

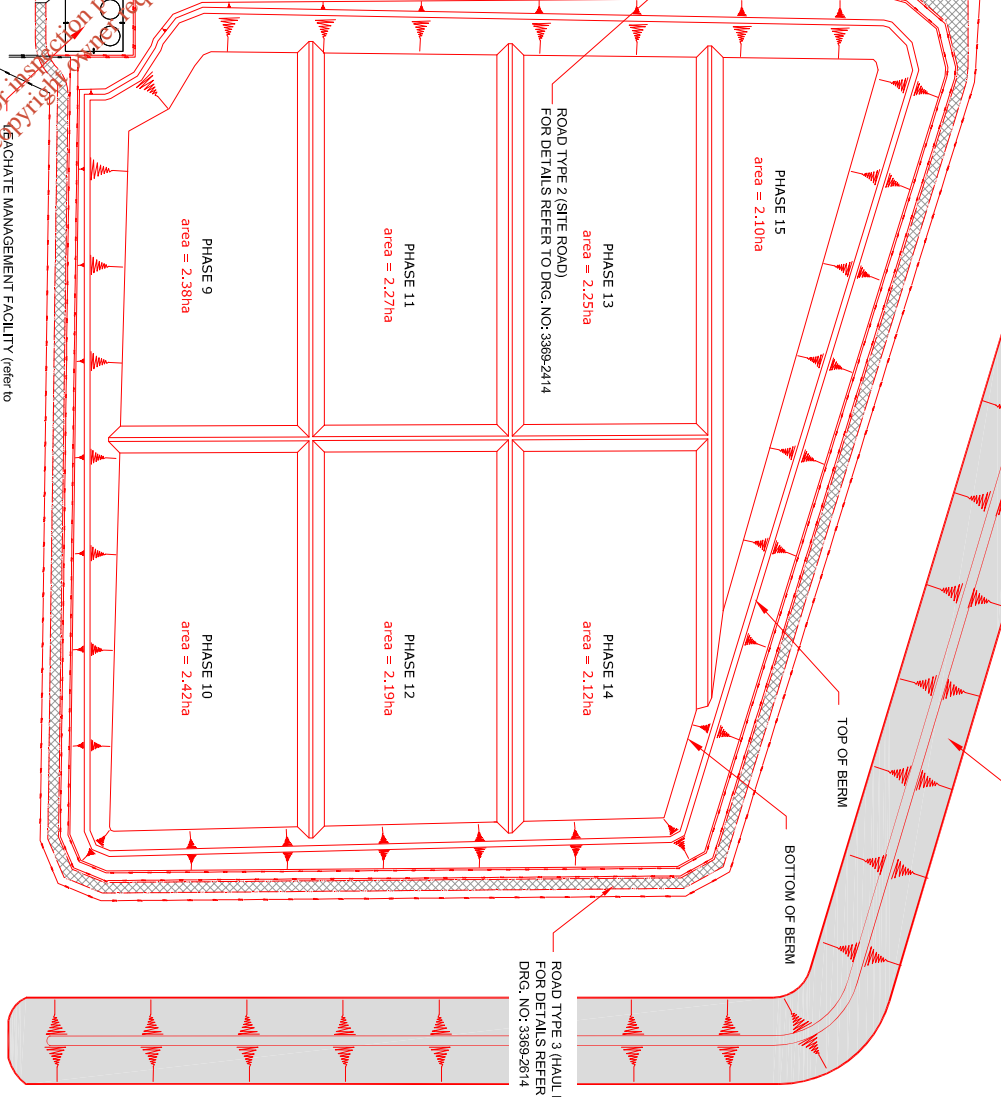
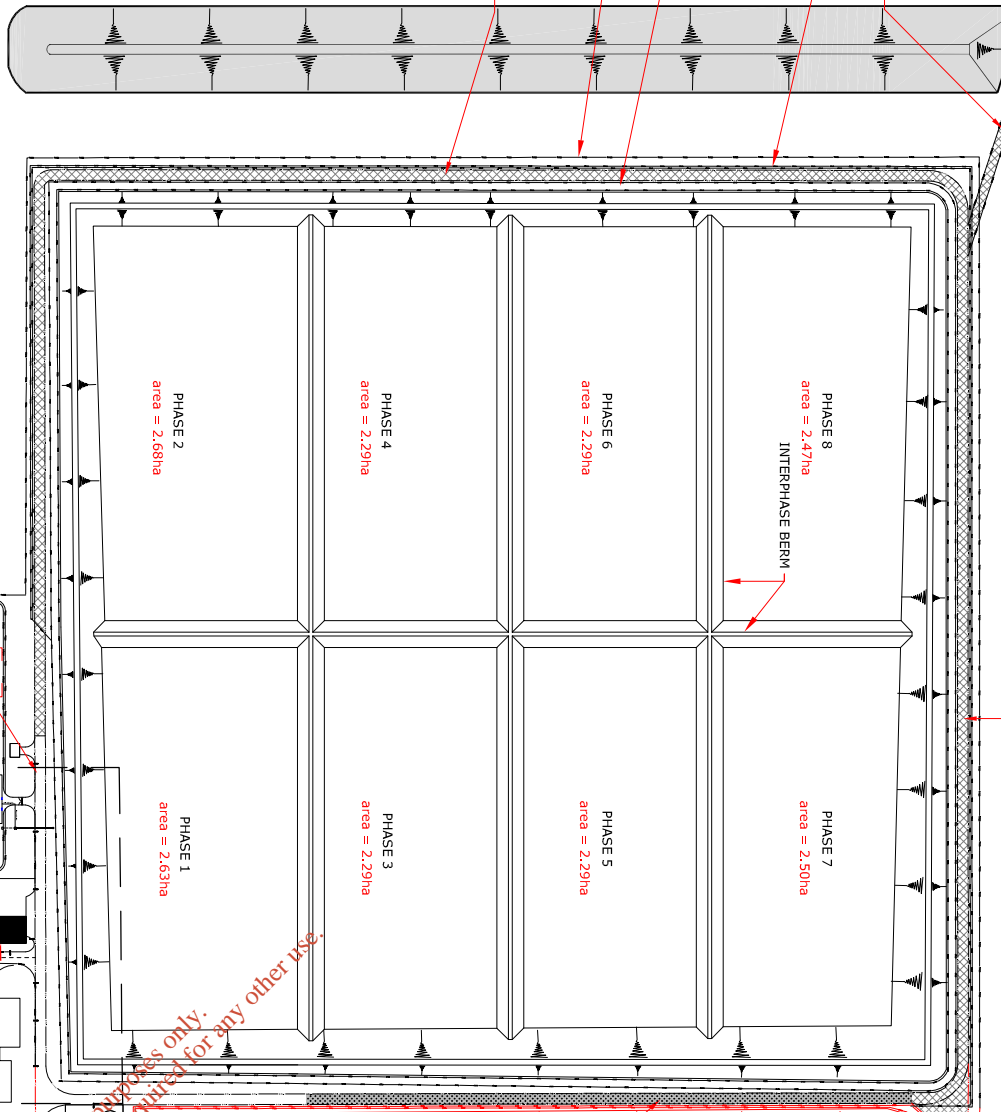
ROAD TYPE 3 (HAUL ROAD)
FOR DETAILS REFER TO DRG. NO: 3389-2614

SURFACE WATER SWALE
CHAIN LINK FENCE
(refer to DWG: 3369-2613 for design details)

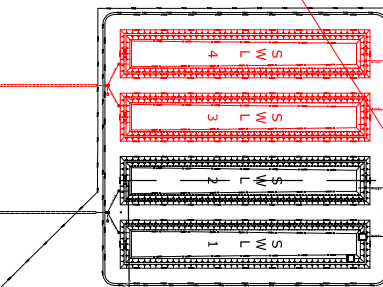
ROAD TYPE 3 (HAUL ROAD)
FOR DETAILS REFER TO DRG. NO: 3389-2614

NOTE:
PHASE 1 TO PHASE 8 INCLUSIVE GRANTED
PERMISSION - ASP REF. NO: P.L.92/12059

ROAD TYPE 3 (HAUL ROAD)
FOR DETAILS REFER TO DRG. NO: 3389-2614

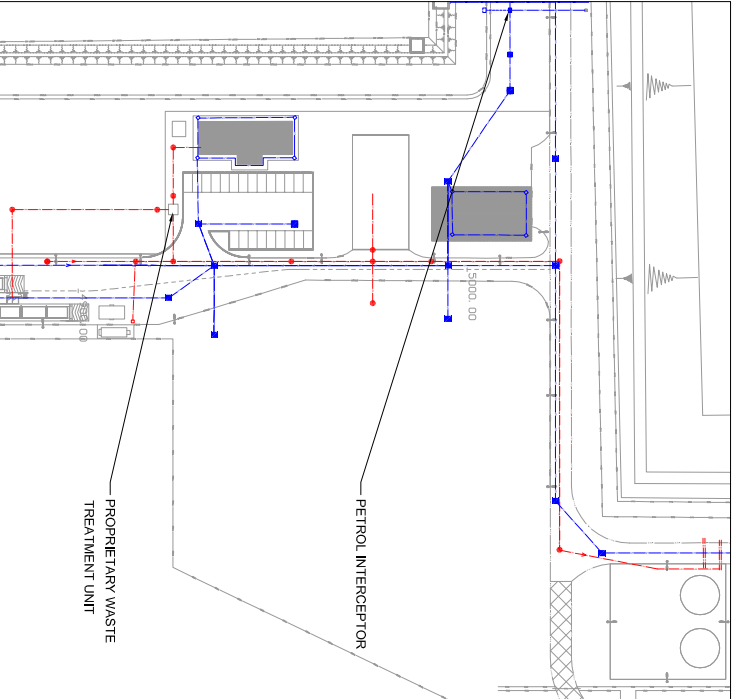


GRANTED LANDFILL AREA = 21.2ha FROM TOE
OF EXTERNAL EMBANKMENT
GRANTED LANDFILL AREA = 23.6ha FROM
EXTENTS OF ROAD
ROAD TYPE 1 (ACCESS ROAD)
FOR DETAILS REFER TO DRG. NO: 3389-2614



WASTE MANAGEMENT FACILITY (refer to
DWG: 3389-2617 for further details)
MAINTENANCE FACILITY (refer to DWG:
3389-2630 for further details)
COMPOST FACILITY (refer to DWG:
3389-2623, 2624 for further details)
BUNDLED OIL STORAGE AREA (refer to DWG:
3389-2630 for further details)
WASTE INSPECTION/QUARANTINE
AREA (refer to DWG: 3389-2632 for
further details)
ADMINISTRATION BUILDING (refer to
DWG: 3389-2627, 2628, 2629 for further
details)
WHEEL WASH
2 NO WEIGH BRIDGES AND KIOSK (refer
to DWG: 3389-2631 for further details)

PROPOSED LANDFILL AREA = 17.8ha FROM TOE
OF EXTERNAL EMBANKMENT
PROPOSED LANDFILL AREA = 19.4ha FROM
EXTENTS OF ROAD



EXISTING SURFACE WATER AND FOUL NETWORK
Scale 1:2,000

GENERAL LEGEND

BORD NA MÓNA
OWNERSHIP BOUNDARY

SITE
ACTIVITY BOUNDARY

BORROW AREAS
(Clay & sand & gravel)

TYPE 2
(SITE ROAD)

TYPE 1
(ACCESS ROAD)

TYPE 3
(HAUL ROAD)

GRANTED
INFRASTRUCTURE

PROPOSED
INFRASTRUCTURE

DRAINAGE LEGEND

EXISTING SURFACE WATER
NETWORK

EXISTING FOUL
NETWORK

EXISTING SURFACE
WATER MANHOLE

EXISTING FOUL
MANHOLE

Issue	Date	Description	By	Chkd
A	04-06-08	ISSUED FOR LICENCE REVIEW	NN	PNM

Client:
BORD NA MÓNA

Project:
**INTENSIFICATION AND
EXTENSION TO DREHD WASTE
MANAGEMENT FACILITY**

Title:
FACILITY INFRASTRUCTURE

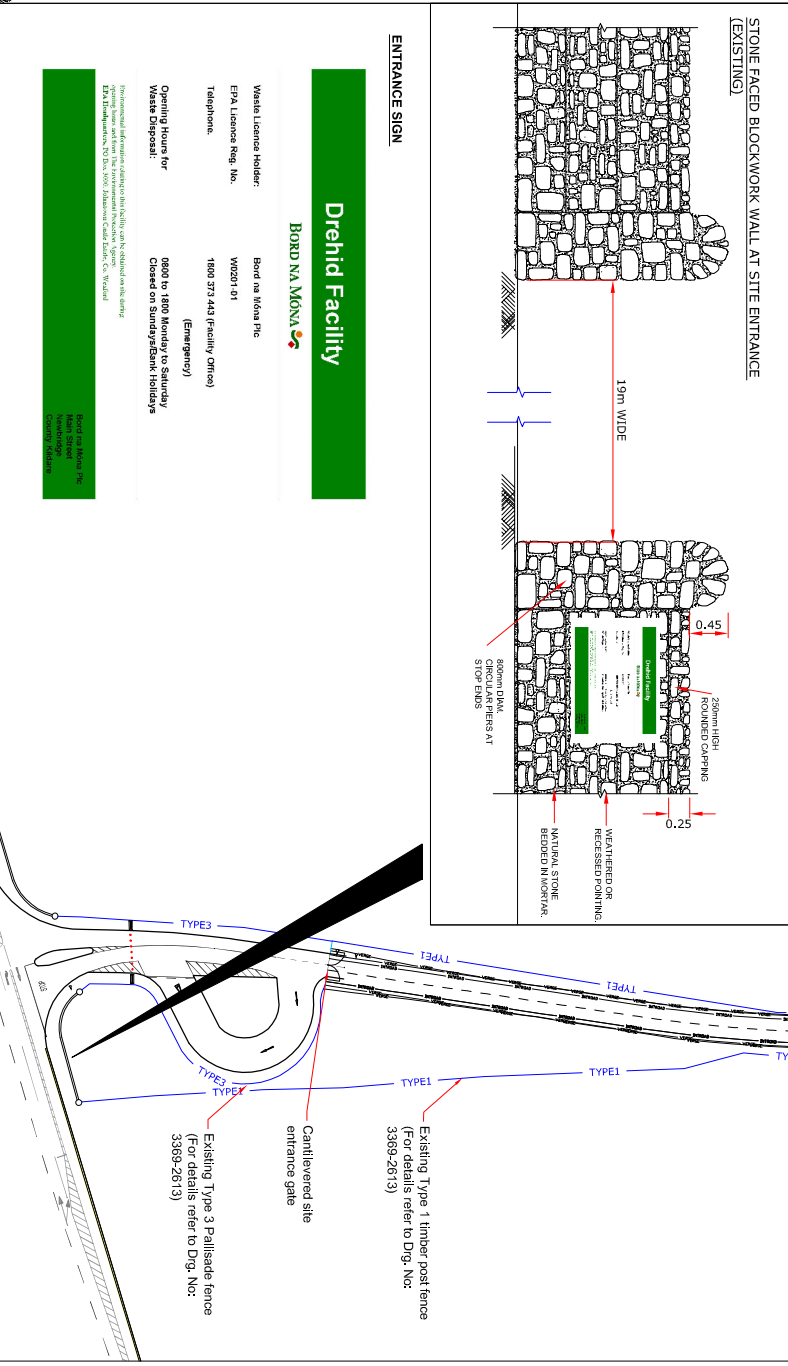
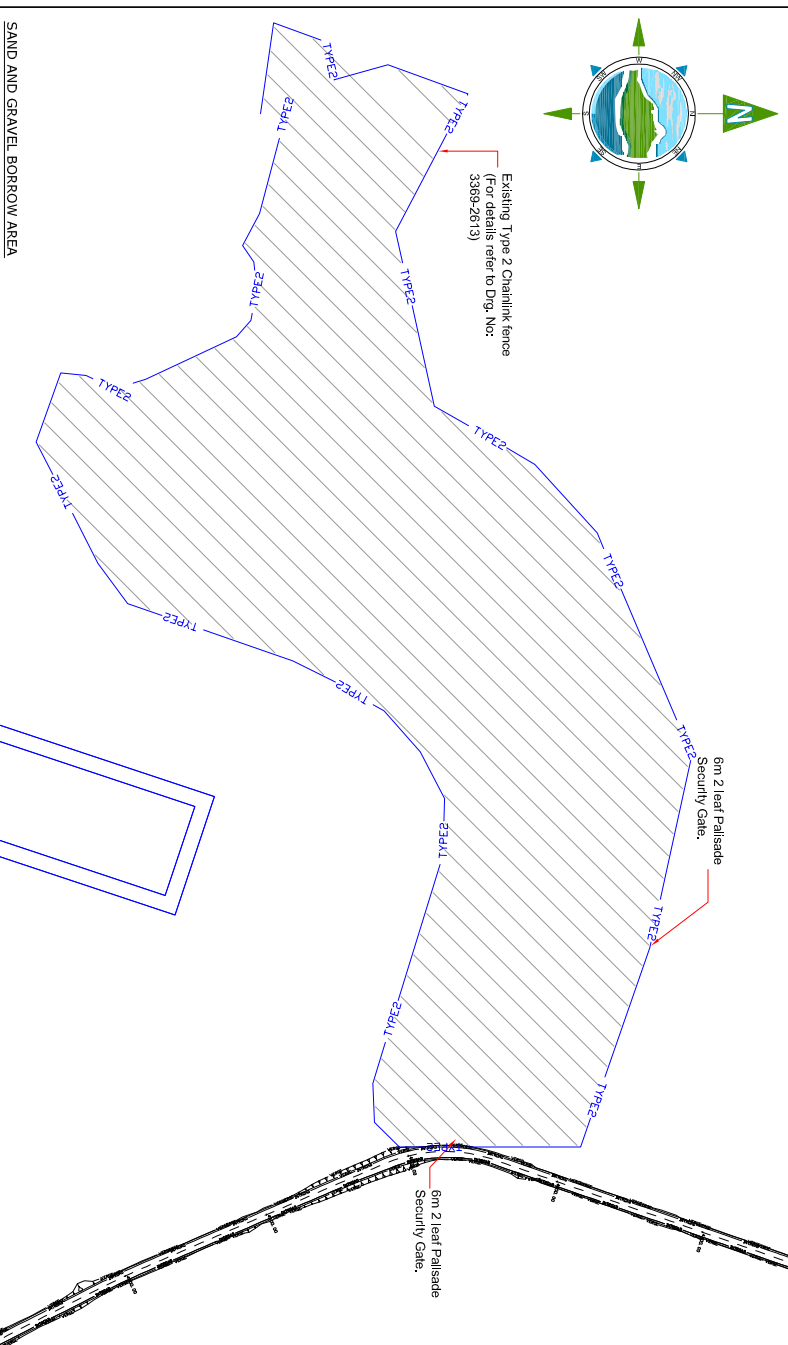
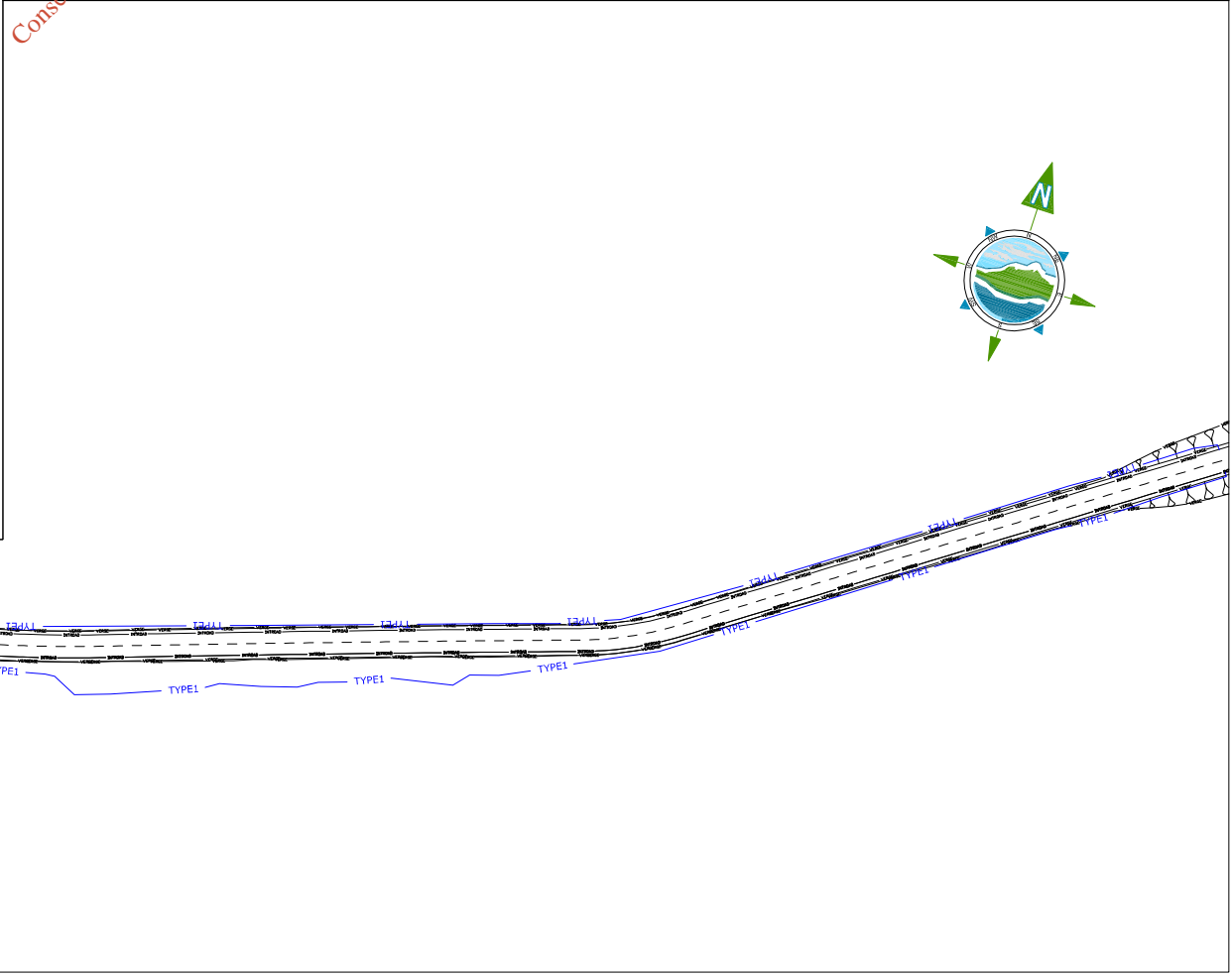
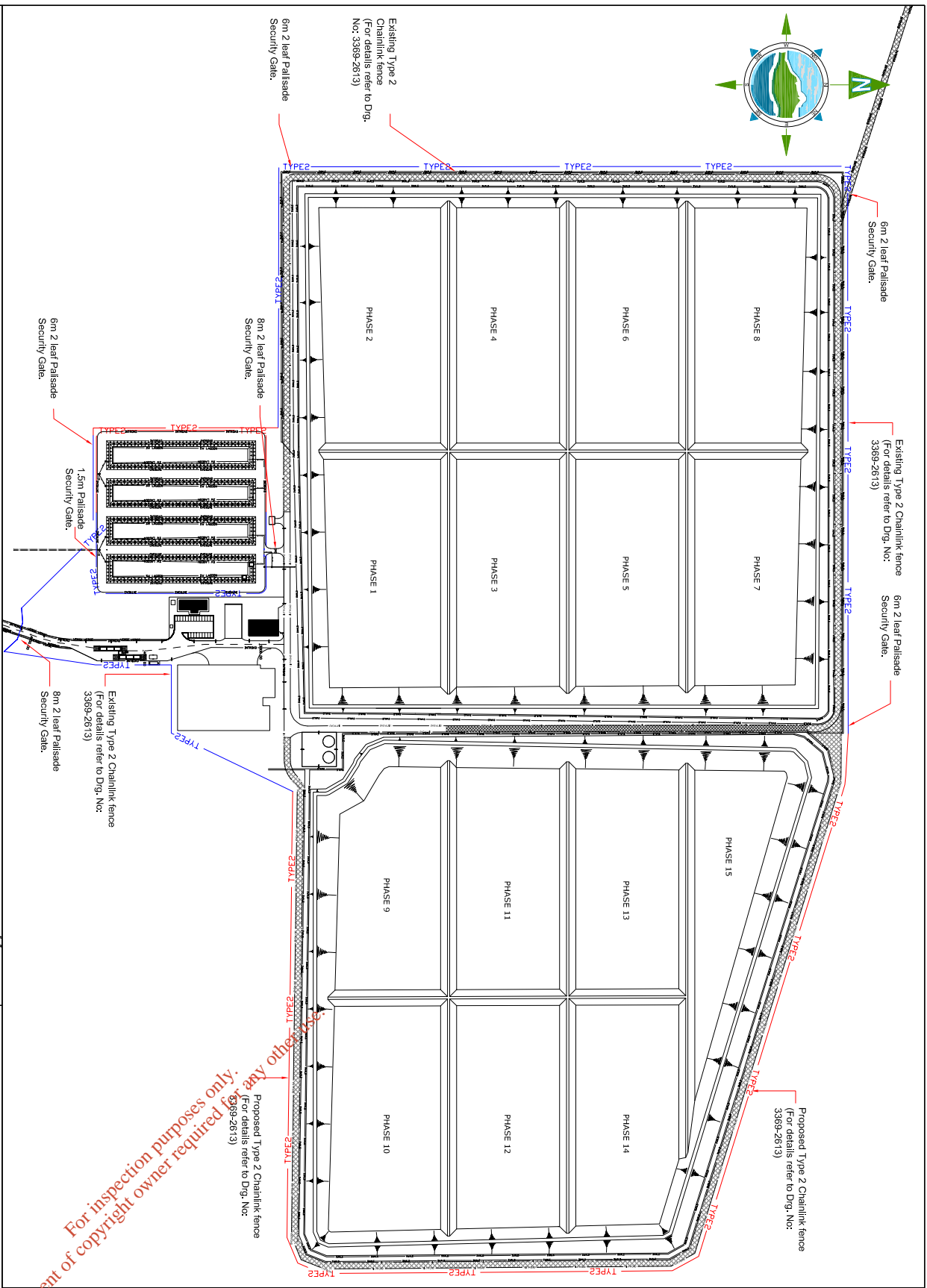
Scale @ A3: 1:4,000

Prepared by: M. Nolan
Checked: P. O'Neill
Project Director: D. Grehan

Date: May 2008

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e-mail: info@tobin.ie
www.tobin.ie

Drawing No.: 3369-2611
Issue: A



GENERAL LEGEND

BORD NA MÓNA OWNERSHIP BOUNDARY	SITE ACTIVITY BOUNDARY
BORROW AREAS (Clay & sand & gravel)	TYPE 2 (SITE ROAD)
TYPE 1 (ACCESS ROAD)	TYPE 3 (HAUL ROAD)
EXISTING TYPE 1 POST & RAIL FENCE	PROPOSED TYPE 1 POST & RAIL FENCE
EXISTING TYPE 2 CHAINLINK FENCE	PROPOSED TYPE 2 CHAINLINK FENCE
EXISTING TYPE 3 PALISADE FENCE	PROPOSED TYPE 3 PALISADE FENCE

Issue	Date	Description	By	Chkd.
A	04-06-08	ISSUED FOR WASTE LICENCE	NN	PCN

Client: **BORD NA MÓNA**

Project: **INTENSIFICATION AND EXTENSION TO DREHID WASTE MANAGEMENT FACILITY**

Title: **SITE FENCING LAYOUT PLAN**

Scale @ A3: **1:4,000**

Prepared by: **M. Nolan** Checked: **P. O'Neill** Date: **May 2008**

Project Director: **D. Grehan**

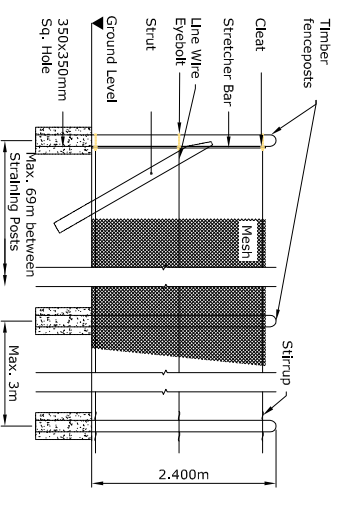
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Partners: Tobin & Co. Ltd.

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Binnristonstown, Co. Wick.
Tel: +353-(0)1-4030406
Fax: +353-(0)1-4030409
e-mail: info@tobin.ie
www.tobin.ie

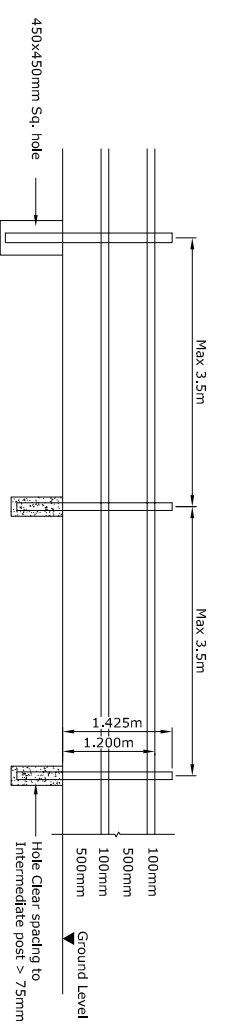
Waste Licence Holder: **Bord na Móna Plc**
EPA Licence Reg. No: **W001191**
Telephone: **1605 373 443 (generally office)**
0605 to 1605 Monday to Saturday
0605 to 1605 Sunday
Waste Transfer: **0605 to 1605 Monday to Saturday**
0605 to 1605 Sunday

Ordnance Survey Ireland License No EN 0016008 ©Ordnance Survey Ireland and Government of Ireland

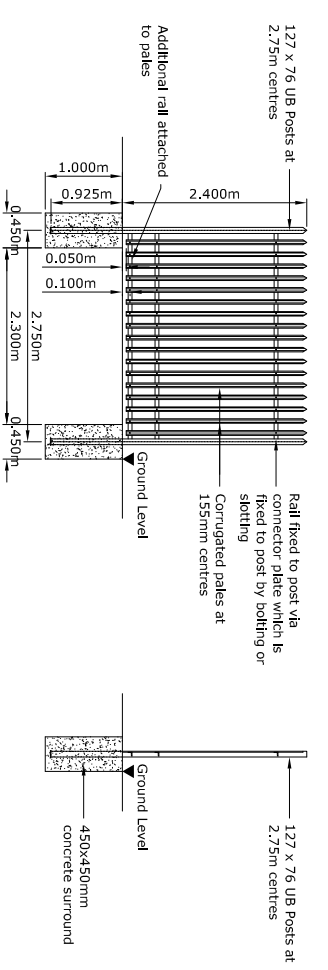
Drawing No.: **3369-2612** Issue: **A**



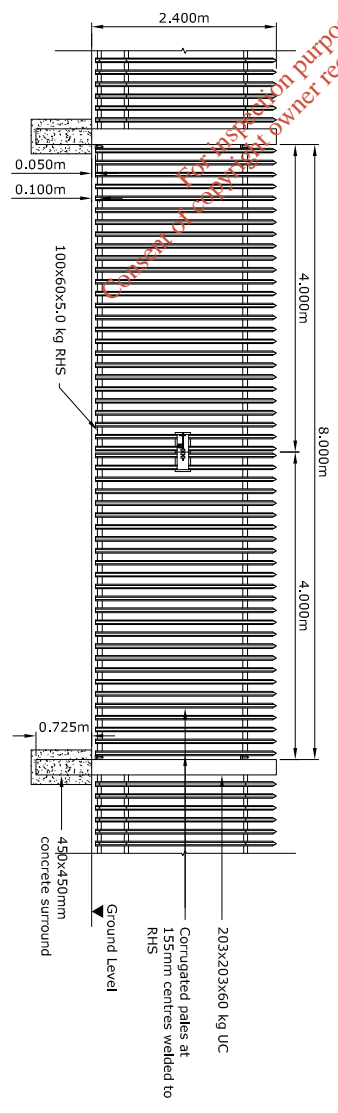
CHAINLINK TIMBER POST FENCE (TYPE 2)



TIMBER POST & RAIL FENCE (TYPE 1)



TYPICAL ARRANGEMENT FOR STEEL PALISADE/PALLIDINE FENCE (TYPE 3)



TYPICAL ARRANGEMENT FOR STEEL PALISADE/PALLIDINE GATE (TYPE 3)

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 BY THE CONTRACTOR OF ANY DISCREPANCIES BEFORE ANY WORK COMMENCES
4. ALL LEVELS SHOWN RELATE TO ORDNANCE SURVEY DATUM AT TAILIN HEAD
5. FOR FENCING LOCATION REFER TO DRG. NO: 3369-2612

Issue	Date	Description	By	CHKD
A	04-06-08	ISSUED FOR LICENCE REVIEW	M.N.	D.C.

Client:
BORD NA MÓNA

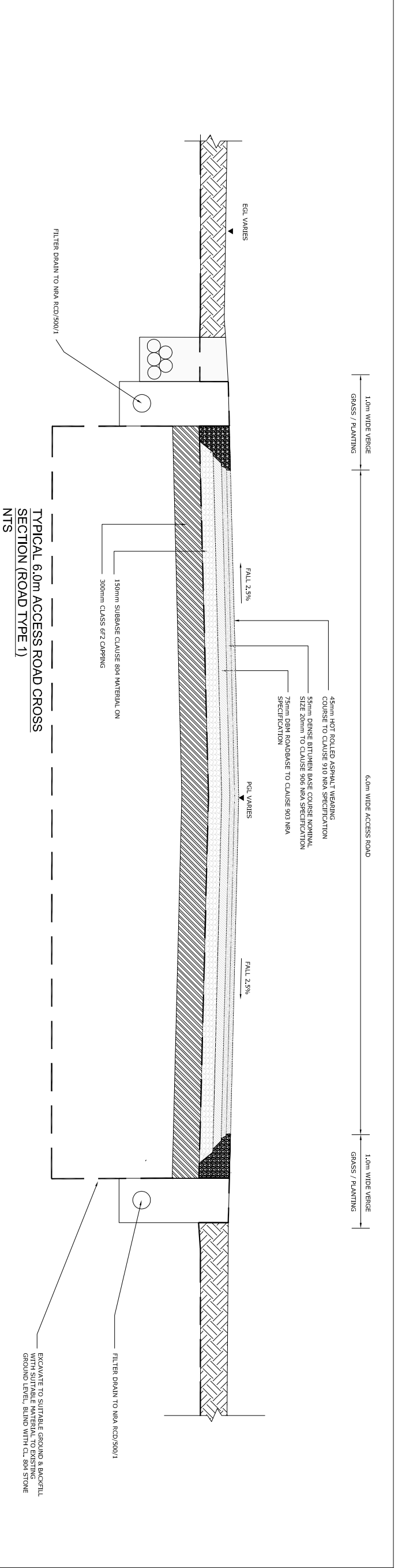
Project:
INTENSIFICATION AND EXTENSION TO DREHD WASTE MANAGEMENT FACILITY

Title:
TYPICAL FENCING DETAILS

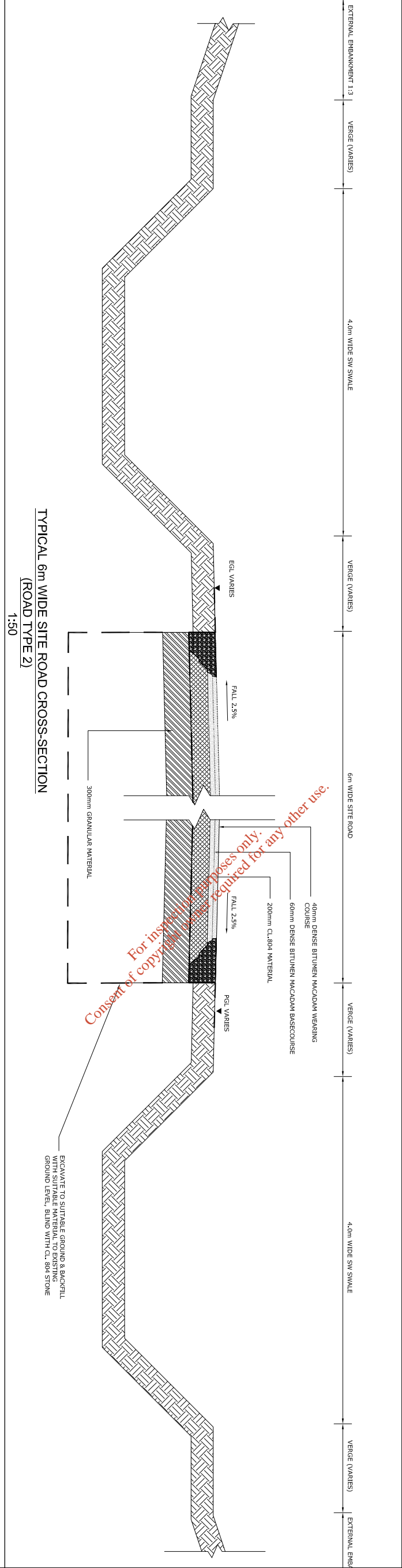
Scale @ A3: **1:100**

Prepared by:	Checked:	Date:
M. Nolan	D. Conraran	May 2008
Project Director:	D. Grehan	

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 e-mail: info@tobin.ie
 www.tobin.ie



- CONSTRUCTION NOTES**
- TYPE 1 ROAD - 45mm HOT ROLLED ASPHALT WEARING COURSE TO CLAUSE 910 NRA SPECIFICATION, 55mm DENSE BITUMEN BASE COURSE NOMINAL SIZE 20mm TO CLAUSE 906 NRA SPECIFICATION, 75mm DBM ROADBASE TO CLAUSE 903 NRA SPECIFICATION
 - TYPE 2 ROAD - 45mm DENSE BITUMEN WEARING COURSE TO CLAUSE 910 NRA SPECIFICATION, 55mm DENSE BITUMEN BASE COURSE NOMINAL SIZE 20mm TO CLAUSE 906 NRA SPECIFICATION, 75mm DBM ROADBASE TO CLAUSE 903 NRA SPECIFICATION, 300mm GRANULAR MATERIAL
 - TYPE 3 ROAD - 300mm CL 804 STONE GED-GRID TO BE INCORPORATED DEPENDING ON CBR OF SUB-GRADE



- NOTES**
- FIGURED DIMENSIONS ONLY TO BE TAKEN FROM THIS DRAWING
 - ALL DRAWINGS TO BE CHECKED BY THE CONTRACTOR ON SITE
 - ENGINEER TO BE INFORMED BY THE CONTRACTOR OF ANY DISCREPANCIES BEFORE ANY WORK COMMENCES
 - ALL LEVELS SHOWN RELATE TO ORDNANCE SURVEY DATUM AT MAIN HEAD
 - FOR ROAD TYPE LOCATIONS ON SITE REFER TO DRG. NO. 3369-2611

Issue	Date	Description	By	CHKD
A	04-06-08	ISSUED FOR WASTE REVIEW	MM	PNW

Client:
BORD NA MÓNA

Project:
INTENSIFICATION AND EXTENSION TO DREHD WASTE MANAGEMENT FACILITY

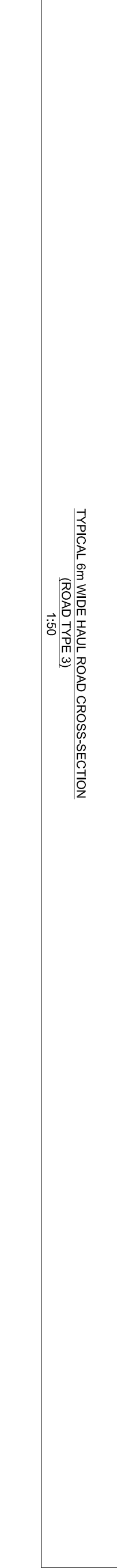
Title:
ROAD CONSTRUCTION DETAILS

Scale @ A3: AS SHOWN

Prepared by: M. Nohrn
Checked: P. O'Neill
Date: May 2008

Project Director: D. Grehan

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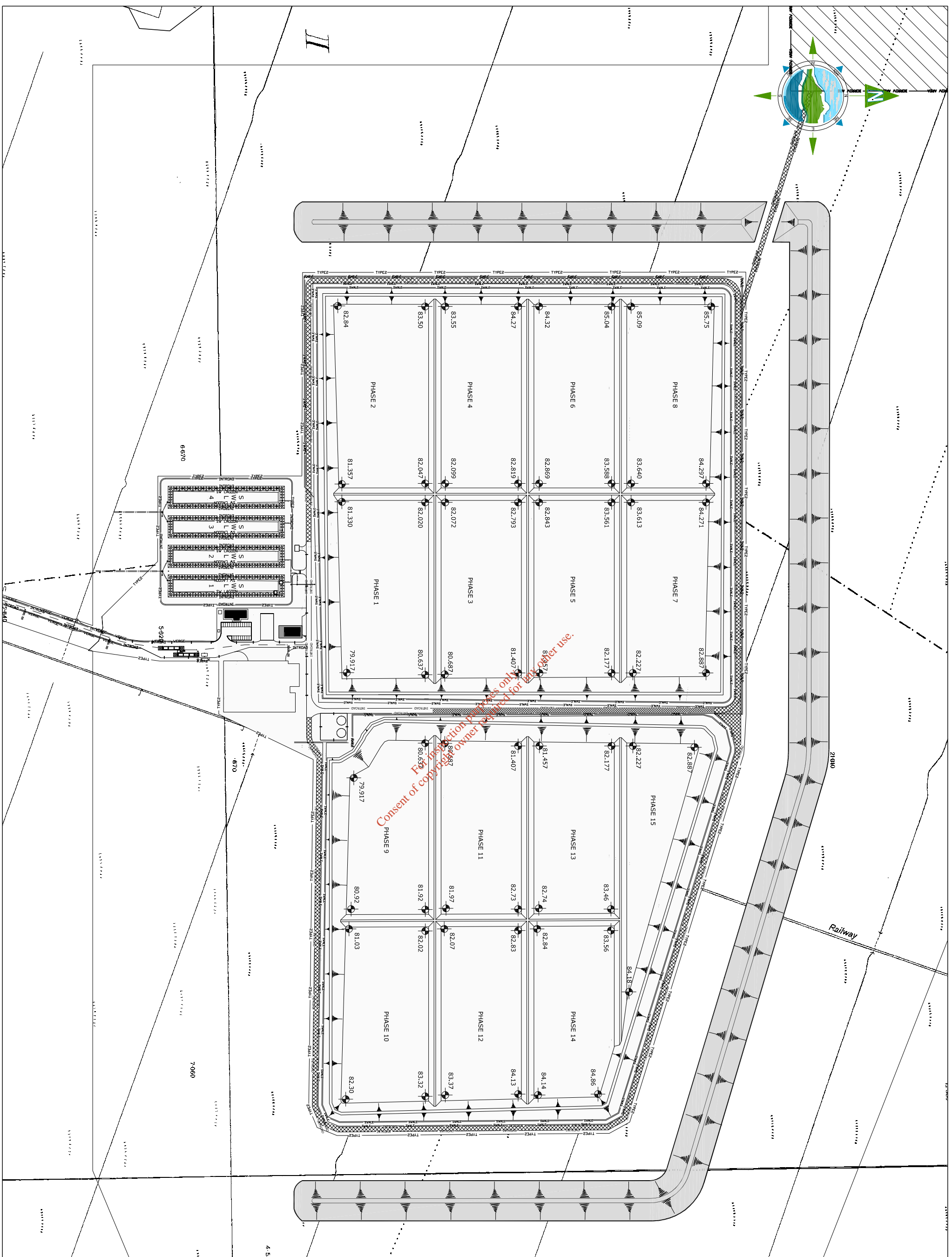
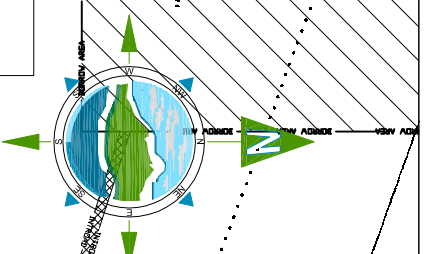


EARTHWORKS OUTLINE

TYPICAL 6m WIDE HAUL ROAD CROSS-SECTION (ROAD TYPE 3)
1:50

Drawing No.: 3369-2614

Issue: A



GENERAL LEGEND

- BORD NA MÓNA SITE ACTIVITY BOUNDARY
- EXTENTS OF LANDFILL
- EXTENTS OF BORROW AREA
- EXISTING CONTOUR
- ROAD CENTRELINE
- EXTENTS OF EMBANKMENTS AND ROADSIDE VERGES
- EXTENTS OF INTERIOR ROAD LAYOUT
- OVERHEAD ESB LINE
- EXTENTS OF KERB

- DRAINAGE LEGEND**
- EXTENTS OF SURFACE WATER LAGOON AND ENGINEERED WETLAND
- FULL DRAINAGE AND LEACHATE COLLECTION PIPEWORK
- FRENCH DRAIN
- EXTENTS OF SWALE AND PERFORATED PIPE
- PERFORATED LEACHATE COLLECTION PIPEWORK

- FENCING LEGEND**
- TYPE 1 FENCING - POST & RAIL TYPE FENCE
- TYPE 2 FENCING - GALVANIZED TYPE FENCE
- TYPE 3 FENCING - SECURITY TYPE FENCE

- SYMBOLS LEGEND**
- PG1 SPOT HEIGHTS PROPOSED GROUND
- PG2 SPOT HEIGHTS ON DRAINAGE STONE
- PG3 SPOT HEIGHTS ON LANDFILL FORMATION
- PG4 SPOT HEIGHTS ON TOP OF BANK
- EMBANKMENT

Issue	Date	Description	By	Chkd.
A	04-06-08	ISSUED FOR WASTE LICENCE	NN	PNM

Client:
BORD NA MÓNA

Project:
EIS FOR EXTENSION TO DREHID WASTE MANAGEMENT FACILITY

Title:
LANDFILL PHASING PLAN AND CONSTRUCTION LEVELS

Scale @ A3: **1:4,000**

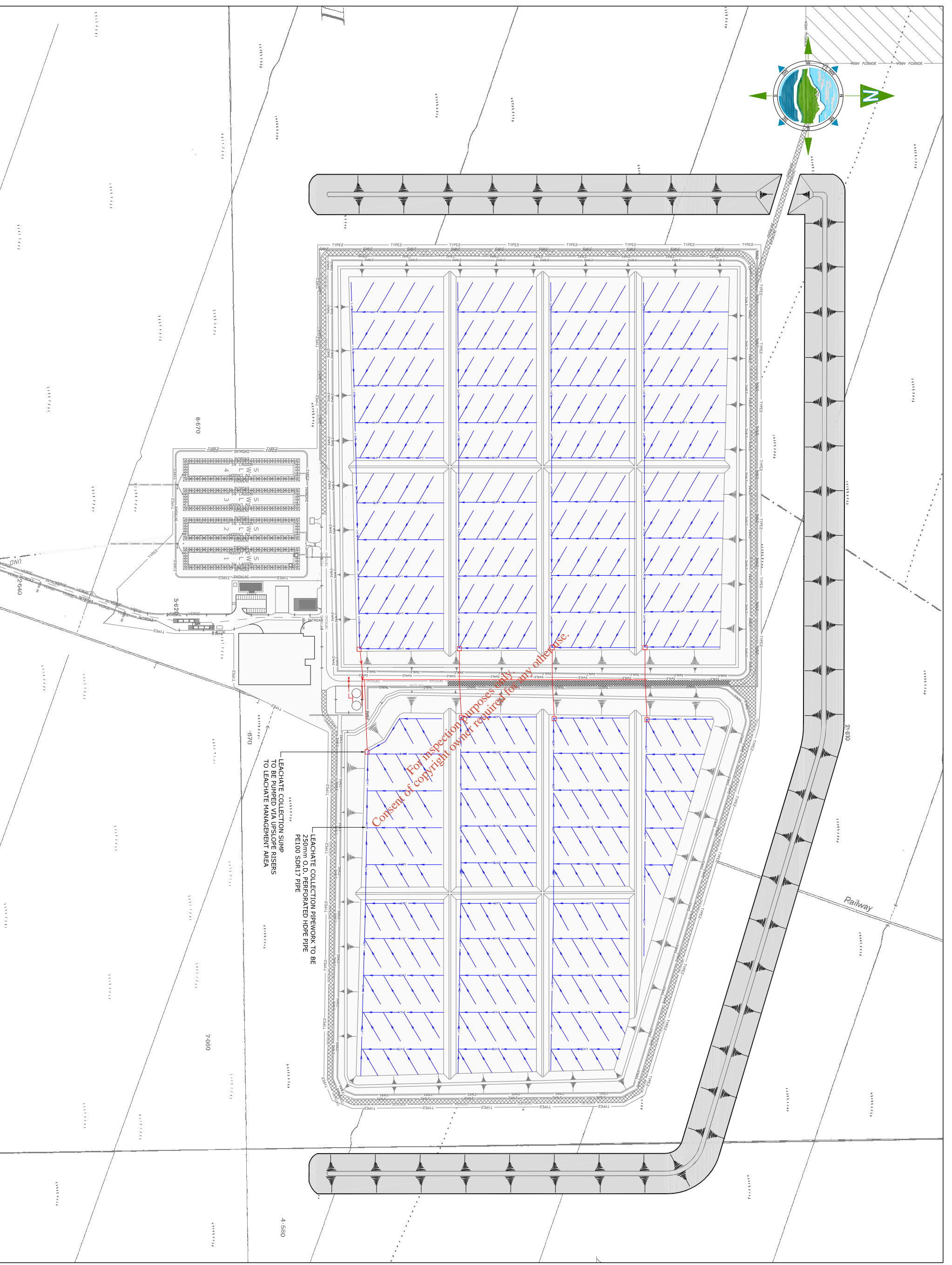
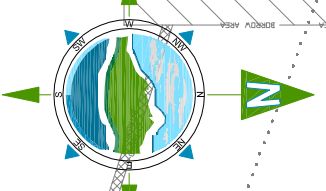
Prepared by: **M. Nolan** Checked: **P. O'Neill** Date: **04-06-08**

Project Director: **D. Grehan**

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e-mail: info@tobin.ie
www.tobin.ie

Drawing No.: **3369-2615** Issue: **A**



- GENERAL LEGEND**
- BORD NA MÓNA
 - OWNERSHIP BOUNDARY
 - SITE ACTIVITY BOUNDARY
 - BORROW AREAS (Only & sand & gravel)
 - LANDFILL FOOTPRINT

- LICENSED BOUNDARY**
- EXTENTS OF LANDFILL
 - EXTENTS OF BORROW AREA
 - EXISTING CONTOUR

- ROAD CENTRELINE**
- EXTENTS OF EMBANKMENTS AND ROADSIDE VERGES
 - EXTENTS OF INTERNAL ROAD LAYOUT
 - OVERHEAD ESB LINE
 - EXTENTS OF KERB

- DRAINAGE LEGEND**
- EXTENTS OF SURFACE WATER LAGOON AND ENGINEERED WETLAND
 - FOUL DRAINAGE AND LEACHATE COLLECTION PIPEWORK
 - FRENCH DRAIN
 - EXTENTS OF SWALE AND PERFORATED PIPE
 - PERFORATED LEACHATE COLLECTION PIPEWORK

- FENCING LEGEND**
- TYPE 1 FENCING - POST & RAIL TYPE FENCE
 - TYPE 2 FENCING - CHAINLINK TYPE FENCE
 - TYPE 3 FENCING - SECURITY TYPE FENCE

- SYMBOLS LEGEND**
- Spot heights proposed ground
 - Spot heights on drainage stone
 - Spot heights on landfill formation
 - Spot heights on top of bank
 - Embankment

Issue	Date	Description	By	Chkd.
A	04-06-08	ISSUED FOR WASTE LICENCE	MM	PCN

Client:
BORD NA MÓNA

Project:
INTENSIFICATION AND EXTENSION TO DREHD WASTE MANAGEMENT FACILITY

Title:
LEACHATE COLLECTION SYSTEMS

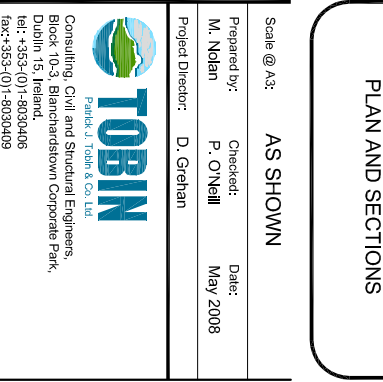
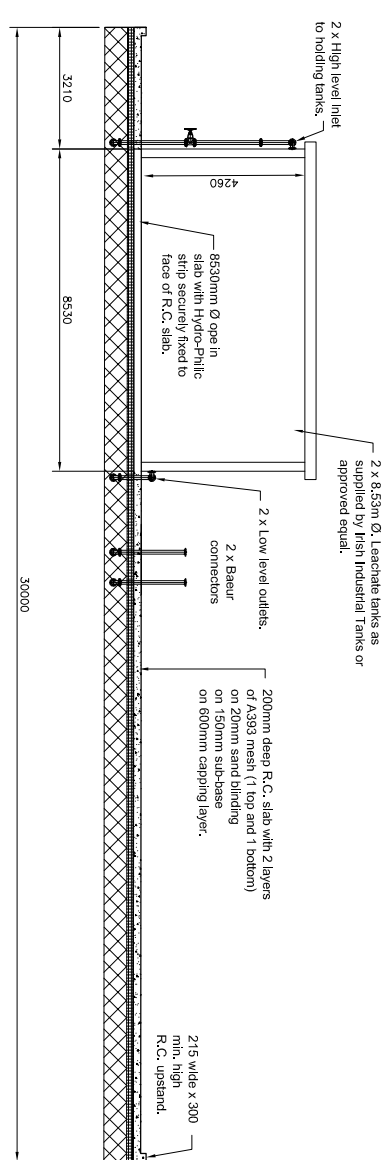
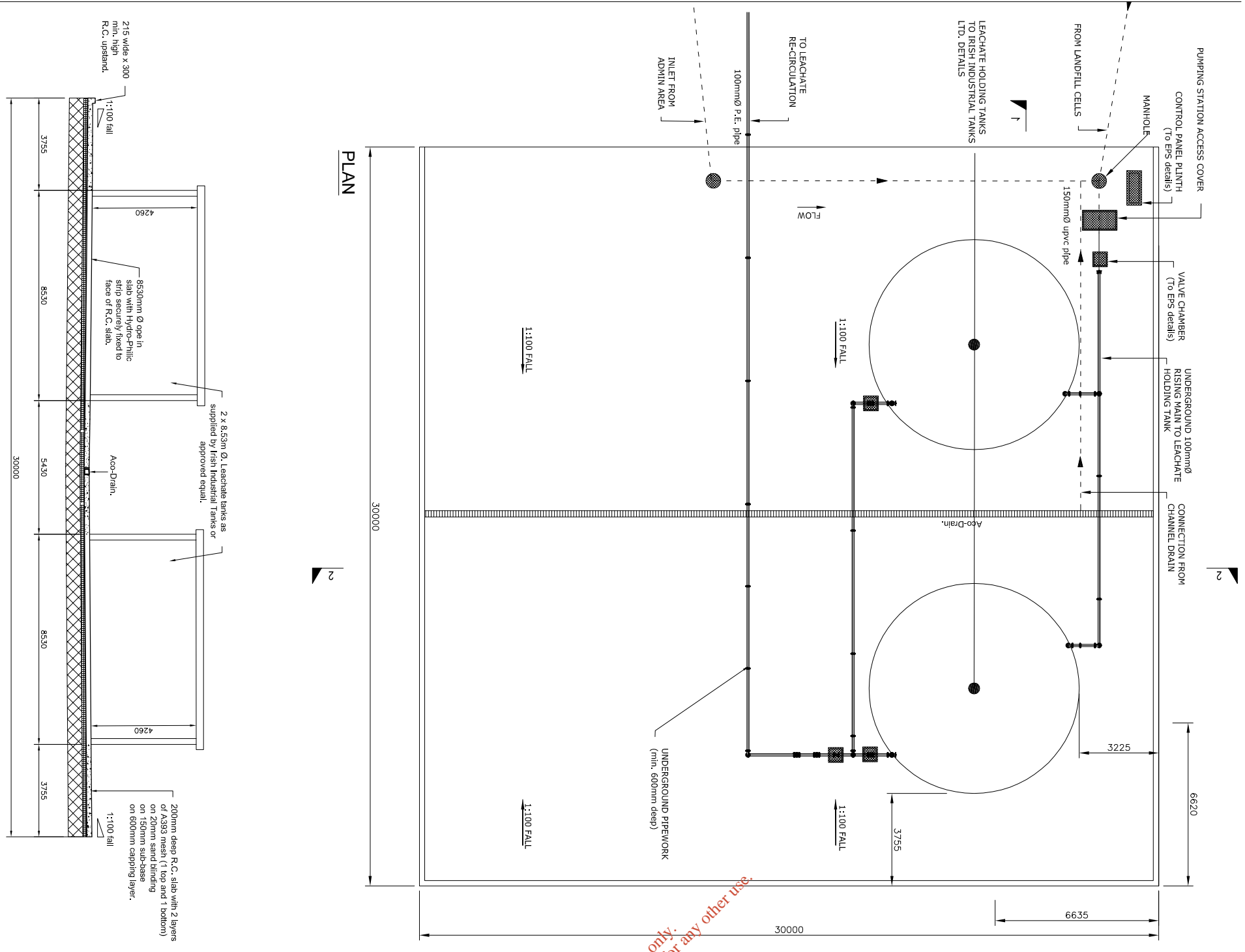
Scale @ A3: **1:4,000**

Prepared by: **M. Nolan** Checked: **P. O'Neill** Date: **May 2008**

Project Director: **D. Grehan**

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Drawing No.: **3369-2616** Issue: **A**



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1.9mØ X 5M DEEP PUMP CHAMBER

Roof Plan.

Floor Plan.

Section.

I.L. of Incoming pipe

79.37 79.78

Suggested base - 100mm Ø804 well compacted.

Weights:

- Base: 6500kg
- 1m Riser Section: 1500kg
- 2m Riser Section: 3000kg
- 2.825m Riser Section: 6500kg
- Roof: 1200kg

Design service available.
Deeper burial possible with riser shaft

Notes:

Standard opening 1400mm x 800mm. Other openings and configurations available on request.

Fittings, connections, access covers, etc. to Customers requirements. Openings can be formed in the factory or on site by the Customer.

And fastenation keys available to order.

Joint Specification:
Densotek bitumen tape on primed interface at spigot and socket.

Client:
BORD NA MONA

Project:
INTENSIFICATION AND EXTENSION TO DREHD WASTE MANAGEMENT FACILITY

Title:
LEACHATE MANAGEMENT AREA PLAN AND SECTIONS

Scale @ A3: AS SHOWN

Prepared by: M. Nolan

Checked: P. O'Neill

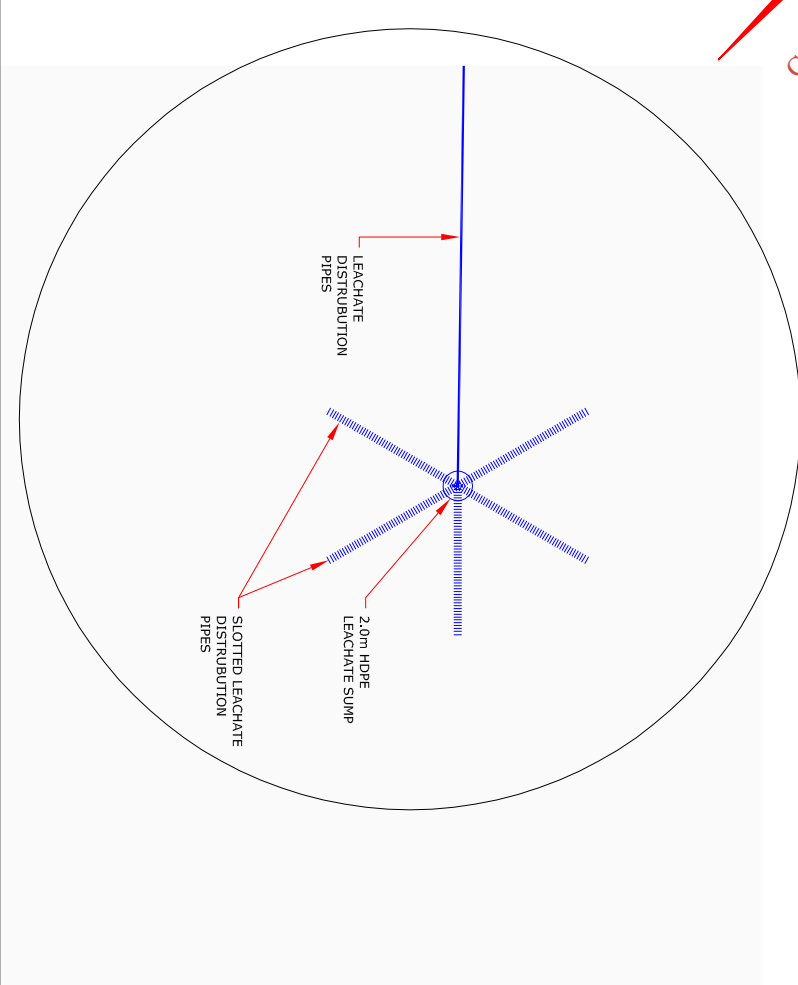
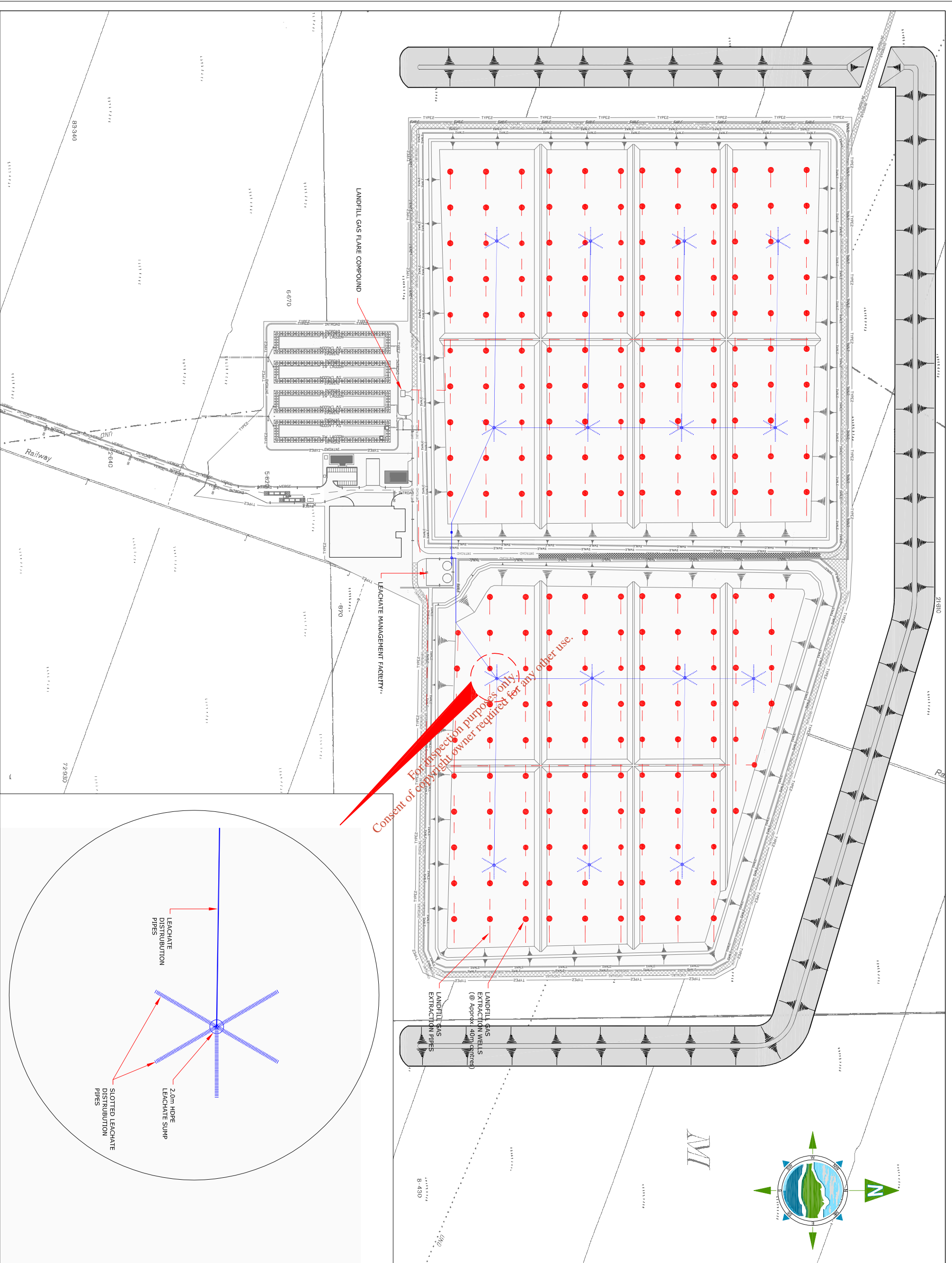
Date: May 2008

Project Director: D. Grehan

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Drawing No.: **3369-2617**

Issue: **A**



- GENERAL LEGEND**
- BORD NA MÓNA OWNERSHIP BOUNDARY
 - SITE ACTIVITY BOUNDARY
 - ▨ LANDFILL FOOTPRINT
 - ▨ BORROW AREAS (Caly & Sand & Gravel)

- LICENSED BOUNDARY**
- EXTENTS OF LANDFILL
 - EXTENTS OF BORROW AREA
 - EXISTING CONTOUR 110
 - ROAD CENTRELINE
 - EXTENTS OF EMBANKMENTS AND ROADSIDE VERGES
 - EXTENTS OF INTERNAL ROAD LAYOUT
 - OVERHEAD ESB LINE
 - EXTENTS OF KERB

- DRAINAGE LEGEND**
- FLOOD DRAINAGE AND LEACHATE COLLECTION NETWORK
 - FRENCH DRAIN
 - EXTENTS OF SWALE AND DEGRADED PIPE
 - FRENCH DRAIN LEACHATE COLLECTION NETWORK

- FENCING LEGEND**
- TYPE 1 FENCING - POST & RAIL TYPE FENCE
 - TYPE 2 FENCING - CHAINLINK TYPE FENCE
 - TYPE 3 FENCING - SHEDDING TYPE FENCE

Issue	Date	Description	By	CHKD.
A	04-08-08	ISSUED FOR LICENCE REVIEW	MAN	PNM

Client:
BORD NA MÓNA

Project:
INTENSIFICATION AND EXTENSION TO DREHID WASTE MANAGEMENT FACILITY

Title:
LANDFILL GAS EXTRACTION LAYOUT AND LEACHATE RECIRCULATION LAYOUT

Scale @ A3: **1:2,000**

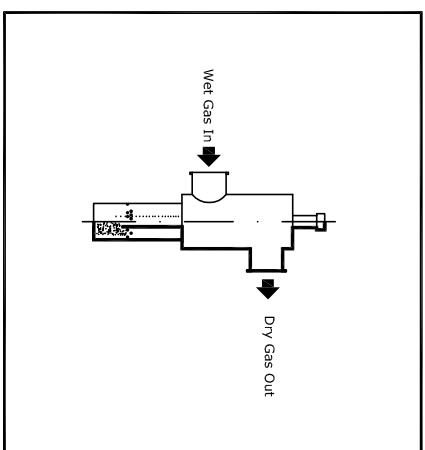
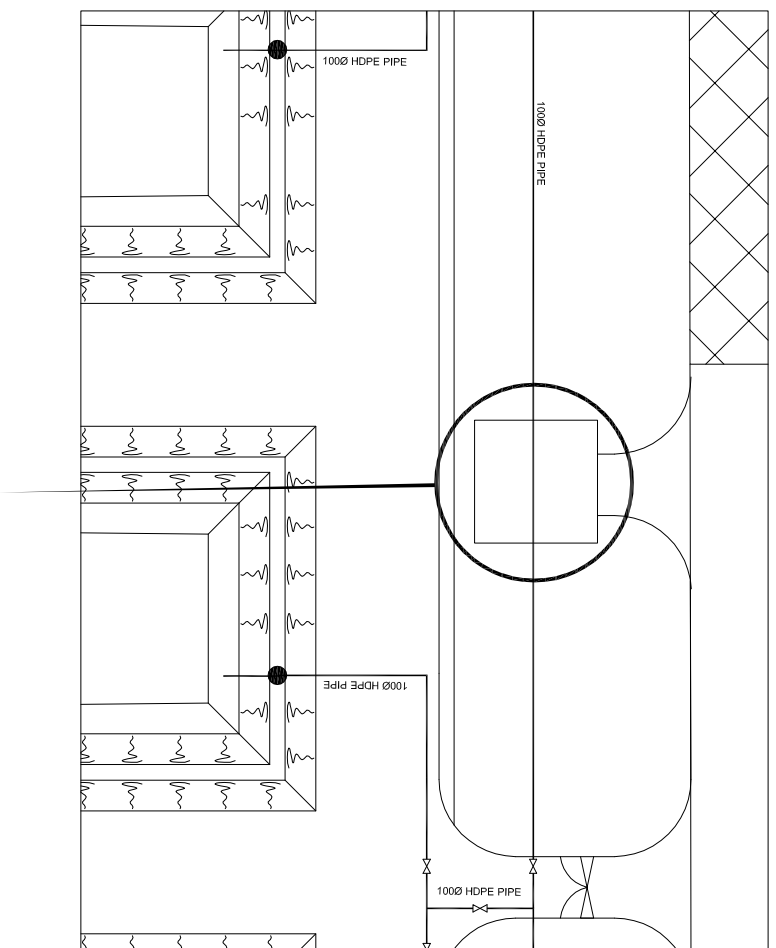
Prepared by: **M. Nolan** Checked: **P. O'Neill** Date: **May 2008**

Project Director: **D. Grehan**

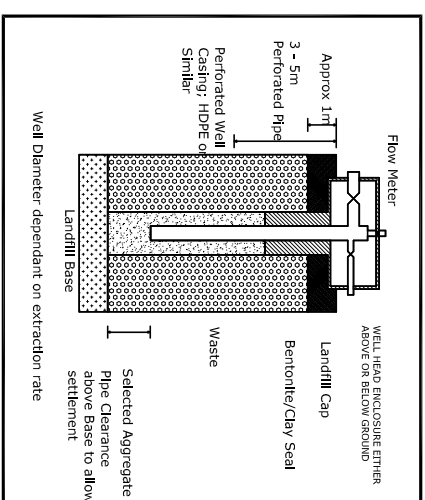
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Drawing No.: **3369-2618** Issue: **A**

LOCATION OF LFG COLLECTION COMPOUND (Scale 1:200)

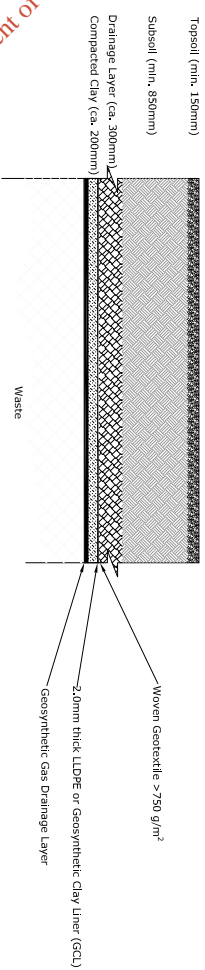


SCHEMATIC DETAIL OF LANDFILL GAS CONDENSATE TRAP (NTS)

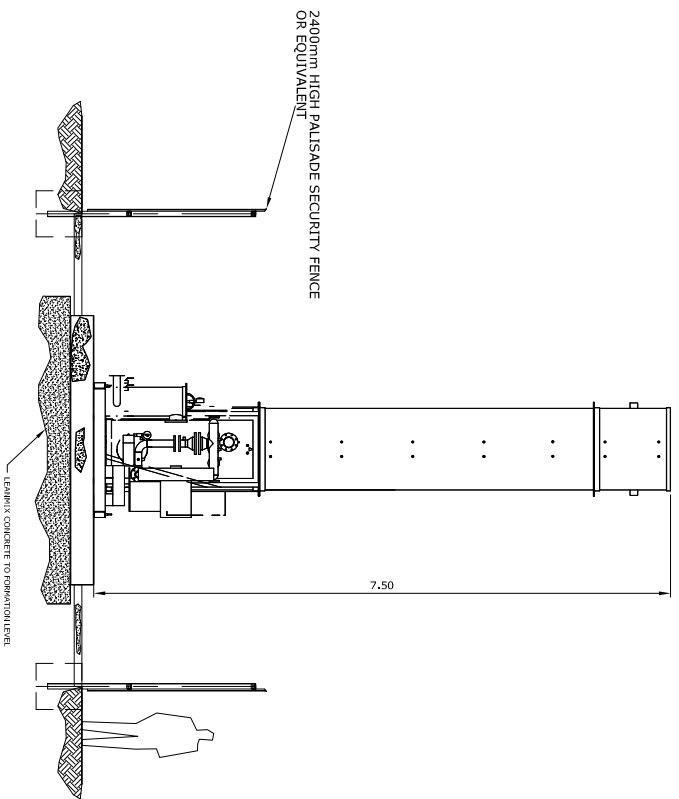


SCHEMATIC DETAIL OF TYPICAL LANDFILL GAS EXTRACTION WELL (NTS)

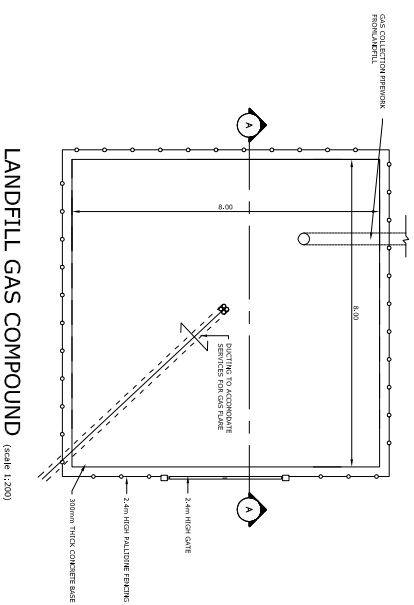
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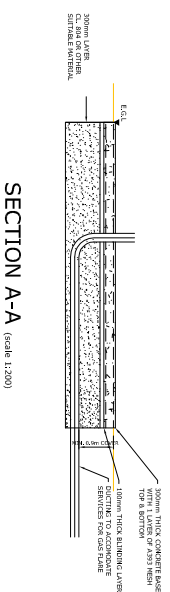
TYPICAL CAPPING DETAIL (Scale 1:100)



TYPICAL LANDFILL GAS COMPOUND DETAIL (Scale 1:100)



LANDFILL GAS COMPOUND (Scale 1:200)



SECTION A-A (Scale 1:200)

Issue	Date	Description	By	Chkd.
A	04-06-08	ISSUED FOR LICENCE REVIEW	MN	PNM

Client:
BORD NA MÓNA

Project:
INTENSIFICATION AND EXTENSION TO DREHD WASTE MANAGEMENT FACILITY

Title:
LANDFILL GAS MANAGEMENT AND CAPPING DETAILS

Scale @ A3: **AS SHOWN**

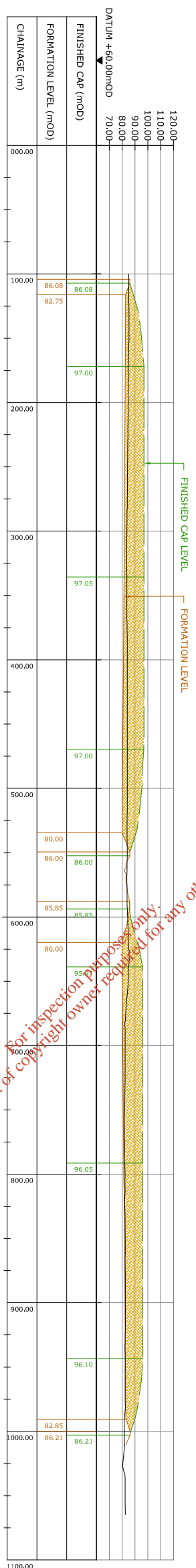
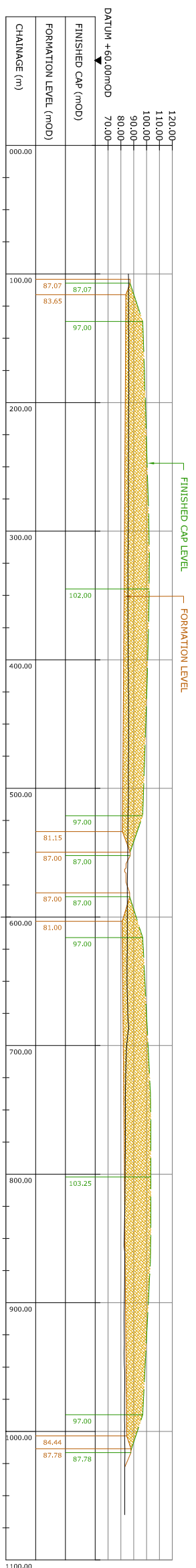
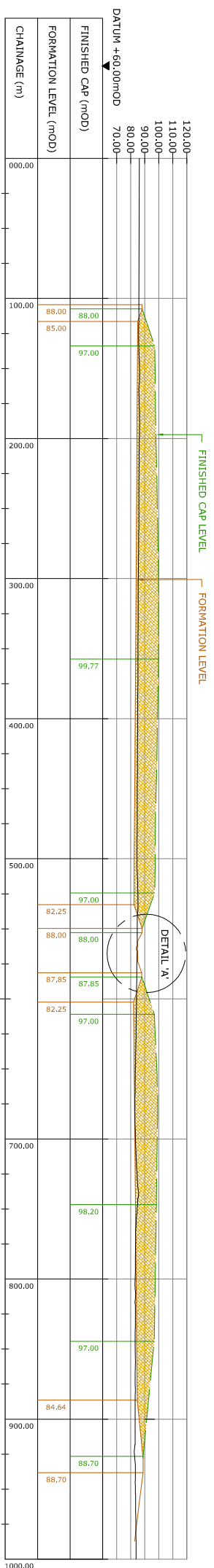
Prepared by: **M. Nolan** Date: **May 2008**

Checked: **P. O'Neill**

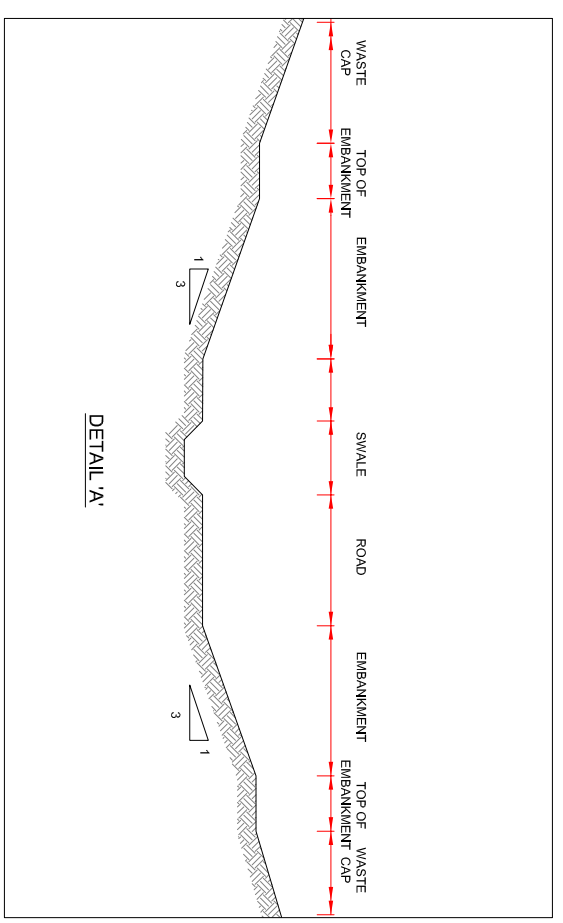
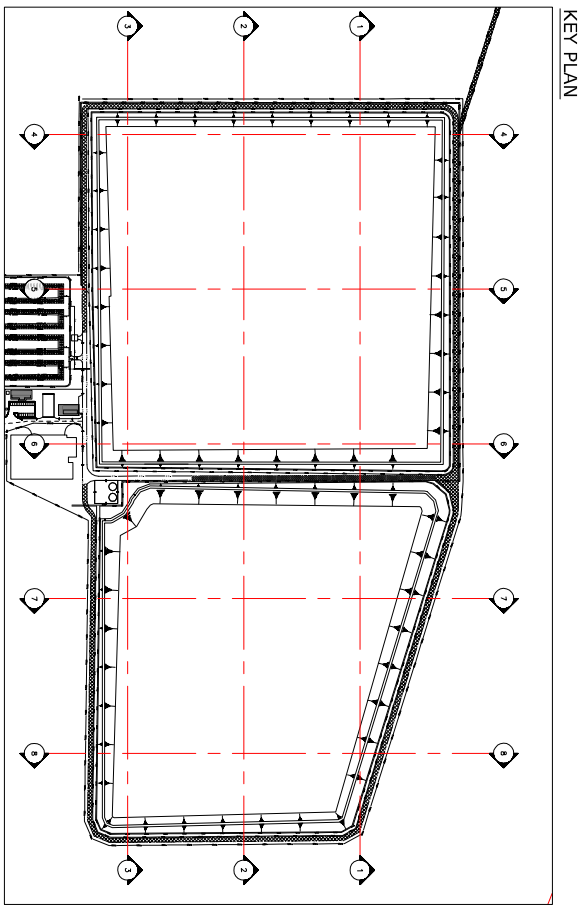
Project Director: **D. Glehan**

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Drawing No.: **3369-2620** Issue: **A**



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GENERAL LEGEND
 FORMATION LEVEL ———
 EXISTING GROUND LEVEL
 FINISHED CAP LEVEL ———
 WASTE FILL [hatched pattern]

- 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 BY THE CONTRACTOR OF ANY DISCREPANCIES BEFORE ANY WORK COMMENCES
 4. ALL LEVELS SHOWN RELATE TO ORDNANCE SURVEY DATUM AT MALIN HEAD

Issue	Date	Description	By	Chkd.
A	04-08-08	ISSUED FOR LICENCE REVIEW	NN	PNM

Client:
BORD NA MÓNA

Project:
 INTENSIFICATION AND EXTENSION TO DREHID WASTE MANAGEMENT FACILITY

Title:
 LONGITUDINAL SECTIONS THROUGH LANDFILL

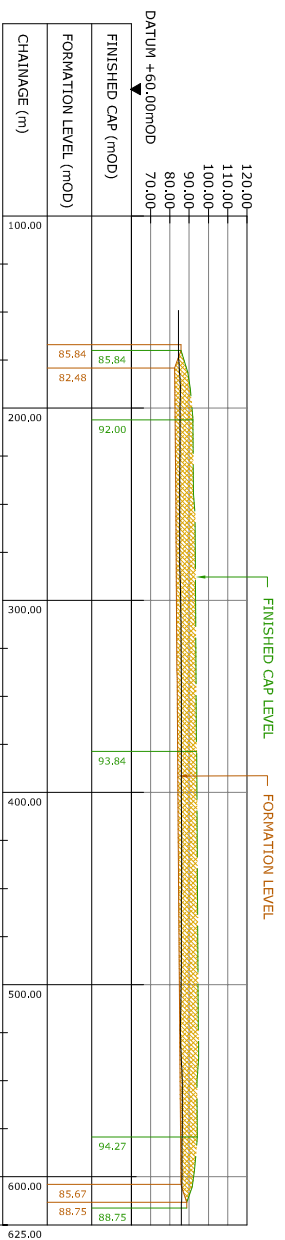
Scale @ A3:
 1:4,000

Prepared by: M. Nolan
 Checked: P. O'Neill
 Project Director: D. Grehan

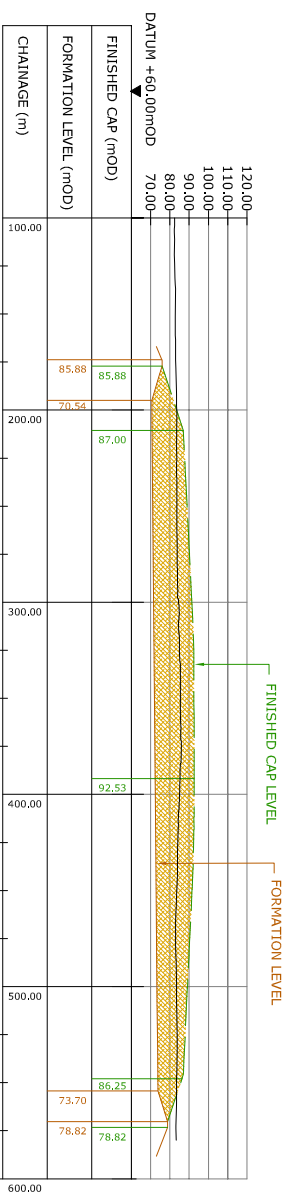
Date: May 2008

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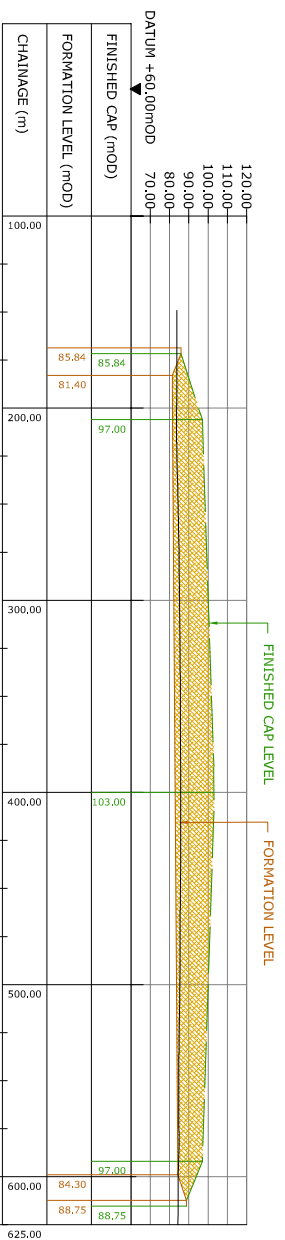
Drawing No.: **3369-2621** Issue: **A**



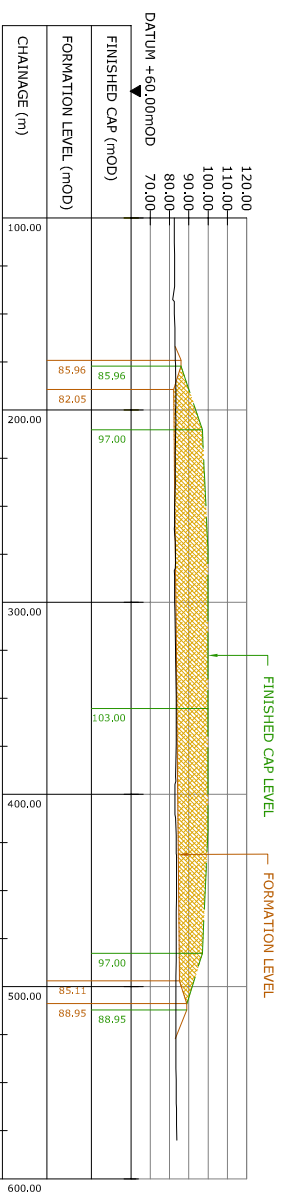
SECTION 4-4



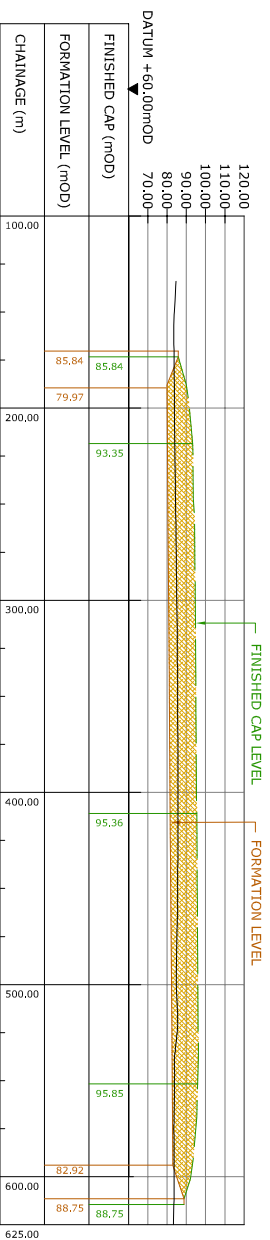
SECTION 7-7



SECTION 5-5

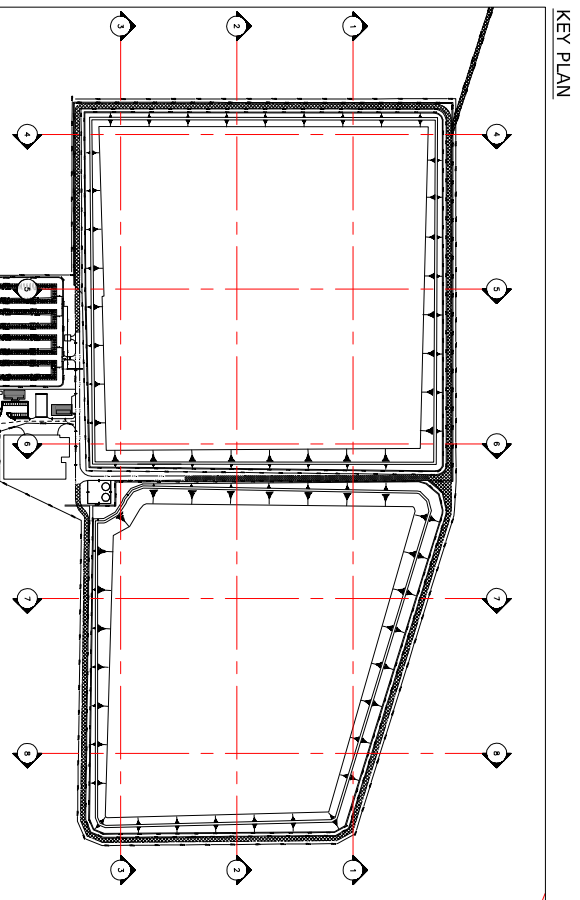


SECTION 8-8



SECTION 6-6

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KEY PLAN

GENERAL LEGEND
 FORMATION LEVEL ———
 EXISTING GROUND LEVEL ———
 FINISHED CAP LEVEL ———
 WASTE FILL ———

- NOTES**
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Issue	Date	Description	By	Chkd.
A	04-08-08	ISSUED FOR LICENCE REVIEW	NN	PCN

Client:
BORD NA MÓNA

Project:
 INTENSIFICATION AND
 EXTENSION TO DREHD WASTE
 MANAGEMENT FACILITY

Title:
 CROSS SECTIONS
 THROUGH LANDFILL

Scale @ A3:
 1:4,000

Prepared by: M. Nolan
 Checked: P. O'Neill
 Project Director: D. Grehan

Date: May 2008

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Drawing No.: **3369-2622** Issue: **A**