

OUTSIDE PLANT SYMBOLS AND ABBREVIATIONS
LOADING COIL CASES, CAPACITORS,
BUILDING-OUT NETWORKS AND INDUCTORS

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1. GENERAL

1.01 This section describes the identification codes and symbols which pertain to loading coil cases, capacitors, building-out networks, and inductors. They are used primarily on construction work prints and outside plant location records, although some of them may be used on maps.

1.02 It is reissued to provide current standard identification codes and symbols for use in Pacific Company (PAC).

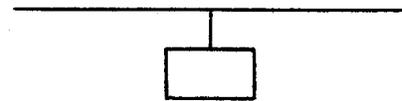
Note: Marginal arrows used to denote changes are omitted.

1.03 A complete list of abbreviations used in conjunction with outside plant symbols is contained in Section 620-040-020PT. Additional information to be used in conjunction with this practice is contained in Section 620-040-011PT. For Continuing Property Record (CPR) requirements relating to equipment covered in this practice, see System Instructions (SI) 13 and 45.

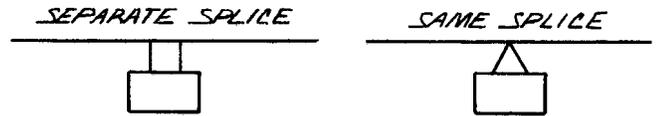
2. CASES

2.01 Basic symbols for cases which contain load coils, capacitors, inductors, and resistors for use on work prints and location records are as follows:

(a) Case with one factory-equipped stub (in and out pairs are in the same stub).

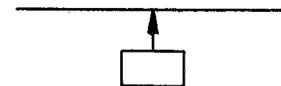


(b) Case with two factory-equipped stubs (in and out pairs are in separate stubs). The stubs may be in the same splice or separate splices.

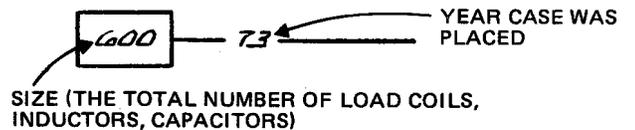


Note: If factory-equipped stubs are *not* provided, the stub would be assembled by construction forces.

(c) Cases placed in a splice or sleeve are indicated with an arrow.



2.02 Cases are shown on the manhole diagram, Form CO 4553, in their actual location within the manhole as follows:



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Not for use or disclosure outside the
Bell System except under written agreement

SECTION 620-040-016PT

3. LOAD COILS

3.01 The following supporting information is required for load coil cases on work prints and location records.

- (a) The type of closure is required on work prints and location records when a load coil case is placed inside a closure or spliced into a cable in a closure. [See 3.02(b).]
- (b) No Plant Measurement (NPM) is required on both work prints and location records when less than six coils are placed.
- (c) When other than the 700 series of load coil cases are required, the Engineer will specify the type of case (ie, 181A1 LCC E/W 1-620 coil, or 172C LCC E/W 1-1574D INDR).
- (d) A "DC" cable designation indicates dead coils.
- (e) Load coils and cases:

- 1 JOSE nomenclature
- 2 Number of coils
- 3 JOSE item number
- 4 Reporting code
- 5 Type of coils
- 6 Length of stub

If factory-equipped stubs are *not* provided, the stub would be assembled by construction forces. Therefore, size, gauge, count, and length of the stub are required on work prints and location records. The year of placement is required on location records and on work prints for removals.

- 7 Cable designation and pair count
- 8 Accumulative footage from:

Central office (CO) to load points

Between load points

From last load point to end of cable

- 9 Load points are assigned a number by the engineer

Exchange load point numbering starts at the CO beginning with one (eg, LP1, LP2, LP3, etc).

Trunk load point numbering starts at the controlling CO

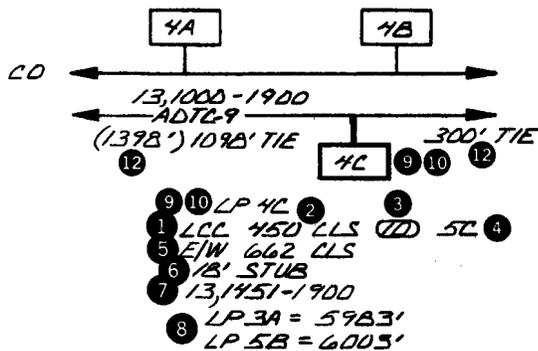
- 10 Alpha designations are assigned to each load coil case (eg, LP1A, LP1B, LP2A, LP2B, etc) for identification purposes

- 11 Year of placement (when applicable)

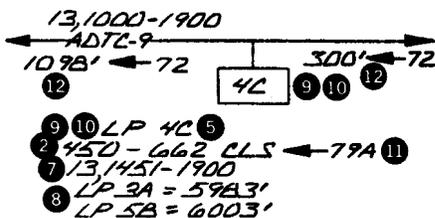
- 12 Cable ties are required when placing load coil cases

Note: Cable ties become the plant measurement footages on location records.

ON WORK PRINTS



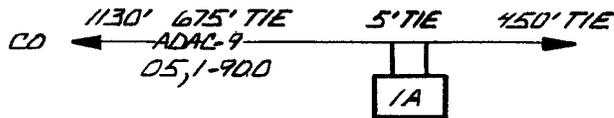
ON LOCATION RECORDS



3.02 The following illustrations are for load coil cases.

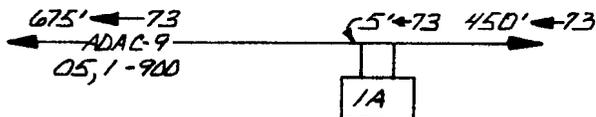
(a) Load coil case equipped with separate stubs for in and out pairs:

ON WORK PRINTS



LP 1A
 LCC 450 CLS (12) 5L
 E/W 662 CLS
 OS, 451-900
 TO CO = 2900'
 LP 2A = 6003'

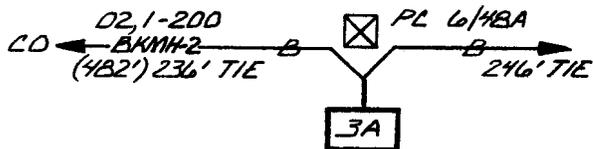
ON LOCATION RECORDS



LP 1A
 450-662 CLS ← 79A
 OS, 451-900
 TO CO = 2900'
 LP 2A = 6003'

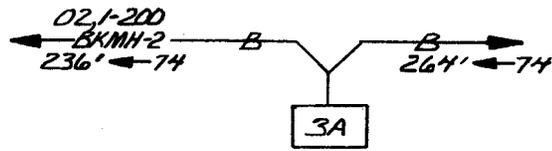
(b) Buried load coil case with only the splice located above the ground in a cable closure.

ON WORK PRINTS



LP 3A
 LCC 100 COILS (12) 45L
 E/W 662 COILS
 OS, 1-50 + DC, 1-50
 LP 2A = 6013'
 LP 4B = 5987'

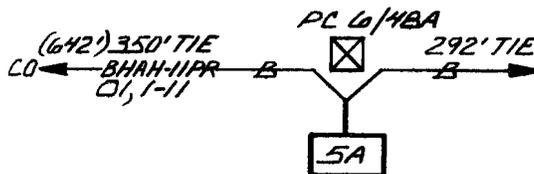
ON LOCATION RECORDS



PC 6/48A
 LP 3A
 100-662 CLS ← 79A
 OS, 1-50 + DC, 51-100
 LP 2A = 6013'
 LP 4B = 5987'

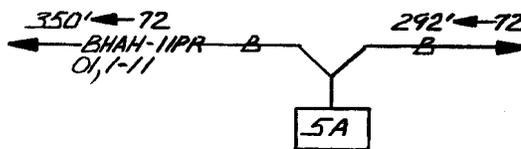
(c) Terminal-type load coil cases installed in a cable closure:

ON WORK PRINTS



LP 5A
 4-137A LCC (12) 45L (NPM)
 E/W 1-662 CL EA
 OS, 1-4
 LP 4C = 5981'
 TO END = 3300'

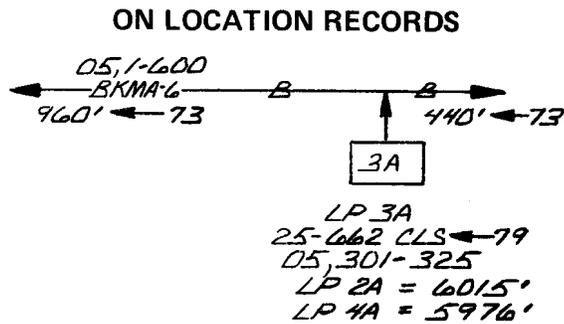
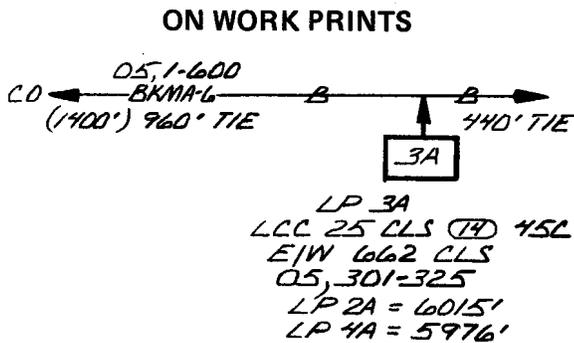
ON LOCATION RECORDS



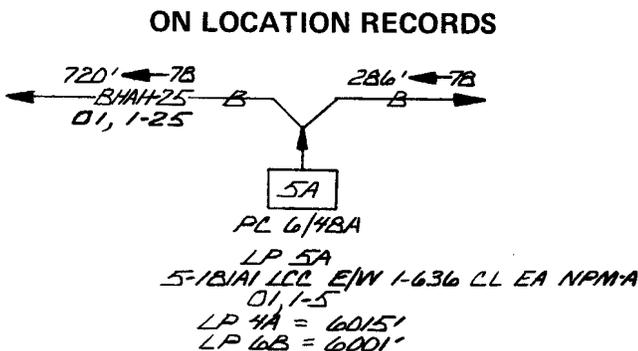
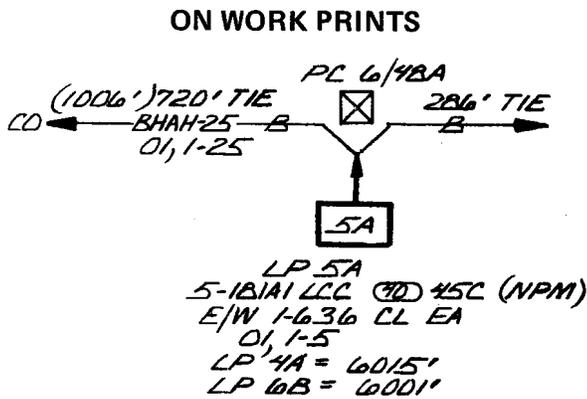
PC 6/48A
 LP 5A
 4-137A-LCC E/W 1-662 CL EA NPM-A
 OS, 1-4
 LP 4C = 5981'
 TO END = 3300'

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(d) Splice-type load coil case [refer to 2.01(c)]:



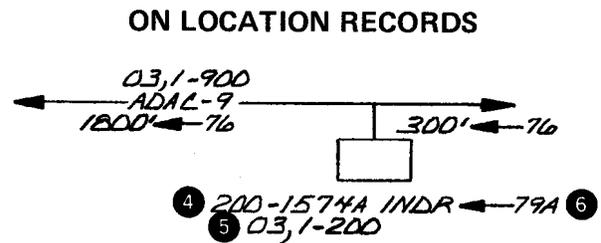
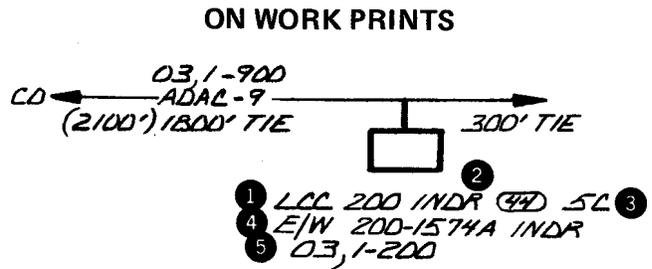
(e) Splice-type load coil case placed in an above-ground closure:



4. INDUCTORS

4.01 The following supporting information for inductors is required on work prints and location records.

(a) Inductors:



- 1 JOSE nomenclature
- 2 JOSE item number
- 3 Reporting code
- 4 Size (number and type of inductors)
- 5 Cable designation and pair count
- 6 Year of placement (when applicable)

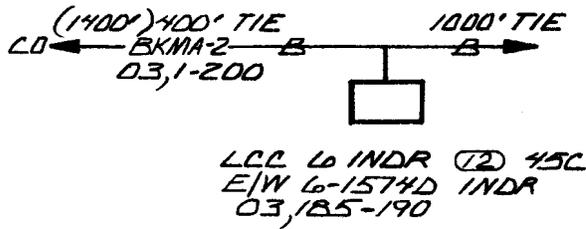
(b) When inductors are connected to pairs in multiple, it is necessary to indicate the counts and the direction of the pairs on which the inductors are connected.

(c) Inductors placed in a CO using CO equipment, reporting codes require a parcel number in addition to the reporting code on work prints and location records. NPM must also be shown on both work prints and location records.

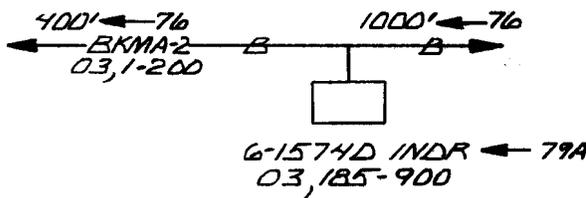
4.02 The following illustrations of inductors are for use on work prints and location records.

(a) Cable pairs equipped with inductors:

ON WORK PRINTS

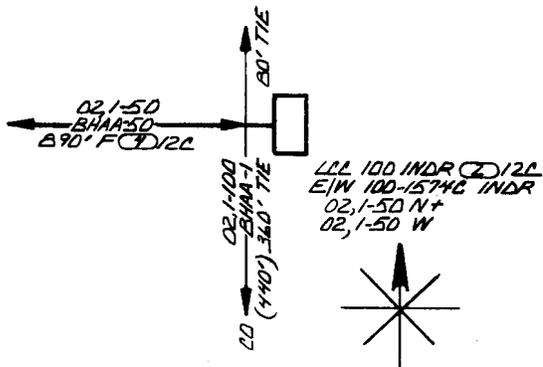


ON LOCATION RECORDS

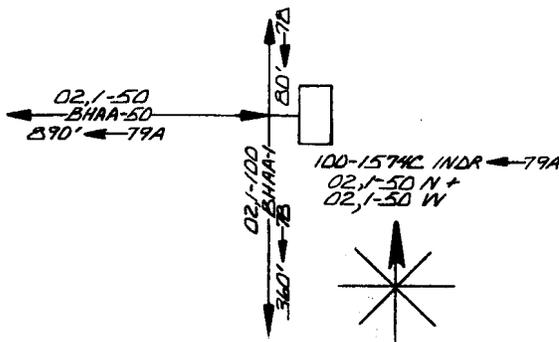


(b) Inductors connected to pairs in multiple (02, 1-50) at the branch location:

ON WORK PRINTS



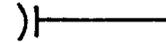
ON LOCATION RECORDS



5. CAPACITORS AND BUILDING-OUT NETWORKS

5.01 Basic symbols for capacitors and networks on work prints and location records are:

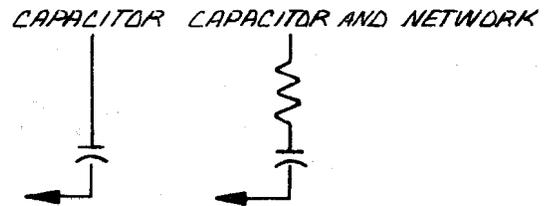
(a) Capacitors:



(b) Resistors used in lattice networks:



(c) An arrow indicates on which side of the load coils the capacitors or networks have been connected:



(d) Ohms:



(e) Microfarad:



(f) Capacitor in a splice:



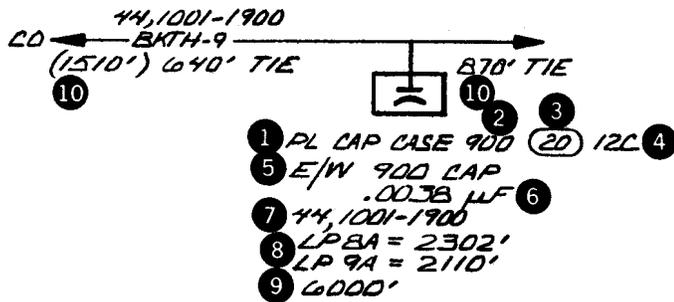
SECTION 620-040-016PT

(g) A caution symbol (Section 620-040-011PT) for lattice networks is required on work prints and location records. The caution symbol *must* be shown on all work prints and location records where the building-out lattice network symbols appear. The caution symbol is accompanied by a note cautioning testers and plant forces *not* to use breakdown test sets on cable pairs equipped with these networks. Each record on which these pairs appear (but no symbol is shown) requires the same note.

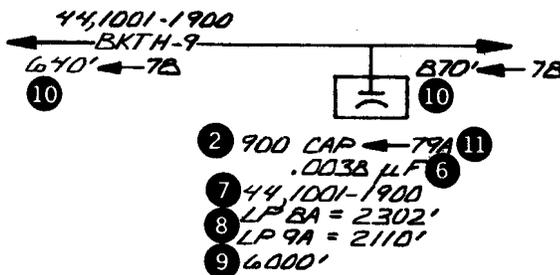
5.02 Capacitors and building-out networks require the following supporting information on work prints and location records.

(a) Capacitors:

ON WORK PRINTS



ON LOCATION RECORDS



1 JOSE nomenclature

When the capacitor is ordered in a case assembled by Western Electric (WE) or other suppliers, the type of case is indicated in the JOSE nomenclature.

2 Size

3 JOSE item number

4 Reporting code

5 Number of capacitors

6 Microfarads

7 Cable designation and pair count

8 Accumulative footages from load point to capacitors and/or capacitor to load point

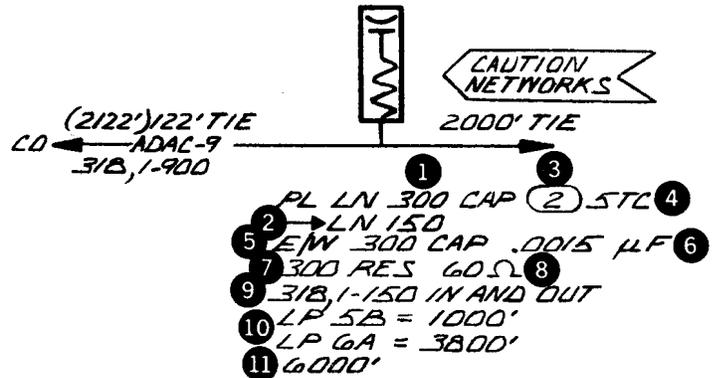
9 Electrical loop (in feet) created by the capacitors

10 Cable ties [refer to 3.01(d), callout 12]

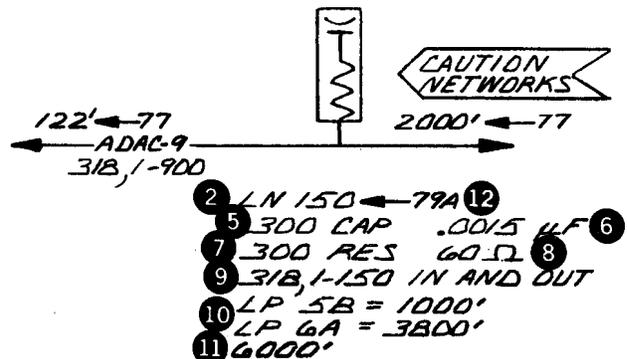
11 Year of placement (when applicable)

(b) Lattice networks:

ON WORK PRINTS



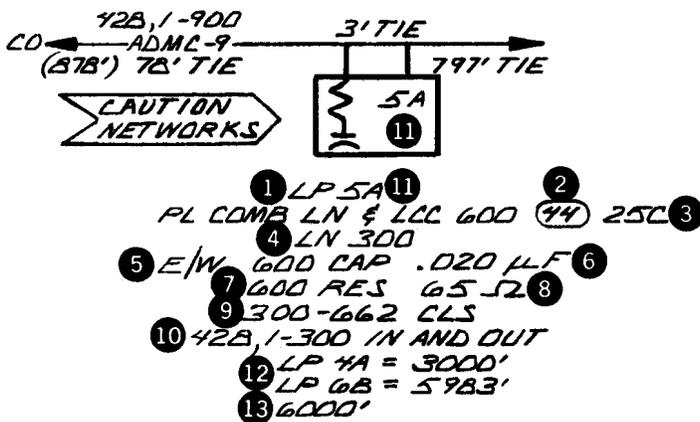
ON LOCATION RECORDS



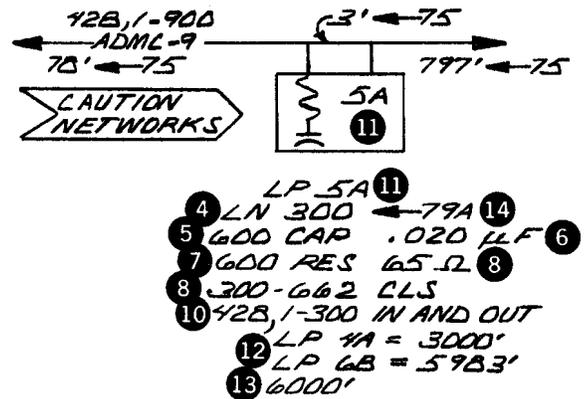
- 1 JOSE nomenclature (include total number of capacitors)
- 2 Size (half of total number of capacitors)
- 3 JOSE item number
- 4 Reporting code
- 5 Number of capacitors
- 6 Microfarads
- 7 Number of resistors
- 8 Ohms
- 9 Cable designation and pair count
- 10 Accumulative footage from lattice network to load point and/or load point to lattice network
- 11 Electrical loop (in feet) created by the capacitors
- 12 Year of placement (when applicable)

(c) Combination lattice network and load coil:

ON WORK PRINTS



ON LOCATION RECORDS



Note: When load coils are in the same case with networks or capacitors, two stubs are required.

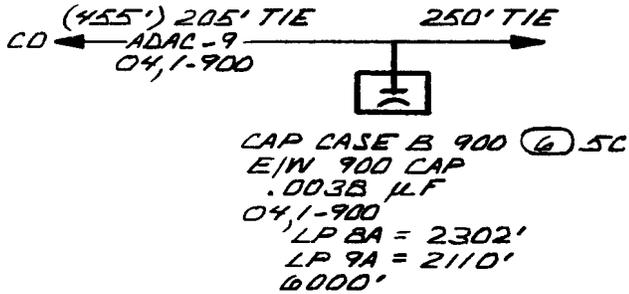
- 1 JOSE nomenclature (include total number of capacitors)
- 2 JOSE item number
- 3 Reporting code
- 4 Lattice network size
- 5 Number of capacitors
- 6 Microfarads
- 7 Number of resistors
- 8 Ohms
- 9 Number and type of load coils
- 10 Cable designation and pair count
- 11 Load point identification (see 3.01(a) callouts 9 and 10)
- 12 Accumulative footage (see 3.01(a) call-out 8)
- 13 Electrical loop (in feet) created by the capacitors
- 14 Year of placement (when applicable)

SECTION 620-040-016PT

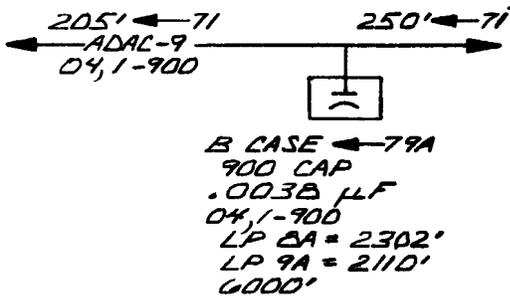
5.03 The following illustrations of capacitors and lattice networks are for use on work prints and location records.

(a) Capacitors located in a case supplied by WE:

ON WORK PRINTS

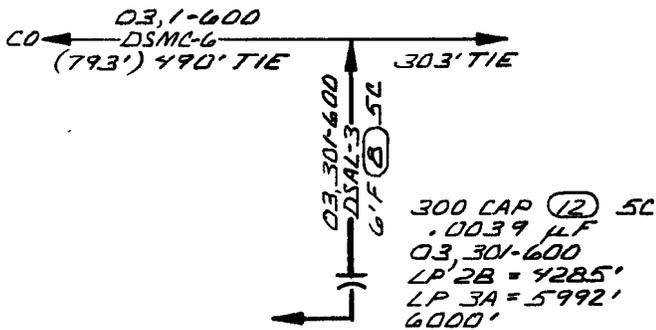


ON LOCATION RECORDS

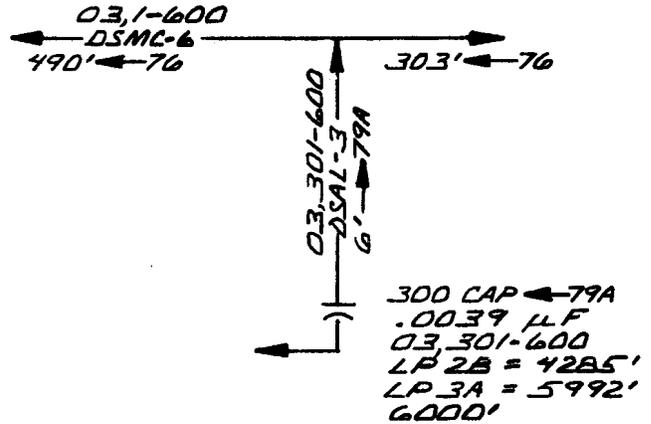


(b) Capacitors located in a stub sleeve:

ON WORK PRINTS

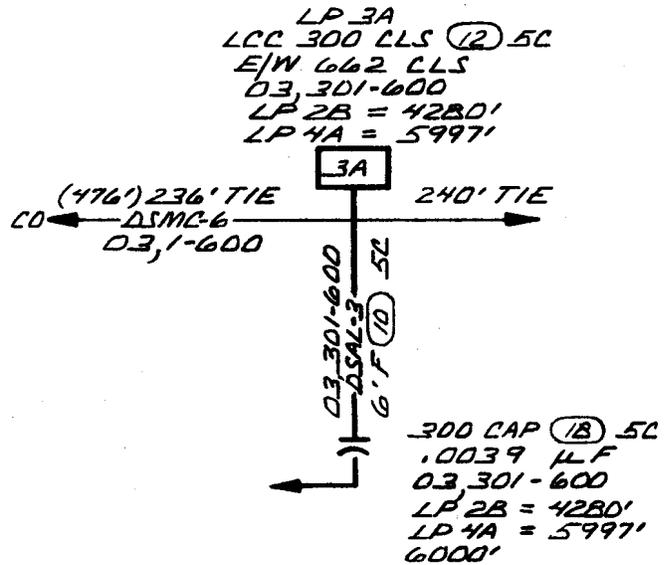


ON LOCATION RECORDS

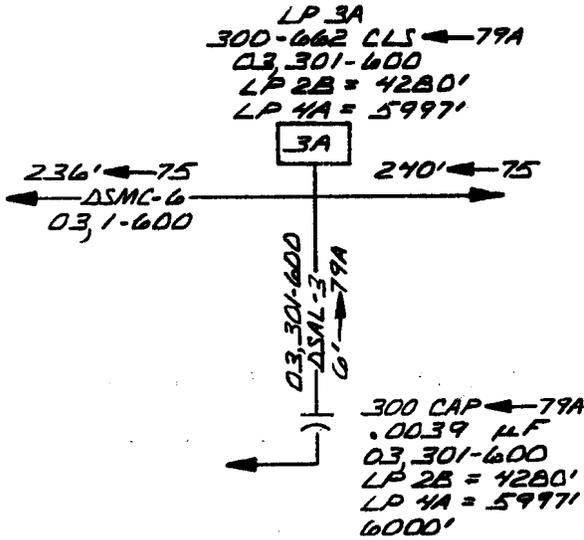


(c) Capacitor or capacitor stubs connected at the same location with load coils or load coil stubs (this example shows that the capacitors are on the central office side of the load coils):

ON WORK PRINTS

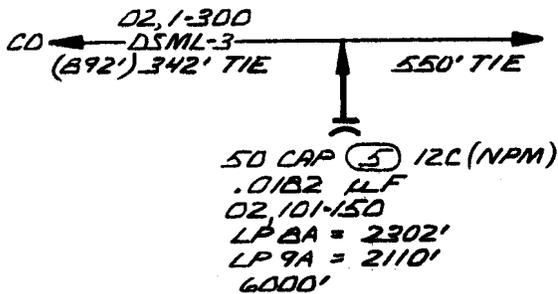


ON LOCATION RECORDS

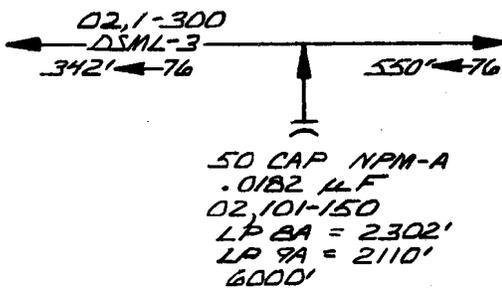


- (d) Capacitors located in a splice (capacitors located in a splice are NPM):

ON WORK PRINTS

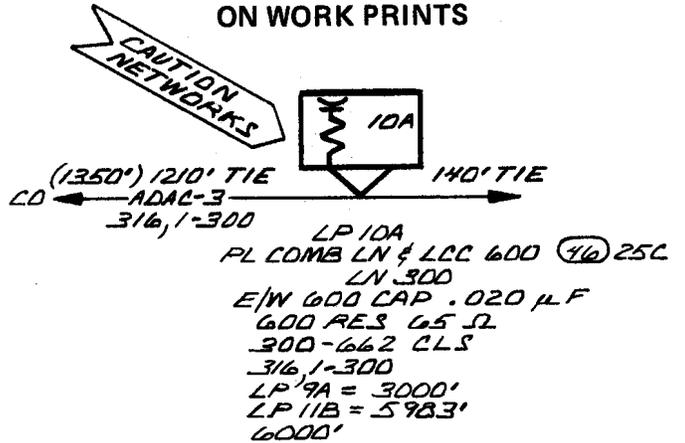


ON LOCATION RECORDS

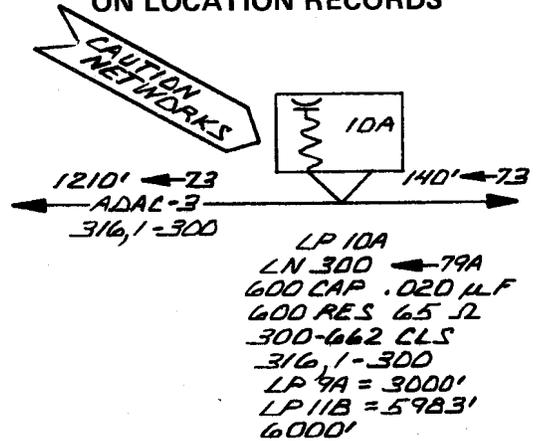


- (e) Single case containing building-out lattice network and load coils:

ON WORK PRINTS

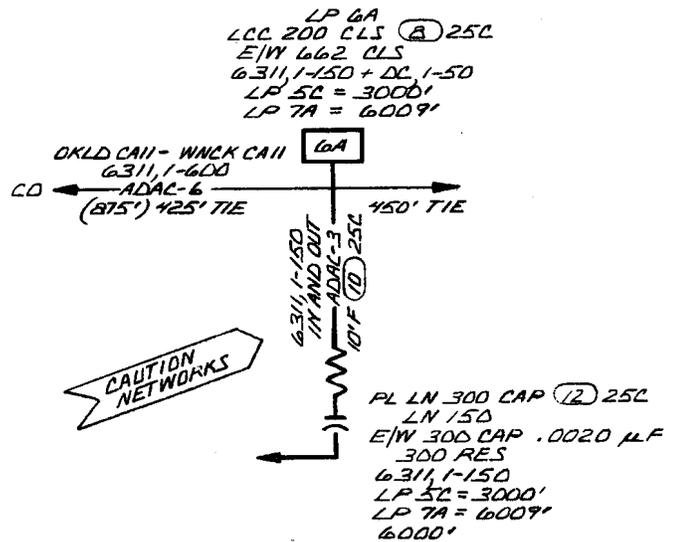


ON LOCATION RECORDS

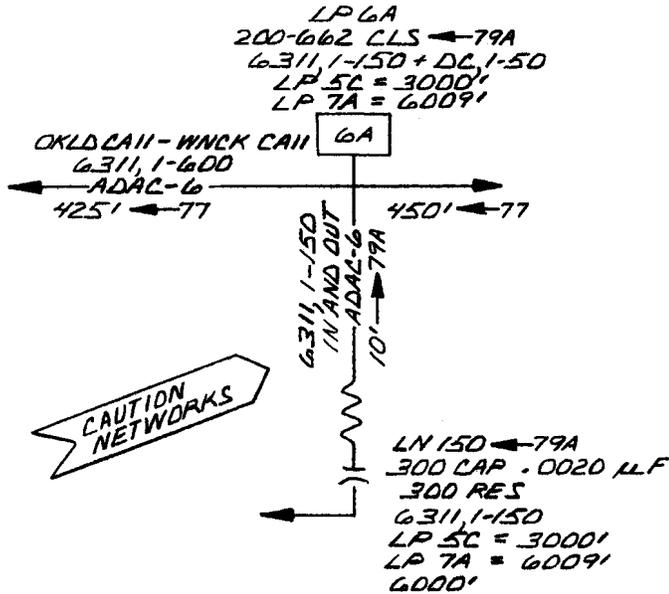


- (f) Building-out network including capacitors and resistors located in a stub (connected at a load point):

ON WORK PRINTS

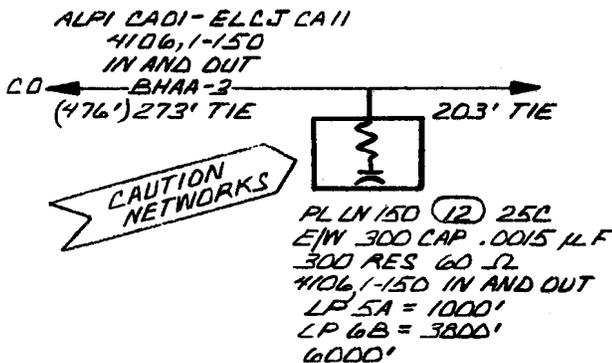


ON LOCATION RECORDS

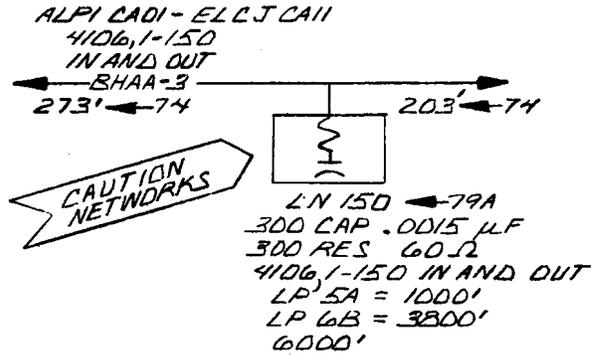


(g) Building-out network, including capacitors and resistors, located in a case assembled by WE [see 5.02(d)]:

ON WORK PRINTS

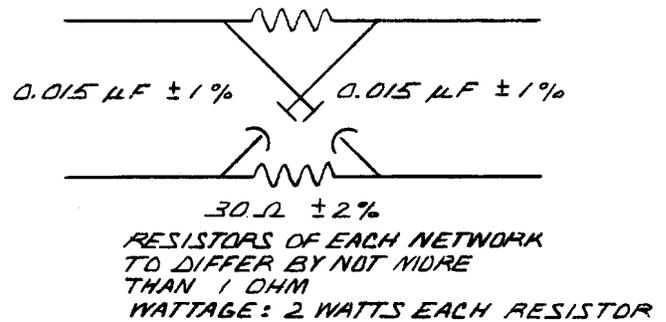


ON LOCATION RECORDS



(h) A detail drawing of the building-out network should be shown with the symbol for the building-out network. When a case is used, a note must be included specifying who will assemble the case:

ON WORK PRINTS



ON LOCATION RECORDS

Not applicable