City Of Parkland Liberty Park Restroom Renovation

9200 Ranch Rd. Parkland, FL 33067

100% CONSTRUCTION DOCUMENT REVISION 1 10/22/24

OWNER

CITY OF PARKLAND 6600 UNIVERSITY DRIVE PARKLAND, FLORIDA 33067

JDEPUSOIR@CITYOFPARKLAND.ORG OFFICE: (954)-757-4108

ARCHITECT

CPH Consulting, LLC **500 WEST FULTON STREET** SANFORD, FLORIDA 32771

bdecaro@cphcorp.com OFFICE: (305)- 274- 4805 X3626 DIRECT: X3626 www.cphengineers.com

GENERAL NOTES

CODES AND LOCAL RESTRICTIONS. CONTRACTOR SHALL BE RESPONSIBLE

FOR COMPLIANCE WITH ORDERS OF ANY PUBLIC AUTHORITY BEARING ON

DOCUMENT CONSISTING OF MULTIPLE. INTERRELATED COMPONENTS AND. IN SOME CASE, DISCIPLINES. ANY SEPARATION AND/OR BREAKING APART OF ANY INDIVIDUAL COMPONENTS AND/OR DISCIPLINES OF THIS SINGLE DOCUMENT BY THE OWNER, GENERAL CONTRACTOR, AND/OR SUBCONTRACTOR FOR THE PURPOSES SUCH AS, BUT NOT LIMITED TO BIDDING, ESTIMATING, PERMITTING, ETC. IN NO WAY RELIEVES THE RECIPIENT OF THE ORIGINAL SINGLE DOCUMENT FROM BEING RESPONSIBLE FOR ALL INFORMATION CONTAINED WITHIN THE ORIGINAL SINGLE DOCUMENT IN SUCH ACTIVITIES. RECEIPT OF THESE DOCUMENTS CONSTITUTES ACCEPTANCE OF THESE TERMS AND CONDITION BY THE

THE ATTACHED DRAWING PACKAGE HAS BEEN TRANSMITTED AS A SINGLE

VICINITY MAP

Ranch Rd

RESTROOM BUILDING

ACOUSTIC CEILING TILE

ABOVE FINISH FLOOR

AREA DRAIN

ADJACENT

ALTERNATE

ALUMINUM

ANODIZED

AUTOMATIC

AVERAGE

BOTTOM OF

BUILDING

BEARING

BETWEEN

BOTH WAYS

APPROXIMATE

ARCHITECTURAL ALL THE WAY AROUND

JST ADJUSTABLE

CABINET

CLNG CEILING

CLO CLOSET

CLEAR

COLUMN

CONST CONSTRUCTION

CONT CONTINUOUS

CONTR CONTRACTOR

CERAMIC TILE

DIAMETER

DIFFUSER

DIMENSION

DRINKING FOUNTAIN

CPT CARPET

CTR CENTER

DISP DISPOSER

CONC CONCRETE

AMERICANS W/ DISABILITIES ACT | CCB | CEMENT BACKER BOARD

CATCH BASIN

CENTER LINE

CONTROL JOINT

CMU CONCRETE MASONRY UNIT CLEAN-OUT

- CONTRACTOR SHALL BE RESPONSIBLE FOR ISSUING COMPLETE SETS OF THE CONTRACT DOCUMENTS AND DESCRIPTION OF THE SCOPE OF WORK TO EACH OF THE SUBCONTRACTORS, PERSONS, OR ENTITIES FOR BIDDING, COORDINATION AND EXECUTION OF THEIR WORK.
- 3. ALL REFERENCES TO THE TERM 'CONTRACTOR' INCLUDE THE GENERAL CONTRACTOR AND SUBCONTRACTORS
- 4. CONTRACTOR SHALL OBTAIN AND PAY FOR ALL PERMITS, FEES, INSPECTIONS AND APPROVALS BY LOCAL AUTHORITIES HAVING JURISDICTION OVER THE PROJECT. PROVIDE COPIES OF ALL TRANSACTIONS TO OWNER. CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLIANCE WITH ORDERS OF ANY PUBLIC AUTHORITY BEARING ON THE PERFORMANCE OF THIS WORK.
- CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR, AND HAVE CONTROL OVER ALL CONSTRUCTION MEANS, TECHNIQUES, PROCEDURES AND COORDINATION OF ALL PORTIONS OF THE WORK REQUIRED BY THE CONTRACT DOCUMENTS.
- 6. CONTRACTOR SHALL FULLY FAMILIARIZE HIMSELF WITH THE CONDITIONS OF THE CONTRACT, LOCAL CONDITIONS RELATING TO LOCATION, ACCESSIBILITY, AND GENERAL CHARACTER OF THE CONSTRUCTION SITE AND LOCAL LABOR CONDITIONS SO THAT HE/SHE UNDERSTANDS THE NATURE, EXTENT, DIFFICULTIES AND RESTRICTIONS RELATED TO THE EXECUTION OF THIS WORK.

GWB GYPSUM WALL BOARD

EXT EXTERIOR

- ALL CONSTRUCTION SHALL COMPLY WITH ALL APPLICABLE BUILDING
- NEITHER THE ARCHITECT NOR ANY OF THEIR CONSULTANTS HAVE EVALUATED THE SITE FOR EXISTING SOIL CONTAMINATION, HAZARDOUS MATERIAL OR TOXIC WASTE. THEREFORE THE ARCHITECT OR THEIR CONSULTANTS SHALL NOT BE HELD RESPONSIBLE FOR EXISTING CONTAMINATED, HAZARDOUS OR TOXIC CONDITIONS DISCOVERED AT THE

THE PERFORMANCE OF THE WORK.

- 9. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO LOCATE ALL EXISTING UTILITIES AND SERVICES, WHETHER SHOWN HEREIN OR NOT AND TO PROTECT THEM FROM DAMAGE THROUGHOUT THE COURSE OF THIS WORK. CONTRACTOR SHALL BEAR ALL EXPENSES OF REPAIR OR REPLACEMENT OF UTILITIES, SERVICES, OR OTHER PROPERTY DAMAGED BY OPERATIONS IN CONJUNCTION WITH THE PERFORMANCE OF THIS
- 10. THESE DOCUMENTS HAVE BEEN PREPARED BASED ON INFORMATION PROVIDED TO THE ARCHITECT BY OTHERS. THEREFORE THE ARCHITECT SHALL NOT BE HELD RESPONSIBLE FOR ERRORS, OMISSIONS, CONFLICTS, DEFICIENCIES OR INACCURACIES ARISING FROM DISCOVERY OF CONCEALED, UNKNOWN OR DIFFERING CONDITIONS AS A RESULT OF THIS CIRCUMSTANCE. CONTRACTOR SHOULD FULLY ACQUAINT HIMSELF WITH THE SITE AND FIELD VERIFY ALL CONDITIONS AND DIMENSIONS PRIOR TO
- CONTRACTOR SHALL REPORT TO THE ARCHITECT ANY ERRORS, INCONSISTENCIES OR OMISSIONS HE MAY DISCOVER PRIOR TO PURCHASING, INSTALLATION AND/OR CONSTRUCTION. CONTRACTOR SHALL BE RESPONSIBLE FOR CORRECTING ANY ERRORS AT NO ADDITIONAL COST TO THE ARCHITECT OR OWNER ONCE WORK HAS COMMENCED. THE MEANS OF CORRECTING THESE ISSUES SHALL BE APPROVED BY THE OWNER.
- 12. DO NOT SCALE DRAWINGS. IF A DIMENSION IS UNCLEAR OR NOT MARKED ON DRAWINGS, CONTACT THE ARCHITECT.

- 13. ALL DIMENSIONING IS TO THE FACE OF STRUCTURE, FRAMING, OR EXISTING CONDITIONS, U.N.O. ANY DIMENSIONING TO FINISH IS NOTED AS SUCH. CENTERLINE DIMENSIONING IS SOMETIMES USED FOR STRUCTURAL GRID, WINDOW OPENING, FIXTURE LOCATION, ETC, AND IS INDICATED BY A & SYMBOL. ALL ANGLES SHOWN ARE MULTIPLES OF 45° U.N.O.
- 14. ALL EXTERIOR ELEMENTS, ASSEMBLIES, GLAZING, GLAZING SYSTEMS AND COMPONENTS INCLUDING CLADDING AND CONNECTIONS USED ON THIS WORK, SHALL MEET THE DESIGN WIND PRESSURES SPECIFIED IN COMPLIANCE WITH FBC 1609.1.2. CONTRACTOR SHALL PROVIDE WINDOW AND DOOR MANUFACTURERS TEST REPORTS AND INSTALLATION DETAILS AS PART OF PERMIT SUBMITTAL DOCUMENTATION. SUBMIT SHOP DWGS.

OF ALL DOORS AND HARDWARE TO ARCHITECT FOR REVIEW.

ARCHITECT'S STATEMENT OF FACT

NTS NOT TO SCALE

OPNG OPENING OPP OPPOSITE

ON CENTER

OFS OVERFLOW SCUPPER

OVERFLOW DRAIN

O-T-O OUTSIDE-TO-OUTSIDE(DIM)

PAF POWER ACTUATED FASTENE

BUILDING

PRE HUNG

P-LAM PLASTIC LAMINATE

PLYWD PLYWOOD

PNL PANEL

PREC PRECAST

PROJ PROJECT

PROP PROPERTY

PREFAB PREFABRICATED

PR PAIR

PRE-ENGINEERED METAL

PLATE OR PROPERTY LINE

BY SIGNING AND SEALING THIS DRAWING, THE ARCHITECT ACKNOWLEDGES THAT TO THE BEST OF HIS/HER KNOWLEDGE, THESE DRAWINGS AND THE PROPOSED WORK COMPLY WITH THE MINIMUM APPLICABLE BUILDING CODES AND FIRE SAFETY REGULATIONS AS DETERMINED BY THE LOCAL AUTHORITY HAVING JURISDICTION.

SYMBOLS LEGEND NUMBERED BY DOOR DOOR TYPE

WINDOW TYPE

(REFER TO SCHEDULE)

LETTERED BY TYPE (REFER TO SCHEDULE

0 REF.NO. (000) NOTE TAG (KEY) ROOM NAME ROOM NAME ROOM NAME 123 STRUCTURAL GRID NUMBERED LEFT TO RIGHT (COLUMN LINE) LETTERED BOTTOM TO TOP ELEVATION TARGET WALL/PARTITION TYPE (REFER TO SCHEDULE) - VIEW DIRECTION EXTERIOR **ELEVATIONS** - SHEET NO. **BUILDING CUT** SECTION CUT DRAWING NO. $\begin{pmatrix} 0 \\ A000 \end{pmatrix}$ SECTION

DRAWING NO. ENLARGED A000 SHEET NO. AREA A000 DETAIL VIEW ID - DRAWING NO. INTERIOR **ELEVATIONS** 1 - REVISION NO REVISION CLOUD

ABBREVIATIONS

NO NUMBER

ווטן	DOWN			.		_	LLITIAND
DR	DOOR	FC	FIRE CODE	НВ	HOSE BIBB	LLV	LONG LEG VERTICAL
DS	DOWNSPOUT	FD	FLOOR DRAIN	HC	HANDICAPPED	LT	LIGHT
DTL	DETAIL	FDN	FOUNDATION	HM	HOLLOW METAL	LVR	LOUVER
DW	DISHWASHER	FE	FIRE EXTINGUISHER	HORZ	HORIZONTAL		
DWG	DRAWING	FEC	FIRE EXTINGUISHER CABINET	HP	HORSE POWER	М	
DWR	DRAWER	FFE	FIN FLOOR ELEVATION	HT	HEIGHT	MAS	MASONRY
		FIN	FINISH	111/40	HEATING, VENTILATION & AIR	MAX	MAXIMUM
E		FIXT	FIXTURE	HVAC	CONDITIONING	MECH	MECHANICAL/MECHANICALLY
Ē	EAST	FLOUR	FLOURESCENT			MEMB	MEMBRANE
(E)	EXISTING	FOF	FACE OF FINISH			MFR	MANUFACTURER
EA	EACH	FRT	FIRE RETARDANT TREATED	IN	INCHES	MIN	MINIMUM
FIEC	EXTERIOR INSULATION & FINISH	FT	FEET	INSUL	INSULATION	MISC	MISCELLANEOUS
EIFS	SYSTEM	FTG	FOOTING	INT	INTERIOR	MH	MANHOLE
EJ	EXPANSION JOINT	FUT	FUTURE	I-T-I	INSIDE-TO-INSIDE(DIM)	MLDG	MOLDING
ELEC	ELECTRICAL	G				MLWK	MILLWORK
ELEV	ELEVATION	GA	GAUGE	J		MO	MASONRY OPENING
EMER	EMERGENCY	GALV	GALVANIZED	JAN	JANITOR	MTG	MOUNTING
ENCL	ENCLOSURE	GB	GRAB BAR	JNT	JOINT	MTL	METAL
EPS	EXPANDED POLYSTYRENE	GC	GENERAL CONTRACTOR	JST	JOIST		
EQ	EQUAL	GEN	GENERAL	K		N	
EQUIP	EQUIPMENT	GFRC	GLASS FIBER REINFORCED	KIT	KITCHEN	N	NORTH
ETR	EXISTING TO REMAIN		CONCRETE	L		N/A	NOT APPLICABLE
EWC	ELECTRICAL WATER COOLER	GL	GLASS	LAM	LAMINATED	NFA	NET FREE AREA
EXT	EXTERIOR	GR	GRADE	LAV	LAVATORY	NIC	NOT IN CONTRACT

LIN LINEN

	PT	PRESSURE TREATED	SC	HED	SCHEDULE
	PVC	POLYVINYL CHLORIDE	SE	CT	SECTION
			SF		SQUARE FOOT/FEET
	Q		_ SF	RM	SPRAY FIRE RESISTIVE MATERIAL
	QT	QUARRY TILE	SH	IT	SIMILAR
	QTY	QUANTITY	SP	EC	SPECIFICATION
			SC)	SQUARE
	R		_ SR	}	SEMI RECESSED
	R	RADIUS OR RISER	SS	;	STAINLESS STEEL
	RB	RUBBER BASE	ST	D	STANDARD
	RCP	REFLECTED CEILING PLAN	ST	Ľ	STEEL
	RD	ROOF DRAIN	ST	N	STAINED
	REINF	REINFORCED (REINFORCING)	ST	OR	STORAGE
₽R	REQ'D	REQUIRED	ST	RUCT	STRUCTURAL
	REV	REVISED/REVISION	SU	JSP	SUSPENDED
	R/F	REFRIGERATOR/FREEZER			
	RH	RIGHT HAND	T		
	RM	ROOM	T		TREAD
	RO	ROUGH OPENING	T/		TOP OF
	RTU	ROOF TOP UNIT	TE	MP	TEMPORARY
	RQMTS	REQUIREMENTS	TE	MP	TEMPERED GLASS

SELF ADHERED

TERRAZZO

TUBE STEEL

TONGUE & GROOVE

10	UNLESSS NOTED OTHERWISE	
ιR	VARIES	
}	VINYL BASE	
T	VINYL COMPOSITION TILE	
RT	VERTICAL	1
=	VERIFY IN FEILD	
XYZ]
	WEST / WIDE]
	WITH	
3	WATER CLOSET	
)	WOOD	
D	WASHER/DRYER COMBO]
O	WITHOUT	
1	WATER HEATER	1
)	WATER PROOF	1 [
RB	WATER RESISTIVE BREATHABLE	1
7D	BARRIER	
۸/E	WELDED WIRE EARRIC	

WWM WELDED WIRE MESH

EXTRUDED POLYSTYRENE

www.cphcorp.coi A Full Service A & E Firm **Architects** Engineers **Environmental** Landscape Architects M/E/P **Planners** Structural Surveyors Traffic / Transportation Offices in: Florida Puerto Rico Connecticut

90%

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500 West Fulton St.

Sanford, Fl. 32771

Ph: 407.322.6841

State of Florida Licenses

Arch. No. AR0013957

Mech Eng. No. 87451

Elec Eng. No. 60953

ARCHITECT'S GENERAL NOTES

I GENERAL CONDITIONS

- THESE INSTRUCTIONS ARE TO BE FOLLOWED BY ALL CONTRACTORS AND SUBCONTRACTORS WHEN PERFORMING THIS WORK. FAILURE TO DO SO MAY RESULT IN THE SUSPENSION OF ALL ACTIVITIES UNTIL DISPUTES ARE RESOLVED. ANY EXPENSES AND/OR DAMAGES INCURRED AS A RESULT OF DELAYS IN THE COMPLETION OF THE WORK DUE TO CONTRACTORS DISREGARD OF THESE INSTRUCTIONS SHALL BE BORNE BY THE CONTRACTOR.
- CONTRACTOR SHALL PROVIDE AND MAINTAIN FULL INSURANCE AS REQUIRED BY THE GENERAL CONDITIONS OF THE OWNER. INSURANCE (EXCEPT WORKERS COMPENSATION) SHALL INCLUDE ARCHITECT AS ADDITIONAL INSURED. EVIDENCE OF INSURANCE SHALL BE PROVIDED TO THE OWNER AND ARCHITECT PRIOR TO COMMENCING WORK.
- ARCHITECT IS NOT RESPONSIBLE FOR ERRORS, OMISSIONS OR DELAYS BY THE CONTRACTOR.
- CONTRACTOR SHALL BE RESPONSIBLE FOR, PROVIDE, AND PAY FOR ALL MATERIALS, LABOR, EQUIPMENT, TOOLS, CONSTRUCTION EQUIPMENT. WAREHOUSING. TRANSPORTATION AND DELIVERY COSTS, HOISTING, REMOVAL AND DISPOSAL OF TRASH AND DEBRIS, AND OTHER FACILITIES AND SERVICES NECESSARY FOR THE EXECUTION AND COMPLETION OF THIS WORK AND THAT OF HIS/HER
- CONTRACTOR SHALL BE RESPONSIBLE FOR ACTS AND OMISSIONS OF THE CONTRACTORS EMPLOYEES, SUBCONTRACTORS AND THEIR AGENTS AND EMPLOYEES, AND ANY OTHER PERSONS PERFORMING ANY OF THE WORK UNDER A CONTRACT WITH THE CONTRACTOR.
- OWNER MAY PERFORM ADDITIONAL WORK IN THIS AREA THAT MAY OR MAY NOT BE A PART OF THIS CONTRACT WITH HIS OWN FORCES, UNDER SEPARATE CONTRACTS AND/OR WITH OTHER CONTRACTORS WHICH MAY BE WORKING ON THE PREMISES SIMULTANEOUS WITH THE DURATION OF THIS WORK. NO ACTION SHALL BE TAKEN ON THE PART OF THIS CONTRACTOR OR ANY SUBCONTRACTOR TO IMPEDE THE ACCESS OR OPERATION OF ANY OTHER CONTRACTOR ON THE PREMISES, REGARDLESS OF CONTRACTING PARTY OR UNION AFFILIATION. ANY CHANGES OR DELAYS ARISING FROM CONFLICTS DUE TO THIS CIRCUMSTANCE SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.
- CONTRACTOR SHALL BE RESPONSIBLE FOR THE COMPATIBILITY. APPROVAL AND APPROPRIATE USE OF ALL ASSEMBLIES AND COMPONENTS REQUIRED THAT ARE NOT SPECIFICALLY IDENTIFIED OR SPECIFIED AS PART OF THIS WORK BUT MAY BE REQUIRED BY JURISDICTIONAL AGENCIES HAVING AUTHORITY OR THAT MAY BE REQUIRED TO COMPLETE THIS WORK.
- CONTRACTOR IS RESPONSIBLE FOR WORKSITE SAFETY AND SHALL TAKE NECESSARY PRECAUTIONS TO ENSURE THE SAFETY AND PROTECTION OF THE WORKERS AND BUILDING OCCUPANTS AT ALL TIMES. REQUIREMENTS INCLUDE, BUT SHALL NOT BE LIMITED TO O.S.H.A. PART 1926, LATEST EDITION IN FORCE.

II CHANGE ORDERS

- CONTRACTORS DETERMINATION AND COMPLIANCE WITH GOVERNING REGULATIONS AND ORDERS AS ISSUED BY GOVERNING AUTHORITIES DOES NOT CONSTITUTE SUBSTITUTIONS AND DOES NOT CONSTITUTE A BASIS FOR CHANGE ORDERS.
- ALL CHANGES, REVISIONS AND MODIFICATIONS TO THE WORK SHALL BE DOCUMENTED AND ISSUED BY THE ARCHITECT.
- NO CONTRACTOR OR SUBCONTRACTOR SHALL PERFORM ADDITIONAL WORK UNLESS DIRECTED BY OWNER, OR ARCHITECT. ADDITIONAL CHARGES WILL NOT BE APPROVED FOR WORK WITHOUT PROPER AUTHORIZATION.
- GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR COSTS INCURRED FOR NONCOMPLIANCE WITH THESE CONTRACT DOCUMENTS. CONTRACTOR WILL NOT BE ALLOWED CHANGE ORDERS FOR PROBLEMS ARISING FROM NEGLECT OF PROVISIONS INCLUDED IN THESE CONDITIONS.

III EXISTING CONDITIONS

- ANY AREA OUTSIDE THE LIMITS OF CONSTRUCTION DISTURBED BY OPERATIONS OF THE CONTRACTOR SHALL BE RESTORED AT THE CONTRACTORS EXPENSE.
- CONTRACTOR SHALL ACCEPT PREMISES AS FOUND. OWNER AND ARCHITECT ACCEPTS NO RESPONSIBILITY FOR THE CONDITION OF THE EXISTING SITE OR STRUCTURES AT THE TIME OF BIDDING OR THEREAFTER.
- CONTRACTOR SHALL TAKE EXCEPTIONAL CARE TO PROTECT AND MAINTAIN EXISTING BUILDING AND PROPERTY AND SHALL CLEAN OR REPAIR ANY DAMAGE TO SAME CAUSED BY HIS/HER SUBCONTRACTORS. SUPPLIERS AND CRAFTSMAN AT NO COST TO THE
- CONTRACTOR SHALL FIELD VERIFY ALL CONDITIONS AND DIMENSIONS PRIOR TO PURCHASING MATERIALS, INSTALLATION OR 10. WHERE DISSIMILAR METALS CONTACT, PAINT FACE OF ONE WITH TWO COATS OF BITUMINOUS PAINT AT THE AREA OF CONTACT. PERFORMING ANY WORK. INCLUDE COST FOR ALL WORK DESCRIBED IN CONTRACT DOCUMENTS AND REQUIRED OR IMPLIED BY EXISTING CONDITIONS. BIDDERS SHALL BE RESPONSIBLE FOR LACK OF VERIFICATION. NOTIFY ARCHITECT OF ANY CONFLICTS BETWEEN THE DRAWINGS AND EXISTING CONDITIONS RELATED TO THE EXECUTION OF THIS WORK.
- ALL DEMOLITION ACTIVITIES SHALL COMPLY WITH NFPA CODE 241 'BUILDING CONSTRUCTION', ANSI-A10 SERIES STANDARD FOR 'SAFETY REQUIREMENTS' FOR CONSTRUCTION AND DEMOLITION'. NECA ELECTRICAL DESIGN LIBRARY 'TEMPORARY ELECTRICAL FACILITIES', AND 'MANUAL OF ACCIDENT PREVENTION IN CONSTRUCTION' OF THE ASSOCIATED GENERAL CONTRACTORS OF AMERICA.
- CONTRACTOR SHALL VERIFY THE INTEGRITY OF ALL EXISTING FIRE RATED OPENINGS WITHIN THE SCOPE OF THIS WORK AND SHALL BE RESPONSIBLE FOR THE FIRE-SAFING AS REQUIRED BY JURISDICTIONAL AUTHORITIES TO PROVIDE A POSITIVE SMOKE-TIGHT SEAL TO MAINTAIN INTEGRITY OF WALL CONSTRUCTION AND RATING.
- CONTRACTOR SHALL TAKE NECESSARY MEASURES TO ENSURE THAT NEIGHBORING TENANTS AND RESIDENTS ARE NOT DISTURBED IN ANY WAY DURING THE CONSTRUCTION PROCESS. ANY WORK CREATING LOUD NOISES. HAZARDOUS FUMES OR NOXIOUS OR OFFENSIVE ODORS MUST BE COORDINATED WITH OWNER IN ADVANCE SO ACCOMMODATIONS CAN BE MADE.
- 8. ANY CONTACT WITH TENANTS OF SURROUNDING PROPERTIES SHALL BE CONDUCTED IN THE MOST COURTEOUS MANNER POSSIBLE.
- PATCH WALLS, FLOORS AND CEILINGS AS REQUIRED ACCOMMODATING NEW CONSTRUCTION AND FINISHES.
- 10. CONTRACTOR SHALL COORDINATE W/OWNER REGARDING THE REMOVAL, DISPOSAL OR SALVAGE OF EXISTING FIXTURES, EQUIPMENT & FURNISHINGS EFFECTED BY THIS WORK.
- 11. ANY PORTION OF THIS WORK SHALL NOT OBSTRUCT OR CAUSE TO BE INOPERATIVE THE FIRE PROTECTION SYSTEMS OF EXISTING SITE AND/OR ADJACENT PROPERTIES. COORDINATE ALL WORK INVOLVING EXISTING FIRE ALARM/VOICE EVACUATION SYSTEM(S)

IV CONTRACT DOCUMENTS

- BUILDING DEPARTMENT APPROVED PLANS SHALL BE KEPT IN A PLAN BOX AND SHALL NOT BE USED BY WORKMEN. ALL CONSTRUCTION SETS SHALL REFLECT THE SAME INFORMATION. THE CONTRACTOR SHALL ALSO MAINTAIN, IN GOOD CONDITION, ONE COMPLETE SET OF PLANS WITH ALL REVISIONS, ADDENDUM'S AND CHANGE ORDERS, ON THE PREMISES AT ALL TIMES. THESE ARE TO BE KEPT UNDER THE CARE OF THE SUPERINTENDENT.
- ALL CONSTRUCTION ITEMS NOT SPECIFIED OR INDICATED ON DRAWINGS SHALL BE COORDINATED W/ ARCHITECT AND/OR ADDRESSED BY THE OWNER, THE CONTRACTOR OR HIS SUBCONTRACTORS.
- CONTRACTOR SHALL BRING ANY CONFLICTS OR DISCREPANCIES FOUND IN THE DRAWINGS TO THE ATTENTION OF THE ARCHITECT AND OWNER PRIOR TO PURCHASING, INSTALLATION AND/OR CONSTRUCTION.
- 4. MATERIALS, PRODUCTS AND ASSEMBLIES SPECIFIED IN THIS WORK BY THE ARCHITECT, ARE BASED UPON LITERATURE, DRAWINGS OR OTHER DESCRIPTIVE MATERIALS SUPPLIED BY THE MANUFACTURER. IF ANY PRODUCT, MATERIAL OR ASSEMBLY FAILS TO MEET THE CLAIMS OF THE MANUFACTURER WHEN INSTALLED AND USED IN ACCORDANCE WITH THE MANUFACTURERS RECOMMENDATIONS, THE ARCHITECT SHALL NOT BE HELD RESPONSIBLE FOR LESS THAN SATISFACTORY RESULTS.
- CONTRACTOR SHALL BE RESPONSIBLE TO REPORT TO AND DISCUSS WITH THE ARCHITECT PRIOR TO PURCHASING ANY MATERIALS OR INSTALLATIONS SPECIFIED OR INDICATED ON THE DRAWINGS WHICH THE CONTRACTOR BELIEVES WILL NOT PROVIDE SATISFACTORY RESULTS. CONTRACTOR WILL PROVIDE A WORKABLE SOLUTION TO THE ARCHITECT FOR REVIEW PRIOR TO INSTALLING. IF CONTRACTOR FAILS TO NOTIFY THE ARCHITECT OR IF RECOMMENDATIONS ARE ACCEPTED, CONTRACTOR WILL BE RESPONSIBLE FOR INSTALLATION AND SATISFACTORY RESULTS.
- DIMENSIONS TAKE PRECEDENCE OVER DRAWINGS. DO NOT SCALE DRAWINGS TO DETERMINE LOCATIONS. LARGE SCALE DRAWINGS GOVERN OVER SMALLER SCALE DRAWINGS. ARCHITECT SHALL BE NOTIFIED OF ANY DISCREPANCY WHICH OCCURS PRIOR TO CONTINUING WITH THE WORK.

V SHOP DRAWINGS, SUBMITTALS & SUBSTITUTIONS

- CONTRACTOR SHALL PROCURE MATERIALS SO AS NOT TO DELAY SUBSTANTIAL COMPLETION. NOTIFY OWNER WHEN SUBMITTING FINAL BID OF ANY MATERIAL DELIVERY WHICH COULD DELAY COMPLETION OF CONTRACT BEYOND THE CONTRACT DATE.
- 2. G.C. SHALL SUBMIT SHOP DRAWINGS AND PRODUCT INFORMATION PRIOR TO PURCHASING, INSTALLATION AND/OR CONSTRUCTION.
- 3. ALL SUBMITTALS TO THE ARCHITECT SHALL BE SUBMITTED 28 DAYS PRIOR TO DATE REQUIRED.
- 4. CONTRACTORS SHALL REVIEW ALL SUBMITTALS PRIOR TO SUBMITTING TO ARCHITECT FOR ARCHITECTS REVIEW. SUBMITTALS SHALL BEAR THE STAMP OF THE CONTRACTOR INDICATING HIS/HER REVIEW. NO SUBMITTAL SHALL BE PROCESSED BY ARCHITECT WITHOUT THIS STAMP. SUBMITTALS WITHOUT THIS STAMP SHALL BE RETURNED TO THE ARCHITECT.
- MANUFACTURER'S OF SPECIFIED ITEMS ARE NOTED FOR QUALITY AND DESIGN. SUBSTITUTE PRODUCTS ARE SUBJECT TO APPROVAL BY ARCHITECT AND OWNER. WHERE SUBSTITUTIONS OF EQUIVALENT PRODUCTS OR ASSEMBLIES ARE PERMITTED. CONTRACTOR IS ENCOURAGED TO SUBMIT ALTERNATE PRODUCTS FOR CONSIDERATION IN AN EFFORT TO REDUCE THE CONSTRUCTION COST OR TIME. REASONABLE REQUESTS WILL BE REVIEWED FOR COMPLIANCE WITH THE INTENT OF THE CONSTRUCTION DOCUMENTS. IF DOCUMENTS STATE THAT SUBSTITUTIONS ARE NOT PERMITTED, CONTRACTOR SHALL PROVIDE MANUFACTURER/PRODUCT SPECIFIED.

VI FIRE-RESISTANCE-RATED CONSTRUCTION

- REFERENCE MECHANICAL, PLUMBING AND ELECTRICAL DRAWINGS FOR DETAILS OF UTILITY WALL PENETRATIONS. ALL FIRE-RATED WALLS MUST BE CLEARLY AND PERMANENTLY LABELED ABOVE FINISH CEILING LEVEL AS REQUIRED BY CODE.
- ALL FIRE-RATED MATERIALS, ASSEMBLIES AND PENETRATIONS MUST COMPLY WITH REQUIREMENTS OF THEIR ASSOCIATED U.L. (OR OTHER APPROVED TESTING AGENCY) DESIGN.
- CONTRACTOR SHALL ATTACH AND STAGGER WALLBOARD ON ALL FIRE-RATED WALLS AS REQUIRED BY U.L. DESIGN DESCRIPTION.

VII EXECUTION

- CONSTRUCTION BARRICADES ARE TO BE INSTALLED TO PREVENT ACCESS BY UNAUTHORIZED PERSONAL TO CONSTRUCTION AREA. BARRICADES SHALL BE CONSTRUCTED IN A MANNER TO PREVENT DEMOLITION DEBRIS AND DUST FROM CONTAMINATING ADJACENT AREAS.
- CONTRACTOR SHALL EXAMINE ALL SURFACES TO DETERMINE THAT THEY ARE SOUND, DRY, CLEAN AND READY TO RECEIVE FINISHES PRIOR TO INSTALLATION. START OF INSTALLATION SHALL IMPLY ACCEPTANCE OF SUBSTRATE AND SHALL NOT BE GROUNDS FOR CLAIMS AGAINST IMPROPER PERFORMANCE OF INSTALLED MATERIALS.
- PERFORM ALL WORK IN STRICT ACCORDANCE WITH MANUFACTURERS SPECIFICATIONS AND INSTRUCTIONS AND IN A MANNER CONSISTENT WITH THE HIGHEST STANDARD OF WORKMANSHIP.
- CONTRACTOR SHALL BE RESPONSIBLE FOR THE COMPLETE SECURITY OF THE SITE WHILE WORK IS IN PROGRESS, AND UNTIL THE JOB IS COMPLETE AND HAS BEEN ACCEPTED BY THE OWNER.
- POSSESSION, USE OR BEING UNDER THE INFLUENCE OF ALCOHOL, NARCOTICS OR ILLEGAL SUBSTANCES OF ANY TYPE ON THE PREMISES IS STRICTLY PROHIBITED.
- CONTRACTOR SHALL INSTALL AND MAINTAIN ALL NECESSARY COVERINGS, PROTECTIVE ENCLOSURES AND DUST BARRIERS TO PROTECT ALL WORK AND FINISHES. REPAIR AND REPLACE ANY DAMAGES CAUSED BY IMPROPER PROTECTIONS AT NO ADDITIONAL
- PROVIDE TEMPORARY WATERTIGHT WEATHERPROOF CLOSURES AT ALL ROOF OPENINGS UNTIL AFTER INSTALLATION OF ROOFTOP MOUNTED MECHANICAL UNITS. DRAINS, VENTS, ETC. ROOF IS THEN TO BE SEALED IN ACCORDANCE WITH ROOF
- PROVIDE CONTROL JOINTS TO PREVENT CRACKING IN ALL MATERIALS AND ASSEMBLIES. SUBMIT CONTROL JOINT LAYOUTS TO
- OWNER AND ARCHITECT FOR REVIEW PRIOR TO PURCHASE, INSTALLATION AND / OR CONSTRUCTION.

9. ALL LOAD BEARING WALLS AND NON LOAD BEARING CMU WALLS ARE TO BE CAULKED AT INTERSECTIONS. TYPICAL

- 11. ALL ATTACHMENT HARDWARE SHALL BE APPROPRIATELY CAMOUFLAGED AND CONCEALED. FINISH COLOR OF ALL ATTACHMENT HARDWARE SHALL MATCH ADJACENT SURFACES U.N.O.
- PROVIDE PRESSURE TREATED WOOD FOR ALL FRAMING, BLOCKING, FURRING, NAILING STRIPS, BUILT INTO EXTERIOR MASONRY WALLS, WOOD IN CONTACT WITH CONCRETE AND IN CONJUNCTION WITH ROOFING AND MOISTURE-PERMEABLE FLOORS. PROVIDE FIRE-RETARDANT TREATED WOOD FOR CONCEALED BLOCKING AND FOR EXPOSED LUMBER AND PLYWOOD IN HABITABLE SPACE. NON-STRUCTURAL WOOD ON EXTERIOR WALLS TO BE MOISTURE-RESISTANT.
- 13. ALL WOOD, LUMBER AND PLYWOOD MATERIALS SHALL BE FIRE-RESISTANT AND/OR FIRE-RATED AS REQUIRED BY CODE.
- 14. COMBUSTIBLE MATERIALS SHALL NOT BE PERMITTED IN THE RETURN AIR PLENUM. ALL INSULATION EXPOSED TO CEILING PLENUM. SHALL BE FIRE AND DUST PROOF.
- CONTRACTOR SHALL PROVIDE SOLID 2" WOOD BACKING WITHIN WALLS FOR ANCHORAGE OF ALL WALL MOUNTED SHELVES, RAILS, TOILET ACCESSORIES, WOODWORK, ETC. AND AT ALL LOCATIONS DIRECTED BY OWNER. 2x6 CONT. WOOD BLOCK'G SHALL BE PROVIDED AT TOP AND BOTTOM OF ALL MILLWORK. COORDINATE LOCATION OF ALL BLOCKING / BACKING W ID DWGS. ALL WOOD BACKING SHALL MEET THE REQUIREMENTS OF FBC 603 FOR COMBUSTIBLE MATERIAL.
- 16. CONTRACTOR SHALL PROVIDE, FRAME AND FINISH ALL OPENINGS AS REQUIRED FOR ELECTRICAL AND MECHANICAL PENETRATIONS. ELECTRICAL PANELS, JUNCTION BOXES, RECESSED CABINETS, ETC. OCCURRING IN FIRE-RATED WALLS SHALL BE CONSTRUCTED IN ACCORDANCE WITH U.L. DESIGN REQUIREMENTS.
- 17. COORDINATE WITH ELECTRICAL CONTRACTOR REGARDING THE MOUNTING HEIGHT OF ALL SWITCHES AND OUTLETS AT MILLWORK, COUNTERS, SHELVING, SINKS ETC. COMPLY WITH APPLICABLE ACCESSIBILITY REQUIREMENTS. REFER QUESTIONABLE MOUNTING HEIGHTS TO ARCHITECT FOR
- 18. ALL PENETRATIONS THROUGH ROOF SHALL BE COORDINATED WITH THE HOLDER OF THE ROOF WARRANTY AND SHALL NOT VOID ANY EXISTING WARRANTIES IN ANY WAY. PROVIDE POSITIVE DRAINAGE AWAY FROM OPENINGS. CONTRACTOR IS SOLELY RESPONSIBLE FOR MAINTAINING INTEGRITY OF ROOFING AND ROOF WARRANTY. COORDINATE WITH OWNER.
- 19. SMOKING IS PROHIBITED INSIDE THE BUILDING AT ANY TIME.
- COORDINATE THE STAGING AREA WITH THE OWNER OR OWNERS REPRESENTATIVE PRIOR TO STARTING WORK. G.C. SHALL MAINTAIN A CLEAN AND WELL DEFINED STAGING AREA. PROVIDE DEMISING WALLS / VISUAL SCREENS WHERE REQUIRED BY
- STORAGE OF MATERIALS: CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROPER CARE AND PROTECTION OF ALL HIS/HER MATERIALS, EQUIPMENT, TOOLS, ETC. NO SUBCONTRACTOR SHALL STORE HIS/HER MATERIALS, EQUIPMENT, TOOLS, ETC., SO THAT THEY IMPEDE THE WORK OF ANY OTHER SUBCONTRACTOR OR THE USE OF THE BUILDING BY THE OWNER.
- 22. CLEANUP: CONTRACTOR SHALL BE RESPONSIBLE FOR THE CLEANUP OF DEBRIS ACCUMULATED BY HIS/HER WORK AND THAT OF HIS/HER SUBCONTRACTORS AND SUPPLIERS. AT THE COMPLETION OF THE DAYS WORK, CONTRACTOR SHALL REMOVE ALL TOOLS AND DEBRIS AND LEAVE CONSTRUCTION AREA - INCLUDING OUTDOORS - CLEAN AND FREE OF OBSTRUCTION. OCCUPIED AREAS SHALL BE MAINTAINED IN A CLEAN AND ORDERLY MANNER AT ALL TIMES.
- 23. TRASH AND RECYCLE DUMPSTERS SHALL BE LOCATED AS APPROVED BY OWNER. USE OF EXISTING TRASH DUMPSTERS AND COMPACTORS SHALL NOT BE UTILIZED UNDER ANY CIRCUMSTANCES.
- PARKING: CONTRACTOR SHALL COORDINATE THE PARKING AREA WITH THE OWNER AND OWNER'S REPRESENTATIVE PRIOR TO START OF THE WORK. VEHICLES ARE NOT PERMITTED TO REMAIN PARKED IN HANDICAPPED DESIGNATED SPACES. LOADING AREAS ARE FOR LOADING AND UNLOADING ONLY.
- 25. G.C. SHALL PROVIDE AND INSTALL PORTABLE FIRE EXTINGUISHERS AS INDICATED ON PLAN AND AS REQUIRED BY AHJ. PROVIDE TYPE AND SIZE REQUIRED AT THE LOCATIONS INDICATED. IF VISIBLE TO THE PUBLIC, PROVIDE A RECESSED CABINET, COORDINATE AND VERIFY W/ SPECIFICATIONS. MAXIMUM TRAVEL DISTANCE TO EXTINGUISHER SHALL BE 75 FEET.

- 1. G.C. IS RESPONSIBLE FOR PROVIDING AND INSTALLING ADDRESS / UNIT NUMBER SIGNAGE AT FRONT AND REAR ENTRIES OR AS INDICATED ON DRAWINGS. SIGNAGE TO MEET LOCAL CODES.
- 24 HOURS PRIOR TO PUNCH-LIST OF ANY PHASE, THE CONTRACTOR SHALL THOROUGHLY CLEAN ALL SURFACES OF DUST, DEBRIS, AND LOOSE CONSTRUCTION MATERIAL.
- UPON COMPLETION OF CONSTRUCTION, CONTRACTOR SHALL CLEAN THE WORK AREA TO OWNERS SATISFACTION. FINAL CLEANUP SHALL INCLUDE THE FOLLOWING: VACUUM OR MOP ALL FLOORS. SWEEP, DAMP MOP, AND WAX RESILIENT FLOORING. DUST, DIRT, PAINT DRIPPINGS, OIL, GREASE, MASTIC, ADHESIVES, AND OTHER FOREIGN MATERIALS AND BLEMISHES SHALL BE REMOVED FROM SIGHT-EXPOSED FINISHES, INCLUDING PIPES AND EQUIPMENT. WINDOWS, GLASS UNITS, GLASS DOORS AND MIRRORS SHALL BE WASHED. PAINT OVERRUNS AND PUTTY SMEARS SHALL BE REMOVED AND HARDWARE SHALL BE RUBBED CLEAN WITH FLANNEL
- WORK DAMAGED DURING CONSTRUCTION OR NOT CONFORMING TO SPECIFIED STANDARDS, TOLERANCES OR MANUFACTURERS INSTRUCTIONS FOR INSTALLATION SHALL BE REPLACED BY THE CONTRACTOR, AT NO ADDITIONAL COST TO THE OWNER.
- CONTRACTOR SHALL BE RESPONSIBLE FOR AND SHALL REPLACE OR REMEDY ANY FAULTY, IMPROPER, OR INFERIOR MATERIALS OR WORKMANSHIP WHICH SHALL APPEAR WITHIN ONE (1) YEAR (OR CONTRACTUALLY AGREED UPON TERM REQUIRED BY OWNER) AFTER THE COMPLETION AND ACCEPTANCE OF THE WORK UNDER THIS CONTRACT.
- AN OPERATIONAL TEST OF THE EMERGENCY LIGHTING SYSTEM MAY BE REQUIRED. COORDINATE WITH BUILDING OFFICIALS.



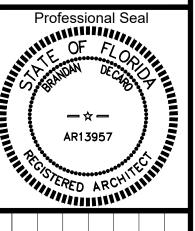
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REVIEW.



Figure 302.2 Carpet Pile Height

302.3 Openings. Openings in floor or ground surfaces shall not allow passage of a sphere more than 1/2 inch (13 mm) diameter except as allowed in 407.4.3, 409.4.3, 410.4, 810.5.3 and 810.10. Elongated openings shall be placed so that the long dimension is perpendicular to the dominant direction of travel.

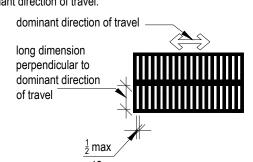
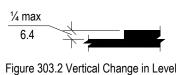
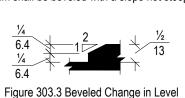


Figure 302.3 Elongated Openings in Floor or Ground Surfaces

303.2 Vertical. Changes in level of 1/4 inch (6.4 mm) high maximum shall be permitted to be vertical.



303.3 Beveled. Changes in level between 1/4 inch (6.4 mm) high minimum and 1/2 inch (13 mm) high maximum shall be beveled with a slope not steeper than 1:2.



304 Turning Space 304.3.1 Circular Space. The turning space shall be a space of 60 inches (1525 mm) diameter minimum. The space shall be permitted to include knee and toe clearance complying with 306.304.3.2 T-Shaped Space. The turning space shall be a T-shaped space within a 60 inch (1525 mm)square minimum with arms and base 36 inches (915 mm) wide minimum. Each arm of the T shall be clear of obstructions 12 inches (305 mm) minimum in each direction and the base shall be clear of obstructions 24 inches (610 mm) minimum. The space shall be permitted to include knee and toe clearance complying with 306 only at the end of either the base or one arm.

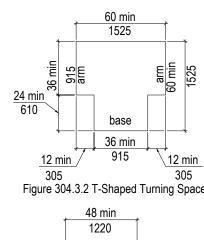


Figure 305.3 Clear Floor or Ground Space

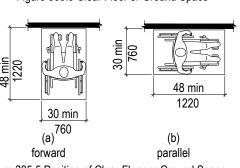


Figure 305.5 Position of Clear Floor or Ground Space 305.7.1Forward Approach. Alcoves shall be 36 inches (915 mm)wide minimum where the depth exceeds 24 inches (610 mm).

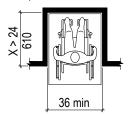


Figure 305.7.1 Maneuvering Clearance in an Alcove, Forward Approach 305.7.2 Parallel Approach. Alcoves shall be 60 inches (1525 mm) wide minimum where the

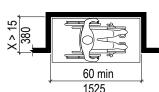


Figure 305.7.2 Maneuvering Clearance in an Alcove, Parallel Approach

306 Knee and Toe Clearance 306.2 Toe Clearance.

306.2.1 General. Space under an element between the finish floor or ground and 9 inches (230 mm) above the finish floor or ground shall be considered toe clearance and shall comply with 306.2. 306.2.2 Maximum Depth. Toe clearance shall extend 25 inches (635 mm) maximum under an

306.2.3 Minimum Required Depth. Where toe clearance is required at an element as part of a clear 403.4 Changes in Level. Changes in level shall comply with 303. floor space, the toe clearance shall extend 17 inches (430 mm) minimum under the element. 306.2.4 Additional Clearance. Space extending greater than 6 inches (150 mm) beyond the available knee clearance at 9 inches (230 mm) above the finish floor or ground shall not be considered toe clearance.

306.2.5 Width. Toe clearance shall be 30 inches (760 mm) wide minimum.

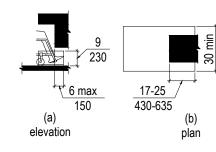
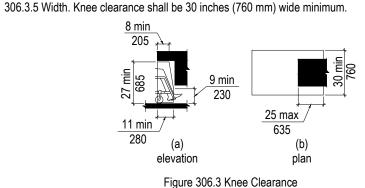


Figure 306.2 Toe Clearance

306.3.1 General. Space under an element between 9 inches (230 mm) and 27 inches (685 mm) above the finish floor or ground shall be considered knee clearance and shall comply with 306.3. 306.3.2 Maximum Depth. Knee clearance shall extend 25 inches (635 mm) maximum under an

element at 9 inches (230 mm) above the finish floor or ground. 306.3.3 Minimum Required Depth. Where knee clearance is required under an element as part of a clear floor space, the knee clearance shall be 11 inches (280 mm) deep minimum at 9 inches (230 mm) above the finish floor or ground, and 8 inches (205 mm) deep minimum at 27 inches (685 mm) above the finish floor or ground.

306.3.4 Clearance Reduction. Between 9 inches (230 mm) and 27 inches (685 mm) above the finish floor or ground, the knee clearance shall be permitted to reduce at a rate of 1 inch (25 mm) in depth for each 6 inches (150 mm) in height.



308 Reach Ranges Children's Reach Range	es.	
Forward or Side Reach	High (maximum)	Low (minimum)
Ages 3 and 4	36 in (915 mm)	20 in (510 mm)
Ages 5 through 8	40 in (1015 mm)	18 in (455 mm)
Ages 9 through 12	44 in (1120 mm)	16 in (405 mm)

308.2 Foward Reach.

308.2.1 Unobstructed. Where a foward each is unobstructed, the high foward reach shall be 48 inches(1220 mm) maximum and the low foward reach shall be 15 inches (380 mm) minimum above the finish floor or ground.

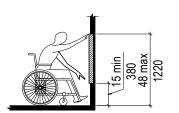


Figure 308.2.2 Obstructed High Forward Reach

308.2.2 Obstructed High Reach. Where a high forward reach is over an obstruction, the clear floor space shall extend beneath the element for a distance not less than the required reach depth over the obstruction. The high forward reach shall be 48 inches (1220 mm) maximum where the reach depth is 20 inches (510 mm) maximum. Where the reach depth exceeds 20 inches (510 mm), the high forward reach shall be 44 inches (1120 mm) maximum and the reach depth shall be 25 inches (635 mm)

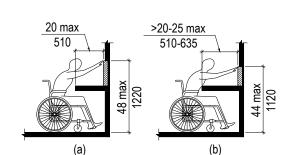
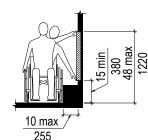
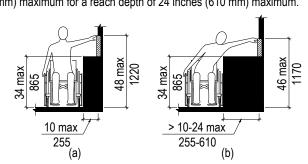


Figure 308.3.1 Unobstructed Side Reach

308.3.1 Unobstructed. Where a clear floor or ground space allows a parallel approach to an element and the side reach is unobstructed, the high side reach shall be 48 inches (1220 mm) maximum andthe low side reach shall be 15 inches (380 mm) minimum above the finish floor or ground.



308.3.2 Obstructed High Reach. Where a clear floor or ground space allows a parallel approach to an element and the high side reach is over an obstruction, the height of the obstruction shall be 34 inches (865 mm) maximum and the depth of the obstruction shall be 24 inches (610 mm) maximum. The high side reach shall be 48 inches (1220 mm) maximum for a reach depth of 10 inches (255 mm) maximum. Where the reach depth exceeds 10 inches (255 mm), the high side reach shall be 46 inches (1170 mm) maximum for a reach depth of 24 inches (610 mm) maximum.



309 Operable Parts 309.2 Clear Floor Space. A clear floor or ground space complying with 305 shall be provided. 309.3 Height. Operable parts shall be placed within one or more of the reach ranges specified in 308. 309.4 Operation. Operable parts shall be operable with one hand and shall not require tight grasping, pinching, or twisting of the wrist. The force required to activate operable parts shall be 5 pounds (22.2 N) maximum

Figure 308.3.2 Obstructed High Side Reach

CHAPTER 4: ACCESSIBLE ROUTES

function of the work being performed.

402.2 Components. Accessible routes shall consist of one or more of the following components: walking surfaces with a running slope not steeper than 1:20, doorways, ramps, curb ramps excluding the flared sides, elevators, and platform lifts. All components of an accessible route shall comply with the applicable requirements of Chapter 4.

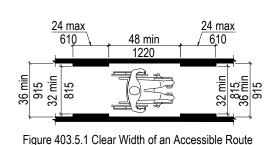
Advisory 402.2 Components. Walking surfaces must have running slopes not steeper than 1:20, see 403.3.Other components of accessible routes, such as ramps (405) and curb ramps (406), are permitted to be more steeply sloped.

403 Walking Surfaces 403.1 General. Walking surfaces that are a part of an accessible route shall comply with 403. 403.2 Floor or Ground Surface. Floor or ground surfaces shall comply with 302. 403.3 Slope. The running slope of walking surfaces shall not be steeper than 1:20. The cross slope of walking surfaces shall not be steeper than 1:48.

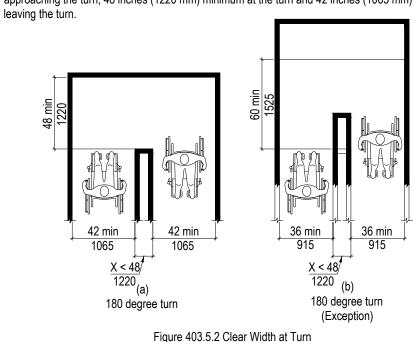
403.5 Clearances. Walking surfaces shall provide clearances complying with 403.5. EXCEPTION: Within employee work areas, clearances on common use circulation paths shall be permitted to be decreased by work area equipment provided that the decrease is essential to the

403.5.1 Clear Width. Except as provided in 403.5.2 and 403.5.3, the clear width of walking surfaces shall be 36 inches (915 mm) minimum. EXCEPTION: The clear width shall be permitted to be reduced to 32 inches (815 mm) minimum for a length of 24 inches (610 mm) maximum provided that reduced width segments are separated by

segments that are 48 inches (1220 mm) long minimum and 36 inches (915 mm) wide minimum.

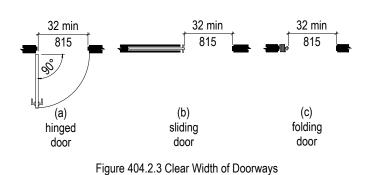


403.5.2 Clear Width at Turn. Where the accessible route makes a 180 degree turn around an element which is less than 48 inches (1220 mm) wide, clear width shall be 42 inches (1065 mm) minimum approaching the turn, 48 inches (1220 mm) minimum at the turn and 42 inches (1065 mm) minimum



403.5.3 Passing Spaces. An accessible route with a clear width less than 60 inches (1525 mm) shall provide passing spaces at intervals of 200 feet (61 m) maximum.

404 Doors, Doorways, and Gates. 404.2.3 Clear Width. Door openings shall provide a clear width of 32 inches (815 mm) minimum. Clear openings of doorways with swinging doors shall be measured between the face of the door and the stop, with the door open 90 degrees. Openings more than 24 inches (610 mm) deep shall provide a clear opening of 36 inches (915 mm) minimum. There shall be no projections into the required clear opening width lower than 34 inches (865 mm) above the finish floor or ground. Projections into the clear opening width between 34 inches (865 mm) and 80 inches (2030 mm) above the finish floor or ground shall not exceed 4 inches (100 mm).



404.2.4 Maneuvering Clearances. Minimum maneuvering clearances at doors and gates shall comply with 404.2.4. Maneuvering clearances shall extend the full width of the doorway and the required latch

4404.2.4.3 Recessed Doors and Gates. Maneuvering clearances for forward approach shall be provided when any obstruction within 18 inches (455 mm) of the latch side of a doorway projects more than 8 inches (205 mm) beyond the face of the door, measured perpendicular to the face of the door or gate.

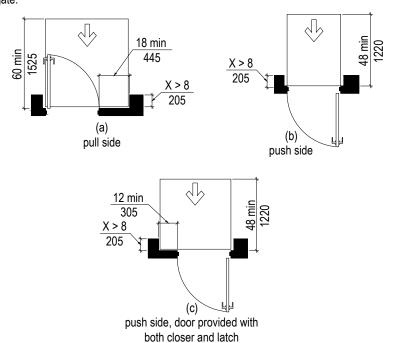


Figure 404.2.4.3 Maneuvering Clearances at Recessed Doors and Gates

404.2.6 Doors in Series and Gates in Series. The distance between two hinged or pivoted doors in series and gates in series shall be 48 inches (1220 mm) minimum plus the width of doors or gates swinging into the space.

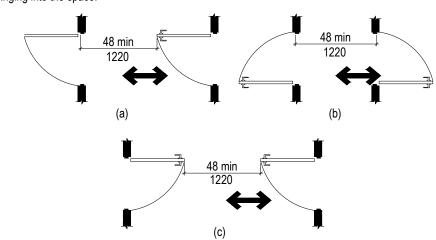


Figure 404.2.6 Doors in Series and Gates in Series

4404.2.7 Door and Gate Hardware. Handles, pulls, latches, locks, and other operable parts on doors and gates shall comply with 309.4. Operable parts of such hardware shall be 34 inches (865 mm) minimum and 48 inches (1220 mm) maximum above the finish floor or ground. Where sliding doors are in the fully open position, operating hardware shall be exposed and

usable from both sides. 404.2.8.1 Door Closers and Gate Closers. Door closers and gate closers shall be adjusted so that from an open position of 90 degrees, the time required to move the door to a position of 12 degrees from the latch is 5 seconds minimum 404.2.8.2 Spring Hinges. Door and gate spring hinges shall be adjusted so that from the open

position of 70 degrees, the door or gate shall move to the closed position in 1.5 seconds 404.2.9 Door and Gate Opening Force. Fire doors shall have a minimum opening force allowable by the appropriate administrative authority. The force for pushing or pulling open a door or gate other than fire doors shall be as follows:

I. Interior hinged doors and gates: 5 pounds (22.2 N) maximum. 2. Sliding or folding doors: 5 pounds (22.2 N) maximum. These forces do not apply to the force required to retract latch bolts or disengage other devices that hold the door or gate in a closed position.

404.2.10 Door and Gate Surfaces. Swinging door and gate surfaces within 10 inches (255mm) of the finish floor or ground measured vertically shall have a smooth surface on the push side extending the full width of the door or gate. Parts creating horizontal or vertical joints in these surfaces shall be within 1/16 inch (1.6 mm) of the same plane as the other. Cavities created by added kick plates shall be capped.

404.2.11 Vision Lights. Doors, gates, and side lights adjacent to doors or gates, containing one or more glazing panels that permit viewing through the panels shall have the bottom of at least one glazed panel located 43 inches (1090 mm) maximum above the finish floor. 404.3 Automatic and Power-Assisted Doors and Gates. Automatic doors and automatic gates shall comply with 404.3. Full-powered automatic doors shall comply with ANSI/BHMA A156.10 (Incorporated by reference, see "Referenced Standards" in Chapter 1). Low-energy and power-assisted doors shall comply with ANSI/BHMA A156.19 (1997 or 2002 edition)

(Incorporated by reference, see "Referenced Standards" in Chapter 1). 404.3.2 Maneuvering Clearance. Clearances at power-assisted doors and gates shall comply with 404.2.4. Clearances at automatic doors and gates without standby power and serving an accessible means of egress shall comply with 404.2.4.

404.3.7 Revolving Doors, Revolving Gates, and Turnstiles. Revolving doors, revolving gates, and turnstiles shall not be part of an accessible route.

405.5 Clear Width. The clear width of a ramp run and, where handrails are provided, the clear width between handrails shall be 36 inches (915 mm) minimum. 405.6 Rise. The rise for any ramp run shall be 30 inches (760 mm) maximum. 405.7 Landings. Ramps shall have landings at the top and the bottom of each ramp run.

405.2 Slope. Ramp runs shall have a running slope not steeper than 1:12.

405.3 Cross Slope. Cross slope of ramp runs shall not be steeper than 1:48.

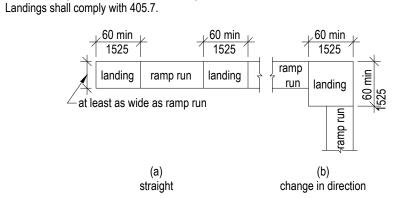


Figure 405.7 Ramp Landings

405.7.1 Slope. Landings shall have a slope no steeper than 1:48. Changes in level are not permitted. 405.7.2 Width. The landing clear width shall be at least as wide as the widest ramp run leading to the

405.7.3 Length. The landing clear length shall be 60 inches (1525 mm) long minimum. 405.7.4 Change in Direction. Ramps that change direction between runs at landings shall have a clear landing 60 inches (1525 mm) minimum by 60 inches (1525 mm) minimum. 405.7.5 Doorways. Where doorways are located adjacent to a ramp landing, maneuvering clearances required by 404.2.4 and 404.3.2 shall be permitted to overlap the required landing. 405.8 Handrails. Ramp runs with a rise greater than 6 inches (150 mm) shall have handrails complying with 505.

405.9 Edge Protection. Edge protection complying with 405.9.1 or 405.9.2 shall be provided on each side of ramp runs and at each side of ramp landings. 405.9.1 Extended Floor or Ground Surface. The floor or ground surface of the ramp run or landing shall extend 12 inches (305 mm) minimum beyond the inside face of a handrail complying

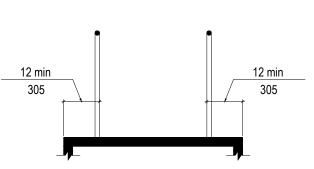
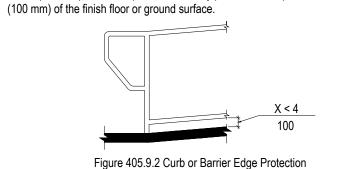


Figure 405.9.1 Extended Floor or Ground Surface Edge Protection 405.9.2 Curb or Barrier. A curb or barrier shall be provided that prevents the passage of a 4 inch (100 mm) diameter sphere, where any portion of the sphere is within 4 inches



603 Toilet and Bathing Rooms

603.2 Clearances. Clearances shall comply with 603.2. 603.2.1 Turning Space. Turning space complying with 304 shall be provided within the room. 603.2.2 Overlap. Required clear floor spaces, clearance at fixtures, and turning space shall be

603.2.3 Door Swing. Doors shall not swing into the clear floor space or clearance required for any fixture. Doors shall be permitted to swing into the required turning space. 603.3 Mirrors. Mirrors located above lavatories or countertops shall be installed with the bottom edge of the reflecting surface 40 inches (1015 mm) maximum above the finish floor or ground. Mirrors not located above lavatories or countertops shall be installed with the bottom edge of

the reflecting surface 35 inches (890 mm) maximum above the finish floor or ground. 603.4 Coat Hooks and Shelves. Coat hooks shall be located within one of the reach ranges specified in 308. Shelves shall be located 40 inches (1015 mm) minimum and 48 inches (1220 mm) maximum above the finish floor. 604 Water Closets and Toilet Compartments

604.2 Location. The water closet shall be positioned with a wall or partition to the rear and to one side. The centerline of the water closet shall be 16 inches (405 mm) minimum to 18 inches (455 mm) maximum from the side wall or partition, except that the water closet shall be 17 inches (430 mm) minimum and 19 inches (485 mm) maximum from the side wall or partition in the ambulatory accessible toilet compartment specified in 604.8.2. Water closets shall be arranged for a left-hand or right-hand approach.

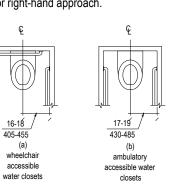


Figure 604.2 Water Closet Location 604.3.1 Size. Clearance around a water closet shall be 60 inches (1525 mm) minimum measured perpendicular from the side wall and 56 inches (1420 mm) minimum measured perpendicular from the rear wall.

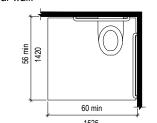
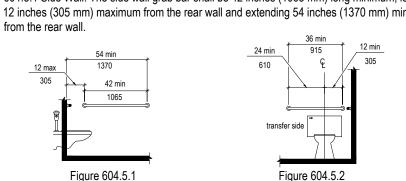


Figure 604.3.1 Size of Clearance at Water Closets

604.3.2 Overlap. The required clearance around the water closet shall be permitted to overlap the water closet, associated grab bars, dispensers, sanitary napkin disposal units, coat hooks, shelves, accessible routes, clear floor space and clearances required at other fixtures, and the turning space. No other fixtures or obstructions shall be located within the required water closet

604.4 Seats. The seat height of a water closet above the finish floor shall be 17 inches (430 mm) minimum and 19 inches (485 mm) maximum measured to the top of the seat. Seats shall not be sprung to return to a lifted position.

604.5 Grab Bars. Grab bars for water closets shall comply with 609. Grab bars shall be provided on the side wall closest to the water closet and on the rear wall. 604.5.1 Side Wall. The side wall grab bar shall be 42 inches (1065 mm) long minimum, located 12 inches (305 mm) maximum from the rear wall and extending 54 inches (1370 mm) minimum



Side Wall Grab Bar at Water Closets Rear Wall Grab Bar at Water Closets

604.5.2 Rear Wall. The rear wall grab bar shall be 36 inches (915 mm) long minimum and extend from the centerline of the water closet 12 inches (305 mm) minimum on one side and 24 inches (610 mm) minimum on the other side. Figure 604.5.2 Rear Wall Grab Bar at Water Closets

604.6 Flush Controls. Flush controls shall be hand operated or automatic. Hand operated flush controls shall comply with 309. Flush controls shall be located on the open side of the water closet except in ambulatory accessible compartments complying with 604.8.2. 604.7 Dispensers. Toilet paper dispensers shall comply with 309.4 and shall be 7 inches (180 mm) minimum and 9 inches (230 mm) maximum in front of the water closet measured to the centerline of the dispenser. The outlet of the dispenser shall be 15 inches (380 mm) minimum and 48 inches (1220 mm) maximum above the finish floor and shall not be located behind grab bars. Dispensers shall not be of a type that controls delivery or that does not allow continuous paper flow.

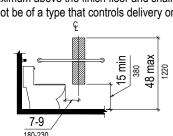


Figure 604.7 Dispenser Outlet Location 604.8 Toilet Compartments. Wheelchair accessible toilet compartments shall meet the requirements of 604.8.1 and 604.8.3. Compartments containing more than one plumbing fixture shall comply with 603. Ambulatory accessible compartments shall comply with 604.8.2 and

604.8.1 Wheelchair Accessible Compartments. Wheelchair accessible compartments shall comply with 604.8.1.

604.8.1.1 Size. Wheelchair accessible compartments shall be 60 inches (1525 mm) wide minimum measured perpendicular to the side wall, and 56 inches (1420 mm) deep minimum for wall hung water closets and 59 inches (1500 mm) deep minimum for floor mounted water closets measured perpendicular to the rear wall. Wheelchair accessible compartments for children's use shall be 60 inches (1525 mm) wide minimum measured perpendicular to the side wall, and 59 inches (1500 mm) deep minimum for wall hung and floor mounted water closets measured perpendicular to the rear wall.

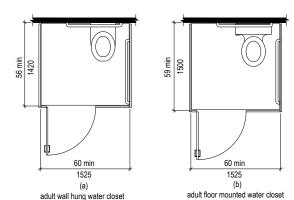


Figure 604.8.1.1 Size of Wheelchair Accessible Toilet Compartment 604.8.1.2 Doors. Toilet compartment doors, including door hardware, shall comply with 404 except that if the approach is to the latch side of the compartment door, clearance between the door side of the compartment and any obstruction shall be 42 inches (1065 mm) minimum. Doors shall be located in the front partition or in the side wall or partition farthest from the water closet. Where located in the front partition, the door opening shall be 4 inches (100 mm) maximum from the side wall or partition farthest from the water closet. Where located in the side wall or partition, the door opening shall be 4 inches (100 mm) maximum from the front partition. The door shall be self-closing. A door pull complying with 404.2.7 shall be placed on both sides of the door near the latch. Toilet compartment doors shall not swing into the minimum required compartment area.

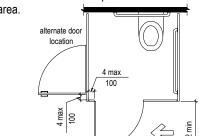


Figure 604.8.1.2 Wheelchair Accessible Toilet Compartment Doors 604.8.1.3 Approach. Compartments shall be arranged for left-hand or right-hand approach to the water closet.

604.8.1.4 Toe Clearance. The front partition and at least one side partition shall provide a toe clearance of 9 inches (230 mm) minimum above the finish floor and 6 inches (150 mm) deep minimum beyond the compartment-side face of the partition, exclusive of partition support members. Compartments for children's use shall provide a toe clearance of 12 inches (305mm) minimum above the finish floor.

EXCEPTION: Toe clearance at the front partition is not required in a compartment greater than 62 inches (1575 mm) deep with a wall-hung water closet or 65 inches (1650 mm) deep with a floor-mounted water closet. Toe clearance at the side partition is not required in a compartment greater than 66 inches (1675 mm) wide. Toe clearance at the front partition is not required in a compartment for children's use that is greater than 65 inches (1650 mm)deep.

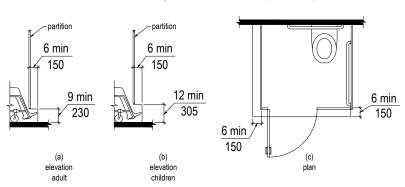


Figure 604.8.1.4 Wheelchair Accessible Toilet Compartment Toe Clearance 604.8.1.5 Grab Bars. Grab bars shall comply with 609. A side-wall grab bar complying with 604.5.1 shall be provided and shall be located on the wall closest to the water closet. In addition, a

rear-wall grab bar complying with 604.5.2 shall be provided 604.8.2 Ambulatory Accessible Compartments. Ambulatory accessible compartments shall with 604.8.2.

604.8.2.1 Size. Ambulatory accessible compartments shall have a depth of 60 inches (1525 mm) minimum and a width of 35 inches (890 mm) minimum and 37 inches (940 mm) maximum. 604.8.2.2 Doors. Toilet compartment doors, including door hardware, shall comply with 404, except that if the approach is to the latch side of the compartment door, clearance between the door side of the compartment and any obstruction shall be 42 inches (1065 mm) minimum. The door shall be self-closing. A door pull complying with 404.2.7 shall be placed on both sides of the door near the latch. Toilet compartment doors shall not swing into the minimum required compartment area.

604.8.2.3 Grab Bars. Grab bars shall comply with 609. A side-wall grab bar complying with 604.5.1 shall be provided on both sides of the compartment.

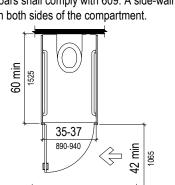


Figure 604.8.2 Ambulatory Accessible Toilet Compartment 604.8.3 Coat Hooks and Shelves. Coat hooks shall be located within one of the reach ranges

specified in 308. Shelves shall be located 40 inches (1015 mm) minimum and 48 inches (1220 mm) maximum above the finish floor. 604.9 Water Closets and Toilet Compartments for Children's Use. Water closets and toilet

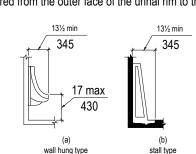
compartments for children's use shall comply with 604.9. 604.9.1 Location. The water closet shall be located with a wall or partition to the rear and to one side. The centerline of the water closet shall be 12 inches (305 mm) minimum and 18 inches (455mm) maximum from the side wall or partition, except that the water closet shall be 17 inches (430 mm) minimum and 19 inches (485 mm) maximum from the side wall or partition in the ambulatory accessible toilet compartment specified in 604.8.2. Compartments shall be arranged

for left-hand or right-hand approach to the water closet. 604.9.2 Clearance. Clearance around a water closet shall comply with 604.3. 604.9.3 Height. The height of water closets shall be 11 inches (280 mm) minimum and 17 inches (430 mm) maximum measured to the top of the seat. Seats shall not be sprung to return to a lifted

604.9.4 Grab Bars. Grab bars for water closets shall comply with 604.5. 604.9.5 Flush Controls. Flush controls shall be hand operated or automatic. Hand operated flush controls shall comply with 309.2 and 309.4 and shall be installed 36 inches (915 mm) maximum above the finish floor. Flush controls shall be located on the open side of the water closet except in ambulatory accessible compartments complying with 604.8.2. 604.9.6 Dispensers. Toilet paper dispensers shall comply with 309.4 and shall be 7 inches (180 mm) minimum and 9 inches (230 mm) maximum in front of the water closet measured to the

centerline of the dispenser. The outlet of the dispenser shall be 14 inches (355 mm) minimum and 19 inches (485 mm) maximum above the finish floor. There shall be a clearance of 1 1/2 inches (38 mm) minimum below the grab bar. Dispensers shall not be of a type that controls delivery or that does not allow continuous paper flow. 604.9.7 Toilet Compartments. Toilet compartments shall comply with 604.8.

605.2 Height and Depth. Urinals shall be the stall-type or the wall-hung type with the rim 17inches (430 mm) maximum above the finish floor or ground. Urinals shall be 13 1/2 inches (345 mm) deep minimum measured from the outer face of the urinal rim to the back of the fixture.



605.3 Clear Floor Space. A clear floor or ground space complying with 305 positioned for forward approach shall be provided. 605.4 Flush Controls. Flush controls shall be hand operated or automatic. Hand operated flush controls shall comply with 309.

Figure 605.2 Height and Depth of Urinals

606 Lavatories and Sinks 606.2 Clear Floor Space. A clear floor space complying with 305, positioned for a forward approach, and knee and toe clearance complying with 306 shall be provided. 606.3 Height. Lavatories and sinks shall be installed with the front of the higher of the rim or counter surface 34 inches (865 mm) maximum above the finish floor or ground. 606.4 Faucets. Controls for faucets shall comply with 309. Hand-operated metering faucets shall

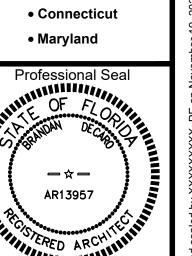
remain open for 10 seconds minimum. 606.5 Exposed Pipes and Surfaces. Water supply and drain pipes under lavatories and sinks shall be insulated or otherwise configured to protect against contact. There shall be no sharp or abrasive surfaces under lavatories and sinks.



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603.2 Clearances. Clearances shall comply with 603.2.

- 603.2.1 Turning Space. Turning space complying with 304 shall be provided within the room. 603.2.2 Overlap. Required clear floor spaces, clearance at fixtures, and turning space shall be
- 603.2.3 Door Swing. Doors shall not swing into the clear floor space or clearance required for
- any fixture. Doors shall be permitted to swing into the required turning space. 603.3 Mirrors. Mirrors located above lavatories or countertops shall be installed with the bottom

edge of the reflecting surface 40 inches (1015 mm) maximum above the finish floor or ground.

- Mirrors not located above lavatories or countertops shall be installed with the bottom edge of the reflecting surface 35 inches (890 mm) maximum above the finish floor or ground. 603.4 Coat Hooks and Shelves. Coat hooks shall be located within one of the reach ranges specified in 308. Shelves shall be located 40 inches (1015 mm) minimum and 48 inches (1220 mm) maximum above the finish floor.
- 604 Water Closets and Toilet Compartments 604.2 Location. The water closet shall be positioned with a wall or partition to the rear and to one side. The centerline of the water closet shall be 16 inches (405 mm) minimum to 18 inches (455 mm) maximum from the side wall or partition, except that the water closet shall be 17

inches (430 mm) minimum and 19 inches (485 mm) maximum from the side wall or partition in

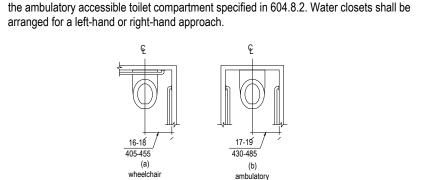


Figure 604.2 Water Closet Location

604.3.1 Size. Clearance around a water closet shall be 60 inches (1525 mm) minimum measured perpendicular from the side wall and 56 inches (1420 mm) minimum measured perpendicular from the rear wall.

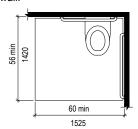
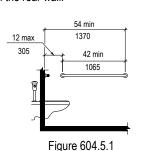


Figure 604.3.1 Size of Clearance at Water Closets

604.3.2 Overlap. The required clearance around the water closet shall be permitted to overlap the water closet, associated grab bars, dispensers, sanitary napkin disposal units, coat hooks, shelves, accessible routes, clear floor space and clearances required at other fixtures, and the turning space. No other fixtures or obstructions shall be located within the required water closet

- 604.4 Seats. The seat height of a water closet above the finish floor shall be 17 inches (430 mm) minimum and 19 inches (485 mm) maximum measured to the top of the seat. Seats shall not be sprung to return to a lifted position.
- 604.5 Grab Bars. Grab bars for water closets shall comply with 609. Grab bars shall be provided on the side wall closest to the water closet and on the rear wall.
- 604.5.1 Side Wall. The side wall grab bar shall be 42 inches (1065 mm) long minimum, located 12 inches (305 mm) maximum from the rear wall and extending 54 inches (1370 mm) minimum from the rear wall.



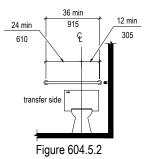


Figure 604.5.1 Side Wall Grab Bar at Water Closets

Rear Wall Grab Bar at Water Closets 604.5.2 Rear Wall. The rear wall grab bar shall be 36 inches (915 mm) long minimum and extend from the centerline of the water closet 12 inches (305 mm) minimum on one side and 24 inches (610 mm) minimum on the other side

- ire 604.5.2 Rear Wall Grab Bar at Water Closets 604.6 Flush Controls. Flush controls shall be hand operated or automatic. Hand operated flush controls shall comply with 309. Flush controls shall be located on the open side of the water
- closet except in ambulatory accessible compartments complying with 604.8.2. 604.7 Dispensers. Toilet paper dispensers shall comply with 309.4 and shall be 7 inches (180 mm) minimum and 9 inches (230 mm) maximum in front of the water closet measured to the centerline of the dispenser. The outlet of the dispenser shall be 15 inches (380 mm) minimum and 48 inches (1220 mm) maximum above the finish floor and shall not be located behind
- grab bars. Dispensers shall not be of a type that controls delivery or that does not allow continuous paper flow.

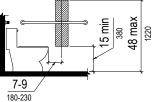
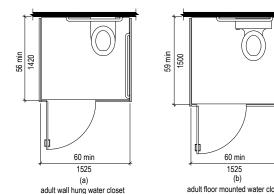


Figure 604.7 Dispenser Outlet Location 604.8 Toilet Compartments. Wheelchair accessible toilet compartments shall meet the requirements of 604.8.1 and 604.8.3. Compartments containing more than one plumbing fixture shall comply with 603. Ambulatory accessible compartments shall comply with 604.8.2 and

- 604.8.1 Wheelchair Accessible Compartments. Wheelchair accessible compartments shall comply with 604.8.1.
- 604.8.1.1 Size. Wheelchair accessible compartments shall be 60 inches (1525 mm) wide minimum measured perpendicular to the side wall, and 56 inches (1420 mm) deep minimum for wall hung water closets and 59 inches (1500 mm) deep minimum for floor mounted water closets measured perpendicular to the rear wall. Wheelchair accessible compartments for children's use shall be 60 inches (1525 mm) wide minimum measured perpendicular to the side wall, and 59 inches (1500 mm) deep minimum for wall hung and floor mounted water closets measured perpendicular to the rear wall.



adult floor mounted water closet adult wall hung water closet and children's water closet

Figure 604.8.1.1 Size of Wheelchair Accessible Toilet Compartment 604.8.1.2 Doors. Toilet compartment doors, including door hardware, shall comply with 404 except that if the approach is to the latch side of the compartment door, clearance between the door side of the compartment and any obstruction shall be 42 inches (1065 mm) minimum. Doors shall be located in the front partition or in the side wall or partition farthest from the water closet. Where located in the front partition, the door opening shall be 4 inches (100 mm) maximum from the side wall or partition farthest from the water closet. Where located in the side wall or partition, the door opening shall be 4 inches (100 mm) maximum from the front partition. The door shall be self-closing. A door pull complying with 404.2.7 shall be placed on both sides of the door near the latch. Toilet compartment doors shall not swing into the minimum required compartment area.



Figure 604.8.1.2 Wheelchair Accessible Toilet Compartment Doors 604.8.1.3 Approach. Compartments shall be arranged for left-hand or right-hand approach to the water closet.

604.8.1.4 Toe Clearance. The front partition and at least one side partition shall provide a toe clearance of 9 inches (230 mm) minimum above the finish floor and 6 inches (150 mm) deep minimum beyond the compartment-side face of the partition, exclusive of partition support members. Compartments for children's use shall provide a toe clearance of 12 inches (305mm) minimum above the finish floor.

EXCEPTION: Toe clearance at the front partition is not required in a compartment greater than 62 inches (1575 mm) deep with a wall-hung water closet or 65 inches (1650 mm) deep with a floor-mounted water closet. Toe clearance at the side partition is not required in a compartment greater than 66 inches (1675 mm) wide. Toe clearance at the front partition is not required in a compartment for children's use that is greater than 65 inches (1650 mm)deep.

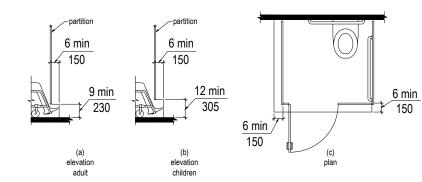


Figure 604.8.1.4 Wheelchair Accessible Toilet Compartment Toe Clearance

604.8.1.5 Grab Bars. Grab bars shall comply with 609. A side-wall grab bar complying with 604.5.1 shall be provided and shall be located on the wall closest to the water closet. In addition, a rear-wall grab bar complying with 604.5.2 shall be provided.

604.8.2 Ambulatory Accessible Compartments. Ambulatory accessible compartments shall with 604.8.2.

604.8.2.1 Size. Ambulatory accessible compartments shall have a depth of 60 inches (1525 mm) minimum and a width of 35 inches (890 mm) minimum and 37 inches (940 mm) maximum. 604.8.2.2 Doors. Toilet compartment doors, including door hardware, shall comply with 404, except that if the approach is to the latch side of the compartment door, clearance between the door side of the compartment and any obstruction shall be 42 inches (1065 mm) minimum. The door shall be self-closing. A door pull complying with 404.2.7 shall be placed on both sides of the door near the latch. Toilet compartment doors shall not swing into the minimum required compartment area.

604.8.2.3 Grab Bars. Grab bars shall comply with 609. A side-wall grab bar complying with 604.5.1 shall be provided on both sides of the compartment.

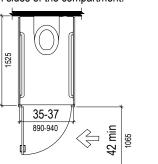
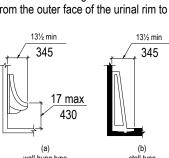


Figure 604.8.2 Ambulatory Accessible Toilet Compartment 604.8.3 Coat Hooks and Shelves. Coat hooks shall be located within one of the reach ranges specified in 308. Shelves shall be located 40 inches (1015 mm) minimum and 48 inches (1220

- mm) maximum above the finish floor. 604.9 Water Closets and Toilet Compartments for Children's Use. Water closets and toilet compartments for children's use shall comply with 604.9.
- 604.9.1 Location. The water closet shall be located with a wall or partition to the rear and to one side. The centerline of the water closet shall be 12 inches (305 mm) minimum and 18 inches (455mm) maximum from the side wall or partition, except that the water closet shall be 17 inches (430 mm) minimum and 19 inches (485 mm) maximum from the side wall or partition in the ambulatory accessible toilet compartment specified in 604.8.2. Compartments shall be arranged
- for left-hand or right-hand approach to the water closet. 604.9.2 Clearance. Clearance around a water closet shall comply with 604.3.
- 604.9.3 Height. The height of water closets shall be 11 inches (280 mm) minimum and 17 inches (430 mm) maximum measured to the top of the seat. Seats shall not be sprung to return to a lifted
- 604.9.4 Grab Bars. Grab bars for water closets shall comply with 604.5. 604.9.5 Flush Controls. Flush controls shall be hand operated or automatic. Hand operated flush controls shall comply with 309.2 and 309.4 and shall be installed 36 inches (915 mm) maximum above the finish floor. Flush controls shall be located on the open side of the water closet except in ambulatory accessible compartments complying with 604.8.2. 604.9.6 Dispensers. Toilet paper dispensers shall comply with 309.4 and shall be 7 inches (180 mm) minimum and 9 inches (230 mm) maximum in front of the water closet measured to the centerline of the dispenser. The outlet of the dispenser shall be 14 inches (355 mm) minimum and
- 19 inches (485 mm) maximum above the finish floor. There shall be a clearance of 1 1/2 inches (38 mm) minimum below the grab bar. Dispensers shall not be of a type that controls delivery or that does not allow continuous paper flow. 604.9.7 Toilet Compartments. Toilet compartments shall comply with 604.8.
- 605.2 Height and Depth. Urinals shall be the stall-type or the wall-hung type with the rim 17inches (430 mm) maximum above the finish floor or ground. Urinals shall be 13 1/2 inches (345 mm) deep minimum measured from the outer face of the urinal rim to the back of the fixture.



- Figure 605.2 Height and Depth of Urinals
- 605.3 Clear Floor Space. A clear floor or ground space complying with 305 positioned for forward approach shall be provided. 605.4 Flush Controls. Flush controls shall be hand operated or automatic. Hand operated flush controls shall comply with 309.
- 606 Lavatories and Sinks 606.2 Clear Floor Space. A clear floor space complying with 305, positioned for a forward approach, and knee and toe clearance complying with 306 shall be provided.
- 606.3 Height. Lavatories and sinks shall be installed with the front of the higher of the rim or counter surface 34 inches (865 mm) maximum above the finish floor or ground. 606.4 Faucets. Controls for faucets shall comply with 309. Hand-operated metering faucets shall remain open for 10 seconds minimum.
- 606.5 Exposed Pipes and Surfaces. Water supply and drain pipes under lavatories and sinks shall be insulated or otherwise configured to protect against contact. There shall be no sharp or abrasive surfaces under lavatories and sinks.

609.1 General. Grab bars in toilet facilities and bathing facilities shall comply with 609. 609.2 Cross Section. Grab bars shall have a cross section complying with 609.2.1 or 609.2.2. 609.2.1 Circular Cross Section. Grab bars with circular cross sections shall have an outside diameter of 1 1/4 inches (32 mm) minimum and 2 inches (51 mm) maximum. 609.2.2 Non-Circular Cross Section. Grab bars with non-circular cross sections shall have a cross section dimension of 2 inches (51 mm) maximum and a perimeter dimension of 4 inches (100 mm) minimum and 4.8 inches (120 mm) maximum.

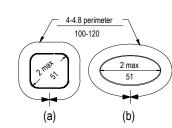
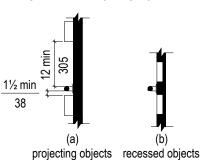


Figure 609.2.2 Grab Bar Non-Circular Cross Section

609.3 Spacing. The space between the wall and the grab bar shall be 1 1/2 inches (38 mm). The space between the grab bar and projecting objects below and at the ends shall be 1 1/2 inches (38 mm) minimum. The space between the grab bar and projecting objects above shall be 12 inches (305 mm) minimum.



609.4 Position of Grab Bars. Grab bars shall be installed in a horizontal position, 33 inches (840 mm) minimum and 36 inches (915 mm) maximum above the finish floor measured to the top of the gripping surface, except that at water closets for children's use complying with 604.9, grab bars shall be installed in a horizontal position 18 inches (455 mm) minimum and 27 inches (685 mm) maximum above the finish floor measured to the top of the gripping surface. The height of the lower grab bar on the back wall of a bathtub shall comply with 607.4.1.1 or 607.4.2.1.

Figure 609.3 Spacing of Grab Bars

609.5 Surface Hazards. Grab bars and any wall or other surfaces adjacent to grab bars shall be free of sharp or abrasive elements and shall have rounded edges. 609.6 Fittings. Grab bars shall not rotate within their fittings.

609.7 Installation. Grab bars shall be installed in any manner that provides a gripping surface at the specified locations and that does not obstruct the required clear floor space. 609.8 Structural Strength. Allowable stresses shall not be exceeded for materials used when a vertical or horizontal force of 250 pounds (1112 N) is applied at any point on the grab bar, fastener, mounting device, or supporting structure.

CHAPTER 7: COMMUNICATION ELEMENTS AND FEATURES 702 Fire Alarm Systems

702.1 General. Fire alarm systems shall have permanently installed audible and visible alarms complying with NFPA 72 (1999 or 2002 edition) (incorporated by reference, see "Referenced Standards" in Chapter 1), except that the maximum allowable sound level of audible notification appliances complying with section 4-3.2.1 of NFPA 72 (1999 edition) shall have a sound level no more than 110 dB at the minimum hearing distance from the audible appliance. In addition, alarms in guest rooms required to provide communication features shall comply with sections 4-3 and 4-4 of NFPA 72 (1999 edition) or sections 7.4 and 7.5 of NFPA 72 (2002 edition).

703.1 General. Signs shall comply with 703. Where both visual and tactile characters are required, either one sign with both visual and tactile characters, or two separate signs, one with visual, and one with tactile characters, shall be provided.

- 703.2 Raised Characters. Raised characters shall comply with 703.2 and shall be duplicated in braille complying with 703.3. Raised characters shall be installed in accordance with 703.4. 703.2.1 Depth. Raised characters shall be 1/32 inch (0.8 mm) minimum above their background.
- 703.2.2 Case. Characters shall be uppercase. 703.2.3 Style. Characters shall be sans serif. Characters shall not be italic, oblique, script, highly decorative, or of other unusual forms.
- 703.2.4 Character Proportions. Characters shall be selected from fonts where the width of the uppercase letter "O" is 55 percent minimum and 110 percent maximum of the height of the uppercase
- 703.2.5 Character Height. Character height measured vertically from the baseline of the character shall be 5/8 inch (16 mm) minimum and 2 inches (51 mm) maximum based on the height of the uppercase

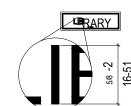


Figure 703.2.5 Height of Raised Characters

703.2.6 Stroke Thickness. Stroke thickness of the uppercase letter "I" shall be 15 percent maximum of

the height of the character. 703.2.7 Character Spacing. Character spacing shall be measured between the two closest points of adjacent raised characters within a message, excluding word spaces. Where characters have rectangular cross sections, spacing between individual raised characters shall be 1/8 inch (3.2 mm) minimum and 4 times the raised character stroke width maximum. Where characters have other cross sections, spacing between individual raised characters shall be 1/16 inch (1.6 mm) minimum and 4 three sised character stroke width maximum at the base of the cross sections, and 1/8 inch (3.2 mm) minimum and 4 times the raised character stroke width maximum at the top of the cross sections. Characters shall be separated from raised borders and decorative elements 3/8 inch (9.5 mm) minimum. 703.2.8 Line Spacing. Spacing between the baselines of separate lines of raised characters within a message shall be 135 percent minimum and 170 percent maximum of the raised character height. 703.3 Braille. Braille shall be contracted (Grade 2) and shall comply with 703.3 and 703.4. 703.3.1 Dimensions and Capitalization. Braille dots shall have a domed or rounded shape and shall comply with Table 703.3.1. The indication of an uppercase letter or letters shall only be used before the first word of sentences, proper nouns and names, individual letters of the alphabet, initials, and

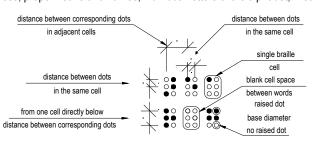


Figure 703.3.1 Braille Measurement

703.3.2 Position. Braille shall be positioned below the corresponding text. If text is multi-lined, braille shall be placed below the entire text. Braille shall be separated 3/8 inch (9.5 mm) minimum from any other tactile characters and 3/8 inch (9.5 mm) minimum from raised borders and decorative elements.

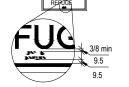


Figure 703.3.2 Position of Braille

703.4 Installation Height and Location. Signs with tactile characters shall comply with 703.4. 703.4.1 Height Above Finish Floor or Ground. Tactile characters on signs shall be located 48 inches (1220 mm) minimum above the finish floor or ground surface, measured from the baseline of the lowest tactile character and 60 inches (1525 mm) maximum above the finish floor or ground surface, measured from the baseline of the highest tactile character.

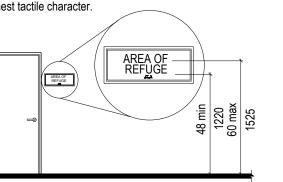
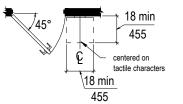


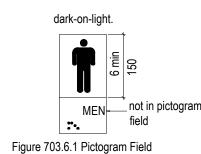
Figure 703.4.1 Height of Tactile Characters Above Finish Floor or Ground

703.4.2 Location. Where a tactile sign is provided at a door, the sign shall be located alongside the door at the latch side. Where a tactile sign is provided at double doors with one active leaf, the sign shall be located on the inactive leaf. Where a tactile sign is provided at double doors with two active leafs, the sign shall be located to the right of the right hand door. Where there is no wall space at the latch side of a single door or at the right side of double doors, signs shall be located on the nearest adjacent wall. Signs containing tactile characters shall be located so that a clear floor space of 18 inches (455 mm) minimum by 18 inches (455 mm) minimum, centered on the tactile characters, is provided beyond the arc of any door swing between the closed position and 45 degree open position.



703.5 Visual Characters. Visual characters shall comply with 703.5. 703.5.1 Finish and Contrast. Characters and their background shall have a non-glare finish. Characters shall contrast with their background with either light characters on a dark background or dark characters on a light background.

- 703.5.2 Case. Characters shall be uppercase or lowercase or a combination of both. 703.5.3 Style. Characters shall be conventional in form. Characters shall not be italic, oblique, script, highly decorative, or of other unusual forms. 703.5.4 Character Proportions. Characters shall be selected from fonts where the width of the uppercase letter "O" is 55 percent minimum and 110 percent maximum of the height of the uppercase
- 703.5.5 Character Height. Minimum character height shall comply with Table 703.5.5. Viewing distance shall be measured as the horizontal distance between the character and an obstruction preventing further approach towards the sign. Character height shall be based on the uppercase letter "I". 703.5.6 Height From Finish Floor or Ground. Visual characters shall be 40 inches (1015 mm) minimum
- above the finish floor or ground. 703.5.7 Stroke Thickness. Stroke thickness of the uppercase letter "I" shall be 10 percent minimum and 30 percent maximum of the height of the character. 703.5.8 Character Spacing. Character spacing shall be measured between the two closest points of
- adjacent characters, excluding word spaces. Spacing between individual characters shall be 10 percent minimum and 35 percent maximum of character height. 703.5.9 Line Spacing. Spacing between the baselines of separate lines of characters within a message shall be 135 percent minimum and 170 percent maximum of the character height.
- 703.6 Pictograms. Pictograms shall comply with 703.6. 703.6.1 Pictogram Field. Pictograms shall have a field height of 6 inches (150 mm) minimum. Characters and braille shall not be located in the pictogram field.



703.6.2 Finish and Contrast. Pictograms and their field shall have a non-glare finish. Pictograms shall contrast with their field with either a light pictogram on a dark field or a dark pictogram on a light field. 703.6.3 Text Descriptors. Pictograms shall have text descriptors located directly below the pictogram field. Text descriptors shall comply with 703.2, 703.3 and 703.4. 703.7 Symbols of Accessibility. Symbols of accessibility shall comply with 703.7 703.7.1 Finish and Contrast. Symbols of accessibility and their background shall have a non-glare

finish. Symbols of accessibility shall contrast with their background with either a light symbol on a dark

background or a dark symbol on a light background.

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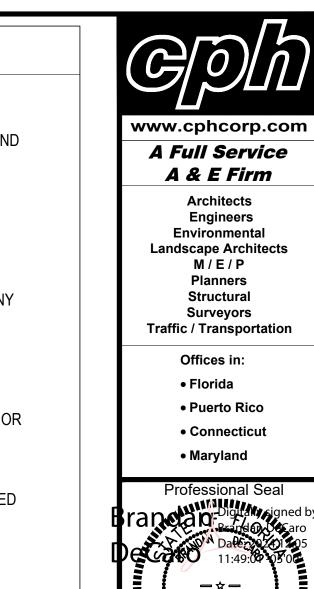
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Sheet No.

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LIFE SAFETY - GENERAL

Project Narrative: Overall Description: The work described herein is for Liberty Park, located in Parkland, Florida- a renovation of the

interior of the existing restroom building, totaling 596 SF. It is an business occupancy, which is consistent with the zoning

of the property and the building's current use.

The proposed scope of work includes a renovation of the interior finishes and fixtures inside the building. The existing square footage will remain. Interior improvements include new toilet partitions, plumbing fixtures, interior finishes, lighting, replacing ventilation louvers and doors with rated windows and doors, and providing an air conditioning system.

Reference Codes:

Florida Building Code (FBC), 8th Edition, 2023 Florida Plumbing Code (FBC), 8th Edition, 2023 Florida Fuel Gas Code (FBC), 8th Edition, 2023 Florida Mechanical Code (FBC), 8th Edition, 2023 Florida Accessibility Code (FBC), 8th Edition, 2023 Florida Energy Code (FBC), 8th Edition, 2023 Florida Fire Protection Code (FBC), 8th Edition, 2023 National Fire Protection Association, NFPA 1 Fire Code, 2024 National Fire Protection Association, NFPA 101 Fire Code, 2024 National Electric Code, 2023

General Code Parameters:

Occupancy Classifications (IBC Chapter 3): BUSINESS (GROUP B) (ASSEMBLY LESS THAN 750 SF)

Use Designation (IBC Chapter 3): RESTROOM

Construction "Type" Classification (IBC Chapter 6): Type V B Automatic Sprinkler Systems? X No

Occupancy Load Calculation:

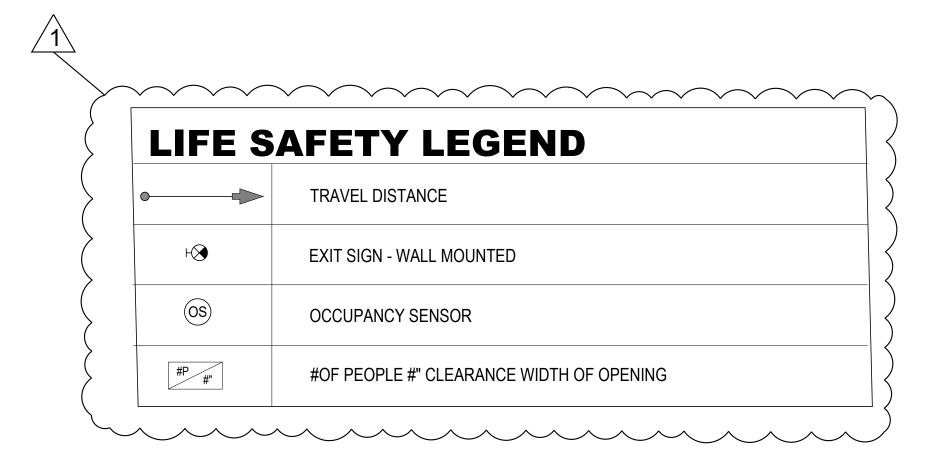
First Floor Level	Area	Load Factor	Occupant Load	Total
BUSINESS	451 SF	150 GROSS	3	
STORAGE	135 SF	300 GROSS	1	
TOTAL				4

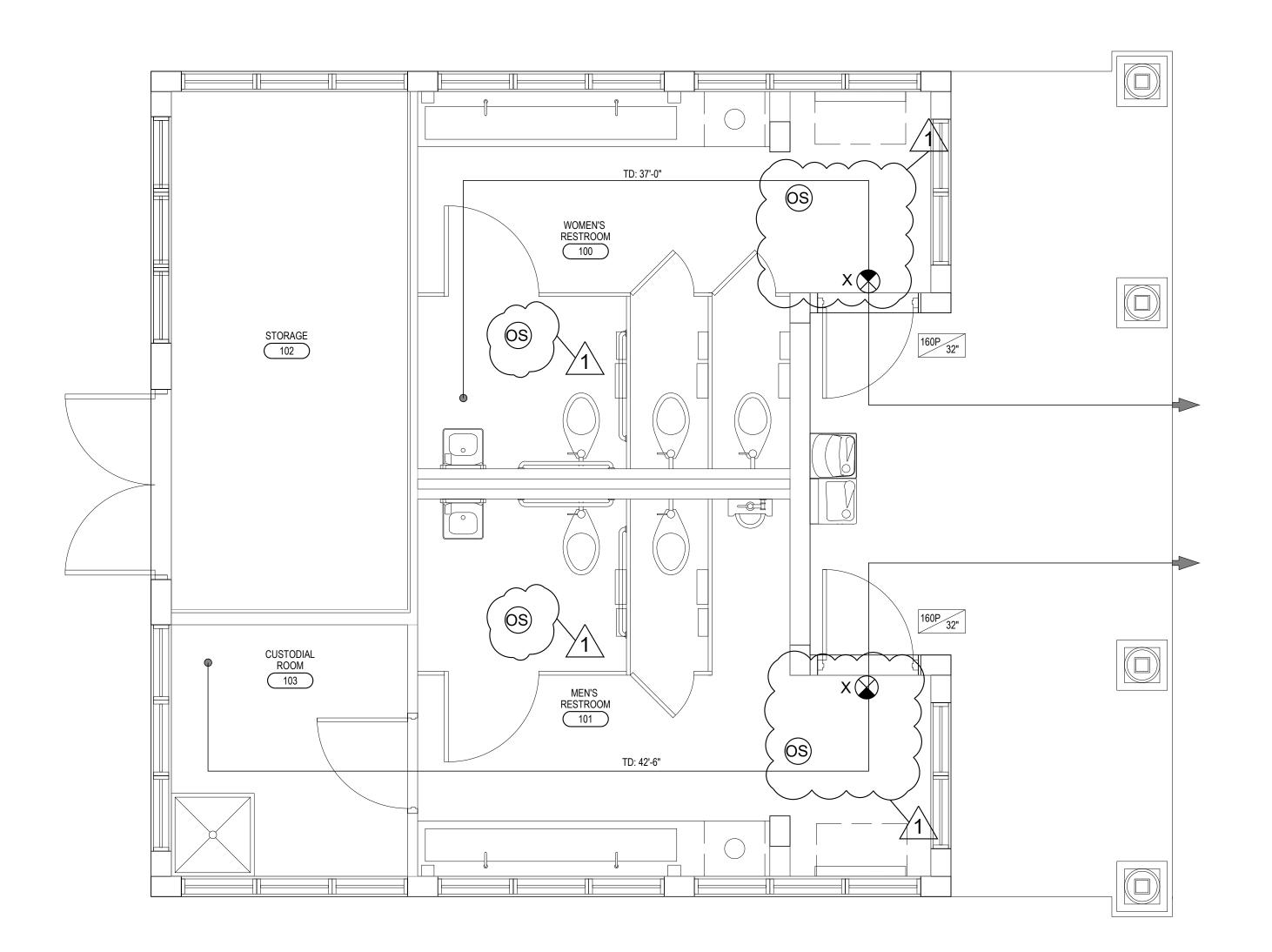
First Floor Level	Area	Load Factor	Occupant Load	Total
BUSINESS	451 SF	150	3	
STORAGE	135 SF	500 GROSS	1	
TOTAL				4

Means of Egress:

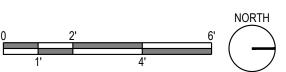
Minimum Egres	ss Sizing (IBC Sec	ction 1005)			
Component	Total Load	Capacity Factor	Required	Provided	
Level 1	4	@ 0.2"/occupant	32"	32"	

Exit Separation (FBC Section 1007.1.1): <u>Unsprinkled</u> <u>Sprinkled</u>
Minimum separation distance (measured diagonally): 1/2 1/3





LIFE SAFETY PLAN
3/8" = 1'





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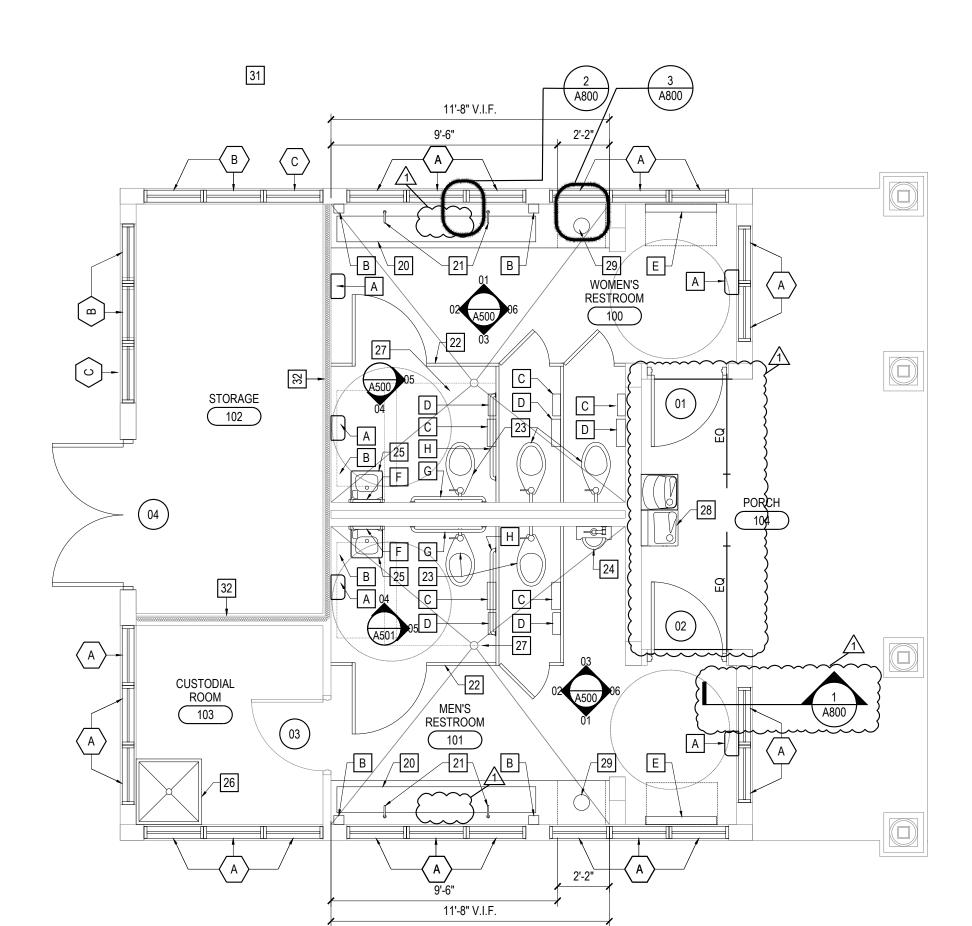
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CODE ANALYSIS & LIFE SAFETY PLAN LIBERTY PARK RESTROOM RENOVATION

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REFLECTED CEILING PLAN NOTES | FLOOR PLAN GENERAL NOTES

REFERENCE SHEET C002 FOR GENERAL CONDITIONS AND ADDITIONAL REQUIREMENTS AFFECTING THIS WORK.

FINISH FLOOR DATUM/REFERENCE 0'-0" IS TO TOP OF SLAB. REFER TO CIVIL DRAWINGS FOR ACTUAL FLOOR FINISH ELEVATION. ALL CEILING ELEVATION FINISHES ARE FROM

TOP OF SLAB UNLESS NOTED OTHERWISE. CONTRACTOR SHALL COORDINATE ALL WORK ON THIS SHEET WITH THE DEMOLITION WORK, AND WITH THE MECHANICAL, ELECTRICAL, AND PLUMBING DRAWINGS.

I. EXISTING CONDITIONS MOT PART OF THIS PERMIT SHOWN LIGHTER. REFERENCE THE (2015) SERIES SHEETS FOR FINISH SCHEDULE.

USE MATERIALS IDENTICAL TO EXISTING MATERIALS, FOR EXPOSED SURFACES, USE MATERIALS THAT VISUALLY MATCH EXISTING ADJACENT SURFACES INSOFAR AS POSSIBLE. IF IDENTICAL MATERIALS ARE UNAVAILABLE OR CANNOT BE USED, USE MATERIALS WHOSE INSTALLED PERFORMANCE WILL EQUAL OR SURPASS THAT OF EXISTING MATERIALS.

GYPSUM BOARD CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING AND INSTALLING ALL SUPPLEMENTAL AND MISCELLANEOUS ITEMS REQUIRED TO ADEQUATELY SUPPORT ALL GYPSUM BOARD DROPS, SOFFITS, CORNICES, ETC FROM STRUCTURE ABOVE.

ALL FINISH CEILING MATERIALS SHALL BE INSTALLED AFTER UTILITIES, HANGARS SUPPORTS, INSULATION AND MISC INTERSTITIAL ITEMS ARE INSTALLED.

4" LED RECESSED SQUARE DOWNLIGHT

SURFACE MOUNTED LED VANITY LIGHT

SURFACE MOUNTED LED LIGHT FIXTURE

INSTALL NEW FIXTURES, DUCTWORK, AND DIFFUSERS. THE GENERAL CONTRACTOR

WILL NEED TO REMOVE THE GYPSUM BOARD CEILING TO THE STUDS/SUPPORT AND

2'x2' CEILING DIFFUSER

2'x2' CEILING RETURN

EXHAUST AIR

RCP KEY NOTES

41 LIGHT FIXTURE SEE ELECTRICAL.

42 LIGHT FIXTURE SEE ELECTRICAL

43 LIGHT FIXTURE SEE ELECTRICAL.

45 LIGHT FIXTURE SEE ELECTRICAL.

46 DIFFUSER SEE MECHANICAL DRAWING.

47 RETURN AIR GRILL SEE MECHANICAL DRAWINGS.

48 EXHAUST AIR GRILL SEE MECHANICAL DRAWINGS

49 PATCH AND REPAIR THE CEMENT PLASTER CEILING TO MATCH EXISTING

INSTALL NEW.

ROOF OVERHANG.

RCP LEGEND

REFERENCE SHEET C002 FOR GENERAL CONDITIONS AND ADDITIONAL REQUIREMENTS

AFFECTING THIS WORK.

FINISH FLOOR DATUM/REFERENCE 0'-0" IS TO TOP OF SLAB. REFER TO CIVIL DRAWINGS FOR ACTUAL FINISH FLOOR ELEVATION.

CONTRACTOR SHALL COORDINATE ALL WORK ON THIS SHEET WITH THE DEMOLITION

WORK, AND WITH THE MECHANICAL, ELECTRICAL, AND PLUMBING DRAWINGS.

EXISTING CONDITIONS NOT PART OF THIS PERMIT SHOWN LIGHTER.

REFERENCE THE A700-SERIES SHEETS FOR DOOR, AND WINDOW SCHEDULES.

GLAZING WITHIN 24" OF DOORS SHALL BE SAFETY GLASS. ALL GLAZING IN HAZARDOUS

LOCATIONS SHALL BE TEMPERED FOR IMPACT RESISTANCE. ALL GYPSUM BOARD IN CORRIDORS SHALL BE HUNG VERTICALLY.

CONFLICTS BEFORE PROCEEDING.

REFER TO ENLARGED PLANS FOR ADDITIONAL INFO, INCLUDING DIMENSIONS, DOOR TAGS, WALL TYPES, GLAZING LAYOUT, AND CONSTRUCTION DETAILS. ENLARGED PLANS TAKE PRECEDENCE OVER SMALLER SCALE DRAWINGS. NOTIFY ARCHITECT OF ANY

USE MATERIALS IDENTICAL TO EXISTING MATERIALS. FOR EXPOSED SURFACES, USE MATERIALS THAT VISUALLY MATCH EXISTING ADJACENT SURFACES INSOFAR AS POSSIBLE. IF IDENTICAL MATERIALS ARE UNAVAILABLE OR CANNOT BE USED, USE MATERIALS WHOSE INSTALLED PERFORMANCE WILL EQUAL OR SURPASS THAT OF EXISTING MATERIALS.

TOILET ACCESSORY LEGEND

GENERAL NOTE: SEE INTERIOR ELEVATIONS FOR MOUNTING HEIGHTS.

A ELECTRIC HAND DRYER WITH STAINLESS STEEL WALL COVERING UNDERNEATH-ALPINE HAND DRYER MODEL #400-10-GRY. SUPPLIED BY OWNER, INSTALLED BY CONTRACTOR

B | SOAP DISPENSER. SUPPLIED BY OWNER, INSTALLED BY CONTRACTOR

C DOUBLE TOILET TISSUE HOLDER. SUPPLIED BY OWNER, INSTALLED BY CONTRACTOR D SANITARY NAPKIN DISPOSAL. SUPPLIED BY OWNER, INSTALLED BY CONTRACTOR

E BABY CHANGING STATION

F ADA COMPLIANT MIRROR

G 36" GRAB BAR

H 42" GRAB BAR

REFERENCE SHEET C002 FOR GENERAL CONDITIONS AND ADDITIONAL REQUIREMENTS AFFECTING THIS WORK.

DEMOLITION PLAN NOTES

CONTRACTOR SHALL VERIFY EXTENT OF DEMOLITION WORK PRIOR TO STARTING ANY WORK. COORDINATE THE DEMOLITION WORK WITH THE MECHANICAL, ELECTRICAL, PLUMBING AND NEW CONSTRUCTION PLANS.

EXISTING UNDERGROUND ELECTRICAL CONDUIT AND SERVICE FEEDERS MAY BE BURIED UNDER THE SLAB. THE CONTRACTOR SHALL LOCATE AND PROTECT ALL ELECTRICAL CONDUITS SERVING AREAS BEYOND THE SCOPE OF WORK. PRIOR TO TRENCHING OR CUTTING, CONTRACTOR SHALL PRESENT PROPOSED ROUTE TO OWNERS REPRESENTATIVE, ENGINEER AND ARCHITECT FOR APPROVAL.

COORDINATE WITH OWNER AS TO WHAT EQUIPMENT AND FINISH ITEMS ARE TO BE RE-USED, SUCH AS RESTROOM FIXTURES AND ACCESSORIES, MOLDINGS, WAINSCOTS. TRIMS, INTERIOR DOORS, INTERIOR GLAZING AND ORNAMENTAL ITEMS, CAREFULLY REMOVE AND SET ASIDE FOR RE-USE.

WHERE PARTITIONS ARE BEING REMOVED, ALL ELECTRICAL DEVICES SHALL BE DISCONNECTED AND MADE SAFE. WHEREVER EXISTING UTILITIES ARE TO BE CAPPED, REROUTED, REMAIN IN PLACE, OR TERMINATED, COORDINATE W/ MEP DRAWINGS.

WHERE FLOOR AND WALL FINISHES ARE BEING REMOVED, ALL ADHESIVE RESIDUE, MECHANICAL FASTENERS, AND MISC ITEMS SHALL ALSO BE REMOVED. ALL DEPRESSIONS/VOIDS CREATED IN THE EXISTING SLAB DUE TO REMOVAL OF EQUIPMENT SHALL BE FILLED ACCORDINGLY TO BRING THEM UP LEVEL AND FINISHED TO MATCH SURROUNDING FINISH SLAB.

REMOVE ALL ITEMS LOCATED ABOVE CEILING THAT IS NOT A PART OF THE PROPOSED WORK. COORDINATE WITH OWNER AS TO ANY ITEM THAT IS TO BE LEFT UNDISTURBED.

WHERE CUTTING OR DEMOLITION OF THE EXISTING BUILDING IS INDICATED OR REQUIRED TO ACCOMMODATE NEW CONSTRUCTION. THE STRUCTURAL ENGINEER SHALL BE CONSULTED PRIOR TO BEGINNING OF TASK TO DETERMINE IF THIS WORK WILL, IN ANY WAY UNDERMINE THE FOUNDATIONS OR COMPROMISE THE STRUCTURAL INTEGRITY OF THE EXISTING BUILDING, AND TO DETERMINE A COURSE OF CORRECTIVE ACTION FOR RESTORING ANY DAMAGE AND RETURNING THE APPEARANCE TO AN ACCEPTABLE LEVEL.

WHENEVER POSSIBLE, ALL CUTS IN MASONRY WALLS SHALL OCCUR AT JOINT LINES. COORDINATE WITH NEW CONSTRUCTION.

CONTRACTOR SHALL ADEQUATELY BRACE AND SUPPORT STRUCTURE AS REQUIRED DURING DEMOLITION PHASE. USE EXTREME CARE TO NOT DAMAGE SUPPORT BEAMS TO

I. IT IS THE CONTRACTOR'S RESPONSIBILITY TO DISPOSE OF ALL DEMOLITION MATERIAL INCLUDING ANY EQUIPMENT THAT IS NOT TO BE REUSED.

MAINTAIN FIRE EGRESS AT ALL TIMES THROUGHOUT THE COURSE OF THIS WORK.

FLOOR PLAN KEY NOTES DEMOLITION KEY NOTES NEW TROUGH SINK AND PLUMBING PROTECTION PANEL (SEE PLUMBING DRAWINGS).

21 NEW FAUCET - SEE PLUMBING DRAWINGS.

22 NEW TOILET PARTITIONS.

23 NEW TOILET - SEE PLUMBING DRAWINGS.

24 NEW URINAL - SEE PLUMBING DRAWINGS.

25 NEW ADA SINK - SEE PLUMBING DRAWINGS.

26 NEW MOP SINK.

27 EXISTING FLOOR DRAIN; RETAIN EXISTING SLOPE AND PROVIDE A NEW SS DRAIN CAP.

28 NEW DRINKING FOUNTAIN.

29 NEW UNDER-COUNTER TRASH RECEPTACLE.

30 ALPINE HAND DRYER MODEL #400-10-GRY WITH SS WALL COVERING UNDERNEATH

CONTRACTOR TO INSTALL R 38 RIGID INSULATION AND \$" HIGH IMPACT GYPSUM BOARD ON METAL FURRING 16"O.C.

9 EXISTING DRINKING FOUNTAIN TO BE REMOVED.

[11] EXISTING MOP BASIN TO BE REMOVED.

REMOVE PLUMBING FIXTURES AND CAP PLUMBING LINE AS REQUIRED. SEE PLUMBING PLANS.

2 REMOVE ALL EXISTING TOILET PARTITIONS AND HARDWARE.

REMOVE ALL EXISTING ACCESSORIES. 4 REMOVE EXISTING COUNTERTOP AND PANELS.

REMOVE EXISTING FLOOR AND WALL FINISHES, INCLUDING ALL RESIDUAL MORTAR OR ADHESIVE. CLEAN AND PREP FOR NEW FINISHES.

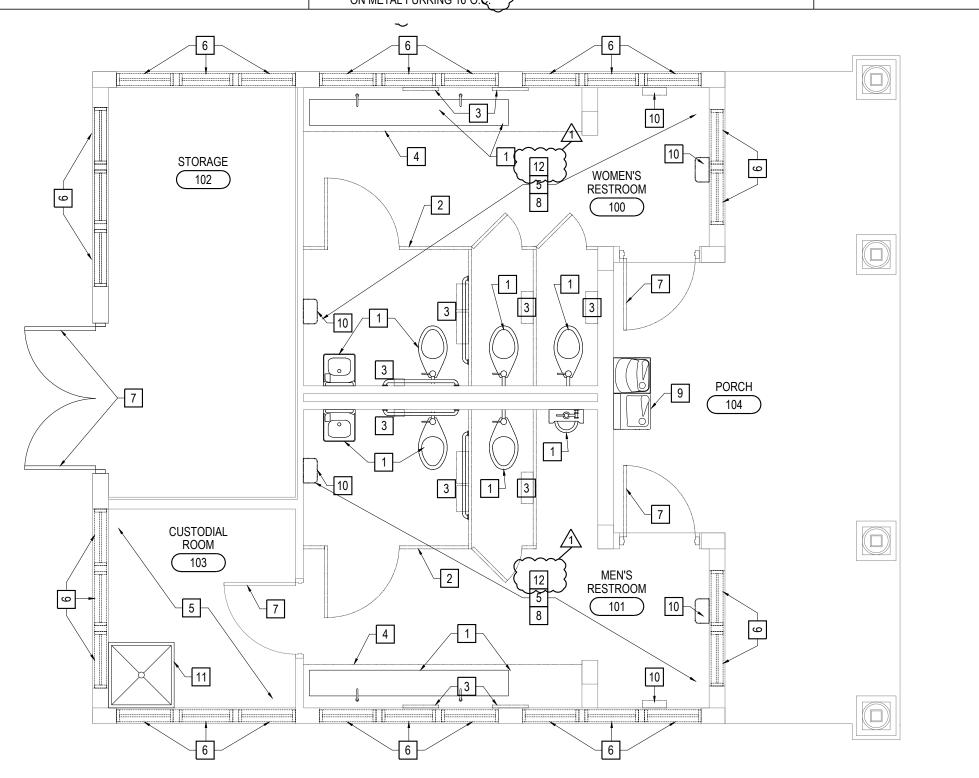
6 REMOVE EXISTING LOUVERS, CLEAN AND PREP OPENINGS FOR NEW WINDOWS.

REMOVE EXISTING DOOR AND FRAME. CLEAN AND PREP OPENING FOR NEW WINDOWS.

REMOVE EXISTING LIGHTING AND PATCH OPENINGS AS REQUIRED.

REMOVE EXISTING HAND DRYER.

REMOVE AND DISCARD EXISTING GWB CEILING TO THE STUD/FRAMING.



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DEMOLITION, FLOOR, AND REFLECTED CEILING PLANS

Sheet No.

A200



DEMOLITION PLAN

1/4" = 1'

FLOOR PLAN

1/4" = 1'

			FINISH LEGEND		
	I			I	
TAG	MANUFACTURER	STYLE / NO.	COLOR / FINISH	SIZE	NOTES
FLOORS				•	
EF-01	DURAFLEX	MICA-FLEX	GLACIER	N/A	MACRO CHIPS
SC-01	GC'S CHOICE	SEALED CONCRETE	N/A	N/A	CLEAN AND SEAL EXISTING
BASE					
RB-01	JOHNSONITE	4" VINYL COVE BASE	CHARCOAL	4"H x ½"	
EB-01	DURAFLEX	MICA-FLEX	GLACIER	4"H	MACRO CHIPS
WALLS					
WT-01	WOW	ZELLIGE HEXA	AQUA	4" X 5"	
WT-02	CROSSVILLE STUDIOS	CLASSIC GROOVES	TURNTABLE	24" x 24"	
EP-01	SHERWIN WILLIAMS	INTERIOR LATEX	SW 7627 ZURICH WHITE - SATIN		
CEILING					
PT-20	SHERWIN WILLIAMS	INTERIOR LATEX	SW 7757 HIGH REFLECTIVE WHITE - FLAT		
MILLWOR	ζ	·	·		
SS-01	CORIAN	LIMESTONE PRIMA		2 CM	
PL-01	SCRANTON PRODUCTS	ECLIPSE	STAINLESS STEEL, HAMMERED FINISH		HDPE PANELS FOR MILLWORK CABINET
TOILET PA	<u> </u>				
TP-01	SCRANTON PRODUCTS	ECLIPSE	STAINLESS STEEL, HAMMERED FINISH	72" DOOR	
TRIM & TR	ANSITIONS	· ·	1		l
TR-01	SCHLUTER	DILEX-AHKA	BRUSHED NICKEL ANODIZED	TBD	WALL TILE TO EPOXY FLOOR
TR-02	SCHLUTER	QUADEC	BRUSHED NICKEL ANODIZED	TBD	ALL OUTSIDE CORNERS
,					
	•	•	·	•	<u>'</u>

FINISH PLAN KEYNOTES

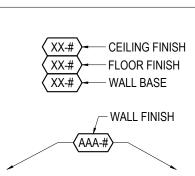
- 1 PAINT NEW HOLLOW METAL DOORS AND FRAME
- 2 PAINT EXTERIOR STUCCO WALLS, PORCH CEILING, SOFFIT AND COLUMNS SO ALL EXISTING MATERIALS ARE NEWLY PAINTED
- 3 COORDINATE WITH THE OWNER REGARDING THE FINISHED FOR THE EXISTING MURAL
- 4 CLEAN & SEAL EXISTING CONCRETE SLAB

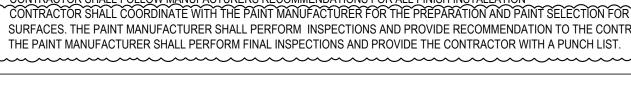
GENERAL FINISH NOTES

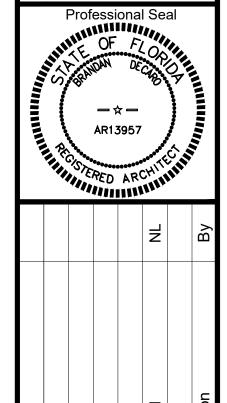
- ALL FINISHES MUST BE SUBMITTED TO OWNER AND DESIGNER FOR APPROVAL PRIOR TO PURCHASE AND/OR INSTALLATION. USE COORDINATED, TINTED PRIMER THROUGH-OUT
- ALL PAINTED SURFACES TO RECEIVE ONE COAT PRIMER & TWO COATS OF FINISH PAINT MINIMUM.
- ALL WALL, FLOOR, AND CEILING FINISHES SHALL COMPLY WITH NFPA 101 SECTION 10.2 ALL QUESTIONS REGARDING FINISH LOCATIONS MUST BE ASKED BEFORE PROCEEDING.
- INTERIOR WALL AND CEILING FINISH SHALL BE AS FOLLOWS (FBC T.803.11 SPRINKLED) a)EXIT ENCLOSURES AND EXIT PASSAGEWAYS: CLASS A b)CORRIDORS (OTHER): CLASS B
- c)ROOMS AND OCCUPIED SPACES: CLASS C d)INTERIOR FLOOR FINISH (FBC 804): CLASS I & II
- CONTRACTOR SHALL FOLLOW MANUFACTURERS RECOMMENDATIONS FOR ALL FINISH INSTALLATION

 ZONTRACTOR SHALL COORDINATE WITH THE PAINT MANUFACTURER FOR THE PREPARATION AND PAINT SELECTION FOR ALL SURFACES. THE PAINT MANUFACTURER SHALL PERFORM INSPECTIONS AND PROVIDE RECOMMENDATION TO THE CONTRACTOR.

FINISH TAG KEY







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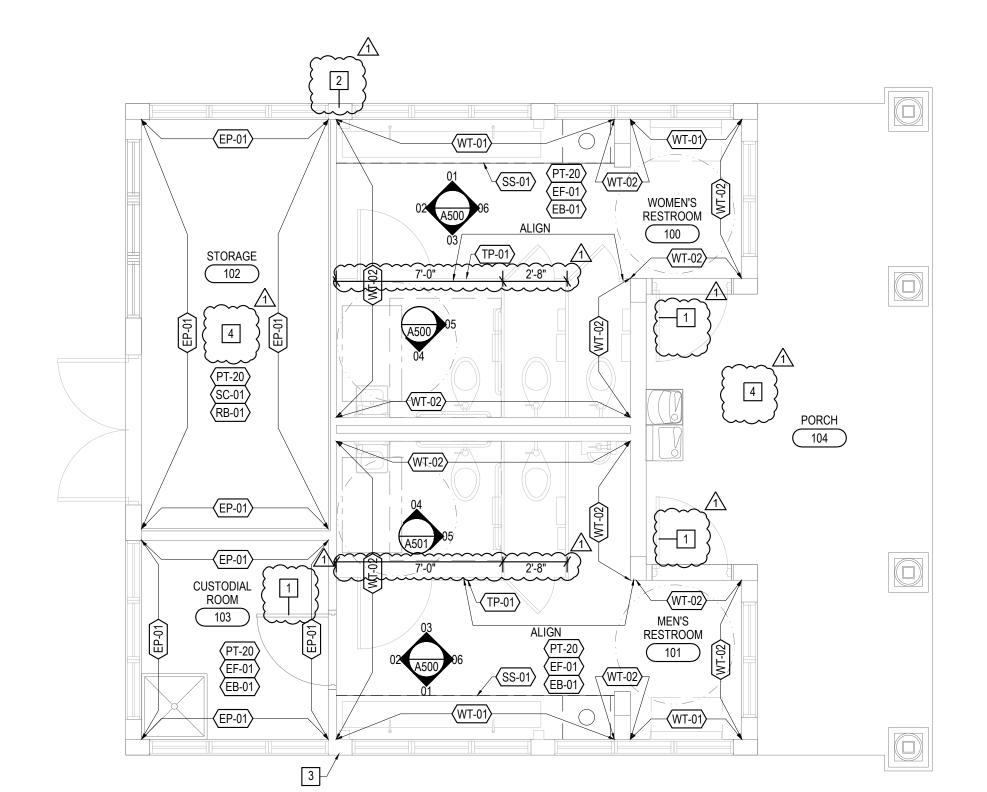
Offices in:

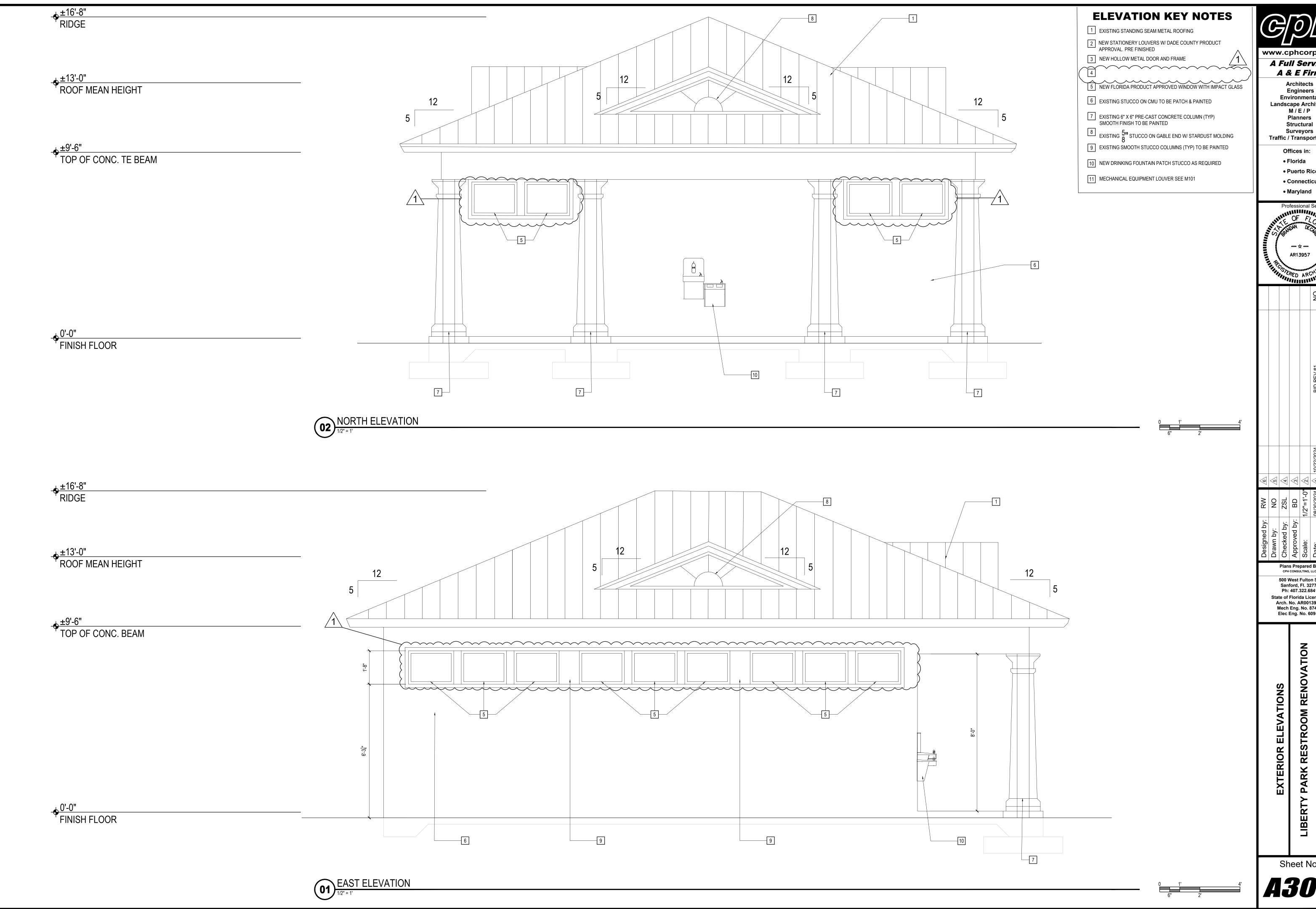
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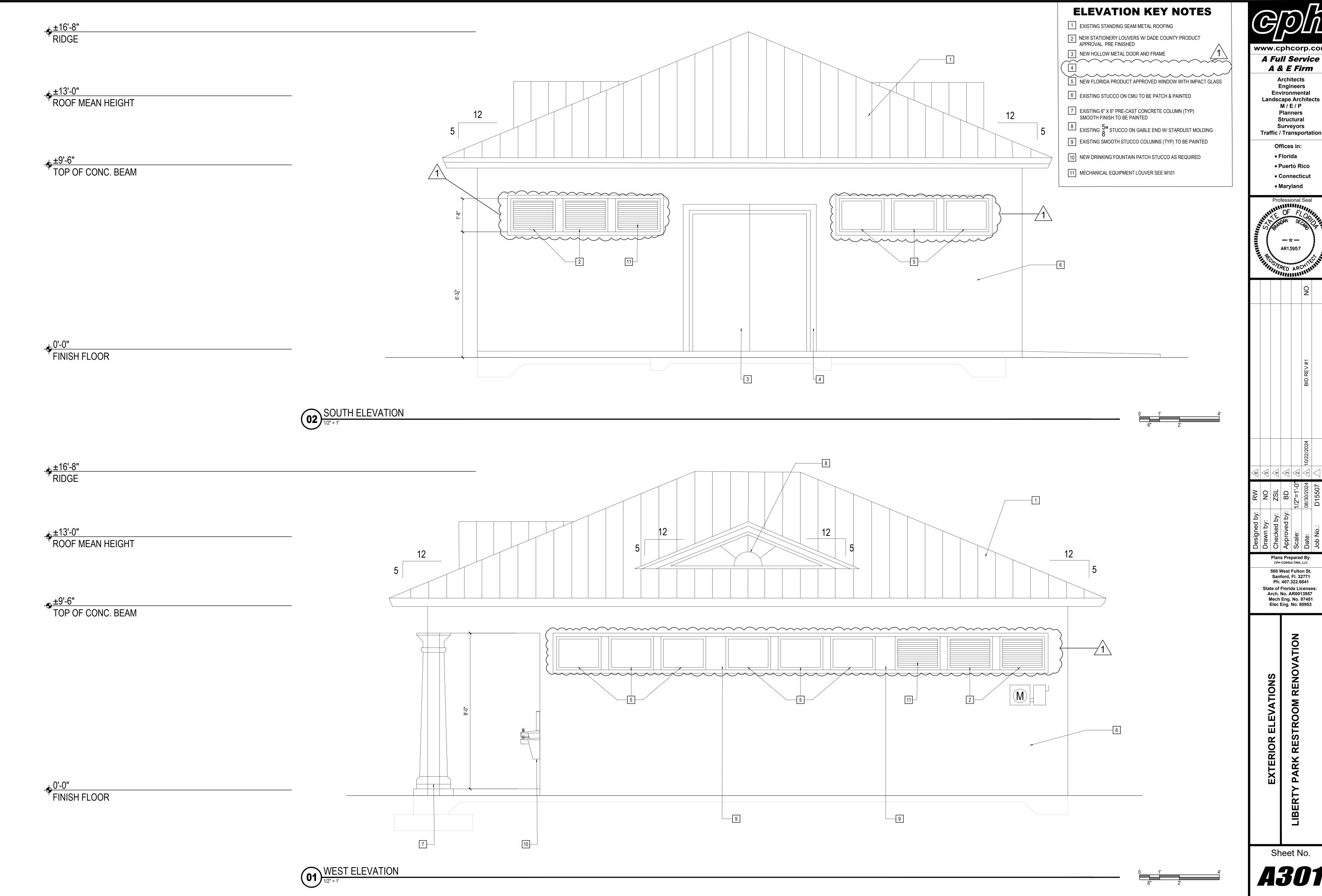
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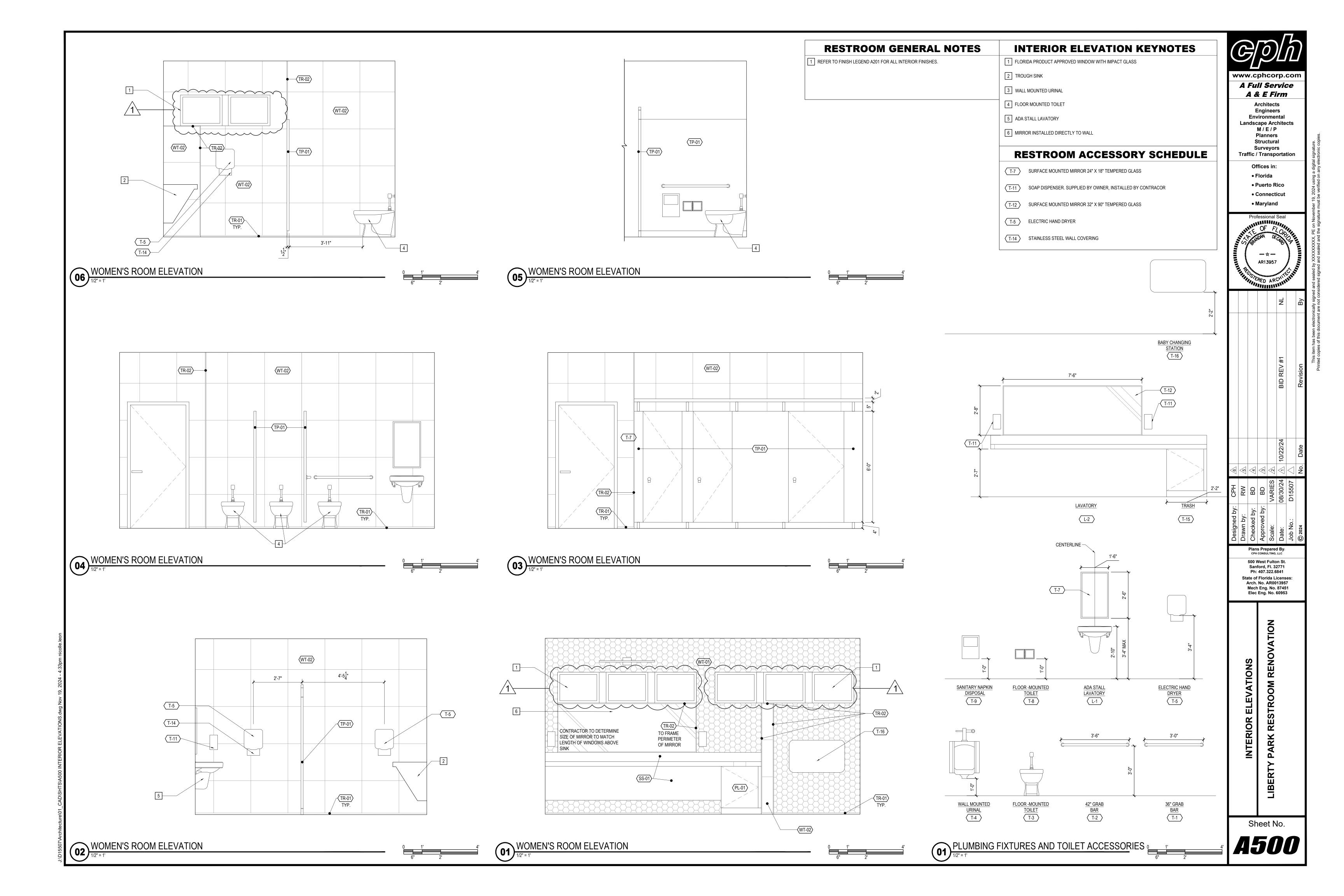
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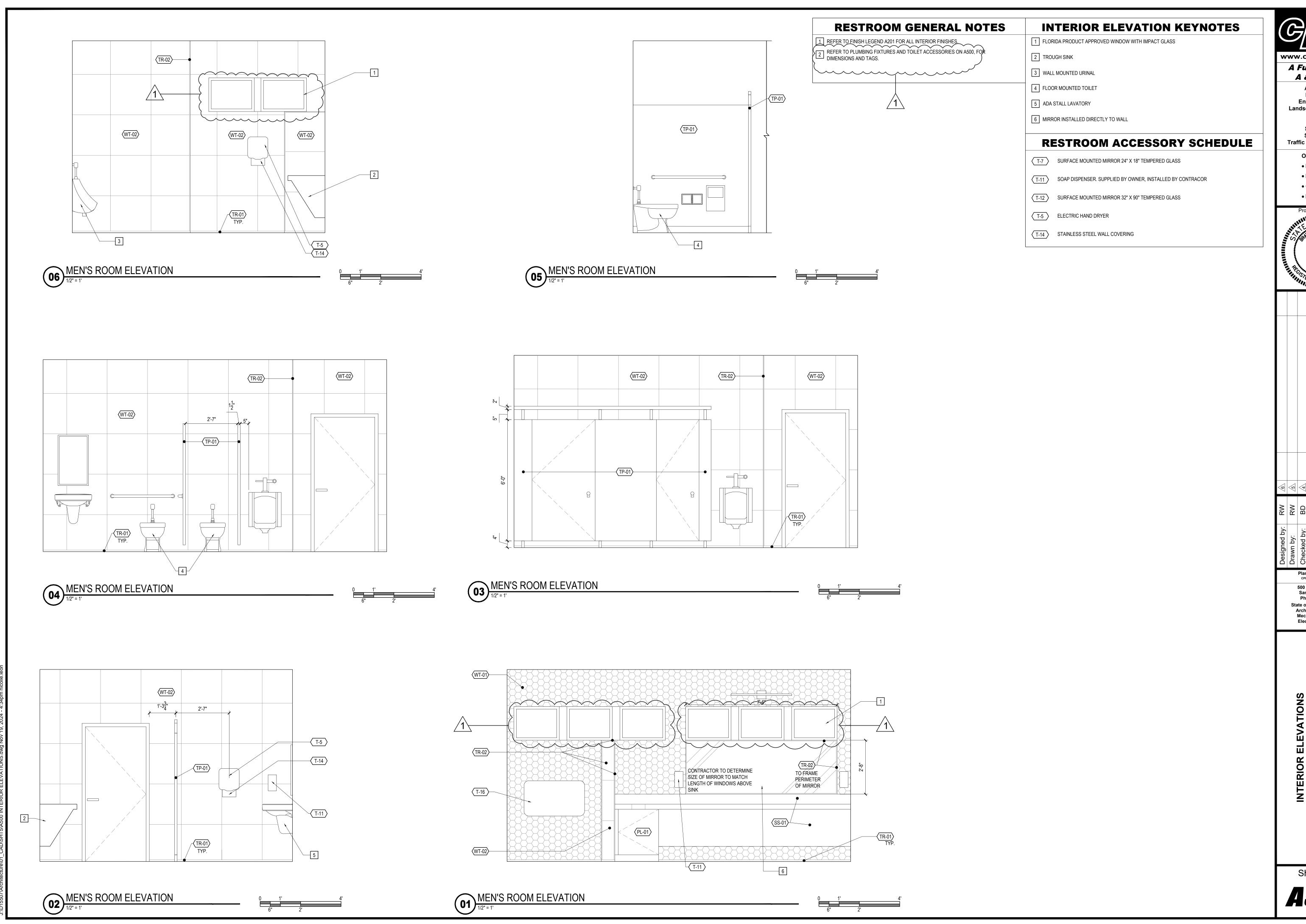
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PARK RESTROOM RENOVATION

Sheet No.

A301





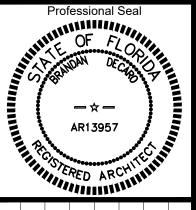
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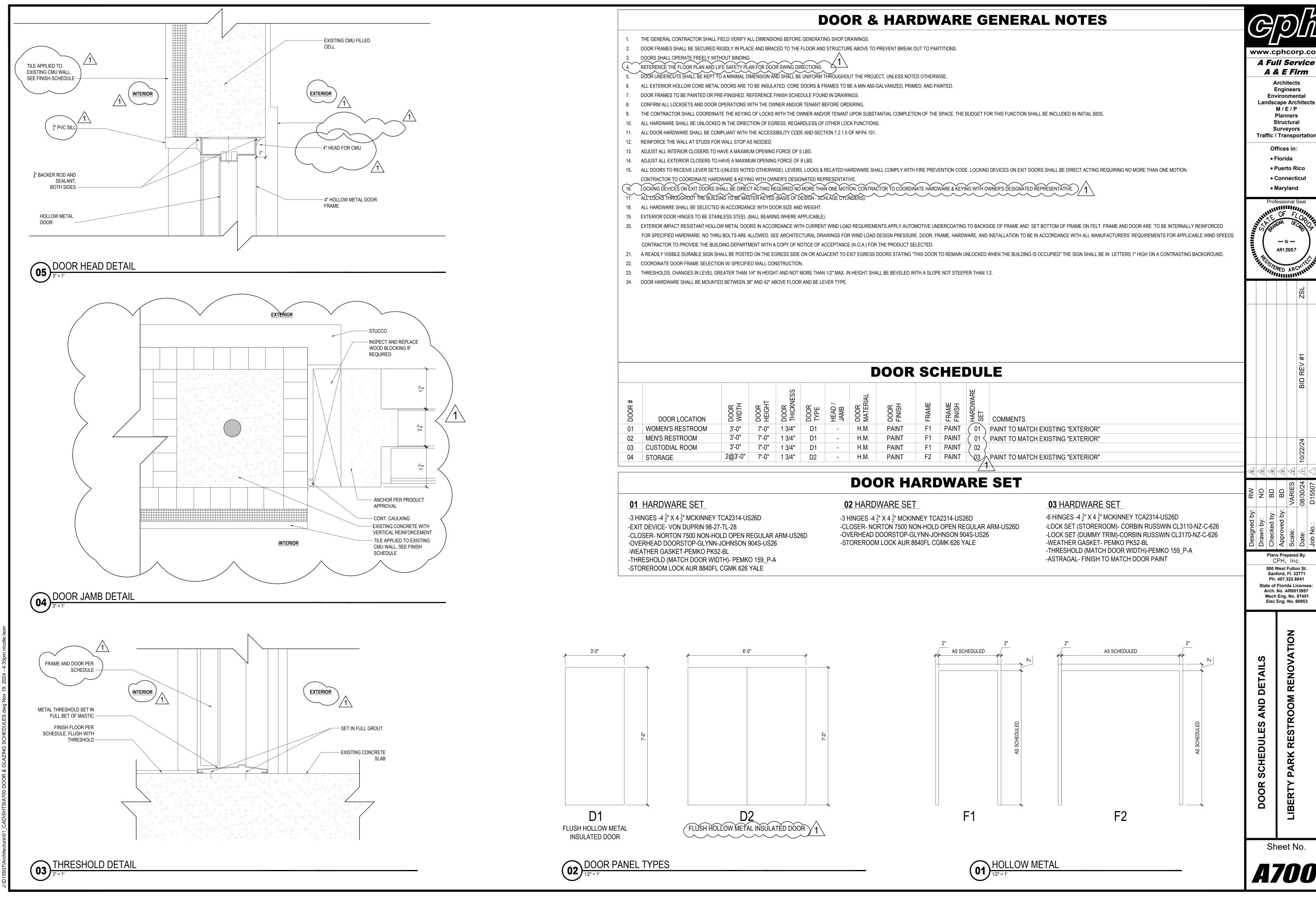


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Sheet No.

A501



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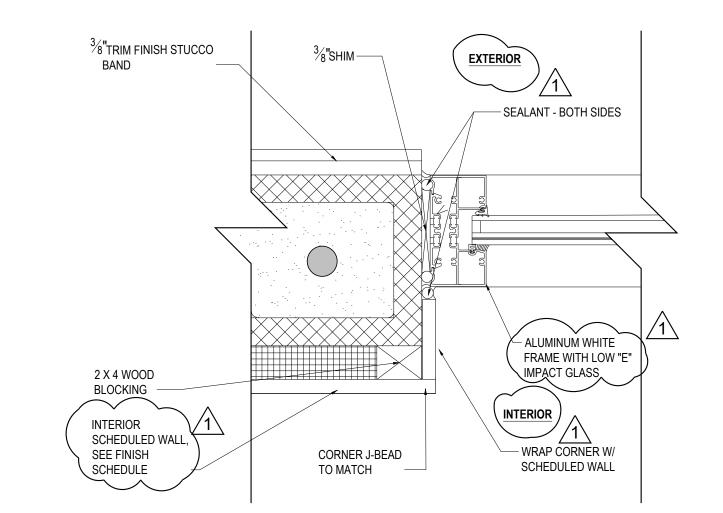
Mech Eng. No. 87451

WINDOW GENERAL NOTES

THE GENERAL CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS BEFORE GENERATING SHOP DWGS AND FABRICATING WINDOWS AND LOUVERS.

WINDOW SCHEDULE

# MOUNDOM			OVERALL WIDTH	OVERALL	SILL	WINDOW	FRAME MATERIAL	FRAME FINISH	GLAZING	MNFR/PRODUCT	DESCRIPTION/COMMENTS
⋝	TYPE	QTY	5,₹	65	등 뽀	₹	R ₩	K 든			
Α	FIXED WINDOW : MODEL ES MX1500	22	(1'-8")	(1'-8")	6'-0"	А	ALUM	WHITE	IMPACT LAMINATED GLASS, LOW - E VALUE	ES WINDOWS	U-FACTOR: 1.01; SHGC: 0.31
В	STATIONARY LOUVER (SCREEN)	4	\(\frac{1'-8"}{}\)	\ 1'-8" \	6'-0"	В	ALUM	WHITE			
С	MECH. EQUIPMENT LOUVER	2	1'-8"	1'-8"	6'-0"	С	ALUM	WHITE			
				\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	7						



WINDOW JAMB DETAIL

3" = 1'

AS SCHEDULED	AS SCHEDULED	AS SCHEDULED
AS SCHEDULED	AS SCHEDULED	AS SCHEDULED
AS AS	- X	8
A NEW FLORIDA PRODUCT	B NEW STATIONERY LOUVERS W/ FLORIDA	NEW MECHANICAL EQUIPMENT LOUVER
APPROVED WINDOW WITH IMPACT GLASS	COUNTY PRODUCT APPROVAL. PRE FINISHED	W/ FLORIDA PRODUCT APPROVAL. REFER TO M101
" 0-,9	09	

— WINDOW AND GLAZING AS SCHEDULED WINDOW HEAD DETAIL

3" = 1" — WINDOW AND GLAZING AS SCHEDULED INTERIOR 1 3/4" PVC SILL PAINTED SEALANT- BOTH SIDES -EXISTING CMU FILLED CELL -- CONT. CALKING TILE APPLIED TO EXISTING CMU WALL, SEE FINISH SCHEDULE

EXISTING CMU REINFORCEMENT

EXISTING CMU FILLED

WINDOW SILL DETAIL

3'=1'

TILE APPLIED TO EXISTING CMU

WALL, SEE FINISH SCHEDULE

3/4" PVC SILL PAINTED —

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Maryland

Plans Prepared By: CPH, Inc. 500 West Fulton St. Sanford, Fl. 32771 Ph: 407.322.6841 State of Florida Licenses: Arch. No. AR0013957 Mech Eng. No. 87451 Elec Eng. No. 60953

AND DETAILS

DESIGN CRITERIA

A. WIND DESIGN DATA:
ULTIMATE DESIGN WIND SPEED, Vult
NOMINAL DESIGN WIND SPEED, Vasd
RISK CATEGORY: II
WIND EXPOSURE CATEGORY:
INTERNAL PRESSURE COEFFICIENTS
COMPONENTS AND CLADDING WIND PRESSURE:
SEE WIND LOAD TABLES ON THIS SHT.
WIND PRESSURES PER ASCE:

170 MPH 132 MPH

B. WIND-BORNE DEBRIS REGION (WITHIN HURRICANE-PRONE REGIONS) 1. WITHIN 1 MILE OF THE COASTAL MEAN HIGH WATERLINE

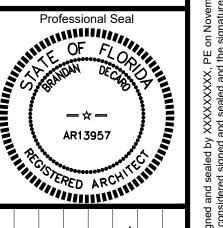
WHERE Vult IS 130 MPH OR GREATER; OR 2. IN AREAS WHERE Vult IS 140 MPH OR GREATER.

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 Puerto Rico Connecticut Maryland



					BID REV #1		Revision
					10/22/24		Date
9	2	4	3>	√ 2	V		No.
RW	ON	BD	ВD	VARIES	08/30/24	D15507	
Designed by:	Drawn by:	Checked by:	Approved by:	Scale:	Date:	Job No.:	© 2024
		Plan:	s Pre PH,	pared In d			
		500 V San	Vest ford,	Fulto Fl. 32	2771		

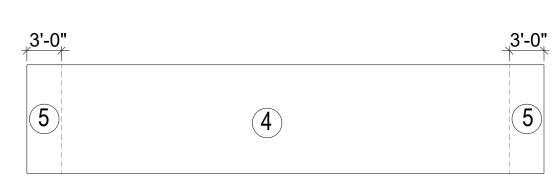
Arch. No. AR0013957 Mech Eng. No. 87451 Elec Eng. No. 60953

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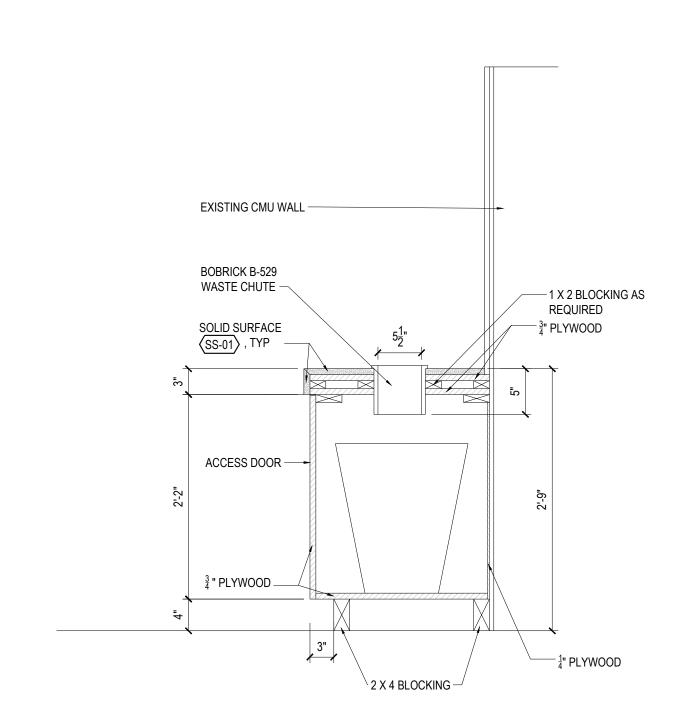
ASCE 7-22 / ULTIMATE COMPONENT AND CLADDING WALL PRESSURES

ZONE	EFFECTIVE WIND AREA	+GCP	-GCP	ULTIMATE WP (F	PSF)	NOMINAL W	P (PSF)
4	<=10 sf	1	-1.1	63.1	-68.4	37.9	-41.0
4	50 sf	0.88	-0.98	56.5	-61.8	33.9	-37.1
4	200 sf	0.77	-0.87	50.8	-56.1	30.5	-33.7
4	>500 sf	0.7	-0.8	47	-52.4	28.2	-31.4
5	<=10 sf	1	-1.4	63.1	-84.5	37.9	-50.7
5	50 sf	0.88	-1.15	56.5	-71.3	33.9	-42.8
5	200 sf	0.77	-0.94	50.8	-59.9	30.5	-35.9
5	>500 sf	0.7	-0.8	47	-52.4	28.2	-31.4



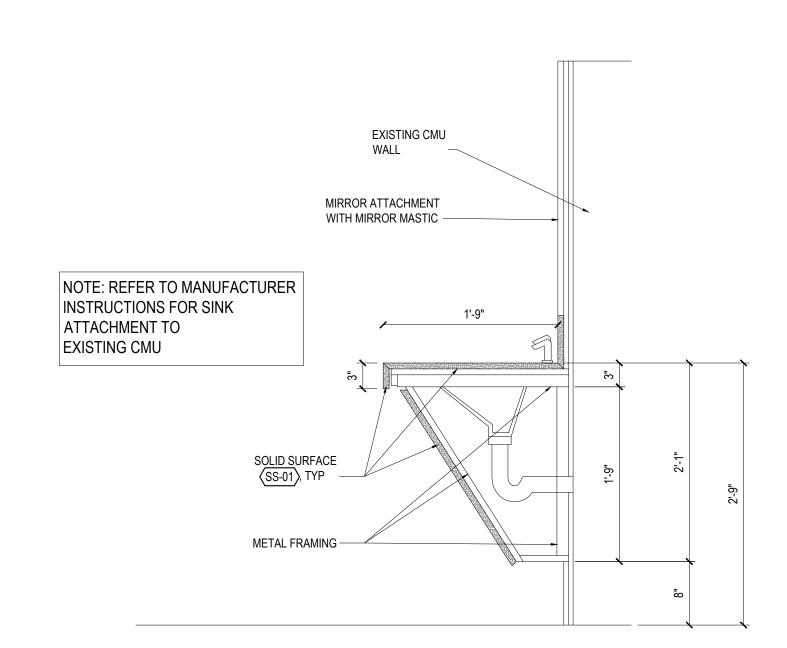


SIDE ELEVATION (ZONES PER FIG. 30.3-1)

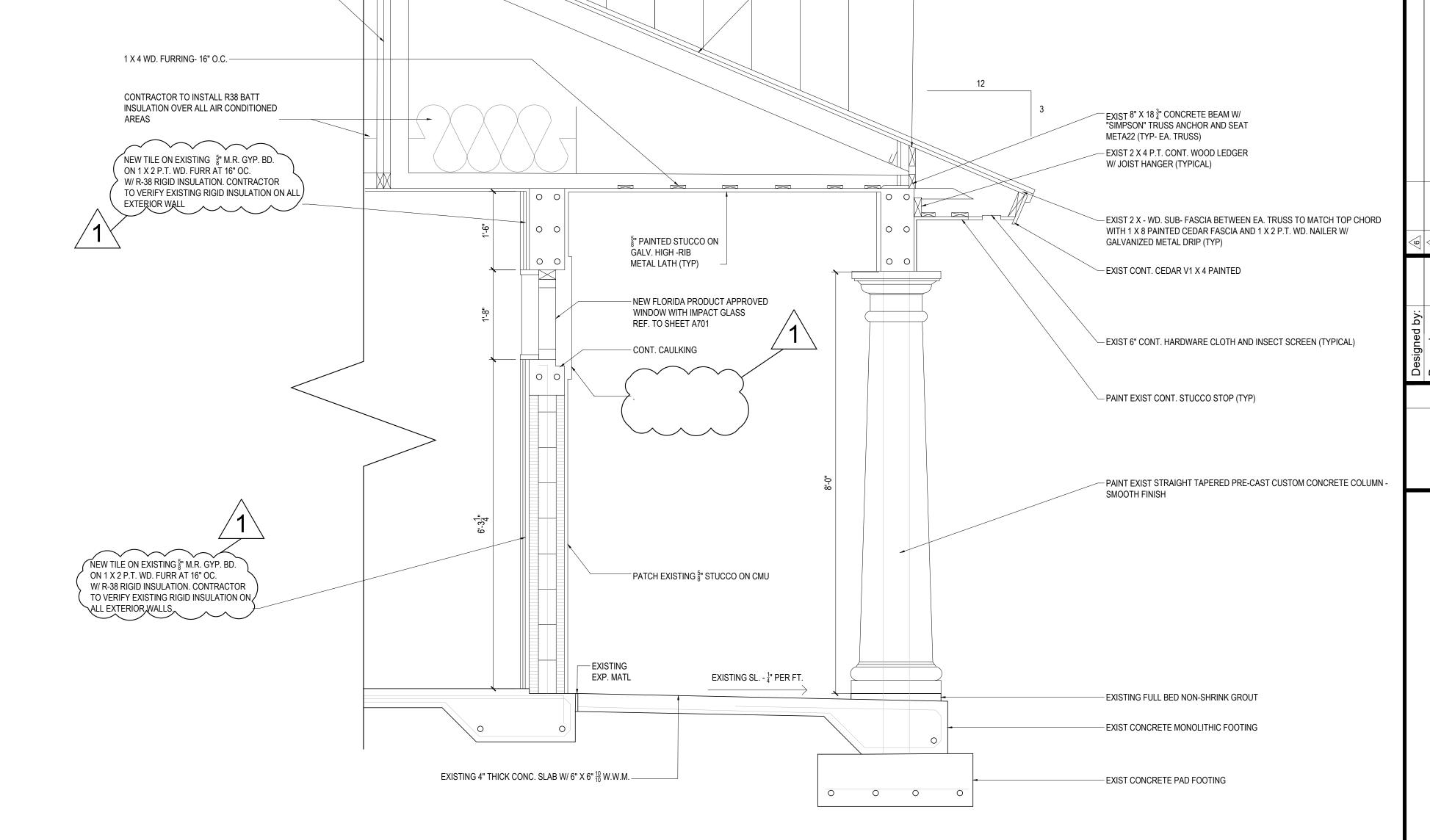


SECTION AT UNDER-COUNTER TRASH RECEPTABLE

1" =1' -0"



SECTION DETAIL AT SINK



WALL SECTION DETAIL

3/4" = 1'-0"

EXISTING PRE-ENGINEERED WD TRUSSES AT

24" O.C. BY TRUSS MANAFACTUER

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Professional Seal

OF FORMULA DECISION DECISION

- EXISTING STANDING SEAM ROOF

- EXIST PRE- ENGINEERED WD. TRUSSES

- 24" O.C. BY TRUSS MANUFACTURER

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BID REV #1 NL Revision By

Plans Prepared By:
CPH CONSULTING, LLC.

500 West Fulton St.
Sanford, Fl. 32771
Ph. 407 322 6841

Sanford, Fl. 32771 Ph: 407.322.6841 State of Florida Licenses: Arch. No. AR0013957 Mech Eng. No. 87451 Elec Eng. No. 60953

LL SECTION AND DETAILS
PARK RESTROOM RENOVATION

WALL SECTION AN LIBERTY PARK RESTRO

GENERAL NOTES

GENERAL NOTES:

- SHOP DRAWINGS SHALL BE SUBMITTED TO AND APPROVED BY THE ENGINEER OR ARCHITECT PRIOR TO ORDERING, PURCHASING, OR FABRICATING ANY MECHANICAL EQUIPMENT. SHOP DRAWINGS SHALL INCLUDE: ALL EQUIPMENT SCHEDULED OR SPECIFIED ON THE DRAWINGS: DUCTWORK DRAWN TO 1/4" SCALE OR THE SCALE SHOWN ON THE DRAWINGS; REFRIGERANT PIPING AND CONTROL WIRING SCHEMATICS CERTIFIED BY THE AIR CONDITIONING EQUIPMENT MANUFACTURER. FAILURE TO SUBMIT REFRIGERANT PIPING DRAWINGS SHALL BE CAUSE FOR REJECTION OF THE ENTIRE
- ALL MECHANICAL EQUIPMENT AND MATERIALS SHALL BE INSTALLED ACCORDING TO MANUFACTURER'S RECOMMENDATIONS. ENSURE ALL RECOMMENDED CLEARANCES ARE MAINTAINED.
- ALL MECHANICAL EQUIPMENT AND SYSTEMS SHALL BE GUARANTEED FOR A PERIOD OF ONE YEAR AFTER OWNER OCCUPANCY. ALL HVAC COMPRESSORS SHALL HAVE EXTENDED 4-YEAR MANUFACTURER'S WARRANTY FOR A 5-YEAR
- INSTALL ROOF MOUNTED OUTDOOR AIR CONDITIONING EQUIPMENT LEVEL ON STRUCTURAL RAIL SYSTEMS OR CURBS.
- MOUNT ALL EQUIPMENT ON NEOPRENE PADS. ALL ROOF TOP MOUNTED EQUIPMENT SHALL BE INSTALLED PER DETAILS. PORTIONS OF DUCTWORK AND PIPE INSULATION VISIBLE THROUGH AIR DISTRIBUTION DEVICES IN FINISHED AREAS (OFFICE
- MOUNT TOP OF THERMOSTATS AND SENSORS 7'-0" AFF IN WAREHOUSE AND 4'-0" AFF IN OFFICE AREA UNLESS NOTED OTHERWISE. PROVIDE CLEAR LOCKING GUARD ASSEMBLIES FOR ALL OPEN AREA THERMOSTATS. COORDINATE
- THERMOSTAT LOCATIONS WITH OTHER TRADES. ALL THERMOSTATS SHALL BE ADA COMPLIANT. ALL WORK SHALL BE COORDINATED AND PERFORMED WITH PRIOR APPROVAL FROM THE OWNER TO SUIT HIS OPERATING
- CONDITIONS. WORK IN HAZARDOUS AREAS SHALL BE PERFORMED IN ACCORDANCE WITH OWNER'S REQUIREMENTS. ANY EXISTING WALL, FLOOR, OR CEILING SURFACE THAT IS DISTURBED DURING THE COURSE OF THE HVAC WORK SHALL
- AFTER CONSTRUCTION, THE ENTIRE HVAC SYSTEM SHALL BE TESTED, ADJUSTED, AND BALANCED TO DELIVER THE AIR QUANTITIES SHOWN ON THE DRAWINGS. SUBMIT CERTIFIED (AABC OR NEBB) TESTING AND BALANCING REPORT TO THE
- CONTRACTOR SHALL COORDINATE THE INSTALLATION OF ALL MECHANICAL EQUIPMENT, DUCTWORK, PIPING, ETC. TO FIT WITHIN THE SPACE ALLOWED BY THE ARCHITECTURAL AND STRUCTURAL CONDITIONS. CUTTING OR OTHERWISE ALTERING ANY STRUCTURAL MEMBERS SHALL NOT BE PERMITTED WITHOUT WRITTEN PERMISSION FROM THE ARCHITECTS.
- ALL PIPE AND DUCT PENETRATIONS OF FIRE AND/OR SMOKE-RATED ASSEMBLIES SHALL BE FIRE-STOPPED AS REQUIRED TO RESTORE THE ASSEMBLY TO ITS ORIGINAL INTEGRITY. FIRE BARRIER PRODUCTS SHALL BE MANUFACTURED BY TREMCO. HILTI, 3M OR APPROVED EQUAL.
- HVAC EQUIPMENT TO AUTOMATICALLY SHUTDOWN ON CALL FROM FIRE ALARM.

BE REPAIRED TO MATCH NEW AND/OR EXISTING CONDITIONS.

AREA) SHALL BE PAINTED FLAT BLACK.

- PROVIDE ACCESS PANELS IN NON-ACCESSIBLE CEILINGS AND IN WALL STRUCTURE TO ALLOW ADEQUATE ROOM FOR MAINTENANCE OF EQUIPMENT AND BALANCING OF SYSTEMS. ACCESS PANELS IN CEILING AND WALLS SHALL BE PROVIDED WHERE SHOWN ON THE ARCHITECTURAL DRAWINGS OR NECESSARY TO ACCESS DAMPERS, VALVES, ETC. COORDINATE EXACT LOCATION OF ALL ACCESS PANELS WITH THE ARCHITECT DURING THE SHOP DRAWING PROCESS.
- ALL MECHANICAL EQUIPMENT SHALL BE LABLED WITH A SEMI-RIGID PLASTIC LAMINATE WITH 2" HIGH WHITE LETTERS ON A BLACK BACKGROUND SECURELY AFFIXED TO THE EQUIPMENT. THE NAMEPLATE SHALL SHOW THE EQUIPMENT TAG USED ON THESE DRAWINGS. AFFIX LABELS ON EQUIPMENT SO THAT IT IS VISIBLE AT THE ROOF LEVEL AND PLACE ANOTHER LABEL THAT IS VISIBLE FROM THE FLOOR LEVEL BELOW.
- REFER TO ARCHITECTURAL PLANS FOR CEILING TYPES, HEIGHTS ,FLOOR AND CEILING ASSEMBLY UL RATINGS AND
- SLEEVE ALL WALL PENETRATIONS. SLEEVE INTERSTITIAL SPACE. PROVIDE 22-GAUGE METAL ANGLES AROUND DUCT PENETRATION THROUGH WALLS EXPOSED TO VIEW.
- THE CONTRACTOR SHALL FULFILL ALL REQUIREMENTS OF THE CONTRACT DOCUMENTS AND SHALL COMPLETE THE WORK SHOWN ON THESE DRAWINGS. CONTRACTOR TO TAKE INTO CONSIDERATION ALL EXISTING CONDITIONS AND INDICATE ANY ISSUES TO ENGINEER COMMENCEMENT OF WORK. ALL SYSTEMS SHALL BE FINISHED, TESTED AND BALANCED, ADJUSTED, AND PROVEN TO BE FULLY OPERATIONAL AND USEABLE.
- ADJUST ALL DIFFUSERS IN CORRIDORS OR WITHIN THREE (3) FEET OF A WALL TO PROVIDE 2-WAY OR 3-WAY BLOW AWAY FROM OR PARALLEL TO WALLS. ALL DIFFUSERS SHALL HAVE 4-WAY BLOW UNLESS NOTED OTHERWISE.
- ALTERNATE MANUFACTURERS AND MODELS WILL BE REVIEWED. THERE MAY BE ARCHITECTURAL, STRUCTURAL AND ELECTRICAL CHANGES RESULTING FROM THE ALTERNATES. THE COST OF IMPLEMENTING AND ENGINEERING THESE CHANGES SHALL BE BORNE BY THE MECHANICAL SUBCONTRACTOR.

DUCT SMOKE DETECTORS:

- ALL FANS SUPPLYING 2000 CFM OR MORE OF AIR TO ANY SPACE SHALL BE PROVIDED WITH A SMOKE DETECTOR IN THE RETURN AND SUPPLY DUCTWORK UNLESS OTHERWISE INDICATED, DUCT SMOKE DETECTORS SHALL BE INSTALLED IN THE RETURN AND SUPPLY AIR PATH OF AIR DISTRIBUTION SYSTEM UTILIZING A COMMON SUPPLY AND OR RETURN AIR PLENUM WITH A COMBINED CAPACITY GREATER THAN 2000 CFM.
- THE SMOKE DETECTOR SHALL BE WIRED TO STOP THE FAN UPON DETECTION OF SMOKE. COORDINATE ALL UNIT ALARMS AND SIGNALS WITH ELECTRICAL CONTRACTOR.

MECHANICAL/ELECTRICAL COORDINATION:

- CONTRACTOR SHALL COORDINATE ELECTRICAL CHARACTERISTICS AND REQUIREMENTS OF ALL MECHANICAL EQUIPMENT WITH ELECTRICAL DRAWINGS PRIOR TO ORDERING EQUIPMENT OR SUBMITTING SHOP DRAWINGS, AND SHALL FURNISH EQUIPMENT WIRED FOR THE VOLTAGES SHOWN THEREIN. SHOP DRAWING SUBMITTAL SHALL CLEARLY STATE THAT THE ELECTRICAL CHARACTERISTICS OF ALL EQUIPMENT HAS BEEN COORDINATED WITH THE ELECTRICAL CONTRACT DOCUMENTS AND THE ELECTRICAL CONTRACTOR.
- ALL MECHANICAL EQUIPMENT REQUIRING ELECTRICAL POWER SHALL BE INSTALLED WITH DISCONNECT SWITCHES AT EACH PIECE OF EQUIPMENT. COORDINATE SWITCH TYPE (FUSED OR NON-FUSED) WITH EQUIPMENT CHARACTERISTICS, MANUFACTURER'S RECOMMENDATIONS AND THE ELECTRICAL DRAWINGS.
- ALL REQUIRED CONTROL WIRING (INCLUDING POWER WIRING REQUIRED FOR CONTROL PANELS, DEVICES, ETC.) NOT SHOWN ON THE ELECTRICAL DRAWINGS SHALL BE INCLUDED AS PART OF THE MECHANICAL WORK. WIRING IN HVAC PLENUM SPACES SHALL BE INSTALLED ACCORDING TO CODE REQUIREMENTS.
- UNLESS NOTED OTHERWISE, TRANSFORMERS, CONTROLS AND CONTROL WIRING REQUIRED FOR ALL MECHANICAL SYSTEMS SHALL BE FURNISHED WITH THE EQUIPMENT IT SERVES AND INSTALLED BY THE MECHANICAL CONTRACTOR. MOTOR STARTERS FOR HVAC EQUIPMENT SHALL BE FURNISHED WITH THE MOTOR OR APPARATUS WHICH IT OPERATES. MOTOR STARTER INSTALLATION SHALL BE BY THE DIVISION 26 CONTRACTOR.
- MECHANICAL CONTRACTOR SHALL COORDINATE THE ELECTRICAL CHARACTERISTICS OF ALL HVAC EQUIPMENT (VOLTAGE, PHASE, ETC...) WITH THE ELECTRICAL CONTRACTOR AND ELECTRICAL PLANS BEFORE ORDERING ANY MECHANICAL EQUIPMENT. ANY SUBSEQUENT MISMATCH BETWEEN MECHANICAL EQUIPMENT, ELECTRICAL REQUIREMENTS, AND THE ELECTRICAL SERVICE, AS DESIRED AND PROVIDED SHALL BE THE RESPONSIBILITY OF THE MECHANICAL CONTRACTOR.
- MECHANICAL / ELECTRICAL COORDINATION STATEMENTS REQUIRED BY HVAC GENERAL NOTES AND SPECIFICATIONS 230000-1.6(E) SHALL BE INCLUDED IN EQUIPMENT SUBMITTALS / SHOP DRAWINGS.

MECHANICAL NOTES:

- COORDINATE EXACT LOCATION OF ALL NEW EQUIPMENT WITH ARCHITECTS FINISHED CEILING PLAN, SPRINKLER PIPING AND ELECTRICAL CONDUITS. ALSO, CONTRACTOR SHALL COORDINATE WITH OWNER SUPPLIED AND INSTALLED EQUIPMENT. NO EXTRAS SHALL BE AWARDED FOR REVISIONS CAUSED BY LACK OF COORDINATION.
- DRAWINGS ARE DIAGRAMMATIC, THEREFORE DETERMINE EXACT LOCATIONS OF SYSTEMS/COMPONENTS IN FIELD USING
- CONTRACTOR IS RESPONSIBLE FOR OBTAINING AND FOLLOWING OWNERS RULES AND STANDARDS PRIOR TO BID. WORK AND COMPLETION OF PROJECT.
- ALL EQUIPMENT DUCTS AND PIPING PENETRATING THE NEW FIRE RATED WALLS TO BE FIRE RATED.
- CONTRACTOR SHALL ROUTE DUCTWORK WITHIN THE CEILING SPACE AS HIGH AS POSSIBLE TO MAINTAIN CLEARANCE ALLOWABLE.

AIR DISTRIBUTION:

- SUPPLY, RETURN, AND O.A. DUCTWORK SHALL BE CONSTRUCTED OF GALVANIZED SHEETMETAL IN ACCORDANCE WITH SMACNA DUCT CONSTRUCTION STANDARDS, LATEST EDITION. ALL JOINTS AND SEAMS IN ALL SHEETMETAL DUCTWORK
- EXTERIOR SUPPLY AND RETURN DUCTWORK SHALL BE CONSTRUCTED OF GALVANIZED SHEETMETAL WITH ALL SEAMS
- 3. ALL OPEN ENDED DUCTS AND FAN OUTLETS SHALL HAVE 1/2" X 1/2" HARDWARE CLOTH AFFIXED OPENING.
- EXHAUST DUCTWORK SHALL BE SUPPORTED BY THE BUILDING STRUCTURE AND SHALL NOT REST ON CEILING TILES OR CEILING STRUCTURE. DUCT SUPPORTS AND ATTACHMENT TO STRUCTURE SHALL BE PER SMACNA STANDARDS.
- FLEXIBLE DUCTWORK SHALL BE THERMAFLEX M-KE (U.L. 181 LISTED, CLASS 1 FLEXIBLE AIR DUCT) OR EQUAL. PROVIDE THERMAFLEX M-KE R-6 (R-VALUE - 4.6 MINIMUM OR AS REQUIRED BY LOCAL ENERGY CODE) IN ATTICS AND OTHER UNCONDITIONED SPACES. AIR CONNECTORS ARE NOT ACCEPTABLE. FLEX DUCT DIAMETER SHALL MATCH DEVICE NECK DIAMETER. PROVIDE ROUND GALVANIZED STEEL DUCT RUNOUTS TO MAINTAIN A MAXIMUM FLEXIBLE DUCT LENGTH OF 8'-0' FLEXIBLE DUCTWORK SHALL BE INSTALLED AS STRAIGHT AS POSSIBLE AND SHALL BE ROUTED AND SUPPORTED WITHOUT FORMING CRIMPS OR OTHER AIR FLOW RESTRICTIONS. PROVIDE SQUARE TO ROUND ADAPTERS OR BOOTS TO CONNECT TO AIR DEVICE NECK WHEN REQUIRED.
- ROUND AND FLEXIBLE SUPPLY AIR DUCTWORK SHALL BE CONNECTED TO MAIN DUCTS WITH A SPIN IN FITTING AND BALANCING DAMPER. WHERE INSTALLED ABOVE IN-ACCESSIBLE CEILINGS, THE DAMPER SHALL BE IN THE NECK OF THE AIR
- 7. DUCTWORK DIMENSIONS SHOWN ON THE DRAWINGS ARE INSIDE CLEAR DIMENSIONS.
- EXTERNAL STATIC PRESSURE (ESP) DOES NOT INCLUDE COIL, CASING OR FILTER PRESSURE DROP.
- INSTALL FIRE DAMPERS IN ALL RATED WALLS, FLOOR AND CEILING PENETRATIONS. FIRE DAMPERS SHALL BE THE DYNAMIC TYPE WITH BLADES OUT OF THE AIR STREAM WHERE POSSIBLE.
- INSTALL SMOKE DAMPERS IN ALL DUCT PENETRATIONS THROUGH A SMOKE RATED WALLS. WHERE DUCTS PENETRATE WALLS THAT CARRY BOTH FIRE AND SMOKE RATINGS, THE DAMPERS INSTALLED SHALL BE COMBINATION FIRE AND SMOKE DAMPERS. ALL DAMPERS SHALL BE U.L. 555 AND OR 555S LABELED.
- 11. DUCT ACCESS DOORS: PROVIDE ACCESS DOORS IN DUCTWORK AT EACH FIRE AND SMOKE DAMPER LOCATION.
- LOCATIONS OF GRILLES, REGISTERS, AND DIFFUSERS SHOWN ON THE DRAWINGS ARE APPROXIMATE. COORDINATE EXACT

REFRIGERANT PIPING SHALL BE TYPE L OR REFRIGERATION SERVICE COPPER TUBING WITH BRAZED JOINTS.

LOCATIONS WITH LIGHTS, CEILING GRID, ETC. AND ARCHITECTURAL REFLECTED CEILING PLAN.

- CONDENSATE FROM ALL AIR CONDITIONING EQUIPMENT ROUTED TO THE NEAREST GREEN SPACE. CONDENSATE PIPING SHALL BE SCHEDULE 40 PVC (EXCEPT INSULATED COPPER IN HVAC PLENUMS) CONDENSATE SHALL BE PUMPED AS REQUIRED. PVC CONDENSATE PIPING EXPOSED TO WEATHER SHALL BE UV PROTECTED PER MANUFACTURER'S RECOMMENDATIONS. SLOPE CONDENSATE PIPING AT MINIMUM
- ALL PIPING ABOVE GRADE SHALL BE SUPPORTED BY THE BUILDING STRUCTURE AND SHALL NOT REST ON CEILING TILES OR CEILING STRUCTURE. PIPING HUNG FROM JOISTS SHALL BE HUNG FROM THE TOP CHORDS OF THE JOISTS.
- WHERE MAXIMUM OPERATING PRESSURE IS GREATER THAN 150 PSIG IN ANY SYSTEM, CONTRACTOR SHALL FURNISH AND INSTALL PRODUCTS, PIPING, VALVES, FITTINGS, AND ACCESSORIES WITH PRESSURE CLASSIFICATIONS THAT ARE SUITABLE

INSULATION:

DUCT INSULATION:

1/8" PER FOOT.

- DUCT WRAP SHALL BE UL LISTED FIBERGLASS BLANKET INSULATION WITH FOIL VAPOR BARRIER. PUNCTURES AND TEARS IN THE FOIL JACKET SHALL BE PATCHED WITH FOIL TAPE TO MAINTAIN THE INTEGRITY OF THE VAPOR BARRIER. INSULATE SHEET METAL DUCTWORK IN THE THICKNESS AND DENSITIES AS LISTED BELOW:
- SHEET METAL SUPPLY AND RETURN DUCTWORK IN NON-AIR CONDITIONED AREAS: 2.2" THICK, 3/4 LB/FT
- SHEET METAL SUPPLY AND RETURN DUCTWORK IN AIR CONDITIONED AREAS: 2.2" THICK, 1-1/2" LB/FT
- SHEET METAL OUTSIDE DUCTWORK IN NON-AIR CONDITIONED AREAS: 2.2" THICK, 3/4 LB/FT 🔞 DENSITY (MIN
- SHEET METAL OUTSIDE DUCTWORK IN AIR CONDITIONED AREAS: 2.2" THICK, 1-1/2 LB/FT : DENSITY (MIN
- SHEET METAL SUPPLY AND OR RETURN AIR DUCTWORK INDICATED TO BE INTERNALLY LINED IN LIEU OF EXTERNAL DUCT WRAP SHALL BE LINED WITH 1-1/2" THICK 3 PCF FIBERGLASS DUCT LINER BOARD (MINIMUM R-6.5). INSULATED

DUCTS EXPOSED IN FINISHED AREAS SHALL BE LINED.

PIPE INSULATION:

REFRIGERANT SUCTION PIPING SHALL BE INSULATED WITH 1-1/2" THICK FLEXIBLE ELASTOMERIC TUBING INSULATION, AP APRMAFLEX PIPE INSULATION MANUFACTURED BY ARMACEL OR EQUAL. INSULATION SHALL BE SLID OVER PIPING FROM ONE END BEFORE PIPE ENDS ARE JOINED AND SHALL NOT BE SLIT OR CUT. ALL JOINTS AND SEAMS SHALL BE SEALED WEATHER-TIGHT. FINISH COAT FOR FLEXIBLE ELASTOMERIC INSULATION INSTALLED OUTDOORS SHALL BE WATER-BASED LATEX ENAMAL DESIGNED FOR USE OVER ALL FORMS OF FLEXIBLE ELASTOMERIC INSULATION. FINISH COAT SHALL PROVIDE A PROTECTIVE FINISH SUITABLE TO BOTH INDOOR AND OUTDOOR APPLICATIONS, FORMULATED FOR COLD WEATHER FLEXIBILITY TO RESIST CRACKING AND WEATHER-RESISTANT TO ULTRAVIOLET (UV) AND OZONE. COATING SHALL BE ARMAFLEX WB FINISH OR EQUIVALENT.

GRILLE, REGISTER, DIFFUSER TAGS SYMBOL LEGEND **ANNOTATION LEGEND** GRILLE, REGISTER, - TERMINATION POINT or TIE-IN POINT AHU-# - AIR HANDLING UNIT DIFFUSER TYPE. TYPICAL T - THERMOSTAT A-150 EA <u>B-#</u> - BOILER T - TEMPERATURE SENSOR <u>C-#</u> - CHILLER L DESIGN CFM └ UNCALCULATED H's - HUMIDITY SENSOR <u>CC-#</u> - COOLING COIL (IF DIFFERENT THAN SA) RETURN AIR RATE TRANSFER AIR RATE SD - DUCT SMOKE DETECTOR <u>CU-#</u> - CONDENSING UNIT FLEX DUCT co - CARBON MONOXIDE SENSOR (5'-0" MAX. LENGTH <u>CUH-#</u> - CABINET UNIT HEATER GALVANIZED STEEL OF ONE BRANCH) DUCT DOWN CO² - CARBON DIOXIDE SENSOR **ELBOW AT DIFFUSER** EB-# - ELECTRIC BASEBOARD GALVANIZED CONNECTION NO² - NITROGEN DIOXIDE SENSOR <u>EF-#</u> - EXHAUST FAN (CABINET OR CEILING) STEEL ELBOW P - PRESSURE SENSOR <u>ERV-#</u> - ENERGY RECOVERY VENTILATOR F/S FIRE/SMOKE DAMPER <u>EWH-#</u> - ELECTRIC WALL HEATER SD SMOKE DAMPER **DUCTWORK LEGEND** FIRE DAMPER EXP-# - EXPANSION TANK DUCTWORK - DUCTWORK (UNLINED) TO REMAIN MANUAL DAMPER <u>FT-#</u> - FINNED TUBE RADIATION GRAVITY BACKDRAFT — VOLUME - DUCTWORK (LINED) <u>HRV-#</u> - HEAT RECOVERY VENTILATOR CEILING DAMPER DAMPER RADIATION - DUCTWORK TO HVAC-# - HEATING, VENTILATION, AIR CONDITIONER UNIT TAKE-OFF - DUCTWORK (EXTERNAL INSULATION) MOTORIZED DAMPER DAMPER BE REMOVED <u>L-#</u> - LOUVER - EXISTING DUCTWORK MAU-# - MAKE-UP AIR UNIT SUPPLY AIR - NEW DUCTWORK MS-# - MINISPLIT UNIT DUCT UP L DUCT SIZE - DEMOLISH DUCTWORK ─ ROUND <u>P-#</u> - PUMP - 45 DEGREE IN FREE SPIN-IN SHOE-TAP AREA PRV-# - POWER ROOF VENTILATOR TAKE-OFF **ELBOWS** XX/XX - RECTANGULAR DUCT SIZE TAKE-OFF UNLINED PTAC-# - PACKAGE TERMINAL AIR CONDITIONER BRANCH BALANCING **ACCESS PANEL** DUCTWORK X"Ø - ROUND DUCT SIZE VANES <u>RIH-#</u> - ROOF INTAKE HOOD FOR TURNING VANES XX/XX"Ø - FLAT OVAL DUCT SIZE <u>RRH-#</u> - ROOF RELIEF HOOD - EXTERNAL NOTE: DUCT SIZE; FIRST NUMBER INDICATES DIMENSION OF SIDE INSULATED RTU-# - ROOF TOP UNIT PIPING LEGEND SHOWN. THE SECOND NUMBER INDICATES SIDE NOT SHOWN DUCT <u>UH-#</u> - UNIT HEATER — HWS — - HYDRONIC WATER SUPPLY A.F.F. - ABOVE FINISH FLOOR **EQUIPMENT** EA - EXHAUST AIR **—**STM-L # → - LOW PRESSURE STEAM MA - MAKE UP AIR (CONDITIONED) —— CD-R — - CONDENSATE RETURN DUCTWORK - EXHAUST N.I.C. - NOT IN CONTRACT —— CWS — - CHILLED WATER SUPPLY OR RETURN TYPICAL FLEXIBLE AIR DUCT DUCT CONNECTION OA - OUTSIDE AIR (UNCONDITIONED)

RETURN

AIR DUCT

DOWN

- EXHAUST OR

RETURN AIR

INLET

─ CWR - CHILLED WATER RETURN

—NG — - NATURAL GAS PIPING

DESIGN CONDITIONS

OUTDOOR SUMMER DESIGN:	92.5°F DB / 76.8°F WE
OUTDOOR WINTER DESIGN:	39.8°F
OFFICES SUMMER DESIGN:	75°F, 50% RH
OFFICES WINTER DESIGN:	70°F

BASED ON ASHRAE FUNDAMENTALS 2021 99.6% AND 0.4% CLIMATE DATA FOR FORT LAUDERDALE EXECUTIVE.

CODE IDENTIFICATION

BUILDING CODE: MECHANICAL CODE: ENERGY CODE:

RA - RETURN AIR

SA - SUPPLY AIR

TA - TRANSFER AIR

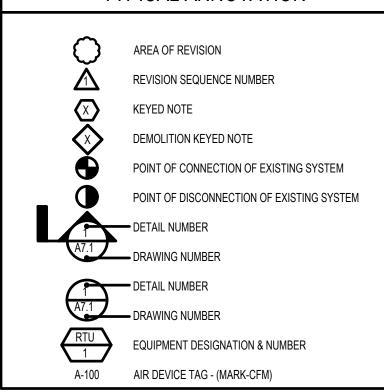
TG - TRANSFER GRILLE

TO - TRANSFER OPENING

2023 FLORIDA BUILDING CODE 2023 FLORIDA BUILDING CODE - MECHANICAL 2023 FLORIDA BUILDING CODE - ENERGY CONSERVATION

ALL WORK SHALL COMPLY WITH THE CODE IDENTIFIED ABOVE ALONG WITH ALL OTHER GOVERNING CODES AND ORDINANCES APPLICABLE TO THE SCOPE OF THIS PROJECT.

TYPICAL ANNOTATION



			ABBREVIATIONS		
ABV	ABOVE	EF	EXHAUST FAN	NC	NORMALLY CLOSED
AC	AIR CONDITIONER OR CONDITIONING	EFF	EFFICIENCY	NO	NORMALLY OPEN
ACU	AIR CONDITIONING UNIT	ELC	ELECTRICAL	NTS	NOT TO SCALE
AD	ACCESS DOOR	ELEV	ELEVATION	OA	OUTSIDE AIR
ADJ	ADJUSTABLE	ENT	ENTERING	OBD	OPPOSED BLADE DAMPER
AFF	ABOVE FINISHED FLOOR	EQ	EQUAL FYIOTING TO DEMAIN	OD	OUTSIDE DIAMETER
AFG	ABOVE FINISHED GRADE	ETR	EXISTING TO REMAIN	OPR	OPERATING
AHU	AIR HANDLING UNIT	EXH	EXHAUST	PC	PLUMBING CONTRACTOR
ALLIM	ACOUSTICAL LINING	F FCU	FAHRENHEIT, DEGREE FAHRENHEIT	PCD PCV	PNEUMATIC CONTROL DAMPER
ALUM	ALUMINUM ACCESS DANIEL		FAN COIL UNIT	PCV PD	PNEUMATIC CONTROL VALVE
ap apd	ACCESS PANEL AIR PRESSURE DROP	FD FPM	FIRE DAMPER, FLOOR DRAIN FEET PER MINUTE	PLBG	PRESSURE DROP PLUMBING
ATC	AUTOMATIC TEMPERATURE CONTROL	PS PS	FEET PER SECOND	PRS	PRESSURE REDUCING STATION
BMS	BUILDING MANAGMENT SYSTEM	FSD	FIRE AND SMOKE DAMPER	PRV	PRESSURE REDUCING STATION PRESSURE REDUCING VALVE
BDD	BACK DRAFT DAMPER	F3D FT	FEET	PSI	POUNDS PER SQUARE INCH
BHP	BRAKE HORSEPOWER	GA	GAUGE	PSIG	POUNDS PER SQUARE INCH GAUG
BLDG	BUILDING	GAL	GALLON	R	RELAY
BFP	BACKFLOW PREVENTER	GALV	GALVANIZED	RA	RETURN AIR
BOD	BOTTOM OF DUCT	GC	GENERAL CONTRACTOR	RD	RADIATION DAMPER
BTUH	BRITISH THERMAL UNIT PER HOUR	GPH	GALLONS PER HOUR	REF	REFRIGERANT
C	CELCIUS, DEGREE CELCIUS	GPM	GALLONS PER MINUTE	REQ'D	REQUIRED
CA	COMPRESSED AIR	HB	HOSE BIBB	RF	RETURN FAN
CD	CONDENSATE DRAIN	HC	HANDICAPPED	RH	REHEAT, RELATIVE HUMIDITY
CENT	CENTRIFUGAL	HVAC	HEATING VENTILATING AND AIR CONDITIONING	0	REHEAT COIL
CFM	CUBIC FEET PER MINUTE	HVU	HEATING AND VENTILATING UNIT	RPM	REVOLUTIONS PER MINUTE
CHW	CHILLED WATER	HP	HORSEPOWER	RTU	ROOFTOP UNIT
CLG	CEILING	HR	HOUR	SA	SUPPLY AIR
CO	CLEAN OUT, CARBON MONOXIDE	HZ	HERTZ (CYCLES PER SECOND)	SF	SUPPLY FAN
CO2	CARBON DIOXIDE	ID	INSIDE DIAMETER	SQFT	SQUARE FEET
COG	CENTER OF GRILLE	IN	INCH	T	THERMOSTAT
CONC	CONCRETE	IW	INDIRECT WASTE	TEMP	TEMPERATURE
COP	COEFFICIENT OF PERFORMANCE	KW	KILOWATT	TG	TRANSFER GRILLE
CU	CONDENSING UNIT	LAT	LEAVING AIR TEMPERATURE	TS	TEMPERATURE SENSOR
CV	CONSTANT VOLUME	LB	POUND, POUNDS	TYP	TYPICAL
DB	DRY BULB	LD	LINEAR DIFFUSER	UNO	UNLESS OTHERWISE NOTED
DCW	DOMESTIC COLD WATER	LWT	LEAVING WATER TEMPERATURE	V	VENT, VOLT
DDC	DIRECT DIGITAL CONTROL	MAX	MAXIMUM	VD	VOLUME DAMPER, MANUAL
DEG	DEGREE	MBH	THOUSAND BTU PER HOUR	VERT	VERTICAL
DF	DRINKING FOUNTAIN	MC	MECHANICAL CONTRACTOR	VFD	VARIABLE FREQUENCY DRIVE
DISC	DISCONNECT	MD	MOTORIZED DAMPER	W	WATTS
DN	DOWN	MFTR	MANUFACTURER	W/	WITH
DWGS	DRAWINGS	MIN	MINIMUM	W/O	WITHOUT
DWV	DRAIN, WASTE AND VENT PIPING	MOD	MOTOR OPERATED DAMPER	WB	WET BULB
DX	DIRECT EXPANSION	MS	MOTOR STARTER	WC	WATER CLOSET
EA	EXHAUST AIR	MVD	MANUAL VOLUME DAMPER	WPD	WATER PRESSURE DROP
EAT	ENTERING AIR TEMPERATURE	M/S	METERS PER SECOND	WS	WALL SWITCH
EC	ELECTRICAL CONTRACTOR	N	NORTH	WV	WASTE AND VENT
EER	ENERGY EFFICIENCY RATIO	NA	NOT APPLICABLE/NOT AVAILABLE	#	NUMBER

(BEFORE AND AFTER

NOTE: THIS DRAWING IS FOR

INFORMATIONAL PURPOSES ONLY.

TEMS SHOWN ARE NOT NECESSARILY

USED ON THIS PROJECT.

EQUIPMENT)

EXHAUST OR RETURN

AIR GRILLE

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Mech Eng. No. 87451

Elec Eng. No. 60953

ERV - ENERGY RECOVERY VENTILATOR SCHEDULE EXHAUST FAN PERFORMANCE **SUPPLY FAN PERFORMANCE** SUMMER PERFORMACE WINTER PERFORMANCE **ELECTRICAL** MOTOR TAG O.A CFM MOTOR FAN CAPACITY EAT (°F) LAT (°F) REDUCTION VOLTAGE PH MCA TOTAL RPM OPERATING MODEL NOTES CONFIGURATION WEIGHT CFM SERVED REDUCTION **DRIVE** SP TYPE DRIVE TYPE POWER QTY SIZE QTY EAT (°F) LAT (°F) **POWER** BTUH FORWARD CURVE FORWARD CURVE ERV-1 DOAS-1 GREENHECK 350 CFM 350 CFM 0.23 hp DIRECT 0.28 hp 92.0/77.0 10,867 47.0 5,679 230 V 1 8.1 A 15.0 A REMARKS: LOW LEAK INSULATED INTAKE AND EXHAUST DAMPERS.

2. 2" MERV 8 FILTERS FOR INTAKE AND EXHAUST CONNECTIONS.

		DOAS - DEDICATED OUTSIDE AIR UNIT SCHEDULE (DX)																								
Г					SU	PPLY FAN		OUTODE			COOLING	PERFORMA	NCE			HEATI	NG PERFORM	IANCE			ELEC.	TRICAL	L			
,	ГАС		MFR	MODEL	DESIGN AIRFLOW	DESIGN ESP	FAN HP	OUTSIDE AIR DESIGN AIRFLOW	NOMINAL TONNAGE	MBH TOTAL LOAD	(TOTAL) SENSIBLE LOAD	EAT DB (°F)	EAT WB (°F)	LAT DB (°F)	МВН	EAT DB (°F)	LAT DB (°F)	KW	# OF STAGES	VOLTAGE	PHASE	FLA	MCA	МОСР	WEIGHT	NOTES
D	OAS-1		TRANE	BCVE024	350 CFM	1.141 in-wg	0.557	350 CFM	2 ton	19.27	10.59	92.3 °F	77.3 °F	54.78 °F	18.10	50.0 °F	81.4 °F	5 kW	2	230 V	1	1.3 A	5.33 A	15 A	169 lb	

- PROVIDE AUXILIARY DRAIN PAN WITH OVERFLOW SWITCH.
- PROVIDE WITH MERV 12 2" FILTER. PROVIDE MOUNTING SUBBASE WITH VIBRATION ISOLATORS.

SINGLE ZONE AIR VOLUME UNIT CONFIGERATION OR EQUIVALENT.

MANUFACTURER

GREENHECK

- SINGLE POINT POWER CONNECTION.
- SPACE TEMPERATURE/HUMIDITY CONTROL
- PROVIDE WITH COMPRESSOR ANTI-RECYCLE CONTROLS.
- BALANCE REPORT TO BE PROVIDED TO INSPECTOR.

 CONTRACTOR TO PROVIDE DUCT MOUNTED SMOKE DETECTOR LOCATED IN THE SUPPLY AND RETURN AIR STREAM OF UNIT. UNIT REFRIGERANT TYPE TO BE 410A. PROVIDE WITH COMBO ENTHALPY AND DRY BULB ECONOMIZER.
 - PROVIDE C02 SENSORS IN RETURN AIR DUCTWORK FOR DEMAND VENTILATION. MORGANIZER HOT GAS REHEAT MODULATING

DOUBLE WALL CONSTRUCTION ON AHU

	L - L(OUVER	SCHED	JLE					
		AIRFLOW				DIMEN	SIONS		
		PRESSURE							
	FLOW RATE	DROP	VELOCITY	MATERIAL	COLOR	WIDTH	HEIGHT	WEIGHT	NOTES
X20	350 CFM	0.01 in-wa	220 FPM	ALUMINUM	WHITE	27 in	20 in	20 lbf	1

REMARKS:

LOUVER TO BE AMCA-500 RATED.

TAG DESCRIPTION

L-1 INTAKE LOUVER

L-1 EXHAUST LOUVER

	AIR TERMINAL SCHEDULE								
TAG	DESCRIPTION	MANUFACTURER	MODEL	MOUNTING	FACE SIZE	NECK SIZE	MATERIAL	COLOR	NOTES
SD-1	SUPPLY AIR	E.H. PRICE	SCD	SURFACE	24"X24"	SEE PLANS	ALUMINUM	WHITE	
SD-2	SUPPLY AIR	E.H. PRICE	SCD	SURFACE	12"X12"	SEE PLANS	ALUMINUM	WHITE	
RG-1	RETURN GRILLE	E.H. PRICE	80TB	SURFACE	24"X24"	SEE PLANS	ALUMINUM	WHITE	
RG-2	RETURN GRILLE	E.H. PRICE	80TB	SURFACE	12"X12"	SEE PLANS	ALUMINUM	WHITE	

REMARKS:

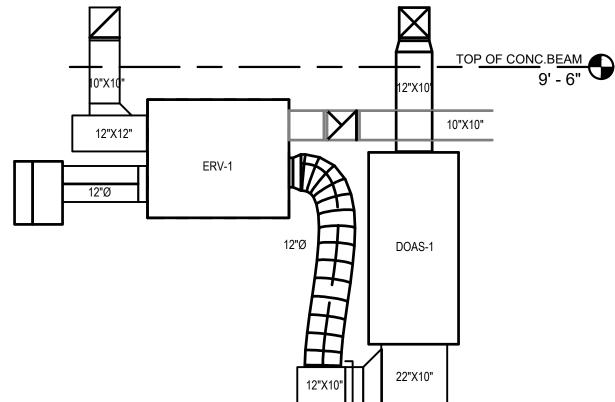
- PROVIDE WITH OPPOSED BLADE BALANCING DAMPER AND SPIN-IN COLLAR BALANCING DAMPER AT FLEXIBLE DUCT TAKE-OFF. FRAME STYLE OF MATCH ARCHITECTURAL CEILING/WALL TYPE.

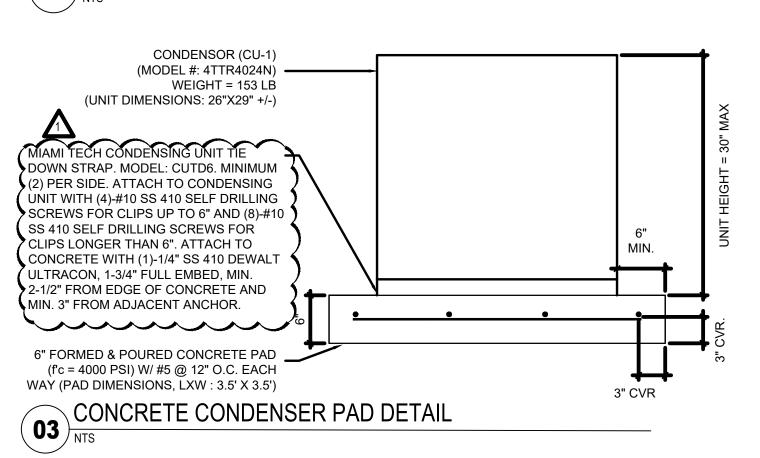
	CU - CONDENSER SCHEDULE										
FIXTURE	I WER I WOULE I PAIR WITH IWEIGHT (ID)										
MARK	WIFK WIODEL		PAIR WITH	WEIGHT (ID)	MCA	МОСР	VOLTAGE	PHASE	NOTES		
CU-1	TRANE	4TTR4024N	DOAS-1	153	13	20	230 V	1			
5-111516											

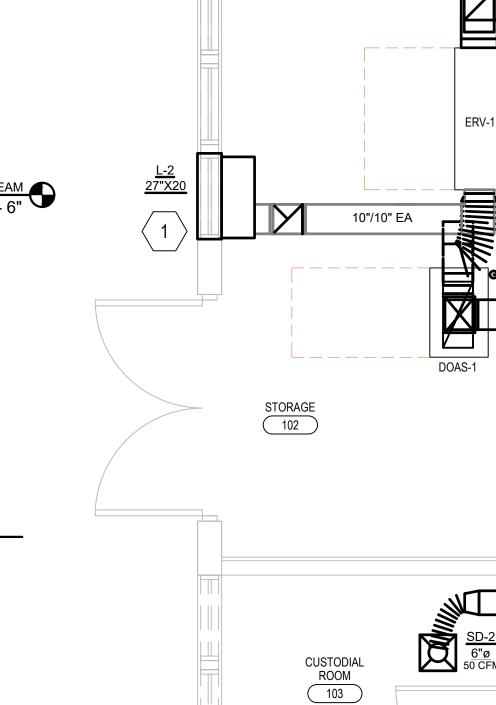
MODEL

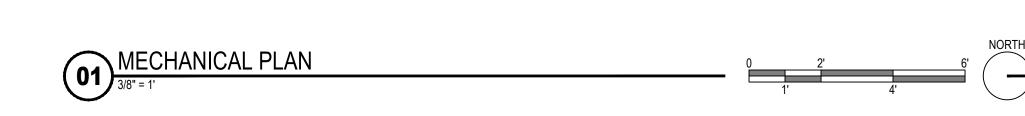
ESD-635-27X

- PROVIDE MOUNTING SUBBASE WITH VIBRATION ISOLATORS. PROVIDE WITH SINGLE POINT POWER CONNECTION. INDOOR UNIT IS TO BE POWERED BY CONDENSING UNIT.
- SIZE REFRIGERANT PIPING PER MANUFACTURER'S RECOMMENDATIONS.









RG-2 6"ø 50 CFM

CONDENSER ON CONCRETE PAD ADJACENT TO

3/4" CONDENSATE LINE TO BE RUN

CONDENSATE PIPING TO TERMINATE WITH 6"

UNDERGROUND BEFORE TERMINATING IN GREEN SPACE NEXT TO CONDENSER PAD.

10"/10" RA

WOMEN'S RESTROOM 100

10"/10" SA

RESTROOM

8"/8" RA

SIDEWALK. CONTRACTOR TO FIELD VERIFY UTILITY LOCATION WITH REFRIGERANT LINE

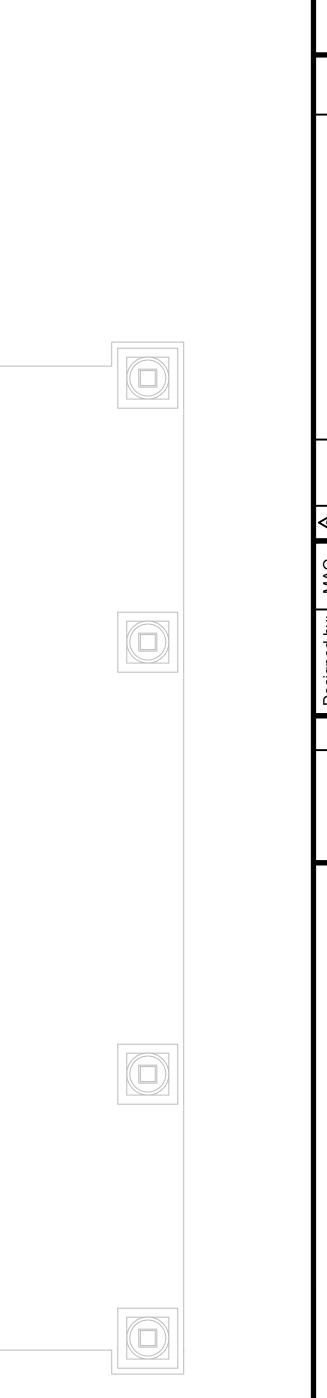
TRENCHING.

AIR GAP.

CU-1

KEY NOTES

- 1. LOUVER TO BE INSTALLED IN EXISTING EXTERIOR WALL PENETRATION.
- 2. REMOVE SECTION OF SIDEWALK, FROM CONTROL JOINT TO CONTROL JOINT, TO ACCOMMODATE INSTALLATION OF NEW REFRIGERANT AND CONDENSATE LINES. PROVIDE NEW SECTION OF SIDEWALK IN AREA OF WORK
- 3. CONTRACTOR SHALL CALL SUNSHINE811 TO FIND ALL EXISTING UTILITIES PRIOR TO EXCAVATION.



Plans Prepared By: CPH CONSULTING, LLC.

500 West Fulton St.

Sanford, Fl. 32771 Ph: 407.322.6841 State of Florida Licenses:

Arch. No. AR0013957

Mech Eng. No. 87451 Elec Eng. No. 60953

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CODES IN EFFECT

- ALL WORK SHALL BE IN STRICT ACCORDANCE WITH THE LATEST ACCEPTED EDITION OF THE NATIONAL ELECTRICAL CODE.
- WORK AND EQUIPMENT UNDER THIS DIVISION SHALL BE IN STRICT COMPLIANCE WITH THE CODES, STANDARDS, AND PRACTICES LISTED HEREIN. THEIR RESPECTIVE DATES ARE FURNISHED AS THE MINIMUM REQUIREMENTS UNLESS OTHERWISE DETERMINED BY THE LOCAL AUTHORITIES HAVING JURISDICTION.

ABBREVIATIONS

MARK	DESCRIPTION		
ABV	ABOVE	IG	ISOLATED GROUND
AFF	ABOVE FINISHED FLOOR	IMC	INTERMEDIATE GRADE CONDUIT
ACL	ACROSS THE LINE	JB	JUNCTION BOX
AC	ALTERNATING CURRENT	kW	KILOWATT
Α	AMPERE	kVA	KILOVOLT-AMPERE
AMP	AMPERE	KO	KNOCKOUT
AIC	AMPERES INTERRUPTING CAPACITY	LED	LIGHT EMITTING DIODE
AL	ALUMINUM	LTG	LIGHTING
BR	BRANCH	LV	LOW VOLTAGE
BKR	BREAKER	MFR	MANUFACTURER
BGB	BUILDING GROUND BOX	MTR	MOTOR
CAB	CABINET	MCP	MOTOR CIRCUIT PROTECTOR
CLG	CEILING	MCC	MOTOR CONTROL CENTER
C.B.	CIRCUIT BREAKER	MTD	MOUNTED
CCT	CIRCUIT	NEC	NATIONAL ELECTRICAL CODE
C.U.	COEFFICIENT OF UTILIZATION	NL	NIGHT LIGHT (UNSWITCHED CCT.)
С	CONDUIT	NC	NORMALLY CLOSED
CONT	CONTINUOUS	NO	NORMALLY OPENED
CP	CONTROL PANEL	NIC	NOT IN CONTRACT
Cu	COPPER	NTS	NOT TO SCALE
CUH	CABINET UNIT HEATER	OCPD	OVERCURRENT PROTECTION DEVICE
CT	CURRENT TRANSFORMER	PNL	PANEL
Hz	HERTZ (CYCLES/SECOND)	PH	PHASE
DED	DEDICATED CIRCUIT	PT	POTENTIAL TRANSFORMER
DC	DIRECT CURRENT	PWR	POWER
DS	DISCONNECT SWITCH	PRI PA	PRIMARY
DPDT	DOUBLE POLE DOUBLE THROW	PA PB	PUBLIC ADDRESS PULL BOX
DPST	DOUBLE POLE SINGLE THROW	PB RT	RAINTIGHT
ELEC	ELECTRIC	RECEP	RECEPTACLE
ETR	EXISTING TO REMAIN	RC	REMOTE CONTROL
EWC EWH	ELECTRIC WATER COOLER ELECTRIC WATER HEATER	R	RELOCATED
		SEC	SECONDARY
EM EQ	EMERGENCY EQUIPMENT	SP	SINGLE POLE
EUH	ELECTRIC UNIT HEATER	SPD	SURGE POLE SURGE PROTECTION DEVICE
EUH	EXISTING	SPST	SINGLE POLE SINGLE THROW
FPB	FAN POWERED BOX	SPDT	SINGLE POLE SINGLE THROW SINGLE POLE DOUBLE THROW
FPB ED	ELOOPROY	SDEC	SDECIFICATION

ELECTRICAL KEY NOTES

PROVIDE AN INTERMATIC TIMECLOCK 'ET2805C' OR APPROVED EQUAL.

INDICATE THE SPD REQUIRES SERVICE OR REPLACEMENT

SURGE PROTECTION DEVICE CONNECTED IN CIRCUIT SPACE CLOSEST TO INCOMING FEEDER LUGS. BREAKER DISCONNECT SIZED IN ACCORDANCE WITH MANUFACTURER RECOMMENDATIONS. SPD SHALL HAVE LED INDICATOR AND AUDIBLE ALARM TO

STAINLESS STEEL UNLESS NOTED OTHERWISE

VAPORPROOF

VAPORTIGHT

VOLT-AMPERE

WATERTIGHT

WEATHERPROOF

FULL VOLTAGE NON-REVERSING

GROUND FAULT INTERRUPTER

FUSE

GRD

FUTURE

GROUND

HIGH VOLTAGE

HORSE POWER INTERRUPTING CAPACITY

GENERAL ELECTRICAL NOTES:

STRUCTURAL SUPPORT AND FRAMING

- 1. ALL WORK SHALL COMPLY WITH CODES AND STANDARDS LISTED IN THE SPECIFICATIONS.
- 2. THE DRAWINGS ARE DIAGRAMMATIC AND THE OMISSION OF AN ITEM NECESSARY FOR THE PROPER FUNCTIONING OF THE SYSTEM DOES NOT RELIEVE THE CONTRACTOR FROM FURNISHING AND INSTALLING THAT ITEM.
- 3. NOTIFY ARCHITECT/ ENGINEER OF ANY CONFLICTS PRIOR TO PURCHASING EQUIPMENT AND PRIOR
- 4. PRIOR TO BID, COORDINATE ALL ELECTRICAL WORK WITH OTHER TRADES. SEE SPECIFICATIONS
- 5. CONTRACTOR SHALL NOT CONCEAL ANY WORK UNTIL INSPECTED BY ELECTRICAL INSPECTOR AND/OR ARCHITECT/ENGINEER. CONTRACTOR SHALL NOTIFY A/E OF A SCHEDULED INSPECTION
- TIME WITHIN 72 HOURS. CONTRACTORS SHALL NOT CONCEAL WORK UNTIL APPROVED. 6. ELECTRICAL CONTRACTOR SHALL COORDINATE WITH ARCHITECT AND GENERAL CONTRACTOR ON REQUIREMENTS FOR STRUCTURAL SUPPORT AND FRAMING FOR ALL ELECTRICAL EQUIPMENT AND SYSTEMS. GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING AND VERIFYING
- 7. THE SIZE, LOCATION, WEIGHT, AND NEC ARTICLE 110 REQUIRED SERVICE CLEARANCES OF EQUIPMENT INSTALLED UNDER DIVISION 16 ELECTRICAL SHALL BE COORDINATED WITH ALL OTHER
- 8. WHERE CROWDED LOCATIONS EXIST OR WHERE THERE IS A POSSIBILITY OF CONFLICT BETWEEN TRADES, CONTRACTOR SHALL MAKE COMPOSITE DRAWINGS SHOWING THE EXACT LOCATION OF DUCTS, CONDUIT AND EQUIPMENT. DRAWINGS SHALL BE BASED ON FIELD MEASUREMENTS AND, AFTER CONSULTATION AND AGREEMENT BETWEEN THE TRADES, SHALL BE APPROVED BY THE ARCHITECT BEFORE INSTALLATION OF THE WORK.
- 9. INSTALL SURGE SUPPRESSOR IN EACH PANEL WITH EQUIPMENT SHOWN ON THE PANEL SCHEDULE AS SURGE OR TVSS. INSTALL AS CLOSE AS POSSIBLE TO PANELBOARD SERVED.
- 10. ELECTRICAL CONTRACTOR IS TO PROVIDE PULL STRINGS IN ALL EMPTY CONDUIT AND RACEWAYS WITH LABELING TAGS AT EACH END.
- 11. ALL RACEWAY TERMINATIONS SHALL HAVE BUSHINGS AND BE GROUNDED WHERE RACEWAY IS
- 12. ALL WALL OUTLETS AND FLOOR OUTLETS SHALL HAVE A 3/4" MINIMUM CONDUIT CONTINUOUS TO
- 13. ALL NEW PANELS SHALL BE BONDED TO THE BUILDING'S GROUNDING ELECTRODE SYSTEM IN
- ACCORDANCE WITH NEC ARTICLE 250.58.
- 14. ALL BARE METAL SURFACES SHALL BE PRIMED AND PAINTED TO PREVENT ANY RUST, INCLUDING BUT NOT LIMITED TO ANGLE FRAMING, EQUIPMENT SUPPORTS, MOUNTING HARDWARE, ETC.
- 15. NO SPLICES SHALL BE PERMITTED IN UNDERGROUND/FLUSH IN-GRADE PULL BOXES WITHOUT PRIOR WRITTEN APPROVAL BY OWNER

16. ALL RACEWAYS SHALL HAVE A GREEN GROUNDING CONDUCTOR.

- - 5. ALL EQUIPMENT AND/OR DEVICES THAT ARE REMOVED AND NOT RE-USED SHALL BE TURNED OVER TO THE TENANT AND/OR BUILDING MANAGEMENT OR DISPOSED OF PER THEIR DIRECTION. MATERIAL OF NO SALVAGEABLE VALUE INCLUDING CONDUIT, WIRE AND TRASH RESULTING FROM THE DEMOLITION WORK SHALL BE REMOVED BY THE ELECTRICAL CONTRACTOR PROMPTLY FROM THE JOB SITE AND PROPERLY DISPOSED OF IN A LEGAL MANNER. NO BURNING SHALL BE PERMITTED ON

GENERAL ELECTRICAL DEMOLITION NOTES:

INCLUSIVE DEMOLITION PACKAGE.

SHOWN ON THE PLANS OR NOT.

. THESE DRAWINGS ARE DIAGRAMMATIC ONLY AND ARE TO BE USED AS A GUIDELINE ONLY FOR THE

2. ALL EXISTING LUMINAIRE FIXTURES AND ASSOCIATED CONTROLS, ELECTRICAL EQUIPMENT,

EXISTING SYSTEMS DUE TO CONFLICTS WITH EXISTING CONDITIONS SHALL BE PAID BY

4. THE CONTRACTOR SHALL COORDINATE WITH THE ARCHITECTURAL, MECHANICAL HVAC, AND

PLUMBING DEMOLITION DRAWINGS FOR ALL EQUIPMENT BEING DEMOLISHED, AND SHALL

ELECTRICAL DEVICES OF EQUIPMENT REMOVED BY OTHERS MUST BE REMOVED.

DEVICES, ETC. SHALL BE DEMOLITIONED, UNLESS SPECIFICALLY NOTED OTHERWISE.

SCOPE OF DEMOLITION WORK. THE CONTRACTOR SHALL VISIT THE PROJECT SITE DURING THE BID

PHASE TO VERIFY THE EXACT CONDITIONS AND SCOPE OF WORK REQUIRED FOR A COMPLETE AND

ELECTRICAL FIXTURES, RECEPTACLES, JUNCTION BOXES, MOTORS, WIRING DEVICES, FIRE ALARM

3. IT SHALL BE THE ELECTRICAL CONTRACTOR'S RESPONSIBILITY TO LOCATE ALL EXISTING UTILITIES IN

WORK AREA PRIOR TO INITIATION OF DEMOLITION ACTIVITIES. BEGINNING OF DEMOLITION SHALL

CONTRACTOR. THE CONTRACTOR IS RESPONSIBLE FOR ALL REQUIRED DEMOLITION WHETHER

DISCONNECT AND REMOVE COMPLETE THE ELECTRICAL SERVICES TO ALL EQUIPMENT AND WIRING

SIGNIFY CONTRACTORS ACCEPTANCE OF EXISTING CONDITIONS AND THE COST OF REWORKING ANY

- 6. PROVIDE AND MAINTAIN TEMPORARY ELECTRICAL SERVICES, SUCH AS LIGHTING AND POWER IN ALL AREAS OF DEMOLITION AND SURROUNDING AREAS NOT IN DEMOLITION FOR THE DURATION OF THE PROJECT. COORDINATE ALL TEMPORARY ELECTRICAL SERVICES WITH OWNER'S SITE
- REPRESENTATIVE AND/OR LOCAL ELECTRIC UTILITY. 7. IT SHALL BE THE ELECTRICAL CONTRACTOR'S RESPONSIBILITY TO CONDUCT ALL DEMOLITION IN ACCORDANCE WITH OSHA, EPA, AND ALL OTHER APPLICABLE CODES AND REGULATIONS FOR TYPE
- 8. AREAS AND SERVICES ADJACENT TO DEMOLITION AREAS SHALL BE PROTECTED FROM THE DEMOLITION PROCESS. PROTECTIVE MEASURES SHALL BE THE RESPONSIBILITY OF THE ELECTRICAL CONTRACTOR FOR ALL ELECTRICAL WORK AND SHALL BE MAINTAINED CONTINUOUSLY UNTIL DEMOLITION IS COMPLETED.
- 9. ALL DEMOLITION AND MATERIAL REMOVAL OPERATIONS SHALL BE CAREFULLY AND SAFELY CARRIED OUT. ELECTRICAL CONTRACTOR SHALL BE TOTALLY RESPONSIBLE FOR HIS SAFE PRACTICES AND

BRANCH PANEL: A

NOTE | CKT | VD % | WIRE SIZE

LOAD CLASSIFICATION

LIGHTING

RECEPTACLE

LOCATION: STORAGE ROOM 102

ENCLOSURE: PER SPECIFICATIONS

MOUNTING: SURFACE

3/4"C-2#12,#12G

3/4"C-2#12,#12G

3/4"C-2#12,#12G

3/4"C-2#12,#12G

3/4"C-2#12,#12G

3/4"C-2#12,#12G

3/4"C-3#10,#10G

3/4"C-3#10,#10G

SUPPLY FROM: EXISTING LOAD CENTER DISCONNECT

SIZE CIRCUIT DESCRIPTION

RECEP - WOMEN RR

RECEP - WATER FOUNTAIN

RECEP-VENDING MACHINE L

RECEP- VENDING MACHINE

HAND DRYER - WOMEN RR

RECEP - MEN RR

ERV-1

SPACE

SPACE

SPACE

SPACE

10,184 VA

749 VA

4,990 VA

CONNECTED LOAD

ELECTRICAL LEGEND SYMBOL DESCRIPTION

LIGHTING LIGHT FIXTURE - STRIP LED CEILING MOUNT LIGHT FIXTURE - WALL MOUNTED

LIGHT FIXTURE - EXTERIOR SCONES EXIT SIGN - WALL MOUNTED

POWER PACK

EMERGENCY BATTERY UNIT WITH HEADS SINGLE POLE SWITCH, K= KEY SWITCH, MD=MOTION DETECTOR, OS=OCCUPANCY SENSOR, 3= THREE-WAY

DEVICES. DEMOLITION DRAWINGS OF ALL DISCIPLINES MUST BE CHECKED AND ALL ASSOCIATED PHOTOCELL OCCUPANCY SENSOR

DUPLEX RECEPTACLE, NEMA 5-20R, 20A, 125V, G=GFCI, WP= WEATHERPROOF

SYMBOL DESCRIPTION

CONDUIT ROUTED UNDERFLOOR

RACEWAY W/#12 CONDUCTORS UNO

HOMERUN TO PANELBOARD 1/2"C

RACEWAY TURNED UP

RACEWAY TURNED DOWN

W/3#12 CONDUCTORS UNO

CONDUIT CAP-OFF

EQUIPMENT TAG

DIAGRAM TAG

REVISION SYMBOL

KEYNOTE SYMBOL

FEEDER SCHEDULE

SCHEDULED EQUIPMENT

A.I.C. RATING: 10KAIC

MAINS TYPE: M.L.O

SIZE WIRE SIZE

3/4"C-2#12,#12G

3/4"C-2#12,#12G

3/4"C-2#12,#12G

3/4"C-2#12,#12G

3/4"C-2#12,#12G

3/4"C-2#12,#12G

3/4"C-2#12,#12G

3/4"C-3#10,#10G

3/4"C-3#10,#10G

PANEL TOTALS

TOTAL CONNECTED LOAD: 15,861 VA

TOTAL ESTIMATED DEMAND: 15,861 VA **TOTAL CONNECTED CURRENT: 66 A**

TOTAL ESTIMATED DEMAND CURRENT: 66 A

VD % CKT NOTE

MAINS RATING: 100 A

MISCELLANEOUS

#

SHEET

 $\langle \hat{X} \hat{X} \rangle$

WIRING

JUNCTION BOX JUNCTION BOX - WALL MOUNT

PANELBOARD - SURFACE MOUNT

TIME CLOCK DISCONNECT SWITCH, NON-FUSED

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SYMBOLS, RISER PNL SCHEDULE

Sheet No.

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Alexander DN: C=US, O=Florida,

Zvonaryov Location: your signing location here

document

PROPOSED ELECTRICAL PANEL SCHEDULE

VOLTS: 120/240 Single

B POLE TRIP CIRCUIT DESCRIPTION

0.90 | 0.53 | 1 | 20 A | HAND DRYER - MEN RR

0.18 | 0.26 | 1 | 20 A | LIGHTING - MEN RR & EF

30 A 2 1.56 0.23 1 20 A LIGHTING - MEN RR & EF

30 A 2 0.97 2.50 2 20 A DOAS-1

30 A 2 0.97 0.12 1 20 A WG-1(2) WC-2(2), UR-1(2)

20 A 1 0.00 -- 1 -- 1 -- SPACE

-- 1 -- 1 -- SPACE

-- 1 -- 0.00 2 30 A SPD

ESTIMATED DEMAND

1 20 A HAND DRYER - MEN RR

1 20 A HAND DRYER - WOMEN RR

PHASES:

TRIP POLE

20 A 1

TOTAL AMPS:

DEMAND FACTOR

100.00%

100.00%

20 A | 1 | 0.90 | 0.53

20 A 1

20 A 1 0.18 0.53 20 A 1 0.18 0.53 1 20 A 1 0.18 0.26

TOTAL LOAD: 7,804 VA 8,057 VA

65 A

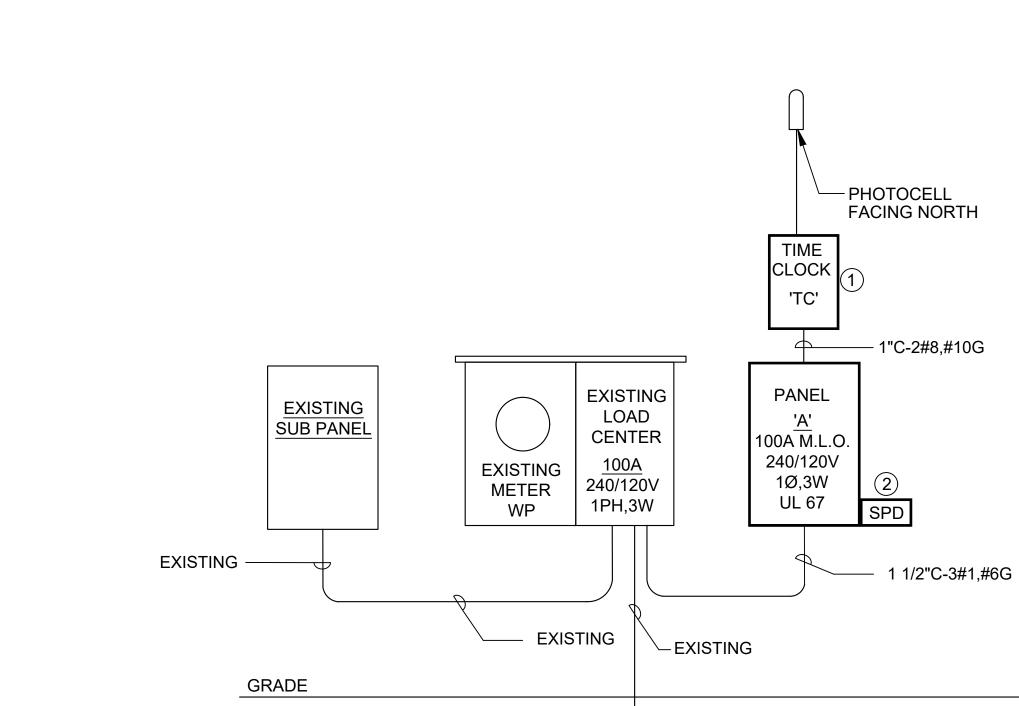
4,990 VA

WIRES: 3

PROPOSED ELECTRICAL RISER DIAGRAM NOT TO SCALE

= ← EXISTING GROUND ROD

NOT TO SCALE



B. THE ELECTRICAL DRAWINGS SHOW THE SCOPE AND THE GENERAL ARRANGEMENT OF ALL ELECTRICAL, EQUIPMENT, AND WIRING DEVICES AND SHALL BE FOLLOWED AS CLOSELY AS ACTUAL BUILDING CONSTRUCTION. SITE CONDITIONS, AND AS THE WORK OF OTHER TRADES PERMITS. THE ELECTRICAL DRAWINGS ARE DIAGRAMMATIC ONLY. AND ARE NOT INTENDED TO INCLUDE ALL THE DETAILS OR DIMENSIONS SHOWN ON THE ARCHITECTURAL. STRUCTURAL. OR MECHANICAL DRAWINGS. AND CONVERSELY THE SAME: HOWEVER, EACH DRAWING IS INTENDED TO SUPPLEMENT THE OTHERS. AND THE INTERPRETATION OF THE DRAWINGS SHALL BE SUCH THAT THE ARCHITECTURAL. STRUCTURAL. MECHANICAL OR ELECTRICAL DETAILS ARE INCLUDED ON ALL THE VARIOUS DRAWINGS. FIGURED DIMENSIONS, WHERE SHOWN, SHALL TAKE PRECEDENCE OVER SCALED DRAWINGS. WHEN NO FIGURES OR DIMENSIONS ARE NOTED. THE DRAWINGS SHALL BE ACCURATELY FOLLOWED. IN THE EVENT CERTAIN DETAILS AND ITEMS NECESSARY FOR THE COMPLETE BUILDING AND TO OBTAIN THE DESIRED RESULTS ARE OMITTED. FROM THE PLANS AND SPECIFICATIONS. THE CONTRACTOR SHALL REQUEST INSTRUCTIONS AND INSTALL SAME. THE FLECTRICAL WORK SHALL CONFORM TO THE REQUIREMENTS SHOWN ON ALL OF THE DRAWINGS. GENERAL AND STRUCTURAL DRAWINGS SHALL TAKE PRECEDENCE OVER ELECTRICAL DRAWINGS. THE CONTRACTOR SHALL INVESTIGATE THE STRUCTURAL AND FINISH CONDITIONS AFFECTING THE WORK AND SHALL ARRANGE HIS WORK ACCORDINGLY.

C. IN THE EVENT CERTAIN DISCREPANCIES ARE DISCOVERED BETWEEN PLANS AND SPECIFICATIONS AFTER BIDDING HAS TAKEN PLACE, THE INTERPRETATION OF THE INTENDED FUNCTION WILL BE BY THE OWNER. THE CONTRACTOR SHALL BEAR THE COST OF FURNISHING AND INSTALLING THE REQUIRED MATERIAL SO AS TO PROVIDE A COMPLETE AND WORKING SYSTEM.

1.02 SUBSTITUTION CLAUSE

EACH ITEM SPECIFIED HEREIN SHALL REQUIRE PRIOR APPROVAL OF THE ARCHITECT FOR ANY SUBSTITUTIONS. IF ANY CONTRACTOR WISHES TO BID ON ANY EQUIPMENT OTHER THAN THE MANUFACTURERS LISTED, HE SHALL REQUEST IN WRITING APPROVAL OF SAID EQUIPMENT ELEMENTS OF THE ELECTRICAL SYSTEMS. AT LEAST SEVEN (7) CALENDAR DAYS PRIOR TO BID DATE OR AS SET FORTH IN THE ARCHITECTURAL SPECIFICATIONS. (ARCHITECTURAL SPECIFICATIONS TAKE PRECEDENCE). ALL ITEMS SUBMITTED FOR PRIOR APPROVAL SHALL BE BOUND IN A BINDER AND SEPARATED WITH INDEX 1.14 OPERATING AND MAINTENANCE MANUALS

ALL LABOR, MATERIAL, SERVICES AND SKILLED SUPERVISION NECESSARY FOR CONSTRUCTION, ERECTION, INSTALLATION, AND CONNECTION OF ALL CIRCUITS AND ELECTRICAL EQUIPMENT SPECIFIED HEREIN OR SHOWN ON DRAWINGS, IN A WORKMAN LIKE MANNER. DELIVER TO OWNER UPON COMPLETION READY FOR USE IN ALL RESPECTS, THE FOLLOWING COMPLETE ELECTRICAL SYSTEM:

- COMPLETE SECONDARY SERVICES AND BRANCH CIRCUIT WIRING
- COMPLETE EQUIPMENT WIRING ALL LIGHTING FIXTURES COMPLETE WITH LAMPS AS SPECIFIED HEREIN
- TELEPHONE CONDUIT SYSTEM & PULL STRING FIRE ALARM AND WIRING OF DEVICES INDICATED
- ALL CONTROL WIRING FOR TEMPERATURE CONTROLS ALL TEMPORARY WIRING FOR LIGHTS AND POWER DURING CONSTRUCTION
- AUTOMATION WIRING FOR ALL EQUIPMENT SPECIFIED UNDER MECHANICAL SECTION ALL EMPTY RACEWAYS AS SHOWN ON PLANS WITH PULL STRING
- PUBLIC ADDRESS OR MUSIC SYSTEMS RELOCATION OF ANY EXISTING ELECTRICAL EQUIPMENT AS REQUIRED
- E. FAILURE TO MENTION ANY SPECIFIC ITEMS NECESSARY FOR A COMPLETE SYSTEM SHALL NOT EXCUSE THE CONTRACTOR FROM

1.04 CODES AND STANDARDS

FURNISHING AND INSTALLING SAME.

ALL MATERIALS AND WORKMANSHIP SHALL COMPLY WITH ALL APPLICABLE CODES, SPECIFICATIONS, LOCAL ORDINANCES, INDUSTRY STANDARDS, LATEST EDITION OF THE NEC, AND UTILITY COMPANY REGULATIONS. IN NO CASE WILL WORK OR MATERIALS INFERIOR TO THESE SPECIFICATIONS BE ACCEPTED EVEN IF PERMITTED BY CODE.

IN CASES OF DIFFERENCE BETWEEN BUILDING CODES, SPECIFICATIONS, STATE LAWS, LOCAL ORDINANCES, INDUSTRY STANDARDS AND UTILITY COMPANY REGULATIONS AND THE CONTRACT DOCUMENTS. THE MOST STRINGENT WILL GOVERN

1.05 COORDINATION

THE ELECTRICAL WORK SHALL BE COORDINATED WITH THE REQUIREMENTS OF THESE SPECIFICATIONS, AND ALSO WITH THE REQUIREMENTS OF THE OTHER DIVISIONS AND WITH ALL OF THE DRAWINGS FOR THE ENTIRE PROJECT. THE ELECTRICAL WORK SHALL BE ACCOMPLISHED ON SUCH A SCHEDULE AND IN SUCH A MANNER AS NOT TO DELAY NOR INTERFERE WITH OTHER CONSTRUCTION WORK.

B. THE CONTRACTOR SHALL PROMPTLY REPORT TO THE OWNER ANY DELAY OR DIFFICULTIES ENCOUNTERED IN THE INSTALLATION OF HIS WORK WHICH MIGHT PREVENT PROMPT AND PROPER INSTALLATION OF HIS WORK OR MAKE IT UNSUITABLE TO CONNECT OR RECEIVE THE WORK OF OTHERS. HIS FAILURE TO SO REPORT SHALL CONSTITUTE AN ACCEPTANCE OF THE WORK OF THE CONTRACTOR AS BEING FIT AND PROPER

THE CONTRACTOR SHALL CAREFULLY LAY OUT HIS WORK ON THE PREMISES AND MAKE PROPER PROVISION FOR THE OTHER WORK. OFFSETS SHALL BE MADE WHEREVER IT IS NECESSARY TO CLEAR FINISH ROOMS, STRUCTURAL MEMBERS, OR OTHER OBSTRUCTIONS. THE CONTRACTOR SHALL CAREFULLY PLAN HIS WORK SO AS TO MINIMIZE THE NUMBER OF OFFSETS REQUIRED.

D. THE CONTRACTOR SHALL ALSO CAREFULLY COORDINATE THE LOCATION OF ALL EQUIPMENT CONDUIT RUNS, FLOOR AND WALL PENETRATIONS FTC. WITH THE INSTALLATION OF WORK IN DIVISION 15000 AND OTHER SECTIONS OF THESE SPECIFICATIONS. ANY WORK INSTALLED BY THE CONTRACTOR WITHOUT CONSIDERING EQUIPMENT, DUCTWORK, PIPING, ETC., OF OTHER TRADES, SHALL BE CHANGED OR RELOCATED AS REQUIRED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER. THIS INCLUDES ALL ELECTRICAL DEVICES, SWITCHES, RECEPTACLES. PHONE/COMMUNICATION OUTLETS. ETC. THAT ARE MOUNTED IN WALLS ABOVE OR AROUND CABINETS. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY FINAL LOCATION AND MOUNTING HEIGHTS WITH ARCHITECTURAL CASEWORK/INTERIOR ELEVATIONS/DETAILS. WHERE APPLICABLE, THE CONTRACTOR SHALL ALSO VERIFY WITH THE OWNER OR OWNER'S REPRESENTATIVE FOR ANY SPECIFIC CONDITIONS OR REQUIREMENTS FOR ELECTRICAL DEVICES MENTIONED ABOVE.

ALL ELECTRICAL SERVICE AND TELEPHONE SERVICE REQUIREMENTS SHALL BE COORDINATED BY THE CONTRACTOR AS SHOWN ON PLANS AND CONFIRMED WITH THE UTILITY COMPANY BY THE CONTRACTOR TO ENSURE THAT UTILITIES ARE ACCEPTED BY THE UTILITY COMPANY IT CONCERNS.

THE CONTRACTOR SHALL ARRANGE CONDUITS, RACEWAYS AND ELECTRICAL EQUIPMENT TO PERMIT READY ACCESS TO COMPONENTS AND TO CLEAR THE OPENING TO SWINGING AND OVERHEAD DOORS AND OF ACCESS PANELS. THIS ALSO INCLUDES THE INSTALLATION OF ALL SERVICE DISCONNECTS AT MECHANICAL EQUIPMENT. THE CONTRACTOR SHALL MOUNT SERVICE DISCONNECTS ON AN ADJACENT WALL OR NON-REMOVABLE PANELS TO ALLOW REMOVABLE PANELS TO BE REMOVED FOR FUTURE SERVICING OF EQUIPMENT.

1.07 TEMPORARY LIGHT AND POWER

THE CONTRACTOR SHALL PROVIDE TEMPORARY FEEDERS OF SUFFICIENT CAPACITY FROM LOCAL BUILDING SERVICES OR FROM THE LOCAL UTILITY COMPANY AS APPLICABLE TO TAKE CARE OF THE ELECTRIC REQUIREMENTS FOR THE BUILDING DURING CONSTRUCTION. BASE TEMPORARY LIGHTS ON 200 WATT LAMPS PER 1,000 SQUARE FEET FLOOR SPACE. MOTORS UP TO 1/2 HP, 120 VOLT ONLY PROVIDED FOR. INSTALL SUFFICIENT WIRING AND OUTLETS TO INSURE PROPER LIGHTING CORRIDORS. NECESSARY TRANSFORMERS, METERS, CABLES, PROTECTIVE DEVICES, SWITCHES, ETC. PROVIDED AS REQUIRED. CONTRACTORS OF OTHER TRADES TO FURNISH THEIR OWN EXTENSION CORDS AND LAMPS AND SHALL PAY FOR THE COST OF WIRING OF CONSTRUCTION OFFICES USED BY THEM. GENERAL CONTRACTOR TO PAY FOR THE COST OF ENERGY CONSUMED BY ALL TRADES, INCLUDING THE COST OF LAMP REPLACEMENT. ANY TEMPORARY WIRING OF SPECIAL NATURE FOR LIGHT SHALL BE PAID FOR BY THE CONTRACTOR USING SAME. TEMPORARY CONNECTIONS SHALL BE SAFE AND IN ACCORDANCE WITH NEC AND OSHA.

1.08 RECORD DRAWINGS ("AS-BUILTS")

RECORD DRAWINGS - THE CONTRACTOR SHALL FURNISH TO THE OWNER AND ARCHITECT RECORD DRAWINGS SHOWING CONDUIT SYSTEMS WHERE APPLICABLE. CONDUIT SIZES, REROUTING, ETC., FOR UNDER FLOOR CONDUITS SHALL BE SHOWN. ALSO PROVIDE A REPRODUCIBLE TRACING OF THE SITE PLAN SHOWING POWER, TELEPHONE, CABLE, TV, SITE LIGHTING, ETC. IN ADDITION TO THESE DRAWINGS, A COMPLETE SET OF DRAWINGS FOR FIRE ALARM AND COMMUNICATION SYSTEM.

AND THE CORRECT BRANCH CIRCUIT NUMBER, AS INSTALLED. ALSO LEAVE LEGIBLE CIRCUIT CARD IN POCKET OF BREAKER PANEL DOOR. 1.09 EQUIPMENT AND MATERIALS

TYPEWRITTEN OR NEATLY HAND WRITTEN PANEL SCHEDULES SHALL BE PROVIDED FOR PANELBOARDS INDICATING THE LOADS SERVED

ALL MATERIALS SHALL BE NEW AND SHALL BEAR THE MANUFACTURER'S NAME, TRADE NAME AND THE UL LABEL IN EVERY CASE WHERE A STANDARD HAS BEEN ESTABLISHED FOR THE PARTICULAR MATERIAL. THE EQUIPMENT TO BE FURNISHED UNDER EACH SECTION OF THE SPECIFICATIONS SHALL BE ESSENTIALLY THE STANDARD PRODUCT OF A UNITED STATES OF AMERICA MANUFACTURER REGULARLY ENGAGED IN THE PRODUCTION OF THE REQUIRED TYPE OF EQUIPMENT AND SHALL BE THE MANUFACTURER'S LATEST AND APPROVED DESIGN.

DELIVERY AND STORAGE: EQUIPMENT AND MATERIALS SHALL BE DELIVERED TO THE SITE AND STORED IN ORIGINAL CONTAINERS, SUITABLY SHELTERED FROM THE ELEMENTS, BUT READILY ACCESSIBLE FOR INSPECTION UNTIL INSTALLED. ALL ITEMS SUBJECT TO MOISTURE DAMAGE SHALL BE STORED IN DRY, HEATED SPACES.

EQUIPMENT AND MATERIALS OF THE SAME GENERAL TYPE SHALL BE OF THE SAME MAKE THROUGH THE WORK TO PROVIDE UNIFORM APPEARANCE, OPERATION AND MAINTENANCE.

FROM DAMAGE. UNINSTALLED EQUIPMENT SHALL REMAIN CRATED AND COVERED WITH CANVAS OR HEAVY PLASTIC TARPAULINS UNTIL INSTALLED. EQUIPMENT THAT IS BEING INSTALLED. OR HAS BEEN INSTALLED. SHALL BE PROTECTED AGAINST DIRT. WATER. CONSTRUCTION DEBRIS. WEATHER. THEFT, AND CHEMICAL OR MECHANICAL DAMAGE. ALL DAMAGED EQUIPMENT SHALL BE REPAIRED AND/OR REPLACED. AT THE COMPLETION OF THE WORK, ALL FIXTURES, EQUIPMENT, AND MATERIALS SHALL BE THOROUGHLY CLEANED AND POLISHED. THE CONTRACTOR SHALL REPAIR AND CORRECT, AT HIS OWN EXPENSE, ALL DAMAGES AND DEFECTS WHICH DEVELOP BEFORE THE WORK IS ACCEPTED BY THE OWNER.

SAFETY WARNING SIGNS SHALL BE FURNISHED AND INSTALLED AT ALL ELECTRICAL EQUIPMENT AND SWITCHGEAR.

DIMENSIONS: IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO INSURE THAT ITEMS TO BE FURNISHED FIT THE SPACE AVAILABLE. HE SHALL MAKE NECESSARY FIELD MEASUREMENTS TO ASCERTAIN SPACE REQUIREMENTS, INCLUDING THOSE FOR CONNECTIONS, AND SHALL FURNISH AND INSTALL SIZES AND SHAPES OF EQUIPMENT SO THAT THE FINAL INSTALLATION SHALL SUIT THE TRUE INTENT AND MEANING OF THE DRAWINGS AND SPECIFICATIONS

MANUFACTURER'S DIRECTIONS SHALL BE FOLLOWED COMPLETELY IN DELIVERY, STORAGE, PROTECTION AND INSTALLATION OF ALL EQUIPMENT AND MATERIALS. THE CONTRACTOR SHALL PROMPTLY GIVE NOTICE IN WRITING OF ANY CONFLICT BETWEEN ANY REQUIREMENT OF THE CONTRACT DOCUMENTS AND THE MANUFACTURER'S DIRECTIONS AND SHALL OBTAIN THE WRITTEN INSTRUCTION BEFORE PROCEEDING WITH THE WORK. SHOULD THE CONTRACTOR PERFORM ANY WORK THAT DOES NOT COMPLY WITH THE MANUFACTURER'S DIRECTIONS OR SUCH WRITTEN INSTRUCTIONS, HE SHALL BEAR ALL COSTS ARISING IN CORRECTING THE DEFICIENCIES.

1.10 EQUIPMENT ACCESSORIES

THE CONTRACTOR SHALL FURNISH AND INSTALL ALL EQUIPMENT, ACCESSORIES, CONNECTIONS, AND INCIDENTAL ITEMS NECESSARY TO FULLY COMPLETE THE WORK, READY FOR USE, OCCUPANCY AND OPERATION BY THE OWNER.

WHERE EQUIPMENT REQUIRING DIFFERENT ARRANGEMENT OF CONNECTIONS FROM THOSE SHOWN OR APPROVED, IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO INSTALL THE EQUIPMENT TO OPERATE PROPERLY AND IN HARMONY WITH THE INTENT OF THE DRAWINGS AND SPECIFICATIONS. THE CONTRACTOR SHALL MAKE ALL INCIDENTAL CHANGES IN HEATERS, PANELBOARD, CONDUIT, WIRING, ETC HE SHALL PROVIDE ANY ADDITIONAL MOTORS. CONTROLLERS. AND OTHER ADDITIONAL EQUIPMENT REQUIRED FOR THE PROPER OPERATION OF THE SYSTEM RESULTING FROM THE SELECTION OF EQUIPMENT, INCLUDING ALL REQUIRED CHANGE IN AFFECTED TRADES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROPER LOCATION OF ROUGHING-IN AND CONNECTIONS. SUCH CHANGES SHALL BE MADE AT NO INCREASE IN THE CONTRACT AMOUNT OR ADDITIONAL COST TO THE OTHER TRADES.

ANCHORS, BOLTS, AND SCREWS: SECURELY FASTEN CONDUIT STRAPS, CUTOUT SWITCHES, ETC., TO WALLS, SLABS, ETC., WITH CADMIUM PLATED SCREWS AND ACKERMAN-JOHNSON LEAD CINCH ANCHORS, EXPANSION BOLTS OR APPROVED EQUAL ANCHORS, FITTED IN HOLES DRILLED WITH STAR DRILL, AND FOR MORE SEVERE SERVICES, USE LEAD CINCH ANCHOR BOLTS OR APPROVED MANUFACTURER. FOR EXPOSED WORK, USE CADMIUM PLATED BOLTS. WOOD PLUGS WILL NOT BE ACCEPTED.

1.11 ELECTRICAL WORKMANSHIP

WHEREVER EQUIPMENT REQUIRING ELECTRICAL CONNECTION IS SPECIFIED, ALL WORKMANSHIP AND MATERIALS SHALL CONFORM WITH THE REQUIREMENTS OF THE ELECTRICAL SECTION OF THE SPECIFICATIONS. ALL DISCONNECT SWITCHES, STARTERS, PUSH BUTTON STATIONS, AND HAND-OFF AUTO SWITCHES SHALL BE FURNISHED, INSTALLED AND WIRED BY THE CONTRACTOR EXCEPT WHERE LISTED SPECIFICALLY TO BE FURNISHED WITH THE ITEM OF FOUIPMENT IT CONTROLS. IN WHICH CASE THE CONTRACTOR SHALL MOUNT AND WIRE COMPLETELY. ADDITIONAL DISCONNECTS REQUIRED BY THE ELECTRICAL CODE SHALL BE FURNISHED, INSTALLED AND CONNECTED UNDER THE ELECTRICAL SECTION OF THE SPECIFICATIONS.

B. COORDINATION: THE CONTRACTOR SHALL CHECK THE MECHANICAL AND ELECTRICAL DRAWINGS AND SPECIFICATIONS TO ASSURE THE PROPER LOCATION AND ELECTRICAL SERVICE CHARACTERISTICS TO THE INDIVIDUAL OUTLETS SERVING MECHANICAL AND ELECTRICAL EQUIPMENT AND SHALL REQUEST APPROVAL OF ANY REQUIRED MODIFICATION TO SUIT THE ACTUAL EQUIPMENT TO BE FURNISHED.

IDENTIFICATION FOR ELECTRICAL EQUIPMENT AND CIRCUITS SHALL BE PROVIDED AND FURNISHED UNDER THIS SECTION, USING ITEM NUMBERS AND NOMENCLATURE AS SHOWN ON THE ELECTRICAL DRAWINGS, OR AS INSTRUCTED BY THE ARCHITECT

ALL SWITCHGEAR, DISTRIBUTION PANELBOARDS, TRANSFORMERS, PANELBOARDS, DISCONNECTS, ASSOCIATED MOTOR STARTERS CONTACTORS. AND TIME CLOCKS FURNISHED BY THE CONTRACTOR SHALL BE IDENTIFIED, BY NAMEPLATES INDICATING DESIGNATED LEGEND,

1.12 SYSTEM OPERATING TESTS

NECESSARY TESTS AND ADJUSTMENTS: ALL NECESSARY TESTS AND ADJUSTMENTS FOR THE PROPER OPERATION OF THE ELECTRICAL SYSTEM SHALL BE PERFORMED BY THE CONTRACTOR WITH INSTRUMENTS FURNISHED BY HIM FOR THIS PURPOSE. THE TEST RESULTS SHALL BE SUBMITTED IN WRITING TO THE ARCHITECT FOR REVIEW AND APPROVAL.

1.13 INSTRUCTIONS TO OWNER A. THE CONTRACTOR SHALL INSTRUCT THE OPERATING PERSONNEL OF THE OWNER IN THE PROPER OPERATION AND MAINTENANCE OF ALL

A. SPARE PARTS LISTS, OPERATING INSTRUCTIONS, MANUFACTURER'S RECOMMENDED PREVENTATIVE MAINTENANCE INSTRUCTIONS AND SPECIFICATIONS SHEETS FOR EACH ITEM OF THE ELECTRICAL EQUIPMENT SHALL BE SUBMITTED, IN TRIPLICATE, BY THE CONTRACTOR AT THE PAY APPLICATION FOR 75% COMPLETION. ALL PAYMENT REQUEST OVER 75% WILL BE DENIED UNTIL THIS INFORMATION IS RECEIVED.

SECTION 26 05 34 - CONDUITS, CONDUIT FASTENINGS, AND CONDUIT FITTINGS

VOLTAGE AND PHASE AND SHALL BE SECURELY FASTENED TO THE EQUIPMENT

A. ALL WIRES AND CABLES SHALL BE RUN IN CONDUIT, WHICH SHALL BE STANDARD HEAVY WALL, INTERMEDIATE, OR ELECTRIC METALLIC TUBING (EMT). RIGID PVC CONDUIT MAY BE USED FOR UNDERGROUND WORK IF APPROVED BY LOCAL CODE.

A. RIGID CONDUIT: THICK WALL HOT-DIPPED GALVANIZED, ASA STANDARD SPECIFICATION NO. C80-1, ENAMELED INSIDE AND OUT JOINTS SHALL BE WATERTIGHT THREADED TYPE WITH APPROVED SEALANT APPLIED TO MALE THREADS.

B. ELECTRIC METALLIC TUBING (EMT): ELECTRO-GALVANIZED, ANSI STANDARD SPECIFICATION NO. C80-3, ENAMELED INSIDE AND OUT.

FITTINGS SHALL BE ALL STEEL COMPRESSION TYPE AS MFD. BY T & B. C. RIGID STEEL AND EMT CONDUITS AS MANUFACTURED BY YOUNGSTOWN, TRIANGLE, GENERAL ELECTRIC, NATIONAL, REPUBLIC, OR ALLIED.

D. PVC CONDUIT, USED FOR UNDERGROUND INSTALLATION, SHALL BE AT LEAST 2 FEET BELOW FINISHED GRADE IN HARDSCAPE AND 18' BELOW FINISHED GRADE IN LANDSCAPE AREAS. ALL JOINTS SHALL BE WATERTIGHT. WHERE STUBBED UP THROUGH FLOOR, SLAB OR ABOVE GRADE, A 90° RIGID GALVANIZED ELBOW SHALL BE USED WITH RIGID GALVANIZED STUB UP TO 2 INCHES ABOVE GRADE. A BARE GROUND WIRE TO MEET CODE REQUIREMENTS SHALL BE INSTALLED WITH ALL CIRCUITS PULLED INTO PVC CONDUITS. CONDUIT SHALL BE AS MANUFACTURED BY CARLON. JOINT SEALANT SHALL BE AS PER MANUFACTURER'S RECOMMENDATION FOR SPECIAL PIPE. SCHEDULE 40 PVC WHERE SUBJECT TO

E. CONDUIT SUPPORTS: ALL CONDUITS SHALL BE SECURED IN PLACE WITH APPROVED STRAPS, HANGER, OR CLAMPS PER NEC. NO WIRE FOR SUPPORT WILL BE ALLOWED.

U.S. GRAY LIQUID TIGHT NEOPRENE JACKETED FLEXIBLE CONDUIT AS MANUFACTURED BY ANACONDA. FITTINGS SHALL BE LIQUID TIGHT INSULATED THROAT TYPE AS MANUFACTURED BY T. & B. BX WILL NOT BE PERMITTED.

F. FLEXIBLE CONDUIT: CONDUIT CONNECTIONS TO MOTORS AND VIBRATING EQUIPMENT SHALL BE MADE WITH 18-INCH MAXIMUM OF TYPE

CONDUITS INSTALLED IN OR UNDER CONCRETE OR BELOW GRADE SHALL BE THICK WALL PVC (SCH. 80) OR RIGID STEEL IF REQUIRED BY LOCAL CODES. SERVICE CONDUITS EXPOSED SHALL BE RIGID STEEL.

B. ALL POWER AND LIGHTING CONDUITS IN BUILDING SHALL BE EMT UNLESS OTHER TYPE IS REQUIRED BY LOCAL CODES.

C. USE FACTORY ELBOWS FOR 1-1/2" CONDUIT AND LARGER.

D. WHERE FLEXIBLE CONDUIT IS USED FROM OUTLET BOXES TO LIGHTING FIXTURES, USE 1/2" INCH FLEXIBLE METAL CONDUIT WITH AN APPROVED GROUNDING CONDUCTOR. MC CABLE WITH APPROVED GROUNDING CONDUCTOR IS ALLOWED.

QUANTITY OF CONDUCTORS IN CONDUIT, PER NEC.

REAM AND CLEAN CONDUIT BEFORE INSTALLATION AND PLUG OPENINGS AND BOXES TO KEEP THEM CLEAN DURING CONSTRUCTION.

G. ALL EXPOSED CONDUIT SHALL RUN NEATLY AT RIGHT ANGLES PLUMB AND PARALLEL TO WALLS. ALIGN CONDUIT TERMINATIONS AT

PANELBOARDS SWITCHBOARDS JUNCTION BOXES ETC. AND INSTALL PLUMB. PROVIDE SUPPORTS AS REQUIRED TO HOLD ALIGNMENT. H. CONDUITS SHALL BE NEATLY GROUPED WHERE SEVERAL LINES FOLLOW A PARALLEL COURSE. THEY SHALL BE WALL SUPPORTED, USING

ON ALL CONDUIT RUNS AND SHALL NOT EXCEED 8'-0" ON CENTER.

SECTION 26 05 21 - WIRES AND CABLES (0-1000V

ALL WIRES SHALL BE SOFT DRAWN, ANNEALED COPPER HAVING CONDUCTIVITY NOT LESS THAN 98% OF PURE COPPER AND WITH 600V THERMO-PLASTIC INSULATION. WIRE SHALL CONFORM TO THE LATEST REQUIREMENT OF THE NEC, MEET ASME AND ANSI SPECIFICATIONS AND SHALL BE STANDARD AWG SIZE.

2.01 PRODUCTS

LIGHTING AND RECEPTACLE. BRANCH MOTOR POWER AND PANEL FEEDERS CIRCUITS SHALL HAVE TYPE THHN/THWN/MTW INSULATION BUILDING WIRE (UNLESS OTHERWISE REQUIRED). ALL CONDUCTORS INSTALLED IN DAMP OR WET LOCATIONS OR UNDER GRADE SHALL HAVE INSULATION MEETING NEC. ALL WIRING INSTALLED IN HIGH-TEMPERATURE AREAS SHALL HAVE INSULATION RATED FOR THE AMBIENT

ALL STRANDED CONDUCTORS SHALL BE FURNISHED WITH FINISHED FORGED COPPER CONNECTING LUGS, DRILLED OR REAMED THE FULL DIAMETER OF BASE CONDUCTORS.

ALL MAINS AND FEEDERS ARE TO RUN THE ENTIRE LENGTH IN CONTINUOUS LENGTHS WITHOUT JOINTS OR SPLICES. JOINTS IN BRANCH CIRCUITS SHALL OCCUR ONLY AT OUTLETS AND J BOXES WITH NO SPLICES OR TAPS IN CONDUITS.

D. PHASE COLORS PER ELECTRICAL STANDARDS.

MC CABLES PERMITTED AS ALLOWED BY LOCAL CODE AND 6 FEET OR LESS IN LENGTH MAY BE USED FOR TERMINATING LIGHTING FIXTURES IN SUSPENDED CEILINGS AND WHERE FISHED BETWEEN ACCESS POINTS THROUGH CONCEALED SPACES IN FINISHED BUILDINGS OR STRUCTURES AND SUPPORTING IS IMPRACTICAL.

SECTION 26 05 32 - OUTLET BOXES, CONDUIT BOXES AND FITTINGS

A. SIZE ALL BOXES IN ACCORDANCE WITH NEC 314.16.

2.01 PRODUCT

LIGHTING OUTLETS SHALL BE STANDARD 4-INCH OUTLET BOXES PROVIDED WITH 3/8" MALLEABLE IRON FIXTURE STUDS AND BOX HANGERS WHERE REQUIRED.

SWITCH AND RECEPTACLE OUTLETS LOCATED IN WALLS SHALL BE STANDARD SINGLE OR GANGED 4-INCH BOXES WITH COVERS AS REQUIRED FOR CONCEALED WORK

PROTECTION OF WORK: THE CONTRACTOR SHALL TAKE PRECAUTIONS AT ALL TIMES TO PROPERLY PROTECT THE ELECTRICAL EQUIPMENT B.

LIGHTING OUTLETS SHALL BE WEATHERPROOF DIE-CAST ALUMINUM ROUND BOXES.

2. SWITCH AND RECEPTACLE OUTLETS SURFACE-MOUNTED SHALL BE TYPES FS AND FD

BOXES SHALL BE MANUFACTURED BY APPLETON ELECTRIC CO., UNIVERSAL, RACO, NATIONAL ELECTRIC PRODUCTS, CROUSE-HINDS OR

SECTION 26 05 31 - SPLITTERS, JUNCTION BOXES, PULL BOXES AND CABINETS

SIZE PER NEC 314.16 FOR CONDUCTORS SMALLER THAN #4AWG, OR PER NEC 314.28 FOR CONDUCTORS #4AWG AND LARGER BOXES SHALL HAVE REMOVABLE SCREW COVERS FOR INSTALLATION AS INDICATED ON THE PLANS.

ABOVE-GRADE: GALVANIZED STEEL APPLETON, UNIVERSAL, RACO, NATIONAL ELECTRIC PRODUCTS, OR STEEL CITY. IN-GRADE: CONCRETE OR COMPOSITE POLYMER, OLD CASTLE, CROUSE-HINDS

ABOVE-GRADE: BOX SHALL BE SECURELY MOUNTED WITH SUPPORTS INDEPENDENT OF THE CONDUITS ENTERING OR LEAVING THE BOXES.

SECTION 26 27 26 - WIRING DEVICES

PROVIDE EACH SWITCH AND RECEPTACLE OUTLET UNLESS OTHERWISE NOTED OR HEREIN SPECIFIED WITH UNDERWRITER'S APPROVED SPECIFICATION GRADE DEVICES AS LISTED BELOW:

CATALOG NUMBERS ARE HUBBELL WIRING CO., UNLESS NOTED OTHERWISE.

A. WALL SWITCHES; 120/277V, 20A ROCKER SWITCH

PART# SNAP2121 (SPST); SNAP2123 (3-WAY) SLIDING DIMMER SWITCH, 1000W AS103

RECEPTACLES (5-20R) PART# DUPLEX 125V/20A HBL5352

> CONTROLLED DUPLEX BR20C1 OR BR20C2 OR AS INDICATED IN PLANS GFCI DUPLEX 125V/20A GFR5362G DEVICE PLATES: ALL SWITCHES AND RECEPTACLES SHALL BE EQUIPPED WITH SMOOTH NYLON PLATES. WHERE UNITS ARE GROUPED

TOGETHER. THEY SHALL BE UNDER ONE COMMON PLATE. COLOR PER ARCHITECTURAL SPECIFICATIONS. PLATES SHALL BE STAINLESS STEEL IN ALL KITCHEN AREAS OF RESTAURANTS, MECHANICAL ROOMS, AND AREAS SUBJECT TO DAMAGE.

D. THE ABOVE SPECIFIED DEVICES ARE HUBBELL AND CONSTITUTE THE QUALITY AND TYPE OF DEVICES. COMPARABLE DEVICES AS MANUFACTURED BY P & S, WOODHEAD, & ARROW HART WILL BE ACCEPTABLE.

A. MOUNT SWITCHES 48" ABOVE FLOOR TO CENTERLINE OF BOX UNLESS OTHERWISE NOTED

B. COORDINATE SWITCH MOUNTING LOCATION WITH DETAILS.

C. MOUNT WALL RECEPTACLES 12" ABOVE FLOOR UNLESS OTHERWISE NOTED

SECTION 26 28 23 - DISCONNECT SWITCHES - FUSED AND NON-FUSE

1.01 GENERAL

PROVIDE AND INSTALL ALL CIRCUIT DISCONNECT SWITCHES AS INDICATED ON PLANS AND SPECIFIED HEREIN

A. DISCONNECT SWITCHES SHALL BE TYPE H.D. HEAVY DUTY, QUICK-MAKE QUICK-BREAK HORSEPOWER RATED, AND IN NEMA 1 ENCLOSURE UNLESS OTHERWISE NOTED. UNITS IN OUTDOOR LOCATIONS SHALL BE NEMA 3R ENCLOSURES UNLESS OTHERWISE NOTED.

B. UNITS SHALL HAVE VISIBLE CIRCUIT CONDITION IDENTIFICATION AND SHALL BE COVER INTERLOCKED. PROVISIONS SHALL BE MADE FOR PADLOCKING THE HANDLE IN THE "OFF" OR "ON" POSITION.

C. ALL FUSED UNITS SHALL BE EQUIPPED WITH FUSETRON CARTRIDGE FUSES AS MANUFACTURED BY BUSSMAN MANUFACTURING D. ALL SWITCHES THROUGHOUT SHALL BE OF THE SAME MANUFACTURER AND SHALL HAVE U.L. LABEL. UNITS SHALL BE AS MANUFACTURED

SECTION 26 24 01 - SERVICE EQUIPMENT (TEMPORARY

REQUIRED TO PERFORM THEIR OWN WORK.

BY GENERAL ELECTRIC, SQUARE D, EATON OR SIEMENS.

A. CONTRACTOR SHALL HAVE RESPONSIBILITY FOR THE BASIC TEMPORARY WIRING, ALONG WITH MAINTENANCE THROUGHOUT THE DURATION OF THE PROJECT. BASIC TEMPORARY WIRING SHALL INCLUDE LIGHTING, POWER AND WIRING REQUIREMENTS FOR TEMPORARY CONSTRUCTION USE. IT IS NOT TO FORESEE ALL THE USAGE FOR TEMPORARY; HENCE, ONLY THE BASIC ITEMS SHOULD BE INVOLVED AND IF ADDITIONAL POWER OR LIGHTING IS REQUIRED, THEN THOSE REQUIRING SAME SHALL MAKE PROVISIONS FOR TEMPORARY LIGHTING AS

ALL UTILITY CHARGES OR ELECTRICAL USE SHALL BE PAID BY OTHERS

THE CHARGES BY THE UTILITY COMPANY FOR PROVIDING SERVICE CONNECTIONS SHALL BE INCORPORATED AS A PART OF THESE SPECIFICATIONS AND SHALL BE PAID BY THE ELECTRICAL CONTRACTOR.

THE TEMPORARY SERVICE SHALL BE 1 PHASE, 3 WIRE MINIMUM IN LOCATIONS AS REQUIRED. THE ELECTRICAL SERVICE AND SERVICING EQUIPMENT SHALL BE IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE AND THE REQUIREMENTS OF THE SERVICING UTILITY COMPANY RECEPTACLES SHALL BE SPACED SO THAT ALL PARTS OF THE WORK AREA MAY BE REACHED BY A 50-FOOT EXTENSION CORD FOR 120 /OLT APPLIANCES, AND 100 FOOT EXTENSION CORD FOR 208 VOLT OR 240 VOLT EQUIPMENT. DISTANCES FOR LENGTH OF EXTENSION CORDS

SHALL BE MEASURED HORIZONTALLY ALONG FLOOR LINES. THESE APPLIANCE CIRCUITS SHALL BE LIMITED TO 20 AMPERE.

THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR FURNISHING, INSTALLING, MAINTAINING, AND REMOVING THE TEMPORAR LIGHTING AND POWER WIRING AS HEREIN DESCRIBED. THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR ONLY THIS AMOUNT OF WORK AND IF ADDITIONAL TEMPORARY WIRING IS REQUIRED BY ANY CONTRACTOR, THEN THE COST OF SAME SHALL BE BORNE BY THOSE

B. ADEQUATE LIGHTING SHALL BE PROVIDED IN PASSAGEWAYS AND STAIRWAYS. ARTIFICIAL ILLUMINATION, WHEN REQUIRED, SHALL BE AS

PER O.S.H.A. REQUIREMENTS. C. PROVIDE GROUND-FAULT CIRCUIT PROTECTION IN ACCORDANCE WITH N.E.C.

<u>SECTION 26 05 28 - GROUNDING - SECONDARY</u>

A. THE IDENTIFIED (WHITE OR GRAY) NEUTRAL AND THE COMPLETE CONDUIT SYSTEM SHALL BE EFFECTIVELY GROUNDED PER ARTICLE 250 OF

NEC. IDENTIFIED NEUTRAL SHALL BE RUN IN CONDUIT WITH OTHER CONDUCTORS AND SHALL BE INSULATED COPPER.

2.01 PRODUCTS ALL GROUNDING CONDUCTORS SHALL BE GREEN AND MARKED AS REQUIRED WHEN INDICATED ON CONDUIT RUNS. THE GROUND WIRE RING OR TRAPEZE-TYPE HANGERS. PERFORATED STRAP HANGERS OR TWISTED WIRE SHALL NOT BE ACCEPTED. HANGERS SHALL BE INSULATED COPPER. GROUNDING CLAMPS SHALL BE OF THE APPROVED TYPE AND GROUND CONNECTIONS SHALL BE SUCH THAT RESISTANCE WILL NOT INCREASE WITH PASSAGE OF TIME. MAXIMUM GROUND RESISTANCE SHALL NOT EXCEED 25 OHMS UNLESS OTHERWISE

3.01 INSTALLATION

A. FOLLOWING ARE INCLUDED AS REQUIRED GROUNDED: ELECTRIC SERVICE, ITS EQUIPMENT AND ENCLOSURES, CONDUITS AND OTHER CONDUCTOR ENCLOSURES, NEUTRAL OR IDENTIFIED CONDUCTORS OF WIRING SYSTEM, MAIN SWITCH, POWER AND LIGHTING PANELBOARDS TRANSFORMERS, NONCURRENT-CARRYING METAL PARTS OF FIXED EQUIPMENT SUCH AS MOTORS, STARTERS, CONTROLLERS AND LIGHTING

SECTION 26 24 17 - PANELBOARDS BREAKER TYPE

A CONTRACTOR SHALL FURNISH AND INSTALL ALL DISTRIBUTION POWER AND LIGHTING PANELBOARDS AS HEREIN AFTER DESCRIBED AND AS

3.01 INSTALLATION

SCHEDULED ON PLANS. PANELBOARDS SHALL BE DEAD-FRONT TYPE, MANUFACTURED IN ACCORDANCE WITH THE LATEST NEMA STANDARDS AND BEAR THE UL LABEL. 2.01 PRODUCTS

A PANELBOARDS SHALL BE MOUNTED IN CODE GAUGE GALVANIZED SHEET STEEL CABINETS WITH A 4-INCH MINIMUM GUTTER SPACE ON ALL

EQUIPPED WITH DIRECTORY FRAME AND CARDS COMPLETELY TYPEWRITTEN OUT FOR PROPER BRANCH CIRCUIT IDENTIFICATION AND PLASTIC COVER. PANEL FRONTS SHALL BE FINISHED WITH ONE COAT OF BONDERIZED. ONE COAT OF PRIMER AND SURFACER, AND ONE COAT OF GRAY LACQUER FINISH.

PANEL INTERIORS SHALL BE RIGIDLY MOUNTED ON STEEL SUPPORTS WITH SELF-SUPPORTING BUS-BAR STRUCTURE ON INSULATING

SHALL BE CHANGEABLE WITHOUT ALTERING BUSSING. ALL TERMINALS SHALL BE OF THE SOLDERLESS ANTI-TURN TYPE SUITABLE FOR COPPER

BASES. ALL INDIVIDUAL BRANCHES SHALL BE REMOVABLE WITHOUT DISTURBING ADJACENT UNITS. BUSSING OR CONNECTORS. BRANCHES

SIDES CABINETS SHALL BE FOLJIPPED WITH ADJUSTABLE MOUNTING STUDS AND TRIM CLAMPS. FRONTS TO INCLUDE PAINTED STEEL FRAME

SEMILCONCEALED HINGED DOOR WITH FLUSH CHROME PLATED COMBINATION CYLINDER LOCK AND CATCH, ALL KEYED ALIKE, DOOR SHALL BE

OR ALUMINUM WIRE. BRANCHES SHALL BE ARRANGED FOR BUSSES TO MAINTAIN SEQUENCE PHASING. BRANCHES: SHALL COMPLY WITH FOLLOWING: MOLDED CASE BREAKERS SHALL BE DEION TYPE, WITH QUICK-MAKE, QUICK-BREAK MECHANISM FOR MANUAL AND AUTOMATIC OPERATION; THE UNITS INVERSE TIME TYPE CHARACTERISTICS SHALL BE BI-METALLIC TRIPPING ON OVERLOADS AND MAGNETIC TRIPPING ON FAULTS. TWO-POLE AND THREE-POLE UNITS SHALL HAVE COMMON TRIP. ALL UNITS SHALL BE OF THE

INDICATE ON/OFF AND TRIPPED POSITIONS OF THE HANDLE. D. 120/240 VOLT PANELBOARDS: 1 PHASE, 3 WIRE, SOLID NEUTRAL DESIGN WITH SEQUENCE STYLE BUSSING AND FULL CAPACITY NEUTRAL, COMPOSED OF AN ASSEMBLY OF BOLT-IN-PLACE MOLDED CASE CIRCUIT BREAKERS WITH THERMAL AND MAGNETIC TRIP AND TRIP FREE POSITION SEPARATE FROM EITHER "ON" OR "OFF" POSITIONS. PROVIDE COMMON SIMULTANEOUS TRIP FOR 2 POLE BREAKERS. PROVIDE INTERRUPTING RATINGS AS REQUIRED BY LOCAL UTILITY.

E. BUS BARS SHALL BE 98% COPPER. PROVIDE ALTERNATE BID FOR ALUMINUM BUS BARS.

F. PANELS SHALL BE MANUFACTURED BY SQUARE D COMPANY, G.E., EATON OR SIEMENS.

A. PANELS SHALL BE SECURELY MOUNTED TO WALLS OR RECESSED CAVITIES.

B. PANEL SPACES SHALL BE EQUIPPED WITH BLANK COVERS.

C. UTILIZATION AND ADEQUATE DISSIPATION OF HEAT

SECTION 26 50 00 - LIGHTING INTERIOR

 THIS SECTION INCLUDES SUPPLY AND INSTALLATION OF LUMINAIRES, SUPPORTS AND ACCESSORIES; AND SUPPLY OF PLASTER FRAMES. IRIM RINGS AND BACK BOXES FOR PLASTER OR DRYWALL CEILINGS OR CONCRETE. RECESSED FIXTURES ABOVE 100 WATTS SHALL BE EQUIPPED WITH A THERMAL CUT OUT DEVICE WHEN INSTALLED IN PLASTER OR DRY WALL CEILING.

A. SUBMIT PRODUCT PERFORMANCE DATA IN ACCORDANCE WITH SECTION 16000.

B. SUBMIT PRODUCT INFORMATION INDICATING PERTINENT PHYSICAL CHARACTERISTICS.

C. SUBMIT SAMPLES OF LUMINAIRES PRIOR TO FINAL PRODUCTION IF REQUESTED.

A. CONFIRM COMPATIBILITY AND INTERFACE OF OTHER MATERIALS WITH LUMINAIRE AND CEILING SYSTEM. REPORT DISCREPANCIES TO THE ARCHITECT, AND DEFER ORDERING UNTIL CLARIFIED.

C. CONTRACTOR SHALL COORDINATE WITH ARCHITECTURAL CEILINGS PLANS FOR ALL MOUNTING OF LIGHT FIXTURES IN CEILINGS. SUPPLY

B. COORDINATE WITH DIVISION 15 TO AVOID CONFLICTS BETWEEN LUMINAIRES, SUPPORTS, FITTINGS, AND MECHANICAL EQUIPMENT.

NECESSARY KITS/RINGS AND HARDWARE TO MOUNT FIXTURES 1.04 REQUIREMENTS OF REGULATORY AGENCIES

A. ALL LIGHT FIXTURES SHALL BE APPROVED BY LOCAL AUTHORITY FOR THE TYPE OF APPLICATION FIXTURE HAS BEEN UTILIZED.

2.01 ACCEPTABLE MANUFACTURERS SHALL BE AS SPECIFIED ON FIXTURE SCHEDULE

CWA ACCESSIBLE FROM BELOW THE CEILING.

A. RECESSED LUMINAIRES: PREWIRED TYPE WITH JUNCTION BOX FORMING AN INTEGRAL PART OF THE ASSEMBLY. SPLICE BOX ASSEMBL'

B. SUPPLY RECESSED LUMINAIRES COMPLETE WITH TRIM TYPE REQUIRED FOR CEILING SYSTEM INSTALLED. BEFORE ORDERING, CONFIRM CEILING CONSTRUCTION DETAILS AND ARCHITECTURAL FINISH FOR EACH AREA.

THIS PROFILE, CAST ALUMINUM FRAME WITH CAST ALUMINUM FACEPLATES 6 INCHES HIGH CUTOUT LETTERS WITH RED OR GREEN PLASTIC BACKING, AS SPECIFIED ON FIXTURE SCHEDULE.

2.04 AUXILIARY LIGHTING

A. THIS PORTION OF SPECIFICATIONS REFER TO LIGHT FIXTURES THAT SUPPLY BUILDING LIGHTING ONLY DURING LOSS OF BUILDING POWER VOLTAGE DIPS. LOW TEMPERATURES, MOMENTARY POWER DROPS CAUSED BY LIGHTING OR TRANSFORMER BANK SWITCHING OR ANY OTHER PHENOMENON CAUSING HIGH INTENSITY LIGHT FIXTURE TO EXTINGUISH. REFER TO LIGHT FIXTURE SCHEDULE AND PLANS.

2.05 EMERGENCY LIGHTING

A. THIS PORTION OF SPECIFICATIONS REFERS TO LIGHT FIXTURES UTILIZED BOTH AS MEANS OF NORMAL AND EMERGENCY SOURCE OF BUILDING LIGHTING (SEE PLANS FOR LOCATIONS). UNIT EQUIPMENT SHALL INCLUDE SEALED NICKEL CADMIUM BATTERIES, RECTIFIER AND INVERTER CIRCUIT, ALL PRE-ASSEMBLED AND PACKAGED TO ONE SINGLE ASSEMBLY, THIS LINIT SHALL BE MOUNTED INSIDE THE LIGHT FIXTURE THE UNIT FOUIPMENT SHALL FURNISH UP TO 90 MINUTES OF ILLUMINATION UNTIL BUILDING'S NORMAL POWER IS RESTORED. UNIT FOUIPMENT SHALL BE DESIGNED FOR MOUNTING INSIDE LIGHT FIXTURES. SHALL PROVIDE NO LESS THAN 100% OF LAMP RATED LUMENS AND THE ELECTRONICS MUST CARRY A MINIMUM OF 3 YEARS UNCONDITIONAL GUARANTEE. REFER TO PLANS AND LIGHT FIXTURE SCHEDULE FOR

2.06 MOUNTING CHANNELS

EMERGENCY ILLUMINATION.

A. PROVIDE STEEL SUPPORT CHANNEL FOR MOUNTING FLUORESCENT LUMINAIRES AND WIRING BETWEEN LUMINAIRES; SUSPENDED BELOW MECHANICAL PIPING AND DUCT WORK.

3.01 INSTALLATION

SUPPORT LUMINAIRES DIRECTLY FROM BUILDING STRUCTURE BY ROD HANGERS AND INSERTS OR METAL ANGLE HEADERS SUPPORTED FROM FRAMING STRUCTURE OF CEILING SUSPENSION SYSTEM UNLESS OTHERWISE NOTED IN PLANS. B. SUPPORT LUMINAIRES IN SUSPENDED CEILINGS BY FOUR HANGERS PER FIXTURE MINIMUM INDEPENDENT OF CEILING STRUCTURE OR TEE

INSTALL RECESSED LUMINAIRES TO PERMIT REMOVAL FROM BELOW, TO GAIN ACCESS TO OUTLET OR PREWIRED FIXTURE BOX. CONNECT RECESSED LUMINAIRE TO BOXES WITH FLEXIBLE CONDUIT AND FIXTURE WIRE.

SECTION 26 50 00 - LIGHTING (EXTERIOR)

A. LUMINAIRES, MATERIALS AND EQUIPMENT SHALL BE IN ACCORDANCE WITH NEC, UL, ANSI, AND AS SHOWN ON THE DRAWINGS AND

A. SUBMIT PRODUCT PERFORMANCE DATA IN ACCORDANCE WITH SECTION 16000.

B. SUBMIT PRODUCT INFORMATION INDICATING PERTINENT PHYSICAL CHARACTERISTICS. C. SUBMIT SAMPLES OF LUMINAIRES PRIOR TO FINAL PRODUCTION IF REQUESTED

ALIGN LUMINAIRES AND CLEAN DIFFUSERS PRIOR TO FINAL ACCEPTANCE.

LUMINAIRES SHALL BE WEATHERPROOF, HEAVY DUTY, OUTDOOR TYPES DESIGNED FOR EFFICIENT LIGHT

B. BRACKET-MOUNTED LUMINAIRES SHALL HAVE LEVELING PROVISIONS AND CLAMP-TYPE ADJUSTABLE SLIP-FITTERS WITH LOCKING SCREWS C. MATERIALS SHALL BE RUSTPROOF. LATCHES AND FITTINGS SHALL BE NON-FERROUS METAL.

SECTION 07 84 00 - FIRESTOPPING 1.01 GENERAL

ALL PENETRATIONS THROUGH FIRE TREATED FLOORS AND WALLS SHALL BE SEALED USING AN APPROVED METHOD TO MAINTAIN THE FIRE RESISTANCE RATING AS REQUIRED BY NEC ARTICLE 300.21. FIRE STOPS SHALL BE PROVIDED AND INSTALLED AS REQUIRED BY NFPA AND LOCAL CODES.

A. THE SEALANT SHALL REMAIN SOFT AND PLIABLE TO ALLOW FOR THE REMOVAL AND/OR ADDITION OF CABLES WITHOUT THE NECESSITY OF

WITHOUT THE SEAL CRACKING OR CRUMBLING. B. THE FOAM SEALANT SHALL MEET ALL OF THE FIRE TEST AND HOSE STREAM TEST REQUIREMENTS OF ASTM E119-73 AND SHALL BE UL CLASSIFIED. THE SEALANT SHALL BE CHASE-FO-AM, CTC PR-855 FIRE RESISTANT FOAM SEALANT FROM CHASE TECH. CORP., HUNTINGTON

B. WHEN DAMMING MATERIALS ARE TO BE LEFT IN PLACE AFTER THE SEAL IS COMPLETE, THEN ALL SUCH MATERIALS SHALL BE

DRILLING HOLES. IT SHALL PERMIT THE VIBRATION, EXPANSION AND/OR CONTRACTION OF ANYTHING GOING THROUGH THE PENETRATION

STATION, NY 11746, OR EQUAL

NONFLAMMABLE

A. THE FOAM SEALANT SHALL BE CAPABLE OF BEING INSTALLED BY A SINGLE TRADESMAN

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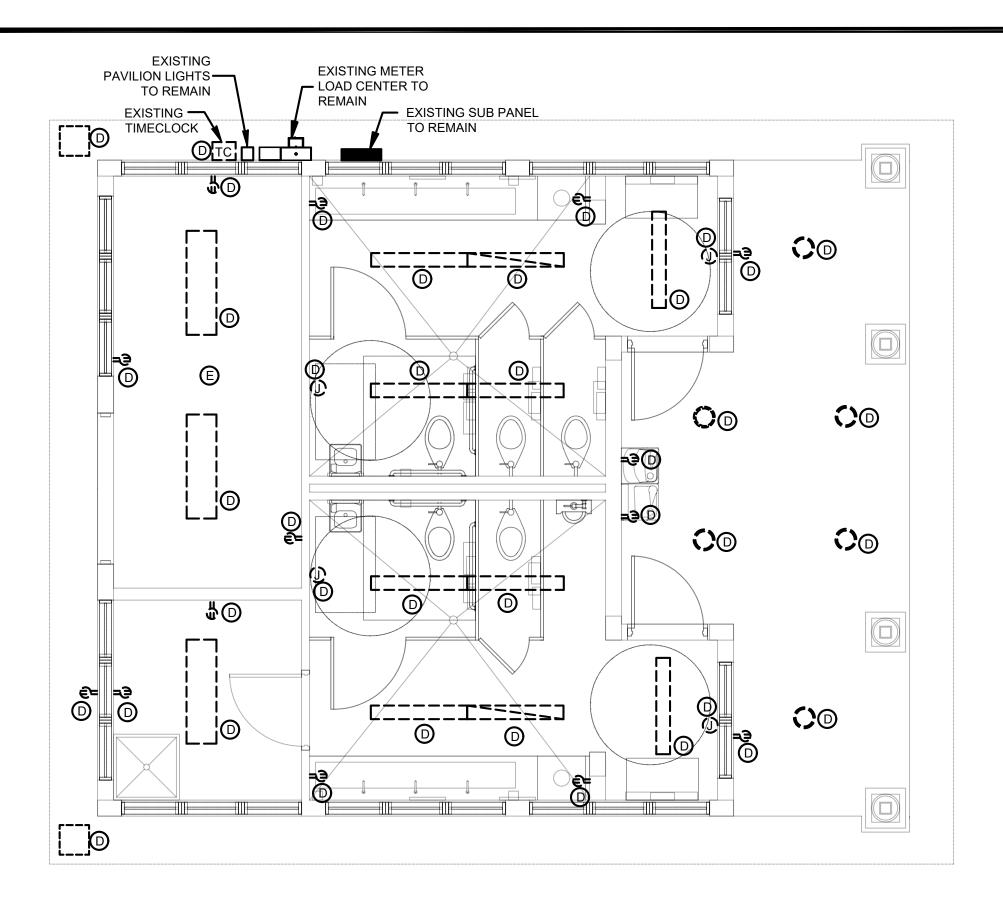
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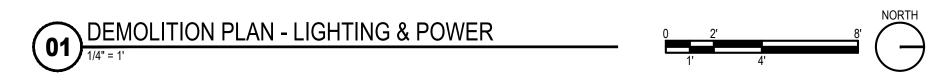
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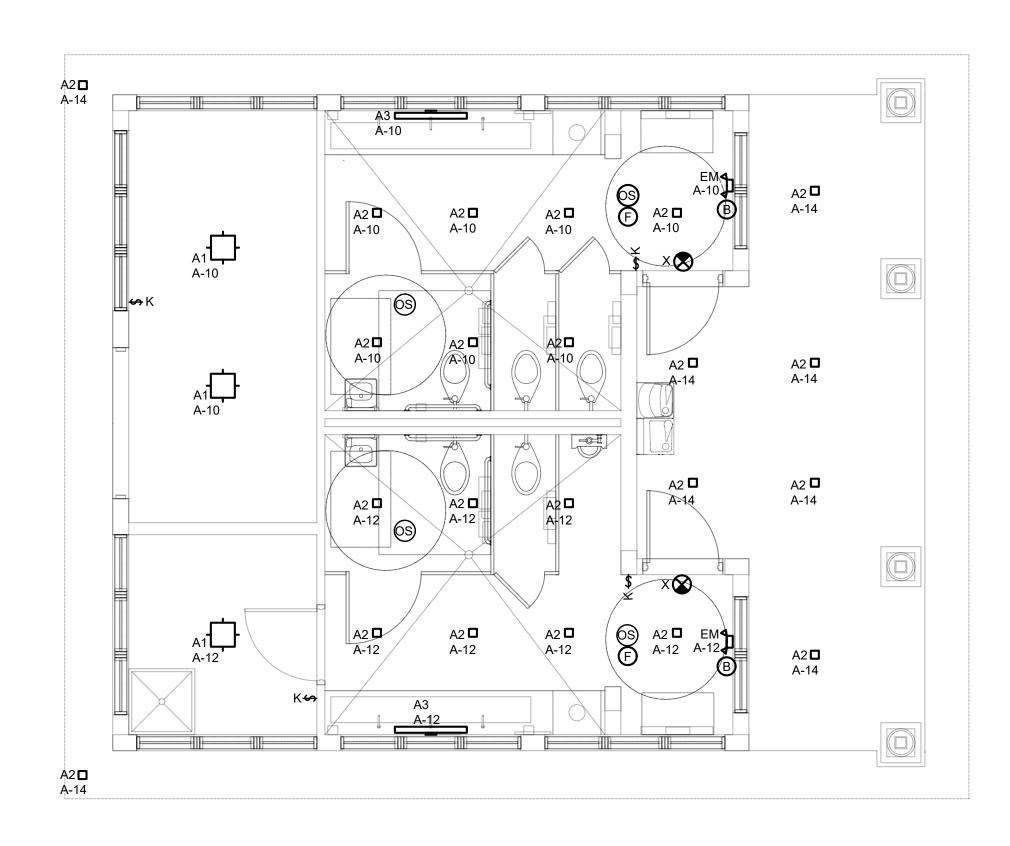
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ELECTRICAL KEY NOTES

- A. CONTRACTOR SHALL COORDINATE EXACT LOCATION OF THE RECEPTACLES THAT SUPPLY WATER SOURCE.
- B. PROVIDE EMERGENCY LIGHT FIXTURE TO NORMAL CIRCUIT AHEAD OF LOCAL SWITCHING.
- C. DEDICATED HAND DRYER.
- D. THE CONTRACTOR SHALL INTERCEPT ALL EXISTING RECEPTACLES, LIGHTING FIXTURES/CONTROLS, HAND DRYERS, ASSOCIATED WIRES, ELECTRICAL PANEL, AND TIME-CLOCK TO BE DEMOLISHED AND REPLACED WITH NEW. REFER TO SHEET E001 FOR PROPOSED ELECTRICAL RISER DIAGRAM. ENSURE SAFE DISCONNECTION OF ALL ASSOCIATED WIRING BEFORE DEMOLITION. POWER MUST BE SHUT OFF TO THE AFFECTED CIRCUITS TO PREVENT ELECTRICAL HAZARDS. FOLLOW ALL LOCAL CODES AND REGULATIONS, AND MINIMIZE DISRUPTIONS TO THE EXISTING ELECTRICAL SYSTEM. PROVIDE DOCUMENTATION OF THE DISCONNECTION PROCESS, INCLUDING BEFORE AND AFTER PHOTOGRAPHS, TO THE PROJECT MANAGER.
- CONTRACTOR SHALL VERIFY THE EXISTING LOCATION OF THE "REC. BLDG. PANEL", INCLUDING ALL ASSOCIATED CIRCUITS AND WIRING. CONTRACTOR SHALL THEN DEMOLISH THE EXISTING PANEL IN ITS ENTIRETY AND REPLACE IT WITH A THE NEW PROPOSED PANEL 'A', ENSURING THAT ALL NEW CONNECTIONS ARE PROPERLY INSTALLED, LABELED, AND COMPLY WITH NEC REQUIREMENTS.
- ENSURE THAT OCCUPANCY SENSORS IN BATHROOMS DETECT OCCUPANTS IN ALL AREAS, INCLUDING STALLS. IF COVERAGE IS INCOMPLETE, SET A DELAY TIMER TO AT LEAST 15 MINUTES TO PREVENT PREMATURE LIGHT SHUTOFF. VERIFY AND TEST ALL SETTINGS BEFORE FINAL ACCEPTANCE.
- G. FURNISH AND INSTALL JUNCTION BOXES FOR ALL HARDWIRED PLUMBING DEVICES, INCLUDING WATER CLOSETS, ADA WATER CLOSETS, URINALS, TROUGH SINKS, AND LAVATORIES. MOUNT THE JUNCTION BOXES BELOW THE SINK OR FIXTURE TO FACILITATE SENSOR CONNECTIONS.

ELECTRICAL GENERAL NOTES

- IT IS THE CONTRACTOR'S RESPONSIBILITY TO ENSURE COMPATIBLE LIGHTING CONTRO DEVICES ARE SUPPLIED WITH LIGHTING PACKAGE.
- REFER TO MANUFACTURERS INSTALLATION INSTRUCTIONS PRIOR TO INSTALLATION.
- EXIT SIGNS SHALL BE POWERED FROM THE CIRCUIT INDICATED AND UNSWITCHED.
- SWITCHES SHALL BE FLUSH MOUNTED IN MASONRY BLOCK AND PRECAST WALLS. COORDINATE WITH ALL TRADES.
 - ALL LIGHTING SHALL COMPLY WITH LOCAL AND STATE ENERGY CODES.
- FOLLOW MANUFACTURER'S INSTRUCTIONS FOR PROPER PRODUCT PLACEMENT, INSTALLATION, WIRING AND OPERATION.
- COORDINATE LIGHTING FIXTURE FINAL LOCATIONS WITH FIRE PROTECTION PROCESS AND HVAC EQUIPMENT. ANY CONFLICTS BETWEEN TRADES SHALL BE BROUGHT TO THE ATTENTION OF THE DESIGN PROFESSIONAL, PRIOR TO ROUGH-IN OF THE JUNCTION
- AT A MINIMUM ALL BRANCH CIRCUITS SHALL CONTAIN 2#12AWG, #12 EG, 3/4" CONDUIT UNLESS OTHERWISE INDICATED. ALL BRANCH CIRCUITS SHALL BE RUN WITH AN INDIVIDUAL NEUTRAL WIRE. BRANCH
- CIRCUITS SHALL NOT SHARE NEUTRAL WIRES. PER N.E.C. 404.2(C) THE NEUTRAL WIRE SHALL BE EXTENDED TO ALL SWITCHING LOCATIONS.
- 10. LIGHTING BRANCH CIRCUITS MAY SHARE EQUIPMENT GROUND CONDUCTORS.
- EXACT LOCATION OF ALL LUMINAIRES, AND EXACT MOUNTING HEIGHT OF ALL PENDANT MOUNTED LUMINAIRES SHALL BE COORDINATED WITH ARCHITECTURAL DRAWINGS PRIOR TO ANY ROUGH-INS
- ALL CONDUCTORS SHALL BE IDENTIFIED BY PANELBOARD AND CIRCUIT NUMBER(S) IN AL CABINETS, JUNCTION BOXES, WIRING TROUGHS, ENCLOSURES, SPLICE OR TERMINATION POINTS, ETC.
- 13. A NEW TYPED PANELBOARD DIRECTORY CARD SHALL BE PROVIDED FOR ALL PANELS INSTALLED OR MODIFIED UNDER THIS CONTRACT. NEW DIRECTORY CARDS SHALL BE LOCATED ON THE INSIDE DOOR OF ASSOCIATED PANELS.

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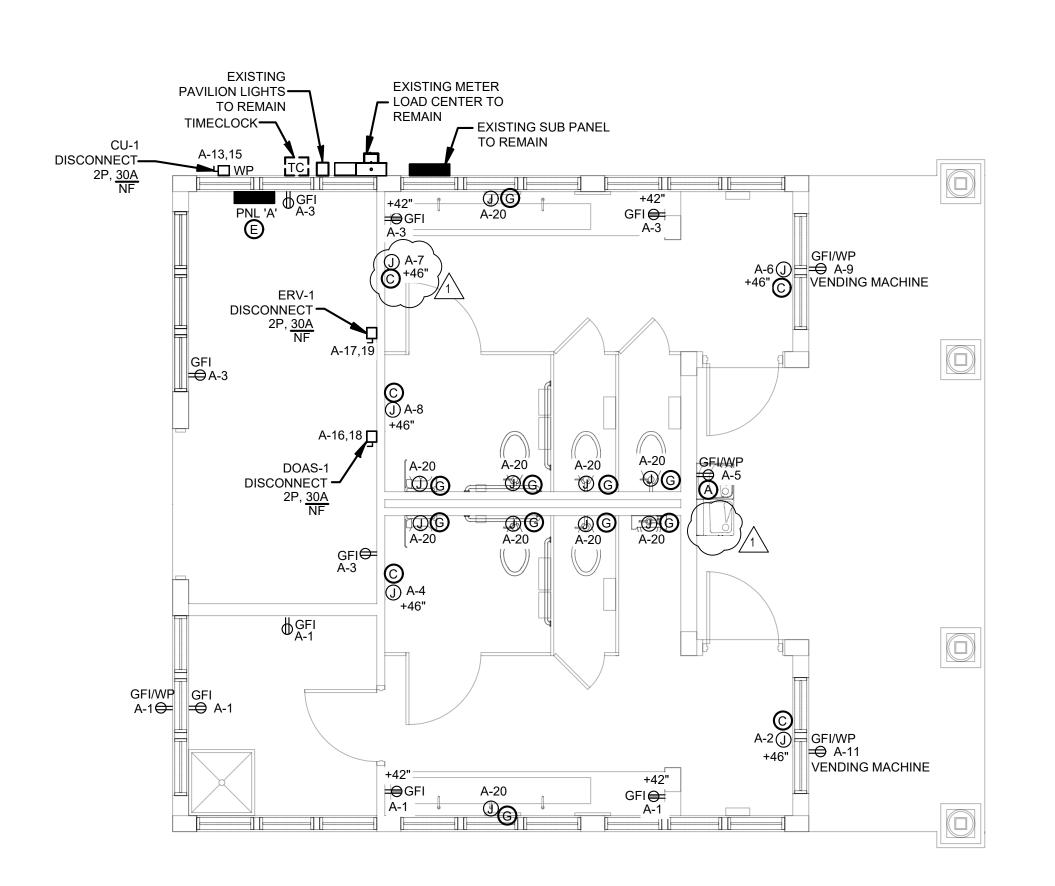
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	LIGHT FIXTURE SCHEDULE								
FIXTURE TYPE	DESCRIPTION	VOLTAGE	WATTS	MODEL NUMBER					
A1	12" x 12" VANDAL-RESISTANT SURFACE LED	120	29	LVP1212 25W 35K CLP					
A2	RECESSED DOWNLIGHT, 30K FLUSH LIGHT, SQUARE, WHITE	120	14	FLW-W 803 I.C. HI					
A3	BANDA 36 BATH LIGHT FIXTURE, CHROME 3000K LED LINEAR MODULE	120	34.8	700BCBND					
X	12"WX8"H EXIT SIGN, SINGLE FACE	120	0.7	LQM-S-3-R-120/277					

CONTROL LIGHTING SCHEDULE							
TYPE	DESCRIPTION	MANUFACTURER	MODEL	NOTE			
K	HEAVY DUTY MOMENTARY KEY SWITCH	WATTSTOPPER OR APPROVED EQUAL	1250-L				
os	LOW VOLTAGE DUAL TECH, CEILING SENSOR	WATTSTOPPER OR APPROVED EQUAL	DT-300				



FLOOR PLAN - PROPOSED POWER PLAN



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> RENOVA ELECTRICAL DEMOLITION FLOOR PLAN

> > Sheet No.

E101

	ABBREVIATIO	DNS	
AAV	AUTOMATIC AIR VENT	HWR	HOT WATER RETURN
ABV	ABOVE	HZ	HERTZ (CYCLES PER SECOND)
AD	ACCESS DOOR	ID	INSIDE DIAMETER
ADJ	ADJUSTABLE	IN	INCH
AFF	ABOVE FINISHED FLOOR	IW	INDIRECT WASTE
AFG	ABOVE FINISHED GRADE	KW	KILOWATT
ALUM	ALUMINUM	LB	POUND, POUNDS
AP	ACCESS PANEL	LD	LINEAR DIFFUSER
APD	AIR PRESSURE DROP	LWT	LEAVING WATER TEMPERATURE MEDICAL AIR
ATC	AUTOMATIC TEMPERATURE CONTROL	N## *	MAXIMUM
AV BAS	AIR VENT BUILDING AUTOMATION SYSTEM	MBH	THOUSAND BTU PER HOUR
BDD	BACK DRAFT DAMPER	MC	MECHANICAL CONTRACTOR
BHP	BRAKE HORSEPOWER	MD	MOTORIZED DAMPER
BLDG	BUILDING	MFGR	MANUFACTURER
BOT	BOTTOM	MIN	MINIMUM
BFP	BACKFLOW PREVENTER	MOD	MOTOR OPERATED DAMPER
BTUH	BRITISH THERMAL UNIT PER HOUR	MS	MOTOR STARTER
С	CELCIUS, DEGREE CELCIUS	MVD	MANUAL VOLUME DAMPER
CA	COMPRESSED AIR	M/S	METERS PER SECOND
CD	CONDENSATE DRAIN	N NA	NORTH NOT APPLICABLE/NOT AVAILABLE
CENT	CENTRIFUGAL		_
CFM	CUBIC FEET PER MINUTE	NC NO	NORMALLY CLOSED NORMALLY OPEN
		NTS	NOT TO SCALE
CLG	CEILING	OD	OUTSIDE DIAMETER
CO	CLEAN OUT, CARBON MONOXIDE	OPER	OPERATING
CO2	CARBON DIOXIDE	PC	PLUMBING CONTRACTOR
CONC	CONCRETE	PCD	PNEUMATIC CONTROL DAMPER
COP	COEFFICIENT OF PERFORMANCE	PCV	PNEUMATIC CONTROL VALVE
CV CV	CONDENSING UNIT CONSTANT VOLUME AIR VALVE	PD	PRESSURE DROP
CW	CONDENSOR WATER	PLBG	PLUMBING
DB	DRY BULB	PRS	PRESSURE REDUCING STATION
DCW	DOMESTIC COLD WATER	PRV	PRESSURE REDUCING VALVE
DDC	DIRECT DIGITAL CONTROL	PSI	POUNDS PER SQUARE INCH
DEG	DEGREE	PSIG	POUNDS PER SQUARE INCH GAUGE
DF	DRINKING FOUNTAIN	R	RELAY
DISC	DISCONNECT	REQ'D	REQUIRED
DN	DOWN	RM RPM	ROOM REVOLUTIONS PER MINUTE
DWGS	DRAWINGS	RTU	ROOFTOP UNIT
DWV	DRAIN, WASTE AND VENT PIPING	RWL	RAIN WATER LEADER
EA	EXHAUST AIR	SAN	SANITARY
EAT	ENTERING AIR TEMPERATURE	S.F.	SQUARE FEET
EC	ELECTRICAL CONTRCTOR	SRV	SAFETY RELIEF VALVE
EFF	EFFICIENCY	ST	STORM
ELEC	ELECTRICAL	T	THERMOSTAT
ELEV	ELEVATION	TEMP	TEMPERATURE
ENT EQ	ENTERING EQUAL	TG	TRANSFER GRILLE
ETR	EXISTING TO REMAIN	TH	THERMOMETER
EWC	ELECTRIC WATER COOLER	TMV	THERMOSTATIC MIXING VALVE
EWT	ENTERING WATER TEMPERATURE	TP	TRAP PRIMER
EXH	EXHAUST	TS TVD	TEMPERATURE SENSOR
F	FAHRENHEIT, DEGREE FAHRENHEIT	TYP	TYPICAL
' 'M	FEET PER MINUTE	_ IO	UNLESS OTHERWISE NOTED
FPS	FEET PER SECOND	V	VENT, VOLT
FPU	FAN POWERED UNIT	VAC VERT	VACUUM VERTICAL
FT	FEET	VEIXT	VARIABLE FREQUENCY DRIVE
GA	GUAGE	VTR	VENT THROUGH ROOF
GALV	GALVANIZED	W	WATTS
GALV	GALVANIZED	W/	WITH
GC GPH	GENERAL CONTRACTOR GALLONS PER HOUR	W/O	WITHOUT
GPH GPM	GALLONS PER HOUR GALLONS PER MINUTE	WB	WET BULB
HB	HOSE BIBB	WC	WATER CLOSET
HC	HANDICAPPED	WHA	WATER HAMMER ARRESTER
HOA	HAND-OFF-AUTOMATIC	WPD	WATER PRESSURE DROP
HP	HORSEPOWER	WS	WALL SWITCH
HR	HOUR	WV	WASTE AND VENT
HW	HOT WATER	#	NUMBER
		••	

CODE IDENTIFICATION

2023 FLORIDA BUILDING CODE BUILDING CODE: PLUMBING CODE: 2023 FLORIDA PLUMBING CODE **ENERGY CODE:** 2023 FLORIDA ENERGY CONSERVATION CODE

ALL WORK SHALL COMPLY WITH THE CODE IDENTIFIED ABOVE ALONG WITH ALL OTHER GOVERNING CODES AND ORDINANCES APPLICABLE TO THE SCOPE OF

THIS PROJECT.

PLUMBING SYMBOLS LEGEND PLUMBING PIPING HW & CW DROP SAN DROP VENT STACK AND PIPE HW & CW RISE SAN RISE TEE DOWN SINGLE LINE REDUCER PIPE BREAK LINE PLUMBING DEVICES/VALVES BALL VALVE BREAKLINE CHECK VALVE CIRCUIT SETTER CLEANOUT -|COPIPE CAP STORM OVERFLOW NOZZLE DOUBLE BACKFLOW PREVENTOR GAS COCK 마 **GATE VALVE** HOSE BIB MIXING VALVE PRESSURE GAGE **PREASURE** REDUCING VALVE PUMP RELIEF/SAFETY VALVE SAN TRAP ∞ STRAINER

THERMOMETER

FLEXIBLE CONNECTOR

WATER **HAMMER**

FLANGE

ARRESTOR

FLOW ARROW

ISOLATION VALVE

FLOOR CLEANOUT

FLOOR DRAIN (SQ.)

ICE MAKER BOX

FLOOR DRAIN

EXTERIOR CLEANOUT

GENERAL NOTES

- ALL INSTALLATIONS, MATERIALS AND EQUIPMENT SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE STATUTES, CODES AND REGULATIONS OF THE GOVERNMENTAL BODIES HAVING JURISDICTION. SEE CODE IDENTIFICATION SECTION
- CONTRACTOR SHALL FIELD VERIFY ALL GIVEN MEASURMENTS AND INVERTS PRIOR TO LAYING AND CONNECTING ALL SANITARY WASTE PIPING. COORDINATE DESCREPANCIES IN MEASUREMENTS AND UNDERGROUND PIPING INVERTS WITH STRUCTURAL FOOTING ELEVATIONS, CIVIL INVERT CONNECTIONS, AND ARCHITECTURAL LAYOUT. IF FOOTINGS ARE IN CONFLICT AND WHERE A PIPING ROLL DOWN IS NOT POSSIBLE, COORDINATE WITH STRUCTURAL ENGINEER FOR DROPS IN FOOTINGS IN SPECIFIC LOCATIONS.
- 3. CONTRACTOR SHALL VERIFY AND CORRECT AS REQUIRED TO MEET ALL CODES AND REGULATIONS ANY POSSIBLE DISCREPANCIES BETWEEN TYPE AND SIZE OF CONNECTION SPECIFIED IN PLUMBING FIXTURE SCHEDULE AND FIXTURES ACTUALLY INSTALLED ON THE SITE.
- 4. THIS FACILITY SHALL COMPLY WITH THE AMERICANS WITH DISABILITIES ACT (ADA) ACCESSIBILITY GUIDELINES FOR BUILDINGS AND FACILITIES.
- THE CONTRACTOR SHALL BASE HIS PROPOSAL UPON THE EQUIPMENT AS SCHEDULED OR SPECIFIED, USING THE MANUFACTURERS AND MODEL NUMBERS AS CALLED FOR IN THE SPECIFICATIONS AND SCHEDULED ON THE DRAWINGS. IF MORE THAN ONE MANUFACTURER OF EQUIPMENT IS SPECIFIED, ANY ONE OF THE MANUFACTURERS OF EQUIPMENT MAY BE USED IN THIS CONTRACTOR'S PROPOSAL. IF THIS CONTRACTOR WISHES TO USE EQUIPMENT NOT SPECIFIED, HE MUST, AT THE TIME OF BIDDING, SUBMIT SEPARATELY ON LETTERHEAD STATIONARY OF THE BIDDER, THE EQUIPMENT HE WOULD SUBSTITUTE AND THE COST TO BE ADDED OR TO BE DEDUCTED FROM HIS PROPOSAL.
- THE CONTRACTOR IS EXPECTED TO ORDER ALL MATERIALS IN SUFFICIENT TIME TO AVOID DELAYING THE COMPLETION OF THE PROJECT. DELAY IN DELIVERIES WILL NOT BE CONSIDERED A JUSTIFIABLE REASON FOR SUBMISSION OF SUBSTITUTE
- CONTRACTOR SHALL GIVE 72 HOUR NOTICE IN WRITING TO, AND RECEIVE WRITTEN APPROVAL, FROM THE BUILDING ADMINISTRATOR (OR HIS REPRESENTATIVE) PRIOR TO SHUT DOWN OF ANY SYSTEM OR DISRUPTION OF SERVICE TO ANY AREA. CONTRACTOR SHALL ALSO COORDINATE THE EXACT LOCATION AND TIMING OF SYSTEM(S) SHUTDOWN POINTS WITH THE OWNER REPRESENTATIVE (IE: ENGINEERING DEPARTMENT) CONTRACTOR SHALL MAKE EVERY EFFORT POSSIBLE TO MINIMIZE THE DURATION OF ANY DOWNTIME OR DISRUPTION PERIOD.
- 8. COORDINATE WITH GENERAL CONTRACTOR TO PATCH ALL EXISTING WALLS, FLOORS, CEILINGS, ETC., AS REQUIRED BY NEW WORK. SEE SPECIFICATIONS.
- WHERE EXISTING SURFACES ARE DISRUPTED DUE TO THE REMOVAL OF EXISTING EQUIPMENT OR PIPING, THIS CONTRACTOR SHALL BE RESPONSIBLE FOR THE REPAIR OF DISRUPTED SURFACES TO MATCH EXISTING ADJACENT SURFACES.
- 10. PLUMBING CONTRACTOR SHALL COMPLY WITH THE LATEST ADOPTED VERSION OF THE BUILDING CODE REGARDING STUD OPENINGS FOR ALL PIPE ROUTING. IN NO CASE SHALL THE MAX OPENING FALL WITHIN 5/8" FROM EITHER SIDE OF STUD WITHOUT THE APPROVAL OF THE STRUCTURAL ENGINEER, IE: 3-1/2" NON-BEARING STUD - 2-1/2" MAX OPENING, 5-1/2" NON-BEARING STUD - 4-1/4" MAX OPENING. 5-1/2" BEARING STUD 4-1/4" OPENING.
- 11. 3" PIPE ID NOT PERMITTED TO PENETRATE 3-1/2" STUDS WITHOUT ADDITIONAL REINFORCEMENT AND APPROVAL FROM THE STRUCTURAL ENGINEER. 5-1/2" STUDS ARE APPROVED FOR 2" ANSD 3" PIPE, UP TO 4-1/4" DIA. MAX OPENING WITHOUT ADDITIONAL REINFORCEMENT.
- 12. SEE ARCHITECTURAL DRAWINGS FOR EXACT LOCATIONS OF PLUMBING FIXTURE MOUNTING HEIGHTS, AND DIMENSIONS.
- 13. COORDINATE ALL CEILING PIPING AND ELEVATIONS IN SHOP DRAWINGS WITH HVAC, FIRE PROTECTION AND ELECTRICAL TRADES TO ENSURE CLEARANCES AND PENETRATIONS, PRIOR TO INSTALLATION.
- 14. ALL PLUMBING SYSTEMS SHALL BE INSTALLED AS CLOSE AS POSSIBLE TO THE PERMITTED PLUMBING PLANS. ANY DEVIATION IN DESIGN AND ROUTING SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PRIOR TO INSTALLATION OF ANY WORK. THIS INCLUDES ANY REDESIGNS, VALUE ENGINEERING ITEMS AND ROUTING METHODS NEGOTIATED IN THE BIDDING PROCESS WITH THE GC IN ORDER TO OBTAIN THE LOWEST BID.
- 15. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS (INCLUDING PIPE ROUTING AND EQUIPMENT LOCATIONS) TO ARCHITECT/ENGINEER FOR REVIEW AND APPROVAL PRIOR TO THE INSTALLATION OR PURCHASING OF ANY PIPING AND/OR EQUIPMENT.
- 16. CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ALL NECESSARY FITTINGS AS REQUIRED BY ALL APPLICABLE CODES AND GOVERNING AUTHORITIES.
- 17. PIPING WHICH IS TO REMAIN IN SERVICE SHALL NOT BE DISTURBED. EXISTING PIPING DAMAGED DURING CONSTRUCTION SHALL BE REPLACED WITH NEW PIPING OF THE SAME SIZE AND MATERIAL.
- 18. WHERE EXISTING PIPING IS DESIGNATED TO BE REMOVED AND CAPPED, ALL PIPING SERVING THE DESIGNATED FIXTURE SHALL BE REMOVED FROM WITHIN WALLS TO THE POINT DESIGNATED ON THE DRAWINGS. PIPING SHALL BE CAPPED BY APPROVED CAPPING METHODS UTILIZING PIPE CAPS INTENDED FOR SUCH USE. CAPS SHALL BE AIRTIGHT AND WATERTIGHT.
- 19. ROUTE ALL PIPING CONCEALED ABOVE CEILINGS, WITHIN WALLS, OR IN CHASES. PIPING EXPOSED SHALL BE SLOPED AND PAINTED TO MATCH ARCHITECTURAL FINISHES. PIPING IN MECHANICAL ROOMS MAY BE EXPOSED.
- 20. CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ALL NECESSARY SUPPORTING DEVICES FOR ALL FIXTURES INCLUDED IN CONTRACT OR HEREIN SPECIFIED OR OTHERWISE.
- 21. VALVES AND FITTINGS SHALL BE OF SAME SIZE OF LINE ON WHICH THEY ARE LOCATED, UNLESS OTHERWISE INDICATED ON DRAWINGS.
- 22. DIELECTRIC UNIONS SHALL BE USED TO CONNECT DISSIMILAR METALS AND SHALL HAVE METAL CONNECTIONS ON EACH END THREADED TO MATCH THE ADJACENT PIPING. SEPARATE METAL COMPONENTS WITH A NYLON INSULATOR TO PREVENT CURRENT FLOW BETWEEN DISSIMILAR METALS.
- 23. ALL DRAINAGE PIPING AND SHALL BE MARKED WITH THE SEAL OF APPROVAL OF THE NATIONAL SANITATION FOUNDATION.

- 24. PROVIDE PIPE MARKERS FOR ALL PIPING ABOVE THE CEILING SPACES TO IDENTIFY PLUMBING PIPING & EQUIPMENT.
- 25. LABEL ALL VALVES ABOVE CEILINGS AND IN CONCEALED SPACES. LABEL AT CEILING TILE WITH VALVE # AND TYPE OF WATER. (i.e.: BLUE= COLD WATER. LETTERING CW VLV1-001).
- 26. DO NOT PENETRATE FOUNDATIONS WITH PIPING, COORDINATE WITH GENERAL CONTRACTOR TO DROP FOUNDATIONS AS REQUIRED TO CLEAR PLUMBING SERVICES WHERE ABSOLUTELY NECESSARY. ALL PIPING PENETRATING A BEARING WALL OR FOOTING MUST BE SLEEVED AND LOCATION APPROVED BY STRUCTURAL ENGINEER.
- 27. PROPERLY SLEEVE ALL PIPING ROUTED THROUGH WALLS AND FLOOR SLABS. AND PROTECT TO PREVENT CORROSION. SLEEVES SHALL BE RATED ASSEMBLIES WHERE THE WALL IS A RATED WALL.
- 28. CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING FIRE RATING AND WATERPROOFING INTEGRITY OF ALL PIPING AND PENETRATIONS. PROVIDE FIRE RATED PANELS/BOXES FOR ALL PLUMBING DEVICES LOCATED IN RATED WALLS. FIRE CAULK AND SLEEVE ALL PENETRATIONS THROUGH FIRE RATED ASSEMBLIES.
- 29. EXISTING BUILDING SEWERS THAT ARE USED WITH NEW BUILDING SANITARY SEWERS SHALL BE EXAMINED, TESTED AND CLEANED TO CONFORM IN ALL RESPECTS TO ALL THE REQUIREMENTS OF PLUMBING AUTHORITY HAVING JURISDICTION AND APPLICABLE PLUMBING CODES.
- 30. ALL SANITARY PIPING SHALL HAVE AN 1/8" PER FOOT SLOPE FOR PIPING 3"-6", 1/4" PER FOOT FOR PIPING 2 1/2" AND LESS.
- 31. CHANGES IN THE DIRECTION OF SANITARY PIPING SHALL NOT BE MADE WITH FITTINGS WHICH WILL CAUSE EXCESSIVE REDUCTION IN THE VELOCITY OF FLOW OR CREATE ANY OTHER ADVERSE EFFECT UNLESS PHYSICALLY IMPOSSIBLE (IE: USE OF SANITARY TEE IN A HORIZONTAL CON- NECTION, USE OF A DOUBLE SANITARY TEE IN A VERTICAL STACK, IN GENERAL, USE OF SHORT-RADIUS FITTINGS FOR BRANCH TO HOUSE DRAIN OR STACK CONNECTION).
- 32. PROVIDE CLEANOUTS AT THE BASE OF EACH SANITARY STACK IN ACCORDANCE WITH THE LATEST ADOPTED VERSION OF THE PLUMBING CODE. CLEANOUTS SHALL BE SIZED TO MATCH THE PIPING BEING SERVED. CLEANOUTS SHALL BE SPACED AT 75'-0" MAX. ALSO PROVIDE CLEANOUTS IN HORIZONTAL CHANGE OF DIRECTIONS >45°.
- 33. PROVIDE TRAP PRIMER CONNECTIONS ON ALL FLOOR DRAINS.
- 34. ROUGH IN ALL FLUSH VALVE WATER CLOSETS SO THAT THE FLUSH VALVE HANDLE IS TO THE WIDE SIDE OF THE ROOM, AS PER THE LATEST ADOPTED VERSION OF THE PLUMBING CODE.
- 35. VENT PIPING SHOWN ON FLOOR PLANS IS ONLY INDICATIVE EXCEPT FOR VTR
- 36. ALL VENTS THROUGH ROOF SHALL BE MIN. 10'-0" FROM ANY AIR INTAKES.
- 37. WET VENTED TOILET ROOM SYSTEMS THAT INCLUDE EXCESSIVE OFFSETS. SWEEPS, ELBOWS AND COMB. WYE AND EIGHTH BENDS THAT ENCOURAGE FUTURE STOPPAGES SHALL NOT BE PERMITTED. (EXCESSIVE TO BE DETERMINED BY THE
- 38. DISINFECT DOMESTIC WATER PIPING BY EITHER OF TWO WAYS: FILL SYSTEM WITH 50ppm CHLORINE SOLUTION AND STAND FOR 24 HOURS OR 200ppm CHLORINE SOLUTION AND STAND FOR 3 HOURS.
- 39. ALL WATER PIPING INSTALLED IN EXTERIOR WALLS SHALL BE PLACED ON THE INTERIOR SIDE OF THE WALL. SO THAT WALL INSULATION CAN BE PLACED ON THE EXTERIOR SIDE OF THE PIPING.
- 40. DOMESTIC WATER PIPING IS NOT PERMITTED BELOW THE BUILDING SLAB WITH THE EXCEPTION OF THE FEW FEET REQUIRED TO ENTER THE BUILDING CHASE WALL.
- 41. PROVIDE THERMAL INSULATION FOR HOT WATER AND HOT WATER RETURN PIPING IN ACCORDANCE WITH THE LATEST ADOPTED VERSION OF THE ENERGY EFFICIENCY CODE FOR BUILDING CONSTRUCTION AND PER SPECIFICATIONS.
- 42. LOCATE ALL VALVES IN ACCESSIBLE AREAS AS DEFINED BY THE LATEST ADOPTED ADDITION OF THE PLUMBING CODE. CONTRACTOR SHALL PROVIDE ACCESS DOORS WHERE NECESSARY. (12"x12") MIN.
- 43 IT IS THE PLUMBING CONTRACTORS RESPONSIBILITY TO PROVIDE A BACKFLOW PREVENTION DEVICE ON THE MAIN DOMESTIC WATER SERVICE PROVIDED TO THE BUILDING/SPACE UNDER CONSTRUCTION AS PER THE LATEST ADOPTED VERSION OF THE PLUMBING CODE. PROVIDE REDUCED PRESSURE BACKFLOW PREVENTION DEVICE IF PRESSURES EXCEED 80 PSI.
- 44. INSTALL PRESSURE REDUCING VALVE CONFORMING TO ASSE 1003 WITH STRAINER ON ANY PORTION OF BUILDING PIPING THAT EXCEEDS 80 PSI.
- 45. ANGLE STOPS SHALL BE FURNISHED AND INSTALLED ON ALL COLD WATER LINES AT EQUIPMENT. PROVIDE ALL REQUIRED SHUT-OFF VALVES, CHROME
- 46. PROVIDE WATER HAMMER ARRESTORS IN ALL CW SUPPLY PIPING AS REQUIRED AND/OR AS SHOWN ON WATER RISERS. INSTALL IN ACCORDANCE WITH PDI-WH201 STANDARDS. SEE SHEET P101 FOR SIZING. AIR CHAMBERS ARE NOT ACCEPTABLE SUBSTITUTIONS.
- 47. AIR CHAMBERS SHALL NOT BE CONSIDERED AN EQUAL TO WATER ARRESTORS AS

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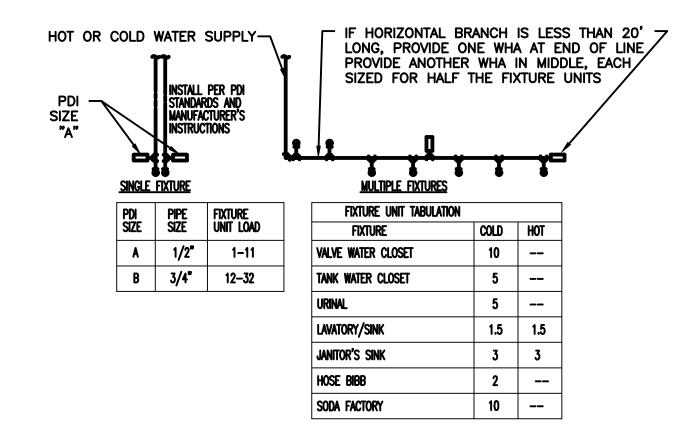
Plans Prepared By

500 West Fulton St. Sanford, Fl. 32771 Ph: 407.322.6841 State of Florida Licenses: Arch. No. AR0013957 Mech Eng. No. 87451 Elec Eng. No. 60953

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				PL	JMBIN	G FIXTUR	E SCHED	ULE
MARK	DESCRIPTION	WASTE	VENT	CW	HW	MANUFACTURER	MODEL	REMARKS
WC-1	WATER CLOSET	3"	2"	1-1/4"	-	KOHLER	K-96053-0	(1.28 GALLONS PER FLUSHING CYCLE) WATER CLOSET TO BE VITREOUS CHINA BOWL, SIPHON JET, SECURED TO FLOOR, FLOOR OUTLET WITH BOLT CAPS, ELONGATED BOWL, TOP SPUD, SIPHON ACTION. AMERICAN STANDARD SELECTRONIC 606B.161, OR APPROVED EQUAL, HARDWIRED WITH BATTERY BACK-UP, SENSOR OPERATED, FLUSH VALVE, W/WALL BRACKET FOR BRACING TO WALL. OPEN FRONT SOLID WHITE PLASTIC SEAT WITH SELF-SUSTAINING CHECK HINGE. PROVIDE 120V TO 12V POWER ADAPTER. PROVIDE MULTI-UNIT POWER ADAPTER WHERE APPLICABLE.
WC-2	WATER CLOSET ADA ACCESSIBLE 17" AFF TO LIP	3"	2"	1-1/4"	-	KOHLER	K-96053-0	(1.28 GALLONS PER FLUSHING CYCLE) WATER CLOSET TO BE VITREOUS CHINA BOWL, SIPHON JET, SECURED TO FLOOR, FLOOR OUTLET WITH BOLT CAPS, ELONGATED BOWL, TOP SPUD, SIPHON ACTION. AMERICAN STANDARD SELECTRONIC 606B.161, OR APPROVED EQUAL, HARDWIRED WITH BATTERY BACK-UP, SENSOR OPERATED, FLUSH VALVE, WWALL BRACKET FOR BRACING TO WALL. OPEN FRONT SOLID WHITE PLASTIC SEAT WITH SELF-SUSTAINING CHECK HINGE. PROVIDE 120V TO 12V POWER ADAPTER. PROVIDE MULTI-UNIT POWER ADAPTER WHERE APPLICABLE.
UR-2	URINAL ADA 17" AFF TO LIP	2"	2"	1"		KOHLER	K-5016-ET	(0.125 GALLON PER FLUSHING CYCLE) URINAL VITREOUS CHINA, SIPHON JET, WALL HUNG WITH FIXTURE CARRIER SECURED TO FLOOR, EXTENDED SIDES, FLUSHING RIM AND 3/4" TOP INLET SPUD. AMERICAN STANDARD SELECTRONIC 6063013.002, OR APPROVED EQUAL, HARDWIRED WITH BATTERY BACK-UP, SENSOR OPERATED, FLUSH VALVE. PROVIDE 120V TO 12V POWER ADAPTER. PROVIDE 120V TO 12V POWER ADAPTER. PROVIDE HYDROTEK H-8000C-B1DC AUTOMATIC FLUSH VALVE
L-1	TROUGH SINK	1-1/2"	2"	3/4"	-	PORTFOLIO SEVENTY-ONE	TROUGH SINK	9'-6" X 1'-10" TROUGH SINK IN CORIAN LIMESTONE PRIMA, MATTE FINISH, WITH TWO (2) FAUCETS DRILLING. SUPPLY WITH SLOAN EFX-300 HARDWIRED-POWERED DECK-MOUNTED FAUCET. INCLUDES OVERFLOW AND WALL MOUNTING KIT. SINK DESIGN TO BE ADA COMPLIANT. CONTRACTOR TO SUBMIT SHOP DRAWING.
L-2	LAVATORY (ADA)	1-1/2"	2"	1" 2	-	KOHLER	K-2007	WALL-MOUNTED ADA COMPLIANT VITREOUS CHINA HAND SINK WITH SINGLE FAUCET HOLE. SUPPY WITH SLOAN EFX-300 HARDWIRED-POWERED DECK-MOUNTED FAUCET AND K-8998 P-TRAP, OR APPROVED EQUAL.
DF-1	DRINKING FOUNTAIN	1-1/2"	1-1/2"	1/2"	-	ELKAY	VRCTL8WS	BI-LEVEL ELECTRIC WATER COOLER WITH BOTTLE FILLING STATION. 8 GPH OF 50 DEGREE WATER AT 90 DEGREE AMBIENT AND 80 DEGREE INLET. STAINLESS STEEL CONSTRUCTION WITH VANDAL-RESISTANT BUBBLER. 115V / 1 PHASE.
MS-1	MOP SERVICE BASIN	3"	1-1/2"	1/2"	-	FIAT	MSB-2424	FLOOR MOUNTED MODEL: FIAT FAUCET 830-AA, CHROME PLATED WITH VACUUM BREAKER, INTEGRAL STOPS, ADJUSTABLE WALL BRACE, 832-AA 3/4" HOSE THREAD ON SPOUT, PROVIDE HOSE AND HOSE HOLDER, MOP HANGER, WALL GUARDS 2-SIDES. PROVIDE POINT OF USE ASSE 1070 APPROVED THERMOSTATIC MIXING VALVE SYMMONS 8210CK-D.



PC TO PROVIDE WATER HAMMER ARRESTERS BY SIOUX CHIEF, PRECISION PLUMBING PRODUCTS, WATTS OR APPROVED EQUIVALENT WITH PISTON AND 0-RING CONSTRUCTION, HAVING PDI #WH-201, ASSE #1010 AND ANSI #A112.26.1M CERTIFICATION. INSTALL IN HORIZONTAL OR VERTICAL POSITION, PROJECT AND ADDRESS OF THE PROPERTY OF THE BUT NEVER UPSIDE DOWN. INSTALL IN LINE WITH WATER FLOW DIRECTION IF POSSIBLE. SIZE THE UNITS AS SHOWN ON THE DRAWINGS AND/OR PER THE TABLES SHOWN ABOVE.

WATER HAMMER ARRESTOR DETAIL

NTS



- 1. DEMOLISH PLUMBING FIXTURES. DISCONNECT SANITARY AND COLD WATER PIPING FROM FIXTURES AND PREPARE FOR INSTALLATION OF NEW.
- 2. CONNECT EXISTING SANITARY AND COLD WATER PIPING INTO NEW PLUMBING FIXTURES.

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Plans Prepared By: cph consulting , LLc.							
500 West Fulton St. Sanford, Fl. 32771							

Ph: 407.322.6841

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PLUMBING PLAN

