birse design inc + architecture + interior design + planning

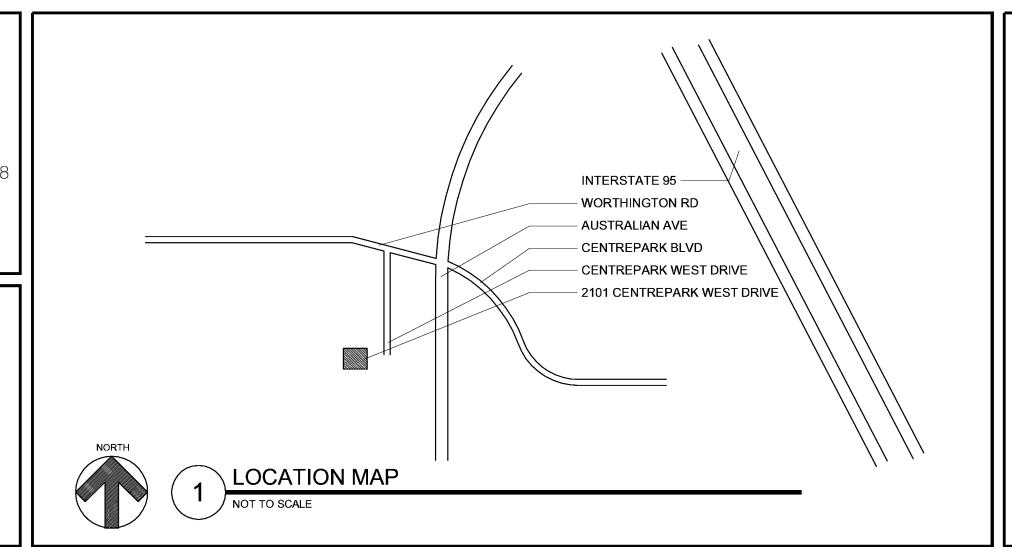
5300 woodland lakes drive palm beach gardens, fl 33418

phone 561-249-4001 fax 772-409-8684 AA26001615

MECHANICAL ENGINEER / ELECTRICAL / PLUMBING



129 N. FEDERAL HWY. SUITE 211 LAKE WORTH, FL 33460 (561) 582-0210 P.E. 37933



WEST PALM BEACH, FL 33401

#### INDEX OF SHEETS:

TITLE SHEET ARCHITECTURAL SHEETS **EXISTING PLANS** PROPOSED PLANS DETAILS/SCHEDULES MECHANICAL/ELECTRICAL/PLUMBING SHEETS MECHANICAL PLAN ELECTRICAL PLANS

PANELS/NOTES

## **REFERENCE STANDARDS:**

- AREA OF PERMIT

\* AREA FOR THIS PERMIT IS HATCHED

\* AREA FOR THIS PERMIT = 2,710 SF

- THIS PROJECT IS DESIGNED IN ACCORDANCE WITHE FOLLOWING CODES:
- . THE FLORIDA BUILDING CODE (FBC), 2007 EDITION WITH 2009 SUPPLEMENTS (BUILDING, MECHANICAL, PLUMBING, FUEL GAS,
- 2. NATIONAL ELECTRIC CODE (NEC), 2008 EDITION.
- 3. FLORIDA FIRE PREVENTION CODE, 2007 EDITION.
- 4. NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) 101, LIFE SAFETY CODE, 2006 EDITION.
- 5. NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) 1, UNIFORM FIRE CODE, 2006 EDITION.

#### **GENERAL NOTES:**

- THE CONTRACTOR SHALL AS A PART OF THIS CONTRACT FURNISH ALL MATERIALS, LABOR, TOOLS, EQUIPMENT, TRANSPORTATION, AND INSURANCE NECESSARY TO PROPERLY EXECUTE AND COMPLETE THE WORK ACCORDING TO THE PLANS AND SPECIFICATIONS.
- THE CONTRACTOR IN THE WORK OF ALL TRADES SHALL PROTECT ALL EXISTING BUILDING AND PROPERTY FROM DAMAGE CAUSED BY THE ACTIVITIES OF THE CONTRACTOR AND SUBCONTRACTORS. THE CONTRACTOR SHALL REPAIR AND RESTORE THE JOB SITE AND SURROUNDING AREAS TO IT'S ORIGINAL CONDITION. OWNER TO VERIFY SATISFACTION.
- . THE CONTRACTOR SHALL VISIT THE JOB SITE TO VERIFY ALL EXISTING CONDITIONS PRIOR TO BID. CONTRACTOR TO NOTIFY ARCHITECT OF
- ANY DISCREPANCIES, INCONSISTENCIES OR OMISSIONS BEFORE PROCEEDING WITH ANY WORK. f i . THE CONTRACTOR SHALL MAKE NO CHANGES TO THE CONSTRUCTION DRAWINGS WITHOUT  $\,$  WRITTEN APPROVAL FROM THE ARCHITECT.
- 5. ALL CONSTRUCTION SHALL CONFORM WITH THE LATEST CODES AND ORDINANCES.
- 3. THESE CONSTRUCTION DOCUMENTS ARE DIAGRAMATIC AND ARE TO CONVEY DESIGN INTENT. IT IS NOT THE INTENT OF THESE CONSTRUCTION DRAWINGS TO SHOW ALL DETAILS OF THE EXISTING CONDITIONS. THE CONTRACTOR SHALL VISIT THE SITE TI VERIFY DIMENSIONS PRIOR
- 7. EACH CONTRACTOR SHALL ESTABLISH AND VERIFY ALL OPENINGS AND INSERTS FOR MECHANICAL, ELECTRICAL, AND PLUMBING WITH THE APPROPRIATE TRADES.
- 8. ALL INDICATED UTILITY AND STUB-IN LOCATIONS ARE FOR REFERENCE ONLY. THE EXACT LOCATIONS SHALL BE VERIFIED ON THE JOB SITE.
- 9. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING WITH ENGINEERING AND THE ARCHITECTURAL DRAWINGS FOR THE ACTUAL PLACEMENT OF THE WORK RELATIVE TO FIELD CONDITIONS.
- 10. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE OBTAINING INSTALLATION REQUIREMENTS FOR ALL BUILT-IN APPLIANCES, FIXTURES, AND EQUIPMENT. VERIFY EXACT ROUGH-IN DIMENSIONS AND NOTIFY ARCHITECT OF ANY DISCREPANCIES PRIOR TO ROUGH-IN FRAME.
- 11. THE COST OF ADDITIONAL DESIGN WORK DUE TO ERRORS OR OMMISIONS IN CONSTRUCTION SHALL BE BORNE BY THE RESPECTIVE
- 10. DETAILS ON THE STRUCTURAL DRAWINGS (IF PROVIDED) ARE TYPICAL. VERIFY ALL DIMENSIONS WITH THE STRUCTURAL DRAWINGS.
- 12. CONTRACTOR TO BE RESPONSIBLE FOR CHECKING STRUCTURAL CALCULATIONS FOR SPECIFIC REQUIREMENTS OF STRUCTURAL CONNECTIONS. SUBMIT STEEL TRUSS CALCULATIONS AND SHOP DRAWINGS OF ALL STRUCTURAL STEEL AND MISCELLANEOUS METAL FABRICATION BEFORE COMMENCING FABRICATION.
- 13. BIRSE DESIGN, INC. SHALL IN NO WAY BE RESPONSIBLE FOR THE CONSTRUCTION MEANS, METHODS, TECHNOLOGIGES, SEQUENCES OR PROCEDURES, OR FOR SAFETY PRECAUTIONS AND PROGRAMS IN CONNECTION WITH THE WORK. (THESE ARE SOLELY THE CONTRACTORS RESPONSIBILITY UNDER THE CONTRACT FOR CONSTRUCTION.
- 14. EACH CONTRACTOR SHALL PROVIDE ALL NECESSARY TEMPORARY BRACING, SHORING, GUYING, OR OTHER MEANS TO AVOID EXCESSIVE STRESSES AND TO HOLD STRUCTURAL ELEMENTS ASSOCIATED WITH WORK IN PLACE DURING CONSTRUCTION.
- 15. PROVIDE PORTABLE FIRE EXTINGUISHERS DURING CONSTRUCTION AS REQUIRED BY LOCAL CODES.
- 16. SPRINKLER SYSTEM: INSTALL FULL BUILDING SPRINKLER SYSTEM IN COMPLIANCE WITH THE REQUIREMENTS OF NFPA 13. SHOP DRAWINGS MUST BE APPROVED BEFORE INSTALLATIONS. PROVIDE OWNER WITH 2 COPIES OF PERMIT SETS.
- 7. ALL CONTRACTORS AND SUBCONTRACTORS SHALL BE RESPONSIBLE FOR MEETING THE REQUIREMENTS OF ALL CURRENT APPLICABLE BUILDING CODES AND ENFORCEMENT AGENCIES, FIRE MARSHALL, OR ANY OTHER BUILDING CODE ENFORCEMENT OFFICER AT NO EXTRA COST TO THE OWNER. NOTIFY THE ARCHITECT IN WRITING OF ANY DISCREPHANCIES PRIOR TO SUBMITTING A BID FOR THE PROJECT.
- 18. BASE BID SHALL INCLUDE BUT NOT BE LIMITED TO THE FOLLOWING:
- A. ALL PERMITS AND FEES FOR ALL 1. BUILDING AND TRADE PERMITS.
- 2. ALL ACCESSORY AND SITE IMPROIVEMENT PERMITS.
- B. ALL FILL REQUIRED TO MEET MINIMUM FINISHED FLOOR SLAB ELEVATION AND COMPACTION.
- C. WATER METER HOOK-UP AND METER DEPOSITS. OWNER RESPONSIBILITY
- D. HOOK-UP AND FEES FOR UNDERGROUND SERVICE FROM FPL
- LOCAL PHONE & CABLE T.V. OWNER RESPONSIBILITY E. SOIL, CONCRETE AND ANY OTHER NECESSARY TESTING.
- F. ENGINEERING STAKE OUTS AND SURVEYS INCLUDING FINAL TIE IN SURVEY.
- G. CLEARING, GRUB, AND SITE PREPARATION, INCLUDING GRADING. H. ALL BIDDERS AND THEIR SUBCONTRACTORS SHALL BE CURRENTLY LICENSED
- IN THE STATE OF FLORIDA.
- I. THE OWNER RESERVES THE RIGHT TO REJECT ANY BIDS. J. THE G.C. SHALL PROVIDE AN ESTIMATE OF TIME FOR COMPLETION.
- K. THE GENERAL CONTRACTOR SHALL PROVIDE PROOF OF INSURANCE FOR WORKMANS' COMPENSATION AND ANY OTHER INSURANCES REQUIRED BY THE OWNER FOR ALL EMPLOYEES EITHER DIRECTLY EMPLOYED BY THE
- GENERAL CONTRACTOR OR BY HIS SUBCONTRACTORS. . THE CONTRACTOR SHALL CLEARLY LIST ANY WORK NOT INCLUDED IN HIS BID.
- M. PROVIDE FIRE DEPARTMENT KNOX BOX ADJACENT TO FRONT DOOR OF BLDG. N. CONTRACTOR TO PROVIDE AS BUILT DRAWINGS. PROVIDE TWO COPIES
- OF PERMIT SET TO OWNER

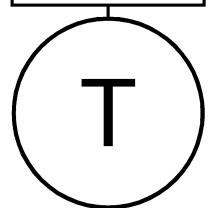
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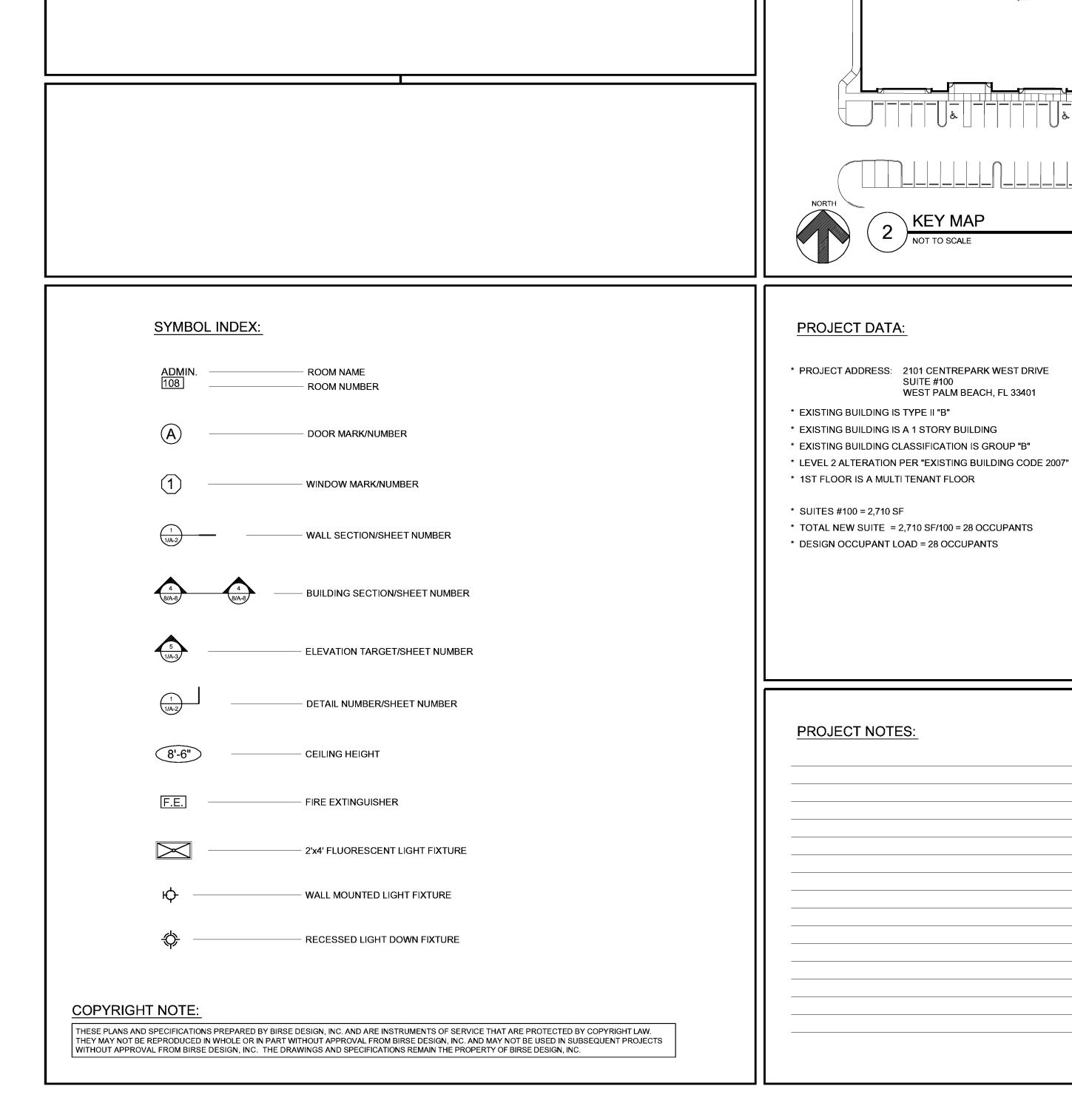
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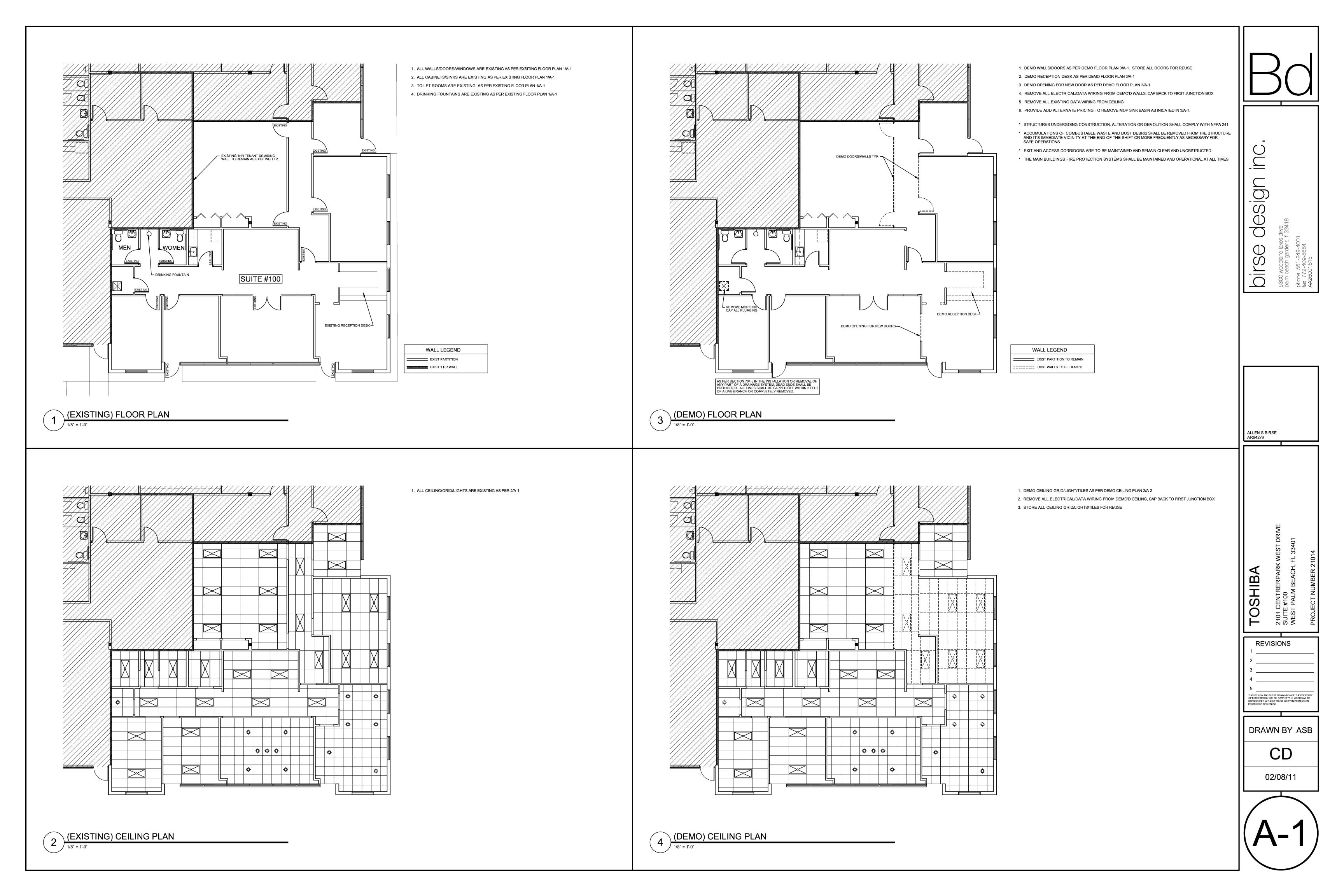
OM BIRSE DESIGN INC.

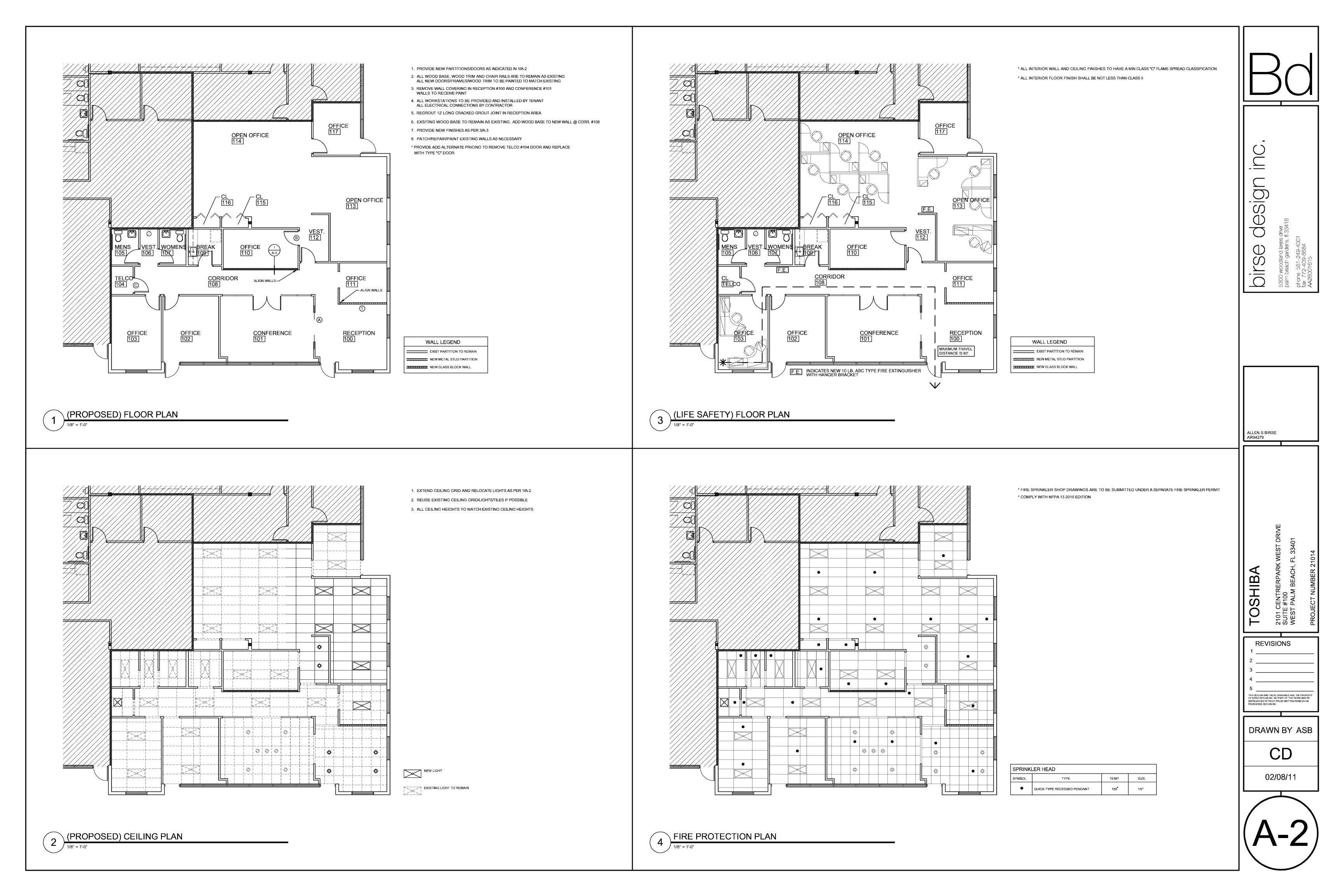
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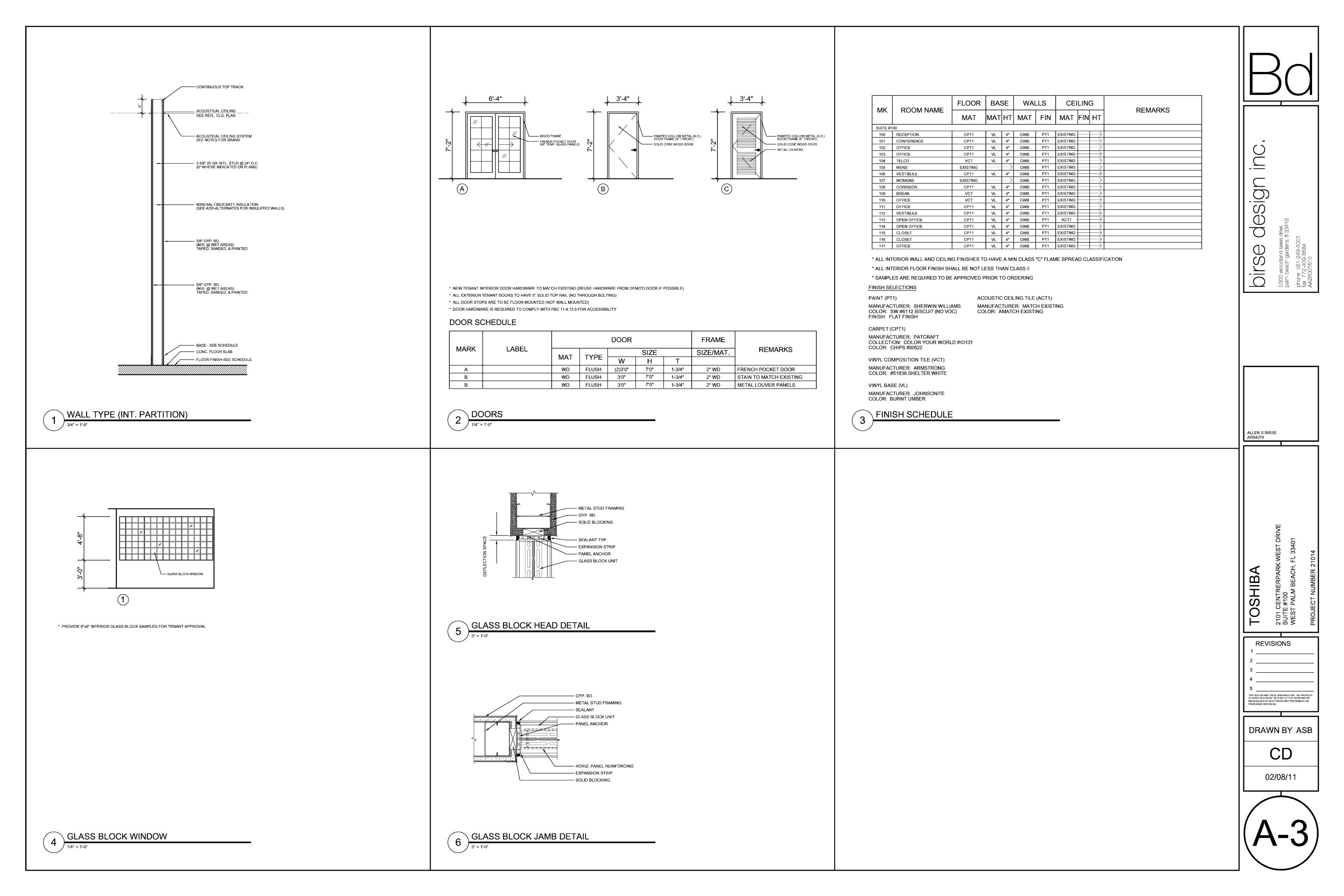
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#### MECHANICAL GENERAL NOTES:

- THESE DRAWINGS ARE DIAGRAMMATIC. ALL OFFSETS, FITTINGS, TRANSITIONS AND ACCESSORIES ARE NOT SHOWN. THE CONTRACTOR SHALL INCLUDE IN HIS BID ALL ITEMS REQUIRED TO PROVIDE A COMPLETE AND OPERATIONAL SYSTEM. DO NOT SCALE DRAWINGS FOR INSTALLATION.
- 2. ALL WORK SHALL BE PERFORMED IN A FIRST CLASS WORKMANLIKE MANNER BY LICENSED CONTRACTORS.
- 3. THE CONTRACTOR SHALL OBTAIN AT HIS EXPENSE ALL NECESSARY FEES PERMITS, AND TESTS.
- 4. ALL WORK SHALL CONFORM TO ALL APPLICABLE LOCAL, STATE AND NATIONAL CODES. NO CONTRACTOR SHALL BID UNLESS FAMILIAR WITH THESE CODES.
- 5. CORRECTION OF DEFECTS TO THIS WORK SHALL BE MADE PROMPTLY WITHOUT CHARGE TO THE OWNER. REPAIR AND REPLACEMENT FOR DAMAGE CAUSED BY THIS CONTRACTOR SHALL BE MADE PROMPTLY WITHOUT CHARGE TO THE OWNER.
- 6. ALL WORK OF THIS TRADE SHALL BE COORDINATED WITH ALL OTHER TRADES TO AVOID ANY INTERFERENCES THAT MAY DELAY PROGRESS OF CONSTRUCTION.
- 7. THE CONTRACTOR SHALL INCLUDE THE WORK OF ALL REQUIRED SUB— CONTRACTORS, SUCH AS ELECTRICAL, INSULATING, TEST & BALANCE, ETC., AS REQUIRED FOR A COMPLETE AND OPERATIONAL SYSTEM.
- 8. EQUIPMENT SHALL BEAR A U.L. OR OTHER RECOGNIZED LABEL, NAMEPLATES, WIRING DIAGRAMS, AND ENERGY RATINGS AS APPLICABLE.
- 9. THE CONTRACTOR SHALL INSTALL ALL EQUIPMENT AND ACCESSORIES TO BE READLY ACCESSIBLE FOR SERVICING, TESTING, BALANCING, AND REPLACEMENT.
- 10. THE CONTRACTOR SHALL PROVIDE A WRITTEN GUARANTEE AGAINST DEFECTS IN ALL MATERIALS AND WORKMANSHIP FOR ONE YEAR FROM ACCEPTANCE, WITH FOUR ADDITIONAL YEARS OF WARRANTY ON COMPRESSORS.
- 11. THE CONTRACTOR SHALL PROVIDE THREE COPIES OF SUBMITTAL DATA, SHOP DRAWINGS, AND AT COMPLETION OF THE PROJECT TWO SETS OF OPERATION AND MAINTENANCE MANUALS FOR ALL PROJECT ITEMS.
- 12. PROVIDE ALL CONTROLS, STARTERS, CONTROL WIRING, DISCONNECTS, AND OTHER ELECTRICAL EQUIPMENT AS REQUIRED FOR A COMPLETE AND OPERATIONAL SYSTEM.
- 13. THE HVAC CONTRACTOR IS RESPONSIBLE FOR MAINTAINING, ON SITE, A DETAILED AS—BUILT PLAN SHOWING ACTUAL INSTALLATIONS. THE CONTRACTOR IS TO PROVIDE A NEATLY DRAWN COMPREHENSIVE AS—BUILT SET OF PLANS UPON COMPLETION, WHICH ARE SUITABLE FOR SUBMISSION TO THE BUILDING DEPARTMENT AND TO THE OWNER.
- 14. PRIOR TO ACCEPTANCE BY THE OWNER THE SYSTEMS SHALL BE TESTED AND BALANCED BY AN INDEPENDENT NEBB CERTIFIED T&B CONTRACTOR EXPERIENCED WITH THIS SYSTEM, AND CERTIFIED T&B REPORTS SUBMITTED.
- 15. SUPPLY AND INSTALL DUCT MOUNTED SMOKE DETECTORS AS REQUIRED.
- 16. COORDINATE LOCATION OF CEILING DIFFUSERS, GRILLES AND REGISTERS IN THE FIELD WITH LIGHTS AND ARCHITECTURAL ELEMENTS.
- 17. ALL GRILLES TO BE TITUS OR METALLAIRE UNLESS OTHERWISE NOTED, SIZES AS SHOWN ON PLANS, ALUMINUM CONSTRUCTION.
- 18. ALL DUCT WORK SHALL BE BUILT AND INSTALLED IN ACCORDANCE WITH SMACNA STANDARDS AND LOCAL BUILDING CODES.
- 19. ALL DUCT SIZES ARE CLEAR INSIDE DIMENSIONS.
- 20. ALL OUTSIDE AIR DUCTWORK SHALL BE SHEETMETAL WITH EXTERIOR R-6 INSULATION. PROVIDE BLANKET TYPE INSULATION IN CONCEALED SPACES, AND BOARD TYPE IN EXPOSED AREAS.
- 21. ALL EXHAUST AIR DUCT SHALL BE GALVANIZED SHEET METAL CONSTRUCTED AND INSTALLED IN ACCORDANCE WITH ASHRAE AND SMACNA STANDARDS.
- 22. FLEXIBLE DUCT, WHERE SHOWN, SHALL BE U.L. CLASS 1, R-6 INSULATION.
- 23. LOW PRESSURE SUPPLY AND RETURN DUCTWORK IS RIGID DUCTBOARD WITH VAPOR BARRIER, 1 IN. THICK, R-4.2 INSULATION, EXCEPT AS NOTED.
- 24. PROVIDE ELBOW TURNING VANES IN ALL RECTANGULAR DUCTS WHERE TURNS ARE GREATER THAN 45 DEGREES.
- 25. PROVIDE BACKDRAFT DAMPERS FOR ALL EXHAUST FANS.
- 26. VERIFY ALL THERMOSTAT LOCATIONS WITH THE ARCHITECT.
- 27. CONDENSATE DRAIN PIPING IS COPPER WITH SOLDERED FITTINGS AND ARMAFLEX INSULATION.

#### GENERAL DEMOLITION NOTES

- 1. UNLESS OTHERWISE NOTED, ALL EQUIPMENT AND DUCTWORK IN THE PROJECT AREA WHICH IS NOT INDICATED TO REMAIN, IS TO BE REMOVED. THE CONTRACTOR SHALL INVESTIGATE THE PROJECT AREA PRIOR TO BID TO DETERMINE ALL REQUIRED DEMOLITION.
- 2. EXISTING CONDITIONS SHOWN ON THIS DRAWING ARE TAKEN FROM ORIGINAL DRAWINGS AND FIELD INVESTIGATION. ALL EXISTING CONDITIONS MUST BE VERIFIED PRIOR TO BID. FIELD CONDITIONS SHALL GOVERN.
- 3. DEMOLITION WORK IS NOT SPECIFICALLY IDENTIFIED ON THESE PLANS, AND MAY BE DESCRIBED ON THE ARCHITECTS PLANS. THE CONTRACTOR IS RESPONSIBLE FOR ALL REQUIRED DEMOLITION WHETHER SHOWN ON THE PLANS OR NOT.
- 4. ALL MECHANICAL SYSTEMS SERVING OTHER SPACES OR FLOORS, THAT RUN THROUGH THE PROJECT AREA SHALL REMAIN ACTIVE DURING CONSTRUCTION, SO AS NOT TO CAUSE ANY DISRUPTION TO THESE OTHER SPACES.
- 5. ALL ITEMS REMOVED UNDER THIS PROJECT SHALL BE DISPOSED OF OR TURNED OVER TO THE OWNER AT THE OWNER'S DISCRETION.
- 6. PROPERLY REMOVE AND DISPOSE OF ALL HVAC DUCTWORK AND AIR DISTRIBUTION DEVICES WHICH ARE TO BE REMOVED. CONSULT WITH OWNER AND OBTAIN THE OWNER'S APPROVAL PRIOR TO DISPOSAL OF REMOVED MATERIAL.
- 7. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ENSURE THAT ALL PIPING AND DUCTS, NEW OR EXISTING, WITHIN THE PROJECT AREA, ARE PROPERLY SUPPORTED.
- 8. ANY UN-USED DUCT OPENINGS ARE TO BE CLOSED, SEALED AND INSULATED WITH MATERIALS AND METHODS TO MATCH EXISTING INSTALLATIONS.

#### LEGEND

EXISTING EQUIPMENT TO REMAIN

SUPPLY AIR DIFFUSER AS NOTED

RETURN/TRANSFER AIR GRILLE AS NOTED

EXISTING SUPPLY AIR DIFFUSER

EXISTING EXHAUST/RETURN GRILLE

=== EXISTING DUCTWORK TO REMAIN

T PROGRAMMABLE THERMOSTAT

MANUAL VOLUME DAMPER

FLEXIBLE DUCT, U.L. CLASS 1

DUCT SMOKE DETECTOR WITH AUDIBLE AND VISIBLE INDICATORS

REMOTE TEST & INDICATOR STATION (FOR DUCT SMOKE DETECTOR)

CONNECTION TO EXISTING

#### ABBRE∨IATIONS

CFM - CUBIC FEET PER MINUTE

E/A – EXHAUST AIR

S/A - SUPPLY AIR

R/A - RETURN AIR

AHU — AIR HANDLING UNIT

CU - CONDENSING UNIT

EXISTING

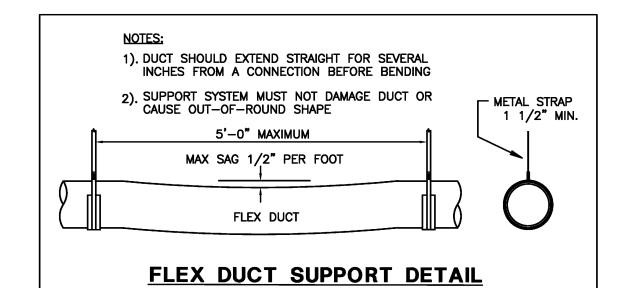
R - RELOCATED

RC - ROOF CAP

## HVAC PROJECT SPECIFIC NOTES

CONTRACTOR IS TO INSPECT ALL EXISTING DUCTWORK SHOWN ON THESE PLANS AS REMAINING. REPAIR AS REQUIRED ANY DAMAGED DUCTWORK OR INSULATION. WHERE DUCTWORK IS SHOWN TO BE PARTIALLY REMOVED, CAP, SEAL, AND INSULATE TO MATCH EXISTING METHODS AND MATERIALS.

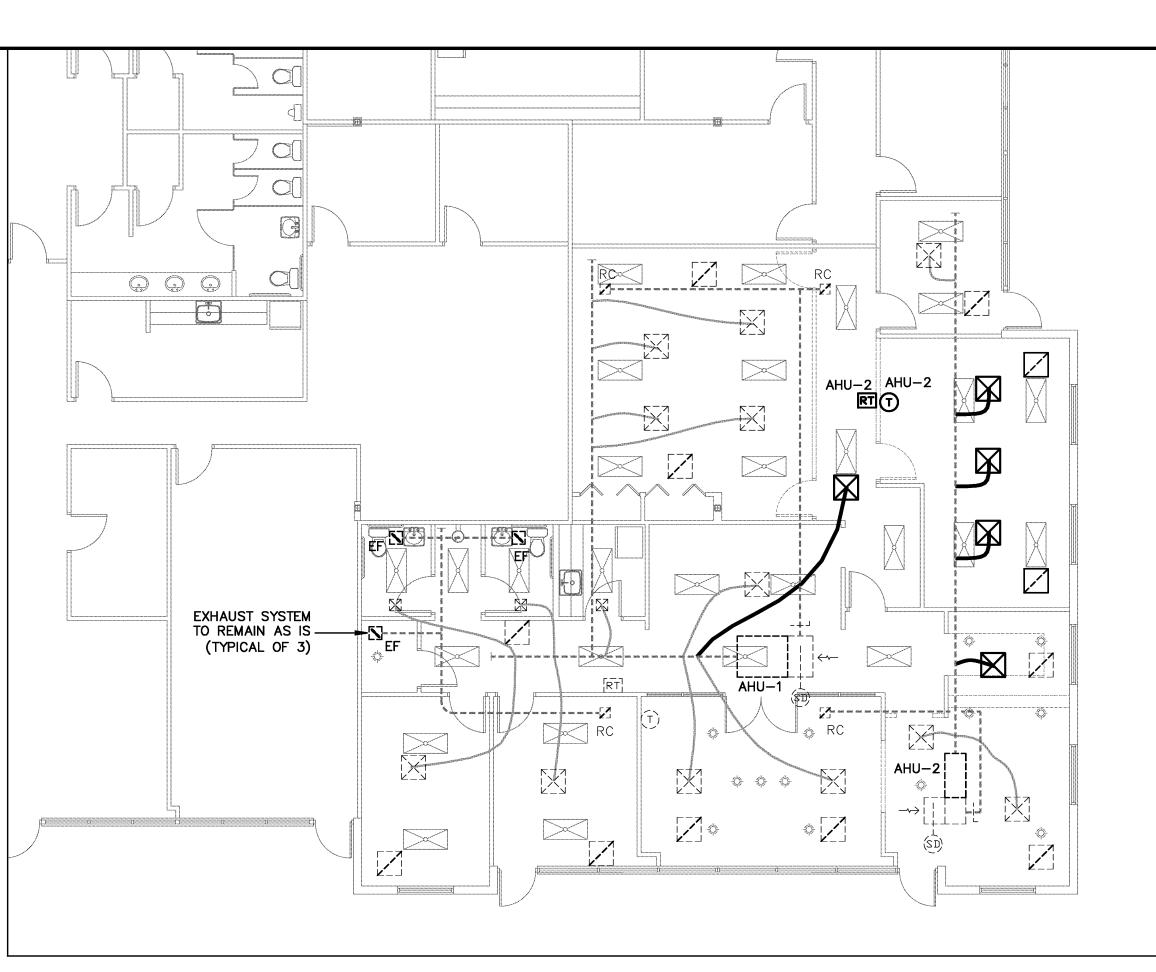
EXISTING EQUIPMENT WHICH IS REMAINING IS TO BE INSPECTED, ADJUSTED AND REPAIRED WHERE NECESSARY.



VENTILATION CALCULATIONS						
SYSTEM	AHU-1 AHU-				lU−2	
AREA TYPE	OFFICE	BREAK	CORRIDOR	CONFERENCE	OFFICE	RECEPTION
SQUARE FEET OF AREA	1140	56	310	282	540	218
CFM/SQ.FT. REQUIRED	0.06	0.06	0.06	0.06	0.06	0.06
TOTAL OCCUPANTS	9	1	_	14	4	7
CFM/PERSON REQUIRED	5	5	-	5	5	5
ZONE CFM REQUIRED	113	8	19	87	52	48
TOTAL SYSTEM CFM				227		100
NOTES		·		_		

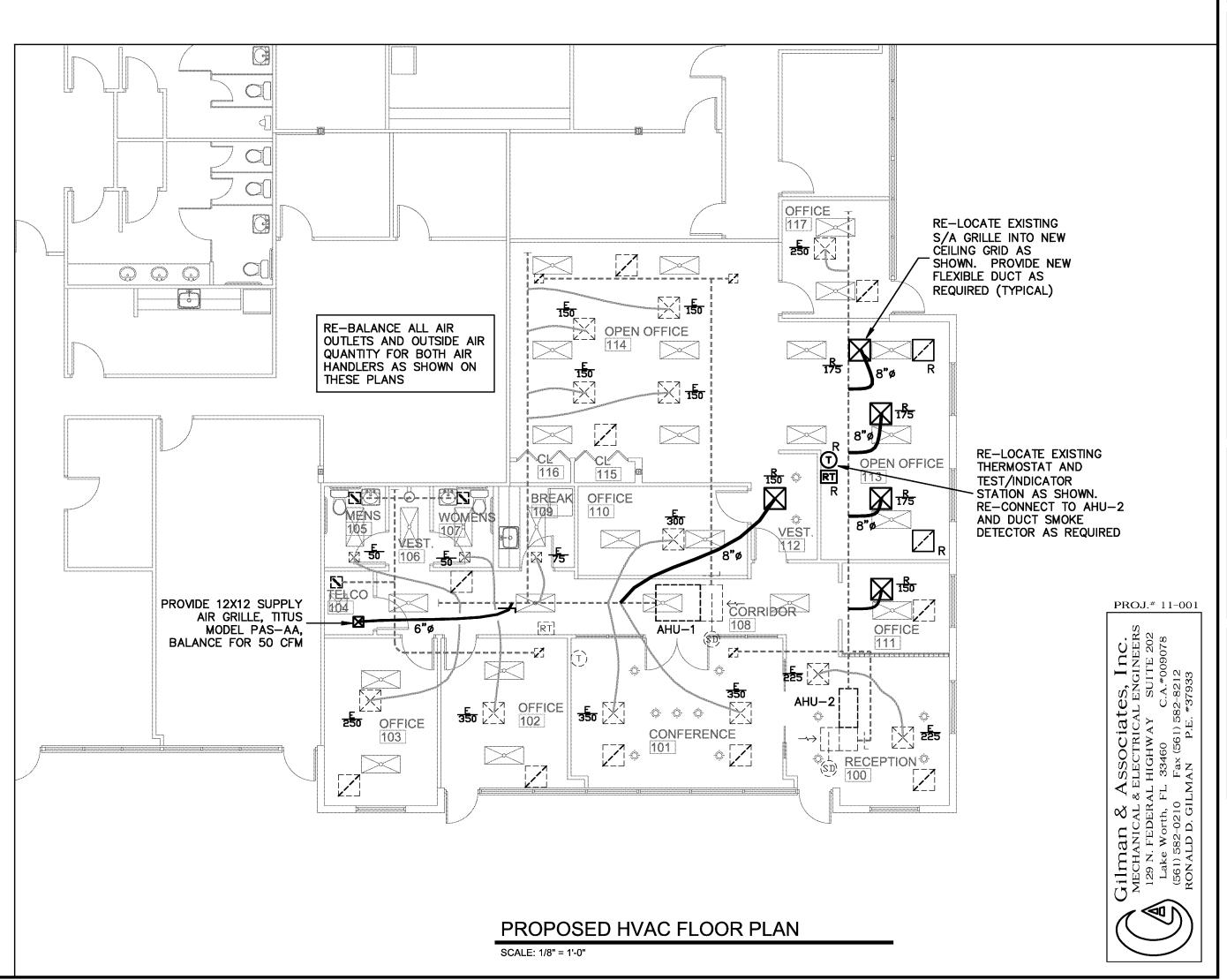
NOTES

1. ABOVE CALCULATIONS AND OCCUPANCY RATES PER ASHRAE 62.1, 2007



## EXISTING HVAC FLOOR PLAN

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





\_\_\_\_

TOSHIBA

2101 CENTRERPARK WEST DRIVE
SUITE #100
WEST PALM BEACH, FL 33401

REVISIONS

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B BIRSE DESIGN INC. NO PART OF THIS WORK MAY BE
REPRODUCED WITHOUT PRIOR WRITTEN PERMISSION
OM BIRSE DESIGN INC.

DRAWN BY GD

02/08/11

(M-1)

#### **ELECTRICAL NOTES**

- 1. DO NOT SCALE THE ELECTRICAL DRAWINGS. REFER TO ARCHITECTURAL PLANS AND ELEVATIONS FOR EXACT LOCATION OF ALL EQUIPMENT. CONFIRM WITH OWNERS REPRESENTATIVE.
- 2. ALL WORK SHALL BE DONE IN ACCORDANCE WITH NATIONAL ELECTRICAL CODE NFPA-70 (2008), THE LIFE SAFETY CODE NFPA-101 (2006), THE NATIONAL FIRE ALARM CODE NFPA-72 (2002), AND THE FLORIDA BUILDING CODE (FBC 2007 WITH 2009 SUPPLEMENTS).
- 3. MINIMUM WIRE SIZE SHALL BE #12 A.W.G., EXCLUDING CONTROL WIRING, UNLESS OTHERWISE NOTED ALL CONDUCTORS SHALL BE COPPER WITH THWN INSULATION.
- 4. DUTLET BOXES SHALL BE SHEET STEEL IN DRY LOCATIONS, CAST ALLOY WITH THREADED HUBS IN WET OR DAMP LOCATIONS AND SPECIAL ENCLOSURES AS REQUIRED FOR OTHER CLASSIFIED AREAS.
- 5. DISCONNECT SWITCHES SHALL BE H.P. RATED , HEAVY DUTY, QUICK-MAKE, QUICK-BREAK ENCLOSURES AS REQUIRED BY EXPOSURE.
- 6. MOTOR STARTERS SHALL BE MANUAL OR MAGNETIC , WITH OVERLOAD RELAYS IN EACH HOT LEG.
- 7. IT IS NOT THE INTENT OF THESE PLANS TO SHOW EVERY MINOR DETAIL OF CONSTRUCTION. THE CONTRACTOR IS EXPECTED TO FURNISH AND INSTALL ALL ITEMS FOR A COMPLETE ELECTRICAL SYSTEM AND PROVIDE ALL REQUIREMENTS NECCESSARY FOR EQUIPMENT TO BE PLACED IN PROPER WORKING
- 8. ELECTRICAL SYSTEM SHALL BE COMPLETE AND EFFECTIVELY GROUNDED AS REQUIRED BY THE LATEST EDITION OF THE N.E.C.
- 9. ALL MATERIALS SHALL BE NEW AND BEAR UNDERWRITERS' LABELS WHERE APPLICABLE.
- IO. ALL WORK SHALL BE PERFORMED BY A LICENSED ELECTRICAL CONTRACTOR
  IN A FIRST CLASS WORKMANLIKE MANNER. THE COMPLETED SYSTEM SHALL
  BE FULLY OPERATIVE , AND ACCEPTED BY ENGINEER/ARCHITECT.
- 11. ALL WORK SHALL BE COORDINATED WITH OTHER TRADES TO AVOID INTERFERENCE WITH THE PROGESS OF CONSTRUCTION.
- 12. CONTRACTOR SHALL GUARANTEE ALL MATERIALS AND WORKMANSHIP FREE FROM DEFECTS FOR A PERIOD OF NOT LESS THAN ONE YEAR FROM DATE
- 13. CORRECTION OF ANY DEFECTS SHALL BE COMPLETED WITHOUT ADDITIONAL CHARGE AND SHALL INCLUDE REPLACEMENT OR REPAIR OF ANY OTHER PHASE OF THE INSTALLATION WHICH MAY HAVE BEEN DAMAGED THEREBY.
- 14. ALL REQUIRED INSURANCE SHALL BE PROVIDED FOR PROTECTION AGAINST PUBLIC LIABILTY AND PROPERTY DAMAGE FOR THE DURATION OF THE WORK.
- 15. CONTRACTOR SHALL PAY FOR ALL PERMITS , FEES , INSPECTIONS , AND TESTING.
- 16. THE ELECTRICAL INSTALLATION SHALL MEET ALL STANDARD REQUIREMENTS OF POWER AND TELEPHONE COMPANIES.
- 17. FURNISH AND INSTALL DISCONNECT SWITCHES AND WIRING FOR AIR CONDITIONING SYSTEM AS PER MANUFACTURERS RECOMMENDATIONS. CONTROLS ARE TO BE SUPPLIED BY AIR CONDITIONING CONTRACTOR AND CONNECTED BY ELECTRICAL CONTRACTOR.
- 18. ALL RACEWAYS UNDERGROUND SHALL BE A MINIMUM OF 3/4"CONDUIT.
- 19. ALL CIRCUIT BREAKERS , TWO AND THREE POLE , TO BE COMMON TRIP. NO TIE HANDLES , OR TANDEMS WILL BE ACCEPTED.
- 20. ALL FUSES , UNLESS NOTED ON DRAWING , SHALL BE CURRENT LIMITING ( C.L.) RATED FOR 200,000 A.I.C.
- 21. ALL ELECTRICAL EQUIPMENT, DEVICES, WIRE, ETC., SHALL BE LISTED, FOR THE INTENDED USE, WITH UNDERWRITER'S LABORATORIES, INC. (UL),
- WHERE STANDARDS HAVE BEEN ESTABLISHED BY UL.

  22. THE CONTRACTOR IS RESPONSIBLE TO MAINTAIN, ON SITE, A DETAILED AS-BUILT PLAN SHOWING ACTUAL INSTALLATIONS. THE CONTRACTOR IS TO PROVIDE A NEATLY DRAWN COMPREHENSIVE AS-BUILT SET OF PLANS UPON COMPLETION, WHICH ARE SUITABLE FOR SUBMISSION TO THE BUILDING DEPARTMENT AND THE OWNER.
- 23. ALL WIRING IS TO BE IN CONDUIT, EXCEPT THAT METAL CLAD (MC) CABLES MAY BE USED FOR FINAL CONNECTIONS TO RECESSED LIGHTING FIXTURES AND 30 AMP MAXIMUM BRANCH CIRCUITS.

## ELECTRICAL LEGEND

LIGHTING FIXTURE IDENTIFICATION

RECTANGULAR LIGHTING FIXTURE - AS NOTED

[\_\_\_] RECTANGULAR LIGHTING FIXTURE - EXISTING AS NOTED

) ROUND LIGHTING FIXTURE

DIRECTIONAL LIGHTING FIXTURE

O+ WALL MOUNTED LIGHTING FIXTURE

----- LINEAR STRIP LIGHTING FIXTURE

EXIT LIGHT WITH EMERGENCY BATTERY BACKUP

DUAL-LITE LZ2 EMERGENCY LIGHTING FIXTURE WITH BATTERY BACKUP

RECTANGULAR LIGHTING FIXTURE WITH EMERGENCY BATTERY BACKUP

ROUND LIGHTING FIXTURE WITH EMERGENCY BATTERY BACKUP

 $\Phi$  DUPLEX RECEPT - 20 AMP (18" A.F.F.)

SINGLE RECEPT - 20 AMP (18" A.F.F.)

DUPLEX RECEPT MOUNTED ABOVE COUNTER - 20 AMP (42" A.F.F.)

DUPLEX RECEPT FLUSH FLOOR MOUNTED - 20 AMP

SPECIAL PURPOSE RECEPT (18" A.F.F. - MATCH EQUIPMENT PROVIDED)

QUAD-PLEX RECEPT - 20 AMP (18" A.F.F.)

SINGLE POLE TOGGLE SWITCH, 48" AFF

3 3-WAY TOGGLE SWITCH, 48" AFF

 $\$_{ t D}$  SLIDE TYPE DIMMER SWITCH, WATTAGE AS REQUIRED, 48° AFF

JUNCTION BOXES

3100 T FUSIBLE DISCONNECT (SWITCH POLES, AMPS/FUSES AS SHOWN)

\$m MOTOR RATED SWITCH (WITH OVERLOADS)

ELECTRICAL PANELBOARD

MOTOR LOAD

CIRCUIT HOME RUN TO PANELBOARD OR OTHER DEVICE AS INDICATED

/ CONDUIT CONCEALED

EXISTING CIRCUIT AS NOTED

E CAPPED CONDUIT

TV TELEVISION OUTLET (18" A.F.F.)

▼ TELEPHONE/DATA OUTLET (18" A.F.F.)

7 TEL/DATA OUTLET FLUSH FLOOR MOUNTED

 $^{
m Th}_{
m 1T}$  EXISTING DUPLEX RECEPTACLE DUTLET BOX TO REMAIN.

EXISTING TELEPHONE/DATA OUTLET BOX TO REMAIN

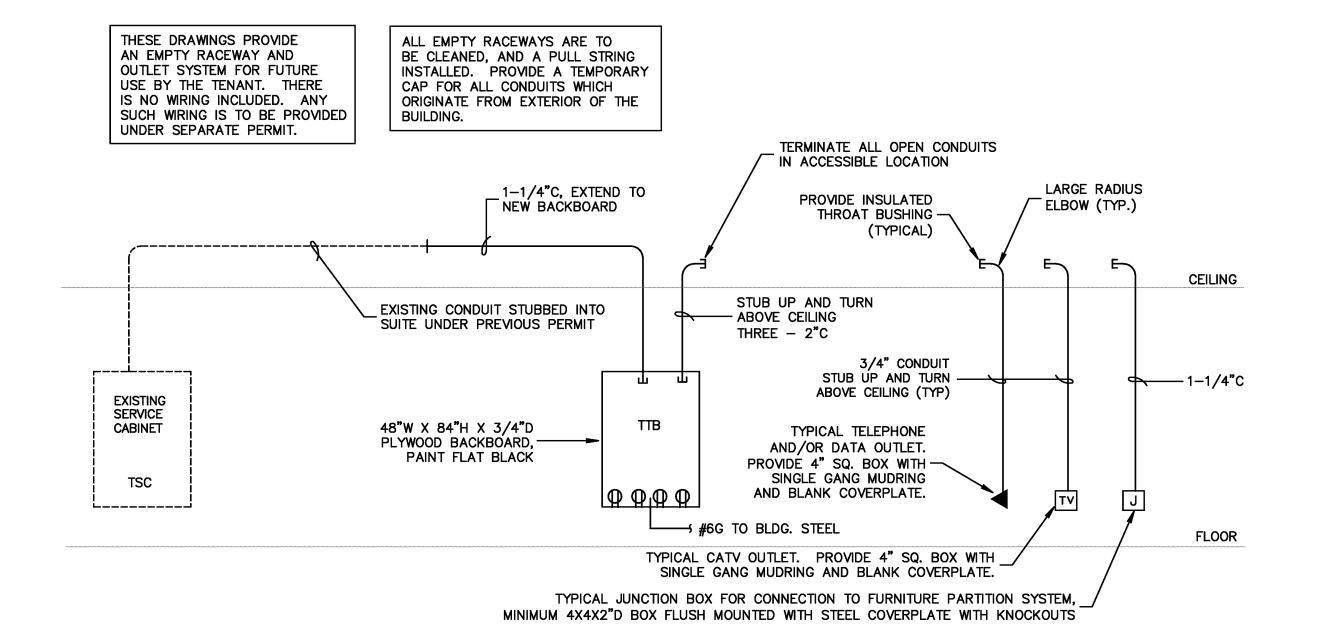
EXISTING DEVICE TO REMAIN, UNLESS NOTED OTHERWISE

R EXISTING DEVICE, RELOCATED AS SHOWN

EXISTING DEVICE TO BE DEMOLISHED OR RELOCATED

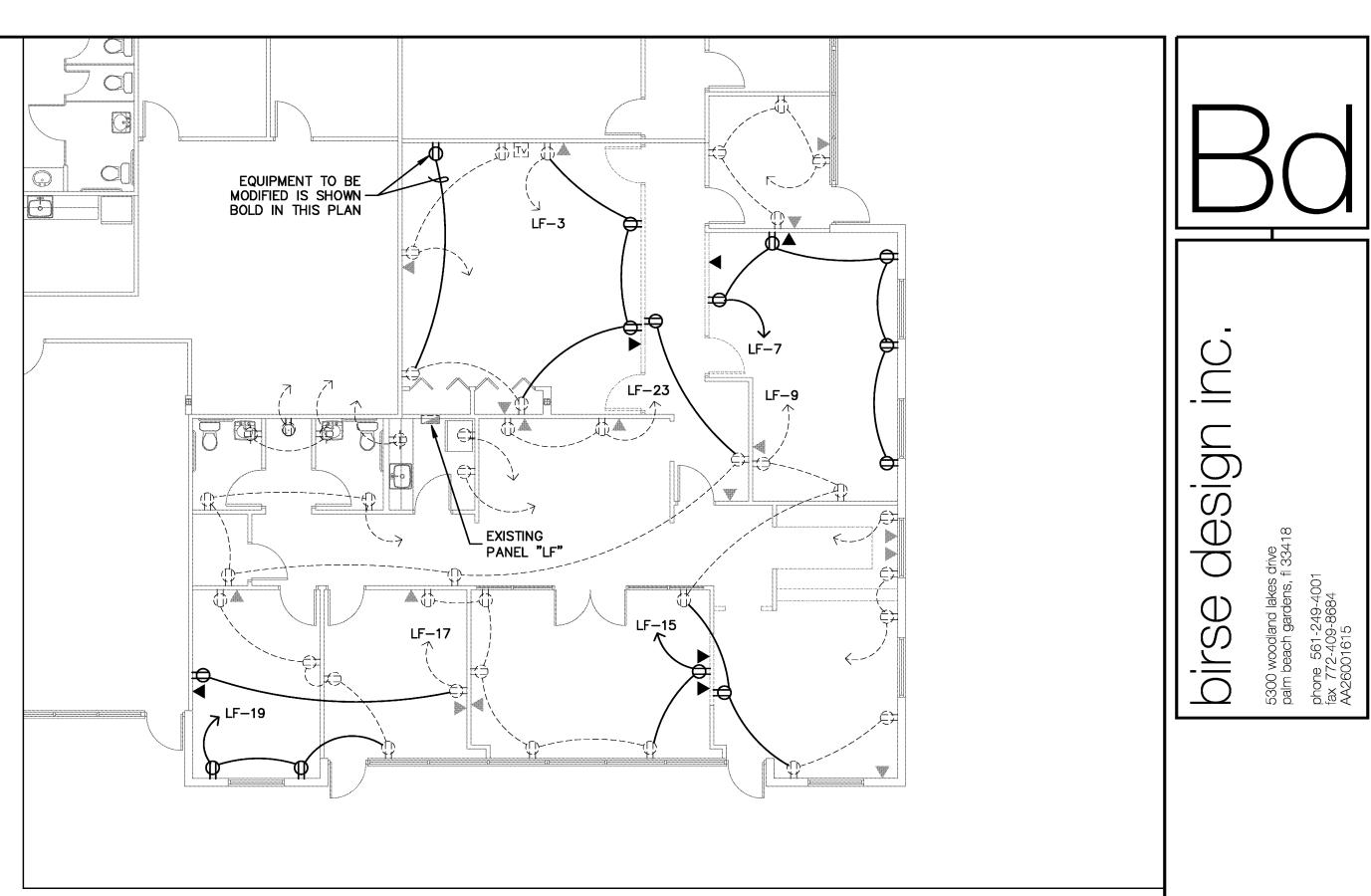
O DCCUPANCY SENSOR WITH MANUAL SWITCH, HUBBELL LHMTS1, 48° AFF

O DCCUPANCY SENSOR, CEILING MOUNT, HUBBELL OMNI DT-2000



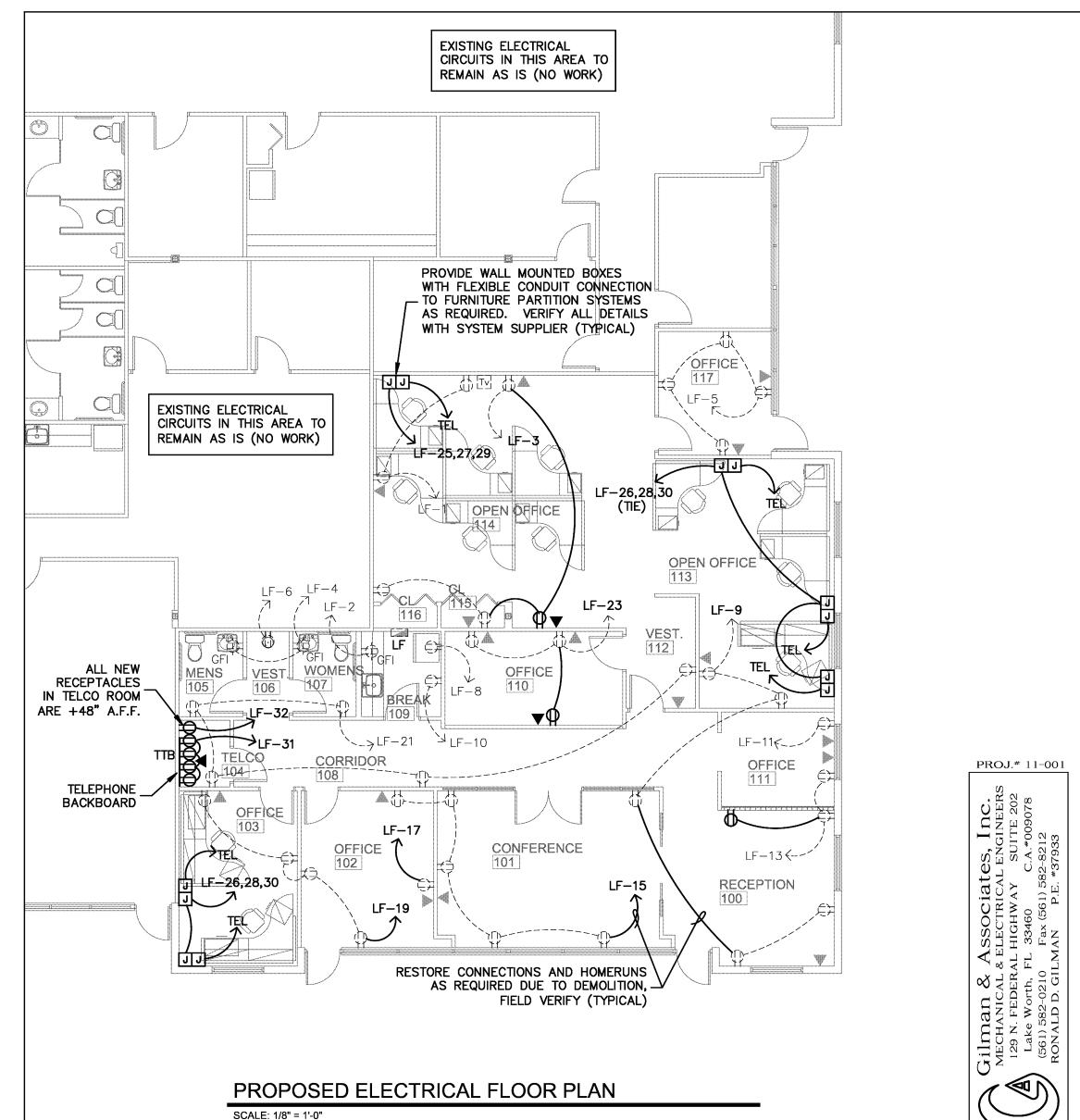
TELEPHONE/DATA RISER DIAGRAM

NO SCALE





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



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HIB

2101 SUITI WES

REVISIONS

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02/08/11

ROM BIRSE DESIGN INC.



- UNLESS OTHERWISE NOTED, ALL EQUIPMENT, WIRING DEVICES, LIGHT FIXTURES, CONDUIT AND WIRE IN THE PROJECT AREA WHICH IS NOT INDICATED TO REMAIN, IS TO BE REMOVED. THE CONTRACTOR SHALL INVESTIGATE THE PROJECT AREA PRIOR TO BID TO DETERMINE ALL REQUIRED DEMOLITION.
- 2. EXISTING CONDITIONS SHOWN ON THIS DRAWING ARE TAKEN FROM ORIGINAL DRAWINGS AND FIELD INVESTIGATION. ALL EXISTING CONDITIONS MUST BE VERIFIED PRIOR TO BID. FIELD CONDITIONS SHALL GOVERN.
- 3. DEMOLITION WORK IS NOT SPECIFICALLY IDENTIFIED ON THESE PLANS, AND MAY BE DESCRIBED ON THE ARCHITECTS PLANS. THE CONTRACTOR IS RESPONSIBLE FOR ALL REQUIRED DEMOLITION WHETHER SHOWN ON THE PLANS OR NOT.
- 4. ALL CONDUITS SERVING OTHER SPACES OR FLOORS, THAT RUN THROUGH THE PROJECT AREA SHALL REMAIN ACTIVE DURING CONSTRUCTION, SO AS NOT TO CAUSE ANY DISRUPTION TO THESE OTHER SPACES.
- 5. ALL ITEMS REMOVED UNDER THIS PROJECT SHALL BE DISPOSED OF OR TURNED OVER TO THE OWNER AT THE OWNER'S DISCRETION.
- 6. PROPERLY REMOVE AND DISPOSE OF ALL ELECTRICAL EQUIPMENT, CONDUIT AND WIRING WHICH IS TO BE REMOVED. CONSULT WITH OWNER AND OBTAIN THE OWNERS APPROVAL PRIOR TO DISPOSAL OF REMOVED MATERIAL.
- 7. IT IS THE CONTRACTOR'S RESPONSIBLITY TO ENSURE THAT ALL CONDUITS, NEW OR EXISTING, WITHIN THE PROJECT AREA, ARE PROPERLY SUPPORTED AND PROVIDED WITH BONDING BUSHINGS IN ACCORDANCE WITH THE NATIONAL ELECTRIC CODE.

THE CONTRACTOR IS RESPONSIBLE TO

SET ALL OCCUPANCY SENSORS TO THE

OCCUPANCY SENSORS SHALL TURN OFF

ACCORDANCE WITH FBC 13-415.AB.1.1

THE SPACE LIGHTING WITHIN 30 MINUTES

OF AN OCCUPANT LEAVING THE SPACE, IN

ALL OCCUPANCY SENSORS ARE TO BE INSTALLED IN

ACCORDANCE WITH THE MANUFACTURER'S WRITTEN

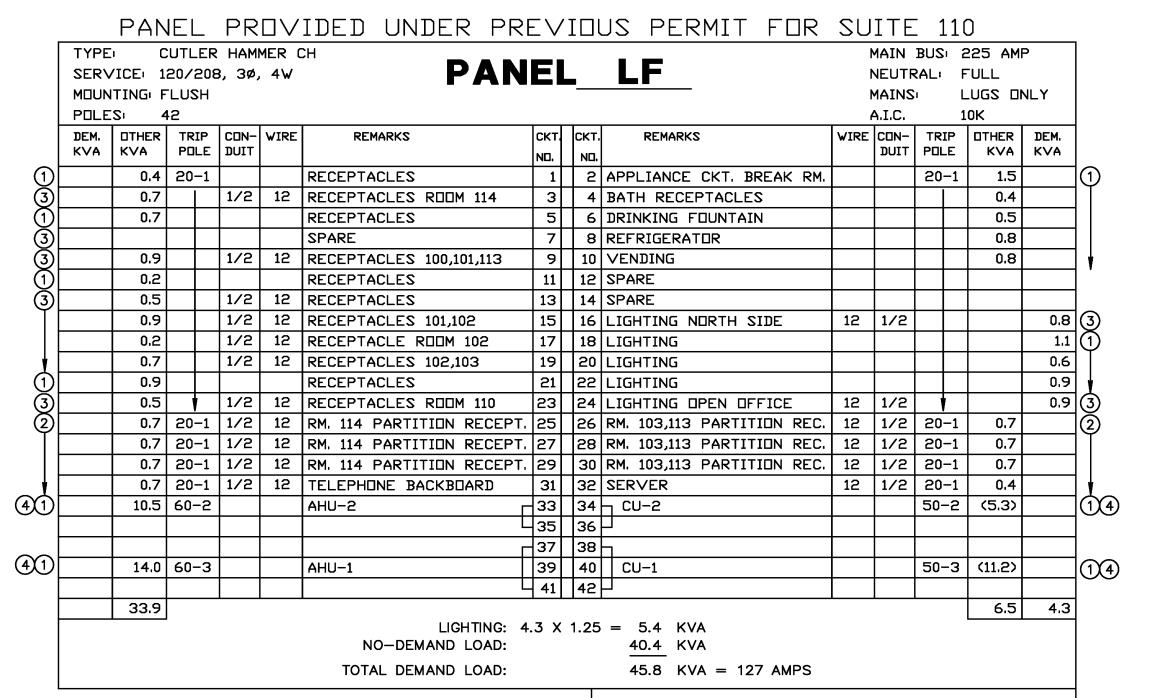
INSTRUCTIONS. PROVIDE POWER PACKS, RELAYS,

AND ANY OTHER ACCESSORIES AS REQUIRED FOR A COMPLETE AND OPERATION SYSTEM AS SHOWN,

INCLUDING CONTROL OF MULTIPLE CIRCUITS AND

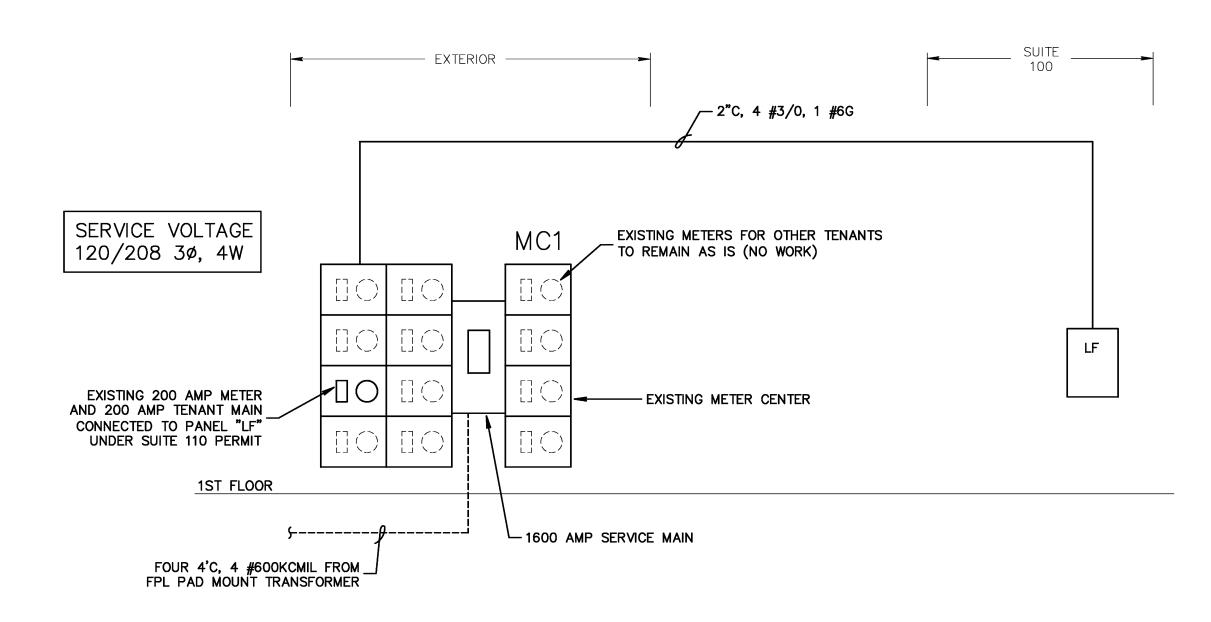
120 OR 277 VOLT SYSTEMS WHERE INDICATED.

MAXIMUM ALLOWABLE DURATION



PANEL SCHEDULES KEYNOTES

- (1) EXISTING CIRCUIT TO REMAIN AS IS.
- (2) PROVIDE NEW CIRCUIT BREAKER, MATCH EXISTING BREAKERS.
- (3) EXISTING CIRCUIT TO BE MODIFIED AS SHOWN ON FLOOR PLAN.
- (4) CONDENSING UNIT IS NON-COINCIDENT WITH AHU HEAT STRIP.



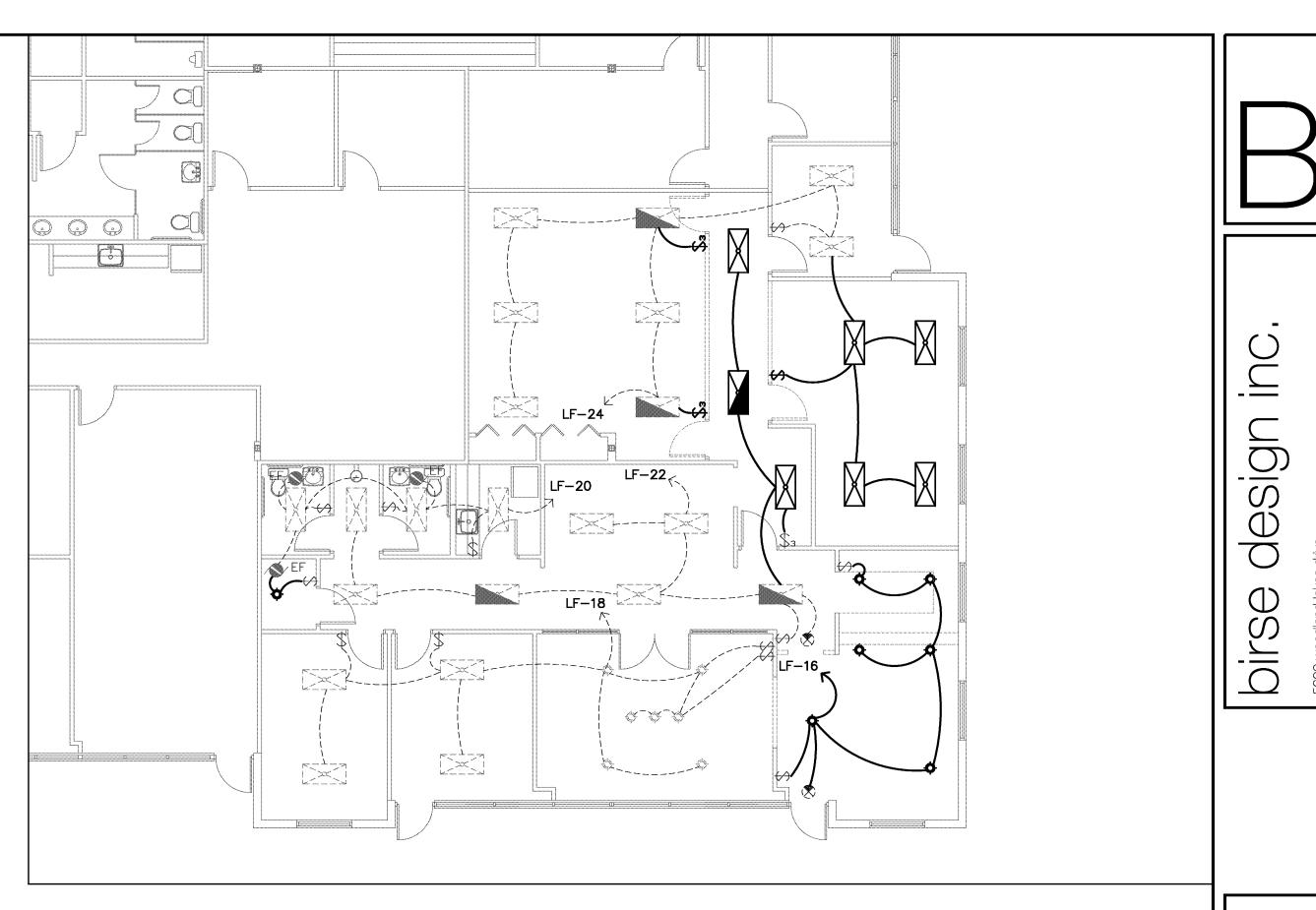
ELECTRICAL RISER DIAGRAM (EXISTING) SCALE: NONE

# LIGHTING POWER COMPLIANCE

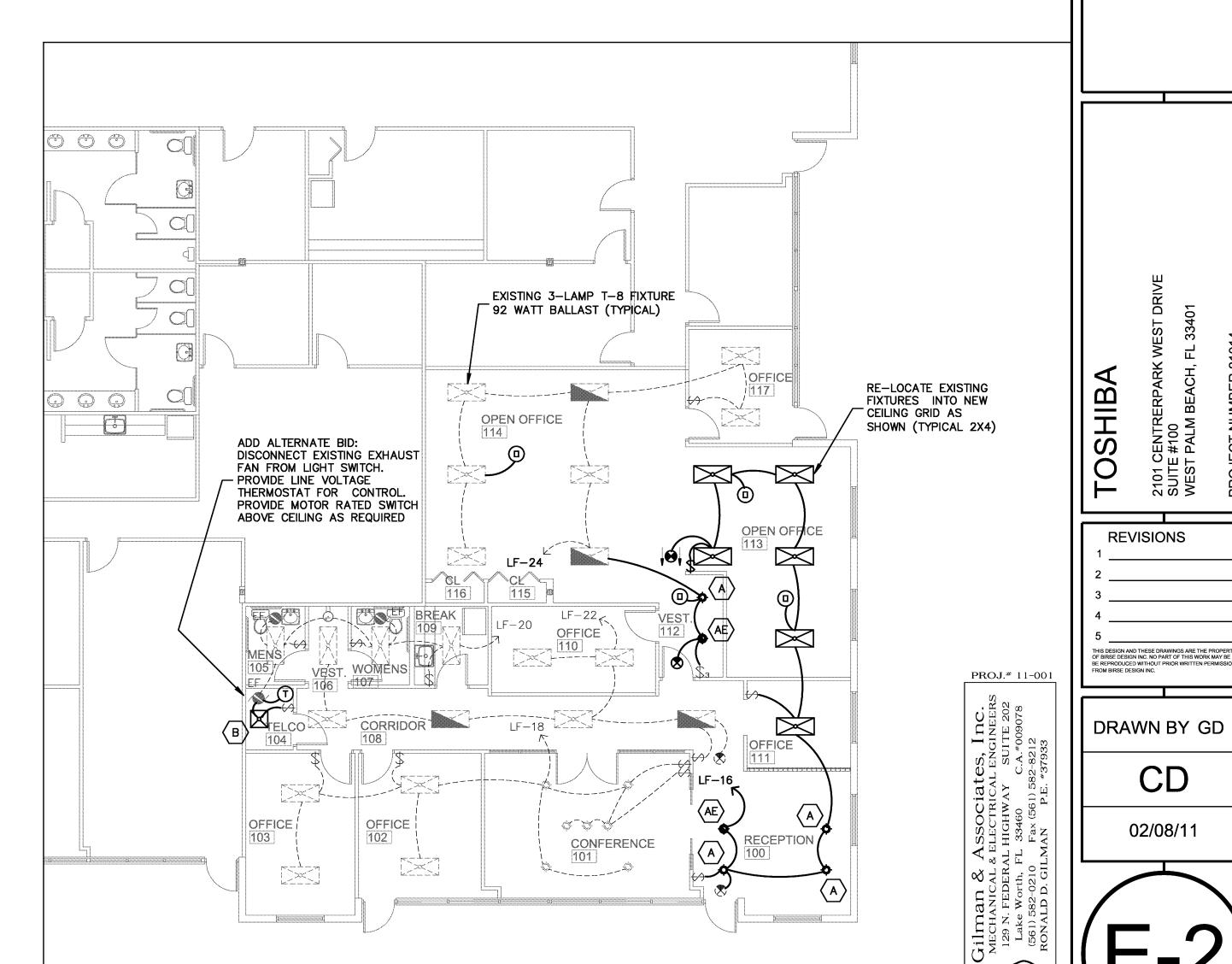
(PER TABLE 13-415.2.B, FBC CHAPTER 13)						
SPACE TYPE	TOTAL AREA (SQ.FT.)	ALLOWANCE PER SQ.FT.	SUB-TOTAL ALLOWANCE	DESIGN		
RECEPTION	220	1.3	286	176		
OFFICE	1,040	1.1	1,144	1,192		
ELECT/MECH.	31	1.5	46	62		
TOTALS			1,476	1,430		

LIGHTING FIXTURE SCHEDULE								
MARK	TYPE	MOUNT	LAMP	VOLT	MANUFACTURER	CATALOG	NOTES	
A	FLUORESCENT DOWNLIGHT	RECESSED	(1)42WTT 41K	120	PRESCOLITE	CFT832HEB- STF802H		
AE	FLUORESCENT DOWNLIGHT	RECESSED	(1)42WTT 41K	120	PRESCOLITE	CFT832HEB-EM STF802H	3	
B	LENSED 2X2 TROFFER, 2 LAMP	RECESSED	(2)FB32 T8/41K	120	COLUMBIA	JT822-232U6G-FSA12- EU-GLR		
•	EXIT LIGHT	SURFACE	BY MFGR.	120	DUAL LITE	LXURWE	12	

- PROVIDE SINGLE OR DUAL FACE, WALL OR CEILING MOUNT, AS SHOWN ON PLANS. CONNECT FIXTURES TO UNSWITCHED HOT LEG OF LOCAL LIGHTING CIRCUIT.
- PROVIDE BATTERY/INVERTER EMERGENCY BACKUP FOR 90 MINUTES.
  CONNECT FIXTURES TO UNSWITCHED HOT LEG OF LOCAL LIGHTING CIRCUIT.
- (3) WHERE SHOWN ON PLAN, PROVIDE BATTERY/INVERTER EMERGENCY BACKUP FOR 90 MINUTES. CONNECT FIXTURES TO UNSWITCHED HOT LEG OF LOCAL LIGHTING CIRCUIT.







PROPOSED LIGHTING FLOOR PLAN

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

2101 SUITI WES

02/08/11