

# MINUTES FROM THE ENGINEERING COMMITTEE MEETINGS

by Tony Beard

## MEETING No.151 HELD ON 4 JANUARY 1937

### Working Expenses and Statistics – Parsons Green Building Department

Mr Cooper submitted a memorandum dated 1 January reporting that the amount of work carried out by the Building Department during the twelve months ended 3 October 1936, was less than would secure the most economical operation but that the percentage relationship of overhead to labour charges was approximately the same for the corresponding period of the previous year.

### Plans Signed

The following plan, having been approved and signed by the officers concerned, was submitted for the approval and signature of the Vice-Chairman:

#### Acton Works – New Paint Shop

Drawing No 2824-Fz with flyleaves showing the new paint shop at Acton Works.

This was approved and signed.

### Eastern Extension – Liverpool Street to Mile End – Firms to Tender

It is here recorded that, in accordance with the recommendation contained in a memorandum dated 24 December submitted by Mr Cooper it was decided that the following firms should be invited to tender for the construction of the section of the eastern extension from Liverpool Street to Mile End:

Balfour Beatty & Co. Ltd.

Sir Robert McAlpine & Sons Ltd.

Chas. Brand & Son Ltd.

Mitchell Bros Sons & Co. Ltd.

John Cochrane & Sons Ltd.

John Mowlem & Co. Ltd.

Kinnear Moodie & Co.

Edmund Nuttall Sons & Co. Ltd.

### Bank – Lengthening of Station Tunnels – Tenders Opened

It was reported that tenders for the lengthening of the station tunnels at Bank Station had been received from the following firms and that they had been referred to Mr Cooper for examination and report:

Balfour Beatty & Co. Ltd.

Mitchell Bros Sons & Co. Ltd.

Chas. Brand & Son Ltd.

John Mowlem & Co Ltd.

John Cochrane & Sons Ltd.

Edmund Nuttall Sons & Co. Ltd.

Kinnear Moodie & Co.

This was noted.

### Aldgate East – South Curve – Report on Tenders

Mr Cooper submitted a memorandum dated 1 January reporting that tenders for the reconstruction of the south curve at Aldgate had been received from the following firms and that the tenders starred had been examined and found correct.

Balfour Beatty & Co. Ltd.

Sir Robert McAlpine & Sons Ltd.

Chas. Brand & Son Ltd.

Mitchell Bros Sons & Co. Ltd.

John Cochrane & Sons Ltd.

John Mowlem & Co. Ltd.

Kinnear Moodie & Co.

Edmund Nuttall Sons & Co. Ltd.

In accordance with the recommendation submitted by Mr Cooper it was decided that the lowest tender, namely that by Messrs Mitchell Bros. Sons & Co. Ltd, amounting to £267,993 should be accepted.

### Neasden – Mess-room and Yardmaster's Office

Mr Cooper submitted two drawings showing at ground floor and basement levels and at first floor level the proposed building for a trainmen's mess-room and yardmaster's office at Neasden.

It was decided that the arrangement shown on these drawings should not be approved and that a new scheme should be drawn out providing a waiting room for the men and permitting the conversion of the mess-room to a canteen at a later date if necessary. Consideration would be given to utilising the site north of the tracks at the east end of the station for this building.

### Highbury Station

Mr Cooper submitted a memorandum dated 31 December reporting that the Islington Borough Council had asked for detailed information about the Board's scheme for the installation of escalators at

Highbury station. It was noted from the memorandum that powers were being sought in Parliament on the basis of the scheme for a subsurface station, a drawing for which was submitted, but that the limits had been made sufficiently wide to allow of the scheme for a surface station, as shown on another drawing, being constructed.

It was decided that the Islington Borough Council should be informed that powers are being sought for the execution of the scheme on the first of the plans itemised above and that its observations would be invited.

### **Edgware Road – Proposed Depot**

Mr Cooper reported that, by reasons of the placing of signals, there would be no advantage in lengthening the platforms at Edgware Road Station and he submitted a drawing showing the proposed arrangement of platform and outline of the new depot.

It was decided:

- (a) That the arrangement shown on the drawing should be approved so far as the platforms were concerned.
- (b) That further consideration should be given to the development of the Board's site at Edgware Road and that the new building at the east end of the easternmost island site should be constructed to a more comprehensive plan, possibly extending across the railway, so as to provide for the needs for all departments requiring accommodation for emergency and other purposes in the Central Area. A further scheme was requested that would show the development proposed for the whole site.

### **Wendover and Stoke Mandeville – Position of Distant Signals**

Mr J.P. Thomas submitted a memorandum date 4 January reporting that the distant signals on the "Down" line at Wendover and Stoke Mandeville were not sited far enough to provide proper braking distance to enable fast trains to stop at the relative home signals if the distant signals were in the caution position and that it was accordingly recommended that an additional colour light repeater distant signal should be provided at Wendover and that the existing distant signals at Stoke Mandeville should be advanced, the total cost of these alterations amounting to £218 with increased annual maintenance and renewal charges of £9.19.6. These recommendations were approved for submission to the Metropolitan & Great Central Joint Committee.

### **Mishap at Little Ilford Sidings – 28 December 1936**

Mr Graff Baker submitted a memorandum dated 31 December setting out the circumstances in which a Hammersmith and City Train No 79 ran into the buffer stops at Little Ilford sidings on 28 December, demolishing the stops, part of the depot lavatory and causing considerable damage to leading motor car No 2243. It was reported that it was estimated that it would cost between £220 and £250 to repair this car for service, and that, since this car would be scrapped when the new Hammersmith and City stock is delivered, authority was requested to scrap the car forthwith at East Ham. It was noted that this car was one of sixty Hammersmith & City Joint Line cars owned by the Great Western Railway and it was decided that the proposal to scrap Car No.2243 forthwith should be approved subject to the Comptroller and Accountant obtaining formal agreement of the Great Western Railway Company.

## **MEETING No.152 HELD ON 11 JANUARY 1937**

### **Special Expenditure Requisitions Approved**

The following Special Expenditure Requisitions were submitted for approval and signature of the Vice Chairman:

#### **New Works Programme 1935-40**

For the construction of an additional subway at Tottenham Court Road station at a total cost of £23,500, the work to be executed by the Chief Engineer and to be completed by 30 April 1937. This was approved and would be charged as £22,928 to Capital Account as to £572 to Extraordinary Expenses Account. A claim for an additional allowance from the Pool to be submitted in respect of the whole of this expenditure.

#### **Other than New Works Programme 1935-40**

For the purchase of 116 cars (58 two-car units) to replace existing stock working on the Hammersmith & City Line, at a total cost of £670,083 the work to be executed by the Chief Mechanical Engineer and to be completed by August 1937. This was approved to be charged to Capital Account. Capital

Account to be credited with the book value of the assets displaced. A claim for an additional allowance from the Pool to be submitted in respect of the whole of this expenditure.

### **Plans Signed**

The following plan, having been approved and signed by the officers concerned, was submitted for the approval and signature of the Vice-Chairman:

Finchley Road Station

Drawing No 3118-A showing the proposed general arrangement at street level of Finchley Road station as reconstructed. This was approved and signed.

Gants Hill Station – Pedestrian Subways – Firms to Tender

In accordance with the recommendation contained in a memorandum dated 8 January submitted by Mr Cooper, it was decided that the following firms should be invited to tender for the construction of the pedestrian subways at Gants Hill Station:

W & C French Ltd.

William Press & Son

Peter Lind & Co. Ltd.

A. Waddington & Son

Patterson and Dickenson

### **Bank Lengthening of Station Tunnels – Report on Tenders**

Mr Cooper submitted a memorandum dated 7 January reporting that tenders from those firms started for the lengthening of the station tunnels at Bank Station had been examined and found correct:

Balfour Beatty & Co. Ltd.

Mitchell Bros Sons & Co. Ltd

Chas. Brand & Son Ltd.

John Mowlem & Co. Ltd.

John Cochrane & Sons Ltd.

Edmund Nuttall Sons & Co. Ltd.

Kinnear Moodie & Co.

In accordance with the recommendation submitted by Mr Cooper it was decided that the lowest tender, namely that submitted by Messrs Kinnear Moodie amounting to £48,843 should be accepted, the work to be executed within fourteen months

### **New Works Programme 1935-40 – Progress Report – Quarter Ended 31 December 1936**

Mr Cooper submitted a memorandum dated 6 January on the progress of works forming part of the New Works Programme 1935-40 during the quarter ended 31 December 1936. The report was reviewed and accepted, subject to:

- (a) Mr Cooper urging the progress of those sections of works which it was decided should be brought into service as quickly as possible. (*For information these were: the realignment of existing Central London Line tunnels and the supply of a sufficient quantity of new rolling stock so that Morden-Edgware cars could be transferred to the Central London Line before the opening of the eastern extension; the new tube line from Baker Street to Finchley Road to permit the projection of the Bakerloo Line to Stanmore; the new tube line between Highgate and East Finchley to permit the projection of the tube service from the West End to Church End, Finchley, the LNER's steam service being retained for a time so far as is necessary; the new tube line from Liverpool Street to Newbury Park and Hainault.*)
- (b) Mr Thomas pursuing the negotiations with the GWR for the extension to Ruislip and Ruislip Depot being brought into service as early as necessary for the operation of the eastern extension of the Central London Line, reporting further of there being any difficulty in reaching a satisfactory conclusion with the officers of the GWR.
- (c) Further information being submitted in due course on the progress of the realignment of the tunnels on the Central London Line with particular reference to the effect of this work on the work of lengthening of platforms.

### **Hanger Lane Station**

Mr J.P. Thomas submitted a plan which had been received from the GWR showing the general arrangement proposed for the new station at the corner of Hanger Lane and Western Avenue, the ticket hall being constructed below ground level so that subways under the roadway may be added if suitable arrangements can be made with the road authorities.

It was decided that this plan should be agreed subject to consideration being given to providing a pull-in for buses in front of the flats which it was proposed to erect west of the station building on the north

side of Western Avenue and to Mr J.P. Thomas suggesting to the GWR that the plan should be submitted to the Road Authorities.

#### **Perivale Station – Great Western Railway**

Mr J.P. Thomas submitted a plan which has been received from the GWR showing the new station proposed for Horsenden Lane, Perivale, in connection with the operation of Central London Line trains. It was decided that this plan should be agreed subject to consideration being given to re-arranging the stairs with more space on the landing

#### **Greenford Station – Great Western Railway**

Mr J.P. Thomas submitted a plan which had been received from the GWR showing the proposed station at Greenford, reconstructed for the operation of the Central London Line trains. It was noted that the arrangement shown on the plan provided for one escalator normally to run in the “up” direction and one fixed stairway.

It was decided that the layout shown on the plan should be agreed subject to:

- (a) Provision being made for the installation of two escalators, if required in the future, in addition to the fixed stairway.
- (b) The back of the station being redesigned as indicated by the Vice-Chairman in pencil on the plan.
- (c) Direct access being provided between the car park and the ticket hall and confirmation that the entrance to the car park is of adequate width.
- (d) Confirmation that the bus pull-ins are of a convenient shape for operation.
- (e) A small waiting room as well as lavatories being provided for staff on the platform with a separate waiting room for passengers.

#### **Minorities Site**

Mr Cooper submitted a memorandum dated 7 January reporting that the cost of extending the subway which it was suggested should be constructed under Aldgate High Street into the ticket hall at Aldgate Station, for which the Board was solely responsible, was £16,000 and that Mr J.P. Thomas was of the opinion that this expenditure could not be justified. This was noted and the proposal dropped.

#### **Breakdown Services – Railways – Equipment**

Mr Graff-Baker submitted a memorandum dated 4 January calling attention to the fact that there were at present breakdown centres for the railways at Neasden and Wood Lane depots and that the future location of equipment now at Wood Lane required consideration since it was proposed to discontinue Wood Lane Depot on the opening of the new Ruislip Depot. It was recommended in the memorandum that in addition to delays to the Board’s rolling stock on the Board’s lines, the Board’s breakdown organisation should attend to and be in charge of breakdowns on foreign companies’ lines, in which case it was considered that it was necessary to have no more than two breakdown equipments, provided that these could be so situated as to serve areas north and south of the Thames.

It was decided that Mr Graff-Baker should consider and submit proposals for the new location of the breakdown equipment now at Wood Lane on the basis that the Board would be responsible for breakdowns on all rolling stock on the lines on which the Board’s trains operate, this definition including any future projection of the Bakerloo Line trains over the Southern Railway in a south-easterly direction.

### **MEETING No.153 HELD ON 18 JANUARY 1937**

#### **Grange Hill Depot – Excavation etc.- Report on Tenders**

Mr Cooper submitted a memorandum dated 15 January reporting that tenders for excavation etc. at Grange Hill depot had been received from the following firms and that tenders starred had been examined and found correct:

John Bills

Demolition and Construction Co Ltd.

W. & C. French

Patterson and Dickenson

Riggs and Remington Ltd.

It was noted that the lowest tender, namely that submitted by Messrs W. & C. French Ltd., amounting to £19,948, showed a saving of some £6,000 as compared with the Board’s estimate and in accordance with the recommendation submitted by Mr Cooper, it was decided that this tender should be accepted, the work to be completed within sixteen weeks.

#### **New Works Programme 1935-40 – Architects**

Mr Cooper submitted a list of the architects whom it was proposed should be responsible for carrying out the New Works Programme 1935-40 which varied in certain respects to the list agreed earlier. It was decided that the earlier decision would be varied and that the responsibility for the architectural work of the New Works Programme 1935-40 should be apportioned as follows:

<b>(a) Eastern Extension</b>	<b>Architects</b>
(i) Liverpool Street Station Bethnal Green Station Mile End Station (including lower station finishings)	Board's Architect
(ii) The George (Wanstead) Station Red Bridge Station Gants Hill Station (including lower station finishings)	Adams, Holden and Pearson
(iii) Bethnal Green Substation Mile End Switch House and Control Room Bow Road Substation	Board's Architect
(iv) Board's Substations Leyton Leytonstone Red House Newbury	Adams, Holden and Pearson
<b>(a) Eastern Extension (Continued)</b>	<b>Architects</b>
(v) LNER Railway Stations	Architects to be agreed with LNER
(vi) Substations on LNER property	Architects to be agreed with LNER
(vii) Grange Hill Depot buildings including sub-station	Board's Architect if possible
<b>(b) Existing Central London Area</b>	
Existing stations and substations at Notting Hill and Bond Street	Board's Architect
<b>(c) North London Improvements</b>	
(i) Highgate (LNER) Station East Finchley Station Finchley (Church End) Station (including lower station platform finishings)	Adams, Holden and Pearson
(ii) Stations on LNER property	Architects to be agreed with LNER
(iii) Edgware Station	Board's Architect
(iv) Stations on Elstree Line including substations	To be determined later
(v) Elstree Depot Building	Board's Architect <sup>i</sup>
(vi) Highgate Substation East Finchley Substation Finchley Church End Substation	Adams, Holden and Pearson
(vii) Substations on LNER property	Architects to be agreed with LNER
<b>(d) Metropolitan – Bakerloo Improvements</b>	
(i) All stations, substations and ancillary buildings east of and including Harrow-on-the-Hill	Board's Architect
(ii) Uxbridge Line All stations, substations and ancillary buildings except improvements at Ruislip Station	Adams, Holden and Pearson
(iii) Improvements at Ruislip Station	Board's Architect
(iv) Stations, substations and ancillary buildings north of	Alterations to stations – Board's

Harrow up to and including Amersham (Note: it may be necessary at a later date to obtain the approval of the Metropolitan and Great Central Joint Committee to this)

Architect.  
New stations to be determined later

#### **(e) Ancillary Buildings**

To be associated with the stations and substations adjacent thereto.

#### **(f) Miscellaneous**

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|---|---|
| (i) Aldgate Switch House and Control Room                                       | Adams, Holden and Pearson   |
| (ii) Charing Cross Substation and refreshment terrace for London County Council | Board's Architect to collaborate with the LCC Architect as necessary. |

### **Approach Tunnels – Finchley Road – Extension of Contract**

Mr Cooper submitted a memorandum dated 15 January recommending that Messrs Mowlem's contract at Finchley Road should be extended to cover the construction of the approach tunnels linking up with the work being executed by Messrs Brand and Son. This was approved.

### **Gants Hill Station**

Mr Cooper submitted a drawing showing the Moscow type of station as proposed for Gants Hill, together with a covering memorandum dated 16 January reporting that the additional cost over the ordinary type of station was £25,000 for the gallery carried to a length of 135 feet as shown on the drawing and £19,000 for the gallery carried to a length of 100 feet. It was further reported in the memorandum that Mr Thomas had asked that recesses for seats and machines be made on the platforms which would cost an additional £3,000 excluding lighting and signs. It was decided:

- (a) That the gallery should be carried to the full length of 135 feet.
- (b) That Messrs Mott, Hay and Anderson should consider and prepare a further scheme in which the gallery would be formed by driving a circular tunnel with its centre slightly above the centre of the running tunnels, this tunnel having a maximum height of 17 feet above the platform and openings to the platforms 8feet 6inches high.
- (c) That recesses should not be provided in the platforms but that seats and automatic machines should be accommodated in the central gallery.

### **Watford (Metropolitan) and Rickmansworth (LM&S) Branches**

Mr J.P. Thomas submitted a memorandum dated 15 January reporting that the London Midland & Scottish Railway Company had considered the suggested connection between Watford (Metropolitan) and Rickmansworth (LM&S) branches at Croxley Green and the merging and partial closing of the two branches but they had stated that this proposal was undesirable for the following reasons:

- (a) The cost of the engineering works was high, amounting to approximately £107,000.
- (b) It would not be possible to close the LM&S Branch Line owing to requirements of freight traffic.
- (c) There would be little economy in passenger mileage.

It was further reported in the memorandum that, as part of the improvement scheme for the Metropolitan Line, it was proposed to withdraw the through train service to Watford at all off-peak periods (including Sundays) and to substitute a shuttle service by a single car running to and from Northwood only, giving a 15-minute service in place of the present 30-minute service.

This was noted and no further action would be taken in regard to the proposal to link the Watford (Metropolitan) and Rickmansworth (LM&S) branches.

### **New Rolling Stock Surface Lines**

Mr Graff-Baker submitted a memorandum dated 13 January reporting that the new rolling stock to be purchased for the Metropolitan Line would probably be provided with Metadyne equipment and should, therefore, be interchangeable with the new Hammersmith and City Line stock in order to avoid a multiplicity of types but on the District Line only 25 motor cars were required to be built as part of the new rolling stock programme for surface lines and that it was intended that these motor cars should be interchangeable with the existing motor cars on the District Line. Mr Graff-Baker proposed, therefore, that an earlier decision should be varied and that the provision of wide stock cars be postponed until the next group of District Line motor cars falls due for replacement in the period 1941-44 and that the new cars to be provided now, built as proposed above. The proposals set out in the memorandum were

approved. (*The previous decision to which this minute refers appeared in the October 2022 edition of Underground News*).

### **Overturning of Steam Crane**

Mr Graff-Baker submitted a memorandum dated 13 January setting out the circumstances in which a 3-ton steam crane (No.C601) overturned at Wood Lane Depot on 8 December. Mr Graff-Baker reported that the crane had been damaged beyond repair and its replacement was necessary and urgent. Accordingly, authority was required for the purchase of a new crane of such a design that it could be moved through tunnels from depot to depot, the approximate cost of which was £2,500. Authority to withdraw capital and other assets (including stores) covering the damaged crane was also submitted (Form CB28). It was decided:

- (a) That Form No CB28 should be approved for submission to the Comptroller and Accountant.
- (b) That Mr Graff Baker should proceed to obtain designs for a new crane suitable for the requirements of the Chief Engineer's and Chief Mechanical Engineer's Departments and submit a Special Expenditure Requisition in due course.

## **MEETING No.154 HELD ON 25 JANUARY 1937**

### **Reservoir Stations**

Devices to counteract the effect of or prevent prolonged station stops.

Mr J.P. Thomas submitted a memorandum dated 20 January setting out for record purposes, the results of an investigation into the advantages and practicability of building relief tracks and platforms at stations to counteract the delaying effect of a station stop. It was noted that theoretically this provision would permit sixty trains per hour in each direction to be run and signalled, but that the high cost of applying the scheme to the number of stations necessary, even if physically possible, would meet to a large extent the cost of an entirely new railway. It was also reported in the memorandum that consideration had been given to providing double platform stations, i.e. a platform on each side of a train so that passengers may enter from one side while passengers alight from the other side. It was noted that for reasons set out in the memorandum this provision was not considered to present any great advantage. Mr Thomas further reported that it was proposed to extend the system now installed at Oxford Circus Station on the northbound Bakerloo Line platform for giving warning when the train had been in the platform twenty seconds to Tottenham Court Road, Leicester Square and Victoria stations. The proposal was approved.

### **Edgware Branch Line (London & North Eastern Railway)**

Consideration was given to a memorandum dated 20 January submitted by Mr Cooper in which he reported that the L&NER had at the present time one main track running into their station at Edgware with two long shunting necks which pass over the bridge over the Board's line. It was therefore proposed to provide two tracks only over the bridge at this time on the understanding that, if the L&NER require to increase the number of tracks to three in the future, the Pool would pay the additional cost of this work. It was further reported in the memorandum that the Engineer to the L&NER had proposed that the second track which was being constructed from Church End Finchley to Edgware should be carried through to their goods yard. It was considered that the provision of this additional track between the junction of the line to the new station at Edgware and the shunting necks at the L&NER station appeared unnecessary, and if carried out should therefore be at the sole cost of the L&NER. The views set out in Mr Cooper's memorandum were accepted and it was decided to authorise Mr Cooper to negotiate a settlement with the L&NER on the basis of the minimum amount of work on behalf of the Pool being carried out in connection with the operation of goods traffic to Edgware (L&NER) Station.

### **Platform Edges – Inlay**

Mr J.P. Thomas reported that a fluted edge to the platform had been provided as an experiment at Osterley station and that this was proving satisfactory. It was therefore proposed that this should be adopted as standard for the future.

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