

NETWORK RAIL LNW PROPERTY WORKS TEAM MINOR EMERGING WORK REMIT

Budget Holder	Funding Category
Adam Checkley	London Midland Minor Works & PPM 16/17
Business Plan Funding Line	Budget Estimate
TBC	

ELR	Mileage	Asset Name/ Location	Summary of Scope of Work
LEC	49M - 11422Yds	Milton Keynes Central Station	Replacement of corroded LPHW pipework on station concourse
High Street Environment?		Possessions/Isolations Required?	Listed Building? Conservation Area?
Yes		No	No
Are ACMs (Asbestos Containing Materials) present at site?		Is ARMS data attached?	Is Formal Handback Required?
Check ARMS Database.		No	Yes
Known Hazards			
Electric shock, asbestos materials, Working at Height			
Known Constraints			
<ul style="list-style-type: none"> Removal and replacement of some floor tiles on concourse. Superior landlords consent may be required to carry out works. Works may be necessary outside current NWR/LM station lease area. 			



Background

Existing Installation

The existing LPHW heating installation at Milton Keynes central station dates from the 1980-81 when the station was built. Although the boiler and plant were recently renewed the heating emitters and pipework are largely original.

The station itself is part of a large office block which is wholly owned by Zurich, Network Rail being a tenant covering the concourse and associated ticket offices and retail outlets (level 2) plus the plant rooms, storage areas and offices directly below (level 1). As station operator London Midland Trains are the under tenants.

Current Issue

At the front glazed to the concourse frontage there are 4 No low level radiators whose primary role is to provide anti-condensation protection to station frontage windows.

These radiators are fed via 15 mm F&R pipework which has been run from the former parcels office, through the ceiling slab then chased into the concourse floor screed (under floor tiles) for several meters before connecting onto the radiators (see appendix A).

Over the years the pipework in the floor screed has corroded and leaked. Due to their inaccessibility it has not been possible to readily repair or replace the pipework, Therefore the pipework branches to these radiators has had to be isolated from the main heating system and consequently the radiators have been non-operational for some time.

Scope of Works Required

Design and Implementation required by end ~~October 2015~~. Using an installation approved design/mechanical services contractor.

Suggested suppliers:

TBA

Given the non-complex nature of the works submission of design proposal accompanied by fixed price quotation would be supported.

Description of Works

1. Replace corroded heating pipework running in concourse screed between existing 4No low level heating radiators at front of concourse and main heating flow and return pipework in level 1 former parcels office.
2. Slightly reposition 4No existing radiators to ensure that station entrance doors do not damage radiator valves when fully swung open.

Particular Requirements

1. Removal and replacement of concourse floor tiling should be kept to an absolute minimum. Therefore as possible new pipework should be run under entrance well mats and pass through floor slab into level 1 at the earliest opportunity.
2. To this end the possibility of running pipework into the level 1 service duct/route before running through wall into form parcels area should be investigated. Although I should be note that the service duct is outside the NWR lease area and therefore permission from other parties would need to be obtained.
3. In order to mitigate future corrosion issues use of plastic pipe should be considered.
4. If feasible new pipework should be run in duct or sleeving to allow future renewal without the need to excavate the concourse.
5. If the above (section 4) is not feasible then pipework should be laid in one continuous section in inaccessible areas or jointed with solvent weld/soldered fittings.
6. London Midland have indicated that they hold a stock of spare concourse floor tiles which may be made available should they be required (Contact Andrew Rushton).

General Requirements

7. All new pipework and shall be fully pressure tested and commissioned before concourse floor is made good.
8. Prior to commissioning systems, chemical treatment & flushing out shall be carried out in strict accordance with the water supply regulations.

Testing, Commissioning & Handover

9. Commission, test and handover system to Network Rail Asset Management and London Midland Trains. Handover to include provision of an Operation and Maintenance manuals (1No. hard copy and 2No. electronic copies) containing all information necessary to maintain the new installation including but not limited to the following:-
 - Description of system, control setup etc.
 - As installed drawings
 - Schematic diagram of installation
 - Testing and Purging certificate.
 - Plant Commissioning Certificate
 - BS7671 Electrical completion certificates
 - Manufacturers literature and operating Instructions
 - Recommended maintenance schedule

Legislation Pertaining to the Proposed Works

- Electricity Supply Regulations
- BS7671 IEE 17th Edition Wiring Regulations 2008
- Gas (Installation and Use Regulations) 1998
- Water Supply Regulations
- Health & Safety at Work Act
- Building Regulations - all parts where they apply.
- Electricity at Work Act
- Working at Height Regulations
- Control of Asbestos Regulations
- Constructions (Design & Management Regulations)

Reference Documentation, Key Standards & Derogations

- LNW Engineer (Buildings) – Specification for electrical installations.
- BS 5422 Thermal Insulation
- BS 5449:1990 Specification for forced circulation hot water central heating systems for domestic premises
- BS 6644:2005 Specification for Installation of gas-fired hot water boilers of rated inputs between 70 kW and 1.8 MW
- BS 5440-2 Ventilation for appliances not exceeding 70KW net input.
- BS 6891 Low pressure gas installation pipework of up to 28mm (R1)
- BS 5449 Forced circulation hot water central heating for domestic premises
- BS 6880 Code of practice for installation of low temperature hot water heating systems of output exceeding 45KW.

- CIBSE Guides B and C and Commissioning code B
- Institute of Gas Engineers Guidelines
- BS6798:2009 Specification for installation of gas fired boilers <70Kw
- DW/144 Specification for Sheet Metal Ductwork
- HVCA Publications
- REFCOM Certification
- The control of legionella bacteria in water systems (HSC L8)
- BS 8558:2011 - Guide to the design, installation, testing and maintenance of services supplying water for domestic use within buildings and their curtilages. Complementary guidance to BS EN 806.
- BS EN 806- 1to5:2012 Specifications for installations inside buildings conveying water for human consumption
- GI/RT7014 Infrastructure Requirements at Stations
- GI/RT7016 Interface between Station Platforms, Tracks and Trains
- GC/RT5203 Infrastructure Requirements for Personal Safety in Respect of Clearances
- GC/RT5161 Station Design and Maintenance Requirements
- RT/LS/P/007 Project Management and the Environment
- RT/ENGP/06 Buildings, Stations and Depots Engineering Policy
- NR/SP/CIV/003 Technical Approval of Design – Construction and Maintenance of Civil Engineering Infrastructure
- NR/SP/BUS/011 Prevention of Damage to and Danger from Surface & Buried Services
- Version 1 Handover / Handback of Operational Property Assets
- DW/144 Specification for Sheet Metal Ductwork
- HVCA Publications
- REFCOM Certification

Contacts & Stakeholders

- Ian Smith – Network Rail, Asset Engineer (Building Services) – Tel: 07860 501038.
- Andrew Rushton – London Midland Trains Facilities Manager – Tel: 07710 959848.

Attachments and Available Records

Document Name	Attached?
Proposed Works (Appendix A)	Yes
Record Drawings (Appendix B)	Yes
	Yes

Document Approval and Acceptance

Prepared By 	Name: Ian Smith
	Job Title: Building Services Engineer
	Date: 16 th March 2016
Accepted By 	Name: Richard Upton
	Job Title: Senior Building Services Engineer
	Date: 16 th March 2016

Photographs



LH Low Level Radiator with concourse tiles & well mat



Centre LH Low Level Radiator with concourse tiles & well mat



LH Low Level Radiator with concourse tiles & well mat



RH Low Level Radiator with concourse tiles & well mat



Centre LH Low Level Radiator with concourse tiles & well mat



RH Low Level Radiator with concourse tiles



High level pipework in former parcels office – note pipework rising through floor slab



High level pipework in former parcels office – Note support column rising through slab



Level 1 service duct adjacent to former parcels office – looking south



Level 1 service duct adjacent to former parcels office – looking north

APPENDIX A

Proposed Works

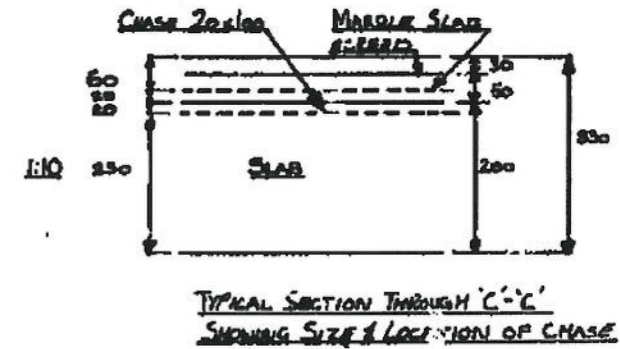
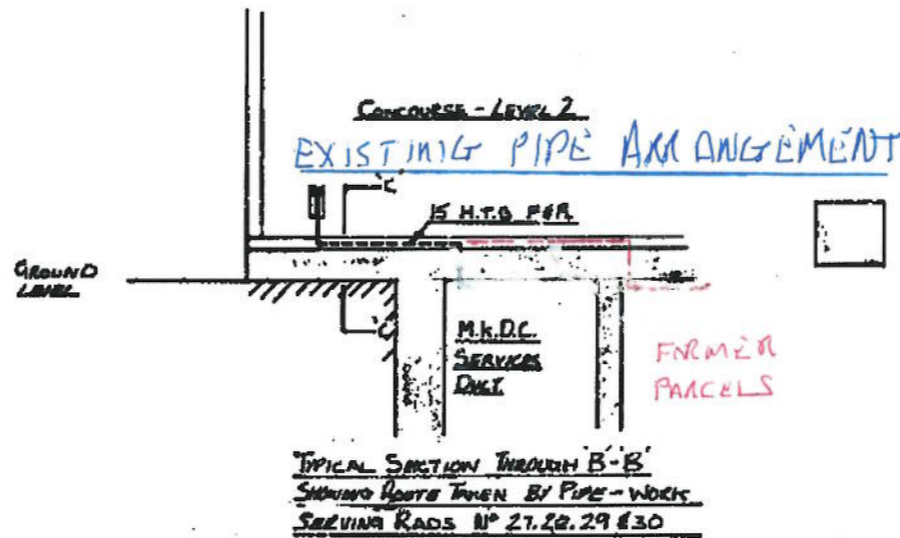
APPENDIX A

SHEET 1 OF 2

EXISTING LOW LEVEL RADIATORS TO BE RETAINED BUT SLIGHTLY REPOSITIONED TO AVOID FOULING DOORS.

EXISTING REDUNDANT PIPE TO BE REMOVED.

NEW PIPEWORK - TO BE ROUTED INTO SERVICE DUCT VIA WELL MATS



FROM SITE INSPECTION PIPES ACTUALLY DROP DIRECTLY THROUGH SLAB INTO FORMER PARCELS OFFICE

APPROX LOCATION OF LEVEL 1 SERVICE DUCT

FORMER PARCELS LEVEL 1

FORMER BMI OFFICE LEVEL 1

FORMER BMI OFFICE LEVEL 1

FORMER DME STORE LEVEL 1

15 H.T.G. F.R. EB-TA IN COPPER PIPE. TO BE CHANGED IN

15 H.T.G. F.R. EB-TA IN COPPER PIPE. TO BE CHANGED IN

AIR VOLUME M³/S

THROW (METRES)

NO LOCATION

CONCOURSE LEVEL 2

AIR VOLUME M³/S





THROW (METRES)

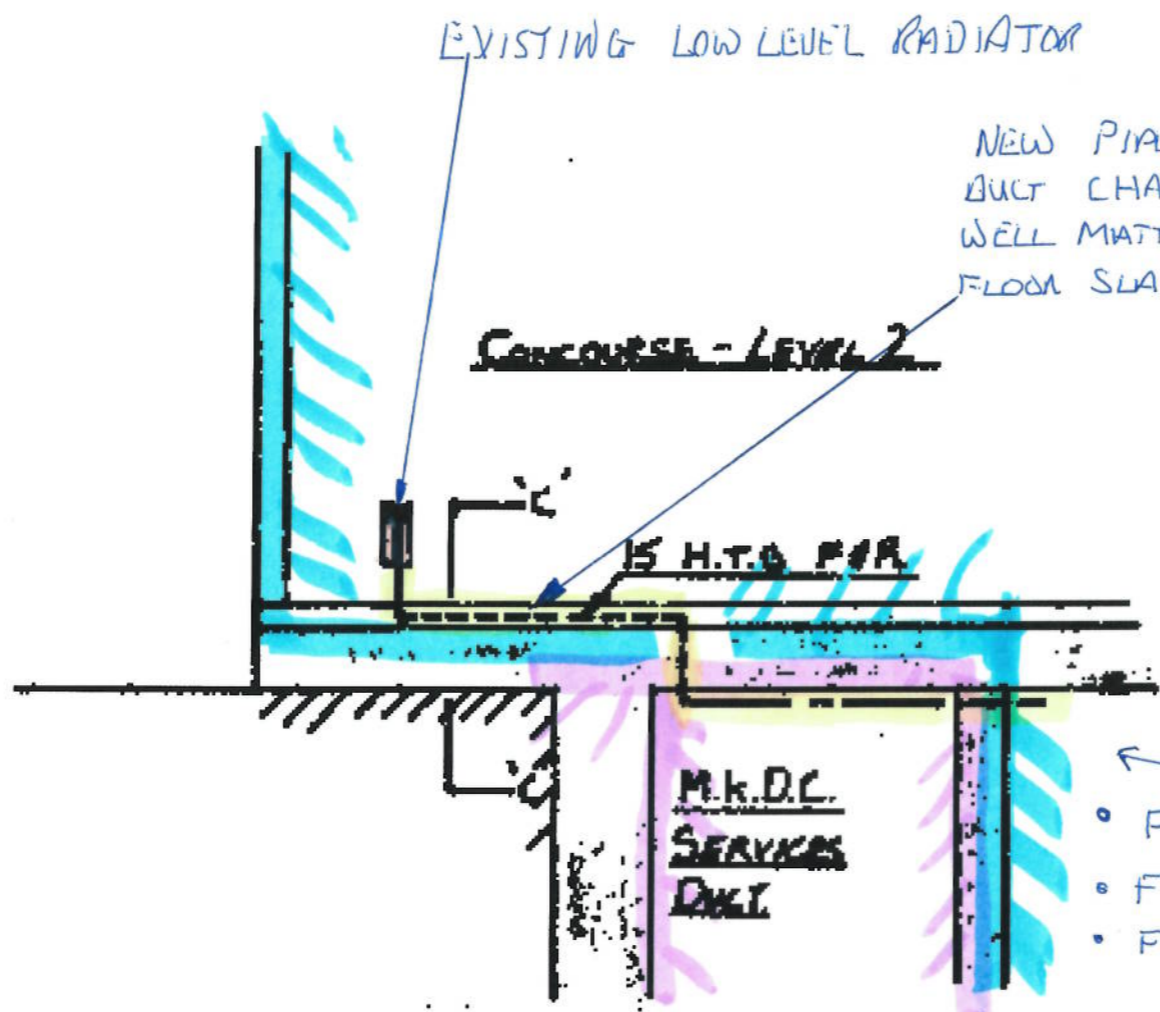
ADDRESSES

ADRIAL PRODUCTS, LINCASTER, ROAD HIGH WILCOMBE, BUCKINGHAMSHIRE
TEL: 0494 251511 (5 LINE DIAL)

NEW PIPEWORK TO BE ROUTED UNDER WELL MATT AND DROPPING THROUGH FLOOR SLAB INTO SERVICE DUCT. - SEE APPENDIX A SHEET 2 OF 2

NEW PIPEWORK TO BE ROUTED UNDER WELL MATT AND DROPPING THROUGH FLOOR SLAB INTO SERVICE DUCT. - SEE APPENDIX A SHEET 2 OF 2

- AREA INSIDE STATION LEASE 
- AREA OUTSIDE STATION LEASE 
- PROPOSED ROUTE OF NEW PIPEWORK 
- EXISTING RADIATORS TO BE RETAINED 



NEW PIPEWORK TO BE RUN IN FLOOR BUT CHASED INTO SCREEN UNDER WELL MATT BEFORE DROPPING THROUGH FLOOR SLAB INTO SERVICE DUCT.

CONCOURSE - LEVEL 2

15 H.T.O. P/R

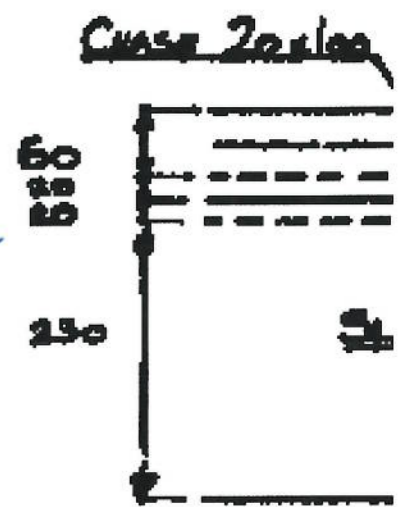
GROUND LEVEL

M.K.D.C. SERVICES DUCT

LEVEL 1

- ← THIS AREA WILL BE AS FOLLOWS:-
- FOR RADIATORS NO'S 27 & 28 PARCELS
 - FOR RADIATORS NO 29 BMI OFFICE
 - FOR RADIATOR NO 30 DME OFFICE

TYPICAL SECTION THROUGH B-B'
SHOWING ROUTE TAKEN BY PIPE-WORK
SERVING RADS NO 27, 28, 29 & 30



PROPOSED NEW PIPE ROUTE

APPENDIX B

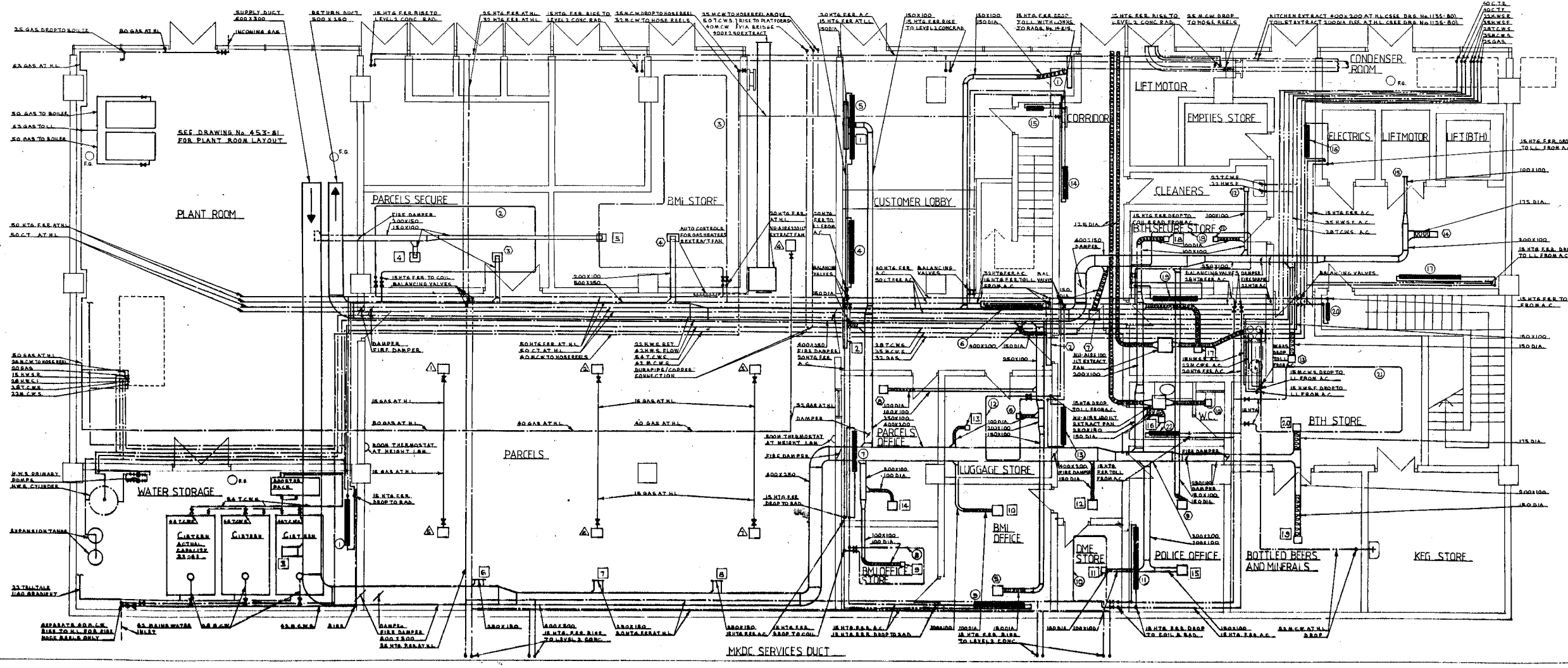
RECORD DRAWINGS

LONDON MICROFILM BUREAU LTD

GALLE SCHEDULE SUPPLY LEVEL ONE					GALLE SCHEDULE RETURN LEVEL ONE				
No.	Room	Type	Size	Air Volume	No.	Room	Type	Size	Air Volume
1	CUSTOMER LOBBY	CAAD	2507150m	0.047	1	CUSTOMER LOBBY	CAAD	2507150m	0.047
2	CUSTOMER LOBBY	CAAD	2507150m	0.047	2	CUSTOMER LOBBY	CAAD	2507150m	0.047
3	WATER STORAGE	TRBV	3001300m	0.100	3	WATER STORAGE	TRBV	3001300m	0.100
4	PARCELS SECURE	TRBV	3001300m	0.048	4	PARCELS SECURE	TRBV	3001300m	0.048
5	B.M.I. STORE	TRBV	3001300m	0.110	5	B.M.I. STORE	TRBV	3001300m	0.110
6	PARCELS	TRBV	3501150m	0.078	6	PARCELS	TRBV	3501150m	0.078
7	PARCELS	TRBV	3501150m	0.078	7	PARCELS	TRBV	3501150m	0.078
8	PARCELS	TRBV	3501150m	0.078	8	PARCELS	TRBV	3501150m	0.078
9	PARCELS OFFICE STORE	TRBV	1501150m	0.015	9	PARCELS OFFICE STORE	TRBV	1501150m	0.015
10	B.M.I. OFFICE	TRBV	1501150m	0.034	10	B.M.I. OFFICE	TRBV	1501150m	0.034
11	DMC STORE	TRBV	1501150m	0.008	11	DMC STORE	TRBV	1501150m	0.008
12	CORRIDOR	TRBV	1501150m	0.048	12	CORRIDOR	TRBV	1501150m	0.048
13	LUGGAGE STORE	TRBV	1501150m	0.015	13	LUGGAGE STORE	TRBV	1501150m	0.015
14	PARCELS OFFICE	TRBV	1501150m	0.015	14	PARCELS OFFICE	TRBV	1501150m	0.015
15	PARCELS OFFICE	TRBV	1501150m	0.015	15	PARCELS OFFICE	TRBV	1501150m	0.015
16	TOILET	TRBV	1501150m	0.015	16	TOILET	TRBV	1501150m	0.015
17	REAR	TRBV	1501150m	0.015	17	REAR	TRBV	1501150m	0.015
18	B.M.I. SECURE STORE	TRBV	1501150m	0.015	18	B.M.I. SECURE STORE	TRBV	1501150m	0.015
19	B.M.I. SECURE STORE	TRBV	1501150m	0.015	19	B.M.I. SECURE STORE	TRBV	1501150m	0.015
20	B.M.I. STORE	TRBV	1501150m	0.015	20	B.M.I. STORE	TRBV	1501150m	0.015

EXTRACT FANS				
Room	Fan	Air Vol (l/s)	Resistance (mm WG)	Duct Diameter
PARCELS	100 LIT	0.041	80	100 DIA
TOILET	100 LIT	0.041	75	100 DIA

NOTES				
No.	Room	Type	Length (mm)	Output (l/s)
1	WATER STORAGE	TRBV	1400	1175
2	PARCELS STORE	TRBV	1400	1540
3	B.M.I. STORE	TRBV	2000	3000
4	CUSTOMER LOBBY	TRBV	2000	1649
5	CUSTOMER LOBBY	TRBV	2000	1649
6	PARCELS OFFICE	TRBV	1200	991
7	PARCELS OFFICE	TRBV	1200	108
8	B.M.I. OFFICE	TRBV	1600	1739
9	B.M.I. OFFICE	TRBV	1600	660
10	DMC STORE	TRBV	1800	1496
11	POLICE OFFICE	TRBV	1800	1496
12	LUGGAGE STORE	TRBV	600	443
13	CORRIDOR	TRBV	800	743
14	CORRIDOR	TRBV	800	743
15	CORRIDOR	TRBV	800	743
16	CORRIDOR	TRBV	800	743
17	CATERING	TRBV	1800	1496
18	SECURE STORE	TRBV	800	680
19	WHEEL ROOM	TRBV	1200	991
20	CATERING	TRBV	400	371
21	STORE	TRBV	1300	1950
22	STAFF TOILET	TRBV	800	743
23	CONDOUR	TRBV	400	2737
24	CONDOUR	TRBV	400	2737
25	CONDOUR	TRBV	400	2737
26	CONDOUR	TRBV	400	2737
27	CONDOUR	TRBV	400	2737
28	CONDOUR	TRBV	400	2737
29	CONDOUR	TRBV	400	2737
30	CONDOUR	TRBV	400	2737



NOTES

RADIATORS ARE AS MANUFACTURED BY MYSON'S GROUP MARKETING LTD. EXCEPT ROOM 4-16, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30 WHICH ARE AS MANUFACTURED BY RUNTALRAD LTD. RADIATORS 5, 13, 15, 20, 28, 30 TO HAVE PER. ON LEFT HAND SIDE. RADIATORS 2, 3, 4, 6, 7, 8, 9, 10, 11, 12, 14, 16, 17, 18, 19, 21, 22, 23, 24, 25, 26, 27, 29, 30 TO HAVE PER. ON RIGHT HAND SIDE. ALL RADIATORS FITTED WITH WHEEL VALVE ON FLOW. LOCK SHIELD VALVE ON RETURN & AIR VENT.

WHERE FALSE CEILING EXIST COILS ARE FIFTEEN 200mm BELOW WHERE NO FALSE CEILING EXIST COILS ARE FIXED AT A HEIGHT OF 3.5m.

RADIATOR SPACES

LOCATED IN PARCELS AREA Nos. 1, 2, 3, 4, 6, 7, 8, 9, 10, 11, 12, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30 SUSPENDED AT HEIGHT OF 3.6 METRES. EACH UNIT IS FITTED WITH FULLY AUTOMATIC C.V. SPARK IGNITION. QUOTATION REF. 84501REV. A.

UNITS 1, 2, 3, 4, 6, 7, 8, 9, 10, 11, 12, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30 ARE WIRED TO THERMOSTAT LOCATED ON PARCELS OFFICE WALL. REMAINING UNITS WIRED TO THERMOSTAT LOCATED ON PARCELS PLANT ROOM.

LEGEND

HTG - HEATING
HWL - HOT WATER SUPPLY
MC.W. - MAKING COLD WATER SUPPLY
TC.W. - TANK COLD WATER SUPPLY
F - FLOW
R - RETURN
HL - HIGH LEVEL
LL - LOW LEVEL
A.C. - ABOVE CEILING
D - DROP
RAD - RADIATOR
C.T. - CONSTANT TEMPERATURE
P.P. - FACE PATTERN
BAL - BALANCING

DRAWING REFERENCE LIST MILTON KEYNES STATION

DRG No. 1131 - 80 LEVEL 2 BOILING SERVICES
1132 - 80 LEVEL 2 CATERING SERVICES
1133 - 80 PLANT ROOM LEVEL 2
1134 - 80 PLANT ROOM LEVEL 1
30082/804 LONG SECTION

114189

D	85-101	AS FIXED	P.D.C.
C	10-181	AS REQUESTED BY MILTON KEYNES	P.D.C.
B	10-181	AS REQUESTED BY MILTON KEYNES	P.D.C.
A	10-181	AS REQUESTED BY MILTON KEYNES	P.D.C.

Letter Date Description of Revision By

British Railways Board
Chief Civil Engineer
British Rail London Midland
Engineering House
21-27 Southampton Row
London WC1P 7PP Telephone 01-287 8920

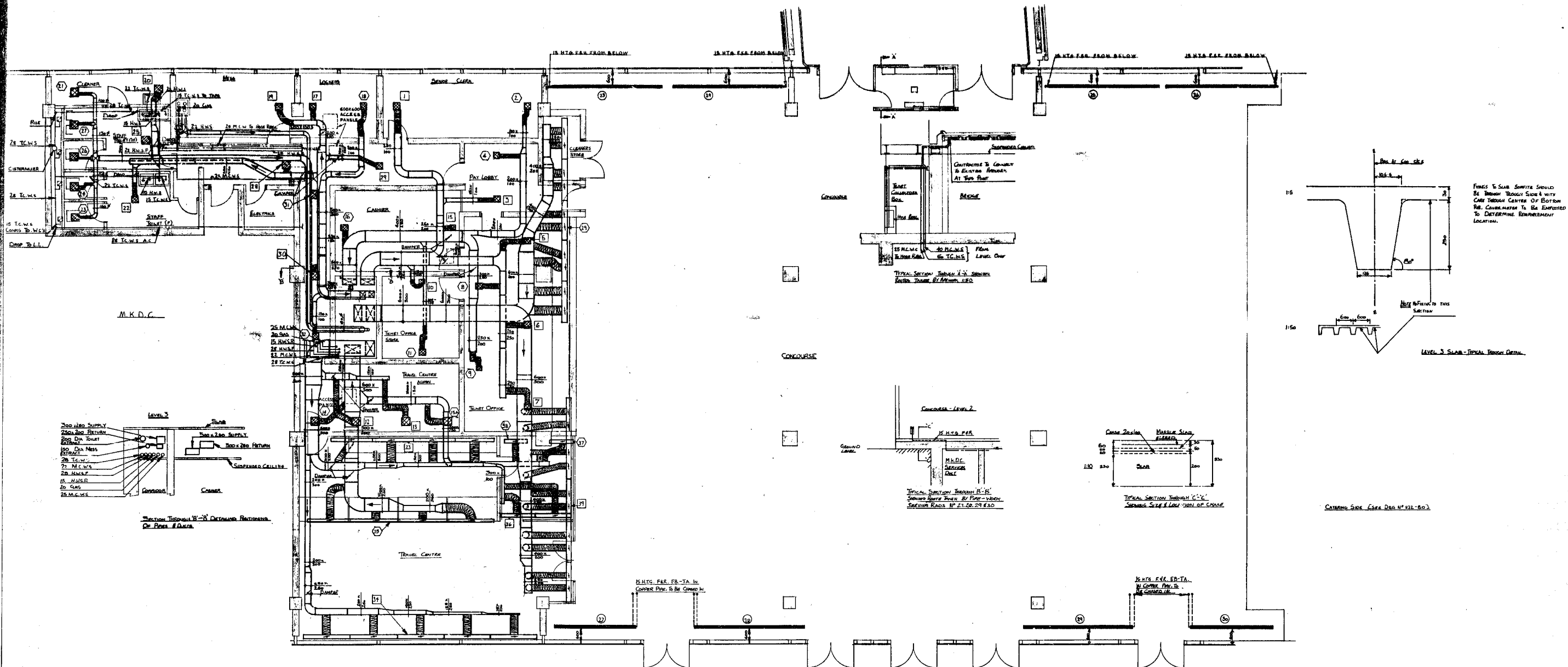
P.D.C. D.G. WINSLOW
T.E. SERVICES ENGINEER D.A. WINSLOW
FEB 1981 R.J. COON
Civil Engineer

MILTON KEYNES CENTRAL STATION
LEVEL ONE

MECHANICAL SERVICES

Scale 1:50
Drawing No. 144314/L4
Drawing Date 11/30/80

WCRM224636



NO	LOCATION	QTY	TYPE	SIZE	AIR VOLUME M ³ /S	TOTAL (METRES)
BOOKING SIDE						
1	Supply	1	BFS V	30.45 1 way	1108	4.5
2	Return	1	BFS V	15.22 1 way	1108	
DRY LABS						
3	Supply	1	MFS V	20.30 3 way	1087	1.5
4	Return	1	MFS V	8.12 3 way	1048	
TRAVEL CENTRE						
5	Supply	1	SFS V	35.45 1 way	1138	2.0
6	Supply	1	SFS V	35.45 3 way	1138	2.0
7	Return	1	SFS V	35.45 3 way	1138	1.5
TRAVEL CENTRE ADMIN						
8	Return	2	T&B V	300 x 300 mm	1182 EACH	
TRAVEL CENTRE STAIR						
9	Supply	1	PFS V	15.30 1 way	1038	2.0
10	Return	1	PFS V	15.30 3 way	1037	
CONCOURSE						
11	Supply	1	SFS V	20.30 2 way	1084 EACH	2.4
12	Return	2	BFS V	8.12 1 way	1087 EACH	
CASHIER						
13	Supply	1	SFS V	20.30 3 way	1084	1.8
14	Return	1	SFS V	8.12 3 way	1078	
LOCKERS						
15	Supply	1	SFS V	20.30 1 way	1080	2.7
16	Return	1	SFS V	8.12 1 way	1080	
STAIR						
17	Supply	1	SFS V	30.45 1 way	1080	1.7
CONCOURSE (BOOKING)						
18	Supply	1	PFS V	15.30 1 way	1034	3.0
19	Return	1	PFS V	8.12	1034	
TRAVEL CENTRE						
20	Supply	1	BFS V	20.30 1 way	1038	2.4
21	Return	1	BFS V	8.12	1030	
CONCOURSE						
22	Supply	1	BFS V	20.30 1 way	1038	1.8
23	Return	1	BFS V	8.12	1038	

- ADDRESSES**
- ADRIAN PRODUCTS, LINGFIELD ROAD, HIGH WYCOMBE, Bucks. Tel. 0494 25252 (FIVE DIAL TOWN).
 - BALFOUR MONTAGU LTD., BALFOUR HOUSE, BALFOUR ROAD, BANBURY, Oxon, Ox16 7TB. Tel. 0295 53667 (NINE HANDLING UNITS).
 - BRITISH AIRWAYS LTD., BRITISH HOUSE, BRITANNIA LANE, FULHAM, MIDDLESEX, W14 3JH. Tel. 01-759 45614 (CIVILIAN AND CIVILIAN).
 - BRITISH AIRWAYS LTD., LIVER STREET, BOSTON LANE, BOSTON, GILT. Tel. 0209 28441 (NINE UNITS).
 - CANAL AIR CONDITIONING CO., LONDON SW7 1RB. Tel. 01-589 8111 (CONCRETE).
 - CATERHAM LTD., 17 BRIMLEY ROAD, WOODLEY, READING, Berks, RG5 6SN. Tel. 0734 69441 (WATER SUPPLY).
 - CHAMBERLAIN LTD., CHAMBERLAIN ROAD, LONDON E16 3BQ. Tel. 0225 37474 (PUMPS).
 - MATTHEWS, HARRISON & CO., BATHURST ROAD, OXFORD, Ox1 2JG. Tel. 0185 36333 (VALVES).
 - ZIMMERMANN LTD., CHAMBERLAIN ROAD, DUNFERRMILL, Essex, RM16 1HP. Tel. 01-592 1277 (PRESSURE REDUCING VALVES).
 - MILTON DOMESTIC PRODUCTS LTD., RESIDENTIAL MATHON DIVISION, OXFORD, Essex, CM9 9BE. Tel. 0185 36333 (WATER SUPPLY).
 - NU-ALCO CONTRACTS LTD., LONDON STREET, LONDON SW1V 4SE. Tel. 01-634 8815 (EXTRACT FANS).
 - PALLET PAPER LTD., 58 BEDFORD SQUARE, CENTRAL, SUDBURY, CO. 4PT. Tel. 01-854 9521 (CIVILIAN PRESERVATION).
 - PURNEY PRODUCTS, LONDON STREET, LONDON, LON 1SE. Tel. 033 133719 (SMOKE DETECTOR).
 - ROBERTS ELECTRIC LTD., BATHURST ROAD, BATHURST, Ox16 7JG. Tel. 01235 68481 (OVERHEAD POWER SUPPLY).
 - KAYSON BROS. CO. LTD., 12 LANE, OXFORD ROAD, OXFORD, Ox1 1JN. Tel. 01-254 4513 (FIVE CUBIC FEET).
 - ROBERTSON (INDUSTRIAL) ENGINEERING, ROBERTSON ROAD, BOSTON, Lincs. Tel. 0539 65278 (CONCRETE).
 - SHEPHERD FRANKS LTD., 4 AVONDALE STREET, LONDON E3 2TT. Tel. 01-580 4311 (STORAGE TANKS).
 - SCHWABER LTD., 51 GERRARD ROAD, LONDON SW19 4DP. Tel. 01-814 8001 (CIVILIAN).
 - SUNNY PAPER & CO. LTD., LEAMINGTON SPA. Tel. 01927 5000 (PAPER).
 - STEWART GROUP LTD., 100, BURNING WOOD, HAYWARDS, HAYWARDS, Kent. Tel. 0473 491201 (FLOOR BOARDS).

FLOOR TO SLAB SHOULD BE THROUGH ROUGH SIDE WITH CARE THROUGH CENTER OF BOTTOM RE. CONCRETE TO BE EMPLOYED TO DETERMINE REINFORCEMENT LOCATION.

LEVEL 3 SLAB - TYPICAL THROUGH CORNER

CATERHAM SPEC. (See Spec. No. 80)

114191

C	As Filed	BSP
B	As Filed	AWL
A	As Filed	FD-C
Letter Date Description of revision By		
British Railways Board		
Chief Civil Engineer		
British Rail London Midland		
Birmingham House		
87 Hatfield Road		
London NW1 9PF		
100	Chief Engineer	U. J. COON
FEB 81	Chief Engineer	R. J. COON
MILTON KEYNES CENTRAL STATION		
Level Two Grids 6-11		
Mechanical Services		
Booking Office Side		
Scale	1:80	1:10
Date	11/4/81	L.4
Drawing No.	1171-80	C