TRANSITION PLANNING AND SEQUENCE

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1. GENERAL

1.1 This section deals with the general approach for planning the transition operations on No. 1 or tandem crossbar jobs.

IMPORTANT: IMMEDIATELY ON RECEIPT OF THE JOB PAPERS, CHECK FOR THE REFERENCE DRAWINGS COVERED IN PARAGRAPH 9.1 OF THIS SECTION.

2. PURPOSE OF THE PLAN

2.1 The job transition plan is necessary in order to assure the orderly progression of each step and to co-ordinate the various steps with the main job plan. Also, close co-ordination with telephone company activities is required, and therefore the plan must be reviewed by each organization involved.

3. HOW TO PLAN

3.1 The approach to transition planning is the same as that used for the over-all job plan. It differs only in this respect; where the over-all job plan deals with the start and completion of major operations such as cabling, wiring, testing, etc., the transition plan deals with the start and completion of the various transition steps such as a subscriber sender multiple rearrangement, office junctor redistribution, district junctor redistribution etc. The various transition operations that may be involved, are determined by reference to job specifications, wiring lists, etc.

4. SEQUENCE OF TRANSITION STEPS

4.1 The handbook sections are arranged in the proper sequence for transition operations for most jobs. In cases where it is not necessary to perform transition operations listed in this handbook, these sections may be omitted without interfering with the proper sequence. The over-all transition sequence for planning purposes may be obtained from the Table of Contents.

4.2 The various transition steps may be divided into two classes. The first class includes those steps that are interdependent, that is, the start of one step depends on the completion of another. The second class usually includes steps of minor importance whose start and completion is somewhat independent from other steps. The table shown in Figure 1 lists the sections that can be started and completed together in the case where the transition involves all handbook sections. It must be kept in mind that this chart, although it can be used in actual practice, is a guide and many other combinations can be made according to the needs of the individual installation.

Time Interval	Sections	Before Sections
1	10,11,12,13	14
2	14,20,21	23
3	24,25	26
4	30	60
5	71,72	73
6	73	80

FIG. 1 SEQUENCE OF TRANSITION STEPS - CONDENSED FORM (Par. 4.2)

5. DETAILING EACH TRANSITION STEP

5.1 After the various steps involved in a specific job have been determined, and they have been placed in a proper sequence, it will then be necessary to determine the interval required for each step and the manload to be applied. This can only be determined by a detailed breakdown of each step.

5.2 Other sections of this handbook furnish the details of all the major transition steps involved and the sequence of operations within each step. In planning the details of each transition step it is suggested that work sheets similar to those included in this handbook and listed in the table in Figure 2 be used. Copies of these work sheets may be ordered from Installation Stockkeeping.

6. FITTING THE VARIOUS TRANSITION STEPS INTO THE OVER-ALL TRANSITION PLAN

6.1 After each transition step has been properly detailed and a definite interval has been established for each step,

they may then be set up in a sequence as described in Paragraph 4. The plan may now be discussed with the various organizations involved. Such discussions, particularly those dealing with the quantities of equipment to be released from service should be governed by the requirements set forth in BSP's AA240.009, AA240 010 and AA 240.011. For convient reference, Paragraph 7 lists the requirements found in the BSP's.

7. WORKING EQUIPMENT AFFECTED DURING INSTALLATION

7.1 The installers work in making additions can be greatly facilitated if some of the original working equipment can be temporarily removed from service during the installing interval.

7.2 The equipment elements which will be temporarily removed from service under these circumstances are district link and office link frames, originating and terminating markers and marker connectors, zone connector units and zone timing units, subscriber and terminating sender subgroups, incoming link frames, office junctors, line junctors, district junctors, and coin supervisory units.

7.3 The following paragraphs give a broader picture of the situation and list more specific equipment quantities that will be involved.

7.4 In connection with this problem, the telephone company can make traffic studies to determine the amount of equipments, whether frames or junctor groups, that can be removed from service during installation and will stipulate whether reduced working equipments can be tolerated during busy hours.

7.5 Should traffic be such that certain equipments cannot be released to the installer as required by the procedures covered in this specification, a special procedure will have to be worked out to suit the particular problem.

7.6 With the exception of sender subgroups, office junctors, line junctors, and district junctors, the above equipments will generally be removed from service, one frame or unit at a time and only for short periods during night hours.

7.7 In the work of rearranging the subscriber sender multiple (which may also include established new sender subgroups), it may be necessary to have two or possibly three sender subgroup appearances out of service on part of the sender link frames. At no time will more than one subgroup of senders be out of service. This work can usually be confined to light load hours at night and over weekends, but may extend through the busy hours.

7.8 The terminating sender multiple rearrangement is generally a simple extension of the multiple to the added sender link frames requiring only one sub-group of senders out of service at a time on the original sender links. However, if new sender sub groups are being established, it may be necessary to deprive part of the sender link frames of two sender sub-group appearances. This work can be confined to light load hours, usually at night and weekends.

7.9 District junctor rearrangement, though extensive, does not require a comparable reduction in working equipments. For the installers convenience, as many as forty district junctor circuits may be out of service at one time. Consequently, as many as forty district junctor appearances may be out of service on several line link frames. However, this condition can at all times be confined to night work during light load hours.

8. FITTING THE TRANSITION PLAN INTO THE JOB PLAN

8.1 Additions to existing central offices usually cover the addition of line equipment. In a No. 1 crossbar central office the addition of lines usually requires the addition of district junctors, outgoing trunks, and incoming trunks. Looking at the job backwards and starting from the completion date, the last operations performed are the routine of the line link frames and the supplemeatary test of the line cross-connections. In order to perform these two tests, certain major transition steps must be completed. Each of these steps must be introduced into the job plan, giving due consideration to such items as:

(a) Wiring and test of equipment which must be completed before the associated transition step can start. These equipment items are usually listed under "preliminary work," throughout the various detailed procedures in this handbook.

(b) Steps which must be completed before other equipment can be tested.

Sect.	Fig.	ID No.	Title
60	3	481	Dist. Junctor Redistribution
26	3	482	Sub. Sdr. Mult. on SSL Frame
26	5	483	Sub. Sdr. C Relay and LL Relay Chain
26	7	483A	C Relay and LL Chain Tandem Sender Link
14	3	484	Orig. Marker Choice and Chain Wiring
21	4	485	K.P. Sdr. Mult. on K.P.S.L. Frame
21	5	486	K.P.S.L. C Relay and LL Relay Chain
73	3	487	Term. and B Sdr. Mult. and LL Relay Chain
14	4	488	Term. Marker Choice and Chain Wiring
81	3	489	Number Group Transition
81	4	490	Number Group Transition Details

FIG. 2 LIST OF WORK SHEETS (Par. 10.1)

(c) Release of working equipment for which new equipment can be substituted.

9. REFERENCE DRAWINGS

9.1 Many of the procedures in this handbook make reference to Bell Telephone Laboratories ED and ES drawings. In many cases these drawings offer valuable information not contained in the associated manufacturing drawings. The Equipment Engineering Organization will order these Bell Telephone Laboratories drawings in the job specification under "Installers' Reference Papers." On receipt of the specifications the job should check this item at once, and if the reference drawings in question have not been provided they should be requisitioned without delay.

10. WORK SHEET SUMMARY

10.1 Figure 2 lists all the work sheets that are prepared for use with Handbook 40. Copies of these work sheets may be ordered and obtained from Installation Stockkeeping.

→ Arrowed lines indicate new or changed information.

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