BYE LAW APPLICATION FEES

REF. NO.: 91A/1816 CERTIFICATE NO.: 16842B

PROPOSAL: Retail outlet

LOCATION: 3+4 Main Street, Lucan

APPLICANT: Romeo Hypd

Log 18/11/91

	1	2	3	4	5	6	7
CLASS	DWELLINGS/AREA LENGTH/STRUCTURE	RATE	AMT. OF FEE REQUIRED	AMT. LODGED	BALANCE DUE	RED. FEE APPL.	AMT. OF RED. FEE
A	Dwelling (Houses/Flats)	@ £55					
B	Domestic Ext. (Improvement/ Alts.)	@ £30					
C	Building for office or other comm. purpose 186.17m²	@ £3.50 per M² or £70	£654.50	£651.59	£2.91	Not	Soy4
D	Building or other structure for purposes of agriculture	@ £1.00 per M² in excess of 300 M² Min. £70					
E	Petrol Filling Station	@ £200					
F	Dev. of prop. not coming within any of the forgoing classes	£70 or £9 per .1 hect. whichever is the greater					

Column 1 Certified: Signed: [signature] Grade: DFE Date: 22/11/91

Column 1 Endorsed: Signed: _____ Grade: _____ Date: _____

Columns 2,3,4,5,6 & 7 Certified: Signed: [signature] Grade: S.O Date: 22/11/91

Columns 2,3,4,5,6 & 7 Endorsed: Signed: _____ Grade: _____ Date: _____

PLANNING APPLICATION FEES

Reg. Ref. 91A/816 Cert. No. 27164

PROPOSAL..... Retail outlet

LOCATION..... 3 & 4 Main Street, Lusca

APPLICANT..... Thomas Lynch

CLASS	DWELLINGS/AREA LENGTH/STRUCT.	RATE	AMT. OF FEE REC.	AMOUNT LODGED	BALANCE DUE	BALANCE PAID
1	Dwellings	@£32				
2	Domestic,	@£16				
3	Agriculture	@50p per m2 in excess of 300m2. Min. £40				
4	Metres 186.17m	@£1.75 per m2 or £40	327.25	325.80	£1.46	Not Sent
5	x .1 hect.	@£25 per .1 hect. or £250				
6	x .1 hect.	@£25 per .1 hect. or £40				
7	x .1 hect.	@£25 per .1 hect. or £100				
8		@£100				
9	x metres	@£10 per m2 or £40				
10	x 1,000m	@£25 per £1000m or £40				
11	x .1 hect.	@£5 per .1 hect. or £40				

Column 1 Certified:Signed:..... Grade D/T.L Date 22/4/91

Column 1 Endorsed:Signed:..... Grade..... Date.....

Columns 2,3,4,5,6 & 7 Certified:Signed:..... Grade S.O Date 21/4/91

Columns 2,3,4,5,6 & 7 Endorsed:Signed:..... Grade..... Date.....

LOCAL GOVERNMENT (PLANNING AND DEVELOPMENT) ACTS, 1963 TO 1982

ASSESSMENT OF FINANCIAL CONTRIBUTION

REG.REF.: 91A/1816

CONT. REG.:

SERVICES INVOLVED: WATER/FOUL SEWER SURFACE WATER

AREA OF SITE:

FLOOR AREA OF PRESENT PROPOSAL: 2004 ft²

MEASURED BY: J.G. 22/11/91.

CHECKED BY:

METHOD OF ASSESSMENT:

TOTAL ASSESSMENT:

MANAGER'S ORDER NO: P/ /
DATED

ENTERED IN CONTRIBUTION REGISTER:

2004 / 1000 @ 710

501
£1503

£1503

DEVELOPMENT CONTROL ASSISTANT GRADE

Roads contribution
of £8000 omitted
by Planned N.R.

15/1/92

Register Reference : 91A/1816

Date : 25th November 1991

Development : Redevelop existing shop at no. 3 and adjoining dwelling at no. 4 into one retail unit on ground floor with administrative area on first floor

LOCATION : 3 and 4 Main Street, Lucan

Applicant : Thomas Lynch

App. Type : PERMISSION/BUILDING BYE-LAW APPROVAL

Planning Officer : M.GALVIN

Date Recd. : 18th November 1991

Attached is a copy of the application for the above development .Your report would be appreciated within the next 28 days.

DUBLIN COUNTY COUNCIL
15 JAN 1992
ENVIRONMENTAL HEALTH OFFICER

Yours faithfully,

.....

for PRINCIPAL OFFICER

The proposal is acceptable subject to

(1) Compliance with the Food Hygiene Regs 1950/89.

(2) Compliance with Health, Safety + Welfare at Work Act 1989.

(3) Provision of a sink with hot and cold water for cleaning the premises.

for Ita Devine
John O'Reilly
SUPER.ENVIRON. HEALTH OFFICER,
33 GARDINER PLACE,
DUBLIN 1.

16/1/92.

PLANNING DEPT.
DEVELOPMENT CONTROL SEC.
Date 19.01.92
Time 9.45

Circ

P/97/92

COMHAIRLE CHONTAE ÁTHA CLIATH

Record of Executive Business and Manager's Orders

BELGARD

Register Reference : 91A/1816 Date Received : 18th November 1991

Correspondence Name and Address : P. Brunkard & Associates, 42 Monastery Park, Clondalkin, Dublin 22.

Development : Redevelop existing shop at no. 3 and adjoining dwelling at no. 4 into one retail unit on ground floor with administrative area on first floor

Location : 3 and 4 Main Street, Lucan

Applicant : Thomas Lynch

App. Type : Permission

Zoning :

Floor Area : Sq.metres

CONTRIBUTION:
Standard: 1503
Roads:
S Sers:
Open Space:
Other:
SECURITY:
Bond / C.I.F.:
Cash:

(MG/DK)

Report of the Dublin Planning Officer dated 9th January, 1992.

This is an application for PERMISSION for to redevelop existing shop at No. 3 and adjoining dwelling at No. 4 into one retail unit at ground floor with administrative area at first floor at 3 and 4, Main Street, Lucan for T. Lynch.

The proposed site is located in the centre of Lucan Village in an area zoned 'C1' "to protect, provide for and/or improve local/neighbourhood centre facilities." It is also located in the Lucan Conservation Area.

The proposed site has a stated area of 188 sq. m. It is bounded to the north east by the existing Spar supermarket and to the south west by an existing clothes shop, yard area and high wall. The boundary to the rear comprises a high wall and an existing badly surfaced narrow laneway. This laneway is currently used for open storage for a nearby public house and shop.

There is no reference on the planning register of any previous grant of permission relating to this site. Other relevant permissions in this area include:

Reg. Ref. No. 85A-0644 refers to a grant of permission for change of use of first floor of building to north to office use for Irish Permanent Building Society.

COMHAIRLE CHONTAE ÁTHA CLIATH

Record of Executive Business and Manager's Orders

Reg.Ref: 91A/1816

Page No: 0002

Location: 3 and 4 Main Street, Lucan

Reg. Ref. No. 85A-0645 refers to a grant of permission for change of use of ground floor of building to the north to branch office for Irish Permanent Building Society.

Reg. Ref. No. 90A-2105 refers to a grant of permission for improvements and extension to Londis supermarket to the south for T. Lynch.

Reg. Ref. No. 91A-1454 refers to a recent grant of permission for the demolition , reconstruction, alterations and extensions of No.'s 4-5, Main Street for M. Toolan.

The current application provides for the conversion of the existing shop and ancillary areas at No. 3 and the existing dwelling at no. 4 into a single retail outlet on ground floor level (floor area 153 sq. m. - stated). The first floor area is to be used for administrative purposes (47 sq. m.). The proposed development involves the demolition of several out buildings and the construction of a large flat roofed extension to the rear. This will involve a level of site coverage of c. 81%. This is in excess of the 50% normally permitted in areas zoned 'C1'. However, it is considered acceptable in this instance given that the laneway to the rear is inaccessible for parking/delivery purposes and the fact that there are existing high levels of site coverage at neighbouring sites.

The current application also provides for alterations to the front facade. These include the replacement of an existing door and window with double doors and a larger window . No.'s 3 and 4, Main Street, are currently characterised by painted brick reveals and quoins. These are to be predominantly retained and reintroduced around the new door and windows. Doors and windows are to have a mahogony finish.

A single timber fascia sign is proposed over existing and proposed shop windows.
This is to be painted maroon with white writing. No details of illumination proposed, if any, is included.

Lodged plans do not provide for shuttering. This should be conditioned to be provided internally and should be of open grille variety.

Roads Department report states that 10 no. car spaces are required to meet development plan standards for this development and request a financial contribution of £8,000 towards parking and traffic management in Lucan.

Sanitary Services Department state no objection.

The proposed development which provides for a c. 153 sq. m. retail outlet is considered to be consistent with the 'C1' zoning objective for the area. The

COMHAIRLE CHONTAE ÁTHA CLIATH

Record of Executive Business and Manager's Orders

Reg.Ref: 91A/1816

Page No: 0003

Location: 3 and 4 Main Street, Lucan

proposed shop front retains existing features and is consistent with the objectives of the conservation area.

I recommend that a decision to GRANT PERMISSION be made under the Local Government (Planning and Development) Acts, 1963-1990 subject to the following ( ) conditions:-

C O N D I T I O N S / R E A S O N S

01 The development to be carried out in its entirety in accordance with the plans, particulars and specifications lodged with the application save as may be required by the other conditions attached hereto.
REASON:To ensure that the development shall be in accordance with the permission and that effective control be maintained.

02 That before development commences, approval under the Building Bye- Laws be obtained and all conditions of that approval be observed in the development.
REASON:In order to comply with the Sanitary Services Acts, 1878-1964.

03 That the requirements of the Chief Fire Officer be ascertained and strictly adhered to in the development.
REASON: In the interest of safety and the avoidance of fire hazard.

04 That the requirements of the Supervising Environmental Health Officer be ascertained and strictly adhered to in the development.
REASON: In the interest of health.

05 That the water supply and drainage arrangements, including the disposal of surface water, be in accordance with the requirements of the County Council.
REASON: In order to comply with the Sanitary Services Acts, 1878-1964.

06 That all necessary measures be taken by the contractor to prevent the spillage or deposit of clay, rubble or other debris on adjoining roads during the course of the works.
REASON: To protect the amenities of the area.

07 That all public services to the proposed development, including electrical, telephone cables and equipment be located underground throughout the entire site.
REASON: In the interest of amenity.

COMHAIRLE CHONTAE ÁTHA CLIATH

Record of Executive Business and Manager's Orders

Reg.Ref: 91A/1816

Page No: 0004

Location: 3 and 4 Main Street, Lucan

08 That no advertising sign or structure be erected except those which are exempted development, without prior approval of Planning Authority.
REASON: In the interest of the proper planning and development of the area.

09 That details of the proposed method of illumination of fascia sign (if any) be submitted ~~and agreed with~~ the Planning Authority prior to commencement of development.

09 REASON: In the interest of the proper planning and development of the area.

10 That a financial contribution in the sum of £1503. be paid by the proposer to the Dublin County Council towards the cost of provision of public services in the area of the proposed development and which facilitate this development; this contribution to be paid before the commencement of development on the site.
REASON: The provision of such services in the area by the Council will facilitate the proposed development. It is considered reasonable that the developer should contribute towards the cost of providing the services.

11 That a financial contribution in the sum of £8,000 be paid by the proposed to Dublin County Council towards the cost of parking and traffic management in the area which will facilitate this development. This contribution to be paid prior to the commencement of development on site.

11 REASON: In the interest of the proper planning and development of the area.

That details of proposed shuttering (if any) be submitted and agreed in writing with the Planning Authority prior to the commencement of development. Shuttering (if any) to be provided behind line of glazing and is to be open grille variety.
Reason In the interest of the proper planning + development of the area

NOTE: Applicant is advised that in the event of encroachment or oversailing of the adjoining property, the consent of the adjoining property owner is required.
NOTE: Compliance with one or more of the conditions of this permission may result in material alterations to the development as initially proposed and, accordingly, may require the submission of a further planning application.

COMHAIRLE CHONTAE ÁTHA CLIATH

Record of Executive Business and Manager's Orders

Reg.Ref: 91A/1816

Page No: 0005

Location: 3 and 4 Main Street, Lucan

Endorsed:-.....
for Principal Officer

.....
for Dublin Planning Officer

Order: A decision pursuant to Section 26(1) of the Local Government (Planning and Development) Acts, 1963-1990 to GRANT PERMISSION for the above proposal subject to the (11) conditions set out above is hereby made.

Dated : 16th JANUARY 1992

.....
ASSISTANT COUNTY MANAGER/~~APPROVED OFFICER~~

to whom the appropriate powers have been delegated by order of the Dublin City and County Manager dated 10th December 1991.

Mary Gabbin

D U B L I N C O U N T Y C O U N C I L

PLANNING AND BUILDING CONTROL DEPARTMAENT

Senior Engineer,
Sanitary Services Dept.

Register Reference : 91A/1816 Date : 19th November 1991

Development : Redevelop existing shop at no. 3 and adjoining dwelling at no. 4 into ~~one~~ retail unit on ground floor with administrative area on first floor

LOCATION : 3 and 4 Main Street, Lucan

Applicant : Thomas Lynch

App. Type : PERMISSION/BUILDING BYE-LAW APPROVAL

Planning Officer :

Date Recd. : 18th November 1991

DUBLIN CO. COUNCIL
29 NOV 1991
SAN SERVICES

DUBLIN CO. COUNCIL
SANITARY SERVICES
- 8 JAN 1992
Returned

Attached is a copy of the application for the above development .Your report would be appreciated within the next 28 days.

Date received in Sanitary Services .....

.....

FOUL SEWER

No objection.

PLANNING DEPT.
DEVELOPMENT CONTROL SECT
Date 08.01.92
Time 3.00

.....

SURFACE WATER

Sump proposal - refer to B.S.L. dept.

.....

Register Reference : 91A/1816 Date : 19th November 1991

ENDORSED _____ DATE _____

WATER SUPPLY Water available.
24 hr ~~supply~~ Storage required. Metered supply to be fitted. All connections etc to be by DCC personnel at applicants own expense. John Lacey 16/12/91
P J Howell 17/12/91

ENDORSED [illegible] DATE 6/1/92

PLANNING DEPT.
DEVELOPMENT CONTROL SECT
Date 08.01.92
Time 3.00

Mary Galvin.

DUBLIN COUNTY COUNCIL

REG. REF: 91A/1816.

DEVELOPMENT: Extended ground floor for shop.

LOCATION: 3 and 4 Main Street, Lucan.

APPLICANT: Thomas Lynch.

DATE LODGED: 18.11.91.

There is a shortfall of 10 car parking spaces in this proposal to comply with Development Plan Standards.

No Roads objection subject to a contribution of £8000 towards parking and traffic management improvement in Lucan which facilitates the Development.

PLANNING DEPT.
DEVELOPMENT CONTROL SECT
Date 19.12.91
Time 3.45

TR/BMcC
18.12.91.

SIGNED: J. Rogan **ENDORSED:** T. Burke

DATE: 18/12/91 **DATE:**

DUBLIN COUNTY COUNCIL

Tel. 724755 (ext. 262/264)

PLANNING DEPARTMENT,
BLOCK 2,
IRISH LIFE CENTRE,
LR. ABBEY STREET,
DUBLIN 1.

Notification of Decision to Grant Permission/Approval

Local Government (Planning and Development) Acts, 1963-1983

To: P. Brunkard & Assocs.,
42 Monastery Park,
Clondalkin,
Dublin 22.

Decision Order Number and Date: P/97/92 - 16.01.1992

Register Reference No.: 91A/1816

Planning Control No.:

Application Received on: 18.11.1992

Applicant: Thomas Lynch.

In pursuance of its functions under the above-mentioned Acts, the Dublin County Council, being the Planning Authority for the County Health District of Dublin, did by Order dated as above make a decision to grant Permission/Approval for:-

redevelop existing shop at no. 3 and adjoining dwelling at no. 4 into one retail unit on ground floor with administrative area on first floor at 3 and 4 Main Street, Lucan.

SUBJECT TO THE FOLLOWING CONDITIONS

CONDITIONS	REASONS FOR CONDITIONS
1. The development to be carried out in its entirety in accordance with the plans, particulars and specifications lodged with the application, save as may be required by the other conditions attached hereto.	1. To ensure that the development shall be in accordance with the permission and that effective control be maintained.
2. That before development commences, approval under the Building Bye-Laws be obtained, and all conditions of that approval be observed in the development.	2. In order to comply with the Sanitary Services Acts, 1878-1964.
3. That the requirements of the Chief Fire Officer be ascertained and strictly adhered to in the development.	3. In the interest of safety and the avoidance of fire hazard.
4. That the requirements of the Supervising Environmental Health Officer be ascertained and strictly adhered to in the development.	4. In the interest of health.

Contd.../

Signed on behalf of the Dublin County Council ..... For Principal Officer

Date: 16th January, 1992.

IMPORTANT: Turn overleaf for further information

CONDITIONS	REASONS FOR CONDITIONS
5. That the water supply and drainage arrangements, including the disposal of surface water, be in accordance with the requirements of the County Council.	5. In order to comply with the Sanitary Services Acts 1878-1964.
6. That all necessary measures be taken by the contractor to prevent the spillage or deposit of clay, rubble or other debris on adjoining roads during the course of the works.	6. To protect the amenities of the area.
7. That all public services to the proposed development, including electrical, telephone cables and equipment be located underground throughout the entire site.	7. In the interest of amenity.
8. That no advertising sign or structure be erected, except those which are exempted development, without prior approval of the Planning Authority.	8. In the interest of the proper planning and development of the area.
9. That details of the proposed method of illumination of fascia sign (if any) be submitted for written agreement of the Planning Authority prior to commencement of development.	9. In the interest of the proper planning and development of the area.
10. That a financial contribution in the sum of £1503. be paid by the site.	10. The provision of such services in the area by services.

NOTE:

If there is no appeal to An Bord Pleanala against this decision PERMISSION/APPROVAL will be granted by the Council as soon as may be after the expiration of the period for the taking of such appeal. If every appeal made in accordance with the Acts has been withdrawn, the Council will grant the PERMISSION/APPROVAL after the withdrawal.

An appeal against the decision may be made to An Bord Pleanala. The applicant may appeal within one month from the date of receipt by him of this notification. ANY OTHER PERSON may appeal within twenty-one days beginning on the date of the decision.

An appeal shall be in writing and shall state the subject matter and grounds of the appeal. It should be addressed to:— An Bord Pleanala, Blocks 6 and 7, Irish Life Centre, Lower Abbey Street, Dublin 1.

(1) An appeal lodged by an applicant or his agent with An Bord Pleanala will be invalid unless accompanied by a fee of £36 (Thirty-six Pounds). (2) A party to an appeal making a request to An Bord Pleanala for an Oral Hearing of an appeal must, *in addition* to (1) above, pay to An Bord Pleanala a fee of £36 (Thirty-six Pounds). (3) A person who is not a party to an appeal must pay a fee of £10 (Ten Pounds) to An Bord Pleanala when making submissions or observations to An Bord Pleanala in relation to an appeal.

Approval of the Council under Building Bye-Laws must be obtained and the terms of the approval must be complied with in the carrying out of the work before any development which may be permitted is commenced.

FUTURE PRINT LTD.

DUBLIN COUNTY COUNCIL

Tel. 724755 (ext. 262/264)

PLANNING DEPARTMENT,
BLOCK 2,
IRISH LIFE CENTRE,
LR. ABBEY STREET,
DUBLIN 1.

Notification of Decision to Grant Permission/Approval

Local Government (Planning and Development) Acts, 1963-1983

To: P. Brunkard & Assocs.,
42 Monastery Park,
Clondalkin,
Dublin 22.

Decision Order Number and Date: P/97/92 - 16.01.1992

Register Reference No.: 91A/1816

Planning Control No.:

Application Received on: 18.11.1992

Applicant: Thomas Lynch.

In pursuance of its functions under the above-mentioned Acts, the Dublin County Council, being the Planning Authority for the County Health District of Dublin, did by Order dated as above make a decision to grant Permission/Approval for:-

redevelop existing shop at no. 3 and adjoining dwelling at no. 4 into one retail unit on ground floor with administrative area on first floor at 3 and 4 Main Street, Lucan.

SUBJECT TO THE FOLLOWING CONDITIONS

CONDITIONS	REASONS FOR CONDITIONS
11. That details of shuttering (if any) be submitted and agreed in writing with the Planning Authority prior to the commencement of development. Shuttering (if any) to be provided behind line of glazing and is to be open grille variety.	11. In the interest of the proper planning and development of the area.
NOTE: Applicant is advised that in the event of encroachment or oversailing of the adjoining property, the consent of the adjoining property owner is required.	
NOTE: Compliance with one or more of the conditions of this permission may result in material alterations to the development as initially proposed and, accordingly, may require the submission of a further planning application.	

Signed on behalf of the Dublin County Council: ..... For Principal Officer

Date: 16th January, 1992.

IMPORTANT: Turn overleaf for further information

CONDITIONS	REASONS FOR CONDITIONS

NOTE:

If there is no appeal to An Bord Pleanala against this decision PERMISSION/APPROVAL will be granted by the Council as soon as may be after the expiration of the period for the taking of such appeal. If every appeal made in accordance with the Acts has been withdrawn, the Council will grant the PERMISSION/APPROVAL after the withdrawal.

An appeal against the decision may be made to An Bord Pleanala. The applicant may appeal within one month from the date of receipt by him of this notification. ANY OTHER PERSON may appeal within twenty-one days beginning on the date of the decision.

An appeal shall be in writing and shall state the subject matter and grounds of the appeal. It should be addressed to:—

An Bord Pleanala, Blocks 6 and 7, Irish Life Centre, Lower Abbey Street, Dublin 1.

(1) An appeal lodged by an applicant or his agent with An Bord Pleanala will be invalid unless accompanied by a fee of £36 (Thirty-six Pounds). (2) A party to an appeal making a request to An Bord Pleanala for an Oral Hearing of an appeal must, *in addition* to (1) above, pay to An Bord Pleanala a fee of £36 (Thirty-six Pounds). (3) A person who is not a party to an appeal must pay a fee of £10 (Ten Pounds) to An Bord Pleanala when making submissions or observations to An Bord Pleanala in relation to an appeal.

Approval of the Council under Building Bye-Laws must be obtained and the terms of the approval must be complied with in the carrying out of the work before any development which may be permitted is commenced.

FUTURE PRINT LTD.

Dublin County Council Comhairle Chontae Atha Cliath **Planning Department**

Building Control Department,
Liffey House,
Tara Street,
Dublin 1.
Telephone:773066

Bloc 2, Ionad Bheatha na hEireann,
Block 2, Irish Life Centre,
Sraid na Mainistreach Iacht,
Lower Abbey Street,
Baile Atha Cliath 1.
Dublin 1.
Telephone. (01)724755
Fax. (01)724896

Register Reference : 91A/1816 Date : 19th November 1991

Our Ref.

Your Ref.

LOCAL GOVERNMENT (PLANNING AND DEVELOPMENT) ACTS 1963 TO 1990

Date

Dear Sir/Madam,

DEVELOPMENT : Redevelop existing shop at no. 3 and adjoining dwelling at no. 4 into one retail unit on ground floor with administrative area on first floor

LOCATION : 3 and 4 Main Street, Lucan

APPLICANT : Thomas Lynch

APP. TYPE : PERMISSION/BUILDING BYE-LAW APPROVAL

With reference to the above, I acknowledge receipt of your application received on 18th November 1991.

Yours faithfully,

.....

for PRINCIPAL OFFICER

P. Brunkard & Associates,
42 Monastery Park,
Clondalkin,
Dublin 22.

651.59
N 51735

Dublin County Council
Comhairle Chontae Átha Cliath

Planning Application Form/ Bye - Law Application Form

PLEASE READ INSTRUCTIONS AT BACK BEFORE COMPLETING FORM. ALL QUESTIONS MUST BE ANSWERED.

1. Application for Permission [✓] Outline Permission [ ] Approval [ ] Place ✓ in appropriate box.
Approval should be sought only where an outline permission was previously granted. Outline permission may not be sought for the retention of structures or continuances of uses.

2. Postal address of site or building (If none, give description sufficient to identify) Numbers 3 and 4 Main Street, Lucan, Co. Dublin.
£325.80 18/11 N 51213

3. Name of applicant (Principal not Agent) Thomas Lynch.
Address Londis Food Store, Main Street, Lucan, Co. Dublin. Tel. No 6280286

4. Name and address of person or firm responsible for preparation of drawings P. Brunkard & Associates, 42 Monastery Park, Clondalkin, Dublin 22. Tel. No 593027

5. Name and address to which notifications should be sent P. Brunkard & Associates, 42 Monastery Park, Clondalkin, Dublin 22.

6. Brief description of proposed development It is proposed to convert existing shop and ancillary areas of No. 3 and dwelling at No. 4, into a single retail outlet on ground floor, for newsagency and stationery, with admin. area on first floor.

7. Method of drainage Public sewer. 8. Source of Water Supply Mains supply.

9. In the case of any building or buildings to be retained on site, please state:-
(a) Present use of each floor or use when last used. No 3 unused for 3 years, No. 4 unused for 10 years.
(b) Proposed use of each floor Extended ground floor for shop. Combined 1st. floor, Adm. area.

Print Prem 12/11/91

10 Does the proposal involve demolition, partial demolition or change of use of any habitable house or part thereof? Partial demolition. Change of use No. 4.

11.(a) Area of Site 188 Sq. m.

(b) Floor area of proposed development 200.53 Sq. m.

(c) Floor area of buildings proposed to be retained within site 200.53 Sq. m.

CO. DUBLIN 3 and 4 Main Street, Lucan. Permission is being sought to redevelope existing shop at no. 3 and adjoining dwelling at no. 4 into one retail unit. on ground floor with administrative area on first floor. Applicant Thomas Lynch.

12. State applicant's legal interest or estate in site (i.e. freehold, leasehold, etc.) Freehold

13. Are you now applying also for an approval under the Building Bye Laws? Yes [✓] No [ ] Place ✓ in appropriate box. 18 NOV 91

14. Please state the extent to which the Draft Building Regulations have been taken in account in your proposal. Fully complied with.

15. List of documents enclosed with application. Survey of premises as existing, Working drawings of the proposal, Site/Location map, Specifications, Newspaper notice in Irish Press, dated 12/11/1991. Appropriate application fees in the sum of £977.39

16. Gross floor space of proposed development (See back) 200.53 Sq. m.
No of dwellings proposed (if any) N/A Class(es) of Development Class 4 and Class C.
Fee Payable £ 977.39 Basis of Calculation 200.53 less area of existing shop = 186.17 sq.M.
If a reduced fee is tendered details of previous relevant payment should be given 186.17 x (£1.75 + £3.5) = £977.39

Signature of Applicant (or his Agent) P. Brunkard Date 12/11/1991

FOR OFFICE USE ONLY

Application Type P/B
Register Reference 91A/1916
Amount Received £ 1.12.42
Receipt No
Date 17/6

LOCAL GOVERNMENT (PLANNING & DEVELOPMENT) REGULATIONS 1977 to 1984.

Outline of requirements for applications for permission or Approval under the Local Government (Planning & Development) Acts 1963 to 1983. The Planning Acts and Regulations made thereunder may be purchased from the Government Publications Sales Office, Sun Alliance House, Molesworth Street, Dublin 2.

1. Name and Address of applicant.

2. Particulars of the interest held in the land or structure, i.e. whether freehold, leasehold, etc.

3. The page of a newspaper, circulating in the area in which the land or structure is situate, containing the required statutory notice. The newspaper advertisement should state after the heading Co. Dublin.

   (a) The address of the structure or the location of the land.
   (b) The nature and extent of the development proposed. If retention of development is involved, the notice should be worded accordingly. Any demolition of habitable accommodation should be indicated.
   (c) The name of the applicant.

   NB. Applications must be received within 2 weeks from date of publication of the notice.

4. Four (4) sets of drawings to a stated scale must be submitted. Each set to include a layout or block plan, proposed and existing services to be shown on this drawing, location map, and drawings of relevant floor plans, elevations, sections, details of type and location of septic tank (if applicable) and such other particulars as are necessary to identify the land and to describe the works or structure to which the application relates (new work to be coloured or otherwise distinguished from any retained structures). Buildings, roads, boundaries and other features bounding the structure or other land to which the application relates shall be shown on site plans or layout plans. The location map should be of scale not less than 1: 2500 and should indicate the north point. The site of the proposed development must be outlined in red. Plans and drawings should indicate the name and address of the person by whom they were prepared. Any adjoining lands in which the applicant has an interest must be outlined in blue.

5. In the case of a proposed change of use of any structure or land, requirements in addition to 1, 2, & 3 are.
   (a) a statement of the existing use and the proposed use, or, where appropriate, the former use and the use proposed.

   (b) (i) Four (4) sets of the drawings to a stated scale must be submitted. Each set to consist of a plan or location map (marked or coloured in red so as to identify the structure or land to which the application relates) to a scale of not less than 1:2500 and to indicate the North point. Any adjoining lands in which the application has an interest must be outlined in blue.

   (ii) A layout and a survey plan of each floor of any structure to which the application relates.

   (c) Plans and drawings should indicate the name and address of the person by whom they were prepared.

6. Applications should be addressed to: Dublin County Council, Planning Department, Irish Life Centre, Lr. Abbey Street, Dublin 1, Tel. 724755.

SEPTIC TANK DRAINAGE: Where drainage by means of a septic tank is proposed, before a planning application is considered, the applicant may be required to arrange for a trial hole to be inspected and declared suitable for the satisfactory percolation of septic tank effluent. The trial hole to be dug seven feet deep at or about the site of the septic tank. Septic tanks are to be in accordence with I.I.R.S. S.R. 6:75.

INDUSTRIAL DEVELOPMENT:

The proposed use of an industrial premises should, where possible, be stated together with the estimated number of employees, (male and female). Details of trade effluents, if any, should be submitted.

Applicants to comply in full with the requirements of the Local Government (Water Pollution) Act,1977 in particular the licencing provisions of Sections 4 and 16.

PLANNING APPLICATIONS

CLASS NO.	DESCRIPTION	FEE
1.	Provision of dwelling — House/Flat.	£32.00 each
2.	Domestic extensions/other improvements.	£16.00
3.	Provision of agricultural buildings (See Regs.)	£40.00 minimum
4.	Other buildings (i.e. offices, commercial, etc.)	£1.75 per sq. metre (Min. £40.00)
5.	Use of land (Mining, deposit or waste)	£25.00 per 0.1 ha (Min £250.00)
6.	Use of land (Camping, parking, storage)	£25.00 per 0.1 ha (Min. £40.00)
7.	Provision of plant/machinery/tank or other structure for storage purposes.	£25.00 per 0.1 ha (Min. £100.00)
8.	Petrol Filling Station.	£100.00
9.	Advertising Structures.	£10.00 per m² (min £40.00)
10.	Electricity transmission lines.	£25.00 per 1,000m (Min. £40.00)
11.	Any other development.	£5.00 per 0.1 ha (Min. £40.00)

BUILDING BYE-LAW APPLICATIONS

CLASS NO.	DESCRIPTION	FEE
A	Dwelling (House/Flat)	£55.00 each
B	Domestic Extension (improvement/alteration)	£30.00 each
C	Building — Office/ Commercial Purposes	£3.50 per m² (min. £70.00)
D	Agricultural Buildings/Structures	£1.00 per m² in excess of 300 sq. metres (min. - £70.00) (Max. - £300.00)
E	Petrol Filling Station	£200.00
F	Development or Proposals not coming within any of the foregoing classes.	£9.00 per 0.1 ha (£70.00 min.) Min. Fee £30.00 Max. Fee £20,000

Cheques etc. should be made payable to: Dublin County Council.

Gross Floor space is to be taken as the total floor space on each floor measured from the inside of the external walls.

For full details of Fees and Exemptions see Local Government (Planning and Development) (Fees) Regulations 1984.

RECEIPT CODE

AIRLE CHONTAE ÁTHA CLIATH
DUBLIN COUNTY COUNCIL
46/49 UPPER O'CONNELL STREET,
DUBLIN 1.

BYE LAW APPLICATION.
REC. No. N 51735

CASH
CHEQUE ✓
M.O.
B.L.
I.T.

£651.59

Received this 18th day of [illegible] 19[illegible]

from Madaris Supermarkets Ltd.

the sum of six hundred and fifty [illegible] Pounds

fifty nine Pence, being fee for

bye-law application at 3/4 Main St, [illegible]

S. CAREY [illegible]
Principal Officer

[illegible] Cashier

RECEIPT CODE

COMHAIRLE CHONTAE ÁTHA CLIATH

PAID BY

DUBLIN COUNTY COUNCIL
46/49 UPPER O'CONNELL STREET
DUBLIN 1.

Issue of this receipt is not an acknowledgement that the fee tendered is the prescribed application fee.

CASH
CHEQUE ✓
M.O.
B.L.
I.T.

N 51213

£325.80

Received this 18th day of November 1991

from Mordaris Supermarkets Ltd

the sum of three hundred and twenty five Pounds

eighty Pence being fee for planning application at Main St, Lucan

Maureen Devine Cashier

S. CAREY Principal Officer

Philip Brunkard & Associates

CONSULTING ENGINEERS

Capt. PHILIP BRUNKARD, Eur. Ing. C.Eng. F.I.E.I.
PETER A. QUINN, B.A. B.A.I. C.Eng. M.I.E.I.

TELEPHONE
593027 6288503 6280340

FAX: 592048

42 Monastery Park, Clondalkin,
Dublin 22.

14th November, 1991.

Dublin Co. Council,
Planning Dept.,
Block 2,
Irish Life Centre,
Lower Abbey St.,
Dublin, 1.

RE: DEVELOPMENT OF 3 & 4 MAIN STREET, LUCAN, CO. DUBLIN FOR THOMAS LYNCH.

Dear Sir,

In accordance with Local Government (Planning and Development) Regulations 1977 to 1984 we herewith make application for Planning Permission and Bye-Law Approval in respect of the above proposal. The required documentation and application fee, in the sum of £977.39 are submitted herewith.

We point out that we have had prior consultation with your Miss Mary Galvin, in this matter, with the objective of submitting a proposal compatible with your planning requirements, for Lucan Village, and at the same time having regard to the economic constraints, imposed on our client, by the purchase and re-construction of the property.

We would hope that we have been successful in our endeavours and look forward to you granting the necessary permission and Bye-Law approval.

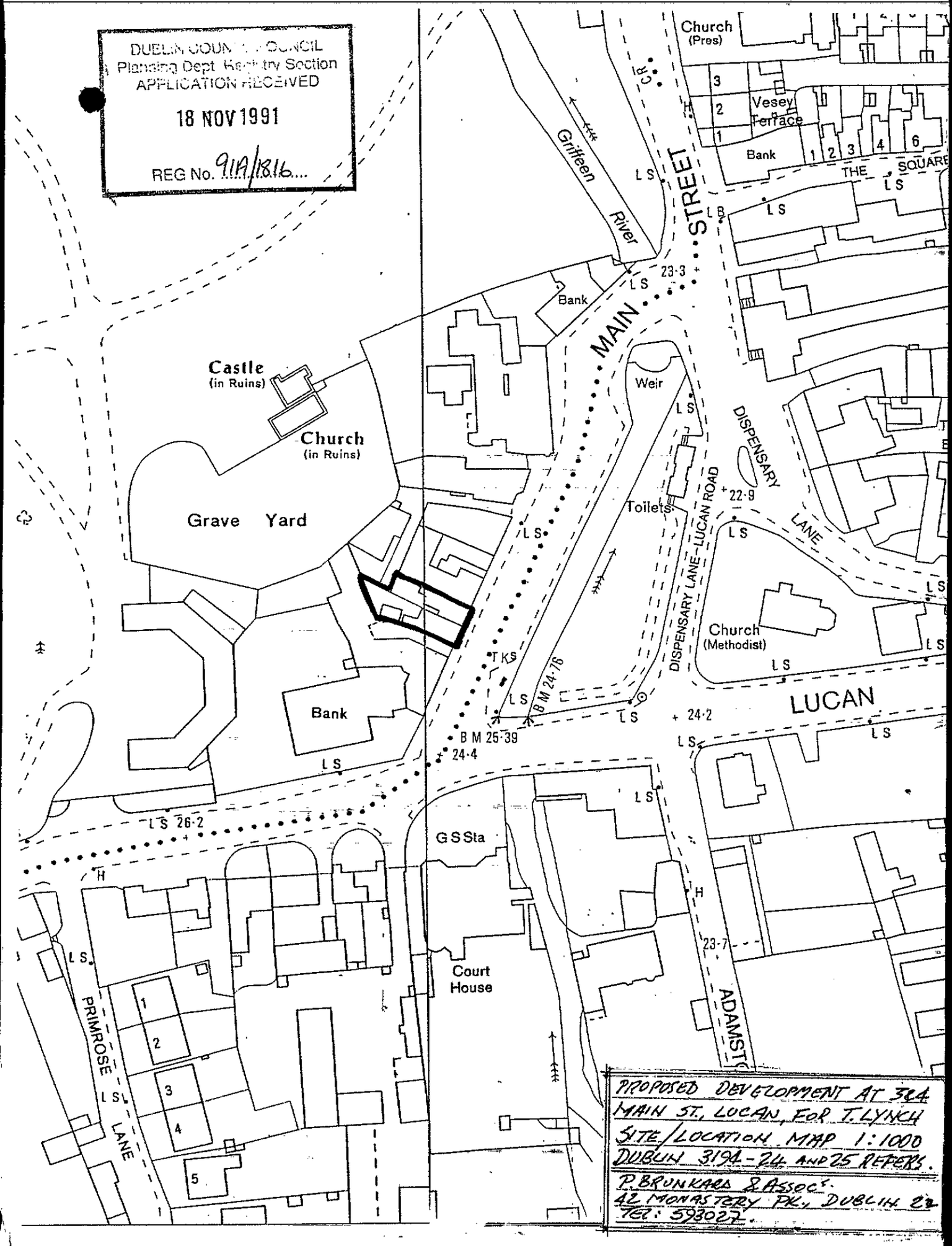
Yours sincerely,

PHILIP A. BRUNKARD, C. ENG.

18 NOV

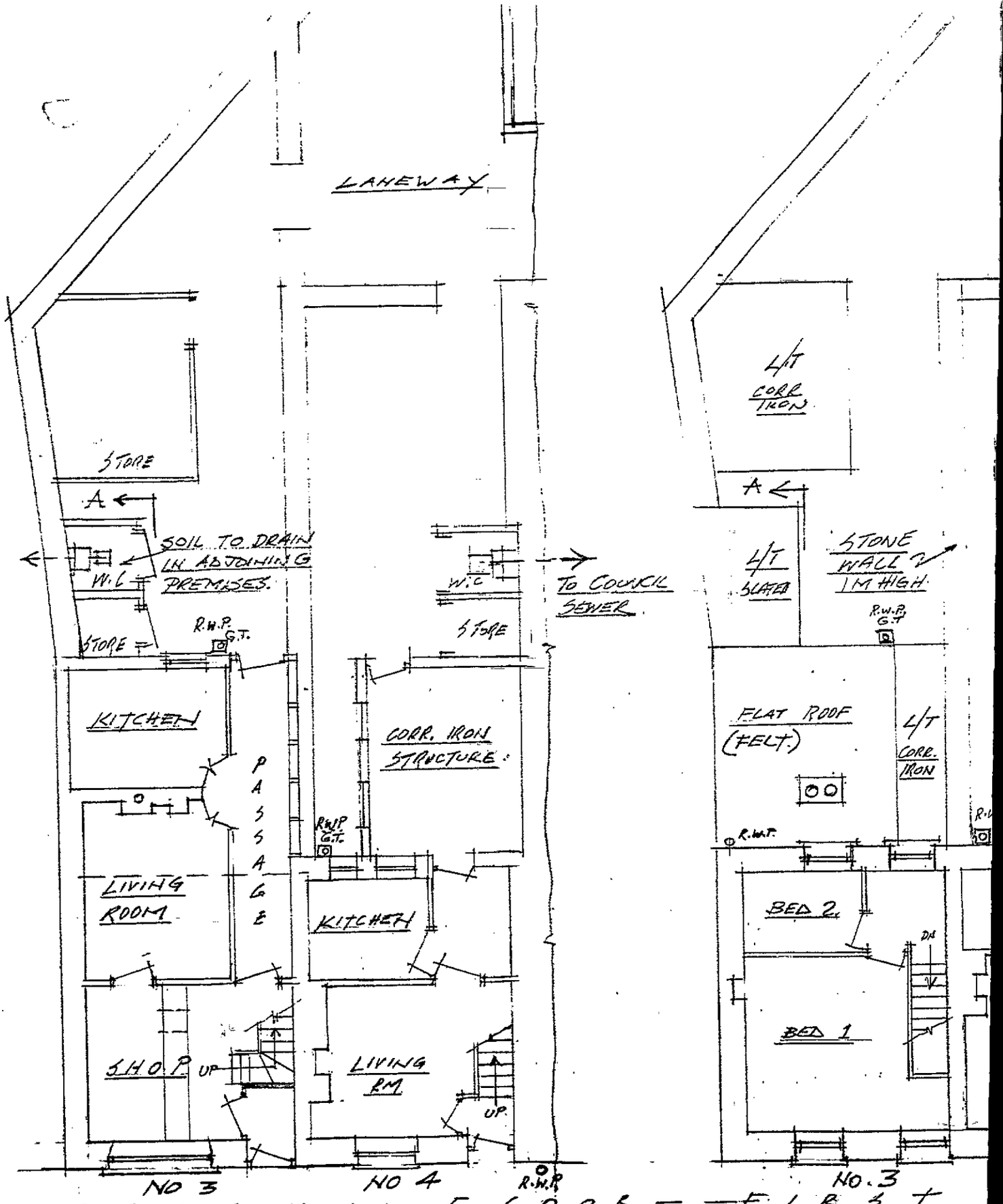
ENCL.

DUBLIN COUNTY COUNCIL
Planning Dept. Registry Section
APPLICATION RECEIVED
18 NOV 1991
REG No. 91A/1816

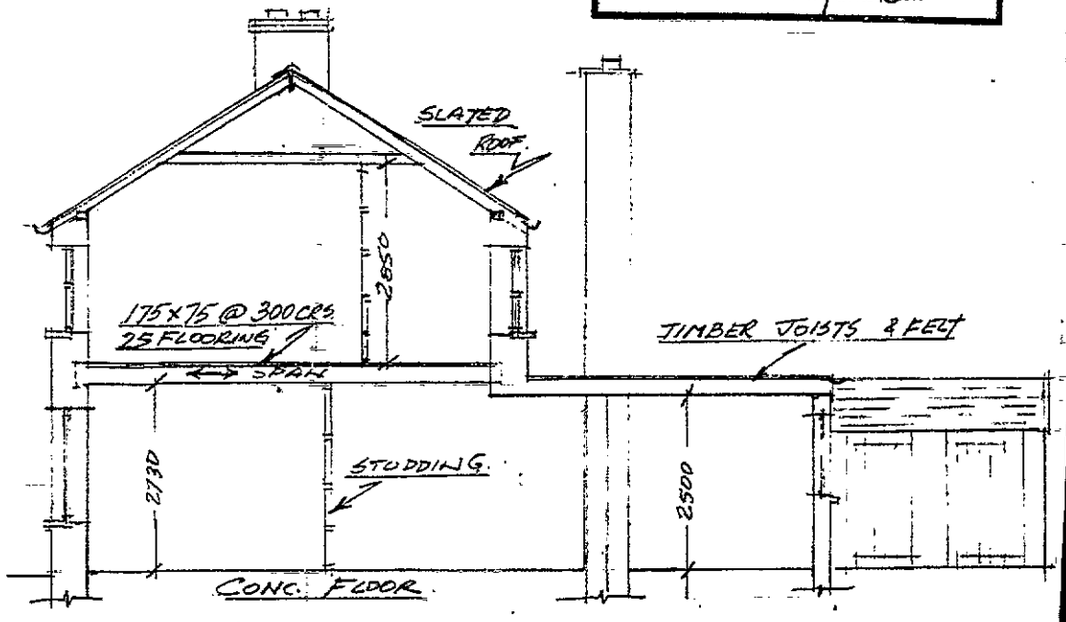


PROPOSED DEVELOPMENT AT 364 MAIN ST., LUCAN, FOR T. LYNCH
SITE/LOCATION MAP 1:1000
DUBLIN 3194-24 AND 25 REFERS.

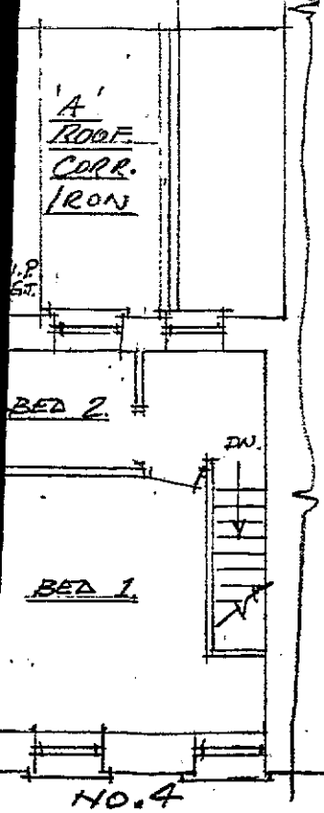
P. BRUNKARD & ASSOC.
42 MONASTERY PK., DUBLIN 22
TEL: 593027.

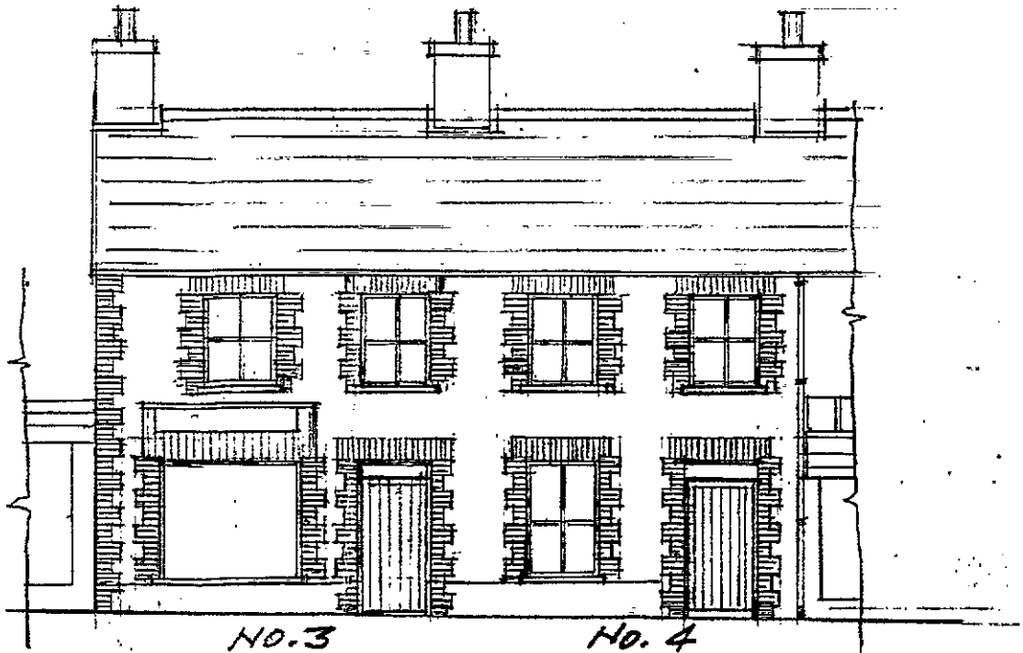

LANEWAY
STORE
A
SOIL TO DRAIN IN ADJOINING PREMISES.
W.C
STORE
R.W.P. G.T.
KITCHEN
LIVING ROOM
SHOP
UP
PASSAGE
R.W.P. G.T.
CORR. IRON STRUCTURE.
W.C
TO COUNCIL SEWER
STORE
KITCHEN
LIVING RM
UP
R.W.P.
NO 3
NO 4
GROUND FLOOR
EXISTING
A
L/T CORR IRON
A
L/T SLATED
STONE WALL 1M HIGH
R.W.P. G.T.
FLAT ROOF (FELT)
L/T CORR. IRON
R.W.P.
BED 2.
DN
BED 1
NO.3
FIRST
EXISTING
A

DUBLIN COUNTY COUNCIL
Planning Dept. Registry Section
APPLICATION RECEIVED
18 NOV 1991
REG No. 91A/1816...



— S E C T I O N A A —





F L O O R — F R O N T — E L E V N. —
E X I S T I N G

PROPOSED DEVELOPMENT AT NOS 3&4 MAIN STREET, LUCAN, CO. DUBLIN FOR THOS. LYNCH ESQ. SURVEY OF PREMISES AS EXISTING.	SCALE 1:100	P. BRUNKARD & ASSOC 42, MONASTERY PK. DUBLIN 22. TEL: 593027
	DRG. NO. TLS. 1	

DESIGN CALCULATIONS FOR PROPOSED DEVELOPMENT AT NOS. 3 & 4 MAIN STREET, LUCAN, CO. DUBLIN.

Philip Brunkard & Associates

Capt. PHILIP BRUNKARD, Eur. Ing. C.Eng. F.I.E.I.

LITIGATION AND CONSULTING ENGINEER

42 MONASTERY PARK,
CLONDALKIN,
DUBLIN 22.

Phone: 593027, 6280340, 437106, 6288503.
Fax: 592048, 6272445

Philip Brunkard & Associates

CONSULTING ENGINEERS

Capt. PHILIP BRUNKARD, Eur. Ing. C.Eng. F.I.E.I.
PETER A. QUINN, B.A. B.A.I. C.Eng. M.I.E.I.

TELEPHONE
593027 6288503 6280340

FAX: 592048

42 Monastery Park, Clondalkin,
Dublin 22.

14 NOV 91

STRUCTURAL DESIGN FOR PROPOSED DEVELOPMENT AT No 3&4 MAIN ST. LUCAN

BEAMS NO 1 ATSHOP FRONT

SPAN 3.500

LOADING WALL+ROOF

WALL $3.5 \times 3.0 \times 0.5 \times 20 = 105$ KNS

ROOF $3.0 \times 3.5 \times 5 = 52.5$ KNS

TOTAL 157.5 KNS

CONSIDER 2 BEAMS

LOAD/BEAM = ay 79 KNS

$\frac{WL}{8}$ B.M $= \frac{79 \times 3.5}{8} = 34.56$

$E = \frac{34.56 \times 10^3}{165} = 209$

FROM CONSTRADO TABLE USE

2 NO 203X 133 X 25KGS U.BS

Philip Brunkard & Associates

CONSULTING ENGINEERS

Capt. PHILIP BRUNKARD, Eur. Ing. C.Eng. F.I.E.I.
PETER A. QUINN, B.A. B.A.I. C.Eng. M.I.E.I.

TELEPHONE
593027 6288503 6280340

FAX: 592048

42 Monastery Park, Clondalkin,
Dublin 22.

BEAMS 2 AT CENTRE EXISTING SHOP

SPAN 4.000

FLOOR LOADING 5KN/M²

AREA $\frac{4 \times 5.6}{2}$ = 11.2 □METERS

LOADING 5X11.2 KN = 56

B.M $\frac{Wl}{8} = \frac{56 \times 4}{8}$ = 26KNM

$E = \frac{28 \times 10^3}{165} = 169.6$

FROM CONSTRADO TABLE USE

203 X 133 X 30 KGS U.B

Philip Brunkard & Associates

CONSULTING ENGINEERS

Capt. PHILIP BRUNKARD, Eur. Ing. C.Eng. F.I.E.I.
PETER A. QUINN, B.A. B.A.I. C.Eng. M.I.E.I.

TELEPHONE
593027 6288503 6280340

FAX: 592048

42 Monastery Park, Clondalkin,
Dublin 22.

BEAM NO 3 ATRERE OF SHOP

SPAN 4·4 MTRS

LOADING (a) WALL
(b) FLOOR
(c) ROOF [EXISTING]
(d) NEW ROOF

(a) $2 \cdot 5 \times 4 \cdot 4 \times 0 \cdot 5 \times 20 = 110$ KN

(b) $\frac{4 \cdot 4 \times 3 \times 5}{2} = 33$KN

(c) $3 \times 4 \cdot 5 \times 5 = 66$KN

(d) $4 \times 4 \cdot 4 \times 5 = 88$KN

TOTAL 297

CONSIDER 2BEAMS @ 150 KN EACH

B.M $\frac{Wl}{8} = \frac{150 \times 4 \cdot 4}{8} = 82 \cdot 5$

$E = \frac{82 \cdot 5 \times 10^3}{165} = 500$ CM3

FROM CONSTRADO TABLE USE

2 NO 250 X 146 X 43 KGS

Philip Brunkard & Associates

CONSULTING ENGINEERS

Capt. PHILIP BRUNKARD, Eur. Ing. C.Eng. F.I.E.I.
PETER A. QUINN, B.A. B.A.I. C.Eng. M.I.E.I.

TELEPHONE
593027 6288503 6280340

FAX: 592048

42 Monastery Park, Clondalkin,
Dublin 22.

BEAM 4 & 5 AT PROPOSED EXTENSION

MAX SPAN 9 MTRS

LOADX AREA = $9 \times 4.2 \times 5$ = 189 KNS

$BM = \frac{WL}{8} = \frac{189 \times 9}{8}$ = 212.6 KN M

$E = \frac{212.6 \times 10^3}{165}$ = 1288.63 CM^3

FROM CONSTRADO TABLES USE

457 X 152 X 82 KGS

CHECK COLUMS

MAX LOAD 150KN

AT 2.5 METRE LENGTH

152 X 152 X 23 KGS IS MORE THAN ADEQUATE

Philip Brunkard & Associates

CONSULTING ENGINEERS

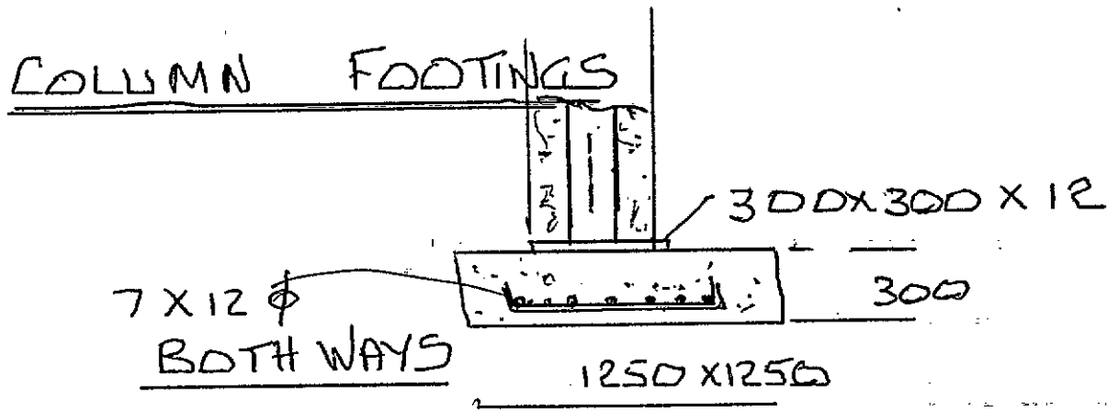
Capt. PHILIP BRUNKARD, Eur. Ing. C.Eng. F.I.E.I.
PETER A. QUINN, B.A. B.A.I. C.Eng. M.I.E.I.

TELEPHONE
593027 6288503 6280340

FAX: 592048

42 Monastery Park, Clondalkin,
Dublin 22.

COLUMN FOOTINGS



MAX COLUM LOA 150KN

GROUND BEARING 100KN/M² SUBJECT TO SITE INSPECTION

PAD SIZE $\frac{150}{100} = 1.5$ □ METRE

$= 1.25 \times 125$

CONSIDER BM AT COLUMN FACE

$\frac{Wl^2}{2} = \frac{100 \times (0.55)^2}{2} = 15.12$ KN M

USE F.O.S 1.5 ∴ BM = 22.68 KnM

300 DEEP d = 200

$MuC = \frac{0.15 \times 30 \times 1250 \times 200 \times 200}{10^6}$

$= 225$ KN M

$MoR = As\ FY \quad \frac{0.87 \times 7 \times \pi \times 12^2 \times 165 \times 0.75 \times 200}{10^6}$

$= 68$ KM.

WHICH IS GREATER THAN B.M

SLAB IS OK

SPECIFICATION FOR

DEVELOPMENT WORKS AT

3 AND 4 MAIN STREET, LUCAN.

Capt. Philip A. Brunkard Eur. Ing. C.Eng. F.I.E.I.

CHARTERED ENGINEER

42 MONASTERY PARK,
CLONDALKIN,
DUBLIN 22.

Phone: 593027, 288375, 288503 Fax: 272445

Conditions of Contract:

1.2) The Form of Contract will be the Articles of Agreement and Conditions of Building Contract (1977 Edition) as agreed between the RIAI, the CIF and the RICS, where quantities do not form part of the contract.

Contractors tendering will be deemed to have made themselves familiar with the provisions of this Form of Contract, viz:

1. Designated date.
2. Scope of Contract.
3. Drawings, Specification and Schedule of Rates.
4. Variations arising from Legislative Enactments.
5. Contractor to provide everything necessary.
6. Local and other Authorities' Notices and Fees.
7. Setting out of works.
8. Materials and workmanship to conform to description.
9. Work to be opened up.
10. Foreman.
11. Access for Architect to works.
12. Clerk of Works.
13. Ascertainment of Prices for Variations.
14. No Clause.
15. Assignment or sub-letting.
16. Nominated sub-contractors.
17. Nominated suppliers.
18. Provisional sums.
19. Prime Cost Sums.
20. Artists and Tradesmen.
21. Liability, indemnity and insurance for damage to persons and to property.
22. All Risks Insurance.
23. Contractors Insurance Policies.
24. Damage due to excluded risks.
25. Damage due to design.
26. Responsibility for existing structures.
27. War damage.
28. Dates for Possession and Completion.
29. Damages for non-completion.
30. Delay and extension of time.
31. Practical completion and defects liability.
32. Partial possession.
33. Determination of contract by employer.
34. Determination of contract by contractor.
35. Certificates and payments.
36. Wage and Price Variations.
37. Collateral Agreements.
38. Arbitration.

The Appendix to the Agreement and Conditions of this proposed Contract shall be as set out in Clause 1.26 hereafter.

All tendering contractors shall provide for complying in all respects with the Articles of Agreement and Conditions of Contract as defined above.

Visit Site:

1.3) The Contractor, BEFORE SUBMITTING HIS OR THEIR TENDER SHALL BE DEEMED TO HAVE VISITED THE SITE AND TO HAVE FULLY ACQUAINTED HIMSELF AS TO ITS NATURE AND TO THE NATURE AND THE EXTENT OF THE WORKS REQUIRED TO BE DONE.

Lowest Tender:

1.4) The lowest or any tender will not necessarily be accepted nor will any contractor be remunerated for any costs or expenses which he has incurred in making up or lodging his tender.

Accommodation for Storage:

1.6) Provide and maintain and remove on completion all necessary sheds for workmen and materials, including office for foreman and remove on completion of works.

Sanitary Facilities:

1.7) Provide proper sanitary facilities for workmen during course of works and clean up or clear same away on completion of works.

P.C. Sums:

1.8) The Contractor shall produce receipted accounts of all P.C. provisions at the time of settling the various accounts. The meaning of the term P.C. shall be as defined in the Conditions of Contract. The P.C. sums shall include cost delivered to site.

Attendances:

1.9) Allow for each trade attending on all other trades and include for cutting out and making good after; provide all necessary materials in connection with such works, including all ladders, scaffolding, aids and power supplies as hereafter specified in Clause 1.10.

Case up and protect work done by other tradesmen, be responsible for and make good or pay for the making good of any work which may suffer from want of or insufficient protection or casing.

Materials and Standard of Workmanship:

1.10) All materials, appliances and fittings required for the work to be, wherever and whenever possible, of Irish manufacture, unless otherwise specified. They shall be to I.S.S. or B.S.S. where appropriate.

The term "Standard Specification" means the latest Specification, for the respective articles so described, issued by the Irish Standards Institution (I.S.S.) or the British Standards Institution (B.S.S.). All materials shall be to the foregoing standard of the I.S.S. or B.S.S. and the contractor shall be deemed to have available for his foreman and other operatives on site a copy of all relevant specifications for the materials required for the works on site.

The building shall be well and substantially built of good materials to the Standard Codes of Practice for Building issued by the British Codes of Practice Committee and strictly in accordance with the drawings and specification. The Contractor shall similarly provide his foreman with all relevant copies of the British Standard Codes of Practice necessary for carrying out satisfactorily the works and the foreman shall be deemed to have access to these Codes on site.

The work throughout shall be executed in the most substantial and workmanlike manner and with materials of the best quality, as shown on the several drawings or as described in this specification, according to the ordinary interpretation of same, including the finding of all tools, implements, scaffolding and plant of every kind necessary, together with all necessary hoardings, props, shoring or other protection.

In assessing the standards of materials and quality of workmanship it shall be deemed that the contractor and his foreman shall have a competent knowledge of everyday normal good quality standards of construction for this climate and experience thereof. This shall include normal structural and basic weatherproof details, including the proper positioning and use of materials for damp proof membranes, cavity walls and other areas of the works. It shall also include good basic practice for drainage and plumbing supplies. In this respect the contractor is referred to the text book on "Everyday Details" published by the Architectural Press Limited, London (Author: C.C. Handisyde) and is referred to herein because of the fact that this project should be considered in toto as a joint coordination between the design and construction team to give the employer a satisfactory project on completion of the works according to the general standards as set out hereafter in this specification.

Where manufacturers' patent materials and design are specified and/or used the works shall be carried out according to the manufacturers' specification and instructions for such part of the works as are appropriate.

Similarly, if after opening up in existing buildings the foreman shall be deemed to have knowledge of and on the observations of dry and wet rot and to report same to the Architect immediately for specific instructions for the action to be taken on remedial measures for curing or eradicating same.

In accordance with the Conditions of Contract the Contractor shall appoint a competent foreman who, in normal circumstances, shall be in charge of the project on a full or complete day to day basis from

commencement of project to completion. Under no circumstances will the constant switching of the foreman from this job to another job be allowed, except in exceptional circumstances and only with the prior approval of the Architect. Otherwise, the contractor shall provide a competent foreman for this project and he shall remain on site until completion.

The foreman shall keep, on behalf of the contractor and Architect, a day-to-day site diary which shall record the daily progress of the works and all daily records including the weather conditions and number and class of operatives employed on the works. He shall also keep a special set of all Architects' and other Consultants drawings at his site office, for reference by the Architect and Consultants at site meetings and inspections and these shall be returned to the Architect at completion of works.

At the completion of the works the Contractor shall mark up a set of drawings showing all variations and lines of services and other works covered up together with levels of all drainage as carried out and return them to the Architect for record purposes.

Setting Out:

1.11) The Contractor to be responsible for the setting out of the works and all errors arising out of this to be rectified at his own expense.

Tests:

1.12) All materials used in every part of the works are to be subject to tests from time to time during the execution of the works as the Architect may direct.

All costs, fees and expenses in testing workmanship and materials to be borne by the Contractor.

Services:

1.13) Any existing gas, water, drains or other pipes and electrical services and telephone services to be linked up and left in working order and, if damaged, to be repaired. Any damage which may be done during the course of the work to be made good.

Adjoining Property and Premises:

1.14) The Contractor shall serve all notices on the owners of the adjoining property as the law directs and must take the liability on his part of any neglect to serve the aforesaid notices and shall give all Notices to Post Office, Water, Power, Lighting and Gas Authorities and shall allow them facilities for removing or diverting any fixtures, fittings or service which may belong to them.

Where Contractor is working adjacent to or close to adjoining premises or property he must take all necessary and reasonable precautions to prevent damage thereto. In this connection he shall survey the adjoining premises and take all necessary photographs and records which he deems advisable and forward one copy of all such documents to the Architect before commencing work on site, all for record

purposes. He shall of course retain one copy for his own office records. Thereafter, he shall keep a photographic record of all necessary details which may be exposed during the course of the works, particularly in the case of demolition adjoining a neighbouring property or premises.

Take Delivery: 1.15) Take delivery of the materials for the subcontractors and provide them with storage space and workshop space and return unused materials to them on completion of works.

Protection: 1.16) Protect and maintain all completed works until Contract is completed and handed over to EMPLOYER.

Provide all needling and shoring to opes, shuttering and walls as required. Carefully erect, maintain and remove on completion of works.

Local Authorities: 1.17) Make such arrangements with the Local Authorities as may be necessary, and pay all fees for erecting hoardings, adjusting footpaths, making sewer, water and other main connections and undertake all responsibility for damage to or interference with the public roads, streets, sewer and pavements. Comply with all Local Authority Acts and Regulations and current Building Regulations.

Clean Water: 1.18) Provide an ample supply of clean water for use during the execution of the works.

Protection against Inclement Weather: 1.19) No concrete masonry or brickwork shall be carried out during frost (34°F) and generally the whole of the work shall be protected as necessary and as directed during inclement weather, including covering walls, surface concrete, etc. with felt or straw or other protective materials, and, any work injured from this cause shall be removed and reinstated at Contractor's expense.

Progress Chart: 1.20) Before signing Contract or commencing works on site the Contractor shall prepare a detailed Bar Chart or critical path analysis of his proposed programming of the works. He shall deliver one copy each of Progress Chart to the Architect, Quantity Surveyor, all Consultants and all other sub-contractors as required by them.

On Completion: 1.21) On completion of works all rubbish and superfluous materials in or about the building shall be removed and all damages incurred during the execution of the works shall be made good. Leave the building in a clean and habitable condition for handling over to Employer.

D[redacted]ings and Specification:

1.22) The Architects' Drawings and Specification shall take precendence over all other Consultants' drawings and specifications and the actual specification as detailed hereafter shall take precendence over the normal standards hereinbefore and herafter specified. If drawings and specifications are at variance the Architect must be consulted at once for a decision on the matter, and before actual work proceeds.

Site Precautions and Restrictions:

1.23) The Contractor shall take adequate precautions to prevent trespass on adjoining properties by his employees. He shall obtain permission from the owner of adjoining property if it is necessary to use that property for any purpose in connection with the works. He shall indemnify the Employer against all charges and liabilities arising therefrom.

He shall take all reasonable precautions to prevent damage to adjoining property or properties and shall avoid causing a nuisance to adjoining occupants and to the public. He shall make good any damage caused to adjoining property.

He shall not store inflammable liquids or compressed gases within the building but in another safe area to conform to the existing regulations of the Local Authority Fire Officer.

Drying out the Works:

1.24) The Contractor shall dry out the works as required to facilitate progress and to prevent damage to or deterioration of the work. Similarly, he shall control humidity as required.

The permanent heating installation may be used for drying out the works and only at a very reduced temperature control. The Contractor shall be responsible for all charges in connection with the use, maintenance and safety of the installation until practical completion. The Employer shall not accept liability if, for any reason, the installation, if any, is not available for use in this connection during the course of the works.

In this connection the Contractor is referred to Digest 163, issued by the British Building Research Establishment (Building) as a guide to what is required for drying out this project.

Insurances:

1.25) On the awarding or signing of the Contract the Contractor shall provide satisfactory written evidence to the Employer that his insurances are in accordance with the Conditions of Contract and that they shall remain so until the completion of contract.

The contractor shall not take possession of site or commence works until this condition is complied with.

EXCAVATOR

General Excavation: 2.1) Excavate to the dimensions, levels, lines and profiles shown on the drawings or as later detailed on site.

If, in the Contractors opinion, a bearing stratum is obtained at a lesser depth than that shown on the drawings, he shall inform the Architect.

Level and consolidate the bottoms of excavation in earth and do not excavate or clean bottoms to a maximum depth of 75 mm until immediate period prior to placing foundation or lean concrete.

Trim bottoms of excavation in rock.

Any additional excavation required to accommodate the temporary support to sides of excavations shall be provided and backfilled at the Contractors expense.

The use of explosives will not be permitted.

Where temporary sumps are required construct them well clear of excavations for permanent works and fill them as specified hereafter with suitable filling when no longer required.

On virgin sites or sites which have normally good topsoil for grass or vegetable growth the contractor shall remove the topsoil firstly on excavation and stockpile same in a suitable position on site for re-use and spreading later at completion of works for grassing and general landscaping. The normal depth of such topsoil shall be taken to average 250 mm.

Definitions of Excavation Materials: 2.2) "Solid Rock" shall mean only rock which can be removed only by pneumatic tools, or hydraulic tools or by similar equipment or by wedges and/or sledge hammers. All solid boulders or detached pieces of rock exceeding 0.3 m^3 in size in trenches or 0,6 m^3 in general excavation shall be regarded as solid rock.

"Thinly bedded rock" shall mean stratified rock with bedding planes at not more than 150 mm intervals. "Topsoil" shall mean soil capable of supporting plant growth.

"Normal excavation" shall include all other types of materials other than those specified above.

In tendering, the contractor shall compound his rates on the basis of the above types of excavation showing the extra over rate required for each type over the normal excavation rate.

Use of Explosives:

2.3) Under NO circumstances under normal conditions shall the contractor use explosives for excavating rock or demolition. If such a very exceptional occasion should arise it will be the subject of very stringent conditions and subject to all Acts of the State to be decided by detailed consultation and agreements.

Definitions of backfilling or filling materials:

2.4) "Hardcore" shall mean hard stone, concrete, coarse gravel or hard broken brick, free from unsuitable filling material and capable of passing through a 100 mm ring.

"Rock fill" shall mean sound hard rock or broken stone. The material shall lie within the following grading limits:

Sieve Size (B.S.410)	% by weight passing
75 mm	100
37.5 mm	85-100
10 mm	40-70
5 mm	25-45
600 μm	8-22
75 μm	0-10

The material passing the 425 μm sieve shall be non-plastic. Materials used shall be frost resistant.

"Suitable Earth filling" shall mean material either arising from excavation or imported on to site which is capable of being compacted as specified.

"Unsuitable Filling Material" shall mean any of the following:

Perishable material.
Materials from marshes or bogs.
Logs, stumps, slurry and mud.
Material susceptible to instantaneous combustion.
Material in a frozen condition.
Clay of liquid limit exceeding 80%.
Materials with a water soluble sulphate content (as SO_4) in excess of 0.18%.
Materials having a moisture content greater than the maximum permitted.

For cohesive soils the permitted moisture content shall not be greater than the soils plastic limit multiplied by 1.1.

Generally:

2.5) Excavate for foundations of walls, drainage and other excavation work required by the drawings to a solid foundation and to such depths as sufficient or as directed by Architect or Engineer on site.

Planking and Strutting:

2.6) Sides of excavation shall be timbered in such a way as may be sufficient to secure them from falling in and the timber to be maintained as long as necessary during the works.

Un-Watering:

2.7) Water collecting in the trenches and basement shall be baled out or if necessary be pumped out continuously during the works. The contractor in tendering shall be deemed to have assessed the normal water table and other natural peculiarities of the site, including any falls or drainage problems thereto.

Levelling:

2.8) All trenches and other excavation shall be levelled and rammed and trenches for drains and pipes shall be graded.

Back-filling:

2.9) Return and fill in selected excavated materials around foundations and walls and drains as required. Only soft materials shall be replaced immediately beside pipes to prevent damage to them. All filling and backfilling shall be carried out in layers not exceeding 250 mm and each layer shall be thoroughly tamped and compacted before next layer is commenced until required level is attained.

Boulders:

2.10) Large boulders met with in the course of excavation shall be removed. Boulders protruding into the bottom of the trenches and other excavation shall be removed.

Concreting:

2.11) The Contractor shall notify the Architect as soon as the trenches or other excavations are ready for inspection. On no account is any concrete to be laid until the Architect or Structural Engineering Consultant and Local Authority concerned, both, have inspected and passed the excavation and base for foundations.

Hard Core:

2.12) Lay hard core in 150 mm layers and with a 50 mm top blinding layer of sand or gravel OR if shown on drawing 50 mm lean concrete in lieu. Consolidate to an even surface and to the required levels and contours with a 3 tonne roller or with a mechanical punner capable of equivalent compaction. Compact hard core under paths and pavings for pedestrian traffic with a similar roller and compact hard core under pavings for vehicular traffic with a 10 tonne roller.

Compact rock fill by not less than 12 passes of a towed vibratory roller with a static load of at least 50 kg per 25 mm of roll or a grid roller with a load of at least 225 kg per 25 mm width of roll.

Lean Concrete:

2.13) Provide and lay layer of lean concrete (1:10) average 50 mm thick under all concrete foundations or as described on hard core above, all as shown on drawings.

Generally:

3.1) The Contractor shall satisfy himself as to the accuracy of the levels for all drainage as shown on the drawings. Before commencing the drainlaying work he shall check and ensure that all levels as shown are correct and satisfactory for connection to main or last outfall manhole or sewer or drain connection. Should there be a discrepancy between proposed and existing drainage levels the contractor shall advise the Architect immediately for clarification and instructions and, before any work proceeds.

Damage or injury to any pipes which may occur during the course of the works is to be repaired at the Contractor's expense.

The Contractor shall provide for completing all drains, sewers, manholes, traps and junctions, as shown on the drawings and as hereafter specified. The works shall include for all excavation and backfilling and consolidation as hereinbefore specified.

Hereafter, in this section of the specification, the following definitions shall apply:

"Drain" shall mean an underground pipework used for the conveyances of foul sewage or surface water which is not intended to be taken over and maintained by the Local Authority.

"Sewer": Any underground pipework used for the conveyance of foul sewage or surface water which is intended to be taken over and maintained by the Local Authority.

Pipe Types:

3.2) The following pipes and fittings may be used for both foul and surface water sewers and drains:

1) Spigot and socket concrete pipes complying with IS.6 or BS.556.
2) Asbestos cement pipes complying with BS.3656.
3) Unplasticised PVC pipes complying with the "Provisional Specification for Soil and Waste Pipes, Drains, Sewers and Fittings made of Hard PVC" issued by the Department of Local Government.
4) Clayware pipes and fittings complying with IS.106 or BS.65 and 540 and clayware fittings complying with BS.539.

Ogee concrete pipes complying with IS.6 or BS.556 may be used for surface water sewers and drains only. Limitations as to use of the various types and classes of pipes shall be as shown in Appendix B and C to this section of the specification.

Pipe Sizes:

3.3) The minimum size of sewer or drain shall be 100 mm diameter. All sizes shall be as shown on drawings.

Drains: 3.4) The distance of the drain line from existing or proposed structures shall be to approval and as shown on drawings.

Gradient: 3.5) Generally, and unless as shown otherwise on drawings and sections, all sewers and drains shall be laid at gradients that will produce velocities lying in the range 0.8 m/sec and 4.0 m/sec when flowing half full.

100 mm Drain shall have a minimum gradient of 1 in 40
150 mm " " " " " " " 1 in 60
225 mm " " " " " " " 1 in 100

Cover: 3.6) Subject to the limitation of Appendix B and C hereafter all pipes shall be laid with a minimum cover of 1.2 m in roads and driveways, 0.9 m in open spaces and footpaths not adjacent to carriageways and 0.6 m in gardens. Where it is not possible to achieve these minimum covers, pipes shall be bedded and surrounded in concrete 150 mm thick and as approved by the Architect.

Accessibility: 3.7) Sewers shall be accessible for maintenance and repair and, where possible, shall be constructed in public property. This clause shall apply to new estate developments which shall be handed to the Local Authority on completion.

Access to sewers and drains: 3.8) Access to sewers and drains shall be provided at maximum intervals of 90 m and in the following positions:

1) At all changes of directions.
2) At all changes of gradient.
3) At the head of all sewer and drain lengths.
4) At all sewer junctions and all changes in pipe diameter.
5) At the point of connection of a branch drain with a main or sewer or on the branch drain within 12 m of such connection.

Access shall generally be provided by means of a manhole but, subject to approval, a proprietary access junction may be used, in lieu of a manhole, on a drain where the depth to invert of the drain is less than 600 mm.

Connection of drain to sewer: 3.9) Subject to the requirements of Clause 3.8, the connections of drains to sewers shall be made by one of the following methods:

1) Manhole: Where there is a manhole adjacent the connection shall be made at the manhole.
2) Junction Pipe: Where connecting direct to a sewer or drain an oblique or curved square junction pipe inserted in the main line may be used.

3) Saddle: As an alternative to (2) an oblique type saddle may be used. Saddles shall not be used on pipes of 100 mm diameter or to connect pipes of the same diameter.

In the case of (2) and (3) an approved slow bend may be used in the connecting drain immediately before the connection.

Intercepting traps between drains and sewers shall not be used except where the Local Authority requires traps at connections with old sewers, if shown on drawings.

Trench Widths: 3.10) For pipes laid to depths less than the transition depths given in Appendix B and C there shall be no limitation on the maximum trench width. For pipes laid at depths greater than the transition depth the maximum trench width shall be the trench width given in Appendix B and C. Trench width shall be taken as the trench width at the level of the top of the pipe.

Pipe laying: 3.11) Subject to the limitations of Appendix B and C two types of pipe bed may be used.

1) Concrete bed as shown on drawing on Appendix E where rigid pipes with flexible joints are used with this bed, vertical movement joints in the concrete bed shall be provided at maximum intervals of 5 m and aligned with the face of a pipe socket. The movement joints shall be 12 mm wide and shall be filled with an approved compressible material. Where rigid support is provided for the pipe before completion of the bed, a layer of bituminous roofing felt complying with IS.36 Type I F shall be provided between the support and the pipe.

2) Granular bed as shown on Drawing on Appendix F. Granular bedding Type A shall consist of broken stone or gravel. All material shall pass a 19 mm BS test sieve and be retained on a 4.75 mm BS. test sieve. Granular material Type B shall consist of gravel graded from 9.5 mm to 4.75 mm : Other granular materials may be used subject to approval.

Selected fill shall be free from stones greater than 25 mm in size, building rubbish, tree roots, vegetable matter and lumps of clay greater than 75 mm in size and shall be compacted in 100 mm loose layers.

Jointing: 3.12) All pipes except ogee concrete pipes shall have flexible joints. Flexible joints shall be formed by an approved method recommended by the pipe manufacturers. Rubber sealing rings shall comply with BS.2494 Part 2. Ogee concrete pipes shall have mortar joints.

Manhole Construction: 3.13) Manholes shall be constructed of solid concrete blockwork to IS 20. Type A, in situ concrete or precast concrete units. The minimum wall thickness for concrete blockwork and in situ concrete shall be 200 mm for depths up to 3.3 m and 300 mm for depths between 3.3 m and 6 m. Precast concrete manhole units shall comply with BS.556. Manholes shall be built on a base of concrete, of minimum thickness 150 mm for depths up to 3.3 m and 225 mm for depths between 3.3 m and 6.0 m. Alternatively approved precast concrete bases may be used.

Manhole roofs shall consist of a reinforced concrete cover slab, with minimum 4 Kg/m^2 m.s. reinforcing mesh as approved and shall be of minimum thickness 150 mm. Alternatively, a precast concrete slab complying with BS.556 may be used.

Blockwork manholes shall be scudded and rendered in two coats internally. Where precast concrete units are used they shall be surrounded by concrete to a minimum thickness of 150 mm to within 1 mm of ground level. However, where the Contractor can show to the satisfaction of the Architect, that permanently watertight joints can be achieved by some other method a concrete surround shall not be necessary.

Manhole dimensions:

3.14) Minimum internal dimensions of manholes shall be as set out hereunder. Subject to the minimum sizes given adequate manhole dimensions may be estimated for straight inverts on the following basis:

1) Length: Considering the side with the greater number of branches, provide the sum of the branch diameters plus 20 mm per branch for branches up to 150 mm diameter, 300 mm per branch for branches greater than 150 mm diameter plus 300 mm.

2) Width: Provide 300 mm for each benching with branches or 150 mm for a benching with no branches plus the diameter of the pipe. In manholes on sewer lines of 375 mm diameter and over, one benching should be at least 350 mm wide.

Manholes with curved channels or with a difference in level of over 300 mm between incoming and outgoing pipes require special consideration and the dimensions shall be subject to approval, or as shown on drawings.

BLOCKLAYER AND BRICKLAYER

Generally:

5.1) The quality of materials and standards of workmanship shall comply with the relative BSS or ISS and the British Standards Codes of Practice. Facing or fairfaced brickwork or blockwork shall be in accordance with the foregoing and the manufacturers instructions as appropriate to the type of brick or block as specied and used.

The work shall be carried out in accordance with BSCP.111:1970 and 121: 1973 (Part I).

Materials: (Mortar)

5.2) Cement: Shall be as hereinbefore specified.
Sand shall be as hereinbefore specified to BS.1199 or 1200 and shall be clean and free from harmful matter.
Water shall be clean and free from harmful matter and shall be obtained from an approved source.
Lime: The lime for the gauged mortar is to be thoroughly screened and slaked three months before use, from a kiln familar to the Contractor. Only good fresh lime is to be used and kept well protected from the weather. A proper stage is to be made to receive the lime mortar when made. It is in no case to be deposited on the ground. A patent approved plasticiser may be used in lieu of the foregoing or as directed by the manufacturers.
Hydrated Lime: To ISS shall be delivered to site in standard bags and properly stored thereon. It is to be mixed in accordance with the manufacturers instructions. To improve workability white (non-hydraulic) hydrated limes may be soaked for 24-hours before use; grey (moderately hydraulic) limes may be soaked 2 hours before use.
Fire cement: Shall be approved patent cement used according to the manufacturers' instructions.
Blocks and Bricks: shall be to ISS or BSS as hereinafter specified and shown on drawings.
Steel Products: Hot rolled m.s. or deformed bars and all cold worked high yield steel bars shall be deformed and shall comply with ISS or BSS. Steel fabric shall comply with ISS or BSS as also expanded metal mesh.
Cavity Insulation Slabs: shall be as hereinafter specified.
Cavity Wall Ties: Shall be patent metal galvanised in accordance with ISS or BSS. The use of plastic wall ties shall be only used subject to the Architects' approval.
Steel lintols: where shown on drawings shall be hot dip galvanised and shall be "Catnic" or similarly approved.
Damp Proof Courses: may be slates, asphalt, bituminous with hessian base weighing 3.80 Kg/m^2 to ISS, copper or lead as specified or as shown on drawings.

In only certain situations will slates be allowable and similarly the Architects approval must be given for the use of proprietary plastic damp proof courses in particular situations or as shown on drawings.

"Domestic" flue liners: shall be to ISS or BSS and sizes as shown on drawings. Firebricks for larger flues shall be "Douglas" D or similar quality laid according to the manufacturers' instructions..

Preparations: 5.3) Provide a free circulation of air around concrete blocks and concrete bricks and bricks when stacked before use.

Cement shall be delivered in unbroken bags as dispatched by the manufacturer or in approved bulk cement delivery vehicles.

Store sand on a hard self drained area.

Store hydrated lime under weatherproof conditions on a raised floor or in suitable silos.

Store cement under weatherproof conditions, on a raised floor, or in suitable silos. Do not use air set cement.

Store dry premixed mortar under weatherproof conditions on a raised floor.

Store ready mixed sand-lime on a clean impermeable surface under weatherproof conditions. Avoid prolonged storage before use.

Store admixtures and pigments in accordance with the manufacturer's written instructions.

Use mortar containing cement within two hours of adding water to the cement.

Stack blocks and bricks for facing work on a raised clean platform and protect from damage or staining.

Keep dry during delivery and before use all facing blocks and bricks.

Laying blocks and bricks generally: 5.4) Ensure the stability of blockwork and brickwork during erection.

Do not lay blocks or bricks while the air temperature is below 2°C on a rising thermometer or below 5°C on a falling thermometer.

Build walling in level lifts. Where walling is racked back no part shall rise more than 1.2 m above the general level. In facing work complete the lift in one operation and leave no work racked back at the end of each day.

Cut and fit blockwork and brickwork neatly to the line and profile of parts of the structure which the walling abuts or surrounds.

Lay solid blocks and bricks on a full bed of mortar and with bed and vertical joints fully filled to a consistent thickness.

Lay blocks and bricks for fair-faced work with the fair face in line.

Lay blocks and bricks with cross joints in any course not less than one quarter of the length of the unit from those in the course below. Bats shall be used only where required to obtain bond.

Leave toothing to provide for the bonding of future work. Weather tops of projections with mortar.

Form toothing in existing work to provide adequate bond for new work.

Build honeycomb sleeper walls with 25% of the area of such walls open.

Form ducts, channels and openings in walling as the work proceeds.

Keep dry each lift of facing blockwork and facing brickwork including the top surfaces until the commencement of the next lift or other superimposed work.

Cavity walls: 5.5) Keep cavities and ties free from mortar and debris.

Close tops of cavities with bituminous felt dpc breaking joint where the cavity is spanned by in-situ concrete or whether the construction over requires grouting.

Where rising walls are not of solid construction fill the cavity to the level of the adjacent finished ground or paving level with cement and sand mortar (1:3).

Form weep holes at intervals not exceeding 900 mm in vertical joints at the base of the cavity.

Set wall ties in mortar joints to a depth not less than 50 mm in each leaf.

Space wall ties in cavity walls in accordance with the following table:

Least Leaf Thickness (one or both)	Cavity Width	Spacing of Ties	
		Horizontally	Vertically
mm	mm	mm	mm
75	50 - 75	450	450
90 or more	50 - 75	900	450
90 or more	75 - 100	750	450
90 or more	100 - 150	450	450

Provide wall ties at openings at centres not exceeding 225 mm vertically.

Form solid jambs to openings using cavity closer blocks built in as the opening is formed and having cast-on nibs equal to the width of the cavity.

Form solid jambs to openings and close the cavity by returning the brickwork

across the jambs to form a continuous vertical joint at the other leaves, if facing brickwork is used.

Build in cavity insulation as the wall is formed in accordance with the manufacturer's written instructions, if specified hereafter.

Reinforcement and built-in components:

5.6) Reinforcement shall have a minimum of 25 mm cover of mortar in the plane of the joint from any exposed external face.

Built in sills, lintels, copings, padstones and other components in mortar similar to that in the adjacent walls.

Where one-piece window sills are used, bed ends only and point horizontal joint for the full length of the sill with mortar to a depth of 20 mm.

Finishing of blockwork and brickwork joints:

5.7) Strike off surplus mortar and leave neat joints, generally.

Provide a weathered finish to joints in walling while the mortar is green, or Provide a concave finish to joints in walling while the mortar is still green, or Provide a recessed 5mm square finish to joints in wall while the mortar is still green, all as hereinafter specified.

Quality Control:

5.8) The minimum 28-day compressive strength of mortar shall be as hereinafter specified.

Where compressive strength does not comply with the minimum specified strength obtain approval for adjusting the proportions of the mix.

As directed, take samples of fresh mortar for testing.

Mixing:

5.9) The proportions of constituents of mortar mixes shall be in accordance with the following schedule. Measure constituents by volume using clean gauges boxes of an appropriate size. The proportions of sand are based on the use of dry sand. Adjust the proportion of sand for bulking due to moisture content. If admixtures are used, the proportions should be further adjusted in accordance with the manufacturer's written instructions.

Normally, blockwork and brickwork shall be jointed with cement lime mortar composed of 1 cement; 2 lime; 8 to 9 sand. Where cement mortar is specified, that is in jointing below ground level dpc's and in fillets to carry or shape dpc's, it shall consist of cement and sand (1:3) and shall be wetted only in small quantities as required for immediate use. Lime shall be added to cement mortar only where directed or as approved.

On all external walls an approved proprietary waterproof admixture shall be incorporated in the mortar when adding the cement at mixing time. The recommended proportion is 1 litre of the liquid admixture to 50 Kg of cement. When using facing brickwork of blockwork 1% of Black Iron Oxide will be used to give a neutral grey shade of mortar. To keep the joints uniform in colour it is important that the mortar be kept consistent by thorough mixing.

Special mortar mixes other than the foregoing may be specified hereafter. The contractor shall ensure that the correct mixes and instructions as issued by the manufacturers for the laying of their products shall be adhered to.

Generally, the Contractor is referred to BRE Digest No. 160 (mortars for bricklaying) and CP:121: Part 1: 1973, (Walling-Brick and Block Masonry, and I.S. 189:1974:

The following table indicates the different types of mortar for normal requirements and their relative properties:

TABLE 6. I.S. 189: 1974	Mortar designation	Type of mortar (proportions by volume)		
		Cement: lime: sand	Masonry cement: sand	Cement: sand with plasticizer
↑ Increasing strength but decreasing ability to accommodate movements, e.g. due to settlement, temperature and moisture changes.	(i)	1 : 0-¼ : 3	—	—
	(ii)	1 : ½ : 4-4½	1 : 2½-3½	1 : 3-4
	(iii)	1 : 1 : 5-6	1 : 4-5	1 : 5-6
	(iv)	1 : 2 : 8-9	1 : 5½-6½	1 : 7-8
	(v)	1 : 3 : 10-12	1 : 6½-7	1 : 8
Direction of change in properties	→	Increasing resistance to damage by freezing		
	←	Improvement in bond and consequent resistance to rain penetration		

The following table is a guide to the category of brick and type of mortar required in different situations for durability. Other considerations may require the category and type to be modified in particular situations:

Minimum quality of concrete bricks and mortars for durability:

Situation	Element of construction		Minimum quality of bricks	Minimum quality of mortar	
			Category	When there is no risk of frost during construction	When freezing may occur during construction
a	Inner-leaf of cavity walls and internal walls.	unplastered	7·0	*(iv)*	*(iii)*
		plastered	7·0	*(v)*	*(iii)*
b	Backing to external solid walls	unplastered	7·0	*(iv)*	*(iii)*
c	External walls including the outer leaf of cavity walls and facing to solid construction	above d.p.c. near to ground level	15·0	*(iv)*	*(iii)*
		below this d.p.c. but more than 150 mm above finished ground level	15.0	*(iii)*	*(iii)*
		within 150 mm of ground level or below ground level	20·0	*(iii)*	*(iii)*
d	External free-standing walls.		15·0	*(iii)*	*(iii)*
e	Parapets	unrendered	20·0	*(iii)*	*(iii)*
		rendered	20·0	*(iv)*	*(iii)*
f	Sills and copings of bricks		30·0	*(ii)*	*(ii)*
g	Earth-retaining walls		30·0	*(ii)*	*(ii)*

Mix mortar sufficiently to incorporate all the constituents of the mix. Where machine mixing is used, clean the mixer before starting to mix and before changing the mix or mortar type. Where mortar is mixed by hand it shall be mixed on a hard clean surface.

Prepare lime putty as follows. Add hydrated lime to water in a clean receptacle. Mix thoroughly to a creamy consistency. Store lime putty in clean receptacles and prevent from drying out. Do not use for sixteen hours after mixing.

For coarse stuff (lime putty-sand mix), mix lime putty and sand. Add water and mix to a workable consistency. Store coarse stuff on a clean impermeable surface.

For coarse stuff (lime-sand mix) mix hydrated lime and sand dry. Add water and mix to a workable consistency. Store coarse stuff on a clean impermeable surface. Do not use for sixteen hours after adding water.

For cement-sand mortar, mix cement and sand dry. Add water and mix to a workable consistency.

For cement-sand-plasticiser mortar, the proportions and method of adding plasticiser shall be in accordance with the manufacturer's written instructions. Mix cement, sand, plasticiser and water to a workable consistency.

For masonry cement-sand mortar, mix masonry cement and sand dry. Add water and mix to a workable consistency.

For cement-lime-sand mortar, mix cement and coarse stuff (lime-sand mix). Add water and mix to a workable consistency.

Mix fireclay mortar with water to a workable consistency.

Mix mortar for refractory brickwork in accordance with the manufacturer's written instructions.

Mix mortar for insulating refractory brickwork in accordance with the manufacturer's written instructions.

For coloured mortar, add pigment and mix in accordance with the manufacturer's written instructions and to a workable consistency.

Mix premixed coloured mortar with water to a workable consistency in accordance with the manufacturer's written instructions.

Do not use admixtures without approval except those specified.

Ensure that the mortar used in finish work is consistent in colour.

Damp Proof Courses:

5.10) Lay bituminous damp proof course in a continuous strip on a full bed of mortar for the full width of the wall or for the full width of each leaf in a cavity wall. Lap 150 mm at joinings and the full width at angles and junctions.

Provide bituminous or as otherwise specified damp proof course at the base of external walls not less than 150 mm above the adjacent finished level of external ground or paving.

Provideа bituminous or as otherwise specified damp proof course under sills for the full width of the sill bed and turn up at back and ends of the sills to the full depth.

Provide a bituminous or as otherwise specified damp proof course under copings and cappings.

Provide a bituminous or as otherwise specified damp proof course at the base of parapet walls not less than 150 mm above junctions with horizontal and sloping surfaces.

Provide a flexible bituminous or as otherwise specified damp proof course in a continuous strip set vertically in jambs of openings in cavity wall construction.

Provide a bituminous or as otherwise specified damp proof course in chimney stacks 150 mm above the intersection of the chimney with flat roofs.

Provide a stepped bituminous or as otherwise specified flexible damp proof course in chimney stacks 150 mm above the highest point of intersection with sloping roofs, stepped downwards in accordance with the slopes of the roofs.

Provide a bituminous or as otherwise specified damp proof course at base of chimneys, level with the damp proof course in the adjoining walls.

All soakers and cover flashings shall be in lead or copper to B.S.S. and British Standard Code of Practice.

Movement or Expansion joints:

5.11) Movement joints in walls shall be vertical, as shown on drawings.

Build in joint fillers as the work proceeds, as shown on drawings.

Seal joints with sealing compound in accordance with the manufacturer's written instructions, as herafter specified.

Fix cover strips in accordance with the manufacturer's written instructions or internally as specified or as detailed on drawings.

Building Flues:

5.12) Bond widths between flues to the walls of the chimney. Form widths not less than 100 mm thick, including the thickness of the walls of the flue liners.

Ensure a smooth surface free of mortar and ledges on the internal faces of flues.

Slope flues at gradient of not less than 45° with the horizontal. Form gradual junctions between gradients of different angles and between sloping and vertical lengths of flues, with mitred fittings and bends as appropriate.

Maintain the full effective area of the flue in forming bends in brick lined flues.

Lay plain butt jointed flue liners in true alignment on a bed of mortar with joints not exceeding 3 mm thick.

Lay spigot and socket jointed flue liners in true alignment with sockets pointing upwards. Fill and point joints with mortar.

Leave a void of at least 25 mm between the outer face of the flue liner and the internal face of the chimney shaft.

Fill round flue liners with lean mix mortar.

Lay refractory bricks on a full bed of special mortar and fill completely horizontal and vertical joints with mortar when laying. Finished joints shall be 3 mm thick.

Lay insulating refractory bricks on a full bed of special mortar and fill completely horizontal and vertical joints with mortar when laying. Finished joints shall be 3 mm thick.

Set firebacks and fill solid behind back and sides with lean mix mortar.

Form a cavity at least 50 mm wide between fireback flue shafts and the chimney shaft and support the shafts at 1000 mm centres with firebrick bonders touching but not bonded into the chimney shafts.

Form throat of 100 mm depth for the width of the fireback.

Form smoke shelf to the back and sides of the throat above the top of the fireback. Slope the face of the smoke shelf away from the throat at an angle not exceeding 60° with the horizontal.

Form the contraction of the fireplace recess to the size of the flue by oversailing the courses of brickwork or blockwork and trim to an angle of not less than 60° with the horizontal.

Build in frames of soot doors and draught stabilisers as the work proceeds and set tightly in mortar as specified hereafter.

Form weathered chimney cappings to project beyond the finished faces of the stack and having a water drip on the underside of the projection. Form apertures to receive flue terminals in the cappings.

Set flue terminals vertically in cement and sand mortar and in true alignment with the flue and embed to a depth of not less than 150 mm, excluding the thickness of the flaunching or one quarter the length of the terminal, whichever is the greater. Project flue terminals at least 50 mm above the highest point of the flaunching.

Tolerances: 5.13) All blockwork and brickwork shall be perfectly level and plumb and shall be built true and with an even consistency in jointing throughout. The maximum permissible deviation shall be +/- 5 mm from the setting out point.

Fairfaced concrete brickwork or blockwork shall be built in accordance with the specific tolerances as written on the respective manufacturer's technical instructions for the type of material hereafter specified.

There must be NO abrupt change in any dimension or joint in any normal continuous surface. Similarly, texture and abrupt change of texture and colour will not be permitted on self-finished walls.

Sample Panels: 5.14) Before commencing blockwork or brickwork the contractor shall arrange to set up 1 square metre of a sample panel of each type of finished work in the works before he proceeds with the work and obtain the Architects approval for same.

Laying of blocks or bricks: 5.15) Lay hollow concrete blocks if specified on drawings or hereafter, on a bed or mortar spread to receive the full bearing area of the shells and webs of the blocks and completely fill all vertical joints with mortar.

Distribute evenly throughout the facing work blocks of varying shades of the same colour.

Lay blocks and bricks to bond as shown on drawings for all fairfaced or self finished work, in accordance with the manufacturer's instructions, all as shown on drawings.

Lay bricks, as hereafter specified, in accordance with the manufacturer's instructions, all as shown on drawings.

Distribute evenly throughout the facing work bricks of varying shades of the same colour. Mix deliveries which vary in colour to avoid contrast between adjoining lifts.

In loadbearing walls lay single frog bricks with the frog uppermost. Lay double frog bricks with the deeper frog uppermost and fill all frogs with mortar.

Blocks and bricks.

5.16) All blockwork throughout shall be normal solid concrete blocks to I.S.S. or B.S.S. to the sizes and thicknesses as shown on the drawings.

If special strength blockwork or jointing is required it will be specified hereafter.

Similarly all brickwork shall be solid brickwork in accordance with the specific manufacturer's manufacture as hereinafter specified.

Pointing: 5.22) All joints around window and external door frames as shown on drawings to be raked out 20 mm deep, primed and pointed with approved grey mastic sealant on approved joint packing. Sealant shall be smooth and regular finish and any surplus shall be cleared off mortar and blockwork.

Protection : 5.23) External blockwork shall be stacked under cover and supported off ground during storage. Partly constructed walls must be covered with 1000 gauge polythene during rain and at all times when work is not in progress. Forticrete units must be kept dry and laid in a dry condition. No blocklaying to be carried out during rainfall.

Vents and Weep holes : 5.24) Weepholes 10 mm wide and 75 mm high spaced 1200 mm apart to be provided over lintel DPC and at base of cavity, 75 mm over external finished level.. Top of cavity to be vented with similar holes 1200 mm apart under banbeam course.

Lintels and Bandbeam : 5.25) Forticrete outer leaf shall incorporate 200 x 200 x 140 mm lintel blocks which shall be supported and mortar pointed all round before filling with 20 KN concrete having no aggregate over 12 mm.

Inner leaf of cavity wall and internal walls shall have prestressed concrete lintels. Top course of each leaf of the cavity wall shall be of 200 x 140 mm U blocks, being Forticrete fairfaced blocks to outer leaf and modular 400 series common to inner leaf. Steel reinforcement as scheduled by the Architects shall be placed as per section 4 previously within these blocks.

Blending Blocks : 5.26) The Contractor shall allow for all external blockwork being at all times taken from not less than three pallets and blended while laying to minimise shading differences.

Laying Generally: 5.27) Only the highest standard of workmanship in coursing, neat jointing and joint tooling will be acceptable for finished external blockwork. Contractors must allow for this work as high quality facing work and not as the common blockwork which is intended to be plastered on internal walls.

Mortor : Mortor to facing blockwork shall be 1 part cement, 1 part lime, 6 parts sand and shall have a characteristic 7 day strength not less than 24 N/mm^2. The mortor when mixed shall have 'cormix' waterproofing agent added thereto in accordance with the manufacturers instructions. 1% black iron oxide shall be added. No other additives are permitted.

CARPENTER AND JOINER

Timber:

6.1) Timbers shall be air seasoned or kiln dried to BSS and shall be reasonably free from all seasoning and other defects, knots, etc. The Architect shall be the sole judge of the quality of the timber and his decision shall be final. It shall be obtained from an approved source and be of the best type and quality available as hereinafter specified.

Timber for Carpentry:

6.2) Timber for carpentry work shall be good quality white deal seasoned. The timber shall be cut to the scantlings required immediately after signing the contract so that shrinkage may occur before fixing.

Frames shall be pre-assembled as far as possible. Holes shall be bored for pipes and ventilation where required as near as possible to the neutral axis.

Timber for carpentry shall be of the following grades in accordance with CP 112 Part II: 1971:

50 Grade: Floor beams, trimmers, lintel beams, purlins, hangers, posts, struts, principal rafters and other members in trusses spaced over 600 mm apart, and load bearing hips and valleys;

Floor joists, ceiling joists, common rafters and trussed rafters, all at not greater than 600 mm centres, together with floor boarding, may be a composite grade but at least seventy five percent of the members must be 50 grade or better.

40 grade: Studs, plates, roof boards, sheathing boards and tiling or slating battons.

4th or 5ths (Scandinavian) or equivalent: may be used for non-load bearing items such as noggings,grounds and packings.

Timber for Joinery:

6.3) Timber for joinery shall be specially selected red deal unless otherwise specified and shall be free from knots over 10 mm diameter. All exposed faces shall be P.A.O. except where otherwise specified.

All joinery shall be framed up and put together according to first class practice. The word 'frame' shall be understood to mean all the best methods of joining woodwork by mortice and tenon, dovetail, or dowelled, etc. Should the joints of any joinery give open before the final payment, it shall be taken down, refitted and redecorated with any other work disturbed, at the Contractor's expense. However, in assessing the situation, on account of current market conditions, the Architect will endeavour to take a reasonable attitude to obtain a satisfactory standard but the Contractor will have to take the Architects decision as final on the matter. All external joinery work to be framed and jointed with a mixture of white and red lead and linseed oil.

All joiner's work to be put in hands immediately after signing of the Contract and left for seasoning before being wedged up. No woodwork is to be stopped or primed until it has been passed by the Architect.

Generally timber for joinery as specified shall conform to requirements of BSS.1186 Part 1: 1971 to the classes (IS, 1, 2 or 3) as hereinafter specified or as shown on drawings. The Architect will be available to advise and the Contractor should consult on any necessary specialised items, all in the interests of a satisfactory job, economy and efficiency.

Priming:

6.4) All joinery that is to be painted shall be knotted and primed with a thick mixture of white lead and linseed oil before leaving the workshop.

Properties of Softwood for Joinery:

6.5) The softwood for joinery shall comply with BSS 1186 Part 1 and is to be of a quality to suit the particular purpose for which it is to be used. Generally, the timber shall be free from knot holes or loose knots, waney edge and discoloured sapwood. Defects in relation to use will be permitted up to the limits set out in the following table. Softwood joinery shall be 'B' quality and hardwood joinery of 'A' quality.

Defects	Rough Timbers Framing and Unwrot Timbers	B: Quality Wrot finishings and general joinery	A: Quality High class joinery
Face knots	Up to $\frac{1}{4}$ width	Isolated knots up to 25 mm diameter	Isolated small knots only, but none on exposed faces.
Edge knots	up to $\frac{1}{3}$ the thickness	Ditto	Ditto
Slope of grain	Maximum 1 in 8	Maximum 1 in 14	Maximum 1 in 14
Range of growth	Minimum 4 rings per inch	Minimum 6 rings per 25 mm	Minimum 8 rings per 25 mm
Checks and Splits	Where exceeding 150 mm in length not deeper than $\frac{1}{4}$ thickness for more than $\frac{1}{4}$ length	Hair shakes not exceeding 150 mm long	None
Bow and spring	Up to 12 mm in 10	The finished joinery shall be completely free from these defects	The finished joinery shall be completely free from these defects
Twist	Up to 6° in 10	Ditto	Ditto
Cup	Up to 0.30 mm in 150 mm	Ditto	Ditto
Blue Stain	10%	10%	None

Moisture Content: 6.6) The timber and timber components shall be delivered to the site with maximum moisture content according to use as set out in Irish Standard No. 96 (1976). Care shall be taken after installation to ensure that the moisture content does not rise above these figures before final conditions of use are achieved.

The following table gives the reasonable specifications for moisture content:

Use:	Moisture Content at Time of building in: (%)
Carpentry	18
External joinery) Internal joinery with) intermittent heating) Industrialised components)	15
Interior joinery with constant central heating	12 ± 2
Interior joinery in close proximity to a heat source, including flooring over embedded heating	9
Structural timber "green" (CP 112)	22 maximum

Red Deal: 6.7) The red deal for joinery work shall be from Northern Swedish ports or other similarly approved and generally shall be to the Architect's satisfaction.

Hardwoods: 6.8) Hardwoods shall be prime selected. All hardwoods for joinery shall be sound properly seasoned, free from sapwood, beetle infection or from any defect rendering it in the opinion of the Architect, unsuitable for the purpose for which it is to be used.

Mahogany; Teak; Oak: 6.9) Mahogany shall be best quality as approved by the Architect and as obtainable from British Honduras, East or West Africa or Tobasco, Cuba.

Similarly, teak or iroko shall be as obtainable from Burma or Siam and West Africa respectively.

Oak shall be as obtainable from U.K., Europe, Japan or North America.

Afrormosia: 6.10) Afrormosia shall be carefully selected with good figure and grain of Ghana origin.

Cedar: 6.11) Cedar shall be Western Red Cedar.

Parana and Columbian pine: 6.12) Columbian or Parana Pine shall be best quality South American.

Plywood:

6.13) Plywood shall be resin bonded and obtained from an approved firm cut from standard sheets to comply with BS.1455.

Chipboard:

6.14) Chipboard shall be of an approved make and quality and veneered by means of high frequency pressing machines to BS.2604.

Where chipboard is specified for use as flooring in lieu of 25 mm nominal t. & g. flooring it shall comply with the current standards (of high density quality and otherwise) as laid down by the Department of the Environment.

P.V.C.Sheeting:

6.15) PVC sheeting and veneering and adhesives shall be of an approved make and quality and shall be fixed and finished as shown on drawings to BSS and Codes of Practice for same.

Workmanship:

6.16) All joinery shall be framed in the best known and most appropriate manner of joining woodwork either by mortice and tenon, dowel, dovetail or other approved method.

All joinery shall be wrot unless otherwise described. The sizes stated are nominal and an allowance of 0.3 mm will be made for each wrot face. All joinery shall be loosely framed together immediately after receipt of drawings and left unwedged until required. All glued joints are to be put together with glue to comply with BSS.1186, Part 2, and frames are to be put together in white lead. Double tenons are to be used on members exceeding 60 mm thick.

Generally, the quality of workmanship shall be not less than that set out in BS.1186: Part 2: 1971 and as described herein this specification. Proper laminating, finger jointing and edge jointing shall be permitted in the interests of economy and stability.

Preservation:

6.17) All structural timbers and the backs of windows and door frames and other timber work built into concrete shall be treated with "Solignum" "Protim" "Tanalized" or other approved preserving treatment for timber.

They shall be so treated, by the Double Vacuum Process and the recommended process is "Protim" or similar for all structural members and timbers built into or adjoining concrete work, together with timber sills.

For backs of windows and door frames the Contractor shall apply 2 No. brush coats, liberally applied, of "Protim" or similar preservative. All sawn ends of treated timbers shall likewise be treated with 2 No. brush coats after sawing.

Timber windows and rooflights shall be treated to conform to CP 153 (Part 2) 1970.

Sizes of Timber:

6.18) All timbers and framing unless otherwise specified shall hold the full dimensions shown on the drawings. 1.5 mm maximum allowed for machining and planing timber smooth.

Flush Panel Doors:

6.19) Flush panel doors (internal) shall have framed core with all subsidiary members, stub-jointed, glued and clamped. They shall be covered with waterproof plywood not less than 6 mm having approved veneer and shall be rigidly fixed to core without the skeleton of the core showing through. Doors of all types shall be sanded and cleaned-off ready for finishing and unless otherwise specified shall have finished thickness of 50 mm nominal.

Fire Check Doors:

6.20) Fire check doors shall be 60 mm thick with one hour fire resistance in accordance with BSS No. 459: Part III, 1961: "Fire check flush doors and frames" and shall be finished as scheduled and as specified hereinbefore together with all ironmongry as specified.

Sundry carpentry:

6.21) All scribing and tittlings for notching electric cables and other tubes and pipings shall be carried out by skilled carpenters. Provide for erecting all false work.

Special High Quality Joinery:

6.22) Where special high quality joinery items are specified or detailed on drawings such as bank counters, writing desks, fitments and/or reception counters or desks they shall normally be finished complete in the joinery or furniture works for the Contractor. Such furnishings shall include all painting, spray painting or cellulosing together with polishing or sealing and finishing as described.

When pricing these items on tendering the Contractor shall so allow for these finishes as specified and include for same under the "Item" therein his tender. He shall also include for all protection of these items until the works are handed over to the employer, after they have been installed in the premises.

Copper: 7.1) All copper for use in plumbing, flashings, gutters, etc. shall be 24 S.W.G. Copper work shall only be carried out by skilled coppersmiths. All copper shall be dead soft. Nails under copper shall be well punched.

Lead: 7.2) All lead shall be best quality milled sheet lead and of the weights specified per metre superficial. Lead wedges shall be cast lead and not more than 300 mm apart.

Copper Pipes: 7.3) All copper pipe work shall be carried out in light gauge copper tubing to BSS. No. 659 and compression fittings to BSS. No. 864. Installation shall be in accordance with the Local Authority regulations. Where possible, pipes shall be in long lengths and shall be concealed. No compression fittings shall be concealed. Where they have to be concealed they shall be patent sweated and soldered joints as approved by the Architect and they shall be tested before covering up. All copper piping embedded in chases or screeds shall be wrapped in scrim before concrete or screed or plastering for covering up is proceeded with.

Fittings: 7.4) All sanitary fittings shall be of a pattern to be selected by the Architect.

Vitreous china lavatory basins shall be in accordance with BSS Chromium plated supports and shall be in accordance with BSS No. 1255 (1953). Copper alloy wastes shall be to BSS. No. 1184. Pillar chromium tapes shall be to BSS. No. 1010. W.C. plastic seats shall be to BSS No. 1254. Vitreous china W.C. pan, cistern and flush pipe shall be to BSS. 1213.

All fittings shall have necessary accessories to BSS. No. 1184. For details of sanitary fittings see PC Sums hereafter in this specification.

Wastes: 7.5) All wastes from sinks and whb's shall be 32 mm copper discharged over respective gulley traps. Where waste is over 6'0" in length it shall be 50 mm. Provide cleaning eyes on bends as necessary.

Soil Pipes: 7.6) Soil pipes with accessories shall be to BSS No. 516 medium quality spigot and socket joints and shall be filled with lead and shall be fixed 50 mm clear of wall.

Soils and Wastes: 7.7) In lieu of clauses 7.5 and 7.6 hereinbefore all soils and wastes may be in "Marley" or similar PVC laid strictly according to the Manufacturers instructions and specification. When soils and wastes are combined in a single pipe or stack system all traps shall be of the deep seal type. Only the manufacturers approved bends, pipes, cleaning eyes, jointing, all carried out to the respective manufacturers instructions, shall be used.

All such systems shall also be in accordance with Local Authority or national building regulations and the contractor shall be deemed to be thoroughly acquainted with same.

Testing:

7.8) Provide for testing all drains and wastes in the presence of the Architect and making good any defects shown up.

Vent Pipes:

7.9) Vent pipes shall be as specified and shall be carried to the heights shown on drawings to vent drains.

Sizes to be according to the fittings served.

Provide and fit Hunters extract cowl to top of all vent pipes, or similarly approved patent PVC cowl.

Storage Tank:

7.10) Provide galvanised or other tank as later specified complete with ballcock and other necessary fittings. Provide 50 mm overflow from tank out to eaves soffit or to alternative position as directed by the Architect.

Hot and Cold Water Services:

7.11) Provide for hot and cold water services as hereinafter schedule in Section Two of this Specification.

Generally, all hot and cold water services within the building shall be in copper as herinbefore specified or as schedule hereafter. PVC or other plastic pipes will only be permitted in external situations and as otherwise approved by the Local Authority or the Architect.

Heating and Mechanical Services:

7.12) Heating and other mechanical services shall be as specified in Section Two of this Specification.

Testing:

7.13) Complete satisfactorily all plumbing services and leave same tested satisfactorily to the satisfaction of the Architect and to the regulations of the Local Authority.

[redacted]nwork: 8.1) All ironwork shall be well wrought sound and fair and free from pitting and fixed in an approved manner. All metal work shall be cleaned of rush and loose scales before fixing and shall be coated with two coats of 'Rustoleum' or other approved anti-rust and protective coating, before final finishings as later scheduled.

Sectional Steel: 8.2) All sectional steel rolled steel joists, universal beams, etc. shall be to the size and weights specified on drawings and as described herein.

Bolts: 8.3) All bolts shall be as the size specified on drawings and shall be suitably fitted with nuts and washers.

Eaves Gutters: 8.4) Eaves gutters shall be PVC to ISS and shall be half round of the required size. The brackets shall be fixed with three brass screws. Gutters shall be wired to brackets. All gutters shall be PVC unless as otherwise shown on drawings. If cast iron or other approved gutters are specified they shall be as described herein.

Mesh Reinforcement: 8.5) Provide and lay mesh reinforcement to sizes and as specified on drawings. It shall be well lapped at all intersections and passings and shall have all raking and circular cuttings neatly performed.

Rainwater Goods: 8.6) Provide and fix gutters, down pipes and hopper heads as required. Connect to back inlet gullies. All to be PVC unless as otherwise shown on drawings or as herinafter specified.

Water Bar: 8.7) Provide and fix 25 mm x 6 mm copper water bar bedded in concrete sill to all timber windows.

Structural Steel: 8.8) Except for simple R.S.Js. U.Bs. or angles fixed easily by the General Contractor, all other structural steel shall be supplied and fixed by approved structural steel subcontractors as hereinafter specified in Section 9.

STRUCTURAL STEELWORK

Definition of Terms: 9.1) a) The Engineer shall mean the Structural Engineer Consultant.
b) The steelwork contractor shall mean the steelwork firm nominated to supply, fabricate, deliver and erect the structural steelwork as shown on the contract drawings and as described in this specification.
c) The main contractor shall mean the firm appointed to carry out the building work under the main contract.

Description of Work: 9.2) The steelwork contract includes the supply, fabrication, delivery to the site and erection of the structural steelwork as shown on the steelwork contract drawing and as described in this specification. This includes all holes, drilling for fixing of patent glazing where applicable, connections, stiffeners, supports, bases, bolts, brackets, etc. all to the satisfaction of the Architect or Engineer.

Plant: 9.3) The steelwork contractor shall provide all equipment necessary for the handling, erection and completion of the steelwork.

Design: 9.4) a) The structural steelwork has been designed in accordance with BS.449 Part 2: 1969 specification for the "The Use of Structural Steel in Building".

b) The Engineer will supply to the Steelwork Contractor drawings that will also show all working dimensions and other necessary particulars.

Programme: 9.5) On his appointment, the Steelwork Contractor shall produce a programme for the production of workshop and erection drawings. The Steelwork Contractor shall be required to agree with the Architect and Engineer a final date for submission of these drawings for approval.

Weights: 9.6) All weights and variations or otherwise will be based on the listed weights of members and no allowance made for rolling margins. All steel sections shall be of "full profile" with no appreciable loss of material through corrosion or deficient rolling. If it is found that any steel weighs less than 97½% of the listed weights the steelwork contractor shall replace it with a satisfactory section.

Steel: 9.7) The steel for this contract is to be mild steel, grade 43A, in accordance with BS. 4360:1969 "Specification for Weldable Structural Steels".

Bolts: 9.8) Unless specified otherwise, all bolts and nuts shall be ISO metric black hexagon and conform to the requirements of BS. 4190: 1967 "ISO Metric Black Hexagon Bolts, Screws and Nuts".

Fabrication Drawings: 9.9) a) The steelwork Contractor will be required to prepare his own shop details in accordance with BS. 449: Part 2: 1969. These drawings shall be supplied in duplicate to the Engineer for approval before fabrication. Should these shop details be insufficient or unsatisfactory, the Engineer may require fresh details to be submitted.

b) On receiving the Engineer's approval in writing of such detailed drawings, two further copies are to be supplied. Details are to be submitted at least five working days before approval is required and no work is to be put in hand until such approval has been obtained.

Correctness of dimensions:

9.10) a) The steelwork contractor will be held responsible for the correctness of dimensions and details, fitting and workmanship and for the strength of all connections, notwithstanding the approval of the Engineer of the detailed drawings, and for all parts of the various structures coming together correctly for assembling in position.

b) In the event of any connection being found unsatisfactory, before or after erection or due to errors arising in fabrication, the Steelwork Contractor shall submit to the Engineer his proposals as to the method to be adopted in making good. The Steelwork Contractor shall abide by the Engineer's decision and in the event of replacements being required, the Steelwork Contractor shall be responsible for all costs involved.

Stiffeners:

9.11) Where specified, fitted stiffeners shall be accurately ground over their full bearing faces to fit tightly the angle or section stiffened.

Sub-Letting:

9.12) The Steelwork Contractor shall not sub-let any fabrication or erection without the permission of the Engineer.

Identification:

9.13) All steelwork delivered to site are to be clearly marked with their numbers, together with the number of the members onto which they frame at both ends.

Camber:

9.14) In the absence of any specified camber, all lattice girders and beams of spans greater than seven metres shall have an upward camber of 0.1% of the span at midspan.

General:

9.15) The workmanship throughout the work shall be to the standards of BS:449: Part 2.

Bolts:

9.16) All threads on bolts shall be clean and the nuts shall closely fit the bolts so that they can only just be turned by hand. All bolts shall be fitted with washers under the nuts. Tapered washers shall be used to ensure true bearing of the bolt head or nut. Two clear threads shall show beyond the nut on a fully tightened bolt.

Cutting:

9.17) a) Thermal cutting by hand will be permitted only for wall ends of beams and filler joists and for notching.
b) The edges of all plate cut by flame which will be subject to dynamic or fatigue loading must be machined.

Drilling:

9.18) a) All holes drilled shall be in compliance with BS 449: Part 2.
b) Generally holes, shall be drilled with a maximum of 2 mm allowance for black bolts or high strength friction grip bolts.
c) For close tolerance bolts with holes not drilled in one operation the procedure shall be:-

(1) Holes to be aligned with diameter equal to nominal size of hole - 0 + 0.15 mm.
(2) Ream first hole, fit close tolerance bolt, and tighten before reaming second hole.
(3) Repeat for each hole.
(4) Retighten all bolts after last bolt is fitted.

d) Where hollow sections are drilled, spacer tubes must be welded in position to permit through bolting.

Examination and Testing:

a) The Engineer or his representative shall at all reasonable times be permitted access to the steelwork contractor's works for purposes of progressing and examination and testing of welded structural components.

b) The Steelwork Contractor when required shall provide and send sample pieces, carriage paid, to such testing stations as may be directed. Sample pieces shall be 500 mm x 100 mm for plates or, as that as practicable and 500 mm long of full section for structural shapes, rods, etc. The sample pieces shall be selected by the Engineer and despatched to the testing station where test pieces will be made and tested.

c) If non-destructive tests are to be carried out on welded joints the Steelwork Contractor shall provide facilities for the Engineer or his representative to carry out these tests.

d) The Steelwork Contractor shall be held responsible for the costs and fees involved in the testing of welds which are found to be unsatisfactory.

e) The Employer shall be held responsible for the costs and fees involved in the testing of welds which are found to be satisfactory.

f) All areas of defective welding shall be cut out and made good to the entire satisfaction of the Engineer and all remedial measures shall be borne by the Steelwork Contractor. The remedial work shall be deemed to include ratio-graphical or other suitable examination to verify the acceptance of the repair.

Design-Welding:

9.20) The design of all welds shall comply with the requirements of BS.449:1969.

Workmanship:

9.21) a) The welding of all mild steel sections and plates shall be carried out to the requirements of BS:1856:1964: General requirements for the metal arc welding of mild steel.

b) The welding of all structural hollow sections shall be carried out to the requirements of BS:938:1962 General Requirements for the Metal Arc Welding of Structural Steel Tubes to BS. 1775.

c) Evidence of qualification of welders will be required by the Engineers and in cases where recent test certificates or other acceptable proof is not available the Engineer will require welder approval tests to be carried out in accordance with BS.4872 "Fusion Welding of Steel". The test shall be carried out under the supervision of the Engineer and to his satisfaction. The extent of qualification thereby attained shall be in conformity with the recommendation of BS. 449 Part 2, 1969.

General Erection:

9.22) a) The method of transport, handling and erection of materials shall be to the satisfaction of Engineer and in accordance with the drawings or as directed. These operations shall be carried out in such a manner as will not injure, overstress or disfigure any part of the structure. Any member injured, overstressed or disfigured shall be replaced or rectified as directed by the Engineer.

b) Site joints and connections shall not be finally bolted until sufficient of the structure is properly plumbed, levelled and aligned and no straining into position will be allowed subsequently.

c) The Steelwork Contractor is to take all necessary precautions to ensure the stability and safety of the steelwork structure during erection and shall maintain any special temporary guying or other supports until the structure is completed. The Steelwork Contractor shall be entirely responsible for any accidents which may arise from lack of suitable precautions.

d) The Steelwork Contractor will be held responsible for any damage to existing work or buildings or their contents, roads, walls, etc., adjoining or upon the site, arising from the off-loading and erection of steelwork.

Tolerances:

9.23) Tolerances for erected steelwork shall be as follows:-

(1)	Position of first erected column	+/- 10 mm
(2)	Linear dimensions:	
	Up to 8 m	+/- 10 mm
	From 8 m to 15 m	+/- 15 mm
	From 15 m to 25 m	+/- 20 mm
	Over 25 m	+/- 25 mm
(3)	Plumb of columns in 30 m height:	+/- 15 mm
(4)	Level of base of first erected column:	+/- 5 mm
(5)	Level of beam at junction with column measured from transferred bench mark:	+/- 15 mm
(6)	Level of beam at junction with column measured from transferred bench mark of storey in which beam is located:	+/- 10 mm

(7)	Level of upper or lower surfaces of two or more beams meeting at a column:	+/- 5 mm
(8)	Difference in level of ends of a beam:	
	Up to 8 m long:	+/- 5 mm
	From 8 m to 15 m long:	+/- 10 mm
	From 15 m to 25 m long:	+/- 15 mm
	Over 25 m long:	+/- 20 mm

Protection of Steelwork:

9.24) Painting of the steelwork shall be carried out in accordance with the following specifications.

SPECIFICATION A:

a) Prior to painting all surfaces shall be dry and free from all rust, grease and loosely adhering mill scale, etc. Welded areas shall be thoroughly cleaned off and shall be free from spatter and contaminants.

b) After fabrication the steelwork shall be brush painted one coat of approved Phosphate Primer to a minimum dry film thickness of 31 microns.

c) After complete erection of steelwork, the priming coat where damaged by handling shall be cleaned and touched up to the works standard to the satisfaction of the Engineer.

d) Steelwork embedded in concrete or brickwork shall be cleaned as above but delivered to site unpainted.

SPECIFICATION B:

a) All surfaces shall be blasted free from mill scale, rust and other contamination to BS. 4232: 1967 - Second Quality of S.A. $2\frac{1}{2}$ SIS .05.59.00. The surface after blasting shall be freed from all abrasive residues by high pressure air dusting and/or vacuum cleaning. Any "rogue peaks" shall be reduced by rubbing over the surface with a mechanical grinder. Dust down before priming.

b) Priming shall commence within 2 hours maximum of preparation. Apply one coat Valspar Phosphate Primer to a minimum dry film thickness of 31 microns. Allow a period of 16 hours to elapse before overcoating with a second priming coat of the same primer (different colour) to a further minimum thickness of 31 microns. Allow to harden before transporting to site.

c) After complete erection of steelwork, the priming coats where damaged by handling shall be cleaned and touched up to the

works standard to the satisfaction of the Engineer.

d) All weld areas and damaged primer shall be thoroughly cleaned off and free from all slag, weld spatter, flux and other surface contaminants and then brought forward with the full works system.

SPECIFICATION C:

a) All surfaces shall be blasted free from mill scale, and other contamination of BS. 4232: 1967 Second Quality or S.A. $2\frac{1}{2}$ SIS.05.59.00. The surface after blasting shall be freed from all abrasive residues by high pressure air dusting, and/or vacuum cleaning. Any "rogue peaks" shall be reduced by rubbing over the surface with a mechanical grinder. Dust down before priming.

b) Priming shall commence within 2 hours maximum of preparation. Apply one coat Valspar Chlorinate Rubber Primer (Ref. A 4582) to a minimum dry film thickness of 31 microns. Allow a period of 16 hours to elapse before overcoating with a second primer coat of the same primer (different colour) to a further minimum thickness of 31 microns. Allow to harden before transporting to site.

c) After complete erection of steelwork the priming coats where damaged by handling shall be cleaned and touched up to the works standard to the satisfaction of the Engineer.

Materials:

10.1) Cement shall be to ISS No. 1. Sand for Plastering to be to the following BSS.882, 1198, 1199, 1200 and 1201. Gypsum plaster to be to BSS. No. 1191. Hydrated lime to be ISS. No. 8.

External Wall Plaster OR (Cement and Sand Plaster):

10.2) a) External wall plaster shall be three coat work and shall consist of scudding of 1 cement to 3 sand 10 mm thick. Scratch or floating coat of 1 cement to 1½ lime to 5 sand; finished with rendering of 1½ cement, 1½ lime to 5 of sand.

Plinth shall be finished matt with wooden float. 30 mm patent plaster reveals shall be provided to all window and door opes as shown on drawings or specified herein.

b) The scudding shall be comprised of one part Portland cement to two and a half parts coarse sand one part water by volume to give a rough surface. Rendering and floating coats shall consist of three parts of clean sharp sand and one part of Portland cement by volume and scratched. Finishing coat shall consist of one part cement to two and a half parts clean sharp sand, to a total thickness of 20 mm for complete plastering work.

Internal Plastering or Gyplite Plaster:

10.3) a) Internal plastering shall be generally, except where otherwise specified, finished in approved Gypsum finishing plaster used neat and to a minimum thickness of 6 mm and shall conform with BSS. No. 1191, Class 'B'. The undercoat shall be 1 part of approved Browning plaster gauged with two parts of sand by weight; (1:l) by volume; the undercoat shall not be less than 10 mm thick. Total thickness: 16 mm.

b) Internal walls and concrete soffites shall be plastered with Gyplite plaster in two coats. The floating coats shall be Gyplite undercoat 12 mm thick on concrete blockwork and Gyplite bonding coat 8 mm thick on concrete. The finishing coat shall be Gyplite finish plaster 2 mm thick all to be applied in accordance with the manufacturer's instructions.

Plaster Slabs:

10.4) All plaster slabs shall consist of approved "Gyplath" or other approved slabs nailed with 32 mm sherardised clout-headed nails. Cut ends of boards shall be tightly butted and leave 2 mm space between bound edges.

Ceiling slabs shall be floated in "Gyplite" bonding coat 8 mm thick and finished in "Glyplite" finishing plaster 2 mm thick.

Plaster Junctions:

10.5) Junctions of stud partitions and expanded metal lathing plastering with blockwork or structural floors shall be scrimmed with expanded steel lathing.

All external angles of vertical and horizontal wall opes, beams, piers and other areas shall have patent metal (expanded metal) angles fixed thereto, perfectly true and even, and plumb, before plastering is commenced.

Expanded Metal Lathing:

10.6) Where expanded metal lathing is used it shall be of an approved brand and shall be dipped in a bituminous solution, lapped 25 mm at all joints or joinings and fixed with galvanised clips at 350 mm centres. Where fixed to timber it shall be fixed with a layer of felt stapled to timber firstly.

Tiling:

10.7) Tiling: Best quality tiling to be laid where scheduled on drawings by an approved specialist firm according to the manufacturer's instructions, as later scheduled and specified herein.

Ceiling Plaster:

10.8) Solid ceilings shall be plastered as for blockwork walls internally.

Attendance:

10.9) Provide for all attendances and use of plant, etc. on the specialists laying the floor finishes, together with use of scaffolding, etc. for plasterers.

Specialist Wall Finishes:

10.10) The main contractor shall plaster walls for "Emalux" or other special finishes in accordance with the manufacturer's instructions as written on their particular technical publications, all as scheduled hereafter. Provide all necessary attendances on such specialist subcontractors, whether nominated or not.

Protection:

10.11) Cover up and protect all floor finishes as described. Protect all other finishes, including plaster finishes as required.

GLAZIER AND PAINTER

Glass:

11.1) Glass shall be free from all defects. Clear glass shall be 0.90 Kg quality in accordance with BS. No. 952 : 1964.

Obscure glass shall be translucent glass 4 mm thick.

Type and quality of glass shall be as for glass on schedule of Doors and Windows.

Glazing:

11.2) All glass shall be cut accurately to fit easily into rebates. Care shall be taken to see that the putty does not show beyond the side lines of the panes. Before glazing in timber rebates shall be painted, sprigged and puttied with linseed oil. All 6 mm or thicker glass shall be slipped with timber or metal slips as later scheduled or detailed.

Putty shall be in accordance with BSS. No. 544.

All glass broken during the progress of the works shall be replaced.

Wet Weather:

11.3) No painting on exterior work shall be done in wet or foggy weather or upon surfaces that are not thoroughly dry.

Preparation:

11.4) All joinery work shall be thoroughly rubbed down with fine glass paper before painting. All coats of paint shall be thoroughly dry before subsequent coats are applied. Between each coat joinery shall be rubbed with fine glass paper and nails shall be well punched home. All cracks, crevices and nail holes shall be stopped. Knots shall be stopped with knotting to BSS. No. 1336.

Paint Materials:

11.5) Materials used shall be free from adulterations and the oils and colours whether undercoating or otherwise shall be to Irish Standard Specification or British Standard Specification used according to the manufacturer's instructions.

Joinery Work:

11.6) Joinery work to be painted shall be primed and painted two undercoats and one finishing coat to BSS.

Painting Plaster:

11.7) All wall plaster shall be primed before painting.

Colours and Type of Paint or Decoration:

11.8) See schedule of painting, decoration and finishes.

High Gloss and Other Sealing Finishes:

11.9) If the drying out of surfaces is not completed and ready for decoration in accordance with Cl. 1.24 hereinbefore the Architect may direct the Contractor, after site consultations, to complete the final decoration scheme within the maintenance period at his own expense, particularly if the Contractor has not programmed his works in accordance with the Contract.

DEMOLITION

Generally: 13.1) All demolition works shall be carried out in accordance with BSCP. 94: 1971 (Demolition).

Taking Down: 13.2) Taking down and order of work shall be carried out in such a manner so as to cause as little inconvenience as possible to the Employer and general public and adjoining owners.

Debris shall be kept well watered during the work to prevent dust arising. The taking down shall be carried out without damage to existing structures and adjoining structures or properties. If such damage shall be caused through negligence in the carrying out of the demolition the Contractor shall reinstate and make good at his own expense adjoining structures or properties and he shall indemnify the Employer against any resultant claims arising thereof or thereby.

Old Materials: 13.3) All fittings, materials, etc. arising from the taking down shall, at his option, remain the property of the Employer and shall be stored, re-used or as otherwise directed by the Architect, on it's disposal. Credit is to be given for materials when they are not being used again. In this Contract all site clearance is to be carted away and disposed of off site unless as otherwise specified hereafter. Consideration shall be given by the Contractors in tendering to the fact that the existing walls may be brick, concrete or masonry, whether so stated or not in the various items. This shall be allowed for in the pricing of the items and no extra will be allowed under this heading. Do not burn, on site, materials arising from demolition.

Making Good: 13.4) All items of taking down shall include for any necessary making good.

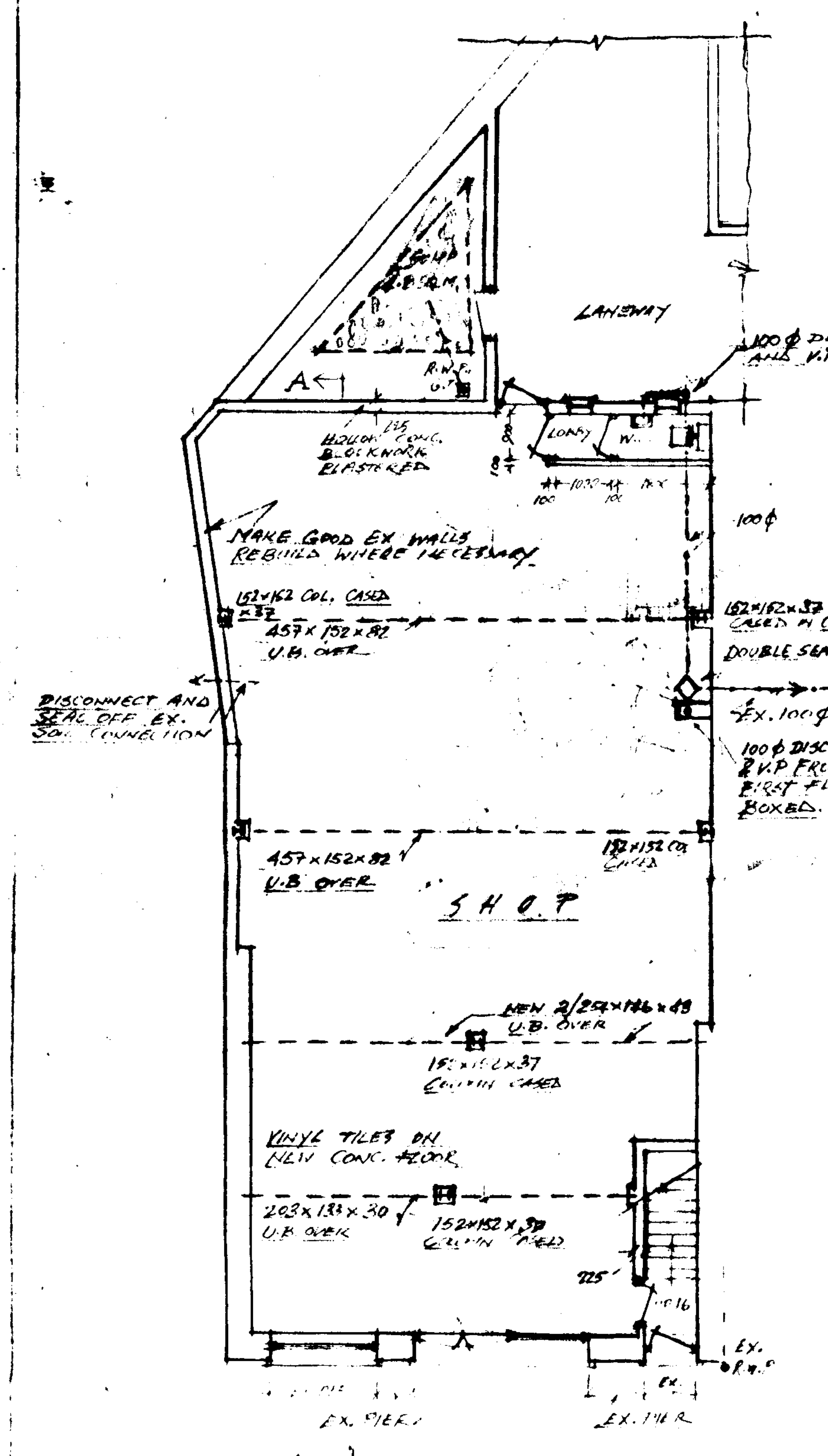
Shoring and Propping, etc.: 13.5) Provide all needling and shoring to opes and walls as required. Carefully erect, maintain and remove on completion of works.

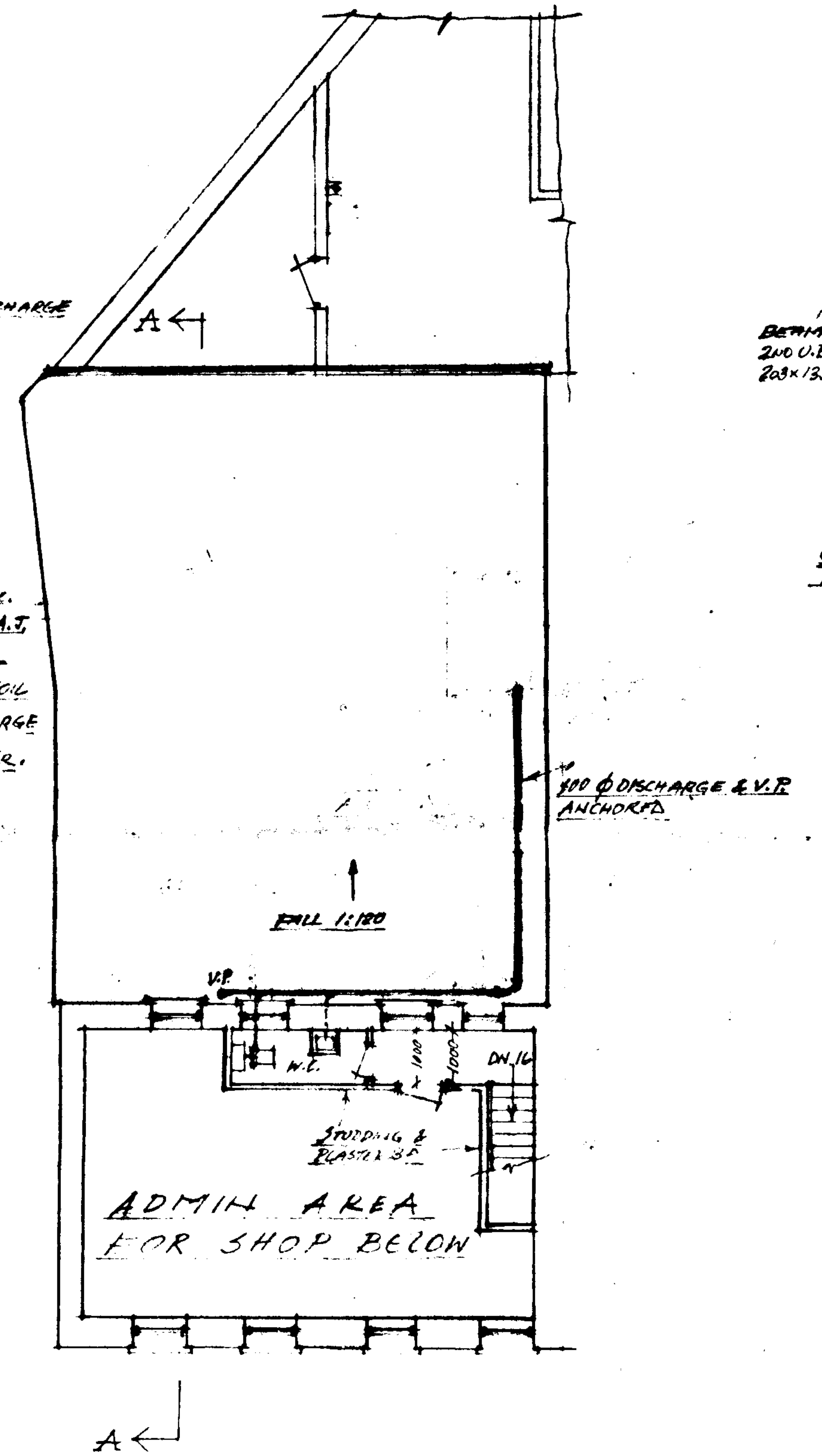
In old buildings or works, or adjacent to adjoining properties or building, the Contractor shall take particular care when demolishing sections or opes of the building. Such works, where necessary, shall proceed with utmost caution and small sections at a time. The Contractor shall, at all times as required, erect stable and secure vertical shores, flying shores or raking shores as the work may warrant. The Contractor shall be responsible for the design and positioning of these temporary supports during the various stages of the works.

Temporary Screens and coverings: 13.6) Provide temporary screens and coverings as required for protection both for the Employers property and adjoining properties and the general public.

Personnel and Labour: 13.7) The Contractor shall be deemed to employ only an expert demolition foreman or supervisor for the demolition work, who in turn will supervise all other labour, who will have had previous experience in the type of demolition forming part of the contract.

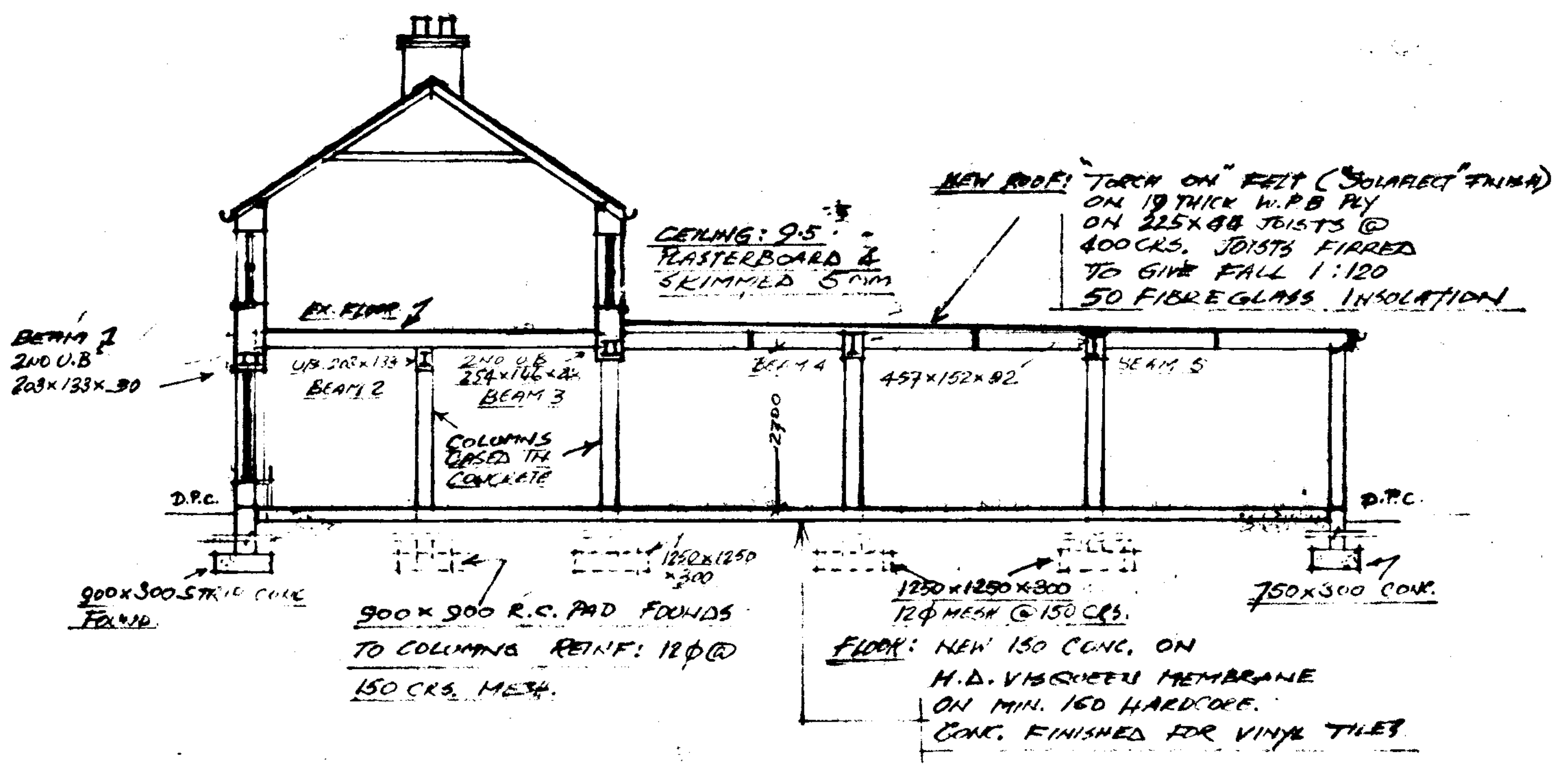
91A/1816. for Reg file
Rec'd 10/12



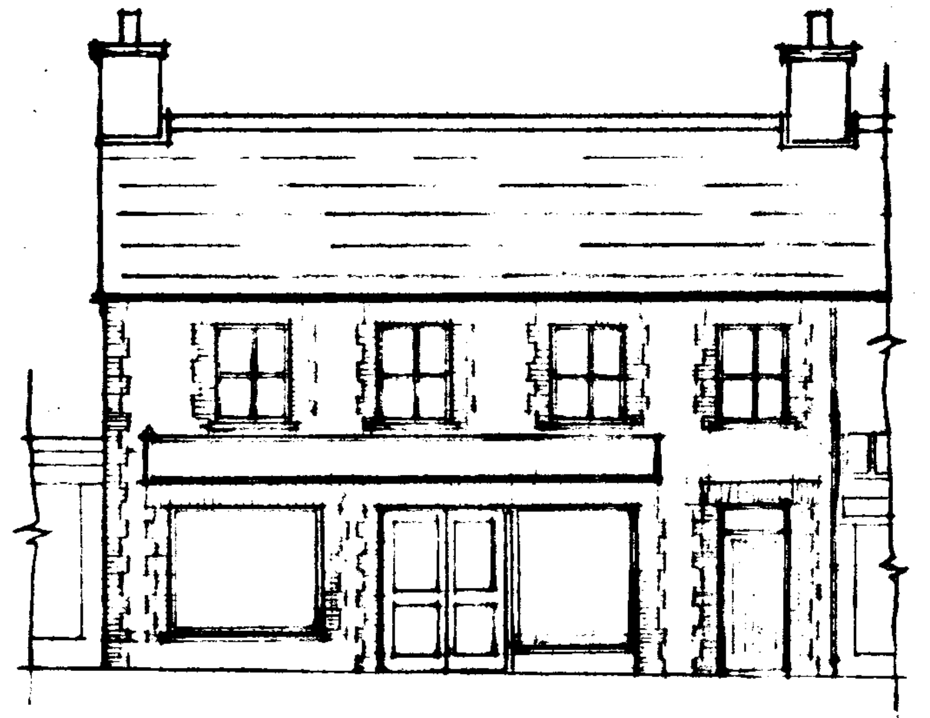


— PROPOSED GROUND FLOOR PLAN — — PROPOSED FIRST FLOOR PLAN —

AREA: GROUND FLOOR: 153.23 SQ.M. (1649 SQ.FT.)
FIRST FLOOR: 47.30 " (509 ")



— PROPOSED SECTION AA —



— PROPOSED FRONT ELEVATION —

DETAILS OF FACADE.

1. RETAIN BRICK REVEALS & QUOIN WHERE INDICATED.
2. WALLS GENERALLY PAINTED BUFF COLOUR, WITH BRICKWORK PICKED OUT IN DARKER SHADE OF BUFF.
3. CILLS AS FOR BRICKWORK.
4. DOORS AND WINDOWS IN MAHOGANY WITH NATURAL FINISH
5. TIMBER FACIA IN MAHOGANY WITH WHITE SIGNWRITING BEARING THE LEGEND: "NEWSAGENTS - LYNCH - STATIONERS".

PROPOSED DEVELOPMENT AT NOS. 3 & 4 MAIN STREET, LUCAN, CO. DUBLIN FOR THOS. LYNCH ESQ.	SCALE 1:100 DRG. NO. TLS. 2	P. BRUNKARD & ASSOCS. 42, MONASTERY PK., DUBLIN 22. TEL. 593002