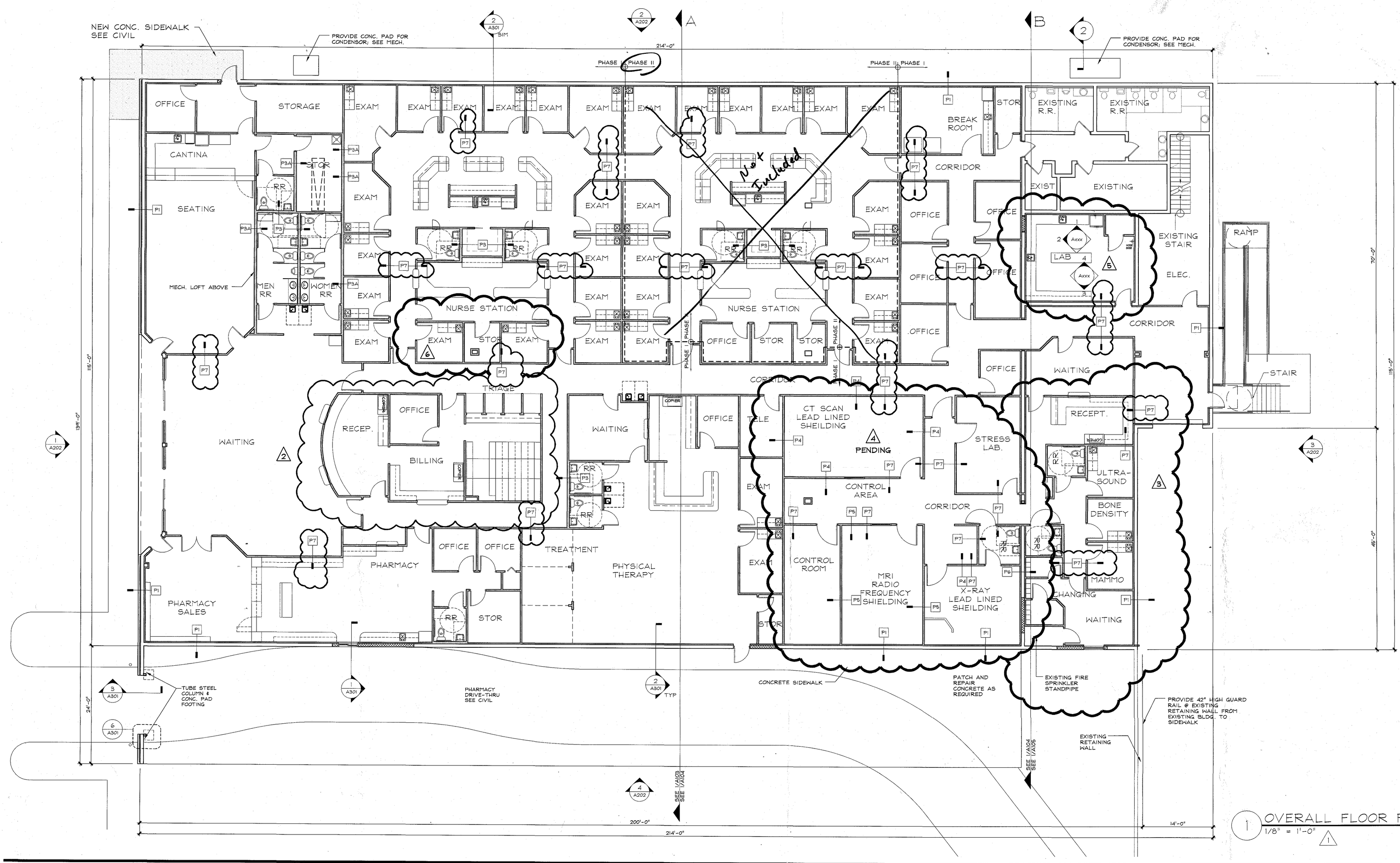


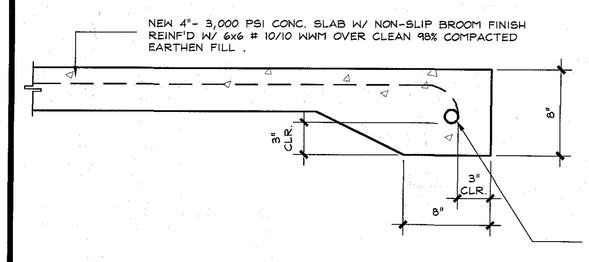
1 OVERALL FLOOR PLAN
1/8" = 1'-0"

ITEMS NOT IN CONTRACT

SEE FLOOR PLAN FOR ADDITIONAL ITEMS

1. SECURITY SYSTEM AND INSTALLATION.
2. TELEVISION BRACKETS AND INSTALLATION.
3. TELEVISION CABLE INSTALLATION.
4. DATA CABELING, SERVER, TELECOMMUNICATION INSTALLATION.
5. BUILDING EXTERIOR SIGNAGE - FACE OF BUILDING AND GROUND SIGNAGE AT MAIN ENTRANCE.
6. MEDICAL EQUIPMENT.
7. RF SHIELDING, INCLUDING DOORS, WINDOWS, WALLS AND CEILINGS.
8. RAISED FLOORING AT CONTROL ROOM 217.
9. CANTINA EQUIPMENT, REFRIGERATOR, COOLER, ICE MAKER.
10. REFRIGERATORS.
11. COPIERS.
12. ATM.
13. PHARMACY - FREE STANDING SHELVING.
14. CANTINA STORAGE SHELVING.
15. CHANGING ROOM LOUVERS.
16. VENDING MACHINES.

CONCRETE CONDENSING PAD



2 THICKENDED SLAB EDGE
1-1/2" = 1'-0"

GENERAL NOTES

REFER TO SHEET A503 FOR DOOR & WINDOW TYPES, ROOM FINISH & DOOR SCHEDULES

CONSTRUCTION PHASING:
REFER TO SHEET G001 FOR CONSTRUCTION PHASING INFORMATION

SECURITY SYSTEM NOTE:

GENERAL CONTRACTOR TO COORDINATE GENERAL / ELECTRICAL REQUIREMENTS AND EXACT LOCATIONS W/ OWNER PRIOR TO COMMENCEMENT OF WORK FOR THE FOLLOWING ITEMS:

1. OWNER SUPPLIED SECURITY SYSTEM.
2. OWNER SUPPLIED SECURITY CAMERA.

IMAGING SYSTEMS NOTE:

G.C. TO VERIFY W/ OWNER THE X-RAY SHIELDING REQUIREMENTS AND IF FLOOR PLAN SUBMITTAL TO DEPT. OF HEALTH IS REQUIRED BASED ON FINAL X-RAY AND CT SCAN SELECTION.

G.C. TO VERIFY W/ IMAGING EQUIPMENT SUPPLIER FOR ALL SHIELDING REQUIREMENTS AND LOCATIONS AND EQUIPMENT LAYOUTS.

- EXISTING
- NEW INFIL/PARTITION

PARTITION TYPES

P1	FINISH - (1) LAYER 5/8" GYP. BD. STRUCTURE - 2-1/2" (22 GA.) MTL STUD @ 24" O.C. FROM FIN. FLOOR TO 6" ABOVE FINISH CEILING TYP. W/ BATT INSULATION- OVER EXISTING MTL BLDG EXTERIOR FRAMING OR EXISTING MASONRY - BRACE MTL STUD AS REQUIRED
P2	FINISH - (1) LAYER 5/8" GYP. BD. EACH SIDE STRUCTURE - 3-5/8" (22 GA.) MTL STUD @ 24" O.C. FROM FIN. FLOOR TO 6" ABOVE FIN. CEILING
P3	FINISH - (1) LAYER 5/8" GYP. BD. EACH SIDE STRUCTURE - 6" (22 GA.) MTL STUD @ 24" O.C. FROM FIN. FLOOR TO 6" ABOVE FIN. CEILING
P3A	FINISH - (1) LAYER 5/8" GYP. BD. EACH SIDE. STRUCTURE - 6" (600S162-43) (18 GA.) MTL STUD @ 16" O.C. W/ (2) 2x WOOD TOP PLATE.
P4	FINISH - (1) LAYER LEAD LINED GYP. BD. EACH SIDE STRUCTURE - 3-5/8" (22 GA.) MTL STUD @ 24" O.C. FROM FIN. FLOOR TO 6" ABOVE FIN. CEILING
P5	FINISH - (1) LAYER 5/8" GYP. BD. ONE SIDE (1) STRUCTURE - 6" (20 GA.) MTL STUD @ 16" O.C. FROM FIN. FLOOR TO RADIO FREQUENCY SHEILDING CEILING SUPPORT (2) AIR SPACE - 1" AIR SPACE - VERIFY W/ RF SUPPLIER (3) RF - RADIO FREQUENCY SHEILDING - COORDINATE W/ RF SUPPLIER
P6	FINISH - (1) LAYER 5/8" GYP. BD. EACH SIDE (1) STRUCTURE - 6" (20 GA.) MTL STUD @ 16" O.C. FROM FIN. FLOOR TO RADIO FREQUENCY SHEILDING CEILING SUPPORT OVER EXISTING MTL BLDG. FRAMING OR EXISTING MASONRY (2) AIR SPACE - 1" AIR SPACE - VERIFY W/ RF SUPPLIER (3) RF - RADIO FREQUENCY SHEILDING - COORDINATE W/ RF SUPPLIER
P7	FINISH - (1) LAYER 5/8" GYP. BD. EACH SIDE STRUCTURE - 3-5/8" (22 GA.) MTL STUD @ 24" O.C. FROM FIN. FLOOR TO UNDERSIDE OF SUSPENDED ACOUSTICAL CEILING - SEE SHEET LS101 FOR EXTENT OF EXIT CORRIDORS & DETAIL 3/LS101

NOTE:
1) ALL INTERIOR PARTITIONS TO BE "P2" UNLESS OTHERWISE NOTED.

2) PROVIDE MOISTURE RESISTANT GYPSUM BOARD AT ALL PLUMBING FIXTURE WALLS.

3) PROVIDE LATERAL BRIDGING "U" CHANNEL (1-1/2"X16GA.) @ 48" O.C. TYPICAL AT ALL INTERIOR METAL STUD PARTITIONS.

4) PROVIDE SOUND BATT INSULATION, FRICTION FIT, FULL HEIGHT AT ALL INTERIOR METAL STUD PARTITIONS.

REVISIONS

1	05.12.05 - PLAN REVIEW COMMENTS
2	06.22.05 -MAIN RECEPT. FLR PLAN LAYOUT
3	07.12.05 -IMAGING & MAIN LOBBY
4	NOT USED

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5 07.27.05 -LAB
6 11.07.05 -EXAM RMS
7 01.09.06 -IMAGING SUITE

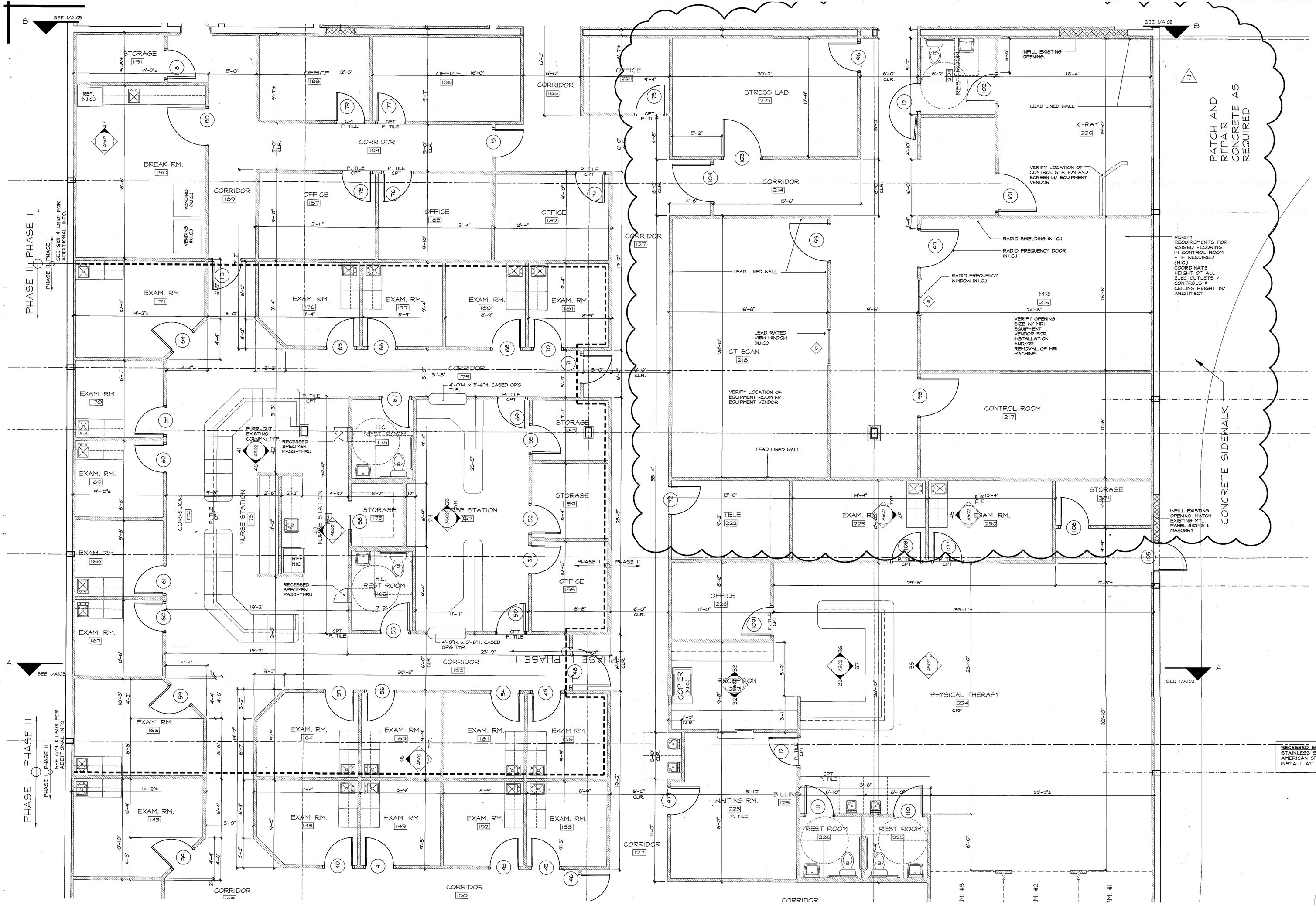
SEAL
JAMES A. COPELAND
AR 0016784

Fabian CONSTRUCTION, INC.

RENOVATION FOR:
EXPRESS CARE OF LEESBURG
2500 CITRUS BLVD.
LEESBURG, FLORIDA

DATE	04.22.05
JOB #	0473
	A102

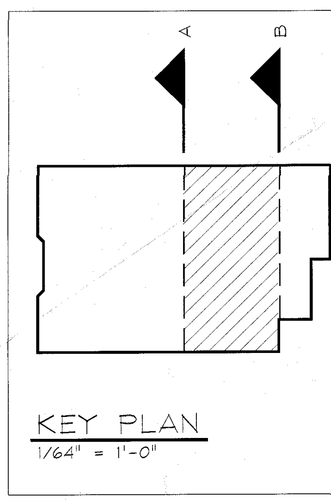
PERMIT CONSTRUCTION DOCUMENTS



2 PARTIAL FLOOR PLAN

1/4" = 1'-0"

SEE SHEET G001 FOR PHASING INFO



KEY PLAN

1/64" = 1'-0"

REVISIONS

1	05.12.05 - PLAN REVIEW COMMENTS
2	06.22.06 -MAIN RECPT. FLR. PLAN LAYOUT
3	07.12.06 -IMAGING & MAIN LOBBY
4	NOT USED

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- 2 07.27.06 -LAB
- 5 11.07.05 -EXAM RMS
- 6 01.09.06 -IMAGING SUITE
- 7

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2500 CITRUS BLVD.
LEESBURG, FLORIDA

DATE	04.22.05
JOB #	0473
	A104
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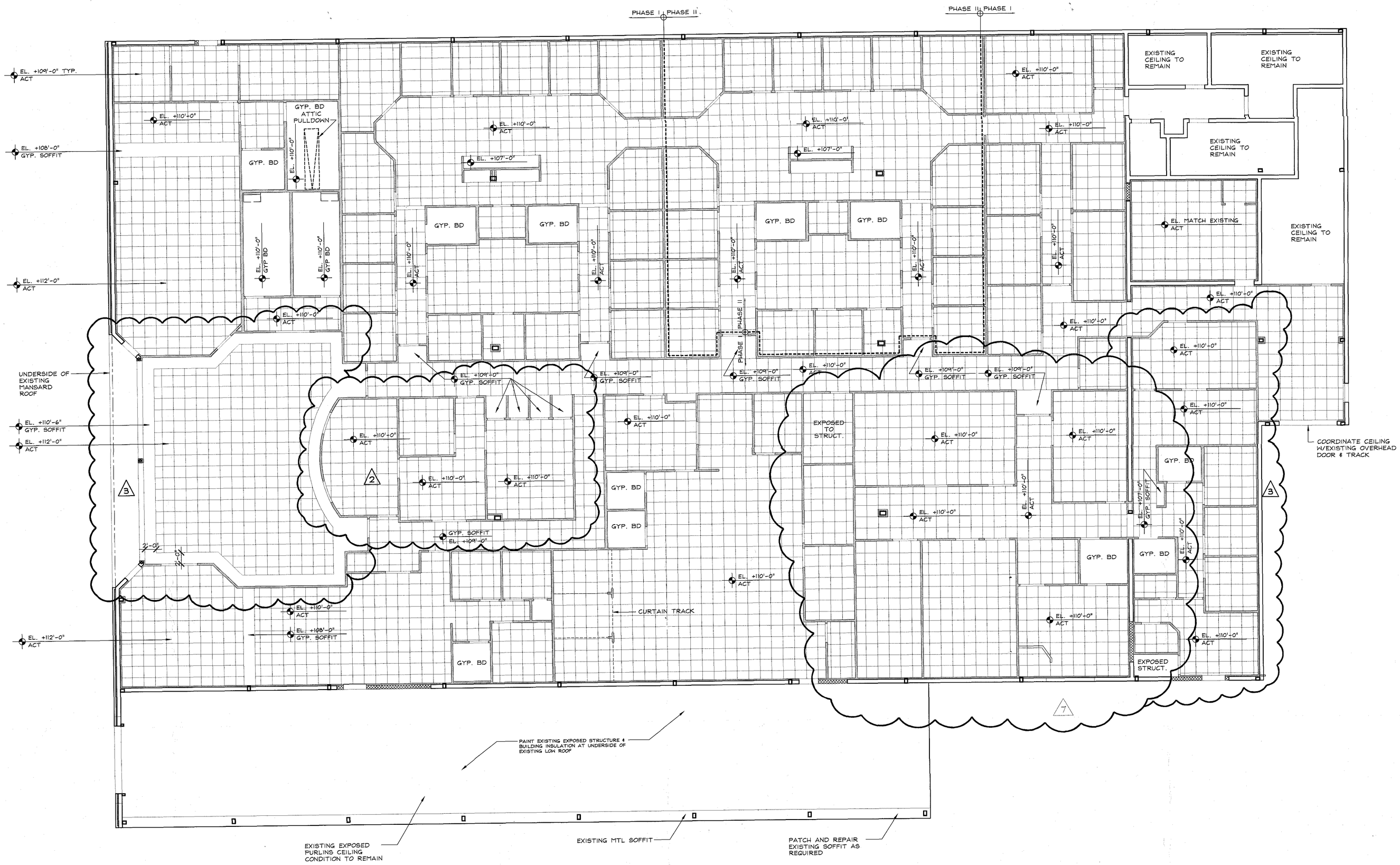

1. REFLECTED CEILING
1/8" = 1'-0"

NOTE:

1. ALL CEILINGS SHALL BE 9'-0" A.F.F. UNLESS NOTED OTHERWISE.
2. G.C. TO COORDINATE w/ IMAGING EQUIPMENT VENDOR FOR RADIATION SHEILDING REQUIREMENTS AND LOCATIONS @ X-RAY, CT SCAN & MRI.
3. G.C. TO COORDINATE W/OWNER ANY CEILING MOUNTED EQUIPMENT - NOTIFY ARCHITECT

REVISIONS

1	05.12.05 - PLAN REVIEW COMMENTS
2	06.22.05 - MAIN RECPT.
3	ELR PLAN LAYOUT
4	07.12.05 -IMAGING & MAIN LOBBY
5	NOT USED
5	07.27.05 -LAB
6	11.07.05 -EXAM RMS
7	01.09.06 -IMAGING SUITE

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RENOVATION FOR:
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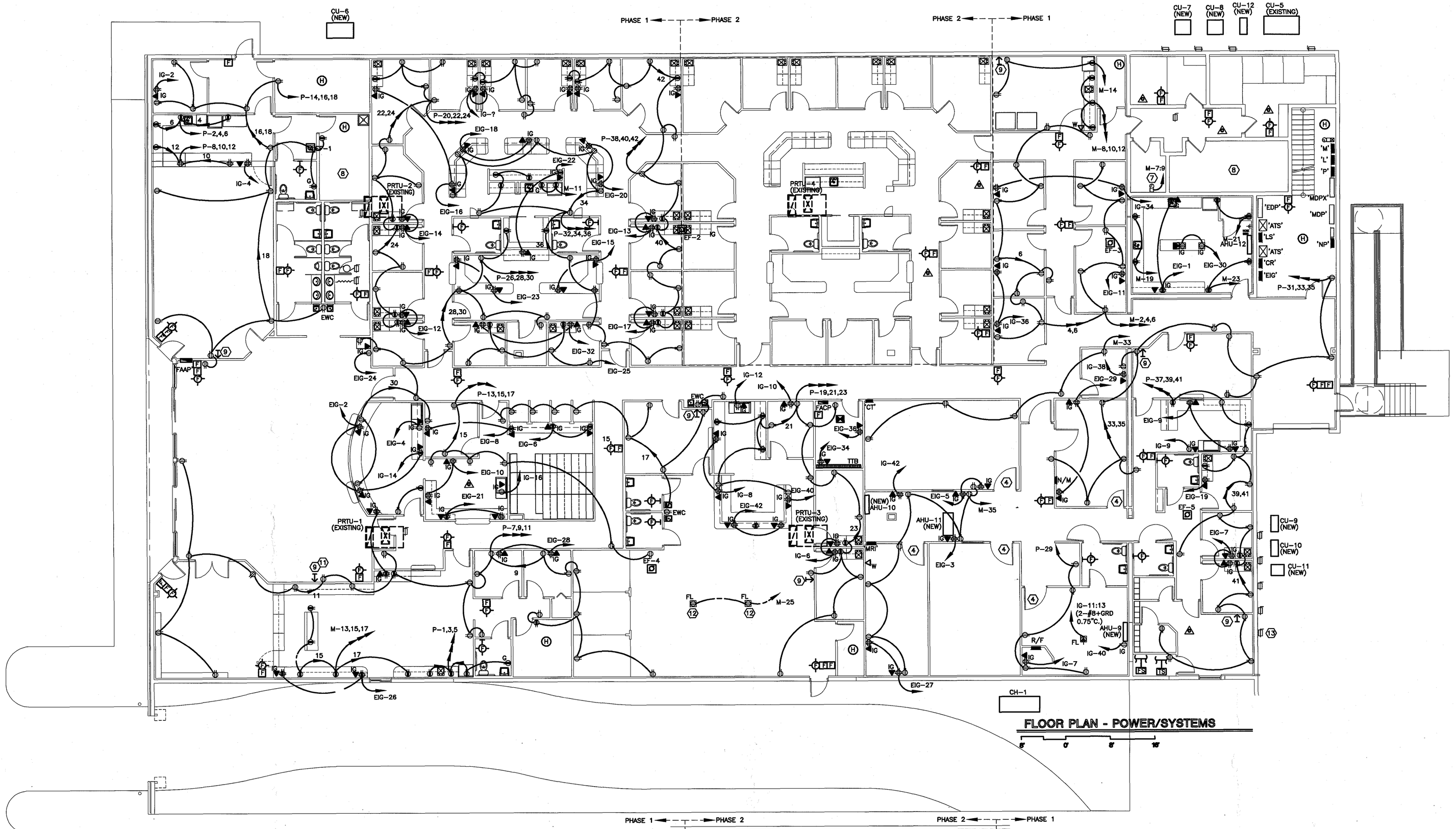
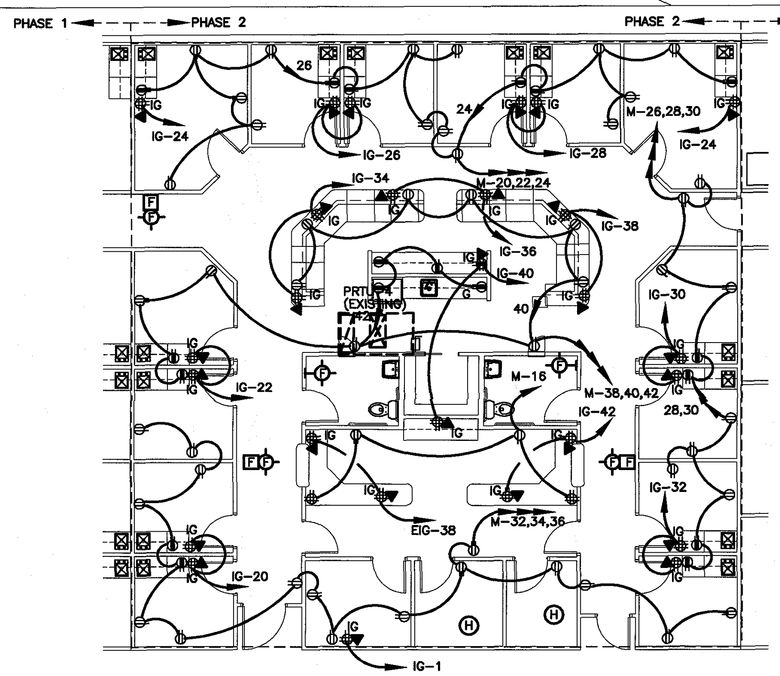
2500 CITRUS BLVD.
LEESBURG, FLORIDA

DATE	04.22.05
JOB #	0473
	A106
PERMIT CONSTRUCTION DOCUMENTS	



FLOOR PLAN - POWER/SYSTEMS

5' 0' 5' 10'



PHASE II FLOOR PLAN - POWER/SYSTEMS

5' 0' 5' 10'

PLAN NOTES–POWER

1. LOCATION OF METER AND EMERGENCY ELECTRICAL SHUNT TRIP DISCONNECT.
2. SPLIT WIRED RECEPTACLE MOUNTED IN SOFFIT FOR SEASONAL LIGHTING. CONNECT SWITCHED 1/2 TO 'TC–2' THE OTHER 1/2 WILL BE UNSWITCHED. PROVIDE GFI CIRCUIT BREAKER. CIRCUIT #P–37 (2– #10 + GRD IN 1/2"C.)
3. PROVIDE THE FOLLOWING CONDUITS FROM THE TELEPHONE ROOM TO PROPERTY LINE. COORDINATE EXACT LOCATION WITH CIVIL ENGINEERED DRAWINGS AND WITH SYSTEM SUPPLIER PRIOR TO BID OR ANY ROUGH–IN WORK.
   - A) (2) 2" C. CAP, STAKE, AND MARK "TELEPHONE"
   - B) (1) 2" C. CAP, STAKE, AND MARK "CATV"
   - C) (1) 2" C. CAP, STAKE, AND MARK "DATA"
   - D) (1) 2" C. CAP, STAKE, AND MARK "SPARE"
4. REFER TO EQUIPMENT SUPPLIERS DRAWINGS FOR ROOM REQUIREMENTS. PROVIDE AS DIRECTED.
5. PROVIDE FLUSH GRADE MOUNTED JUNCTION/PULL BOX QUASITE #PG1118CA00–GREEN COVER ENGRAVED "ELECTRIC". PROVIDE TWO (2) 1" SPARE CONDUITS TO PANEL AS INDICATED ON THE POWER RISER DIAGRAM.
6. COPIER: COORDINATE RECEPTACLE CONFIGURATION WITH EQUIPMENT SUPPLIER AND PROVIDE COMPLETE WITH MATCHING PLATE. (3) #10 + GRD. IN 0.5"C.
7. ELECTRIC WATER HEATER: 208VOLT, 4.5KW, 21.6A. PROVIDE TIME CLOCK INTERMATIC #WH–40 (2) #10 + GROUND IN 0.75" CONDUIT.
8. PROVIDE (1) GFCI RECEPTACLE ON MEZANINE. CONNECT TONEAREST AVAILABLE 120V. CIRCUIT. PROVIDE FIRE ALARM HORN STROBE AND SMOKE DETECTOR.
9. PROVIDE TV OUTLET AND ALL CABLING REQUIRED. VERIFY LOCATION WITH OWNER PRIOR TO ROUGH–IN. COORDINATE WITH MILLWORK CONTRACTOR. LOCATE 84" AFF.
10. PROVIDE POWER CONNECTION FOR FIRE PROTECTION AIR COMPRESSOR.
11. PROVIDE (2) TV OUTLETS WITH DUPLEX RECEPTACLE CONNECTED TO NEAREST AVAILABLE 120V. CIRCUIT.
12. PROVIDE (2) FLUSH FLOOR RECEPTACLE. LOCATE PER OWNER.
13. CHILLER FOR MRI. PROVIDE DISCONNECT AS REQUIRED.

PROJECT NOTES–POWER/SYSTEMS

1. WHERE DEVICE, BOXES OR CONDUITS ARE LOCATED WITHIN A RATED WALL PROVIDE FIRE PROOFING AS REQUIRED SO AS NOT TO INTERFERE WITH THE INTEGRITY OF THE WALLS RATING.
2. ALL RECEPTACLES IN EXAM ROOMS PROCEDURE SUITES, BREAK ROOM AND CANTEEN SHALL HAVE GFCI PROTECTION.
3. ALL LIGHTING USED AS EMERGENCY WILL BE CONNECTED TO OPERATE AS NIGHT–LIGHTS.
4. REFER TO THE MECHANICAL CONNECTION SCHEDULE FOR ELECTRICAL POWER REQUIREMENTS FOR ALL MECHANICAL EQUIPMENT.
5. VERIFY OUTLET LOCATIONS WITH OWNER OR OWNERS REPRESENTATIVE PRIOR TO ANY WORK. OUTLET LOCATION CHANGES WITHIN THE SAME ROOM THAT OCCUR WILL DO SO AT NO ADDITIONAL COST TO OWNER.
6. PROVIDE LEAD SHIELDING AS REQUIRED BY CODE.
7. ALL ISOLATED GROUND BRANCH CIRCUITS SHALL HAVE SEPARATE #10 CU. NEUTRAL.

NORTH

Revisions		
No.	Date	DESCRIPTION
1	04/14/06	CD-R
2	04/28/06	CDF
3	08/09/06	EBS-1 - EBS-2 UPDATE
4	01/16/06	MED EQ.- GEN. REV.

EBS INC

PREPARED BY:
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REVISIONS

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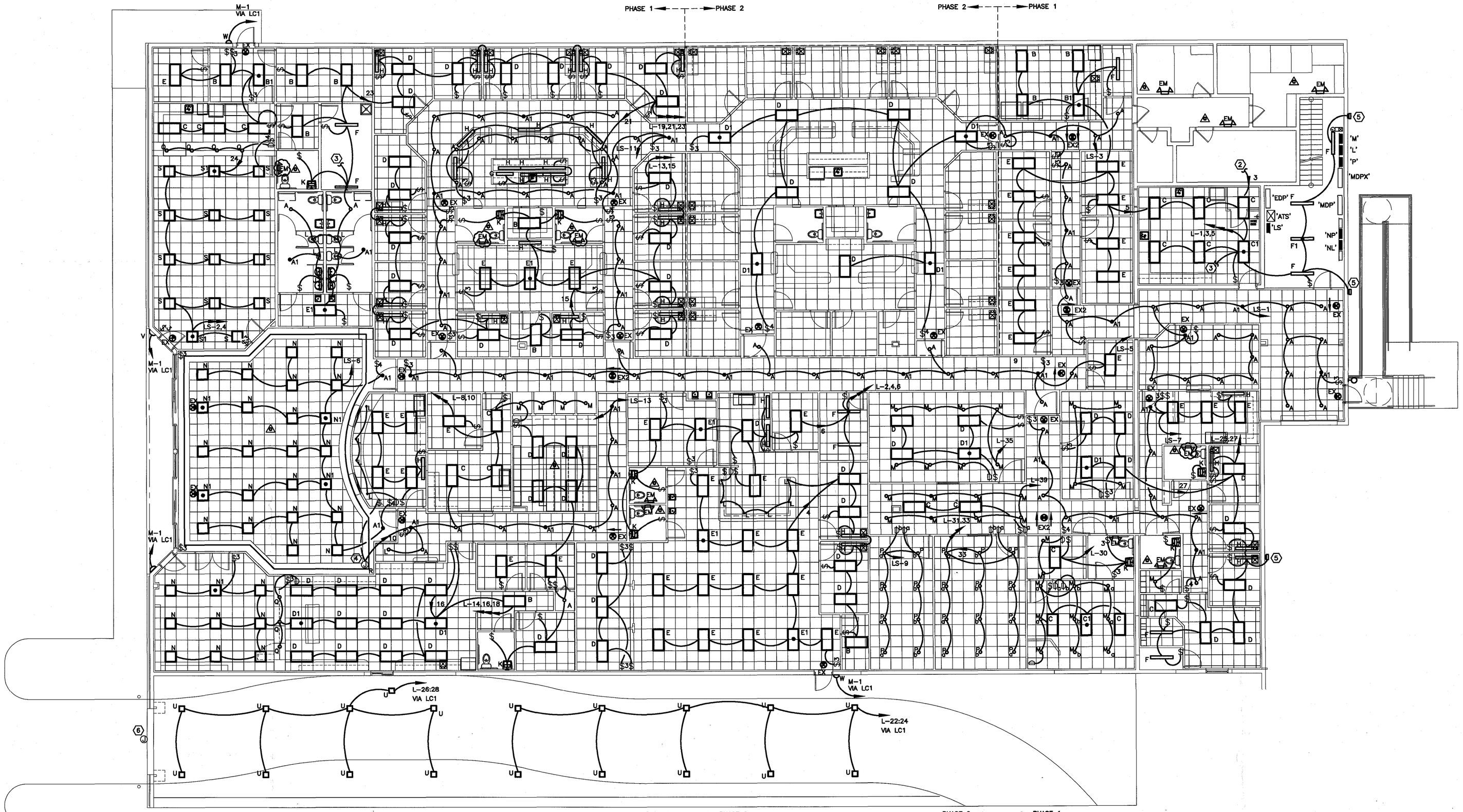
SUBMITTALS

RENOVATION FOR:
EXPRESS CARE OF LEESBURG
PROJECT ADDRESS
LEESBURG, FLORIDA

DATE
DATE

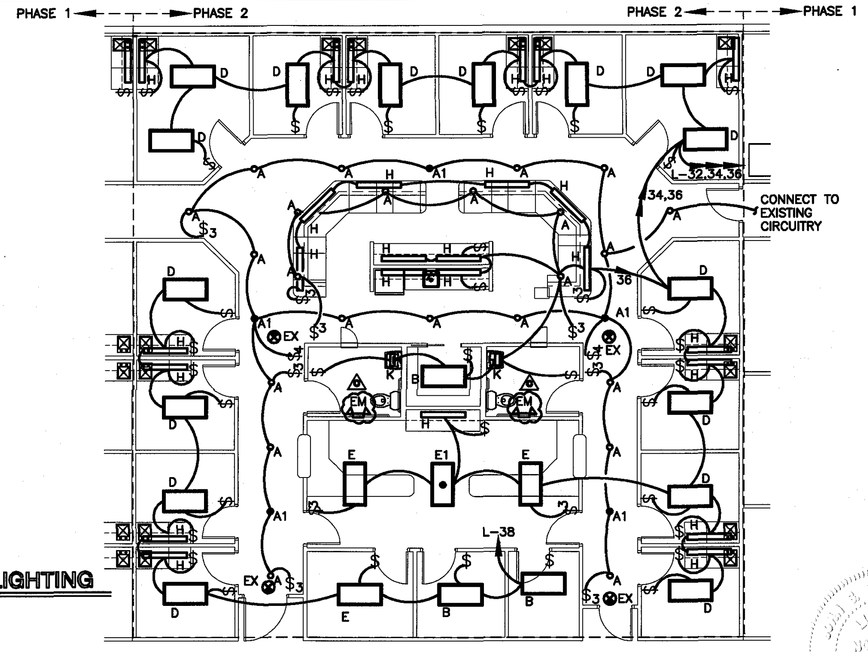
JOB #
0473

E-1 8



PHASE 1 FLOOR PLAN - LIGHTING

5' 0' 5' 10'



PHASE II PARTIAL FLOOR PLAN - LIGHTING

5' 0' 5' 10'

PROJECT NOTES–LIGHTING

1. ALL EXIT AND EMERGENCY LIGHTS SHALL BE CONNECTED TO THE LOCAL LIGHTING CIRCUIT AHEAD OF ANY SWITCH.
2. ALL EXHAUST FANS SHALL BE CONNECTED TO THEIR RESRECTIVE ROOM LIGHT SWITCH FOR CONTROL.

PLAN NOTES–LIGHTING

1. ROUTE THIS CIRCUIT VIA PHOTO CELL MOUNTED ON ROOF FACING NORTH. INTERMATIC #4136M
2. INTERCEPT, TAP, AND CONNECT EXISTING FIXTURES TO NEW CIRCUIT.
3. CONTINUE TO MEZZ. PROVIDE 3–WAY SWITCHING, (3) TYPE 'F' AND (1) TYPE 'F1' LIGHT FIXTURE AND RECEPTACLE PER CODE.
4. PROVIDE 1–LAMP STAGGERED STRIPS AS INDICATED ON THE LIGHT FIXTURE SCHEDULE IN LENGTHS AS REQUIRED FOR A CONTINUOS END TO END SPACING. MOUNT IN ARCHITECTURAL COVE.
5. EXISTING EXTERIOR WALL PACK SECURITY LIGHT FIXTURE TO REMAIN. CLEAN, RELAMP AND PROVIDE PHOTOCELL CONTROL AT FIXTURE OR CIRCUIT TO COMMON PHOTOCELL.
6. PHARMACY SIGNAGE: PROVIDE $100.00 ALLOWANCE FOR EXTERIOR FIXTURE. CONNECT COMPLETE.
7. SECURE AND MOUNT FROM STRUCTURE ABOVE.

NORTH

Revisions		
No.	Date	DESCRIPTION
1	04/14/06	CD-R
2	04/28/06	CDF
3	05/09/06	ESI-1 - ESI-2 UPDATE
4	01/19/06	MED EQ.- GEN. REV.

1/24/06

EBS INC

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REVISIONS

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SUBMITTALS

RENOVATION FOR:
EXPRESS CARE OF LEESBURG
PROJECT ADDRESS
LEESBURG, FLORIDA

DATE
DATE

JOB #
0473

E-2.8

POWER RISER NOTES

1. PROVIDE 2 #6CU + GRD IN 1" CONDUIT TO FLUSH GRADE PULL BOX LOCATED 5' OUTSIDE OF BUILDING FOR FUTURE SITE ELECTRIC. LOCATION TO BE DETERMINED PRIOR TO ANY WORK.
2. NOT USED
3. 24 HOUR 2-CIRCUIT ELECTRONIC TIME CLOCK WITH BATTERY BACK UP: INTERMATIC #ET279C.
4. LIGHTING CONTACTOR SQ. D CLASS 8903 TYPE LX 12-POLE WITH R6 2-WIRE CONTROL.
5. NOT USED
6. AUTOMATIC TRANSFER SWITCH: 125AMP/3ø/240VOLT. PROVIDE 10 SECOND MAX. TO ON-LINE. MOUNT TRANSFER SWITCH AND ROUTE FEEDER CONDUCTORS THROUGH CABINET. CONNECTIONS ARE TO BE MADE AT A LATER TIME.
7. AUTOMATIC TRANSFER SWITCH: 225AMP/3ø/240VOLT. MOUNT TRANSFER SWITCH AND ROUTE FEEDER CONDUCTORS THROUGH CABINET. CONNECTIONS ARE TO BE MADE AT A LATER TIME.
8. PULL BOX TO BE QUASITE STYLE PG W/ 12" GRAVEL BASE.
9. PROVIDE ALL REQUIRED COMMUNICATION/SIGNAL CIRCUITRY FROM GEN SET TO ANNUNCIATOR. REFER TO GENERATOR REQUIREMENTS PRIOR TO BID.
10. PROVIDE 2 #6CU + GRD IN 1.25" C. TO BIO BUILDING. REFER TO CIVIL SITE PLAN FOR EXACT LOCATION. PROVIDE DISCONNECT AS REQUIRED.
11. PROVIDE PHOTOCELL: INTERMATIC #K4136M. MOUNT ON ROOF FACING NORTH.
12. PROVIDE SURGE SUPPRESSION: EDCO SERIES BMC. PROVIDE OVERCURRENT PROTECTION.
13. PROVIDE SURGE SUPPRESSION: EDCO SERIES LMC. PROVIDE OVERCURRENT PROTECTION.
14. SHUNT TRIP WITH BREAK GLASS MOUNTED ON EXTERIOR OF BUILDING. CONNECT TO EXISTING PANEL 'MDPX' FOR SIMULTANEOUS EMERGENCY DISCONNECT OF ALL ELECTRICAL POWER TO BUILDING. SQ. D OR EQUAL.

FEEDER NOTES

FROM MDP TO PANEL 'M1'	(4) #4/0 CU. THWN + (1) #4 CU. GROUND IN 2.5" C.
FROM MDP TO PANEL 'IG'	(4) #4/0 CU. THWN + (2) #4 CU. GROUND IN 2.5" C.
FROM MDP TO PANEL 'LS'	(4) #1 CU. THWN + (1) #6 CU. GROUND IN 1.5" C.
FROM MDP TO PANEL 'CR'	(4) #4/0 CU. THWN + (2) #4 CU. GROUND IN 2.5" C.
PANEL 'CR' TO PANEL 'EIG'	(4) #1 CU. THWN + (1) #6 CU. GROUND IN 1.5" C.
FROM MDP TO PANEL 'RF'	(4) #2/0 CU. THWN + (2) #6 CU. GROUND IN 2.0" C.
FROM MDP TO PANEL 'MRI'	(4) #350 KCMIL CU. THWN + (2) #4 CU. GROUND IN 3.0" C.
FROM MDP TO PANEL 'CT'	(4) #4/0 CU. THWN + (2) #4 CU. GROUND IN 2.5" C.

MINIMUM CONDUCTOR SIZES

(FURNISH IN ACCORDANCE WITH THIS SCHEDULE UNLESS OTHERWISE NOTED) (ALL WIRES ARE TO BE COPPER, THHN, UNLESS OTHERWISE NOTED)

CIRCUIT PROTECTION	CURRENT CARRYING AND NUETRAL CONDUCTOR	GROUND CONDCUTOR
0-20A	#12	#12
21-30A	#10	#10
31-50A	#8	#10
51-70A	#4	#8
71-115A	#2	#6

EDP SCHEDULE

208/120 VOLT, 3 PHASE, 4 WIRE
225 AMP WITH MAIN CIRCUIT BREAKER
SURFACE MOUNTED

MAX. TOTAL LOAD –
MAX. TOTALDEMAND –
AVAILABLE FAULT DUTY 42K AIR FULL RATING
REMARKS: NEW PANEL
SQUARE "D" I-LINE FULL HEIGHT COPPER BUSS

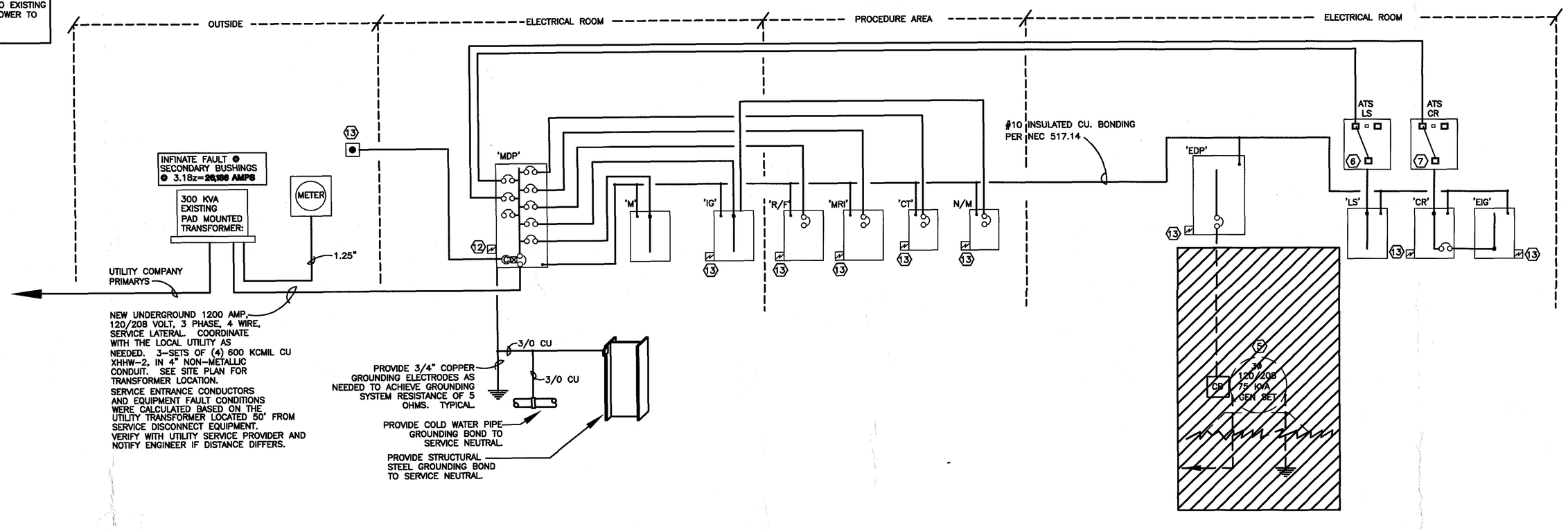
DESCRIPTION	KVA/PH A	B	C	CK #	P	BRKR A	P	BREAKER TYPE	MOUNTING SPACE
				1					
				2					
				3					
				4					
				5					
				6					
				7					
				8					
				9					
				10					
				11					
				12					
				13					
				14					
				15					
				16					
				17					
				18					
				19					
				20					
SURGE SUPRESSION	–	–	–	21	30	3	–	–	
TOTALS:	–	–	–					–	

MDP SCHEDULE

208/120 VOLT, 3 PHASE, 4 WIRE
1200 AMP WITH MAIN SHUNT TRIP CIRCUIT BREAKER
SURFACE MOUNTED

MAX. TOTAL LOAD 440.4
MAX. TOTALDEMAND 389.0
AVAILABLE FAULT DUTY 42K AIR FULL RATING
REMARKS: NEW PANEL
SQUARE "D" I-LINE FULL HEIGHT COPPER BUSS

DESCRIPTION	KVA/PH A	B	C	CK #	P	BRKR A	P	BREAKER TYPE	MOUNTING SPACE
PANEL M1	15.2	15.2	15.2	1	2	225	3		
PANEL IG	11.0	11.0	11.0	3	2	225	3		
PANEL CR VIA ATS	10.8	10.8	10.8	5	2	225	3		
PANEL LS VIA ATS	7.0	7.0	7.0	4	1	125	3		
MRI	38.0	38.0	38.0	5	3	500	3		
CT	21.8	21.8	21.8	6	2	225	3		
R/F	18.0	18.0	18.0	7	1	150	3		
N/M	18.0	18.0	18.0	8	1	150	3		
AHU-BLOWER MOTOR	9.2	9.2	9.2	9	1	100	3		
				10					
				11					
				12					
				13					
				14					
				15					
				16					
				17					
				18					
				19					
				20					
SURGE SUPRESSION	–	–	–	21	30	3	–	–	
TOTALS:	146.8	146.8	146.8					–	



M1 PANEL SCHEDULE

208/120 VOLT, 3 PHASE, 4 WIRE
225 AMP MLO
SURFACE MOUNTED
42 CKT
NEMA 1

TOTAL CONNECTED KVA 87.9
TOTAL DEMAND KVA 52.9
AVAILABLE FAULT DUTY 42K AIR SERIES RATING
REMARKS: NEW PANEL
SQ. D TYPE 'NQOD' PANELBOARD
PROVIDE FEED-THRU LUG KIT.

DESC	KVA A	B	C	CK #	P	BRKR A	PHASE TOTAL A	B	C	BRKR A	P	CK #	KVA A	B	C	DESC
AHU-8-HEAT	2.5			1	30	3				20	2	2	1.0			DUCTLESS SPLIT-9
–		2.5		3	1	–				–	–	4		1.0		–
–			2.5	5	1	–				20	2	6			1.0	DUCTLESS SPLIT-10
CU-6	5.8			7	60	3				–	–	8	1.0			–
–		5.8		9	1	–				–	–	10		–		SPACE
–			5.8	11	1	–				–	–	12			–	SPACE
AHU-7	4.7			13	40	2				20	2	14	1.0			DUCTLESS SPLIT-12
–		4.7		15	2	–				–	–	16		1.0		–
CU-7			1.8	17	25	3				20	2	18			1.0	DUCTLESS SPLIT-13
–	1.8			19	1	–				20	1	20	1.0			–
–		1.8		21	1	–				40	3	22		2.9		CU-11
AHU-8			4.7	23	40	2				–	–	24			2.9	–
–	4.7			25	2	–				–	–	26	2.9			–
CU-8		2.3		27	30	3				40	3	28		4.4		AHU-11
–			2.3	29	2	–				–	–	30			4.4	–
–	2.3			31	1	–				30	3	32	4.4			–
				33						–	–	34				
				35						–	–	36				
				37						–	–	38				
				39						–	–	40				
				41						–	–	42				
TOTALS:	21.8	17.1	17.1				33.1	27.4	27.4				11.3	10.3	10.3	

CR PANEL SCHEDULE

208/120 VOLT, 3 PHASE, 5 WIRE
125 AMP MLO
SURFACE MOUNTED
42 CKT
NEMA 1

TOTAL CONNECTED KVA 54.6
TOTAL DEMAND KVA 32.3
AVAILABLE FAULT DUTY 42K AIR SERIES RATING
REMARKS: NEW PANEL
SQ. D TYPE 'NQOD' PANELBOARD
PROVIDE 125 AMP SUB FEED BREAKER TO PANEL EIG

DESC	KVA A	B	C	CK #	P	BRKR A	PHASE TOTAL A	B	C	BRKR A	P	CK #	KVA A	B	C	DESC
SPARE	1.4			1	20	1				20	1	2	1.4			SPARE
SPARE		1.4		3	20	1				20	1	4		1.4		SPARE
SPARE			1.4	5	20	1				20	1	6			1.4	SPARE
				7						–	–	8				
				9						–	–	10				
				11						–	–	12				
				13						–	–	14				
				15						–	–	16				
				17						–	–	18				
				19						–	–	20				
				21						–	–	22				
				23						–	–	24				
				25						–	–	26				
				27						–	–	28				
				29						–	–	30				
				31						–	–	32				
				33						–	–	34				
				35						–	–	36				
				37						125	3	38	15.4			PANEL EIG
				39						–	–	40		15.4		–
				41						–	–	42			15.4	–
TOTALS:	1.4	1.4	1.4				18.2	18.2	18.2				16.8	16.8	16.8	

LS PANEL SCHEDULE

208/120 VOLT, 3 PHASE, 4 WIRE
125 AMP MLO
SURFACE MOUNTED
30 CKT
NEMA 1

TOTAL CONNECTED KVA 16.8
TOTAL DEMAND KVA 20.8
AVAILABLE FAULT DUTY 42K AIR SERIES RATING
REMARKS: NEW PANEL
SQ. D TYPE 'NQOD' PANELBOARD

DESC	KVA A	B	C	CK #	P	BRKR A	PHASE TOTAL A	B	C	BRKR A	P	CK #	KVA A	B	C	DESC
LTS- WOMENS ENTRY	1.4			1	20	1				20	1	2	1.4			LTS- CANTEEN
LTS- CORRIDOR WEST		1.4		3	20	1				20	1	4		1.4		LTS- CANTEEN
LTS- CORRIDOR EAST			1.4	5	20	1				20	1	6			1.4	LTS- MAIN LOBBY
LTS- WOMENS EXAM	1.4			7	20	1				20	1	8	1.4			SPARE
LTS- CONTROL		1.4		9	20	1				20	1	10		1.4		SPARE
LTS- EXAM CORRIDOR			1.4	11	20	1				20	1	12			1.4	SPARE
SPACE	–			13	–	1				–	1	14	–			SPACE
SPACE		–		15	–	1				–	1	16		–		SPACE
SPACE			–	17	–	1				–	1	18			–	SPACE
SPACE	–			19	–	1				–	1	20	–			SPACE
SPACE		–		21	–	1				–	1	22		–		SPACE
SPACE			–	23	–	1				–	1	24			–	SPACE
SPACE	–			25	–	1				–	1	26	–			SPACE
SPACE		–		27	–	1				–	1	28		–		SPACE
SPACE			–	29	–	1				–	1	30			–	SPACE
SPACE	–			31	–	1				–	1	32	–			SPACE
SPACE		–		33	–	1				–	1	34		–		SPACE
SPACE			–	35	–	1				–	1	36			–	SPACE
SPACE	–			37	–	1				–	1	38	–			SPACE
SPACE		–		39	–	1				–	1	40		–		SPACE
SPACE			–	41	–	1				–	1	42			–	SPACE
TOTALS:	2.8	2.8	2.8				5.6	5.6	5.6				2.8	2.8	2.8	

IG PANEL SCHEDULE

208/120 VOLT, 3 PHASE, 5 WIRE
225 AMP MLO
SURFACE MOUNTED
42 CKT
NEMA 1

TOTAL CONNECTED KVA 56.0
TOTAL DEMAND KVA 33.0
AVAILABLE FAULT DUTY 42K AIR SERIES RATING
REMARKS: NEW PANEL
SQ. D TYPE 'NQOD' PANELBOARD
PROVIDE COMPLETE ISOLATED GROUND SYSTEM.

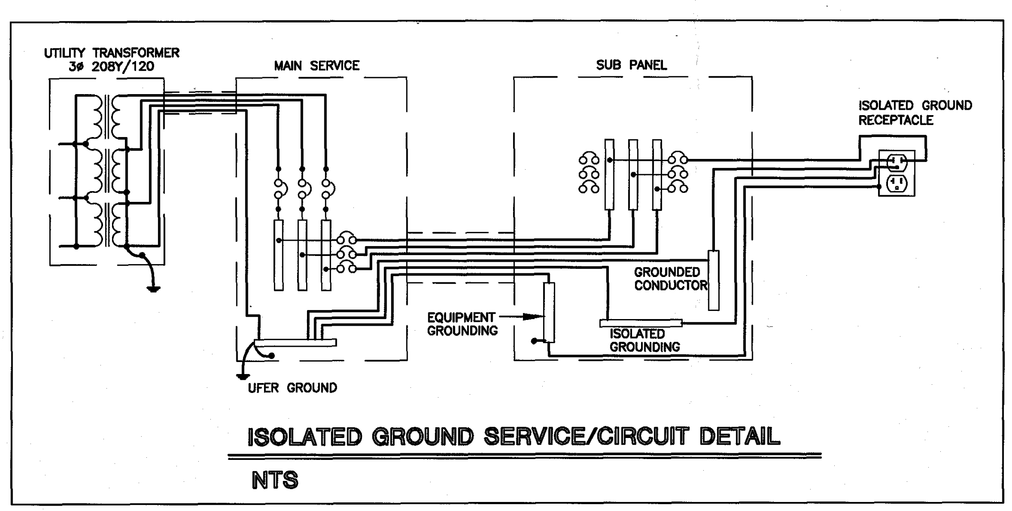
DESC	KVA A	B	C	CK #	P	BRKR A	PHASE TOTAL A	B	C	BRKR A	P	CK #	KVA A	B	C	DESC
RECEPT- OFFICE	1.4			1	20	1				20	1	2	1.4			RECEPT- PHARMACY OFFICE
RECEPT- XRAY		1.4		3	20	1				20	1	4		1.4		RECEPT- PHARMACY
RECEPT- CT			1.4	5	20	1				20	1	6			1.4	RECEPT- PHYSICAL THERAPY
RECEPT- MRI	1.4			7	20	1				20	1	8	1.4			RECEPT- PT RECEPTION
RECEPT- COPIER		1.4		9	20	1				20	1	10		1.4		RECEPT- OFFICE
R/F TABLE POWER			3.8	11	40	2				20	1	12			1.4	RECEPT- COPIER
–	3.8			13	–	–				20	1	14	1.4			RECEPT- COPIER
NUCLEAR MEDICINE		2.5		15	30	2				20	1	16		1.4		RECEPT- OFFICE
–			2.5	17	–	–				20	1	18			1.4	RECEPT- COPIER
SPACE	–			19	–	1				20	1	20	1.4			RECEPT- EXAM
SPACE		–		21	–	1				20	1	22		1.4		RECEPT- EXAM
SPACE			–	23	–	1				20	1	24			1.4	RECEPT- EXAM
SPACE	–			25	–	1				20	1	26	1.4			RECEPT- EXAM
SPACE		–		27	–	1				20	1	28		1.4		RECEPT- EXAM
SPACE			–	29	–	1				20	1	30			1.4	RECEPT- EXAM
SPACE	–			31	–	1				20	1	32	1.4			RECEPT- EXAM
SPACE		–		33	–	1				20	1	34		1.4		RECEPT- OFFICE
SPACE			–	35	–	1				20	1	36			1.4	RECEPT- OFFICE
SPACE	–			37	–	1				20	1	38	1.4			RECEPT- OFFICE
SPACE		–		39	–	1				20	1	40		1.4		R/F ADR-1000A
SPACE			–	41	–	1				20	1	42			1.4	C/T CONTROL
TOTALS:	4.2	4.2	4.2				14.0	14.0	14.0				9.8	9.8	9.8	

EIG PANEL SCHEDULE

208/120 VOLT, 3 PHASE, 5 WIRE
125 AMP MLO
SURFACE MOUNTED
42 CIRCUIT
NEMA 1

TOTAL CONNECTED KVA 50.4
TOTAL DEMAND KVA 28.1
AVAILABLE FAULT DUTY 42K AIR SERIES RATING
REMARKS: NEW PANEL
SQ. D TYPE 'NQOD' PANELBOARD

DESC	KVA A	B	C	CK #	P	BRKR A	PHASE TOTAL A	B	C	BRKR A	P	CK #	KVA A	B	C	DESC
RECEPT- LAB	1.4			1	20	1				20	1	2	1.4			RECEPT- RECEPTION
RECEPT- MRI CONTROL		1.4		3	20	1				20	1	4		1.4		RECEPT- RECEPTION
RECEPT- CT CONTROL			1.4	5	20	1				20	1	6			1.4	RECEPT- TRIAGE
RECEPT- EXAM	1.4			7	20	1				20	1	8	1.4			RECEPT- TRIAGE/OFFICE
RECEPT- WOMENS RECEPT		1.4		9	20	1				20	1	10		1.4		RECEPT- WORK RM.
RECEPT- OFFICE			1.4	11	20	1				20	1	12			1.4	RECEPT- EXAM
RECEPT- EXAM	1.4			13	20	1				20	1	14	1.4			RECEPT- EXAM
RECEPT- BILLING		1.4		15	20	1				20	1	16		1.4		RECEPT- EXAM/NURSE STAT
RECEPT- EXAM			1.4	17	20	1				20	1	18			1.4	RECEPT- NURSE STATION
RECEPT- EXAM	1.4			19	20	1				20	1	20	1.4			RECEPT- NURSE STATION
RECEPT- BILLING		1.4		21	20	1				20	1	22		1.4		RECEPT- NURSE STATION
RECEPT- BILLING			1.4	23	20	1				20	1	24			1.4	RECEPT- ATM
RECEPT- EXAM	1.4			25	20	1				20	1	26	1.4			RECEPT- PHARMACY
RECEPT- MRI CONTROL		1.4		27	20	1				20	1	28		1.4		RECEPT- OFFICES
RECEPT- N/M CONTROL			1.4	29	20	1				20	1	30			1.4	RECEPT- LAB
SPACE	–			31	–	1				20	1	32	1.4			RECEPT- EXAM
SPACE		–		33	–	1				20	1	34		1.4		RECEPT- TELE
SPACE			–	35	–	1				20	1	36			1.4	RECEPT- DATA
SPACE	–			37	–	1				20	1	38	1.4			RECEPT- BILLING PHASE 2
SPACE		–		39	–	1				20	1	40		1.4		RECEPT- PHYSICAL THEARPY
SPACE			–	41	–	1				20	1	42			1.4	RECEPT- PHYSICAL THEARPY
TOTALS:	7.0	7.0	7.0				16.8	16.8	16.8				9.8	9.8	9.8	



ISOLATED GROUND SERVICE/CIRCUIT DETAIL

NTS

NEW ELECTRICAL POWER RISER DIAGRAM

1/24/06

Revisions		
No.	Date	DESCRIPTION
1	04/14/06	CD-R
2	04/25/06	CDF
3	01/15/08	MBD EQ. GEN. REV.
4		

PREPARED BY:
ENGINEERED BUILDING SYSTEMS, INC.
P.O. BOX 2735, 1317 SE FORT KING STREET
OCALA, FL 34471
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REVISIONS

1		

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SUBMITTALS

RENOVATION FOR:
EXPRESS CARE OF LEESBURG
PROJECT ADDRESS
LEESBURG, FLORIDA

NORTH

DATE
DATE

JOB #
0473

E-3 6

POWER RISER NOTES

1. PROVIDE 2 #8CU + GRD IN 1" CONDUIT TO SITE SIGNAGE LOCATED AT ENTRYS.(PROX. 300') REFER TO CIVIL SITE PLAN FOR EXACT LOCATION. PROVIDE DISCONNECT AS REQUIRED. PROVIDE (2) GRADE MOUNTED FLOOD LIGHTS ON CONCRETE BASE. PROVIDE ALL EXCAVATION, TRENCHING, BACK FILL AS REQUIRED TO ACCOMMODATE THIS PROJECT.
2. PROVIDE SPARE 120V. CIRCUIT AND 2"C. FOR DATA LINK TO DIGITAL SIGN. PROVIDE DISCONNECT AS REQUIRED. PROVIDE ALL EXCAVATION, TRENCHING, BACK FILL AS REQUIRED TO ACCOMMODATE THIS PROJECT.
3. PROVIDE 2 #8CU + GRD IN 1" CONDUIT TO SITE SIGNAGE LOCATED AT ENTRYS.(PROX. 200') REFER TO CIVIL SITE PLAN FOR EXACT LOCATION. PROVIDE DISCONNECT AS REQUIRED.
4. PROVIDE 2 #6CU + GRD IN 1" CONDUIT TO FLUSH GRADE PULL BOX LOCATED 5' OUTSIDE OF BUILDING FOR *FUTURE SITE ELECTRIC*. LOCATION TO BE DETERMINED PRIOR TO ANY WORK.
5. 24 HOUR 2-CIRCUIT ELECTRONIC TIME CLOCK WITH BATTERY BACK UP: INTERMATIC#ET279C.
6. LIGHTING CONTACTOR 'LC1': SQ. D CLASS 8903 TYPE LX 12-POLE WITH R6 2-WIRE CONTROL.
7. PULL BOX TO BE QUASITE STYLE PG W/12" GRAVEL BASE. ENGRAVED TOP "ELECTRIC"
8. PROVIDE PHOTOCELL: INTERMATIC #K4136M. MOUNT ON ROOF FACING NORTH.
9. SHUNT TRIP WITH BREAK GLASS MOUNTED ON EXTERIOR OF BUILDING. CONNECT TO NEW MDP FOR SIMULTANEOUS EMERGENCY DISCONNECT OF ALL ELECTRICAL POWER TO BUILDING. SQ. D OR EQUAL.
10. PROVIDE SURGE SUPPRESSION: EDCO SERIES BMC. PROVIDE OVERCURRENT PROTECTION.

FEEDER NOTES

FROM MDP TO PANEL 'P'	EXISTING TO REMAIN
FROM MDP TO PANEL 'L'	EXISTING TO REMAIN
FROM MDP TO PANEL 'M'	EXISTING TO REMAIN

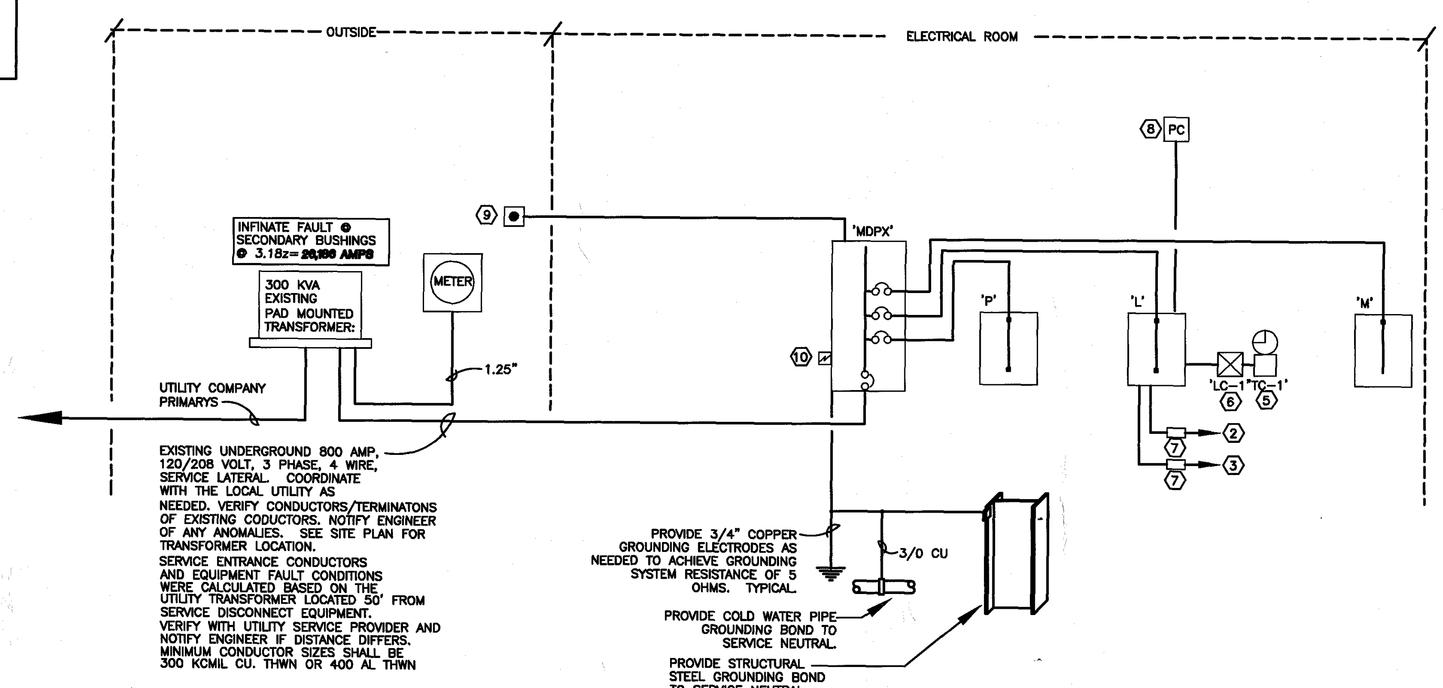
MDPX SCHEDULE

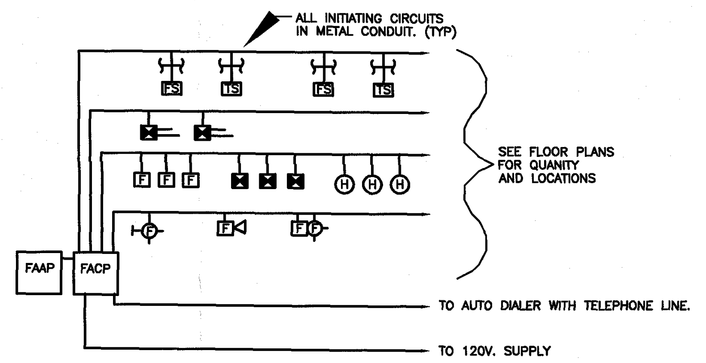
208/120 VOLT, 3 PHASE, 4 WIRE
800 AMP WITH MAIN CIRCUIT BREAKER
SURFACE MOUNTED

MAX. TOTAL LOAD 265.2
MAX. TOTALDEMAND 265.2
AVAILABLE FAULT DUTY 42K * AIR FULL RATING
REMARKS: EXISTING CHALLENGER PANEL & BREAKERS REINDEX WITH PERMENANT PHENOLIC PLATE

DESCRIPTION	KVA/PH A	B	C	CKT #	BRKR A/P	BREAKER TYPE	MOUNTING SPACE
PANEL 'P'	11.5	11.5	11.5	1	225/3		
PANEL 'L'	24.6	24.6	24.6	2	225/3		
PANEL 'M'	10.2	10.2	10.2	3	225/3		
PRIU-1	7.1	7.1	7.1	4	70/3		
PRIU-2	5.3	5.3	5.3	8	50/3		
PRIU-3	5.3	5.3	5.3	8	50/3		
PRIU-4	5.3	5.3	5.3	17	50/3		
CU-5	8.4	8.4	8.4	8	100/3		
ARU-5	10.5	10.5	10.5	0	90/3		
				10			
				11			
				12			
				13			
				14			
				15			
				16			
				17			
				18			
				19			
				20			
SURGE SUPPRESSION	–	–	–	21	30/3	–	–
TOTALS:	88.4	88.4	88.4				–

* VERIFY AIC RATINGS OF EXISTING EQUIPMENT. NOTIFY ENGINEER IF MINIMUM AIC REQUIREMENT AS INDICATED IS NOT MET.





- 'FACP' — FIRE ALARM CONTROL PANEL– EDWARDS EST-2 SERIES WITH (VOICE) DIGITAL ALARM COMMUNICATOR TRANSMITTE(DACT).
- 'FAAP' — FIRE ALARM ANNUNCIATOR PANEL– EDWARDS 2-LSRA-C SERIES.
- F — MANUAL STATION–EDWARDS SIGA #278.
- STROBE LIGHT–EDWARDS GENESIS SERIES. MINIMUM 75 CANDELA UNLESS OTHERWISE PERMITED BY CODE.
- AUDIBLE NOTIFICATION APPLIANCE– EDWARDS GENISIS SERIES.
- AUDIBLE/VISIBLE NOTIFICATION APPLIANCE– EDWARDS GENESIS SERIES.
- 'A' — SMOKE DETECTOR– EDWARDS SIGNATURE SIGA–PS. 'A' INDICATES AUXILIARY CONTACTS.
- DUCT SMOKE DETECTOR– EDWARDS WITH SAMPLING TUBES.
- R — DUCT DETECTOR REMOTE TEST STATION WITH LAMP
- 'A' — HEAT DETECTOR – EDWARDS SIGA–HRS. 'A' INDICATES AUXILIARY CONTACTS.
- PS — WATER FLOW SWITCH– EDWARDS SIGNATURE SIGA–WTM.
- TS — TAMPER SWITCH– EDWARDS SIGNATURE SIGA–CTI.

NOTES:
1. EQUAL BY SIMPLEX OR SIEMENS.
2. VERIFY ALL REQUIREMENTS WITH LOCAL FIRE MARSHALL PRIOR TO ANY WORK.

FIRE ALARM RISER
NO TRUE SCALE

P PANEL SCHEDULE

208/120 VOLT, 3 PHASE, 4 WIRE
225 AMP MLO
SURFACE MOUNTED
42 CKT
NEMA 1

TOTAL CONNECTED KVA 58.8
TOTAL DEMAND KVA 34.4
AVAILABLE FAULT DUTY 42K * AIR SERIES RATING
REMARKS: EXISTING CHALLENGER PANEL
REMOVE ALL EXISTING CIRCUITRY. PANEL AND BREAKERS WITH REQUIRED OCP AND AIC RATINGS MAY BE REUSED.

DESC	KVA A	B	C	CKT #	BRKR A/P	PHASE TOTAL A	B	C	BRKR A/P	CKT #	KVA A	B	C	DESC
RECEPT– PHARMACY	1.4			1	20/1				20/1	2	1.4			RECEPT– CANTEEN
RECEPT– PHARMACY		1.4		3	20/1				20/1	4		1.4		RECEPT– CANTEEN
RECEPT– PHARMACY			1.4	5	20/1				20/1	6			1.4	RECEPT– CANTEEN
RECEPT– PHARMACY	1.4			7	20/1				20/1	8	1.4			RECEPT– CANTEEN
RECEPT– PHARMACY		1.4		9	20/1				20/1	10		1.4		RECEPT– CANTEEN
RECEPT– PHARMACY			1.4	11	20/1				20/1	12			1.4	RECEPT– CANTEEN
RECEPT– OFFICE/CORR	1.4			13	20/1				20/1	14	1.4			RECEPT– OFFICE/STORE
RECEPT– BILL/CORR/RECEPT		1.4		15	20/1				20/1	16		1.4		RECEPT– CANTEEN/JANITOR
RECEPT– WAIT/EWC			1.4	17	20/1				20/1	18			1.4	RECEPT– CANTEEN/EWC
RECEPT– OFF/DATA/EXAM	1.4			19	20/1				20/1	20	1.4			RECEPT– EXAM
RECEPT– OFF/RECEPTION		1.4		21	20/1				20/1	22		1.4		RECEPT– EXAM
RECEPT– RECEPTION/EXAM			1.4	23	20/1				20/1	24			1.4	RECEPT– EXAM
RECEPT– XRAY	1.4			25	20/1				20/1	26	1.4			RECEPT– BILL/OFF/STORAGE
RECEPT– C/T		1.4		27	20/1				20/1	28		1.4		RECEPT– EXAM/OFF/CORR
RECEPT– MRI			1.4	29	20/1				20/1	30			1.4	RECEPT– RECEPTION
RECEPT– ELEC/WAIT/ENTRY	1.4			31	20/1				20/1	32	1.4			RECEPT– WORK STATION
RECEPT– STRESS		1.4		33	20/1				20/1	34		1.4		RECEPT– NURSE STATION
RECEPT– CONTROL ROOM			1.4	35	20/1				20/1	36			1.4	RECEPT– BILL/STORAGE
RECEPT– RECP/ULTRA SOND	1.4			37	20/1				20/1	38	1.4			RECEPT– EXAM
RECEPT– BONE DENS/CORR		1.4		39	20/1				20/1	40		1.4		RECEPT– EXAM
RECEPT– MAMO/WAIT			1.4	41	20/1				20/1	42			1.4	RECEPT– EXAM
TOTALS:	9.8	9.8	9.8			19.6	19.6	19.6			9.8	9.8	9.8	

* VERIFY AIC RATINGS OF EXISTING EQUIPMENT. NOTIFY ENGINEER IF MINIMUM AIC REQUIREMENT AS INDICATED IS NOT MET.

L PANEL SCHEDULE

208/120 VOLT, 3 PHASE, 4 WIRE
225 AMP MLO
SURFACE MOUNTED
42 CKT
NEMA 1

TOTAL CONNECTED KVA 67.7
TOTAL DEMAND KVA 74.0
AVAILABLE FAULT DUTY 42K * AIR SERIES RATING
REMARKS: EXISTING CHALLENGER PANEL
REMOVE ALL EXISTING CIRCUITRY. PANEL AND BREAKERS WITH REQUIRED OCP AND AIC RATINGS MAY BE REUSED.

DESC	KVA A	B	C	CKT #	BRKR A/P	PHASE TOTAL A	B	C	BRKR A/P	CKT #	KVA A	B	C	DESC
LTS– MEZ.ELECT. RM.	1.5			1	20/1				20/1	2	1.5			LTS– TEL/EXAM/STOR/RECP
LTS– GANG TOILETS		1.5		3	20/1				20/1	4		1.5		LTS– RECEPTION
LTS– OFFICES			1.5	5	20/1				20/1	6			1.5	LTS– OFF/WAIT/TOILET
SPARE	1.5			7	20/1				20/1	8	1.5			LTS– OFF/WORK/RELEASE
SPARE		1.5		9	20/1				20/1	10		1.5		LTS– LOBBY COVE
SPARE			1.5	11	20/1				20/1	12			1.5	LTS– SPARE
LTS– EXAM/TOILET/ADMIN	1.5			13	20/1				20/1	14	1.5			LTS– PHARMACY
LTS– EXAM/OFFICE/STORAGE		1.5		15	20/1				20/1	16		1.5		LTS– PHARMACY
LTS– SPARE			1.5	17	20/1				20/1	18			1.5	LTS– LOBBY
LTS– EXAM	1.5			19	20/1				20/1	20	1.5			LTS– LOBBY CHAND/COVE
LTS– NURSE STATION		1.5		21	20/1				30/2	22		2.3		LTS– CANOPY
LTS– TOILET/STORAGE			1.5	23	20/1				–	24			2.3	LTS– CANOPY
LTS– EXAM/	1.5			25	20/1				30/2	26	2.3			LTS– CANOPY
LTS– ULTRASOUND		1.5		27	20/1				–	28		2.3		LTS– CANOPY
LTS– SPARE			1.5	29	20/1				20/1	30			1.5	LTS– R/F–TOILET
LTS– MRI	1.5			31	20/1				20/1	32	1.5			LTS– PHASE 2
LTS– MRI		1.5		33	20/1				20/1	34		1.5		LTS– PHASE 2
LTS– MRI			1.5	35	20/1				20/1	36			1.5	LTS– PHASE 2
LTS– SIGN	1.5			37	20/1				20/1	38	1.5			LTS– PHASE 2
LTS– MRI–C/T CONTROL		1.5		39	20/1				20/1	40		1.5		LTS– PHASE 2
SPARE			1.5	41	20/1				20/1	42			1.5	LTS– PHASE 2
TOTALS:	10.5	10.5	10.5			21.8	24.1	21.8			11.3	13.6	11.3	

* VERIFY AIC RATINGS OF EXISTING EQUIPMENT. NOTIFY ENGINEER IF MINIMUM AIC REQUIREMENT AS INDICATED IS NOT MET.

M PANEL SCHEDULE

208/120 VOLT, 3 PHASE, 4 WIRE
225 AMP MLO
SURFACE MOUNTED
42 CKT
NEMA 1

TOTAL CONNECTED KVA 59.6
TOTAL DEMAND KVA 36.2
AVAILABLE FAULT DUTY 42K * AIR SERIES RATING
REMARKS: EXISTING CHALLENGER PANEL
REMOVE ALL EXISTING CIRCUITRY. PANEL AND BREAKERS WITH REQUIRED OCP AND AIC RATINGS MAY BE REUSED.

DESC	KVA A	B	C	CKT #	BRKR A/P	PHASE TOTAL A	B	C	BRKR A/P	CKT #	KVA A	B	C	DESC
EXTERIOR SCONCES	1.4			1	20/1				20/1	2	1.4			RECEPT– OFFICE
TREADMILL		1.4		3	20/2				20/1	4		1.4		RECEPT– OFFICE
–			1.4	5	–				20/1	6			1.4	RECEPT– OFFICE/CORR/BRAK
EHW–EXISTING	2.3			7	30/2				20/1	8	1.4			RECEPT– BREAK
–		2.3		9	–				20/1	10		1.4		RECEPT– BREAK
RECEPT– NURSE STATION			1.4	11	20/1				20/1	12			1.4	RECEPT– BREAK
RECEPT– PHARMACY	1.4			13	20/1				20/1	14	1.4			RECEPT– BREAK
RECEPT– PHARMACY		1.4		15	20/1				20/1	16		1.4		RECEPT– BILLING
RECEPT– PHARMACY			1.4	17	20/1				20/1	18			1.4	RECEPT– SPARE
LAB	1.4			19	20/1				20/1	20	1.4			RECEPT– EXAM PHASE 2
LAB		1.4		21	20/1				20/1	22		1.4		RECEPT– EXAM PHASE 2
LAB			1.4	23	20/1				20/1	24			1.4	RECEPT– EXAM PHASE 2
RECEPT– PHYSICAL THERAPY	1.4			25	20/1				20/1	26	1.4			RECEPT– EXAM PHASE 2
EWH–1		2.3		27	30/3				20/1	28		1.4		RECEPT– EXAM PHASE 2
–			2.3	29	–				20/1	30			1.4	RECEPT– EXAM PHASE 2
RECEPT– EXAM	1.4			31	20/1				20/1	32	1.4			RECEPT– EXAM PHASE 2
RECEPT– C/T		1.4		33	20/1				20/1	34		1.4		RECEPT– EXAM PHASE 2
RECEPT– C/T–MR1 CONTROL			1.4	35	20/1				20/1	36			1.4	RECEPT– EXAM PHASE 2
SPARE	–			37	20/1				20/1	38	1.4			RECEPT– RECEPT PHASE 2
SPARE		–		39	20/1				20/1	40		1.4		RECEPT– RECEPT PHASE 2
SPARE			–	41	20/1				20/1	42			1.4	RECEPT– EXAM PHASE 2
TOTALS:	9.3	10.2	10.7			19.1	20.0	20.5			9.8	9.8	9.8	

* VERIFY AIC RATINGS OF EXISTING EQUIPMENT. NOTIFY ENGINEER IF MINIMUM AIC REQUIREMENT AS INDICATED IS NOT MET.

MINIMUM CONDUCTOR SIZES

(FURNISH IN ACCORDANCE WITH THIS SCHEDULE UNLESS OTHERWISE NOTED)
(ALL WIRES ARE TO BE COPPER, THHN, UNLESS OTHERWISE NOTED)

CIRCUIT PROTECTION	CURRENT CARRYING AND NUETRAL CONDUCTOR	GROUND CONDCUTOR
0–20A	#12	#12
21–30A	#10	#10
31–50A	#8	#10
51–70A	#4	#8
71–115A	#2	#6

EXISTING ELECTRICAL POWER RISER DIAGRAM

NORTH

Revisions		
No.	Date	DESCRIPTION
1	04/14/06	CD-R
2	04/28/06	CDF
3	.	.
4	.	.

1/24/06

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REVISIONS

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SUBMITTALS

RENOVATION FOR:
EXPRESS CARE OF LEESBURG
PROJECT ADDRESS
LEESBURG, FLORIDA

DATE
DATE

JOB #
0473

E-4 8

LIGHTING FIXTURE SCHEDULE

TAG	DESCRIPTION	MFG	MODEL NUMBER	LAMP(S)	VOLT	NOTE	EQUAL MFG.
A	7" RECESSED HORIZONTAL DOWNLIGHT IRIDESCENCE FREE ALZAK ALUMINUM REFLECTOR	LIGHTOLIER	8037-CLW-7142B-U	(1) 42W CF	120	–	LITHONIA DAYBRITE
A1	7" RECESSED HORIZONTAL DOWNLIGHT IRIDESCENCE FREE ALZAK ALUMINUM REFLECTOR. PROVIDE EMERGENCY BALLAST	LIGHTOLIER	8037-CLW-7142B-U-EM	(1) 42W CF	120	–	LITHONIA DAYBRITE
B	2-LAMP 2X4 LAY-IN TROFFER W/PRISMATIC LENS AND FLAT ALUMINUM DOOR	LIGHTOLIER	SPS2GFAV1232-SO	(2) 32W TB	120	–	LITHONIA DAYBRITE
B1	2-LAMP 2X4 LAY-IN TROFFER W/PRISMATIC LENS AND FLAT ALUMINUM DOOR PROVIDE EMERGENCY BALLAST	LIGHTOLIER	SPS2GFAV1232-SO-EM	(2) 32W TB	120	–	LITHONIA DAYBRITE
C	3-LAMP 2X4 LAY-IN TROFFER W/PRISMATIC LENS AND FLAT ALUMINUM DOOR	LIGHTOLIER	SPS2GFAV1332-03	(3) 32W TB	120	–	LITHONIA DAYBRITE
C1	3-LAMP 2X4 LAY-IN TROFFER W/PRISMATIC LENS AND FLAT ALUMINUM DOOR PROVIDE EMERGENCY BALLAST	LIGHTOLIER	SPS2GFAV1332-03-EM	(3) 32W TB	120	–	LITHONIA DAYBRITE
D	4-LAMP 2X4 LAY-IN TROFFER W/PRISMATIC LENS AND FLAT ALUMINUM DOOR	LIGHTOLIER	SPS2GFAV1432-03	(4) 32W TB	120	–	LITHONIA DAYBRITE
D1	4-LAMP 2X4 LAY-IN TROFFER W/PRISMATIC LENS AND FLAT ALUMINUM DOOR PROVIDE EMERGENCY BALLAST	LIGHTOLIER	SPS2GFAV1432-03-EM	(4) 32W TB	120	–	LITHONIA DAYBRITE
E	3-LAMP 2X4 RECESSED 3" DEEP PARABOLIC LOW IRIDESCENCE SEMI-SPECULAR ALUM. LOUVER.	LIGHTOLIER	DPS-2G18LS332-120-03	(3) 32W TB	120	–	LITHONIA DAYBRITE
E1	3-LAMP 2X4 RECESSED 3" DEEP PARABOLIC LOW IRIDESCENCE SEMI-SPECULAR ALUM. LOUVER. PROVIDE EMERGENCY BALLAST	LIGHTOLIER	DPS-2G18LS332-120-EM-03	(3) 32W TB	120	–	LITHONIA DAYBRITE
F	2-LAMP 6"x4' WALL/CEILING MOUNTED WITH PRISMATIC LENS. PROVIDE EMERGENCY BATTERY BACK-UP	LIGHTOLIER	LSW432120-SO	(2) 32W TB	120	–	LITHONIA DAYBRITE
F1	2-LAMP 6"x4' WALL/CEILING MOUNTED WITH PRISMATIC LENS. PROVIDE EMERGENCY BATTERY BACK-UP	LIGHTOLIER	LSW432120-SO-EM	(2) 32W TB	120	–	LITHONIA DAYBRITE
G	3' UNDER CABINET TASK LIGHT WITH WRAPPED PRISMATIC LENS.	LIGHTOLIER	TCU30120SO	(1) 25W TB	120	1	LITHONIA DAYBRITE
H	4' UNDER CABINET TASK LIGHT WITH WRAPPED PRISMATIC LENS.	LIGHTOLIER	TCU40120SO	(1) 32W TB	120	1	LITHONIA DAYBRITE
I	NOT USED	–	–	–	–	–	–
J	4' 2-LAMP WALL UP-DOWN FLUORESCENT WITH ACRYLIC DIFFUSER MOUNTED 2" ABOVE MIRROR	LIGHTOLIER	5404P-CU	(2) 32W TB	120	–	LITHONIA DAYBRITE
K	WALL MOUNTED 2" OVER MIRROR POLISHED CHROME FINISH UP/DOWN	LIGHTOLIER	46132-PC	(3) 75W A-19	120	–	LITHONIA DAYBRITE
L	3" LENSED DOWNLIGHT WITH CLEAR HIGH TEMP LENS	LIGHTOLIER	C3MRGD-C3LVE1	(1) 50W TB	120	–	LITHONIA DAYBRITE
M	4.5" INCANDESCENT DOWNLIGHT WITH MULTI-GROOVE BAFFLE	LIGHTOLIER	7053-MG-A400	(1) 100W A19 FROSTED	120	–	LITHONIA DAYBRITE
N	3-LAMP 2X2 RECESSED 3" DEEP PARABOLIC LOW IRIDESCENCE SEMI-SPECULAR ALUM. LOUVER.	LIGHTOLIER	DPS-2G9LP317-120-SO	(3) 17W TB	120	–	LITHONIA DAYBRITE
N1	3-LAMP 2X2 RECESSED 3" DEEP PARABOLIC LOW IRIDESCENCE SEMI-SPECULAR ALUM. LOUVER. PROVIDE EMERGENCY BALLAST	LIGHTOLIER	DPS-2G9LP317-120-SO-EM	(3) 17W TB	120	–	LITHONIA DAYBRITE
O	NOT USED	–	–	–	–	–	–
P	INCAND. NON-FERROUS MRI DOWNLIGHT WITH BLACK STEP MULTI-GROOVE BAFFLE	PEACHTREE	PMRI-7150-B	(1) 150W A-21	120	–	LITHONIA DAYBRITE
Q	PENDANT MOUNTED WHITE SHADE WITH ENCLOSED LAMP ON COAXIAL CABLE	LIGHTOLIER	42230AL-86130AL-56361	(1) 35W T-4 HALOGEN	120	3	LITHONIA DAYBRITE
R	1-LAMP SURFACE MOUNT STAGGERED STRIP WITH INTERNAL FUSING	LIGHTOLIER	SS(x)1(x)120-SO-GLR	(1) 32W T-8	120	2	LITHONIA DAYBRITE
S	3-LAMP 2X2 LAY-IN TROFFER W/PRISMATIC LENS AND FLAT ALUMINUM DOOR	LIGHTOLIER	SPS2GFAV1317-03	(3) 17W TB	120	–	LITHONIA DAYBRITE
S1	3-LAMP 2X2 LAY-IN TROFFER W/PRISMATIC LENS AND FLAT ALUMINUM DOOR PROVIDE EMERGENCY BALLAST	LIGHTOLIER	SPS2GFAV1317-03-EM	(3) 17W TB	120	–	LITHONIA DAYBRITE
T	CHANDELIER:PROVIDE 200 LB. BACK BOX SUPPORT.	–	$750.00 ALLOWANCE	– –	120	–	LITHONIA DAYBRITE
U	EXTERIOR SURFACE MOUNTED CANOPY LUMINARE WHITE POWDERCOAT CORR. RESIST. HOUSING PRISM. REFRACTOR	EXCELINE	PF-400-MA-L-1	(1)400W MH	120	–	LITHONIA DAYBRITE
V	17" EXTERIOR SURFACE MOUNTED WHITE DIE CAST CERAMIC COATED GLASS FULL GASKETES WET LABEL	LIGHTOLIER	4533WHH1	(2) 26W CF	120	–	LITHONIA DAYBRITE
W	12" EXTERIOR SURFACE MOUNTED WHITE DIE CAST CERAMIC COATED GLASS FULL GASKETES WET LABEL	LIGHTOLIER	4532WHN1	(2) 13W CF	120	–	LITHONIA DAYBRITE
EX	SINGLE FACE UNIVERSAL MOUNT/ARROWS BRUSHED ALUMINUM, GREEN LETTERS WITH BACK-UP BATTERY	LIGHTOLIER	LD-N-1-G-N	FURNISHED	120	–	LITHONIA CHLORIDE
EX2	DOUBLE FACE UNIVERSAL MOUNT/ARROWS BRUSHED ALUMINUM, GREEN LETTERS WITH BACK-UP BATTERY	LIGHTOLIER	LD-N-2-G-N	FURNISHED	120	–	LITHONIA CHLORIDE
EM	SELF CONTAINED SURFACE DUAL EMERGENCY LIGHT WITH INTERGAL TEST MODULE	LIGHTOLIER	E8-W	FURNISHED	120	–	CHLORIDE LITHONIA

LIGHT FIXTURE NOTES – SPECIFIC

1. PROVIDE MINIMUM 0.125" SPACING FOR AIR GAP BETWEEN FIXTURE AND MILLWORK FOR HEAT DISSIPATION. DO NOT MOUNT DIRECTLY TO THE UNDERSIDE OF CABINETRY.
2. PROVIDE FIXTURE IN LENGTHS TO ACCOMODATE END TO END MOUNTING WITH MAXIMUM 6" SPACE AT INTERSECTIONS. COORDINATE WITH ARCHITECTURAL COVE.
3. MOUNT FIXTURE 60" ABOVE COUNTER.

MECHANICAL ELECTRICAL CONNECTION SCHEDULE

SYSTEM DESIGNATION	(EXISTING) PRTU-1	(EXISTING) PRTU-2	(EXISTING) PRTU-3	(EXISTING) PRTU-4	(EXISTING) AHU-5 CU-5	(NEW) AHU-6 CU-6	(NEW) AHU-6 CU-6	(NEW) AHU-7 CU-7	(NEW) AHU-8 CU-8	(NEW) AHU-9 CU-9	(NEW) AHU-10 CU-10	(NEW) AHU-11 CU-11	(NEW) AHU-12 CU-12
SYSTEM AND AREA SERVED	LOBBY/ CANTINA	PHARMACY/ RECEPT/BOOKS	PHYSICAL THERAPY	BREAK/ OFFICES	EXAM PHASE II	EXAM PHASE I	EXAM PHASE I	IMAGING CENTER	WOMEN'S CENTER	X-RAY	CT SCAN	MRI/ CONTROL ROOM	LAB
MATCHED SPLIT SYSTEM DESCRIPTION	10 TON SC	7.5 TON SC	7.5 TON SC	7.5 TON SC	10 TON SC	10 TON SC 7.5 KW SH	10 TON SC 7.5 KW SH	3 TON SC 5.76 KW SH	4 TON SC 5.76 KW SH	1 TON HP 0 KW SH	1 TON HP 0 KW SH	5 TON SC 7.2 KW SH	3 TON HP 0 KW SH
CONDENSING UNIT(S)													
VOLTAGE/PHASE	208/3	208/3	208/3	208/3	208/3	208/3	–	208/3	208/3	208/1	208/1	208/3	208/1
MCA	81	44	44	44	69.6	48.1	–	15	19.0	7.6	7.6	24	–
RECOMMENDED OCP	70	50	50	50	100	60	–	25	30	20	20	40	–
DISCONNECT SIZE/TYPE	EXISTING	EXISTING	EXISTING	EXISTING	EXISTING	250/3/60 N3R/HD/F	–	250/3/60 N3R/HD/F	250/3/30 N3R/HD/F	250/2/30 N3R/HD/F	250/2/30 N3R/HD/F	250/2/60 N3R/HD/F	250/2/30 N3R/HD/F
CONDUCTOR/CONDUIT	EXISTING	EXISTING	EXISTING	EXISTING	EXISTING	(3)#6+GRD IN 1.0"C	–	(3)#10+GRD IN 0.75"C	(3)#10+GRD IN 0.5"C	(2)#12+GRD IN 0.5"C	(2)#12+GRD IN 0.5"C	(3)#8+GRD IN 0.75"C	(2)#12+GRD IN 0.5"C
CIRCUIT NUMBER	EXISTING	EXISTING	EXISTING	EXISTING	EXISTING	M1-7:9:11	–	M1-17:19:21	M1-27:29:31	M1-2:4	M1-6:8	M1-22:24:26	M1-18:20
	MDPX-4	MDPX-5	MDPX-6	MDPX-7	MDPX-8								
AIR HANDLING UNIT	EXISTING	EXISTING	EXISTING	EXISTING	EXISTING								
BLOWER HORSEPOWER					–		2.00	0.5	0.5	–	–	0.5	–
VOLTAGE/PHASE					208/3	208/3	208/3	208/1	208/1	–	–	208/3	–
MCA					87.5	20.8	7.5	37.0	39.0	–	–	37	–
RECOMMENDED OCP					90	30	20	40	40	–	–	40	–
CFM						–	4000	–	–				
ELECTRIC RESISTANCE HEAT													
KW					20	7.5	–	5.76	5.76	–	–	7.2	–
VOLTAGE/PHASE					208/3	208/3	–	208/1	208/1	–	–	208/3	–
DISCONNECT SIZE/TYPE					EXISTING	250/3/30 NEMA1/HD/F	250/3/30 NEMA1/HD/F	250/2/60 NEMA1/HD/F	250/2/60 NEMA1/HD/F	CORD/PLUG RATED SWITCH	CORD/PLUG RATED SWITCH	250/3/60 NEMA1/HD/F	CORD/PLUG RATED SWITCH
CONDUCTOR/CONDUIT					EXISTING	(3)#10+GRD IN 0.5"C.	(3)#10+GRD IN 0.5"C.	(2)#10+GRD IN 0.5"C.	(2)#10+GRD IN 0.5"C.	(2)#12+GRD IN 0.5"C.	(2)#12+GRD IN 0.5"C.	(3)#8+GRD IN 0.75"C.	(2)#12+GRD IN 0.5"C.
					EXISTING								
CIRCUIT NUMBER					MDPX-9	M1-1:3:5	EDP-4	M1-13:15	M1-23:25	FROM CU	FROM CU	M1-28:30:32	FROM CU

NOTES:
1. VERIFY ACTUAL INSTALLED EQUIPMENT NAME PLATE RATINGS PRIOR TO ANY WORK.
2. FUSES INSTALLED IN DISCONNECT SWITCHES SHALL BE PER SIZED PER MANUFACTURES RECOMMENDATION.
3. ALL EXISTING UNITS TO USE EXISTING FEEDERS AND OCP. PROVIDE RECEPTACLE AND LIGHT AT EQUIPMENT LOCATION.

FINAL REVIEW SET

REVISIONS

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SUBMITTALS

LIGHT FIXTURE NOTES – GENERAL

1. ALL FLUORESCENT FIXTURES SHALL BE PROVIDED WITH ELECTRONIC BALLAST UNLESS OTHERWISE NOTED.
2. ALL LINEAR FLUORESCENT LAMPS SHALL BE T-8 OCTRON W/3500K WITH MINIMUM 82 CRI RATING UNLESS OTHERWISE NOTED.
3. ALL COMPACT FLUORESCENT LAMPS SHALL BE 4-PIN, 3500/K WITH MINIMUM 82 CRI RATING UNLESS OTHERWISE NOTED.
4. ALL INCANDESCENT FILAMENT LAMPS SHALL BE RATED 130 VOLT UNLESS OTHERWISE NOTED.
5. COORDINATE THE AIMING OF ALL ACCENT FIXTURES WITH ENGINEER PRIOR TO INSTALLATION.
6. IN ORDER FOR ANY FIXTURE TO BE CONSIDERED 'EQUAL' TO THAT WHICH IS SPECIFIED, THE FIXTURE AND ALL COMMONEST MUST BE MANUFACTURED IN TYPE, SIZE, COLOR, FUNCTION, DIMENSIONS, ETC.. THE SAME OR SUPERIOR TO THAT WHICH IS SPECIFIED, AND AT THE ENGINEERS REQUEST, A SAMPLE OF THE FIXTURE SHALL BE SUBMITTED PRIOR TO APPROVAL.
7. DIVISION 16 CONTRACTOR SHALL BE RESPONSIBLE TO COORDINATE CEILING TYPES WITH CEILING CONTRACTOR PRIOR TO ORDERING OF FIXTURES.
8. ALL FLUORESCENT FIXTURES EXPOSED TO OUTSIDE AMBIENT AIR TEMPERATURES SHALL BE EQUIPPED WITH 0° (COLD WEATHER) BALLAST UNLESS OTHERWISE NOTED.
9. ALL LIGHTING CALCULATIONS HAVE BEEN BASED ON SPECIFIED FIXTURES EQUIPPED WITH OSRAM/SYLVANIA LAMPS. PROVIDE THE QUICKTRONIC FLUORESCENT SYSTEM WITH WARRANTY OR EQUAL.
10. FLUORESCENT BATTERY INVERTERS SHALL BE RATED 1100 LUMENS.
11. ALL NON IC RATED FIXTURES SHALL BE INSTALLED PER NEC 410.66. PROVIDE A PHYSICAL PROTECTIVE BARRIER ACCEPTABLE TO THE AUTHORITY HAVING JURISDICTION WHERE INSULATION IS INSTALLED ABOVE OR INFRINGES ON THE 3" CLEARANCE AS DESCRIBED BY CODE. ALL INSTALLATIONS SHALL BE PER MFG RECOMMENDATIONS.
12. ALL LIGHT FIXTURES INSTALLED IN FIRE RATED CEILINGS SHALL MEET ALL CODE REQUIREMENTS AND WILL BE THE RESPONSIBILITY OF THE DIVISION 16 ELECTRICAL CONTRACTOR.

ELECTRICAL SCHEDULES AND NOTES

NORTH

Revisions		
No	Date	DESCRIPTION
4	04/14/06	CD-R
3	04/28/06	CDF
2	08/08/06	E8I-1 - E8I-2 UPDATE
1	01/18/06	MED EQ.- GEN. REV.

11/24/06

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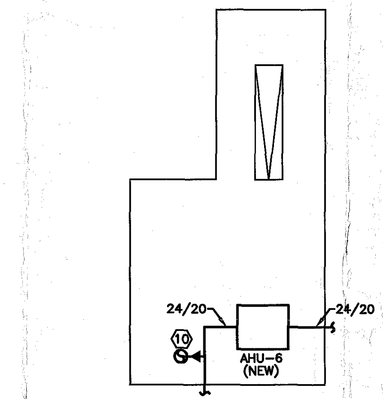
RENOVATION FOR:
EXPRESS CARE OF LEESBURG
PROJECT ADDRESS
LEESBURG, FLORIDA

DATE
DATE

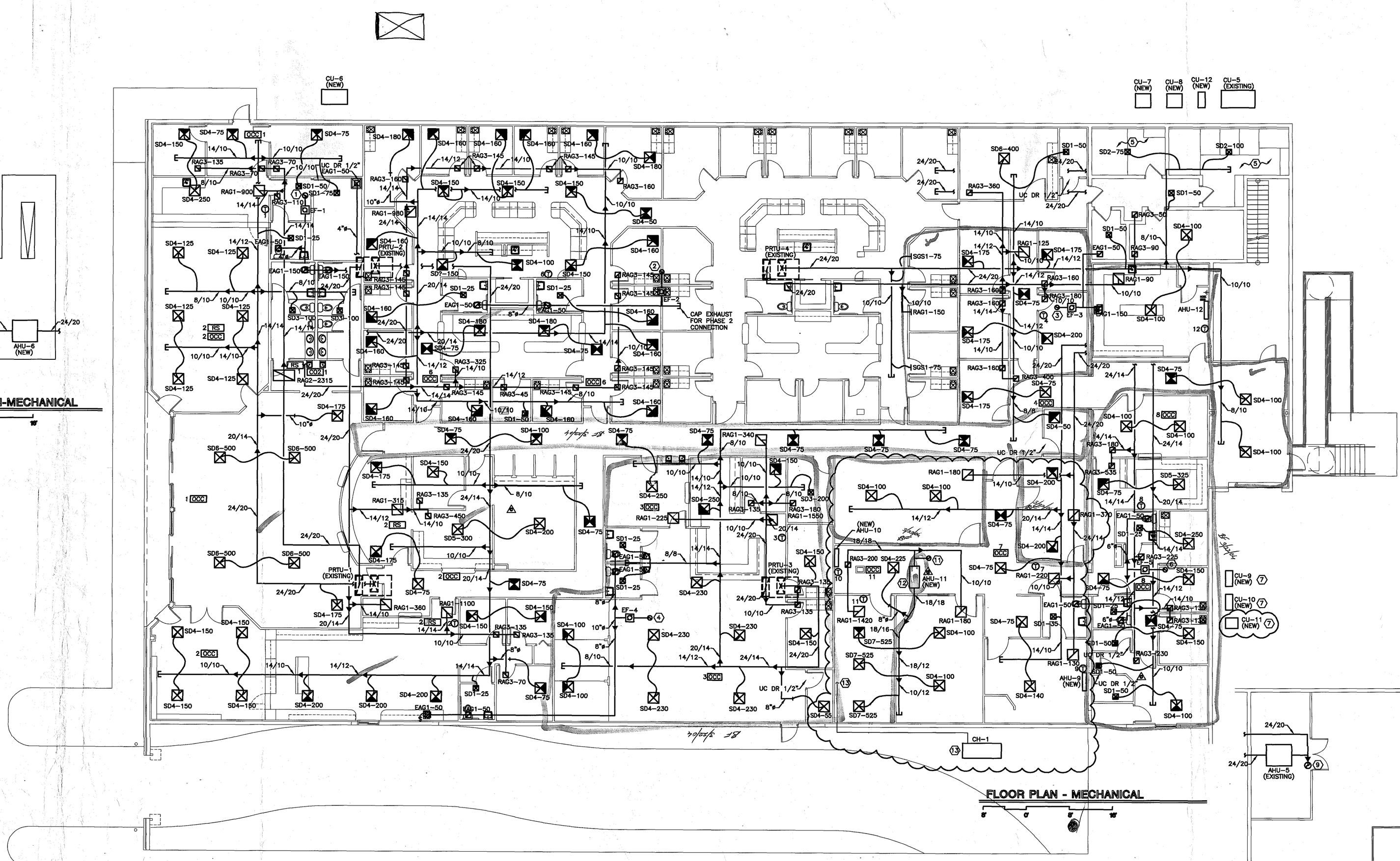
JOB #
0473

E-5 8



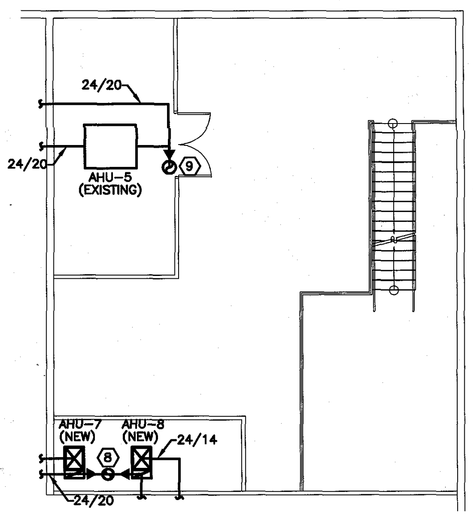
MEZZANINE PLAN-MECHANICAL

0' 0' 5' 10'



FLOOR PLAN - MECHANICAL

0' 0' 5' 10'

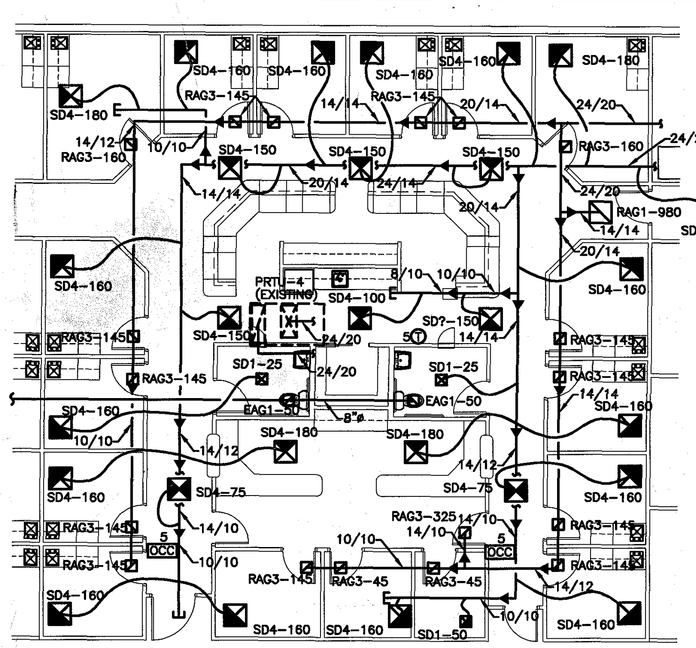


MEZZANINE PLAN-MECHANICAL

0' 0' 5' 10'

PLAN NOTES-MECHANICAL

1. 12"ø EXHAUST AIR DUCTWORK FROM EF-1 UP TO GOOSENECK VENT.
2. 10"ø EXHAUST AIR DUCTWORK FROM EF-2 UP TO GOOSENECK VENT.
3. 10"ø EXHAUST AIR DUCTWORK FROM EF-3 UP TO GOOSENECK VENT.
4. 10"ø EXHAUST AIR DUCTWORK FROM EF-4 UP TO GOOSENECK VENT.
5. EXHAUST SYSTEMS IN EXISTING RESTROOM TO REMAIN. CONNECT EXISTING AIR DISTRIBUTION DEVICES TO NEW DUCTWORK AS SHOWN.
6. 10"ø EXHAUST AIR DUCTWORK FROM EF-5 UP TO GOOSENECK VENT.
7. MOUNT CONDENSING UNITS ON WALL BRACKET NO LESS THAN 12' AFF.
8. 12"ø OUTDOOR AIR DUCTWORK FROM AHU-7 AND AHU-8 UP TO GOOSENECK VENT.
9. 14"ø OUTDOOR AIR DUCTWORK FROM AHU-5 UP TO GOOSENECK VENT.
10. 14"ø OUTDOOR AIR DUCTWORK FROM AHU-6 UP TO GOOSENECK VENT.
11. 12"ø OUTDOOR AIR DUCTWORK FROM AHU-11 UP TO GOOSENECK VENT.
12. SUSPEND AIR HANDLING UNIT AHU-11 FROM ROOF STRUCTURE IN LOCATION AS SHOWN. ALL DUCTWORK AND AIR DISTRIBUTION DEVICES ASSOCIATED WITH AHU-11 (MRI) TO BE CONSTRUCTED OF ALUMINUM.
13. CHILLER CH-1 AS PROVIDED BY MEDICAL EQUIPMENT SUPPLIER. PROVIDE 1.25" GLYCOL LINES FROM CHILLER CH-1 TO MANIFOLD IN MRI EQUIP. ROOM. SEE "TOSHIBA" EQUIPMENT DRAWINGS FOR COORDINATION OF ALL PIPING TERMINATIONS ASSOCIATED WITH CHILLER. COORDINATE FINAL LOCATION OF CHILLER WITH EQUIPMENT SUPPLIER.



PHASE II FLOOR PLAN - MECHANICAL

0' 0' 5' 10'

Revisions		
No.	Date	DESCRIPTION
1	04/14/05	CD-R
2	04/29/05	CDF
3	06/09/05	ESH-1 - ESH-2 UPDATE
4	01/18/06	MED EQ. - GEN. REV.

NORTH

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REVISIONS

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SUBMITTALS

RENOVATION FOR:
EXPRESS CARE OF LEESBURG
PROJECT ADDRESS
LEESBURG, FLORIDA

DATE
DATE

JOB #
0473

M-1 4

AIR CONDITIONING AND HEATING EQUIPMENT SCHEDULE

	(EXISTING) PRTU-1	(EXISTING) PRTU-2	(EXISTING) PRTU-3	(EXISTING) PRTU-4	(EXISTING) AHU-5 CU-5	(NEW) AHU-6 CU-6	(NEW) ⚠1 AHU-7 CU-7	(NEW) AHU-8 CU-8	(NEW) AHU-9 CU-9	(NEW) AHU-10 CU-10	(NEW) ⚠1 AHU-11 CU-11	(NEW) AHU-12 CU-12
SYSTEM AND AREA SERVED	LOBBY/ CANTINA	PHARMACY/ RECEPT/BOOKS	PHYSICAL THERAPY	BREAK/ OFFICES	EXAM PHASE II	EXAM PHASE I	IMAGING CENTER	WOMEN'S CENTER	X-RAY	CT SCAN	MRI/ CONTROL ROOM	LAB
MATCHED SPLIT SYSTEM OR PRTU DESCRIPTION	10 TON SC	7.5 TON SC	7.5 TON SC	7.5 TON SC	10 TON SC	10 TON SC 7.5 KW SH	3 TON SC 5.76 KW SH	4 TON SC 5.76 KW SH	1 TON HP 0 KW SH	1 TON HP 0 KW SH	5 TON SC 7.2 KW SH	3 TON HP 0 KW SH
MANUFACTURER OF	TRANE	TRANE	TRANE	TRANE	CARRIER	TRANE	TRANE	TRANE	EMI	EMI	TRANE	EMI
CU & AHU OR PRTU	TCD120B3	TCD090C3	TCD090C3	TCD090C3	38AE-012	TTA120B3	2TTA2036A3	TTA048C3	CHW 12D-B	CHW 12D-B	2TTA2060A3	SHC 36
CU OR PRTU MODEL #						CU-6	CU-7	CU-8	CU-9	CU-10	CU-11	CU-12
COOLING CAPACITY (MBTUH)	EXISTING TO REMAIN	EXISTING TO REMAIN	EXISTING TO REMAIN	EXISTING TO REMAIN	EXISTING TO REMAIN	123.0	35.6	49.5	12.0	12.0	60.5	33.0
SEER						–	12.25	10.0	10.0	10.0	13.0	10.0
EER						8.9	10.75	–	–	–	11.2	–
COP						–	–	–	–	–	–	–
HSPF						–	–	–	6.8	6.8	–	6.8
IPLV						9.8	–	–	–	–	–	–
NO OF COMPRESSORS						2	1	1	1	1	1	1
STAGES PER COMPRESSOR						1	1	1	1	1	1	1
VOLTAGE/PHASE						208/3	208/3	208/3	208/1	208/1	208/3	208/1
MCA						48.1	15	19	7.6	7.6	24	19.8
RECOMMENDED OCP						60	25	30	20	20	40	30
APPROX. DIM LxWxH (IN)						51x38x39	30x27x37	33x28x29	32x11x21	32x11x21	34x30x42	44x14x26
APPROX. WT (LBS)						550	250	250	65	65	300	160
AHU MODEL #						TWE120B3	TWE036P13	TWE048P13	AHW 12D-B	AHW 12D-B	TWE063P13	WHP 36
AIR VOLUME (CFM)						4000	1200	1600	320	320	2000	750
ESP (IN WATER)/BHP						1.2/1.9	0.4/–	0.5/–	–	–	0.50/–	–
EVAPORATOR COIL						W/AHU	W/AHU	W/AHU	W/AHU	W/AHU	W/AHU	W/AHU
BLOWER HORSEPOWER						2.00	0.33	0.5	–	–	0.75	–
VOLTAGE/PHASE						208/3	208/1	208/1	–	–	208/3	–
MCA						8	39	39	–	–	37	–
RECOMMENDED OCP						20	40	40	–	–	40	–
FILTER RACK SIZE						2"	2"	2"	1"	–	2"	1"
APPROX. DIM LxWxH (IN)						64x25x54	22x21x45	24x21x52	30x8x11	30x8x11	26x21x63	58x11x14
APPROX. WEIGHT (LBS)						550	150	200	25	25	350	120
MATCHED SPLIT SYSTEM OR PRTU CHARACTERISTICS @95 OADB, 67 WB, 75 DB												
CFM						4000	1200	1600	320	320	1800	750
TOTAL COOLING (MBTUH)						122	35.6	49.5	12.0	12.0	60.5	36.0
SHF						0.57	0.72	0.71	0.73	0.73	0.72	0.70
ELECTRIC RESISTANCE HEAT												
KW						7.5	5.76	5.76	0	0	10	0
VOLTAGE/PHASE						208/3	208/1	208/1	–	–	208/3	–
STAGES						1	1	1	–	–	1	–
MCA						20.8	–	–	–	–	–	–
MOCP						30	–	–	–	–	–	–
TOTAL SYSTEM BALANCE DATA												
TOTAL SUPPLY	4000	3000	3000	2400	4000	4000	1000	1600	320	320	2000	750
MINIMUM RETURN	3300	2700	2700	2000	3600	3600	900	1440	320	320	1800	750
MAXIMUM RETURN	3600	2700	2700	2000	3600	3600	900	1440	320	320	1800	750
MINIMUM OUTDOOR AIR	400	300	300	400	400	400	100	160	–	–	200	–
MAXIMUM OUTDOOR AIR	700	300	300	400	400	400	100	160	–	–	200	–
MINIMUM EXHAUST	–	–	–	–	–	–	–	–	–	–	–	–
MAXIMUM EXHAUST	–	–	–	–	–	–	–	–	–	–	–	–
SPECIAL OPTIONS/ACCESSORIES	INSTALL NEW MOTORIZED OA INTAKE W/MANUAL DAMPER. INSTALL DUCT SMOKE DETECTOR AS PROVIDED BY DIVISION 16. PROVIDE MOTORIZED DAMPER.	INSTALL NEW MOTORIZED OA INTAKE W/MANUAL DAMPER. INSTALL DUCT SMOKE DETECTOR AS PROVIDED BY DIVISION 16.	INSTALL NEW MOTORIZED OA INTAKE W/MANUAL DAMPER. INSTALL DUCT SMOKE DETECTOR AS PROVIDED BY DIVISION 16.	INSTALL NEW MOTORIZED OA INTAKE W/MANUAL DAMPER. INSTALL DUCT SMOKE DETECTOR AS PROVIDED BY DIVISION 16.	INSTALL DUCT SMOKE DETECTOR AS PROVIDED BY DIVISION 16.	INSTALL DUCT SMOKE DETECTOR AS PROVIDED BY DIVISION 16.					

NOTE:
SPLIT SYSTEM HVAC EQUIPMENT COMPONENTS AND PACKAGE ROOFTOP UNITS (PRTU) TO BE FURNISHED WITH SPRING VIBRATION ISOLATORS, 2" FILTER RACK, 6 SETS FARR 30/30 FILTERS, THERMAL EXPANSION VALVE, LOW AMBIENT KIT, PHASE FAILURE RELAY, SMOKE DETECTORS FOR EQUIPMENT OVER 2000 CFM AIR FLOW RATE AND/OR EQUIPMENT THAT SERVES A COMMON MEANS OF EGRESS, FIRE STAT, SINGLE POINT WIRING CONNECTION (UNLESS OTHERWISE NOTED), AND MANUFACTURER STANDARD, HONEYWELL, OR JOHNSON SEVEN DAY PROGRAMMABLE AUTO-CHANGEOVER ELECTRONIC THERMOSTAT WITH BATTERY BACKUP. FURNISH THERMOSTAT "T" WITH REMOTE SENSOR "RS" WHERE INDICATED ON THE DRAWINGS. EQUIPMENT MOUNTED WITHIN 6' OF GRADE LEVEL TO BE FURNISHED WITH COIL GUARD. PROVIDE FLOW SWITCH IN DRAIN PAN. LABEL ALL MOTORIZED EQUIPMENT WITH 1" BLUE LETTERS ON WHITE LAMINATED PLASTIC TAG.

AIR DISTRIBUTION DEVICE SCHEDULE

GRILLE AND DIFFUSER NOMENCLATURE:

SUPPLY DIFFUSERS

SD, SDA 1-WAY · SD, SDA 2-WAY · SD, SDA 2-WAY · SD, SDA 3-WAY · SD 4-WAY · RAG RETURN

DEVICE TYPE · AIR FLOW RATE (CFM)

SGC, EOG, OR OAG CEILING MOUNTED · SG, EOG, OR OAG WALL MOUNTED · L1 LOUVER

AIR DISTRIBUTION DEVICES TO BE BY LISTED MANUFACTURER OR EQUAL WHERE MANUFACTURED BY TITUS, METALAIRE OR NAILOR. COLOR OF AIR DISTRIBUTION DEVICES TO BE SELECTED FROM MANUFACTURER'S STANDARD COLORS. ALL DIFFUSERS, GRILLES, REGISTERS, AND LOUVERS TO BE FITTED WITH KEY OPERATED ALUMINUM OPPOSED BLADE DAMPERS. CEILING DIFFUSERS AND CEILING GRILLES TO HAVE FRAMES TO ALLOW FOR REMOVAL OF DEVICE FROM BOTTOM. ALL DEVICES TO HAVE TRIM AS MANUFACTURED FOR ADJACENT CONSTRUCTION. ALL LOUVERS TO BE BY LISTED MANUFACTURER OR EQUAL WHERE MANUFACTURED BY RUSKIN, GREENHECK, OR NCA. LOUVERS INSTALLED IN BUILDING ENVELOPE WALLS TO BE FITTED WITH BIRD SCREENS. ALL DIFFUSERS, GRILLES, AND REGISTERS TO HAVE FULL FACE FRAMES. ALL DIFFUSERS, GRILLES, AND REGISTERS LOCATED IN HARD CEILINGS TO BE PROVIDED WITH TRIM RING FOR PLASTER AND SHEET ROCK CEILINGS. PAINT DEVICES TO MATCH ADJACENT FINISHES IN MANNER CONSISTENT WITH ARCHITECTURAL PAINTING REQUIREMENTS AND REFERENCED STANDARDS.

SUPPLY DIFFUSERS (SD) TO BE TITUS MODEL TMSA-AA
SUPPLY DIFFUSERS (SDA) TO BE TITUS MODEL TDCA-AA
TRIM RINGS TO BE TITUS MODEL TRM
RETURN AIR GRILLES (RAG) TO BE TITUS MODEL 350R
LOUVERS (L) TO BE RUSKIN MODEL ELF 81S30
OUTDOOR AIR GRILLE (OAG) TO BE TITUS MODEL 350 WITH INSECT SCREEN

SUPPLY GRILLES (SG) TO BE TITUS MODEL 300 FS
EXHAUST AIR GRILLE (EAG) TO BE TITUS MODEL 350
EXHAUST OUTLET GRILLE (EOG) TO BE TITUS MODEL 350 WITH BIRD SCREEN
CEILING SUPPLY GRILLES (SGC) TO BE TITUS MODEL 250AA WITH AG-20 DAMPER

SYMBOL	ADAPTER / NECK SIZE	FACE SIZE	MAX CFM	MAX NO.	MAX SP.	THROW	RUN OUT SIZE	NOTES
SD1	4"	12/12	50	<15	0.026	1-2-4	4" ID	NONE
SD2	6"	12/12	110	<15	0.059	2-3-6	6" ID	NONE
SD3	8"	12/12	200	19	0.105	2-4-7	8" ID	NONE
SD4	8"	24/24	250	18	0.058	3-5-8	8" ID	NONE
SD5	10"	24/24	350	15	0.043	3-6-9	10" ID	NONE
SD6	12"	24/24	550	22	0.058	4-8-12	12" ID	NONE
SD7	14"	24/24	750	27	0.088	4-6-10	14" ID	NONE
SDA1	6"	12/12	120	19	0.138	4-6-9	6" ID	NONE
SDA2	8"	12/12	200	16	0.096	5-8-12	8" ID	NONE
SDA3	8"	24/24	250	14	0.042	12-20-32	8" ID	NONE
SDA4	10"	24/24	400	22	0.075	18-26-37	10" ID	NONE
SDA5	12"	24/24	600	32	0.169	26-32-45	12" ID	NONE
SDA6	14"	24/24	700	36	0.229	28-35-49	14" ID	NONE
SG1	8/4	10/6	145	19	0.117	11-16-22	8/4	NONE
SG2	12/6	14/8	275	18	0.088	15-22-30	12/6	NONE
SG3	16/8	18/8	365	19	0.117	18-25-35	16/6	NONE
SG4	22/6	24/8	485	16	0.064	19-28-40	22/6	NONE
SG5	30/6	32/8	650	16	0.064	22-33-46	30/6	NONE
SGC1	8/4	10/6	100	26	0.131	10-16-25	8/4	NONE
SGC2	12/6	14/8	200	25	0.090	11-16-26	12/6	NONE
SGC3	16/8	18/8	275	26	0.090	12-18-29	16/6	NONE
SGC4	20/8	22/10	400	23	0.056	11-17-27	20/8	NONE
SGC5	30/8	32/10	600	25	0.056	12-19-30	30/8	NONE
RAG1	24/24	24/24	2000	25	0.022			NONE
RAG2	48/24	48/24	4000	29	0.022			NONE
RAG3	12/12	14/14	525	20	0.050			NONE
EAG1	12/12	14/14	525	20	0.050			NONE
OAG	OUTDOOR AIR GRILLE SIZE AS NOTED							TITUS 355 ZR-HD-SS
EOG	EXHAUST OUTLET GRILLE SIZE AS NOTED							TITUS 355 ZR-HD-SS
L1	LOUVER SIZE AS NOTED							RUSKIN MODEL ELF 81S30

GENERAL MECHANICAL NOTES

GENERAL:
MECHANICAL CONTRACTOR SHALL COMPLETELY FAMILIARIZE HIMSELF WITH ALL CONDITIONS AFFECTING HIS WORK INCLUDING VISIT TO THE SITE BEFORE PREPARING HIS PROPOSAL. ALL WORK IS TO BE PERFORMED IN ACCORDANCE WITH ALL APPLICABLE CODES AND STANDARDS ISSUED BY ALL AUTHORITIES HAVING JURISDICTION OVER THE WORK. WHERE CONFLICT EXISTS BETWEEN THE APPLICABLE CODES AND STANDARDS OR THE PLANS AND SPECIFICATIONS, THE MOST STRINGENT AS DETERMINED BY THE ENGINEER WILL APPLY. CONTRACTOR SHALL NOTIFY ENGINEER OF CONFLICTING CONDITIONS AFFECTING HIS WORK AND ADVISE ENGINEER FOR CLARIFICATION. LOCAL CODES IN EFFECT FOR THIS PROJECT INCLUDE BUT ARE NOT LIMITED TO:

FLORIDA STANDARD BUILDING CODE
FLORIDA STANDARD MECHANICAL CODE
FLORIDA STANDARD PLUMBING CODE
FLORIDA STANDARD GAS CODE
NFPA 90, 90A, 90B

ALL MATERIALS TO BE MANUFACTURED INCORPORATED INTO THE WORK TO BE MANUFACTURED IN THE USA UNLESS OTHERWISE NOTED OR SCHEDULED ON THE DRAWINGS.

MECHANICAL CONTRACTOR TO PROVIDE COMPLETE AND FUNCTIONING SYSTEMS. CONTRACTOR TO PROVIDE ALL REQUIRED MATERIALS AND LABOR AS NEEDED TO PROVIDE COMPLETE AND FUNCTIONING SYSTEM AS DESCRIBED IN THE CONSTRUCTION DOCUMENTS.

SUBMITTALS AND SHOP DRAWINGS:
CONTRACTOR TO PREPARE SUBMITTALS AND SHOP DRAWINGS FOR ALL MECHANICAL WORK AS REQUIRED BY THE CONSTRUCTION DOCUMENTS INTO SINGLE COMPLETE PACKAGE FOR ENGINEERS REVIEW. PACKAGE TO BE IN THREE RING BINDER WITH ALL SHOP DRAWINGS ATTACHED. BINDER AND DRAWINGS TO CLEARLY STATE PROJECT NAME, PROJECT ARCHITECT, PROJECT ENGINEER, PROJECT OWNER, CONTRACTOR NAME, AND SITE ADDRESS. INCOMPLETE SUBMITTAL PACKAGES WILL BE AVAILABLE AT THE ENGINEERS OFFICE FOR CONTRACTOR PICK-UP AND COMPLETION BEFORE ANY REVIEW BY THE ENGINEER OTHER THAN CURSORY REVIEW AS REQUIRED TO DETERMINE COMPLETENESS OF SUBMITTAL PACKAGE.

CONTRACTOR TO SUBMIT NAME AND QUALIFICATIONS OF TEST AND BALANCE COMPANY BEING PROPOSED BY CONTRACTOR FOR TEST AND BALANCE WORK. TEST AND BALANCE CONTRACTOR SUBMITTAL INFORMATION TO INCLUDE DOCUMENTATION OF EXPERIENCE AS WELL AS COPY OF TEST AND BALANCE CONTRACTORS ENGINEERING CORPORATION LICENSE SHOWING NAME OF QUALIFYING REGISTERED PROFESSIONAL ENGINEER AS WELL AS COPY OF QUALIFYING PROFESSIONAL ENGINEERS CURRENT LICENSE.

COORDINATION OF WORK:
ENGINEERS DRAWINGS AND CONSTRUCTION DOCUMENTS ARE DIAGRAMMATIC. CONTRACTOR OF WORK THIS TRADE TO COORDINATE WITH ALL WORK OF CONTRACTORS OF OTHER TRADES AND GENERAL CONTRACTOR. CONTRACTORS TO FIELD MEASURE PRIOR TO FABRICATION OF ANY WORK. CONTRACTOR OF WORK OF THIS TRADE TO COMMUNICATE WITH GENERAL CONTRACTOR AND CONTRACTORS OF OTHER TRADES AND PREPARE DRAWINGS, SKETCHES, AND PROVIDE INFORMATION AS NEEDED TO COMMUNICATE WITH OTHER TRADES FOR CONSTRUCTION OF COMPLETE AND OPERATING SYSTEM WITHOUT ADDITIONAL COST TO OWNER. PRIOR TO BEGINNING WORK OF THIS TRADE, CONTRACTOR OF THIS TRADE TO CONVENE COORDINATION MEETING WITH OTHER AFFECTED CONTRACTORS OF OTHER TRADES AND GENERAL CONTRACTOR FOR PURPOSES OF COORDINATION. CONTRACTORS' FAILURES TO COORDINATE WILL NOT BE CAUSE FOR RECOVERY OF ADDTIONAL COMPENSATION FOR CORRECTION OR MODIFICATION WORK WHICH IN THE SOLE OPINION OF THE ENGINEER IS NOT WELL COORDINATED.

DUCTWORK:
ALL DUCTWORK TO BE G-60 GALVANIZED STEEL FOR INDOOR LOCATIONS AND G-90 GALVANIZED STEEL FOR OUTDOOR LOCATIONS AND WITHIN 10 FEET OF ALL BUILDING EXTERIOR ENVELOPE PENETRATIONS. ALL DIMENSIONS SHOWN ON THE DRAWINGS ARE CLEAR INSIDE DIMENSIONS. ALL DUCTWORK TO BE FABRICATED AND INSTALLED IN ACCORDANCE WITH THE MOST CURRENT DUCT CONSTRUCTION STANDARDS OF SMACNA. PLENUM TYPE CONNECTION OF DUCTWORK TO EQUIPMENT OR HVAC SYSTEM APPURTENANCE IS NOT PERMITTED UNLESS SPECIFICALLY NOTED ON THE DRAWINGS. ALL DUCTWORK TO BE SEALED WITH DUCTMATE ENVIROSEAL MASTIC OR EQUAL OF DOMESTIC MANUFACTURE. DUCTWORK TO BE SMACNA SEAL CLASS "C" UNLESS OTHERWISE NOTED. TURNING VANES ARE TO BE INSTALLED IN ALL MITERS AND BRANCH CONNECTIONS OF ALL RECTANGULAR DUCTWORK. EXTRACTORS ARE TO BE INSTALLED AT ALL BRANCH DUCTS AND CONNECTIONS RUNNOUTS TO SUPPLY GRILLES AND SUPPLY REGISTERS. MANUAL VOLUME DAMPERS ARE TO BE INSTALLED AS REQUIRED TO PERFORM TEST AND BALANCE AS WELL AS SHOWN ON THE DRAWINGS. FLEXIBLE DUCTWORK TO BE INSULATED TO NOT LESS THAN R-6 AND TO BE ATCO UFC #076 OR EQUAL BY SCHULLER. FLEX DUCT TO HAVE FLAME SPREAD RATING LESS THAN 25 AND SMOKE DEVELOPED RATING OF LESS THAN 50.

WHERE METAL DUCTWORK IS IN EXPOSED FINISHED INTERIOR LOCATIONS DUCTWORK TO BE AT LEAST TWO GAGES HEAVIER THAN THE MINIMUM GAUGE REQUIRED BY THE APPLICABLE SMACNA STANDARD AND JOINED WITH FOUR BOLT CONNECTION AS MANUFACTURED BY DUCTMATE OR EQUAL OF DOMESTIC MANUFACTURE. EXPOSED DUCTWORK TO BE PAINTED IN ACCORDANCE WITH THE PAINTING REQUIREMENTS OF ARCHITECTURAL SECTIONS OF THE CONSTRUCTION DOCUMENTS. WHERE PAINTING REQUIREMENTS ARE NOT DESCRIBED IN THE ARCHITECTURAL SECTIONS OF THE CONSTRUCTION DOCUMENTS, PROVIDE ONE COAT OF PRIMER AND TWO COATS OF OIL BASED ENAMEL AS MANUFACTURED BY PPG OR SHERWIN WILLIAMS APPLIED IN STRICT ACCORDANCE WITH THE MANUFACTURER'S WRITTEN INSTRUCTIONS. COLOR TO BE AS SELECTED BY THE ARCHITECT AND OWNER.

CONTRACTOR TO COORDINATE WITH TRUSS MANUFACTURER AND INSTALLER IN ORDER TO PROVIDE REQUIRED CLEARANCES WITHIN TRUSS WORK AND OTHER STRUCTURAL ELEMENTS AS NEEDED FOR INSTALLATION OF REQUIRED DUCTWORK.

WHERE DUCTWORK PENETRATES DRAFT STOPS OF OTHER CONTINUOUS WALLS OR OTHER BARRIERS IN THE CONSTRUCTION SEAL DUCTWORK AROUND PENETRATION IN MANNER CONSISTENT WITH LEVEL OF PROTECTION OF DRAFT STOP, WALL, OR OTHER BARRIER.

PROVIDE DUCT ACCESS DOOR AT ALL DUCT SMOKE DETECTOR LOCATIONS.

DUCTWORK INSULATION:
ALL SUPPLY AND RETURN DUCTWORK IS TO BE EXTERNALLY INSULATED TO NOT LESS THAN R-6. ALL RETURN AND EXHAUST DUCTWORK IS TO BE LINED WITH ACOUSTIC DUCT LINER WITHIN 10 FEET OF AHU, PACKAGE UNIT, FAN, OR BLOWER. OUTDOOR AIR AND EXHAUST DUCTWORK TO BE EXTERNALLY INSULATED TO NOT LESS THAN R-4. ALL EXTERNAL DUCT INSULATION TO BE SCHULLER R-SERIES MICROLITE FIBERGLASS DUCT WRAP WITH FSK FACING OR EQUAL BY OCF. ALL DUCT LINER TO BE SCHULLER PERMACOTE LINACOUSTIC WITH FACTORY APPLIED ANTI-MICROBIAL TREATMENT. FLAME SPREAD AND SMOKE DEVELOPED RATINGS OF BOTH DUCT WRAP AND LINER TO BE LESS THAN 25 AND 50 RESPECTIVELY. ALL INSULATION IS TO BE APPLIED WITH ADHESIVE AND MECHANICAL FASTENERS IN ACCORDANCE WITH THE MOST CURRENT WRITTEN RECOMMENDATIONS OF SMACNA.

FIRE DAMPERS:
FIRE DAMPERS TO BE INSTALLED UNLESS OTHERWISE NOTED IN RATED FLOOR AND WALL PENETRATIONS AND/OR IN ACCORDANCE WITH THE MOST CURRENT REQUIREMENTS OF NFPA 90, 90A, OR 90B. INSTALL FIRE DAMPERS IN SLEEVES AND SEAL BETWEEN SLEEVE AND FLOOR CUT WITH UL APPROVED FIRESTOP SEALANT. FIRE DAMPERS TO BE INSTALLED AS SHOWN ON THE DETAILS AND IN ACCORDANCE WITH THE MOST CURRENT SMACNA STANDARDS. ALL FIRE DAMPERS TO HAVE FULL FLOW CROSS SECTION, TYPE B.

HEATING VENTILATING AND AIR CONDITIONING EQUIPMENT:
EQUIPMENT TO BE AS SHOWN ON THE DRAWINGS OR EQUAL WHERE MANUFACTURED BY LENNOX OR CARRIER. IF EQUAL MANUFACTURER IS SELECTED CONTRACTOR TO PROVIDE SUFFICIENT INFORMATION SHOWING EQUAL SYSTEM PERFORMANCE AND PHYSICAL CHARACTERISTICS. SPLIT HEATING OR COOLING SYSTEMS TO BE MATCHED SYSTEMS OF THE SAME MANUFACTURER. HVAC EQUIPMENT TO BE FURNISHED WITH 2" FILTER RACK, FACTORY FURNISHED RETURN AIR PLENUM, AND FACTORY EVAPORATOR COIL ENCLOSURE. AT COMPLETION OF JOB FURNISH OWNER WITH SIX SETS OF FARR 2"-30/30 FILTERS. WHERE COOLING SYSTEMS HAVE MULTIPLE STAGES OF COOLING, COOLING COILS TO BE PROVIDED WITH VERTICAL FACE SPLITTING, NOT ROW SPLITTING. LABEL ALL MOTORIZED EQUIPMENT WITH 1" BLUE LETTERS ON WHITE LAMINATED PLASTIC TAG.

CONDENSATE DRAIN PIPING:
CONDENSATE DRAIN PIPING TO BE NOT LESS THAN 3/4" SCHEDULE 40 PVC PIPE. INTERIOR CONDENSATE DRAIN PIPE TO BE INSULATED WITH RUBBER CLOSED CELL FOAM OF NOT LESS THAN 1/2" WALL THICKNESS. INSTALL TRAP AT AIR HANDLING UNIT WHEN EVAPORATOR COIL IS LOCATED ON NEGATIVE PRESSURE SIDE OF BLOWER SECTION. MINIMUM TRAP DEPTH TO BE NOT LESS THAN TWICE THE EXTERNAL STATIC PRESSURE OF THE AIR HANDLING UNIT IN INCHES OF WATER. AUXILIARY CONDENSATE DRAIN LINE TO BE PROVIDED AT EACH AHU AND TO BE PIPED WITH TRAP.

CONDENSATE TO BE PIPED TO NEAREST ROOF DRAIN OR DOWNSPOUT OUTLET TUBE. CONDENSATE OUTLET ON PACKAGE ROOFTOP UNITS TO BE PIPED WITH STEEL OR COPPER TRAP AND FITTED WITH HOSE CONNECTION. MINIMUM TRAP DEPTH TO BE NOT LESS THAN TWICE THE EXTERNAL STATIC PRESSURE OF THE PACKAGE AIR CONDITIONER IN INCHES OF WATER. INSTALL 3/4" HIGH PERFORMANCE 5 PLY HOSE CAMPED TO 12"x12"x3" THICK 3000 PSI CONCRETE PAVING BLOCKS NOT MORE THAN 5' OC ROUTED BETWEEN PRTU CONDENSATE TRAP AND CLOSEST ROOF DRAIN OR DOWNSPOUT OUTLET TUBE. HOSE TO BE AS MANUFACTURED BY SWAN MODEL # SS3475.

REFRIGERATION PIPING:
ALL REFRIGERATION PIPING TO BE TYPE "L" HARD COPPER WITH COPPER FITTINGS. ALL JOINTS IN REFRIGERATION PIPING TO BE SOLDERED WITH SILVER SOLDER WHILE PURGING WITH NITROGEN. ALL PIPE ENDS TO BE REAMED PRIOR TO SOLDERING. REFRIGERATION PIPING TO BE PERFORMED IN ACCORDANCE WITH THE MOST CURRENT RECOMMENDATIONS OF ARI AND IN STRICT ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS FOR THE SYSTEM BEING USED. PRIOR TO CHARGING WITH REFRIGERANT, LINES TO BE EVACUATED. VACUUM MUST BE HELD FOR NOT LESS THAN 24 HOURS. IF SYSTEM WILL NOT HOLD VACUUM, ENGINEER IS TO BE CONTACTED FOR REPAIR AND RE-TESTING PROCEDURE. ALL REFRIGERATION CIRCUITS TO BE FITTED WITH REPLACEABLE CORE FILTER DRIER, SITE GLASS AND THERMOMETER WELLS. THERMOMETER WELL MAY BE INTEGRAL TO CONDENSING UNIT. REFRIGERANT LINES TO BE SUPPORTED NOT LESS THAN 10' OC AND/OR AT ALL CHANGES IN DIRECTION OF PIPING. VAPOR LINE TO BE INSULATED WITH RUBBER CLOSED CELL FOAM OF NOT LESS THAN 3/4" WALL THICKNESS. WEATHERPROOF INSULATION ON EXTERIOR REFRIGERANT LINES WITH 0.010" ALUMINUM JACKET WITH PRE-MANUFACTURED ALUMINUM JACKET FITTINGS. PLACE GALVANIZED STEEL SADDLES AT ALL PIPE SUPPORTS OF SUFFICIENT BEARING AREA TO PREVENT DAMAGE OF INSULATION AND JACKET.

TEST AND BALANCE:
PRIOR CONTRACTORS REQUEST FOR SUBSTANTIAL COMPLETION INSPECTION, CONTRACTOR TO PROVIDE INDEPENDENT TEST AND BALANCE BY FIRM WITH NOT LESS THAN 10 YEARS DEMONSTRABLE EXPERIENCE SPECIALIZING IN TEST AND BALANCE WORK. TEST AND BALANCE CONTRACTOR TO VERIFY SEQUENCE OF OPERATION WHILE CONDUCTING TEST AND BALANCE. ENGINEER WILL NOT PERFORM SUBSTANTIAL COMPLETION INSPECTION OF WORK BEFORE RECEIPT OF TEST AND BALANCE REPORT. TEST AND BALANCE TO BE PERFORMED IN ACCORDANCE WITH THE WRITTEN PROCEDURES OF SMACNA, AABC, OR NEBB. CONTRACTOR TO PROVIDE NOT LESS THAN FOUR COPIES OF CERTIFIED TEST AND BALANCE REPORT TO ENGINEER. ALL TEST AND BALANCE WORK TO BE PERFORMED UNDER THE SUPERVISION OF A LISCENSED PROFESSIONAL ENGINEER AND ALL REPORTS TO BEAR THE ORIGINAL SEAL AND SIGNATURE OF LISCENSED PROFESSIONAL ENGINEER.

SEQUENCE OF OPERATION FOR SYSTEM PRTU-1 (LOBBY/CANTINA):
AIR CONDITIONING SYSTEM BLOWERS TO BE SET TO RUN ON SIGNAL FROM OCCUPANCY SENSORS. OCCUPANCY SENSORS TO BE WIRED IN PARALLEL WHERE MORE THAN ONE SENSOR IS SHOWN WITHIN THE ZONE. OCCUPANCY SENSOR TO BE LOCATED IN CEILING AS SHOWN ON THE DRAWINGS AND FURNISHED WITH BOTH N.O. AND N.C. CONTACTS. OCCUPANCY SENSOR TO HAVE ADJUSTABLE CYCLE PERIOD OF FIVE (5) TO SIXTY (60) MINUTES AND HAVE NOT LESS THAN 40' DIAMETER COVERAGE FROM CEILING MOUNTED LOCATION. OCCUPANCY SENSOR TO HAVE ACTIVE ULTRASONIC AND PASSIVE INFRARED SENSING ELEMENTS AND TO BE AS MANUFACTURED BY HONEYWELL OR EQUAL. PROVIDE ONE OCCUPANCY SENSOR CONTROL CIRCUIT FOR EACH HVAC SYSTEM.

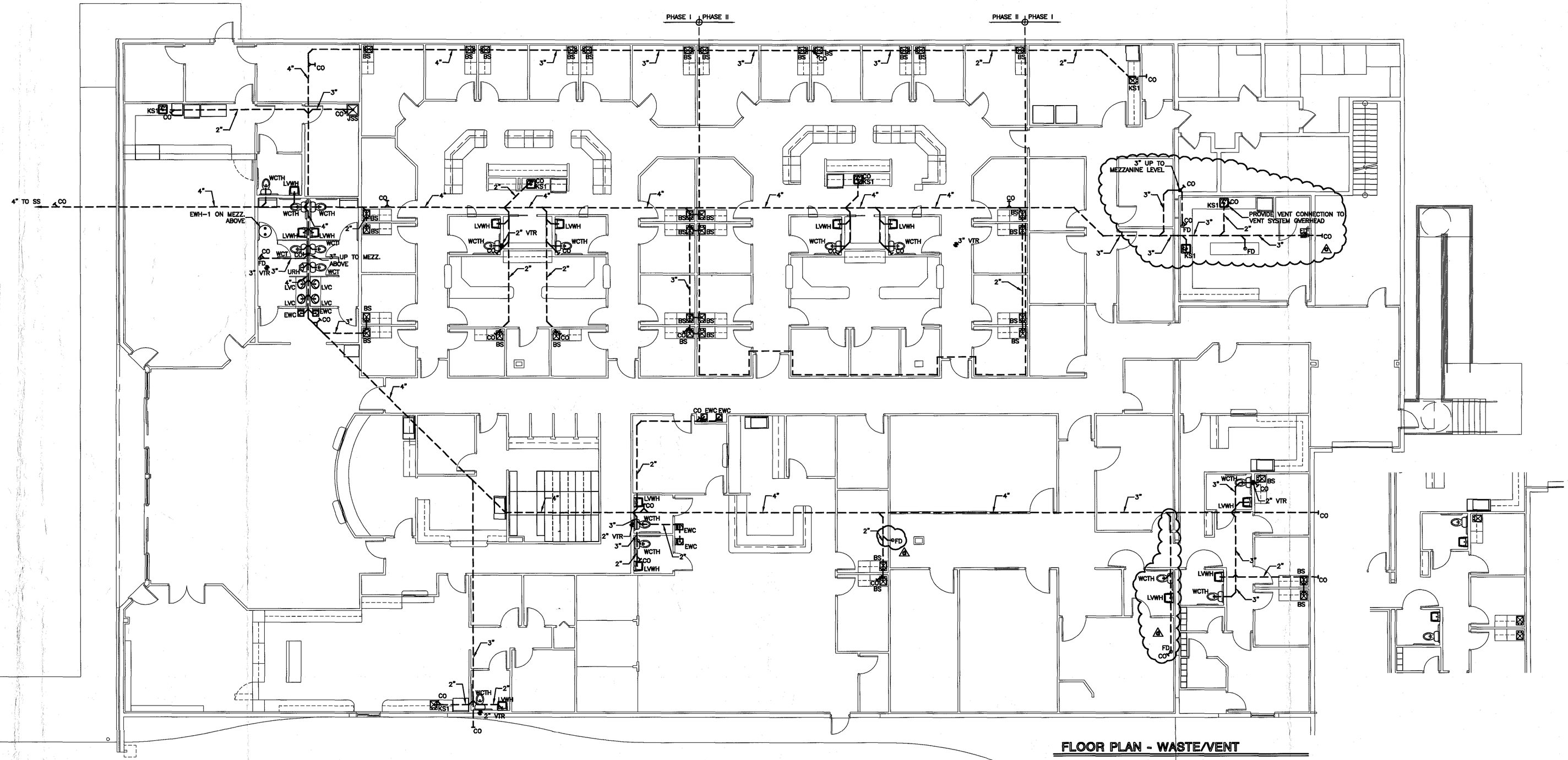
AIR CONDITIONING SYSTEM TO BE FURNISHED WITH MULTISTAGE SEVEN DAY PROGRAMMABLE ELECTRONIC THERMOSTAT WITH NIGHT SETBACK AND AUTO CHANGEOVER. THERMOSTAT TO HAVE AUXILIARY INPUT FOR EXTERNAL TIME-CLOCK FOR SET-BACK WITH CONTACT CLOSURE INITIATION. FURNISH REMOTE SENSOR (RS) OR DUCT SENSOR (DS) WHERE INDICATED. DURING OCCUPIED PERIODS SYSTEM TO RUN AT OCCUPIED SETPOINT TEMPERATURE WITH BLOWER RUNNING CONTINUOUSLY AND HEATING AND COOLING CYCLES OPERATING ON SPACE TEMPERATURE DEMAND. DURING UNOCCUPIED PERIODS SYSTEM TO RUN AT UNOCCUPIED SETPOINT TEMPERATURE WITH BLOWER AS WELL AS HEATING AND COOLING CYCLES OPERATING ON SPACE TEMPERATURE DEMAND.

PROVIDE CARBON DIOXIDE SENSOR (CO2) WHERE NOTED ON THE DRAWINGS. CO2 SENSOR TO BE TELAIRE SYSTEMS WITH BOTH N.O. AND N.C. CONTACTS AS WELL AS PROPORTIONAL SIGNAL FOR MODULATION OF OUTDOOR AIR DAMPER BETWEEN MINIMUM AND MAXIMUM OUTDOOR AIR SETPOINTS. CO2 SENSOR TO BE SET TO MODULATE DAMPER BETWEEN MINIMUM AND MAXIMUM DAMPER POSITIONS BETWEEN 700 PPM AND 1000 PPM CARBON DIOXIDE

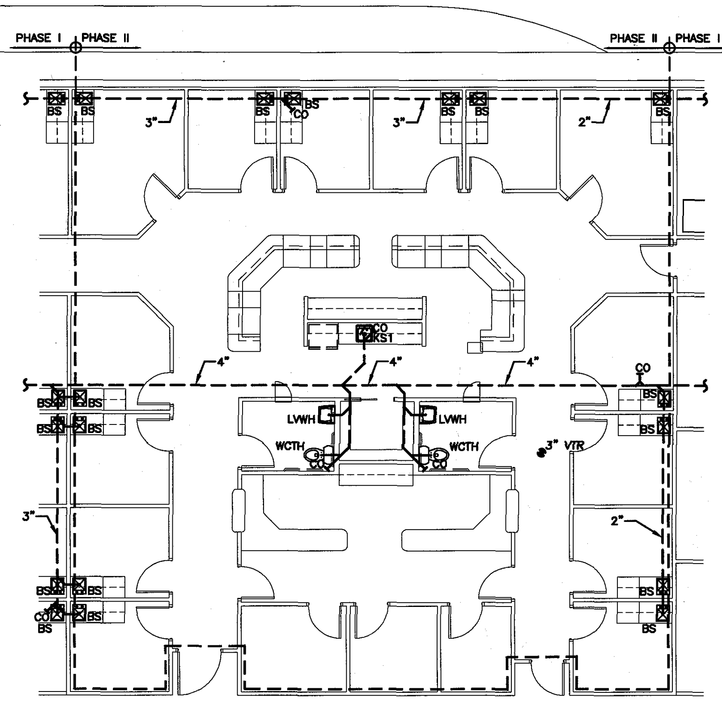
SEQUENCE OF OPERATION FOR ALL OTHER SYSTEMS:
AIR CONDITIONING SYSTEM BLOWERS TO BE SET TO RUN ON SIGNAL FROM OCCUPANCY SENSORS. OCCUPANCY SENSORS TO BE WIRED IN PARALLEL WHERE MORE THAN ONE SENSOR IS SHOWN WITHIN THE ZONE. OCCUPANCY SENSOR TO BE LOCATED IN CEILING AS SHOWN ON THE DRAWINGS AND FURNISHED WITH BOTH N.O. AND N.C. CONTACTS. OCCUPANCY SENSOR TO HAVE ADJUSTABLE CYCLE PERIOD OF FIVE (5) TO SIXTY (60) MINUTES AND HAVE NOT LESS THAN 40' DIAMETER COVERAGE FROM CEILING MOUNTED LOCATION. OCCUPANCY SENSOR TO HAVE ACTIVE ULTRASONIC AND PASSIVE INFRARED SENSING ELEMENTS AND TO BE AS MANUFACTURED BY HONEYWELL OR EQUAL. PROVIDE ONE OCCUPANCY SENSOR CONTROL CIRCUIT FOR EACH HVAC SYSTEM.

AIR CONDITIONING SYSTEM TO BE FURNISHED WITH MULTISTAGE SEVEN DAY PROGRAMMABLE ELECTRONIC THERMOSTAT WITH NIGHT SETBACK AND AUTO CHANGEOVER. THERMOSTAT TO HAVE AUXILIARY INPUT FOR EXTERNAL TIME-CLOCK FOR SET-BACK

PROJECT NOTES:
1. ALL EXISTING PLUMBING FIXTURES AND PIPING TO REMAIN.
2. CONTRATOR TO PROVIDE ALL ROUGH-IN REQUIREMENTS IN PHASE II AREA FOR FURTURE INSTALLATION BY OWNER



FLOOR PLAN - WASTE/VENT



PHASE II FLOOR PLAN - WASTE/VENT

Revisions		
No.	Date	DESCRIPTION
1	04/14/06	CD-R
2	04/28/06	CDF
3	06/17/06	WATER SUPPLY/AS MODIFICATIONS
4	01/18/06	MED EQ. - GEN. REV.

NORTH

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REVISIONS

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SUBMITTALS

RENOVATION FOR:
EXPRESS CARE OF LEESBURG
PROJECT ADDRESS
LEESBURG, FLORIDA

DATE
DATE

JOB #
0473

P-1 6

BUILDING RENOVATION FOR:

EXPRESS CARE OF LEESBURG

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ABBREVIATIONS

A.B.	ANCHOR BOLT	FDN.	FOUNDATION
A.C.T.	ACOUSTICAL CEILING TILE	GA.	GAUGE
ADJ.	ADJUSTIBLE	G.C.	GENERAL CONTRACTOR
A.F.F.	ABOVE FINISH FLOOR	GALV.	GALVANIZED
A.C.	AIR CONDITIONING	GYP.	GYPSUM
ANOD.	ANODIZED	HC	HOLLOW CORE
ALUM/AL	ALUMINUM	HT.	HEIGHT
APPROX.	APPROXIMATE	HM	HOLLOW METAL
ABV.	ABOVE	HOR.	HORIZONTAL
ADD'L.	ADDITIONAL	INS.	INSULATE; INSULATION
ALT.	ALTERNATE	INT.	INTERIOR
BD.	BOARD	I.D.	INSIDE DIAMETER
BM.	BEAM	JST.	JOIST
BLW.	BELOW	LTG.	LIGHTING
BLK.	BLOCK	MFR.	MANUFACTURER
BOT.	BOTTOM	MAT'L.	MATERIAL
BLDG	BUILDING	MAX.	MAXIMUM
B.O.	BOTTOM OF	MECH.	MECHANICAL
CAB.	CABINET	MEMB.	MEMBRANE
CLG.	CEILING	MTL.	METAL
CEM.	CEMENT	MIN.	MINIMUM
C.O.	CLEAN OUT	MISC.	MISCELLANEOUS
℄	CENTERLINE	MLDG.	MOULDING
CONN.	CONNECTION	N.I.C	NOT IN CONTRACT
CTR.	CENTER	N.T.S.	NOT TO SCALE
CLR.	CLEAR	NO.	NUMBER
COL.	COLUMN	O.C.	ON CENTER
CONC.	CONCRETE	OPN'G.	OPENING
CMU	CONCRETE MASONRY UNIT	O.H.	OVERHEAD
CONT.	CONTINUOUS	PNL.	PANEL
C.J.	CONTROL JOINT	PLYND.	PLYWOOD
CORR.	CORRIDOR	PSI	POUNDS PER SQUARE INCH
CTRD.	CENTERED		
DET.	DETAIL	REINF.	REINFORCING
DIAG.	DIAGONAL	REQ'D.	REQUIRED
DIA.	DIAMETER	RFG.	ROOFING
DIM.	DIMENSION	RM.	ROOM
DL	DEAD LOAD	R.O.	ROUGH OPENING
DWL.	DOWEL	SCH.	SCHEDULE
DBL.	DOUBLE	SECT.	SECTION
DN.	DOWN	SHT'G.	SHEATHING
DNG.	DRAINING	SHT.	SHEET
EA.	EACH	SPECS.	SPECIFICATIONS
E.S.	EACH SIDE	STD.	STANDARD
ELEC.	ELECTRICAL	STL.	STEEL
E.P.	ELECTRICAL PANEL	STOR.	STORAGE
ELEV.	ELEVATION	STRUCT.	STRUCTURAL
EQ.	EQUAL	SUSP.	SUSPEND; SUSPENDED
EQUIP.	EQUIPMENT	SYS.	SYSTEM
EXIST.	EXISTING	SYM.	SYMMETRICAL
E.J.	EXPANSION JOINT	SL.	SLOPE
EXP.	EXPOSED; EXPANSION	STD.	STANDARD
EXT.	EXTERIOR	THK.	THICK
E.W.	EACH WAY	TEMP.	TEMPORARY, TEMPERED
FIN.	FINISH	TYP.	TYPICAL
F.F.	FINISH FLOOR	W.C.	WATERCLOSET
F.E.	FIRE EXTINGUISHER	W.P.	WATERPROOF
F.E.C.	FIRE EXTINGUISHER CABINET	W.	WIDE; WIDTH
FLR.	FLOOR	W/	WITH
F.D.	FLOOR DRAIN	W/O	WITHOUT
FT.	FOOT	WD.	WOOD
FTG.	FOOTING		

ARCHITECTURAL MATERIALS

EARTH
CONCRETE
STEEL
BATT INSULATION
ROUGH WOOD

ARCHITECTURAL SYMBOLS

BUILDING SECTIONS
SECTION NUMBER
PAGE NUMBER

WALL SECTIONS
DETAIL NUMBER
PAGE NUMBER

DETAIL SECTIONS
DETAIL NUMBER
PAGE NUMBER

EXT. ELEVATION
ELEV. NUMBER
PAGE NUMBER

INT. ELEVATION
ELEV. NUMBER
PAGE NUMBER

TITLE MARKER
DWG NAME
DWG. NUMBER
DRAWING SCALE
TITLE
1/8" = 1'-0"

ELEV. MARKER
ALTITUDE
DESCRIPTION
EL. +110'-6"
BOTT. TIE BEAM

BREAK / CUT LINE
ROOM NAME / TAG
ROOM NAME
XXX
PARTITION TYPE
DOOR MARKER
WINDOW MARKER
LINTEL MARKER
REVISION MARKER
NOTE TAG
DEMOLITION TAG
FOUNDATION TAG

BUIDLING INFORMATION & SCOPE OF WORK

EXISTING BUILDING -

TYPE V CONSTRUCTION, UNPROTECTED, SPRINKLERED
GROUP B OCCUPANCY
TOTAL GROSS 23,920 SF

SCOPE OF WORK -

INTERIOR & EXTERIOR SELECTIVE DEMOLITION AND INTERIOR RENOVATION

THE CONSTRUCTION OF THIS PROJECT IS PHASED INTO (2) PHASES.

PHASE (I) - CANTINA, PHARMACY, EXAM SUITE, PHYSICAL THERAPY, IMAGING SUITE, SITE WORK (SEE CIVIL)

PHASE (II) - FUTURE EXAM SUITE

REFER TO G001 FOR PHASING INFORMATION

VERIFY WITH OWNER PHASING REQUIREMENTS.

BUILDING DESIGN CRITERIA

1. WIND SPEED = 110 MPH
2. IMPORTANCE FACTOR = 1.0
3. ENCLOSED - EXPOSURE B
4. COMPONENT & CLADDING - 'A' = 8.8' (106")

COMPONENT & CLADDING
FROM TABLE 1606.2B OF THE FLORIDA BUILDING CODE

COMPONENT AND CLADDING WIND LOADS FOR A BUILDING WITH A MEAN ROOF HEIGHT OF 30 FEET LOCATED IN EXPOSURE B (psf)

ROOF ANGLE > 0 - 10 DEGREES

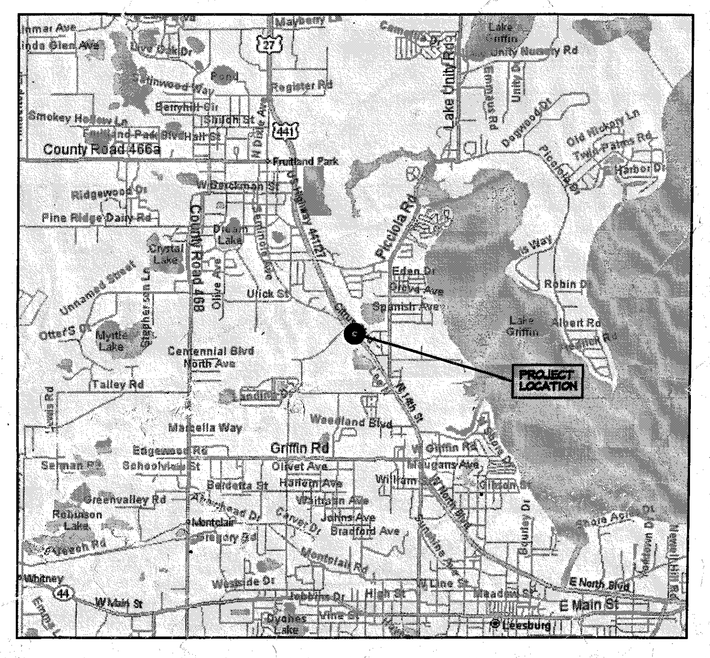
ZONE	COMPONENT AREA	110 MPH PRESSURE IN PSF POSITIVE	NEGATIVE
1	10.0	10.0	-21.8
1	20.0	10.0	-21.2
1	50.0	10.0	-20.5
1	100.0	10.0	-19.9
2	10.0	10.0	-36.5
2	20.0	10.0	-32.6
2	50.0	10.0	-27.5
2	100.0	10.0	-28.1
3	10.0	10.0	-55.0
3	20.0	10.0	-45.5
3	50.0	10.0	-33.1
3	100.0	10.0	-23.6

WALLS

ZONE	COMPONENT AREA	110 MPH PRESSURE IN PSF POSITIVE	NEGATIVE
4	10.0	18.0	-19.5
4	20.0	17.2	-18.7
4	50.0	16.1	-17.6
4	100.0	15.3	-16.8
5	10.0	18.0	-24.1
5	20.0	17.2	-22.5
5	50.0	16.1	-20.3
5	100.0	15.3	-18.7

* SEE FLOOR PLAN FOR WINDOW & DOOR OPENING SIZES

PROJECT LOCATION



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Village Air & Electric

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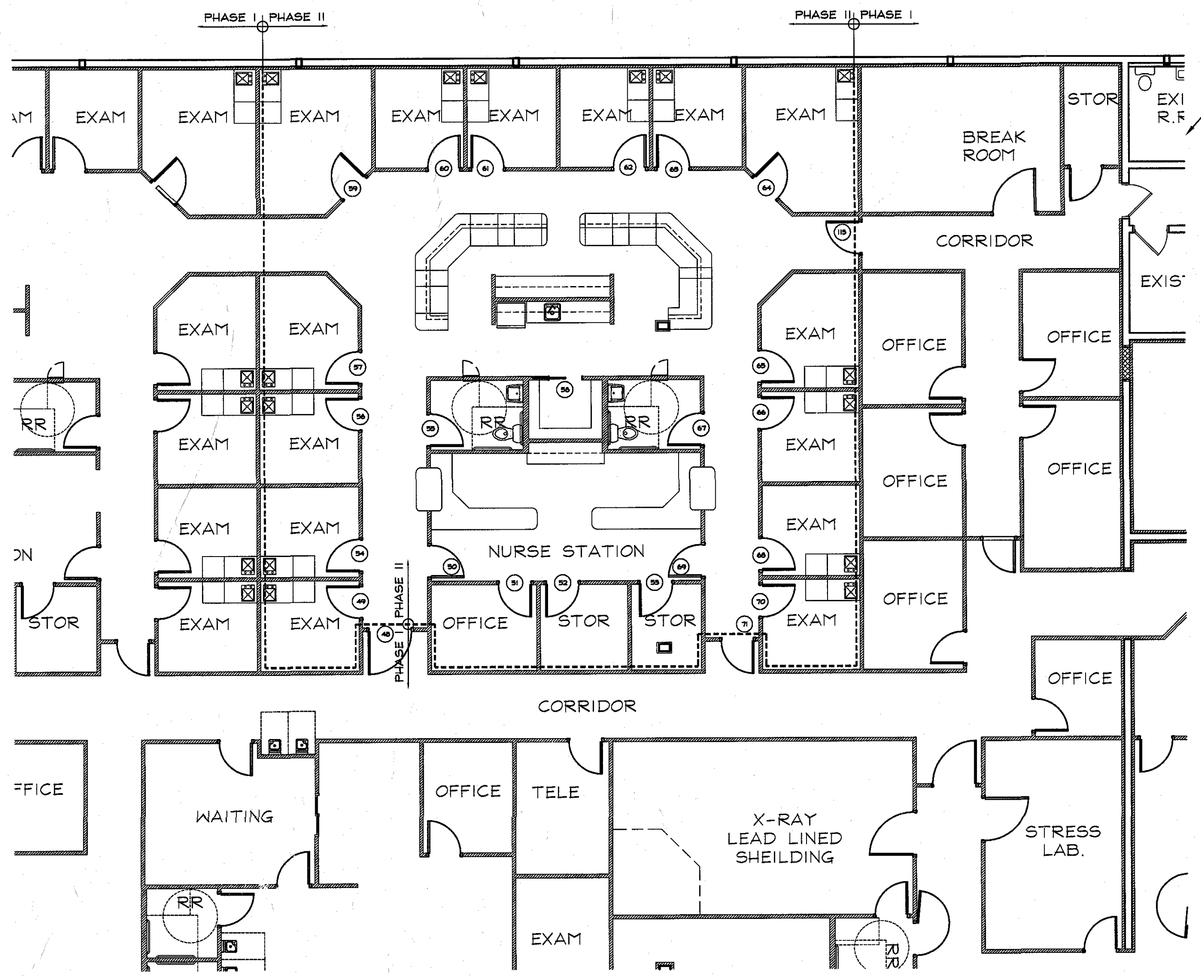
Fabian CONSTRUCTION, INC.

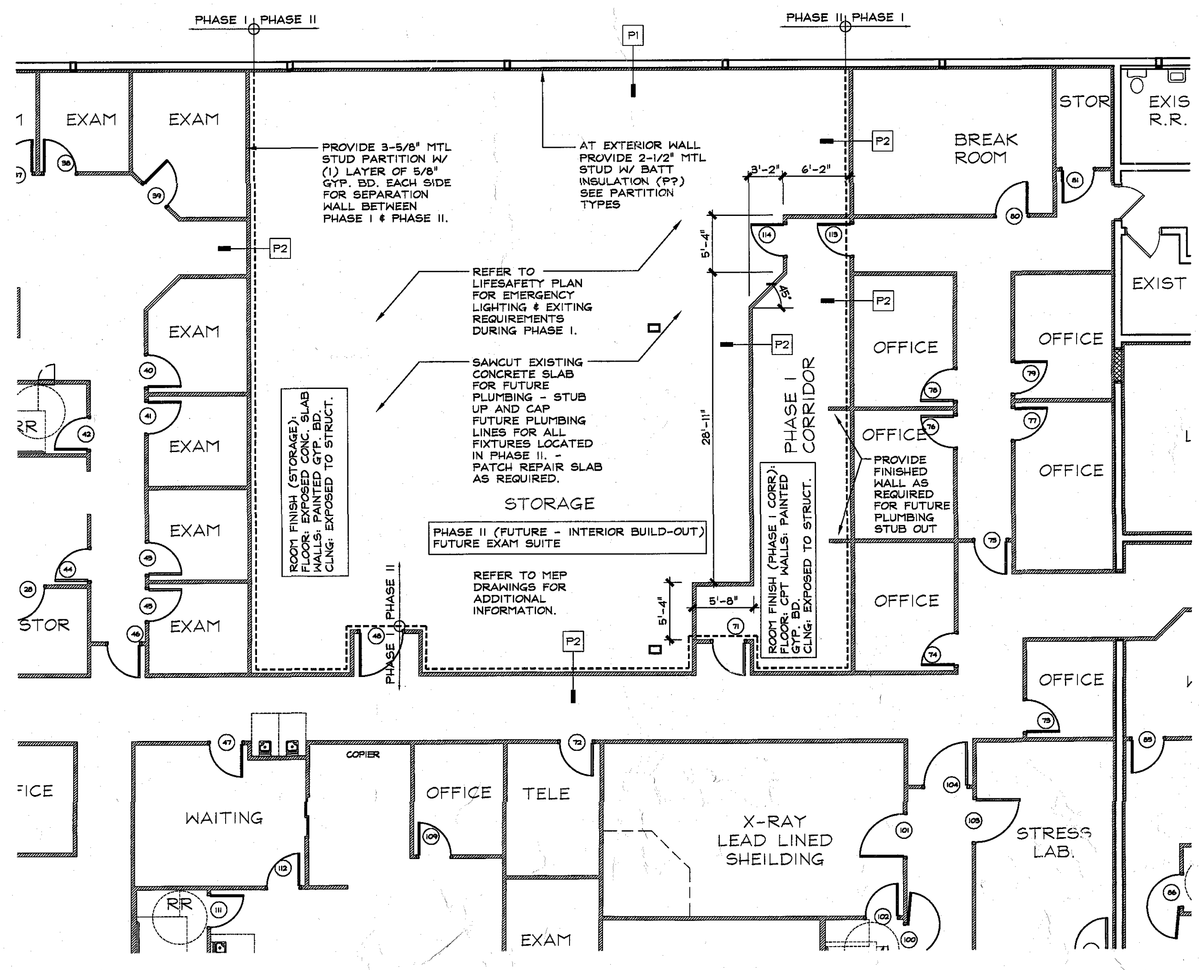
RENOVATION FOR:
EXPRESS CARE OF LEESBURG
2500 CITRUS BLVD.
LEESBURG, FLORIDA

DATE 04.22.05
JOB # 0473
A001
PERMIT CONSTRUCTION DOCUMENTS

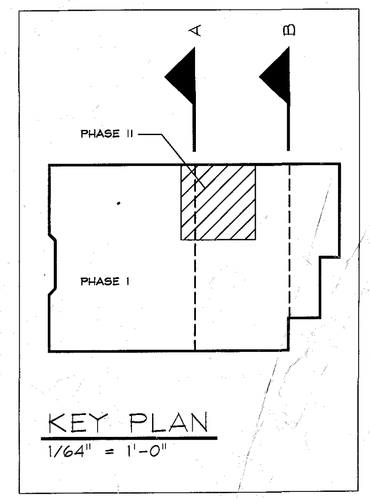


2 PHASE II- PLAN
1/8" = 1'-0"

REFER TO SHEETS A103, A104 & A105 FOR DIMENSION PLANS INDICATING PHASE II CONSTRUCITON



1 PHASE I - PLAN
1/8" = 1'-0"



KEY PLAN
1/64" = 1'-0"

REVISIONS

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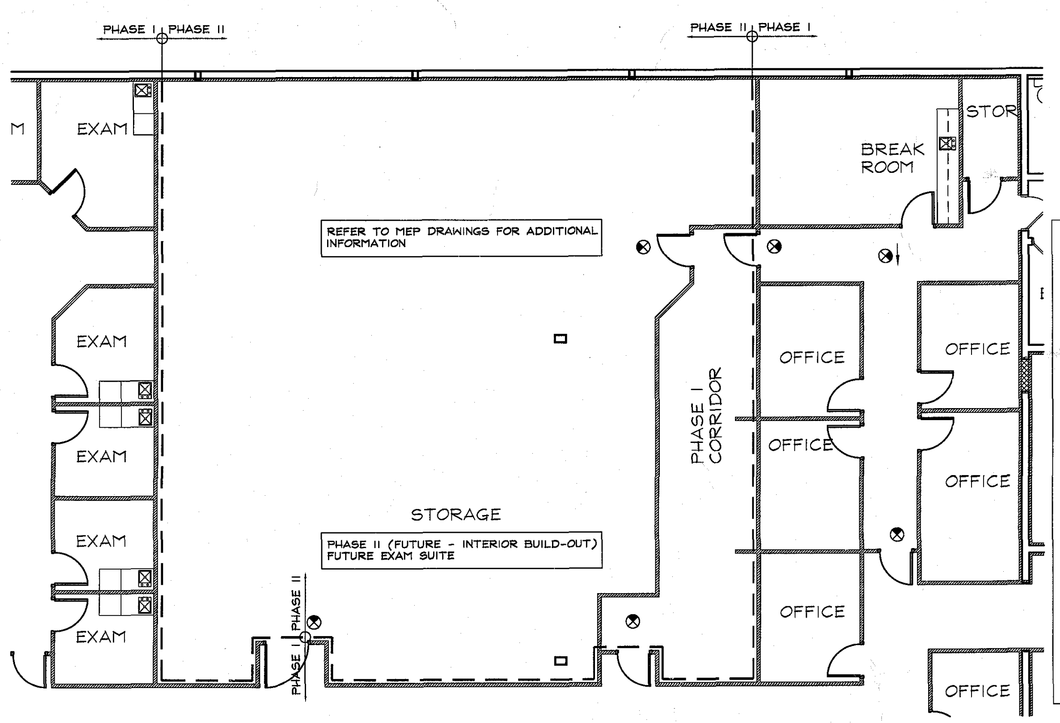
RENOVATION FOR:
EXPRESS CARE OF LEESBURG
2500 CITRUS BLVD.
LEESBURG, FLORIDA

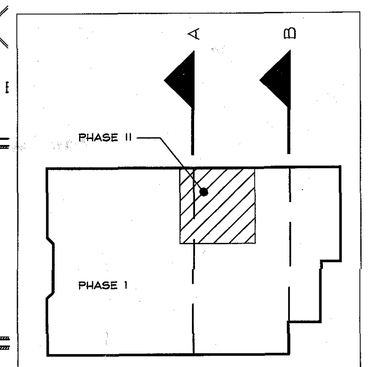
DATE	
04.22.05	
JOB #	
0473	
G001	

PERMIT CONSTRUCTION DOCUMENTS

1 LIFE SAFETY PLAN
1/8" = 1'-0"



2 LIFE SAFETY PLAN-PHASE 1
1/8" = 1'-0"



KEY PLAN
1/64" = 1'-0"

PLUMBING FIXTURE COUNT

MINIMUM NUMBER OF PLUMBING FACILITIES (FROM TABLE P403.1)

OCCUPANCY	WATER CLOSETS M	WATER CLOSETS F	LAVS	DRINKING FOUNTAINS	SERVICE SINKS
BUSINESS (240)	1 : 50	1 : 50	1 : 100		
REQUIRED	3	3	4	3	0
ASSEMBLY (49)	1 : 75	1 : 50	1 : 100		
REQUIRED	1	2	4	3	1
TOTAL REQUIRED	4	5	4	3	1
PROVIDED (NEW)	6	6	13	4	1
	3 UNISEX				
PROVIDED (EXISTING)	2	5	4	0	1

SYMBOLS LEGEND

EXIT SIGN WITH BATTERY PACK

F.E. 4A-60B-C UL RATING; MP10 MULTIPURPOSE FIRE EXTINGUISHER W/ STANDARD #5525 WALL BRACKET BY 'LARSEN'S MANUFACTURING COMPANY' (1-800-262-3473) OR ARCHITECT APPROVED EQUAL.

FE 2A-10B:C UL RATING; MP5 MULTIPURPOSE FIRE EXTINGUISHER IN AL-C2409-6R ALUMINUM SEMI-RECESSED WALL CABINET W/ CLEAR BUBBLE IN RED LETTERS BY 'LARSEN'S MANUFACTURING COMPANY' (1-800-262-3473) OR ARCHITECT APPROVED EQUAL. SEE 16/17 A401

CODE INFORMATION

TRAVEL DISTANCE, DEAD-END LENGTH, EXIT AND MEANS OF EGRESS WIDTH (FROM TABLE 1004 FBC)

OCCUPANCY CLASSIFICATION	REQUIRED	PROVIDED
BUSINESS	300 FT	162'-5"
MAXIMUM TRAVEL DISTANCE		
MAXIMUM DEAD END CORRIDOR	20 FT	
TOTAL # OF EXITS	2 REQUIRED	3 EXITS PROVIDED
EGRESS WIDTH PER PERSON (LEVEL)	0.2	3 EXITS = 14'-0"
	284 (0.2) = 57.8	OR (168")
MINIMUM CORRIDOR AISLE WIDTH	44"	64"
MINIMUM CLEAR OPENING OF EXIT DOORS	32"	MIN. 34" CLEAR

EXIT ACCESS CORRIDORS (FROM TABLE 704.2.4)

OCCUPANCY CLASSIFICATION	OCCUPANT LOAD	FIRE RESISTANCE RATING (SPRINKLERED)
BUSINESS	30 OR MORE	0

FROM TABLE 600 FBC
FIRE RESISTANCE REQUIREMENTS

GROUP B	TYPE V , UNPROTECTED		
STRUCTURAL ELEMENT	REQUIRED RATING	RATING PROVIDED	NOTES
INTERIOR BEARING WALLS - (1) FLOOR ONLY	0	NC	
ROOF ONLY	0	-	
COLUMNS - (1) FLOOR ONLY	0	-	
ROOF ONLY	0	NC	
BEAMS, GIRDERS, TRUSSES - (1) FLOOR ONLY	0	0	
ROOF ONLY	0	NC	
FLOORS & FLOOR CEILING ASSEMBLY	0	0	
ROOF & ROOF CEILING ASSEMBLY	0	0	
EXT. BEARING WALLS 0-3 FT	3 (0%)	NA	
3-10 FT	2 (10%)	NA	
10-20 FT	2 (20%)	NA	
20-30 FT	1 (40%)	1	
OVER 30 FT	1 (NL)	1	
EXT. NON BEARING WALLS 0-3 FT	3 (0%)	NA	
3-10 FT	2 (10%)	NA	
10-20 FT	2 (20%)	2	
20-30 FT	1 (40%)	NA	
OVER 30 FT	NC (NL)	NC (NL)	

APPLICABLE CODES

FLORIDA BUILDING CODE, CURRENT EDITION (BUILDING, FUEL GAS, MECHANICAL AND PLUMBING VOLUMES)
FLORIDA FIRE PREVENTION
NATIONAL ELECTRIC CODE

CONSTRUCTION TYPE - TYPEV UNPROTECTED, SPRINKLERED

OCCUPANCY
BUSINESS OCCUPANCY - GROUP B
INCIDENTAL - ASSEMBLY - LESS THAN 750 S.F.

GENERAL BUILDING LIMITATIONS FBC TABLE 502

GROUP B	TYPE V , UNPROTECTED, SPRINKLERED	
	ALLOWABLE	PROVIDED
MAX HEIGHT	55'-0"	28'-0"
MAX STORIES	5	1 W/STORAGE MEZZ.
MAX AREA MULTI-STORY	28,000 SF	23,807 SF 1ST FLOOR 874 SF 2ND FLOOR

MEANS OF EGRESS (FBC CHAPTER 10)
POPULATION/ OCCUPANCY LOAD (FROM TABLE 1003.1 FBC)

USE	AREA	AREA /PERSON	PERSONS
BUSINESS	23,807 SF	100 GROSS	240
ASSEMBLY (CANTINA)	874 SF	15 NET	49
TOTAL	24,681 SF		289

FIRE SPRINKLER & ALARM NOTES

EXISTING BUILDING IS FULLY SPRINKLERED

GC TO COORDINATE WITH FIRE SPRINKLER CONTRACTOR TO EXTEND THE EXISTING FIRE SPRINKLER SYSTEM AND TO ADJUST THE EXISTING SPRINKLER HEADS AS REQUIRED FOR THE PROPOSED LAYOUT

REFER TO ELECTRICAL E-1 FOR FIRE ALARM, ANUNCIATOR, HORN, & STROBE LOCATIONS

REFER TO ELECTRICAL E-4 FOR THE FIRE ALARM REQUIREMENTS

REFER TO MEP DRAWINGS FOR ADDITIONAL INFORMATION

EMERGENCY LIGHTING

REFER TO ELECTRICAL E-2 FOR EMERGENCY BACK-UP LIGHTS & EXIT SIGNS

REVISIONS

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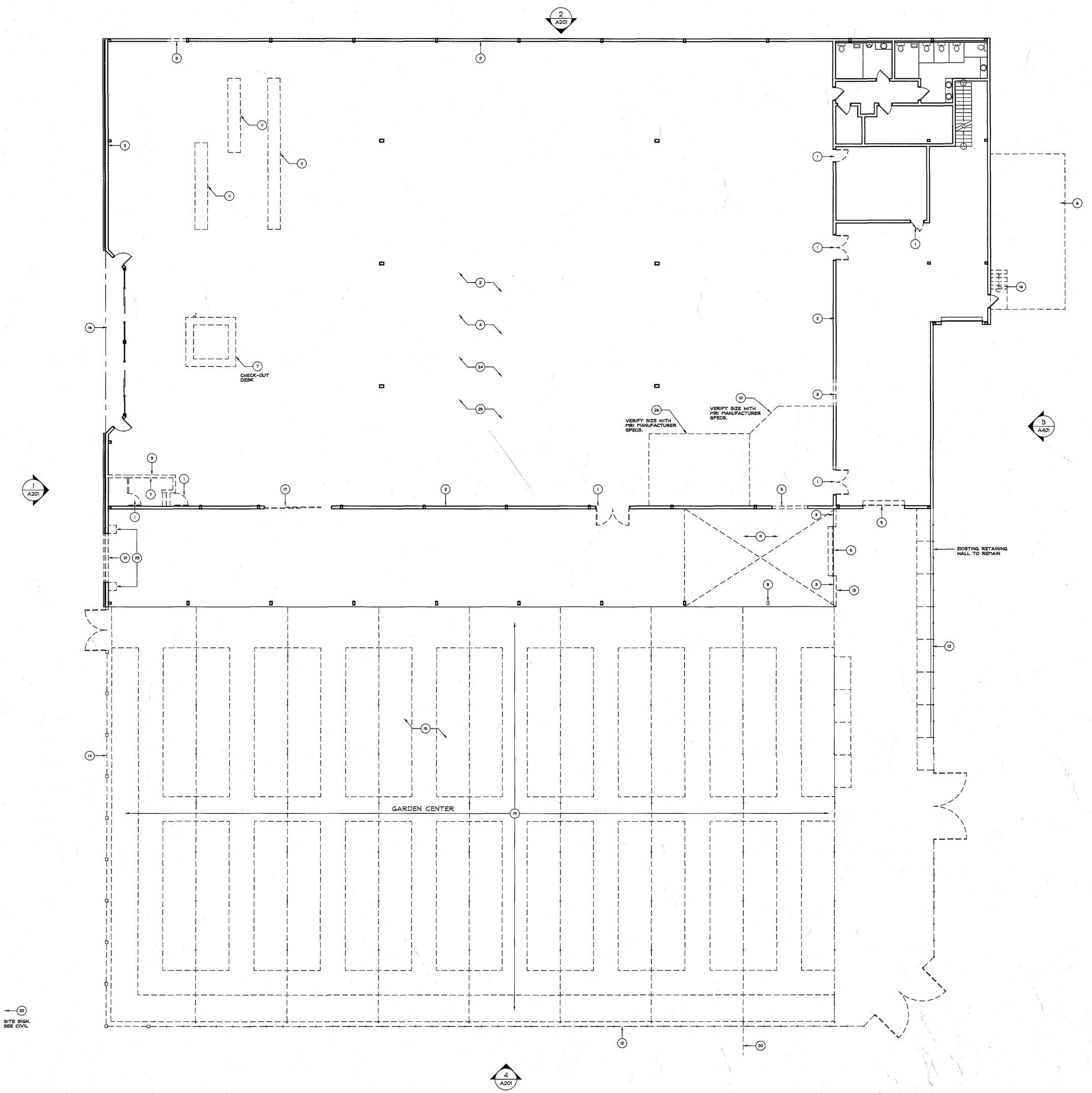
SEAL
JAMES A. COPELAND
AR 0016784

fabian CONSTRUCTION, INC.

RENOVATION FOR:
EXPRESS CARE OF LEESBURG
2500 CITRUS BLVD.
LEESBURG, FLORIDA

DATE 04.22.05
JOB # 0473
LS101
PERMIT CONSTRUCTION DOCUMENTS



1 DEMOLITION FLOOR PLAN
3/32" = 1'-0"

GENERAL NOTES:

1. VERIFY WITH OWNER ANY SALVAGE ITEMS OR EQUIPMENT
2. USE VISQUEEN TO PROTECT PARTS OF THE EXISTING WORK SCHEDULED TO REMAIN. CUT AWAY CAREFULLY THE PARTS TO BE DEMOLISHED TO REDUCE THE AMOUNT OF NECESSARY REPAIRS.
3. PROVIDE TEMPORARY SUPPORT TO STRUCTURE AS NEEDED DURING CUTTING OF NEW OPENINGS.
4. PREVENT ACCUMULATION OF DEBRIS AND OVERLOADING OF ANY PARTS OF THE STRUCTURE.
5. PREVENT DAMAGES TO OVERHEAD WIRES, UNDERGROUND CABLES, TELEPHONE, WATER AND SEWER LINES DURING DEMOLITION OPERATIONS.
6. AFTER COMPLETION OF THE DEMOLITION WORK, LEAVE SITE NEAT & ORDERLY ON A DAILY BASIS.
7. ALL WORK SHALL MEET OR EXCEED ALL CURRENT APPLICABLE LOCAL, STATE AND FEDERAL FIRE, BUILDING AND LIFE SAFETY CODES.
8. CONTRACTOR SHALL ARRANGE WITH THE UTILITY COMPANIES FOR THE DISCONNECTION OF SERVICES BEFORE STARTING DEMOLITION WORK AS REQUIRED.
9. PREVENT ACCESS OF UNAUTHORIZED PERSONS TO PARTLY DEMOLISHED STRUCTURES.
10. ITEMS FOR REUSE SHALL BE STORED BY CONTRACTOR ON SITE IN OWNER'S BUILDING IN A SPECIFIED LOCATION. ITEMS ARE TO BE CLEANED, PATCHED, REFINISHED, PAINTED OR REPAIRED AS REQUIRED PRIOR TO INSTALLATION.
11. ITEMS NOT TO BE RETAINED BY OWNER SHALL BE DISPOSED OF BY THE CONTRACTOR AT THE CONTRACTOR'S EXPENSE.
12. EXISTING ASPHALT, TREES, SPRINKLER HEADS, AND MISCELLANEOUS ITEMS THAT CONFLICT W/ PROPOSED CONSTRUCTION SHALL BE COORDINATED BY GENERAL CONTRACTOR FOR REMOVAL AND/OR RELOCATION PRIOR TO COMMENCEMENT OF WORK.

DEMOLITION KEY NOTES:

1. REMOVE EXISTING DOOR/FRAME & ASSOCIATED HARDWARE
2. REMOVE EXISTING STORE FIXTURES IF NOT REMOVED BY PRIOR OWNER
3. REMOVE EXISTING PARTITION
4. REMOVE EXISTING CEILING GRID & SUSPENDED ACOUSTICAL TILE
5. REMOVE EXISTING ROLL-UP DOOR
6. REMOVE EXISTING CONC. SLAB AS REQUIRED FOR HANDICAP RAMP & STAIR - SEE 1/A105
7. REMOVE EXISTING CASEWORK
8. REMOVE EXISTING STEEL COLUMN
9. REMOVE PORTION OF EXISTING ROOF
10. SAWCUT EXISTING SLAB AS REQUIRED FOR MRI - SEE STRUCTURAL
11. SAWCUT EXISTING SLAB AS REQUIRED FOR INTERIOR BEARING PARTITION - SEE 2/A105
12. REMOVE EXISTING CHAIN LINK FENCING AND GATES
13. REMOVE EXISTING IRRIGATION PUMP, PIPING, AND ASSOCIATED EQUIP.
14. REMOVE EXISTING WROUGHT IRON FENCING
15. REMOVE EXISTING SHADCLOTH AND SUPPORTS
16. REMOVE EXISTING STAIR AND HANDRAIL
17. REMOVE EXISTING OPERABLE GLASS DOOR
18. REMOVE EXISTING BUILDING SIGNAGE
19. REMOVE EXISTING CONC. SLAB
20. REMOVE EXISTING CHAINLINK SLIDING GATE - SEE CIVIL
21. REMOVE PORTION OF EXISTING MASONRY WALL AND FAUX WINDOW
22. REMOVE EXISTING PYLON SIGN LOCATED AT FRONT PARKING ENTRANCE - SEE CIVIL
23. REMOVE PORTION OF EXISTING SLAB FOR COLUMN & COLUMN PAD
24. REMOVE EXISTING VCT FLOOR TILE
25. REMOVE EXISTING FIRE ALARM SYSTEM
26. PRIOR TO REMOVAL OF EXISTING SLAB VERIFY SLAB REQUIREMENTS WITH MEDICAL EQUIPMENT SUPPLIER. EXISTING SLAB MAY NEED TO BE REMOVED FOR RAISED FLOOR.

1. REFER TO CIVIL DRAWINGS FOR ADDITIONAL SITE DEMOLITION -
2. REFER TO MEP FOR ADDITIONAL MECHANICAL, ELECTRICAL, AND PLUMBING DEMOLITION ITEMS

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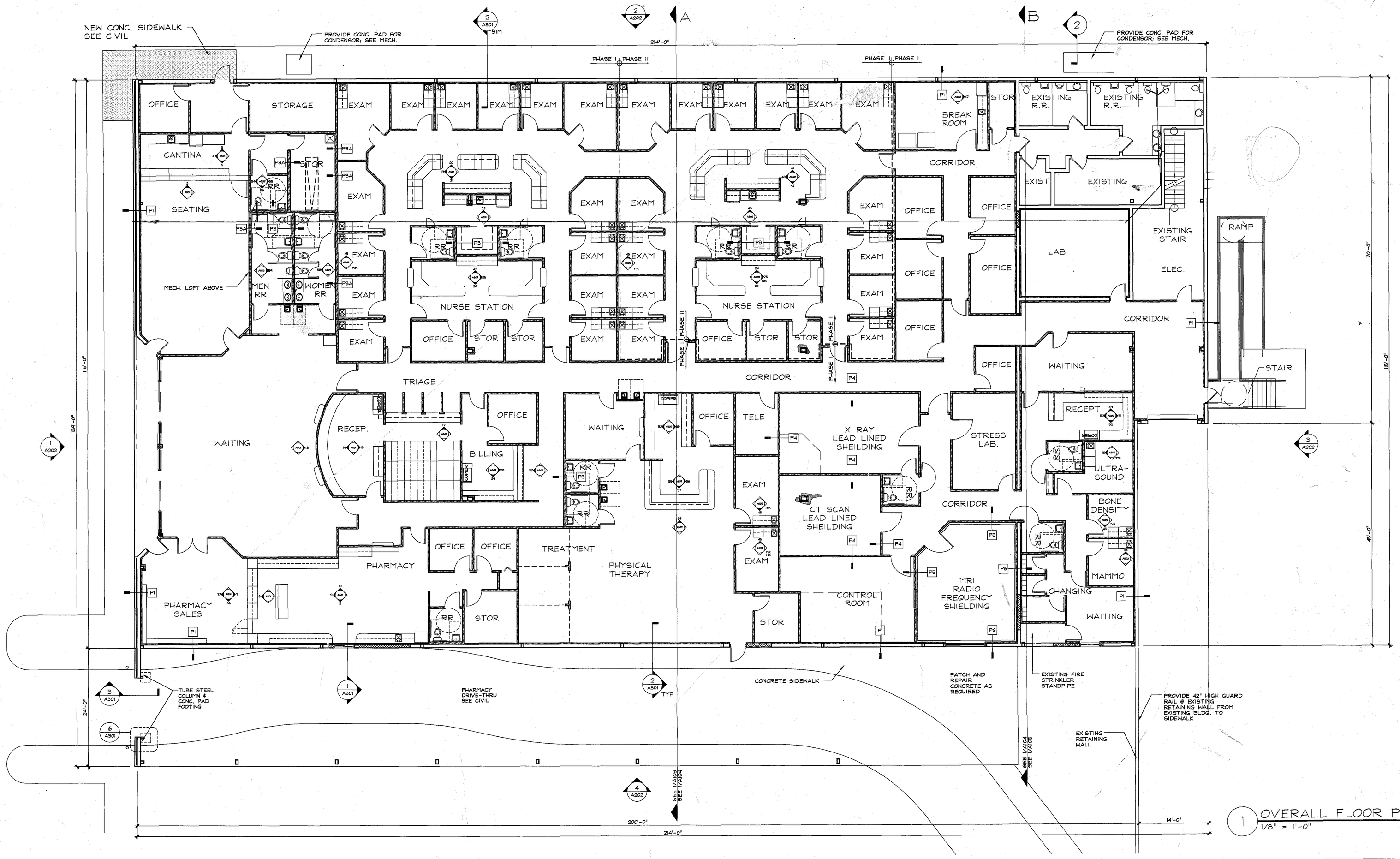


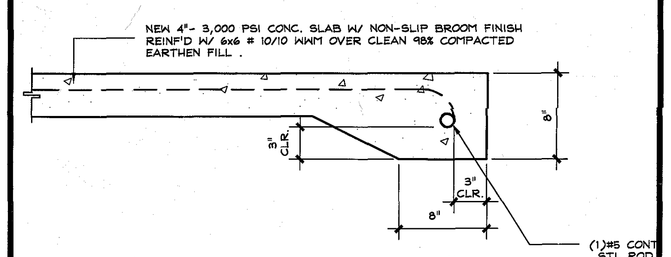
1 OVERALL FLOOR PLAN
1/8" = 1'-0"

ITEMS NOT IN CONTRACT

SEE FLOOR PLAN FOR ADDITIONAL ITEMS

1. SECURITY SYSTEM AND INSTALLATION.
2. TELEVISION BRACKETS AND INSTALLATION.
3. TELEVISION CABLE INSTALLATION.
4. DATA CABELING, SERVER, TELECOMMUNICATION INSTALLATION.
5. BUILDING EXTERIOR SIGNAGE - FACE OF BUILDING AND GROUND SIGNAGE AT MAIN ENTRANCE.
6. MEDICAL EQUIPMENT.
7. RF SHIELDING, INCLUDING DOORS, WINDOWS, WALLS AND CEILINGS.
8. RAISED FLOORING AT CONTROL ROOM 217.
9. CANTINA EQUIPMENT, REFRIGERATOR, COOLER, ICE MAKER.
10. REFRIGERATORS.
11. COPIERS.
12. ATM.
13. PHARMACY - FREE STANDING SHELVING.
14. CANTINA STORAGE SHELVING.
15. CHANGING ROOM LOUVERS.
16. VENDING MACHINES.

CONCRETE CONDENSING PAD



2 THICKENDED SLAB EDGE
1-1/2" = 1'-0"

GENERAL NOTES

REFER TO SHEET A503 FOR DOOR & WINDOW TYPES, ROOM FINISH & DOOR SCHEDULES

CONSTRUCTION PHASING:
REFER TO SHEET G001 FOR CONSTRUCTION PHASING INFORMATION

SECURITY SYSTEM NOTE:

GENERAL CONTRACTOR TO COORDINATE GENERAL / ELECTRICAL REQUIREMENTS AND EXACT LOCATIONS W/ OWNER PRIOR TO COMMENCEMENT OF WORK FOR THE FOLLOWING ITEMS:

1. OWNER SUPPLIED SECURITY SYSTEM.
2. OWNER SUPPLIED SECURITY CAMERA.

IMAGING SYSTEMS NOTE:

G.C. TO VERIFY W/ OWNER THE X-RAY SHIELDING REQUIREMENTS AND IF FLOOR PLAN SUBMITTAL TO DEPT. OF HEALTH IS REQUIRED BASED ON FINAL X-RAY AND CT SCAN SELECTION.

G.C. TO VERIFY W/ IMAGING EQUIPMENT SUPPLIER FOR ALL SHIELDING REQUIREMENTS AND LOCATIONS AND EQUIPMENT LAYOUTS.

PARTITION TYPES

NOTE:
ALL INTERIOR PARTITIONS TO BE "P2" UNLESS OTHERWISE NOTED.

P1 FINISH - (1) LAYER 5/8" GYP. BD.
STRUCTURE - 2-1/2" (22 GA.) MTL STUD @ 24" O.C.
FROM FIN. FLOOR TO 6" ABOVE FINISH CEILING TYP.
W/ BATT INSULATION- OVER EXISTING MTL BLDG EXTERIOR FRAMING OR EXISTING MASONRY - BRACE MTL STUD AS REQUIRED

P2 FINISH - (1) LAYER 5/8" GYP. BD. EACH SIDE
STRUCTURE - 3-5/8" (22 GA.) MTL STUD @ 24" O.C.
FROM FIN. FLOOR TO 6" ABOVE FIN. CEILING

P3 FINISH - (1) LAYER 5/8" GYP. BD. EACH SIDE
STRUCTURE - 6" (22 GA.) MTL STUD @ 24" O.C.
FROM FIN. FLOOR TO 6" ABOVE FIN. CEILING

P3A FINISH - (1) LAYER 5/8" GYP. BD. EACH SIDE (MOISTURE RESISTANT AT RESTROOM SIDE).
STRUCTURE - 6" (SCO9162-43) (20 GA.) MTL STUD @ 16" O.C. W/ (2) 2x WOOD TOP PLATE.

P4 FINISH - (1) LAYER LEAD LINED GYP. BD. EACH SIDE
STRUCTURE - 3-5/8" (22 GA.) MTL STUD @ 24" O.C.
FROM FIN. FLOOR TO 6" ABOVE FIN. CEILING

P5 FINISH - (1) LAYER 5/8" GYP. BD. ONE SIDE
(1) STRUCTURE - 6" (20 GA.) MTL STUD @ 16" O.C.
FROM FIN. FLOOR TO RADIO FREQUENCY SHEILDING CIELING SUPPORT
(2) AIR SPACE - 1" AIR SPACE - VERIFY W/ RF SUPPLIER
(3) RF - RADIO FREQUENCY SHEILDING - COORDINATE W/ RF SUPPLIER

P6 FINISH - (1) LAYER 5/8" GYP. BD. EACH SIDE
(1) STRUCTURE - 6" (20 GA.) MTL STUD @ 16" O.C.
FROM FIN. FLOOR TO RADIO FREQUENCY SHEILDING CEILING SUPPORT OVER EXISTING MTL BLDG. FRAMING OR EXISTING MASONRY
(2) AIR SPACE - 1" AIR SPACE - VERIFY W/ RF SUPPLIER
(3) RF - RADIO FREQUENCY SHEILDING - COORDINATE W/ RF SUPPLIER

——— - EXISTING

▨ - NEW INFIL/PARTITION

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JOB # 0473
A102
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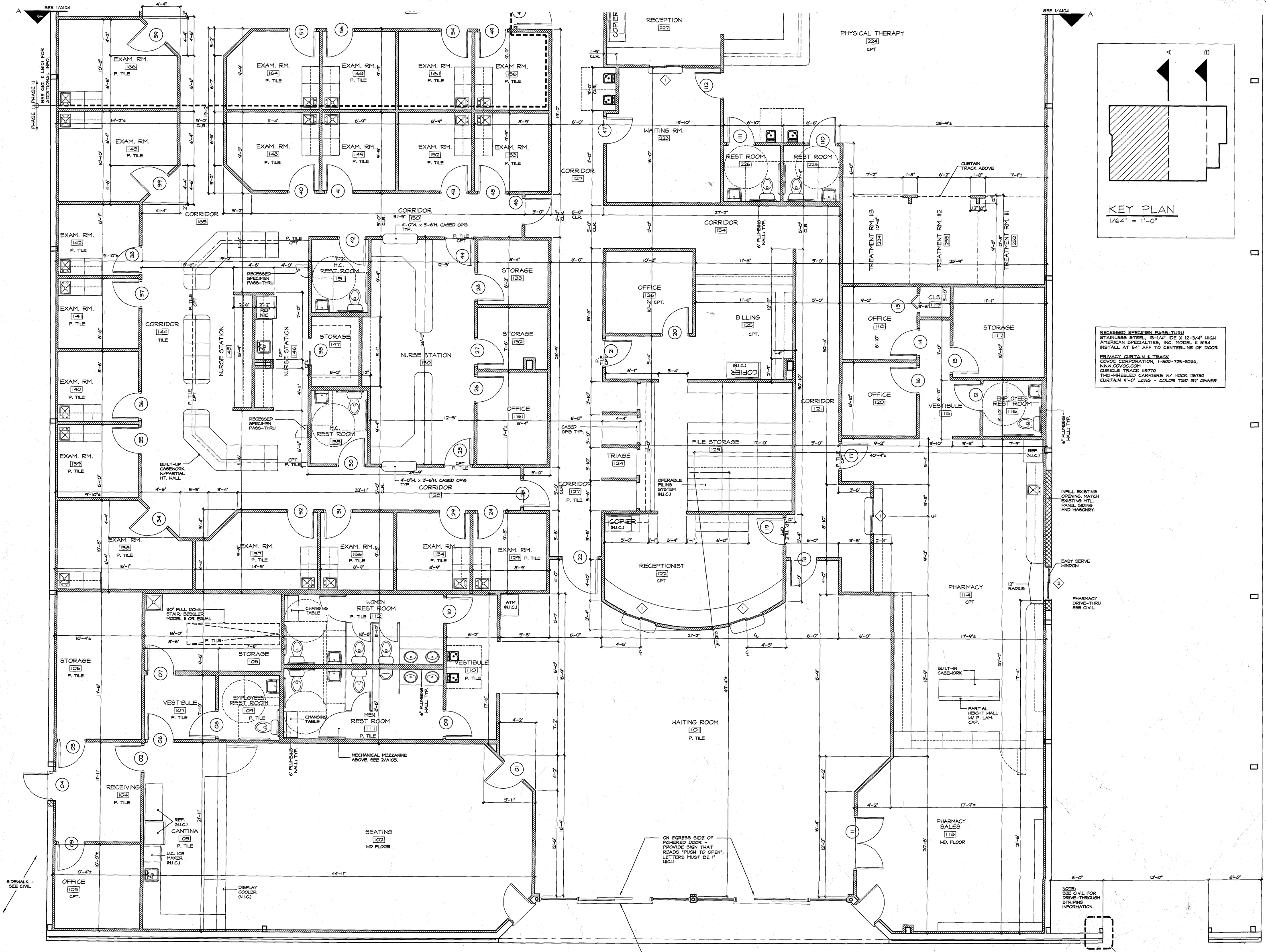

KEY PLAN
1/64" = 1'-0"

RECESSED SPECIMEN PASS-THRU
STAINLESS STEEL, 13-1/4" IDE X 12-3/4" HIGH
AMERICAN SPECIALTIES, INC. MODEL # 8154
INSTALL AT 54" AFF TO CENTERLINE OF DOOR

PRIVACY CURTAIN & TRACK
COVOC CORPORATION, 1-800-725-3266,
WWW.COVOC.COM
CUBICLE TRACK #8770
TWO-WHEELED CARRIERS W/ HOOK #8780
CURTAIN 9'-0" LONG - COLOR TBD BY OWNER

NORTH

1 PARTIAL FLOOR PLAN
1/4" = 1'-0"

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JOB #	0473
	A103

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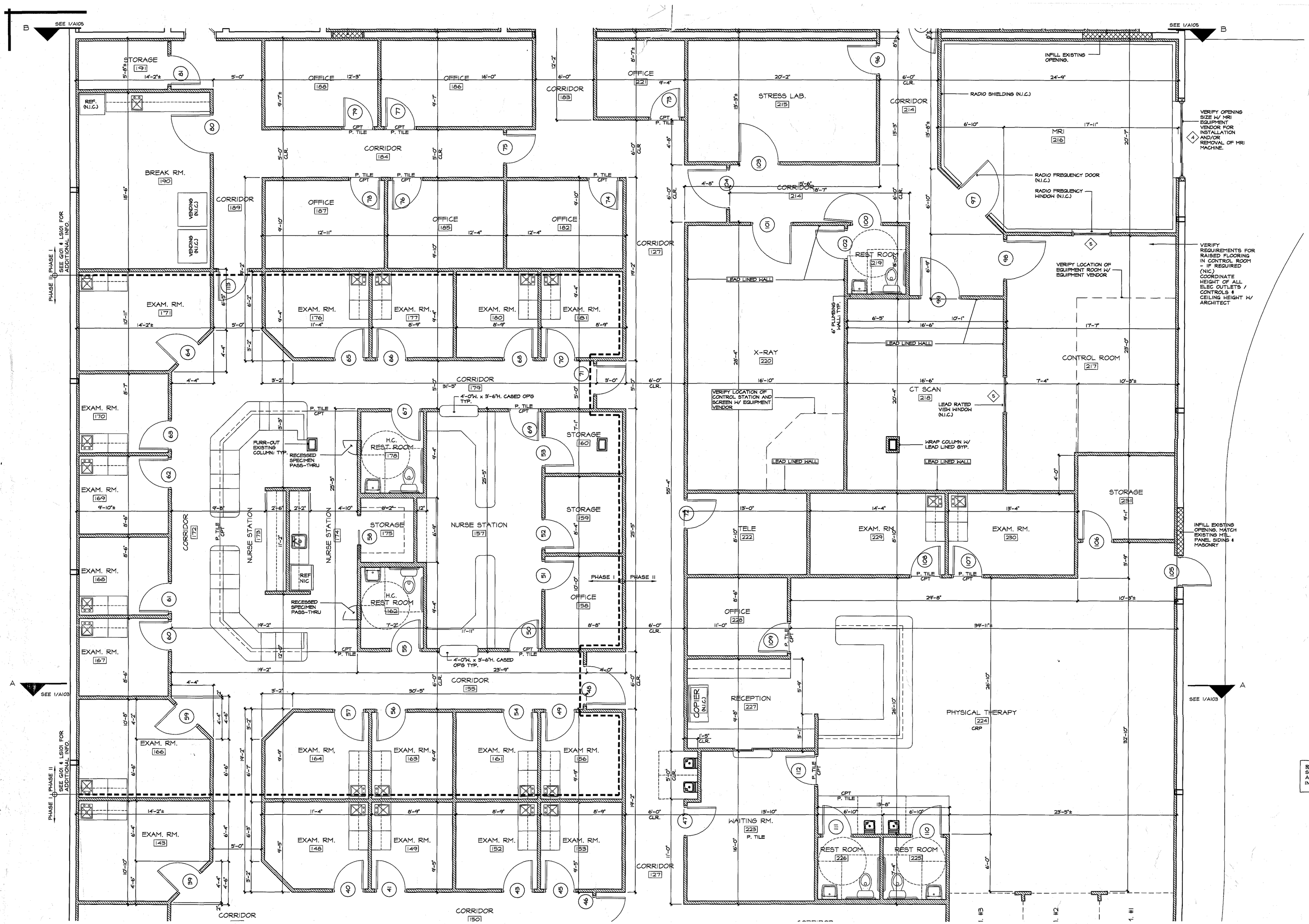
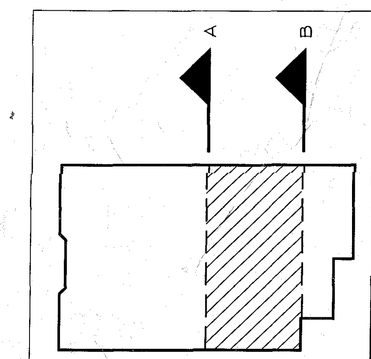


NORTH

2 PARTIAL FLOOR PLAN

1/4" = 1'-0"

SEE SHEET G001 FOR PHASING INFO



KEY PLAN

1/64" = 1'-0"

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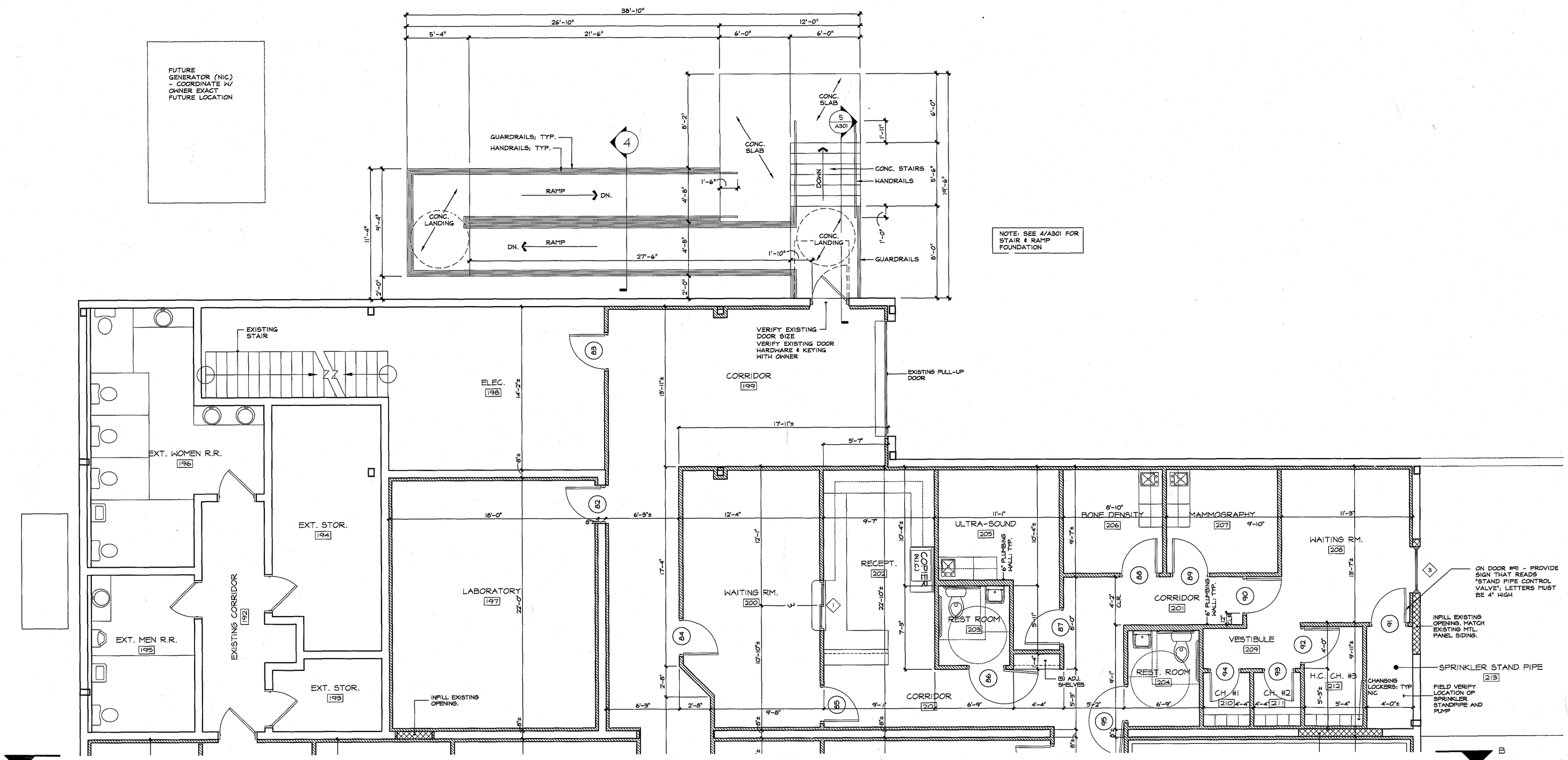
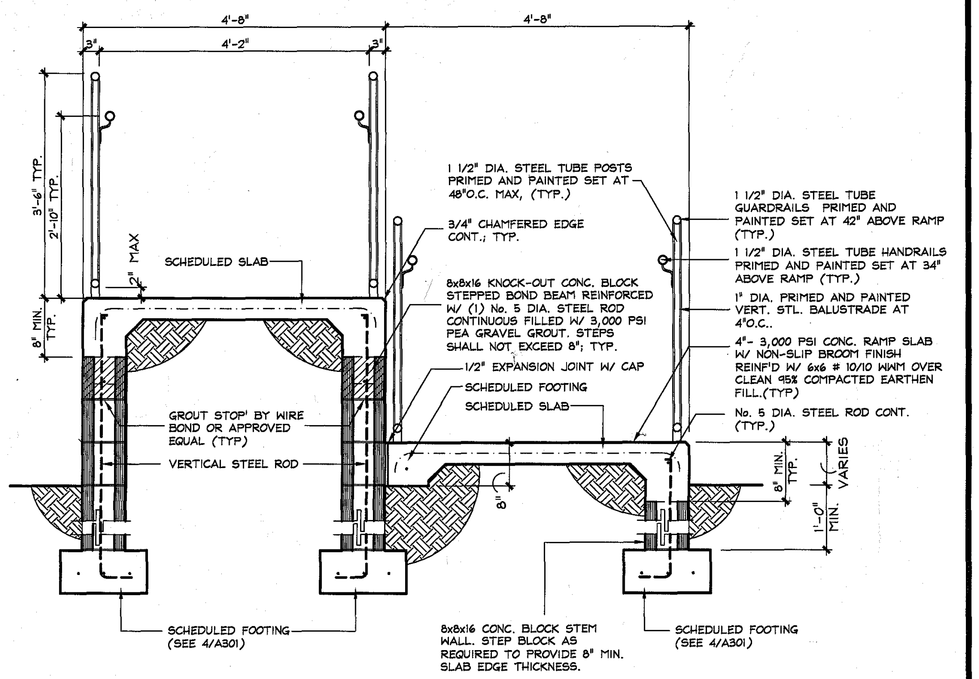
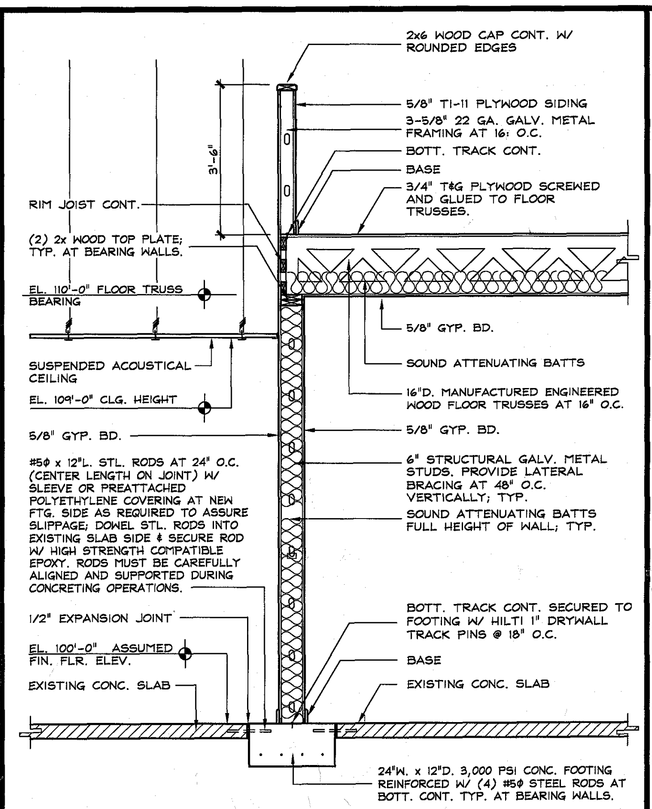


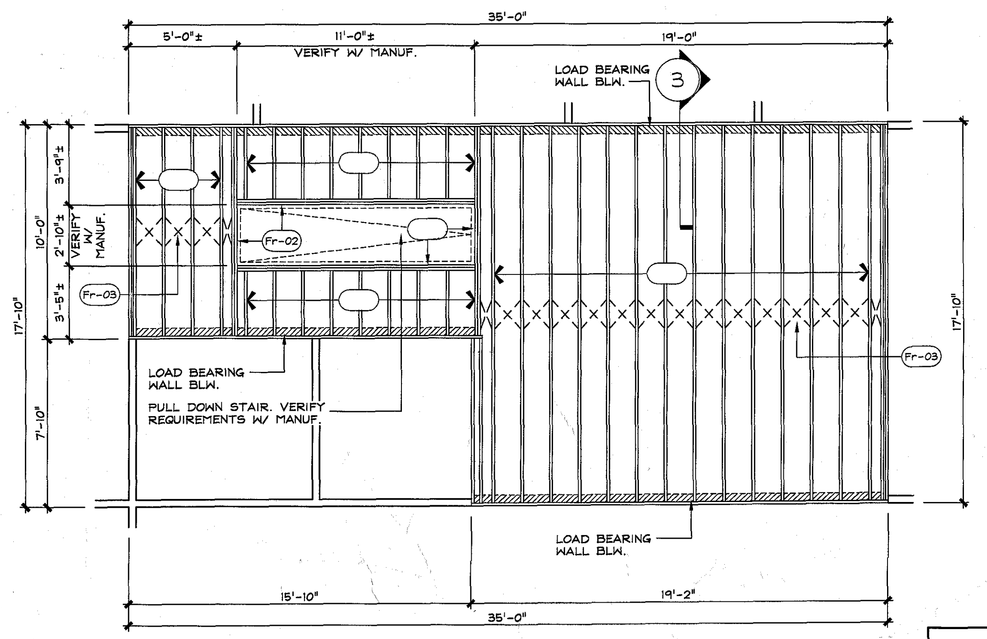
1 PARTIAL FLOOR PLAN
1/4" = 1'-0"



4 RAMP DETAIL
3/4" = 1'-0"



3 WALL SECTION
1/2" = 1'-0"



2 MECH. MEZZANINE/ FRAMING PLAN
1/4" = 1'-0"

FRAMING SCHEDULE

MARK	DESCRIPTION
Fr-01	16"D. PRE-MANUFACTURED ENGINEERED WOOD FLOOR TRUSSES AT 16" O.C.
Fr-02	GIRDER FLOOR TRUSS
Fr-03	DIAGONAL BRACING

LOFT FRAMING NOTES

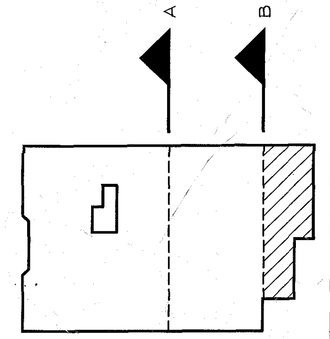
LOFT LOAD DATA

DESCRIPTION	LOAD
LIVE LOAD	55 PSF
DEAD LOAD	20 PSF
TOTAL LOAD	75 PSF

L/360 DEFLECTION

0% ALLOWABLE INCREASE

NOTE:
POST SIGN AT CONSPICUOUS LOCATION EA. SIDE OF LOFT AND AT TOP OF STAIR STATING :
"FLOOR LOAD LIMIT 75 LBS PER SQUARE FOOT"



KEY PLAN
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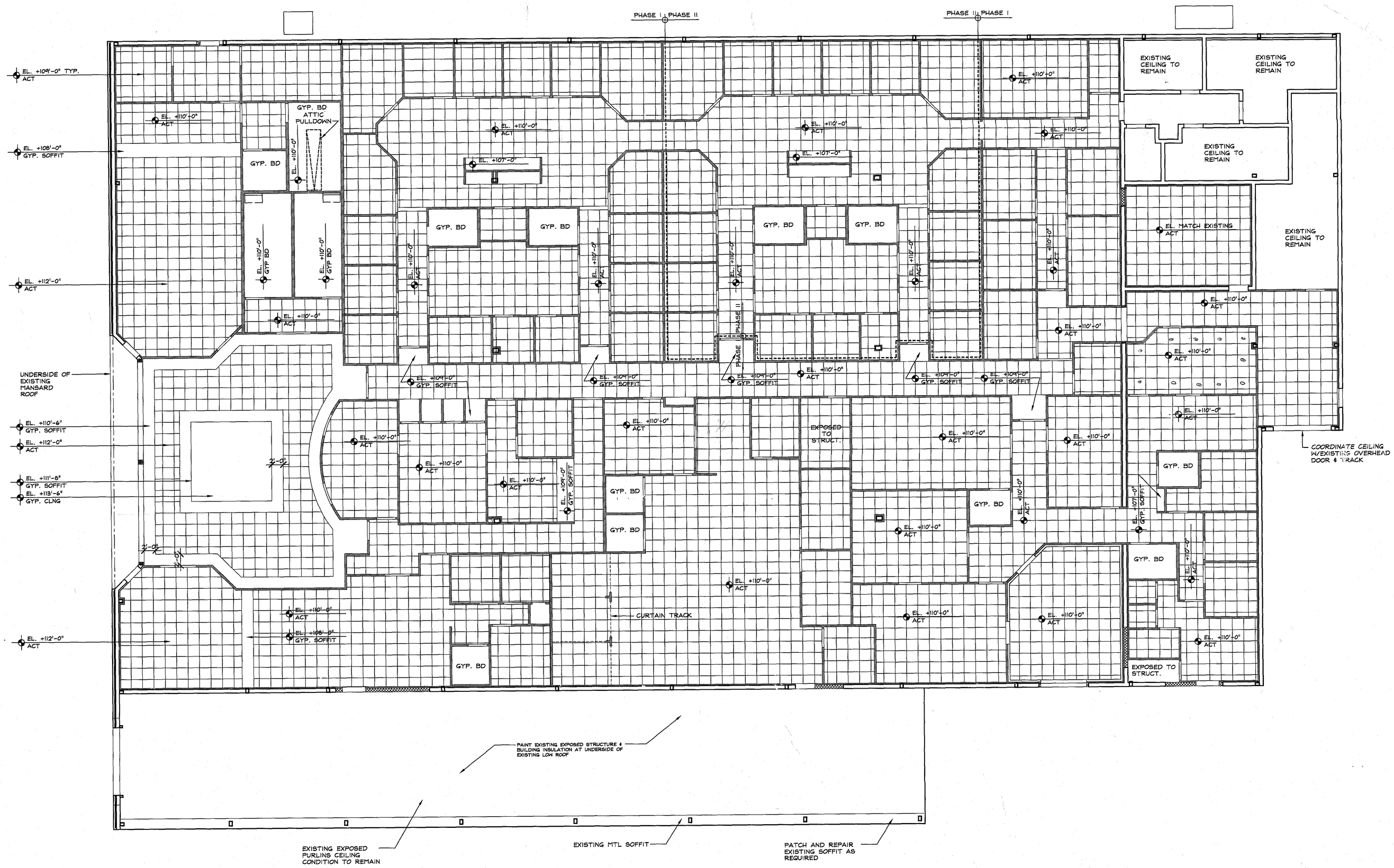

1 REFLECTED CEILING
1/8" = 1'-0"

NOTE:
1. ALL CEILINGS SHALL BE 9'-0" A.F.F. UNLESS NOTED OTHERWISE.
2. G.C. TO COORDINATE w/ IMAGING EQUIPMENT VENDOR FOR RADIATION SHEILDING REQUIREMENTS AND LOCATIONS @ X-RAY, CT SCAN & MRI.
3. G.C. TO COORDINATE W/OWNER ANY CEILING MOUNTED EQUIPMENT - NOTIFY ARCHITECT

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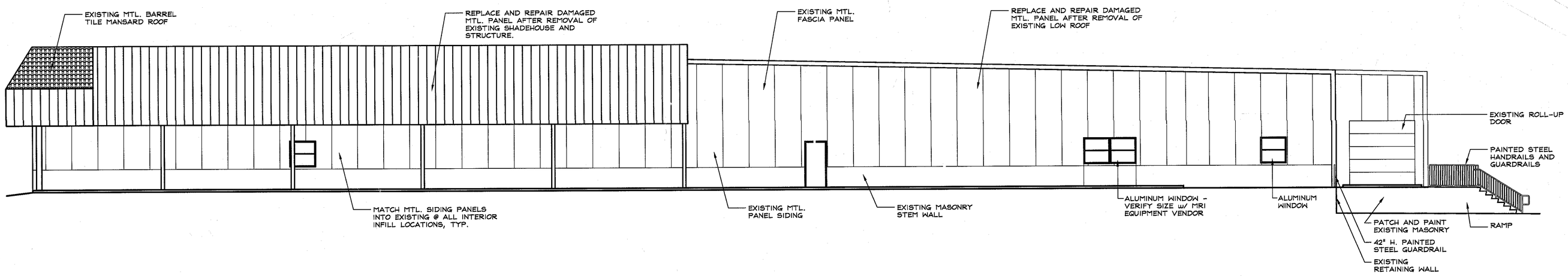


4 RIGHT ELEVATION-RENOVATION
1/8" = 1'-0"

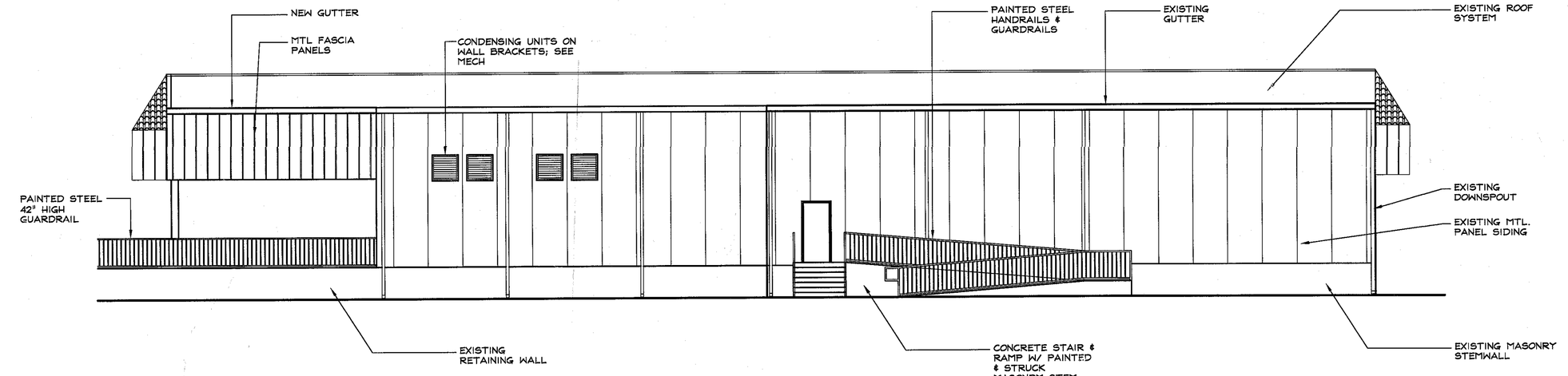
GENERAL NOTES

1) PRESSURE WASH ENTIRE BUILDING

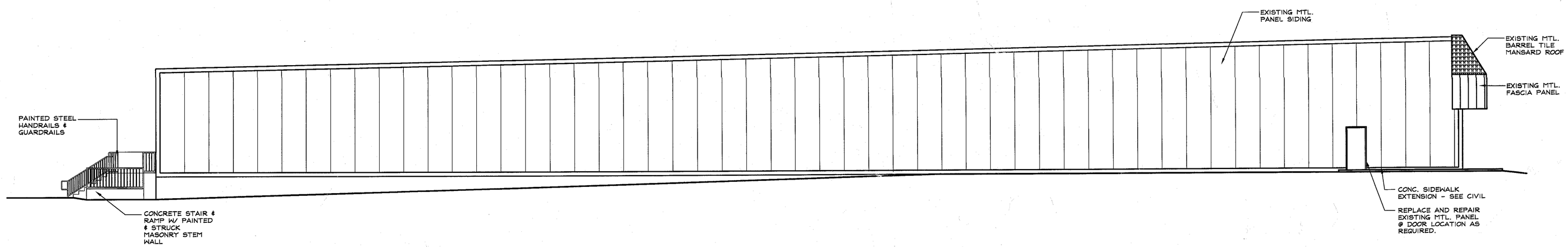
2) REPAINT FRON FACADE; INCLUDING MTL ROOF PANELS, MTL FASCIA, AND SPILTFACE BLOCK

3) PAINT EXISTING MASONRY STEM WALL AT EAST & SOUTH ELEVATIONS

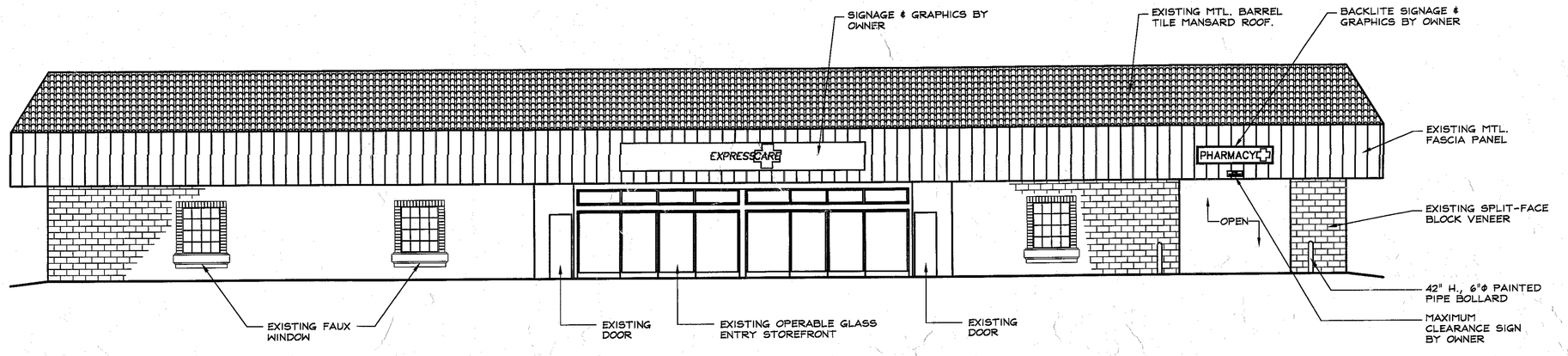
4) PAINT EXPOSED STRUCTURE & INSULATION AT UNDERSIDE OF EXISTING LOW ROOF



3 REAR ELEVATION-RENOVATION
1/8" = 1'-0"



2 LEFT ELEVATION-RENOVATION
1/8" = 1'-0"



1 FRONT ELEVATION-RENOVATION
1/8" = 1'-0"

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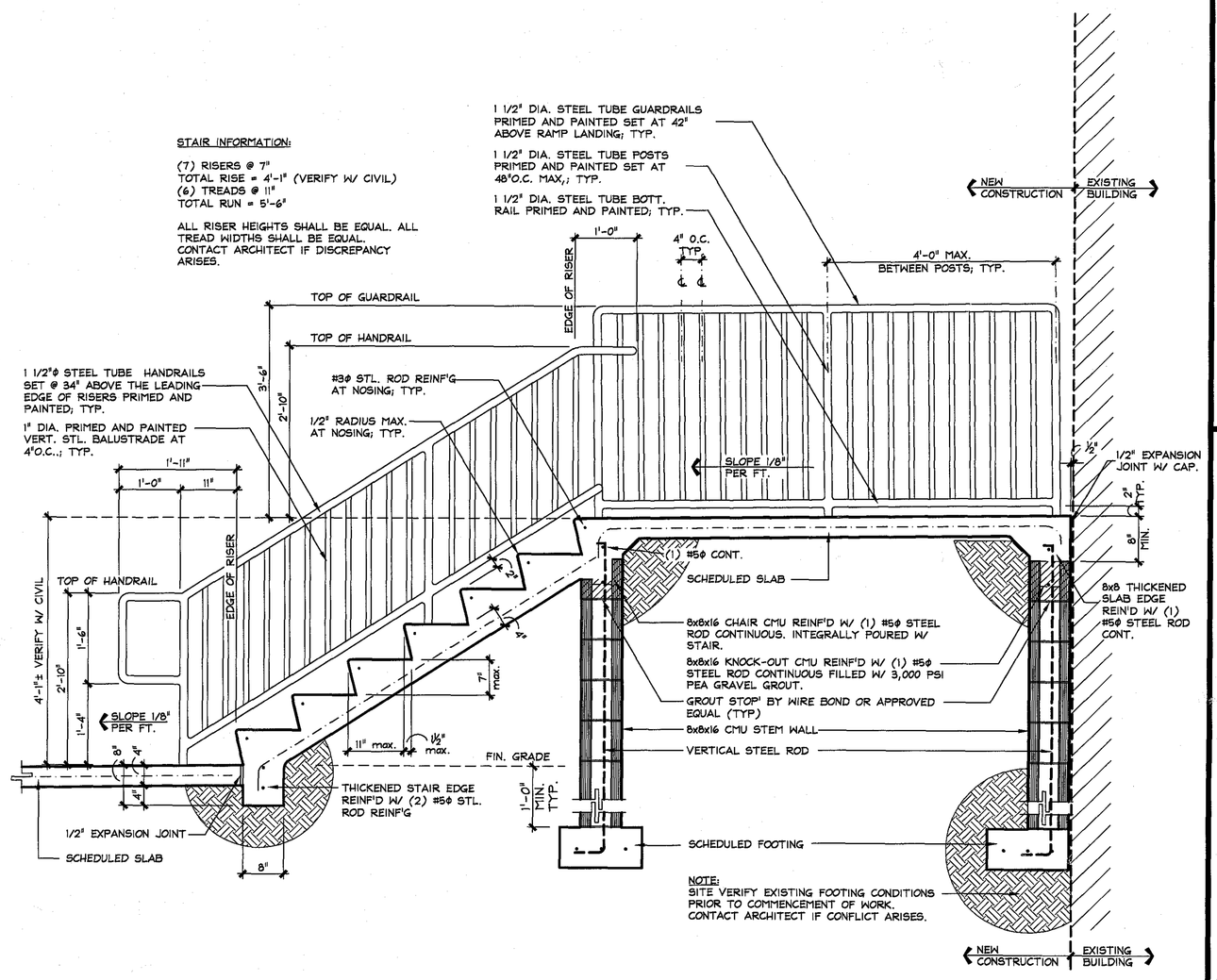
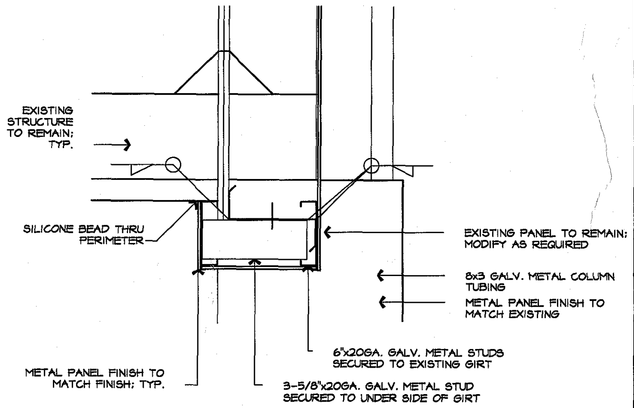
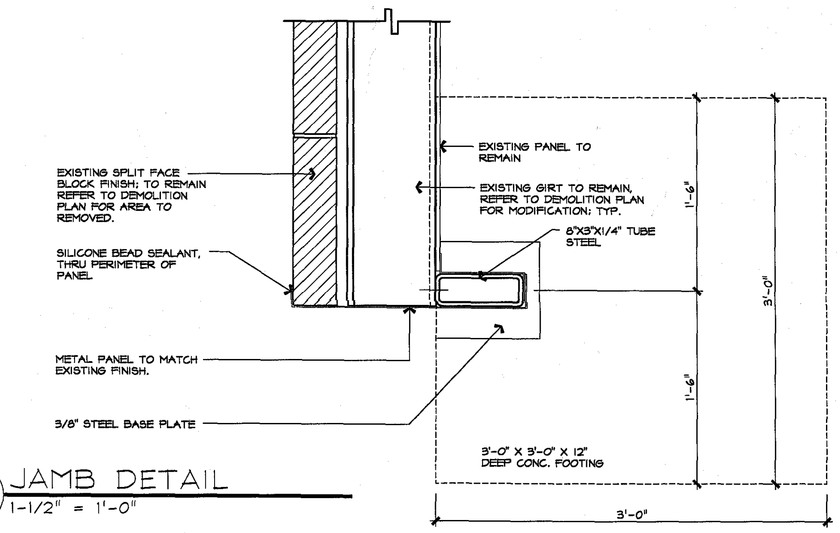


5 STAIR DETAIL
3/4" = 1'-0"

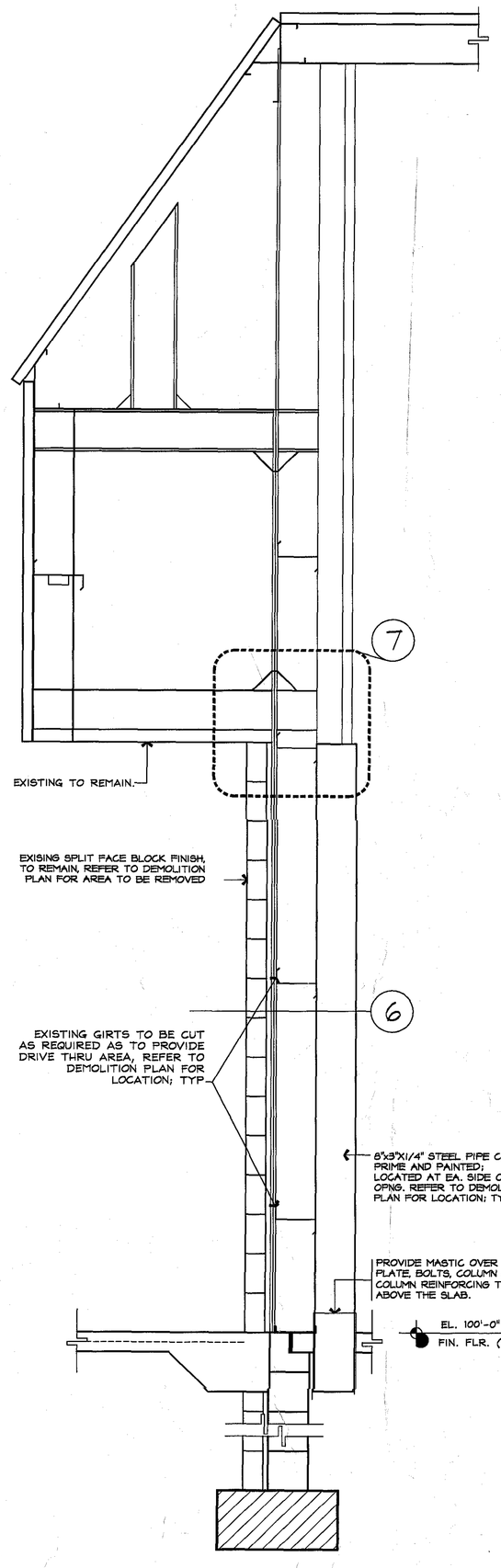
04.200.001



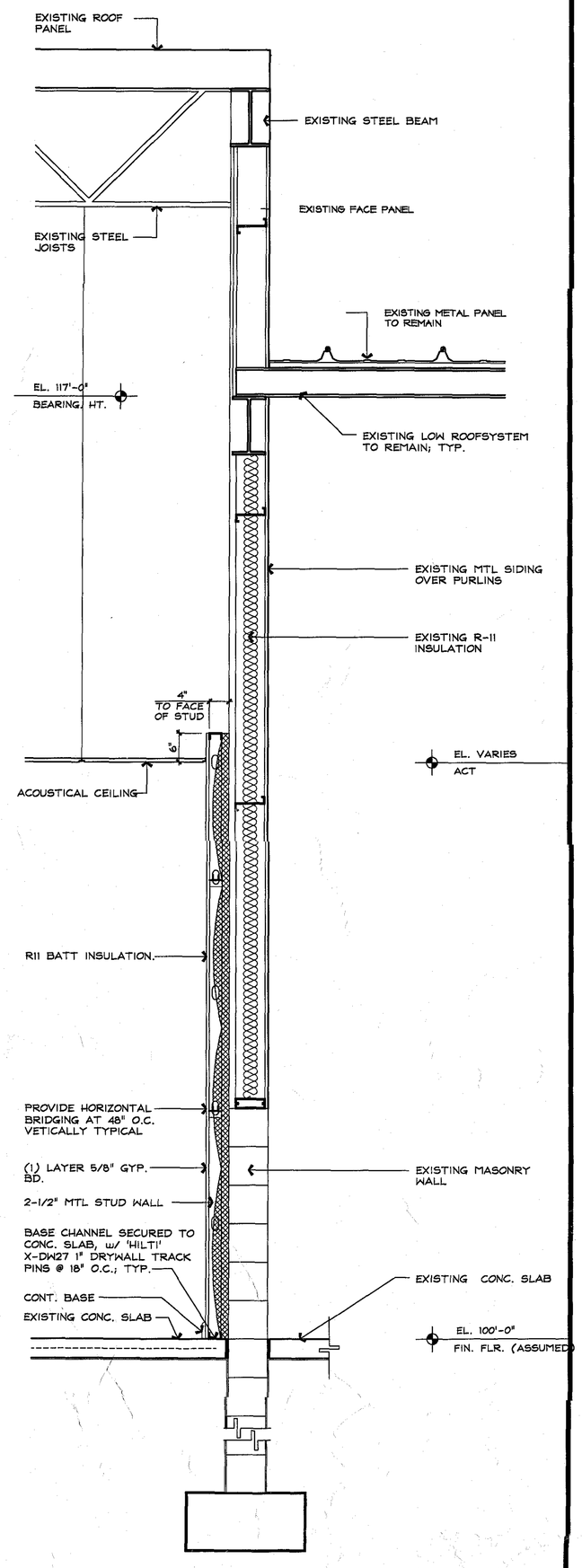
7 HEAD DETAIL
1-1/2" = 1'-0"



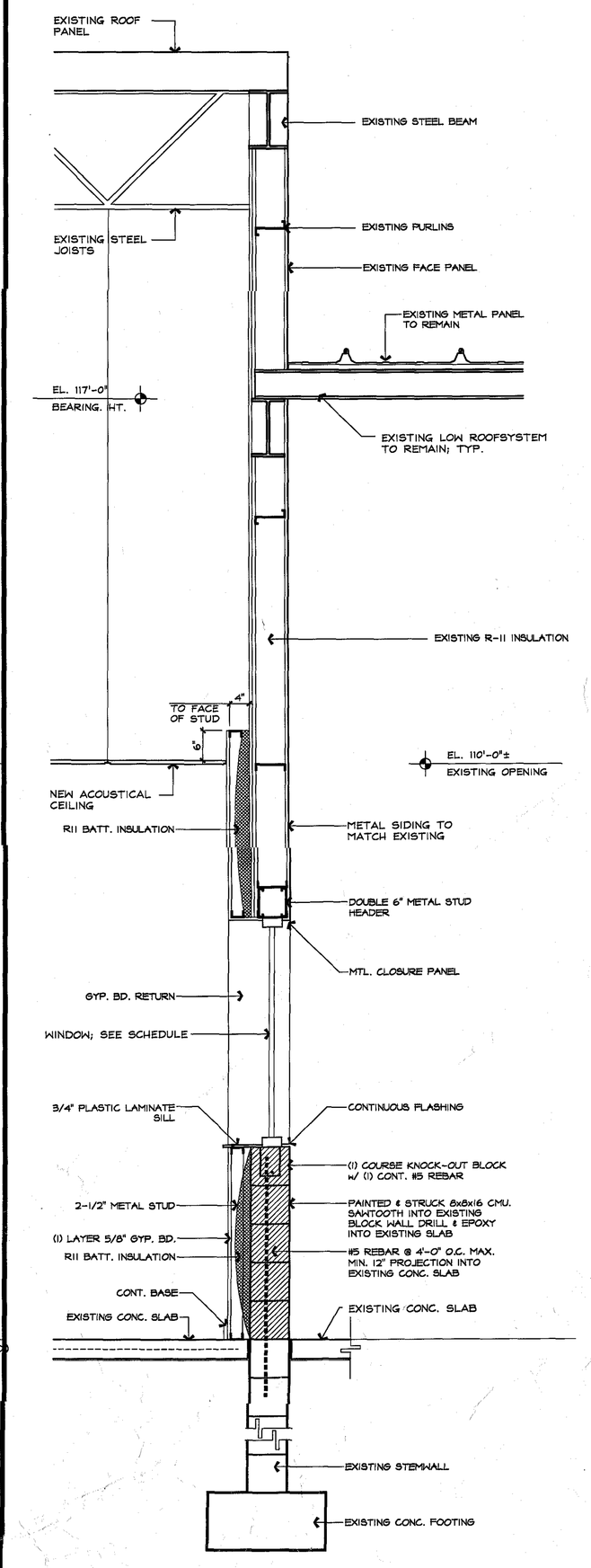
6 JAMB DETAIL
1-1/2" = 1'-0"



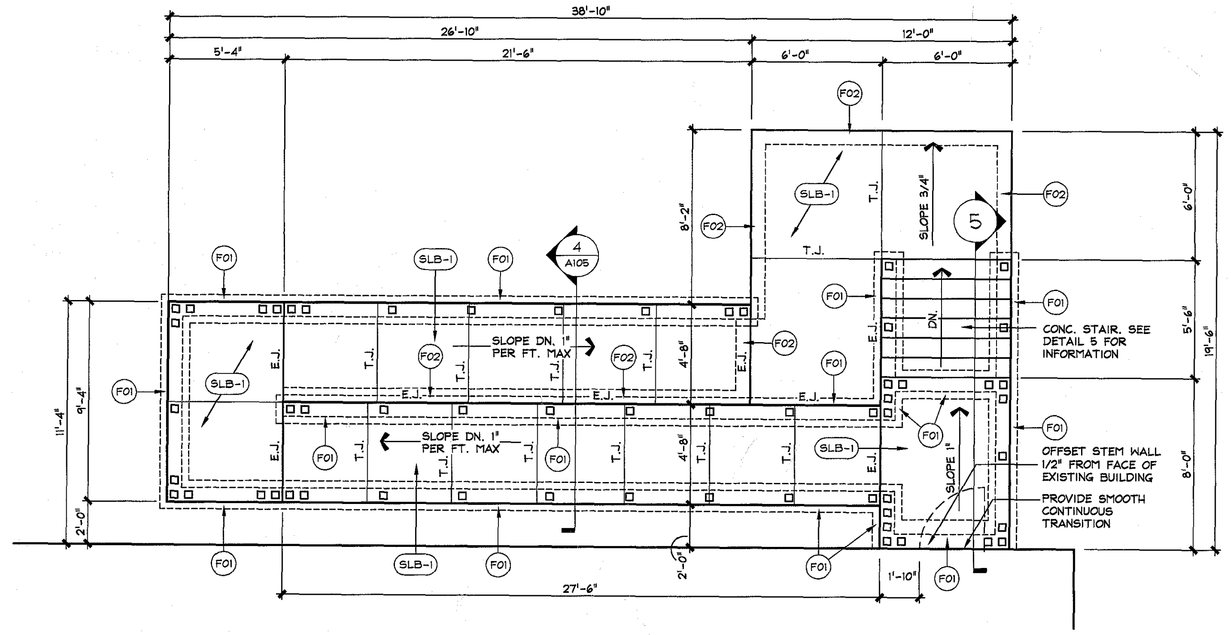
3 WALL SECTION @ DRIVE THRU
3/4" = 1'-0"



2 WALL SECTION
3/4" = 1'-0"



1 WALL SECTION
3/4" = 1'-0"



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

CONTROL JOINT PLAN LEGEND
(ALL MAY NOT APPLY)

EJ 1/2" EXPANSION JOINT SUGARCANE FIBER CONCRETE EXPANSION JOINT BOARD, BY FLEXCELL 1-800-622-6061

1/2" G-SEAL TYPE 626 JOINT CAP BY GREENSTREAK 1-800-325-9504 (BETWEEN SLABS.)

OR

1/2" G-SEAL TYPE 632 JOINT CAP BY GREENSTREAK 1-800-325-9504 (AT CONC. BLOCK WALL.)

VERIFY TYPE w/ APPLICATION

NOTE: ALL BUTT SPLICES SHALL BE SEALED USING GREENSTREAK G-SEAL ADHESIVE.

ALL EXTERIOR EXPANSION JOINTS MUST HAVE CAP AS SPECIFIED

CJ SAW CUT JOINTS, MIN CUT 1/4 OF THE THICKNESS OF FINISH CONCRETE SLAB, INSTALLED SAME DAY AS CONC. PLACEMENT.

TJ TOOL JOINT 4"W, BROOM FIRST & THEN TOOLED

KJ GALVANIZED 24 GA. JOINT SYSTEM QUICKEY, KEYKOLD SYSTEM,, AS MANUFACTURED BY BOHETALS, INC. 1-800-862-4635

FOUNDATION SCHEDULE

MARK	SIZE	DESCRIPTION	REINFORCING	NOTES
F01	16"x8'	CONT. STEM WALL FOOTING	(3) #5ø STL RODS CONT. AT BOTTOM.	1,2,3,4.
F02	8'x8'	THICKENED SLAB EDGE	(1) #5ø STL ROD CONT. AT BOTTOM.	1,3.

CONC. SLAB SCHEDULE

SLB-1 NEW 4"- 3,000 PSI CONC. SLAB W/ NON-SLIP BROOM FINISH REINF'D W/ 6x6 # 10/10 WWM OVER CLEAN #57 COMPACTED EARTHEN FILL .

LEGEND

□ #5ø VERTICAL STEEL ROD REINF'G FROM FOOTING TO 2' BELOW TOP OF SLAB MIN. IN GROUT FILLED CONC. BLOCK CELLS . PROVIDE STANDARD HOOK TOP AND BOTTOM AND 30" MIN. LAPS / SPLICES. INSTALL AT 48" O.C. MAX.

FOUNDATION NOTES

1. PROVIDE 3,000 PSI CONC. MIN.
2. TOP OF STEM WALL FOOTING SHALL BE SET 12" BELOW THE FINISH GRADE MINIMUM.
3. PROVIDE STEEL REINFORCING W/ 3" MIN. CONCRETE COVER AT ALL FOOTINGS AND ANY REINFORCED CONCRETE BELOW THE FINISH GRADE.
4. FOOTING SHALL BE CENTERED ON CMU STEM WALL (U.O.N.).

GENERAL FOUNDATION NOTES

FOUNDATION DESIGN IS BASED ON SANDY LOAM SOIL CONDITIONS AND A SOIL BEARING CAPACITY OF 2,000 PSF. IF OTHER CONDITION SHOULD OCCUR THE OWNER SHALL RETAIN THE SERVICES OF A GEOTECHNICAL ENGINEER TO EVALUATE , TEST AND RECOMMEND FOOTING DESIGNS SUITABLE FOR CONDITIONS FOUND . ARCHITECT SHALL BE NOTIFIED OF SUCH CONDITIONS AND SHALL BE PROVIDED W/ COPIES OF ALL RELATED TECHNICAL REPORTS , INCLUDING SOIL TESTING AND PROPOSED FOOTING DESIGN .

REVISIONS

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SEAL
JAMES A. COPELAND
AR 0016784

Fabian CONSTRUCTION, INC.

RENOVATION FOR:
EXPRESS CARE OF LEESBURG
2500 CITRUS BLVD.
LEESBURG, FLORIDA

DATE 04.22.05
JOB # 0473
A301
PERMIT CONSTRUCTION DOCUMENTS

ROOM FINISH SCHEDULE

ROOM NO	ROOM NAME	FLOOR	WALLS N	S	E	W	CEILING MATL	HGT	NOTES
101	WAITING ROOM	P TILE	PT →				GYP/ACT	VARIES	---
102	SEATING	WD FLOOR					ACT	12'-0"	---
103	CANTINA	P TILE						10'-0"	---
104	RECEIVING	〃						9'-0"	---
105	OFFICE	CPT						〃	---
106	STORAGE	P TILE						10'-0"	---
107	VESTIBULE	〃					〃	9'-0"	---
108	STORAGE	〃					GYP	10'-0"	---
109	REST ROOM	〃					〃	9'-0"	---
110	VESTIBULE	〃					ACT	10'-0"	---
111	REST ROOM	〃					GYP	〃	---
112	REST ROOM	〃					〃	〃	---
113	SALES	WD FLOOR					ACT	12'-0"	---
114	PHARMACY	CPT						10'-0"	---
115	VESTIBULE	〃					〃	〃	---
116	REST ROOM	P TILE					GYP	9'-0"	---
117	STORAGE	CPT					ACT	〃	---
118	OFFICE	〃							---
119	CLS.	〃							---
120	OFFICE	〃						〃	---
121	CORRIDOR	P TILE						10'-0"	---
122	RECEPTIONIST	CPT							---
123	FILE STORAGE	〃						〃	---
124	TRIAGE	P TILE					GYP	9'-0"	---
125	BILLING	CPT					ACT	10'-0"	---
126	OFFICE	〃						9'-0"	---
127	CORRIDOR	P TILE						10'-0"	---
128	CORRIDOR	〃						〃	---
129	EXAM. RM.	〃						9'-0"	---
130	NURSE STATION	CPT						10'-0"	---
131	OFFICE	〃						9'-0"	---
132	STORAGE	〃							---
133	STORAGE	〃							---
134	EXAM. RM.	P TILE						〃	---
135	REST ROOM	〃					GYP	〃	---
136	EXAM. RM.	〃					ACT	〃	---
137	EXAM. RM.	〃							---
138	EXAM. RM.	〃							---
139	EXAM. RM.	〃							---
140	EXAM. RM.	〃							---
141	EXAM. RM.	〃							---
142	EXAM. RM.	〃							---
143	EXAM. RM.	〃						〃	---
144	CORRIDOR	〃						10'-0"	---
145	NURSE STATION	CPT							---
146	NURSE STATION	〃						〃	---
147	STORAGE	〃						9'-0"	---
148	EXAM. RM.	P TILE							---
149	EXAM. RM.	〃						〃	---
150	CORRIDOR	〃						10'-0"	---
151	REST ROOM	〃					GYP	9'-0"	---
152	EXAM. RM.	〃					ACT	〃	---
153	EXAM. RM.	〃						〃	---
154	CORRIDOR	〃						10'-0"	---
155	CORRIDOR	〃						〃	---
156	EXAM RM.	〃						9'-0"	---
157	NURSE STATION	CPT						10'-0"	---
158	OFFICE	〃						9'-0"	---
159	STORAGE	〃							---
160	STORAGE	〃							---
161	EXAM. RM.	P TILE							---
162	REST ROOM	〃					GYP		---
163	EXAM. RM.	〃					ACT		---
164	EXAM. RM.	〃							---
165	CORRIDOR	〃						10'-0"	---
166	EXAM. RM.	〃						9'-0"	---
167	EXAM. RM.	〃							---
168	EXAM. RM.	〃							---
169	EXAM. RM.	〃							---
170	EXAM. RM.	〃							---
171	EXAM. RM.	〃							---
172	CORRIDOR	〃						10'-0"	---
173	NURSE STATION	CPT							---
174	NURSE STATION	〃							---
175	STORAGE	〃						9'-0"	---
176	EXAM. RM.	P TILE							---
177	EXAM. RM.	〃							---
178	REST ROOM	〃					GYP		---
179	CORRIDOR	〃					ACT	10'-0"	---
180	EXAM. RM.	〃						9'-0"	---
181	EXAM. RM.	〃							---
182	OFFICE	CPT						〃	---
183	CORRIDOR	P TILE						10'-0"	---
184	CORRIDOR	P TILE							---
185	OFFICE	CPT						9'-0"	---
186	OFFICE	〃							---
187	OFFICE	〃							---
188	OFFICE	〃						〃	---
189	CORRIDOR	P TILE						10'-0"	---
190	BREAK RM.	〃						〃	---
191	STORAGE	〃						9'-0"	---
192	EXISTING CORRIDOR	〃						EXR	---
193	EXT. STOR.	〃							---
194	EXT. STOR.	〃							---
195	EXT. MEN R.R.	〃							---
196	EXT. WOMEN R.R.	〃						〃	---
197	LABORATORY	P TILE					ACT	9'-0"	*MATCH EXISTING CLNG. HT.
198	ELEC.	〃						EXR	---
199	CORRIDOR	P TILE					ACT	10'-0"	---
200	WAITING RM.	〃							---
201	CORRIDOR	〃							---
202	RECEPT.	CPT						〃	---
203	REST ROOM	P TILE					GYP	9'-0"	---
204	REST. ROOM	〃							---
205	ULTRA-SOUND	〃					ACT		---
206	BONE DENSITY	〃							---
207	MAMMOGRAPHY	〃						〃	---
208	WAITING RM.	〃						10'-0"	---
209	VESTIBULE	〃						9'-0"	---
210	CH. #1	〃							---
211	CH. #2	〃							---
212	H.C. CH. #3	〃						〃	---
213	SPRINKLER STAND PIPE	〃					OPEN	OPEN	---
214	CORRIDOR	P TILE					ACT	10'-0"	---
215	STRESS LAB.	〃							---
216	MRI	〃							---
217	CONTROL ROOM	〃							---
218	CT SCAN	〃						〃	---
219	REST ROOM	〃					GYP	9'-0"	---
220	X-RAY	〃					ACT	10'-0"	---
221	OFFICE	CPT						9'-0"	---
222	TELE.	P TILE						〃	---
223	WAITING RM.	〃						10'-0"	---
224	PHYSICAL THERAPY	CPT						〃	---
225	REST. ROOM	P TILE					GYP	9'-0"	---
226	REST. ROOM	〃					〃	〃	---
227	RECEPTION	CPT					ACT	10'-0"	---
228	OFFICE	〃						9'-0"	---
229	EXAM. RM.	〃							---
230	EXAM. RM.	〃							---
231	STORAGE	〃							---
232	TREATMENT RM. #1	〃							---
233	TREATMENT RM. #2	〃							---
234	TREATMENT RM. #3	〃							---

ROOM FINISH SCHEDULE

FLOOR FINISH:

P TILE (PORCELAIN OR CERAMIC TILE)-
TO BE SELECTED BY OWNER AND INSTALLED OVER EXISTING EXPOSED CONCRETE FLOOR FINISH.

FIELD VERIFY PRIOR TO BID:
1) THE CONDITION OF THE EXISTING SUBSTRATE TO DETERMINE THE MAXIMUM PERMISSIBLE FLOOR VARIATION (1/8" IN 10'-0"), AND TO DETERMINE IF A FLOOR TOPPING IS REQUIRED TO MINIMIZE THE VARIATION IN THE EXISTING FLOOR SUBSTRATE.

NOTE: (VERIFY THAT EXISTING MATERIALS DO NOT CONTAIN ASBESTOS PRIOR TO REMOVING) IF EXISTING SUBSTRATE IS ACCEPTABLE PREPARE SUBSTRATE AS REQUIRED BY TILE & GROUT/ADHESIVE MANUFACTURER TO ENSURE PROPER TILE INSTALLATION. SAND, STRIP, CLEAN OF WAXES, DIRT AND ANY CONTAMINANTS THAT WILL INTERFERE WITH OR PREVENT A GOOD BOND (CHEMICALLY STRIP THEN ABRADE). AFTER PREPARATION REMOVE ALL DUST BY VACUUMING.

CPT-
TO BE SELECTED BY OWNER

WD. FLOOR-
ANDERSEN FLOORING, STYLE - NORTHERN MAPLE 3" PLANK, COLOR - BURGANDY

CEILING FINISH:

ACT (ACOUSTICAL CEILING TILE)-
ARMSTRONG, 24" X 24" CIRRUS TILE, W/ PRELUDE 15/16" EXPOSED TEE, OR ARCHITECT APPROVED EQUAL.

DOOR AND FRAME SCHEDULE

MARK	DOOR SIZE WD	HGT	THK	MATL	TYPE	FRAME MATL	EL	DETAIL - A401 HEAD	JAMB	HARDWARE SET NO.	NOTES
1	3'-0"	7'-0"	1 3/4"	SCWD	1	HM		4	5	6A,7A,8	---
2	3'-0"	7'-0"	1 3/4"	SCWD	1	HM		4	5	6A,7A,8	---
3	3'-0"	7'-0"	1 3/4"	SCWD	1	HM		4	5	6A,7A,8	---
4	3'-0"	7'-0"	1 3/4"	SCWD	1	HM		4	5	1,2,6A,7A,11	---
5	3'-0"	7'-0"	1 3/4"	HM	1	HM		4	5	6A,7A,8	---
6	3'-0"	7'-0"	1 3/4"	SCWD	1	HM		4	5	6A,7A,8	---
7	3'-0"	7'-0"	1 3/4"	SCWD	1	HM		4	5	6A,7A,8	---
8	3'-0"	7'-0"	1 3/4"	SCWD	1	HM		4	5	6A,7A,8	---
9	3'-0"	7'-0"	1 3/4"	SCWD	1	HM		4	5	6A,7A,8	---
10	3'-0"	7'-0"	1 3/4"	SCWD	1	HM		4	5	6A,7A,8	---
11	3'-0"	7'-0"	1 3/4"	SCWD	1	HM		4	5	6A,7A,8	---
12	3'-0"	7'-0"	1 3/4"	SCWD	1	HM		4	5	6A,7A,8	---
13	3'-0"	7'-0"	1 3/4"	SCWD	1	HM		4	5	6A,7A,8	---
14	3'-0"	7'-0"	1 3/4"	SCWD	1	HM		4	5	6A,7A,8	---
15	3'-0"	7'-0"	1 3/4"	SCWD	1	HM		4	5	6A,7A,8	---
16	3'-0"	7'-0"	1 3/4"	SCWD	1	HM		4	5	6A,7A,8	---
17	3'-0"	7'-0"	1 3/4"	SCWD	1	HM		4	5	6A,7A,8	---
18	3'-0"	7'-0"	1 3/4"	SCWD	1	HM		4	5	6A,7A,8	---
19	3'-0"	7'-0"	1 3/4"	SCWD	1	HM		4	5	6A,7A,8	---
20	3'-0"	7'-0"	1 3/4"	SCWD	1	HM		4	5	6A,7A,8	---
21	3'-0"	7'-0"	1 3/4"	SCWD	1	HM		4	5	6A,7A,8	---
22	3'-0"	7'-0"	1 3/4"	SCWD	1	HM		4	5	6A,7A,8	---
23	3'-0"	7'-0"	1 3/4"	SCWD	1	HM		4	5	6A,7A,8	---
24	3'-0"	7'-0"	1 3/4"	SCWD	1	HM		4	5	6A,7A,8	---
25	3'-0"	7'-0"	1 3/4"	SCWD	1	HM		4	5	6A,7A,8	---
26	3'-0"	7'-0"	1 3/4"	SCWD	1	HM		4	5	6A,7A,8	---
27	3'-0"	7'-0"	1 3/4"	SCWD	1	HM		4	5	6A,7A,8	---
28	3'-0"	7'-0"	1 3/4"	SCWD	1	HM		4	5	6A,7A,8	---
29	3'-0"	7'-0"	1 3/4"	SCWD	1	HM		4	5	6A,7A,8	---
30	3'-0"	7'-0"	1 3/4"	SCWD	1	HM		4	5	6A,7A,8	---
31	3'-0"	7'-0"	1 3/4"	SCWD	1	HM		4	5	6A,7A,8	---
32	3'-0"	7'-0"	1 3/4"	SCWD	1	HM		4	5	6A,7A,8	---
33	3'-0"	7'-0"	1 3/4"	SCWD	1	HM		4	5	6A,7A,8	---
34	3'-0"	7'-0"	1 3/4"	SCWD	1	HM		4	5	6A,7A,8	---
35	3'-0"	7'-0"	1 3/4"	SCWD	1	HM		4	5	6A,7A,8	---
36	3'-0"	7'-0"	1 3/4"	SCWD	1	HM		4	5	6A,7A,8	---
37	3'-0"	7'-0"	1 3/4"	SCWD	1	HM		4	5	6A,7A,8	---
38	3'-0"	7'-0"	1 3/4"	SCWD	1	HM		4	5	6A,7A,8	---
39	3'-0"	7'-0"	1 3/4"	SCWD	1	HM		4	5	6A,7A,8	---
40	3'-0"	7'-0"	1 3/4"	SCWD	1	HM		4	5	6A,7A,8	---
41	3'-0"	7'-0"	1 3/4"	SCWD	1	HM		4	5	6A,7A,8	---
42	3'-0"	7'-0"	1 3/4"	SCWD	1	HM		4	5	6A,7A,8	---
43	3'-0"	7'-0"	1 3/4"	SCWD	1	HM		4	5	6A,7A,8	---
44	3'-0"	7'-0"	1 3/4"	SCWD	1	HM		4	5	6A,7A,8	---
45	3'-0"	7'-0"	1 3/4"	SCWD	1	HM		4	5	6A,7A,8	---
46	3'-0"	7'-0"	1 3/4"	SCWD	1	HM		4	5	6A,7A,8	---
47	3'-0"	7'-0"	1 3/4"	SCWD	1	HM		4	5	6A,7A,8	---
48	3'-0"	7'-0"	1 3/4"	SCWD	1	HM		4	5	6A,7A,8	---
49	3'-0"	7'-0"	1 3/4"	SCWD	1	HM		4	5	6A,7A,8	---
50	3'-0"	7'-0"	1 3/4"	SCWD	1	HM		4	5	6A,7A,8	---
51	3'-0"	7'-0"	1 3/4"	SCWD	1	HM		4	5	6A,7A,8	---
52	3'-0"	7'-0"	1 3/4"	SCWD	1	HM		4	5	6A,7A,8	---
53	3'-0"	7'-0"	1 3/4"	SCWD	1	HM		4	5	6A,7A,8	---
54	3'-0"	7'-0"	1 3/4"	SCWD	1	HM		4	5	6A,7A,8	---
55	3'-0"	7'-0"	1 3/4"	SCWD	1	HM		4	5	6A,7A,8	---
56	3'-0"	7'-0"	1 3/4"	SCWD	1	HM		4	5	6A,7A,8	---
57	3'-0"	7'-0"	1 3/4"	SCWD	1	HM		4	5	6A,7A,8	---
58	3'-0"	7'-0"	1 3/4"	SCWD	1	HM		4	5	6A,7A,8	---
59	3'-0"	7'-0"	1 3/4"	SCWD	1	HM		4	5	6A,7A,8	---
60	3'-0"	7'-0"	1 3/4"	SCWD	1	HM		4	5	6A,7A,8	---
61	3'-0"	7'-0"	1 3/4"	SCWD	1	HM		4	5	6A,7A,8	---
62	3'-0"	7'-0"	1 3/4"	SCWD	1	HM		4	5	6A,7A,8	---
63	3'-0"	7'-0"	1 3/4"	SCWD	1	HM		4	5	6A,7A,8	---
64	3'-0"	7'-0"	1 3/4"	SCWD	1	HM		4	5	6A,7A,8	---
65	3'-0"	7'-0"	1 3/4"	SCWD	1	HM		4	5	6A,7A,8	---
66	3'-0"	7'-0"	1 3/4"	SCWD	1	HM		4	5	6A,7A,8	---
67	3'-0"	7'-0"	1 3/4"	SCWD	1	HM		4	5	6A,7A,8	---
68	3'-0"	7'-0"	1 3/4"	SCWD	1	HM		4	5	6A,7A,8	---
69	3'-0"	7'-0"	1 3/4"	SCWD	1	HM		4	5	6A,7A,8	---
70	3'-0"	7'-0"	1 3/4"	SCWD	1	HM		4	5	6A,7A,8	---
71	3'-0"	7'-0"	1 3/4"	SCWD	1	HM		4	5	6A,7A,8	---
72	3'-0"	7'-0"	1 3/4"	SCWD	1	HM		4	5	6A,7A,8	---
73	3'-0"	7'-0"	1 3/4"	SCWD	1	HM		4	5	6A,7A,8	---
74	3'-0"	7'-0"	1 3/4"	SCWD	1	HM		4	5	6A,7A,8	---
75	3'-0"	7'-0"	1 3/4"	SCWD	1	HM		4	5	6A,7A,8	---
76	3'-0"	7'-0"	1 3/4"	SCWD	1	HM		4	5	6A,7A,8	---
77	3'-0"	7'-0"	1 3/4"	SCWD	1	HM		4	5	6A,7A,8	---
78	3'-0"	7'-0"	1 3/4"	SCWD	1	HM		4	5	6A,7A,8	---
79	3'-0"	7'-0"	1 3/4"	SCWD	1	HM		4	5	6A,7A,8	---
80	3'-0"	7'-0"	1 3/4"	SCWD	1	HM		4	5	6A,7A,8	---
81	3'-0"	7'-0"	1 3/4"	SCWD	1	HM		4	5	6A,7A,8	---
82	3'-0"	7'-0"	1 3/4"	SCWD	1	HM		4	5	6A,7A,8	---
83	3'-0"	7'-0"	1 3/4"	SCWD	1	HM		4	5	6A,7A,8	---
84	3'-0"	7'-0"	1 3/4"	SCWD	1	HM		4	5	6A,7A,8	---
85	3'-0"	7'-0"	1 3/4"	SCWD	1	HM		4	5	6A,7A,8	---
86	3'-0"	7'-0"	1 3/4"	SCWD	1	HM		4	5	6A,7A,8	---
87	3'-0"	7'-0"	1 3/4"	SCWD	1	HM		4	5	6A,7A,8	---
88	3'-0"	7'-0"	1 3/4"	SCWD	1	HM		4	5	6A,7A,8	---
89	3'-0"	7'-0"	1 3/4"	SCWD	1	HM		4	5	6A,7A,8	---
90	3'-0"	7'-0"	1 3/4"	SCWD	1	HM		4	5	6A,7A,8	---
91	3'-0"	7'-0"	1 3/4"	SCWD	1	HM		4	5	6A,7A,8	---
92	3'-0"	7'-0"	1 3/4"	SCWD	1	HM		4	5	6A,7A,8	---
93	3'-0"	7'-0"	1 3/4"	SCWD	1	HM		4	5	6A,7A,8	---
94	3'-0"	7'-0"	1 3/4"	SCWD	1	HM		4	5	6A,7A,8	---
95	3'-0"	7'-0"	1 3/4"	SCWD	1	HM		4	5	6A,7A,8	---
96	3'-0"	7'-0"	1 3/4"	SCWD	1	HM		4	5	6A,7A,8	---
97	3'-0"	7'-0"	1 3/4"	SCWD	1	HM		4	5	6A,7A,8	---
98	3'-0"	7'-0"	1 3/4"	SCWD	1	HM		4	5	6A,7A,8	---
99	3'-0"	7'-0"	1 3/4"	SCWD	1	HM		4	5	6A,7A,8	---
100	3'-0"	7'-0"	1 3/4"	SCWD	1	HM		4	5	6A,7A,8	---
101	3'-0"	7'-0"	1 3/4"	SCWD	1	HM		4	5	6A,7A,8	---
102	3'-0"	7'-0"	1 3/4"	SCWD	1	HM		4	5	6A,7A,8	---
103	3'-0"	7'-0"	1 3/4"	SCWD	1	HM		4	5	6A,7A,8	---
104	3'-0"	7'-0"	1 3/4"	SCWD	1	HM		4	5	6A,7A,8	---
105	3'-0"	7'-0"	1 3/4"	SCWD	1	HM		4	5	6A,7A,8	---
106	3'-0"	7'-0"	1 3/4"	SCWD	1	HM		4	5	6A,7A,8	---
107	3'-0"	7'-0"	1 3/4"	SCWD	1	HM		4	5	6A,7A,8	---
108	3'-0"	7'-0"	1 3/4"	SCWD	1	HM		4	5	6A,7A,8	---
109	3'-0"	7'-0"	1 3/4"	SCWD	1	HM		4	5	6A,7A,8	---
110	3'-0"	7'-0"	1 3/4"	SCWD	1	HM		4	5	6A,7A,8	---
111	3'-0"	7'-0"	1 3/4"	SCWD	1	HM		4	5	6A,7A,8	---
112	3'-0"	7'-0"	1 3/4"	SCWD	1	HM		4	5	6A,7A,8	---
113	3'-0"	7'-0"	1 3/4"	SCWD	1	HM		4	5	6A,7A,8	---
114	3'-0"	7'-0"	1 3/4"	SCWD	1	HM		4	5	6A,7A,8	---
115	3'-0"	7'-0"	1 3/4"	SCWD	1	HM		4	5	6A,7A,8	---
116	3'-0"	7'-0"	1 3/4"	SCWD	1	HM		4	5	6A,7A,8	---
117	3'-0"	7'-0"	1 3/4"	SCWD	1	HM		4	5	6A,7A,8	---
118	3'-0"	7'-0"	1 3/4"	SCWD	1	HM		4	5	6A,7A,8	---
119	3'-0"	7'-0"	1 3/4"	SCWD	1	HM		4	5	6A,7A,8	---
120	3'-0"	7'-0"	1 3/4"	SCWD	1	HM		4	5	6A,7A,8	---
121	3'-0"	7'-0"	1 3/4"	SCWD	1	HM		4	5	6A,7A,8	---
122	3'-0"	7'-0"	1 3/4"	SCWD	1	HM		4	5	6A,7A,8	---
123	3'-0"	7'-0"	1 3/4"	SCWD	1	HM		4	5	6A,7A,8	---
124	3'-0"	7'-0"	1 3/4"	SCWD	1	HM		4	5	6A,7A,8	---
125	3'-0"	7'-0"	1 3/4"	SCWD	1	HM		4	5	6A,7A,8	---
126	3'-0"	7'-0"	1 3/4"	SCWD	1	HM		4	5	6A,7A,8	---
127	3'-0"	7'-0"	1 3/4"	SCWD	1	HM		4	5	6A,7A,8	---
128	3'-0"	7'-0"	1 3/4"	SCWD	1	HM		4	5	6A,7A,8	---
129	3'-0"	7'-0"	1 3/4"	SCWD	1	HM		4	5	6A,7A,8	---
130	3'-0"	7'-0"	1 3/4"	SCWD	1	HM		4	5	6A,7A,8	---
131	3'-0"	7'-0"	1 3/4"	SCWD	1	HM		4	5	6A,7A,8	---
132	3'-0"	7'-0"	1 3/4"	SCWD	1	HM		4	5	6A,7A,8	---
133	3'-0"	7'-0"	1 3/4"	SCWD	1	HM		4	5	6A,7A,8	---
134	3'-0"	7'-0"	1 3/4"	SCWD	1	HM		4	5	6A,7A,8	---
135	3'-0"	7'-0"	1 3/4"	SCWD	1	HM		4	5	6A,7A,8	---
136	3'-0"	7'-0"	1 3/4"	SCWD	1	HM		4	5	6A,7A,8	---
137	3'-0"	7'-0"	1 3/4"	SCWD	1	HM		4	5	6A,7A,8	---
138	3'-0"	7'-0"	1 3/4"	SCWD	1	HM		4	5	6A,7A,8	---
139	3'-0"	7'-0"	1 3/4"	SCWD	1	HM		4	5	6A,7A,8	---
140	3'-0"	7'-0"	1 3/4"	SCWD	1	HM		4	5	6A,7A,8	---
141	3'-0"	7'-0"	1 3/4"	SCWD	1	HM		4	5	6A,7A,8	---
142	3'-0"	7'-0"	1 3/4"	SCWD	1	HM		4	5	6A,7A,8	---
143	3'-0"	7'-0"	1 3/4"	SCWD	1	HM		4	5	6A,7A,8	---
144	3'-0"	7'-0"	1 3/4"	SCWD	1	HM		4	5	6A,7A,8	---
145	3'-0"	7'-0"	1 3/4"	SCWD	1	HM		4	5	6A,7A,8	---
146	3'-0"	7'-0"	1 3/4"	SCWD	1	HM		4	5	6A,7A,8	---
147	3'-0"	7'-0"	1 3/4"	SCWD	1	HM		4	5	6A,7A,8	---
148	3'-0"	7'-0"	1 3/4"	SCWD	1	HM		4	5	6A,7A,8	---
149	3'-0"	7'-0"	1 3/4"	SCWD	1	HM		4	5	6A,7A,8	---
150	3'-0"	7'-0"	1 3/4"	SCWD	1	HM		4	5	6A,7A,8	---
151	3'-0"	7'-0"	1 3/4"	SCWD	1	HM		4	5	6A,7A,8	---
152	3'-0"	7'-0"	1 3/4"	SCWD	1	HM		4	5	6A,7A,8	---
153	3'-0"	7'-0"	1 3/4"	SCWD	1	HM		4	5	6A,7A,8	---
154	3'-0"	7'-0"	1 3/4"	SCWD	1	HM		4	5	6A,7A,8	---
155	3'-0"	7'-0"	1 3/4"	SCWD	1	HM		4	5	6A,7A,8	---
156	3'-0"	7'-0"	1 3/4"	SCWD	1	HM		4	5	6A,7A,8	---
157	3'-0"	7'-0"	1 3/4"	SCWD	1	HM		4	5	6A,7A,8	---
158	3'-0"	7'-0"	1 3/4"	SCWD	1	HM		4	5	6A,7A,8	---
159	3'-0"	7'-0"	1 3/4"	SCWD	1	HM		4	5	6A,7A,8	---
160	3'-0"	7'-0"	1 3/4"	SCWD	1	HM		4	5	6A,7A,8	---
161	3'-0"	7'-0"	1 3/4"	SCWD	1	HM		4	5	6A,7A,8	---
162	3'-0"	7'-0"	1 3/4"	SCWD	1	HM		4	5	6A,7A,8	---
163	3'-0"	7'-0"	1 3/4"	SCWD	1	HM		4	5	6A,7A,8	---
164	3'-0"	7'-0"	1 3/4"	SCWD	1	HM		4	5	6A,7A,8	---
165	3'-0"	7'-0"	1 3/4"	SCWD	1	HM		4	5	6A,7A,8	---
166	3'-0"	7'-0"	1 3/4"	SCWD	1	HM		4	5	6A,7A,8	---
167	3'-0"	7'-0"	1 3/4"	SCWD	1	HM		4	5	6A,7A,8	---
168	3'-0"	7'-0"	1 3/4"	SCWD	1	HM		4	5	6A,7A,8	---
169	3'-0"	7'-0"	1 3/4"	SCWD	1	HM		4	5	6A,7A,8	---
170	3'-0"	7'-0"	1 3/4"	SCWD	1	HM		4	5	6A,7A,8	---
171	3'-0"	7'-0"	1 3/4"	SCWD	1	HM		4	5	6A,7A,8	---
172	3'-0"	7'-0"	1 3/4"	SCWD	1	HM		4	5	6A,7A,8	---
173	3'-0"	7'-0"	1 3/4"	SCWD	1	HM		4	5	6A,7A,8	---
174	3'-0"	7'-0"	1 3/4"	SC

AIR CONDITIONING AND HEATING EQUIPMENT SCHEDULE

	(EXISTING) PRTU-1	(EXISTING) PRTU-2	(EXISTING) PRTU-3	(EXISTING) PRTU-4	(EXISTING) AHU-5 CU-5	(NEW) AHU-6 CU-6	(NEW) AHU-7 CU-7	(NEW) AHU-8 CU-8	(NEW) AHU-9 CU-9	(NEW) AHU-10 CU-10	(NEW) AHU-11 CU-11	(NEW) AHU-12 CU-12	(NEW) AHU-13 CU-13
SYSTEM AND AREA SERVED	LOBBY/ CANTINA	PHARMACY/ RECEPT/BOOKS	PHYSICAL THERAPY	BREAK/ OFFICES	EXAM PHASE II	EXAM PHASE I	IMAGING CENTER	WOMEN'S CENTER	X-RAY	CT SCAN	CONTROL ROOM	MRI	LAB
MATCHED SPLIT SYSTEM OR PRTU DESCRIPTION	10 TON SC	7.5 TON SC	7.5 TON SC	7.5 TON SC	10 TON SC	10 TON SC 7.5 KW SH	5 TON SC 5.76 KW SH	4 TON SC 5.76 KW SH	1 TON HP 0 KW SH	1 TON HP 0 KW SH	3 TON HP 0 KW SH	1 TON HP 0 KW SH	3 TON HP 0 KW SH
MANUFACTURER OF CU & AHU OR PRTU	TRANE	TRANE	TRANE	TRANE	CARRIER	TRANE	TRANE	TRANE	EMI	EMI	EMI	EMI	EMI
CU OR PRTU MODEL #	TCD120B3	TCD090C3	TCD090C3	TCD090C3	38AE-012	TTA120B3	TTA060C3	TTA048C3	CHW 12D-B	CHW 12D-B	SHC 36	CHW 12D-B	SHC 36
COOLING CAPACITY (MBTUH)	EXISTING TO REMAIN	EXISTING TO REMAIN	EXISTING TO REMAIN	EXISTING TO REMAIN	EXISTING TO REMAIN	123.0	59.5	49.5	12.0	12.0	33.0	12.0	33.0
SEER						–	11.0	10.0	10.0	10.0	10.0	10.6	10.0
EER						8.9	–	–	–	–	–	–	–
COP						–	–	–	–	–	–	–	–
HSPF						–	–	–	6.8	6.8	6.8	6.8	6.8
IPLV						9.8	–	–	–	–	–	–	–
NO OF COMPRESSORS						2	1	1	1	1	1	1	1
STAGES PER COMPRESSOR						1	1	1	1	1	1	1	1
VOLTAGE/PHASE						208/3	208/3	208/3	208/1	208/1	208/1	208/1	208/1
MCA						48.1	26	19	7.6	7.6	19.8	7.6	19.8
RECOMMENDED OCP						60	40	30	20	20	30	20	30
APPROX. DIM LxWxH (IN)						51x38x39	33x29x41	33x28x29	32x11x21	32x11x21	44x14x26	32x11x21	44x14x26
APPROX. WT (LBS)						550	300	250	65	65	160	65	160
AHU MODEL #						TWE120B3	TWE063P13	TWE048P13	AHW 12D-B	AHW 12D-B	WHP 36	AHW 12D-B	WHP 36
AIR VOLUME (CFM)						4000	2000	1600	320	320	750	320	750
ESP (IN WATER)/BHP						1.2/1.9	0.50/–	0.5/–	–	–	–	–	–
EVAPORATOR COIL						W/AHU	W/AHU	W/AHU	W/AHU	W/AHU	W/AHU	W/AHU	W/AHU
BLOWER HORSEPOWER						2.00	0.75	0.5	–	–	–	–	–
VOLTAGE/PHASE						208/3	208/1	208/1	–	–	–	–	–
MCA						8	39	39	–	–	–	–	–
RECOMMENDED OCP						20	40	40	–	–	–	–	–
FILTER RACK SIZE						2"	2"	2"	1"	1"	1"	1"	1"
APPROX. DIM LxWxH (IN)						64x25x54	24x21x58	24x21x52	30x8x11	30x8x11	58x11x15	30x8x11	58x11x14
APPROX. WEIGHT (LBS)						550	350	200	25	25	120	25	120
MATCHED SPLIT SYSTEM OR PRTU CHARACTERISTICS @95 OADB, 67 WB, 75 DB													
CFM						4000	2000	1600	320	320	750	320	750
TOTAL COOLING (MBTUH)						122	59.5	49.5	12.0	12.0	36.0	12.0	36.0
SHF						0.57	0.68	0.71	0.73	0.73	0.70	0.73	0.70
ELECTRIC RESISTANCE HEAT													
KW						7.5	5.76	5.76	0	0	0	0	0
VOLTAGE/PHASE						208/3	208/1	208/1	–	–	–	–	–
STAGES						1	1	1	–	–	–	–	–
MCA						20.8	–	–	–	–	–	–	–
MOCP						30	–	–	–	–	–	–	–
TOTAL SYSTEM BALANCE DATA													
TOTAL SUPPLY	4000	3000	3000	2400	4000	4000	2000	1600	320	320	750	320	750
MINIMUM RETURN	3300	2700	2700	2000	3600	3600	1800	1440	320	320	750	320	750
MAXIMUM RETURN	3600	2700	2700	2000	3600	3600	1800	1440	320	320	750	320	750
MINIMUM OUTDOOR AIR	400	300	300	400	400	400	200	160	–	–	–	–	–
MAXIMUM OUTDOOR AIR	700	300	300	400	400	400	200	160	–	–	–	–	–
MINIMUM EXHAUST	–	–	–	–	–	–	–	–	–	–	–	–	–
MAXIMUM EXHAUST	–	–	–	–	–	–	–	–	–	–	–	–	–
SPECIAL OPTIONS/ACCESSORIES	INSTALL NEW MOTORIZED OA INTAKE W/MANUAL DAMPER. INSTALL DUCT SMOKE DETECTOR AS PROVIDED BY DIVISION 16. PROVIDE MOTORIZED DAMPER.	INSTALL NEW MOTORIZED OA INTAKE W/MANUAL DAMPER. INSTALL DUCT SMOKE DETECTOR AS PROVIDED BY DIVISION 16.	INSTALL NEW MOTORIZED OA INTAKE W/MANUAL DAMPER. INSTALL DUCT SMOKE DETECTOR AS PROVIDED BY DIVISION 16.	INSTALL NEW MOTORIZED OA INTAKE W/MANUAL DAMPER. INSTALL DUCT SMOKE DETECTOR AS PROVIDED BY DIVISION 16.	INSTALL DUCT SMOKE DETECTOR AS PROVIDED BY DIVISION 16.	INSTALL DUCT SMOKE DETECTOR AS PROVIDED BY DIVISION 16.	INSTALL DUCT SMOKE DETECTOR AS PROVIDED BY DIVISION 16.						

NOTE:
SPLIT SYSTEM HVAC EQUIPMENT COMPONENTS AND PACKAGE ROOFTOP UNITS (PRTU) TO BE FURNISHED WITH SPRING VIBRATION ISOLATORS, 2" FILTER RACK, 6 SETS FARR 30/30 FILTERS, THERMAL EXPANSION VALVE, LOW AMBIENT KIT, PHASE FAILURE RELAY, SMOKE DETECTORS FOR EQUIPMENT OVER 2000 CFM AIR FLOW RATE AND/OR EQUIPMENT THAT SERVES A COMMON MEANS OF EGRESS, FIRE STAT, SINGLE POINT WIRING CONNECTION (UNLESS OTHERWISE NOTED, AND MANUFACTURER STANDARD, HONEYWELL OR JOHNSON SEVEN DAY PROGRAMMABLE AUTO-CHANGEOVER ELECTRONIC THERMOSTAT WITH BATTERY BACKUP. FURNISH THERMOSTAT "T" WITH REMOTE SENSOR "RS" WHERE INDICATED ON THE DRAWINGS. EQUIPMENT MOUNTED WITHIN 6' OF GRADE LEVEL TO BE FURNISHED WITH COIL GUARD. PROVIDE FLOW SWITCH IN DRAIN PAN. LABEL ALL MOTORIZED EQUIPMENT WITH 1" BLUE LETTERS ON WHITE LAMINATED PLASTIC TAG.

AIR DISTRIBUTION DEVICE SCHEDULE

GRILLE AND DIFFUSER NOMENCLATURE:

SUPPLY DIFFUSERS

SD, SDA 1-WAY; SD, SDA 2-WAY; SD, SDA 2-WAY; SD, SDA 3-WAY; SD 4-WAY; RAG RETURN; DEVICE TYPE; AIR FLOW RATE (CFM)

SGC, EOG, OR OAG CEILING MOUNTED; SG, EOG, OR OAG W/LL MOUNTED; L1 LOUVER

AIR DISTRIBUTION DEVICES TO BE BY LISTED MANUFACTURER OR EQUAL WHERE MANUFACTURED BY TITUS, METALAIRE OR NAILOR. COLOR OF AIR DISTRIBUTION DEVICES TO BE SELECTED FROM MANUFACTURER'S STANDARD COLORS. ALL DIFFUSERS, GRILLES, REGISTERS, AND LOUVERS TO BE FITTED WITH KEY OPERATED ALUMINUM OPPOSED BLADE DAMPERS. CEILING DIFFUSERS AND CEILING GRILLES TO HAVE FRAMES TO ALLOW FOR REMOVAL OF DEVICE FROM BOTTOM. ALL DEVICES TO HAVE TRIM AS MANUFACTURED FOR ADJACENT CONSTRUCTION. ALL LOUVERS TO BE BY LISTED MANUFACTURER OR EQUAL WHERE MANUFACTURED BY RUSKIN, GREENHECK, OR NCA. LOUVERS INSTALLED IN BUILDING ENVELOPE WALLS TO BE FITTED WITH BIRD SCREENS. ALL DIFFUSERS, GRILLES, AND REGISTERS TO HAVE FULL FACE FRAMES. ALL DIFFUSERS, GRILLES, AND REGISTERS LOCATED IN HARD CEILINGS TO BE PROVIDED WITH TRIM RING FOR PLASTER AND SHEET ROCK CEILINGS. PAINT DEVICES TO MATCH ADJACENT FINISHES IN MANNER CONSISTENT WITH ARCHITECTURAL PAINTING REQUIREMENTS AND REFERENCED STANDARDS.

SUPPLY DIFFUSERS (SD) TO BE TITUS MODEL TMSA-AA
SUPPLY DIFFUSERS (SDA) TO BE TITUS MODEL TDCA-AA
TRIM RINGS TO BE TITUS MODEL TRM
RETURN AIR GRILLES (RAG) TO BE TITUS MODEL 350R
LOUVERS (L) TO BE RUSKIN MODEL ELF 8153O
OUTDOOR AIR GRILLE (OAG) TO BE TITUS MODEL 350 WITH INSECT SCREEN

SUPPLY GRILLES (SG) TO BE TITUS MODEL 300 FS
EXHAUST AIR GRILLE (EAG) TO BE TITUS MODEL 350
EXHAUST OUTLET GRILLE (EOG) TO BE TITUS MODEL 350 WITH BIRD SCREEN
CEILING SUPPLY GRILLES (SGC) TO BE TITUS MODEL 250AA WITH AG-20 DAMPER

SYMBOL	ADAPTER / NECK SIZE	FACE SIZE	MAX CFM	MAX NC	MAX SP.	THROW	RUN OUT SIZE	NOTES
SD1	4"	12/12	50	<15	0.026	1–2–4	4" ID	NONE
SD2	6"	12/12	110	<15	0.059	2–3–6	6" ID	NONE
SD3	8"	12/12	200	19	0.105	2–4–7	8" ID	NONE
SD4	8"	24/24	250	18	0.058	3–5–8	8" ID	NONE
SD5	10"	24/24	350	15	0.043	3–6–9	10" ID	NONE
SD6	12"	24/24	550	22	0.058	4–8–12	12" ID	NONE
SD7	14"	24/24	750	27	0.088	4–6–10	14" ID	NONE
SDA1	6"	12/12	120	19	0.138	4–6–9	6" ID	NONE
SDA2	8"	12/12	200	16	0.096	5–8–12	8" ID	NONE
SDA3	8"	24/24	250	14	0.042	12–20–32	8" ID	NONE
SDA4	10"	24/24	400	22	0.075	18–26–37	10" ID	NONE
SDA5	12"	24/24	600	32	0.169	26–32–45	12" ID	NONE
SDA6	14"	24/24	700	36	0.229	28–35–49	14" ID	NONE
SG1	8/4	10/6	145	19	0.117	11–16–22	8/4	NONE
SG2	12/6	14/8	275	18	0.088	15–22–30	12/6	NONE
SG3	16/6	18/8	365	19	0.117	18–25–35	16/6	NONE
SG4	22/6	24/8	485	16	0.084	19–28–40	22/8	NONE
SG5	30/6	32/8	650	16	0.084	22–33–46	30/6	NONE
SGC1	8/4	10/6	100	26	0.131	10–16–25	8/4	NONE
SGC2	12/6	14/8	200	25	0.090	11–16–26	12/6	NONE
SGC3	16/6	18/8	275	26	0.090	12–18–29	16/6	NONE
SGC4	20/8	22/10	400	23	0.056	11–17–27	20/8	NONE
SGC5	30/8	32/10	600	25	0.056	12–19–30	30/8	NONE
RAG1	24/24	24/24	2000	25	0.022			NONE
RAG2	48/24	48/24	4000	29	0.022			NONE
RAG3	12/12	14/14	525	20	0.050			NONE
EAG1	12/12	14/14	525	20	0.050			NONE
OAG	OUTDOOR AIR GRILLE SIZE AS NOTED							TITUS 355 ZR-HD-SS
EOG	EXHAUST OUTLET GRILLE SIZE AS NOTED							TITUS 355 ZR-HD-SS
L1	LOUVER SIZE AS NOTED							RUSKIN MODEL ELF 8153O

GENERAL MECHANICAL NOTES

GENERAL:
MECHANICAL CONTRACTOR SHALL COMPLETELY FAMILIARIZE HIMSELF WITH ALL CONDITIONS AFFECTING HIS WORK INCLUDING VISIT TO THE SITE BEFORE PREPARING HIS PROPOSAL. ALL WORK IS TO BE PERFORMED IN ACCORDANCE WITH ALL APPLICABLE CODES AND STANDARDS ISSUED BY ALL AUTHORITIES HAVING JURISDICTION OVER THE WORK. WHERE CONFLICT EXISTS BETWEEN THE APPLICABLE CODES AND STANDARDS OR THE PLANS AND SPECIFICATIONS, THE MOST STRINGENT AS DETERMINED BY THE ENGINEER WILL APPLY. CONTRACTOR SHALL NOTIFY ENGINEER OF CONFLICTING CONDITIONS AFFECTING HIS WORK AND ADVISE ENGINEER FOR CLARIFICATION. LOCAL CODES IN EFFECT FOR THIS PROJECT INCLUDE BUT ARE NOT LIMITED TO:

FLORIDA STANDARD BUILDING CODE
FLORIDA STANDARD MECHANICAL CODE
FLORIDA STANDARD PLUMBING CODE
FLORIDA STANDARD GAS CODE
NFPA 90, 90A, 90B

ALL MATERIALS TO BE MANUFACTURED INCORPORATED INTO THE WORK TO BE MANUFACTURED IN THE USA UNLESS OTHERWISE NOTED OR SCHEDULED ON THE DRAWINGS.

MECHANICAL CONTRACTOR TO PROVIDE COMPLETE AND FUNCTIONING SYSTEMS. CONTRACTOR TO PROVIDE ALL REQUIRED MATERIALS AND LABOR AS NEEDED TO PROVIDE COMPLETE AND FUNCTIONING SYSTEM AS DESCRIBED IN THE CONSTRUCTION DOCUMENTS.

SUBMITTALS AND SHOP DRAWINGS:
CONTRACTOR TO PREPARE SUBMITTALS AND SHOP DRAWINGS FOR ALL MECHANICAL WORK AS REQUIRED BY THE CONSTRUCTION DOCUMENTS INTO SINGLE COMPLETE PACKAGE FOR ENGINEERS REVIEW. PACKAGE TO BE IN THREE RING BINDER WITH ALL SHOP DRAWINGS ATTACHED. BINDER AND DRAWINGS TO CLEARLY STATE PROJECT NAME, PROJECT ARCHITECT, PROJECT ENGINEER, PROJECT OWNER, CONTRACTOR NAME, AND SITE ADDRESS. INCOMPLETE SUBMITTAL PACKAGES WILL BE AVAILABLE AT THE ENGINEERS OFFICE FOR CONTRACTOR PICK-UP AND COMPLETION BEFORE ANY REVIEW BY THE ENGINEER OTHER THAN CURSORY REVIEW AS REQUIRED TO DETERMINE COMPLETENESS OF SUBMITTAL PACKAGE.

CONTRACTOR TO SUBMIT NAME AND QUALIFICATIONS OF TEST AND BALANCE COMPANY BEING PROPOSED BY CONTRACTOR FOR TEST AND BALANCE WORK. TEST AND BALANCE CONTRACTOR SUBMITTAL INFORMATION TO INCLUDE DOCUMENTATION OF EXPERIENCE AS WELL AS COPY OF TEST AND BALANCE CONTRACTORS ENGINEERING CORPORATION LICENSE SHOWING NAME OF QUALIFYING REGISTERED PROFESSIONAL ENGINEER AS WELL AS COPY OF QUALIFYING PROFESSIONAL ENGINEERS CURRENT LICENSE.

COORDINATION OF WORK:
ENGINEERS DRAWINGS AND CONSTRUCTION DOCUMENTS ARE DIAGRAMMATIC. CONTRACTOR OF WORK THIS TRADE TO COORDINATE WITH ALL WORK OF CONTRACTORS OF OTHER TRADES AND GENERAL CONTRACTOR. CONTRACTORS TO FIELD MEASURE PRIOR TO FABRICATION OF ANY WORK. CONTRACTOR OF WORK OF THIS TRADE TO COMMUNICATE WITH GENERAL CONTRACTOR AND CONTRACTORS OF OTHER TRADES AND PREPARE DRAWINGS, SKETCHES, AND PROVIDE INFORMATION AS NEEDED TO COMMUNICATE WITH OTHER TRADES FOR CONSTRUCTION OF COMPLETE AND OPERATING SYSTEM WITHOUT ADDITIONAL COST TO OWNER. PRIOR TO BEGINNING WORK OF THIS TRADE, CONTRACTOR OF THIS TRADE TO CONVENE COORDINATION MEETING WITH OTHER AFFECTED CONTRACTORS OF OTHER TRADES AND GENERAL CONTRACTOR FOR PURPOSES OF COORDINATION. CONTRACTORS' FAILURES TO COORDINATE WILL NOT BE CAUSE FOR RECOVERY OF ADDITIONAL COMPENSATION FOR CORRECTION OR MODIFICATION WORK WHICH IN THE SOLE OPINION OF THE ENGINEER IS NOT WELL COORDINATED.

DUCTWORK:
ALL DUCTWORK TO BE G-60 GALVANIZED STEEL FOR INDOOR LOCATIONS AND G-90 GALVANIZED STEEL FOR OUTDOOR LOCATIONS AND WITHIN 10 FEET OF ALL BUILDING EXTERIOR ENVELOPE PENETRATIONS. ALL DIMENSIONS SHOWN ON THE DRAWINGS ARE CLEAR INSIDE DIMENSIONS. ALL DUCTWORK TO BE FABRICATED AND INSTALLED IN ACCORDANCE WITH THE MOST CURRENT DUCT CONSTRUCTION STANDARDS OF SMACNA. PLENUM TYPE CONNECTION OF DUCTWORK TO EQUIPMENT OR HVAC SYSTEM APPURTENANCE IS NOT PERMITTED UNLESS SPECIFICALLY NOTED ON THE DRAWINGS. ALL DUCTWORK TO BE SEALED WITH DUCTMATE ENVIROSEAL MASTIC OR EQUAL OF DOMESTIC MANUFACTURE. DUCTWORK TO BE SMACNA SEAL CLASS "C" UNLESS OTHERWISE NOTED. TURNING VANES ARE TO BE INSTALLED IN ALL MITERS AND BRANCH CONNECTIONS OF ALL RECTANGULAR DUCTWORK. EXTRACTORS ARE TO BE INSTALLED AT ALL BRANCH DUCTS AND CONNECTIONS RUNNOUTS TO SUPPLY GRILLES AND SUPPLY REGISTERS. MANUAL VOLUME DAMPERS ARE TO BE INSTALLED AS REQUIRED TO PERFORM TEST AND BALANCE AS WELL AS SHOWN ON THE DRAWINGS. FLEXIBLE DUCTWORK TO BE INSULATED TO NOT LESS THAN R-6 AND TO BE ATCO UPC #076 OR EQUAL BY SCHULLER. FLEX DUCT TO HAVE FLAME SPREAD RATING LESS THAN 25 AND SMOKE DEVELOPED RATING OF LESS THAN 50.

WHERE METAL DUCTWORK IS IN EXPOSED FINISHED INTERIOR LOCATIONS DUCTWORK TO BE AT LEAST TWO GAGES HEAVIER THAN THE MINIMUM GAUGE REQUIRED BY THE APPLICABLE SMACNA STANDARD AND JOINED WITH FOUR BOLT CONNECTION AS MANUFACTURED BY DUCTMATE OR EQUAL OF DOMESTIC MANUFACTURE. EXPOSED DUCTWORK TO BE PAINTED IN ACCORDANCE WITH THE PAINTING REQUIREMENTS OF ARCHITECTURAL SECTIONS OF THE CONSTRUCTION DOCUMENTS. WHERE PAINTING REQUIREMENTS ARE NOT DESCRIBED IN THE ARCHITECTURAL SECTIONS OF THE CONSTRUCTION DOCUMENTS, PROVIDE ONE COAT OF PRIMER AND TWO COATS OF OIL BASED ENAMEL AS MANUFACTURED BY PPG OR SHERWIN WILLIAMS APPLIED IN STRICT ACCORDANCE WITH THE MANUFACTURER'S WRITTEN INSTRUCTIONS. COLOR TO BE AS SELECTED BY THE ARCHITECT AND OWNER.

CONTRACTOR TO COORDINATE WITH TRUSS MANUFACTURER AND INSTALLER IN ORDER TO PROVIDE REQUIRED CLEARANCES WITHIN TRUSS WORK AND OTHER STRUCTURAL ELEMENTS AS NEEDED FOR INSTALLATION OF REQUIRED DUCTWORK.

WHERE DUCTWORK PENETRATES DRAFT STOPS OF OTHER CONTINUOUS WALLS OR OTHER BARRIERS IN THE CONSTRUCTION SEAL DUCTWORK AROUND PENETRATION IN MANNER CONSISTENT WITH LEVEL OF PROTECTION OF DRAFT STOP, WALL, OR OTHER BARRIER.

PROVIDE DUCT ACCESS DOOR AT ALL DUCT SMOKE DETECTOR LOCATIONS.

DUCTWORK INSULATION:
ALL SUPPLY AND RETURN DUCTWORK IS TO BE EXTERNALLY INSULATED TO NOT LESS THAN R-6. ALL RETURN AND EXHAUST DUCTWORK IS TO BE LINED WITH ACOUSTIC DUCT LINER WITHIN 10 FEET OF AHU, PACKAGE UNIT, FAN, OR BLOWER. OUTDOOR AIR AND EXHAUST DUCTWORK TO BE EXTERNALLY INSULATED TO NOT LESS THAN R-4. ALL EXTERNAL DUCT INSULATION TO BE SCHULLER R-SERIES MICROLITE FIBERGLASS DUCT WRAP WITH FSK FACING OR EQUAL BY OCF. ALL DUCT LINER TO BE SCHULLER PERMACOTE LINACOUSTIC WITH FACTORY APPLIED ANTI-MICROBIAL TREATMENT. FLAME SPREAD AND SMOKE DEVELOPED RATINGS OF BOTH DUCT WRAP AND LINER TO BE LESS THAN 25 AND 50 RESPECTIVELY. ALL INSULATION IS TO BE APPLIED WITH ADHESIVE AND MECHANICAL FASTENERS IN ACCORDANCE WITH THE MOST CURRENT WRITTEN RECOMMENDATIONS OF SMACNA.

FIRE DAMPERS:
FIRE DAMPERS TO BE INSTALLED UNLESS OTHERWISE NOTED IN RATED FLOOR AND WALL PENETRATIONS AND/OR IN ACCORDANCE WITH THE MOST CURRENT REQUIREMENTS OF NFPA 90, 90A, OR 90B. INSTALL FIRE DAMPERS IN SLEEVES AND SEAL BETWEEN SLEEVE AND FLOOR CUT WITH UL APPROVED FIRESTOP SEALANT. FIRE DAMPERS TO BE INSTALLED AS SHOWN ON THE DETAILS AND IN ACCORDANCE WITH THE MOST CURRENT SMACNA STANDARDS. ALL FIRE DAMPERS TO HAVE FULL FLOW CROSS SECTION, TYPE B.

HEATING VENTILATING AND AIR CONDITIONING EQUIPMENT:
EQUIPMENT TO BE AS SCHEDULED ON THE DRAWINGS OR EQUAL WHERE MANUFACTURED BY LENNOX OR CARRIER. IF EQUAL MANUFACTURER IS SELECTED CONTRACTOR TO PROVIDE SUFFICIENT INFORMATION SHOWING EQUAL SYSTEM PERFORMANCE AND PHYSICAL CHARACTERISTICS. SPLIT HEATING OR COOLING SYSTEMS TO BE MATCHED SYSTEMS OF THE SAME MANUFACTURER. HVAC EQUIPMENT TO BE FURNISHED WITH 2" FILTER RACK, FACTORY FURNISHED RETURN AIR PLENUM, AND FACTORY EVAPORATOR COIL ENCLOSURE. AT COMPLETION OF JOB FURNISH OWNER WITH SIX SETS OF FARR 2"-30/30 FILTERS. WHERE COOLING SYSTEMS HAVE MULTIPLE STAGES OF COOLING, COOLING COILS TO BE PROVIDED WITH VERTICAL FACE SPLITTING, NOT ROW SPLITTING. LABEL ALL MOTORIZED EQUIPMENT WITH 1" BLUE LETTERS ON WHITE LAMINATED PLASTIC TAG.

CONDENSATE DRAIN PIPING:
CONDENSATE DRAIN PIPING TO BE NOT LESS THAN 3/4" SCHEDULE 40 PVC PIPE. INTERIOR CONDENSATE DRAIN PIPE TO BE INSULATED WITH RUBBER CLOSED CELL FOAM OF NOT LESS THAN 1/2" WALL THICKNESS. INSTALL TRAP AT AIR HANDLING UNIT WHERE EVAPORATOR COIL IS LOCATED ON NEGATIVE PRESSURE SIDE OF BLOWER SECTION. MINIMUM TRAP DEPTH TO BE NOT LESS THAN TWICE THE EXTERNAL STATIC PRESSURE OF THE AIR HANDLING UNIT IN INCHES OF WATER. AUXILIARY CONDENSATE DRAIN LINE TO BE PROVIDED AT EACH AHU AND TO BE PIPED WITH TRAP.

CONDENSATE TO BE PIPED TO NEAREST ROOF DRAIN OR DOWNSPOUT OUTLET TUBE. CONDENSATE OUTLET ON PACKAGE ROOFTOP UNITS TO BE PIPED WITH STEEL OR COPPER TRAP AND FITTED WITH HOSE CONNECTION. MINIMUM TRAP DEPTH TO BE NOT LESS THAN TWICE THE EXTERNAL STATIC PRESSURE OF THE PACKAGE AIR CONDITIONER IN INCHES OF WATER. INSTALL 3/4" HIGH PERFORMANCE 5 PLY HOSE CAMPED TO 12"x12"x3" THICK 3000 PSI CONCRETE PAVING BLOCKS NOT MORE THAN 5' OC ROUTED BETWEEN PRTU CONDENSATE TRAP AND CLOSEST ROOF DRAIN OR DOWNSPOUT OUTLET TUBE. HOSE TO BE AS MANUFACTURED BY SWAN MODEL # SS3475.

REFRIGERATION PIPING:
ALL REFRIGERATION PIPING TO BE TYPE "L" HARD COPPER WITH COPPER FITTINGS. ALL JOINTS IN REFRIGERATION PIPING TO BE SOLDERED WITH SILVER SOLDER WHILE PURGING WITH NITROGEN. ALL PIPE ENDS TO BE REAMED PRIOR TO SOLDERING. REFRIGERATION PIPING TO BE PERFORMED IN ACCORDANCE WITH THE MOST CURRENT RECOMMENDATIONS OF ARI AND IN STRICT ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS FOR THE SYSTEM BEING USED. PRIOR TO CHARGING WITH REFRIGERANT, LINES TO BE EVACUATED. VACUUM MUST BE HELD FOR NOT LESS THAN 24 HOURS. IF SYSTEM WILL NOT HOLD VACUUM, ENGINEER IS TO BE CONTACTED FOR REPAIR AND RE-TESTING PROCEDURE. ALL REFRIGERATION CIRCUITS TO BE FITTED WITH REPLACEABLE CORE FILTER DRIER; SITE GLASS AND THERMOMETER WELLS. THERMOMETER WELL MAY BE INTEGRAL TO CONDENSING UNIT. REFRIGERANT LINES TO BE SUPPORTED NOT LESS THAN 10' OC AND/OR AT ALL CHANGES IN DIRECTION OF PIPING. VAPOR LINE TO BE INSULATED WITH RUBBER CLOSED CELL FOAM OF NOT LESS THAN 3/4" WALL THICKNESS. WEATHERPROOF INSULATION ON EXTERIOR REFRIGERANT LINES WITH 0.010" ALUMINUM JACKET WITH PRE-MANUFACTURED ALUMINUM JACKET FITTINGS. PLACE GALVANIZED STEEL SADDLES AT ALL PIPE SUPPORTS OF SUFFICIENT BEARING AREA TO PREVENT DAMAGE OF INSULATION AND JACKET.

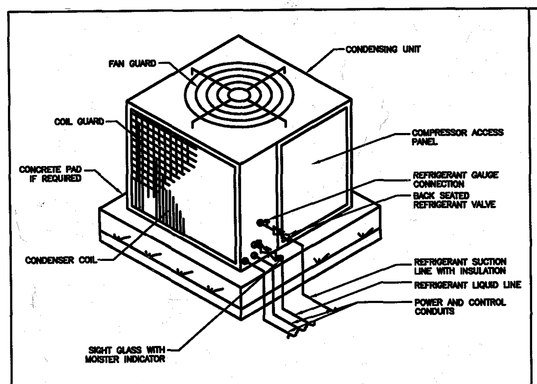
TEST AND BALANCE:
PRIOR TO CONTRACTORS REQUEST FOR SUBSTANTIAL COMPLETION INSPECTION, CONTRACTOR TO PROVIDE INDEPENDENT TEST AND BALANCE BY FIRM WITH NOT LESS THAN 10 YEARS DEMONSTRABLE EXPERIENCE SPECIALIZING IN TEST AND BALANCE WORK. TEST AND BALANCE CONTRACTOR TO VERIFY SEQUENCE OF OPERATION WHILE CONDUCTING TEST AND BALANCE. ENGINEER WILL NOT PERFORM SUBSTANTIAL COMPLETION INSPECTION OF WORK BEFORE RECEIPT OF TEST AND BALANCE REPORT. TEST AND BALANCE TO BE PERFORMED IN ACCORDANCE WITH THE WRITTEN PROCEDURES OF SMACNA, AABC, OR NEBB. CONTRACTOR TO PROVIDE NOT LESS THAN FOUR COPIES OF CERTIFIED TEST AND BALANCE REPORT TO ENGINEER. ALL TEST AND BALANCE WORK TO BE PERFORMED UNDER THE SUPERVISION OF A LISCENSED PROFESSIONAL ENGINEER AND ALL REPORTS TO BEAR THE ORIGINAL SEAL AND SIGNATURE OF LISCENSED PROFESSIONAL ENGINEER.

SEQUENCE OF OPERATION FOR SYSTEM PRTU-1 (LOBBY/CANTINA):
AIR CONDITIONING SYSTEM BLOWERS TO BE SET TO RUN ON SIGNAL FROM OCCUPANCY SENSORS. OCCUPANCY SENSORS TO BE WIRED IN PARALLEL WHERE MORE THAN ONE SENSOR IS SHOWN WITHIN THE ZONE. OCCUPANCY SENSOR TO BE LOCATED IN CEILING AS SHOWN ON THE DRAWINGS AND FURNISHED WITH BOTH N.O. AND N.C. CONTACTS. OCCUPANCY SENSOR TO HAVE ADJUSTABLE CYCLE PERIOD OF FIVE (5) TO SIXTY (60) MINUTES AND HAVE NOT LESS THAN 40' DIAMETER COVERAGE FROM CEILING MOUNTED LOCATION. OCCUPANCY SENSOR TO HAVE ACTIVE ULTRASONIC AND PASSIVE INFRARED SENSING ELEMENTS AND TO BE AS MANUFACTURED BY HONEYWELL OR EQUAL. PROVIDE ONE OCCUPANCY SENSOR CONTROL CIRCUIT FOR EACH HVAC SYSTEM.

AIR CONDITIONING SYSTEM TO BE FURNISHED WITH MULTISTAGE SEVEN DAY PROGRAMMABLE ELECTRONIC THERMOSTAT WITH NIGHT SETBACK AND AUTO CHANGEOVER. THERMOSTAT TO HAVE AUXILIARY INPUT FOR EXTERNAL TIME-CLOCK FOR SET-BACK WITH CONTACT CLOSURE INITIATION. FURNISH REMOTE SENSOR (RS) OR DUCT SENSOR (DS) WHERE INDICATED. DURING OCCUPIED PERIODS SYSTEM TO RUN AT OCCUPIED SETPOINT TEMPERATURE WITH BLOWER RUNNING CONTINUOUSLY AND HEATING AND COOLING CYCLES OPERATING ON SPACE TEMPERATURE DEMAND. DURING UNOCCUPIED PERIODS SYSTEM TO RUN AT UNOCCUPIED SETPOINT TEMPERATURE WITH BLOWER AS WELL AS HEATING AND COOLING CYCLES OPERATING ON SPACE TEMPERATURE DEMAND.

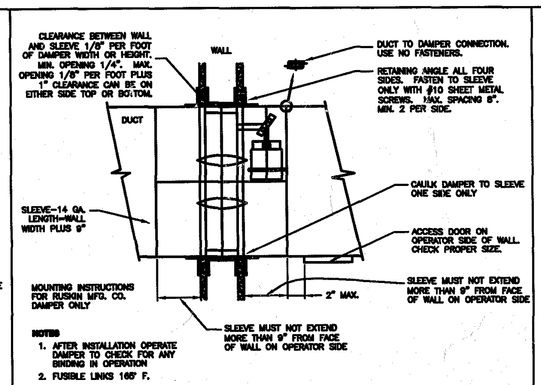
PROVIDE CARBON DIOXIDE SENSOR (CO2) WHERE NOTED ON THE DRAWINGS. CO2 SENSOR TO BE TELAIRE SYSTEMS WITH BOTH N.O. AND N.C. CONTACTS AS WELL AS PROPORTIONAL SIGNAL FOR MODULATION OF OUTDOOR AIR DAMPER BETWEEN MINIMUM AND MAXIMUM OUTDOOR AIR SETPOINTS. CO2 SENSOR TO BE SET TO MODULATE DAMPER BETWEEN MINIMUM AND MAXIMUM DAMPER POSITIONS BETWEEN 700 PPM AND 1000 PPM CARBON DIOXIDE

SEQUENCE OF OPERATION FOR ALL OTHER SYSTEMS:
AIR CONDITIONING SYSTEM BLOWERS TO BE SET TO RUN ON SIGNAL FROM OCCUPANCY SENSORS. OCCUPANCY SENSORS TO BE WIRED IN PARALLEL WHERE MORE THAN ONE SENSOR IS SHOWN WITHIN THE ZONE. OCCUPANCY SENSOR TO BE LOCATED IN CEILING AS SHOWN ON THE DRAWINGS AND FURNISHED WITH BOTH N.O. AND N.C. CONTACTS. OCCUPANCY SENSOR TO HAVE ADJUSTABLE CYCLE PERIOD OF FIVE (5) TO SIXTY (60) MINUTES AND HAVE NOT LESS THAN 40' DIAMETER COVERAGE FROM CEILING MOUNTED LOCATION. OCCUPANCY SENSOR TO HAVE ACTIVE ULTRASONIC AND PASSIVE INFRARED SENSING ELEMENTS AND TO BE AS MANUFACTURED BY HONEYWELL OR EQUAL. PROVIDE ONE OCCUPANCY SENSOR CONTROL CIRCUIT FOR EACH HVAC SYS



SLAB MOUNTED AIR COOLED CONDENSING UNIT

NOT TO SCALE



COMBINATION FIRE AND SMOKE DAMPER

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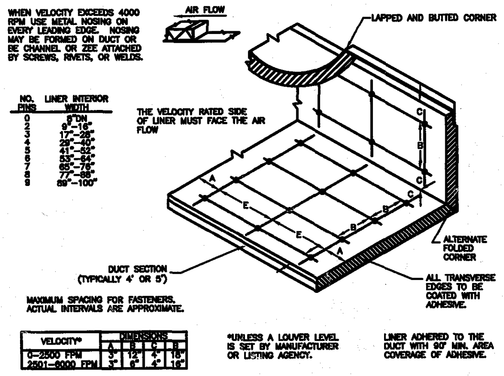

FLEXIBLE DUCT LINER INSTALLATION

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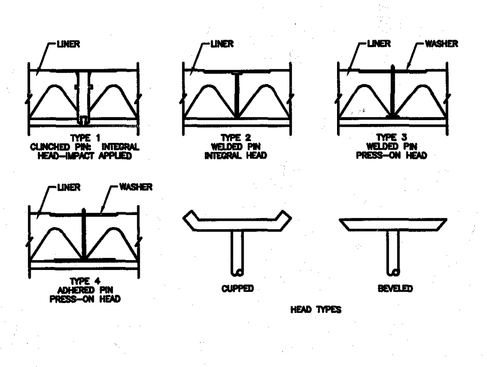
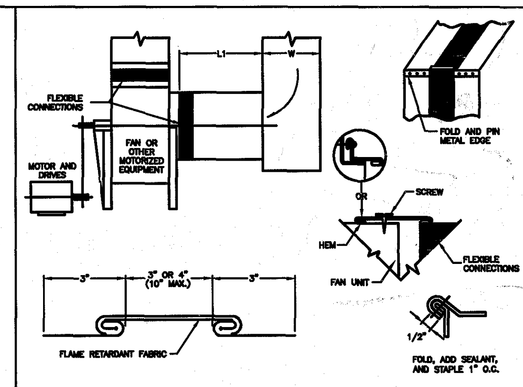


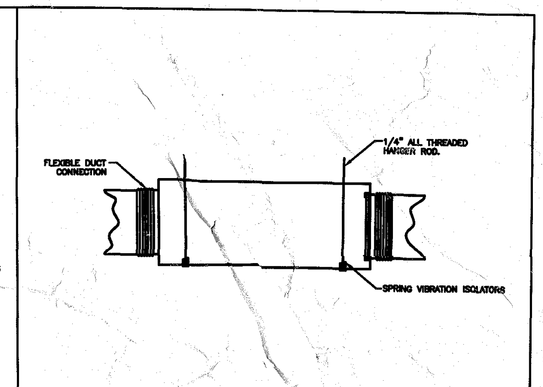
LINER FASTENERS

NOT TO SCALE



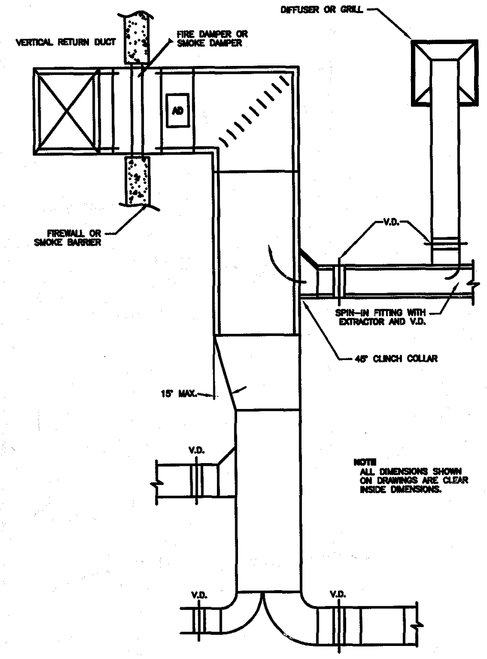
FLEXIBLE CONNECTIONS AT MOTORIZED EQUIPMENT

NOT TO SCALE



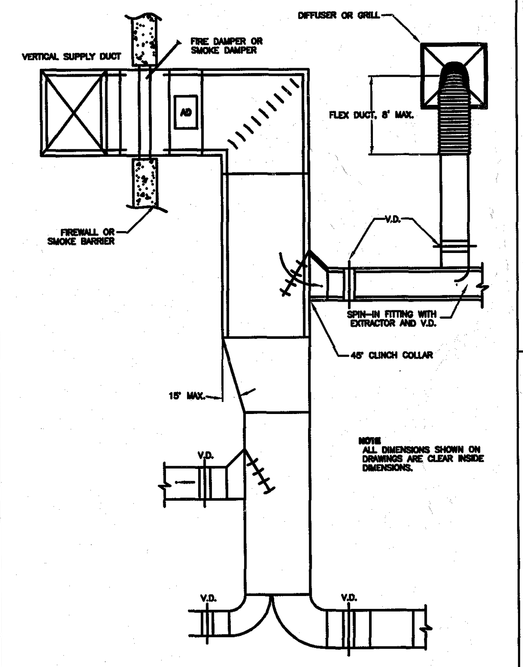
HORIZONTAL EXHAUST FAN

NOT TO SCALE



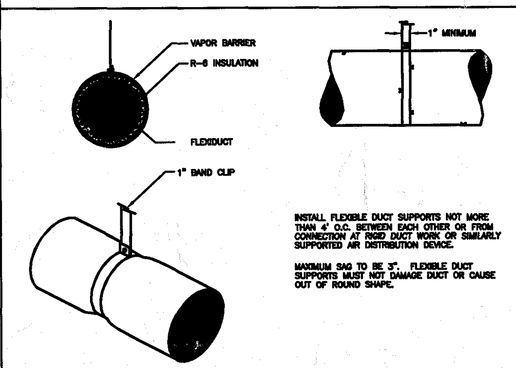
TYPICAL EXHAUST OR RETURN DUCT

NOT TO SCALE



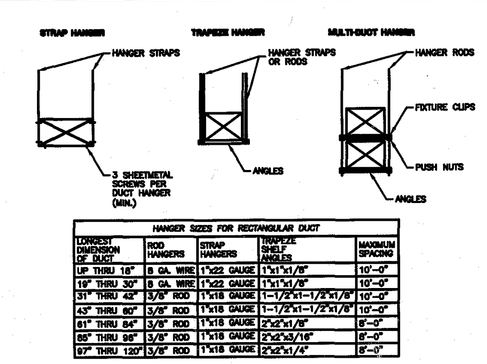
TYPICAL SUPPLY DUCT

NOT TO SCALE



FLEXIBLE DUCT SUPPORTS

NOT TO SCALE

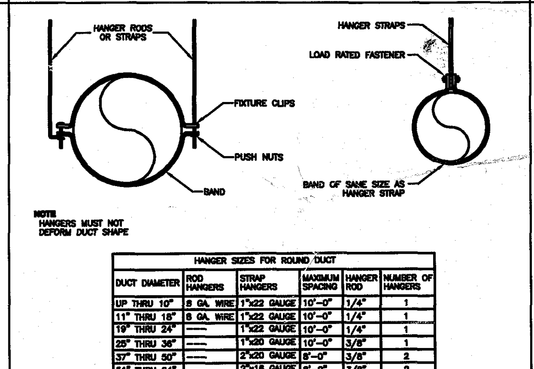


HANGER SIZES FOR RECTANGULAR DUCT

LONGEST DIMENSION OF DUCT	ROD HANGERS	STRAP HANGERS	TRAPEZE SHELF ANGLES	MAXIMUM SPACING
UP THRU 18"	8 GA. WIRE	1"x22 GAUGE	1"x1"x1/8"	10'-0"
19" THRU 30"	8 GA. WIRE	1"x22 GAUGE	1"x1"x1/8"	10'-0"
31" THRU 42"	3/8" ROD	1"x18 GAUGE	1-1/2"x1-1/2"x1/8"	10'-0"
43" THRU 60"	3/8" ROD	1"x18 GAUGE	1-1/2"x1-1/2"x1/8"	10'-0"
61" THRU 84"	3/8" ROD	1"x18 GAUGE	2"x2"x1/8"	8'-0"
85" THRU 96"	3/8" ROD	1"x18 GAUGE	2"x2"x3/16"	8'-0"
97" THRU 120"	3/8" ROD	1"x18 GAUGE	2"x2"x1/4"	8'-0"

RECTANGULAR DUCT HANGERS

NOT TO SCALE

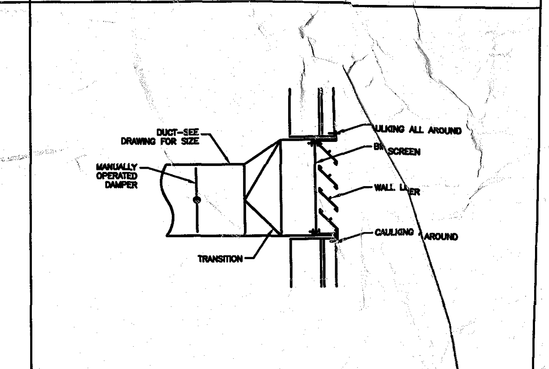


HANGER SIZES FOR ROUND DUCT

DUCT DIAMETER	ROD HANGERS	STRAP HANGERS	MAXIMUM SPACING	HANGER ROD	NUMBER OF HANGERS
UP THRU 10"	8 GA. WIRE	1"x22 GAUGE	10'-0"	1/4"	1
11" THRU 18"	8 GA. WIRE	1"x22 GAUGE	10'-0"	1/4"	1
19" THRU 36"	———	1"x22 GAUGE	10'-0"	1/4"	1
37" THRU 36"	———	1"x20 GAUGE	10'-0"	3/8"	1
37" THRU 60"	———	2"x20 GAUGE	8'-0"	3/8"	2
61" THRU 84"	———	2"x16 GAUGE	8'-0"	3/8"	2

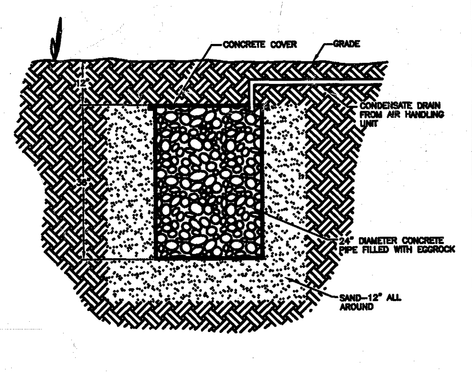
ROUND DUCT HANGERS DETAIL

NOT TO SCALE



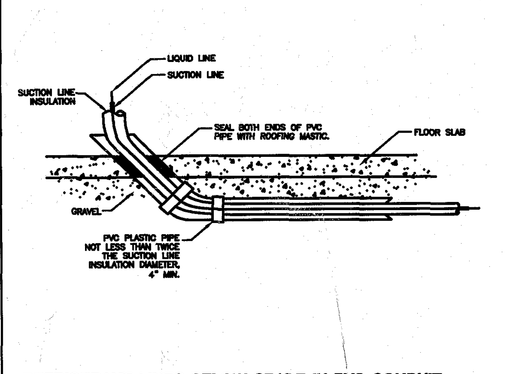
WALL LOUVER INTAKE WITH BIRDSCREEN, MANUAL DAMPER

NOT TO SCALE



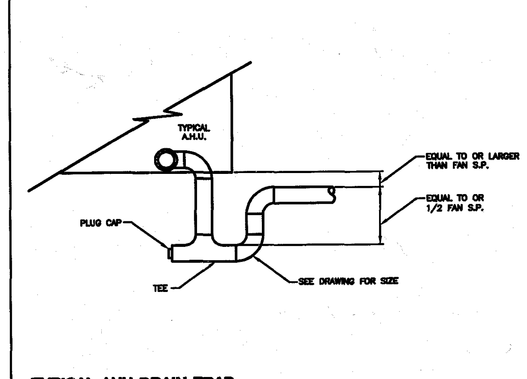
DRYWELL FOR CONDENSATE DRAIN

NOT TO SCALE



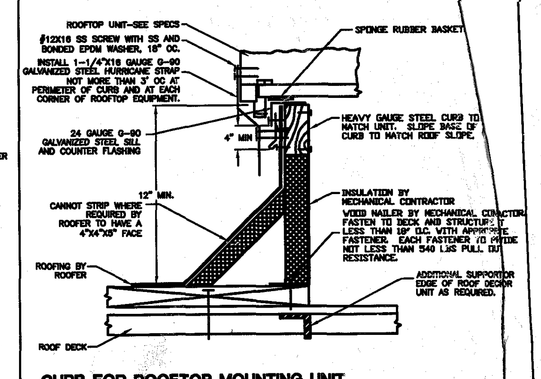
REFRIGERANT LINES BELOW GRADE IN PVC CONDUIT

NOT TO SCALE



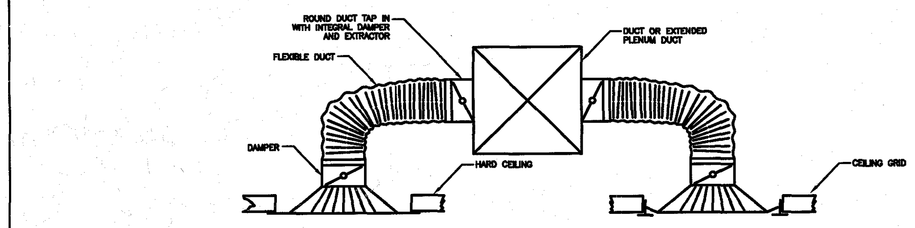
TYPICAL AHU DRAIN TRAP

NOT TO SCALE



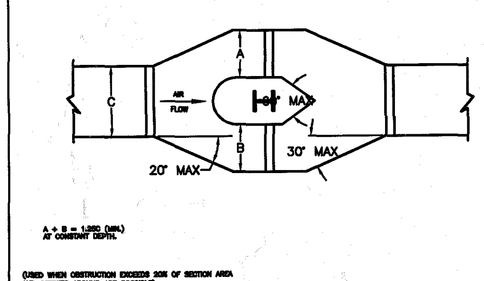
CURB FOR ROOFTOP MOUNTING UNIT

NOT TO SCALE



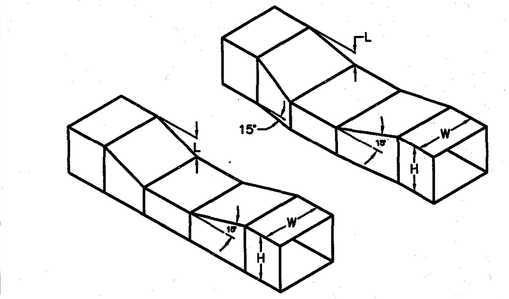
CEILING DIFFUSER BRANCH DUCT DETAIL

NOT TO SCALE



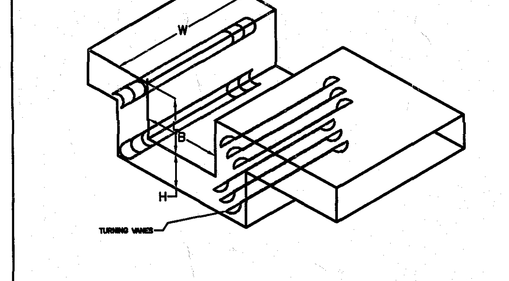
OBSTRUCTION DOUBLE BYPASS

NOT TO SCALE



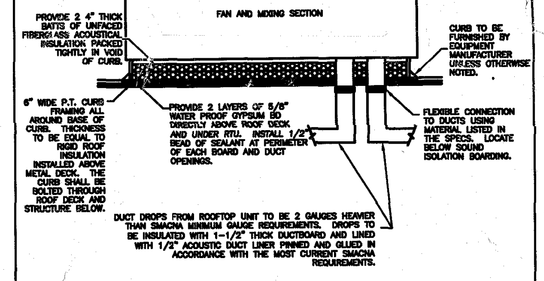
DUCT REDUCTION TO CLEAR OBSTRUCTION

NOT TO SCALE



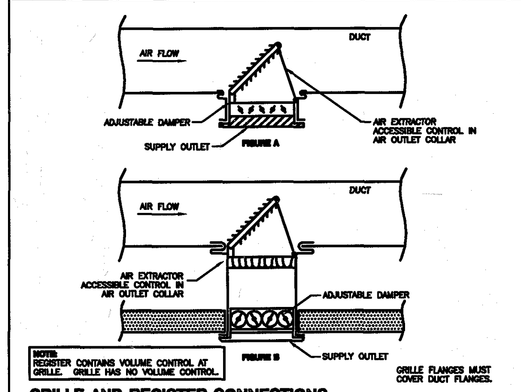
DOUBLE OFFSET TO ACCUMULATE OBSTRUCTION

NOT TO SCALE



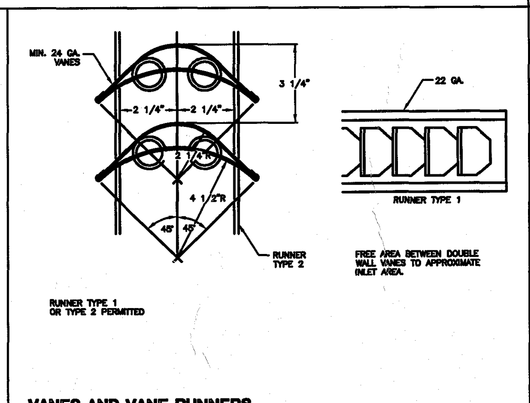
ROOFTOP UNIT (RTU)

NOT TO SCALE



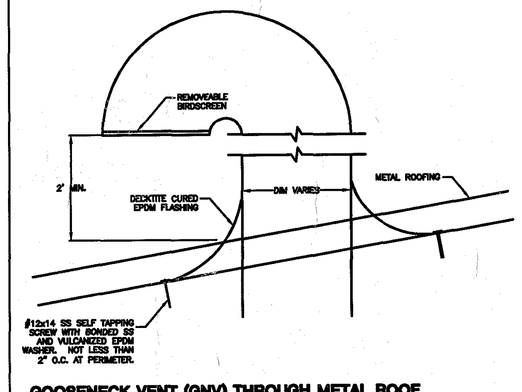
GRILLE AND REGISTER CONNECTIONS

NOT TO SCALE



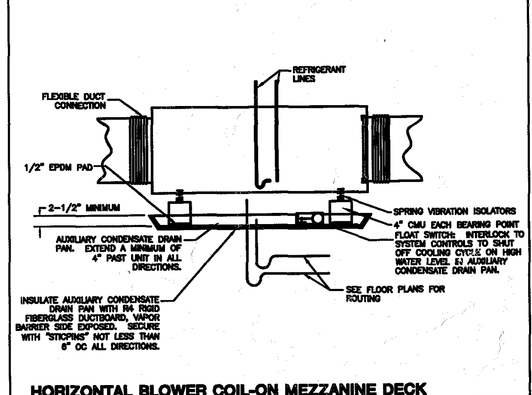
VANES AND VANE RUNNERS

NOT TO SCALE



GOOSENECK VENT (GNV) THROUGH METAL ROOF

NOT TO SCALE



HORIZONTAL BLOWER COIL-ON MEZZANINE DECK

NOT TO SCALE

REVISION

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SUBMITTALS

MECHANICAL DETAILS

NORTH

Revisions		
No.	Date	DESCRIPTION
1	04/14/06	CD-R
2	04/28/06	CDF
3	-	-
4	-	-
5	-	-

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RENOVATION FOR:
EXPRESS CARE OF LEESBURG
PROJECT ADDRESS
LEESBURG, FLORIDA

DATE
DATE

JOB #
0473

M-3 4

MECHANICAL SPECIFICATION NOTES

SECTION 15600

MECHANICAL/HEATING, VENTILATING AND AIR CONDITIONING

PART 1 - GENERAL

DESCRIPTION

WORK INCLUDED: PROVIDE HEATING, VENTILATING, AND AIR CONDITIONING SYSTEMS WHERE SHOWN ON THE DRAWINGS, AS SPECIFIED HEREIN, AND AS NEEDED FOR A COMPLETE AND PROPER INSTALLATION INCLUDING, BUT NOT NECESSARILY LIMITED TO:
- MATCHED DIRECT EXPANSION SPLIT SYSTEM AIR COOLED CONDENSING UNITS WITH AIR HANDLING UNITS OR GAS FURNACES COMPLETE WITH, DAMPERS, DAMPER OPERATORS, BLOWERS, MOTORS, COMPRESSORS, CONDENSERS, FILTERS, AND RELATED ITEMS;
- AIR CONDITIONING SUPPLY AND RETURN DUCTWORK SYSTEM WITH GRILLES, DIFFUSERS, AND REGISTERS;
- SELF-CONTAINED, AIR-COOLED, GAS AND/OR ELECTRIC ROOFTOP PACKAGED AIR CONDITIONING UNITS.
- EXHAUST SYSTEMS INCLUDING, BUT NOT NECESSARILY LIMITED TO, TOILETS AND GARAGE, WITH FANS, MOTORS, DUCTWORK, GRILLES, REGISTERS, CONTROLS, AND RELATED ITEMS;
- COMPRESSED AIR PIPING
- TEMPERATURE CONTROL SYSTEM INCLUDING LOW-VOLTAGE WIRING.
- MOTORS AS REQUIRED;
- ACOUSTICAL AND THERMAL INSULATION OF DUCTS, PIPING, EQUIPMENT, AND EQUIPMENT ROOMS, AND EQUIPMENT ENCLOSURES.

RELATED WORK:
- DOCUMENTS AFFECTING WORK OF THIS SECTION INCLUDE, BUT ARE NOT NECESSARILY LIMITED TO, GENERAL CONDITIONS, SUPPLEMENTARY CONDITIONS, AND SECTIONS IN DIVISION 1 OF THESE SPECIFICATIONS.

QUALITY ASSURANCE

USE ADEQUATE NUMBERS OF SKILLED WORKMEN WHO ARE THOROUGHLY TRAINED AND EXPERIENCED IN THE NECESSARY CRAFTS AND WHO ARE COMPLETELY FAMILIAR WITH THE SPECIFIED REQUIREMENTS AND THE METHODS NEEDED FOR PROPER PERFORMANCE OF THE WORK OF THIS SECTION.

WITHOUT ADDITIONAL COST TO THE OWNER, PROVIDE SUCH OTHER LABOR AND MATERIALS AS ARE REQUIRED TO COMPLETE THE WORK OF THIS SECTION IN ACCORDANCE WITH THE REQUIREMENTS OF GOVERNMENTAL AGENCIES HAVING JURISDICTION, REGARDLESS OF WHETHER SUCH MATERIALS AND ASSOCIATED LABOR ARE CALLED FOR ELSEWHERE IN THESE CONTRACT DOCUMENTS.

SUBMITTALS

COMPLY WITH PERTINENT PROVISIONS OF THE GENERAL CONDITIONS OF THESE SPECIFICATIONS.

PRODUCT DATA: WITHIN 30 CALENDAR DAYS AFTER THE CONTRACTOR HAS RECEIVED THE OWNER'S NOTICE TO PROCEED, SUBMIT:
- SHOP DRAWINGS FOR DUCTWORK OVER 4" PRESSURE CLASS, SHOWING PROPOSED LAYOUT OF EQUIPMENT, DUCTS, REGISTERS, GRILLES, AND OTHER COMPONENTS OF THE SYSTEM;
- SHOP DRAWINGS OF THE CONTROL SYSTEM, DEMONSTRATING THE ADEQUACY OF THE PROPOSED SYSTEMS AND ITS COMPLIANCE WITH THESE SPECIFICATIONS;
- SHOP DRAWINGS OF THE MECHANICAL ROOMS OR SPACES TO SCALE SHOWING ALL MECHANICAL WORK ON SCALE DRAWINGS OF SCALE NOT SMALLER THAN ONE HALF INCH: TO ONE FOOT. SHOP DRAWING TO SHOW PLAN AND ELEVATION DRAWINGS TO CLEARLY DEMONSTRATE ALL DUCTWORK AND ASSOCIATED CONNECTIONS TO CONTRACTOR SUBMITTED MECHANICAL EQUIPMENT.
- MANUFACTURERS CATALOGS, SAMPLES, AND OTHER ITEMS NEEDED TO FULLY DEMONSTRATE THE QUALITY OF THE PROPOSED MATERIALS AND EQUIPMENT.

RECORD DRAWINGS:
- COMPLY WITH PERTINENT PROVISIONS OF THE GENERAL CONDITIONS.
- INCLUDE A COPY OF THE RECORD DRAWINGS IN EACH COPY OF THE OPERATION AND MAINTENANCE MANUAL DESCRIBED BELOW.

UPON COMPLETION OF THIS PORTION OF THE WORK, AND AS A CONDITION OF ITS ACCEPTANCE, DELIVER TO THE ARCHITECT TWO COPIES OF AN OPERATION AND MAINTENANCE MANUAL COMPILED IN ACCORDANCE WITH THE PROVISIONS OF THE GENERAL CONDITIONS OF THESE SPECIFICATIONS.

PRODUCT HANDLING

COMPLY WITH PERTINENT PROVISIONS OF SECTIONS OF THE GENERAL CONDITIONS OF THESE SPECIFICATIONS.

PART 2 - PRODUCTS

DUCTWORK

FOR EXHAUST SYSTEMS AND FOR THE HEATING, VENTILATING, AND AIR CONDITIONING SYSTEMS, PROVIDE GALVANIZED SHEET METAL DUCTS FABRICATED AND INSTALLED TO PERTINENT ASHRAE AND SMACNA STANDARDS, OR TO THE REQUIREMENTS OF GOVERNMENTAL AGENCIES HAVING JURISDICTION, WHICHEVER REQUIREMENT IS MORE STRINGENT AS DETERMINED OR OTHERWISE JUDGED BY AND ONLY BY THE ENGINEER.

DUCT SIZES SHOWN ON THE DRAWINGS ARE CLEAR INSIDE DIMENSIONS.

PROVIDE DAMPERS AND EXTRACTORS AS INDICATED ON THE DRAWINGS AND/OR AT ALL BRANCH DUCTS, DUCT RUN-OUTS, OR OTHER INTERCONNECTIONS BETWEEN DUCTWORK. MANUALLY OPERATED DAMPERS OF THE TYPE AND ARRANGEMENT SHOWN ON THE DRAWINGS ARE TO BE TWO GAGES HEAVIER THAN THE DUCT IN WHICH INSTALLED, AND EQUIPPED WITH LOCKING QUADRANTS. PROVIDE TURNING VANES AT ALL FITTINGS AND/OR WHERE-EVER SUGGESTED AS APPLICABLE LOCATION FOR TURNING VANES BY ANY APPROPRIATE ASHRAE OR SMACNA STANDARD. WHERE ANY SUCH STANDARD MAY INDICATE THAT THESE TURNING VANES, EXTRACTORS, OR DAMPERS ARE OPTIONAL, SUGGESTED, OR OTHERWISE DESCRETIONALLY REQUIRED; SUCH TURNING VANES, EXTRACTORS, OR DAMPERS ARE TO BE INSTALLED.

SEAL ALL DUCT SEAMS, TRANSVERSE AND LONGITUDINAL, AIR TIGHT WITH 6 OZ CANVAS SECURED IN PLACE WITH "EC800" OR EQUAL DUCT SEALING COMPOUND, AND APPROVED LAGGING ADHESIVE, OR DUCT TAPE.

FLEXIBLE DUCT

PROVIDE FACTORY FABRICATED INSULATED LOW PRESSURE FLEXIBLE DUCT WITH THE FOLLOWING ATTRIBUTES:
- ZINC-COATED SPRING STEEL HELIX, WITH 1" THICK FIBERGLASS INSULATION, SHEATHED IN A SEAMLESS VAPOR BARRIER JACKET.
- INTERIOR FIRE-RESISTIVE COATED TO PREVENT FIBER EROSION;
- STRAIGHT RUN SOUND ABSORPTION OF 3 DB PER FT, AND 5 DB PER FT SOUND ABSORPTION AT 45 DEGREE BENDS;
- COMPOSITE ASSEMBLY, INCLUDING INSULATION AND VAPOR BARRIER, MEETING CLASS I REQUIREMENTS OF FLAME SPREAD OF 25 OR LESS AND SMOKE DEVELOPED OF 50 OR LESS AS SET FORTH IN NFPA BULLETIN 90-A, AND BEARING UL LABEL AS AN AIR DUCT.

PROVIDE FLEXIBLE DUCT IN FULLY EXTENDED CONDITION, FREE FROM SAGS AND KINKS.
- USE ONLY THE MINIMUM LENGTH REQUIRED TO MAKE THE CONNECTION.
- DO NOT EXCEED 8'-0" IN LENGTH.
- SUPPORT AS DETAILED ON THE DRAWINGS.
- MAKE JOINTS AND CONNECTIONS WITH ½" WIDE POSITIVE LOCKING STEEL STRAPS.
- FLEXIBLE DUCTWORK TO BE INSULATED TO NOT LESS THAN R6.

ACCEPTABLE PRODUCTS:
- ATCO
- METALFLEX

INSULATION

GENERAL:
- PROVIDE MATERIALS COMPLYING WITH NFPA BULLETIN 90-A, AS DETERMINED BY UL METHOD NFPA 225-ASTM E84, AND COMPLYING WITH THE GOVERNING CODE, WITH FLAME SPREAD RATING UNDER 25 AND SMOKE DEVELOPED RATING UNDER 50.
- WHERE VAPOR BARRIERS ARE USED, PROVIDE INTACT AND CONTINUOUS THROUGHOUT.
- ALL SUPPLY AND RETURN DUCTWORK TO BE EXTERNALLY INSULATED TO NOT LESS THAN R6 IN ACCORDANCE WITH THE MOST CURRENT WRITTEN INSTALLATION PRACTICES OF SMACNA. EXTERNAL INSULATION FURNISHED WITH FOIL FACED VAPOR BARRIER AND MANUFACTURED BY SCHULLER OF OWENS CORNING FIBERGLASS. ADDITIONALLY, RETURN AIR DUCTS WITHIN TEN FEET OF ANY BLOWER INLET BUT NOT LESS THAN THE DISTANCE OF THE FIRST 90 DEGREE ELL IN THE RETURN DUCT ARE TO BE LINED WITH ½" ACOUSTIC DUCT LINER. DUCTLINER TO HAVE ANTI-MICROBIAL TREATMENT AND BE MANUFACTURED BY JOHNS-MANVILLE OR OCF.

VIBRATION ISOLATION AND FLEXIBLE CONNECTIONS

AT DUCTS TO EQUIPMENT, PROVIDE VENT-FABRIC FLEXIBLE CONNECTIONS WITH A MINIMUM OF 6" FULL LENGTH, AND APPROVED BY THE GOVERNMENTAL AGENCIES HAVING JURISDICTION.

FOR RETURN AIR CONNECTIONS AT EACH FLOOR TO THE RETURN RISER, PROVIDE FIBERGLASS OR LINED DUCT WITH A MINIMUM OF TWO ELBOWS.

PROVIDE ADDITIONAL SOUND ISOLATION AS REQUIRED TO LIMIT THE NOISE LEVEL IN CONDITIONED SPACE TO A MAXIMUM OF NC-30.

MOUNT VIBRATING EQUIPMENT ON "THYCURB VIBROCURBS" WITH A MINIMUM STATIC DEFLECTION OF 1" WHERE VIBRATION ISOLATING CURBS ARE CALLED OUT OR OTHERWISE NOTED AS BEING REQUIRED ON THE DRAWINGS.

ISOLATE PIPING FROM THE STRUCTURE IN A MANNER TO PREVENT TRANSMISSION OF VIBRATION.

ROOF EXHAUST FANS

PROVIDE CURB-MOUNTED TYPE WITH THE FOLLOWING ATTRIBUTES:
- ALUMINUM OR FIBERGLASS HOOD, WITH HINGED OR REMOVABLE COVER FOR EASY ACCESS TO MOTOR AND FAN AND TO BACKDRAFT DAMPER;
- V-BELT DRIVES, WITH 1.5 SERVICE FACTOR AND ADJUSTABLE SHEAVE ON THE MOTOR;
- OPEN TEFC MOTORS WITH POWER DISCONNECT SWITCHES APPROVED BY THE GOVERNMENTAL AGENCIES HAVING JURISDICTION;
- BACKWARD CURVED CENTRIFUGAL WHEEL FAN IMPELLER, WITH DEEP-SPUN THROAT VENTURI.

APPROVED MANUFACTURERS:
- AS LISTED ON THE DRAWINGS.

MOTORS

PROVIDE MOTORS DESIGNED FOR THE SUPPLY VOLTAGES MADE AVAILABLE FOR THIS PORTION OF THE WORK, AND WITH THE FOLLOWING ATTRIBUTES:
- SIZED TO DEVELOP THE REQUIRED BRAKE HORSEPOWER AND TO OPERATE SATISFACTORILY WITH A VOLTAGE VARIATION OF PLUS OR MINUS 10%;
- CONFORMING TO NEMA MOTOR STANDARDS;
- DYNAMICALLY BALANCED, AND HELD TO COMMERCIAL TOLERANCE;
- WHERE T-FRAME MOTORS ARE USED, OVERSIZED AT LEAST 10%;
- SELECTED SO THAT, WHEN AMBIENT TEMPERATURE REACHES 120 DEGREES F FOR A PERIOD OF TWO HOURS OR MORE, THE MOTOR WILL OPERATE SATISFACTORILY WITHOUT FAILURE, AND WITH A MINIMUM SERVICE FACTOR OF 1.5;
- WITH SQUIRREL-CAGE TYPE DRIP-PROOF ENCLOSURE, UNLESS OTHERWISE INDICATED, CONSTANT SPEED, ACROSS-THE-LINE NORMAL STARTING TORQUE DESIGNED FOR QUIET OPERATION;
- EACH MOTOR OF AMPLE SIZE TO OPERATE ITS UNIT AT PROPER FULL LOAD AND SPEED CONTINUOUSLY, WITHOUT HEATING IN ANY PART MORE THAN 40 DEGREES C ABOVE THE TEMPERATURE OF THE SURROUNDING ATMOSPHERE.

WHERE MOTOR IS USED WITH V BELT DRIVE, EQUIP WITH A SLIDING BASE AND BELT GUARD, AND MOTOR SHEAVE.

PROVIDE STARTERS FOR ALL MOTORS IN WORK OF THIS SECTION. SEE ELECTRICAL SPECIFICATIONS FOR MOTOR STARTER REQUIREMENTS.

PACKAGE ROOFTOP UNITS (PRTU)

GENERAL:
- PROVIDE PACKAGED AIR-COOLED ROOF-MOUNTED HEATING AND COOLING UNITS WITH ACCESSORIES OF MANUFACTURER AS SHOWN ON THE DRAWINGS.
- PACKAGE ROOFTOP UNITS TO BE FURNISHED WITH ITEMS SCHEDULED ON THE DRAWINGS BUT NOT LESS THAN THE FOLLOWING ACCESSORIES: FACTORY CURB, LOW AMBIENT KIT, 2" FILTER RACK, MANUAL OUTDOOR AIR DAMPER WITH OUTDOOR AIR HOOD UNLESS OTHERWISE NOTED, THERMAL EXPANSION VALVE, PHASE FAILURE RELAY, FACTORY FURNISHED SMOKE DETECTOR IN RETURN AIR DUCT, SINGLE POINT WIRING, COIL GUARD, FIRESTAT, AND ANTI-SHORT CYCLE TIMER.

COILS:
- PROVIDE NON-FERROUS CONSTRUCTION WITH ALUMINUM FINS MECHANICALLY BONDED TO SEAMLESS COPPER TUBES.
- FACTORY PRESSURE TEST FOR LEAKS AT 450-500 PSI.
- SELECT FOR A MAXIMUM FACE VELOCITY OF 550 FPM AND 45 DEGREE F REFRIGERANT TEMPERATURE.
- EVAPORATOR COILS FOR EQUIPMENT WITH MULTIPLE STAGES OF HEATING OR COOLING AND/OR MULTIPLE COMPRESSORS TO BE VERTICAL FACE SPLIT IN PROPORTION TO THE STAGES OF VAPOR COMPRESSION. WHERE VERTICAL FACE SPLIT IS NOT PRACTICAL COILS MAY BE HORIZONTAL FACE SPLIT WHERE REQUESTED BY CONTRACTOR IN WRITING BEFORE CONTRACTOR'S SUBMITTAL OF EQUIPMENT AND APPROVED BY ENGINEER IN WRITING PRIOR TO CONTRACTOR'S SUBMITTAL OF EQUIPMENT. WHERE HORIZONTAL FACE SPLIT COILS OR COIL SECTIONS HAVE BEEN APPROVED BY ENGINEER, THESE COILS SHALL BE PIPED SO THAT THE FIRST STAGES OF HEATING OR COOLING SERVE THE LOWEST ELEVATIONS OF COIL SECTIONS.

PROVIDE SERVICEABLE HERMETIC AND SEMIHERMETIC RECIPROCATING TYPE OR COMPLIANT SCROLL COMPRESSORS. WHERE TWO COMPRESSORS ARE REQUIRED, PROVIDE INDEPENDENT CIRCUITS.

PROVIDE REQUIRED OPERATING CONTROLS AS INDICATED ON THE DRAWINGS.

AUTOMATIC TEMPERATURE CONTROL

PROVIDE A SYSTEM OF TEMPERATURE CONTROL AS REQUIRED HERE AND/OR INDICATED ON THE DRAWINGS.
- INCLUDE THERMOSTATS, SENSORS, TEMPERATURE CONTROLLERS, MOTORIZED DAMPERS, CENTRAL PROCESSING UNITS, MODEMS, USER INTERFACES, SOFTWARE, TRANSFORMERS AND ALL OTHER CONTROL SYSTEM COMPONENTS AS REQUIRED FOR A COMPLETE AND OPERABLE SYSTEM.
- PROVIDE DEVICES CALIBRATED AND ADJUSTED WITH THE ACTUAL OPERATING CONDITIONS.

SEQUENCE OF OPERATION: SEE DRAWINGS FOR SEQUENCE OF OPERATION FOR HVAC SYSTEMS.

OTHER MATERIALS

PROVIDE OTHER MATERIALS, NOT SPECIFICALLY DESCRIBED BUT REQUIRED FOR A COMPLETE AND PROPER INSTALLATION, AS SELECTED BY THE CONTRACTOR SUBJECT TO THE APPROVAL OF THE ARCHITECT.

PART 3 - EXECUTION

SURFACE CONDITIONS

EXAMINE THE AREAS AND CONDITIONS UNDER WHICH WORK OF THIS SECTION WILL BE PERFORMED. CORRECT CONDITIONS DETRIMENTAL TO TIMELY AND PROPER COMPLETION OF THE WORK. DO NOT PROCEED UNTIL UNSATISFACTORY CONDITIONS ARE CORRECTED.

COORDINATION

COORDINATE AS REQUIRED WITH OTHER TRADES TO ASSURE PROPER AND ADEQUATE PROVISION IN THE WORK OF THOSE TRADES FOR INTERFERENCE WITH THE WORK OF THIS SECTION.

PREPARATION

HOLES IN CONCRETE:
- PROVIDE SLEEVES, ACCURATELY DIMENSIONED AND SHAPED TO PERMIT PASSAGE OF ITEMS OF THIS SECTION.
- DELIVER ALL SUCH SLEEVES, WITH ACCURATE SETTING DRAWINGS AND SETTING INFORMATION, TO THE TRADES PROVIDING THE SURFACES THROUGH WHICH SUCH ITEMS MUST PENETRATE AND IN A TIMELY MANNER TO ASSURE INCLUSION IN THE WORK.

FLASHING:
- WHERE ITEMS OF THIS SECTION PENETRATE THE ROOF, OUTER WALLS, AT WATERPROOFING OF ANY KIND, PROVIDE UNDER THIS SECTION ALL BASE FLASHING AND COUNTERFLASHING REQUIRED AT SUCH PENETRATION.
- PROVIDE ON EACH PIPE PASSING THROUGH THE ROOF A 4 LB SEAMLESS LEAD FLASHING AND COUNTERFLASHING ASSEMBLY.

EQUIPMENT INTERFACE

PROVIDE ALL REQUIRED SHUTOFF VALVES, UNIONS, AND FINAL CONNECTIONS OF PIPING TO THE WORK OF THIS SECTION.

FOR ELECTRICALLY OPERATED EQUIPMENT, VERIFY THE ELECTRICAL CHARACTERISTICS ACTUALLY AVAILABLE FOR THE WORK OF THIS SECTION AND PROVIDE EQUIPMENT MEETING THOSE CHARACTERISTICS.

PAINTING

PAINT INSIDE OF ALL AIR OUTLETS AND CONNECTING PLENUMS WITH ONE COAT OF BLACK PAINT, OR PROVIDE ALL SUCH ITEMS FACTORY PREPAINTED.

FOR ROOF-MOUNTED EQUIPMENT, PROVIDE FACTORY PREFINISH ON ALL EXPOSED SURFACES.

TOUCH-UP SCRATCHES AND ABRASIONS TO BE INVISIBLE TO THE UNAIDED EYE FROM A DISTANCE OF 5'0".

INSULATION

WRAP INSULATION FIRMLY AROUND DUCTWORK, COVERING ALL SURFACES INCLUDING STANDING SEAMS, AND WITH ALL JOINTS LAPPED AT LEAST 2".

SECURELY FASTEN THE INSULATION IN PLACE WITH 16 GAGE SOFT ANNEALED BLACK OR GALVANIZED WIRE SPACED APPROXIMATELY 12" ON CENTERS FOR STRAIGHT RUNS AND 3" ON CENTERS FOR ELBOWS AND FITTINGS.

TAKE SPECIAL CARE TO AVOID EXCESSIVE STRETCHING AND COMPRESSING, AND TO ACHIEVE SECURING AT LAPPED SECTIONS WHERE POSSIBLE.

INSTRUCTIONS

UPON COMPLETION OF THIS PORTION OF THE WORK, AND PRIOR TO ITS ACCEPTANCE BY THE OWNER, PROVIDE A QUALIFIED ENGINEER AND FULLY INSTRUCT THE OWNER'S MAINTENANCE PERSONNEL IN THE PROPER OPERATION AND MAINTENANCE OF ITEMS PROVIDED UNDER THIS SECTION.

DEMONSTRATE THE CONTENTS OF THE APPROVED OPERATION AND MAINTENANCE MANUAL REQUIRED UNDER ARTICLE 1.3 ABOVE.

TESTING AND ADJUSTING

TEST AND ADJUST EACH PIECE OF EQUIPMENT AND EACH SYSTEM AS REQUIRED TO ASSURE PROPER BALANCE AND OPERATION.
- TEST AND REGULATE VENTILATION AND AIR CONDITIONING SYSTEMS TO CONFORM TO THE AIR VOLUMES SHOWN ON THE APPROVED DESIGN DRAWINGS.
- MAKE TESTS AND ADJUSTMENTS IN APPARATUS AND DUCTS FOR SECURING THE PROPER VOLUME AND FACE DISTRIBUTION OF AIR FOR EACH GRILLE AND CEILING OUTLET.
- WHERE REQUIRED, PROVIDE PULLEYS FOR FANS AT NO ADDITIONAL COST TO THE OWNER, AND SET TO DRIVE THE FANS AT THE SPEED NEEDED TO GIVE THE INDICATED VOLUME.
- FOR EACH SYSTEM, TAKE THE FOLLOWING DATA IN TABULATED FORM:
  - AIR VOLUMES AT ALL SUPPLY, RETURN, AND EXHAUST OUTLETS;
  - TOTAL CFM SUPPLIED;
  - TOTAL CFM RETURNED;
  - TOTAL CFM OUTDOOR AIR AT MULTIPLE DAMPER SETTINGS WHERE REQUIRED.
  - TOTAL CFM EXHAUST AT MULTIPLE SETTINGS WHERE REQUIRED.
  - TOTAL STATIC PRESSURE AT EACH FAN AND AT EACH SYSTEM;
  - MOTOR SPEED, FAN SPEED, AND INPUT AMPERE RATING FOR EACH FAN.
  - THERMOSTAT AND TEMPERATURE SENSOR CALIBRATIONS.
  - AIR FLOW TRAVERSES AT ALL AIR HANDLING SIDES OF ALL HEATING AND COOLING EQUIPMENT INCLUDING BUT NOT LIMITED TO COMPLETE TRAVERSES AND MULTIPLE OUTDOOR AIR DAMPER SETTINGS FOR TOTAL SUPPLY, TOTAL RETURN, AND TOTAL OUTDOOR AIR.

SUBMIT TWO SETS OF TEST AND BALANCE REPORTS TO THE ARCHITECT FOR APPROVAL.

ELIMINATE NOISE AND VIBRATION, AND ASSURE PROPER FUNCTION OF ALL CONTROLS, MAINTENANCE OF TEMPERATURE, AND OPERATION IN ACCORDANCE WITH THE APPROVED DESIGN.

SECURE REQUIRED APPROVAL FROM GOVERNMENTAL AGENCIES HAVING JURISDICTION.

TEST AND BALANCE WORK TO BE PERFORMED BY INDEPENDENT TEST AND BALANCE CONTRACTOR. TEST AND BALANCE REPORT TO BE PERFORMED UNDER SUPERVISION AND SEAL OF FLORIDA REGISTERED PROFESSIONAL ENGINEER. TEST AND BALANCE REPORTS TO BEAR ENGINEERS METAL IMPRESSION SEAL.

END OF SECTION

REVISIONS

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SUBMITTALS

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PROJECT ADDRESS
LEESBURG, FLORIDA

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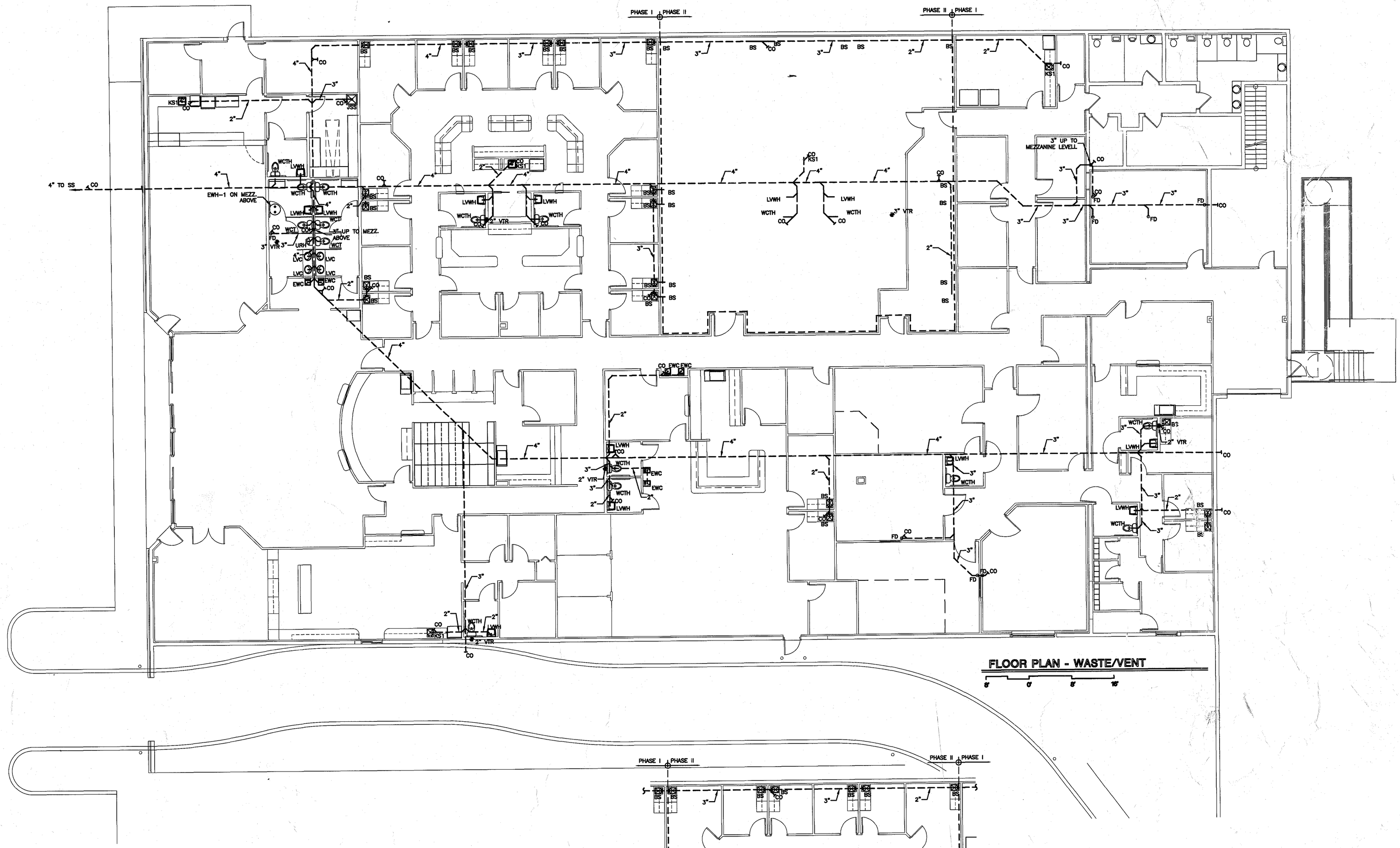
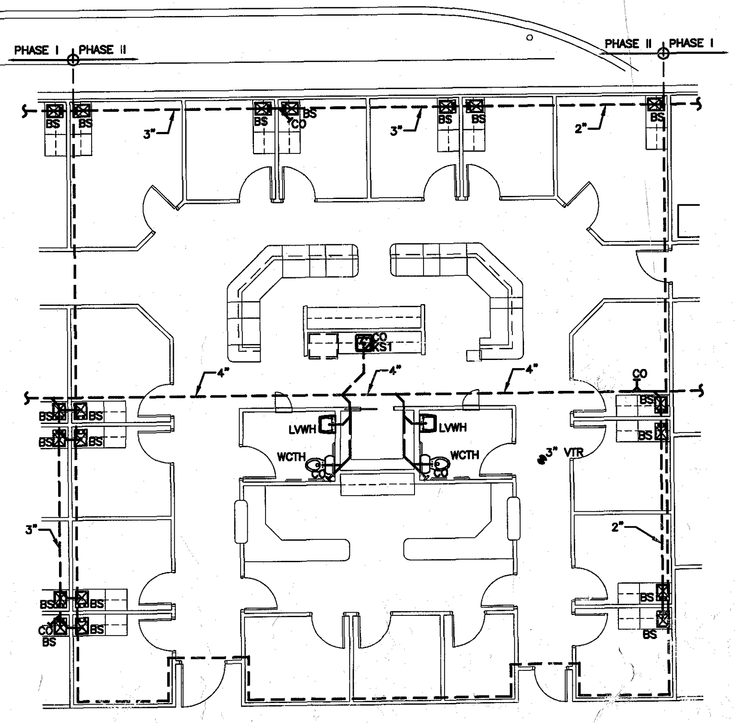
M-4 4

PROJECT NOTES:
1. ALL EXISTING PLUMBING FIXTURES AND PIPING TO REMAIN.
2. CONTRATOR TO PROVIDE ALL ROUGH-IN REQUIREMENTS IN PHASE II AREA FOR FURTURE INSTALLATION BY OWNER



FLOOR PLAN - WASTE/VENT



PHASE II FLOOR PLAN - WASTE/VENT

Revisions		
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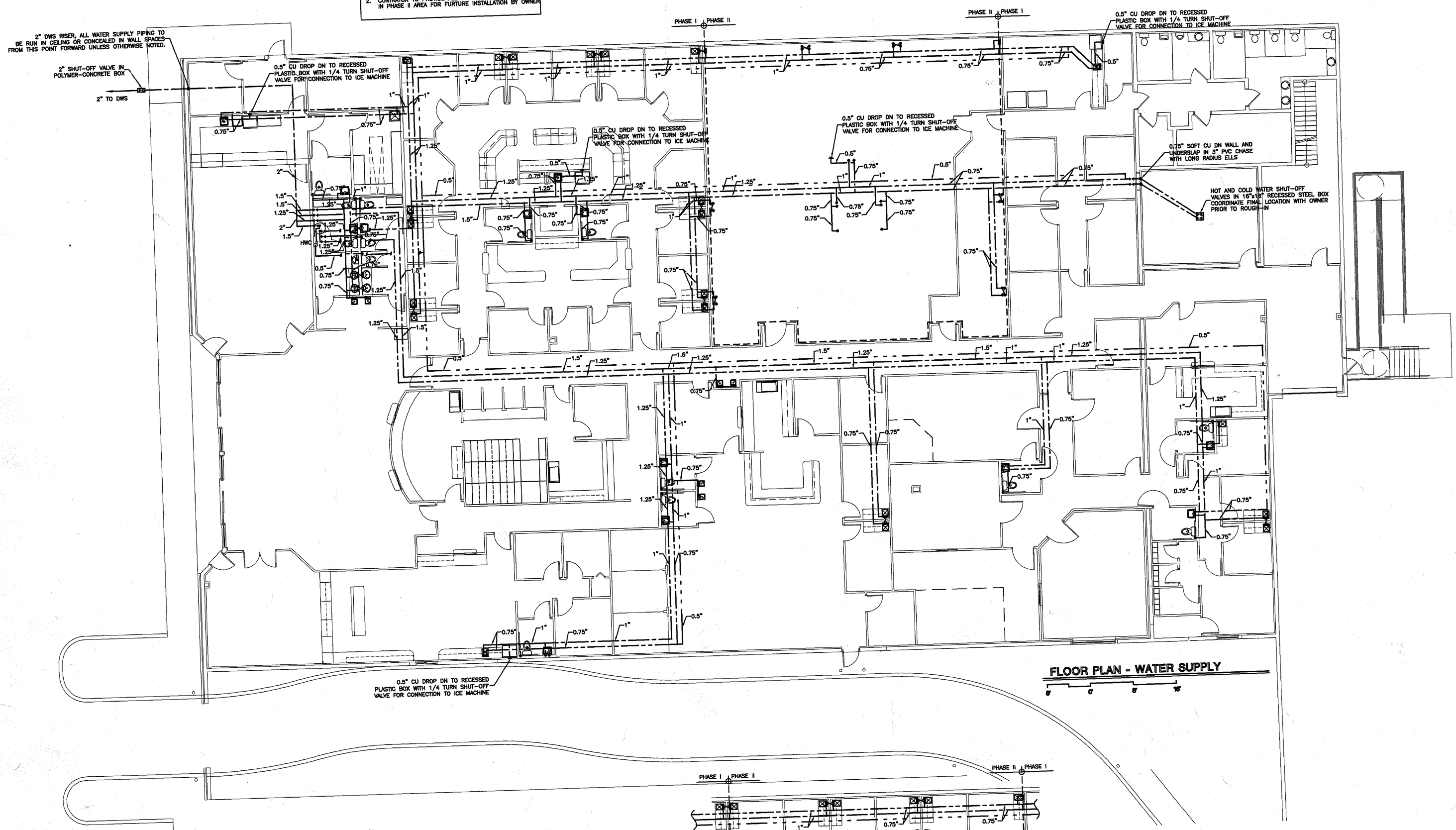
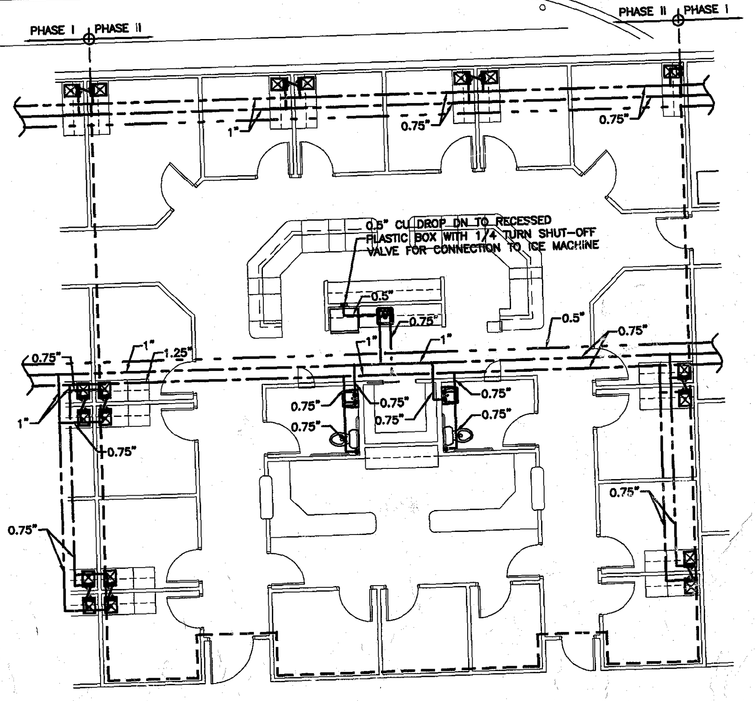


FLOOR PLAN - WATER SUPPLY



PHASE II FLOOR PLAN - WATER SUPPLY

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GENERAL PLUMBING NOTES

GENERAL:
PLUMBING CONTRACTOR SHALL COMPLETELY FAMILIARIZE HIMSELF WITH ALL CONDITIONS AFFECTING HIS WORK INCLUDING VISIT TO THE SITE BEFORE PREPARING HIS PROPOSAL. ALL WORK IS TO BE PERFORMED IN ACCORDANCE WITH ALL APPLICABLE CODES AND STANDARDS ISSUED BY ALL AUTHORITIES HAVING JURISDICTION OVER THE WORK. WHERE CONFLICT EXISTS BETWEEN THE APPLICABLE CODES AND STANDARDS OR THE PLANS AND SPECIFICATIONS, THE MOST STRINGENT AS DETERMINED BY THE ENGINEER WILL APPLY. CONTRACTOR SHALL NOTIFY ENGINEER OF CONFLICTING CONDITIONS AFFECTING HIS WORK AND ADVISE ENGINEER FOR CLARIFICATION. LOCAL CODES IN EFFECT FOR THIS PROJECT INCLUDE BUT ARE NOT LIMITED TO:

FLORIDA STANDARD BUILDING CODE
FLORIDA STANDARD MECHANICAL CODE
FLORIDA STANDARD PLUMBING CODE
FLORIDA STANDARD GAS CODE
NFPA 90, 90A, 90B

PLUMBING CONTRACTOR WILL FURNISH AND INSTALL ALL DOMESTIC HOT AND COLD WATER PIPING SYSTEMS; DRAIN, WASTE AND VENT SYSTEMS GAS PIPING SYSTEMS; STORM DRAINAGE SYSTEMS WITHIN THE STRUCTURE; AND PLUMBING FIXTURES AND TRIM. WORK IS TO BE PERFORMED WHERE SHOWN ON THE DRAWINGS AND/OR OTHERWISE SPECIFIED AND AS NEEDED FOR A COMPLETE, PROPER, AND FUNCTIONAL SYSTEM.

ALL MATERIALS INCORPORATED INTO THE PLUMBING SYSTEMS TO BE OF DOMESTIC MANUFACTURE UNLESS OTHERWISE NOTED.

SUBMITTALS AND SHOP DRAWINGS:
CONTRACTOR TO PREPARE SUBMITTALS AND SHOP DRAWINGS FOR ALL PLUMBING WORK AS REQUIRED BY THE CONSTRUCTION DOCUMENTS INTO SINGLE COMPLETE PACKAGE FOR ENGINEERS REVIEW. PACKAGE TO BE IN THREE RING BINDER WITH ALL SHOP DRAWINGS ATTACHED. BINDER AND DRAWINGS TO CLEARLY STATE PROJECT NAME, PROJECT ARCHITECT, PROJECT ENGINEER, PROJECT OWNER, CONTRACTOR NAME, AND SITE ADDRESS. INCOMPLETE SUBMITTAL PACKAGES WILL BE AVAILABLE AT THE ENGINEERS OFFICE FOR CONTRACTOR PICK-UP AND COMPLETION BEFORE ANY REVIEW BY THE ENGINEER OTHER THAN CURSORY REVIEW AS REQUIRED TO DETERMINE COMPLETENESS OF SUBMITTAL PACKAGE.

COORDINATION OF WORK:
ENGINEERS DRAWINGS AND CONSTRUCTION DOCUMENTS ARE DIAGRAMMATIC. CONTRACTOR OF WORK THIS TRADE TO COORDINATE WITH ALL WORK OF CONTRACTORS OF OTHER TRADES AND GENERAL CONTRACTOR. CONTRACTORS TO FIELD MEASURE PRIOR TO FABRICATION OF ANY WORK. CONTRACTOR OF WORK OF THIS TRADE TO COMMUNICATE WITH GENERAL CONTRACTOR AND CONTRACTORS OF OTHER TRADES AND PREPARE DRAWINGS, SKETCHES, AND PROVIDE INFORMATION AS NEEDED TO COMMUNICATE WITH OTHER TRADES FOR CONSTRUCTION OF COMPLETE AND OPERATING SYSTEM WITHOUT ADDITIONAL COST TO OWNER. PRIOR TO BEGINNING WORK OF THIS TRADE, CONTRACTOR OF THIS TRADE TO CONVENE COORDINATION MEETING WITH OTHER AFFECTED CONTRACTORS OF OTHER TRADES AND GENERAL CONTRACTOR FOR PURPOSES OF COORDINATION. CONTRACTORS' FAILURES TO COORDINATE WILL NOT BE CAUSE FOR RECOVERY OF ADDITIONAL COMPENSATION FOR CORRECTION OR MODIFICATION WORK WHICH IN THE SOLE OPINION OF THE ENGINEER IS NOT WELL COORDINATED.

PIPING:
ALL DRAIN, WASTE, AND VENT SYSTEM PIPING TO BE SCHEDULE 40 PVC UNLESS OTHERWISE NOTED. ALL CLEANOUTS IN FINISHED WALLS AND FLOORS TO BE FURNISHED WITH FINISHING COVER FURNISHED AS PART OF THE CLEANOUT BY IT'S MANUFACTURER. ALL DRAIN AND WASTE PIPING TO BE SLOPED NOT LESS THAN 1/4" PER FOOT UNLESS OTHERWISE NOTED.

ALL WATER SYSTEM PIPING (DOMESTIC HOT/COLD WATER) ABOVE GROUND TO BE TYPE "L" COPPER WITH SWEATED CONNECTIONS. BELOW GROUND PROVIDE TYPE " K" COPPER WITH SWEATED CONNECTIONS. ALL SWEATING TO BE PERFORMED WITH SILVER SOLDER. WATER SUPPLY SYSTEM PIPING TO BE RUN ABOVE GRADE IN CEILING, FLOOR, OR WALL SPACES. PIPING IS NOT TO BE INSTALLED BELOW GRADE OR ENCASED IN CONCRETE UNLESS OTHERWISE NOTED ON THE FLOORPLANS. WATER SUPPLY PIPING FROM THE WATER SOURCE TO THE MAIN VALVE AND GRATER THAN 5' FROM THE BUILDING ENVELOPE MAY BE SCHEDULE 40 PVC.

ALL GATE, GLOBE, AND CHECK VALVES TO BE BRONZE . GATE VALVES 3" AND SMALLER TO BE NON RISING STEM, ALL OTHER GATE VALVES TO BE FLANGED RISING STEM. ALL VALVES LARGER THAN 3" TO BE FLANGED.

ALL WATER SUPPLY CONNECTIONS TO ALL FIXTURES TO BE FURNISHED WITH CHROMED BRONZE STOP. ALL TRAPS FOR LAVATORIES AND SINKS, EXCEPT SERVICE SINKS, TO BE LOS ANGELES PATTERN CAST BRASS TRAPS WITH BRASS NUTS AND CHROMED FINISH. ALL FIXTURE TRIM TO BE CHROME PLATED AND WHERE PIPING PENETRATES THROUGH THE WALLS, FLOORS, OF FIXTURE SLABS INSTALL CAST BRASS ESCUTCHEONS.

ALL STEEL PIPE INSTALLED IN CONCRETE OR UNDERGROUND TO BE WRAPPED WITH TWO PLIES OF FIBERGLASS FABRIC EMBEDDED AND SURFACED WITH CONTINUOUS APPLICATIONS OF COAL TAR BASED COLD PROCESS ADHESIVE/BITUMEN.

ALL COPPER PIPING INSTALLED IN CONCRETE OR UNDERGROUND TO BE INSTALLED IN SEAMLESS POLYETHYLENE SLEEVE.

FLASHINGS:
ALL VENT AND SOIL EXTENSIONS SHALL BE FLASHED WITH 4# SHEET LEAD FLASHINGS NOT LESS THAN 24" SQUARE, WITH DOVETAILED SLEEVES SOLDERED IN PLACE, EXTENDING TO THE TOP OF THE VENT AND TURNED DOWN 2" INSIDE.

PIPE HANGERS:
PIPE HANGERS TO BE SPLIT RING WITH SUPPORTING ROD WITH ISOLATORS FOR WATER SUPPLY PIPING. INSTALL RISER CLAMPS AT EACH FLOOR OR AS OTHERWISE REQUIRED.

WATER HAMMER ARRESTORS:
WATER HAMMER ARRESTORS TO BE AS MANUFACTURED BY JOSAM, SMITH, OR ZURN. INSTALL ARRESTORS AT ALL QUICK CLOSING VALVES AND AT SUPPLY HEADERS AT PLUMBING FIXTURE GROUPS.

WHERE FIXTURES ARE NOT PROTECTED BY WATER HAMMER ARRESTORS PROVIDE 24" HIGH AIR CHAMBERS ON EACH WATER SUPPLY.

BACKFLOW PREVENTERS/VACUUM BREAKERS:
INSTALL BACKFLOW PREVENTERS OR VACUUM BREAKERS AT ALL HOSE BIBS, SERVICE SINKS, AND AS OTHERWISE INDICATED ON THE DRAWINGS.

FIXTURES:
PLUMBING FIXTURES TO BE AS SCHEDULED AND/OR NOTED ON THE DRAWINGS. FIXTURES TO BE LEVEL AND IN PROPER ALIGNMENTS WITH RESPECT TO THE WALLS FLOORS, AND WITH FIXTURES EQUALLY SPACED.

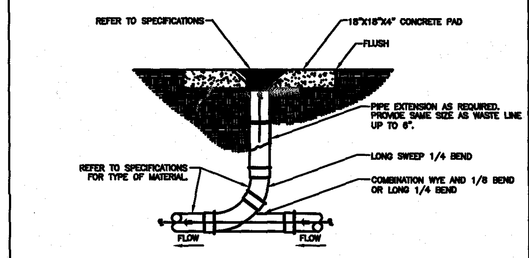
WATER SUPPLIES TO FIXTURES TO BE IN ALIGNMENT WITH EACH OTHER AND THE FIXTURE. FLUSH VALVES TO BE IN ALIGNMENT WITHOUT VERTICAL OR HORIZONTAL OFFSETS. FLUSH VALVES ON HANDICAP FIXTURES TO HAVE OPERATOR ON SIDE WITH GREATEST SPACE FROM ADJACENT PARTITION, FIXTURE OR OTHER PERMANENT OBSTRUCTION.

TESTING AND STERILIZATION:
ALL WATER SUPPLY PIPING TO BE TESTED TO NOT LESS THAN 125 PSI HYDROSTATIC PRESSURE AND HELD FOR NOT LESS THAN 48 HOURS. PROVIDE CHART RECORD DURING TEST PERIOD FROM CALIBRATED AND SEALED RECORDING METER. ADVISE ENGINEER 48 HOURS PRIOR TO START OF TESTING.

DISINFECT HOT AND COLD WATER SYSTEMS BY METHOD APPROVED BY ENGINEER AND SECURE AND SUBMIT STERILIZATION CERTIFICATE OF PERFORMANCE STATING SYSTEM CAPACITY, DISINFECTANT APPLIED, AND RESULTANT RESIDUALS IN PPM AT COMPLETION. AFTER FINAL FLUSHING SECURE INDEPENDENT ANALYSIS BY STATE LICENSED LABORATORY OF WATER SAMPLES FROM THE SYSTEM SHOWING SUITABILITY OF POTABLE WATER SUPPLY.

ADVISE ENGINEER 48 HOUR PRIOR TO START OF TESTING AND/OR SANITIZING.

WARRANTY:
CONTRACTOR TO WARRANTY ALL MATERIALS, WORKMANSHIP, AND SYSTEM PERFORMANCE FOR A PERIOD OF NOT LESS THAN TWO YEARS FROM TIME OF SUBSTANTIAL COMPLETION. WHERE MANUFACTURERS STANDARD WRITTEN WARRANTIES OR WARRANTY REQUIREMENTS STATED ELSEWHERE IN THE CONSTRUCTION DOCUMENTS ARE OF A PERIOD OF GREATER THAN TWO YEARS, CONTRACTOR OR MANUFACTURER ARE TO PROVIDE WARRANTY OF LONGER DURATION.



EXTERIOR CLEANOUT
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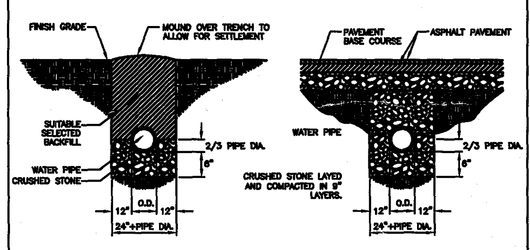

TYPICAL UTILITY LINE TRENCH
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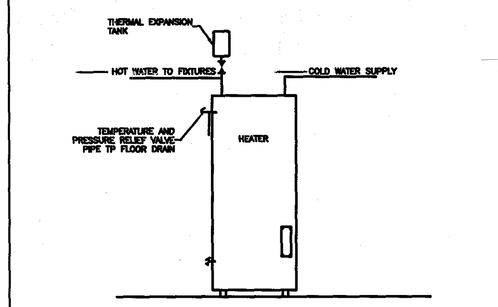

HOT WATER HEATER INSTALLATION
NOT TO SCALE

PLUMBING FIXTURE SCHEDULE

SYMBOL	DESCRIPTION		MANUFACTURER	MODEL NUMBER	EQUAL MFR.	NOTES
BS	BAR SINK 19"x18"x6"D	LAVATORY	ELKAY	PSLVR-1917-LO	JUST	COLOR TO BE WHITE 1-1/4" CHROMED BRASS TRAP AND POP UP DRAIN
		FAUCET	ELKAY	LKA-2447	T & S	FINISH TO BE CHROMED BRASS WITH HORIZONTAL LEVER HANDLES
CO	CLEAN OUT		JOSAM	56000 SERIES	J. R. SMITH, ZURN	FURNISH WITH TOP TO MATCH FLOOR COVERING OR SATIN FINISHED BRONZE.
EWC	WALL HUNG ELECTRIC WATER COOLER		ELKAY	EBFSA-4	HALSEY TAYLOR	COLOR TO BE AS SELECTED BY OWNER FROM MFG'S STANDARD COLORS
EWH-1	ELECTRIC WATER HEATER, 30 GAL, 4.5 KW, 208V, 1#	WATER HEATER	A. O. SMITH	EEC-30	RHEEM, STATE	INSULATE EXTERIOR OF HEATER WITH VINYL FACED HW HEATER BLANKET, NOT LESS THAN R10
		EXPANSION TANK	AMTROL	ST-12	DOMESTIC	-
FD	3" FLOOR DRAIN, STRAINER, TRAP, AND TRAP PRIMER		JOSAM	DRAIN: 3000E TRAP: 88100 TRAP PRIMER: 88260	J. R. SMITH, ZURN	DRAIN TO BE THREADED OUT
HWC	HOT WATER CIRCULATOR 115V, 1/25 HP, 3 SPEED		GRUNDFOS	UPS15-42F	ITT	---
JSS	JANITORS FLOOR STYLE SINK 3" NPTF TRAP AND STRAINER	SINK	FIAT	MSB-2424	BRIGGS, KOHLER	COLOR TO BE WHITE
		FAUCET	AMERICAN STANDARD	B344.111	CHICAGO	FINISH TO BE CHROMED BRASS
KS1	SINGLE SINK 25"X22"X8"	SINK	DAYTON	DSE-12522	JUST	---
		FAUCET	T&S	B-0200-LN	CHICAGO	---
		GOOSENECK	T&S	135X	CHICAGO	---
LVC	SELF-RIMMING COUNTER TOP LAVATORY	LAVATORY	AMERICAN STANDARD	0475.020 (8" FAUCET HOLES)	BRIGGS, KOHLER	COLOR TO BE WHITE, FURNISH WITH 1-1/4" CHROMED BRASS TRAP AND STRAINER.
		FAUCET	CHICAGO	1404A	T&S, AMERICAN STANDARD	FINISH TO BE CHROMED BRASS AERATOR TO BE CHRONOMITE A-212-0.50
LVWH	WALL HUNG LAVATORY - SUITABLE FOR HANDICAPPED USE		AMERICAN STANDARD	0356.015 (8" FAUCET HOLES)	BRIGGS, KOHLER	COLOR TO BE WHITE, FURNISH WITH 1-1/4" CHROMED BRASS TRAP AND STRAINER.
		FAUCET	CHICAGO	785	T&S	FINISH TO BE CHROMED BRASS AERATOR TO BE CHRONOMITE A-212-0.50
		PIPE PROTECTION	TRAP WRAP	---	---	INSTALL ON ALL EXPOSED PIPING AS NEEDED TO MEET ADA REQUIREMENTS; WHITE
URH	WALL HUNG URINAL, MOUNT PER ADA REQUIREMENTS	URINAL	AMERICAN STANDARD	6501.010	BRIGGS, KOHLER	COLOR TO BE WHITE
		FLUSH VALVE	SLOAN	ROYAL 186-1	CRANE	---
WCT	ELONGATED FLUSH TANK WATER CLOSET, 1.6 GAL	WATER CLOSET	AMERICAN STANDARD	CADET EL 1.6	BRIGGS, KOHLER	COLOR TO BE WHITE, FURNISH WITH ALL BRASS BALLCOCK, FLOAT, AND FLOAT ARM
		SEAT	BEMIS	1200 TT	---	COLOR TO BE WHITE
WCTH	ELONGATED FLUSH TANK WATER CLOSET, 1.6 GAL SUITABLE FOR HANDICAPPED USE.	WATER CLOSET	AMERICAN STANDARD	CADET 18H EL 1.6	BRIGGS, KOHLER	COLOR TO BE WHITE, FURNISH WITH ALL BRASS BALLCOCK, FLOAT, AND FLOAT ARM
		SEAT	BEMIS	1200 TT	---	COLOR TO BE WHITE

PIPE INSULATION SCHEDULE

DIAMETER	COLD WATER	HOT WATER	RAIN WATER LEADER	DX REFRIG. SUCTION LINE
FIXTURE TURNOUTS	3/8"	1/2"	3/8"	1"
2" AND LESS	3/8"	1"	3/8"	1"
2-1/2" AND GREATER	1/2"	1-1/2"	1"	1"

NOTE:
INSULATION TO BE CLOSED CELL ELASTOMERIC FOAM WITH THERMAL CONDUCTIVITY OF NOT LESS THAN 0.30 BTU*IN/HR*FT*FT*F @75'F MEAN TEMPERATURE. AP ARMAFLEX AS MANUFACTURED BY ARMSTRONG OR EQUAL.
INSTALL 0.010 INCH ALUMINUM JACKET LAGGING OVER ALL INSULATED PIPING WHERE EXPOSED TO THE WEATHER. INCLUDE PREFABRICATED JACKETING AT ALL FITTINGS.

PLUMBING DETAILS, SCHEDULES, NOTES

NORTH

Revisions		
No.	Date	DESCRIPTION
1	04/14/06	CD-R
2	04/28/06	CDF
3	.	.
4	.	.

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REVISIONS

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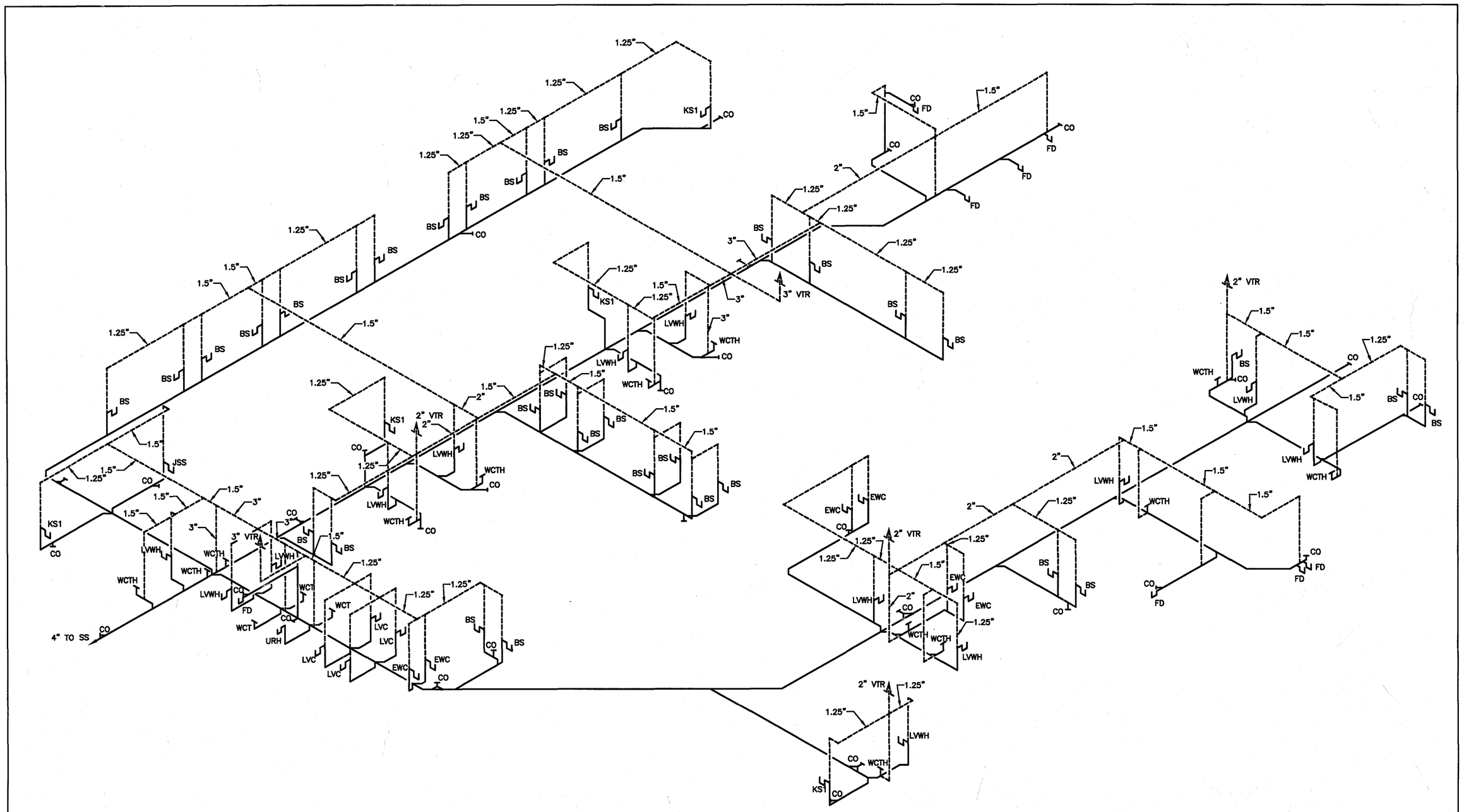
SUBMITTALS

RENOVATION FOR:
EXPRESS CARE OF LEESBURG
PROJECT ADDRESS
LEESBURG, FLORIDA

DATE
DATE

JOB #
0473

P-3 6



WASTE/VENT ISOMETRIC

NOT TO SCALE

WASTE/VENT ISOMETRIC

Revisions		
No.	Date	DESCRIPTION
1	04/14/06	CD-R
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REVISIONS

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SUBMITTALS

RENOVATION FOR:
EXPRESS CARE OF LEESBURG
PROJECT ADDRESS
LEESBURG, FLORIDA

DATE	DATE
JOB #	0473
P-4	6

PLUMBING SPECIFICATION NOTES

SECTION 15400

PLUMBING

PART 1 - GENERAL

DESCRIPTION

WORK INCLUDED: PROVIDE PLUMBING WHERE SHOWN ON THE DRAWINGS, AS SPECIFIED HEREIN, AND AS NEEDED FOR A COMPLETE AND PROPER INSTALLATION INCLUDING, BUT NOT NECESSARILY LIMITED TO:
- DOMESTIC HOT AND COLD WATER PIPING SYSTEMS;
- DRAIN, WASTE, AND VENT SYSTEMS;
- GAS PIPING SYSTEM;
- STORM DRAINAGE SYSTEM WITHIN THE STRUCTURES;
- PLUMBING FIXTURES AND TRIM.

RELATED WORK:
- DOCUMENTS AFFECTING WORK OF THIS SECTION INCLUDE, BUT ARE NOT NECESSARILY LIMITED TO, GENERAL CONDITIONS, SUPPLEMENTARY CONDITIONS, AND SECTIONS IN DIVISION 1 OF THESE SPECIFICATIONS.

QUALITY ASSURANCE

USE ADEQUATE NUMBERS OF SKILLED WORKMEN WHO ARE THOROUGHLY TRAINED AND EXPERIENCED IN THE NECESSARY CRAFTS AND WHO ARE COMPLETELY FAMILIAR WITH THE SPECIFIED REQUIREMENTS AND THE METHODS NEEDED FOR PROPER PERFORMANCE OF THE WORK OF THIS SECTION.

CODES AND REGULATIONS:
- IN ADDITION TO COMPLYING WITH THE SPECIFIED REQUIREMENTS, COMPLY WITH PERTINENT REGULATIONS OF GOVERNMENTAL AGENCIES HAVING JURISDICTION.
- IN THE EVENT OF CONFLICT BETWEEN OR AMONG SPECIFIED REQUIREMENTS AND PERTINENT REGULATIONS, THE MORE STRINGENT REQUIREMENT WILL GOVERN UNLESS OTHER WISE DIRECTED BY THE ARCHITECT OR ENGINEER.

SUBMITTALS

COMPLY WITH PERTINENT PROVISIONS OF THE GENERAL CONDITIONS.

PRODUCT DATA: WITHIN 35 CALENDAR DAYS AFTER THE CONTRACTOR HAS RECEIVED THE OWNER'S NOTICE TO PROCEED, SUBMIT:
- MATERIALS LIST OF ITEMS PROPOSED TO BE PROVIDED UNDER THIS SECTION;
- MANUFACTURER'S SPECIFICATIONS, CATALOG CUTS, AND OTHER DATA NEEDED TO PROVE COMPLIANCE WITH THE SPECIFIED REQUIREMENTS;
- SHOP DRAWINGS AND OTHER DATA AS REQUIRED TO INDICATE METHOD OF INSTALLING AND ATTACHING EQUIPMENT, EXCEPT WHERE SUCH DETAILS ARE FULLY SHOWN ON THE DRAWINGS.

STERILIZATION CERTIFICATE:
- UPON COMPLETION OF WATER LINE STERILIZATION, DELIVER TO THE ARCHITECT OR ENGINEER TWO COPIES OF AN ACCEPTABLE "CERTIFICATE OF PERFORMANCE" FOR THAT ACTIVITY.

CATHODIC PROTECTION:
- UPON COMPLETION OF THE WORK OF THIS SECTION, DELIVER TO THE ARCHITECT OR ENGINEER SUFFICIENT DATA TO PROVE THAT WRAPPING OF STEEL PIPING HAS BEEN TESTED AND MEETS THE SPECIFIED REQUIREMENTS.
- SHOW DATE OF INSPECTION, VOLTAGES USED, AND NAME AND ADDRESS OF THE INSPECTOR.

MANUALS:
- UPON COMPLETION OF THE WORK OF THIS SECTION, DELIVER TO THE ARCHITECT OR ENGINEER TWO COPIES OF AN OPERATION AND MAINTENANCE MANUALS COMPILED IN ACCORDANCE WITH THE PROVISIONS OF THE GENERAL CONDITIONS OF THESE SPECIFICATIONS. INCLUDE WITHIN EACH MANUAL A COPY OF THE PROJECT RECORD DOCUMENTS SHOWING ALL WORK OF THE SECTION.

PRODUCT HANDLING

COMPLY WITH PERTINENT PROVISIONS OF THE GENERAL CONDITIONS.

PART 2 - PRODUCTS

PIPE SCHEDULE

DRAIN, WASTE, AND VENT SYSTEM:
- FOR SANITARY WORK BELOW THE FLOOR AND OUTSIDE UNDERGROUND PROVIDE SCHEDULE 40 PVC PIPE AND FITTINGS.

ABOVE GROUND:
- SIZES 4" AND LARGER: PROVIDE SCHEDULE 40 PVC PIPE AND FITTINGS.
- WASTE AND VENT PIPING 3" AND SMALLER INSTALLED ABOVE GROUND: PROVIDE SCHEDULE 40 PVC PIPE AND FITTINGS.

WATER SYSTEM (DOMESTIC PIPING):
- ABOVE GROUND, PROVIDE TYPE "L" COPPER WITH SWEATED CONNECTIONS;
- BELOW GROUND, PROVIDE TYPE "K" COPPER WITH SWEATED CONNECTIONS;
- SIZES 4" AND LARGER BELOW GROUND, AND WHERE NOTED ON THE DRAWINGS PROVIDE SCHEDULE 40 PVC PIPE AND FITTINGS.
- PROVIDE THRUST BLOCKS AND TRACING WIRE AS RECOMMENDED BY THE MANUFACTURER.

GAS PIPING:
- PROVIDE SCHEDULE 40 BLACK STEEL PIPE WITH MALLEABLE IRON SCREWED FITTINGS; EXCEPT PROVIDE GALVANIZED WHERE PIPE OF FITTINGS ARE EXPOSED TO THE WEATHER.

INDIRECT DRAINS:
- PROVIDE GALVANIZED SCHEDULE 40 STEEL PIPE WITH GALVANIZED MALLEABLE IRON FITTINGS; OR
- PROVIDE TYPE "L" COPPER WITH SWEATED CONNECTIONS.
- PROVIDE LINES FULL SIZES OF THE EQUIPMENT CONNECTIONS.

ROOF DRAINAGE PIPING:
- ABOVE GRADE, PROVIDE SCHEDULE 40 PVC PIPE AND FITTINGS.
- BELOW GRADE, PROVIDE SCHEDULE 40 PVC PIPE AND FITTINGS.

MATERIALS

PVC SOIL PIPE AND FITTINGS;
- PROVIDE PVC PIPE CONFORMING TO ASTM D2241.

GALVANIZED OR BLACK STEEL PIPE:

FITTINGS:
- FOR COPPER LINES, PROVIDE COPPER FITTINGS.
- FOR STEEL LINES, PROVIDE SERVICE WEIGHT CAST IRON TYPE FITTINGS.
- FOR PVC LINES, PROVIDE PVC FITTINGS, PRIMED AND SOLVENT WELDED.

UNIONS:
- FOR COPPER LINES, PROVIDE COPPER FITTINGS.

VALVES

GATE VALVES: PROVIDE SOLID WEDGE DISC, RISING STEM, 200# WOG; NON-RISING STEM VALVES MAY BE USED ONLY WHERE THERE IS INSUFFICIENT CLEARANCE.
- 3" AND SMALLER, RISING STEM: PROVIDE CRANE #428, BRONZE, SCREWED.
- 3" AND SMALLER, NON-RISING STEM: PROVIDE CRANE #438, BRONZE, SCREWED.
- 4" AND LARGER: PROVIDE CRANE #465-1/2, IBBM, FLANGED, NON-RISING STEM.

GLOBE VALVES: PROVIDE REPLACEABLE COMPOSITION DISC SUITABLE FOR 200 DEGREE F WATER.
- 2" AND SMALLER: PROVIDE CRANE #7, BRONZE, SCREWED.
- 2-1/2" AND LARGER: PROVIDE CRANE #359, IRON BODY, FLANGED, #200 WOG.

GAS COCKS:
- 2" AND SMALLER: PROVIDE #250, BRONZE, SCREWED, SQUARE HEAD, #125.
- 2-1/2" AND LARGER: PROVIDE NORDSTROM #142 OR #143.

CHECK VALVES:
- 3" AND SMALLER: PROVIDE CRANE #37, BRONZE, SCREWED, Y-PATTERN, #200 WOG, SWING CHECK TYPE.
- 4" AND LARGER: PROVIDE CRANE #373, IBBM, FLANGED, #200 WOG.

STRAINERS: PROVIDE Y-PATTERN, #200 WOG, 20 MESH MODEL SCREEN:
- 3" AND SMALLER: PROVIDE CRANE #988-1/2, SCREWED.
- 4" AND LARGER: PROVIDE CRANE #988-1/2,FLANGED.

PRESSURE REGULATORS:
- PROVIDE MUELLER H-9000, OR WILKINS SERIES 500, ALL BRONZE.
- INSTALL WITH BRASS STRAINER UPSTREAM OF REGULATOR.

PARTITION STOP VALVES: PROVIDE CHICAGO FAUCET #1771, LOOSE KEY TYPE.

BALANCING COCKS: PROVIDE DEZURILCK #400.

FLASHING

WHERE PIPES OF THIS SECTION PASS THROUGH THE ROOF, FLASH WITH SEMCO #1100-4 SEAMLESS 4 LB LEAD FLASHING, WITH STEEL REINFORCED "VARI-PITCH" BOOT AND CAST IRON COUNTERFLASHING SLEEVE.

PIPE HANGERS

WATER PIPING:
- PROVIDE FEE AND MASON #212 SPLIT RING HANGERS WITH SUPPORTING RODS.
- PROVIDE SEMCO "TRISOLATORS".

SOIL AND WASTE PIPING:
- PROVIDE FEE AND MASON ❷212 ADJUSTABLE RING HANGERS WITH SUPPORTING RODS.
- USE FEE AND MASON #241 RISER CLAMPS AT EACH FLOOR AND AS REQUIRED.

GAS PIPING:
- PROVIDE FEE AND MASON #212 SPLIT RING HANGERS WITH SUPPORTING RODS.

CLEANOUTS

EXTERIOR:
- PROVIDE AS SCHEDULED ON THE DRAWINGS OR SMITH #4253 OR JOSAM #8860, WITH XH CAST IRON TOP IN CONCRETE AREAS.

FLOORS:
- PROVIDE AS SCHEDULED ON THE DRAWINGS OR SMITH #4023 OR JOSAM #8330 WITH ROUND NICKEL-BRONZE TOP IN FINISHED ROOM FLOORS.
- PROVIDE AS SCHEDULED ON THE DRAWINGS OR SMITH #4223 OF JOSAM #8090-CAL WITH ROUND CAST IRON TOP IN UNFINISHED ROOM FLOORS.
- PROVIDE "FLUSH-WITH-FLOOR" TYPE CLEANOUTS, WITH ADJUSTABLE WATERTIGHT COVERS AND INTEGRAL ANCHORING FLANGE WITH CLAMPING COLLAR WHERE WATERPROOFING MEMBRANE IS USED.

FINISHED WALLS:
- PROVIDE AS SCHEDULED ON THE DRAWINGS OR SMITH #4532 OR JOSAM #8790-4 WITH ROUND CHROME PLATED OR STAINLESS STEEL ACCESS PLATE AND SCREW.

PROVIDE CLEANOUT PLUGS OF EXTRA HEAVY BRONZE.

ACCESS BOXES

WALLS:
- PROVIDE SMITH #4730 OR JOSAM #8650 WITH POLISHED CHROME PLATE FACE IN TILE WALLS.
- PROVIDE SMITH #4760-AKL OR #4765-AKL, OR JOSAM #SLA OR #SLB, WITH BONDERIZED PRIME-COATED STEEL FACE AND WITH ALLEN LOCK IN WALLS OF OTHER FINISHED ROOMS.

CEILINGS:
- PROVIDE ACORN *8211-3-AKL OR JOSAM #SLA BONDERIZED PRIME-COATED STEEL FACE WITH ALLEN LOCK.

FLOORS:
- PROVIDE SMITH #4910 OR JOSAM #8630-5 WITH XH PLAIN ALUMINUM OR NICKEL-BRONZE NON-SKID TOP.
- PROVIDE SMITH #4920 FOR FLOORS COVERED WITH VINYL REINFORCED OR PURE VINYL TILE.

YARD BOXES:
- PROVED BROOKS 36 HF OR FRAZER #2 CAST CONCRETE BOXES WITH CAST IRON RIM AND HINGED SELF-CLOSING CAST IRON LID MARKED GAS SHUTOFF OR WATER, SIZE 12" X 18" X 12".
- SET FLUSH WITH FINISHED GRADES WITH 4" THICK CONCRETE PAD UNDER PERIMETER (BUT NOT UNDER INTERIOR) OF BOX.

PRESSURE GAGES AND THERMOMETERS

PROVIDE MARSH QUALITY GAGES WITH 4-1/2" DIAL, GAGE COCK, IN TYPE REQUIRED. FOR PUMP SUCTION, PROVIDE COMPOUND TYPE.

PROVIDE TRERICE 9" BX SERIES THERMOMETERS, STRAIGHT, ANGLE, OR OBLIQUE AS REQUIRED, EQUIPPED WITH SEPARABLE SOCKETS AND WELL. PROVIDE EXTENSION NECKS AS REQUIRED ON INSULATED LINE.

ARRANGE THERMOMETERS FOR EASY READING FROM THE FLOOR.

TRAPS

FOR LAVATORIES AND SINKS, EXCEPT SERVICE SINKS, PROVIDE LOS ANGELES PATTERN CAST BRASS TRAPS WITH BRASS NUTS.

WATER HAMMER ARRESTORS

PROVIDE SMITH #5000 SERIES OR JOSAM #1585, STAINLESS STEEL.

HANDICAPPED INSULATION

WHERE SHOWN ON THE DRAWINGS OR REQUIRED BY GOVERNMENTAL AGENCIES HAVING JURISDICTION, AT LAVATORIES FOR HANDICAPPED PERSONS PIPE PROTECTION AS REQUIRED BY CODE OR AS INDICATED ON THE DRAWINGS. "TRAP WRAP" OR EQUAL.

FIXTURES AND EQUIPMENT

WATER CLOSETS: PROVIDE FIXTURE AND VALVE AS INDICATED ON THE DRAWINGS. FLUSH TANK WATER CLOSETS TO BE FURNISHED WITH ALL BRASS BALLCOCK, FLOAT ARM, AND FLOAT OF DOMESTIC MANUFACTURE.

URINAL: PROVIDE FIXTURE AND VALVE AS INDICATED ON THE DRAWINGS. WHERE ONE URINAL IS SHOWN ON THE DRAWINGS MOUNT AT HEIGHT AS REQUIRED FOR ADA ACCESSIBILITY. WHERE MORE THAN ONE URINAL IS SHOWN MOUNT ONLY ONE FOR ADA ACCESSIBILITY.

LAVATORY: PROVIDE FIXTURE AND FAUCET AS SHOWN ON THE DRAWINGS. UNLESS OTHERWISE NOTED, FIXTURE TO BE FITTED WITH POP-UP DRAIN FURNISHED BY SAME MANUFACTURER AS THE FAUCET. FURNISH FIXTURE WITH AERATOR, P-TRAP AND STOPS.

ELECTRIC DRINKING FOUNTAIN: FURNISH ELECTRIC DRINKING FOUNTAIN AS SHOWN ON THE DRAWINGS. WHERE DRINKING FOUNTAIN IS SINGLE BUBLER UNIT MOUNT FOR ADA ACCESSIBILITY. WHERE DRINKING FOUNTAIN IS DUAL BUBLER UNIT MOUNT ONE OF TWO BUBLERS FOR HANDICAP ACCESSIBILITY.

SERVICE SINK: PROVIDE FIXTURE AND FAUCET AS SHOWN ON THE DRAWINGS. FURNISH FIXTURE WITH HOSE AND FAUCET WITH VACUUM BREAKER.

FLOOR DRAINS:
- PROVIDE AS SCHEDULED IN SIZES SHOWN ON THE DRAWINGS, AND CONNECT TO CAST IRON P-TRAPS.
- IN TOILET ROOMS AND OTHER FINISHED ROOMS, PROVIDE WITH NICKEL-BRONZE HEEL-PROOF STRAINER.
- IN UNFINISHED AREAS, PROVIDE WITH EXTRA HEAVY TOP GRATE AND SEDIMENT BUCKET.
- PROVIDE AUTOMATIC TRAP PRIMERS OF DOMESTIC MANUFACTURE FOR ALL FLOOR DRAINS. TRAP PRIMERS TO BE VALVE UPSTREAM OF THEIR WATER SUPPLY FOR MAINTENANCE. TRAP PRIMERS TO BE LOCATED IN CONCEALED SPACE ADJACENT TO THEIR WATER SUPPLY AND PROVIDED WITH ACCESS DOOR OR PANEL CLEARLY MARKED WITH LAMINATED PLASTIC OR ENGRAVED BRASS LABEL "TRAP PRIMER" IN 3/8" LETTERS.

FLOOR SINKS:
- PROVIDE RECEPTORS IN SIZES SHOWN ON THE DRAWINGS.
- PROVIDE COMPLETE WITH CAST IRON ACID RESISTING ENAMELED FREE FLOW STYLE TOP GRATE, ALUMINUM DOME BOTTOM STRAINER, CAST IRON P-TRAP, AND INTEGRAL ANCHORING FLANGE.
- FOR UNITS LOCATED ON THE ROOF WITH WATER DAM AND CAST IRON DOME BOTTOM STRAINER.

ROOF DRAINS AND ROOF DRAIN PIPING:
- ROOF DRAINS TO BE PROVIDED UNDER OTHER SECTIONS OF THE OR CONSTRUCTION DOCUMENTS. SEE THE ARCHITECTURAL DRAWINGS FOR ROUTING OF ROOF DRAINAGE PIPING AND LOCATION OF ROOF DRAINS.
- PROVIDE UNDERDECK CLAMP, SUMP RECEIVERS, AND EXTENSIONS WHERE REQUIRED.
- FOR OVERFLOW DRAINS PROVIDE IN SIZES AND OF MANUFACTURE AS SHOWN ON THE DRAWINGS. FURNISH WITH 2" WATER DAM AND COMPLETE AS DESCRIBED FOR ROOF DRAINS.

HOSE BIBBS:
- UNLESS OTHERWISE NOTED ON THE DRAWINGS PROVIDE ACORN #8121, ?' SILL COCKS ON BUILDING WALLS, AND ACORN #8126 IN PLANTERS. ALL HOSE BIBS TO BE LOOSE KEY STYLE.
- PROVIDE VACUUM BREAKER.
- IN FINISHED SPACES, PROVIDE CHROMIUM PLATED BIBBS, AND PROVIDE ROUGH CAST BRONZE FINISH ELSEWHERE.
- PROVIDE LOOSE-KEY STOP AHEAD OF EACH BIBB.

WATER HYDRANTS:
- UNLESS OTHERWISE NOTED ON THE DRAWINGS PROVIDE ACORN #8151. FURNISH WITH INTEGRAL LOOSE KEY STOP AND VACUUM BREAKER.

WATER HEATING SYSTEM:
- PROVIDE THE COMPLETE SYSTEM AS SHOWN ON THE DRAWINGS INCLUDING HEATER, PUMPS, CONTROLS, AND SUPPLEMENTARY ACCESSORIES RECOMMENDED BY THE MANUFACTURER.

HOT WATER PUMP:
- UNLESS OTHERWISE NOTED ON THE DRAWINGS, PROVIDE BELL AND GOSSETT, ALL BRONZE CONSTRUCTION, INLINE TYPE, OF THE SIZE AND CAPACITY INDICATED ON THE DRAWINGS.

BACKFLOW PREVENTERS

GENERAL:
- WHERE INSTALLED IN FINISHED SPACES, PROVIDE CHROMIUM PLATED FINISH.
- FOR FLUSH VALVES, PROVIDE DIAPHRAGM TYPE, COMPLETE WITH APPROVED VACUUM BREAKER PROVIDED BY THE MANUFACTURER OF THE VALVE.

ACCEPTABLE PRODUCTS: UNLESS OTHERWISE NOTED ON THE DRAWINGS PROVIDE THE FOLLOWING OR EQUAL PRODUCTS MANUFACTURED BY FEBCO:
- ATMOSPHERIC TYPE: FEBCO #710 A OR G FOR HOT AND COLD WATER;
- PRESSURE TYPE: FEBCO #770;
- REDUCED PRESSURE TYPE: HERSEY.

GAS VENT LINES

GENERAL:
- FOR COMBUSTION VENT FLUES FOR GAS-FIRED EQUIPMENT, PROVIDE SIZE REQUIRED BY THE MANUFACTURER OF THE EQUIPMENT AND AS REQUIRED BY GOVERNMENTAL AGENCIES HAVING JURISDICTION.
- PROVIDE "METAL-FAB" OR EQUAL PRODUCTS OF "AMERVENT".

DO NOT USE SINGLE-WALL METAL VENT LINE.

INSULATION

INSULATE WATER LINES AS SCHEDULED ON THE DRAWINGS AND TO VALUES NOT LESS THAN THOSE REQUIRED BY THE MOST CURRENT EDITION OF THE FLORIDA ENERGY EFFICIENCY CODE FOR BUILDING CONSTRUCTION.

ALSO SEE REQUIREMENTS FOR SPECIFIED FOR "HANDICAPPED INSULATION".

PIPE WRAPPING

STEEL PIPING IN CONCRETE OR UNDERGROUND:
- WRAP WITH "HUNT'S PROCESS HP-9".
- FITTINGS AND OTHER JOINTS: WRAP IN THE FIELD WITH "POLYKEN" TAPE AND PRIMER.
- PROVIDE 50% OVERLAP ON TAPE WELD RUBBER COATING.

TESTING:
- SECURE INSPECTION AND TESTING BY AN INDEPENDENT AGENCY APPROVED IN ADVANCE BY THE ARCHITECT OR ENGINEER.
- NOTE TEST REPORT SUBMISSION REQUIREMENT SPECIFIED ELSEWHERE.
- DEMONSTRATE PROTECTION BY PASSING 6000 V HOLIDAY TEST AFTER WRAPPING.

SLEEVES

WHERE PIPES PASS THROUGH CONCRETE, MASONRY, OR STUD WALLS, OR PASS THROUGH CEILING, PROVIDE "SPERZEL" RUST-PROOF "CRETE-SLEEVE" OF THE SIZE REQUIRED.

OTHER MATERIALS

PROVIDE OTHER MATERIALS, NOT SPECIFICALLY DESCRIBED BUT REQUIRED FOR A COMPLETE AND PROPER INSTALLATION, AS SELECTED BY THE CONTRACTOR SUBJECT TO THE APPROVAL OF THE ARCHITECT OR ENGINEER.

PART 3 - EXECUTION

SURFACE CONDITIONS

EXAMINE THE AREAS AND CONDITIONS UNDER WHICH WORK OF THIS SECTION WILL BE PERFORMED. CORRECT CONDITIONS DETRIMENTAL TO TIMELY AND PROPER COMPLETION OF THE WORK. DO NOT PROCEED UNTIL UNSATISFACTORY CONDITIONS ARE CORRECTED.

PLUMBING SYSTEM LAYOUT

LAY OUT THE PLUMBING SYSTEM IN CAREFUL COORDINATION WITH THE DRAWINGS, DETERMINING PROPER ELEVATIONS FOR ALL COMPONENTS OF THE SYSTEM USING ONLY THE MINIMUM NUMBER OF BENDS TO PRODUCE A SATISFACTORILY FUNCTIONING SYSTEM.

FOLLOW THE GENERAL LAYOUT SHOWN ON THE DRAWINGS IN ALL CASES EXCEPT WHERE OTHER WORK MAY INTERFERE.

LAY OUT PIPES TO FALL WITHIN PARTITION WALL, OR ROOF CAVITIES, AND TO NOT REQUIRE FURRING OTHER THAN AS SHOWN ON THE DRAWINGS.

ALL WATER SUPPLY PIPING WITHIN THE BUILDING TO BE RUN OVERHEAD CONCEALED BY CEILING CONSTRUCTION EXCEPT FOR DROPS TO PLUMBING FIXTURES UNLESS SPECIFICALLY NOTED OTHERWISE ON THE DRAWINGS.

GENERAL SPECIFICATION NOTES

Revisions		
No	Date	DESCRIPTION
1	04/14/06	CD-R
2	04/28/06	CDF
3	.	.
4	.	.

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SUBMITTALS

RENOVATION FOR:
EXPRESS CARE OF LEESBURG
PROJECT ADDRESS
LEESBURG, FLORIDA

DATE	DATE
JOB #	0473
P-5	6

PLUMBING SPECIFICATION NOTES

TRENCHING AND BACKFILLING

PERFORM TRENCHING AND BACKFILLING ASSOCIATED WITH THE WORK OF THIS SECTION IN STRICT ACCORDANCE WITH THE PROVISIONS OF SECTION OTHER SECTIONS OF THESE SPECIFICATIONS.

CUT BOTTOM OF TRENCHES TO GRADE. MAKE TRENCHES 12" WIDER THAN THE GREATEST DIMENSION OF THE PIPE.

BEDDING AND BACKFILLING:
- INSTALL PIPING PROMPTLY AFTER TRENCHING. KEEP TRENCHES OPEN AS SHORT A TIME AS PRACTICABLE.
- UNDER THE BUILDING, INSTALL PIPES ON A 6" BED OF DAMP SAND. BACK FILL TO BOTTOM OF SLAB WITH DAMP SAND.
- OUTSIDE THE BUILDING, INSTALL UNDERGROUND PIPING ON A 6" BED OF DAMP SAND. BACKFILL TO WITHIN 12" OF FINISH GRADE WITH DAMP SAND. BACKFILL REMAINDER WITH NATIVE SOIL.
- DO NOT BACKFILL UNTIL INSTALLATION HAS BEEN APPROVED AND UNTIL PROJECT RECORD DOCUMENTS HAVE BEEN PROPERLY ANNOTATED.

INSTALLATION OF PIPING AND EQUIPMENT, GENERAL

GENERAL:
- PROCEED AS RAPIDLY AS THE BUILDING CONSTRUCTION WILL PERMIT.
- THOROUGHLY CLEAN ITEMS BEFORE INSTALLATION. CAP PIPE OPENINGS TO EXCLUDE DIRT UNTIL FIXTURES ARE INSTALLED AS FINAL CONNECTIONS HAVE BEEN MADE.
- CUT PIPE ACCURATELY, AND WORK INTO PLACE WITHOUT SPRINGING OR FORCING, PROPERLY CLEARING WINDOWS, DOORS, AND OTHER OPENINGS. EXCESSIVE CUTTING OR OTHER WAKENING OF THE BUILDING WILL NOT BE PERMITTED.
- SHOW NO TOOL MARKS OR THREADS ON EXPOSED PLATED, POLISHED, OR ENAMELED CONNECTIONS FROM FIXTURES. TAPE ALL FINISHED SURFACES TO PREVENT DAMAGE DURING CONSTRUCTION.
- MAKE CHANGES IN DIRECTIONS WITH FITTINGS; MAKE CHANGES IN MAIN SIZES WITH ECCENTRIC REDUCING FITTINGS. UNLESS OTHERWISE NOTED, INSTALL WATER SUPPLY AND RETURN PIPING WITH STRAIGHT SIDE OF ECCENTRIC FITTINGS AT TOP OF THE PIPE.
- RUN HORIZONTAL SANITARY AND STORM DRAINAGE PIPING AT A UNIFORM GRADE OF ¼" PER FT., UNLESS OTHERWISE NOTED. RUN HORIZONTAL WATER PIPING WITH AN ADEQUATE PITCH UPWARDS IN DIRECTION OF FLOW TO ALLOW COMPLETE DRAINAGE.
- PROVIDE SUFFICIENT SWING JOINT, BALL JOINTS, EXPANSION LOOPS, AND DEVICES NECESSARY FOR FLEXIBLE PIPING SYSTEM, WHETHER OR NOT SHOWN ON THE DRAWINGS.
- SUPPORT PIPING INDEPENDENTLY AT PUMPS, COILS, TANKS, AND SIMILAR LOCATIONS, SO THAT WEIGHT OF PIPE WILL NOT BE SUPPORTED BY THE EQUIPMENT.
- PIPE THAT DRAINS FROM PUMP GLANDS, DRIP PANS, RELIEF VALVES, AIR VENTS, AND SIMILAR LOCATIONS, TO SPILL OVER AN OPEN SIGHT DRAIN, FLOOR DRAIN, OR OTHER ACCEPTABLE DISCHARGE POINT, AND TERMINATE WITH A PLAIN END UNTHREADED PIPE 6" ABOVE THE DRAIN.
- SECURELY BOLT ALL EQUIPMENT, ISOLATORS, HANGERS AND SIMILAR ITEMS IN PLACE.
- SUPPORT EACH ITEM INDEPENDENTLY FROM OTHER PIPES. DO NO USE WIRE FOR HANGING OR STRAPPING PIPES.
- PROVIDE COMPLETE DIELECTRIC ISOLATION BETWEEN FERROUS AND NON-FERROUS METALS.
- PROVIDE UNION AND SHUT OFF VALVES SUITABLE LOCATED TO FACILITATE MAINTENANCE AND REMOVAL OF EQUIPMENT AND APPARATUS.

EQUIPMENT ACCESS:
- INSTALL PIPING, EQUIPMENT, AND ACCESSORIES TO PERMIT ACCESS FOR MAINTENANCE. RELOCATE ITEMS AS NECESSARY TO PROVIDE SUCH ACCESS, AND WITHOUT ADDITIONAL COST TO THE OWNER.
- PROVIDE ACCESS DOORS WHERE VALVES, MOTORS, OR EQUIPMENT REQUIRING ACCESS FOR MAINTENANCE ARE LOCATED IN WALLS OR CHASES OR ABOVE CEILINGS. COORDINATE LOCATION OF ACCESS DOORS WITH OTHER TRADES AS REQUIRED.

PIPE JOINTS

COPPER TUBING:
- CUT SQUARE, REMOVE BURRS, AND CLEAN INSIDE OF FEMALE FILLING TO BRIGHT FINISH.
- APPLY SOLDER FLUX WITH BRUSH TO TUBING.
- REMOVE INTERNAL PARTS OF SOLDER-END VALVES PRIOR TO SOLDERING.
- PROVIDE DIELECTRIC UNIONS AT POINTS OF CONNECTION OF COPPER TUBING TO FERROUS PIPING AND EQUIPMENT.
- FOR JOINING COPPER TUBING, USE:
  - WATER PIPING 3" AND SMALLER: 95-5 SOLDER;
  - WATER PIPING LARGER THAN 3": "SIL-FOS" BRAZING;
  - UNDERGROUND: "SIL-FOS" BRAZING.

SCREWED PIPING:
- DEBURR CUTS.
  - DO NOT REAM EXCEEDING INTERNAL DIAMETER OF THE PIPE.
  - THREAD TO REQUIREMENTS OF ANSI B2.1.
- USE TEFLON TAPE ON MALE THREAD PRIOR TO JOINING OTHER SERVICES.
- USE LITHARGE AND GLYCERIN ON JOINT PRIOR TO CLEANING FOR AIR AND OIL PIPING.

PVC PIPE:
- THOROUGHLY CLEAN AND DEBURR CUTS.
- FITTINGS TO PVC
- JOINTS TO BE IN ACCORDANCE WITH ASTM D2855, PRIMED THEN SOLVENT WELDED WITH ASTM D2564 SOLVENT CEMENT.

LEAKY JOINTS:
- REMAKE WITH NEW MATERIAL.
- REMOVE LEAKING SECTION AND/OR FITTING AS DIRECTED.
- DO NOT USE THREAD CEMENT OR SEALANT TO TIGHTEN JOINT.

PIPE SUPPORTS

SUPPORT SUSPENDED PIPING WITH CLEVIS OR TRAPEZE HANGERS AND RODS.

SPACE HANGERS AND SUPPORT FOR HORIZONTAL STEEL PIPES ACCORDING TO THE FOLLOWING SCHEDULE:

PIPE SIZE:	MAXIMUM SPACING ON CENTERS:
1-1/4" AND SMALLER:	8'-0"
1-1/2" TO 3":	10'-0"
4" TO 5":	14'-0"

SPACE HANGERS AND SUPPORTS FOR HORIZONTAL COPPER TUBING ACCORDING TO THE FOLLOWING SCHEDULE:

TUBE SIZE:	MAXIMUM SPACING ON CENTERS:
1" AND SMALLER:	6'-0"
1-1/2":	7'-0"
2":	8'-0"
2-1/2":	9'-0"
3" AND LARGER:	10'-0"

SPACE HANGERS AND SUPPORTS FOR HORIZONTAL PVC PIPING ACCORDING TO THE FOLLOWING SCHEDULE:

PIPE SIZE:	MAXIMUM SPACING ON CENTERS:
1" AND SMALLER:	3'-0"
1-1/2":	4'-0"
2":	4'-0"
2-1/2":	4'-0"
3" AND LARGER:	4'-0"

PROVIDE SWAY BRACING ON HANGERS LONGER THAN 18".

SUPPORT VERTICAL PIPING WITH RISER CLAMPS SECURED TO THE PIPING AND RESTING ON THE BUILDING STRUCTURE. PROVIDE AT EACH FLOOR UNLESS OTHERWISE NOTED.

PROVIDE INSULATION CONTINUOUS THROUGH HANGERS AND ROLLERS. PROTECT INSULATION BY GALVANIZED STEEL SHIELDS OF SUFFICIENT AREA TO PREVENT MORE THAN 10% REDUCTION IN THICKNESS OF INSULATION.

ARRANGE PIPE SUPPORTS TO PREVENT EXCESSIVE DEFLECTION, AND TO AVOID EXCESSIVE BENDING STRESS.

SUPPORT PIPING FROM INSERTS OR ANCHORS IN CONCRETE SLABS. PROVIDE THE INSERTS UNDER THIS SECTION AND ARRANGE FOR THE PLACING WITH OTHER TRADES AND AS REQUIRED BY THESE SPECIFICATIONS.

HUBLESS PIPING:
- PROVIDE HANGERS ON THE PIPING AT EACH SIDE OF, AND WITHIN 6" OF, HUBLESS PIPE COUPLING SO THE COUPLING WILL BEAR NO WEIGHT.
- DO NOT PROVIDE HANGERS ON COUPLINGS.
- PROVIDE HANGERS ADEQUATE TO MAINTAIN ALIGNMENT AND TO PREVENT SAGGING OF THE PIPE.
- MAKE ADEQUATE PROVISION TO PREVENT SHEARING AND TWISTING OF THE PIPE AND THE JOINT.

SLEEVES AND OPENINGS

PROVIDE SLEEVES FOR EACH PIPE PASSING THROUGH WALLS, PARTITIONS, FLOORS, ROOFS, AND CEILINGS.
- SET PIPE SLEEVES IN PLACE BEFORE CONCRETE IS PLACED.
- FOR UNINSULATED PIPE, PROVIDE SLEEVES TWO PIPE SIZES LARGER THAN THE PIPE PASSING THROUGH, OR PROVIDE A MINIMUM OF ½" CLEARANCE BETWEEN INSIDE AND OUTSIDE OF THE PIPE.
- FOR INSULATED PIPE, PROVIDE SLEEVES OF ADEQUATE SIZE TO ACCOMMODATE THE FULL THICKNESS OF PIPE COVERING, WITH CLEARANCE FOR PACKING AND CAULKING.

CAULK THE SPACE BETWEEN SLEEVE AND PIPE OR PIPE COVERING, USING A NON COMBUSTIBLE, PERMANENTLY PLASTIC, WATERPROOF, NON-STAINING COMPOUND WHICH LEAVES A SMOOTH FINISHED APPEARANCE, OR PACK WITH NONCOMBUSTIBLE ROPE, OR FIBERGLASS TO WITHIN ½" OF BOTH WALL FACES, AND PROVIDE THE WATERPROOF COMPOUND DESCRIBED ABOVE.

FINISH AND ESCUTCHEONS:
- SMOOTH UP ROUGH EDGES AROUND SLEEVES WITH PLASTER OR SPACKLING COMPOUND.
- PROVIDE 1" WIDE CHROME OR NICKEL PLATED ESCUTCHEONS ON ALL PIPES EXPOSED TO VIEW WHERE PASSING THROUGH WALL, FLOORS, PARTITIONS, CEILINGS, AND SIMILAR LOCATIONS.
  - SIZE THE ESCUTCHEONS TO FIT PIPE AND A COVERING.
  - HOLD ESCUTCHEONS IN PLACE WITH SET SCREW.

CLEANOUTS

SECURE THE ARCHITECT'S OR ENGINEER'S APPROVAL OF LOCATIONS FOR CLEANOUTS IN FINISHED AREAS PRIOR TO INSTALLATION.

PROVIDE CLEANOUTS OF SAME NOMINAL SIZE AS THE PIPES THEY SERVE; EXCEPT WHERE CLEANOUTS ARE REQUIRED IN PIPES 4" AND LARGER PROVIDE 4" CLEANOUTS.

MAKE CLEANOUTS ACCESSIBLE. AFTER PRESSURE TESTS ARE MADE AND APPROVED, THOROUGHLY GRAPHITE THE CLEANOUT THREADS.

VALVES

PROVIDE VALVES IN WATER, AIR, AND GAS SYSTEMS. LOCATE AND ARRANGE SO AS TO FIVE COMPLETE REGULATION OF APPARATUS, EQUIPMENT, AND FIXTURES.

PROVIDE VALVES IN AT IN AT LEAST THE FOLLOWING LOCATIONS:
- IN BRANCHES AND/OR HEADERS OF WATER PIPING SERVING A GROUP OF FIXTURES.
- ON BOTH SIDES OF APPARATUS AND EQUIPMENT.
- FOR SHUTOFF OF RISERS AND BRANCH MAINS.
- FOR FLUSHING AND STERILIZING THE SYSTEM.
- WHERE SHOWN ON THE DRAWINGS.

LOCATE VALVES FOR EASY ACCESSIBILITY AND MAINTENANCE.

WATER HAMMER ARRESTORS

PROVIDE WATER HAMMER ARRESTORS ON HOT WATER LINES AND COLD WATER LINES.
- INSTALL IN UPRIGHT POSITION AT ALL QUICK CLOSING VALVES, SOLENOIDS, ISOLATED PLUMBING FIXTURES, AND SUPPLY HEADERS AT PLUMBING FIXTURE GROUPS.
- LOCATE AND SIZE AS SPECIFIED OR AS SHOWN ON THE DRAWINGS AND, WHERE NOT SHOWN, LOCATE IN ACCORDANCE WITH PLUMBING AND DRAINAGE INSTITUTE STANDARD WH-201.
- INSTALL WATER HAMMER ARRESTORS BEHIND ACCESS PANELS.

WHERE FIXTURES ARE NOT PROTECTED BY WATER HAMMER ARRESTORS, PROVIDE 24" HIGH AIR CHAMBERS ON EACH WATER SUPPLY, PROPERLY SIZED AND DESIGNED FOR MAINTENANCE AND DRAINAGE.

BACKFLOW PREVENTION

PROTECT PLUMBING FIXTURES, FAUCETS WITH HOSE CONNECTIONS, AND OTHER EQUIPMENT HAVING PLUMBING CONNECTION, AGAINST POSSIBLE BACK-SIPHONAGE.

ARRANGE FOR TESTING OF BACKFLOW DEVICES AS REQUIRED BY THE GOVERNMENTAL AGENCIES HAVING JURISDICTION.

PLUMBING FIXTURE INSTALLATION

INSTALLATION:
- SET FIXTURES LEVEL AND IN PROPER ALIGNMENT WITH RESPECT TO WALLS AND FLOORS, AND WITH FIXTURES EQUALLY SPACES.
- PROVIDE SUPPLIES IN PROPER ALIGNMENT WITH FIXTURES AND WITH EACH OTHER.
- PROVIDE FLUSH VALVES ALIGNMENT WITH THE FIXTURE, WITHOUT VERTICAL OR HORIZONTAL OFFSETS.

GROUT WALL AND FLOOR MOUNTED FIXTURES WATERTIGHT WHERE THE FIXTURES ARE IN CONTACT WITH WALLS AND FLOORS.

CAULK DECK-MOUNTED TRIM AT THE TIME OF ASSEMBLY, INCLUDING FIXTURE AND CASEWORK MOUNTED. CAULK SELF-RIMMING SINKS INSTALLED IN CASEWORK.

DISINFECTION OF WATER SYSTEMS

DISINFECT HOT AND COLD WATER SYSTEMS.
- PERFORM DISINFECTION UNDER THE ARCHITECT'S OR ENGINEER'S OBSERVATION. NOTIFY THE ARCHITECT OR ENGINEER AT LEAST 48 HOURS PRIOR TO START OF THE DISINFECTION PROCESS.
- UPON COMPLETION OF DISINFECTING, SECURE AND SUBMIT THE CERTIFICATE OF PERFORMANCE REQUIRED UNDER ARTICLE 1.3 OF THIS SECTION, STATING SYSTEM CAPACITY, DISINFECTANT APPLIED, AND RESULTANT RESIDUALS IN PPM AT COMPLETION.
- USE DISINFECTANT METHOD APPROVED BY THE ARCHITECT OR ENGINEER.

WHEN DISINFECTION OPERATION IS COMPLETED, AND AFTER FINAL FLUSHING, SECURE AN ANALYSIS BY A LABORATORY APPROVED BY THE ARCHITECT OR ENGINEER, BASED ON WATER SAMPLES FROM THE SYSTEM, SHOWING TEST NEGATIVE FOR COLI-AEROGENE ORGANISMS. PROVIDE A TOTAL PLATE COUNT OF LESS THAN 100 BACTERIA PER CC, OR EQUAL TO THE CONTROL SAMPLE.

IF ANALYSIS RESULTS ARE NOT SATISFACTORY, REPEAT THE DISINFECTION PROCEDURES AND RETEST UNTIL SPECIFIED STANDARDS ARE ACHIEVED.

OTHER TESTING AND ADJUSTING

PROVIDE PERSONNEL AND EQUIPMENT, AND ARRANGE FOR AND PAY THE COSTS OF, ALL REQUIRED TEST AND INSPECTIONS REQUIRED BY GOVERNMENTAL AGENCIES HAVING JURISDICTION.

WHERE TESTS SHOW MATERIALS OR WORKMANSHIP TO BE DEFICIENT, REPLACE OR REPAIR AS NECESSARY, AND REPEAT THE TESTS UNTIL THE SPECIFIED STANDARDS ARE ACHIEVED.

ADJUST THE SYSTEM TO OPTIMUM STANDARD OF OPERATION.

END OF SECTION

GENERAL SPECIFICATION NOTES

Revisions		
No	Date	DESCRIPTION
1	04/14/05	CD-R
2	04/28/05	CDF
3	.	.
4	.	.

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NORTH

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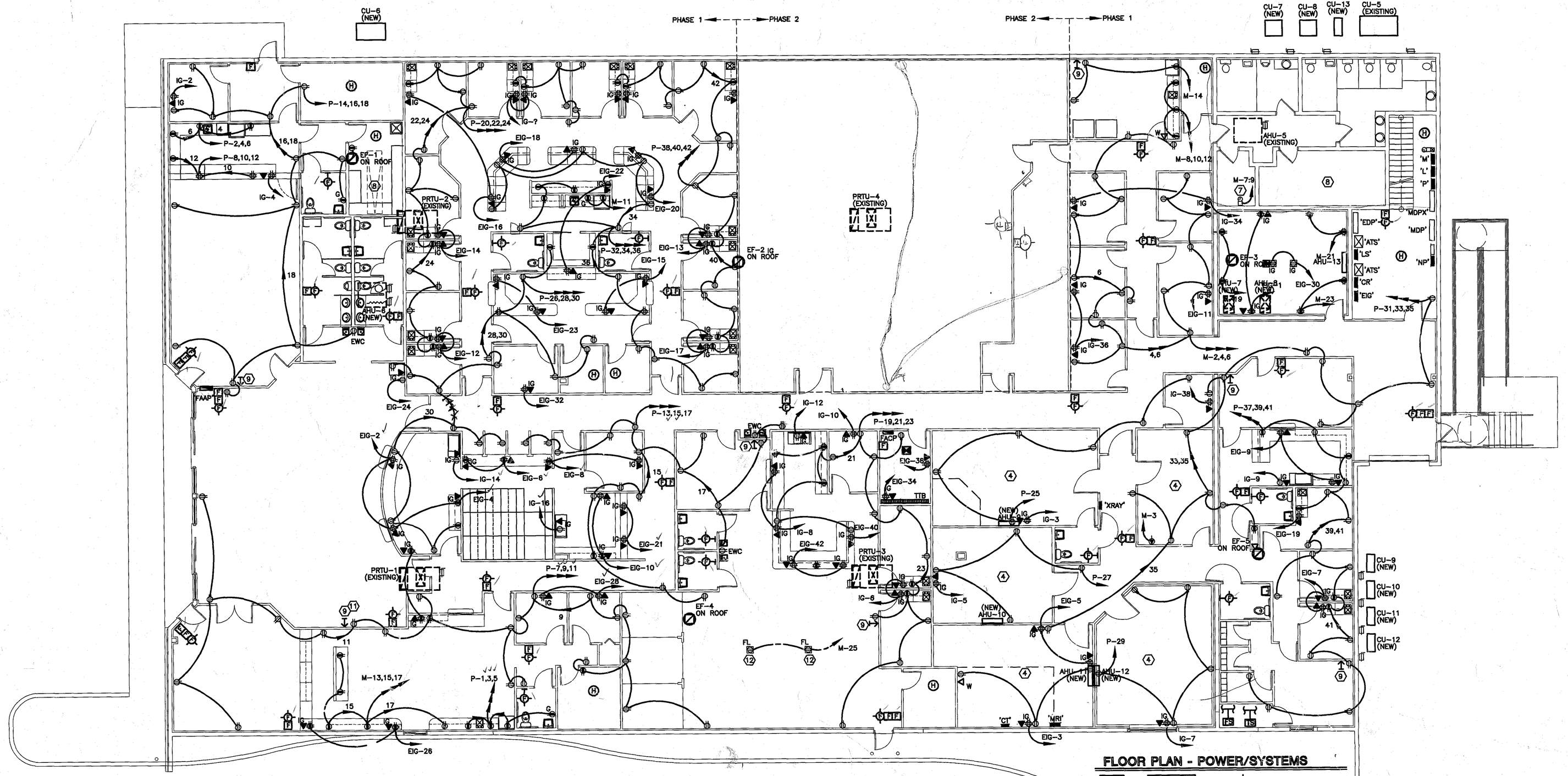
SUBMITTALS

RENOVATION FOR:
EXPRESS CARE OF LEESBURG
PROJECT ADDRESS
LEESBURG, FLORIDA

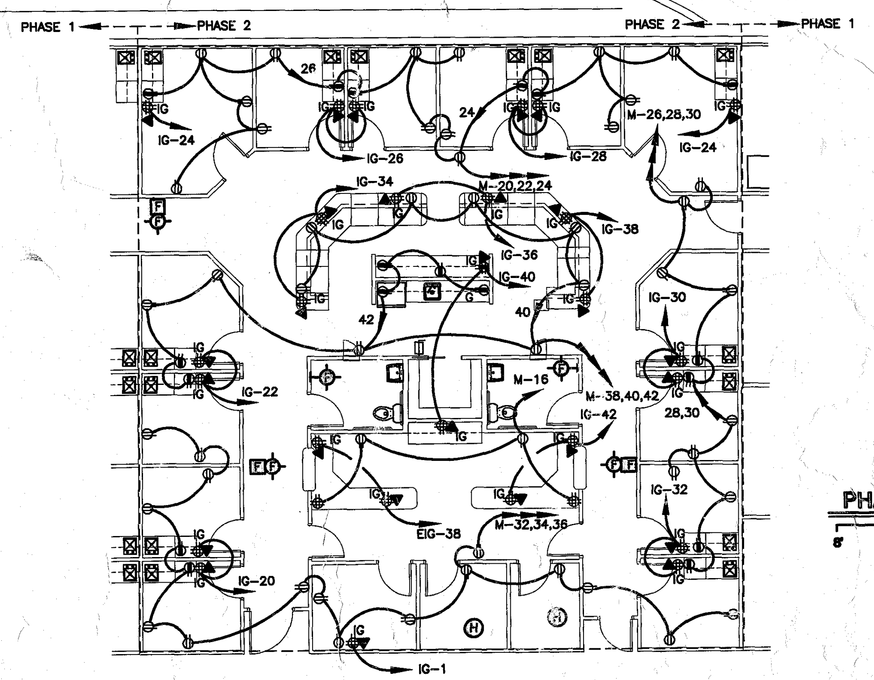
DATE
DATE

JOB #
0473

P-6 6



FLOOR PLAN - POWER/SYSTEMS



PHASE II FLOOR PLAN - POWER/SYSTEMS

PLAN NOTES--POWER

1. LOCATION OF METER AND EMERGENCY ELECTRICAL SHUNT TRIP DISCONNECT.
2. SPLIT WIRED RECEPTACLE MOUNTED IN SOFFIT FOR SEASONAL LIGHTING. CONNECT SWITCHED 1/2 TO 'TC-2' THE OTHER 1/2 WILL BE UNSWITCHED. PROVIDE GFI CIRCUIT BREAKER. CIRCUIT #P-37 (2- #10 + GRD IN 1/2"C.)
3. PROVIDE THE FOLLOWING CONDUITS FROM THE TELEPHONE ROOM TO PROPERTY LINE. COORDINATE EXACT LOCATION WITH CIVIL ENGINEERED DRAWINGS AND WITH SYSTEM SUPPLIER PRIOR TO BID OR ANY ROUGH-IN WORK.
   - A) (2) 2" C. CAP, STAKE, AND MARK "TELEPHONE"
   - B) (1) 2" C. CAP, STAKE, AND MARK "CATV"
   - C) (1) 2" C. CAP, STAKE, AND MARK "DATA"
   - D) (1) 2" C. CAP, STAKE, AND MARK "SPARE"
4. REFER TO EQUIPMENT SUPPLIERS DRAWINGS FOR ROOM REQUIREMENTS. PROVIDE AS DIRECTED.
5. PROVIDE FLUSH GRADE MOUNTED JUNCTION/PULL BOX QUASITE #PG1118CA00--GREEN COVER ENGRAVED "ELECTRIC". PROVIDE TWO (2) 1" SPARE CONDUITS TO PANEL AS INDICATED ON THE POWER RISER DIAGRAM.
6. COPIER: COORDINATE RECEPTACLE CONFIGURATION WITH EQUIPMENT SUPPLIER AND PROVIDE COMPLETE WITH MATCHING PLATE. (3) #10 + GRD. IN 0.5"C.
7. ELECTRIC WATER HEATER: 208VOLT, 4.5KW, 21.6A. PROVIDE TIME CLOCK INTERMATIC #WH-40 (2) #10 + GROUND IN 0.75" CONDUIT.
8. PROVIDE (1) GFCI RECEPTACLE ON MEZANINE. CONNECT TONEAREST AVAILABLE 120V. CIRCUIT. PROVIDE FIRE ALARM HORN STROBE AND SMOKE DETECTOR.
9. PROVIDE TV OUTLET AND ALL CABLING REQUIRED. VERIFY LOCATION WITH OWNER PRIOR TO ROUGH-IN. COORDINATE WITH MILLWORK CONTRACTOR. LOCATE 84" AFF.
10. PROVIDE POWER CONNECTION FOR FIRE PROTECTION AIR COMPRESSOR.
11. PROVIDE (2) TV OUTLETS WITH DUPLEX RECEPTACLE CONNECTED TO NEAREST AVAILABLE 120V. CIRCUIT.
12. PROVIDE (2) FLUSH FLOOR RECEPTACLE. LOCATE PER OWNER.

PROJECT NOTES--POWER/SYSTEMS

1. WHERE DEVICE, BOXES OR CONDUITS ARE LOCATED WITHIN A RATED WALL PROVIDE FIRE PROOFING AS REQUIRED SO AS NOT TO INTERFERE WITH THE INTEGRITY OF THE WALLS RATING.
2. ALL RECEPTACLES IN EXAM ROOMS PROCEDURE SUITES, BREAK ROOM AND CANTEEN SHALL HAVE GFCI PROTECTION.
3. ALL LIGHTING USED AS EMERGENCY WILL BE CONNECTED TO OPERATE AS NIGHT-LIGHTS.
4. REFER TO THE MECHANICAL CONNECTION SCHEDULE FOR ELECTRICAL POWER REQUIREMENTS FOR ALL MECHANICAL EQUIPMENT.
5. VERIFY OUTLET LOCATIONS WITH OWNER OR OWNERS REPRESENTATIVE PRIOR TO ANY WORK. OUTLET LOCATION CHANGES WITHIN THE SAME ROOM THAT OCCUR WILL DO SO AT NO ADDITIONAL COST TO OWNER.
6. PROVIDE LEAD SHIELDING AS REQUIRED BY CODE.
7. ALL ISOLATED GROUND BRANCH CIRCUITS SHALL HAVE SEPARATE #10 CU. NEUTRAL.

NORTH

Revisions		
No.	Date	DESCRIPTION
1	04/14/08	CD-R
2	04/28/08	CD-R
3	.	.
4	.	.

PREPARED BY:
ENGINEERED BUILDING SYSTEMS, INC.
P.O. BOX 2735, 1317 SE FORT KING STREET
OCALA, FL 34471
PH: (352)351-3941 FAX: (352)732-8244

REVISIONS

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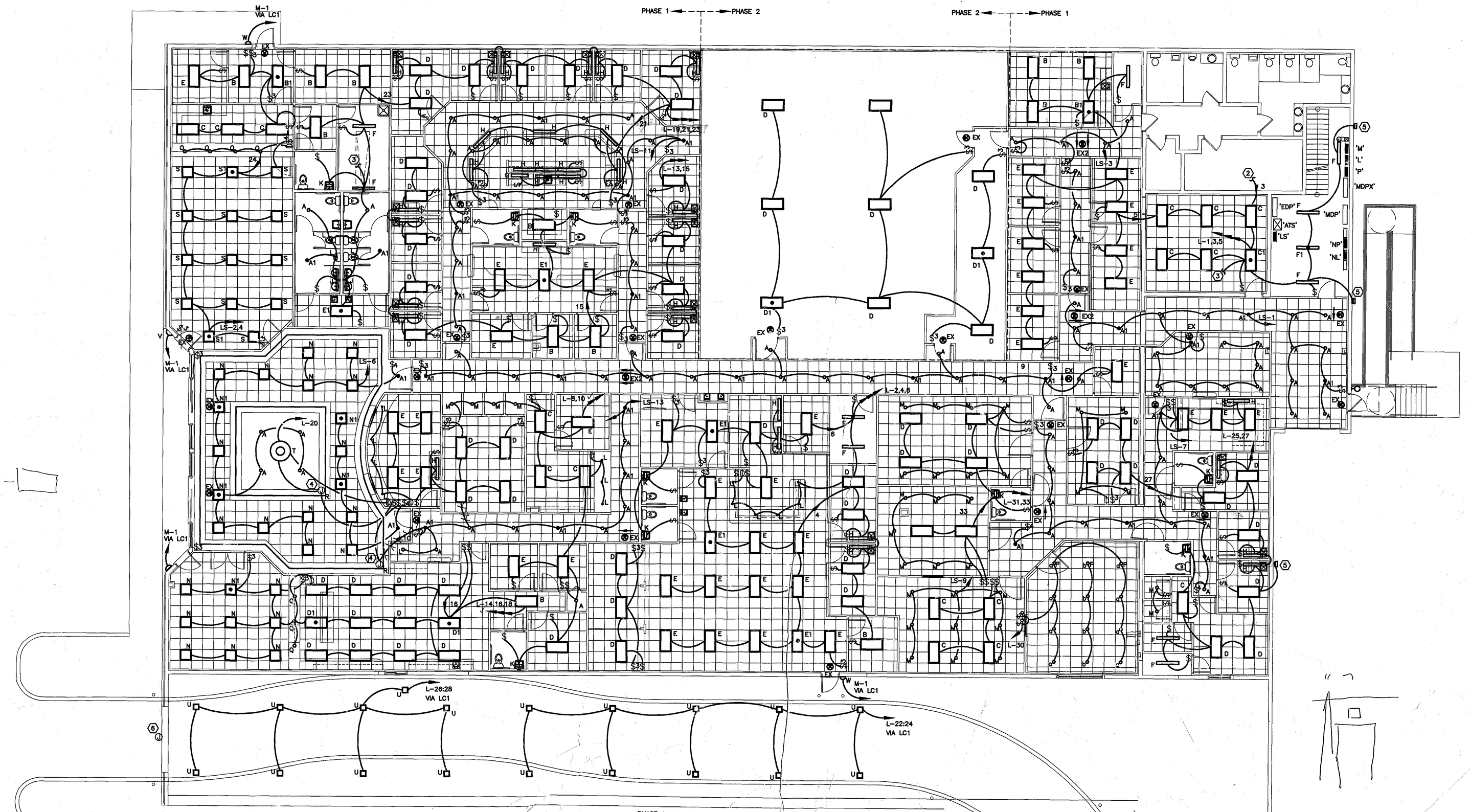
SUBMITTALS

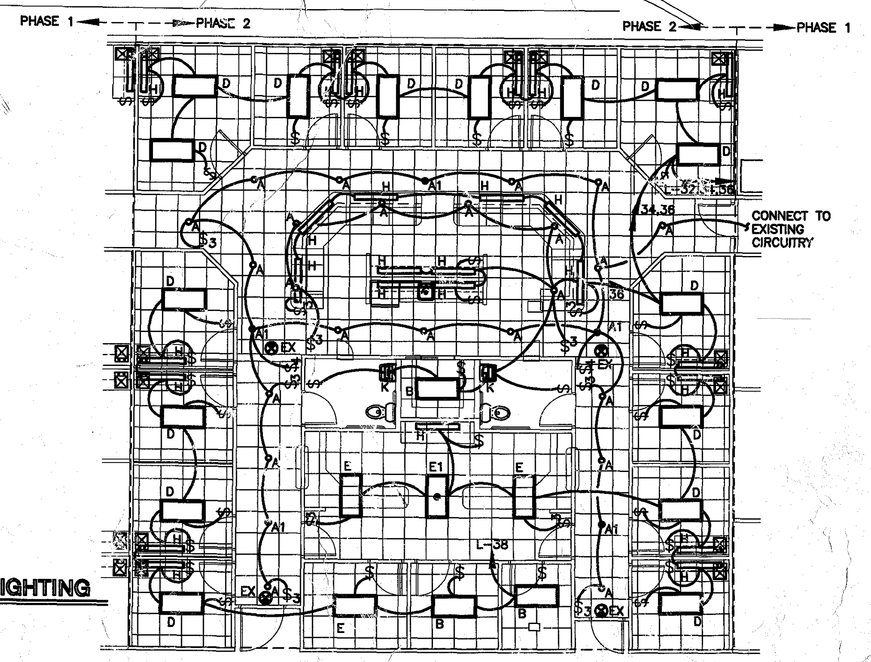
RENOVATION FOR:
EXPRESS CARE OF LEESBURG
PROJECT ADDRESS
LEESBURG, FLORIDA

DATE
DATE

JOB #
0473

E-1 8





PHASE 1 FLOOR PLAN - LIGHTING

PHASE II PARTIAL FLOOR PLAN - LIGHTING

PROJECT NOTES–LIGHTING

1. ALL EXIT AND EMERGENCY LIGHTS SHALL BE CONNECTED TO THE LOCAL LIGHTING CIRCUIT AHEAD OF ANY SWITCH.
2. ALL EXHAUST FANS SHALL BE CONNECTED TO THEIR RESRECTIVE ROOM LIGHT SWITCH FOR CONTROL.

PLAN NOTES–LIGHTING

1. ROUTE THIS CIRCUIT VIA PHOTO CELL MOUNTED ON ROOF FACING NORTH. INTERMATIC #4136M
2. INTERCEPT, TAP, AND CONNECT EXISTING FIXTURES TO NEW CIRCUIT.
3. CONTINUE TO MEZZ. PROVIDE 3–WAY SWITCHING, (3) TYPE 'F' AND (1) TYPE 'F1' LIGHT FIXTURE AND RECEPTACLE PER CODE.
4. PROVIDE 1–LAMP STAGGERED STRIPS AS INDICATED ON THE LIGHT FIXTURE SCHEDULE IN LENGTHS AS REQUIRED FOR A CONTINUOS END TO END SPACING. MOUNT IN ARCHITECTURAL COVE.
5. EXISTING EXTERIOR WALL PACK SECURITY LIGHT FIXTURE TO REMAIN. CLEAN, RELAMP AND PROVIDE PHOTOCELL CONTROL AT FIXTURE OR CIRCUIT TO COMMON PHOTOCELL.
6. PHARMACY SIGNAGE: PROVIDE $100.00 ALLOWANCE FOR EXTERIOR FIXTURE.
7. SECURE AND MOUNT FROM STRUCTURE ABOVE.

Revisions		
No.	Date	DESCRIPTION
1	04/14/05	CD-R
2	04/28/05	CDF
3	-	-
4	-	-

REVISIONS

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SUBMITTALS

POWER RISER NOTES

1. PROVIDE 2 #6CU + GRD IN 1" CONDUIT TO FLUSH GRADE PULL BOX LOCATED 5' OUTSIDE OF BUILDING FOR FUTURE SITE ELECTRIC. LOCATION TO BE DETERMINED PRIOR TO ANY WORK.
2. –
3. 24 HOUR 2–CIRCUIT ELECTRONIC TIME CLOCK WITH BATTERY BACK UP: INTERMATIC#ET279C.
4. LIGHTING CONTACTOR SQ. D CLASS 8903 TYPE LX 12–POLE WITH R6 2–WIRE CONTROL.
5. 75 KW/3ø/208–120V/4–WIRE/GENERATOR WITH ALUMINUM CORRISION RESISTANT SOUND ANTINUATION HOUSING(65 DBA @ 50'). PROVIDE NATRUAL GAS FIRED UNIT. PROVIDE BATTERY CHARGER, JACKET HEATER, PUMP etc., FOR A COMPLETE AND WORKING SYSTEM. PROVIDE INTERIOR ANNUNCIATION PANEL AND ALL CONTROL CONDUIT/CONDUCTORS AS REQUIRED. LOCATE ANNUNCIATOR AT RM.#114
6. AUTOMATIC TRANSFER SWITCH: 125AMP/3ø/240VOLT. PROVIDE 10 SECOND MAX. TO ON–LINE.
7. AUTOMATIC TRANSFER SWITCH: 225AMP/3ø/240VOLT.
8. PULL BOX TO BE QUASITE STYLE PG W/ 12" GRAVEL BASE.
9. PROVIDE ALL REQUIRED COMMUNICATION/SIGNAL CIRCUITRY FROM GEN SET TO ANNUNCIATOR. REFER TO GENERATOR REQUIREMENTS PRIOR TO BID.
10. PROVIDE 2 #6CU + GRD IN 1.25" C. TO BIO BUILDING. REFER TO CIVIL SITE PLAN FOR EXACT LOCATION. PROVIDE DISCONNECT AS REQUIRED.
11. PROVIDE PHOTOCELL: INTERMATIC #K4136M. MOUNT ON ROOF FACING NORTH.
12. PROVIDE SURGE SUPPRESSION: EDCO SERIES BMC. PROVIDE OVERCURRENT PROTECTION.
13. PROVIDE SURGE SUPPRESSION: EDCO SERIES LMC. PROVIDE OVERCURRENT PROTECTION.
14. SHUNT TRIP WITH BREAK GLASS MOUNTED ON EXTERIOR OF BUILDING. CONNECT TO EXISTING PANEL 'MDPX' FOR SIMULTANEOUS EMERGENCY DISCONNECT OF ALL ELECTRICAL POWER TO BUILDING. SQ. D OR EQUAL.

FEEDER NOTES

FROM MDP TO PANEL 'M1'	(4) #4/0 CU. THWN + (1) #4 CU. GROUND IN 2.5" C.
FROM MDP TO PANEL 'IG'	(4) #4/0 CU. THWN + (2) #4 CU. GROUND IN 2.5" C.
FROM MDP TO TRANSFER SWITCH 'ATS–LS'	(4) #1 CU. THWN + (1) #6 CU. GROUND IN 1.5" C.
FROM MDP TO TRANSFER SWITCH 'ATS–CR'	(4) #4/0 CU. THWN + (2) #4 CU. GROUND IN 2.5" C.
FROM EDP TO TRANSFER SWITCH 'ATS–LS'	(4) #1 CU. THWN + (1) #6 CU. GROUND IN 1.5" C.
FROM EDP TO TRANSFER SWITCH 'ATS–CR'	(4) #4/0 CU. THWN + (2) #4 CU. GROUND IN 2.5" C.
FROM 'CR' TO PANEL 'EIG'	(4) #1 CU. THWN + (2) #6 CU. GROUND IN 1.5" C.
FROM TRANSFER SWITCH 'ATS–LS' TO PANEL 'LS'	(4) #1 CU. THWN + (1) #6 CU. GROUND IN 1.5" C.
FROM TRANSFER SWITCH 'ATS–CR' TO PANEL 'CR'	(4) #4/0 CU. THWN + (2) #4 CU. GROUND IN 2.5" C.
PANEL 'CR' TO PANEL 'EIG'	(4) #1 CU. THWN + (1) #6 CU. GROUND IN 1.5" C.

EDP SCHEDULE

208/120 VOLT, 3 PHASE, 4 WIRE
225 AMP WITH MAIN CIRCUIT BREAKER
SURFACE MOUNTED

MAX. TOTAL LOAD 84.0 | MAX. TOTALDEMAND 73.8 | AVAILABLE FAULT DUTY 42K AIR FULL RATING
REMARKS: NEW PANEL
SQUARE "D" I–LINE FULL HEIGHT COPPER BUSS

DESCRIPTION	KVA/PH A	B	C	CK #	A/P	BRKR	PHASE TOTAL A	B	C	BRKR #	A/P	CK #	KVA A	B	C	BREAKER TYPE	MOUNTING SPACE
PANEL CR VIA ATS	10.8	10.8	10.8	1	225	3											
PANEL LS VIA ATS	7.0	7.0	7.0	2	225	3											
AHU–BLOWER MOTOR	9.2	9.2	9.2	3	100	3											
	1.0	1.0	1.0	4	20	3											
				5													
				6													
				7													
				8													
				9													
				10													
				11													
				12													
				13													
				14													
				15													
				16													
				17													
				18													
				19													
				20													
SURGE SUPRESSION	–	–	–	21	30	3							–	–	–	–	–
TOTALS:	28.0	28.0	28.0													–	

MDP SCHEDULE

208/120 VOLT, 3 PHASE, 4 WIRE
1200 AMP WITH MAIN SHUNT TRIP CIRCUIT BREAKER
SURFACE MOUNTED

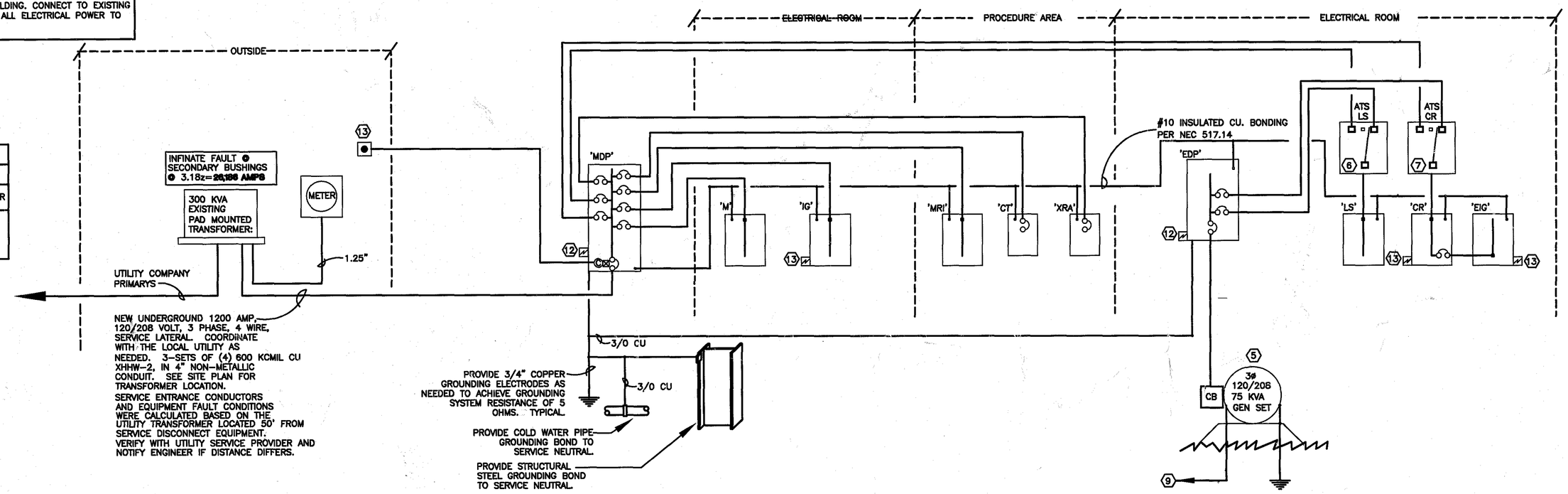
MAX. TOTAL LOAD 348.0 | MAX. TOTALDEMAND 296.6 | AVAILABLE FAULT DUTY 42K AIR FULL RATING
REMARKS: NEW PANEL
SQUARE "D" I–LINE FULL HEIGHT COPPER BUSS

DESCRIPTION	KVA/PH A	B	C	CK #	A/P	BRKR	PHASE TOTAL A	B	C	BRKR #	A/P	CK #	KVA A	B	C	BREAKER TYPE	MOUNTING SPACE
PANEL M1	15.2	15.2	15.2	1	225	3											
PANEL IG	11.0	11.0	11.0	2	225	3											
PANEL CR VIA ATS	10.8	10.8	10.8	3	225	3											
PANEL LS VIA ATS	7.0	7.0	7.0	4	125	3											
MRI	36.0	36.0	36.0	5	500	3											
CT	18.0	18.0	18.0	6	150	3											
XRAY	18.0	18.0	18.0	7	150	3											
				8													
				9													
				10													
				11													
				12													
				13													
				14													
				15													
				16													
				17													
				18													
				19													
				20													
SURGE SUPRESSION	–	–	–	21	30	3							–	–	–	–	–
TOTALS:	116.0	116.0	116.0													–	

MINIMUM CONDUCTOR SIZES

(FURNISH IN ACCORDANCE WITH THIS SCHEDULE UNLESS OTHERWISE NOTED)
(ALL WIRES ARE TO BE COPPER, THHN, UNLESS OTHERWISE NOTED)

CIRCUIT PROTECTION	CURRENT CARRYING AND NUETRAL CONDUCTOR	GROUND CONDCUTOR
0–20A	#12	#12
21–30A	#10	#10
31–50A	#8	#10
51–70A	#4	#8
71–115A	#2	#6



M1 PANEL SCHEDULE

208/120 VOLT, 3 PHASE, 4 WIRE
225 AMP MLO
SURFACE MOUNTED
42 CKT
NEMA 1

TOTAL CONNECTED KVA 71.9 | TOTAL DEMAND KVA 45.6 | AVAILABLE FAULT DUTY 42K AIR SERIES RATING
REMARKS: NEW PANEL
SQ. D TYPE 'NQOD' PANELBOARD
PROVIDE FEED–THRU LUG KIT.

DESC	KVA A	B	C	CK #	A/P	BRKR	PHASE TOTAL A	B	C	BRKR #	A/P	CK #	KVA A	B	C	DESC
AHU–6–HEAT	2.5			1	30	3				20	2	2	1.0			DUCTLESS SPLIT–9
–		2.5		3	–	–				–	–	4		1.0		–
–			2.5	5	–	–				20	2	6			1.0	DUCTLESS SPLIT–10
CU–6	5.8			7	60	3				–	–	8	1.0			–
–		5.8		9	–	–				20	2	10		1.0		DUCTLESS SPLIT–11
–			5.8	11	–	–				–	–	12			1.0	–
AHU–7	4.7			13	40	2				20	2	14	1.0			DUCTLESS SPLIT–12
–		4.7		15	–	–				–	–	16		1.0		–
CU–7			3.1	17	40	3				20	2	18			1.0	DUCTLESS SPLIT–13
–	3.1			19	–	–				–	–	20	1.0			–
–		3.1		21	–	–				20	2	22		1.0		
AHU–8			4.7	23	40	2				20	2	24			1.0	
–	4.7			25	–	–				20	2	26		1.0		
CU–8		2.3		27						20	2	28			1.0	
–			2.3	29						20	2	30			1.0	
–	2.3			31						20	2	32			1.0	
				33						20	2	34			1.0	
				35						20	2	36			1.0	
				37						20	2	38			1.0	
				39						20	2	40			1.0	
				41						20	2	42			1.0	
TOTALS:	23.1	18.4	18.4				27.1	22.4	22.4				4.0	4.0	4.0	

CR PANEL SCHEDULE

208/120 VOLT, 3 PHASE, 5 WIRE
125 AMP MLO
SURFACE MOUNTED
42 CKT
NEMA 1

TOTAL CONNECTED KVA 54.6 | TOTAL DEMAND KVA 32.3 | AVAILABLE FAULT DUTY 42K AIR SERIES RATING
REMARKS: NEW PANEL
SQ. D TYPE 'NQOD' PANELBOARD
PROVIDE 125 AMP SUB FEED BREAKER TO PANEL EIG

DESC	KVA A	B	C	CK #	A/P	BRKR	PHASE TOTAL A	B	C	BRKR #	A/P	CK #	KVA A	B	C	DESC
SPARE	1.4			1	20	1				20	1	2	1.4			SPARE
SPARE		1.4		3	20	1				20	1	4		1.4		SPARE
SPARE			1.4	5	20	1				20	1	6			1.4	SPARE
				7						20	1	8				
				9						20		10				
				11						20		12				
				13						20		14				
				15						20		16				
				17						20		18				
				19						20		20				
				21						20		22				
				23						20		24				
				25						20		26				
				27						20		28				
				29						20		30				
				31						20		32				
				33						20		34				
				35						20		36				
				37						125	3	38	15.4			PANEL EIG
				39						–	–	40		15.4		–
				41						–	–	42			15.4	–
TOTALS:	1.4	1.4	1.4				18.2	18.2	18.2				16.8	16.8	16.8	

LS PANEL SCHEDULE

208/120 VOLT, 3 PHASE, 4 WIRE
125 AMP MLO
SURFACE MOUNTED
30 CKT
NEMA 1

TOTAL CONNECTED KVA 16.8 | TOTAL DEMAND KVA 20.8 | AVAILABLE FAULT DUTY 42K AIR SERIES RATING
REMARKS: NEW PANEL
SQ. D TYPE 'NQOD' PANELBOARD

DESC	KVA A	B	C	CK #	A/P	BRKR	PHASE TOTAL A	B	C	BRKR #	A/P	CK #	KVA A	B	C	DESC
LTS– WOMENS ENTRY	1.4			1	20	1				20	1	2	1.4			LTS– CANTEEN
LTS– CORRIDOR WEST		1.4		3	20	1				20	1	4		1.4		LTS– CANTEEN
LTS– CORRIDOR EAST			1.4	5	20	1				20	1	6			1.4	LTS– MAIN LOBBY
LTS– WOMENS EXAM	1.4			7	20	1				20	1	8	1.4			SPARE
LTS– CONTROL		1.4		9	20	1				20	1	10		1.4		SPARE
LTS– ?			1.4	11	20	1				20	1	12			1.4	SPARE
SPACE	–			13	–	1				–	1	14	–			SPACE
SPACE		–		15	–	1				–	1	16		–		SPACE
SPACE			–	17	–	1				–	1	18			–	SPACE
SPACE	–			19	–	1				–	1	20	–			SPACE
SPACE		–		21	–	1				–	1	22		–		SPACE
SPACE			–	23	–	1				–	1	24			–	SPACE
SPACE	–			25	–	1				–	1	26	–			SPACE
SPACE		–		27	–	1				–	1	28		–		SPACE
SPACE			–	29	–	1				–	1	30			–	SPACE
SPACE	–			31	–	1				–	1	32	–			SPACE
SPACE		–		33	–	1				–	1	34		–		SPACE
SPACE			–	35	–	1				–	1	36			–	SPACE
SPACE	–			37	–	1				–	1	38	–			SPACE
SPACE		–		39	–	1				–	1	40		–		SPACE
SPACE			–	41	–	1				–	1	42			–	SPACE
TOTALS:	2.8	2.8	2.8				5.6	5.6	5.6				2.8	2.8	2.8	

IG PANEL SCHEDULE

208/120 VOLT, 3 PHASE, 5 WIRE
225 AMP MLO
SURFACE MOUNTED
42 CKT
NEMA 1

TOTAL CONNECTED KVA 56.0 | TOTAL DEMAND KVA 33.0 | AVAILABLE FAULT DUTY 42K AIR SERIES RATING
REMARKS: NEW PANEL
SQ. D TYPE 'NQOD' PANELBOARD
PROVIDE COMPLETE ISOLATED GROUND SYSTEM.

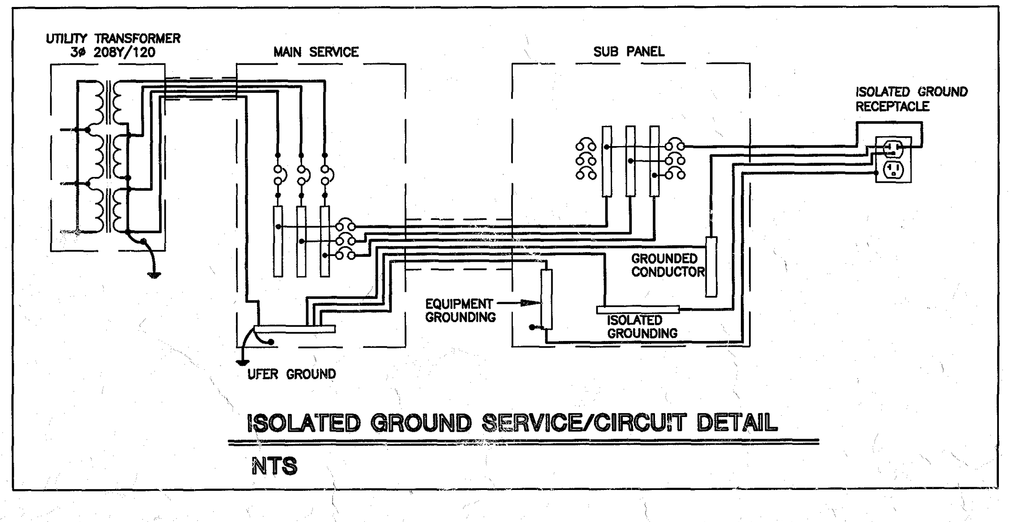
DESC	KVA A	B	C	CK #	A/P	BRKR	PHASE TOTAL A	B	C	BRKR #	A/P	CK #	KVA A	B	C	DESC
RECEPT– OFFICE	1.4			1	20	1				20	1	2	1.4			RECEPT– PHARMACY OFFICE
RECEPT– XRAY		1.4		3	20	1				20	1	4		1.4		RECEPT– PHARMACY
RECEPT– CT			1.4	5	20	1				20	1	6			1.4	RECEPT– PHYSICAL THERAPY
RECEPT– MRI	1.4			7	20	1				20	1	8	1.4			RECEPT– PT RECEPTION
RECEPT– COPIER		1.4		9	20	1				20	1	10		1.4		RECEPT– OFFICE
SPARE			1.4	11	20	1				20	1	12			1.4	RECEPT– COPIER
SPARE	1.4			13	20	1				20	1	14	1.4			RECEPT– COPIER
SPARE		1.4		15	20	1				20	1	16		1.4		RECEPT– OFFICE
SPARE			1.4	17	20	1				20	1	18			1.4	RECEPT– COPIER
SPACE	–			19	–	1				20	1	20	1.4			RECEPT– EXAM
SPACE		–		21	–	1				20	1	22		1.4		RECEPT– EXAM
SPACE			–	23	–	1				20	1	24			1.4	RECEPT– EXAM
SPACE	–			25	–	1				20	1	26	1.4			RECEPT– EXAM
SPACE		–		27	–	1				20	1	28		1.4		RECEPT– EXAM
SPACE			–	29	–	1				20	1	30			1.4	RECEPT– EXAM
SPACE	–			31	–	1				20	1	32	1.4			RECEPT– EXAM
SPACE		–		33	–	1				20	1	34		1.4		RECEPT– OFFICE
SPACE			–	35	–	1				20	1	36			1.4	RECEPT– OFFICE
SPACE	–			37	–	1				20	1	38	1.4			RECEPT– OFFICE
SPACE		–		39	–	1				20	1	40		1.4		SPARE
SPACE			–	41	–	1				20	1	42			1.4	SPARE
TOTALS:	4.2	4.2	4.2				14.0	14.0	14.0				9.8	9.8	9.8	

EIG PANEL SCHEDULE

208/120 VOLT, 3 PHASE, 5 WIRE
125 AMP MLO
SURFACE MOUNTED
42 CIRCUIT
NEMA 1

TOTAL CONNECTED KVA 50.4 | TOTAL DEMAND KVA 28.1 | AVAILABLE FAULT DUTY 42K AIR SERIES RATING
REMARKS: NEW PANEL
SQ. D TYPE 'NQOD' PANELBOARD

DESC	KVA A	B	C	CK #	A/P	BRKR	PHASE TOTAL A	B	C	BRKR #	A/P	CK #	KVA A	B	C	DESC
RECEPT– LAB	1.4			1	20	1				20	1	2	1.4			RECEPT– RECEPTION
RECEPT– MRI CONTROL		1.4		3	20	1				20	1	4		1.4		RECEPT– RECEPTION
RECEPT– MRI/CT CONTROL			1.4	5	20	1				20	1	6			1.4	RECEPT– TRIAGE
RECEPT– EXAM	1.4			7	20	1				20	1	8	1.4			RECEPT– TRIAGE/OFFICE
RECEPT– WOMENS RECEPT		1.4		9	20	1				20	1	10		1.4		RECEPT– WORK RM.
RECEPT– OFFICE			1.4	11	20	1				20	1	12			1.4	RECEPT– EXAM
RECEPT– EXAM	1.4			13	20	1				20	1	14	1.4			RECEPT– EXAM
RECEPT– BILLING		1.4		15	20	1				20	1	16		1.4		RECEPT– EXAM/NURSE STAT
RECEPT– EXAM			1.4	17	20	1				20	1	18			1.4	RECEPT– NURSE STATION
RECEPT– EXAM	1.4			19	20	1				20	1	20	1.4			RECEPT– NURSE STATION
RECEPT– BILLING		1.4		21	20	1				20	1	22		1.4		RECEPT– NURSE STATION
RECEPT– BILLING			1.4	23	20	1				20	1	24			1.4	RECEPT– ATM
SPACE	1.4			25	–	1				20	1	26	1.4			RECEPT– PHARMACY
SPACE		1.4		27	–	1				20	1	28		1.4		RECEPT– OFFICES
SPACE			1.4	29	–	1				20	1	30			1.4	RECEPT– LAB
SPACE	–			31	–	1				20	1	32	1.4			RECEPT– OFFICE
SPACE		–		33	–	1				20	1	34		1.4		RECEPT– TELE
SPACE			–	35	–	1				20	1	36			1.4	RECEPT– DATA
SPACE	–			37	–	1				20	1	38	1.4			RECEPT– BILLING PHASE 2
SPACE		–		39	–	1				20	1	40		1.4		RECEPT– PHYSICAL THEARPY
SPACE			–	41	–	1				20	1	42			1.4	RECEPT– PHYSICAL THEARPY
TOTALS:	7.0	7.0	7.0				16.8	16.8	16.8				9.8	9.8	9.8	



ISOLATED GROUND SERVICE/CIRCUIT DETAIL

NTS

NEW ELECTRICAL POWER RISER DIAGRAM

Revisions		
No.	Date	DESCRIPTION
1	04/14/05	CD–R
2	04/28/05	CDF
3	.	.
4	.	.

PREPARED BY:
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NORTH

REVISIONS

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SUBMITTALS

RENOVATION FOR:
EXPRESS CARE OF LEESBURG
PROJECT ADDRESS
LEESBURG, FLORIDA

DATE
DATE

JOB #
0473

E-3 6

POWER RISER NOTES

1. PROVIDE 2 #8CU + GRD IN 1" CONDUIT TO SITE SIGNAGE LOCATED AT ENTRYS.(PROX. 300') REFER TO CIVIL SITE PLAN FOR EXACT LOCATION. PROVIDE DISCONNECT AS REQUIRED. PROVIDE (2) GRADE MOUNTED FLOOD LIGHTS ON CONCRETE BASE. PROVIDE ALL EXCAVATION, TRENCHING, BACK FILL AS REQUIRED TO ACCOMMODATE THIS PROJECT.
2. PROVIDE SPARE 120V. CIRCUIT AND 2"C. FOR DATA LINK TO DIGITAL SIGN. PROVIDE DISCONNECT AS REQUIRED. PROVIDE ALL EXCAVATION, TRENCHING, BACK FILL AS REQUIRED TO ACCOMMODATE THIS PROJECT.
3. PROVIDE 2 #8CU + GRD IN 1" CONDUIT TO SITE SIGNAGE LOCATED AT ENTRYS.(PROX. 200') REFER TO CIVIL SITE PLAN FOR EXACT LOCATION. PROVIDE DISCONNECT AS REQUIRED.
4. PROVIDE 2 #8CU + GRD IN 1" CONDUIT TO FLUSH GRADE PULL BOX LOCATED 5' OUTSIDE OF BUILDING FOR FUTURE SITE ELECTRIC. LOCATION TO BE DETERMINED PRIOR TO ANY WORK.
5. 24 HOUR 2-CIRCUIT ELECTRONIC TIME CLOCK WITH BATTERY BACK UP: INTERMATIC#ET279C.
6. LIGHTING CONTACTOR 'LC1': SQ. D CLASS 8903 TYPE LX 12-POLE WITH R6 2-WIRE CONTROL.
7. PULL BOX TO BE QUASITE STYLE PG W/12" GRAVEL BASE. ENGRAVED TOP "ELECTRIC"
8. PROVIDE PHOTOCELL: INTERMATIC #K4136M. MOUNT ON ROOF FACING NORTH.
9. SHUNT TRIP WITH BREAK GLASS MOUNTED ON EXTERIOR OF BUILDING. CONNECT TO NEW MDP FOR SIMULTANEOUS EMERGENCY DISCONNECT OF ALL ELECTRICAL POWER TO BUILDING. SQ. D OR EQUAL.
10. PROVIDE SURGE SUPPRESSION: EDCO SERIES BMC. PROVIDE OVERCURRENT PROTECTION.

FEEDER NOTES

FROM MDP TO PANEL 'P'	EXISTING TO REMAIN
FROM MDP TO PANEL 'L'	EXISTING TO REMAIN
FROM MDP TO PANEL 'M'	EXISTING TO REMAIN

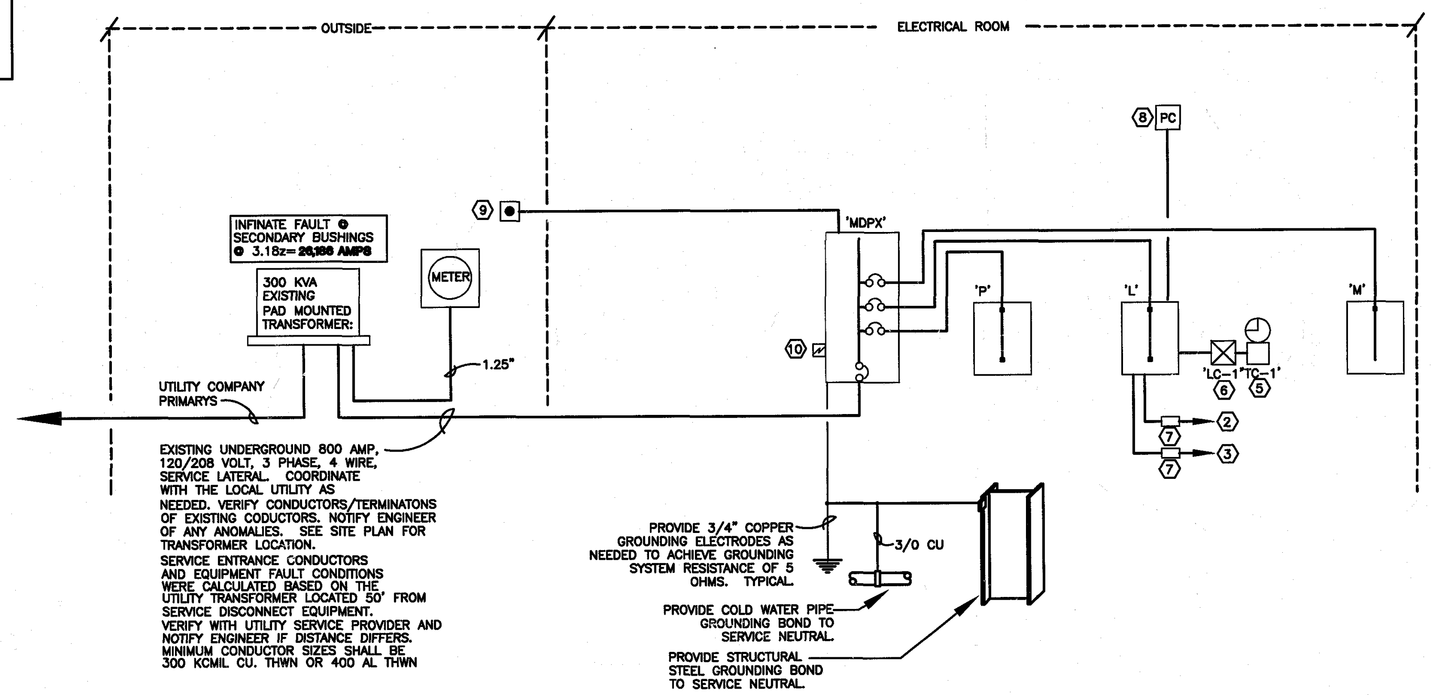
MDPX SCHEDULE

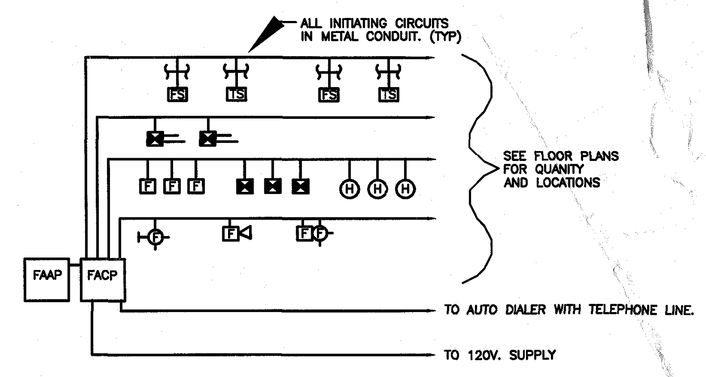
208/120 VOLT, 3 PHASE, 4 WIRE
800 AMP WITH MAIN CIRCUIT BREAKER
SURFACE MOUNTED

MAX. TOTAL LOAD 265.2
MAX. TOTALDEMAND 265.2
AVAILABLE FAULT DUTY 42K * AIR FULL RATING
REMARKS: EXISTING CHALLENGER PANEL & BREAKERS REINDEX WITH PERMENANT PHENOLIC PLATE

DESCRIPTION	KVA/PH A	B	C	CK #	BRKR A	P	BREAKER TYPE	MOUNTING SPACE
PANEL 'P'	11.5	11.5	11.5	1	225	3		
PANEL 'L'	24.6	24.6	24.6	2	225	3		
PANEL 'M'	10.2	10.2	10.2	3	225	3		
PRIU-1	7.3	7.3	7.3	4	70	3		
PRIU-2	5.3	5.3	5.3	6	50	3		
PRIU-3	5.3	5.3	5.3	8	50	3		
PRIU-4	5.3	5.3	5.3	7	50	3		
CU-5	8.4	8.4	8.4	8	100	3		
AHU-5	10.5	10.5	10.5	9	90	3		
				10				
				11				
				12				
				13				
				14				
				15				
				16				
				17				
				18				
				19				
				20				
SURGE SUPRESSION	–	–	–	21	30	3	–	–
TOTALS:	88.4	88.4	88.4					–

* VERIFY AIC RATINGS OF EXISTING EQUIPMENT. NOTIFY ENGINEER IF MINIMUM AIC REQUIREMENT AS INDICATED IS NOT MET.





- 'FACP' FIRE ALARM CONTROL PANEL- EDWARDS EST-2 SERIES WITH (VOICE) DIGITAL ALARM COMMUNICATOR TRANSMITTE(DACT).
- 'FAAP' FIRE ALARM ANNUNCIATOR PANEL- EDWARDS 2-LSRA-C SERIES.
- F MANUAL STATION-EDWARDS SIGA #278.
- P STROBE LIGHT-EDWARDS GENESIS SERIES. MINIMUM 75 CANDELA UNLESS OTHERWISE PERMITED BY CODE.
- F AUDIBLE NOTIFICATION APPLIANCE- EDWARDS GENISIS SERIES.
- F P AUDIBLE/VISIBLE NOTIFICATION APPLIANCE- EDWARDS GENESIS SERIES.
- S 'A' SMOKE DETECTOR- EDWARDS SIGNATURE SIGA-PS. 'A' INDICATES AUXILIARY CONTACTS.
- DUCT SMOKE DETECTOR- EDWARDS WITH SAMPLING TUBES.
- R DUCT DETECTOR REMOTE TEST STATION WITH LAMP
- H 'A' HEAT DETECTOR - EDWARDS SIGA-HRS. 'A' INDICATES AUXILIARY CONTACTS.
- PS WATER FLOW SWITCH- EDWARDS SIGNATURE SIGA-WTM.
- TS TAMPER SWITCH- EDWARDS SIGNATURE SIGA-CTI.

NOTES:
1. EQUAL BY SIMPLEX OR SIEMENS.
2. VERIFY ALL REQUIREMENTS WITH LOCAL FIRE MARSHALL PRIOR TO ANY WORK.

FIRE ALARM RISER
NO TRUE SCALE

P PANEL SCHEDULE

208/120 VOLT, 3 PHASE, 4 WIRE
225 AMP MLO
SURFACE MOUNTED
42 CKT
NEMA 1

TOTAL CONNECTED KVA 58.8
TOTAL DEMAND KVA 34.4
AVAILABLE FAULT DUTY 42K * AIR SERIES RATING
REMARKS: EXISTING CHALLENGER PANEL
REMOVE ALL EXISTING CIRCUITRY. PANEL AND BREAKERS WITH REQUIRED OCP AND AIC RATINGS MAY BE REUSED.

DESC	KVA A	B	C	CK #	BRKR A	P	PHASE TOTAL A	B	C	BRKR A	P	CK #	KVA A	B	C	DESC
RECEPT- PHARMACY	1.4			1	20	1				20	1	2	1.4			RECEPT- CANTEEN
RECEPT- PHARMACY		1.4		3	20	1				20	1	4		1.4		RECEPT- CANTEEN
RECEPT- PHARMACY			1.4	5	20	1				20	1	6			1.4	RECEPT- CANTEEN
RECEPT- PHARMACY	1.4			7	20	1				20	1	8	1.4			RECEPT- CANTEEN
RECEPT- PHARMACY		1.4		9	20	1				20	1	10		1.4		RECEPT- CANTEEN
RECEPT- PHARMACY			1.4	11	20	1				20	1	12			1.4	RECEPT- CANTEEN
RECEPT- OFFICE/CORR	1.4			13	20	1				20	1	14	1.4			RECEPT- OFFICE/STORE
RECEPT- BILL/CORR/RECEPT		1.4		15	20	1				20	1	16		1.4		RECEPT- CANTEEN/JANITOR
RECEPT- WAIT/EWC			1.4	17	20	1				20	1	18			1.4	RECEPT- CANTEEN/EWC
RECEPT- OFF/DATA/EXAM	1.4			19	20	1				20	1	20	1.4			RECEPT- EXAM
RECEPT- OFF/RECEPTION		1.4		21	20	1				20	1	22		1.4		RECEPT- EXAM
RECEPT- RECEPTION/EXAM			1.4	23	20	1				20	1	24			1.4	RECEPT- EXAM
RECEPT- XRAY	1.4			25	20	1				20	1	26	1.4			RECEPT- BILL/OFF/STORAGE
RECEPT- C/T		1.4		27	20	1				20	1	28		1.4		RECEPT- EXAM/OFF/CORR
RECEPT- MRI			1.4	29	20	1				20	1	30			1.4	RECEPT- RECEPTION
RECEPT- ELEC/WAIT/ENTRY	1.4			31	20	1				20	1	32	1.4			RECEPT- WORK STATION
RECEPT- STRESS		1.4		33	20	1				20	1	34		1.4		RECEPT- NURSE STATION
RECEPT- CONTROL RDOM			1.4	35	20	1				20	1	36			1.4	RECEPT- BILL/STORAGE
RECEPT- RECP/ULTRA SOND	1.4			37	20	1				20	1	38	1.4			RECEPT- EXAM
RECEPT- BONE DENS/CORR		1.4		39	20	1				20	1	40		1.4		RECEPT- EXAM
RECEPT- MAMO/WAIT			1.4	41	20	1				20	1	42			1.4	RECEPT- EXAM
TOTALS:	9.8	9.8	9.8				19.6	19.6	19.6				9.8	9.8	9.8	

* VERIFY AIC RATINGS OF EXISTING EQUIPMENT. NOTIFY ENGINEER IF MINIMUM AIC REQUIREMENT AS INDICATED IS NOT MET.

L PANEL SCHEDULE

208/120 VOLT, 3 PHASE, 4 WIRE
225 AMP MLO
SURFACE MOUNTED
42 CKT
NEMA 1

TOTAL CONNECTED KVA 67.7
TOTAL DEMAND KVA 74.0
AVAILABLE FAULT DUTY 42K * AIR SERIES RATING
REMARKS: EXISTING CHALLENGER PANEL
REMOVE ALL EXISTING CIRCUITRY. PANEL AND BREAKERS WITH REQUIRED OCP AND AIC RATINGS MAY BE REUSED.

DESC	KVA A	B	C	CK #	BRKR A	P	PHASE TOTAL A	B	C	BRKR A	P	CK #	KVA A	B	C	DESC
LTS- MEZ.ELECT RM.	1.5			1	20	1				20	1	2	1.5			LTS- TEL/EXAM/STOR/RECP
LTS- GANG TOILETS		1.5		3	20	1				20	1	4		1.5		LTS- RECEPTION
LTS- OFFICES			1.5	5	20	1				20	1	6			1.5	LTS- OFF/WAIT/TOILET
SPARE	1.5			7	20	1				20	1	8	1.5			LTS- OFF/WORK/RELEASE
SPARE		1.5		9	20	1				20	1	10		1.5		LTS- LOBBY COVE
SPARE			1.5	11	20	1				20	1	12			1.5	LTS- SPARE
LTS- EXAM/TOILET/ADMIN	1.5			13	20	1				20	1	14	1.5			LTS- PHARMACY
LTS- EXAM/OFFICE/STORAGE		1.5		15	20	1				20	1	16		1.5		LTS- PHARMACY
LTS- SPARE			1.5	17	20	1				20	1	18			1.5	LTS- LOBBY
LTS- EXAM	1.5			19	20	1				20	1	20	1.5			LTS- LOBBY CHAND/COVE
LTS- NURSE STATION		1.5		21	20	1				30	2	22		2.3		LTS- CANOPY
LTS- TOILET/STORAGE			1.5	23	20	1				–	–	24			2.3	LTS- CANOPY
LTS- EXAM/	1.5			25	20	1				30	2	26	2.3			LTS- CANOPY
LTS- ULTRASOUND		1.5		27	20	1				–	–	28		2.3		LTS- CANOPY
LTS- SPARE			1.5	29	20	1				20	1	30			1.5	LTS- MRI
LTS- XRAY/TOILET	1.5			31	20	1				20	1	32	1.5			LTS- PHASE 2
LTS- C/T		1.5		33	20	1				20	1	34		1.5		LTS- PHASE 2
LTS- SPARE			1.5	35	20	1				20	1	36			1.5	LTS- PHASE 2
LTS- SIGN	1.5			37	20	1				20	1	38	1.5			LTS- PHASE 2
SPARE		1.5		39	20	1				20	1	40		1.5		LTS- PHASE 2
SPARE			1.5	41	20	1				20	1	42			1.5	LTS- PHASE 2
TOTALS:	10.5	10.5	10.5				21.8	24.1	21.8				11.3	13.8	11.3	

* VERIFY AIC RATINGS OF EXISTING EQUIPMENT. NOTIFY ENGINEER IF MINIMUM AIC REQUIREMENT AS INDICATED IS NOT MET.

M PANEL SCHEDULE

208/120 VOLT, 3 PHASE, 4 WIRE
225 AMP MLO
SURFACE MOUNTED
42 CKT
NEMA 1

TOTAL CONNECTED KVA 54.0
TOTAL DEMAND KVA 30.6
AVAILABLE FAULT DUTY 42K * AIR SERIES RATING
REMARKS: EXISTING CHALLENGER PANEL
REMOVE ALL EXISTING CIRCUITRY. PANEL AND BREAKERS WITH REQUIRED OCP AND AIC RATINGS MAY BE REUSED.

DESC	KVA A	B	C	CK #	BRKR A	P	PHASE TOTAL A	B	C	BRKR A	P	CK #	KVA A	B	C	DESC
EXTERIOR SCONCES	1.4			1	20	1				20	1	2	1.4			RECEPT- OFFICE
TREADMILL		1.4		3	20	2				20	1	4		1.4		RECEPT- OFFICE
–			1.4	5	–	–				20	1	6			1.4	RECEPT- OFFICE/CORR/BRAK
EHW- EXISTING	2.3			7	30	2				20	1	8	1.4			RECEPT- BREAK
–		2.3		9	–	–				20	1	10		1.4		RECEPT- BREAK
RECEPT- NURSE STATION			1.4	11	20	1				20	1	12			1.4	RECEPT- BREAK
RECEPT- PHARMACY	1.4			13	20	1				20	1	14	1.4			RECEPT- PHARMACY
RECEPT- PHARMACY		1.4		15	20	1				20	1	16		1.4		RECEPT- BILLING
RECEPT- PHARMACY			1.4	17	20	1				20	1	18			1.4	RECEPT- SPARE
LAB	1.4			19	20	1				20	1	20	1.4			RECEPT- EXAM PHASE 2
LAB		1.4		21	20	1				20	1	22		1.4		RECEPT- EXAM PHASE 2
LAB			1.4	23	20	1				20	1	24			1.4	RECEPT- EXAM PHASE 2
RECEPT- PHYSICAL THERAPY	1.4			25	20	1				20	1	26	1.4			RECEPT- EXAM PHASE 2
EWH-1		2.3		27	30	3				20	1	28		1.4		RECEPT- EXAM PHASE 2
–			2.3	29	–	–				20	1	30			1.4	RECEPT- EXAM PHASE 2
SPARE	–			31	20	1				20	1	32	1.4			RECEPT- EXAM PHASE 2
SPARE		–		33	20	1				20	1	34		1.4		RECEPT- EXAM PHASE 2
SPARE			–	35	20	1				20	1	36			1.4	RECEPT- EXAM PHASE 2
SPARE	–			37	20	1				20	1	38	1.4			RECEPT- RECEPT PHASE 2
SPARE		–		39	20	1				20	1	40		1.4		RECEPT- RECEPT PHASE 2
SPARE			–	41	20	1				20	1	42			1.4	RECEPT- EXAM PHASE 2
TOTALS:	7.9	8.8	7.9				17.7	18.6	17.7				9.8	9.8	9.8	

* VERIFY AIC RATINGS OF EXISTING EQUIPMENT. NOTIFY ENGINEER IF MINIMUM AIC REQUIREMENT AS INDICATED IS NOT MET.

MINIMUM CONDUCTOR SIZES

(FURNISH IN ACCORDANCE WITH THIS SCHEDULE UNLESS OTHERWISE NOTED)
(ALL WIRES ARE TO BE COPPER, THHN, UNLESS OTHERWISE NOTED)

CIRCUIT PROTECTION	CURRENT CARRYING AND NUETRAL CONDUCTOR	GROUND CONDCUTOR
0-20A	#12	#12
21-30A	#10	#10
31-50A	#8	#10
51-70A	#4	#8
71-115A	#2	#6

EXISTING ELECTRICAL POWER RISER DIAGRAM

NORTH

Revisions		
No.	Date	DESCRIPTION
1	04/14/05	CD-R
2	04/29/05	CDF
3	-	-
4	-	-

EBS INC

PREPARED BY:
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REVISIONS

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SUBMITTALS

RENOVATION FOR:
EXPRESS CARE OF LEESBURG
PROJECT ADDRESS
LEESBURG, FLORIDA

DATE
DATE

JOB #
0473

E-4 8

LIGHTING FIXTURE SCHEDULE

TAG	DESCRIPTION	MFG	MODEL NUMBER	LAMP(S)	VOLT	NOTE	EQUAL MFG.
A	7" RECESSED HORIZONTAL DOWNLIGHT IRIDESCENCE FREE ALZAK ALUMINUM REFLECTOR	LIGHTOLIER	8037-CLW-7142B-U	(1) 42W CF	120	-	LITHONIA DAYBRITE
B	2-LAMP 2X4 LAY-IN TROFFER W/PRISMATIC LENS AND FLAT ALUMINUM DOOR	LIGHTOLIER	SPS2GFAV1232-SO	(2) 32W T8	120	-	LITHONIA DAYBRITE
B1	2-LAMP 2X4 LAY-IN TROFFER W/PRISMATIC LENS AND FLAT ALUMINUM DOOR PROVIDE EMERGENCY BALLAST	LIGHTOLIER	SPS2GFAV1232-SO-EM	(2) 32W T8	120	-	LITHONIA DAYBRITE
C	3-LAMP 2X4 LAY-IN TROFFER W/PRISMATIC LENS AND FLAT ALUMINUM DOOR	LIGHTOLIER	SPS2GFAV1332-03	(3) 32W T8	120	-	LITHONIA DAYBRITE
C1	3-LAMP 2X4 LAY-IN TROFFER W/PRISMATIC LENS AND FLAT ALUMINUM DOOR PROVIDE EMERGENCY BALLAST	LIGHTOLIER	SPS2GFAV1332-03-EM	(3) 32W T8	120	-	LITHONIA DAYBRITE
D	4-LAMP 2X4 LAY-IN TROFFER W/PRISMATIC LENS AND FLAT ALUMINUM DOOR	LIGHTOLIER	SPS2GFAV1432-03	(4) 32W T8	120	-	LITHONIA DAYBRITE
D1	4-LAMP 2X4 LAY-IN TROFFER W/PRISMATIC LENS AND FLAT ALUMINUM DOOR PROVIDE EMERGENCY BALLAST	LIGHTOLIER	SPS2GFAV1432-03-EM	(4) 32W T8	120	-	LITHONIA DAYBRITE
E	3-LAMP 2X4 RECESSED 3" DEEP PARABOLIC LOW IRIDESCENSE SEMI-SPECULAR ALUM. LOUVER.	LIGHTOLIER	DPS-2G18LS332-120-03	(3) 32W T8	120	-	LITHONIA DAYBRITE
E1	3-LAMP 2X4 RECESSED 3" DEEP PARABOLIC LOW IRIDESCENCE SEMI-SPECULAR ALUM. LOUVER. PROVIDE EMERGENCY BALLAST	LIGHTOLIER	DPS-2G18LS332-120-EM -03	(3) 32W T8	120	-	LITHONIA DAYBRITE
F	2-LAMP 6"x4' WALL/CEILING MOUNTED WITH PRISMATIC LENS. PROVIDE EMERGENCY BATTERY BACK-UP	LIGHTOLIER	LSW432120-SO	(2) 32W T8	120	-	LITHONIA DAYBRITE
F1	2-LAMP 6"x4' WALL/CEILING MOUNTED WITH PRISMATIC LENS. PROVIDE EMERGENCY BATTERY BACK-UP	LIGHTOLIER	LSW432120-SO-EM	(2) 32W T8	120	-	LITHONIA DAYBRITE
G	3' UNDER CABINET TASK LIGHT WITH WRAPPED PRISMATIC LENS.	LIGHTOLIER	TCU30120SO	(1) 25W T8	120	1	LITHONIA DAYBRITE
H	4' UNDER CABINET TASK LIGHT WITH WRAPPED PRISMATIC LENS.	LIGHTOLIER	TCU40120SO	(1) 32W T8	120	1	LITHONIA DAYBRITE
I	NOT USED	-	-	-	-	-	-
J	4' 2-LAMP WALL UP-DOWN FLUORESCENT WITH ACRYLIC DIFFUSER MOUNTED 2" ABOVE MIRROR	LIGHTOLIER	5404P-CU	(2) 32W T8	120	-	LITHONIA DAYBRITE
K	WALL MOUNTED 2" OVER MIRROR SATIN NICKEL FINISH UP/DOWN	LIGHTOLIER	4951SN	(1) 150W T3 HALOGEN	120	-	LITHONIA DAYBRITE
L	3" LENSED DOWNLIGHT WITH CLEAR HIGH TEMP LENS	LIGHTOLIER	C3MRGD-C3LVE1	(1) 50W T8	120	-	LITHONIA DAYBRITE
M	4.5" INCANDESCENT DOWNLIGHT WITH MULTI-GROOVE BAFFLE	LIGHTOLIER	7053-MG-A400	(1) 100W A19 FROSTED	120	-	LITHONIA DAYBRITE
N	3-LAMP 2X2 RECESSED 3" DEEP PARABOLIC LOW IRIDESCENCE SEMI-SPECULAR ALUM. LOUVER.	LIGHTOLIER	DPS-2G9LP317-120-SO	(3) 17W T8	120	-	LITHONIA DAYBRITE
N1	3-LAMP 2X2 RECESSED 3" DEEP PARABOLIC LOW IRIDESCENCE SEMI-SPECULAR ALUM. LOUVER. PROVIDE EMERGENCY BALLAST	LIGHTOLIER	DPS-2G9LP317-120-SO -EM	(3) 17W T8	120	-	LITHONIA DAYBRITE
O	NOT USED	-	-	-	-	-	-
P	INCAND. NON-FERROUS MR1 DOWNLIGHT WITH BLACK STEP MULTI-GROOVE BAFFLE	PEACHTREE	PMR1-7150-B	(1) 150W A-21	120	-	LITHONIA DAYBRITE
Q	PENDANT MOUNTED WHITE SHADE WITH ENCLOSED LAMP ON COAXIAL CABLE	LIGHTOLIER	42230AL-86130AL-56361	(1) 35W T-4 HALOGEN	120	3	LITHONIA DAYBRITE
R	1-LAMP SURFACE MOUNT STAGGERED STRIP WITH INTERNAL FUSING	LIGHTOLIER	SS(x)1(x)120-SO-GLR	(1) 32W T-8	120	2	LITHONIA DAYBRITE
S	3-LAMP 2X2 LAY-IN TROFFER W/PRISMATIC LENS AND FLAT ALUMINUM DOOR	LIGHTOLIER	SPS2GFAV1317-03	(3) 17W T8	120	-	LITHONIA DAYBRITE
S1	3-LAMP 2X2 LAY-IN TROFFER W/PRISMATIC LENS AND FLAT ALUMINUM DOOR PROVIDE EMERGENCY BALLAST	LIGHTOLIER	SPS2GFAV1317-03-EM	(3) 17W T8	120	-	LITHONIA DAYBRITE
T	CHANDELIER:PROVIDE 200 LB. BACK BOX SUPPORT.	-	$750.00 ALLOWANCE	- -	120	-	LITHONIA DAYBRITE
U	EXTERIOR SURFACE MOUNTED CANOPY LUMINARE WHITE POWDERCOAT CORR. RESIST. HOUSING PRISM. REFRACTOR	EXCELINE	PF-400-MA-L-1	(1)400W MH	120	-	LITHONIA DAYBRITE
V	17" EXTERIOR SURFACE MOUNTED WHITE DIE CAST CERAMIC COATED GLASS FULL GASKETES WET LABEL	LIGHTOLIER	4533WHH1	(2) 26W CF	120	-	LITHONIA DAYBRITE
W	12" EXTERIOR SURFACE MOUNTED WHITE DIE CAST CERAMIC COATED GLASS FULL GASKETES WET LABEL	LIGHTOLIER	4532WHN1	(2) 13W CF	120	-	LITHONIA DAYBRITE
EX	SINGLE FACE UNIVERSAL MOUNT/ARROWS BRUSHED ALUMINUM, GREEN LETTERS WITH BACK-UP BATTERY	LIGHTOLIER	LD-N-1-G-N	FURNISHED	120	-	LITHONIA CHLORIDE
EX2	DOUBLE FACE UNIVERSAL MOUNT/ARROWS BRUSHED ALUMINUM, GREEN LETTERS WITH BACK-UP BATTERY	LIGHTOLIER	LD-N-2-G-N	FURNISHED	120	-	LITHONIA CHLORIDE
EM	SELF CONTAINED SURFACE DUAL EMERGENCY LIGHT WITH INTERGAL TEST MODULE	LIGHTOLIER	E5-W	FURNISHED	120	-	CHLORIDE LITHONIA

LIGHT FIXTURE NOTES - SPECIFIC

1. PROVIDE MINIMUM 0.125" SPACING FOR AIR GAP BETWEEN FIXTURE AND MILLWORK FOR HEAT DISSIPATION. DO NOT MOUNT DIRECTLY TO THE UNDERSIDE OF CABINETRY.
2. PROVIDE FIXTURE IN LENGTHS TO ACCOMODATE END TO END MOUNTING WITH MAXIMUM 6" SPACE AT INTERSECTIONS. COORDINATE WITH ARCHITECTURAL COVE.
3. MOUNT FIXTURE 60" ABOVE COUNTER.

LIGHT FIXTURE NOTES - GENERAL

1. ALL FLUORESCENT FIXTURES SHALL BE PROVIDED WITH ELECTRONIC BALLAST UNLESS OTHERWISE NOTED.
2. ALL LINEAR FLUORESCENT LAMPS SHALL BE T-8 OCTRON W/3500K WITH MINIMUM 82 CRI RATING UNLESS OTHERWISE NOTED.
3. ALL COMPACT FLUORESCENT LAMPS SHALL BE 4-PIN, 3500/K WITH MINIMUM 82 CRI RATING UNLESS OTHERWISE NOTED.
4. ALL INCANDESCENT FILAMENT LAMPS SHALL BE RATED 130 VOLT UNLESS OTHERWISE NOTED.
5. COORDINATE THE AIMING OF ALL ACCENT FIXTURES WITH ENGINEER PRIOR TO INSTALLATION.
6. IN ORDER FOR ANY FIXTURE TO BE CONSIDERED 'EQUAL' TO THAT WHICH IS SPECIFIED, THE FIXTURE AND ALL COMMONEST MUST BE MANUFACTURED IN TYPE, SIZE, COLOR, FUNCTION, DIMENSIONS, ETC.. THE SAME OR SUPERIOR TO THAT WHICH IS SPECIFIED, AND AT THE ENGINEERS REQUEST, A SAMPLE OF THE FIXTURE SHALL BE SUBMITTED PRIOR TO APPROVAL.
7. DIVISION 16 CONTRACTOR SHALL BE RESPONSIBLE TO COORDINATE CEILING TYPES WITH CEILING CONTRACTOR PRIOR TO ORDERING OF FIXTURES.
8. ALL FLUORESCENT FIXTURES EXPOSED TO OUTSIDE AMBIENT AIR TEMPERATURES SHALL BE EQUIPPED WITH 0° (COLD WEATHER) BALLAST UNLESS OTHERWISE NOTED.
9. ALL LIGHTING CALCULATIONS HAVE BEEN BASED ON SPECIFIED FIXTURES EQUIPPED WITH OSRAM/SYLVANIA LAMPS. PROVIDE THE QUICKTRONIC FLUORESCENT SYSTEM WITH WARRANTY OR EQUAL.
10. FLUORESCENT BATTERY INVERTERS SHALL BE RATED 1100 LUMENS.
11. ALL NON IC RATED FIXTURES SHALL BE INSTALLED PER NEC 410.66. PROVIDE A PHYSICAL PROTECTIVE BARRIER ACCEPTABLE TO THE AUTHORITY HAVING JURISDICTION WHERE INSULATION IS INSTALLED ABOVE OR INFRINGES ON THE 3" CLEARANCE AS DESCRIBED BY CODE. ALL INSTALLATIONS SHALL BE PER MFG RECOMMENDATIONS.
12. ALL LIGHT FIXTURES INSTALLED IN FIRE RATED CEILINGS SHALL MEET ALL CODE REQUIREMENTS AND WILL BE THE RESPONSIBILITY OF THE DIVISION 16 ELECTRICAL CONTRACTOR.

MECHANICAL ELECTRICAL CONNECTION SCHEDULE

SYSTEM DESIGNATION	(EXISTING) PRTU-1	(EXISTING) PRTU-2	(EXISTING) PRTU-3	(EXISTING) PRTU-4	(EXISTING) AHU-5 CU-5	(NEW) AHU-6 CU-6	(NEW) AHU-6 CU-6	(NEW) AHU-7 CU-7	(NEW) AHU-8 CU-8	(NEW) AHU-9 CU-9	(NEW) AHU-10 CU-10	(NEW) AHU-11 CU-11	(NEW) AHU-12 CU-12	(NEW) AHU-13 CU-13
SYSTEM AND AREA SERVED	LOBBY/ CANTINA	PHARMACY/ RECEPT/BOOKS	PHYSICAL THERAPY	BREAK/ OFFICES	EXAM PHASE II	EXAM PHASE I	EXAM PHASE I	IMAGING CENTER	WOMEN'S CENTER	X-RAY	CT SCAN	CONTROL ROOM	MRI	LAB
MATCHED SPLIT SYSTEM DESCRIPTION	10 TON SC	7.5 TON SC	7.5 TON SC	7.5 TON SC	10 TON SC	10 TON SC 7.5 KW SH	10 TON SC 7.5 KW SH	5 TON SC 5.76 KW SH	4 TON SC 5.76 KW SH	1 TON HP 0 KW SH	1 TON HP 0 KW SH	3 TON HP 0 KW SH	1 TON HP 0 KW SH	3 TON HP 0 KW SH
CONDENSING UNIT(S)														
VOLTAGE/PHASE	208/3	208/3	208/3	208/3	208/3	208/3	-	208/3	208/3	208/1	208/1	208/1	208/1	208/1
MCA	61	44	44	44	69.6	48.1	-	28.0	19.0	7.6	7.6	-	7.6	-
RECOMMENDED OCP	70	50	50	50	100	60	-	40	30	20	20	-	20	-
DISCONNECT SIZE/TYPE	EXISTING	EXISTING	EXISTING	EXISTING	EXISTING	250/3/60 N3R/HD/F	-	250/3/60 N3R/HD/F	250/3/30 N3R/HD/F	250/2/30 N3R/HD/F	250/2/30 N3R/HD/F	250/2/30 N3R/HD/F	250/2/30 N3R/HD/F	250/2/30 N3R/HD/F
CONDUCTOR/CONDUIT	EXISTING	EXISTING	EXISTING	EXISTING	EXISTING	(3)#6+GRD IN 1.0"C	-	(3)#8+GRD IN 0.75"C	(3)#10+GRD IN 0.5"C	(2)#12+GRD IN 0.5"C	(2)#12+GRD IN 0.5"C	(2)#12+GRD IN 0.5"C	(2)#12+GRD IN 0.5"C	(2)#12+GRD IN 0.5"C
CIRCUIT NUMBER	EXISTING	EXISTING	EXISTING	EXISTING	EXISTING	M1-7:9:11	-	M1-17:19:21	M1-27:29:31	M1-2:4	M1-6:8	M1-10:12	M1-14:16	M1-18:20
	MDPX-4	MDPX-5	MDPX-6	MDPX-7	MDPX-8									
AIR HANDLING UNIT	EXISTING	EXISTING	EXISTING	EXISTING	EXISTING									
BLOWER HORSEPOWER						-	2.00	0.5	0.5	-	-	-	-	-
VOLTAGE/PHASE					208/3	208/3	208/3	208/1	208/1	-	-	-	-	-
MCA					87.5	20.8	7.5	39.0	39.0	-	-	-	-	-
RECOMMENDED OCP					90	30	20	40	40	-	-	-	-	-
CFM						-	4000	-	-					
ELECTRIC RESISTANCE HEAT														
KW					20	7.5	-	5.76	5.76	-	-	-	-	-
VOLTAGE/PHASE					208/3	208/3	-	208/1	208/1	-	-	-	-	-
DISCONNECT SIZE/TYPE					EXISTING	250/3/30 NEMA1/HD/F	250/3/30 NEMA1/HD/F	250/2/60 NEMA1/HD/F	250/2/60 NEMA1/HD/F	CORD/PLUG RATED SWITCH	CORD/PLUG RATED SWITCH	CORD/PLUG RATED SWITCH	CORD/PLUG RATED SWITCH	CORD/PLUG RATED SWITCH
CONDUCTOR/CONDUIT					EXISTING	(3)#10+GRD IN 0.5"C.	(3)#10+GRD IN 0.5"C.	(2)#10+GRD IN 0.5"C.	(2)#10+GRD IN 0.5"C.	(2)#12+GRD IN 0.5"C.	(2)#12+GRD IN 0.5"C.	(2)#12+GRD IN 0.5"C.	(2)#12+GRD IN 0.5"C.	(2)#12+GRD IN 0.5"C.
					EXISTING									
CIRCUIT NUMBER					MDPX-9	M1-1:3:5	EDP-4 OR	M1-13:15	M1-23:25	FROM CU	FROM CU	FROM CU	FROM CU	FROM CU

NOTES:

1. VERIFY ACTUAL INSTALLED EQUIPMENT NAME PLATE RATINGS PRIOR TO ANY WORK.
2. FUSES INSTALLED IN DISCONNECT SWITCHES SHALL BE PER SIZED PER MANUFACTURES RECOMMENDATION.
3. ALL EXISTING UNITS TO USE EXISTING FEEDERS AND OCP. PROVIDE RECEPTACLE AND LIGHT AT EQUIPMENT LOCATION.

REVISIONS

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SUBMITTALS

RENOVATION FOR:
EXPRESS CARE OF LEESBURG
PROJECT ADDRESS
LEESBURG, FLORIDA

DATE
DATE

JOB #
0473

E-5 8

ELECTRICAL SCHEDULES AND NOTES

NORTH

Revisions		
No.	Date	DESCRIPTION
1	04/14/06	CD-R
2	04/28/06	CDF
3	.	.
4	.	.

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GENERAL ELECTRICAL NOTES

GENERAL:
ELECTRICAL CONTRACTOR SHALL COMPLETELY FAMILIARIZE HIMSELF WITH ALL CONDITIONS AFFECTING HIS WORK INCLUDING VISIT TO THE SITE BEFORE PREPARING HIS PROPOSAL. ALL WORK IS TO BE PERFORMED IN ACCORDANCE WITH ALL APPLICABLE CODES AND STANDARDS ISSUED BY ALL AUTHORITIES HAVING JURISDICTION OVER THE WORK. WHERE CONFLICT EXISTS BETWEEN THE APPLICABLE CODES AND STANDARDS OR THE PLANS AND SPECIFICATIONS, THE MOST STRINGENT AS DETERMINED BY THE ENGINEER WILL APPLY. CONTRACTOR SHALL NOTIFY ENGINEER OF CONFLICTING CONDITIONS AFFECTING HIS WORK AND ADVISE ENGINEER FOR CLARIFICATION. LOCAL CODES IN EFFECT FOR THIS PROJECT INCLUDE BUT ARE NOT LIMITED TO THE MOST RECENT EDITIONS OF:

FLORIDA STANDARD BUILDING CODE
FLORIDA STANDARD MECHANICAL CODE
FLORIDA STANDARD PLUMBING CODE
FLORIDA STANDARD GAS CODE
NFPA 90, 90A, 90B
NFPA 70 "NATIONAL ELECTRIC CODE"

ELECTRICAL CONTRACTOR WILL FURNISH AND INSTALL ALL CONDUIT, RACEWAYS, WIRE, CABLE, WIRING DEVICES, SWITCHES, BOXES, CABINETS, ENCLOSURES, SUPPORTING DEVICES, TRANSFORMERS, SWITCHGEAR, SWITCHBOARDS, PANELBOARDS, CIRCUIT BREAKERS, FUSES, MOTOR CONTROLLERS, LUMINAIRES, SITE LIGHTING, THEATRICAL LIGHTING, POWER SUPPLIES, SERVICE ENTRANCES, LIGHTNING PROTECTION, SURGE PROTECTION, FIRE ALARM SYSTEMS, INTERCOM SYSTEMS, PA SYSTEMS, MUSIC SYSTEMS, TELEVISION SYSTEMS, HEAT TRACING, ELECTRIC RELAYS, ELECTRIC CONTROLS, AND ALL OTHER ELECTRICAL ITEMS WHERE SHOWN ON THE DRAWINGS AND/OR OTHERWISE SPECIFIED OR AS NEEDED FOR A COMPLETE, PROPER AND FUNCTIONAL SYSTEM.

ALL MATERIALS INCORPORATED INTO THE ELECTRICAL SYSTEMS TO BE NEW WITH UL LABEL AND OF DOMESTIC MANUFACTURE UNLESS OTHERWISE NOTED OR SPECIFIED BY BRAND NAME.

ROUTE WIRE AND CABLE AS REQUIRED TO MEET PROJECT CONDITIONS. WIRE AND CABLE ROUTING IS APPROXIMATE UNLESS DIMENSIONED. LOCATIONS OF ELECTRICAL EQUIPMENT AND DEVICES ON DRAWINGS ARE APPROXIMATED AND TO BE COORDINATED IN FIELD BY CONTRACTOR. CONTRACTOR TO ALLOW FOR OWNER, ARCHITECT, OR ENGINEER TO RELOCATE ANY RECEPTACLE OR 20A RATED SWITCH WITHIN ROOM PRIOR TO OR DURING ROUGH IN WITHOUT ADDITIONAL COST TO OWNER.

CONTRACTOR TO COORDINATE WITH LOCAL UTILITY COMPANY AS REQUIRED FOR INSTALLATION OF SERVICE ENTRANCE AND PROVIDE PADS, ACCESSORY ENCLOSURES, METER BOXES, CONDUIT, RACEWAY, AND OTHER ELECTRICAL ITEMS AS REQUIRED BY LOCAL UTILITY.

SUBMITTALS AND SHOP DRAWINGS:
CONTRACTOR TO PREPARE SUBMITTALS AND SHOP DRAWINGS FOR ALL ELECTRICAL WORK AS REQUIRED BY THE CONSTRUCTION DOCUMENTS INTO SINGLE COMPLETE PACKAGE FOR ENGINEERS REVIEW. PACKAGE TO BE IN THREE RING BINDER WITH ALL SHOP DRAWINGS ATTACHED. BINDER AND DRAWINGS TO CLEARLY STATE PROJECT NAME, PROJECT ARCHITECT, PROJECT ENGINEER, PROJECT OWNER, CONTRACTOR NAME, AND SITE ADDRESS. INCOMPLETE SUBMITTAL PACKAGES WILL BE AVAILABLE AT THE ENGINEERS OFFICE FOR CONTRACTOR PICK-UP AND COMPLETION BEFORE ANY REVIEW BY THE ENGINEER OTHER THAN CURSORY REVIEW AS REQUIRED TO DETERMINE COMPLETENESS OF SUBMITTAL PACKAGE.

COORDINATION OF WORK:
ENGINEERS DRAWINGS AND CONSTRUCTION DOCUMENTS ARE DIAGRAMMATIC. CONTRACTOR OF WORK THIS TRADE TO COORDINATE WITH ALL WORK OF CONTRACTORS OF OTHER TRADES AND GENERAL CONTRACTOR. CONTRACTORS TO FIELD MEASURE PRIOR TO FABRICATION OF ANY WORK. CONTRACTOR OF WORK OF THIS TRADE TO COMMUNICATE WITH GENERAL CONTRACTOR AND CONTRACTORS OF OTHER TRADES AND PREPARE DRAWINGS, SKETCHES, AND PROVIDE INFORMATION AS NEEDED TO COMMUNICATE WITH OTHER TRADES FOR CONSTRUCTION OF COMPLETE AND OPERATING SYSTEM WITHOUT ADDITIONAL COST TO OWNER. PRIOR TO BEGINNING WORK OF THIS TRADE, CONTRACTOR OF THIS TRADE TO CONVENE COORDINATION MEETING WITH OTHER AFFECTED CONTRACTORS OF OTHER TRADES AND GENERAL CONTRACTOR FOR PURPOSES OF COORDINATION. CONTRACTORS' FAILURES TO COORDINATE WILL NOT BE CAUSE FOR RECOVERY OF ADDITIONAL COMPENSATION FOR CORRECTION OR MODIFICATION WORK WHICH IN THE SOLE OPINION OF THE ENGINEER IS NOT WELL COORDINATED.

CONDUIT:
ALL CONDUCTORS TO BE INSTALLED IN CONDUIT. WHERE CONDUIT IS BURIED IN EARTH UNDER SLAB USE THINWALL NONMETALIC CONDUIT WITH THICKWALL NONMETALIC FITTINGS. FOR SWEEPS FROM BELOW EARTH PENETRATING SLAB USE INTERMEDIATE METAL CONDUIT COATED WITH TWO APPLICATIONS OF HEAVY FIBRATED COAL TAR MASTIC. WHERE CONDUIT IS INSTALLED IN OUTDOOR LOCATIONS ABOVE GRADE, SLAB ABOVE GRADE, WET, OR DAMP LOCATIONS USE INTERMEDIATE METAL CONDUIT. WHERE CONDUIT IS IN DRY CONCEALED OR EXPOSED LOCATIONS USE ELECTRICAL METAL TUBING WITH COMPRESSION FITTINGS. FITTINGS AND CONDUIT BODIES TO BE OF SAME MATERIAL AS ADJACENT CONDUIT. FLEXIBLE METAL CONDUIT TO BE OF INTERLOCKED STEEL CONSTRUCTION. LIQUID TIGHT FLEXIBLE METAL CONDUIT TO BE OF STEEL CONSTRUCTION WITH PVC JACKET.

CONDUCTOR:
ALL CONDUCTORS UNLESS SPECIFICALLY NOTED OTHERWISE ARE TO BE COPPER. ALL CONDUCTOR INSULATION TO BE 600 VOLT RATED THWN/THHN UNLESS OTHERWISE SPECIFICALLY NOTED. MINIMUM CONDUCTOR SIZE IS TO BE #12 AWG.

BOXES CABINETS AND ENCLOSURES:
ALL BOXES TO BE GALVANIZED METAL. BOXES IN DRY INDOOR LOCATIONS TO BE SHEET METAL. BOXES IN OUTDOOR, DAMP, OR WET LOCATIONS TO BE CAST BOXES. FLOOR BOXES TO BE FULLY ADJUSTABLE, CAST, ROUND, 1-1/2 INCH DEEP WITH FLOOR TRIM TO ACCOMMODATE ADJACENT FLOOR FINISH.

ALL CABINETS AND ENCLOSURES TO BE STEEL CONSTRUCTION WITH METAL MOUNTING PANEL. FINISH TO BE MANUFACTURER'S STANDARD ENAMEL FINISH. WHERE HINGED ENCLOSURE IS REQUIRED USE CONTINUOUS HINGES WITH LOCKING MEANS.

WIRING DEVICES:
ALL RECEPTACLES, WALL SWITCHES, AND WALL DIMMERS TO HAVE A CURRENT RATING OF NOT LESS THAN THEIR BRANCH CIRCUIT WITH A MINIMUM OF 20 AMP RATING. VOLTAGE RATING TO BE NOT LESS THAN BRANCH CIRCUIT VOLTAGE. COLOR TO BE AS SELECTED BY OWNER. WALL PLATES TO BE SMOOTH STAINLESS STEEL UNLESS PLASTIC NYLON COLOR IS SELECTED BY OWNER.

MOUNTING HEIGHTS OF ALL WALL SWITCHES AND RECEPTACLES TO BE COORDINATED WITH MILLWORK SHOP DRAWINGS, FURNITURE LOCATIONS, AND/OR INTERIOR ELEVATIONS. WHERE COORDINATION WITH THESE ITEMS IS NOT REQUIRED, MOUNT WALL RECEPTACLES ADJACENT TO FLOOR 12" AFF TO CENTERLINE OF RECEPTACLE; MOUNT WALL RECEPTACLES IN GARAGES 48" AFF TO CENTERLINE OF RECEPTACLE; MOUNT WALL RECEPTACLES IN BASEMENT, LAUNDRY, AND UTILITY ROOMS 42" AFF; MOUNT WALL RECEPTACLES IN KITCHEN AND AT COUNTERTOPS 48" AFF TO CENTERLINE OF RECEPTACLE; AND MOUNT WALL SWITCHES 48" AFF TO CENTERLINE OF WALL SWITCH.

DISTRIBUTION SWITCHBOARDS AND PANELBOARDS AND ENCLOSED SWITCHES:
DISTRIBUTION SWITCHBOARDS AND PANELBOARDS TO BE AS NOTED ON THE DRAWINGS. MANUFACTURER TO BE SQUARE "D", SIEMENS, OR CUTLER HAMMER. PANELBOARDS AND SWITCHBOARDS TO HAVE COPPER BUSS.

ENCLOSED SWITCHES TO BE HEAVY DUTY FUSED WITH ENCLOSURE TYPE COMPATIBLE WITH LOCATION AS MANUFACTURED BY SQUARE D, SIEMENS, OR CUTLER HAMMER. INSTALL FUSES IN SWITCHES.

LUMINAIRES:
LUMINAIRES TO BE AS SCHEDULED ON THE DRAWINGS WITH LAMPS. UPON COMPLETION OF THE PROJECT REPLACE ALL FAILED LAMPS AND BALLASTS.

INSTALLATION:
ALL WORK IS TO BE PERFORMED IN ACCORDANCE WITH NECA "STANDARD OF INSTALLATION" AND IN ACCORDANCE WITH THE MANUFACTURER'S WRITTEN INSTRUCTIONS AND RECOMMENDATIONS. CONDUIT TO BE ROUTED PARALLEL AND PERPENDICULAR TO WALLS EXCEPT UNDER SLAB WHERE ROUTING IS TO BE FROM POINT TO POINT. INSTALL NO MORE THAN THE EQUIVALENT OF THREE 90 DEGREE BENDS BETWEEN BOXES IN CONDUIT RUNS.

CONDUCTORS TO BE PULLED INTO RACEWAY AT THE SAME TIME USING SUITABLE WIRE PULLING LUBRICANT FOR WIRE SIZES GREATER THAN 4 AWG. CLEAN CONDUCTOR SURFACES BEFORE INSTALLING LUGS AND CONNECTORS AND MAKE TERMINATION TO CARRY FULL CURRENT RATING OF CIRCUIT WITH NO PERCEPTIBLE TEMPERATURE RISE.

INSTALL SWITCHBOARDS, PANELBOARDS, AND ENCLOSURES PLUMB AND LEVEL. PROVIDE FIVE SPARE 1" CONDUITS FROM EACH RECESSED PANELBOARD TO AN ACCESSIBLE LOCATION ABOVE THE CEILING AND LABEL AS SPARE.

PROVIDE SEPARATE, INSULATED EQUIPMENT GROUNDING CONDUCTOR WITHIN EACH FEEDER AND BRANCH CIRCUIT RACEWAY TERMINATED ON EACH END WITH A SUITABLE LUG, BUS, OR BUSHING.

CLEAN CONDUCTOR SURFACES BEFORE INSTALLING LUGS AND CONNECTORS.

INSTALL LUMINAIRES STRAIGHT, PLUMB, AND TRUE IN ACCORDANCE WITH THE MANUFACTURER'S WRITTEN INSTRUCTIONS. USE CLIPS FOR RECESSED LUMINAIRES IN GRID CEILINGS. LUMINAIRES LARGER THAN 2'X4' RECESSED IN SUSPENDED CEILINGS TO BE SUSPENDED INDEPENDENT OF THE CEILING GRID. AIM AND ADJUST LUMINAIRES AS INDICATED OR DIRECTED.

INSPECTION, TESTING, IDENTIFICATION AND CLEANING:
INSPECT EACH ELECTRICAL DEVICE FOR DEFECTS IN MANUFACTURE AND OPERATE EACH SWITCHING DEVICE WITH CIRCUIT ENERGIZED TO VERIFY PROPER OPERATION. VERIFY THAT EACH RECEPTACLE DEVICE IS ENERGIZED WITH PROPER POLARITY. PERFORM GFCI TEST FOR EACH GFCI RECEPTACLE OR CIRCUIT BREAKER. CHECK EACH LUMINAIRE FOR PROPER OPERATION FOR A PERIOD OF TWO HOURS.

IDENTIFY EACH ELECTRICAL DISTRIBUTION AND CONTROL EQUIPMENT ENCLOSURE WITH ENGRAVED THREE LAYER LAMINATED PLASTIC NAMEPLATE WITH WHITE 1/4" LETTERS ON RED BACKGROUND. IDENTIFY FEEDER CIRCUITS ON DISTRIBUTION SWITCHBOARDS WITH SIMILAR LABEL.

PROVIDE TYPED CIRCUIT DIRECTORY FOR EACH BRANCH CIRCUIT PANELBOARD. REVISE DIRECTORY TO REFLECT CIRCUITING CHANGES REQUIRED TO BALANCE PHASE LOADS.

THOROUGHLY CLEAN ALL EXPOSED ELECTRICAL DEVICES, SWITCHES, SWITCHPLATES, RECEPTACLES, RECEPTACLE PLATES, LUMINAIRES, AND PHOTOMETRIC CONTROL SURFACES BEFORE TURNING WORK OVER TO THE OWNER.

ALLOWANCES:

CONTRACTOR SHALL INCLUDE IN HIS BASE BID PROPOSAL FURNISHING AND INSTALLING THE FOLLOWING ITEMS AT LOCATIONS AS DIRECTED BY THE ENGINEER AND WITHING FIVE FEET OF THE EXTERIOR BUILDING ENVELOPE OR EAVE OVERHANG:
1. SIXTEEN TWENTY AMP RECEPTACLE CIRCUITS WITH UP TO EIGHT 20 AMP DUPLEX RECEPTACLES.
2. TWO TWENTY AMP LIGHTING CIRCUITS WITH UP TO SIX SWITCHING LOCATIONS PER CIRCUIT INCLUDING INSTALLATION OF LIGHT FIXTURES ASSOCIATED WITH CIRCUITS AS FURNISHED AND SELECTED BY OTHERS.

WARRANTY:
CONTRACTOR TO WARRANTY ALL MATERIALS, WORKMANSHIP, AND SYSTEM PERFORMANCE FOR A PERIOD OF NOT LESS THAN TWO YEARS FROM TIME OF SUBSTANTIAL COMPLETION. WHERE MANUFACTURERS STANDARD WRITTEN WARRANTIES OR WARRANTY REQUIREMENTS STATED ELSEWHERE IN THE CONSTRUCTION DOCUMENTS ARE OF A PERIOD OF GREATER THAN TWO YEARS, CONTRACTOR OR MANUFACTURER ARE TO PROVIDE WARRANTY OF LONGER DURATION.

ABBREVIATIONS

G = GROUND FAULT	WP = WEATHER PROOF	EWC = ELECTRIC WATER COOLER
CLG = CEILING MOUNTED	FL = FLOOR MOUNTED	UT = UTILITY AREAS
WPG = WEATHERPROOF GFI	TP = TAMPER PROOF	H = HOSPITAL GRADE

NOTES:
1. ALL SYMBOLS MAY NOT APPEAR ON THIS SET OF CONSTRUCTION DOCUMENTS. HOWEVER, FUTURE ADDENDUM, CHANGE ORDERS, SUPPLEMENTAL INSTRUCTIONS, ETC...MAY CONTAIN SYMBOLS NOT ORIGINALLY USED.
2. ALL MEASUREMENTS ARE TO CENTER LINE OF DEVICE.
3. ALL RECEPTACLES MOUNTED VERTICALLY SHALL BE MOUNTED WITH THE GROUND CONTACT IN THE "UP" POSITION.
4. DEVICE WALL PLATES SHALL BE NYLON, IVORY, COMMERCIAL GRADE UNLESS OTHERWISE NOTED.
5. DEVICES SHALL BE MOUNTED IN THE VERTICAL POSITION UNLESS OTHERWISE NOTED.
6. RECEPTACLES LOCATED ON THE EXTERIOR SHALL BE MOUNTED HORIZONTAL WITH "IN-USE" COVER.
7. RECEPTACLES LOCATED ABOVE COUNTER TOPS SHALL BE MOUNTED VERTICAL, 2" ABOVE MILLWORK. COORDINATE WITH MILLWORK CONTRACTOR PRIOR TO ROUGH-IN.
8. FLUSH MOUNTED RECEPTACLES LOCATED IN UTILITY AREAS SHALL USE #302 S.S COVER AND TYPE CR20 DEVICE.
9. SURFACE MOUNTED RECEPTACLES LOCATED IN UTILITY AREAS SHALL USE INDUSTRIAL RS COVERS.

VOICE/DATA SYMBOL LEGEND

SYMBOL	DESCRIPTION	MOUNTING
▷	TELEPHONE OUTLET. STUB 3/4"C. W/90° BEND AND BUSHING INTO ACCESSIBLE CEILING ABOVE. PROVIDE PULL STRING.	18" AFF UNLESS OTHERWISE NOTED
▷W	TELEPHONE OUTLET. STUB 3/4"C. W/90° BEND AND BUSHING INTO ACCESSIBLE CEILING ABOVE. PROVIDE PULL STRING.	48" AFF UNLESS OTHERWISE NOTED
▷M	MODEM OUTLET. STUB 3/4"C. W/90° BEND AND BUSHING INTO ACCESSIBLE CEILING ABOVE. PROVIDE PULL STRING.	18" AFF UNLESS OTHERWISE NOTED
▶	TELE/FAX/DATA DUPLEX OUTLET. STUB (2) 3/4"C. W/90° BENDS AND BUSHINGS INTO ACCESSIBLE CEILING. PROVIDE PULL STRING.	18" AFF UNLESS OTHERWISE NOTED
▶	TELE/FAX/DATA/MODEM QUAD OUTLET. STUB (2) 1.0"C. W/90° BENDS AND BUSHINGS INTO ACCESSIBLE CEILING. PROVIDE PULL STRING AND 4-11/16" BACK BOX.	18" AFF UNLESS OTHERWISE NOTED
▷	CATV OUTLET. PROVIDE 3/4" C. TO COMM. CLOSET AND/OR PATCH PANEL.. SEE CABLE REQ'S. BELOW.	18" AFF UNLESS OTHERWISE NOTED
'TTB'	TELEPHONE TERMINAL BOARD: 4x8x3/4" EXTERIOR PLYWOOD WITH 2 COATS OF GRAY FIRE RETARDANT PAINT. PROVIDE #6 CU GROUND TO MAIN ELECTRICAL SERVICE GROUND W/6' SLACK @ BOARD.	REFER TO DRAWINGS

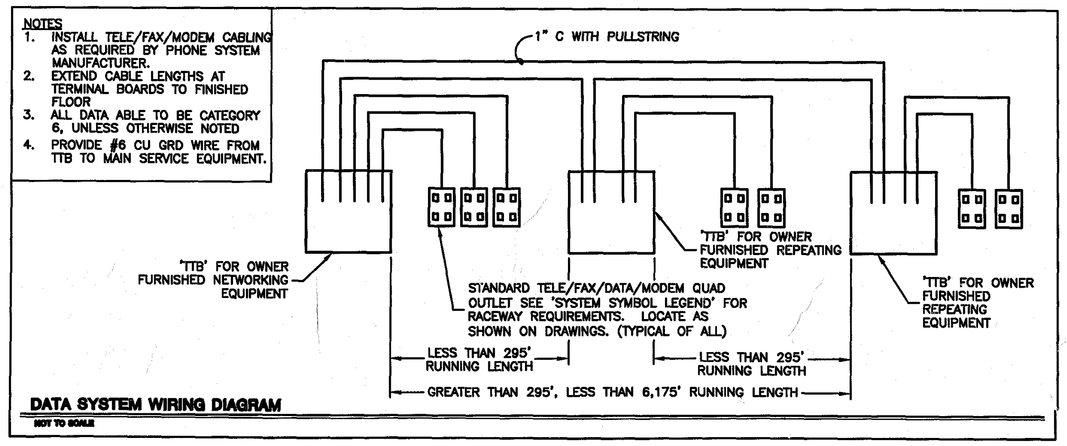
SYSTEM ABBREVIATIONS AND NOTES

W = WALL HUNG FL = FLOOR BOX
M = MODEM

NOTES:
1. ALL SYMBOLS MAY NOT APPEAR ON THIS SET OF CONSTRUCTION DOCUMENTS, HOWEVER, FUTURE ADDENDUM, CHANGE ORDERS, SUPPLEMENTAL INSTRUCTIONS, ETC...MAY CONTAIN SYMBOLS NOT ORIGINALLY USED.
2. ALL MEASUREMENTS ARE TO CENTER LINE OF DEVICE.
3. FLOOR BOX DESIGNATION 'FL' INDICATES FLUSH FLOOR BOX TO MATCH POWER OUTLET COMPLETE FLANGE AND COVER.
4. CABLE ASSOCIATED WITH CATV SHALL BE #6SSW 75 OHM DROP CABLECATV (ETL) AS MANUFACTURED BY COMMSCOPE OR EQUAL.
5. PROVIDE SURGE SUPPRESSION ON ALL LOW VOLTAGE CONDUCTORS ENTERING OR EXITINGTHE BUILDING, INCLUDING, BUT NOT LIMITED TO VOICE/DATA/CATV/CCTV.

ELECTRICAL SYMBOL LEGEND

SYMBOL	DESCRIPTION	MOUNTING
⊖	DUPLEX RECEPTACLE: 125 VOLT, 20 AMP, NEMA 5-20R	18" AFF
	LEVITON #CR-20-I	UNLESS OTHERWISE NOTED
⊖	SINGLE RECEPTACLE: 125 VOLT, 20 AMP, NEMA 5-20R	18" AFF
	LEVITON #5801-I	UNLESS OTHERWISE NOTED
⊖H	DUPLEX RECEPTACLE: HOSPITAL GRADE 125 VOLT, 20 AMP, NEMA 5-20R	18" AFF
	LEVITON #8300-I	UNLESS OTHERWISE NOTED
⊖CLG	DUPLEX RECEPTACLE: 125 VOLT, 20 AMP, NEMA 5-20R	CEILING
	LEVITON #CR20-I	SECURE TO STRUCTURE ABOVE
⊖	DUPLEX RECEPTACLE: 125 VOLT, 20 AMP, NEMA 5-20R	18" AFF
	SPLIT WIRED FOR FOR SWITCHED CONTROL LEVITON #CR20-I	UNLESS OTHERWISE NOTED
⊖TP	DUPLEX TAMPER PROOF RECEPTACLE: 125 VOLT, 20 AMP, NEMA 5-20R	18" AFF
	LEVITON #5262-SGI	UNLESS OTHERWISE NOTED
⊖G	DUPLEX GROUND FAULT RECEPTACLE: 125 VOLT, 20 AMP, NEMA 5-20R	COORDINATE W/ MILLWORK
	LEVITON #6899-I MOUNT48" OR 2" ABOVE COUNTER/BACKSPLASH	AS REQUIRED
⊖ +??"	DUPLEX RECEPTACLE: 125 VOLT, 20 AMP, NEMA 5-20R	2" ABOVE COUNTER/BACKSPLASH
	LEVITON #CR20-I. COORD. MTG. HT. WITH ARCH. ELEVATIONS	COORD. W/MILLWORK CONTR.
⊖WPG	DUPLEX GROUND FAULT RECEPTACLE: 125 VOLT, 20 AMP, NEMA 5-20R	26" AFG
	LEVITON #6899-I W/LEVITON #5997-CL IN-USE COVER. SEE NOTE 6 BELOW.	UNLESS OTHERWISE NOTED
⊡FL	DUPLEX FLOOR RECEPTACLE: 125 VOLT, 20 AMP, NEMA 5-20R	FLUSH
	WALKER #883 / LEVITON #CR20-I	SECURE TO STRUCTURE
⊖IG	DUPLEX ISOLATED GROUND RECEPTACLE: 125 VOLT, 20 AMP, NEMA 5-20R	18" AFF
	LEVITON #16362-IGG PROVIDE ISOLATED GROUND CONDUCTOR	UNLESS OTHERWISE NOTED
⊖⊖	(2) DUPLEX RECEPTACLES: 125 VOLT, 20 AMP, NEMA 5-20R	18" AFF
	(2) LEVITON #CR20-I	UNLESS OTHERWISE NOTED
⊖IG	(2) DUPLEX ISOLATED GROUND RECEPTACLES: 125 VOLT, 20 AMP	18" AFF
	NEMA 5-20R (2) LEVITON #16362-IGG	UNLESS OTHERWISE NOTED
⊖⊖ +??"	(2) DUPLEX RECEPTACLES: 125 VOLT, 20 AMP, NEMA 5-20R	2" ABOVE COUNTER/BACKSPLASH
	(2) LEVITON #CRR20-I. COORD. MTG HT. WITH ARCH. ELEVATIONS	COORD. W/MILLWORK CONTR.
⊖	DUPLEX RECEPTACLE ON CRITICAL BRANCH: 125 VOLT, 20 AMP, NEMA 5-20R	18" AFF
	LEVITON #8300-R	UNLESS OTHERWISE NOTED
J	JUNCTION BOX CONCEALED ABOVE CEILING OR FLUSH MOUNTED IN WALL.	18" AFF
	WHERE MOUNTED ABOVE CEILING SECURE TO STRUCTURE ABOVE.	UNLESS OTHERWISE NOTED
J	SURFACE MOUNTED OR GRADE MOUNTED JUNCTION BOX.	REFER TO DRAWINGS
	DISCONNECT SWITCH. REFER TO SPECIFIC EQUIPMENT SERVED FOR SIZE AND CHARACTERISTICS. EXTERIOR USE N3R.	REFER TO DRAWINGS AND EQUIPMENT SERVED.
	COMBINATION MOTOR STARTER/DISCONNECT SWITCH. REFER TO SPECIFIC EQUIPMENT SERVED FOR SIZE AND CHARACTERISTICS. EXTERIOR USE N3R	REFER TO DRAWINGS AND EQUIPMENT SERVED.
	MOTOR STARTER SWITCH. REFER TO SPECIFIC EQUIPMENT SERVED FOR SIZE AND CHARACTERISTICS. EXTERIOR USE N3R	REFER TO DRAWINGS AND EQUIPMENT SERVED.
	MOTOR CONNECTION. MAKE ALL NECESSARY WIRE TERMINATION FOR A COMPLETE CONNECTION.	REFER TO DRAWINGS
	120/208 VOLT PANEL. SEE PANEL SCHEDULE FOR TYPE.	REFER TO DRAWINGS
	277/480 VOLT PANEL. SEE PANEL SCHEDULE FOR TYPE.	REFER TO DRAWINGS
SOS	INFRARED OCCUPANCY SENSOR: WALL MOUNT	48" AFF
	LEVITON #6768	UNLESS OTHERWISE NOTED
GOS	ULTRASONIC OCCUPANCY SENSOR: CEILING MOUNT	CEILING
	LEVITON 6878-1W WITH # 6783-120 CONTROL UNIT.	
$	SINGLE POLE - SINGLE THROW TOGGLE SWITCH	48" AFF
	LEVITON #CS120-2I	UNLESS OTHERWISE NOTED
$2	DOUBLE POLE SINGLE THROW TOGGLE SWITCH	48" AFF
	LEVITON #CS220-2I	UNLESS OTHERWISE NOTED
$3	THREE WAY TOGGLE SWITCH	48" AFF
	LEVITON #CS320-2I	UNLESS OTHERWISE NOTED
$4	FOUR WAY TOGGLE SWITCH	48" AFF
	LEVITON #CS420-2I	UNLESS OTHERWISE NOTED
$K	SINGLE POLE LOCKING SWITCH: PROVIDE 2 ADDITIONAL KEYS TO OWNER	48" AFF
	LEVITON #1121-2L	UNLESS OTHERWISE NOTED
P	DIMMER SWITCH: PRE-SET W/LED LOCATOR. COLOR TO MATCH OTHER DEVICES.	48" AFF
	LEVITON "ILLUMATECH" SERIES OR EQUAL. 1000 WATT MINIMUM	UNLESS OTHERWISE NOTED
$M	MOTOR RATED SWITCH	PER CODE
	SQUARE "D" CLASS 2510 WITH ENCLOSURE	
○	INCANDESCENT OR COMPACT FLUORESCENT RECESSED DOWN LIGHT	CEILING
	FLUORESCENT SURFACE/RECESSED AS INDICATED ON FIXTURE SCHEDULE.	CEILING
	FLUORESCENT SURFACE/RECESSED AS INDICATED ON FIXTURE SCHEDULE.	CEILING
	FLUORESCENT SURFACE INDUSTRIAL AS INDICATED ON FIXTURE SCHEDULE.	CEILING
	INCANDESCENT OR COMPACT FLUORESCENT SURFACE MOUNTED.	CEILING
	INCANDESCENT OR COMPACT FLUORESCENT WALL MOUNTED.	WALL
	INCANDESCENT OR COMPACT FLUORESCENT WALL SCONCE.	WALL
	WALL/CEILING MOUNTED EMERGENCY LIGHT.	CEILING/WALL
	UNIVERSAL MOUNTED EXIT LIGHT. SHADING INDICATES FACE ORIENTATION. ARROW(S) INDICATE DIRECTION. PROVIDE BATTERY BACK-UP.	CEILING/WALL
(X)	CONDUIT CONCEALED IN WALL OR IN CEILING. SIZE PER NEC. ARROW INDICATES CIRCUIT NUMBER(S) TO CONTINUE. (X) INDICATES CIRCUIT NUMBERS	
	CONDUIT UNDERGROUND OR IN SLAB. SIZE PER NEC	
	# OF ARROWS INDICATES HOMERUN CIRCUIT TO DESIGNATED PANEL.	
	CONDUIT RUN EXPOSED ON WALL OR CEILING. SIZE PER NEC	



DATA SYSTEM WIRING DIAGRAM
NOT TO SCALE

ELECTRICAL SCHEDULES AND NOTES

Revisions		
No.	Date	DESCRIPTION
1	04/14/05	CD-R
2	04/28/05	CDF
3	.	.
4	.	.

PREPARED BY:
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NORTH

REVISIONS

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SUBMITTALS

RENOVATION FOR:
EXPRESS CARE OF LEESBURG
PROJECT ADDRESS
LEESBURG, FLORIDA

DATE
DATE
JOB #
0473

E-6 8

ELECTRICAL SPECIFICATION NOTES

SECTION 16400

ELECTRICAL

PART 1 - GENERAL

DESCRIPTION

WORK INCLUDED: PROVIDE COMPLETE ELECTRICAL, POWER, LIGHTING, SIGNAL, COMMUNICATION, AND LAN SERVICE WORK WHERE SHOWN ON THE DRAWINGS, AS SPECIFIED HEREIN, AND AS NEEDED FOR A COMPLETE AND PROPER INSTALLATION INCLUDING, BUT NOT NECESSARILY LIMITED TO :
- MAIN SWITCHBOARD, METERING FACILITIES, MAIN SWITCH, AND DISTRIBUTION BOARD OR BOARDS AS NEEDED;
- FEEDER SYSTEM, IN CONDUIT, TO BRANCH CIRCUITS PANELS;
- BRANCH CIRCUIT PANELS FOR POWER AND LIGHTING;
- BRANCH CIRCUIT WIRING, IN CONDUIT, FOR LIGHTING, RECEPTACLES, JUNCTIONS BOXES, AND MOTORS;
- TELEPHONE CONDUIT AND TERMINAL BOARDS;
- LAN CONDUIT AND TERMINAL BOARDS;
- INTERCOM SYSTEM
- HANGERS, ANCHORS, SLEEVES, CHASES, SUPPORTS FOR FIXTURES, AND OTHER ELECTRICAL MATERIALS AND EQUIPMENT IN ASSOCIATION THEREWITH;
- LIGHTING FIXTURES AND LAMPS;
- WIRING SYSTEM, IN CONDUIT, FOR EQUIPMENT AND CONTROLS PROVIDED UNDER OTHER SECTIONS OF THESE SPECIFICATIONS INCLUDING, BUT NOT NECESSARILY LIMITED TO, PLUMBING AND FIRE SPRINKLER SECTIONS;
- MOTOR STARTERS AND CONTROLS FOR MOTORS PROVIDED UNDER THE CONTRACT, BUT FOR WHICH MOTOR STARTERS AND CONTROLS ARE NOT OTHERWISE PROVIDED;
- OTHER ITEMS AND SERVICES REQUIRED TO COMPLETE THE SYSTEMS.
- FIRE ALARM SYSTEM.

RELATED WORK:
- DOCUMENTS AFFECTING WORK OF THIS SECTION INCLUDE, BUT ARE NOT NECESSARILY LIMITED TO, GENERAL CONDITIONS, SUPPLEMENTARY CONDITIONS, AND SECTIONS IN DIVISION 1 OF THESE SPECIFICATIONS.

QUALITY ASSURANCE

USE ADEQUATE NUMBERS OF SKILLED WORKMEN WHO ARE THOROUGHLY TRAINED AND EXPERIENCE IN THE NECESSARY CRAFTS AND WHO ARE COMPLETELY FAMILIAR WITH THE SPECIFIED REQUIREMENTS AND THE METHODS NEEDED FOR PROPER PERFORMANCE OF THE WORK OF THIS SECTION.

WITHOUT ADDITIONAL COST TO THE OWNER, PROVIDE SUCH OTHER LABOR AND MATERIALS AS ARE REQUIRED TO COMPLETE THE WORK OF THIS SECTION IN ACCORDANCE WITH THE REQUIREMENTS OF GOVERNMENTAL AGENCIES HAVING JURISDICTION, REGARDLESS OF WHETHER SUCH MATERIALS AND ASSOCIATED LABOR ARE CALLED FOR ELSEWHERE IN THESE CONTRACT DOCUMENTS.

SUBMITTALS

COMPLY WITH PERTINENT PROVISIONS OF THE GENERAL CONDITIONS.

PRODUCT DATA: WITHIN 35 CALENDAR DAYS AFTER THE CONTRACTOR HAS RECEIVED THE OWNER'S NOTICE TO PROCEED, SUBMIT:
- MATERIAL LIST OF ITEMS PROPOSED TO BE PROVIDED UNDER THIS SECTION;
- MANUFACTURER'S SPECIFICATIONS AND OTHER DATA NEEDED TO PROVE COMPLIANCE WITH THE SPECIFIED REQUIREMENTS;
- MANUFACTURER'S RECOMMENDED INSTALLATION PROCEDURES WHICH, WHEN APPROVED BY THE ARCHITECT, WILL BECOME THE BASIS FOR ACCEPTING OR REJECTING ACTUAL INSTALLATION PROCEDURES USED ON THE WORK.

SAMPLES:
- WHEN SO REQUESTED BY THE ARCHITECT, PROMPTLY PROVIDE SAMPLES OF THE ITEMS SCHEDULED TO BE EXPOSED IN THE FINAL STRUCTURE.
- WHEN SPECIFICALLY SO REQUESTED BY THE CONTRACTOR AND APPROVED BY THE ARCHITECT, APPROVED SAMPLES WILL BE RETURNED TO THE CONTRACTOR FOR INSTALLATION ON THE WORK.

MANUAL: UPON COMPLETION OF THIS PORTION OF THE WORK, AND AS A CONDITION OF ITS ACCEPTANCE, DELIVER TO THE ARCHITECT TWO COPIES OF AN OPERATION AND MAINTENANCE MANUAL COMPILED IN ACCORDANCE WITH THE PROVISIONS OF SECTION 01730 OF THESE SPECIFICATIONS. INCLUDE WITHIN EACH MANUAL:
- COPY OF THE APPROVED RECORD DOCUMENTS FOR THIS PORTION OF THE WORK;
- COPIES OF ALL CIRCUIT DIRECTORIES;
- COPIES OF ALL WARRANTIES AND GUARANTIES.

PRODUCT HANDLING

COMPLY WITH PERTINENT PROVISIONS OF SECTIONS OF THE GENERAL CONDITIONS.

WARRANTY

IN ADDITION TO STANDARD ONE YEAR WARRANTY ON ALL LABOR AND MATERIALS, PROVIDE A TWO YEAR WARRANTY ON BALLASTS FOR ALL FLUORESCENT LIGHTING FIXTURES.

PART 2 - PRODUCTS

GENERAL

PROVIDE ONLY MATERIALS THAT ARE NEW, OF THE TYPE AND QUALITY SPECIFIED. WHERE UNDERWRITER'S LABORATORIES, INC. HAVE ESTABLISHED STANDARDS FOR SUCH MATERIALS, PROVIDE ONLY MATERIALS BEARING THE UL LABEL.

TEMPORARY POWER:
- IN ADDITION TO PROVIDING TEMPORARY POWER AS NEEDED FOR CONSTRUCTION PROVIDE AND PAY THE COSTS FOR INSTALLING PERMANENT POWER, ELECTRICAL METERS AND METERING ACCESSORIES AS REQUIRED. CONTRACTOR TO COORDINATE AS NEEDED WITH THE LOCAL UTILITY TO INCLUDE ALL COSTS ASSOCIATED WITH THE INSTALLATION OF PERMANENT ELECTRICAL SERVICES AS SHOWN ON THE DRAWINGS.
- WHEN PERMANENT METERING IS IN PLACE AND CONNECTED, THE OWNER WILL PAY THE COSTS FOR ELECTRICAL POWER CHARGED AGAINST THE METER OR METERS.

ENTRANCES AND SWITCHBOARD

MAIN SWITCHBOARD:
- PROVIDE FACTORY ASSEMBLED, DEAD FRONT, BRACED AS SHOWN ON THE DRAWINGS, WITH EQUIPMENT BUSING CONNECTION, CURRENT-LIMITING FUSES, CIRCUIT BREAKERS, AND SIMILAR COMPONENTS AS SHOWN ON THE DRAWINGS OR REQUIRED FOR PROPER COMPLETION. APPROVED MANUFACTURERS SQUARE D, SIEMENS, OR CUTLER HAMMER.
- AT FUSED SWITCHES, PROVIDE ETCHED PLASTIC NAMEPLATES SECURED BY TWO CADMIUM PLATED SCREWS.

DISTRIBUTION SWITCHBOARD:
- PROVIDE FACTORY ASSEMBLED, DEAD FRONT, BRACED AS SHOWN ON THE DRAWINGS, WITH EQUIPMENT BUSING CONNECTION, CURRENT-LIMITING FUSES, CIRCUIT BREAKERS, AND SIMILAR COMPONENTS AS SHOWN ON THE DRAWINGS OR REQUIRED FOR PROPER COMPLETION. APPROVED MANUFACTURERS SQUARE D, SIEMENS, OR CUTLER HAMMER.
- AT FUSED SWITCHES, PROVIDE ETCHED PLASTIC NAMEPLATES SECURED BY TWO CADMIUM PLATED SCREWS.
- PROVIDE SAME CONSTRUCTION AND MANUFACTURE AS THE MAIN SWITCHBOARD, BUT EQUIP WITH EYEBOLTS TO FACILITATE HOISTING AND PLACEMENT OF SECTIONS.

SWITCHES:
- PROVIDE QUICK-MAKEO, QUICK-BREAK, FUSED TYPE, RATED 240V AC FOR 120/208V SYSTEMS, AND RATED 600V FOR 277/480V SYSTEMS. SWITCHES TO BE AS MANUFACTURED BY SQUARE D, SIEMENS, OR CUTLER HAMMER.

PROVIDE CURRENT LIMITING FUSES:
- FOR ABOVE 600 AMPS, PROVIDE CLASS L "HI-CAP" MANUFACTURED BY BUSSMAN, OR EQUAL MANUFACTURED BY CHASE-SHAWMUT.
- FOR BELOW 600 AMPS, AS SHOWN FOR SHORT CIRCUIT DUTY, PROVIDE CLASS K-1 "LIMITRON", OR CLASS K-5 "LOW PEAK" OR CLASS K-9 "FUSETRON" MANUFACTURED BY BUSSMAN, OR EQUAL MANUFACTURED BY CHASE-SHAWMUT.

AT ALL SECTIONS, PROVIDE A MICARTA NAMEPLATE WITH WHITE LETTERING ON A RED BACKGROUND, READING WARNING, REPLACE ONLY WITH CURRENT LIMITING FUSES AS ORIGINALLY INSTALLED.

PROVIDE 100% SPARE FUSES FOR EACH FEEDER, HOUSED IN A SUITABLE CABINET NEAR THE MAIN DISTRIBUTION BOARD.

PROVIDE COPPER BUSING FULL HEIGHT.

GROUNDING SYSTEM

GROUND ALL EQUIPMENT, INCLUDING SWITCHBOARDS, TRANSFORMERS, CONDUIT SYSTEMS, MOTORS, AND OTHER APPARATUS, BY CONDUIT OR CONDUCTOR TO INDEPENDENT GROUNDING ELECTRODE AS SHOWN ON THE DRAWINGS, USING GROUND CLAMPS MANUFACTURED BY BURNDY OR T&B, AND APPROVED BY THE ARCHITECT.

USE GROUND RODS IF WATER MAINS OR PIPING ARE NOT METALLIC, OR IF ISOLATION COUPLINGS HAVE BEEN USED.
- LOCATE GROUND RODS IN PLANTERS OR SIMILAR AREAS WHICH WILL RECEIVE WATER REGULARLY, AND DRIVE TO A DEPTH OF AT LEAST 8'-0".
- MAKE MEG GROUND TESTS TO MEASURE GROUND RESISTANCE, AND PROVIDE NOT MORE THAN 5 OHMS RESISTANCE, ADDING GROUND RODS AS REQUIRED TO ACHIEVE THAT LEVEL.
- PROVIDE "UFER" GROUND IF SO REQUIRED BY GOVERNMENTAL AGENCIES HAVING JURISDICTION.

DISTRIBUTION SYSTEM

IDENTIFICATION:
- IDENTIFY ALL PANELBOARDS, CABINETS, SAFETY SWITCHES, AND OTHER APPARATUS USED FOR OPERATION AND CONTROL OF CIRCUITS, APPLIANCES AND EQUIPMENT.
- PROVIDE PLASTIC LAMINATE NAMEPLATES, BLACK FACE WITH WHITE CORE LETTERS, SHOWING PROPER AND COMPLETE IDENTIFICATION.

BRANCH CIRCUIT PANELS:
- PROVIDE BRANCH CIRCUIT PANELS FOR LIGHTING AND SINGLE PHASE LOADS, USING COPPER BUSING AS SCHEDULED ON THE DRAWINGS.

WIRING DEVICES:
- PROVIDE DUPLEX RECEPTACLES OF 3-POLE GROUNDING TYPE WITH THE THIRD POLE U-SHAPED AND GROUNDED TO THE CONDUIT SYSTEM, AND ONE OF THE FOLLOWING;
- BRYANT, HUBBELL, ARROW-HART: NO. 5242
- GENERAL ELECTRIC NO. 4050 OR 4060
- SIERRA: NO. 1402
- HUBBELL (208V-1B-AC-20 A) NO. 7310 BU
- HUBBELL (208V-3A-20 A, GW): NO. 7410 BU
- FOR FLUSH MOUNTED RECEPTACLES, PROVIDE SUPER STAINLESS STEEL TYPE 302 COVER PLATES.

PROVIDE TUMBLER SWITCHES OF COMMERCIAL-INDUSTRIAL TYPE, 20 AMP, 120/277V AS, AND ONE OF THE FOLLOWING;

	SINGLE POLE:	TWO POLE:	THREE POLE:	FOUR POLE:
BRYANT:	4901	4902	4903	4904
HUBBELL:	1221	1222	1223	1224
ARROW-HART:	1991	1992	1993	1994
SIERRA:	5021	5022	5023	5024
GE:	5951	5952	5953	5954
P&S:	20AC1	20AC2	20AC3	20AC4

FOR FLUSH MOUNTED SWITCHES, PROVIDE SUPER STAINLESS STEEL 3200 SERIES COVER PLATED AND WHERE GROUPED, SET IN GANGS WITH ONE COVER PLATE.

UNDERFLOOR RACEWAYS;
- PROVIDE WALKER SINGLE DUCT OR TRIPLE DUCT UNDERFLOOR DISTRIBUTION SYSTEM WHERE SHOWN ON THE DRAWINGS.
- PROVIDE WELDED RECTANGULAR TUBING, FACTORY PROCESSED TO PREVENT RUSTING, DELIVERED IN 10'-0" LENGTHS.
- PROVIDE MARKER ESCUTCHEONS FOR OUTLETS ADJACENT TO JUNCTION BOXES AND AT LAST OUTLET AT ENDS OF DUCT RUNS.
- PROVIDE FLOOR JUNCTIONS BOXES WHERE SHOWN , ADJUSTABLE TO ELEVATION OF DUCTS, AND WITH TOPS AT SURFACE OF THE FINISHED FLOOR.
- PROVIDE PARTITIONS SEPARATING THE RESPECTIVE RUNS.
- PROVIDE JUNCTION BOX COVER PANS TO RECEIVE THE INDICATED FINISHES.
- PROVIDE FITTINGS NEEDED TO FACILITATE CONNECTIONS TO THE EQUIPMENT AND OTHER ITEMS SHOWN.

ABOVEFLOOR RACEWAYS:
- PROVIDE RIGID GALVANIZED OR SHERARDIZED STEEL CONDUIT AND FITTINGS IN LOCATIONS AS NOTED ON THE DRAWINGS AND/OR FOR ALL LOCATIONS WITHIN AND WHERE POURED INTO CONCRETE CONSTRUCTION. WHERE REQUIREMENTS NOTED ON THE DRAWINGS OR REQUIRED BY CODE PROVIDE MOST STRINGENT AS DETERMINED BY ENGINEER.
- PROVIDE INTERMEDIATE GALVANIZED OR SHERARDIZED STEEL CONDUIT AND FITTINGS IN LOCATIONS WHERE NOTED ON THE DRAWINGS AND WHERE LOCATED IN EXPOSED INTERIOR FINISHED SPACES IN INTERIOR ATMOSPHERIC CONDITIONS BUT NOT OTHERWISE PROTECTED FROM THE WEATHER. WHERE REQUIREMENTS NOTED ON THE DRAWINGS OR REQUIRED BY CODE PROVIDE MOST STRINGENT AS DETERMINED BY ENGINEER.
- PROVIDE ELECTRICAL METALLIC TUBING WITH COMPRESSION FITTINGS IN LOCATIONS AS NOTED ON THE DRAWINGS AND FOR ALL CONDUIT CONCEALED IN THE WALLS, ABOVE THE CEILINGS, OR OTHER LOCATIONS CONCEALED IN INTERIOR ATMOSPHERIC ENVIRONMENT AND OTHERWISE PROTECTED FROM THE WEATHER. WHERE REQUIREMENTS NOTED ON THE DRAWINGS OR REQUIRED BY CODE PROVIDE MOST STRINGENT AS DETERMINED BY ENGINEER.
- INDENTER FITTINGS ARE NOT ACCEPTABLE.
- WHERE CONDUIT IS INSTALLED UNDERGROUND OR IN THE FLOOR SLAB, PROVIDE RIGID GALVANIZED STEEL CONDUIT.
- WHERE ELECTRICAL METALLIC TUBING IS USED, COMPLY WITH PERTINENT REQUIREMENTS OF THE NATIONAL ELECTRICAL CODE.
- PVC CONDUIT MAY NOT BE USED WITHOUT SPECIFIC WRITTEN APPROVAL OF THE ARCHITECT UNLESS OTHERWISE NOTED ON THE DRAWINGS.
- PROVIDE FLUSH FLOOR BOXES, CAST IRON, WATERTIGHT, EQUAL TO RUSSELL & STOLL NO. 2511, WITH COMBINATION ½' AND 1-1/8" PLUG.
- FOR FLOOR BOXES WITH CONVENIENCE OUTLETS, PROVIDE LEW NO. 632SB-DFB, UNLESS OTHERWISE SHOWN ON THE DRAWINGS.
- OUTLETS, JUNCTION BOXES, AND SWITCH BOXES;
- PROVIDE STANDARD ONE-PIECE UNITS, GALVANIZED OR SHERARDIZED, OF SHAPE AND SIZE BEST SUITED TO THAT PARTICULAR LOCATION, OF SUFFICIENT SIZE TO CONTAIN ENCLOSED WIRES WITHOUT CROWDING.
- PROVIDE DEEP BOXES WITH 1" AND LARGER CONDUIT.
- FOR LIGHTING OUTLETS, PROVIDE STANDARD 4" OCTAGON OR SQUARE UNITS, WITH 3/8" MALLEABLE IRON FIXTURE STUDS AND BOX HANGERS WHERE REQUIRED.
- FOR SWITCHES AND RECEPTACLES, PROVIDE STANDARD GANG SWITCH BOXES WITH STAINLESS STEEL COVERS;EXCEPT FOR EXPOSED WORK PROVIDE PRESSED STEEL BOXES WITH GALVANIZED OR CADMIUM PLATED STEEL COVERS.
- PROVIDE BOXES 4" SQUARE BY 1-1/2" DEEP, EXCEPT FOR BOXES AT ENDS OF RUN WHERE CONTAINING A SINGLE DEVICE. THESE MAY BE NO. 180 HANDY BOXES IF PERMITTED BY THE GOVERNING CODE.
- FOR TELEPHONE OUTLETS, PROVIDE 4" SQUARE BOXES WITH SINGLE DEVICE COVER AND ONE-HOLE BAKELITE TELEPHONE OUTLET.
- FOR PULL BOXES, PROVIDE GALVANIZED CODE-GAGE SHEET STEEL UNITS WITH SCREWED-ON COVERS, OF SIZE AND SHAPE REQUIRED TO ACCOMMODATE WIRES WITHOUT CROWDING, AND TO SUIT THE LOCATION.
- PROVIDE SLEEVES AND CHASES WHERE CONDUITS PASS THROUGH FLOORS AND WALLS.

CONDUCTORS:
- FOR LINE VOLTAGES, PROVIDE 600V INSULATED COPPER WIRE AND CABLE, NEC STANDARD, OF TYPES SPECIFIED BELOW FOR DIFFERENCE APPLICATIONS, WITH UL LABEL, AND COLOR CODED AS REQUIRED BY GOVERNMENTAL AGENCIES HAVING JURISDICTION.
- INSULATION TYPE TO BE AS SHOWN ON THE DRAWINGS.
- WHERE BRANCH CIRCUIT WIRING IS INSTALLED IN WIRING CHANNELS OF CONTINUOUS ROW-MOUNTED FIXTURES, PROVIDE UL TYPE RHH OR OTHER APPROVED 90 DEGREE C WIRES, RATED AT 600V.
- FOR WIRE NO. 8 AND SMALLER, PROVIDE SOLID WIRE; FOR WIRE LARGER THAN NO. 8, PROVIDE STRANDED WIRE.
- FOR WIRE IN CONDUITS SUBJECTED TO DIRECT SUNLIGHT, PROVIDE THWN OR RHWN.
- USE ONLY COPPER WIRES AND CABLES.

LIGHTING FIXTURES

PROVIDE FIXTURES OF THE TYPES SHOWN ON THE DRAWINGS, AND WITH THE FOLLOWING ACCESSORIES AS APPLICABLE.
RECESSED FIXTURE:
- PROVIDE UNITS HAVING AN ATTACHED PULL BOX, AND WITH UL LABEL.
- PROVIDE LOCAL LABEL IN ADDITION IF SO REQUIRED BY GOVERNMENTAL AGENCIES HAVING JURISDICTION.

FLUORESCENT FIXTURES:
- PROVIDE BALLASTS THERMALLY PROTECTED AGAINST OVERHEATING BY BUILT-IN THERMAL PROTECTORS SENSITIVE TO BALLAST WINDING TEMPERATURE AND CURRENT.
- PROVIDE PROTECTOR PREVENTING WINDING TEMPERATURE FROM EXCEEDING 120 DEGREES C, ALLOWING WINDING TEMPERATURES TO REACH 105 DEGREES C UNDER NORMAL OPERATING CONDITIONS AT 40 DEGREES C AMBIENT AND, AFTER OPENING, NOT RECLOSING ABOVE 80 DEGREES C.
- PROVIDE COLD WEATHER BALLASTS TO OPERATE AT TEMPERATURES DOWN TO 0 DEGREE F.

TELEPHONE, INTERCOM, SIGNAL, AND COMMUNICATION SYSTEMS

PROVIDE CONDUITS, SERVICE ENTRANCE EQUIPMENT, OUTLETS, TERMINAL BOARDS AND OTHER ITEMS SHOWN ON THE DRAWINGS OR REQUIRED FOR A COMPLETE, APPROVED, AND OPERATING TELEPHONE AND INTERCOM SERVICE, EXCEPT FOR SUCH ITEMS AND EQUIPMENT AS ARE FURNISHED BY THE SERVING TELEPHONE COMPANY.

PROVIDE ACCESS PULL BOXES SO THAT NO CONDUIT RUN IS LONER THAN 100 FEET, OR CONTAINS MORE THAN TWO 90 DEGREES ELBOWS.

PROVIDE PULL WIRES IN ALL TELEPHONE AND INTERCOM UNITS.

MOTOR STARTERS

GENERAL: PROVIDE SQUARE D UNITS, OR EQUAL AS MANUFACTURED BY CUTLER HAMMER OR ALLEN BRADLEY OF THE SIZES AND TYPES NEEDED FOR THE OPERATIONS SHOWN ON THE DRAWINGS, SPECIFIED HEREIN, AND OTHERWISE REQUIRED FOR THE FACILITY, AND WITH THE FOLLOWING ATTRIBUTES.
- COMPLY WITH PERTINENT REQUIREMENTS OF NEMA AND NEC.
- INCLUDE REQUIRED ACCESSORY ITEMS.
- HORSEPOWER RATED, WITH INTERCHANGEABLE THERMAL OVERLOADS AND WITH DOUBLE-BREAK CONTACTS CAPABLE OF INTERRUPTING 10 TIMES THE RATED MOTOR CURRENT.
- NORMALLY RESET WITHOUT ENTERING THE STARTER ENCLOSURE.
- EQUIPPED WITH OVERLOADS IN EACH UNGROUNDED LEG.

MANUAL STARTERS:
- FOR BOTH SINGLE PHASE AND THREE PHASE STARTERS, PROVIDE UNITS THAT OPEN ALL UNGROUNDED CONDUCTORS SIMULTANEOUSLY.
- FOR SINGLE PHASE STARTERS, PROVIDE UNITS OF TUMBLER TYPE THAT CLEARLY INDICATE ON, OFF AND TRIPPED. POSITIONS.
- FOR THREE PHASE STARTERS, PROVIDE PUSH-BUTTON OPERATED UNITS WITH START, STOP-RESET BUTTON ON THE ENCLOSURE COVER.

MAGNETIC STARTERS:
- PROVIDE UNITS WITH OPERATING COILS DESIGNED TO OPERATE ON LINE VOLTAGE OR ANY OTHER AUXILIARY CONTACTS NEEDED FOR AUTOMATIC OR REMOTE OPERATION AS SHOWN ON THE DRAWINGS.
- FOR STARTERS WITH LINE VOLTAGE OPERATING COILS, PROVIDE BUILT IN UNDER VOLTAGE RELEASE.
- PROVIDE UNITS WITH THE ACCESSORIES AND AUXILIARY CONTACTS NEEDED FOR AUTOMATIC OR REMOTE OPERATION AS SHOWN ON THE DRAWINGS.

COMBINATION STARTERS:
- PROVIDE UNITS COMPLYING WITH REQUIREMENTS FOR MAGNETIC STARTERS AND, IN ADDITION, WITH A CIRCUIT BREAKER IN THE SAME ENCLOSURE.
- PROVIDE CIRCUIT PROTECTION COMPLY WITH NEC REQUIREMENTS FOR THE MOTOR BEING OPERATED.

SAFETY SWITCHES

PROVIDE SAFETY SWITCHES OF HEAVY DUTY TYPE, HORSEPOWER RATED, QUICK-MATE AND QUICK-BREAK DESIGN, EXTERNALLY OPERATED WITH PROVISION FOR PADLOCKING, FUSIBLE OR NON-FUSIBLE AS SHOWN ON THE DRAWINGS.

PROVIDE ENCLOSURES CLEARLY MARKED FOR MAXIMUM VOLTAGE, CURRENT, AND HORSEPOWER RATING AND:
- INDOOR: NEMA TYPE 1.
- OUTDOOR: NEMA TYPE 3R, RAINTIGHT.

FOR SWITCHES HAVING DUAL RATINGS (HIGHER RATING WHEN USED WITH DUAL-ELEMENT FUSES), PROVIDE RATINGS INDICATED ON A METAL PLATE RIVETED OR OTHERWISE PERMANENTLY FASTENED TO THE ENCLOSURE.

TRANSFORMER

PROVIDE SQUARE D OR CUTLER HAMMER WITH THE FOLLOWING ATTRIBUTES:
- DRY TYPE, WITH THE RATINGS SHOWN ON THE DRAWINGS.
- FOR LIGHTING TRANSFORMERS, PROVIDE FOUR 2-1/2% FCBN TAPS.
- FOR POWER TRANSFORMERS, PROVIDE TWO 5% FCBN TAPS.
- ADJUST ALL TAPS TO NOMINAL 120V, 240V, OR 480V AS CLOSE AS PRACTICABLE AND AS REQUIRED FOR THE WORK.
- DO NOT PROVIDE TAPS ON ISOLATING TRANSFORMER.

PROVIDE GROUP II INSULATION WITH TEMPERATURE RISE NOT EXCEEDING 80 DEGREES C, OR GROUP II WITH TEMPERATURE RISE NOT EXCEEDING 150 DEGREES C, UNDER FULL LOAD, IN AN AMBIENT TEMPERATURE OF 40 DEGREES C.

BUILD TRANSFORMERS IN ACCORDANCE WITH CURRENT STANDARDS OF AIEE< ASA< AND NEMA, AND PROVIDE UL LISTING AND LABEL.

FOR UNITS OF 5KV CLASS, PROVIDE A BIL OF 25 KV ON THE PRIMARY AND 10 KV ON THE SECONDARY.

FOR UNITS OF 600V AND LESS, PROVIDE BIL OF 10 KV.

LOCATE TERMINAL COMPARTMENT IN THE BOTTOM OF THE TRANSFORMER TO ASSURE TERMINATION OF CABLE LEADS IN AMBIENT TEMPERATURE LEVELS AND TO PROVIDE FOR SIDE OR BOTTOM ENTRANCE OF THE CABLES.

SEPARATE TRANSFORMER CORE AND COILS FROM CASE BY SUITABLE VIBRATION ISOLATORS. INSTALL THE TRANSFORMER CASE ON SUITABLE VIBRATION ISOLATORS, AND CONNECT ON PRIMARY AND SECONDARY SIDES WITH MINIMUM OF 18" OF FLEXIBLE CONDUIT.

PROVIDE A MINIMUM OF 10% OVERLOAD CAPACITY AT RATED VOLTAGE.

PROVIDE THE FOLLOWING TESTS AT THE FACTORY.
APPLIED VOLTAGE TEST TO OTHER WINDING AND GROUND;

600V CLASS: 5 KV CLASS	
H.V. - 4 KV	12 KV
L.V. - 4 KV	4 KV

INDUCED VOLTAGE TEST: TWO TIMES NORMAL VOLTAGE.
RATIO, POLARITY, AND SOUND LEVEL TESTS.
PERFORM SOUND LEVEL TESTS IN TEST ROOM, WITH AN AMBIENT SOUND LEVEL NOT EXCEEDING 23 DB'S, AND ACHIEVE SOUND LEVEL NOT EXCEEDING;
- 0 TO 150 KVA: 45 DB'S.
- 167 TO 300 KVA: 50 DB'S
- 500 KVA AND MORE: 53 DB'S

PRIOR TO PROPOSING AND NEW DESIGN , SECURE THE ARCHITECT'S APPROVAL OF A CERTIFIED RATING TEST REPORT OF SIMILAR STANDARD RATINGS, WITH PROPER EXPLANATORY DRAWINGS, SHOWING THE ABOVE TESTS HAVE BEEN PERFORMED WITH SATISFACTORY RESULTS ON THE FIRST RATING OF THE NEW DESIGN, INCLUDING RATIO, RESISTANCE, COPPER LOSS, IRON LOSS, SOUND LEVEL, APPLIED VOLTAGE, INDUCED VOLTAGE, TEMPERATURE RISE, IMPULSE TEST, AND SHORT CIRCUIT TESTS.
WHEN SO REQUIRES BY THE ARCHITECT, PROVIDE PERFORMANCE DATA STATING WHETHER FIGURES SHOWN ARE AVERAGE, TYPICAL, OR GUARANTEED, AND CORRECTED TO THE CORRESPONDING NEMA REFERENCE TEMPERATURES.

FIRE ALARM SYSTEM

PROVIDE COMPLETE FIRE ALARM SYSTEM WHERE INDICATED ON THE DRAWINGS WITH ALL POWER AND SIGNAL CONDUCTORS INSTALLED IN NOT LESS THAN 7" CONDUIT OR LARGER AS OTHERWISE REQUIRED BY CODE. FIRE ALARM PANEL, SENSORS, PULL STATIONS, SIGNALING DEVICES, TO BE AS INDICATED ON THE DRAWINGS AND REQUIRED BY THE MOST CURRENT APPLICABLE NFPA REQUIREMENTS AND ADA REQUIREMENTS AND SUITABLE TO ALL REQUIREMENTS BY THE AUTHORITY HAVING JURISDICTION AT THE LOCATION OF THE PROJECT.

OTHER MATERIALS

PROVIDE OTHER MATERIALS, NOT SPECIFICALLY DESCRIBED BUT REQUIRED FOR A COMPLETE AND PROPER INSTALLATION, AS SELECTED BY THE CONTRACTOR SUBJECT TO THE APPROVAL OF THE ARCHITECT.

PART 3 - EXECUTION

SURFACE CONDITIONS

EXAMINE THE AREAS AND CONDITIONS UNDER WHICH WORK OF THIS SECTION WILL BE PERFORMED. CORRECT CONDITIONS DETRIMENTAL TO TIMELY AND PROPER COMPLETION OF THE WORK. DO NOT PROCEED UNTIL UNSATISFACTORY CONDITIONS ARE CORRECTED.

REVISIONS

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RENOVATION FOR:
EXPRESS CARE OF LEESBURG
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LEESBURG, FLORIDA

NORTH

Revisions		
No.	Date	DESCRIPTION
1	04/14/05	CD-R
2	04/28/05	CDF
3	-	-
4	-	-

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0473

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ELECTRICAL SPECIFICATION NOTES

PREPARATION

COORDINATE:
COORDINATE AS NECESSARY WITH OTHER TRADES TO ASSURE PROPER AND ADEQUATE PROVISION IN THE WORK OF THOSE TRADES FOR
INTERFERENCE WITH THE WORK OF THIS SECTION.
ITEMS WITH THE SCHEDULE FOR WORK OF OTHER TRADES TO PREVENT UNNECESSARY
COORDINATE THE INSTALLATION OF ELECTRICAL
DELAYS IN THE TOTAL WORK.
ELECTRICAL ITEMS ARE SHOWN IN CONFLICT WITH LOCATION OF STRUCTURAL MEMBERS AND
WHERE LIGHTING FIXTURE AND OTHER
PROVIDE REQUIRED SUPPORTS AND WIRING TO CLEAR THE ENCROACHMENT.
MECHANICAL OR OTHER EQUIPMENT.

DATA INDICATED ON THE DRAWINGS AND IN THESE SPECIFICATIONS ARE AS EXACT AS COULD BE SECURED, BUT THEIR ABSOLUTE
ACCURACY IS NOT WARRANTED. THE EXACT LOCATIONS, DISTANCES, LEVELS, AND OTHER CONDITIONS WILL BE GOVERNED BY ACTUAL
CONSTRUCTION AND THE DRAWINGS AND SPECIFICATIONS SHOULD BE USED ONLY FOR GUIDANCE IN SUCH REGARD.

WHERE OUTLETS ARE NOT SPECIFICALLY LOCATED ON THE DRAWINGS, LOCATE AS DETERMINED IN THE FIELD BY THE ARCHITECT.
INSTALLED WITH SUCH SPECIFIED DIRECTION, RELOCATE AS DIRECTED BY THE ARCHITECT AND AT NO ADDITIONAL
WHERE OUTLETS
COST TO THE OWNER.

VERIFY ALL MEASUREMENTS AT THE BUILDING. NO EXTRA COMPENSATION WILL BE ALLOWED BECAUSE OF DIFFERENCES BETWEEN WORK
SHOWN ON THE DRAWINGS AND ACTUAL MEASUREMENTS AT THE SITE OF CONSTRUCTION.

BRANCH CIRCUIT WIRING AND ARRANGEMENT OF HOME RUNS HAVE BEEN DESIGNED FOR MAXIMUM ECONOMY CONSISTENT WITH
ADEQUATE SIZING FOR VOLTAGE DROPS AND OTHER CONSIDERATIONS. INSTALL THE WIRING WITH CIRCUITS ARRANGED EXACTLY AS
SHOWN ON THE DRAWINGS, EXCEPT AS OTHERWISE APPROVED IN ADVANCE BY THE ARCHITECT.

THE ELECTRICAL DRAWINGS ARE DIAGRAMMATIC, BUT ARE REQUIRED TO BE FOLLOWED AS CLOSELY AS ACTUAL CONSTRUCTION AND WORK
OF OTHER TRADES WILL PERMIT. WHERE DEVIATIONS ARE REQUIRED TO CONFORM WITH ACTUAL CONSTRUCTION AND THE WORK OF
OTHER TRADES, MAKE SUCH DEVIATIONS WITHOUT COST TO THE OWNER.

TRENCHING AND BACKFILLING

PERFORM TRENCHING AND BACKFILLING ASSOCIATED WITH THE WORK OF THIS SECTION IN STRICT ACCORDANCE WITH THE PROVISIONS
OF SECTION 02220 OF THESE SPECIFICATIONS.

INSTALLATION OF RACEWAYS AND FITTINGS

WHERE RIGID OR INTERMEDIATE CONDUIT IS INSTALLED IN WORK AREAS:
SEAL JOINTS TO PREVENT ENTRANCE OF WATER.

USE FLEXIBLE CONDUIT ONLY FOR SHORT MOTOR CONNECTIONS, OR WHERE SUBJECT TO VIBRATION.

PROVIDE NECESSARY SLEEVES AND CHASES WHERE CONDUITS PASS THROUGH FLOORS AND WALLS, AND PROVIDE OTHER NECESSARY
OPENINGS AND SPACES, ARRANGING FOR IN PROPER TIME TO PREVENT UNNECESSARY CUTTING IN CONNECTION WITH THE WORK.
PERFORM CUTTING AND PATCHING IN ACCORDANCE WITH THE PROVISIONS FOR THE ORIGINAL WORK.

WHERE CONDUIT IS EXPOSED, RUN PARALLEL TO OR AT RIGHT ANGLE WITH LINES OF THE BUILDING.
MAKE BENDS WITH STANDARD CONDUIT ELBOWS OR CONDUIT BENT TO NOT LESS THAN THE SAME RADIUS.
MAKE BENDS FREE FROM DENTS AND FLATTENING.

SECURELY AND RIGIDLY SUPPORT CONDUITS THROUGHOUT THE WORK.

WHERE CONDUITS PIERCE THE ROOF, PROVIDE 24 GAGE GALVANIZED IRON ROOF JACKS AND FLASHING COLLAR BRAZED ONTO THE
CONDUITS AND COVERING THE TOP OF THE ROOF JACKS.

INSTALLATION OF LIGHTING FIXTURES

INSTALL LIGHTING FIXTURES COMPLETE AND READY FOR SERVICE IN ACCORDANCE WITH THE LIGHTING FIXTURE SCHEDULE SHOWN ON
THE DRAWINGS.

WIRE FIXTURES WITH FIXTURE WIRING OF AT LEAST 50 DEGREES C RATING. WHERE FIXTURES ARE MOUNTED IN CONTINUOUS ROWS,
PROVIDE CONDUCTORS IN WIRING CHANNELS OF THE SAME SIZE AS THE CIRCUIT WIRES SUPPLYING THE ROW OF FIXTURES.

USE ONLY BONDERIZED, GALVANIZED, OR SHERARDIZED STEEL FOR FIXTURE INSTALLATION FOR PROTECTION AGAINST RUST AND
CORROSION, AND INSTALL FLUORESCENT FIXTURES STRAIGHT AND TRUE WITH REFERENCE TO WALLS.

INSTALL ALL LIGHTING FIXTURES, INCLUDING THOSE MOUNTED IN CONTINUOUS ROWS, SO THAT THE WEIGHT OF THE FIXTURE IS
SUPPORTED, EITHER DIRECTLY OR INDIRECTLY, BY A SOUND AND SAFE STRUCTURAL MEMBER OF THE BUILDING, USING ADEQUATE
NUMBER AND TYPE OF FASTENINGS TO ASSURE SAFE INSTALLATION.
SCREWED FASTENINGS, AND TOGGLE BOLTS THROUGH CEILING MATERIAL OR WALL PANELING, ARE NOT ACCEPTABLE.
DO NOT SUPPORT FROM SUB-PURLINS OF PANELIZED ROOF SYSTEMS.

INSTALLATION OF POWER EQUIPMENT

PROVIDE POWER AND CONTROL WIRING FOR MOTOR STARTERS AND SAFETY SWITCHES AS SHOWN ON THE DRAWINGS.

CONNECTIONS TO MISCELLANEOUS BUILDING EQUIPMENT:
WIRE TO, AND CONNECT TO, ALL ITEMS OF BUILDING EQUIPMENT NOT SPECIFICALLY DESCRIBED BUT TO WHICH ELECTRICAL POWER IS
REQUIRED.
COORDINATE AS NECESSARY WITH OTHER TRADES AND SUPPLIERS TO VERIFY TYPES, NUMBERS, AND LOCATIONS OF EQUIPMENT.

INSTALLATION OF CONDUCTORS

UNLESS OTHERWISE SHOWN ON THE DRAWINGS, USE NO. 12 TYPE THHN/THWN CONDUCTORS FOR ALL BRANCH CIRCUITS, PROTECTED
BY 20 AMP CIRCUIT BREAKERS. WHERE SO INDICATED ON THE DRAWINGS, USE LARGER WIRED TO LIMIT VOLTAGE DROPS.

THE NUMBER OF WIRES IN A CONDUIT RUN MAY BE INDICATED ON THE DRAWINGS BY CROSS LINES ON THE CONDUIT RUNS OR
ASSOCIATED POWER CIRCUIT BY DROP OF CIRCUIT ARROWS.
WHERE WIRE SIZE IS NOT SHOWN, INSTALL NO. 12 CONDUCTORS OR NEC MINIMUM FOR UPSTREAM OVERCORRECT PROTECTION DEVICE
INDICATED
WHERE CONDUIT SIZE IS NOT SHOWN, MINIMUM SIZE IS TO BE ¾" CONDUIT.
PROVIDE CODE-SIZE CONDUIT FOR NUMBER AND SIZE WIRES SHOWN OR REQUIRED WITHOUT WIRE AMPACITY DERATING, UNLESS A
LARGER SIZE CONDUIT AND/OR CONDUCTOR IS SHOWN ON THE DRAWINGS.

(WHITE) NEUTRALS AND COLOR CODED PHASE WIRES FOR ALL BRANCH CIRCUIT WIRING.
S ELECTRICALLY AND MECHANICALLY SECURE WITH PRESSURE TYPE CONNECTORS, OR BY SOLDERING.
E 6 AWG AND SMALLER, PROVIDE "SCOTCHLOCK" CONNECTORS.
AWG AND LARGER, PROVIDE BURNDY "VERSITAPS" AND HEAVY-DUTY CONNECTORS, OR T&B "LOCK TITE" CONNECTORS.
MINIMUM OF TWO HALF-LAPPED LAYERS OF SCOTCH BRANCH NO. 33 VINYL-PLASTIC ELECTRICAL TAPE
IRED.
TAPE 1-1/2 TIMES THE THICKNESS OF THE CONDUCTOR INSULATION, THEN COVER WITH THE FRICTION
TRICAL TAPE SPECIFIED ABOVE.
DIRECTION OF HOME RUNS. CONTINUE ALL SUCH HOME RUNS TO THE PANEL AS THOUGH THE
STALL PANELS WITH THE TOP OF THE TRIM 6'-3" ABOVE THE FINISHED FLOOR.
LASTIC ON THE INSIDE OF EACH PANEL DOOR AND, ON THE DIRECTORY, SHOW
L OUTLETS ON EACH CIRCUIT.
P OF EACH FLUSH-MOUNTED PANEL AND TERMINATED IN ACCESSIBLE
IPTION.

TESTING AND INSPECTION

PROVIDE PERSONNEL AND EQUIPMENT, MAKE REQUIRED TESTS, AND SECURE REQUIRED APPROVALS FROM THE ARCHITECT AND
GOVERNMENTAL AGENCIES HAVING JURISDICTION.

MAKE WRITTEN NOTICE TO THE ARCHITECT ADEQUATELY IN ADVANCE OF EACH OF THE FOLLOWING STAGES OF CONSTRUCTION:
IN THE UNDERGROUND CONDITION PRIOR TO PLACING CONCRETE FLOOR SLAB, WHEN ALL ASSOCIATED ELECTRICAL WORK IS IN PLACE;
WHEN ALL ROUGH-IN IS COMPLETE, BUT NOT COVERED;
AT COMPLETION OF THE WORK OF THIS SECTION.

WHEN MATERIAL AND /OR WORKMANSHIP IS FOUND TO NOT COMPLY WITH THE SPECIFIED REQUIREMENTS, WITHIN THREE DAYS AFTER
RECEIPT OF NOTICE OF SUCH NON-COMPLIANCE REMOVE THE NON-COMPLYING ITEMS FROM THE JOB SITE AND REPLACE THEM WITH
ITEMS COMPLYING WITH THE SPECIFIED REQUIREMENTS, ALL AT NO ADDITIONAL COST TO THE OWNER.

IN THE ARCHITECT'S PRESENCE:
TEST ALL PARTS OF THE ELECTRICAL SYSTEM AND PROVE THAT ALL SUCH ITEMS PROVIDED UNDER THIS SECTION FUNCTION
ELECTRICALLY IN THE REQUIRED MANNER.
IMMEDIATELY SUBMIT TO THE ARCHITECT A REPORT OF MAXIMUM AND MINIMUM VOLTAGES, AND A COPY OF THE RECORDING VOLTMETER
CHART.
ALSO MEASURE VOLTAGES BETWEEN PHASES AND BETWEEN PHASE WIRES AND NEUTRALS, AND REPORT THESE VOLTAGES TO THE
ARCHITECT.

PROJECT COMPLETION

UPON COMPLETION OF THE WORK OF THIS SECTION, THOROUGHLY CLEAN ALL EXPOSED PORTIONS OF THE ELECTRICAL INSTALLATION,
REMOVING ALL TRACES OF SOIL, LABELS, GREASE, OIL, AND OTHER FOREIGN MATERIAL, AND USING ONLY THE TYPE CLEANER
RECOMMENDED BY THE MANUFACTURER OF THE ITEM BEING CLEANED.

THOROUGHLY INDOCTRINATE THE OWNER'S OPERATION AND MAINTENANCE PERSONNEL IN THE CONTENTS OF THE OPERATIONS AND
MAINTENANCE MANUAL REQUIRED TO BE SUBMITTED UNDER ARTICLE 1.3 OF THIS SECTION OF THESE SPECIFICATIONS.

ON THE FIRST DAY THE FACILITY IS IN OPERATION, FOR AT LEAST EIGHT HOURS AT A TIME DIRECTED BY THE ARCHITECT, PROVIDE A
QUALIFIED FOREMAN AND CREW TO PERFORM SUCH ELECTRICAL WORK AS MAY BE REQUIRED BY THE ARCHITECT.

END OF SECTION

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SUBMITTALS

RENOVATION FOR:
EXPRESS CARE OF LEESBURG
ADDRESS

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JOB
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Revisions		
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1	04/14/08	CD-R
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