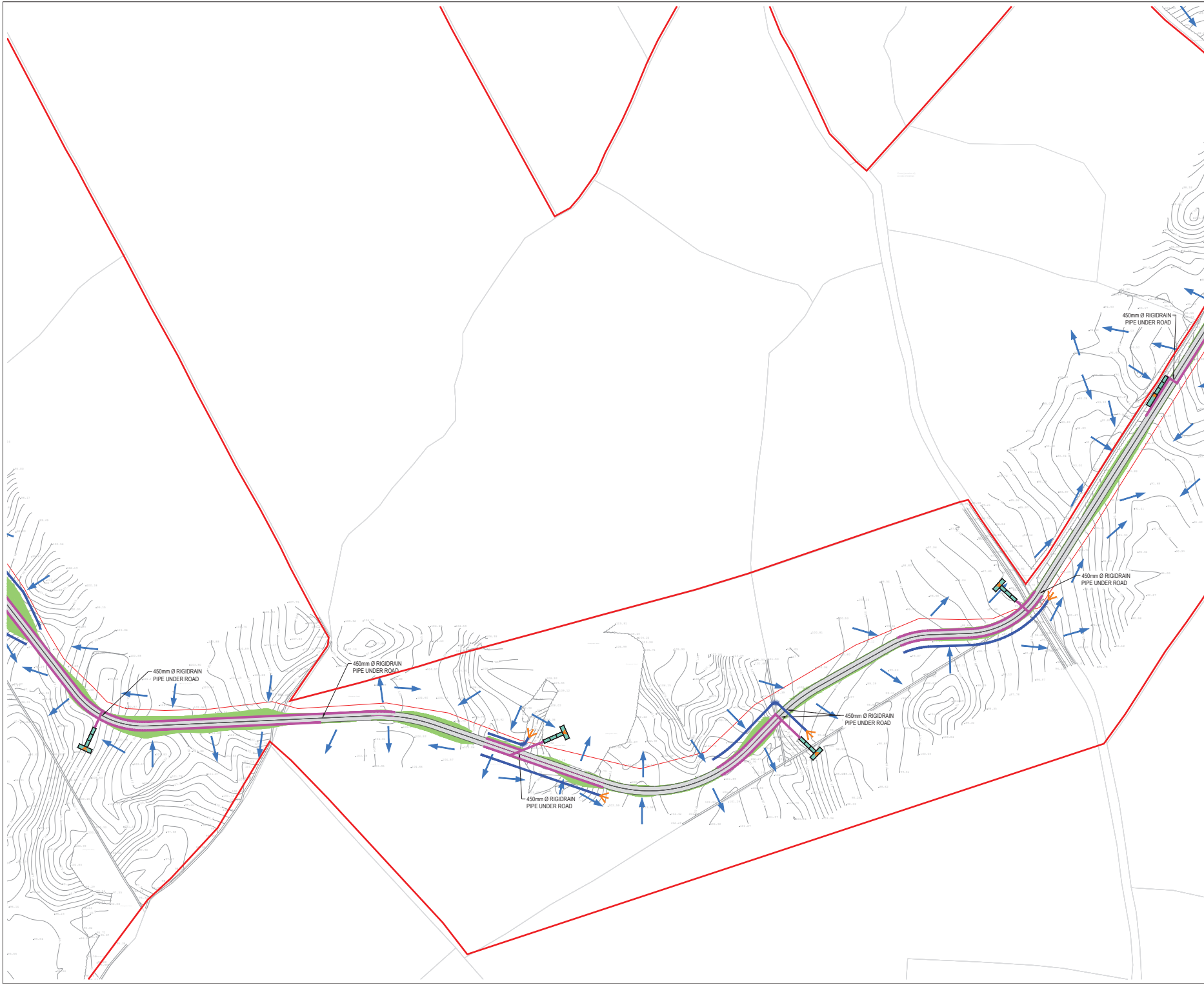
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Email: [info@malachywalsh.ie](mailto:info@malachywalsh.ie)  
Web: [www.mw.ie](http://www.mw.ie)

DRAWN: PK CHECKED: PB APPROVED: BS

DATE: 01/08/22 SCALE @ A1: 1:1000

PROJECT NUMBER: 21337 DRAWING STATUS: S2

DRAWING NUMBER: 21337-MWP-00-00-DR-C-2120 P02



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LEGEND:

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- INTERNAL CABLE ROUTE (Circuit 4)
- INTERNAL CABLE ROUTE (Circuit 5)
- INTERNAL CABLE ROUTE (4 x circuits to Substation)

REV	01/08/22	DESIGN FOR CONSTRUCTION	PK	BS	
REV	01/07/21	DESIGN FOR CONSTRUCTION	PK	BS	
REV	1	DATE	DESCRIPTION	BY	APP

PROJECT: SEVEN HILLS WIND FARM

TITLE: PROPOSED DRAINAGE LAYOUT SHEET 21

CLIENT: **energia** Switched on

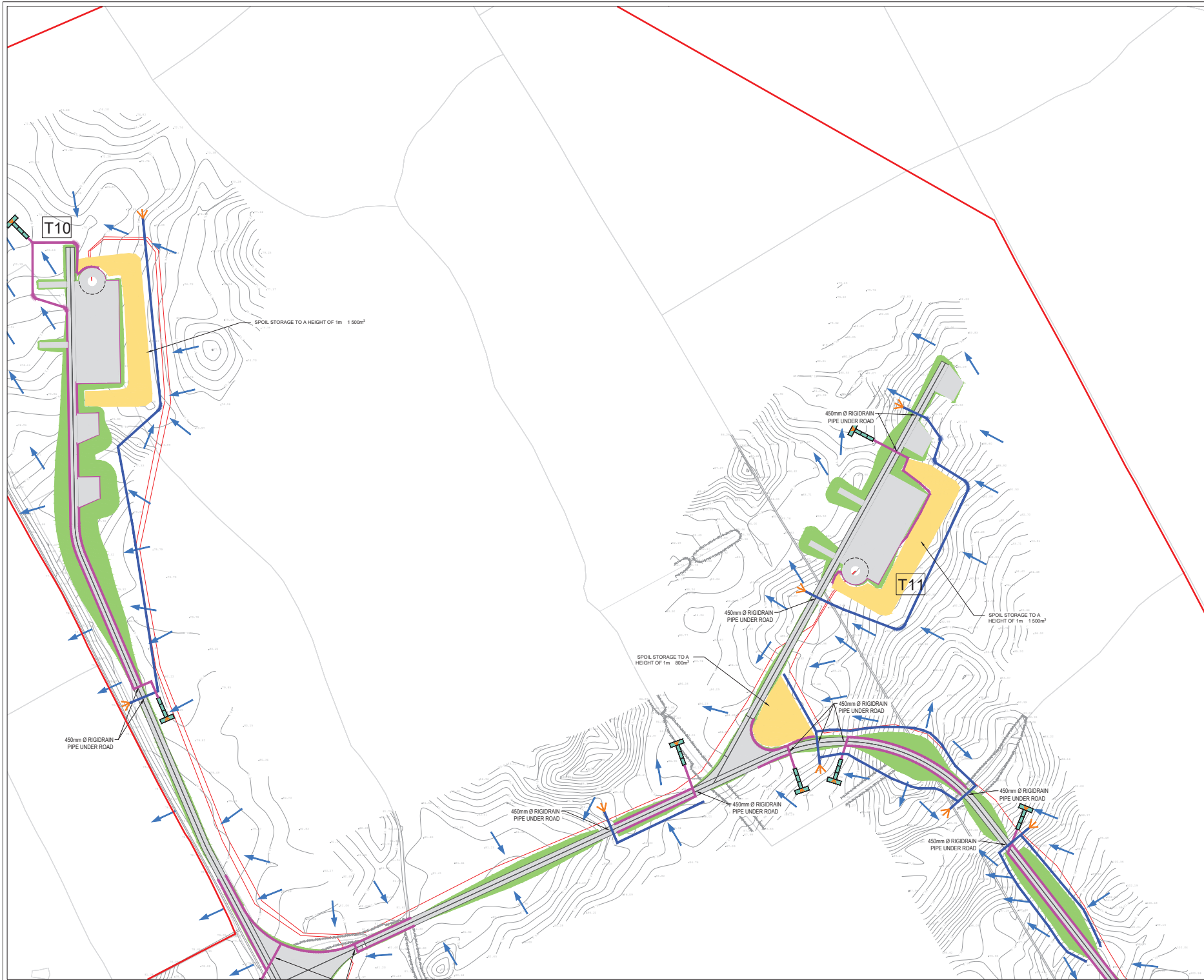
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Web: [www.mwep.ie](http://www.mwep.ie)

DRAWN	PK	CHECKED	PB	APPROVED	BS
DATE:	01/08/22	SCALE @ A1:	1:1000		
PROJECT NUMBER:	21337	DRAWING STATUS:	S2		
DRAWING NUMBER:	21337-MWP-00-00-DR-C-2121				P02





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  - INTERNAL CABLE ROUTE (Circuit 5)
  - INTERNAL CABLE ROUTE (4 x circuits to Substation)

REV	17/04/22	DESCRIPTION	BY	IS
REV	12/04/22	DESIGN FOR CONSTRUCTION	BY	IS
REV	01/07/21	DESIGN FOR CONSTRUCTION	BY	IS
REV	1 DATE	DESCRIPTION	BY	APP

PROJECT: SEVEN HILLS WIND FARM

TITLE: PROPOSED DRAINAGE LAYOUT SHEET 22

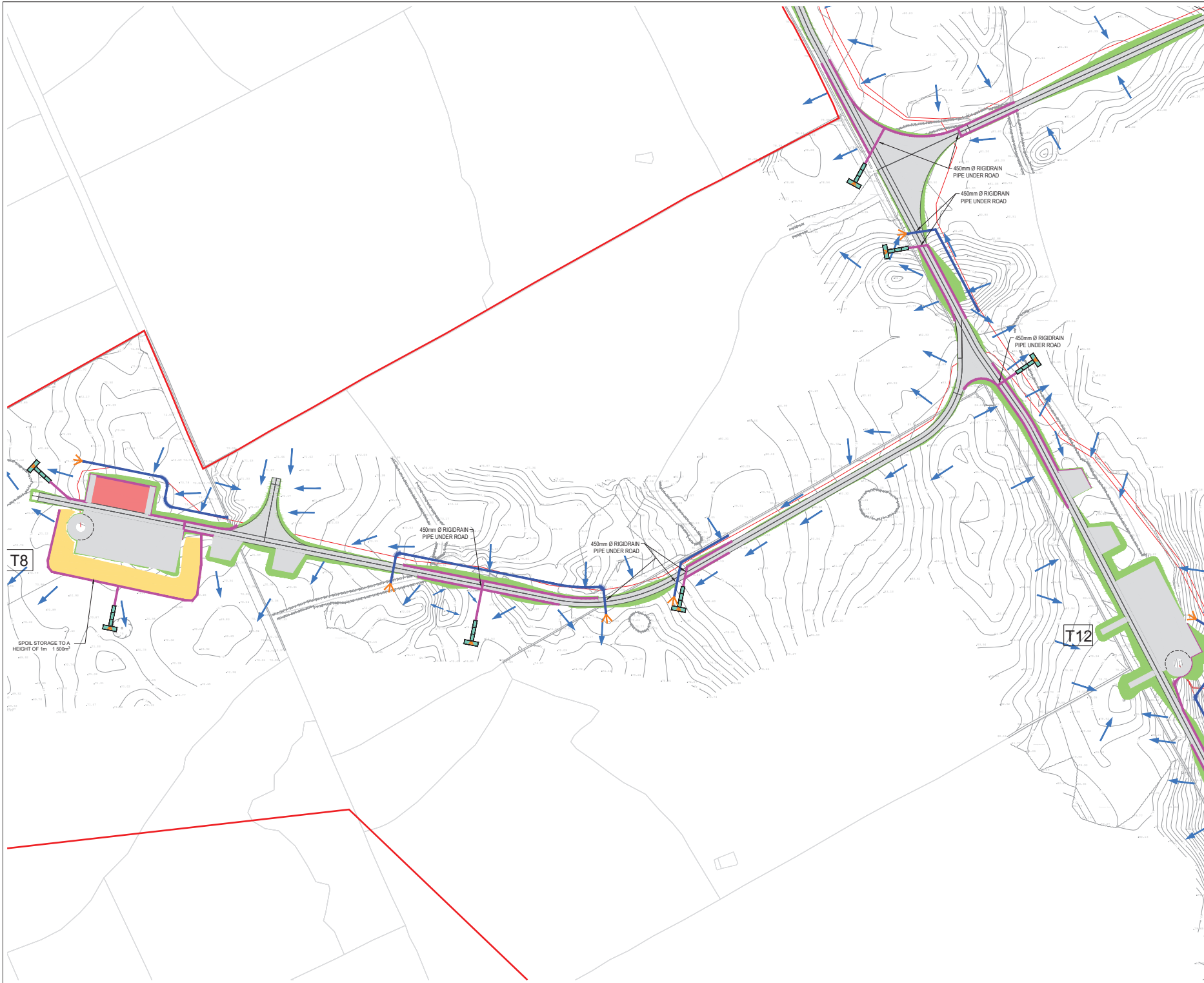
CLIENT: **energia** Switched on

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DRAWN: PK	CHECKED: PB	APPROVED: SS
DATE: 01/06/22	SCALE @ A1: 1:1000	
PROJECT NUMBER: 21337	DRAWING STATUS: S2	
DRAWING NUMBER: 21337-MWP-00-00-DR-C-2122		P03



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  3. ANY DISCREPANCIES BETWEEN THESE DOCUMENTS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER.
  4. DRAWINGS ARE NOT TO BE SCALED.
  5. ALL DIMENSIONS ARE IN METERS, UNLESS NOTED OTHERWISE.

- LEGEND:
- SITE BOUNDARY
  - OWNERSHIP BOUNDARY
  - WORKS CORRIDOR
  - ROAD/ STONE CAPPED SURFACES
  - EXTENT OF ROAD SIDE BERM
  - CUT EMBANKMENT
  - FILL EMBANKMENT
  - SUBSTATION FLOOR PLAN
  - STONE BERM
  - PEAT STORAGE
  - DIRTY WATER DRAIN
  - CLEAN WATER DRAIN
  - EXISTING CUT-OFF DRAIN
  - RUN OFF DRAIN WITH BUFFERED OUTFALL
  - SETTLEMENT POND WITH BUFFERED OUTFALL
  - DIRECTION OF FLOW OF SURFACE WATER
  - LAND & STRUCTURE BOUNDARY
  - INTERNAL CABLE ROUTE (Circuit 1)
  - INTERNAL CABLE ROUTE (Circuit 2)
  - INTERNAL CABLE ROUTE (Circuit 3)
  - INTERNAL CABLE ROUTE (Circuit 4)
  - INTERNAL CABLE ROUTE (Circuit 5)
  - INTERNAL CABLE ROUTE (4 x circuits to Substation)

REV	01/08/22	DESCRIPTION	PK	BS
REV	01/08/22	DESCRIPTION	PK	BS
REV	DATE	DESCRIPTION	PK	BS

PROJECT: SEVEN HILLS WIND FARM

TITLE: PROPOSED DRAINAGE LAYOUT SHEET 23

CLIENT: **energia**  
Switched on

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DRAWN: PK	CHECKED: PB	APPROVED: BS
DATE: 01/08/22	SCALE @ A1: 1:1000	

PROJECT NUMBER: 21337	DRAWING STATUS: S2
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LEGEND:

- SITE BOUNDARY
- OWNERSHIP BOUNDARY
- WORKS CORRIDOR
- ROAD/ STONE CAPPED SURFACES
- EXTENT OF ROAD SIDE BERM
- CUT EMBANKMENT
- FILL EMBANKMENT
- SUBSTATION FLOOR PLAN
- STONE BERM
- PEAT STORAGE
- DIRTY WATER DRAIN
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- INTERNAL CABLE ROUTE (Circuit 3)
- INTERNAL CABLE ROUTE (Circuit 4)
- INTERNAL CABLE ROUTE (Circuit 5)
- INTERNAL CABLE ROUTE (4 x circuits to Substation)

REV	01/08/22	DESCRIPTION	PK	BS
REV	01/07/21	DESCRIPTION	PK	BS
REV	DATE	DESCRIPTION	BY	APP

PROJECT: SEVEN HILLS WIND FARM

TITLE: PROPOSED DRAINAGE LAYOUT SHEET 24

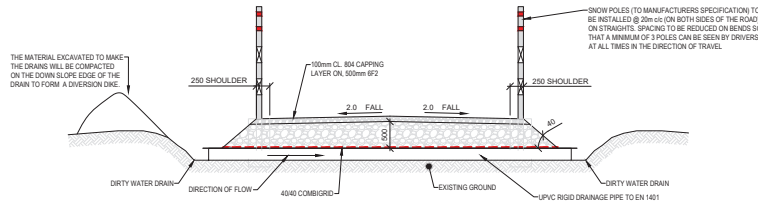
CLIENT: **energia**  
Switched on

**Malachy Walsh and Partners**  
Engineering and Environmental Consultants  
Cork | Tralee | Limerick | Enniscorthy

The Elm Suite,  
Loughmore Centre,  
Rahreen Business Park,  
Limerick,  
V94 RS78

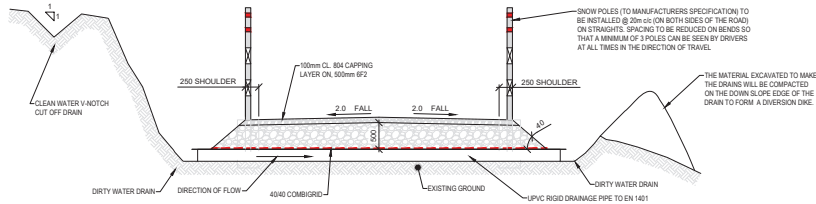
Tel: +353 (0) 61 480154  
Fax: +353 (0) 61 481128  
Email: [enquiries@mwep.ie](mailto:enquiries@mwep.ie)  
Web: [www.mwep.ie](http://www.mwep.ie)

DRAWN	PK	CHECKED	PB	APPROVED	BS
DATE:	01/08/22	SCALE @ A1:	1:1000		
PROJECT NUMBER:	21337	DRAWING STATUS:	S2		
DRAWING NUMBER:	21337-MWP-00-00-DR-C-2124				P02



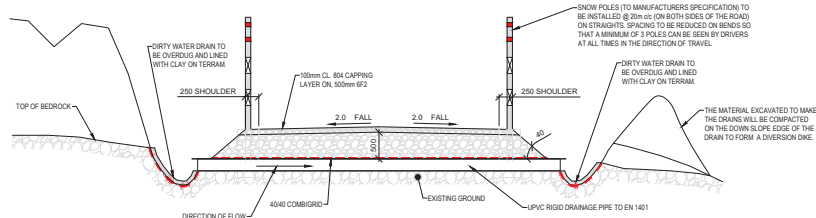
**GROUND BEARING ROAD DETAIL  
(FLAT GROUND)**

SCALE 1:50



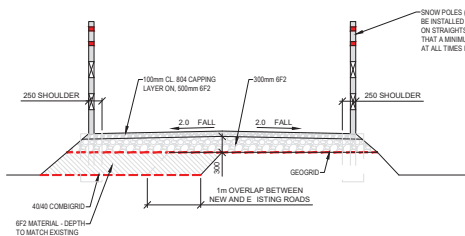
**GROUND BEARING ROAD DETAIL  
(SLOPING GROUND NO BEDROCK  
E POSED)**

SCALE 1:50



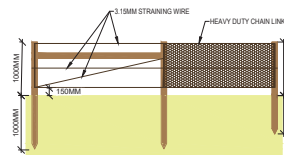
**GROUND BEARING ROAD DETAIL  
(SLOPING GROUND BEDROCK  
E POSED)**

SCALE 1:50



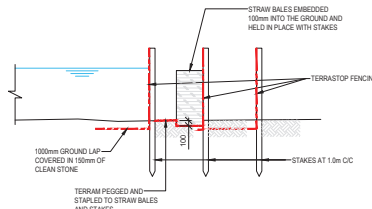
**WIDENED ACCESS TRACK DETAIL**

SCALE 1:50



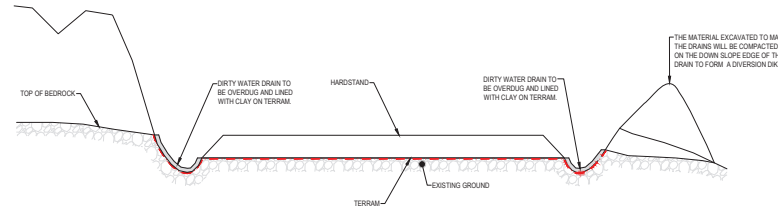
**STOCK PROOF FENCING DETAILS**

SCALE 1:50



**TERRASTOP FENCING DETAILS**

SCALE 1:50



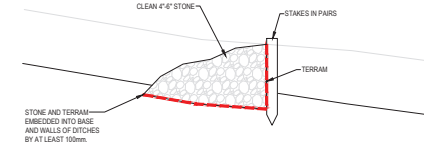
**GROUND BEARING HARDSTAND  
DETAIL (SLOPING GROUND  
BEDROCK E POSED)**

SCALE 1:50



**EROSION CONTROL ON STEEPER  
LOCATIONS (GRADIENT IS  
STEEPER THAN 10 )**

SCALE NTS



**CHECK DAM**

SCALE 1:25

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**REFERENCE DRAWINGS:**

DRAWING NO.	DRAWING TITLE
21337-MWP-00-00-DR-C	SITE LAYOUT MASTER SHEET

REV	DATE	DESCRIPTION	BY	APP
P01	10/06/22	ISSUED FOR INFORMATION	MM	BS
P02	28/03/22	REVISION FOR INFORMATION	MM	BS
P03	01/07/22	REVISION FOR INFORMATION	MM	BS

**PROJECT:**

SEVEN HILLS WF

**TITLE:**

TURBINE FOUNDATION, FENCING, ROAD AND DRAINAGE DETAILS

**CLIENT:**

**enenergia**  
Switched on

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DRAWN	PK	CHECKED	PG	APPROVED	BS
DATE:	01/06/22	SCALE @ A1:	1:50		

PROJECT NUMBER:	21337	DRAWING STATUS:	S2
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DRAWING NUMBER:	21337-MWP-ZZ-00-DR-C-2127	REV:	P03
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REFERENCE DRAWINGS:

DRAWING No.	DRAWING TITLE
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REV	DATE	DESCRIPTION	BY	APP
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REV	DATE	DESCRIPTION	BY	APP
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PROJECT:

SEVEN HILLS WF

TITLE:

GRASS LINED LINEAR SWALE INCLUDING SETTLEMENT POND

CLIENT:

**energia**  
Switched on

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DRAWN: PX CHECKED: PB APPROVED: BS

DATE: 01/06/22 SCALE @ A1: 1:50

PROJECT NUMBER: 21337 DRAWING STATUS: S2

DRAWING NUMBER: 21337-MWP-ZZ-00-DR-C-2128

REV: P02

NOTE

A MIN. BUFFER WIDTH OF 20m IS SPECIFIED BETWEEN THE OVERFLOW WEIR / DOWNSTREAM WATERCOURSES. IN GENERAL, THE OUTFLOW WEIRS SHOULD NOT BE LOCATED ON SLOPES GREATER THAN 3:1 OR IN AREAS OF INSTABILITY RISK. EXISTING RILLS / DRAINS WITHIN THE DISPERSION ONE WILL BE BLOCKED OFF WHERE NECESSARY TO PREVENT CONCENTRATION OF THE FLOW

NOTE

FOR THE FENCE TO STOCK DETAIL REFER TO  
DRAWING 21337-MWP- -00-DR-C-2127

STOCK PROOF FENCE

SETTLEMENT POND LAYOUT

SCALE: 1:30

LAMINAR FLOW IN FROM DRAIN

BAFFLE PLATE

SINGLE SIZED STONE MOUND

100 50mm KNIFE EDGE WEIR

SMALL MEDIUM LARGE STONE FILTER BEDS

150mm TOPSOIL AND GRASS LINED.

OUTFLOW

SWALE

1000 GAUGE IMPERMEABLE POLYTHENE

SECTION A

SCALE: 1:25