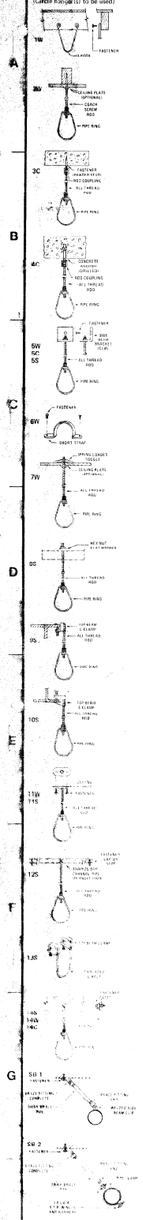
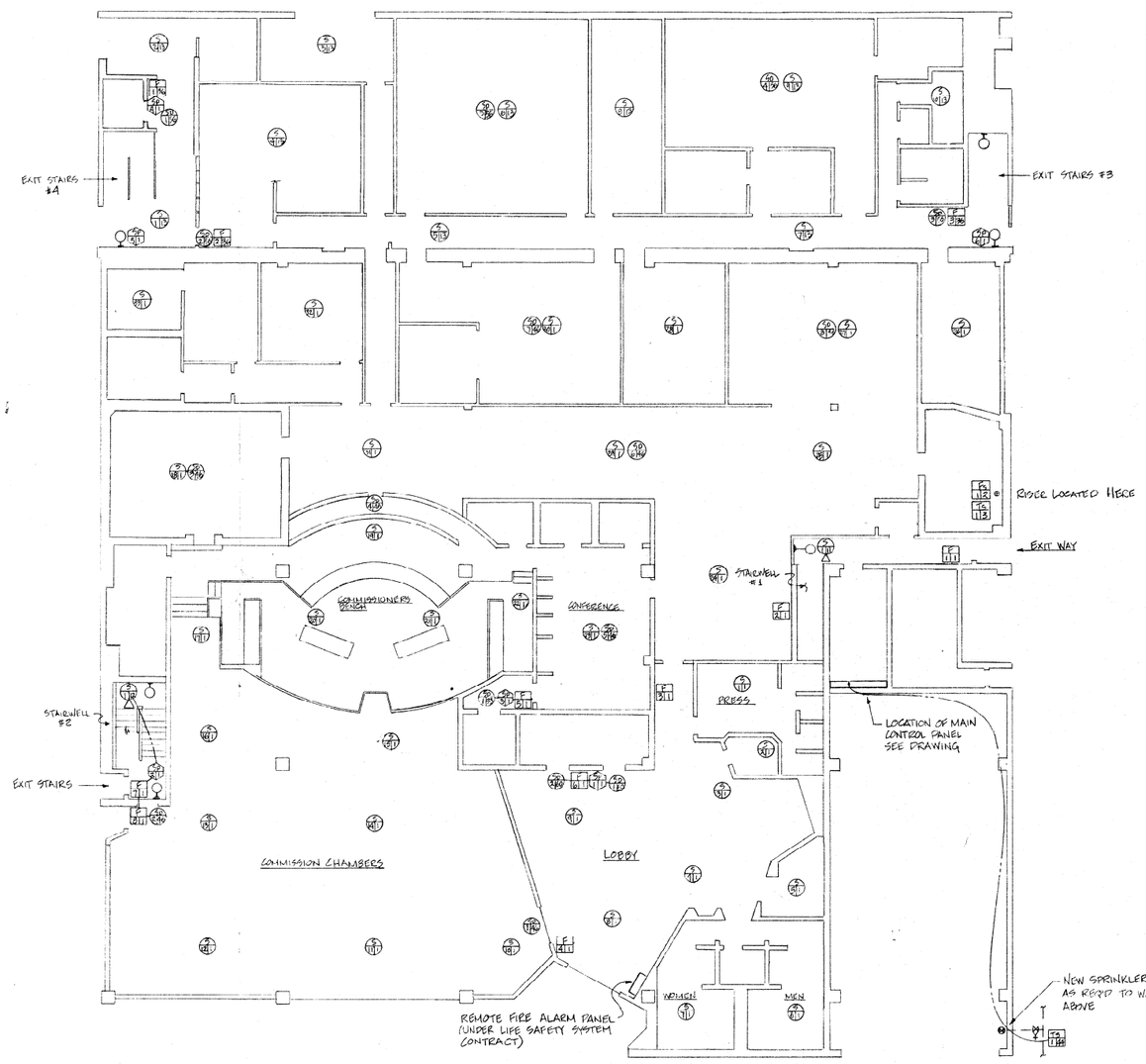
STANDARD HANGERS
(Girder flange (s) to be used)





1 ST FLOOR DEVICE & CONDUIT PLAN
SCALE 1/8" = 1'-0"

NOTES

1) ALL SMOKE PHONE JACKS AND PULL STATIONS TO BE MOUNTED 4'-0" ABOVE FINISH FLOOR
2) EXPOSED CONDUIT INSTALLATIONS AT EXISTING STAIRS AND GARAGE SHALL BE IN RIGID GALV. STEEL CONDUIT.

SYMBOLS

1) TAMPER SWITCH — ZONE NUMBER — DEVICE NUMBER
2) FLOW SWITCH — ZONE NUMBER — DEVICE NUMBER
3) PULL STATION — ZONE NUMBER — DEVICE NUMBER
4) SMOKE DETECTOR — ZONE NUMBER — DEVICE NUMBER
5) SPEAKER — CIRCUIT NUMBER — DEVICE NUMBER
6) PAGING HORN — CIRCUIT NUMBER — DEVICE NUMBER
7) SMOKE PHONE JACK — ZONE NUMBER — DEVICE NUMBER
8) EMERGENCY GENERATOR — ZONE NUMBER — R = RUN; F = FAIL
9) END OF LINE RESISTOR
10) NORMALLY CLOSED RELAY

LIFE SAFETY 1981

NO.	DATE	BY	REVISIONS - SEE FLAGGED AREA ON PLAN
2	3/17/81	DH	ADD ADDITIONAL SD & SPEAKERS
1	3/10/81	DH	REVISE PER CLIENT

IMPORTANT

In localities subject to freezing conditions, it is the owner's responsibility to provide heat throughout wet pipe sprinkler systems areas and in enclosures for dry pipe risers and other types of valves controlling water supplies to sprinkler systems.

This drawing and the information and design application herein contained is the property of Grinnell Fire Protection Systems Company, Inc. and/or its subsidiaries and is loaned upon the express conditions that the same be returned to GFPS upon request, all information herein contained shall be treated as secret and confidential; no reproduction of this drawing or any part thereof shall be made without the written consent of GFPS.

CONTRACT RESPONSIBILITIES ITEM	G.F.P.S.	OTHERS
STREET WATER CONNECTION	N/A	
UNDERGROUND WATER MAINS	N/A	
EXCAVATION	N/A	
BACKFILL	N/A	
WIRING		*
PAINTING	N/A	

COORDINATION RECORD				
CONTR. NAME	REF. DWG. REV. DATE	NAME	TELEPHONE	

MATERIAL REQUIRED			
PIPING	DIAMETER	FEET	PIECES
INTERIOR			
UNDERGROUND			
NO. OF DROPS			

ZONE NO.	~~GAGE~~	~~TEMP~~	~~GAGE~~	~~SUPERVISORY DEVICES~~	SYMB.	QTY.
1 (1-22)	1(1)	1(1)	(ENCLOSURE HORN)		F	1
5(1-5)	3(1)	2(1-2)	9 (1-3)		S*	45
1-6					SP	16
					P	2
					PS	1

* ADD-ON INCLUDED

TOTAL THIS SHEET

SYMBOLS

- Hydraulic Reference Point
- Line Designation
- ⅔ of Pipe Below Bottom of Deck
- ⅔ of Pipe Above Flat, Plane
- Main Designation
- Earthquake Bracing: 2 & 4 Way
- Hanger
- Union
- Screwed Cap
- Grooved Cap
- Screwed Plug
- Adjustable Elevation Change in Pipe (not thru floor)
- Gate Valve - N.R.S. (GV)
- OS & Y Gate Valve (OS & Y)
- Flow Switch (FS)
- Monitor Switch
- Butterfly Valve
- Alarm Valve (ALV)
- Electric Bell
- Water Motor Gong (WMG)
- Water Check Valve
- Swing Check Valve
- Strainer Blow
- Fire Dept. Conn. (Standard) (FDC)
- Fire Dept. Conn. (Flush) (FDC)
- Fire Dept. Conn. (Sidewalk) (FDC)
- Post Indicator Valve (PIV)
- Fire Hydrant (2 Way)
- Thrust Block
- Key Gate Enclosure Valve with Roadway Box
- Fire Hose Assembly (see detail)
- Inspectors Test
- Grooved Coupling (GC)
- Flanged Connection
- Globe Valve
- Angle Valve
- Dry Pipe Valve

ABBREVIATIONS

BOB	Bottom of Beam
BOD	Bottom of Deck
BOF	Bottom of Pan
DO	Drop
HV	Hose Valve
N & C	Nipple and Cap
NC	Not in Contract
OD	Outside Diam.
OBJ	Open Bar Joists
PRV	Pressure Red. Valve
PM	Floor Mortrises
SP	Standpipe
TOB	Top of Beam
TOD	Top of Deck
TOS	Top of Stem
UON	Unless Otherwise Noted

SYSTEM TYPE: WET ☐ DELUGE ☐ DRY ☐ PRE-ACTION ☐

APPROVALS

	OUT	IN
☐ IDO		
☐ IRI	OUT	IN
☐ FM	OUT	IN
☐ —	OUT	IN

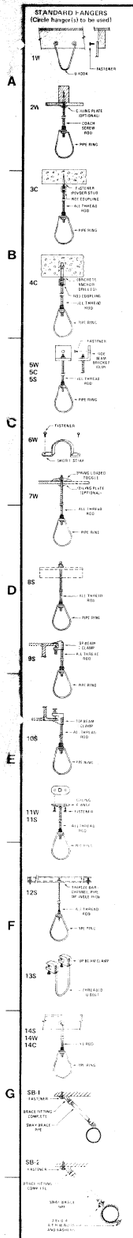
GRINNELL FIRE PROTECTION SYSTEMS
EXECUTIVE OFFICES PROVIDENCE, R.I.

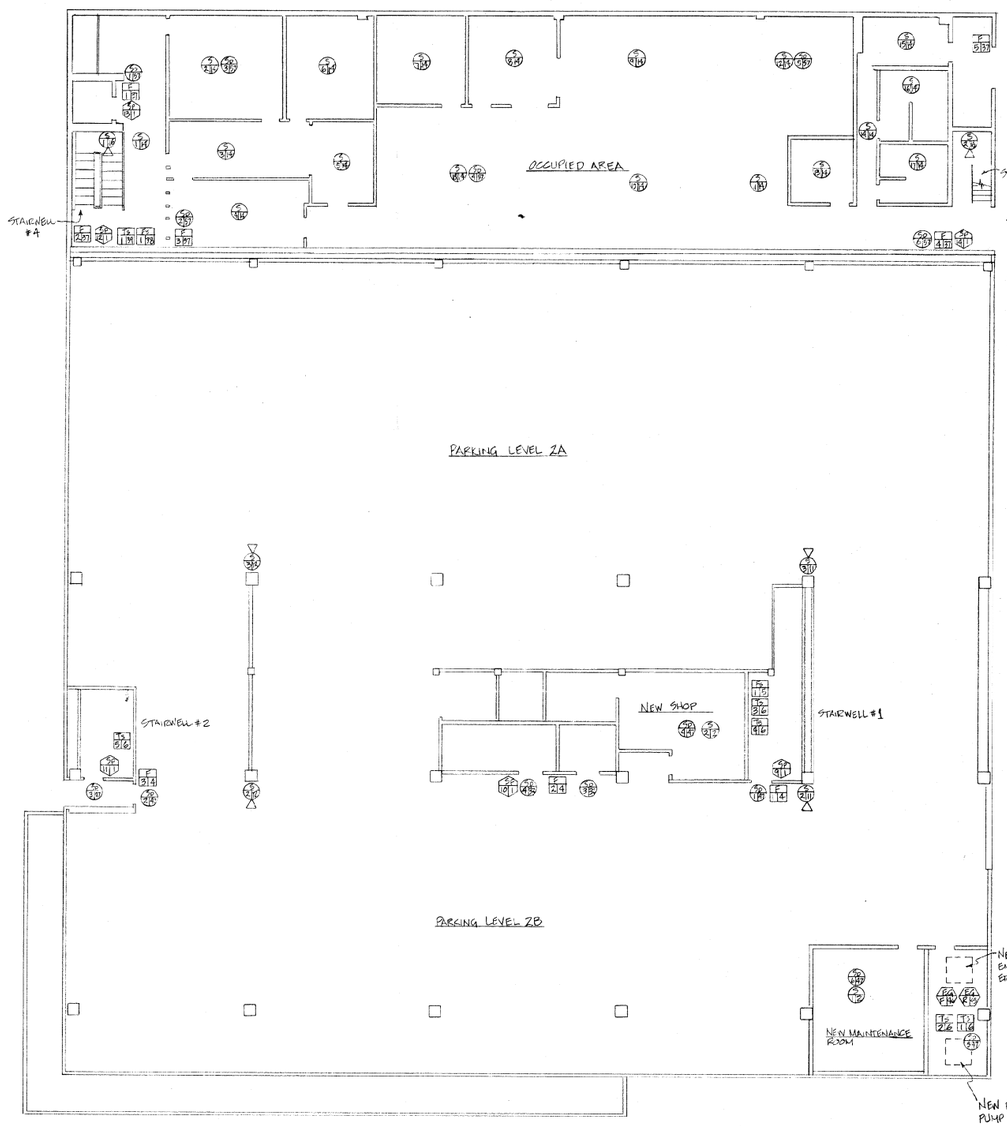
CONTRACT NAME: THE BRIDGER BUILDING CLARK COUNTY OFFICES
CONTRACT WITH:
DESCRIPTION: LIFE SAFETY SYSTEM 1ST FLOOR
SYSTEM DESIGN BY:
HAZARD CLASSIFICATION:
HYDRAULIC DATA:
DESIGN DATA:
AREA OF APPLICATION:
TOTAL SUPPLY REQUIREMENT:
WATER SUPPLY:
REMARKS:

SCALE: 1/8" = 1'-0"
DRAWN BY: JOHN HARNEDY
CHECKED BY:
DATE: 2/18
TYPE OF SYSTEM: AUTOMATIC
LOS ANGELES
DRAWING NO.: E1
JOB NO.: 26-2474-00

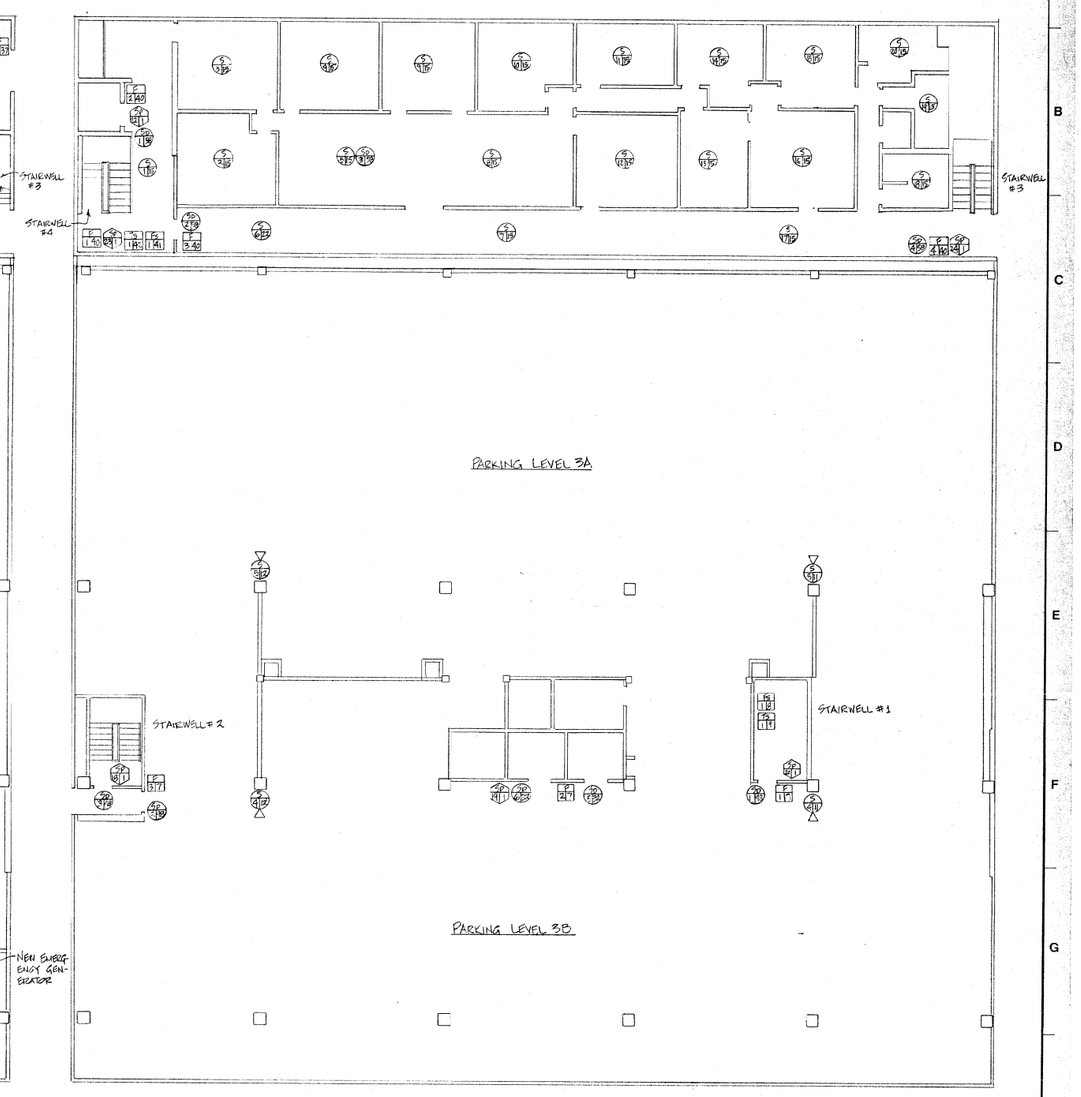
1609

STANDARD HANGERS
(Circle hanger(s) to be used)





2ND FLOOR DEVICE & CONDUIT PLAN



3RD FLOOR DEVICE & CONDUIT PLAN

NO.	DATE	BY	REVISIONS - SEE FLAGGED AREA ON PLAN

IMPORTANT

In localities subject to freezing conditions, it is the owner's responsibility to provide heat throughout wet pipe sprinkler systems areas and in enclosures for dry pipe deluge and other types of valves controlling water supplies to sprinkler systems.

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CONTRACT RESPONSIBILITIES

ITEM	G.F.P.S.	OTHERS
STREET WATER CONNECTION		
UNDERGROUND WATER MAINS		
EXCAVATION		
BACKFILL		
WIRING		
PAINTING		

COORDINATION RECORD

CONTR. NAME	REF. DWG. REV. DATE	NAME	TELEPHONE

MATERIAL REQUIRED

	DIAMETER	FEET	PIECES
PIPING INTERIOR			
UNDERGROUND			
NO. OF DROPS			

SPRINKLER DEVICES

	5 WORK	2 LWN	2 ATT	5 WM	3 WM	5 ATT	QTY
3/4(11-19)	F 5	2	2	5	2	4	15
	SP 5	2	8	20	5	20	50
	SR 5	8	3	6	3	4	23
	S 5	6	1	1	5	1	12
	SG 5	2			1	1	4
TOTAL THIS SHEET							2

SYMBOLS

- Hydraulic Reference Point
- Line Designation
- ½" ⅞ of Pipe Below Bottom of Deck
- 1½" ⅞ of Pipe Above Ref. Point
- A Main Designation
- Earthquake Bracing: 2 & 4 Way
- Hanger
- Union
- Screwed Cap
- Grooved Cap
- Screwed Plug
- Elevation Change in Pipe (not this Floor)
- Gate Valve - N.R.S. (GV)
- OS & Y Gate Valve (OS & Y)
- FlowSwitch (FS)
- Monitor Switch
- Butterfly Valve
- Alarm Valve (ALV)
- Electric Bell
- Water Motor Gong (WMG)
- Water Check Valve
- Swing Check Valve
- System Riser
- Fire Dept. Conn. (Standard) (FDC)
- Fire Dept. Conn. (Flush) (FDC)
- Fire Dept. Conn. (Sidewalk) (FDC)
- Post Indicator Valve (PIV)
- Fire Hydrant (3 Way)
- Thrust Block
- Key Gas Sectional Valve with Roadway Box
- Fire Hose Assembly (see notes)
- Inspectors Test
- Grooved Coupling (GC)
- Flanged Connection
- Globe Valve
- Angle Valve
- Dry Pipe Valve

ABBREVIATIONS

BOB	Bottom of Beam
BOD	Bottom of Deck
BOP	Bottom of Pipe
DO	Drop
FV	Flush Valve
N & C	Nipple and Cap
NIC	Not in Contract
NTS	Not to Scale
OBJ	Open Bar Joists
PRV	Pressure Reducing Valve
RM	Roof Manifold
SP	Standpipe
TOB	Top of Beam
TOP	Top of Pipe
TOS	Top of Steel
UON	Unless Otherwise Noted

SYSTEM TYPE

WET ☐ DELUGE ☐
DRY ☐ PREACTION ☐

APPROVALS

	OUT	IN
☐ ISO		
☐ IRI		
☐ FM		
☐		

GRINNELL FIRE PROTECTION SYSTEMS
EXECUTIVE OFFICES: PROVIDENCE, R.I.

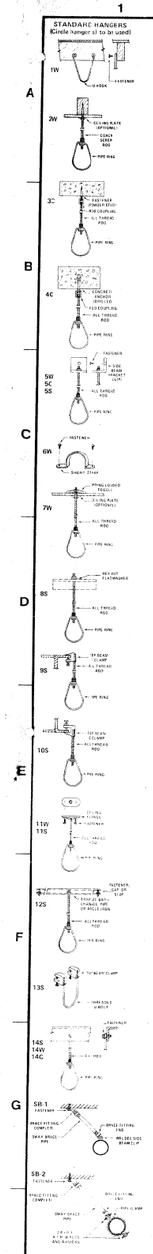
CONTRACT NAME: THE BRIDGER BUILDING
CLARK COUNTY OFFICE
CONTRACT WITH:
DESCRIPTION: LIFE SAFETY SYSTEM 2ND & 3RD FLR

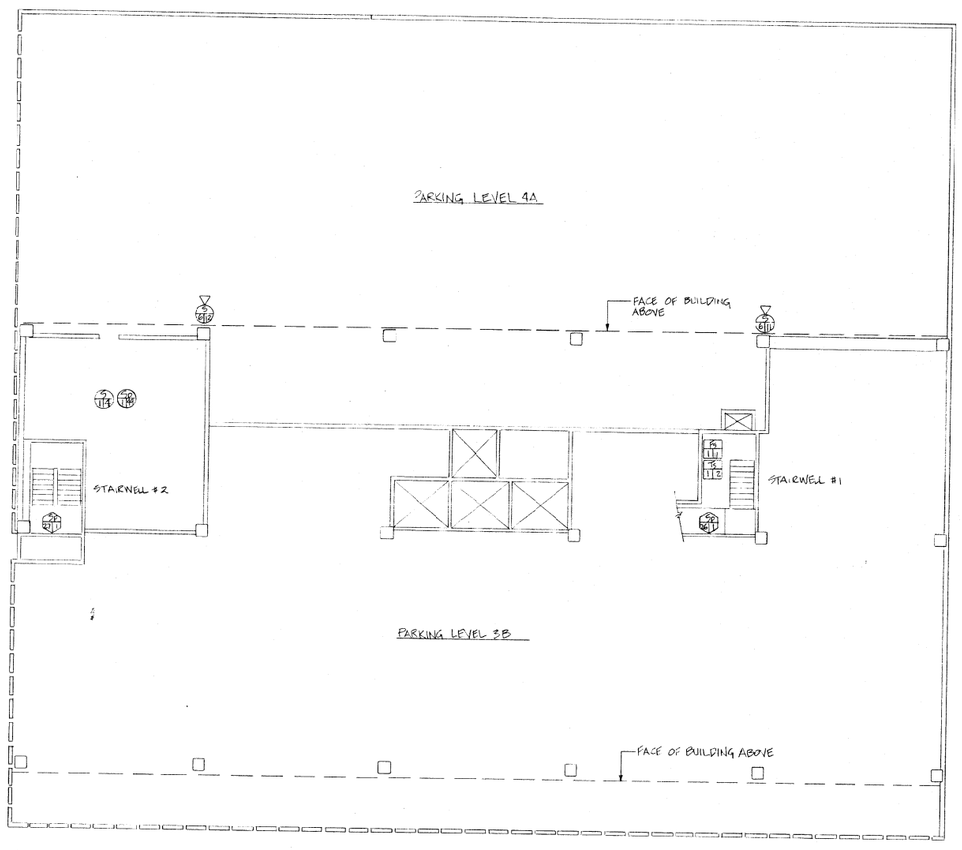
SYSTEM DESIGN DATA

HAZARD CLASSIFICATION: SYSTEM AREA
HYDRAULIC REQUIREMENTS: DENSITY GPM/SQ. FT. SQ. FT./HD
AREA OF APPLICATION: SQ. FT. HOSE ALLOWANCES GPM
RISER LOCATION:
WATER SUPPLY INFORMATION: GPM AT PSI AT
STATIC PRESSURE PSI
RESIDUAL PRESSURE PSI, WITH GPM FLOWING

SCALE: 1/8" = 1'-0"
DRAWN BY: DON HARNISH
CHECKED BY:
DATE: 2/9/81
THIS PLANS PREPARED AT:
ENGINEERING DEPARTMENT
DRAWING NO: E2
CONTRACT NO: 06-4919GX R1

1669





4TH FLOOR DEVICE AND CONDUIT PLAN

IMPORTANT

In localities subject to freezing conditions, it is the owner's responsibility to provide heat throughout wet pipe sprinkler systems areas and in enclosures for dry pipe deluge and other types of valves controlling water supplies to sprinkler systems.

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CONTRACT RESPONSIBILITIES

ITEM	G.F.P.S.	OTHERS
STREET WATER CONNECTION		
UNDERGROUND WATER MAINS		
EXCAVATION		
BACKFILL		
WIRING		
PAINTING		

COORDINATION RECORD

CON'R. NAME	REF. DWG. REV. DATE	NAME	TELEPHONE

MATERIAL REQUIRED

PIPING	DIAMETER	FEET	PIECES
INTERIOR			
UNDERGROUND			
NO. OF DROPS			

TYPE	ORIF.	TEMP.	FINISH	CANOPY	SYMB.	QTY.
					F	0
					S	3
					SP	1
					SP	2
					FS	1
TOTAL THIS SHEET						

SYMBOLS

- Hydraulic Reference Point
- Line Designation
- ¢ of Pipe Below Bottom of Deck
- ¢ of Pipe Above Ref. Plane
- Main Designation
- Earthquake Bracing: 2 & 4 Way
- Hanger
- Union
- Screwed Cap
- Grooved Cap
- Screwed Plug
- Elevation Change in Pipe (not thru floor)
- Gate Valve - N.R.S. (CV)
- OS & Y Gate Valve (OS & Y)
- Flow Switch (FS)
- Monitor Switch
- Butterfly Valve
- Alarm Valve (ALV)
- Electric Bell
- Water Motor Gong (WMG)
- Wafer Check Valve
- Swing Check Valve
- System Riser
- Fire Dept. Conn. (Standard) (FDC)
- Fire Dept. Conn. (Flush) (FDC)
- Fire Dept. Conn. (Sidewalk) (FDC)
- Post Indicator Valve (PIV)
- Fire Hydrant (3 Way)
- Thrust Block
- Key Gate Sectional Valve with Roadway Box
- Fire Hose Assembly (see notes)
- Inspectors Test
- Grooved Coupling (GC)
- Flanged Connection
- Globe Valve
- Angle Valve
- Dry Pipe Valve

ABBREVIATIONS

BOB	Bottom of Beam
BOD	Bottom of Deck
BOP	Bottom of Pipe
DO	Drain
RV	Hose Valve
N & C	Nipple and Cap
NIC	Not in Contract
NTS	Not to Scale
OBJ	Open Bar Joists
PRV	Pressure Reg. Valve
RM	Roof Standard
SP	Standpipe
TOB	Top of Beam
TOP	Top of Pipe
TOS	Top of Steel
UON	Unless Otherwise Noted

SYSTEM TYPE

WET ..... ☐ DELUGE ... ☐
DRY ..... ☐ PREACTION ☐

APPROVALS

☐ ISO	OUT	IN
☐ IRI	OUT	IN
☐ FM	OUT	IN
☐ ___	OUT	IN

GRINNELL FIRE PROTECTION SYSTEMS

EXECUTIVE OFFICES
PROVIDENCE, R.I.

NO.	DATE	BY	REVISIONS – SEE FLAGGED AREA ON PLAN

CONTRACT NAME: THE BRIDGER BUILDING CLARK COUNTY OFFICES

CONTRACT WITH:

DESCRIPTION: LIFE SAFETY SYSTEM 4TH FLOOR

SYSTEM DESIGN DATA

HAZARD CLASSIFICATION		SYSTEM AREA	
HYDRAULIC DESIGN DATA	DENSITY	GPM/SQ. FT.	SQ. FT./HD.
AREA OF APPLICATION		SQ. FT.	HOSE ALLOWANCES ___ GPM
TOTAL SYSTEM REQUIREMENTS		GPM AT	PSI AT ___
WATER SUPPLY INFORMATION		STATIC PRESSURE	PSI
RESIDUAL PRESSURE		PSI WITH	GPM FLOWING
TEST		BY	DATE

SCALE: 1/8" = 1'-0"

DRAWN BY: DON HARNISH

CHECKED BY:

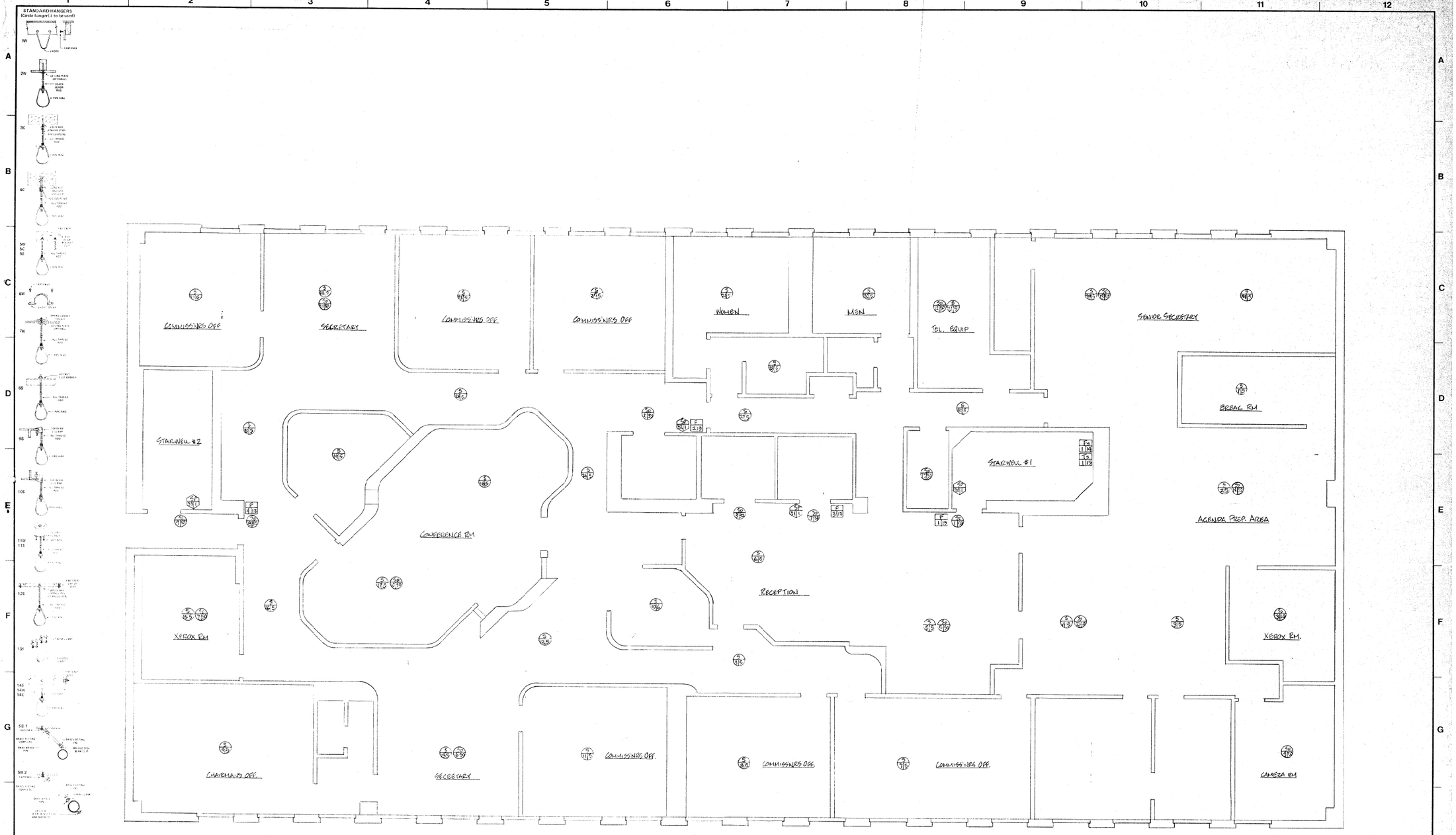
DATE: 2/11/81

THESE PLANS PREPARED AT: ALARCH & DEFRESNEN LOS ANGELES ENGINEERING DEPARTMENT

DRAWING NO. E3

CONTRACT NO. 06-4479 06X-R1

1609



5TH FLOOR DEVICE AND CONDUIT PLAN

NO.	DATE	BY	REVISIONS – SEE FLAGGED AREA ON PLAN

IMPORTANT

In localities subject to freezing conditions, it is the owner's responsibility to provide heat throughout wet pipe sprinkler systems areas and in enclosures for dry pipe design and other types of valves controlling water supplies to sprinkler systems.

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CONTRACT RESPONSIBILITIES

ITEM	G.F.P.S.	OTHERS
STREET WATER CONNECTION		
UNDERGROUND WATER MAINS		
EXCAVATION		
BACKFILL		
WIRING		
PAINTING		

COORDINATION RECORD

CONTR. NAME	REF. DWG. REV./DATE	NAME	TELEPHONE

MATERIAL REQUIRED

PIPING	DIAMETER	FEET	PIECES
INTERIOR			
UNDERGROUND			
NO. OF DROPS			

SYMBOLS

Hydraulic Reference Point	Gate Valve - N.R.S. (GV)	Fire Dept. Conn. (Sidewalk) (FDC)	
Line Designation	OS & Y Gate Valve (OS & Y)	Post Indicator Valve (PIV)	
½" ¾" of Pipe Below Bottom of Deck	Flow Switch (FS)	Fire Hydrant (3 Way)	
¾" ¾" of Pipe Above Ref. Plane	Monitor Switch	Thrust Block	
Main Designation	Butterfly Valve	Key Gate Sectional Valve with Roadway Box	
Earthquake Bracing: 2 & 4 Way	Alarm Valve (ALV)	Fire Hose Assembly (see note)	
Hanger	Electric Bell	Inspector Test	
Union	Water Motor Gong (WMG)	Ground Coupling (GC)	
Screwed Cap	Wafer Check Valve	Flanged Connection	
Grooved Cap	Swing Check Valve	Globe Valve	
Screwed Plug	System Riser	Angle Valve	
Elevation Change in Pipe (not thru floor)	Fire Dept. Conn. (Standard) (FDC)	Dry Pipe Valve	
	Fire Dept. Conn. (Flush) (FDC)		

ABBREVIATIONS

BOB	Bottom of Beam
BOD	Bottom of Deck
BOP	Bottom of Pipe
DO	Ditto
HV	Hose Valve
N & C	Nipple and Cap
NIC	Not in Contract
NTS	Not to Scale
OBJ	Open Bar Joists
PRV	Pressure Red. Valve
RM	Roof Manifold
SP	Standpipe
TOB	Top of Beam
TOP	Top of Pipe
TOS	Top of Steel
UON	Unless Otherwise Noted

SYSTEM TYPE

WET ☐ DELUGE ☐
DRY ☐ PREACTION ☐

APPROVALS

☐ ISO	OUT	IN
☐ IRI	OUT	IN
☐ FM	OUT	IN
☐ ___	OUT	IN

GRINNELL FIRE PROTECTION SYSTEMS

EXECUTIVE OFFICES PROVIDENCE, R.I.

CONTRACT NAME: THE BRIDGER BUILDER
CLARK COUNTY OFFICES

CONTRACT WITH:

DESCRIPTION: LIFE SAFETY SYSTEM 5TH FLOOR

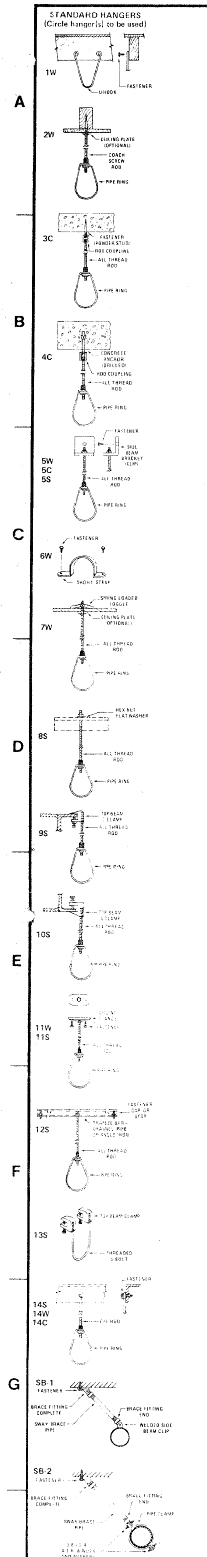
SYSTEM DESIGN DATA

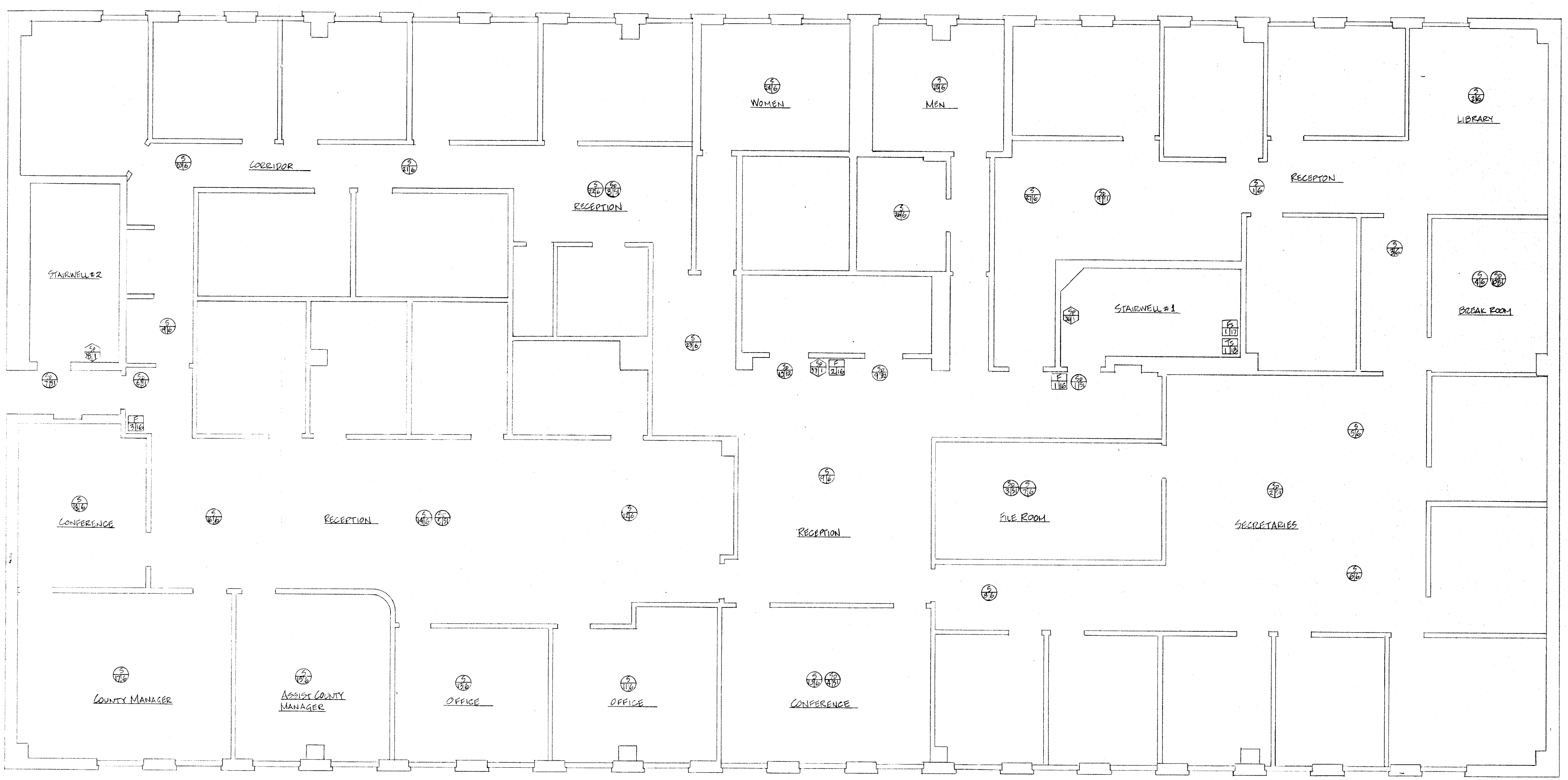
HAZARD CLASSIFICATION: SYSTEM AREA:
HYDRAULIC DESIGN DATA: DENSITY: GPM/SQ. FT. SQ. FT./HR.
AREA OF APPLICATION: SQ. FT. HOSE ALLOWANCES: GPM
TOTAL SYSTEM REQUIREMENTS: GPM AT PSI AT
WATER SUPPLY INFORMATION: STATIC PRESSURE: PSI
RESIDUAL PRESSURE: PSI WITH GPM FLOWING
TEST: DATE
EXECUTIVE OFFICES PROVIDENCE, R.I.

SCALE:
DRAWN BY: BON HARNISH
CHECKED BY:
DATE: 2/11/81
THESE PLANS PREPARED AT: ALARM & DETECTION LOS ANGELES
ENGINEERING DEPARTMENT
DRAWING NO.: E4
CONTRACT NO.: 06-497906X-R1

1609

STANDARD HANGERS
(Circle hanger(s) to be used)





6TH FLOOR DEVICE AND CONDUIT PLAN

NO.	DATE	BY	REVISIONS -- SEE FLAGGED AREA ON PLAN

IMPORTANT

In localities subject to freezing conditions, it is the owner's responsibility to provide heat throughout wet pipe sprinkler systems areas and in enclosures for dry pipe deluge and other types of valves controlling water supplies to sprinkler systems.

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CONTRACT RESPONSIBILITIES

ITEM	G.F.P.S.	OTHERS
STREET WATER CONNECTION		
UNDERGROUND WATER MAINS		
EXCAVATION		
BACKFILL		
WIRING		
PAINTING		

COORDINATION RECORD

CONTR. NAME	REF. DWG. REV./DATE	NAME	TELEPHONE

MATERIAL REQUIRED

PIPING	DIAMETER	FEET	PIECES
INTERIOR			
UNDERGROUND			
NO. OF DROPS			

ZONE No	~~CIRT.~~	~~TEMP~~	~~FINISH~~	~~CANOPY~~	SYMB.	QTY.
6(1-27)					F	3
34(45-54) 32(7-8)					S	27
1(36-38)					Sp	12
					SP	3
					TS	1
					FS	1
TOTAL THIS SHEET						

SYMBOLS

Hydraulic Reference Point; Line Designation; ℄ of Pipe Below Bottom of Deck; ℄ of Pipe Above Ref. Plane; Main Designation; Earthquake Bracing: 2 & 4 Way; Hanger; Union; Screwed Cap; Grooved Cap; Screwed Plug; Elevation Change in Pipe (not thru floor); Gate Valve - N.R.S. (GV); OS & Y Gate Valve (OS & Y); Flow Switch (FS); Monitor Switch; Butterfly Valve; Alarm Valve (ALV); Electric Bell; Water Motor Gong (WMG); Wafer Check Valve; Swing Check Valve; System Riser; Fire Dept. Conn. (Standard) (FDC); Fire Dept. Conn. (Flush) (FDC); Fire Dept. Conn. (Sidewalk) (FDC); Post Indicator Valve (PIV); Fire Hydrant (3 Way); Thrust Block; Key Gate Sectional Valve with Roadway Box; Fire Hose Assembly (see notes); Inspectors Test; Grooved Coupling (GC); Flanged Connection; Globe Valve; Angle Valve; Dry Pipe Valve

ABBREVIATIONS

BOB	Bottom of Beam
BOD	Bottom of Deck
BOP	Bottom of Pipe
DO	Ditto
HV	Hose Valve
N & C	Nipple and Cap
NIC	Not in Contract
NTS	Not to Scale
OBJ	Open Bar Joists
PRV	Pressure Red. Valve
RM	Roof Manifold
SP	Standpipe
TOB	Top of Beam
TOP	Top of Pipe
TOS	Top of Steel
UON	Unless Otherwise Noted

SYSTEM TYPE

WET ☐ DELUGE ☐
DRY ☐ PREACTION ☐

APPROVALS

☐ ISO OUT IN
☐ IRI OUT IN
☐ FM OUT IN
☐ OUT IN

GRINNELL FIRE PROTECTION SYSTEMS
EXECUTIVE OFFICES PROVIDENCE, R.I.

CONTRACT NAME: THE BRIDGER BUILDING CLARK COUNTY OFFICES
CONTRACT WITH:
DESCRIPTION: LIFE SAFETY SYSTEM 6TH FLOOR

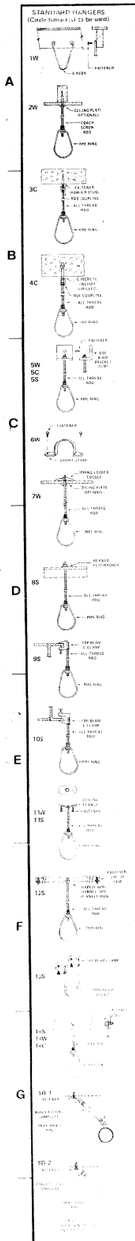
SYSTEM DESIGN DATA

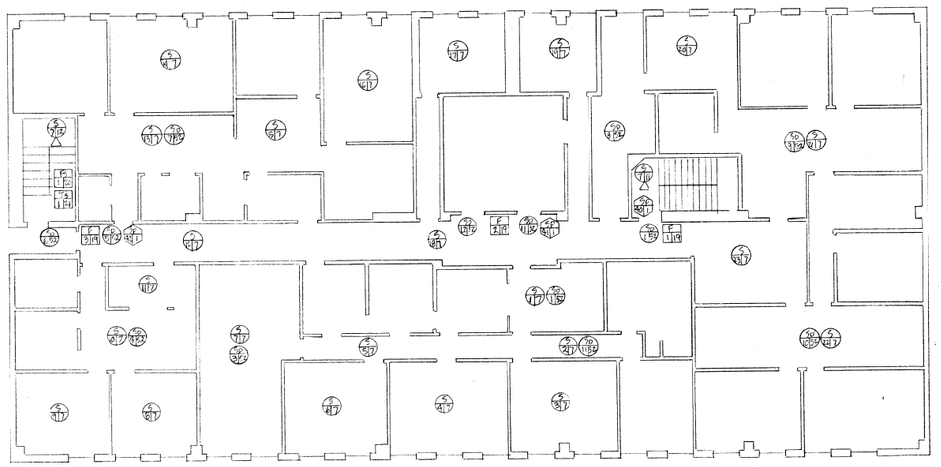
HAZARD CLASSIFICATION: SYSTEM AREA:
HYDRAULIC DESIGN DATA: DENSITY GPM/SQ. FT. SQ. FT./HD.
AREA OF APPLICATION: SQ. FT. HOSE ALLOWANCES: GPM
TOTAL SYSTEM REQUIREMENTS: GPM AT PSI AT
WATER SUPPLY INFORMATION: STATIC PRESSURE PSI
RESIDUAL PRESSURE PSI WITH GPM FLOWING
TEST TAKEN AT BY DATE

SCALE:
DRAWN BY: DON HARNISH
CHECKED BY:
DATE: 2/17/81
THESE PLANS PREPARED AT: ALARM & DETECTION LOS ANGELES ENGINEERING DEPARTMENT
DRAWING NO: E5
CONTRACT NO: 06-497906X-R1

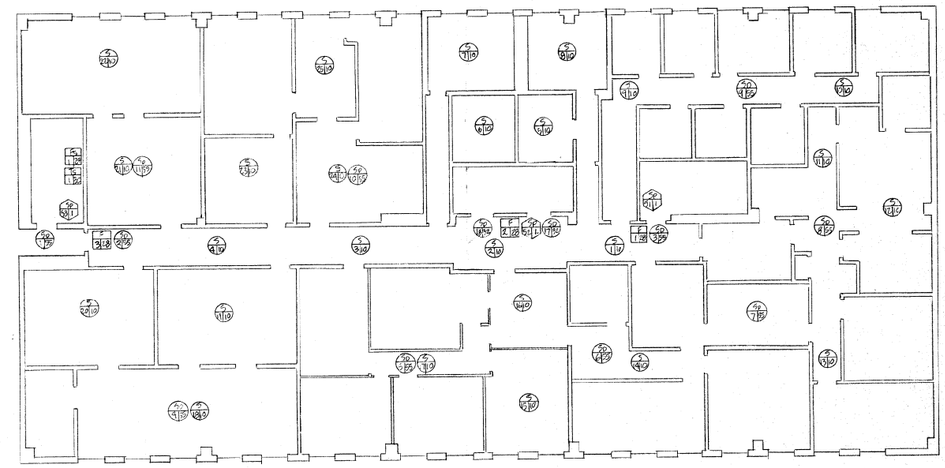
1609

STANDARD HANGERS
(Circle hanger just to be used)

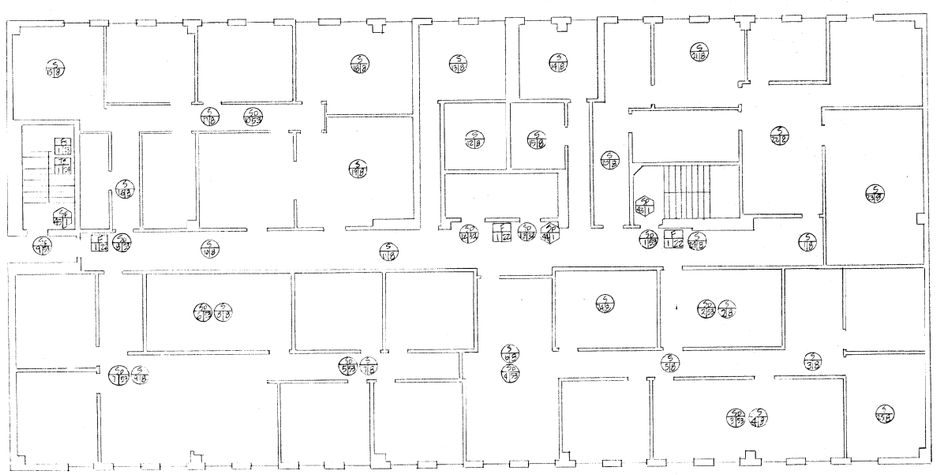




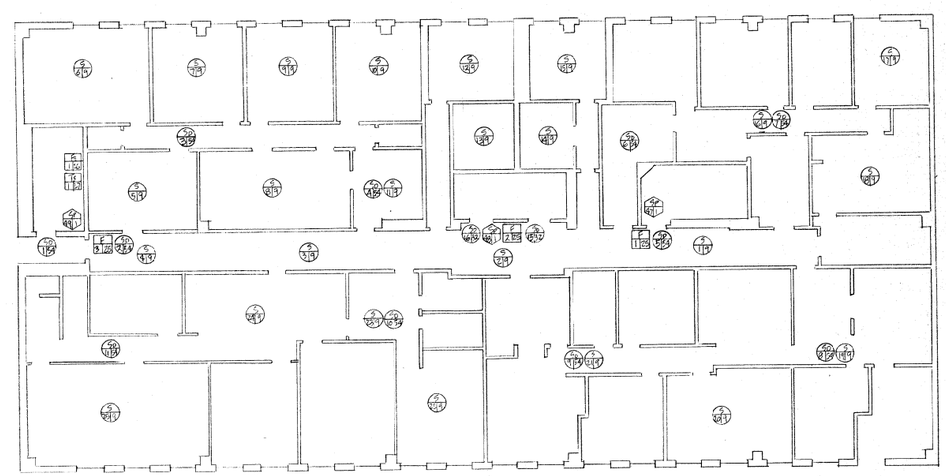
7TH FLOOR DEVICE AND CONDUIT PLAN



10TH FLOOR DEVICE & CONDUIT PLAN



8TH FLOOR DEVICE AND CONDUIT PLAN



9TH FLOOR DEVICE & CONDUIT PLAN

NO.	DATE	BY	REVISIONS - SEE FLAGGED AREA ON PLAN
1	3/19/81	DH	ADD ADDON SD & SPEAKERS

IMPORTANT

In localities subject to freezing conditions, it is the owner's responsibility to provide heat throughout wet pipe sprinkler systems areas and in enclosures for dry pipe coverage and other types of valves controlling water supplies to sprinkler systems.

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CONTRACT RESPONSIBILITIES

ITEM	G.F.P.S.	OTHERS
STREET WATER CONNECTION		
UNDERGROUND WATER MAINS		
EXCAVATION		
BACKFILL		
WIRING		
PAINTING		

COORDINATION RECORD

CONTR. NAME	REF. DWG. REV./DATE	NAME	TELEPHONE

MATERIAL REQUIRED

	DIAMETER	FEET	PIECES
PIPING INTERIOR			
UNDERGROUND			
NO. OF DROPS			

SPRINKLERS

SYMBOL	7TH	8TH	9TH	10TH	QTY
F	3	3	3	3	12
S *	25	25	25	25	91
SD*	13	12	13	13	51
SP	3	3	3	3	12
FS	1	1	1	1	4
FS	1	1	1	1	4
TOTAL THIS SHEET					

* INCLUDES ADD-ONS

SYMBOLS

- Hydraulic Reference Point
- Line Designation
- ↑↓ ⅋ or Pipe Below Bottom of Deck
- ↑↓ ⅋ or Pipe Above Ref. Plane
- A Main Designation
- Earthquake Bracing: 2 & 4 Way
- Hanger
- Union
- Screwed Cap
- Grooved Cap
- Screwed Plug
- Elevation Change or Pipe (up thru floor)
- Gate Valve - N.R.S. (GV)
- OS & Y Gate Valve (OS & Y)
- Flow Switch (FS)
- Monitor Switch
- Butterfly Valve
- Alarm Valve (ALV)
- Electric Bell
- Water Motor Gong (WMG)
- Water Check Valve
- Swing Check Valve
- System Riser
- Fire Dept. Conn. (Standard) (FDC)
- Fire Dept. Conn. (Flush) (FDC)
- Fire Dept. Conn. (Sidewalk) (FDC)
- Post Indicator Valve (PIV)
- Fire Hydrant (3 Way)
- Thrust Block
- Key Gate Sectional Valve with Roadway Box
- Fire Hose Assembly (see notes)
- Inspector Test
- Grooved Coupling (GC)
- Flanged Connection
- Globe Valve
- Angle Valve
- Dry Pipe Valve

ABBREVIATIONS

BOB	Bottom of Beam
BOD	Bottom of Deck
BOP	Bottom of Pipe
DO	Drop
HV	Hose Valve
N & C	Nipple and Cap
NC	Not in Contract
NTS	Not to Scale
PIV	Post Indicator
PRV	Pressure Red. Valve
RM	Roof Manifold
SP	Sandplate
TOB	Top of Beam
TOD	Top of Deck
TOS	Top of Steel
UON	Unless Otherwise Noted

SYSTEM TYPE

WET ☐ DELUGE ☐
DRY ☐ PREACTIONS ☐

APPROVALS

☐ ISO	OUT	IN
☐ IRI	OUT	IN
☐ FM	OUT	IN
	OUT	IN

GRINNELL FIRE PROTECTION SYSTEMS
EXECUTIVE OFFICES PROVIDENCE R.I.

CONTRACT NAME: THE BRIDGER BUILDING
CLARK COUNTY OFFICES

CONTRACT WITH:

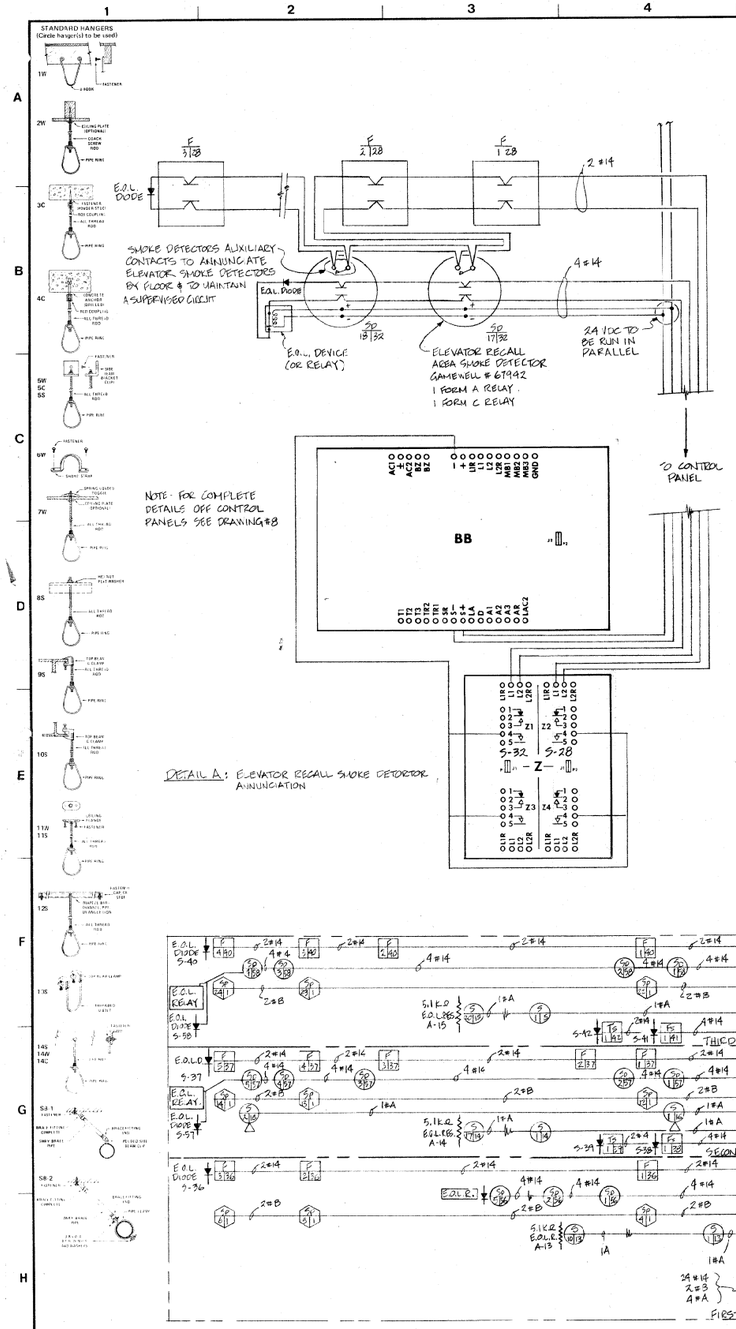
DESCRIPTION: LIFE SAFETY SYSTEMS ROOMS 7-10TH

SYSTEM DESIGN DATA

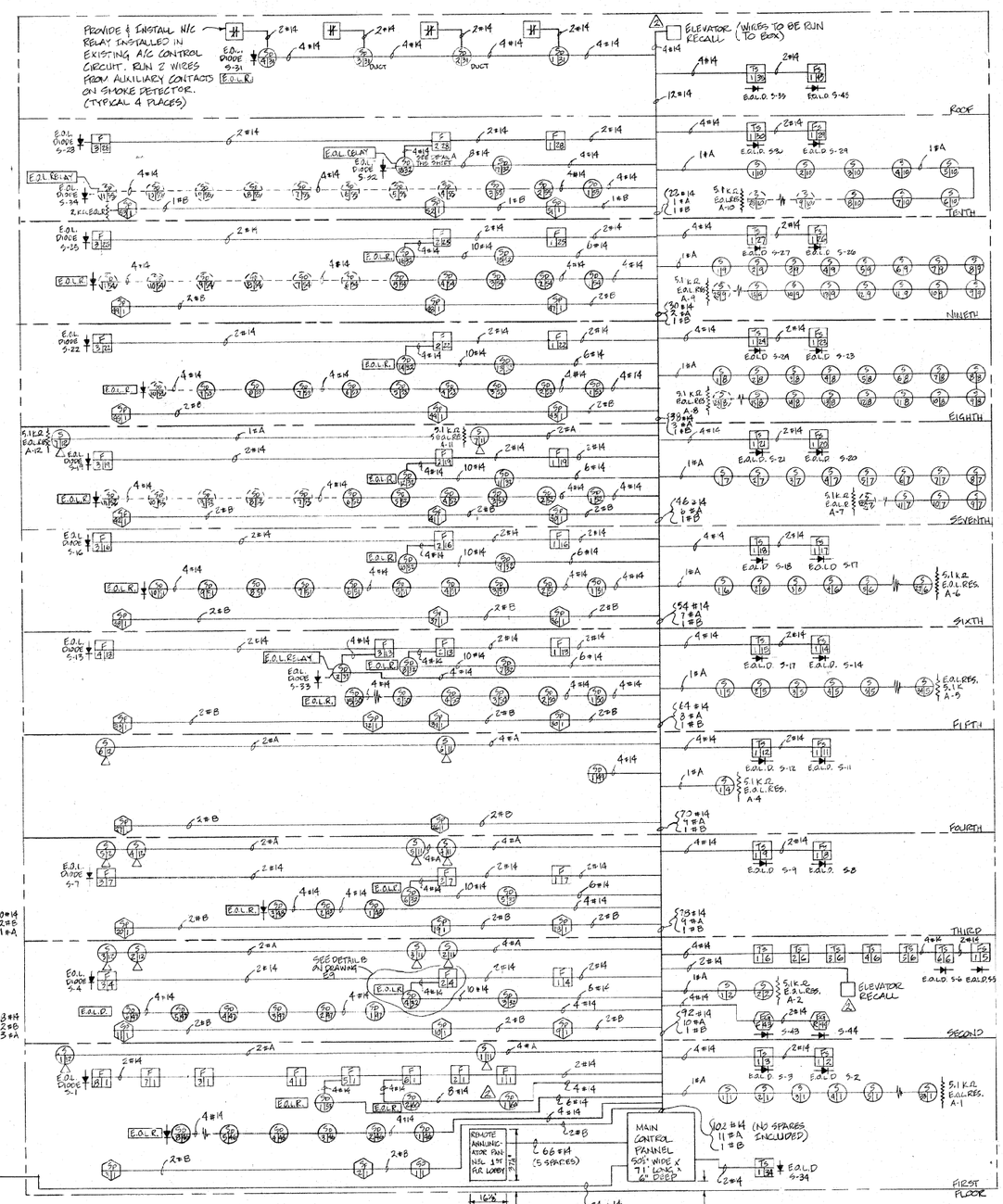
HAZARD CLASSIFICATION: SYSTEM AREA:
HYDRAULIC DESIGN DATA: DENSITY GPM/SQ. FT. SQ. FT./HD.
AREA OF APPLICATION: SQ. FT. HOSE ALLOWANCES GPM
TOTAL SYSTEM REQUIREMENTS GPM AT PSI AT
WATER SUPPLY INFORMATION: STATIC PRESSURE PSI
RESIDUAL PRESSURE PSI WITH GPM FLOWING
TEST DATE AT BY DATE

SCALE: 1/8" = 1'-0"
DRAWN BY: DON HAGNISH
CHECKED BY:
DATE: 2/11/81
THESE PLANS PREPARED AT: ALASKA & OREGON LOS ANGELES
ENGINEERING DEPARTMENT
DRAWING NO. E6
CONTRACT NO. 86-49740(X-R)

1609



ATTACHED 3 STORY BUILDING



RISER DIAGRAM 10 STORY BUILDING

NOTES

1) THIS DRAWING REPRESENTS A RISER DIAGRAM SHOWING A BASIC CIRCUIT ARRANGEMENT AND THE NUMBER OF DEVICES. THE WIRING MAY BE REARRANGED AS LONG AS THE BASIC CIRCUIT CONFIGURATION REMAINS THE SAME.

2) THE END OF LINE DIODES WILL BE INSTALLED BY GFPS PERSONNEL SINCE THESE DIODES MUST BE ALIGNED IN PROPER DIRECTION.

3) THE DEVICES SHOWN WITH DOTTED LINES ARE THE "ADD-ON" QUANTITIES ESTIMATED

4) CABLE DEFINITIONS:
16#A = (16) 2 WIRE # 18 AWG CABLE
1#B = (1) 2 WIRE # 18 AWG SHIELDED CABLE

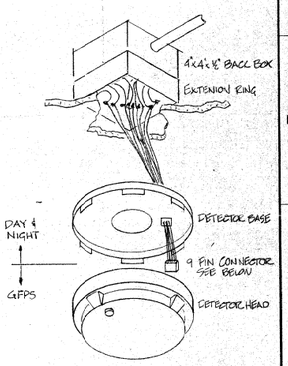
5) COLOR CODE
SMOKE DETECTOR:
a) RED - PLUS 24 VDC b) BLACK - NEG 24 VDC
c) PURPLE - ALARM CIRCUIT WIRING
d) ORANGE - BLUE - AUXILIARY CONTACT

MANUAL PULL STATION
a) WHITE - ORANGE

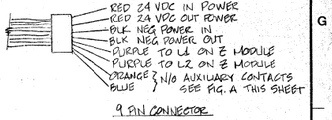
WATER FLOW SWITCH
a) BROWN - GREEN

TAMPER SWITCH
a) GRAY - PINK

6) ABBREVIATIONS
E.O.L.R. = END OF LINE RELAY
E.O.L.D. = END OF LINE DIODE
S-45 = MEANS SIGNAL ZONE 45
E.O.L. RES. = END OF LINE RESISTOR



TYPICAL SMOKE DETECTOR



9 PIN CONNECTOR

NO.	DATE	BY	REVISIONS - SEE FLAGGED AREA ON PLAN
2	3/18/81	DN	CHANGE BOXES - ADD ELEV RECALL
1	3/11/81	CH	ADD 2 BOXES FIG. 10 - MINOR CHANGES

IMPORTANT

In localities subject to freezing conditions, it is the owner's responsibility to provide heat throughout wet pipe sprinkler systems areas and in enclosures for dry pipe deluge and other types of valves controlling water supplies to sprinkler systems.

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CONTRACT RESPONSIBILITIES ITEM	G.F.P.S.	OTHERS
STREET WATER CONNECTION		
UNDERGROUND WATER MAINS		
EXCAVATION		
BACKFILL		
WIRING		
PAINTING		

COORDINATION RECORD CONTR. NAME	REF. DWG. REV.	DATE	NAME	TELEPHONE

MATERIAL REQUIRED PIPING	DIAMETER	FEET	PIECES
INTERIOR			
UNDERGROUND			
NO. OF DROPS			

SPRINKLERS TYPE	ORIF.	TEMP	FINISH	CANOPY	SYMB.	QTY.
TOTAL THIS SHEET						

SYMBOLS: Hydraulic Reference Point; Line Designation; Elevation of Pipe Below Bottom of Joist; Elevation of Pipe Above Ref. Plane; Main Designation; Earthquake Bracing 2 & 4 Way; Hanger; Union; Screwed Cap; Grooved Cap; Screwed Plug; Coupling Elevation Change in Pipe (see this Flor); Gate Valve - N.R.S. (GV); OS & Y Gate Valve (OS & Y); Flow Switch (FS); Monitor Switch; Butterfly Valve; Alarm Valve (ALV); Electric Bell; Water Motor Gong (WMG); Water Check Valve; Swing Check Valve; System Riser; Fire Dept. Conn. (Standard) (FDC); Fire Dept. Conn. (Flush) (FDC); Post Indicator Valve (PIV); Fire Hydrant (3 Way); Thrust Block; Key Gate Sectional Valve with Roadway Box; Fire Hose Assembly (see notes); Inspectors Test; Grounded Coupling (GC); Flanged Connection; Globe Valve; Angle Valve; Dry Pipe Valve; Fire Dept. Conn. (Siamese) (FDC)

ABBREVIATIONS: BOB Bottom of Beam; BOC Bottom of Deck; BOP Bottom of Pipe; BOS Bottom of Slab; HV Hose Valve; N & C Nipple and Cap; NIC Not in Contract; NTS Not to Scale; PRV Pressure Reg. Valve; PRV Pressure Rel. Valve; RM Roof Manhole; SP Sprinkler; TOB Top of Beam; TOC Top of Deck; TOP Top of Pipe; UOD Under Observer Side

SYSTEM TYPE: WET ___ DELUGE ___; DRY ___ PREACTION ___

APPROVALS: ☐ ISO OUT ___ IN ___; ☐ IRI OUT ___ IN ___; ☐ FM OUT ___ IN ___; ☐ ___ OUT ___ IN ___

EXECUTIVE OFFICES: PROVIDENCE, R.I.

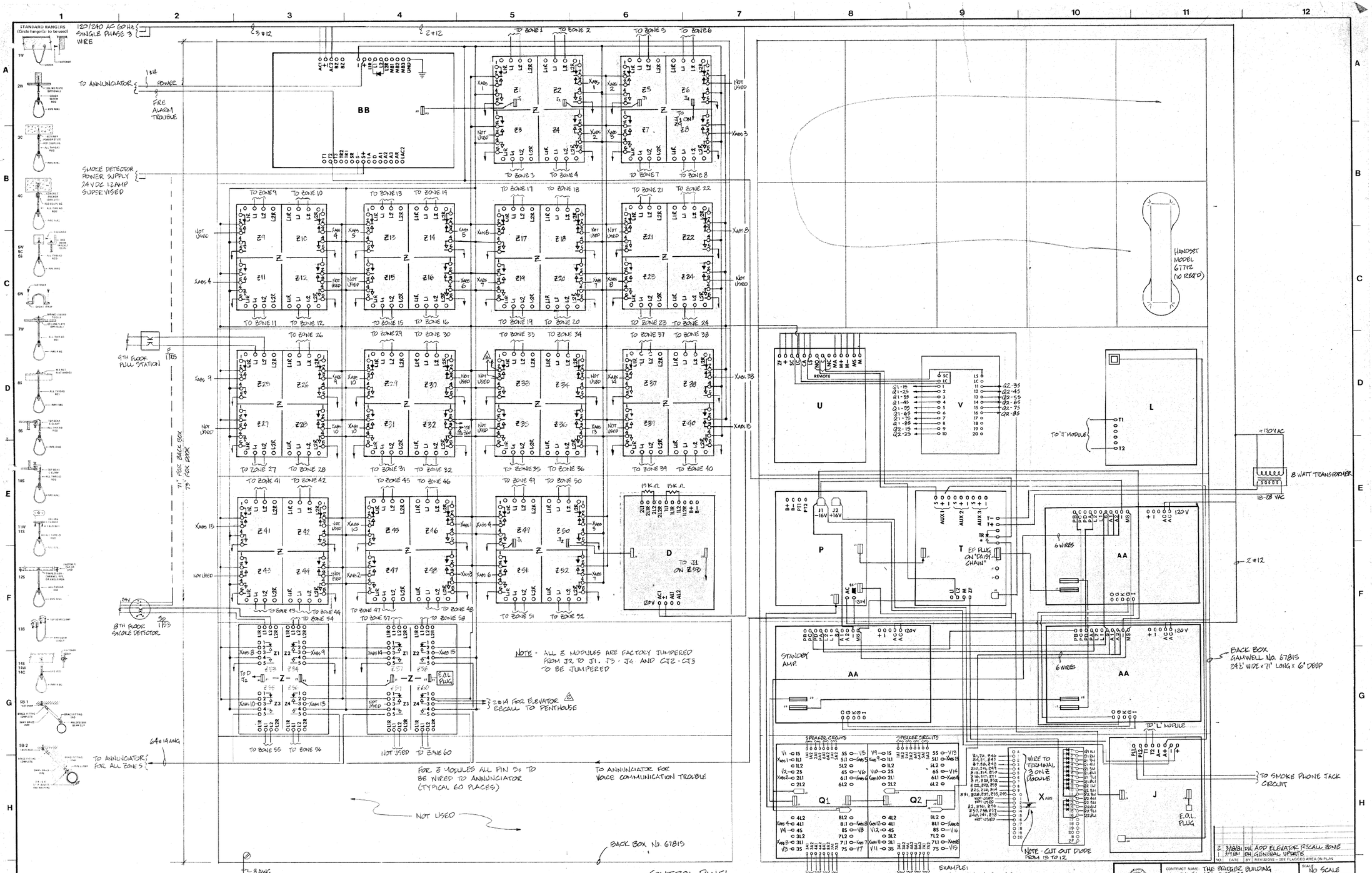
GRINNELL FIRE PROTECTION SYSTEMS

CONTRACT NAME: THE BRIDGER BUILDING
CLACK COUNTY OFFICES
CONTRACT WITH:
DESCRIPTION: LIFE SAFETY SYSTEM - RISER DIAGRAM

SYSTEM DESIGN DATA
HAZARD CLASSIFICATION: ___ SYSTEM AREA: ___
HYDRAULIC DESIGN DATA: DENSITY: ___ GPM/SQ. FT.; ___ SQ. FT./HD.
AREA OF APPLICATION: ___ SQ. FT.; HOSE ALLOWANCE: ___ GPM
TOTAL SYSTEM REQUIREMENTS: ___ GPM AT ___ PSI AT ___
WATER SUPPLY INFORMATION: STATIC PRESSURE ___ PSI
RESIDUAL PRESSURE: ___ PSI WITH ___ GPM FLOWING
TEST MADE AT: ___ BY: ___ DATE: ___

SCALE: NO SCALE
DRAWN BY: DON HARNISH
CHECKED BY:
DATE: 2/23/81
THESE PLANS PREPARED AS: ALARM & DETECTION
LOS ANGELES ENGINEERING DEPARTMENT
DRAWING NO. E7
CONTRACT NO. 06-497906X-R1

1609



NO.	DATE	BY	REVISIONS - SEE FLAGGED AREA ON PLAN
2	3/18/81	DH	ADD ELEVATOR RECALL ZONE
1	3/4/81	DH	GENERAL UPDATE

IMPORTANT

In localities subject to freezing conditions, it is the owner's responsibility to provide heat throughout wet pipe sprinkler systems areas and in enclosures for dry pipe riflugs and other types of valves controlling water supplies to sprinkler systems.

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CONTRACT RESPONSIBILITIES

ITEM	G.F.P.S.	OTHERS
STREET WATER CONNECTION		
UNDERGROUND WATER MAINS		
EXCAVATION		
BACKFILL		
WIRING		
PAINTING		

COORDINATION RECORD

CONTR. NAME	REF. DWG. REV.	DATE	NAME	TELEPHONE

PIPING REQUIRED

	DIAMETER	FEET	PIECES
INTERIOR			
UNDERGROUND			
NO. OF DROPS			

EQUIPMENT REQUIRED

TYPE	ORIF.	TEMP	FINISH	CANOPY	SYMB.	QTY.
TOTAL THIS SHEET						

SYMBOLS

- Hydraulic Reference Point
- Line Designation
- ⅛" of Pipe Below Bottom of Deck
- ¼" of Pipe Above Ref. Plane
- A Main Designation
- Earthquake Bracing: 2 & 4 Way
- Hanger
- Union
- Screwed Cap
- Grooved Cap
- Screwed Plug
- Elevation Change in Pipe (looking Up)
- Gate Valve - N.R.S. (GV)
- OS & Y Gate Valve (OS & Y)
- Flow Switch (FS)
- Monitor Switch
- Butterfly Valve
- Alarm Valve (ALV)
- Electric Bell
- Water Motor Gong (WMG)
- Wafer Check Valve
- Swing Check Valve
- System Riser
- Fire Dept. Conn. (Standard) (FDC)
- Fire Dept. Conn. (Flush) (FDC)
- Fire Dept. Conn. (Sidewalk) (FDC)
- Post Indicator Valve (PIV)
- Fire Hydrant (3 Way)
- Thrust Block
- Key Gate Sectional Valve with Roadway Box
- Fire Hose Assembly (see notes)
- Inspectors Test
- Grooved Coupling (GC)
- Flanged Connection
- Globe Valve
- Angle Valve
- Dry Pipe Valve

ABBREVIATIONS

BOB	Bottom of Beam
BOD	Bottom of Deck
BOP	Bottom of Pipe
DN	Down
HV	Hose Valve
N & C	Nipple and Cap
NIC	Not in Contract
NTS	Not to Scale
OBJ	Open Bar Joist
OSY	Outside Stem & Yoke
RM	Roof Manhole
SP	Standpipe
TOB	Top of Beam
TOP	Top of Pipe
TOS	Top of Steel
UON	Unless Otherwise Noted

SYSTEM TYPE

WET ☐ DELUGE ☐
DRY ☐ PREACTION ☐

APPROVALS

	OUT	IN
☐ ISO		
☐ IRI	OUT	IN
☐ FIs	OUT	IN
☐	OUT	IN

EXECUTIVE OFFICES PROVIDENCE, R.I.

GRINNELL FIRE PROTECTION SYSTEMS

CONTRACT NAME: THE BOCCHER BUILDING
CLARK COUNTY OFFICES

CONTRACT WITH:

DESCRIPTION: CONTROL PANEL DETAILS

SYSTEM DESIGN DATA

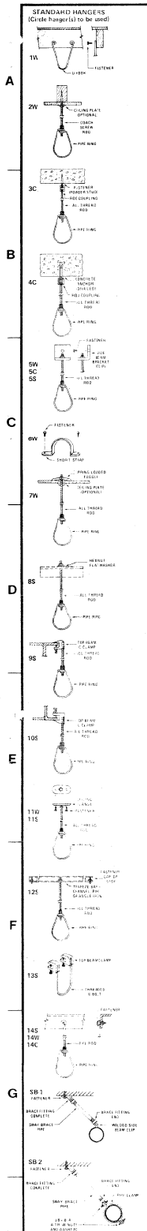
HAZARD IDENTIFICATION: SYSTEM AREA:
HYDRAULIC DENSITY: 3PM/SQ. FT. SQ. FT./HD
DESIGN DATA:
AREA OF APPLICATION: SQ. FT. HOSE ALLOWANCES: GPM
TOTAL SYSTEM REQUIREMENTS: GPM AT PSI. AT
WATER SUPPLY INFORMATION: STATIC PRESSURE PSI
RESIDUAL PRESSURE PSI. WITH GPM FLOWING
TEST TAKEN AT BY DATE

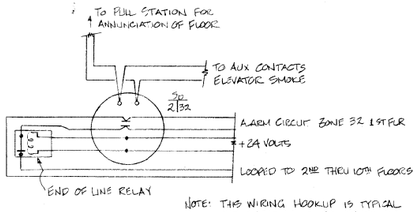
SCALE: NO SCALE
DRAWN BY: JOHN HARNISH
CHECKED BY:
DATE: 2/3/81
THESE PLANS COMPLIED WITH NFPA 4 EDITION LOS ANGELES
DRAWING NO. E8
CONTRACT NO. 06-A97406X-R1

ENGINEERING DEPARTMENT

1609

STANDARD HANGERS
(Circle hanger(s) to be used)





NOTE: THIS WIRING HOOKUP IS TYPICAL FOR SUPERVISING POWER TO ALL ELEVATOR SMOKE DETECTORS

DETAIL B
N.T.S.

BLANK

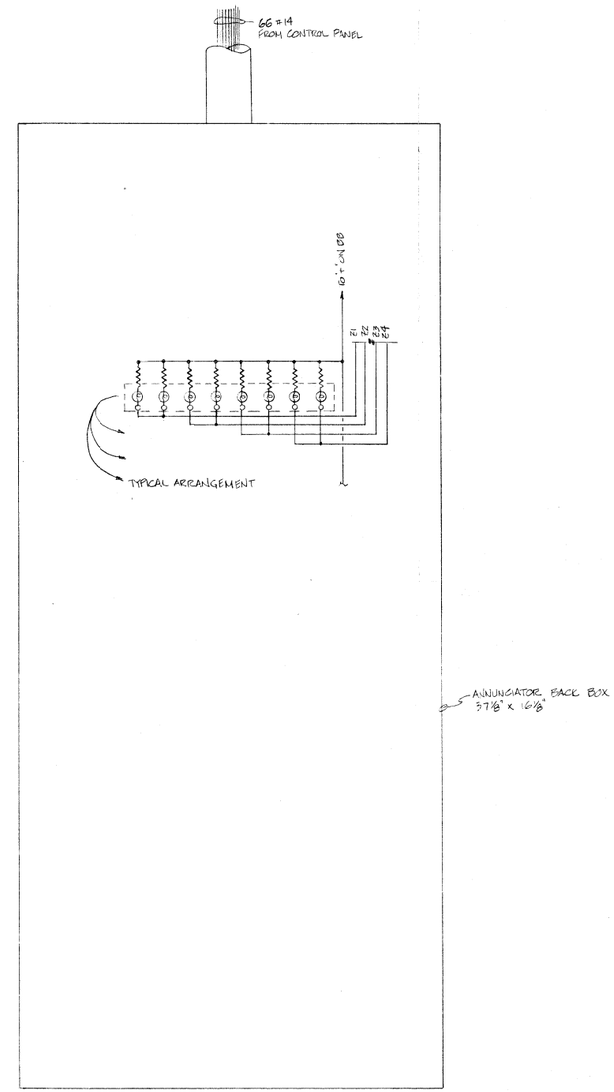
FLOOR 1 PULL STATION	FLOOR 1 WATER FLOW SWITCH	FLOOR 1 TAMPER SWITCH	FLOOR 2 PULL STATION
Garage Floor 2 Water Flow	Garage Floor 2 Tamper	Garage Floor 3 Pull Station	Garage Floor 3 Water Flow
Garage Floor 3 Tamper	Garage Floor 3 Water Flow	Garage Floor 3A Water Flow	Garage Floor 3A Tamper
FLOOR 5 PULL STATION	FLOOR 5 WATER FLOW SWITCH	FLOOR 5 TAMPER SWITCH	FLOOR 6 PULL STATION
FLOOR 6 WATER FLOW SWITCH	FLOOR 6 TAMPER SWITCH	FLOOR 7 PULL STATION	FLOOR 7 WATER FLOW SWITCH
FLOOR 7 TAMPER SWITCH	FLOOR 8 PULL STATION	FLOOR 8 WATER FLOW SWITCH	FLOOR 8 TAMPER SWITCH
FLOOR 9 PULL STATION	FLOOR 9 WATER FLOW SWITCH	FLOOR 9 TAMPER SWITCH	FLOOR 10 PULL STATION
FLOOR 10 WATER FLOW SWITCH	FLOOR 10 TAMPER SWITCH	ROOF SMOKE DETECTOR	LOBBY EAST SMOKE DETECTOR
Lobby East Smoke Detector	CO2 OR HALON VALVE OUT TAMPER	ROOF Tamper	3 HOUR BOX FLOOR 1 PULL STATION
Second Floor East Flow	East Flow Second Floor		Fire Pump Gate Pull Station
Fire Pump Gate Pull Station	Smoke detector		
Garage Tow Away Flow	Garage Floor Tamper	EMERGENCY ELEVATOR TRIM	EMERGENCY GENERATOR RUN
Fire Pump Gate Water Flow	FLOOR 1 SMOKE DETECTOR	FLOOR 2 SMOKE DETECTOR	FLOOR 3 SMOKE DETECTOR
FLOOR 4 SMOKE DETECTOR	FLOOR 5 SMOKE DETECTOR	FLOOR 6 SMOKE DETECTOR	FLOOR 7 SMOKE DETECTOR
FLOOR 8 SMOKE DETECTOR	FLOOR 9 SMOKE DETECTOR	FLOOR 10 SMOKE DETECTOR	First Floor East Smoke detector
Second Floor Smoke Detectors Duct Clean Trouble	Other Floor Smoke detectors	Garage Floor Tamper Switch	Emergency Gen Gate Gate Valve
			Fire Alarm Trouble

BLANK

1"

2"

ANNUNCIATOR PANEL



WIRING OF ANNUNCIATOR

NO.	DATE	BY	REVISIONS SEE FLAGGED AREA ON PLAN
1	9/18/81	DH	ADD DETAIL B REVISE ANN. PANEL

IMPORTANT

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CONTRACT RESPONSIBILITIES

ITEM	G.F.P.S.	OTHERS
STREET WATER CONNECTION		
UNDERGROUND WATER MAINS		
EXCAVATION		
BACKFILL		
WIRING		
PAINTING		

COORDINATION RECORD

CONTR. NAME	REF. DWG.	REV. DATE	NAME	TELEPHONE

MATERIAL REQUIRED

PIPING	DIAMETER	FEET	PIECES
INTERIOR			
UNDERGROUND			
NO. OF DROPS			

SPRINKLERS

TYPE	ORIF.	TEMP	FINISH	CANOPY	SYM3	QTY.
TOTAL THIS SHEET						

SYMBOLS

- Hydraulic Reference Point
- Line Designation
- ¾" of Pipe Below Bottom of Deck
- 1½" of Pipe Above Ref. Plane
- A Main Designation
- Earthquake Bracing: 2 & 4 Way
- Hanger
- Union
- Screwed Cap
- Grooved Cap
- Screwed Plug
- Elevation Change in Pipe (not thru floor)
- Gate Valve N.R.S. (GV)
- OS & Y Gate Valve (OS & Y)
- Flow Switch (FS)
- Monitor Switch
- Butterfly Valve
- Alarm Valve (ALV)
- Electric Bell
- Water Motor Gong (WMG)
- Wafer Check Valve
- Swing Check Valve
- System Riser
- Fire Dept. Conn. (Standard) (FDC)
- Fire Dept. Conn. (Siamese) (FDC)
- Fire Dept. Conn. (Sidewalk) (FDC)
- Post Indicator Valve (PIV)
- Fire Hydrant (3 Way)
- Thrust Block
- Kin Gard Sectional Valve with Roadway Box
- Fire Hose Assembly (see notes)
- Inspectors Test
- Grooved Coupling (GC)
- Flanged Connection
- Globe Valve
- Angle Valve
- Dry Pipe Valve

ABBREVIATIONS

BOB	Bottom of Beam
BOD	Bottom of Deck
BOP	Bottom of Pipe
DO	Drop
HV	Hose Valve
N & C	Nipple and Cap
NPT	Nipple Thread
NTS	Not to Scale
OBJ	Open Bar Joists
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RM	Roof Monitor
RM	Roof Monitor
TOB	Top of Beam
TOP	Top of Pipe
TOS	Top of Steel
UON	Unless Otherwise Noted

SYSTEM TYPE

REF. ☐ DELUGE ☐
QTY. ☐ REACTION ☐

APPROVALS

☐ ISO	OUT	IN
☐ IRI	OUT	IN
☐ FM	OUT	IN
☐	OUT	IN

GRINNELL FIRE PROTECTION SYSTEMS
EXECUTIVE OFFICES PROVIDENCE, R.I.

CONTRACT NAME: THE BRIDGER BUILDING
CLACK COUNTY OFFICES

CONTRACT WITH:

DESCRIPTION: ANNUNCIATOR PANEL

SYSTEM DESIGN DATA

HAZARD CLASSIFICATION: SYSTEM AREA:
HYDRAULIC DESIGN DATA: ____ GPM/SQ. FT. ____ SQ. FT./HR.
AREA OF APPLICATION: ____ SQ. FT. HOSE ALLOWANCES: ____ GPM
TOTAL SYSTEM REQUIREMENTS: GPM AT ____ PS. AT ____
WATER SUPPLY INFORMATION: STATIC PRESSURE ____ PSI
RESIDUAL PRESSURE ____ PSI. WITH ____ GPM FLOWING
TEST MADE AT ____ BY ____ DATE ____

SCALE:
DRAWN BY: DAN HARNISH
CHECKED BY:
DATE: 5/3/81
THESE PLANS PREPARED AT: ALAGA & DITTSCHUN LOS ANGELES ENGINEERING DEPARTMENT
DRAWING NO. E9
CONTRACT NO. 26-9990(X-R)

1604