# MAIN BUILDING RENOVATIONS: 2ND FLOOR 100% CONSTRUCTION DOCUMENTS

# 185 OLD BROADWAY HASTINGS-ON-HUDSON, NY 10706

10.27.2023

SHEET NO. DRAWING TITLE

[00] GENERA	
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COVER	COVER SHEET
G0.05	GRAPHIC LEGEND, ABBREVIATIONS, SYMBOL LEGEND, GENERAL NOTES
G1.01	PLUMBING FIXTURE / ACCESSORIES LEGEND AND MOUNTING HEIGHTS
G1.02	TYPICAL DEVICES, ACCESSORIES, OPENING, EQUIPMENT MOUNTING
	HEIGHTS AND LAYOUTS
G2.00	SECOND FLOOR LIFE SAFETY PLAN, CODE INFORMATION AND PLUMBING
	FIXTURE COUNT
[04] DEMOLIT	ΓΙΟΝ
D1.02	SECOND FLOOR DEMOLITION PLAN
D1.20	SECOND FLOOR REFLECTED CEILING DEMOLITION PLAN
1051 ARCHITE	ECTURAL
A1.00	PARTITION TYPES AND PLAN DETAILS
A1 01	FIRST FLOOR SALON AND DENTAL SUITE PLANS AND FLEVATIONS
A1 02	SECOND ELOOR CONSTRUCTION PLAN
Δ1 22	
A1.22	
A1.23	SECOND FLOOR REFLECTED CEILING FLAN - ENLARGED AREAS
AZ.20	RESIDENT WING A & B CORRIDOR ELEVATIONS
AZ.Z1	
A2.22	RESIDENT ROOM ENLARGED PLANS AND INTERIOR ELEVATIONS
A2.23	CORE AREA ENLARGED PLANS AND INTERIOR ELEVATIONS
A2.24	NURSING CONCIERGE DESK AND FISH TANK ENLARGED PLANS,
	ELEVATIONS AND DETAILS
A3.20	CEILING DETAILS
A5.00	DOOR SCHEDULE
A5.20	TYPICAL OPENING DETAILS
A6.01	FINISH SCHEDULE, GENERAL FINISH NOTES, FINISH PLAN LEGEND, AND
	SECOND FLOOR FINISH PLAN
A6.02	SECOND FLOOR FINISH PLAN
A6.16	MILLWORK SECTIONS
A6.20	FLOORING DETAILS
A6.21	TYPICAL ENTRY DETAILS
A7 01	SECOND EL OOR MOVEABLE FOLLIPMENT/ELIRNITLIRE PLAN
MD1.00.M	
MD1.00.2	MECHANICAL DEMO SECOND FLOOR PLAN
M1.00.1	MECHANCIAL FIRST FLOOR PLAN
M1.00.M	MECHANICAL MEZZANINE FLOOR PLAN
M1.00.2	MECHANICAL SECOND FLOOR PLAN
M5.00	MECHANICAL DETAILS
M6.00	MECHANICAL SCHEDULES
M8.00	MECHANCIAL SPECIFICATIONS
[09] ELECTRI	ICAL
E0.00	ELECTRICAL LEGEND AND ABBREVIATIONS
ED1.00.1	ELECTRICAL DEMO FIRST FLOOR PLAN
ED1.00.2	ELECTRICAL DEMO SECOND FLOOR PLAN
FI 1 00 1	ELECTRICAL LIGHTING FIRST FLOOR PLAN
FI 1 00 2	ELECTRICAL LIGHTING SECOND ELOOR PLAN
ED1 00 1	
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EP1.00.1	ELECTRICAL POWER FIRST FLOOR PLAN
EP1.00.1 EP1.00.2	ELECTRICAL POWER FIRST FLOOR PLAN ELECTRICAL POWER SECOND FLOOR PLAN ELECTRICAL PART PLANC
EP1.00.1 EP1.00.2 E4.00	ELECTRICAL POWER FIRST FLOOR PLAN ELECTRICAL POWER SECOND FLOOR PLAN ELECTRICAL PART PLANS
EP1.00.1 EP1.00.2 E4.00 E5.00	ELECTRICAL POWER FIRST FLOOR PLAN ELECTRICAL POWER SECOND FLOOR PLAN ELECTRICAL PART PLANS ELECTRICAL DETAILS
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CONSTRUCTION IS REQUIRED TO FOLLOW THE HASTINGS-ON-HUDSON GREEN BUILDING COD ART II BASED ON THE PROJECT TYPE. THE CONTRACTOR AND SUBCONTRACTORS ARE TO M HEMSELVES FAMILIAR WITH THE GREEN BUILDING CODE AND REQUIREMENTS. THE FOLLOW RE SOME OF THE REGULATIONS TO BE FOLLOWED FOR ALL SUBMITTED MATERIAL, U.O.N.
ART II REQUIREMENTS
. ENERGY FIXTURES AND APPLIANCES. ALL NEW OR REPLACEMENT APPLIANCES GOVERNED BY EN STAR, SUCH AS BUT NOT LIMITED TO, DISHWASHERS, REFRIGERATORS, FREEZERS, WAS MACHINES, WATER HEATERS AND ROOM AIR CONDITIONERS, SHALL BE COMPLIANT WITH ENERGY STAR.
. INTERIOR WATER USE. A. TOILETS AND URINALS. ANY NEWLY INSTALLED OR REPLACED TOILET OR URINAL MUST EITHER LOW FLUSH TOILETS EQUAL TO OR LESS THAN 1.28 GALLONS PER FLUSH ("GPF") OR DUAL-FLUSH TOILETS WHERE THE LOW FLUSH FEATURE IS NO MORE THAN 1.28 GPF B. SHOWERS. ANY NEWLY INSTALLED OR REPLACED SHOWER HEAD MUST PROVIDE AN AVERAGE FLOW RATE OF NO MORE THAN 2 GALLONS PER MINUTE ("GPM"). C. LAVATORY FAUCETS. ANY NEWLY INSTALLED OR REPLACED LAVATORY FAUCET MUST PROVIDE AN AVERAGE FLOW RATE OF NO MORE THAN 2 GALLONS PER MINUTE ("GPM").
. MATERIALS AND INDOOR ENVIRONMENTAL QUALITY. A. PAINTS, WOOD FINISH, AND OTHER FINISHING MATERIALS. (1) PAINTS, COATINGS, AND PRIMERS APPLIED TO INTERIOR SURFACES SHALL NOT EXCEED THE FOLLOWING VOC CONTENT LIMITS (AS ESTABLISHED BY GREEN SEAL STANDARD GC-11, PAINTS, EDITION 3.1, JULY 2013, AS AMENDED): FLAT PAINT: 50G/L FLAT
NON-FLAT PAINT: 150G/L NON-FLAT (2) CLEAR WOOD FINISHES, FLOOR COATINGS, STAINS, SEALERS, AND SHELLACS, APPLIED TO INTERIOR SURFACES, SHALL NOT EXCEED THE FOLLOWING VOC CONTE LIMITS (AS ESTABLISHED BY SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT RU 1113, ARCHITECTURAL COATINGS, JUNE 3, 2011, AS AMENDED): VARNISH: 275G/L
<ul> <li>SHELLAC: 730 G/L CLEAR, 550 G/L PIGMENTED</li> <li>SEALERS: 100 G/L WATERPROOFING, 275 G/L SANDING, 100 G/L ALL OTHERS</li> <li>(3) CARPET ADHESIVE SHALL NOT EXCEED A VOC CONTENT LIMIT OF 50G/L.</li> <li>(4) NO MATERIALS SHALL CONTAIN ADDED UREA FORMALDEHYDE.</li> <li>(5) A LIST OF PERMISSIBLE LOW-VOC FINISHES APPLICABLE TO THIS SECTION SHALL MAINTAINED BY THE BUILDING DEPARTMENT. DOCUMENTATION OF COMPLIANCE WITTHIS SECTION SHALL BE SUBMITTED TO THE BUILDING INSPECTOR.</li> <li>C. CONSTRUCTION WASTE MANAGEMENT. A MINIMUM OF 25% OF CONSTRUCTION WASTE WEIGHT SHALL BE RECYCLED, REPURPOSED AND/OR REUSED AND NOT SENT TO A LAND OR INCINERATOR. DOCUMENTATION OF COMPLIANCE WITH THIS SECTION SHALL BE SUBMITTED TO THE BUILDING INSPECTOR.</li> </ul>
PART II ADDITIONAL REQUIREMENT OPTIONS
IN ADDITION TO THE REQUIREMENTS SET FORTH IN §§ 160-8 THROUGH 160-11, FOR ALL N CONSTRUCTION, ADDITIONS AND ALTERATIONS IN EXCESS OF THE LESSER OF 1000 SQU, FEET OR 50% OF THE AGGREGATE AREA OF THE INDIVIDUAL UNIT, AT LEAST FIVE POINTS MUST BE OBTAINED FROM THE OPTIONS SET FORTH IN SECTION §§ 160-12. THE FOLLOWI FIVE POINTS ARE TO BE ATTAINED.
O. LIGHT EMITTING DIODES ("LEDS"). UTILIZE LEDS FOR AT LEAST 75% OF ALL LIGHT FIXTURES. (1 POINT)
P. RECYCLED CONTENT. (2) UTILIZE RECYCLED CONTENT MATERIALS FOR 20% OR GREATER (BY COST) OF AL BUILDING MATERIALS AND FINISHES. A REPORT SHALL BE SUBMITTED TO THE BUILD INSPECTOR TO SUBSTANTIATE COMPLIANCE. (2 POINTS)
R. LOCAL MATERIALS. UTILIZE BUILDING MATERIALS OR PRODUCTS THAT HAVE BEEN EXTRACTED, HARVESTED OR RECOVERED, AND MANUFACTURED, WITHIN 500 MILES OF T SITE FOR A MINIMUM OF 10% (BASED ON COST) OF THE TOTAL MATERIALS VALUE. DOCUMENTATION SHALL BE SUBMITTED TO THE BUILDING INSPECTOR TO SUBSTANTIATE COMPLIANCE. (1 POINT)
S. CERTIFIED WOOD. USE A MINIMUM OF 50% OF WOOD-BASED MATERIALS AND PRODUC

COMPONENTS. THESE COMPONENTS INCLUDE, BUT ARE NOT LIMITED TO, STRUCTURAL FRAMING, GENERAL DIMENSIONAL FRAMING, FLOORING, SUB-FLOORING, WOOD DOORS, AND FINISHES. A REPORT SHALL BE SUBMITTED TO THE BUILDING INSPECTOR TO SUBSTANTIATE COMPLIANCE. (1 POINT)

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ITEM NO. 4 - EXISTING EXTERIOR PERIMETER WALLS E BEEN BASE BID: LAMINATE 1/4" GYPSUM BOARD TO ALL EXISTING WALLS. MILES OF THE ALTERNATE NO. 4 (ADD): DEMOLISH EXISTING PLASTER AND LATH AT EXTERIOR WALLS BACK TO BLOCK SUBSTRATE. FURR OUT EXTERIOR WALL WITH 1 5/8" METAL STUDS WITH INSULATION AND 5/8" GYPSUM BOARD.

BSTANTIATE ID PRODUCTS

JILDING

BASE BID: PROVIDE STANDARD HOLLOW METAL FRAMES AT NON-RESIDENT ROOMS WITH IN PRO PALADIUM DOORS. ALTERNATE NO. 5 (ADD): PROVIDE 4" SOLID SURFACE SURROUND AT NON-RESIDENT ROOMS WITH IN PRO PALADIUM DOORS. REFERENCE DETAIL 4 & 9/A5.00 FOR SURROUND DETAIL.

ITEM NO. 5 - HOLLOW METAL FRAME SOLID SURFACE SURROUNDS

BASE BID: ALL EXISTING WINDOW TRIM AND SILLS SHALL BE PREPPED AND PAINTED PT-1A.

ALTERNATE NO. 1 (ADD): PROVIDE ALTERNATE COST TO DEMOLISH AND REPLACE EXISTING

BASE BID: CORRIDORS (229A, 229B, 229C, 299D) SHALL HAVE P-1 PAINT AS NOTED ON A6.02.

ALTERNATE NO. 2 (ADD): PROVIDE INPRO WALL CLADDING WC-7 TO 32" AFF THROUGHOUT

BASE BID: ALL RESIDENT ROOM HEADWALLS TO HAVE WC-1 WALLCOVERING, SEE 18/A2.22. ALTERNATE NO. 3 (DEDUCT): PROVIDE P-3 PAINT IN LIEU OF WC-1 AT RESIDENT ROOM

16 ALTERNATES LIST

ITEM NO. 1 - WINDOW SILLS

SEE GENERAL FINISH NOTES A6.01.

ITEM NO. 2 - WALL CLADDING AT CORRIDORS

CORRIDORS (299A, 299B, 299C, 299D).

ITEM NO. 3 - RESIDENT ROOM HEADWALL

HEADWALLS.

WINDOW SILLS WITH SSM-1.



# AMENTA EMMA ARCHITECTS **OWNER:** ANDRUS ON HUDSON 185 OLD BROADWAY HASTINGS-ON-HUDSON, NY 10706 914.478.3700 ARCHITECT: AMENTAJEMMA ARCHITECTS, P.C. 242 TRUMBULL STREET, SUITE 20 ARTFORD, CT 06103 **MEP/FP ENGINEER:** CONSULTING ENGINEERINGS SERVICES (CES) 811 MIDDLE STREET MIDDLETOWN, CT 06457 860.632.1682

#### AND J \_\_\_\_\_ JAN JANITOR EXISTING (E) NEW JANITOR'S CLOSET JC (N) RELOCATED (R) AT LABORATORY LAB LAMINATE I AM \_\_\_\_\_ AIR CONDITIONING LAVATORY LAV POUND ACC ACCESSIBLE LB ACOUSTICAL CEILING TILE LINEAR FOOT ACT LF ADD ADDITIONAL LLH LONG LEG HORIZONTAL LLV LONG LEG VERTICAL ADJ ADJUSTABLE ABOVE FINISH FLOOR AFF М -----MACH MACHINE ALT ALTERNATE MAINT MAINTENANCE ALUM ALUMINUM APPROX APPROXIMATE MATL MATERIAL ARCH ARCHITECTURAL MAXIMUM MAX AUDIO VISUAL MARBLE AV/ MBI MEDIUM DENSITY FIBERBOARD MDF BOARD MDO MEDIUM DENSITY OVERLAY BD PLYWOOD BLDG BUILDING MECH MECHANICAL BO BOTTOM OF MEP MECHANICAL, ELECTRICAL, BUILT-UP ROOFING BUR PLUMBING MEZZ MEZZANINE CATCH BASIN CB MFR MANUFACTURER CORNER GUARD CG MH MANHOLE CAST-IN-PLACE CIP MINUMUM MIN CONTROL / CONSTRUCTION JOINT CJ MISC MISCELLANEOUS CENTER LINE CL MM MILLIMETER CLG CEILING MO MASONRY OPENING CLR CLEAR MTD MOUNTED CMU CONCRETE MASONRY UNIT MTG MOUNTING CO CLEANOUT Ν NORTH COL COLUMN Ν CONC CONCRETE NOT APPLICABLE NA CONT CONTINUOUS NC NOISE CRITERIA COORD COORDINATE NIC NOT IN CONTACT CORR CORRIDOR NOM NOMINAL CERAMIC TILE СТ NTS NOT TO SCALE CW COLD WATER -----ON CENTER OC DEMO DEMOLITION OUTSIDE DIAMETER/DIMENSION OD DEPT DEPARTMENT OFCI OWNER FURNISHED, CONTR DRINKING FOUNTAIN DF **INSTALLED** DIA DIAMETER OFOI OWNER FURNISHED, OWNER DIM DIMENSION INSTALLED DISP DISPENSER OPP OPPOSITE DOWN DN ORD OVERFLOW ROOF DRAIN DO DOOR OPENING OVHD OVERHEAD DP DIMENSION POINT Р \_\_\_\_\_ DR DOOR PAINT Ρ. DS DOWNSPOUT PBD PARTICLEBOARD DW DISHWASHER PC PRECAST CONCRETE DWG DRAWING PERF PERFORATED -----PERIM PERIMETER EACH EA PERP PERPENDICULAR EIFS EXTERIOR INSULATION & FINISH PLASTIC LAMINATE SYSTEM PLF POUNDS PER LINEAR FOOT EJ EXPANSION JOINT PR PAIR ELEVATION EL PREFAB PREFABRICATED ELECT ELECTRICAL PROJ PROJECT ELEV ELEVATOR PSF POUNDS PER SQUARE FOOT EMERG EMERGENCY PT POINT EQ EQUAL PTD PAINTED EQUIP EQUIPMENT \_\_\_\_\_ EWC ELECTRICAL WATER COOLER QUARRY TILE EXH EXHAUST QTY QUANTITY EXIST EXISTING RADIUS OR RISER EXT EXTERIOR -----RESILIENT BASE FD FLOOR DRAIN RCP REFLECTED CEILING PLAN FIRE EXTINGUISHER FE RD ROOF DRAIN FEC FIRE EXTINGUISHER CABINET REF REFERENCE FURNITURE, FINISHES, & FF&E REINF REINFORCED / REINFORCING EQUIPMENT REQ'D REQUIRED FINISH FLOOR ELEVATION FFEL REV REVISION/REVISED FHC FIRE HOSE CABINET RM ROOM FLOOR FL RO ROUGH OPENING FND FOUNDATION RWL RAIN WATER LEADER FO FACE OF FP FIRE PROTECTION SC SEALED CONCRETE FPG FIREPROOFING SCHED SCHEDULE FRTW FIRE RETARDANT TREATED WOOD SQUARE FEET/FOOT SF FT FEET SIM SIMILAR FURN FURNITURE SP STANDPIPE FABRIC WALLCOVERING FWC SPEC SPECIFICATION FABRIC WRAPPED PANEL FWP SQ SQUARE GROUND SS STAINLESS STEEL -----STD STANDARD GA GAUGE / GAGE STL STEEL GALV GALVANIZED STOR STORAGE GC GENERAL CONTRACTOR STRUCT STRUCTURAL GFRC GLASS FIBER REINFORCED -----CONCRETE T&G TONGUE AND GROOVE GFRG GLASS RIBER REINFORCED TREAD GYPSUM GL GLASS TC TOP OF CURB GYPBD GYPSUM WALLBOARD TEL TELEPHONE OR TELECOM TO TOP OF (SEE OTHER WORD) HOSE BIB HB ΤV TELEVISION HOLLOW CORE HC TW TOP OF WALL TYPICAL HCP HANDICAPPED TYP HDWD HARDWOOD HDWR HARDWARE U.O.N. UNLESS OTHERWISE NOTED HOLLOW METAL (STEEL FRAME) HM -----HORIZ HORIZONTAL VCT VINYL COMPOSTION TILE HR HOUR VERT VERTICAL HVAC HEATING, VENTILATION, AIR VEST VESTIBULE CONDITIONING VIF VERIFY IN FIELD HW HOT WATER VT VINYL TILE VWC VINYL WALL COVERING INSIDE DIAMETER ID W -----IN INCH W/O WITHOUT INCL INCLUDED / INCLUDING WC WALL COVERING INSUL INSULATION WD WOOD INT INTERIOR WP WORK POINT INV INVERT WR WATER RESISTENT/REPELLANT

# ABBREVIATIONS

A 1.01 SHEET NUMBER Sheet Number Sequence Sheet Type Discipline ENLARGED PLAN / DETAIL IDENTIFICATION Detail Number Sheet Number SECTION IDENTIFICATION Detail Number Sheet Number EXTERIOR ELEVATION IDENTIFICATION A101 1- Elevation Number Sheet Number INTERIOR ELEVATION IDENTIFICATION 3 A101 1-Elevation Number Sheet Number ROOM IDENTIFICATION Room Name 202 Room Number Area 🗕 Room Area (If Displayed) DIMENSION LINE DIMENSION LINE TO CENTERLINE OF COLUMN/ITEM CENTERLINE SYMBOL VERTICAL ELEVATION DATUM/CONTROL POINT SPOT ELEVATION EL: 100'-0" CEILING HEIGHT **ROOF PITCH** KEYED NOTE MATERIAL MATERIAL NOTE NORTH ARROW Plan North True North DRAWING REVISION / REVISION NUMBER COLUMN GRID TAG 20 R @ 7 1/2" STAIR TAG DIRECTION OF DOWNWARD SLOPE INTERIOR PARTITION TYPE TAG ASSEMBLY TYPE TAG ROOF (RF) ASSEMBLY EXTERIOR WALL (EW) ASSEMBLY FLOOR/CEILING (FL) ASSEMBLY DOOR IDENTIFICATION TAG ALIGN ELEMENTS ACCESSIBLE ELEMENT ACCESSIBLE CLEAR AREAS FLOOR TURNING AREA: 5'-0" DIAMETER - - - -WHEELCHAIR AREA: 2'-6" x 4'-0" L \_\_ \_\_ -11" 6" + + + +KNEE CLEARANCE

#### 1. THE TERM CONTRACTOR IS USED IN THESE NOTES TO IDENTIFY THE PARTY WHO IS CONTRACTED TO THE OWNER AND WHO CAUSES THE WORK OF THE CONTRACT TO BE PERFORMED EITHER BY HIS OWN FORCES OR BY OTHER CONTRACTORS RETAINED BY HIM. 2. THE CONTRACTOR SHALL DO THIS WORK IN ACCORDANCE WITH LOCAL LAWS AND ORDINANCES HAVING JURISDICTION. IN ADDITION TO THE BULDING PERMIT. THE CONTRACTOR SHALL OBTAIN AND PAY FOR ALL OTHER PERMITS AND APPROVALS AS REQUIRED BY LAW FOR THE COMPLETION OF THE WORK AND ISSUANCE OF A FULL CERTIFICATE OF OCCUPANCY. 3. THE SUBMISSION OF A PROPOSAL BY THE CONTRACTOR WILL BE CONSTRUED AS EVIDENCE THAT A CAREFUL AND THOROUGH EXAMINATION OF THE SITE HAS BEEN MADE AND LATER CLAIMS FOR LABOR, MATERIALS OR EQUIPMENT REQUIRED OR FOR DIFFICULTIES ENCOUNTERED, WHICH COULD HAVE BEEN FORESEEN HAD SUCH AN EXAMINATION BEEN MADE, WILL NOT BE RECOGNIZED. IT SHALL ALSO CONSTITUTE A REPRESENTATION THAT THE CONTRACTOR HAS CHECKED AND VERIFIED ALL QUANTITIES. WORK AND MATERIALS INVOLVED AND THAT HE SHALL TAKE RESPONSIBILITY FOR ANY DEFICIENCIES THEREIN. 4. CONTRACTOR SHALL BE RESPONSIBLE FOR VISITING THE SITE PRIOR TO BIDDING TO DETERMINE ALL EXISTING CONDITIONS. CONTRACTOR IS RESPONSIBLE FOR VERIFYING EXTENT OF ALL DEMOLITION AND NEW WORK. CONTRACTOR SHALL VERIFY CONDITION OF EXISTING WALLS TO REMAIN. CONTRACTOR SHALL VERIFY SCOPE OF THIS WORK BEFORE PRICING PROJECT. CONTRACTOR IS RESPONSIBLE FOR NOTIFYING THE ARCHITECT OF ANY DISCREPANCIES. BEFORE ORDERING ANY MATERIAL OR DOING ANY WORK, EACH TRADE SHALL VERIFY ALL MEASUREMENTS IN THE FIELD AND SHALL BE RESPONSIBLE FOR THE CORRECTNESS OF SAME. NO EXTRA CHARGE OR COMPENSATION WILL BE ALLOWED ON ACCOUNT OF DIFFERENCE BETWEEN ACTUAL DIMENSIONS AND THE MEASUREMENTS INDICATED ON THE DRAWINGS; ANY DISCREPANCIES BETWEEN THE DRAWINGS AND FIELD CONDITIONS WHICH MAY BE FOUND SHALL BE SUBMITTED TO THE ARCHITECT FOR CONSIDERATION AND CLARIFICATION BEFORE PROCEEDING WITH THE WORK. 6. ALL OF THE ARCHITECT'S DRAWINGS AND CONSTRUCTION NOTES ARE COMPLIMENTARY AND WHAT IS CALLED FOR BY EITHER WILL BE BINDING AS IF CALLED FOR BY ALL: ANY WORK SHOWN OR REFERRED TO ON ANY ONE DRAWING SHALL BE PROVIDED AS THOUGH SHOWN ON ALL DRAWINGS. WHENEVER AN ITEM IS SPECIFIED AND/OR SHOWN ON THE DRAWINGS BY DETAIL OR REFERENCE IT SHALL BE CONSIDERED TYPICAL FOR OTHER ITEMS WHICH ARE OBVIOUSLY INTENDED TO BE THE SAME EVEN THOUGH NOT SO DESIGNATED OR SPECIFICALLY NAMED BUT DO SERVE THE SAME FUNCTION. 7. THE WORK TO BE PERFORMED CONSISTS OF FURNISHING ALL LABOR, EQUIPMENT, TOOLS, TRANSPORTATION, SUPPLIES, FEES, MATERIALS, AND SERVICES IN ACCORDANCE WITH THESE NOTES AND DRAWINGS AND PERFORMING ALL OPERATIONS NECESSARY TO CONSTRUCT AND INSTALL COMPLETE AND IN SATISFACTORY CONDITION THE VARIOUS MATERIALS AND EQUIPMENT AT THE LOCATIONS SHOWN. IT IS INTENDED THAT THE DRAWINGS INCLUDE EVERYTHING REQUISITE AND NECESSARY TO FINISH THE ENTIRE WORK PROPERLY, NOTWITHSTANDING THE FACT THAT EVERY ITEM NECESSARILY INVOLVED MAY NOT BE SPECIFICALLY MENTIONED OR SHOWN. ANY ITEM WHICH MAY BE REASONABLY CONSTRUED AS INCIDENTAL TO THE PROPER AND SATISFACTORY COMPLETION OF THE WORK IN ACCORDANCE WITH THE INTENT OF THESE NOTES AND DRAWINGS IS HEREBY INCLUDED. 8. THE CONTRACTOR SHALL ABIDE BY AND COMPLY WITH THE TRUE INTENT AND MEANING OF THE DRAWINGS AND NOTES TAKEN AS A WHOLE AND SHALL NOT AVAIL HIMSELF OF ANY OBVIOUS ERRORS OR OMISSIONS, SHOULD ANY EXIST. SHOULD ANY ERROR OR DISCREPANCY APPEAR OR ANY DOUBT ARISE AS TO THE TRUE MEANING OF THE DRAWINGS OR NOTES, THE CONTRACTOR SHALL BRING SUCH ITEMS TO THE ATTENTION OF THE ARCHITECT BEFORE SUBMISSION OF PROPOSAL FOR EXPLANATION OR CORRECTION OF SAME. AFTER THE SUBMISSION OF PROPOSAL, THE CONTRACTOR WILL BE HELD RESPONSIBLE FOR ALL SUCH ITEMS. 9. THE CHARACTER AND SCOPE OF THE WORK ARE ILLUSTRATED BY THE DRAWINGS AND NOTES. TO INTERPRET AND EXPLAIN THE DRAWINGS OTHER INFORMATION DEEMED NECESSARY BY THE ARCHITECT WILL BE FURNISHED TO THE CONTRACTOR WHEN AND AS REQUIRED BY THE WORK, AND IT IS TO BE UNDERSTOOD THAT SAID ADDITIONAL INFORMATION OR DRAWINGS ARE TO BE OF EQUAL FORCE WITH THESE. 10. FULL SIZE OR LARGE SCALE DETAILS OR DRAWINGS SHALL GOVERN SMALL SCALE DRAWINGS WHICH THEY ARE INTENDED TO AMPLIFY. DETAILS OR CONDITIONS INDICATED FOR A PORTION OF THE WORK BUT NOT CARRIED OUT FULLY FOR OTHER PORTIONS SHALL APPLY THROUGHOUT TO ALL SIMILAR PORTIONS EXCEPT AS OTHERWISE SPECIFICALLY NOTED. IN EVERY CASE THE GREATER QUANTITY, OR A MORE EXPENSIVE ITEM OR METHOD SHALL BE ASSUMED OVER A LESSER QUANTITY OR A LESS EXPENSIVE ONE AND DIMENSIONS SHALL BE FIGURED RATHER THAN DETERMINED BY RULE OR SCALE. 11. THE CONTRACTOR SHALL NOTIFY THE ARCHITECT IMMEDIATELY IF HE CANNOT FOR ANY REASON COMPLY WITH ALL THE REQUIREMENTS OF THESE NOTES AND DRAWINGS. 12. THE CONTRACTOR SHALL COORDINATE AND SUPERVISE THE WORK OF ALL SUB-CONTRACTORS. HE SHALL BE RESPONSIBLE FOR GIVING ALL TRADES SUCH INFORMATION, PLANS OR DETAILS AS MAY BE REQUIRED FOR THE PROPER INSTALLATION AND COMPLETION OF THEIR WORK 13. ALL MATERIALS REQUIRED FOR THE PERFORMANCE OF THIS CONTRACT SHALL BE NEW AND OF THE BEST QUALITY OF KINDS SPECIFIED, ALL SUBJECT TO THE APPROVAL OF THE ARCHITECT. THE USE OF OLD OR SECOND-HAND MATERIALS IS STRICTLY FORBIDDEN. THE CONTRACTOR SHALL, IF REQUIRED, FURNISH SATISFACTORY EVIDENCE AS TO THE KIND AND QUALITY OF MATERIALS AND WORKMANSHIP. MATERIALS SHALL BE USED IN ACCORDANCE WITH MANUFACTURER'S PRINTED INSTRUCTIONS. UPON REQUEST, THE MANUFACTURER'S REPRESENTATIVE SHALL GO TO THE SITE AND INSTRUCT THE MECHANICS IN THE USE OF THE MATERIALS OR SHALL SUPERVISE THEIR USE. 14. THE CONTRACTOR SHALL PROVIDE BLOCKING AT ALL LOCATIONS FOR SCHEDULED WALL CABINETS AND/OR TV WALL MOUNTING BRACKETS; REFER TO DRAWINGS FOR LOCATION. 15. FOR THE EXECUTION OF THE WORK TO BE PERFORMED UNDER THIS CONTRACT AND FOR THE MANUFACTURE OR TRANSPORTATION OF ANY OF THE MATERIALS OR EQUIPMENT TO BE USED OR INSTALLED, THE CONTRACTOR SHALL EMPLOY ONLY SUCH LABOR THROUGHOUT AS WILL NOT INTERFERE WITH THE SPEEDY AND UNINTERRUPTED COMPLETION OF THE PROJECT. ALL WORK SHALL BE DONE BY MECHANICS SKILLED IN THEIR TRADE AND SHALL BE INSTALLED IN A NEAT AND WORKMANLIKE MANNER IN ACCORDANCE WITH THE BEST TRADE PRACTICES.

# 16 ANNOTATION SYMBOLS

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**GENERAL NOTES** 

16. ANY MATERIALS DELIVERED OR WORK PERFORMED, CONTRARY TO THE DRAWINGS AND SPECIFICATIONS AND APPROVED SHOP DRAWINGS, SHALL BE REMOVED BY THE CONTRACTOR AT HIS OWN EXPENSE. AND THE SAME SHALL BE REPLACED WITH OTHER MATERIALS OR WORK SATISFACTORY TO THE ARCHITECT. THE CONTRACTOR SHALL ALSO ASSUME THE COST OF REPLACING THE WORK WHICH MAY BE DISTURBED.

17. ALL DIMENSIONS TO BE VERIFIED IN FIELD BY CONTRACTOR.

- 18. REVIEW DOCUMENTS, VERIEV DIMENSIONS AND FIELD CONDITIONS AND CONFIRM THAT WORK IS BUILDABLE AS SHOWN. REPORT ANY CONFLICTS OR OMISSIONS TO THE ARCHITECT FOR CLARIFICATION PRIOR TO PERFORMING ANY WORK IN QUESTION. REFER TO GENERAL NOTES REGARDING THE REQUEST FOR INFORMATION (RFI) PROCESS.
- 19. SUBMIT REQUESTS FOR SUBSTITUTIONS, REVISIONS, OR CHANGES TO ARCHITECT FOR REVIEW PRIOR TO PURCHASE, FABRICATION OR INSTALLATION.
- 20. COORDINATE WORK WITH THE OWNER/LANDLORD INCLUDING SCHEDULING TIME AND LOCATIONS FOR DELIVERIES, BUILDING ACCESS, USE OF BUILDING SERVICES AND FACILITIES, AND USE OF ELEVATORS. MINIMIZE DISTURBANCE OF BUILDING FUNCTIONS AND OCCUPANTS.
- 21. OWNER WILL PROVIDE WORK NOTED "BY OTHERS" OR "NIC" UNDER SEPARATE CONTRACT. INCLUDE SCHEDULE REQUIREMENTS IN CONSTRUCTION PROGRESS SCHEDULE AND COORDINATE TO ASSURE ORDERLY SEQUENCE OF INSTALLATION.
- 22. COORDINATE TELECOMMUNICATIONS, DATA AND SECURITY SYSTEM INSTALLATIONS WITH VENDORS.
- 23. MAINTAIN WORK AREAS SECURE AND LOCKABLE DURING CONSTRUCTION. COORDINATE WITH TENANT AND LANDLORD TO ENSURE SECURITY.
- 24. DO NOT SCALE DRAWINGS. WRITTEN DIMENSIONS GOVERN. IN CASE OF CONFLICT, CONSULT THE ARCHITECT.
- 25. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROPERLY AND ACCURATELY LAYING OUT THE WORK AND FOR THE LINES AND MEASUREMENTS HEREIN. HE SHALL ESTABLISH NECESSARY REFERENCE LINES AND PERMANENT BENCH MARKS FROM WHICH BUILDING LINES AND ELEVATIONS SHALL BE TAKEN. ELEVATION HEIGHTS OF ALL WORK INCLUDING BUT NOT LIMITED TO SOFFITS, CEILINGS, DOORS, HOLLOW METAL SHALL BE TRUE AND LEVEL WITHIN A MAXIMUM TOLERANCE OF 1/8" OVERALL THE ENTIRE PROJECT. FOR ALL PARTITIONS REFER TO PARTITION SYMBOLS ON DRAWINGS AND THE PARTITION TYPE DETAILS WHICH SHOWS PARTITION CORES AND FINISHES. REFER TO LIFE SAFETY DRAWINGS FOR LOCATION OF RATED PARTITIONS, IF APPLICABLE.
- 26. THE CONTRACTOR SHALL KEEP THE ARCHITECT INFORMED OF THE PROGRESS OF HIS WORK. NO WORK SHALL BE CLOSED OR COVERED UNTIL IT HAS BEEN DULY INSPECTED AND APPROVED. SHOULD UNINSPECTED WORK BE COVERED, THE CONTRACTOR SHALL, AT HIS OWN EXPENSE, UNCOVER ALL SUCH WORK SO THAT IT CAN BE PROPERLY INSPECTED AND AFTER SUCH INSPECTION, HE SHALL PROPERLY REPAIR AND REPLACE ALL WORK INTERFERED WITH.
- 27. THE WORK IS SUBJECT TO INSPECTION BY THE ARCHITECT AND ACCEPTANCE BY THE OWNER.
- 28. PROTECT OWNER'S PROPERTY, EQUIPMENT AND EMPLOYEES FROM INJURY AND DAMAGE.
- 29. THE PREMISES AND THE JOB SITE SHALL BE MAINTAINED IN A REASONABLY NEAT AND ORDERLY CONDITION AND KEPT FREE FROM ACCUMULATIONS OF WASTE MATERIALS AND RUBBISH DURING THE ENTIRE CONSTRUCTION PERIOD. REMOVE CRATES, CARTONS AND OTHER FLAMMABLE WASTE MATERIALS OR TRASH FROM THE WORK AREAS AT THE END OF
- EACH WORKING DAY. A. ELECTRICAL CLOSETS, PIPE AND DUCT SHAFTS, CHASES, FURRED SPACES AND SIMILAR SPACES WHICH ARE GENERALLY UNFINISHED SHALL BE CLEANED AND LEFT FREE FROM RUBBISH, LOOSE PLASTER, MORTAR DRIPPINGS, EXTRANEOUS CONSTRUCTION MATERIALS, DIRT AND DUST.
- B. CARE SHALL BE TAKEN BY WORKMEN NOT TO MARK, SOIL, OR OTHERWISE DEFACE FINISHED SURFACES. IN THE EVENT THAT FINISHED SURFACES BECOME DEFACED. THE CONTRACTOR IS RESPONSIBLE FOR CLEANING AND RESTORING SUCH SURFACES TO THEIR ORIGINAL CONDITION. IF THIS IS NOT POSSIBLE, DAMAGED SURFACES SHALL BE REPLACED. CLEAN UP IMMEDIATELY UPON COMPLETION OF EACH TRADE'S WORK.
- CONTRACTOR TO HAVE A "SHOP VAC" OR SIMILAR EQUIPMENT ON SITE TO KEEP SITE CLEAN DURING THE CONSTRUCTION PROCESS. CONTRACTOR TO MAINTAIN CLEAR EGRESS PATHS AT ALL TIMES.
- CLEAN AREAS OF THE BUILDING IN WHICH PAINTING AND FINISHING WORK IS TO BE PERFORMED JUST PRIOR TO THE START OF THIS WORK. AND MAINTAIN THESE AREAS IN SATISFACTORY CONDITION FOR PAINTING AND FINISHING. THIS CLEANING INCLUDES THE REMOVAL OF TRASH AND RUBBISH FROM THESE AREAS BROOM CLEANING OF FLOORS, THE REMOVAL OF ANY PLASTER, MORTAR, DUST AND
- OTHER EXTRANEOUS MATERIALS FROM FINISH SURFACES, INCLUDING BUT NOT LIMITED TO, MISCELLANEOUS METAL, WOODWORK, PLASTER, GYPSUM DRYWALL, MASONRY, CONCRETE, MECHANICAL AND ELECTRICAL EQUIPMENT, PIPING, DUCTWORK, CONDUIT, AND SURFACES VISIBLE AFTER GRILLES, REGISTERS AND OTHER SUCH FIXTURES OR DEVICES ARE IN PLACE.
- H. CONTRACTOR'S PRICE SHALL INCLUDE A COMPLETE CONSTRUCTION CLEANUP. I. IN ADDITION TO THE CLEANING SPECIFIED ABOVE AND THE MORE SPECIFIC CLEANING WHICH MAY BE REQUIRED IN VARIOUS SECTIONS OF THE SPECIFICATIONS. THE PREMISES SHALL BE PREPARED FOR OCCUPANCY BY:
- a. A THOROUGH CLEANING THROUGHOUT INCLUDING WASHING OR CLEANING BY OTHER APPROVED METHODS OF ALL FLOORS AND SURFACES ON WHICH DIRT OR DUST HAS COLLECTED AND BY WASHING GLASS, REMOVING ALL PAINT, PUTTY AND STAINS THEREFROM.
- b. PROVIDING AND MAINTAINING PROTECTION OF EXISTING AND INSTALLED PORTIONS OF THE WORK.
- c. LEAVING ALL FIXTURES AND EQUIPMENT IN AN UNDAMAGED, BRIGHT, CLEAN, POLISHED CONDITION.
- d. CLEAN AND POLISH ALL HARDWARE, AND OTHER METAL WORK. e. FOR FINAL CLEANING, CONTRACTOR SHALL ENGAGE THE SERVICES OF A PROFESSIONAL CLEANING COMPANY TO ACCOMPLISH THE FOLLOWING: REMOVAL OF PUTTY STAINS AND PAINT SPOTS. WASHING AND POLISHING OF GLASS. CLEANING AND POLISHING OF ALL EXPOSED FINISH HARDWARE, AND A THOROUGH CLEANING OF ALL SURFACES; RESILIENT TILE / SHEET VINYL FLOORING POLISHED &
- BUFFFD 30. ALL HVAC, PLUMBING, SPRINKLER AND ELECTRICAL LINES ARE TO BE COORDINATED SO THAT NO CONFLICTS OCCUR. ANY CONFLICTS WHICH RESULT IN A RELOCATION OF A FINISHED SURFACE MUST BE BROUGHT TO THE ATTENTION OF THE ARCHITECT/ENGINEER PRIOR TO INSTALLATION.

- 31. CONTRACTOR SHALL CONSULT WITH ELECTRICAL AND PLUMBING SUB-CONTRACTORS FOR LOCATIONS OF CONDUIT AND PIPES IN FOUNDATION, SLABS ON GRADE, AND EXTERIOR WALLS AND SHALL INSTALL WATERTIGHT PIPE SLEEVES AT THEIR RESPECTIVE LOCATIONS.
- 32. PROVIDE ADEQUATE BACKUP AND BLOCKING FOR ALL WALL OR CEILING MOUNTED EQUIPMENT, ARCHITECTURAL WOODWORK, HANDRAILS, LIGHTING OR OTHER MISCELLANEOUS ITEMS AS SHOWN ON DRAWINGS TO ASSURE A SECURE INSTALLATION.
- 33. THE STANDARD SPECIFICATIONS OF THE MANUFACTURERS APPROVED FOR USE IN THE PROJECT ARE HEREBY MADE A PART OF THESE NOTES WITH THE SAME FORCE AND EFFECT AS THOUGH HEREIN WRITTEN OUT IN FULL, EXCEPT THAT WHEREVER THE DRAWINGS REQUIRE HEAVIER MEMBERS, BETTER QUALITY MATERIALS OR ARE OTHERWISE MORE STRINGENT, THESE STRINGENT REQUIREMENTS SHALL GOVERN.
- 34. REFER TO ELECTRICAL/TECHNOLOGY DRAWINGS FOR QUANTITIES AND TYPES OF DEVICES. REFER TO ARCHITECTURAL DRAWINGS FOR MOUNTING LOCATIONS.
- 35. EXISTING CONDITIONS DRAWING ACCURACY NOTE: DIMENSIONS, BEAM SIZES, AND MATERIAL NOTING ARE BASED ON EXISTING CONSTRUCTION DOCUMENT DRAWING SET DONE BY LEONARD SCHULTZE AND ASSOCIATES, MAY 10, 1950. AND REVISED TO MATCH CONDITIONS VIEWED DURING LIMITED FIELD OBSERVATION. CONTRACTOR TO VERIFY EXISTING CONDITIONS IN FIELD AND NOTIFY ARCHITECT OF ANY VARIANCE BETWEEN DRAWINGS AND EXISTING CONDITION BEFORE PROCEEDING WITH

WORK.

 OVERLAPPING/CONFLICTING REQUIREMENTS. MOST STRINGENT (GENERALLY MOST COSTLY) APPLY AND WILL BE ENFORCED. REFER TO ARCHITECT/ENGINEER FOR DECISION BEFORE PROCEEDING.



ARCHITECTS

AMENTA EMMA

## ANDRUS ON HUDSON

MAIN BUILDING **RENOVATIONS:** 2ND FLOOR

185 OLD BROADWAY HASTINGS-ON-HUDSON, NY 10706 CONSULTANTS

KEY PLAN



PROJECT DATA PROJECT NUMBER M22005c CURRENT SUBMISSION DATE 10.27.2023 DJF DRAWN CHECKED DJF SCALE As indicated FILE REFERENCE C:\Users\DJF\Documents\M22005c\_AOH Main Bldg Second Floor\_CD\_CENTRAL\_2020\_dennisfaga.rvt HISTORY OF SUBMISSIONS

No. Date Descriptio

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100% CONSTRUCTION DOCUMENTS

SHEET TITLE

GRAPHIC LEGEND,

-

ABBREVIATIONS, SYMBOL LEGEND, GENERAL NOTES









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- UNDERLAVATORY GUARD,

— REQUIRED KNEE AND TOE

102800.

CLEARANCE

6" 11"

 $\rightarrow$ 

TYPE 2: STANDARD WOMEN'S SINGLE USER TOILET ROOM

- 48" OF TOILET
- 6. ALL EXPOSED PIPES BELOW THE SINK OR COUNTERTOP SHALL BE INSULATED AND ALL SHARP OR ABRASIVE
- 7. 11" MAXIMUM REACH DEPTH FOR OPERABLE PORTION
- SYMBOLS TYPICAL FIXTURE/ACCESSORY ## LAYOUT TYPE 41 PLUMBING FIXTURE/ACCESSORY
- 4. ENSURE HEIGHT OF FLUSH VALVE ACCOMMODATES
- PROPER INSTALLATION OF REAR GRAB BAR

- 5. ALL TOILET ACCESSORIES SHALL BE LOCATED WITHIN

- SURFACES SHALL BE REMOVED OR PROTECTED.
- OF FAUCET 17" MINIMUM DEPTH OF LAVATORY
- UNDERMOUNT SINK, RE: PLUMBING UTILITY SINK, RE: PLUMBING CORNER TYPE SHOWER GRAB BAR, BOBRICK B-6861 SIDE, FIXED SHOWER GRAB BAR, 18" TALL, BOBRICK B-6806 X 18" 26 NOT USED SHOWER CURTAIN TRACK, KOHLER 27 EXPANSE K-9351 SHOWER CURTAIN, BOBRICK 204-3 RECESSED SOAP DISH, BOBRICK B-4380 30 NOT USED NOT USED MIRROR WITH SHELF, 10 28 00 NOT USED 60" T SHAPE TURNING CLEARANCE ACCESSIBLE BENCH ROLL-IN SHOWER 30"X48" CLEAR FLOOR AREA 60" DIAMETER CLEAR FLOOR AREA 56"X60" CLEAR FLOOR AREA FOR TOILET RESIDENTIAL-STYLE ADA 12" GRAB BAR, KOHLER PURIST K-11891-BS RESIDENTIAL-STYLE ADA 36" GRAB BAR, 41 KOHLER PURIST K-11895-BS RESIDENTIAL-STYLE ADA 42" GRAB BAR, KOHLER PURIST K-11896-BS RESIDENTIAL-STYLE ADA 18" GRAB BAR, KOHLER PURIST K-11892-BS 44 RESIDENTIAL-STYLE ADA 24" GRAB BAR, KOHLER PURIST K-11893-BS

KEY

NOTE # TOILET ACCESSORY/ PLUMBING FIXTURE NOTE # TOILET ACCESSORY/ PLUMBING FIXTURE

KEY

01 36" LONG STAINLESS STEEL, BOBRICK

02 42" LONG STAINLESS STEEL GRAB BAR, BOBRICK 5806-42

03 18" TALL STAINLESS STEEL GRAB BAR,

04 SURFACE-MOUNTED TOILET PAPER

DISPENSER, BOBRICK DBL. ROLL B76867

BOBRICK CONTURA B-43644 / LINER B-277

05 SURFACE-MOUNTED SANITARY NAPKIN

DISPOSAL, RUBBERMAID 6140

DISPENSER, BOBRICK B-359033

07 WALL-MOUNTED WASTE RECEPTACLE,

09 SURFACE MOUNTED LIQUID SOAP

DISPENSER, GOJO 2740-12

TO FRAMED MIRROR, **BOBRICK B-165 2436** 

12 EMERGENCY CALL FOR AID, **RE: MEP** 

14 MOP & BROOM HOLDER, **BOBRICK B-223** 

ROBE HOOK, KOHLER K-14443-BS

HIGH LOW WATER COOLER, RE: MEP

AUTOMATIC DOOR OPENER, RE: MEP

18 WALL-MOUNTED URINAL, **RE: PLUMBING** 

19 WALL-MOUNTED TOILET, RE: PLUMBING

WALL-MOUNTED LAVATORY SINK,

RE: PLUMBING

NOTES OTHERWISE.

GENERAL NOTES

FLOOR-MOUNTED TOILET. RE: PLUMBING

1. ALL ACCESSORIES ARE SURFACE MOUNTED UNLESS

2. PROVIDE FIRE TREATED BLOCKING AS REQUIRED FOR ALL TOILET ACCESORY INSTALLATIONS.

3. NOT ALL ACCESSORIES/PLUMBING FIXTURES LISTED ARE IN PROJECT. REFER TO PLANS AND ELEVATIONS.

13 UTILITY HOOK, BOBRICK B76717

06 WALL-MOUNTED PAPER TOWEL

08 NOT USED

11 NOT USED

BOBRICK 5806-18

B-5806-36



ARCHITECTS

AMENTA EMMA

# ANDRUS ON HUDSON

MAIN BUILDING **RENOVATIONS:** 2ND FLOOR

185 OLD BROADWAY HASTINGS-ON-HUDSON, NY 10706 CONSULTANTS

KEY PLAN

PROJECT NUMBER M22005c CURRENT SUBMISSION DATE 10.27.2023 DRAWN DJF CHECKED DJF SCALE As indicated FILE REFERENCE C:\Users\DJF\Documents\M22005c\_AOH Main Bldg\_Second Floor\_CD\_CENTRAL\_2020\_dennisfaga.rvt HISTORY OF SUBMISSIONS No. Date

PROJECT DATA

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100% CONSTRUCTION DOCUMENTS

SHEET TITLE

• •

PLUMBING FIXTURE / ACCESSORIES LEGEND AND MOUNTING HEIGHTS

G1.01.







AS INDICATED

RE: PLAN

OR PLANS AS INDICATED AS INDICATED IN PLAN RE: PLAN

TYPICAL HEIGHTS OF MILLWORK COUNTERTOPS, WORKSURFACES, AND TRANSACTIONS SURFACES, UNLESS OTHERWISE NOTED ON ELEVATIONS



ARCHITECTS

AMENTA|EMMA

# MAIN BUILDING **RENOVATIONS:** 2ND FLOOR

185 OLD BROADWAY HASTINGS-ON-HUDSON, NY 10706

CONSULTANTS

KEY PLAN

PROJECT NUMBER CURRENT SUBMISSION DATE DRAWN CHECKED SCALE FILE REFERENCE

M22005c DJF

DJF

C:\Users\DJF\Documents\M22005c\_AOH Main

PROJECT DATA

10.27.2023

As indicated

Bldg\_Second Floor\_CD\_CENTRAL\_2020\_dennisfaga.rvt

HISTORY OF SUBMISSIONS

No. Date

\_\_\_\_\_

100% CONSTRUCTION DOCUMENTS

SHEET TITLE

TYPICAL DEVICES,

ACCESSORIES, OPENING, EQUIPMENT MOUNTING HEIGHTS

G1.02.

AND LAYOUTS

- 2018    - 2018    - 2018	NTERNATIONAL EXISTING BUILDING CODE, 2020 EXISTING BUILDING COD NTERNATIONAL BUILDING CODE, 2020 BUILDING CODE OF NEW YORK ST NTERNATIONAL PLUMBING CODE, 2020 PLUMBING CODE OF NEW YORK ST	DE OF NEW YORK STATE ATE STATE	
- 2018    - 2018    - 2018	NTERNATIONAL MECHANICAL CODE, 2020 MECHANICAL CODE OF NEW YON NTERNATIONAL FIRE CODE, 2020 FIRE CODE OF NEW YORK STATE NTERNATIONAL FUEL GAS CODE, 2020 FUEL GAS CODE OF NEW YORK ST	ORK STATE IATE	
- 2018 IN - 2018 F - 2017 N	NTERNATIONAL ENERGY CONSERVATION CODE, 2020 ENERGY CONSERV GI GUIDELINES FOR DESIGN AND CONSTRUCTION AND CONSTRUCTION IATIONAL ELECTRIC CODE NEPA 70	ATION CODE OF NEW YORK STATE OF RESIDENTIAL HEALTH, CARE, AND SUPPORT FACILITIES	
- 2012 N - 2010 A	ATIONAL FIRE PROTECTION AGENCY (NFPA) 101: LIFE SAFETY CODE MERICANS WITH DISABILITIES ACT AND ASSOCIATED GUIDELINES		
<b>1.0 EXI</b> 1.1	STING BUILDING (IEBC) Continuation of Existing Use		
1.2 1.3	Change of Use Complying with International Existing Building Code	YES     X     NO     N/A       X     YES     NO     N/A	
<b>2.0 OC</b> 2.1	CUPANCY CLASSIFICATION SINGLE OCCUPANCY	INSTITUTIONAL I-2 CONDITION 1 (IBC 308.3), HEALTH CARE (NFPA 101)	
2.2	2.2.1 ACCESSORY OCCUPANCY (IBC 508.2)	NO	
	2.2.3 SEPARATED OCCUPANCY (IBC 508.3)		
2.3 3.0 GE	NCIDENTAL USE (IBC 509, TABLE 509, NFPA 101, Table 18.3.2.1)	YES; FOR I-2, SEPARATION TO BE 1-HOUR RATED: - WASTE / LINEN ROOMS - STORAGE ROOMS GREATER THAN 100 SF	
3.1	TYPES OF CONSTRUCTION (IBC 602/NFPA 101) 3.1.1 Minimum Type of Construction Permitted	IA (IBC), Type I,332 (NFPA 101)	
	3.1.2 Type of Construction Assumed for Review	IA (IBC), Type I, 332 (NFPA 101) - Non Combustible, Fully Sprinklered	
3.2	HEIGHT MODIFICATIONS (IBC 504/NFPA 220 Equivalent)		
	<ul> <li>3.2.2 Allowable Tabular Stories above Grade Plane (Table 504.4)</li> <li>3.2.3 Actual Building Height</li> <li>3.2.4 Actual Stories above Grade Plane</li> </ul>	I-2: Unlimited Estimated 84-8" including Solarium 9	
3.5	BUILDING AREA (IBC 506/NFPA 220 Equivalent) 3.5.1 Allowable Tabular Floor Area, <i>At</i> (Table 506.2) 3.5.2 Allowable Area for Nonsprinklered Buildings, <i>NS</i> (Table 506.2)	I-2 UNLIMITED UNLIMITED	
	3.5.3 Single Occupancy, multistory buildings (506.2.3) Allowable Area, <i>Aa</i> (506.2.4) = [ <i>At</i> + ( <i>NS x If</i> )] <i>x Sa</i> =	UNLIMITED UNLIMITED	
	Maximum Allowable Area of Each Floor =	UNLIMITED	OCCUPANT LOAD -
	Allowable Area, $Aa = [At + (NS \times If)] =$ Maximum Allowable Area of Each Floor 3.5.5 Actual Floor Area	UNLIMITED	LIBRART - READING ROOM/RECF 520 NSF / 50 NSF = 11 OCCUP
10 FIF	3.5.7 Actual Total Floor Area 3.5.6 Actual Building Area (Largest Floor)	24,214 SF 24,214 SF	
<b>⊶.⊍ FIR</b> 4.1	FIRE-RESISTANCE RATING REQUIREMENTS FOR BUILDING ELEMENTS (IBC Table 601/NFPA 220 Table 4.1.1)	ЗНР	
	4.1.2 Bearing Walls 4.1.2.1 Exterior	3HR 3HR	ACCESSORY ASSEMBLY AREA 213 NSF / 15 NSF = 15
	4.1.3 Nonbearing walls and partitions (per IBC Table 602) 4.1.3.1 Exterior	1HR when X<5	
		1HR when $5 \le X < 10$ 1HR when $10 \le X < 30$ 0HR when $X \ge 30$	
I	4.1.3 Ploor construction including supporting beams & joists 4.1.5 Roof construction including supporting beams & joists	0HR 2HR 1 1/2HR	
4.2	BUILDING ELEMENTS 4.2.1 Projections - Cornices, Eave Overhangs, Exterior		
	Balconies, and similar projections (IBC 705.2) a. Minimum Distance of Projection from Fire Separation Distance (FSD)	0 ft to 2 ft       -       Projections not Permitted         Greater than 2 ft to 3 ft       -       24 inches         Greater than 3 ft, Less than 5 ft       -       24 inches plus 8 inches for every foot of FSD beyond 3 ft         5 ft or Creater       -       -       -	
	b. Construction Types I and II	Noncombustible Material Combustible Material as permitted by Section 705.2.3.1 and 705.2.4	
12	4.2.3 Vertical fire spread protection (IBC 705.8.5, 705.8.6)	N/A - Fully Sprinklered (705.8.5.2Exception)	
4.5	4.3.1 Shaft Enclosures (IEBC 802.2.1/NFPA 101 7.1.3.2.1)	2HR, Maintain 1HR rating for Existing	
	4.3.2 Interior Exit stairway/ramp (IEBC 802.2.1/NFPA 101 19.3.1.1) 4.3.3 Exit access stairway/ramp (IEBC 802.2.1)	N/A	
	4.3.4 Exit passageway (IBC 1023.3)	N/A	
	4.3.5 Horizontal exits (IBC 1026.2) 4.3.6 Atriums (IBC 707.3.6)	N/A N/A	
	<ul><li>4.3.7 Incidental uses (IBC Table 509, NFPA 101, Table 18.3.2.1)</li><li>a. Waste/linen collection rooms with containers that</li></ul>	1HR	
	have aggregate volume of 10 cubic feet or greater b. Storage rooms greater than 100sf	1HR	
	4.3.8 Control Areas (Hazardous) (IBC 707.3.8) 4.3.9 Separation of Mixed Occupancies (IBC Table 508.4, 508.2.4)	N/A	
	4.3.10 Single Occupancy Fire Areas	N/A	
4.4	FIRE-RESISTANT CONSTRUCTION 4.4.1 Fire Walls (IBC 706)	N/A	
	4.4.2 Fire Partitions (IBC 708) a. Wall separating sleeping units	OHR	
	<ul> <li>b. Corridor vvalis (IBC 407.3/NEPA 101 19.3.6.2.1)</li> <li>c. Elevator Lobby Separation (713.14.1)</li> </ul>	N/A per (713.14.1.1&4 Exception) fully sprinklered	
	4.4.3 Smoke Barriers (IBC 709) 4.4.4 Smoke Partitions (IBC 710)	N/A <b>1HR</b> between Smoke Compartments	
4.5	FIRE PROTECTION SYSTEM 4.5.1 Automatic Sprinkler System (903.3.1.2,	NFPA 13	
	EBCNYS 803.2.2 >30 occupants) 4.5.2 Alternative Automatic Fire-Extinguishing Systems (904)		
	a. Kitchen Hood 4.5.3 Portable Fire Extinguishers (906)	N/A Per 2020 Fire Code of NYS and NFPA 101, 9.7.4.1	
	4.5.4 Fire Alarm and Detection Systems (907)	Furnish per code	
	4.5.5 Smoke Control Systems (909) 4.5.6 Fire Command Center (911)	N/A Yes	
	5.5.7 Fire Pumps (913)	Yes	
5.0	5.1 Total Occupant Load	185P	
	<ul><li>5.2 Capacity of Exits (exit discharge) (IBC 1005.3, NFPA 101 7.3.3.1)</li><li>5.3.1 Capacity of doors (inches per occupant) - 0.2 factor</li></ul>	Required Provided 37 825 36" Wide Doors x 5	
l	<ul><li>5.3.2 Capacity of stairways (inches per occupant) - 0.3 factor</li><li>5.3 Exit Access Travel Distance (IBC Table 1017.2. NFPA 101 Table A 7.6.1)</li></ul>	<ul> <li>56 733   44" Wide Stairs x 5</li> <li>200 ft I-2 occupancy</li> </ul>	
	5.4 Exit Access Travel Distance from Resident Room to Corridor Door (NFPA 101 19.2.6.2.3)	50 ft	
	<ul><li>5.5 Common Path of Travel (IBC Table 1006.2.1, NFPA Table A.7.6.1)</li><li>5.6 Exit Access Corridor Widths (IBC 1020 2 NFPA 18 2.3.4)</li></ul>	75 ft 44 in Minimum width down to 44 inches if under 100	
	10.2.0.4)	<ul> <li>Access to and utilization of mechanical, plumbing or electrical systems or equipment</li> <li>With an occupant load of less than 50</li> <li>Group I-2 in areas where required for bed movement</li> </ul>	
	5.7 Dead Ends (IBC 1020.4, NFPA 101 Table A.7.6.1)	30 ft I-2 occupancy	520 NSF / 50 NSF = 11 OC
6.0	INTERIOR ENVIRONMENT 6.1 Sound Transmission 6.1.1 Airborne Sound Requirement 6.1.2 Structure-borne Sound Requirement 5	0 STC 0 IIC	
INT	ERNATIONAL FIRE CODE (2020 FIRE CODE OF NEW YO	RK STATE)	
<b>1.0</b>   1	INTERIOR FINISHES - Walls and Ceilings (IBC Table 803.13, NFPA 101 19.3. 1 Vertical exits & exit passageways	3) Class B I-2 occupancy	
1	.2 Exit access corridors & other exitways .3 Rooms & enclosed spaces	Class B I-2 occupancy Class B I-2 occupancy	
		Class C I 2 percently in reama with a consolity of four percent or fower	

GROUP I-2 FIXTURE COUNTS (TABLE 403.1)

		WATER CLOSETS		LAVATORIES		BATHTUBS / SHO	WERS	DRINKING FOUN	TAINS	OTHER
SECOND FLOOR occupan	nt load	ratios		ratios		ratios		ratios		ratios
Medical Care Recipients	44P	1 per room	44	1 per room	44	1 per 15	44	1 per 100	.44	1 service sink per floor
Employees*	18P	1 per 25	1	1 per 35	1		n/a	1 per 100	.18	
Visitors**	22P	1 per 75	1	1 per 100	1		n/a	1 per 500	.05	
required total			46		46		3		1***	
provided			47		47		46		2	

\*PER TABLE 403.1 FOOTNOTE B, THE TOILET FACILITY FOR EMPLOYEES IS SEPERATE FROM CARE RECIPIENT FACILITIES. \*\*VISITORS ESTIMATED .5 / MEDICAL CARE RECIPIENT \*\*\*TOTAL REQUIRED HAS BEEN ROUNDED UP AFTER TOTALING ALL REQUIRED FIXTURE FRACTIONAL NUMBERS WITHIN THE SAME OCCUPANCY.

#### 2020 PCNYS TABLE 403.1 FIXTURE COUNT COMPLIANCE



1

n/a n/a

1

1

#### 1-HOUR RATED WALL CONSTRUCTION (Tight to underside of structure above) 2-HOUR RATED WALL CONSTRUCTION \_\_\_\_\_ (Tight to underside of structure above) SMOKE PARTITION

MAXIMUM FLOOR AREA ALLOWANCES PER OCCUPANT Area / Factor per SF = P Calculated Occupants (TABLE 1004.1.2) ACCESSORY STORAGE AREA, MECHANICAL EQUIPMENT ROOM OCCUPANT LOAD Occupant load factor - Room area in square feet 300 GROSS FLOOR AREA PER OCCUPANT ACCCESSORY ASSEMBLY AREAS, EXIT CAPACITY 72 - Actual occupant load of element UNCONCENTRATED 15 NET FLOOR AREA PER OCCUPANT 163 — Maximum allowable occupant load BUSINESS AREAS 150 GROSS FLOOR AREA PER OCCUPANT ACCESSIBLE AREA, FIXTURE OR EXIT INSTITUTIONAL AREAS ⊢ \_\_\_\_\_\_ → MAXIMUM TRAVEL DISTANCE From furthest point INPATIENT TREATMENT AREAS 240 GROSS FLOOR AREA PER OCCUPANT INSTITUTIONAL AREAS SLEEPING AREAS 120 GROSS FLOOR AREA PER OCCUPANT KITCHEN, COMMERCIAL 200 GROSS FLOOR AREA PER OCCUPANT



ARCHITECTS

AMENTA|EMMA

# ANDRUS ON HUDSON

MAIN BUILDING **RENOVATIONS:** 2ND FLOOR

185 OLD BROADWAY HASTINGS-ON-HUDSON, NY 10706

CONSULTANTS

KEY PLAN

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PROJECT DATA PROJECT NUMBER M22005c CURRENT SUBMISSION DATE 10.27.2023 DRAWN AEO CHECKED DJF SCALE As indicated C:\Users\DJF\Documents\M22005c\_AOH Main FILE REFERENCE Bldg\_Second Floor\_CD\_CENTRAL\_2020\_dennisfaga.rvt HISTORY OF SUBMISSIONS No. Date Descriptio \_\_\_\_\_

\_\_\_\_\_ \_\_\_\_\_

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SHEET TITLE

SECOND FLOOR LIFE SAFETY PLAN, CODE INFORMATION AND PLUMBING FIXTURE COUNT

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G2.00.

- 1. DEMOLITION PLANS SHOW APPROXIMATE LAYOUT OF EXISTING PARTITIONS, DOORS, WINDOWS, FURNITURE, ETC. AND ARE NOT INTENDED TO REPRESENT AS-BUILT CONDITIONS. ALL INFORMATION MUST BE VERIFIED ON SITE.
- 2. ALL WORK SHALL BE CARRIED OUT IN ACCORDANCE WITH ANSI A10.6, THE CONSTRUCTION SAFETY AND HEALTH REGULATIONS AND REQUIREMENTS OF THE LOCAL AUTHORITIES.
- 3. ALL DEMOLITION SHALL BE PERFORMED IN A SAFE AND ACCEPTABLE MANNER TO ALL AUTHORITIES HAVING JURISDICTION AND THE OWNER. A FIRE WATCH SHALL BE PROVIDED AS REQUIRED.

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- 4. NO BUILDING ELEMENTS SHALL BE LEFT IN A TEMPORARY CONDITION OR EXPOSED FOR AN EXCESSIVE OR UNREASONABLE AMOUNT OF TIME.
- 5. PROVIDE PROTECTION AT EXTERIOR WALLS AND ROOFS AFFECTED BY DEMOLITION, TO PREVENT WEATHER PENETRATION.
- 6. HAZARDOUS MATERIALS: CONTRACTOR SHALL STOP WORK AND INFORM THE OWNER IMMEDIATELY IN WRITING OF ANY HAZARDOUS MATERIAL ENCOUNTERED. THE OWNER, AFTER RECEIVING WRITTEN NOTICE SHALL INSTRUCT CONTRACTOR ON HOW TO PROCEED.
- 7. DEMOLISHED MATERIALS SHALL BE SORTED ON SITE AND RECYCLED OR SALVAGED. RECYCLING SHALL BE BY A LICENSED HAULER IN THE STATE OF NEW YORK. 8. PROVIDE SUITABLE COVERED CONTAINERS TO RECEIVE DEBRIS. USE OF WATER SHALL BE
- LIMITED TO A LIGHT SPRAY TO PREVENT THE SPREAD OF DUST. NO BURNING OF MATERIALS WILL BE PERMITTED. 9. PROVIDE AND MAINTAIN ALL SHORING AND BRACES REQUIRED TO SUPPORT EXISTING
- CONSTRUCTION. METHODS AND MATERIALS SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR SHALL INSURE THAT STRUCTURAL ELEMENTS ARE NOT OVERLOADED, AND BE RESPONSIBLE FOR INCREASING STRUCTURAL SUPPORTS REQUIRED AS A RESULT OF ANY CUTTING, REMOVAL, OR DEMOLITION WORK. SHORING, BRACING, AND BARRICADES SHALL REMAIN IN PLACE UNTIL NEW STRUCTURAL WORK IS COMPLETED. NO STRUCTURAL MEMBER SHALL BE REMOVED WITHOUT REVIEW OR APPROVAL BY STRUCTURAL ENGINEER AND ARCHITECT.
- 10. PROVIDE PROTECTION OF ADJACENT AREAS AND BUILDING COMPONENTS NOT TO BE DISTURBED, INCLUDING PATHS OF TRAVEL FROM SITE ENTRANCE TO SPECIFIC SCOPE OF WORK AREAS.
- 11. PROVIDE NECESSARY BARRIERS AS REQUIRED TO SECURE SCOPE OF WORK AREA AT THE END OF EACH DAY.
- 12. LOCATE TEMPORARY BARRIERS OR PARTITIONS TO SEPARATE WORK AREA FROM OCCUPIED AREAS.
- 13. ERECT AND MAINTAIN DUST PROOF PARTITIONS AS REQUIRED TO PREVENT SPREAD OF DUST, FUMES, AND SMOKE, ETC. TO OTHER PARTS OF THE BUILDING. ON COMPLETION, REMOVE PARTITIONS AND REPAIR DAMAGED SURFACES TO MATCH ADJACENT SURFACES.
- 14. IF DEMOLITION IS PERFORMED IN EXCESS OF THAT REQUIRED, RESTORE AFFECTED AREAS AT NO COST TO THE OWNER.
- 15. INSTALL AND MAINTAIN BARRICADES FOR THE PROTECTION OF THE PUBLIC.
- 16. MAINTAIN ACCESS TO EXITS AT ALL TIMES. FIRE ALARM AND SMOKE DETECTION SYSTEM TO REMAIN OPERATIONAL AT ALL TIMES.
- 17. PROVIDE AND MAINTAIN FIRE PROTECTION THROUGHOUT DEMOLITION AND CONSTRUCTION.
- 18. ANY ITEM NOT SPECIFICALLY IDENTIFIED, BUT REQUIRED TO BE REMOVED OR REPAIRED TO PREPARE THE BUILDING FOR NEW WORK IS THE RESPONSIBILITY OF THE CONTRACTOR.
- 19. PRIOR TO THE START OF DEMOLITION, CONTRACTOR SHALL REVIEW ALL ITEMS WITH OWNER AND IDENTIFY ANY ITEMS TO BE SALVAGED.
- 20. SCHEDULE ALL SHUTDOWNS OF UTILITIES IN OCCUPIED PORTIONS OF THE BUILDING WITH THE OWNER (AND LOCAL FIRE DEPARTMENT IF NECESSARY) PRIOR TO IMPLEMENTING
- 21. SEE MEP/FP DRAWINGS FOR ASSOCIATED DEMOLITION. CONTRACTOR SHALL COORDINATE DEMOLITION DRAWINGS AND NOTES WITH ALL DISCIPLINES.
- 22. PARTITIONS AND OTHER ITEMS TO BE REMOVED ARE SHOWN DASHED. WHERE WALLS ARE TO BE REMOVED. SERVICES IN WALLS SHALL ALSO BE REMOVED OR RELOCATED. COORDINATE WITH MEP/FP. CONTRACTOR TO FIELD VERIFY ALL EXISTING ELECTRICAL FIXTURES & RECEPTACLES SCHEDULED TO REMAIN. REMOVE ANY DEVICES AND WIRING THAT DO NOT CORRESPOND WITH PROPOSED ELECTRICAL LAYOUT PLAN. REMOVE ALL ABANDONED ELECTRICAL WIRING FROM ABOVE CEILING & EXISTING WALLS THAT WILL REMAIN; REMOVE WIRING BACK TO PANEL OR NEXT LOGICAL JUNCTION BOX LOCATION.
- 23. REMOVE ALL EXISTING FINISH FLOORING DOWN TO EXISTING STRUCTURAL SLAB / FLOOR SUBSTRATE. REPAIR STRUCTURAL FLOOR / FLOORING SUBSTRATE AS REQUIRED TO PREPARE FOR SCHEDULED FLOORING SYSTEMS PER MANUFACTURER SPECIFICATIONS & REQUIREMENTS.
- 24. ANY ELECTRICAL, PHONE, THERMOSTAT, OR OTHER DEVICES & WIRING LOCATED WITHIN SCOPE OF WORK AREA SCHEDULED TO BE DEMOLISHED SHOULD BE RELOCATED OUT OF REACH FOR FURTHER DEMOLITION BY THEIR RESPECTIVE TRADES.
- 25. ALL PLUMBING NO LONGER IN USE SHALL BE REMOVED IN ITS ENTIREITY. 26. REMOVE EXISTING LIGHT FIXTURES, DIFFUSERS, ETC. AS REQUIRED DUE TO NEW LAYOUT. SAVE CEILING ITEMS FOR REUSE WHERE INDICATED. REFER TO REFLECTED CEILING PLAN FOR SCOPE OF WORK REGARDING NEW CEILING AND EXISTING CEILING TO REMAIN. SPRINKLER PIPING AND DUCTWORK SHALL BE MODIFIED AS REQUIRED TO ACCOMMODATE
- NEW LAYOUT. REMOVE AND REPLACE EXISTING CEILING PANELS AND SYSTEM AS REQUIRED FOR SCOPE OF WORK. 27. REMOVE EXISTING PARTITIONS AS REQUIRED FOR SCHEDULED DOORS TO BE INSTALLED UNDER THE NEW SCOPE OF WORK; REFER TO CONSTRUCTION PLAN.
- 28. REMOVE ALL EXISTING WALL-MOUNTED AND CEILING-MOUNTED EQUIPMENT IN ITS ENTIRETY INCLUDING BUT NOT LIMITED TO PROJECTION SCREENS, FLAG HOLDERS, CLOCKS, SPEAKERS, RACKS, TACKSTRIPS, TACKBOARDS, ACCESSORIES, MIRRORS, SHELVING, BELLS, ROW HOOKS, ETC ...
- 29. COORDINATE ALL REQUIRED CORE DRILLING & TRENCHING WITH POWER PLANS.
- 30. REMOVE ALL EXISTING HOLD OPENS, RECESSED FLOOR PIVOTS, AND DOOR STOPS AT ALL LOCATIONS AND PATCH HOLES AS REQUIRED. 31. WHEREVER FLOOR CLEANOUTS ARE REMOVED, INFILL SLAB AS REQUIRED. COORDINATE
- WITH PLUMBING DRAWINGS.
- 32. REMOVE ALL WINDOW SHADES IN THEIR ENTIRETY. 33. WHERE EXISTING MILLWORK IS SHOWN DASHED, REMOVE ENTIRE ASSEMBLY.
- 34. REMOVE ALL FINISH FLOORING, WALL BASE, AND ADHESIVES DOWN TO SUBSTRATE WITHIN
- SCOPE OF WORK AREA. 35. REMOVE ALL DOORS AND FRAMES WHERE SHOWN TO BE REMOVED IN THEIR ENTIRETY, U.O.N. WHERE DOOR OR SIDELIGHT ARE SHOWN DASHED, REMOVE ENTIRE ASSEMBLY INCLUDING DOOR, FRAME, SIDELIGHT, HARDWARE, ETC. UNLESS OTHERWISE NOTED.
- 36. REMOVE ALL EXISTING FIRE EXTINGUISHERS AND SAVE FOR REUSE AND RECHARGING. 37. WHERE EXISTING WALLS ARE DESIGNATED TO BE REMOVED, REMOVE DESIGNATED SECTION OF WALL IN ITS ENTIRETY TO UNDERSIDE OF STRUCTURE UNLESS NOTED
- OTHERWISE. 38. THE MAJORITY OF THE EXISTING WALLS CONSIST OF MASONRY CONSTRUCTION. THE
- WALLS ARE GYPSUM BLOCK UNITS.

## GENERAL DEMOLITION NOTES

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- 1 DEMO AND REPLACE WITH NEW DOOR TO MATCH EXSITING. DOOR FRAME TO REMAIN
- 2 REMOVE PORTION OF EXISTING MASONRY WALL AS REQUIRED TO ACCOMMODATE NEW OPENING. COORDINATE WITH CONSTRUCTION DRAWINGS TO MINIMIZE EXTENT OF DEMOLITION. PROVIDE TEMPORARY SUPPORT AS
- REQUIRED.
- 3 REMOVE GYPSUM BLOCK WALLS AROUND COLUMNS WITHIN ROOMS. PORTION OF BLOCK WALL AT CORRIDOR TO REMAIN. REFER TO DETAIL 5/A1.00
- 4 REMOVE EXISTING PLUMBING FIXTURES, TOILET PARTITIONS, AND ASSOCIATED ACCESSORIES IN THEIR ENTIRETY. COORDINATE WITH PLUMBING DRAWINGS.
- 5 REMOVE EXISTING WALLPAPER AND HANDRAILS. PATCH AND REPAIR EXISTING
- WALLS AT ALL LOCATIONS. PREPARE SURFACES FOR NEW FINISHES; RE: FINISH PLAN.
- 6 REMOVE EXISTING SPEAKERS AND FIRE ALARMS
- 7 REMOVE AND RELOCATE EXISTING CABINET HEATERS RE:MECHANICAL

EXISTING CONSTRUCTION TO BE REMOVED

<sup>3</sup><sup>3</sup><sup>3</sup> 26 <u>DEMOLITION FLOOR PLAN LEGEND</u>

1 DEMOLITION KEYNOTE

DEMOLITION FLOOR PLAN KEYNOTES

# EXISTING CONSTRUCTION TO REMAIN

# -.21 SECOND FLOOR DEMOLITION PLAN SCALE: 1/8" = 1'-0"







ARCHITECTS

AMENTA EMMA

## ANDRUS ON HUDSON

MAIN BUILDING **RENOVATIONS:** 2ND FLOOR

185 OLD BROADWAY HASTINGS-ON-HUDSON, NY 10706 CONSULTANTS

KEY PLAN

PROJECT NUMBER M22005c CURRENT SUBMISSION DATE 10.27.2023 DRAWN AEO CHECKED D.IF SCALE As indicated FILE REFERENCE C:\Users\DJF\Documents\M22005c\_AOH Main Bldg\_Second Floor\_CD\_CENTRAL\_2020\_dennisfaga.rvt HISTORY OF SUBMISSIONS No Date

PROJECT DATA

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SHEET TITLE

SECOND FLOOR DEMOLITION PLAN

D1.02.



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EXISTING CONSTRUCTION \_\_\_\_ \_\_\_\_  $\dashv \perp \vdash$  $\begin{array}{c} - + + - \\ - + - - \end{array}$ 

1

TO REMAIN EXISTING CONSTRUCTION TO BE REMOVED 1X1 ACOUSTICAL CEILING SYSTEM

2X2 ACOUSTICAL CEILING SYSTEM GYPSUM BOARD/PLASTER CEILING, FINISH AS SCHEDULED. DEMOLITION KEYNOTE

-

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26 DEMOLITION CEILING PLAN LEGEND . 21 SECOND FLOOR REFLECTED CEILING DEMOLITION PLAN

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# ANDRUS ON HUDSON

MAIN BUILDING RENOVATIONS: 2ND FLOOR

185 OLD BROADWAY HASTINGS-ON-HUDSON, NY 10706 CONSULTANTS

KEY PLAN

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PROJECT DATA PROJECT NUMBER M22005c CURRENT SUBMISSION DATE 10.27.2023 DRAWN AEO CHECKED DJF SCALE 1/8" = 1'-0" C:\Users\DJF\Documents\M22005c\_AOH Main Bldg\_Second Floor\_CD\_CENTRAL\_2020\_dennisfaga.rvt FILE REFERENCE HISTORY OF SUBMISSIONS No. Date 100% CONSTRUCTION DOCUMENTS SHEET TITLE

 $\rightarrow$ 

SECOND FLOOR REFLECTED CEILING DEMOLITION PLAN

D1.20.



SPECIFIED PARTITION, -RE: CONSTRUCTION

1 5/8" MTL. STUD FRAMING,

EXISTING STEEL COLUMN

(3) LAYERS OF 5/8" TYPE X -GYPSUM BOARD, **09 29 00** 

PLAN DETAIL -

8 TYPICAL COLUMN ENCLOSURE, FLUSH SCALE: 1 1/2" = 1'-0"

\_\_\_\_

\_\_\_\_

PROVIDE HEAD WALL JOINT SYSTEM PER UL SYSTEM NO. HW-D-0518 WITH

MINERAL WOOL INFILL BETWEEN FLUTES

AND CONTINUOUS FIRE RATED SEALANT

DEFLECTION TRACK AS MANUFACTURED

ATTACH GYPSUM BOARD TO FRAMING PER

MANUFACTURER'S RECOMMENDATIONS,

UNDERSIDE OF STRUCTURE ABOVE

CONTINUOUS "FAS TRACK 1000"

(1) LAYER 5/8" TYPE "X" GYPSUM

FULL DEPTH SOUND BATT INSULATION

CONTINUOUS METAL RUNNER, FASTEN

WALL BASE AND FINISH FLOOR AS

CONTINUOUS FIRE-RATED SEALANT

2 LAYERS GYP. BD. ONE SIDE ONLY

AS SHOWN, ADD 1/2" RESILIENT

UNDERSIDE OF STRUCTURE ABOVE

SCHEDULED. RE: FINISH PLANS

BOARD EACH SIDE, 09 29 00 METAL STUD FRAMING AT 16" O.C.

(BOTH SIDES) 07 92 00

BY CEMCO. 09 22 16

- CEILING AS SCHEDULED

2'-0" OC MAX, 09 22 16

(BOTH SIDES) 07 92 00

AS SHOWN

CHANNEL

09 29 00

MAX. 09 22 16

09 29 00

UL X510 3-HOUR RATED COLUMN ENCLOSURE CONSTRUCTION

\_\_\_\_

HEAD

\_\_\_\_\_

PLAN

BASE

UL DESIGN NO. UL 419

D32

4 7/8" 3 5/8" Yes

D33 5 3/8" 3 5/8" Yes 50 1HR

4 7/8" 3 5/8" Yes

PLAN

09 22 16

(3) LAYERS OF 5/8" TYPE X GYPSUM BOARD,

1 5/8" MTL. STUD FRAMING,

09 29 00

09 22 16

UL X510 3-HOUR RATED COLUMN ENCLOSURE CONSTRUCTION

PLAN DETAIL -

HEAD

\_\_\_\_\_

PLAN

BASE

UL DESIGN NO. UL 419

2 1/8" | 1 5/8" | No | 0

3 3/4" 2 1/2" Yes

3 1/8" 2 1/2" Yes

A31 4 7/8" 3 5/8" No 0

A33 4 1/4" 3 5/8" No 0

A PARTITION TYPE - A

AND ELEVATIONS AS REQUIRED.

STRUCTURE, CONDUIT, PIPING, DUCTWORK.

STEEL, CONDUIT, PIPING, DUCTWORK, ETC.

IN ORDER TO MAINTAIN FIRE RATINGS AS REQUIRED.

SEALED AIR TIGHT WITH ACOUSTICAL SEALANT.

12. PROVIDE 20 GAUGE METAL STUDS AT 16" O.C., U.O.N.

A - A - VARIATION (SEE DESCRIPTION)

FRAMING DEPTH -

PARTITION TYPE

PARTITION TYPE DESIGNATION

13. GYPSUM BOARD SHALL BE 5/8" THICK, U.O.N.

FINISH.

DESIGNATED BY DETAIL.

A23 3 1/8" 2 1/2" No

A30 4 7/8" 3 5/8" Yes

A32 4 1/4" 3 5/8" Yes

4 TYPICAL COLUMN ENCLOSURE SCALE: 1 1/2" = 1'-0"

TYPE WIDTH FRAME INSUL. STC FIRE RATING DESCRIPTION

40

0HR

0HR

0HR

0HR

0HR

0HR

0HR

1. IN LOCATIONS WHERE A PARTITION TYPE EXTENDS BEYOND THE STEEL STUD

FOUNTAINS. AT TILE WALLS, PROVIDE CEMENTITIOUS BACKER UNITS.

BRACING NOT TO BE PLACED OR EXPOSED WITHIN FINISHED SIDE OF ROOM.

MANUFACTURER'S ASSOCIATIONS RECOMMENDED STUD HEIGHT, PROVIDE METAL STUD

2. PROVIDE MOISTURE RESISTANT GYPSUM WALL BOARD AT ALL TOILET ROOMS, KITCHEN

AREAS, JANITOR CLOSETS, AND AREAS WHICH INCLUDE SINKS, AND/OR DRINKING

3. AT SCHEDULED TILE LOCATIONS, PROVIDE CEMENT BACKER BOARD IN LIEU OF GYPSUM

4. IN STC RATED PARTITIONS, PLACE BACK TO BACK BOXES IN SEPARATE WALL CAVITIES.

6. FOR ALL PARTITIONS SHOWN AS SMOKE RESISTANT ON CODE PLANS, PROVIDE SMOKE

RESISTANT SEALANT/JOINT SYSTEM AT ALL THROUGH PARTITION PENETRATIONS.

7. AT ALL RATED PARTITIONS, PROVIDE CONTINUOUS FIRE RESISTIVE JOINT SYSTEM AT ALL

8. FIRE-RESISTANCE-RATED & STC-RATED PARTITIONS SHALL CONFORM TO THE MINIMUM

9. FIRESTOP SHALL BE USED AT FIRE RATED PARTITIONS. RECESSED BOXES SHALL BE SEALED AND RUNNERS SHALL BE SET IN 2 BEADS OF SEALANT OR AS REQUIRED BY MANUFACTURER.

10. ALL NON-FIRE RATED PARTITIONS SHALL HAVE ALL PENETRATIONS AND INTERSECTIONS

11. PROVIDE METAL BACKING PLATES FOR WALL-MOUNTED ACCESSORIES & CONSTRUCTION.

14. ALL PANEL SURFACES EXPOSED TO VIEW, UNLESS OTHERWISE INDICATED, TO BE LEVEL 4

GENERAL PARTITION TYPE NOTES

METAL

7/8"

1 5/8"

**2** 2 1/2"

3 3 5/8"

8 8

**X** 10"

**Y** 12"

4"

WOOD

1 1/2" 2 1/2"

3 1/2"

-

5 1/2"

7 1/4"

9 1/4"

11 1/4"

•

3/4"

CMU

-

-

3 5/8" 5 5/8" 7 5/8"

9 5/8" 11 5/8"

PENETRATIONS AND WHENEVER PARTITION IS NOTCHED TO ACCOMMODATE STRUCTURAL

REQUIREMENTS OF THE TESTED ASSEMBLY UNLESS MORE STRINGENT REQUIREMENTS ARE

FIRESTOPPING SHALL BE PROVIDED FOR FOR ALL FIRE RATED WALL OR SLAB PENETRATIONS

5. FOR ALL STC RATED PARTITION TYPES, PROVIDE CONTINUOUS SEALANT/JOINT SYSTEM AT ALL PENETRATIONS AND WHEREVER PARTITION IS NOTCHED TO ACCOMMODATE

BOARD. THICKNESS TO MATCH SCHEDULED GYPSUM BOARD. COORDINATE WITH FINISHES

BRACING TO STRUCTURE AT 4'-0" O.C. AND AS REQUIRED TO STABILIZE THE PARTITION TYPE.

METAL CORNER

BEAD AT CORNERS

![](_page_7_Figure_4.jpeg)

![](_page_7_Figure_5.jpeg)

WIDTH FRAME INSUL. STC FIRE RATING DESCRIPTION

D PARTITION TYPE - D (1 HOUR RATED)

1HR

1HR

![](_page_7_Picture_14.jpeg)

ARCHITECTS

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# ANDRUS ON HUDSON

MAIN BUILDING **RENOVATIONS:** 2ND FLOOR

185 OLD BROADWAY HASTINGS-ON-HUDSON, NY 10706

CONSULTANTS

EXISTING STEEL

- EXISTING CORRIDOR

COLUMN AT CORRIDOR WALL

WALL

UNDERSIDE OF STRUCTURE ABOVE

- PROVIDE METAL STUD BRACING TO STRUCTURE ABOVE AT 4'-0" O.C., MAX.

- CONTINUOUS METAL RUNNER, 09 22 16

AND AS REQUIRED.

CEILING AS SCHEDULED

09 29 00

09 29 00

MAX. 09 22 16

2'-0" OC MAX, 09 22 16

(BOTH SIDES) 07 92 00

AS SHOWN

AS SHOWN

NO INSULATION

GYPSUM 1 SIDE ONLY

GYPSUM 1 SIDE ONLY

5/8" TYPE "X" GYP BD EACH SIDE,

METAL STUD FRAMING AT 16" O.C.

- FULL DEPTH SOUND BATT INSULATION

CONTINUOUS METAL RUNNER, FASTEN

WALL BASE AND FINISH FLOOR AS

CONTINUOUS ACOUSTICAL SEALANT

GYPSUM 1 SIDE ONLY, NO INSULATION

GYPSUM 1 SIDE ONLY, NO INSULATION

GYPSUM 1 SIDE ONLY, NO INSULATION

SCHEDULED. RE: FINISH PLANS

KEY PLAN

PROJECT DATA PROJECT NUMBER M22005c CURRENT SUBMISSION DATE 10.27.2023 DJF DRAWN CHECKED DJF SCALE As indicated FILE REFERENCE C:\Users\DJF\Documents\M22005c\_AOH Main HISTORY OF SUBMISSIONS No. Date Descriptio

Bldg\_Second Floor\_CD\_CENTRAL\_2020\_dennisfaga.rvt \_\_\_\_\_

\_\_\_\_\_ \_\_\_\_\_ \_\_\_\_\_

100% CONSTRUCTION DOCUMENTS

SHEET TITLE

PARTITION TYPES AND PLAN

DETAILS

A1.00.

![](_page_8_Figure_0.jpeg)

![](_page_8_Figure_2.jpeg)

![](_page_8_Figure_3.jpeg)

![](_page_8_Figure_5.jpeg)

6 PARTIAL FIRST FLOOR CONSTRUCTION PLAN SCALE: 1/8" = 1'-0"

![](_page_8_Picture_12.jpeg)

ARCHITECTS

AMENTA EMMA

# ANDRUS ON HUDSON

MAIN BUILDING **RENOVATIONS:** 2ND FLOOR

185 OLD BROADWAY HASTINGS-ON-HUDSON, NY 10706 CONSULTANTS

KEY PLAN

![](_page_8_Picture_17.jpeg)

A1.01.

1. DETAILS NOTED AS TYPICAL APPLY TO ALL SIMILAR LOCATIONS UNLESS OTHERWISE NOTED.

A WING

TERRACE 213 523 SF

ELEX / FAMILY MEETING

212

AB-C

 $\checkmark$ 

RESIDENT

ROOM 211

223 SF

AB-D

 $\checkmark$ 

RESIDENT

ROOM 210 223 SF

ROOM 209

223 SF

227 SF

RESIDENT

ROOM 281

227 SI

RESIDENT ROOM

C 280 )

227 SI

RESIDENT

ROOM

D WING

TERRACE 278 480 SF

279

AB-E

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AB-B

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AB-A

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- 2. ALL DIMENSIONS NOTED AS "HOLD" ARE CRITICAL.
- 3. ALL DIMENSIONS TO BE VERIFIED IN FIELD BY CONTRACTOR. 4. INTERIOR DIMENSIONS SHOWN IN PLAN ARE TO FINISHED FACE OF PARTITION, INCLUDING ANY
- APPLIED FINISHES SUCH AS CERAMIC TILE, UNLESS OTHERWISE NOTED. 5. ALL PARTITIONS SHALL BE TYPE B30, U.O.N.

- 6. ALL DEMISING & CORRIDOR PARTITIONS SHALL BE TYPE B34, U.O.N.
- EXPOSED VERTICAL CONCRETE STRUCTURAL SURFACES TO BE FURRED OUT WITH 7/8"
- CHANNELS & 5/8" GWB MIN., U.O.N. 8. EXPOSED STRUCTURAL STEEL COLUMNS SHALL BE FURRED OUT WITH 1-1/2" MTL STUDS & 5/8" GWB MIN., U.O.N., REFER TO DETAIL 5 & 10/A1.00.
- 9. COORDINATE PARTITION CONSTRUCTION WITH FINISH PLANS.
- 10. CONTRACTOR TO LAYOUT ALL PARTITION TRACK LOCATIONS AND CONTACT ARCHITECT FOR APPROVAL PRIOR TO CONSTRUCTING PARTITIONS.
- 11. ALL CONCEALED BLOCKING SHALL BE FIRE TREATED, COMPLYING WITH ASTM E84.
- 12. ALL MISCELLANEOUS WOOD BLOCKING, GROUNDS, FURRING AS REQUIRED, TO BE FIRE RETARDANT TREATED.
- 13. PROVIDE FIRE TREATED WOOD BLOCKING WITHIN NEW AND EXISTING WALLS AS REQUIRED FOR ANCHORING OF ALL BUILT-INS, SHELVING, CABINETRY, AND WALL MOUNTED ACCESSORIES. VERIFY LOCATIONS WITH ARCHITECT/OWNER.
- 14. PROVIDE FIRESTOPPING JOINT SYSTEM AT ALL PENETRATIONS THOUGH ALL FIRE-RATED WALL AND FLOOR SYSTEMS. FIRESTOPPING SHALL BE DESIGNED TO RESIST THE SPREAD OF FIRE FOR A TIME PERIOD NOT LESS THAN THE REQUIRED FIRE RESISTANT RATING OF THE ADJACENT ASSEMBLY. ALL FIRE STOPPING ASSEMBLIES SHALL BE UL ASSEMBLIES.
- 15. AT INTERIOR FRAMED LOCATIONS, PROVIDE (2) 20 GAUGE METAL STUDS AT JAMBS OF ALL NEW DOOR OPENINGS.
- 16. ALL NEW DOORS SHALL BE LOCATED 4" OFF FINISH WALL. (4" TO INSIDE FACE OF FRAME)
- 17. FOR FURRED WALL CONDITIONS, REFER TO FINISH PLANS FOR COORDINATION OF FINISH ORIENTATION.
- 18. EQUIPMENT SHOWN DASHED IN PLANS IS FOR COORDINATION OF UTILITY SERVICE CONNECTIONS ONLY. FINAL EQUIPMENT PLACEMENT AND CONNECTIONS ARE TO BE COORDINATED WITH OWNER PRIOR TO INSTALLATION.
- 19. INTERIOR PARTITIONS TERMINATING AT THE MULLION OF EXTERIOR STOREFRONT OR CURTAIN WALL ARE TO BE CENTERED ON THE MULLION.
- 20. PROVIDE CONTINUOUS TAPEABLE J-TRIM AT ALL EXPOSED EDGES OF GYPSUM BOARD. PROVIDE COMPRESSIBLE BACKER ROD AND SEALANT IF GYPSUM BOARD ABUTS ADJACENT CONSTRUCTION.
- 21. PROVIDE ACOUSTICAL SEALANT FOR PENETRATIONS THROUGH ANY NON-FIRE RATED PARTITIONS OR ASSEMBLIES.
- 22. NOISE ISSUES ARE CRITICAL TO THIS PROJECT DUE TO ITS PROXIMITY WITH NOISE-SENSITIVE AREAS. IT IS THEREFORE CRITICAL THAT THE DRAWINGS AND SPECIFICATIONS ARE STRICTLY ADHERED TO BY THE CONTRACTOR. THE CONTRACTOR ASSUMES FULL RESPONSIBILITY FOR CONFORMING WITH THE ACOUSTICAL REQUIREMENTS CONTAINED IN THE DRAWINGS AND SPECIFICATIONS.
- 23. WHERE FLOOR TRENCHING IS REQUIRED FOR SCOPE OF WORK, PATCH FLOOR TO MATCH EXISTING ADJACENT STRUCTURAL SLAB / FLOOR SUBSTRATE
- 24. PATCH ALL EXISTING WALLS WHERE REQUIRED TO CREATE SMOOTH SURFACE FOR PAINT, WALLCOVERING, STUCCO, PLASTER, OR CERAMIC TILE FINISH AS SCHEDULED. WHERE NEW FINISH IS NOT SCHEDULED, PATCH WALLS AND/OR TOOTH IN SALVAGED MATERIALS, AS REQUIRED TO MATCH EXISTING ADJACENT FINISH
- 25. PREPARE EXISTING FLOOR SUBSTRATE AS REQUIRED FOR NEW CARPET, LINOLEUM, WOOD, QUARRY TILE, VCT, OR CERAMIC TILE FINISH. PROVIDE FLOOR LEVELING COMPOUND AS REQUIRED.
- 26. AT ANY EXISTING CONSTRUCTION TO RECEIVE NEW WORK. (RE: NEW DOOR, INFILL PARTITION, ETC.) G.C. TO PATCH EXISTING CONSTRUCTION AS REQUIRED TO MATCH EXISTING ADJACENT SURFACE.
- 27. ALL WIRING, CONDUIT, RACEWAYS, ETC. SHALL BE CONCEALED WITHIN WALLS. G.C. TO PROVIDE CUTTING, PATCHING, PLASTER RINGS AND PULL STRINGS AS REQUIRED TO PROVIDE SUCH CONCEALMENT. PATCH AND PAINT ENTIRE WALL AFFECTED BY NEW WORK.
- 28. WHERE ANY TELEPHONE, DATA & ELECTRICAL WIRING HAVE BEEN DEMOLISHED, PATCH WALL & FINISH AS SCHEDULED. WHERE ANY EXISTING JUNCTION BOXES OR CONDUIT HAVE BEEN REMOVED, PATCH WALL & FINISH AS SCHEDULED UNLESS INDICATED OTHERWISE.
- 29. WHERE EXISTING WINDOW AND DOOR SYSTEMS HAVE BEEN REMOVED, PATCH/FILL EXISTING CONCRETE COLUMNS, FLOORS, CEILINGS, AND MASONRY WALLS AS REQUIRED.
- 30. WHERE TOILETS, DRAINS, ETC. ARE SHOWN SCHEDULED TO BE REMOVED, PATCH FLOOR SUBSTRATE AS REQUIRED TO CREATE A SMOOTH, LEVEL FINISH.
- 31. RESTORE, CLEAN, AND PAINT EXISTING PLASTER AS REQUIRED TO MAKE CONDITION AS NEW.
- 32. PATCH AND REPAINT ALL EXISTING METAL DOOR FRAMES TO REMAIN.
- 33. PROVIDE AND INSTALL ONE (1) 4'-0" X 8'-0" FIRE RETARDANT PLYWOOD PANEL AT DATA ROOM. VERIFY EXACT LOCATION AND REQUIREMENTS WITH ELECTRICAL DRAWINGS.
- 4. PREPARE EXISTING FLOOR SUBSTRATE AS REQUIRED FOR SCHEDULED FLOOR FINISH. PROVIDE FLOOR LEVELING COMPOUND AS REQUIRED TO PROVIDE LEVEL FINISH (1/4" PER 10' MAX) WITHIN ENTIRE TENANT AREA. INCLUDE \$10,000 ALLOWANCE FOR FLOOR LEVELING.
- 35. ALL EXISTING WALLS TO REMAIN TO BE LAMINATED WITH 1/4" TH. GYPSUM BOARD.

### GENERAL CONSTRUCTION NOTES

![](_page_9_Picture_35.jpeg)

F.E.C. SEMI-RECESSED FIRE — ① — EXTINGUISHER, **11 00 00** 

![](_page_9_Picture_39.jpeg)

![](_page_9_Picture_40.jpeg)

ARCHITECTS

AMENTA EMMA

## ANDRUS ON HUDSON

MAIN BUILDING **RENOVATIONS:** 2ND FLOOR

185 OLD BROADWAY HASTINGS-ON-HUDSON, NY 10706 CONSULTANTS

KEY PLAN

![](_page_9_Picture_45.jpeg)

A1.02.

26 <u>REFLECTED CEILING PLAN LEGEND</u>	21 REFLECTED CEILING PLAN - SECO
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 281

RESIDENT

ROOM

280

RESIDENT

ROOM

hout expres		
prohibited wit		2'-0" X 2'-0" RECESSED LAY-IN INDIRECT FIXTURE <b>RE: ELECTRICAL</b>
or distribution		COVE LIGHT FIXTURE <b>RE: ELECTRICAL</b> CONCEALED BY GYPSUM SOFFIT
reproduction	0	RECESSED DOWNLIGHT RE: ELECTRICAL
d. Copying,	c=====	UNDER CABINET LIGHT FIXTURE <b>RE: ELECTRICAL</b>
nts reserved	Q	WALL WASHER LIGHT FIXTURE RE: ELECTRICAL
PC. All rigt	$\vdash \bigotimes $	EXIT SIGN, WALL MOUNTED RE: ELECTRICAL
hitects,	$\mathbf{\hat{\mathbf{A}}}$	EXIT SIGN, CEILING MOUNTED RE: ELECTRICAL
Emma Arc	++	2X2 ACOUSTICAL CEILING SYSTEM
0 Amenta	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	GYPSUM BOARD CEILING, FINISH AS SCHEDULED.
nt 2021	- <del>()</del> -1'-0"	CEILING HEIGHT TAG

![](_page_10_Figure_2.jpeg)

- 12. FINAL HEIGHTS OF ALL CEILINGS AND SOFFITS TO BE COORDINATED IN FIELD AFTER DEMOLITION AND HIDDEN CONDITIONS CAN BE OBSERVED.
- PROVIDE VERTICAL SUPPORT AS REQUIRED IN BUILDING CODES. IN ADDITION, VERTICALLY SUPPORT ENDS OF RUNNERS WITH 8" OF DISCONTINUITIES SUCH AS MAY OCCUR WHERE THE CEILING IS INTERRUPTED BY A WALL. D. SUPPORT LIGHT FIXTURES AND AIR DIFFUSERS DIRECTLY TO THE STRUCTURE ABOVE.
- POINTS 12 FEET ON CENTER IN EACH DIRECTION, WITH THE FIRST POINT WITHIN 4' FROM EACH WALL. B. ALLOW FOR LATERAL MOVEMENT OF THE SYSTEM. ATTACH MAIN RUNNERS AND CROSS RUNNERS AT TWO ADJACENT WALLS; MAINTAIN CLEARANCE BETWEEN THE WALL AND THE RUNNERS AT THE OTHER TWO WALLS.
- PARTITIONS ARE NOT CONNECTED TO THE CEILING SYSTEM, THE FOLLOWING BRACING METHODS MAY BE EMPLOYED: A. PROVIDE LATERAL SUPPORT BY FOUR WIRES OF MINIMUM NO. 12 GAUGE SPLAYED IN FOUR DIRECTIONS 90 DEGRESS APART, AND CONNECTED TO THE MAIN RUNNER WITHIN 2" OF THE CROSS RUN AND TO THE STRUCTURE ABOVE AT AN ANGLE NOT EXCEEDING 45 DEGREES FROM THE PLANE OF THE CEILING. PROVIDE THESE LATERAL SUPPORT
- DETERMINE THE LATERAL FORCE. 11. WHERE CEILING LOADS DO NO EXCEED 5 POUNDS PER SQUARE FOOT AND WHERE
- THE CONTRACTOR HAS VERIFIED THE FIELD CONDITIONS. 10. DESIGN SUSPENDED CEILING FRAMING SYSTEMS TO RESIST A LATERAL PERCENTAGE (%) OF THE WEIGHT OF THE CEILING ASSEMBLY AND ANY FORCE OF 20 LOADS TRIBUTARY TO THE SYSTEM. USE A MINIMUM CEILING WEIGHT OF 5 POUNDS PER SQUARE FOOT TO
- 8. ALL ACOUSTICAL CEILINGS SHALL BE TYPE ACT-1, PER THE FINISH SCHEDULE. 9. A SHOP DRAWING SHALL BE PROVIDED FOR THE LIGHTING FIXTURE LAYOUTS. DIMENSIONS PROVIDED ON THE PLANS REPRESENT THE DESIGN INTENT AND WILL BE REVIEWED AFTER
- 7. ALL CEILINGS SHALL BE CENTERED ON ROOMS, U.O.N.
- 6. CEILING HEIGHT SHALL BE 8'-0" A.F.F., U.O.N.

- 5. WHERE NEW OR EXISTING CEILING TILES HAVE A TEGULAR EDGE, KERF ALL CUT CEILING TILES OR TILES THAT PASS OVER PARTITIONS TO MATCH EXISTING EDGE DESIGN.
- ARCHITECTURAL RCP AND ELECTRICAL WIRING PLAN.
- 4. CONTRACTOR TO NOTIFY ARCHITECT IF ANY DISCREPANCIES EXIST BETWEEN
- 3. ALL CABLES MUST BE SUSPENDED OFF THE LAY-IN CEILING.
- 2. ALL NEW OR RELOCATED SPRINKLER HEADS, RECESSED CAN LIGHT FIXTURES, ETC. SHOWN TO BE RELOCATED WITHIN CENTER OF 2X2 OR 2X4 CEILING TILE UNLESS OTHERWISE NOTED.

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FÆX / FAMIL

RESIDENT

ROOM

RESIDENT ROOM 210

211

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8 A3.20

SCHEDULED CEILING HEIGHT SHALL BE MAINTAINED. EXISTING HVAC AND PLUMBING SYSTEMS SHALL BE MODIFIED AS REQUIRED TO MEET CEILING HEIGHTS.

![](_page_10_Figure_18.jpeg)

![](_page_10_Picture_19.jpeg)

ARCHITECTS

AMENTA|EMMA

# ANDRUS ON HUDSON

MAIN BUILDING **RENOVATIONS:** 2ND FLOOR

185 OLD BROADWAY HASTINGS-ON-HUDSON, NY 10706

CONSULTANTS

KEY PLAN

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PROJECT DATA PROJECT NUMBER M22005c CURRENT SUBMISSION DATE 10.27.2023 DRAWN AEO CHECKED DJF SCALE As indicated FILE REFERENCE C:\Users\DJF\Documents\M22005c\_AOH Main Bldg\_Second Floor\_CD\_CENTRAL\_2020\_dennisfaga.rvt HISTORY OF SUBMISSIONS No. Date Description

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100% CONSTRUCTION DOCUMENTS

SHEET TITLE

SECOND FLOOR REFLECTED

CEILING PLAN

A1.22.

![](_page_11_Figure_1.jpeg)

REFLECTED CEILING PLAN -ENLAGED ROOM 257 AND STAIR CORRIDOR SCALE: 1/4" = 1'-0"

![](_page_11_Figure_3.jpeg)

# 13 REFLECTED CEILING PLAN - ENLARGED ROTUNDA CEILING PLAN SCALE: 1/4" = 1'-0"

![](_page_11_Picture_7.jpeg)

![](_page_11_Picture_8.jpeg)

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# ANDRUS ON HUDSON

MAIN BUILDING **RENOVATIONS:** 2ND FLOOR

185 OLD BROADWAY HASTINGS-ON-HUDSON, NY 10706

CONSULTANTS

KEY PLAN

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PROJECT DATA PROJECT NUMBER M22005c CURRENT SUBMISSION DATE 10.27.2023 DRAWN DJF CHECKED DJF SCALE 1/4" = 1'-0" C:\Users\DJF\Documents\M22005c\_AOH Main Bldg\_Second Floor\_CD\_CENTRAL\_2020\_dennisfaga.rvt FILE REFERENCE HISTORY OF SUBMISSIONS No. Date

100% CONSTRUCTION DOCUMENTS

SHEET TITLE 

SECOND FLOOR REFLECTED CEILING PLAN - ENLARGED AREAS

![](_page_12_Figure_0.jpeg)

-28 INTERIOR ELEVATION - AT RESIDENT CORRIDOR A WING NORTH

![](_page_12_Figure_2.jpeg)

29 INTERIOR ELEVATION - AT RESIDENT CORRIDOR A WING SOUTH SCALE: 1/4" = 1'-0"

![](_page_12_Figure_4.jpeg)

![](_page_12_Picture_5.jpeg)

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# ANDRUS ON HUDSON

MAIN BUILDING RENOVATIONS: 2ND FLOOR

185 OLD BROADWAY HASTINGS-ON-HUDSON, NY 10706

CONSULTANTS

KEY PLAN

![](_page_12_Picture_11.jpeg)

RESIDENT WING A & B CORRIDOR ELEVATIONS

\_ ■

![](_page_13_Figure_0.jpeg)

![](_page_13_Figure_1.jpeg)

SSB-1 SOLID	

![](_page_13_Figure_4.jpeg)

![](_page_13_Figure_6.jpeg)

![](_page_13_Picture_7.jpeg)

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# ANDRUS ON HUDSON

MAIN BUILDING **RENOVATIONS:** 2ND FLOOR

185 OLD BROADWAY HASTINGS-ON-HUDSON, NY 10706

CONSULTANTS

KEY PLAN

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PROJECT NUMBER M22005c CURRENT SUBMISSION DATE 10.27.2023 DRAWN JMO CHECKED DJF SCALE 1/4" = 1'-0" FILE REFERENCE C:\Users\DJF\Documents\M22005c\_AOH Main Bldg\_Second Floor\_CD\_CENTRAL\_2020\_dennisfaga.rvt HISTORY OF SUBMISSIONS No. Date Description \_\_\_\_\_

PROJECT DATA

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# 100% CONSTRUCTION DOCUMENTS

SHEET TITLE

**RESIDENT WING C & D** CORRIDOR ELEVATIONS

![](_page_14_Figure_0.jpeg)

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![](_page_14_Figure_1.jpeg)

![](_page_14_Figure_3.jpeg)

8 TYPICAL ADA RESIDENT ROOM SCALE: 1/4" = 1'-0"

# INTERIOR ELEVATION - **13** AT ADA RESIDENT ROOM ENTRY SCALE: 1/4" = 1'-0"

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![](_page_14_Picture_6.jpeg)

ARCHITECTS

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# ANDRUS ON HUDSON

MAIN BUILDING **RENOVATIONS:** 2ND FLOOR

185 OLD BROADWAY HASTINGS-ON-HUDSON, NY 10706

CONSULTANTS

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KEY PLAN

 $\langle \downarrow \rangle$ PROJECT DATA PROJECT NUMBER M22005c 10.27.2023 CURRENT SUBMISSION DATE DRAWN EEK/AEO CHECKED DJF SCALE 1/4" = 1'-0" FILE REFERENCE C:\Users\DJF\Documents\M22005c\_AOH Main Bldg\_Second Floor\_CD\_CENTRAL\_2020\_dennisfaga.rvt HISTORY OF SUBMISSIONS No. Date \_\_\_\_\_ \_\_\_\_\_ 100% CONSTRUCTION DOCUMENTS SHEET TITLE • 

**RESIDENT ROOM ENLARGED** PLANS AND INTERIOR ELEVATIONS

![](_page_15_Figure_0.jpeg)

# **INTERIOR ELEVATION -**30 AT PHYSICAL THERAPY ENTRANCE SCALE: 1/4" = 1'-0"

![](_page_15_Figure_2.jpeg)

**INTERIOR ELEVATION -**27 AT PASSENGER ELEVATORS SCALE: 1/4" = 1'-0"

![](_page_15_Figure_5.jpeg)

WINDOW TREATMENT

.

![](_page_15_Figure_8.jpeg)

![](_page_15_Figure_9.jpeg)

![](_page_15_Figure_10.jpeg)

![](_page_15_Figure_11.jpeg)

**INTERIOR ELEVATION -**

![](_page_15_Figure_12.jpeg)

![](_page_15_Figure_13.jpeg)

![](_page_15_Figure_14.jpeg)

![](_page_15_Figure_15.jpeg)

8' - 7 7/8" VIF

6 EQ. DOORS

1" FILLER

![](_page_15_Figure_16.jpeg)

-1" FILLER

UNDER CABINET REFRIGERATORS BY

OTHERS. PROVIDE INSTALLATION

# INTERIOR ELEVATION - **10** AT PT TREATMENT AREA SCALE: 1/4" = 1'-0"

![](_page_15_Figure_18.jpeg)

![](_page_15_Figure_19.jpeg)

#### SPECIFIED SINK AND FAUCET, RE: PLUMBING PLASTIC LAMINATE CLAD ARCHITECTURAL CABINETS (PL-2), 06 41 16

SOLID SURFACE COUNTERTOP AND BACKSPLASH (SSM-1), **12 31 61.16** PLASTIC LAMINATE CLAD ARCHITECTURAL CABINETS (PL-2), **06 41 16** ELECTRIC RANGE, NIC

FINISHED END

# INTERIOR ELEVATION -5 AT ADL SUITE KITCHNETTE

![](_page_15_Figure_24.jpeg)

ARCHITECTURAL CABINETS (PL-1), 06 41 16

4 INTERIOR ELEVATION - AT COPY ROOM SCALE: 1/4" = 1'-0"

![](_page_15_Picture_29.jpeg)

ARCHITECTS

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## ANDRUS ON HUDSON

MAIN BUILDING **RENOVATIONS:** 2ND FLOOR

185 OLD BROADWAY HASTINGS-ON-HUDSON, NY 10706

CONSULTANTS

KEY PLAN

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# 100% CONSTRUCTION DOCUMENTS

SHEET TITLE

CORE AREA ENLARGED PLANS AND INTERIOR ELEVATIONS

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A2.23.

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![](_page_16_Figure_1.jpeg)

# CONSTRUCTION PLAN - **BARGED FISH TANK PLAN** SCALE: 1/4" = 1'-0"

![](_page_16_Figure_3.jpeg)

# 13 INTERIOR ELEVATION - AT FISH TANK SCALE: 1/4" = 1'-0"

3 5/8" MTL. STUD FRAMING, 09 22 16 5/8" GYP. BD. ON DRYWALL GRID SYSTEM, 09 29 00 -SPECIFIED COVE LIGHT FIXTURE, RE: ELECTRICAL

SIDE WALL SPRINKLER COVER, RE: SPRINKLER

DASHED LINE REPRESENTS PROPOSED PATH OF SPRINKLER LINE -1/2" TH. SOLID SURFACE SURROUND (SSM-2) ADHERED TO SOFFIT, 12 36 61.16 -

PROPOSED PATH OF MECHANICAL DUCT AND DIFFUSER — IN PRO CLAD CLAD ARCHITECTURAL CABINETS, 06 41 16 -F.R.T. BOX FRAMING

CUSTOM FISH TANK BY OWNER -

AQUARIUM FRAMING BY OTHERS

1/8" REVEAL IN PANELING AND MILLWORK DOORS -FINISH FLOOR AS SCHEDULED

![](_page_16_Figure_14.jpeg)

SUPPLY DIFFUSER, RE: MECHANICAL

MITERED CORNER, TYP.

1/2" TH. SOLID SURFACE

CABINETS (WC-6), 06 41 16

- INPRO WALL CLADDING (WC-6), **09 72 16** 

1/8" REVEAL IN PANELING

AND MILLWORK DOORS

- SPECIFIED RUBBER

BASE, 09 65 13

 $\mathbf{Y}$ 

- IN PRO CLAD CLAD ARCHITECTURAL

SURROUND (SSM-2), 12 36 61.16

CUSTOM FISH TANK BY OWNER

![](_page_16_Figure_15.jpeg)

![](_page_16_Figure_16.jpeg)

![](_page_16_Figure_17.jpeg)

TRANSITION LEDGE SUPPORT - SOLID SURFACE COUNTERTOP (SSM-1) 12 36 61.16 - RAKKS EH-1824M CONCEALED COUNTER SUPPORT BRACKET 12 36 23.13. 

- SOLID SURFACE

TRANSACTION LEDGE

- PLASTIC LAMINATE CLAD

(SSM-3) 12 36 61.16

![](_page_16_Figure_19.jpeg)

![](_page_16_Figure_20.jpeg)

![](_page_16_Figure_21.jpeg)

![](_page_16_Figure_22.jpeg)

![](_page_16_Picture_23.jpeg)

ARCHITECTS

AMENTA|EMMA

## ANDRUS ON HUDSON

MAIN BUILDING **RENOVATIONS:** 2ND FLOOR

185 OLD BROADWAY HASTINGS-ON-HUDSON, NY 10706 CONSULTANTS

KEY PLAN

 $\setminus$  ( /PROJECT DATA PROJECT NUMBER M22005c CURRENT SUBMISSION DATE 10.27.2023 DRAWN Author CHECKED Checker SCALE As indicated C:\Users\DJF\Documents\M22005c\_AOH Main FILE REFERENCE Bldg\_Second Floor\_CD\_CENTRAL\_2020\_dennisfaga.rvt HISTORY OF SUBMISSIONS No. Date Descriptio \_\_\_\_\_ \_\_\_\_\_ \_\_\_\_\_ \_\_\_\_\_ \_\_\_\_\_ \_\_\_\_\_ 100% CONSTRUCTION DOCUMENTS SHEET TITLE NURSING CONCIERGE DESK AND FISH TANK ENLARGED PLANS,

ELEVATIONS AND DETAILS

A2.24

![](_page_17_Figure_0.jpeg)

![](_page_17_Figure_1.jpeg)

![](_page_17_Figure_13.jpeg)

![](_page_17_Picture_15.jpeg)

![](_page_17_Figure_16.jpeg)

![](_page_17_Picture_25.jpeg)

ARCHITECTS

AMENTA|EMMA

## MAIN BUILDING **RENOVATIONS:** 2ND FLOOR

185 OLD BROADWAY HASTINGS-ON-HUDSON, NY 10706

CONSULTANTS

KEY PLAN

PROJECT DATA PROJECT NUMBER M22005 CURRENT SUBMISSION DATE 10.27.2023 DRAWN DJF CHECKED DJF SCALE 3" = 1'-0" FILE REFERENCE C:\Users\DJF\Documents\M22005c\_AOH Main Bldg\_Second Floor\_CD\_CENTRAL\_2020\_dennisfaga.rvt HISTORY OF SUBMISSIONS No Date \_\_\_\_\_ 100% CONSTRUCTION DOCUMENTS SHEET TITLE 

**CEILING DETAILS** 

A3.20.

	AEA DOOR AND FRAME SCHEDULE																			
DOOR NO.	SIZE (WIDTH X HEIGHT)		MATERIAL	THICKNESS	INSULATED	ELEVATION		THERMAL BREAK 편	HEAD DETAIL	JAMB DETAIL	THRESHOLD /SILL DETAIL	FIRE RATING (minutes)	STC RATING	ADA PUSH BUTTON	HAF ACOUSTIC GASKET	SMOKE SEAL WEATHERSTRIP	HOLD OPEN CARD READER	CONTACTS	SET	REMARKS
200A 200B 201	3' - 0" X 7' - 4" 3' - 0" X 7' - 4" 3' - 0" X 7' - 4" 3' - 0" X 6' - 8"	D D	GL GL	1/2" 1/2" 0"		3	HM		29/A3.20 29/A3.20 1/A5.00	1/A5.00									9 9 10	
202 203 204 205	3' - 0" X 6' - 8" 3' - 0" X 6' - 8" 2' - 6" X 6' - 8" 3' - 0" X 6' - 8"	A A A B	HM HM HM WD	1 3/4" 1 3/4" 1 3/4" 1 3/4"		1 1 1	HM HM HM HM		1/A5.00 1/A5.00 EXIST. 1/A5.00	1/A5.00 1/A5.00 EXIST. 1/A5.00							• • • • • • • • • • • • • • • • • • • •		10 10 1 10	1, 2
206 207 208	3' - 0" X 6' - 8" 3' - 0" X 6' - 8" 3' - 8" X 6' - 8"	B B B	WD WD WD	1 3/4" 1 3/4" 1 3/4"		1 1 2	HM HM HM		1/A5.00 1/A5.00 9/A5.00	1/A5.00 1/A5.00 4/A5.00	0/46.20	45 MIN.		•			•		10 10 7	
200A 209 209A 210	3' - 8" X 6' - 8" 3' - 2" X 6' - 8" 3' - 8" X 6' - 8"	B C B	WD WD WD	1 3/4" 1 3/4" 1 3/4" 1 3/4"		2	HM HM		9/A5.00 10/A5.00 9/A5.00	4/A5.00 5/A5.00 4/A5.00	9/A6.20 9/A6.20			•			•		7 8 7	
210A 211 211A 212	3' - 2" X 6' - 8" 3' - 8" X 6' - 8" 3' - 2" X 6' - 8" 3' - 0" X 6' - 8"	C B C B	WD WD WD	1 3/4" 1 3/4" 1 3/4" 1 3/4"		2	HM		10/A5.00 9/A5.00 10/A5.00	5/A5.00 4/A5.00 5/A5.00	9/A6.20 9/A6.20			•			•		8 7 8 10	
212 214 215 215A	2' - 6" X 6' - 8" 3' - 8" X 6' - 8" 3' - 2" X 6' - 8"	A B C	HM WD WD	1 3/4" 1 3/4" 1 3/4"		1 2	HM HM		EXIST. 9/A5.00 10/A5.00	EXIST. 4/A5.00 5/A5.00	9/A6.20			•			•		4 7 8	1, 2
216 216A 217 217A	3' - 8" X 6' - 8" 3' - 2" X 6' - 8" 3' - 8" X 6' - 8" 3' - 2" X 6' - 8"	B C B C	WD WD WD WD	1 3/4" 1 3/4" 1 3/4" 1 3/4"		2	HM		9/A5.00 10/A5.00 9/A5.00 10/A5.00	4/A5.00 5/A5.00 4/A5.00 5/A5.00	9/A6.20 9/A6.20			•			•		7 8 7 8	
218 219 220 221	3' - 0" X 6' - 8" 3' - 0" X 6' - 8" 3' - 0" X 6' - 8" 3' - 0" / 3' - 0" X 7' - 4"	B B A GG	WD WD HM GL1	1 3/4" 1 3/4" 1 3/4" 1/2"		1 1 1 -	HM HM HM -		1/A5.00 1/A5.00 1/A5.00 27/A3.20	1/A5.00 1/A5.00 1/A5.00							•		10 10 1 5	1
222A 222B 223	3' - 0" X 6' - 8" 3' - 0" X 6' - 8" 3' - 0" X 6' - 8" 3' - 0" X 6' - 8"	B B A	WD WD HM	1 3/4" 1 3/4" 1 3/4" 1 3/4"		1 1 1	HM HM HM		1/A5.00 1/A5.00 1/A5.00	1/A5.00 1/A5.00 1/A5.00		45 MIN. 45 MIN.					•		2 10 10	1.0
224 225 225A 226	2 - 0 × 0 - 0 3' - 8" × 6' - 8" 3' - 2" × 6' - 8" 3' - 8" × 6' - 8"	B C B	WD WD WD	1 3/4" 1 3/4" 1 3/4" 1 3/4"		2	HM HM		9/A5.00 10/A5.00 9/A5.00	4/A5.00 5/A5.00 4/A5.00	9/A6.20			•			•		7 8 7	1, Z
226A 227 227A 228	3' - 2" X 6' - 8" 3' - 8" X 6' - 8" 3' - 2" X 6' - 8" 3' - 8" X 6' - 8"	C B C B	WD WD WD	1 3/4" 1 3/4" 1 3/4" 1 3/4"		2	HM		10/A5.00 9/A5.00 10/A5.00 9/A5.00	5/A5.00 4/A5.00 5/A5.00 4/A5.00	9/A6.20 9/A6.20			•			•		8 7 8 7	
228A 229 229A	3' - 2" X 6' - 8" 3' - 8" X 6' - 8" 3' - 2" X 6' - 8"	C B C	WD WD WD	1 3/4" 1 3/4" 1 3/4"		2	HM		10/A5.00 9/A5.00 10/A5.00	5/A5.00 4/A5.00 5/A5.00	9/A6.20 9/A6.20			•			•		8 7 8	
230 230A 231 231A	3' - 8" X 6' - 8" 3' - 2" X 6' - 8" 3' - 0" X 6' - 8" 3' - 2" X 6' - 8"	B C B C	WD WD WD WD	1 3/4" 1 3/4" 1 3/4" 1 3/4"		2	НМ		9/A5.00 10/A5.00 9/A5.00 10/A5.00	4/A5.00 5/A5.00 4/A5.00 5/A5.00	9/A6.20 9/A6.20			•			•		7 8 7 8	
233 234 234A 235	2' - 6" X 6' - 8" 3' - 8" X 6' - 8" 3' - 2" X 6' - 8" 3' - 8" X 6' - 8"	A B C B	HM WD WD	1 3/4" 1 3/4" 1 3/4" 1 3/4"		1 2 2	HM HM		EXIST. 9/A5.00 10/A5.00 9/A5.00	EXIST. 4/A5.00 5/A5.00 4/A5.00	9/A6.20			•			•		4 7 8 7	1, 2
235A 236 236A	3' - 2" X 6' - 8" 3' - 8" X 6' - 8" 3' - 2" X 6' - 8"	C B C	WD WD WD	1 3/4" 1 3/4" 1 3/4"		2	HM		10/A5.00 9/A5.00 10/A5.00	5/A5.00 4/A5.00 5/A5.00	9/A6.20 9/A6.20			•			•		8 7 8	
237 237A 238 238A	3' - 8" X 6' - 8" 3' - 2" X 6' - 8" 3' - 8" X 6' - 8" 3' - 2" X 6' - 8"	B C B C	WD WD WD WD	1 3/4" 1 3/4" 1 3/4" 1 3/4"		2	HM HM		9/A5.00 10/A5.00 9/A5.00 10/A5.00	4/A5.00 5/A5.00 4/A5.00 5/A5.00	9/A6.20 9/A6.20			•			•		7 8 7 8	
239 239A 240 241	3' - 8" X 6' - 8" 3' - 2" X 6' - 8" 3' - 6" X 6' - 8" 3' - 0" X 6' - 8"	B C	WD WD	1 3/4" 1 3/4" 0" 1 3/4"		2 3 1	HM HM HM		9/A5.00 10/A5.00 1/A5.00 1/A5.00	4/A5.00 4/A5.00 1/A5.00 1/A5.00	9/A6.20	45 MIN		•			•		7 8 10	
242 243 244	2' - 6" X 6' - 8" 2' - 6" X 6' - 8" 3' - 6" X 6' - 8"	A	HM	1 3/4" 1 3/4" 0"		1 1 3	HM HM HM		EXIST. EXIST. 1/A5.00	EXIST. EXIST. 1/A5.00							•		1	1, 2 1, 2
245 246 247 248	3' - 0" X 6' - 8" 3' - 0" X 6' - 8" 3' - 6" X 6' - 8" 3' - 0" X 6' - 8"	A B A	HM WD HM	1 3/4" 1 3/4" 0" 1 3/4"		1 1 3 1	HM HM HM HM		1/A5.00 1/A5.00 1/A5.00 1/A5.00	1/A5.00 1/A5.00 1/A5.00 1/A5.00		45 MIN.					•		10 10 10	
249 249A 250 250A	3' - 8" X 6' - 8" 3' - 2" X 6' - 8" 3' - 8" X 6' - 8" 3' - 2" X 6' - 8"	B C B C	WD WD WD	1 3/4" 1 3/4" 1 3/4" 1 3/4"		2	HM HM		1/A5.00 10/A5.00 1/A5.00 10/A5.00	1/A5.00 5/A5.00 1/A5.00 5/A5.00	9/A6.20 9/A6.20			•			•		7 8 7 8	
251 251A 252	3' - 8" X 6' - 8" 3' - 2" X 6' - 8" 3' - 8" X 6' - 8"	B C B	WD WD WD	1 3/4" 1 3/4" 1 3/4"		2	HM HM		1/A5.00 10/A5.00 9/A5.00	1/A5.00 5/A5.00 4/A5.00	9/A6.20			•			•		7 8 7	
252A 253 253A 254	3 - 2 × 6 - 6 3' - 8" × 6' - 8" 3' - 2" × 6' - 8" 3' - 8" × 6' - 8"	B C B	WD WD WD WD	1 3/4" 1 3/4" 1 3/4" 1 3/4"		2	HM HM		9/A5.00 9/A5.00 10/A5.00 9/A5.00	5/A5.00 4/A5.00 5/A5.00 4/A5.00	9/A6.20 9/A6.20			•			•		0 7 8 7	
254A 255 255A 257	3' - 2" X 6' - 8" 3' - 0" X 6' - 8" 3' - 2" X 6' - 8" 3' - 8" X 6' - 8"	C B C B	WD WD WD WD	1 3/4" 1 3/4" 1 3/4" 1 3/4"		2	HM		10/A5.00 9/A5.00 10/A5.00 9/A5.00	5/A5.00 4/A5.00 5/A5.00 4/A5.00	9/A6.20 9/A6.20			•			•		8 7 8 7	
257A 257B 258	3' - 2" X 6' - 8" 3' - 2" X 6' - 8" 3' - 0" X 6' - 8"	C B A	WD WD HM	1 3/4" 1 3/4" 1 3/4"		1	HM		10/A5.00 10/A5.00 EXIST.	5/A5.00 5/A5.00 EXIST.	9/A6.20						•		8 8 4	1, 2
259A 259A 260 260A	3' - 2" X 6' - 8" 3' - 8" X 6' - 8" 3' - 2" X 6' - 8"	C B C	WD WD WD WD	1 3/4" 1 3/4" 1 3/4" 1 3/4"		2	HM		9/A5.00 10/A5.00 9/A5.00 10/A5.00	4/A5.00 5/A5.00 4/A5.00 5/A5.00	9/A6.20 9/A6.20			•			•		7 8 7 8	
261 261A 262 262A	3' - 8" X 6' - 8" 3' - 2" X 6' - 8" 3' - 8" X 6' - 8" 3' - 2" X 6' - 8"	B C B C	WD WD WD WD	1 3/4" 1 3/4" 1 3/4" 1 3/4"		2	HM HM		9/A5.00 10/A5.00 9/A5.00 10/A5.00	4/A5.00 5/A5.00 4/A5.00 5/A5.00	9/A6.20 9/A6.20			•			•		7 8 7 8	
263 264 268 269	3' - 0" X 6' - 8" 3' - 6" X 6' - 8" 3' - 6" X 6' - 8" 3' - 0" X 6' - 8"	B A	WD HM	1 3/4" 1 3/4" 0" 1 3/4"		1 1 3	HM HM HM		1/A5.00 1/A5.00 1/A5.00	1/A5.00 1/A5.00 1/A5.00		45 MIN.					•		3 10	
203 270 271 271A	3' - 0" X 6' - 8" 3' - 8" X 6' - 8" 3' - 8" X 6' - 8" 3' - 2" X 6' - 8"	B B C	WD WD WD	1 3/4" 1 3/4" 1 3/4"		1 2	HM HM		1/A5.00 1/A5.00 9/A5.00 10/A5.00	1/A5.00 1/A5.00 4/A5.00 5/A5.00	9/A6.20	+O WIIN.		•			•		10 3 7 8	
272 272A 273 273A	3' - 8" X 6' - 8" 3' - 2" X 6' - 8" 3' - 8" X 6' - 8" 3' - 2" X 6' - 8"	B C B C	WD WD WD WD	1 3/4" 1 3/4" 1 3/4" 1 3/4"		2	HM HM		9/A5.00 10/A5.00 9/A5.00 10/A5.00	4/A5.00 5/A5.00 4/A5.00 5/A5.00	9/A6.20 9/A6.20			•			•		7 8 7 8	
274 274A 275 275A	3' - 8" X 6' - 8" 3' - 2" X 6' - 8" 3' - 8" X 6' - 8" 3' - 2" X 6' - 8"	B C B	WD WD WD	1 3/4" 1 3/4" 1 3/4" 1 3/4"		2	HM HM		9/A5.00 10/A5.00 9/A5.00 10/A5.00	4/A5.00 5/A5.00 4/A5.00 5/A5.00	9/A6.20			•			•		7 8 7 8	
276 276A 277	3' - 8" X 6' - 8" 3' - 2" X 6' - 8" 2' - 6" X 6' - 8"	B C A	WD WD HM	1 3/4" 1 3/4" 1 3/4" 1 3/4"		2	HM		9/A5.00 10/A5.00 EXIST.	4/A5.00 5/A5.00 EXIST.	9/A6.20			•			•		7 8 4	1
279 279A 280 280A	3 - U X 6' - 8" 3' - 2" X 6' - 8" 3' - 8" X 6' - 8" 3' - 2" X 6' - 8"	B C C	WD WD WD WD	1 3/4" 1 3/4" 1 3/4" 1 3/4"		2	HM		9/A5.00 10/A5.00 9/A5.00 10/A5.00	4/A5.00 5/A5.00 4/A5.00 5/A5.00	9/A6.20 9/A6.20			•			•		7 8 7 8	
281 281A 282 282A	3' - 8" × 6' - 8" 3' - 2" × 6' - 8" 3' - 8" × 6' - 8" 3' - 2" × 6' - 8"	B C B C	WD WD WD WD	1 3/4" 1 3/4" 1 3/4" 1 3/4"		2	HM HM		9/A5.00 10/A5.00 9/A5.00 10/A5.00	4/A5.00 5/A5.00 4/A5.00 5/A5.00	9/A6.20 9/A6.20			•			•		7 8 7 8	
283 283A 284	3' - 8" X 6' - 8" 3' - 2" X 6' - 8" 3' - 8" X 6' - 8" 3' - 8" X 6' - 8"	B C B C	WD WD	1 3/4" 1 3/4" 1 3/4" 1 3/4"		2	HM HM		9/A5.00 10/A5.00 9/A5.00	4/A5.00 5/A5.00 4/A5.00	9/A6.20			•			•		7 8 7	
285 285A 286	3 - ∠ ∧ b - 8" 3' - 8" X 6' - 8" 3' - 2" X 6' - 8" 3' - 6" X 6' - 8"	B C B B	WD WD WD WD	1 3/4" 1 3/4" 1 3/4" 1 3/4"		2	HM		9/A5.00 9/A5.00 10/A5.00 1/A5.00	5/A5.00 4/A5.00 5/A5.00 1/A5.00	9/A6.20 9/A6.20						•		8 10 8 10	
287 299 299A 299B	3' - 6" X 6' - 8" 3' - 6" X 6' - 10" 3' - 0" / 3' - 0" X 6' - 10" 3' - 0" / 3' - 0" X 6' - 10"	A J J	HM HM HM	0" 1 3/4" 1 3/4" 1 3/4"		3 1 4 4	HM HM HM HM		1/A5.00 1/A5.00 1/A5.00 SIM 1/A5.00 SIM	1/A5.00 1/A5.00 1/A5.00 SIM 1/A5.00 SIM				•		•	•		12 6 6	
299C 299D 299E 299H	3' - 0" / 3' - 0" X 6' - 10" 3' - 0" / 3' - 0" X 6' - 10" 3' - 0" / 3' - 0" X 6' - 10" 3' - 0" X 6' - 8"	J J AA R	HM HM HM	1 3/4" 1 3/4" 1 3/4" 1 3/4"		4 4 1	HM HM HM		1/A5.00 SIM 1/A5.00 SIM 1/A5.00 1/A5.00	1/A5.00 SIM 1/A5.00 SIM 1/A5.00 1/A5.00				•		•	•		6 6 11 2	
1727	U - U A U - O	D	۷۷U	ן ז ט/4 <sup>ײ</sup>	[		<u>i</u> i †IVÍ		u/∧ວ.∪U	1/A0.UU								<u> </u>	3	<u> </u>

DOOR SCHEDULE REMARK KEYNOTES

PAINT EXISTING FRAME, P-1A. VERIFY EXISTING FRAME OPENING.

FOR DOORS 268A, 268B AND 268C, REFER TO DOOR 243 FOR DOOR AND HARDWARE SPECIFICATIONS.

NOTE:

FOR DOOR 138, PROVIDE A 36" X 84" HOLLOW METAL DOOR AND FRAME AND HARDWARE SET TYPE 2.

NOTE:

		-	_	
		HARDWARE SET SCHE	DUL	E
HARDWARE SET		SPECIFICATION	FINISH	NOTE
1 STOREROOM SET	BEST	9K X D X 16C	626	
3 HINGES	MCKINNEY	TB2314 X 4 1/2 X 4 1/2	630	
1 CHECKSTOP	RIXSON	1-226 K1050 X 8" X 2" LDW X CSK	626 630	
3 SILENCERS	ROCKWOOD	608	GRAY	
1 ELECTRIC STRIKE	HES	8000 SERIES	626	
1 CARD READER				RE: SECURE OPERATION NOTE 1
HARDWARE SET 2 (PASS	AGE SET)		T	
1 PASSAGE SET	BEST	9K X N X 16C	626	
1 FLOOR STOP	ROCKWOOD	441	626	
3 SILENCERS	ROCKWOOD	608	GRAY	
HARDWARE SET 3 (PRIV/				
1 PRIVACY SET	BEST	9K X L X 16C	626	
3 HINGES	MCKINNEY	TB2314 X 4 1/2 X 4 1/2	630	
1 FLOOR STOP			626 680	
1 COAT HOOK	TRIMCO	7010	626	MOUNT AT 5'-8" A.F.F
3 SILENCERS	ROCKWOOD	608	GRAY	
HARDWARE SET / (SECU				
1 STOREROOM SET	BEST	9K X D X 16C	626	
3 HINGES	MCKINNEY	TB2314 X 4 1/2 X 4 1/2	630	
1 FLOOR STOP			626 689	
3 SILENCERS	ROCKWOOD	608	GRAY	
1 ELECTRIC STRIKE	HES	8000 SERIES	630	
2 KICK PLATES	ROCKWOOD	K1050 X 8" X 2" LDW X CSK X BOTH SIDES OF	630	
1 CARD READER	BY SECURITY VENDOR			RE: SECURE OPERATION NOTE 1
2 AUTO-OPERATORS	STANLEY	MAGIC FORCE LE OPERATOR X BOTTOM LOAD	630	
		X CONCELAED HEAD X CENTER PIVOT ARM		
4 PULLS 1 SET ELILL RAILS	ROCKWOOD	RM3300 X 36"	630	
1 DOUBLE MAGLOCK	SECURITRON	DM62 SERIES	626	
1 DOOR REX SENSOR	BOSCH	DS-160	BLACK	
1 PUSH TO EXIT BUTTON	SECURITRON	EEB2 8310 8105	RED	
1 CARD READER	BY SECURITY VENDOR	0510-0103	3.3.	RE: SECURE OPERATION NOTE 5
			1	
HARDWARE SET 6 (BI-SW			626	1
6 HINGES	MCKINNEY	TB2314 X 4 1/2 X 4 1/2	630	
2 CLOSERS	CORBIN RUSSWIN	DC5000 SERIES X MOUNT ON NON-PUBLIC SIDE	630	
2 MAGNET HOLD OPENS	RIXSON	994M	689	RE: SECURE OPERATION NOTE 3
2 ASTRAGAL	РЕМКО	S772W	WHITE	
2 DOOR SWEEP	РЕМКО	18050CNB X MOUNT ON BACKSIDE OF DOOR	ALUM.	
HARDWARE SET 7 (RESI				
1 PASSAGE SET	BEST	9K X N X 16C	626	
3 HINGES	MCKINNEY	TB2314 X 4 1/2 X 4 1/2	630	
1 AUTO-OPERATOR 2 WAVE SENSORS	LCN	2614 8310-810S	689 S.S	RE: SECURE OPERATION NOTE 2
1 MAGNET HOLD OPEN	RIXSON	994M	689	RE: SECURE OPERATION NOTE 2
1 PUSH TO EXIT BUTTON	SECURITRON	EEB2	RED	
3 SILENCERS	ROCKWOOD	608	630 GRAY	RE: SECURE OPERATION NOTE 2
O OILENOEKO	Recrimece	000	Oluti	1
HARDWARE SET 8 (BATH	ROOM SLIDERS)		000	1
1 BARN DOOR TRACK	ROCKWOOD	SLIDIO CLASSIC 120-P SE I RM3300 X 36"	689 630	
HARDWARE SET 9 (SLIDI	NG GLASS DOOR)			Т
2 PULLS	ROCKWOOD	RM3300 X 36"	630	
HARDWARE SET 10 (SEC	URITY SET DOOR AND FI		COC	1
3 HINGES	MCKINNEY	TB2314 X 4 1/2 X 4 1/2	630	
1 CLOSER	CORBIN RUSSWIN	DC5000 SERIES X MOUNT ON NON-PUBLIC SIDE	689	
1 FLOOR STOP	ROCKWOOD	441 8000 SEDIES	626	
3 SILENCERS	ROCKWOOD	608	GRAY	
1 CARD READER	BY SECURITY VENDOR			RE: SECURE OPERATION NOTE 1
		<b>T</b> )		
2 PANIC BAR SETS	PRECISION	2814 X 4914B X ELR	626	RE: SECURE OPERATION NOTE 4
6 HINGES	MCKINNEY	TB2314 X 4 1/2 X 4 1/2	630	
6 SILENCERS	ROCKWOOD	608 9550 SERIES	GRAY	
2 WAVE SENSORS	LCN	8310-810S	009	
1 POWER SUPPLY	PRECISION	ELR150		
2 ELECTRIC POWER TRANSFER	PRECISION	EPT-12C		
		1	1	
HARDWARE SET 12 (SING			600	
I PANIC BAR SET	MCKINNFY	23 14 X 4914B X ELR TB2314 X 4 1/2 X 4 1/2	630	RE: SEUURE UPERATION NOTE 4
3 SILENCERS	ROCKWOOD	608	GRAY	
1 AUTO-OPERATOR	LCN	9540 SERIES	689	
2 WAVE SENSORS	PRECISION	8310-810S FLR150	S.S.	
1 ELECTRIC POWER	PRECISION	EPT-12C		

1. ACCESS CONTROL SYSTEM TO RELEASE ELECTRIC STRIKE. IMMEDIATE EGRESS ALWAYS ALLOWED. ELECTRIC STRIKE SHALL RELEASE UPON ACTIVATION OF THE FIRE AND SMOKE ALARM SYSTEM. ACCESS BY KEY OR BY PROXIMITY READER. PROXIMITY READER WILL RELEASE ELECTRIC STRIKE AND ALLOW ACCESS

- IMMEDIATE EGRESS ALWAYS ALLOWED. DOOR CAN BE MANUALLY OR AUTOMATICALLY OPERATED. INTERIOR OR EXTERIOR WALL PLATE SWITCH TO RELEASE ELECTRIC STRIKE AND THEN SIGNAL AUTO OPERATOR TO OPEN DOOR. ELECTRIC STRIKE SHALL ENGAGE UPON ACTIVATION OF THE FIRE AND SMOKE ALARM SYSTEM. PUSH TO EXIT BUTTON TO RELEASE MAGNETIC HOLD OPEN.
- 3. MAGNETIC HOLD OPEN TO RELEASE UPON ACTIVATION OF THE FIRE AND SMOKE ALARM SYSTEM.
- 4. IMMEDIATE EGRESS ALWAYS ALLOWED. DOOR CAN BE MANUALLY OR AUTOMATICALLY OPERATED. INTERIOR OR EXTERIOR WALL PLATE SWITCH TO RELEASE ELECTRIC LATCH RETRACTION AND THEN SIGNAL AUTO OPERATOR TO OPEN DOOR.
- IMMEDIATE EGRESS ALWAYS ALLOWED BY DOOR RELEASE BUTTON/SENSOR. BOTH DOORS CAN BE MANUALLY OPERATED. BOTH DOORS CAN BE AUTOMATICALLY OPERATED. ACCESS CONTROL SYSTEM TO RELEASE MAGLOCK AND ENABLE LOBBY AUTOMATIC OPERATOR WALL PLATE SWITCH. DOOR CAN BE MANUALLY PUSHED OPEN OR AUTOMATICALLY OPERATED BY PUSHING WALL PLATE WHICH SIGNALS AUTOMATIC OPERATOR TO OPEN DOOR. SUITE WALL PLATE SWITCH TO RELEASE MAGLOCK AND AUTOMATIC OPERATOR TO OPEN DOOR. LOCATE WALL PLATE SWITCHES AS DIRECTED BY ARCHITECT. ACCESS CONTROL SYSTEM TO ENGAGE MAGLOCK AND DISABLE LOBBY WALL PLATE SWITCH TO CONTROL ENTRY. MAGLOCK SHALL RELEASE UPON ACTIVATION OF THE FIRE AND SMOKE ALARM SYSTEM. IMMEDIATE EGRESS ALWAYS ALLOWED. AUTOMATIC OPERATION BY PUSHING SUITE WALL PLATE SWITCH WHICH WILL RELEASE MAGLOCK THEN SIGNAL AUTOMATIC OPERATOR TO OPEN DOOR. ACCESS BY PROXIMITY READER. PROXIMITY READER WILL RELEASE MAGLOCK AND ALLOW ACCESS AND

![](_page_18_Figure_12.jpeg)

- 1. SAFETY GLAZING MUST COMPLY WITH LABELING AS PER IBC 2015, 2406.3.(TYPICAL)
- 2. STYLES & RAIL SIZES ON WOOD DOORS MIGHT VARY TO THE STANDARD OF EACH MANUFACTURER.
- 3. FRAME EXTENSIONS ADJUSTING TO WALL DEPTH ARE TYPICAL REFER TO DOOR DETAILS. 4. DIMENSIONS ARE NOMINAL - MANUFACTURER PROVIDING THE DOORS TO DETERMINE THE ROUGH OPENINGS EXCEPT THE OPENINGS IN CONCRETE WALLS THAT HAVE BEEN ALREADY SPECIFIED.
- 5. THICKNESS OF GLAZING WITHIN DOORS BY DOOR MANUFACTURER'S STANDARDS.
- 6. GLAZING AS NOTED ON DOOR ELEVATIONS.
- 7. DOORS TO OPERATE AS SHOWN ON THE ENLARGED UNIT PLANS & OVERALL PLANS.
- 8. PROVIDE TEMPERED GLAZING WHERE REQUIRED BY CODE. (TYPICAL)
- 9. GENERAL CONTRACTOR TO COORDINATE ALL TRADES INVOLVED.
- 10. ELECTRICAL DEVICES SUCH AS MAG. LOCKS, CARD READERS AND ALARM SYSTEMS BEING PART OF THE DOOR FUNCTION ARE INCLUDED AS PART OF THE ELECTRICAL PLANS AND THE HARDWARE GROUPS.
- 11. HARDWARE NOTES: ALL HARDWARE MUST CONFORM TO BUILDING STANDARD MANUFACTURERS AND FINISHES PROVIDE BUILDING STANDARD MANUFACTURER, KEYED TO MASTER

![](_page_18_Figure_24.jpeg)

# FRAME ELEVATIONS SCALE: 1/4" = 1'-0"

![](_page_18_Figure_26.jpeg)

![](_page_18_Figure_27.jpeg)

DETAIL -

SCHEDULED DOOR - MITERED CORNER, TYP. SPECIFIED PARTITION

1/2" TH. SOLID SURFACE FRAME (SSM-1), 12 36 61.16 LINE OF MARBLE
 THRESHOLD BELOW

# DETAIL - **10** AT BATHROOM SLIDING DOOR HEAD SCALE: 3" = 1'-0"

![](_page_18_Figure_31.jpeg)

DETAIL - **9** AT HM HEAD WITH SS SURROUND SCALE: 3" = 1'-0"

![](_page_18_Figure_33.jpeg)

![](_page_18_Figure_34.jpeg)

![](_page_18_Picture_36.jpeg)

ARCHITECTS

AMENTA|EMMA

## ANDRUS ON HUDSON

MAIN BUILDING **RENOVATIONS:** 2ND FLOOR

185 OLD BROADWAY HASTINGS-ON-HUDSON, NY 10706 CONSULTANTS

KEY PLAN

	PRO	DJECT DATA
ROJE( URREI RAWN	CT NUMBER NT SUBMISSION I I	M22005c DATE 10.27.2023 DJF
HECK	ED	DJF
CALE ILE RE	FERENCE	As indicated C:\Users\DJF\Documents\M22005c_AOH Main Bldg_Second
		Floor_CD_CENTRAL_2020_dennisfaga.rvt
No.	Date	Description
10	0% CO	NSTRUCTION
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DOOR SCHEDULE

A5.00.

10/29/2023 10:42:35 PM © Copyright 2020 Amenta | Emma Architects, PC. All rights reserved. Copying, reproduction or distribution prohibited without express written permissi 

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![](_page_19_Figure_2.jpeg)

![](_page_19_Figure_3.jpeg)

![](_page_19_Figure_4.jpeg)

DETAIL - **SOLID SURFACE DIVIDER HEAD/SILL** SCALE: 3" = 1'-0"

![](_page_19_Picture_6.jpeg)

ARCHITECTS

AMENTA|EMMA

# ANDRUS ON HUDSON

MAIN BUILDING RENOVATIONS: 2ND FLOOR

185 OLD BROADWAY HASTINGS-ON-HUDSON, NY 10706 CONSULTANTS

KEY PLAN

- -

PRO	JECT DATA	۱.
PROJECT NUMBER		M22005c
CURRENT SUBMISSION D	ATE	10.27.2023
CHECKED		DJF
CALE		3" = 1'-0"
ILE REFERENCE	C:\Users\DJF\Documents\M	22005c_AOH Main Bldg, Second
	Floor_CD_CENTRAL_2	020_dennisfaga.rvt
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		$\sim$

A5.20.

![](_page_20_Figure_0.jpeg)

![](_page_20_Figure_1.jpeg)

\*NOTE: ALL PUBLIC RESTROOM TILE FINISHES TO BE REVIEWED WITH OWNER AND ARCHITECT PRIOR TO PURCHASE. DESIGN INTENT IS TO MATCH FIRST FLOOR RESTROOM TILES. WALL AND FLOOR TILE PATTERN TO BE RUNNING BOND. WALL AND FLOOR TILE JOINTS TO ALIGN. 21 FINISH SCHEDULE

		FINIS	SH: MATTE		
1.	FLOOR MUST BE CLEAR OF ALL DUST AND DEBRIS PRIOR TO FLOORING INSTALLATION TO INSURE PROPER ADHESION TO SLAB.	P-12 <b>WAL</b> MAN	L <b>S - SALON ACCENT PAINT</b> IUFACTURER: BENJAMIN MOORE	WC-7	ALTERNATE #2- CORRIDOR WALL PROTECTION MANUFACTURER: INPRO
2.	FLOORING SUBCONTRACTOR SHALL PATCH/REPAIR ANY CRACKS, DEVIATIONS, AND ROUGH SURFACES ON ENTIRE CONCRETE SLAB, PRIOR TO INSTALLATION OF FLOORING MATERIALS.	COL	OR: HC-146 WEDGEWOOD GRAY SH: MATTE	WC-8	STYLE: FEATHER SALON ACCENT WALL
3.	WHERE FLOOR FINISHES CHANGE AT A DOOR, THE LINE OF TRANSITION SHALL BE AT THE CENTERLINE OF THE DOOR.	P-13 WAL MAN COL	L <b>S - SALON ACCENT PAINT</b> IUFACTURER: BENJAMIN MOORE		MANUFACTURER: PHILLIP JEFFERIE STYLE: OASIS COLOR: HUSHED AQUA ON WHITE
4.	FLOORING SUBCONTRACTOR TO PROPERLY FLASH PATCH FLOOR SLAB PRIOR TO INSTALLATION OF FLOORING MATERIALS.	FINI	SH: MATTE		VINYL WASHI
5.	CONTRACTOR SHALL INSTALL BASE ON ALL PARTITIONS, COLUMNS, CABINET BASES. COLOR AS SPECIFIED IN LEGEND, U.O.N.	P-14 <b>WAL</b> MAN COL	L <b>S - ACCENT PAINT</b> IUFACTURER: SHERWIN WILLIAMS OR: EGRET WHITE SW7570	RESIL	ENT SHEET FLOORING (RSF)
6.	ALL SEAMS & TOP COATED SEALERS MUST BE PROVIDED BY MANUFACTURER FOR DURABLITY.	FINIS	SH: MATTE	RSF-1 RSF-2	NOT USED
7.	ALL FINISHES SHALL BE APPLIED/INSTALLED IN STRICT ACCORDANCE WITH THE MANUFACTURERS SPECIFICATIONS OR INSTRUCTIONS.				MANUFACTURER: FORBO STYLE: MARMOLEUM REAL
8.	ALL WALLS TO RECEIVE PAINT P-1, U.O.N.	AND WOOD AT RESILIEN	FLOORING; PROVIDE COVE BASE	RSF-3	RESIDENT BATHROOMS AND BATH
9.	ALL FLOORS TO RECEIVE LVT-1, U.O.N.	RB-1 <b>AT P</b>	P-1 LOCATIONS, TYPICAL		MANUFACTURER: ALTRO
10.	ALL BASE TO BE SSB-1, U.O.N.	MAN STYI CON	IUFACTURER: JOHNSONITE LE: 4" RUBBER BASE, 120' ITINUOUS ROLL <b>09 65 13</b>		COLOR: WALRUS AQ2007 SELF COVE BASE USED WITH RSF-3
11.	ALL EXISTING WINDOW TRIM AND SILLS SHALL BE PREPPED AND PAINTED P-1A.	COL	OR: TO MATCH P-1 WALL COLOR	RSF-4	EXAM ROOM
12.	ALL H.M. DOORS AND FRAMES, NEW AND EXISTING, SHALL BE PAINTED WITH P-1A (SEMI-GLOSS), U.O.N.	RB-2 AT P MAN STYL	P-2 LOCATIONS, TYPICAL IUFACTURER: JOHNSONITE LE: 4" RUBBER BASE 120'		MANUFACTURER: JOHNSONTE STYLE: TONALI COLOR: 205 RUSTIC PATHWAY
13.	ALL SUBCONTRACTORS SHALL REVIEW THE EXISTING CONDITIONS AND REPORT ANY DISCREPANCIES OR CONFLICTIONS TO THE ARCHITECT PRIOR TO INSTALLATION.	CON	ITINUOUS ROLL, 09 65 13 OR: TO MATCH P-2 WALL COLOR		SIZE: 6.5' WIDE
14.	PROVIDE GLAZING FILM GF-1 AT ALL NEW INTERIOR GLAZING; INSTALL ON INTERIOR SIDE OF GLAZING, U.O.N. REFER TO ELEVATIONS FOR EXTENTS.	RB-3 AT P MAN	P-3 LOCATIONS, TYPICAL IUFACTURER: JOHNSONITE	LUXUF	RY VINYL TILE (LVT) 09 65 1
15.	CONCRETE AND PATCHING AND FLASH PATCHING MATERIALS SHALL BE APPROPRIATE AND COMPATIBLE WITH INSTALLATION REQUIREMENTS OF DECORATIVE FLOOR FINISHES AND	CON	ITINUOUS ROLL, <b>09 65 13</b> OR: TO MATCH P-3 WALL COLOR	LVT-1	RESIDENT CORRIRORS AND ROOMS AND ELEVATOR ENTRANCES MANUFACTURER: SHAW CONTRACT
	EXISTING CONCRETE SLAB.	RB-4 AT P	P-10 LOCATIONS, TYPICAL		STYLE: BRANCHING OUT 5.0mm ACC
16.	PATCH CONCRETE FLOOR SURFACES TO ENSURE MAXIMUM VARIATION OF 1/8" IN 10'-0" FOR FLOORS TO BE COVERED WITH FLOORING MATERIAL. CONCRETE WORK SHALL BE IN ACCORDANCE WITH ACI 302 AND ACI 304.	STYI CON	LE: 4" RUBBER BASE, 120' ITINUOUS ROLL, <b>09 65 13</b>	LVT-2	SIZE: 6" x 48"; 20mil, 5.0mm SALON
17.	CONTRACTOR TO CARRY ALLOWANCE OF \$10,000 FOR FLOOR LEVELING.	RB-5 AT P	P-11 LOCATIONS, TYPICAL		MANUFACTURER: SHAW CONTRACT STYLE: SOLITUDE
18.	ALKALINITY AND ADHESION TESTING: PERFORM TESTS RECOMMENDED BY MANUFACTURER. PROCEED WITH INSTALLATION ONLY AFTER SUBSTRATES PASS TESTING.	MAN STYI CON	IUFACTURER: JOHNSONITE LE: 4" RUBBER BASE, 120' ITINUOUS ROLL, <b>09 65 13</b>		COLOR: COCOA 48103 SIZE: 6" X 48" INSTALLATION: BRICK
19.	ALL WINDOWS TO RECIEVE WN-1 WINDOW TREATMENTS U.O.N.	COL	OR: TO MATCH P-11 WALL COLOR	LVT-3	CORRIDOR ACCENT
20.	ALL WALL CLADDING PRODUCTS (ALTRO, INPRO) TO BE EVENLY SPACED ON WALL WITH EQUAL CUTS, U.O.N. PROVIDE SHOP DRAWINGS SHOWING SEAM LOCATIONS FOR REVIEW.	RB-6 <b>AT P</b> MAN STYI CON COL	P-12 LOCATIONS, TYPICAL IUFACTURER: JOHNSONITE LE: 4" RUBBER BASE, 120' ITINUOUS ROLL, 09 65 13 OR: TO MATCH P-12 WALL COLOR		MANUFACTURER: SHAW CONTRAC STYLE: COMPOUND 5.0 COLOR: THRESHOLD 77515 SIZE: 24" X 24"; 20mil, 5.0mm
2	7 GENERAL FINISH NOTES	SSB-1 <b>TYP</b> I	ICAL CORRIDOR BASE		
L	1 I I I I I I I I I I I I I I I I I I I	COL	OR: COCONUT OIL 9100GS	TACK	BOARD (TB)
		CORRIDOR HA	NDRAIL	TB-1	TACKBOARD MANUFACTURER: FORBO STYLE: BULLETIN BOARD COLOR: TO BE SELECTED BY
	CARPET PATTERN/VENEER DIRECTION	HR-1 CORRIE			ARCHITECT SIZE: 48" X 80"
		MANUF STYLE:	OVAL		
	CORNER GUARD	COLOR DESIGN	R: STAINLESS STEEL 900SS0		
	<b>FINISH TRANSITION TAG</b> , RE: A6.20 FOR TYPICAL FLOORING TRANSITION DETAILS				
	CEILING				
	WALL				

#### INSTALLATION OF FLOORING MATERIALS. 5. CONTRACTOR SHALL INSTALL BASE ON ALL PARTITIONS, COLUMNS, CABINET BA AS SPECIFIED IN LEGEND, U.O.N.

- 4. FLOORING SUBCONTRACTOR TO PROPERLY FLASH PATCH FLOOR SLAB PRIOR T
- 3. WHERE FLOOR FINISHES CHANGE AT A DOOR, THE LINE OF TRANSITION SHALL E CENTERLINE OF THE DOOR.

- 2. FLOORING SUBCONTRACTOR SHALL PATCH/REPAIR ANY CRACKS, DEVIATIONS, SURFACES ON ENTIRE CONCRETE SLAB, PRIOR TO INSTALLATION OF FLOORING
- 1. FLOOR MUST BE CLEAR OF ALL DUST AND DEBRIS PRIOR TO FLOORING INSTALL INSURE PROPER ADHESION TO SLAB.

#### COLOR: ARCTIC WHITE 0190 PATTERN: RUNNING BOND WT-2 TYPICAL RESTROOM WALL TILE MANUFACTURER: CASALGRANDE PADANA STYLE: NATURAL, POLISHED SIZE: 12X24 COLOR: THASSOS PATTERN: RUNNING BOND FT-1 TYPICAL RESTROOM FLOOR TILE

SIZE: 12X12

DOOR DETAIL

STYLE: MACAO

STYLE: WHITEROCK

COLOR: CESCO 53

STYLE: WHITEROCK

STYLE: DOVE GRAY 0106

CORRIDOR

WC-5 ACCENT

WC-6 ACCENT

WALLCOVERING (WC)

GRAIN

TB-1

COLOR: BOTTICINO (BEIGE), SMALL

PAINT (P) P-1 TYPICAL WALL MANUFACTURER: BENJAMIN MOORE COLOR: OC-17 WHITE DOVE FINISH: MATTE

MANUFACTURER: BENJAMIN MOORE

MANUFACTURER: SHERWIN WILLIAMS

MANUFACTURER: SHERWIN WILLIAMS

MANUFACTURER: SHERWIN WILLIAMS

COLOR: SW-0023 PEWTER TANKARD

MANUFACTURER: SHERWIN WILLIAMS

MANUFACTURER: SHERWIN WILLIAMS

COLOR: FADED FLAXFLOWER SW 9146

MANUFACTURER: SHERWIN WILLIAMS

MANUFACTURER: SHERWIN WILLIAMS

MANUFACTURER: SHERWIN WILLIAMS

MANUFACTURER: SHERWIN WILLIAMS WC-4 NOT USED

COLOR: MOONMIST SW 9144

COLOR: SLEEPY HOLLOW SW 9145

COLOR: FAVORITE JEANS SW 9147

COLOR: OC-17 WHITE DOVE

COLOR: LIGHT FRENCH GRAY

COLOR: LIGHT FRENCH GRAY

FINISH: SEMI GLOSS

P-1A TYPICAL DOOR/TRIM

P-2 ACCENT PAINT - GRAY

FINISH: MATTE

P-2A ELEVATOR DOOR/TRIM

FINISH: MATTE

FINISH: MATTE

FINISH: MATTE

P-5 CEILING - MEDIUM BLUE

FINISH: MATTE

FINISH: MATTE

P-7 CEILING - LIGHT BLUE

FINISH: MATTE

FINISH: MATTE

P-9 CEILING - PALE GRAY

COLOR: MISTY

FINISH: MATTE

P-10 NOT USED

COLOR: HINTING BLUE

P-11 WALLS - SALON / MEDICAL EXAM

MANUFACTURER: BENJAMIN MOORE

COLOR: OC-117 SIMPLY WHITE

P-8 CEILING - PALE BLUE

P-6 CEILING - BLUE

P-4 CEILING - DARK BLUE

P-3 ACCENT PAINT - OFFICES, TYP.

- 09 91 23 TILE
- WT-1 RESIDENT BATH ACCENT WALL TILE MANUFACTURER: DALTILE

TYPE: CERAMIC

SIZE: 3 X 6

09 30 13

MANUFACTURER: PROSPEC STYLE: OMNIA SERIES

**RESTROOM TILE BASE AT FT-1** MANUFACTURER: PROSPEC STYLE: OMNIA SERIES, 12X6 COVE BASE: PROVIDE 'REL' BASE ALONG DOOR JAMB AND HEAD PER

COLOR: TO MATCH FLOOR COLOR 09 72 16 WC-1 RESIDENT ROOM HEAD WALL MANUFACTURER: WOLF GORDON COLOR: SMOKE MAO 7-4152

WC-2 RESIDENT BATHROOM MANUFACTURER: ALTRO WC-3 SUPPORT SPACES TYP. AND SERV. MANUFACTURER: ALTRO

> COLOR: STANDARD WHITE 104 MANUFACTURER: INPRO

MANUFACTURER: INPRO STYLE: NATURAL MAPLE 0531

> CTURER: INPRO CTURER: PHILLIP JEFFERIES

A AND SERVICE AREAS CTURER: FORBO IARMOLEUM REAL SERENE GREY 3146 T BATHROOMS AND BATHER

ILE (LVT) 09 65 19 T CORRIRORS AND ROOMS, PT VATOR ENTRANCES CTURER: SHAW CONTRACT RANCHING OUT 5.0mm ACOUSTIC

CTURER: SHAW CONTRACT

![](_page_20_Picture_29.jpeg)

CARPET - TILE (CPT) 09 68 13 OFFICE AND CONFERENCE CPT-1 MANUFACTURER: INTERFACE STYLE: OPEN AIR 401 COLOR: 106776 NATURAL SIZE: 25 CM X 1 METER

ACOUSTICAL CEILING TILE (ACT) 09 51 23 ACT-1 MANUFACTURER: ARMSTRONG PRODUCT: OPTIMA 24 X 24 TEGULAR ACOUSTICAL PANEL 5/8" THICKNESS COLOR: WHITE GRID: SUPRAFINE 9/16" EXPOSED TEE SUSPENSION SYSTEM

ACT-2 MANUFACTURER: ARMSTRONG PRODUCT: OPTIMA 24 X 48 TEGULAR ACOUSTICAL PANEL 5/8" THICKNESS

COLOR: WHITE GRID: SUPRAFINE 9/16" EXPOSED TEE SUSPENSION SYSTEM

VINYL COMPOSITION TILE (VCT) 09 65 00 VCT-1 SERVICE ROOMS MANUFACTURER: ARMSTRONG STYLE: EXCELON - CROWN TEXTURE COLOR: 12" X 12" STERLING

PLASTIC LAMINATE (PL) 06 41 16, 12 36 23.13 NOTE: COLORCORE 2 PRODUCT IS THROUGH BODY HIGH PRESSURE

PLASTIC LAMINATE WITH NO DARK EDGE PL-1 TYPICAL CABINETS MANUFACTURER: FORMICA STYLE: COLORCORE 2 COLOR: FOLKSTONE 927C-58

FINISH: MATTE PL-2 WOOD-LOOK CABINETS MANUFACTURER: SURFACE MATERIALS - LAB DESIGNS STYLE: FRUITWOOD WA306 LS PL-3 WOOD-LOOK CABINETS - SALON

MANUFACTURER: LAB DESIGNS STYLE: MATTE FINISH COLOR: VN610 NIZZA DI LEGNO PL-4 WOOD-LOOK CABINETS - EXAM MANUFACTURER: SURFACE MATERIALS - LAB DESIGNS STYLE: FRUITWOOD WA306 LS

SOLID SURFACE (SSM) 12 36 61.16 SSM-1 TYPICAL COUNTERS, DIVIDER PANELS AND PPE STATIONS MANUFACTURER: CORIAN COLOR: COCONUT OIL 9100GS

THICKNESS: 1/2" SSM-2 TYPICAL RESIDENT ENTRY TRIM MANUFACTURER: CORIAN COLOR: TITANIUM GRAY 9222SS THICKNESS: 1/2"

SSM-3 CONCEIRGE DESK MANUFACTURER: CORIAN COLOR: PEARL SOAPSTONE 9196CS THICKNESS: 1/2" SSM-4 SALON COUNTERS MANUFACTURER: CORIAN COLOR: DOMINO TERRAZO

QUARTZ (QZ) 12 36 61.16 QZ-1 RESTROOM COUNTERTOP AND BACKSPLASH MANUFACTURER: CAESARSTONE COLOR: 2370 MOCHA

THICKNESS: 3/4"

THICKNESS: 1/2"

WINDOW TREATMENT (WN) 12 24 23 WN-1 MANUAL ROLLER SHADE MANUFACTURER: MECHOSHADE STYLE: URBANSHADE

> SHADE: THERMOVEIL 1000 VALANCE: INCLUDED COLOR: TO BE SELECTED BY ARCHITECT

GLASS FILM (GF) 08 87 00 GF-1 CHART ROOM AND PHYSICAL THERAPY MANUFACTURER: 3M STYLE: FASARA - STRIPE SH2PTSTR COLOR: STRING REVERSE

GF-2 BATHER WINDOWS MANUFACTURER: 3M STYLE: FASARA - FROST/MATTE COLOR: MILKY WHITE

BY OTHERS: CORRIDOR ACOUSTICAL ARTWORK ART-1 CORRIDORS MANUFACTURER: OVERTONE ACOUSTICS STYLE: CUSTOM CANVAS ART PANELS DESIGNATION: NOTE: NOT IN SCOPE

\*NOTE: PAINT COLORS P-4, P-5, P-6, P-7, AND P-8 TO BE USED IN ROTUNDA AND CORRIDOR CEILINGS IN EQUAL AMOUNTS TO CREATE A CREATE GRADIENT EFFECT.

![](_page_20_Picture_51.jpeg)

ARCHITECTS

AMENTA EMMA

# ANDRUS ON HUDSON

MAIN BUILDING **RENOVATIONS:** 2ND FLOOR

185 OLD BROADWAY HASTINGS-ON-HUDSON, NY 10706

CONSULTANTS

KEY PLAN

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DJF

PROJECT DATA PROJECT NUMBER M22005c CURRENT SUBMISSION DATE 10.27.2023 EEK DRAWN CHECKED SCALE As indicated FILE REFERENCE C:\Users\DJF\Documents\M22005c\_AOH Main Bldg\_Second HISTORY OF SUBMISSIONS No. Date Description

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\_\_\_\_\_ \_\_\_\_\_ \_\_\_\_\_ 100% CONSTRUCTION

# DOCUMENTS

SHEET TITLE

FINISH SCHEDULE, GENERAL

FINISH NOTES, FINISH PLAN LEGEND, AND SECOND FLOOR

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FINISH PLAN

![](_page_21_Picture_0.jpeg)

![](_page_21_Figure_1.jpeg)

![](_page_21_Picture_3.jpeg)

![](_page_21_Figure_4.jpeg)

![](_page_21_Picture_5.jpeg)

ARCHITECTS

AMENTA|EMMA

# ANDRUS ON HUDSON

MAIN BUILDING RENOVATIONS: 2ND FLOOR

185 OLD BROADWAY HASTINGS-ON-HUDSON, NY 10706

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KEY PLAN

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# 100% CONSTRUCTION DOCUMENTS

SHEET TITLE

A6.02.

SECOND FLOOR FINISH PLAN

CONTRACTOR TO PROVIDE FIRE TREATED WOOD BLOCKING AS REQUIRED FOR THE MOUNTING OF CABINETRY, COUNTERS, ETC. TYP.

- CABINET DOOR HINGES: ALL CABINET DOOR HINGES SHALL BE BLUM 120 DEGREE CLIP-TOP SELF-CLOSING, FULL OVERLAY, PRESS-IN CONCEALED HINGE (P/N: #71T5580), NICKEL PLATED FINISH UNLESS OTHERWISE INDICATED. 06 41 16
- CABINET SHELF PIN: ALL CABINET SHELF PINS SHALL BE BAER SUPPLY #IF1345NP NICKEL FINISH UNLESS OTHERWISE INDICATED. 06 41 16
- DRAWER SLIDES: ALL DRAWER SLIDES SHALL BE KNAPE & VOGT 8500 HEAVY DUTY FULL EXTENSION BOX SIDE, SIZE AS REQUIRED PER INDICATED DRAWER DIMENSIONS, AND
- CHROME FINISH, UNLESS OTHERWISE INDICATED. 06 41 16 REFER TO 06 41 16 PLASTIC LAMINATE-FACED ARCHITECTURAL CABINETS
- SEE INTERIOR ELEVATION FOR FINISH TYPES PROVIDE WHITE MELAMINE ON ALL INTERIOR SURFACES, U.O.N.
- 8. ALL EXPOSED PIPES BELOW THE COUNTERTOP SHALL BE INSULATED AND ALL SHARP OR ABRASIVE SURFACES SHALL BE REMOVED OR PROTECTED

30 GENERAL MILLWORK NOTES (SS)

![](_page_22_Figure_8.jpeg)

# 24 MILLWORK SECTION - AT SALON SINK

![](_page_22_Figure_10.jpeg)

![](_page_22_Figure_11.jpeg)

![](_page_22_Figure_12.jpeg)

![](_page_22_Figure_14.jpeg)

ELECTRICAL OUTLET 42" AFF. U.O.N -

![](_page_22_Figure_15.jpeg)

SCHEDULED SINK AND FAUCET,

**RE: PLUMBING DRAWINGS** 

SOLID SURFACE COUNTERTOP WITH INTEGRATED HANDLES

PROVIDE PLASTIC-LAMINATE-CLAD, PL-1, 3/4"

PARTICLEBOARD, 06 41 13 ON 1X2 F.T. WOOD

FRAMING. INTENT IS FOR PROFILE TO MATCH

THAT OF REQUIRED KNEE AND TOE CLEARANCE

AS INDICATED. SET OUTSIDE FACE OF PANEL 1"

BACK FROM REQUIRED CLEARANCE, TYP.

REMOVABLE 3/4" PLASTIC-LAMINATE CLAD

12 36 61.16

1X WOOD FRAMING

PARTICLEBOARD PANEL

FINISH FLOOR AS SCHEDULED

CONTINUOUS FINGER PULL RE: DETAIL 15 / A6.16

PROVIDE MELAMINE ON ALL INTERIOR SURFACES 1/4" MELAMINE CLAD PARTICLEBOARD BACK

# MILLWORK SECTION -18 AT SALON SINK CABINET

![](_page_22_Figure_20.jpeg)

![](_page_22_Figure_21.jpeg)

![](_page_22_Figure_25.jpeg)

MILLWORK SECTION - **1** <u>AT APPLIANCE (SS)</u> SCALE: 1" = 1'-0"

MILLWORK SECTION - **6** AT SIDE APPROACH SINK CABINET (SS) SCALE: 1" = 1'-0"

MILLWORK SECTION -AT BASE CABINET (SS) SCALE: 1" = 1'-0"

![](_page_22_Picture_29.jpeg)

ARCHITECTS

AMENTA EMMA

## ANDRUS ON HUDSON

MAIN BUILDING **RENOVATIONS:** 2ND FLOOR

185 OLD BROADWAY HASTINGS-ON-HUDSON, NY 10706

CONSULTANTS

KEY PLAN

M22005c

10.27.2023 AEO

As indicated

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100% CONSTRUCTION DOCUMENTS

SHEET TITLE

MILLWORK SECTIONS

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A6.16.

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![](_page_23_Figure_2.jpeg)

![](_page_23_Figure_3.jpeg)

![](_page_23_Figure_4.jpeg)

![](_page_23_Picture_5.jpeg)

ARCHITECTS

AMENTA|EMMA

# ANDRUS ON HUDSON

MAIN BUILDING **RENOVATIONS:** 2ND FLOOR

185 OLD BROADWAY HASTINGS-ON-HUDSON, NY 10706 CONSULTANTS

KEY PLAN

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A6.20.

FLOORING DETAILS

( - )

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![](_page_24_Figure_7.jpeg)

![](_page_24_Figure_8.jpeg)

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![](_page_24_Figure_9.jpeg)

![](_page_24_Picture_10.jpeg)

ARCHITECTS

AMENTA|EMMA

# ANDRUS ON HUDSON

MAIN BUILDING **RENOVATIONS:** 2ND FLOOR

185 OLD BROADWAY HASTINGS-ON-HUDSON, NY 10706

CONSULTANTS

KEY PLAN

A6.21.

 $\setminus$  1  $\angle$ PROJECT DATA PROJECT NUMBER M22005c CURRENT SUBMISSION DATE 10.27.2023 DRAWN DJF CHECKED DJF SCALE 3" = 1'-0" C:\Users\DJF\Documents\M22005c\_AOH Main Bldg\_Second Floor\_CD\_CENTRAL\_2020\_dennisfaga.rvt FILE REFERENCE HISTORY OF SUBMISSIONS No. Date Descriptio \_\_\_\_\_ \_\_\_\_\_

100% CONSTRUCTION DOCUMENTS

SHEET TITLE

TYPICAL ENTRY DETAILS

![](_page_25_Picture_1.jpeg)

![](_page_25_Picture_2.jpeg)

![](_page_25_Picture_4.jpeg)

ARCHITECTS

AMENTA|EMMA

# ANDRUS ON HUDSON

MAIN BUILDING RENOVATIONS: 2ND FLOOR

185 OLD BROADWAY HASTINGS-ON-HUDSON, NY 10706 CONSULTANTS

KEY PLAN

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 $\langle \downarrow \rangle$ PROJECT DATA PROJECT NUMBER CURRENT SUBMISSION DATE M22005c 10.27.2023 DRAWN AEO CHECKED DJF SCALE 1/8" = 1'-0" C:\Users\DJF\Documents\M22005c\_AOH Main Bldg\_Second Floor\_CD\_CENTRAL\_2020\_dennisfaga.rvt FILE REFERENCE HISTORY OF SUBMISSIONS No. Date 100% CONSTRUCTION DOCUMENTS SHEET TITLE 

SECOND FLOOR MOVEABLE EQUIPMENT/FURNITURE PLAN

A7.01.

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	GENERAL NOTES - MECHANICAL
1.	GENERAL NOTES, SYMBOLS, AND DETAILS ARE APPLICABLE TO DRAWINGS WITHIN DIVISION 23.
2.	PROVIDE ALL MATERIALS AND EQUIPMENT AND PERFORM ALL LABOR REQUIRED TO INSTALL COMPLETE AND OPERABLE MECHANICAL SYSTEMS AS INDICATED ON THE DRAWINGS, AS SPECIFIED, AND AS REQUIRED BY CODES.
3.	DRAWINGS ARE DIAGRAMMATIC AND ARE INTENDED TO INDICATE CAPACITY, SIZE, APPROXIMATE LOCATION AND GENERAL ARRANGEMENT. COORDINATE LOCATIONS OF SYSTEMS AND COMPONENTS.
4.	COORDINATE ROOF AND WALL PENETRATIONS WITH WORK OF OTHER SECTIONS AND WITH FLASHING REQUIREMENTS. COORDINATE SLAB PENETRATIONS WITH WORK OF OTHER SECTIONS.
5.	RUN DUCTS AND PIPING CONCEALED UNLESS SPECIFIED OTHERWISE NOTED.
6.	INSTALL SENSORS (TEMPERATURE, HUMIDITY, CO2, THERMOSTATS) AT LOCATIONS SHOWN ON PLANS OR AS DIRECTED BY ARCHITECT. MOUNTING HEIGHT AFF SHALL COMPLY WITH ADA AND SHALL BE MOUNTED LEVEL WITH ADJACENT SWITCHES (IE LIGHT SWITCHES).
7.	COORDINATE WORK OF THIS SECTION WITH THAT OF OTHER SECTIONS AND WITH ALL TRADES INVOLVED. PROVIDE OFFSETS IN PIPING AND DUCTS (INCLUDING DIVIDED DUCTS) AND TRANSITIONS AROUND OBSTRUCTIONS.
8.	NOT ALL ACCESS DOORS HAVE BEEN SHOWN ON THE PLANS. PROVIDE ACCESS PANELS THROUGH BUILDING ASSEMBLIES TO SERVICE AND MAINTAIN EQUIPMENT UNLESS SUCH EQUIPMENT IS INSTALLED IN EXPOSED LOCATIONS OR ABOVE LAY-IN CEILINGS. COORDINATE THE LOCATION OF ACCESS DOORS AND PANELS AND VERIFY THE QUANTITY, SIZE, AND LOCATIONS AFTER THE SYSTEMS AND EQUIPMENT REQUIRING ACCESS HAVE BEEN INSTALLED AND PRIOR TO THE CLOSURE OF THE AFFECTED CEILINGS AND BUILDING ASSEMBLIES. SUBMIT ACCESS PANEL LOCATIONS FOR REVIEW.
9.	AT SUBSTANTIAL COMPLETION, THE FOLLOWING ITEMS, NEW OR EXISTING, SHALL BE FULLY AND REASONABLY ACCESSIBLE: HVAC CONTROL BOXES, JUNCTION BOXES, VALVES, DDC CONTROL BOXES, ELECTRICAL PANELS, FILTERS, BELTS, WATER COILS, DISCONNECT SWITCHES AND ELEMENTS OF EQUIPMENT REQUIRING MAINTENANCE. "FULLY AND REASONABLY ACCESSIBLE" SHALL BE DEFINED AS NATIONAL ELECTRIC CODE REQUIRED CLEARANCE FOR POWERED EQUIPMENT AND CAPABLE OF BEING ACCESSED OR SERVICED WITHOUT REMOVING, MODIFYING OR DISTORTING OTHER COMPONENTS OF THE WORK. PROVIDE MANUFACTURER'S RECOMMENDED CLEARANCE FOR ALL EQUIPMENT.
10.	SUPPORT EQUIPMENT, PIPING AND DUCTWORK FROM BUILDING STRUCTURE OR WITH STEEL SUPPORTS AND PLATFORMS AS REQUIRED. PROVIDE VIBRATION ISOLATION FOR ROTATING EQUIPMENT, DUCTWORK, AND PIPING IN ACCORDANCE WITH THE SPECIFICATIONS.
11.	ROOF CURB AND RAIL HEIGHTS INDICATED ARE THE DIMENSIONS BETWEEN THE ROOF SURFACE AND THE TOPS OF THE CURBS AND RAILS. WHERE THE ROOF IS PITCHED, CONSTRUCT CURBS AND RAILS SUCH THAT THE BOTTOM PITCHES WITH THE ROOF AND THE TOP IS LEVEL.
12.	CONTROL WIRING METHODS SHALL COMPLY WITH NEC, AND DIVISION 26 SPECIFICATIONS.
13.	VERIFY EQUIPMENT CONNECTIONS WITH MANUFACTURER'S DRAWINGS. VERIFY AND PROVIDE FITTINGS TO TRANSITION TO FURNISHED EQUIPMENT. FIELD VERIFY AND COORDINATE DIMENSIONS BEFORE FABRICATION.
14.	PERFORM PRESSURE AND LEAKAGE TESTS BEFORE INSULATING DUCTWORK AND PIPING
15.	MAINTAIN 6'-8" CLEARANCE TO THE UNDERSIDE OF PIPES, DUCTS, CONDUITS, SUSPENDED EQUIPMENT, ETC., THROUGHOUT ROUTES IN MECHANICAL ROOMS. MAINTAIN 3'-0" WIDE MEANS OF EGRESS IN MECHANICAL ROOMS.

16. MISCELLANEOUS STEEL REQUIRED TO ENSURE PROPER INSTALLATION AND, AS SHOWN IN THE DETAILS FOR PIPING, DUCTWORK, AND EQUIPMENT, SHALL BE FURNISHED BY THE MECHANICAL CONTRACTOR. 17. AIR CONDITIONING CONDENSATE DRAIN LINES FROM EACH AIR HANDLING UNIT AND ROOFTOP UNIT

SHALL BE PIPED FULL SIZE OF THE UNIT DRAIN OUTLET WITH P-TRAP, P TRAP ARRANGEMENT SHALL BE BASED ON THE UNIT (NEGATIVE OR POSITIVE PRESSURE). 18. INSTALL UNITS WITH CLEARANCE FOR SERVICE AS REQUIRED BY THE MANUFACTURER.

19. ALL ROOF-MOUNTED EQUIPMENT THAT NEEDS SERVICING SHALL BE LOCATED A MINIMUM OF 10'-0" FROM THE EDGE OF THE ROOF.

#### MECHANICAL GENERAL DEMOLITION NOTES

#### DEMOLITION NOTES

- SITE VISIT: THIS PROJECT INVOLVES CONSTRUCTION INSIDE AN EXISTING STRUCTURE. BEFORE SUBMITTING BID, VISIT AND CAREFULLY EXAMINE SITE TO IDENTIFY EXISTING CONDITIONS AND DIFFICULTIES THAT WILL AFFECT WORK OF THIS SECTION. NO EXTRA PAYMENT WILL BE ALLOWED FOR ADDITIONAL WORK CAUSED BY UNFAMILIARITY WITH SITE CONDITIONS THAT ARE VISIBLE OR READILY CONSTRUED BY EXPERIENCED OBSERVER.
- PREPARATORY WORK: BEFORE STARTING WORK IN A PARTICULAR AREA OF THE PROJECT, VISIT SITE AND EXAMINE CONDITIONS UNDER WHICH WORK MUST BE PERFORMED INCLUDING PREPARATORY WORK DONE UNDER OTHER SECTIONS OR CONTRACTS BY OWNER. REPORT CONDITIONS THAT MIGHT AFFECT WORK ADVERSELY IN WRITING TO ARCHITECT AND OWNER. DO NOT PROCEED WITH WORK UNTIL DEFECTS HAVE BEEN CORRECTED AND CONDITIONS ARE SATISFACTORY. COMMENCEMENT OF WORK SHALL BE CONSTRUED AS COMPLETE ACCEPTANCE OF EXISTING CONDITIONS AND PREPARATORY WORK.
- PHASING: DEMOLITION WORK SHALL COMPLY WITH THE PHASING REQUIREMENTS OF THE PROJECT AND BE COORDINATED WITH THE OWNER, ARCHITECT, CM AND ENGINEER. NO REMOVALS SHALL BE IMPLEMENTED WITHOUT A THOROUGH UNDERSTANDING OF THE PHASING REQUIREMENTS.
- ABANDONING OF DUCTWORK, PIPING OR EQUIPMENT IN PLACE WITHIN SCOPE AREA IS PROHIBITED. 5. PROVIDE 2 WEEKS NOTICE TO OWNER FOR SHUT DOWN OF ANY SERVICES AND/OR SYSTEMS.
- COORDINATE EXISTING EQUIPMENT AND MATERIALS THAT SHALL REMAIN THE PROPERTY OF THE OWNER. ITEMS OF VALUE WHICH ARE NOT DIRECTED TO BE RETURNED TO THE OWNER, SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE REMOVED FROM SITE AND LEGALLY DISPOSED OF. STORAGE OR SALE OF ITEMS ON THE PROJECT SITE IS PROHIBITED.
- PROTECTION: ENSURE THE SAFE PASSAGE OF PERSONS IN AND AROUND THE BUILDING DURING DEMOLITION. PREVENT INJURY TO PERSONS AND DAMAGE TO PROPERTY. PROVIDE ADEQUATE SHORING AND BRACING TO PREVENT COLLAPSE. IMMEDIATELY REPAIR DAMAGED PROPERTY TO THE CONDITION BEFORE BEING DAMAGED. TAKE EFFECTIVE MEASURES TO PREVENT WINDBLOWN DUST.
- UTILITIES: MAINTAIN ALL UTILITIES EXCEPT THOSE REQUIRING REMOVAL OR RELOCATION. KEEP UTILITIES IN SERVICE AND PROTECT FROM DAMAGE. DO NOT INTERRUPT UTILITIES SERVING OCCUPIED AREAS WITHOUT FIRST OBTAINING PERMISSION FROM THE OWNER IN WRITING. PROVIDE TEMPORARY SERVICES AS REQUIRED.
- INFORMATION CONTAINED ON THESE DRAWINGS WAS OBTAINED FROM ARCHIVED DRAWINGS AND SITE VISITS. DRAWINGS ARE DIAGRAMMATIC ONLY AND REFLECT OVERALL SYSTEM REMOVAL. NOT EVERY ITEM OR COMPONENT OF A SYSTEM IS SHOWN. PROVIDE COMPLETE REMOVAL OF ASSOCIATED ANCILLARY PIPES, HANGERS, VALVES AND ACCESSORIES SERVING SYSTEM SHOWN.
- 0. DEMOLITION WORK SHALL COMPLY WITH OSHA, EPA AND APPLICABLE STATE AND LOCAL CODES. COMPLY WITH HAULING AND DISPOSAL REGULATIONS.

1. REFER TO SPECIFICATIONS FOR ADDITIONAL DEMOLITION REQUIREMENTS AND PROCEDURES. PRE-DEMO TESTING, ADJUSTING AND BALANCING (TAB)

CONFIRM SUPPLY, RETURN AND EXHAUST SYSTEM AIRFLOW CAPACITY THROUGH PRE-CONSTRUCTION TESTING AND BALANCING OF SYSTEMS AFFECTED BY THE WORK. REPORTS SHALL INCLUDE COMPLETE FAN INFORMATION, CFM, ESP, TSP, RPM, VOLTS, AMPS AND VFD SPEEDS. CENTRAL EXHAUST SYSTEM SHALL BE BALANCED AT ALL EXISTING CONNECTIONS TO MAIN EXHAUST DUCT RISERS.

CONFIRM HYDRONIC SYSTEM CAPACITY THROUGH PRE-CONSTRUCTION TESTING AND BALANCING REPORTS OF SYSTEMS AFFECTED BY THE WORK. REPORTS SHALL INCLUDE PIPE SIZE, FLOW RATE, SUPPLY PRESSURE AND RETURN PRESSURE.

EXHAUST SYSTEM GENERAL DEMOLITION NOTES

#### DEMOLITION NOTES

EXISTING PATIENT ROOM EXHAUST IS PROVIDED THROUGH AN EXHAUST FAN LOCATED IN THE SIXTH FLOOR MECHANICAL ROOM SPACE. DEMOLITION CONTRACTOR SHALL VERIFY TIE IN LOCATIONS OF BRANCH EXHAUST DUCTS SERVING EACH WING BACK TO WHERE THEY CONNECT TO THE MAIN VERTICAL DUCT SHAFT. THE INTENT OF THE EXHAUST DESIGN IS TO RE-USE THE EXISTING EXHAUST DUCT BRANCHES SERVING THE WINGS AND REPLACING ONLY THE GRILLES AND EXHAUST DUCTWORK TAPS WITH VOLUME DAMPERS AT EACH GRILLE LOCATION. DEMOLITION CONTRACTOR SHALL VERIFY EXHAUST FLOW RATE AT EACH MAIN BRANCH CONNECTING TO THE MAIN RISER AND CONFIRM ANY LEAKAGE/BROKEN SECTIONS OF BRANCH DUCTWORK DURING DEMOLITION. CONTRACTOR SHALL ALERT ARCHITECT AND ENGINEER OF ANY ISSUES BEFORE PROCEEDING.

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WPD

ABBREVIATIONS
DESCRIPTION
ACCESS DOOR
ABOVE FINISHED FLOOR
AIR HANDLING UNI I
AIR SEPARATOR
AVERAGE WATER TEMPERATURE
BREAK HORSEPOWER
BUILDING MANAGEMENT SYSTEM
BRITISH THERMAL UNIT
BTU / HOUR
CONDENSING UNIT
CABINET UNIT HEATER
DUCTLESS AIR HANDLER
DECIBELS
DUCTLESS HEAT PUMP
DIRECT EXPANSION
ENERGY EFFICIENCY RATIO
EXTERNAL STATIC PRESSURE
EXISTING TO REMAIN
ENTERING WET BULB
ENTERING WATER TEMPERATURE
DEGREES FAHRENHEIT
FEET PER MINI ITE
COMBINATION FIRE SMOKE DAMPER
GALLONS PER HOUR
GALLONS PER MINUTE
GRILLE, REGISTER, DIFFUSER
HORSEPOWER
HEATING SEASON PERFORMANCE FACTOR
INTEGRATED PART LOAD VALUE
KILOWATTS
LOUVER
LEAVING AIR TEMPERATURE
LEAVING DRY BULB
LEAVING WET BULB
LEAVING WATER TEMPERATURE
MAXIMUM

MINIMUM CIRCUIT AMPACITY PRESSURE REDUCING VALVE POUNDS PER SQUARE INCH GAUGE **REVOLUTIONS PER MINUTE** REDUCED PRESSURE ZONE BACKFLOW PREVENTER REFRIGERANT LIQUID REFRIGERANT SUCTION REFRIGERANT DISCHARGE

STATIC PRESSURE DROP SATURATED SUCTION PRESSURE TOTAL STATIC PRESSURE

VARIABLE FREQUENCY DRIVE VENT THRU ROOF WATER PRESSURE DROP

MECHANICAL LEGEND		
SYMBOL	DESCRIPTION	
<u>у ү</u>	DUCTWORK	
<u>YY</u>	ACOUSTICALLY LINED DUCTWORK	
X X	SUPPLY DUCTWORK TOWARDS (UP IN PLAN)	
X IX	SUPPLY DUCTWORK AWAY (DOWN IN PLAN)	
	RETURN DUCTWORK TOWARDS (UP IN PLAN)	
X Y	RETURN DUCTWORK AWAY (DOWN IN PLAN)	
X Y	EXHAUST DUCTWORK TOWARDS (UP IN PLAN)	
X	EXHAUST DUCTWORK AWAY (DOWN IN PLAN)	
	FLEXIBLE DUCT	
	VOLUME DAMPER	
	FIRE DAMPER	
BD	BACKDRAFT DAMPER	
MD	MOTORIZED DAMPER	
♦SD	SMOKE DAMPER	
FSD	COMBINATION FIRE AND SMOKE DAMPER	
-√►	AIR ENTERING OPENING	
-	AIR LEAVING OPENING	
	CEILING DIFFUSER (BLOW INDICATED)	
	RETURN GRILLE OR REGISTER	
	EXHAUST GRILLE OR REGISTER	
Т	TEMPERATURE SENSOR	
H	HUMIDITY SENSOR	
T	THERMOSTAT	
B OR S D	DUCT SMOKE DETECTOR	
С	CARBON DIOXIDE SENSOR	
<u>X-##</u>	EQUIPMENT SYMBOL	
# #	GRILLE/REGISTER/DIFFUSER SYMBOL	
<b>(</b> # <b>)</b>	KEYNOTE	
	CONNECTION TO EXISTING	

PI	2ING	LEG	END

SYMBOL	DESCRIPTION
	SUPPLY PIPING RETURN PIPING ELBOW UP ELBOW DOWN TEE TOWARDS (UP IN PLAN) TEE AWAY(DOWN IN PLAN) DROP AND RUN
$\begin{array}{c} \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\$	CLEANOUT BLIND FLANGE END CAP HEATING HOT WATER SUPPLY HEATING HOT WATER RETURN REFRIGERANT SUCTION/REFRIGERANT LIQUID CONDENSATE

HVAC DEMOLITION LEGEND		
SYMBOL	DESCRIPTION	
	REMOVE EXISTING DUCTWORK/EQUIPMENT	
	REMOVE EXISTING PIPING/EQUIPMENT	
ETR	EXISTING TO REMAIN	
RE	REMOVE EXISTING	
RL	RELOCATE EXISTING	

![](_page_26_Picture_31.jpeg)

MECHANICAL NOTES, SYMBOLS, AND ABBREVIATIONS

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10.27.2023

KEY PLAN

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CURRENT SUBMISSION DATE

![](_page_26_Picture_36.jpeg)

CONSULTANTS

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ANDRUS ON HUDSON ANDRUS ON HUDSON | MAIN BUILDING 2ND FLOOR

![](_page_26_Figure_40.jpeg)

![](_page_26_Figure_41.jpeg)

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![](_page_27_Figure_2.jpeg)

MECHANICAL DEMO FIRST FLOOR PLAN
. MD1.00.1.

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KEY PLAN

![](_page_27_Picture_6.jpeg)

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![](_page_27_Figure_10.jpeg)

![](_page_28_Figure_0.jpeg)

و ص

![](_page_28_Picture_3.jpeg)

AMENTA|EMMA

![](_page_29_Figure_0.jpeg)

₩ ₩ ₩

![](_page_29_Picture_3.jpeg)

AMENTA|EMMA

# 1 01 MECHANICAL FIRST FLOOR PLAN 1/8" = 1'-0"

•

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![](_page_30_Figure_2.jpeg)

# M1.00.1.

MECHANICAL FIRST FLOOR PLAN

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![](_page_30_Picture_8.jpeg)

-----CONSULTANTS 

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ANDRUS ON HUDSON | MAIN BUILDING 2ND FLOOR

![](_page_30_Figure_12.jpeg)

![](_page_30_Figure_13.jpeg)

![](_page_31_Figure_0.jpeg)

![](_page_31_Picture_3.jpeg)

MECHANICAL MEZZANINE FLOOR PLAN

100% CONSTRUCTION DOCUMENTS

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M19012 10.27.2023

KEY PLAN

PROJECT NUMBER

CURRENT SUBMISSION DATE

![](_page_31_Picture_7.jpeg)

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ANDRUS ON HUDSON

AMENTA|EMMA

![](_page_31_Figure_11.jpeg)

![](_page_32_Figure_0.jpeg)

# M1.00.2.

MECHANICAL SECOND FLOOR
PLAN

100% CONSTRUCTION DOCUMENTS

SHEET TITLE

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SCALE	AS INDICATED
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No. Date	Description

PROJECT DATA

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10.27.2023

KEY PLAN

PROJECT NUMBER

CURRENT SUBMISSION DATE

![](_page_32_Picture_7.jpeg)

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ANDRUS ON HUDSON | MAIN BUILDING

![](_page_32_Figure_11.jpeg)

AMENTA EMMA

![](_page_33_Figure_0.jpeg)

![](_page_33_Figure_1.jpeg)

![](_page_33_Figure_6.jpeg)

-FILTER SECTION CEILING -2" HIGH GALVANIZED DRAIN PAN. SOLDER ALL JOINTS FOR A WATER TIGHT INSTALLATION. UNIT MANUFACTURER'S RECOMMENDATIONS

RETURN DUCTWORK.

- CONDENSATE DRAIN SIZE AND LOCATION PER PLANS

![](_page_33_Figure_11.jpeg)

XXXXXX

-FIREPROOF NON-HARDENING

CAULK AIRTIGHT ALL AROUND

(TYPICAL)

SHEET METAL SAFING ALL

AROUND (MIN 22 GA) ONLY WHEN GAP EXCEEDS 1/2"-

1/2" GAP-

![](_page_33_Figure_12.jpeg)

1. LOCATE PIPING AND VALVES CONCEALED. VALVES MAY BE

LOCATED ABOVE ACCESSIBLE CEILING OR WITHIN

ACCESSIBLE FINNED TUBE ENCLOSURE.

![](_page_33_Picture_14.jpeg)

### MECHANICAL DETAILS

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#### HISTORY OF SUBMISSIONS No Date Descriptio \_\_\_\_\_ -----\_\_\_\_\_ \_\_\_\_\_ \_\_\_\_\_ \_\_\_\_\_ ------\_\_\_\_\_ 100% CONSTRUCTION DOCUMENTS SHEET TITLE

PROJECT NUMBER M19012 CURRENT SUBMISSION DATE 10.27.2023 DRAWN LAE CHECKED BCH SCALE AS INDICATED FILE REFERENCE C:\Users\lewing\Documents\PHASE 2 -R20-2019378.00-MEP Central-Andrus-on-Hudson\_second floor\_lewing2RVWP.rvt

PROJECT DATA

KEY PLAN

![](_page_33_Picture_19.jpeg)

![](_page_33_Figure_20.jpeg)

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ANDRUS ON HUDSON ANDRUS ON HUDSON | MAIN BUILDING 2ND FLOOR

![](_page_33_Figure_23.jpeg)

			ROOM	AIR CHANG	SES PER H	OUR SCHEDULE		
FUNCTION OF SPACE	PRESSURE RELATIONSHIP TO ADJACENT AREAS	MINIMUM OUTDOOR ACH REQUIRED	MINIMUM TOTAL ACH REQUIRED	MINIMUM OUTDOOR ACH PROVIDED	MINIMUM TOTAL ACH PROVIDED	ALL ROOM AIR EXHAUSTED DIRECTLY TO OUTDOORS	MINIMUM FILTER EFFICIENCIES	DESIGN TEMPERATURE
RESIDENT ROOMS (211,210,209,208,217,216,215,225,226, 227,228,229,230,234,235,236,237,238, 239,249,250,251,252,253,254,255,259, 260,261,262,271,272,273,274,275,276, 279,280,281,282,283,284,285)	N/A	2	2	2.53	11.4	YES	N/A (NON-RECIRCULATION SYSTEM)	EQUIPMENT WILL MEET DESIRED DESIGN TEMPERATURES.
RESIDENT ROOM 257	N/A	2	2	2.25	12	YES	N/A (NON-RECIRCULATION SYSTEM)	EQUIPMENT WILL MEET DESIRED DESIGN TEMPERATURES.
SECURE MEDICATION ROOM 286	N/A	2	4	4.2	12.4	YES	N/A (NON-RECIRCULATION SYSTEM)	EQUIPMENT WILL MEET DESIRED DESIGN TEMPERATURES.
MEDICATION ROOM 202	N/A	2	4	5.1	15.2	YES	N/A (NON-RECIRCULATION SYSTEM)	EQUIPMENT WILL MEET DESIRED DESIGN TEMPERATURES.
RESIDENT LOUNGE/ ACTIVITY 207	N/A	2	4	3.3	8.8	YES	N/A (NON-RECIRCULATION SYSTEM)	EQUIPMENT WILL MEET DESIRED DESIGN TEMPERATURES.
FLEX/ FAMILY MEETING 212	N/A	2	2	2.45	9.3	YES	N/A (NON-RECIRCULATION SYSTEM)	EQUIPMENT WILL MEET DESIRED DESIGN TEMPERATURES.
ACTIVITIES OF DAILY LIVING SUITE 219	N/A	2	2	2.47	10.5	YES	N/A (NON-RECIRCULATION SYSTEM)	EQUIPMENT WILL MEET DESIRED DESIGN TEMPERATURES.
PT DIRECTOR OFFICE 223	N/A	NOT REQUIRED	2	2.2	16.4	YES	N/A (NON-RECIRCULATION SYSTEM)	EQUIPMENT WILL MEET DESIRED DESIGN TEMPERATURES.
NURSE MANAGERS OFFICE 231	N/A	NOT REQUIRED	2	2.53	11.4	YES	N/A (NON-RECIRCULATION SYSTEM)	EQUIPMENT WILL MEET DESIRED DESIGN TEMPERATURES.
STAFF LOUNGE 245	N/A	NOT REQUIRED	2	3.3	9.9	YES	N/A (NON-RECIRCULATION SYSTEM)	EQUIPMENT WILL MEET DESIRED DESIGN TEMPERATURES.
CHARTING/ WORKROOM 200	N/A	NOT REQUIRED	2	2.2	5.7	YES	N/A (NON-RECIRCULATION SYSTEM)	EQUIPMENT WILL MEET DESIRED DESIGN TEMPERATURES.
CENTRAL BATHER 205	NEG	NOT REQUIRED	10	4.2	14.1	YES	N/A (NON-RECIRCULATION SYSTEM)	EQUIPMENT WILL MEET DESIRED DESIGN TEMPERATURES.
STORAGE 206	N/A	NOT REQUIRED	NOT REQUIRED	4.4	13.1	YES	N/A (NON-RECIRCULATION SYSTEM)	EQUIPMENT WILL MEET DESIRED DESIGN TEMPERATURES.
PHYSICAL THERAPY 221	NEG	2	6	2.73	9.4	YES	N/A (NON-RECIRCULATION SYSTEM)	EQUIPMENT WILL MEET DESIRED DESIGN TEMPERATURES.
STORAGE 241	N/A	NOT REQUIRED	NOT REQUIRED	7.3	21.6	YES	N/A (NON-RECIRCULATION SYSTEM)	EQUIPMENT WILL MEET DESIRED DESIGN TEMPERATURES.
PANTRY 246	N/A	NOT REQUIRED	NOT REQUIRED	3.8	11.2	YES	N/A (NON-RECIRCULATION SYSTEM)	EQUIPMENT WILL MEET DESIRED DESIGN TEMPERATURES.
CLEAN LINEN 248	POS	2	4	7.3	21.4	YES	N/A (NON-RECIRCULATION SYSTEM)	EQUIPMENT WILL MEET DESIRED DESIGN TEMPERATURES.
SERVICE CORRIDOR 299	N/A	NOT REQUIRED	4	2.2	6.5	YES	N/A (NON-RECIRCULATION SYSTEM)	EQUIPMENT WILL MEET DESIRED DESIGN TEMPERATURES.
SOILED LINEN 269	NEG	2	10	7.7	22.6	YES	N/A (NON-RECIRCULATION SYSTEM)	EQUIPMENT WILL MEET DESIRED DESIGN TEMPERATURES.
RESIDENT BATHROOMS	NEG	NOT REQUIRED	10	0	16.3	YES	N/A (NON-RECIRCULATION SYSTEM)	EQUIPMENT WILL MEET DESIRED DESIGN TEMPERATURES.
HOUSEKEEPING 214,233,258,277	NEG	NOT REQUIRED	2	0	10	YES	N/A (NON-RECIRCULATION SYSTEM)	EQUIPMENT WILL MEET DESIRED DESIGN TEMPERATURES.

![](_page_34_Figure_1.jpeg)

€ © **1** 

			·					
SYMBOL	MANUFACTURER/	DUTY	FEATURES	BORDER TYPE	(		N 	REMARKS
					OBD	FRAME	BLADES	
А	TITUS 350RL	RETURN/ EXHAUST	3/4" BLADE SPACING 35° FIXED DEFLECTION	SURFACE MOUNT	NONE	STEEL	STEEL	REFER TO NOTES
В	TITUS 300RL	SUPPLY	3/4" BLADE SPACING DOUBLE DEFLECTION INDIVIDUALLY ADJUSTABLE BLADES.	WALL MOUNT	NONE	STEEL	STEEL	REFER TO NOTES
С	TITUS 350RL	RETURN/ EXHAUST	3/4" BLADE SPACING 35° FIXED DEFLECTION	WALL MOUNT	NONE	STEEL	STEEL	REFER TO NOTES
D	TITUS ML-39	SUPPLY	(4) 1" DIFFUSER SLOTS ADJUSTABLE LOUVER DEFLECTION	WALL MOUNT	NONE	ALUMINUM	ALUMINUM	REFER TO NOTES
E	TITUS TDCA	SUPPLY	DIRECTIONAL DIFFUSER	LAY-IN	NONE	STEEL	STEEL	REFER TO NOTES
F	TITUS 350RL	RETURN/ EXHAUST	3/4" BLADE SPACING 35° FIXED DEFLECTION	LAY-IN	NONE	STEEL	STEEL	REFER TO NOTES
х	EXISTING TO REMAIN	RETURN/ EXHAUST	N/A	N/A	N/A	N/A	N/A	N/A
NOTES: 1. BORD THE F ARCH TYPE 2. PROV AND E 3. REFE PATTI 4. REFE DIFFL	DER TYPES SHALL BE COI ROOM IN WHICH IT IS LOC ITECTURAL REFLECTED S IN EACH SPACE. IDE WHITE FINISH UNLES BORDER TYPES SHALL BE R TO PLANS FOR LOCATI ERN OF EACH DEVICE. R TO PLANS FOR AIRFLO ISERS WITH PROPER AIR	MPATIBLE W CATED. CON CEILING PLA SS OTHERWI E APPROVED ON, AIR QUA ON, AIR QUA W DIRECTIC FLOW DIREC	VITH CEILING/WALL TYPE FOR TRACTOR SHALL REVIEW THE ANS FOR SPECIFIC CEILING ISE NOTED. FINISHES, COLOR, D BY THE ARCHITECT ANTITIES, TYPE, AND BLOW ONAL INDICATORS. PROVIDE CTIONS.	INDICATES UNIT TYPE	A	12x12 350		- INDICATES NECH SIZE - INDICATES UNIT CFM CAPACITY

								P	TAC UI	NIT SC	HEDU	JLE							
							COOLIN	IG PERFORI	MANCE	H	OT WATE	R HEATING	PERFORMAN	CE		ELECT	RICAL		
SYMBOL	MANUFACTURER MODEL NUMBER	MODEL	DIMENSIONS (LxWxH)	NOM. TONS	CFM (HIGH/LOW)	OUTDOOR AIR CFM	COOLING CAP (MBH)	EER	AMPS	HEATING CAP (MBH)	FLOW RATE (GPM)	WATER PD (FT)	HWS (°F)	HWR (°F)	VOLTS	PHASE	MCA	MOP	REMARKS
PTAC-A	APPLIED COMFORT NAW SERIES	NAWC12L00E2P	43" x 22" x 25"	1.00	360/310	90	12.6	10.6	12	16.6	1.7	0.6	180	160	115	1	16.3	20	ALL
REMARKS	<u>S:</u>																		

REMARKS:
 PROVIDE WITH WIRELESS WALL THERMOSTATS.
 PROVIDE WITH HYDRONIC SUB-BASE.
 PROVIDE WITH HYDRONIC SUB-BASE.
 PROVIDE WITH WALL SLEEVE ASSEMBLED.
 EXTEND EXISTING HOT WATER SUPPLY AND RETURN PIPING AND CONNECT TO THE NEW HOT WATER COIL. REFER TO 3/M5.00.2 FOR MORE INFORMATION.
 RE-USE EXISTING OUTDOOR AIR LOUVER WHERE REPLACING EXISTING PTAC UNIT.
 PROVIDE A NEW WALL PENETRATION AND OUTDOOR AIR LOUVER IF NONE EXISTS AT WALL LOCATION. LOUVER SHALL MATCH EXISTING ONES, COORDINATE WITH ARCHITECT FOR FINISH COLOR.

				F	INNED	TUBE RA	DIATION	SCHEE	DULE		
SYMBOL	MANUFACTURER MODEL NUMBER	CAPACITY BTUH/LF	EWT (°F)	LWT (°F)	FLOW GPM	ENCLOSURE HEIGHT	MOUNTING HEIGHT TO BOTTOM	NO. OF TIERS	PIPE SIZE	FIN SIZE	REMARKS
R-1	RUNTAL TYPE R-2	300	180	150	1.0	5.7"	0'-4"	2	3/4"	32 FINS/FT	ALL
REMARKS 1. ENCI FITTI 2. PRO' ACCI 3. REFE	<u>S:</u> LOSURE COVER SHALL CO INGS AND VALVES. VIDE ALL REQUIRED MOUN ESS PANELS. ER TO PIPING DETAILS.	MPLETELY ENCL	OSE ALL PIPI E AND ENCLC	NG, DSURE	INDICA OF FIN		8-1 GPM		INDICAT ACTIVE INDICAT FLOW (0	ES LENGTH O FINNED ELEM ES HEATING H GAL. PER MINU	F ENT H.W. JTE)

					VR	FAN	COI	LS	CHED	JLE								
		GENERAL					PE	ERFOF	RMANCE				ELECTRICA	L		REM	ARKS	
						NET	NE	=т	F/	AN	SOLIND							
TAG	MANUFACTURER	MODEL	LOCATION	LOCATIONCOMP. UNITNOMINAL TONS38 DENTALCU-022				ΓING 3H	CFM	ESP (IN WG)	PRESS. (dBA)	MOP	VOLTAGE	PHASE	TYPE	RATINGS	FEATURES	INSTALL
IDU-08	DAIKIN	FXMQ24PBVJU	138 DENTAL	138 DENTAL CU-02 2				9	690	0.8	40	15	208	1	1	1	1,2,3	1,3
IDU-09	DAIKIN	FXMQ30PBVJU	143 SALON	CU-02	2.5	30	3	9	1100	0.8	41	15	208	1	1	1	1,2,3	1,2
	REMARKS -	TYPE		REMARKS	- RATINGS					REMARK	S - FEATUR	ES			REN	/IARKS - INS	TALL	-
1. DUCT	ED CONCEALED CEILIN	G UNIT.	I AT 80°F ED AT 62°F ED	)B, 65°F EWE B, 12°F ODB	3, 95°F ODB. , 43°F OWB.		1. 2. 3.	INTEGRAL ( ADAPTOR F FINNED TUE AUXILLARY DUCT-MOUI	CONDENSAT PCB MODEL BE RADIATO HEAT CONT NTED ELCTF	TE PUMP. 'KRP1C74' T R. TROLLER TO RIC HEATING	O CONTRO CONTROL G COILS	L THE	<ol> <li>PROVIDE MERV8 S</li> <li>LOCK TH</li> <li>LOCK TH</li> </ol>	E WITH FILTE PARE FILTE E AIR FLOW E AIR FLOW	ER BOX, MEI ER / AT MINIMU / AT MINIMU	RV8 FILTER, M OF 1,100 ( M OF 690 CF	AND CFM <sup>-</sup> M	

					VRI	FAN (	COIL S	CHED	JLE								
		GENERAL					PERFOR	RMANCE				ELECTRICAL	-		REM	ARKS	
						NET	NET	F#	AN	SOLIND							
TAG	MANUFACTURER	MODEL	LOCATION	COMP. UNIT	NOMINAL TONS	COOLING MBH	HEATING MBH	CFM	ESP (IN WG)	PRESS. (dBA)	MOP	VOLTAGE	PHASE	TYPE	RATINGS	FEATURES	INSTALL
DU-08	DAIKIN	FXMQ24PBVJU	138 DENTAL	CU-02	2	24	29	690	0.8	40	15	208	1	1	1	1,2,3	1,3
DU-09	DAIKIN	FXMQ30PBVJU	143 SALON	CU-02	2.5	30	39	1100	0.8	41	15	208	1	1	1	1,2,3	1,2
	REMARKS -	TYPE		REMARKS	- RATINGS				REMARK	S - FEATUR	ES			REN	ARKS - INS	TALL	
. DUCT	ED CONCEALED CEILIN	G UNIT.	DB, 65°F EWE DB, 12°F ODB	3, 95°F ODB. , 43°F OWB.	1. 2. 3.	INTEGRAL ( ADAPTOR F FINNED TUE AUXILLARY DUCT-MOUI	CONDENSAT PCB MODEL BE RADIATO HEAT CONT NTED ELCTF	"E PUMP. 'KRP1C74' T R. "Roller TC RIC Heating	O CONTRO CONTROL COILS	L THE THE	<ol> <li>PROVIDE MERV8 S</li> <li>LOCK TH</li> <li>LOCK TH</li> </ol>	WITH FILTE PARE FILTE E AIR FLOW E AIR FLOW	ER BOX, MEF R / AT MINIMUI / AT MINIMUI	₹V8 FILTER, M OF 1,100 ( M OF 690 CF	AND CFM <sup>-</sup> M		

							VR	FAN (	COIL S	CHED	JLE								
			GENERA	L					PERFO	RMANCE				ELECTRICAL	-		REM	ARKS	
								NET	NET	F/	AN	SOLIND							
TAG	MANUFACTU	RER	MODEL	LOCA	TION	COMP. UNIT	NOMINAL TONS	COOLING MBH	HEATING MBH	CFM	ESP (IN WG)	PRESS. (dBA)	MOP	VOLTAGE	PHASE	TYPE	RATINGS	FEATURES	INSTALL
IDU-08	DAIKIN		FXMQ24PB	VJU 138 DE	138 DENTAL CU-02 143 SALON CU-02 REMARKS			24	29	690	0.8	40	15	208	1	1	1	1,2,3	1,3
IDU-09	DAIKIN		FXMQ30PB	VJU 143 S	ALON	CU-02	2.5	30	39	1100	0.8	41	15	208	1	1	1	1,2,3	1,2
	REM	IARKS - TYP	ΡĒ			REMARKS	- RATINGS	•			REMARK	S - FEATURE	ES			REM	IARKS - INS	ſALL	
1. DUCTE	ED CONCEALED	CEILING UN	NIT.	1. CO HE	OLING MBH ATING MBH	AT 80°F ED AT 62°F ED	B, 65°F EWE B, 12°F ODB	3, 95°F ODB. , 43°F OWB.	1. 2. 3.	INTEGRAL ( ADAPTOR F FINNED TUE AUXILLARY DUCT-MOU	CONDENSAT PCB MODEL ' BE RADIATO HEAT CONT NTED ELCTR	e Pump. Krp1C74' To R. Roller to Ric Heating	D CONTROI CONTROL COILS	L THE	<ol> <li>PROVIDE MERV8 SF</li> <li>LOCK THE</li> <li>LOCK THE</li> </ol>	WITH FILTE PARE FILTEI E AIR FLOW E AIR FLOW	R BOX, MEF R AT MINIMUM AT MINIMUM	₹V8 FILTER, / /I OF 1,100 C /I OF 690 CFI	AND FM M
						ELEC		DUCT F	IEATE	R SCH	EDULE								
	GE	ENERAL			PHY	SICAL			PERFO	ORMANCE				ELECTRICA	NL		REN	IARKS	

					VRI	FAN	COIL	SCHE	DULE								
		GENERAL					PEF	RFORMANCE				ELECTRICA	L		REM	ARKS	
						NET	NET	г	FAN	SOLIND							
TAG	MANUFACTURER	MODEL	LOCATION	COMP. UNIT	NOMINAL TONS	COOLING MBH	HEATI	ING ⊣ CFM	ESP (IN WG)	PRESS. (dBA)	MOP	VOLTAGE	PHASE	TYPE	RATINGS	FEATURES	INSTALL
IDU-08	DAIKIN	FXMQ24PBVJU	138 DENTAL	CU-02	2	24	29	690	0.8	40	15	208	1	1	1	1,2,3	1,3
IDU-09	DAIKIN	FXMQ30PBVJU	143 SALON	CU-02	2.5	30	39	1100	0.8	41	15	208	1	1	1	1,2,3	1,2
	REMARKS -	TYPE		REMARKS	- RATINGS	•		·	REMAR	RKS - FEATUR	RES			REN	/ARKS - INS	TALL	
1. DUCTI	ED CONCEALED CEILIN	G UNIT.	I AT 80°F EL I AT 62°F ED	DB, 65°F EWE )B, 12°F ODB	3, 95°F ODB. , 43°F OWB.		<ol> <li>INTEGR</li> <li>ADAPT( FINNED</li> <li>AUXILL/ DUCT-M</li> </ol>	AL CONDENSA R PCB MODE TUBE RADIAT RY HEAT CON OUNTED ELC	ate pump. L'KRP1C74' 1 Or. Itroller T( Iric Heatin)	TO CONTRO D CONTROL G COILS	IL THE	<ol> <li>PROVIDE MERV8 S</li> <li>LOCK TH</li> <li>LOCK TH</li> </ol>	E WITH FILTE PARE FILTE E AIR FLOW E AIR FLOW	er Box, mei R / At Minimu / At Minimu	RV8 FILTER, M OF 1,100 ( M OF 690 CF	AND CFM <sup>:</sup> M	

L																		
					ELEC			EATEF	۲ SCHE	DULE								
		GENERAL		PHY	SICAL			PERFOF	RMANCE				ELECTRICAL			REM	ARKS	
TAG	MANUFACTURER	MODEL	LOCATION	DUCT WIDTH (IN)	DUCT HEIGHT (IN)	KW	STAGES	MBH	CFM	APD (IN WG)	LAT (°F)	MCA	VOLTAGE	PHASE	TYPE	RATINGS	FEATURES	INSTALL
EC-1	RENEWAIRE	EK-2012006SCCHR	SINGLE	20.3	1100	-	67.18	36.06	208	1	1	ALL	ALL	ALL				
EC-2	2 RENEWAIRE EK-1608004SCCHR DENTAL EXAM ROOM 138 16 8 4 S								690	-	68.26	24.04	208	1	1	ALL	ALL	ALL
	REMARKS -	ТҮРЕ		REMAR	KS - RATING	iS			RE	MARKS - FE	ATURES	·			REMAF	KS - INSTAL	.L	
REMARKS - TYPE       REMARKS - RATINGS         OPEN COIL HEATING ELEMENT, SLIP-IN CONFIGURATION       1. 50°F EAT         2. UL LISTED AND AMCA CERTIFIED									DUCT MOUN ROL TERMII MATIC LIMIT TEMPERATI JAL RESET L TEMPERATI DNNECT SW ADJUSTABLI CONTROL W IDE WITH IN TAIN 65°F DI	NTED NAL BOARD I SWITCH FC URE PROTE URE PROTE URE PROTE ITCH E AIRFLOW \$ ITH THERMC ITEGRAL AIR ITEGRAL THI SCHARGE TI	DR PRIMARY CTION H FOR SEC( CTION SWITCH DSTAT AND IFLOW SENS ERMOSTAT EMPERATUE	/ DNDARY SENSOR SOR SET TO モ	1.	SLIP-IN INST	TALLATION			

L																		
_																		
					ELEC	TRIC D	DUCT H	EATEF	R SCHE	EDULE								
		GENERAL		PHY	SICAL			PERFOR	RMANCE				ELECTRICA	L		REM	IARKS	
TAG	MANUFACTURER	MODEL	LOCATION	DUCT WIDTH (IN)	DUCT HEIGHT (IN)	ĸw	STAGES	MBH	CFM	APD (IN WG)	LAT (°F)	MCA	VOLTAGE	PHASE	TYPE	RATINGS	FEATURES	INSTALL
EC-1	RENEWAIRE	EK-2012006SCCHR	6	SINGLE	20.3	1100	-	67.18	36.06	208	1	1	ALL	ALL	ALL			
EC-2	RENEWAIRE	EK-1608004SCCHR	DENTAL EXAM ROOM 138	8	4	SINGLE	13.5	690	-	68.26	24.04	208	1	1	ALL	ALL	ALL	
	REMARKS -	TYPE		•		RE	Emarks - Fe	EATURES			·	REMAR	RKS - INSTA	LL				
1. OPEN	I COIL HEATING ELEME	NT, SLIP-IN CONFIGURA	CERTIFIED			<ol> <li>SIDE</li> <li>CONT</li> <li>AUTO OVER</li> <li>MANL OVER</li> <li>DISCO</li> <li>NON-/</li> <li>SCR O</li> <li>PROV</li> <li>PROV</li> <li>MAINT</li> </ol>	DUCT MOUN ROL TERMI MATIC LIMIT TEMPERAT AL RESET L TEMPERAT DNNECT SW ADJUSTABL CONTROL W IDE WITH IN TAIN 65°F DI	NTED NAL BOARD I SWITCH FO URE PROTE URE PROTE (ITCH E AIRFLOW (ITH THERM) ITEGRAL AII ITEGRAL TH SCHARGE T	OR PRIMAR CTION H FOR SEC CTION SWITCH OSTAT AND RFLOW SEN IERMOSTAT EMPERATU	Y ONDARY SENSOR SOR SET TO RE	1.	SLIP-IN INS	TALLATION					

![](_page_34_Figure_14.jpeg)

![](_page_34_Figure_15.jpeg)

![](_page_34_Figure_16.jpeg)

2 VRV SYSTEM WIRING DIAGRAM - 1ST NTS

IALL MATCH EXISTING ONES, COORDINATE WITH ARCHITECT FOR FINISH COLO	JR.

![](_page_34_Figure_20.jpeg)

![](_page_34_Picture_22.jpeg)

MECHANICAL SCHEDULES

# 100% CONSTRUCTION DOCUMENTS SHEET TITLE

CURR	ENT SUBMISS	SION DATE	10.27.2023
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No.	Date	Descriptio	on

PROJECT DATA

M19012

KEY PLAN

PROJECT NUMBER

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![](_page_34_Picture_27.jpeg)

![](_page_34_Figure_28.jpeg)

CES Engineering, LLC 216 E. 45th St., 16th Fl New York NY 10017 646.961.3999 ceseng.com CES #2019378

ANDRUS ON HUDSON ANDRUS ON HUDSON | MAIN BUILDING 2ND FLOOR

AMENTA EMMA

- A THESE SPECIFICATIONS ARE APPLICABLE TO ALL PLUMBING, MECHANICAL AND FLECTRICAL DRAWINGS UNLESS NOTED OTHERWISE, REVIEW THE ARCHITECTURAL, STRUCTURAL FLECTRICAL PLUMBING DRAWINGS FOR NOTES DIMENSIONS FTC. AND COORDINATE WITH OTHER TRADES INVOLVED. THE WORK REQUIREMENTS DESCRIBED WITHIN DIVISION 20 SPECIFICATION SECTION "COMMON MECHANICAL / ELECTRICAL REQUIREMENTS" FORM COMPLIMENTARY REQUIREMENTS TO THE SCOPE OF WORK CONTAINED WITHIN DIVISION 23. B. DESCRIPTION
- THIS PROJECT COMPRISES ALTERATIONS AND RENOVATIONS TO THE EXISTING BUILDING. THE EXISTING BUILDING IS CURRENTLY OCCUPIED AND THE PROJECT SHALL PROCEED IN A MANNER THAT MINIMIZES ANY INCONVENIENCE TO THE BUILDING OCCUPANTS.
- 2. SCOPE OF WORK CONSISTS OF INSTALLATION OF MATERIALS TO BE FURNISHED UNDER THE CONTRACT DOCUMENTS AND WITHOUT LIMITING GENERALITY THEREOF CONSISTS OF FURNISHING LABOR MATERIALS FOULIPMENT HOISTING TRANSPORTATION RIGGING STAGING APPURTENANCES AND SERVICES NECESSARY AND/OR INCIDENTAL TO PROPERLY COMPLETE ALL WORK AS SHOWN ON THE DRAWINGS AND DESCRIBED HEREIN.
- C. DEFINITIONS: THE FOLLOWING DEFINITIONS APPLY TO THIS CONTRACT 1. FURNISH: THE TERM "FURNISH" MEANS TO "SUPPLY AND DELIVER TO THE PROJECT SITE,
- READY FOR UNLOADING. UNPACKING. ASSEMBLY. INSTALLATION. AND SIMILAR OPERATIONS" 2. INSTALL: THE TERM "INSTALL" IS USED TO DESCRIBE OPERATIONS AT PROJECT SITE INCLUDING THE ACTUAL "UNLOADING, UNPACKING, ASSEMBLY, ERECTION, PLACING,
- ANCHORING, APPLYING, WORKING TO DIMENSION, FINISHING, CURING, PROTECTING, CLEANING, AND SIMILAR OPERATIONS." 3. PROVIDE: THE TERM "PROVIDE" MEANS "TO FURNISH AND INSTALL, COMPLETE AND READY FOR THE INTENDED USE."
- 4. REMOVE: THE TERM "REMOVE" MEANS TO DISCONNECT FROM ITS PRESENT POSITION. REMOVE FROM THE PREMISES AND TO DISPOSE OF IN A LEGAL MANNER."
- 5. SUBSTITUTIONS: "SUBSTITUTIONS" ARE REQUESTS FOR CHANGES IN PRODUCTS, MATERIALS AND/OR METHODS OF CONSTRUCTION AS PROPOSED BY THE CONTRACTOR AFTER AWARD OF THE CONTRACT."
- D. DRAWINGS 1 DRAWINGS ARE DIAGRAMMATIC. THE FINAL PLACEMENT OF FOULPMENT OR DEVICES IN THE FIELD MAY NOT DIRECTLY CORRESPOND TO THAT WHICH IS SHOWN ON THE DRAWINGS THOUGH SOME OFFSETS & TRANSITIONS MAY BE SHOWN IN PIPING & SHEET METAL TO HELP INDICATE THE PHYSICAL RELATIONSHIP BETWEEN THEM. IT IS NOT THE INTENT OF THE DRAWINGS TO SHOW ALL PIPING & SHEET METAL OFFSETS & TRANSITIONS REQUIRED. THE CONTRACTOR SHALL FULLY COORDINATE THE WORK AND PROVIDE ALL MATERIALS, EQUIPMENT AND LABOR NECESSARY TO COMPLETE THE WORK OUTLINED ON THESE CONTRACT DOCUMENTS. IF A CONFLICT IN POSITIONING OCCURS THE CONTRACTOR IS TO
- PROFESSIONAL E. CODES AND STANDARDS: WORK SHALL CONFORM TO THE CURRENT EDITIONS OF THE
- 1. SHEET METAL SMACNA STANDARDS INTERNATIONAL MECHANICAL CODE
- INTERNATIONAL ENERGY CONSERVATION CODE 1. INTERNATIONAL EXISTING BUILDING CODE 5. ALL OTHER APPLICABLE STATE AND LOCAL CODES AND ORDINANCESOWNER STANDARDS AND BASE BUILDING SPECIFICATIONS AND STANDARDS.

NOTIFY THE ENGINEER IMMEDIATELY TO ASCERTAIN WHAT THE INTENT WAS BY THE DESIGN

- F. PERMITS AND FEES:
- 1. THE CONTRACTOR SHALL GIVE ALL NECESSARY NOTICES, OBTAIN ALL PERMITS: AND PAY ALL GOVERNMENT AND STATE SALES TAXES AND FEES WHERE APPLICABLE. AND OTHER COSTS. INCLUDING UTILITY CONNECTIONS OR EXTENSIONS IN CONNECTION WITH THE WORK, FILE ALL NECESSARY DRAWINGS, PREPARE ALL DOCUMENTS AND OBTAIN ALI NECESSARY APPROVALS OF ALL GOVERNMENTAL AND STATE DEPARTMENTS HAVING JURISDICTION, OBTAIN ALL REQUIRED CERTIFICATES OF INSPECTION FOR HIS WORK, AND DELIVER A COPY TO THE OWNER AND ENGINEER BEFORE REQUEST FOR ACCEPTANCE AND FINAL PAYMENT FOR THE WORK.
- G. EXISTING SYSTEMS AND EQUIPMENT
- 1. EXISTING TO BE REUSED/RELOCATED EQUIPMENT: REPORT ANY EXISTING EQUIPMENT DEFICIENCIES TO THE OWNER AND THE ARCHITECT AND/OR ENGINEER. 2. CONNECT WORK TO VARIOUS EXISTING SYSTEMS AS INDICATED ON THE DRAWINGS. WORK SHALL BE COMPATIBLE WITH THE EXISTING SYSTEM CONDITIONS. ALL WORK SHALL BE
- COORDINATED WITH ALL TRADES INVOLVED AS WELL AS WITH EXISTING SYSTEMS, THE STRUCTURE, AND OTHER OBSTRUCTIONS. 3. PROVIDE THE FOLLOWING SERVICES ON ALL EXISTING HVAC EQUIPMENT INDICATED TO
- a. CLEAN CONDENSATE PAN AND TRAP
- . CALIBRATE CONTROLS EII TER CHANGES
- . VERIFY FAN ROTATION AND OPERATION BALANCING
- VERIFY PITCH OF CONDENSATE DRAIN PIPES AND DRAIN PAN VERIFY EQUIPMENT CONTROL OPERATION LUBRICATION OF FANS, MOTORS, ETC.
- i. CLEAN HEATING/COOLING COILS H. SURVEY AND MEASUREMENTS
- 1. THIS PROJECT INVOLVES CONSTRUCTION INSIDE AN EXISTING STRUCTURE. CONTRACTORS 3Y SUBMITTING A BID, SHALL BE COMPLETELY FAMILIAR WITH THE EXISTING CONDITION OF THE BUILDING AS IT INFLUENCES THE WORK DESCRIBED. NO COMPENSATION WILL BE GRANTED FOR ADDITIONAL WORK CAUSED BY UNFAMILIARITY WITH SITE CONDITIONS THAT ARE VISIBLE OR READILY IDENTIFIED BY EXPERIENCED OBSERVERS.
- 2. DO NOT SCALE DRAWINGS. SCALE INDICATED ON DRAWINGS IS FOR ESTABLISHING REFERENCE POINTS ONLY. ACTUAL FIELD CONDITIONS SHALL GOVERN ALL DIMENSIONS.
- 3. PRIOR TO ORDERING ANY MATERIALS AND EQUIPMENT, THOROUGHLY REVIEW THE SITE CONDITIONS TO DETERMINE IF ADEQUATE CLEARANCES AND ACCESS IS ALLOWED TO NSTALL THE COMPONENTS. ORDER EQUIPMENT BROKEN DOWN AS NECESSARY TO ALLOW FOR PROPER RIGGING THROUGH THE PROJECT AREA. PROVIDE ALL NECESSARY ALTERATIONS TO THE STRUCTURE OF THE BUILDING TO RIG THE EQUIPMENT IN PLACE.
- 4. CONTRACTORS SHALL VERIFY, LAYOUT AND BE RESPONSIBLE FOR ALL MEASUREMENTS OF ALL EXISTING CONDITIONS BEFORE COMMENCING WORK AND SHALL NOTIFY ARCHITECT AND/OR ENGINEER IF A CONDITION EXISTS THAT PREVENTS THE CONTRACTOR FROM ACCOMPLISHING THE INTENT OF THE DRAWINGS.
- I. PRE-DEMO TESTING AND BALANCING 1. PRIOR TO ANY DEMOLITION OR NEW WORK. TESTING AND BALANCING CONTRACTOR SHALL TAKE AIRFLOW AND STATIC PRESSURE READINGS AT ALL LOCATIONS WHERE NEW SYSTEMS ARE TO CONNECT TO EXISTING, AND ELSEWHERE AS NOTED ON PLANS. SUBMIT TO ARCHITECT AND ENGINEER PRIOR TO STARTING NEW WORK.
- J. SUBMITTALS AND SHOP DRAWINGS
- 1. SUBMIT FOR REVIEW, ELECTRONIC SHOP DRAWINGS IN SEARCHABLE PDF FORMAT FOR THE FOLLOWING. a. SUBMITTAL DATA FOR ALL MATERIAL AND EQUIPMENT. CLEARLY IDENTIFY DEVIATIONS
- OF THE SUBMITTED PRODUCTS FROM THE DESIGN. b. DUCTWORK AND PIPING SHOP DRAWINGS: DRAWN TO ACCURATE SCALE OF 1/4"=1'0". HIGHLIGHT, ENCIRCLE, OR OTHERWISE INDICATE DEVIATIONS FROM THE CONTRACT DOCUMENTS. DO NOT REPRODUCE CONTRACT DOCUMENTS OR COPY STANDARD INFORMATION AS THE BASIS OF SHOP DRAWINGS. STANDARD INFORMATION PREPARED
- WITHOUT SPECIFIC REFERENCE TO THE PROJECT IS NOT CONSIDERED SHOP DRAWINGS c. CONTROLS SHOP DRAWINGS: INCLUDE EQUIPMENT AND SYSTEM CONTROL SCHEMATICS, SEQUENCES OF OPERATIONS, LOGIC DIAGRAMS AND SYSTEM COMPONENTS INCLUDING DETAILS OF TIE-IN TO EXISTING BUILDING CONTROL MANAGEMENT SYSTEM.
- 2. DO NOT USE SHOP DRAWINGS WITHOUT AN APPROPRIATE FINAL STAMP INDICATING ACTION TAKEN IN CONNECTION WITH CONSTRUCTION.
- 3. DO NOT ORDER ANY MATERIALS OR EQUIPMENT PRIOR TO RECEIVING FINAL APPROVED SUBMITTALS.
- 4. SCHEDULE AT LEAST TEN WORKING DAYS EXCLUSIVE OF TRANSMITTAL TIME, FOR SUBMITTAL REVIEW
- K. AS-BUILT DRAWINGS A. MAINTAIN ONE SET OF PRINTS ON THE SITE AND NOTE ALL CHANGES OR DEVIATIONS FROM THE ORIGINAL DESIGN THEREON. AT THE COMPLETION OF THE PROJECT, INCORPORATE ALL CHANGES INTO RECORD AS-BUILT DRAWINGS IN ELECTRONIC FORMAT AND SUBMIT FOR APPROVAL
- L. OPERATION AND MAINTENANCE
- 1. UPON COMPLETION OF ALL WORK AND TESTS, THE CONTRACTOR SHALL INSTRUCT THE OWNER OR THE OWNER'S REPRESENTATIVE IN THE OPERATION, ADJUSTMENT AND MAINTENANCE OF ALL EQUIPMENT FURNISHED. THE CONTRACTOR SHALL GIVE AT LEAST SEVEN (7) DAYS NOTICE TO THE OWNER AND THE ENGINEER IN ADVANCE OF THIS PERIOD.
- 2. THE CONTRACTOR SHALL PREPARE THREE (3) COPIES OF A COMPLETE OPERATION AND MAINTENANCE MANUAL. BOUND IN BOOKLET FORM. ORGANIZE OPERATING AND MAINTENANCE DATA INTO SUITABLE SETS OF MANAGEABLE SIZE. BIND PROPERLY INDEXED DATA IN INDIVIDUAL HEAVY-DUTY 3-RING VINYL-COVERED BINDERS, WITH POCKET FOLDERS FOR FOLDED SHEET INFORMATION AND DESIGNATION PARTITIONS WITH IDENTIFICATION TABS. MARK APPROPRIATE IDENTIFICATION ON FRONT AND SPINE OF EACH BINDER.
- 3. OPERATION AND MAINTENANCE MANUAL SHALL INCLUDE THE FOLLOWING: a. MANUFACTURER'S PRINTED OPERATING AND MAINTENANCE PROCEDURES.
- b. MAINTENANCE PROCEDURES FOR ROUTINE PREVENTATIVE MAINTENANCE AND TROUBLESHOOTING
- c. COPIES OF WARRANTIES.
- d. APPROVED SHOP DRAWINGS AND PRODUCT DATA. e. BALANCE REPORTS.
- f. INCLUDE IN THE MANUAL, A TABULATED EQUIPMENT SCHEDULE FOR ALL EQUIPMENT. SCHEDULE SHALL INCLUDE PERTINENT DATA SUCH AS: MAKE, MODEL NUMBER, SERIAL NUMBER, VOLTAGE, NORMAL OPERATING CURRENT, BELT SIZE, FILTER QUANTITIES AND SIZES, BEARING NUMBER, ETC. SCHEDULE SHALL INCLUDE MAINTENANCE TO BE DONE AND FREQUENCY.
- 4. MAINTENANCE AND INSTRUCTION MANUALS SHALL BE SUBMITTED TO THE OWNER AT THE SAME TIME AS THE SEVEN (7) DAY NOTICE IS GIVEN PRIOR TO THE INSTRUCTION PERIOD.
- M. CLEANING
- 1. ALL WORK AREAS SHALL BE LEFT AS CLEAN AS NEW. CLEAN INTERNALS OF ALL DUCTWORK AND AIR HANDLING UNITS AND REPLACE FILTERS AFTERWARDS.
- 2. DUCTWORK: DUCTS SHALL BE THOROUGHLY CLEANED SO THAT NO DIRT OR DUST SHALL BE DISCHARGED FROM DIFFUSERS, REGISTERS, OR GRILLES, WHEN SYSTEM IS OPERATED.
- 3. PIPING: AFTER CONDENSATE PIPING HAS BEEN PRESSURE TESTED AND APPROVED FOR FIGHTNESS, CLEAN AND FLUSH PIPING.
- 4. EQUIPMENT: AFTER COMPLETION OF PROJECT, CLEAN THE EXTERIOR SURFACE OF EQUIPMENT INCLUDED IN THIS SECTION, INCLUDING REMOVAL OF CONCRETE RESIDUE.
- 5. WORK AREA: AFTER COMPLETION OF PROJECT, REMOVE ALL CONSTRUCTION DEBRIS. TEMPORARY FACILITIES AND EQUIPMENT FROM WORK AREA. CLEAN WORK AREA TO PERMIT OCCUPATION

#### 1. GUARANTEE WORK OF THESE CONTRACT DOCUMENTS IN WRITING FOR NOT LESS THAN ONE (1) YEAR FROM DATE OF FINAL NOTICE OF ACCEPTANCE. REPAIR OR REPLACE DEFECTIVE MATERIALS FOUIPMENT WORKMANSHIP AND INSTALLATION THAT DEVELOP WITHIN THIS PERIOD, PROMPT AND TO OWNER'S SATISFACTION AND CORRECT DAMAGE CAUSED IN

#### MAKING NECESSARY REPAIRS AND REPLACEMENTS UNDER GUARANTEE WITHIN CONTRACT O. MEANS AND METHODS ALL TRADES 1. INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH MANUFACTURER'S

3. MATERIALS AND EQUIPMENT SHALL BE UL LISTED WHERE STANDARD HAS BEEN

N. GUARANTEE

PRICE.

RECOMMENDATIONS. 2. DO NOT BURN WASTE MATERIALS. DO NOT BURY DEBRIS OR EXCESS MATERIALS ON THE OWNER'S PROPERTY. DO NOT DISCHARGE VOLATILE, HARMFUL OR DANGEROUS MATERIALS INTO DRAINAGE SYSTEMS. REMOVE AND DISPOSE OF ALL WASTE MATERIALS, PACKAGING MATERIAL, SKIDS ETC. FROM THE SITE AND DISPOSE OF IN A LAWFUL MANNER IN ACCORDANCE WITH MUNICIPAL, STATE AND FEDERAL REGULATIONS.

ESTABLISHED. 4. CAREFULLY INSPECT ALL BUILDING ELEMENTS PRIOR TO CUTTING OR DRILLING INTO WALL, FLOORS OR CEILINGS. PATCH AND PAINT SURFACES DISTURBED BY WORK UNDER THIS CONTRACT AS REQUIRED TO RESTORE THEM TO THEIR ORIGINAL CONDITION.

5. SCAFFOLDING, RIGGING, HOISTING: THE CONTRACTOR SHALL FURNISH ALL SCAFFOLDING RIGGING, HOISTING AND SERVICES NECESSARY FOR ERECTION AND DELIVERY INTO THE PREMISES ANY EQUIPMENT AND APPARATUS FURNISHED UNDER THIS DIVISION. REMOVE SAME FROM PREMISES WHEN NO LONGER REQUIRED.

6. EXCAVATION AND BACKFILLING: IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE SIZES, DEPTHS, FILL AND BEDDING REQUIREMENTS AND ANY OTHER EXCAVATION WORK REQUIRED UNDER THESE SPECIFICATIONS

7. WATERPROOFING: WHERE ANY WORK PIERCES WATERPROOFING, INCLUDING WATERPROOF CONCRETE, ROOFS, EXTERIOR WALL AND FLOORS IN WET AREAS, THE METHOD OF INSTALLATION SHALL BE REVIEWED BY THE ENGINEER BEFORE WORK IS DONE. THE CONTRACTOR SHALL FURNISH ALL NECESSARY SLEEVES, CAULKING AND FLASHING REQUIRED TO MAKE OPENINGS ABSOLUTELY WATERTIGHT.

8. PROVIDE FIRESTOPPING AROUND ALL FIRE PROTECTION. PLUMBING. MECHANICAL AND ELECTRICAL PENETRATIONS THROUGH FIRE RATED PARTITIONS PROVIDE ASBESTOS FREE FIRESTOPPING SYSTEM CAPABLE OF MAINTAINING AN EFFECTIVE BARRIER AGAINST FLAME AND GASES. SYSTEM SHALL BE UL LISTED AND COMPLY WITH ASTM E 814. 9. PROVIDE ACCESS PANELS IN WALLS, FLOORS AND GYPSUM WALL BOARD CEILINGS TO ALLOW ACCESS TO: DAMPERS, HEATERS, VALVES, VARIABLE AIR VOLUME BOXES, FAN BOXES AND OTHER APPARATUS AND EQUIPMENT REQUIRING PERIODIC SERVICE AND INSPECTION, NOT ALL ACCESS PANELS ARE INDICATED ON THE PLANS, REVIEW ARCHITECTURAL AND MECHANICAL PLANS TO DETERMINE THE LOCATION AND QUANTITY OF ACCESS PANELS REQUIRED. COORDINATE TYPE AND LOCATION WITH ARCHITECTURAL

## 23 05 05 - DEMOLITION

PLANS.

DISPOSED OF

F. UTILITIES:

A. REFER TO DRAWINGS FOR GENERAL DESCRIPTION OF AREAS REQUIRING DEMOLITION. B. ANY DEMOLITION SHALL BE COORDINATED WITH OWNER, ARCHITECT, G.C.. AND ENGINEER C. REFER TO GENERAL CONTRACTOR'S/CONSTRUCTION MANAGER'S INSTRUCTIONS FOR EXISTING EQUIPMENT AND MATERIALS THAT SHALL REMAIN THE PROPERTY OF THE OWNER. D. WHERE IT IS NOTED THAT ITEMS OF VALUE ARE NOT TO BE RETURNED TO THE OWNER, THE ITEMS SHALL BECOME THE PROPERTY OF THE CONTRACTOR. STORAGE OR SALE OF ITEMS ON THE PROJECT SITE IS PROHIBITED. ITEMS SHALL BE REMOVED FROM SITE AND LEGALLY

PROTECTION: ENSURE THE SAFE PASSAGE OF PERSONS IN AND AROUND THE BUILDING/SITE DURING DEMOLITION. PREVENT INJURY TO PERSONS AND DAMAGE TO PROPERTY. PROVIDE ADEQUATE SHORING AND BRACING TO PREVENT COLLAPSE. IMMEDIATELY REPAIR DAMAGE TO THE CONDITION BEFORE BEING DAMAGED TO THE SATISFACTION OF THE ARCHITECT AND OWNER. TAKE EFFECTIVE MEASURES TO PREVENT WINDBLOWN DUST.

MAINTAIN UTILITIES EXCEPT THOSE REQUIRING REMOVAL OR RELOCATION. KEEP UTILITIES IN SERVICE AND PROTECT FROM DAMAGE. DO NOT INTERRUPT UTILITIES SERVING IN-USE AREAS WITHOUT FIRST OBTAINING PERMISSION FROM THE UTILITY COMPANY AND THE

2. COORDINATE ALL INTERRUPTIONS OF SERVICES AND LIMITATIONS OF ACCESS WITH THE OWNER NO LESS THAN 5 DAYS PRIOR TO THE INTERRUPTION. 3. PROVIDE TEMPORARY SERVICES AS REQUIRED. SHUTDOWN OF EXISTING SYSTEMS FOR CONNECTION OF NEW WORK SHALL BE COORDINATED IN ADVANCE WITH THE CONSTRUCTION MANAGER AND BUILDING OWNER.

G. DISCONNECT DEMOLISH AND REMOVE HVAC SYSTEMS EQUIPMENT AND COMPONENTS INDICATED TO BE REMOVED. PIPING TO BE REMOVED: REMOVE PORTION OF PIPING INDICATED TO BE REMOVED AND CAP REMAINING PIPING WITH SAME OR COMPATIBLE PIPING MATERIAL. 1. PIPING TO BE ABANDONED IN PLACE: DRAIN PIPING AND CAP PIPING WITH SAME OR COMPATIBLE PIPING MATERIAL

2. DUCTS TO BE REMOVED: REMOVE PORTION OF DUCTS INDICATED TO BE REMOVED AND CAP REMAINING DUCTS WITH SAME OR COMPATIBLE DUCTWORK MATERIAL. 3. DUCTS TO BE ABANDONED IN PLACE: CAP DUCTS WITH SAME OR COMPATIBLE DUCTWORK

4. EQUIPMENT TO BE REMOVED: DISCONNECT AND CAP SERVICES AND REMOVE EQUIPMENT. 5. EQUIPMENT TO BE REMOVED AND REINSTALLED: DISCONNECT AND CAP SERVICES AND REMOVE, CLEAN, AND STORE EQUIPMENT; WHEN APPROPRIATE, REINSTALL, RECONNECT AND MAKE EQUIPMENT OPERATIONAL

6. EQUIPMENT TO BE REMOVED AND SALVAGED: DISCONNECT AND CAP SERVICES AND REMOVE EQUIPMENT AND DELIVER TO OWNER. H. IF PIPE, INSULATION, OR EQUIPMENT TO REMAIN IS DAMAGED IN APPEARANCE OR IS UNSERVICEABLE, REMOVE DAMAGED OR UNSERVICEABLE PORTIONS AND REPLACE WITH NEW PRODUCTS OF EQUAL CAPACITY AND QUALITY.

23 05 13 - MOTORS, STARTERS AND WIRING A. PROVIDE MOTORS AND CONTROLS, AND FURNISH STARTERS FOR HVAC EQUIPMENT, EXCEPT UNITS SERVED BY MCC PROVIDED UNDER ELECTRICAL SECTION. PROVIDE CONTROL AND OTHER RELATED WIRING INCLUDING INTERLOCKS. ALL MOTORS SHALL TO BE PREMIUM EFFICIENCY. ALL THREE PHASE MOTORS SHALL BE RATED FOR INVERTER DUTY SERVICE

B. STARTERS THAT REQUIRE INTERLOCKS OR REMOTE CONTROL SHALL BE MAGNETIC WITH HAND-OFF-AUTOMATIC SWITCH (FAST-SLOW-OFF-AUTO FOR TWO SPEED MOTORS) IN COVER. STARTERS SHALL BE BY SINGLE MANUFACTURER: CUTLER-HAMMER, CLARK, ARROW HART OR SQUARE D

23 05 17 - SLEEVES AND PENETRATIONS A. GENERAL REQUIREMENTS

1. LAY OUT PENETRATION AND SLEEVE OPENINGS IN ADVANCE. COORDINATE WORK CAREFULLY WITH ARCHITECTURAL AND STRUCTURAL WORK. PROVIDE CORE DRILLING OF EXISTING CONSTRUCTION WHERE REQUIRED. SUBMIT PROPOSED LOCATIONS FOR REVIEW PRIOR TO CORE DRILLING.

2. MAINTAIN FIRE RATING OF WALLS, PARTITIONS, CEILINGS, AND FLOORS AT PENETRATIONS. EAL PENETRATIONS WITH APPROVED FIRESTOP MATERIALS. 3. SLEEVES FOR INSULATED PIPE AND DUCT IN NON-FIRE RATED CONSTRUCTION SHALL ACCOMMODATE CONTINUOUS INSULATION WITHOUT COMPRESSION.

B. PIPE SLEEVES: 1. PROVIDE HOT-DIPPED GALVANIZED SCHEDULE 40 STEEL PIPE SLEEVES FOR PIPES PASSING THROUGH CONCRETE AND MASONRY WALLS AND CONCRETE FLOOR AND ROOF SLABS. 2. PROVIDE 26 GAUGE GALVANIZED STEEL SLEEVES THROUGH PARTITIONS AND NON-FIRE-

RATED CONSTRUCTION. 3. PROVIDE MECHANICAL SLEEVE SEALS CONSISTING OF INTERLOCKING MODULES AT EXTERIOR PIPE PENETRATIONS.

4. PROVIDE ADJUSTABLE ESCUTCHEONS ON EXPOSED PIPING THAT PASSES THROUGH FINISHED FLOORS, WALLS AND CEILINGS. ESCUTCHEONS SHALL BE CHROMIUM-PLATED CAST BRASS, SIZED TO COVER SLEEVE OPENING AND TO ACCOMMODATE PIPE AND INSULATION. C. DUCT SLEEVES AND OPENINGS:

1. PROVIDE GALVANIZED-STEEL SHEET DUCT SLEEVES FOR ROUND DUCTS 15 INCHES AND SMALLER. PROVIDE PREPARED, FRAMED OPENINGS FOR ROUND DUCTS LARGER THAN 15 INCHES AND FOR SQUARE, RECTANGULAR AND FLAT OVAL DUCTS, EXCEPT AS SPECIFIED OTHERWISE. SLEEVES SHALL MEET SMACNA REQUIREMENTS.

2. PROVIDE GALVANIZED-STEEL SHEET DUCT SLEEVES FOR SLEEVES THROUGH FIRE-RATED CONSTRUCTION AND THROUGH SMOKE PARTITIONS SLEEVE AND SEAL MATERIALS CONSTRUCTION AND CLEARANCES SHALL MEET REQUIREMENTS OF SMACNA FIRE DAMPER. AND HEAT STOP GUIDE FOR AIR HANDLING SYSTEMS. WHERE FIRE DAMPERS ARE REQUIRED, INSTALL SLEEVE AND DAMPER ASSEMBLY IN ACCORDANCE WITH DAMPER LISTING. 23 05 29 - HANGERS AND SUPPORTS PROVIDE PIPE STANDS, SUPPORTS, HANGERS AND OTHER SUPPORTING APPLIANCES AS

NECESSARY TO SUPPORT WORK REQUIRED BY CONTRACT DOCUMENTS. SPACING OF HANGERS SHALL BE INSTALLED IN ACCORDANCE WITH APPLICABLE BUILDING AND MECHANICAL CODES. STRUCTURAL STEEL SUPPORTS, HANGERS, ETC. SHALL BE ANGLE IRON, STEEL CHANNEL OR STEEL ROD USED WITH APPROVED CLAMPS, INSERTS, ETC. ALL SUPPORTS, HANGERS, BRACKETS, ETC., SHALL BE AS APPROVED BY THE ENGINEER. B. ALL HANGERS SHALL BE GALVANIZED.

ATTACH HANGERS AND SUPPORTS DIRECTLY ONTO THE STRUCTURE BY FIRST REMOVING EXISTING FIRE PROOFING AND AFTER SECURING THE ATTACHMENT, REPAIRING THE FIRE PROOFING TO ITS ORIGINAL CONDITION, CONTINUOUSLY OVER THE ATTACHMENT.

FOR EXPANSION BOLTS/SHIELDS USE RED HEAD. HILTI OR WEJ-IT SELF DRILLING OR STE SHIELD, LOAD RATED. DO NOT USE DRILLED ANCHORS IN POST TENSION SLABS WITHOUT APPROVAL OF OWNER. DO NOT CUT REINFORCING STEEL WITH DRILLED INSERTS. E. SUPPORT ALL GALVANIZED DUCTWORK WITH GALVANIZED HANGERS AND MOUNTS AS REQUIRED BY SMACNA (8 FT SPACING). DO NOT SUPPORT RISERS FROM SLEEVES IN SLABS. 23 05 48 - VIBRATION AND SEISMIC CONTROLS FOR HVAC

A. PROVIDE VIBRATION ISOLATION FOR EACH PIECE OF ROTATING OR RECIPROCATING HVAC EQUIPMENT SHOWN ON THE DRAWINGS. ALL ISOLATION COMPONENTS SHALL BE SUPPLIED BY A SINGLE MANUFACTURER - MASON INDUSTRIES, KINETICS OR AMBER BOOTH, TYPES OF ISOLATORS REQUIRED DEFLECTIONS AND INSTALLATION PRACTICES SHALL BE IN STRICT ACCORDANCE WITH THE RECOMMENDATIONS OF THE VIBRATION ISOLATION MANUFACTURER PROVIDE SEISMIC RESTRAINTS AS REQUIRED BY CODE. FOR EACH SEISMIC RESTRAINT, PROVIDE CERTIFIED CALCULATIONS TO VERIFY ADEQUACY TO MEET THE FOLLOWING DESIGN REQUIREMENTS: ABILITY TO ACCOMMODATE RELATIVE SEISMIC DISPLACEMENTS OF SUPPORTED ITEM BETWEEN POINTS OF SUPPORT. ABILITY TO ACCOMMODATE THE REQUIRED SEISMIC FORCES. FOR EACH RESPECTIVE SET OF ANCHOR BOLTS PROVIDE CALCULATIONS TO

VERIEV ADEQUACY TO MEET COMBINED SEISMIC-INDUCED SHEER AND TENSION FORCES. FOR EACH WELDMENT BETWEEN STRUCTURE AND ITEM SUBJECT TO SEISMIC FORCE. PROVIDE CALCULATIONS TO VERIFY ADEQUACY. CALCULATIONS SHALL BE STAMPED BY A PROFESSIONA ENGINEER WHO IS REGISTERED IN THE STATE WHERE THE WORK IS BEING PERFORMED AND HAS SPECIFIC EXPERIENCE IN SEISMIC CALCULATIONS. RESTRAINTS SHALL MAINTAIN THE RESTRAINED ITEM IN A CAPTIVE POSITION WITHOUT SHORT CIRCUITING THE VIBRATION

ISOLATION.

23 05 53 - PIPE AND DUCT IDENTIFICATION

23 05 93 - TESTING ADJUSTING AND BALANCING

UNTIL APPROVED BY THE OWNER.

ALL AIR HANDLING EQUIPMENT

PLANS. SCHEDULES. AND AS SPECIFIED.

LOCATION AFTER TESTING IS COMPLETE.

HORIZONTALLY TOWARDS THE INTERIOR SPACE.

23 07 13 - HVAC INSULATION

A. GENERAL REQUIREMENTS

SMOKE DEVELOPED.

PRODUCTS AND APPLICATIONS

THE BUILDING ENVELOPE

PIPES 1-1/2 INCH DIAMETER AND GREATER.

VENTURECLAD OR APPROVED EQUAL.

ACCEPTABLE MANUFACTURERS: ARMACELL OR K-FLEX.

THE FOLLOWING:

FNVFI OPF

FOUIPMENT

C. OUTDOOR JACKET

23 08 00 - COMMISSIONING OF HVAC

23 09 00 - INSTRUMENTATION AND CONTROLS

UP EQUIPMENT.

SPECIFICATIONS.

BALANCING REPORTS TO ARCHITECT FOR APPROVAL.

ALL PUMPING SYSTEMS

ALL SUPPLY AIR SYSTEMS

ALL RETURN AIR SYSTEMS

ALL HYDRONIC SYSTEMS

SUCCESSEULLY BALANCED.

APPROVAL

ALL EXHAUST AIR SYSTEMS

NEBB OR AABC AS A TEST AND BALANCE ENGINEER.

DUCTWORK AND PIPING SHALL BE LABELED WITH PREPRINTED SELE-ADHESIVE PREMIUM DIRECTION.

VALVES SHALL BE TAGGED WITH STAMPED OR ENGRAVED BRASS VALVE TAGS. INSTALL TAGS ON VALVES AND CONTROL DEVICES IN PIPING SYSTEMS, EXCEPT CHECK VALVES; VALVES WITHIN FACTORY-FABRICATED EQUIPMENT UNITS; SHUTOFF VALVES; FAUCETS; CONVENIENCE AND LAWN-WATERING HOSE CONNECTIONS: AND HVAC TERMINAL DEVICES AND SIMILAR ROUGHING-IN CONNECTIONS OF END-USE FIXTURES AND UNITS. LIST TAGGED VALVES IN A VALVE SCHEDULE.

GRADE VINYL, COLOR-CODED, WITH LETTERING INDICATING SERVICE, AND SHOWING FLOW

MACHINERY SUCH AS RTU'S, FANS, ETC., SHALL BE LABELED WITH PLASTIC LABELS WITH

ENGRAVED EQUIPMENT NUMBER CORRESPONDING TO DRAWING SCHEDULE NUMBERS.

A. PROVIDE QUALIFIED PERSONNEL, EQUIPMENT, APPARATUS AND SERVICES FOR START-UP,

TESTING AND BALANCING OF MECHANICAL SYSTEMS. TO PERFORMANCE DATA SHOWN IN

SCHEDULES AS SPECIFIED AND AS REQUIRED BY CODES STANDARDS REGULATIONS AND

AUTHORITIES HAVING JURISDICTION INCLUDING CITY INSPECTORS, OWNERS AND ARCHITEC

PROVIDE THE SERVICES OF AN INDEPENDENT TESTING, ADJUSTING, AND BALANCING (TAB)

THIS PROJECT. THE TAB AGENCY SHALL HAVE AT LEAST ONE PROFESSIONAL ENGINEER

AGENCY TO PROVIDE TAB SERVICES FOR THE MECHANICAL SYSTEMS. THE TAB AGENCY SHALL

BE CERTIFIED BY NATIONAL ENVIRONMENTAL BALANCING BUREAU (NEBB) OR THE ASSOCIATED

AIR BALANCE COUNCIL (AABC) IN THOSE TESTING AND BALANCING DISCIPLINES REQUIRED FOR

REGISTERED IN THE STATE IN WHICH THE SERVICES ARE TO BE PERFORMED AND CERTIFIED BY

PRIOR TO TESTING, ADJUSTING, AND BALANCING, THE MECHANICAL CONTRACTOR SHALL VERIFY

THAT THE SYSTEMS HAVE BEEN INSTALLED AND ARE OPERATING AS SPECIFIED. APPROVED

SHOP DRAWINGS, AS BUILT DRAWINGS, AND ALL OTHER DATA REQUIRED FOR EACH SYSTEM

AND/OR COMPONENT TO BE TESTED SHALL BE MADE AVAILABLE AT THE JOB SITE DURING THE

COMPONENTS, OR BALANCING DEVICES, THAT ARE DAMAGED, INCORRECTLY INSTALLED, OR

ADJUSTING, AND BALANCING. TESTING, ADJUSTING, AND BALANCING SHALL NOT COMMENCE

ACCORDANCE WITH THE DETAILED PROCEDURES OUTLINED IN EITHER NEBB: "PROCEDURAL

STANDARDS FOR TESTING ADJUSTING AND BALANCING OF ENVIRONMENTAL SYSTEMS" OR

A. SUBMIT TESTING, ADJUSTING, AND BALANCING REPORTS BEARING THE SEAL AND SIGNATURE

OF THE TAB PROFESSIONAL ENGINEER. PREPARE A REPORT OF RECOMMENDATIONS FOR

START UP ALL SYSTEMS, PRESSURE TEST DUCTWORK AND PIPING, AND BALANCE SYSTEMS

INCLUDING, BUT NOT LIMITED TO, ALL NEW AND EXISTING REGISTERS, GRILLES, DIFFUSERS

DO NOT COVER OR CONCEAL WORK BEFORE TESTING AND INSPECTION AND OBTAINING

E. REPORT ON REPORTING FORMS, SUBMITTED TO ARCHITECT FOR APPROVAL IN ADVANCE.

SUBMIT PROCEDURES, RECORDING FORMS, AND TEST EQUIPMENT FOR REVIEW PRIOR TO

BALANCING. AS DESCRIBED IN SPECIFICATIONS. SUBMIT ELECTRONIC COPY OF TESTING AND

FURNISH ALL TEST MEDIUMS AND DISPOSE OF ALL TEST MEDIUMS AT AN APPROVED OFF-SITE

H. NOTE REQUIREMENT ABOVE FOR CFM AND STATIC PRESSURE READINGS PRIOR TO DEMOLITION.

THE BALANCING CONTRACTOR SHALL BE RESPONSIBLE FOR FINAL DIRECTIONAL ADJUSTMENT

DIFFUSER SHALL BE DIRECTED VERTICALLY. IF PERIMETER LINEAR DIFFUSERS HAVE MULTIPL

1. INSULATION SHALL BE CERTAIN-TEED, KNAUF, MANVILLE, OR OWENS CORNING. MATERIALS

SMACNA. INSTALL INSULATION, MASTICS, ADHESIVES, COATINGS, COVERS, WEATHER-

RECOMMENDATIONS. ASTM E-84 FIRE HAZARD RATINGS SHALL BE 25 FLAME SPREAD, 50

2. INSULATION AND VAPOR BARRIER SHALL BE CONTINUOUS AROUND ENTIRE PERIMETER OF

DUCTS. DUCTS SUPPORTED BY METAL STRAPS SHALL HAVE INSULATION ENCOMPASSING

STRAPS. WHERE STRAPS PENETRATE AT TOP OF DUCT TIGHTLY SEAL AROUND STRAP WITH

INSULATING TAPE. DUCTS SUPPORTED BY TRAPEZE TYPE HANGERS UNDER DUCTS SHALL

INSULATION SHALL BE SAME THICKNESS AND VAPOR BARRIER AS SPECIFIED FOR SPECIFIC

DUCT TYPE, RIGID INSULATION SECTION SHALL BE FULL WIDTH OF DUCT AND MINIMUM 12

LONG. TAPE AND SEAL ALL SEAMS WHERE RIGID INSULATION MEETS OTHER INSULATION.

3. FITTINGS, VALVES AND FLANGES SHALL BE INSULATED WITH SAME MATERIAL AND TO SAME

4. FOR STRAINERS AND OTHER VALVES OR FITTINGS WHICH NEED MAINTENANCE. PROVIDE

INDOOR DUCT INSULATION SHALL BE MINERAL FIBER BLANKET DUCT INSULATION WITH

a. SUPPLY AND FRESH AIR DUCTS WHEN LOCATED WITHIN CONCEALED SPACES INSIDE

MORE THAN 10 DEGREES F DIFFERENT FROM DUCT TEMPERATURE)

3. HOT WATER INSULATION SHALL BE FIBROUS GLASS PIPE INSULATION WITH FACTORY-

4. REFRIGERANT LINE AND CONDENSATE DRAIN LINE INSULATION SHALL BE 1 INCH THICK

CONDENSATE DRAIN LINE INSULATION SHALL BE 1 INCH THICK FLEXIBLE ELASTOMERIC.

APPLIED ASJ. PROVIDE 2 INCH THICK FOR HEATING SYSTEM HEAT EXCHANGERS, 1 INCH

CERTIFIED TO PROVIDE A 1 OR 2-HOUR RATING AS REQUIRED BY ASSEMBLY. PROVIDE FIRE-

RATED INSULATION FOR KITCHEN HOOD EXHAUST DUCTS AND AS INDICATED ON THE PLANS

INSTALL IN STRICT CONFORMANCE WITH MANUFACTURER'S REQUIREMENTS AND PER NFPA

FLAMECHEK, MANVILLE FIRETEMP WRAP, UNIFRAX FYREWRAP OR 3M FIRE BARRIER WRAP.

a. PROVIDE OUTDOOR DUCTWORK WITH WEATHER-PROOF LAMINATE JACKETING SYSTEM, 3M

b. PROVIDE OUTDOOR PIPING WITH WATERPROOF 0.016" THICK ALUMINUM JACKET WITH 2"

EQUIPMENT FOR HEAT GENERATION AND REFRIGERATION THROUGH DISTRIBUTION SYSTEMS

THE CXA ALONG WITH THE HVAC CONTRACTOR, TESTING AND BALANCING CONTRACTOR, AND

CONTROLS CONTRACTOR SHALL PREPARE DETAILED TESTING PLANS, PROCEDURES, AND

PERFORM COMMISSIONING TESTS AT THE DIRECTION OF THE CXA. PROVIDE TECHNICIANS.

INFORMATION REQUESTED BY THE CXA FOR FINAL COMMISSIONING DOCUMENTATION.

INSTRUMENTATION, AND TOOLS REQUIRED TO PERFORM COMMISSIONING TESTS. PROVIDE

A. INSTALL THERMOSTATS AT MOUNTING HEIGHTS ABOVE FINISHED FLOOR IN ACCORDANCE WITH

B. ALL SAFETY SWITCHES AND CUT OUTS SHALL BE FIELD CALIBRATED AND SET PRIOR TO START-

ALL CONTROL WIRING SHALL COMPLY WITH THE REQUIREMENTS OF THE ELECTRICAL

D. LOCAL CONTROLLERS RELAYS SWITCHES AND OTHER CONTROL COMPONENTS SHALL BE

MOUNTED ON ENCLOSED CONTROL PANELS WITH HINGE-LOCK DOOR MOUNTED NEXT TO

SYSTEM CONTROLLED. TEMPERATURE SETTINGS. ADJUSTMENTS AND CALIBRATIONS SHALL BE

MADE AT SYSTEM CONTROL PANEL. PANEL SHALL HAVE CANOPY LIGHT AND ON-OFF SWITCH.

TO EACH CONDITIONED SPACE. TESTING SHALL INCLUDE MEASURING CAPACITIES AND

TEST ALL OPERATING MODES, INTERLOCKS, CONTROL RESPONSES, AND RESPONSES TO

ABNORMAL OR EMERGENCY CONDITIONS, AND VERIFY PROPER RESPONSE OF BUILDING

TRANSVERSE AND LONGITUDINAL LAPPED SEAMS ORIENTED TO SHED WATER.

A SCOPE OF HVAC TESTING SHALL INCLUDE ENTIRE HVAC INSTALLATION, FROM CENTRAL

EFFECTIVENESS OF OPERATIONAL AND CONTROL FUNCTIONS

CHECKLISTS FOR HVAC SYSTEMS, SUBSYSTEMS, AND EQUIPMENT.

"ADA" REQUIREMENTS. OR AS DIRECTED OTHERWISE BY ARCHITECT.

AUTOMATION SYSTEM CONTROLLERS AND SENSORS.

THICK FOR OTHER EQUIPMENT. INSULATION SHALL BE FORMED OR FABRICATED TO FIT

7. FIRE-RATED INSULATION SHALL BE FIRE-RATED BLANKET WITH FSK JACKET TESTED AND

AND LOCAL CODE AND FIRE DEPT. ACCEPTABLE MANUFACTURERS: CERTAIN-TEED

FLEXIBLE ELASTOMERIC. ACCEPTABLE MANUFACTURERS: ARMACELL OR K-FLEX.

6. EQUIPMENT INSULATION SHALL BE MINERAL FIBER BOARD INSULATION WITH FACTORY

APPLIED ASJ WITH K FACTOR OF AT LEAST 0.23 AT 75F MEAN TEMPERATURE. PROVIDE

MINIMUM 1-1/2 INCH THICKNESS. PROVIDE 2 INCH THICKNESS FOR HEATING HOT WATER

FACTORY APPLIED FSK JACKET. PROVIDE MINIMUM OF R-6 (AS INSTALLED) INSULATION FOR

b. RETURN AIR DUCTWORK IN UNCONDITIONED SPACES (WHERE SPACE TEMPERATURE IS

OUTDOOR DUCT INSULATION SHALL BE RIGID MINERAL FIBER BOARD DUCT INSULATION WITH

SUPPLY, RETURN, EXHAUST AND FRESH AIR DUCTS WHEN LOCATED OUTSIDE THE BUILDING

FACTORY APPLIED FSK JACKET. PROVIDE MINIMUM OF R-12 (AS INSTALLED) INSULATION FOR

SHALL MEET REQUIREMENTS OF ADHESIVE AND SEALANT COUNCIL STANDARDS AND

PROTECTION AND OTHER WORK IN STRICT ACCORDANCE WITH MANUFACTURER'S

HAVE 6 LB. DENSITY RIGID INSULATION PROVIDED BETWEEN DUCT AND HANGER,

THICKNESS AS ADJOINING PIPE INSULATION. WITH PRESENT SECTIONS.

PREFORMED REMOVABLE INSULATION SECTION.

OF ALL LINEAR DIFFUSERS AS INDICATED ON PLANS. IF NO DIRECTIONAL FLOW IS INDICATED

INTERIOR LINEAR DIFFUSERS SHALL BE DIRECTED HORIZONTALLY AND PERIMETER LINEAR

SLOTS THE PERIMETER SLOT DIRECTED VERTICALLY, AND THE INTERIOR SLOT DIRECTED

LEAKS, DAMAGE AND DEFECTS DISCOVERED OR RESULTING FROM STARTUP, TESTING, AND

BALANCING SHALL BE REPAIRED OR REPLACED TO LIKE-NEW CONDITION WITH ACCEPTABLI

MATERIALS. TEST SHALL BE CONTINUED UNTIL SYSTEM OPERATES WITHOUT ADJUSTMENT OR

CORRECTING UNSATISFACTORY MECHANICAL PERFORMANCES WHEN A SYSTEM CANNOT BE

TERMINAL UNITS, FANS, ETC. WITHIN THE AREA OF WORK TO PERFORMANCE DATA SHOWN ON

AABC: "NATIONAL STANDARDS FOR TOTAL SYSTEM BALANCE." THE TAB AGENCY SHALL TEST,

ENTIRE TAB EFFORT THE OWNER SHALL BE NOTIFIED IN WRITING OF ALL FOUIPMENT.

MISSING, AS WELL AS ANY DESIGN DEFICIENCIES THAT WILL PREVENT PROPER TESTING

PERFORM TESTING AND BALANCING PROCEDURES ON EACH SYSTEM IDENTIFIED, IN

ADJUST, AND BALANCE THE FOLLOWING MECHANICAL SYSTEMS:

VERIFY OPERATION OF ALL TEMPERATURE CONTROL SYSTEMS

8. TEST SYSTEMS FOR PROPER SOUND AND VIBRATION LEVELS

#### 23 21 00 - PIPING AND PUMPS

A. GENERAL REQUIREMENTS

23 81 29 - VARIABLE REFRIGERANT FLOW SYSTEMS A. SYSTEM DESCRIPTION:

PIPE MATERIALS AND FITTING MATERIALS SHALL BE AS INDICATED IN SCHEDULE OF PIPE AND FITTING MATERIALS. PROVIDE DIELECTRIC FITTINGS TO CONNECT DIFFERENT PIPING MATERIALS. PIPING 2-1/2 AND LARGER AND ALL DIRECT-BURIED PIPING SHALL BE WELDED STEEL. PIPING 2" AND SMALLER (EXCEPT DIRECT-BURIED PIPING) SHALL BE SCREWED STEEL OR COPPER. STEEL PIPING SHALL BE ASTM A53 OR A106, GRADE B, COPPER PIPING SHALL BE ASTM B88.

#### B. SCHEDULE OF PIPE AND FITTING MATERIALS

1. HOT WATER 150 PSI WORKING PRESSURE. SCHEDULE 40 STEEL WITH THREADED STEEL JOINTS OR TYPE L COPPER WITH SOLDERED COPPER JOINTS. 2. CONDENSATE DRAIN (INCLUDING PUMPED CONDENSATE): 125 PSI WORKING PRESSURE. TYPE L COPPER WITH SOLDERED COPPER JOINTS.

#### VALVES AND STRAINERS

3. REFRIGERANT PIPING: TYPE ACR COPPER

VALVES SHALL HAVE NAME OF MANUFACTURER AND GUARANTEED WORKING PRESSURE CAST OR STAMPED ON BODIES. VALVES OF SIMILAR TYPE SHALL BE BY A SINGLE MANUFACTURER. VALVES SHALL BE AS MANUFACTURED BY APOLLO, CRANE, HAMMOND, JENKINS, STOCKHOLM OR MILWAUKEE.

#### FOR WATER SERVICE, STRAINERS SHALL BE FULL SIZE OF EXTERNAL PIPE SIZE AND HAVE A MAXIMUM CLEAN PRESSURE DROP OF ONE PSI (FOR STEAM CONDENSATE 1/4 PSI). STRAINERS SHALL BE PER MANUFACTURER'S TABLE BY SARCO, WATTS, OR ARMSTRONG. INSTALL STRAINERS AT LOCATIONS THAT WILL ALLOW REMOVAL OF SCREENS FOR

**CI FANING** COMBINATION BALANCING AND SHUT-OFF VALVES

1. PROVIDE CALIBRATED COMBINATION BALANCING SHUT-OFF VALVES AS INDICATED ON THE PLANS. ACCEPTABLE MANUFACTURERS SHALL BE ARMSTRONG, BELL AND GOSSET, FLOWSET, OR TACO.

#### AUTOMATIC FLOW CONTROL VALVES

PROVIDE AUTOMATIC PRESSURE COMPENSATING FLOW CONTROL VALVES BY GRISWOLD FDI OR T&A AS INDICATED ON THE PLANS. VALVES SHALL BE FACTORY SET AND SHALL AUTOMATICALLY LIMIT THE RATE OF FLOW TO WITHIN 5 PERCENT OF THE SPECIFIED CAPACITY

#### 23 31 00 - HVAC DUCTS

A. GENERAL REQUIREMENTS

FOR GALVANIZED DUCTWORK, SEAL AIR DUCT JOINTS AND JOINTS BETWEEN FITTINGS AND DUCTS WITH HARDCAST SEALANT OR APPROVED EQUAL IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.

2. DUCTWORK SHALL BE FREE FROM VIBRATION UNDER ALL CONDITIONS OF OPERATION. 3. DIFFUSER & REGISTER LOCATIONS SHALL BE COORDINATED WITH ARCHITECTURAL

REFLECTED CEILING PLANS.

4. DIFFUSER AND GRILLE SIZES SHOWN ARE NECK SIZES.

5. ALL DUCTS PENETRATING RATED FIRE WALLS SHALL BE PROVIDED WITH FIRE DAMPERS AND ACCESS DOORS. 6. DUCTWORK SHALL NOT RUN ALONG FULL HEIGHT PARTITIONS.

7. PATCH AND SEAL ALL EXISTING OPENINGS IN DUCTWORK NOT UTILIZED FOR NEW LAYOUT. THE INSIDE OF ALL UNLINED DUCTWORK VISIBLE THROUGH A GRILLE OR DIFFUSER SHALL BE

PAINTED FLAT BLACK. 9. WHEN SECTION OF DUCTWORK IS NOT LABELED FOR SIZE, THE LARGER SIZE INDICATED ON THE CONNECTED DUCT SHALL PREVAIL. SIZE OF DUCT RUN-OUTS TO DIFFUSER SHALL EQUAL DIFFUSER NECK SIZE.

10. DUCT BRANCH CONNECTIONS AND TAKE OFFS SHALL BE MADE WITH 45° CONNECTION. BELLMOUTH OR CONICAL ONLY. SPIN IN COLLARS AND STRAIGHT TAPS SHALL NOT BE USED. 11. ELBOWS AND BENDS FOR RECTANGULAR DUCTS SHALL HAVE CENTER LINE RADIUS OF 1.5 TIMES DUCT WIDTH WHEREVER POSSIBLE. WHERE CENTERLINE RADIUS IS LESS THAN 1.5 TIMES DUCT WITH, ELBOWS SHALL BE RADIUS THROAT WITH RADIUS HEEL AND FULL-LENGTH SPLITTER VANES.

12. NO PIPE, CONDUIT, HANGER, ARCHITECTURAL ELEMENT NOR STRUCTURAL MEMBER SHALL PASS THROUGH DUCT WITHOUT ARCHITECT'S AND/OR ENGINEER'S WRITTEN APPROVAL. B. SHEETMETAL DUCTWORK

1. SHEET METAL DUCTS SHALL BE CONSTRUCTED OF HOT DIPPED G90 GALVANIZED SHEET METAL UNLESS OTHERWISE SPECIFIED. MATERIAL, CONSTRUCTION AND INSTALLATION SHALL MEET REQUIREMENTS OF MOST RECENT EDITIONS OF SMACNA STANDARDS (EXCEPT FOR MORE STRINGENT REQUIREMENTS SPECIFIED OR SHOWN ON DRAWINGS). ALL MEDIUM PRESSURE DUCTWORK BETWEEN MAIN SYSTEM FAN AND AIR TERMINAL DEVICE SHALL BE MINIMUM 4"(wg) PRESSURE CLASS, SEAL CLASS A, LEAKAGE CLASS 6, ALL LOW-PRESSURE DUCTWORK BETWEEN TERMINAL DEVICE AND AIR OUTLETS SHALL BE MINIMUM 2"(wg) PRESSURE CLASS. SEAL CLASS B, LEAKAGE CLASS 12

SHOWER EXHAUST DUCTWORK SHALL BE ALUMINUM WITH WELDED SEAMS. DUCTWORK SHALL PITCH TOWARDS SHOWERS. FLEXIBLE DUCTWORK

FLEXIBLE DUCTWORK, CONNECTING TO UNINSULATED OR UNLINED DUCT, SHALL BE VINYL COATED FIBERGLASS CLOTH 0.0057" MINIMUM THICKNESS. 25 STRANDS PER INCH MINIMUM THREAD COUNT WITH CORROSION-RESISTANT HELICAL WIRE REINFORCEMENT. FLEX DUCT SHALL BE UL RATED FOR 12" W.C. POSITIVE PRESSURE, 2" W.C. NEGATIVE PRESSURE WITH A MAXIMUM VELOCITY OF 4000 FPM FLEXDUCT MUST BE LISTED AS A CLASS 1 CONNECTOR ACCORDING TO UL 181 AND SHALL MEET THE REQUIREMENTS OF NFPA 90A - MAXIMUM ASTM E-84 FIRE HAZARD RATING SHALL BE 25 FLAME SPREAD, 50 FUEL CONTRIBUTED, AND 50 SMOKE DEVELOPED. UNINSULATED FLEXIBLE DUCT SHALL BE EQUIVALENT TO FLEXMASTER TYPF 4

2. FLEXIBLE DUCT CONNECTED TO INSULATED OR LINED DUCT SHALL BE INSULATED WITH 1-1/2", 1/2 LB. DENSITY FIBERGLASS INSULATION AND FLAME RETARDANT (UL LISTED) VAPOR BARRIER, MEETING ASTM E-84 RATING AS REFERENCED ABOVE

3. FLEXIBLE DUCTS SHALL NOT EXCEED 5 FEET LONG AND SHALL BE USED FOR STRAIGHT RUN ONLY, NO OFFSETS OR TURNS. MAXIMUM SAG OF 1/2" PER 1"-0". 4. HANGER AND SADDLE IN CONTACT WITH FLEXIBLE DUCT SHALL BE WIDE ENOUGH TO

PREVENT RESTRICTION OF INTERNAL DUCT DIAMETER WHEN WEIGHT OF SUPPORTED SECTION RESTS ON HANGER OR SADDLE MATERIAL 5. COLLARS TO WHICH FLEXIBLE DUCTS ARE ATTACHED SHALL BE AT LEAST 2" LONG. SLEEVES FOR JOINING SECTIONS OF FLEXIBLE DUCT SHALL BE AT LEAST 4" LONG.

6. APPLY SEALING COMPOUND TO METALLIC SURFACE AT CONNECTION OF FLEXIBLE DUCT WITH SHEET METAL DUCTS, COLLARS AND MIXING BOXES. SLIP FLEXIBLE DUCTWORK OVER SEALING COMPOUND. COMPLETE SEAL WITH 1/2" WIDE, COMMERCIALLY-MADE METAL DRAW

#### 23 33 00 - AIR DUCT ACCESSORIES

A. ACOUSTICAL DUCT LINING

1. PROVIDE UL-LISTED, 1" THICK (UNLESS OTHERWISE NOTED) 1.5 LB DENSITY, BY CERTAIN-TEED, KNAUF, OWENS CORNING OR MANVILLE FIBERGLASS ACOUSTICAL LINING WITH ANTIMICROBIAL COATING FOR THE FOLLOWING DUCTWORK:

a. SUPPLY AND RETURN AIR DUCTWORK (INCLUDING PLENUMS) FOR MINIMUM OF 20 FEET DOWNSTREAM OF AIR HANDLING UNITS (OR TO SOUND ATTENUATOR IF ATTENUATOR IS LOCATED FURTHER THAN 20' FROM FAN).

b. EXHAUST DUCTWORK, INCLUDING PLENUMS, FOR MINIMUM OF 20 FEET UPSTREAM AND DOWNSTREAM OF FANS.

c. TRANSFER DUCTS

d. FOR A MIMIMUM OF 10 FEET DOWNSTREAM OF VAV BOXES. e. DUCTWORK INDICATED AS LINED ON DRAWINGS.

DIMENSIONS SHOWN ON DRAWINGS FOR DUCTWORK ARE NET INSIDE DIMENSIONS. INCREASE SHEETMETAL SIZE FOR LINING WHERE SPECIFIED.

3 MATERIALS AND INSTALLATION SHALL MEET THE FOLLOWING STANDARDS, AS APPLICABLE: NEPA-90A, UL723, NEPA-255; SMACNA DUCT LINER APPLICATIONS STANDARD; SMACNA MECHANICAL FASTENERS STANDARD: ADHESIVE AND SEALANT COUNCIL: ADHESIVES STANDARD FOR DUCT LINER - ASC-A-7001A; ASTM E-84 FIRE HAZARD CLASSIFICATIONS OF 25 FLAME SPREAD, 50 SMOKE DEVELOPED, AND 50 FUEL CONTRIBUTED.

ADJUSTABLE MANUAL BALANCING DAMPERS: GENERAL NOT ALL MANUAL BALANCING DAMPERS MAY BE SHOWN ON THE PLANS FOR CLARITY PROVIDE MANUAL ADJUSTABLE VOLUME DAMPERS WITH EXTENDED MOUNT INDICATING AND LOCKING QUADRANTS ON EACH SUPPLY, RETURN, AND GENERAL EXHAUST DUCT TAKEOFF, AND AT EACH TAKEOFF TO A REGISTER, GRILLE, OR DIFFUSER DAMPERS SHALL BE LOCATED AS FAR UPSTREAM AS POSSIBLE IN THE BRANCH DUCT OR TAKE OFF TO MINIMIZE DOWNSTREAM NOISE.

2. REMOTE ADJUSTABLE VOLUME DAMPERS: PROVIDE REMOTE ADJUSTABLE VOLUME DAMPERS IN AREAS WHERE CEILING CAVITY ACCESS IS LIMITED BY HARD (SOLID) CEILINGS EQUIPMENT OBSTRUCTIONS ARCHITECTURAL FEATURES FTC. COORDINATE BETWEEN MECHANICAL PLANS AND ARCHITECTURAL CEILING PLANS TO DETERMINE IF AND WHERE REMOTE ADJUSTABLE VOLUME DAMPERS ARE REQUIRED. MANUALLY ADJUSTED REMOTE VOLUME DAMPERS SHALL BE SIMILAR TO YOUNG REGULATOR MODEL 270.

1. PROVIDE A VARIABLE REFRIGERANT CAPACITY, AIR-COOLED HEAT RECOVERY AIR CONDITIONING SPLIT SYSTEM CONSISTING OF EVAPORATOR UNITS AND BRANCH SELECTOR BOXES, THREE PIPE REFRIGERANT DISTRIBUTION CONFIGURATION USING PID CONTROL, AND AIR-COOLED CONDENSING UNITS. THE CONDENSER SHALL BE A DIRECT EXPANSION (DX), AIR-COOLED, HEAT RECOVERY/HEAT PUMP MULTI-ZONE SPLIT AIR CONDITIONING SYSTEM WITH INVERTER DRIVEN VARIABLE SPEED COMPRESSORS, USING R-410A REFRIGERANT. ALL INDOOR UNITS ARE EACH CAPABLE OF OPERATING SEPARATELY WITH INDIVIDUAL TEMPERATURE CONTROL. SYSTEM SHALL BE CAPABLE OF INTEGRATING WITH OPEN PROTOCOL BACNET BMS. INSTALL IN STRICT CONFORMANCE WITH MANUFACTURER'S

REQUIREMENTS. B. CONDENSING UNIT:

> 1. FACTORY ASSEMBLED AND PRE-WIRED WITH ALL NECESSARY ELECTRONIC AND REFRIGERANT CONTROLS, CAPABLE OF HEATING OPERATION AT 12F AND 95F OUTDOOR AIR DRY-BULB TEMPERATURE.

C. INDOOR UNITS:

. FACTORY ASSEMBLED AND TESTED WITH FACTORY WIRING, PIPING, ELECTRONIC PROPORTIONAL EXPANSION VALVE, CONTROL CIRCUIT BOARD, FAN MOTOR THERMAL PROTECTOR, FLARE CONNECTIONS, CONDENSATE DRAIN PAN, CONDENSATE DRAIN PUMP CONDENSATE SAFETY SHUTOFF AND ALARM, SELF-DIAGNOSTICS, AUTO-RESTART FUNCTION, 3-MINUTE FUSED TIME DELAY, AND TEST RUN SWITCH.

BRANCH SELECTOR (BS) BOX

1. DESIGNED SPECIFICALLY FOR USE WITH THE MANUFACTURER'S VRF HEAT RECOVERY SYSTEM COMPONENTS. THESE SELECTOR BOXES SHALL BE FACTORY ASSEMBLED, WIRED, PIPED, AND RUN TESTED AND PROVIDED WITH ELECTRONIC EXPANSION VALVES (EEVS) THAT ARE SERVICEABLE AND REPLACEABLE WITHOUT OPENING THE REFRIGERATION SYSTEM. IF THE MANUFACTURER EMPLOYS ANY SOLENOID VALVES IN LIEU OF EEVS PRESSURE-RATED SHUTOFE ISOLATION VALVES SHALL BE PROVIDED AND INSTALLED BY CONTRACTOR UPSTREAM AND DOWNSTREAM OF THE BS BOX TO FACILITATE SERVICEABILITY WITHOUT OPENING THE REFRIGERATION SYSTEM.

VRF SYSTEM CONTROLS:

1. INTELLIGENT MULTI-ZONE CONTROLLER CAPABLE OF CONTROLLING A MAXIMUM OR 64 INDOOR UNIT GROUPS AND 128 INDOOR UNITS CONNECTED TO A MAXIMUM OF 10 OUTDOOR UNITS. THE INTELLIGENT TOUCH MANAGER SHALL SUPPORT OPERATIONS SUPERSEDING THAT OF THE LOCAL REMOTE CONTROLLER, SYSTEM CONFIGURATION, DAILY/WEEKLY SCHEDULING, MONITORING OF OPERATION STATUS, AND MALFUNCTION MONITORING.

F. ALLOWABLE ALTERNATE MANUFACTURER REQUIREMENTS: 1. IN ORDER FOR AN ALTERNATE EQUIPMENT SUPPLIER TO BE CONSIDERED FOR THIS PROJECT. ALTERNATE SUPPLIER SHALL PROVIDE TO THE BIDDING MECHANICAL CONTRACTOR A COMPLETE EQUIPMENT DATA PACKAGE. THIS PACKAGE SHALL INCLUDE BUT IS NOT LIMITED TO, EQUIPMENT CAPACITIES AT THE DESIGN CONDITIONS DETAILED IN THIS SPECIFICATION AND ON THE EQUIPMENT SCHEDULE, POWER REQUIREMENTS, INDOOR UNITS CFM/STATIC PRESSURES, FAN CURVES, INSTALLATION REQUIREMENTS, AND PHYSICAL DIMENSIONS. NOMINAL PERFORMANCE DATA IS NOT ACCEPTABLE.

2. THE MECHANICAL CONTRACTOR SHALL LIST THE EQUIPMENT SUPPLIER AND ALSO SUBMIT THE REQUIRED DATA PACKAGE WITH THE BID DETAILING A COMPLETE COMPARISON OF THE PROPOSED ALTERNATE EQUIPMENT TO THE SPECIFIED EQUIPMENT AND THE ASSOCIATED COST REDUCTION OF THE ALTERNATE EQUIPMENT. THE CONTRACTOR BIDS AN ALTERNATE MANUFACTURER WITH FULL KNOWLEDGE THAT THAT MANUFACTURER'S PRODUCT MAY NOT BE ACCEPTABLE OR APPROVED.

WHEN BIDDING WITH ALTERNATE MANUFACTURER, CONTRACTOR MUST PROVIDE WITH BID PACKAGE A FULL REPORT DETAILING ALL ITEMS THAT COMPLY, DEVIATE OR TAKE EXCEPTION TO THIS SPECIFICATION IN FULL, PARAGRAPH BY PARAGRAPH, REFER TO DIVISION 20 SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS FOR SUBSTITUTION SUBMITTALS

A. 23 82 00 - HEATING AND COOLING UNITS B. UNIT HEATERS

> 1. PROVIDE UNIT HEATERS OF TYPE AND CAPACITIES AS INDICATED ON SCHEDULES. PROVIDE THERMOSTATS AND MANUFACTURER'S STANDARD SAFETY CONTROLS. ACCEPTABLE MANUFACTURERS: TRANE, MCQUAY, AAF, Q-MARK, INDEECO OR STERLING

![](_page_35_Picture_174.jpeg)

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PROJECT DATA

KEY PLAN

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CONSULTANTS

CES Engineering, LLC 216 E. 45th St., 16th Fl CES #2019378

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![](_page_35_Figure_181.jpeg)

	DIVISION 26 SYSTEM
GEN	NERAL FIRE ALARM NOTES
1.	THE SCOPE OF WORK FOR THIS PROJECT IS TO PROMPONENETS THROUGHOUT THE PROJECT AREA WITH THE EXISTING HEAD END PANEL LOCATED IN SYSTEM IS A COMPOSITE OF SIEMENS / PYROTRON
2.	COORDINATE DEVICE LOCATIONS WITH THE ARCHIT
3.	COORDINATE FIRE ALARM INTERFACE REQUIREMEN
	<ul> <li>A. DIV. 8 - DOOR HARDWARE, COILING DOORS, OVE</li> <li>B. Div. 14 - ELEVATORS</li> <li>C. DIV. 21 - FIRE SUPPRESSION SYSTEMS</li> <li>D. DIV. 23 - HVAC SYSTEMS</li> <li>E. DIV. 27 - PUBLIC ADDRESS AND SPECIALIZED SOI</li> <li>F. DIV. 28 - SECURITY SYSTEMS</li> </ul>
	FAILURE TO COORDINATE INTERFACE REQUIREMEN RESPONSIBILITY TO COMPLETE THE WORK.
<u>GEN</u>	NERAL TELECOMMUNICATIONS SYSTEM NOTES
1.	THE SCOPE OF WORK FOR THIS PROJECT IS TO PROVIDE THE SCOPE OF WORK FOR THIS PROJECT IS TO PROVIDE THE SCOPE OF WORK FOR THIS PROJECT IS TO PROVIDE THE SCOPE OF WORK FOR THIS PROJECT IS TO PROVIDE THE SCOPE OF WORK FOR THIS PROJECT IS TO PROVIDE THE SCOPE OF WORK FOR THIS PROJECT IS TO PROVIDE THE SCOPE OF WORK FOR THIS PROJECT IS TO PROVIDE THE SCOPE OF WORK FOR THIS PROJECT IS TO PROVIDE THE SCOPE OF WORK FOR THE
2.	INFRASTRUCTURE REQUIREMENTS INCLUDE:
	<ul> <li>A. BACKBOXES AND PATHWAYS TO ABOVE AN ACC</li> <li>B. PATHWAYS (SLEEVES) THROUGH PARTITIONS AT</li> <li>C. PATHWAYS ACROSS INACCESSIBLE CEILINGS FO</li> <li>D. POWER FOR EQUIPMENT.</li> <li>E. NYLON DRAG LINES IN ALL EMPTY RACEWAYS.</li> </ul>
3.	COORDINATE DEVICE LOCATIONS WITH THE ARCHIT
4.	MEET WITH THE OWNER'S TELECOMMUNICATIONS ( INFRASTRUCTURE REQUIREMENTS TO COORDINAT (MIN. BI-WEEKLY) TO COORDINATE WORK AND SCH
	FAILURE TO COORDINATE INFRASTRUCTURE REQU THEIR RESPONSIBILITY TO COMPLETE THE WORK.
<u>GE</u>	NERAL SECURITY SYSTEM NOTES
1.	THE SCOPE OF WORK FOR THIS PROJECT IS TO PROVIDENT INSTALLATION OF SECURITY (ACCESS CONTROL, IN SYSTEM WIRING AND EQUIPMENT PROVIDED UNDER
2.	INFRASTRUCTURE REQUIREMENTS INCLUDE:
	<ul> <li>A. BACKBOXES AND PATHWAYS TO ABOVE AN ACC</li> <li>B. PATHWAYS (SLEEVES) THROUGH PARTITIONS AI</li> <li>C. PATHWAYS ACROSS INACCESSIBLE CEILINGS FO</li> <li>D. PATHWAYS AND DRAG LINES THROUGH DOOR F</li> <li>E. POWER FOR EQUIPMENT.</li> <li>F. NYLON DRAG LINES IN ALL EMPTY RACEWAYS.</li> </ul>
3.	COORDINATE DEVICE LOCATIONS WITH THE ARCHIT
4.	COORDINATE PATHWAYS THROUGH DOOR FRAMES
5	MEET WITH THE DIV 28 SECURITY SYSTEM CONTRA

WORK.

#### SYSTEMS GENERAL NOTES

ECT IS TO PROVIDE NEW NFPA 72 COMPLIANT FIRE ALARM OJECT AREAS OF WORK. ALL DEVICES SHALL BE COMPATIBLE LOCATED IN THE LOWER LEVEL ELECTRIC ROOM. THE EXISTING / PYROTRONICS CONTROL EQUIPMENT. H THE ARCHITECTURAL PLANS AND THE WORK OF ALL OTHER

REQUIREMENTS WITH:

DOORS, OVERHEAD DOORS.

CIALIZED SOUND SYSTEMS.

REQUIREMENTS WILL NOT RELIEVE THE CONTRACTOR OF THEIR

ECT IS TO PROVIDE THE INFRASTRUCTURE TO SUPPORT THE DNS, WIRING AND EQUIPMENT PROVIDED UNDER DIV. 27..

30VE AN ACCESSIBLE CEILING AT DEVICE LOCATIONS. ARTITIONS AND FLOORS FOR TELECOMMUNICATIONS WIRING. E CEILINGS FOR TELECOMMUNICATIONS WIRING.

RACEWAYS. THE ARCHITECTURAL PLANS AND THE WORK OF ALL OTHER

UNICATIONS CONTRACTOR PRIOR TO PROVIDING ANY COORDINATE WORK. SCHEDULE MEETINGS AS NECESSARY RK AND SCHEDULE SEQUENCE OF WORK. TURE REQUIREMENTS WILL NOT RELIEVE THE CONTRACTOR OF

ECT IS TO PROVIDE THE INFRASTRUCTURE TO SUPPORT THE CONTROL, INTRUSION DETECTION & SURVEILLANCE CAMERA) VIDED UNDER DIV. 28..

CLUDE: BOVE AN ACCESSIBLE CEILING AT DEVICE LOCATIONS. ARTITIONS AND FLOORS FOR SYSTEMS WIRING.

CEILINGS FOR SYSTEMS WIRING. UGH DOOR FRAMES TO DEVICES. RACEWAYS.

THE ARCHITECTURAL PLANS AND THE WORK OF ALL OTHER

OOR FRAMES WITH THE DIVISION 8 CONTRACTOR. MEET WITH THE DIV. 28 SECURITY SYSTEM CONTRACTOR PRIOR TO PROVIDING ANY INFRASTRUCTURE REQUIREMENTS TO COORDINATE WORK. SCHEDULE MEETINGS AS NECESSARY (MIN. BI-WEEKLY) TO

COORDINATE WORK AND SCHEDULE SEQUENCE OF WORK. FAILURE TO COORDINATE INFRASTRUCTURE REQUIREMENTS WILL NOT RELIEVE THE CONTRACTOR OF THEIR RESPONSIBILITY TO COMPLETE THE

#### FLOOR BOX LEGEND

WIREMOLD 8AT SERIES POKE-THRU DEVICE WITH: (2) DUPLEX ٢ RECEPTACLE BRACKET AND RECEPTACLE; FLUSH STYLE COVER ASSEMBLY (FINISH SELECTION BY ARCHITECT). FEED POWER COMPARTMENT WITH 2#12,#12G,3/4"C IN FROM FLOOR BELOW, FEED CENTER COMPARTMENT WITH (2) 1-1/4"C FROM FLOOR BELOW.

Ø AV WIREMOLD EFB8S-OG ON GRADE FLOOR BOX WITH: (2) THREE COMPARTMENT MODULE FOR DEVICES MODULE FOR DEVICES. PROVIDE (2) DUPLEX RECEPTACLE BRACKETS AND RECEPTACLES; (1) INTERNAL COMMUNICATIONS BRACKETS WITH (2) MODULAR COMMUNICATIONS DATA JACKS; INTERNAL BARRIER KITS TO SEPARATE POWER, DATA AND AV COMPARTMENTS; AND SURFACE STYLE ROUND EVOLUTION SERIES COVER ASSEMBLY (FINISH SELECTION BY ARCHITECT). EVOLUTION SERIES COVER ASSEMBLY (FINISH SELECTION BY ARCHITECT). FEED POWER COMPARTMENT WITH 2#12.#12G.3/4"C. FEED TELECOMMUNICATIONS/AV COMPARTMENTS WITH (2) CAT6 CABLES AND AV WIRING - (2) 1-1/4"C. COORDINATE WITH TELECOMMUNICATIONS AND AV CONTRACTORS. STUB CABLES UP IN WALL TO ABOVE AN ACCESSIBLE CEILING OR AS SHOWN ON PLANS.

![](_page_36_Picture_22.jpeg)

NOTES: 1. FIXTURE CONTROL DESIGNATION REFERS TO ZONE/SWITCH/RELAY CONTROL OF FIXTURES CONTROLLED BY COMMON: A. SWITCH FOR LIGHTING IN ROOM. CORRIDOR. OPEN AREA. B. ZONE RELAY IN LOCAL LIGHTING CONTROL PANEL OR LIGHTING CONTROL RELAY PANEL.
C. ALL CONTROL DEVICES (SWITCHES, CONTROL PANELS, OCCUPANCY/VACANCY SENSORS...ETC) WITH CONTROL DESIGNATIONS REFERS TO COMMON CONTROL OF THE

- SAME ZONE/SWITCH/RELAY CONTROL. 2. WHERE CONTROL DESIGNATION IS NOT SHOWN, ALL FIXTURES IN ASSOCIATED ROOM OR SPACE SHALL BE CONTROLLED SIMULTANEOUSLY VIA THE CONTROL DEVICES INDICATED ON PLANS. 3. WHERE EMERGENCY AND NORMAL FIXTURES ARE CONTROLLED FROM THE SAME ZONE/SWITCH/CONTROL RELAY, UL 924 EMERGENCY BYPASS RELAYS SHOWN WITH SAME CONTROL DESIGNATION BYPASS THAT ZONE/SWITCH/CONTROL RELAY. REFER TO EMERGENCY
- LIGHTING CIRCUIT SCHEMATICS FOR ADDITIONAL WIRING INFORMATION. 4. UNSWITCHED LIGHTING BRANCH CIRCUIT WIRING IS SHOWN TO A SINGLE FIXTURE IN EACH COMMON CONTROL ZONE. UNLESS OTHERWISE INDICATED, PROVIDE 2#12,#12G,3/4"C FOR SWITCHED WIRING TO ALL COMMON CONTROL FIXTURES.
- PROVIDE LOW VOLTAGE DIMMING CONTROL WIRING AS INDICATED IN LIGHTING CONTROL DETAILS FOR DIMMABLE LIGHT FIXTURES IN COMMON CONTROL ZONES/SWITCHES/RELAY CONTROL
- REFER TO LIGHTING CONTROL DETAILS FOR ADDITIONAL WIRING AND CONTROL INFORMATION. 7. REFER TO LIGHTING CONTROL RELAY PANEL SCHEDULES WHERE APPLICABLE FOR ADDITIONAL CONTROL INFORMATION.

![](_page_36_Figure_28.jpeg)

REFER TO SYMBOL LIST FOR ADDITIONAL LIGHTING CONTROL DEVICES. WHERE SWITCHES ARE NOT TAGGED WITH CONTROL LETTER ON PLANS, ALL FIXTURES IN ASSOCIATED ROOM SHALL BE CONTROLLED SIMULTANEOUSLY VIA CONTROLS SPECIFIED.

SUR REC 머 DISC  $\Box$ FUSE  $\boxtimes_1$ COM  $\boxtimes$ мот \$<sub>М</sub> MAN  $\bigcirc$ MOT Ι<sub>T</sub>Ι TRA . SPD SURC VFD VARI BRAN номг  $\bigcirc$ POKE DEVI  $\bigcirc$ FLOC SCHE J J JUNC SURF WM RAC PLAN  $\ominus$ SIMP € DUPL ᆕ DUPL 争 DUPL DUPL ⇔w UNLE DUPL ⊖=<sub>M</sub> WITH ARCH ⊖=<sub>DW</sub>. DUP OTH ⊖<sub>ref I</sub> DUP OTH ⊖=<sub>"XX"</sub>, DUPL ⊕ DOU ⊖ੂ∯ RECE ⊖<sub>GFI</sub> ∯<sub>GF</sub> RECE ⊖<sub>wp</sub> ⊕<sub>wp</sub> REC € € RECE ⊖ , ⊕ | RECE  $\bigcirc$ SPEC  $igodot_{\mathsf{RH}}$ HAR REQI ⊜<sub>hd</sub> HAF REQ ۲ SPEC ∕ NEM INDI ●<sub>D</sub> NEM/ INDIC E EME MOR Ю EME WIR PP ADA NC MS NURS WIT TO F NCBS NURS BAC RISE NC PS NURS FOF NC SA NURS 3/4" DIAG NC SS NURS WITH WIRI NC NURS WIT WIR **⊢** → <sup>2</sup> NURS DIAG **⊢** → <sup>4</sup> NURS AND DIAG ٥z NURS CON FOR  $\triangleleft$ COM ACCE COM ACCE К REC PB DOO

PD

FURNITURE FEED TO MODULAR FURNITURE FROM WALL. REFER TO MODULAR

FURNITURE CONNECTION DETAILS FOR ADDITIONAL INFORMATION.

	ELECTRICA	L SYMBO	L LIST
SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
	SURFACE MOUNTED PANELBOARD	0	SURFACE MOUNTED LIGHTING FIXTURE
	RECESSED PANELBOARD		SURFACE MOUNTED LIGHTING FIXTURE CONNECTED TO GENERATOR POWER
			PENDANT MOUNTED LIGHTING FIXTURE
			PENDANT MOUNTED LIGHTING FIXTURE CONNECTED TO GENERATOR POWER
	COMBINATION MOTOR STARTER AND DISCONNECT SWITCH		RECESSED LIGHTING FIXTURE
¢			RECESSED LIGHTING FIXTURE CONNECTED TO GENERATOR POWER
₹M			INDUSTRIAL OR STRIP TYPE FIXTURE
$\odot$	MOTOR (REFER TO MOTOR CIRCUIT SCHEDULE FOR POWER REQUIREMENTS)		TRACK LIGHTING, HEADS AS INDICATED ON DRAWINGS
	TRANSFORMER	$\widehat{\oslash} \widehat{\square}$	RECESSED WALL WASH FIXTURE
	ELECTRICAL METER	$\oslash \square$	RECESSED DOWNLIGHT FIXTURE
SPD			RECESSED DOWNLIGHT FIXTURE CONNECTED TO GENERATOR POWER
		0	SURFACE MOUNTED ROUND FIXTURE
	BRANCH CIRCUIT WIRING, CONCEALED IN WALLS OR CEILINGS		SURFACE MOUNTED ROUND FIXTURE CONNECTED TO GENERATOR POWER
	SWITCHED BRANCH CIRCUIT WIRING	$\odot$	PENDANT HUNG LIGHTING FIXTURE
	POKE-THRU DEVICE - SUPERSCRIPT "A" INDICATES TYPE. REFER TO FLOOR BOX		PENDANT HUNG LIGHTING FIXTURE CONNECTED TO GENERATOR POWER
	DEVICE SCHEDULE FOR TYPE		WALL SCONCE
	FLOOR BOX - SUPERSCRIPT "A" INDICATES TYPE. REFER TO FLOOR BOX DEVICE SCHEDULE FOR TYPE		WALL MOUNTED LINEAR LIGHTING FIXTURE
JJ	JUNCTION BOX		WALL MOUNTED LINEAR LIGHTING FIXTURE CONNECTED TO GENERATOR POWER
<u>ФФ</u> wm	SURFACE MOUNTED RACEWAY WITH DEVICES AS INDICATED - PROVIDE PARTITIONED RACEWAY WHERE POWER AND DATA DEVICES ARE SHOWN. REFER TO NOTES ON PLANS FOR ADDITIONAL REQUIREMENTS		WALL MOUNTED EXIT SIGN, DOUBLE FACED. CHEVRON ARROW AS INDICATED
<b>⊖</b>	SIMPLEX WALL MOUNTED RECEPTACLE, 18" AFF UNLESS OTHERWISE NOTED		CEILING MOUNTED EXIT SIGN. CHEVRON ARROW AS INDICATED
€	DUPLEX WALL MOUNTED RECEPTACLE, 18" AFF UNLESS OTHERWISE NOTED		CEILING MOUNTED EXIT SIGN, DOUBLE FACED. CHEVRON ARROW AS INDICATED
<b>₽</b>	DUPLEX WALL MOUNTED RECEPTACLE, HALF SWITCHED		SELF-CONTAINED EMERGENCY LIGHTING UNIT WITH BATTERY BACKUP
•	DUPLEX WALL MOUNTED RECEPTACLE, ON STANDBY BRANCH OF GENERATOR POWER	1	EMERGENCY LIGHTING UNIT REMOTE HEAD
€w	DUPLEX WALL MOUNTED RECEPTACLE FOR WASHING MACHINE. MOUNT 48" AFF UNLESS OTHERWISE NOTED.	\$ \$3	SINGLE POLE TOGGLE SWITCH
€ <sub>M</sub>	DUPLEX WALL MOUNTED RECEPTACLE FOR MICROWAVE. MOUNT 64" AFF, COORDINATE WITH MICROWAVE LOCATION. VERIFY EXACT LOCATION AND MOUNTING HEIGHT WITH ARCHITECT PRIOR TO ROUGH-IN.	\$4	FOUR WAY TOGGLE SWITCH
€ <sub>DW</sub>	DUPLEX WALL MOUNTED RECEPTACLE FOR DISHWASHER. MOUNT 18" AFF UNLESS OTHERWISE NOTED. CONNECT TO GFCI BREAKER IN PANELBOARD.	\$D \$os	LINE VOLTAGE WALL DIMMER
€	DUPLEX WALL MOUNTED RECEPTACLE FOR REFRIGERATOR. MOUNT 48" AFF UNLESS OTHERWISE NOTED.	\$osd	LINE VOLTAGE OCCUPANCY SENSOR DIMMER (AUTO-ON/ AUTO-OFF)
⊖	DUPLEX WALL MOUNTED RECEPTACLE FOR ELECTRIC WATER COOLER. MOUNT 18"	<sup>₽</sup> vs \$ <sub>VSD</sub>	LINE VOLTAGE VACANCY SENSOR SWITCH (MANUAL-ON/ AUTO-OFF)
€vvc ⊖ <sub>"xx"</sub>	DUPLEX WALL MOUNTED RECEPTACLE MOUNTED AT "XX" ABOVE FINISHED FLOOR	\$ <sub>LV</sub>	LOW VOLTAGE MOMENTARY PUSHBUTTON FOR USE WITH CEILING SENSORS. REFER TO LIGHTING CONTROL DETAILS FOR ADDITIONAL INFORMATION.
<b>⊕</b>	DOUBLE DUPLEX WALL MOUNTED RECEPTACLE, 18" AFF UNLESS OTHERWISE NOTED	\$	LOW VOLTAGE DIMMER FOR USE WITH CEILING SENSORS. REFER TO LIGHTING
	RECEPTACLE, MOUNT 6" ABOVE COUNTER OR CASEWORK	R	CONTROL DETAILS FOR ADDITIONAL INFORMATION. UL924 EMERGENCY LIGHTING RELAY. REFER TO EMERGENCY LIGHTING DETAILS
	RECEPTACLE WITH GROUND FAULT CIRCUIT INTERRUPTION	PC	FOR ADDITIONAL INFORMATION.
	RECEPTACLE, CEILING MOUNTED	RC	ROOM LIGHTING CONTROLLER. REFER TO LIGHTING CONTROL DETAILS FOR ADDITIONAL INFORMATION.
€_ €	RECEPTACLE WITH INTEGRAL USB OUTLET FOR CHARGING	PP	LIGHTING CONTROL POWER PACK. REFER TO LIGHTING CONTROL DETAILS FOR ADDITIONAL INFORMATION.
	SPECIAL PURPOSE HARDWIRED CONNECTION: WIRING AS INDICATED	©S <sub>н</sub>	CEILING MOUNTED OCCUPANCY SENSOR (SET TO AUTO-ON, AUTO-OFF MODE) "H" INDICATES HIGH BAY OCCUPANCY SENSOR
⊂RH ⊘	REQUIRED BY MANUFACTURER.	©s <sub>v</sub>	CEILING MOUNTED VACANCY SENSOR (SET TO MANUAL-ON, AUTO-OFF MODE)
HD	REQUIRED BY MANUFACTURER.	OS	CORNER MOUNTED OCCUPANCY SENSOR. MOUNT TIGHT TO CEILING. SET TO AUTO-ON, AUTO-OFF MODE.
	NEMA 14-508 RECEPTACLE FOR ELECTRIC RANGE PROVIDE 3#8 #10G 3/4"C. TO	VS	CORNER MOUNTED VACANCY SENSOR. MOUNT TIGHT TO CEILING. SET TO MANUAL-ON, AUTO-OFF MODE.
₽R	INDICATED BREAKER IN PANEL. (2 HOT, 1 NEUTRAL, 1 GROUND)	FACP	FIRE ALARM CONTROL PANEL
• <sub>D</sub>	NEMA 14-30R RECEPTACLE FOR ELECTRIC DRYER. PROVIDE 3#10, #10G, 3/4"C. TO INDICATED BREAKER IN PANEL. (2 HOT, 1 NEUTRAL, 1 GROUND)	FATP	FIRE ALARM TRANSPONDER PANEL
E	EMERGENCY CALL TOGGLE SWITCH: REFER TO CALL-FOR-AID WIRING SCHEMATIC FOR MORE INFORMATION.	S	CEILING MOUNTED SMOKE DETECTOR
нØ	EMERGENCY CALL FOR AID COMBINATION BUZZER / LIGHT: REFER TO CALL-FOR-AID WIRING SCHEMATIC FOR MORE INFORMATION.	s u	CEILING MOUNTED SMOKE DETECTOR WIRED TO ELEVATOR RECALL SYSTEM
PP	ADA PUSH PLATE	Ш	UNLESS OTHERWISE NOTED
NC MS	NURSE CALL MASTER CONSOLE. PROVIDE A SINGLE-GANG BACKBOX AND 3/4" CONDUIT WITH BUSHING TO ABOVE ACCESSIBLE CEILING, UNLESS NOTED OTHERWISE. REFER TO RISER DIAGRAM FOR WIRING.		DUCT MOUNTED SMOKE DETECTOR AND HOUSING
NC BS	NURSE CALL SINGLE-BED STATION WITH STAFF ASSIST. PROVIDE A SINGLE-GANG BACKBOX AND 3/4" CONDUIT WITH BUSHING TO ABOVE ACCESSIBLE CEILING. REFER TO	RTS	REMOTE DUCT SMOKE DETECTOR TEST SWITCH
	RISER DIAGRAM FOR WIRING.	SD	SMOKE OR FIRE/SMOKE DAMPER. PROVIDE WITH SMOKE DETECTORS WITHIN 5 FEET OF DAMPER ON EITHER SIDE OF WALL. PROVIDE ALL ITEMS LISTED AS BY DIVISION 26
	FOR WIRING. 'WP' EQUALS WATERPROFF IF INDICATED.	MM	FIRE ALARM MONITOR MODULE
SS	3/4" CONDUIT WITH BUSHING TO ABOVE ACCESSIBLE CEILING. REFER TO RISER DIAGRAM FOR WIRING.	СМ	FIRE ALARM CONTROL MODULE
	NURSE CALL STAFF STATION. PROVIDE A SINGLE-GANG BACKBOX AND 3/4" CONDUIT WITH BUSHING TO ABOVE ACCESSIBLE CEILING. REFER TO RISER DIAGRAM FOR WIRING.	<u>₩</u>	MAGNETIC DOOR HOLD OPEN. PROVIDE WITH SMOKE DETECTORS WITHIN 5 FEET OF BOTH SIDES OF DOOR.
NC DS	NURSE CALL DUTY STATION. PROVIDE A SINGLE-GANG BACKBOX AND 3/4" CONDUIT WITH BUSHING TO ABOVE ACCESSIBLE CEILING. REFER TO RISER DIAGRAM FOR WIRING.	TS F	
⊦ <b>⊘</b> <sup>2</sup>	NURSE CALL AUDIO / DOME LIGHT WITH 2 LEDS. PROVIDE A SINGLE-GANG BACKBOX AND 3/4" CONDUIT WITH BUSHING TO ABOVE ACCESSIBLE CEILING. REFER TO RISER DIAGRAM FOR WIRING.	(F) (PS)	FIRE PROTECTION PRESSURE SWITCH AND FIRE ALARM MONITOR MODULE
<b>⊢</b> → <sup>4</sup>	NURSE CALL AUDIO / DOME LIGHT WITH 4 LEDS. PROVIDE A SINGLE-GANG BACKBOX AND 3/4" CONDUIT WITH BUSHING TO ABOVE ACCESSIBLE CEILING. REFER TO RISER DIAGRAM FOR WIRING.		WALL MOUNTED COMBINATION SPEAKER / STROBE LIGHT WITH A MULTI-CANDELA STROBE. MOUNT AT 6'-8" AFF. "XX" INDICATES CANDELA RATING
٥²	NURSE CALL AUDIO / DOME ZONE LIGHT. PROVIDE A SINGLE-GANG BACKBOX AND 3/4" CONDUIT WITH BUSHING TO ABOVE ACCESSIBLE CEILING. REFER TO RISER DIAGRAM FOR WIRING.	• ××	WALL MOUNTED STROBE-ONLY UNIT WITH A MULTI-CANDELA STROBE. MOUNT AT 6'-8" AFF. "XX" INDICATES CANDELA CANDELA RATING
	COMPUTER OUTLET, TWO GANG BACKBOX WITH 3/4" CONDUIT STUBBED INTO ACCESSIBLE CEILING. PROVIDE NYLON PULL STRING AND BUSHING	• xx c	CEILING MOUNTED STROBE-ONLY UNIT WITH A MULTI-CANDELA STROBE. "XX" INDICATES CANDELA RATING
	COMPUTER OUTLET, TWO GANG BACKBOX WITH 3/4" CONDUIT STUBBED INTO ACCESSIBLE CEILING. PROVIDE NYLON PULL STRING AND BUSHING	F	WALL MOUNTED FIRE ALARM MANUAL PULL STATION. MOUNT AT 48" AFF. PROVIDE WITH MANUAL STATION GUARD, STI "STOPPER II" OR EQUAL WHERE REQUIRED.
	RECESSED BOX FOR MONITOR DISPLAY	CR	
PB	DOOK KELEASE PUSHBUTTON		SYMBOL LIST NOTE

THE SYMBOL LIST AND ABBREVIATIONS DEFINE ITEMS INDICATED ON THE DRAWINGS. NOT ALL SYMBOLS

AND ABBREVIATIONS DEFINED HEREIN ARE NECESSARILY USED ON THIS PROJECT.

![](_page_36_Picture_34.jpeg)

### ELECTRICAL LEGEND AND ABBREVIATIONS

# **100% CONSTRUCTION** DOCUMENTS SHEET TITLE

SJM
AS INDICATED
C:\Users\rlevin\Documents\PHASE 2 - R20-2019378.00-MEP Central-Andrus-on-Hudson second
NS floor_rlevinBSKMD.rvt
Description

PROJECT DATA

M19012

KCM

10.27.2023

KEY PLAN

PROJECT NUMBER

DRAWN

CURRENT SUBMISSION DATE

• •

![](_page_36_Picture_39.jpeg)

CONSULTANTS

CES Engineering, LLC 216 E. 45th St., 16th Fl New York NY 10017 ceseng.com CES #2019378

ANDRUS ON HUDSON | MAIN BUILDING 2ND FLOOR

![](_page_36_Figure_43.jpeg)

AMENTA EMMA

DEMOLITION NOTES - ELECTRICAL
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ALL EXISTING ELECTRICAL DEVICES WITHIN THE INDICATED AREA OF DEMOLITION SHALL BE REMOVED, UNLESS OTHERWISE NOTED. REMOVAL SHALL BE COMPLETE, INCLUDING BOXES, BRACKETS, HANGERS AND BRANCH CIRCUIT WIRING BACK TO SOURCE PANELBOARD OR LAST ACTIVE DEVICE TO REMAIN.

- THIS PLAN IS DIAGRAMMATIC AND NOT INTENDED TO SHOW THE ENTIRE SCOPE OF ELECTRICAL DEMOLITION. ADDITIONAL DEMOLITION AND MODIFICATION WORK NOT SHOWN SHOULD BE ANTICIPATED. PRIOR TO SUBMITTING BID, THE CONTRACTOR SHALL VISIT THE SITE AND INDENTIFY EXISTING
- CONDITIONS AND POTENTIAL DIFFICULTIES THAT WILL AFFECT THE WORK TO BE PERFORMED. NO COMPENSATION WILL BE GRANTED FOR ANY ADDITIONAL WORK CAUSED BY UNFAMILIARTY WITH SITE CONDITIONS THAT ARE VISIBLE OR READILY IDENTIFIED BY EXPERIENCED OBSERVERS. INCLUDE ALL DEMOLITION WORK REQUIRED IN THE FINAL BID.
- THIS PROJECT COMPRISES ALTERATIONS AND RENOVATIONS TO AN EXISTING BUILDING. THE BUILDING IS CURRENTLY OCCUPIED AND THE PROJECT WILL PROCEED IN A MANNER WHICH MINIMIZES ANY INCONVENIENCE TO THE BUILDING OCCUPANTS.
- REMOVE RECESSED OUTLET BOXES ABANDONED UNDER THIS CONTRACT ON WALLS THAT ARE TO REMAIN AND PATCH WALLS.
- REMOVE EXISTING DEVICE PLATES AND DEVICES WHERE NECESSARY TO ACCOMMODATE NEW WALL FINISHES. INSTALL NEW DEVICES AND DEVICE PLATES AFTER NEW FINISHES ARE COMPLETE. WHERE POWER AND DATA OUTLETS EXIST ON WALLS THAT ARE TO BE FURRED OUT. THE CONTRACTOR SHALL REMOVE THE EXISTING DEVICES AND INSTALL NEW DEVICES AND PLATES AND PROVIDE BOX EXTENSIONS AS NECESSARY.
- NOTIFY THE CONSTRUCTION MANAGER OR GENERAL CONTRACTOR OF OPENINGS CAUSED BY REMOVAL OF EXISTING EQUIPMENT. ENSURE PATCHING IS COMPLETE.
- ALL EXISTING EXPOSED RACEWAY SERVING DEVICES OR EQUIPMENT IN FINISHED AREAS SHALL BE REMOVED BACK TO SOURCE PANELBOARD OR LAST ACTIVE TO REMAIN, UNLESS OTHERWISE NOTED.
- THE CONTRACTOR SHALL MODIFY EXIXTING CIRCUITS, WHERE EXISTING DEVICES ARE REMOVED, AS REQUIRED TO MAINTAIN CIRCUIT CONTINUITY.
- 0. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE STORAGE AND HANDLING OF EXISTING TO BE RELOCATED EQUIPMENT AND THE DISPOSAL OF ALL ITEMS TO BE REMOVED IN A SAFE, LEGAL AND RESPONSIBLE MANNER.

## **DEMOLITION NOTES - ELECTRICAL**

- REMOVE EXISTING ELECTRICAL SYSTEM IN ITS ENTIRETY, UNLESS OTHERWISE NOTED, INCLUDING BUT NOT LIMITED TO ALL WIRING, OUTLETS, LIGHTS, SWITCHES AND LIGHTING CONTROL SYSTEM. PRESERVE EXISTING FEEDER CONDUIT SYSTEMS WHERE PULLING NEW FEEDERS INTO EXISTING CONDUIT IS THE IDENTIFIED RENOVATION STRATEGY. PRESERVE ALL FEEDER AND BRANCH CIRCUIT INSTALLATIONS THAT SERVE OTHER AREAS OF THE BUILDING OUTSIDE THE DESIGNATED PROJECT AREA.
- REMOVE EXISTING FIRE ALARM SYSTEM IN ITS ENTIRETY, INCLUDING BUT NOT LIMITED TO FIRE ALARM PANEL AND SUBPANELS, HORNS, STROBES, PULL STATIONS, ANNUNCIATIONS AND NOTIFICATION DEVICES. PRESERVE ALL WIRING THAT IS SUPPORTING AREAS OF THE BUILDING OUTSIDE THE PROJECT AREA. PRESERVE EXISTING SLC, IDC, NAC WIRING SUPPORTING THE PROJECT AREA AT ITS FEED LOCATION INTO THE SPACE.
- EXISTING CABLE, TELEPHONE, DATA SYSTEMS AND HORIZONTAL CABLING INFRASTRUCTURE TO BE VERFIED IN FIELD. INFRASTRUCTURE SERVING OTHER FLOORS TO BE MAINTAINED AND INFRASTRUCTURE SERVING CURRENT FLOOR TO BE REMOVED BACK TO THE SERVING PATCH PANEL AND NETWORK SWITCH, INCLUDING BUT NOT LIMITED TO SWITCHES, PANELS, WALL JACKS AND CABLING.

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![](_page_37_Figure_17.jpeg)

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![](_page_37_Figure_18.jpeg)

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![](_page_37_Figure_19.jpeg)

ANDRUS ON HUDSON ANDRUS ON HUDSON | MAIN BUILDING 2ND FLOOR

ARCHITECTS

AMENTA|EMMA

![](_page_38_Figure_0.jpeg)

- TASK LIGHTING.
- REFER TO LIGHTING CONTROL DETAILS FOR TYPICAL WIRING SCHEMATICS.
- CIRCUIT MONITORING.
- POWER.

- 9. REFER TO DRAWING E6.00 FOR LIGHTING FIXTURE SCHEDULE.
- 10. REFER TO DRAWING E0.00 FOR ELECTRICAL SYMBOLS, LEGENDS, AND ABBREVIATIONS.

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![](_page_39_Figure_11.jpeg)

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![](_page_39_Figure_13.jpeg)

![](_page_39_Figure_14.jpeg)

1 01 ELECTRICAL LIGHTING FIRST FLOOR PLAN 1/8" = 1'-0"

![](_page_39_Figure_17.jpeg)

646.961.3999 ceseng.com CES #2019378

# ANDRUS ON HUDSON

ANDRUS ON HUDSON | MAIN BUILDING 2ND FLOOR CONSULTANTS CES Engineering, LLC C 216 E. 45th St., 16th Fl New York NY 10017

AMENTA EMMA

![](_page_40_Figure_0.jpeg)

![](_page_40_Picture_3.jpeg)

![](_page_40_Picture_4.jpeg)

AMENTA EMMA

1.	ALL CIRCUITS SHALL BE 2#12+1#12G,3/4" NOTED OTHERWISE. ALL DEVICES LABE
2.	EC TO REFER TO SHEET E4.00 FOR COM
3.	ALL BRANCH CIRCUITS EXCEEDING 150' I MAXIMUM OF 2% VOLTAGE DROP AND CO
4.	MOUNTING HEIGHTS AND LOCATIONS OF ARCHITECTUAL ELEVATION PLAN.
5.	REFER TO ARCHITECTS REFLECTED CEIL DEVICES.
6.	COORDINATE EXACT LOCATIONS OF ELE ALARM DEVICES, ETC., WITH THE ARCHI WORK. REQUEST CLARIFICATIONS FROM
7.	PROVIDE FIRE STOPPING AND SMOKE BASSING AND SMOKE BARRIERS AS REQUIRED. REFER SPECIFIC REQUIREMENTS AND LOCATIO
8.	PROVIDE SOUND PROOFING PUTTY PAD DIVISION 26 SPECIFICATIONS FOR ADDIT
9.	ANY RECEPTACLE LOCATED WITHIN 6'-0' PROTECTED BY A GFCI CIRCUIT BREAKE
10.	ALL RECEPTACLES LOCATED IN RESIDEM MEET ARTICLE 210 OF THE 2017 NEC ANI
11.	UNLESS OTHERWISE INDICATED, REFER OF ALL MECHANICAL EQUIPMENT (HVAC, EACH TRADE FOR EXACT LOCATIONS OF
12.	DO NOT INSTALL OUTLETS BACK TO BAC MOUNT LOW VOLTAGE AND POWER OUT
13.	WHEN THE COMBINING OF CIRCUIT OR H DOCUMENTS, RACEWAYS SHALL BE LIMI AND THREE NEUTRAL CONDUCTORS) AN PROVIDE A DEDICATED NEUTRAL CONDU NEUTRAL IS SPECIFICALLY INDICATED. C CODE WHEN MORE THAN THREE CURRE
14.	PROVIDE NYLON PULL STRING IN ALL EN
15.	REFER TO TELECOMMUNICATIONS, SECU TELECOMMUNICATIONS OUTLETS, SECU ELECTRICAL, TELECOMMUNICATIONS, SU REQUIREMENTS.
16.	COORDINATE EXACT LOACTION OF JUNC OTHERS WITH EQUIPMENT SUPPLIER PR EQUIPMENT CONNECTION AS REQUIRED
17.	WIRING INDICATED BY A CIRCUIT NUMBE PROVISIONS FOR OR REQUIRES A NEUTI EXCEPTION OF MOST MOTOR CIRCUITS,

-

# FOLLOWING REQUIREMENTS SHALL BE FURNISHED AND INSTALLED:

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#### **GENERAL NOTES - POWER**

4"C, TO NEW 20A-1P CIRCUIT BREAKER IN PANEL INDICATED UNLESS ELED WITH SOURCE PANEL AND CIRCUIT NUMBER(S) MPLETE WIRING, DEVICES, AND EQUIPMENT FOR RESIDENT ROOMS

IN LENGTH SHALL BE SIZED ACCORDINGLY TO ACCOUNT FOR A COMPLY WITH NEC REQUIREMENTS. ALL ELECTRICAL DEVICES SHALL BE COORDINATED WITH

ILING PLAN FOR LOCATION OF CEILING MOUNTED ELECTRICAL

ECTRICAL DEVICES SUCH AS RECEPTACLES, SWITCHES, FIRE IITECT'S PLANS, ELEVATIONS AND DETAILS PRIOR TO START OF M ARCHITECT IF NECESSARY PRIOR TO INSTALLATION. BARRIER SEALING OF ALL PENETRATIONS THROUGH FIRE WALLS OR

ER TO ARCHITECTURAL FLOOR PLANS AND CODE SHEETS FOR IONS OF ALL WALL TYPES DS ON ALL BOXES LOCATED IN SAME STUD CAVITY. REFER TO

ITIONAL INFORMATION. " OF A WATER SOURCE SHALL BE A GFCI RECEPTACLE OR

DENT ROOMS SHALL BE ARC-FAULT PROTECTED TYPE AND SHALL AND NY AMMENDMENTS.

R TO MOTOR CIRCUIT SCHEDULE FOR ELECTRICAL REQUIREMENTS C, PLUMBING, FIRE PROTECTION, ETC.). REFER TO DRAWINGS OF F EQUIPMENT. ACK. PROVIDE 24" HORIZONTAL SPACING IN FIRE RATED WALLS. JTLETS IN DIFFERENT STUD WALL CAVITIES WHEREVER POSSIBLE. HOMERUNS IS PERMITTED ELSEWHERE IN THE CONTRACT /ITED TO SIX CURRENT CARRYING CONDUCTORS (THREE PHASE

ND A GROUNDING CONDUCTOR, UNLESS OTHERWISE INDICATED. DUCTOR FOR EACH SINGLE-PHASE CIRCUIT UNLESS AN OVERSIZE CONDUCTORS MUST BE DE-RATED PER THE NATIONAL ELECTRIC RENT CARRYING CONDUCTORS ARE RUN IN THE SAME RACEWAY. EMPTY CONDUIT SYSTEMS FOR USE IN INSTALLING SYSTEM WIRING. CURITY AND AUDIO/VISUAL DRAWINGS FOR LOCATIONS OF ALL

CURITY DEVICES, A/V OUTLETS, AMPS, SPEAKERS, ETC. SEE SECURITY AND A/V NOTES AND SPECIFICATIONS FOR ADDITIONAL NCTION BOX FOR EQUIPMENT THAT IS FURNISHED BY OWNER OR PRIOR TO ROUGH-IN. PROVIDE WIRING FROM JUNCTION BOX TO

BER SHALL INCLUDE A NEUTRAL, WHEN THE LOAD SERVED HAS ITRAL. TYPICALLY, ALL FEEDERS AND BRANCH CIRCUITS, WITH THE

, WILL REQUIRE A NEUTRAL. 18. REFER TO DRAWING E0.00 SERIES DRAWINGS FOR ELECTRICAL SYMBOLS, LEGENDS, AND ABBREVIATIONS.

![](_page_41_Figure_17.jpeg)

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#### ELECTRICAL POWER KEY NOTES

PATIENT CARE SPACES SHALL BE IN CONFORMANCE WITH NEC ARTICLE 517.13 (A) AND (B). THE ALL BRANCH CIRCUITS SERVING PATIENT CARE AREAS SHALL BE PROVIDED WITH A REDUNDANT

GROUND FAULT CURRENT PATH. THIS SHALL INCLUDE ONE OF THE FOLLOWING: 1. CONDUCTORS IN CONDUIT THAT INCLUDE A GREEN EQUIPMENT GROUND CONDUCTOR IN CONDUCTORS IN CONDUCTOR IN CONDUCTOR IN CONFORMANCE WITH ARTICLE 250.122 AND ALSO THE CONDUIT SYSTEM IS INSTALLED FULL LENGTH TO EACH DEVICE AS AN EQUIPMENT GROUND CONDUCTOR.
 METAL CLAD CABLING SYSTEM THAT CONFORMS TO HEALTHCARE REQUIREMENTS WITH METALLIC ARMOR THAT QUELIFIES AS A GROUND CONDUCTOR. THIS SYSTEM SHALL BE FOUND FOR STALL FOR THAT TO ADD FOR CONDUCTOR SYSTEM SHALL BE EQUIVALENT TO AFC SYSTEMS #HCF-90 STEEL ARMORED CABLE.

THESE SYSTEMS SHALL BE UTILIZED FOR ALL RECEPTACLE AND MISCELLANEOUS ELECTRICAL CONNECTIONS THAT ARE 7'-6" AFF OR BELOW WITHIN EACH ROOM. LIGHTING CIRCUITS WITH DIMMING CONTROLS THAT ARE LOCATED WITHIN 6'-0" OF EXAMINATION TABLES SHALL BE PROVIDED WITH AFC SYSTEMS #HCF-90 ARMORED CABLE FOR CIRCUIT HOMERUNS AND CONNECTIONS TO FIXTURES AND #MC-LUMINARY HCF SHALL BE PROVIDED BETWEEN LIGHT FIXTURES AND WALL MOUNTED DIMMING CONTROL STATIONS

![](_page_41_Picture_25.jpeg)

1 01 ELECTRICAL POWER FIRST FLOOR PLAN 1/8" = 1'-0"

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![](_page_41_Figure_28.jpeg)

CONSULTANTS

CES Engineering, LLC 216 E. 45th St., 16th Fl New York NY 10017 646.961.3999 ceseng.com CES #2019378

# ANDRUS ON HUDSON ANDRUS ON HUDSON | MAIN BUILDING 2ND FLOOR

![](_page_41_Figure_32.jpeg)

	F-GG	AB-6
6	F-BB	-FF
F	-CC AB-	5
A WING TERF	AB-4	
F-Z AB	-3	HOUSEKEEPING 214 RES
F-EE		GEI Ø
AB-Z	24.29	-2C, 27
AB-1	TV	
F-DD		
AB-A	RESIDENT ROOM	
PD		<b>B</b> GFI
EC SHALL UTILIZE THE FOLLOWING CIRCUITS:		210
GENERATOR RECEPTACLES: CKT #5&6 PANEL 2A GENERATOR RECEPTACLES: CKT #3&4 PANEL 2AF PTAC POWER CIRCUIT: CKT #4 (211), CKT #5 (210) PANEL 2A		
AB-	C	209
		PTAC-A
EC SHALL UTILIZE THE	AB-D FOLLOWING CIRCUITS:	RESIDE
NORMAL RECEPTACLE GENERATOR RECEPT PTAC POWER CIRCUIT	ES: CKT #2&3 PANEL 2A ACLES: CKT #1&2 PANEL 2AF Г: CKT #1 (208), CKT #3 (209) PA	
		AB-E
	EC SHALL UTIL	LIZE THE FOLLOWING CIRCUITS:
ALL CIRCUITS SHALL BE 2#12+1#12G,3/4"C, TO NEW 20A-1P CIRCUIT BREAKER IN PANEL INDICATED UNLESS	PTAC POWER	CIRCUIT: CKT #12 & CKT #35 PANEL 2A
EC TO REFER TO SHEET E4.00 FOR COMPLETE WIRING, DEVICES, AND EQUIPMENT FOR RESIDENT ROOMS		
MAXIMUM OF 2% VOLTAGE DROP AND COMPLY WITH NEC REQUIREMENTS. MOUNTING HEIGHTS AND LOCATIONS OF ALL ELECTRICAL DEVICES SHALL BE COORDINATED WITH ARCHITECTUAL ELEVATION PLAN		
REFER TO ARCHITECTS REFLECTED CEILING PLAN FOR LOCATION OF CEILING MOUNTED ELECTRICAL DEVICES.		EC SHALL UTILIZE TH PTAC POWER CIRCL
COORDINATE EXACT LOCATIONS OF ELECTRICAL DEVICES SUCH AS RECEPTACLES, SWITCHES, FIRE ALARM DEVICES, ETC., WITH THE ARCHITECT'S PLANS, ELEVATIONS AND DETAILS PRIOR TO START OF WORK. REQUEST CLARIFICATIONS FROM ARCHITECT IF NECESSARY PRIOR TO INSTALLATION.		EC SHALL UTILIZE TH PTAC POWER CIRCL
PROVIDE FIRE STOPPING AND SMOKE BARRIER SEALING OF ALL PENETRATIONS THROUGH FIRE WALLS OR SMOKE BARRIERS AS REQUIRED. REFER TO ARCHITECTURAL FLOOR PLANS AND CODE SHEETS FOR SPECIFIC REQUIREMENTS AND LOCATIONS OF ALL WALL TYPES		
PROVIDE SOUND PROOFING PUTTY PADS ON ALL BOXES LOCATED IN SAME STUD CAVITY. REFER TO DIVISION 26 SPECIFICATIONS FOR ADDITIONAL INFORMATION.		
PROTECTED BY A GFCI CIRCUIT BREAKER. ALL RECEPTACLES LOCATED IN RESIDENT ROOMS SHALL BE ARC-FAULT PROTECTED TYPE AND SHALL MEET ARTICLE 210 OF THE 2017 NEC AND NY AMMENDMENTS.		
UNLESS OTHERWISE INDICATED, REFER TO MOTOR CIRCUIT SCHEDULE FOR ELECTRICAL REQUIREMENTS OF ALL MECHANICAL EQUIPMENT (HVAC, PLUMBING, FIRE PROTECTION, ETC.). REFER TO DRAWINGS OF EACH TRADE FOR EXACT LOCATIONS OF EQUIPMENT.		
DO NOT INSTALL OUTLETS BACK TO BACK. PROVIDE 24" HORIZONTAL SPACING IN FIRE RATED WALLS. MOUNT LOW VOLTAGE AND POWER OUTLETS IN DIFFERENT STUD WALL CAVITIES WHEREVER POSSIBLE.		
WHEN THE COMBINING OF CIRCUIT OR HOMERUNS IS PERMITTED ELSEWHERE IN THE CONTRACT DOCUMENTS, RACEWAYS SHALL BE LIMITED TO SIX CURRENT CARRYING CONDUCTORS (THREE PHASE AND THREE NEUTRAL CONDUCTORS) AND A GROUNDING CONDUCTOR, UNLESS OTHERWISE INDICATED. PROVIDE A DEDICATED NEUTRAL CONDUCTOR FOR EACH SINGLE-PHASE CIRCUIT UNLESS AN OVERSIZE		
NEUTRAL IS SPECIFICALLY INDICATED. CONDUCTORS MUST BE DE-RATED PER THE NATIONAL ELECTRIC CODE WHEN MORE THAN THREE CURRENT CARRYING CONDUCTORS ARE RUN IN THE SAME RACEWAY. PROVIDE NYLON PULL STRING IN ALL EMPTY CONDUIT SYSTEMS FOR USE IN INSTALLING SYSTEM WIRING.		EC SHALL UTILIZE THE FOLLOWING CIRCUITS:
REFER TO TELECOMMUNICATIONS, SECURITY AND AUDIO/VISUAL DRAWINGS FOR LOCATIONS OF ALL TELECOMMUNICATIONS OUTLETS, SECURITY DEVICES, A/V OUTLETS, AMPS, SPEAKERS, ETC. SEE ELECTRICAL, TELECOMMUNICATIONS, SECURITY AND A/V NOTES AND SPECIFICATIONS FOR ADDITIONAL		NORMAL RECEPTACLES: CKT #20 PANEL 2D GENERATOR RECEPTACLES: CKT #13 PANEL 2 PTAC POWER CIRCUIT: CKT #19 PANEL 2D
REQUIREMENTS. COORDINATE EXACT LOACTION OF JUNCTION BOX FOR EQUIPMENT THAT IS FURNISHED BY OWNER OR OTHERS WITH EQUIPMENT SUPPLIER PRIOR TO ROUGH-IN. PROVIDE WIRING FROM JUNCTION BOX TO	EC SHALL UTILIZE THE FOL	LOWING CIRCUITS:
EQUIPMENT CONNECTION AS REQUIRED. WIRING INDICATED BY A CIRCUIT NUMBER SHALL INCLUDE A NEUTRAL, WHEN THE LOAD SERVED HAS PROVISIONS FOR OR REQUIRES A NEUTRAL. TYPICALLY, ALL FEEDERS AND BRANCH CIRCUITS, WITH THE	NORMAL RECEPTACLES: C GENERATOR RECEPTACLE PTAC POWER CIRCUIT: CK	KT #17&18 PANEL 2D S: CKT #11&12 PANEL 2DF T #16 (283), CKT #32 (284) PANEL 2D
EXCEPTION OF MOST MOTOR CIRCUITS, WILL REQUIRE A NEUTRAL. REFER TO DRAWING E0.00 SERIES DRAWINGS FOR ELECTRICAL SYMBOLS, LEGENDS, AND ABBREVIATIONS.		
	-	PTAC-A Ø
EC SHALL UTILIZE THE FOLLOWING CIRC	UITS:	
NORMAL RECEPTACLES: CKT #14&15 PAN GENERATOR RECEPTACLES: CKT #9&10 PTAC POWER CIRCUIT: CKT #13 (281), CK	NEL 2D PANEL 2DF T #24 (282) PANEL 2D	
	PTACA	RESIDENT ROOM
	P	
EC SHALL UTILIZE THE FOLLOWING CIRCUITS: PTA	C-A	
NORMAL RECEPTACLES: CKT #11&12 PANEL 2D GENERATOR RECEPTACLES: CKT #7&8 PANEL 2DF PTAC POWER CIRCUIT: CKT #10 (279), CKT #30 (280) PANEL 2D		P <sub>G</sub> FI
PTAC-A	RESIDENT ROOM	J. Contraction of the second s
		ĴĒI
RESIDENT ROC		
(F-1)	ØgFi	
		CELOS
		STREET STREET
		OXYGEN TANK STORAGE
	WF1	
DP-1		STAIR 4 ST4-2
(F-3)		
(F-4)		
	DP-	-A (F-6)

**F-5** 

(F-Y)

![](_page_42_Figure_2.jpeg)

![](_page_42_Figure_5.jpeg)

![](_page_43_Picture_1.jpeg)

-

NOTE:

![](_page_43_Figure_3.jpeg)

![](_page_43_Figure_4.jpeg)

![](_page_43_Picture_5.jpeg)

# 5 ELECTRICAL LIGHTING SECOND FLOOR - ADA RESIDENT ROOM 10 ENLARGED PLAN 1/4" = 1'-0"

![](_page_43_Figure_8.jpeg)

![](_page_43_Picture_9.jpeg)

ELECTRICAL PART PLANS

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\_\_\_\_\_ -----------\_\_\_\_\_ \_\_\_\_\_ -----------100% CONSTRUCTION DOCUMENTS SHEET TITLE 

PROJECT NUMBER M19012 CURRENT SUBMISSION DATE 10.27.2023 DRAWN KCM CHECKED SJM SCALE AS INDICATED C:\Users\rlevin\Documents\PHASE 2 -R20-2019378.00-MEP FILE REFERENCE Central-Andrus-on-Hudson\_second floor\_rlevinBSKMD.rvt HISTORY OF SUBMISSIONS No. Date Description

PROJECT DATA

KEY PLAN

![](_page_43_Picture_14.jpeg)

-----CONSULTANTS

CES Engineering, LLC 216 E. 45th St., 16th Fl New York NY 10017 646.961.3999 ceseng.com CES #2019378

ANDRUS ON HUDSON | MAIN BUILDING 2ND FLOOR

![](_page_43_Figure_18.jpeg)

![](_page_43_Figure_19.jpeg)

![](_page_44_Figure_0.jpeg)

CEILING MOUNTED OCCUPANCY SENSOR / NONE

![](_page_44_Figure_4.jpeg)

SECTION A-A

- 1. WALL ASSEMBLY MIN 3-3/4 IN. AND 5 IN. THICK REINFORCED LIGHTWEIGHT OR NORMAL WEIGHT (100-150 PCF) CONCRETE. WALL MAY ALSO BE CONSTRUCTED OF ANY UL CLASSIFIED CONCRETE BLOCKS.
- 2. THROUGH PENETRANTS ONE METALLIC PIPE. CONDUIT OR TUBING TO BE CENTERED WITHIN THE FIRESTOP SYSTEM. PIPE MAY BE INSTALLED WITH CONTINUOUS POINT CONTACT. PIPE, CONDUIT OR TUBE MAY BE INSTALLED AT AN AN ANGLE NOT GREATER THAN 45 DEGREES FROM PERPENDICULAR. PIPE, CONDUIT OR TUBING TO BE RIGIDLY SUPPORTED ON BOTH SIDES OF WALL ASSEMBLY.
- 3. FILL, VOID OR CAVITY MATERIAL\* MIN 5/8 IN. THICKNESS OF FILL MATERIAL APPLIED WITHIN THE ANNULUS, FLUSH WITH BOTH SURFACES OF WALL. AT THE POINT OR CONTINUOUS CONTACT LOCATIONS BETWEEN PIPE AND WALL, A MIN 1/2 IN. DIAM BEAD OF FILL MATERIAL SHALL BE APPLIED AT THE PIPE-WALL INTERFACE ON BOTH SURFACES OF WALL. SEALANT: FS-ONE SEALANT
- \*BEARING THE UL CLASSIFICATION MARK 4. PROVIDE A BEAD OF NON-SHRINK, WP SILICON SEALANT AROUND EXTERIOR WALL PENETRATIONS.

5 TYPICAL CONDUIT WALL PENETRATION DETAIL

![](_page_44_Figure_11.jpeg)

NOTES:

- INSTALLED BY DIVISION 23. PROVIDE SAMPLING TUBE CROSSING THE ENTIRE WIDTH OF THE DUCT.
- 5 REMOTE TEST/RESET KEY SWITCH AND ASSOCIATED WIRING PROVIDED
- BY DIV. 26.

6 TYPICAL DUCT SMOKE DETECTOR AND SMOKE DAMPER CONTROL DETAIL

![](_page_44_Figure_21.jpeg)

![](_page_44_Figure_22.jpeg)

![](_page_44_Picture_25.jpeg)

ELECTRICAL DETAILS

SHEET TITLE

# 100% CONSTRUCTION DOCUMENTS

CHECKED SJM SCALE AS INDICATED FILE REFERENCE C:\Users\rlevin\Documents\PHASE 2 -R20-2019378.00-MEP Central-Andrus-on-Hudson\_second HISTORY OF SUBMISSIONS floor\_rlevinBSKMD.rvt No Date Descriptio \_\_\_\_\_ -----\_\_\_\_\_ \_\_\_\_\_ \_\_\_\_\_ \_\_\_\_\_ ------------

PROJECT NUMBER M19012 CURRENT SUBMISSION DATE 10.27.2023 DRAWN KCM

PROJECT DATA

KEY PLAN

![](_page_44_Picture_32.jpeg)

CONSULTANTS

CES Engineering, LLC 216 E. 45th St., 16th Fl New York NY 10017 46.961.3999 ceseng.com CES #2019378

ANDRUS ON HUDSON ANDRUS ON HUDSON | MAIN BUILDING 2ND FLOOR

![](_page_44_Figure_36.jpeg)

![](_page_45_Figure_0.jpeg)

TYPICAL 1-ZONE LIGHTING CONTROL DETAIL - NORMAL FIXTURES ONLY N.T.S.

![](_page_45_Figure_2.jpeg)

2 HUBBELL NX DETAILS

![](_page_45_Figure_5.jpeg)

TYPICAL MULTI-ZONE LIGHTING CONTROL DETAIL - NORMAL FIXTURES ONLY N.T.S.

TYPICAL MULTI-ZONE LIGHTING CONTROL DETAIL - NORMAL AND GENERATOR POWERED FIXTURES N.T.S.

TYPICAL EXISTING, DEMOLITION AND NEW WORK ELECTRICAL ROOM LAYOUTS

TYPICAL ELECTRICAL ROOM EXISTING AND DEMOLITION LAYOUT

![](_page_45_Figure_11.jpeg)

![](_page_45_Figure_12.jpeg)

3' - 0"

![](_page_45_Picture_21.jpeg)

![](_page_46_Figure_0.jpeg)

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![](_page_46_Figure_4.jpeg)

![](_page_46_Picture_6.jpeg)

E5.02.

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			ELECTRICAL FE	EEDER SO	CHEDULE		
			COPPER	CONDUCTORS			
CIRCUIT SYMBOL	CONDUCTORS (1 PH, 2W) WITH GROUND	CONDUIT SIZE	CONDUCTORS (1 OR 3 PH, 3 WIRE) WITH GROUND	CONDUIT SIZE	CONDUCTORS (3 PH, 4 WIRE) WITH GROUND	CONDUIT SIZE	OVERCURRENT RATING
1	2#12 & 1#12G	3/4"	3#12 & 1#12G	3/4"	4#12 & 1#12G	3/4"	15A
2	2#12 & 1#12G	3/4"	3#12 & 1#12G	3/4"	4#12 & 1#12G	3/4"	20A
2.5	2#10 & 1#10G	3/4"	3#10 & 1#10G	3/4"	4#10 & 1#10G	3/4"	25A
3	2#10 & 1#10G	3/4"	3#10 & 1#10G	3/4"	4#10 & 1#10G	3/4"	30A
(3.5)	2#8 & 1#10G	1"	3#8 & 1#10G	1"	4#8 & 1#10G	1"	35A
4	2#8 & 1#10G	1"	3#8 & 1#10G	1"	4#8 & 1#10G	1"	40A
(4.5)	2#8 & 1#10G	1"	3#8 & 1#10G	1"	4#8 & 1#10G	1"	45A
(5)	2#8 & 1#10G	1"	3#8 & 1#10G	1"	4#8 & 1#10G	1"	50A
6	2#6 & 1#10G	1"	3#6 & 1#10G	1"	4#6 & 1#10G	1"	60A
(7)	2#4 & 1#8G	1 1/4"	3#4 & 1#8G	1 1/4"	4#4 & 1#8G	1 1/4"	70A
(8)	2#4 & 1#8G	1 1/4"	3#4 & 1#8G	1 1/4"	4#4 & 1#8G	1 1/4"	80A
(9)	2#3 & 1#8G	1 1/4"	3#3 & 1#8G	1 1/4"	4#3 & 1#8G	1 1/4"	90A
(10)	2#3 & 1#8G	1 1/4"	3#3 & 1#8G	1 1/4"	4#3 & 1#8G	1 1/4"	100A
(11)			3#2 & 1#6G	1 1/4"	4#2 & 1#6G	1 1/2"	110A
(12)			3#1 & 1#6G	1 1/2"	4#1 & 1#6G	2"	125A
(15)			3#1/0 & 1#6G	2"	4#1/0 & 1#6G	2"	150A
(17)			3#2/0 & 1#6G	2"	4#2/0 & 1#6G	2"	175A
(20)			3#3/0 & 1#6G	2"	4#3/0 & 1#6G	2 1/2"	200A
(22)			3#4/0 & 1#4G	2 1/2"	4#4/0 & 1#4G	2 1/2"	225A
(25)			3#250KCMIL & 1#4G	3"	4#250KCMIL & 1#4G	3"	250A
(30)			3#350KCMIL & 1#4G	3"	4#350KCMIL & 1#4G	4"	300A
(35)			3#500KCMIL & 1#3G	4"	4#500KCMIL & 1#3G	4"	350A
(40)			3#600KCMIL & 1#3G	4"	4#600KCMIL & 1#3G	4"	400A
(45)			(2)3#4/0 & 1#2G	(2) 2 1/2"	2 SETS OF 4#4/0 & 1#2G	(2) 2 1/2"	450A
(50)			(2)3#250KCMIL & 1#2G	(2) 3"	2 SETS OF 4#250KCMIL & 1#2G	(2) 3"	500A
60)			(2)3#350KCMIL & 1#1G	(2) 3"	2 SETS OF 4#350KCMIL & 1#1G	(2) 4"	600A
(70)			(2)3#500KCMIL & 1#1/0G	(2) 4"	2 SETS OF 4#500KCMIL & 1#1/0G	(2) 4"	700A
(80)			(2)3#600KCMIL & 1#1/0G	(2) 4"	2 SETS OF 4#600KCMIL & 1#1/0G	(2) 4"	800A
(90)			(3)3#350KCMIL & 1#2/0G	(3) 3"	3 SETS OF 4#350KCMIL & 1#2/0G	(3) 4"	900A
(100)			(3)3#500KCMIL & 1#2/0G	(3) 4"	3 SETS OF 4#500KCMIL & 1#2/0G	(3) 4"	1000A
(120)			(4)3#350KCMIL & 1#3/0G	(4) 3"	4 SETS OF 4#350KCMIL & 1#3/0G	(4) 4"	1200A
(160)			(4)3#600KCMIL & 1#4/0G	(4) 4"	4 SETS OF 4#600KCMIL & 1#4/0G	(4) 4"	1600A
(200)			(5)3#600KCMIL & 1#250G	(5) 4"	5 SETS OF 4#600KCMIL & 1#250G	(5) 4"	2000A
(250)			(6)3#600KCMIL & 1#350G	(6) 4"	6 SETS OF 4#600KCMIL & 1#350G	(6) 4"	2500A
300			(8)3#500KCMIL & 1#500G	(8) 4"	8 SETS OF 4#500KCMIL & 1#500G	(8) 4"	3000A

NOTES:

CONDUIT SIZES ARE BASED ON THE NEC ANNEX C TABLES FOR EMT/SCH.40 WITH THHN/THWN CONDUCTORS. CONDUCTOR SIZES USED IN CONDUIT CALCULATION ARE BASED ON THE SIZE OF THE HOT CONDUCTORS OF CIRCUIT. EXAMPLE: 40A 3PH, 4W CONDUIT SIZE IS BASED

ON 4#8 + 1#8G + 1#8 'SPACE'. FOR ACTUAL WIRE INSTALL USE QUANTITY AND SIZES WITHIN SCHEDULE. UNLESS OTHERWISE INDICATED, CONDUCTOR SIZING SHALL MATCH THE SIZE INDICATED ABOVE FOR THE APPLICABLE OVERCURRENT DEVICE. PROVIDE LARGER CIRCUIT WHERE INDICATED.

PROVIDE MINIMUM SIZE CONDUIT INDICATED IN THE SPECIFICATIONS OR ON THE DRAWINGS.

FOR SINGLE PHASE FEEDERS, PROVIDE A 3-WIRE CIRCUIT UNLESS DEVICE SERVED DOES NOT HAVE PROVISIONS FOR A NEUTRAL. FOR THREE PHASE FEEDERS, PROVIDE A 4-WIRE CIRCUIT UNLESS DEVICE SERVED DOES NOT HAVE PROVISIONS FOR A NEUTRAL.

PROVIDE TYPE OF RACEWAY OR CABLE AS INDICATED IN THE SPECIFICATIONS OR ON THE DRAWINGS.

REFER TO PANELBOARD SCHEDULES AND ONE-LINE RISER DIAGRAM DRAWINGS FOR CONDUCTOR AND CONDUIT SIZE REQUIREMENTS.

ALL CONDUCTOR SIZES ARE BASED ON 75°C (167°F), ALL EQUIPMENT CONNECTED TO WIRES SHALL BE RATED OR 75°C (167°F)

![](_page_47_Figure_10.jpeg)

1" = 1'-0"

![](_page_47_Figure_11.jpeg)

![](_page_47_Figure_12.jpeg)

1) FIRE ALARM RISER -- CONNECT TO EXISTING SECOND FLOOR

	PF I	DASIS OF DESIGN		SOURCE	FIXTURE DESCRIPTION
-    -  в	31	MANUFACTURER / MODEL VISIONEERING	UNV	2700 LUMENS 20 WATTS	2' x 2' RECESSED LED LAY-IN TROFFER WITH DIE-FORMED STEEL HOUSING AND ROU FROSTED ACRYLIC DIFFUSER; 0-10V DIMMING; 80 CRI, 80% LUMEN MAINTENANCE @
- B1	1E	VISIONEERING	UNV	3500K LED 2700 LUMENS 20 WATTS	50,000 HOURS. SAME AS TYPE 'B1' EXCEPT WITH EMERGENCY BATTERY OPTION.
В	32	VISIONEERING	UNV	3500K LED 2300 LUMENS 17 WATTS	SAME AS TYPE 'B1' EXCEPT WITH 2300 LUMEN OUTPUT.
B2	2E	VISIONEERING	UNV	3500K LED 2300 LUMENS 17 WATTS	SAME AS TYPE 'B2' EXCEPT WITH EMERGENCY BATTERY OPTION.
В	33	VISIONEERING	UNV	3500K LED 2000 LUMENS 14 WATTS	SAME AS TYPE 'B1' EXCEPT WITH 2000 LUMEN OUTPUT.
B3	3E	VISIONEERING	UNV	3500K LED 2000 LUMENS 14 WATTS	SAME AS TYPE 'B3' EXCEPT WITH EMERGENCY BATTERY OPTION.
В	34	VISIONEERING	UNV	3500K LED 3200 LUMENS 23 WATTS	SAME AS TYPE 'B1' EXCEPT WITH 3200 LUMEN OUTPUT.
B₄	4E	VISIONEERING	UNV	3500K LED 3200 LUMENS 23 WATTS	SAME AS TYPE 'B4' EXCEPT WITH EMERGENCY BATTERY OPTION.
	04	PRESCOLITE LTR-4RD-H-SL06L-DM1-	UNV	3500K LED 644 LUMENS 7.8 WATTS	NOMINAL 4" DIA. RECESSED LED DOWNLIGHT WITH SPECULAR CLEAR REFLECTOR
	4F	LTR-4RD-T-SL35K8XW-S-WT PRESCOLITE LTR-4RD-H-SL06L-DM1-FM-	UNV	3500K LED 636 LUMENS 7.8 WATTS	SAME AS TYPE 'D4' EXCEPT WITH EMERGENCY BATTERY OPTION.
	4-2	PRESCOLITE		3500K LED 1030 LUMENS 12 WATTS	NOMINAL 4" DIA. RECESSED LED DOWNLIGHT WITH SPECULAR CLEAR REFLECTOR
	-2F	PRESCOLITE		3500K LED 1030 LUMENS 12 WATTS	0-10V DIMMING; 90 CRI, 80% LUMEN MAINTENANCE @ 55,000 HOURS.
		PRESCOLITE		3500K LED 1000 LUMENS 12 WATTS	NOMINAL 4" DIA. RECESSED LED LENSED WALL WASH WITH SPECULAR CLEAR
		PRESCOLITE		3500K LED 1000 LUMENS	REFLECTOR; 0-10V DIMMING; 90 CRI, 80% LUMEN MAINTENANCE @ 55,000 HOURS.
	56	LTR-6RD-T-SHSL35K8-WTAMLAM	UNV	3500K LED	REFLECTOR , WHITE FLANGE AND ACRYLIC, MICRO-PRISM LENS; 0-10V DIMMING; 9         90% LUMEN MAINTENANCE @ 55,000 HOURS.         1.4" W LINEAR LED COVE LIGHT WITH DIE-CAST ALUMINUM HOUSING AND FROSTE
F	F	C4R-LL-0-5-35NA-*	UNV	5 WATTS P/FT 3500K LED	ACRYLIC LENS; 0-10V DIMMING; PROVIDE WITH ADJUSTABLE MOUNTING BRACKET PA-5; 90 CRI, 85% LUMEN MANTENANCE @ 86,000 HOURS; * LENGTHS AS INDICATE ON PLANS.
FI	E	TEMPO LIGHTING C4R-LL-0-5-35NA-*	UNV	575 LUMENS 5 WATTS P/FT 3500K LED	SAME AS TYPE 'F' EXCEPT WIRED TO EMERGENCY LIGHTING INVERTER VIA SHUN' RELAY; * LENGTHS AS INDICATED ON PLANS
Ģ	G	ARANCIA MINI MAX PIVO C952-M-*-1-S-N-B-U-O-WH	UNV	600 LUMENS 5.5 WATTS P/FT 3500K LED	NOMINAL 48" W LINEAR PICTURE LIGHT WITH EXTRUDED ALUMINUM HOUSING AND 7.33" L BRACKET; ADJUSTABLE LIGHT SOURCE WITH INTEGRAL DIFFUSER; 0-10V DIMMING; 90 CRI, 85% LUMEN MANTENANCE @ 86,000 HOURS; WHITE; * LENGTH AS INDICATED ON PLANS
F	н	COLUMBIA CCL4-35LW-EDU	UNV	2576 LUMENS 19 WATTS 3500K LED	4' LONG LENSED LED STRIPLIGHT WITH STEEL HOUSING AND FROSTED PRISMATIC ACRYLIC LENS; 0-10V DIMMING; 80 CRI, 80% LUMEN MANTENANCE @ 50,000 HOUR PROVIDE SURFACE MOUNT ASSEMBLY
LI	.M	MATRIX MIRRORS L02l2436S35V1AF	UNV	1730 LUMENS 40 WATTS 3500K LED	24" X 36" FRAME LIT VANITY MIRROR WITH INDIRECT LEDS; 0-10V DIMMING; 90 CRI, LUMEN MANTENANCE @ 50,000 HOURS; PROVIDE WITH ANTI-FOG OPTION.
J	J	ALCOLYTE AS1 CHAS1FRB90WH0.7535ZXX12 DRIVER DRVW249610P	UNV	820 LUMENS 9 WATTS 3500K LED	12 FT. CHANNEL FIXTURE; LOW PROFILE CHANNEL WITH 118 DEGREE BEAM ANGLI CRI, L70 LUMEN MAINTENANCE @ 50,000 HOURS; WITH DIMMING DRIVER TO BE MOUNTED ACCESSIBLE CEILING; LENSE TYPE AND COLOR BY ARCHITECT
к	(2	AXIS LIGHTING BBRLED8035FL2WHITEUNVTB9	UNV	1000 LUMENS 9.2 WATTS 3500K LED	4" W x 2 FT. LONG RECESSED LED FIXTURE WITH EXTURDED ALUMINUM HOUSING CONTINUOUS ACRYLIC LENS; 0-10V DIMMING; 80 CRI, 85% LUMEN MAINTENACE @ 50,000 HOURS
T K8	8E	AXIS LIGHTING BBRLED8035FL8WUNVTB9B1	UNV	4000 LUMENS 36.8 WATTS 3500K LED	SAME AS TYPE 'K2' EXCEPT WITH 8' LENGTH AND EMERGENCY BATTERY OPTION.
N K1	12	AXIS LIGHTING BBRLED5008035FL12WUNVTB9	UNV	4000 LUMENS 55.2 WATTS 3500K LED	SAME AS TYPE 'K2' EXCEPT WITH 12' LENGTH.
K1:	12E	AXIS LIGHTING BBRLED5008035FL12WUNVTB9B1	UNV	6000 LUMENS 55.2 WATTS 3500K LED	SAME AS TYPE 'K12' EXCEPT WITH EMERGENCY BATTERY OPTION
R	र8	LIGHTING ELEMENTS LE-RL-DI/ID-DS-9-35K-35K-8-DIM-WH	UNV	13600 LUMENS 160 WATTS 3500K LED	NOMINAL 8' DIA. X 1.6" W PENDANT MOUNTED DECORATIVE LED RING LIGHT WITH ALUMINUM BODY AND ACRYLIC LENS; 0-10V DIMMMING; 90 CRI, 80% LUMEN MANTENANCE @ 50,000 HOURS; WHITE.
R1	10	LIGHTING ELEMENTS LE-RL-DI/ID-DS-9-35K-35K-10-DIM-WH	UNV	16000 LUMENS 200 WATTS 3500K LED	NOMINAL 10' DIA. X 1.6" W PENDANT MOUNTED DECORATIVE LED RING LIGHT WITH ALUMINUM BODY AND ACRYLIC LENS; 0-10V DIMMMING; 90 CRI, 80% LUMEN MANTENANCE @ 50,000 HOURS; WHITE.
R <sup>1</sup>	12	LIGHTING ELEMENTS LE-RL-DI/ID-DS-9-35K-35K-12-DIM-WH	UNV	20400 LUMENS 240 WATTS 3500K LED	NOMINAL 12' DIA. X 1.6" W PENDANT MOUNTED DECORATIVE LED RING LIGHT WITH ALUMINUM BODY AND ACRYLIC LENS; 0-10V DIMMMING; 90 CRI, 80% LUMEN MANTENANCE @ 50,000 HOURS; WHITE.
v	N	AXIS BALANCEDCARE #BCS-THR-RH-27-AMW-UNV	UNV	223 LUMENS 1WATT LED	WALL MOUNTED SEMI-RECESSED RECTANGULAR HORIZONTAL NIGHT LIGHT WITH LIGHT SOURCE AND INTEGRAL PHOTOCELL WITH LIGHT LEVEL ADJUSTMENT, WHI HOUSING. THE FIXTURE SHALL BE MOUNTED AT 24" AFF.
×	۲1	DUAL-LITE LECSR*WEI	UNV	2.2 WATTS LED	SELF-POWERED, SINGLE-FACE LED EDGE-LIT EXIT SIGN WITH EXTRUDED ALUMINU TRIM AND CLEAR ACRYLIC PLAQUE WITH RED LETTERS; MAINTENANCE-FREE SEA NICKEL CADMIUM BATTERY; SELF-TEST/SELF-DIAGNOSTIC CIRCUITRY; DIRECTION ARROWS AS INDICATED ON DRAWINGS OR AS DIRECTED IN FIELD.
L					

LIGHT FIXTURES IN THE SCHEDULE SHALL BE CONSIDERED BASIS OF DESIGN. NO SUBSTITUTIONS ALLOWED. ALL FIXTURES SHALL BE ULLISTED.

FRAME, UNLESS INDICATED OTHERWISE ON PLANS.

ALL NECESSARY MOUNTING HARDWARE, HANGERS, BRACKETS, RAILS, YOKES, CANOPIES, STEMS, CHAINS, ROW JOINERS, ETC. SHALL BE FURNISHED AND INSTALLED. REFER TO ARCHITECTURAL DRAWINGS FOR SPECIFIC DETAILS, ARRANGEMENT, MOUNTING HEIGHTS, SUSPENSION LENGTHS, CEILING CONSTRUCTION, ETC. ALL

COLORS AND FINISHES SHALL BE SELECTED BY ARCHITECT. FIXTURES SHALL BE SEISMICALLY SUPPORTED AS REQUIRED BY THE APPLICABLE BUILDING CODE. FIXTURES SHALL BE SUPPORTED FROM THE BUILDING STRUCTURE AND SHALL BE INDEPENDENT OF DUCTS, PIPES, CEILINGS AND THEIR SUPPORTING MEMBERS. FIXTURES SHALL BE SUPPORTED WITH A MINIMUM OF 2

SUPPORTS. WIRE EMERGENCY FIXTURES AND EXIT SIGNS AHEAD OF SWITCHED LEGS. MINIMUM MOUNTING HEIGHT OF FIXTURES IN MECHANICAL AND ELECTRICAL SPACES IS 8'-6" AFF. COORDINATE MOUNTING HEIGHT IN FIELD WITH EQUIPMENT IN

ROOM SUCH THAT LIGHTING IS NOT OBSTRUCTED BY DUCTWORK, PIPING AND CONDUIT. PROVIDE NECESSARY CHAIN-MOUNTING HARDWARE TO SUSPEND FIXTURES WHERE REQUIRED. REFER TO SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS. WHERE EXIT SIGNS ARE SHOWN AS WALL MOUNTED ABOVE A DOOR, MOUNT SUCH THAT THE BOTTOM OF THE SIGN IS NO MORE THAN 3" ABOVE THE DOOR

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	INITATION	A	B	c		F	F	G	н	J	к		M	N	0
	1 MANUAL PULL STATION	Х	X	-	_	X	-	-		-				X	X
TYPICAL DOOR MAG-HOLD	2 SMOKE DETECTOR OR HEAT DETECTOR	Х	Х			Х								Х	Х
N TYPICAL SMOKE DETECTOR	3 DUCT SMOKE DETECTOR			X	X	X						<u> </u>	<u> </u>		
	4 SMOKE DETECTOR - 1ST FLOOR ELEV. LANDING	X	X			X		Y	X	X		-+		×	×
JAMPER	6 SMOKE DETECTOR - OTHER ELEV. LANDING	^ X	X			$\frac{x}{x}$		×		×		$\rightarrow$	$\rightarrow$	$\frac{1}{x}$	$\hat{\mathbf{x}}$
	7 HEAT DETECTOR - ELEV. PIT OR SHAFT	X	X			X		X		X	X	-		X	X
	8 LOSS OF ELEVATOR SHUNT TRIP SIGNAL			Х	Х										
	9 SPRINKLER WATER FLOW	Х	Х			X	X					$ \rightarrow $		<u> </u>	X
				X	X							$\rightarrow$	$\rightarrow$	$\rightarrow$	
	11 CARBON MONOXIDE DETECTOR IN KITCHEN 12 CARBON MONOXIDE DETECTOR - OTHER THAN KITCHEN			$\frac{x}{x}$	x							-+	-+	$\rightarrow$	
OL CARDS, EXPANSION MODULES,	13 KITCHEN ANSUL SYSTEM ACTIVATION	Х	x										-	$\neg$	
ANUFACTURER AS EXISTING.	14 NATURAL GAS DETECTION IN KITCHEN			Х	Х										
GOF EXISTING CONTROL PANEL TO				$\square$								$\square$	$\square$	$\square$	
TION OF NEW STROBES.												-+	-+	-+	-
CABLING WHEN CONCEALED AND												-+	-+	$\rightarrow$	
AND LOCATION OF DEVICES				-+								$\dashv$	+	$\dashv$	$\neg$
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1. SEQUENCE OF OPERATION IS TYPICAL. REFER TO PLANS AND SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS. \*\* = SHUTOFF SIGNAL SHALL OCCUR DIRECTLY THROUGH THE UTILITY CONTROLLER, NOT VIA FIRE ALARM SYSTEM.

![](_page_47_Picture_22.jpeg)

E	Branch Panel: 2D												
	Location: A276					Volts:	120/20	)8 Wye				A.I.C. Rating:	
	Supply From:				Ρ	hases:	3					Bus Material: CU	
	Mounting: Surface					Wires:	4					Bus Rating: 225 A	
	Enclosure: Type 1										MCB	Rating / MLO: 150A MCB	
СКТ	Circuit Description	Trip	Poles		4	E	В		0	Poles	Trin	Circuit Description	СКТ
1	PTAC - ROOM 271	20 A	1	1.92	1.26					1	20 A	RECEPTACLES - ROOM 14 271	2
3	RECEPTACLES - ROOM 15 272	20 A	1			1.26	1.92			1	20 A	PTAC - ROOM 273	4
5	RECEPTACLES - ROOM 16 273	20 A	1					1.26	1.26	1	20 A	RECEPTACLES - ROOM 17 274	6
7	PTAC - ROOM 275	20 A	1	1.92	1.26					1	20 A	RECEPTACLES - ROOM 18 275	8
9	RECEPTACLES - ROOM 19 276	20 A	1			1.26	1.92			1	20 A	PTAC - ROOM 279	10
11	RECEPTACLES - ROOM 19 279	20 A	1					1.26	1.26	1	20 A	RECEPTACLES - ROOM 20 280	12
13	PTAC - ROOM 281	20 A	1	1.92	1.26					1	20 A	RECEPTACLES - ROOM 21 281	14
15	RECEPTACLES - ROOM 22 282	20 A	1			1.26	1.92			1	20 A	PTAC - ROOM 283	16
17	RECEPTACLES - ROOM 283	20 A	1					1.26	1.26	1	20 A	RECEPTACLES - ROOM 284	18
19	PTAC - ADA RESIDENT ROOM 25 285	20 A	1	1.92	1.26					1	20 A	RCPT - ADA RESIDENT ROOM 25 285	20
21	PTAC - ROOM 202	20 A	1			1.92							22
23	PTAC - ROOM 286	20 A	1					1.92	1.92	1	20 A	PTAC - ROOM 282	24
25	SPARE	20 A	1	0.00	0.36					1	20 A	RECEPTACLES - 287	26
27	PTAC - ROOM 272	20 A	1			1.92	1.92			1	20 A	PTAC - ROOM 274	28
29	PTAC - ROOM 276	20 A	1					1.92	1.92	1	20 A	PTAC - ROOM 280	30
31	RCPT - NURSE MGR OFFICE 285	20 A	1	0.36	1.92					1	20 A	PTAC - ROOM 284	32
33	RECEPTACLES - 269,270,299	20 A	1			0.54	0.00	-		1	20 A	SPARE	34
35	LIGHTING - D WING CORRIDOR	20 A	1					2.40	0.00	1	20 A	SPARE	36
37	SPARE	20 A	1	0.00	0.00					1	20 A	SPARE	38
39	SPARE	20 A	1			0.00	0.00			1	20 A	SPARE	40
41	SPARE	20 A	1					0.00	0.00	1	20 A	SPARE	42
		Phase	Load:	15.36	3 kVA	15.84	4 kVA	17.64	4 kVA	_			
		Phase	)	128	8 A	132	.6 A	147	.6 A				
Notos		Total	Load:	48.84	kVA	-							
inotes:		Total	Amps:	135.	30 A								

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	Sranch Panel: 2DF												
	Location: CORRIDOR	299E				Volts:	120/20	08 Wye				A.I.C. Rating:	
	Supply From:				Ρ	hases:	3					Bus Material: CU	
	Mounting: Surface					Wires:	4					Bus Rating: 225 A	
	Enclosure: Type 1										MCB	Rating / MLO: 150A MCB	
					4	E	3	0	2				
СКТ	Circuit Description	Trip	Poles		I					Poles	Trip	Circuit Description	СКТ
1	RECEPTACLES - ROOM 14 271	20 A	1	0.50	0.50					1	20 A	RECEPTACLES - ROOM 15 272	2
3	RECEPTACLES - ROOM 16 273	20 A	1			0.50	0.50			1	20 A	RECEPTACLES - ROOM 17 274	4
5	RECEPTACLES - ROOM 18 275	20 A	1					0.50	0.50	1	20 A	RECEPTACLES - ROOM 19 276	6
7	RECEPTACLES - ROOM 19 279	20 A	1	0.50	0.50					1	20 A	RECEPTACLES - ROOM 20 280	8
9	RECEPTACLES - ROOM 21 281	20 A	1			0.50	0.50			1	20 A	RECEPTACLES - ROOM 22 282	10
11	RECEPTACLES - ROOM 283	20 A	1					0.50	0.50	1	20 A	RECEPTACLES - ROOM 284	12
13	RCPT - ADA RESIDENT ROOM 25 285	20 A	1	0.50	0.29					1	20 A	LIGHTING - ROOM 271&272	14
15	LIGHTING - ROOM 273&274	20 A	1			0.29	0.29			1	20 A	LIGHTING - ROOM 275&276	16
17	LIGHTING - ROOM 279&280	20 A	1					0.29	0.29	1	20 A	LIGHTING - ROOM 281&282	18
19	LIGHTING - ROOM 283&284	20 A	1	0.29	0.15					1	20 A	LTG - ADA RESIDENT ROOM 25 285	20
21	REFIGERATOR - 286	20 A	1			0.70	0.70			1	20 A	REFIGERATOR - 286	22
23	UC FRIDGE	20 A	1					0.18	0.70	1	20 A	REFIGERATOR - 286	24
25	RECEPTACLES - CART NOOK 268&287	20 A	1	0.36	0.80					1	20 A	COPIER - 200	26
27	LIGHTING - D WING CORRIDOR	20 A	1			0.90	0.40			1	20 A	EWC - D WING CORRIDOR	28
29	RECEPTACLES - 285	20 A	1					0.36	0.00	1	20 A	SPARE	30
31	RECEPTACLES - D WING	20 A	1	1.44	0.00					1	20 A	SPARE	32
33	SPARE	20 A	1			0.00	0.00			1	20 A	SPARE	34
35	SPARE	20 A	1					0.00	0.00	1	20 A	SPARE	36
37	SPARE	20 A	1	0.00	0.00					1	20 A	SPARE	38
39	SPARE	20 A	1			0.00	0.00			1	20 A	SPARE	40
41	SPARE	20 A	1					0.00	0.00	1	20 A	SPARE	42
	-	Phase	Load:	5.83	kVA	5.28	kVA	3.82	kVA			-	
		Phase		50.	4 A	45.	9 A	31.	8 A				
		Total	Load:	14.93	3 kVA								
Notes:		Total	Amps:	41.4	13 A								

#### anah Danali 24 D

Ŀ	Branch Panel: 2A											
	Location: JANITORS C	LOSET	218			Volts:	120/20	8 Wye				A.I.C. Rating:
	Supply From:				P	hases:	3					Bus Material: CU
	Mounting: Surface					Wires:	4					Bus Rating: 225 A
	Enclosure: Type 1										MCB	Rating / MLO: 200A MCB
кт	Circuit Description	Trip	Poles		4	E	3		0	Poles	Trin	Circuit Description
1	PTAC - ROOM 208	20 A	1	1 92	1 26					1	20 A	RCPT - ADA RESIDENT ROOM 1 208
י ג	RCPT - ADA RESIDENT ROOM 2 209	20 A	1	1.52	1.20	1.26	1 92			1	20 A	PTAC - ROOM 210
5	RCPT - ADA RESIDENT ROOM 3 210	20 A	1			1.20	1.02	1 26	1 26	1	20 A	RCPT - ADA RESIDENT ROOM 4 211
0 7	PTAC - ROOM 215	20 A	1	1 92	1 26			1.20	1.20	1	20 A	RCPT - ADA RESIDENT ROOM 5 215
9	RCPT - ADA RESIDENT ROOM 6 216	20 A	1	1.02	1.20	1.26	1.92			1	20 A	PTAC - ADA RESIDENT ROOM 7 217
-  1	RCPT - ADA RESIDENT ROOM 7 217	20 A	1					1.26	1.92	1	20 A	PTAC - 207
13	RECEPTACLES -207	20 A	1	1.08	1.92					1	20 A	PTAC - 206
15		-			-		1.96			1	20 A	PTAC - ROOM 212
17	RECEPTACLES - 205,206	20 A	1					0.54	0.36	1	20 A	RECEPTACLES - 222,223
19	PTAC - PT DIR. OFFICE 223	20 A	1	1.92	0.90					1	20 A	RECEPTACLES - 219
21	WASHING MACHINE - 219	20 A	1			0.18	2.50			2	20 A	DRYER - 219
23	RANGE - 219	20 A	2					4.00	2.50			
25				4.00								
27	RECEPTACLES - CHARTING/WRKRM	20 A	1			1.26	1.92			1	20 A	PTAC - 219
29	TV + FLOORBOX MEETING 212	20 A	1					0.54	1.92	1	20 A	PTAC - CHARTING/WRKRM 200
31	PTAC - ROOM 209	20 A	1	1.92	1.92					1	20 A	PTAC - ROOM 205
33	PTAC - ROOM 216	20 A	1			1.92	1.92			1	20 A	PTAC - ROOM 211
35	PTAC -207	20 A	1					1.92	1.92	1	20 A	PTAC - ROOM 219
37	LIGHTING - A WING CORRIDOR	20 A	1	1.60	0.01					1	20 A	SPARE
39							0.00			1	20 A	SPARE
11	SPARE	20 A	1					0.00	0.00	1	20 A	SPARE
		Phase	Load:	21.63	3 kVA	18.02	2 kVA	19.40	) kVA			
		Phase		18	2 A	150	.1 A	163	.4 A			
		Tota	Load:	59.05	5 kVA							
tes:		Total	Amps:	163	.9 A							

	Location: JANITORS C Supply From:	LOSET	218		P	Volts: hases:	120/20 3	8 Wye				A.I.C. Rating: Bus Material: CU
	Mounting: Surface					Wires:	4					Bus Rating: 225 A
	Enclosure: Type 1										MCB	Rating / MLO: 150A MCB
скт	Circuit Description	Trip	Poles	1	4	E	3	C	•	Poles	Trip	Circuit Description
1	PTAC - ROOM 249	20 A	1	1.92	1.26					1	20 A	RECEPTACLES - ROOM 7 249
3	RECEPTACLES - ROOM 8 250	20 A	1			1.26	1.92			1	20 A	PTAC - ROOM 251
5	RECEPTACLES - ROOM 9 251	20 A	1					1.26	1.26	1	20 A	RECEPTACLES - ROOM 14 252
7	PTAC - ROOM 253	20 A	1	1.92	1.26					1	20 A	RECEPTACLES - ROOM 15 253
9	RECEPTACLES - ROOM 16 254	20 A	1			1.26	1.92			1	20 A	PTAC - ROOM 259
11	RECEPTACLES - ROOM 259	20 A	1					1.26	1.26	1	20 A	RECEPTACLES - ROOM 260
13	PTAC - ROOM 261	20 A	1	1.92	1.26					1	20 A	RECEPTACLES - ROOM 261
15	RECEPTACLES - ROOM 262	20 A	1			1.26	1.92			1	20 A	PTAC - ADA RESIDENT ROOM 17 25
17	RCPT - ADA RESIDENT ROOM 17 255	20 A	1					1.26	1.92	1	20 A	PTAC - ADA RESIDENT ROOM 10 25
19	RCPT - ADA RESIDENT ROOM 10 257	20 A	1	1.42								
21							0.70			1	20 A	REFRIGERATOR - PANTRY 246
23	RECEPTACLES - 246	20 A	1					0.36	1.92	1	20 A	PTAC - ADA RESIDENT ROOM 10 25
25	PTAC - ROOM 245	20 A	1	1.92	0.72					1	20 A	RECEPTACLES - 248,263,264
27	RECEPTACLES - 212	20 A	1			0.72	1.92			1	20 A	PTAC - ROOM 250
29	PTAC - ROOM 252	20 A	1					1.92	1.92	1	20 A	PTAC - ROOM 254
31	RECEPTACLES - 245	20 A	1	0.36	1.92					1	20 A	PTAC - ROOM 260
33	PTAC - ROOM 262	20 A	1			1.92	2.40			1	20 A	LIGHTING - C WING CORRIDOR
35	SPARE	20 A	1					0.00	0.00	1	20 A	SPARE
37	SPARE	20 A	1	0.00	0.00					1	20 A	SPARE
39							0.00			1	20 A	SPARE
41									0.00	1	20 A	SPARE
		Phase	Load:	15.88	3 kVA	17.20	) kVA	14.34	kVA			
		Phase	)	134	.3 A	145	.3 A	119	.5 A			
		Total	Load:	47.42	2 kVA							
Notes:		Total	Amps:	131.	62 A							

#### Branch Panel: 2B

	Location: JANITORS Supply From: Mounting: Surface	CLOSET	218		Ρ	Volts: hases: Wires:	120/20 3 4	8 Wye				A.I.C. Rating: Bus Material: CU Bus Rating: 225 A	
	Enclosure: Type 1										MCB	Rating / MLO: 150A MCB	
скт	Circuit Description	Trip	Poles		4	E	3	(	0	Poles	Trip	Circuit Description	ск
1	RECEPTACLES - ROOM 10 230	20 A	1	1.26	1.92					1	20 A	PTAC - ROOM 229	2
3	RECEPTACLES - ROOM 9 229	20 A	1			1.26	1.26			1	20 A	RECEPTACLES - ROOM 8 228	4
5	RECEPTACLES - ROOM 3 227	20 A	1					1.26	1.92	1	20 A	PTAC - ROOM 227	6
7	RECEPTACLES - ROOM 1 225	20 A	1	1.26	1.26					1	20 A	RECEPTACLES - ROOM 2 226	8
9	PTAC - ROOM 225	20 A	1			1.92	1.92			1	20 A	PTAC - ROOM 238	10
11	RECEPTACLES - ROOM 5 238	20 A	1					1.26	1.26	1	20 A	RECEPTACLES - ROOM 6 239	12
13	PTAC - ROOM 236	20 A	1	1.92	1.26					1	20 A	RECEPTACLES - ROOM 236	14
15	RECEPTACLES - ROOM 237	20 A	1			1.26	1.92			1	20 A	PTAC - ROOM 234	16
17	RECEPTACLES - ROOM 11 234	20 A	1					1.26	1.26	1	20 A	RECEPTACLES - ROOM 12 235	18
19	SPARE	20 A	1	0.00	1.92					1	20 A	PTAC - ROOM 226	20
21	SPARE	20 A	1			0.00	1.92			1	20 A	PTAC - NURSE MANAGERS OFFICE 231	22
23	PTAC -ROOM 228	20 A	1					1.92	1.92	1	20 A	PTAC - ROOM 230	24
25	PTAC - ROOM 235	20 A	1	1.92	1.92					1	20 A	PTAC - ROOM 237	26
27	PTAC -ROOM 239	20 A	1			1.92	1.60			1	20 A	LIGHTING - B WING CORRIDOR	28
29	SPARE	20 A	1					0.00	1.92	1	20 A	PTAC - ROOM 241	30
31	SPARE	20 A	1	0.00	0.00					1	20 A	SPARE	32
33	SPARE	20 A	1			0.00	0.00			1	20 A	SPARE	34
35	SPARE	20 A	1					0.00	0.00	1	20 A	SPARE	36
37	SPARE	20 A	1	0.00	0.00					1	20 A	SPARE	38
39	SPARE	20 A	1			0.00	0.00			1	20 A	SPARE	40
41	SPARE	20 A	1					0.00	0.00	1	20 A	SPARE	42
	-	Phase	Load:	14.64	l kVA	14.98	3 kVA	13.98	3 kVA				
		Phase	<b>.</b>	122	.8 A	125	.7 A	116	.5 A	]			
		Tota	Load:	43.60	) kVA					-			
lotes:		Total	Amps:	121.	02 A								

# Branch Panel: 2AF

	Location: JANITORS CLOSET 218 Supply From: Mounting: Surface Enclosure: Type 1					Volts: hases: Wires:	120/20 3 4	)8 Wye		A.I.C. Rating: Bus Material: CU Bus Rating: 225 A MCB Rating / MLO: 150A MCB				
скт	Circuit Description	Trip	Poles		4	E	3		C	Poles	Trip	Circuit Description	скт	
1	RCPT - ADA RESIDENT ROOM 1 208	20 A	1	0.50	0.50					1	20 A	RCPT - ADA RESIDENT ROOM 2 209	2	
3	RCPT - ADA RESIDENT ROOM 3 210	20 A	1			0.50	0.50			1	20 A	RCPT - ADA RESIDENT ROOM 4 211	4	
5	RCPT - ADA RESIDENT ROOM 5 215	20 A	1					0.50	0.50	1	20 A	RCPT - ADA RESIDENT ROOM 6 216	6	
7	LIGHTING - ROOM 208&209	20 A	1	0.29	0.29					1	20 A	LIGHTING - ROOM 210&211	8	
9	LIGHTING - ROOM 215&216	20 A	1			0.29	0.50			1	20 A	RCPT - ADA RESIDENT ROOM 7 217	10	
11	LTG - ADA RESIDENT ROOM 7 217	20 A	1					0.15	0.18	1	20 A	Power	12	
13	RECEPTACLES - CHARTING/WRKRM	20 A	1	1.08	0.72					1	20 A	Power	14	
15	RECEPTACLES - CHARTING/WRKRM	20 A	1			0.72	0.72			1	20 A	RECEPTACLES - CHARTING/WRKRM	16	
17	REFRIGERATOR - 287	20 A	1					1.40	0.18	1	20 A	RECEPTACLES - 218	18	
19	RECEPTACLES - PHYSICAL THERAP	20 A	1	1.44	0.95					1	20 A	LIGHTING - A WING CORRIDOR	20	
21	RECEPTACLES - A WING	20 A	1			1.44	0.00			1	20 A	SPARE	22	
23	PTAC - PHYSICAL THERAPY 221	20 A	1					1.92	0.00	1	20 A	SPARE	24	
25	PTAC - PHYSICAL THERAPY 221	20 A	1	1.92	0.00					1	20 A	SPARE	26	
27	SPARE	20 A	1			0.00	0.00			1	20 A	SPARE	28	
29	SPARE	20 A	1					0.00	0.00	1	20 A	SPARE	30	
31	SPARE	20 A	1	0.00	0.00					1	20 A	SPARE	32	
33	SPARE	20 A	1			0.00	0.00			1	20 A	SPARE	34	
35	SPARE	20 A	1					0.00	0.00	1	20 A	SPARE	36	
37	SPARE	20 A	1	0.00	0.00					1	20 A	SPARE	38	
39	SPARE	20 A	1			0.00	0.00			1	20 A	SPARE	40	
41	SPARE	20 A	1					0.00	0.00	1	20 A	SPARE	42	
		Phase	Load:	7.69	kVA	4.67	kVA	4.83	kVA					
		Phase Tota	 Load:	64. 17.19	3 A 9 kVA	38.	9 A	40.	4 A	]				
Notes:		Total	Amps:	47.7	71 A	1								

	Location: JANITORS C Supply From: Mounting: Surface Enclosure: Type 1	LOSET	218		P	Volts: hases: Wires:	120/20 3 4	)8 Wye			МСВ	A.I.C. Rating: Bus Material: CU Bus Rating: 225 A Rating / MLO: 150A MCB	
01/7			<b>D</b>		<b>A</b>	1	В		0		<b>-</b> · · ·		
		20 A	Poles	0.50	0.50					Poles	20 A		
ו 2	RECEPTACIES - ROOM 9 251	20 A	1	0.50	0.50	0.50	0.50			1	20 A	RECEPTACIES - ROOM 14 252	
5	RECEPTACIES - ROOM 15 253	20 A	1			0.50	0.50	0.50	0.50	1	20 A	RECEPTACIES - ROOM 16 254	6
7	RECEPTACIES - ROOM 18 259	20 A	1	0.50	0.50			0.00	0.00	1	20 A	RECEPTACIES - ROOM 11 260	8
9	RECEPTACLES - ROOM 12 261	20 A	1	0.00	0.00	0.50	0.50			1	20 A	RECEPTACIES - ROOM 13 262	10
11	RCPT - ADA RESIDENT ROOM 17 255	20 A	1			0.00	0.00	0.50	0.29	1	20 A	LIGHTING - ROOM 249&250	12
13	LIGHTING - ROOM 251&252	20 A	1	0.29	0.29				0.20	1	20 A	LIGHTING - ROOM 253&254	14
15	LTG - ADA RESIDENT ROOM 17 255	20 A	1	0.20	0.20	0.15	0.29			1	20 A	LIGHTING - ROOM 259&260	16
17	LIGHTING - ROOM 261&262	20 A	1					0.29	0.50	1	20 A	RCPT - ADA RESIDENT ROOM 10 257	18
19	LTG - ADA RESIDENT ROOM 10 257	20 A	1	0.18	1.40					1	20 A	RECEPTACLES - CART NOOK 247	20
21	REFRIGERATOR - PANTRY 246	20 A	1			0.70	0.70			1	20 A	REFRIGERATOR - PANTRY 246	22
23	REFRIGERATOR - PANTRY 246	20 A	1					0.70	0.18	1	20 A	UC FRIDGE - STAFF 245	24
25	LIGHTING - C WING CORRIDOR	20 A	1	0.89	0.90					1	20 A	RECEPTACLES - CORRIDOR,245	26
27	RECEPTACLES - C WING CORRIDOR,	20 A	1			1.08	0.00			1	20 A	SPARE	28
29	REFRIGERATOR - STAFF LOUNGE 245	20 A	1					0.70	0.00	1	20 A	SPARE	30
31	REFRIGERATOR - STAFF LOUNGE 245	20 A	1	0.70	0.00					1	20 A	SPARE	32
33	SPARE	20 A	1			0.00	0.00			1	20 A	SPARE	34
35	SPARE	20 A	1					0.00	0.00	1	20 A	SPARE	36
37	SPARE	20 A	1	0.00	0.00					1	20 A	SPARE	38
39	SPARE	20 A	1			0.00	0.00			1	20 A	SPARE	40
41	SPARE	20 A	1					0.00	0.00	1	20 A	SPARE	42
		Phase	Evad:	6.65	kVA	4.92	kVA	4.16	kVA				
		Phase	ə	56.	4 A	41.	.9 A	34.	7 A				
Viataa		Tota Total	I Load:	15.73	3 kVA	-							

#### Branch Panel: 2BF

	Location: JANITORS ( Supply From: Mounting: Surface Enclosure: Type 1	CLOSET	218		Ρ	Volts: hases: Wires:	120/20 3 4	)8 Wye			мсв	A.I.C. Rating: Bus Material: CU Bus Rating: 225 A Rating / MLO: 150A MCB	
СКТ	Circuit Description	Trip	Poles	,	4	E	3		0	Poles	Trin	Circuit Description	СКТ
1	RECEPTACLES - ROOM 10 230	20 A	1	0.50	0.50					1	20 A	RECEPTACLES - ROOM 9 229	2
3	RECEPTACLES - ROOM 8 228	20 A	1			0.50	0.50			1	20 A	RECEPTACLES ROOM 3 227	4
5	RECEPTACLES - ROOM 2 226	20 A	1					0.50	0.50	1	20 A	RECEPTACLES - ROOM 1 225	6
7	RECEPTACLES - ROOM 5 238	20 A	1	0.50	0.50					1	20 A	RECEPTACLES - ROOM 6 239	8
9	RECEPTACLES - ROOM 13 236	20 A	1			0.50	0.50			1	20 A	RECEPTACLES ROOM - 4 237	10
11	RECEPTACLES - ROOM 12 235	20 A	1					0.50	0.50	1	20 A	RECEPTACLES - ROOM 11 234	12
13	LIGHTING - ROOM 229&230	20 A	1	0.29	0.29					1	20 A	LIGHTING - ROOM 227&228	14
15	LIGHTING - ROOM 225&226	20 A	1			0.29	0.29			1	20 A	LIGHTING - ROOM 238&239	16
17	LIGHTING - ROOM 236&237	20 A	1					0.29	0.29	1	20 A	LIGHTING - ROOM 234&235	18
19	RECEPTACLES - CART NOOK 240	20 A	1	1.40	0.36					1	20 A	RECEPTACLES - 231	20
21	LIGHTING - B WING CORRIDOR	20 A	1			1.00	0.90			1	20 A	Power	22
23	RECEPTACLES - 221	20 A	1					0.36	1.92	1	20 A	PTAC - PHYSICAL THERAPY 221	24
25	PTAC - PHYSICAL THERAPY 221	20 A	1	1.92	0.00					1	20 A	SPARE	26
27	SPARE	20 A	1			0.00	0.00			1	20 A	SPARE	28
29	RECEPTACLES - 231,232,233,241	20 A	1					1.08	0.00	1	20 A	SPARE	30
31	SPARE	20 A	1	0.00	0.00					1	20 A	SPARE	32
33	SPARE	20 A	1			0.00	0.00			1	20 A	SPARE	34
35	SPARE	20 A	1					0.00	0.00	1	20 A	SPARE	36
37	SPARE	20 A	1	0.00	0.00					1	20 A	SPARE	38
39	SPARE	20 A	1			0.00	0.00			1	20 A	SPARE	40
41	SPARE	20 A	1					0.00	0.00	1	20 A	SPARE	42
		Phase	e Load:	6.26 54	kVA A	4.48 37.	kVA 3 A	5.94 51.	kVA 4 A	-			
Notes:		Tota Total	I Load: Amps:	16.68 46.	3 kVA 3 A					L			

\*PROVIDE GFCI CIRCUIT BREAKER

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![](_page_48_Figure_18.jpeg)

![](_page_49_Figure_0.jpeg)

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![](_page_49_Picture_6.jpeg)

### EXISTING CONDITIONS ELECTRICAL RISER DIAGRAM

# 100% CONSTRUCTION DOCUMENTS SHEET TITLE

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PROJECT DATA

M19012

KEY PLAN

PROJECT NUMBER

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![](_page_49_Picture_11.jpeg)

CONSULTANTS

CES Engineering, LLC 216 E. 45th St., 16th Fl New York NY 10017 646.961.3999 ceseng.com CES #2019378

ANDRUS ON HUDSON ANDRUS ON HUDSON | MAIN BUILDING 2ND FLOOR

![](_page_49_Figure_15.jpeg)

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REFER TO ADDITIONAL INFORMATION ON DETAIL 3/E5.00

![](_page_50_Picture_5.jpeg)

AMENTA EMMA

![](_page_51_Figure_0.jpeg)

CONTRACT DRAWINGS OR SHOP DRAWINGS.

NOTE RELATED CHANGE ORDER NUMBERS WHERE APPLICABLE.

4. FINAL RECORD DOCUMENTS SHALL BE PREPARED IN THE LATEST AUTOCAD VERSION AND

SHALL BE TURNED OVER TO THE OWNER AT THE COMPLETION OF THE WORK.

DIGITAL MEDIA FOR ALL DRAWINGS AND A CLEAN SET OF REPRODUCIBLE PAPER COPIES

THE CONTRACTOR SHALL PREPARE (1) PDF COPY AND (3) HARD COPIES OF A COMPLETE MAINTENANCE AND OPERATING INSTRUCTIONS MANUAL BOUND IN BOOKLET FORM ORGANIZE OPERATING AND MAINTENANCE DATA INTO SUITABLE SETS OF MANAGEABLE SIZE. BIND PROPERLY INDEXED DATA IN INDIVIDUAL HEAVY-DUTY, 3-RING, VINYL-COVERED BINDERS. WITH POCKET FOLDERS FOR FOLDED SHEET INFORMATION. MARK APPROPRIATE A. DESCRIPTION OF FUNCTION, NORMAL OPERATING CHARACTERISTICS AND LIMITATIONS, PERFORMANCE CURVES ENGINEERING DATA AND TESTS AND COMPLETE NOMENCLATURE AND COMMERCIAL NUMBERS OF REPLACEMENT PARTS B. MANUFACTURER'S PRINTED OPERATING PROCEDURES TO INCLUDE START-UP, BREAK-IN, AND ROUTINE AND NORMAL OPERATING INSTRUCTIONS; REGULATION, CONTROL, STOPPING, SHUTDOWN, AND EMERGENCY INSTRUCTIONS; AND SUMMER AND WINTER MAINTENANCE PROCEDURES FOR ROUTINE PREVENTATIVE MAINTENANCE AND TROUBLESHOOTING; DISASSEMBLY, REPAIR, AND REASSEMBLY; ALIGNING AND

- ALL EQUIPMENT PROVIDED IN THIS PROJECT SHALL CARRY A MANUFACTURER'S WARRANTY FOR NO LESS THAN ONE (1) YEAR FROM DATE OF BENEFICIAL USE - UNLESS NOTED
- THE CONTRACTOR SHALL COORDINATE ALL INTERRUPTIONS OF SERVICES AND LIMITATIONS OF ACCESS WITH THE OWNER NO LESS THAN (5) DAYS PRIOR TO THE INTERRUPTION. OBTAIN IN OWNER'S NAME WRITTEN EQUIPMENT AND MATERIAL WARRANTIES OFFERED IN MANUFACTURER'S PUBLISHED PRODUCT DATA WITHOUT EXCLUSION OR LIMITATION. GUARANTEE WORK OF THESE CONTRACT DOCUMENTS IN WRITING FOR NOT LESS THAN ONE (1) YEAR FROM DATE OF BENEFICIAL USE. REPAIR OR REPLACE DEFECTIVE MATERIALS EQUIPMENT, WORKMANSHIP AND INSTALLATION THAT DEVELOP WITHIN THIS PERIOD. PROMPT AND TO OWNER'S SATISFACTION AND CORRECT DAMAGE CAUSED IN MAKING NECESSARY REPAIRS AND REPLACEMENTS UNDER GUARANTEE WITHIN CONTRACT PRICE. 4. SUBMIT TO THE OWNER AN OFFICIAL CERTIFICATE OF INSURANCE FOR THEIR RECORDS.
- TESTING SHALL BE PERFORMED ON ELECTRICAL EQUIPMENT AND SYSTEMS TO ASSURE THE FOUIPMENT AND SYSTEMS ARE OPERATIONAL AND WITHIN APPLICABLE STANDARDS AND MANUFACTURING TOLERANCES. TESTING SHOULD VERIFY THAT EQUIPMENT AND SYSTEMS ARE INSTALLED IN ACCORDANCE WITH DESIGN SPECIFICATIONS. ALL TESTING SHALL OCCUR QUALIFIED TECHNICIANS WHO ARE TRAINED AND REGULARLY EMPLOYED FOR TESTING
- THE TESTING ORGANIZATION SHALL CONFORM TO THE GENERAL GUIDELINES OF SECTION 5 OF THE LATEST NETA ACCEPTANCE TESTING SPECIFICATIONS. THIS INCLUDES THE
- NOTIFY THE ARCHITECT, ENGINEER AND OWNER AT LEAST SEVEN (7) DAYS IN ADVANCE OF INSPECTION AND TESTING OF ALL APPLICABLE ELECTRICAL EQUIPMENT LISTED BELOW SHALL BE DONE IN ACCORDANCE WITH THE LATEST VERSION OF NETA ATS.
- EMERGENCY SYSTEMS GENERATOR, AUTOMATIC TRANSFER SWITCHES,
- COORDINATE SIZES OF RACEWAYS, BOXES, AND EQUIPMENT ENCLOSURES INSTALLED UNDER OTHER SECTIONS WITH THE ACTUAL CONDUCTORS TO BE INSTALLED, INCLUDING ADJUSTMENTS FOR CONDUCTOR SIZES INCREASED FOR VOLTAGE DROP. COORDINATE WITH ELECTRICAL EQUIPMENT INSTALLED UNDER OTHER SECTIONS TO PROVIDE TERMINATIONS SUITABLE FOR USE WITH THE CONDUCTORS TO BE INSTALLED. PROVIDE SINGLE CONDUCTOR BUILDING WIRE INSTALLED IN SUITABLE RACEWAY UNLESS CONDUCTOR SIZES AND AMPACITIES SHOWN ARE BASED ON COPPER.
- a. 20A, 120V CIRCUITS LONGER THAN 150 FEET #10 AWG MINIMUM AND SIZED FOR b. 20A, 277V CIRCUITS LONGER THAN 250 FEET - #10 AWG MINIMUM AND SIZED FOR
- CONDUCTORS NO. 10 AWG AND SMALLER DIAMETER SHALL BE SOLID ANNEALED COPPER EXCEPT THAT CONDUCTORS FOR REMOTE CONTROL, ALARM, AND SIGNAL CIRCUITS, CLASSES 1, , AND 3, SHALL BE STRANDED UNLESS SPECIFICALLY INDICATED OTHERWISE CONDUCTORS NO. 8 AWG AND LARGER DIAMETER SHALL BE STRANDED ANNEALED COPPER. UNLESS SPECIFIED OR INDICATED OTHERWISE OR REQUIRED BY NFPA 70, POWER AND LIGHTING WIRES SHALL BE 600-VOLT, TYPE THWN/THHN OR THWN/THWN-2 ANNEALED COPPER, CONTROL AND SIGNAL CIRCUITS SHALL BE TYPE TW, THW, OR TF ANNEALED COPPER. UNDERGROUND
- MAKE ALL SPLICES IN ACCESSIBLE LOCATIONS. MAKE SPLICES IN CONDUCTORS NO. 10 AWG AND SMALLER DIAMETER WITH INSULATED, SPRING WIRE CONNECTORS WITH PLASTIC CAPS. MAKE SPLICES IN CONDUCTORS NO. 8 AWG AND LARGER DIAMETER WITH SOLDERLESS PRESSURE CONNECTORS WITH INSULATING COVERS. MAKE SPLICES IN CONDUCTORS NO. 6 AND LARGER MAKF WIRE TERMINATIONS USING CRIMPED TERMINALS FOR CONDUCTORS NO. 10 AND SMALLER.
- PRESSURE CONNECTORS. PROVIDE SUITABLE REDUCERS WHERE OVERSIZED CONDUCTORS PHASE CONDUCTORS SHALL BE IDENTIFIED BY COLOR CODING. THE COLOR OF THE INSULATION ON PHASES A, B, AND C RESPECTIVELY (FOR THREE PHASE) OR PHASES A AND B RESPECTIVELY (FOR SINGLE PHASE) OF DIFFERENT VOLTAGE SYSTEMS SHALL BE AS FOLLOWS: 277/480 VOLT. THREE PHASE: BROWN, ORANGE, AND YELLOW
- UNLESS OTHERWISE INDICATED, THE WIRING METHOD SHALL CONSIST OF THE INSTALLATION OF NSULATED CONDUCTORS INSTALLED IN ELECTRICAL METALLIC AND/OR WIREMOLD RACEWAY. M. METALLIC-ARMORED TYPE MC CABLES, WHERE ALLOWED, SHALL INCLUDE 600V INSULATION RATING, TYPE THHN/THWN-2 COPPER CONDUCTORS, DEDICATED NEUTRAL CONDUCTOR AND WHERE CONCEALED ABOVE ACCESSIBLE CEILINGS FOR FINAL CONNECTIONS TO LUMINAIRES
- WHERE CONCEALED IN HOLLOW STUD WALLS, ABOVE ACCESSIBLE CEILINGS, AND UNDER EXCEPTION: PROVIDE SINGLE CONDUCTOR BUILDING WIRING IN RACEWAY FOR CIRCUIT PROVIDE INSULATED, GREEN EQUIPMENT GROUNDING CONDUCTOR IN FEEDER AND BRANCH CIRCUITS, INSTALLED IN CONDUIT OR RACEWAYS, INCLUDING LIGHTING CIRCUITS. GROUNDING CONDUCTOR SHALL BE SEPARATE FROM ELECTRICAL SYSTEM NEUTRAL CONDUCTOR.
- GROUNDING SHALL BE COMPLETED IN ACCORDANCE WITH NFPA 70. GROUND EXPOSED, NON-URRENT-CARRYING METALLIC PARTS OF ELECTRICAL EQUIPMENT, METALLIC RACEWAY SYSTEMS, GROUNDING CONDUCTOR IN METALLIC AND NONMETALLIC RACEWAYS, AND NEUTRAL CONDUCTOR OF WIRING SYSTEMS. WHERE GROUND FAULT PROTECTION IS EMPLOYED, ENSURE FHAT CONNECTION OF GROUND AND NEUTRAL DOES NOT INTERFERE WITH CORRECT OPERATION
- EXISTING WORK: WHERE EXISTING GROUNDING AND BONDING SYSTEM COMPONENTS ARE INDICATED TO BE REUSED, THEY MAY BE REUSED ONLY WHERE THEY ARE FREE FROM CORROSION, INTEGRITY AND CONTINUITY ARE VERIFIED, AND WHERE ACCEPTABLE TO THE WHERE CONDUCTOR SIZE IS NOT INDICATED, SIZE TO COMPLY WITH NFPA 70.
- USE INSULATED COPPER CONDUCTORS UNLESS OTHERWISE INDICATED. USE BARE COPPER CONDUCTORS WHERE INSTALLED UNDERGROUND OR ENCASED IN CONCRETE USE LISTED MECHANICAL CONNECTORS, COMPRESSION CONNECTORS OR EXOTHERMIC WELDED CONNECTIONS FOR ACCESSIBLE CONNECTIONS. USE EXOTHERMIC WELDED CONNECTIONS FOR INDERGROUND, CONCEALED OR OTHERWISE INACCESSIBLE CONNECTIONS GROUNDING ELECTRODE SYSTEM: PROVIDE CONNECTION TO REQUIRED AND SUPPLEMENTAL GROUNDING ELECTRODES INDICATED TO FORM GROUNDING ELECTRODE SYSTEM. PROVIDE CONTINUOUS GROUNDING ELECTRODE CONDUCTORS WITHOUT SPLICE OR JOINT. INSTALL BROUNDING ELECTRODE CONDUCTORS IN RACEWAY WHERE EXPOSED OR SUBJECT TO PHYSICAL DAMAGE. BOND GROUNDING ELECTRODE CONDUCTOR TO METALIC RACEWAY AT
- SERVICE-SUPPLIED SYSTEM GROUNDING: FOR EACH SERVICE DISCONNECT, PROVIDE GROUNDING ELECTRODE CONDUCTOR TO CONNECT NEUTRAL SERVICE CONDUCTOR TO GROUNDING ELECTRODE SYSTEM. UNLESS OTHERWISE INDICATED, MAKE CONNECTION AT SEPARATELY DERIVED SYSTEM GROUNDING: PROVIDE GROUNDING ELECTRODE CONDUCTOR TO

A. PROVIDE ALL REQUIRED HANGERS, SUPPORTS, ANCHORS, FASTENERS, FITTINGS, ACCESSORIES D. DEVICE PLATES AND HARDWARE NECESSARY FOR THE COMPLETE INSTALLATION OF THE ELECTRICAL WORK. HANGERS AND SUPPORTS SHALL MEET ASTM STANDARDS FOR COATINGS. NECA 1 STANDARDS FOR WORKMANSHIP, NFPA 70, AND UL 5B FOR STRUT-TYPE CHANNEL RACEWAY AND FITTINGS. WHERE SUPPORT AND ATTACHMENT COMPONENT TYPES AND SIZES ARE NOT INDICATED, SELECT IN ACCORDANCE WITH MANUFACTURER'S APPLICATION CRITERIA AS REQUIRED FOR THE OAD TO BE SUPPORTED

SECTION 26 05 29 - HANGERS AND SUPPORTS

- STEEL COMPONENTS: USE CORROSION RESISTANT MATERIALS SUITABLE FOR THE ENVIRONMENT WHERE INSTALLED. USE ZINC-PLATED STEEL FOR INDOOR DRY LOCATIONS. USE GALVANIZED STEEL, STAINLESS STEEL, FIBERGLASS OR APPROVED EQUIVALENT FOR OUTDOOR DAMP AND WET LOCATION INSTALLATIONS. E. CONDUIT AND CABLE SUPPORTS: CONDUIT STRAPS: ONE-HOLE OR TWO-HOLE, ZINC PLATED. CONDUIT CLAMPS: BOLTED TYPE
- OUTLET BOX SUPPORTS: HANGERS AND BRACKETS SUITABLE FOR BOXES TO BE SUPPORTED. METAL CHANNEL (STRUT) FRAMING SYSTEMS: FACTORY FABRICATED CONTINUOUS SLOTTED METAL CHANNEL AND ASSOCIATED FITTINGS, ACCESSORIES, AND HARDWARE FOR FIELD-ASSEMBLY OF SUPPORTS. ALL LOCATIONS: USE 12 GA. GALVANIZED STEEL.
- H. HANGER RODS: CONTINUOUS THREADING, ZINC-PLATED STEEL I. USE OF POWER-ACTUATED FASTENERS REQUIRES APPROVAL OF ARCHITECT AND STRUCTURAL ENGINEER. J. UNLESS SPECIFICALLY INDICATED, DO NOT SUPPORT ANY ELECTRICAL COMPONENT FROM THE
- ROOF DECK. K. PLASTIC AND LEAD ANCHORS ARE NOT PERMITTED. SECTION 26 05 33 - RACEWAY AND BOXES

A. PROVIDE A COMPLETE WIRING SYSTEM OF RACEWAYS AND BOXES LOCATED AS INDICATED ON DRAWINGS AND AT LOCATIONS AS REQUIRED FOR SPLICES, TAPS, WIRE PULLING, EQUIPMENT CONNECTIONS AND COMPLIANCE WITH REGULATORY REQUIREMENTS. LOCATIONS INDICATED ON RAWINGS ARE APPROXIMATE UNLESS DIMENSIONED. B. STANDARDS: MATERIALS SHALL COMPLY WITH ANSI C80. NEMA AND UL REQUIREMENTS AS APPLICABLE FOR TYPE AND MATERIAL.

- MINIMUM CONDUIT SIZE, UNLESS OTHERWISE NOTED: INTERIOR 3/4", EXTERIOR EXPOSED 3/4", EXTERIOR UNDERGROUND - 1". CONDUIT APPLICATIONS: A. UNDERGROUND
- a. UNDER SLAB ON GRADE SCHEDULE 40 PVC CONDUIT WITH RIGID METAL CONDUIT b. EXTERIOR IN TRENCH - USE SCHEDULE 40 OR SCHEDULE 80 PVC CONDUIT WITH RIGID METAL CONDUIT SWEEPS
- EXTERIOR. CONCRETE ENCASED USE TYPE EB RIGID PVC CONDUIT, TRANSITION TO C. RIGID METAL WHERE EMERGING FROM UNDERGROUND EMBEDDED WITHIN SLAB: FLOOR BOX SLAB-ON-GRADE APPLICATIONS ONLY.
- CONCEALED IN MASONRY WALLS: USE EMT WITH FLUSH MOUNTED MASONRY BOXES. CONCEALED IN HOLLOW STUD WALLS: USE EMT CONDUIT OR MC CABLE (WHERE ALLOWED). PROVIDE FLUSH SHEET-METAL BOXES. INTERIOR DAMP OR WET LOCATIONS: USE RIGID METAL CONDUIT, INTERMEDIATE METAL
- CONDUIT OR SCHEDULE 40 PVC CONDUIT. PROVIDE CAST METAL OR NONMETALLIC OUTLET, JUNCTION AND PULL BOXES. EXPOSED, INTERIOR DRY LOCATIONS: USE EMT CONDUIT EXPOSED FINISHED LOCATIONS: PROVIDE SURFACE METAL RACEWAY AND FITTINGS. UNLESS SPECIFIED ON DRAWINGS, REQUIRES DESIGN TEAM APPROVAL. COORDINATE ALL
- VERTICAL RUNS OF SURFACE RACEWAY WITH ARCHITECT PRIOR TO INSTALLATION. H. CONNECTIONS TO LUMINAIRES ABOVE ACCESSIBLE CEILINGS: USE FLEXIBLE METAL CONDUIT. MAXIMUM LENGTH OF 6 FEET CONNECTIONS TO VIBRATING EQUIPMENT: DRY LOCATIONS - USE FLEXIBLE METAL CONDUIT OR MC CABLE; DAMP, WET OR CORROSIVE LOCATIONS - USE LIQUIDTIGHT FLEXIBLE METAL
- CONDUIT; MAXIMUM LENGTH 6 FEET. E. FITTINGS: A. EMT - COMPLY WITH NEMA FB 1 AND UL 514B. STEEL WITH COMPRESSION FITTINGS IN DAMP OR WET LOCATIONS, SET SCREW TYPE ELSEWHERE.
- B. RIGID METAL CONDUIT COMPLY WITH ANSI C80.1 AND UL 6. THREADED STEEL OR MALLEABLE IRON. USE FITTING LISTED AND LABELED AS COMPLYING WITH UL 514B IN HAZARDOUS LOCATIONS. FLEXIBLE METAL CONDUIT - COMPLY WITH NEMA FB 1 AND UL 514B. USE STEEL FITTINGS. D. LIQUIDTIGHT FLEXIBLE METAL CONDUIT - COMPLY WITH NEMA FB 1 AND UL 514B. USE STEEL E. FITTINGS
- E. SURFACE METAL RACEWAY PROVIDE FITTINGS FROM SAME MANUFACTURER AS SURFACE RACEWAY. INCLUDE ALL REQUIRED ELBOWS, COUPLINGS MOUNTING CLIPS, COVERS, END FITTINGS AND DEVICE MOUNTING BRACKETS. F. BOXES: WHERE A BOX SIZE IS NOT INDICATED, SIZE TO COMPLY WITH NFPA 70, BUT NOT LESS THAN APPLICABLE MINIMUM SIZE SPECIFIED. A. USE SHEET METAL STEEL BOXES IN DRY LOCATIONS.
- B. USE CAST IRON OR CAST ALUMINUM BOXES WITH THREADED HUBS WHERE EXPOSED RIGID F. METAL CONDUIT IS USED USE NONMETALLIC BOXES WHERE EXPOSED RIGID PVC CONDUIT IS USED. USE SUITABLE CONCRETE TYPE BOXES WHERE FLUSH-MOUNTED IN CONCRETE. USE SUITABLE MASONRY TYPE BOXES WHERE FLUSH-MOUNTED IN MASONRY WALLS. USE RAISED COVERS SUITABLE FOR TYPE OF WALL CONSTRUCTION AND DEVICE
- CONFIGURATION WHERE REQUIRED. G. USE MULTI-GANG BOXES OF SINGLE-PIECE CONSTRUCTION, DO NOT USE FIELD CONNECTED GANGABLE BOXES H. MINIMUM BOX SIZE, UNLESS OTHERWISE INDICATED: WIRING DEVICE - 4 INCH SQUARE BY 1-1/2" DEEP; COMMUNICATIONS SYSTEM OUTLET 4 INCH SQUARE BY 2-1/8" DEEP CABINETS AND ENCLOSURES: COMPLY WITH NEMA 250, UL 50 AND UL 50E OR UL 508A. A. USE NEMA TYPE 1, PAINTED STEEL FOR INDOOR CLEAN, DRY LOCATIONS.
- USE NEMA TYPE 3R, PAINTED STEEL FOR OUTDOOR AND WET LOCATIONS PROVIDE SCREW COVER ENCLOSURES FOR PULL AND JUNCTION BOXES PROVIDE LOCKABLE, HINGE COVER TYPE FOR EQUIPMENT ENCLOSURES H. MECHANICAL SLEEVE SEALS: MODULAR MECHANICAL TYPE, WITH INTERLOCKING RUBBER LINKS SHAPED TO CONTINUOUSLY FILL ANULAR SPACE BETWEEN OBJECTS AND SLEEVE, CONNECTED WITH BOLTS AND PRESSURE PLATES TO PROVIDE A WATERTIGHT SEAL AND ELECTRICAL
- INSULATION. REMOVE EXPOSED ABANDONED RACEWAY, INCLUDING ABANDONED RACEWAY ABOVE ACCESSIBLE CEILING FINISHES. CUT RACEWAY FLUSH WITH WALLS AND FLOORS, PATCH SURFACES TO MATCH ADJACENT SURFACES. DISCONNECT AND REMOVE ABANDONED OUTLETS AND DEVICES
- INSTALL BLANK PLATES ON ABANDONED, EMPTY BOXES. EXTEND EXISTING RACEWAY AND BOX INSTALLATION USING MATERIALS AND METHODS COMPATIBLE WITH EXISTING ELECTRICAL INSTALLATION OR AS SPECIFIED.
- SECTION 26 05 53 IDENTIFICATION FOR ELECTRICAL SYSTEMS EXISTING WORK: UNLESS SPECIFICALLY EXCLUDED, IDENTIFY EXISTING ELEMENTS TO REMAIN SECTION 26 50 00 - LIGHTING FIXTURES THAT ARE NOT ALREADY IDENTIFIED IN ACCORDANCE WITH THE SPECIFIED REQUIREMENTS.
- B. SERVICE EQUIPMENT: USE IDENTIFICATION NAMEPLATE TO IDENTIFY EACH SERVICE DISCONNECTING MEANS. EMERGENCY SYSTEM EQUIPMENT; USE IDENTIFICATION NAMEPLATE OR VOLTAGE MARKER TO IDENTIFY EMERGENCY EQUIPMENT IN ACCORDANCE WITH NFPA 70. USE IDENTIFICATION NAMEPLATE AT EACH PIECE OF SERVICE EQUIPMENT TO IDENTIFY TYPE AND LOCATION OF ON-
- SITE EMERGENCY POWER SOURCES. USE IDENTIFICATION NAMEPLATES TO IDENTIFY EACH PIECE OF ELECTRICAL Distribution AND CONTROL EQUIPMENT AND ASSOCIATED SECTIONS. COMPARTMENTS AND COMPONENTS. IDENTIFY: NAME, AMPERE RATING, LOADS SERVED (DISCONNECT SWITCHES, ENCLOSED CONTROLLERS, AND TRANSFORMERS ONLY). VOLTAGE AND PHASE, AND POWER SOURCE/CIRCUIT NUMBER. INCLUDE LOCATION OF SOURCE/LOAD SERVED IF NOT WITHIN SIGHT
- OF EQUIPMENT PROVIDE LAMINATED ACRYLIC OR NON-CONDUCTIVE PHENOLIC WITH BEVELED EDGES. NAMEPLATES FOR EACH EQUIPMENT ENCLOSURE, RELAY, SWITCH, AND DEVICE, NAMEPLATES SHALL BE, 1/8" THICK, WHITE WITH BLACK CENTER CORE, MATTE FINISH SURFACE, BEVELED EDGES, SQUARE CORNERS. ACCURATELY ALIGN LETTERING AND ENGRAVE INTO THE CORE MINIMUM SIZE OF NAMEPLATES SHALL BE 1" BY 2-1/2". LETTERING SHALL BE A MINIMUM OF 1/4" HIGH NORMAL BLOCK STYLE. PROVIDE WIRE AND CABLE MARKERS OR IDENTIFICATION LABELS TO IDENTIFY CIRCUIT NUMBER
- AT EACH SOURCE LOCATION; WITHIN BOXES WHERE MORE THAN ONE CIRCUIT IS PRESENT; WITHIN EQUIPMENT ENCLOSURES WHERE CONDUCTORS ENTER AND EXIT THE ENCLOSURE; AND IN CABLE TRAYS (MAXIMUM 20 FT. INTERVALS). PROVIDE WRAP-AROUND SELF-ADHESIVE VINYL CLOTH. WRAP-AROUND SELF-ADHESIVE VINYL SELF-LAMINATING, HEAT-SHRINK SLEEVE, PLASTIC SLEEVE, PLASTIC CLIP-ON, OR VINYL SPLIT SLEEVE TYPE MARKERS SUITABLE FOR THE CONDUCTOR OR CABLE TO BE IDENTIFIED.
- PROVIDE VOLTAGE MARKERS TO IDENTIFY HIGHEST VOLTAGE PRESENT FOR ACCESSIBLE CONDUITS (MAXIMUM 20 FT. INTERVALS) PROVIDE PRE-LABELED, SNAP AROUND PIPE MARKERS ON ALL CONDUITS. MARKERS SHALL COMPLY WITH ANSI A 13.1-1988 STANDARDS AND INDICATED VOLTAGE.
- WARNING LABELS: USE FACTORY PRE-PRINTED OR MACHINE-PRINTED SELF-ADHESIVE POLYESTER OR SELF-ADHESIVE VINYL LABELS; UV, CHEMICAL, WATER, HEAT AND ABRASION RESISTAN
- J. CLEAN SURFACES TO RECEIVE ADHESIVE PRODUCTS ACCORDING TO MANUFACTURERS INSTRUCTIONS INSTALL IDENTIFICATION PRODUCTS TO BE PLAINLY VISIBLE FOR EXAMINATION, ADJUSTMENT, SERVICING AND MAINTENANCE L. INSTALL IDENTIFICATION PRODUCTS CENTERED, LEVEL AND PARALLEL WITH LINES OF ITEM
- BEING IDENTIFIED. SECTION 26 27 26 - WIRING DEVICES
- RECEPTACLES A. SELF-GROUNDING COMPLYING WITH NEMA WD 1 AND NEMA WD 6 AND LISTED COMPLYING WITH UI 498. B. SINGLE AND DUPLEX RECEPTACLES SHALL BE RATED 20 AMPERES, 125 VOLTS, TWO-POLE, THREE-WIRE, GROUNDING TYPE WITH POLARIZED PARALLEL SLOTS.
- COLOR OF BODIES SHALL BE SELECTED BY THE ARCHITECT. RECEPTACLE SHALL BE SIDE-WIRED OR BACK-WIRED WITH TWO SCREWS PER TERMINAL THE THIRD GROUNDING POLE SHALL BE CONNECTED TO THE METAL MOUNTING YOKE. E. RECEPTACLES WITH GROUND FAULT CIRCUIT INTERRUPTERS SHALL HAVE THE CURRENT
- RATING AS INDICATED, AND SHALL BE UL 943, CLASS A TYPE UNLESS OTHERWISE SHOWN. F. GROUND FAULT CIRCUIT PROTECTION SHALL BE PROVIDED AS REQUIRED BY NFPA 70 OR AS INDICATED ON THE DRAWINGS. USB CHARGING DEVICES: PROVIDE DEVICES LISTED PER UL 1310 WITH TWO-PORT
- CHARGING CAPACITY OF 2.1 A, MINIMUM OR 4.2 A MINIMUM FOR FOUR-PORT DEVICES. H. LOCKING DEVICES: REFER TO DRAWINGS FOR NEMA LOCKING CONFIGURATIONS. MOUNT RECEPTACLES AND DATA OUTLETS 18" ABOVE FINISHED FLOOR, AND OTHER DEVICES AS INDICATED. MEASURE MOUNTING HEIGHTS OF WIRING DEVICES AND OUTLETS TO TOP OF DEVICE OR OUTLET
- PROVIDE TAMPER RESISTANT RECEPTACLES WHERE INDICATED ON DRAWINGS. B. LINE VOLTAGE WALL SWITCHES: A. AC ONLY, QUIET OPERATING GENERAL USE SNAP SWITCHES WITH SILVER ALLOY CONTACTS COMPLYING WITH NEMA WD 1 AND NEMA WD 6 AND UL 20, TYPE AS INDICATED ON
- B. INDUSTRIAL SPECIFICATION GRADE, 20A, 120/277 V WITH STANDARD TOGGLE TYPE SWITCH ACTUATOR AND MAINTAINED CONTACTS. SINGLE POLE SINGLE THROW, THREE-WAY, OR FOUR-WAY AS INDICATED ON DRAWINGS. COLOR OF BODIES SHALL BE SELECTED BY THE ARCHITECT.
- SWITCH SHALL BE SIDE-WIRED OR BACK-WIRED WITH BINDING CLAMP, WITH SEPARATE **GROUND SCREW TERMINAL** E. LOCKING (KEYED) TYPE SWITCHES SHALL INCLUDE LEVER TYPE THREE POSITION SWITCH ACTUATOR WITH OFF POSITION IN CENTER C. LINE VOLTAGE DIMMER SWITCHES: A. SOLID-STATE WITH CONTINUOUS FULL-RANGE EVEN CONTROL FOLLOWING SQUARE LAW
- DIMMING CURVE WITH INTEGRAL RF INTERFERENCE FILTERING, POWER FAILURE PRESET MEMORY AND AIR GAP SWITCH COMPLYING WITH NEMA WD 1 AND NEMA WD 6 AND UL1472. TYPE AND RATING SUITABLE FOR LOAD CONTROLLED AS INDICATED ON DRAWING. SLIDE CONTROL TYPE WITH SEPARATE ON/OFF SWITCH. COLOR OF BODIES SHALL BE SELECTED BY THE ARCHITECT.
- POWER RATING, UNLESS OTHERWISE INDICATED ON DRAWINGS: INCANDESCENT 600 VA; FLUORESCENT - 600 VA; ELECTRONIC LOW VOLTAGE - 400 VA; MAGNETIC LOW VOLTAGE - 600 E. PROVIDE WITH LOCATOR LIGHT, ILLUMINATED WITH LOAD OFF.

A. DEVICE PLATES SHALL BE ONE-PIECE TYPE AND SHALL BE PROVIDED FOR RECEPTACLES, OUTLETS, SWITCHES AND A. GENERAL REQUIREMENTS FOR EQUIPMENT UNDER THIS SECTION PLATES ON UNFINISHED WALLS AND ON FITTINGS SHALL BE GALVANIZED SHEET STEEL PLATES SHALL BE INSTALLED WITH ALL FOUR EDGES IN CONTINUOUS CONTACT WITH FINISHED WALL SURFACES WITHOUT THE USE OF MATS OR SIMILAR DEVICES, PLASTER FILLINGS WILL NOT BE PERMITTED. E. PLATES INSTALLED IN WET LOCATIONS SHALL BE GASKETED AND PROVIDED WITH A HINGED, GASKETED COVER, SECTION 26 09 23 - LIGHTING CONTROL DEVICES

#### REFER TO LIGHTING CONTROL DETAILS ON DRAWINGS FOR ADDITIONAL REQUIREMENTS. PROVIDE PRODUCTS LISTED, CLASSIFIED, AND LABELED AS SUITABLE FOR THE PURPOSE INTENDED SOURCE LIMITATIONS: FURNISH PRODUCTS PRODUCED BY A SINGLE MANUFACTURER AND OBTAINED FROM A SINGLE . COLOR AND FINISH: TO BE DETERMINED BY ARCHITECT. B. LINE VOLTAGE OCCUPANCY/VACANCY SENSOR SWITCHES

A. PROVIDE WALL SWITCH STYLE OCCUPANCY/VACANCY SENSOR CAPABLE OF TURNING LIGHTS OFF WHEN THE SPACE BECOMES UNOCCUPIED AND ON WHEN THE SPACE BECOMES RE-OCCUPIED. PROVIDE WITH 0-10V DIMMING CAPABILITIES AND/OR INTEGRAL DAYLIGHT CONTROL, WHERE INDICATED ON THE DRAWINGS. REFER O DRAWINGS FOR OCCUPANCY OR VACANCY MODE SETTING.

 A. SENSOR SWITCH SHALL BE LINE VOLTAGE @ 120/277 VAC, RATED FOR 20A. SENSOR TECHNOLOGY SHALL BE DUAL TECHNOLOGY (PIR AND ULTRASONIC) WITH FIELD OF VIEW OF 180 DEGREES. SENSOR SWITCH SHALL BE CAPABLE OF OPERATING WITH LED. SENSOR SWITCH SHALL BE SET TO: AUTO-ON, AUTO-OFF MODE (OCCUPANCY SENSOR) MANUAL-ON, AUTO-OFF MODE (VACANCY SENSOR) DIPSWITCH SELECTABLE TO TOGGLE BETWEEN OCCUPANCY AND VACANCY MODE.

B. SENSOR SHALL BE CAPABLE OF TURNING LIGHTS OFF AFTER 20 MINUTES OF INACTIVITY. SWITCH SHALL ALSO HAVE 10 AND 20 MINUTE OVERRIDES, PROVIDE DEVICE CAPABLE OF ACCEPTING A 2-WIRE (HOT AND NEUTRAL INPUT PLUS GROUND, SENSOR SWITCH SHALL BE CAPABLE OF OPERATING IN CONJUNCTION WITH A 3-WAY SWITCH PER MANUFACTURERS REQUIREMENTS, WHERE INDICATED ON DRAWINGS. PROVIDE WITH 0-10V LOW VOLTAGE OCCUPANCY/VACANCY SENSORS

#### A. SENSOR SHALL BE DUAL TECHNOLOGY (PIR AND ULTRASONIC), UNLESS OTHERWISE NOTED ON DRAWINGS. a. AUTO-ON, AUTO-OFF MODE (OCCUPANCY SENSOR)

#### MANUAL-ON, AUTO-OFF MODE (VACANCY SENSOR) DIPSWITCH SELECTABLE TO TOGGLE BETWEEN OCCUPANCY AND VACANCY MODE.

FINISH SELECTION BY ARCHITECT.

UNLESS OTHERWISE SPECIFIED.

A. GENERAL REQUIREMENTS

A. ACUITY

B. HUBBELL

MANUFACTURERS:

CRESTRON

1 PRODUCT DESCRIPTION.

SENSOR SWITCH REQUIREMENTS:

DIMMING CONTROL

SENSOR SHALL BE SET TO

SPECIFIC APPLICATIONS:

OF UP TO 50 DRIVERS.

ROOM CONTROLLERS / POWER PACKS

LOW VOLTAGE KEYPADS / SWITCHES

COLOR: BY ARCHITECT

LABELING REQUESTS.

ONDUCTORS AND CABLES".

INDICATED ON DRAWINGS

GENERAL REQUIREMENTS

PRODUCT DESCRIPTION:

POWER PACKS.

4. LABELING

**UL924 BYPASS RELAYS** 

I UMINAIRE TYPES

SYSTEM

INDICATED

EMERGENCY LIGHTING UNITS

WHERE INDICATED.

SELF-POWERED EXIT SIGNS

ACCESSORIES:

A. CONTROL INPUT

DIAGNOSTIC STATUS.

CONTROL CAPACITY.

AS COMPLYING WITH UL 924.

6 ACCESSORIES:

FII TFR

BATTER

EXIT SIGNS

DRIVERS

INTERIOR LUMINAIRES

MANUFACTURERS

1. GENERAL REQUIREMENTS:

H. CLASS 2 CONDUCTORS AND CABLES

1. GENERAL REQUIREMENTS

SENSOR REQUIREMENT

SENSOR REQUIREMENTS:

B. COVFRAGE

D. PHOTOCELLS

DOUGLAS

SMALL SPACE (< 500 SQ FT): 500 SQUARE FEET MINIMUM MEDIUM SPACE (500-1000 SQ FT): 1,000 SQUARE FEET MINIMUM c. LARGE SPACE (>1000 SQ FT): 2,000 SQUARE FEET MINIMUM. MULTIPLE SENSORS WHERE SHOWN ON THE

CORRIDORS AND HALLWAYS: CAPABLE OF DETECTING MAJOR MOTION WITH A LONG, NARROW PATTERN DESIGNED FOR CORRIDOR AND AISLE SENSING HIGH BAY AREAS: FOR AREAS WITH CEILINGS MORE THAN 15 FEET ABOVE FINISHED FLOOR, PROVIDE HIGH-BAY PIR-ONLY CEILING MOUNTED OCCUPANCY SENSOR.

A. SENSOR SHALL BE FURNISHED WITH A CONTROL-CALIBRATION MODULE CAPABLE OF BEING SWITCHED BETWEEN MULTIPLE MEASUREMENT RANGES, SEPARATE TRIP POINTS FOR HIGH AND LOW RESPONSE. SETTINGS. AND THREE-MINUTE TIME DELAY BETWEEN SWITCHOUT OUTPUTS TO AVOID NUISANCE TRIPPING FOR STANDALONE DIMMING PHOTO SENSOR APPLICATIONS, PROVIDE PHOTO SENSOR UNIT WITH INTEGRAL 0-10V CONTROLLER, COMPATIBLE WITH THE SPECIFIED DIMMING DRIVERS, FOR DIRECT CONTINUOUS DIMMING

#### A. INTEGRATED LIGHTING, DIMMING, AND EQUIPMENT SWITCHING CONTROL SYSTEM FOR MOUNTING IN A CONCEALED SPACE, ENCLOSURE SHALL BE PLENUM RATED. PROVIDE PRE-CONFIGURED LIGHTING CONTROLLER(S), WITH CAPABILITIES FOR MANUAL SETUP, AND SOFTWARE SETUP THROUGH PROGRAMMING PORT, CONFIGURED AS A STANDALONE CONTROLLER.

A. DIMMABLE LOAD TYPES: 16A PER CHANNEL AT 100 TO 277VAC, 50/60 HZ: 0 – 10V LED DRIVERS. LIGHTING KEYPAD SHALL BE PROVIDED BY THE SAME MANUFACTURER AS THE LIGHTING CONTROL SYSTEM. PROVIDE LOW VOLTAGE KEYPADS / SWITCHES WITH CONFIGURATION, FUNCTIONALITY AND OPERATION AS

#### A. CUSTOM ENGRAVABLE BUTTONS/SWITCHES, REFER TO DRAWINGS FOR LABELING. QUANTITY AND FUNCTION AS INDICATED ON DRAWINGS LED INDICATORS. AS SHOWN ON DRAWING

CONFIGURED TO FIT IN STANDARD GANG BOXES. N. PROVIDE FACTORY ENGRAVED LABELS FOR ALL LOW VOLTAGE KEYPADS / SWITCHES BUTTONS. B. REFER TO LIGHTING CONTROL DETAILS ON DRAWINGS FOR SUGGESTED LABELING OF LIGHTING CONTROL EQUIPMENT. COORDINATE NAMING OF SCENES/CONTROL ZONES WITH THE OWNER. PROVIDE A WORKSHEET

#### C. DO NOT ORDER LABELS UNTIL OWNER COORDINATION IS COMPLETE REFER TO DRAWINGS AND DETAILS FOR REQUIRED FUNCTIONS

LISTING REMOTE KEYPAD CONTROLS, LABELING REQUESTS AND LOCATIONS TO THE OWNER FOR THEIR

B. THE UL 924 BYPASS RELAY SHALL AUTOMATICALLY ILLUMINATE CONNECTED EMERGENCY LOADS UPON UTILITY 1.5 CLOSEOUT SUBMITTALS POWER INTERRUPTION, REGARDLESS OF ROOM SWITCH POSITION. (NEC ARTICLE 700)

A. LINE VOLTAGE WIRING: COMPLY WITH REQUIREMENTS OF DIVISION 26 SECTION "ELECTRICAL POWER B. CLASS 2 LOW-VOLTAGE CABLE:

PROVIDE PLENUM-RATED CABLE. b. UTP CABLE: CAT 5, CAT 6, OR AS REQUIRED BY MANUFACTURER.

#### FURNISH PRODUCTS AS INDICATED IN LIGHTING FIXTURE SCHEDULE INCLUDED ON THE DRAWINGS. REFER TO NOTES COUNTERS, BENCHES, AND BACKSPLASHES. ON LIGHTING FIXTURE SCHEDULE FOR SUBSTITUTION LIMITATIONS.

#### MANUFACTURERS REPRESENTED BY APEX LIGHTING MANUFACTURERS REPRESENTED BY LIGHTING AFFILIATES MANUFACTURERS REPRESENTED BY ILLUMINATE LIGHTING

#### PROVIDE PRODUCTS THAT COMPLY WITH REQUIREMENTS OF NFPA 70 PROVIDE PRODUCTS THAT ARE LISTED AND LABELED AS COMPLYING WITH UL 1598, WHERE APPLICABLE UNLESS OTHERWISE INDICATED, PROVIDE COMPLETE LUMINAIRES INCLUDING LAMP(S) AND ALL SOCKETS. BALLASTS, DRIVERS, REFLECTORS, LENSES, HOUSINGS AND OTHER COMPONENTS REQUIRED TO POSITION ENERGIZE AND PROTECT THE LAMP AND DISTRIBUTE THE LIGHT.

UNLESS SPECIFICALLY INDICATED TO BE EXCLUDED, PROVIDE ALL REQUIRED CONDUIT, BOXES, WIRING CONNECTORS, HARDWARE, SUPPORTS, TRIMS, ACCESSORIES, ETC. AS NECESSARY FOR A COMPLETE OPERATING HAZARDOUS (CLASSIFIED) LOCATION LUMINAIRES: LISTED AND LABELED AS COMPLYING WITH UL 844 FOR THE CLASSIFICATION OF THE INSTALLED LOCATION. LUMINAIRES MOUNTED IN CONTINUOUS ROWS: PROVIDE QUANTITY OF UNITS REQUIRED FOR LENGTH INDICATED, WITH ALL ACCESSORIES REQUIRED FOR JOINING AND ALIGNING. PROVIDE ACCESSORY PLASTER FRAMES FOR LUMINAIRES RECESSED IN PLASTER CEILINGS. LUMINAIRES IN SPECIAL ENVIRONMENTS:

A. SHOWERS: PROVIDE WITH NON-CONDUCTIVE TRIM. WET LOCATIONS: PROVIDE WITH SEALED AND GASKETED LENS INFECTIOUS ENVIRONMENTS: PROVIDE WITH SEALED AND GASKETED LENS AND ANTI-MICROBIAL FINISH CLEAN ROOMS: PROVIDE WITH SEALED AND GASKETED LENS, IP65 RATING AND CLEAN ROOM RATING AS E. MRI/IMAGING SUITES: PROVIDE WITH NON-FERROUS CONSTRUCTION; DC POWER SUPPLY; WIRING THROUGH RF- ROUGH-IN.

# LOCAL CODES, AND LISTED AND LABELED AS COMPLYING WITH UL 924.

A. SEALED MAINTENANCE FREE LEAD CALCIUM UNLESS OTHERWISE INDICATED. B. SIZE BATTERY TO SUPPLY ALL CONNECTED LAMPS/LED ARRAYS, INCLUDING EMERGENCY REMOTE HEADS SELF-DIAGNOSTICS: PROVIDE UNITS THAT SELF-MONITOR FUNCTIONALITY AND AUTOMATICALLY PERFORM TESTING 3.3 INSTALLATION - RACEWAY REQUIRED BY NFPA 101 WHERE INDICATED; PROVIDE INDICATOR LIGHT(S) TO REPORT TEST AND DIAGNOSTIC

PRODUCT DESCRIPTION: INTERNALLY ILLUMINATED EXIT SIGNS WITH LEDS UNLESS OTHERWISE INDICATED; COMPLYING WITH NFPA 101 AND ALL APPLICABLE STATE AND LOCAL CODES, AND LISTED AND LABELED AS COMPLYING WITH UL 924. REFER TO LIGHTING FIXTURE SCHEDULE FOR FEATURES AND ADDITIONAL REQUIREMENTS.

PRODUCT DESCRIPTION: UL 924 SELF-CONTAINED EMERGENCY LIGHTING UNIT BATTERY: SEALED MAINTENANCE-FREE NICKEL CADMIUM UNLESS OTHERWISE INDICATED. SELF-DIAGNOSTICS: PROVIDE UNITS THAT SELF-MONITOR FUNCTIONALITY AND AUTOMATICALLY PERFORM TESTING REQUIRED BY NFPA 101 WHERE INDICATED; PROVIDE INDICATOR LIGHT(S) TO REPORT TEST AND

#### A. PROVIDE COMPATIBLE ACCESSORY HIGH IMPACT POLYCARBONATE VANDAL SHIELDS WHERE INDICATED. PROVIDE COMPATIBLE ACCESSORY WIRE GUARDS WHERE INDICATED.

a. 4-WIRE (0-10V DC VOLTAGE CONTROLLED) DIMMING DRIVERS: CONNECT TO DEVICES COMPATIBLE WITH 0 TO J. INSTALL SUITABLE PULL STRING OR CORD IN EACH EMPTY RACEWAY EXCEPT SLEEVES AND 10V ANALOG CONTROL PROTOCOL, CLASS 2, CAPABLE OF SINKING 0.6 MA PER DRIVER AT A LOW END OF 0.3V. LIMIT THE NUMBER OF DRIVERS ON EACH 0-10V CONTROL OUTPUT BASED ON VOLTAGE DROP AND b. DIGITAL MULTIPLEX (DMX LOW VOLTAGE CONTROLLED) DIMMING DRIVERS: MUST MEET DMX / RDM: USITT DMX512A AND ANSI È1.20 (EXPLORE & ADDRESS) AND SHALL BE CAPABLE OF SIGNAL INTERPOLATION AND SMOOTHING OF COLOR AND INTENSITY TRANSITIONS DRIVER: APPROVED BY DIMMING SYSTEM MANUFACTURER AS SUITABLE FOR OPERATION WITH CONTROL UNIT AND SUITABLE FOR LED SOURCE TYPE AND QUANTITY SPECIFIED FOR LUMINAIRE.

#### DRIVER EMERGENCY POWER SUPPLY UNITS DESCRIPTION: SELF-CONTAINED EMERGENCY POWER SUPPLY UNITS SUITABLE FOR USE WITH INDICATED LUMINAIRES, COMPLYING WITH NFPA 101 AND ALL APPLICABLE STATE AND LOCAL CODES, AND LISTED AND LABELED BATTERY: SEALED MAINTENANCE-FREE HIGH-TEMPERATURE NICKEL CADMIUM UNLESS OTHERWISE INDICATED. EMERGENCY II LUMINATION OUTPUT: REFER TO LIGHTING FIXTURE SCHEDULE SELF-DIAGNOSTICS: PROVIDE UNITS THAT SELF-MONITOR FUNCTIONALITY AND AUTOMATICALLY PERFORM TESTING REQUIRED BY NFPA 101 WHERE INDICATED; PROVIDE INDICATOR LIGHT(S) TO REPORT TEST AND DIAGNOSTIC

STATUS AND FIELD SELECTABLE AUDIBLE ALERT 5. OPERATING TEMPERATURE: FROM 32 DEGREES F (0 DEGREES C) TO 122 DEGREES F (50 DEGREES C) UNLESS OTHERWISE INDICATED OR REQUIRED FOR THE INSTALLED LOCATION. A. WHERE NOT INTEGRAL TO FIXTURE, PROVIDE COMPATIBLE ACCESSORY REMOTE COMBINATION TEST SWITCH/INDICATOR LIGHT MOUNTED ON CEILING ADJACENT TO UNIT OR AS INDICATED ON DRAWINGS

SECTION 26 20 00 -ELECTRICAL DISTRIBUTION

#### MANUFACTURERS SQUARE D SIEMENS

EATON ENCLOSURE (UNLESS OTHERWISE INDICATED ON PLANS OR SCHEDULES):

A. TYPE 1 (INDOOR, DRY LOCATIONS). B. TYPE 3R (OUTDOOR, WET LOCATIONS). B. PANELBOARDS

- PRODUCT DESCRIPTION: NEMA PB 1, CIRCUIT BREAKER TYPE PANELBOARD, COMPLYING WITH 2. PANELBOARD BUS: COPPER CURRENT CARRYING COMPONENTS, RATINGS AS SHOWN ON
- DRAWINGS. FURNISH COPPER GROUND BUS IN EACH PANELBOARD. MINIMUM INTEGRATED SHORT CIRCUIT RATING: 10KAIC 4. MOLDED CASE CIRCUIT BREAKERS: NEMA AB 1, CIRCUIT BREAKERS WITH INTEGRAL THERMAL AND INSTANTANEOUS TRIP FUNCTION, BOLT-ON TYPE. PROVIDE ELECTRONIC TRIP CIRCUIT
- BREAKERS WHERE INDICATED PROVIDE CIRCUIT BREAKERS WITH MAGNETIC TRIP IN EACH POLE. CIRCUIT BREAKERS RATED 1,000 AMPS OR MORE ON SOLIDLY GROUNDED 480V SYSTEMS SHALL INCLUDE GROUND FAULT PROTECTION.
- CIRCUIT BREAKERS RATED 1,200 AMPS OR MORE SHALL HAVE LONG TIME, SHORT TIME, INSTANTANEOUS, AND GROUND FAULT PROTECTION (LSI) FUNCTIONS. CIRCUIT BREAKERS SHALL HAVE ENERGY REDUCTION MAINTENANCE SETTING (ERMS) SYSTEM.
- ENCLOSURE: NEMA PB 1. CABINET FRONT: LOCKABLE HINGED DOOR, METAL DIRECTORY FRAME, FINISHED IN MANUFACTURER'S STANDARD GRAY ENAMEL.
- DISCONNECT SWITCHES PRODUCT DESCRIPTION: HEAVY-DUTY, NEMA KS 1, ENCLOSED LOAD INTERRUPTER KNIFE SWITCH. HANDLE LOCKABLE IN "OFF" POSITION. ENCLOSURE: NEMA KS 1. TO MEET CONDITIONS. FABRICATE ENCLOSURE FROM STEEL FINISHED WITH MANUFACTURER'S STANDARD GRAY
- PROVIDE WITH (2) SETS OF AUXILIARY CONTACTS. FURNISH SWITCHES WITH ENTIRELY COPPER CURRENT CARRYING PARTS. SWITCH VOLTAGE, PHASE AND AMPERAGE RATINGS AS INDICATED ON DRAWINGS. WHERE SPECIFIED AS FUSED DISCONNECT SWITCHES, PROVIDE WITH DUAL-ELEMENT, TIME DELAY, CLASS RK1 FUSES. FUSE RATINGS AND QUANTITIES AS INDICATED ON DRAWINGS.
- FUSES SHALL BE MANUFACTURED BY BUSSMAN, GOULD SHAWMUT OR LITTELFUSE. FURNISH (3) SPARE FUSES OF EACH TYPE PANELBOARD & DISCONNECT SWITCH INSTALLATION STANDARDS
- MOUNT PANELBOARDS, CIRCUIT BREAKERS (INCLUDING PROVISIONS FOR FUTURE BREAKERS), AND DISCONNECTING SWITCHES SO HEIGHT OF OPERATING HANDLE AT ITS HIGHEST POSITION IS MAXIMUM 78 INCHES ABOVE FLOOR.
- 2. ARRANGE EQUIPMENT TO PROVIDE MINIMUM CLEARANCES IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS AND NFPA 70. INSTALL PANELBOARDS PLUMB. INSTALL FLUSH-MOUNTED PANELBOARDS SO THAT TRIMS FIT
- COMPLETELY FLUSH TO WALL WITH NO GAPS AND ROUGH OPENING COMPLETELY COVERED. INSTALL A PERMANENT LABEL INDICATING THE PANELBOARD OR TRANSFORMER WHERE THE POWER SUPPLY TO THE DEVICE ORIGINATES.
- PROVIDE FILLER PLATES TO COVER UNUSED SPACES IN PANELBOARDS. PROVIDE CIRCUIT BREAKER LOCK-ON DEVICES TO PREVENT UNAUTHORIZED PERSONNEL FROM DE-ENERGIZING ESSENTIAL LOADS AS INDICATED.
- PROVIDE WITH MANUFACTURER'S STANDARD ARC FLASH LABE E. NEW CIRCUIT BREAKERS IN EXISTING PANELBOARDS SHALL MATCH EXISTING STYLE AND SHORT CIRCUIT/ AIC RATING.
- SECTION 27 05 33 CONDUITS AND BACKBOXES FOR COMMUNICATIONS SYSTEMS 1.1 SUMMARY
- A. SECTION INCLUDES CONDUIT AND TUBING, SURFACE RACEWAYS, WIREWAYS, OUTLET BOXES, PULL AND JUNCTION BOXES. AND HANDHOLES
- B. AMERICAN NATIONAL STANDARDS INSTITUTE ANSI C80.1 - RIGID STEEL CONDUIT, ZINC COATEL ANSI C80.3 - SPECIFICATION FOR ELECTRICAL METALLIC TUBING, ZINC COATED.
- NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION: NEMA 250 - ENCLOSURES FOR ELECTRICAL EQUIPMENT (1000 VOLTS MAXIMUM).
- NEMA FB 1 FITTINGS, CAST METAL BOXES, AND CONDUIT BODIES FOR CONDUIT AND CABLE ASSEMBLIES. 3. NEMA OS 1 - SHEET STEEL OUTLET BOXES, DEVICE BOXES, COVERS, AND BOX SUPPORTS
- NEMA OS 2 NONMETALLIC OUTLET BOXES, DEVICE BOXES, COVERS, AND BOX SUPPORTS NEMA TC 2 - ELECTRICAL POLYVINYL CHLORIDE (PVC) TUBING AND CONDUIT NEMA TC 3 - PVC FITTINGS FOR USE WITH RIGID PVC CONDUIT AND TUBING ALLOWANCES: REFER TO DIVISION 01 SECTION "ALLOWANCES" FOR LUMP-SUM ALLOWANCE FOR
- ADDITIONAL CONDUIT AND BACKBOXES. 1.2 SYSTEM DESCRIPTION A. RACEWAY AND BOXES LOCATED AS REQUIRED TO FACILITATE THE INSTALLATION OF DATA

#### NETWORK AND SECURITY WIRING, RACEWAY AND BOXES SHALL BE COORDINATED WITH THE OWNERS DATA NETWORK AND SECURITY VENDOR. PROVIDE RACEWAY TO COMPLETE THE WIRING 1.3 DESIGN REQUIREMENTS

- A. MINIMUM RACEWAY SIZE: 3/4 INCH UNLESS OTHERWISE SPECIFIED.
- 1.4 SUBMITTALS A. PRODUCT DATA: SUBMIT FOR THE FOLLOWING: METALLIC CONDUI
- LIQUIDTIGHT FLEXIBLE METAL CONDUIT MANUFACTURER'S INSTALLATION INSTRUCTIONS: SUBMIT APPLICATION CONDITIONS AND LIMITATIONS OF USE STIPULATED BY PRODUCT TESTING AGENCY SPECIFIED UNDER REGULATORY REQUIREMENTS. INCLUDE INSTRUCTIONS FOR STORAGE, HANDLING, PROTECTION, EXAMINATION, PREPARATION, AND INSTALLATION OF PRODUCT.

#### PROJECT RECORD DOCUMENTS RECORD ACTUAL ROUTING OF CONDUITS LARGER THAN 2 INCH.

- RECORD ACTUAL LOCATIONS AND MOUNTING HEIGHTS OF OUTLET, PULL, AND JUNCTION BOXES. 1.6 DELIVERY, STORAGE, AND HANDLING A. PROTECT CONDUIT FROM CORROSION AND ENTRANCE OF DEBRIS BY STORING ABOVE GRADE.
- PROVIDE APPROPRIATE COVERING. 1.7 COORDINATION

A. COORDINATE INSTALLATION OF OUTLET BOXES FOR EQUIPMENT CONNECTED UNDER SECTION COORDINATE MOUNTING HEIGHTS, ORIENTATION AND LOCATIONS OF OUTLETS MOUNTED ABOVE

#### PART 2 PRODUCTS 2.1 ELECTRICAL METALLIC TUBING (EMT)

- MANUFACTURERS: ALLIED TUBE AND CONDUI WESTERN TUBE AND CONDUIT
- WHEATLAND TUBE COMPANY. PRODUCT DESCRIPTION: ANSI C80.3; GALVANIZED TUBING.
- FITTINGS AND CONDUIT BODIES: NEMA FB 1; STEEL 2.2 PULL AND JUNCTION BOXES
- MANUFACTURERS CARLON ELECTRICAL PRODUCTS
- HUBBELL WIRING DEVICES THOMAS & BETTS CORP
- SHEET METAL BOXES: NEMA OS 1, GALVANIZED STEEL SURFACE MOUNTED CAST METAL BOX: NEMA 250; FLAT-FLANGED, SURFACE MOUNTED JUNCTION
- . MATERIAL: GALVANIZED CAST IRON CAST ALUMINUM. . COVER: FURNISH WITH GROUND FLANGE, NEOPRENE GASKET, AND STAINLESS STEEL COVER SCRFWS
- PART 3 EXECUTION 3.1 EXAMINATION

VERIFY OUTLET LOCATIONS AND ROUTING AND TERMINATION LOCATIONS OF RACEWAY PRIOR TO

- 3.2 INSTALLATION 1. PRODUCT DESCRIPTION: EMERGENCY LIGHTING UNITS COMPLYING WITH NFPA 101 AND ALL APPLICABLE STATE AND A. GROUND AND BOND RACEWAY AND BOXES IN ACCORDANCE WITH SECTION 26 05 26. FASTEN RACEWAY AND BOX SUPPORTS TO STRUCTURE AND FINISHES IN ACCORDANCE WITH
  - SECTION 26 05 29 IDENTIFY RACEWAY AND BOXES IN ACCORDANCE WITH SECTION 26 05 53 ARRANGE RACEWAY AND BOXES TO MAINTAIN HEADROOM AND PRESENT NEAT APPEARANCE.
  - A. SUPPORT RACEWAY USING COATED STEEL OR MALLEABLE IRON STRAPS, LAY-IN ADJUSTABLE HANGERS, CLEVIS HANGERS, AND SPLIT HANGERS DO NOT SUPPORT RACEWAY WITH WIRE OR PERFORATED PIPE STRAPS. REMOVE WIRE USED
  - FOR TEMPORARY SUPPORTS DO NOT ATTACH RACEWAY TO CEILING SUPPORT WIRES OR OTHER PIPING SYSTEMS ROUTE EXPOSED RACEWAY PARALLEL AND PERPENDICULAR TO WALLS. ROUTE RACEWAY INSTALLED ABOVE ACCESSIBLE CEILINGS PARALLEL AND PERPENDICULAR TO
  - WALLS MAINTAIN CLEARANCE BETWEEN RACEWAY AND PIPING FOR MAINTENANCE PURPOSES CUT CONDUIT SQUARE USING SAW OR PIPE CUTTER; DE-BURR CUT ENDS. JOIN NONMETALLIC CONDUIT USING CEMENT AS RECOMMENDED BY MANUFACTURER. WIPE
  - NONMETALLIC CONDUIT DRY AND CLEAN BEFORE JOINING. APPLY FULL EVEN COAT OF CEMENT TO ENTIRE AREA INSERTED IN FITTING. ALLOW JOINT TO CURE FOR MINIMUM 20 MINUTES. INSTALL NO MORE THAN EQUIVALENT OF THREE 90 DEGREE BENDS BETWEEN BOXES. INSTALL CONDUIT BODIES TO MAKE SHARP CHANGES IN DIRECTION, AS AROUND BEAMS. INSTALL HYDRAULIC ONE-SHOT BENDER TO FABRICATE FACTORY ELBOWS FOR BENDS IN METAL CONDUIT LARGER THAN 2 INCH SIZE
  - NIPPLES. INSTALL SUITABLE CAPS TO PROTECT INSTALLED CONDUIT AGAINST ENTRANCE OF DIRT AND
  - CLOSE ENDS AND UNUSED OPENINGS IN WIREWAY. 3.4 INSTALLATION - BOXES

SUPPORT BOXES INDEPENDENTLY OF CONDUIT.

. INSTALL PULL BOXES AND JUNCTION BOXES ABOVE ACCESSIBLE CEILINGS AND IN UNFINISHED AREAS ONLY. 3. IN ACCESSIBLE CEILING AREAS: INSTALL OUTLET AND JUNCTION BOXES NO MORE THAN 6 INCHES FROM CEILING ACCESS PANEL OR FROM REMOVABLE RECESSED LUMINAIRE. C. SECURE FLUSH MOUNTING BOX TO INTERIOR WALL AND PARTITION STUDS. ACCURATELY POSITION TO ALLOW FOR SURFACE FINISH THICKNESS. DO NOT FASTEN BOXES TO CEILING SUPPORT WIRES OR OTHER PIPING SYSTEMS.

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KEY PLAN

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CONSULTANTS

CES Engineering, LLC eseng.com CES #2019378

# ANDRUS ON HUDSON ANDRUS ON HUDSON | MAIN BUILDING 2ND FLOOR

AMENTA EMMA

#### <u>SECTION 27 52 23 - NURSE CALL SYSTEM</u> PART 1 GENERAL

1.1 RELATED DOCUMENTS

1.4 QUALITY ASSURANCE

CONFORM TO NEPA 70

A. DRAWINGS AND GENERAL PROVISIONS OF THE CONTRACT, INCLUDING GENERAL AND SUPPLEMENTARY CONDITIONS AND DIVISION 01 SPECIFICATION SECTIONS, APPLY TO THIS SECTION. 2 SUMMARY . THIS SECTION SPECIFIES THE FURNISHING, INSTALLING, AND TESTING OF A COMPLETE NETWORKED AUDIO-VISUAL NURSE CALL SYSTEM TO BE INSTALLED AT ANDRUS-ON-HUDSON, SECOND FLOOR RENOVATION. THE SYSTEM OUTLINED HERE IS TO INCLUDE ALL NECESSARY DEVICES HAT PROVIDE THE FUNCTIONS LISTED IN THIS SPECIFICATION. NURSE CALL SYSTEM AND WIRING SHALL BE FURNISHED AND INSTALLED BY THIS CONTRACTOR. PROVIDE A RACEWAY SYSTEM AND BACKBOXES. MINIMUM SIZE OF CONDUIT SHALL BE <sup>3</sup>/<sub>4</sub> INCH, UNI ESS NOTED OTHERWISE EXTEND ¾ INCH CONDUIT UP TO ABOVE CORRIDOR ACCESSIBLE CFILING WHERE DEVICES ARE INDICATED TO BE INSTALLED IN PLASTER CEILINGS. PROVIDE CONDUIT TO ACCESSIBLE CEILING SPACE. ALL RACEWAYS SHALL COMPLY WITH ALL PRECEDING SPECIFICATION REQUIREMENTS RELATIVE TO RACEWAYS AND FITTINGS. CABLES SUPPORTED AND TIED WITHIN CABLE TRAY AS REQUIRED, TO OBTAIN AN INSTALLATION NEAT IN APPEARANCE. CABLES SHALL BE TAGGED WITH IDENTIFICATION LABELS. FURNISH 120 VOLT CIRCUIT TO POWER EACH OF THE EQUIPMENT CABINETS AS INDICATED ON THE DRAWINGS. INSTALL WIRING PER MANUFACTURER'S REPRESENTATIVE'S SHOP DRAWING SUBMITTAL MAINTAIN RECORD DRAWING OF ANY WIRING INSTALLATION THAT DEVIATES FROM SHOP DRAWING SUBMITTAL

1.3 REFERENCES UNDERWRITER'S LABORATORIES UL-1069 CURRENT RELEASE NFPA – NATIONAL FIRE PROTECTION ASSOCIATION

NEC – NATIONAL ELECTRICAL CODE - NFPA 70 AND 99 ADA – AMERICANS WITH DISABILITIES ACT

FIA – FLECTRONIC INDUSTRY ASSOCIATION NEMA – NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION – INSTALLATION STANDARDS U.S. DEPT. OF LABOR / OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION STATE HOSPITAL CODE / JOINT COMMISSION OF HOSPITALS – NURSE CALL CANADIAN STANDARDS ASSOCIATION

SCREEN

OUTSTANDING CALLS

COMMUNICATIONS.

DUTY STATION

8. AUDIO PAGING

UPGRADE AND CALL BACK

TEXT MESSAGING

UNACCEPTABLE.

ROUNDING AND REMINDERS

COMMUNICATIONS.

COMMUNICATIONS:

DUTY STATION

DUTY STATION.

17. AUDIO PAGING

ROUNDING AND REMINDERS

21. TEXT MESSAGING

QUALIFICATIONS: THE SYSTEMS SHALL BE THE PRODUCT OF A MANUFACTURER OR AN AGENCY EXPERIENCED IN SUCH WORK ALL ITEMS SHALL BE OF THE LATEST TECHNOLOGY, NO DISCONTINUED MODELS OR PRODUCTS ARE ACCEPTABLE INSTALLER QUALIFICATIONS: MANUFACTURER'S AUTHORIZED REPRESENTATIVE WHO IS TRAINED AND APPROVED FOR INSTALLATION OF UNITS REQUIRED FOR THIS PROJECT THE MANUFACTURER OR THE AUTHORIZED REPRESENTATIVE SHALL PROVIDE PROOF THAT WITHIN 60 MILES OF THE PROJECT THEY MAINTAIN:

a. A FULL COMPLEMENT OF PARTS TO SUPPORT THE INSTALLATION. OFFER SERVICE BY FULLY TRAINED AND QUALIFIED TECHNICIANS DURING NORMAL WORKING WILL SUPPLY PARTS AND SERVICE WITHOUT DELAY AND AT A REASONABLE COST. REGULATORY REQUIREMENTS:

ELECTRICAL COMPONENTS, DEVICES, AND ACCESSORIES: LISTED AND LABELED ACCORDING TO UL1069 AS DEFINED IN NFPA 70, ARTICLE 100, BY A TESTING AGENCY ACCEPTABLE TO AUTHORITIES HAVING JURISDICTION, AND MARKED FOR INTENDED USE. COMPLY WITH NEC AS APPLICABLE TO CONSTRUCTION AND INSTALLATION OF SYSTEM COMPONENTS AND WIRING

CONFORM TO HIPAA REGULATIONS RELATING TO PAGING AND PUBLIC ADDRESS SYSTEMS. SYSTEMS MAY BE SUBJECT TO INSPECTION AND REQUIRE ACCREDITATION FROM AGENCIES SUCH AS OSHPOD AND JOINT COMMISSION IF MANDATED BY THE OWNER. SUPPLIERS OF ALL SYSTEMS MUST INCLUDE ALL DOCUMENTATION AND STAFF TO SUPPORT THE OWNER DURING THESE NSPECTIONS AND CERTIFICATIONS. 1.5 SUBMITTALS

A. ANY SUPPLYING CONTRACTOR PROPOSING EQUIPMENT WHICH IS NOT THE BASE STANDARD FOR THIS SPECIFICATION MUST PROVIDE FULL SUBMITTALS AT THE TIME OF BID. THIS OPTION SHALL BE EXERCISED AT THE DISCRETION OF THE OWNER/SPECIFYING AUTHORITY . PRIOR TO SUBMISSION OF BID, THE SUPPLYING CONTRACTOR SHALL SUBMIT SIX (6) COMPLETE SUBMITTAL SETS. EACH SET SHALL CONSIST OF THE FOLLOWING: PRODUCT DATA: FOR EACH TYPE OF PRODUCT INDICATED. SHOP DRAWINGS: DETAIL THE SYSTEM INCLUDING THE FOLLOWING:

1. CABLING DIAGRAMS: SINGLE-LINE BLOCK DIAGRAMS SHOWING CABLING INTERCONNECTION OF ALL COMPONENTS FOR THIS SPECIFIC EQUIPMENT. INCLUDE CABLE TYPE FOR EACH INTERCONNECTION b. WIRING DIAGRAMS: POWER, SIGNAL, AND CONTROL WIRING.

STATION INSTALLATION DETAILS: FOR BUILT-IN EQUIPMENT; DIMENSIONED AND TO SCALE. EQUIPMENT CABINET DRAWINGS: DIMENSIONED AND TO SCALE. MANUFACTURER CERTIFICATES: SIGNED BY MANUFACTURERS CERTIFYING THAT NURSE CALL EQUIPMENT COMPLIES WITH REQUIREMENTS. . MANUFACTURER'S WARRANTY STATEMENT. FIELD TESTS REPORTS AND OBSERVATIONS: INCLUDE RECORD OF FINAL ADJUSTMENTS

CERTIFIED BY INSTALLER. OPERATION AND MAINTENANCE DATA: FOR NURSE CALL EQUIPMENT TO INCLUDE INSTALLATION. OPERATION, AND MAINTENANCE MANUALS. IN ADDITION TO ITEMS SPECIFIED IN DIVISION 01 SECTION OPERATION AND MAINTENANCE DATA," INCLUDE THE FOLLOWING: OPERATING INSTRUCTIONS TROUBLESHOOTING GUIDE

WIRING DIAGRAMS AND TERMINAL IDENTIFICATION. FQUIPMENT PARTS LIST PRODUCT DATA FOR TYPES AND SIZES OF WIRES AND CABLES USED.

1.6 COORDINATION COORDINATE PATIENT CONTROL UNITS (PILLOW SPEAKERS AND FEATURE BED SIDE RAILS) TO PART OF THE NURSE CALL SYSTEM COORDINATE WIRING PATHS AND MAINTENANCE ACCESS AT LOCATIONS LISTED BELOW. COORDINATE TRIM FEATURES AND FINISHES AT THESE LOCATIONS TO PRESENT A UNIFIED DESIGN APPFARANCE . PATIENT HEAD-WALL UNITS

BATHROOMS NURSING STATIONS STAFF AREAS

CALL CORDS.

.7 WARRANTY THE INSTALLING MANUFACTURER'S REPRESENTATIVE SHALL GUARANTEE ALL LABOR, PARTS. AND INSTALLATION FOR A PERIOD OF 1 YEAR FROM SUBSTANTIAL COMPLETION OR FIRST BENEFICIAL USE OF THE SYSTEM PROVIDE MANUFACTURER FIVE (5) YEAR WARRANTY FOR THE NURSE CALL SYSTEM. PROVIDE MANUFACTURER TWO (2) YEAR WARRANTY FOR ACCESSORIES INCLUDING CALL CORDS AND PILLOW SPEAKERS PART 2 PRODUCTS AND FUNCTIONAL REQUIREMENTS 2.1 MANUFACTURERS

MANUFACTURERS: THE PRODUCTS SPECIFIED SHALL BE THE STANDARD MODELS OF A SINGLE REPUTABLE MANUFACTURER, SUBJECT TO COMPLIANCE WITH REQUIREMENTS, PROVIDE PRODUCTS BY THE FOLLOWING JERON ELECTRONIC SYSTEMS, INC. 2.2 SYSTEM REQUIREMENTS

PROVIDE A COMPLETE TURN-KEY NURSE CALL COMMUNICATIONS SYSTEM OPERATING AS A SINGLE INTEGRATED SOLUTION. MATCH COMPONENTS AND INTERCONNECTIONS FOR OPTIMUM PERFORMANCE OF ALL SPECIFIED FUNCTIONS 3. ALL NURSE CALL NETWORK DEVICES SHALL BE UL-1069 LISTED INCLUDING ALL GATEWAYS, STAFF CONSOLES, WORKFLOW TERMINALS, DATA SWITCHES, PATIENT STATIONS, STAFF STATIONS, ROOM CONTROLLERS, DOME LIGHTS, ZONE LIGHTS, PERIPHERAL STATIONS, PILLOW SPEAKERS, AND

THE SYSTEM SHALL BE A LIFE SAFETY GRADE DESIGN WITH CONTINUOUS 24/7 AVAILABILITY VITHOUT THE NEED FOR ROUTINE REBOOTING TO INSTALL UPDATES SUCH AS OPERATING SYSTEM OR VIRUS DEFINITION UPDATES. AS SUCH, THE CORE LIFE SAFETY UL1069 COMPONENTS OF THE SYSTEM SHALL NOT UTILIZE A PERSONAL COMPUTER, EMBEDDED PERSONAL COMPUTER, OR COMMERCIAL OPERATING SYSTEM VULNERABLE TO SOFTWARE VIRUS ATTACKS. THE SYSTEM SHALL REMAIN FULLY OPERATIONAL DURING ANY PROGRAMMING WITH NO LOSS OF ACTIVE CALLS, ACTIVE COMMUNICATIONS, OR THE NEED TO REBOOT THE SYSTEM . THE NURSE CALL SYSTEM SHALL BE REGISTERED AS AN FDA CLASS II EXEMPT MEDICAL DEVICE. SYSTEMS WHICH ARE NOT FDA REGISTERED AND CANNOT PROVIDE AN FDA REGISTRATION NUMBER WILL NOT BE ACCEPTED SYSTEM SHALL BE NETWORK-BASED WITH A DISTRIBUTED ARCHITECTURE ALLOWING REMOTE

COMMUNICATIONS SHALL UTILIZE VOICE OVER IP AND ETHERNET TECHNOLOGY TO INTERCONNECT ALL NURSE CALL GATEWAYS, THE SYSTEM SHALL SUPPORT EITHER A DEDICATED LAYER 2 SUBNET (PRIVATE NURSE CALL NETWORK) OR A LAYER 3 NETWORK WITH MULTIPLE SUBNETS TO LEVERAGE THE FACILITY'S EXISTING LAN INFRASTRUCTURE. NURSE CALL SYSTEMS WHICH DO NOT SUPPORT BOTH LAYER 2 AND LAYER 3 NETWORKING ARCHITECTURES ARE UNACCEPTABLE 5. FOR ENTERPRISE APPLICATIONS, THE SYSTEM SHALL SUPPORT INTERCONNECTING MULTIPLE NODES OF NURSE CALL GATEWAYS THROUGH ROUTERS TO A CENTRAL DATA CENTER HOUSING ALL

SURVIVABILITY SHOULD THE NETWORK CONNECTION BE LOST. ALL INTER-GATEWAY

INTEGRATION AND REPORTING OPTION. NURSE CALL SYSTEMS WHICH DO NOT SUPPORT A WAN IMPLEMENTATION TO A DATA CENTER ARE UNACCEPTABLE. 1. FOR SUPERIOR INTELLIGIBILITY. ALL AUDIO COMMUNICATION AMONG NURSE CALL DEVICES MUST BE DIGITAL FULL DUPLEX AUDIO, INCLUDING AUDIO COMMUNICATION TO/FROM STAFE CONSOLES WORKFLOW TERMINALS, AND TO EACH INDIVIDUAL ROOM FOR STAFF, DUTY, AND PATIENT STATIONS. SYSTEM SHALL PROVIDE A MINIMUM OF EIGHT (8) SIMULTANEOUS AUDIO CONNECTIONS FOR EACH GROUP OF UP TO THIRTY ONE (31) PATIENT AND STAFF AREAS TO PROVIDE FAST. INSTANTANEOUS COMMUNICATIONS WITHOUT WAITING FOR AN AVAILABLE AUDIO PATH. THE SYSTEM'S SIMULTANEOUS CALL NETWORK. AUDIO PATH CAPACITY SHALL BE INCLUDED IN THE BASE SYSTEM AND NOT REQUIRE ANY ADDITIONAL c. INDIVIDUAL TALK/LISTEN VOLUME CONTROL FOR EACH PATIENT STATION, STAFF STATION, AND LICENSING OR COSTS.

I. FULL DUPLEX VOICE COMMUNICATION SHALL BE CAPABLE BETWEEN PATIENT ACCESSIBLE STATIONS AND THE ASSOCIATED CAREGIVER THROUGH AN ANDROID BASED DEVICE FOR WIRELESS VOICE-OVER-IP OVER WI-FI NETWORK. APPROXIMATELY FIFTY (50) ACTIVE POINTS FOR PEER TO PEER a. PROGRAMMABLE PAGE GROUPS WITH VISUAL DISPLAY OF GROUP DESIGNATOR WHILE PAGING. COMMUNICATION SHALL BE SUPPORTED. THIS SHALL BE ACCOMPLISHED UTILIZING THE 7978M PHONE INTEGRATION (ONE PER GATEWAY), 7980 STAFF ASSIGNMENTS (ONE PER GATEWAY), AND 7987 & 7984 PER SITE. OTHER ACCESSORIES SHALL INCLUDE 7987-05 PHONE LICENSE. A TOTAL NUMBER OF PHONES POSSIBLE SHALL BE 55. THE SYSTEM SHALL BE CAPABLE OF SUPPORTING AT LEAST 1,000 UNIQUE CALL PRIORITY, ROUNDING, REMINDER, AND WORKFLOW EVENTS, EACH WITH A UNIQUE CALL TONE/VOICE PROMPT.

THE SYSTEM SHALL INCLUDE STANDARD CALL TONES/VOICE PROMPTS WITH THE ABILITY TO IMPORT WAV FILES TO CUSTOMIZE THE CALL TONES/VOICE PROMPTS TO EACH FACILITY'S REQUIREMENTS. THROUGHOUT THE ENTIRE SYSTEM, ALL STAFF CONSOLES, WORKFLOW TERMINALS, AND DUTY STATIONS WITH INTERCOM, WILL ANNUNCIATE THE SAME CALL TONES/VOICE PROMPTS FOR EACH RESPECTIVE CALL PRIORITY K. THE SYSTEM SHALL BE CAPABLE OF SUPPORTING AT LEAST 1,000 STAFF CONSOLES, AND ANY COMBINATION OF AT LEAST 50.000 PATIENT, STAFF, DUTY, AND PERIPHERAL STATIONS. .. ALL WIRING BETWEEN GATEWAYS, STAFF CONSOLES, WORKFLOW TERMINALS, DATA SWITCHES,

SHALL UTILIZE STANDARD CAT 6 CABLING AND TERMINATIONS: ADDITIONAL NON-CATEGORY CABLING OR SHIELDED AUDIO CABLE SHALL NOT BE REQUIRED TO EACH INDIVIDUAL ROOM OR BETWEEN ANY OF THESE COMPONENTS SYSTEM, COMPONENTS, AND CABLING, AND THE SELECTION, ARRANGEMENT, AND CONNECTION OF MATERIALS AND CIRCUITS, SHALL BE PROTECTED AGAINST DAMAGE OR DIMINISHED PERFORMANCE WHEN SUBJECTED TO ESD (ELECTROSTATIC DISCHARGES) OF UP TO 25,000 VOLTS IN BED. THE ROUNDINGS AND REMINDERS CAN BE SET FOR 15, 30, 60, AND 120 MINUTE TIME PERIODS AN ENVIRONMENT WITH A RELATIVE HUMIDITY OF 20 PERCENT OR LESS. PATIENT STATIONS MUST BE RATED TO ESD OF 100,000 VOLTS IN AN ENVIRONMENT WITH A RELATIVE HUMIDITY OF 20 PERCENT ORIESS

ROOM CONTROLLERS, ZONE LIGHTS, STAFF STATIONS, DUTY STATIONS, AND PATIENT STATIONS

N. NURSE CALL NETWORK PROVIDES CONTINUOUS SUPERVISION OF ALL DEVICES ON THE SYSTEM INCLUDING: GATEWAYS, STAFF CONSOLES, WORKFLOW TERMINALS, DATA SWITCHES, ROOM CONTROLLERS, LIGHTS, ZONE LIGHTS, STAFF STATIONS, DUTY STATIONS, PATIENT STATIONS, AND PERIPHERAL STATIONS. ANY SUPERVISION FAILURE WILL ALARM AT PREDETERMINED STAFF CONSOLE(S) (INDICATING THE ROOM NUMBER AND TYPE OF FAILURE) AND TO A TECHNICIAN'S POCKET PAGER THROUGH THE POCKET PAGE INTERFACE OPTION ALL END-DEVICES, INCLUDING STAFF CONSOLES, WORKFLOW TERMINALS, ROOM CONTROLLERS, ZONE LIGHTS, STAFF STATIONS, DUTY STATIONS, PATIENT STATIONS, AND PERIPHERAL STATIONS: MAY BE HOT-SWAPPED WITHOUT NEEDING TO POWER DOWN THE LOCAL SYSTEM. RE CONTINUOUSLY SUPERVISED FOR DATA AND POWER W

SUPERVISION ERROR ALL EMPLOY PLUG-IN TERMINATIONS FOR SIMPLE SERVICE OR REPLACEMENT. ARE EASILY CLEANED AND IMPERVIOUS TO COMMON HOSPITAL CLEANING AGENTS. P. NURSE CALL PLATFORM SUPPORTS BOTH NURSE CALL AND CLINIC/ASC MODES OF OPERATION INCLUDING CLINIC/ASC ROOMING OF PATIENTS AND SEQUENCING OF CLINICIANS ALL SYSTEM PROGRAMMING AND FIRMWARE UPDATES USE A FLEXIBLE GUI APPLICATION FOR SIMPLE ON-SITE OR REMOTE ADMINISTRATION OF ALL SYSTEM ATTRIBUTES. ALL SYSTEM PROGRAMMING AND UPDATES ARE DONE THROUGH A DIRECT, FACILITY LAN, OR REMOTE VPN

2.3 EQUIPMENT AND FUNCTIONALITY SPECIFICATIONS . ETHERNET DATA SWITCH PROVIDE AS SHOWN ON PLANS. EACH ETHERNET DATA SWITCH SHALL PROVIDE THE FOLLOWING: INTERCONNECTION OF ANY COMBINATION OF UP TO 8 NURSE CALL GATEWAYS. AN UPLINK PORT TO INTERCONNECT MULTIPLE DATA SWITCHES AS PART OF COMPLETE DISTRIBUTED NURSE CALL NETWORK. OPTIONAL FIBER INTERCONNECT SUPPORTING A MULTI-MODE FIBER CONNECTION BETWEEN DATA SWITCHES OF UP TO TWO KILOMETERS. . MOUNTS IN STANDARD 19 INCH DATA RAILS, 19 INCH EQUIPMENT RACKS, OR IN A TERMINAL

3. NURSE CALL GATEWAY

CABINE

PROVIDE AS SHOWN ON PLANS, EACH NURSE CALL GATEWAY SHALL PROVIDE THE FOLLOWING: INTERCONNECTING LOCAL ROOM CONTROLLERS, ZONE LIGHTS, PATIENT STATIONS, STAFF STATIONS. DUTY STATION. STAFF CONSOLES. AND WORKFLOW TERMINALS FOR ALL POWER. COMMUNICATIONS, AND CALL ROUTING. NON-BLOCKING DUPLEX DIGITAL AUDIO COMMUNICATIONS BETWEEN STAFF CONSOLES, WORKFLOW TERMINALS AND TO EACH INDIVIDUAL ROOM FOR STAFF, DUTY, AND PATIENT STATIONS PROVIDING A MINIMUM OF EIGHT (8) SIMULTANEOUS SPEECH PATHS FROM EACH GATEWAY. CONTINUOUS SUPERVISION OF ALL CONNECTED COMPONENTS MOUNTING IN STANDARD 19 INCH DATA RAILS, 19 INCH EQUIPMENT RACKS, OR IN A TERMINAL

POWER SUPPLY POWER AND INTEGRATED BATTERY BACKUP FOR ASSOCIATED ETHERNET DATA SWITCH, NURSE CALL GATEWAY AND ALL LOCAL COMPONENTS INCLUDING: STAFF CONSOLES, WORKFLOW ERMINALS, ROOM CONTROLLERS, ZONE LIGHTS, PATIENT STATIONS, STAFF STATIONS, DUTY STATIONS, AND PERIPHERAL STATIONS. MOUNTS IN STANDARD 19 INCH DATA RAILS, 19 INCH EQUIPMENT RACKS, OR IN A TERMINAL

TOUCHSCREEN VOIP STAFE CONSOLES PROVIDE AS SHOWN ON PLANS. EACH STAFF CONSOLE SHALL PROVIDE THE FOLLOWING: UTILIZE VOIP OVER AN ETHERNET LAN CONNECTION TO COMMUNICATE WITH THE ASSOCIATED NURSE CALL GATEWAY(S) AND ETHERNET DATA SWITCH(ES FULL DUPLEX DIGITAL AUDIO COMMUNICATIONS WITH THE CHOICE OF HANDSET COMMUNICATIONS FOR SEMI-PRIVATE CONVERSATIONS OR COMMUNICATIONS THROUGH THE BUILT-IN SPEAKER AND SEPARATE MICROPHONE OPTIONAL SUPPORT FOR INTEGRATION TO A BLUETOOTH HEADSET ALLOWING USERS TO BE ALERTED TO ACTIVE CALLS AND TO ANSWER CALLS OVER A BLUETOOTH HEADSET WHILE WITHIN BLUETOOTH RANGE OF THE STAFF CONSOLE. 5.7 INCH COLOR BACKLIT TOUCHSCREEN WITH: a. 320 X 240 PIXEL RESOLUTION

12 OR 24 HOUR TIME DISPLAY SYNCHRONIZED TO FACILITIES NETWORK TIME WITH AUTOMATIC LIPDATES FOR DAYLIGHT SAVING TIME CHANGES TOUCHSCREEN MENU-DRIVEN OPERATION FOR ALL FUNCTIONS PLUS FOUR (4) TACTILE BUTTONS FOR THE COMMONLY USED FEATURES: PUSH-TO-TALK BUTTON: CONTROLS TALK/LISTEN DIRECTION IN OPEN VOICE COMMUNICATIONS. TONE SILENCE BUTTON: MUTES INCOMING CALL AUDIBLE ALERT TONE. ANY NEW CALL ANNUNCIATING AT THE STAFF CONSOLE RESTARTS CALL ALERT TONES. ABILITY TO DISABLE TONE SILENCE FUNCTIONALITY DURING SYSTEM CONFIGURATION. QUIT BUTTON: BACKS USERS OUT OF CURRENT OPERATION AND BACK TO PREVIOUS MENU

d. HOME BUTTON: CANCELS ALL MENU DRIVEN OPERATIONS AND RETURNS TO THE HOME SCREEN. CALL ANNUNCIATION: DISPLAYS A MINIMUM OF FOUR (4) OUTSTANDING PATIENT AND/OR STAFF CALLS WITH INDIVIDUAL ELAPSED TIMER PER CALL AND AUTOMATIC SEQUENCING OF CALLS BY PRIORITY AND/OR TIME OF CALL SO THAT OLDEST OR HIGHEST PRIORITY CALL IS ALWAYS DISPLAYED FIRST. CALL TONE ANNUNCIATION FOR THE HIGHEST PRIORITY CALL DISPLAYED c. FOUR (4) CALL STATUS LEVEL INDICATORS (ROUTINE, URGENT, EMERGENCY, CODE) TO QUICKLY

IDENTIFY HIGHEST PRIORITY CALL I EVEL PROGRAMMABLE TIMER FOR UNANSWERED CALLS WITH AUTOMATIC UPGRADE, AND DISPLAY OF e. ABILITY TO RESPOND TO CALLS OUT OF SEQUENCE BY TOUCHING ACTIVE CALL ON THE SCREEN. FOUR (4) MODES OF VIEWING OUTSTANDING CALLS AND CLINIC/ASC ROOM STATUS: TWO (2) LINE PATIENT STATION. UP TO TEN (10) FEET AWAY, FOUR (4) LINE "STANDARD" VIEW SHOWS THE DETAIL OF UP TO FOUR (4) OUTSTANDING CALLS, "ZOOM OUT" VIEW SHOWING UP TO THIRTY (30) OUTSTANDING CALLS, AND "CLINIC/ASC" VIEW SHOWING UP TO THIRTY (30) CLINIC/ASC ROOMS' STATUS EMULATING THE DOME LIGHT INDICATION OUTSIDE OF EACH CLINIC/ASC ROOM.

HANDS-FREE FULL DUPLEX COMMUNICATION WHEN COMMUNICATING WITH PATIENT, STAFF, OR DUTY STATIONS. STATIONS CAN CONVERSE WITH STAFF CONSOLES AND TERMINALS HANDS-FREE AND FROM ANYWHERE WITHIN THE ROOM WHERE THE INTERCOM STATION IS LOCATED. SEMI-PRIVATE AUDIO COMMUNICATION OVER INTEGRATED HANDSET. OPEN VOICE AUDIO COMMUNICATION OVER INTEGRATED SPEAKER AND MICROPHONE. DURING COMMUNICATIONS WITH AN INTERCOM STATION. LIETING THE HANDSET ON STAFE CONSOLE DISCONNECTS SPEAKER AND MICROPHONE AND TRANSFERS CONVERSATION TO THE HANDSET d. ABILITY TO DIRECT DIAL TO ESTABLISH AUDIO COMMUNICATIONS WITH ANY PATIENT STATION, STAFF STATION, DUTY STATION, STAFF CONSOLE, OR WORKFLOW TERMINAL LOCATED ANYWHERE ON THE NURSE CALL NETWORK e. INDIVIDUAL TALK/LISTEN VOLUME CONTROL FOR EACH PATIENT STATION, STAFF STATION, AND ABILITY TO MONITOR ONE OR SEVERAL USER-SELECTED ROOMS SEQUENTIALLY. a. PROGRAMMABLE PAGE GROUPS WITH VISUAL DISPLAY OF GROUP DESIGNATOR WHILE PAGING.

PREDEFINED GROUP PAGE SERVICE REQUIREMENTS: UPON ANSWERING A CALL, THE ABILITY TO SET A GREEN, ORANGE, AMBER, OR STAT LEVEL SERVICE REQUIREMENT TO NOTIFY THE APPROPRIATE CAREGIVER(S) ASSIGNED TO THAT PATIENT b. ABILITY TO DISPLAY BEDS WITH OUTSTANDING GREEN, ORANGE, AMBER, OR STAT SERVICE REQUIREMENTS. TOUCHING DISPLAYED ROOM ESTABLISHES COMMUNICATIONS WITH THAT ROOM. PROGRAMMABLE TIMERS FOR UNANSWERED SERVICE REQUIREMENTS WITH AUTOMATIC

ABILITY TO INCLUDE ANY NUMBER OF PATIENT AND STAFF INTERCOM STATIONS AS PART OF A

10. ROUNDING AND REMINDERS WHILE IN COMMUNICATION WITH A PATIENT STATION OR BY DIALING A PATIENT STATION, HAVE THE ABILITY TO SET A REPEATING ROUNDING OR A ONE-TIME REMINDER FOR A SPECIFIC ROOM AND BED. THE ROUNDINGS AND REMINDERS CAN BE SET FOR 15, 30, 60, AND 120 MINUTE TIME PERIODS AND FOR GREEN ORANGE OR AMBER LEVEL STAFE MULTIPLE ROUNDING AND REMINDERS (ONE OF EACH COLOR LEVEL) CAN BE ACTIVE CONCURRENTLY FOR THE SAME ROOM AND BED. ABILITY TO REVIEW ACTIVE ROUNDING AND REMINDERS BY LEVEL ACTIVE AND OLDEST, AND BY ELAPSED TIME. SELECTING A ROUNDING OR REMINDER WILL INSTANTLY CONNECT AUDIO TO THE PATIENT STATION AND BED. A ROUNDING CAN BE RESET BY PRESSING THE CANCEL BUTTON ON THE PATIENT STATION, THE CORRESPONDING ACTIVE ROUNDING BUTTON ON A PROCEDURE STATION. OR BY REGISTERING INTO ROUNDING, WHEN A ROUNDING IS RESET THE TIME PERIOD FOR THE ROUNDING STARTS OVER A ROUNDING CAN BE CANCELED FROM A STAFE CONSOLE A REMINDER CAN BE CLEARED BY PRESSING THE CANCEL BUTTON ON THE PATIENT STATION THE CORRESPONDING ACTIVE REMINDER BUTTON ON A PROCEDURE STATION OR BY REGISTERING INTO THE PATIENT ROOM WITH A STAFF LEVEL (GREEN, ORANGE, OR AMBER) THAT MATCHES THE E REMINDER. A REMINDER CAN ALSO BE CANCELED FROM A STAFF CONSOLE. a. ABILITY TO SEND MESSAGES TO SMART PHONES AND/OR POCKET PAGERS TO ON-DUTY STAFF

WITHIN A STAFF CONSOLE'S COVERAGE AREA MESSAGES CAN INCLUDE A PRESET "TAG" MESSAGE OR A FREE-FORM MESSAGE USING THE TOUCHSCREEN KEYBOARD ON THE STAFF CONSOLE ROOM SWING AND DAY/NIGHT TRANSFER ABILITY FOR UP TO TEN (10) PRE-DESIGNATED ROOMS TO BE TEMPORARILY REROUTED ("SWUNG") TO A STAFF CONSOLE OR STAFF/DUTY TERMINAL IN AN ADJOINING AREA. ONCE A ROOM IAS BEEN SWUNG, ALL CALLS ORIGINATING FROM THAT ROOM WILL ONLY ANNUNCIATE AT THE

THER CONSOLE/TERMINAL. THE CONSOLE/TERMINAL THAT SWUNG THE ROOM SHALL BE CAPABLE OF RETURNING THE SWUNG ROOM TO ANNUNCIATE AT THE ORIGINAL CONSOLE/TERMINAL. ABILITY OF ALL ROOMS REPORTING TO A STAFF CONSOLE OR STAFF/DUTY TERMINAL TO BE REPOLITED ("DAY/NIGHT TRANSFERRED") TO ANY OTHER CONSOLE/TERMINAL IN AN ADJOINING AREA NORMAL OPERATION IS RESTORED TO THE ORIGINAL CONSOLE/TERMINAL WHEN A STAFF MEMBER "RELEASES" THE DAY/NIGHT TRANSFER. 3. SUPPORT FOR BOTH WORKFLOW TERMINAL AND STAFF CONSOLE OPERATION IN THE SAME STATION WITHOUT NEEDING TO CHANGE SOFTWARE OR CONFIGURATION. SYSTEMS NOT SUPPORTING BOTH CONSOLE AND WORKFLOW TERMINAL OPERATION IN THE SAME DEVICE ARE

WHILE IN COMMUNICATION WITH A PATIENT STATION. THE ABILITY TO SET A REPEATING ROUNDING OR A ONE-TIME REMINDER FOR A SPECIFIC ROOM AND BED. THE ROUNDINGS AND REMINDERS CAN BE SET FOR 15, 30, 60, AND 120 MINUTE TIME PERIODS AND FOR GREEN, ORANGE, OR AMBER LEVEL STAFF. MULTIPLE ROUNDING AND REMINDERS CAN BE ACTIVE AT THE SAME TIME FOR THE SAME ROOM AND BED REMAINING TIME. SELECTING A ROUNDING OR REMINDER WILL INSTANTLY CONNECT AUDIO TO THE PATIENT STATION AND BEE A ROUNDING CAN BE RESET BY PRESSING THE CANCEL BUTTON ON THE PATIENT STATION. THE CORRESPONDING ACTIVE ROUNDING BUTTON ON A PROCEDURE STATION. OR BY REGISTERING INTO THE PATIENT ROOM WITH A STAFF LEVEL (GREEN, ORANGE, OR AMBER) THAT MATCHES THE ACTIVE ROUNDING. WHEN A ROUNDING IS RESET THE TIME PERIOD FOR THE ROUNDING STARTS OVER. A ROUNDING CAN BE CANCELED FROM A STAFF CONSOLE. 4) A REMINDER CAN BE CLEARED BY PRESSING THE CANCEL BUTTON ON THE PATIENT STATION, THE CORRESPONDING ACTIVE REMINDER BUTTON ON A PROCEDURE STATION, OR BY REGISTERING INTO THE PATIENT ROOM WITH A STAFF LEVEL (GREEN, ORANGE, OR AMBER) THAT MATCHES THE

HANDS-FREE FULL DUPLEX COMMUNICATION WHEN COMMUNICATING WITH PATIENT. STAFF. OR DUTY STATIONS. STATIONS CAN CONVERSE WITH THE WORKFLOW TERMINAL HANDS-FREE AND FROM ANYWHERE WITHIN THE ROOM WHERE THE INTERCOM STATION IS LOCATED. OPEN VOICE AUDIO COMMUNICATION OVER INTEGRATED SPEAKER AND MICROPHONE ABILITY TO DIRECT DIAL TO ESTABLISH AUDIO COMMUNICATIONS WITH ANY PATIENT STATION. STAFF STATION, DUTY STATION, STAFF CONSOLE, OR WORKFLOW TERMINAL LOCATED ANYWHERE ON THE NURSE CALL NETWORK 4) INDIVIDUAL TALK/LISTEN VOLUME CONTROL FOR EACH PATIENT STATION, STAFF STATION, AND 4. THE ABILITY TO SERVICE EXCHANGE WORKFLOW TERMINAL "HOT" WITHOUT REMOVING SYSTEM POWER OR POWERING DOWN THE LOCAL GATEWAY STANDARD WALL-MOUNT AND OPTIONAL DESK-STAND MOUNTING.

ACTIVE REMINDER. A ROUNDING CAN ALSO BE CANCELED FROM A STAFF CONSOLE.

HANDS-FREE FULL DUPLEX COMMUNICATION WHEN COMMUNICATING WITH PATIENT, STAFF, OR DUTY STATIONS STATIONS CAN CONVERSE WITH STAFF CONSOLES AND TERMINALS HANDS-FREE AND FROM ANYWHERE WITHIN THE ROOM WHERE THE INTERCOM STATION IS LOCATED ABILITY TO DIRECT DIAL TO ESTABLISH AUDIO COMMUNICATIONS WITH ANY PATIENT STATION. STAFF STATION, DUTY STATION, STAFF CONSOLE OR TERMINAL LOCATED ANYWHERE ON THE NURSE ABILITY TO MONITOR ONE OR SEVERAL USER-SELECTED ROOMS SEQUENTIALLY

b. ABILITY TO INCLUDE ANY NUMBER OF PATIENT AND STAFF INTERCOM STATIONS AS PART OF A PREDEFINED GROUP PAGE. 18. SERVICE REQUIREMENTS UPON ANSWERING A CALL, THE ABILITY TO SET A GREEN, ORANGE, AMBER, OR STAT LEVEL

SERVICE REQUIREMENT TO NOTIFY THE APPROPRIATE CAREGIVER(S) ASSIGNED TO THAT PATIENT ABILITY TO DISPLAY BEDS WITH OUTSTANDING GREEN ORANGE AMBER OR STAT SERVICE REQUIREMENTS. TOUCHING DISPLAYED ROOM ESTABLISHES COMMUNICATIONS WITH THAT ROOM. PROGRAMMABLE TIMERS FOR UNANSWERED SERVICE REQUIREMENTS WITH AUTOMATIC UPGRADE AND CALL BACK 19. STAFF REGISTRATION: PROVISIONS FOR STAFF REGISTRATION USING STAFF REGISTRATION STATIONS OR REAL TIME

LOCATING SYSTEM (RTLS) INTEGRATION. ABILITY TO DISPLAY LOCATIONS OF ALL REGISTERED GREEN, ORANGE, AND/OR AMBER LEVEL CAREGIVERS, TOUCHING DISPLAYED ROOM ESTABLISHES COMMUNICATIONS WITH THAT ROOM UPON REGISTERING INTO THE ROOM ANY OUTSTANDING SERVICE REQUIREMENTS MATCHING THE CAREGIVER'S LEVEL OR ANY OUTSTANDING PATIENT CALLS, CONFIGURED FOR REMOTE CANCEL WILL BE AUTOMATICALLY CLEARED.

a. WHILE IN COMMUNICATION WITH A PATIENT STATION OR BY DIALING A PATIENT STATION, HAVE THE ABILITY TO SET A REPEATING ROUNDING OR A ONE-TIME REMINDER FOR A SPECIFIC ROOM AND AND FOR GREEN ORANGE OR AMBER LEVEL STAFF. MULTIPLE ROUNDING AND REMINDERS (ONE OF FACH COLOR LEVEL) CAN BE ACTIVE CONCURRENTLY FOR THE SAME ROOM AND BED ABILITY TO REVIEW ACTIVE ROUNDING AND REMINDERS BY LEVEL, ACTIVE AND OLDEST, AND BY ELAPSED TIME. SELECTING A ROUNDING OR REMINDER WILL INSTANTLY CONNECT AUDIO TO THE PATIENT STATION AND BED A ROUNDING CAN BE RESET BY PRESSING THE CANCEL BUTTON ON THE PATIENT STATION, THE THE PATIENT ROOM WITH A STAFF LEVEL (GREEN, ORANGE, OR AMBER) THAT MATCHES THE ACTIVE ROUNDING. WHEN A ROUNDING IS RESET THE TIME PERIOD FOR THE ROUNDING STARTS OVER. A ROUNDING CAN BE CANCELED FROM A STAFE CONSOLE. d. A REMINDER CAN BE CLEARED BY PRESSING THE CANCEL BUTTON ON THE PATIENT STATION. THE CORRESPONDING ACTIVE REMINDER BUTTON ON A PROCEDURE STATION. OR BY REGISTERING O THE DATIENT DOOM WITH A STAFELEVEL (ODEENLODANCE OD AMPED F MATCHES THE ACTIVE REMINDER. A REMINDER CAN ALSO BE CANCELED FROM A STAFF CONSOLE.

ABILITY TO SEND MESSAGES TO SMART PHONES AND/OR POCKET PAGERS TO ON-DUTY STAFF WITHIN A STAFF CONSOLE'S COVERAGE AREA. MESSAGES CAN INCLUDE A PRESET "TAG" MESSAGE OR A FREE-FORM MESSAGE USING THE TOUCHSCREEN KEYBOARD ON THE STAFF CONSOLE 22. ROOM SWING AND DAY/NIGHT TRANSFER:

ABILITY FOR UP TO TEN (10) PRE-DESIGNATED ROOMS TO BE TEMPORARILY REROUTED ("SWUNG") TO A STAFF CONSOLE OR STAFF/DUTY TERMINAL IN AN ADJOINING AREA. ONCE A ROOM HAS BEEN SWUNG, ALL CALLS ORIGINATING FROM THAT ROOM WILL ONLY ANNUNCIATE AT THE OTHER CONSOLE/TERMINAL. THE CONSOLE/TERMINAL THAT SWUNG THE ROOM SHALL BE CAPABLE OF RETURNING THE SWUNG ROOM TO ANNUNCIATE AT THE ORIGINAL CONSOLE/TERMINAL. ABILITY OF ALL BOOMS REPORTING TO A STAFE CONSOLE OR STAFE/DUTY TERMINAL TO BE REROLITED ("DAY/NIGHT TRANSFERRED") TO ANY OTHER CONSOLE/TERMINAL IN AN ADJOINING AREA NORMAL OPERATION IS RESTORED TO THE ORIGINAL CONSOLE/TERMINAL WHEN A STAFF MEMBER "RELEASES" THE DAY/NIGHT TRANSFER. THE ABILITY TO SERVICE EXCHANGE STAFF/DUTY TERMINAL "HOT" WITHOUT REMOVING SYSTEM POWER OR POWERING DOWN THE LOCAL GATEWAY. 24. STANDARD WALL-MOUNT AND OPTIONAL DESK-STAND MOUNTING.

PROVIDE SINGLE PATIENT STATIONS AS SHOWN ON PLANS. EACH STATION SHALL PROVIDE THE . FULL DUPLEX AUDIO UTILIZING A 2 ¾ INCH OVAL SPEAKER AND A SEPARATE MICROPHONE WITH TALK/LISTEN VOLUME SET ON A STATION BY STATION BASIS AT ANY STAFF CONSOLE OR TERMINAL. MOMENTARY ACTION CANCEL BUTTON, MONITOR LED INDICATOR, AND CALL-PLACED LED . RJ-45 FIELD WIRING RECEPTACLE FOR CAT-5E/6 WIRING TO ASSOCIATED ROOM CONTROLLER. BLUE LED TO ILLUMINATE THE STATION IN LOW AMBIENT LIGHT CONDITIONS CANCEL BUTTON SHALL CANCEL ANY CALL ON THIS STATION AND OTHER STATIONS ON THE SAME ROOM CONTROLLER THAT ARE PROGRAMMED FOR REMOTE CANCEL 6. SUPPORT FOR UP TO 3 LEVELS OF CALL-IN PER PATIENT (NORMAL, PERSONAL ATTENTION, AND PRIORITY TWO ADDITIONAL STAFF CALL BUTTONS PROGRAMABLE FOR STAFF ASSIST AND CODE BLUE. PROVIDE A ¼" JACK FOR BED EXIT ALARMS . SUPPORT FOR UP TO 4 LEVELS OF SERVICE REQUIRED PER PATIENT (GREEN, ORANGE, YELLOW, 10. ONE DIN RECEPTACLE (SINGLE PATIENT) OR TWO DIN RECEPTACLES (DUAL PATIENT) PROVIDING: a. SUPPORT FOR A DIN PILLOW SPEAKER ÓR CALL CORD. b. TILT RELEASE DESIGN TO ELIMINATE RECEPTACLE DAMAGE WHEN THE PILLOW SPEAKER/CALL CORD IS PULLED FROM ANY ANGLE STATION REQUIRES NO DUMMY PLUGS AND ALSO INCLUDES A CONFIGURABLE OPTION TO REQUIRE DUMMY PLUGS IF SO DESIRED "CORD OUT" CALL PLACEMENT IF PILLOW SPEAKER OR CALL CORD IS INADVERTENTLY REMOVED WITH CORD-OUT BYPASS FEATURE ALLOWING INTENTIONAL REMOVAL OF DIN PILLOW SPEAKER OR CALL CORD WITHOUT REQUIRING A DUMMY PLUG. e. ABILITY TO PROGRAM THE CALL PRIORITY LEVEL ON A PER PATIENT/BED BASIS FOR A DUAL PATIENT STATION 11. CONTINUOUS SUPERVISION OF THE STATION FOR POWER AND DATA WITH CENTRAL NOTIFICATION OF ANY SUPERVISION FRRORS THE ABILITY TO SERVICE EXCHANGE STATION "HOT" WITHOUT REMOVING SYSTEM POWER OR POWERING DOWN THE LOCAL GATEWAY. 13. UNIT SHALL MOUNT IN A STANDARD UL RECOGNIZED 3-GANG ELECTRICAL BOX. 14. OPTIONAL FEATURES: ONE ¼ INCH RECEPTACLE (SINGLE PATIENT) OR TWO ¼ INCH RECEPTACLES (DUAL PATIENT) FOR USE WITH 1/4 INCH CALL CORDS OR FOR AUXILIARY ALARM INPUT. SUPPORT FOR UP TO THREE (3) ADDITIONAL LEVELS OF CALL-IN PER PILLOW SPEAKER

E. PATIENT STATIONS

PROVIDING A TOTAL OF FOUR (4) LEVELS OF CALL-IN. SUPPORT FOR A REMOTE DIN RECEPTACLE ASSOCIATED WITH SINGLE PATIENT STATION ALLOWING REMOTE PILLOW SPEAKER OR CALL CORD OPERATION WITHIN THE SAME ROOM AS THE ZOOM IN" VIEW SHOWS THE DETAIL OF UP TO TWO (2) OUTSTANDING CALLS CLEARLY VISIBLE FROM d. MUTING OF ENTERTAINMENT AUDIO OVER DIN PILLOW SPEAKER WHEN INTERCOM IS IN USE. FULL DUPLEX AUDIO TO THE ENHANCED DIN PILLOW SPEAKER. ASSOCIATED LIGHTING CONTROL ISOLATION MODULE. FEATURE BED (STRYKER, HILL-ROM) SUPPORT INCLUDING CALL-IN, ENTERTAINMENT AND LIGHT CONTROL, BED UNPLUGGED INDICATOR, AND BED EXIT ALARM; ONE CONNECTION PER BED FOR

FEATURE BEDS h. TWO PROGRAMMABLE FEATURE BUTTONS WITH FIELD CUSTOMIZABLE LABELS. DEFAULT OPERATION OF FEATURE BUTTONS SHALL BE CODE BLUE AND STAFF EMERGENCY. ABILITY TO SET PRIVACY MODE AT THE STATION. PRIVACY MODE PREVENTS STAFF FROM CALLING INTO THE ROOM AND LISTENING TO THE PATIENT WHILE CALLS INITIATED FROM THE ROOM STILL SUPPORT A TWO WAY AUDIO CONNECTION. ABILITY TO PLACE A ROUTINE CALL FROM A BUTTON ON THE FRONT OF THE STATION PULL-CORD AND BATH INTERCOM STATIONS PROVIDE AS SHOWN ON PLANS. EACH STATION SHALL PROVIDE THE FOLLOWING FULL DUPLEX AUDIO UTILIZING A 2 ¾ INCH OVAL SPEAKER AND A SEPARATE MICROPHONE WITH TALK/LISTEN AT EACH TOILET ROOM LOCATION AND PULL STATION ONLY AT EACH SHOWER LOCATION. THE VOLUME SHALL BE SET ON A STATION BY STATION BASIS AT ANY STAFF CONSOLE OR 2. SEALED CALL CORD: 2. A MOMENTARY ACTION CANCEL BUTTON, MONITOR LED INDICATOR, CALL-PLACED LED INDICATOR. AND THE ABILITY TO PLACE TWO CALL PRIORITIES FROM THE SAME STATION: ONE CALL PRIORITY FROM THE MOMENTARY ACTION CALL BUTTON AND ANOTHER CALL PRIORITY FROM THE PULL CORD SIX (6) FOOT, CUT-TO-LENGTH, PVC PULL-CORD FOR CALL PLACEMENT WITH PLASTIC CORD GUIDE AND LARGE EASY TO PULL PLASTIC "BELL" ATTACHED. 4. CALL FROM STATION MAY BE CONFIGURED TO BE CANCELED REMOTELY FROM STAFF CONSOLE, WORKFLOW TERMINAL, REMOTELY WITHIN THE SAME ROOM, BY STAFF REGISTERING INTO THE ROOM, OR ONLY FROM THE ORIGINATING STATION. BLUE LED TO ILLUMINATE THE STATION IN LOW AMBIENT LIGHT CONDITIONS CONTINUOUS SUPERVISION OF THE STATION FOR POWER AND DATA WITH CENTRAL NOTIFICATION OF ANY SUPERVISION ERRORS THE ABILITY TO SERVICE EXCHANGE STATION "HOT" WITHOUT REMOVING SYSTEM POWER OR

POWERING DOWN THE LOCAL GATEWAY. UNIT SHALL MOUNT IN A STANDARD UL RECOGNIZED 2-GANG ELECTRICAL BOX STAFF STATIONS PROVIDE AS SHOWN ON PLANS. EACH STATION SHALL PROVIDE THE FOLLOWING: FULL DUPLEX AUDIO UTILIZING A 2 3/ INCH OVAL SPEAKER AND A SEPARATE MICROPHONE WITH TALK/LISTEN VOLUME SET ON A STATION BY STATION BASIS AT ANY STAFF CONSOLE OR TERMINAL MOMENTARY ACTION CALL BUTTON, CANCEL BUTTON, MONITOR LED INDICATOR, AND CALL-PLACED LED INDICATOR. CANCEL BUTTON SHALL CANCEL ANY CALL ON THIS STATION AND OTHER STATIONS IN THE SAME ROOM THAT ARE PROGRAMMED FOR REMOTE CANCEL THE PATIENT ROOM WITH A STAFF LEVEL (GREEN, ORANGE, OR AMBER) THAT MATCHES THE ACTIVE 4. CALL FROM STATION MAY BE CONFIGURED TO BE CANCELED REMOTELY FROM STAFF CONSOLE, WORKFLOW TERMINAL, REMOTELY WITHIN THE SAME ROOM, BY STAFF REGISTERING INTO THE ROOM OR ONLY FROM THE ORIGINATING STATION

> BILLELED TO ILLUMINATE THE STATION IN LOW AMBIENT LIGHT CONDITIONS 6. CONTINUOUS SUPERVISION OF THE STATION FOR POWER AND DATA WITH CENTRAL NOTIFICATION OF ANY SUPERVISION FRRORS. THE ABILITY TO SERVICE EXCHANGE STAT POWERING DOWN THE LOCAL GATEWAY . UNIT SHALL MOUNT IN A STANDARD UL RECOGNIZED 2-GANG ELECTRICAL BOX. OPTIONAL 22 GAUGE STAINLESS STEEL STATION SECURITY COVER SUPPORTING CALL PLACEMENT BUTTON WITH CALL ASSURANCE LED, CALL CANCEL BUTTON, FULL DUPLEX INTERCOM AUDIO, AND THE ABILITY TO RECEIVE AUDIO PAGES. DUTY STATIONS PROVIDE AS SHOWN ON PLANS. EACH STATION SHALL PROVIDE THE FOLLOWING: FULL DUPLEX AUDIO UTILIZING A 2 ¾ INCH OVAL SPEAKER AND A SEPARATE MICROPHONE WITH

TALK/LISTEN VOLUME SET ON A STATION BY STATION BASIS AT ANY STAFF CONSOLE OR TERMINAL FOUR (4) LED CALL STATUS INDICATORS WITH 180° VISIBILITY TO ANNUNCIATE CALLS GROUPED INTO ONE OF FOUR MAIN CATEGORIES: ROUTINE, URGENT, EMERGENCY, CODE. CUSTOMIZED CALL TONES MATCH TONES AT STAFE CONSOLE. MOMENTARY ACTION CALL BUTTON WITH CALL PLACED LED INDICATOR, MONITOR LED INDICATOR AND MOMENTARY ACTION CANCEL/TONE SILENCE BUTTON, WHEN CALL TONE IS TEMPORARILY SILENCED. THE TONES REGENERATE WITH A SUBSEQUENT CALL ANNUNCIATION TO THE RESPECTIVE DUTY STATION. THIS FUNCTIONALITY CAN BE DISABLED DURING SYSTEM ONFIGURATION SO THAT CALL TONES CANNOT BE MUTED. . CALL FROM STATION MAY BE CONFIGURED TO BE CANCELED REMOTELY FROM STAFF CONSOLE, WORKFLOW TERMINAL, REMOTELY WITHIN THE SAME ROOM, BY STAFF REGISTERING INTO THE ROOM, OR ONLY FROM THE ORIGINATING STATION BLUELED TO JULUMINATE THE STATION IN LOW AMBIENT LIGHT CONDITIONS

CONTINUOUS SUPERVISION OF THE STATION FOR POWER AND DATA WITH CENTRAL NOTIFICATION OF ANY SUPERVISION FRRORS THE ABILITY TO SERVICE EXCHANGE STATION "HOT" WITHOUT REMOVING SYSTEM POWER OR POWERING DOWN THE LOCAL GATEWAY. 2) ABILITY TO REVIEW ACTIVE ROUNDING AND REMINDERS BY LEVEL, ACTIVE AND EXPIRED, AND BY 8. UNIT SHALL MOUNT IN A STANDARD UL RECOGNIZED 2-GANG ELECTRICAL BOX. VISUAL DUTY STATIONS PROVIDE AS SHOWN ON PLANS. EACH STATION SHALL PROVIDE THE FOLLOWING: FOUR (4) LED CALL STATUS INDICATORS TO ANNUNCIATE CALLS GROUPED INTO ONE OF FOUR MAIN CATEGORIES: ROUTINE, URGENT, EMERGENCY, CODE. CUSTOMIZED CALL TONES MATCH TONES

AT STAFF CONSOLE WITH AN ADJUSTABLE DAY/NIGHT TONE LEVEL MOMENTARY ACTION TONE SILENCE BUTTON. WHEN CALL TONE IS TEMPORARILY SILENCED, THE TONES REGENERATE WITH A SUBSEQUENT CALL ANNUNCIATION TO THE RESPECTIVE DUTY STATION. g) REJECTING A CALL WILL GRAY OUT THE ACTIVE CALL FROM THE CAREGIVER'S DEVICE. THIS FUNCTIONALITY CAN BE DISABLED DURING SYSTEM CONFIGURATION SO THAT CALL TONES CANNOT BE MUTED BLUE LED TO ILLUMINATE THE STATION IN LOW AMBIENT LIGHT CONDITIONS. CONTINUOUS SUPERVISION OF THE STATION FOR POWER AND DATA WITH CENTRAL NOTIFICATION OF ANY SUPERVISION ERRORS

THE ABILITY TO SERVICE EXCHANGE STATION "HOT" WITHOUT REMOVING SYSTEM POWER OR POWERING DOWN THE LOCAL GATEWAY. UNIT SHALL MOUNT IN A STANDARD UL RECOGNIZED 1-GANG ELECTRICAL BOX. ROOM CONTROLLERS PROVIDE AS SHOWN ON PLANS. EACH ROOM CONTROLLER SHALL PROVIDE THE FOLLOWING: PROVIDES POWER, DATA, AUDIO AND CONTROL FOR UP TO FIFTEEN (15) ROOM STATIONS (INTERCOM AND PERIPHERAL) WITHIN A SPECIFIC ROOM OR AREA.

UNIT SHALL MOUNT IN A STANDARD UL RECOGNIZED 2-GANG ELECTRICAL BOX CONTINUOUS SUPERVISION OF THE ROOM STATIONS WITH LED INDICATOR OF PROPER OPERATION OR FAULT CONDITION. THE ABILITY TO SERVICE EXCHANGE ROOM CONTROLLER "HOT" WITHOUT REMOVING SYSTEM POWER OR POWERING DOWN THE LOCAL GATEWAY . UNIT SHALL MOUNT IN A STANDARD UL RECOGNIZED 2-GANG ELECTRICAL BOX. ROOM CONTROLLERS WITH INTEGRATED DOME LIGHT PROVIDE AS SHOWN ON PLANS EACH DOME LIGHT SHALL PROVIDE THE FOLLOWING PROVIDES POWER, DATA, AUDIO AND CONTROL FOR UP TO FIFTEEN (15) ROOM STATIONS (INTERCOM AND PERIPHERAL) WITHIN A SPECIFIC ROOM OR AREA. INDICATE THE HIGHEST LEVEL CALL PRIORITY AND SERVICE REQUIREMENT OR STAFF PRESENCE

/ITHIN A SPECIFIC ROOM OR AREA USING MAINTENANCE FREE LED INDICATORS CAPABLE OF PRODUCING A MINIMUM OF THE FOLLOWING EIGHT (8) COLORS IN OVER FORTY (40) COLOR/PATTERN COMBINATIONS: WHITE, RED, YELLOW, ORANGE, GREEN, BLUE, MAGENTA AND PINK AND TO BE DISPLAYED WITH FIVE (5) LIGHT PATTERNS: STEADY, SLOW FLASH, FAST FLASH, SEQUENCE SLOW AND SEQUENCE FAST. THE ABILITY, FOR SEMI-PRIVATE ROOMS, TO UNIQUELY INDICATE CALLS FROM EACH OF THE TWO BEDS. A TRANSLUCENT LENS AND FOUR SECTION WITH OPAQUE PARTITIONS SEPARATING THE SECTIONS. OPTIONAL LOW PROFILE LENS FOR USE BEHIND A DECORATIVE WALL SCONCE. DOME LIGHT HOUSING AND LENS RESIST DAMAGE BY COMMON HOSPITAL CLEANING AGENTS. CONTINUOUS SUPERVISION OF THE DOME LIGHT AND ROOM STATIONS WITH LED INDICATOR OF

PROPER OPERATION OR FAULT CONDITION. IN THE UNEXPECTED EVENT OF COMMUNICATIONS LOSS WITH THE NURSE CALL GATEWAY. THE DOME LIGHT ENTERS A LOCAL ROOM FAILSAFE MODE AND CONTINUES TO VISUALLY INDICATE LOCAL CALLS. THE ABILITY TO SERVICE EXCHANGE ROOM CONTROLLER "HOT" WITHOUT REMOVING SYSTEM POWER OR POWERING DOWN THE LOCAL GATEWAY UNIT SHALL MOUNT IN A STANDARD UL RECOGNIZED 2-GANG ELECTRICAL BOX. OPTIONAL 22 GAUGE STAINLESS STEEL SECURITY LIGHT COVER SUPPORTING VISIBILITY OF ALL UR DOME LIGHT SEGMENTS. ZONE LIGHTS PROVIDE AS SHOWN ON PLANS. EACH ZONE LIGHT SHALL PROVIDE THE FOLLOWING:

PROGRAMMABLE TO INDICATE THE HIGHEST LEVEL CALL WITHIN ZONE LIGHT AREAS USING MAINTENANCE FREE LED INDICATORS OF THE FOLLOWING COLORS: WHITE AND RED. DEPENDING ON THE CALL PRIORITY THE INDICATORS CAN LIGHT SOLID OR FLASH MULTI-COLOR ZONE LIGHTS: MAINTENANCE FREE LED INDICATORS CAPABLE OF PRODUCING A MINIMUM OF THE FOLLOWING 8 COLORS IN OVER 40 COLOR/PATTERN COMBINATIONS: WHITE, RED, YELLOW, ORANGE, GREEN, BLUE, MAGENTA AND PINK AND TO BE DISPLAYED WITH FIVE LIGHT PATTERNS: STEADY, SLOW FLASH, FAST FLASH, SEQUENCE SLOW, AND SEQUENCE FAST. A TRANSLUCENT LENS AND FOUR SECTION WITH OPAQUE PARTITIONS SEPARATING THE SECTIONS. DOME LIGHT HOUSING AND LENS RESIST DAMAGE FROM COMMON HOSPITAL CLEANING AGENTS. CONTINUOUS SUPERVISION OF THE ZONE LIGHT WITH LED INDICATOR OF PROPER OPERATION **OR FAULT CONDITION** THE ABILITY TO SERVICE EXCHANGE ZONE LIGHT "HOT" WITHOUT REMOVING SYSTEM POWER OR POWERING DOWN THE LOCAL GATEWAY. CORRESPONDING ACTIVE ROUNDING BUTTON ON A PROCEDURE STATION, OR BY REGISTERING INTO 6. UNIT SHALL MOUNT IN A STANDARD UL RECOGNIZED 1-GANG OR 2-GANG ELECTRICAL BOX. OPTIONAL 22 GAUGE STAINLESS STEEL SECURITY CORRIDOR LIGHT COVER SUPPORTING VISIBILITY OF ALL FOUR ZONE LIGHT SEGMENTS.

M. PERIPHERAL STATIONS PROVIDE AS SHOWN ON PLANS THE FOLLOWING PERIPHERAL STATIONS ASSOCIATED WITH ROOM CONTROLLERS, EACH PERIPHERAL STATION SHALL PROVIDE THE FOLLOWING: CANCEL BUTTON TO BO ABILITY TO REMOTE CANCEL CALLS ON OTHER STATIONS ASSOCIATED WITH THE SAME ROOM CONTROLLER. CALL(S) FROM STATION MAY BE CONFIGURED TO BE CANCELED REMOTELY FROM STAFF CONSOLE, WORKFLOW TERMINAL, REMOTELY WITHIN THE SAME ROOM, BY STAFF REGISTERING INTO b) AUTOMATIC MODE- ALWAYS ROUTE PATIENT CALLS FROM PATIENTS TO THEIR ASSIGNED THE ROOM, OR ONLY FROM THE ORIGINATING STATION.

LED INDICATOR ASSOCIATED WITH ANY BUTTON OR JACK THAT PLACES A CALL, INITIATES A PROCEDURE, OR REGISTERS A STAFF MEMBER. 4. FULL DUPLEX AUDIO THROUGH ASSOCIATED INTERCOM STATION ASSOCIATED WITH THE SAME ROOM CONTROLLER. A BLUE LED TO ILLUMINATE THE STATION IN LOW AMBIENT LIGHT CONDITIONS. CONTINUOUS SUPERVISION OF THE STATION FOR POWER AND DATA WITH CENTRAL NOTIFICATION OF ANY SUPERVISION ERRORS. THE ABILITY TO SERVICE EXCHANGE STATION "HOT" WITHOUT REMOVING SYSTEM POWER OR

POWERING DOWN THE LOCAL GATEWAY. 8. UNIT SHALL MOUNT IN A UL RECOGNIZED 1-GANG ELECTRICAL BOX. INDIVIDUAL PERIPHERAL STATIONS SHALL BE: a. SINGLE LEVEL PUSHBUTTON STATION:

MOMENTARY CALL BUTTON WITH CUSTOMIZABLE CALL PRIORITY LABEL INSERT. OPTIONAL 22 GAUGE STAINLESS STEEL STATION SECURITY COVER SUPPORTING CALL PLACEMENT BUTTON WITH CALL ASSURANCE LED AND CALL CANCEL BUTTON. SINGLE LEVEL LARGE PUSHBUTTON STATION:

MOMENTARY CALL BUTTON PRECONFIGURED AS "CODE BLUE OR "CODE PINK" ) ELAPSED TIMER OUTPUT TO START A COUNT UP TIMER ON ANY CLOCK THAT ACCEPTS A REMOTE TIMER INPLIT

c. PULL-CORD PUSHBUTTON EMERGENCY STATION: ) SIX (6) FOOT, CUT-TO-LENGTH, PVC PULL-CORD WITH PLASTIC CORD GUIDE AND LARGE EASY TO PULL PLASTIC "BELL" ATTACHED. 2) MOMENTARY ACTION CALL BUTTON WITH THE ABILITY TO PLACE THE SAME OR DIFFERENT CALL PRIORITY THAN THE PULL CORD. d. PULL-CORD PUSHBUTTON EMERGENCY SHOWER STATION:

IS UNACCEPTABLE.

STATION

SAME PATIENT

WATERPROOF IP68 RATED FOR INGRESS PROTECTION. SYSTEMS THAT DO NOT OFFER THE

LEXIBILITY OF BOTH UL1069 SPRAY TEST RATED AND IP68 WATERPROOF RATED VERSIONS SHALL

#### PULL-CORD PUSHBUTTON EMERGENCY SHOWER STATION: SIX (6) FOOT, CUT-TO-LENGTH, PVC PULL-CORD WITH PLASTIC CORD GUIDE AND LARGE EASY TO ILL PLASTIC "BELL" ATTACHED

) MOMENTARY ACTION CALL BUTTON WITH THE ABILITY TO PLACE THE SAME OR DIFFERENT CALL PRIORITY THAN THE PULL CORD ) WALL GASKET AND WATERPROOF DESIGNS ALLOWING DIRECT APPLICATION OF WATER SPRAY FROM A SHOWER STALL OR SIMILAR TYPE INSTALLATION 4) FOR THE MOST FLEXIBILITY IN WET ENVIRONMENTS. THE STATION SHALL BE AVAILABLE IN TWO VERSIONS: ONE THAT HAS PASSED THE UL1069 'SPRAY TEST' AND ANOTHER VERSION THAT IS

DUAL LEVEL PUSHBUTTON STATION TWO (2) MOMENTARY ACTION CALL BUTTONS EACH WITH A DIFFERENT CALL PRIORITY AND THE ABILITY TÒ CUSTOMIZE THE CALL PRIORITY AND ASSOCIATED LABEL INSERT. DEFAULT CALL PRIORITIES ARE EMERGENCY AND CODE.

STAFF REGISTRATION STATION: THREE (3) INDIVIDUALLY LATCHING BUTTONS SUPPORTING THREE (3) LEVELS OF STAFF PRESENCE: GREEN, ORANGE, AND AMBER AUXILIARY ALARM INPUT STATION:

TWO (2) 1/4 INCH JACKS FOR THE CONNECTION OF EXTERNAL PATIENT MONITORING DEVICES. INDIVIDUALLY PROGRAMMABLE CALL PRIORITY LEVEL PER JACK EACH WITH A CUSTOMIZABLE CALL PRIORITY LABEL INSERT ABILITY TO ASSOCIATE MULTIPLE AUXILIARY ALARM INPUT STATIONS WITH THE SAME ROOM CONTROLLER IN TURN SUPPORTING UP TO A TOTAL OF THIRTY (30) UNIQUE ALARM INPUT CALL configurable for latching or non-latching inputs.

NO DUMMY PLUGS REQUIRED. REMOTE CANCEL STATION: A MOMENTARY CANCEL BUTTON TO REMOTE CANCEL CALLS ON OTHER STATIONS ASSOCIATED

NOT BE ACCEPTABLE.

PRIORITIES

STANDARD

N. PILLOW SPEAKERS

TV POWER BUTTON.

CALL CORDS

METAL BED CLIP.

METAL BED CLIP

METAL BED CLIP

ARE UNACCEPTABLE

ACILITY'S LAN

ANDIATER

ADDITIONAL CALLS.

ACCEPTING THE CAL

PRIORITY

6) OVER ANY PC ON THE FACILITY'S LAN SUPPORT

ASSIGNED CAREGIVERS

POCKET PAGER/WIRELESS DEVICE

PROVIDING THE FOLLOWING

8-PIN DIN CONNECTOR

WITH THE SAME ROOM CONTROLLER. PROVIDE ONE (1) PILLOW SPEAKER PER SINGLE PATIENT STATION WITH AN ADDITIONAL 5% AS SPARES. EACH PILLOW SPEAKER SHALL PROVIDE:

a. MOLDED ABS PLASTIC CASE AND CONTROLS AN INTEGRAL GRILL WITH SPEAKER/MICROPHONE. NURSE CALL BUTTON.

TEN (10) FOOT VINYL-INSULATED CORD WITH ELECTROSTATIC DISCHARGE PROTECTION AND MOLDED STRAIN RELIEF AT EACH END. SPRING-TYPE METAL BED CLIP.

MOLDED PLASTIC PLUG WITH 8-PIN DIN CONNECTOR. OPTIONAL FEATURES: TWO (2) AUXILIARY BUTTONS FOR CONTROL OF IN-ROOM LIGHTING OR OTHER IN-ROOM DEVICES. THERE SHALL BE THREE DIFFERENT PILLOW SPEAKER MODELS AVAILABLE

a) TV CHANNEL UP AND DOWN BUTTONS TV VOLUME UP, VOLUME DOWN, AND MUTE BUTTONS.

TV CLOSED CAPTION BUTTON PROVIDE STANDARD AND SPECIALTY CALL CORDS AS REQUIRED:

STANDARD CALL CORD: TEN (10) FOOT VINYL JACKETED CORD

THERMÓPLASTIC PENDANT WITH MOMENTARY CONTACT NURSE CALL PUSHBUTTON. 8-PIN DIN CONNECTOR

STRAIN RELIEF AT BOTH ENDS TEN (10) FOOT VINYL JACKETED CORD

THERMOPLASTIC PENDANT WITH SEALED MOMENTARY CONTACT NURSE CALL PUSHBUTTON. NIGHT LIGHT TO ILLUMINATE THE CALL CORD PENDANT IN LOW AMBIENT LIGHT CONDITIONS. 8-PIN DIN CONNECTOR.

STRAIN RELIEF AT BOTH ENDS SPECIALTY GERIATRIC CALL CORD:

BULB AND CORD: SIX (6) FOOT GRAY NON-TOXIC TUBING WITH MATCHING MOLDED AIR BULB. SPECIALTY BREATH ACTIVATED CALL CORD: CONDUIT: PLASTIC COVERED, THREE (3) FOOT HEAVY-DUTY FLEXIBLE METAL CONDUIT. STRAW: 2 INCH X 5/16 INCH DIAMETER CLEAR VINYL STRAW (12 PROVIDED).

CORD: 9 FOOT X 5/16 INCH DIAMETER GREY PLASTIC TUBING. CONNECTOR: 1/4 INCH PHONE-TYPE PLUG. LAN/WAN-BASED SOFTWARE AND INTEGRATION OPTIONS SUPPORTING TO INTERCONNECT ALL GATEWAYS AND ASSOCIATED LAN/WAN-BASED SOFTWARE AND INTEGRATION OPTIONS, SYSTEM SHALL SUPPORT LAN CONNECTION OVER DEDICATED LAYER 2 SUBNET (PRIVATE NURSE CALL NETWORK), A LAYER 3 NETWORK WITH MULTIPLE SUBNETS TO

LEVERAGE THE FACILITY'S EXISTING LAN INFRASTRUCTURE, OR OVER A WAN CONNECTION TO THE ORGANIZATION'S DATA CENTER MICROSOFT ACTIVE DIRECTORY (AD) FOR A SINGLE SIGN-ON TO BOTH THE FACILITY'S LAN AND ANY ASSOCIATED NURSE CALL APPLICATIONS. SYSTEMS WHICH REQUIRE USERS TO MANAGE A SEPARATE SIGN ON AND PASSWORD FOR NURSE CALL APPLICATIONS ARE UNACCEPTABLE. SERVER VIRTUALIZATION TO RUN NURSE CALL SOFTWARE AND INTEGRATION OPTIONS. SYSTEMS WHICH REQUIRE DEDICATED HARDWARE SERVERS FOR NURSE CALL SOFTWARE AND INTEGRATION

4. THE AVAILABLE SOFTWARE AND INTEGRATION OPTIONS ARE: a. REPORTING SOFTWARE PACKAGE – OPTIONAL PROVIDING THE FOLLOWING:

CALL ACTIVITY TEXT MESSAGING SENT TO PHONES SMART DEVICES, AND PAGERS, CALLS SENT TO PHONES, AND STAFF RESPONSE TO ACTIVE CALLS, ACROSS THE ENTIRE NURSE CALL NETWORK MULTIPLE REPORT GENERATION OPTIONS INCLUDING SUMMARIZED CALL STATISTICS. HOURLY CALL STATISTICS, CALL EXCEPTION (STAFF VOICE AND IN-PERSON RESPONSE OUTSIDE OF DESIRED TIME) DETAILED PATIENT ACTIVITY SUMMARY PATIENT ACTIVITY, SYSTEM-WIDE ACTIVITY, CURRENT STAFF ASSIGNMENT. STAFF ASSIGNMENT HISTORY, PATIENT WAIT TIME (FOR CLINIC/ASC

APPLICATIONS), AND STAFF ACTIVITY (FOR CLINIC/ASC APPLICATIONS 3) ABILITY TO GENERATE THE REPORTS IN EITHER PDF OR EXCEL FORMATS. REMOTE REPORT GENERATION CAPABILITY FROM ANY NETWORKED PC WORK STATION ON THE ) SUPPORT FOR AN UNLIMITED NUMBER OF CONCURRENT USERS TO ACCESS REPORT GENERATION. ANY LIMIT TO THE NUMBER OF USERS ACCESSING THE SOFTWARE IS UNACCEPTABLE. ) ABILITY TO AUTOMATICALLY EMAIL PREDEFINED REPORTS AT REOCCURRING PERIODS. THE TIME PERIODS CAN BE CONFIGURED FOR A SPECIFIC TIME EVERY DAY, DAY OF THE WEEK, EVERY OTHER WEEK, OR MONTHLY. THE REPORTS WILL AUTOMATICALLY UPDATE THE DATA TO "ROLL" WITH THE REOCCURRING TIME PERIODS WHEN THE REPORTS ARE EMAILED.

SMART DEVICE TEXT ALERTING - OPTIONA PROVIDE AN ANDROID-BASED TEXT ALERTING INTERFACE: TEXT ALERTING APPLICATION ON WIRELESS SMART DEVICE SUPPORTS ANDROID VERSION 6.0 ON THE CAREGIVER'S WIRELESS PHONE/TABLET OVER THE FACILITY'S LAN, AUTOMATICALLY ROUTE TEXT ALERTS OF ACTIVE CALLS, WORKFLOWS, EXPIRED ROUNDING, AND ACTIVE TIMERS TO CAREGIVER(S) SMARTPHONE/TABLET INCLUDING THE CALL PRIORITY, CALLING ROOM, BED, AND CALL DURATION TIMER.

TONE AND/OR VIBRATE ALERTING OF ACTIVE CALLS DISPLAYS UP TO EIGHT (8) ACTIVE CALLS AT A TIME WITH THE ABILITY TO SCROLL TO SEE ) AUTOMATICALLY PRIORITIZATION OF DISPLAYED ACTIVE CALLS SO THAT THE HIGHEST PRIORITY AND LONGEST ACTIVE CALLS ARE AT THE TOP OF THE DISPLAY. ABILITY TO ACCEPT OR REJECT A DISPLAYED ACTIVE CALL

ACCEPTING A CALL WILL ALERT ALL OTHER DEVICE WITH THE NAME OF THE CAREGIVER DISPLAYS ACTIVE PATIENT AND STAFF CALLS ON SMART DEVICE'S LOCK SCREEN. CAREGIVER CAN MANAGE THEIR OWN ON/OFF DUTY AND BREAK STATUS FOR WHEN THEY WILL RECEIVE ACTIVE CALL ALERTS. ABILITY TO ANSWER CALLS WITH DIRECT AUDIO COMMUNICATION FROM THE CAREGIVER'S

SMART PHONE TO THE CALLING PATIENT'S PATIENT STATION. e. TEXT MESSAGING, EMAIL ALERTS, AND POCKET PAGE AND INTERFACE – OPTIONAL PROVIDING THE FOLLOWING: USING INDUSTRY STANDARD TAP PROTOCOL TO TRANSMIT INFORMATIONAL MESSAGES AND -ATIENT CALL INFORMATION TO THE FACILITY'S POCKET PAGE ENCODER/TRANSMITTER OR MIDDLEWARE FOR TEXT MESSAGING OVER A WIRELESS DEVICE CARRIED BY STAFF MEMBERS. 2) CALL NOTIFICATION TO DISPLAY VIA AND EMAIL AND/OR A CAREGIVER'S POCKET PAGER/WIRELESS DEVICE. THE CALL NOTIFICATION INCLUDES CALLING ROOM, BED, AND CALL 3) CALL NOTIFICATION CAN BE SENT TO INDIVIDUAL CAREGIVERS OR A GROUP NOTIFICATION TO MULTIPLE PAGERS AND/OR EMAIL ADDRESSES. SUPPORTING THREE PROGRAMMABLE OPERATING MODES FOR EACH HOSPITAL UNIT/WARD.

REGARDLESS OF THE MODE OF OPERATION, ALL CALLS WILL CONTINUE TO ANNUNCIATE AT RESPECTIVE DUTY STATIONS, STAFF CONSOLES, AND WORKFLOW TERMINALS: a) MANUAL MODE – FROM A STAFF CONSOLE OR STAFF/DUTY TERMINAL, STAFF MEMBERS CAN MANUALLY INITIATE A MESSAGE TO ANY CAREGIVER'S POCKET PAGER/WIRELESS DEVICE. b) AUTOMATIC MODE – ALWAYS ROUTE PATIENT CALLS FROM PATIENTS TO THEIR ASSIGNED CAREGIVER'S POCKET PAGER/WIRELESS DEVICE SEMI-AUTOMATIC – FROM A STAFF CONSOLE OR STAFF/DUTY TERMINAL STAFF MEMBERS SELECTIVELY INITIATE POCKET PAGE/WIRELESS DEVICE NOTIFICATION TO ASSIGNED CAREGIVERS BY

SETTING A SERVICE REQUIREMENT. AS PART OF THE SERVICE REQUIREMENT THE STAFF MEMBER MAY INCLUDE AN INFORMATIONAL "TAG" MESSAGE DETAILING PATIENT'S NEEDS. IF A CALL IS NOT CLEARED WITHIN A PREPROGRAMMED TIME PERIOD THE POCKET PAGE/TEXT MESSAGE WILL AUTOMATICALLY ROUTE TO THE NEXT ASSIGNED STAFF MEMBER'S PAGER/WIRELESS

SHIFTS WITHIN A 24 HOUR PERIOD CUSTOMIZE WHICH CALL PRIORITIES ROUTE FIRST, SECOND, OR THIRD TO EACH OF THE ) CREATE MULTIPLE CRASH TEAMS AND GROUP NOTIFICATIONS BASED ON SPECIFIC CALL PRIORITIES AND/OR UNITS. GROUP/CRASH TEAM PAGES WILL AUTOMATICALLY DISPLAY ON ALL POCKET PAGERS FOR CAREGIVERS ASSIGNED TO THAT GROUP/CRASH TEAM ) SUPPORT FOR AN UNLIMITED NUMBER OF CONCURRENT USERS TO ACCESS STAFF ASSIGNMENT SOFTWARE. ANY LIMIT TO THE NUMBER OF USERS ACCESSING THE SOFTWARE IS UNACCEPTABLE. PATIENTS WITHOUT ONE OR MORE ASSIGNED CAREGIVERS SHALL AUTOMATICALLY ROUTE TO A JNIT-WIDE BACKUP POCKET PAGER/WIRELESS DEVICE TO ENSURE NO PATIENT CALL IS MISSED. ) SUPPORT FOR TEAM ALERTS WHICH ROUTES TEXT ALERTS OF PATIENT AND STAFF CALLS TO MULTIPLE POCKET PAGERS/WIRELESS DEVICES SIMULTANEOUSLY. ) NOTIFICATION OF SYSTEM ERRORS AUTOMATICALLY SENT TO A DESIGNATED TECHNICIAN'S

SIP FACILITY-WIDE WIRELESS PHONE INTERFACE – OPTIONAL UTILIZE THE SESSION INITIATION PROTOCOL (SIP) STANDARD TO ROUTE PATIENT AND STAFF ŹALLS FROM THE NURSE CALL NETWORK TO WIRÈLESS SIP PHONES CARRIED BY STAFF MEMBERS. CALL NOTIFICATION AND DISPLAY TO CAREGIVER'S WIRELESS SIP-BASED PHONE INCLUDING CALLING ROOM. BED. AND CALL PRIORITY. UPON NOTIFICATION OF A CALL, FROM THE WIRELESS PHONE THE CAREGIVER CAN ANSWER THE CALL AND a) ESTABLISH FULL-DUPLEX AUDIO COMMUNICATION WITH THE CALLING PATIENT, STAFF, OR DUTY ) USING THE TELEPHONE'S KEYPAD, SET A SERVICE REQUIREMENT (GREEN, ORANGE, AMBER, OR STAT) FOR THE CALLING PATIENT TO DIRECT THE CALL TO OTHER CAREGIVER'S ASSIGNED TO THIS

USING THE TELEPHONE'S KEYPAD, UPGRADE THE CALL TO A PRIORITY CALL TO ROUTE THE CALL O ALL CAREGIVER'S ASSIGNED TO THE PATIEN ABILITY TO DIAL DIRECTLY TO PATIENT ROOMS AND STAFF AREAS TO COMMUNICATE OVER THE ASSOCIATED PATIENT, STAFF, OR DUTY STATION. I) SUPPORT FOR THREE PROGRAMMABLE OPERATING MODES FOR EACH HOSPITAL UNIT/WARD. GARDI ESS OF THE MODE OF OPERATION AL

THE ABILITY TO ASSIGN OF UP TO THREE CAREGIVERS FOR EACH PATIENT FOR UP TO THREE

RESPECTIVE DUTY STATIONS, STAFF CONSOLES, AND WORKFLOW TERMINALS: ) MANUAL MODE – FROM A STAFF CONSOLE OR STAFF/DUTY TERMINAL, STAFF MEMBERS CAN MANUALLY INITIATE A TEXT MESSAGE TO ANY CAREGIVER'S WIRELESS PHONE. SEMI-AUTOMATIC – FROM A STAFF CONSOLE OR STAFF/DUTY TERMINAL STAFF MEMBERS SELECTIVELY INITIATES WIRELESS PHONE NOTIFICATION TO ASSIGNED CAREGIVERS BY SETTING A SERVICE REQUIREMENT, AS PART OF THE SERVICE REQUIREMENT THE STAFF MEMBER MAY INCLUDE AN INFORMATIONAL "TAG" MESSAGE DETAILING PATIENT'S NEEDS. 5) IF A PATIENT CALL IS NOT CLEARED WITHIN A PREPROGRAMMED TIME PERIOD THE CALL NOTIFICATION WILL AUTOMATICALLY ROUTE TO THE NEXT ASSIGNED STAFF MEMBER'S WIRELESS 6) PATIENTS WITHOUT AN ASSIGNED CAREGIVER SHALL AUTOMATICALLY ROUTE TO A UNIT-WIDE

BACKUP SIP WIRFLESS PHONE TO ENSURE NO PATIENT CALL IS MISSED ) SUPPORT FOR TEAM ALERTS WHICH ROUTE TEXT ONLY ALERTS OF PATIENT AND STAFF CALLS TO MULTIPLE SIP PHONES SIMULTANEOUSLY. B) OVER ANY PC ON THE FACILITY'S LAN SUPPORT: ) THE ABILITY TO ASSIGN OF UP TO THREE CAREGIVERS FOR EACH PATIENT FOR UP TO THREE

CREATE MULTIPLE CRASH TEAMS AND GROUP NOTIFICATIONS BASED ON SPECIFIC CALL PRIORITIES AND/OR UNITS. SIP BASED GROUP NOTIFICATIONS WILL AUTOMATICALLY DISPLAY ON ALL WIRELESS PHONES FOR CAREGIVERS ASSIGNED TO THAT GROUP/CRASH TEAM. i) SUPPORT FOR AN UNLIMITED NUMBER OF CONCURRENT USERS TO ACCESS STAFF ASSIGNMENT SOFTWARE. ANY LIMIT TO THE NUMBER OF USERS ACCESSING THE SOFTWARE IS UNACCEPTABLE. EMPLOY A NETWORKED NURSE CALL SYSTEM ARCHITECTURE AND SIP LICENSING SCHEME TO ÉLIMINATE CALLS FROM NOT ROUTING TO SIP PHONES BECAUSE OF LIMITED RESOURCES. ANY BLOCKING OF WIRELESS PHONES BEING ABLE TO ANSWER CALLS BECAUSE OF LIMITED RESOURCES

LAN-BASED PC CONSOLE DISPLAY SOFTWARE - OPTIONAL PROVIDING THE FOLLOWING

REMOTE ACCESS TO PC CONSOLE DISPLAY FROM ANY NETWORKED PC WORK STATION ON THE FACILITY'S ABILITY TO RUN IN EITHER AN INDEPENDENT OR ASSOCIATED MODE INDEPENDENT MODE SUPPORTS FILTERING TO SHOW ALL OR SPECIFIC CALL PRIORITIES AND WORKFLOW

EVENTS, FOR ONE UNIT, SEVERAL UNITS, OR THE ENTIRE NURSE CALL NETWORK ASSOCIATED MODE WORKS IN TANDEM WITH A STAFF CONSOLE. SELECTING AN ACTIVE CALL ON THE PC CONSOLE DISPLAY WILL ANSWER THE CALL ON THE ASSOCIATED STAFF CONSOLE. CAPABLE OF THREE DIFFERENT VIEWS OF CALL AND PATIENT INFORMATION ) LIST VIEW – SHOWING UP TO SIX (6) ACTIVE CALLS OR EVENTS WITH THE ABILITY TO SCROLL TO SEE ADDITIONAL CALLS AND EVENTS. THE ACTIVE CALLS AND EVENTS ARE SHOWN IN ORDER BASED ON THE HIGHEST PRIORITY AND OLDEST ACTIVE CALL OR EVENT AT THE BEGINNING OF THE LIST. THE LIST VIEW ALSO DISPLAYS THE ACTIVE STAFF IN THE SELECTED NURSING UNIT(S) AND THE WIRELESS DEVICES ASSIGNED TO

b) WHITEBOARD VIEW – WITHIN A SPECIFIC UNIT, LIST ALL THE ROOMS/BEDS AND ANY ASSOCIATED NFORMATION INCLUDING PATIENT INFORMATION, ASSIGNED CAREGIVERS, STAFF PRESENT, ACTIVE CALL EVENTS AND SERVICE REMINDERS, AND SMART BED STATUS MAP VIEW – WITHIN A SPECIFIC UNIT DISPLAY UP TO FOUR (4) FLOOR MAPS SHOWING ACTIVE CALLS WITH A COUNT-UP TIMER, ACTIVE SERVICE REQUESTS AND CURRENT STAFF LOCATIONS. ) SUPPORT FOR AN UNLIMITED NUMBER OF CONCURRENT USERS TO ACCESS PC CONSOLE DISPLAY SOFTWARE. ANY LIMIT TO THE NUMBER OF USERS ACCESSING THE SOFTWARE IS UNACCEPTABLE.

PATIENT ROOM CARE BOARD INTERFACE – OPTIONAL PROVIDING THE FOLLOWING SYSTEM IS CAPABLE OF INTEGRATING TO 3RD PARTY PATIENT ROOM CARE BOARD TO DISPLAY ADDITIONAL NFORMATION IN PATIENT ROOMS. THE INFORMATION IS SPECIFIC TO EACH PATIENT ROOM OR BED AND NCLUDES: a) ANY ACTIVE CALL IN THE ROOM, INDICATED BY CALL PRIORITY AND INCLUDING A COUNT UP TIMER FOR THE DURATION OF EACH CALL

b) ACTIVE SERVICE REQUIREMENTS – GREEN, ORANGE, YELLOW, OR STAT ROUNDING REMINDERS BY STAFF LEVEL – GREEN, ORANGE, OR YELLOW

THAT WILL NOT DAMAGE MEDIA OR RACEWAY

REQUESTED WORK FLOWS INCLUDING: TRANSPORTATION, MEALS, ENVIRONMENTAL SERVICE, CONSULT ADT INTERFACE – OPTIONAL PROVIDE AN HL-7 COMPLIANT INTERFACE (V2.2 – 2.4) TO RECEIVE RELEVANT PATIENT INFORMATION FROM THE ADT SYSTEM WITH THE FOLLOWING FUNCTIONALITY: MAPPING OF STANDARD ADT SEGMENT FIELD COMPONENTS AND SUBCOMPONENTS TO NURSE CALL FIELDS. DISPLAY OF PATIENT INFORMATION AT STAFF CONSOLES AND WORKFLOW TERMINALS WHEN A PATIENT CALL IS ANNUNCIATED. WHEN A PATIENT CALL IS ANSWERED. OR WHEN A PATIENT ROOM IS DIALED DIRECTLY. ALL UPDATES SHALL BE REAL TIME, BUT SOFTWARE SHALL BUFFER DATA FOR ANY INTERRUPTION OF SERVICE PART 3 EXECUTION I INSTALLATION

WIRING METHOD: INSTALL WIRING IN RACEWAY EXCEPT WITHIN CONSOLES, DESKS, AND COUNTERS; AND EXCEPT IN ACCESSIBLE CEILING SPACES AND IN GYPSUM BOARD PARTITIONS, WHERE CABLE WIRING METHOD MAY BE USED. USE UL-LISTED PLENUM CABLE IN ENVIRONMENTAL AIR SPACES INCLUDING PLENUM CEILINGS. CONCEAL CABLE AND RACEWAY WIRING EXCEPT IN UNFINISHED SPACES INSTALL CABLES WITHOUT DAMAGING CONDUCTORS OR JACKET. DO NOT BEND CABLES, IN HANDLING OR IN INSTALLING, TO SMALLER RADII THAN MINIMUMS RECOMMENDED

Y MANUFACTURER PULL CABLES WITHOUT EXCEEDING CABLE MANUFACTURER'S RECOMMENDED PULLING TENSIONS. PULL CABLES SIMULTANEOUSLY IF MORE THAN ONE IS BEING INSTALLED IN SAME RACEWAY. USE PULLING COMPOUND OR LUBRICANT IF NECESSARY. USE COMPOUNDS THAT WILL NOT DAMAGE CONDUCTOR OR INSULATION. USE PULLING MEANS, INCLUDING FISH TAPE, CABLE, ROPE, AND BASKET-WEAVE WIRE OR CABLE GRIPS

INSTALL EXPOSED RACEWAYS AND CABLES PARALLEL AND PERPENDICULAR TO SURFACES OR EXPOSED STRUCTURAL MEMBERS, AND FOLLOW SURFACE CONTOURS. SECURE AND SUPPORT CABLES BY STRAPS, STAPLES, OR SIMILAR FITTINGS DESIGNED AND INSTALLED SO AS NOT TO DAMAGE CABLES. SECURE CABLE AT NTERVALS NOT EXCEEDING 30 INCHES AND NOT MORE THAN 6 INCHES FROM CABINETS, BOXES, OR FITTINGS. WIRING WITHIN ENCLOSURES: PROVIDE ADEQUATE LENGTH OF CONDUCTORS SEPARATION OF WIRES: RUN IN SEPARATE RACEWAYS OR, IF EXPOSED OR IN SAME ENCLOSURE, PROVIDE 12-INCH MINIMUM SEPARATION BETWEEN CONDUCTORS AND ADJACENT PARALLEL POWER AND TELEPHONE WIRING. PROVIDE SEPARATION AS RECOMMENDED BY EQUIPMENT MANUFACTURER FOR OTHER CONDUCTORS H. IDENTIFICATION OF CONDUCTORS AND CABLES: RETAIN COLOR-CODING OF CONDUCTORS AND APPLY WIR

WITH SYSTEM WIRING DIAGRAMS. LABEL STATIONS, CONTROLS, AND INDICATIONS USING APPROVED ONSISTENT NOMENCLATURE CATEGORY-5 OR BETTER WIRE TERMINATION WILL BE CONNECTORIZED ACCORDING TO ANSI STANDARD

AND CABLE MARKING TAPE TO DESIGNATE WIRES AND CABLES SO ALL MEDIA ARE IDENTIFIED IN COORDINATION

GROUNDING PROVISIONS: COMPLY WITH REQUIREMENTS IN NEC ARTICLE 250. 2 FIFLD QUALITY CONTROL MANUFACTURER'S FIELD SERVICE: A FACTORY-AUTHORIZED SERVICE REPRESENTATIVE TO INSPECT, TEST, AND ADJUST FIELD-ASSEMBLED COMPONENTS AND EQUIPMENT INSTALLATION, INCLUDING CONNECTIONS, AND

O ASSIST IN FIELD TESTING. REPORT RESULTS IN WRITING. TEST PROCEDURE: COMPLY WITH THE FOLLOWING: SCHEDULE TESTS A MINIMUM OF SEVEN (7) DAYS IN ADVANCE OF PERFORMANCE OF TESTS. REPORT: SUBMIT A WRITTEN RECORD OF TEST RESULTS. OPERATIONAL TEST: PERFORM AN OPERATIONAL SYSTEM TEST, AND DEMONSTRATE PROPER OPERATIONS. DJUSTMENT, AND SENSITIVITY OF EACH STATION. PERFORM TESTS THAT INCLUDE ORIGINATING STATION-TO-STATION AND ALL-CALL MESSAGES AND PAGES AT EACH NURSE CALL STATION. VERIFY PROPER CALL-IN ROUTING AND VOLUME LEVELS FOR EACH INTERCOM STATION.

RETESTING: RECTIFY DEFICIENCIES INDICATED BY TESTS AND COMPLETELY RETEST WORK AFFECTED BY SUCH DEFICIENCIES AT CONTRACTOR'S EXPENSE. VERIFY BY THE SYSTEM TEST THAT THE TOTAL SYSTEM MEETS THESE SPECIFICATIONS AND COMPLIES WITH APPLICABLE STANDARDS. REPORT RESULTS IN WRITING INSPECTION: VERIFY THAT UNITS AND CONTROLS ARE PROPERLY LABELED AND INTERCONNECTING WIRES AND TERMINALS ARE IDENTIFIED. 3.3 TRAINING IN-SERVICE TRAINING FOR ALL NURSING STAFE ASSIGNED TO THOSE NURSING UNITS RECEIVING A 

NEW OR UPDATED NURSE CALL SYSTEM. THE TRAINING SHALL BE GIVEN BY THE MANUFACTURER'S CLINICAL DUCATION PERSONNEL AND WILL INCLUDE LEAVE BEHIND NURSE CALL OPERATION DOCUMENTATION AND GUIDES, WHEN MULTIPLE NURSING UNITS ARE INVOLVED, CLASSES WILL BE GROUPED AND THE PERIODS OF RAINING SHALL BE COORDINATED WITH THE FACILITY TO ENSURE ALL NURSING SHIFTS RECEIVE THE REQUIRED TRAINING. ALL TRAINING SHALL BE COORDINATED THROUGH THE EDUCATION/RISK MANAGEMENT STAFF OF THE FACILITY, EACH SESSION SHALL INCLUDE INSTRUCTIONS UTILIZING A FACTORY PREPARED DEMONSTRATION UNIT GIVEN BY THE MANUFACTURER' CLINICAL EDUCATION PERSONNEL TO PROVIDE "HANDS-ON" PRACTICE OPERATION OF THE SYSTEM WITHOUT AFFECTING ACTIVITY ON A LIVE SYSTEM IN THE NURSING UNIT. AT NO CHARGE TO THE CLIENT. TO COMPLEMENT IN-PERSON TRAINING, ON-LINE TRAINING SESSIONS WILL E AVAILABLE THAT CAN BE ACCESSED THROUGHOUT THE MANUFACTURER'S SPECIFIED WARRANTY PERIOD. TECHNICA TRAIN FACILITY'S MAINTENANCE PERSONNEL AND CAREGIVER STAFF TO ADJUST. OPERATE, AND MAINTAIN NURSE CALL EQUIPMENT. THIS OFF-SITE TRAINING IS AVAILABLE AT THE MANUFACTURER'S FACILITY TO PROVIDE THE BEST POSSIBLE HANDS-ON TRAINING EXPERIENCE. THE COST OF THE TECHNICAL TRAINING SHALL BE AT NO CHARGE, WITH THE FACILITY RESPONSIBLE FOR ALL TRAVEL, ROOM AND BOARD EXPENSES.

1 DRAWINGS ROVIDE AS BUILT DRAWINGS OF ALL INSTALLED NETWORK COMPONENTS AND ASSOCIATED WIRING ON BUILDING PLANS. FINAL PAYMENT FOR WORK WILL NOT BE AUTHORIZED UNLESS THESE DRAWINGS ARE SUPPLIED END OF SECTION

ECTION 28 31 00 - FIRE DETECTION AND ALARM

THIS SECTION IDENTIFIES REQUIREMENTS FOR FURNISHING, INSTALLING, CONNECTING AND TESTING OF A MICROPROCESSOR CONTROLLED, INTELLIGENT ADDRESSABLE REPORTING FIRE ALARM SYSTEM. THE SYSTEM SHALL BE A PARTIALLY REVISED FIRE ALARM PROTECTIVE SIGNALING SYSTEM FEATURING OCCUPANT NOTIFICATION. THE SYSTEM SHALL INCLUDE, BUT NOT BE LIMITED TO, ALARM INITIATING DEVICES ALARM NOTIFICATION APPLIANCES FIRE ALARM CONTROL PANEL (FACP) PROGRAMMIN AUXILIARY CONTROL DEVICES AND WIRING AS SHOWN ON THE DRAWINGS AND SPECIFIED HEREIN INSTALLATION SHALL BE IN ACCORDANCE WITH THE NEC, NFPA 72, LOCAL AND STATE CODES, AS

SHOWN ON THE DRAWINGS, AND AS RECOMMENDED BY THE FIRE ALARM EQUIPMENT MANUFACTURER. ACCEPTABLE MANUFACTURERS SIEMENS SUBSTITUTIONS: NONE ALLOWED SUBMITTALS

SUBMIT FIRE ALARM EQUIPMENT INCLUDING BUT NOT LIMITED TO A MAIN CONTROL PANEL. REMOTE ANNUNCIATOR MANUAL PULL STATIONS, OCCUPANT NOTIFICATION DEVICES, CONDUIT AND RACEWAY, WIRING. NOTIFICATION APPLIANCE CIRCUIT POWER SUPPLIES. ELECTRIC BELLS SHOP DRAWINGS: INDICATE SYSTEM WIRING DIAGRAM SHOWING EACH DEVICE AND WIRING CONNECTION; INDICATE ANNUNCIATOR LAYOUT, AND DESIGN CALCULATIONS. 3. SUBMIT COMPLETE FIRE ALARM BATTERY CALCULATIONS, TAKING ALL DEVICES WITHIN BUILDING INTO

ACCOUN WARRANTY AND MAINTENANCE REQUIREMENTS CONTRACTOR'S WARRANTY: WARRANTY THE INSTALLATION TO BE FREE OF DEFECT FOR A PERIOD OF TWO (2) YFARS 2. EQUIPMENT WARRANTY: EACH PIECE OF EQUIPMENT SHALL CARRY A TWO (2) YEAR MANUFACTURER'S

WARRANTY 3. FURNISH SERVICE AND MAINTENANCE OF FIRE ALARM EQUIPMENT FOR ONE YEAR FROM DATE OF SUBSTANTIAL COMPLETION. EXTRA MATERIALS

PROVIDE (2) MANUAL FIRE ALARM PULLSTATIONS, COMPLETE WITH ALL LABOR, MATERIAL, WIRING AND PROGRAMMING, TO BE LOCATED IN THE FIELD AS DIRECTED BY THE ENGINEER OR LOCAL AUTHORITY HAVING JURISDICTION PROVIDE (2) FIRE ALARM AUDIO/VISUAL APPLIANCES, COMPLETE WITH ALL LABOR, MATERIAL, WIRING AND PROGRAMMING, TO BE LOCATED IN THE FIELD AS DIRECTED BY THE ENGINEER OR LOCAL

AUTHORITY HAVING JURISDICTION MAIN CONTROL PANEL PRODUCT : EXISTING SIEMENS MAIN CONTROL PANEL TO BE REUSED

INITIATING DEVICES

MANUAL PULL STATION - PULL STATIONS SHALL BE MANUAL ADDRESSABLE NON-CODED SEMI-FLUSH MOUNTED DOUBLE-ACTION STATION WITH BREAK-GLASS ROD. STATIONS SHALL BE MOUNTED SEMI-FLUSH IN FINISHED SPACES AND SURFACE MOUNTED IN UNFINISHED SPACES. ADDRESSABLE HEAT DETECTOR – DETECTORS SHALL BE ADDRESSABLE COMBINATION RATE-OF-RISE AND FIXED TEMPERATURE SPOT TYPE HEAT DETECTORS WITH PLUG-IN BASE. TEMPERATURE RATING SHALL BE 135 OR 194 DEGREES F; RATE-OF-RISE SHALL BE 15 DEGREES F PER MINUTE. THE CHOICE OF ALARM REPORTING AS A FIXED TEMPERATURE DETECTOR OR A COMBINATION OF FIXED AND RATE OF RISE SHALL BE MADE IN THE SYSTEM SOFTWARE AND SHALL BE PROGRAMMABLE AT ANY TIME

WITHOUT THE NECESSITY OF HARDWARE REPLACEMENT. THE DETECTORS FURNISHED SHALL HAVE A LISTED SPACING FOR COVERAGE UP TO 2.500 SQUARE FEET. ADDRESSABLE PHOTOELECTRIC CEILING SMOKE DETECTOR - ADDRESSABLE PHOTOELECTRIC TYPE CEILING SMOKE DETECTOR WITH ADJUSTABLE SENSITIVITY, PLUG-IN BASE, VISUAL INDICATION OF DETECTOR ACTUATION. THE SMOKE DETECTOR SHALL BE CAPABLE OF PROVIDING THREE DISTINCT OUTPUTS FROM THE CONTROL PANEL. THE OUTPUTS SHALL BE FROM AN INPUT OF SMOKE OBSCURATION, A THERMAL CONDITION OR A COMBINATION OF OBSCURATION AND THERMAL CONDITIONS

4. ADDRESSABLE DUCT SMOKE DETECTOR - ADDRESSABLE PHOTOELECTRIC TYPE DUCT MOUNTED SMOKE DETECTOR WITH DUCT SAMPLING TUBES EXTENDING THE WIDTH OF THE DUCT. DUCT-MOUNTED HOUSING, AUXILIARY SPDT RELAY CONTACTS, VISUAL INDICATION OF DETECTOR ACTUATION. FURNISH AND INSTALL A KEYED REMOTE TEST SWITCH FOR FACH DUCT SMOKE DETECTOR. FLUSH MOUNTED INTO THE NEAREST ACCESSIBLE CEILING OR WALL MOUNTED PER THE DIRECTION OF THE AHJ. ADDRESSABLE CARBON MONOXIDE DETECTOR – CARBON MONOXIDE DETECTORS SHALL MEET UL2034

AND UL2075. DETECTORS SHALL BE ADDRESSABLE AND SHALL BE CONNECTED AS A SEPARATE ZONE OR PROGRAMMED AS A SEPARATE ZONE. DETECTORS SHALL ONLY ACTIVATE A SUPERVISORY SIGNAL AT THE MAIN FIRE ALARM CONTROL PANEL AND AT THE REMOTE ANNUNCIATOR PANEL ADDRESSABLE DRY CONTACT MONITOR MODULE - ADDRESSABLE MONITOR MODULES SHALL BE PROVIDED TO CONNECT ONE SUPERVISED IDC ZONE OF CONVENTIONAL ALARM INITIATING DEVICES

(ANY N.O. DRY CONTACT DEVICE) TO ONE OF THE FIRE ALARM CONTROL PANEL ADDRESSABLE LOOPS. ÀDDRESSABLE CONTROL MODULE - ADDRESSABLE CONTROL MODULES SHALL BE PROVIDED TO SUPERVISE AND CONTROL THE OPERATION OF ONE CONVENTIONAL CIRCUIT OF COMPATIBLE 24 VDC POWERED POLARIZED AUDIO/VISUAL NOTIFICATION APPLIANCES. AUDIO/VISUAL POWER SHALL BE PROVIDED BY A SEPARATE SUPERVISED CIRCUIT FROM THE MAIN FIRE ALARM CONTROL PANEL OR FROM A SUPERVISED UL LISTED REMOTE SUPPLY. NOTIFICATION APPLIANCES

STROBES – SIGNALING STROBES SHALL MEET THE REQUIREMENTS OF ADA, UL STANDARD 1971 AND SHALL BE FULLY SYNCHRONIZED THE STROBE SHALL CONSIST OF A XENON FLASH TUBE WITH SHALL ALSO FEATURE SELECTABLE CANDELA OUTPUT, PROVIDING OPTIONS FOR 15, 30, 75, OR 110 CANDELA.

2. SPEAKERS – ANNUNCIATION SPEAKERS SHALL BE LISTED TO UL 1480 FOR FIRE PROTECTIVE SIGNALING SYSTEMS. IT SHALL BE A DUAL-VOLTAGE TRANSFORMER SPEAKER CAPABLE OF OPERATION AT 25.0 OR 70.7 NOMINAL VRMS, THE SPEAKER SHALL HAVE A FREQUENCY RANGE OF 400 TO 4 000 HZ AND SHALL HAVE AN OPERATING TEMPERATURE BETWEEN 32°E AND 120°E. COMPONENTS SHALL MOUNT TO A 4 X 4 X 2 1/8-INCH BACK BOX. THE SPEAKER SHALL HAVE POWER TAPS (FROM ¼ WATT TO 2 WATTS) AND VOLTAGE THAT IS SELECTABLE BY ROTARY SWITCH. ALL MODELS SHALL HAVE A MAXIMUM SOUND OUTPUT OF 86 DB AT 10 FEET AND SHALL INCORPORATE OPEN BACK CONSTRUCTION. COMBINATION SPEAKER/STROBE DEVICES SHALL MEET THE REQUIREMENTS SPECIFIED UNDER BOTH

HE "STROBES" AND "SPEAKERS" PARAGRAPHS ABOVE. 4. CEILING MOUNTED ANNUNCIATING DEVICES SHALL BE CONSTRUCTED AND LISTED SPECIFICALLY FOR THE PURPOSE OF CEILING MOUNTING. H. WIRING 1. FIRE ALARM CABLING SHALL BE WIRE IN CONDUIT, UNLESS METAL CLAD (MC) CABLE IS SPECIFICALLY

PERMITTED TO BE INSTALLED BY THE AUTHORITY HAVING JURISDICTION, AND IS SPECIFIED AS AN ACCEPTABLE MEANS OF INSTALLATION ON THE DRAWINGS. ALL FIRE ALARM JUNCTION BOXES AND CONDUIT BODIES SHALL HAVE COVERS PAINTED RED AND RACEWAYS SHALL BE IDENTIFIED AND LABELED IN ACCORDANCE WITH SECTION 26 REQUIREMENTS.

WIRING SHALL BE IN ACCORDANCE WITH LOCAL STATE AND NATIONAL CODES (E.G. NEC ARTICLE 760 AND AS RECOMMENDED BY THE MANUFACTURER OF THE FIRE ALARM SYSTEM, NUMBER AND SIZE OF CONDUCTORS SHALL BE AS RECOMMENDED BY THE FIRE ALARM SYSTEM MANUFACTURER, BUT NOT LESS THAN 18 AWG FOR INITIATING DEVICE CIRCUITS AND SIGNALING LINE CIRCUITS, AND 14 AWG FOR NOTIFICATION APPLIANCE CIRCUITS.

ALL WIRING SHALL MATCH THE CLASS AND STYLE OF THE WIRING IN EXISTING BUILDING, WHERE APPI ICABI F

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PLUMBING D
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	PLUMBING DEM
1.	THE PLUMBING CONTRACTOR SI TRIM. ACCESSORIES. EQUIPMEN
2.	INDICATED ON THE DRAWINGS. ALL PIPING TO BE REMOVED SHA SHOWN OR INDICATED ON DRAW ETC. SHALL BE REMOVED COMP
3.	SHALL BE REUSED FOR NEW PIP ALL PIPING TO BE REMOVED SHA OR IN WALLS BACK TO MAINS OF CAPPED PER CODE WITHOUT LE
4.	NO EQUIPMENT OR DEVICES TH
5.	ALL EXISTING PIPING AND EQUIP AVAILABLE EXISTING INFORMATI FIXTURES, PIPING, AND DEVICES DRAWINGS IS THAT IN ALL AREA
6.	THE PLUMBING CONTRACTOR SI
7.	ANY SYSTEMS OR EQUIPMENT T KEPT IN OPERATION BY PROVIDI
8.	UNTIL NEW SYSTEMS ARE INSTA THE PLUMBING CONTRACTOR SI GENERAL CONTRACTOR ANY AN WORK IN ORDER TO SATISFY TH
9.	THE PLUMBING CONTRACTOR SI DRAWINGS AS PART OF THIS CO REQUIREMENTS
10.	ALL SERVICE INTERUPTIONS SHA OWNER A MINIMUM OF 5 DAYS IN WORK.
11.	THE PLUMBING CONTRACTOR SI THAT OF OTHER TRADES IN ORD
12.	ANY FIXTURE OR EQUIPMENT TO OWNER AT OWNERS REQUEST O CAREFULLY REMOVED AND STO
13.	BEFORE BEGINNING DEMOLITION IDENTIFY ANY DIS-USED OR ABA ITS ACTIVE MAIN.
14.	ANY ACTIVE PIPING SERVING AR ALL PIPING IN MEZZANINE CEILIN PLUMBING CONTRACTOR TO PR

BING SYMBOL LEGEND				
DESCRIPTION				
	OS&Y GATE VALVE			
	GATE VALVE			
	CHECK VALVE			
	BALL VALVE			
	BALANCING VALVE			
	THERMOSTATIC MIXING VALVE			
	GLOBE VALVE			
	BUTTERFLY VALVE			
	PLUG VALVE			
	EMERGENCY GAS SHUT-OFF VALVE			
	RELIEF VALVE			
	BACKWATER VALVE			
	ASSEMILT AND DRAIN			
	STRAINER			
	FLOOR DRAIN/FLOOR SINK/AREA DRAIN			
	ROOF/OVERFLOW DRAIN			
	WATER METER			
	FIATURE I TPE			
	THERMOMETER			
	PRESSURE GAUGE			
	PRESSURE REGULATOR			
	PRESSURE REDUCING VALVE			
	POINT OF CONNECTION			
	GATE VALVE ON RISE			
	PIPE TRAP			
	WATER HAMMER ARRESTOR			
	VENT THRU ROOF			
	ADA ACCESSIBLE FIXTURE			

#### G DEMOLITION GENERAL NOTES

HOSE BIB

ITRACTOR SHALL REMOVE ALL PLUMBING FIXTURES, CARRIERS, S, EQUIPMENT, FLOOR DRAINS AND PIPING AS SHOWN OR DRAWINGS. EMOVED SHALL BE REMOVED COMPLETELY OR AS OTHERWISE ED ON DRAWINGS. ALL PIPE HANGERS, SLEEVES, RISER CLAMPS, IOVED COMPLETELY WITH PIPING. NO EXISTING HANGER SYSTEMS FOR NEW PIPING. REMOVED SHALL BE REMOVED TO BELOW FLOOR, ABOVE CEILING TO MAINS OR SHUT OFF VALVES AT MAINS AND PROPERLY WITHOUT LEAVING DEAD ENDED PIPING. DEVICES THAT HAVE BEEN DISCONNECTED AND OR REMAIN. G AND EQUIPMENT SHOWN HAS BEEN TAKEN FROM THE BEST

G INFORMATION. THE DRAWINGS ARE DIAGRAMMATIC AND ALL AND DEVICES MAY NOT BE SHOWN. THE INTENT OF THESE IN ALL AREAS OF RENOVATION THAT THEY ARE REMOVED, SHOWN (UNLESS INDICATED TO REMAIN). ITRACTOR SHALL VISIT THE SITE AND BECOME FAMILIAR WITH EMS AND CONDITIONS IN AREAS OF RENOVATION. QUIPMENT TO REMAIN ACTIVE DURING RENOVATION SHALL BE BY PROVIDING TEMPORARY PIPING CONNECTIONS AS REQUIRED IS ARE INSTALLED AND OPERATIONAL. NTRACTOR SHALL COORDINATE WITH THE OWNER, CM, AND OR CTOR ANY AND ALL PHASING OF THE PLUMBING DEMOLITION SATISFY THE CONSTRUCTION SCHEDULE AND OWNERS

ITRACTOR SHALL ALSO REVIEW THE ARCHITECTURAL DEMOLITON F OF THIS CONTRACT FOR ADDITIONAL INFORMATION AND RUPTIONS SHALL BE COORDINATED AND APPROVED WITH THE OF 5 DAYS IN ADVANCE PRIOR TO COMMENCEMENT OF ANY

ITRACTOR SHALL COORDINATE THEIR DEMOLITION WORK WITH ADES IN ORDER TO AVOID CONFLICTS. QUIPMENT TO BE REMOVED AND REUSED OR RETURNED TO S REQUEST OR AS INDICATED ON DRAWINGS SHALL BE ED AND STORED TO PREVENT DAMAGE. G DEMOLITION WORK, CONTRACTOR TO VISIT THE SITE AND JSED OR ABANDONED PIPING WHICH IS TO BE REMOVED BACK TO

SERVING AREAS OUTSIDE SCOPE OF WORK TO REMAIN ACTIVE. ANINE CEILING SERVING FLOORS ABOVE IS EXISTING TO REMAIN. CTOR TO PROVIDE PIPING EXTENSIONS AND OFFSETS TO RELOCATE INTO NEW CONCEALED SPACES.

PLUMBING ABBREVIATIONS				
ABBREVIATION	DESCRIPTION			
AFF	ABOVE FINISHED FLOOR			
AHU	AIR HANDLING UNIT			
BFP	BACKFLOW PREVENTER			
BTU	BRITISH THERMAL UNIT			
CD	CONDENSATE DRAIN			
CFH	CUBIC FEET PER HOUR			
CI	CAST IRON			
CO	CLEANOUT			
CW	COLD WATER			
DF	DRINKING FOUNTAIN			
DN	DOWN			
DSN	DOWN SPOUT NOZZLE			
DW	DIRECT WASTE			
ET	EXPANSION TANK			
FCO	FLOOR CLEANOUT			
FCU	FAN COIL UNIT			
FLD	FLOOR DRAIN			
FS	FLOOR SINK			
FFE	FINISHED FLOOR ELEVATION			
FGCO	FINISHED GRADE CLEANOUT			
G	GAS			
GI	GREASE INTERCEPTOR			
GPM	GALLONS PER MINUTE			
GSV	GAS SOLENOID VALVE			
GW	GREASE WASTE			
GV	GAS VENT			
HB	HOSE BIBB			
HW	HOT WATER			
HWR	HOT WATER RECIRCULATION			
INT	INTERCEPTOR			
INV ELEV	INVERT ELEVATION			
IW	INDIRECT WASTE			
LAV	LAVATORY			
MBH	THOUSAND BTU PER HOUR			
NG	NATURAL GAS			
OD	OVERFLOW DRAIN			
PCD	PUMPED CONDENSATE DRAIN			
PRV	PRESSURE REDUCING VALVE			
RD	ROOF DRAIN			
RPBP	REDUCED PRESSURE BACKFLOW PREVENTER			
RTU	ROOF TOP UNIT			
SAN	SANITARY			
SS	SOIL STACK			
ST	STORM			
SST	SECONDARY STORM			
TD	TRENCH DRAIN			
TMV	THERMOSTATIC MIXING VALVE			
TP	TRAP PRIMER			
TW	TEMPERED WATER			
TYP	TYPICAL			
U	URINAL			
V				
VS				
W	WASTE OL COST			
WC	WATER CLOSET			
WCO				
VVHA				
WHYD W/S	WALL HYDRANI WASTE STACK			
W/2.V/	WASTE AND VENT			
111				

PLUMBING DEMOLITION LEGEND				
ABBREVIATION	DESCRIPTION			
	REMOVE PIPE, FIXTURE OR EQUIPMENT			
	CONNECT TO EXISTING			
ETR	EXISTING TO REMAIN			
ER	EXISTING TO BE RELOCATED			
R	REMOVE			

PLUMBING PIPING LEGEND			
SYMBOL	DESCRIPTION		
SYMBOL	DESCRIPTION COLD WATER HOT WATER (110°F) HOT WATER RECIRCULATION (110°F) HOT WATER RECIRCULATION (110°F) HOT WATER (140°F) SANITARY WASTE ABOVE FLOOR SANITARY WASTE BURIED VENT UNDERSLAB DRAINAGE CONDENSATE DRAIN ABOVE FLOOR STORM ABOVE FLOOR (PRIMARY) STORM BURIED (PRIMARY) STORM BURIED (PRIMARY) STORM ABOVE FLOOR (SECONDARY) NATURAL GAS ABOVE FLOOR NATURAL GAS BURIED 90° ELBOW DOWN 90° ELBOW UP TEE UP TEE DOWN DROP AND RUN TEE OFF TOP OF PIPE TEE OFE POTTOM OF PIPE		
	UNION FLANGE END CAP CLEANOUT FLOOR CLEANOUT HOSE BIBB/WALL HYDRANT		

#### PLUMBING GENERAL NOTES

COORDINATION.

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THESE GENERAL NOTES ARE APPLICABLE TO ALL PLUMBING DRAWINGS.
 DRAWINGS ARE DIAGRAMMATIC AND SHOW GENERAL INTENT OF WORK, SEE DETAILS, SCHEDULES AND SPECIFICATIONS FOR ADDITIONAL INFORMATION.
 CONTRACTOR MUST REVIEW DRAWINGS OF THE OTHER TRADES AS PART OF THIS CONTRACT FOR ADDITIONAL WORK REQUIRED AND OR COORDINATION OF HIS WORK FOR OPERATIONS OR CONNECTIONS TO OTHER SYSTEM.
 THE CONTRACTOR SHALL PROVIDE PIPE EXPANSION JOINTS ON PIPING PASSING THRU ALL BUILDING EXPANSION JOINT LOCATIONS AS REQUIRED PER BUILDING CODES WHETHER OR NOT SHOWN ON DRAWINGS. REVIEW ARCHITECTURAL AND STRUCTURAL DRAWINGS FOR EXACT BUILDING EXPANSION JOINT LOCATIONS AND EXPANSION DIMENSIONS.
 THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING & INSTALLING ALL SERVICES TO HVAC EQUIPMENT INCLUDING BUT NOT LIMITED TO: GAS SUPPLY PIPING, CONDENSATE PIPING, COLD WATER MAKE-UP PIPING, DRAINS, & CONNECTIONS TO AIR HANDLING UNITS, FAN COIL UNITS, UNIT HEATERS, HEAT PUMPS, ETC. ALSO, DEVICES REQUIRED INCLUDE BACKFLOW PREVENTERS, REGULATORS, UNIONS, TRAPS, & SHUT-OFF VALVES REQUIRED FOR THIS EQUIPMENT. REFER TO MECHANICAL DWGS. FOR ADDITIONAL INFORMATION AND COORDINATION.

![](_page_53_Picture_19.jpeg)

### PLUMBING LEGENDS AND ABBREVIATIONS

# 100% CONSTRUCTION DOCUMENTS SHEET TITLE

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PROJECT DATA

M19012

KMC

10.27.2023

KEY PLAN

PROJECT NUMBER

DRAWN

CURRENT SUBMISSION DATE

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![](_page_53_Picture_24.jpeg)

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ANDRUS ON HUDSON ANDRUS ON HUDSON | MAIN BUILDING 2ND FLOOR

AMENTA|EMMA

∎ © 10

![](_page_54_Figure_1.jpeg)

AB-F

#### PLUMBING DEMO KEY NOTES

PIPING FROM FLOOR ABOVE. REMOVE PIPING FROM WHERE IT ENTERS SECOND FLOOR CEILING DOWN TO CEILING OF FLOOR BELOW. PIPING TO BE OFF SET IN SECOND FLOOR CEILING AND RECONNECTED IN CEILING OF MEZZANINE. REFER TO NEW WORK PLANS. FIELD VERIFY AND CONFIRM RISER (PD1) LOCATIONS AND ROUTING.

PIPING SERVING DEMOLISHED FIXTURES ON FLOOR ABOVE TO BE REMOVED. CUT AND CAP ALL PIPING NOT SERVING EXISTING TO REMAIN FIXTURES BACK TO MAINS. (PD2) MAINTAIN EXISITNG PIPING FOR FUTURE & CURRENT USE. 

#### PLUMBING DEMOLITION GENERAL NOTES

- REMOVE EXISTING FIXTURE(S) AND TRIM. MAINTAIN SANITARY PIPING AT 1ST FLOOR CEILING SPACE AS REQUIRED FOR CONNECTION. MAINTAIN SANITARY PIPING SERVING THE FLOOR BELOW AND ABOVE. REMOVE EXISTING PIPING BACK TO SUPPLY RISERS FROM 1ST FLOOR. MAINTAIN SUPPLY PIPING SERVING THE FLOOR BELOW AND ABOVE. PROVIDE TEMPORARY PIPING AS NECESSARY TO MAINTAIN FUNCTIONALITY ON ALL FLOORS. OFFSET AND REROUTE AS NEEDED FOR RENOVATIONS.
   MAINTAIN EXISTING STORM PIPING FROM FLOOR ABOVE. OFFSET AT 2ND FLOOR AND RECONNECT TO PIPING MAINTAINED AT 1ST FLOOR CEILING.

3/4" 110°F HW ETR

4" SAN ETR— 4" SAN ETR-

ÁB-Ù

3

—4" SAN ETR

3/4" 110ºF HW ETR-----

3" 🕅 ETR-\_\_\_

- ÁB-V AB-G PD2 AB-H AB-J -LL -MN AB-K
- (F-E) (**F-D**) (PD3) (F-C) (F-B)
- (F-A)

-PD3

1 1/2" V ETR

DP-A F-6 F-Y

PD2

(F-1)

DP-1 F-3

F-4 DP-2 F-5

![](_page_54_Figure_12.jpeg)

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![](_page_54_Picture_15.jpeg)

![](_page_54_Figure_16.jpeg)

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![](_page_55_Figure_8.jpeg)

![](_page_56_Figure_1.jpeg)

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![](_page_56_Figure_5.jpeg)

![](_page_57_Figure_0.jpeg)

![](_page_57_Figure_1.jpeg)

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PLUMBING MEZZANINE FLOOR PLAN				
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| MAIN BUILDING

![](_page_57_Figure_7.jpeg)

AMENTA EMMA

![](_page_58_Picture_1.jpeg)

AB-F

RESIDENT ROOM

282

P4.00/

1 1/2" V ETR-OXYGEN TANK STORAGE

DP-A F-6

P4.00

ESIDENT ROO

279

LOUNGE D212

(F-1)

DP-1 (F-3)

(**F-4**)

DP-2

(F-5)

![](_page_58_Figure_3.jpeg)

![](_page_58_Figure_5.jpeg)

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![](_page_59_Figure_1.jpeg)

4 PLUMBING ENLARGED PLAN - 246 PANTRY 1/4" = 1'-0"

![](_page_59_Figure_3.jpeg)

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5 PLUMBING ENLARGED PLAN - 263 RESIDENT USE TOILET

![](_page_59_Figure_5.jpeg)

6 PLUMBING ENLARGED PLAN - 270 STAFF USE TOILET

![](_page_59_Figure_7.jpeg)

7 PLUMBING ENLARGED PLAN - 299 PT TOILET 299 1/4" = 1'-0"

![](_page_59_Figure_9.jpeg)

![](_page_59_Figure_10.jpeg)

![](_page_59_Figure_11.jpeg)

P1	PIPING UP TO RECONNECT
<b>P2</b>	PIPING DOWN TO RECONNE
<b>P3</b>	CONNECT PIPING TO EXISTI CONFIRM EXISTING ROUTIN
$\langle P4 \rangle$	PIPING LOCATED IN CORRID
$\left< P5 \right>$	2" SANITARY FROM FLOOR I CONNECT SANITARY TO EXI
$\left< P6 \right>$	EXISTING SANITARY PIPING
<b>(</b> P7 <b>)</b>	VENT TO CONNECT TO EXIS REFER TO FIXTURE CONNECT
$\langle P8 \rangle$	DOMESTIC WATER TO CONN REFER TO FIXTURE CONNECT
P9	3/4" TEMPERED WATER LINE HEAD AND HAND SHOWER.
(P10)	OXYGEN AND MEDVAC RISE FOR EQUIPMENT LOCATION SUPPLY ALL FLOORS IN THE
(P11)	MED GAS RISER SERVICE V. LOCATION TBD. MED GAS M REQUIRED AT ENGINEERING
(P12)	MED GAS ZONE VALVE 1"VA STANDARDS AND AS REQUI
(P13)	3/4" VAC & 1/2" O2 TO HEADI WITH OWNER'S STANDARDS

2 PLUMBING ENLARGED PLAN - TYPICAL SINGLE RESIDENT ROOM 1/4" = 1'-0"

DBOARD BY PATIENT BED. PROVIDE MEDICAL GAS OUTLETS COMPATIBLE DS AND NFPA 99.

VALVE. 2" VAC & 1 1/2" O2. FUTURE VALVE TO 3RD FLOOR. 2" VAC & 1" O2 MASTER ALARM MONITORS SOURCE EQUIPMENT SECOND MASTER G OFFICE OR SECURITY AC & 3/4"O2. PROVIDE AREA ALARM PANEL COMPATIBLE WITH OWNER'S JIRED BY NFPA 99. POWERED BY DIV 26.

SERS SUPPLIED FROM NEW EQUIPMENT. REFER TO EQUIPMENT SCHEDULES DNS. NEW RISERS TO SUPPLY THE SECOND FLOOR WITH THE INTENT TO E FUTURE. COORDINATE WITH OXYGEN AND MEDVAC VENDOR.

E FROM SH-1&SH-2 SHOWER CONTROLS/MIXING VALVE TO SHOWER REFER TO FIXTURE SCHEDULE. REFER TO SHOWER DETAIL.

NNECT TO EXISTING IN CEILING. ECTION SCHEDULE FOR SIZING.

STING RISER IN CEILING. ECTION SCHEDULE FOR SIZING.

XISTING MAINS IN CEILING ON FLOOR BELOW. G IN CEILING TO CONNECT TO NEW SANITARY RISER IN PLUMBING CHASE.

IDORS SHALL RUN IN SOFFITS. DRAIN.

NECT TO EXISTING MAINS IN CEILING ON FLOOR BELOW. TING MAINS IN SECOND FLOOR CEILING. REFER TO DEMOLITION PLAN. NG AND CONNECTIONS IN FIELD.

T TO EXISTING MAINS IN CEILING ON FLOOR ABOVE.

PLUMBING KEY NOTES

![](_page_59_Picture_26.jpeg)

#### PLUMBING PART PLANS

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PROJECT DATA

M19012

KEY PLAN

PROJECT NUMBER

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![](_page_59_Picture_31.jpeg)

![](_page_59_Figure_32.jpeg)

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![](_page_59_Figure_34.jpeg)

![](_page_59_Figure_35.jpeg)

![](_page_60_Figure_0.jpeg)

![](_page_60_Figure_4.jpeg)

![](_page_60_Figure_5.jpeg)

# 2 TRAP PRIMER DETAIL

AREAS WITH MORE THEN 3 FLOOR DRAINS.

1/2" COPPER TUBING TRAP SUPPLIES ROUTE BELOW FLOOR TO FLOOR DRAIN TRAPS (SEE —48" MIN. AFF NOTE: 1. TRAP PRIMER SHALL BE LOCATED ABOVE AN ACCESSIBLE CEILING OR OTHER ACCESSIBLE. LOCATION. PROVIDE ACCESS PANEL WHERE REQUIRED. PROVIDE TRAP PRIMERS AT ALL FLOOR DRAINS, FLOOR SINKS, SHOWER DRAINS, AND INDIRECT DRAIN LOCATIONS. CONTRACTOR SHALL BE RESPONSIBLE FOR WATER PIPE ROUTING FROM DISTRIBUTION UNIT TO ALL DRAINS NOTED ABOVE. PROVIDE PRECISION PLUMBING "PRIME-RITE" MODEL# PR-500 TRAP PRIMER WITH DISTRIBUTION UNITS MODEL #DU-U AS REQUIRED FOR THE NUMBER OF FLOOR DRAINS SHOWN ON THE DRAWINGS. PROVIDE ADDITIONAL TRAP PRIMERS FOR

![](_page_60_Figure_8.jpeg)

# 3 WATER HAMMER ARRESTOR DETAIL

![](_page_60_Figure_10.jpeg)

-PRESSURIZED ARGON PNEUMATIC DISPLACEMENT CUSHION -POLISHED STAINLESS STEEL SHELL -PURE GLYCERINE HYDRAULIC DISPLACEMENT FLUID -ELASTOMER BELLOWS -STAINLESS STEEL ADAPTOR -FLOW CONTROL ORIFICE

WATER HAMMER ARRESTOR SCHEDULE					
TYPE	DIMENSION	DIMENSION	DIMENSION	FIXTURE UNIT	
(SA)	'A' DIA	'B'	'C' DIA	CAPACITY	
'A'	3/3"	4-1/2"	3-1/4"	1-11	
'B'	1"	5-1/4"	3-1/4"	12-32	
'C'	1"	6"	3-1/4"	33-60	
'D'	1"	6-3/4"	3-1/4"	61-113	
'E'	1"	6-3/4"	5"	114-154	
'F'	1"	7-3/4"	5"	155-330	

-THREADED PLUG

![](_page_60_Picture_13.jpeg)

### PLUMBING DETAILS

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# 100% CONSTRUCTION DOCUMENTS SHEET TITLE

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No. Date	Description

PROJECT DATA

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KEY PLAN

PROJECT NUMBER

CURRENT SUBMISSION DATE

![](_page_60_Picture_18.jpeg)

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ANDRUS ON HUDSON | MAIN BUILDING 2ND FLOOR

![](_page_60_Figure_22.jpeg)

AMENTA|EMMA

NUMBER								
Cold Appendix Normal Statistics Normal Normal Statistics Normal Normal Normal Normal Normal Normal Normal Normal Normal Normal Normal Normal Normal Normal Normal Normal	IES REMARKS							
Line         Line <thline< th="">         Line         Line         <thl< td=""><td>'R     #2,3,4,6,7,8       'L     #2,3,4,6,7,8       'J WITH 8"     2 GPM       'IRED,     ) MIXING       'I GRID     BLY.       SET FOR     SET FOR</td></thl<></thline<>	'R     #2,3,4,6,7,8       'L     #2,3,4,6,7,8       'J WITH 8"     2 GPM       'IRED,     ) MIXING       'I GRID     BLY.       SET FOR     SET FOR							
ED_1       Washington       Endersen       Commentation       Mathematical       Mathmatical       Mathematical       Mathematical </td <td>WATTS #1,4,7 PTOR AINAGE.</td>	WATTS #1,4,7 PTOR AINAGE.							
REMARKS:       1. REFER TO FLOOR PLANS FOR SIZES       See REMARK #11       #1,4       SH-1       SYMMONS       TENANT SHOWER       ONDEL       BOODEL #       SYMMONS       TENANT SHOWER       ONDEL #       SYMMONS       SYMMONS <t< td=""><td>NDARD WITH KER 117.002, ₹TER 00.002, H JR IANGER</td></t<>	NDARD WITH KER 117.002, ₹TER 00.002, H JR IANGER							
GFM SHOWER HEAD DRAIN SEX	#1,3,4,5,7,10 VICE R AND D SHALL TS FROM 2 /ES.							
FIXTURE TYPE       WASTE UNDEPCOLVNECTION       VENT CONNECTION       COLD WATER HOT WATER       HOT WATER TEMPID WATER       NURSE SHOWER CONNECTION       PROVIDE V CONNECTION	#220 H #1,3,4,5,7,10 RVICE							
MODEL #     ONDERCONTER     ONDER # FIT-000-0-BDT       0495.300     MOUNTED, VITROUS     WITH 8" FIT-000-0-BDT       0495.300     MOUNTED, VITROUS     WITH 8" FIT-000-0-BDT       0495.300     MOUNTED, VITROUS     WITH 8" FIT-000-0-BDT       0195.300     MOUNTED, VITROUS     WITH 8" FIT-000-0-BDT       0195.300     MOUNTED, VITROUS     WITH 8" FIT-000-0-BDT       0195.300     MOUNTED, VITROUS       011/2"     1 1/2"       1 1/2"     1 1/2"       1 1/2"     1 1/2"       011/2"     1 1/2"       011/2"     1 1/2"       011/2"     1 1/2"       011/2"     1 1/2"       011/2"     1 1/2"       011/2"     1 1/2"       011/2"     1 1/2"	LL TEE O HAND							
DRINKING FOUNTAIN (2 BOWL)     1 1/2" (2)     1 1/2" (2)     1 1/2" (2)     1 1/2" (2)     1 1/2" (2)     1 1/2" (2)     SHOWER     SHOWER       DRINKING FOUNTAIN (2 BOWL)     1 1/2" (2)     1 1/2" (2)     1 1/2" (2)     1 1/2" (2)     -     -	) <u>SH-1</u>							
EMERGENCY SHOWER 3/4" - 3/4" - 3/4" - 1"								
JANITORS MOP BASIN       2"       1 //2"       1 //2"       1/2"       1/2"       AMERICAN STANDARD MODEL # ETF-600-8-BDT       PUBLIC LAVATORY: ACCESSIBLE, WALL       SLOAN "OPTIMA" SENSOR FAUCET       #1,2,3,4,7,8       WC-1       AMERICAN STANDARD ACCESSIBLE, WALL       WATER CLOSET: ACCESSIBLE, MODEL # ETF-600-8-BDT       SLOAN "OPTIMA"       #1,2,3,4,7,8       WC-1       AMERICAN STANDARD ACCESSIBLE, MODEL # ETF-600-8-BDT       WATER CLOSET: ACCESSIBLE, MODEL # ETF-600-8-BDT       MODEL # ETF-600-8-BDT       WALL HUNG,       HARDWIRE HARDWIRE	HW-TMO ENSOR #1,3,4,5,7,9							
LAVATORY 1 1/2" 1 1/2" 1 1/2" 1 1/2" 1/2" - 9024.001EC CHINA, FRONT WITH 8" TRIM PLATE, 0.5 OVERFLOW, SELF GPM FLOW, RIMNING, SIGEL HAUE HAWWING, SIGEL HAUE CENTERS FALSEE HAUE CENTERS FALSEE CENTERS FA	)PEN							
SINK     1 1/2"     1 1/2"     1 1/2"     1 1/2"     1 1/2"     1 1/2"     1 1/2"     1 1/2"     I 1/2" <thi 1="" 2"<="" th="">     I 1/2"</thi>	SEAT #							
PROVIDE OFFSETFOR ADA COMPLIANCY.     PROVIDE OFFSETFOR ADA COMPLIANCY.     Instruction of ADA COMPLIANCY.       SHOWER / BATH TUB     2"     1 1/2"     1/2"     1/2"     1/2"     1/2"     1/2"     SLOAN, SENSOR     #2,3,4,6,7,8     WC-2     AMERICAN STANDARD     WATER CLOSET:     SLOAN, "RC	." MODEL #1.3.4.5.7.9							
"LUSTERTONE"     ACCESSIBLE, UNDERMOUNT, 18     FAUCET, MODEL       HOSE BIB (CW ONLY)     -     -       HOSE BIB (CW ONLY)     -     -       Image: Bib (CW ONLY)	IW-TMO INSOR							
HOSE BIB (CW & HW)       -       -       1/2"       1/2"       1/2"       -         NOTES:       30-1/2" X 18-1/2" X 5-3/8"       AND INCLUDED MIXING VALVE.       HEAVY DUTY, ELONGATED, OPEN FRONT TOILET SEAT # 5901.110T.020         1. REFER TO ARCHITECTURAL DRAWINGS FOR ALL PLUMBING FIXTURE MOUNTING HEIGHTS.       PROVIDE WITH GRID DRAIN ASSEMBLY. PROVIDE TRAPS AT SINKS AND LAVATORIES SHALL BE CHROME PLATED PRASS       HEAVY DUTY, ELONGATED, OPEN FRONT TOILET SEAT # 5901.110T.020								
WC-3     AMERICAN STANDARD     WATER CLOSET: "CADET PRO"     HEAVY DUT "ACESSIBLE, TANK"     HEAVY DUT "ACESSIBLE, TANK"       MODEL #     TYPE, FLOOR     TYPE, FLOOR     TYPE, FLOOR       215AA.104     MOUNTED,     MOUNTED,	PEN #1,3,7 SEAT #							
ELONGATED BOWL,         VITREOUS CHINA,         1 1/2" TOP SPUD,         1.28 MAX GPF.								
MANUFACTURER/ MODEL NUMBER N.P.T. EINGTH PSI (AIR) FIXTURE VOIR VITS REMARKS								
PPP MODEL #SC-500     1/2"     5"     60     1-11     ALL	I							
1. COLOR AS SELECTED BY THE ARCHITECT, PROVIDE SAMPLES.         2. INSTALL TRUEBRO INC. MODEL #102, HANDI LAV-GUARD PROTECTOR ON THE HOT, COLD, AND DRAIN PIPING UNDER FIXTURE.         3. FIXTURES AND TRIM AS NOTED SHALL BE "ACCESSIBLE" AND SHALL BE INSTALLED TO ADA / ANSI A117 AND FEDERAL 504 REQUIREMENTS.								
4. PROVIDE ISOLATION VALVES AT THE PIPE CONNECTIONS.         9PP MODEL# SC-1000       1"         6. PROVIDE WATER HAMMER ARRESTORS AT THE PIPE CONNECTIONS, LOCATE ABOVE AN ACCESSIBLE CEILING.         5. PROVIDE WATER HAMMER ARRESTORS AT THE PIPE CONNECTIONS, LOCATE ABOVE AN ACCESSIBLE CEILING.         6. PROVIDE SINK WITH OFFSET DRAIN TO LEFT OR RIGHT AND BACK OF BOWL FOR ADA COMPLIANCY, ANSI A117 AND FEDERAL 504 REQUIREMENTS SEE ARCHITECTURAL DRAWINGS F	DRAIN LOCATIONS.							
7. REFER TO ARCHITECTURAL DRAWING FOR FIXTURE MOUNTING HEIGHTS.         PPP MODEL#         SC-1250         1 1/4"         8. FAUCET SHALL BE LOCATED WITHIN 13" OF EDGE. COORDINATE WITH ARCHITECTURAL DRAWINGS.         SC-1250         1 1/4"         8. FAUCET SHALL BE LOCATED WITHIN 13" OF EDGE. COORDINATE WITH ARCHITECT FLUSH VALVE INSTALLATION AND WITH ARCHITECT FLUSH VALVE INSTALLATION AND WITH ARCHITECT FLUSH VALVE INSTALLATION AND TOILET ACCESSORIES.         9. COORDINATE WITH ARCHITECT FLUSH VALVE INSTALLATION AND WITH ARCHITECT.         10. SHOWER CONTROL TO BE OFFSENDENT FOR SHOWER HEAD ON ADJACENT WALL REFER TO FLOOR PLANS. COORDINATE LOCATION WITH ARCHITECT.         11. PROVIDE WITH FIALS MODEL #330-AA SERVICE FAUCET WITH VACUUM BREAKER MODEL #1453-BR 16 CAUCE STAINLESS STEEL STRAINER								

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PLUMBING FIXTURE CONNECTION SCHEDULE									
FIXTURE TYPE	WASTE CONNECTION	VENT CONNECTION	COLD WATER CONNECTION	HOT WATER CONNECTION	TEMPID WATER				
DRINKING FOUNTAIN	1 1/2"	1 1/2"	1/2"	-	-				
DRINKING FOUNTAIN (2 BOWL)	1 1/2" (2)	1 1/2" (2)	1/2" (2)	-	-				
EMERGENCY SHOWER	-	-	3/4"	3/4"	1"				
JANITORS MOP BASIN	2"	1 1/2"	1/2"	1/2"	-				
LAVATORY	1 1/2"	1 1/2"	1/2"	1/2"	-				
SINK	1 1/2"	1 1/2"	1/2"	1/2"	-				
WATER CLOSET (FLUSH VALVE)	4"	2"	1"	-	-				
SHOWER / BATH TUB	2"	1 1/2"	1/2"	1/2"	1/2"				
HOSE BIB (CW ONLY)	-	-	1/2"	-	-				
HOSE BIB (CW & HW)	-	-	1/2"	1/2"	-				
NOTES:									

r										
WATER HAMMER ARRESTOR SCHEDULE										
MANUFACTURER/ MODEL NUMBER	SIZE N.P.T.	OVER ALL LENGTH	PRELOADE D PSI (AIR)	FIXTURE UNITS	REMARKS					
PPP MODEL #SC-500	1/2"	5"	60	1-11	ALL					
PPP MODEL #SC-750	3/4"	6"	60	12-32	ALL					
PPP MODEL# SC-1000	1"	6 3/4"	60	33-60	ALL					
PPP MODEL# SC-1250	1 1/4"	8 3/4"	60	61-113	ALL					
PPP MODEL# SC-1500	1 1/2"	10 1/4"	60	114-154	ALL					
PPP MODEL# SC-2000         2"         10 7/8"         60         155-330         ALL										
NOTES:         1.       LOCATE WATER HAMMER ARRESTORS AS CLOSE AS POSSIBLE TO SHOCK SOURCE.         2.       INSTALL PER ALL MANUFACTURERS WRITTEN INSTALLATION INSTRUCTIONS.         3.       LOCATE IN AN ACCESSIBLE LOCATION, PROVIDE ACCESS AS REQUIRED.         4.       FIXTURE UNITS SHALL BE BASED ON THE LATEST ADOPTED VERSION OF THE INTERNATIONAL PLUMBING CODE.         5.       WATER HAMMER ARRESTORS SHALL BE PROVIDED WHERE QUICK-CLOSING VALVES										

ARE UTILIZED. PROVIDE WATER HAMMER ARRESTORS AT CLOTHES WASHING MACHINES PROVIDE WATER HAMMER ARRESTORS PER GROUP OF WATER CLOSETS AND PER GROUP OF URINALS, WHERE GROUP DOES NOT EXIST PROVIDE WATER HAMMER ARRESTOR AT SINGLE WATER CLOSET.

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MODEL #832-AA HOSE AND BRACKET. FLOOR MOUNTED DRAIN BODY SHALL BE STAINLESS STEEL CAST INTEGRAL. PROVIDE FOR A CAULKED CONNECTION NO LESS THAN 1"DEEP FROM DRAIN TO A 3" WASTE PIPE. 12. SYMMONS SHOWER AND TUB SYSTEM MODEL # S-9606-PLR WITH TUB, SHOWER, AND HAND SHOWER CONTROL WITH INTEGRAL DIVERTER AND TEMPTROL PRESSURE BALANCING VALVE 13. USE IN ACTIVITIES SUITE FOR REHAB USE ONLY. FIXTURE SHALL NOT BE PLUMBED.

![](_page_61_Picture_14.jpeg)

## PLUMBING SCHEDULES AND DETAILS

# 100% CONSTRUCTION DOCUMENTS SHEET TITLE •

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No.	Date	Descri	ption

PROJECT DATA

M19012

10.27.2023

KEY PLAN

PROJECT NUMBER

CURRENT SUBMISSION DATE

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![](_page_61_Picture_19.jpeg)

![](_page_61_Figure_20.jpeg)

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ANDRUS ON HUDSON | MAIN BUILDING 2ND FLOOR

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AMENTA|EMMA

ARCHITECTS

#### 22 00 00 - GENERAL

A. DRAWINGS AND GENERAL PROVISIONS OF CONTRACT, INCLUDING GENERAL AND SUPPLEMENTARY CONDITIONS AND DIVISION 1 SPECIFICATION SECTIONS, APPLY TO THIS

B. THESE SPECIFICATIONS ARE APPLICABLE TO ALL PLUMBING DRAWINGS UNLESS NOTED OTHERWISE REVIEW THE ARCHITECTURAL STRUCTURAL MECHANICAL ELECTRICAL PLUMBING DRAWINGS FOR NOTES, DIMENSIONS, ETC., AND COORDINATE WITH OTHER TRADES INVOLVED. C. THIS SECTION APPLIES TO ALL DIVISION 22 SPECIFICATION SECTIONS (22 ## ##). WHERE THERE ARE DIFFERENCES OR DISCREPANCIES BETWEEN THIS SPECIFICAITON SECTION AND OTHER DIVISION 22 SPECIFICATION SECTIONS, THE MORE STRINGENT REQUIREMENT(S) SHALL APPLY. D. DESCRIPTION 1 THIS PROJECT COMPRISES AI TERATIONS AND RENOVATIONS TO THE EXISTING BUILDING

THE EXISTING BUILDING IS CURRENTLY OCCUPIED AND THE PROJECT SHALL PROCEED IN A MANNER THAT MINIMIZES ANY INCONVENIENCE TO THE BUILDING OCCUPANTS. 2. SCOPE OF WORK CONSISTS OF INSTALLATION OF MATERIALS TO BE FURNISHED UNDER THE CONTRACT DOCUMENTS AND WITHOUT LIMITING GENERALITY THEREOF CONSISTS OF FURNISHING LABOR, MATERIALS, EQUIPMENT, HOISTING, TRANSPORTATION, RIGGING, STAGING. APPURTENANCES. AND SERVICES NECESSARY AND/OR INCIDENTAL TO PROPERLY COMPLETE ALL WORK AS SHOWN ON THE DRAWINGS AND DESCRIBED HEREIN. E. DEFINITIONS: THE FOLLOWING DEFINITIONS APPLY TO THIS CONTRACT

1. FURNISH: THE TERM "FURNISH" MEANS TO "SUPPLY AND DELIVER TO THE PROJECT SITE, READY FOR UNLOADING, UNPACKING, ASSEMBLY, INSTALLATION, AND SIMILAR OPERATIONS" 2. INSTALL: THE TERM "INSTALL" IS USED TO DESCRIBE OPERATIONS AT PROJECT SITE INCLUDING THE ACTUAL "UNLOADING, UNPACKING, ASSEMBLY, ERECTION, PLACING, ANCHORING, APPLYING, WORKING TO DIMENSION, FINISHING, CURING, PROTECTING, CLEANING, AND SIMILAR OPERATIONS."

3. PROVIDE: THE TERM "PROVIDE" MEANS "TO FURNISH AND INSTALL, COMPLETE AND READY FOR THE INTENDED USE." 4. REMOVE: THE TERM "REMOVE" MEANS TO DISCONNECT FROM ITS PRESENT POSITION.

REMOVE FROM THE PREMISES AND TO DISPOSE OF IN A LEGAL MANNER."

5. SUBSTITUTIONS: "SUBSTITUTIONS" ARE REQUESTS FOR CHANGES IN PRODUCTS, MATERIALS AND/OR METHODS OF CONSTRUCTION AS PROPOSED BY THE CONTRACTOR AFTER AWARD OF THE CONTRACT.' F. DRAWINGS

1 DRAWINGS ARE DIAGRAMMATIC. THE FINAL PLACEMENT OF FOURPMENT OR DEVICES IN THE FIELD MAY NOT DIRECTLY CORRESPOND TO THAT WHICH IS SHOWN ON THE DRAWINGS. THOUGH SOME OFFSETS & TRANSITIONS MAY BE SHOWN IN PIPING TO HELP INDICATE THE PHYSICAL RELATIONSHIP BETWEEN THEM, IT IS NOT THE INTENT OF THE DRAWINGS TO SHOW ALL PIPING OFFSETS & TRANSITIONS REQUIRED. THE CONTRACTOR SHALL FULL COORDINATE THE WORK AND PROVIDE ALL MATERIALS, EQUIPMENT AND LABOR NECESSARY TO COMPLETE THE WORK OUTLINED ON THESE CONTRACT DOCUMENTS. IF A CONFLICT IN POSITIONING OCCURS THE CONTRACTOR IS TO NOTIFY THE ENGINEER IMMEDIATELY TO ASCERTAIN WHAT THE INTENT WAS BY THE DESIGN PROFESSIONAL

G. CODES AND STANDARDS: WORK SHALL CONFORM TO THE CURRENT EDITIONS OF THE

1. INTERNATIONAL BUILDING CODE

2. INTERNATIONAL PLUMBING CODE

3. INTERNATIONAL MECHANICAL CODE

H. PERMITS AND FEES:

4. NATIONAL ELECTRIC CODE (NFPA 70)

5. THE LIFE SAFETY CODE (NFPA 101)

1. THE CONTRACTOR SHALL GIVE ALL NECESSARY NOTICES, OBTAIN ALL PERMITS; AND PAY ALL GOVERNMENT AND STATE SALES TAXES AND FEES WHERE APPLICABLE, AND OTHER COSTS, INCLUDING UTILITY CONNECTIONS OR EXTENSIONS IN CONNECTION WITH THE WORK, FILE ALL NECESSARY DRAWINGS, PREPARE ALL DOCUMENTS AND OBTAIN ALL NECESSARY APPROVALS OF ALL GOVERNMENTAL AND STATE DEPARTMENTS HAVING JURISDICTION, OBTAIN ALL REQUIRED CERTIFICATES OF INSPECTION FOR HIS WORK, AND DELIVER A COPY TO THE OWNER AND ENGINEER BEFORE REQUEST FOR ACCEPTANCE AND FINAL PAYMENT FOR THE WORK.

I. EXISTING SYSTEMS AND EQUIPMENT

1. EXISTING TO BE REUSED/RELOCATED EQUIPMENT: REPORT ANY EXISTING EQUIPMENT DEFICIENCIES TO THE OWNER AND THE ARCHITECT AND/OR ENGINEER. CONNECT WORK TO VARIOUS EXISTING SYSTEMS AS INDICATED ON THE DRAWINGS. WORK

SHALL BE COMPATIBLE WITH THE EXISTING SYSTEM CONDITIONS. ALL WORK SHALL BE COORDINATED WITH ALL TRADES INVOLVED AS WELL AS WITH EXISTING SYSTEMS, THE STRUCTURE, AND OTHER OBSTRUCTIONS. J. SURVEY AND MEASUREMENTS

1. THIS PROJECT INVOLVES CONSTRUCTION INSIDE AN EXISTING STRUCTURE. CONTRACTORS BY SUBMITTING A BID SHALL BE COMPLETELY FAMILIAR WITH THE EXISTING CONDITION OF THE BUILDING AS IT INFLUENCES THE WORK DESCRIBED. NO COMPENSATION WILL BE GRANTED FOR ADDITIONAL WORK CAUSED BY UNFAMILIARITY WITH SITE CONDITIONS THAT ARE VISIBLE OR READILY IDENTIFIED BY EXPERIENCED OBSERVERS. 2. DO NOT SCALE DRAWINGS. SCALE INDICATED ON DRAWINGS IS FOR ESTABLISHING

REFERENCE POINTS ONLY. ACTUAL FIELD CONDITIONS SHALL GOVERN ALL DIMENSIONS. 3. PRIOR TO ORDERING ANY MATERIALS AND EQUIPMENT, THOROUGHLY REVIEW THE SITE CONDITIONS TO DETERMINE IF ADEQUATE CLEARANCES AND ACCESS IS ALLOWED TO INSTALL THE COMPONENTS. ORDER EQUIPMENT BROKEN DOWN AS NECESSARY TO ALLOW FOR PROPER RIGGING THROUGH THE PROJECT AREA. PROVIDE ALL NECESSARY ALTERATIONS TO THE STRUCTURE OF THE BUILDING AS NECESSARY TO RIG THE EQUIPMENT

4. CONTRACTORS SHALL VERIFY, LAYOUT AND BE RESPONSIBLE FOR ALL MEASUREMENTS OF ALL EXISTING CONDITIONS BEFORE COMMENCING WORK AND SHALL NOTIFY ARCHITECT AND/OR ENGINEER IF A CONDITION EXISTS THAT PREVENTS THE CONTRACTOR FROM ACCOMPLISHING THE INTENT OF THE DRAWINGS.

K. SUBMITTALS AND SHOP DRAWINGS 1. SUBMIT FOR REVIEW, ELECTRONIC SHOP DRAWINGS IN SEARCHABLE PDF FORMAT FOR THE

FOLLOWING a. SUBMITTAL DATA FOR ALL MATERIAL AND EQUIPMENT. CLEARLY IDENTIFY DEVIATIONS OF THE SUBMITTED PRODUCTS FROM THE DESIGN.

b. SHOP DRAWINGS: DRAWN TO ACCURATE SCALE OF 1/4"=1'0". HIGHLIGHT, ENCIRCLE, OR OTHERWISE INDICATE DEVIATIONS FROM THE CONTRACT DOCUMENTS. DO NOT REPRODUCE CONTRACT DOCUMENTS OR COPY STANDARD INFORMATION AS THE BASIS OF SHOP DRAWINGS. STANDARD INFORMATION PREPARED WITHOUT SPECIFIC REFERENCE TO THE PROJECT IS NOT CONSIDERED SHOP DRAWINGS.

2. DO NOT USE SHOP DRAWINGS WITHOUT AN APPROPRIATE FINAL STAMP INDICATING ACTION KEN IN CONNECTION WITH CONSTRUCTION. 3. DO NOT ORDER ANY MATERIALS OR EQUIPMENT PRIOR TO RECEIVING FINAL APPROVED

SUBMITTALS. 4. SCHEDULE AT LEAST TEN WORKING DAYS EXCLUSIVE OF TRANSMITTAL TIME, FOR SUBMITTAL REVIEW

L. AS-BUILT DRAWINGS A. MAINTAIN ONE SET OF PRINTS ON THE SITE AND NOTE ALL CHANGES OR DEVIATIONS FROM THE ORIGINAL DESIGN THEREON. AT THE COMPLETION OF THE PROJECT, INCORPORATE ALL CHANGES INTO RECORD AS-BUILT DRAWINGS IN ELECTRONIC FORMAT AND SUBMIT FOR

APPROVAL M. OPERATION AND MAINTENANCE

UPON COMPLETION OF ALL WORK AND TESTS, THE CONTRACTOR SHALL INSTRUCT THE

OWNER OR THE OWNER'S REPRESENTATIVE IN THE OPERATION, ADJUSTMENT AND MAINTENANCE OF ALL EQUIPMENT FURNISHED. THE CONTRACTOR SHALL GIVE AT LEAST SEVEN (7) DAYS NOTICE TO THE OWNER AND THE ENGINEER IN ADVANCE OF THIS PERIOD 2. THE CONTRACTOR SHALL PREPARE THREE (3) COPIES OF A COMPLETE OPERATION AND MAINTENANCE MANUAL, BOUND IN BOOKLET FORM. ORGANIZE OPERATING AND MAINTENANCE DATA INTO SUITABLE SETS OF MANAGEABLE SIZE. BIND PROPERLY INDEXEI DATA IN INDIVIDUAL HEAVY-DUTY 3-RING VINYL-COVERED BINDERS, WITH POCKET FOLDERS FOR FOLDED SHEET INFORMATION AND DESIGNATION PARTITIONS WITH IDENTIFICATION TABS. MARK APPROPRIATE IDENTIFICATION ON FRONT AND SPINE OF EACH BINDER. 3 MAINTENANCE AND INSTRUCTION MANUALS SHALL BE SUBMITTED TO THE OWNER AT THE SAME TIME AS THE SEVEN (7) DAY NOTICE IS GIVEN PRIOR TO THE INSTRUCTION PERIOD.

N. CLEANING 1. EQUIPMENT: AFTER COMPLETION OF PROJECT, CLEAN THE EXTERIOR SURFACE OF

FOUIPMENT INCLUDED IN THIS SECTION. INCLUDING REMOVAL OF CONCRETE RESIDUE 2. WORK AREA: AFTER COMPLETION OF PROJECT, REMOVE ALL CONSTRUCTION DEBRIS, TEMPORARY FACILITIES AND EQUIPMENT FROM WORK AREA. CLEAN WORK AREA TO PERMIT OCCUPATION.

3. DOMESTIC WATER PIPING: PRIOR TO STARTING WORK, VERIFY SYSTEM IS COMPLETE, LUSHED AND CLEANED. ENSURE ACIDITY (pH) OF WATER TO BE TREATED IS BETWEEN 7.4

AND 7.6 BY ADDING ALKALI (CAUSTIC SODA OR SODA ASH) OR ACID (HYDROCHLORIC), INJECT DISINFECTANT. FREE CHLORINE IN LIQUID. POWDER. TABLET OR GAS FORM. THROUGHOUT SYSTEM TO OBTAIN 50 TO 80 mg/L RESIDUAL. BLEED WATER FROM OUTLETS TO ENSURE

DISTRIBUTION AND TEST FOR DISINFECTANT RESIDUAL AT MINIMUM 15 PERCENT OF OUTLETS. MAINTAIN DISINFECTANT IN SYSTEM FOR 24 HOURS. IF FINAL DISINFECTANT RESIDUAL TESTS LESS THAN 25 mg/L, REPEAT TREATMENT. FLUSH DISINFECTANT FROM SYSTEM UNTIL RESIDUAL EQUAL TO THAT OF INCOMING WATER OF 1.0 mg/L. TAKE SAMPLES NO SOONER THAN 24 HOURS AFTER FLUSHING, FROM 10 PERCENT OF OUTLETS AND FROM WATER ENTRY, AND ANALYZE IN ACCORDANCE WITH AWWA C651

O. GUARANTEE (1) YEAR FROM DATE OF FINAL NOTICE OF ACCEPTANCE. REPAIR OR REPLACE DEFECTIVE

1. GUARANTEE WORK OF THESE CONTRACT DOCUMENTS IN WRITING FOR NOT LESS THAN ONE MATERIALS, EQUIPMENT, WORKMANSHIP AND INSTALLATION THAT DEVELOP WITHIN THIS PERIOD, PROMPT AND TO OWNER'S SATISFACTION AND CORRECT DAMAGE CAUSED IN

MAKING NECESSARY REPAIRS AND REPLACEMENTS UNDER GUARANTEE WITHIN CONTRACT P. MEANS AND METHODS ALL TRADES

1. INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.

2. DO NOT BURN WASTE MATERIALS. DO NOT BURY DEBRIS OR EXCESS MATERIALS ON THE OWNER'S PROPERTY. DO NOT DISCHARGE VOLATILE, HARMFUL OR DANGEROUS MATERIALS INTO DRAINAGE SYSTEMS. REMOVE AND DISPOSE OF ALL WASTE MATERIALS, PACKAGING MATERIAL, SKIDS ETC. FROM THE SITE AND DISPOSE OF IN A LAWFUL MANNER IN ACCORDANCE WITH MUNICIPAL, STATE AND FEDERAL REGULATIONS.

3. MATERIALS AND EQUIPMENT SHALL BE UL LISTED WHERE STANDARD HAS BEEN ESTABLISHED. 4. CAREFULLY INSPECT ALL BUILDING ELEMENTS PRIOR TO CUTTING OR DRILLING INTO WALL,

FLOORS OR CEILINGS. PATCH AND PAINT SURFACES DISTURBED BY WORK UNDER THIS CONTRACT AS REQUIRED TO RESTORE THEM TO THEIR ORIGINAL CONDITION. 5. SCAFFOLDING, RIGGING, HOISTING: THE CONTRACTOR SHALL FURNISH ALL SCAFFOLDING,

RIGGING, HOISTING AND SERVICES NECESSARY FOR ERECTION AND DELIVERY INTO THE PREMISES ANY EQUIPMENT AND APPARATUS FURNISHED UNDER THIS DIVISION. REMOVE SAME FROM PREMISES WHEN NO LONGER REQUIRED.

6. EXCAVATION AND BACKEILLING<sup>1</sup> IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE SIZES. DEPTHS. FILL AND BEDDING REQUIREMENTS AND ANY OTHER EXCAVATION WORK REQUIRED UNDER THESE SPECIFICATIONS.

- 7. WATERPROOFING: WHERE ANY WORK PIERCES WATERPROOFING, INCLUDING WATERPROOF CONCRETE ROOFS EXTERIOR WALL AND FLOORS IN WET AREAS. THE METHOD OF INSTALLATION SHALL BE REVIEWED BY THE ENGINEER BEFORE WORK IS DONE. THE CONTRACTOR SHALL FURNISH ALL NECESSARY SLEEVES, CAULKING AND FLASHING REQUIRED TO MAKE OPENINGS ABSOLUTELY WATERTIGHT
- 8. PROVIDE FIRESTOPPING AROUND ALL FIRE PROTECTION, PLUMBING, MECHANICAL AND FLECTRICAL PENETRATIONS THROUGH FIRE RATED PARTITIONS PROVIDE ASBESTOS FREE FIRESTOPPING SYSTEM CAPABLE OF MAINTAINING AN EFFECTIVE BARRIER AGAINST FLAME AND GASES. SYSTEM SHALL BE UL LISTED AND COMPLY WITH ASTM E 814. REFER TO ARCHITECTURAL DRAWINGS FOR RATINGS OF ASSEMBLIES.
- PROVIDE ACCESS PANELS IN WALLS, FLOORS AND GYPSUM WALL BOARD CEILINGS TO ALLOW ACCESS TO: VALVES AND OTHER APPARATUS AND EQUIPMENT REQUIRING PERIODIC SERVICE AND INSPECTION. NOT ALL ACCESS PANELS ARE INDICATED ON THE PLANS. REVIEW ARCHITECTURAL AND PLUMBING PLANS TO DETERMINE THE LOCATION AND QUANTITY OF ACCESS PANELS REQUIRED. COORDINATE TYPE AND LOCATION WITH ARCHITECTURAL PLANS.

22 05 00 - COMMON WORK RESULTS FOR PLUMBING A. IDENTIFICATION FOR PIPING AND EQUIPMENT:

- MANUFACTURERS: CRAFTMARK IDENTIFICATION SYSTEMS, SAFETY SIGN CO., SETON IDENTIFICATION PRODUCTS, NORTHTOWN, KOLBI. SUBSTITUTIONS: DIVISION 01 - GENERAL REQUIREMENTS AND 22 04 00 – GENERAL REQUIREMENTS.
- 2. PLASTIC NAMEPLATES: LAMINATED THREE-LAYER PLASTIC WITH ENGRAVED BLACK LETTERS ON LIGHT BACKGROUND COLOR.
- 3. TAGS a. PLASTIC TAGS: LAMINATED THREE-LAYER PLASTIC WITH ENGRAVED BLACK LETTERS ON
- LIGHT BACKGROUND COLOR. MINIMUM 1-1/2 INCHES DIAMETER. b. METAL TAGS: ALUMINUM WITH STAMPED LETTERS; TAG SIZE MINIMUM 1-1/2 INCHES
- DIAMETER WITH FINISHED EDGES. c. INFORMATION TAGS: CLEAR PLASTIC WITH PRINTED "DANGER," "CAUTION," OR
- WARNING" AND MESSAGE: SIZE 3-1/4 X 5-5/8 INCHES WITH GROMMET AND SELF-LOCKING NYLON TIES
- d. TAG CHART: TYPEWRITTEN LETTER SIZE LIST OF APPLIED TAGS AND LOCATION IN ANODIZED ALUMINUM FRAME
- 4. PIPE MARKERS
- a. COLOR AND LETTERING TO CONFORM TO ASME A13.1. b. PLASTIC PIPE MARKERS: FACTORY FABRICATED, FLEXIBLE, SEMI-RIGID PLASTIC,
- PREFORMED TO FIT AROUND PIPE OR PIPE COVERING LARGER SIZES MAY HAVE MAXIMUM SHEET SIZE WITH SPRING FASTENER. MINIMUM INFORMATION INDICATING FLOW DIRECTION ARROW AND IDENTIFICATION OF FLUID BEING CONVEYED.
- PLASTIC TAPE PIPE MARKERS: FLEXIBLE, VINYL FILM TAPE WITH PRESSURE SENSITIVE ADHESIVE BACKING AND PRINTED MARKINGS. 5. CEILING TACKS
- a. DESCRIPTION: STEEL WITH 3/4 INCH DIAMETER COLOR-CODED HEAD.
- b. COLOR CODE AS FOLLOWS: PLUMBING VALVES: GREEN.
- 6. LABELS

a. DESCRIPTION: POLYESTER FOR ABOVE GRADE AND LAMINATED MYLAR FOR BELOW GRADE, SIZE 1.9 X 0.75 INCHES, ADHESIVE BACKED WITH PRINTED IDENTIFICATION. B. SLEEVES

- MANUFACTURERS: FLEXICRAFT INDUSTRIES; PIPE WALL SLEEVE, METRAFLEX; PIPE WALL SLEEVE, CCI PIPELINE; PIPE WALL SLEEVE, GPT – CENTURYLINE SLEEVE SERIES, 3PT/THUNDERLINE LINK-SEAL, INC, METRAFLEX - METRASEAL, BWM – PIPE SEAL/ PS SERIES. SUBSTITUTIONS: SEE DIVISION 01 - GENERAL REQUIREMENTS AND 22 04 00 - GENERAL REQUIREMENTS.
- 2. VERTICAL PIPING:
- a. SLEEVE LENGTH: 1 INCH ABOVE FINISHED FLOOR. b. PROVIDE SEALANT FOR WATERTIGHT JOINT.
- c. BLOCKED OUT FLOOR OPENINGS: PROVIDE 1-1/2 INCH ANGLE SET IN SILICON ADHESIVE
- AROUND OPENING d. DRILLED PENETRATIONS: PROVIDE 1-1/2 INCH ANGLE RING OR SQUARE SET IN SILICONE
- ADHESIVE AROUND PENETRATION. 3. SHEET METAL: PIPE PASSING THROUGH INTERIOR WALLS, PARTITIONS, AND FLOORS,
- INI ESS STEEL OR BRASS SLEEVES ARE SPECIFIED PIPE PASSING THROUGH BELOW GRADE OR EXTERIOR WALLS:
- a. ANCHORED SLEEVE ZINC COATED OR CAST IRON PIPE.
- b. PROVIDE WATERTIGHT SPACE WITH LINK RUBBER OR MODULAR SEAL BETWEEN SLEEVE AND PIPE ON BOTH PIPE ENDS.
- 5. CLEARANCES: a. PROVIDE ALLOWANCE FOR INSULATED PIPING.
- b. WALL, FLOOR, FLOOR, PARTITIONS, AND BEAM FLANGES: 1 INCH GREATER THAN
- EXTERNAL; PIPE DIAMETER. c. ALL RATED OPENINGS: CAULKED TIGHT WITH FIRE STOPPING MATERIAL CONFORMING TO HYPERI INK "HTTP://GLOBAL IHS COM/DOC DETAIL CEM? RID=BSD&DOCUMENT\_NAME=ASTM E814" ASTM E814-13A IN ACCORDANCE WITH DIVISION 07 THERMAL AND MOISTURE PROTECTION TO PREVENT THE SPREAD OF FIRE, SMOKE, AND GASES.
- 6. SLEEVES FOR PIPES THROUGH NON-FIRE RATED FLOORS: 18 GAGE THICK GALVANIZED
- 7. SLEEVES FOR PIPES THROUGH NON-FIRE RATED WALLS, AND POTENTIALLY WET FLOORS:
- STEEL PIPE OR 18 GAGE THICK GALVANIZED STEEL. 8. SEALANT: REFER TO DIVISION 07 THERMAL AND MOISTURE PROTECTION.
- 9. MECHANICAL SLEEVE SEALS
- a. PRODUCT DESCRIPTION: MODULAR MECHANICAL TYPE, CONSISTING OF INTERLOCKING SYNTHETIC NITRILE RUBBER LINKS SHAPED TO CONTINUOUSLY FILL ANNUL AR SPACE BETWEEN OBJECT AND SLEEVE. CONNECTED WITH BOLTS AND PRESSURE PLATES CAUSING RUBBER SEALING ELEMENTS TO EXPAND WHEN TIGHTENED, PROVIDING WATERTIGHT SEAL AND ELECTRICAL INSULATION.

b. PROVIDE NSF 61 CERTIFIED ASSEMBLY WHEN USED IN POTABLE WATER STORAGE TANK

MANUFACTURERS: B-LINE SYSTEMS, UNISTRUT CORP., ANVIL INTERNATIONAL

SUBSTITUTIONS: DIVISION 01 - GENERAL REQUIREMENTS AND 22 04 00 – GENERAL

. CONNECTIONS BETWEEN COPPER & STEEL PIPING SHALL BE MADE WITH DIELECTRIC

2. INSTALL AND TEST GAS PIPING IN ACCORDANCE WITH THE FUEL GAS CODE AND NFPA 54.

a. REAM PIPE AND TUBE ENDS. REMOVE BURRS. BEVEL OR GROOVE PLAIN END FERROUS

d. KEEP OPEN ENDS OF PIPE FREE FROM SCALE AND DIRT. PROTECT OPEN ENDS WITH

1. INSTALL PIPING IN ACCORDANCE WITH ALL APPLICABLE PLUMBING CODES, ASME B31.1, AND

3. INSTALL PIPING TO CONSERVE BUILDING SPACE, AND NOT INTERFERE WITH USE OF SPACE.

ARCHITECTURAL DRAWINGS FOR LOCATIONS AND RATINGS OF RATED ASSEMBLIES.

7. INSTALL PIPING TO ALLOW FOR EXPANSION AND CONTRACTION WITHOUT STRESSING PIPE,

. SLOPE DOMESTIC WATER PIPING AND ARRANGE SYSTEMS TO DRAIN AT LOW POINTS. USE

10. WHERE PIPE SUPPORT MEMBERS ARE WELDED TO STRUCTURAL BUILDING FRAMING,

SCRAPE, BRUSH CLEAN, AND APPLY ONE COAT OF ZINC RICH PRIMER TO WELD

11. PREPARE UNFINISHED PIPE, FITTINGS, SUPPORTS, AND ACCESSORIES, READY FOR FINISH

1. TEST PIPING IN ACCORDANCE WITH ALL APPLICABLE PLUMBING CODES, ASME B31.1 AND

WATERWAYS, WITH BRONZE BODY VALVES, OR WITH BRASS ADAPTER FITTINGS.

b. REMOVE SCALE AND DIRT ON INSIDE AND OUTSIDE BEFORE ASSEMBLY.

2. ROUTE PIPING PARALLEL TO BUILDING STRUCTURE AND MAINTAIN GRADIENT.

INSTALL FIRESTOPPING AT PENETRATIONS OF RATED ASSEMBLIES. REFER TO

c. PREPARE PIPING CONNECTIONS TO EQUIPMENT WITH FLANGES OR UNIONS.

PRODUCT DESCRIPTION: GALVANIZED 12 GAGE THICK STEEL. WITH HOLES 1-1/2 INCHES ON

. GENERAL INSTALLATION REQUIREMENTS FOR PLUMBING

TEMPORARY PLUGS OR CAPS.

JOINTS, OR CONNECTED EQUIPMENT.

ASME B31.9, AS APPLICABLE.

PAINTING.

F. TESTING

ASME B31.9 AS APPLICABLE.

. INSTALLATION REQUIREMENTS FOR PLUMBING PIPING

e. AFTER COMPLETION, FILL, CLEAN, AND TREAT SYSTEM.

4. GROUP PIPING WHENEVER PRACTICAL AT COMMON ELEVATIONS.

5. SLEEVE PIPE PASSING THROUGH PARTITIONS, WALLS AND FLOORS.

PROVIDE ACCESS WHERE VALVES AND FITTINGS ARE NOT EXPOSED.

12. INSTALL VALVES WITH STEMS UPRIGHT OR HORIZONTAL, NOT INVERTED.

ECCENTRIC REDUCERS TO MAINTAIN TOP OF PIPE ALIGNED.

APPLICATIONS

C. FORMED STEEL CHANNEL

3. PREPARATION

REQUIREMENTS

#### 22 05 29 - HANGERS AND SUPPORTS

N. PROVIDE PIPE STANDS, SUPPORTS, HANGERS AND OTHER SUPPORTING APPLIANCES AS NECESSARY TO SUPPORT WORK REQUIRED BY CONTRACT DOCUMENTS. SPACING OF HANGERS SHALL BE INSTALLED IN ACCORDANCE WITH APPLICABLE BUILDING AND MECHANICAL CODES.

STRUCTURAL STEEL SUPPORTS, HANGERS, ETC. SHALL BE ANGLE IRON, STEEL CHANNEL OR STEEL ROD USED WITH APPROVED CLAMPS, INSERTS, ETC. ALL SUPPORTS, HANGERS, BRACKETS, ETC., SHALL BE AS APPROVED BY THE ENGINEER.

B. ALL HANGERS SHALL BE GALVANIZED. C. ATTACH HANGERS AND SUPPORTS DIRECTLY ONTO THE STRUCTURE BY FIRST REMOVING EXISTING FIRE PROOFING AND AFTER SECURING THE ATTACHMENT. REPAIRING THE FIRE

PROOFING TO ITS ORIGINAL CONDITION, CONTINUOUSLY OVER THE ATTACHMENT. D. FOR EXPANSION BOI TS/SHIFLDS USE RED HEAD HILTLOR WE I-IT SELEDRILLING OR STEE SHIELD, LOAD RATED. DO NOT USE DRILLED ANCHORS IN POST TENSION SLABS WITHOUT APPROVAL OF OWNER. DO NOT CUT REINFORCING STEEL WITH DRILLED INSERTS.

E. INSTALLATION REQUIREMENTS FOR HANGERS AND SUPPORTS

1. INSTALL IN ACCORDANCE WITH ASME B31.9, ASTM F708 AND MSS SP 89.

2. SUPPORT HORIZONTAL PIPING AS SCHEDULED.

INSTALL HANGERS TO PROVIDE MINIMUM 1/2 INCH SPACE BETWEEN FINISHED COVERING AND ADJACENT WORK.

4. PLACE HANGERS WITHIN 12 INCHES OF EACH HORIZONTAL ELBOW. USE HANGERS WITH 1-1/2 INCH MINIMUM VERTICAL ADJUSTMENT. DESIGN HANGERS FOR

PIPE MOVEMENT WITHOUT DISENGAGEMENT OF SUPPORTED PIPE. SUPPORT VERTICAL PIPING AT EVERY FLOOR. SUPPORT RISER PIPING INDEPENDENTLY OF CONNECTED HORIZONTAL PIPING.

WHERE INSTALLING SEVERAL PIPES IN PARALLEL AND AT SAME ELEVATION, PROVIDE MULTIPLE PIPE HANGERS OR TRAPEZE HANGERS.

8. PROVIDE COPPER PLATED HANGERS AND SUPPORTS FOR COPPER PIPING. PRIME COAT EXPOSED STEEL HANGERS AND SUPPORTS. HANGERS AND SUPPORTS

LOCATED IN CRAWL SPACES, PIPE SHAFTS, AND SUSPENDED CEILING SPACES ARE NOT CONSIDERED EXPOSED.

10. PROVIDE CLEARANCE IN HANGERS AND FROM STRUCTURE AND OTHER EQUIPMENT FOR INSTALLATION OF INSULATION AND ACCESS TO VALVES AND FITTINGS. 22 05 48 - VIBRATION AND SEISMIC CONTROLS

A. PROVIDE VIBRATION ISOLATION FOR EACH PIECE OF ROTATING OR RECIPROCATING EQUIPMENT SHOWN ON THE DRAWINGS. ALL ISOLATION COMPONENTS SHALL BE SUPPLIED BY A SINGLE MANUFACTURER - MASON INDUSTRIES, KINETICS OR AMBER BOOTH. TYPES OF ISOLATORS REQUIRED DEFLECTIONS, AND INSTALLATION PRACTICES SHALL BE IN STRICT ACCORDANCE WITH THE RECOMMENDATIONS OF THE VIBRATION ISOLATION MANUFACTURER.

PROVIDE SEISMIC RESTRAINTS AS REQUIRED BY CODE. FOR EACH SEISMIC RESTRAINT, PROVIDE CERTIFIED CALCULATIONS TO VERIFY ADEQUACY TO MEET THE FOLLOWING DESIGN REQUIREMENTS: ABILITY TO ACCOMMODATE RELATIVE SEISMIC DISPLACEMENTS OF SUPPORTED ITEM BETWEEN POINTS OF SUPPORT. ABILITY TO ACCOMMODATE THE REQUIRED SEISMIC FORCES. FOR EACH RESPECTIVE SET OF ANCHOR BOI TS PROVIDE CALCULATIONS TO VERIFY ADEQUACY TO MEET COMBINED SEISMIC-INDUCED SHEER AND TENSION FORCES. FOR EACH WELDMENT BETWEEN STRUCTURE AND ITEM SUBJECT TO SEISMIC FORCE. PROVIDE

CALCULATIONS TO VERIFY ADEQUACY. CALCULATIONS SHALL BE STAMPED BY A PROFESSIONAL ENGINEER WHO IS REGISTERED IN THE STATE WHERE THE WORK IS BEING PERFORMED AND HAS SPECIFIC EXPERIENCE IN SEISMIC CALCULATIONS. RESTRAINTS SHALL MAINTAIN THE RESTRAINED ITEM IN A CAPTIVE POSITION WITHOUT SHORT CIRCUITING THE VIBRATION ISOLATION.

22 07 00 - PLUMBING INSULATION A. GENERAL REQUIREMENTS

SMOKE DEVELOPED.

INSULATION SHALL BE CERTAIN-TEED, KNAUF, MANVILLE, OR OWENS CORNING. MATERIALS SHALL MEET REQUIREMENTS OF ADHESIVE AND SEALANT COUNCIL STANDARDS AND SMACNA. INSTALL INSULATION, MASTICS, ADHESIVES, COATINGS, COVERS, WEATHER-PROTECTION AND OTHER WORK IN STRICT ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS. ASTM E-84 FIRE HAZARD RATINGS SHALL BE 25 FLAME SPREAD, 50

FITTINGS, VALVES AND FLANGES SHALL BE INSULATED WITH SAME MATERIAL AND TO SAME HICKNESS AS ADJOINING PIPE INSULATION, WITH PRESENT SECTIONS.

FOR STRAINERS AND OTHER VALVES OR FITTINGS WHICH NEED MAINTENANCE, PROVIDE PREFORMED REMOVABLE INSULATION SECTION. 4. INCREASE PIPE INSULATION AS REQUIRED FOR PIPING WITH HEAT TRACING PER

MANUFACTURER'S REQUIREMENTS. A. PRODUCTS AND APPLICATIONS

1. INSULATION SHALL BE FIBROUS GLASS PIPE INSULATION WITH FACTORY-APPLIED ASJ WITH K FACTOR OF AT LEAST 0.23 AT 75F MEAN TEMPERATURE. 2. PROVIDE INSULATION FOR THE FOLLOWING SYSTEMS:

a. DOMESTIC HOT WATER PIPE INSULATION: MINIMUM 1 INCH THICKNESS. PROVIDE 1-1/2 INCH THICKNESS FOR DOMESTIC HOT WATER PIPES 1-1/2 INCH DIAMETER AND LARGER. b. DOMESTIC COLD WATER: MINIMUM 1/2 INCH THICKNESS, PROVIDE 1 INCH THICKNESS FOR COLD WATER PIPES 1-1/2 INCH DIAMETER AND GREATER.

c. STORM AND SANITARY PIPING HORIZONTAL ABOVE GROUND WITHIN BUILDING: MINIMUM 1 INCH THICKNESS d. STORM AND SANITARY PIPING VERTICAL ABOVE GROUND WITHIN BUILDING: MINIMUM 1

INCH THICKNESS. INSULATE STORM DRAIN PIPING FROM THE ROOF DRAIN BOWL TO A POINT WHERE THE PIPING TURNS FROM HORIZONTAL TO VERTICAL OR FOR A MINIMUM OF 30'. WHICHEVER IS LONGER WHERE MULTIPLE ROOF DRAINS CONNECT THE 30' MINIMUM SHALL BE MEASURED FROM THE MOST DOWNSTREAM ROOF DRAIN EXTENDING ALONG THE PIPING IN THE DIRECTION OF FLOW. (ONLY FOR USE AS VE OPTION ON STORM PIPING.

EDIT AS REQUIRED. REMOVE "STORM" FROM C AND D ABOVE IF E IS TO BE USED.)

22 10 00 - PLUMBING PIPING

A. DOMESTIC WATER PIPING - ABOVE GRADE SOLDERED OR BRAZED: ASTM B88, TYPE L HARD DRAWN COPPER TUBING, WITH ASM B16.18 CAST BRASS OR ASME B16.22 WROUGHT COPPER FITTINGS. JOINTS SHALL BE SOLDER TYPE WITH ASTM B32 95-5 TIN-ANTIMONY OR TIN AND SILVER SOLDER, OR BRAZED

TYPE WITH AWS A5.8 BCUP ALLOY BRAZE. TEES SHALL BE FITTINGS; MECHANICALLY EXTRACTED COLLARS TEES ARE NOT ALLOWED. GROOVED: ASTM B88, TYPE L WITH ROLLED GROOVED ENDS, WITH ASME B16.18 CAST COPPER ALLOY. ASME B16.22 WROUGHT COPPER AND BRONZE. OR ASTM B584 BRONZE SAND CASTINGS, GROOVED END FITTINGS, AND ASTM F1476 GROOVED MECHANICAI COUPLINGS JOINTS WITH ENAMEL COATED ASTM A395 DUCTILE IRON AND ASTM A536 DUCTILE IRON HOUSING CLAMPS, COMPATIBLE WITH COPPER TUBING SIZES, TO ENGAGE AND LOCK DESIGNED TO PERMIT SOME ANGULAR DEFLECTION, CONTRACTION, AND EXPANSION, ELASTOMER COMPOSITION GASKETS WITH AN OPERATING TEMPERATURE

RANGE FROM -40°F TO 230°F, AND GALVANIZED OR STAINLESS STEEL BOLTS, NUTS, AND WASHERS. TEES SHALL BE FITTINGS; CLAMP TYPE TEES ARE NOT ALLOWED. MANUFACTURERS: ANVIL/GRUVLOK, TYCO/GRINNELL, VICTAULIC. FITTINGS AND JOINTS SHALL BE BY THE SAME MANUFACTURER. PRESS CONNECTIONS: COPPER AND COPPER ALLOY PRESS CONNECTIONS SHALL BE MADE IN ACCORDANCE WITH THE MANUFACTURER'S INSTALLATION INSTRUCTIONS. THE TUBING

SHALL BE FULLY INSERTED INTO THE FITTING AND THE TUBING MARKED AT THE SHOULDER OF THE FITTING. THE FITTING ALIGNMENT SHALL BE CHECKED AGAINST THE MARK ON THE TUBING TO ASSURE THE TUBING IS FULLY ENGAGED (INSERTED) IN THE FITTING. THE JOINTS SHALL BE PRESSED USING THE TOOL(S) APPROVED BY THE MANUFACTURER. B. DRAIN, WASTE, AND VENT PIPING (SANITARY AND STORM)

BELOW GRADE: HUB & SPIGOT: ASTM A74 CAST IRON PIPE, WITH ASTM A74 CAST IRON TTINGS AND ASTM C564 RUBBER GASKET JOINT DEVICES OR LEAD AND OAKUM.

HUBLESS (NO-HUB): CISPI 301 HUBLESS SERVICE WEIGHT CAST IRON PIPE WITH CISPI 310 NEOPRENE GASKET AND STAINLESS STEEL CLAMP AND SHIELD JOINT ASSEMBLIES. 3. COPPER: ASTM B306 TUBE OR ASTM B42 PIPE, WITH ASME B16.23, CAST BRONZE, OR ASME

B16.29 WROUGHT COPPER ALLOY GRADE FITTINGS, AND ALLOY GRADE SB5 TINANTIMONY SOLDER. C. MEDICAL GAS PIPING

ASTM B 819. TYPE K HARD DRAWN SEAMLESS COPPER TUBING. WITH ASME B16.22 WROUGHT COPPER FITTINGS. JOINTS SHALL BE BRAZED TYPE WITH BCUP-5 BRAZING ALLOY OR EQUIVALENT ALLOY.

FITTINGS, TUBE, VALVES, AND PIPING SYSTEM COMPONENTS SHALL BE CLEANED FOR OXYGEN SERVICE IN ACCORDANCE WITH CGA PAMPHLET G-4.1. CLEANING SHALL BE PERFORMED BY THE MANUFACTURER OR A FACILITY EQUIPPED TO CLEAN, RINSE, AND

PURGE THE MATERIAL IN ACCORDANCE WITH CGA PAMPHLET G-4.1. FIELD FABRICATED, MECHANICALLY FORMED TEES/OUTLETS AND COUPLINGS SHALL NOT BE USED.

4. BRAZERS SHALL BE QUALIFIED IN ACCORDANCE WITH THE REQUIREMENTS OF NFPA 99 MEDICAL VACUUM PIPING

ASTM B 88. TYPE L TEMPER COPPER TUBING IN EXPOSED LOCATIONS AND SOFT TEMPER FOR UNDERGROUND OR CONCEALED LOATIONS. WITH ASME B16.22 WROUGHT COPPER FITTINGS. JOINTS SHALL BE BRAZED TYPE. FILLER METALS SHALL HAVE A MINIMUM MELTING TEMPERATURE OF 450F.

FITTINGS, TUBE, VALVES, AND PIPING SYSTEM COMPONENTS SHALL BE LABELED OR OTHERWISE IDENTIFIED PRIOR TO INSTALLATION IN ORDER TO PRECLUDE INADVERTENT INCLUSION INTO A MEDICAL GAS SYSTEM, OR ASTM B 819 TUBE SHALL BE USED. E. BRONZE BALL VALVES

1. MANUFACTURERS: APOLLO, CRANE, JENKINS, NIBCO, STOCKHAM.

2. GENERAL: BRONZE BODY, TWO PIECE, FULL PORT, 150 PSIG SWP, 600 PSIG WOG (UP TO 2"), 400 PSIG WOG (2-1/2" TO 4"), MSS SP-110, NSF 61 OR NSF/ANSI 372 CERTIFIED. 3. FEATURES: VINYL COATED LEVER HANDLE, CHROME PLATED SOLID BRASS BALL, BLOW-OUT

PROOF STEM, ADJUSTABLE PACKING GLAND, PTFE SEATS AND SEALS. 4. EXTENDED LEVER HANDLE: PROVIDE AS NECESSARY TO ALLOW FOR UNCOMPRESSED INSULATION INSTALLATION; LEVER SHALL BE OPERABLE WITHOUT DISTURBING THE INSULATION.

F. STEEL BODY BALL VALVES

1. MANUFACTURERS: APOLLO, CRANE, JENKINS, NIBCO, STOCKHAM

2. GENERAL: STEEL BODY, TWO PIECE, FULL PORT, 125 PSIG SWP, MSS SP-72. 3. FEATURES: VINYL COATED LEVER HANDLE, STAINLESS STEEL BALL AND STEM, PTFE SEATS

AND SEALS, NSF 61 OR NSF/ANSI372 CERTIFIED. 4 EXTENDED LEVER HANDLE: PROVIDE AS NECESSARY TO ALLOW FOR UNCOMPRESSED INSULATION INSTALLATION; LEVER SHALL BE OPERABLE WITHOUT DISTURBING THE

INSULATION.

E. CHECK VALVES - HORIZONTAL SWING

1. MANUFACTURERS: APOLLO, CRANE, JENKINS, NIBCO, STOCKHAM 2. GENERAL: ASTM B-61 BRONZE OR BRASS Y-PATTERN BODY, CLASS 125, 200 PSIG CWP,

MSS SP-80, NSF 61 OR NSF/ANSI 372 CERTIFIED. 3. FEATURES: LOW LEAD BRASS SCREWED CAP, LOW LEAD BRASS DISC, LOW LEAD STEM, LOW LEAD BRASS HINGE, STAINLESS STEEL OR LOW LEAD BRASS HINGE PIN.

F. CHECK VALVES – SPRING LOADED 1. MANUFACTURERS: FLOMATIC, MILWAUKEE, NIBCO.

2. GENERAL: GLOBE STYLE IRON BODY, 200 PSIG CWP, ASME B16.1. 2" AND SMALLER, MSS SP 80, CLASS 250, BRONZE BODY, IN-LINE SPRING LIFT CHECK, SILENT CLOSING, DISC INTEGRAL SEAT, SOLDERED OR THREADED ENDS. 2-1/2" AND LARGER, MSS SP 125, CLASS 125, LEAD FREE, WAFER STYLE, CAST IRON BODY, BRONZE SEAT, CENTER GUIDED BRONZE DISC, STAINLESS STEEL SPRING AND SCREWS, FLANGED ENDS.

3. FEATURES: NSF 61 OR NSF/ANSI 372 CERTIFIED.

G. THERMOSTATIC MIXING VALVES

1. MANUFACTURERS: LAWLOR, LEONARD, POWERS, WATTS 2. GENERAL: THERMOSTATIC CONTROLLER WITH SWIVEL ACTION CHECK STOPS.

REMOVABLE CARTRIDGE WITH STRAINER. STAINLESS STEEL PISTON AND LIQUID FILLED MOTOR WITH BELLOWS MOUNTED OUT OF WATER, ROUGH BRASS FINISH, LEAD FREE BRONZE OR BRASS VALVE BODY.

H. MISCELLANEOUS FITTINGS 1. DIELECTRIC WATERWAYS

a. MANUFACTURERS: TYCO/GRINNELL CLEARFLOW, PRECISION PLUMBING PRODUCTS (PPP) CLEARFLOW, VICTAULIC STYLE 647. b. GALVANIZED ASTM A53 STEEL, ASTM A395 DUCTILE IRON, OR ASTM A536 DUCTILE

IRON SLEEVE WITH INERT NON-CORROSIVE THERMOPLASTIC LINING, NSF 61 OR NSF/ANSI 372 CERTIFIED.

2. FLANGES

a. COPPER PIPING: CLASS 150, SLIP-ON BRONZE FLANGES. b. STEEL PIPING: CLASS 150, SLIP-ON FORGED STEEL FLANGES.

c. GASKETS: 1/16" THICK PREFORMED NEOPRENE GASKETS.

3. UNIONS

a. COPPER PIPING: CLASS 150, BRONZE UNIONS WITH SOLDERED OR BRAZED JOINTS. b. STEEL PIPING: CLASS 150, MALLEABLE IRON, THREADED.

c. DIELECTRIC CONNECTIONS: UNION WITH GALVANIZED OR PLATED STEEL THREADED END, COPPER SOLDER END, WATER IMPERVIOUS ISOLATION BARRIER ARE REQUIRED WHERE TWO DISSIMILAR METAL PRODUCTS ARE CONNECTED WITHIN A SYSTEM.

22 30 00 - PLUMBING EQUIPMENT

A. FLOOR DRAINS: MANUFACTURED BY JAY R. SMITH, JOSAM, MIFAB, WADE, WATTS, ZURN.

B. FLOOR SINKS: MANUFACTURED BY JAY R. SMITH, JOSAM, MIFAB, WADE, WATTS, ZURN. C. CLEANOUTS: MANUFACTURED BY JAY R. SMITH, JOSAM, MIFAB, WADE, WATTS, ZURN.

D. HOSE BIBBS: MANUFACTURED BY: CHICAGO FAUCETS, JAY R. SMITH, JOSAM, MIFAB, ROYAL,

WADE, WATTS, WOODFORD, ZURN. E. WATER HAMMER ARRESTORS: MANUFACTURED BY: JAY R. SMITH, JOSAM, MIFAB, PRECISION

PLUMBING PRODUCTS (PPP), WADE, WATTS, WOODFORD, ZURN. TRAP PRIMERS: MANUFACTURED BY: JAY R. SMITH, JOSAM, MIFAB, PRECISION PLUMBING

PRODUCTS (PPP), WADE, WATTS, WOODFORD, ZURN. G. GENERAL

a. VERIFY WALLS AND FLOOR FINISHES ARE PREPARED AND READY FOR INSTALLATION OF

b. VERIFY ELECTRIC POWER IS AVAILABLE AND OF CORRECT CHARACTERISTICS. c. COORDINATE CUTTING AND FORMING OF ROOF AND FLOOR CONSTRUCTION TO RECEIVE

d. INSTALL COMPONENTS LEVEL AND PLUMB.

e. EXTEND CLEANOUTS TO FINISHED FLOOR OR WALL SURFACE. LUBRICATE THREADED CLEANOUT PLUGS WITH MIXTURE OF GRAPHITE AND LINSEED OIL. ENSURE CLEARANCE AT CLEANOUT FOR RODDING OF DRAINAGE SYSTEM.

f. INSTALL WATER HAMMER ARRESTORS WITH ISOLATION VALVE IN ACCESSIBLE I OCATIONS

22 40 00 - PLUMBING FIXTURES AND SPECIALTIES I. GENERAL

> INSTALL EACH FIXTURE WITH CHROME PLATED SUPPLIES WITH SCREWDRIVER STOPS, REDUCERS, AND ESCUTCHEONS. ADJUST STOPS FOR INTENDED WATER FLOW RATE TO FIXTURES WITHOUT SPLASHING, NOISE, OR OVERFLOW.

WATER CLOSETS - VITREOUS CHINA

1. MANUFACTURERS - FIXTURES: AMERCIAN STANDARD, ELJER, KOHLER

2. MANUFACTURERS - FLUSH VALVES: DELANY, DELTA COMMERCIAL, SLOAN, ZURN.

K. LAVATORIES - VITREOUS CHINA

1. MANUFACTURERS: AMERCIAN STANDARD, ELJER, KOHLER, TOTO

2. MANUFACTURERS - FAUCETS: CHICAGO FAUCETS, DELTA, KOHLER, SLOAN, SPEAKMAN, SYMMONS, T&S BRASS. SINKS - STAINLESS STEEL

1. MANUFACTURERS - FIXTURES: AMERCIAN STANDARD, ELKAY, JUST MANUFACTURING, KOHLER.

2. MANUFACTURERS - FAUCETS: CHICAGO FAUCETS, DELTA, KOHLER,

SPEAKMAN, SYMMONS, T&S BRASS. M. ELECTRIC WATER COOLERS

1. MANUFACTURERS: ELKAY, HALSEY TAYLOR, HAWS, OASIS

N. MOP BASINS

1. MANUFACTURERS: FIAT, MUSTEE, STERN WILLIAMS. O. WALL MOUNTED CARRIER

1. GENERAL: ASME A112.6.1; CAST IRON AND STEEL FRAME WITH TUBULAR LEGS, LUGS FOR FLOOR AND WALL ATTACHMENT, CONCEALED ARM SUPPORTS, BEARING PLATE AND STUDS, SEE DRAWINGS FOR ADDITIONAL REQUIREMENTS AND ACCESSORIES.

![](_page_62_Picture_184.jpeg)

PLUMBING SPECIFICATION

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SCALE AS INDICATED FILE REFERENCE C:\Users\kcraven\Documents\PHASE 2 R20-2019378.00-MEP Central-Andrus-on-Hudson second floor kcravenXXVJU.rvt HISTORY OF SUBMISSIONS No Date Descriptio \_\_\_\_\_ 100% CONSTRUCTION DOCUMENTS SHEET TITLE

PROJECT DATA PROJECT NUMBER M19012 CURRENT SUBMISSION DATE 10.27.2023 KMC DRAWN CHECKED BCH

ANDRUS ON HUDSON ANDRUS ON HUDSON MAIN BUILDING 2ND FLOOR CONSULTANTS CES Engineering, LLC 216 E. 45th St., 16th Fl esena.com CES #2019378

AMENTA EMMA

ARCHITECTS

KEY PLAN

![](_page_63_Figure_0.jpeg)

![](_page_63_Figure_1.jpeg)

SPRINKLER SYSTEM NOTES										
1.	THESE GENERAL NOTES ARE APPLICABLE TO ALL FIRE PROTECTION DRAWINGS.									
2.	DRAWINGS ARE DIAGRAMMATIC AND SHOW THE GENERAL INTENT OF WORK, SEE DETAILS, RISERS, AND SPECIFICATIONS FOR ADDITIONAL INFORMATION.									
3.	THE DRAWINGS INDICATE A SUGGESTED SPRINKLER HEAD LAYOUT AND THAT EACH AREA IS COVERED BY SPRINKLER PROTECTION AS REQUIRED BY ALL APPLICABLE STATE OF NY BUILDING AND FIRE CODES. THE SPRINKLER QUANTITIES SHALL NOT BE COUNTED AS A TAKE OFF OR AS EXACT LOCATIONS. EXACT SPACING, DENSITY, AND LOCATION REQUIREMENTS SHALL BE AS DICTATED BY NFPA 13.									
4.	In the contractor shall verify all existing conditions including existing tee outlet size for all return bend assemblies. Before any new work starts, the contractor shall determine that all existing outlets are a minimum of one inch. If it is determined that the existing outlet size is less than one inch, all sprinkler work shall stop and it shall be brought to the arch/engineers attention. The contractor shall not proceed with work until direction is given by the arch/engineer.									
5.	COMBINED INSIDE AND OUTSIDE HOSE STREAM ALLOWANCE FOR HYDRAULIC CALCULATIONS SHALL BE 250 GPM.									
6.	HYDRAULIC CA	ALCULATIONS SHALL INCLUDE A S	SAFETY FACTOR	R OF 10%.						
7.	PIPE VELOCIT	Y AT ANY POINT OF THE SYSTEM	SHALL NOT EXC	EED 18 FPS.						
8. INSTALLATION OF SPRINKLERS SHALL BE BASED ON THE FOLLOWING:										
AREA OCCUPANCY DENSITY AREA OF CLASSIFICATION (GPM/SF) APPLICATION										
STO	RAGE ROOMS	ORDINARY HAZARD GROUP 1	0.15	1500						
ELEC	TRICAL ROOMS	ORDINARY HAZARD GROUP 1	0.15	1500						
REMAINDER OF THE BUILDING LIGHT HAZARD 0.10 1500										

ABBREVIATION	DESCRIPTION	1.
AFF	ABOVE FINISHED FLOOR	
ATS	AUTOMATIC TRANSFER SWITCH	
CR	CORROSION RESISTANT	Ζ.
D	DRY	
DCV	DOUBLE CHECK VALVE	
EC	EXTENDED COVERAGE	
ELEV	ELEVATION	3
FA	FIRE ALARM	
FACP	FIRE ALARM CONTROL PANEL	
FD	FIRE DEPARTMENT	
FDC	FIRE DEPARTMENT CONNECTION	4
FHV	FIRE HOSE VALVE	
FP	FIRE PROTECTION	
FPC	FIRE PUMP CONTROLLER	5
FPM	FEET PER MINUTE	
FS	FLOW SWITCH	6
GPH	GALLONS PER HOUR	
GPM	GALLONS PER MINUTE	
HD	TOTAL DEVELOPED HEAD	7
HTC	HIGH TEMPERATURE CLASSIFICATION	
HVC	HOSE VALVE CABINET	g
ITC	INTERMEDIATE TEMPERATURE CLASSIFICATION	
JP	JOCKEY PUMP	
JPC	JOCKEY PUMP CONTROLLER	g
N.C.	NORMALLY CLOSED	
N.O.	NORMALLY OPEN	
NTS	NOT TO SCALE	
OS&Y	OUTSIDE SCREW AND YOLK	1
PA	PREACTION	
PAC	PREACTION ALARM VALVE CABINET	
PD	PRESSURE DROP	
PIV	PRESSURE INDICATOR VALVE	
PRV	PRESSURE REDUCING VALVE	
PS	PRESSURE SWITCH	
PSI	POUNDS PER SQUARE INCH	
RPBP	REDUCED PRESSURE BACKFLOW PREVENTER	
RPM	REVOLUTIONS PER MINUTE	
SS	SUPERVISORY SWITCH	
TS	TAMPER SWITCH	
TYP	TYPICAL	
V	VOLTS	
VEL	VELOCITY	
WG	WIRE GUARD	

SPRINKLER PIPE SIZE SCHEDULE								
NO. OF SPRINKLER HEADS	PIPE SIZE							
1 - 2	1"							
3	1 1/4"							
4 - 5	1 1/2"							
6 - 10	2"							
SPRINKLER LOOP REFER TO NOTE BELOW								
NOTE: PIPES SIZES SHOWN ARE BASED ON DESIGN PIPING LAYOUTS ONLY. ACTUAL PIPE SIZES SHALL BE DETERMINED BY CONTRACTORS HYDRAULIC CALCULATIONS BASED ON THE CONTRACTORS INSTALLATION DRAWINGS. CONTRACTOR SHALL ALLOW FOR THIS AND INCLUDE THIS IN THE CONTRACT PRICE.								

	COMMERCIAL SPRINKLER HEAD SCHEDULE																				
		N-FACLOR	STANDARD (SR) OR QUICK RESPONSE (QR)	UPRIGHT	PENDENT	RECESSED	CONCEALED PENDENT	HORIZONTAL SIDEWALL	WITH GUARD	ABOVE CEILING	DRY	INSTITUTIONAL	EXTENDED COVERAGE	UL-LISTED	FM-APPROVED	MANUFACTURER & MODEL	MAXIMUM LISTED COVERAGE AREA L x W (FT)	MINIMUM REQUIRED PRESSURE (PSI)	GENERAL LOCATION OF SPRINKLER HEADS (REFER TO DRAWINGS FOR ACTUAL LOCATIONS)	NOTE: *ALL FINISHES ARE SUBJECT TO APPROVAL BY ARCHITECT. FINISH*	CLASSIFICATION
	5.	6	QR				0							o	o	VIKING MODEL# VK462	15 x 15	7 PSI	SPACES & CORRIDORS WITH HUNG CEILINGS	COVER PLATE FACTORY-PAINTED WHITE.	LIGHT & ORDINARY HAZARD
	5.	6	QR		0				0					o	o	VIKING MODEL# VK302	15 x 15	7 PSI	-	BRASS	LIGHT & ORDINARY HAZARD
C	5.	6	QR	o										0	0	VIKING MODEL# VK300	15 x 15	7 PSI	SPACES & CORRIDORS WITHOUT HUNG CEILINGS	BRASS	LIGHT & ORDINARY HAZARD
×	5.	6	QR	o					0					0	0	VIKING MODEL# VK300	15 x 15	7 PSI	SPACES & CORRIDORS WITHOUT HUNG CEILINGS	BRASS	LIGHT & ORDINARY HAZARD
	5.	6	QR				0	•						0	0	VIKING MODEL# VK481	14 x 14	7 PSI	HIGH CEILING SPACES	COVER PLATE FACTORY-PAINTED WHITE.	LIGHT & ORDINARY HAZARD
NOTES:       Induction       Induction       Induction         NOTES:       Induction       All Dynamics       Induction       Induction         1. ALL TYPES OF SPRINKLER HEADS SHALL BE INSTALLED AS PER MANUFACTURER'S RECOMMENDATIONS.       Induction       Induction       Induction         2. PROVIDED SPRINKLER GUARDS IN MECHANICAL ROOMS, ELECTRICAL & TELECOM (I.T.) CLOSETS, UPS ROOMS AND ALL ROOMS WHERE SPRINKLERS MAY BE SUBJECT TO ACCIDENTAL DAMAGE.       Induction       I																					

![](_page_63_Figure_6.jpeg)

2. THIS PRODUCT IS APPROVED TO APPLICABLE FM STANDARDS AND REQUIREMENTS BY FACTORY MUTUAL 1637

3 BRAIDED AQUAFLEX FLEXIBLE HOSE CONCEALED SPRINKLER ASSEMBLY

![](_page_63_Figure_9.jpeg)

	FIRE PROTECTION DEMOLITION NOTES
1.	THE FIRE PROTECTION CONTRACTOR SHALL VISIT THE SITE AND BECOME FAMILIAI WITH THE EXISTING SYSTEM AND CONDITIONS IN AREAS OF RENOVATION.
2.	ALL EXISTING PIPING AND EQUIPMENT SHOWN HAS BEEN TAKEN FROM THE BEST AVAILABLE EXISTING INFORMATION. THE DRAWINGS ARE DIAGRAMMATIC AND ALL PIPING AND DEVICES MAY NOT BE SHOWN. THE INTENT OF THESE DRAWINGS IS THAT IN ALL AREAS OF RENOVATION THAT THESE SYSTEMS ARE REMOVED UNLES OTHERWISE INDICATED WHETHER OR NOT SHOWN.
3.	THE FIRE PROTECTION CONTRACTOR SHALL REMOVE ALL FIRE PROTECTION PIPIN SYSTEM INCLUDING BUT NOT LIMITED TO SPRINKLER/STANDPIPE, SPRINKLER HANGERS, VALVE, SWITCHES, AND DEVICES UNLESS OTHERWISE INDICATED. COORDINATE WITH ELECTRICAL CONTRACTOR ALL WIRING WORK RELATED TO DEVICES BEING REMOVED.
4.	ALL PIPING TO BE REMOVED SHALL BE REMOVED COMPLETELY OR CAPPED AS SHOWN WITHOUT LEAVING ANY DEAD ENDED PIPING OR ABANDONED PIPING.
5.	NO FIRE PROTECTION EQUIPMENT OR DEVICES THAT HAVE BEEN DISCONNECTED OR ABANDONED SHALL REMAIN.
6.	IT IS THE INTENT OF THESE DRAWINGS THAT ANY AND ALL DEVICES REMOVED SHALL NOT BE REUSED SUCH AS SPRINKLERS, BUT ONLY NEW SHALL BE INSTALLE
7.	ANY SYSTEM OR EQUIPMENT TO REMAIN ACTIVE DURING RENOVATION SHALL BE KEPT IN OPERATION BY PROVIDING TEMPORARY CONNECTIONS AS REQUIRED UNT NEW SYSTEMS ARE INSTALLED AND OPERATIONAL.
8.	ALL SERVICE INTERRUPTIONS SHALL BE COORDINATED WITH THE OWNER A MINIM OF 3 DAYS IN ADVANCE, THE FIRE MARSHALL MUST BE CONTACTED IN ADVANCE PRIOR TO COMMENCEMENT OF ANY WORK.
9.	THE FIRE MARSHALL AND OR THE INSURANCE UNDERWRITER SHALL BE CONTACTE TO REVIEW AND APPROVE THE EXTENT OR PHASING OF THE FIRE PROTECTION DEMOLITION IN ORDER TO PROTECT THE OCCUPANTS AND PROPERTY. THESE DOCUMENTS DO NOT ADDRESS THE PHASING OF THE SYSTEM REMOVAL, ONLY THE EXTENT.
10.	THE FIRE PROTECTION CONTRACTOR SHALL ALSO REVIEW THE ARCHITECTURAL DEMOLITION DRAWINGS AS PART OF THIS CONTRACT FOR ADDITIONAL INFORMATI AND REQUIREMENTS.

FIRE PROTECTION DEMOLITION LEGEND							
ABBREVIATION	DESCRIPTION						
ETR ER R	REMOVE PIPE, FIXTURE OR EQUIPMENT CONNECT TO EXISTING EXISTING TO REMAIN EXISTING TO BE RELOCATED REMOVE						

FIRE PROTECTION	ON SYMBOL LEGEND
SYMBOL	DESCRIPTION
FDC D	FIRE DEPARTMENT CONNECTION PIPING DRAIN PIPING SPRINKLER MAIN (WET)
	90° ELBOW UP TEE UP TEE DOWN DROP AND RUN TEE OFF TOP OF PIPE TEE OFF BOTTOM OF PIPE CONCENTRIC REDUCER ECCENTRIC REDUCER
	UNION
·	FLANGE
] 	END CAP
	OS&Y GATE VALVE
	GATE VALVE
	CHECK VALVE
	BALL VALVE/DRAIN VALVE
	BUTTERFLY VALVE
	RELIEF VALVE
	REDUCED PRESSURE BACKFLOW PREVENTER ASSEMBLY AND DRAIN
	STRAINER
	PUMP
	PRESSURE GAUGE
	PRESSURE REDUCING VALVE
	FIRE VALVE (IN CABINET)
	GATE VALVE ON RISE
FS E	FLOW SWITCH
TS	TAMPER SWITCH
PS	PRESSURE SWITCH

## FIRE PROTECTION LEGENDS & ABBREVIATIONS

# 100% CONSTRUCTION DOCUMENTS SHEET TITLE

CHECK	ED		BCH
SCALE			AS INDICATED
FILE REFERENCE		1	- C:\Users\kcraven\Documents\PHASE 2 R20-2019378.00-MEP Central-Andrus-on-Hudson second
HISTO	RY OF SUE	BMISSIONS	floor_kcravenXXVJU.rvt
No.	Date	Descrip	tion

PROJECT DATA

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M19012

KMC

10.27.2023

KEY PLAN

PROJECT NUMBER

DRAWN

CURRENT SUBMISSION DATE

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![](_page_63_Picture_20.jpeg)

CONSULTANTS

CES Engineering, LLC 216 E. 45th St., 16th Fl New York NY 10017 646.961.3999 ceseng.com CES #2019378

ANDRUS ON HUDSON

![](_page_63_Figure_24.jpeg)

AMENTA|EMMA

![](_page_64_Figure_0.jpeg)

•	ANDRUS ON HUDSON ANDRUS ON HUDSON   MAIN BUILDING 2ND FLOOR
	CONSULTANTS CES Engineering, LLC 216 E. 45th St., 16th Fl New York NY 10017 646.961.3999 ceseng.com CES #2019378
•	
•	KEY PLAN
	N
	PROJECT NUMBER       M19012         CURRENT SUBMISSION DATE       10.27.2023         DRAWN       KM0         CHECKED       BCH         SCALE       AS INDICATED         FILE REFERENCE       C:\Users\kcraven\Documents\PHASE 2         R20-2019378.00-MEF         Central-Andrus-on-Hudson_second         HISTORY OF SUBMISSIONS         No.       Date         Description
•	100% CONSTRUCTION DOCUMENTS
	SHEET TITLE FIRE PROTECTION DEMO SECOND FLOOR PLAN
	FPD1.00.2

ARCHITECTS

AMENTA|EMMA

∎ tec

![](_page_65_Figure_1.jpeg)

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#### FIRE PROTECTION KEY NOTES

CONNECT TO EXISTING SPRINKLER PIPING IN CORRIDOR TO SERVE NEW SPRINKLER LAYOUT.CONFIRM EXISTING ROUTING AND CONNECTIONS IN FIELD.

 $\langle \overline{\text{FP2}} \rangle$  area not in scope for this phase of work.

KEY PLAN	
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	$\mathcal{V}$
PROJECT DATA	
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- N. MEANS AND METHODS ALL TRADES
- RECOMMENDATIONS.
- ESTABLISHED.
- RIGGING. HOISTING AND SERVICES NECESSARY FOR ERECTION AND DELIVERY INTO THE PREMISES ANY EQUIPMENT AND APPARATUS FURNISHED UNDER THIS DIVISION. REMOVE
- COORDINATE SIZES, DEPTHS, FILL AND BEDDING REQUIREMENTS AND ANY OTHER
- WATERPROOFING: WHERE ANY WORK PIERCES WATERPROOFING, INCLUDING WATERPROOF
- ARCHITECTURAL PLANS.
- CONTRACTOR SHALL BE STATE LICENSED TO INSTALL SPRINKLER SYSTEMS. FIRE PROTECTION AND/OR FACTORY MUTUAL (FM). GROOVED JOINT COUPLINGS, FITTINGS, VALVES, AND SPECIALTIES SHALL BE THE PRODUCTS OF GROOVED COMPONENTS.
- C. VALVES: SHALL BEAR UL AND/OR FM LABEL OR MARKING. PROVIDE MANUFACTURER'S NAME AND
- D. PIPE & FITTINGS (ABOVE GRADE)
- SCREWED FITTINGS
- CONFORM TO ANSI/ASTM A47.
- AS THE ADJOINING COUPLINGS.
- c. 10" AND LARGER: VICTAULIC ZERO-FLEX STYLE 07.
- E. GASKETS
- F. JOINTS
- COUPLINGS.
- H. UNIONS & DIELECTRIC CONNECTIONS UNIONS FOR PIPE 2" AND UNDER:
- PIPE HANGERS AND SUPPORTS
- 1. CONFORM TO NFPA 13 AND NFPA 14.
- STEEL, ADJUSTABLE, CLEVIS. 3. MULTIPLE OR TRAPEZE HANGERS: STEEL CHANNELS WITH WELDED SPACERS AND HANGER
- 4. WALL SUPPORT FOR PIPE SIZES TO 3": CAST IRON HOOK.
- STEEL CLAMP.
- 7. FLOOR SUPPORT: CAST IRON ADJUSTABLE PIPE SADDLE, LOCK NUT, NIPPLE, FLOOR FLANGE,

- EQUIVALENT TO FIRE SEPARATION.

- LOCATIONS REQUIRING SERVICING. ONLY.

21 00 00 - GENERAL A. DRAWINGS AND GENERAL PROVISIONS OF CONTRACT INCLUDING GENERAL AND

- SUPPLEMENTARY CONDITIONS AND DIVISION 1 SPECIFICATION SECTIONS, APPLY TO THIS SECTION. B. THESE SPECIFICATIONS ARE APPLICABLE TO ALL PLUMBING, MECHANICAL AND ELECTRICAL DRAWINGS UNLESS NOTED OTHERWISE. REVIEW THE ARCHITECTURAL, STRUCTURAL, ELECTRICAL, PLUMBING DRAWINGS FOR NOTES, DIMENSIONS, ETC., AND COORDINATE WITH
- OTHER TRADES INVOLVED. C. DESCRIPTION
- 1. THIS PROJECT COMPRISES ALTERATIONS AND RENOVATIONS TO THE EXISTING BUILDING. THE EXISTING BUILDING IS CURRENTLY OCCUPIED AND THE PROJECT SHALL PROCEED IN A
- MANNER THAT MINIMIZES ANY INCONVENIENCE TO THE BUILDING OCCUPANTS. 2. SCOPE OF WORK CONSISTS OF INSTALLATION OF MATERIALS TO BE FURNISHED UNDER THE CONTRACT DOCUMENTS AND WITHOUT LIMITING GENERALITY THEREOF CONSISTS OF
- FURNISHING LABOR MATERIALS FOUIPMENT HOISTING TRANSPORTATION RIGGING STAGING, APPURTENANCES, AND SERVICES NECESSARY AND/OR INCIDENTAL TO PROPERLY COMPLETE ALL WORK AS SHOWN ON THE DRAWINGS AND DESCRIBED HEREIN.
- D. DEFINITIONS: THE FOLLOWING DEFINITIONS APPLY TO THIS CONTRACT 1. FURNISH: THE TERM "FURNISH" MEANS TO "SUPPLY AND DELIVER TO THE PROJECT SITE,
- READY FOR UNLOADING, UNPACKING, ASSEMBLY, INSTALLATION, AND SIMILAR OPERATIONS' 2. INSTALL: THE TERM "INSTALL" IS USED TO DESCRIBE OPERATIONS AT PROJECT SITE INCLUDING THE ACTUAL "UNLOADING, UNPACKING, ASSEMBLY, ERECTION, PLACING ANCHORING, APPLYING, WORKING TO DIMENSION, FINISHING, CURING, PROTECTING, CLEANING, AND SIMILAR OPERATIONS."
- 3. PROVIDE: THE TERM "PROVIDE" MEANS "TO FURNISH AND INSTALL, COMPLETE AND READY FOR THE INTENDED USE.
- 4. REMOVE: THE TERM "REMOVE" MEANS TO DISCONNECT FROM ITS PRESENT POSITION, REMOVE FROM THE PREMISES AND TO DISPOSE OF IN A LEGAL MANNER."
- 5. SUBSTITUTIONS: "SUBSTITUTIONS" ARE REQUESTS FOR CHANGES IN PRODUCTS, MATERIALS AND/OR METHODS OF CONSTRUCTION AS PROPOSED BY THE CONTRACTOR AFTER AWARD OF THE CONTRACT."
- E. DRAWINGS
- 1. DRAWINGS ARE DIAGRAMMATIC. THE FINAL PLACEMENT OF EQUIPMENT OR DEVICES IN THE FIELD MAY NOT DIRECTLY CORRESPOND TO THAT WHICH IS SHOWN ON THE DRAWINGS. HOUGH SOME OFFSETS & TRANSITIONS MAY BE SHOWN IN PIPING & SHEET METAL TO HELP INDICATE THE PHYSICAL RELATIONSHIP BETWEEN THEM. IT IS NOT THE INTENT OF THE DRAWINGS TO SHOW ALL PIPING & SHEET METAL OFFSETS & TRANSITIONS REQUIRED. THE CONTRACTOR SHALL FULLY COORDINATE THE WORK AND PROVIDE ALL MATERIALS. EQUIPMENT AND LABOR NECESSARY TO COMPLETE THE WORK OUTLINED ON THESE CONTRACT DOCUMENTS. IF A CONFLICT IN POSITIONING OCCURS THE CONTRACTOR IS TO NOTIFY THE ENGINEER IMMEDIATELY TO ASCERTAIN WHAT THE INTENT WAS BY THE DESIGN
- PROFESSIONAL F. CODES AND STANDARDS: WORK SHALL CONFORM TO THE CURRENT EDITIONS OF THE FOLLOWING:
- 1. NFPA 13 INSTALLATION OF SPRINKLER SYSTEMS. 2. NFPA STANDARD 14 - STANDARD FOR THE INSTALLATION OF STANDPIPE AND HOSE SYSTEMS.
- 3. NFPA 24 INSTALLATION OF PRIVATE FIRE SERVICE MAINS AND THEIR APPURTENANCES. 4. STATE BUILDING AND FIRE CODES.
- 5. LOCAL AUTHORITIES HAVING JURISDICTION.
- G. PERMITS AND FEES: 1. THE CONTRACTOR SHALL GIVE ALL NECESSARY NOTICES, OBTAIN ALL PERMITS; AND PAY ALL GOVERNMENT AND STATE SALES TAXES AND FEES WHERE APPLICABLE, AND OTHER COSTS. INCLUDING UTILITY CONNECTIONS OR EXTENSIONS IN CONNECTION WITH THE WORK FILE ALL NECESSARY DRAWINGS, PREPARE ALL DOCUMENTS AND OBTAIN ALL
- NECESSARY APPROVALS OF ALL GOVERNMENTAL AND STATE DEPARTMENTS HAVING JURISDICTION, OBTAIN ALL REQUIRED CERTIFICATES OF INSPECTION FOR HIS WORK, AND DELIVER A COPY TO THE OWNER AND ENGINEER BEFORE REQUEST FOR ACCEPTANCE AND FINAL PAYMENT FOR THE WORK. H. EXISTING SYSTEMS AND EQUIPMENT
- 1. EXISTING TO BE REUSED/RELOCATED EQUIPMENT: REPORT ANY EXISTING EQUIPMENT DEFICIENCIES TO THE OWNER AND THE ARCHITECT AND/OR ENGINEER.
- CONNECT WORK TO VARIOUS EXISTING SYSTEMS AS INDICATED ON THE DRAWINGS. WORK SHALL BE COMPATIBLE WITH THE EXISTING SYSTEM CONDITIONS. ALL WORK SHALL BE COORDINATED WITH ALL TRADES INVOLVED AS WELL AS WITH EXISTING SYSTEMS, THE STRUCTURE, AND OTHER OBSTRUCTIONS. I. SURVEY AND MEASUREMENTS
- 1. THIS PROJECT INVOLVES CONSTRUCTION INSIDE AN EXISTING STRUCTURE. CONTRACTORS,
- BY SUBMITTING A BID, SHALL BE COMPLETELY FAMILIAR WITH THE EXISTING CONDITION OF THE BUILDING AS IT INFLUENCES THE WORK DESCRIBED. NO COMPENSATION WILL BE GRANTED FOR ADDITIONAL WORK CAUSED BY UNFAMILIARITY WITH SITE CONDITIONS THAT ARE VISIBLE OR READILY IDENTIFIED BY EXPERIENCED OBSERVERS. 2. DO NOT SCALE DRAWINGS. SCALE INDICATED ON DRAWINGS IS FOR ESTABLISHING
- REFERENCE POINTS ONLY. ACTUAL FIELD CONDITIONS SHALL GOVERN ALL DIMENSIONS. 3. PRIOR TO ORDERING ANY MATERIALS AND EQUIPMENT, THOROUGHLY REVIEW THE SITE CONDITIONS TO DETERMINE IF ADEQUATE CLEARANCES AND ACCESS IS ALLOWED TO NSTALL THE COMPONENTS. ORDER EQUIPMENT BROKEN DOWN AS NECESSARY TO ALLOW FOR PROPER RIGGING THROUGH THE PROJECT AREA. PROVIDE ALL NECESSARY ALTERATIONS TO THE STRUCTURE OF THE BUILDING AS NECESSARY TO RIG THE EQUIPMENT
- IN PLACE 4. CONTRACTORS SHALL VERIFY, LAYOUT AND BE RESPONSIBLE FOR ALL MEASUREMENTS OF ALL EXISTING CONDITIONS BEFORE COMMENCING WORK AND SHALL NOTIFY ARCHITECT AND/OR ENGINEER IF A CONDITION EXISTS THAT PREVENTS THE CONTRACTOR FROM ACCOMPLISHING THE INTENT OF THE DRAWINGS.
- J. SUBMITTALS AND SHOP DRAWINGS
- 1. SUBMIT FOR REVIEW, ELECTRONIC SHOP DRAWINGS IN SEARCHABLE PDF FORMAT FOR THE FOLLOWING.
- a. SUBMITTAL DATA FOR ALL MATERIAL AND EQUIPMENT. CLEARLY IDENTIFY DEVIATIONS OF THE SUBMITTED PRODUCTS FROM THE DESIGN. b. SHOP DRAWINGS: DRAWN TO ACCURATE SCALE OF 1/4"=1'0". HIGHLIGHT, ENCIRCLE, OR OTHERWISE INDICATE DEVIATIONS FROM THE CONTRACT DOCUMENTS. DO NOT
- REPRODUCE CONTRACT DOCUMENTS OR COPY STANDARD INFORMATION AS THE BASIS OF SHOP DRAWINGS. STANDARD INFORMATION PREPARED WITHOUT SPECIFIC REFERENCE TO THE PROJECT IS NOT CONSIDERED SHOP DRAWINGS.
- HYDRAULIC CALCULATIONS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF
- 2. DO NOT USE SHOP DRAWINGS WITHOUT AN APPROPRIATE FINAL STAMP INDICATING ACTION AKEN IN CONNECTION WITH CONSTRUCTION.
- 3. DO NOT ORDER ANY MATERIALS OR EQUIPMENT PRIOR TO RECEIVING FINAL APPROVED SUBMITTALS.
- 4. SCHEDULE AT LEAST TEN WORKING DAYS EXCLUSIVE OF TRANSMITTAL TIME, FOR SUBMITTAL REVIEW.
- K. AS-BUILT DRAWINGS
- A. MAINTAIN ONE SET OF PRINTS ON THE SITE AND NOTE ALL CHANGES OR DEVIATIONS FROM THE ORIGINAL DESIGN THEREON. AT THE COMPLETION OF THE PROJECT, INCORPORATE ALL CHANGES INTO RECORD AS-BUILT DRAWINGS IN ELECTRONIC FORMAT AND SUBMIT FOR APPROVAL
- L. OPERATION AND MAINTENANCE 1. UPON COMPLETION OF ALL WORK AND TESTS, THE CONTRACTOR SHALL INSTRUCT THE OWNER OR THE OWNER'S REPRESENTATIVE IN THE OPERATION, ADJUSTMENT AND MAINTENANCE OF ALL EQUIPMENT FURNISHED. THE CONTRACTOR SHALL GIVE AT LEAST SEVEN (7) DAYS NOTICE TO THE OWNER AND THE ENGINEER IN ADVANCE OF THIS PERIOD.
- 2. THE CONTRACTOR SHALL PREPARE THREE (3) COPIES OF A COMPLETE OPERATION AND MAINTENANCE MANUAL, BOUND IN BOOKLET FORM. ORGANIZE OPERATING AND MAINTENANCE DATA INTO SUITABLE SETS OF MANAGEABLE SIZE, BIND PROPERLY INDEXED DATA IN INDIVIDUAL HEAVY-DUTY 3-RING VINYL-COVERED BINDERS, WITH POCKET FOI DERS FOR FOLDED SHEET INFORMATION AND DESIGNATION PARTITIONS WITH IDENTIFICATION TABS. MARK APPROPRIATE IDENTIFICATION ON FRONT AND SPINE OF EACH BINDER.
- . MAINTENANCE AND INSTRUCTION MANUALS SHALL BE SUBMITTED TO THE OWNER AT THE SAME TIME AS THE SEVEN (7) DAY NOTICE IS GIVEN PRIOR TO THE INSTRUCTION PERIOD. M. CLEANING
- 1. EQUIPMENT: AFTER COMPLETION OF PROJECT, CLEAN THE EXTERIOR SURFACE OF EQUIPMENT INCLUDED IN THIS SECTION, INCLUDING REMOVAL OF CONCRETE RESIDUE.
- 2. WORK AREA: AFTER COMPLETION OF PROJECT. REMOVE ALL CONSTRUCTION DEBRIS. TEMPORARY FACILITIES AND EQUIPMENT FROM WORK AREA. CLEAN WORK AREA TO PERMIT
- OCCUPATION N. GUARANTEE
- 1. GUARANTEE WORK OF THESE CONTRACT DOCUMENTS IN WRITING FOR NOT LESS THAN ONE 1) YEAR FROM DATE OF FINAL NOTICE OF ACCEPTANCE. REPAIR OR REPLACE DEFECTIVE MATERIALS, EQUIPMENT, WORKMANSHIP AND INSTALLATION THAT DEVELOP WITHIN THIS PERIOD, PROMPT AND TO OWNER'S SATISFACTION AND CORRECT DAMAGE CAUSED IN MAKING NECESSARY REPAIRS AND REPLACEMENTS UNDER GUARANTEE WITHIN CONTRACT PRICE

- MAINTAIN GRADIENT.
- AND OTHER WORK.
- - ACCORDANCE WITH VICTAULIC INSTRUCTIONS FOR EXPANSION AND CONTRACTION OF PIPE.
  - PRIOR TO INSTALLATION. GASKETS SHALL BE MOLDED AND PRODUCED BY THE COUPLING ANY JOINTS DEEMED IMPROPERLY INSTALLED.

  - SYSTEM COMPONENTS AND JOINTS, INSTALL FLANGES, UNION, AND COUPLINGS AT

#### 1. INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH MANUFACTURER'S

#### DO NOT BURN WASTE MATERIALS. DO NOT BURY DEBRIS OR EXCESS MATERIALS ON THE OWNER'S PROPERTY. DO NOT DISCHARGE VOLATILE, HARMFUL OR DANGEROUS MATERIALS INTO DRAINAGE SYSTEMS. REMOVE AND DISPOSE OF ALL WASTE MATERIALS, PACKAGING MATERIAL, SKIDS ETC, FROM THE SITE AND DISPOSE OF IN A LAWFUL MANNER IN ACCORDANCE WITH MUNICIPAL, STATE AND FEDERAL REGULATIONS.

#### 3. MATERIALS AND EQUIPMENT SHALL BE UL LISTED WHERE STANDARD HAS BEEN

CAREFULLY INSPECT ALL BUILDING ELEMENTS PRIOR TO CUTTING OR DRILLING INTO WALL. FLOORS OR CEILINGS. PATCH AND PAINT SURFACES DISTURBED BY WORK UNDER THIS CONTRACT AS REQUIRED TO RESTORE THEM TO THEIR ORIGINAL CONDITION SCAFFOLDING, RIGGING, HOISTING: THE CONTRACTOR SHALL FURNISH ALL SCAFFOLDING.

SAME FROM PREMISES WHEN NO LONGER REQUIRED 6. EXCAVATION AND BACKFILLING: IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO

EXCAVATION WORK REQUIRED UNDER THESE SPECIFICATIONS

CONCRETE, ROOFS, EXTERIOR WALL AND FLOORS IN WET AREAS, THE METHOD OF INSTALLATION SHALL BE REVIEWED BY THE ENGINEER BEFORE WORK IS DONE. THE CONTRACTOR SHALL FURNISH ALL NECESSARY SLEEVES, CAULKING AND FLASHING REQUIRED TO MAKE OPENINGS ABSOLUTELY WATERTIGHT.

PROVIDE FIRESTOPPING AROUND ALL FIRE PROTECTION, PLUMBING, MECHANICAL AND ELECTRICAL PENETRATIONS THROUGH FIRE RATED PARTITIONS. PROVIDE ASBESTOS FREE FIRESTOPPING SYSTEM CAPABLE OF MAINTAINING AN EFFECTIVE BARRIER AGAINST FLAME AND GASES. SYSTEM SHALL BE UL LISTED AND COMPLY WITH ASTM E 814. PROVIDE ACCESS PANELS IN WALLS, FLOORS AND GYPSUM WALL BOARD CEILINGS TO

ALLOW ACCESS TO: VALVES AND OTHER APPARATUS AND EQUIPMENT REQUIRING PERIODIC SERVICE AND INSPECTION. NOT ALL ACCESS PANELS ARE INDICATED ON THE PLANS. REVIEW ARCHITECTURAL AND MECHANICAL PLANS TO DETERMINE THE LOCATION AND QUANTITY OF ACCESS PANELS REQUIRED. COORDINATE TYPE AND LOCATION WITH

#### 21 05 00 - COMMON WORK RESULTS FOR FIRE SUPPRESSION SYSTEMS WORKMANSHIP AND QUALIFICATIONS: MATERIALS AND EQUIPMENT SHALL BE INSTALLED IN ACCORDANCE WITH NFPA AND APPLICABLE LOCAL CODES AND ORDINANCES. THE SPRINKLER

DEVICES USED SHALL BE LISTED AND APPROVED BY UNDERWRITERS LABORATORIES (UL)

A SINGLE MANUFACTURER. GROOVING TOOLS SHALL BE OF THE SAME MANUFACTURER AS THE

PRESSURE RATING MARKED ON VALVE BODY. ITEMS OF SIMILAR CLASS SHALL BE THE PRODUCTS OF THE SAME MANUFACTURER. MANUFACTURERS: KENNEDY VALVE MFG. CO., VICTAULIC, STOCKHAM, NIBCO, WATTS, HAMMOND, MILWAUKEE.

1. STEEL PIPING: ASTM A53, SCHEDULE 40 SEAMLESS CARBON STEEL. SCHEDULE 10 PIPE SHALL BE ALLOWED FOR PIPE SIZES LARGER THAN 1-1/4" DIAMETER WHEN ROLL GROOVED MECHANICAL COUPLINGS ARE USED.

2. CAST IRON FITTINGS: ANSI/ASME B16.1, FLANGES AND FLANGED FITTINGS, ANSI/ASME B16.4, 3. MALLEABLE IRON FITTINGS: ANSI/ASME B16.3, SCREWED CLASS 300 TYPE. THREADS SHALL

GROOVED MECHANICAL FITTINGS: ANSI A21.10/AWWA C-110 DUCTILE IRON, ASTM A536 GRADE 65-45-12 DUCTILE IRON, ASTM A234 GRADE WPB, OR FACTORY FABRICATED FROM CARBON STEEL PIPE CONFORMING TO ASTM A53, WITH GROOVES OR SHOULDERS DESIGNED TO ACCEPT GROOVED END COUPLINGS. FITTINGS SHALL BE OF THE SAME MANUFACTURER

GROOVED MECHANICAL COUPLINGS: ASTM A536 GRADE 65-45-12, DUCTILE IRON HOUSING, ELASTOMER GASKET WITH NUTS AND BOLTS TO SECURE ROLL GROOVED PIPE AND

6. RIGID TYPE COUPLINGS: HOUSINGS CAST WITH OFFSETTING, ANGLE-PATTERN BOLT PADS TO PROVIDE RIGIDITY AND SYSTEM SUPPORT AND HANGING IN ACCORDANCE WITH NFPA-13 a. 1-1/4" THROUGH 4": FACTORY ASSEMBLED FOR INSTALLATION WIHTOUT FIELD DISASSEMBLY. VICTAULIC STYLE 009 EZ. b. 5" THROUGH 8": VICTAULIC FIRELOCK STYLE 005.

FLEXIBLE TYPE COUPLINGS: USE IN LOCATIONS WHERE VIBRATION ATTENUATION AND STRESS RELIEF ARE REQUIRED, AND FOR SEISMIC CONSIDERATIONS IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS. VICTAULIC STYLE 75

1. WET SYSTEMS: C-SHAPE OR EZ STYLE 009.

#### GROOVED MECHANICAL COUPLINGS: ASTM A536 GRADE 65-45-12, DUCTILE IRON HOUSING, FLUSHSEAL OR QUICKVIC ELASTOMER GASKET WITH NUTS AND BOLTS TO SECURE ROLL GROOVED PIPE AND FITTINGS. HOUSINGS CAST WITH OFFSETTING, ANGLE-PATTERN BOLT PADS TO PROVIDE RIGIDITY, AND MANUFACTURED TO CONNECT COPPER TUBING AND FITTINGS WITHOUT FLARING. VICTAULIC STYLE 606 OR STYLE 607 QUICKVIC STAB-ON

2. ASTM B32, SOLDER, GRADE 95TA OR ANSI/AWS A5.8 BCUP SILVER BRAZE.

3. CAST IRON: AWWA C151 PIPING WITH AWWA C110 STANDARD THICKNESS FITTINGS AND AWWA C111 RUBBER GASKET JOINTS OR MECHANICAL GROOVED COUPLINGS WITH DUCTILE IRON HOUSING CLAMPS TO ENGAGE AND LOCK, "C" SHAPED COMPOSITION SEALING GASKET, STEEL BOLTS, NUTS, AND WASHERS, GALVANIZED FOR GALVANIZED PIPE.

G. DRAIN VALVES: COMPRESSION STOP: BRONZE WITH HOSE THREAD NIPPLE AND CAP.

a. FERROUS PIPING: 150 PSIG (1034 KPA) MALLEABLE IRON, THREADED.

#### b. COPPER PIPE: BRONZE, SOLDERED JOINTS.

DIELECTRIC CONNECTIONS: WATERWAY FITTING WITH WATER IMPERVIOUS ISOLATION BARRIER, VICTAULIC STYLE 47 OR APPROVED EQUAL.

HANGERS: MALLEABLE IRON, CARBON STEEL, ADJUSTABLE SWIVEL, SPLIT RING, CARBON

5. WALL SUPPORT FOR PIPE SIZES 4" AND OVER: WELDED STEEL BRACKET AND WROUGHT

6. VERTICAL SUPPORT: STEEL RISER CLAMP [ANGLE RING].

AND CONCRETE PIER OR STEEL SUPPORT. GENERAL INSTALLATION REQUIREMENTS FOR PIPE AND FITTINGS

INSTALL PIPING IN ACCORDANCE WITH NFPA 13 FOR SPRINKLER SYSTEMS, NFPA 14 FOR STANDPIPE AND HOSE SYSTEMS, AND NFPA 24 FOR SERVICE MAINS. PLACE PIPING IN CONCEALED SPACES ABOVE FINISHED CEILINGS UNLESS NOTED

3. ROUTE PIPING IN ORDERLY MANNER, PLUMB AND PARALLEL TO BUILDING STRUCTURE.

4. INSTALL PIPING TO CONSERVE BUILDING SPACE, TO NOT INTERFERE WITH USE OF SPACE

5. GROUP PIPING WHENEVER PRACTICAL AT COMMON ELEVATIONS. INSTALL PIPE SLEEVE AT PIPING PENETRATIONS THROUGH FOOTINGS, PARTITIONS, WALLS, AND FLOORS. SEAL PIPE AND SLEEVE PENETRATIONS TO MAINTAIN FIRE RESISTANCE

INSTALL PIPING TO ALLOW FOR EXPANSION AND CONTRACTION WITHOUT STRESSING PIPE, JOINTS, OR CONNECTED EQUIPMENT. USE VICTAULIC STYLE 77 OR 75 COUPLINGS IN

GROOVED JOINT COUPLINGS AND FITTINGS SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S WRITTEN INSTALLATION INSTRUCTIONS. GROOVED ENDS SHALL BE CLEAN AND FREE FROM INDENTATIONS. PROJECTIONS, AND ROLL MARKS IN THE AREA FROM PIPE END TO GROOVE. GASKETS SHALL BE VERIFIED AS SUITABLE FOR THE INTENDED SERVICE

MANUFACTURER. THE GROOVED COUPLING MANUFACTURER'S FACTORY TRAINED REPRESENTATIVE SHALL PROVIDE ON-SITE TRAINING FOR CONTRACTOR'S FIELD PERSONNEL IN THE USE OF GROOVING TOOLS, APPLICATION OF GROOVE, AND INSTALLATION OF GROOVED JOINT PRODUCTS. THE MANUFACTURER'S REPRESENTATIVE SHALL PERIODICALL VISIT THE JOBSITE AND REVIEW INSTALLATION. CONTRACTOR SHALL REMOVE AND REPLACE

9. PITCH PIPING AND ARRANGE SYSTEMS TO DRAIN AT LOW POINTS. USE ECCENTRIC REDUCERS TO MAINTAIN TOP OF PIPE LEVEL.

10. PREPARE PIPE, FITTINGS, SUPPORTS, AND ACCESSORIES FOR FINISH PAINTING. WHERE PIPE SUPPORT MEMBERS ARE WELDED TO STRUCTURAL BUILDING FRAMING, SCRAPE, BRUSH CLEAN, AND APPLY ONE COAT OF ZINC RICH PRIMER TO WELDING.

11. DO NOT PENETRATE BUILDING STRUCTURAL MEMBERS UNLESS INDICATED. 12. WHERE MORE THAN ONE PIPING SYSTEM MATERIAL IS SPECIFIED, INSTALL COMPATIBLE

13. DIE CUT THREADED JOINTS WITH FULL CUT STANDARD TAPER PIPE THREADS WITH RED LEAD AND LINSEED OIL OR OTHER NON-TOXIC JOINT COMPOUND APPLIED TO MALE THREADS

14. PROVIDE DIELECTRIC FITTINGS WHENEVER JOINING TWO DISSIMILAR METALS.

15. PROVIDE SURGE RESTRAINERS ON ALL END OF BRANCHES AND ARM OVERS IN EXCESS OF

K. GENERAL INSTALLATION REQUIREMENTS FOR VALVES 1. INSTALL DRAIN VALVES AT MAIN SHUT-OFF VALVES, LOW POINTS OF PIPING AND

- APPARATUS.
- 2. VALVES SHALL BE ACCESSIBLE FOR OPERATION AND SERVICING. PROVIDE ACCESS PANELS WHERE REQUIRED.
- 3. INSTALL VALVES WITH STEMS UPRIGHT OR HORIZONTAL, NOT INVERTED. REMOVE PROTECTIVE COATINGS AFTER INSTALLATION.
- L. GENERAL INSTALLATION REQUIREMENTS FOR PIPE HANGERS AND SUPPORTS
- 1. INSTALL IN ACCORDANCE WITH NFPA 13 AND NFPA 14.
- INSTALL HANGERS TO WITH MINIMUM 1/2" SPACE BETWEEN FINISHED COVERING AND ADJACENT WORK.
- 3. PLACE HANGERS WITHIN 12" OF EACH HORIZONTAL ELBOW.
- 4. USE HANGERS WITH 1-1/2" MINIMUM VERTICAL ADJUSTMENT. DESIGN HANGERS FOR PIPE MOVEMENT WITHOUT DISENGAGEMENT OF SUPPORTED PIPE.
- 5. SUPPORT VERTICAL PIPING AT EVERY FLOOR. SUPPORT RISER PIPING INDEPENDENTLY OF
- CONNECTED HORIZONTAL PIPING. 6. WHERE INSTALLING SEVERAL PIPES IN PARALLEL AND AT SAME ELEVATION, PROVIDE
- MULTIPLE OR TRAPEZE HANGERS.
- 7. INSTALL COPPER PLATED HANGERS AND SUPPORTS FOR COPPER PIPING. 8. PRIME COAT EXPOSED STEEL HANGERS AND SUPPORTS. HANGERS AND SUPPORTS
- LOCATED IN CRAWL SPACES, PIPE SHAFTS, AND SUSPENDED CEILING SPACES ARE NOT CONSIDERED EXPOSED.
- TESTING: PRESSURE TEST THE ABOVE GROUND SYSTEM IN ACCORDANCE TO NFPA 13. TESTING SHALL BE COMPLETED PRIOR TO PERMANENT SEALING OF WALLS AND PARTITIONS. PRESSURE TEST BELOW GRADE PIPING IN ACCORDANCE WITH NFPA 24.
- 21 13 10 FIRE-SUPPRESSION SPRINKLER SYSTEMS A. SYSTEM DESCRIPTION (EXISTING BUILDING)
- 1. PROVIDE A WET PIPE SYSTEM HYDRAULICALLY DESIGNED IN ACCORDANCE WITH NFPA 13 AND ALL REQUIREMENTS OF THE LOCAL AUTHORITY HAVING JURISDICTION, TO PROVIDE COVERAGE FOR SPACES INDICATED ON THE DRAWINGS.
- 2. PROVIDE ALTERATIONS AND RENOVATIONS TO THE EXISTING SPRINKLER SYSTEM. FIELD VERIFY EXISTING CONDITIONS PRIOR TO SUBMITTING SHOP DRAWINGS INCLUDING BUT NOT LIMITED TO. LOCATION OF THE EXISTING SPRINKLER HEADS. LOCATIONS AND SIZES OF EXISTING SPRINKLER PIPING, AVAILABLE STATIC PRESSURE, RESIDUAL PRESSURE, AND FLOW AT THE BASE OF THE RISER. MODIFY SPRINKLER PIPING AS REQUIRED FOR THE LAYOUT OF NEW SPRINKLER HEADS, INCLUDING MODIFICATIONS TO EXISTING PIPING.
- 3. CONTRACTOR SHALL PERFORM A WATER FLOW TEST. RESULTS OF THE CONTRACTORS WATER FLOW TEST SHALL BE USED FOR PREPARING HYDRAULIC CALCULATIONS.
- 4. INTERFACE SYSTEM WITH BUILDING FIRE ALARM SYSTEM.
- THE SPRINKLER LOCATIONS AND PIPING ARRANGEMENTS INDICATED ON THE CONTRACT DOCUMENTS ARE DIAGRAMMATIC.
- 6. SPRINKLER LOCATIONS INDICATED ARE FOR STANDARD COVERAGE SPRINKLERS, MAXIMUM 225 SQUARE FEET PER SPRINKI ER FOR LIGHT HAZARD AND 130 SQUARE FEET PER SPRINKLER FOR ORDINARY HAZARD. EXTENDED COVERAGE SPRINKLERS SHALL NOT BE INSTALLED IN ANY LOCATIONS UNLESS SPECIFICALLY INDICATED
- B. SUBMITTALS
- SUBMIT FIRE PROTECTIONS SHOP DRAWINGS DRAWN TO A MINIMUM SCALE OF 1/4"=1'-0". DRAWINGS SHALL INCLUDE DETAILED PIPE LAYOUT, PIPE MATERIALS USED, JOININ METHODS, HANGERS AND SUPPORTS, FLOOR AND WALL PENETRATION SEALS, CONTROLS, AND COMPONENTS AND ACCESSORIES
- 2. CONTRACTOR SHALL PERFORM HYDRANT FLOW TEST IN ACCORDNACE WITH NFPA 13, AND SHALL SUBMITT RESULTS OF THE TEST FOR REVIEW.
- SHOP DRAWINGS AND HYDRAULIC CALCULATIONS SHALL BEAR THE SEAL OF A PROFESSIONAL ENGINEER LICENSED IN THE STATE WHERE THE PROJECT IS LOCATED.
- 4. PRODUCT DATA: SUBMIT DATA ON SPRINKLERS, VALVES, AND SPECIALTIES.
- 5. AFTER REVIEW BY THE OWNER'S REPRESENTATIVE, SUBMIT SPRINKLER LAYOUT SHOP DRAWINGS, PRODUCT DATA, AND HYDRAULIC CALCULATIONS TO THE AUTHORITY HAVING JURISDICTION, FIRE MARSHALL, AND OWNER'S INSURANCE UNDERWRITER FOR APPROVAL. SUBMIT PROOF OF APPROVAL FROM SUCH AUTHORITIES/ORGANIZATIONS.
- C. SPRINKLERS
- 1. MANUFACTURERS: VIKING, TYCO, VICTAULIC, GRINNELL CORP., RELIABLE SPRINKLER CORP. 2. SPRINKLERS SHALL BE ADJUSTABLE, GLASS BULB, AUTOMATIC SPRINKLERS WITH 1/2" ORIFICE AND 5.6 K-FACTOR UNLESS OTHERWISE INDICATED. TYPE OF SPRINKLER HEAD
- SHALL BE AS INDICATED ON THE PLANS AND IN ACCORDANCE WITH THE FOLLOWING. 3. SPRINKLER BODIES SHALL BE DIE CAST BRASS, WITH HEX SHAPED WRENCH BOSS INTEGRALLY CAST INTO THE SPRINKLER BODY TO REDUCE THE RISK OF DAMAGE DURING
- INSTALLATION. 4. UNLESS OTHERWISE INDICATED, ORDINARY TEMPERATURE RATED SPRINKLER HEADS SHALL BE PROVIDED.
- 5. WHERE SPRINKLERS WILL BE INSTALLED IN CLOSE PROXIMITY TO HEAT SOURCES AND SPECIAL LOCATIONS, AS IDENTIFIED IN NFPA 13, TEMPERATURE RATINGS SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF NFPA 13
- 6. WHERE PLANS CALL FOR EXTENDED COVERAGE SPRINKLER HEADS, COORDINATE COVERAGE REQUIREMENTS WITH REQUIRED PRESSURE AND K-FACTOR.
- 7. SPARE SPRINKLERS: FURNISH SPARE AUTOMATIC SPRINKLERS IN ACCORDANCE WITH THE REQUIREMENTS OF NFPA 13 FOR STOCK OF EXTRA SPRINKLERS. THE SPRINKLERS SHALL BE REPRESENTATIVE OF AND IN PROPORTION TO, THE NUMBER OF EACH TYPE AND TEMPERATURE RATING OF THE SPRINKLERS INSTALLED PROVIDE TWO SPECIAL SPRINKLER WRENCHES, OR MINIMUM ONE WRENCH FOR EACH CONTAINER OR SPRINKLER BOX, WHICHEVER IS GREATER.
- 8. IN AREAS WHERE SPRINKLERS ARE SUBJECT TO PHYSICAL DAMAGE, PROVIDE SPRINKLER GUARD ASSEMBLY OVER HEAD, FINISH TO MATCH SPRINKLER FINISH. THIS SHALL INCLUDE BUT NOT BE LIMITED TO SPRINKLERS IN ELEVATOR SHAFTS, UNDER LOWER RAKES OF STAIRWAYS, IN ELECTRICAL ROOMS, BOILER ROOMS AND OTHER MECHANICAL ROOMS, 7'-0" OR LESS ABOVE FINISHED FLOORS, AND IN GYMNASIUM/FITNESS CENTER AREAS.
- D. PIPING SPECIALTIES
- MANUFACTURERS: POTTER-ROEMER, VIKING, TYCO, VICTAULIC, GRINNELL CORP., RELIABLE SPRINKLER CORP. SUBSTITUTIONS: ALLOWED.
- 2. WATER FLOW SWITCH: VANE TYPE SWITCH FOR MOUNTING HORIZONTAL OR VERTICAL. WITH TWO FORM C CONTACTS; RATED 10 AMP AT 120 VOLT. VANE TYPE WATER FLOW SWITCHES SHALL NOT BE USED ON DRY PIPE SPRINKLER SYSTEMS.
- 3. VALVE TAMPER SUPERVISORY SWITCH: TWO FORM C CONTACTS; RATED 10 AMP AT 120 VOLT. UL LISTED AND FM APPROVED. UP TO 2" - POTTER MODEL PCVS-1. OVER 2" SWITCH SHALL BE POTTER MODEL OSYSU-2.
- 4. PRESSURE SWITCH: 1/2" MALE PRESSURE CONNECTION TO ALARM VALVE RISER AND ACTUATED BY ANY FLOW OF WATER IN EXCESS OF ONE SPRINKLER. MAXIMUM PRESSURE RATING 175 PSI, WEATHER-PROOF WITH TAMPER RESISTANT SCREWS, RATED 10 AMPS AT 120 VOLT
- 5. PRESSURE GAGE: RATED FOR 300 PSI USE, 3-1/2" DIAMETER. E. GENERAL INSTALLATION REQUIREMENTS FOR SPRINKLER SYSTEMS
- 1. INSTALL EQUIPMENT IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.
- 2. INSTALL FIRE PROTECTION SYSTEMS IN ACCORDANCE WITH NFPA 13, NFPA 13D, NFPA 13R, AND NFPA 24 FOR SERVICE MAINS.
- MINIMIZE SHUT-DOWNS OF EXISTING WATER SUPPLIES. WORK SHALL BE COMPLETE BEFORE MAKING THE FINAL CONNECTIONS TO THE EXISTING WATER SUPPLIES. NOTIFY THE OWNER'S REPRESENTATIVE BEFORE AFFECTING THE OPERATION OF ANY EXISTING FIRE PROTECTION EQUIPMENT.
- 4. LOCATE FIRE DEPARTMENT CONNECTION WITH SUFFICIENT CLEARANCE FROM WALLS, OBSTRUCTIONS, ETC., TO ALLOW FULL SWING OF FIRE DEPARTMENT WRENCH HANDLE COORDINATE THE LOCATION OF THE FIRE DEPARTMENT CONNECTION WITH THE LOCAL FIRE OFFICIALS.
- 5. SPRINKLERS LOCATED IN FULL SIZE CEILING TILES SHALL BE CENTERED IN THE TILE. PROVIDE PIPING OFFSETS AS REQUIRED.
- SPRINKLER BULB PROTECTOR SHALL REMAIN IN PLACE UNTIL THE SPRINKLER IS COMPLETELY INSTALLED. REMOVE THE BULB PROTECTOR BY HAND AFTER INSTALLATION AND BEFORE THE SYSTEM IS PLACED IN SERVICE.
- 7. COORDINATE FLOW SWITCHES, TAMPER SWITCHES, AND ALL OTHER SPRINKLER DEVICES WITH THE FIRE ALARM SYSTEM.
- 8. PROVIDE AND APPLY SIGNS TO CONTROL, DRAIN, TEST AND ALARM VALVES TO IDENTIFY THEIR PURPOSE AND FUNCTION.

![](_page_67_Picture_197.jpeg)

![](_page_67_Figure_198.jpeg)

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![](_page_68_Figure_1.jpeg)

![](_page_68_Figure_2.jpeg)

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![](_page_68_Figure_3.jpeg)

		TECHNOLOGY DE	EVICE SCHEDULE	
SYMBOL	DESCRIPTION	CONDUIT/ BACKBOX	NOTES	
(X)	DATA OUTLET	2-GANG BOX @ 18" AFF WITH 1-GANG MUD RING AND 1-1/4"C. STUBBED ABOVE ACCESSIBLE CEILING	SUBSCRIPT "a" = 6" ABOVE COUNTER	
<b>V</b> <sup>(X,Y)</sup>	COMBINATION OUTLET	2-GANG BOX @ 18" AFF WITH 1-GANG MUD RING AND 1-1/4"C. STUBBED ABOVE ACCESSIBLE CEILING		
WAP	OUTLET FOR WIRELESS ACCESS POINT (CEILING)	2-GANG BACKBOX FLUSHED INTO CEILING. WHEN MOUNTED IN ACT CEILING PROVIDE TILE BRIDGE FOR SUPPORT. IN AREAS WITHOUT CEILING, BOX SHALL BE SURFACE MOUNTED TO STRUCTURE.	TERMINATE AT TWO-PORT SURFACE BOX WITHIN BACKBOX, EQUAL TO SIEMON MX-SM2	
	RECESSED BOX FOR MONITOR DISPLAY	3-GANG RECESSED BOX EQUAL TO LEGRAND TV3W-TVSS @ 60" AFF WITH (2) 1-1/4"C. STUBBED ABOVE ACCESSIBLE CEILING OR STUBBED TO A NEARBY FLOORBOX WHERE AV INTERFACE IS REQUIRED AT TABLES.	"TV" RECEPTACLE SHOWN ON PLANS SHALL BE MOUNTED IN SAME BACKBOX WITH POWER AND AV	
CR	CARD READER	COMPATIBLE SINGLE GANG BOX WITH MUD RING @ 42" AFF WITH 3/4"C. STUBBED ABOVE AN ACCESSIBLE CEILING.	ADDITIONAL DEVICES AND INFRASTRUCTURE REQUIRED AT DOOR, REFER TO SECURITY DETAILS FOR ADDITIONAL REQUIREMENTS. "XX"= CARD READER TYPE, WHERE APPLICABLE.	
	VIDEO SURVEILLANCE CAMERA	REFER TO VIDEO SURVEILLANCE DETAIL FOR CONDUIT AND BACKBOX REQUIREMENTS.	"X" = CAMERA TYPE. REFER TO VIDEO SURVEILLANCE DETAIL AND SPECIFICATIONS.	
GENERAL NOTES: 1. ALL CONDUITS SHALL STUB UP TO NEAREST ACCESSIBLE CEILING, UNLESS NOTED OTHERWISE ON PLANS. PROVIDE BUSHINGS FOR ALL CONDUITS. WHERE DEVICES ARE LOCATED BELOW A WINDOW OR STOREFRONT STRUCTURE, CONDUITS SHALL RUN HORIZONTAL TO ACCESSIBLE WALL BEFORE STUBBING UP.				

. COORDINATE EXACT MOUNTING HEIGHT AND LOCATION OF DEVICES WITH ARCHITECTURAL ELEVATIONS PRIOR TO ROUGH-IN. ALL FINISHES, COLORS AND COVER MATERIALS SHALL BE SELECTED BY ARCHITECT. WHERE BACKBOXES ARE LOCATED IN A FIRE RATED WALL, PROVIDE FIRE RATED MOLDABLE PUTTY AROUND BOX, EQUAL TO 3M BARRIER MPP+ DATA CABLING SHALL BE ROUTED TO PATCH PANELS IN I.T. ROOMS INDICATED ON FLOOR PLANS. TERMINATE CABLING AT SPECIFIC PATCH PANELS INDICATED IN I.T. RACK ELEVATIONS. CONTRACTOR SHALL LABEL EACH DEVICE TERMINATION POINT AND CORRESPONDING PATCH PANEL PORT WITH THE SAME, UNIQUE LABEL. REFER TO SPECIFICATIONS FOR MORE INFORMATION. ALL LABELS SHALL BE FINALIZED WITH AND APPROVED BY OWNER'S I.T. STAFF PRIOR TO INSTALLATION. PROVIDE ALL NECESSARY CONNECTORS, ADAPTERS, KEYSTONES, ATTACHMENTS AND OTHER ACCESSORIES REQUIRED FOR A COMPLETE AND OPERATIONAL SYSTEM. TERMINATE ALL STRUCTURED CABLING CABLES IN RJ45 CONNECTORS UNLESS OTHERWISE NOTED.
 ALL DATA WIRING, SECURITY WIRING AND FIRE ALARM WIRING TO BE INSTALLED IN CONDUIT IN EXPOSED CEILINGS TO DEVICES ONLY. ALL OTHER WIRING TO BE INSTALLED ABOVE

![](_page_68_Figure_6.jpeg)

1 HEADWALL DETAIL SECOND FLOOR

THIS DETAIL IS FOR REFERENCE ONLY - REFER TO ARCHITECT'S DETAILED ELEVATIONS FOR EXACT LOCATIONS OF ALL DEVICES.

PRISM ZONE LIGHT MODEL: 7973

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CEILINGS.

CABLING LEGEND 6 CAT 6

NURSE CALL SYSTEM LEGEND			
YMBOL	DESCRIPTION		
E	EMERGENCY CALL TOGGLE SWITCH: REFER TO CALL-FOR-AID WIRING SCHEMATIC FOR MORE INFORMATION.		
н	EMERGENCY CALL FOR AID COMBINATION BUZZER / LIGHT: REFER TO CALL-FOR-AID WIRING SCHEMATIC FOR MORE INFORMATION.		
РВ	ADA PUSH PLATE		
NC MS	NURSE CALL MASTER CONSOLE. PROVIDE A SINGLE-GANG BACKBOX AND 3/4" CONDUIT WITH BUSHING TO ABOVE ACCESSIBLE CEILING, UNLESS NOTED OTHERWISE. REFER TO RISER DIAGRAM FOR WIRING.		
NC BS	NURSE CALL SINGLE-BED STATION WITH STAFF ASSIST. PROVIDE A THREE-GANG BACKBOX AND 3/4" CONDUIT WITH BUSHING TO ABOVE ACCESSIBLE CEILING. REFER TO RISER DIAGRAM FOR WIRING.		
NC PS WP	NURSE CALL BATH PULL STATION. PROVIDE A SINGLE-GANG BACKBOX AND 3/4" CONDUIT WITH BUSHING TO ABOVE ACCESSIBLE CEILING. REFER TO RISER DIAGRAM FOR WIRING. 'WP' EQUALS WATERPROFF IF INDICATED.		
NC	NURSE CALL BATH PULL STATION. PROVIDE A SINGLE-GANG BACKBOX AND 3/4" CONDUIT WITH BUSHING TO ABOVE ACCESSIBLE CEILING. REFER TO RISER DIAGRAM FOR WIRING.		
NC SA	NURSE CALL STAFF ASSIST / CODE STATION. PROVIDE A SINGLE-GANG BACKBOX AND 3/4" CONDUIT WITH BUSHING TO ABOVE ACCESSIBLE CEILING. REFER TO RISER DIAGRAM FOR WIRING.		
NC SS	NURSE CALL STAFF STATION. PROVIDE A SINGLE-GANG BACKBOX AND 3/4" CONDUIT WITH BUSHING TO ABOVE ACCESSIBLE CEILING. REFER TO RISER DIAGRAM FOR WIRING.		
NC DS	NURSE CALL DUTY STATION. PROVIDE A SINGLE-GANG BACKBOX AND 3/4" CONDUIT WITH BUSHING TO ABOVE ACCESSIBLE CEILING. REFER TO RISER DIAGRAM FOR WIRING.		
<b>⊢</b> → <sup>2</sup>	NURSE CALL AUDIO / DOME LIGHT WITH 2 LEDS. PROVIDE A TWO-GANG BACKBOX AND 3/4" CONDUIT WITH BUSHING TO ABOVE ACCESSIBLE CEILING. REFER TO RISER DIAGRAM FOR WIRING.		
<b>⊢</b> → <sup>4</sup>	NURSE CALL AUDIO / DOME LIGHT WITH 4 LEDS. PROVIDE A TWO-GANG BACKBOX AND 3/4" CONDUIT WITH BUSHING TO ABOVE ACCESSIBLE CEILING. REFER TO RISER DIAGRAM FOR WIRING.		
٥z	NURSE CALL AUDIO / DOME ZONE LIGHT. PROVIDE A TWO-GANG BACKBOX AND 3/4" CONDUIT WITH BUSHING TO ABOVE ACCESSIBLE CEILING. REFER TO RISER DIAGRAM FOR WIRING.		

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![](_page_69_Figure_2.jpeg)

1 01 ELECTRICAL TECHNOLOGY FIRST FLOOR PLAN 1/8" = 1'-0"

![](_page_69_Figure_4.jpeg)

# THE MAIN TELECOMMUNICATION EQUIPMENT ROOM IS LOCATED ON THE BASEMENT LEVEL. THIS EQUIPMENT ROOM CONTAINS THE FOLLOWING: -MAIN DATA RACK -MAIN DATA RACK -HIKVISION CAMERA AND NVR HEADEND -CONTINENTAL ACCESS CONTROL HEADEND -BOGEN AUDIO PA EQUIPMENT -FIBER OPTIC SERVICE ENTRANCE -COPPER ANALOG VOICE SERVICE ENTRANCE PROVIDE CONDUIT RACEWAYS FOR ALL DATA NETWORK CABLE HOMERUNS TO IDF M046. CONFIRM THE PREFERRED IDF LOCATION WITH THE OWNER'S

TECHNOLOGY GENERAL NOTES

- NETWORK VENDOR. ALL AUDIO SYSTEM NEW SPEAKER INTEGRATION SHALL BE ADDED TO THE EXISTING BOGEN HEADEND SYSTEM.
- ALL CCTV CAMERAS SHALL BE INTEGRATED INTO THE EXISTING CAMERA HEADEND RACK LOCATED IN THE BASEMENT.
- ALL ACCESS CONTROL PROVISIONS INDICATED SHALL BE INTEGRATED INTO THE EXISTING CONTINENTAL SYSTEM HEADEND LOCATED IN THE BASEMENT.
- ALL DATA WIRING, SECURITY WIRING AND FIRE ALARM WIRING TO BE INSTALLED IN CONDUIT IN EXPOSED CEILINGS TO DEVICES ONLY. ALL OTHER WIRING TO BE INSTALLED ABOVE CEILINGS.

#### FIRE ALARM SYSTEM NOTES

- . THE SCOPE OF WORK FOR THIS PROJECT IS TO PROVIDE THE INFRASTURCTURE TO SUPPORT THE INSTALLATION OF THE FIRE ALARM SYSTEM RENOVATION WITH WIRING AND EQUIPMENT PROVIDED UNDER DIV. 28.
- INSTALLATION REQUIREMENTS INCLUDE:
- A. ALL FA DEVICES TO BE CEILING MOUNTED AND WHITE FINISH. LOCATE ON TILE AND DRYWALL CEILINGS, NOT ON EXPOSED DECK
   B. BACKBOXES AND PATHWAYS TO ABOVE AN ACCESSIBLE CEILING AT DEVICE
- LOCATIONS. C. PATHWAYS (SLEEVES) THROUGH PARTITIONS AND FLOORS FOR SYSTEMS WIRING.
- D. PATHWAYS ACROSS INACCESSIBLE CEILINGS FOR SYSTEMS WIRING.
- E. POWER FOR EQUIPMENT.
   F. CONDUITS, DEVICES, & PULL BOX SYSTEM FOR ALL COMPONENT INSTALLATIONS. G. NYLON DRAG LINES IN ALL EMPTY RACEWAYS.
- COORDINATE DEVICE LOCATIONS WITH THE ARCHITECTURAL PLANS AND THE WORK OF ALL OTHER DIVISIONS.

#### GENERAL SECURITY SYSTEM NOTES

- THE SCOPE OF WORK FOR THIS PROJECT IS TO PROVIDE THE INFRASTRUCTURE TO SUPPORT THE INSTALLATION OF SECURITY (ACCESS CONTROL, INTRUSION DETECTION & SURVEILLANCE CAMERA) SYSTEM WIRING AND EQUIPMENT PROVIDED BY OWNER.
- INFRASTRUCTURE REQUIREMENTS INCLUDE:
- A. BACKBOXES AND PATHWAYS TO ABOVE AN ACCESSIBLE CEILING AT DEVICE LOCATIONS. B. PATHWAYS (SLEEVES) THROUGH PARTITIONS AND FLOORS FOR SYSTEMS WIRING.
- WIRING. C. PATHWAYS ACROSS INACCESSIBLE CEILINGS FOR SYSTEMS WIRING. D. PATHWAYS AND DRAG LINES THROUGH DOOR FRAMES TO DEVICES. E. POWER FOR EQUIPMENT. F. NYLON DRAG LINES IN ALL EMPTY RACEWAYS.
- COORDINATE DEVICE LOCATIONS WITH THE ARCHITECTURAL PLANS AND THE WORK OF ALL OTHER DIVISIONS. COORDINATE PATHWAYS THROUGH DOOR FRAMES WITH THE DIVISION 8
- CONTRACTOR.
- MEET WITH THE OWNER'S SECURITY SYSTEM CONTRACTOR PRIOR TO PROVIDING ANY INFRASTRUCTURE REQUIREMENTS TO COORDINATE WORK. SCHEDULE MEETINGS AS NECESSARY (MIN. BI-WEEKLY) TO COORDINATE WORK AND SCHEDULE SEQUENCE OF WORK. FAILURE TO COÓRDINATE INFRASTRUCTURE REQUIREMENTS WILL NOT RELIEVE THE CONTRACTOR OF THEIR RESPONSIBILITY TO COMPLETE THE WORK.

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KEY PLAN
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PROJECT DATA
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100% CONSTRUCTION DOCUMENTS SHEET TITLE
ELECTRICAL TECHNOLOGY FIRST FLOOR PLAN
T1.00.1

CES Engineering, LLC 216 E. 45th St., 16th Fl New York NY 10017 646.961.3999 ceseng.com CES #2019378

![](_page_69_Figure_31.jpeg)

![](_page_70_Figure_0.jpeg)

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![](_page_70_Picture_4.jpeg)

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