

NATIONAL COAL BOARD

WEST MIDLANDS DIVISION

NO. 1 (NORTH STAFFS) AREA

CHATTERLEY WHITFIELD COLLIERY

TUNSTALL

STOKE - ON - TRENT

SPECIFICATION FOR TENDER

FOR

TUNNEL CONTRACT

8690' HORIZON - PROPOSED CONNECTION TO BELLRINGER MAIN DIP

SECTION 17 SUB-SECTION 31

AREA PLANNING BRANCH  
GLEBE HOUSE  
FENTON  
STOKE-ON-TRENT  
STAFFS.

JUNE, 1963.

NATIONAL COAL BOARD  
RECEIVED  
24 JUN 1963  
MANAGER'S OFFICE  
CHATTERLEY-WHITFIELD COL LIERY

CW/15/29

GEH/DMA.

Area Planning Engineer.

See Distribution List.

Chatterley Whitfield Colliery  
8690' Horizon - Proposed Connection to Bellringer  
Main Dip.  
Specification for Tender.

21st June, 1963.

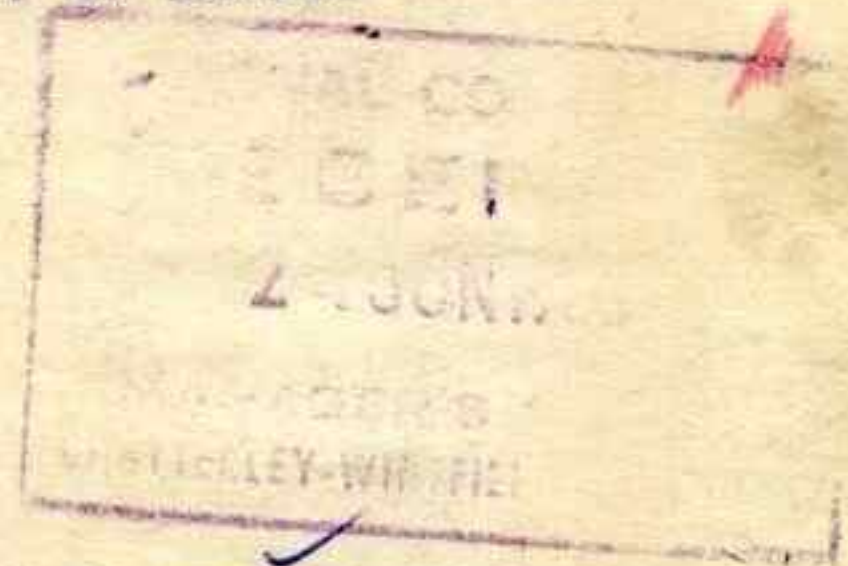
Please find enclosed one copy of the above Specification, which has been sent to Purchasing & Stores Department to invite the A.T.C. Ltd. only to tender.

*G. E. Hewitt*

(G.E. Hewitt).

Distribution List:

Messrs. W. Wilcox, L.W. Fletcher, W.T. Archer, P. Smallman.



NATIONAL COAL BOARD

WEST MIDLANDS DIVISION

NO.1 (NORTH STAFFS) AREA

CHATTERLEY WHITFIELD COLLIERY

MINOR SCHEME OF RECONSTRUCTION

8690' HORIZON - PROPOSED CONNECTION TO BELLRINGER MAIN DIP

SECTION 17 SUB-SECTION 31

SPECIFICATION OF WORK

AREA PLANNING BRANCH  
GLEBE HOUSE,  
FENTON,  
STOKE-ON-TRENT,  
STAFFS.

JUNE, 1963.

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PLAN NO.5 - PROPOSED LAYOUT - BOTTOM OF BELLRINGER MAIN DIP

STANDARD 14'/14'-10" x 10' ARCH

NATIONAL COAL BOARD

WEST MIDLANDS DIVISION

NO.1 (NORTH STAFFS) AREA

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8690' HORIZON - PROPOSED CONNECTION TO BELLRINGER MAIN DIP

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SPECIFICATION OF WORK

Extent of the Contract

The Contract is for the drivage of a roadway off the 'Ten Feet' Crut at the Hesketh Level in order to establish a connection between the workings of the Hesketh Pit and those of the Middle Pit.

The starting point of the drivages is some 2,100yds, to the West of the Hesketh Shaft, and the items included in this Specification for Tender are briefly as follows:-

- a): Drivage of approx. 440yds rising 1 in 4.4 and 56yds level on Standard 14'/14'-10" x 10'-0" arches to form connection between Ten Feet Crut and Bellringer Main Dip extension.
- b): Construction of R.S.J. Junction at bottom of Bellringer Main Dip extension.

The drivage of approx. 327 yards falling 1 in 4 (average) on standard 14'/14'-10" x 10'-0" arches in the Bellringer Seam to form the Bellringer Main Dip Extension, and approx. 15 yards falling 1 in 3 on standard 9'/10'-4" x 9'-6" arches will be undertaken by the Board.

A section of the strata through which it is anticipated the tunnel will be driven is shown on Plan No.1.

The Board will be responsible for the transportation of materials from the surface stockyard to a point not more than 100yds. from the face of the drivages and for the return of materials and vehicles from this point to the surface.

The Board will provide all items listed at 'A' and 'B' in the following specification.

The Contractor will be required to supply all wet drilling machines, drills, bits and small hand tools, etc.

The Contractor's employees will walk from the Hesketh Shaft (Downcast) approx. 200 yards (level) to the Hesketh Pit Bottom Manriding Station. Diesel locomotive manriding trollies will transport the men along the Hesketh Main Crut to within 220 yards (level) of the starting point of the proposed drivages.

Men may be transported to and from the surface at the Hesketh Shaft during shift changing times and snapping times.

Excavation:

The Contractor will be required to truly excavate the ground to accommodate the size of the roadway and junction supports by the use of explosives.

Excavation (Cont'd)

The Contractor will be responsible for the loading of excavated spoils, including spoil from overbreaks into the Board's mine cars, or onto the Board's conveyors, and delivering the dirt to the starting point of the drivages. The Board will be responsible for the transport of the spoil from this point.

Where possible the Contractor may load by means of mechanical loading machines into 30 cwt. coal capacity mine cars and/or onto a conveyor.

The Board will supply one rocker shovel loading machine and/or one Duckbill loading machine, or the Contractor can opt to supply and use his own loading machines at an adjusted price. Prices to be given for:-

- a): The Board supplying the loading machines.
- b): The Contractor supplying the loading machines.

If the Board supplies the loading machines it will be the Contractor's responsibility to lubricate and protect the machines from damage.

Explosives:

The Board will supply all explosives free of charge. The Contractor and/or his servants will be responsible for the conveyance of the explosives from the Board's magazine to the point of usage, and for the return of the empty cannisters to the magazine.

The use of explosives in mines is governed by the current Coal Mines (Explosives) Order made under powers given in the Mines and Quarries Act 1954. The order, read in conjunction with the Board's "Handbook on Shotfiring in Coal Mines" defines the statutory requirements in regard to shotfiring and the use of explosives in coal mines.

Copies of the "Handbook on shotfiring in Coal Mines" may be inspected by the tenderers at Chatterley Whitfield Colliery Offices, Tunstall, Stoke-on-Trent.

Firing:

Milli-second delay action detonators will be used wherever permitted. Where not permitted, simultaneous firing in rounds of not more than six shots will be used. The Board will provide shotfirers, who will be responsible for the firing of all shots.

Overbreaks:

The arches, roof girders and sides of roadways shall be systematically covered with timber or steel covering as directed by the Board's representative. The overbreaks between the covering and the excavation shall be solidly backfilled so that no open spaces or voids remain.

Construction of Roadways:

The roadways and junctions shall be as shown on the enclosed plans, and must be truly excavated to accommodate the size of support required. All arches and/or other supports must be securely strutted and the distance between arches on roadways must not exceed 3 (three) feet from centre to centre of the arches.

Alignment and Gradient of Roadways:

The roadways must be driven to the direction and gradient lines fixed by the Board's Surveyors. The maximum deviation from these directions and gradient lines which will be tolerated is 2(two) inches. Any deviation beyond this tolerance must be corrected at the Contractor's own expense.

The Board's Surveyor has authority to stop the work if he finds any deviation from the lines so fixed as to direction, gradient, position and verticality and shall report to the Board's representative who will require the Contractor to remedy any defects at their own expense.

Temporary Supports:

The Contractor is obliged to use temporary supports provided by the Board where it is not possible to install permanent supports immediately after excavation. Forepoling (horse-heads) shall be in constant use at the working faces and shall be advanced as soon as practical after the firing operation.

Transport of Materials:

The Contractor will be responsible for the loading and transport of material from the Board's stocking points which will be established as near as possible to the face of the contract drivages and vice versa for the returned materials and vehicles.

Structural Steelwork and Steel Arches, etc.

Structural steelwork, steel arches, etc., will be supplied by the Board, and the Contractor will be responsible for their transport from the Board's underground stocking point to the point of usage and the subsequent erection of same. The Board's underground stocking point will be sited as near as practical to the starting point of the drivages.

The Contractor will be obliged to accept receipt of the steelwork in good condition and to reject any steelwork damaged in transit prior to erection giving due notice of this to the Board.

The Contractor will be obliged to vary the spacing of steelwork or set additional arches or other supports whenever ordered by the Board's Engineers and subsequently confirmed in writing.

The Contractor will be obliged to set arches and other supports on the footblocks or saucers as supplied by the Board.

Pipes, Ventilation Ducting and Cable Fixtures:

The Board will supply all ventilation pipes and pipe joints together with the necessary fans. The Contractor will be responsible for the erection and maintenance of the ventilation pipes and must keep the advancing end of the pipes within 15 feet of the working face to comply with the Ventilation Regulations.

The Board will supply all compressed air pipes, water pipes, etc. The Contractor will be responsible for the fitting of these pipes along the drivages, for maintaining them in a leakproof condition and for their protection from damage.

Tracklaying:

The Board will supply all rails, fishplates, sleepers, etc. necessary for the installation of a single rail track. The Contractor will be responsible for all tracking in the drivages and maintaining it in such condition that it is always available, if required, for the transport of drivages dirt to, and materials from, the haulage road which is the starting point of the drivages.

Haulage:

The Board will supply a suitable haulage gear and haulage drivers, and will be responsible for taking away the dirt, and delivery of empty cars and materials to and from the starting point of the drivages.

Refuges:

Refuges shall be provided in compliance with the Regulations and shall be 6ft high, 3ft wide and 4ft deep.

A. PLANT, EQUIPMENT AND GENERAL FACILITIES

The following is a list of plant, equipment and general facilities to be provided by the Board for the use of the Contractor.

1. Underground access roads and their maintenance to site of contract work.
2. Access to stores.
3. Stocking ground.
4. Welfare facilities.
5. Powder magazine.
6. Cap lamps.
7. Gas detectors and/or flame lamps.
8. Surveyor's centre lines and levels.
9. Ropes.
10. Hoist.
11. Ventilation equipment and installation.
12. Cars for transport of dirt, materials and men.
13. Mechanical plant for assembling and transfer of mine cars between stock roads and pit bottom.
14. Mechanical plant for transport of mine cars between stockroads and the starting point of the drivages.
15. Conveyors for dirt disposal.
16. Mechanical dirt loaders.
17. Telephone service underground to surface.

B. Materials:

The Board will provide the following materials:-

I. Blasting Materials

- i) Explosives.
- ii) Detonators.
- iii) Stemming materials.
- iv) Shotfiring Cables.
- v) Transport Cannisters.



## II. Support Materials.

- i) Structural roof girders.
- ii) Steel arches, struts and joists.
- iii) Fishplates.
- iv) Extension pieces where required.
- v) Bolts and nuts.
- vi) Wood blocks and/or Concrete foot saucers
- vii) Lagging materials.

## III Permanent Rail Tracks

- i) Rails
- ii) Fishplates
- iii) Bolts and nuts
- iv) Woodsleepers
- v) Tie bars
- vi) Ballast
- vii) Sleeper fastenings
- viii) Cross-overs and turnouts

## IV. Pipes, Cables, etc.

The Board will provide the following facilities to the site of the Contract:-

- i) Permanent compressed air pipes complete with joints and fittings.
- ii) Permanent water pipes complete with joints and fittings.
- iii) Steel ventilation pipes complete with joints and fittings.

NOTE:- The Contractor will be responsible for the extension of items i) - iii) inclusive.

- iv) Power cables complete with joints and fittings.
- v) Pipe hangers and cable hangers.

## C. SERVICES:

The Board will provide the following services:-

- i) Ventilation as required by the Regulations of the Mines.
- ii) Compressed air at 60lbs per sq.in. minimum pressure.
- iii) Electric power at 550 volts, 3 phase and 50 cycles. The Board's section switch, which shall be not further than 250 yards from the starting point of the drivages.
- iv) Water supply.
- v) The services of hoist men to operate A10
- vi) The services of haulage personnel to operate equipment under A 12.
- vii) The services of haulage personnel, conveyor attendants and labourers to operate equipment under A13, A14 and A15.
- viii) The services of labourers for stonedusting.
- ix) The services of Deputies and other Officials for statutory duties.
- x) The services of personnel required for maintenance of conveyors.

NOTE:- The Contractor will be required to replace any spillage from the conveyors.

6.

PART II

MINIMUM RATE OF PROGRESS

It is expected that work will proceed on three shifts per day for the duration of the contract.

The minimum rate of progress required is an average of 20 yards per week in the connection to the Bellringer Main Dip extension.

PART III

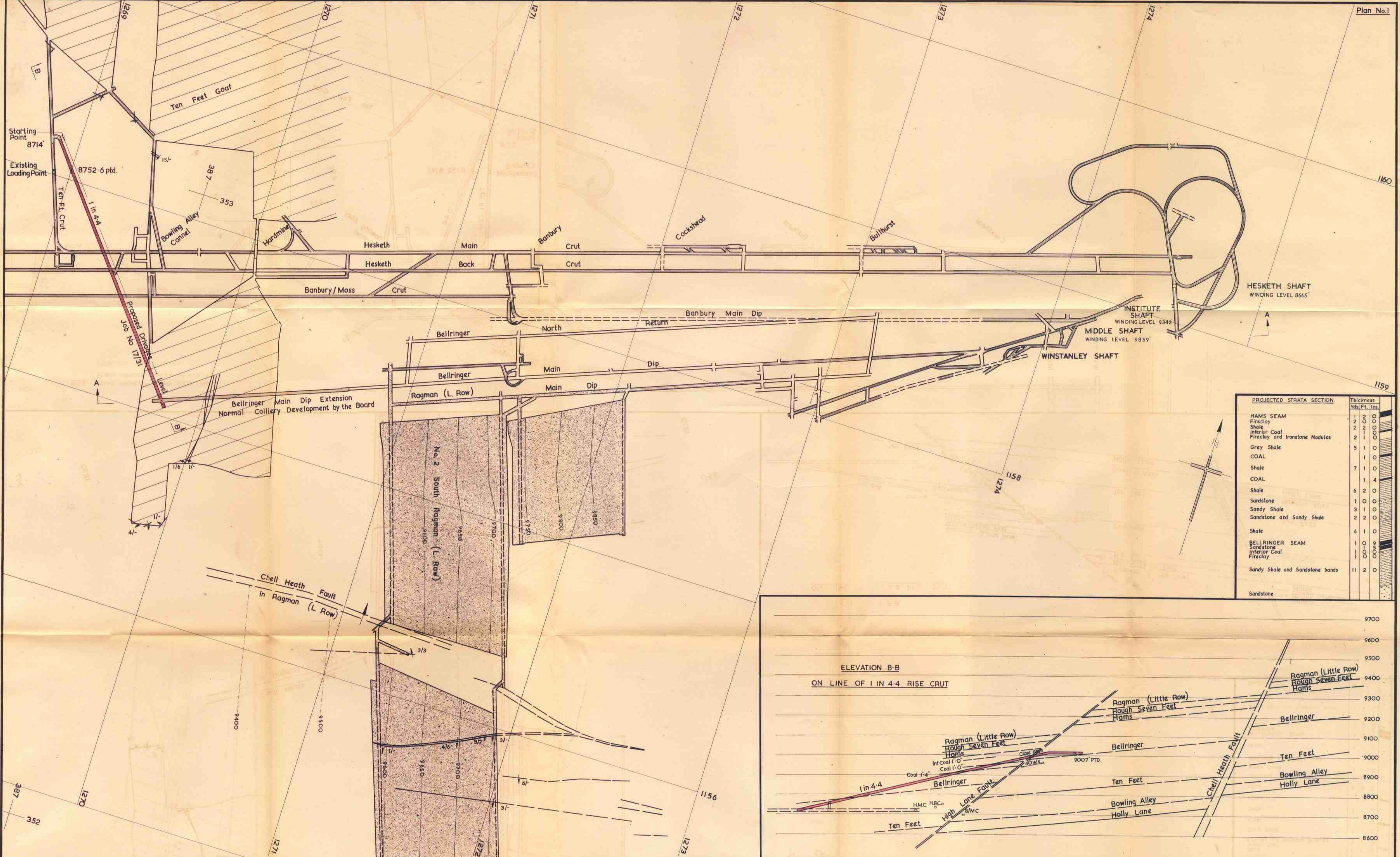
COMPLETION DATE

It is required that the work specified should be commenced by 22nd July 1963 and completed by 15th February, 1964.

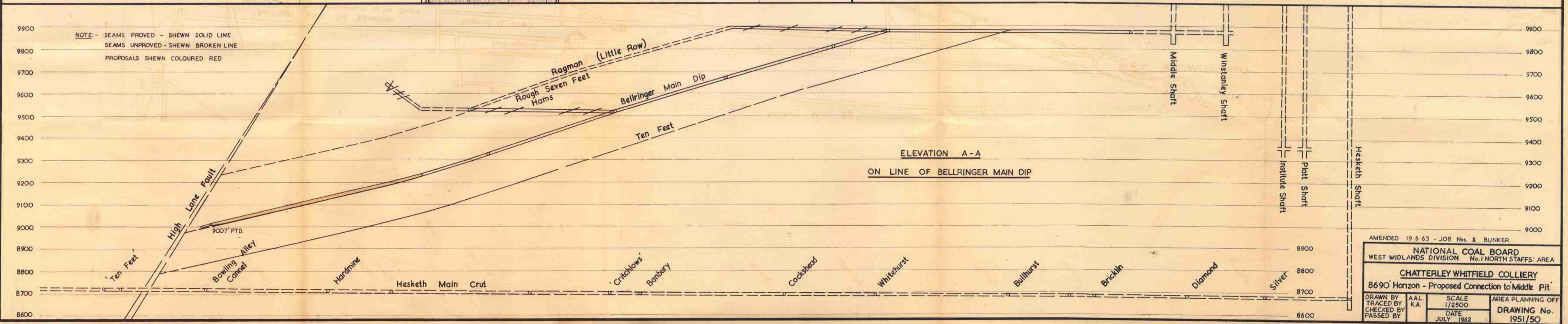
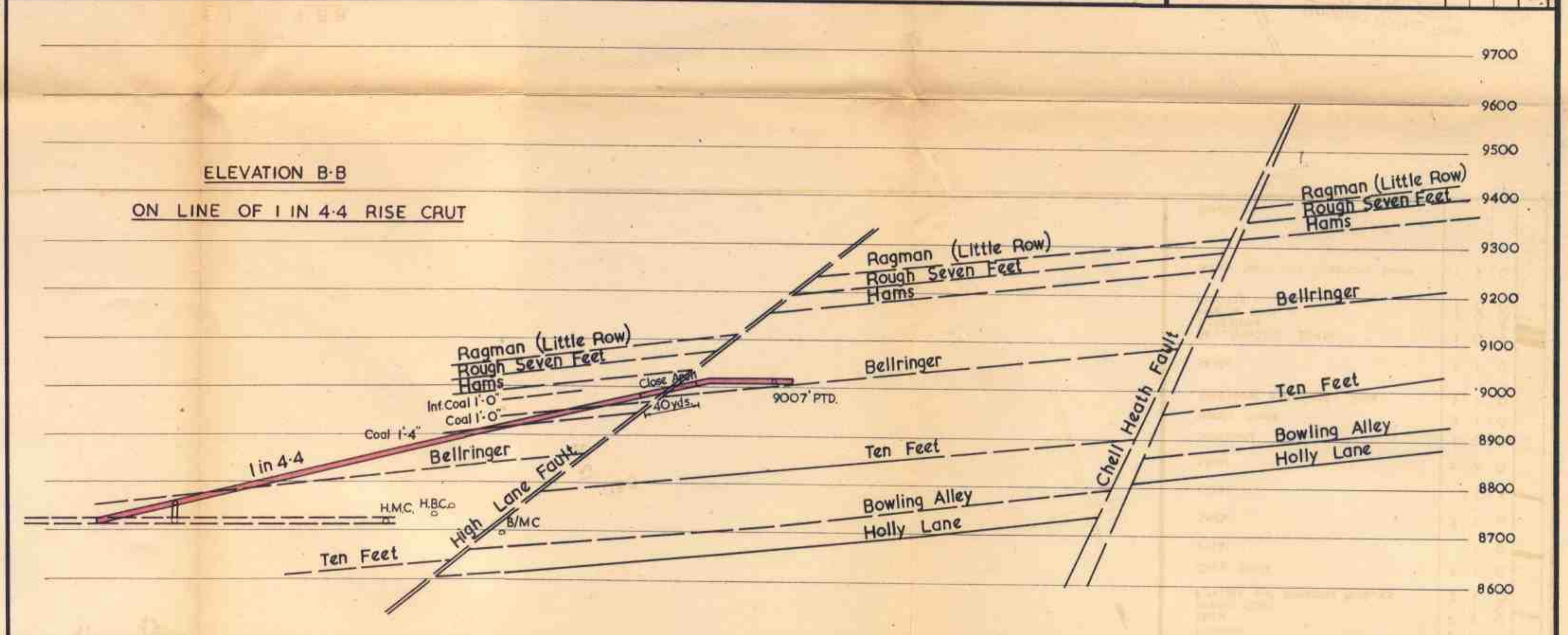
AREA PLANNING BRANCH  
JUNE, 1963.

CHATTERLEY WHITFIELD COLLIERY8690' HORIZON - PROPOSED CONNECTION TO BELLRINGER MAIN DIP.

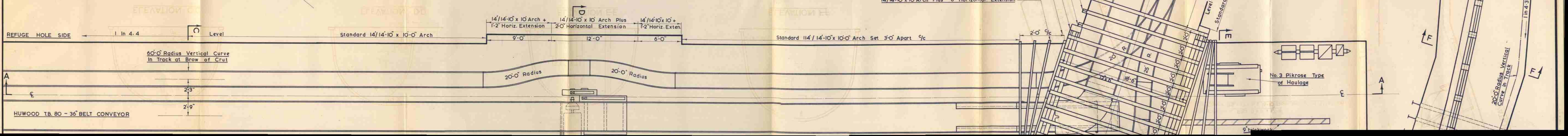
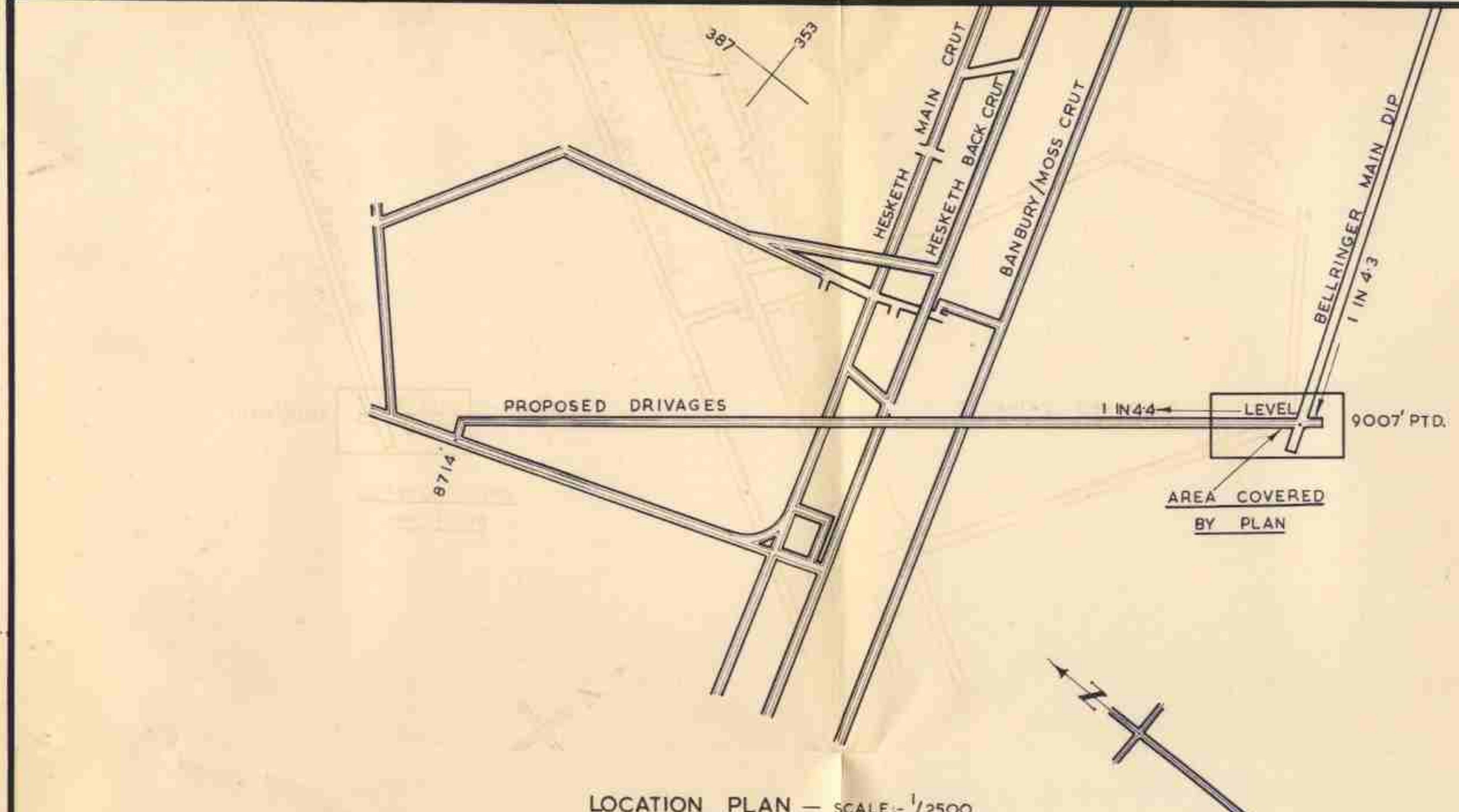
Job No.	Description.	Quantity	Unit	Rate	£.	s.	d.
17/31	<u>CONNECTION TO BELLRINGER MAIN DIP.</u>						
a)	Approx. 400 yards of straight and rising 1 in 4.4 drivage on 14'/14'-10"x 10' arches, strutted, lagged, footblocked etc. as specified.	400	Lin.Yd.				
b)	Approx. 40 yds. of straight and rising 1 in 4.4 drivage on 14'/14'-10"x10' arches, SET 1'-6" APART, strutted, lagged, footblocked etc. as specified.	40	Lin.Yd.				
c)	Approx. 47 yds. of straight and level drivage on 14'/14'-10"x10' arches, strutted, lagged, footblocked, etc. as specified.	47	Lin.Yd.				
d)	Approx. 5 yds. of straight and level drivage on 14'/14'-10"x 10' arches with 1'-2" horizontal extensions, strutted, lagged, footblocked etc., as specified.	5	Lin.Yd.				
e)	Approx. 4 yds. of straight and level drivage on 14'/14'-10"x 10' arches with 2'-0" horizontal extension, strutted, lagged, footblocked, etc. as specified.	4	Lin.Yd.				
TOTAL 17/31.							
17/32	<u>JUNCTION BELLRINGER MAIN DIP EXTENSION.</u> Formation of 4 -way R.S.J. Junction out of 14'/14'-10"x 10' arched level roadway including squaring-up entrances, as shown on Plan No.3.	1	Item.				
TOTAL 17/32.							
GRAND TOTAL:							
<u>Principal unit rates to be used to value variations in the lump sums for the construction work involved in this Contract.</u>							
a)	Excavation - Drivage Junction Above 14'-6" high		Cu.Yd.				
b)	Girders Erected - Drivage Junction Above 14'-6" high		Per Cwt.				
c)	Steel Arches Erected - Standard 14'/14'-10"x 10'-0"		Per Arch.				
d)	Manholes - on all roads to comply with the Regulations and to the requirements of the Board's Representatives.						



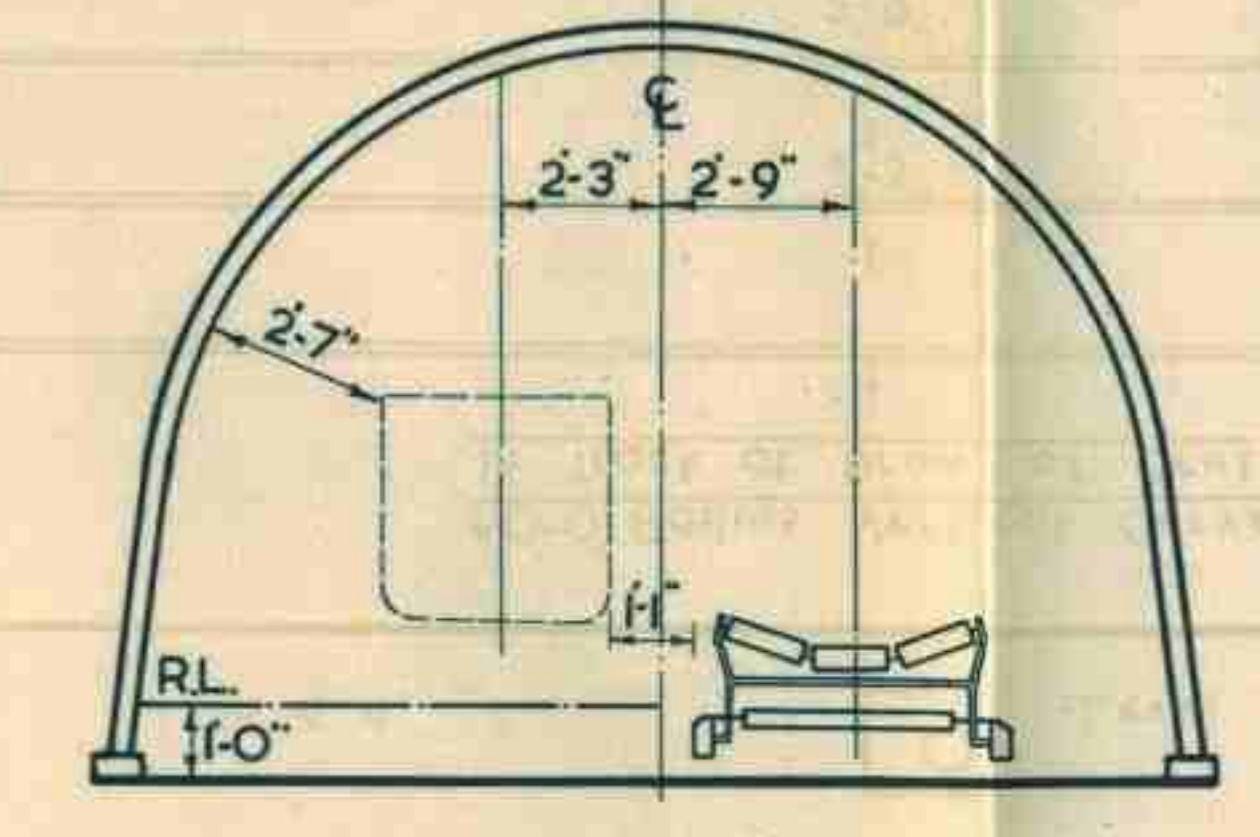
PROJECTED STRATA SECTION	Thickness
	Yds. Fms. Ins.
HAMS SEAM	1 0 0
Fireclay	2 2 0
Shale	2 1 0
Inferior Coal	2 1 0
Fireclay and Ironstone Nodules	2 1 0
Grey Shale	5 1 0
COAL	1 1 0
Shale	7 1 0
COAL	1 4 0
Shale	6 2 0
Sandstone	1 0 0
Sandy Shale	3 1 0
Sandstone and Sandy Shale	2 2 0
Shale	6 1 0
BELLINGER SEAM	1 0 0
Sandstone	1 0 0
Inferior Coal	1 0 0
Fireclay	1 0 0
Sandy Shale and Sandstone bands	11 2 0
Sandstone	



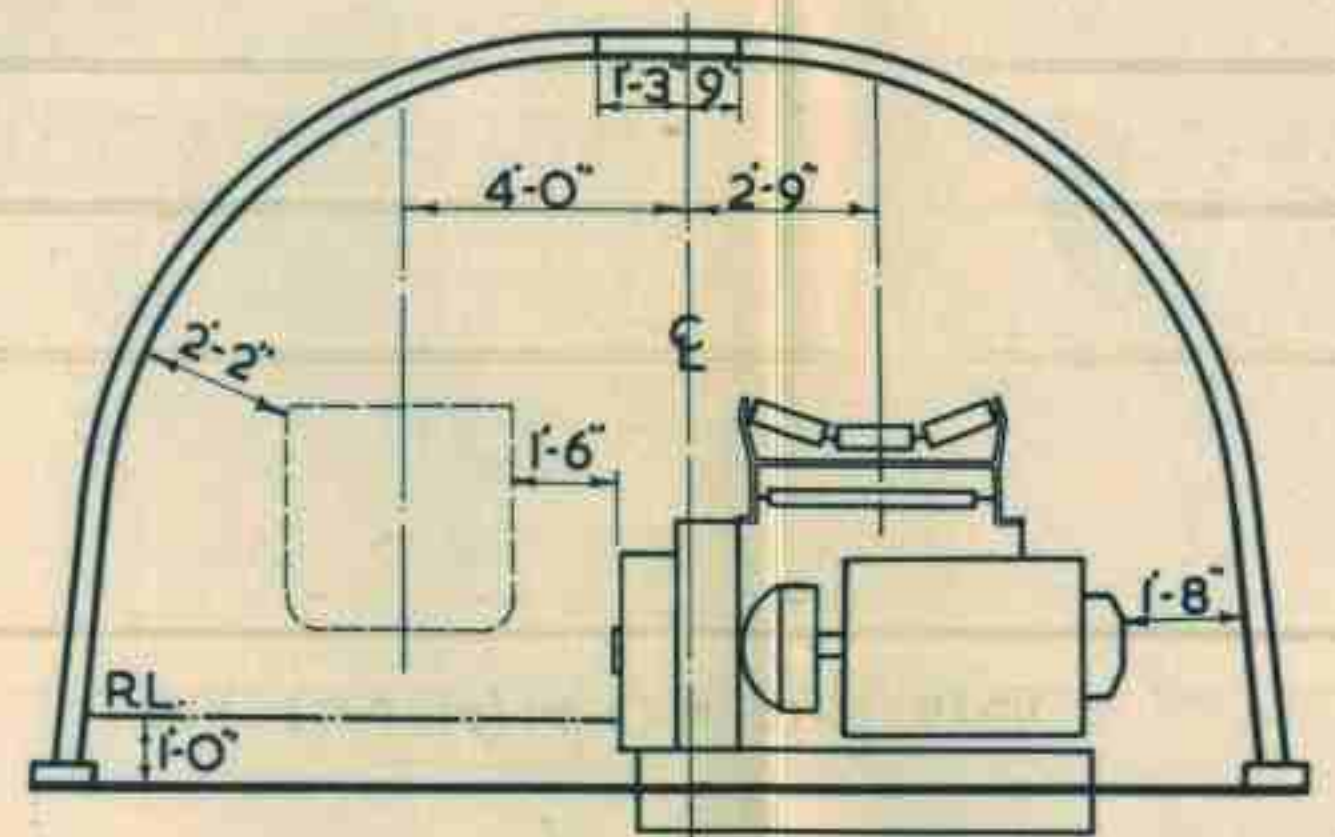
AMENDED 19.6.63 - JOB Nos. & BUNKER  
**NATIONAL COAL BOARD**  
 WEST MIDLANDS DIVISION No. 1 NORTH STAFFS' AREA  
**CHATTERLEY WHITFIELD COLLIERY**  
 B690' Horizon - Proposed Connection to Middle Pit  
 DRAWN BY A.A.L. SCALE 1/2500 AREA PLANNING OFF  
 CHECKED BY K.A. DATE JULY 1962 DRAWING No. 1951/50  
 PASSED BY DATE  
 SEC. 17 SUBSEC. 31



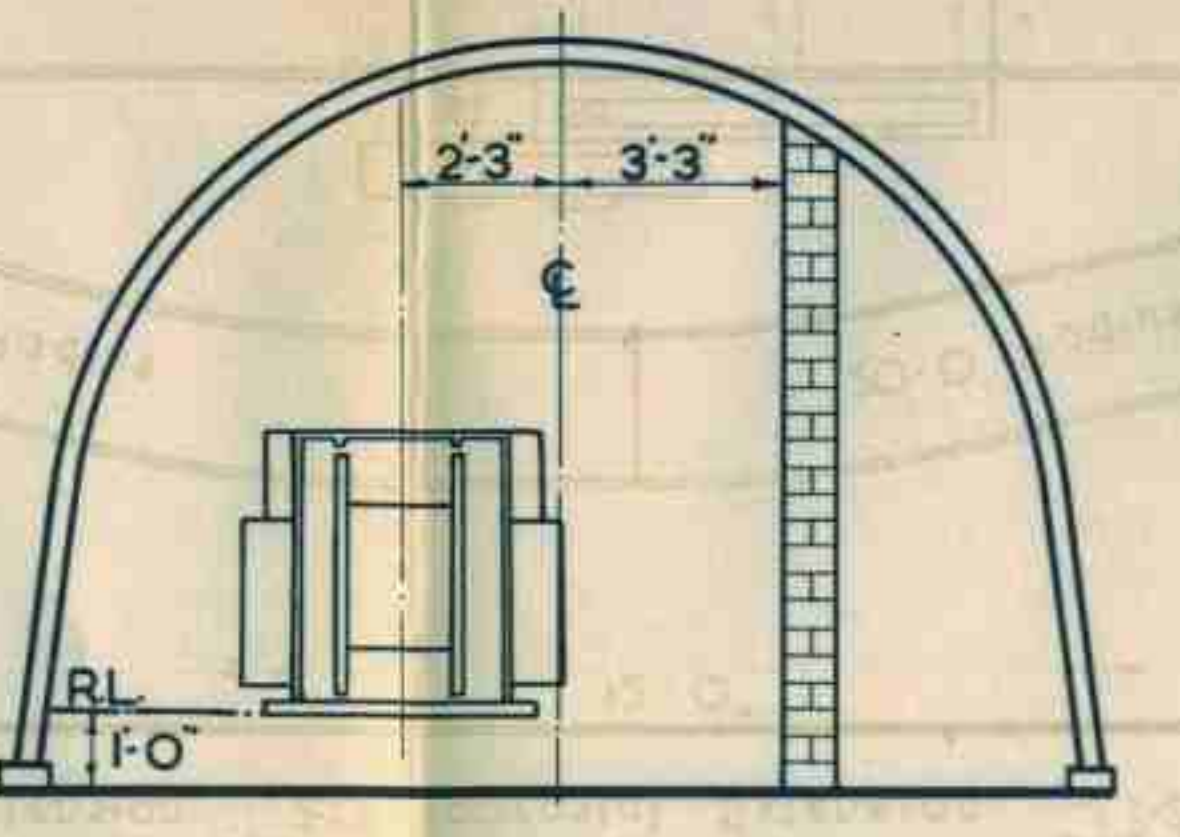
- Single Stanchion RSJ 8' x 6' x 12'-4"
- Single Carrier RSJ 12' x 6' x 16'-10" From Inside of Stanchion
- Twin Stanchions RSJ 15' x 6' x 10'-10"
- Twin Carrier RSJ 18' x 6' x 16'-9" Between Stanchions
- 14/14-10 x 10 Arch Plus 1'-0" Horizontal Extension
- 14/14-10 x 10 Arch Plus 6" Horizontal Extension



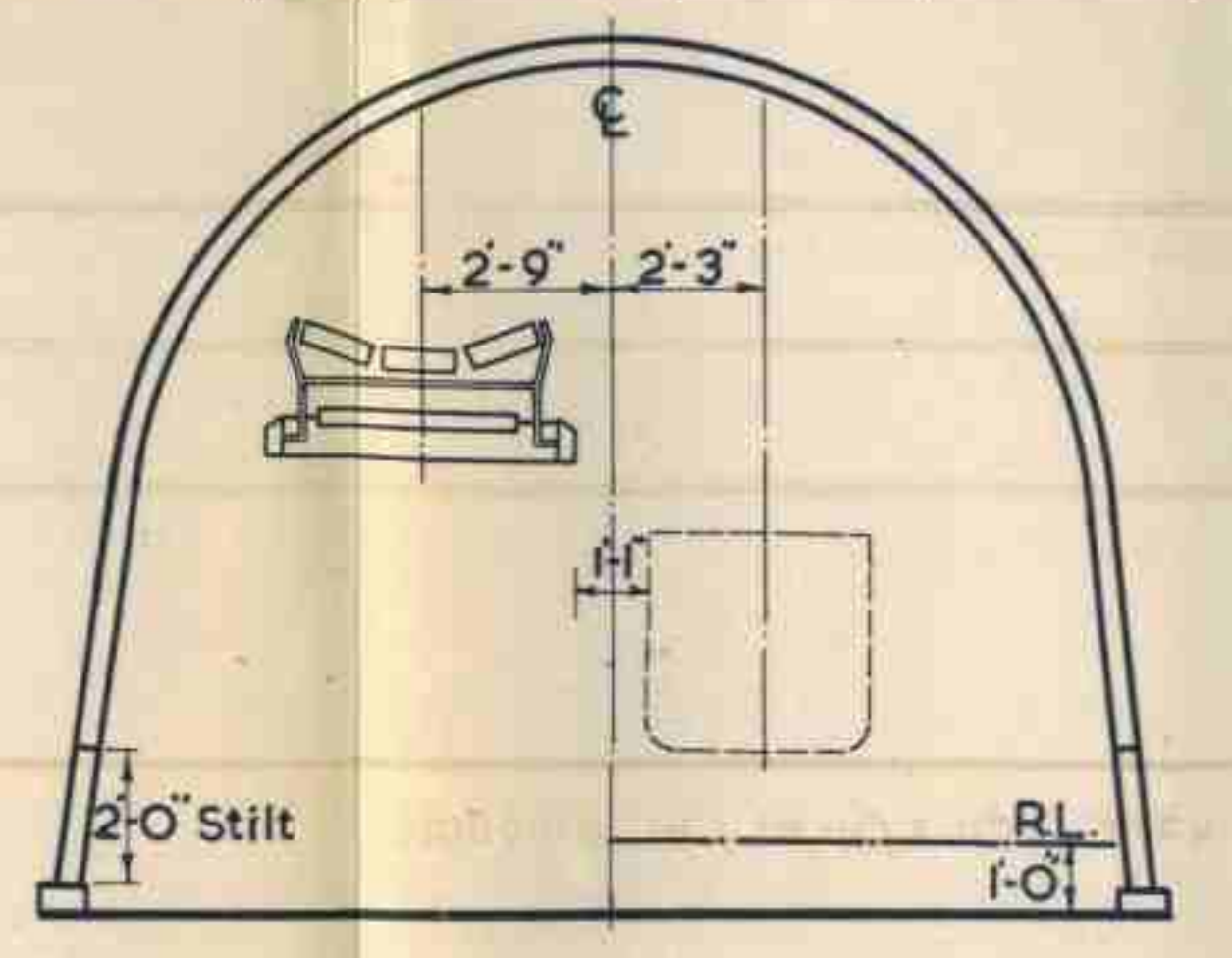
ELEVATION G-C



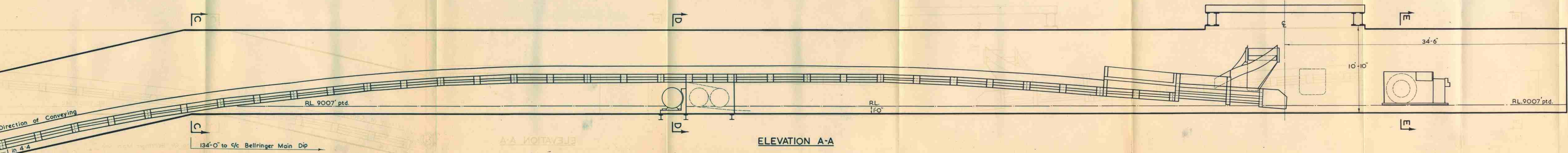
ELEVATION D-D



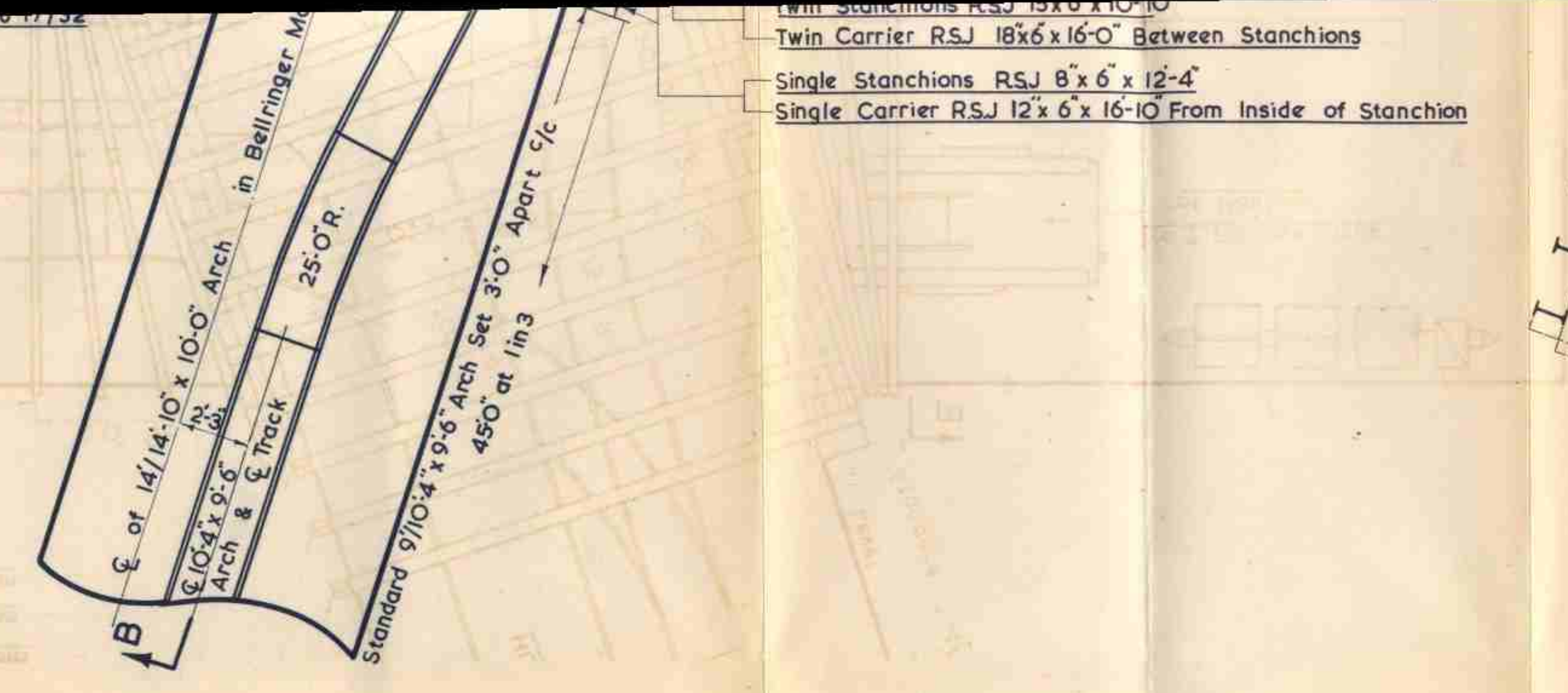
ELEVATION E-E



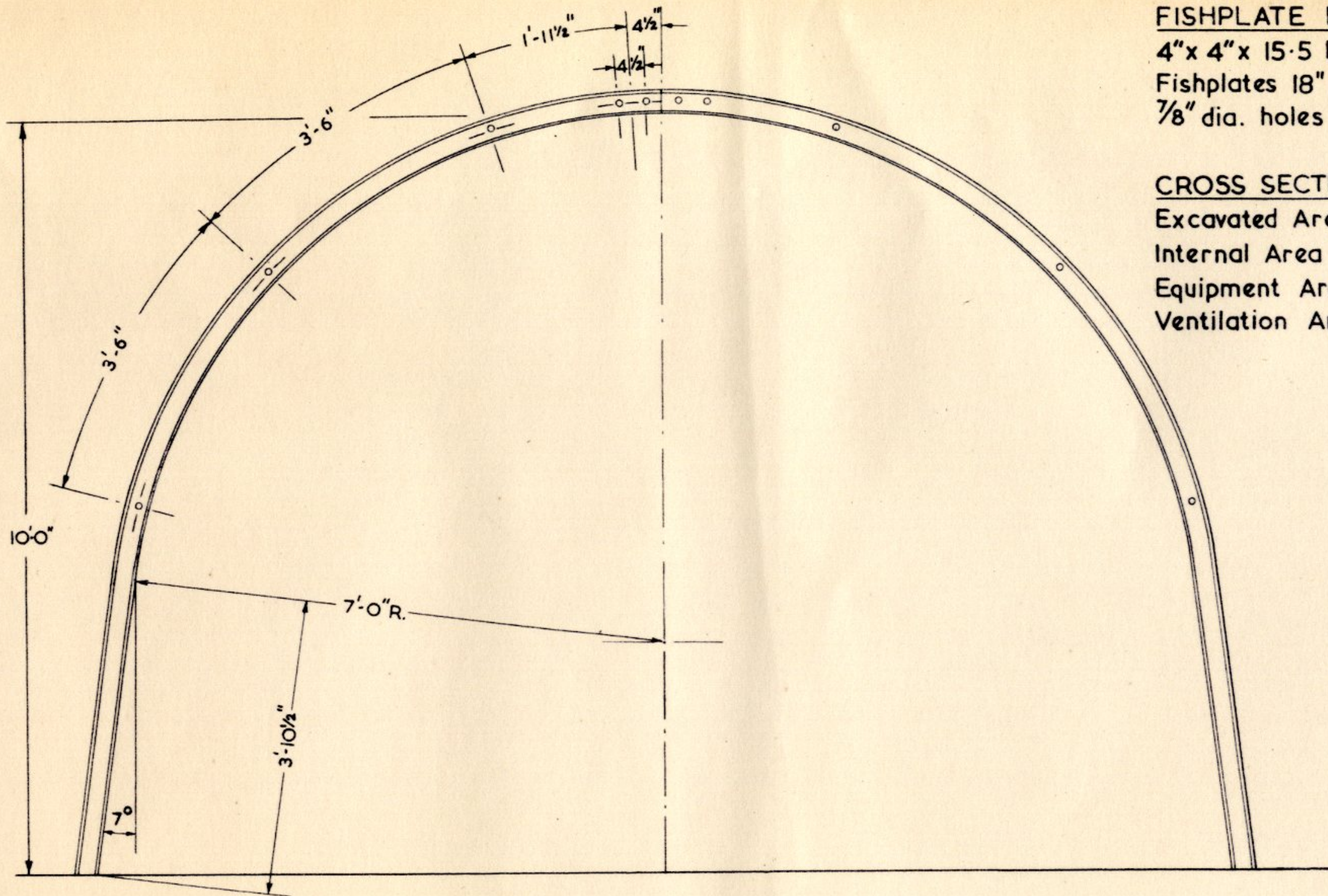
ELEVATION F-F



ELEVATION A-A



- Twin Stanchions RSJ 15' x 6' x 10'-10"
- Twin Carrier RSJ 18' x 6' x 16'-9" Between Stanchions
- Single Stanchions RSJ 8' x 6' x 12'-4"
- Single Carrier RSJ 12' x 6' x 16'-10" From Inside of Stanchion



### FISHPLATE DETAILS

4" x 4" x 15.5 lbs. R.S.J. Channel Fishplates  
 Fishplates 18" long, 4 holes 1 1/8" x 7/8"  
 7/8" dia. holes in R.S.J.

### CROSS SECTIONAL AREAS

Excavated Area	145	Sq. Ft.
Internal Area	120	Sq. Ft.
Equipment Area	12	Sq. Ft.
Ventilation Area	108	Sq. Ft.

## 14 FEET ARCH

14'-0" / 14'-10" x 10'-0" 4" x 4" Section

NATIONAL COAL BOARD  
 WEST MIDLANDS DIVISION No. 1 NORTH STAFFS. AREA  
 NORTH STAFFS. AREA STANDARD 14 FT. ARCH

DRAWN BY  
 TRACED BY

A.A.L.

SCALE  
 1/2 INCH TO 1 FOOT

DATE

APRIL 1960

AREA PLANNING OFF.  
 DRAWING NO.  
 1489/50