PROJECT NO. 4500 SHEET NO. M-1

M E C H A N I C A L

ABBREVIATIONS

NOTE: ALL ABBREVIATIONS SHOWN ON MECHANICAL DRAWINGS ARE IN ACCORDANCE WITH STANDARD ABBREVIATIONS AS LISTED BY AMERICAN STANDARDS ASSOCIATION UNLESS OTHERWISE INDICATED BELOW.

A.C.	AIR CONDITIONING	H.D.	HOSE REEL
A.S.R.	AUTOMATIC SPRINKLER RISER	H.W.	HOT WATER
B.W.V.	BACK WATER VALVE	I.E.	INVERT ELEVATION
C.A.	COMPRESSED AIR	LV.	LEAVING
C.B.	CATCH BASIN	M.H.	MANHOLE
C.I.	CAST IRON	N.I.C.	NOT IN CONTRACT
C.O.	CLEANOUT	O.V.	OUTLET VELOCITY
COND.	CONDENSATE RETURN	P.I.V.	POST INDICATOR VALVE
C.V.	CHECK VALVE	P.R.V.	PRESSURE REDUCING VALVE
C.W.	COLD WATER	P.T.	PLUG TEE
DIFF.	DIFFUSER	R.A.	RETURN AIR
D.F.	DRINKING FOUNTAIN	R.C.	ROOF CONDUCTOR
D.T.	DRAIN TILE	REG.	REGISTER
D.T.C.	DRAIN TILE CONNECTOR	R.E.V.	ROOF EXHAUST VENTILATOR
D. & T.	DRIP AND TRAP	R.H.H.	ROOF HOOD HOUSE
E.A.	EXHAUST AIR	R.S.	ROOF SINK
F.A.	FRESH AIR	R.S.V.	ROOF SUPPLY VENTILATOR
F.D.	FLOOR DRAIN	SAN.	SANITARY
F.H.	FIRE HYDRANT	S.C.V.	SECTIONAL CONTROL VALVE
F.T.	FINAL TEMPERATURE	S.H.O.	SPRINKLER HUB OUTLET
GR.	GRILLE	S.R.V.	SMOKE RELEASE VENT
G.V.	GATE VALVE	U.H.	UNIT HEATER
H.D.	HOSE RACK	V.O.	VALVED OUTLET
H.C.	HOSE CABINET	V.T.R.	VENT THRU ROOF
H.O.	HUB OUTLET	W.H.	WALL HYDRANT
GAS.	GASOLINE	O.A.	OUTSIDE AIR
L.O.	LUBE OIL	T.W.	TRADE WASTE
T.O	TRANSMISSION OIL	W.S.	WATER SUPPLY
A.F.	ANTI-FREEZE	W.R.	WATER RETURN
C.R.	COND. RECEIVER	W.W.S	WELDER WATER SUPPLY
		W.W.R.	WELDER WATER RETURN

SYMBOLS

ELBOW — ELBOW UP — ELBOW DOWN

TEE — TEE UP — TEE DOWN

GATE VALVE — REDUCER

GLOBE VALVE — UNION

PLUG VALVE — INVERTER

CHECK VALVE — PLUGGED TEE

STRAINER — THERMOMETER

MOTOR OPERATED VALVE — GAUGE

AUTOMATIC VALVE (SEE PLANS FOR TYPE) — THERMOSTAT

PRESSURE VALVE

BUTTERFLY VALVE

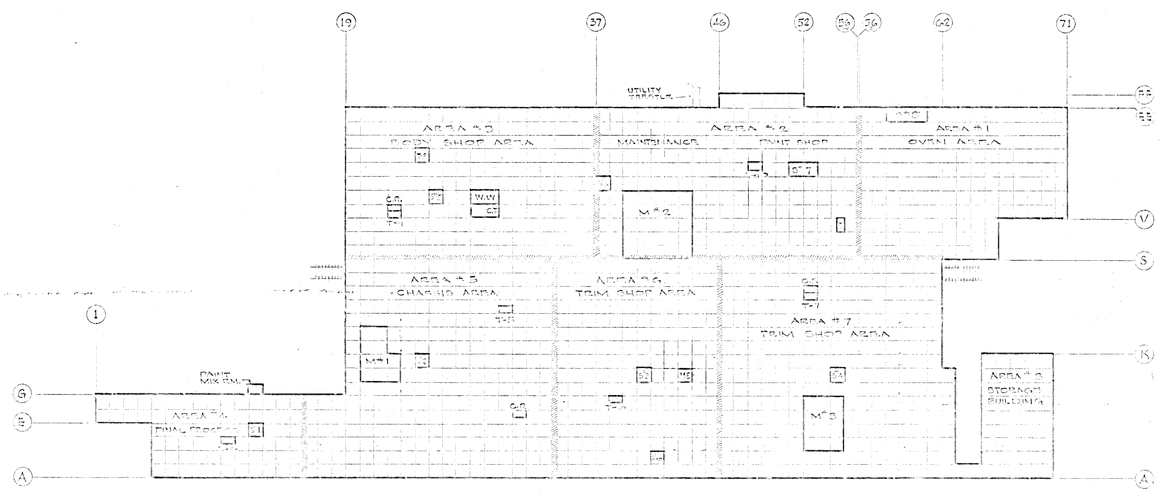
EMERGENCY EYE WASH AND SHOWER UNIT

PIPING LEGEND

SANITARY	STM — STEAM
STORM	COND — CONDENSATE (GRAVITY)
VENT	COND — CONDENSATE (PUMPED)
CW — COLD WATER	CA — COMPRESSED AIR
HW — HOT WATER	G — NATURAL GAS
HWR — HOT WATER RECIRCULATING	HWS — H.W. HEATING SUPPLY
TEMP — TEMPERED WATER	HWR — H.W. HEATING RETURN
F — FIRE	CTWS — COOLING TOWER WATER SUPPLY
DRAINSOIL	CTWR — COOLING TOWER WATER RETURN
TW — TRADE WASTE	CHWS — CHILLER WATER SUPPLY
WS — WATER SUPPLY	CHWR — CHILLER WATER RETURN
WR — WATER RETURN	WWS — WELDER WATER SUPPLY
RW — RECLAIM WATER	WWR — WELDER WATER RETURN
DW — DEMINERALIZED WATER	AF — ANTI FREEZE
CAN — CHROMIC ACID WASTE	TF — TRANSMISSION FLUID
DFO — DIESEL FUEL OIL	MO — MOTOR OIL
PST — POWER STEERING FLUID	

ADDITIONAL DESIGN INFO:

REQ. 17 EMERGENCY EYE WASH & SHOWER UNITS IN FOLLOWING AREAS.
AREA 1 - 3 UNITS
AREA 2 - 7 UNITS
AREA 3 - 1 UNIT
AREA 4 - 2 UNITS
AREA 5 - 2 UNITS
2 UNITS - TURNED OVER TO OWNER



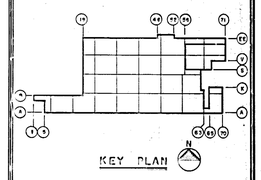
LEGEND	
M	MEZZANINE
G	TRANSFORMER RM.
T	TOILET
E	ELEVATOR
C.T.	COOLING TOWER
W.W.	WELDER WATER
C.R.	CONTROL ROOM
M.E.	MECH. EQUIPT. RM.

MANUFACTURING PLANT - KEY PLAN
SCALE: 1" = 200'

DRAWING INDEX.

DRAWING NO.	DESCRIPTION
M-1	DRAWING INDEX SYMBOLS & LEGEND
MU-1	UNDERGROUND AREA 1
MU-2	UNDERGROUND AREA 2
MU-2A	UNDERGROUND BADMIT
MU-3	UNDERGROUND AREA 3
MU-4	UNDERGROUND AREA 4
MU-5	UNDERGROUND AREA 5
MU-6	UNDERGROUND AREA 6
MU-7	UNDERGROUND AREA 7
MU-8	UNDERGROUND AREA 8 & DETAILS
MU-9	UNDERGROUND VENTILATION PLANS
MU-10	UNDERGROUND VENTILATION SECTIONS & DETAILS
MP-1	OVERHEAD PLAN - ROOF SUMPS
MP-2	MEZZANINE TOILETS
MP-3	PAINT SHOP AND DETAILS
MP-4	MEZZANINE - 1 KITCHEN & CAFETERIA
MP-5	MEZZANINE - 2 KITCHEN & CAFETERIA
MP-6	MEZZANINE - 3 KITCHEN & CAFETERIA
MP-7	MEZZANINE NO 2 & 3 TOILETS & CAFETERIAS.
MH-1	HVAC & PIPING AREA-1
MH-2	HVAC & PIPING AREA-2
MH-3	HVAC & PIPING AREA-3
MH-4	HVAC & PIPING AREA-4
MH-5	HVAC & PIPING AREA-5
MH-6	HVAC & PIPING AREA-6
MH-7	HVAC & PIPING AREA-7
MH-8	HVAC & PIPING AREA-8
MH-9	HVAC BASEMENT PLAN & DETAILS
MH-10	ROOF PLAN A.S.H. LOCATIONS
MH-11	AIR SUPPLY HOUSE
MH-12	AIR SUPPLY HOUSE DISCHARGE DUCTWORK
MH-13	AIR SUPPLY HOUSE DISCHARGE DUCTWORK
MH-14	HVAC MEZZANINE AREA NO. 1 TOILET, LOCKER & CAFETERIA
MH-15	HVAC MEZZANINE AREA NO. 2 TOILET, LOCKER & CAFETERIA
MH-16	HVAC MEZZANINE AREA NO. 2 OFFICE
MH-17	HVAC MEZZANINE AREA NO. 3 TOILET, LOCKER & CAFETERIA
MH-18	VENTILATION - TOILET ROOMS
MH-19	TRANSFORMER ROOM VENTILATION 1 THRU 8
MH-20	HEATING & VENTILATION CONVEYOR ENCLOSURE
MH-21	WELDER WATER SYSTEM PIPING DIAGRAM
MH-22	WELDER WATER SYSTEM EQUIPMENT ROOM
MH-23	SECTIONS & DETAILS
MH-24	VENTILATION - TOILET ROOMS, SINGLE AND DOUBLE ROLL TEST PITS
MH-25	WELDER WATER SYSTEM - SECTIONS
MH-26	PIPING AT TEASTER AND SECTIONS
MH-27	HVAC - MISCELLANEOUS AREAS VENTILATION
MH-28	MISCELLANEOUS DETAILS
MH-29	MISCELLANEOUS DETAILS
MH-30	HVAC - CONTROL DIAGRAMS
MH-31	HVAC - CONTROL DIAGRAMS
MH-32	SCHEDULES
MH-33	SCHEDULES
MH-34	H.V.A.C. AND PLUMBING - AUXILIARY BUILDINGS - PRIMARY SWITCH HOUSE AND GATE HOUSE
MH-35	H.V.A.C. FIRE PUMP HOUSE AND DETAILS.
MF-1	MASTER SPRINKLER PLAN
MF-2	SCHEDULES AND TYPICAL ZONE LAYOUT
MF-3	MASTER PLAN, HOOD REELS AND ROOF HOOD HOUSES
MF-4	OVEN AREA HOOD REEL LAYOUT
MF-5	ROOF CONVEYOR ENCLOSURE AND GAGE HOUSING
MF-6	MEZZANINE NOS. 1 AND 3, FLOOR PLANS
MF-7	MEZZANINE NO. 2, FLOOR PLANS
MF-8	FOAM STORAGE AREA AND DETAILS
MF-9	PAINT STORAGE AND MIX AREAS
MF-10	ELPO AREA AND FIRST FLOOR PAINT SHOP
MF-11	MEZZANINE TOILETS AND CONTROL ROOMS, OVERHEAD PIPING
MF-12	MEZZANINE TOILETS AND CONTROL ROOMS, UNDER MEZZ. PIPING
MF-13	PUMP HOUSE, PLANS AND DETAILS
MF-14	PUMP HOUSE, SECTIONS AND DETAILS
MF-15	AUXILIARY FIRE PUMP AND DETAILS
MF-100	OVEN ENCLOSURE FIRE PROTECTION SYSTEM
MF-101	SPRINKLER DETAILS
MF-102	SCHEDULES AND DETAILS

DATE	ISSUED FOR	APPROVAL	APPROVAL
8-25-77	PRELIMINARY		
8-31-77	PRELIMINARY		
9-15-77	FOR CONST. NO		



NO.	DATE	BY	APPROVAL	APPROVAL
160	5-15-78	VTN		
154	12-2-77	RJW		
115	10-25-77	[illegible]		
61	7-7-77	RA		
42	5-6-77	DS		
27	3-16-77	JCG		

REVISIONS

CONTRACT SIGNATURES

FOR THE OWNER

FOR THE CONTRACTOR

DRAWING CERTIFIED BY

REGISTERED

STATE

NUMBER

DATE

PLANT ENGINEERING AND CONSTRUCTION
MANUFACTURING STAFF
GENERAL MOTORS CORPORATION
25 NORTH MICHIGAN AVENUE, DETROIT, MICHIGAN

NEW MANUFACTURING PLANT
FOR
OKLAHOMA INDUSTRIES AUTHORITY
TENANCY BY
GM ASSEMBLY DIVISION
GENERAL MOTORS CORPORATION
OKLAHOMA CITY OKLAHOMA

PROJECT TITLE

DRAWING INDEX
SYMBOLS AND DETAILS

SHEET TITLE

OWNER'S IDENTIFICATION

4500
G.M.C. PROJECT NUMBER

DATE 8-25-77

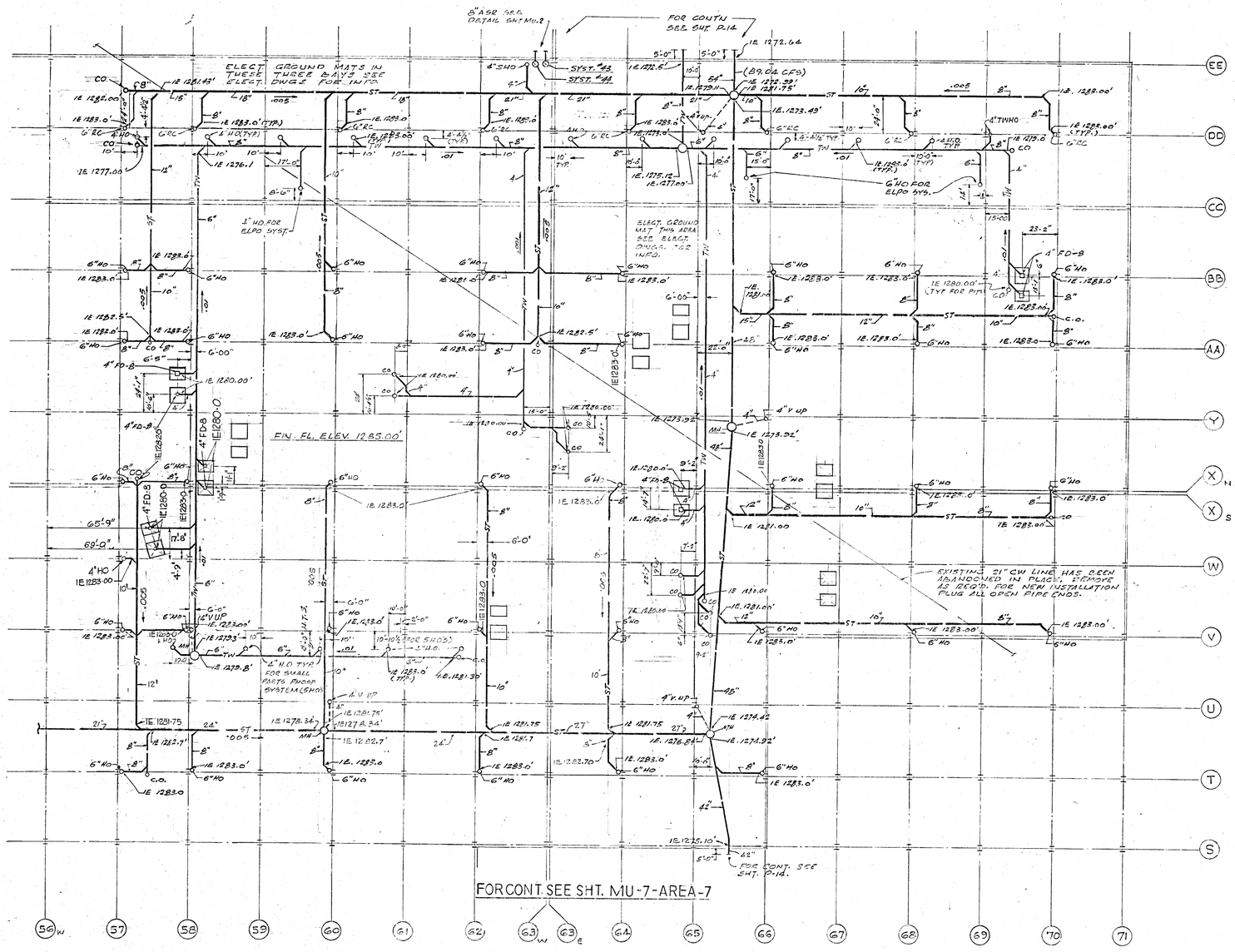
DRAWN BY [illegible]

JOB CAPT. [illegible]

M-1

SHEET NUMBER

PROJECT NO. 4500 SHEET NO. MU-1



PARTIAL UNDERGROUND AREA

SCALE: 1/32 - 1'-0"

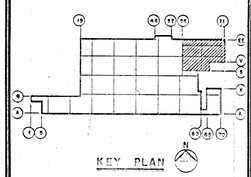
NOTES:

AT THE TIME OF INSTALLATION THIS CONTRACTOR SHALL OBTAIN FROM THE ARCHITECT — ENGINEER A COPY OF THE ELECTRICAL & MECHANICAL COLUMN COORDINATION SHEETS AND AS THEY AR ANY PIPING CHANGES ETC. SHALL BE SHOWN ON THE "ME" SHEET & SUBMITTED TO THE ARCHITECT — ENGINEER FOR APPROVAL.

FOR CONT. OF ALL 8" ASR'S SEE SHT. MF-1

THIS SHEET HAS BEEN GENERALLY REVISED SHEET. 48.

DATE	ISSUED FOR	APPROVAL	APPROVAL
3-23-77	PRIME MECH BID	C.C. Nichols	R.J. Hanak
3-23-77	PRIME ELECT. REF.	"	"
4-18-77	FIRE PROT. BID	C.C. Nichols	R.J. Hanak
4-28-77	1ST FLR. SLAB. REV	"	"



NO.	DATE	BY	APPROVAL	APPROVAL
RD 307	4-28-78	ELK		
ERD 117	10-7-77	KW		
ERD 62	8-15-77	SG		
61	7-7-77	SG		
48	6-17-77	DS		
27	5-16-77	JRK		

REVISIONS

CONTRACT SIGNATURES

FOR THE OWNER

FOR THE CONTRACTOR

DRAWING CERTIFIED BY

REGISTERED

STATE

NUMBER

DATE

ARGONAUT

PLANT ENGINEERING AND CONSTRUCTION

MANUFACTURING STAFF

GENERAL MOTORS CORPORATION

DIVISION OF CENTRAL SECTION & AIR WEST BIRMINGHAM AVENUE & DETROIT, MICHIGAN

ARCHITECTURE & ENGINEERING | A REAL ESTATE & CONSTRUCTION DIVISION

NEW MANUFACTURING PLANT FOR OKLAHOMA INDUSTRIES AUTHORITY TENANCY BY

G M ASSEMBLY DIVISION

GENERAL MOTORS CORPORATION

OKLAHOMA CITY OKLAHOMA

PROJECT TITLE

UNDERGROUND AREA I

SHEET TITLE

OWNER'S IDENTIFICATION

4500

P.E. & C. PROJECT NUMBER

DATE 3-23-77

DRAWN BY JKR/JP/DH

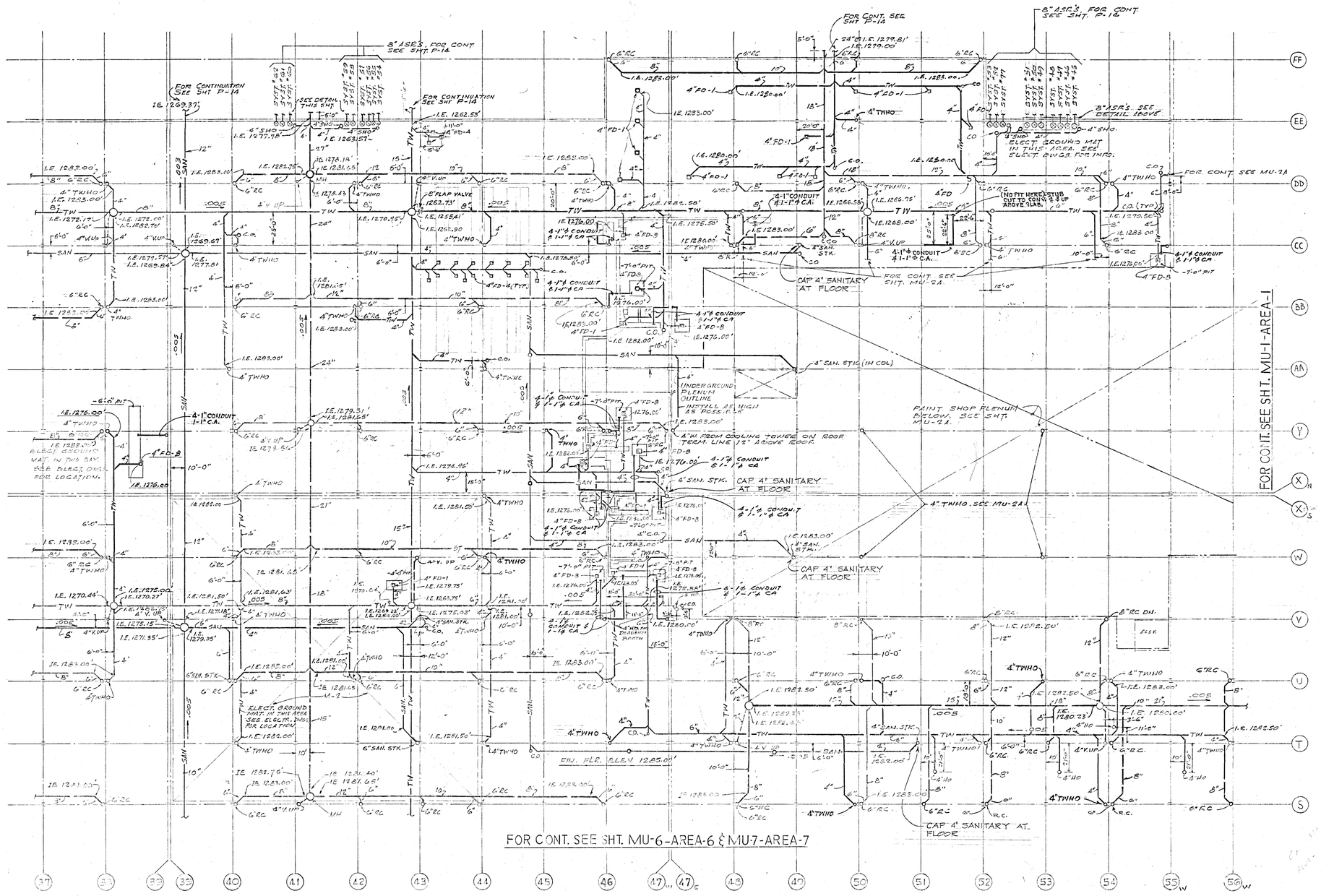
JOB CAPT. R.G. BUZA

MU-1

SHEET NUMBER

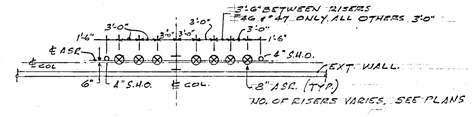
ARGO 118 REV. 12-69 KORE 17 0123 2-74 1790M

PROJECT NO. 4500 SHEET NO. MU-2



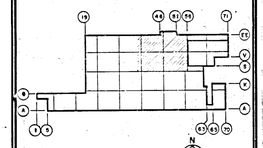
PARTIAL - UNDERGROUND AREA

SCALE: 1/32" = 1'-0"



DETAIL SHOWING TYPICAL SPACING OF ASR'S FROM COLUMNS

NO SCALE



KEY PLAN

NOTES:

AT THE TIME OF INSTALLATION THIS CONTRACTOR SHALL OBTAIN FROM THE ARCHITECT — ENGINEER A COPY OF THE ELECTRICAL & MECHANICAL COLUMN COORDINATION SHEETS ME-H-1 THRU 7 & ANY PIPING CHANGES, ETC SHALL BE SHOWN ON THE "ME" SHEET & SUBMITTED TO THE ARCHITECT — ENGINEER FOR APPROVAL.

FOR CONT. OF ALL 8" ASR'S SEE SHT. MP-1

DATE	ISSUED FOR	APPROVAL	APPROVAL
3-23-77	POWER & MECH. BIDS	J.C. Mayo	R.L. Hunter
3-23-77	POWER & ELECT. REF.	"	"
4-18-77	FIRE PROT. BID	J.C. Mayo	R.L. Hunter
4-28-77	CONC. PLENUM CO		
4-28-77	1ST FLR. SLAB REF.		

NO.	DATE	BY	APPROVAL	APPROVAL
EFO341	6-8-78	AA		
EFO305	4-14-78	A.A.		
EF0126	10-19-77	KW		
EFO112	3-30-77	KW		
EFO 111	7-25-77	AA		
EFO 48	8-15-77	SG		
EFO 68	7-26-77	ZLB		
01	7-7-77	SG		
52	6-21-77	DS		
PC-21	5-27-77	JLK		
27	5-16-77	JLK		

REVISIONS

CONTRACT SIGNATURES

FOR THE OWNER

FOR THE CONTRACTOR

DRAWING CERTIFIED BY

REGISTERED

STATE

NUMBER

DATE

PLANT ENGINEERING AND CONSTRUCTION

MANUFACTURING STAFF

GENERAL MOTORS CORPORATION

485 WEST MILWAUKEE AVENUE & DETROIT, MICHIGAN

ARCHITECT & ENGINEER — GENERAL CONTRACTOR — CONSTRUCTION MANAGER

NEW MANUFACTURING PLANT

FOR

OKLAHOMA INDUSTRIES AUTHORITY

TENANCY BY

GM ASSEMBLY DIVISION

GENERAL MOTORS CORPORATION

OKLAHOMA CITY OKLAHOMA

PROJECT TITLE

UNDERGROUND AREA 2

SHEET TITLE

OWNER'S IDENTIFICATION

4500

P. E. & C. PROJECT NUMBER

DATE 3-23-77

DRAWN BY JKL/DT/SG

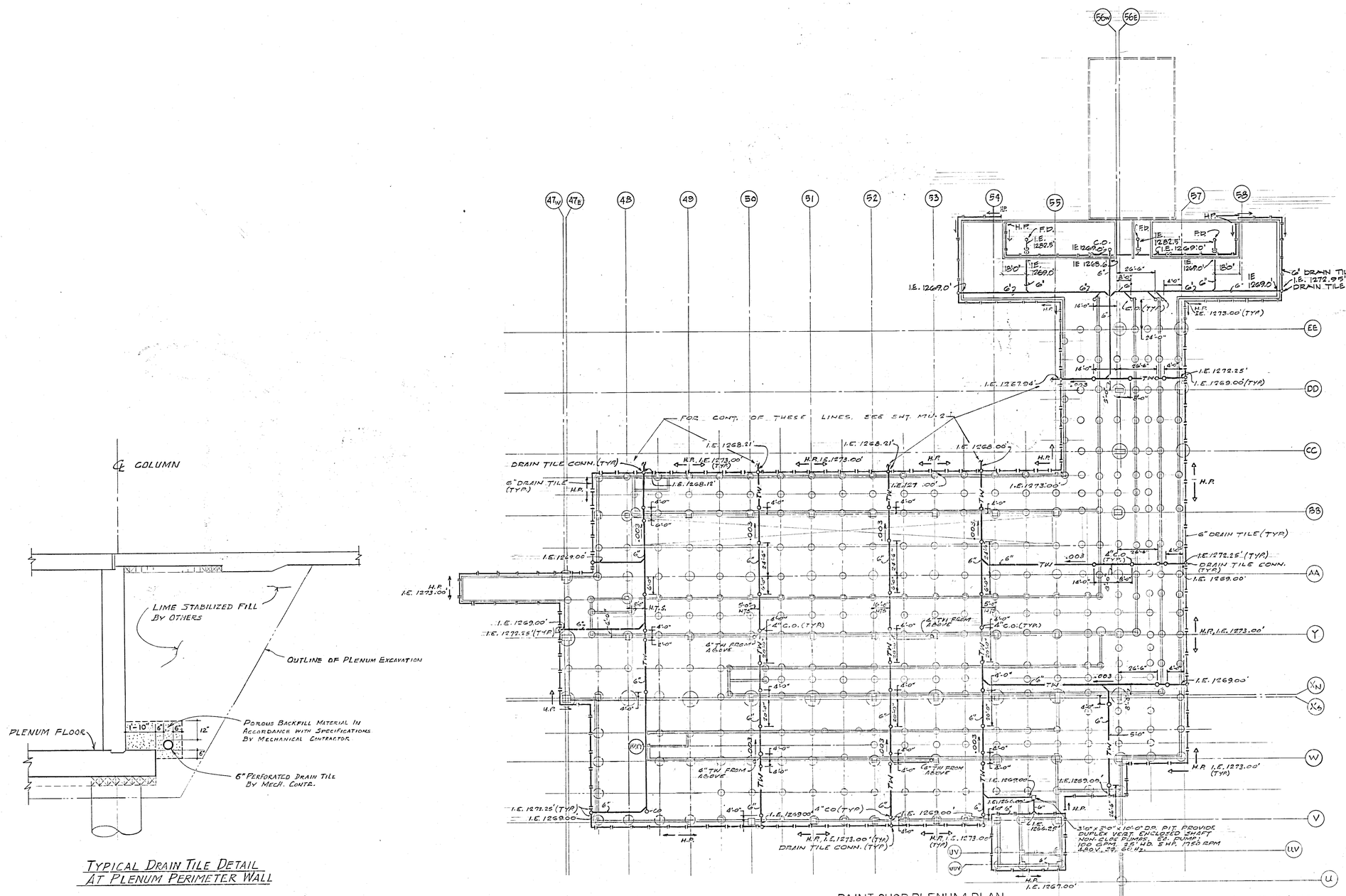
JOB CAPT. R.G. RUZA.

MU-2

SHEET NUMBER

K&E 17 0133 9-73 56579+

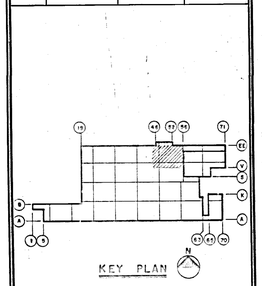
PROJECT NO. 4500 SHEET NO. MU-2A



TYPICAL DRAIN TILE DETAIL AT PLENUM PERIMETER WALL

PAINT SHOP PLENUM PLAN

SCALE: 1/32" = 1'-0"



DATE	ISSUED FOR	APPROVAL	APPROVAL
3-23-77	PRIME MECH BIDS		
5-23-77	PRIME ELECT. BIDS		
6-28-77	CONC. PLENUM KEY		

NO.	DATE	BY	APPROVAL	APPROVAL
EFO 244	2-21-78	KW		
EFO 66	8-5-77	SG		
61	7-7-77	SG		
48	6-17-77	SG		
27	5-16-77	JKK		

REVISIONS

CONTRACT SIGNATURES

FOR THE OWNER

FOR THE CONTRACTOR

DRAWING CERTIFIED BY

REGISTERED

STATE

NUMBER

DATE

ARGONAUT ARCHITECTURE & ENGINEERING REAL ESTATE & CONSTRUCTION MANAGEMENT

PLANT ENGINEERING AND CONSTRUCTION

MANUFACTURING STAFF

GENERAL MOTORS CORPORATION

NEW MANUFACTURING PLANT FOR OKLAHOMA INDUSTRIES AUTHORITY TENANCY BY

G M ASSEMBLY DIVISION

GENERAL MOTORS CORPORATION

OKLAHOMA CITY OKLAHOMA

PROJECT TITLE

UNDERGROUND PAINT SHOP PLENUM

SHEET TITLE

OWNER'S IDENTIFICATION

4500 P. E. & C. PROJECT NUMBER

DATE 3-23-77

DRAWN BY C.T./JKK

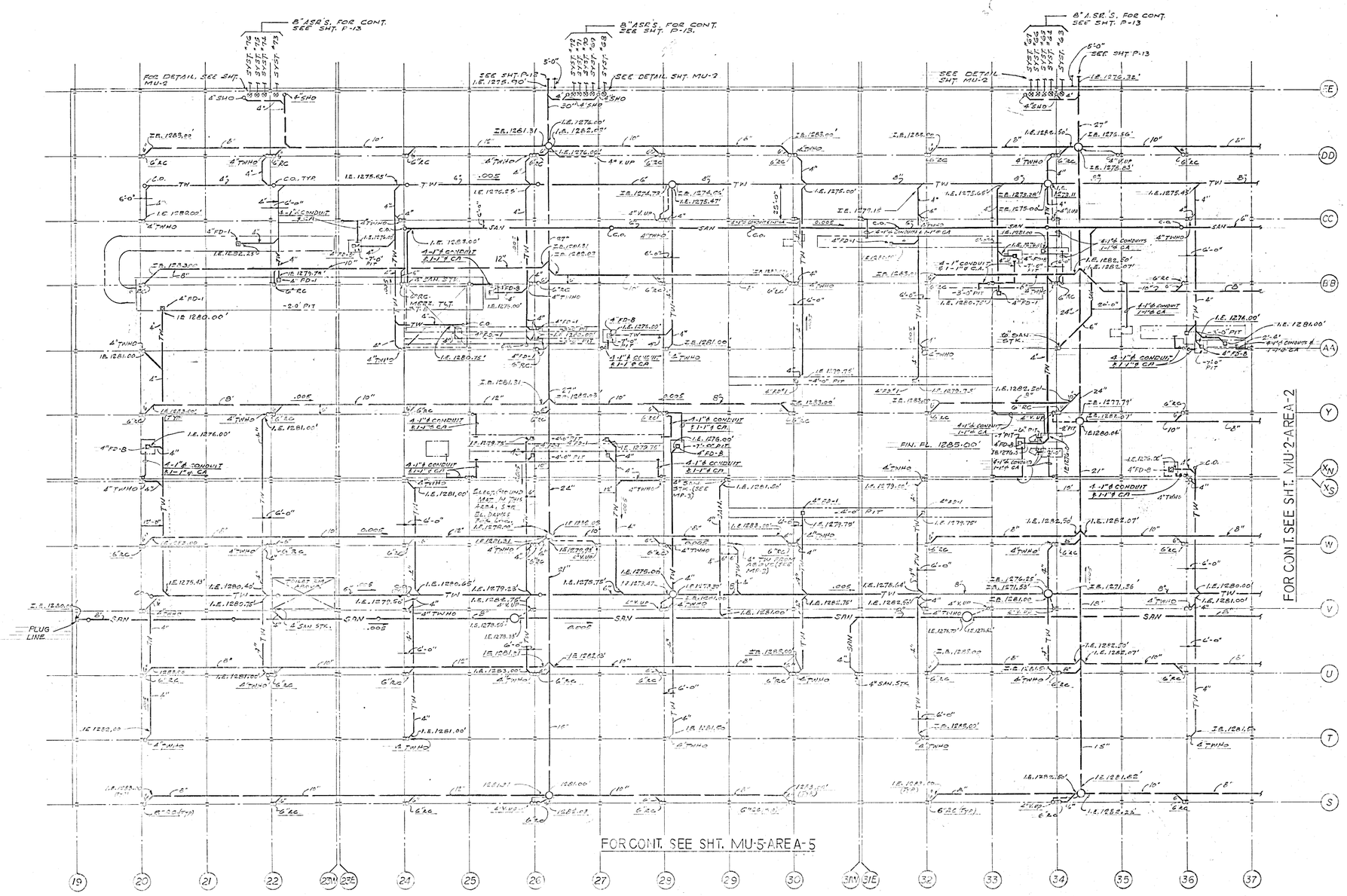
JOB CAPT. R. BELIZA

MU-2A

SHEET NUMBER

ARGO 118 REV. 12-69 K&E 17 0133 2-74 1790

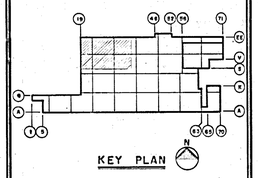
PROJECT NO. 4500 SHEET NO. MU-3



PARTIAL-UNDERGROUND AREA

SCALE: 1/32"-1'-0"

DATE	ISSUED FOR	APPROVAL	APPROVAL
3-23-77	PRIME MECH. BID	G.C. Davis	R. J. Meacham
3-23-77	PRIME ELEC. BID		
4-18-77	FIRE PROT. BID	G.C. Davis	R. J. Meacham
6-28-77	1st FLR. SLAB. REF.		



NO.	DATE	BY	APPROVAL	APPROVAL
EFO112	9-20-77	K.W.		
EFO62	8-15-77	S.G.		
EFO43	7-20-77	R.L.		
01	7-7-77	S.G.		
52	6-21-77	D.S.		
48	6-17-77	D.C.M.	G.C. Davis	R. J. Meacham
27	5-16-77	J.K.K.	G.C. Davis	R. J. Meacham

REVISIONS

CONTRACT SIGNATURES

FOR THE OWNER

FOR THE CONTRACTOR

DRAWING CERTIFIED BY

REGISTERED

STATE

NUMBER

DATE

ARCHITECTS ENGINEERS & CONSULTANTS

PLANT ENGINEERING AND CONSTRUCTION

MANUFACTURING STAFF

GENERAL MOTORS CORPORATION

485 WEST MILWAUKEE AVENUE & DETROIT, MICHIGAN

ARCHITECTURE & ENGINEERING — REAL ESTATE & CONSTRUCTION MANAGEMENT

NEW MANUFACTURING PLANT

FOR

OKLAHOMA INDUSTRIES AUTHORITY

TENANCY BY

G M ASSEMBLY DIVISION

GENERAL MOTORS CORPORATION

OKLAHOMA CITY OKLAHOMA

PROJECT TITLE

UNDERGROUND AREA 3

SHEET TITLE

OWNER'S IDENTIFICATION

4500

P. E. & C. PROJECT NUMBER

DATE 3-23-77

DRAWN BY J.K.K./R.L.B.

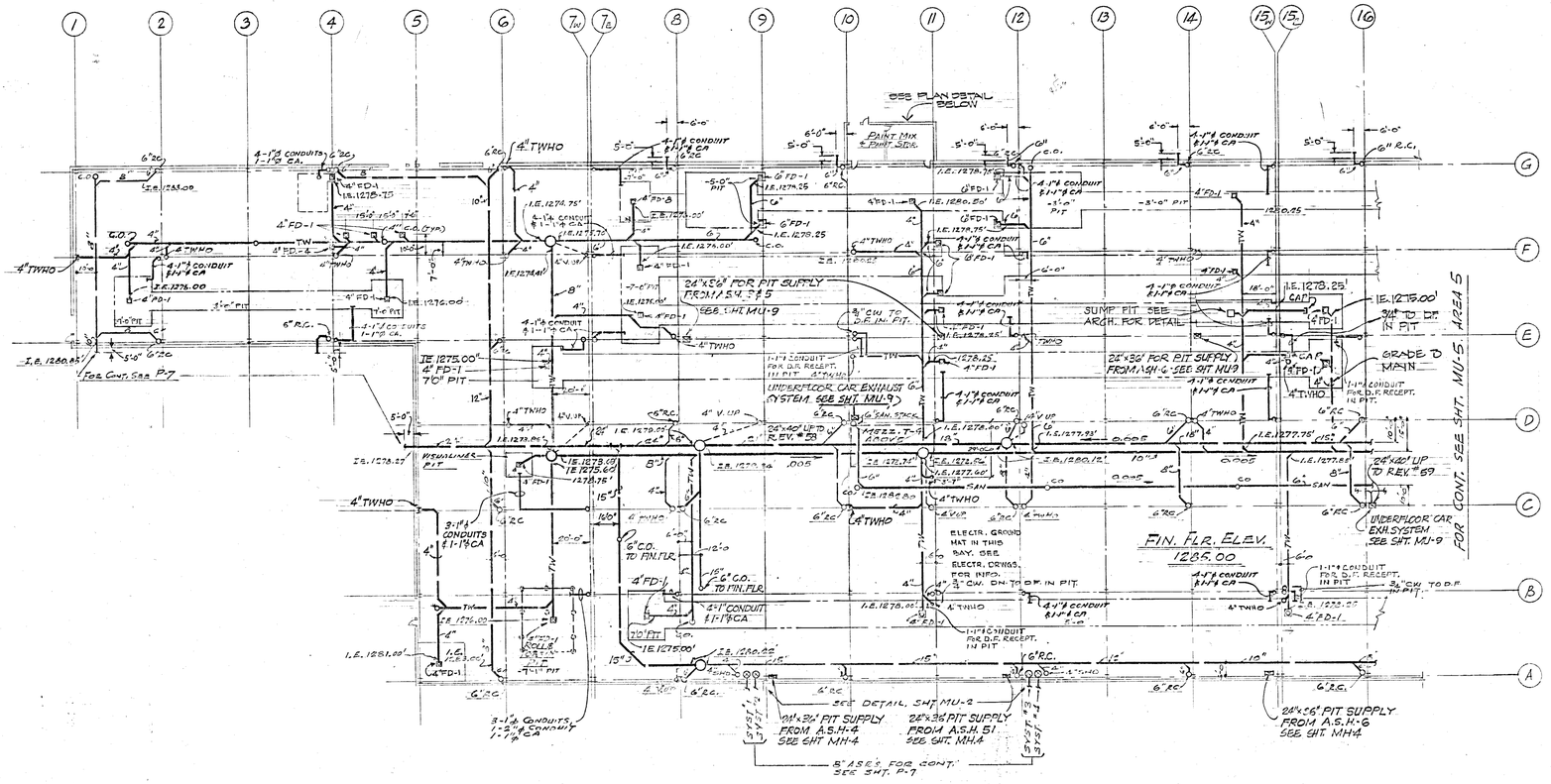
JOB CAPT. R. BEUZA

MU-3

SHEET NUMBER

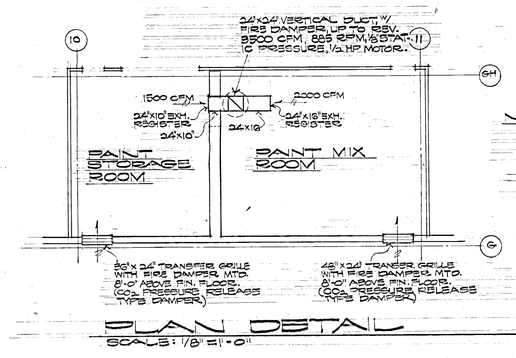
K&E 17-0153 9-73 50579

PROJECT NO. 4500 SHEET NO. MU-4



PARTIAL-UNDERGROUND AREA

SCALE: 1/32"-1'-0"



NOTE:
DAMPERS AND REV. SHALL BE INTERLOCKED WITH ROOM CO_2 SYSTEM.
ALL MOTORS ARE TO BE EXPLOSION PROOF.

PLAN DETAIL

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

NOTES:
AT THE TIME OF INSTALLATION THIS CONTRACTOR SHALL OBTAIN FROM THE ARCHITECT-ENGINEER A COPY OF THE ELECTRICAL & MECHANICAL COLUMN COORDINATION SHEETS NO. #1 THRU #8. ANY PIPING CHANGES ETC. SHALL BE SHOWN ON THE "M.E." SHEET & SUBMITTED TO THE ARCHITECT — ENGINEER FOR APPROVAL.

FOR CONT. OF ALL B" ASE'S SEE SHT. MP1

KEY PLAN

DATE	ISSUED FOR	APPROVAL	APPROVAL
3-23-77	PRIME MECH BIDS	J.C.	K. Heard
3-23-77	PRIME ELECT. BID.		
4-18-77	FIRE PROT. BID	J.C.	K. Heard
4-28-77	ELEV. SUB. REV.		

NO.	DATE	BY	APPROVAL	APPROVAL
EFO 142	8-22-79	BS/KN		
EFO 413	9-13-78	A.A.		
EFO 178	12-15-77	K.W.		
EFO 166	11-15-77	K.W.		
EFO 148	11-7-77	K.W.		
EFO 126	10-19-77	K.W.		
EFO 101	9-23-77	A.A.		
EFO 77	9-9-77	K.W.		
EFO 62	8-15-77	SG		
61	7-7-77	SG		
48	6-17-77	SG	J.C.	K. Heard
27	5-16-77	JKK	J.C.	K. Heard

REVISIONS

CONTRACT SIGNATURES

FOR THE OWNER

FOR THE CONTRACTOR

DRAWING CERTIFIED BY

REGISTERED

STATE

NUMBER

DATE

ARGONAUT

PLANT ENGINEERING AND CONSTRUCTION

MANUFACTURING STAFF

GENERAL MOTORS CORPORATION

ARCHITECTURE & ENGINEERING — REAL ESTATE & CONSTRUCTION

NEW MANUFACTURING PLANT FOR OKLAHOMA INDUSTRIES AUTHORITY TENANCY BY

GM ASSEMBLY DIVISION

GENERAL MOTORS CORPORATION

OKLAHOMA CITY OKLAHOMA

PROJECT TITLE

UNDERGROUND AREA 4

SHEET TITLE

OWNER'S IDENTIFICATION

4500

P. E. S. C. PROJECT NUMBER

DATE 3-23-77

DRAWN BY J.C./DT/DS

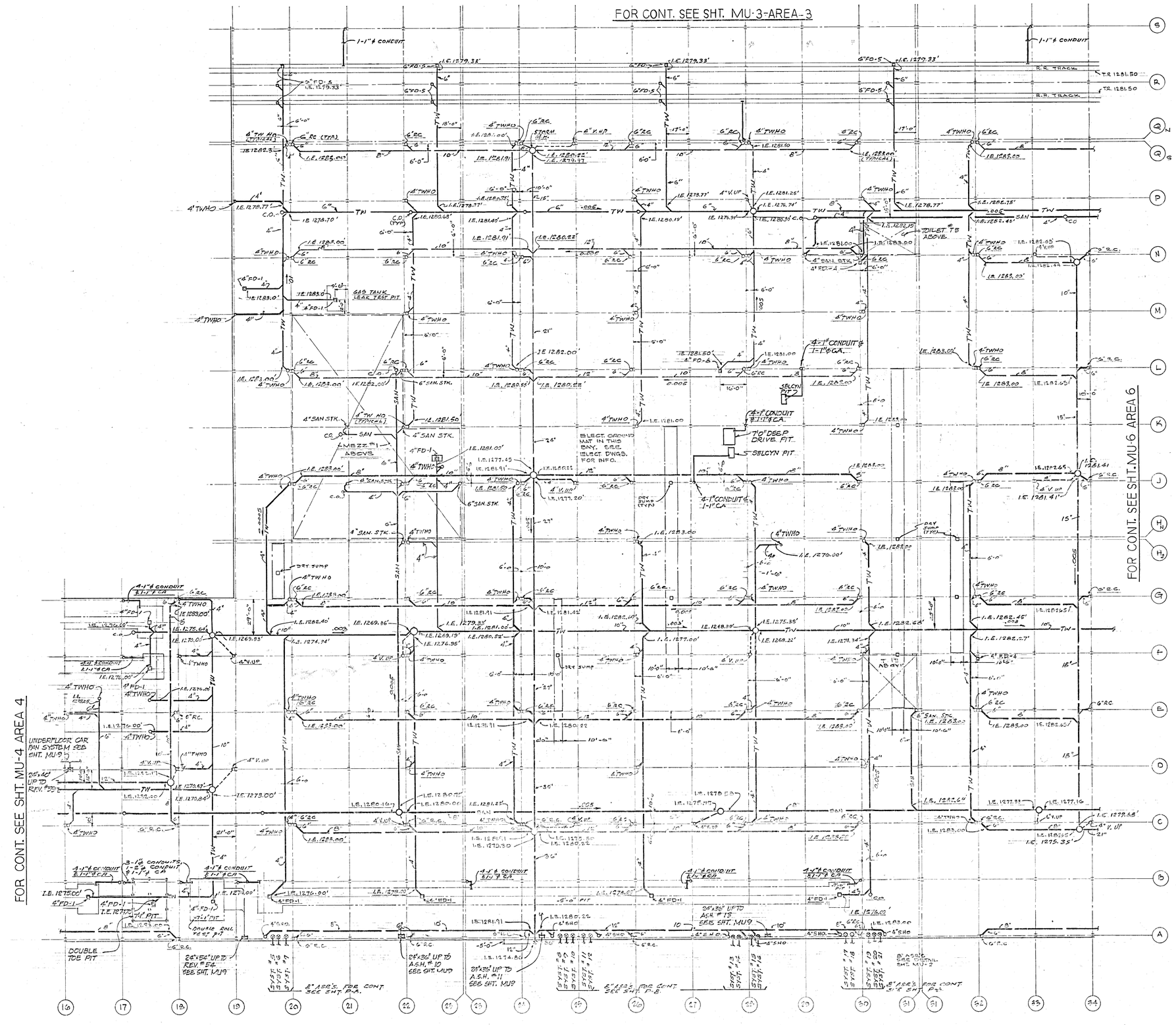
JOB CAPT. P. DRUEL

MU-4

SHEET NUMBER

ARGO 118 REV. 12-69 K&E 17 0133 2-74 1750+

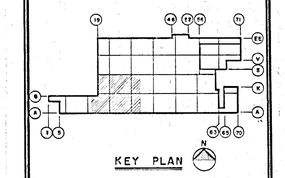
PROJECT NO. SHEET NO.



PARTIAL- UNDERGROUND AREA

SCALE: 1/32" = 1'-0"

DATE	ISSUED FOR	APPROVAL	APPROVAL
3-23-77	PRIME MECH BIDS	C.J.C.	R. J. Hurst
3-23-77	PRIME ELECT. BIDS	C.J.C.	R. J. Hurst
4-15-77	FIRE PROT. BID	C.J.C.	R. J. Hurst
4-28-77	1ST FLR SLAB REF		



NO.	DATE	BY	APPROVAL	APPROVAL
EFD 231	1-25-78	BO		
EFD 218	1-13-78	BO		
EFD 166	11-29-77	KW		
EFD 128	11-7-77	KW		
EFD 126	10-19-77	KW		
EFD 101	9-22-77	AA		
EFD 77	9-9-77	KW		
G1	7-7-77	GG		
4B	6-17-77	SG		
PC-21	5-27-77	JKK		
27	5-16-77	JKK		

REVISIONS

CONTRACT SIGNATURES

FOR THE OWNER

FOR THE CONTRACTOR

DRAWING CERTIFIED BY

REGISTERED

STATE

NUMBER

DATE

PLANT ENGINEERING AND CONSTRUCTION

MANUFACTURING STAFF

GENERAL MOTORS CORPORATION
485 WEST MILWAUKEE AVENUE & DETROIT, MICHIGAN

A PRELIMINARY & CONSTRUCTION MANAGEMENT

NOTES:
AT THE TIME OF INSTALLATION THIS CONTRACTOR SHALL OBTAIN FROM THE ARCHITECT-ENGINEER A COPY OF THE ELECTRICAL & MECHANICAL COLUMN COORDINATION SHEETS ME #1 THRU #5, ANY PIPING CHANGES, ETC. SHALL BE SHOWN ON THE "ME" SHEET & SUBMITTED TO THE ARCHITECT — ENGINEER FOR APPROVAL.

FOR CONT. OF ALL 8" ASB'S SEE SHT MF-1

NEW MANUFACTURING PLANT
FOR
OKLAHOMA INDUSTRIES AUTHORITY
TENANCY BY
G M ASSEMBLY DIVISION
GENERAL MOTORS CORPORATION
OKLAHOMA CITY OKLAHOMA

PROJECT TITLE

UNDERGROUND AREA 5

SHEET TITLE

OWNER'S IDENTIFICATION

4500
P. E. & C. PROJECT NUMBER

DATE 3-23-77

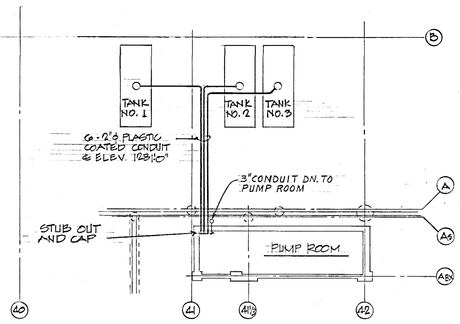
DRAWN BY JKK/CS/JP

JOB CAPT. R. BRUZA

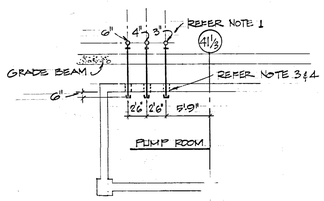
MU-5
SHEET NUMBER

K&E 17 0133 9-73 50579+

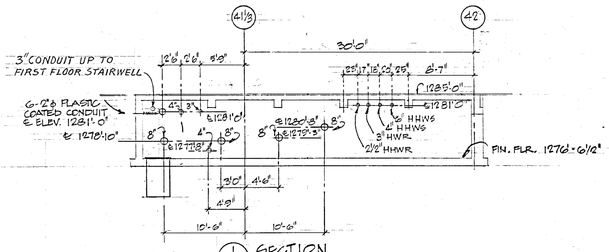
PROJECT NO. 4500 SHEET NO. MU-6



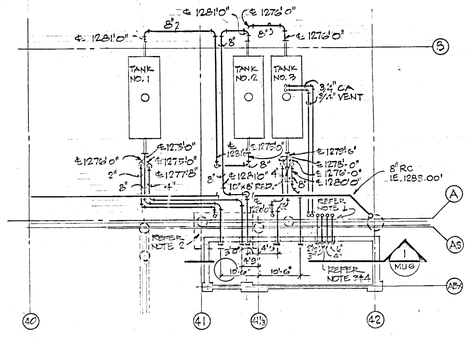
PLAN - CONDUIT LAYOUT
SCALE: 1/8" = 1'0"



PART PLAN "A"
SCALE: 1/8" = 1'0"



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



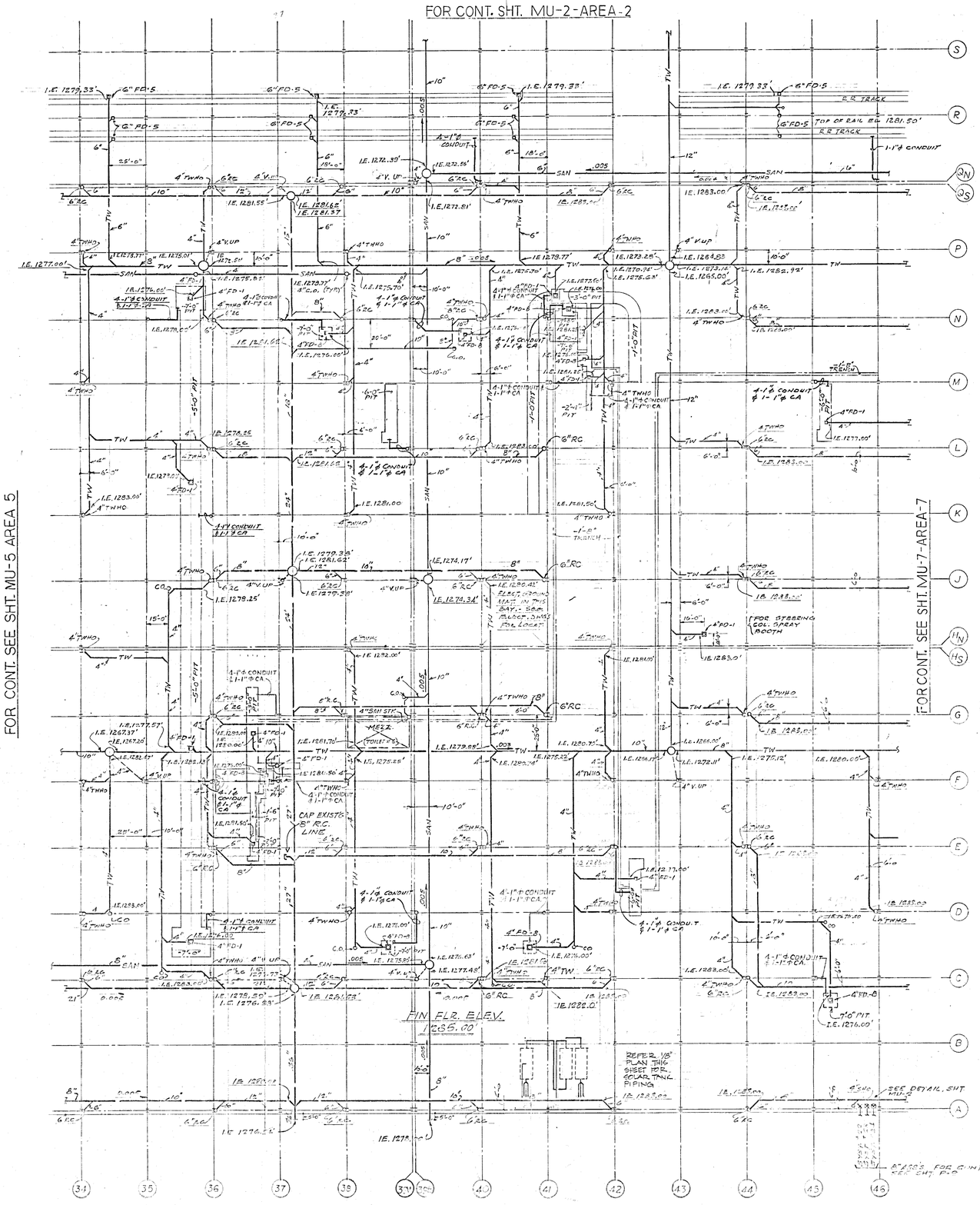
PLAN - SOLAR TANK PIPING
SCALE: 1/16" = 1'0"

NOTES:
1. PIPING TO EXTEND 6" ABOVE FIN. FLOOR & PROVIDE TEMPORARY PLUGS.
2. SEE PART PLAN "A" FOR ADDITIONAL PIPING THRU WALL - (2) 6", (2) 4", (2) 3".
3. PIPING TO EXTEND 2" THRU PUMP ROOM WALL & PROVIDE TEMPORARY PLUGS.
4. PIPE SLEEVES SHALL BE PROVIDED FOR ALL PIPES EXTENDING THRU WALLS. CAULK WITH NON-HARDENING MASTIC AND INSTALL FLANGES ON BOTH SIDES OF WALLS TO RETAIN MASTIC.

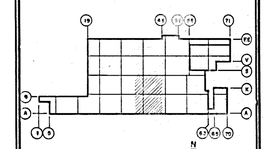
FOR CONT. SHT. MU-2-AREA-2

FOR CONT. SEE SHT. MU-5 AREA 5

FOR CONT. SEE SHT. MU-7-AREA-7



PARTIAL - UNDERGROUND AREA
SCALE: 1/32" = 1'-0"



KEY PLAN

NOTES:
AT THE TIME OF INSTALLATION THIS CONTRACTOR SHALL OBTAIN FROM THE ARCHITECT-ENGINEER A COPY OF THE ELECTRICAL & MECHANICAL COLUMN COORDINATION SHEETS ME #1 THRU #8. ANY PIPING CHANGES, ETC. SHALL BE SHOWN ON THE ME SHEET & SUBMITTED TO THE ARCHITECT-ENGINEER FOR APPROVAL.

FOR CONT. OF ALL 8" ASA'S SEE SHT. MF-1

DATE	ISSUED FOR	APPROVAL	APPROVAL
3-23-77	POWER MECH 3.00	G. C. Kirby	R. J. Hewitt
3-23-77	POWER ELEC'L REF.		
4-18-77	FIRE PROT. 8.10	G. C. Kirby	R. J. Hewitt
4-28-77	13 FLR. SLAB REF.		
4-27-78	REF. PC1/4812		

NO.	DATE	BY	APPROVAL	APPROVAL
EF03/9	5-1-78	VTN		
EF0288	2-28-78	KW		
153	2-14-78	KWS		
EF0/79	12-21-77	K.A.		
EF0/18	9-30-77	KW		
EF0 68	8-15-77	SG		
61	7-7-77	SG		
48	6-17-77	SG	G. C. Kirby	R. J. Hewitt
PC-21	5-27-77	JLK		
27	5-16-77	JLK	G. C. Kirby	R. J. Hewitt

REVISIONS

CONTRACT SIGNATURES
FOR THE OWNER
FOR THE CONTRACTOR

DRAWING CERTIFIED BY
REGISTERED
STATE
NUMBER
DATE

ARCHITECTURAL ENGINEERING & CONSTRUCTION MANAGEMENT
ARCHITECTURE & ENGINEERING

PLANT ENGINEERING AND CONSTRUCTION
MANUFACTURING STAFF
GENERAL MOTORS CORPORATION
485 WEST MILWAUKEE AVENUE & DETROIT, MICHIGAN
A REAL ESTATE & CONSTRUCTION MANAGEMENT

NEW MANUFACTURING PLANT
FOR
OKLAHOMA INDUSTRIES AUTHORITY
TENANCY BY
G M ASSEMBLY DIVISION
GENERAL MOTORS CORPORATION
OKLAHOMA CITY OKLAHOMA

PROJECT TITLE

UNDERGROUND AREA-6

SHEET TITLE

OWNER'S IDENTIFICATION

4500
P. E. & C. PROJECT NUMBER

DATE 3-23-77

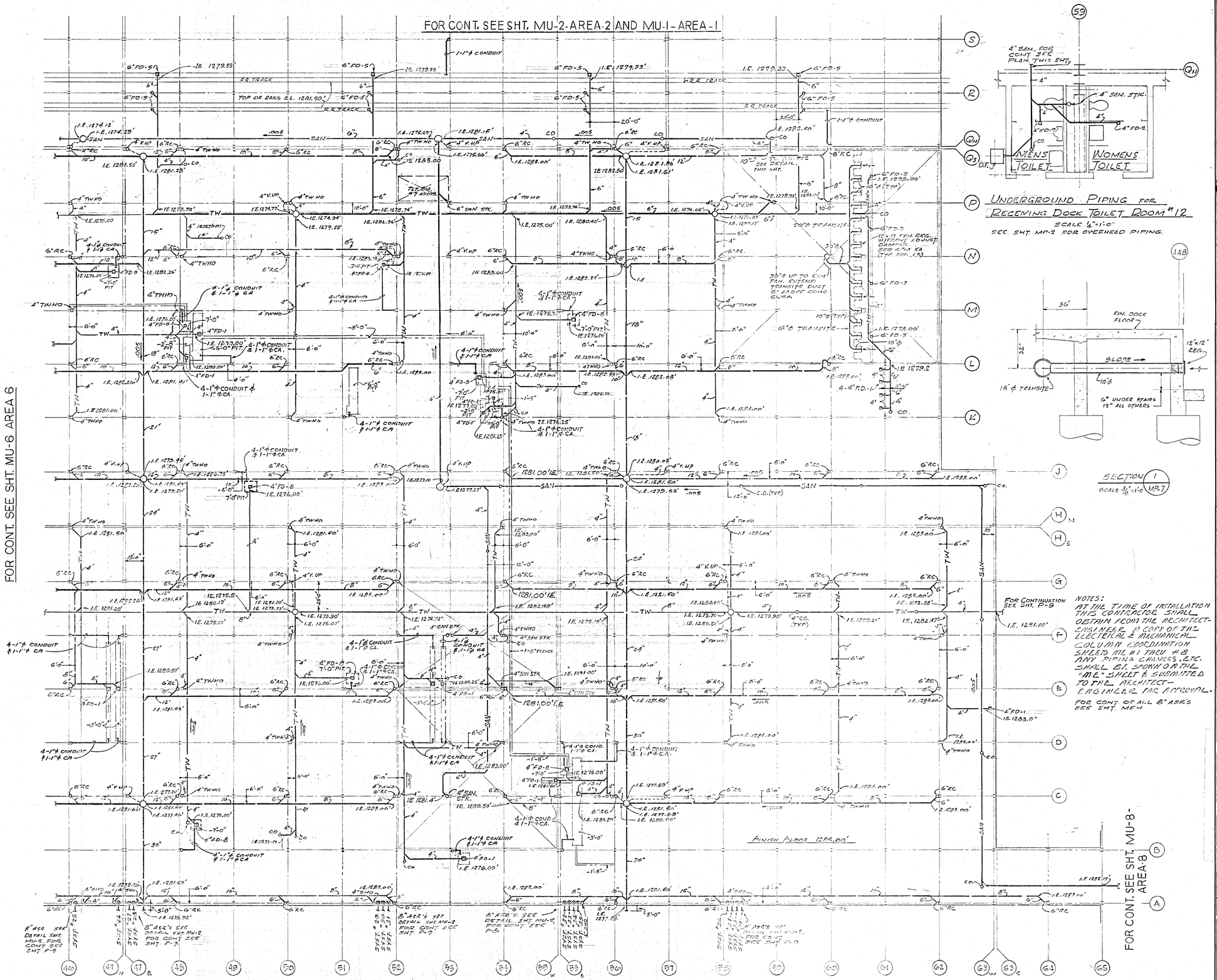
DRAWN BY

JOB CAPT. R. ARIZA

MU-6
SHEET NUMBER

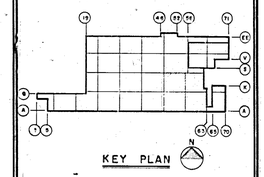
K&E 17 0153 9-73 50570+

PROJECT NO. 4500 SHEET NO. MU-7



PARTIAL UNDERGROUND AREA
SCALE: 1/32" = 1'-0"

UNDERGROUND PIPING FOR RECEIVING DOCK TOILET ROOM #12
SCALE 1/4" = 1'-0"
SEE SHT. MP-2 FOR OVERHEAD PIPING.



KEY PLAN

SECTION 1 / MP-7
SCALE 3/4" = 1'-0"

NOTES:
AT THE TIME OF INSTALLATION THE CONTRACTOR SHALL OBTAIN FROM THE ARCHITECT-ENGINEER A COPY OF THE ELECTRICAL & MECHANICAL COLUMN COORDINATION SHEETS NE #1 THRU #8. ANY PIPING CHANGES, ETC. SHALL BE SHOWN ON THE ABE SHEET & SUBMITTED TO THE ARCHITECT-ENGINEER FOR APPROVAL.

FOR CONT. OF ALL 8" ASR'S SEE SHT. MP-1

DATE	ISSUED FOR	APPROVAL	APPROVAL
3-23-77	PRIME MECH BIDS	G.C. Adams	Chas. J. Hensel
3-23-77	PRIME ELECT BIDS		
4-15-77	FIRE PROT & 10	G.C. Adams	Chas. J. Hensel
4-28-77	1ST FLR SLAB REC		

NO.	DATE	BY	APPROVAL	APPROVAL
EFO 145	11-7-77	K.W.	[illegible]	
EFO 126	10-19-77	K.W.	[illegible]	
EFO 111	10-11-77	K.W.	[illegible]	
EFO 112	9-30-77	K.W.	[illegible]	
EFO 77	9-9-77	K.W.	[illegible]	
EFO 66	8-15-77	GC	[illegible]	
61	7-7-77	SG	[illegible]	
48	6-17-77	SG	G.C. Adams	Chas. J. Hensel
27	5-16-77	JKK	G.C. Adams	Chas. J. Hensel

REVISIONS

CONTRACT SIGNATURES
FOR THE OWNER
FOR THE CONTRACTOR

DRAWING CERTIFIED BY
REGISTERED
STATE
NUMBER
DATE

ARGONAUT
DIVISION OF GENERAL MOTORS
ARCHITECTURE & ENGINEERING | REAL ESTATE & CONSTRUCTION MANAGEMENT

PLANT ENGINEERING AND CONSTRUCTION
MANUFACTURING STAFF
GENERAL MOTORS CORPORATION
485 WEST MILWAUKEE AVENUE & DETROIT, MICHIGAN

NEW MANUFACTURING PLANT
FOR
OKLAHOMA INDUSTRIES AUTHORITY
TENANCY BY
G M ASSEMBLY DIVISION
GENERAL MOTORS CORPORATION
OKLAHOMA CITY OKLAHOMA

PROJECT TITLE

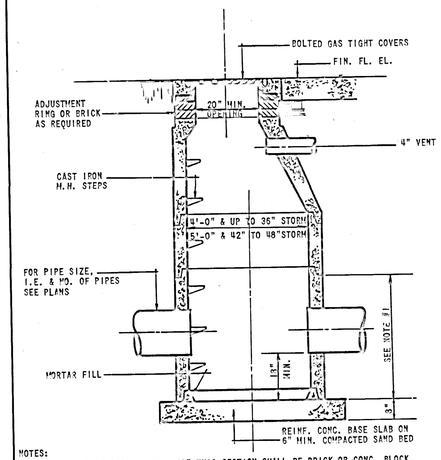
UNDERGROUND AREA 7

SHEET TITLE

OWNER'S IDENTIFICATION
4500
P. E. & C. PROJECT NUMBER
DATE 3-23-77
DRAWN BY J.K.K./D.S.
JOB CAPT. R. BRULL
MU-7
SHEET NUMBER

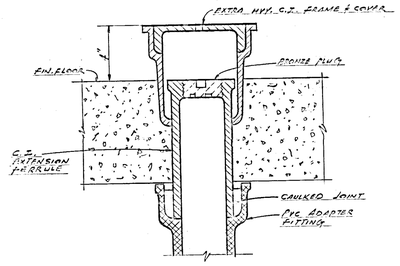
K&E 17 0153 8-72 50579-4

PROJECT NO. 4500 SHEET NO. MU-8

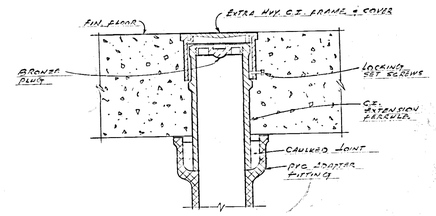


NOTES:
1. WHEN ANY PIPE SIZE EXCEEDS 18" THIS SECTION SHALL BE BRICK OR CONC. BLOCK CONSTRUCTION TO A POINT 12" ABOVE THE TOP OF HIGHEST INLET PIPE.
2. 15'-0" MAX. DEPTH FOR PRE-CAST CONCRETE SECTIONS USE 12" THICK BRICK OR BLOCK WALLS BELOW 15'-0" DEPTHS.
3. ALL STORM SEWERS AT M.H.'S SHALL BE PLACED SO THAT THE 0.8 DEPTH POINT IS AT THE SAME ELEV. UNLESS OTHERWISE NOTED ON PLANS.

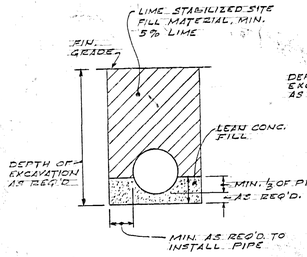
TYPICAL DETAIL OF PRE-CAST STORM MANHOLE
NO SCALE



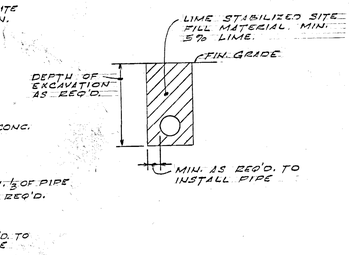
TYPICAL DETAIL FOR TRADE WASTE HUB OUTLETS
NO SCALE



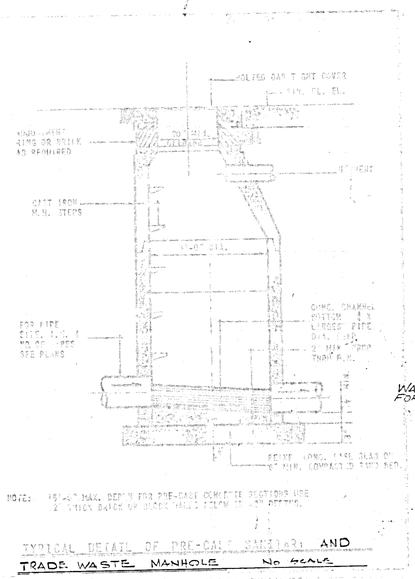
TYPICAL DETAIL FOR FLOOR CLEANOUTS AND HUB OUTLETS
NO SCALE
FLOOR DRAINS WILL HAVE SIMILAR CONNECTIONS



TYPICAL SECTION FOR BACKFILL OF 12" OR LARGER DIAM. PIPES
NO SCALE

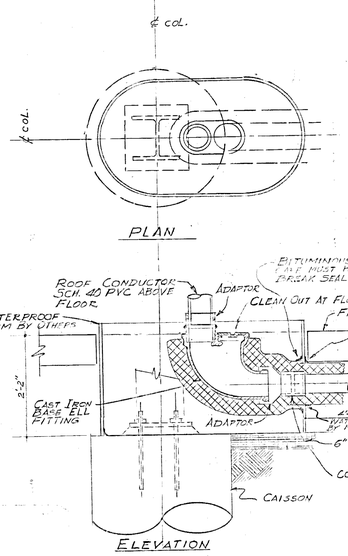


TYPICAL SECTION FOR BACKFILL OF PIPES LESS THAN 12" DIAM.
NO SCALE



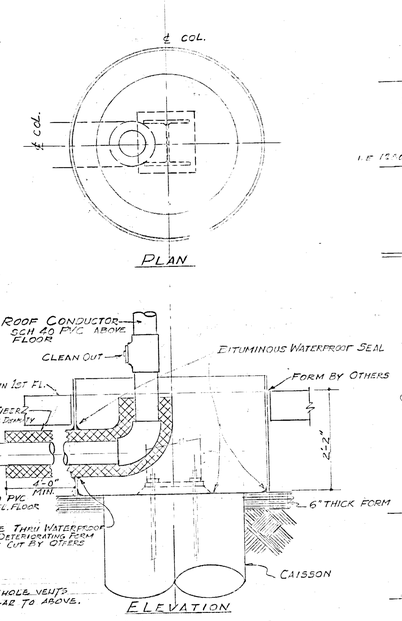
NOTE: 15'-0" MAX. DEPTH FOR PRE-CAST CONCRETE SECTIONS USE 12" THICK BRICK OR BLOCK WALLS BELOW 15'-0" DEPTHS.

TYPICAL DETAIL OF PRE-CAST SANITARY AND TRADE WASTE MANHOLE
NO SCALE

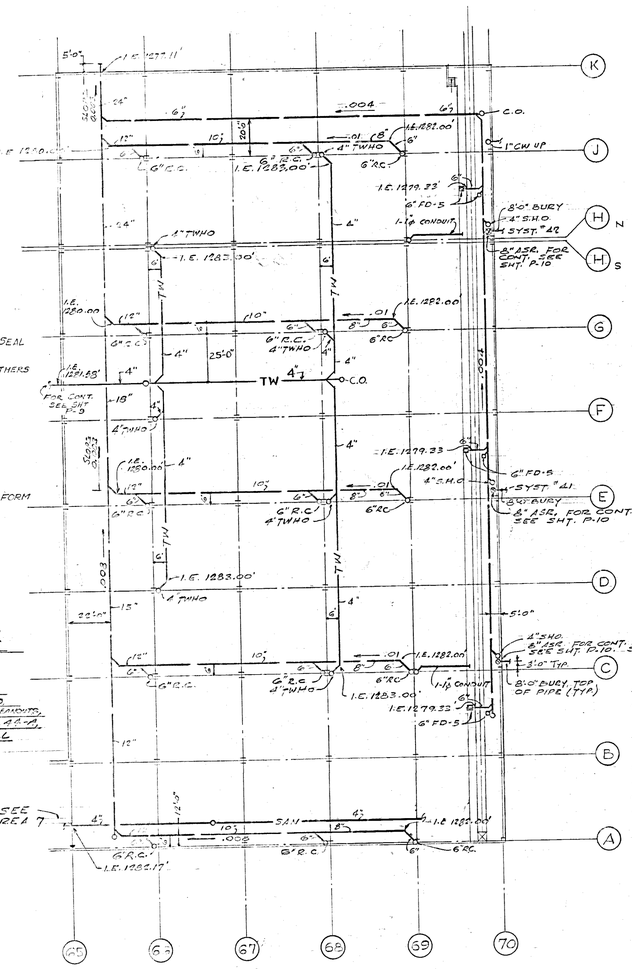


PLAN - TYPE - "A" CLEANOUT FOR ROOF CONDUCTORS
NO SCALE
NOTE:
ALL 6" ROOF CONDUCTORS ALONG COLUMN LINES 20, 24, 28, 32, 36, 40, 44, 48, 52, 56, 60, 64 AND 68 EXCEPT ALONG COL. ROW "A" SHALL USE TYPE "A" CLEANOUT.

NOTE:
WRAP TWHO. AND VANHOLE VENTS AT COL. POCKETS SIMILAR TO ABOVE.



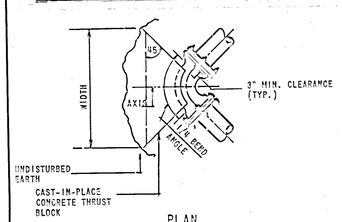
TYPE "B" CLEANOUT FOR ROOF CONDUCTORS AND SANITARY STACKS
NO SCALE
NOTE:
ALL 6" ROOF CONDUCTORS ALONG COLUMN LINES 4, 8, 12, 16, 20, 24, 28, 32, 36, 40, 44, 48, 52, 56, 60, 64, 68 SHALL USE TYPE "B" CLEANOUTS, AND COLS. 20-A, 24-A, 28-A, 32-A, 36-A, 40-A, 44-A, 48-A, 52-A, 56-A, 60-A, 64-A & 68-A - SHALL SHALL USE TYPE "B" CLEANOUT.

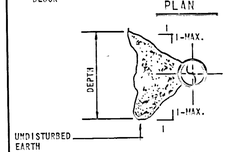


NOTES:
AT THE TIME OF INSTALLATION THIS CONTRACTOR SHALL OBTAIN FROM THE ARCHITECT - ENGINEER A COPY OF THE ELECTRICAL & MECHANICAL COLUMN COORDINATION SHEETS ME #1 THRU #8. ANY PIPING CHANGES, ETC. SHALL BE SHOWN ON THE "ME" SHEET & SUBMITTED TO THE ARCHITECT - ENGINEER FOR APPROVAL.

FOR CONT. OF ALL 8" ASR'S SEE SHT. ME-1

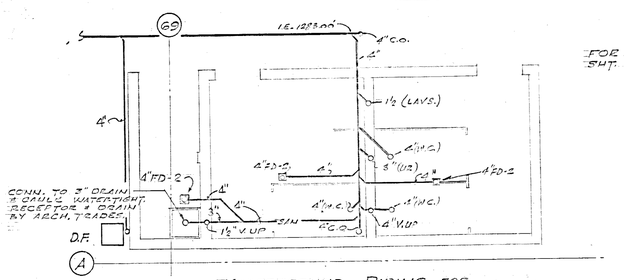
PARTIAL UNDERGROUND AREA
SCALE: 1/32" = 1'-0"



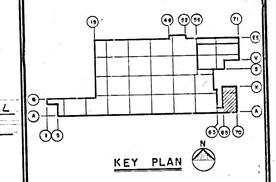


THRUST BLOCK DETAIL
NO SCALE:

AREA OF BEARING FACE OF CONCRETE THRUST BLOCKS			
PIPE SIZES IN-LBS	1/4 BEND SQ. FT.	1/8 BEND SQ. FT.	TEES, PLUGS, CAPS, & REDUCERS SQ. FT.
6	5	3	4
8	8	5	6
10	13	7	9
12	18	10	13
16	25	14	18



UNDERGROUND PIPING FOR STORAGE BLDG. TOILET ROOM NO. 11
SCALE 1/4" = 1'-0"
SEE SHT. MP-2 FOR OVERHEAD PIPING



DATE	ISSUED FOR	APPROVAL
3-23-77	PRIME MECH. BID	
3-23-77	PRIME ELECT. BID	
4-18-77	FIRE PROT. BID	
4-29-77	VEFLR. SLAB REV.	
5-23-77	PF&E FIN. BID LOCK	

NO.	DATE	BY	APPROVAL	APPROVAL
EFD 105	10-19-77	KW		
EFD 112	9-30-77	KW		
EFD 110	9-27-77	KW		
EFD 62	8-15-77	SG		
EFD 28	7-20-77	SG		
61	7-7-77	SG		
42	7-6-77	DCA		
27	5-16-77	JKK		
PC-25	5-16-77	DS		

REVISIONS

CONTRACT SIGNATURES
FOR THE OWNER
FOR THE CONTRACTOR

DRAWING CERTIFIED BY
REGISTERED
STATE
NUMBER
DATE

ARGONAUT
DIVISION OF GENERAL MOTORS
ARCHITECTURE & ENGINEER

PLANT ENGINEERING AND CONSTRUCTION
MANUFACTURING STAFF
GENERAL MOTORS CORPORATION
25 WEST MILWAUKEE AVENUE & DETROIT, MICHIGAN
A REALESTATE & CONSTRUCTION DIVISION

NEW MANUFACTURING PLANT
FOR
OKLAHOMA INDUSTRIES AUTHORITY
TENANCY BY
G M ASSEMBLY DIVISION
GENERAL MOTORS CORPORATION
OKLAHOMA CITY OKLAHOMA

PROJECT TITLE

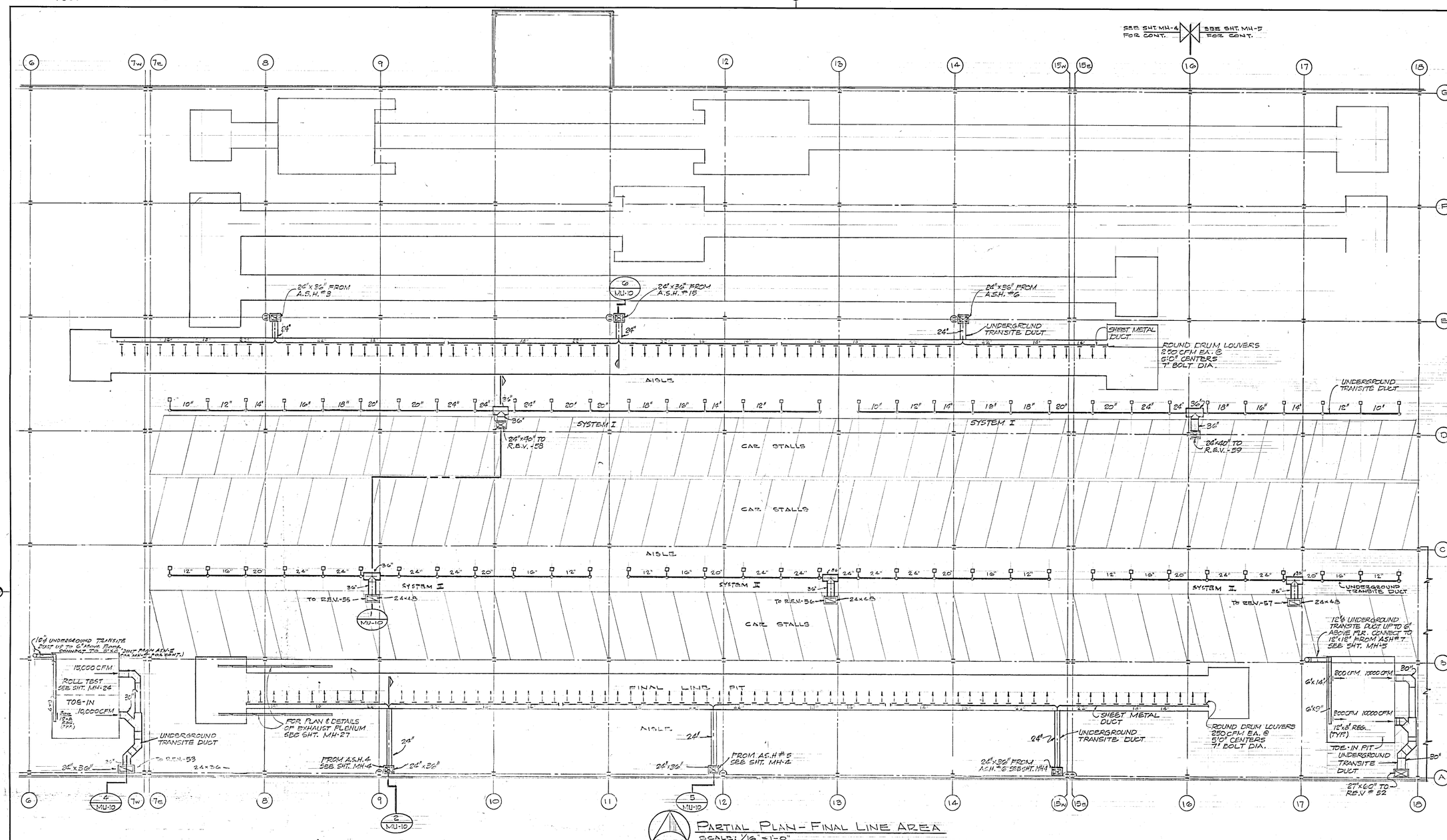
UNDERGROUND AREA 8 AND DETAILS

SHEET TITLE

OWNER'S IDENTIFICATION
P. E. & C. PROJECT NUMBER 4500
DATE 3-23-77
DRAWN BY D.S./JKK
JOB CAPT. P. ACUNA
SHEET NUMBER MU-8

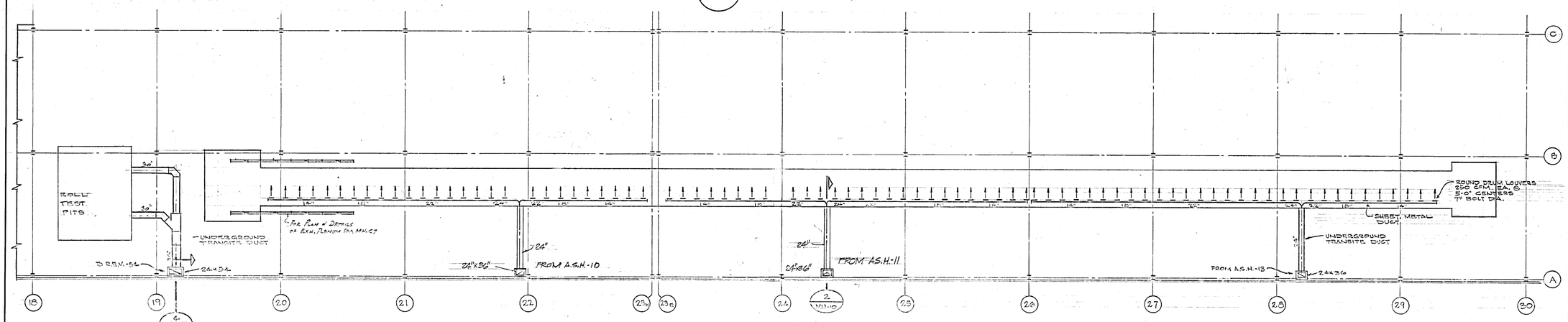
K&E 17 0153 9-73 50270

PROJECT NO. 4500 SHEET NO. MU-9



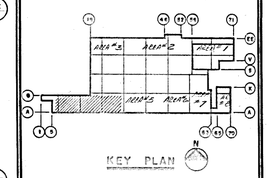
PARTIAL PLAN - FINAL LINE AREA

SCALE: 1/16" = 1'-0"



PARTIAL PLAN - FINAL LINE AREA (CONT.)

SCALE: 1/16" = 1'-0"



DATE	ISSUED FOR	APPROVAL	APPROVAL
3-23-77	PRIME MECH. BIDS	C. J. Marsh	C. J. Marsh
3-23-77	PRIME ELECT. REF		
4-28-77	1ST FLR. SLAB. REF.		
5-27-77	PT'S & FIN. BID REF		

NO.	DATE	BY	APPROVAL	APPROVAL
EFO 77	9-9-77	KW		
61	7-7-77	SG		
27	5-16-77	JKK	C. J. Marsh	

REVISIONS

CONTRACT SIGNATURES

FOR THE OWNER

FOR THE CONTRACTOR

DRAWING CERTIFIED BY

REGISTERED

STATE

NUMBER

DATE

ARGONAUT DIVISION OF GENERAL MOTORS

ARCHITECTURE ▲ ENGINEERING ▲ REAL ESTATE ▲ CONSTRUCTION MANAGEMENT

PLANT ENGINEERING AND CONSTRUCTION

MANUFACTURING STAFF

GENERAL MOTORS CORPORATION

415 WEST MILWAUKEE AVENUE & DETROIT, MICHIGAN

NEW MANUFACTURING PLANT FOR OKLAHOMA INDUSTRIES AUTHORITY TENANCY BY

G M ASSEMBLY DIVISION

GENERAL MOTORS CORPORATION

OKLAHOMA CITY OKLAHOMA

PROJECT TITLE

UNDERGROUND VENTILATION PLANS

SHEET TITLE

OWNER'S IDENTIFICATION

4500

P. E. & C. PROJECT NUMBER

DATE 3-23-77

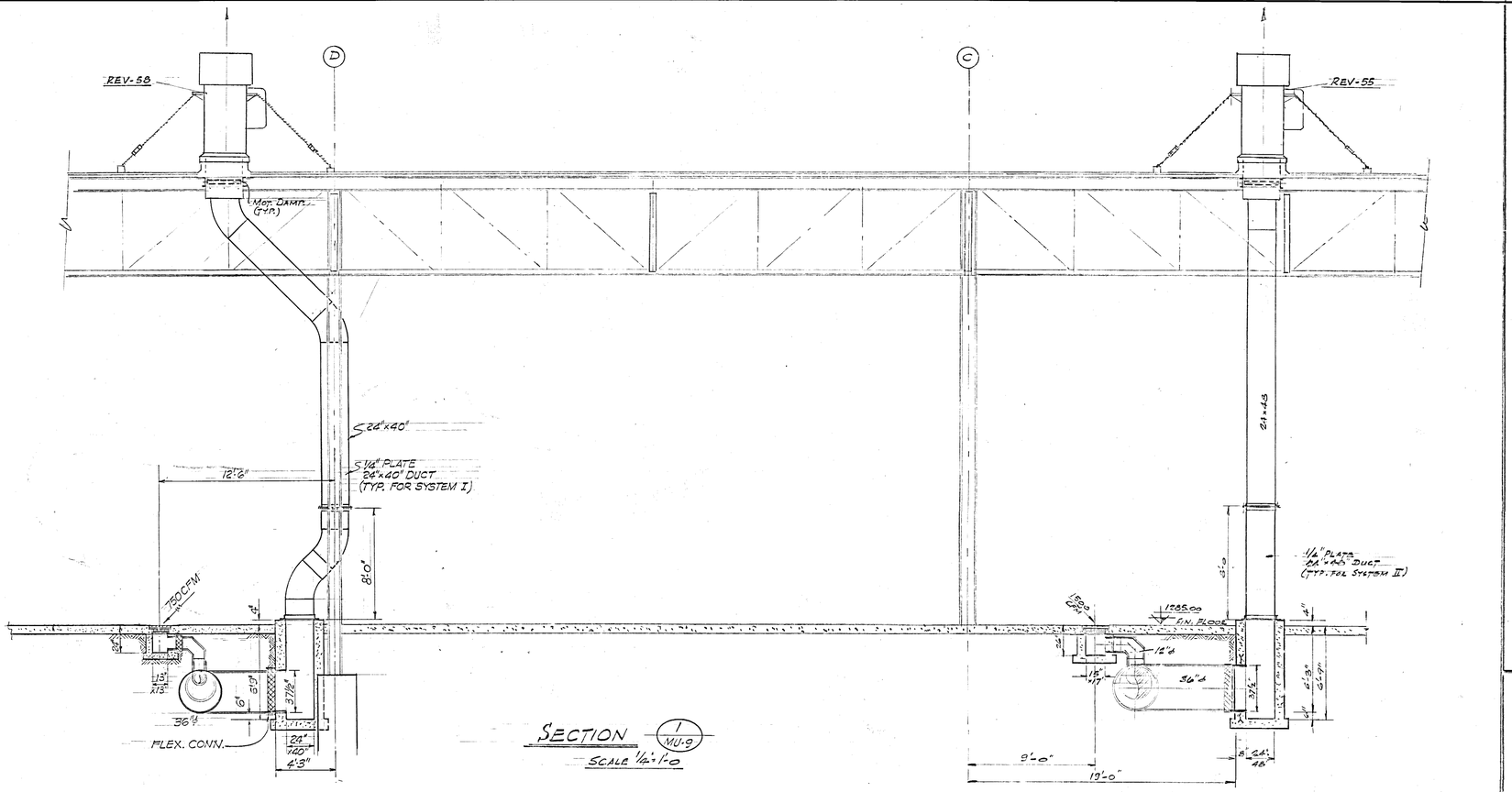
DRAWN BY C/Z.

JOB CAPT. R. BRUZA.

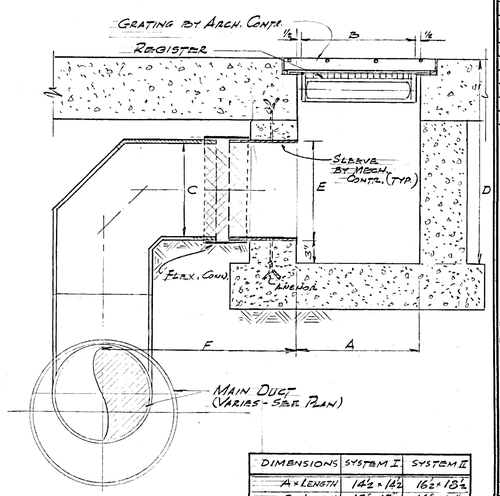
MU-9

SHEET NUMBER

ARGO 118 REV. 12-69 KNE 17 0133 2-74 1700+

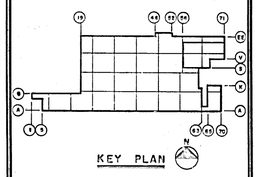


SECTION 1 MU-9
SCALE 1/2" = 1'-0

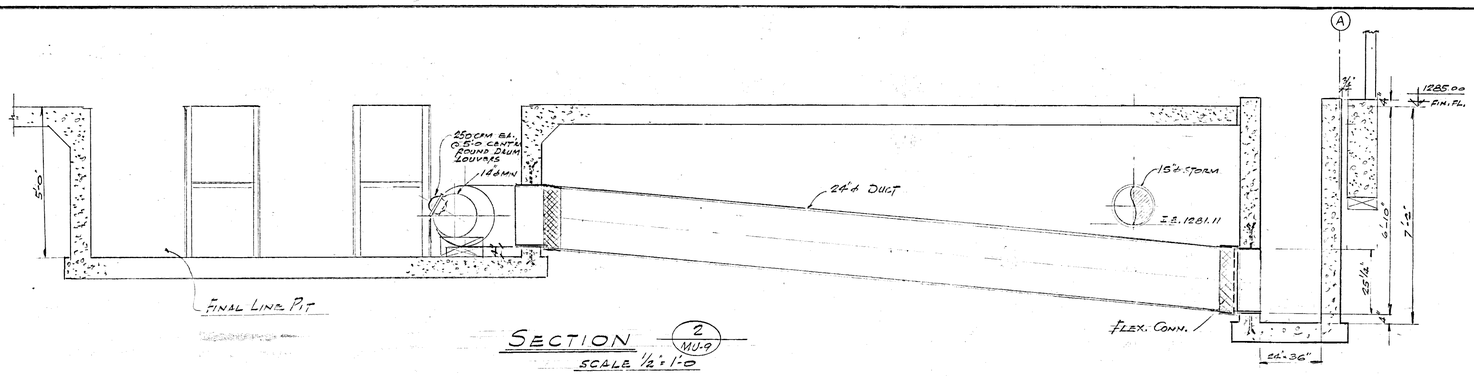


DIMENSIONS	SYSTEM I	SYSTEM II
A x LENGTH	14½ x 14½	16½ x 18½
B x LENGTH	12" x 12"	14" x 16"
C (DUCT)	10"	12"
D	22"	26"
E	11"	13"
F	25"	28"

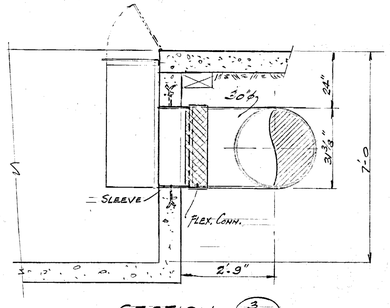
UNDERFLOOR EXHAUST SYSTEMS DETAIL
SCALE 1½" = 1'-0



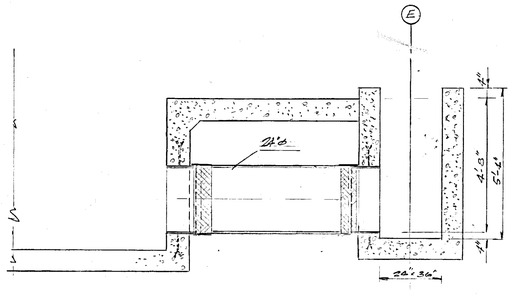
DATE	ISSUED FOR	APPROVAL	APPROVAL
3-23-77	PRIME MECH. BIDS		
3-23-77	PRIME ELECT. BID.		
6-28-77	1ST FLR. SLAB REV.		
5-27-77	P.T.C. & FIN. BIDS		



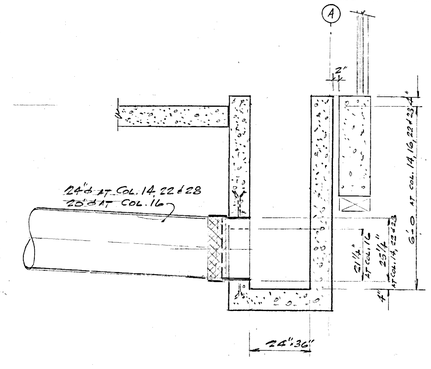
SECTION 2 MU-9
SCALE 1/2" = 1'-0



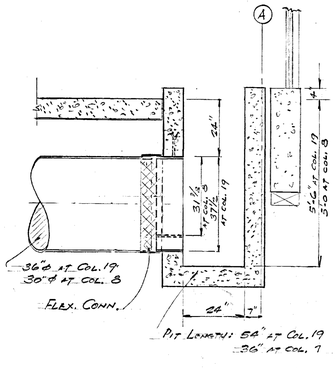
SECTION 3 MU-9
ROLL TEST PIT VENTILATION DETAIL
SCALE 1/2" = 1'-0



SECTION 6 MU-9
SCALE 1/2" = 1'-0



SECTION 5 MU-9
SCALE 1/2" = 1'-0



SECTION 4 MU-9
SCALE 1/2" = 1'-0

NO.	DATE	BY	APPROVAL	APPROVAL
EPOT1	9-9-77	K.W.		
-61	7-7-77	SO		
27	5-16-77	J.K.K.		

REVISIONS

CONTRACT SIGNATURES
FOR THE OWNER
FOR THE CONTRACTOR

DRAWING CERTIFIED BY
REGISTERED
STATE
NUMBER
DATE

ARGONAUT DIVISION OF GENERAL MOTORS
ARCHITECTURE & ENGINEERING & REAL ESTATE & CONSTRUCTION MANAGEMENT

PLANT ENGINEERING AND CONSTRUCTION
MANUFACTURING STAFF
GENERAL MOTORS CORPORATION
485 WEST MILWAUKEE AVENUE & DETROIT, MICHIGAN

NEW MANUFACTURING PLANT
FOR
OKLAHOMA INDUSTRIES AUTHORITY
TENANCY BY
GM ASSEMBLY DIVISION
GENERAL MOTORS CORPORATION
OKLAHOMA CITY OKLAHOMA

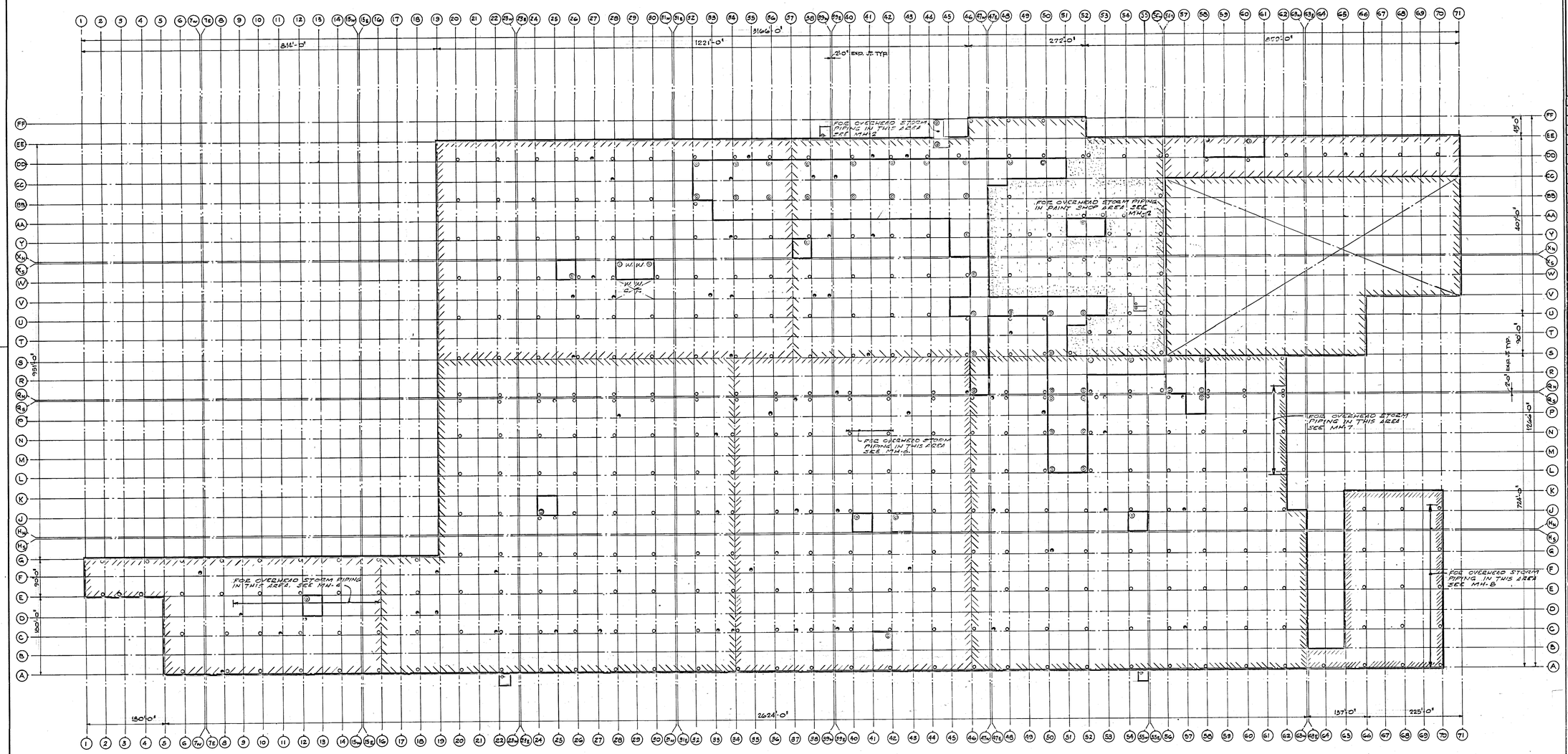
PROJECT TITLE

UNDERGROUND VENTILATION SECTIONS, AND DETAILS

SHEET TITLE

OWNER'S IDENTIFICATION
P. E. & C. PROJECT NUMBER: 4500
DATE 3-23-77
DRAWN BY JULIUS PERLMUTTER
JOB CAPT. R. BRUZA
SHEET NUMBER: MU-10

PROJECT NO. SHEET NO.



LEGEND

- 6"ϕ R.S. ON 1ST FLR. ROOF & 6" R.C. DN. COL.
- " " " " 2ND " " " " " "
- 6"ϕ R.S. ON 1ST & 2ND FLR. ROOF TO COMMON 6" R.C. DN. COL.
- 6"ϕ R.S. ON 1ST FLR. ROOF AT EXPANSION JOINTS, TO COMMON 6" R.C. DN. COL.
- 4"ϕ VENT THRU ROOF FROM MANHOLES, ETC., FOR LOCATION OF VENTS REQUIRED BY OTHER MECH. TRADES. SEE INDIVIDUAL AREA PLANS & DETAILS
- 3"ϕ RS ON 1ST FLR ROOF & 3"ϕ RG ON THRU WALL. TERMINATE 4" ABOVE CONCRETE SPASH BLOCK

DATE	ISSUED FOR	APPROVAL	APPROVAL
3-23-77	PRIME MECH BID	G.C. Davis	
5-23-77	PRIME ELECT. REF		
5-20-77	SUPPORTING SLAB PLAN		
5-27-77	PTG & FIN BID REF		

KEY PLAN

NO.	DATE	BY	APPROVAL	APPROVAL
EO 351	8-14-78	A.A.		
EO 352	5-19-78	A.A.		
160	5-15-78	VTN		
EO 224	3-2-78	BO		
EO 213	1-10-78	BO		
89	8-11-77	S.G.		
61	7-7-77	S.G.		
#42	7-6-77	O.E.		
27	5-16-77	J.K.K.	G.C. Davis	

REVISIONS

CONTRACT SIGNATURES — FOR THE OWNER — FOR THE CONTRACTOR

DRAWING CERTIFIED BY — REGISTERED — STATE — NUMBER — DATE

PLANT ENGINEERING AND CONSTRUCTION
MANUFACTURING STAFF
GENERAL MOTORS CORPORATION
485 WEST MILWAUKEE AVENUE & DETROIT, MICHIGAN

NEW MANUFACTURING PLANT
FOR
OKLAHOMA INDUSTRIES AUTHORITY
TENANCY BY
GM ASSEMBLY DIVISION
GENERAL MOTORS CORPORATION
OKLAHOMA CITY OKLAHOMA

PROJECT TITLE

OVERHEAD PLAN
ROOF SUMPS

SHEET TITLE

OWNER'S IDENTIFICATION — 4500 P.E. & C. PROJECT NUMBER

DATE 3-23-77

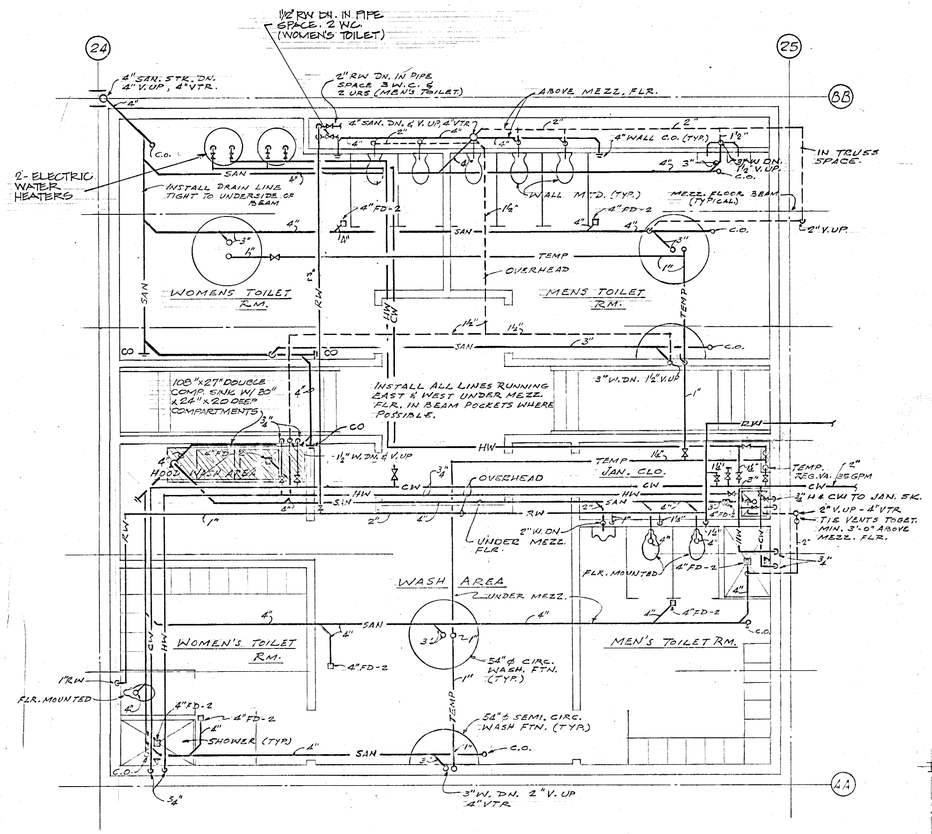
DRAWN BY J.K.K.

JOB CAPT. E. ORUEA

MP1

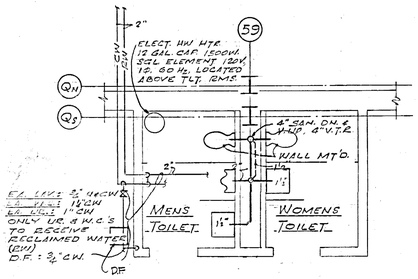
SHEET NUMBER

K&E 17 0193 9-75 5557P



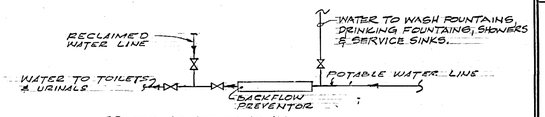
PIPING LAYOUT FOR TOILET ROOM No. 8

SCALE ¼" = 1'-0"



DETAIL OF RECEIVING DOCK TOILET ROOM No 12

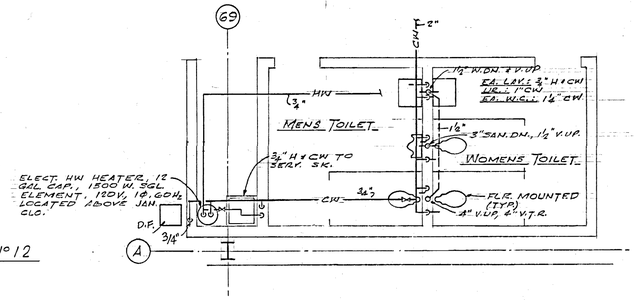
SCALE ½" = 1'-0"



PROVIDE AS SHOWN AT ALL TOILET RMS. USING RECLAIMED WATER. NO. 1 THRU NO. 12.

DETAIL OF BACKFLOW PREVENTER

NO SCALE



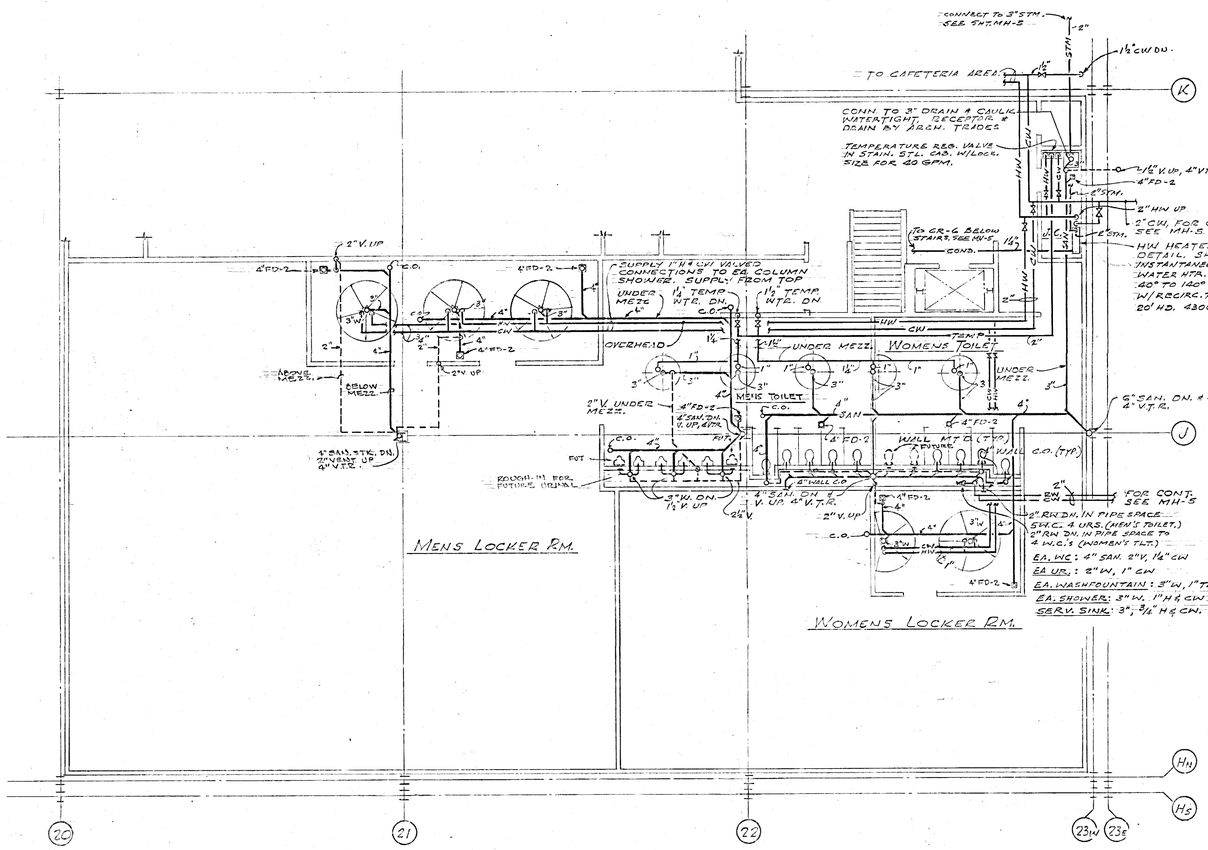
DETAIL OF STORAGE BLDG. TOILET ROOM No 11

SCALE ½" = 1'-0"

PIPING LAYOUT FOR TOILET ROOM No. 4 SHOWN

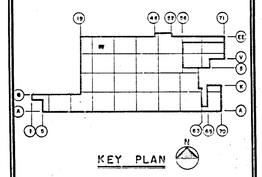
TYPICAL FOR TOILET ROOMS No. 5, 6, 7, 9 & 10

SCALE ½" = 1'-0"



PIPING LAYOUT FOR TOILETS & SHOWERS FOR MEZZANINE No. 1

SCALE - ⅛" = 1'-0"



KEY PLAN

DATE	ISSUED FOR	APPROVAL	APPROVAL
3-23-77	PRIME MECH BID	C. C. Wade	[illegible]
3-23-77	PRIME ELECT. REF		
5-20-77	SUPPORTING SERV. REF.		
5-26-77	ARCH. BID REF.		
5-27-77	PT'G & FIN. BID REF		

NO.	DATE	BY	APPROVAL	APPROVAL
EFO 257	10-14-78	KW	[illegible]	
160	5-15-78	VTN	[illegible]	
EFO 272	3-14-78	BO	[illegible]	
EFO 227	1-20-78	BO	[illegible]	
EFO 213	1-10-78	BO	[illegible]	
102	9-30-77	KW	[illegible]	
61	7-7-77	SG	[illegible]	
42	7-6-77	O.E.	[illegible]	
27	5-16-77	JKK	[illegible]	

REVISIONS

CONTRACT SIGNATURES

FOR THE OWNER

FOR THE CONTRACTOR

DRAWING CERTIFIED BY

REGISTERED

STATE

NUMBER

DATE

ARCHITECTURE & ENGINEERING — REAL ESTATE & CONSTRUCTION MANAGEMENT

PLANT ENGINEERING AND CONSTRUCTION

MANUFACTURING STAFF

GENERAL MOTORS CORPORATION

DIVISION OF GENERAL MOTORS — 485 WEST MILWAUKEE AVENUE & DETROIT, MICHIGAN

NEW MANUFACTURING PLANT FOR OKLAHOMA INDUSTRIES AUTHORITY TENANCY BY

G M ASSEMBLY DIVISION

GENERAL MOTORS CORPORATION

OKLAHOMA CITY OKLAHOMA

PROJECT TITLE

MEZZANINE TOILETS

SHEET TITLE

OWNER'S IDENTIFICATION

4500 P. E. & C. PROJECT NUMBER

DATE 3-23-77

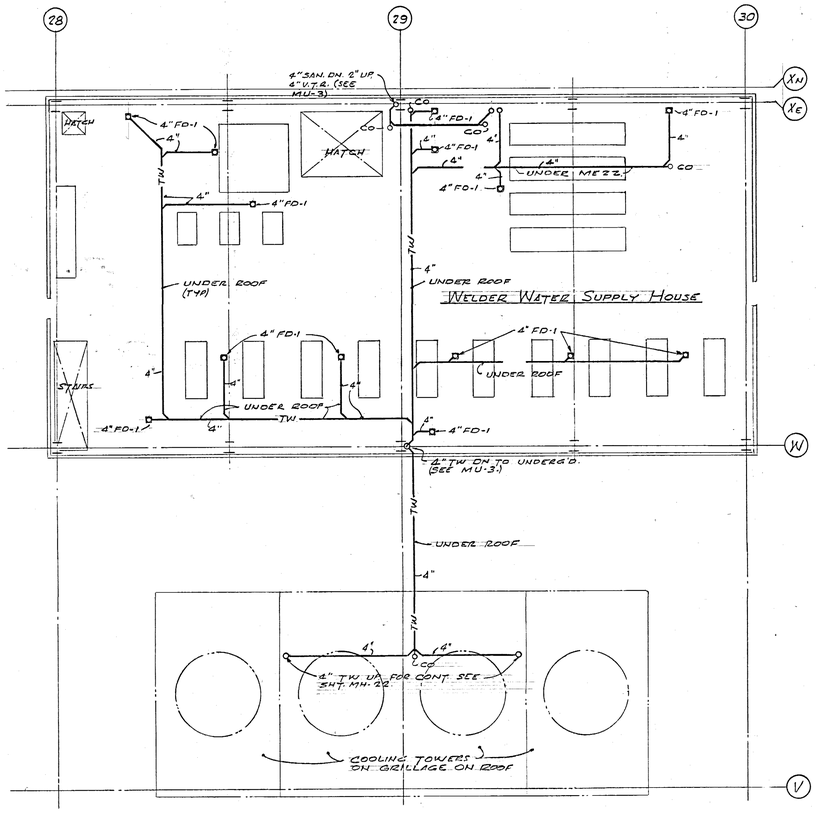
DRAWN BY JKK

JOB CAPT. E. BEVEA

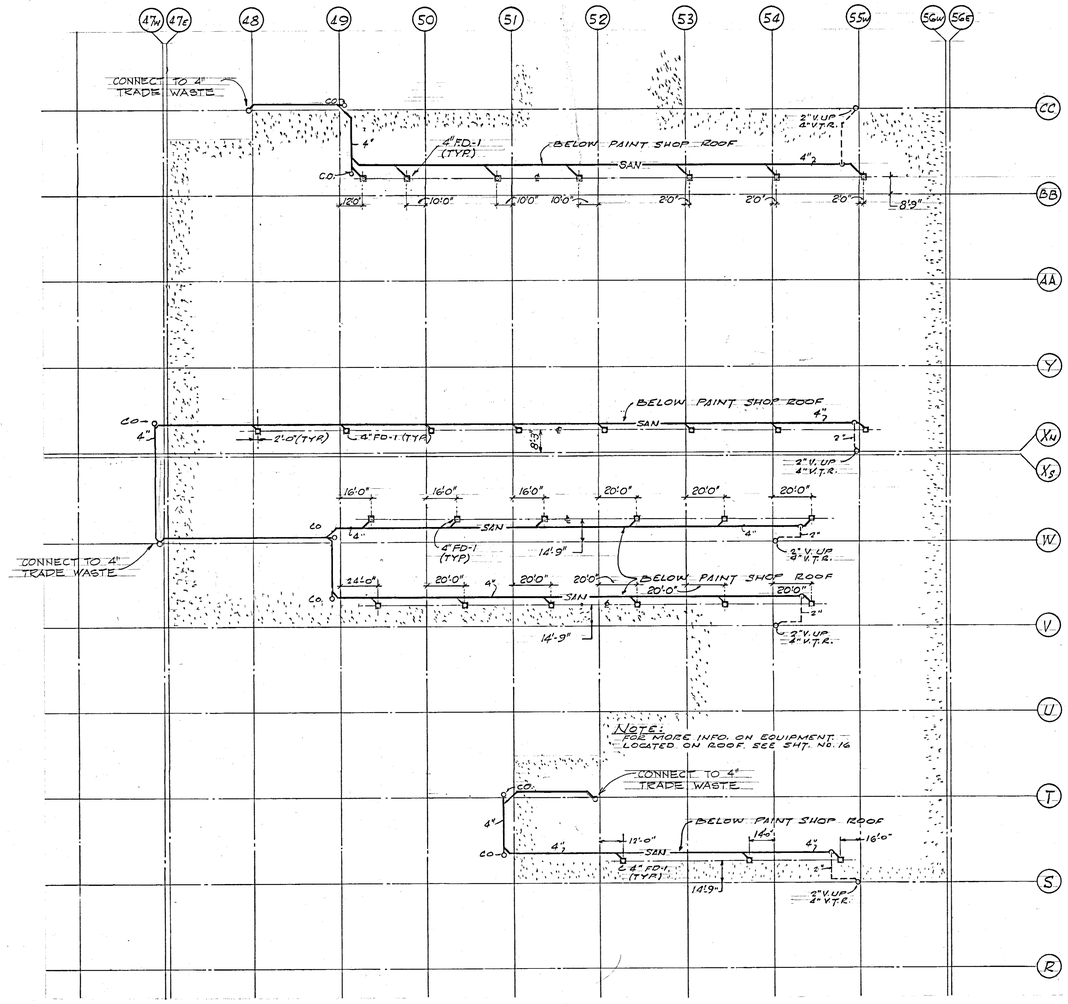
MP-2

SHEET NUMBER

PROJECT NO. 4500 SHEET NO. MP-3

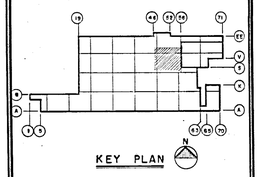


DETAIL OF WELDER WATER SUPPLY HOUSE DRAINAGE PIPING.
SCALE 1/8"=1'-0"



PAINT SHOP ROOF AREA
SCALE 1/32"=1'-0"

DATE	ISSUED FOR	APPROVAL	APPROVAL
3-23-77	PRIME MECH DIDS		
3-23-77	PRIME ELECT/REF.		
5-20-77	SUP FOR BID & LEAD REF.		
5-27-77	PTG FROM BID BOX		



NO.	DATE	BY	APPROVAL	APPROVAL
EO 341	6-8-78	AA		
160	5-15-78	VTN		
113	10-24-77	KWL		
61	7-7-77	SG		
27	5-16-77	JKK		

REVISIONS

CONTRACT SIGNATURES
FOR THE OWNER
FOR THE CONTRACTOR

DRAWING CERTIFIED BY
REGISTERED
STATE
NUMBER
DATE

ARGONAUT DIVISION OF CENTRAL MOTORS
ARCHITECTURE & ENGINEERING
REAL ESTATE & CONSTRUCTION MANAGEMENT

PLANT ENGINEERING AND CONSTRUCTION
MANUFACTURING STAFF
GENERAL MOTORS CORPORATION
485 WEST MILWAUKEE AVENUE & DETROIT, MICHIGAN

NEW MANUFACTURING PLANT
FOR
OKLAHOMA INDUSTRIES AUTHORITY
TENANCY BY
GM ASSEMBLY DIVISION
GENERAL MOTORS CORPORATION
OKLAHOMA CITY OKLAHOMA

PROJECT TITLE

PAINT SHOP AND DETAILS

SHEET TITLE

OWNER'S IDENTIFICATION: 4500 P. E. & C. PROJECT NUMBER

DATE 3-23-77

DRAWN BY JKK

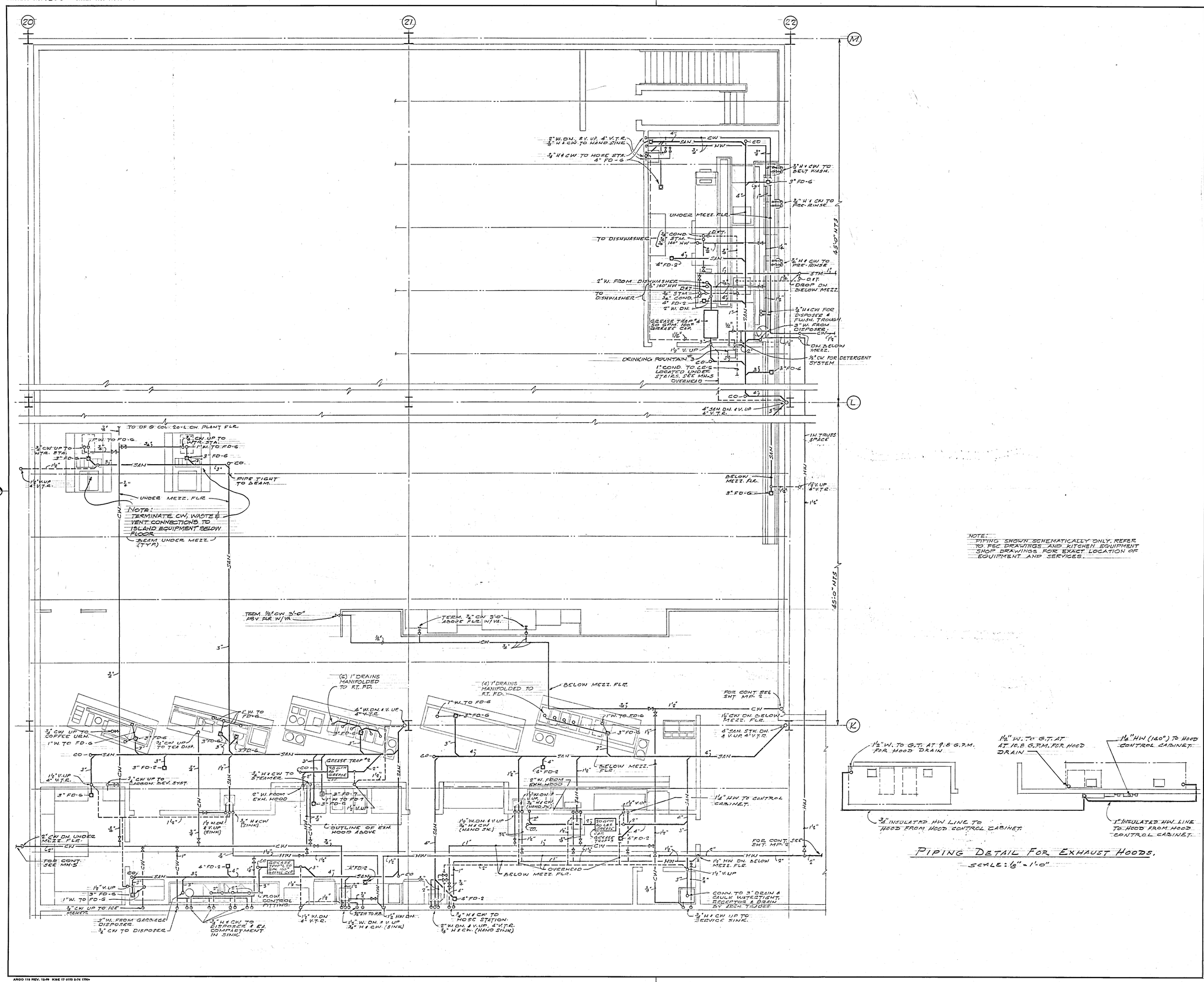
JOB CAPT. E. DEUER

MP-3

SHEET NUMBER

ARGO 116 REV. 12-69 KBE 17 0133 2-74 1750+

PROJECT NO. 4500 SHEET NO. MH-14



NOTE:
PIPING SHOWN SCHEMATICALLY ONLY. REFER TO TSC DRAWINGS AND KITCHEN EQUIPMENT SHOP DRAWINGS FOR EXACT LOCATION OF EQUIPMENT AND SERVICES.

DATE	ISSUED FOR	APPROVAL	APPROVAL
5-16-77	BULL. 27	C.J. Brooks	R.J. Heard
5-20-77	SUPPORTED BLDG. REF.		
5-26-77	LOCAL BID REF.		
5-27-77	PTS & FIN BID REF.		

KEY PLAN

NO.	DATE	BY	APPROVAL	APPROVAL
160	5-15-78	VTN		
145	2-3-78	BO		
122	11-15-77	RP		
61	7-7-77	SG		
42	7-6-77	OE		

REVISIONS

CONTRACT SIGNATURES — FOR THE OWNER — FOR THE CONTRACTOR

DRAWING CERTIFIED BY — REGISTERED — STATE — NUMBER — DATE

ARGONAUT — PLANT ENGINEERING AND CONSTRUCTION — MANUFACTURING STAFF — GENERAL MOTORS CORPORATION — CHEVROLET • CENTRAL • FISHER BODY — 485 WEST MILWAUKEE AVENUE & DETROIT, MICHIGAN — ARCHITECTURE & ENGINEERING & REAL ESTATE & CONSTRUCTION MANAGEMENT

NEW MANUFACTURING PLANT
FOR
OKLAHOMA INDUSTRIES AUTHORITY
TENANCY BY
G M ASSEMBLY DIVISION
GENERAL MOTORS CORPORATION
OKLAHOMA CITY OKLAHOMA

PROJECT TITLE

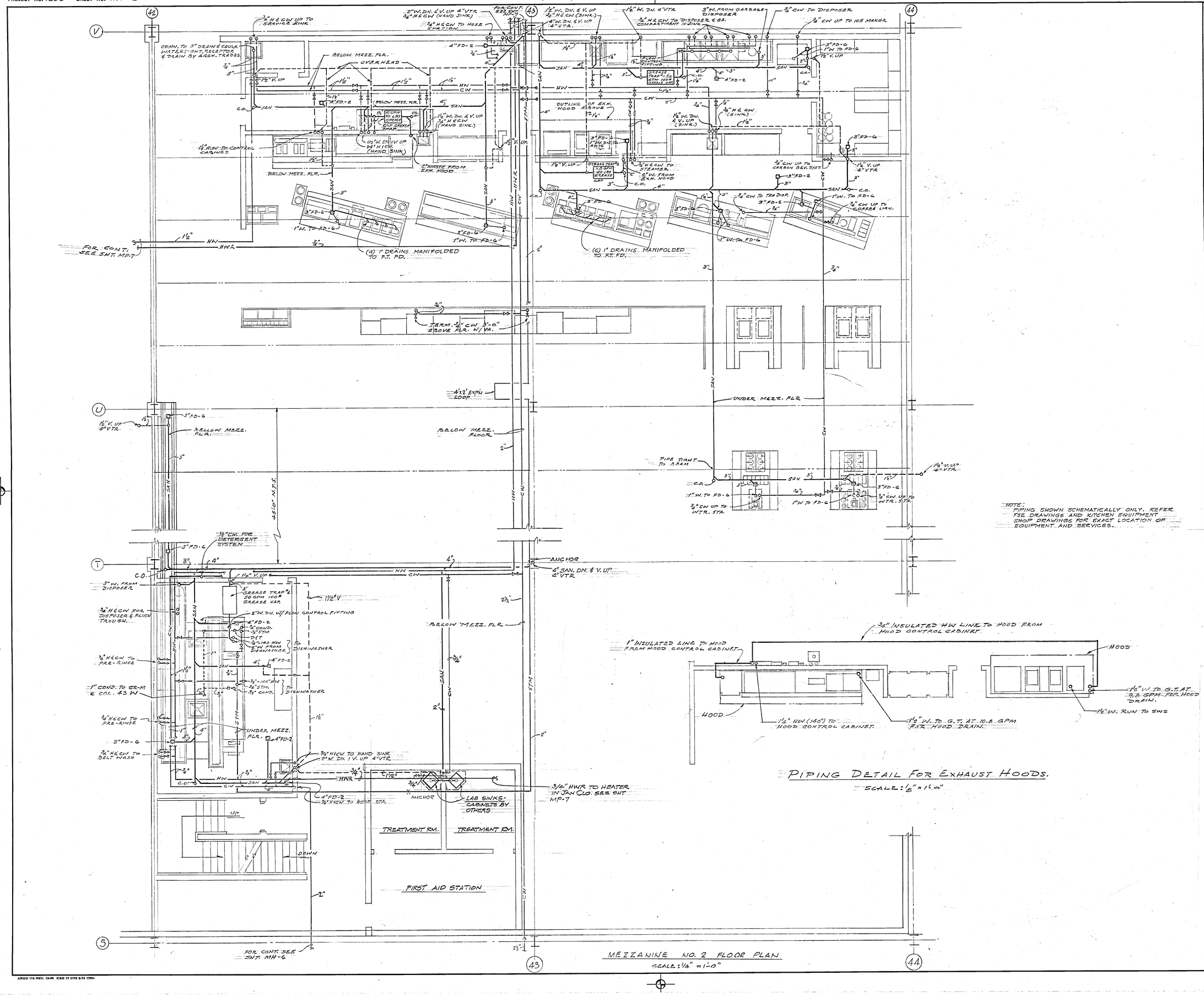
MEZZANINE NO. I
CAFETERIA & KITCHEN

SHEET TITLE

OWNER'S IDENTIFICATION	4500 P. E. & C. PROJECT NUMBER
DATE 5-16-77	MP-4
DRAWN BY JKK	
JOB CAPT. R. BRUZA	SHEET NUMBER

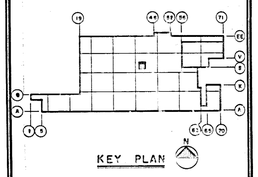
ARGO 118 REV. 12-69 KOE 17 0133 2-74 1750+

PROJECT NO. 4500 SHEET NO. MP-5



NOTE:
PIPING SHOWN SCHEMATICALLY ONLY. REFER FSE DRAWINGS AND KITCHEN EQUIPMENT SHOP DRAWINGS FOR EXACT LOCATION OF EQUIPMENT AND SERVICES.

PIPING DETAIL FOR EXHAUST HOODS.
SCALE: 1/8" = 1'-0"



DATE	ISSUED FOR	APPROVAL	APPROVAL
5-16-77	BULL. 27	C.C.N.	
5-20-77	SUPPORTS TO SLAB, REF.		
5-26-77	ARCH. BID SET		
5-27-77	PT GEAR. BID SET		

NO.	DATE	BY	APPROVAL	APPROVAL
160	5-15-78	VTN		
50024	3-2-78	BO		
50178	12-15-77	A.A.C.		
122	11-15-77	R.P.		
102	9-30-77	K.W.		
61	7-7-77	S.G.		
562	7-6-77	O.S.		

REVISIONS

CONTRACT SIGNATURES

FOR THE OWNER

FOR THE CONTRACTOR

DRAWING CERTIFIED BY

REGISTERED

STATE

NUMBER

DATE

PLANT ENGINEERING AND CONSTRUCTION MANUFACTURING STAFF

GENERAL MOTORS CORPORATION
485 WEST MILWAUKEE AVENUE • DETROIT, MICHIGAN

A PEAL ESTATE & CONSTRUCTION MANAGEMENT

NEW MANUFACTURING PLANT
FOR
OKLAHOMA INDUSTRIES AUTHORITY
TENANCY BY
G M ASSEMBLY DIVISION
GENERAL MOTORS CORPORATION
OKLAHOMA CITY OKLAHOMA

PROJECT TITLE

MEZZANINE NO. 2
KITCHEN & CAFETERIA

SHEET TITLE

OWNER'S IDENTIFICATION

4500
P. E. & C. PROJECT NUMBER

DATE 5-16-77

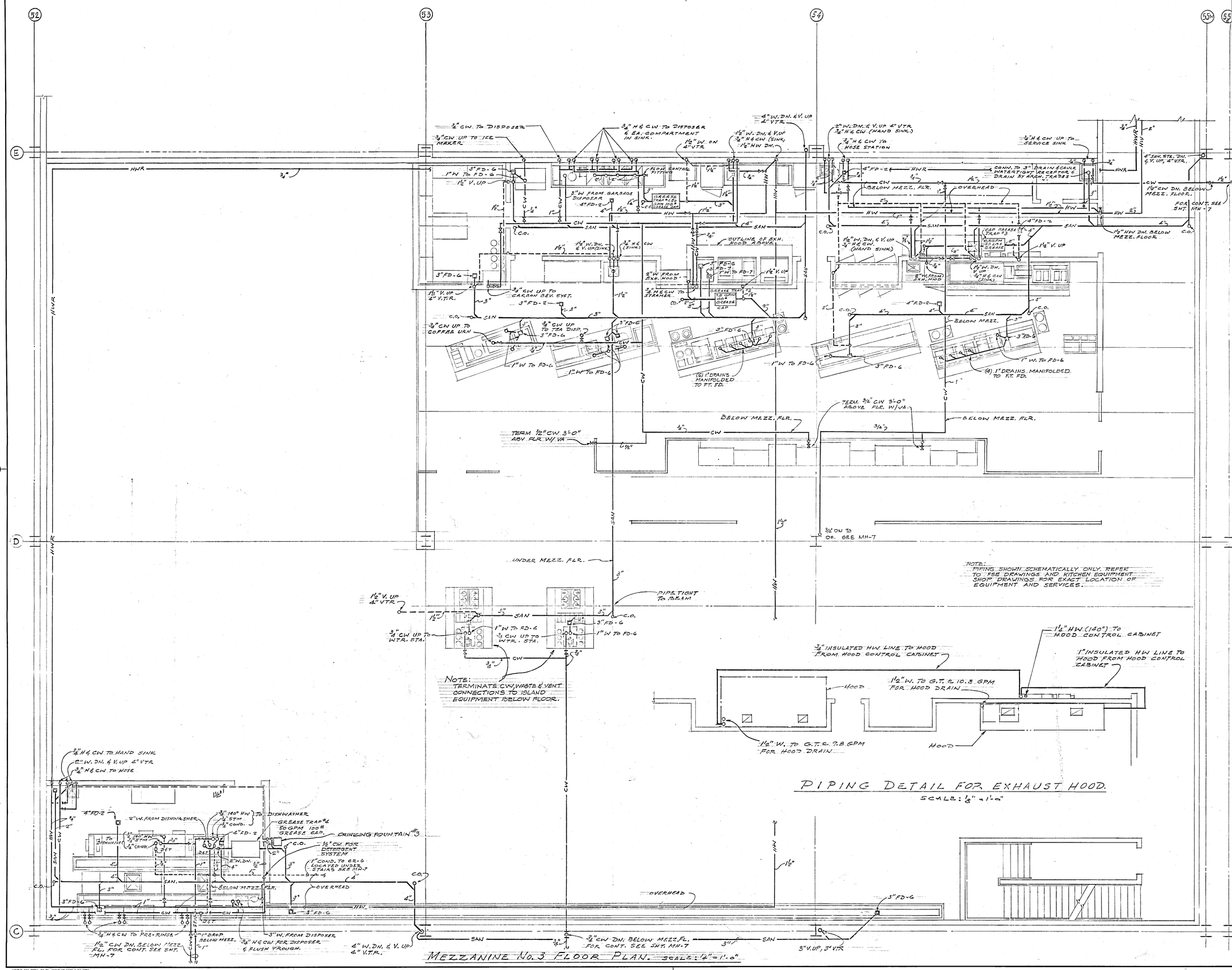
DRAWN BY J.K. O.E.

JOB CAPT. P. DEVEA

MP-5
SHEET NUMBER

ARGO 118 REV. 12-69 K&E 17 0133 3-74 1790+

PROJECT NO. SHEET NO.



DATE	ISSUED FOR	APPROVAL	APPROVAL
5-16-77	BULL. 27	G.C. Nash	Richard Brunk
5-20-77	SUPPORTED SLAB REF.		
5-26-77	ARCH. BID REF.		
5-27-77	PTG & FIN. BOXES		

NO.	DATE	BY	APPROVAL	APPROVAL
160	5-15-78	VTN		
145	2-3-78	BO		
RD 218	1-13-78	BO		
122	11-15-77	R.C.		
101	7-7-77	SG		
#42	7-6-77	O.E.		

REVISIONS

CONTRACT SIGNATURES

FOR THE OWNER

FOR THE CONTRACTOR

DRAWING CERTIFIED BY

REGISTERED

STATE

NUMBER

DATE

PLANT ENGINEERING AND CONSTRUCTION
MANUFACTURING STAFF
GENERAL MOTORS CORPORATION
DIVISION OF GENERAL MOTORS
485 WEST MILWAUKEE AVENUE & DETROIT, MICHIGAN
ARCHITECTURE & ENGINEERING & REAL ESTATE & CONSTRUCTION MANAGEMENT

NEW MANUFACTURING PLANT
FOR
OKLAHOMA INDUSTRIES AUTHORITY
TENANCY BY
GM ASSEMBLY DIVISION
GENERAL MOTORS CORPORATION
OKLAHOMA CITY OKLAHOMA

PROJECT TITLE

MEZZANINE NO. 3
KITCHEN AND CAFETERIA

SHEET TITLE

OWNER'S IDENTIFICATION

4500
P. E. & C. PROJECT NUMBER

DATE 5-16-77

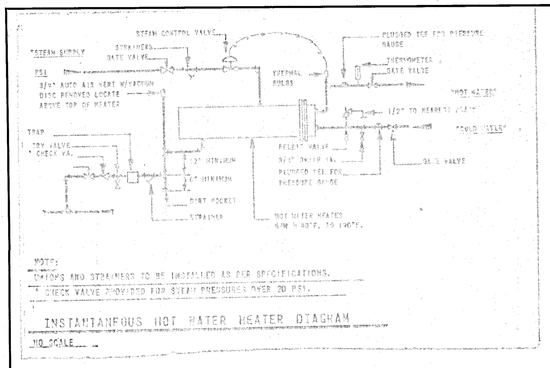
DRAWN BY J.K.L. O.E.

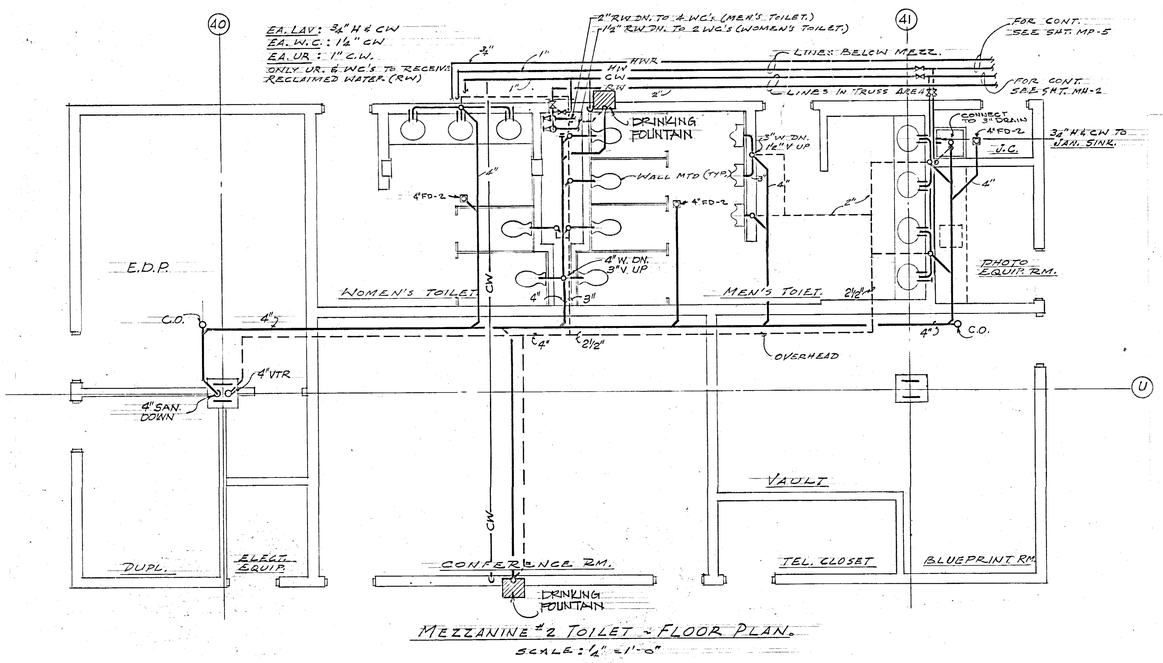
JOB CAPT. R. BRUZA

MP-6
SHEET NUMBER

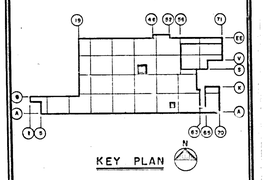
ARGO 118 REV. 12-69 K&E 17 0133 2-74 1750

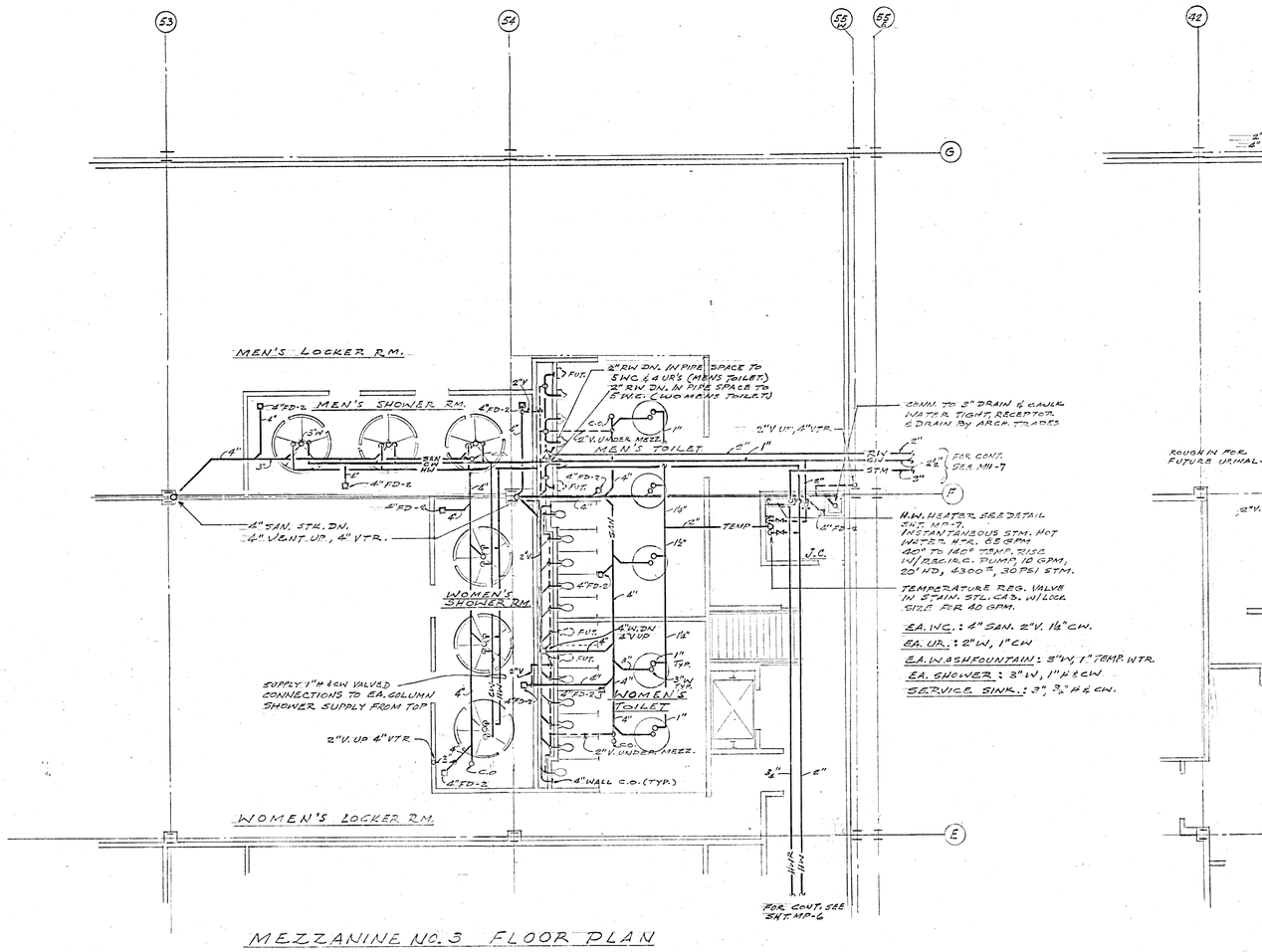
PROJECT NO. 4500 SHEET NO. MP-7



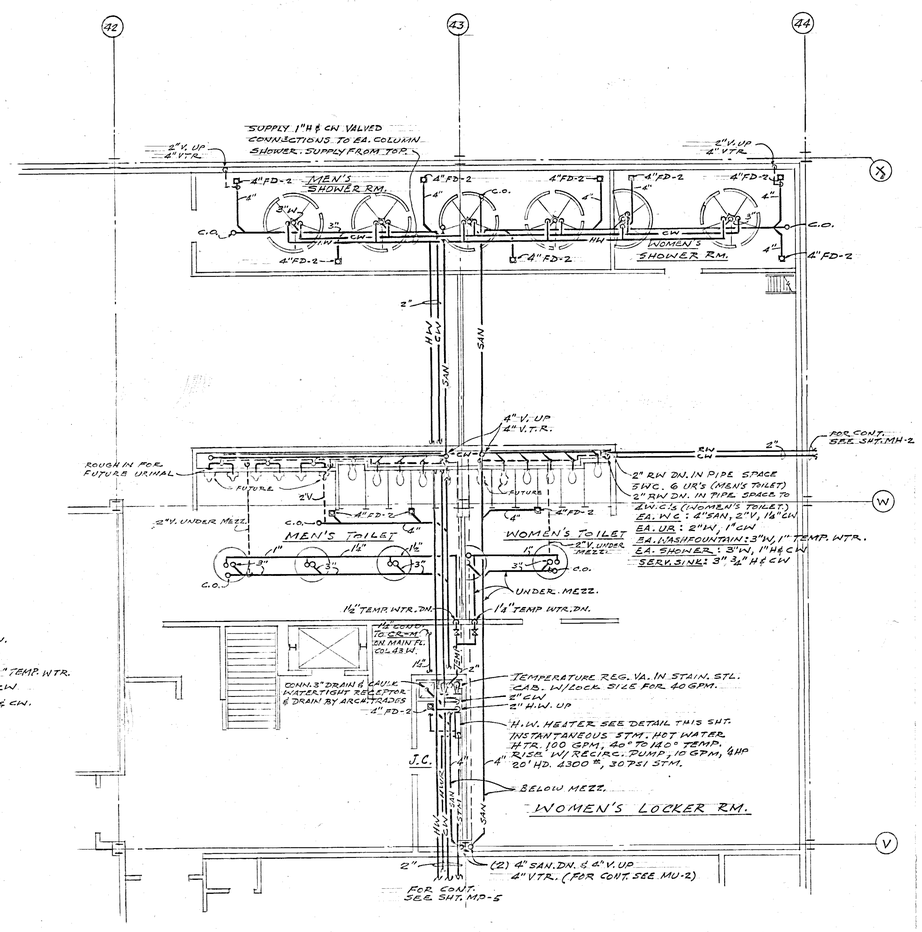


MEZZANINE #2 TOILET - FLOOR PLAN.
SCALE: 1/8" = 1'-0"





MEZZANINE NO. 3 FLOOR PLAN
SCALE: 1/8" = 1'-0"



MEZZANINE NO. 2 FLOOR PLAN.
SCALE: 1/8" = 1'-0"

DATE	ISSUED FOR	APPROVAL	APPROVAL
5-16-77	BULL. 27	G.C. Nash	R. J. Mead
5-20-77	SUPPLEMENTAL BULL. 27		
5-26-77	ARCH. BID REF.		
5-27-77	FIGRN. BID REF.		

NO.	DATE	BY	APPROVAL	APPROVAL
EFO 363	7-18-78	KW		
EFO 323	5-15-78	A.A.		
160	5-15-78	VTN		
102	9-30-77	KW		
61	7-7-77	SG		
42	7-6-77	OE		

REVISIONS

CONTRACT SIGNATURES — FOR THE OWNER — FOR THE CONTRACTOR

DRAWING CERTIFIED BY — REGISTERED — STATE — NUMBER — DATE

ARGONAUT — PLANT ENGINEERING AND CONSTRUCTION — MANUFACTURING STAFF — GENERAL MOTORS CORPORATION — 485 WEST MILWAUKIE AVENUE & DETROIT, MICHIGAN — ARCHITECTURE & ENGINEERING & REAL ESTATE & CONSTRUCTION MANAGEMENT

NEW MANUFACTURING PLANT FOR OKLAHOMA INDUSTRIES AUTHORITY TENANCY BY GM ASSEMBLY DIVISION
GENERAL MOTORS CORPORATION
OKLAHOMA CITY OKLAHOMA

PROJECT TITLE

MEZZANINE NO. 2 & 3 TOILETS AND SHOWERS

SHEET TITLE

OWNER'S IDENTIFICATION

4500 — ARGONAUT PROJECT NUMBER

DATE 5-16-77

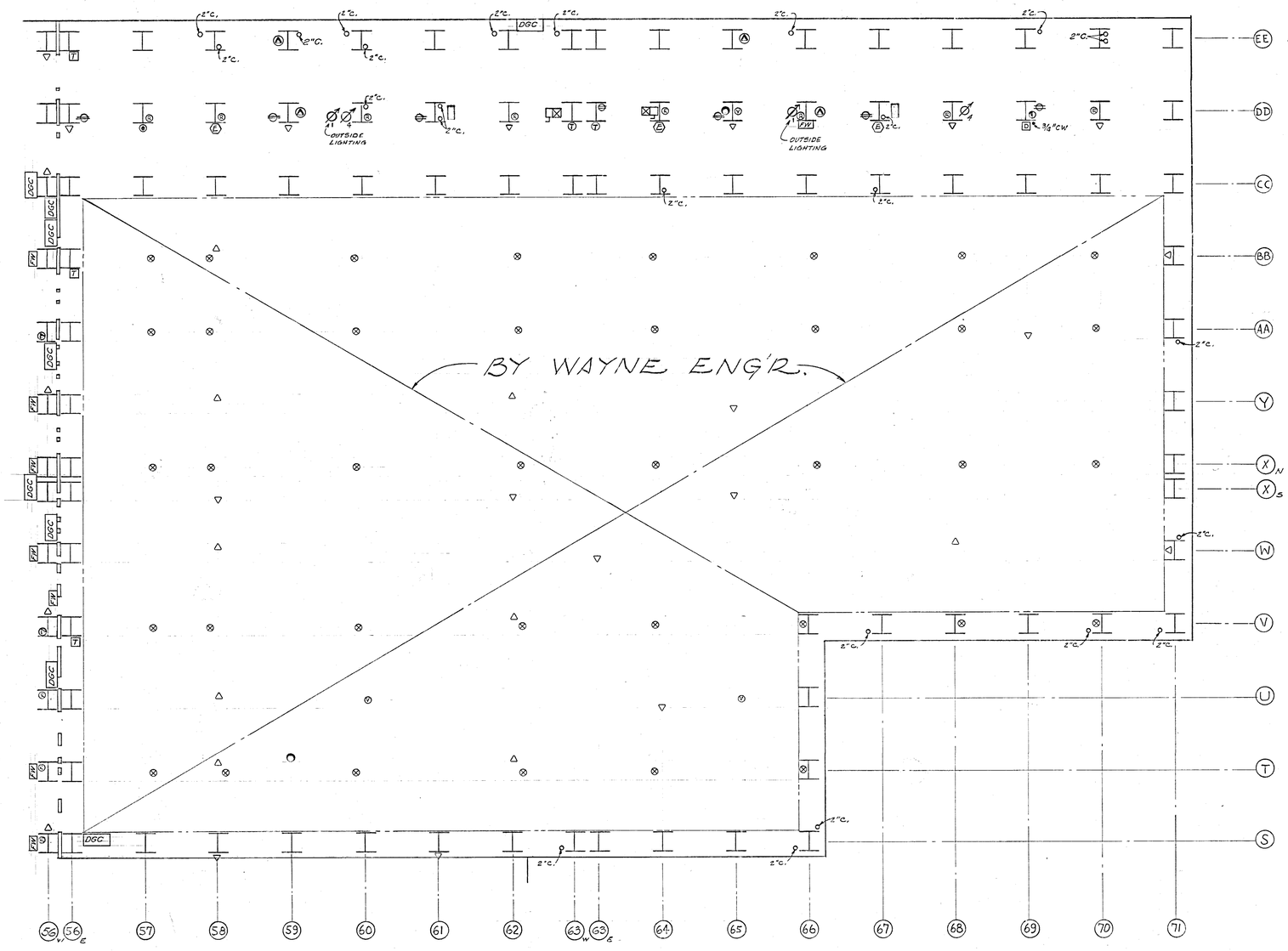
DRAWN BY OE

JOB CAPT. RLB.

MP-7 — SHEET NUMBER

ARGO 118 REV. 12-69 KBE 17 0133 8-74 1790*

PROJECT NO. 4500 SHEET NO. ME-1



SCALE 1/32"=1'-0"

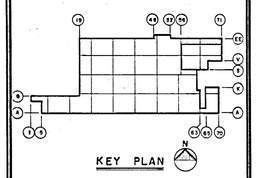
ELECTRICAL SYMBOLS

- LIGHTING PANEL
- RECEPTACLE PANEL
- MOTOR STARTER
- PUSH BUTTON
- 2c CONDUIT
- 480V. POWER RECEPTACLE
- 120V. RECEPTACLE
- Ø3 SELECTOR SWITCH (NO. INDICATES NUMBER OF SW.'S IN ONE ENCLOSURE)
- DGC REMOTE DATA GATHERING CENTER FOR FACILITIES MONITORING & CONTROL.
- FW FIRE & WATCH
- TELEPHONE TERMINAL CABINET

MECHANICAL SYMBOLS

- SANITARY
- ROOF CONDUCTOR
- VENT
- 12"Ø CW. OR C.A.
- WATER COOLER
- TRADE WASTE HUB OUTLET
- FIRE RISER
- H. REEL
- THERMOSTAT OR TEMPERATURE SENSOR.
- STORM HUB OUTLET.
- EMERGENCY SHOWER
- UTILITY METER TOTALIZER
- SPRINKLER INSPECTORS TEST STATION

DATE	ISSUED FOR	APPROVAL	APPROVAL
7-19-77	BULL Nº 95	R. Ralph	[illegible]



NO.	DATE	BY	APPROVAL	APPROVAL
160	5-15-78	VTN	[illegible]	
BULL 159	5-4-78	TJ	[illegible]	

REVISIONS

CONTRACT SIGNATURES — FOR THE OWNER — FOR THE CONTRACTOR

DRAWING CERTIFIED BY — REGISTERED — STATE — NUMBER — DATE

ARCONATI — ARCHITECTURE & ENGINEERING — REAL ESTATE & CONSTRUCTION MANAGEMENT

PLANT ENGINEERING AND CONSTRUCTION MANUFACTURING STAFF
GENERAL MOTORS CORPORATION
485 WEST MILWAUKEE AVENUE • DETROIT, MICHIGAN

NEW MANUFACTURING PLANT
FOR
OKLAHOMA INDUSTRIES AUTHORITY
TENANCY BY
G M ASSEMBLY DIVISION
GENERAL MOTORS CORPORATION
OKLAHOMA CITY OKLAHOMA

PROJECT TITLE

MECHANICAL-ELECTRICAL COLUMN COORDINATIONS AREA I

SHEET TITLE

OWNER'S IDENTIFICATION — 4500 P. E. & C. PROJECT NUMBER

DATE

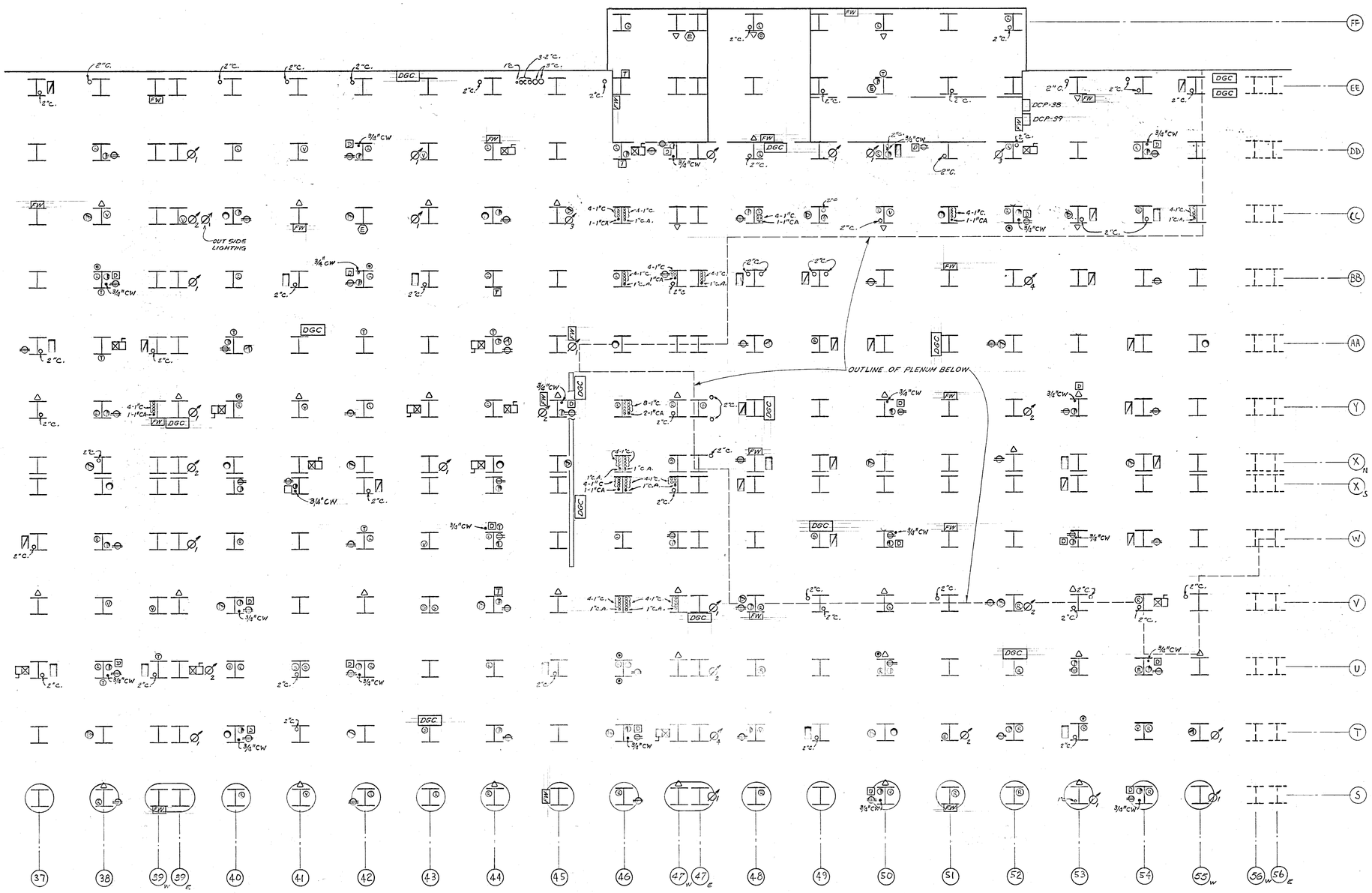
DRAWN BY M.N. DH

JOB CAPT. R. BRUZA J. CONKLE

ME-1 SHEET NUMBER

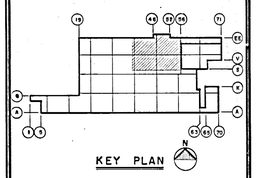
K&E 17 0133 9-73 5079+

PROJECT NO. 4500 SHEET NO. ME-2



41 X5
DF check

DATE	ISSUED FOR	APPROVAL	APPROVAL
9-19-77	BULL M 85	G.R. Kulik	[illegible]



NO.	DATE	BY	APPROVAL	APPROVAL
EPO473	1-23-78	KAW	[illegible]	
160	2-15-78	VTH	[illegible]	
BULL 159	5-4-78	TJ	[illegible]	[illegible]

REVISIONS

CONTRACT SIGNATURES

FOR THE OWNER

FOR THE CONTRACTOR

DRAWING CERTIFIED BY

REGISTERED

STATE

NUMBER

DATE

ARGONAUT

PLANT ENGINEERING AND CONSTRUCTION
MANUFACTURING STAFF
GENERAL MOTORS CORPORATION
ARCHITECTURE & ENGINEERING
ARCHITECTURE & ENGINEERING & CONSTRUCTION MANAGEMENT

NEW MANUFACTURING PLANT
FOR
OKLAHOMA INDUSTRIES AUTHORITY
TENANCY BY
G M ASSEMBLY DIVISION
GENERAL MOTORS CORPORATION
OKLAHOMA CITY OKLAHOMA

PROJECT TITLE

MECHANICAL-ELECTRICAL
COLUMN COORDINATIONS
AREA 2

SHEET TITLE

OWNER'S IDENTIFICATION

4500
P. E. & C. PROJECT NUMBER

DATE

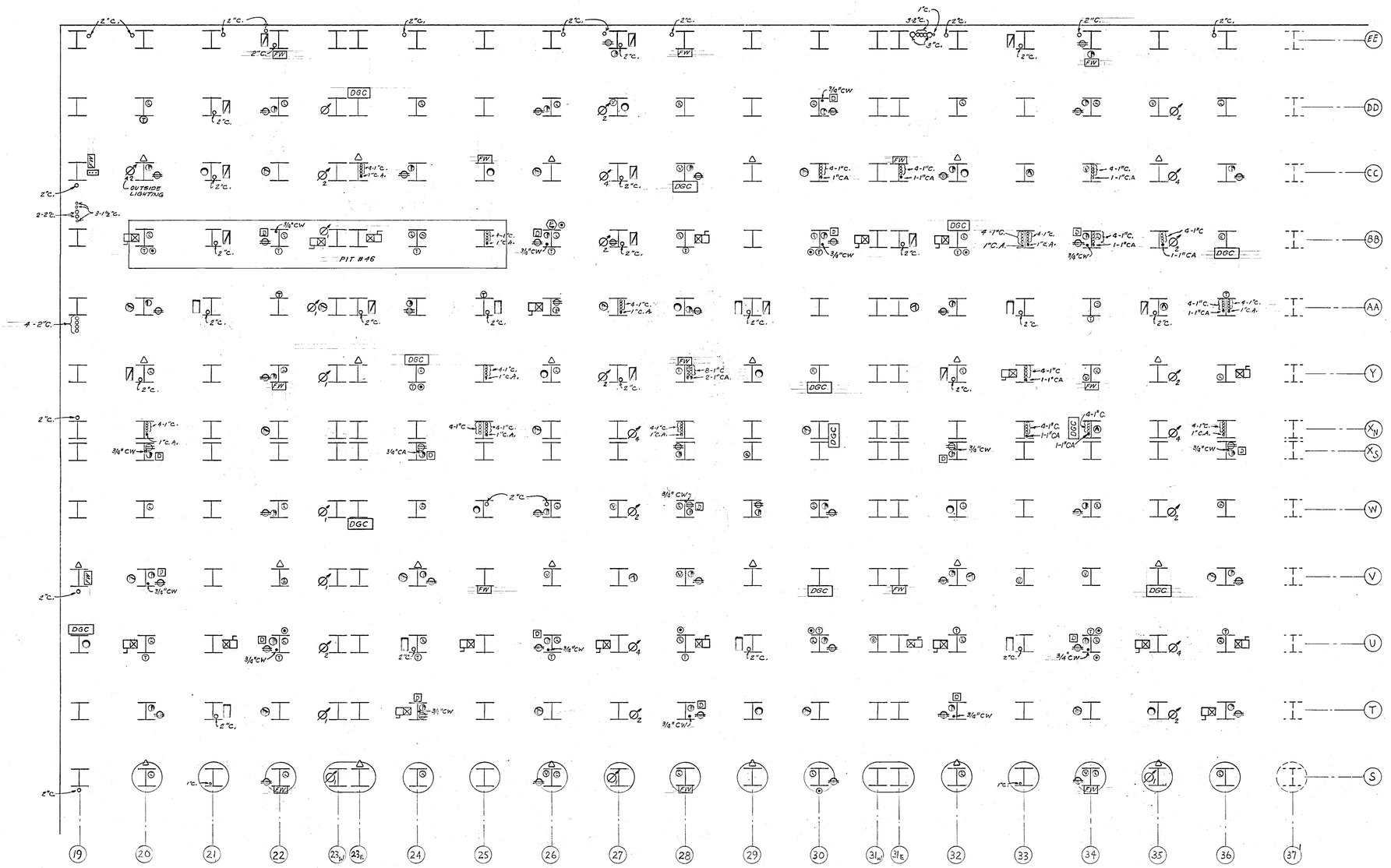
DRAWN BY M.N. D.H.

JOB CAPT. E. PRIZA J. KOHLER

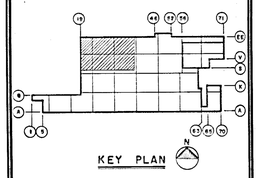
ME-2
SHEET NUMBER

K&E 17 0133 9-73 50579

PROJECT NO. 4500 SHEET NO. ME-3



DATE	ISSUED FOR	APPROVAL	APPROVAL
9-19-77	BULL # 95		



NO.	DATE	BY	APPROVAL	APPROVAL
160	5-15-78	VTN		
BULL 159	5-4-78	TJ		

REVISIONS

CONTRACT SIGNATURES

FOR THE OWNER

FOR THE CONTRACTOR

DRAWING CERTIFIED BY

REGISTERED

STATE

NUMBER

DATE

ARGONAUT

PLANT ENGINEERING AND CONSTRUCTION

MANUFACTURING STAFF

GENERAL MOTORS CORPORATION

ARCHITECTURE & ENGINEERING | REAL ESTATE & CONSTRUCTION MANAGEMENT

NEW MANUFACTURING PLANT
FOR
OKLAHOMA INDUSTRIES AUTHORITY
TENANCY BY

GM ASSEMBLY DIVISION

GENERAL MOTORS CORPORATION

OKLAHOMA CITY OKLAHOMA

PROJECT TITLE

MECHANICAL-ELECTRICAL
COLUMN COORDINATIONS
AREA 3

SHEET TITLE

OWNER'S IDENTIFICATION

4500
P.E.&C. PROJECT NUMBER

DATE

DRAWN BY M.N., DH

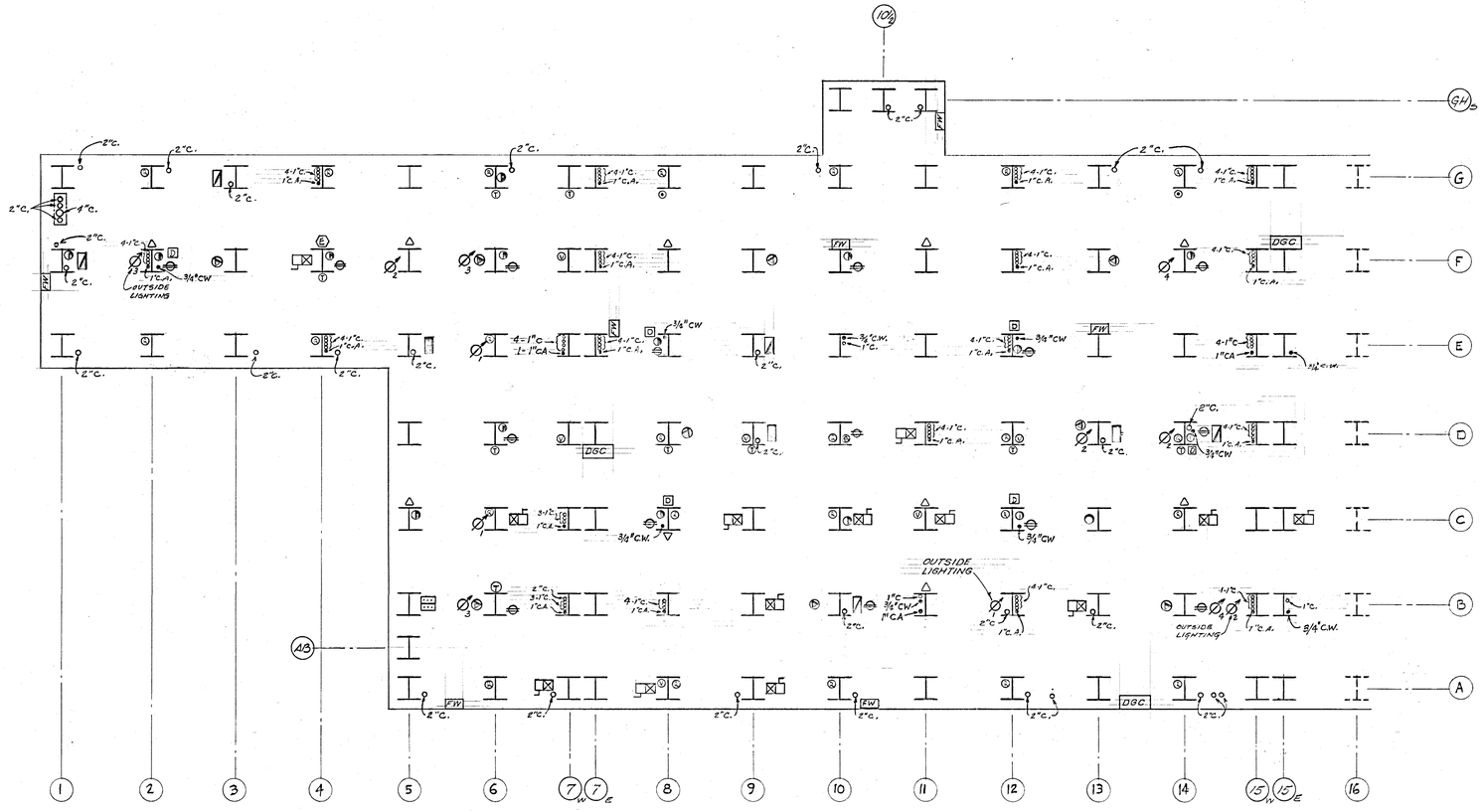
JOB CAPT. R. BRUZA
J. KLONKLE

ME-3

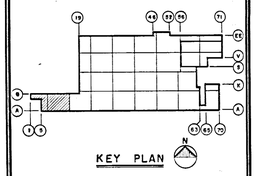
SHEET NUMBER

ARGO 116 REV. 12-69 KOKE 17 0173 8-74 1750+

PROJECT NO. 4500 SHEET NO. ME-4



DATE	ISSUED FOR	APPROVAL	APPROVAL
9-19-77	BULL. # 5		



NO.	DATE	BY	APPROVAL	APPROVAL
160	5-15-78	VTN		
BULL 159	5-4-78	TJ		

REVISIONS

CONTRACT SIGNATURES

FOR THE OWNER

FOR THE CONTRACTOR

DRAWING CERTIFIED BY

REGISTERED

STATE

NUMBER

DATE

PLANT ENGINEERING AND CONSTRUCTION
MANUFACTURING STAFF
GENERAL MOTORS CORPORATION
485 WEST MILWAUKEE AVENUE & DETROIT, MICHIGAN

ARGONAUT

NEW MANUFACTURING PLANT
FOR
OKLAHOMA INDUSTRIES AUTHORITY
TENANCY BY
G M ASSEMBLY DIVISION
GENERAL MOTORS CORPORATION
OKLAHOMA CITY OKLAHOMA

PROJECT TITLE

MECHANICAL-ELECTRICAL
COLUMN COORDINATIONS
AREA 4

SHEET TITLE

OWNER'S IDENTIFICATION

4500
P. E. & C. PROJECT NUMBER

DATE

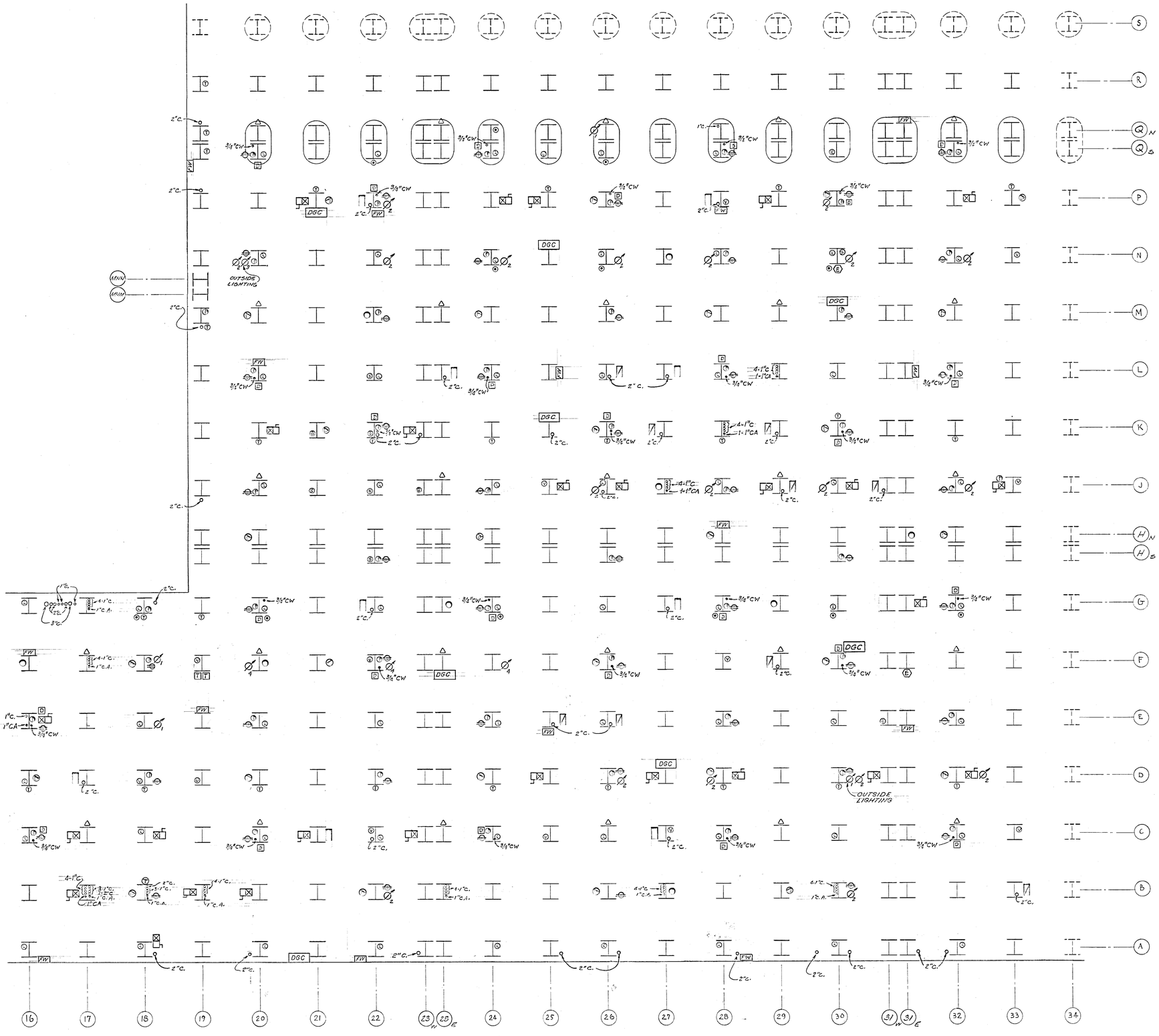
DRAWN BY M.N., DH

JOB CAPT. R. BRUZA
J. KOVALE

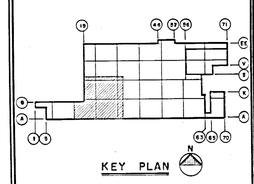
ME-4
SHEET NUMBER

ARGO 118 REV. 12-69 K&E 17 0193 2-74 1790+

PROJECT NO. 4500 SHEET NO. ME-5



DATE	ISSUED FOR	APPROVAL	APPROVAL
9-19-77	BULL. No. 9.5		



NO.	DATE	BY	APPROVAL	APPROVAL
160	5-15-78	VTH		
BULL 159	5-4-79	TJV		

REVISIONS

CONTRACT SIGNATURES

FOR THE OWNER

FOR THE CONTRACTOR

DRAWING CERTIFIED BY

REGISTERED

STATE

NUMBER

DATE

PLANT ENGINEERING AND CONSTRUCTION
MANUFACTURING STAFF
GENERAL MOTORS CORPORATION
485 WEST MILWAUKEE AVENUE, DETROIT, MICHIGAN

NEW MANUFACTURING PLANT
FOR
OKLAHOMA INDUSTRIES AUTHORITY
TENANCY BY
GM ASSEMBLY DIVISION
GENERAL MOTORS CORPORATION
OKLAHOMA CITY OKLAHOMA

PROJECT TITLE

MECHANICAL-ELECTRICAL
COLUMN COORDINATIONS
AREA 5

SHEET TITLE

OWNER'S IDENTIFICATION

4500
P. E. & C. PROJECT NUMBER

DATE

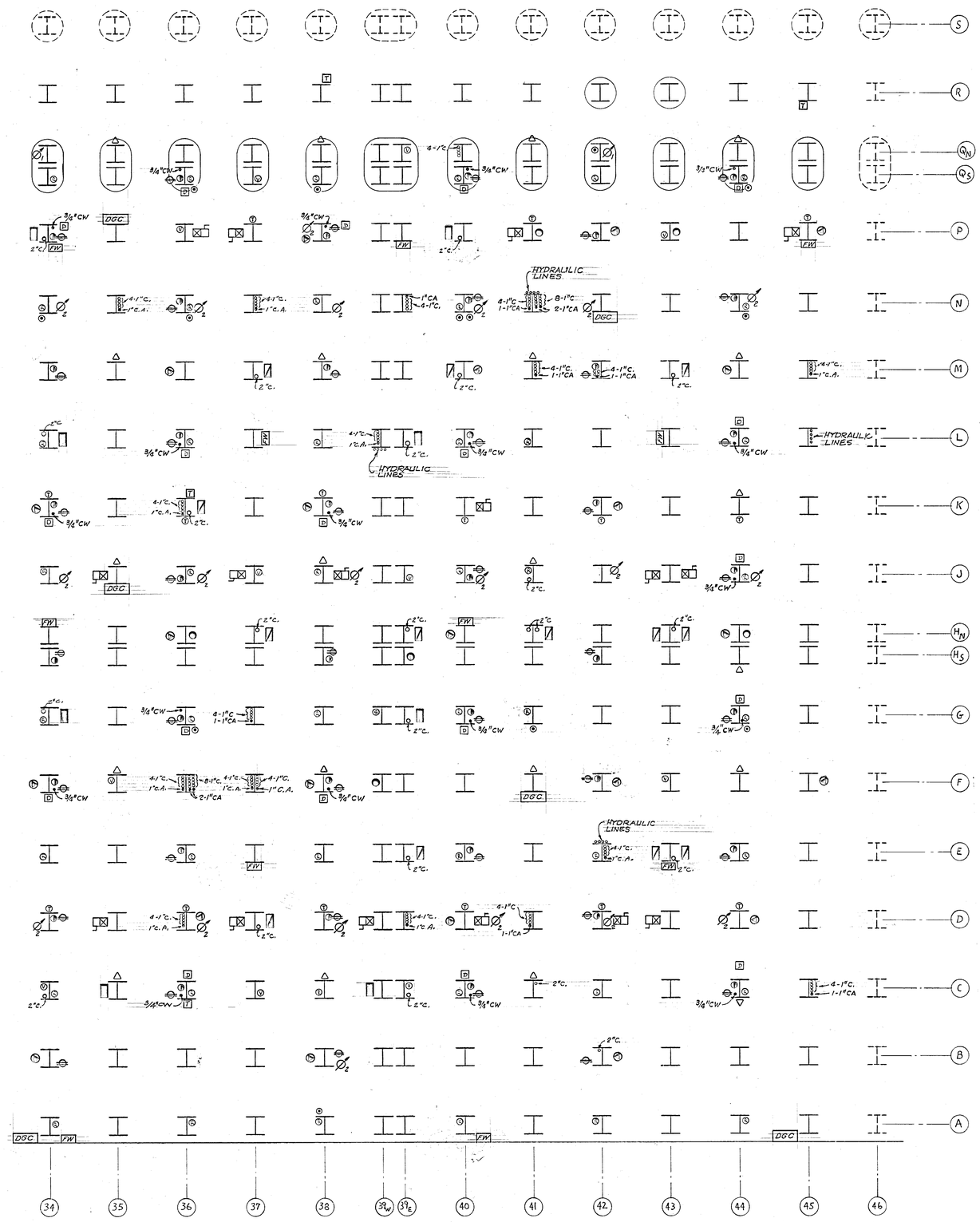
DRAWN BY M.N., OH

JOB CAPT. R. BRUCE
J. KOVACS

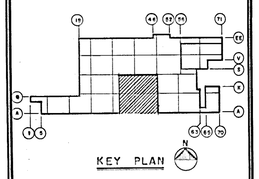
ME-5
SHEET NUMBER

ARGO 118 REV. 12-69 K&E 17 0193 2-74 1790+

PROJECT NO. 4500 SHEET NO. ME-6



DATE	ISSUED FOR	APPROVAL	APPROVAL
8-15-77	BULL. # 8.5		



NO.	DATE	BY	APPROVAL	APPROVAL
160	5-15-78	VTN		
BULL 159	5-4-78	TJ		

REVISIONS

CONTRACT SIGNATURES

FOR THE OWNER

FOR THE CONTRACTOR

DRAWING CERTIFIED BY

REGISTERED

STATE

NUMBER

DATE

ARGONAUT

PLANT ENGINEERING AND CONSTRUCTION

MANUFACTURING STAFF

GENERAL MOTORS CORPORATION

DIVISION OF GENERAL MOTORS

485 WEST MILWAUKEE AVENUE • DETROIT, MICHIGAN

ARCHITECTURE & ENGINEERING • REAL ESTATE & CONSTRUCTION

NEW MANUFACTURING PLANT
FOR
OKLAHOMA INDUSTRIES AUTHORITY
TENANCY BY

GM ASSEMBLY DIVISION

GENERAL MOTORS CORPORATION

OKLAHOMA CITY OKLAHOMA

PROJECT TITLE

MECHANICAL-ELECTRICAL
COLUMN COORDINATIONS
AREA 6

SHEET TITLE

OWNER'S IDENTIFICATION

4500
P.E. & C. PROJECT NUMBER

DATE

DRAWN BY M.N., D.H.

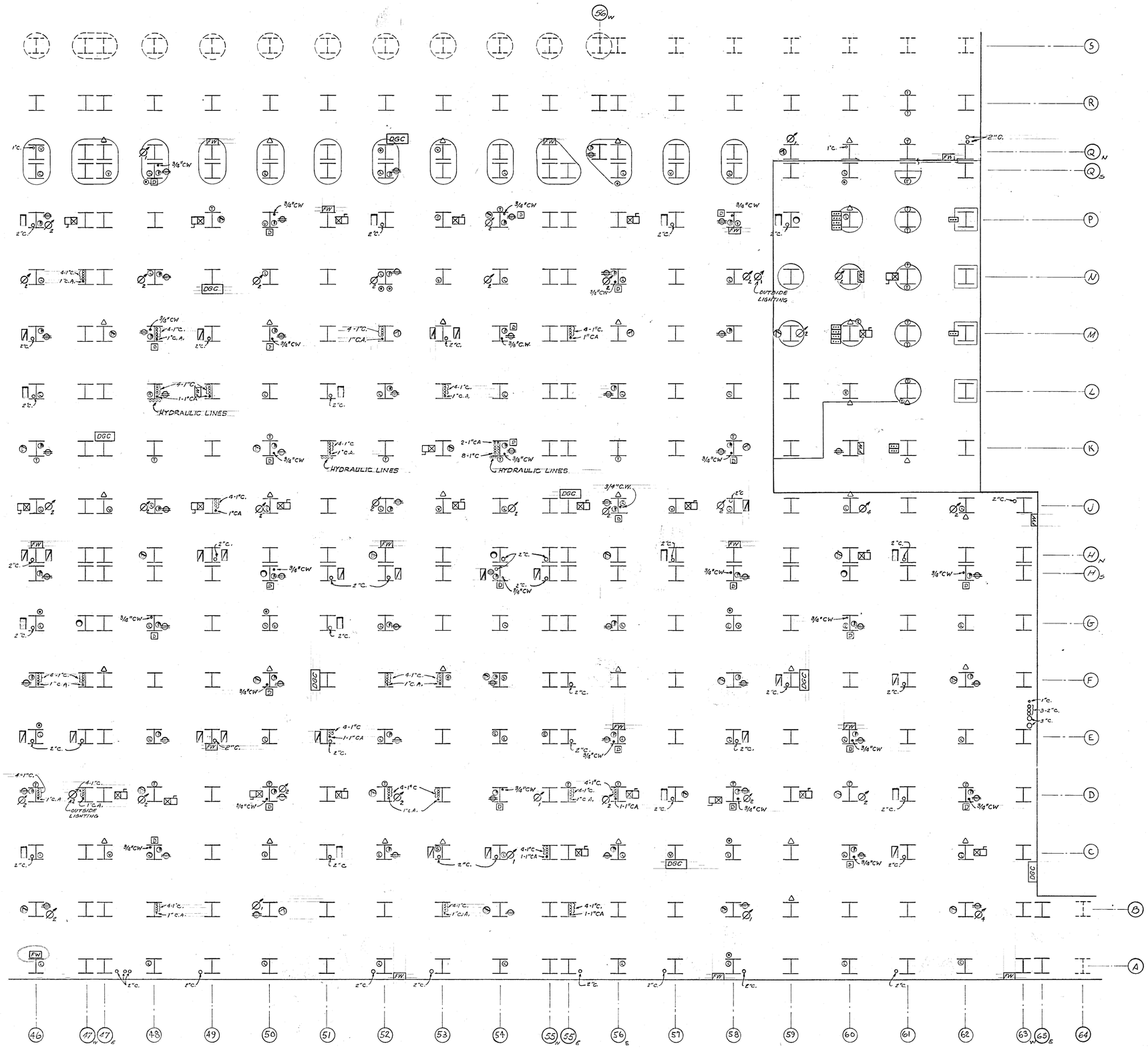
JOB CAPT. R. BRUZA
J. RONILLO

ME-6

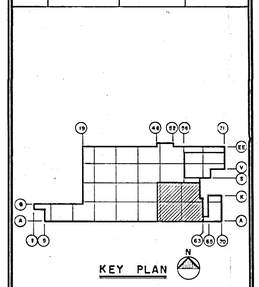
SHEET NUMBER

ARGO 115 REV. 12-69 K&E 17 0193 5-74 1770+

PROJECT NO. 4500 SHEET NO. ME-7



DATE	ISSUED FOR	APPROVAL	APPROVAL
9-19-77	BULL # 95		



NO.	DATE	BY	APPROVAL	APPROVAL
160	5-15-78	VTN		
BULL 159	5-1-78	TJ		

REVISIONS

CONTRACT SIGNATURES

FOR THE OWNER

FOR THE CONTRACTOR

DRAWING CERTIFIED BY

REGISTERED

STATE

NUMBER

DATE

ARGONAUT
DIVISION OF GENERAL MOTORS
ARCHITECTURE & ENGINEERING

PLANT ENGINEERING AND CONSTRUCTION
MANUFACTURING STAFF
GENERAL MOTORS CORPORATION
485 WEST MILWAUKEE AVENUE • DETROIT, MICHIGAN
A REAL ESTATE & CONSTRUCTION MANAGEMENT

NEW MANUFACTURING PLANT
FOR
OKLAHOMA INDUSTRIES AUTHORITY
TENANCY BY
G M ASSEMBLY DIVISION
GENERAL MOTORS CORPORATION
OKLAHOMA CITY OKLAHOMA

PROJECT TITLE

MECHANICAL-ELECTRICAL COLUMN COORDINATIONS AREA 7

SHEET TITLE

OWNER'S IDENTIFICATION

4500
P. E. & C. PROJECT NUMBER

DATE

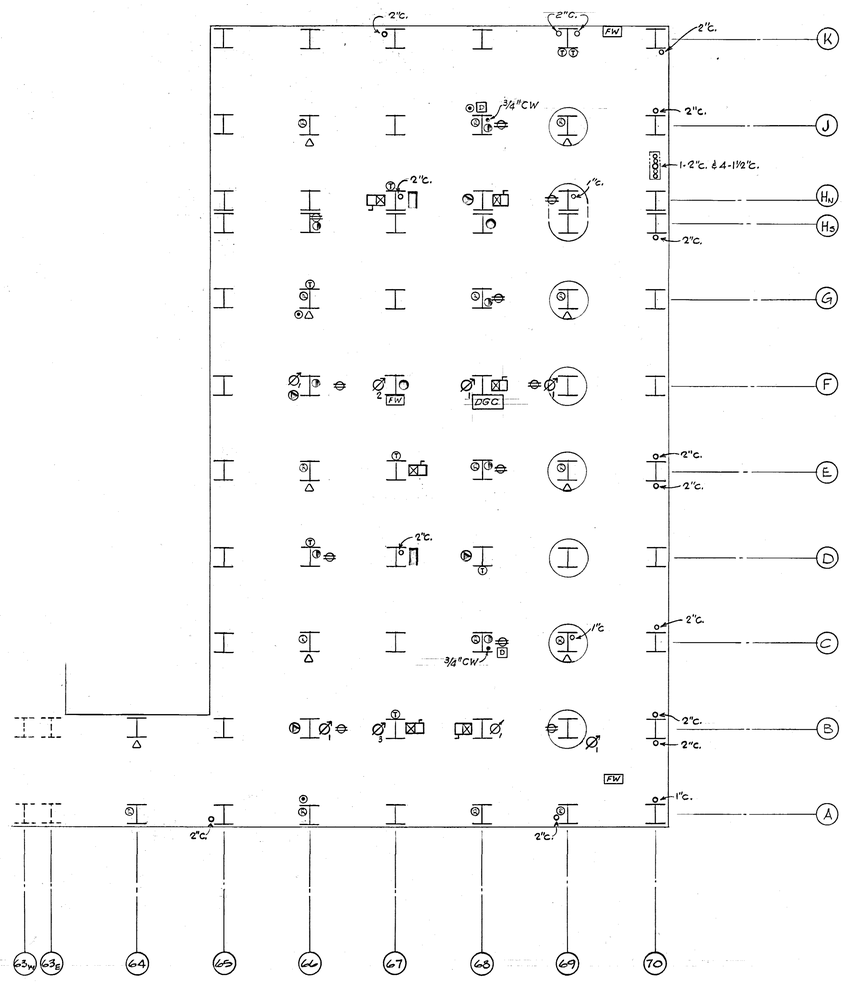
DRAWN BY M.N. , D.H.

JOB CAPT. R. BRUZA, J. KOULLE

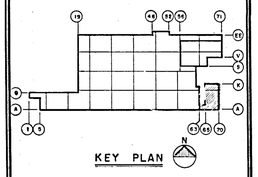
ME-7
SHEET NUMBER

K&E 17 0133 9-75 50570+

PROJECT NO. 4500 SHEET NO. ME-8



DATE	ISSUED FOR	APPROVAL	APPROVAL
3-15-77	BULL 95		



NO.	DATE	BY	APPROVAL	APPROVAL
160	5-15-78	VTN		
BULL 153	5-4-78	TJ		

REVISIONS

CONTRACT SIGNATURES

FOR THE OWNER

FOR THE CONTRACTOR

DRAWING CERTIFIED BY

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STATE

NUMBER

DATE

ARGONAUT

PLANT ENGINEERING AND CONSTRUCTION

MANUFACTURING STAFF

GENERAL MOTORS CORPORATION

DIVISION OF GENERAL MOTORS 485 WEST MILWAUKEE AVENUE, DETROIT, MICHIGAN

ARCHITECTURE & ENGINEERING | REAL ESTATE & CONSTRUCTION

NEW MANUFACTURING PLANT
FOR
OKLAHOMA INDUSTRIES AUTHORITY
TENANCY BY
G M ASSEMBLY DIVISION
GENERAL MOTORS CORPORATION
OKLAHOMA CITY OKLAHOMA

PROJECT TITLE

MECHANICAL-ELECTRICAL
COLUMN COORDINATIONS
AREA 8

SHEET TITLE

OWNER'S IDENTIFICATION

4500
P. E. & C. PROJECT NUMBER

DATE

DRAWN BY DH

JOB CAPT. R. BEUZA

ME-8
SHEET NUMBER

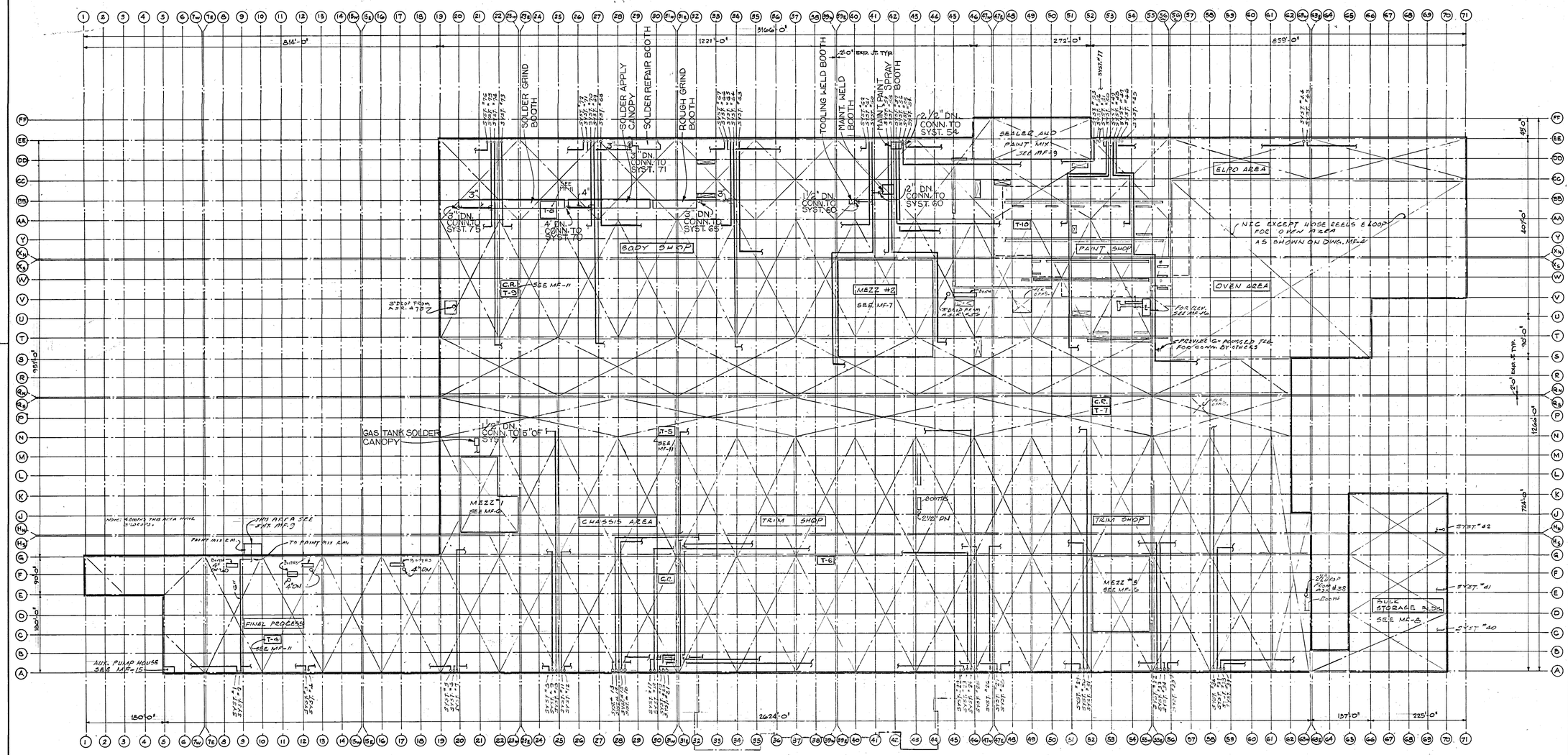
ARGO 118 REV. 12-69 K&E 17 0133 8-74 1790n

PROJECT NO. 4500 SHEET NO. MF-1

GENERAL NOTES:

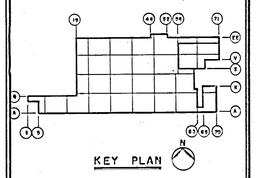
1. PROVIDE HYDRAULIC CALCULATIONS FOR SPRINKLER SYSTEMS ON A DENSITY OF 0.30 GPM/SQ.FT. AT THE MOST REMOTE 4000 SQ.FT. OF AREA AT ROOF LEVEL. MAINTAIN 40,000 SQ.FT. FIRE ZONE UNLESS NOTED OTHERWISE ON DRAWINGS.
2. ALL AUTOMATIC SPRINKLER RISERS SHALL BE 8" A ALARM CHECK VALVE WET SYSTEM UNLESS NOTED OTHERWISE ON DRAWING.
3. WHERE INDICATED IN SCHEDULE OR DRAWINGS OTHER DENSITIES, SHALL BE PROVIDED.
4. AREAS THAT REQUIRE ORDINARY HAZARD PROTECTION, AS INDICATED ON DRAWINGS, SHALL BE DESIGNED AT 130 SQ.FT/HEAD. HYDRAULIC CALCULATIONS ARE NOT REQUIRED FOR THESE AREAS.
5. THIS CONTRACTOR SHALL CO-ORDINATE LOCATIONS OF ALL SPRINKLERS, BRANCH LINES, CROSS MAINS, BULK FEED MAINS ETC. WITH RESPECT TO OWNERS CONVEYOR LINES, ROOF OPENINGS, PROCESS EQUIPMENT, CRANE RAILS ETC. TO AVOID INTERFERENCES.
6. SPRINKLER HEADS ARE 165°F TEMP. RATING UNLESS OTHERWISE NOTED OR OF HIGHER TEMP. RATING AS REQUIRED PER NFPA PAMPHLET #13.
7. OPENINGS IN BUILDING WALLS ETC.
   THIS CONTRACTOR SHALL PROVIDE HYDRAULIC CALCULATIONS BASED ON WATER DENSITY OF 0.50 GPM/SQ.FT. OF OPENING AS INDICATED ON DRAWINGS.
8. WHERE A.S.R.'S ARE IN RAILROAD DOCK AREA OF FOAM STORAGE BUILDING, CONTRACTOR SHALL MAINTAIN 8'-6" MIN. CLEARANCE FROM FACE OF SAME AND CENTER LINE OF TRACKS AND ANY OTHER PROTRUSIONS WITH HIS EQUIPMENT.
9. FURNISH AND INSTALL AT THE END OF EACH BRANCH LINE, WITH 8 OR MORE HEADS, A 1/2" LINE TESTER.
10. THE CONTRACTOR SHALL NOT INSTALL PIPE HANGERS ON PURLINS TO SUPPORT FIRE PROTECTION SPRINKLER PIPING. IF IT IS NECESSARY DUE TO UNUSUAL CIRCUMSTANCES, HE SHALL PLACE THEM NO FARTHER THAN 1/4 POINTS FROM SUPPORT ENDS.
11. ALL SPRINKLER HEADS NEAR OVERHEAD VENTS ETC. THAT INTERFERE WITH HEAT COLLECTION SHALL HAVE HEAT SHIELDS INSTALLED ON SAME.
12. HANGERS SHALL BE AS SPECIFIED IN NFPA PAMPHLET # 13. "J" TYPE HOOKS SHALL NOT BE ACCEPTABLE.
13. ANY FIRE PROTECTION INSULATION OR OTHER PROTECTIVE MATERIAL DISTURBED DURING HANDLING OR INSTALLATION SHALL BE RESTORED TO ORIGINAL CONDITION.
14. INSPECTOR'S TEST CONNECTION MAY BE COMBINED AS A DUAL UNIT AS INDICATED ON DETAIL WHEREVER POSSIBLE OTHERWISE SHALL BE A SINGLE UNIT AND WHERE REQUIRED SHALL BE EQUIPPED WITH EXPLOSION PROOF SOLENOID VALVE.
15. CONTRACTOR TO PROVIDE WATER PROOF FLEXIBLE SEALANT AT THE BASE OF ALL ASR'S.
16. OBSTRUCTIONS GREATER THAN 48" MUST HAVE SPRINKLERS AT UNDERSIDE BASED ON N.F.P.A. PAMPHLET #13, AND OBSTRUCTIONS OF LESS WIDTH IF CEILING SPRINKLER DISCHARGE IS DISTURBED, WHERE INDICATED OR REQUIRED.
17. CONTRACTOR SHALL SPRINKLER AT TOP OF ELEVATOR SHAFTS AND RELATED ELEVATOR MACHINERY ROOMS.
18. CONTRACTOR SHALL FURNISH AND INSTALL ALL SUPERVISORY SWITCHES ETC. ON F.H.'S, S.C.V.'S AND OTHER EQUIPMENT AS NOTED ON DWGS.
19. ALL DROPS TO BOTTOM SHALL BE 3" PLUGGED FROM NEAREST CROSS MAIN OR SYSTEM, 6'0" ABOVE FLOOR - COORDINATE WITH BOOTH CONTRACTOR.

DATE	ISSUED FOR	APPROVAL	APPROVAL
4-18-77	FIRE PROT. BID	G.C. Wamp	R. J. Hanna
5-27-77	F'TG & FIN. BID		



ASSEMBLY BUILDING FLOOR PLAN

SCALE 1" = 100'-0"



KEY PLAN

LEGEND

ASR —	AUTOMATIC SPRINKLER RISER
CR —	ELECT. CONTROL ROOM
T- —	MEZZ. TOILET ROOM

SYMBOLS

- UPRIGHT (EXPOSED PIPING)
- PENDENT (EXPOSED PIPING)
- PENDENT (CONCEALED PIPING)
- CEILING (CONCEALED PIPING)
- POST INDICATOR VALVE OR SECTIONAL CONTROL VALVE
- FIRE HYDRANT
- AUTOMATIC SPRINKLER RISER

NO.	DATE	BY	APPROVAL	APPROVAL
	6-20-75	KW		
PROPOSAL	2-20-76	BD		
G1	7-7-77	BD		
R-21	5/27/77	D.H.		

REVISIONS

CONTRACT SIGNATURES — FOR THE OWNER — FOR THE CONTRACTOR

DRAWING CERTIFIED BY — REGISTERED — STATE — NUMBER — DATE

PLANT ENGINEERING AND CONSTRUCTION
MANUFACTURING STAFF
GENERAL MOTORS CORPORATION
485 WEST MILWAUKEE AVENUE, DETROIT, MICHIGAN

NEW MANUFACTURING PLANT
FOR
OKLAHOMA INDUSTRIES AUTHORITY
TENANCY BY
GM ASSEMBLY DIVISION
GENERAL MOTORS CORPORATION
OKLAHOMA CITY OKLAHOMA

PROJECT TITLE

MASTER SPRINKLER PLAN

SHEET TITLE

OWNER'S IDENTIFICATION — P. E. & C. PROJECT NUMBER: 4500

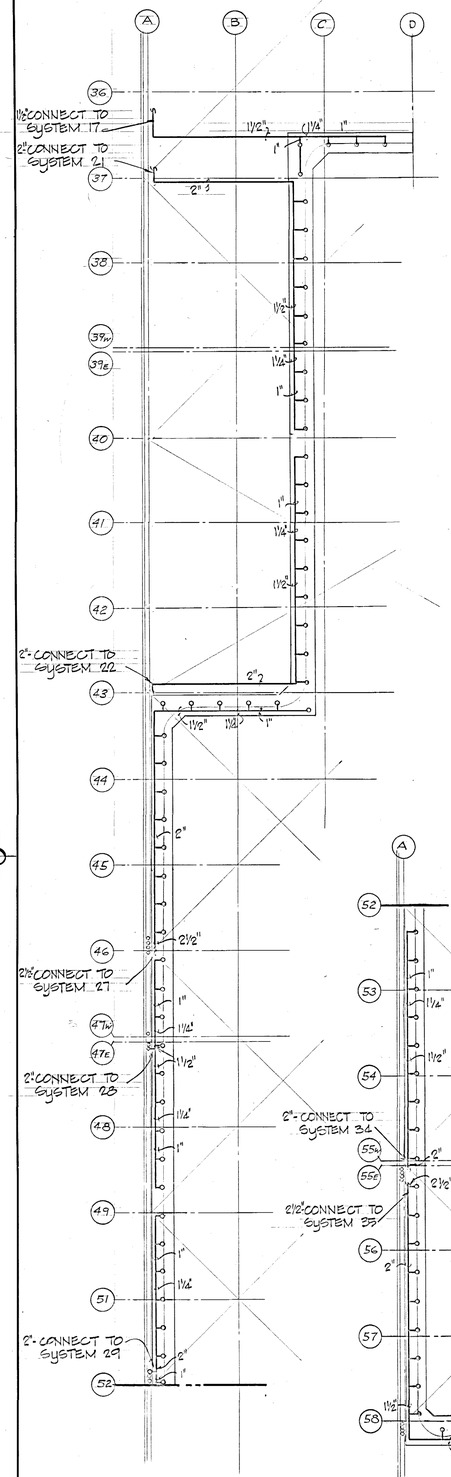
DATE 4-18-77

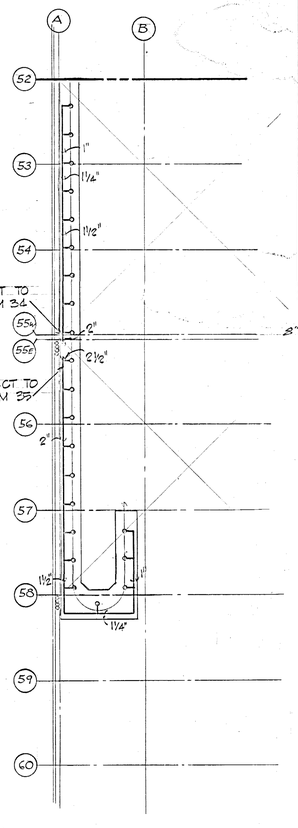
DRAWN BY D. HANNA

JOB CAPT. R. BRUZA

SHEET NUMBER: MF-1

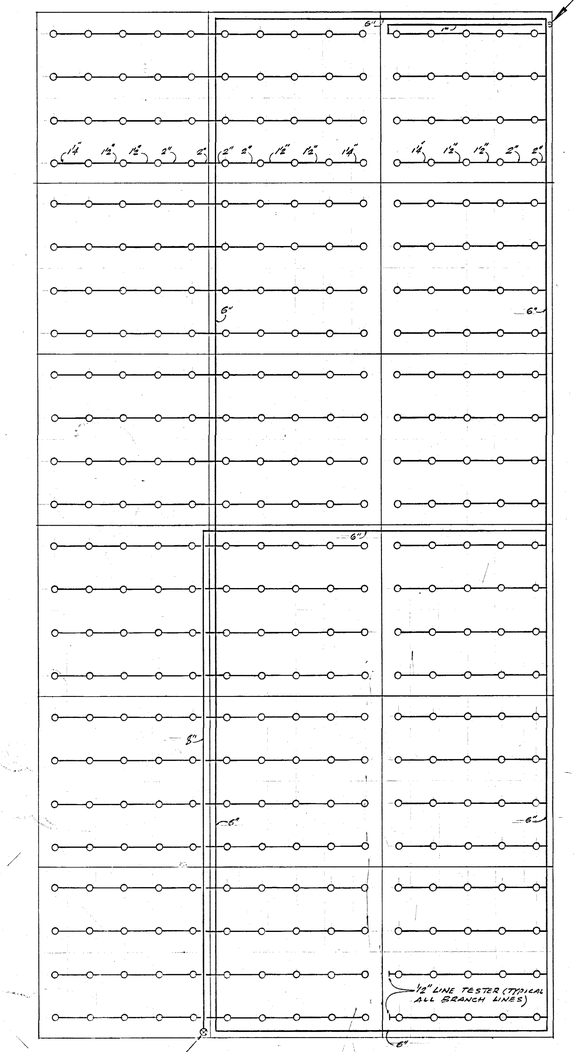
K&E 17 0199 5-75 99979+





SPRINKLER LAYOUT UNDER CONVEYOR NO. 310

SCALE: 1/32" = 1'0"



TYPICAL SPRINKLER SYSTEM

SCALE 1/16" = 1'-0"

NOTE: TYPICAL LAYOUT OF SPRINKLER SYSTEM IS SHOWN. WHERE SYSTEM IS ADJUSTED FOR PARTICULAR AREA, CONTRACTOR SHALL TRY TO FOLLOW CRITERIA SET AND BEST PRACTICE OF INSTALLATION ACCORDING TO N.F.P.A. PAMPHLET NO. 13 STANDARDS.

SPRINKLER SYSTEM DESIGN SCHEDULE

SYSTEM No.	AREA IN FT²	CALCULATED SYSTEM GPM/FT² PER HD.	CALCULATED SYSTEM AREA OF APPLICATION	SPRINKLER HEAD TYPE	SPRINKLER HEAD SIZE ORIFICE	SPRINKLER HEAD TEMP	REMARKS
1	40,000	.30	4000 ft² AT FLR.	UPRIGHT	17/32	155°F	
2	↑	.30, .35, .50	↑	↑	↑	165°F & 286°F	INCUBE PAINT MIX & STORAGE
3		.30				165°F	
4		↑				↑	
5							
6							
7							
8							
9							
10							
11							
12							
13							
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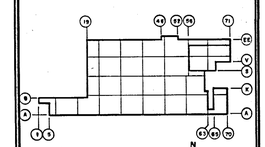
26							
27							
28							
29							
30							
31							
32							
33							
34							
35	↓						
36	40,000						
37	6Y & 6Z 24,550						
38	40,000	↓					
39	↑	.30					
40		.60					FOAM STORAGE
41		.60					" "
42		.60					" "
43		.30					" "
44		.30					
45		—				—	FOR OWNERS EQUIPT.
46		—				—	FOR OWNERS EQUIPT.
47		.30				165°F	
48	40,000	.30					TRAINWELL
49	↑	.30					TRAINWELL
50		.30					
51	40,000	.30				165°F	
52	—	—				—	FOR OWNERS EQUIPT.
53	40,000	.50 & .35				286°F	PAINT MIX AND SEALER STORAGE
54	↑	.30				165°F	
55		↑				↑	
56							
57							
58							TRAIN DOCK
59							
60							TRAIN DOCK
61							
62							
63							
64							
65							TRAIN DOCK
66							
67							
68							
69							TRAIN DOCK
70							
71							
72							
73							
74							TRAIN DOCK
75	↓	↓	↓	↓	↓	↓	
76	40,000	.30	4000 ft² AT FLR.	UPRIGHT	17/32	155°F	

NOTES:

1. FEED MAINS FOR CALCULATED SYSTEMS MAY BE LOOPED ONLY TO DIVIDE THE TOTAL WATER FLOWING TO DESIGN AREA. GRIDDED SYSTEMS WILL NOT BE ACCEPTABLE.
2. CALCULATIONS SHALL INCLUDE 1,000 G.P.M. ALLOWANCE FOR COMBINED INSIDE HOSE AND OUTSIDE HYDRANTS.

DATE	ISSUED FOR	APPROVAL	APPROVAL
4-18-77	FIRE PROT. BID	G.C. DAM	R. J. Hunter
5-27-77	FTG & FIN. BID		



NO.	DATE	BY	APPROVAL	APPROVAL
172	9-1-78	KW		
61	7-7-77	GG		
A C21	5/27/77	D.H.		R. J. Hunter

REVISIONS

CONTRACT SIGNATURES — FOR THE OWNER — FOR THE CONTRACTOR

DRAWING CERTIFIED BY — REGISTERED — STATE — NUMBER — DATE

ARGONAUT — PLANT ENGINEERING AND CONSTRUCTION — MANUFACTURING STAFF — GENERAL MOTORS CORPORATION — 485 WEST MILWAUKEE AVENUE, DETROIT, MICHIGAN — ARCHITECT & ENGINEERS — A TALBOTT & CONSTRUCTION ENGINEERS

NEW MANUFACTURING PLANT FOR OKLAHOMA INDUSTRIES AUTHORITY TENANCY BY

GM ASSEMBLY DIVISION

GENERAL MOTORS CORPORATION

OKLAHOMA CITY OKLAHOMA

PROJECT TITLE

SCHEDULE

TYPICAL ZONE LAYOUT

SHEET TITLE

OWNER'S IDENTIFICATION

4500 — P. E. & C. PROJECT NUMBER

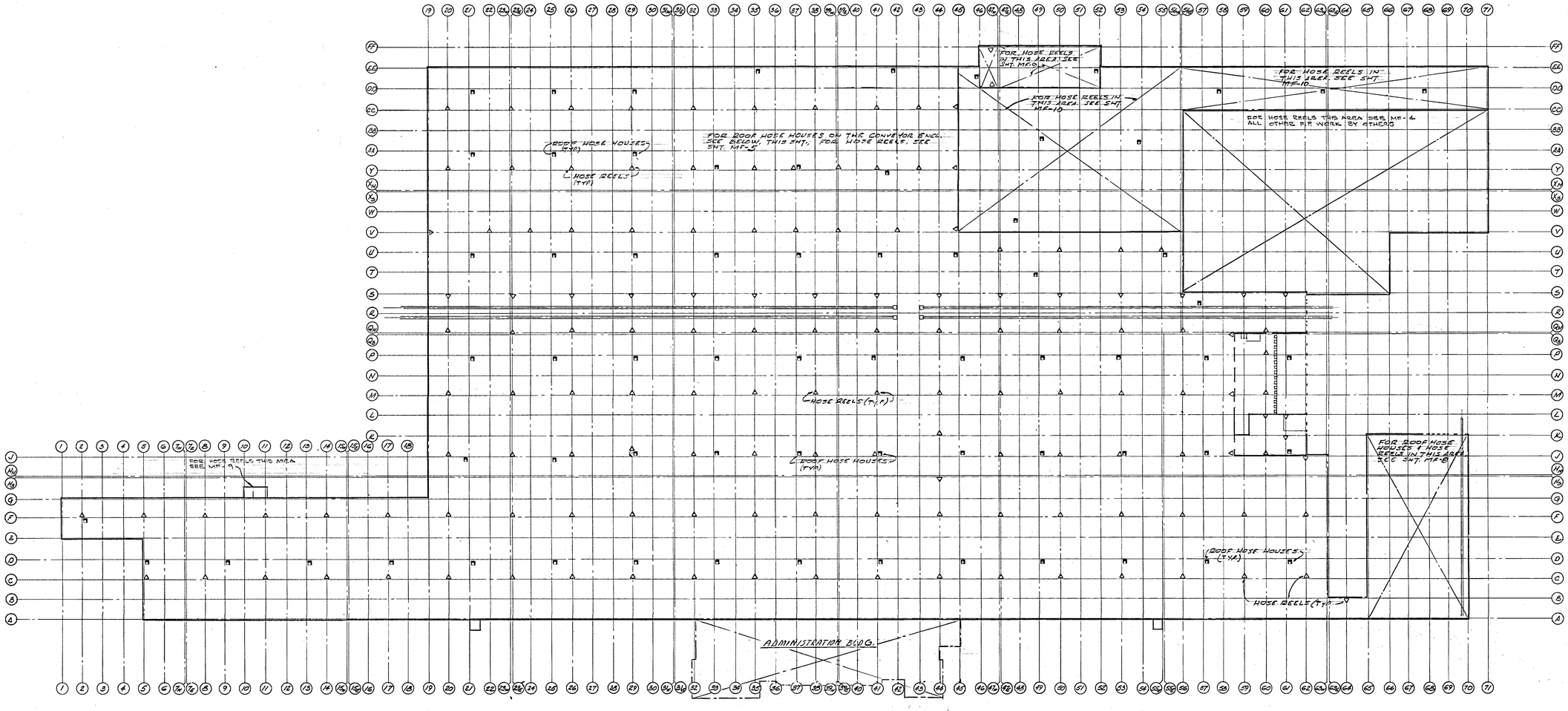
DATE: 4-18-77

DRAWN BY: JKK/DS

JOB CAPT. R. CRUZA

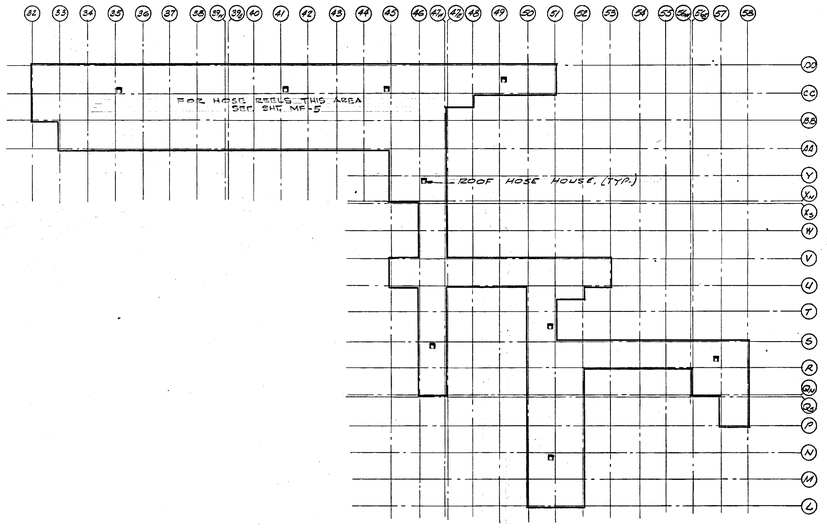
MF-2 — SHEET NUMBER

PROJECT NO. 4500 SHEET NO. MF-3



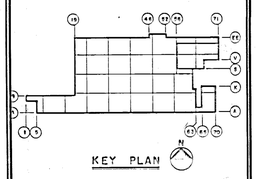
ASSEMBLY BLDG.

SCALE: 1" = 100'



ROOF CONVEYOR ENCLOSURE

SCALE: 1" = 100'



KEY PLAN

DATE	ISSUED FOR	APPROVAL	APPROVAL
4-18-77	FIRE PROT. BID	G. C. Weeks	R. J. Meade
5-27-77	PTG IFM. BID/CSE		

NO.	DATE	BY	APPROVAL	APPROVAL
01	7-7-77	GC		
P.C.21	5/21/77	DCH		

REVISIONS

CONTRACT SIGNATURES

FOR THE OWNER

FOR THE CONTRACTOR

DRAWING CERTIFIED BY

REGISTERED

STATE

NUMBER

DATE

PLANT ENGINEERING AND CONSTRUCTION

MANUFACTURING STAFF

GENERAL MOTORS CORPORATION

425 WEST MILWAUKEE AVENUE & DETROIT, MICHIGAN

NEW MANUFACTURING PLANT

FOR

OKLAHOMA INDUSTRIES AUTHORITY

TENANCY BY

GM ASSEMBLY DIVISION

GENERAL MOTORS CORPORATION

OKLAHOMA CITY OKLAHOMA

PROJECT TITLE

MASTER PLAN

HOSE REELS ℄

ROOF HOSE HOUSES

SHEET TITLE

OWNER'S IDENTIFICATION

4500

P. E. & C. PROJECT NUMBER

DATE 4-18-77

DRAWN BY JKL

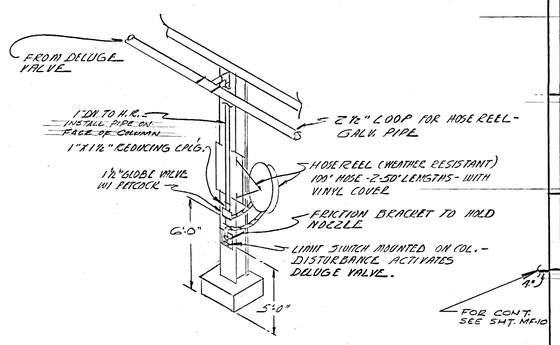
JOB CAPT. R. BRUZA

MF-3

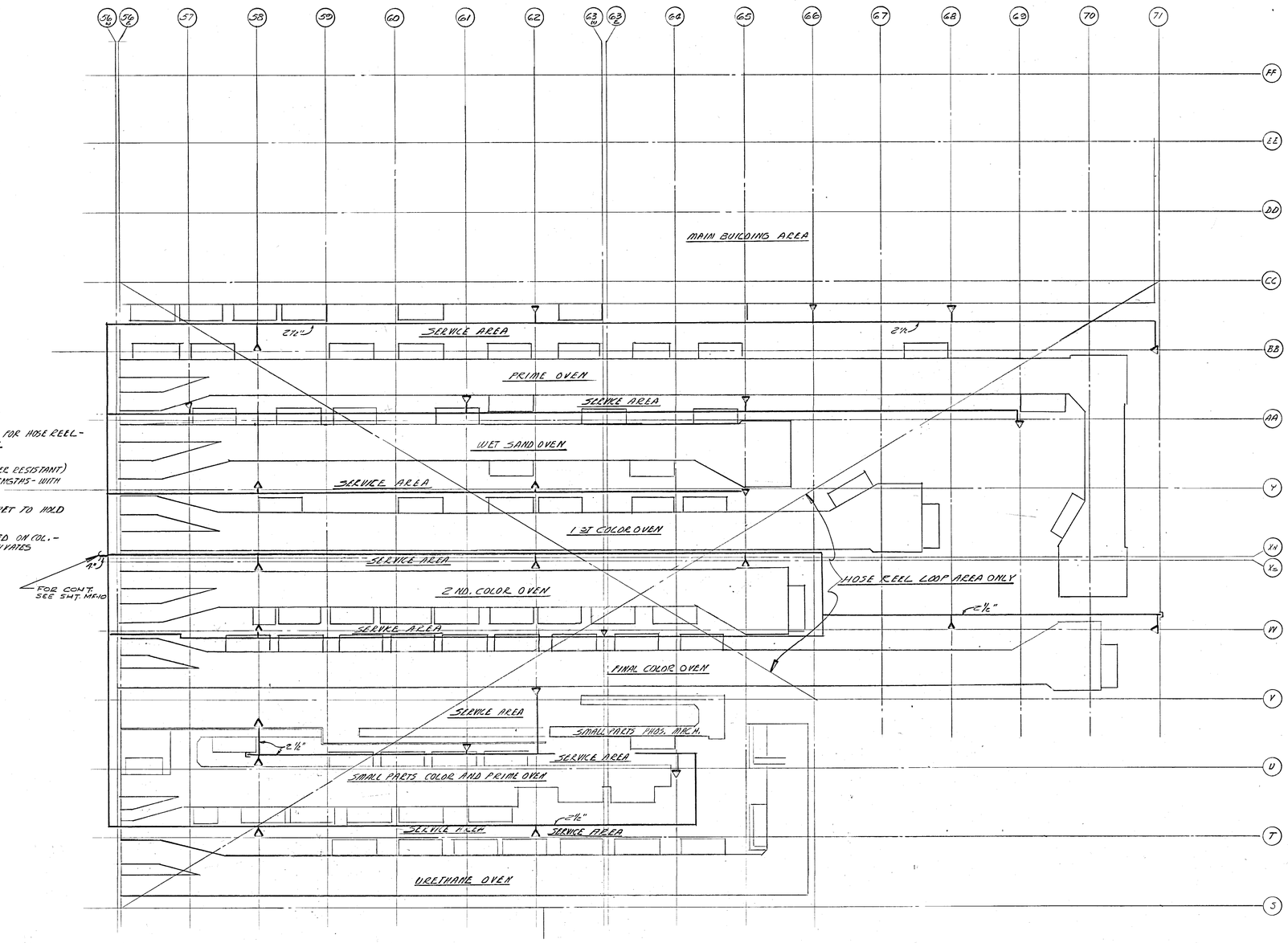
SHEET NUMBER

ARGO 118 REV. 12-69 K&E 17 0173 5-74 1770+

PROJECT NO. SHEET NO.



DETAIL OF
OVEN HOSE REEL STATIONS
No. SCALE

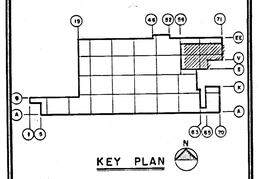


PLAN - OVEN AREA
HOSE REEL LAYOUT
SCALE: 1/32" = 1'-0"

LEGEND:
Δ = HOSE REEL STATION

NOTES:
1. CONTRACTOR SHALL COORDINATE WITH OWNER'S OVEN EQUIPMENT, CONVEYOR'S AND OTHER INTERFERENCES.
2. SYSTEM INSTALLED TO BE PROPERLY DRAINED.
3. GALVANIZED PIPING AND WEATHER PROOFED EQUIPMENT, INCLUDING HANGERS & CLAMPS, SHALL BE FURNISHED IN THE OVEN AREA

DATE	ISSUED FOR	APPROVAL	APPROVAL
4-18-77	FIRE PROT. BID	G. C. Ward	G. J. Munk
5-27-77	PTG & FIN BOOKS		



NO.	DATE	BY	APPROVAL	APPROVAL
01	7-7-77	SG	R. Bunya	
PC.01	5-27-77	D.C.H.	R. Bunya	G. J. Munk

REVISIONS

CONTRACT SIGNATURES
FOR THE OWNER
FOR THE CONTRACTOR

DRAWING CERTIFIED BY
REGISTERED
STATE
NUMBER
DATE

ARGONAUT DIVISION OF GENERAL MOTORS ARCHITECTURE & ENGINEERING

PLANT ENGINEERING AND CONSTRUCTION
MANUFACTURING STAFF
GENERAL MOTORS CORPORATION
485 WEST MILWAUKEE AVENUE & DETROIT, MICHIGAN
A REAL ESTATE & CONSTRUCTION MANAGEMENT

NEW MANUFACTURING PLANT
FOR
OKLAHOMA INDUSTRIES AUTHORITY
TENANCY BY
GM ASSEMBLY DIVISION
GENERAL MOTORS CORPORATION
OKLAHOMA CITY OKLAHOMA

PROJECT TITLE

HOSE REEL LAYOUT
OVEN AREA

SHEET TITLE

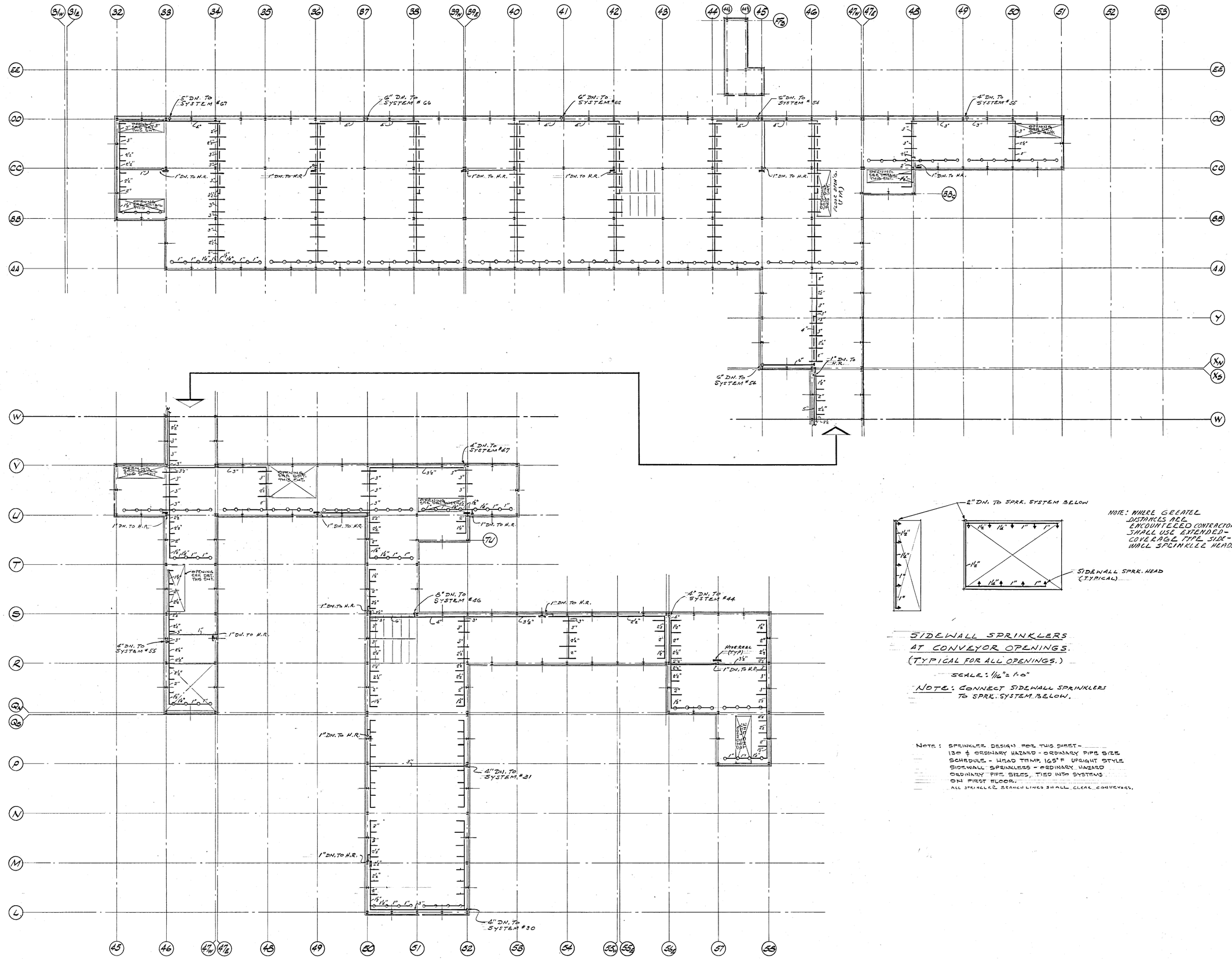
OWNER'S IDENTIFICATION
4500
P.E. & C. PROJECT NUMBER

DATE 7-18-77
DRAWN BY D. HANNA
JOB CAPT. C. BRUEA

MF-4
SHEET NUMBER

ARGO 118 REV. 12-69 KOIE 17 0193 2-74 1770+

PROJECT NO. 4500 SHEET NO. MF-5



CONVEYOR HOUSING PLAN

SCALE: 1/32" = 1'-0"

NOTE: WHERE GREATER DISTANCES ARE ENCOUNTERED CONTRACTOR SHALL USE EXTENDED-COVERAGE TYPE SIDE-WALL SPRINKLER HEADS.

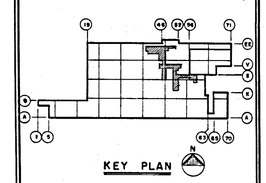
SIDEWALL SPRINKLERS AT CONVEYOR OPENINGS. (TYPICAL FOR ALL OPENINGS.)

SCALE: 1/16" = 1'-0"

NOTE: CONNECT SIDEWALL SPRINKLERS TO SPRK. SYSTEM BELOW.

NOTE: SPRINKLER DESIGN FOR THIS SHEET - 130 ϕ ORDINARY HAZARD - ORDINARY PIPE SIZE SCHEDULE - HEAD TEMP. 165°F UPRIGHT STYLE SIDEWALL SPRINKLERS - ORDINARY HAZARD ORDINARY PIPE SIZES, TIED INTO SYSTEMS ON FIRST FLOOR.
ALL SPRINKLER BRANCH LINES SHALL CLEAR CONVEYORS.

DATE	ISSUED FOR	APPROVAL	APPROVAL
4-18-77	FIRE PROT. BID	G.C. Norris	R. J. Neal
5-27-77	PTG & FIN. BID		



KEY PLAN

NO.	DATE	BY	APPROVAL	APPROVAL
6	7-7-77	SG		
P.C.2	5-27-77	JCH		R. J. Neal

REVISIONS

CONTRACT SIGNATURES: FOR THE OWNER / FOR THE CONTRACTOR

DRAWING CERTIFIED BY: REGISTERED — STATE / NUMBER / DATE

PLANT ENGINEERING AND CONSTRUCTION
MANUFACTURING STAFF
GENERAL MOTORS CORPORATION
175 WEST WISCONSIN AVENUE & DETROIT, MICHIGAN

NEW MANUFACTURING PLANT
FOR
OKLAHOMA INDUSTRIES AUTHORITY
TENANCY BY
G M ASSEMBLY DIVISION
GENERAL MOTORS CORPORATION
OKLAHOMA CITY OKLAHOMA

PROJECT TITLE

ROOF CONVEYOR ENCLOSURE & ROOF OPENINGS

SHEET TITLE

OWNER'S IDENTIFICATION

4500 P. E. & C. PROJECT NUMBER

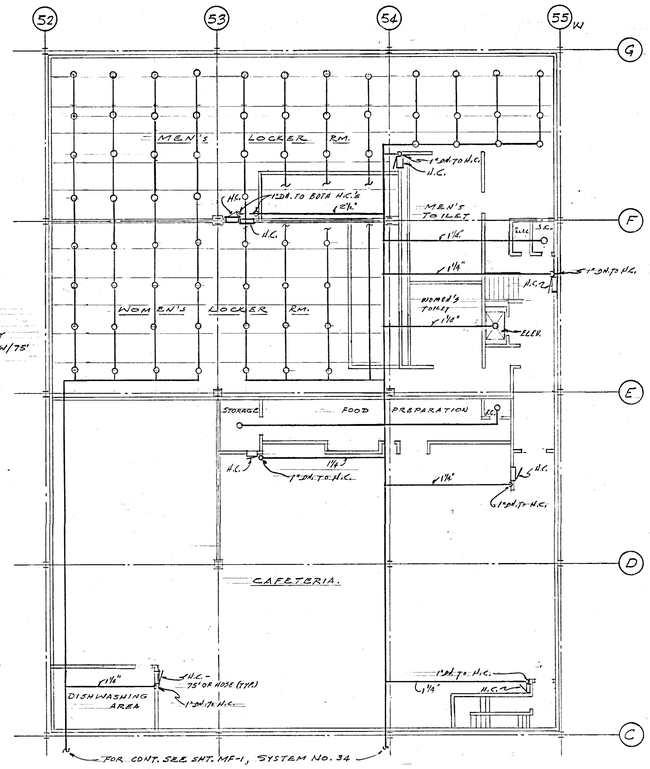
DATE 4-18-77

DRAWN BY OE

JOB CAPT. R. B. BRUZA

MF-5 SHEET NUMBER

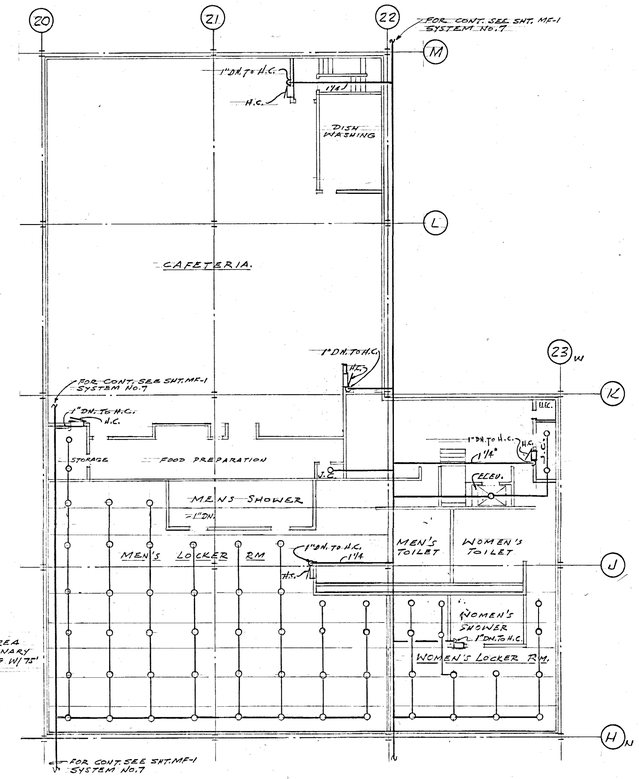
ARGO 118 REV. 12-69 K&E 17 0193 2-74 1770+



NOTE:
SPRINKLERS THIS AREA
130 SQ. FT/HD. ORDINARY
HAZARD & PIPE SIZING W/75'
HOSE IN CABINET.

MEZZANINE No. 3 FLOOR PLAN.

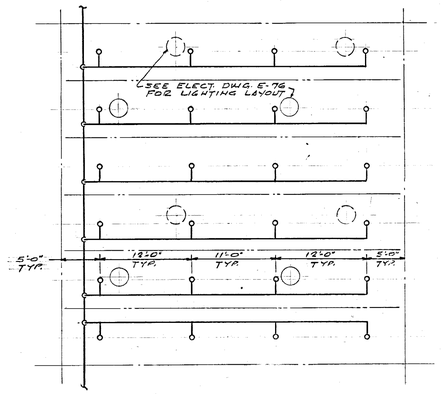
SPRINKLERS IN TRUSS AREA
SCALE: 1/16" = 1'-0"



NOTE:
SPRINKLER THIS AREA
130 SQ.FT/HD. ORDINARY
HAZARD & PIPE SIZING W/75'
HOSE IN CABINET.

MEZZANINE No. 1 FLOOR PLAN.

SPRINKLERS IN TRUSS AREA.
SCALE: 1/16" = 1'-0"

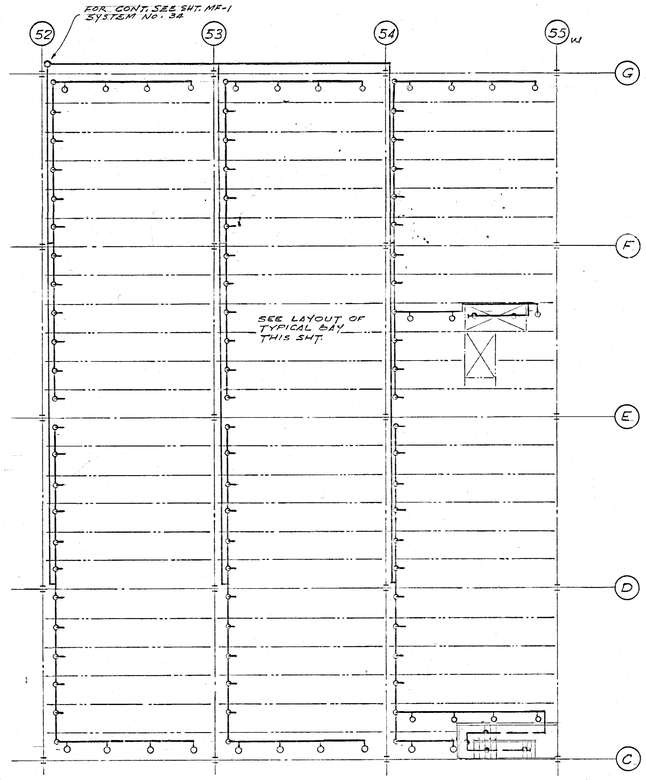


TYPICAL SPRINKLER LAYOUT FOR ONE BAY UNDERSIDE OF MEZZANINE ONLY

SCALE 1/8" = 1'-0"

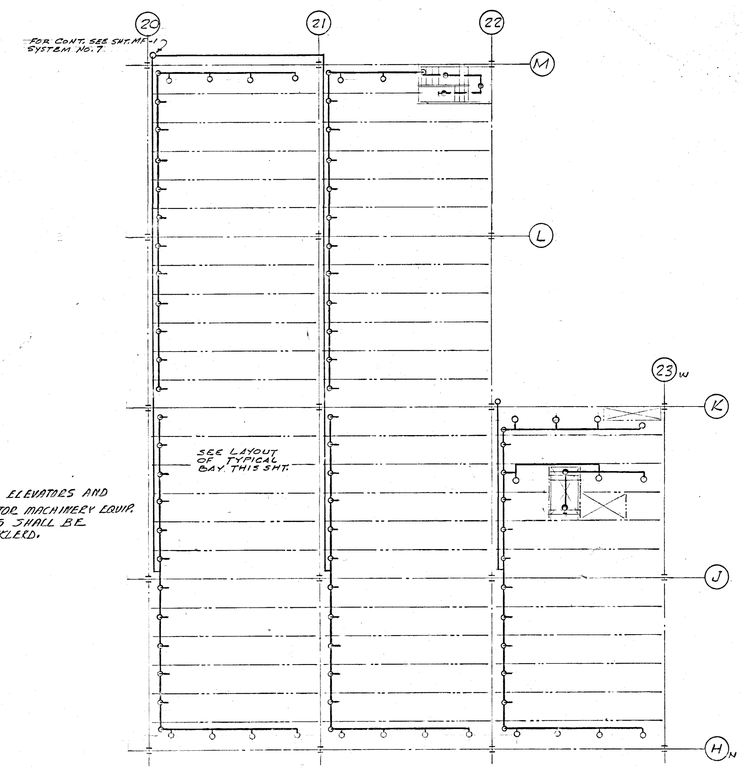
NOTES:

1- SPRINKLER CONTRACTOR TO COORDINATE INSTALLATION WITH ELECTRICAL CONTRACTOR TO AVOID INTERFERENCES.
2- FOR SPRINKLER LAYOUT BELOW MEZZANINE SEE "TYPICAL SPRINKLER LAYOUT FOR ONE BAY UNDERSIDE OF MEZZANINE ONLY" SHT. MF-6
3 - PROVIDE HYDRAULIC CALCULATIONS FOR SPRINKLERS BELOW MEZZANINE BASED ON .30 GPM/SQ.FT/HD FOR THE MOST REMOTE 4000 SQ.FT. AREA.



MEZZANINE No. 3 PLAN.

SPRINKLERS BELOW MEZZANINE.
SCALE: 1/16" = 1'-0"

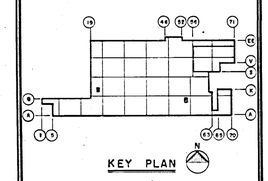


NOTE: ELEVATORS AND ELEVATOR MACHINERY EQUIP. ROOMS SHALL BE SPRINKLERD.

MEZZANINE No. 1 PLAN.

SPRINKLERS BELOW MEZZANINE
SCALE: 1/16" = 1'-0"

DATE	ISSUED FOR	APPROVAL	APPROVAL
4-18-77	FIRE PROT. BID	C.C.	
5-27-77	FIRE PROT. BID		



NO.	DATE	BY	APPROVAL	APPROVAL
G1	7-7-77	SG		
P.C.21	5-27-77	D.H.		

REVISIONS

CONTRACT SIGNATURES
FOR THE OWNER
FOR THE CONTRACTOR

DRAWING CERTIFIED BY
REGISTERED
STATE
NUMBER
DATE

PLANT ENGINEERING AND CONSTRUCTION
MANUFACTURING STAFF
GENERAL MOTORS CORPORATION
485 WEST MILWAUKEE AVENUE • DETROIT, MICHIGAN
ARGONAUT

NEW MANUFACTURING PLANT
FOR
OKLAHOMA INDUSTRIES AUTHORITY
TENANCY BY
G M ASSEMBLY DIVISION
GENERAL MOTORS CORPORATION
OKLAHOMA CITY OKLAHOMA

PROJECT TITLE

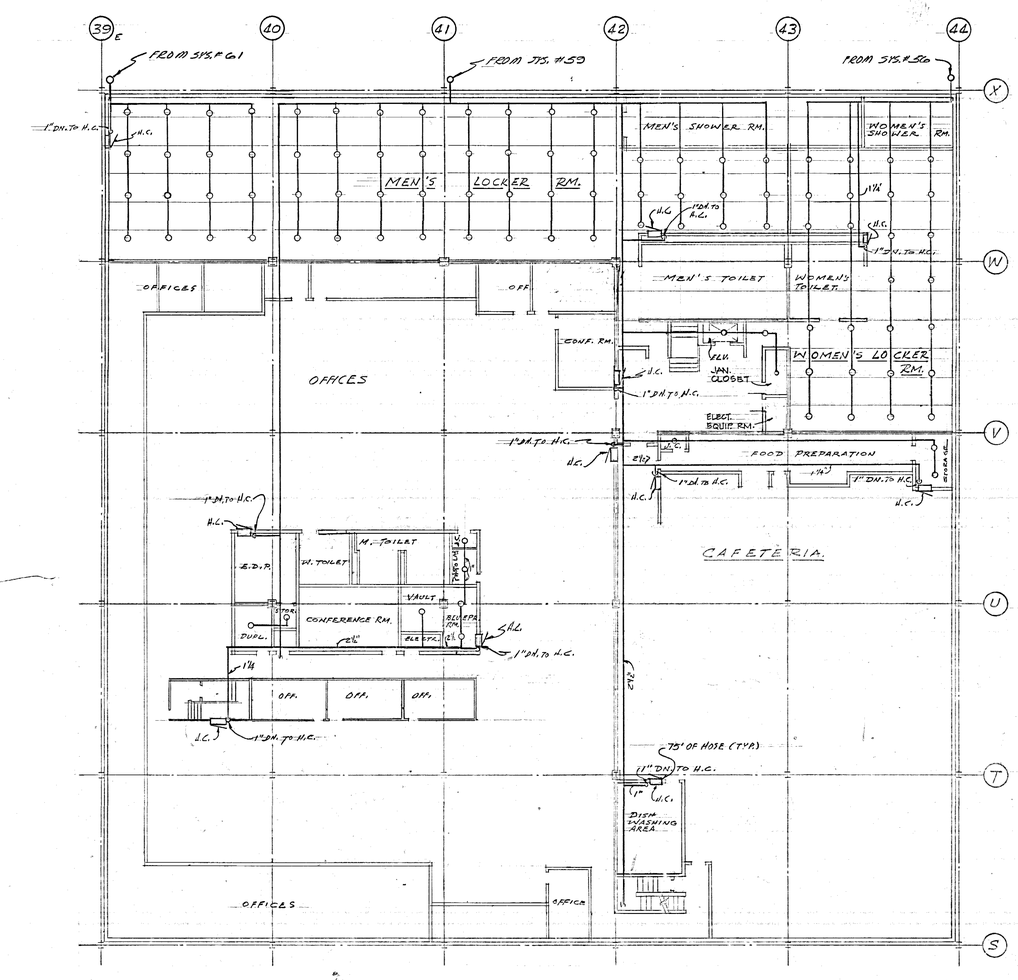
MEZZANINES
NOS. 1 & 3
FLOOR PLANS

SHEET TITLE

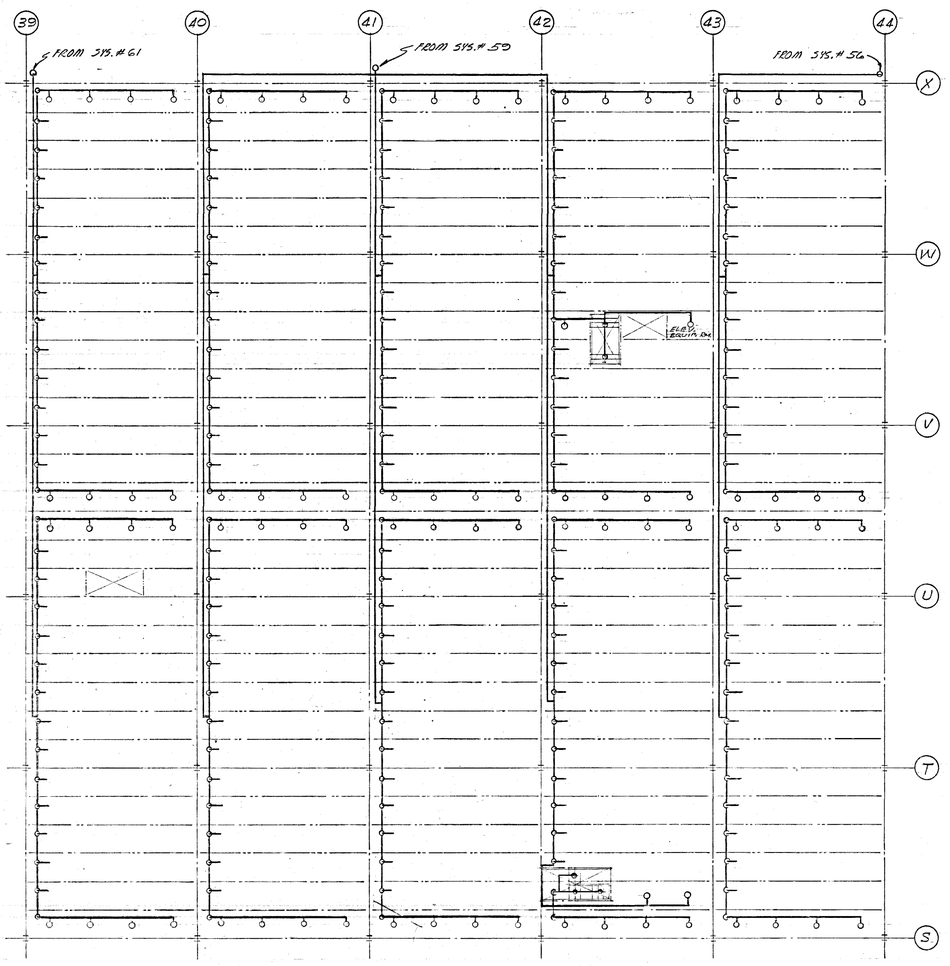
OWNER'S IDENTIFICATION
P. E. & C. PROJECT NUMBER: 4500
DATE 4-18-77
DRAWN BY D.H.
JOB CAPT. R. BRUEA
SHEET NUMBER: MF-6

PROJECT NO. 4000 SHEET NO. MF-7

NOTES:
1- SPRINKLER CONTRACTOR TO COORDINATE INSTALLATION WITH ELECTRICAL CONTRACTOR TO AVOID INTERFERENCES.
2- FOR SPRINKLER LAYOUT BELOW MEZZANINE SEE "TYPICAL SPRINKLER LAYOUT FOR ONE BAY UNDERSIDE OF MEZZANINE ONLY." SHT. MF-6
3- PROVIDE HYDRAULIC CALCULATIONS FOR SPRINKLERS BELOW MEZZANINE BASED ON .30 GPM/SQ.FT. 1HD FOR THE MOST REMOTE 4000 SQ.FT. AREA.

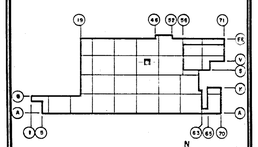


MEZZANINE NO. 2 FLOOR PLAN.
SPRINKLERS AT MEZZANINE CEILING AND TRUSS AREA.
SCALE: 1/16" = 1'-0"



MEZZANINE NO. 2 FLOOR PLAN.
SPRINKLERS BELOW MEZZANINE.
SCALE: 1/16" = 1'-0"

DATE	ISSUED FOR	APPROVAL	APPROVAL
4-18-77	FIRE PROT. BID	G. C. Nash	
5-27-77	PTG & FIN. BIDDER		



NO.	DATE	BY	APPROVAL	APPROVAL
EFO 323	5-17-78	A.A.		
EFO 277	3-30-78	KW		
G1	7-7-77	S.G.		
P.C. 21	5-27-77	D.C.H.		

REVISIONS

CONTRACT SIGNATURES
FOR THE OWNER
FOR THE CONTRACTOR

DRAWING CERTIFIED BY
REGISTERED
STATE
NUMBER
DATE

PLANT ENGINEERING AND CONSTRUCTION
MANUFACTURING STAFF
GENERAL MOTORS CORPORATION
485 WEST MILWAUKEE AVENUE • DETROIT, MICHIGAN

NEW MANUFACTURING PLANT
FOR
OKLAHOMA INDUSTRIES AUTHORITY
TENANCY BY
G M ASSEMBLY DIVISION
GENERAL MOTORS CORPORATION
OKLAHOMA CITY OKLAHOMA

PROJECT TITLE

MEZZANINE NO. 2
FLOOR PLANS

SHEET TITLE

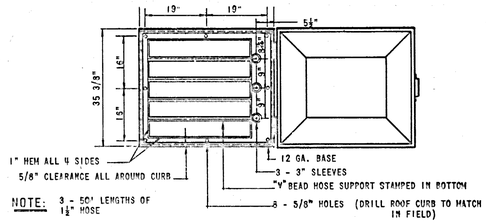
OWNER'S IDENTIFICATION
4500
P. E. & C. PROJECT NUMBER

DATE 4-18-77
DRAWN BY O.E.
JOB CAPT. P. BRUZA

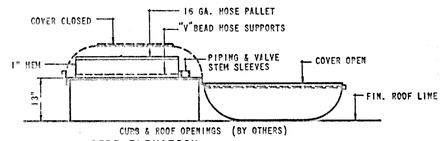
MF-7
SHEET NUMBER

ARGO 118 REV. 12-69 KME 17 0193 5-74 1790+

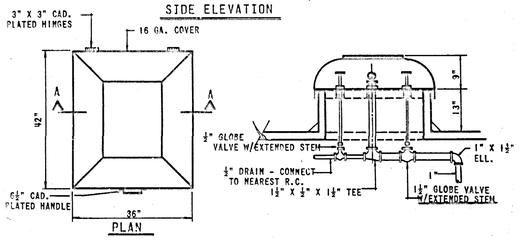
PROJECT NO. 4500 SHEET NO. MF-8



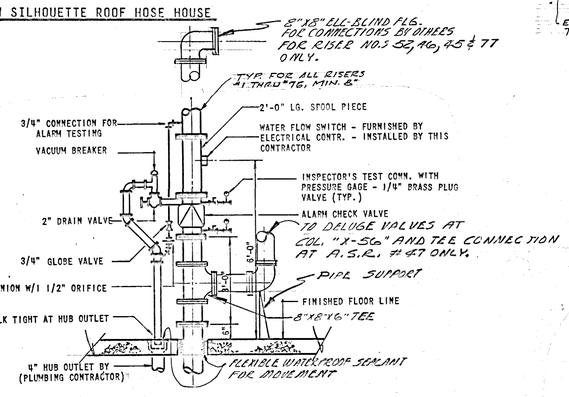
PLAN WITH COVER OPEN



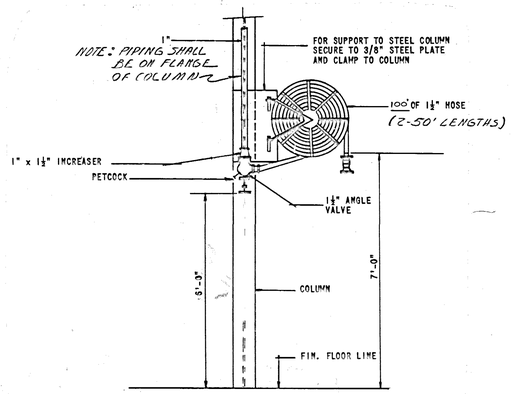
SIDE ELEVATION



LOW SILHOUETTE ROOF HOSE HOUSE

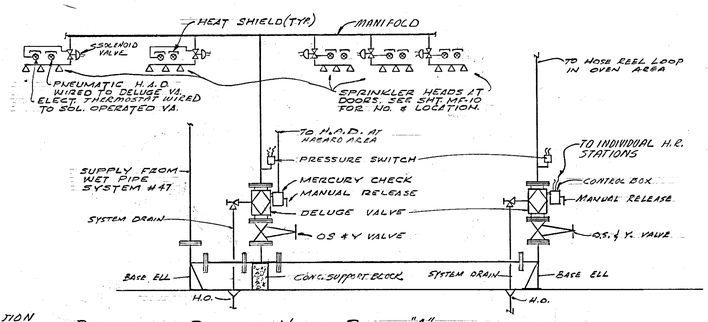


AUTOMATIC SPRINKLER RISER



SINGLE HOSE REEL

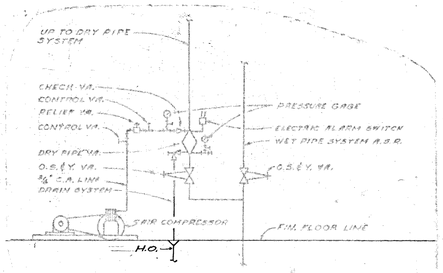
SCALE: ½" = 1'-0"



DETAIL OF DELUGE VALVE RISER "A"

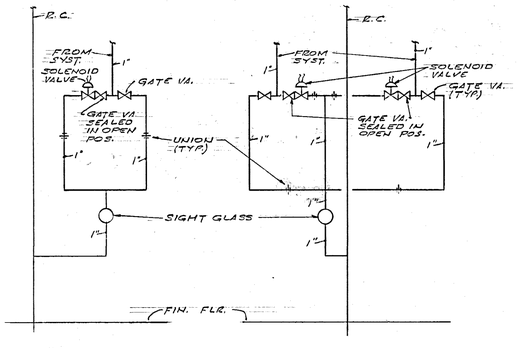
NO SCALE

NOTE:
DELUGE VALVE "WATER CURTAIN" TO BE DESIGNED TO PROVIDE HYDRAULIC CALCULATIONS FOR PIPE SIZING BASED ON A WATER DENSITY OF .50 G.P.M. PER SQ FT. OF OPENING.



DRY PIPE RISER ARRANGEMENT #1

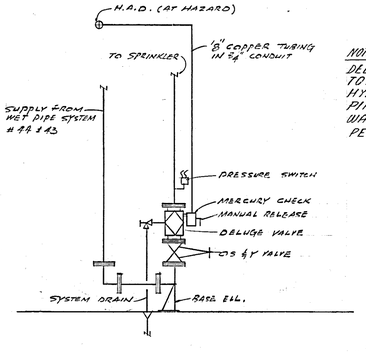
NO SCALE



SINGLE TEST DOUBLE TEST

DETAIL OF INSPECTORS TEST CONNECTIONS

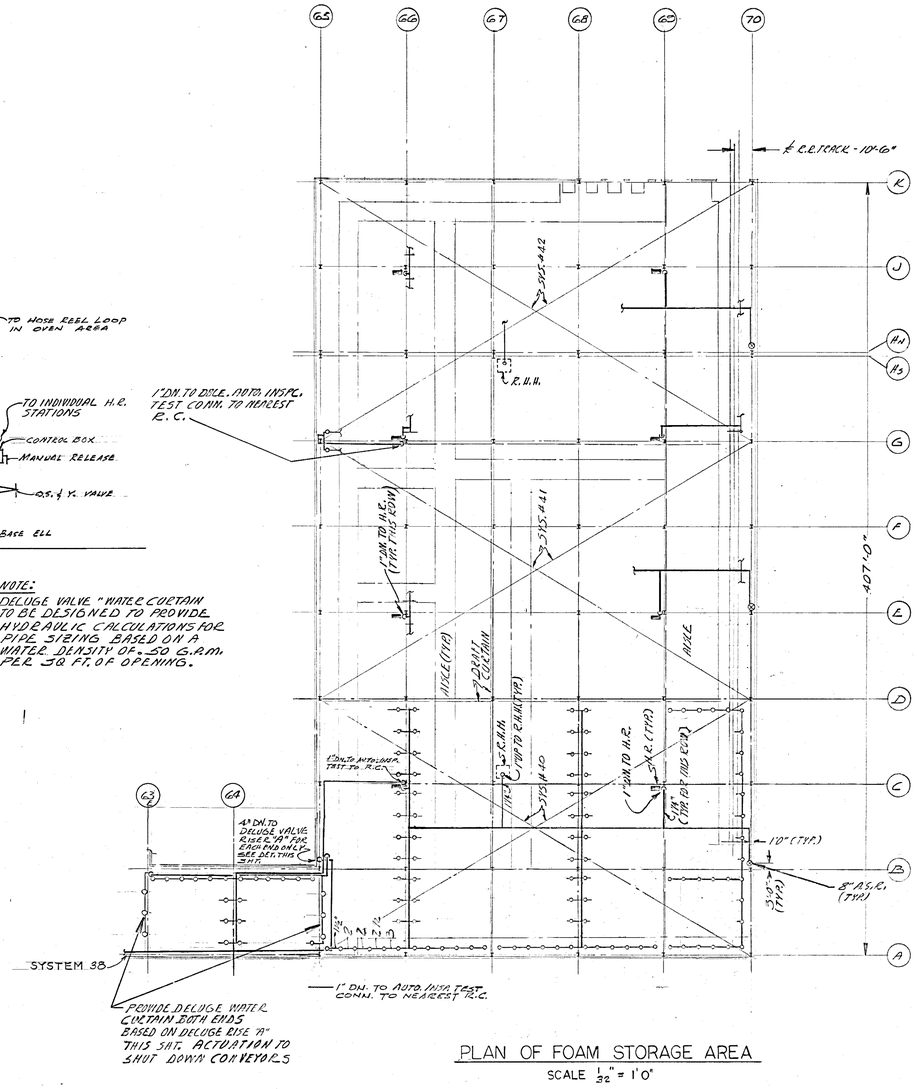
NO SCALE



DETAIL OF DELUGE VALVE RISER "B"

NO SCALE

NOTE:
DELUGE VALVE "WATER CURTAIN" TO BE DESIGNED TO PROVIDE HYDRAULIC CALCULATIONS FOR PIPE SIZING BASED ON A WATER DENSITY OF .50 G.P.M. PER SQ. FT. OF OPENING.



PLAN OF FOAM STORAGE AREA

SCALE 1/32" = 1'0"

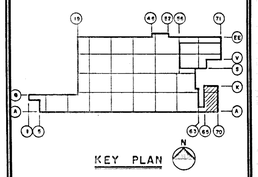
NOTES:

1- SEE SCHEDULE ON SHT. MF-2 FOR SYSTEM HYDRAULIC CALCULATIONS.

2- PROVIDE 2'-6" CLEARANCE FROM FACE OF EQUIPMENT TO ℄ OF R.R. TRACK.

3- THE ELECTRICAL INTERLOCK BETWEEN THE WATER FLOW SWITCHES IN RISERS No. 39, 40, 41 & 42 AND THE POWER SMOKE & HEAT RELIEF FANS WILL BE BY THE ELECT. TRADES.

DATE	ISSUED FOR	APPROVAL	APPROVAL
4-18-77	FIRE PROT. BID	C.C. Dowdy	W. J. Hunt
5-27-77	PTG & FIN. BID		



NO.	DATE	BY	APPROVAL	APPROVAL
FR0356	6-23-76	AA		
61	7-7-77	SCL		
FC-81	5-27-77	DH		

REVISIONS

CONTRACT SIGNATURES

FOR THE OWNER

FOR THE CONTRACTOR

DRAWING CERTIFIED BY

REGISTERED

STATE

NUMBER

DATE

ARGONAUT

PLANT ENGINEERING AND CONSTRUCTION MANUFACTURING STAFF

GENERAL MOTORS CORPORATION

DIVISION OF GENERAL MOTORS

485 WEST MILWAUKEE AVENUE • DETROIT, MICHIGAN

ARCHITECTURE • ENGINEERING • REAL ESTATE • CONSTRUCTION MANAGEMENT

NEW MANUFACTURING PLANT FOR OKLAHOMA INDUSTRIES AUTHORITY TENANCY BY

GM ASSEMBLY DIVISION

GENERAL MOTORS CORPORATION

OKLAHOMA CITY OKLAHOMA

PROJECT TITLE

FOAM STORAGE AREA AND DETAILS

SHEET TITLE

OWNER'S IDENTIFICATION

4500 P. E. & C. PROJECT NUMBER

DATE 4-18-77

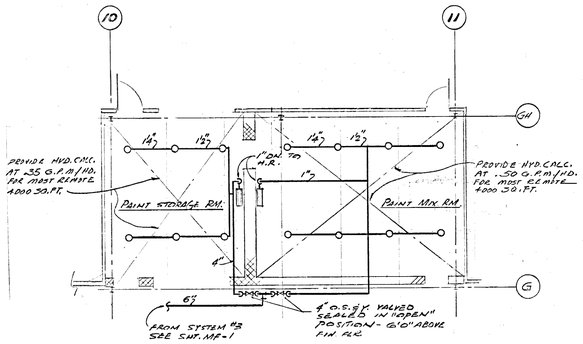
DRAWN BY D.H., DS., J.K.

JOB CAPT. R. BRUZA

MF-8

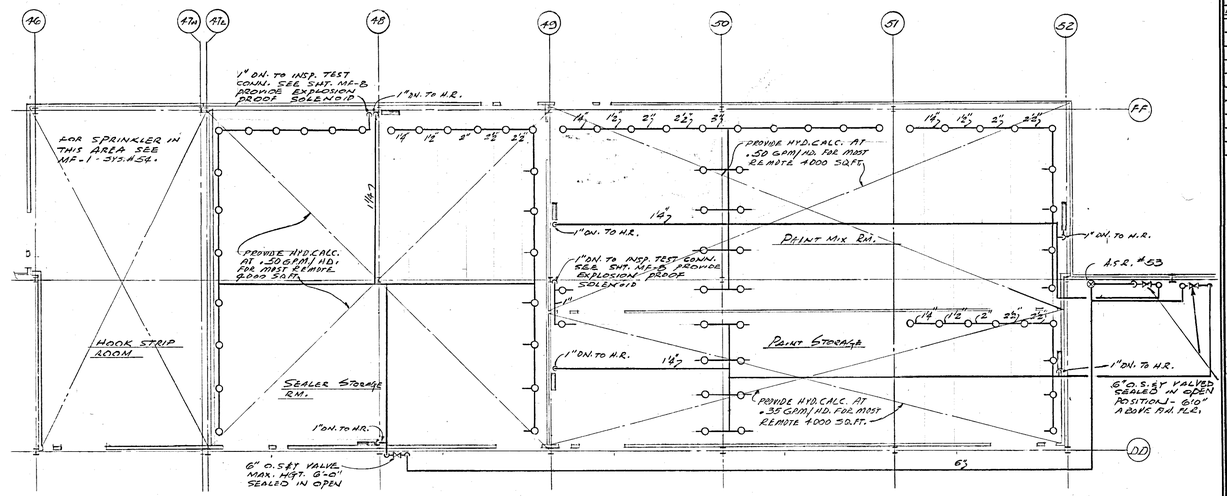
SHEET NUMBER

ARGO 118 REV. 12-69 K&E 17 0153 8-74 1790+



SPRINKLERS FOR PAINT STORAGE

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



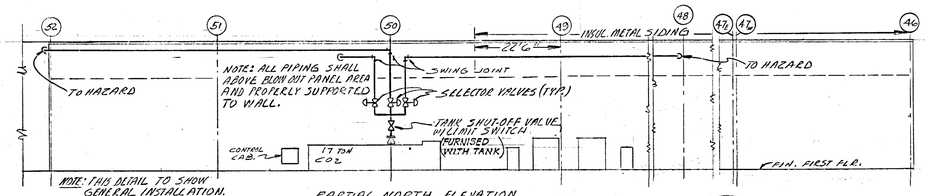
SPRINKLER SYSTEMS FOR

PAINT STORAGE & MIX ROOMS

SCALE: 1/16" = 1'-0"

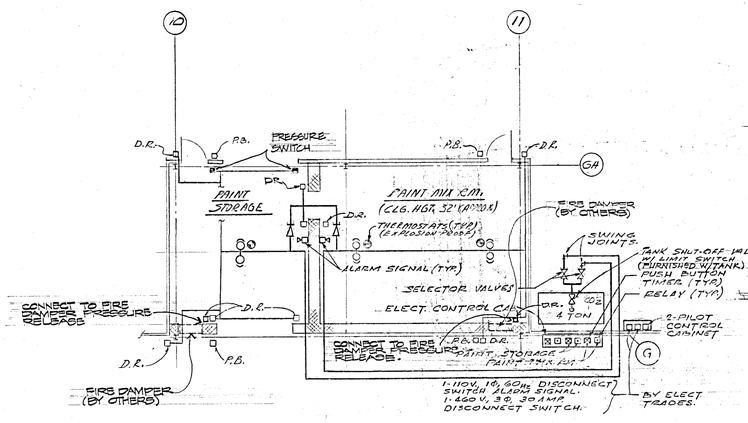
NOTES:

1. PROVIDE HYDRAULIC CALCULATIONS FOR SYSTEMS. SEE SCHEDULE SHEET MF-2 FOR DENSITIES.
2. ALL PENETRATION OF WALLS SHALL BE SEALED AIR TIGHT W/ APPROV. MASTIC.
3. FURNISH AND INSTALL AT END OF EACH BRANCH LINE W/ 3 OR MORE HEADS A 12" APPROVED LINE TESTER.
4. TEMPERATURE RATING OF SPRINKLER HEADS SHALL BE 286°F. AND 171.22° CONCEL.
5. THE CONTRACTOR SHALL CHECK LOCATIONS OF ALL SPRINKLER BRANCH LINES, CROSSMAINS, BACK FEED MAINS, ETC. WITH RESPECT TO OWNER'S PROCESS EQUIPMENT, CRANE RAILS, ETC.



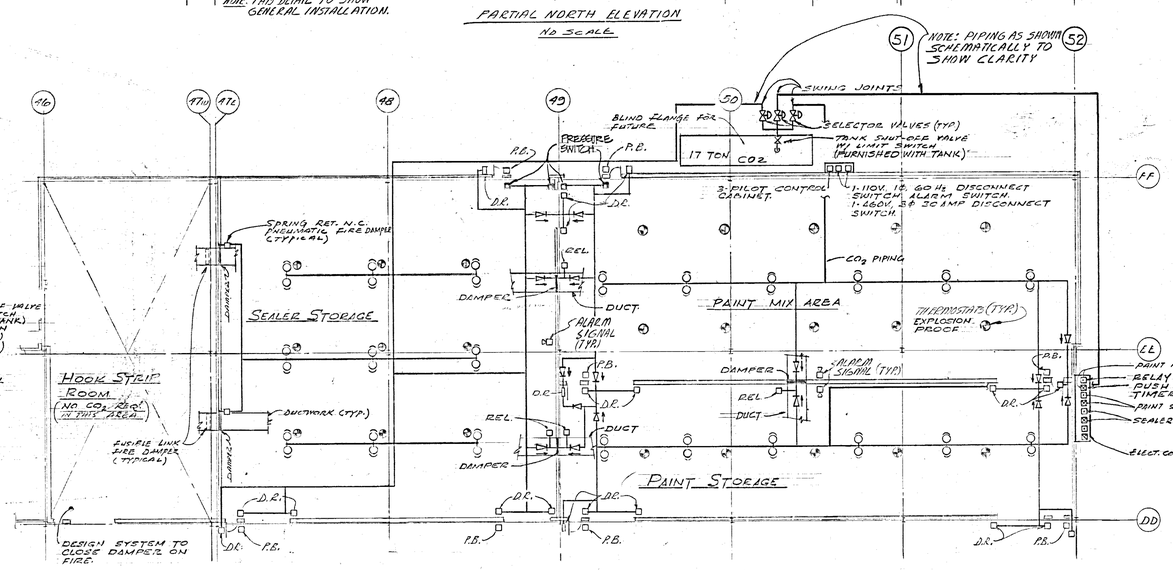
PARTIAL NORTH ELEVATION

No Scale



CO_2 SYSTEM FOR PAINT STORAGE

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



CO_2 SYSTEMS FOR

PAINT STORAGE & MIX ROOMS

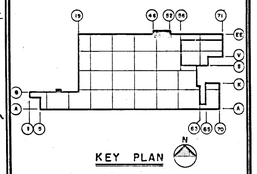
SCALE: 1/16" = 1'-0"

NORTH

NOTES:

1. ADJUST ALL NOZZLES FOR EFFECTIVE DISCHARGE.
2. CONTRACTOR TO COORDINATE SHUTDOWN, ELECTRONIC TESTS, ETC. W/COMPUTER CONSOLE, AND ALL DESIGNED OWNERS EQUIPMENT.
3. ALL ELECTRICAL EQUIPMENT IN HAZARD AREA TO BE EXPLOSION PROOF.
4. PROVIDE 3 WAYS TO DISCHARGE SYSTEM:
   A. AUTOMATIC BY DETECTORS
   B. MANUAL — ELECTRICAL
   C. MANUAL AT TANK (ALWAYS UNLOCKED).
5. CONTACTS REQUIRED FOR REMOTE HI-LO PRESSURE ALARM.
6. CO_2 LIQUID GAUGE REQUIRED ON CO_2 STORAGE TANKS.
7. PROVIDE ADDITIONAL SPACE IN CONTROL PANEL FOR FUTURE EQUIPMENT.
8. ALL OPENINGS AND PENETRATION IN WALLS TO BE SEALED AIR TIGHT WITH APPROVED MASTIC.

DATE	ISSUED FOR	APPROVAL	APPROVAL
4-18-77	FIRE PROT & ID	G.C. Nowak	K.J. Hlavacek
5-27-77	PTG & FIN. BIO BK.		



NO.	DATE	BY	APPROVAL	APPROVAL
ECO 228	3-22-79	EB/KW	[illegible]	
ECO 315	8-21-78	KJW	[illegible]	
ECO 93	9-20-77	LW	[illegible]	
C1	7-7-77	BG	[illegible]	
PC-21	5-27-77	DH	[illegible]	[illegible]

REVISIONS

CONTRACT SIGNATURES

FOR THE OWNER

FOR THE CONTRACTOR

DRAWING CERTIFIED BY

REGISTERED

STATE

NUMBER

DATE

PLANT ENGINEERING AND CONSTRUCTION MANUFACTURING STAFF

GENERAL MOTORS CORPORATION
465 WEST MILWAUKEE AVENUE & DETROIT, MICHIGAN

NEW MANUFACTURING PLANT
FOR
OKLAHOMA INDUSTRIES AUTHORITY
TENANCY BY
GM ASSEMBLY DIVISION
GENERAL MOTORS CORPORATION
OKLAHOMA CITY OKLAHOMA

PROJECT TITLE

PAINT STORAGE AND MIX AREAS

SHEET TITLE

OWNER'S IDENTIFICATION

4500
P. E. & C. PROJECT NUMBER

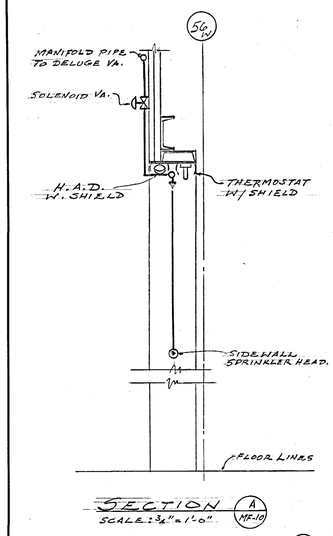
DATE 4-18-77

DRAWN BY DH/JKR/DS

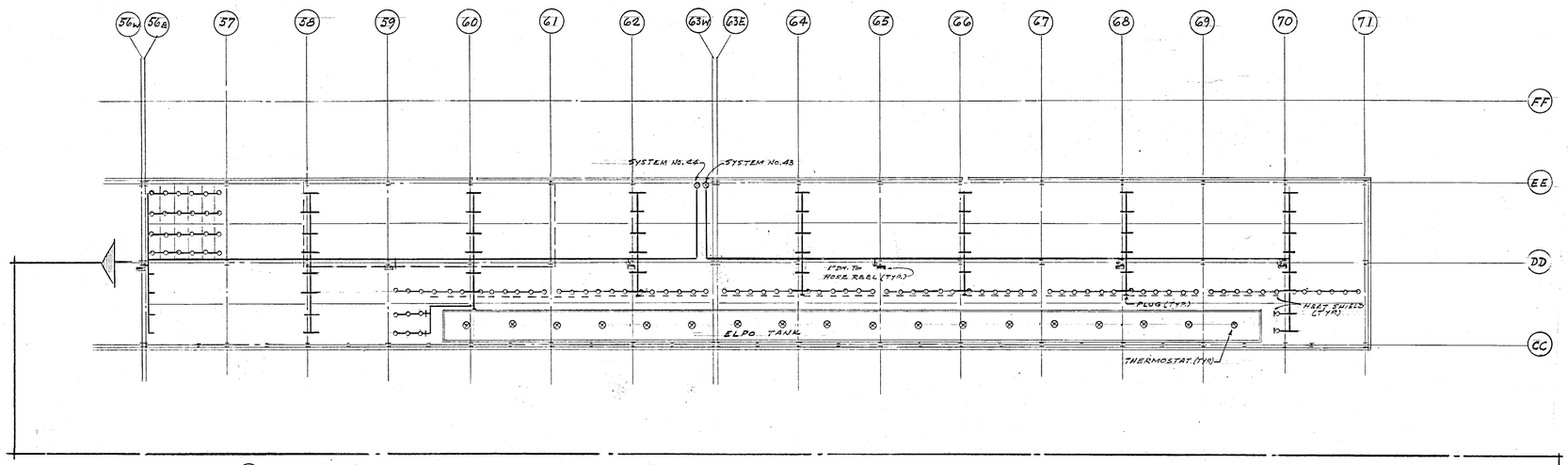
JOB CAPT. R.P. FRUZA

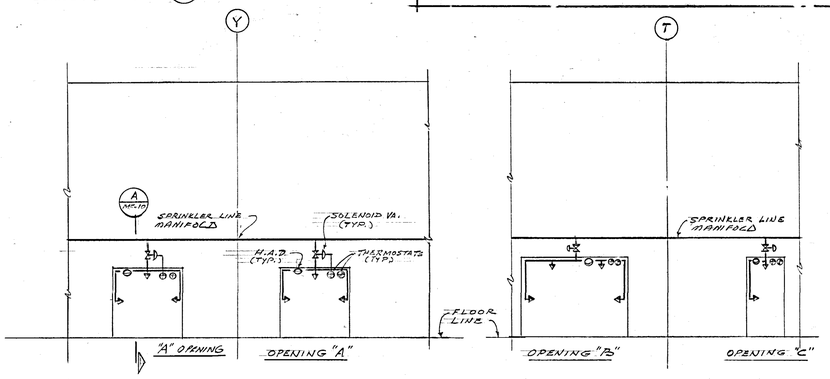
MF - 9
SHEET NUMBER

PROJECT NO. 4500 SHEET NO. MF-10



SECTION A MF-10
SCALE: 3/8" = 1'-0"



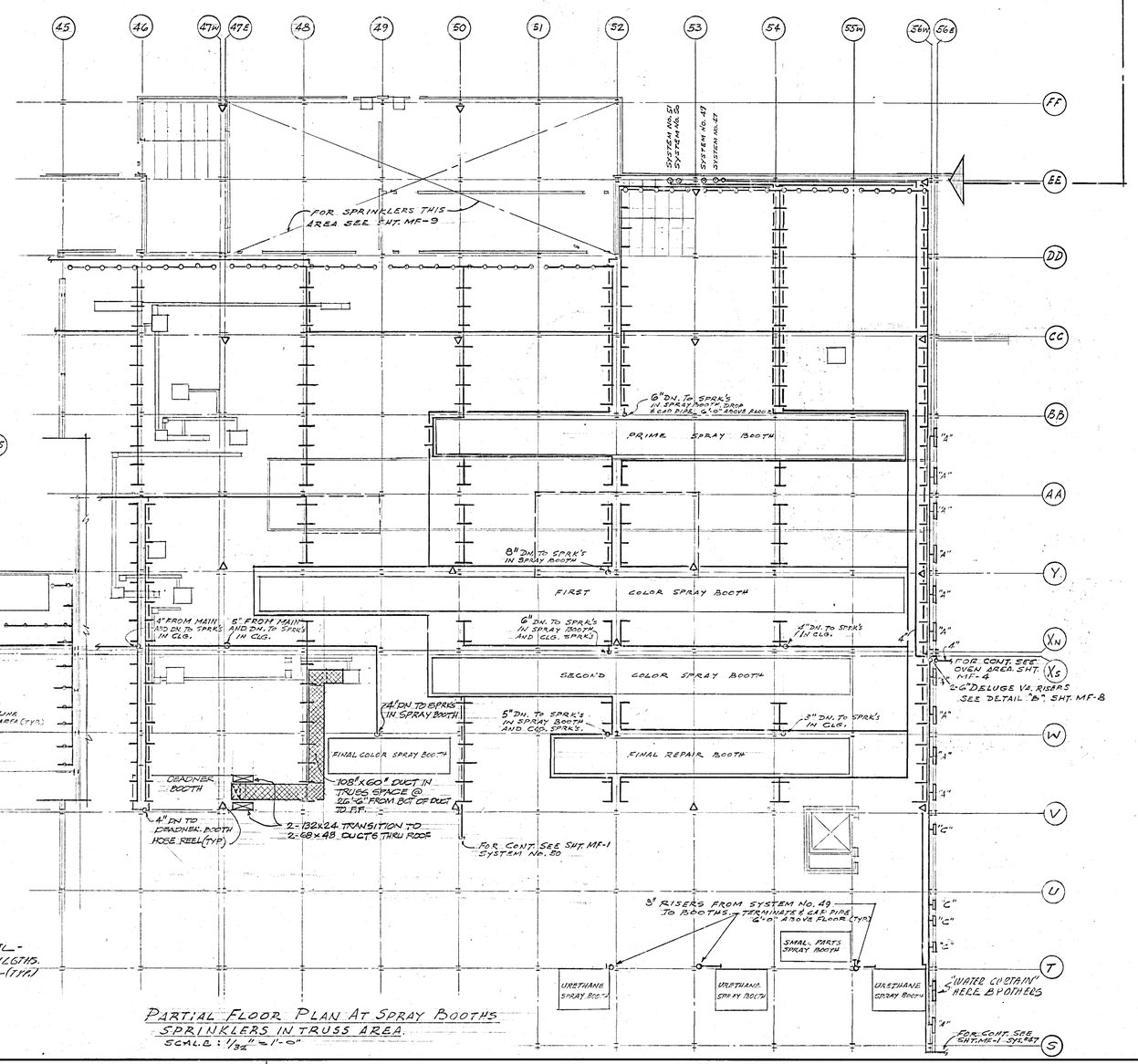


PARTIAL WALL ELEVATION AT COLUMN LINE 56W
SCALE: 1/8" = 1'-0"

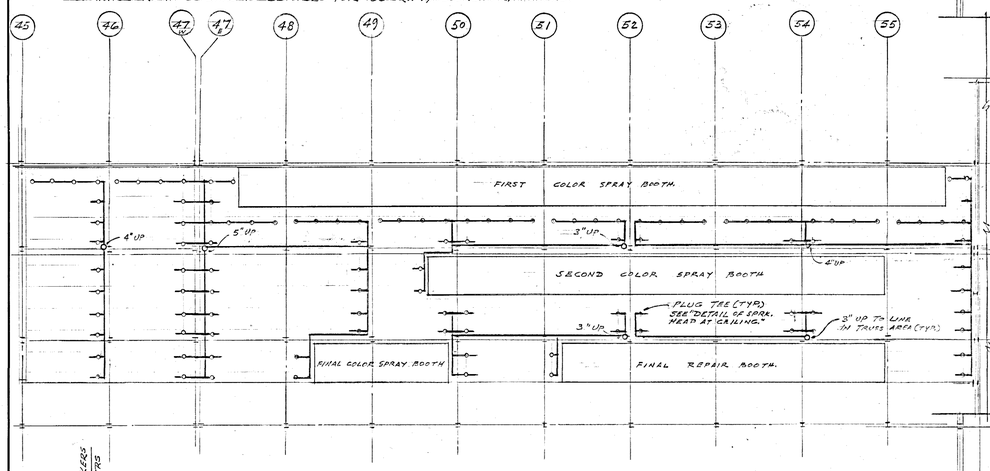
NOTES:

1-PROVIDE HYDRAULIC CALCULATIONS FOR SYSTEMS. SEE SCHEDULE SHT. MF-2 FOR DENSITIES

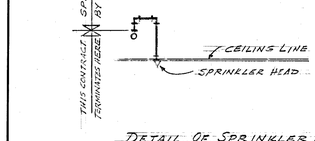
2-SPRINKLER AT CEILING (SPRAY BOOTHS AREA) BY OTHERS. THIS CONTRACT ENDS WITH PLUG TEES CONNECTIONS, AS SHOWN IN PLAN BELOW. SPRINKLERS IN CEILING TO BE SIZED FOR 100 SQ.FT/HD ORDINARY HAZARD.



PARTIAL FLOOR PLAN AT SPRAY BOOTHS
SPRINKLERS IN TRUSS AREA
SCALE: 1/32" = 1'-0"



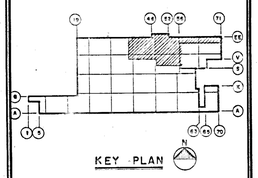
CEILING PLAN AT SPRAY BOOTHS.
SPRINKLER PIPING FOR SPRINKLERS AT CEILING
SCALE: 1/32" = 1'-0"



DETAIL OF SPRINKLER HEAD AT SUSPENDED CEILING
NO SCALE

LEGEND: △ = HOSE REEL - 100' 2-50' LGTHS. 1½" HOSE - (TYP.)

DATE	ISSUED FOR	APPROVAL	APPROVAL
4-18-77	FIRE PROT. & HD	G. L. Downs	W. J. Hirsch
5-27-77	FFS & FIN. BOOTH		



NO.	DATE	BY	APPROVAL	APPROVAL
EFD381	8-3-78	AA		
EFD261	3-7-78	BO		
EFD250	2-20-78	BO		
EFD 219	01-13-78	A.A.		
125	11-21-77	BO		
61	7-7-77	SO		
PC-21	5-27-77	DH		

REVISIONS

CONTRACT SIGNATURES — FOR THE OWNER — FOR THE CONTRACTOR

DRAWING CERTIFIED BY — REGISTERED — STATE — NUMBER — DATE

PLANT ENGINEERING AND CONSTRUCTION
MANUFACTURING STAFF
GENERAL MOTORS CORPORATION
ARGONAUT
ARCHITECTURE & ENGINEERING — REAL ESTATE & CONSTRUCTION MILWAUKEE

NEW MANUFACTURING PLANT FOR OKLAHOMA INDUSTRIES AUTHORITY TENANCY BY
GM ASSEMBLY DIVISION
GENERAL MOTORS CORPORATION
OKLAHOMA CITY OKLAHOMA

PROJECT TITLE

ELPO AREA &
FIRST FLOOR
PAINT SHOP

SHEET TITLE

OWNER'S IDENTIFICATION — P. E. & C. PROJECT NUMBER: 4500

DATE: 4-18-77

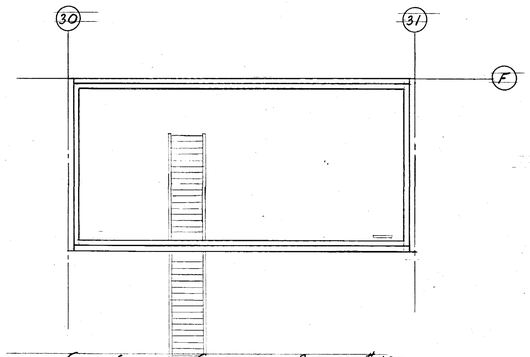
DRAWN BY: OE

JOB CAPT.: R. BRUZA

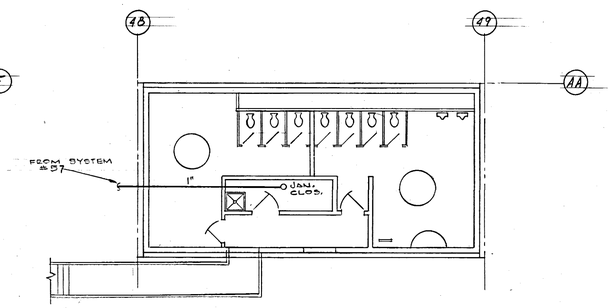
SHEET NUMBER: MF-10

ARGO 118 REV. 12-69 KOKE 17 0173 2-76 1790

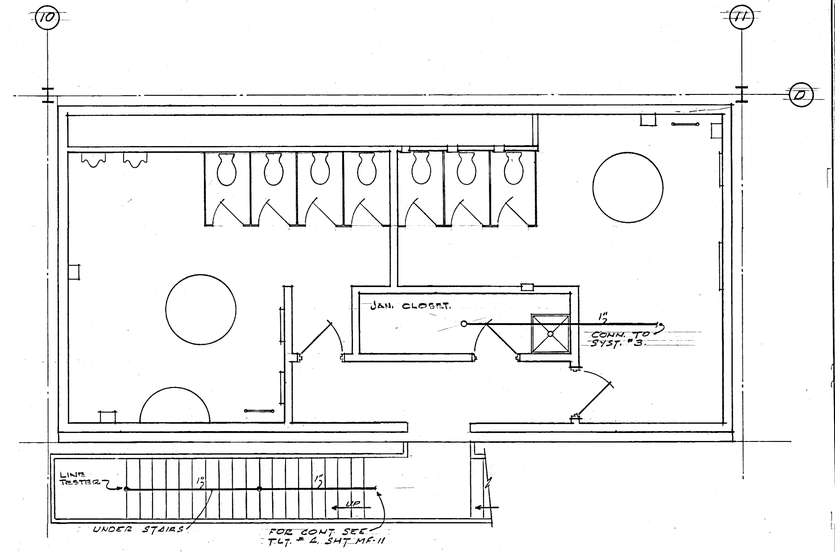
PROJECT NO. 4500 SHEET NO. MF-11

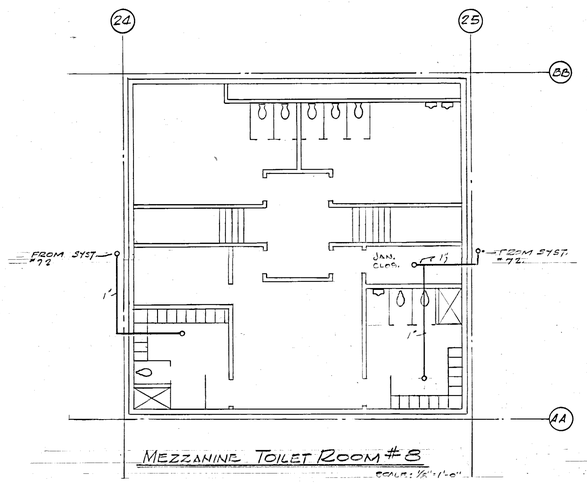


CONVEYOR CONTROL ROOM #13
SCALE 1/8"=1'-0"

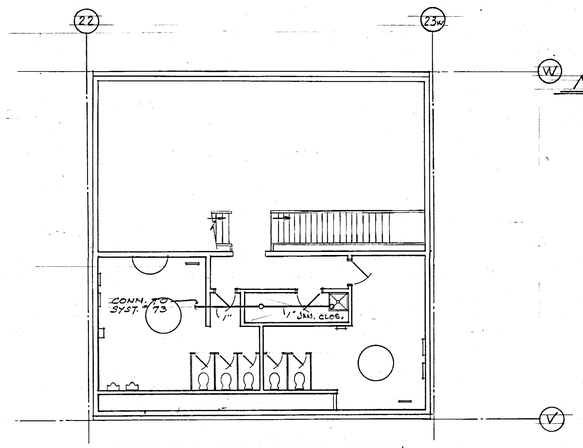


MEZZANINE TOILET ROOM #10
SCALE 1/8"=1'-0"



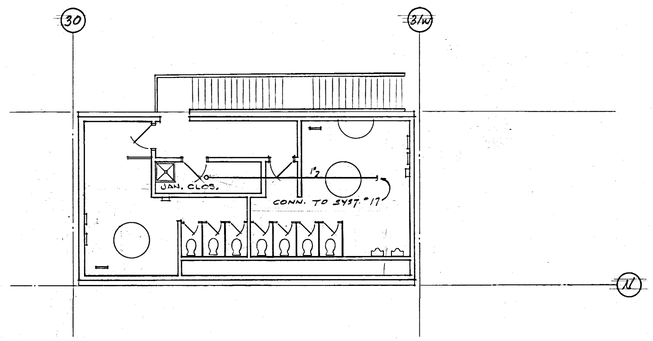


MEZZANINE TOILET ROOM #8
SCALE: 1/8"=1'-0"

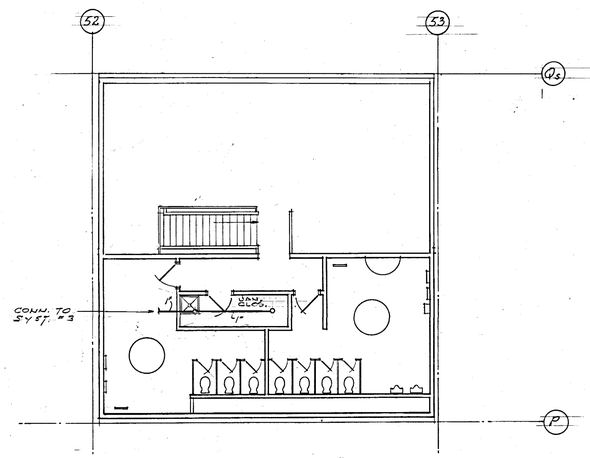


CONVEYOR CONTROL ROOM ℄
MEZZANINE TOILET ROOM #9
SCALE 1/8"=1'-0"

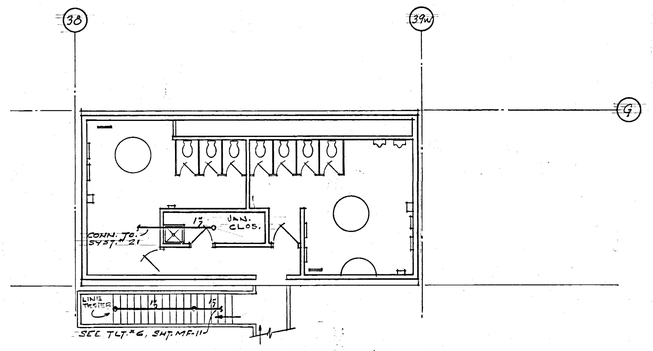
MEZZANINE TOILET ROOM #7
SCALE 1/4"=1'-0"



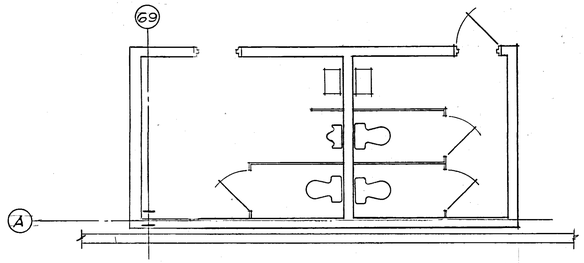
MEZZANINE TOILET ROOM #5
SCALE 1/8"=1'-0"



CONVEYOR CONTROL ROOM ℄
MEZZANINE TOILET ROOM #7
SCALE 1/8"=1'-0"



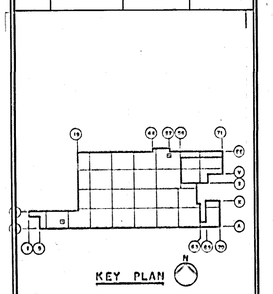
MEZZANINE TOILET ROOM #6
SCALE 1/8"=1'-0"



STORAGE BLDG. TOILET ROOM #11
SCALE 1/8"=1'-0"

NOTE: ALL SPRINKLER HEADS IN THESE AREAS SHALL BE 180 °F. ORDINARY HAZARD OCCUPANCY AND ORDINARY PIPE SIZE W/ 165°F. HEADS.

DATE	ISSUED FOR	APPROVAL	APPROVAL
4-18-77	FIRE PROT. BID	G.C. Woods	R. J. Hlavac
5-27-77	FFG & FIN. BIDS		



NO.	DATE	BY	APPROVAL	APPROVAL
EO 236	1-26-78	RO		
61	7-7-77	SG		

REVISIONS

CONTRACT SIGNATURES
FOR THE OWNER
FOR THE CONTRACTOR

DRAWING CERTIFIED BY
REGISTERED
STATE
NUMBER
DATE

PLANT ENGINEERING AND CONSTRUCTION
MANUFACTURING STAFF
GENERAL MOTORS CORPORATION
475 WEST MILWAUKEE AVENUE & DETROIT, MICHIGAN

NEW MANUFACTURING PLANT
FOR
OKLAHOMA INDUSTRIES AUTHORITY
TENANCY BY
G M ASSEMBLY DIVISION
GENERAL MOTORS CORPORATION
OKLAHOMA CITY OKLAHOMA

PROJECT TITLE

MEZZANINE TOILETS ℄
CONTROL ROOMS
OVERHEAD PIPING

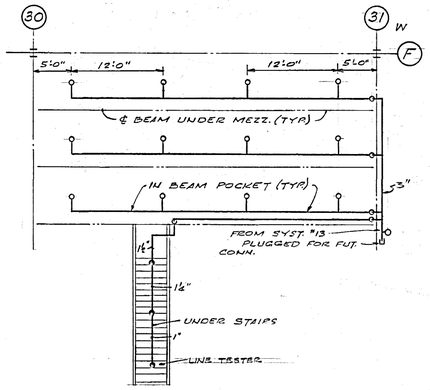
SHEET TITLE

OWNER'S IDENTIFICATION
4500
P. E. & C. PROJECT NUMBER

DATE 4-18-77
DRAWN BY JKK
JOB CAPT. D. BRUZA

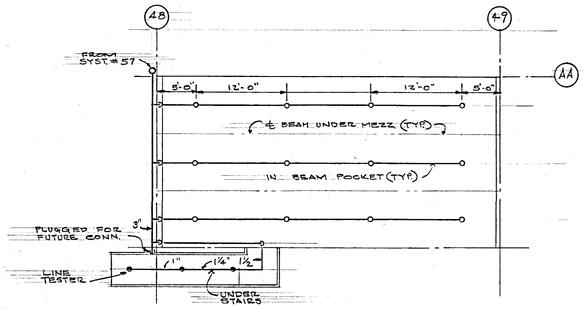
MF-11
SHEET NUMBER

ARGO 116 REV. 12-69 KOKE 17 0193 2-74 1770+



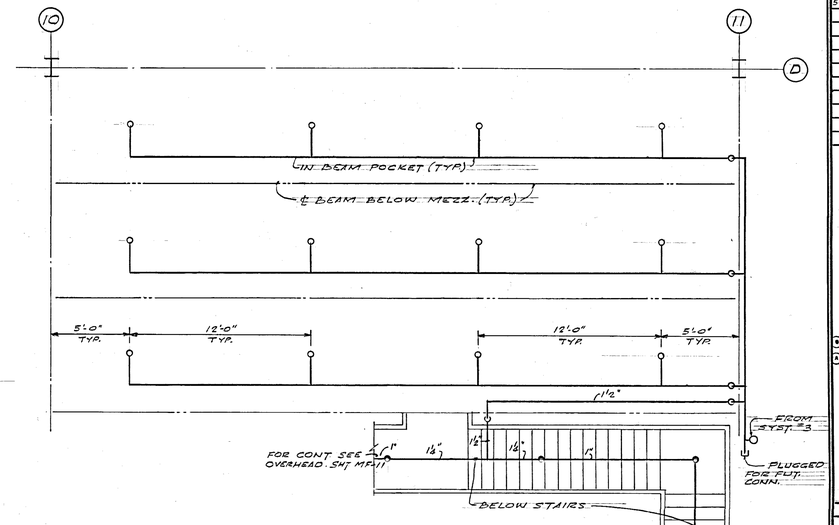
SPRINKLERS UNDER CONVEYOR CONTROL RM. #13 & STAIRS

SCALE ⅛"=1'-0"



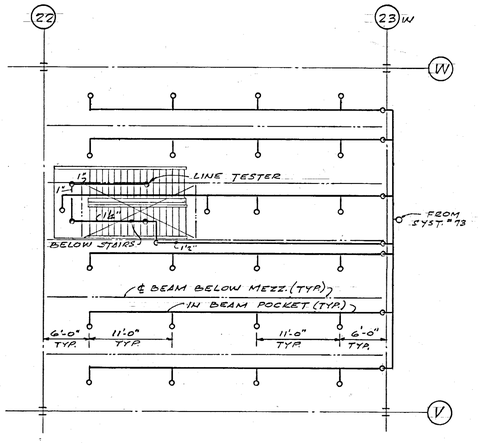
SPRINKLERS UNDER MEZZANINE TOILET ROOM #10

SCALE: ⅛"=1'-0"



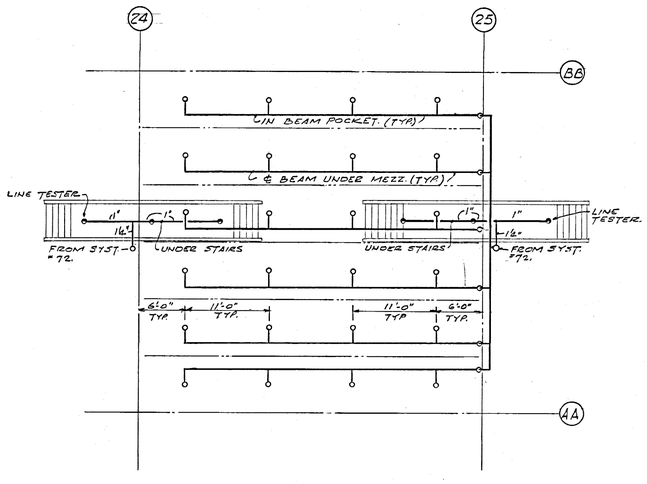
SPRINKLERS UNDER MEZZ. TOILET ROOM #4 & STAIRS

SCALE ¼"=1'-0"



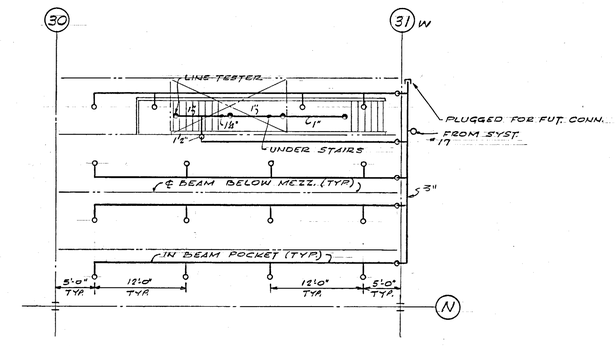
SPRINKLERS UNDER MEZZ. TOILET RM. #9
CONVEYOR CONTROL ROOM & STAIRS

SCALE ⅛"=1'-0"



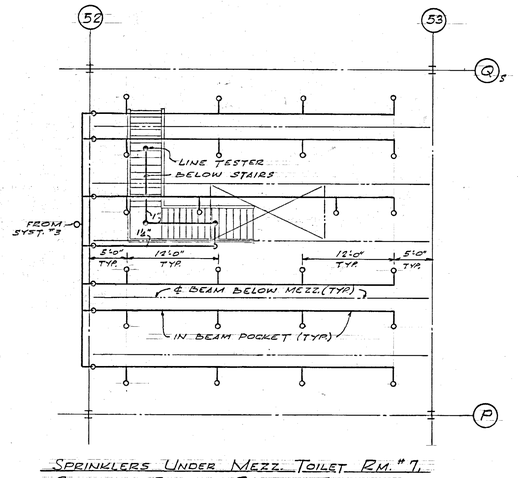
SPRINKLERS UNDER MEZZ. TOILET RM. #8 & STAIRS

SCALE ⅛"=1'-0"



SPRINKLERS UNDER MEZZ. TOILET RM. #5 & STAIRS

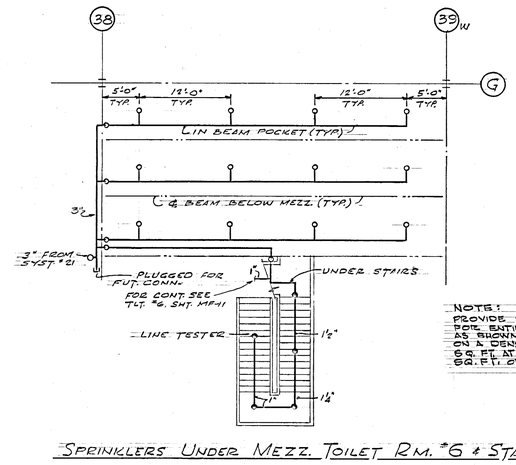
SCALE ⅛"=1'-0"



SPRINKLERS UNDER MEZZ. TOILET RM. #7,
CONVEYOR CONTROL ROOM & STAIRS

SCALE ⅛"=1'-0"

NOTE:
COORDINATE ALL MEZZANINE LAYOUTS WITH ELECT TRADES. SEE SHT. E-76 FOR TYPICAL LIGHTING LAYOUT.

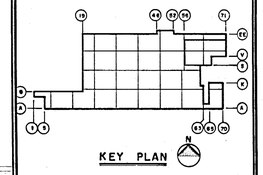


SPRINKLERS UNDER MEZZ. TOILET RM. #6 & STAIRS

SCALE ⅛"=1'-0"

NOTE:
PROVIDE HYDRAULIC CALCULATIONS FOR SUPPLY AREA BELOW MEZZANINE AS SHOWN ON THIS SHEET BASED ON A DENSITY OF .30 GPM PER SQ. FT. AT MOST REMOTE 1,000 SQ. FT. OF FLOOR AREA.

DATE	ISSUED FOR	APPROVAL	APPROVAL
4-15-77	FIRE PROT. BID	G.C. Nash	Richard Hiesel
5-27-77	FIRE & GN BORD		



KEY PLAN

NO.	DATE	BY	APPROVAL	APPROVAL
61	7-7-77	GG		

REVISIONS

CONTRACT SIGNATURES

FOR THE OWNER

FOR THE CONTRACTOR

DRAWING CERTIFIED BY

REGISTERED

STATE

NUMBER

DATE

ARGONAUT

PLANT ENGINEERING AND CONSTRUCTION
MANUFACTURING STAFF
GENERAL MOTORS CORPORATION
485 WEST MILWAUKEE AVENUE • DETROIT, MICHIGAN

NEW MANUFACTURING PLANT
FOR
OKLAHOMA INDUSTRIES AUTHORITY
TENANCY BY
G M ASSEMBLY DIVISION
GENERAL MOTORS CORPORATION
OKLAHOMA CITY OKLAHOMA

PROJECT TITLE

MEZZANINE TOILETS
CONTROL ROOMS
UNDER MEZZ. PIPING

SHEET TITLE

OWNER'S IDENTIFICATION

P. E. & C. PROJECT NUMBER: 4500

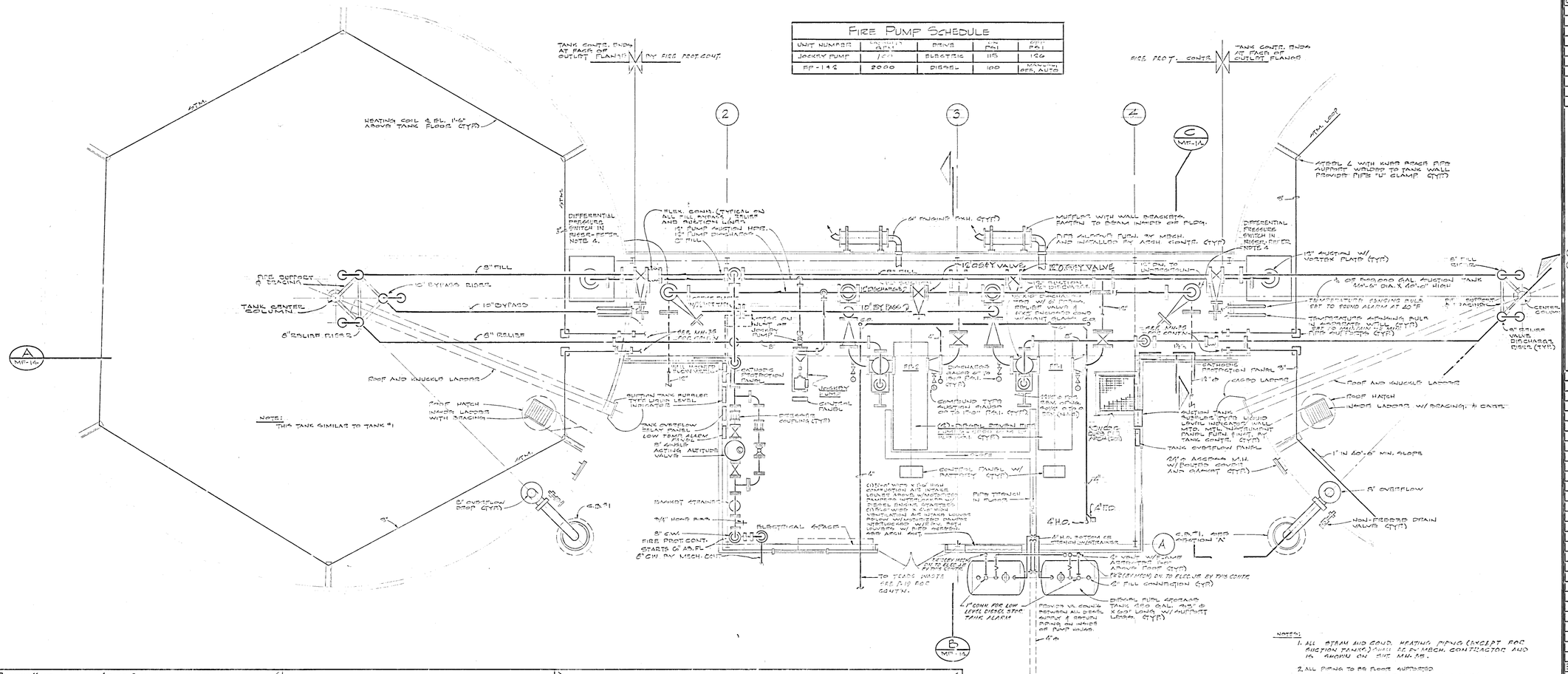
DATE 4-18-77

DRAWN BY JKK

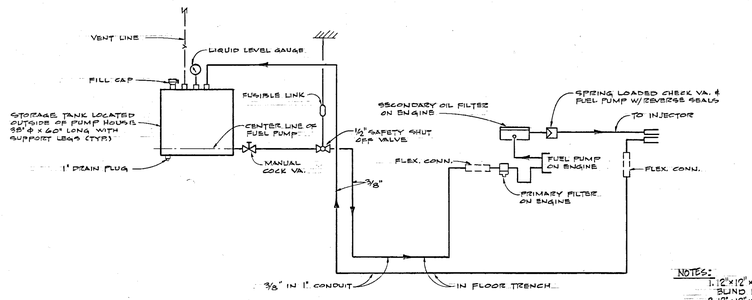
JOB CAPT. R. BRUZA.

SHEET NUMBER: MF-12

PROJECT NO. 4500 SHEET NO. MF-13


TANK CONTR. ENDS AT FACE OF OUTLET FLANGE
BY FIRE PROT. CONT.
FIRE PROT. CONTR.
TANK CONTR. ENDS AT FACE OF OUTLET FLANGE
HEATING COIL 4 EL. 1'-6" ABOVE TANK FLOOR (TYP.)
DIFFERENTIAL PRESSURE SWITCH IN RISER-FITTER. NOTE 4.
FLEX. CONN. (TYPICAL ON ALL FILL ENDS & SUCTION LINES) 12" PUMP SUCTION HDR. 12" PUMP DISCHARGE 8" FILL
6" DRAINS (TYP.)
MUFFLER WITH WALL BRACKETS FASTEN TO BEAM INSIDE OF BLDG.
PIPE ALONG PERIM. BY MECH. AND INSTALLED BY ARCH. CONTR. (TYP.)
DIFFERENTIAL PRESSURE SWITCH IN RISER-FITTER. NOTE 4.
12" SUCTION W/ VORTEX PLATE (TYP.)
8" FILL
12" GATE VALVE
12" GATE VALVE
12" DIA. TO UNDERGROUND
8" FILL
STEEL L WITH KUBE BRACE PIPE SUPPORT WELDED TO TANK WALL PROVIDE PIPE "U" CLAMP (TYP.)
FIRE SUPPORT & BRACING
10" BYPASS RISER
12" BYPASS
TANK CENTER COLUMN
8" RELIEF RISER
8" RELIEF
AIR VALVE FOR TANK
12" CHECK VALVE
10" BY 12" REDUCER
12" CHECK VALVE
12" SUCTION (12" DISCHARGE)
12" GATE VALVE
12" GATE VALVE
12" SUCTION (12" DISCHARGE)
AIR VALVE FOR CONTR.
4 OF 500,000 GAL. SUCTION TANK 40'-6" DIA. X 40'-0" HIGH
TEMPERATURE SENSING BULB SET TO SOUND ALARM AT 40°F
TEMPERATURE SENSING BULB W/ MOTORS, WIRED TO FIRE PUMP PANEL (TYP.)
FIRE SUPPORT & BRACING
CENTER COLUMN
8" RELIEF VALVE DISCHARGE RISER (TYP.)
MF-14A
ROOF AND INSIDE LADDER
ROOF HATCH INSIDE LADDER WITH BRACING
NOTE: THIS TANK SIMILAR TO TANK #1
SUCTION TANK SUPPLIER TYPE LIQUID LEVEL INDICATOR
TANK OVERFLOW RELAY PANEL LOW TANK ALARM LEVEL
8" INSIDE ACTUATING ALTITUDE VALVE
JOCKEY PUMP
CONTROL PANEL
PRESSURE COUPLING (TYP.)
DISCHARGE (8" TO 10" BY 14") (TYP.)
COMPOUND TYPE SUCTION GAUGE 0-30 (30" HG.) (TYP.)
(2) 8" DRAIN, DRAIN PIPE
SUCTION TANK SUPPLIER TYPE LIQUID LEVEL INDICATOR, WALL MTD. MTG. INSTRUMENT PANEL FURN. & INST. BY TANK CONTR. (TYP.)
TANK OVERFLOW PANEL
M/R ARCHMA V.H. W/ BULKED COVER AND GASKET (TYP.)
CARGO LADDER
ROOF AND INSIDE LADDER
ROOF HATCH
INSIDE LADDER W/ BRACING; & CAGE
1" IN 40'-6" MIN. SLOPE
8" OVERFLOW
NON-FREEZE DRAIN VALVE (TYP.)
8" OVERFLOW ROOF (TYP.)
C.B.-1
BAKELITE PROTECTION PANEL
BAKELITE PROTECTION PANEL
CONTROL PANEL W/ INSTRUMENTS (TYP.)
PIPE TRENCH IN FLOOR
4" H.D.
4" H.D.
BAKELITE PROTECTION PANEL
BAKELITE PROTECTION PANEL
BAKELITE PROTECTION PANEL

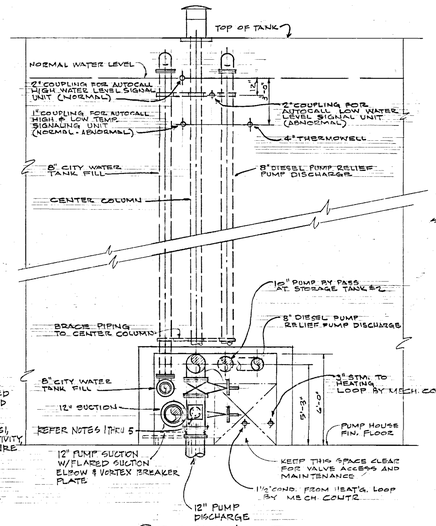
PROJECT NO. SHEET NO.



DIESEL ENGINE FUEL OIL PIPING DIAGRAM

NO SCALE

NOTES:
ALL DIESEL FUEL OIL CONNECTIONS FROM TANK TO ENGINE ARE COPPER TUBING.

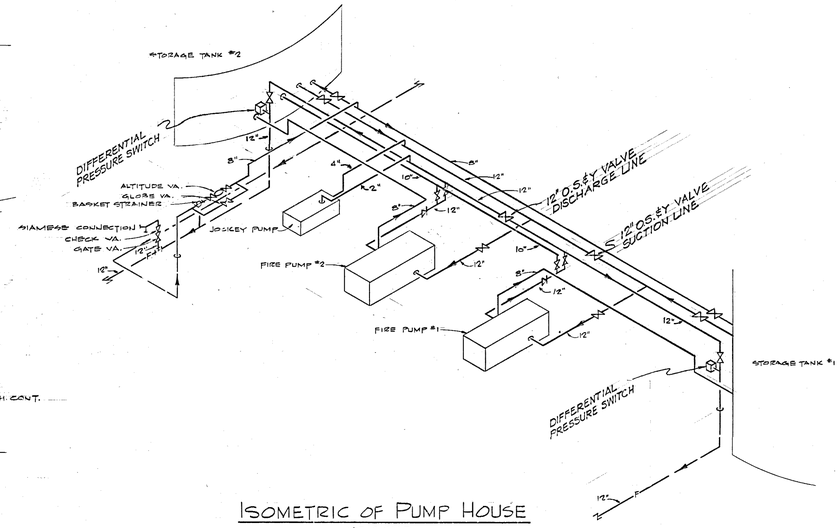


NOTES:
1. 12"x12"x4" TEE & BLIND FLANGE WITH ½" TAP.
2. 12"x12"x6" NEMA BOX W/HINGED WEATHERPROOF COVER, BOLTED TO BLIND FLANGE.
3. U.L. LISTED DIFFERENTIAL PRESSURE SWITCH, 0-250 PSI, 1-20 PSI ADJUSTABLE SENSITIVITY, ACTIVATES ON FALLING PRESSURE ONLY
4. NOTES 2 & 3 BY FIRE PROTECTION CONTRACTOR.
5. WIRING & CONDUIT BY ELECTRICAL CONTRACTOR.

SECTION C

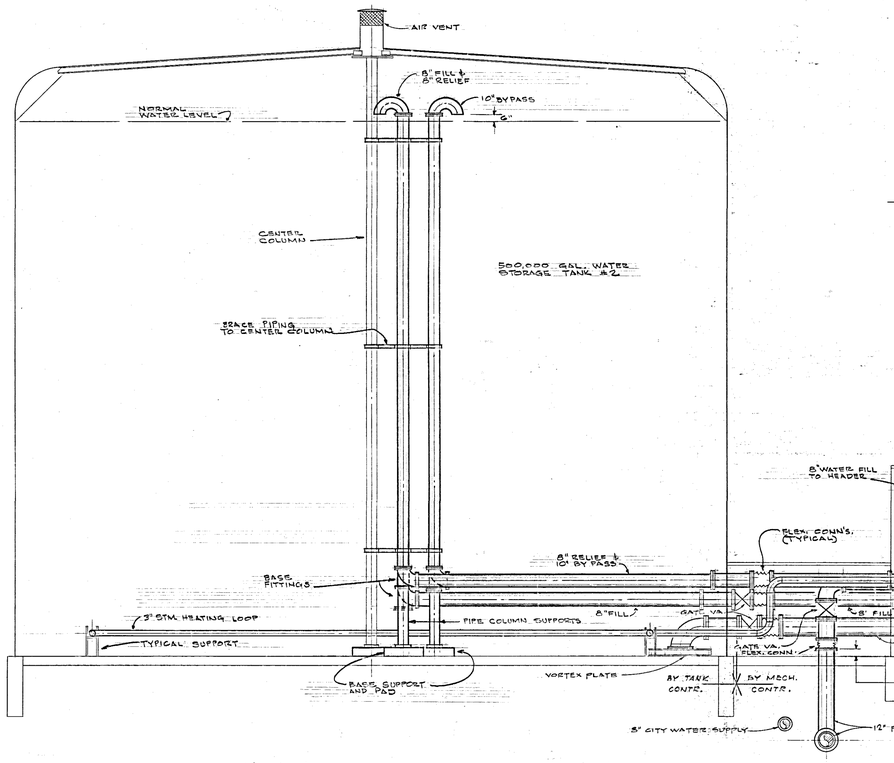
SCALE: ½" = 1'-0"

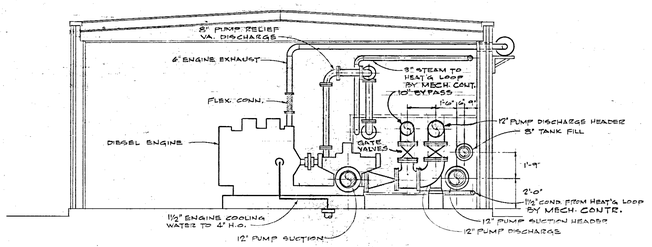
ME-13



ISOMETRIC OF PUMP HOUSE

NO SCALE

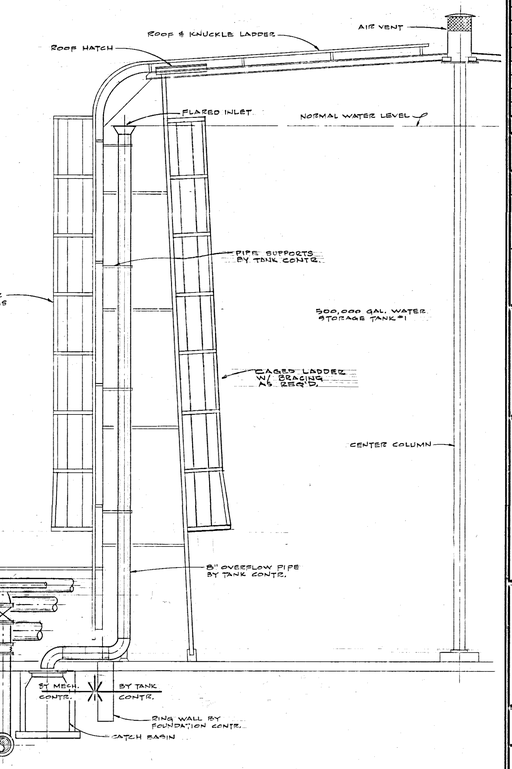


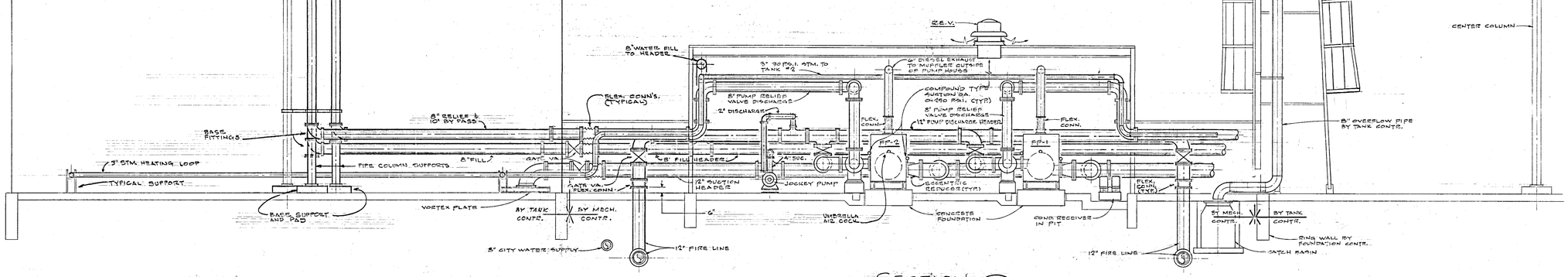


SECTION B

SCALE: ½" = 1'-0"

ME-13

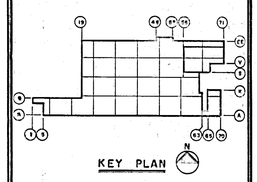




SECTION A

SCALE: ½" = 1'-0"

MF-13



DATE	ISSUED FOR	APPROVAL	APPROVAL
4-18-77	FIRE PROT. BID	G.C. Wirth	G. J. Meade
6-24-77	TANK BID	[illegible]	[illegible]

NO.	DATE	BY	APPROVAL	APPROVAL
EP0472	1-12-79	KW	[illegible]	
EP0132	10-28-77	KW	[illegible]	[illegible]
G1	7-7-77	GCI	[illegible]	
PC-21	5-27-77	DH	[illegible]	[illegible]

REVISIONS

CONTRACT SIGNATURES

FOR THE OWNER

FOR THE CONTRACTOR

DRAWING CERTIFIED BY

REGISTERED

STATE

NUMBER

DATE

ARGONAUT DIVISION OF GENERAL MOTORS

ARCHITECTURE & ENGINEERING

PLANT ENGINEERING AND CONSTRUCTION

MANUFACTURING STAFF

GENERAL MOTORS CORPORATION
485 WEST MILWAUKEE AVENUE • DETROIT, MICHIGAN

REAL ESTATE & CONSTRUCTION MANAGEMENT

NEW MANUFACTURING PLANT
FOR
OKLAHOMA INDUSTRIES AUTHORITY
TENANCY BY

G M ASSEMBLY DIVISION

GENERAL MOTORS CORPORATION
OKLAHOMA CITY OKLAHOMA

PROJECT TITLE

PUMP HOUSE

SECTIONS & DETAILS

SHEET TITLE

OWNER'S IDENTIFICATION

4500
P. E. & C. PROJECT NUMBER

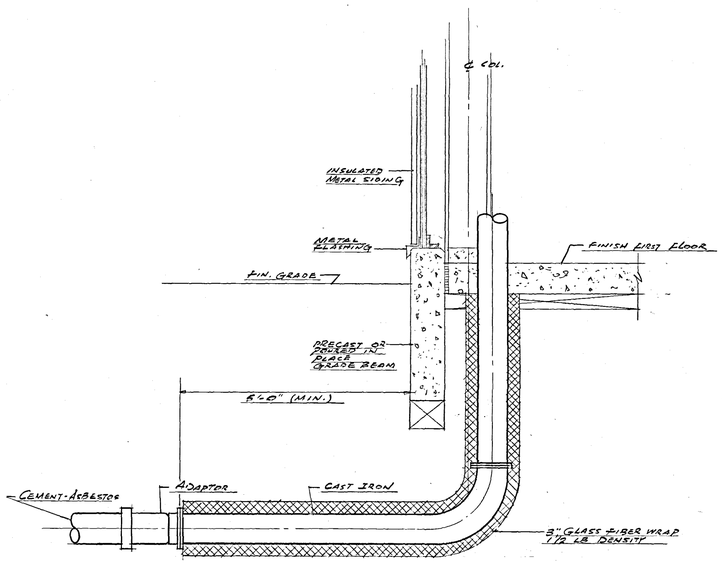
DATE 4-18-77

DRAWN BY CZ

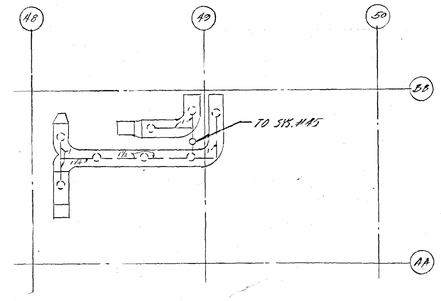
JOB CAPT. R. BRUZA.

MF-14
SHEET NUMBER

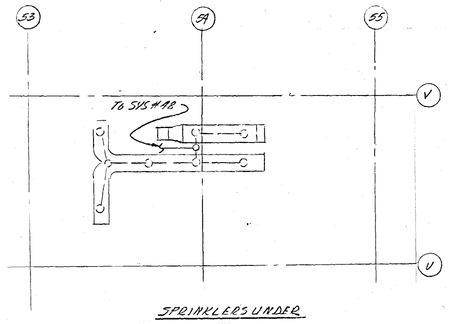
K&E 17 0153 9-73 50579+



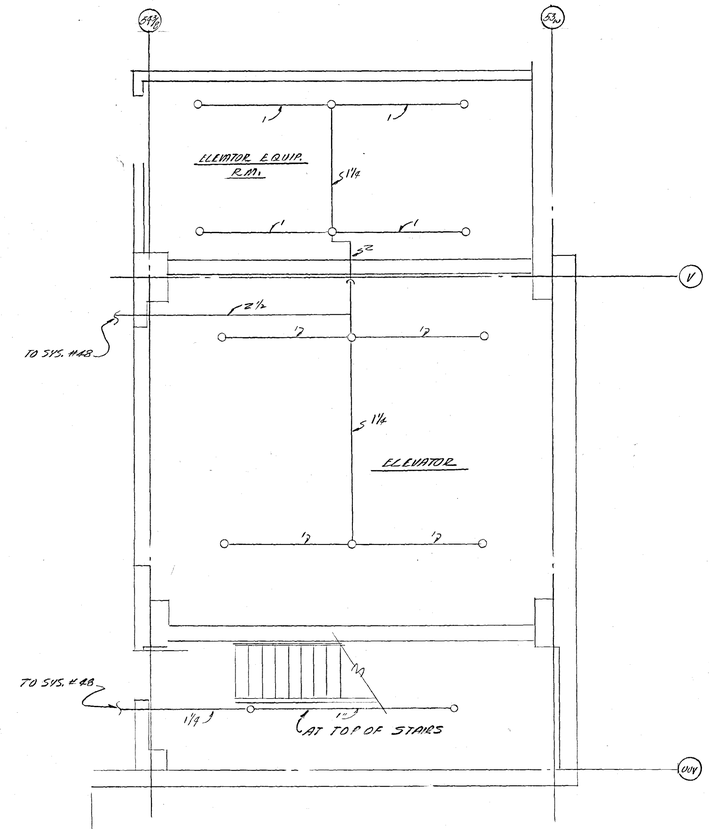
DETAIL OF A.S.R. LEAD IN
NO SCALE



SPRINKLERS UNDER DUCTS
SCALE 1/16"=1'0"



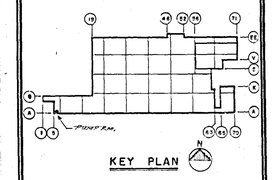
SPRINKLERS UNDER DUCTS
SCALE 1/16"=1'0"



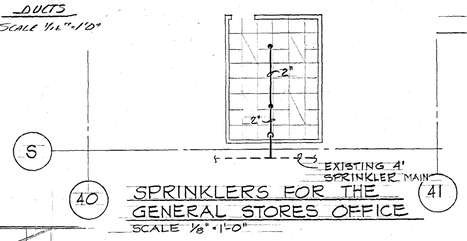
FREIGHT ELEVATOR, ELEV. MACH. EQUIP. RM. AND STAIRWAY
SCALE 1/16"=1'0"

NOTES:

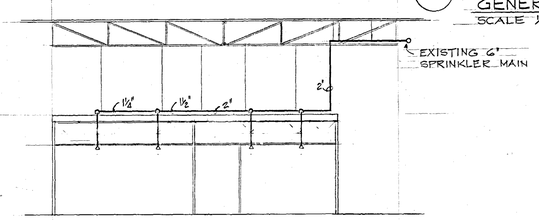
ALL SPRINKLERS INSTALLED HIGH WITH NO INTERFERENCE TO EQUIPMENT, ETC.
PROVIDE PROPER DRAINS
AREA IS ORDINARY HAZARD OCCUP. 130 SQ.FT./HD. ORDINARY PIPE SIZE.



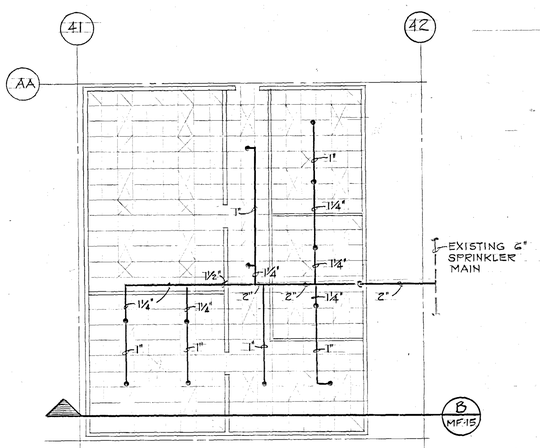
KEY PLAN



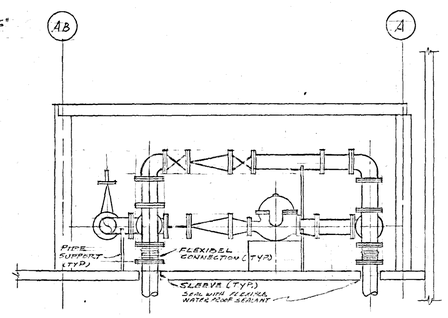
40 SPRINKLERS FOR THE GENERAL STORES OFFICE 41
SCALE 1/8"=1'-0"



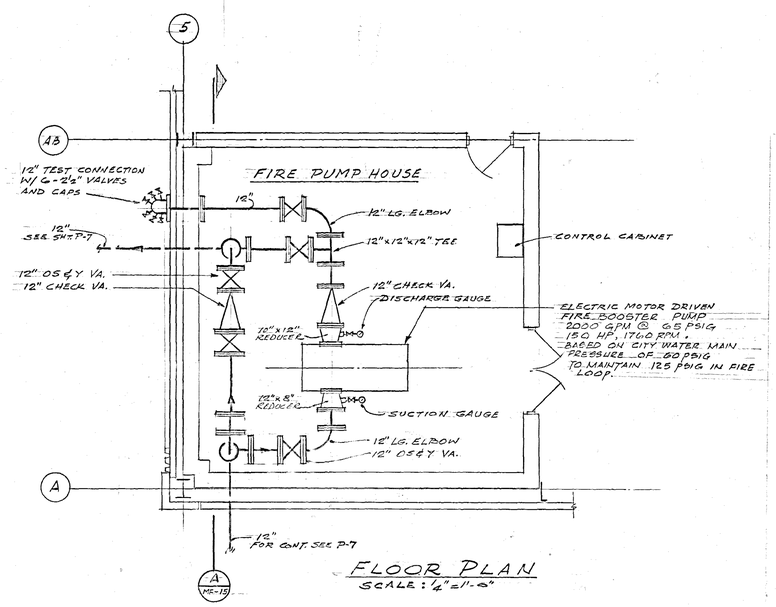
SECTION B MF-15
SCALE 1/8"=1'-0"



SPRINKLERS FOR THE MAINTENANCE OFFICES



SECTION A MF-15
SCALE: 1/4"=1'-0"



FLOOR PLAN
SCALE: 1/4"=1'-0"

DATE	ISSUED FOR	APPROVAL	APPROVAL
6-15-77	FIRE PROT. BID		
5-27-77	PTG & FIN. BID REF		

NO.	DATE	BY	APPROVAL	APPROVAL
161	6-1-78	AA		
01	7-7-77	SG		
R-21	9/27/77	DJS		

REVISIONS

CONTRACT SIGNATURES
FOR THE OWNER
FOR THE CONTRACTOR

DRAWING CERTIFIED BY
REGISTERED
STATE
NUMBER
DATE

PLANT ENGINEERING AND CONSTRUCTION
MANUFACTURING STAFF
GENERAL MOTORS CORPORATION
ARGONAUT
ARCHITECTURE & ENGINEERING & REAL ESTATE & CONSTRUCTION MANAGEMENT

NEW MANUFACTURING PLANT
FOR
OKLAHOMA INDUSTRIES AUTHORITY
TENANCY BY
G M ASSEMBLY DIVISION
GENERAL MOTORS CORPORATION
OKLAHOMA CITY OKLAHOMA

PROJECT TITLE

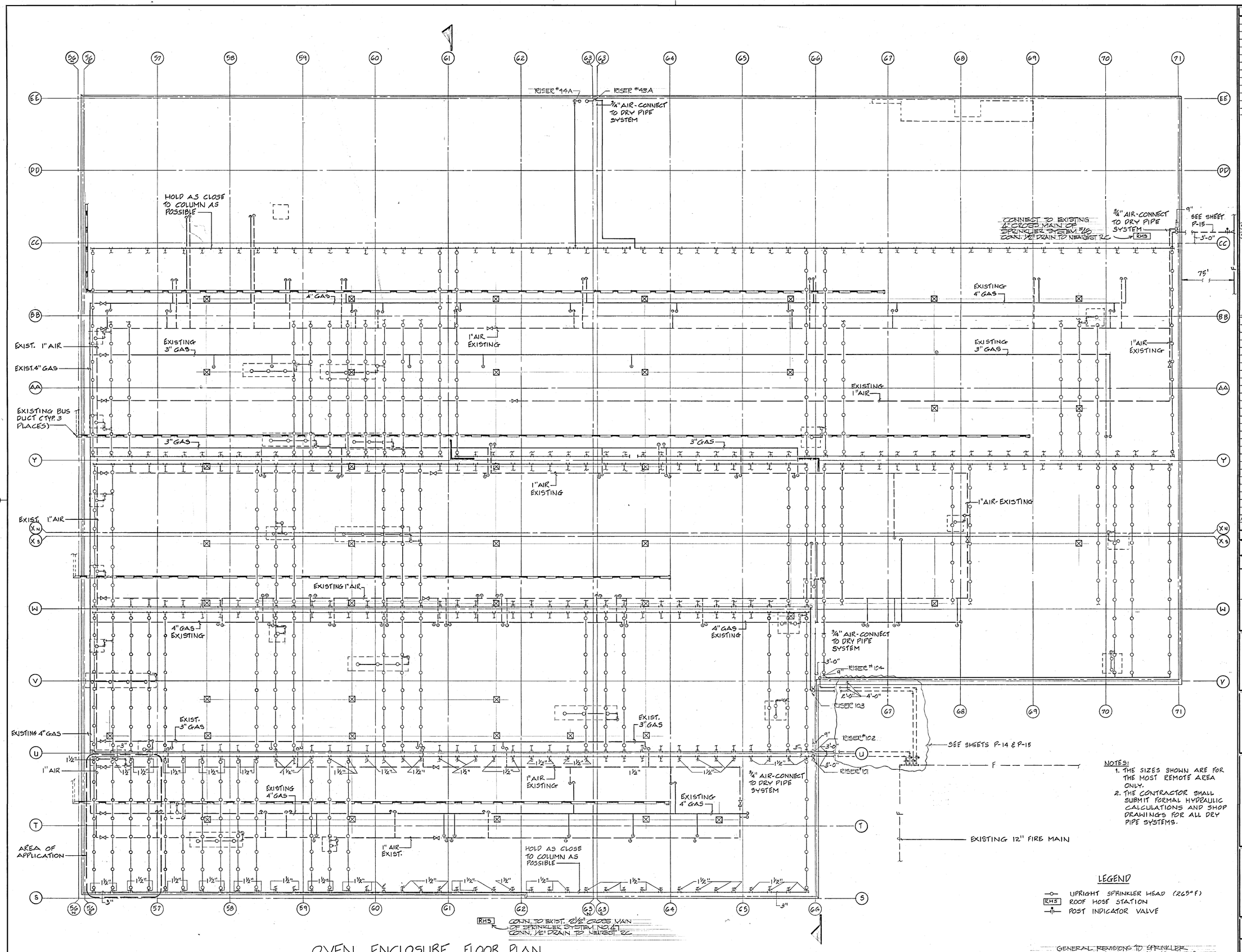
AUXILIARY FIRE PUMP & DETAILS

SHEET TITLE

OWNER'S IDENTIFICATION
P.E.&C. PROJECT NUMBER: 4500
DATE 5-13-77
DRAWN BY O.E.
JOB CAPT. E. BRUZA
SHEET NUMBER: MF-15

ARGO 116 REV. 12-69 K&E 17 0193 8-74 1790

PROJECT NO. SHEET NO.



OVEN ENCLOSURE FLOOR PLAN

SCALE: 3/64" = 1'-0"

NOTES:
1. THE SIZES SHOWN ARE FOR THE MOST REMOTE AREA ONLY.
2. THE CONTRACTOR SHALL SUBMIT FORMAL HYDRAULIC CALCULATIONS AND SHOP DRAWINGS FOR ALL DRY PIPE SYSTEMS.

LEGEND
- UPRIGHT SPRINKLER HEAD (265° F)
- RHS ROOF HOSE STATION
- POST INDICATOR VALVE

GENERAL REVISIONS TO SPRINKLER PIPING BULLETIN NO. 162R JULY 7, 1978

DATE	ISSUED FOR	APPROVAL	APPROVAL

KEY PLAN

NO.	DATE	BY	APPROVAL	APPROVAL
169	7-20-78	KW		
162R	7-7-78	A.A.		
162	6-9-78	DW		

REVISIONS

CONTRACT SIGNATURES — FOR THE OWNER — FOR THE CONTRACTOR

DRAWING CERTIFIED BY — DATE

Plant Engineering & Construction

General Motors Corporation 485 West Milwaukee Avenue Detroit, Michigan 48202

NEW MANUFACTURING PLANT FOR OKLAHOMA INDUSTRIES AUTHORITY TENANCY BY GM ASSEMBLY DIVISION GENERAL MOTORS CORPORATION OKLAHOMA CITY OKLAHOMA

PROJECT TITLE

OVEN ENCLOSURE FIRE PROTECTION SYSTEM

SHEET TITLE

OWNER'S IDENTIFICATION

4500 P.E. & C. PROJECT NUMBER

DATE 6-9-78

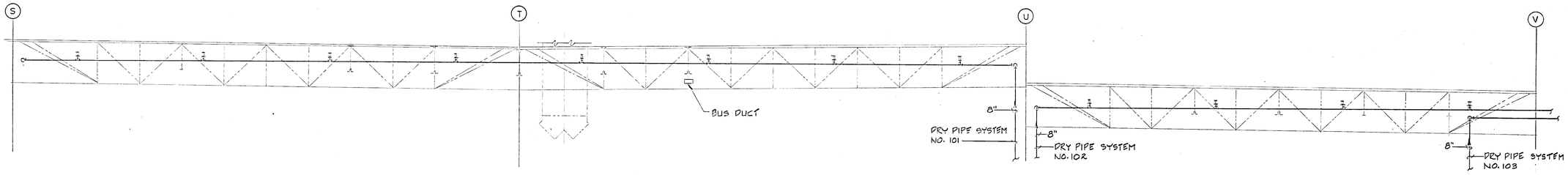
DRAWN BY D.W.

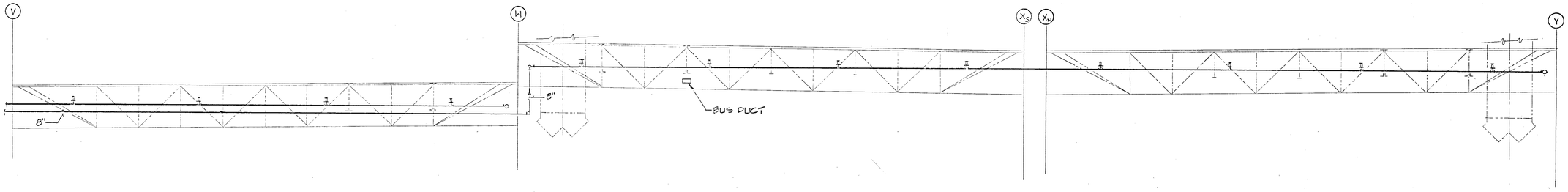
JOB CAPT. R. BRUZA

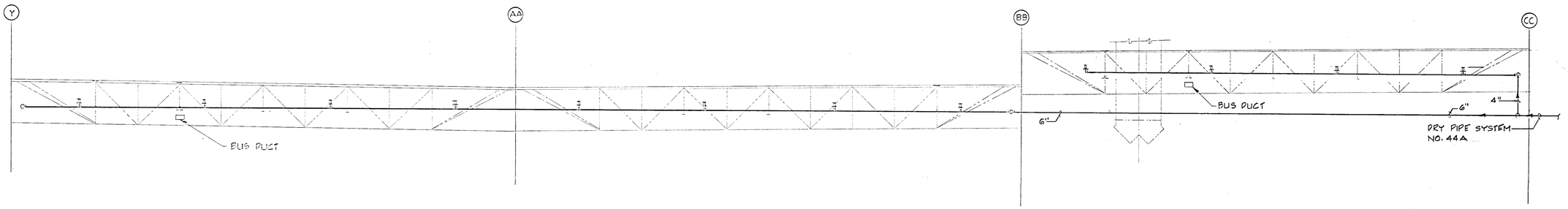
MF-100 SHEET NUMBER

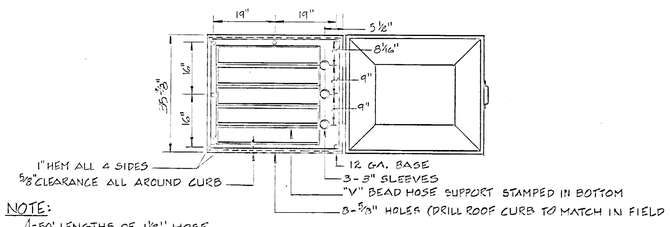
P.E. & C. 149 REV. 1-77 K&E 17 0193 5-77 3521*

PROJECT NO. SHEET NO.



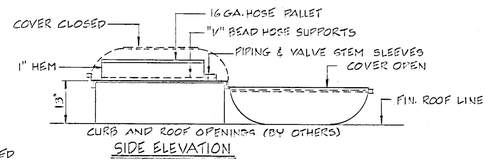




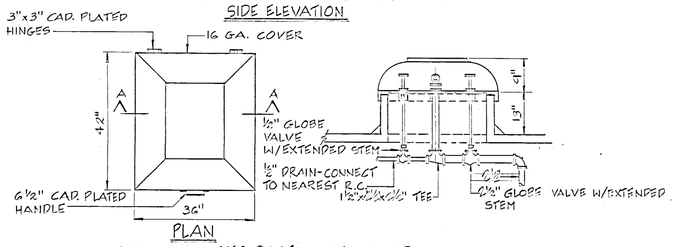


NOTE:
4-50' LENGTHS OF 1½" HOSE
1-50' LENGTH OF 2½" HOSE
1-2½" X 1½" X 1½" Y-CONN.

PLAN WITH COVER OPEN

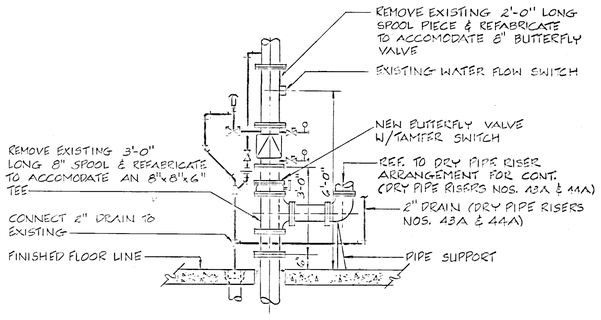


SIDE ELEVATION

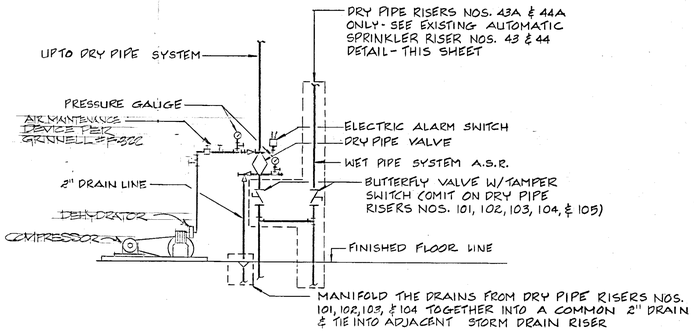


PLAN

LOW SILHOUETTE ROOF HOSE HOUSE



EXISTING AUTOMATIC SPRINKLER RISER NOS. 43 & 44



DRY PIPE RISER ARRANGEMENT

NO.	DATE	REVISION

CONTRACT SIGN-OFFS | DRAWING OK

FOR THE OWNER

FOR THE CONTRACTOR | DATE

Plant Engineering & Construction

General Motors Corporation 485 West Milwaukee Avenue Detroit, Michigan 48202

NEW MANUFACTURING PLANT
FOR
OKLAHOMA INDUSTRIES AUTHORITY
TENANCY BY
G M ASSEMBLY DIVISION
GENERAL MOTORS CORPORATION
OKLAHOMA CITY OKLAHOMA

PROJECT TITLE

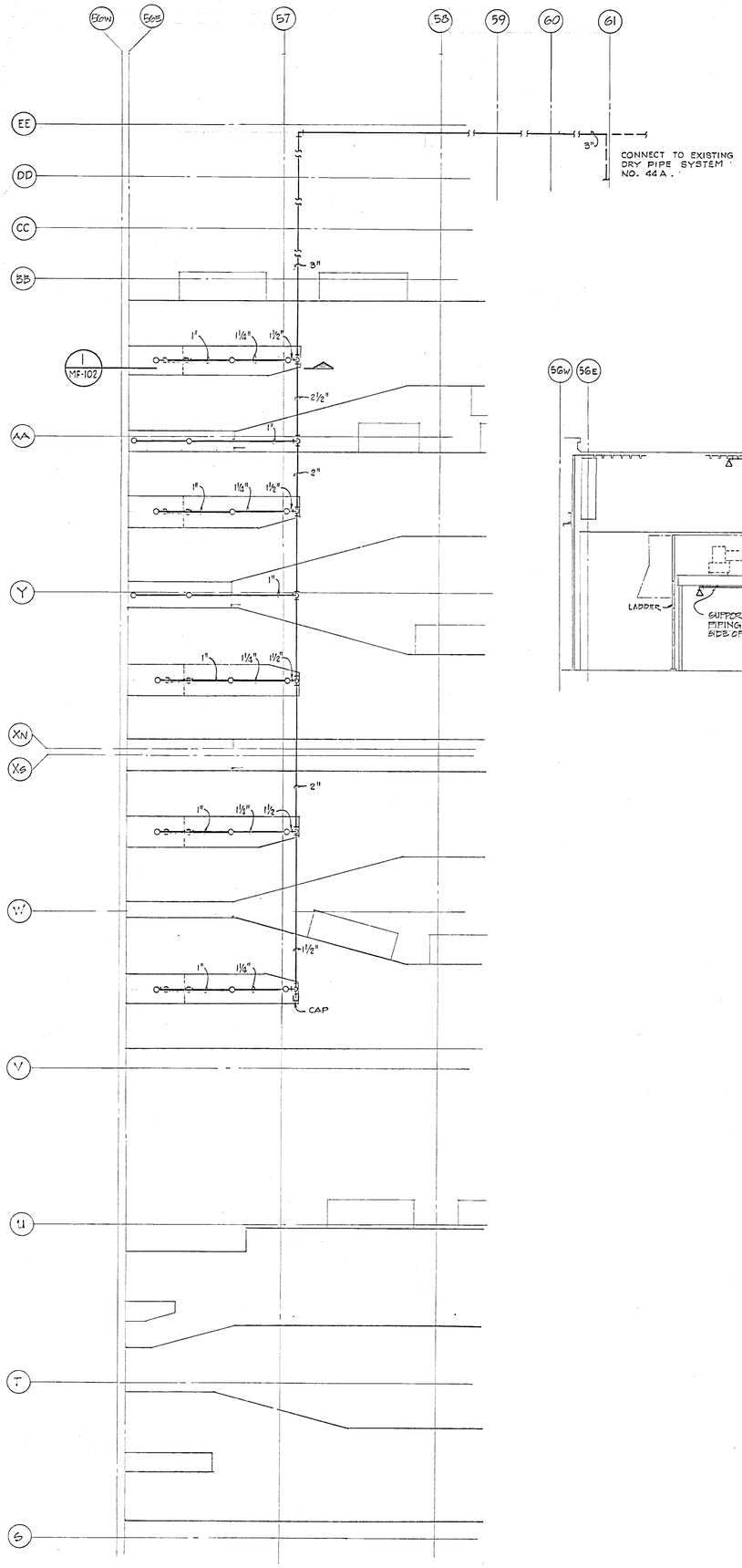
SPRINKLER DETAILS

SHEET TITLE

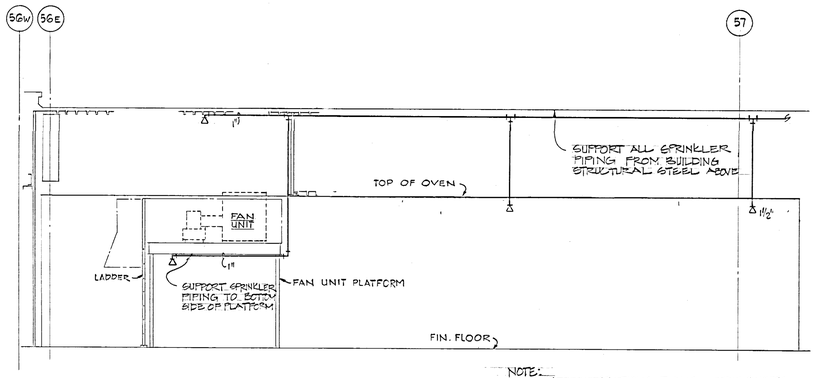
OWNER'S IDENTIFICATION	4500 P. E. & C. PROJECT NUMBER
DATE 6-9-78	SCALE
DRAWN BY D.W.	MF-101
JOB CAPT. R. BRUZA	SHEET NUMBER

P.E. & C. 149 REV. 1-77 K&E 17 0193 12-77 34694

PROJECT NO. SHEET NO.

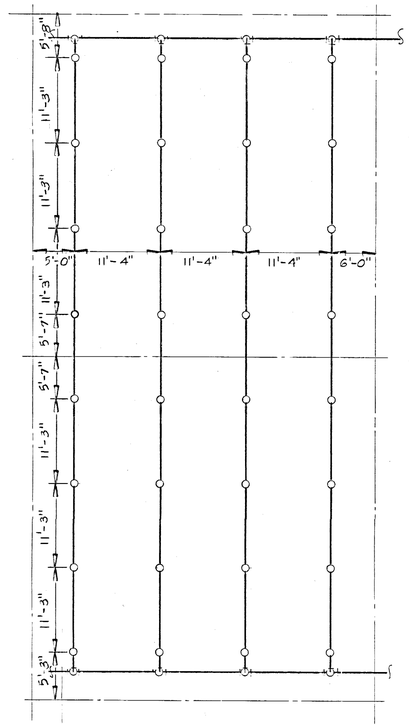


SPRINKLER SYSTEM DESIGN SCHEDULE							
SYSTEM NO.	AREA IN FEET (SQ.)	CALCULATED SYSTEM DENSITY	AREA OF APPLICATION	SPRINKLER HEAD TYPE	SIZE ORIFICE	TEMP.	REMARKS
101	40,500	.15	3000 ° AT FLOOR	UPRIGHT	17/32"	265° F	
102	40,500						
103	40,500						
104	30,374						
43A	45,562.5						
44A	45,562.5						



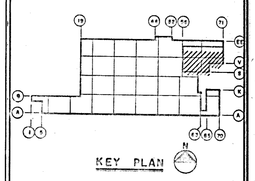
1 MF-102 SECTION
SCALE: 1/4" = 1'-0"

NOTE:
1. ALL SECTIONS, PLANS, DETAILS, NOTES, & SPECIFICATION FOR 4500 JOB APPLY.
2. PIPE SIZES ARE FOR ESTIMATING ONLY. THE ENTIRE SYSTEM (44A) SHOULD BE CALCULATED TO VERIFY SIZES.



TYPICAL GRID LOOP
SCALE: 1/8" = 1'-0"

NOTE: CONTRACTOR SHALL VERIFY LOCATION OF ALL OBSTRUCTIONS & ADVISE OWNER OF NECESSARY CHANGES.



DATE	ISSUED FOR	APPROVAL	APPROVAL

NO.	DATE	BY	APPROVAL	APPROVAL
176	1-10-79	KW		
169	7-20-78	KW		
162 R	7-7-78	A.A		
162	6-9-78	D.W.		

REVISIONS

CONTRACT SIGNATURES
FOR THE OWNER
FOR THE CONTRACTOR
DRAWING CERTIFIED BY
DATE

REGISTERED PROFESSIONAL ENGINEER — OKLAHOMA

Plant Engineering & Construction
General Motors Corporation 485 West Milwaukee Avenue Detroit, Michigan 48202

NEW MANUFACTURING PLANT
FOR
OKLAHOMA INDUSTRIES AUTHORITY
TENANCY BY
G M ASSEMBLY DIVISION
GENERAL MOTORS CORPORATION
OKLAHOMA CITY OKLAHOMA
PROJECT TITLE

SCHEDULES AND DETAILS
SHEET TITLE

OWNER'S IDENTIFICATION: 4500
T. E. & C. PROJECT NUMBER

DATE 6-9-78
DRAWN BY D.W.
JOB CAPT. R. BRUZA
MF-102
SHEET NUMBER

P.E. & C. 145 REV. 1-77 K&E 17 0159 12-77 3499+