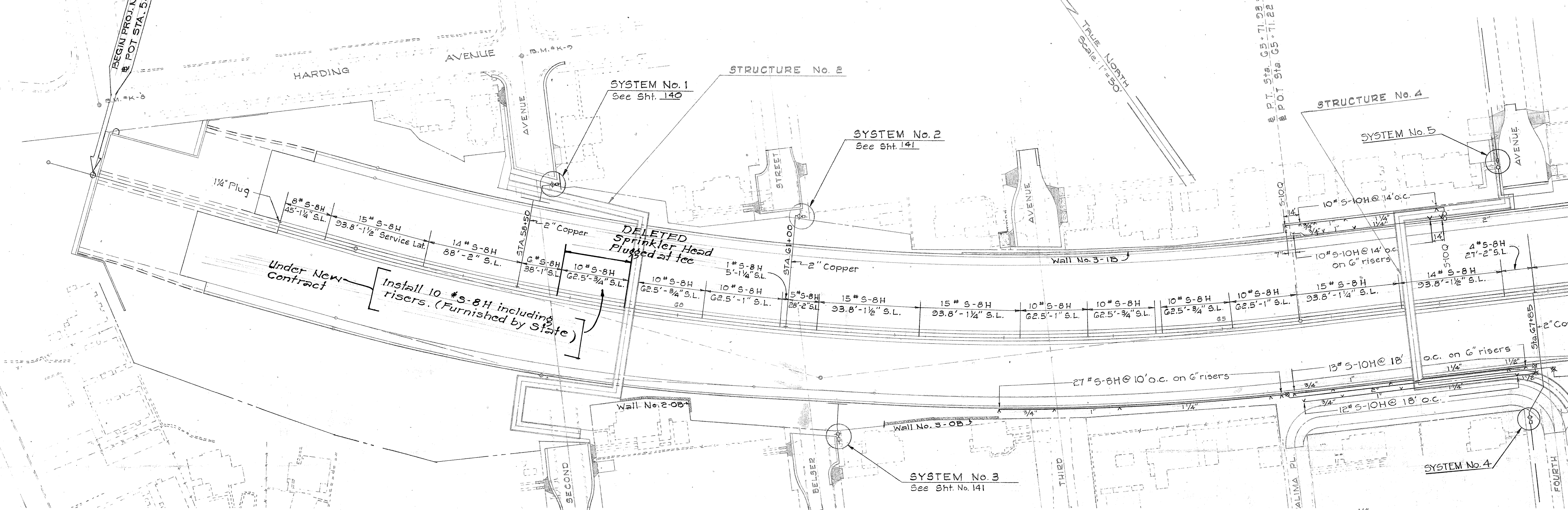


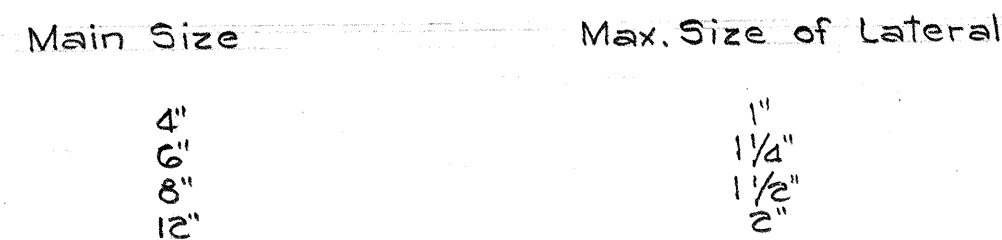
B.M. #K-12. EL. 99.48
C & C MONUMENT
4TH & HARDING
(TOP OF BRASS PIN)



CHARACTERISTICS AND SUMMARY OF SPRINKLER HEADS

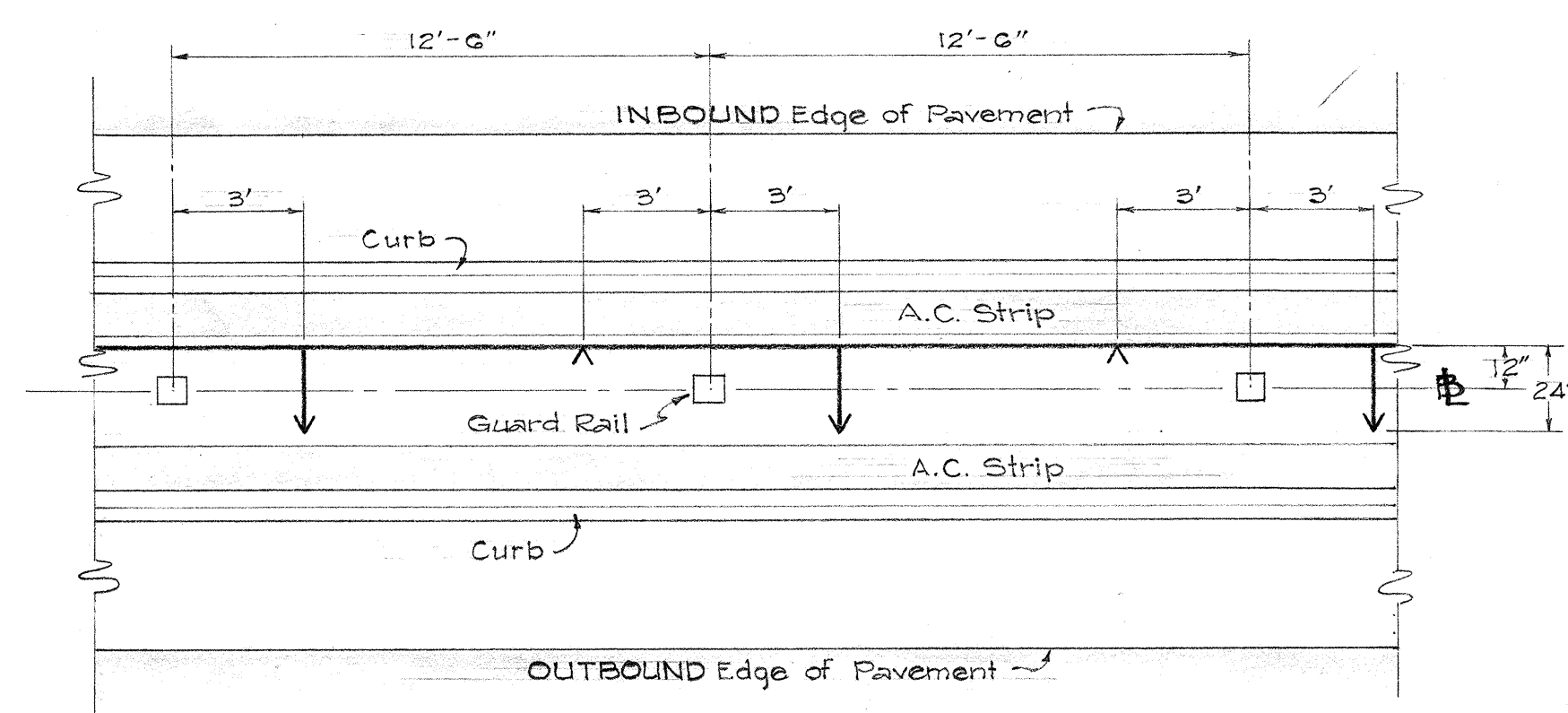
- | Type of Head | Description | "Pressure"
See note 1 | "Flow"
See note 2 | "Rad. of Cov."
See note 3 | Quantity |
|--------------|--------------------------------|--------------------------|----------------------|------------------------------|----------|
| L - 8Q | "Lawn Spray" Quarter Head | 10 | 0.9 | 8 | 3 |
| L - 10Q | " " " " | 20 | 2.0 | 10 | 8 |
| L - 15Q | " " " " | 30 | 2.5 | 15 | 10 |
| L - 8H | " " Half Head | 10 | 1.0 | 8 | 117 |
| L - 10H | " " " " | 20 | 2.5 | 10 | 252 |
| L - 15H | " " " " | 30 | 3.0 | 15 | 275 |
| L - 8F | " " Full Head | 10 | 2.0 | 8 | 7 |
| L - 10F | " " " " | 20 | 3.0 | 10 | 28 |
| L - 15F | " " " " | 30 | 6.0 | 15 | 41 |
| S - 10Q | "Shrubbery Spray" Quarter Head | 20 | 2.0 | 10 | 5 |
| S - 8H | " " Half Head | 10 | 1.0 | 8 | 329 |
| S - 10H | " " " " | 20 | 2.5 | 10 | 106 |
| S - 8F | " " Full Head | 10 | 2.0 | 8 | 224 |
| S - 10F | " " " " | 20 | 3.0 | 10 | 89 |

1. "Pressure" is the minimum pressure, in pounds per square inch, which is available at the base of the last head. The operating pressure for acceptable heads must not exceed this value when operating at the tabulated flow and radius.
2. "Flow" is the maximum flow, in gallons per minute, which is discharged at the tabulated "pressure."
3. "Radius of Coverage" is the minimum radius at the tabulated "pressure."



SHEET No. OF SHEETS

ORIGINAL PLAN	SURVEY PLOTTED BY.....	DATE.....
	DRAWN BY.....	
NOTE BOOK	TRACED BY.....	
	DESIGNED BY.....	
	QUANTITIES BY.....	
	CHECKED BY.....	
No.....		



The diagram illustrates a fire hydrant system layout. A dashed line on the left is labeled "DELETE SPRINKLER SYSTEM". The main system starts from a "2"-Meter" with an "Outlet Valve" connected to a "2 1/2"-20° Elbow" and a "2 1/2" Copper Service Lateral". This lateral runs horizontally and branches into several sections:

- Top Branch:** A "1 1/4" x 1 1/2" Tee" leads to a "1 1/4" x 1 1/4" Tee" with two "1 1/4" outlets.
- Right Branch:** A "1' x 3/4" x 1 1/4" Tee" leads to a "3/4" x 1" Tee" with a "1" outlet.
- Bottom Branch:** A "1 1/2" x 1 1/4" Tee" leads to a "1 1/2" x 1 1/4" Tee" with a "1 1/2" outlet.
- Central Section:** The main line continues with a "2" x 2 1/2" Tee" and a "2 1/2" Plug". It then splits into two parallel horizontal lines, each with a "2 1/2" Tee" and a "2" outlet.
- Left Section:** The main line continues with a "2" x 1 1/2" Tee" and a "1 1/2" x 1 1/2" Tee" with a "1 1/2" outlet.
- Bottom Section:** The main line continues with a "2" x 1" Tee" and a "2" x 1" Tee" with a "2" outlet.

Other components include various elbows (20°, 45°, 90°), couplings (Copper to NPTE), and different pipe materials (Copper, NPTE). The diagram is a technical drawing for a fire hydrant system, showing the layout of pipes, valves, and fittings. It includes a section labeled "DELETE SPRINKLER SYSTEM" which is crossed out with a dashed line. The main system starts from a "2"-Meter" with an "Outlet Valve" and a "2 1/2"-20° Elbow". The system then branches into several sections, including a "2 1/2" Copper Service Lateral", a "1 1/4" x 1 1/2" Tee", a "1 1/2" x 1 1/4" Tee", a "1' x 3/4" x 1 1/4" Tee", and a "1 1/2" x 1 1/4" Tee". The system also includes various elbows (20°, 45°, 90°), couplings (Copper to NPTE), and different pipe materials (Copper, NPTE). The diagram is a technical drawing for a fire hydrant system, showing the layout of pipes, valves, and fittings.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

**SPRINKLER SYSTEM
PLAN**

LUNALILO FREEWAY

PROJ. NO. I-HI-1(4):24

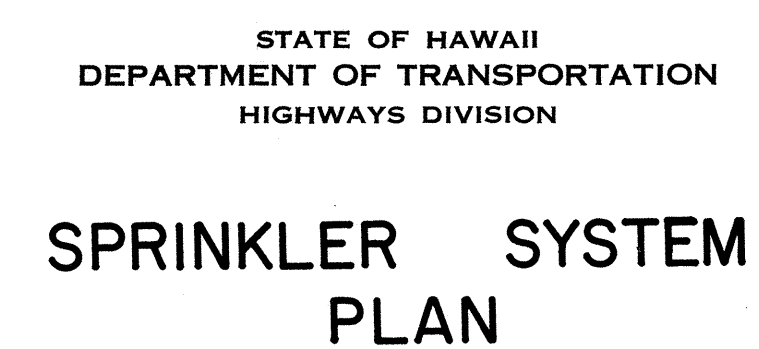
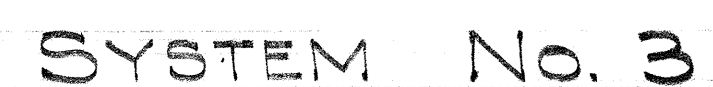
SCALE: AS SHOWN

DATE: APRIL, 1963.

SHEET No. OF SHEETS

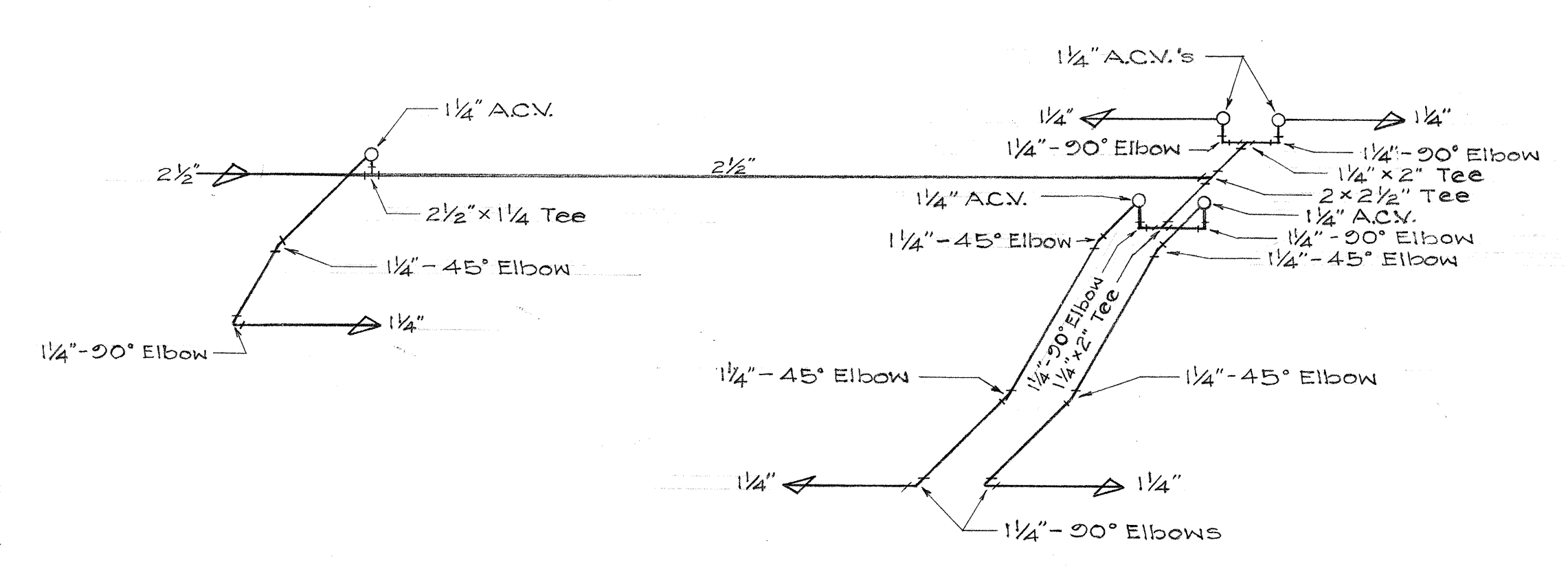
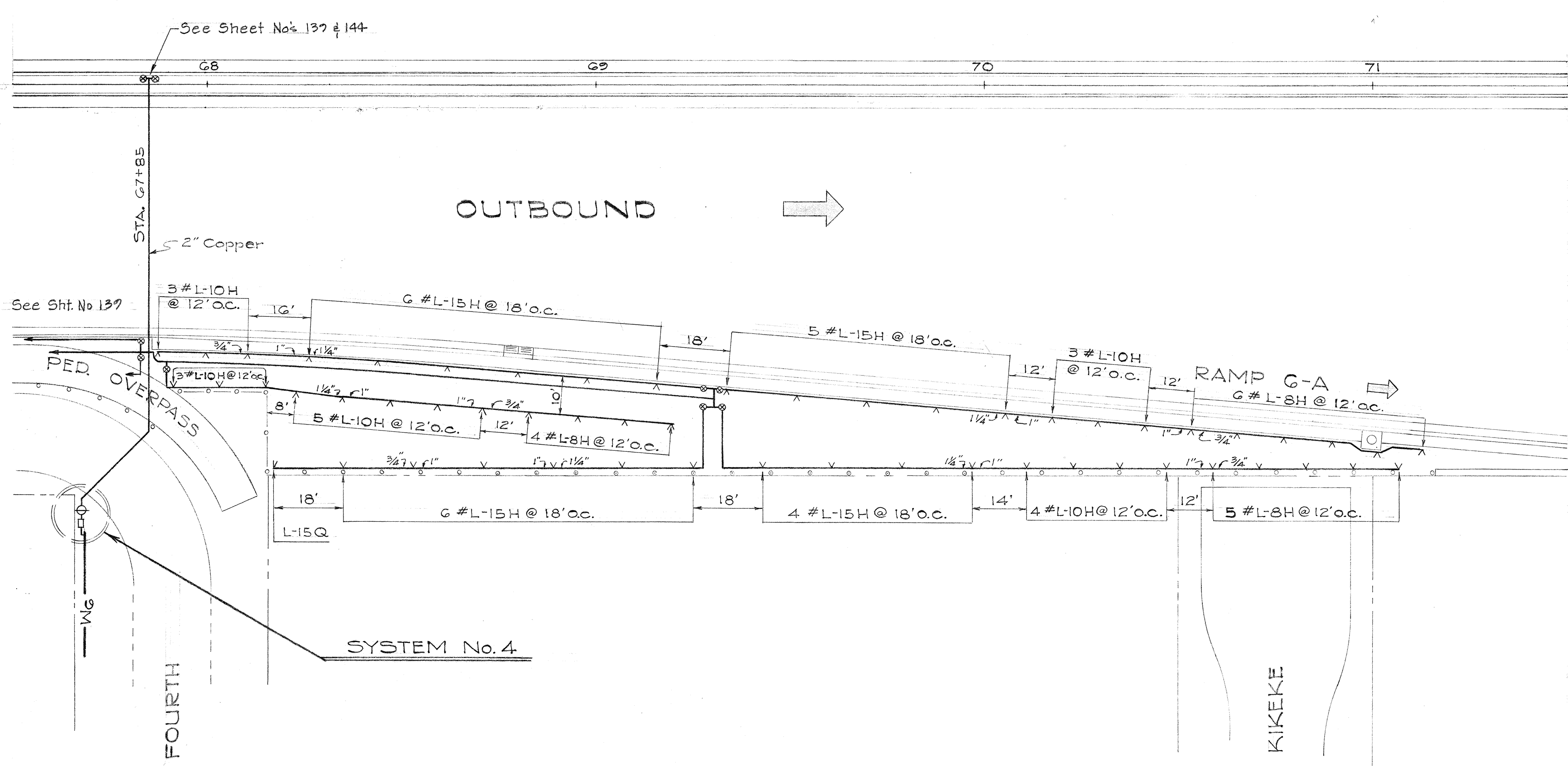
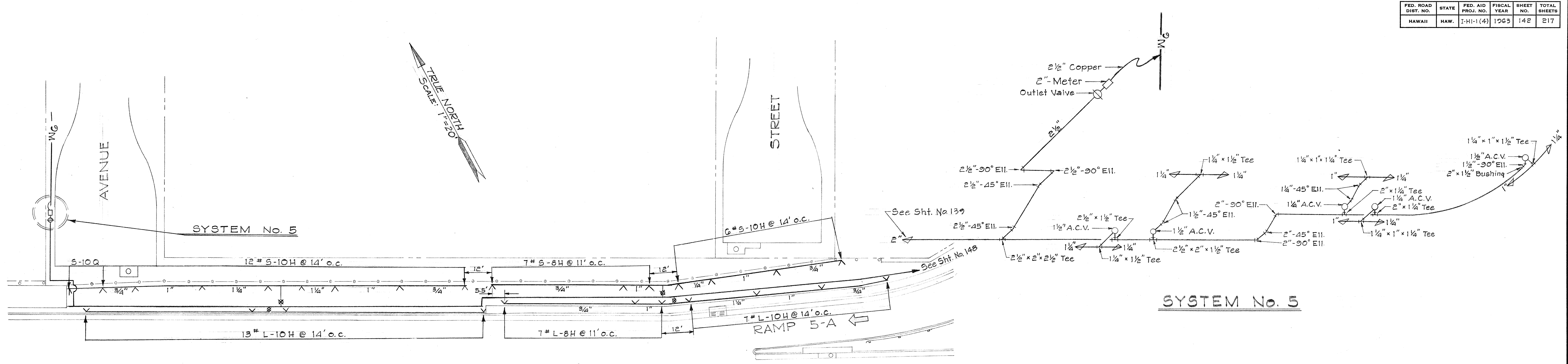
This Sheet Supersedes Sheet No. 1405

ORIGINAL PLAN	SURVEY PLOTTED BY.....	DATE.....
NOTE BOOK	DRAWN BY.....	44.....
	TRACED BY.....	44.....
	DESIGNED BY.....	44.....
	QUANTITIES BY.....	44.....
N ^o	CHECKED BY.....	44.....



SHEET No. OF SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(4)	1963	142	217



DATE	_____
DESIGNED BY	_____
CHECKED BY	_____
NO.	_____

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

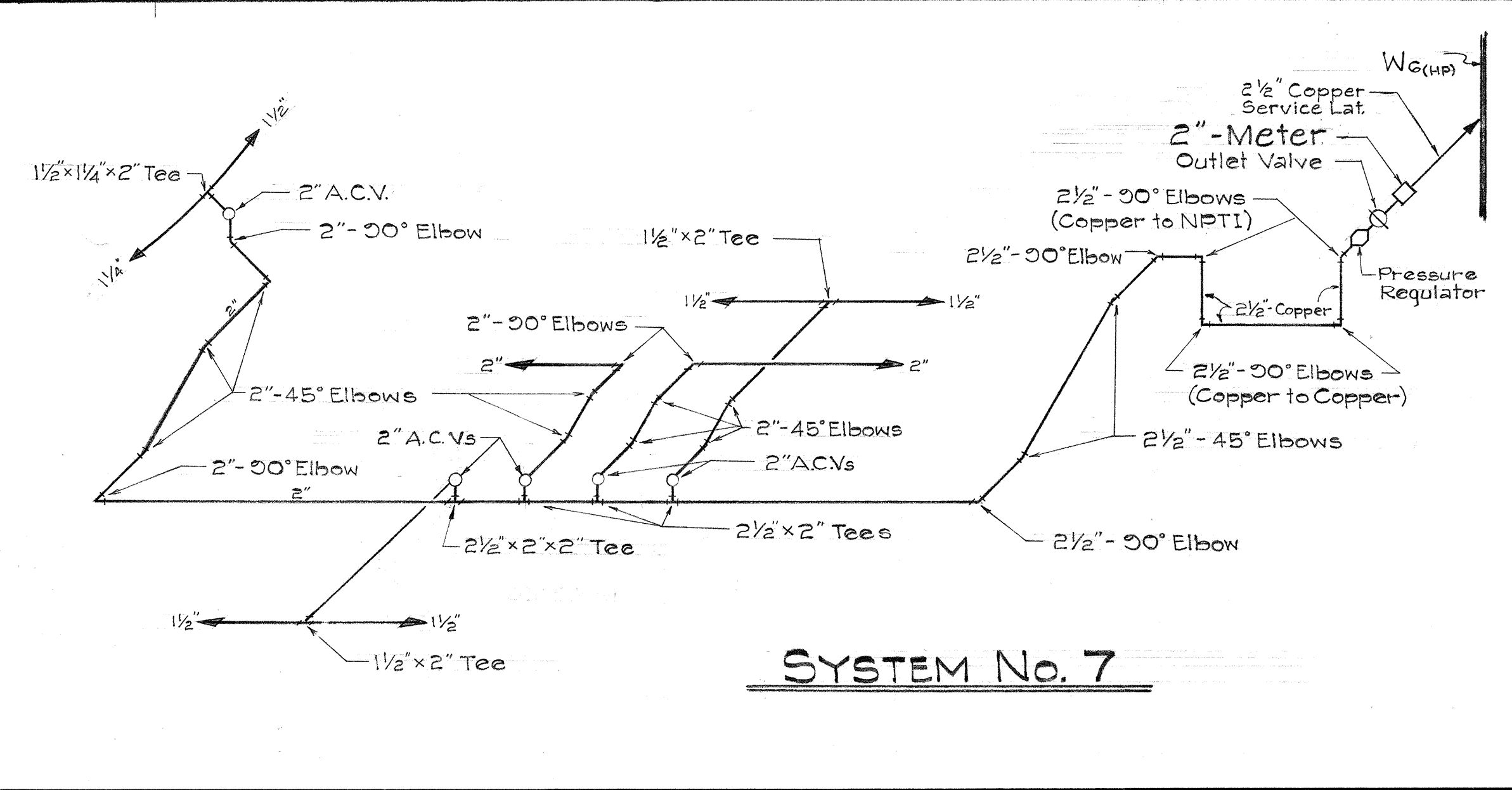
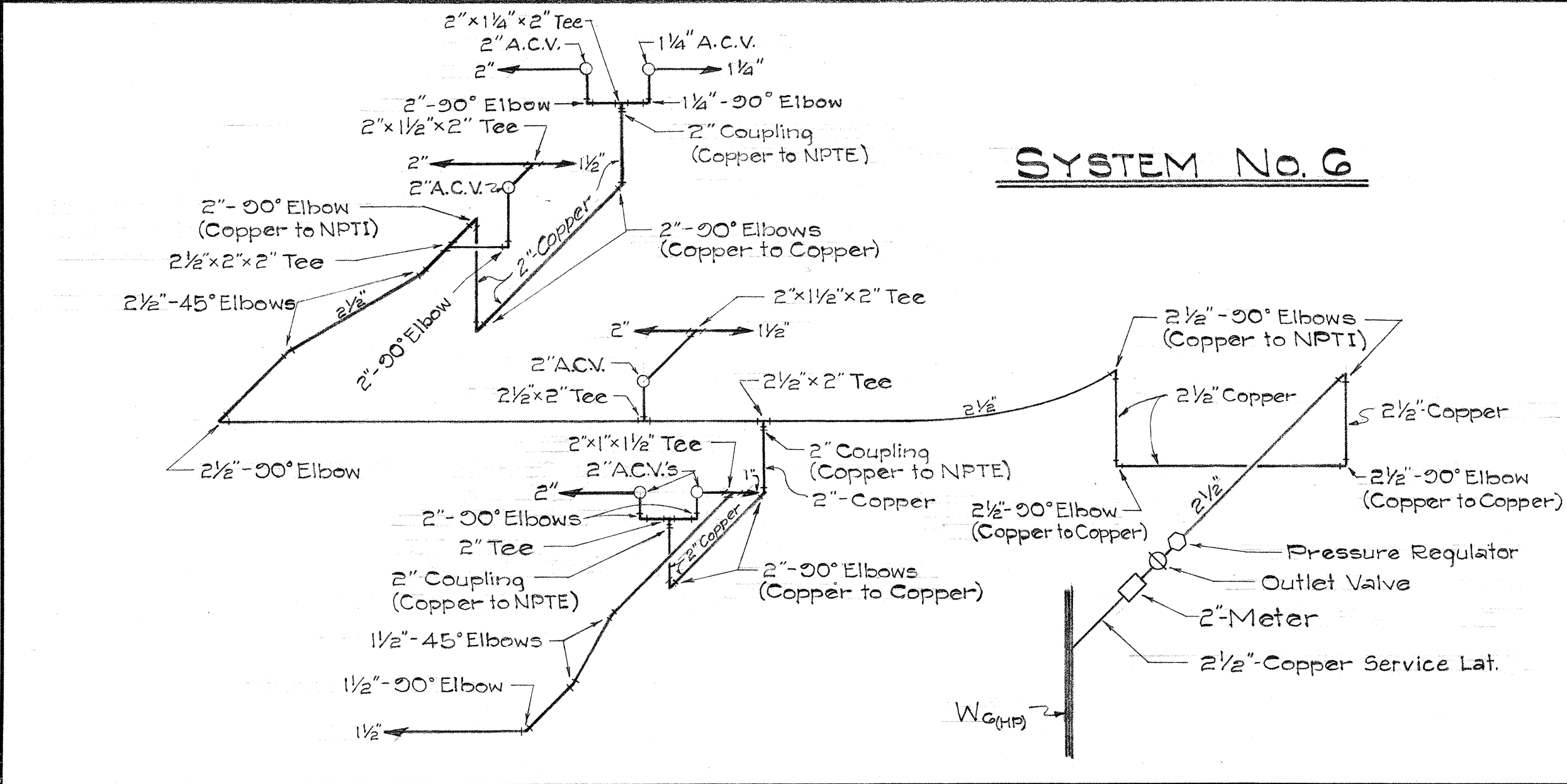
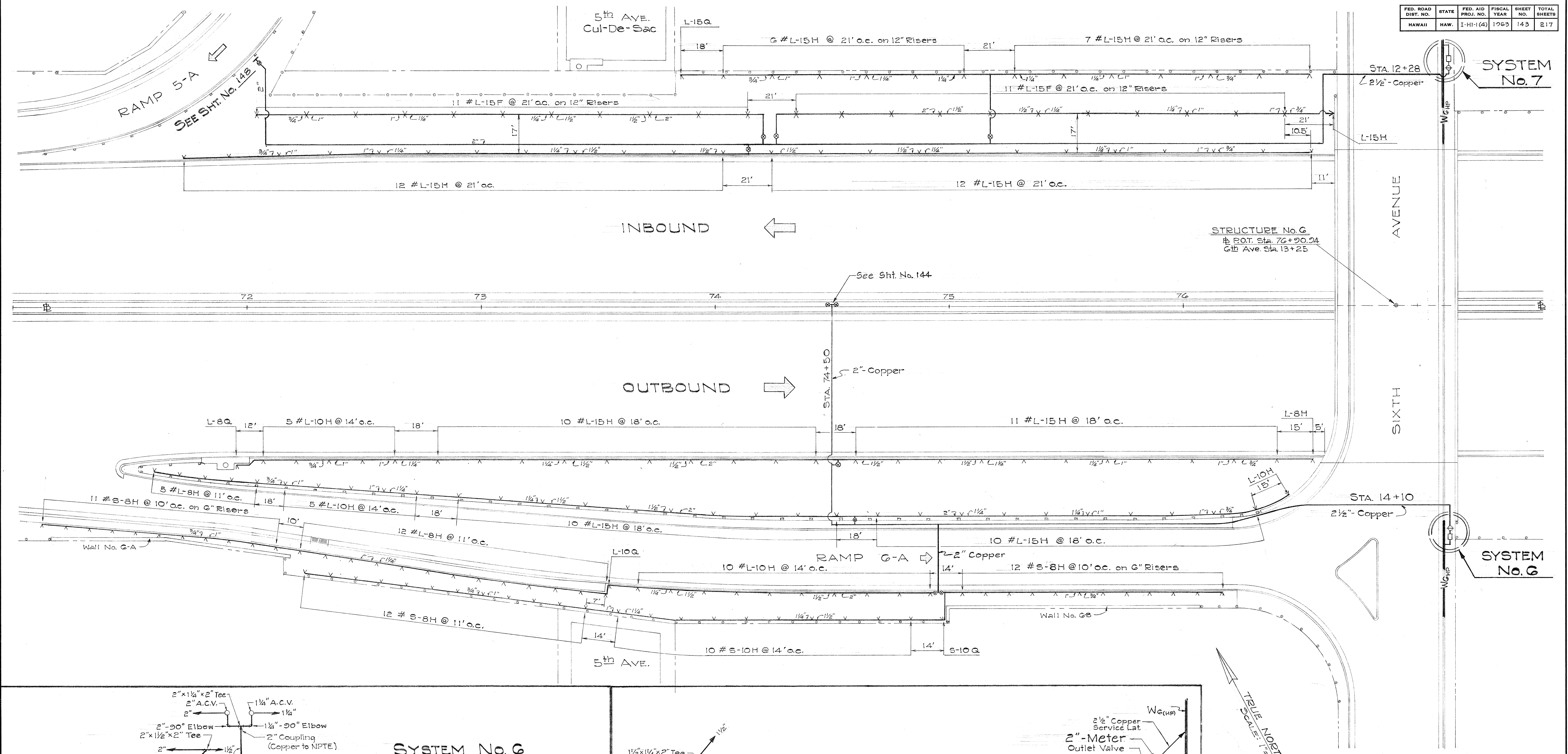
SPRINKLER SYSTEM PLAN

LUNALILO FREEWAY
SCALE: AS SHOWN

PROJ. NO. I-HI-1(4):24
DATE: APRIL, 1963.

SHEET No. 142 OF 217 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(4)	1963	143	217



STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

SPRINKLER SYSTEM PLAN

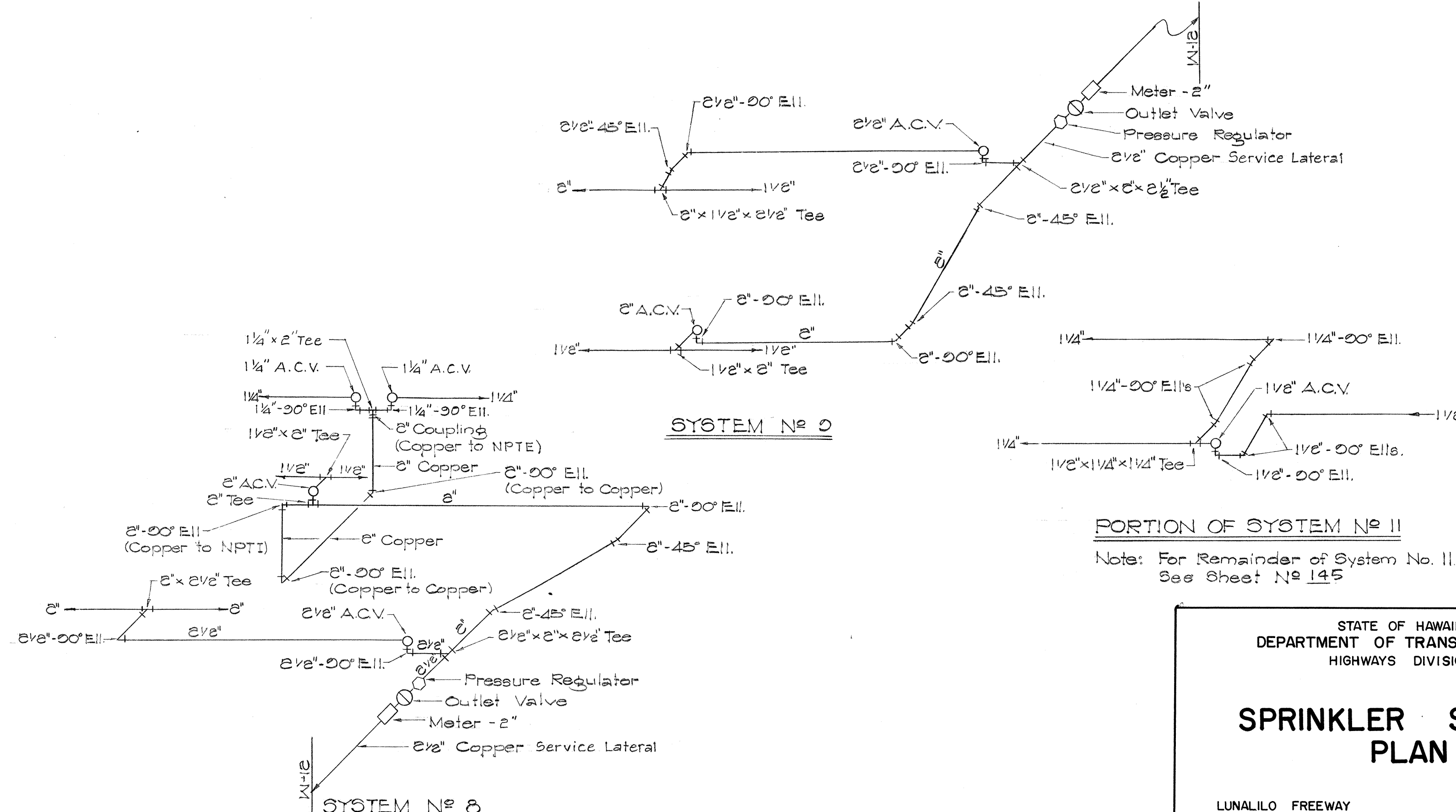
LUNALILO FREEWAY
SCALE: AS SHOWN

PROJ. NO. I-HI-1(4):24
DATE: APRIL, 1963.

SHEET No. 143 OF 217 SHEETS

DATE: _____
DRAWN BY: _____
CHECKED BY: _____
DESIGNED BY: _____
NOTED BY: _____
QUANTITIES BY: _____
CHECKED BY: _____

PLAN		BY	DATE
	SURVEYED		
	PLOTTED		
	ALIGNMENT CHECKED		
	RT. OF WAY CHECKED		
NOTE BOOK NO. _____			



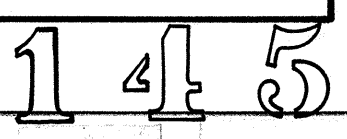
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

**SPRINKLER SYSTEM
PLAN**

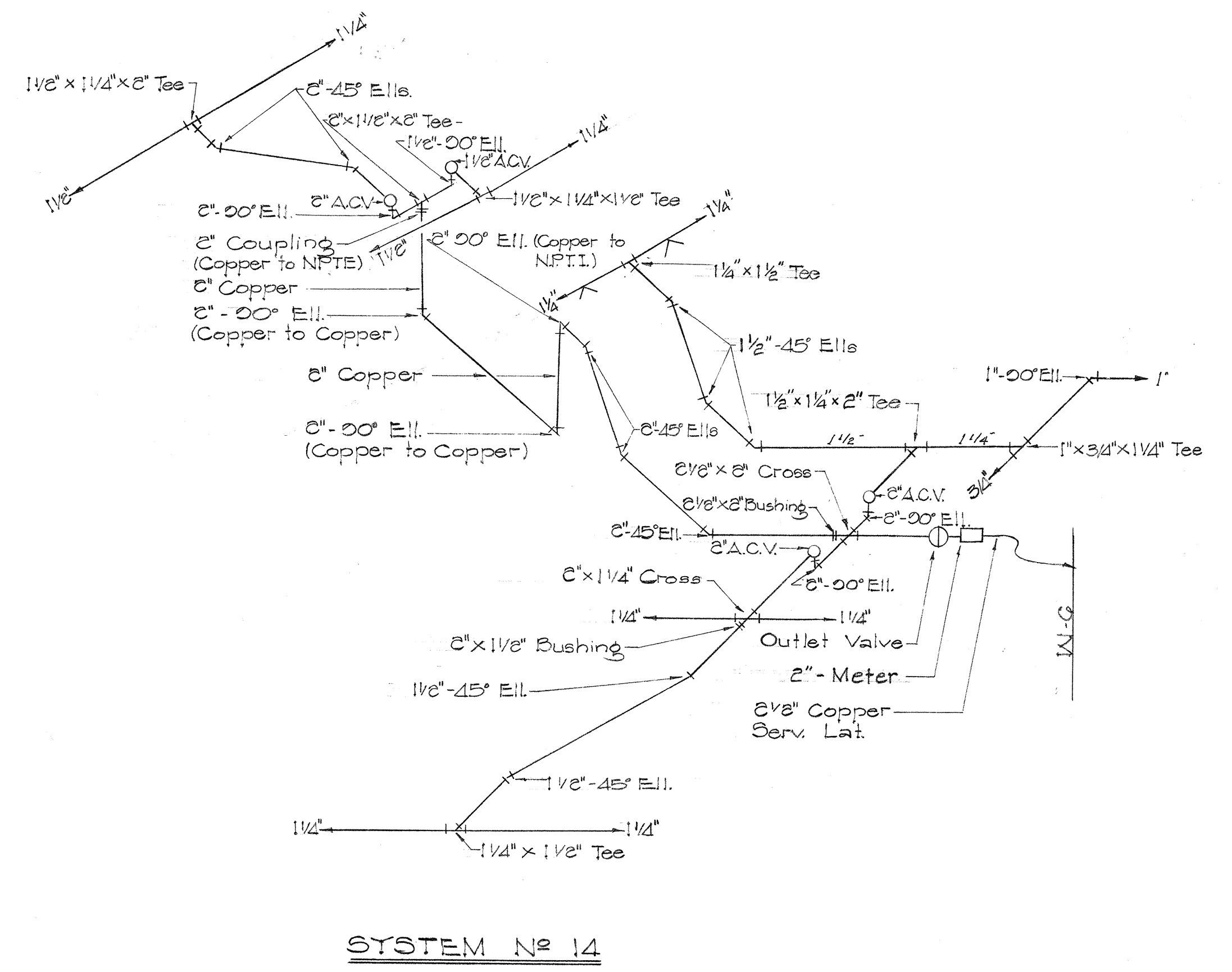
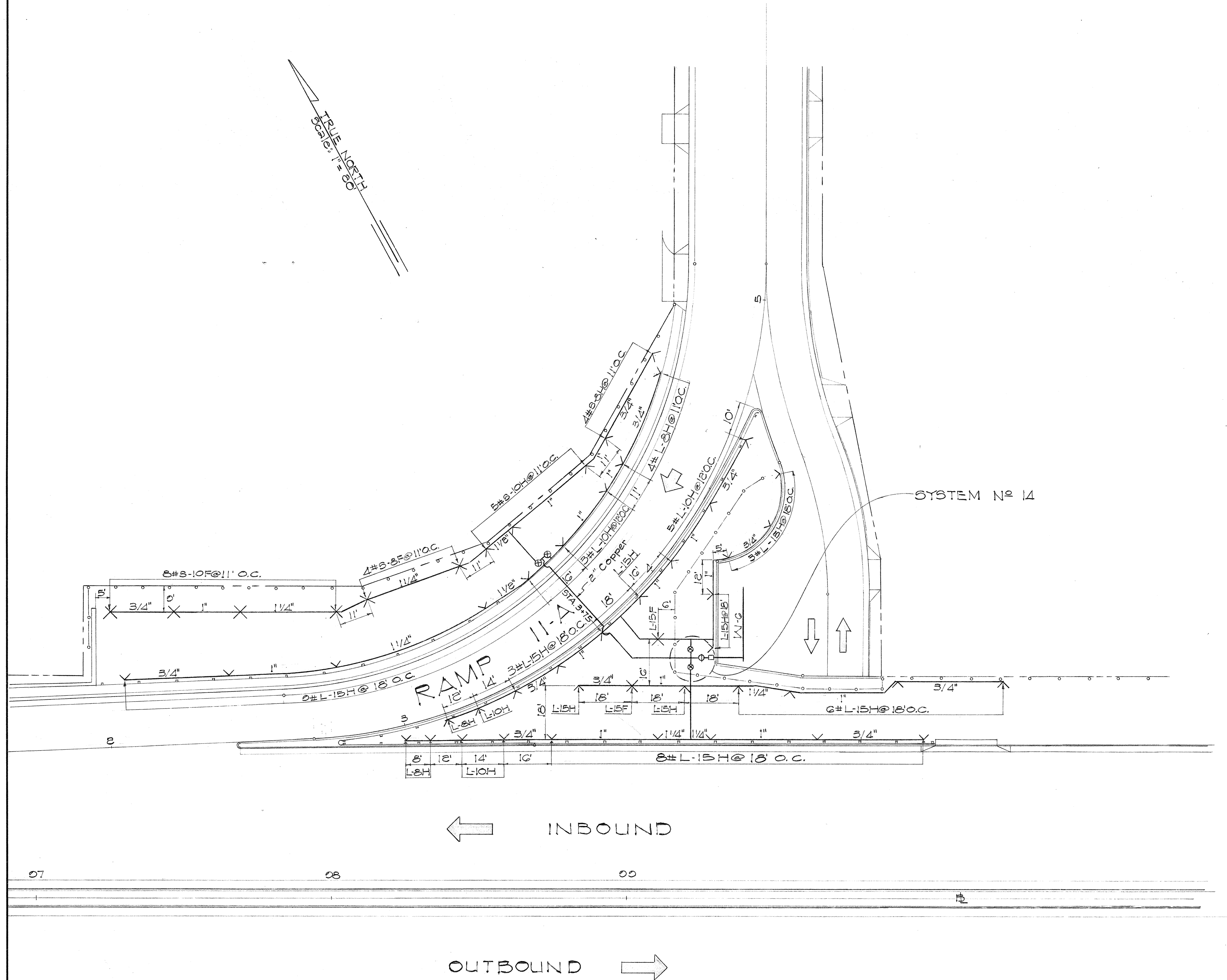
LUNALILO FREEWAY

PROJ. NO. I-HI-1 (4)24

PLAN	SURVEYED	BY	DATE
	PLOTTED		
NOTE BOOK	ALIGNMENT CHECKED		
NO.	RT. OF WAY CHECKED		



FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(4)	1963	146	217



STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

**SPRINKLER SYSTEM
PLAN**

LUNALILO FREEWAY PROJ. NO. I-HI-1(4)-24
SCALE: AS SHOWN DATE: APRIL, 1963.

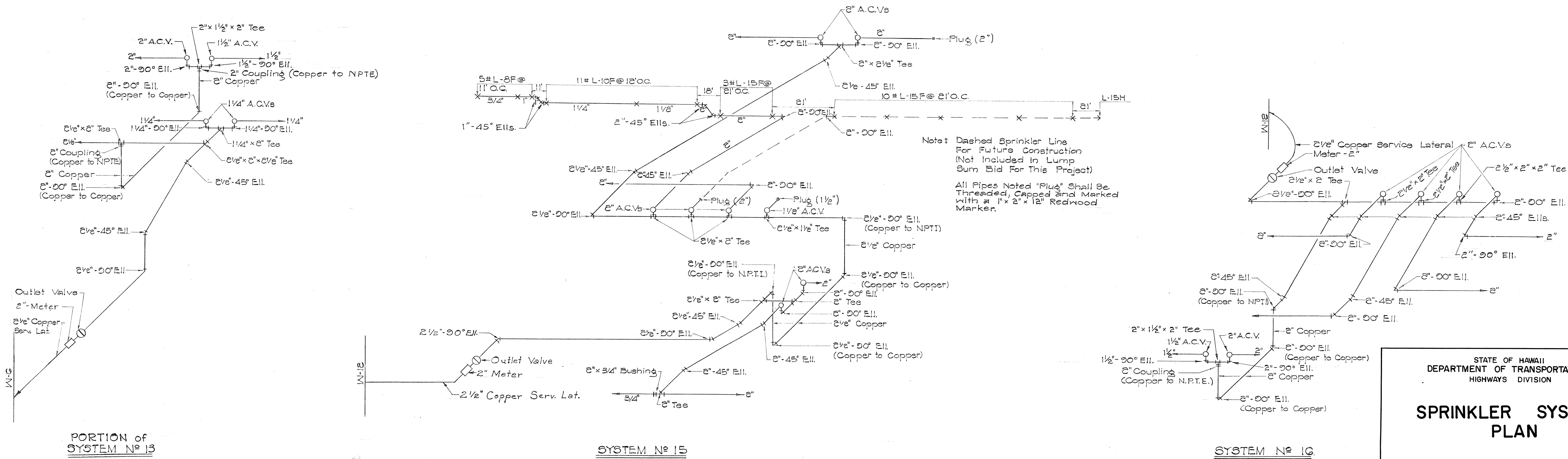
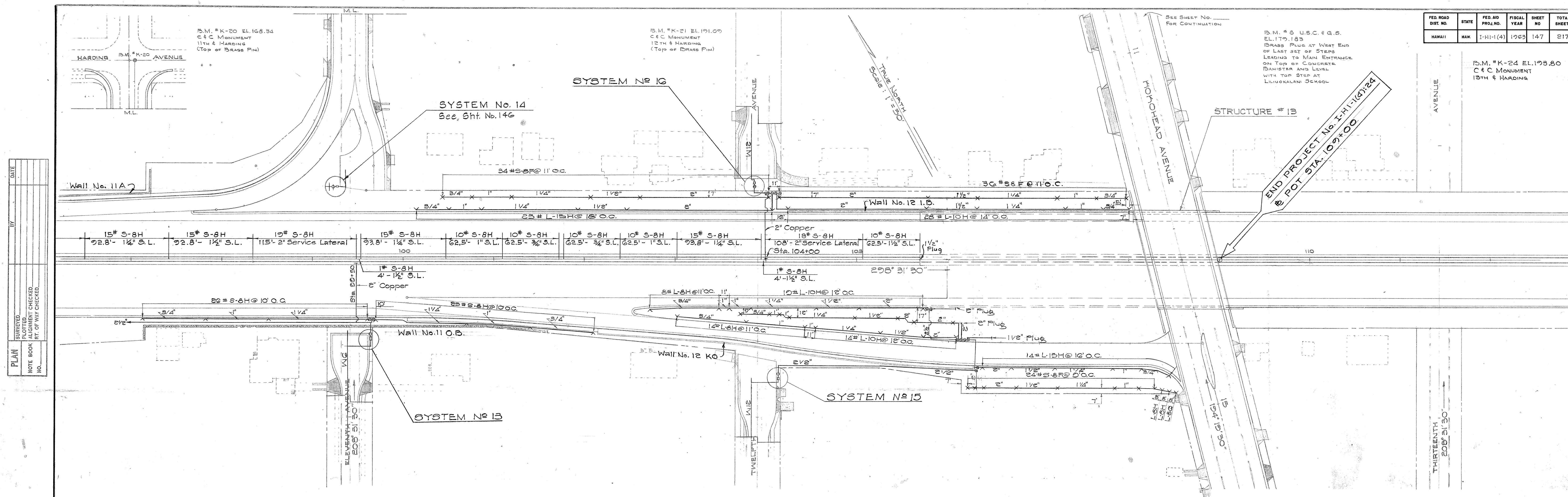
SHEET No. 146 OF 217 SHEETS

146

ORIGINAL PLAN	SURVEY PLOTTED BY	DATE
NOTE BOOK	DRAWN BY	"
CHECKED BY	DESIGNED BY	"
	QUANTITIES BY	"
	CHECKED BY	"

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO	TOTAL SHEET
HAWAII	HAW.	I-HI-1(4)	1963	147	217

B.M. "K-24 EL.193.80
C & C MONUMENT
13TH & HARDING



PORTION of
SYSTEM N° 13

NOTE: For remainder of System
See Sht. No. 145

SYSTEM № 15

SYSTEM No 16

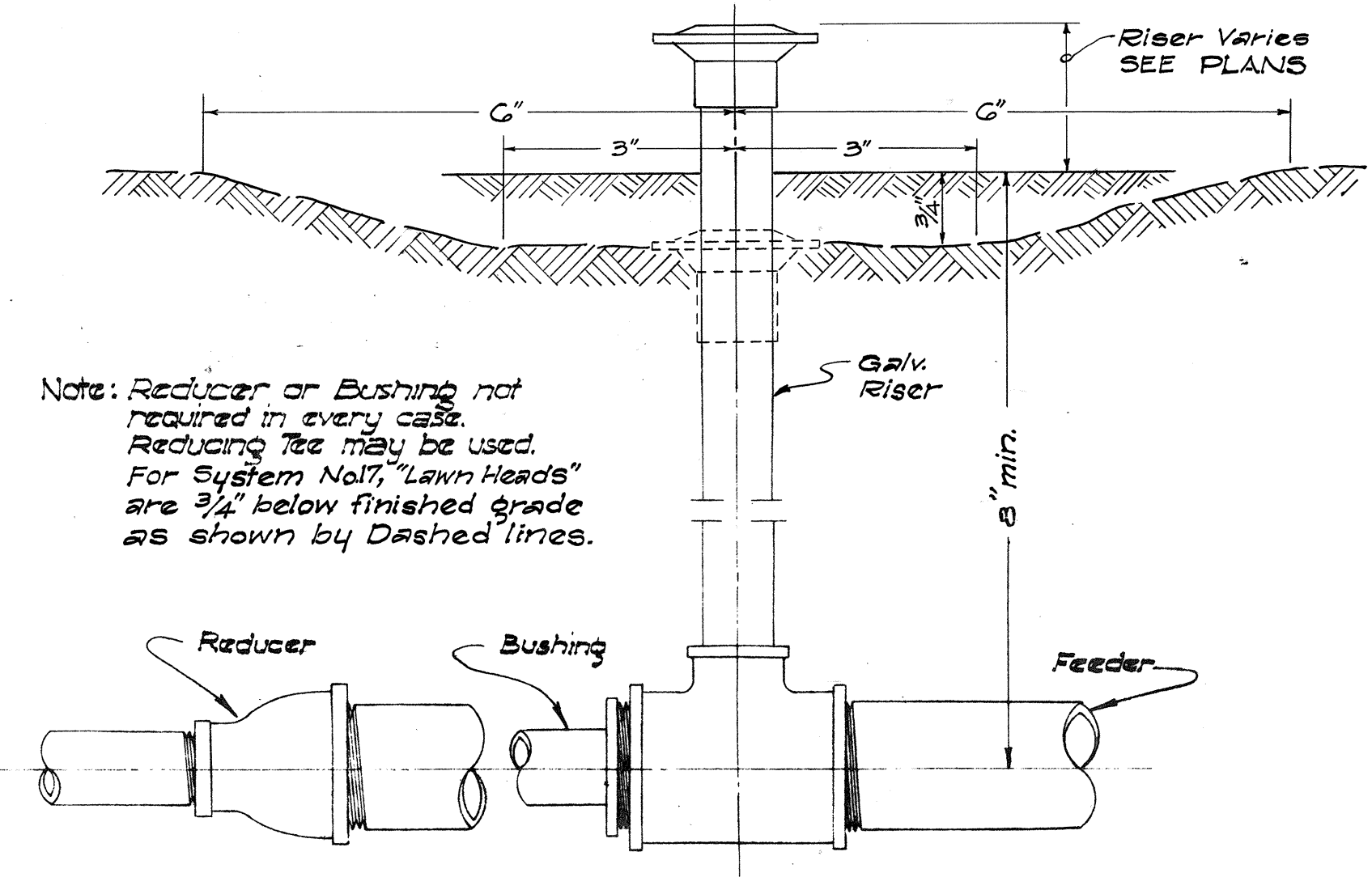
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

SPRINKLER SYSTEM PLAN

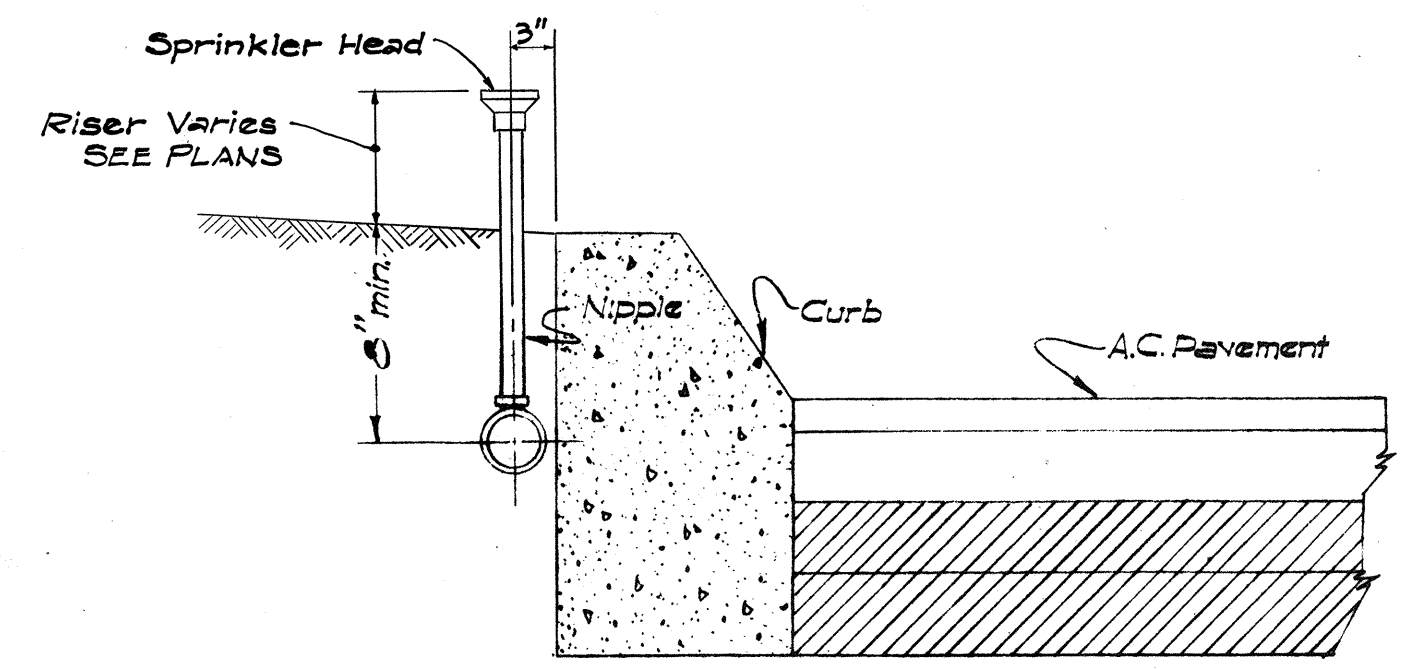
LUNALILO FREEWAY

PROJ. NO. I-HI-1(4):24

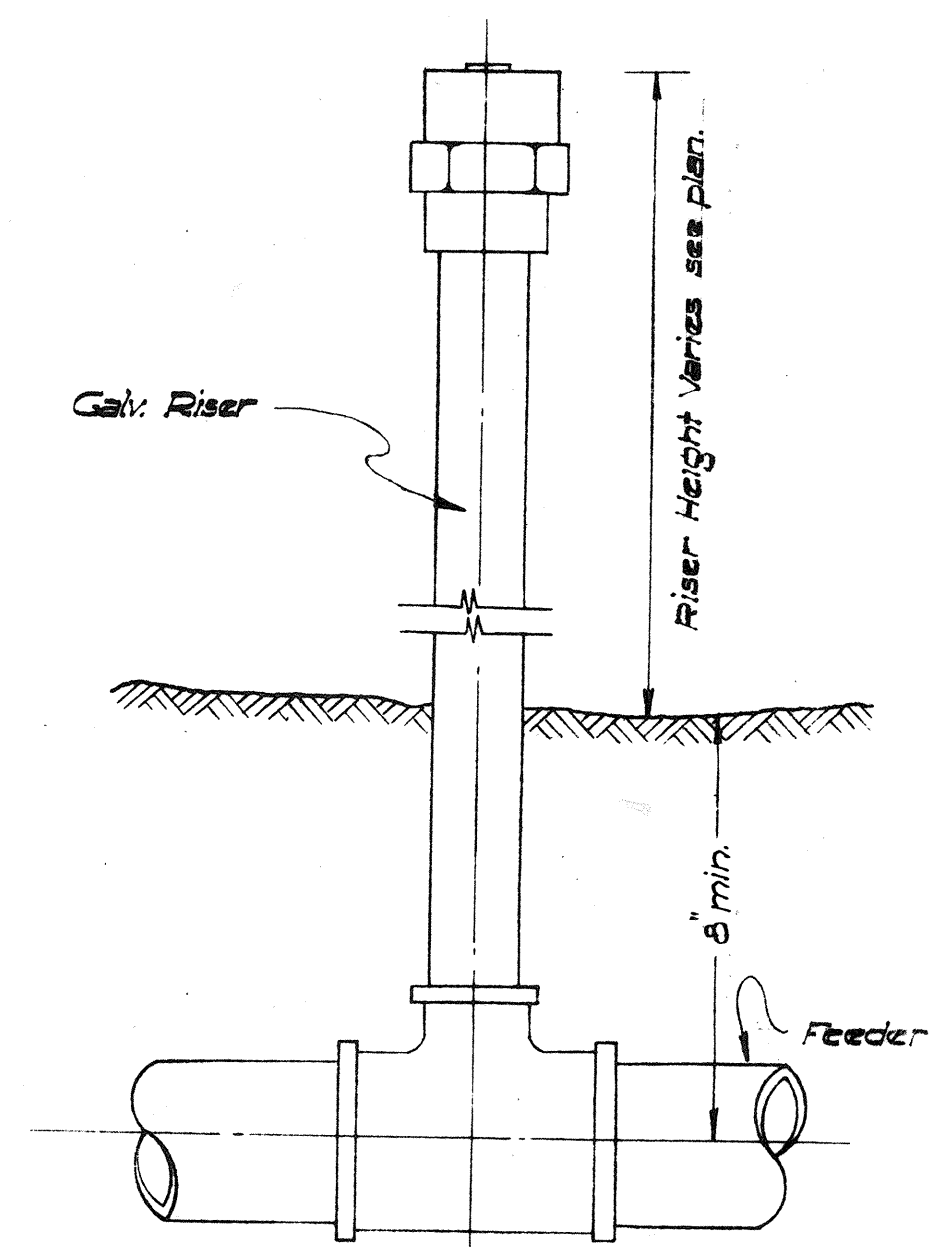
SHEET No. OF SHEETS



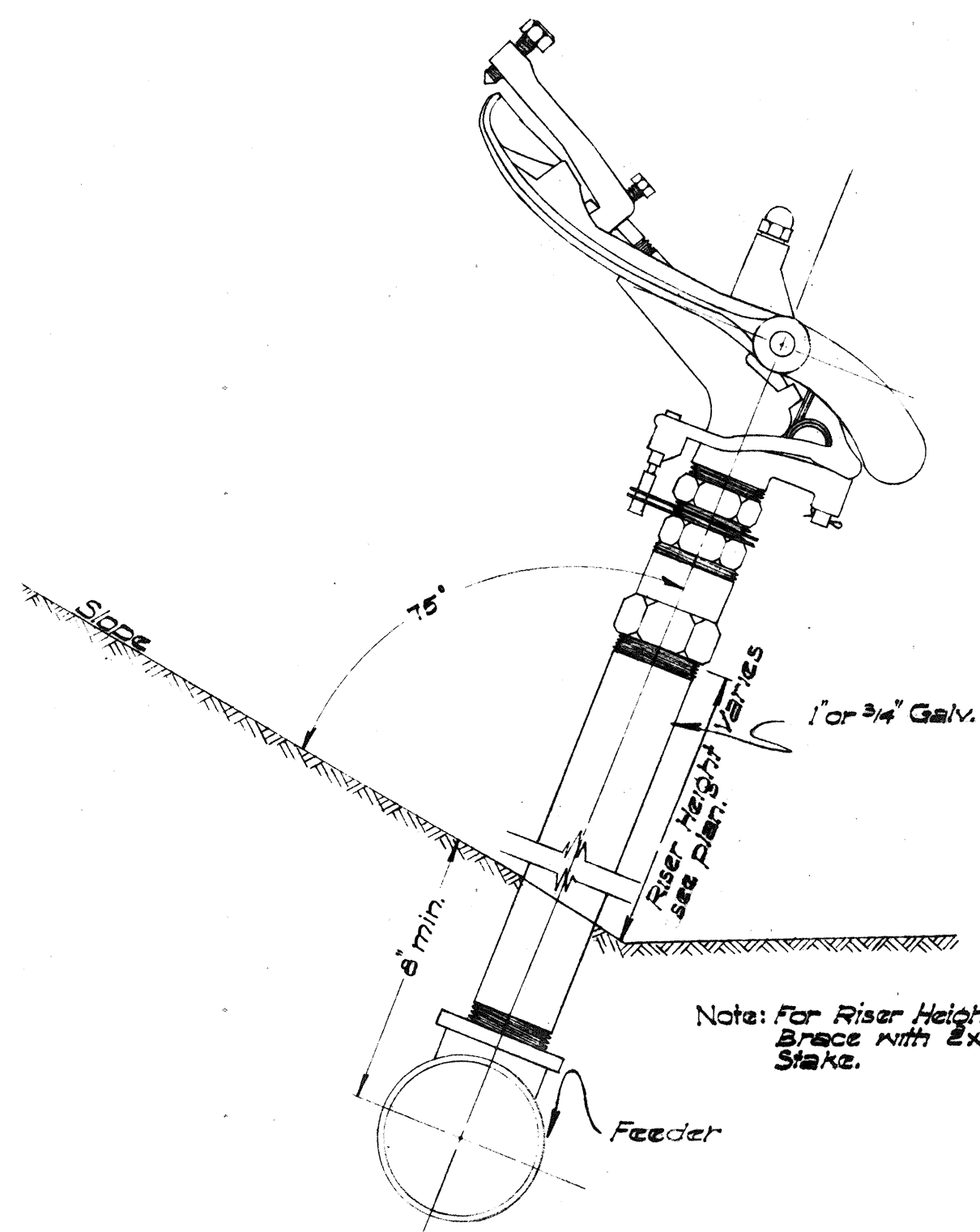
CONNECTION OF SPRINKLER HEAD TO FEEDER PIPE
Not to Scale



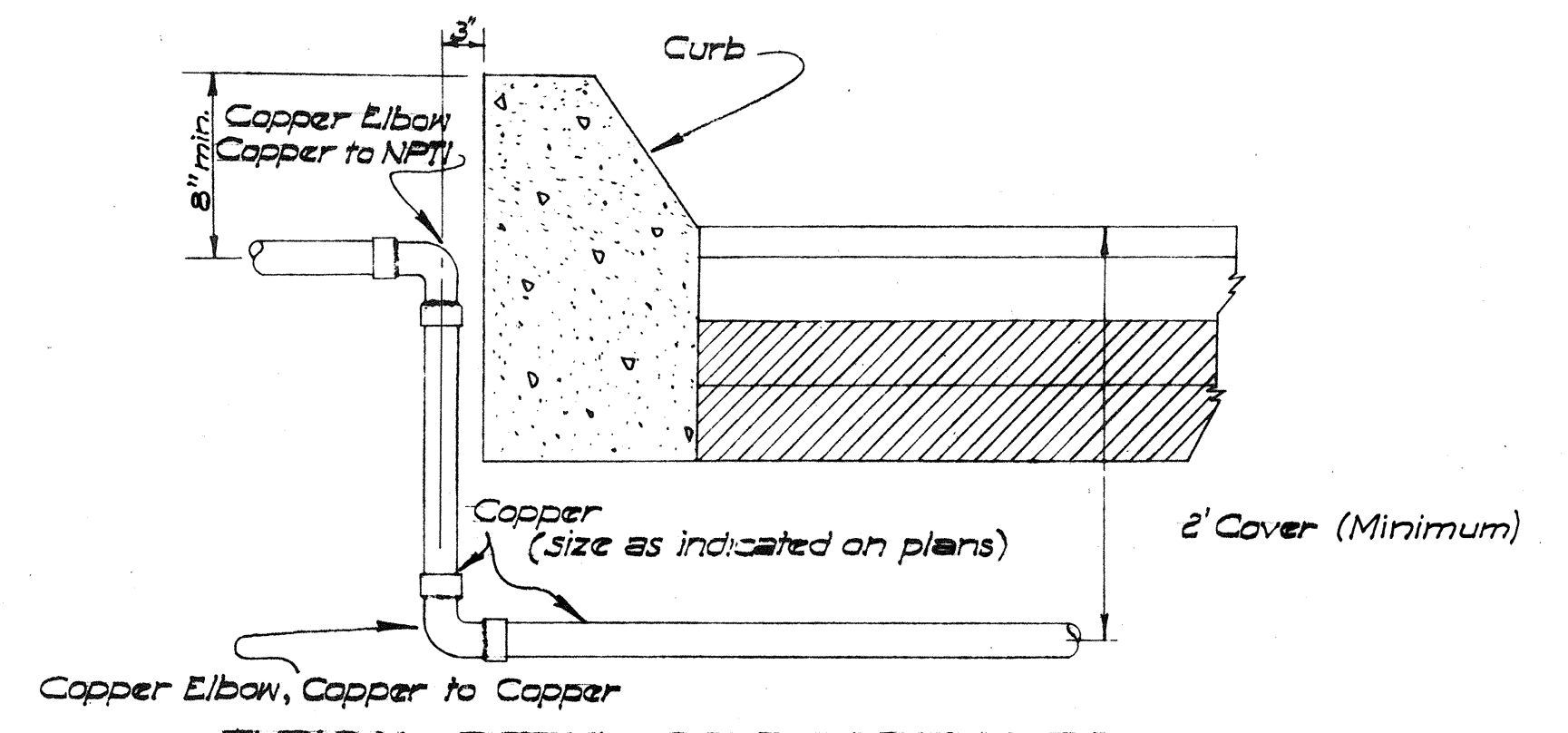
TYPICAL DETAIL OF SPRINKLER AT CONC CURB
Not to Scale



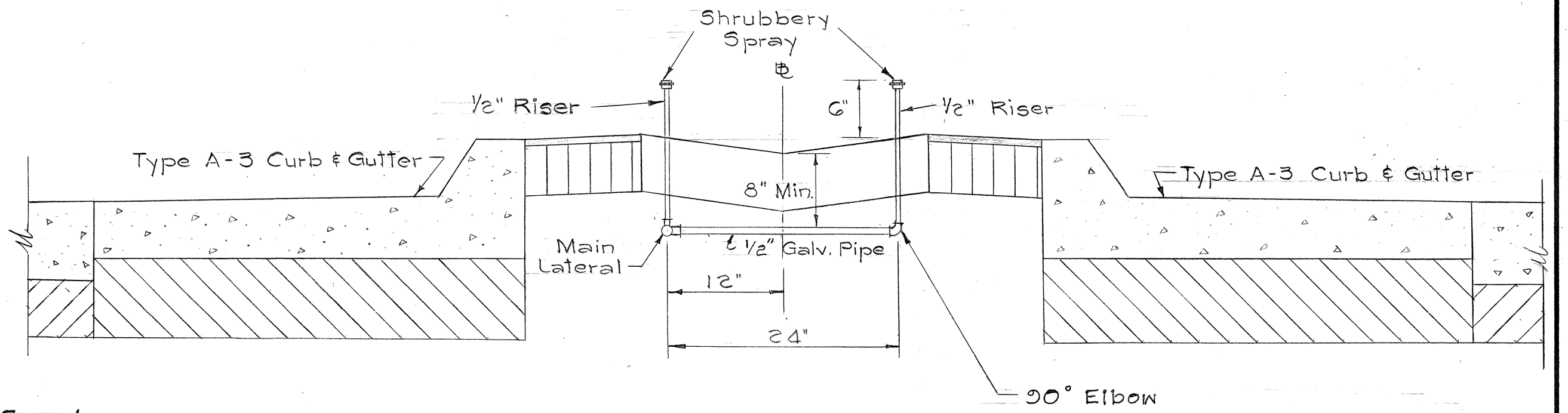
DETAIL OF SHRUBBERY HEAD
Not to Scale



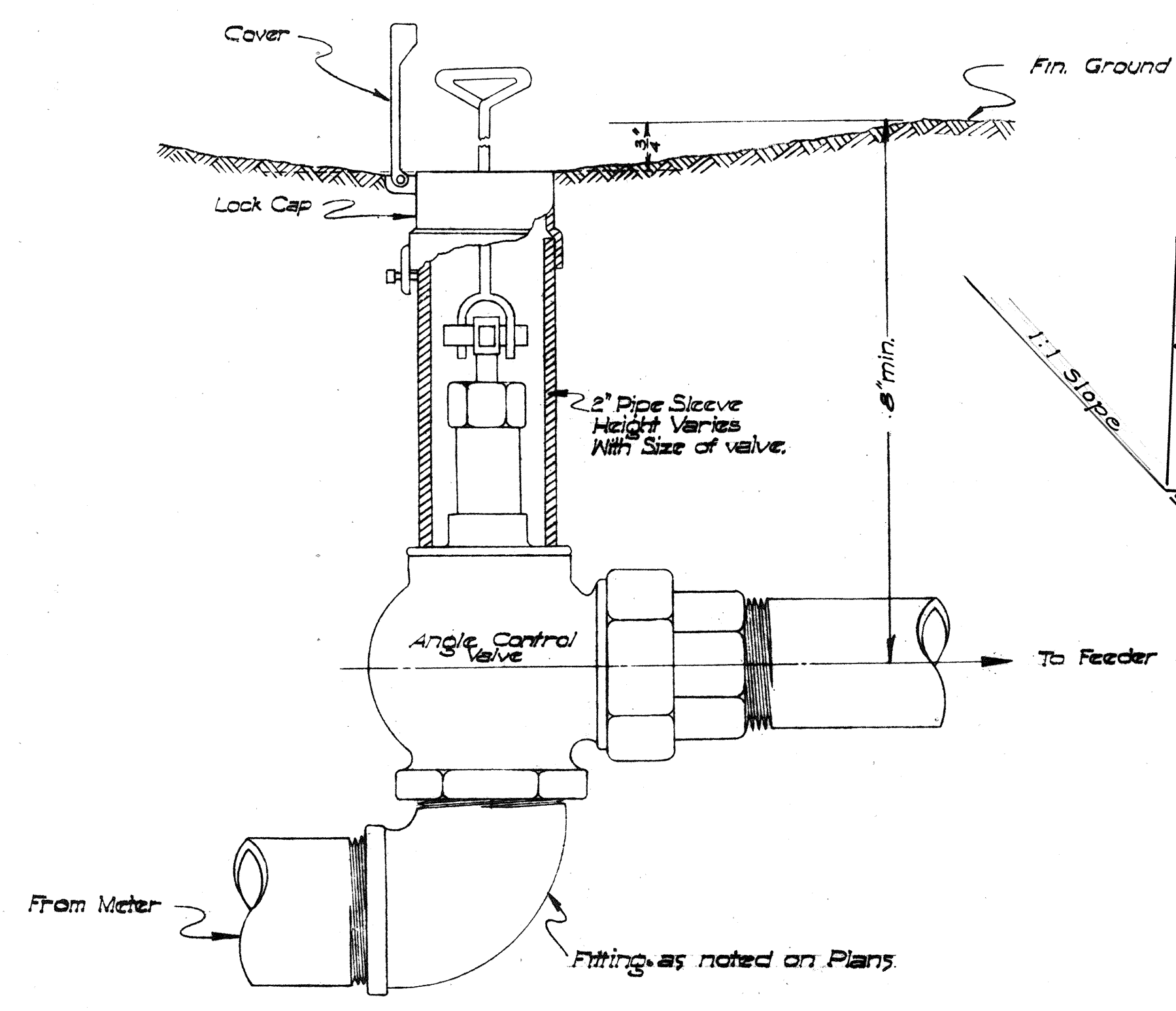
INSTALLATION OF JET SPRINKLER ON SLOPE
Not to Scale



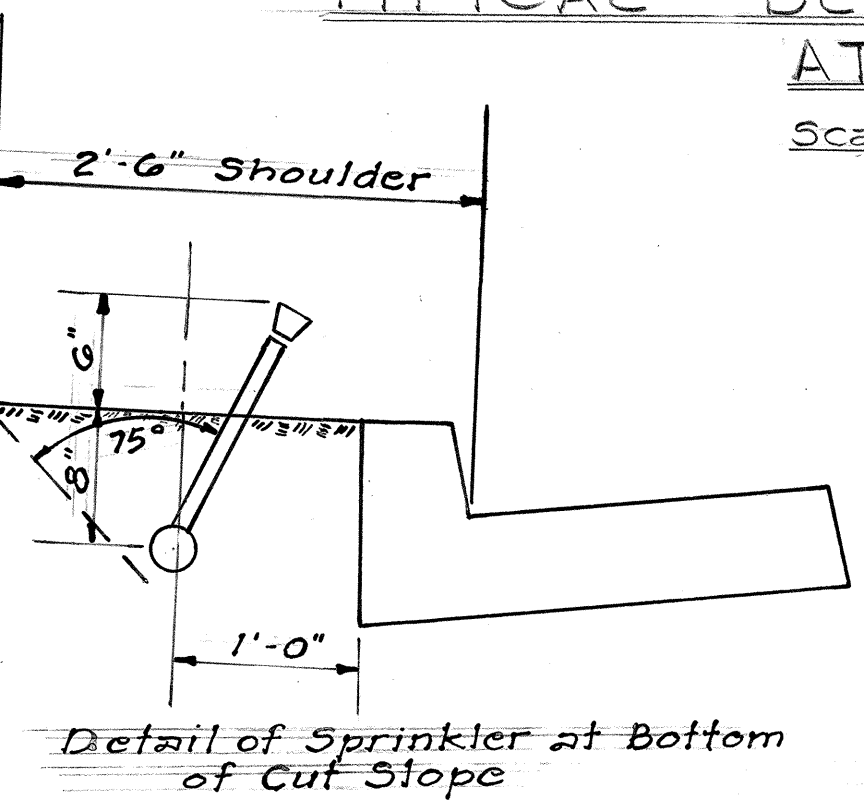
TYPICAL DETAIL OF ROADWAY CROSSING
Not to Scale



TYPICAL DETAIL OF SPRINKLER AT MEDIAN
Scale: 1" = 1'-0"



ANGLE CONTROL VALVE HOUSING & CAP
Not to Scale



GENERAL NOTES

1. All copper pipes shall be connected with solder type fittings of bronze castings or wrought copper.
2. Pipes not noted Copper are to be Galvanized Iron Screw Pipes, and fittings not noted Copper are to be Galvanized Malleable Iron Fittings.
3. After complete installation of the sprinkler system, each sprinkler head shall be adjusted to the satisfaction of the Engineer.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

**SPRINKLER SYSTEM
DETAIL**

LUNALILO FREEWAY
SCALE: AS SHOWN

PROJ. NO. I-HI-1(4):24
DATE: APRIL, 1963.

SURVEY PLOTTED BY: DATE: 4/2/63
DRAWN BY: J.A. VETTER
CHECKED BY: J.A. VETTER
NOTE BOOK NO.