DRAWING NUMBER

PLAN HOLD CORPORATION • IRVINE, CALIFORNIA
REORDER BY NUMBER 075AR

DRAWING NUMBER
81-08-00
2

PLAN HOLD CORPORATION • IRVINE, CALIFORNIA
REORDER BY NUMBER 075AR

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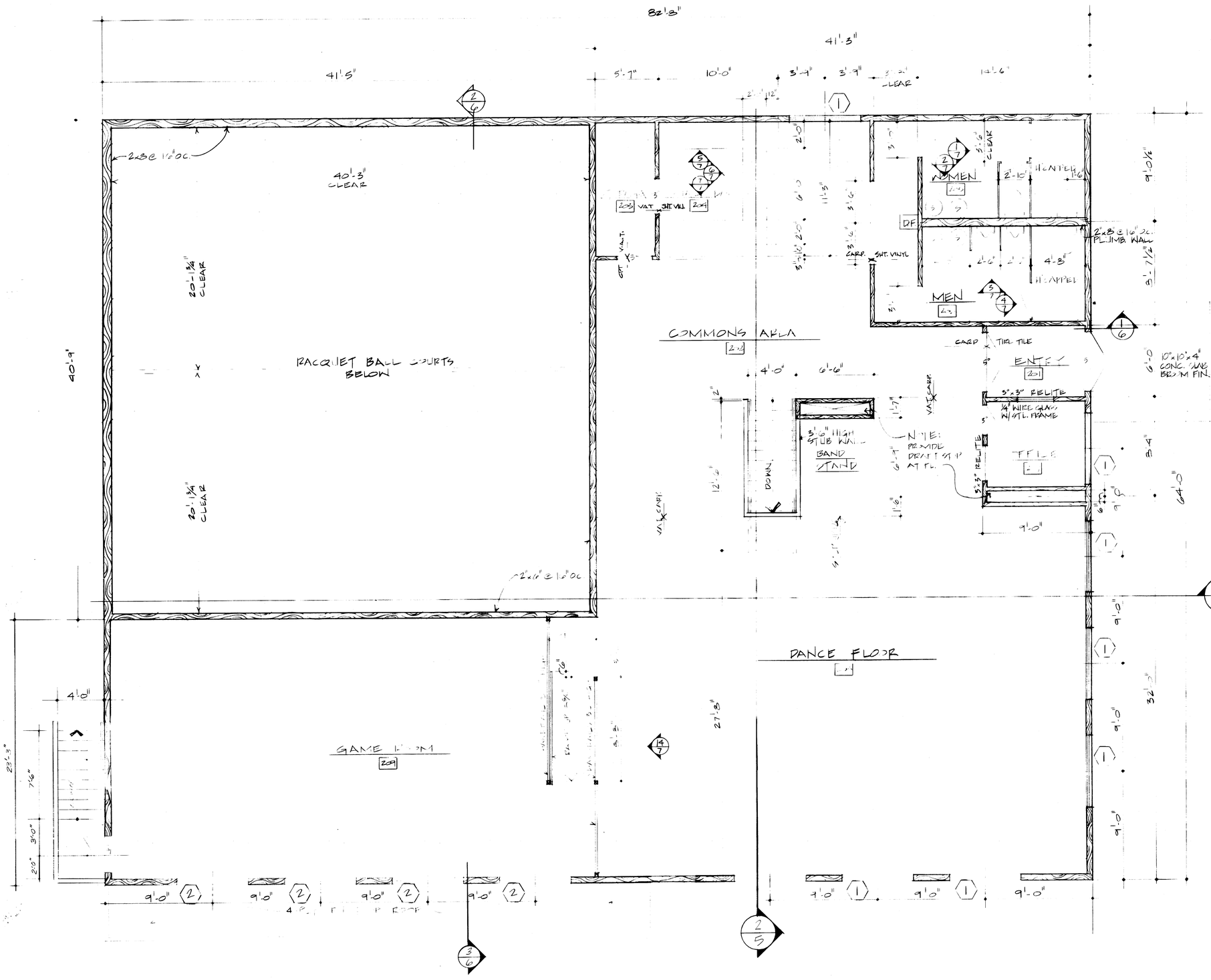
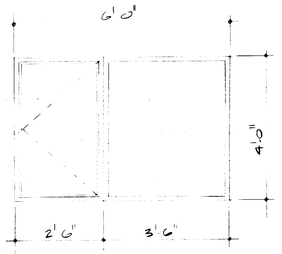
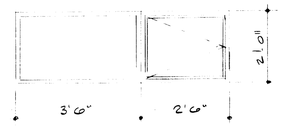


WINDOW TYPES

MARVIN STL BRAND
DIMENSIONS ARE NOMINAL



TYPE (1)



TYPE (2)

NOTES:

1. DIMENSIONS ARE TO FACE OR CENTERLINE OF STUDS UNLESS NOTED OTHERWISE.
2. ALL INTERIOR PARTITIONS ARE 2x4 STUDS @ 16" O.C. UNLESS NOTED OTHERWISE.
3. ALL EXTERIOR WALLS ARE 2x6 STUDS @ 16" O.C. UNLESS NOTED OTHERWISE.
4. ALL GYP BD SHALL BE 5/8" TYPE X UNLESS NOTE OTHERWISE
5. PROVIDE DRAFT STOPS AS REQ'D BY U.B.C. 2517 (f)
6. ALL WORK SHALL CONFORM TO 1979 U.B.C.

UPPER FLOOR PLAN

1/4" = 1'-0"

KENAI YOUTH CENTER
CITY OF KENAI, ALASKA

BLAZY CONSTRUCTION
SOLDOTNA, ALASKA
10/16/80

SHEET 2 of 7

As built Aug. 81 2/7

DRAWING NUMBER 81-08-00 3/7

DRAWING NUMBER 81-08-00 3

DRAWING NUMBER

DRAWING NUMBER

DRAWING NUMBER

PLAN HOLD CORPORATION • IRVINE, CALIFORNIA
REORDER BY NUMBER 075AR
POSITION EDGE OF PRINT ON THIS LINE

41'-3"
41'-5"
VERIFY W/ RACQUETBALL COURT SUPPLIER
14'-4¾"
3'-4"
12" CMU
2x8 @ 16" O.C.
FUTURE RACQUETBALL COURT
115
EQUIPMENT STORAGE
114
LOCKER N.I.C.
FITNESS SAUNA
110
2-#8 @ 12" O.C.
MEN'S LOCKER
111
FITNESS JACUZZI
109
3'-3" CLEAR CARPENTER
4'-0" CLEAR
2x4 @ 12" O.C.
AT ∠ UNFILL
3'-9"
5'-3"
3' JANITOR 113
5' 112
H.W.
5'-9"
MEN'S SHOWERS
108
2x4 @ 16" O.C. PLUMB WALL
WOMEN'S SHOWERS
107
3'-9"
3'-3"
NOTE: DUCTS INTO BALL COURT BY COURT SUPPLIER. VERIFY ROUGH PLUMB'G DIM.
40'-9"
VERIFY W/ RACQUETBALL COURT SUPPLIER
64'-0"
FUTURE RACQUETBALL COURT
116
LINE OF INSULATION & FINISH BELOW
CORRIDOR
101
4'-0"
23'-3"
LINE OF C.M.U. BELOW
EXERCISE ROOM
117
LINE OF FURRING BELOW
4'-0" CLEAR
3'-0" CLEAR
FITNESS JACUZZI
106
5'-3" TRIP CURB
ELEC./TEL. 102
WOMEN'S LOCKERS
103
ELEC. PANEL
LOCKERS N.I.C.
FITNESS SAUNA
104
8'-2"
8'-0"
4'-3"
3'-6"
5'-2"
5'-3"
5'-1¼"
14'-4¾"
9'-4"
EXISTING
F.D.
M.D.
5'-3"

N

NOTES:

1. DIMENSIONS ARE TO FACE OR CENTERLINE OF STUDS UNLESS NOTED OTHERWISE.
2. ALL INTERIOR PARTITIONS ARE 2x4 STUDS @ 16" O.C. UNLESS NOTED OTHERWISE.
3. ALL EXTERIOR WALLS ARE 2x6 STUDS @ 16" O.C. UNLESS NOTED OTHERWISE.
4. ALL GYP. BD. 5/8" TYPE 'X' UNLESS NOTED OTHERWISE
5. PROVIDE DRAFT STOPS AS REQ'D BY UBC 2517 (4)
6. ALL WORK SHALL CONFORM TO 1979 U.B.C.

KENAI YOUTH CENTER
CITY of KENAI, ALASKA

SHEET 3 of 7
Asbuilt Aug. 81 3/7

DRAWING NUMBER 01-08-00 4/7

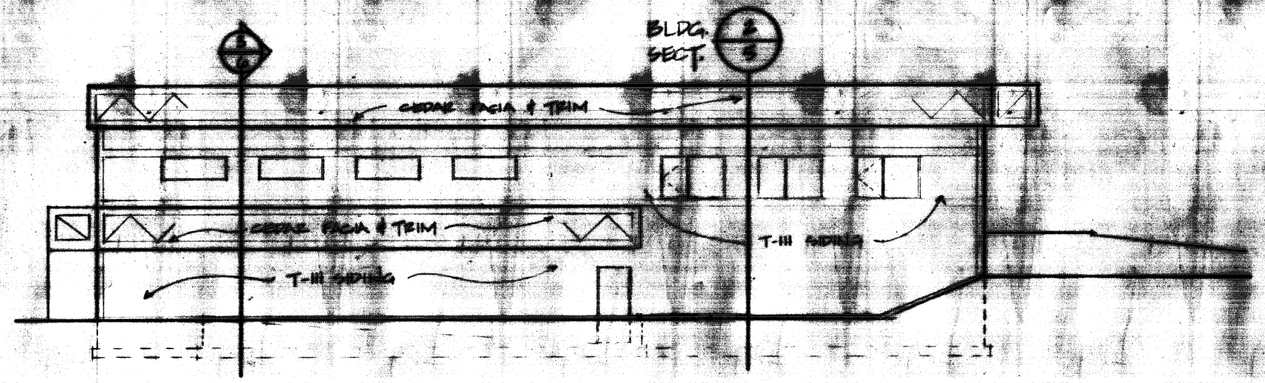
DRAWING NUMBER 01-08-00 4

DRAWING NUMBER

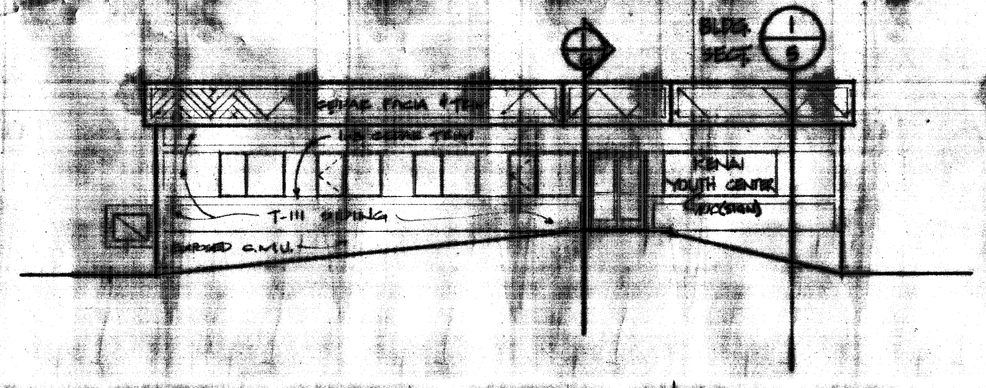
DRAWING NUMBER

DRAWING NUMBER

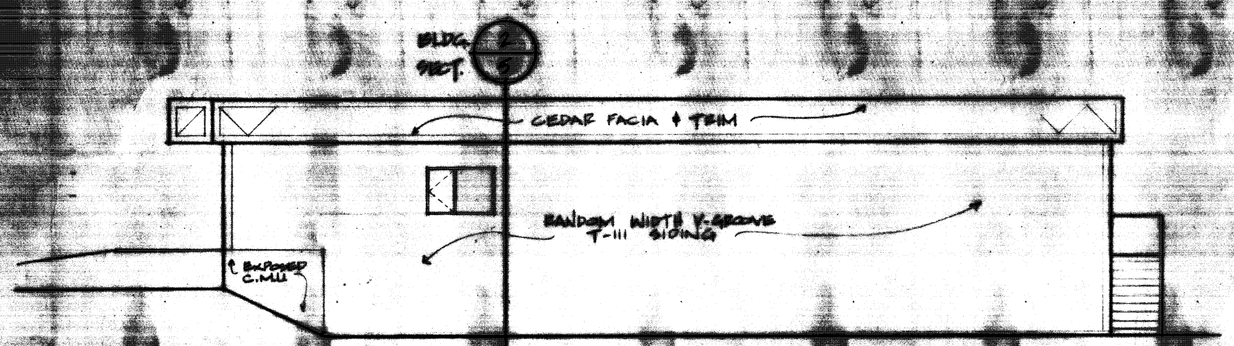
DRAWING NUMBER



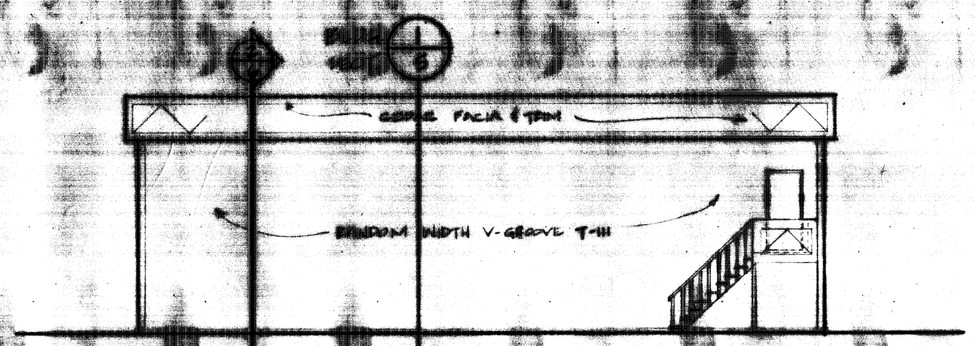
NORTH ELEVATION
1/8"=1'-0"



WEST ELEVATION
1/8"=1'-0"



SOUTH ELEVATION
1/8"=1'-0"



EAST ELEVATION
1/8"=1'-0"

STATE OF ALASKA

KENAI YOUTH CENTER
CITY of KENAI, ALASKA

BLAZY CONSTRUCTION
SOLDOTNA, ALASKA
10/16/00

DRAWING NUMBER 81-08-00 5/7

PLAN HOLD CORPORATION • IRVINE, CALIFORNIA
REORDER BY NUMBER 075AR

DRAWING NUMBER 81-08-00 5
PLAN HOLD CORPORATION • IRVINE, CALIFORNIA
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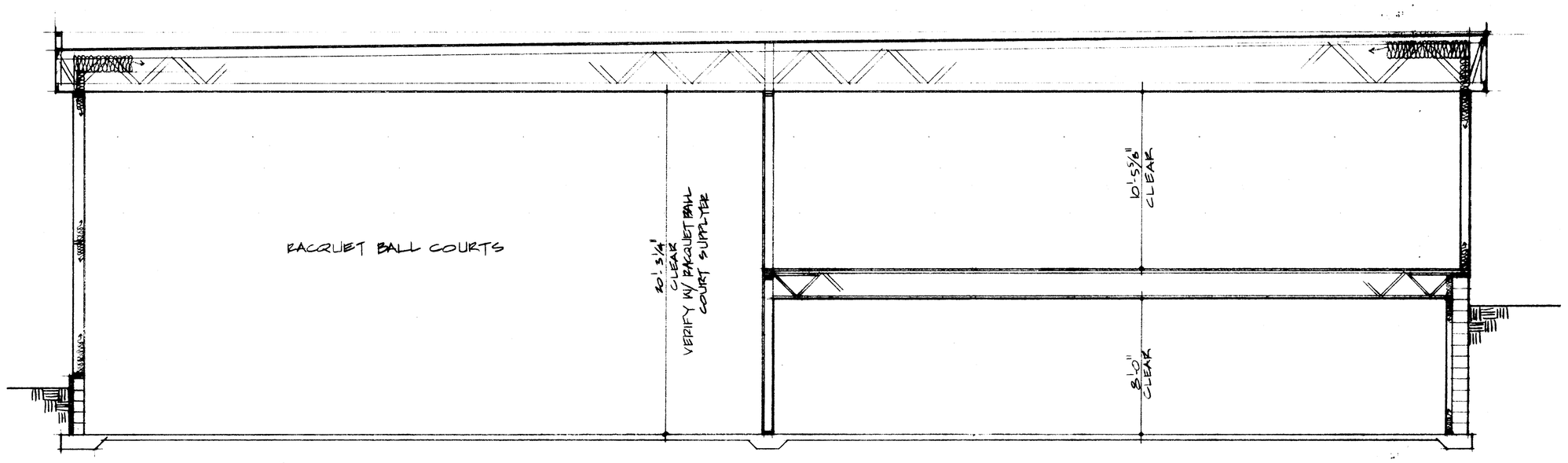
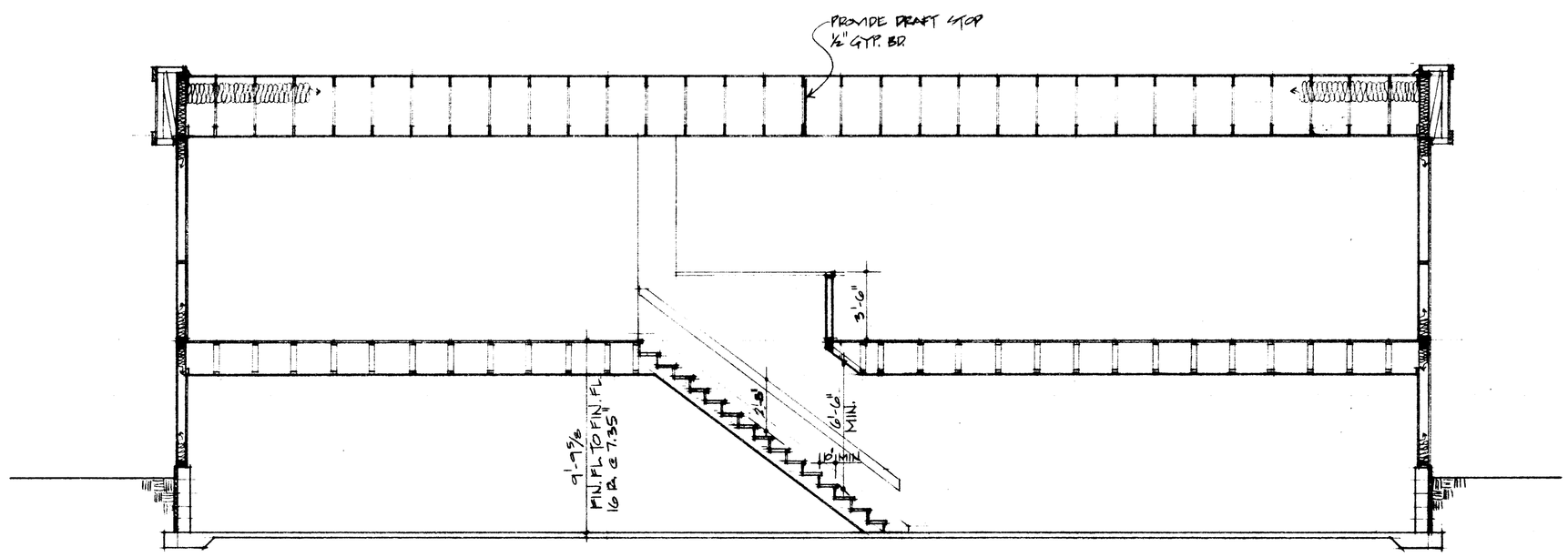


1/5 BUILDING SECTION
1/4" = 1'-0"



2/5 BUILDING SECTION
1/4" = 1'-0"

KENAI YOUTH CENTER
CITY OF KENAI, ALASKA

BLAZY CONSTRUCTION
SOLDOTNA, ALASKA
10/16/80 Asbuilt Aug. 81

DRAWING NUMBER 81-08-00 617
PLAN HOLD CORPORATION • IRVINE, CALIFORNIA
REORDER BY NUMBER 075AR

DRAWING NUMBER 81-08-00 6
PLAN HOLD CORPORATION • IRVINE, CALIFORNIA
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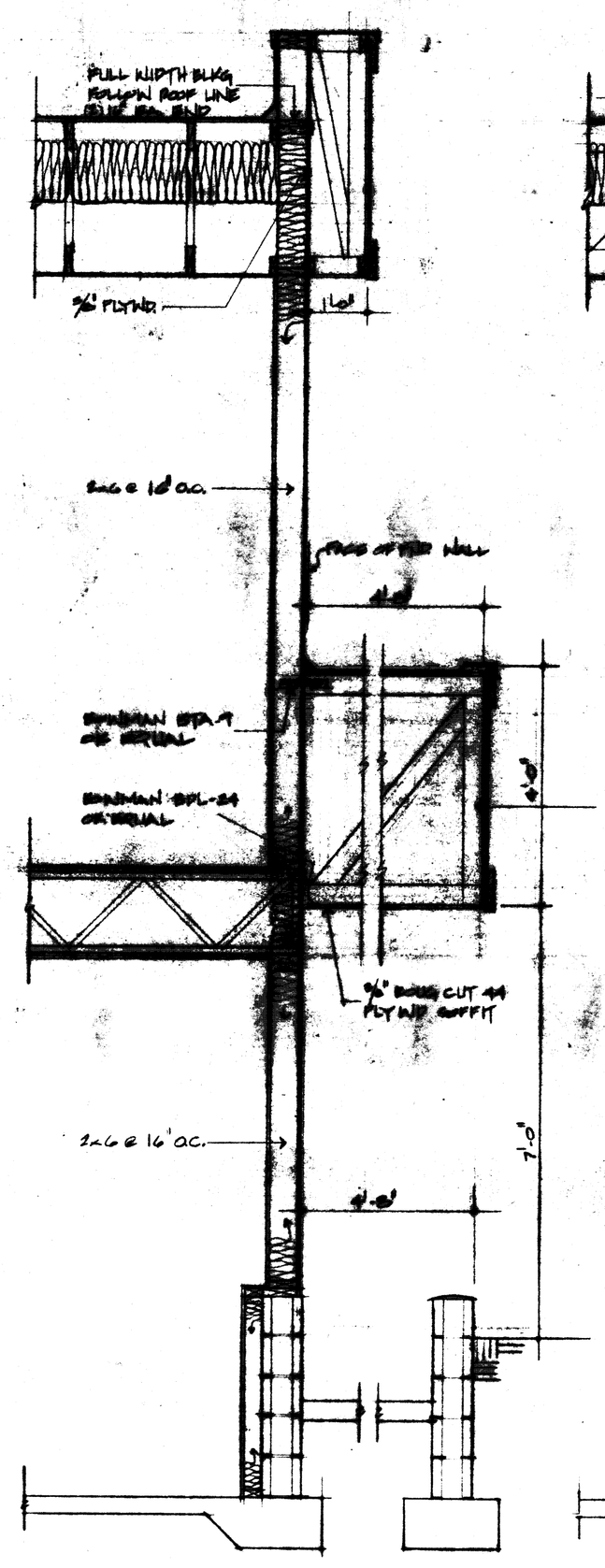
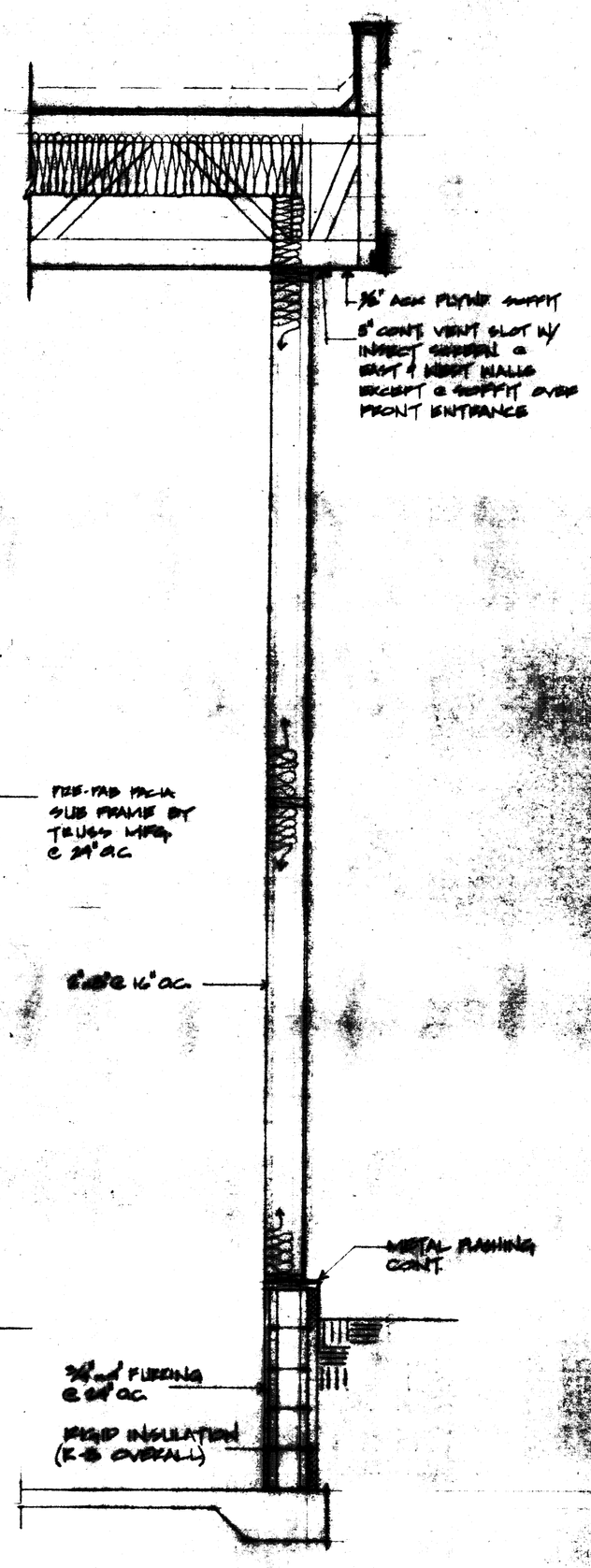
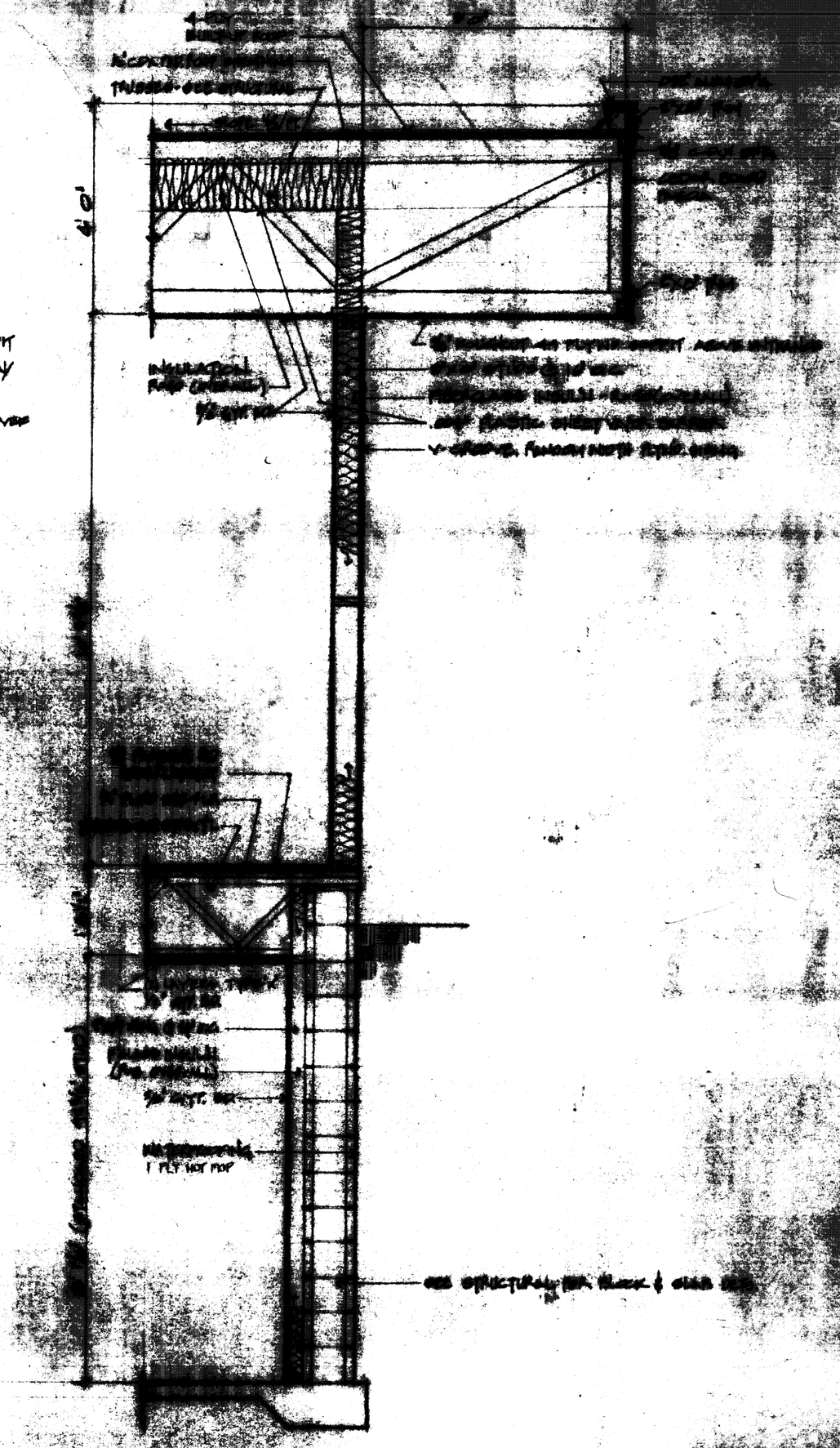
REORDER BY NUMBER 075AR



3/6 WALL SECTION



2/6 WALL SECTION



SECTION

KENAI YOUTH CENTER
CITY OF KENAI,

BLAZY CONSTRUCTION
SOLDOTNA

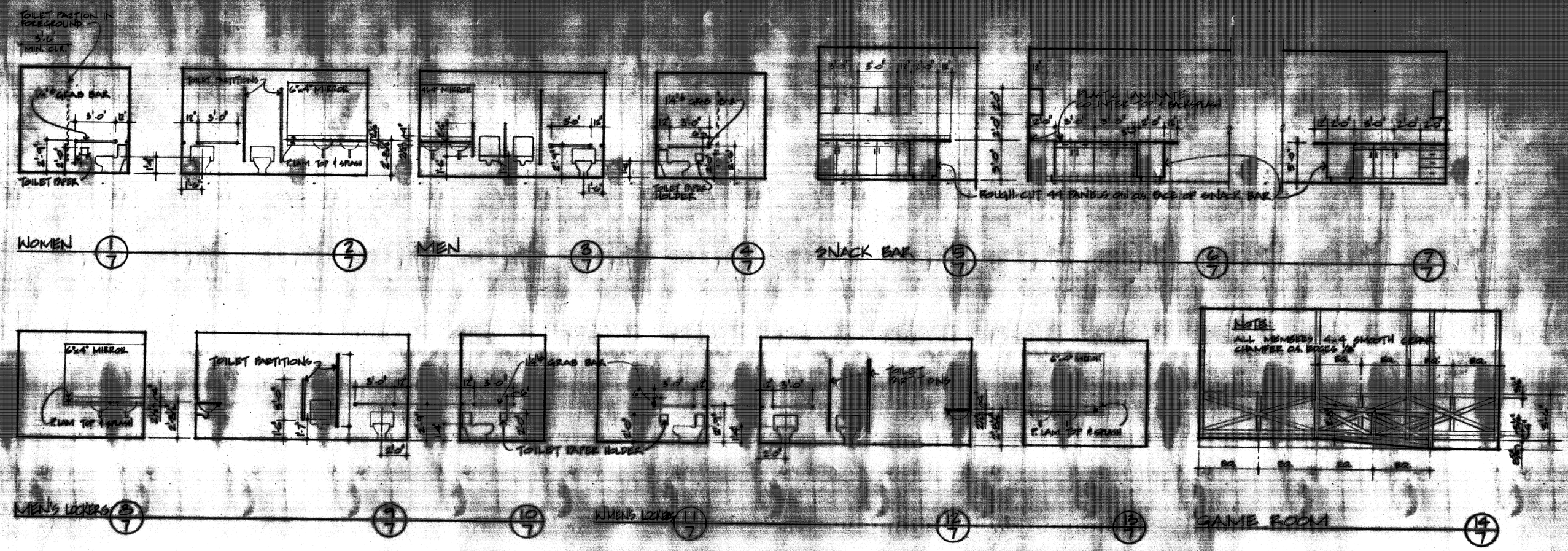
DRAWING NUMBER 81-08-00 7/7

DRAWING NUMBER 81-08-00 7

DRAWING NUMBER

DRAWING NUMBER

DRAWING NUMBER



INTERIOR ELEVATIONS 1/4"=1'-0"

ROOM FINISH SCHEDULE

NO.	ROOM NAME	FLR. MAT'L	FLR. FIN.	BASE	WALL MAT'L	WALL FIN.	WAINSCOT	CLG. MAT'L	CLG. FIN.	HT.	REMARKS
101	CORRIDOR	CONC.	CARPET &	VINYL	GYP. BD	PAINT	NONE	GYP. BD	SPRAY ACOUST.	8'-0"	& SEE PLAN FOR LOCATION OF TILE
102	ELEC./TELEPHONE		SEALER	COVED VINYL		PAINT			PAINT		
103	WOMEN'S LOCKERS		Q.T.	COVED VINYL	*	PAINT			PAINT		* W.P. WITHIN 4' OF PLUMBING FIXTURES
104	SAUNA		—	—		—			—		FUTURE - UNFINISHED
105	JACUZZI		—	—		—			—		FUTURE - UNFINISHED
106	LAUNDRY		VINYL	COVED VINYL	*	PAINT			PAINT		*
107	SHOWERS		CER. TILE	CER. TILE	*	C.T			PAINT		*
108	SHOWERS		CER. TILE	CER. TILE	*	C.T			PAINT		*
109	JACUZZI		—	—		—			—		FUTURE - UNFINISHED
110	SAUNA		—	—		—			—		FUTURE - UNFINISHED
111	MEN'S LOCKERS		Q.T	COVED VINYL	*	PAINT			PAINT		*
112	HOT WATER		SEALER	NONE		PAINT			PAINT		
113	JANITOR		VINYL	COVED VINYL	*	PAINT			PAINT		*
114	EQUIP. STORAGE		SEALER	COVED VINYL		PAINT			PAINT		
115	RACQUETBALL CT.		—	—		—			—		
116	RACQUETBALL CT.		—	—		—			—		
117	EXERCISE RM.	↓	CARPET	VINYL	↓	PAINT	↓	↓	SPRAY ACOUST.	9'-0"	
201	ENTRY	WOOD	TILE	COVED VINYL	GYP. BD	PAINT	NONE	GYP. BD	SPRAY ACOUST.	8'-0"	
202	COMMONS		CARPET	VINYL						10'-5"	
203	STORAGE		V. A. T.	COVED VINYL							
204	SNACK BAR		VINYL								
205	WOMEN		VINYL		*				PAINT	8'-0"	* W.P. GYP. BD WITHIN 4' OF PLUMB. FIXT.
206	MEN		VINYL		*				PAINT		*
207	OFFICE		CARPET	VINYL					SPRAY ACOUST.		
208	DANCE FLOOR		V. A. T.							10'-5	
209	GAME ROOM	↓	CARPET	↓	↓	↓	↓	↓	↓	9'-9	

STATE OF ALASKA — WESLEY T. [illegible] — No. 3729-A

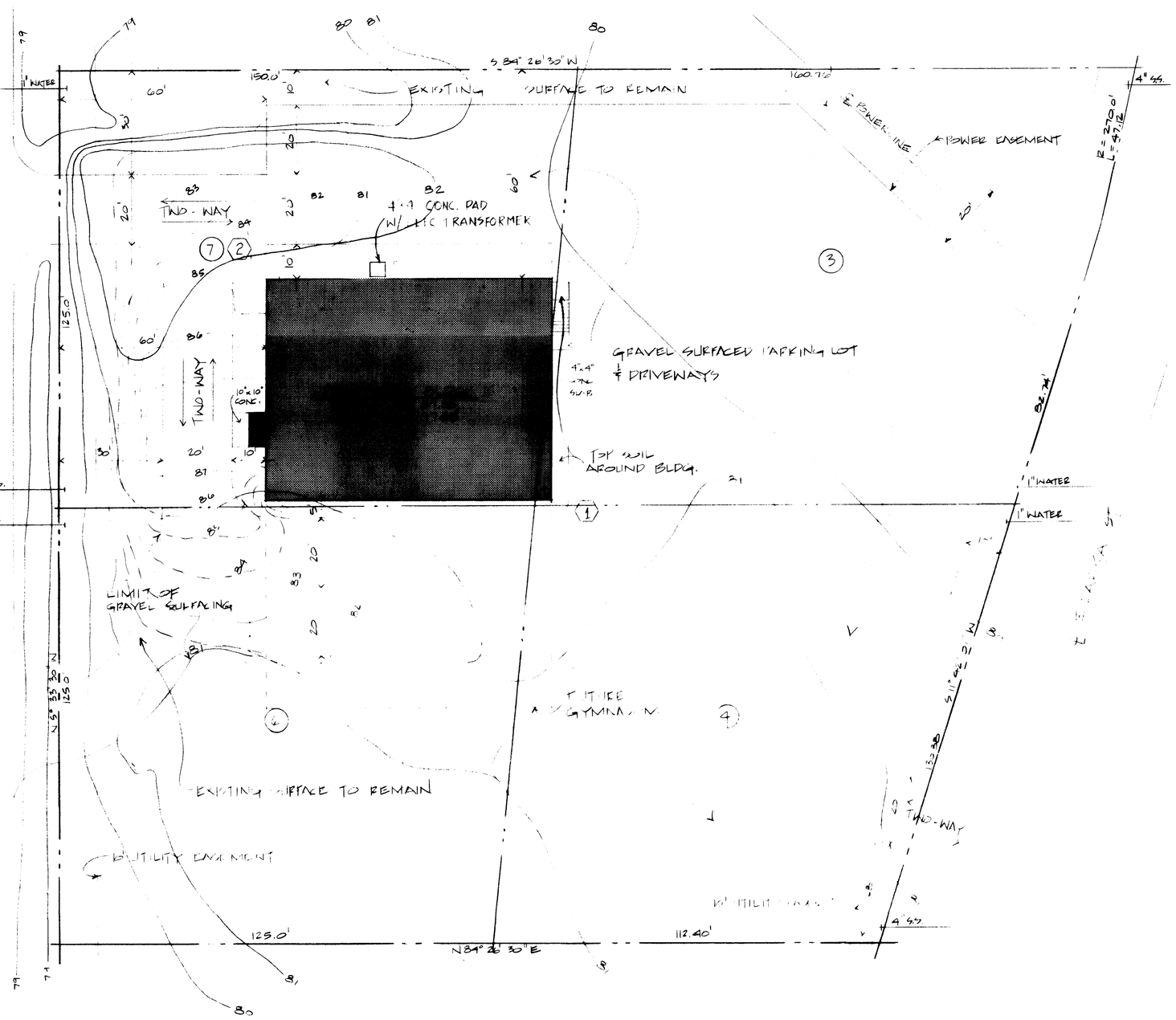
KENAI YOUTH CENTER
CITY of KENAI, ALASKA

BLAZY CONSTRUCTION
SOLDOTNA, ALASKA
10/29/80 Asbuilt Aug. 81 7/7 SHEET 7 of 7

DRAWING NUMBER

81-08-00

C-1



SITE PLAN

SCALE: 1" = 20'-0"

Asbuilt Aug. 81 C-1

REVISIONS

STATE OF ALASKA
49TH
REGISTERED

SITE PLAN

KENAI YOUTH CENTER

Mike Laurain P.E.
CONSULTING ENGINEER
BOX 937 SOLDOTNA, ALASKA 99669 (907) 262-4624

DATE 19Sept 80
DRAWN WEM
CHECKED MT
SCALE 1": 20'
PROJ. NO.

SHEET C-1 OF

DRAWING NUMBER 81-08-00 E-1

ELECTRICAL LEGEND

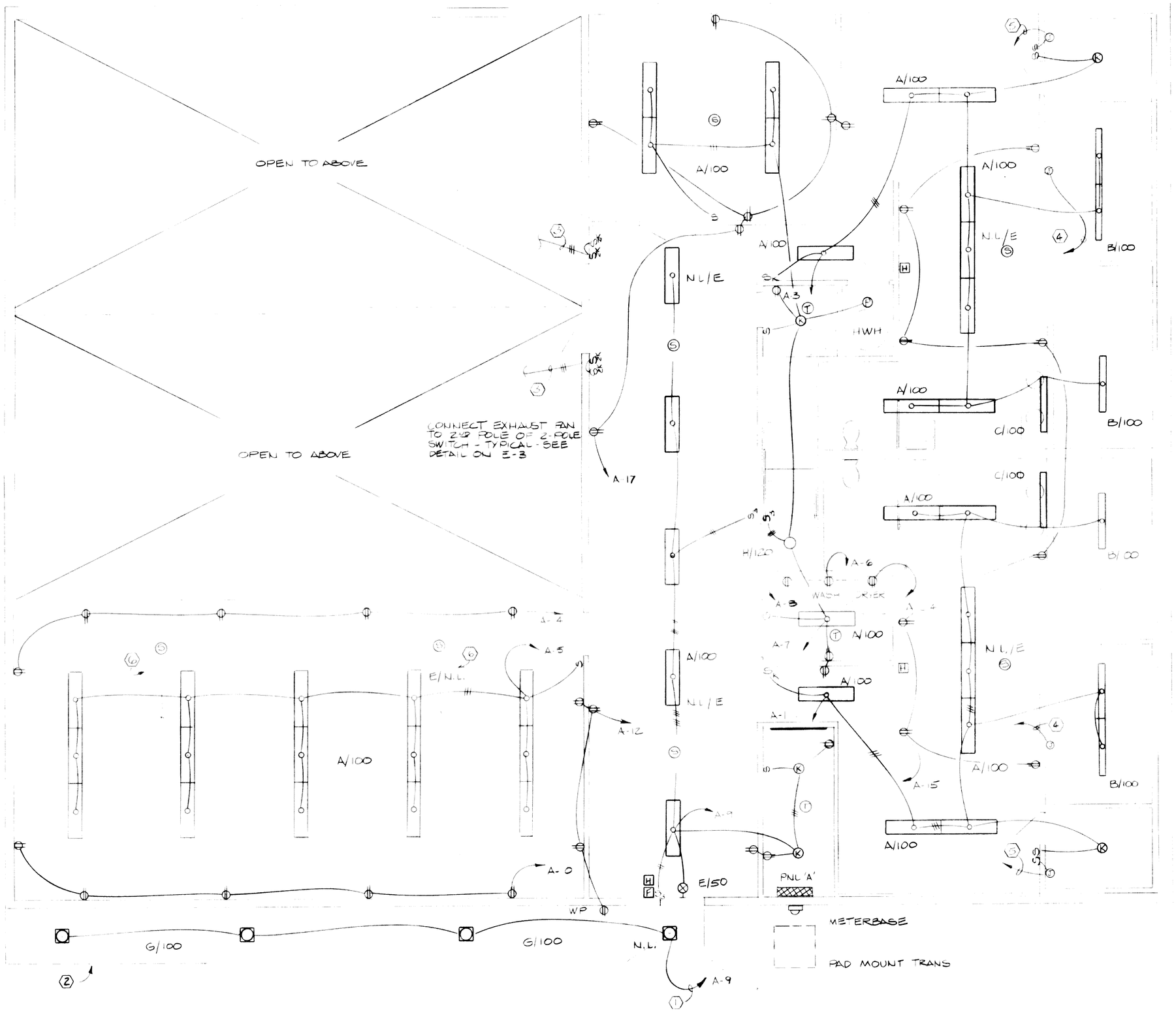
A/100	LIGHTING FIXTURE KEY-SEE SCHEDULE
1	ROOM NUMBER
1	REFER TO NOTE INDICATED
1	REVISION SYMBOL
	LIGHTING PANEL
	POWER PANEL
	MAIN DISTRIBUTION PANEL
T	TERMINAL CABINET- SUBSCRIPT "T": TELEPHONE, "S": SIGNAL SYSTEM
(4)	SINGLE PHASE MOTOR W/HP INDICATED
(6)	THREE PHASE MOTOR W/HP INDICATED
	BRANCH CIR.- CONCEALED IN WALL OR CEILING
	BRANCH CIR.-CONCEALED FLOOR OR UNDERGROUND
	BRANCH CIRCUIT-EXPOSED
	LOW VOLTAGE CONDUCTOR
	RECESSED FIXTURE
	SURFACE MOUNTED FIXTURE
	FLUORESCENT FIXTURE
	FIXTURE ARROWS INDICATE AIMING
	EXIT SIGN
K	KEYLESS PORCELAIN OUTLET W/100 W.
	AREA LIGHT
S	SINGLE POLE SWITCH
S_2	DOUBLE POLE SWITCH
S_3	THREE-WAY SWITCH
S_T	THERMAL OVERLOAD SWITCH
S_D	DIMMER SWITCH
S_K	KEY OPERATED SWITCH
S_P	SWITCH & PILOT LIGHT
E.	EMERGENCY LIGHT, CIRCUIT, PANEL
WP	DENOTES "WEATHERPROOF
N.L.	NIGHT LIGHT
T	TRANSFORMER
	FLEXIBLE CONDUIT

	MOTOR STARTER
	DISCONNECT SWITCH
	COMBINATION STARTER-DISCONNECT
T/C	TIME CONTROL (T/C)
	HOME RUN TO PANEL - # OF ARROWHEAD INDICATE # OF CIRCUITS, HASH MARKS INDICATE #. OF CONDUCTORS
	CONDUIT RUN-UP
	CONDUIT STUBBED & CAPPED
	CONDUIT RUN-DOWN
-W-	SURFACE METAL RACEWAY
J	JUNCTION BOX
	GROUND FAULT PROTECTED OUTLET
	DUPLEX CONVENIENCE OUTLET
1,3	CONVENIENCE OUTLET- SUBCRIPT- 1=SINGLE, 3=TRIPLEX, ECT
R,D	250V. OUTLET- R=RANGE, D=DRYER
	DUPLEX CONVENIENCE OUTLET, ONE SIDE SWITCHED
	FLOOR OUTLET-POWER
	FLOOR OUTLET-OTHER
	SPECIAL PURPOSE OUTLET
	TELEPHONE OUTLET FLOOR
	TELEPHONE OUTLET-WALL
LCR	LIGHTING CONTROL RELAY
S_a O_a	LETTER SUBCRIPT INDICATES SWITCHING
T	FIRE ALARM HEAT DETECTOR
FA	FIRE ALARM CENTRAL STATION
H	HORN
	BELL
F	FIRE ALARM BELL
F	FIRE ALARM PULL STATION
S	SMOKE DETECTOR
	PUSHBUTTON
	BUZZER
S	SPEAKER

NOTE: ALL SYMBOLS MAY NOT BE USED ON DWGS

NOTES

1. EXTERIOR LIGHT FIXTURES CONTROLLED BY PHOTOCELL
2. ENCLOSED FACIA ABOVE FOR RECESSED CANS
3. EXTEND SWITCH TO CONTROL LIGHTING CIRCUIT FOR FUTURE RACQUET BALL COURT
4. PROVIDE 3/4" CONDUIT TO PANEL A FOR FUTURE JACUZZI VERIFY FROM OWNER PRIOR TO ROUGH-IN THE EXACT LOCATION FOR J-BOX IF KNOWN
5. PROVIDE 3/4 CONDUIT TO PANEL A FOR FUTURE SAUNA, VERIFY ROUGH-IN REQUIREMENTS FROM OWNER. PROVIDE 4-SQ BOX FOR SWITCH SEPARATE FROM
6. AIR DIFFUSER - SEE MECH FOR EXACT LOCATION



LOWER FLOOR ELECTRICAL PLAN

DAVID B. OLSON P.E.
CONSULTING ELECTRICAL ENGINEER
2230 CHANDLAR DR. ANCHORAGE, ALASKA

REVISIONS

KENAI YOUTH CENTER

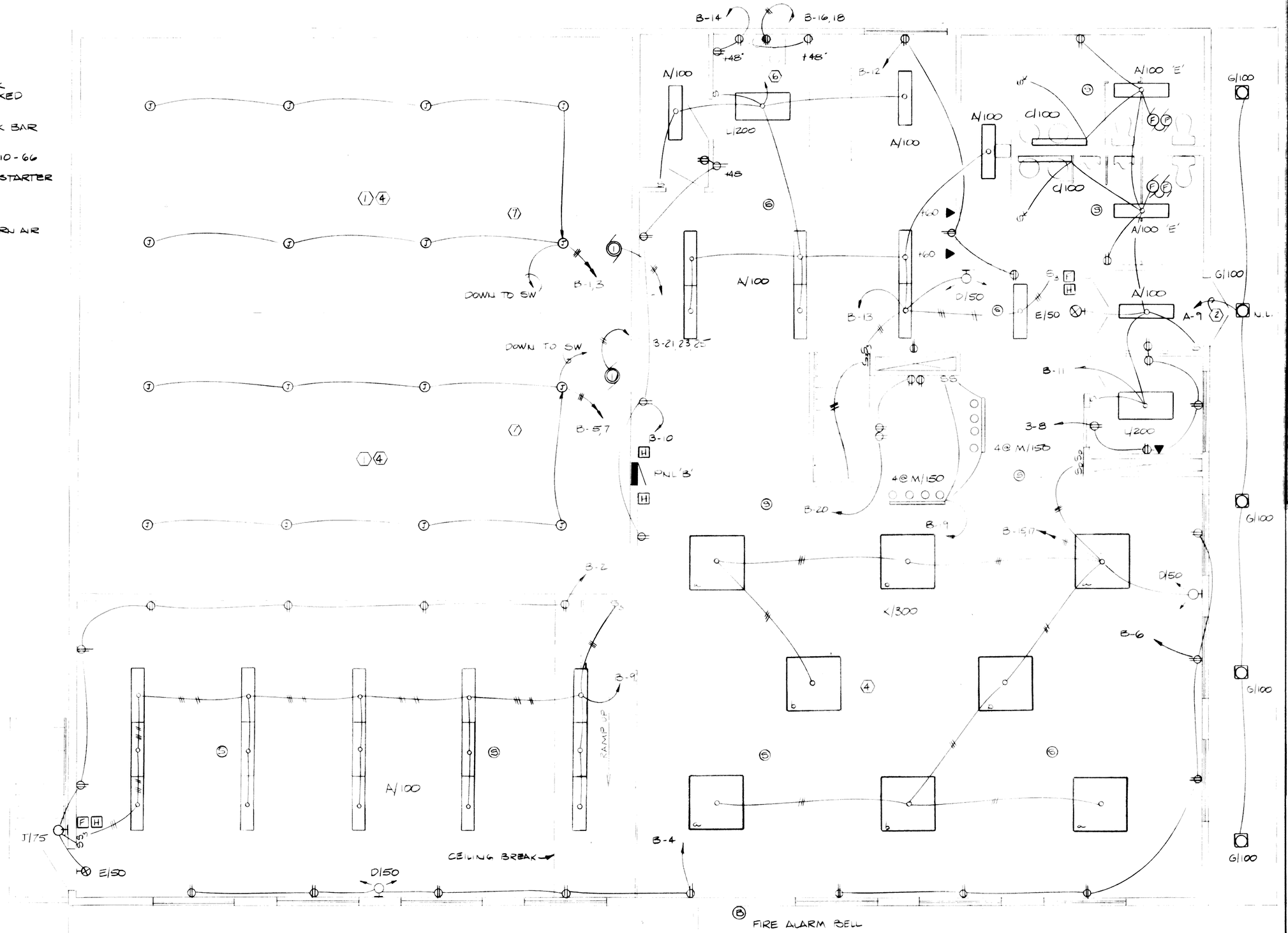
E-1

Asbuilt Aug 81 E-1

81-08-00 E-2

NOTES

1. J BOXES ARE FOR FUTURE DISCHARGE LIGHTING. ESTIMATED LOAD PER J-BOX 480W. INSTALL TEMPORARY 150W INCAND LAMPS IN PORCELAIN LAMPHOLDERS
2. CONNECT EXTERIOR FIXTURES THRU PHOTOCELL & TIMECLOCK TO ALLOW SHUTDOWN AT 12 MIDNIGHT. CONNECT FIXTURES MARKED "N.L." TO OPERATE ON PHOTOCELL ONLY
3. VERIFY FROM OWNER THE ELECTRICAL REQUIREMENTS FOR SNACK BAR EQUIPMENT
4. DO NOT INSTALL RECESSED FIXTURES IN VIOLATION OF NEC 410-66
5. EXHAUST FAN INSTALLED IN TRUSS SPACE. PROVIDE DISCONNECT/STARTER AT MOTOR. CONNET CONTACTOR COIL TO LIGHTING CIRCUIT
6. CONNECT TO RANGE HOOD
7. PROVIDE ROUGH-IN FOR FIRE ALARM "DUCT DETECTOR" IN RETURN AIR DUCT - SEE MECH



UPPER FLOOR ELECTRICAL PLAN

DAVID B. OLSON P.E.
CONSULTING ELECTRICAL ENGINEER
2330 CHANDLER DR. ANCHORAGE, AL.

REVISIONS

KENAI
YOUTH CENTER

E-2

Asbuilt Aug. 81 E-2

DRAWING NUMBER

DRAWING NUMBER 81-08-00 E-3

DRAWING NUMBER

DRAWING NUMBER

DRAWING NUMBER

PANEL SCHEDULE

PANEL A | LOCATION MAIN FLOOR | 120/208 VOLTS, 3 PHASE 4 WIRE | 400 AMP PANEL w/ MAIN LUGS

CIRCUIT LOAD	KVA	BKR
LTG - WOMENS LOCKERS	1.35	20
- MENS LOCKERS	1.35	20
- EXERCISE ROOM	1.50	20
- LAUND JAN, MECH	1.35	20
- CORR & ELEC RM	1.40	20
FUTURE JACUZZI #1	2.4	30
#2	2.4	30
RECEPTACLES	1.6	20
	1.2	20
SPACE		
	14.56	

BKR	KVA	CIRCUIT LOAD
30	2.5	ELECTRIC DRYER
30	2.5	
20	1.2	WASHER
20	1.2	LAUNDRY
20	1.0	RECEPTACLES
20	1.0	
20	1.0	
30	(2.5)	FUTURE SAUNA
30	(2.5)	
30	(2.5)	
30	(2.5)	
	20.4	SPACE
150	14.1	SUB-FEED TO PANEL B
150	14.1	
150	14.1	

CONNECTED LOAD 77.3 KVA | SQ-D NQOB | FEEDER LOAD 77.3 KVA 215 AMPS

PANEL SCHEDULE

PANEL B | LOCATION SECOND FLOOR | 120/208 VOLTS, 3 PHASE 4 WIRE | 200 AMP PANEL w/ MAIN LUGS

CIRCUIT LOAD	KVA	BKR
LIGHTING - E	1.9	20
RACQUET BALL	1.9	20
COURT	1.1	20
-	1.1	20
- GAME ROOM	.5	20
- LAVATORIES	.2	20
- COMMONS	.25	20
- DANCE FLOOR	1.2	20
- DANCE FLOOR	.2	20
- TRACK LTG	.2	20
EXHAUST FAN #1 1HP		15
EXHAUST FAN #2 1HP		15
SPACE		

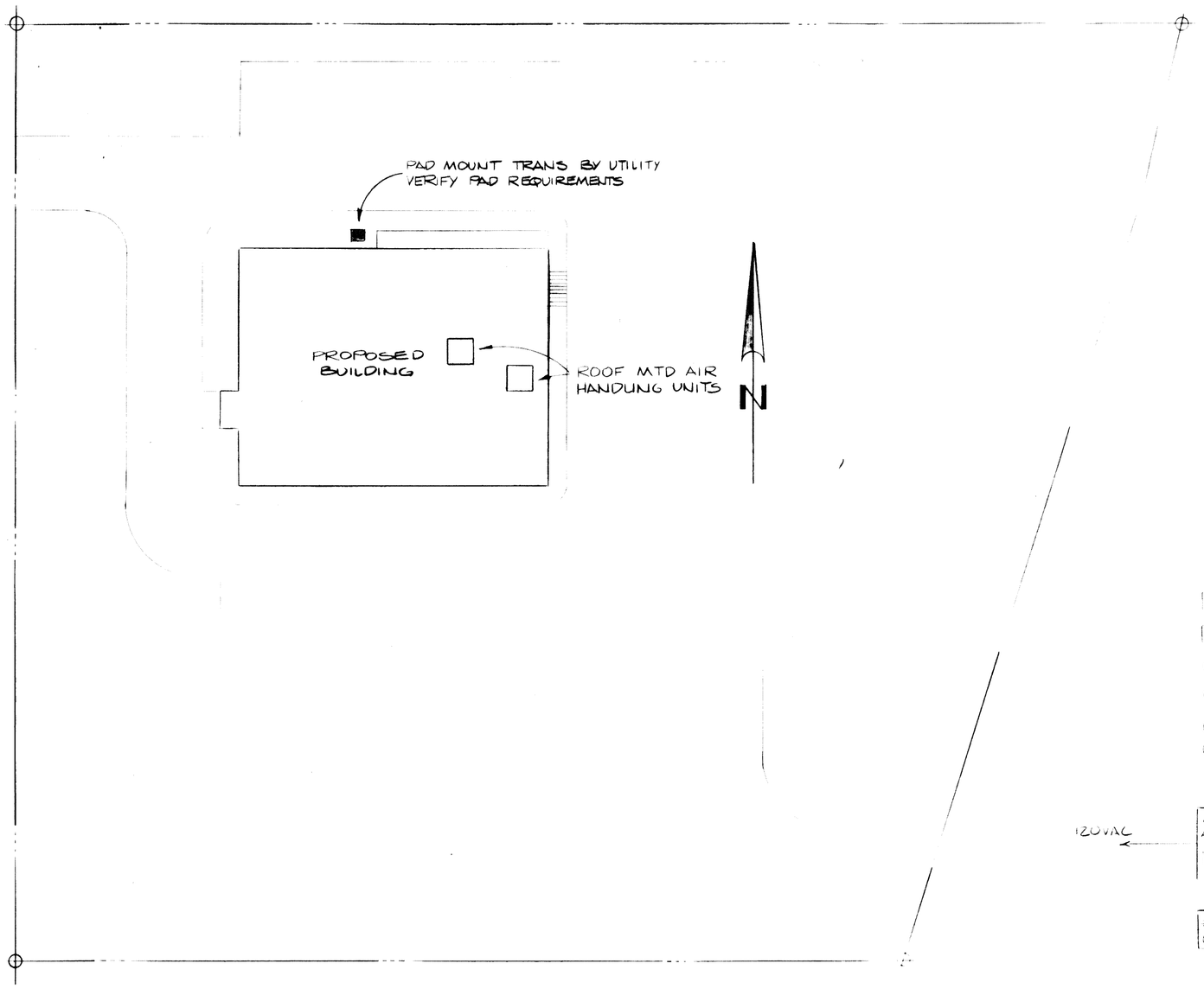
BKR	KVA	CIRCUIT LOAD
20	1.4	RECEPTACLES
20	1.1	
20	1.2	
20	1.0	
20	1.0	
20	.8	
20	1.5	
50	4.0	ELECTRIC RANGE
50	4.0	
15	.94	RETURN AIR FAN 2HP
15	.94	
15	.94	
15	.4	EXHAUST FAN 1/4 HP
15	.4	
15	.72	SUPPLY FAN 1 1/2 HP
15	.72	
15	.72	
15	.4	EXHAUST FAN 1/4 HP
15	.4	
15	.4	

CONNECTED LOAD 41.5 KVA | SQ-D NQOB | FEEDER LOAD 42.2 KVA 118 AMPS

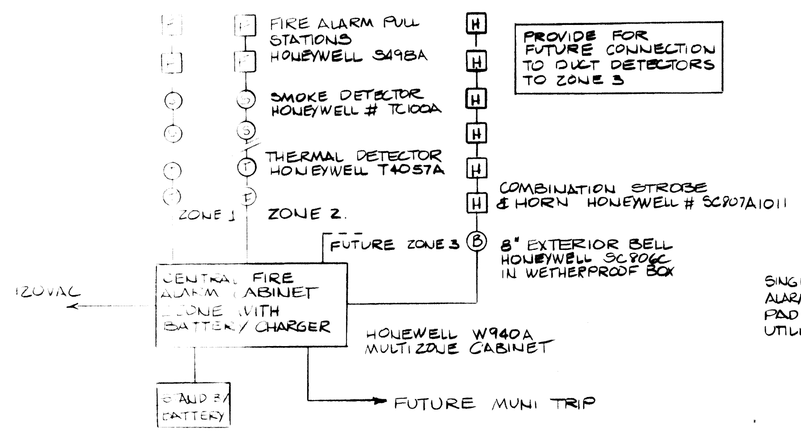
LIGHTING FIXTURE SCHEDULE

KEY	LAMPS NO.	LAMPS TYPE	DESCRIPTION	FINISH	MTG. HT.	MANUFACTURERS NUMBER
A/100	2	F40/CW	1'x4' SURFACE MTD WRAP-AROUND FLUORESCENT	STD	SURFACE	LITHONIA # LB-240A
B/100	2	F40/CW	2-LAMP, 4' SEALED FLUORESCENT WET LABEL	STD	SURFACE	LITHONIA #/ DD240A-TP OR COLUMBIA # 4724-52-742
C/100	2	F40/CW	LAVATORY WALL BRACKET FLUORESCENT	STD	ABOVE MIRROR	PRESCOLITE #3085
D/50	2	6VOLT S. BEAM	BATTERY POWERED EMERGENCY LIGHT	STD	+7'-4"	DUALITE CLA-206
E/150	2 2	6VOLT 115VOLT	BATTERY POWERED EXIT SIGN	STD	AS NOTED	LITHONIA XS-EL
G/100	1	100 W M.V.	RECESSED MERCURY VAPOR DOWNLIGHT - DAMP LABEL	STD	RECESSED	MARCO # MS22-TI261
H/120	2	60W A-19	INCANDESCENT DRUM LIGHT VANDAL RESISTANT LENS	STD	SURFACE	LITECRAFT # U-11
J/75	1	75W A19	SURFACE INCANDESCENT DAMP LABEL/ LEXAN LENS	STD	TOP OF FIXT @ TOP DOOR	LITECRAFT # U-59
K/300	6	F40/CW	4'x4' FLUORESCENT - SURFACE WRAPAROUND WITH DIMMING BAL	STD	SURFACE	COLUMBIA #3549-65-446
L/200	4	F40/CW	2'x4' WRAPAROUND FLUOR WRAPAROUND	STD	SURFACE	LITHONIA # LB440A
M/150	1	150W/ R40	TRACK LIGHTING FIXTURE	WHITE	SURFACE	PRESCOLITE # 93419
			TRACK FOR TYPE M/150 FIXTURES	WHITE	SURFACE	PRESCOLITE # 9228

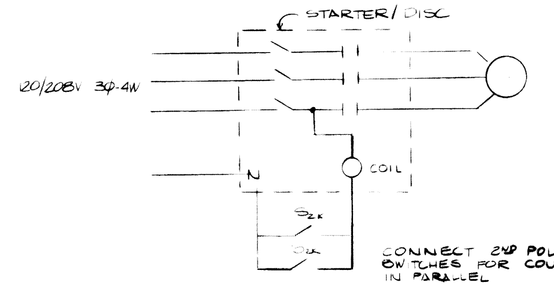
FIXTURES NOTED 'E' ARE EQUIPPED WITH BATTERY-INVERTER BALLAST BY BILTRON OR GE



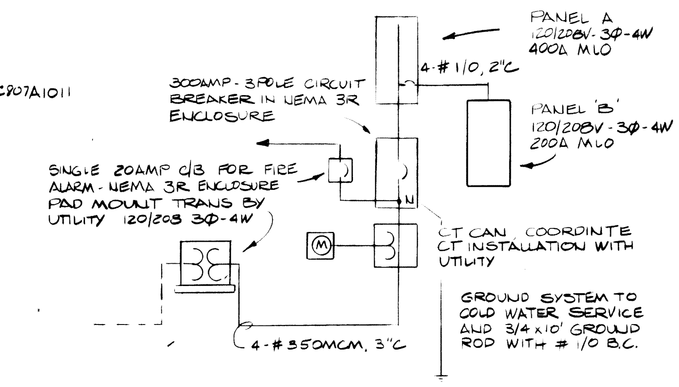
ELECTRICAL SITE PLAN NO SCALE



FIRE ALARM 1-LINE



EXHAUST FAN SWITCH DETAIL



POWER ONE-LINE NO SCALE

Asbuilt Aug. 81 E-3

DAVID B. OLSON P.E. CONSULTING ELECTRICAL ENGINEER 2220 CHANDLER DR.

KENAI YOUTH CENTER

E-3

81-08-00 E-4

SCOPE OF WORK

THE SCOPE OF WORK CONSISTS OF THE FURNISHING AND INSTALLATION OF COMPLETE ELECTRICAL SYSTEMS - INTERIOR AND EXTERIOR - INCLUDING MISCELLANEOUS SYSTEMS. THE ELECTRICAL CONTRACTOR SHALL PROVIDE ALL SUPERVISION, LABOR, MATERIALS, EQUIPMENT, MACHINERY, AND ANY AND ALL OTHER NECESSARY ITEMS NECESSARY TO COMPLETE THE SYSTEMS.

IT IS THE INTENTION OF THE SPECIFICATIONS AND DRAWINGS TO CALL FOR FINISHED WORK, TESTED AND READY FOR OPERATION.

ANY APPARATUS, APPLIANCE, MATERIAL, OR WORK NOT SHOWN ON THE DRAWINGS BUT MENTIONED IN THE SPECIFICATIONS, OR VICE VERSA, OR ANY INCIDENTAL ACCESSORIES NECESSARY TO MAKE THE WORK COMPLETE AND PERFECT IN ALL RESPECTS AND READY FOR OPERATION, EVEN IF NOT PARTICULARLY SPECIFIED, SHALL BE FURNISHED, DELIVERED, AND INSTALLED BY THE CONTRACTOR WITHOUT ADDITIONAL EXPENSE TO THE OWNER.

MINOR DETAILS NOT USUALLY SHOWN OR SPECIFIED, BUT NECESSARY FOR PROPER INSTALLATION AND OPERATION, SHALL BE INCLUDED IN THE CONTRACTOR'S ESTIMATE, THE SAME AS IF HEREIN SPECIFIED OR SHOWN.

ELECTRICAL DRAWINGS

THE ELECTRICAL DRAWINGS ARE DIAGRAMMATIC AND INDICATE THE GENERAL ARRANGEMENT OF FIXTURES, EQUIPMENT, AND WORK INCLUDED IN THE CONTRACT. CONSULT THE ARCHITECTURAL DRAWINGS AND DETAILS FOR EXACT LOCATION OF FIXTURES AND EQUIPMENT; WHERE SAME ARE NOT DEFINITELY LOCATED, OBTAIN THIS INFORMATION FROM THE ARCHITECT.

THE CONTRACTOR SHALL FOLLOW DRAWINGS IN LAYING OUT WORK AND CHECK DRAWINGS OF OTHER TRADES TO VERIFY SPACE IN WHICH WORK WILL BE INSTALLED. MAINTAIN MAXIMUM HEADROOM AND SPACE CONDITIONS AT ALL POINTS. WHERE HEADROOM OR SPACE CONDITIONS APPEAR INADEQUATE, THE ARCHITECT SHALL BE NOTIFIED BEFORE PROCEEDING WITH INSTALLATION.

AS DIRECTED BY THE ARCHITECT, THE CONTRACTOR SHALL, WITHOUT EXTRA CHARGE, MAKE REASONABLE MODIFICATIONS IN LOCATION OF EQUIPMENT TO PREVENT CONFLICT WITH WORK OF OTHER TRADES OR FOR PROPER INSTALLATION OF THE WORK.

PERMITS, FEES, AND NOTICES

THE CONTRACTOR SHALL GIVE ALL NECESSARY NOTICES, INCLUDING ELECTRIC AND TELEPHONE UTILITIES, OBTAIN ALL PERMITS, AND PAY ALL GOVERNMENT TAXES, FEES, AND CHARGES, INCLUDING UTILITY CONNECTIONS OR EXTENSIONS. OBTAIN ALL REQUIRED CERTIFICATES OF INSPECTION FOR THIS WORK AND DELIVER SAME TO THE ARCHITECT, WITH REQUEST FOR ACCEPTANCE AND FINAL PAYMENT OF THE WORK.

QUALITY OF MATERIALS

ALL MATERIALS SHALL CONFORM TO THE LATEST RULES OF THE NATIONAL BOARD OF FIRE UNDERWRITERS' CODE, REGULATIONS OF THE STATE FIRE MARSHALL, AND WITH APPLICABLE LOCAL CODES AND WITH ALL PREVAILING RULES AND REGULATIONS PERTAINING TO SAFETY, PROTECTION AND/OR GUARDING OF ANY MOVING PARTS, OR OTHERWISE DANGEROUS CONDITIONS. NOTHING IN THESE SPECIFICATIONS SHALL BE CONSTRUED TO PERMIT WORK NOT CONFORMING TO THE MOST STRINGENT OF APPLICABLE CODES.

THE NATIONAL ELECTRICAL CODE, AND THE ELECTRICAL REQUIREMENTS AS ESTABLISHED BY THE STATE AND LOCAL FIRE MARSHALL, AND RULES AND REGULATIONS OF THE LOCAL UTILITY SERVING THE PROJECT, ARE HEREBY MADE PART OF THIS SPECIFICATION. SHOULD ANY CHANGES BE NECESSARY IN THE DRAWINGS OR SPECIFICATIONS TO MAKE THE WORK COMPLY WITH THESE REQUIREMENTS, THE ELECTRICAL CONTRACTOR SHALL NOFIFY THE ARCHITECT.

COORDINATION WITH OTHER TRADES

THE ELECTRICAL CONTRACTOR SHALL GIVE FULL COOPERATION TO OTHER TRADES AND SHALL FURNISH ANY INFORMATION NECESSARY TO PERMIT THE WORK OF ALL TRADES TO BE INSTALLED SATISFACTORILY AND WITH THE LEAST POSSIBLE INTERFERENCE OR DELAY.

WHERE THE WORK OF THE ELECTRICAL CONTRACTOR WILL BE INSTALLED IN CLOSE PROXIMITY TO WORK OF OTHER TRADES, OR WHERE THERE IS EVIDENCE THAT THE WORK OF THE ELECTRICAL CONTRACTOR WILL INTERFERE WITH THE WORK OF OTHER TRADES, HE SHALL ASSIST IN WORKING OUT SPACE CONDITIONS TO MAKE A SATISFACTORY ADJUSTMENT.

TEMPORARY ELECTRICAL SERVICE

THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR ALL ARRANGEMENTS AND COSTS FOR PROVIDING, AT THE SITE, TEMPORARY ELECTRICAL METERING, MAIN SWITCHES, AND DISTRIBUTION PANELS AS REQUIRED FOR CONSTRUCTION PURPOSES. THE GENERAL CONTRACTOR SHALL INDICATE PRIOR TO INSTALLATION WHERE SERVICE IS REQUIRED.

POWER

THE ELECTRICAL CONTRACTOR SHALL PROVIDE AND INSTALL POWER WIRING TO ALL MOTORS AND ELECTRICAL EQUIPMENT COMPLETE AND READY FOR OPERATION INCLUDING DISCONNECT SWITCHES AND FUSES. STARTERS, RELAYS, AND ACCESSORIES SHALL BE FURNISHED BY THE EQUIPMENT MANUFACTURER (UNLESS OTHERWISE NOTED, BUT SHALL BE INSTALLED BY THE ELECTRICAL CONTRACTOR. THIS INSTALLATION SHALL INCLUDE ALL CONNECTIONS AND WIRING BETWEEN EQUIPMENT MANUFACTURER TO OWNERS EMPLOYEE TO DETERMINE THE EXACT LOCATION OF ALL OUTLETS FOR EQUIPMENT INSTALLED.

CONTROL WIRING

THE ELECTRICAL CONTRACTOR SHALL FURNISH AND INSTALL ALL CONTROL WIRING AND ALL INTERLOCK WIRING UNLESS OTHERWISE NOTED.

RECORD DRAWINGS

THE ELECTRICAL CONTRACTOR SHALL MAINTAIN ACCURATE RECORDS OF ALL DEVIATIONS IN WORK AS ACTUALLY INSTALLED FROM WORK INDICATED ON THE DRAWINGS. ON COMPLETION OF THE PROJECT, TWO (2) COMPLETE SETS OF MARKED-UP PRINTS SHALL BE DELIVERED TO THE ARCHITECT.

INSPECTION AND CERTIFICATES

ON THE COMPLETION OF THE ENTIRE INSTALLATION, THE APPROVAL OF THE ARCHITECT AND OWNER SHALL BE SECURED, COVERING THE INSTALLATION THROUGHOUT.

TESTS

THE RIGHT IS RESERVED TO INSPECT AND TEST ANY PORTION OF THE EQUIPMENT AND/OR MATERIALS DURING THE PROGRESS OF ITS ERECTION. THE CONTRACTOR SHALL TEST ALL WIRING AND CONNECTIONS FOR CONTINUITY AND GROUNDS, BEFORE CONNECTING ANY FIXTURES OR EQUIPMENT.

THE CONTRACTOR SHALL TEST THE ENTIRE SYSTEM IN THE PRESENCE OF THE ARCHITECT OR HIS ENGINEER WHEN THE WORK IS FINALLY COMPLETED, TO ENSURE THAT ALL PORTIONS ARE FREE FROM SHORT CIRCUITS OR GROUNDS. ALL EQUIPMENT NECESSARY TO CONDUCT THESE TESTS SHALL BE FURNISHED AT THE CONTRACTOR'S EXPENSE.

CONDUIT MATERIAL AND WORKMANSHIP

THE ELECTRICAL CONTRACTOR SHALL INSTALL A COMPLETE RACEWAY SYSTEM AS SHOWN ON THE DRAWINGS AND STATED IN OTHER SECTIONS OF THE SPECIFICATIONS. ALL MATERIAL USED IN THE RACEWAY SYSTEM SHALL BE NEW AND THE PROPER MATERIAL FOR THE JOB. CONDUITS, COUPLINGS, AND CONNECTORS SHALL BE A PRODUCT OF A REPUTABLE MANUFACTURER. CONDUIT SHALL BE OF AMPLE SIZE TO PERMIT THE READY INSERTION AND WITHDRAWAL OF CONDUCTORS WITHOUT ABRASION. ALL JOINTS SHALL BE CUT SQUARE, REAMED SMOOTH, AND DRAWN UP TIGHT.

CONCEALED CONDUITS SHALL BE RUN IN AS DIRECT A MANNER AND WITH AS LONG A BEND AS POSSIBLE. EXPOSED CONDUIT SHALL BE RUN PARALLEL TO OR AT RIGHT ANGLES WITH THE LINES OF THE BUILDING. ALL BENDS SHALL BE MADE WITH STANDARD ELLS, CONDUIT BENT TO A RADIUS NOT LESS THAN SHOWN IN N.E.C., OR SCREW-JOINTED CONDUIT FITTINGS. ALL BENDS SHALL BE FREE OF DENTS OR FLATTENING. NOT MORE THAN THE EQUIVALENT OF FOUR QUARTER-BENDS SHALL BE USED IN ANY RUN BETWEEN TERMINALS AND CABINETS, OR BETWEEN OUTLETS AND JUNCTION OR PULL BOXES.

CONDUITS SHALL BE CONTINUOUS FROM OUTLET TO OUTLET AND FROM OUTLET TO CABINETS, OR JUNCTION OR PULL BOXES, AND SHALL ENTER AND BE SECURED AT ALL BOXES IN SUCH A MANNER THAT EACH SYSTEM SHALL BE ELECTRICALLY CONTINUOUS THROUGHOUT.

A NO. 14 GALVANIZED IRON OR STEEL FISH WIRE SHALL BE LEFT IN ALL CONDUITS IN WHICH THE PERMANENT WIRING IS NOT INSTALLED.

WHERE CONDUITS CROSS BUILDING JOINTS, FURNISH AND INSTALL O.Z. ELECTRIC MANUFACTURING COMPANY EXPANSION FITTINGS FOR CONTRACTION, EXPANSION, AND SETTLEMENT.

OPEN ENDS SHALL BE CAPPED WITH APPROVED MANUFACTURED CONDUIT SEALS AS SOON AS INSTALLED AND KEPT CAPPED UNTIL READY TO INSTALL CONDUCTORS.

CONDUITS SHALL BE SECURELY FASTENED TO ALL SHEET METAL OUTLETS, JUNCTION, AND PULL BOXES WITH GALVANIZED LOCK-NUTS AND BUSHINGS,CARE BEING OBSERVED TO SEE THAT THE FULL-NUMBER THREADS PROJECT THROUGH TO PERMIT THE BUSHINGS TO BE DRAWN TIGHT AGAINST THE END OF THE CONDUIT, AFTER WHICH THE LOCK-NUT SHALL BE MADE UP SUFFICIENTLY TIGHT TO DRAW THE BUSHINGS INTO FIRM ELECTRICAL CONTACT WITH THE BOX.

FOR ALL FLUSH-MOUNTED PANELS, THERE SHALL BE PROVIDED AND INSTALLED ONE 1-1/4 INCH EMPTY CONDUIT UP THROUGH THE WALL AND TURNED OUT ABOVE THE CEILING AND ONE 1-1/4 INCH EMPTY CONDUIT DOWN TO CRAWL SPACE BELOW.

CONDUIT THROUGHOUT THE PROJECT SHALL BE SECURELY AND RIGIDLY SUPPORTED TO THE BUILDING STRUCTURE IN A NEAT AND WORKMANLIKE MANNER, AND WHEREVER POSSIBLE, PARALLEL RUNS OF HORIZONTAL CONDUIT SHALL BE GROUPED TOGETHER ON ADJUSTABLE TRAPEZE HANGERS. SUPPORT SPACING SHALL NOT BE MORE THAN EIGHT (8) FEET.

EXPOSED CONDUIT SHALL BE SUPPORTED BY ONE-HOLE MALLEABLE IRON STRAPS, TWO-HOLE STRAPS, SUITABLE BEAM CLAMPS, OR SPLIT-RING CONDUIT HANGER WITH SUPPORT ROD.

SINGLE CONDUIT 1-1/4 INCH AND LARGER RUN CONCEALED HORIZONTALLY SHALL BE SUPPORTED BY SUITABLE BEAM CLAMPS OR SPLIT-RING CONDUIT HANGERS WITH SUPPORT ROD. MULTIPLE RUNS OF CONDUIT SHALL BE GROUPED TOGETHER ON TRAPEZE HANGERS WHERE POSSIBLE. VERTICAL RUNS SHALL BE SUPPORTED BY STEEL RISER CLAMPS.

CONDUIT ONE INCH AND SMALLER RUN CONCEALED ABOVE A CEILING MAY BE SUPPORTED DIRECTLY TO THE BUILDING STRUCTURE WITH STRAP HANGERS OR NO. 14 GAUGE GALVANIZED WIRE PROVIDED THE SUPPORT SPACING DOES NOT EXCEED FOUR (4) FEET.

OUTLET BOXES

BEFORE LOCATING THE OUTLET BOXES, CHECK ALL OF THE ARCHITECTURAL DRAWINGS FOR TYPE OF CONSTRUCTION AND TO MAKE SURE THAT THERE IS NO CONFLICT WITH OTHER EQUIPMENT. THE OUTLET BOXES SHALL BE SYMMETRICALLY LOCATED ACCORDING TO ROOM

OUTLET BOXES SHALL BE MADE OF GALVANIZED SHEET STEEL UNLESS OTHERWISE NOTED OR REQUIRED BY THE N.E.C. AND SHALL BE OF THE PROPER CODE SIZE FOR THE REQUIRED NUMBER OF CONDUCTORS.

THE OUTLET BOXES SHALL BE COMPLETE WITH RAISED DEVICE COVERS AS REQUIRED TO ACCEPT DEVICE INSTALLED. ALL OUTLET BOXES MUST BE SECURELY FASTENED IN POSITION WITH THE EXPOSED EDGE OF THE RAISED DEVICE COVER SET FLUSH WITH THE FINISHED SURFACE. APPROVED FACTORY-MADE KNOCKOUT SEALS SHALL BE INSTALLED WHERE KNOCKOUTS ARE NOT INTACT.

OUTLET BOXES FOR EXPOSED WORK SHALL BE HANDY BOXES WITH HANDY BOX COVERS UNLESS OTHERWISE NOTED.

OUTLET BOXES LOCATED ON THE EXTERIOR IN DAMP OR WET LOCATIONS OR AS OTHERWISE NOTED SHALL BE THREADED CAST-ALUMINUM DEVICE BOXES SUCH AS CROUSE HINDS TYPE FS OR FD.

WALL RECEPTACLES SHALL BE MOUNTED APPROXIMATELY 24" ABOVE THE FINISHED FLOOR UNLESS OTHERWISE NOTED. TELEPHONE BOXES SHALL BE AT THE SAME HEIGHT AS RECEPTACLE BOXES UNLESS OTHERWISE NOTED.

WALL SWITCHES SHALL BE MOUNTED APPROXIMATELY 48" ABOVE THE FINISHED FLOOR UNLESS OTHERWISE NOTED. WHERE MORE THAN TWO SWITCHES ARE LOCATED, THE SWITCHES SHALL BE MOUNTED IN A GANG OUTLET BOX WITH GANG COVER. SWITCHES WITH PILOT LIGHTS, SWITCHES WITH OVERLOAD SUPER PROTECTION, AND OTHER SPECIAL SWITCHES, THAT ARE NOT CONVENIENTLY FIT UNDER ONE WALL PLATE MAY BE INDIVIDUALLY MOUNTED.

THE LIGHTING FIXTURE OUTLET BOXES SHALL BE FURNISHED WITH THE NECESSARY ACCESSORIES TO INSTALL THE FIXTURE. THESE SUPPORTS MUST BE SUCH AS NOT TO DEPEND ON THE OUTLET BOX SUPPORTING THE FIXTURE. THE SUPPORTS FOR THE LIGHTING FIXTURE SHALL BE INDEPENDENT OF THE CEILING SYSTEM. ALL CEILING OUTLET BOXES SHALL BE EQUIPPED WITH RAISED CIRCULAR COVER PLATES WITH EDGE SET FLUSH WITH SURFACE OF FINISHED CEILING.

PULL BOXES

PULL BOXES SHALL BE INSTALLED AT ALL NECESSARY POINTS, WHETHER INDICATED ON THE DRAWING OR NOT, TO PREVENT INJURY TO THE INSULATION OR OTHER DAMAGE THAT MIGHT RESULT FROM PULLING RESISTANCE FOR OTHER REASONS NECESSARY TO PROPER INSTALLATION. EXPOSED PULL BOXES WILL NOT BE PERMITTED IN THE PUBLIC SPACES.

SERVICE ENTRANCE

THE ELECTRICAL CONTRACTOR SHALL PROVIDE AND INSTALL A COMPLETE SERVICE-ENTRANCE SYSTEM AS SHOWN ON THE DRAWINGS. ALL MATERIAL AND WORKMANSHIP SHALL CONFORM WITH THE N.E.C. THE ELECTRIC SERVICE ENTRANCE SHALL CONFORM TO THE REQUIREMENTS AND REGULATIONS OF THE ELECTRIC UTILITY SERVING THE PROJECT.

THE ELECTRICAL CONTRACTOR SHALL PROPERLY GROUND THE ELECTRICAL SYSTEM AS REQUIRED BY THE N.E.C. THE GROUND WIRE FOR THE SERVICE ENTRANCE SHALL BE RUN IN CONDUIT AND MADE TO THE MAIN WATER SERVICE AND CONNECTED AHEAD OF ANY VALVE OR CUTOFF.

THE CONDUIT USED FOR SERVICE ENTRANCE SHALL BE GALVANIZED RIGID STEEL CONDUIT UNLESS OTHERWISE NOTED ON DRAWINGS.

CONDUCTORS FOR THE SERVICE ENTRANCE SHALL BE COPPER TYPE RHW OR THW RATED AT 75 DEGREES CENTIGRADE UNLESS OTHERWISE NOTED. THE CONDUCTORS INDICATED ON THE DRAWINGS ARE BASED ON COPPER. CONDUCTORS WITH A SIZE OF NO. 6 AND LARGER MAY BE ALUMINUM, PROVIDED THE SIZE OF THE CONDUCTOR IS INCREASED TO HAVE THE SAME CURRENT-CARRYING CAPACITY AS THE COPPER CONDUCTORS (OR MORE). ALSO, THE CONDUIT SIZE SHALL BE INCREASED ACCORDINGLY.

EQUIPMENT AND INSTALLATION WORKMANSHIP

ALL EQUIPMENT AND MATERIAL SHALL BE NEW AND SHALL BEAR THE MANUFACTURER'S NAME AND TRADE NAME. THE EQUIPMENT AND MATERIAL SHALL BE ESSENTIALLY THE STANDARD PRODUCT OF A MANUFACTURER REGULARLY ENGAGED IN THE PRODUCTION OF THE REQUIRED TYPE OF EQUIPMENT AND SHALL BE THE MANUFACTURER'S LATEST APPROVED DESIGN.

THE ELECTRICAL CONTRACTOR SHALL PROVIDE AND INSTALL ALL ITEMS NECESSARY FOR THE COMPLETE INSTALLATION OF THE EQUIPMENT AS RECOMMENDED OR AS REQUIRED BY THE MANUFACTURER OF THE EQUIPMENT OR REQUIRED BY LOCAL CODE WITHOUT ADDITIONAL COST TO THE OWNER, REGARDLESS OF WHETHER THE ITEMS ARE SHOWN ON THE PLANS OR COVERED IN THE SPECIFICATIONS.

IT SHALL BE THE RESPONSIBILITY OF THE ELECTRICAL CONTRACTOR TO CLEAN THE ELECTRICAL EQUIPMENT, MAKE NECESSARY ADJUSTMENTS, AND PLACE THE EQUIPMENT INTO OPERATION BEFORE TURNING EQUIPMENT OVER TO THE OWNER. ANY PAINT THAT WAS SCRATCHED DURING CONSTRUCTION SHALL BE "TOUCHED UP" WITH FACTORY-COLOR PAINT TO THE SATISFACTION OF THE ARCHITECT. ANY ITEMS THAT WERE DAMAGED DURING CONSTRUCTION SHALL BE REPLACED.

WATERPROOFING

THE ELECTRICAL CONTRACTOR SHALL PROVIDE ALL FLASHING, CAULKING AND SLEEVES REQUIRED WHERE HIS ITEMS PASS THROUGH THE OUTSIDE WALLS OR ROOF. THE WATERPROOFING OF THE OPENINGS SHALL BE MADE ABSOLUTELY WATERTIGHT. THE METHOD OF INSTALLATION SHALL MEET THE APPROVAL OF THE ARCHITECT.

FEEDERS AND BRANCH CIRCUITS

THE ELECTRICAL CONTRACTOR SHALL PROVIDE AND INSTALL A COMPLETE ELECTRICAL DISTRIBUTION SYSTEM AS SHOWN ON THE DRAWINGS OR AS REQUIRED FOR A COMPLETE SYSTEM. RIGID CONDUIT SHALL BE GALVANIZED RIGID STEEL CONDUIT WITH A MINIMUM SIZE OF 3/4-INCH UNLESS OTHERWISE NOTED. RIGID STEEL CONDUIT SHALL BE INSTALLED FOR THE FOLLOWING SERVICES AND LOCATIONS: SERVICE ENTRANCE, UNDERGROUND IN CONTACT WITH EARTH, PANEL FEEDERS OVER 2", EXTERIOR OF BUILDING WALLS, ELECTRICAL EQUIPMENT FEEDERS OVER 10 KW, "WET" LOCATIONS, AND AS REQUIRED BY THE N.E.C.

EMT SHALL BE GALVANIZED STEEL WITH A MINIMUM SIZE OF 1/2-INCH. ELECTRICAL METALLIC TUBING SHALL BE USED IN ALL LOCATIONS NOT OTHERWISE SPECIFIED FOR RIGID OR FLEXIBLE CONDUIT AND WHERE NOT IN VIOLATION OF THE N.E.C.

FLEXIBLE METAL CONDUIT SHALL BE GALVANIZED STEEL. FLEXIBLE METAL CONDUIT LOCATED IN WET LOCATIONS SHALL BE LIQUID-TIGHT TYPE. FLEXIBLE METAL CONDUIT MAY BE USED IN PLACE OF EMT WHERE COMPLETELY ACCESSIBLE, SUCH AS ABOVE REMOVABLE ACOUSTICAL TILE CEILINGS AND FOR EXPOSED WORK IN UNFINISHED SPACES.

A SHORT PIECE OF FLEXIBLE METAL CONDUIT SHALL BE USED FOR THE CONNECTION TO ALL MOTORS AND VIBRATING EQUIPMENT, CONNECTION BETWEEN RECESSED LIGHT FIXTURES AND JUNCTION BOX, AND AS OTHERWISE NOTED, PROVIDED THE USE MEETS THE REQUIREMENTS OF THE NATIONAL CODE AND LOCAL CODES. THE FLEXIBLE METAL CONDUITS SHALL BE THE TYPE APPROVED FOR CONTINUOUS GROUNDING.

THE CONDUCTOR INSULATION SHALL BE AS FOLLOWS, UNLESS OTHERWISE NOTED:

A. FEEDERS: SHALL BE TYPE RHW OR THW RATED AT 75 DEGREES C.

B. BRANCH CIRCUITS: SHALL BE TYPE THW RATED AT 75 DEGREES C., EXCEPT THAT BRANCH CIRCUITS WITH CONDUCTOR SIZES OF NO. 10 AND SMALLER IN DRY LOCATIONS MAY BE TYPE TW RATED AT 60 DEGREES C.

C. SPECIAL LOCATIONS: CONDUCTORS IN SPECIAL LOCATIONS SUCH AS RANGE HOODS, LIGHTING FIXTURES, ETC., SHALL BE AS REQUIRED BY THE N.E.C., LOCAL CODE, OR AS OTHERWISE NOTED.

NO CONDUCTOR SHALL BE SMALLER THAN NO. 12 WIRE.

ALL CONDUCTORS WITH THE SIZE OF NO. 8 OR LARGER SHALL BE STRANDED.

ALL LIGHTING AND RECEPTACLE BRANCH CIRCUITS IN EXCESS OF 100 LINEAL FEET SHALL BE INCREASED ONE SIZE TO PREVENT EXCESSIVE VOLTAGE DROP.

SAFETY SWITCHES

FURNISH AND INSTALL SAFETY SWITCHES AS INDICATED ON THE DRAWINGS OR AS REQUIRED. ALL SAFETY SWITCHES SHALL BE HEAVY GENERAL DUTY TYPE AND UNDERWRITERS' LABORATORIES LISTED. THE SWITCHES SHALL BE NONFUSED SAFETY SWITCHES AS SHOWN ON THE DRAWINGS OR REQUIRED.

PANELBOARDS

FURNISH AND INSTALL CIRCUIT-BREAKER PANELBOARDS AS INDICATED IN THE PANELBOARD SCHEDULE AND WHERE SHOWN ON THE DRAWINGS. THE PANELBOARD SHALL BE DEAD-FRONT SAFETY TYPE EQUIPPED WITH MOLDED-CASE CIRCUIT BREAKERS AND SHALL BE THE TYPE AS LISTED IN THE PANELBOARD SCHEDULE. SERVICE-ENTRANCE PANELBOARDS SHALL INCLUDE A FULL-CAPACITY BOX BONDING STRAP AND BE APPROVED FOR SERVICE ENTRANCE. THE PANELBOARD SHALL BE LISTED BY UNDERWRITER'S LABORATORIES AND BEAR THE UL LABEL.

PROVIDE MOLDED-CASE CIRCUIT BREAKERS OF FRAME, TRIP RATING, AND INTERRUPTING CAPACITY AS SHOWN ON THE SCHEDULE. ALSO, PROVIDE THE NUMBER OF SPACES FOR FUTURE CIRCUIT BREAKERS AS SHOWN IN THE SCHEDULE. THE CIRCUIT BREAKERS SHALL BE QUICK-MAKE, QUICK-BREAK, THERMAL-MAGNETIC, TRIP-INDICATING, AND HAVE COMMON TRIP ON ALL MULTIPOLE BREAKERS WITH INTERNAL TIE MECHANISM.

ON THE INSIDE OF THE DOOR OF EACH CABINET, PROVIDE A TYPEWRITTEN DIRECTORY WHICH WILL INDICATE THE LOCATION OF THE EQUIPMENT OR OUTLETS SUPPLIED BY EACH CIRCUIT. THE PANEL DESIGNATION SHALL BE TYPED ON THE DIRECTORY CARD. THE PANEL DESIGNATION SHALL ALSO BE AFFIXED TO THE OUTSIDE OF THE PANEL DOOR ON AN ENGRAVED PLASTIC NAMEPLATE WITH 1/2" HIGH LETTERS. WHEN THE PANEL IS RECESSED INTO A WALL SERVING AN AREA WITH ACCESSIBLE CEILING SPACE, PROVIDE AND INSTALL AN EMPTY 1" CONDUIT FOR EACH 6 SPARE POLES OF CIRCUIT BREAKER SPACE.

WIRING DEVICES

WHERE MORE THAN ONE FLUSH WALL SWITCH IS INDICATED IN THE SAME LOCATION, THE SWITCHES SHALL BE MOUNTED IN GANGS UNDER A COMMON PLATE. PROVIDE THE FOLLOWING DEVICE TYPES. (THE FOLLOWING NUMBERS ARE ARROW-HART)

SWITCHES:

1.	SINGLE-POLE	AH# 1991
2.	THREE-WAY	AH# 1993
3.	FOUR-WAY	AH# 1994
4.	PILOT LIGHT	AH# 2999-R
5.	MOTOR SWITCH-SURF	AH# 6808
6.	MOTOR SWITCH-PLUSH	AH# 6808-F

RECEPTACLES:

1.	DUPLEX	AH# 6739
2.	CLOCK OUTLET	AH# 5708
3.	WEATHERPROOF	AH# 5735-F

LIGHTING FIXTURES

THE ELECTRICAL CONTRACTOR SHALL FURNISH, INSTALL, AND CONNECT ALL LIGHTING FIXTURES TO THE BUILDING WIRING SYSTEM UNLESS OTHERWISE NOTED.

THE FIXTURE FOR EACH LOCATION IS INDICATED BY TYPE LETTER. REFER TO FIXTURE SCHEDULE ON THE DRAWINGS FOR EACH TYPE, MANUFACTURER, CATALOG NUMBER, AND TYPE OF MOUNTING.

ALL FLUORESCENT FIXTURES SHALL HAVE ETL-CBM HIGH POWER FACTOR, QUIET-OPERATING CLASS A SOUND-RATED, THERMALLY PROTECTED CLASS P RATED BALLAST WITH UL APPROVAL. BALLASTS SHALL BE AS MANUFACTURED BY GENERAL ELECTRIC, ADVANCE, JEFFERSON OR APPROVED EQUAL. THE BALLASTS SHALL BE SUBJECT TO A TWO (2) YEAR MANUFACTURER'S GUARANTEE. GUARANTEE SHALL BE FILED WITH THE OWNER.

IT SHALL BE THE RESPONSIBILITY OF THE ELECTRICAL CONTRACTOR TO COORDINATE WITH THE GENERAL CONTRACTOR IN ORDER THAT THE PROPER TYPE OF FIXTURE BE FURNISHED TO MATCH THE CEILING BEING INSTALLED.

THE ELECTRICAL CONTRACTOR SHALL FURNISH AND INSTALL LAMPS IN ALL FIXTURES AS INDICATED ON THE DRAWINGS OR AS REQUIRED. FLUORESCENT LAMPS SHALL BE STANDARD COOL WHITE, AND INCANDESCENT LAMPS SHALL BE INSIDE-FROSTED UNLESS OTHERWISE NOTED ON THE DRAWINGS. LAMPS SHALL BE MANUFACTURED BY GENERAL ELECTRIC, WESTINGHOUSE, OR SYLVANIA.

REVISIONS

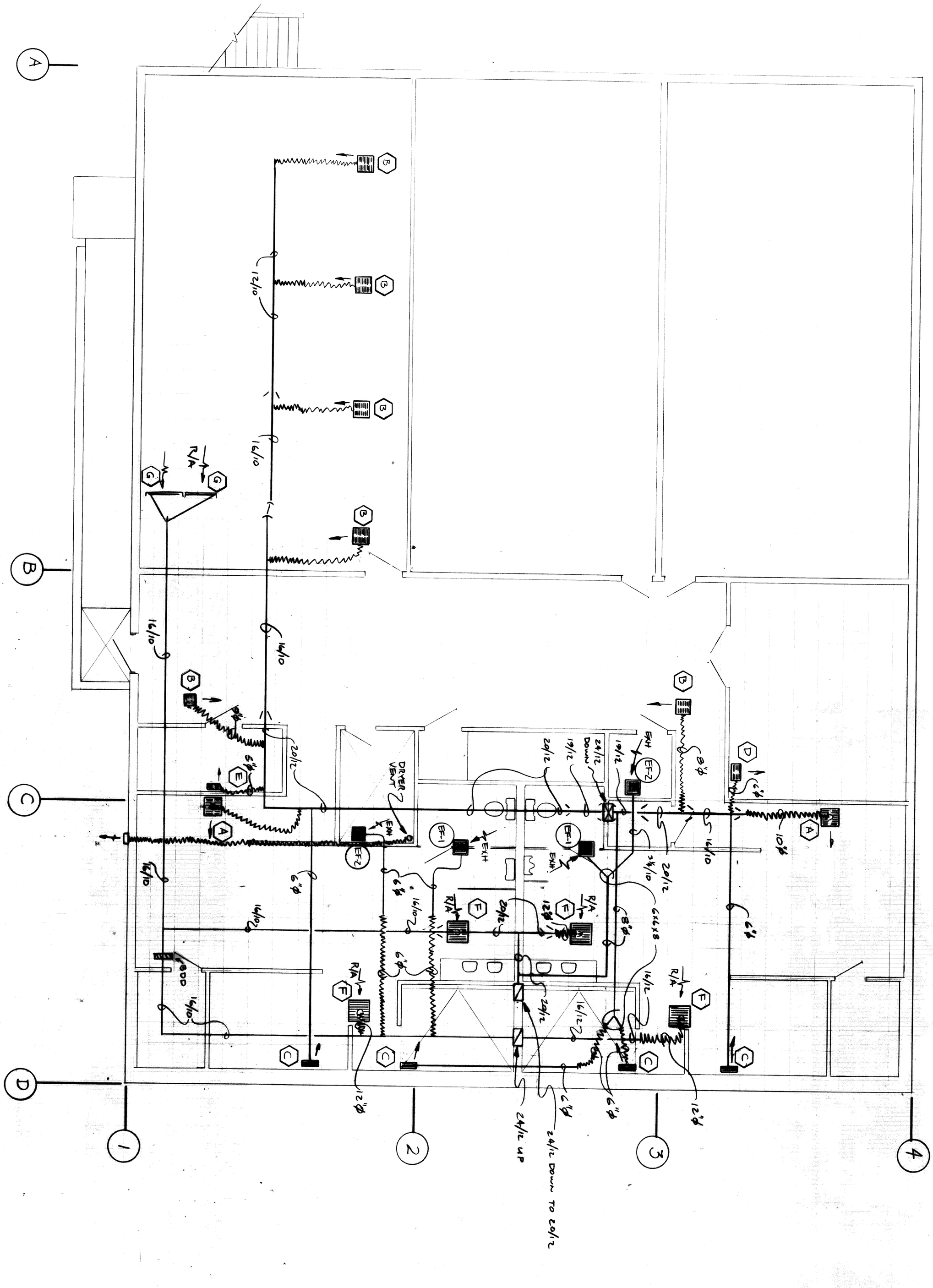
KENAI YOUTH CENTER

As built Aug 81 E-4

E-4

LOWER LEVEL DUCT LAYOUT

scale: 1/4" = 1'-0"



As built Aug 81

M-1

FINAL DESIGN

KENAI YOUTH CENTER

Blazy Construction, Soldotna, Alaska / Miller Sheet Metal & Heating, Kenai, Alaska

LOWER LEVEL HEATING & VENTILATING

EMDS/consulting engineers
4119 checkmate drive
anchorage, alaska 99504
(907)337-1881

STATE OF ALASKA — 4918 — Edward P. Mjelsness No. 4918 — REGISTERED PROFESSIONAL ENGINEER

DRAWING NUMBER

81-08-00 M-2

DRAWING NUMBER

DRAWING NUMBER

DRAWING NUMBER

DRAWING NUMBER

ATTIC FIRE STOP

12/10

3' SOFFIT (U.N.O.)

DN

N/A

K

TYPICAL (6 PLACES)
SF-1 & SF-2

2

1

A

D

UPPER LEVEL

MAI YOUTH CENTER

M-2

Asbuilt Aug 81 m-2

DRAWING NUMBER
PLAN HOLD CORPORATION • IRVINE, CALIFORNIA
REORDER BY NUMBER 075AR
POSITION EDGE OF PRINT ON THIS LINE

DRAWING NUMBER 81-08-06 S-1
PLAN HOLD CORPORATION • IRVINE, CALIFORNIA
REORDER BY NUMBER 075AR
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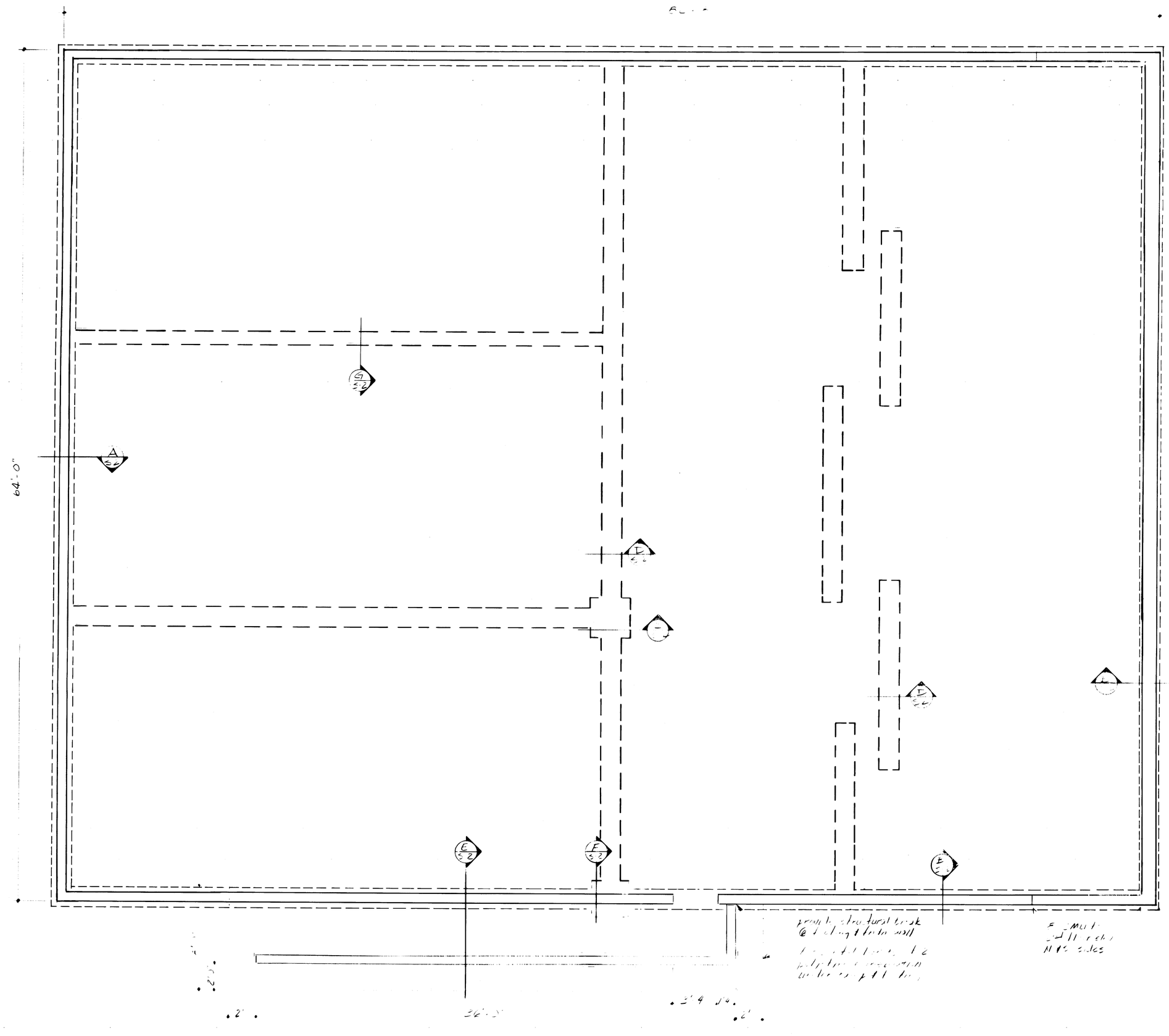

FOUNDATION PLAN
1/4"=1'-0"

STRUCTURAL

General
All materials and construction shall conform to requirements of the Uniform Building Code (1976 edition). Where explicit details are not shown or described, the minimum requirements of the code shall apply.

Design Criteria
Roof: 40 psf
Floor: 100 psf
Wind: 20 psf per sq. ft. (psf)
Soil bearing: 1,000 psf

Foundations
Place all footings on natural undisturbed soil or on compacted backfill placed on undisturbed soil. All fill below footings shall be non-frost susceptible soil placed in maximum lifts of 9 inches loose thickness and compacted to 95% maximum density in accordance with ASTM D-1557. All organic material, frozen soil, trash and debris shall be removed prior to placing any structural fill, footings or slabs.

Slab on Grade
Strip area of all organic soil to a maximum depth of 2', remove any loose or excess material and proof roll the existing soil. Any pockets of loose soil or debris encountered shall be excavated and backfilled and compacted to 90% as described in "Foundation" criteria. Place reinforcing mesh at mid thickness of slab. All fill placed below slab shall be NFS compacted to 90%.

Concrete
Use a mix design based on the use of local aggregates, which will develop concrete with the following 28 day strengths:
Slabs on grade f'c=2500 psi
Footings f'c=3000 psi
Masonry grout f'c=3000 psi

Reinforcing steel: ASTM A615, grade 40. Lap all rebar 30 diameters at splices, minimum lap 1'-6". All welded wire fabric shall conform to ASTM A185. Lap all edges 1½ mesh minimum.

Air entraining agent: 5½ % by volume. Use in all concrete exposed to weather.

Concrete masonry units: ASTM C90, type I, grade N.
Cement: ASTM C270, type M.
Grout: ASTM C476, 3/8" maximum aggregate size, slump 8-11". Grout horizontal and vertical cells containing bolts or rebar. Maximum slump 11".

Structural Steel
Steel plate: ASTM A36
Bolts: ASTM A307
Steel columns: ASTM A501

Wood
Exterior wall and interior load bearing wall framing: Hem-Fir #2 or better
Interior non-bearing studs or furring: Hem-Fir standard
Beams and other structural members: Hem-Fir #2 or better
All other lumber: Hem-Fir standard
Blocking: Not less than 2" nominal depth shall be provided at ends and all supports of beams. Provide blocking under all bearing points.
Bolts: Bolt holes shall not exceed the diameter of the bolt by more than 1/16" nor the strength of beam or post.

Glued Laminated Members
Beams: conform to Voluntary Product Standard PS 56-73 "Structural Glued Laminated Timber".
Allowable stresses:
Bending: 2100 psi
Tension: 1600 psi
Horizontal shear: 165 psi
Adhesives shall be waterproof. Appearance shall be Industrial grade. Surface of members shall be sealed with a sealer coat, individually wrapped. Each member shall be marked with a qualified inspection and testing agency stamp.

Plywood Roof & Floor Decking
Plywood sheathing shall be C-D INT-APA with exterior glue conforming to U.S. Product Standard PS 1-74.

Roof Trusses
Fabrication and design by qualified fabricator and in accordance with "National Design Specification for Wood Construction" by NFPA. Design as required shall be by licensed Professional Engineer and shall include all member dimensions, spacing, bearing, bracing and other necessary design requirements.

THESE DRAWINGS WERE PREPARED FOR CONSTRUCTION OF THE KENAI YOUTH CENTER. USE OF THESE DRAWINGS FOR ANY OTHER PROJECT IS NOT AUTHORIZED.

Asbuilt Aug. 81 S-1

REVISIONS

FOUNDATION PLAN & STRUC. NOTES

KENAI YOUTH CENTER

CONSULTING ENGINEER
Mike Taurainen P.E.
BOX 937 SOLDOTNA, ALASKA 99669 (907) 262-4524

DATE Sept 80
DRAWN MT
CHECKED
SCALE 1/4"=1'-0"
PROJ NO

SHEET S-1 OF

DRAWING NUMBER 81-08-00 S-2

DRAWING NUMBER 81-08-00 S-2

DRAWING NUMBER

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PLAN HOLD CORPORATION • IRVINE, CALIFORNIA
REORDER BY NUMBER 075AR
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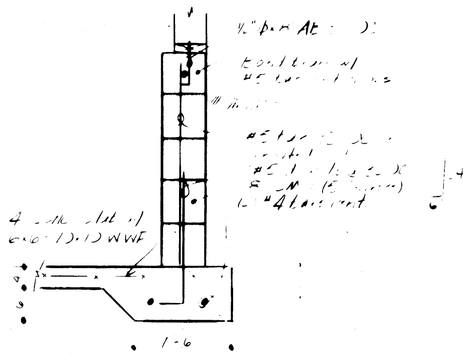
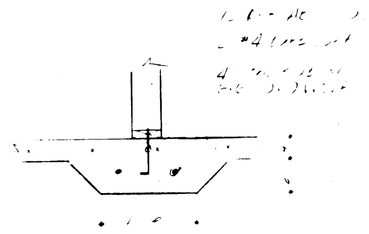
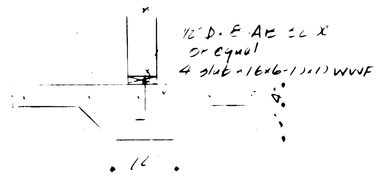


Ⓐ EXTERIOR WALL FTG



Ⓓ INTERIOR BEARING WALL FTG



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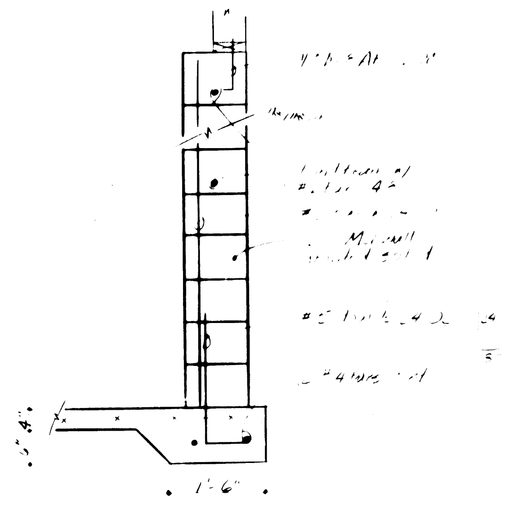
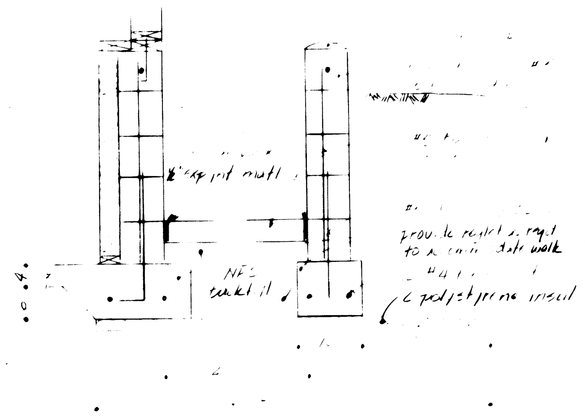


Ⓑ EXT 12"CMU WALL FTG



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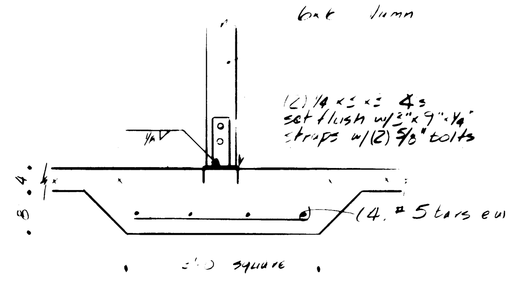
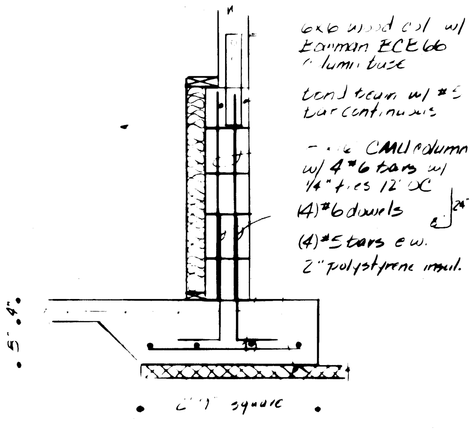


Ⓒ COLUMN FTG



Ⓕ CMU [illegible]

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Asbuilt Aug 81 S-2

REVISIONS

Mike Tauriainen, P.E.
CONSULTING ENGINEER
BOX 937 SOLDOTNA, ALASKA 99669 (907) 262-4824

STRUCTURAL DETAILS

KENAI YOUTH CENTER

DATE Sept 80
DRAWN MT
CHECKED
SCALE 0= noted
PROJ NO

SHEET S-2 OF

DRAWING NUMBER 81-08-00 S3 — PLAN HOLD CORPORATION • IRVINE, CALIFORNIA — REORDER BY NUMBER 075AR

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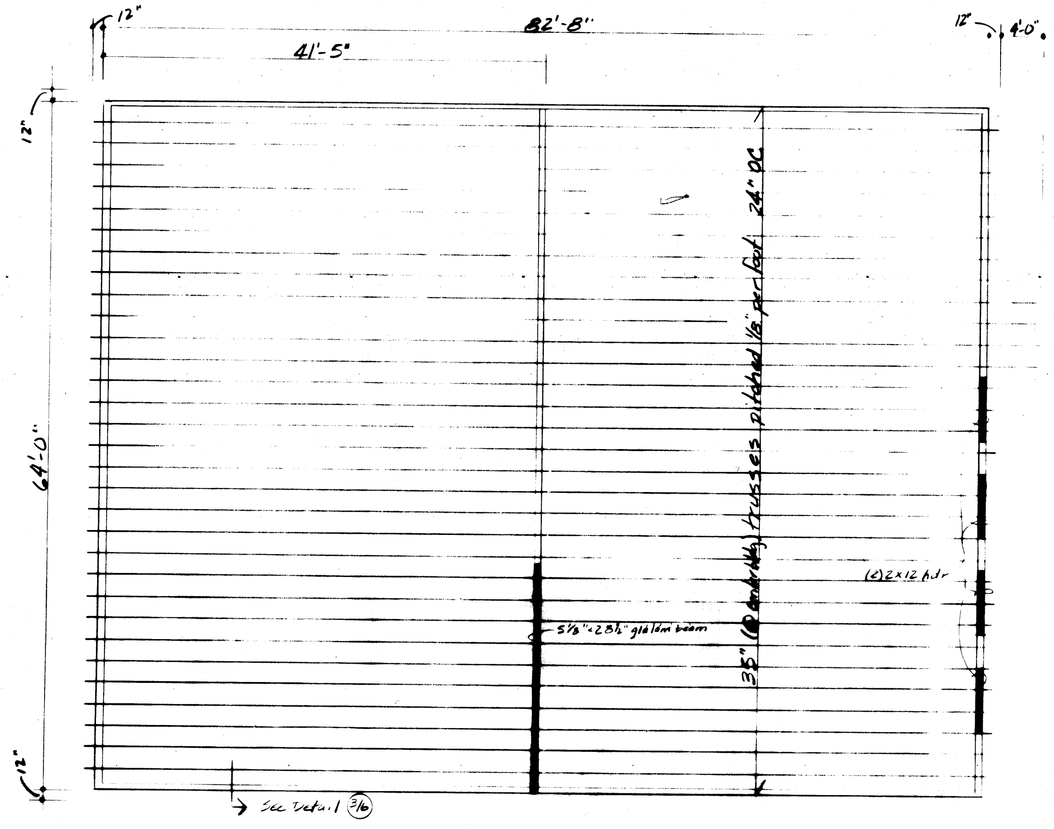
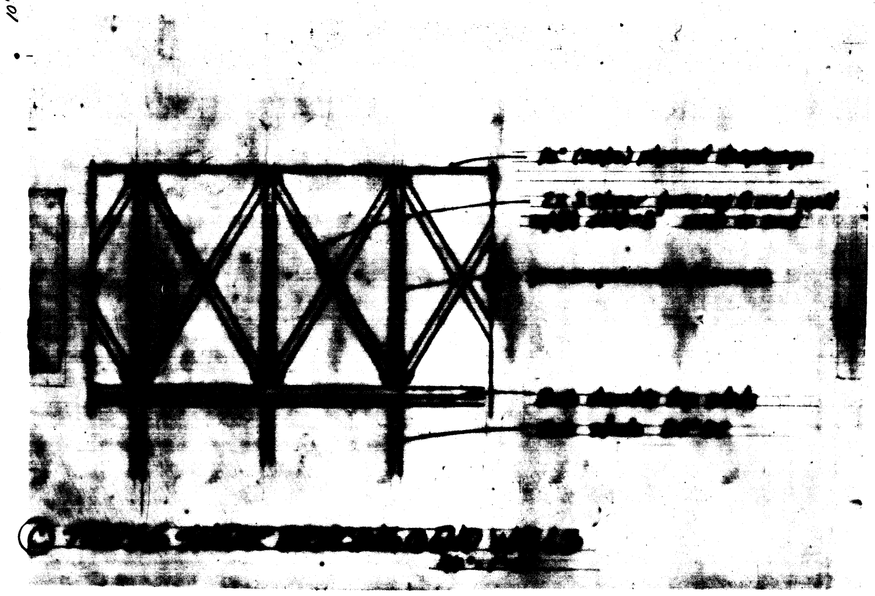


Ⓐ ROOF FRAMING PLAN
1/8"=1'-0"



NAILING SCHEDULE

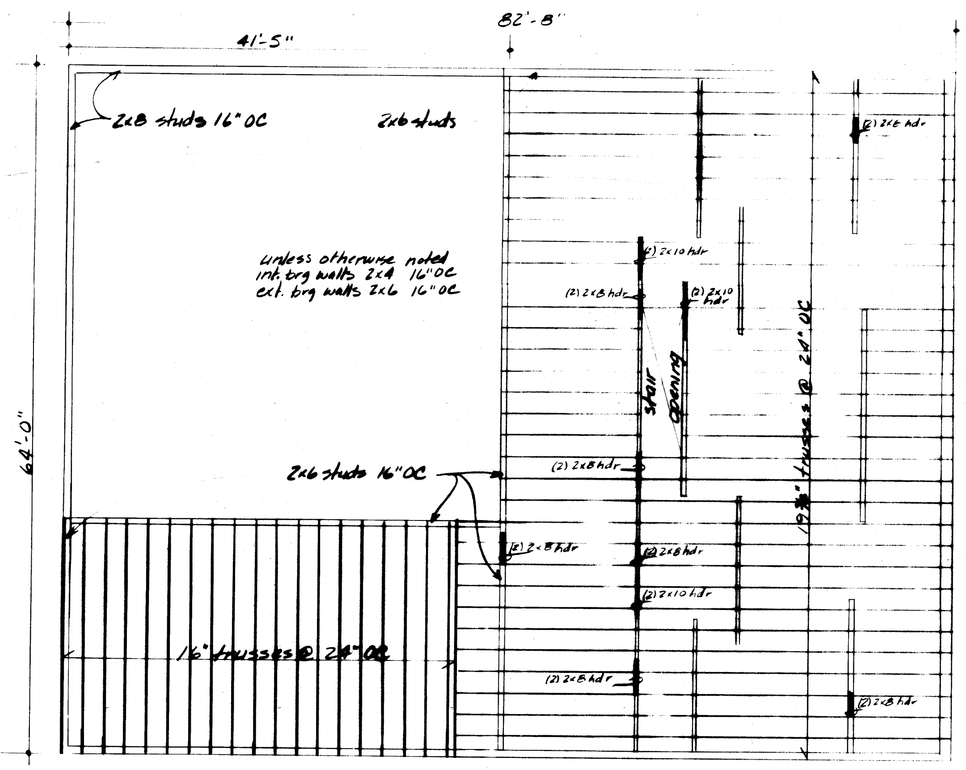
ROOF - ½" (32/16) plywood shear diaphragm
.131" gage x 2" staples 6/12"*

UPPER FLOOR - ¾" (48/24) plywood shear diaphragm
.131" ø x 3" nails 6/12

WALLS - 5/8" plywood siding

West up	"	4"/12"
East up	"	6"/12"
East down	"	2½/12"
North up	"	5"/12"
South up	"	6"/12"
North down	"	4"/12"
South down	"	4"/12"

* 6" o.c. @ panel edges, 12" o.c. @ intermediate support



Ⓑ UPPER FLOOR FRAMING PLAN
1/8"=1'-0"

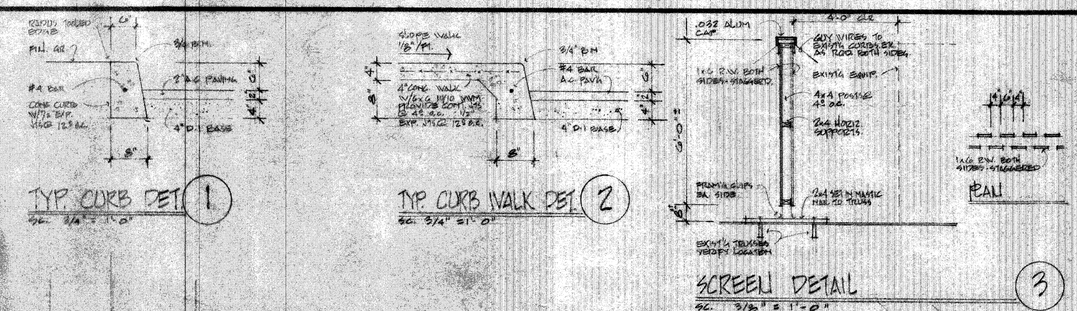
STATE OF ALASKA — REGISTERED PROFESSIONAL ENGINEER

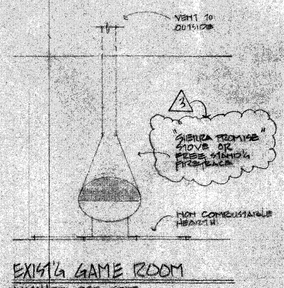
FLOOR & ROOF FRAMING PLANS

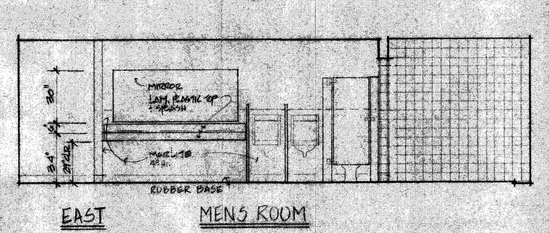
KENAI YOUTH CENTER

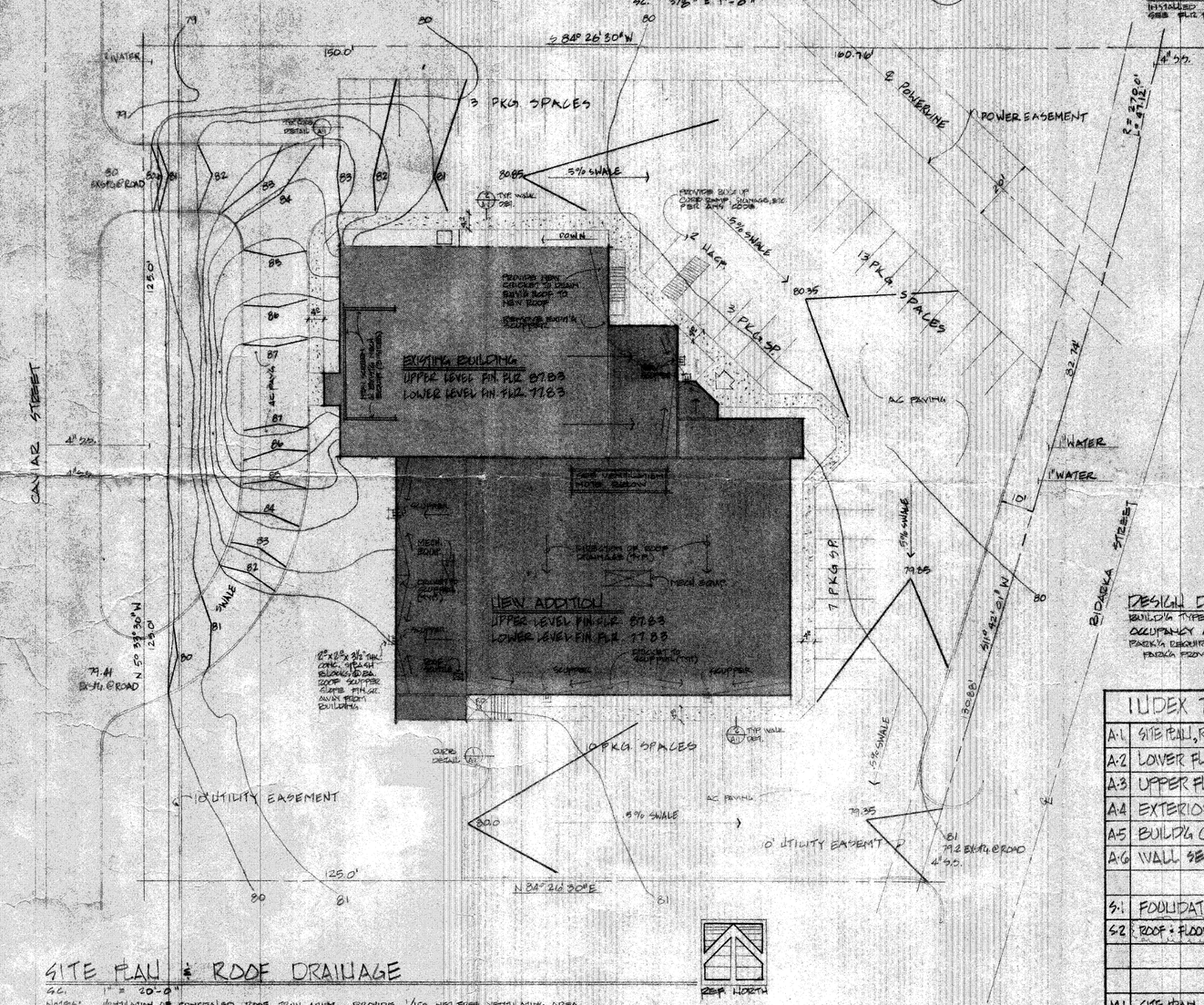
CONSULTING ENGINEER

Asbuilt Aug 81 S-3









SITE PLAN & ROOF DRAINAGE

SC. 1" = 20'-0"

NOTES: VENTILATION OF CONCEALED ROOF SPACE: PROVIDE 1/150 NET FREE VENTILATING AREA OF CONCEALED SPACES. VENT TO BE INSTALLED AT TOP OF ROOF. VENTS TO BE COVERED WITH 1/2" OPENINGS PROTECTED AGAINST THE ENTRANCE OF RAIN BY WITH CORROSION RESISTANT SCREENING.

DESIGN DATA

BUILDING TYPES: V-N
OCCUPANCY A2.1
PARKING REQUIRED BY ADD. AM. #3 AS SPACES
PARKING PROVIDED: HANDICAP 2 SP
STANDARD 44 SP
TOTAL 46 SP

INDEX TO DRAWINGS

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A-4	EXTERIOR ELEVATIONS
A-5	BUILDING CROSS SECTIONS, DETAILS
A-6	WALL SECTIONS
S-1	FOUNDATION + DETAILS
S-2	ROOF + FLOOR FRMG. PLAN + DETAILS.
M-1	SITE PLAN, SCHEDULES
M-2	FLOOR PLAN, PIPING
M-3	FLOOR PLAN, HTG
E-1	SITE PLAN, SCHEDULE
E-2	GYM LIGHTG PLAN
E-3	LOWER + UPPER FLRS. LIGHTG + POWER PLAN.

revisions:
1. 11-1-82 IDENTIFIED ADDL. BDG. STRUCT.
2. 11-15-82 SOUTH. : MENS, OFFICE.

drawn:
checked:
date: Oct. 27, 1982
scale:

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professional building
kenai

GYMNASIUM ADDITION
KENAI RECREATIONAL CENTER
CITY OF KENAI

1 of 14

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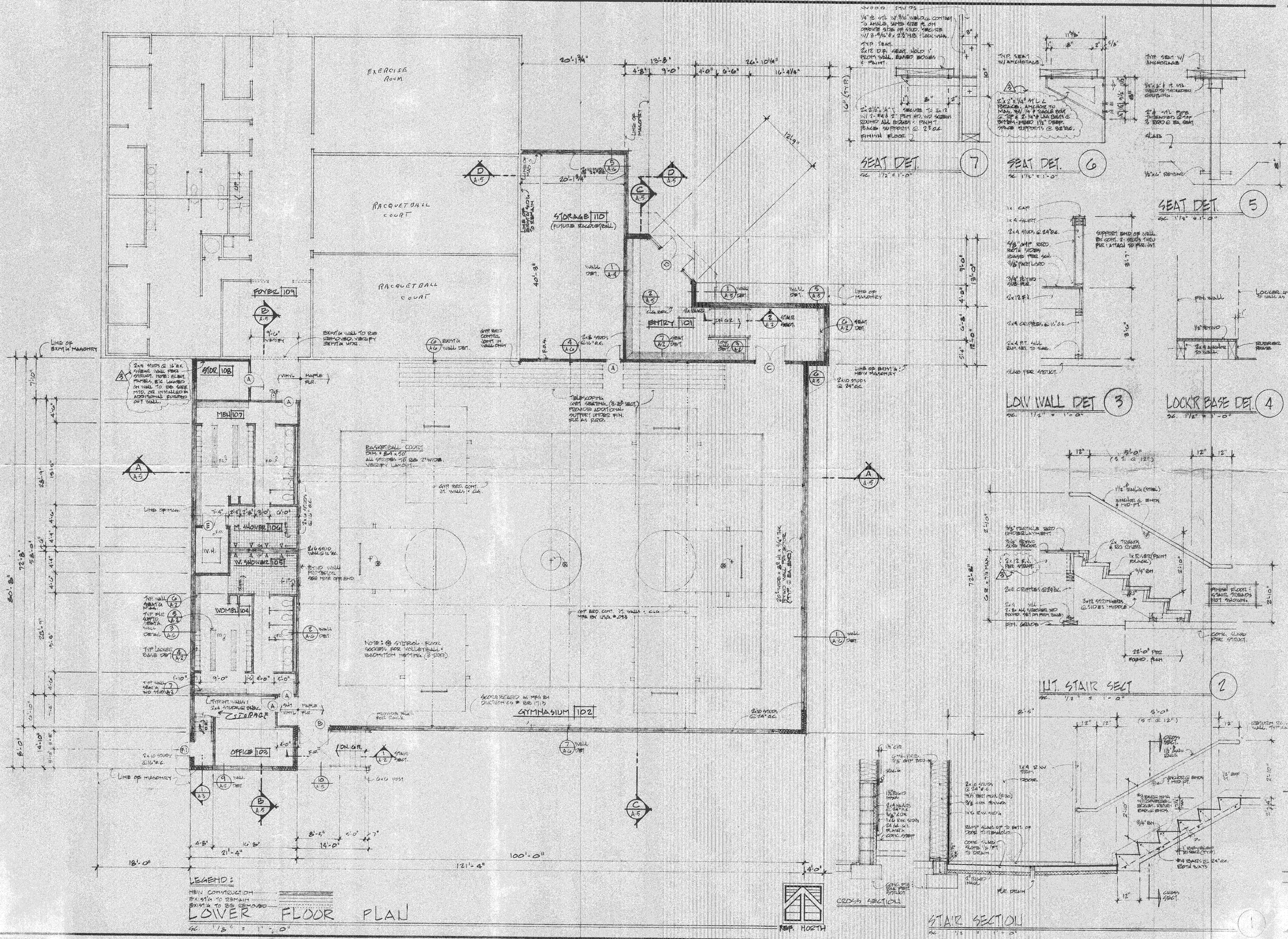

revisions:
1. 11-1-82 REVISED MECH FOR STRUCT & MECH DUCTS & GRILL UPDATE.

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Checked:
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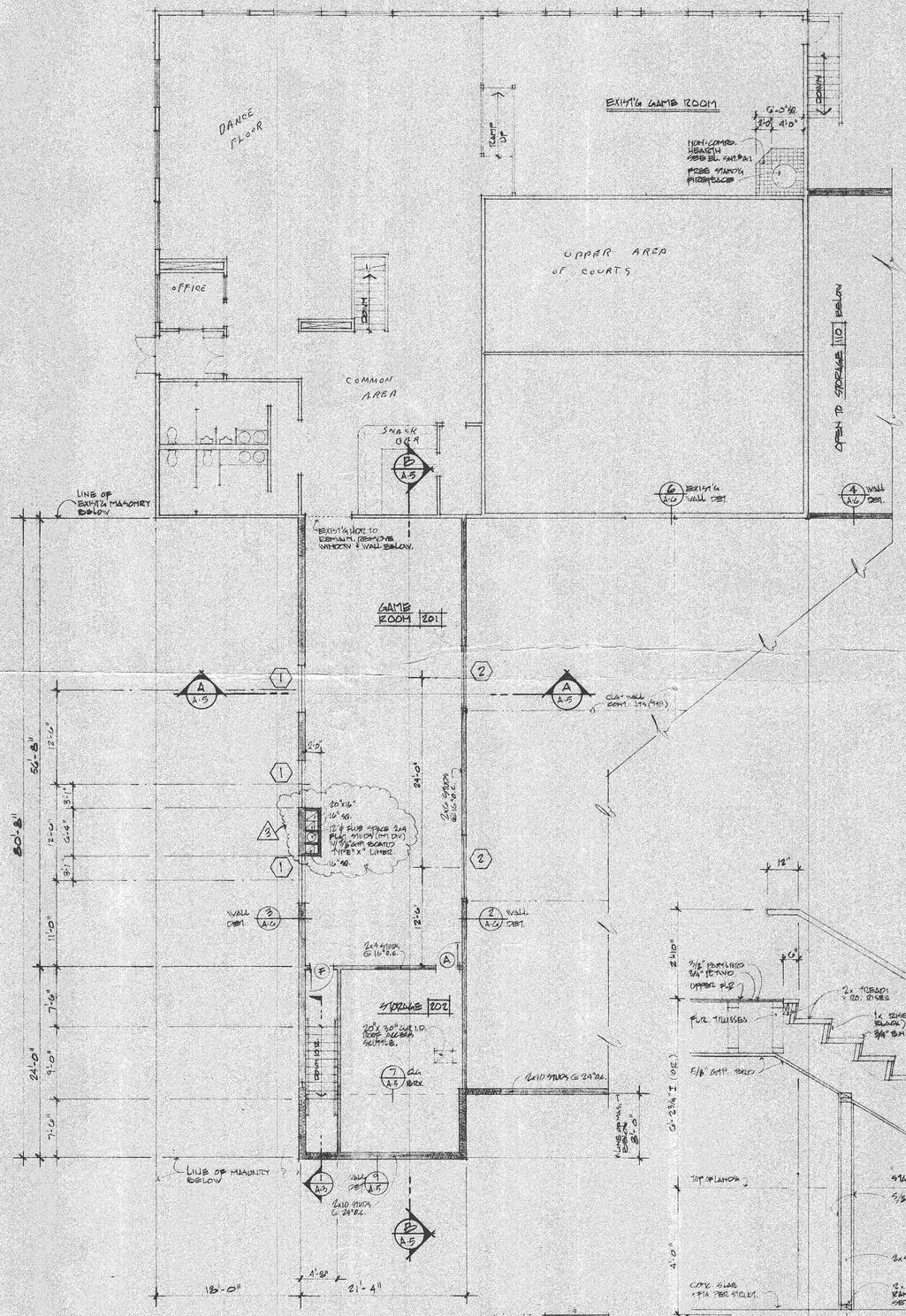
scale:

GYMNASIUM ADDITION
KENAI RECREATIONAL CENTER
CITY OF KENAI

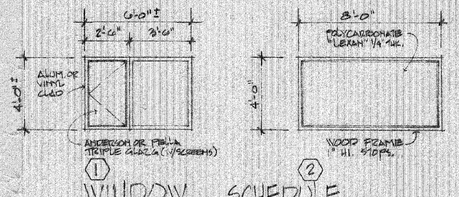
A2



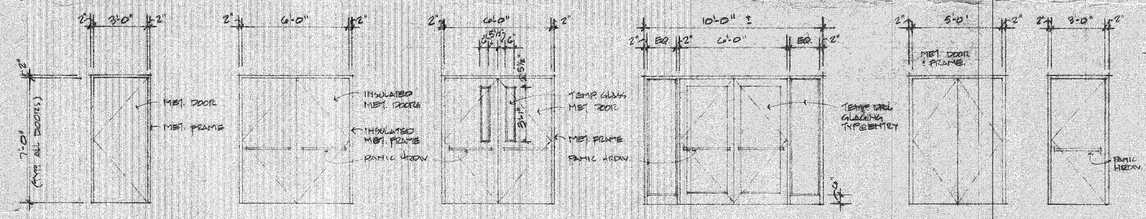
ROOM FINISH SCHEDULE

NO.	TITLE	FLOOR					BASE			WALLS						WAINSCOT				HT.	CEILING					HT.	REMARKS
		VINYL ASB. TILE	CERAMIC TILE MOSAICS	SHEET VINYL	WOOD	CARPET	FIN. CONCRETE	RUBBER	CERAMIC TILE	5/8" GYP. BRD.	5/8" GYP. BRD. W/ MOISTURE RESIST. GYP. BRD.	GLASS	SEMI-GLOSS ENAMEL			CERAMIC TILE 4¼"	PLASTIC LAMINATE				5/8" GYP. BRD.	5/8" GYP. BRD. W/ MOISTURE RESIST. GYP. BRD.	GLASS	SEMI-GLOSS ENAMEL			
101	ENTRY	●						●		●			●								●			●		8'-0"	* SEE SECT. FOR SLOPE CLG.
102	GYMNASIUM				●			●		●			●								●			●		24'-0"	* VENT BASE.
103	OFFICE					●		●		●			●								●			●		8'-0"	
104	WOMEN'S DRSG.			●				●		●			●				●			4'-0"	●			●		8'-0"	
105	WOMEN'S SHOW.		●					●	●		●					●				8'-0"		●				8'-0"	
106	MEN'S SHOW.		●					●	●		●					●				8'-0"		●				8'-0"	
107	MEN'S DRSG.			●				●		●			●				●			4'-0"	●			●		8'-0"	
108	STORAGE						●	●		●			●								●			●		8'-0"	
109	FOYER (NEW: EXIST'G)	●						●		●			●								●			●		8'-0"	
110	STORAGE						●																			21'-0"	EXP. CONST.
201	GAME ROOM					●		●		●			●								●			●		10'-0"	
202	STORAGE							●		●			●								●			●		10'-0"	EXP. SUBFLR.

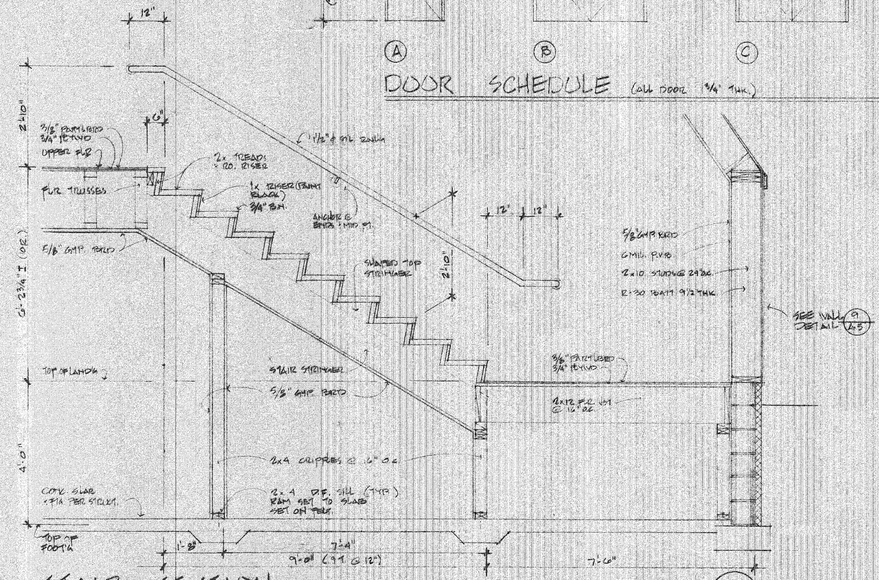
NOTES:
1. MATCH EXIST'G FLOOR & CEILG HGTS.



WINDOW SCHEDULE



DOOR SCHEDULE (ALL DOORS 1¾" THK.)



STAIR SECTION

SC. 1/2" = 1'-0"

1

revisions:
1 11-1-82 REVISED ADM. PER STAFF
2 4-1982 TEXTS: GEN. UPDATE

drawn:
checked:
date: OCT 27, 1982
scale:

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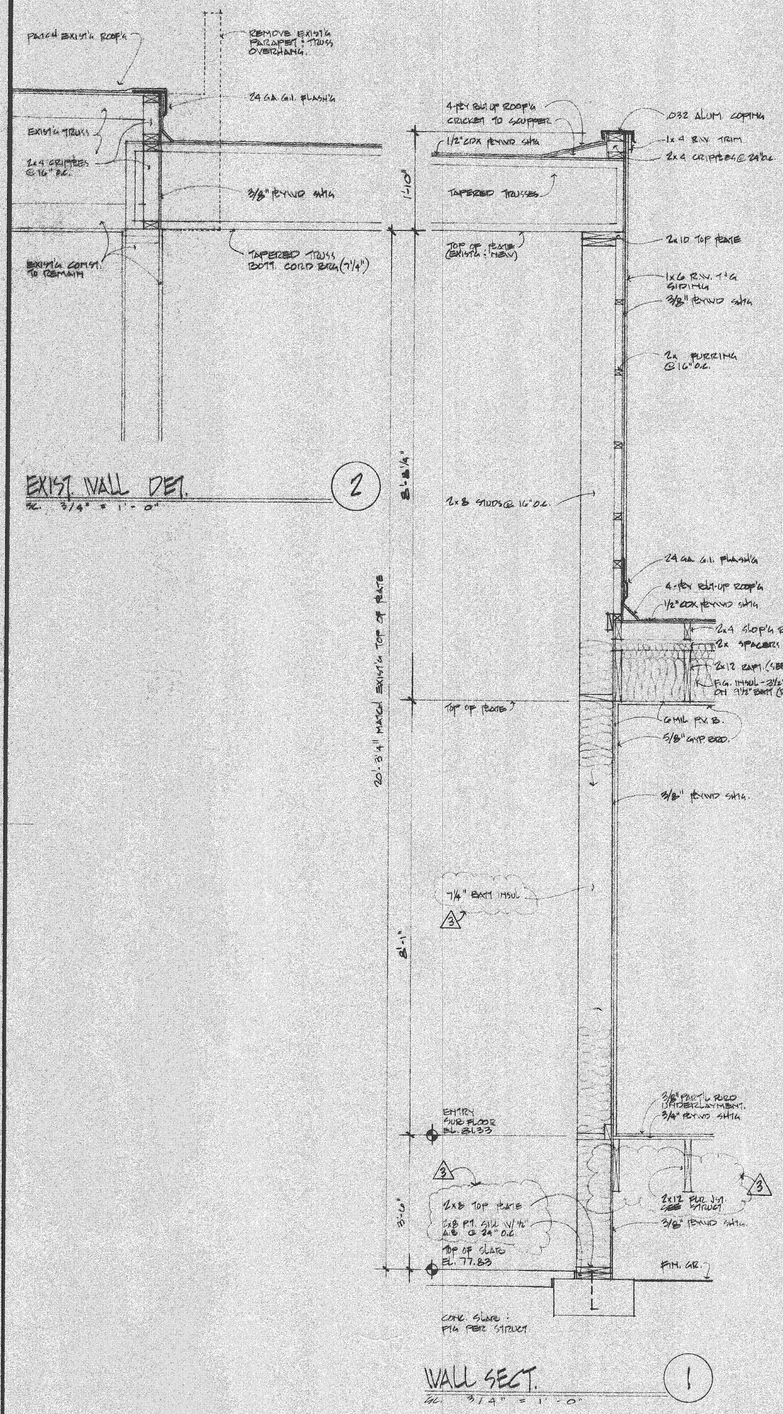
professional building
kenai

GYMNASIUM ADDITION
KENAI RECREATIONAL CENTER
CITY OF KENAI

3 OF 4

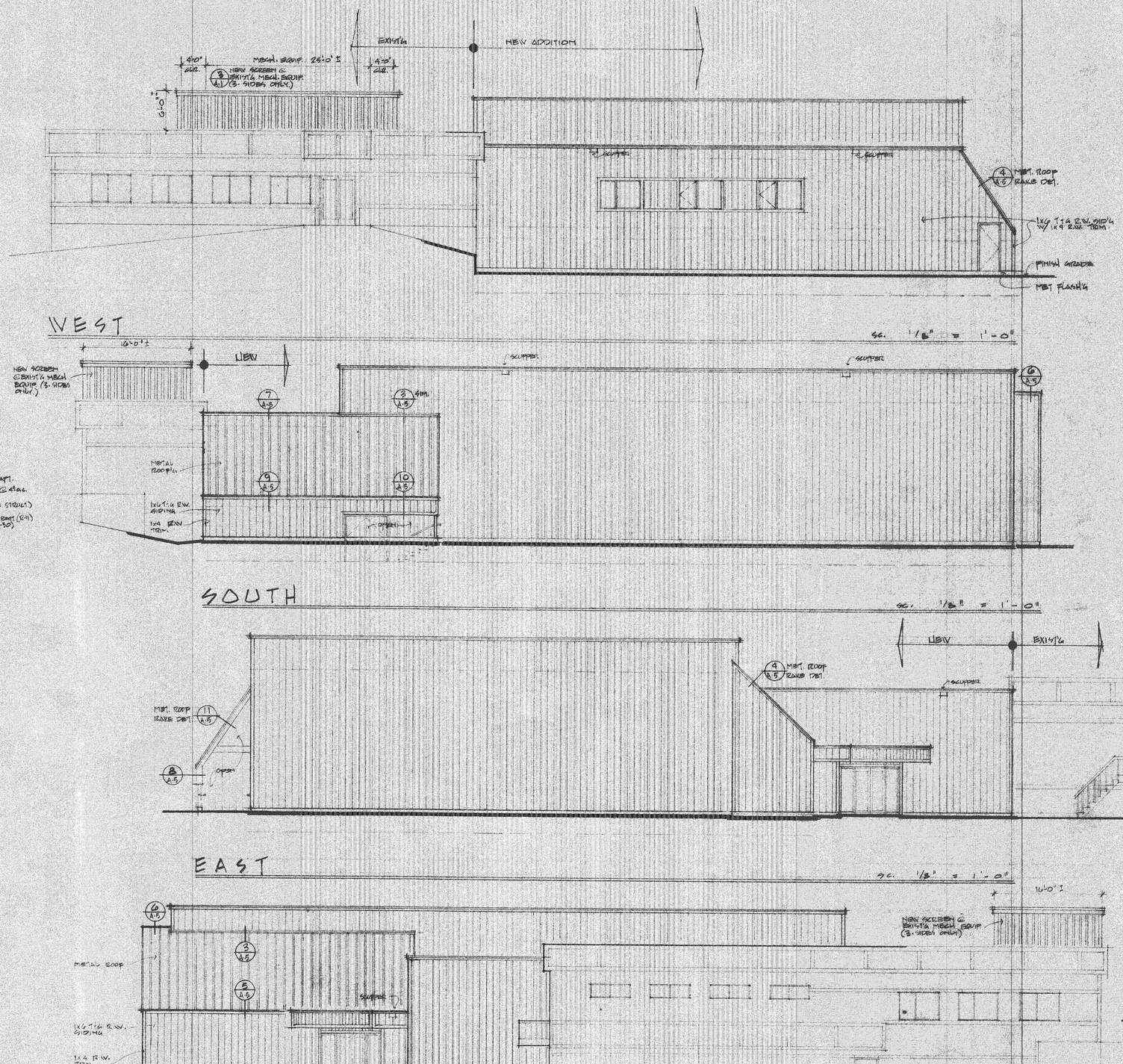
A5

SUPERIOR REPRODUCTIONS 789 5162



EXIST. WALL DET. (2)
SC. 3/4" = 1'-0"

WALL SECT. (1)
SC. 3/4" = 1'-0"



revisions:
1 11-82 REVISED ARCH PER STRUCT & MECH. ; CONT. ; CLEN UPDATE.
2

drawn:
checked:
date: Oct. 27, 1982
scale:

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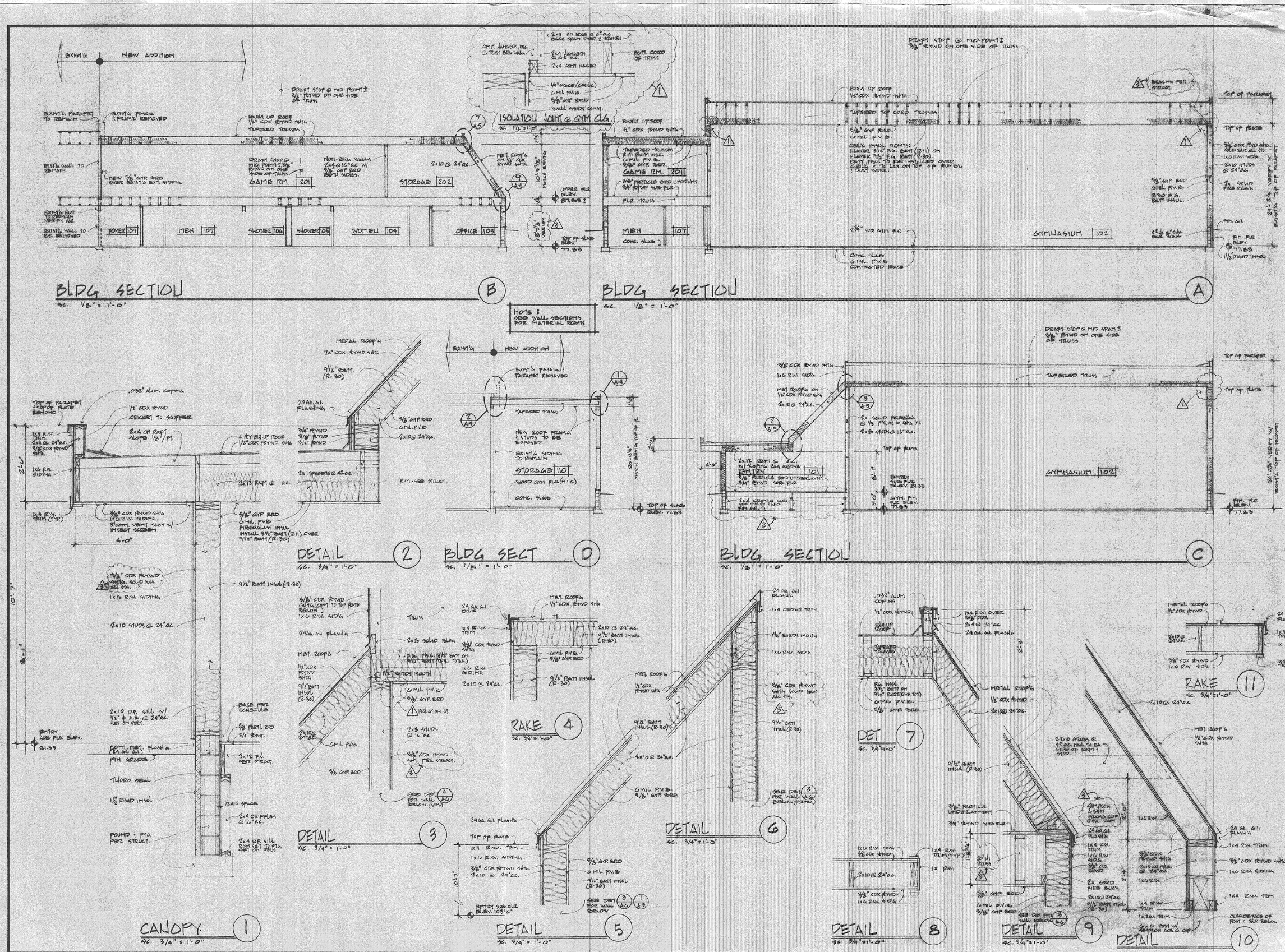
GYMNASIUM ADDITION
KENAI RECREATIONAL CENTER
CITY OF KENAI

4 OF 19

A-4



revisions:
1 10-28-82 REVISED W GYM CLG.
2 11-1-82 REVISED ARCH. NOTE SYM. • NEW 2BATTS / GEN UPDATES

drawn:
checked:
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GYMNASIUM ADDITION
KENAI RECREATIONAL CENTER
CITY OF KENAI

5 OF 14

A5

GYMNASIUM ADDITION

KENAI RECREATIONAL CENTER

CITY OF KENAI

carmen vincent gintoli, architect
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revisions:
1. 10-28-82 SOUTH ST. @ CONC. CLG.
2. 11-1-82 REVISED ARCH. FOR STRUCT. & MECH. PRINTS. + GEN. UP DATE

A6

6 OF 14

ELECTRICAL NOTES

1. SET UP LIGHTING IN FUTURE RACQUETBALL COURT TO MATCH SYSTEM USED IN EXISTING COURTS.
2. EXTEND EXISTING CIRCUITS AND RELOCATE EXISTING FIXTURES AS SHOWN TO LIGHT NEW ENTRANCE. EXTEND "J" BOXES AND INSTALL BLANK COVERS. DO NOT CONCEAL.
3. INSTALL LIGHTING RELAY CABINET FOR EXTERIOR LIGHTS. MOUNT NEW PHOTOCELL 3'-0" ABOVE EXISTING ROOF LINE.
4. MAINTAIN 3'-0" RADIUS CLEAR SPACE ABOUT PANEL. DEDICATE FOR ELECTRICAL EQUIPMENT ONLY.
5. ENTRY FIXTURES TO BE PENDANT HUNG FROM SLOPING CEILING.
6. WIRE RACQUETBALL COURT EXHAUST FAN TO COME ON WITH COURT LIGHTS.
7. CONNECT MECHANICAL EQUIPMENT FURNISHED AND INSTALLED BY OTHERS.
8. INSTALL FLOOR OUTLETS AND JUNCTION BOXES FOR SCOREBOARD AND PUBLIC ADDRESS SYSTEM.
9. INSTALL CIRCUIT JUMPERS IN EXISTING PANEL "A" FOR NEW 150A BREAKER. (PANEL IS CUTLER HAMMER AA387 TYPE MPA07 INSTALL 3P BREAKER AND RUN 4 NO 1/0 IN 2" CONDUIT TO NEW PANEL "C" IN ROOM 108, OFFSET TO CLEAR RUN USING PULL BOXES AS REQUIRED. CUT AND FRAME ACCESS HOLE IN EXISTING ELECTRICAL ROOM CEILING ABOVE PANEL "A".
10. ADD NEW ZONE "3" TO EXISTING FIRE ALARM SYSTEM. (GS EDWARDS 372) RUN 2" CONDUIT THRU CEILING SPACE TO ROOM 108 AND INSTALL A 12"x24" FIRE TERMINAL CABINET TO PICK UP NEW EQUIPMENT.
11. INSTALL 4" EXTENSION TO EXISTING TELEPHONE BOX AND EXTEND A 2" CONDUIT TO NEW 12"x24" TELEPHONE JUNCTION BOX IN ROOM 108. RUN 3/4" CONDUIT TO NEW PHONE LOCATIONS IN ROOM 103. INSTALL PULL WIRE IN EACH RUN.
12. INSTALL SMOKE DETECTORS IN AIR DUCT.

ELECTRICAL LEDGEND

- A — LIGHTING FIXTURE KEY-SEE SCHEDULE
- (1) — ROOM NUMBER
- (1) — REFER TO NOTE INDICATED
- (1) — REVISION SYMBOL
- LIGHTING PANEL
- POWER PANEL
- TERMINAL CABINET
- (1A) — SINGLE PHASE MOTOR W/HP
- (3) — THREE PHASE MOTOR W/HP
- T — TRANSFORMER
- BRANCH CIRCUIT CONCEALED IN WALL OR CEILING
- BRANCH CIRCUIT CONCEALED IN FLOOR OR UNDERGROUND
- BRANCH CIRCUIT EXPOSED
- LOW VOLTAGE CONDUCTOR
- RECESSED FIXTURE
- SURFACE MOUNTED FIXTURE
- FLUORESCENT FIXTURE
- FIXTURE ARROWS INDICATE AIMING
- EXIT SIGN
- AREA LIGHT
- $ — SINGLE POLE SWITCH
- $2 — DOUBLE POLE SWITCH
- $3 — THREE-WAY SWITCH
- $4 — FOUR-WAY SWITCH
- $D — DIMMER SWITCH
- $K — KEY OPERATED SWITCH
- $P — SWITCH & PILOT LIGHT
- E — EMERGENCY LIGHT
- WP — DENOTES WEATHERPROOF
- MOTOR STARTER
- DISCONNECT SWITCH
- COMBINATION STARTER-DISCONNECT
- HOME RUN TO PANEL-@OF ARROWHEAD INDICATE # OF CIRCUITS. HASH MARKS INDICATE # OF CONDUCTORS
- CONDUIT RUN UP
- CONDUIT STUBBED & CAPPED
- CONDUIT RUN DOWN
- FLEXIBLE CONDUIT
- J — JUNCTION BOX
- DUPLEX CONVIENCE OUTLET
- GFI — GROUND FAULT PROTECTED
- 250V OUTLET R=RANGE, D=DRYER
- DUPLEX OUTLET-ONE SIDE SWITCHED
- FLOOR OUTLET - POWER
- FLOOR OUTLET - OTHER
- SPECIAL PURPOSE OUTLET
- TELEPHONE OUTLET - FLOOR
- TELEPHONE OUTLET - WALL
- LCR — LIGHTING CONTROL RELAY
- FIRE ALARM HEAT DETECTOR
- FA — FIRE ALARM CENTRAL STATION
- H — HORN
- BELL - FIRE ALARM
- BUZZER
- F — FIRE ALARM PULL STATION
- S — SMOKE DETECTOR
- PUSHBUTTON
- N.L. — DENOTES NIGHT LIGHT
- SPEAKER

LIGHTING FIXTURE SCHEDULE

KEY	QTY	WATTS	DESCRIPTION	CAT NO
A	4	160	2-F96 T12/D/HO DAYLITE FLUORESCENT W/WIRE GUARD	LITHONIA
B	3	165	SAME AS "A" ABOVE EXCEPT WITH BATTERY INVERTER BALLAST	
C	28	90	2-F40T12 1½ SURFACE WRAP AROUND FLUORESCENT	LITHONIA LB-240A
D	24	460	1-MV400/BU/I WIDE DISTRIBUTION PENDANT UP 22'-0"	
E	7	50	BATTERY POWERED EXIT SIGN	LITHONIA XS-EL
F	5	250	WALL MOUNTED HPS FLOOD	MATCH EXISTING
G	6	460	H400 LAY-IN FLUSH	MATCH EXISTING
H	4	85	2 F40T12 SEALED FLUORESCENT WET LABEL	LITHONIA DD240A-TP
J	4	175	4-F40T12 21½ WRAPAROUND FLUORESCENT - SURFACE MTD	LITHONIA LB 440A
K	1	100	PORCELIN KEYLESS	
L	6	90	2-F40T12 LAVATORY WALL BRACKET FLUORESCENT	PRESCOLITE 3085
M	5	50	BATTERY POWERED EMERGENCY LIGHTS UP 6'-6"	CHLORIDE 111-A74

21888

PANEL SCHEDULE

GYM LIGHTS ROWS 1&2	1	2		
	3	4	GYM LIGHTS ROWS 3&4	
	5	6	SPARE	
GYM LIGHTS ROWS 5&6	7	8	SPARE	
RM 108 & GYM RECPTS & LTS	9	10	SCOREBOARD & PA RECPTS	
GYM RECEPTACLES	11	12	GYM RECEPTACLES	
ENTRY 101 RECPTS & LTS	13	14	OFFICE 103 RECPTS & LTS	
WOMEN 105 LTS	15	16	MEN 107 LTS	
WOMEN 105 RECPTS GFI	17 (30)	(30) 18	MEN 107 RECPTS GFI	
GAME RM 201 LTS	19	20	SPARE	
GAME RM 201 RECPTS	21	22	SPARE	
GAME RM 201 RECPTS	23	24		
GAME RM 201 RECPTS	25	26	RACQUETBALL RM 110	
SPARE	27	28	SPARE	
SPARE	29	30	SPARE	
HOT WATER HEATER RM	31	32		
EXTERIOR LIGHTS	33	34	SPACE	
	35	36		
	37	38		
EXHAUST FAN 1 HP	39	(50) 40	FURNACE & BLOWER 3 HP	
	41	42		

"C"

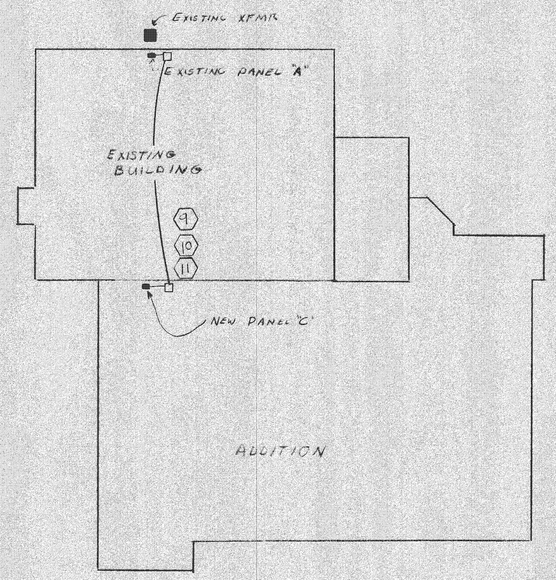
120/208V 3Ø 4W 200A

150A MAIN

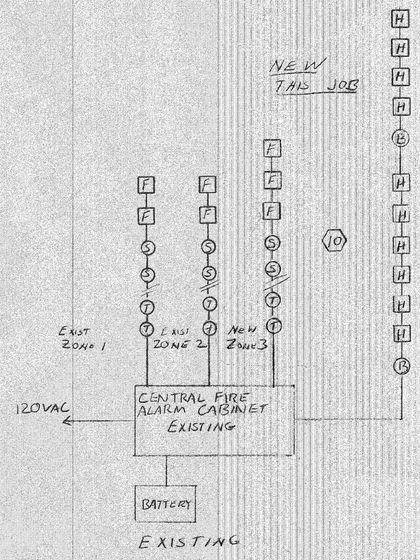
ALL BREAKERS 20A UNLESS NOTED

GIRARD ENGINEERING
BOX 1197, EAGLE RIVER, ALASKA 99577 PH 694-9602
ELECTRICAL
Planning · Design Review · Inspection · Quality Control · Testing · Start up · Operations · Maintenance
GIRARD & ASSOCIATES, INC

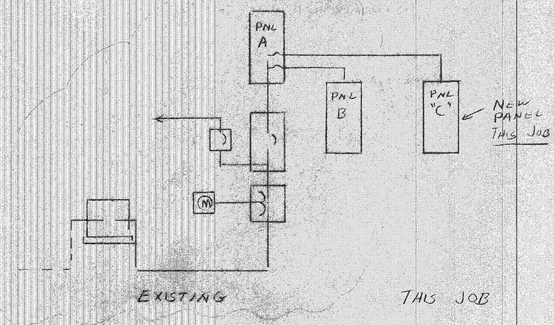
REV	DATE
0	9-20-82 ORIGINAL PROPOSAL
1	10-22-82 FOR APPROVAL



SITE PLAN



FIRE ALARM ONE-LINE



POWER ONE-LINE

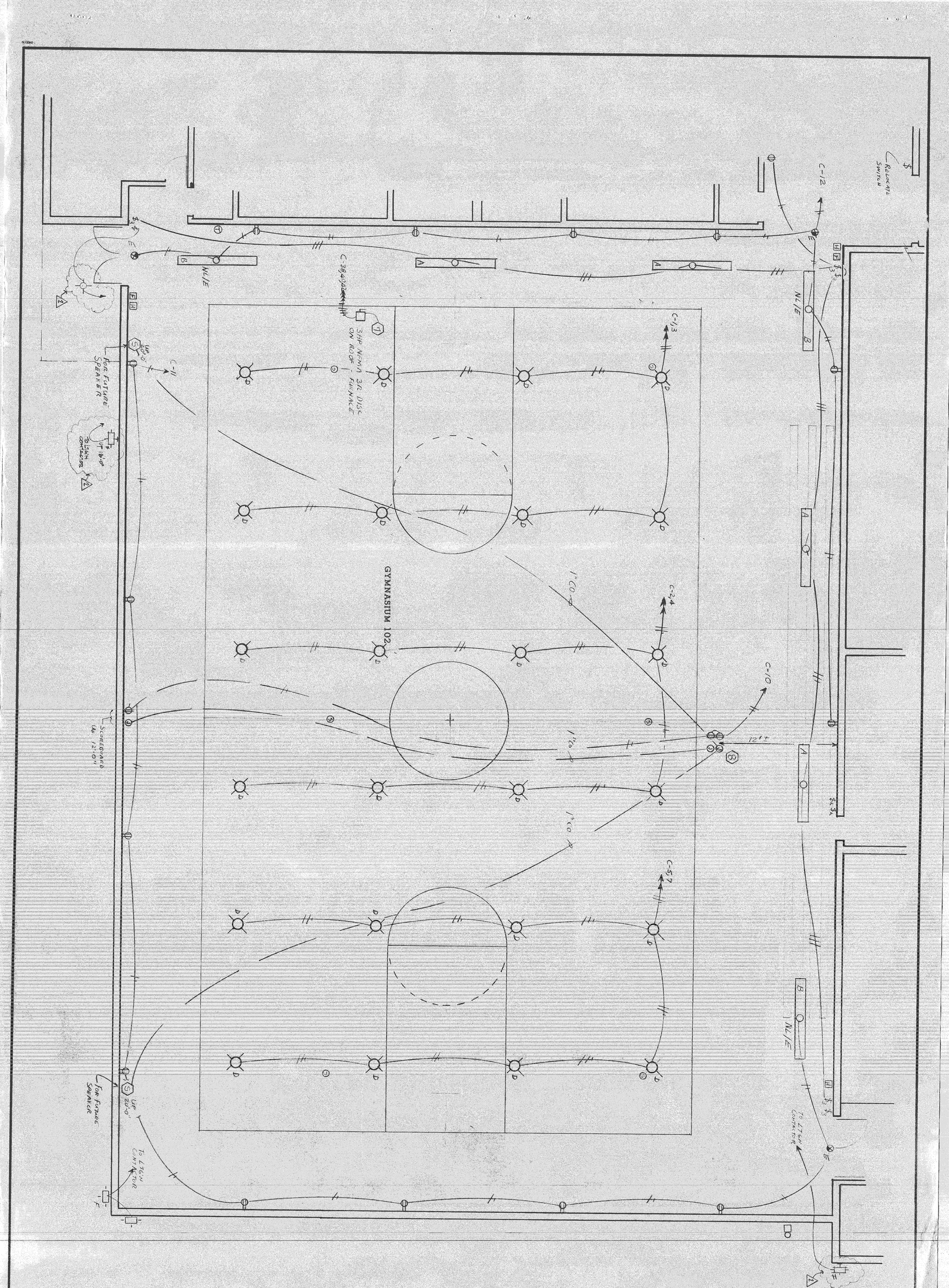
ELECTRICAL SCHEDULES & DETAILS

KENAI GYMNASIUM ADDITION
carmen vincent gintoli, architect
professional building
kenai

STATE OF ALASKA — 4931 — Jon M. Girard EE 3698 — REGISTERED PROFESSIONAL ENGINEER

E-1

12 OF 14



GYMNASIUM ELECTRICAL

KENAI GYMNASIUM ADDITION

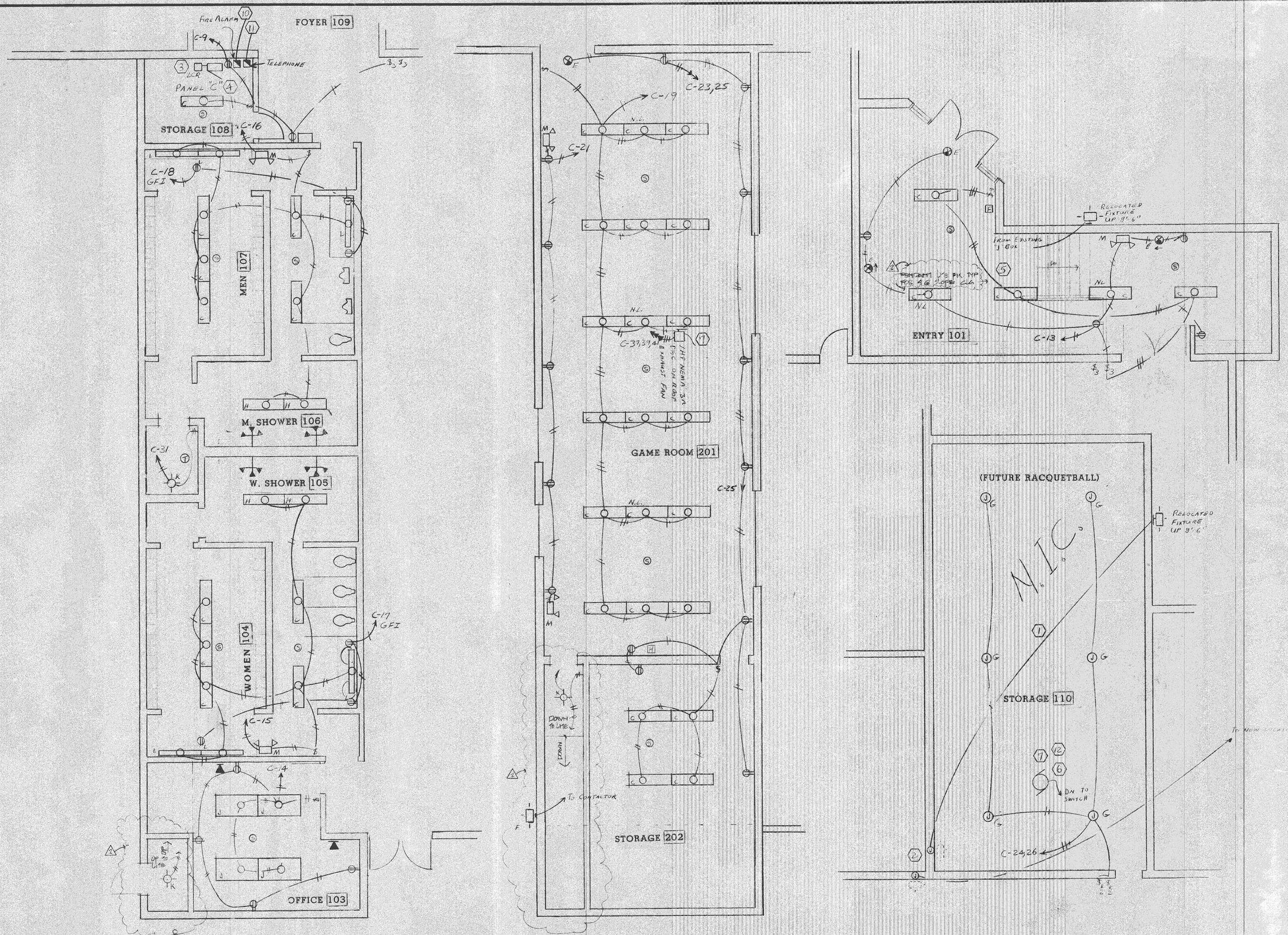
carmen vincent gintoli, architect
professional building
kenai

E-2

13 of 14

REV	DATE	
0	9-24-82	ORIGIONAL "Proposal"
1	10-25-82	For Approval
2	10-28-82	MOVE BRT. BEAM, ADD LITE & SW. ENTRY. BY ARCH.

GIRARD ENGINEERING
P.O. BOX 787, EAGLE RIVER, ALASKA 99577. PH 694-3602
ELECTRICAL
Planning · Design · Review · Inspection · Quality Control · Testing · Start up · Operations · Maintenance
GIRARD & ASSOCIATES, INC



DRESSING & GAME ROOMS

GIRARD ENGINEERING
PO BOX 1971 EAGLE RIVER, ALASKA 99577 PH 694-9032
ELECTRICAL
Planning · Design · Review · Inspection · Quality Control Testing · Start-up · Operations · Maintenance
GIRARD & ASSOCIATES, INC

REV	DATE
ORIGINAL PROJECT	9/23/82
1 FOR ARCHIVAL PRINTS	10/28/82
2 PER PRE BID INCL. ADD BY LIGHTING INTERIOR	10-29-82

FOYER, DRESSING ROOMS & GAME ROOM ELECTRICAL

KENAI GYMNASIUM ADDITION
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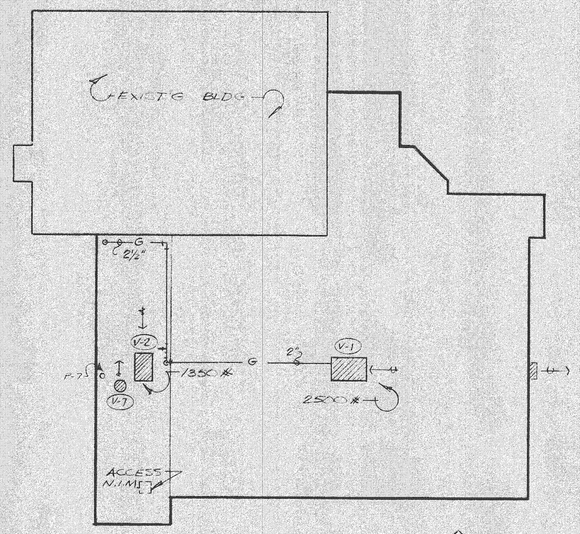
professional building
kenai

STATE OF ALASKA
REGISTERED PROFESSIONAL ENGINEER

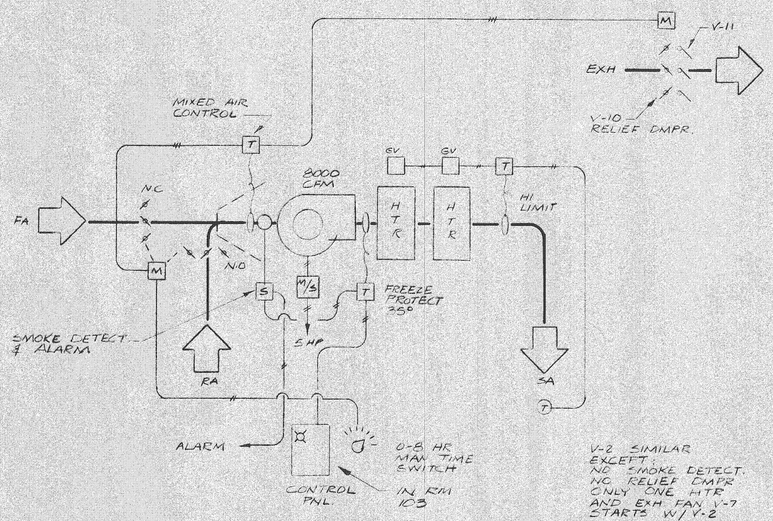
E-3

14 OF 19



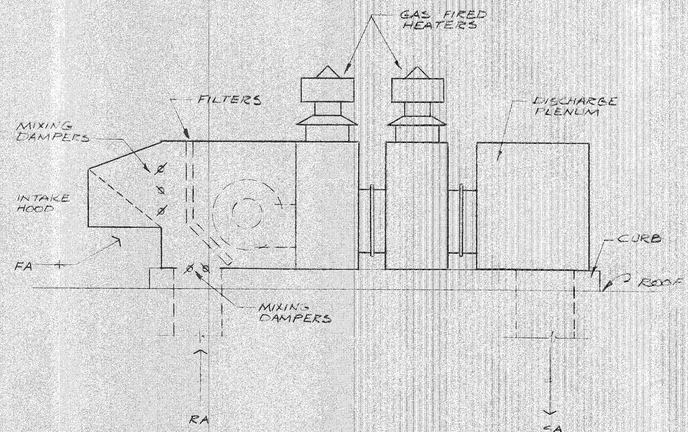
SITE PLAN

SCALE: 1" = 20'-0"



FLOW & CONTROL - V-1

NOT TO SCALE



H & V UNIT V-1 ELEVATION

SCALE: 1/2" = 1'-0"

V-2 SIMILAR

P

	FIXTURE	MFG	CAT NO	SIZE	D	V	CW	HW		REMARKS
P-1	WATER CLOSET	AM-STD	2109.395		3	2	.5	.5	FLOOR	TANK TYPE,CURCH 5320.536 SEAT
P-2	URINAL	AM-STD	6501.010		2	1.5	.75		WALL	SLOAN 186 FLUSH VALVE
P-3	LAVATORY	AM-STD	3003.605	19"	1.5	1.5	.5	.5	COUNTER	2379.018 FAUCET
P-4	SHOWER	AM-STD	1490.051				.5	.5	WALL	SINGLE LEVER
P-5	DRINK FNTN	AM-STD	8310.120	13-14	1.5	1.5	.5		WALL	
P-6	HW HEATER	A O SMITH	BTP200	48"D-84			1.5	1.5	221 CAL	10"VL,1.25"G.,800 MBH INPUT,ASME,.25HP
P-7	CHIMNEY	METALBESTOS	QC-10	12"D						
P-8	FLOOR DRAIN	SMITH	2010 B	7"STR	3	1.5			SHOWER	
P-9	FLOOR DRAIN	SMITH	2010 H	5"STR	2	1.5			LOCKERS	
P-10	CLEAN OUT	SMITH	4040							

V

	EQUIPMENT	MFG	CAT NO	SIZE	CAPACITY			ELECT	REMARKS
V-1	H&V UNIT	HASTINGS	RHVB800RB	118-66-61	7950 CFM	@	1.24"	5.0HP	800 MBH IN,MX DMPR,FILTER,DISC PLNM,C&H
V-2	H&V UNIT	HASTINGS	RHVA300RB	88-59-61	2610 CFM	@	0.87"	.75HP	300 MBH IN,MX DMPR,FILTER,DISC PLNM,C&H
V-3	DIFFUSER	ANEMOSTAT	10DJ-3	14-40-6	2000 CFM	@	0.16"		
V-4	EXTRACTOR	ANEMOSTAT	DT2M	AS SHOWN					
V-5	CEIL REG	ANEMOSTAT	RMD 5	15-15-3	400 CFM	@	0.06"		(4) 6-6 CORES
V-6	CEIL GRILLE	ANEMOSTAT	X35VS	12-12-2	375 CFM	@	0.05"		EXHAUST-RA
V-7	EXH FAN	PENN	BB 45	31"D-25	1510 CFM	@	0.75"	.50HP	12" ROOF CURB
V-8	BACKDR DMPR	PENN	FBD 12	16-16-6					IN THROAT OF V-7
V-9	WALL REG	ANEMOSTAT	HDS	20-6-2	500 CFM	@	0.10"		ENTRY,UP +24" OFF. (1) 4-10"
V-10	EXH DAMPER	RUSKIN	CD 50	40-40-6					GYM,UP + 24'-0"
V-11	BACKDR DMPR	RUSKIN	BD 2	40-40-6					GYM,UP + 24'-0"
V-12	LOUVER	RUSKIN	ELF 375	14-20-2					(1)UP +36",(1)UP 96"
V-13	GRILLE	ANEMOSTAT	RCGC 5	14-20-2					COMBUSTION AIR

LEGEND

- D — DRAIN
- V — VENT
- CW — COLD WATER
- HW — HOT WATER
- G — GAS
- FLOW DIRECTION
- CLEAN OUT
- FLOOR DRAIN
- GATE CHECK VALVE
- N.I.M. — NOT IN MECHANICAL CONTRACT
- (F1) — EQUIPMENT, FIXTURE SYMBOL
- T/G — HOSE BIB, THERMOSTAT W. GUARD
- S — SWITCH, DISCONNECT
- 1" SOUND LINING

revisions:

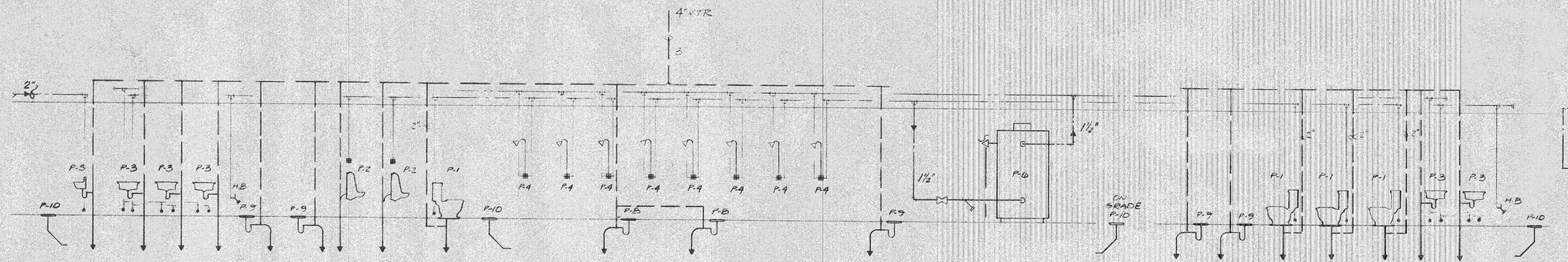
drawn:
checked:
date: Dec. 27, 1982
scale:

carmen vincent gintoli, architect
professional building
kenai

GYMNASIUM ADDITION
KENAI RECREATIONAL CENTER
CITY OF KENAI

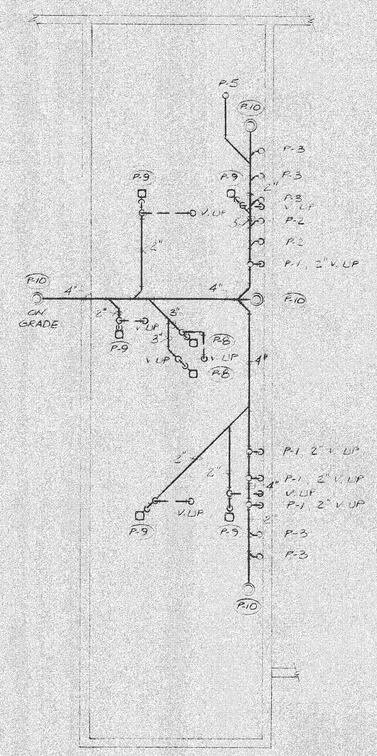
9 OF 14

M1



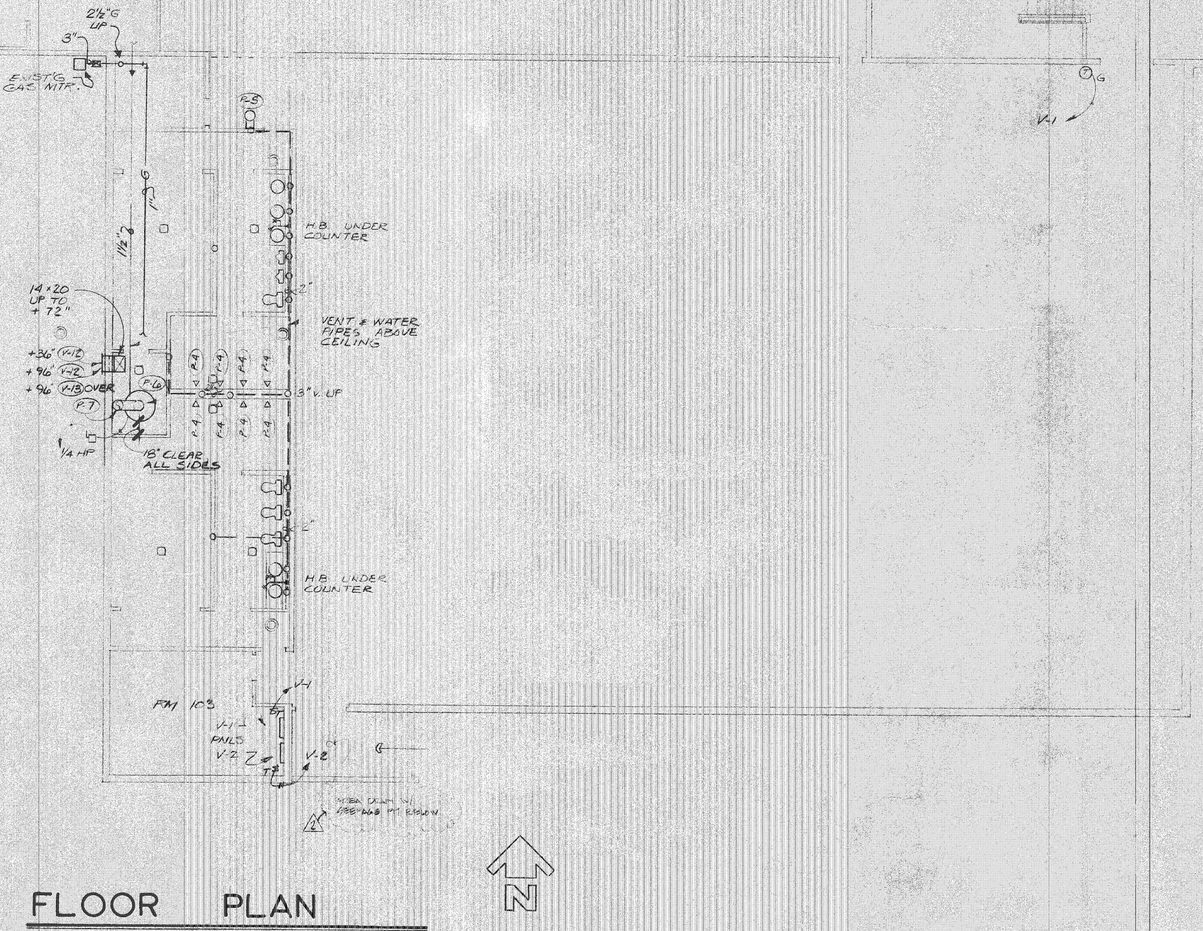
DWV & WATER

NOT TO SCALE



UNDER FLOOR PLAN

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



FLOOR PLAN

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

revisions:
1 10-29-82 ELEV. TOPO. ARCH. FIRMS ADD AREA BELOW 4-IN CENTER(SKYLIGHT) ADD SEALTE.

drawn:
checked:
date: OCT. 27, 1982
scale:

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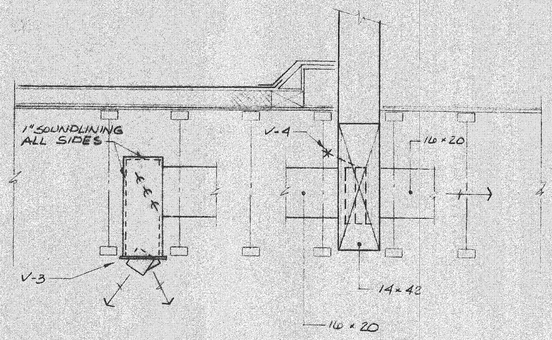
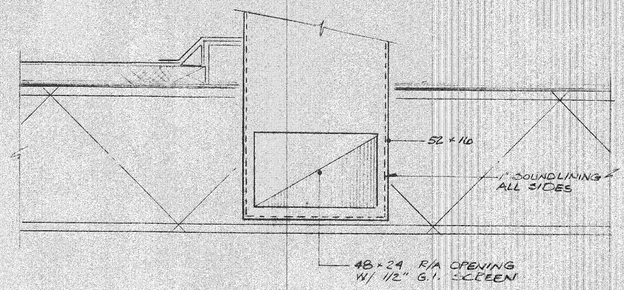
GYMNASIUM ADDITION
KENAI RECREATIONAL CENTER
CITY OF KENAI

10 OF 14

M2



A SECTION
SCALE: 1/2" = 1'-0"



B SECTION
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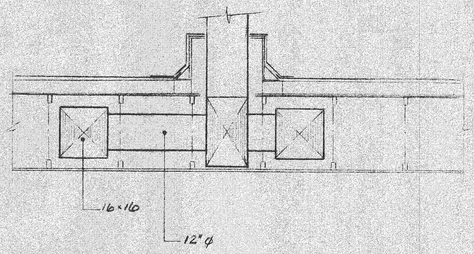
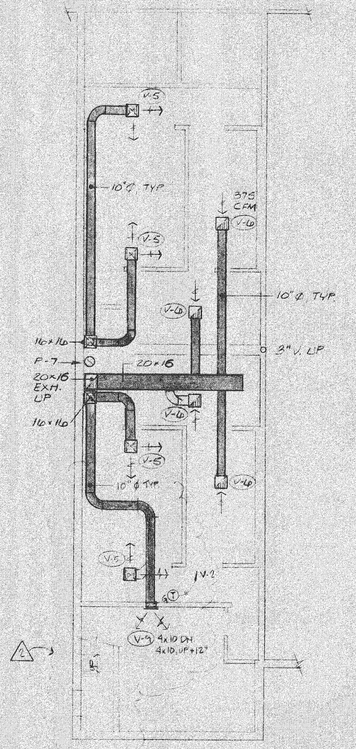
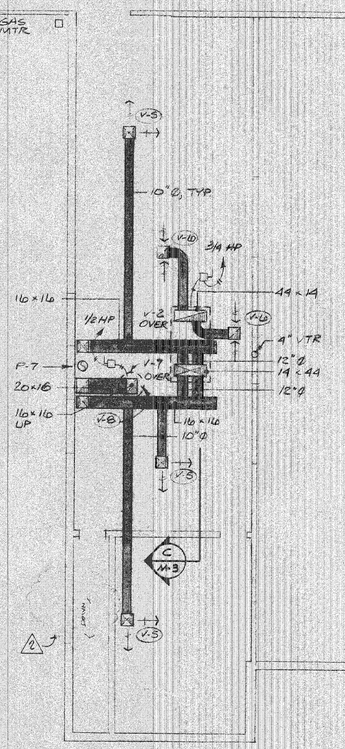


C SECTION
SCALE: 1/2" = 1'-0"



1st FL. CEIL.
SCALE: 1/8" = 1'-0"



2nd FL. CEIL.
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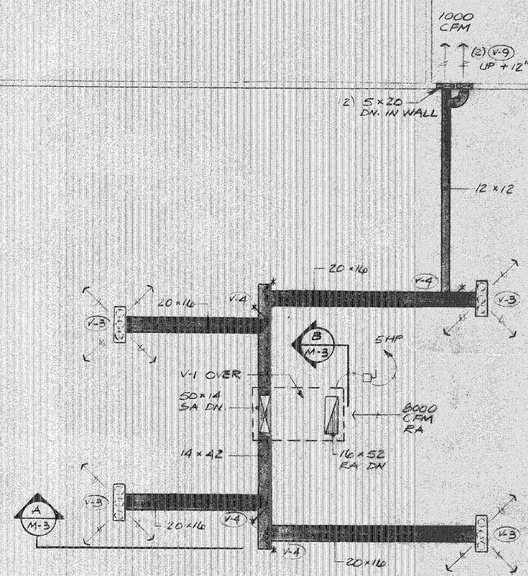

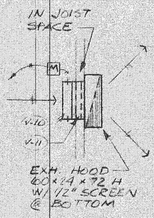

N

revisions:
1 12-15-82 REV. PER AGENCY DRAWS. ADD ADDN. DRAW. & NW CORNER (ART) ARTH. ART STAIR

drawn:
checked:
date: OCT. 27, 1982
scale:

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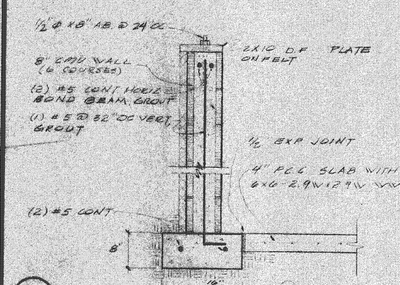
kenai

GYMNASIUM ADDITION
KENAI RECREATIONAL CENTER
CITY OF KENAI

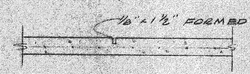
11 OF 14

M5



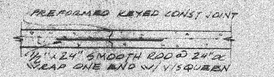
A SECTION

SCALE 3/4" = 1'-0"



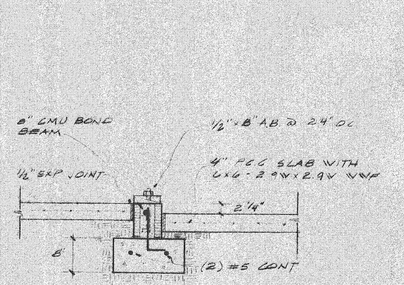
B CONTROL JOINT

SCALE 3/4" = 1'-0"



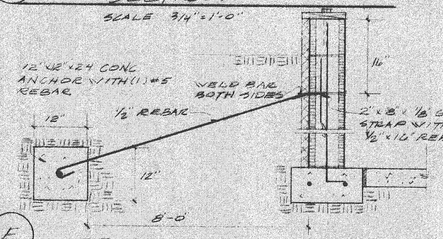
C CONSTRUCTION JOINT

SCALE 3/4" = 1'-0"



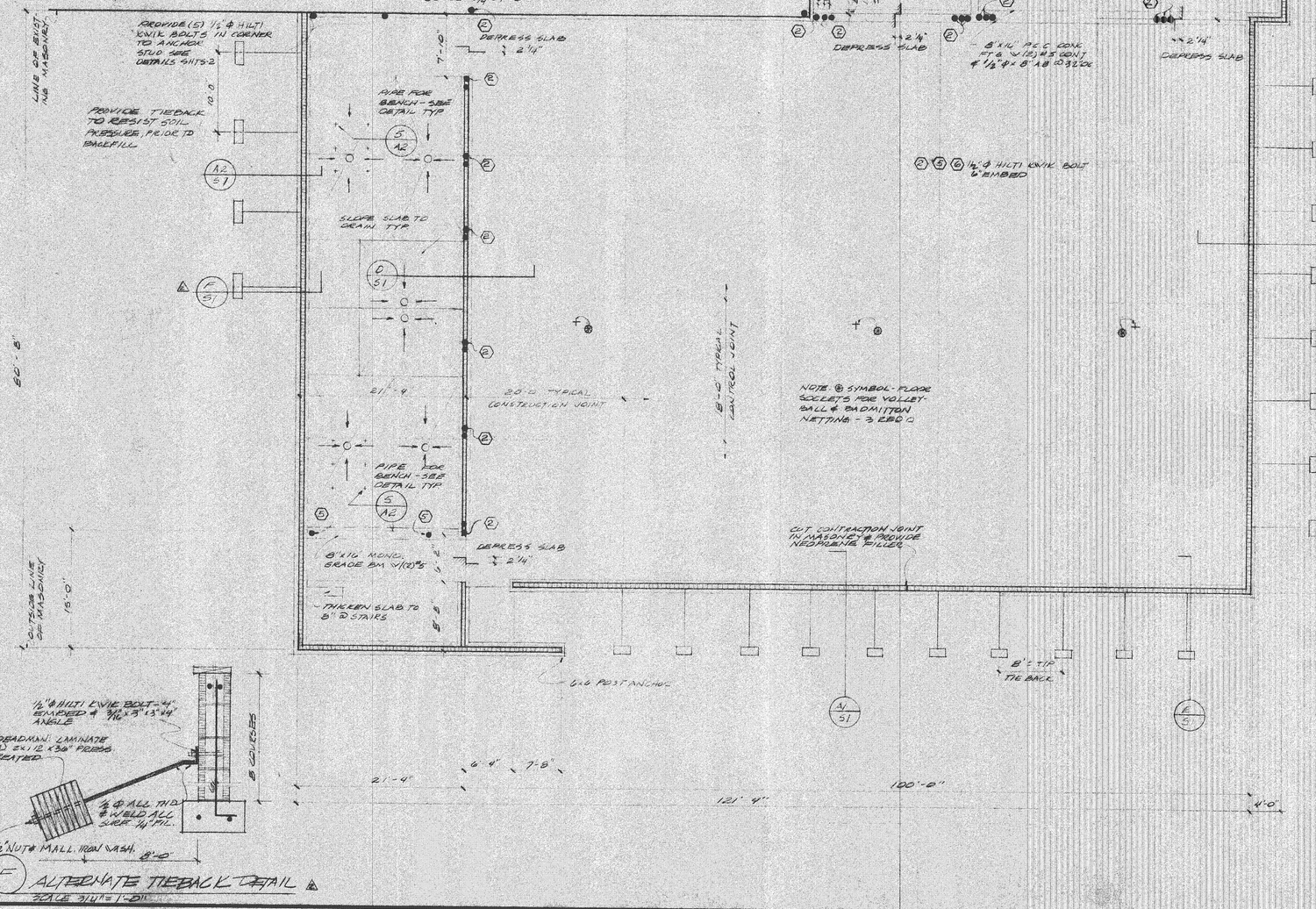
D SECTION

SCALE 3/4" = 1'-0"



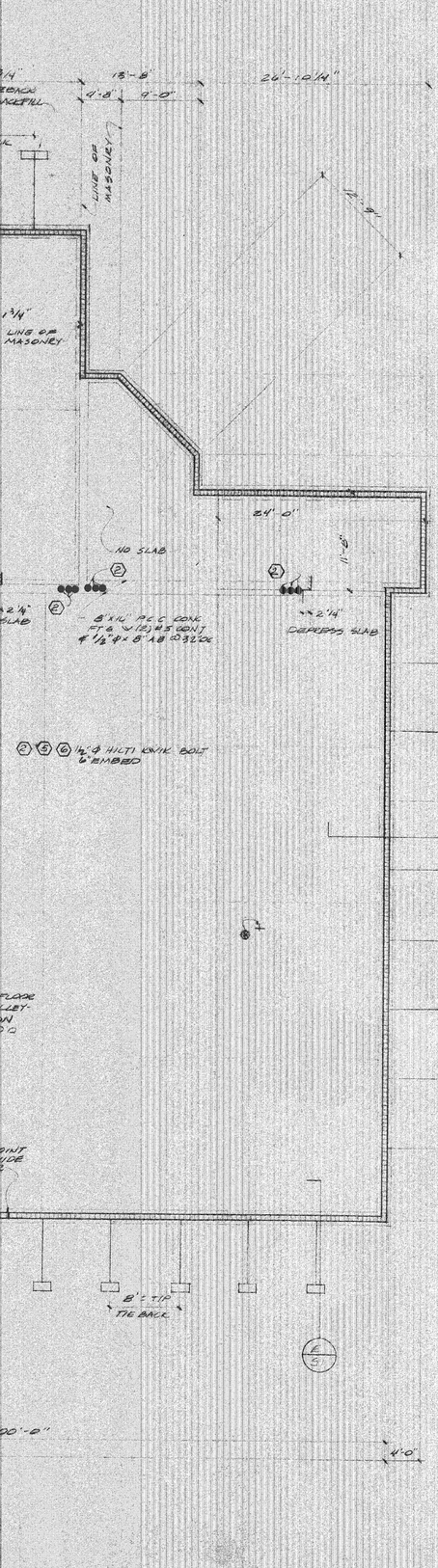
E TIEBACK DETAIL

SCALE 3/4" = 1'-0"



F ALTERNATE TIEBACK DETAIL ⚠

SCALE 3/16" = 1'-0"



GENERAL

ALL MATERIALS AND CONSTRUCTION SHALL CONFORM TO REQUIREMENTS OF THE UNIFORM BUILDING CODE (1982 EDITION) WHERE EXPLICIT DETAILS ARE NOT SHOWN OR DESCRIBED, THE MINIMUM REQUIREMENTS OF THE UBC 1982 ED SHALL APPLY.

FOUNDATIONS

PLACE ALL FOOTINGS ON UNDISTURBED NATURAL GROUND OR ON BACKFILL COMPACTED TO 95% OF MAXIMUM DENSITY. ALL FOOTINGS SHALL BE PLACED ON NON-FROST SUSCEPTIBLE GRANULAR MATERIAL.

CONCRETE

MIXING, SELECTION OF MATERIALS, AND PLACING OF ALL CONCRETE SHALL CONFORM TO THE REQUIREMENTS OF THE UNIFORM BUILDING CODE (1982 EDITION). ALL CONCRETE WHICH IS EXPOSED TO EARTH OR WEATHER SHALL CONTAIN AN AIR ENTRAINING AGENT, CONFORMING TO ASTM SPEC. C260 SUFFICIENT TO ATTAIN 5% ± 1½ ENTRAINED AIR IN THE MIX, BY VOLUME. ALL CONCRETE SHALL BE TESTED BY AN APPROVED TESTING LAB AT 7 AND 28 DAYS AND THE RESULTS SUBMITTED FOR APPROVAL. ALL CONCRETE SHALL ACHIEVE A MINIMUM 28 DAY F'_c = 3000 PSI EXCEPT GROUT WHICH SHALL ACHIEVE A MINIMUM 28 DAY F'_c = 2500 PSI

REINFORCING STEEL

UNLESS OTHERWISE NOTED ALL REINFORCING STEEL SHALL BE DEFORMED BARS CONFORMING TO ASTM A615 REINFORCING BARS SHALL BE GRADE 40. BENDS AND HOOKS SHALL CONFORM TO CRSI STANDARDS. REINFORCING STEEL SHALL BE SECURELY TIED WITH #16 DOUBLE ANNEALED WIRE. BARS IN FOOTINGS AND SLABS SHALL BE HUNG OR SUPPORTED ON WELL CURED CONCRETE BLOCKS OR APPROVED METAL CHAIRS. ALL REBAR SPLICES SHALL BE LAPPED A MINIMUM OF 30 BAR DIAMETERS OR 18" WHICHEVER IS GREATER. ALL WELDED WIRE FABRIC SHALL BE UNIFORMLY SUPPORTED ON WELL CURED CONCRETE BLOCKS SUFFICIENT TO INSURE THAT ALL WIRE IS IN THE MIDDLE OF THE SLAB THICKNESS. LAP ALL EDGES 1½ MESH MIN.

MASONRY

ALL MASONRY WALLS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE UNIFORM BUILDING CODE SECTION 24 (1982 EDITION), AND UNLESS SHOWN OTHERWISE ON THE PLANS SHALL BE REINFORCED AS FOLLOWS: (1) #5 BAR HORIZONTAL AT 4'-0" OC AND (1) #5 BAR VERTICAL AT 32" OC. BOND BEAMS CONTAINING (2) #5 BAR HORIZONTAL SHALL BE USED AT ALL TOP OF WALL LOCATIONS, UNDER BEARING POINTS AND AT FLOOR AND ROOF OPENINGS. MINIMUM HORIZONTAL REINFORCING AT TOPS OF OPENINGS SHALL BE (2) #5. MINIMUM VERTICAL REINFORCING AT SIDES AND OPENINGS AND AT CORNERS AND ENDS SHALL BE (2) #5. EXTEND REBAR 24" MIN. PAST OPENINGS. TIE ALL INTERSECTING WALLS WITH 24" x 24" CORNER BARS EQUAL TO BOND BEAM. LAP ALL SPLICES 30". GROUT ALL CORES HAVING REINFORCING STEEL WITH ASTM C270 TYPE M GROUT.

ANCHOR BOLTS

BOLTS SHALL BE ASTM A307 GRADE GALVANIZED STEEL PLACED AS SHOWN ON THE DRAWINGS.

REVISIONS

⚠ 10-31-82 WJN REVISE HOLDOWN SCHEDULE & SYMBOL SEE SHEET S2

⚠ 11-1-82 WJN ADD TIEBACK ON N & W WALLS & DETAIL F

revisions:

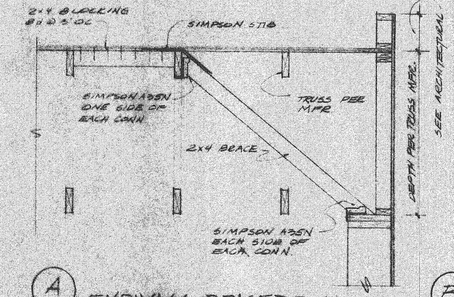
drawn:
checked:
date:
scale:

carmen vincent gintoli, architect
professional building
kenai

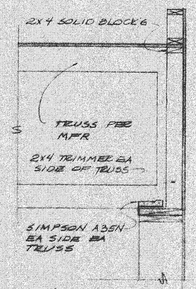
GYMNASIUM ADDITION
KENAI RECREATIONAL CENTER
CITY OF KENAI

S1

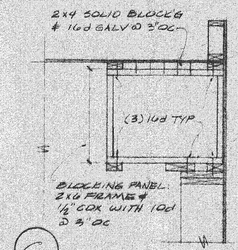
SUPERIOR REPROGRAPHICS TB 562



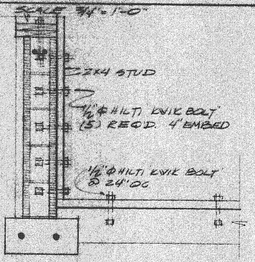
A END WALL BRACE DETAIL
SCALE 3/4" = 1'-0"



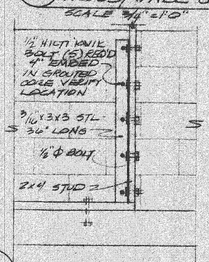
B TRUSS/WALL CONNECT.
SCALE 3/4" = 1'-0"



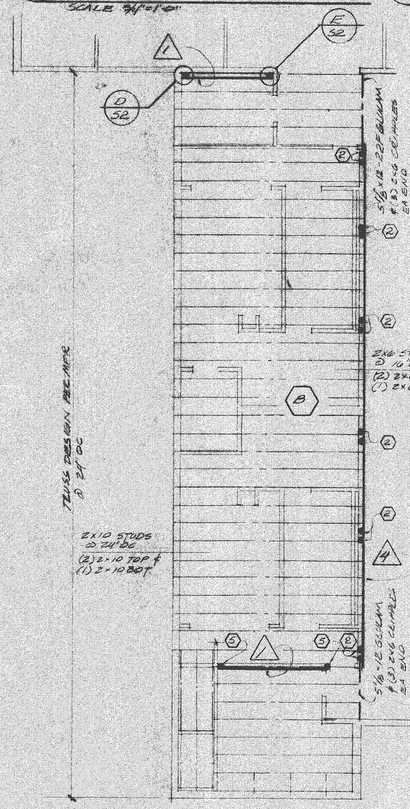
C END WALL BLOCKING
SCALE 3/4" = 1'-0"

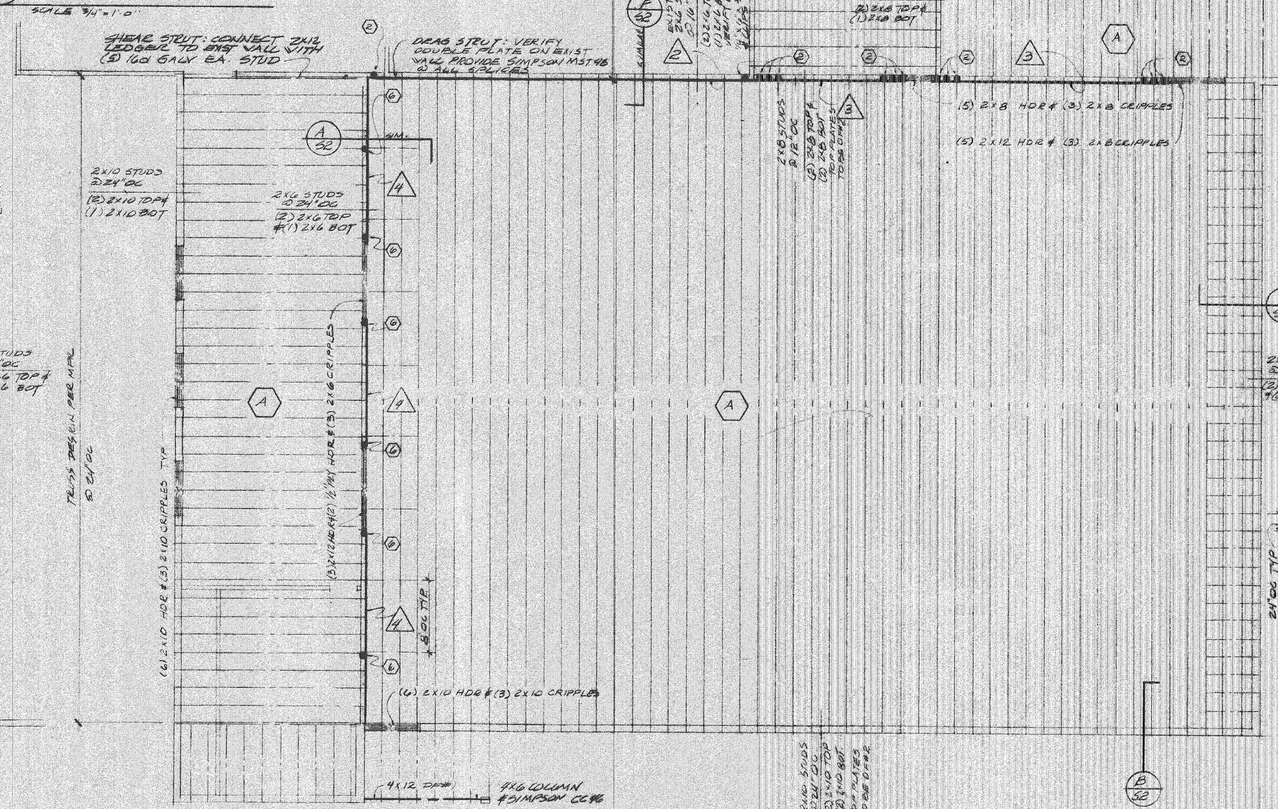


D SHEARWALL TO MASONRY CONN.
SCALE 3/4" = 1'-0"

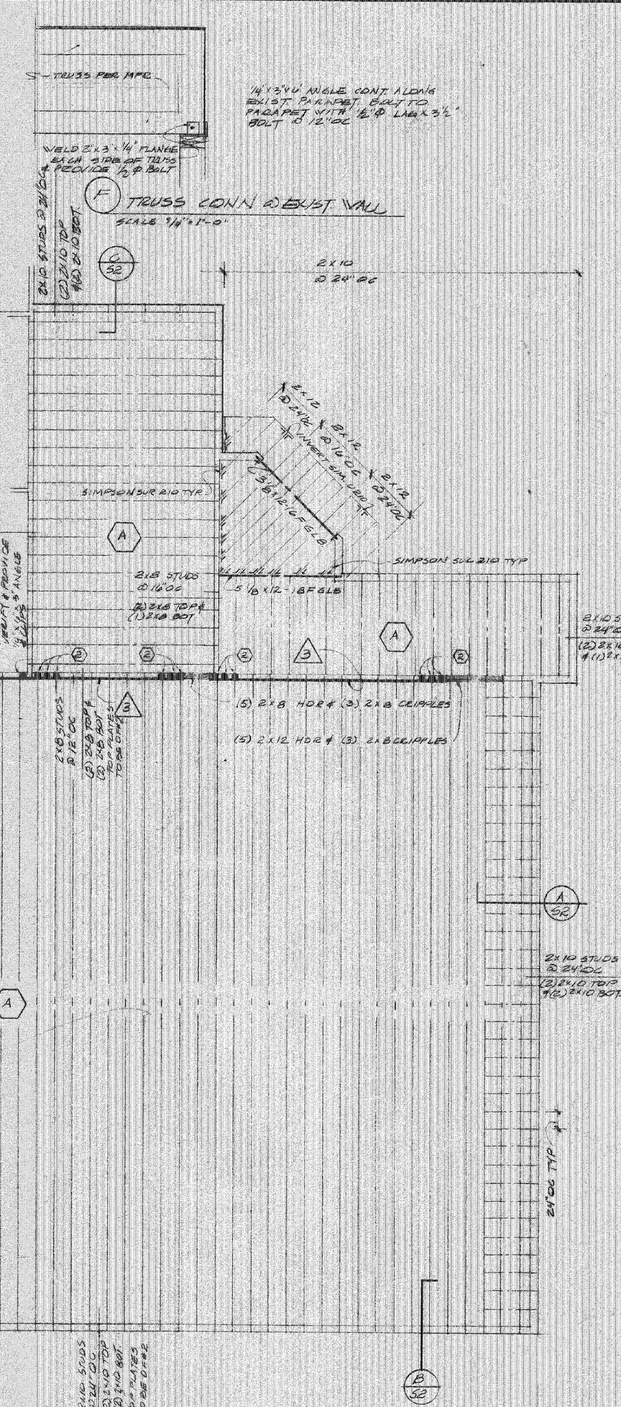


E SHEARWALL TO MASONRY CONN
SCALE 3/4" = 1'-0"

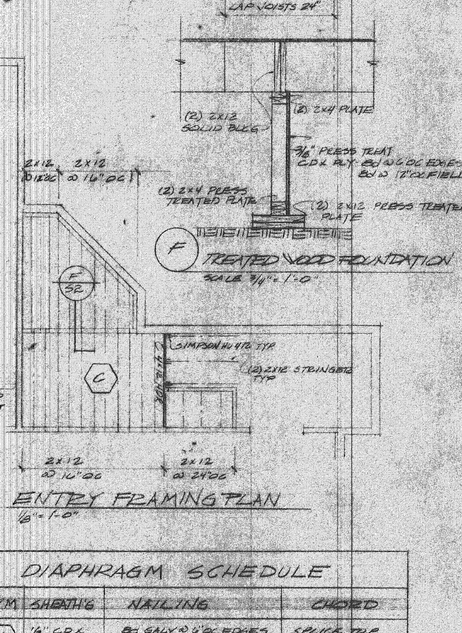




UPPER FLOOR FRAMING PLAN
SCALE 1/8" = 1'-0"



ROOF FRAMING PLAN
SCALE 1/8" = 1'-0"



F TREATED WOOD FOUNDATION
SCALE 3/4" = 1'-0"

ENTRY FRAMING PLAN
1/8" = 1'-0"

D/APHRAGM SCHEDULE

SYM	SHEATHING	NAILING	CHORD
A	1/2" CDX PLYWOOD	8d GALV @ 6" OC EDGES 8d GALV @ 12" OC FIELD	SPLICE TOP PLATE WITH (8) SIMPSON MST48
B	3/4" CDX PLYWOOD	10d GALV @ 6" OC EDGES 10d GALV @ 12" OC FIELD	SPLICE TOP PLATE WITH (2) SIMPSON MST48
C	3/4" CDX PLYWOOD	10d GALV @ 4" OC EDGES 10d GALV @ 12" OC FIELD	OVERLAP TOP PL. 4' MIN @ SPLICE WITH 16d @ 6" OC

SHEAR WALL SCHEDULE

SYM	SHEATHING	NAILING	REMARKS
1	3/8" CDX PLYWOOD	8d GALV @ 4" OC EDGES 8d GALV @ 12" OC FIELD	2x4 STUDS @ 16" OC
2	EXIST T-111 SIDING	8d GALV @ 3" OC EDGES 8d GALV @ 12" OC FIELD	VERIFY EXIST BLOCKING @ ALL PANEL EDGES
3	1/2" CDX PLYWOOD	10d GALV @ 4" OC EDGES 10d GALV @ 12" OC EDGES	2x8 STUDS @ 16" OC
4	3/8" CDX PLYWOOD	8d GALV @ 3" OC EDGES 8d GALV @ 12" OC FIELD	2x6 STUDS @ 16" OC
	3/8" CDX PLYWOOD	8d GALV @ 6" OC EDGES 8d GALV @ 12" OC FIELD	ALL EXTERIOR WALLS EXCEPT AS NOTED.

NOTE: BLOCK ALL PANEL EDGES

HOLD DOWN SCHEDULE

SYM	HOLD DOWN	ANCHOR	REMARKS
2	SIMPSON HD2	HILTI KWIK BOLT 1/2" ø WITH 6" EMBED	SPACE 6" OC MIN @ MULT. INSTALL.
6	SIMPSON HD6		TIE THROUGH JOIST SPACE
3	SIMPSON HD5	HILTI KWIK BOLT 1/2" ø WITH 6" EMBED	

GENERAL NOTES:

- STRUCTURAL FRAMING LUMBER AND TIMBER SHALL BE STRESS GRADE WCLIB FIR, NO.2 OR BETTER EXCEPT AS NOTED. BOLT HEADS AND NUTS WITH BEAR AGAINST WOOD SHALL BE PROVIDED WITH WASHERS. SOLID BLOCKING OF NOMINAL 2" THICKNESS SHALL BE PROVIDED AT ENDS AND AT ALL SUPPORTS OF JOISTS UNLESS OTHERWISE SHOWN. ALL METAL FRAMING ANCHORS, STRAPS AND HANGERS SHALL BE STRONG TIE CONNECTORS BY SIMPSON OR EQUAL. NAILING SHALL CONFORM TO TABLE 2304 OF UNIFORM BUILDING CODE 1982 UNLESS NOTED OTHERWISE.
- CONNECT RAFTERS & TRUSSES TO WALL WITH (1) SIMPSON A35N AT EACH END UNLESS SHOWN OTHERWISE.
- TRUSS DESIGN PER MFR. VERIFY SPACING & SPECIAL PROVISIONS FOR SUPPORT OF ROOF MOUNTED H.V.A.C. EQUIP WITH MFR.

revisions:

carmen vincent gintoli, architect
professional building
kenai

drawn:
checked:
date:
scale:

S2