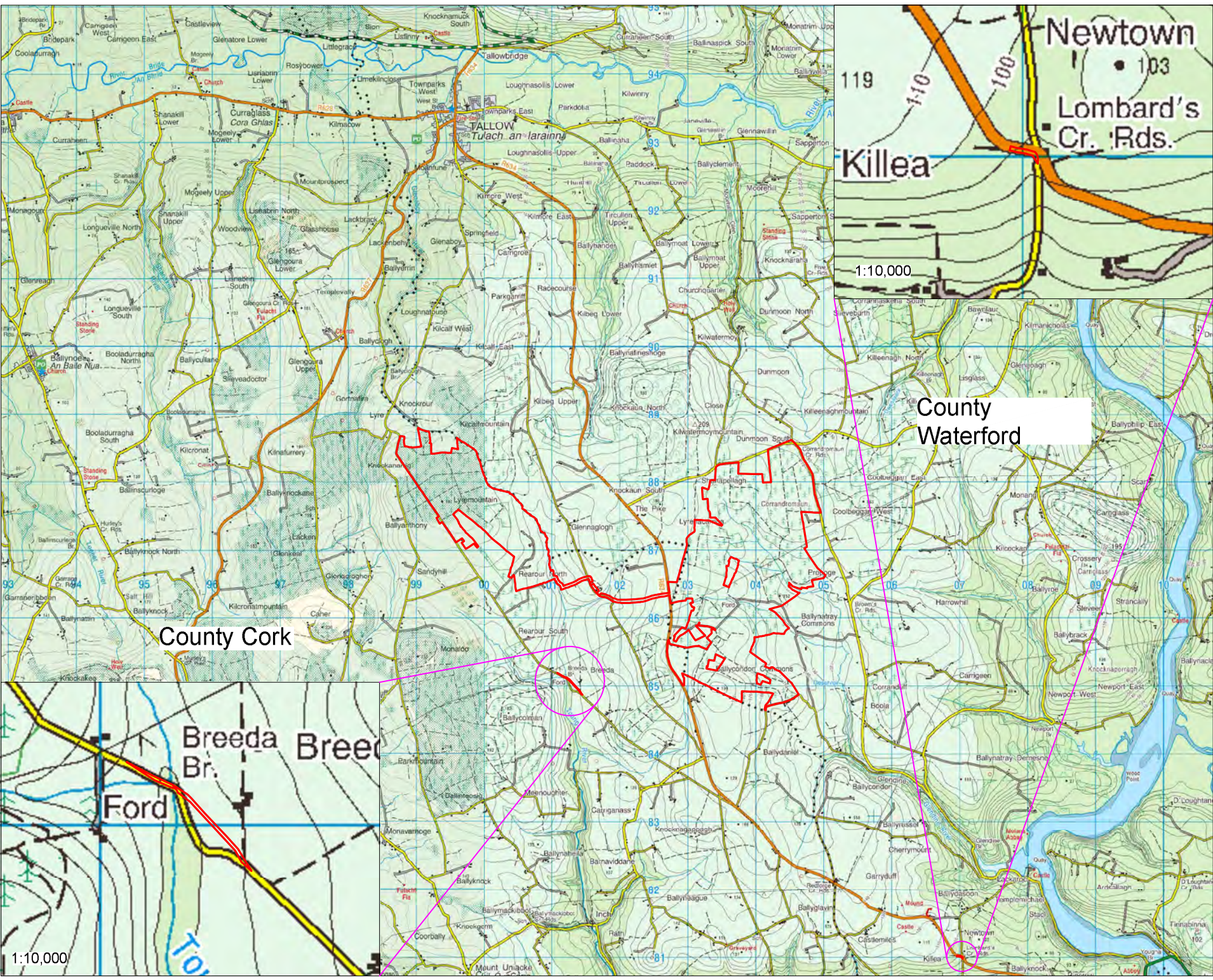




## **APPENDIX 4-1**

***SITE LAYOUT DRAWINGS (A4)***



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7. Layout plans show typical Turbine rotor diameter as per turbine drawing.
8. Final levels may vary depending on local ground conditions.

**Drawing Legend**

— Planning Application Boundary



**Location Context Map**

**PROJECT TITLE**  
Lyrenacarriga Wind Farm, Co. Cork & Co. Waterford

**DRAWING BY**  
Joseph O'Brien

**CHECKED BY**  
Lorraine Meehan

**PROJECT No.**  
170749

**DRAWING No.**  
170749 - 01

**SCALE:**  
1:500,000 @ A3

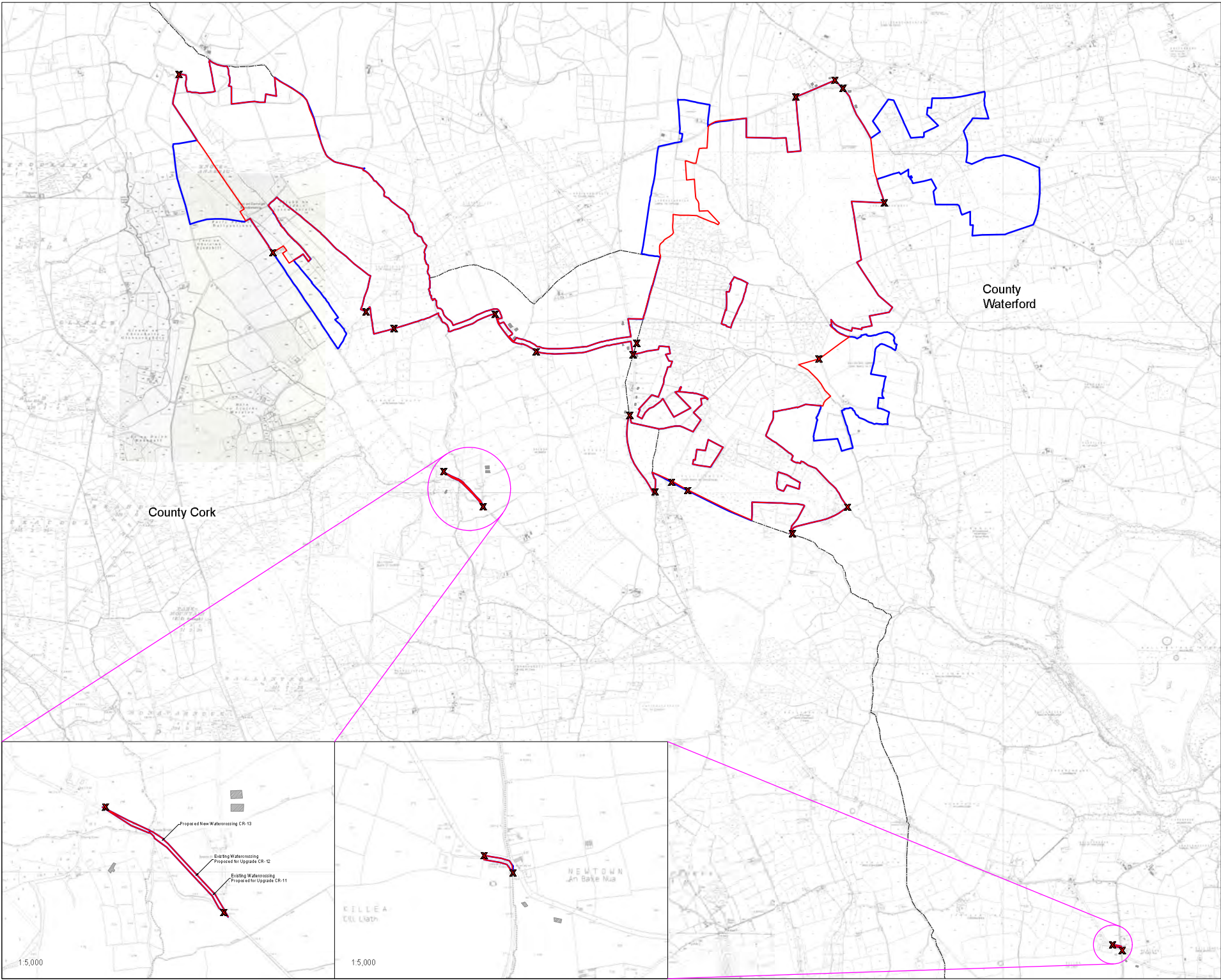
**DATE:**  
05.01.2021

**OS SHEET No.:**  
OS1808, OS2008

**MKO** Planning and Environmental Consultants

Town Road, Galway  
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email: info@waw.mkofireland.ie  
website: www.mkofireland.ie

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  7. Layout plans show typical Turbine rotor diameter as per turbine drawing.
  8. Final levels may vary depending on local ground conditions.

- Drainage Design Notes**
1. All drainage subject to micro-siting and optimisation on site.
  2. The locations of the interceptor drains, check dams, culverts, swales, stiling ponds and level spreaders are shown as indicative, and may be changed to suit the requirements of the local topography.
  3. Supervising hydrologist or environmental clerk of works (environmental scientist) to oversee installation of drainage features following detailed drainage design.
  4. Drainage measures to be installed prior to, or at the same time as the works areas they are intended to drain.
  5. Design elevation of the water surface along the route of the interceptor drains or swales will not be lower than the design elevation of the water surface in the outlet at the level spreader or stiling pond.
  6. The spacing and frequency of the check dams will be dependent on the gradient of the interceptor drain or swale in which they are being installed.
  7. Check dam designs to be selected best to suit particular topography and hydrological environment.
  8. Down gradient slope below level spreader onto which the water will dissipate to have a grade less than 5%.
  9. No direct discharge or pumping to watercourses will be permitted. All discharges from level spreaders or stiling ponds to be via vegetated filters. Selection of suitable areas to use as vegetation filters will be determined by the size of the contributing catchment, slope and ground conditions.
  10. Stiling ponds to be sized according to the area they will be receiving water from.
  11. Diversion of drainage ditches will only take place when alternative drainage ditch has been installed to handle the same water.
  12. Existing drains/ditches to be incorporated or removed during wind farm construction.
  13. All drainage system features to be subject of inspection and maintenance plan.
  14. The layout shown is slightly offset for scale purposes, and all drainage would be installed as close to the road as possible.

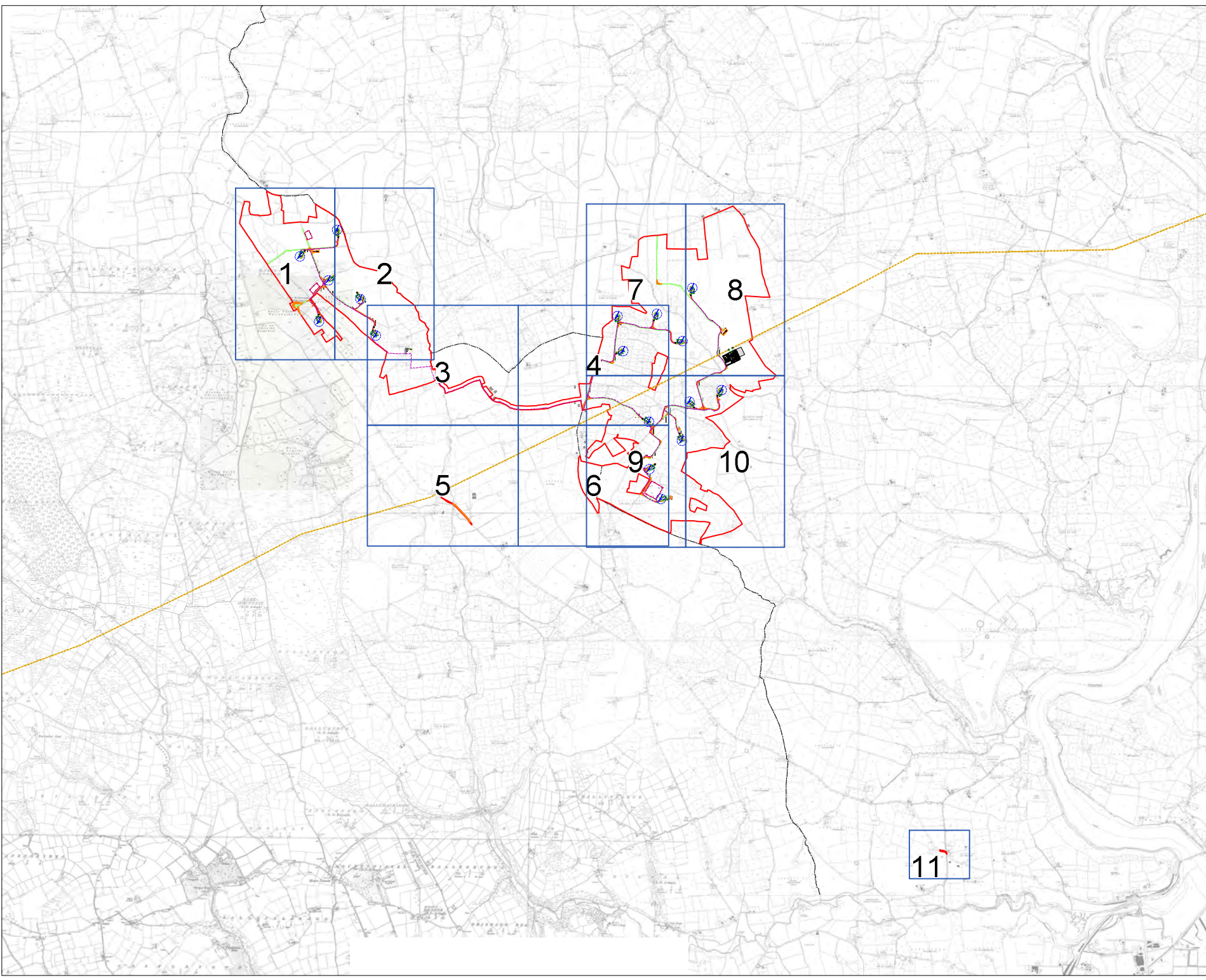
- Drawing Legend**
- Planning Application Boundary
  - Landowners Boundary
  - X** Site Notice
  - County Border

**Site Location Map**

|  |                    |
|--|--------------------|
| <b>PROJECT TITLE</b>   |                    |
| Lyrenacarriga Wind Farm, Co. Cork & Co. Waterford                      |                    |
| <b>DRAWING BY</b>  | <b>CHECKED BY</b>  |
| Joseph O'Brien   | Lorraine Meehan    |
| <b>PROJECT NO.</b>   | <b>DRAWING NO.</b> |
| 170749   | 170749 - 02        |
| <b>SCALE:</b>  | <b>DATE:</b>       |
| 1:15,000 @ A1  | 05.01.2021         |
| <b>D3 SHEET NO.:</b>   |                    |
| 0105, 0109, 0110, 0111, 0154, 0155, 0156, 0157, 0201, 0202, 0203, 0204 |                    |

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  7. Layout plans show typical Turbine rotor diameter as per turbine drawing.
  8. Final levels may vary depending on local ground conditions.

- Drainage Design Notes**
1. All drainage subject to micro-siting and optimisation on site.
  2. The locations of the interceptor drains, check dams, culverts, swales, stilling ponds and level spreaders are shown as indicative, and may be changed to suit the requirements of the local topography.
  3. Supervising hydrologist or environmental clerk of works (environmental scientist) to oversee installation of drainage features following detailed drainage design.
  4. Drainage measures to be installed prior to, or at the same time as the works areas they are intended to drain.
  5. Design elevation of the water surface along the route of the interceptor drains or swales will not be lower than the design elevation of the water surface in the outlet at the level spreader or stilling pond.
  6. The spacing and frequency of the check dams will be dependent on the gradient of the interceptor drain or swale in which they are being installed.
  7. Check dam designs to be selected best to suit particular topography and hydrological environment.
  8. Down gradient slope below level spreader onto which the water will dissipate to have a grade less than 5%.
  9. No direct discharge or pumping to watercourses will be permitted. All discharges from level spreaders or stilling ponds to be via vegetated filters. Selection of suitable areas to use as vegetation filters will be determined by the size of the contributing catchment, slope and ground conditions.
  10. Stilling ponds to be sized according to the area they will be receiving water from.
  11. Diversion of drainage ditches will only take place when alternative drainage ditch has been installed to handle the same water.
  12. Existing drains/ditches to be incorporated or removed during wind farm construction.
  13. All drainage system features to be subject of inspection and maintenance plan.
  14. The layout shown is slightly offset for scale purposes, and all drainage would be installed as close to the road as possible.

- Drawing Legend**
- Planning Application Boundary
  - Existing Road to be Upgraded
  - Proposed Road
  - Works Area
  - Soft Levelled Area
  - Crane Pad Handstanding Area
  - Turbine Foundation
  - ⊗ Turbine Sweep Area
  - Borrow Pit
  - Existing 110kV Overhead Line
  - County Border



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**Site Layout Key Plan B**

**PROJECT TITLE**  
Lyrenacarriga Wind Farm,  
Co. Cork & Co. Waterford

**DRAWING BY** Joseph O'Brien      **CHECKED BY** Lorraine Meehan

**PROJECT NO.** 170749      **DRAWING NO.** 170749 -08

**SCALE:** 1:20,000 @ A1      **DATE:** 05.01.2021

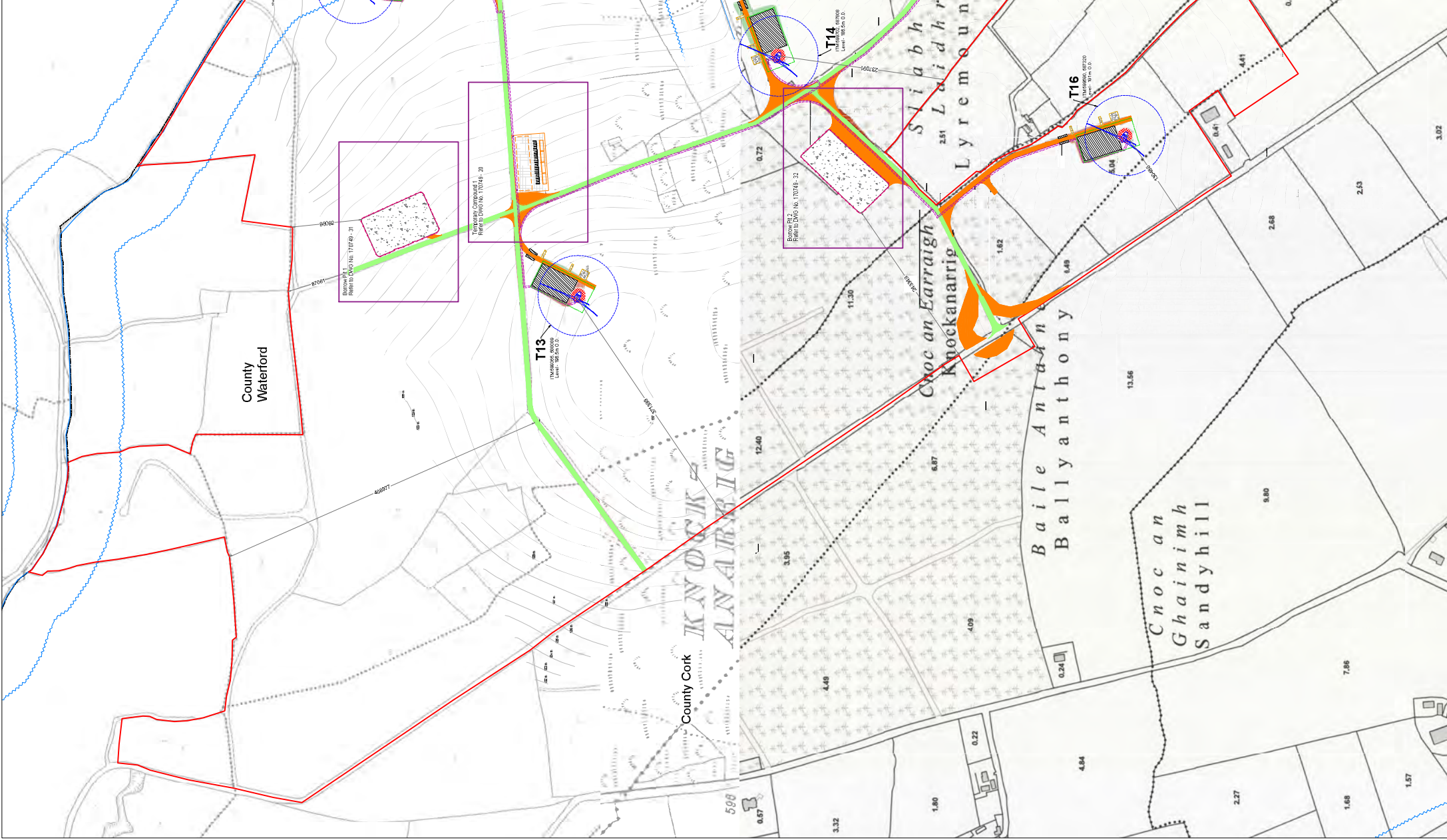
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Website: www.mkoireland.ie

11

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5. All contractors, whether main or sub-contractors, must visit the site and are responsible for taking and checking any, and all, measurements and levels from benchmarks to the works.
6. The positions and levels shown on this drawing shall be deemed to be acceptance of these conditions of use unless otherwise agreed in writing by the client. The client agrees to accept responsibility for the accuracy of the information available to the contractor and issued by the contractor in connection with this drawing.
7. Layout plans show typical Turbine rotor diameter as per turbine drawing.
8. Final levels may vary depending on local ground conditions.
9. All drainage works shall be subject to engineering and optimisation on site.
10. The locations of the intercepter drains, check dams, culverts, swales, silted ponds and level spreaders are shown as indicative, to be designed to suit the requirements of the local topography.
11. Supervising hydrologist or environmental clerk of works shall be present during the installation of drainage features following detailed drainage design.
12. Drainage measures to be installed prior to, or at the same time as, the works areas they are intended to drain.
13. Wherever possible, the ground level should be lower than the design intercepter drains or swales. Where not, the level of the intercepter drain or swale will not be lower than the level of the water surface in the outlet at the level spreader or culvert.
14. The spacing and frequency of the check dams will be dependent on the gradient of the intercepter drain or swale in which they are located.
15. Check dam designs to be selected best to suit particular topography and hydrological environment.
16. Down gradient slope below level spreader onto which the water will be discharged.
17. No direct discharge or pumping to watercourses will be permitted.
18. All discharges from level spreaders or silted ponds to be via vegetated waterways.
19. Sloping grass areas to be planted to suit the vegetation slope and ground conditions.
20. Sliding ponds to be sized according to the area they will be draining.
21. Erosion of road shoulders to be incorporated or removed during alternative drainage ditch has been installed to handle the same wind farm construction.
22. Existing drainage features to be incorporated or removed during wind farm construction.
23. All drainage system features to be subject of inspection, and all drainage works to be carried out to standards as specified.
24. The layout shown is slightly offset for scale purposes, and all drainage would be installed as close to the road as possible.



**Site Layout Plan Sheet 1 of 11**

**Lyencarraig Wind Farm, Co. Cork & Co. Waterford**

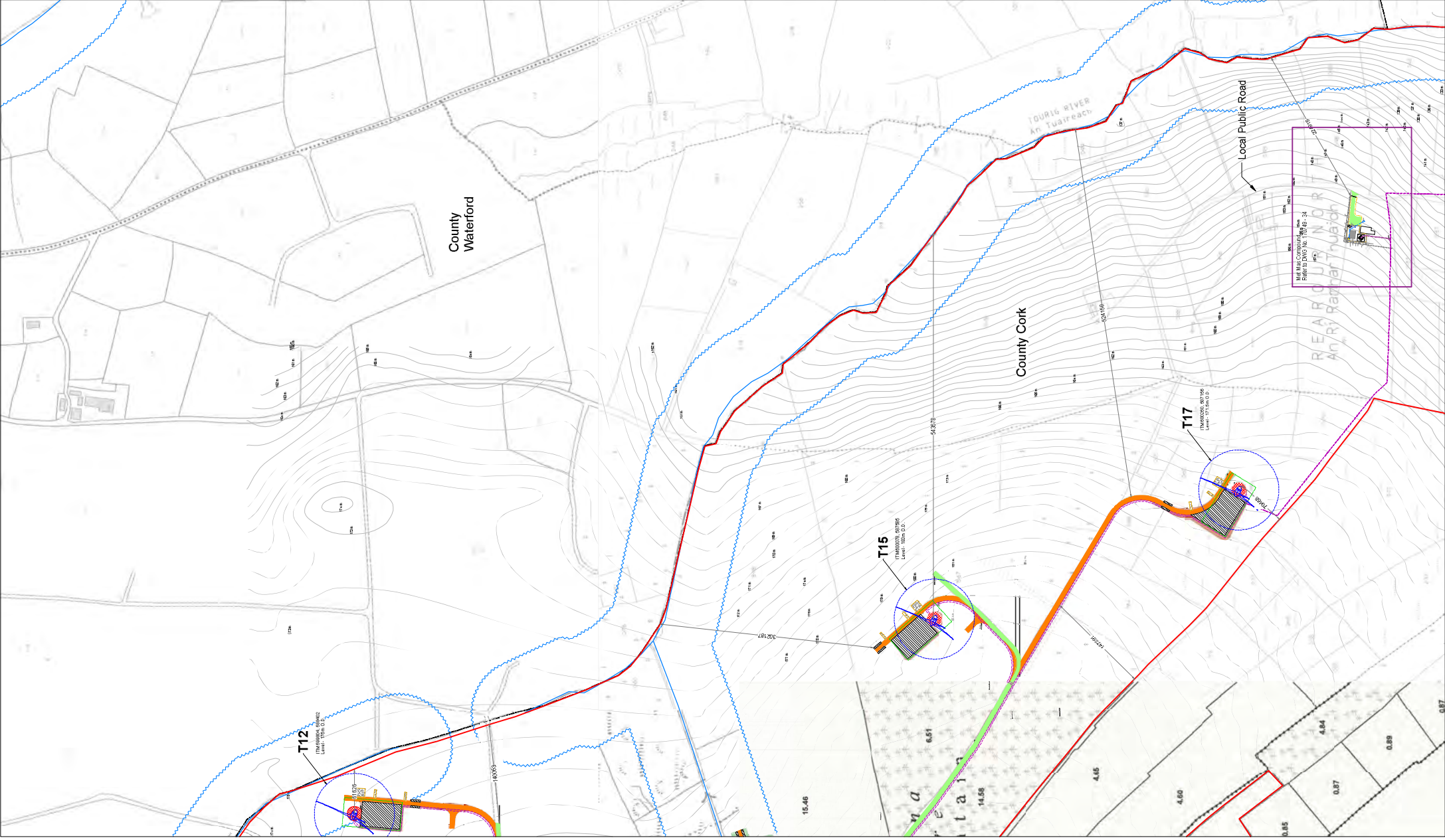
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|---------------|---|------------|-----------------|
| DRAWING TITLE | Site Layout Plan Sheet 1 of 11                  |            |                 |
| PROJECT TITLE | Lyencarraig Wind Farm, Co. Cork & Co. Waterford |            |                 |
| DRAWN BY      | Joseph O'Brien                                  | CHECKED BY | Lorraine Meenan |
| PROJECT NO.   | 170749  | DATE       | 05.01.2021      |
| SCALE         | 1:2,500 @ A1                                    | DATE       | 05.01.2021      |

PROJECT NUMBER: 608/2020/PL/11/2/14/4/46/46/47/48  
 DT NUMBER: 608/2020/PL/11/2/14/4/46/46/47/48

**MKO**  
 Planning and Environmental Consultants  
 Team Room, Galway  
 Ireland, T91, W9164  
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 Website: www.mkocorp.com

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  5. All contractors, whether main or sub-contractors, must visit the site and are responsible for staking and checking any and all dimensions and levels then refer to the works.
  6. The design of the drainage system shall be deemed to be in acceptance of these conditions of use unless otherwise agreed in writing.
  7. Contractors are responsible for the design, construction and installation of the drainage system and are to be responsible for the design and construction of the drainage system and are to be responsible for the design and construction of the drainage system.
  8. The spacing and frequency of the check dams will be dependent on the gradient of the interceptor drain or swale in which they are installed.
  9. Check dam designs to be selected based on local ground conditions.
  10. Down gradient slope below level spreader into which the water is discharged.
  11. All areas subject to muck-slinging and accumulation on site.
  12. The locations of the interceptor drains, check dams, culverts, swales, silted ponds and level spreaders are shown as indicative, subject to change to suit the requirements of the local topography.
  13. Supervising hydrologist or environmental clerk or works engineer to be consulted for the design and construction of the drainage system.
  14. Drainage measures to be installed prior to, or at the same time as, the construction of the drainage system.
  15. No direct discharge of runoffs to watercourses will be permitted.
  16. All discharges from level spreaders or silted ponds to be via vegetated areas.
  17. Sloping ponds to be used according to the area they will be installed in.
  18. Silted ponds to be used according to the area they will be installed in.
  19. All drainage system features to be subject of inspection and approval by the local authority.
  20. The layout shown is slightly offset for scale purposes, and all drainage would be installed as close to the road as possible.

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**Drawing Legend**

- Planning Application Boundary
- Existing Road to be Upgraded
- Proposed Road
- Electrical Cable Trench
- River/Stream
- 75m River/Stream Buffer
- Works Area
- Soft Levelled Area
- Crane Pad Hoisting Area
- Turbine Foundation
- Turbine Sweeps Area
- Cut
- Fill
- County Bomber



**Site Layout Plan**  
**Sheet 2 of 11**

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PROJECT TITLE: **Lynecarraig Wind Farm, Co. Cork & Co. Waterford**

DRAWING BY: **Joseph O'Brien** CHECKED BY: **Lorraine Meehan**

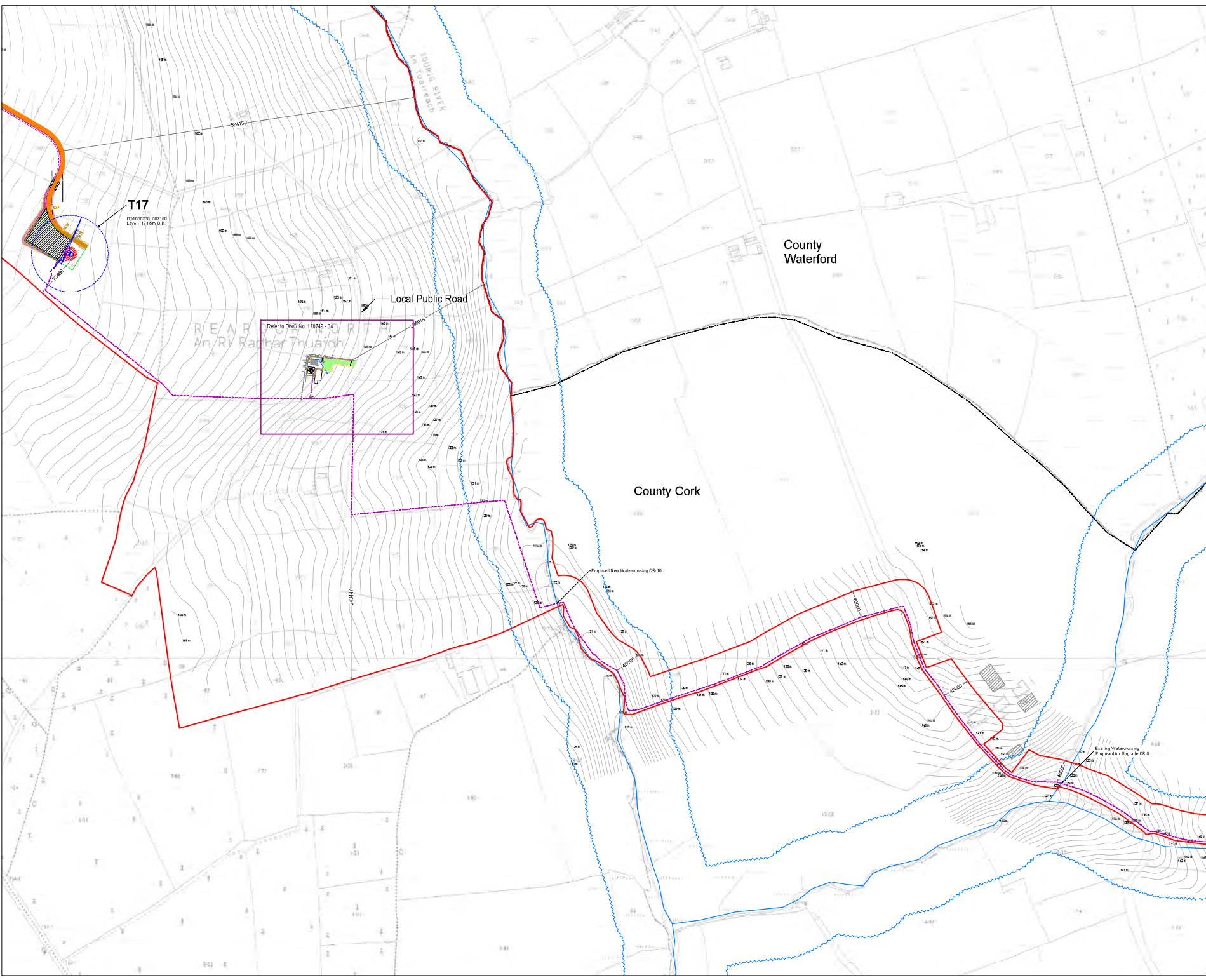
PROJECT NO: **170749** DATE: **05/01/2021**

SCALE: **1:2,500 @ A1**

DATE: **05/01/2021**

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**MKO**  
Planning and Environmental  
Team Lead, Galway  
Tel: 091 833 1111  
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  7. Layout plans show typical Turbine rotor diameter as per turbine drawing.
  8. Final levels may vary depending on local ground conditions.

- Drainage Design Notes**
1. All drainage subject to micro-siting and optimisation on site.
  2. The locations of the interceptor drains, check dams, culverts, swales, stilling ponds and level spreaders are shown as indicative, and may be changed to suit the requirements of the local topography.
  3. Supervising hydrologist or environmental clerk of works (environmental scientist) to oversee installation of drainage features following detailed drainage design.
  4. Drainage measures to be installed prior to, or at the same time as the works areas they are intended to drain.
  5. Design elevation of the water surface along the route of the interceptor drains or swales will not be lower than the design elevation of the water surface in the outlet at the level spreader or stilling pond.
  6. The spacing and frequency of the check dams will be dependent on the gradient of the interceptor drain or swale in which they are being installed.
  7. Check dam designs to be selected best to suit particular topography and hydrological environment.
  8. Down gradient slope below level spreader onto which the water will dissipate to have a grade less than 5%.
  9. No direct discharge or pumping to watercourses will be permitted. All discharges from level spreaders or stilling ponds to be via vegetated filters. Selection of suitable areas to use as vegetation filters will be determined by the size of the contributing catchment, slope and ground conditions.
  10. Stilling ponds to be sized according to the area they will be receiving water from.
  11. Diversion of drainage ditches will only take place when alternative drainage ditch has been installed to handle the same water.
  12. Existing drains/ditches to be incorporated or removed during wind farm construction.
  13. All drainage system features to be subject of inspection and maintenance plan.
  14. The layout shown is slightly offset for scale purposes, and all drainage would be installed as close to the road as possible.

**Drawing Legend**

- Planning Application Boundary
- Existing Road to be Upgraded
- Proposed Road
- Electrical Cable Trench
- River/Stream
- 75m River/Stream Buffer
- Works Area
- Soft Levelled Area
- Crane Pad Handstanding Area
- Turbine Foundation
- Turbine Sweep Area
- Cut
- Fill
- County Border

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**DRAWING TITLE**  
**Site Layout Plan**  
**Sheet 3 of 11**

**PROJECT TITLE**  
**Lyrenacarriga Wind Farm, Co. Cork & Co. Waterford**

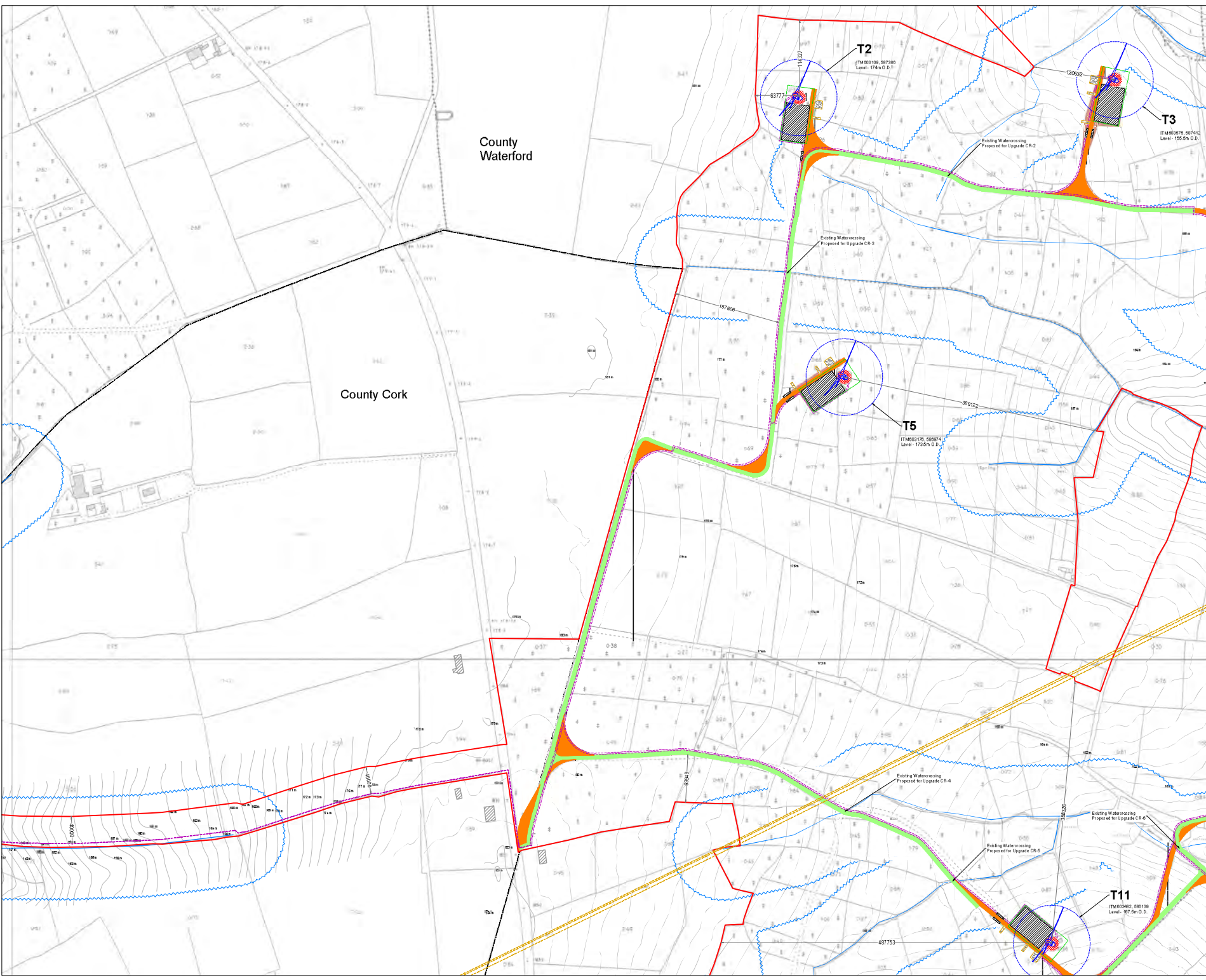
**DRAWING BY:** Joseph O'Brien    **CHECKED BY:** Lorraine Meehan

**PROJECT NO:** 170749    **DRAWING NO:** 170749 - 11

**SCALE:** 1:2,500 @ A1    **DATE:** 05.01.2021

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7. Layout plans show typical Turbine rotor diameter as per turbine drawing.
8. Final levels may vary depending on local ground conditions.

**Drainage Design Notes**

1. All drainage subject to micro-siting and optimisation on site.
2. The locations of the interceptor drains, check dams, culverts, swales, stiling ponds and level spreaders are shown as indicative, and may be changed to suit the requirements of the local topography.
3. Supervising hydrologist or environmental clerk of works (environmental scientist) to oversee installation of drainage features following detailed drainage design.
4. Drainage measures to be installed prior to, or at the same time as the works areas they are intended to drain.
5. Design elevation of the water surface along the route of the interceptor drains or swales will not be lower than the design elevation of the water surface in the outlet at the level spreader or stiling pond.
6. The spacing and frequency of the check dams will be dependent on the gradient of the interceptor drain or swale in which they are being installed.
7. Check dam designs to be selected best to suit particular topography and hydrological environment.
8. Down gradient slope below level spreader onto which the water will dissipate to have a grade of at least 5%.
9. No direct discharge or pumping to watercourses will be permitted. All discharges from level spreaders or stiling ponds to be via vegetated filters. Selection of suitable areas to use as vegetated filters will be determined by the size of the contributing catchment, slope and ground conditions.
10. Stiling ponds to be sized according to the area they will be receiving water from.
11. Diversion of drainage ditches will only take place when alternative drainage ditch has been installed to handle the same water.
12. Existing drains/ditches to be incorporated or removed during wind farm construction.
13. All drainage system features to be subject of inspection and maintenance plan.
14. The layout shown is slightly offset for scale purposes, and all drainage would be installed as close to the road as possible.

**Drawing Legend**

- Planning Application Boundary
- Existing Road to be Upgraded
- Proposed Road
- Electrical Cable Trench
- River/Stream
- 75m River/Stream Buffer
- Works Area
- Soft Levelled Area
- Crane Pad Handstanding Area
- Turbine Foundation
- Turbine Sweep Area
- Cut
- Fill
- County Border
- Existing 110kV Overhead Line



**DRAWING TITLE**  
**Site Layout Plan**  
**Sheet 4 of 11**

**PROJECT TITLE**  
**Lyrenacarriga Wind Farm, Co. Cork & Co. Waterford**

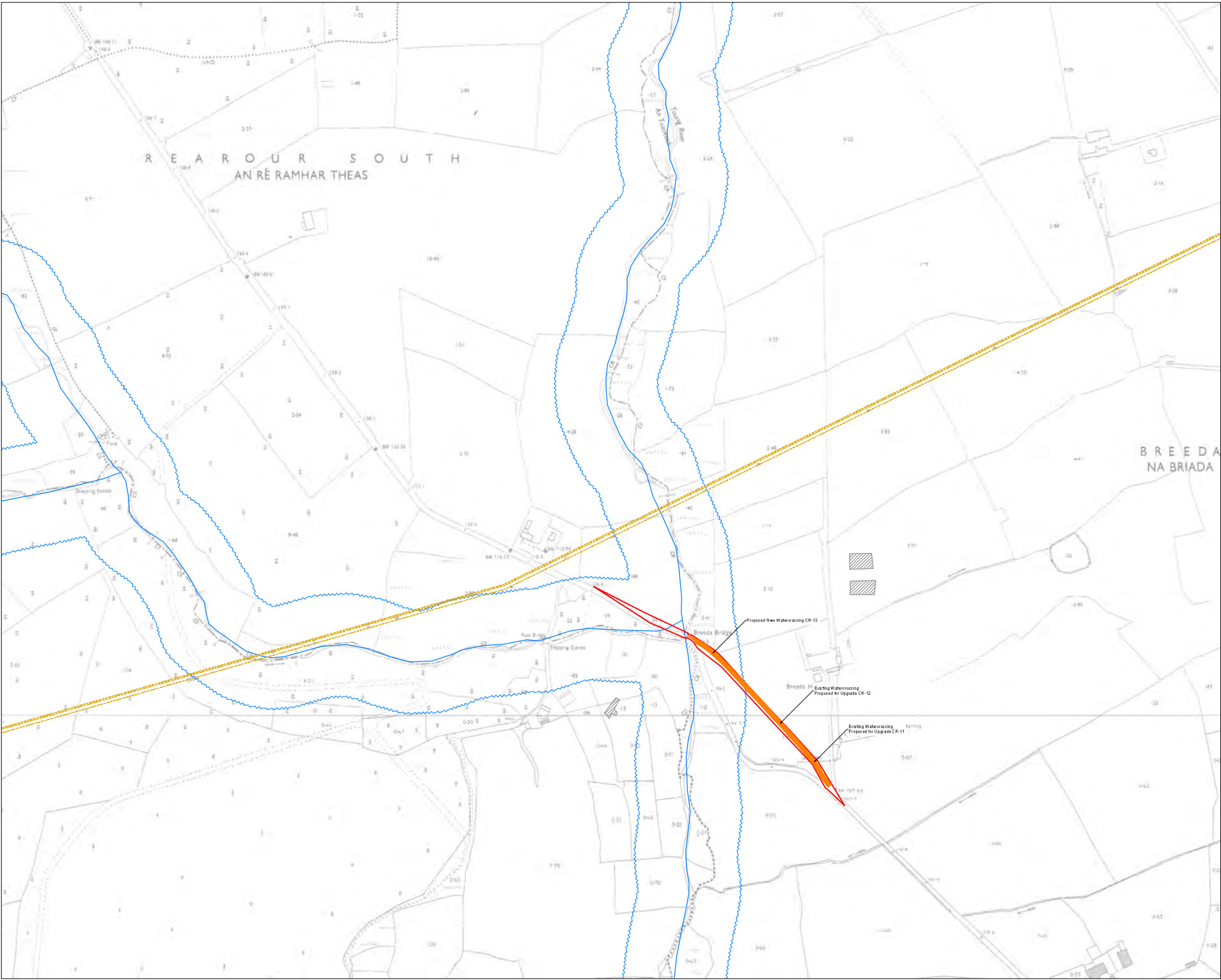
**DRAWING BY:** Joseph O'Brien      **CHECKED BY:** Lorraine Meehan  
**PROJECT NO:** 170749      **DRAWING NO:** 170749 - 12  
**SCALE:** 1:2,500 @ A1      **DATE:** 05.01.2021

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7. Layout plans show typical Turbine rotor diameter as per turbine drawing.
8. Final levels may vary depending on local ground conditions.

**Drainage Design Notes**

1. All drainage subject to micro-siting and optimisation on site.
2. The locations of the interceptor drains, check dams, culverts, swales, stilling ponds and level spreaders are shown as indicative, and may be changed to suit the requirements of the local topography.
3. Supervising hydrologist or environmental clerk of works (environmental scientist) to oversee installation of drainage features following detailed drainage design.
4. Drainage measures to be installed prior to, or at the same time as the works areas they are intended to drain.
5. Design elevation of the water surface along the route of the interceptor drains or swales will not be lower than the design elevation of the water surface in the outlet at the level spreader or stilling pond.
6. The spacing and frequency of the check dams will be dependent on the gradient of the interceptor drain or swale in which they are being installed.
7. Check dam designs to be selected best to suit particular topography and hydrological environment.
8. Down gradient slope below level spreader onto which the water will dissipate to have a grade no less than 0.5%.
9. No direct discharge or pumping to watercourses will be permitted. All discharges from level spreaders or stilling ponds to be via vegetated filters. Selection of suitable areas to use as vegetation filters will be determined by the size of the contributing catchment, slope and ground conditions.
10. Stilling ponds to be sized according to the area they will be receiving water from.
11. Diversion of drainage ditches will only take place when alternative drainage ditch has been installed to handle the same water.
12. Existing drain ditches to be incorporated or removed during wind farm construction.
13. All drainage system features to be subject of inspection and maintenance plan.
14. The layout shown is slightly offset for scale purposes, and all drainage would be installed as close to the road as possible.

**Drawing Legend**

- Planning Application Boundary
- Proposed Road
- River/Stream
- - - 75m River/Stream Buffer
- - - Existing 110kV Overhead Line

**Site Layout Plan Sheet 5 of 11**

PROJECT TITLE  
 Lyencarriga Wind Farm,  
 Co. Cork & Co. Waterford

DRAWN BY: Joseph O'Brien  
 PROJECT NO: 170749

CHECKED BY: Lorraine Meehan  
 DRAWING NO: 170749 - 13

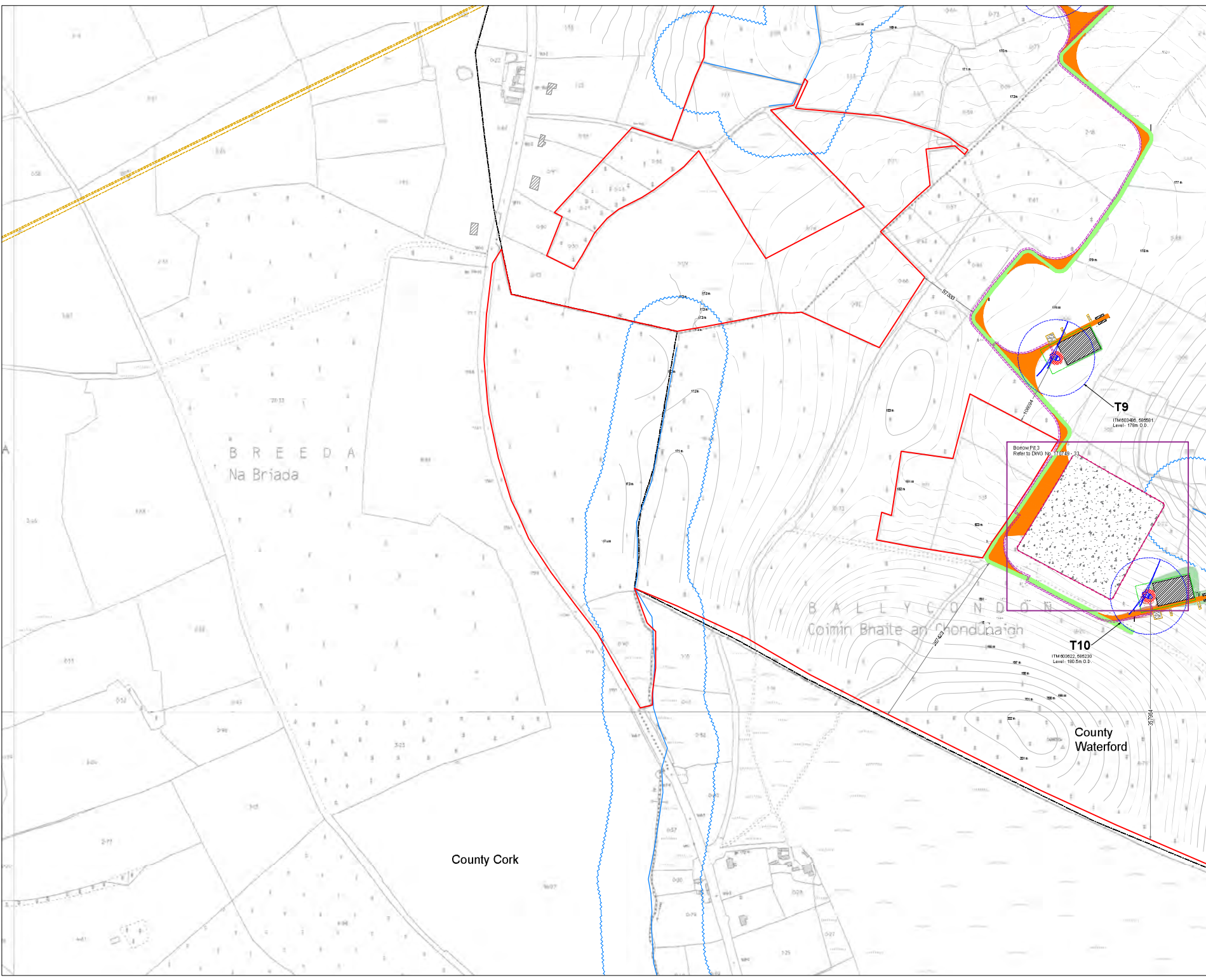
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 DATE: 05.01.2021

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  7. Layout plans show typical Turbine rotor diameter as per turbine drawing.
  8. Final levels may vary depending on local ground conditions.

- Drainage Design Notes**
1. All drainage subject to micro-siting and optimisation on site.
  2. The locations of the interceptor drains, check dams, culverts, swales, stilling ponds and level spreaders are shown as indicative, and may be changed to suit the requirements of the local topography.
  3. Supervising hydrologist or environmental clerk of works (environmental scientist) to oversee installation of drainage features following detailed drainage design.
  4. Drainage measures to be installed prior to, or at the same time as the works areas they are intended to drain.
  5. Design elevation of the water surface along the route of the interceptor drains or swales will not be lower than the design elevation of the water surface in the outlet at the level spreader or stilling pond.
  6. The spacing and frequency of the check dams will be dependent on the gradient of the interceptor drain or swale in which they are being installed.
  7. Check dam designs to be selected best to suit particular topography and hydrological environment.
  8. Down gradient slope below level spreader onto which the water will dissipate to have a grade less than 5%.
  9. No direct discharge or pumping to watercourses will be permitted. All discharges from level spreaders or stilling ponds to be via vegetated filters. Selection of suitable areas to use as vegetation filters will be determined by the size of the contributing catchment, slope and ground conditions.
  10. Stilling ponds to be sized according to the area they will be receiving water from.
  11. Diversion of drainage ditches will only take place when alternative drainage ditch has been installed to handle the same water.
  12. Existing drains/ditches to be incorporated or removed during wind farm construction.
  13. All drainage system features to be subject of inspection and maintenance plan.
  14. The layout shown is slightly offset for scale purposes, and all drainage would be installed as close to the road as possible.

- Drawing Legend**
- Planning Application Boundary
  - Existing Road to be Upgraded
  - Proposed Road
  - Electrical Cable Trench
  - River/Stream
  - 75m River/Stream Buffer
  - Works Area
  - Soft Levelled Area
  - Crane Pad Hardstanding Area
  - Turbine Foundation
  - ⊙ Turbine Sweep Area
  - Borrow Pit
  - Cut
  - Fill
  - Existing 110kV Overhead Line
  - County Border



**Site Layout Plan  
Sheet 6 of 11**

**PROJECT TITLE**  
Lyencarriga Wind Farm,  
Co. Cork & Co. Waterford

**DRAWING BY:** Joseph O'Brien      **CHECKED BY:** Lorraine Meehan

**PROJECT NO:** 170749      **DRAWING NO:** 170749 - 14

**SCALE:** 1:2,500 @ A1      **DATE:** 05.01.2021

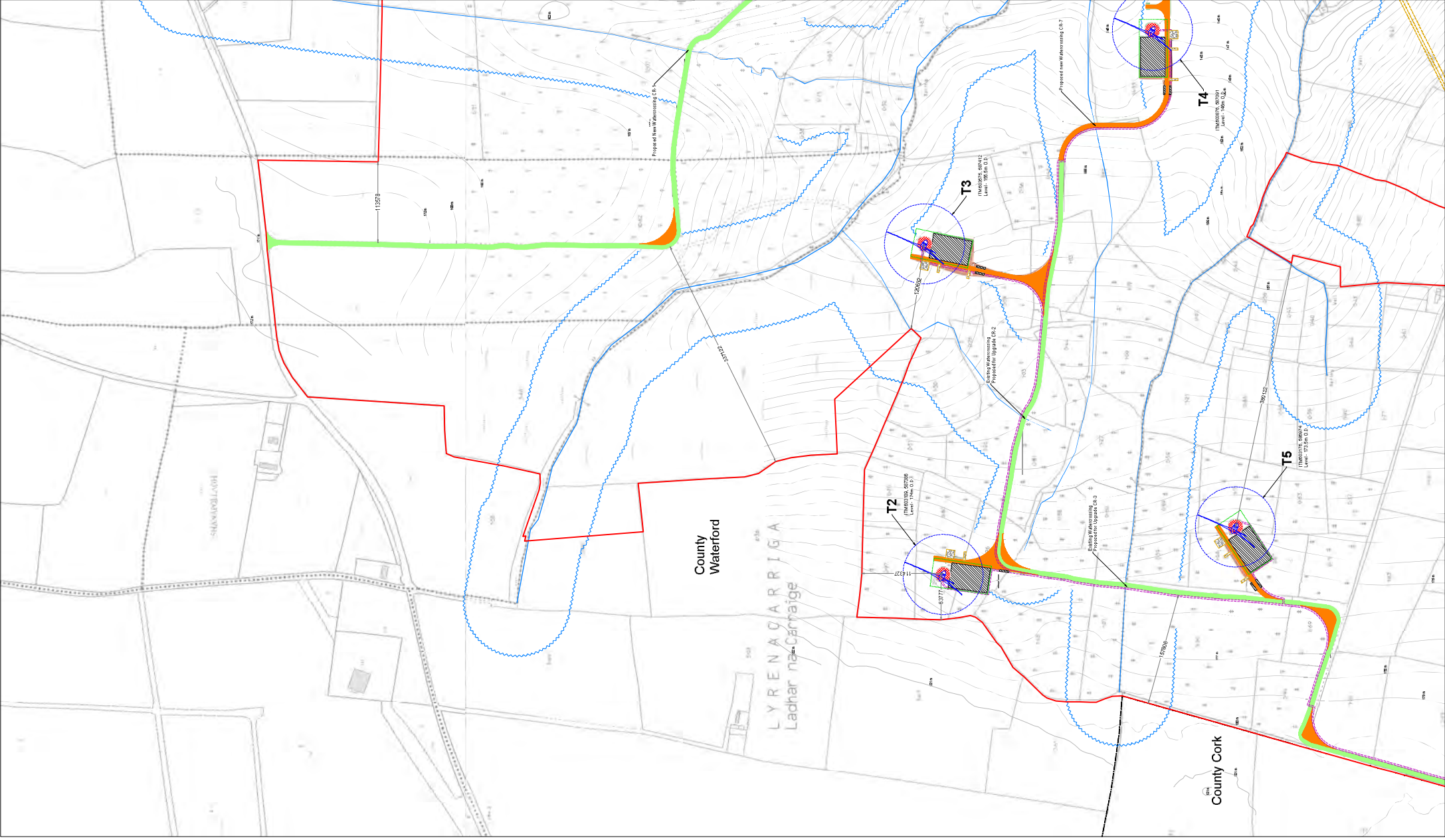
**DWG SHEET NO:** 1:2,500 @ A1

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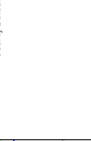
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7. Layout plans show typical Tubestator diameter as per tubestator drawing.
8. Final levels may vary depending on local ground conditions.
9. All drainage systems to be installed in accordance with the following:
  1. All drainage subject to micro-siting and optimization to site.
  2. The locations of the interceptor drains, check dams, culverts, swales, silted ponds and level spreaders are shown as indicative, subject to change to suit the requirements of the local topography.
  3. Supervising hydrologist or environmental clerk or works designer to be consulted for the installation of drainage features.
  4. Drainage measures to be installed prior to, or at the same time as the works areas they are intended to drain.
  5. Interceptor drains or swales will not be lower than the design elevation of the water surface in the outlet at the level spreader or silted pond.
  6. The spacing and frequency of the check dams will be dependent on the gradient of the interceptor drain or swale in which they are installed.
  7. Check dam designs to be selected based to suit particular topography and hydrological environment.
  8. Down gradient slope below level spreader into which the water is discharged to be a minimum of 1:10.
  9. No direct discharge or pumping to watercourses will be permitted.
  10. All discharge from level spreaders or silted ponds to be via silted ponds or swales to suitable areas to use as vegetation strip or grassed area, subject to the existing ground level, slope and ground conditions.
  11. Silted ponds to be sited according to the area they will be draining.
  12. Diversion of drainage ditches will only take place when alternative drainage ditch has been installed to handle the same flow.
  13. Existing drain/ditches to be incorporated or removed during wind farm construction.
  14. All drainage system features to be subject of inspection and approval by the local authority.
  15. The layout shown is slightly offset for scale purposes, and all drainage would be installed as close to the road as possible.



**Drawing Legend**

- Planning Application Boundary
- Existing Road to be Upgraded
- Proposed Road
- Electrical Cable Trench
- River/Stream
- 7.5m River/Stream Buffer
- Works Area
- Soft Levelled Area
- Crane Pad Hoisting Area
- Turbine Foundation
- Turbine Sweeps Area
- Borrow Pit
- Cut
- Fill
- Existing 10kV Overhead Line
- County Boundary



**Site Layout Plan  
Sheet 7 of 11**

PROJECT TITLE  
**Lyrencarraig Wind Farm,  
Co. Cork & Co. Waterford**

DRAWING BY  
**Joseph O'Brien**

CHECKED BY  
**Lorraine Meehan**

PROJECT NO.  
**170749**

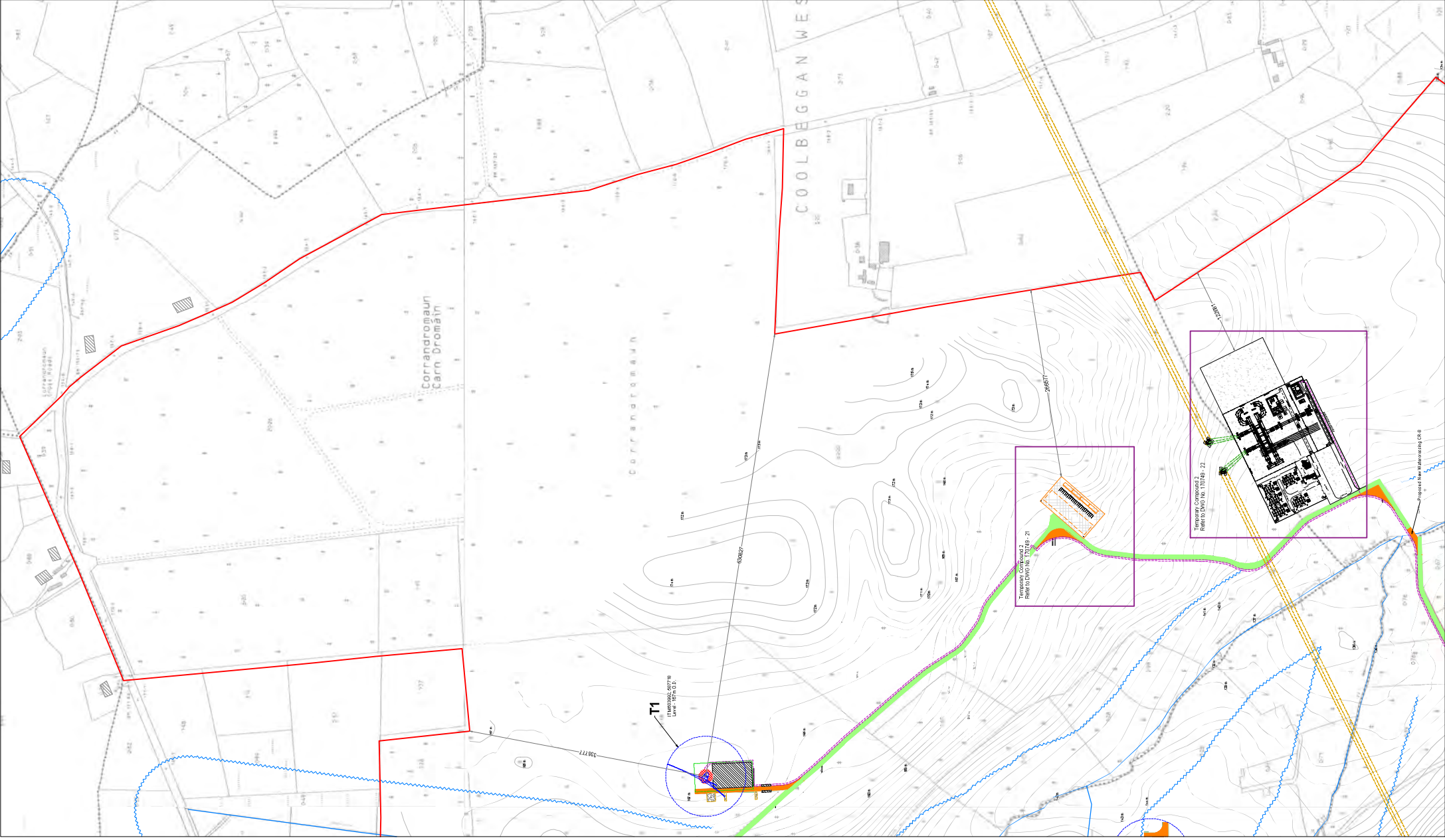
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DATE  
**05.01.2021**

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5. All contractors, whether main or sub-contractors, must visit the site and are responsible for testing and checking any and all dimensions and areas that relate to the work.
6. The design of any drainage system shall be deemed to be the acceptance of these conditions of use unless otherwise agreed in writing, such written agreements to be signed from and issued by the client.
7. Layout plans show typical 150mm diameter as per turbine drawing.
8. Final levels may vary depending on local ground conditions.
9. All drainage systems shall be designed to meet the following:
10. All drainage subject to micro-siting and optimization on site.
11. The locations of the interceptor drains, check dams, culverts, swales, silted ponds and level spreaders are shown as indicative, subject to change to suit the requirements of the local topography.
12. All drainage designs to be selected least to suit particular topography and hydrological environment.
13. Down gradient slope below level spreader onto which the water is discharged shall be 1:100.
14. No direct discharge or pumping to watercourses will be permitted.
15. All discharge from level spreaders or silted ponds to be via separate basins. Selected suitable areas to use as vegetation swales and silted ponds, subject to the existing ground level, slope and ground conditions.
16. Silted ponds to be sited according to the area they will be used for.
17. Diversion of drainage ditches will only take place when alternative drainage ditch has been installed to handle the same volume of water.
18. Existing drainage ditches to be incorporated or removed during wind farm construction.
19. All drainage system features to be subject of inspection and approval by the local authority.
20. The layout shown is slightly offset for scale purposes, and all drainage would be installed as close to the road as possible.



**Drawing Legend**

- Planning Application Boundary
- Existing Road to be Upgraded
- Proposed Road
- Electrical Cable Trench
- River/Stream
- 7.5m River/Stream Buffer
- Walks Area
- Soft Levelled Area
- Crane Pad Handstanding Area
- Turbine Foundation
- Turbine Sweep Area
- Turbine Sweep Area
- Cut
- Fill
- Existing 10kV Overhead Line



DRAWING TITLE  
**Site Layout Plan**  
**Sheet 8 of 11**

PROJECT TITLE  
**Lyracarrige Wind Farm,**  
**Co. Cork & Co. Waterford**

DRAWING BY  
**Joseph O'Brien**

CHECKED BY  
**Lorraine Meehan**

DATE  
**17/07/19 - 16**

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DATE OF SHEET No. 1  
**17/07/19**

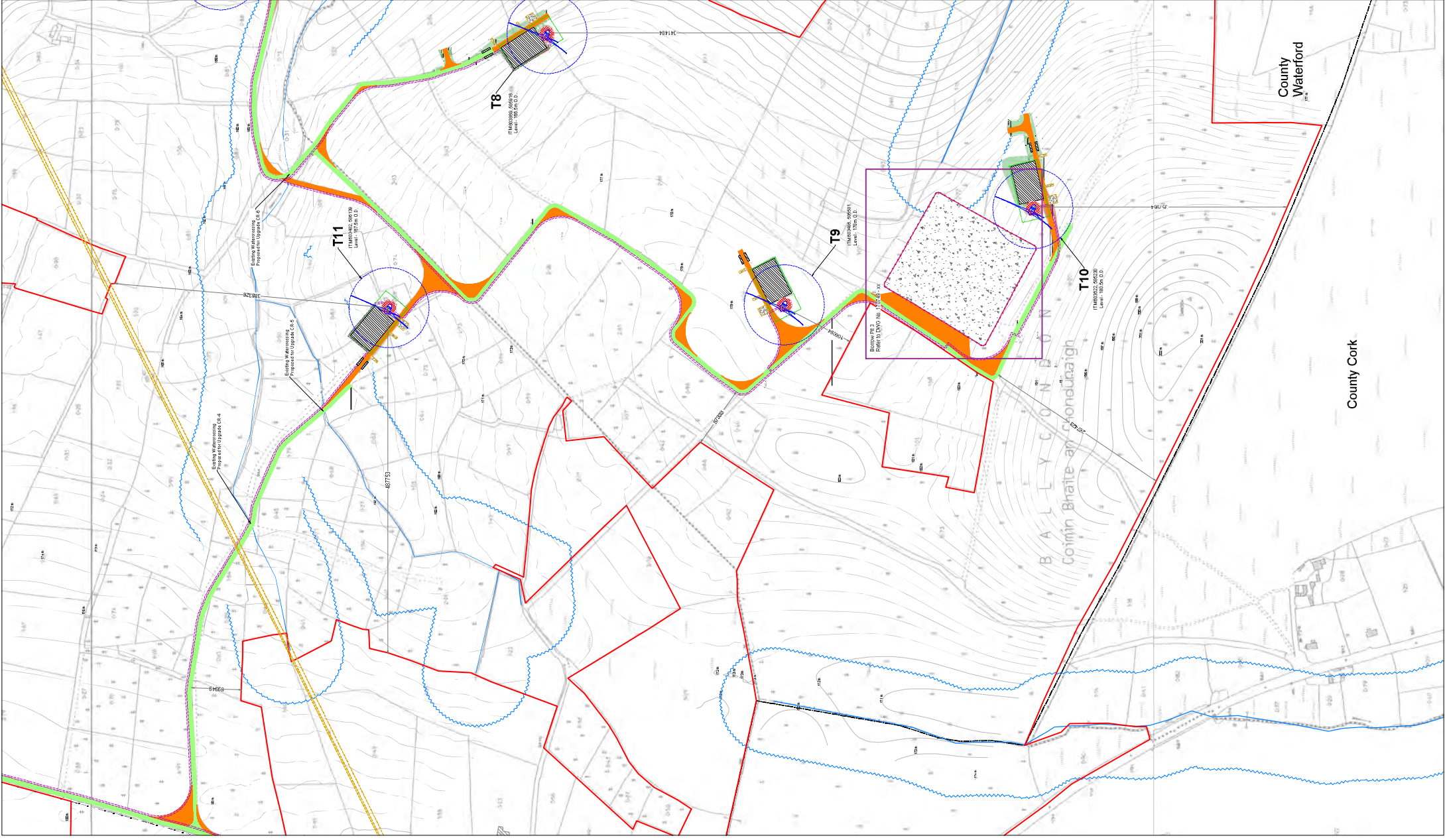
DATE OF SHEET No. 2  
**05/01/2021**



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6. All existing and new drains on the works must be checked for the acceptance of these conditions of use unless otherwise agreed in writing, such written agreements to be signed from and issued by the relevant authority.
7. Layout plans show typical tubular rotor diameter as per tubular drawing.
8. Final levels may vary depending on local ground conditions.
9. All drainage subject to micro-siting and optimization on site.
10. The locations of the interceptor drains, check dams, culverts, swales, silted ponds and level spreaders are shown as indicative, subject to suit the requirements of the local topography.
11. Superimposed hydrograph or environmental data or works following detailed drainage design.
12. Drainage measures to be installed prior to, or at the same time as site works areas they are intended to drain.
13. Interceptor drains or swales will not be lower than the design elevation of the water surface in the outlet at the level spreader or on the gradient of the check dam or weirs in which they are installed.
14. Check dam designs to be selected least to suit particular topography and hydrological environment.
15. Down gradient slope below level spreader into which the water is discharged must be at least 1:10.
16. No direct discharge or pumping to watercourses will be permitted. All discharge from level spreaders or silted ponds to be via vegetated swales. Swales or suitable areas to use as vegetation swales must be installed and maintained to suit the surrounding conditions, slope and ground conditions.
17. Silted ponds to be sited according to the area they will be draining.
18. Direction of drainage ditches will only take place when alternative drainage which has been installed or removed during wind farm construction.
19. Existing drain ditches to be incorporated or removed during wind farm construction.
20. All drainage system features to be subject of inspection and all works to be carried out in accordance with the relevant standards.
21. The layout shown is slightly offset for scale purposes, and all drainage would be installed as close to the road as possible.



**Drawing Legend**

- Planning Application Boundary
- Existing Road to be Upgraded
- Proposed Road
- Electrical Cable Trench
- River/Stream
- 75m River/Stream Buffer
- Works Area
- Soft Levelled Area
- Crane Pad Hoisting Area
- Turbine Foundation
- Turbine Swept Area
- Borrow Pit
- Cut
- Fill
- Existing 10kV Overhead Line
- County Boundary



**Site Layout Plan**  
**Sheet 9 of 11**

PROJECT TITLE: **Lyrencariga Wind Farm,**  
 Co. Cork & Co. Waterford

DRAWING BY: **Joseph O'Brien**      CHECKED BY: **Lorraine Meehan**  
 PROJECT NO: **170749**      SHEET NO: **170749 - 17**

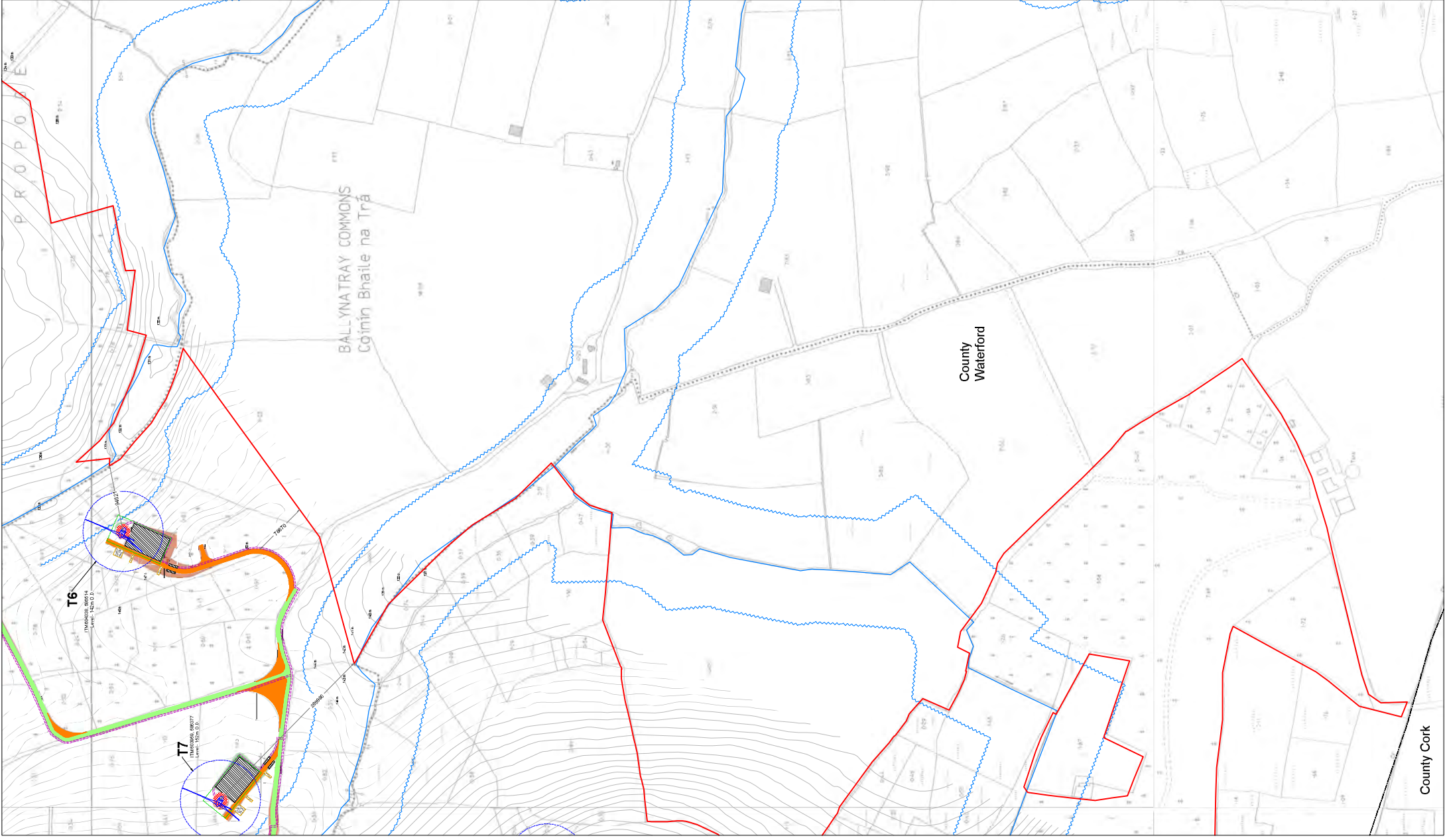
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DT SHEET No.: **170749-17**      DRAWING No.: **170749-17**

**MKO**  
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 Email: info@mkogalway.ie  
 Website: www.mkogalway.ie

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4. Do not scale off these drawings. Figure metric dimensions only.
5. All contractors, whether main or sub-contractors, must visit the site and are responsible for testing and checking any and all levels and means that relate to the works.
6. The design of the drainage system shall be deemed to be in acceptance of the site conditions of use unless otherwise agreed in writing, such written agreements to be signed from and issued by the client.
7. Layout plans show typical Turbine rotor diameter as per turbine drawing.
8. Final levels may vary depending on local ground conditions.
9. All drainage subject to micro-siting and optimization on site.
10. The locations of the interceptor drains, check dams, culverts, swales, silted ponds and level spreaders are shown as indicative, subject to change to suit the requirements of the local topography.
11. Supervising hydrologist or environmental clerk of works shall be responsible for the installation of drainage features following detailed drainage design.
12. Drainage measures to be installed prior to, or at the same time as the works areas they are intended to drain.
13. Interceptor drains or swales will not be lower than the design elevation of the water surface in the outlet at the level spreader or check dam.
14. The spacing and frequency of the check dams will be dependent on the gradient of the interceptor drain or swale in which they are installed.
15. Check dam designs to be selected best to suit particular topography and hydrological environment.
16. Down gradient slope below level spreader into which the water is discharged shall be such that the water courses will be permitted to flow.
17. No direct discharge or pumping to watercourses will be permitted.
18. All discharge from level spreaders or silted ponds to be via separate by-ways. Swales or suitable areas to use as vegetation strip to filter runoff to watercourses.
19. All discharge to be to the south of the existing road.
20. Silted ponds to be sited according to the area they will be draining.
21. Direction of drainage ditches will only take place when alternative drainage ditch has been installed to handle the same volume of runoff.
22. Existing drainage ditches to be incorporated or removed during wind farm construction.
23. All drainage system features to be subject of inspection and approval by the local authority.
24. The layout shown is slightly offset for scale purposes, and all drainage would be installed as close to the road as possible.



**Drawing Legend**

- Planning Application Boundary
- Existing Road to be Upgraded
- Proposed Road
- Electrical Cable Trench
- River/Stream
- 7.5m River/Stream Buffer
- Woods Area
- Soft Levelled Area
- Crane Pad Handstanding Area
- Turbine Foundation
- Turbine Sweeps Area
- Cut
- Fill
- County Border



**DRAWING TITLE**  
**Site Layout Plan**  
**Sheet 10 of 11**

**PROJECT TITLE**  
**Lyreacarriga Wind Farm,**  
**Co. Cork & Co. Waterford**

**DRAWN BY** Joseph O'Brien  
**CHECKED BY** Lorraine Meehan

**SCALE** 1:2,500 @ A1  
**DATE** 05.01.2021

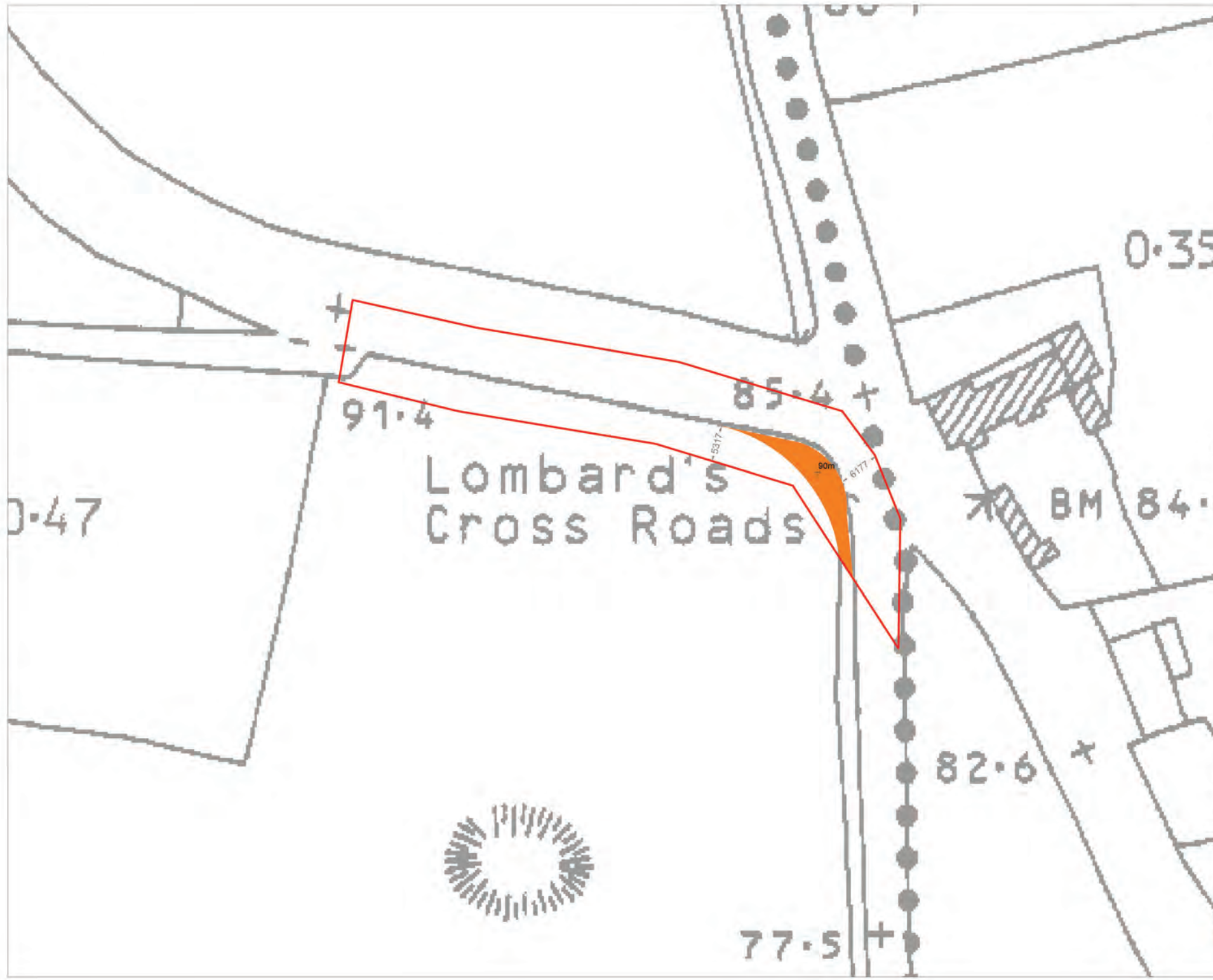
**DT NUMBER** 170749  
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7. Layout plans show typical Turbine rotor diameter as per turbine drawing.
8. Final levels may vary depending on local ground conditions.



**Drawing Legend**

- Planning Application Boundary
- Proposed Road

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**Site Layout Plan**  
**Sheet 11 of 11**

**PROJECT TITLE**  
 Lyrenacarriga Wind Farm,  
 Co. Cork & Co. Waterford

**DRAWN BY** Joseph O'Brien      **CHECKED BY** Lorraine Meehan

**PROJECT NO.** 170749      **DRAWING NO.** 170749 - 19

**SCALE** 1:500 @ A3      **DATE** 05.01.2021

**DRAWN BY** MR. JOHN O'NEILL, BSC, CIVIL ENGINEER, REG. NO. 1000000000

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