PR

AUSTIN PARTNERSHIP

■ CONSULTING ENGINEERS ■

HA/TA/1690-8

27th February 2006

Environment Agency Wales
Maes Newydd
Llandarcy
Neath
SA10 6JQ

For the attention of Adrian Evans.

Dear Mr Evans,

Re:- Proposed Development at Maesteg Road Tondu incorporating Waste Transfer Station, Hotel Restaurant/Leisure, Medical Centre, Creche etc.

Further to our recent meeting of the 21st February 2006, please find attached 3 copies of our drawing No 05.1587-02F together with the revised application for consent to discharge and appropriate fee which relates to the transfer station only.

We understand that in due course you will be issuing the application form for the diversion of the watercourse and statement confirming your agreement in principal to the remaining discharges on the site to enable the associated planning conditions to be discharged.

We look forward to hearing from you in due course.

Yours sincerely,

Howard Austin.
Austin Partnership.

c.c C Hemming – Rhys-Davies Properties Ltd

AUSTIN PARTNERSHIP CONSULTING ENGINEERS, 11 DRAKE WALK, WATERFRONT 2000, ATLANTIC WHARF, CARDIFF CF10 4AN
TEL: +44(0)29 2043 5300 FAX: +44(0)29 2043 5310 E-MAIL: engineer@austinpartnership.co.uk
PRINCIPAL: HOWARD S.AUSTIN I.ENG.A.M.I.STRUCT.E. A.M.I.C.E.

P.R

ENVIRONMENT AGENCY

WATER RESOURCES ACT 1991 (schedule 10)

(as amended by the Environment Act 1995)

RECEIVED
- 1 MAR 2006

Application for new consent/variation to an existing consent* to discharge

(* delete as appropriate)

Regional/Area Address:	*Official Use Only*
Environment Agency Wales Maes Newydd Llandarcy Neath Port Talbot SA10 6JQ	*Dist/Area Ref:* *Application No.* BP0355401 *Date Received:* 1/3/06 *Fee Received:* £110 (1/3/06)

Each applicant must complete the main form and may need to complete a separate annexe if appropriate. Please look through the form and read the notes carefully before you complete it. Processing of your application will be aided by full and accurate completion of all the relevant sections and provision of the necessary plans. If you have any queries regarding the form please contact the person given in the notes.

NOTE:
All information contained within this application will be made available on the public register unless there is a request to withhold any of it. Any such request should provide a full justification stating why the information needs to be withheld.

1 SITE ADDRESS

1.1 Address or other sufficient description of land or premises to which this application applies.

Land South west of Maesteg Road, Tondu
Bridgend
NGR SS 89055, 83901.

Post Code:

E. A. WALES
Rec No 5980
- 1 MAR 2006
Chq No. 701815
£110.00
PAID dr

2 DETAILS OF DISCHARGE(S)

2.1 State the nature of the discharge(s) (see note i and ii) - tick one or more boxes as appropriate:-

Sewage Effluent - volume of 5 cubic metres per day or less ☐

Sewage Effluent - volume greater than 5 cubic metres per day **(complete annexe 1)** ☐

Sewage Effluent discharged under storm or emergency conditions **(complete annexe 2)** ☐

Cooling Water **(complete annexe 3)** ☐

Trade Effluent *(including site drainage)* **(complete annexe 3)** ☐

Others *(please specify)* ☐

N.A.

2.2 Please state the maximum quantity it is proposed to discharge in any one day 26/l/sec 345 m³/ha rm³/day
Briefly state how this figure was calculated (see note ii).

Refer to attached Environment Agency correspondence
Refer to attached calculations.

2.3 a) Indicate proposed means of discharge - tick as appropriate and show on plan:-
(for 1, 2 & 3 please state dimensions below)

1. Pipe	☑	4. Borehole	☐	7. Sub-Irrigation System	☐
2. Channel	☐	5. Well	☐	8. Combination of 6. & 7.	☐
3. Culvert	☐	6. Soakaway	☐	9. Other *(please specify below)*	☐

b) National Grid Reference(s) of point(s) of discharge (see note iii). N 1313.414 E 867.525

☐☐/☐☐☐☐/☐☐☐☐ *(please indicate on accompanying plans)*

2.4 a) The Agency will normally require adequate provision for the taking of samples of the discharge in a safe and convenient manner at any time. Please indicate the means proposed (see note iv) - tick as appropriate and show on plan:-

At the outlet ☐ At a manhole or sampling chamber ☐

Other *(please specify)* N.A.

b) National Grid Reference(s) of sampling point(s). (If different from 2.3 b) above)

☐☐/☐☐☐☐/☐☐☐☐ *(please indicate on accompanying plans)*

c) What flow measurement facilities will be provided (see note v)?
Please give details.

N.A.

2.5 a) Type of Treatment Plant(s) to be used *(please specify make and model)* - tick as appropriate:-

Septic Tank ☐ Package Sewage Treatment Works ☐ Other ☐

N.A.

b) Will the treatment process involve the use of any chemicals (eg ferric salts, polyeletrolytes) Y/N
If yes please give details.

N.A.

2.6 a) On what date do you anticipate the discharge will commence? 01/04/06

b) If you require the consent for a limited time period please give dates; from: / /

to: / /

c) If the discharge is not continuous please detail the period/circumstances when it will occur.

2.7 a) Are there any existing consents for discharge from the premises (see note vi)? ~~Y~~/N
If yes, please give the reference numbers *(Any further information should be given in section 5.3).*

b) Has any person had a Prohibition Notice served on them in respect of this site? ~~Y~~/N
If yes, please give the reference number.

3 SITE DETAILS

3.1 Please give the name of the relevant Planning Authority.

Bridgend County Borough Council

3.2 Please give details of the premises - tick as appropriate:-

1. Single Dwelling	☐	6. Fish Farm	☐
2. Multiple Dwellings	☑	7. Mineral Workings	☐
3. Industrial Premises	☐	8. Water Services plc STW	☐
4. Vehicle Parking Area	☑	9. Water Supply	☐
5. Commercial Premises *(please specify)*	☑	10. Other *(please specify)*	☐

3.3 Please indicate source of the water supply - tick as appropriate:-

1. Well ☐
2. Borehole ☐
3. Precipitation (eg. rain or snow) ☐
4. Mains *(please state water supply company)* ☑

5. River *(please give name below)* ☐
6. Estuary *(please give name below)* ☐
7. Coastal Water *(please give name below)* ☐

4 DETAILS OF RECEIVING ENVIRONMENT

4.1 Receiving Medium - tick the category(s) to which the proposed discharge(s) is(are) to be made:-

1. Estuarial Water (tidal river or stream) ☐
2. River or Stream (non-tidal) ☑
3. Canal ☐
4. Lake, Loch or Pond ☐

5. Into Land ☐
6. Onto Land ☐
7. Directly into Groundwater ☐
8. Coastal Water (see note vii) ☐

State name of receiving water if known:

4.2 In the case of sub-irrigation systems, soakaways or boreholes:-

(a) Is any part of the system within 5 metres of the boundary of the premises? Y/N

(b) Is any part of the system within 10 metres of a watercourse? Y/N

(c) Is any part of the system within 50 metres of a borehole or spring? Y/N

(d) For wells and boreholes state dimension(s) in metres. m

(e) For sub-irrigation systems, soakaway pits, wells and boreholes, state maximum depth in metres. m

(f) For boreholes, state details of lining in metres:

(i) Depth of lining m

(ii) Depth of perforated lining m

(iii) Depth of unperforated lining m

(g) A percolation test must be carried out in accordance with British Standard BS6297:1983. Have the results been provided? Y/N

4.3 Is there a foul sewer available to which the discharge(s) could be made ? Y/N
If yes, please give the reasons it is not practical to connect to it (eg. distance, flow etc.).

5 DETAILS OF APPLICANT AND OTHER INFORMATION

5.1 (See general notes and note ix)

(a) Full name and postal address of applicant. This should be the person who will become the consent holder should consent be issued.

* Mr C.T. Hemming & Weaver Group
* c/o Rhys Davies Properties Ltd
* 604-606 High Street
* Pershore
* Worcestershire
Post Code: WR10 1DU

Daytime Telephone Number: 01386 555100

Company Registration Number (if appropriate):

(b) Agent (if any) - Full name and postal address.

* Mr H. S. Austin
* Austin Partnership
* 11 Drake Walk
* Waterfront 2000
* Atlantic Wharf, Cardiff
Post Code: CF10 4AN

Contact Name and Daytime Telephone Number: 02920 435300

5.2

Please give full name and address to which bills should be sent if different to that given above:

* As Section 5.1 (a).
*
*
*
*
*
Post Code:

Daytime Telephone Number:

5.3 Are there any other factors to be taken into account? Please continue on a separate sheet if necessary.

DECLARATION

I/We:

1. apply under the Water Resources Act 1991 (as amended by the Environment Act 1995) for consent to discharge, as described in this Application. "This Application" means this page, all the other pages of this form and any attached annexes, the attached plan(s), any other sheets attached, and any other written information supplied to support the application.

2. enclose the required application fee, payable to the Environment Agency (see note x).

3. enclose 3 copies of the plan(s) and location maps with all relevant information clearly marked (see note xi).

4. will pay required advertising costs (see note xii).

5. confirm that I/we* will notify the Environment Agency of any changes in the information in this application which might be material to the continuation of the consent.

6. confirm that the information given in this application and any questions which the Environmer Agency may have about it is/will* be true to the best of my/our* knowledge, information and belier and am/are* not aware of any other facts or information which might affect the granting of a consent, or conditions which might be put on it (see note xiii).

7. confirm that I/we* will pay any annual charges due should a consent be granted YES/NO*. If no please indicate who will by completing section 5.2 above (see note xiv).

(* Delete as appropriate)

SIGNED: ..... **PRINT NAME:** H.S. AUSTIN

ON BEHALF OF: Rhys Davies Properties Ltd **DATED:** 18th February 2006

o O o

CONFIDENTIALITY

I/we apply for commercial confidentiality and enclose a full written justification (see note xv).

SIGNED: ..... **DATED:** .....

PLEASE RETURN THIS FORM TO THE ADDRESS GIVEN ON THE FRONT PAGE

creu lle gwell
creating a better place

Asiantaeth yr Amgylchedd Cymru
Environment Agency Wales

Howard Austin
Austin Partnership
11 Drake Walk
Waterfront 2000
Atlantic Wharf
Cardiff
CF10 4AN

Ein cyf/Our ref: RFI Q3 / 05 / 143
Eich cyf/Your ref:

Dyddiad/Date: 08 December 2005

Dear Howard,

Re: Greenfield Runoff Rates for Tondu Development.

Thank you for your telephone call requesting information on the above. The Greenfield runoff criteria that we currently require in order to prevent an increase in flood risk in the Ogmore are as follows:

- Discharge from the site should not normally exceed 26.0 litres/second / hectare.
- The minimum storage requirement is 345 cubic metres / hectare of impermeable surface created.

When improved modelling of the catchment is available in the future, the criteria are likely to be revised.

As these criteria relate to the flood risk from the River Ogmore, they are the same for both proposed discharge points. The expectation is that the discharge to each outfall, following development, will be proportionate to the existing division of flow to the two watercourses. We advise you to consult with the Local Authority, who may wish to impose restrictions relating to the minor watercourses between the development site and the River Ogmore itself.

The information provided is based on that currently available to the Agency. The Agency and its Officers accept no liability whatsoever for any loss or damage arising from the interpretation or use of the information.

Please note that these comments do not set a precedent for the Environment Agency Wales' response to any formal application for planning permission or other legal consent. Such applications shall be assessed on the information submitted and regulations of relevance at that time. The details contained in this letter are based on the information available to date.

Yours sincerely

Nadine Jones
External Relations Officer
Llinell uniongyrchol / Direct dial: 01792 325573
Ffacs uniongyrchol / Direct fax: 01792 325511
e-bost uniongyrchol / Direct e-mail: nadine.jones@environment-agency.gov.uk

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13. USE BY PUBLIC AUTHORITIES Nothing in this notice shall restrict the ability of a public authority to charge a fee limited to costs recovery in accordance with the Environmental Information Regulations or the Freedom of Information Act.

NB Please also read any additional information or warning we give you about specific Data

DRAINAGE STRATEGY Waste Transfer Station Revised 17/02/06

This document provides details of the surface water drainage design for the proposed Waste Transfer Station (WTS) at Tondu, South Wales known as Tondu 4. The proposed development is referred to in the Planning Application number P/04/818/OUT dated 22nd December 2005.

This document comprises the -
Surface water drainage design
Attenuation storage design

The WTS site stands alone being independent of the proposed housing development to the West. The WTS is served by its own highway access off the new highway roundabout. The site has dedicated foul, surface water and land drainage outlets. Discussion and correspondence with the Environment Agency has confirmed (their letter dated 8th December 2005) that the surface water ultimately discharges to the River Ogmore, which at this location can receive a maximum flow of 26 litres/second/ha of impermeable surface, the developed area must also include attenuation storage equivalent to 345 cubic metres / hectare of impermeable surface.

The on-site drainage installation will remain in Private ownership. The drainage design has nonetheless been prepared in accord with principles of the publication *'Sewers for Adoption – 5th edition'*.

DRAINAGE STRATEGY

The proposed development is compact in layout generally being lower than the surrounding ground levels, to satisfy the requirements of the Planning Authority to minimise the visual impact of the WTS. The WTS is on the North side of an un-named watercourse at Tonddu, South Wales. The ground profile and proposed layout is shown on the contoured layout drawing number 05.1587 –02 -E.

The following calculations have been prepared for the Private drainage layout which discharges along the Southern boundary. The outfall location is shown on the layout drawing herewith.

Because of recessed nature of the proposed works land drainage is to be provided around the site perimeter, the discharge from which is located along the Eastern boundary into an existing watercourse.

SURFACE WATER DESIGN
ASSESSMENT of CONTRIBUTING AREAS

The calculations below outline the Surface water flow arising from the hard surfaced areas within the proposed development. Please refer to the development layout drawing number 05.1587 – 02 - E. The measured impermeable areas taken from the layout plan assume hard surface areas are 100% impermeable and soft (landscape) areas are porous.

In the interests of economy the whole of the Roof water is to be discharged via the Petrol / Oil interceptor unit, together with the whole of the operational yard and car parking areas. The roof water only from the Office block is to be discharged independently to the watercourse on the North East site boundary. The catchment area calculations are arranged in the same sequence as` their contribution to the drainage system shown on the Hydraulic Flow calculation sheets. The inflow to each manhole or pipe downstream of that manhole represents the hard surface areas upstream of that manhole. The Gross contributing area being rounded up (or down) to the nearest whole number.

Surface areas Draining to Outfall Manhole S1.

Inflow to MH.S4/1 and pipe length to MH.S4

Source	Individual Area (metres)	Contributing Area
Access Road surface	180 + 280 + 128 + 60	648
Roof area	450	450
Footway	21 + 71	92
	Total Area	**1190**

Inflow to MH.S4 and pipe length to MH.S2

Source	Individual Area (metres)	Contributing Area
Access Road surface	105 + 105 + 25 + 100 + 186	521
Parking area	294	294
	Total Area	**815**

Inflow to MH.S2

Source	Individual Area (metres)	Contributing Area
No direct connections	Nil	0
	Total Area	**0**

Inflow to MH.S3/1 and pipe length to MH.S3

Source	Individual Area (metres)	Contributing Area
Access Road surface	80 + 158 +	238
Roof area	27 + 290	317
Operational area	277 + 408 + 345	1030
	Total Area	**1585**

Inflow to MH.S3 and pipe length to MH.S2

Source	Individual Area (metres)	Contributing Area
Access Road surface	130	130
Roof area	290	290
Parking area	315	315
	Total Area	**735**

Inflow to MH.S1/2 and pipe length to MH.S1

Source	Individual Area (metres)	Contributing Area
Parking area	248 + 372 + 256 + 117	993
Car parking area	208	208
	Total Area	**1201**

Inflow to MH.S1/1 and pipe length to MH.S1

Source	Individual Area (metres)	Contributing Area
Car parking area	419 + 192	611
	Total Area	**611**

Inflow to MH.S1

Source	Individual Area (metres)	Contributing Area
No direct connections	Nil	0
	Total Area	**0**

Inflow to OUTFALL

Source	Individual Area (metres)	Contributing Area
No direct connections	Nil	0
	Total Area	**0**

The foregoing catchment area figures are transferred to the Flow calculation sheets for the chosen design storm condition in accord with the criteria in " Sewers for Adoption".

Notes –
For Contributing areas refer to the development layout drawing number 05.1587 – 02 - E
Pipe full flow velocity is taken from the Tables for the Hydraulic design of pipes published by the Hydraulics Research station.
Rainfall intensity has been established by calculation of the Time of Concentration within the drainage network and setting storm duration equivalent to this figure. The Time of entry is taken as 2 minutes in view of the extent of the hard surfaced areas.
The rainfall statistics are for OS Grid reference 3230E1800N.
Minimum pipe flow velocity taken as better than 1.0 metre/second – gradient to suit pipe diameter
Pipe Roughness co-efficient Ks is 0.60mm for Surface water pipes
Minimum pipe diameter from road gullies is 150mm
Minimum pipe diameter for carrier sewers is 225mm

SURFACE WATER DRAIN DESIGN Once in 1 year storm condition

From	To	Length	Gradient	Diameter	Time of entry	Time of Flow	Time of Concentration	Intensity I mm/hr	Area	Tot area	Q lit/sec	Capacity	Velocity
S4/1	S4	39	175	225	2.00	0.67	2.67	56.2	1190	1190	18.6	38.36	0.965
S4	S2	32	175	225		0.55	3.22	53.0	815	2005	29.5	38.36	0.965
S3/1	S3	34	200	225	2.00	0.62	2.62	56.2	1585	1585	24.7	36.55	0.919
S3	S2	11	200	225		0.20	2.82	53.0	735	2320	34.2	36.55	0.919
S2	S1	65	200	1500	2.82	0.36	3.18	51.5	0	4325	61.9	5351	3.028
S1/2	S1	13	20	225	2.00	0.08	2.08	59.9	1201	1201	20.0	116.8	2.937
S1/1	S1	23	40	225	2.00	0.19	2.19	58.0	611	611	9.8	80.74	2.031
S1	Outfall	10	21	225	2.19	0.04	2.23	58.0	0	6137	98.9	116.8	2.937

SURFACE WATER STORAGE PROVISION

Based upon the Environment Agency requirement for 345 cubic metres of Storage per hectare of impermeable area the **Storage Volume is** 6137 sq m + 220 sq m (for the Office roof area) = 6357 sq m = 0.6357 ha x 345 cum = Volume = **219 cubic metres,**Storage provided in 1500 mm diameter pipes between S2 and S1 = 1.767 cum/metre length = **124 linear metres required**

SURFACE WATER DRAIN DESIGN Once in 5 year storm condition

From	To	Length	Gradient	Diameter	Time of entry	Time of Flow	Time of Concentration	Intensity I mm/hr	Area	Tot area	Q lit/sec	Capacity	Velocity
S4/1	S4	39	175	225	2.00	0.67	2.67	89.2	1190	1190	29.5	38.36	0.965
S4	S2	32	175	225		0.55	3.22	82.0	815	2005	45.7	38.36	0.965
S3/1	S3	34	200	225	2.00	0.62	2.62	89.2	1585	1585	39.3	36.55	0.919
S3	S2	11	200	300		0.17	2.79	84.8	735	2320	54.7	78.21	1.106
S2	S1	65	200	1500	2.79	0.36	3.15	84.0	0	4325	100.9	5351	3.028
S1/2	S1	13	20	225	2.00	0.08	2.08	94.3	1201	1201	31.5	85.56	2.723
S1/1	S1	23	40	225	2.00	0.19	2.19	92.0	611	611	15.6	80.74	2.031
S1	Outfall	10	21	300	2.19	0.05	2.24	92.0	0	6137	156.8	244.4	3.458

SURFACE WATER STORAGE PROVISION

Based upon the Environment Agency requirement for 345 cubic metres of Storage per hectare of impermeable area the **Storage Volume is** 6137 sq m + 220 sq m (for the Office roof area) = 6357 sq m = 0.6357 ha x 345 cum = Volume = **219 cubic metres,**Storage provided in 1500 mm diameter pipes between S2 and S1 = 1.767 cum/metre length = **124 linear metres required**