## CITY AND COUNTY OF BRISTOL FIRE BRIGADE



### OFFICIAL OPENING

OF

# NEW FIRE BRIGADE HEADQUARTERS and CENTRAL FIRE STATION

ON

SATURDAY, the 2nd JUNE, 1973

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TEMPLE BACK, BRISTOL

BY

HER MAJESTY'S CHIEF INSPECTOR OF FIRE SERVICES (Kenneth L. Holland, Esq., C.B.E., O.St.J., M.I.Fire E.)

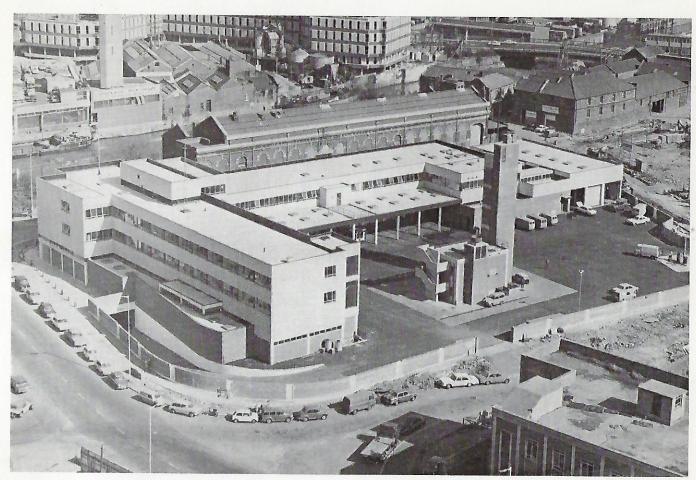
on

SATURDAY, the 2nd JUNE, 1973, at 2.30 p.m.

### ORDER OF PROCEEDINGS

- Her Majesty's Chief Inspector (Kenneth L. Holland, Esq., C.B.E., O.St. J., M.I.Fire E.), will be received on arrival by The Rt. Hon. The Lord Mayor (Alderman Walter W. Jenkins, J.P.), the Chairman of the Public Safety Committee (Councillor R. Willmott) and the Chief Fire Officer.
- 2. The Chief Fire Officer will invite H.M. Chief Inspector to inspect a Guard of Honour.
- The Chairman of the Public Safety Committee will then request H.M. Chief Inspector to formally open the Headquarters and Station by unveiling a plaque in the Entrance Hall.
- 4. The party will proceed to the Drill Yard, when the Lord Mayor will introduce H.M. Chief Inspector to guests and visitors and invite him to declare the new building open.
- 5. The Lord Mayor will ask the Rev. Vyvyan Jones to offer a prayer of dedication.
- The Lord Mayor will ask the Vice-Chairman of the Public Safety Committee (Councillor L. Lane) to propose a vote of thanks, which will be seconded by Councillor K. Crawford.
- 7. Displays and Demonstrations.
- 8. Tour of Inspection of the premises.
- 9. Refreshments.

The Band of the Bristol Fire Brigade will play selections during the proceedings.



FIRE BRIGADE H.Q. AND CENTRAL FIRE STATION

### **FOREWORD**

### BY THE CHAIRMAN OF THE PUBLIC SAFETY COMMITTEE (Councillor R. R. Willmott)

It gives me great pleasure to contribute a foreword to this brochure, which is issued on the occasion of the Official Opening of the New Fire Brigade Head-quarters and Central Fire Station.

For a considerable time I have, together with members of the Public Safety Committee, realised the urgent need to provide suitable premises to replace the out-dated and totally inadequate Brigade Headquarters and Central Fire Station in Bridewell Street.

Now, after many years of planning expectations and setbacks, we can see the results of our labours, and I am indeed proud to know that Bristol now possesses one of the most up-to-date Headquarters Stations in the country.

The new premises have been carefully planned at every stage to provide all modern facilities to meet the needs of an efficient fire fighting service.

I offer thanks and congratulations to the members of my Committee, the Chief Fire Officer and the City Architect, and also to the members of their staffs and to all others who have contributed to the realisation of our hopes and ambitions.

I am sure that all members of the Brigade will derive from this new Headquarters and Central Fire Station, the benefits so long denied them and that it will enable them to continue their work with increased efficiency, and so protect the citizens of Bristol, their homes and their livelihood, against the dangers of fire.

### THE HISTORY AND DEVELOPMENT OF THE BRISTOL FIRE BRIGADE

Ever since man discovered how to make fire and learned how to control it for his own use and benefit, it has been, and indeed still is, a dangerous servant.

It has taken many centuries to meet and deal effectively with the menace of fire. The first law to prevent outbreaks of fire was probably the curfew introduced as long ago as the ninth century. Indeed, it could be truly said that the introduction of the curfew by William the Conqueror was the first step towards fire prevention.

In those early days Bristol, like many other cities, consisted of narrow streets lined with timber built houses with thatch or reed roofs, and heated by open fires in the centre of the downstairs room. A veritable tinder box of a town without a fire brigade or any adequate means of fighting fires. There were in consequence many large and devastating fires.

Nevertheless, nothing was done until 1577 when, following a terrible fire on the Quay, the Council forbade the roofing of houses with reed or thatch, and ordered that each member of the Common Council should provide and maintain six leather water buckets in readiness to meet the danger of fire. In 1647 another disastrous fire, which destroyed some 24 houses on Bristol Bridge, made the City Council decide that the time had come to acquire a fire engine. This they did at a cost of £31·50, together with 48 buckets. A second machine and a large supply of buckets were purchased in 1684. The continued incidence of large fires proved, however, that these "elaborate" precautions were little more than illusory.

The year 1718 saw the first local movement by leading merchants to secure protection from losses by fire. They guaranteed a fund of £40,000, and so founded the Crown Insurance Office, which in common with other Insurance Offices, provided its own fire brigade, and opened what might well be described as the first Fire Station, a fire engine house in Nelson Street. Fire cover for the City continued to be given by the Insurance Companies until 1877.

In that year, the Insurance Companies discontinued their services, and the City Council thereupon decided to form a City Fire Brigade as part of the Police Force, with a complement of 12 men and a superintendent in charge. A steam engine was purchased, and was drawn by horses hired from the Bristol Tramways. The first independent Fire Brigade premises at the Central Fire Station were opened in 1880, and at the same time a stud of horses was purchased. In 1908 the mechanisation of the Brigade commenced with the purchase of the first motor appliance, and the strength of the Brigade was also increased to 39 men. From then on horse drawn equipment was gradually replaced by motor vehicles.

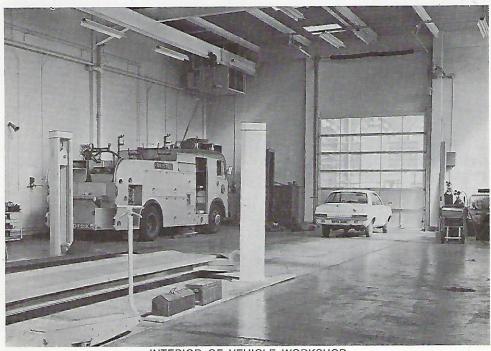
In 1930 the Central Fire Station in Bridewell Street was opened. The purchase of modern appliances and equipment was continued until 1939, when the Brigade was considered to be one of the most up-to-date and efficient fire brigades in the country. It then had an overall establishment of 90 officers and men.

In 1941, the Bristol Fire Brigade, with all other Brigades in the country, became part of the unified fire service, the National Fire Service, and was a war time measure. It remained so until the 1st April, 1948, when the Brigade returned to local authority control, and so, once again, Bristol had its own fire brigade, but with a difference; it no longer formed part of the Police Force. It was re-established as a separate entity functioning under its own Committee and with its own Chief Officer, with a strength of 251 personnel and 6 fire stations.

Mr. J. Y. Kirkup, the Superintendent of the Brigade prior to nationalisation, and Fire Force Commander of the Area during the War, was appointed as the first Chief Fire Officer. The Central Fire Station also incorporated the Brigade Headquarters. The present establishment of the Brigade is 305.



INTERIOR OF APPLIANCE ROOM



INTERIOR OF VEHICLE WORKSHOP

### THE NEW FIRE BRIGADE HEADQUARTERS AND CENTRAL FIRE STATION

Upon the return of fire brigades to Local Authority control in April, 1948, the then Fire Brigade Committee were keenly conscious of the fact that much building development would take place in and around the City in the post war years, and that the existing fire stations within the City would not only be badly sited, but outmoded and quite inadequate to meet modern needs. In so far as the Central Fire Station and Brigade Headquarters were concerned, the total inadequacy of the premises in Bridewell Street, as regards accommodation for appliances and personnel, the lack of facilities for workshops, Headquarters administration and training and the acute shortage of space in the Station Yard (which was shared with the Police) were most apparent. Since it was impracticable, and indeed impossible, to modify or adapt the premises to meet modern requirements, it was patently obvious that the replacement of the Station and Headquarters, strategically placed, was of the utmost importance.

In consequence, a comprehensive programme for the replacement of the various fire stations in the City was prepared, although it was accepted at the time that the fulfilment of such a large programme was a long term policy. Unforeseen difficulties subsequently arose which considerably extended the term of the programme, and in particular the provision of a new Central Fire Station and Headquarters.

In 1954 a site of about 2 acres on the Inner Circuit Road in the Norfolk Street area was earmarked as the site for the new Headquarters Station, but as the result of a revision in the Comprehensive Development Area Plan for the City in 1962, the site had to be abandoned, and another suitable site sought. Eventually in 1965 the present site, bounded by Temple Back, Water Lane, Counterslip and Temple Street, comprising 1.95 acres, was selected. Site acquisition resulted in protracted negotiations, and it was not until April, 1970, that work on the site commenced. The new premises were occupied and became fully operational as from the 18th February, 1973.

The cost of site acquisition was £248,000 and the building itself (including furnishings and equipment) £983,865, a total of £1,231,865.

The layout of a fire station is by far the most important factor in its ultimate functional efficiency; consequently, every care was taken in planning this Station and Headquarters to provide adequate facilities for the housing and maintenance of appliances as well as for the accommodation and training of personnel. Although the primary object was to provide excellent facilities in the way of fire cover for the City of Bristol, the need for a Headquarters for the new Avon County was also taken into account, and several aspects of the new building, in particular the Control Room, easily lend themselves to future development.

The site has been developed to provide a nine bay Central Fire Station, with a large drill area, and a Brigade Headquarters with administration and fire prevention offices, vehicle workshops, stores, a training section and a basement car park for 70 cars. Special features include a training building (fire house) and a lecture hall/gymnasium. Hot air hose drying facilities are also provided.

The whole, which is formed in an "L" shaped structure of two and three floors, was designed by the City Architect in close collaboration with the present and respective former Chief Fire Officers. The result is a building both pleasing to the eye and operationally and functionally efficient.

#### **Brigade Control Room**

Special care was taken in planning the Control Room so that it could be easily and readily adapted to future requirements.

Two consoles have been installed, the main console which can mobilise up to 26 stations in three divisions, and the other for supervisory duties by the Mobiliser in Charge.

Each position has a key and lamp unit for telephones, and there are three more units on the spare working top. Each operator has a Home Office wireless position as also has the Supervisor, the latter having an additional six-channel set with frequencies belonging to surrounding Brigades. The operators each have a Robophone remote control for the tape recorders, and TIM is injected on the tape whilst in use. Out Stations are alerted by using the VF system "A" and divisional positions will have their VFA panels directly in front of the operator.

Mobilising is carried out by movement of pegs in the appropriate Station area on the board in front of the operator, and such plotting varies the availability on the map in front of the console by means of a light display.

On the Supervisor's console there is a map selector. Maps of the area have been photographed and kept on small transparencies. A map can be selected by the operation of the digital buttons, and any of the 79 maps can be projected on to a large screen within three seconds by means of the random access unit. The map screen has a radio/telephone handset nearby so that directions can be given. The Supervisor also operates the microphone and selectors for the day-to-day use of the Westrex public address system.

### **Appliance Room**

The Appliance Room is one of nine bays. It has electrically operated doors front and rear which can be opened or closed individually, or from overriding switches in the Control Room. Each front door shows a red warning light when closed, and a green light when clear.

Indicator panels ensure the swift response of the selected appliances. The traditional alarm bell to alert personnel has been replaced by a warning "bleep" system, and the address of the fire or other incident is broadcast through loudspeakers over the entire building.

The Appliance Room is heated from the under floor hot water circulation system fed from the main boilers.

At the rear of the Appliance Room is a covered wash area for the cleaning of appliances and equipment prior to being put back on the run.

#### **Basement**

As well as providing parking facilities for cars, the basement of the building has been utilised to provide the Hose Dry, stowage and hoist; an equipment room for Post Office, Headquarters Radio and the Westrex Public Address equipment; electrical intake and distribution, together with a 100 kw diesel operated reserve generator which functions automatically on mains failure; and float operated pumps to clear any accumulation of water in the sump in times of inclement weather.

The Hose Dry, which is unique to the Brigade, is fitted with racks to hold up to 24 lengths of hose. Each length can be connected to a manifold through which hot air is pumped, and the hose dried and ready for use in four minutes.

The Boiler House has two boilers, giving 2,200,000 BTHU and the necessary pumps for circulation with Satchwell panels for the regulation by controls throughout the building. A tank room contains tanks to hold 11,000 gallons of fuel oil. The whole of the Boiler Room is protected by fusible links connected to the A.F.A. system, and foam inlets and cut-off valves are provided.

An interesting feature is the controlled lighting at the entrance to the basement from the Station yard. By means of a detector in the open it is possible to adjust the density of the lighting to relate it to the external natural conditions.

The entire basement area is kept clear of exhaust fumes by means of a plenum system of air conditioning.

### **Transport Maintenance Area**

The Transport Maintenance area consists of a spacious three bay workshop with electrically operated doors at each end.

Two pits are provided, the longer one being lit by pressurised light. Over the latter is a full length gantry with travelling block and chain capable of lifting five tons.

The centre bay houses a four post lift capable of raising appliances up to 14 tons. The service bay contains a bantam lathe, power press, drill and various benches and washing tanks.

The accommodation consists of a battery charging room, staff toilets and locker room, messing facilities, transport stores and offices.

#### **Training Facilities**

There is a spacious drill yard area at the rear of the building affording the following facilities: two 6in. hydrants; two pits each containing 4,000 gallons of water; a Pump Test Unit which comprises a pit for lifts not exceeding 10 feet, and a chamber 30 feet deep for use in carrying out deep lift tests; hose wash, which has a four-outlet manifold connected to a pump so that hose testing can be done without having to use a fire appliance; petrol and diesel pump island with underground tanks for each supply (3,500 gallons); an underground waste oil tank for Workshops use; floodlighting for drills during periods of darkness and a training building or "fire house."

The Training Building incorporates a basement crawl and search area, in which passages can be changed to vary the exercise being carried out. On the floor are strategically placed pads which, when pressed by the weight of the searcher, illuminate a signal on the instructor's console, thus enabling an instant check to be maintained of the progress and position of a trainee in a smoke laden atmosphere.

The ground and first floors are for use as smoke and heat areas, and can be made to simulate a private dwelling, factory space or ship's hold. The roof has a ship's hatch with associated raking ladders so that a ship fire can be reproduced.

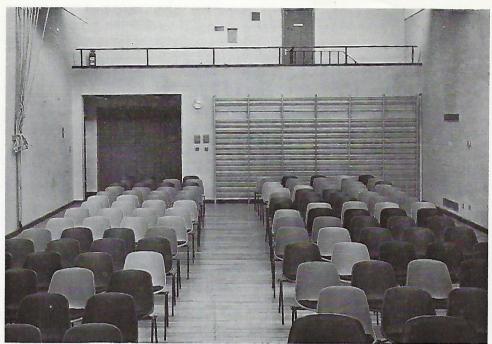
The building is capable of being heated to 120°F in any selected area by using the central heating system. Loudspeakers are installed throughout so that instructions can be broadcast to trainees. There is a practice sewer running from ground level to the basement so that sewer rescues and searches can be devised and practised.

The tower provides windows on two sides for drills; a balcony top and a dry riser with landing valves for practice purposes. It incorporates the fume extract from the boiler house, and also provides a site for the temperature censors connected to the heating system so that the heating in the main building is related to the position of the sun, thus obviating overheating in rooms with a southern aspect, and compensating those facing north.

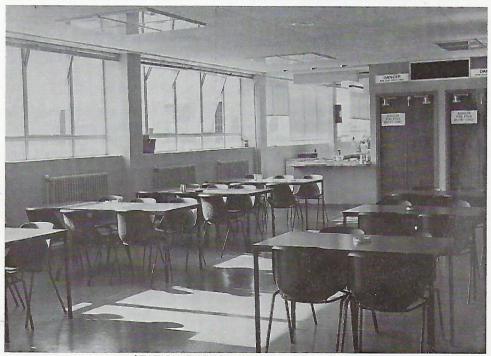
The Lecture Hall/Theatre is for use for lectures and Brigade social functions, and has a seating capacity for 200 persons. It incorporates a projection suite, screen and stage, with a control point for lights at the lectern.

The floor is of wood block so that the Hall can also be used as a gymnasium, and wall bars, ropes, swings and other gymnastic equipment have been provided. A bar has been installed at the rear of the Hall.

Excellent facilities have been provided for the convenience of personnel returning from an incident. Immediately inside the main rear entrance is an



LECTURE THEATRE/GYMNASIUM AND PROJECTION ROOM



STATION DINING ROOM WITH SERVERY

area where they can wash their personal kit, boots and leggings before passing to the Locker Room for fresh clothing. They can then proceed to the heated Drying Room to hang wet kit, and thence to the adjoining showers and toilets, finally passing into the Muster Bay and uniform stowage area.

Off the Muster Bay and adjacent to the Appliance Room are offices for the Officer in Charge, the Station Officer and junior officers. Stores for hose (with hoist from the basement), oil and grease and a room for radio-active sources are located at the rear of the Appliance Room.

At the opposite end of the building, and leading off the Station Drill Yard, are the Brigade Stores, and the Training School section with its own Appliance Room and lecture rooms.

#### **Catering and Recreation Facilities**

The kitchen and food preparation area, with equipment capable of providing meals for up to 130 persons, is on the first floor, and caters for all personnel. There are separate messes for Station personnel, Headquarters Officers and civilian administrative and other uniformed staff.

The Recreation Room which adjoins the Station Mess has a billiard table, darts and a bar. The Officers' Mess incorporates a lounge with bar facilities.

The Dormitories, Lecture Rooms, Quiet Rooms and Rest Rooms with television are also on the first floor.

The Senior Officers, Fire Prevention Branch and the administrative staff occupy the first and second floors.

#### Administration

The offices of the Fire Prevention Department are all on the first floor, together with the offices of the Brigade Training Officer and his instructors.

The offices of the Chief Fire Officer and his Secretary; the Deputy Chief Fire Officer; the Third Officer; the Divisional Officer and the Senior Administrative Officer are situated on the left hand side of the vestibule on the second floor, whilst the staff officers and the administrative and clerical staff (establishments, finance, supplies and stores, registry and secretariat) occupy the offices on either side of the adjacent corridor.

### THE PUBLIC SAFETY COMMITTEE

The Rt. Hon. The Lord Mayor Alderman Walter W. Jenkins, J.P.

Chairman
Councillor R. R. Willmott

Vice-Chairman
Councillor L. W. Lane

#### Members

Alderman P. W. Cann Alderman Mrs. M. E. Castle, O.B.E., J.P.

Alderman C. Marcus Hartnell
Councillor K. I. Crawford

Councillor M. J. Rae

Councillor C. Draper

Councillor Mrs. B. L. Edwards

Councillor R. W. Edwards

Councillor A. E. Hillman

Councillor G. R. Robertson

Town Clerk and Chief Executive Officer
William J. Hutchinson, Esq.

Chief Fire Officer
T. Lister, M.I.Fire E.

The site layout and buildings were designed and drawings prepared in the office of the City Architect.

City Architect
Albert H. Clarke, F.R.I.B.A., A.M.T.P.I.

Deputy City Architect
T. S. Singer, F.R.I.B.A., A.M.T.P.I.

Principal Assistant Architect
A. R. G. Isaac, F.R.I.B.A.

Assistant Architect
W. Shearman

The main Contractors and firms concerned with specialists work in connection with the new Fire Brigade Headquarters and Central Fire Station were:

Main Building Contractors
Holland Hannen & Cubitts Ltd.

Heating and Ventilating Sub-Contractors
William Press & Sons Ltd.

Electrical Sub-Contractors
South Western Electricity Board

Control Room Consoles

Drake & Scull Engineering Co. Ltd.

Consultants

Messrs. G. C. Mander & Partners (Structural Engineers)

Messrs. Hoare, Lea & Partners (Heating and Electrical Engineers)

Messrs. Banks Wood & Partners (Quantity Surveyors)