DUDLEY Metropolitan Borough

ENVIRONMENT, ENGINEERING AND TRANSPORTATION DEPARTMENT

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ENVIRONMENTAL PROTECTION ACT 1990, PART I

THE ENVIRONMENTAL PROTECTION (PRESCRIBED PROCESSES AND SUBSTANCES REGULATIONS 1991, SI [472]

THE ENVIRONMENTAL PROTECTION (APPLICATIONS, APPEALS AND REGISTERS) REGULATIONS 1991, SI [507]

THE ENVIRONMENTAL PROTECTION (PRESCRIBED PROCESSES & SUBSTANCES) ETC. (AMENDMENT) REGULATION, 1994

APPLICATION FOR AUTHORISATION UNDER SECTION 6 OF THE ENVIRONMENTAL PROTECTION ACT 1990

1 Either Name and address of applicant*

BOOTCRAFT DUDLEY LTD
BUILDING 28
FIRST AVENUE
PENSNETT EST, KINGSWINFORD

or Name, number and registered office of applicant company* (if applicable)

.....
AS ABOVE
.....
.....

E.T.S. DEPT. 22 NOV 1999

ACTION

* the person/company who will operate the process, not, e.g. the person/consultant who is writing the application on the operator's behalf

THE GREAT SPRING CLEAN Dudley Borough
100% RECYCLED PAPER
SCHOOL CROSSING SERVICE REGISTERED FS 27838

2 Name and address of premises where process is or will be carried on (not applicable to mobile processes)

.....

.....No 1.....

....A5.....

.....

3 Address for correspondence if different from 1

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4 List of maps or plans enclosed with the application showing the location of the premises where the process is or will be carried on

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Where the process is or will be carried on, on only part of the premises whose address is given at 2 above, either describe which part of the premises or list the plan(s) which identifies these parts

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5 List of attached documents comprising part of the application**

Plan

(use continuation sheet if necessary)

** Regulation 2 of the Environmental Protection (Applications, Appeals and Registers) Regulations 1991 requires that all applications must include the following information (for guidance on these requirements see General Guidance No.3 - 'Secretary of State's Guidance: Applications and Registers', HMSO, 1991):-

- description of the prescribed process
- description of the techniques to be used for preventing releases into the air of such substances, for reducing such substances to a minimum and for rendering harmless any such substances that are released
- list of prescribed substances (and any other substances) which might cause harm if released into air used in connection with or resulting from the prescribed process
- details of any proposed release of such substances into the air and an assessment of the environmental consequences
- proposals for monitoring any releases of such substances, the environmental consequences of any such release and the use of techniques for preventing, etc, releases
- the matters on which the applicant relies to establish that the objectives in section 7(2) of the Act will be achieved and that he will be able to comply with the conditions implied by section 7(4) of the Act

The applicant may also supply any other information he wishes the Local Authority to take into account in considering his application

Fee enclosed (cheques to be made payable to

Dudley Metropolitan Borough Council)

£.....

I hereby certify that all the information contained in this application is, to the best of my knowledge, correct

..... (signature)

...MANAGING DIRECTOR (capacity of signatory)

.....18/11/95..... (date)

.pollution
aasec6

PLAN REFERRED TO

SCALE 1:1250

C.P./6/95.

ENVIRONMENTAL PROTECTION ACT 1990 - PART 1B - PG6/34

ENVIRONMENTAL PROTECTION (Prescribed Processes and Substances) Regulations 1991 - S.I. 472 (as amended)

ENVIRONMENTAL PROTECTION (Applications Appeals and Registers) Regulations 1991- S.I. 507 (as amended)

EPA APPLICATION ON BEHALF OF:

BODYKRAFT DUDLEY LIMITED

SUBMITTED TO:

DUDLEY METROPOLITAN BOROUGH

Produced by TRADE SUPPORT SERVICES

Process Description

The process for which authorisation is sought is a process for the respraying of road vehicles, as defined in Chapter 6, Section 6.5, Part B(b) of Schedule 1 of The Environmental Protection (Prescribed Processes and Substances) Regulations 1991.

At **Bodykraft** the majority (about 95% in terms of material usage) of the work we do is the repair of crash - damaged passenger cars, although occasionally complete resprays are undertaken.

The repair of crash damaged vehicles proceeds as follows :-

When a damaged vehicle is brought in, all irreparably damaged body parts, plus lights, bumpers and so on, and all damaged mechanical parts are removed. All necessary mechanical repairs are usually carried out next and the vehicle is straightened, if required, using body alignment jigs and pullers. Damaged body panels are then either repaired or replaced as necessary. This may involve welding work, which will generate small amounts of fume, and the grinding and sanding of fillers, which generates dust.

When these repairs are completed, the vehicle is prepared for re-painting. This involves the masking up with paper/plastic and tape of all parts of the vehicle, which need not be painted.

The vehicle is the moved into the spraybooth, and sufficient paint is mixed to complete the painting.

To obtain the best finish, and in some case to preserve the car manufacturer's anti-corrosion warranty, most of the paint we apply is medium solid coatings and to save time, wherever possible we make use of wet-on-on-wet application techniques. Product data sheets for the main paints, primers and hardeners are attached.

Paint mixing is undertaken in the paint mixing room. The mixing room is fitted with low level powered extraction. The ventilation discharges the extracted air through the external wall at an approx. height of 8 metres above ground level. This is sufficient to prevent solvent vapour escaping from the mixing room into the main workshop, even when the mixing room door is open, although the door is close fitting, and is fitted with a self-closing device.

Continued

The Spraybooth is a Burntwood Excell combined spray/bake booth. On the spray cycle the booth air exchange system is capable of giving an approximate extracted volume of 8500cm/hr. It is very important to ensure that no dust enters the spraybooth, so all air entering the booth does so through fabric panel air filters in the booth roof. Air flows around the vehicle being painted and passes out of the booth through grilles in the booth floor. Further dry filters are fitted under the floor grilles to remove the paint particulate over spray from the extracted air stream. The extracted air then flows through an under floor duct to the induction fan and then up the extract stack, from which it is discharged to atmosphere at a height of 8.0m above ground level (3m above ridge height.) The efflux velocity (15m per second) of the gases leaving the stack is sufficient to ensure that the solvent vapours are undetectable outside the premises.

Paint is applied using conventional spray guns. We plan to introduce HVLP spray guns that utilise a paint atomisation pressure of between 270 and 475 kpa, when the authorisation is issued.

The compressed air supply for the spray gun and the painters air fed mask is piped to each point with the benefit of respiratory filtration, and is supplied by an electrically driven compressor.

When painting is complete, paint drying or curing is achieved as follows with regard to the spraybooths:-

The rate of extraction to the paint spray booth is reduced, and the air entering the booth is heated indirectly by the use of a natural gas burner. The products of combustion of the gas are passed to atmosphere by way of a stack, which is in excess of 8.0 metres above ground level. For most types of paint used, baking time of about 40 minutes at around 80oC is necessary, following which the vehicle is removed from the booth and, when cool, the masking can be removed. All remaining parts, such as bumpers, lights and so on can then be refitted to complete the job.

Spray gun cleaning is carried out as follows:-

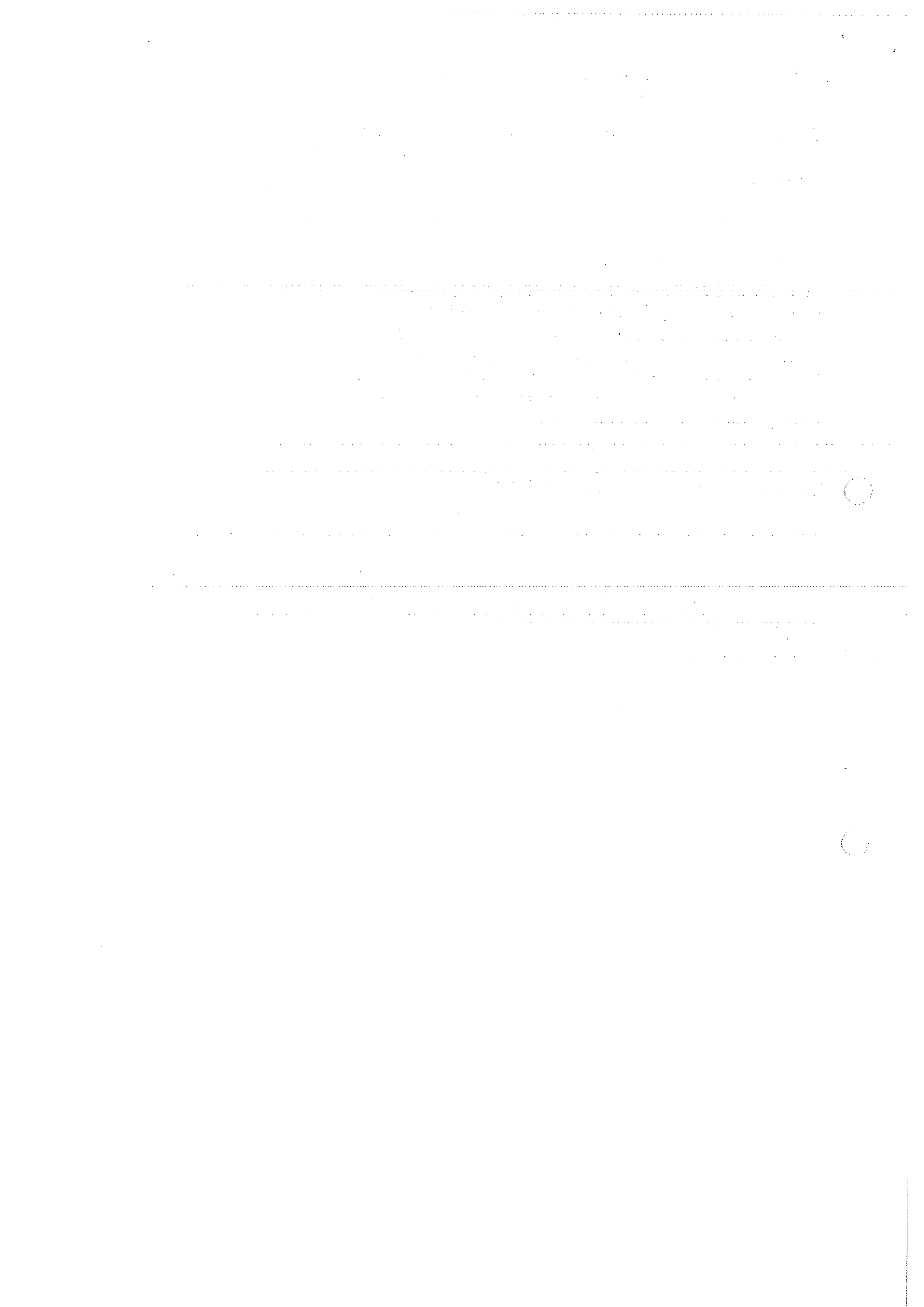
After use the guns are cleaned using equipment installed in the paint mixing room.

This comprises of an automatic gun cleaning machine fitted with direct extraction which extracts vapours through the paint mixing room extract system to atmosphere at height of approx. 8m above ground level which minimises the escape of solvent vapour from the mixing area.

Prior to cleaning, the spray gun is dismantled to its component parts, and loaded into the machine, the door is closed and then each part is cleaned in a stream of gunwash solvent. This is pumped from a drum of solvent held under the machine. The solvent then drains back into the drum and is re-circulated. A small quantity of clean solvent is then sprayed from the gun to finally rinse it. This is done into the funnel of a waste solvent drum, the rinse solvent runs down into the drum for re - use.

When the gunwash in the drum becomes too contaminated with paint to be used further, the drum is lidded and a fresh drum is put on the machine. The dirty gunwash is returned to an authorised disposal agent for reclamation.

Other wastes arising from the premises include damaged body panels and other metal parts, which are collected by a scrap metal merchant, and general waste including office waste, masking paper, plastic parts and so on. These are kept in a fully enclosed waste container pending removal from site.



Prescribed Substances

Great care is exercised to ensure that paint usage is minimised by only mixing sufficient for a particular job. However, when waste paint does arise, this is stored in the drum with the dirty thinners, which is kept lidded, and is passed to the authorised disposal agent for reclamation.

Prescribed Substances - The following prescribed substances may be released from the process:-

Oxides of sulphur and other sulphur compounds.
Oxides of nitrogen and other nitrogen compounds.
Oxides of carbon.
Organic Compounds.
Particulate matter.

i) Oxides of sulphur, nitrogen and carbon

These three groups of substances are taken together, as they all arise from the combustion of natural gas in the spray booth heating burner. The net rated thermal input of the burner is approximately 160 kW - which is comparable with an average domestic central heating boiler. The mass emission of these substances is therefore very low. However, emission of sulphur oxides are minimised by burning natural gas, which is classified as a very low sulphur (VLS) fuel, with a sulphur content of less than 0.04%. Emission of oxides of carbon and nitrogen are minimised by maintaining the burner in such a way as to ensure efficient combustion of the gas.

Products of combustion are released to atmosphere via a stack at sufficient velocity and height to render them undetectable at ground level.

Continued

Given the small size of the burner equipment, any further emission control measures for these substances are felt to be impractical at reasonable expense.

ii) Organic compounds

Emission of organic compounds arise from three main sources.

These are as follows:-

a) From the spraybooth stack
b) Gun cleaning machine
c) From the paint mixing area

Emissions from these three sources are minimised as follows:-

a) From the spray booth - emissions of organic compounds from the spray booth are minimised by adopting good paint spraying techniques to minimise over spray and paint usage, and by mainly using modern paint products, which contain less organic solvents than the older style cellulose paints. Paints used are mixed in accordance with the manufacturers instructions. Organic compounds including isocyanates are extracted from the spray booth and discharged via the stack at a high velocity and in a large volume of air to ensure that the vapour is adequately diluted and dispersed in the environment to render it harmless and undetectable at ground level.

b) From the gun cleaning machine - gun wash solvent usage is minimised by the use of a gun cleaning machine, which re-circulates the gun wash. Dirty gun wash is sent for reclamation. (Copy of waste transfer note enclosed).

c) From the paint mixing area the mass of organic vapour solvent discharged from the paint mixing area is minimised by ensuring that all containers are kept tightly/securely lidded when not in use. Additionally, paint usage is minimised, thereby further reducing organic compound emissions from the source.

iii) Particulate matter

There is the potential for release of particulate matter to atmosphere, from the following sources:-

a) In the form of dried paint over spray from the stack serving the spray booth extraction system.

b) From the grinding and sanding of metal and fillers in the main workshop.

Continued

c) From the welding of vehicle body components in the form of fumes and fine particulate.

Emissions from these sources are minimised as follows:-

a) From the spray booth extract systems - Dry filters are provided under grilles in the spray booth. These filters are sufficiently efficient to achieve an invisible emission from the spray booth stack. Furthermore, there is no evidence of accumulation of paint particulate on the roof of the premises, or on the inside of the stack around its discharge point, which indicates the efficiency of the spray booth particulate filtration system. The filters to the spray booth are checked and replaced when ever necessary.

b) From grinding and sanding in the workshop - All grinding and sanding operations take place in the workshop, rather than outside, and so the workshop building adequately controls the emission of particulate matter arising from this source Further more the workshop is equipped with a fixed dust extraction system.

c) From welding in the workshop - All welding operations take place in the workshop, rather than outside, and so the workshop building adequately controls the emission of particulate matter arising from this source.

Assessment of the likely environmental consequences of any emissions to air.

Due to the minimisation techniques described earlier the environmental consequences of the emissions will be undetectable outside the premises. Also in accordance with our duties under this legislation regular visible monitoring will take place with all activities being recorded.

Monitoring

No emission monitoring or assessment of environmental effects are currently carried out, except that periodically the building roof will be checked for the presence of build-up of paint particulate. Rather than direct monitoring of emissions, the extraction and filtration systems to the spraybooth are periodically examined for defects, and maintenance is carried out as necessary. These measures are felt to be adequate.

The techniques described above will be monitored by ensuring, through periodic inspection and maintenance when necessary, that all equipment installed at the premises which is concerned with the control of emissions to air is functioning efficiently.

Continued

ADDITIONAL INFORMATION

A programme of upgrading the bodyshop to the broad environmental performance standards outlined in the Secretary of States Guidance Note PG6/34 entitled "Respraying of Road Vehicles" will be submitted within 12 months of the issue of the first authorisation for the bodyshop as recommended in Clause 12 of that guidance note. However as most equipment is already compliant our initial focus will be on staff awareness training and the setting up of an environmental management system (logbook).

Advertisement For Public Notice (Express & Star)

Public Notice

The Environmental Protection Act 1990 - Part 1B
Application for authorisation

Bodykraft Dudley Limited has applied for authorisation from Dudley Borough Council to carry out the Respraying of Road Vehicles, as defined in Chapter 6, Section 6.5, Part B (b) of Schedule 1 of The Environmental (Prescribed, Process and Substances) Regulations 1991.

Bodykraft Dudley Limited
Building 5, Bay 2
The Pensnett Estate
Kingswinford
West Midlands
DY6 7PP

Where the process will be carried out.

A copy of the application is available for public inspection free of charge at:

Dudley Metropolitan Borough
Council House
Mary Stevens Park
Stourbridge
DY8 2AA

and written representations about the application should be sent within 28 days of the date of this advertisement.

Once 14 days have past you may place the advert in the local press. This advert has to appear between 14 and 42 days after an application has been accepted as duly made. A copy of the advert once published should be retained in file as evidence.

FIG 1 - LAYOUT PLAN.

BodyKraft Dudley Ltd – Layout Plan
Not to Scale