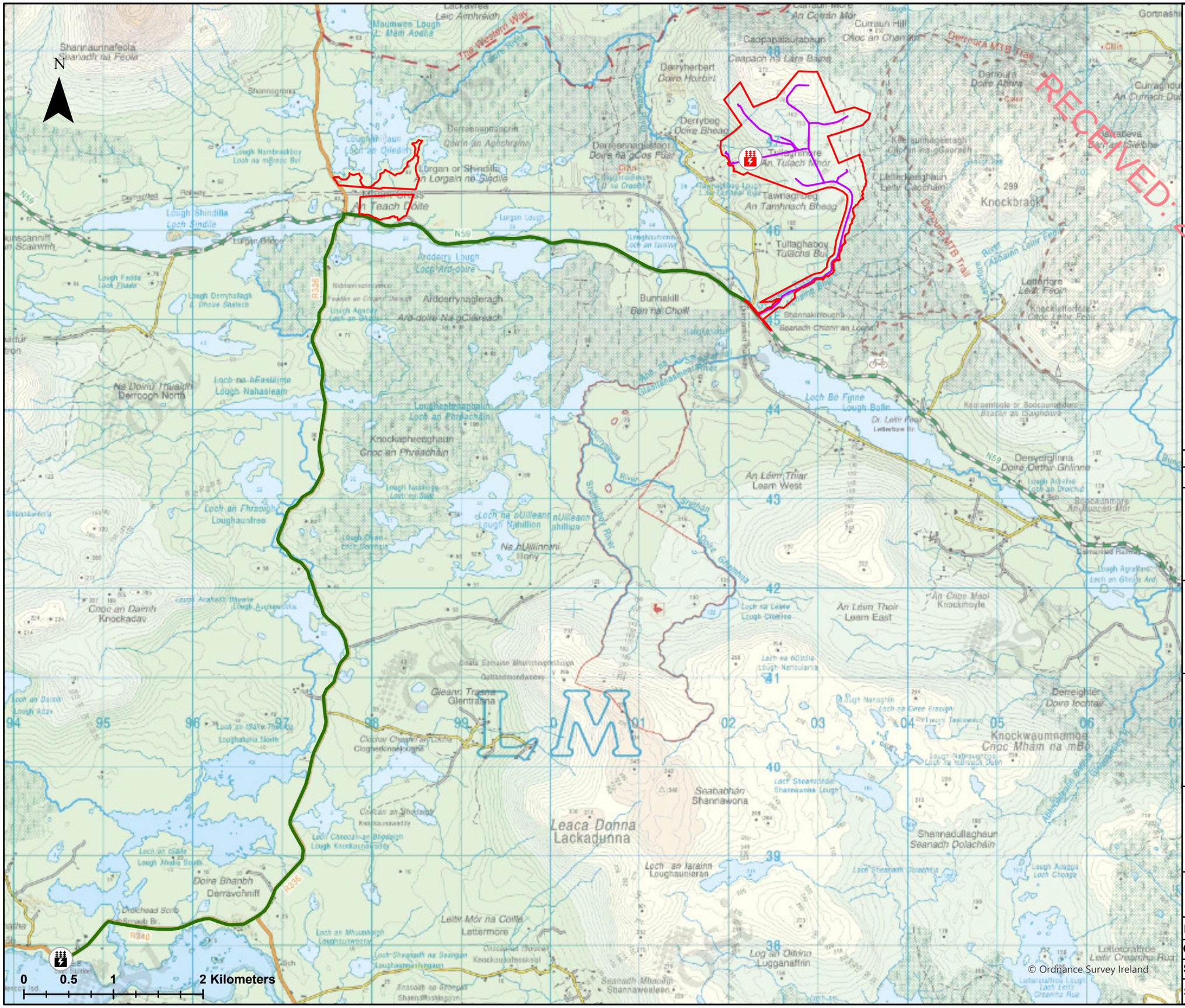


RECEIVED: 26/01/2023

LEGEND

- INTERNAL POWER & COMMS ROUTE
- PROPOSED GRID ROUTE
- SCREEBE 110KV SUBSTATION
- ONSITE 38KV SUBSTATION
- PROJECT SITE BOUNDARY

Rev	Date	By	Comment

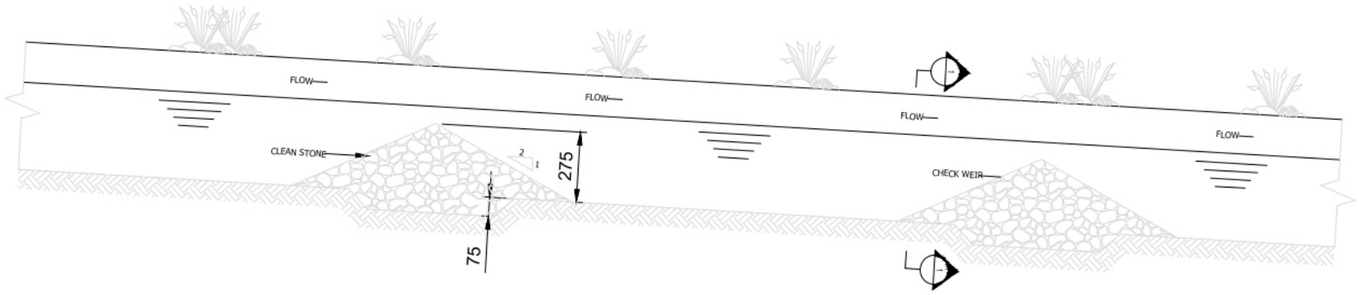
Client
TULLAGHMORE WIND FARM LTD.

Client Representative
JENNINGS O'DONOVAN & PARTNERS LIMITED
CONSULTING ENGINEERS

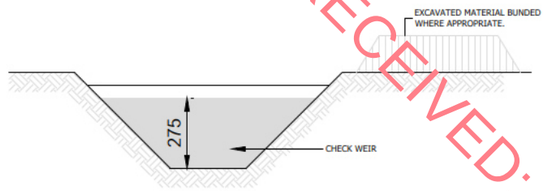
Project
TULLAGHMORE WIND FARM,
CO. GALWAY

Title
FIGURE 2.10 PROPOSED GRID CONNECTION

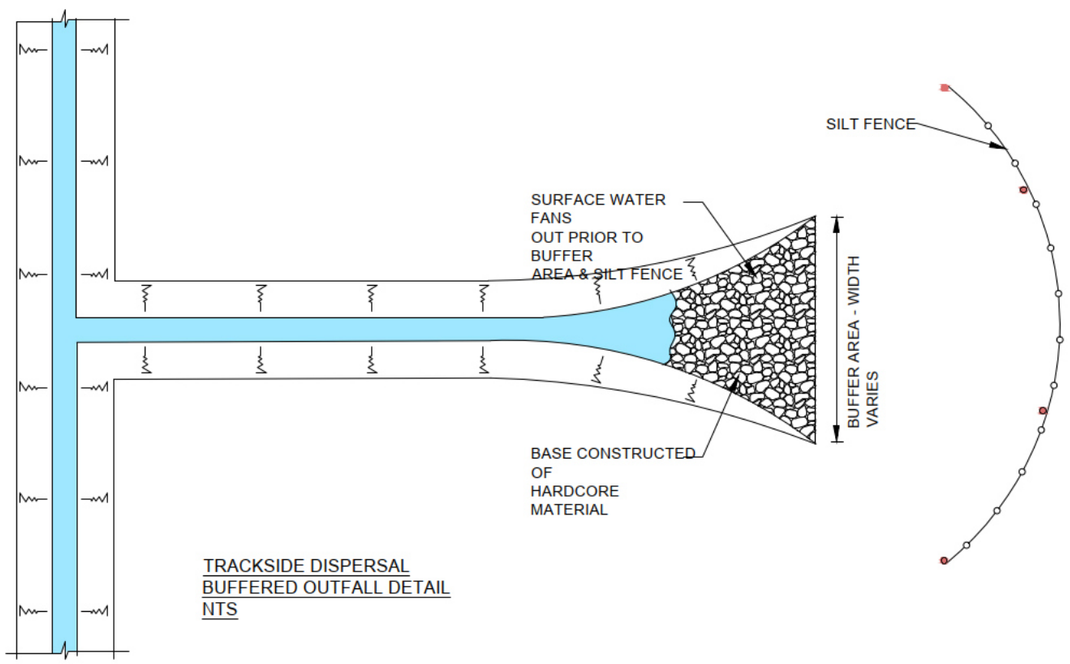
Drg. By	DT	**Job No.**	6276
Checked By	KON/AOG	**Rev**	0
Stage	Planning	**Date**	July 2022
Scale	1:40,000 (A3)	**Figure**	2.10



TYPICAL LONGITUDINAL SECTION THROUGH DRAINAGE WITH CHECK WEIRS
SCALE 1:100



SECTION 1-1
SCALE 1:50



TRACKSIDE DISPERSAL
BUFFERED OUTFALL DETAIL
NTS

DRAINAGE DETAILS

1. GENERAL
DRAINAGE BUFFER ZONE WIDTHS SHALL BE A MINIMUM OF 50M.

2. CONSTRUCTION AND MAINTANANCE

- ROADSIDE DRAIN SHOULD NOT INTERCEPT LARGE VOLUMES OF WATER FROM THE GROUND ABOVE.
- ROADSIDE DRAINS LIKELY TO CARRY HIGH SEDIMENT LOADS AND MUS MUST DISCHARGE INTO A BUFFER OF ADEQUATE WIDTH.
- DRAINS ON THE UPPER SIDE OF THE ROAD MAY NEED CULVERTS TO THE LOWER SIDE.
- PROPER MAINTANACE PROVISIONS MUST BE PUT IN PLACE SO AS TO ENSURE THE PROPER FUNCTIONING OF THE DRAINAGE SYSTEM INCLUDING REGULAR INSPECTIONS. CLEANING AND REPAIRS WHERE NECESSARY.

3. DRAINS

- DRAINS SHALL BE DESIGNED AND CONSTRUCTED TO MITIGATE CHANNEL EROSION, E.G. BY INSTALLATION OF PERFORATED PIPE WITH DRAINAGE STONE SURROUND.
DIVERTED RUNOFF FROM A DISTURBED AREA SHALL BE CONVEYED TO A SYSTEM OF STILLING PONDS AND BUFFEREED OUTFALLS.
- DIVERTED RUNOFF FROM AN UNDISTRUBED AREA SHALL BE CONVEYED THROUGH A BUFFERED OUTFALL WITHIN AN UNDISTURBED STABILISED AREA AT NON-EROSIVE VELOCITIES.
- ALL OBSTRUCTIONS WITHIN A DRAINAGE CHANNEL SHALL BE REMOVED AND DISPOSED OF, SO AS NOT TO INTERFERE WITH THE PROPER FUNCRION OF THE DRAINAGE SYSTEM.
- CHECK DAMS SHALL BE CONSTRUCTED USING WELL GRADED 150mm DOWN ANGULAR GRAVEL PLACED OVER A GEO-TEXTILE LAYER. SEE DETAIL 1.
- THE SPACING OF CHECK DAMS SHALL BE SUCH THAT THE PEAK OF THE DOWNSTREAM DAM IS NO LOWER THAN THE FOOT OF THE UPSTREAM DAM.
- THE USE OF STRAW BALES WITHIN THE DRAINAGE SYSTEM SHOULD BE CONSIDERED ON A TEMPORARY BASIS DURING CONSTRUCTION AND MAINTANACE WORK.
- STRAW BALES SHOULD, HOWEVER, ONLY BE USED TO INTERCEPT SEDIMENT-LADEN RUNOFF FROM ALL DISTURBED SOIL.
- BALES SHOULD BE ANCHORED IN PLACE BY THE USE OF TIMBER STAKES OR RE-BARS DRIVEN THROUGH THE BALE. WHERE BALES ARE TO BE PLACED IN POSITION ADJACENT TO OTHER BALES (EG WITHIN A STILLING POND). THE FIRST HAS THE EFFECT OF FORCING THE TWO BALES TOGETHER.
- BALES SHALL BE REPLACED AS REQUIRED.
- BALES SHALL BE REMOVED WHEN THEY HAVE SERVED THEIR USEFULNESS.

4. OUTFALLS

- ALL DRAINAGE CHANELS SHALL FAN/TAPER OUT BEFORE ENTERING THE BUFFER ZONE. PRIOR TO ENTERING THE TAPPERED ZONE, THE BASE OF THE DRAINAGE CHANNELS TO BE CONSTRUCTED OF HARDCORE MATERIAL TO AID THE SETTLEMENT OF SUSPENDED SOILIDS.
- NON-DEVELOPMENT RUN-OFF SHALL BE RETURNED TO A SURFACE FLOW CONDITION E.G. BY USE OF LEVEL SPREADERS.

5. STILLING PONDS

- ANY SEDIMENT TRAPS/STILLING PONDS SHALL BE LOCATED OUTSIDE OF BUFFER ZONES AND HAVE NO DIRECT OUTFLOW INTO WATERCOURCES.
- STILLING PONDS SHOULD BE SIZED TO ACCOMADATE PEAK FLOWS CORRESPONDING TO A 1 IN 100 YEAR STORM EVENT FOR THEIR RESPECTIVE CATCHMENT AREAS.
- MAINTENANCE WORKS INCLUDING THE REMOVAL OF SETTLED MATERIALS SHOULD ONLY BE CARRIED OUT IN DRY CONDITIONS. CARE SHOULD BE TAKEN WHEN REMOVING SETTLED MATERIALS SUCH THAT THE PONDS ARE NOT OVER DEEPENED.
- IN THE DESIGN OF STILLING PONDS, CONSIDERATION SHOULD BE GIVEN TO IMPLEMENTING MEASURES SUCH IS THERE IS NO POSSIBILITY TO DIRECT FLOW THROUGH THE POND E.G. OFFSET INLETS AND OUTLETS FROM THE CENTRE AXIS ETC.

LEGEND

Rev	Date	By	Comment

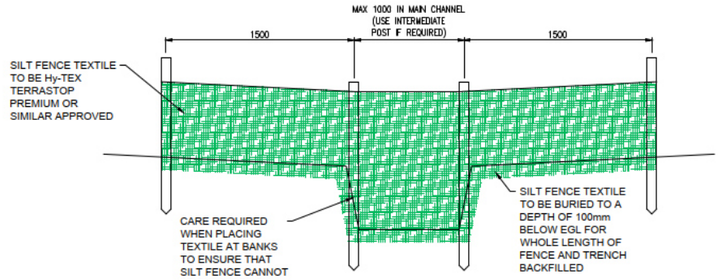
Client
TULLAGHMORE WIND FARM LTD.

Client Representative
JENNINGS O'DONOVAN & PARTNERS LIMITED
CONSULTING ENGINEERS

Project
TULLAGHMORE WIND FARM,
CO. GALWAY

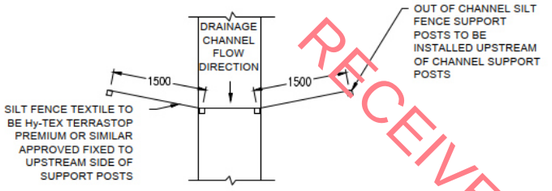
Title
FIGURE 2.11 DRAINAGE DETAILS

Drg. By	DT	**Job No.**	6276
Checked By	KON/AOG	**Rev**	0
Stage	Planning	**Date**	AUGUST 2022
Scale	NOT TO SCALE	**Figure**	2.11



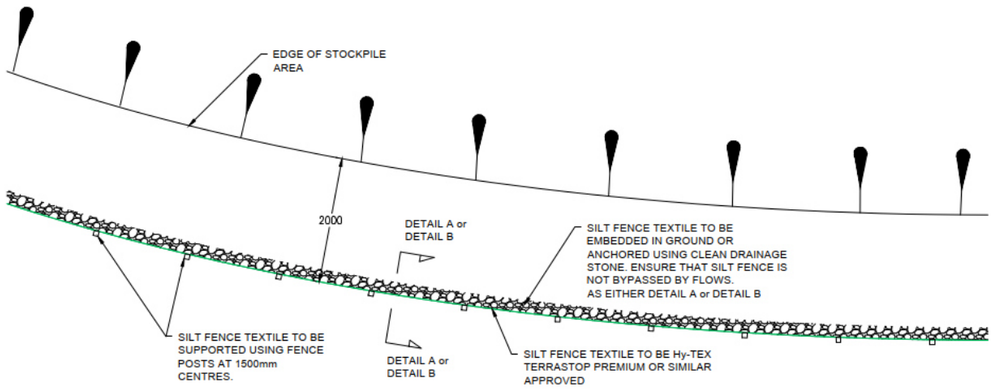
TYPICAL ELEVATION ON SILT FENCE AT DRAINAGE CHANNEL

SCALE 1:50



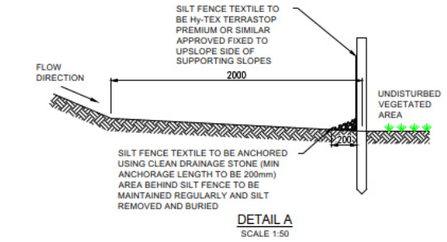
TYPICAL PLAN ON SILT FENCE AT DRAINAGE CHANNEL

SCALE 1:100



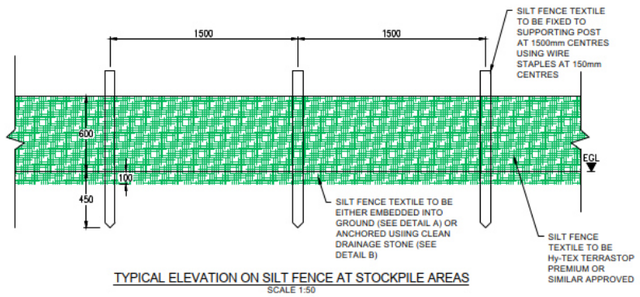
TYPICAL PLAN ON SILT FENCE AT STOCKPILE AREAS

SCALE 1:100



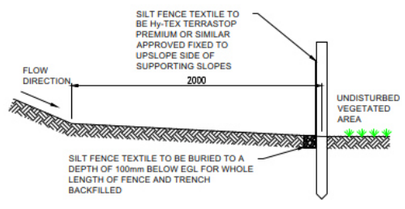
DETAIL A

SCALE 1:50



TYPICAL ELEVATION ON SILT FENCE AT STOCKPILE AREAS

SCALE 1:50



DETAIL B

SCALE 1:50

DRAINAGE DETAILS

1. GENERAL

DRAINAGE BUFFER ZONE WIDTHS SHALL BE A MINIMUM OF 50M.

2. CONSTRUCTION AND MAINTANANCE

- ROADSIDE DRAIN SHOULD NOT INTERCEPT LARGE VOLUMES OF WATER FROM THE GROUND ABOVE.
- ROADSIDE DRAINS LIKELY TO CARRY HIGH SEDIMENT LOADS AND MUS MUST DISCHARGE INTO A BUFFER OF ADEQUATE WIDTH.
- DRAINS ON THE UPPER SIDE OF THE ROAD MAY NEED CULVERTS TO THE LOWER SIDE.
- PROPER MAINTANACE PROVISIONS MUST BE PUT IN PLACE SO AS TO ENSURE THE PROPER FUNCTIONING OF THE DRAINAGE SYSTEM INCLUDING REGULAR INSPECTIONS. CLEANING AND REPAIRS WHERE NECESSARY.

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- BALES SHALL BE REPLACED AS REQUIRED.
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4. OUTFALLS

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5. STILLING PONDS

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Rev	Date	By	Comment

Client

TULLAGHMORE WIND FARM LTD.

Client Representative

JENNINGS O'DONOVAN & PARTNERS LIMITED
CONSULTING ENGINEERS

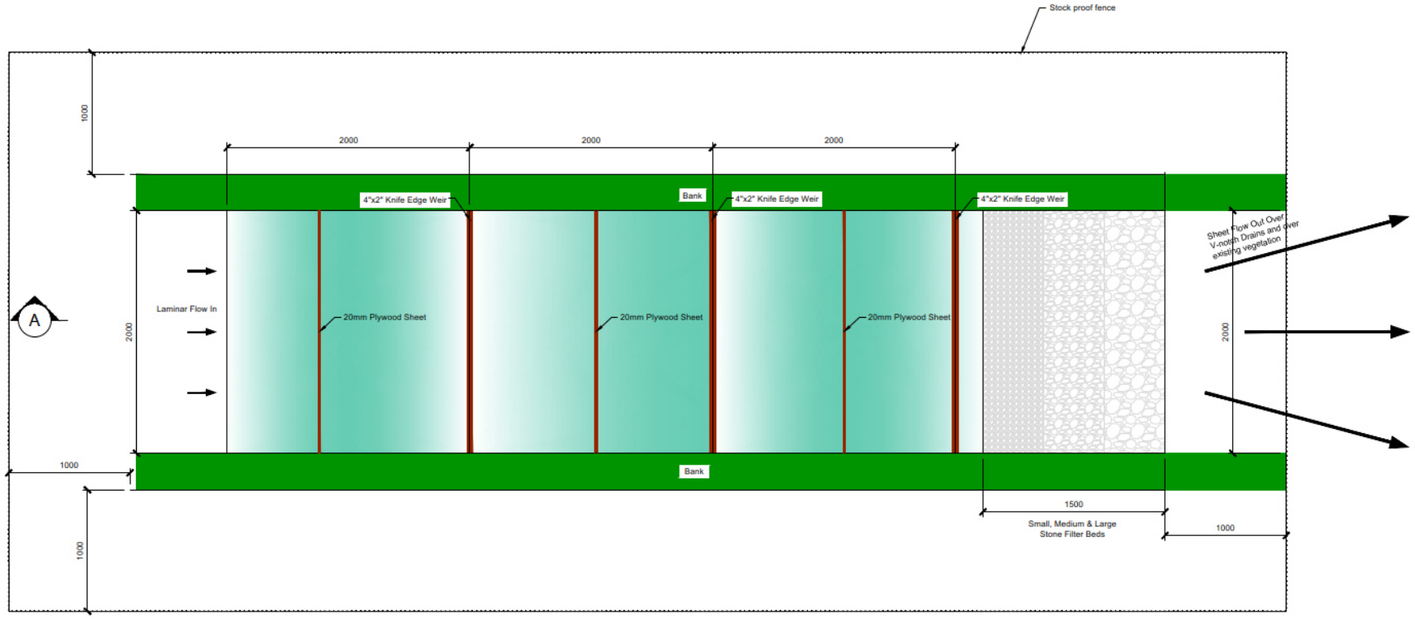
Project

TULLAGHMORE WIND FARM,
CO. GALWAY

Title

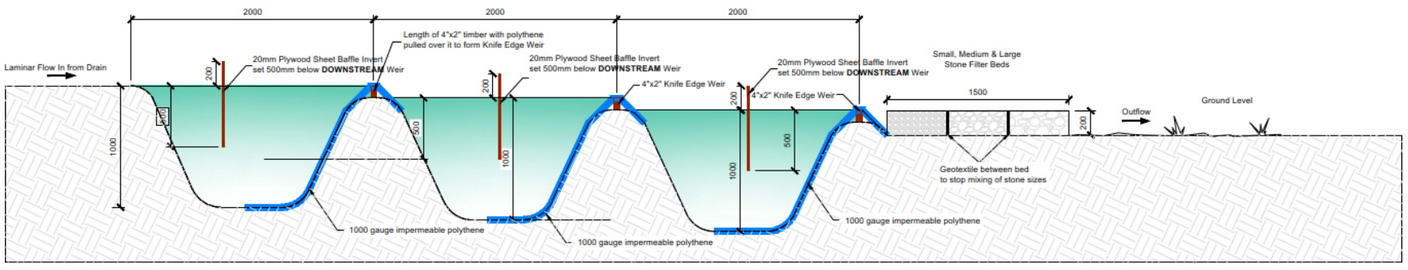
FIGURE 2.12 DRAINAGE DETAILS

Drg. By	DT	**Job No.**	6276
Checked By	KON/AOG	**Rev**	0
Stage	Planning	**Date**	AUGUST 2022
Scale	NOT TO SCALE	**Figure**	2.12



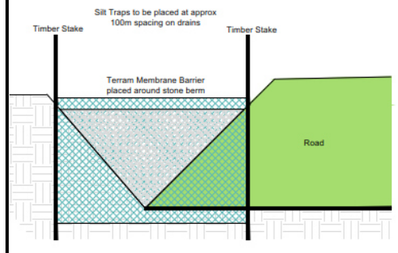
PLAN VIEW OF SETTLEMENT PONDS (WITH DISCHARGE TO DRAINS WHERE APPLICABLE)

SCALE: 1:25



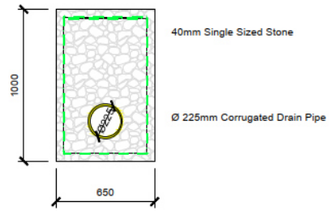
SECTION

SCALE: 1:25



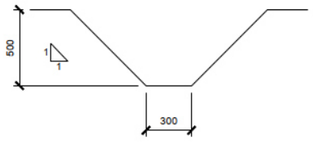
SEDIMENT FENCE DETAIL

SCALE: 1:20



PERMANENT PERIPHERAL LAND DRAIN

SCALE: 1:20



TEMPORARY "V" DITCH DRAIN PROFILE

SCALE: 1:20

COMPLETED SETTLEMENT POND SYSTEM

SCALE: NTS

HY-TEX Terrastop Premium Silt Fence or similar approved. Held in place with 75mmSq by 1.0m height timber posts @ 1.5m c/c

LEGEND

Rev	Date	By	Comment

Client

TULLAGHMORE WIND FARM LTD.

Client Representative

JENNINGS O'DONOVAN & PARTNERS LIMITED
CONSULTING ENGINEERS

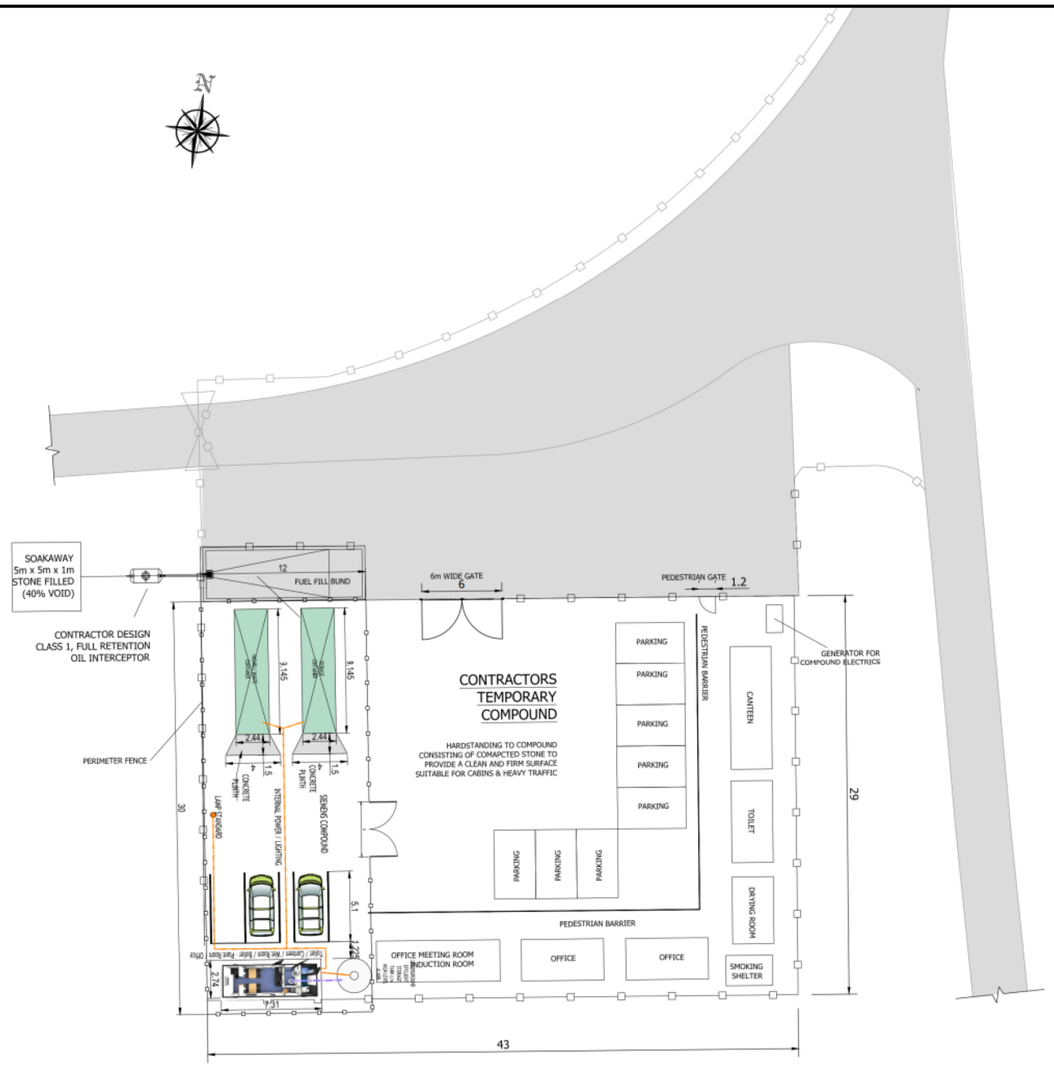
Project

TULLAGHMORE WIND FARM,
CO. GALWAY

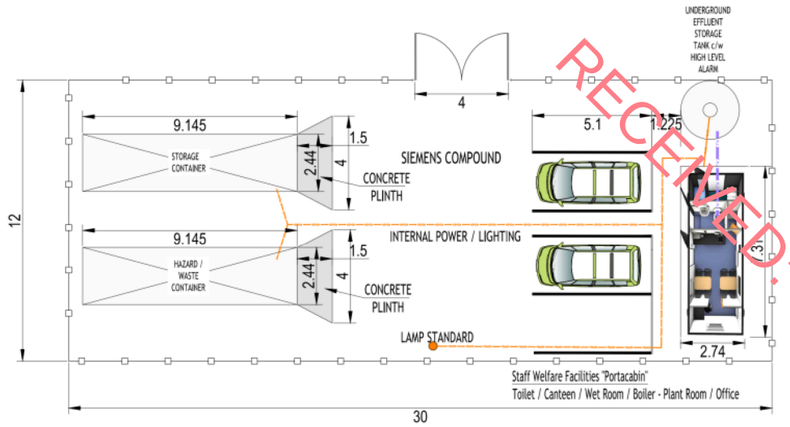
Title

FIGURE 2.13 DRAINAGE DETAILS

Drg. By	DT	**Job No.**	6276
Checked By	KON/AOG	**Rev**	0
Stage	Planning	**Date**	AUGUST 2022
Scale	NOT TO SCALE	**Figure**	2.13



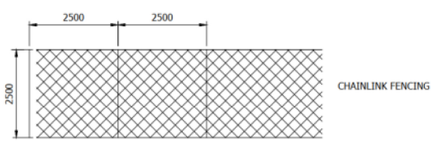
COMPOUND LAYOUT PLAN
Scale 1:100



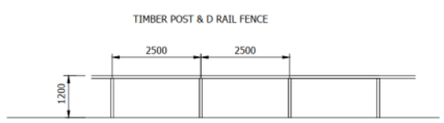
COMPOUND LAYOUT PLAN
Scale 1:100

NOTES

1. FIGURED DIMENSIONS ONLY TO BE TAKEN FROM THIS DRAWING.
2. ALL DRAWINGS TO BE CHECKED BY THE CONTRACTOR ON SITE.
3. ENGINEER TO BE INFORMED OF ANY DISCREPANCIES BEFORE ANY WORK COMMENCES.
4. THIS DRAWING TO BE READ IN CONJUNCTION WUTH ALL OTHER RELEVANT DRAWINGS AND SPECIFICATIONS



PERIMETER FENCING
N.T.Scale



PEDESTRIAN BARRIER
N.T.Scale

LEGEND

Rev	Date	By	Comment

Client
TULLAGHMORE WIND FARM LTD.

Client Representative
JENNINGS O'DONOVAN & PARTNERS LIMITED
CONSULTING ENGINEERS

Project
TULLAGHMORE WIND FARM,
CO. GALWAY

Title
FIGURE 2.15 TEMPORARY CONTRUCTION COMPOUND

Drg. By	DT	**Job No.**	6276
Checked By	KON/AOG	**Rev**	0
Stage	Planning	**Date**	AUGUST 2022
Scale	NOT TO SCALE	**Figure**	2.14