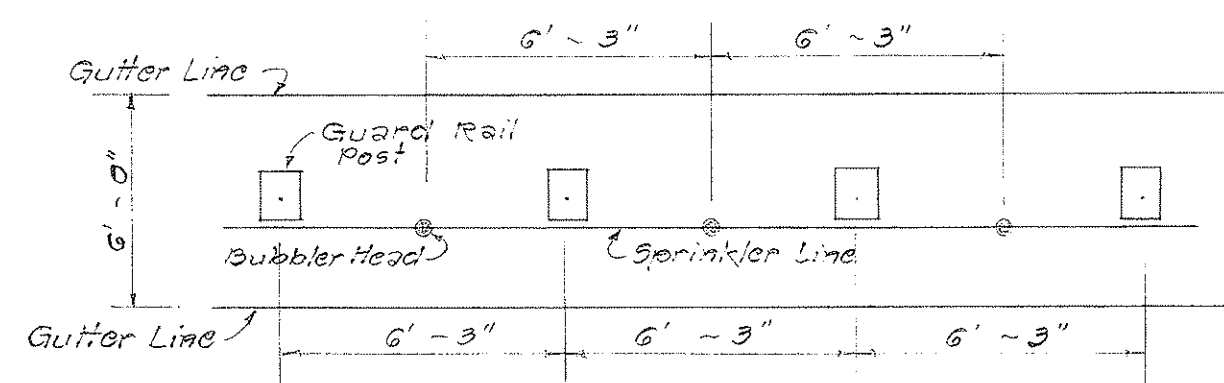


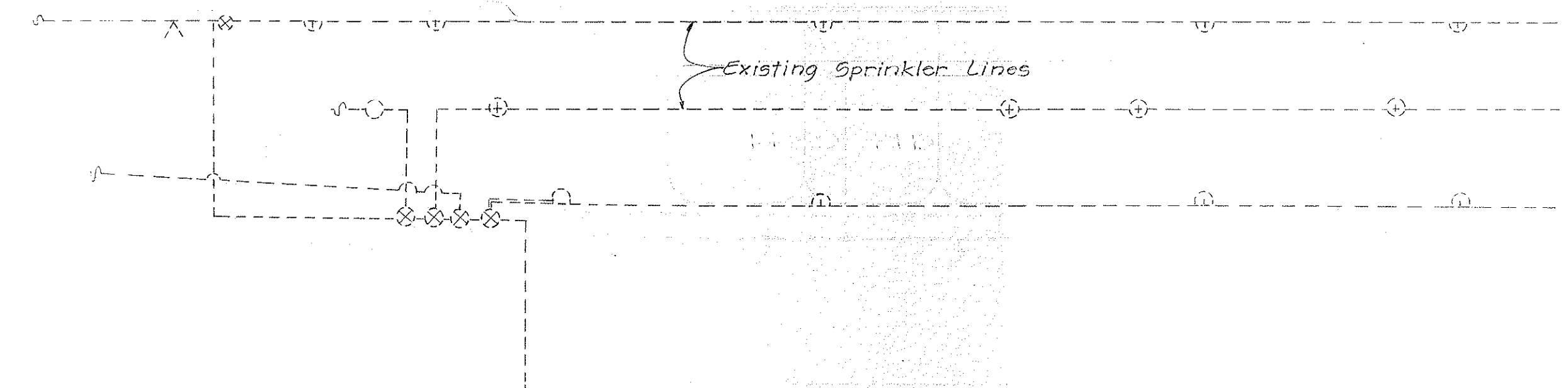
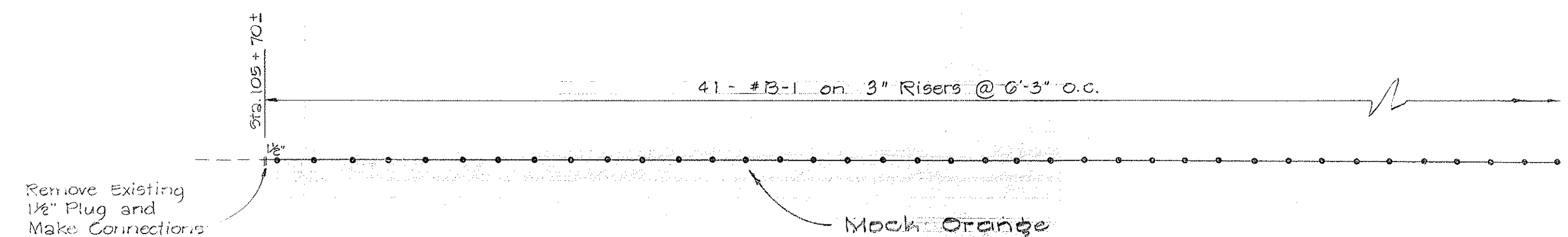
GENERAL NOTES FOR SPRINKLER SYSTEM

- All pipes under pavement are to be copper.
- All risers shall be 1/2" galvanized steel pipe.
- All pipes noted "plug" shall be threaded and capped. All caps and plugs shall be marked with a 1"x2"x12" redwood marker which shall be considered incidental to the cost for the various items of the sprinkler system.
- Pipe sleeves shall have an internal diameter of 1/2" greater than the outside diameter of the pipe passing through the sleeve.
- Unless otherwise called for on these plans or directed by the Engineer the center line of the leader pipe shall be located 5" from back of concrete curb or 12" from fence line or guard rail posts.
- Final location for meters, valves, pressure regulators and vacuum breakers to be determined by the Engineer.
- Piping diagrams, pipes not noted as copper are to be galvanized steel, screw elbows, and fittings not noted as "copper" are to be galvanized malleable iron fitting.
- When the consumers water service will be interrupted, the contractor shall notify each consumer and the Board of Water Supply as to the time and duration the service will be shutoff.
- The Contractor shall install appropriate size Galvanized Steel Pipe Sleeves and Straps for sprinkler pipes through catch basins wherever required and as directed by the Engineer. (Pipe Sleeves and Straps shall be considered incidental to the various contract items for Sprinkler System).
- Riser height as called for in the plans shall denote portion of riser above the ground.



TYPICAL LAYOUT OF BUBBLER HEAD IN MEDIAN
Not to Scale

BEG. OF F.A.I. PROJECT
NO. I-H-1(6) UNIT 2
STA. 105+75



LEGEND AND SPRINKLER HEAD SPECIFICATIONS						
SYM.	NUMBER	TYPE	PRESSURE	RAD. OF COVERAGE	FLOW (GPM)	RISER
✓	L-8H	Lawn - Half Circle	10	8' Radius	1.0	1/2" IPS
✓	L-8Q	Lawn - Quarter Circle	10	8' Radius	0.9	1/2" IPS
✓	L-10F	Lawn - Full Circle	20	20 Diameter	3.0	1/2" IPS
✓	L-10H	Lawn - Half Circle	20	10 Radius	2.5	1/2" IPS
○	S-8F	Shrubbery - Full Circle	10	16' Diameter	2.0	1/2" IPS
○	S-8H	Shrubbery - Half Circle	10	8' Radius	1.0	1/2" IPS
✓	S-8Q	Shrubbery - Quarter Circle	10	8' Radius	0.9	1/2" IPS
○	S-10H	Shrubbery - Half Head	20	10' Radius	2.3	1/2" IPS
✓	S-10Q	Shrubbery - Quarter Head	20	10' Radius	2.0	1/2" IPS
⊠	L-15F	Lawn - Full Circle	30	30' Diameter	5.0	1/2" IPS
⊠	L-15H	Lawn - Half Circle	30	15' Radius	3.0	1/2" IPS
⊠	L-15Q	Lawn - Quarter Circle	30	15' Radius	2.5	1/2" IPS
⊠	S-15F	Shrubbery - Full Circle	30	30' Diameter	5.0	1/2" IPS
⊠	S-15H	Shrubbery - Half Circle	30	15' Radius	3.0	1/2" IPS
⊠	S-15Q	Shrubbery - Quarter Circle	30	15' Radius	2.5	1/2" IPS
○	B-1	Bubbler Head	10		1.0	1/2" IPS
▽	ST-3	Lawn Strip Spray - Half Circle	15	3' Strip	1.2	1/2" IPS
⊗		Angle Control Valve				
⊗		Water Meter				
⊗		Water Main				
⊗		Vacuum Breaker				

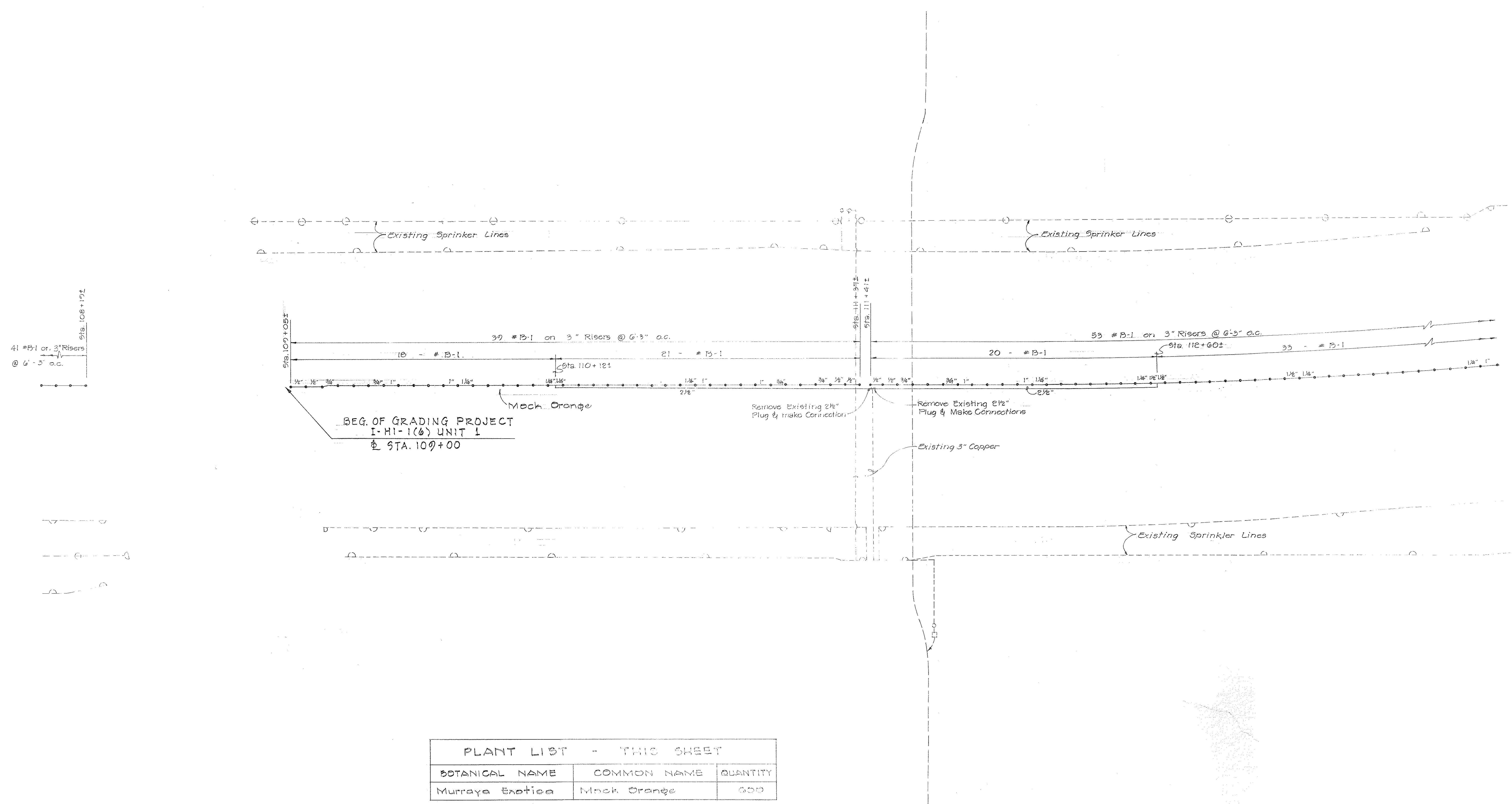
- NOTES:
- * Pressure is the minimum pressure, in pounds per square inch, which is available at the base of the test head. The operating pressure for acceptable heads must not exceed this value when operating at the tabulated flow and radius.
 - * Radius of coverage is the minimum radius at the tabulated pressure.
 - * Flow is the maximum flow, in gallons per minute, which is discharged at the tabulated pressure.

PLANT LIST - THIS SHEET		
BOTANICAL NAME	COMMON NAME	QUANTITY
Murraya Exotica	Mock Orange	220

LANDSCAPING & SPRINKLER PLAN

Scale: As Noted

Nov. 1965



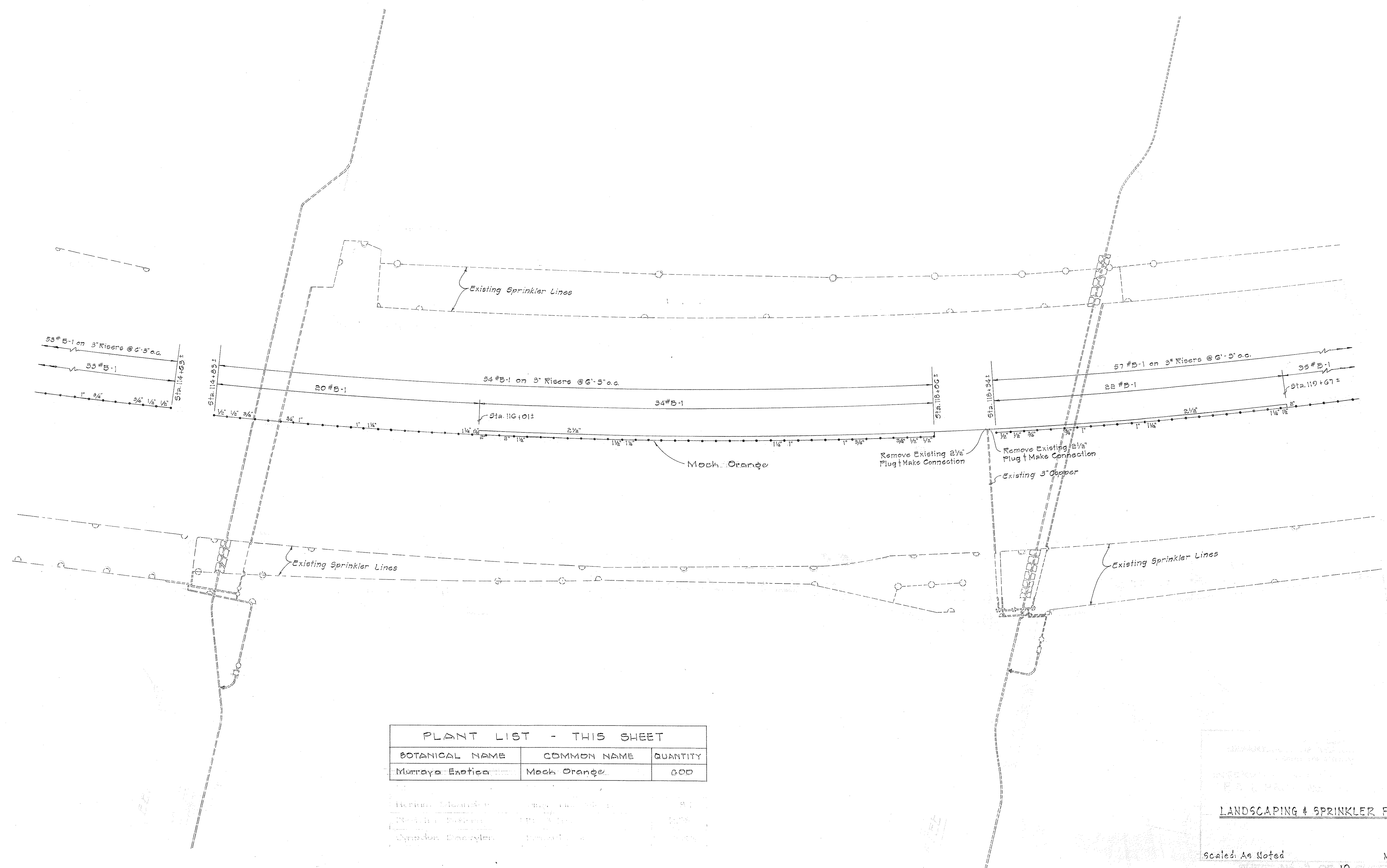
PLANT LIST - THIS SHEET		
BOTANICAL NAME	COMMON NAME	QUANTITY
Murraya Exotica	Mock Orange	500

LANDSCAPING & SPRINKLER PLAN

Scale: As Noted

Nov. 1965

10
149

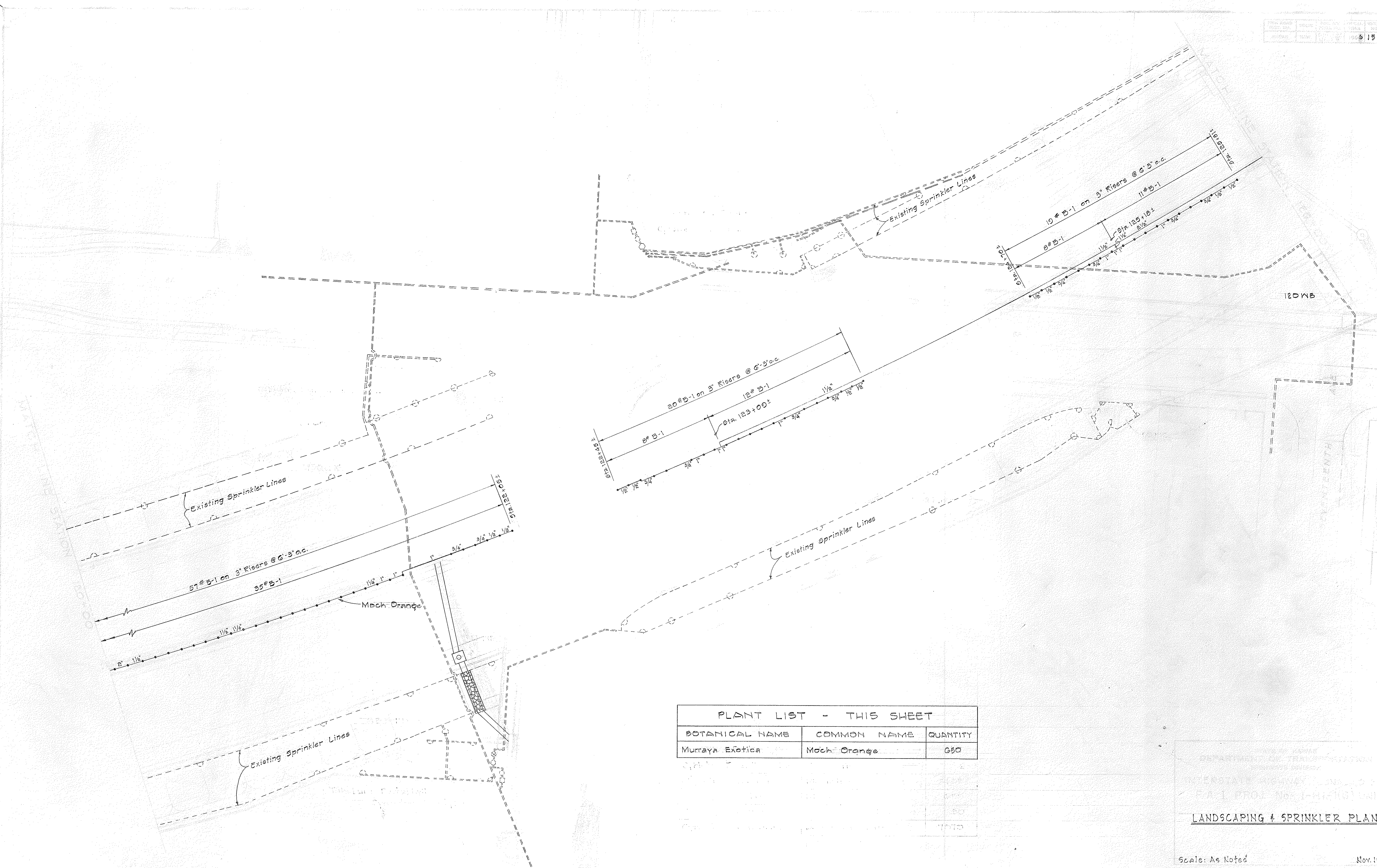


PLANT LIST - THIS SHEET		
BOTANICAL NAME	COMMON NAME	QUANTITY
Murraya Exotica	Mock Orange	600

Bartram's Checkered	Bartram's Checkered	80
Black Barberry	Black Barberry	100
Synedra Descurt.	Synedra Descurt.	100

LANDSCAPING & SPRINKLER PLAN

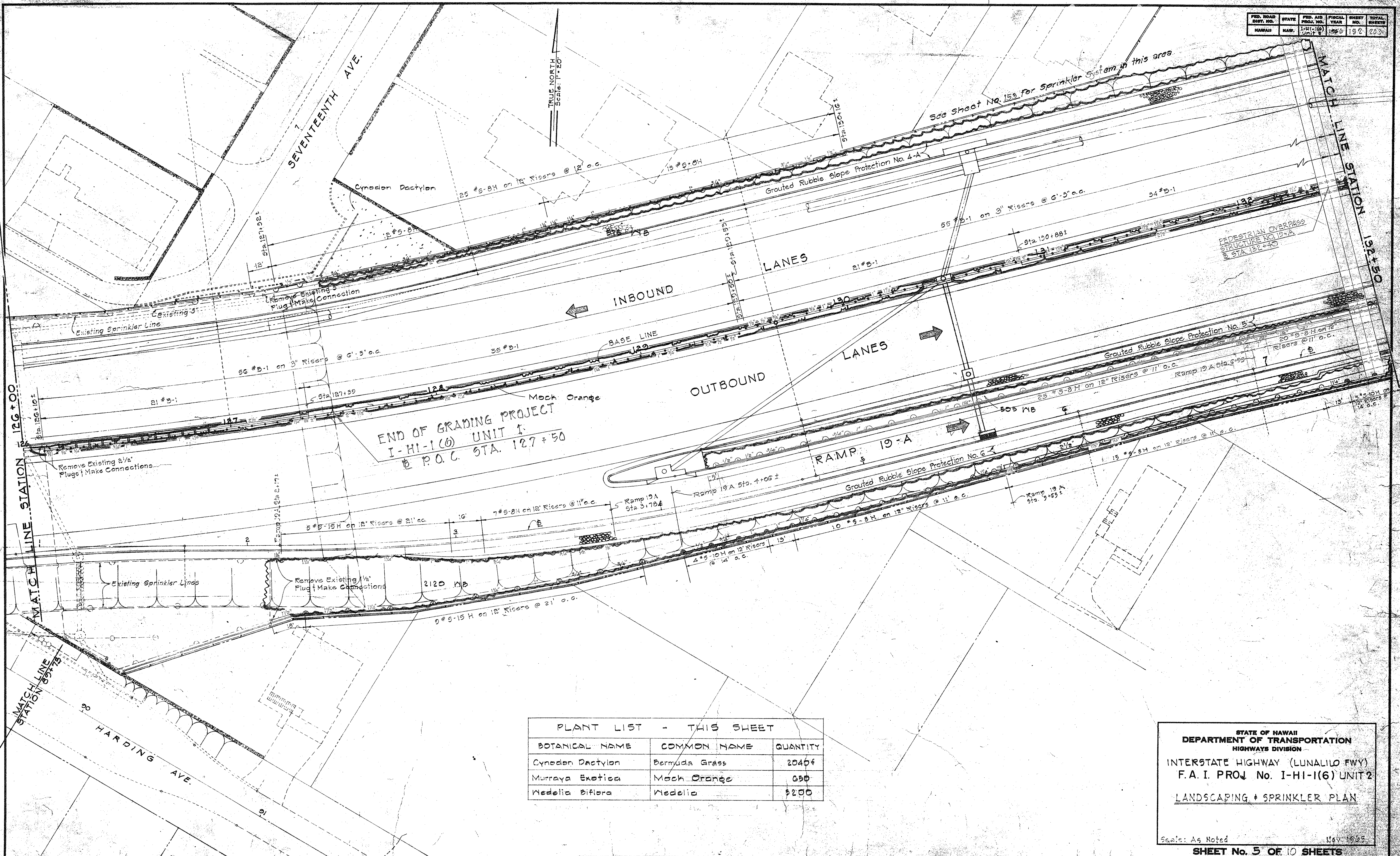
Scaled: As Noted Nov. 1985



PLANT LIST - THIS SHEET		
BOTANICAL NAME	COMMON NAME	QUANTITY
Murraya Exotica	Mock Orange	650

HAWAIIAN TERRITORY
 DEPARTMENT OF TRANSPORTATION
 DIVISION OF HIGHWAYS
 PROJECT NO. 1-151-10 UNIT 2
LANDSCAPING & SPRINKLER PLAN

Scale: As Noted
 Nov. 1965



PLANT LIST - THIS SHEET		
BOTANICAL NAME	COMMON NAME	QUANTITY
Cynodon Dactylon	Bermuda Grass	20406
Murraya Exotica	Mock Orange	650
Wedelia Biflora	Wedelia	3200

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
INTERSTATE HIGHWAY (LUNALILO FWY)
F.A.I. PROJ. No. I-HI-1(6) UNIT 2
LANDSCAPING & SPRINKLER PLAN
Scale: As Noted
Nov. 1965
SHEET No. 5 OF 10 SHEETS

PLANT LIST - THIS SHEET

SYMBOL	COMMON NAME	QUANTITY
1	Tiger's Claw	9
2	Pink Tecoma	4
3	Cigar Boxwood	4
4	Nedelia	3,070
5	Honon Grass	3,555

TOTAL PLANT MATERIAL LIST

QTY	NAME	CONDITION
4	CITHAREXYLLUM SPINOSUM - CIGAR BOXWOOD	25.00, OR FIELD 10' TALL
7,150	EREMOCLOA OPHIOIDES - HONON GRASS	SPRIGS AS SPECIFIED
9	ERYTHRINA INDICA - TIGER'S CLAW	25.00, 10' TALL GUY
1,040	CYNODON DACTYLON - BERMUDA GRASS	SPRIGS AS SPECIFIED
90	HIBISCUS ROSA-SINENSIS - SINGLE RED HIBISCUS	1.00, 1'-0" HIGH
3,085	MURRAYA EXOTICA - MOCK ORANGE	1.00, 1'-0" HIGH
7	TABEBUIA PENTAPHYLLA - PINK TECOMA	10.00, 8' TALL GUY
3,121	NEDELIA BIFLORA - NEDELIA	#4 CANS, 10" RUNNERS

NOTE:
ALL EXISTING PLANT MATERIAL TO BE REMOVED FROM SITE

**STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION**

**LANDSCAPING & SPRINKLER PLAN
17TH AVE. TO EKAHA ST.**

SCALE: AS SHOWN

**PROJ. NO. I-H-1(6) UNIT 2
DATE: JANUARY, 1968**

SHEET No. 6 OF 10 SHEETS

PLANT LIST - THIS SHEET		
SCIENTIFIC NAME	COMMON NAME	QUANTITY
<i>Mimosa indica</i>	Tigress Claw	9
<i>Mimosa pentaphylla</i>	Pink Tecoma	4
<i>Acrotyllum spinosum</i>	Cigar Boxweed	4
<i>Mimosa biflora</i>	Nedelia	3,070
	Honan Grass	3,555

TOTAL PLANT MATERIAL LIST		
QTY	NAME	CONDITION
4 7150	CITHAREXYLLUM SPINOSUM - CIGAR ROCKWOOD	25 GC, OR FIELD 10" TALL
9	EREMOCHLOA OPHIOCHLOIDES - HONAN GRASS	PERIG AS SPECIFIED
2040	ERYTHRINA INDICA - TIGER'S CLAW	25 GC, 10" TALL GUY
50 3085 9165	CYNODON DACTYLON - BERMUDA GRASS	SPECIES AS SPECIFIED
50	HIBISCUS KOTA-SINENSIS - SINGLE RED HIBISCUS	1 GC, 1'-0" HIGH
9165 912	MURRAYA EXOTICA - MOCK ORANGE	1 GC, 1'-0" HIGH
912	TABESBEEIA PENTAPHYLLA - PINK TELOMA	10 GC, 2" TALL GUY
10470	NEDELIA BIFLORA - NEDELIA	24 CAN, 20" RUNNERS

NOTE:
ALL EXISTING PLANT MATERIAL TO BE
REMOVED FROM SITE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

LANDSCAPING & SPRINKLER PLAN
17TH AVE. TO IKAHA ST.

SCALE: AS SHOWN
PROJ. NO. I-H-11(6) UNIT 2
DATE: JANUARY, 1965

SHEET No. 6 OF 10 SHEETS

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

REVISED
FEB. 24, 1967

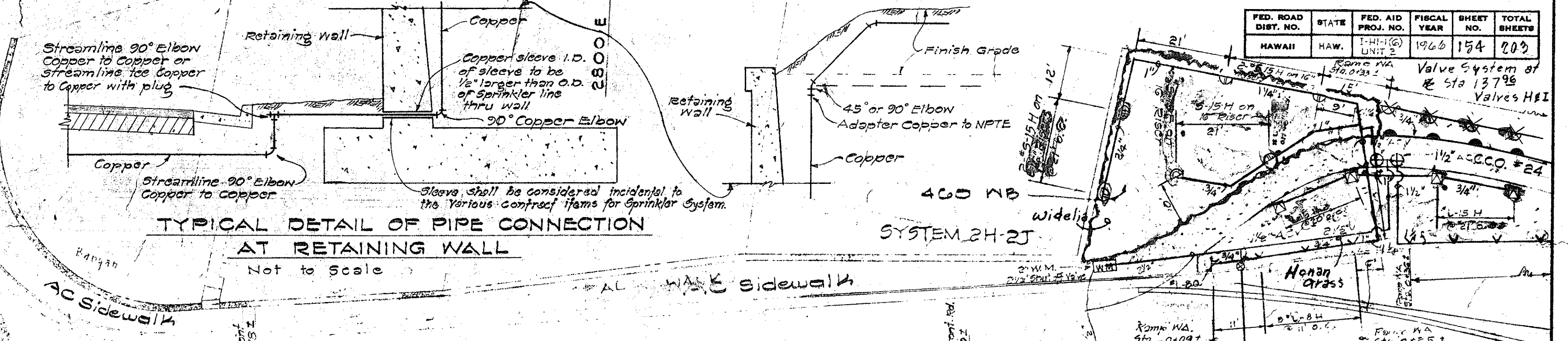
C. C. (1) 15

SCALE: AS SHOWN
SHEET No. 6 OF 10 SHEETS

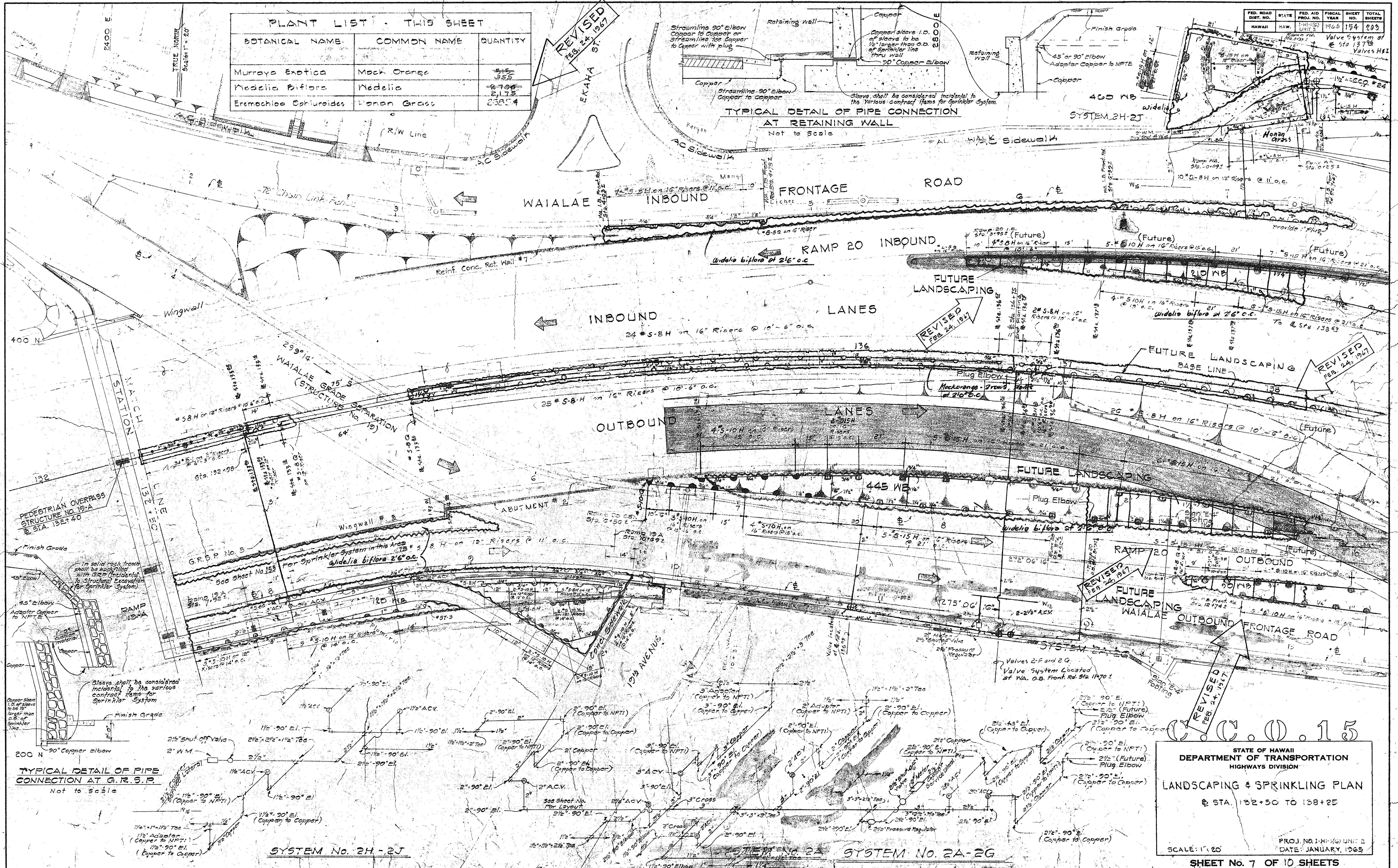
15314

PLANT LIST - THIS SHEET		
BOTANICAL NAME	COMMON NAME	QUANTITY
Murraya Exotica	Mock Orange	355
Nedelia Biflora	Nedelia	2,135
Eremochloa Ophiuroides	Lonan Grass	23854

REVISED
FEB. 24, 1967



TYPICAL DETAIL OF PIPE CONNECTION
AT RETAINING WALL
Not to Scale



SURVEY PLOTTED BY: DATE: _____
 PLAN: _____
 DESIGNED BY: _____
 NOTE BOOK: _____
 CHECKED BY: _____

STATE OF HAWAII
 DEPARTMENT OF TRANSPORTATION
 HIGHWAYS DIVISION

LANDSCAPING & SPRINKLING PLAN
 @ STA. 132+30 TO 138+25

SCALE: 1" = 20'

PROJ. NO. 1-H-1(6) UNIT 2
 DATE: JANUARY, 1965

SHEET NO. 7 OF 10 SHEETS

1541R

PROJ. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	100	1966	155	200

TYPICAL PIPING DIAGRAM FOR COPPER PIPE CROSSINGS AT RAMP 20 I.B. STA. 9+31, 9+36 & 10+50

END OF F.A.I. PROJECT
No. I-HI-100 UNIT 2
P.O.C. STA. 143+58

PLANT LIST - THIS SHEET

BOTANICAL NAME	COMMON NAME	QUANTITY
Nedelia biflora	Nedelia	716
Hibiscus rosa-sinensis	Single Red Hibiscus	90
Moronea exotica	Mock Orange	80
Eremophila ophuroides	Honon Grass	5,740 #

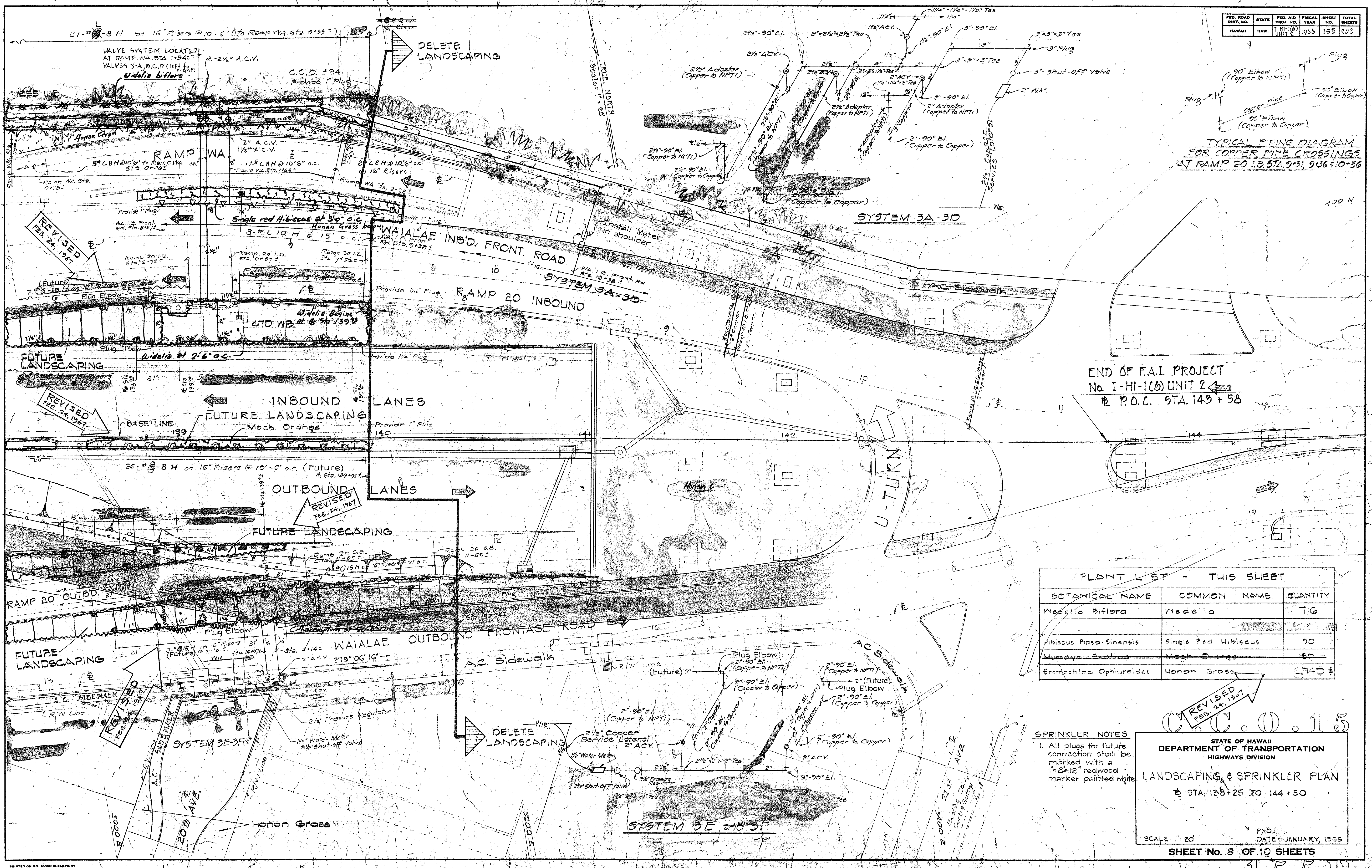
SPRINKLER NOTES
1. All plugs for future connection shall be marked with a 1"x2"x12" redwood marker painted white.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

LANDSCAPING & SPRINKLER PLAN
STA. 138+25 TO 144+50

SCALE: 1"=20'
PROJ. DATE: JANUARY, 1966
SHEET No. 8 OF 10 SHEETS

DATE: _____
SURVEY PLOTTED BY: _____
PLAN TRACED BY: _____
DESIGNED BY: _____
NOTE BOOK QUANTITIES BY: _____
CHECKED BY: _____



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



SUMMARY

ORIGINAL	SURVEY PLATTED BY	DATE
PLAN	DRAWN BY	
NOTE BOOK	DESIGNED BY	
	QUANTITIES BY	
	CHECKED BY	

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION

SPRINKLER SYSTEM
SUMMARY

INTERSTATE HIGHWAY (LUNALILO FWY)
FAL. PROJ. NO. I-HI-1(6) UNIT 2