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PLUMBING FLOOR PLAN - SANITARY AND VENT PLUMBING FLOOR PLAN - DOMESTIC WATER PLUMBING RISER DIAGRAMS PLUMBING DETAILS MECHANICAL SCHEDULES, DETAILS AND NOTES NEW KENNEL FLOOR PLAN - MECHANICAL DEMO AND NEW CLASSROOM FLOOR PLANS - MECHANICAL MECHANICAL DETAILS ELECTRICAL SYMBOL LIST & GENERAL NOTES ELECTRICAL FLOOR PLAN - DEMOLITION ELECTRICAL FLOOR PLAN - DEMOLITION ELECTRICAL LIGHTING PLAN ELECTRICAL LIGHTING PLAN ELECTRICAL RISER DIAGRAM, LIGHTING FIXTURE SCHEDULE PANEL SCHEDULES	
EXISTING PANEL BOARD SCHEDULES ELECTRICAL SPECIFICATION	VET TECH ADDITION JOLIET JUNIOR COLLEGE - BUILDING B 1215 HOUBOLT ROAD JOLIET, ILLINOIS
	DATE: 3/18/2024 REVISED: PROJECT NO.
	2202-03 SHEET NUMBER

OF 1 SHEETS





NOTES: 1.) PROPERTY LINE GEOMETRY AND EASEMENTS DEPICTED ON THE IMPROVEMENT PLANS DO NOT NECESSARILY REPRESENT THE FINAL GEOMETRY AND EASEMENTS SHOWN ON THE MOST RECENT PLAT OF SUBDIVISION. REFER TO THE PLAT OF SUBDIVISION FOR THIS INFORMATION.

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No.	DATE	DESCRIPTION	BY	No.	DATE	DESCRIPTION	BY	PROJECT No.: 20231424.00
0	1-24-2024	PROGRESS SET	R.P.					DATE OF ORIGIN: 1-06-2024
							<u> </u>	FIELD BOOK: JJC BOOK 2
							──	PAGE NUMBER: 62-63
							<u> </u>	DRAWN BY: R.P.
								CHECKED BY: J.H.

Improvement Plans for NEW VEP PECE BUILDING ADDIFION Joliet Junior College City of Joliet

Will County, Illinois



LAND SURVEYOR / ENGINEER:

RUETTIGER, TONELLI & ASSOCIATES, INC. & TWiG TECHNOLOGIES 129 CAPISTA DRIVE SHOREWOOD, ILLINOIS 60404

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OWNER / DEVELOPER:

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PROJECT TITLE:

NEW VET TECH BUILDING JOLIET JUNIOR COLLEG 1215 HOUBOLT ROAD JOLIET, ILLINOIS 60431



INDEX OF ENGINEERING SHEETS

SHEET No.	DESCRIPTION
C0.00	COVER SHEET
C1.00	EXISTING CONDITIONS
C2.00	DEMOLITION PLAN
C3.00	PROPOSED SITE IMPROVEMENT PLAN
C4.01	GENERAL NOTES AND CONSTRUCTION DETAILS (1 OF 2)
C4.02	CONSTRUCTION DETAILS (2 OF 2)

	SITE BENCHMARK #1: CUT CROSS IN CONCRETE SIDEWALK ±23' EAST OF THE NORTHEAST COR TECH BUILDING CORNER AS AS SHOW ELEVATION = 574.72	I, JOSEPH P. HAMMER, A REGISTERED PROFESSIONAL ENGINEER IN THE STATE OF ILLINOIS, HEREBY CERTIFY THAT THESE IMPROVEMENT PLANS HAVE BEEN PREPARED UNDER MY SUPERVISION BY RUETTIGER, TONELLI & ASSOCIATES, INC., ILLINOIS PROFESSIONAL DESIGN FIRM No. 184–001251. DATED THIS DAY OF A.D JOSEPH P. HAMMER IL P.E. No. 062–053186 (EXPIRES 11–3 TO ENSURE AUTHENTICITY OF THIS DRAWING, IT MUST BEAR THE EMBOSSED SEAL OF THE DESIGN FIRM OR PROFESSIONAL LICENSEE WHO PREPARED THIS DRAWING.	062-053186 REGISTERED PROFESSIONAL ENGINEER 0F ILL 00-2025)
	DRAWING TITLE:	PROGRESS SET	DRAWING No. 323-1424-C1
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1			SHEET CO.00







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No.	DATE	DESCRIPTION	BY	No.	DATE	DESCRIPTION	ΒY	PROJECT No.: 20231424.00
0 1	-24-2024	PROGRESS SET	R.P.					DATE OF ORIGIN: 1-06-2024
1	3-12-2024	REVISED PER PLUMBING PLANS	R.P.					FIELD BOOK: JJC BOOK 2
								PAGE NUMBER: 62-63
								CHECKED BY: J.H.





NEW VET TECH BUILDING ADDITION JOLIET JUNIOR COLLEGE 1215 HOUBOLT ROAD JOLIET, ILLINOIS 60431

E WASHOUT FACILITY.	EROSION CONTROL NOTES
<u>COCEDURES</u> FACILITIES SHOULD BE LOCATED A DRAIN INLETS OPEN DRAINAGE FACILITIES ITY SHOULD BE LOCATED AWAY FROM SS AREAS TO PREVENT DISTURBANCE OR	1. EROSION CONTROL TO BE APPLIED PER THE ILLINOIS PROCEDURES FOR URBAN SOIL EROSION AND SEDIMENTATION CONTROL MANUAL, LATEST EDITION.
DJACENT TO EACH WASHOUT FACILITY TO ERATORS TO UTILIZE THE PROPER	2. THE TEMPORARY EROSION CONTROL SYSTEMS
FACILITIES SHOULD BE CONSTRUCTED AT THE OPTION OF THE CONTRACTOR. FACILITIES SHOULD BE CONSTRUCTED AND TITY AND SIZE TO CONTAIN ALL LIQUID AND WASHOUT OPERATIONS.	PROPERLY MAINTAINED AS DIRECTED BY THE CONSTRUCTION MANAGER OR ENGINEER TO CONTROL SILTATION AT ALL TIMES DURING THE LIFE OF THE CONTRACT.
SHOULD HAVE A TEMPORARY PIT OR DLUME TO COMPLETELY CONTAIN ALL LIQUID GENERATED DURING WASHOUT	3. ALL STORM SEWER STRUCTURES WITH OPEN GRATES SHALL TEMPORARILY UTILIZE FILTER BASKETS. OPEN GRATE STRUCTURES IN GRASS AREAS MAY REQUIRE ADDITIONAL SILT FENCE
ICK CHUTES SHOULD BE WASHED INTO	PROTECTION AROUND GRATE 4. DISTURBED AREAS SHALL BE STABILIZED WITH
ete puwper bins can be washed into Discharged into designated washout	TEMPORARY OR PERMANENT MEASURES WITHIN (7) SEVEN CALENDAR DAYS FOLLOWING THE END OF
OFFSITE. SHED INTO THE DESIGNATED AREA AND ETE SHOULD BE BROKEN UP, REMOVED, EGAL MANNER. DISPOSE OF HARDENED	ACTIVE DISTORBANCE, RE-DISTORBANCE, CONSISTENT WITH THE FOLLOWING CRITERIA. APPROPRIATE TEMPORARY OR PERMANENT STABILIZATION MEASURES SHALL INCLUDE SEEDING, MULCHING, SODDING AND / OR NON-VEGETATIVE
FACILITY (TYPE ABOVE GRADE) TY (TYPE ABOVE GRADE) SHOULD BE THE DETAILS ON THIS SHEET, WITH A STH AND MINIMUM WIDTH OF 10 FT, BUT ND VOLUME TO CONTAIN ALL LIQUID AND D BY WASHOUT OPERATIONS. S, AND SANDBAG MATERIALS SHOULD S IN THE EROSION AND SEDIMENT	MEASURES. 5. ALL EROSION CONTROL ITEMS REMAIN IN PLACE AND BE MAINTAINED UNTIL DEEMED UNNECESSARY BY THE CONSTRUCTION MANAGER OR ENGINEER AND THE CITY AT WHICH TIME THE EROSION CONTROL ITEMS SHALL BE COMPLETELY REMOVED FROM THE SITE BY THE INSTALLER
OULD BE A MINIMUM OF 10 MIL) SHOULD BE FREE OF HOLES, TEARS, OR ROMISE THE IMPERMEABILITY OF THE	6. ALL DISTURBED AREAS NOT SPECIFICALLY IDENTIFIED FOR LANDSCAPING IMPROVEMENTS OR IMPERVIOUS SURFACE TREATMENTS SUCH AS
FACILITY (TYPE BELOW GRADE) TY (TYPE BELOW GRADE) SHOULD BE THE DETAILS ON THIS SHEET, WITH A STH AND MINIMUM WIDTH OF 10 FT, BUT ND VOLUME TO CONTAIN ALL LIQUID AND D BY WASHOUT OPERATIONS. BE COMMERCIAL TYPE.	PAVEMENTS, DRIVES, PATIOS, STOOPS, SIDEWALKS OR WALKWAYS SHALL BE FINISHED WITH A MINIMUM OF 6" OF TOPSOIL AND RESTORED IN ACCORDANCE WITH THE ILLINOIS DEPARTMENT OF TRANSPORTATION'S "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION" (LATEST EDITION) AS FOLLOWS:
OULD BE A MINIMUM OF 10 MIL. D SHOULD BE FREE OF HOLES, TEARS, OR ROMISE THE IMPERMEABILITY OF THE	 CLASS 2 SEED PER SECTION 250. FERTILIZED NUTRIENTS IN THE RATIO OF 1:1:1 OF NITROGEN, PHOSPHOROUS AND POTASSIUM EACH, ALL AT THE RATE OF 60 LBS/ACRE IN ACCORDANCE WITH SECTION 250.
NCRETE WASHOUT FACILITIES HOUT FACILITIES ARE NO LONGER RDENED CONCRETE SHOULD BE REMOVED ED TO CONSTRUCT TEMPORARY CONCRETE SEMOVED FROM THE SITE OF THE WORK	 METHOD 2 MULCH PER SECTION 251. CONTRACTOR SHALL MAINTAIN RESTORED AREA AS NEEDED UNTIL GERMINATION IS COMPLETED AND THE OWNER, OR LOCAL AGENCY HAVING JURISDICTION, HAS ACCEPTED THE WORK.
ROUND DISTURBANCE CAUSED BY THE NCRETE WASHOUT FACILITIES SHOULD BE	7. ANY STOCKPILE OF TOPSOIL MAINTAINED ON SITE SHALL BE STABILIZED WITH A VEGETATION ACCORDING TO NOTE 4 ABOVE. STOCKPILE SHALL BE SURROUNDED WITH SILT FENCE.
ν ε	
TY-BASED BMPS ARE IN PLACE PRIOR TO TED ACTIVITIES. WHEN ACTIVITIES INDER WAY, INSPECT WEEKLY DURING THE (INTERVALS IN THE NON-RAINY SEASON MENTATION.	
FACILITES SHOULD BE MAINTAINED TO ACITY WITH A MINIMUM FREEBOARD OF 4 AND 12 IN. FOR BELOW GRADE FACILITIES. TE WASHOUT FACILITIES SHOULD INCLUDE RDENED CONCRETE AND RETURNING THE DITION HARDENED CONCRETE MATERIALS	MAINTENANCE SCHEDULE FOR EROSION CONTROL
ED OF. CANED, OR NEW FACILITIES MUST BE SE ONCE THE WASHOUT IS 75% FULL.	MAINTENANCE THE SITE SHALL BE MAINTAINED IN A MANNER TO MINIMIZE EROSION FROM THE SITE AND THE DEPOSITION OF SEDIMENT INTO DRAINAGE WAYS. THE REQUIREMENTS OF THE EROSION AND SEDIMENT CONTROL PLAN SHALL BE FOLLOWED IN REGARDS TO THE MAINTENANCE OF VEGETATION AND THE EROSION AND SEDIMENT CONTROL MEASURES.
	A. QUALIFIED PERSON SHALL BE PROVIDED BY THE CONTRACTOR TO INSPECT DISTURBED AREAS OF THE CONSTRUCTION SITE THAT HAVE NOT BEEN FINALLY STABILIZED, STRUCTURAL CONTROL MEASURES, AND LOCATIONS WHERE VEHICLES ENTER OR EXIT THE SITE. SUCH INSPECTIONS SHALL OCCUR AT LEAST ONCE EVERY SEVEN CALENDAR DAYS AND WITHIN 24 HOURS OF THE END OF A STORM THAT IS 0.5 INCHES OR GREATER, OR EQUIVALENT SNOWFALL. THE INSPECTION SHALL INCLUDE THE FOLLOWING COMPONENTS:
	B. DISTURBED AREAS AND AREAS USED FOR THE STORAGE OF MATERIALS THAT ARE EXPOSED TO PRECIPITATION SHALL BE INSPECTED FOR EVIDENCE OF, OR POTENTIAL FOR, POLLUTANTS ENTERING THE DRAINAGE SYSTEM. THE EROSIONS AND SEDIMENT CONTROL MEASURES IDENTIFIED IN THIS PLAN SHALL BE OBSERVED TO ENSURE THAT THEY ARE OPERATING CORRECTLY. WHERE DISCHARGE POINTS ARE ACCESSIBLE, THEY SHALL BE INSPECTED TO ASCERTAIN WHETHER EROSION CONTROL MEASURES ARE EFFECTIVE IN PREVENTING SIGNIFICANT IMPACTS TO THE RECEIVING WATERS, LOCATIONS WHERE VEHICLES
	C. BASED ON THE RESULTS OF THE INSPECTION THE POLLUTION PREVENTION MEASURES DESCRIBED IN THIS PLAN SHALL BE REVISED AS, APPROPRIATE, AS SOON AS PRACTICABLE AFTER THE INSPECTION. THE MODIFICATIONS, IF ANY, SHALL PROVIDE FOR TIMELY IMPLEMENTATION OF ANY CHANGES TO THE PLAN WITHIN 7 CALENDAR DAYS FOLLOWING THE INSPECTION.
	D. A REPORT SUMMARIZING THE SCOPE OF THE INSPECTION, THE NAME(S) AND QUALIFICATION OF THE PERSONNEL MAKING THE INSPECTION, THE DATE(S) OF THE INSPECTION, MAJOR OBSERVATIONS RELATING TO THE IMPLEMENTATION OF THIS PLAN, AND ACTIONS TAKEN IN ACCORDANCE WITH PARAGRAPH C ABOVE SHALL BE MADE AND RETAINED AS PART OF THIS PLAN. THE REPORT SHALL BE SIGNED BY THE CONTRACTOR(S) WITH RESPONSIBLE CHARGE FOR THE IMPLEMENTATION OF THIS PLAN IN ACCORDANCE WITH THE PERMIT REQUIREMENTS.
	POLLUTION CONTROL PLAN ASSOCIATED WITH THIS SITE.
	ACTIVITY/TASK BEGINNING DATE INSTALLATION OF SILT FENCING, * INLET FILTER BASKETS
	CLEARING WILL BEGIN *
	IEMPURARY SOIL STABILIZATION * MEASURES *
	UTILITY CONSTRUCTION *
	UTILITY CONSTRUCTION * FINAL GRADING / ESTABLISHMENT OF * PERMANENT VEGETATIVE COVER / ANDSCAPING
	UTILITY CONSTRUCTION * FINAL GRADING / ESTABLISHMENT OF * PERMANENT VEGETATIVE COVER/LANDSCAPING REMOVAL OF TEMPORARY MEASURES *

CONSTRUCTION DETAILS

DRAWING TITLE:

(2 OF 2)

PROGRESS SET

323-1424-C1 SCALE:

SHEET C4.02

AS NOTED

DRAWING No.







DEMOLITION PLAN GENERAL NOTES

- ALL SALVAGED ITEMS NOT REUSED SHALL BE PLACED IN STORAGE, ON SITE, AT A LOCATION DESIGNATED BY THE OWNER.
- ALL ITEMS REMOVED AND NOT SALVAGED SHALL BE PROPERLY DISPOSED OF OFF SITE BY THE CONTRACTOR. Β.
- PATCH & REPAIR HOLES AND/OR DAMAGED SURFACES CAUSED TO ADJACENT CONSTRUCTION DURING DEMOLITION.
- VERIFY ANY ADDITIONAL DEMOLITION WORK REQUIRED FOR INSTALLATION OF DEVICES/EQUIPMENT. D.
- Ε.
- F. DEVICES INDICATED WITH AN "EX" ARE TO BE EXISTING TO REMAIN. (V.I.F.)

DEMOLITION PLAN KEY NOTES

- EXISTING STUCCO AND WALL INSULATION TO BE REMOVED FULL HEIGHT. (V.I.F.) EXISTING CMU BLOCK TO REMAIN.
- 2 EXISTING KENNELS AND CMU WALL BETWEEN TO REMAIN
- 3 EXISTING STAINLESS STEEL GAGES, SLOPED TOP AND WALL COUNTER FLASHING TO BE COMPLETELY REMOVED. EXISTING WOOD BASE TO ALSO BE REMOVED. (V.I.F.)
- EXISTING HOSE REEL, MIXING VALVE, SOAP DISPENSOR AND EYE WASH TO BE REMOVED. SALVAGE FOR POSSIBLE REUSE. SEE PLUMBING DRAWINGS. (V.I.F)
- EXISTING WALL ACCESS PANEL TO REMAIN (V.I.F.)
- B PORTION OF EXISTING CONCRETE CURB TO BE REMOVED. (V.I.F.)
- () EXISTING FIRE EXTINGUISHER TO BE REMOVED AND RELOCATED TO NEW WALL. SEE FLOOR PLAN.
- EXISTING WASH SINK TO BE REMOVED. SEE PLUMBING DRAWINGS.
- PORTION OF EXISTING CMU BLOCK FENCE WALL, FOUNDATION WALL AND FOOTING TO BE REMOVED. SEE CIVIL DRAWINGS
- EXISTING GATE AND SUPPORT POSTS TO BE REMOVED. POSTS TO BE SANDED AND PREPPED FOR REUSE. EXISTING GATE TO BE MODIFIED FOR NEW SMALLER WIDTH OPENING (SHORTEN STRIKE SIDE). EXISTING PICKETS TO BE CUT LEVEL AT TOP AND CAPPED. PREP MODIFIED GATE FOR NEW FINISH PRIOR TO REINSTALL. SEE CIVIL DRAWINGS. ALSO SALVAGE HARDWARE FOR REUSE. (V.I.F.) (12)
- EXISTING NORTH GATE PANEL AND SUPPORT TO BE REMOVED AND REINSTALLED AFTER BUILDING ADDITION IS INSTALLED. SEE CIVIL DRAWINGS. (V.I.F.)
- EXISTING VCT FLOORING AND BASE TO BE REMOVED. PREP FLOOR FOR NEW FLOOR FINISH.
- B SHOT BLAST EXISTING EPOXY FLOORING AND INTERGRAL WALL BASE AND PREP FOR NEW FLOOR FINISH. (V.I.F.)
- (6) REMOVE EXISTING METAL FLOOR TRANSITION PLATE.
- O PORTION OF EXISTING FLOOR SLAB TO BE SAWCUT AND REMOVED FOR NEW PLUMBING WORK. SEE STRUCTURAL AND PLUMBING DRAWINGS.

EXISTING FURNITURE AND MOVABLE EQUIPMENT TO BE REMOVED BY OWNERS STAFF. ANYTHING THAT REMAINS CONTRACTOR TO COORDINATE WITH OWNER FOR STORAGE LOCATION. (V.I.F.)

EXISTING STAINLESS STEEL CAGES TO BE AND PART TO BE COMPLELELY REMOVED AND SALVAGED FOR REUSE. (V.I.F.) IF CONCRETE BASE IS PRESENT IT IS TO REMAIN IF WOOD BASE REMOVE.

EXISTING STOREFRONT ENTRY DOOR AND FRAME TO BE REMOVED. SALVAGE DOOR HARDWARE FOR POSSIBLE REUSE. (V.I.F.)

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DEMO CEILING PLAN LEGEND

- HATCH DENOTES AREAS NOT INCLUDED IN PROJECT
- DENOTES EXISTING 2' X 2' SUSPENDED CEILING GRID SYSTEM AND ACOUSTICAL PANELS TO REMAIN (U.N.O.)
- DENOTES EXISTING SURFACE MOUNTED LIGHTING FIXTURE TO REMAIN, SEE ELECTRICAL DRAWINGS
- DENOTES EXISTING LAY -IN LIGHTING FIXTURE IN ACOUSTICAL CEILING TO REMAIN, SEE ELECTRICAL DRAWINGS
- DENOTES EXISTING LAY-IN SUPPLY DIFFUSER IN ACOUSTIC CEILING TO REMAIN, SEE MECHANICAL NOTES
- DENOTES EXISTING LAY-IN RETURN GRILLE IN ACOUSTIC CEILING TO REMAIN. SEE MECHANICAL DRAWINGS
- © DENOTES EXISTING SPRINKLER HEAD LOCATION IN CEILING TO REMAIN.
- DENOTES EXISTING CEILING MOUNTED EXIT SIGNAGE FIXTURE TO BE REMOVED AND SALVAGED. SEE ELECTRICAL DRAWINGS
- DENOTES EXISTING WIFI ANTENNA TO REMAIN SEE ELECTRICAL DRAWINGS
- (SPK) DENOTES EXISTING AUDIO SPEAKER TO REMAIN
- C DENOTES EXISTING CAMERA TO REMAIN
- DENOTES CEILING DUPLEX OUTLET TO REMAIN.

DEMO CEILING PLAN GENERAL NOTES

- A. ALL SALVAGED ITEMS NOT REUSED SHALL BE PLACED IN STORAGE, ON SITE, AT A LOCATION DESIGNATED BY THE OWNER.
- B. ALL ITEMS REMOVED AND NOT SALVAGED SHALL BE PROPERLY DISPOSED OF OFF SITE BY THE CONTRACTOR.
- C. PATCH & REPAIR ALL EXISTING GYPSUM BOARD SURFACES TO "LIKE NEW" CONDITION PRIOR TO INSTALLING NEW FINISHES.
- D. COORDINATE WITH AND ALLOW OWNER'S SEPARATE VENDORS ACCESS TO CEILING INTERSTITIAL SPACES FOR INSTALLATION OF WIRING AND EQUIPMENT PRIOR TO INSTALLING LAY IN CEILING PANELS.

DEMO CEILING PLAN KEY NOTES

PORTION OF EXISTING ACOUSTIC CEILING PANELS AND GRID TO BE REMOVED. EXISTING CLEAN AND UNDAMAGED PANELS TO BE SALVAGED FOR REUSE. (V.I.F.)

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VET TECH ADDITION COLIET JUNIOR COLIET ROAD COLIET JUNIOR COLIET ROAD COLIET NOUR COLIET NOUR		DATE: 3, REVISED	JOLIET JUNIOR COLLEGE – BUILDING B 1215 HOUBOLT ROAD JOLIET, ILLINOIS (18/2024) 7 1202-03





HATCH DENOTES AREAS NOT INCLUDED IN PROJECT SCOPE.

EXISTING WALLS TO REMAIN (TYPICAL)

DENOTES NEW EXTERIOR MASONRY AND E.I.F.S WALL CONSTRUCTION. SEE SECTION AND STRUCTURAL DRAWINGS FOR TYPE AND REINFORCEMENT

CMU BLOCK WALL. SEE STRUCTURAL DRAWINGS FOR REINFORCMENT.

EXISTING DOOR & FRAME TO REMAIN (TYPICAL)

DENOTES NEW DOOR AND/OR FRAME, SEE DOOR MARK IN DOOR AND FRAME SCHEDULE ON DRAWING SHEET A6.

DENOTES ALUMINUM STOREFRONT / WINDOW - SEE INDICATED MARK IN ALUMINUM SCHEDULE, AND ELEVATIONS ON SHEET A6.

ALL CHANGES IN FLOOR FINISH MATERIAL OR COLOR ARE TO OCCUR UNDER CENTER OF DOOR OR AT LOCATIONS INDICATED. SEE ROOM FINISH SCHEDULE FOR FLOORING TYPE IN EACH ROOM. PROVIDE NEW TRANSITION STRIP AT MATERIAL CHANGE LOCATIONS, SEE SPECIFICATION.

INTERIOR VIEWS INDICATED WITH THESE TAGS REFERENCE ELEVATIONS KEYED BY THE INDICATED NUMBER ON DRAWING SHEET A5.

PROVIDE CONTROL JOINT IN GYPSUM BOARD SURFACE AT LOCATIONS INDICATED, AND AT LOCATIONS RECOMMENDED BY THE MANUFACTURER AND INSTALLER. JOINTS TO BE FULL HEIGHT. SEE SPECIFICATIONS AND DETAIL ON SHEET A5.

DENOTES FLOOR DRAIN. SEE PLUMBING DRAWINGS

VERIFY ALL EXISTING DIMENSIONS IN FIELD AND REPORT ALL DISCREPANCIES PRIOR TO NEW CONSTRUCTION.

PATCH CONCRETE SLAB BACK IN AT LOCATION OF REMOVED OR NEWLY INSTALLED PLUMBING AS WELL AS NEW UNDER SLAB ELECTRICAL. SEE DETAIL 2 ON SHEET A5. SEE PLUMBING AND ELECTRICAL SHEETS

RE-INSTALL EXISTING SALVAGED CAT KENNELS ON NEW TREATED 2X WOOD BASE. PROVIDE NEW STAINLESS STEEL FILLER PANEL AT ENDS AND BASE. ALSO PROVIDE INFILL SLOPED TOP PANEL AS REQUIRED FOR NEW WIDER ROOM LOCATION. (V.I.F.)

NEW KENNELS BY OWNER. COORDINATE WITH OWNER SEE PLUMBING DRAWINGS FOR KENNEL DRAIN CONNECTIONS

EXISTING CMU BLOCK WALL TO BE GRINDED SMOOTH BACK TO CMU AND PATCHED AS REQUIRED FROM REMOVED INSULATION AND ANCHORS PRIOR TO NEW WALL FINISH.

NEW MODULAR FREE STANDING 34" W X 60"D X 80" H KENNELS (12 TOTAL). MODEL CK366012-I5MD COMFORT KENNELS BY LENDERKING OR APPROVED EQUAL. (COLOR TO BE BEIGE) PLEASE PROVIDE THE FOLLOWING OPTIONS. -TROUGH AND DRAIN SYSTEM WITH RESTING BOARD, SIDE TO SIDE GUILLOTINE DOOR, FRONT AND END SIDE REMOVABLE PUPPY PANELS, DUTCH DOOR AND DUAL ROTATING BOWL FEEDER WITH BOWLS. (VERIFY WITH OWNER PRIOR TO ORDERING)(TYPICAL OF 6)

NEW MODULAR FREE STANDING 48" W X 12"D X 80" H KENNELS (12 TOTAL). MODEL CK481212-24MD COMFORT KENNELS BY LENDERKING OR APPROVED EQUAL. (COLOR TO BE BEIGE) PLEASE PROVIDE THE FOLLOWING OPTIONS. -TROUGH AND DRAIN SYSTEM WITH RESTING BOARD, SIDE TO SIDE GUILLOTINE DOOR, FRONT AND END SIDE REMOVABLE PUPPY PANELS, DUTCH DOOR AND DUAL ROTATING BOWL FEEDER WITH BOWLS. (VERIFY WITH OWNER PRIOR TO ORDERING)(TYPICAL OF 4)

RE-INSTALL EXISTING MODIFIED METAL GATE (±2'-8" WIDE) AND SIDE POSTS IN NEW OPENING. REUSE EXISTING GATE HARDWARE IF POSSIBLE. SALVAGED POSTS AND MODIFIED GATE TO BE PRIMED AND PAINTED(V.I.F.) SEE CIVIL DRAWINGS. (COLOR TO BE COORDINATED WITH OWNER)

EXISTING GATE PANEL AND SUPPORT POST TO BE REINSTALLED. (V.I.F.)SEE CIVIL DRAWINGS)

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CEILING PLAN LEGEND

	HATCH DENOTES AREAS NOT INCLU SCOPE.
	DENOTES 2' X 2' SUSPENDED CEILIN SEE ROOM FINISH SCHEDULE FOR GI TYPES, AND CEILING HEIGHT IN EAC
	DENOTES 5/8" GYPSUM BOARD CEILI GRID SYSTEM . SEE ROOM FINISH SC CEILING HEIGHT.
	DENOTES 2X2 LAY-IN LIGHTING FIXT CEILING - SEE ELECTRICAL DRAWING
	DENOTES NEW 4'-0" VAPOR PROOF MOUNTED LIGHTING FIXTURE. SEE EL DRAWINGS
	DENOTES CEILING MOUNTED SALVAC SEE ELECTRICAL DRAWINGS
©	DENOTES CEILING MOUNTED OCCUPA SEE ELECTRICAL DRAWINGS.
×	DENOTES SPRINKLER HEAD LOCATIO CENTERED IN CEILING PANELS IN BO SEE PLUMBING DRAWINGS.
	DENOTES LAY-IN SUPPLY DIFFUSER CEILING - SEE MECHANICAL DRAWING
	DENOTES NEW RETURN GRILLE. SEE DRAWINGS.
EXH	DENOTES EXHAUST FAN. SEE MECH

CEILING PLAN GENERAL NO

- A. CEILING GRID AND LAY-IN PANEL TYPES ARE INDIC ROOM FINISH SCHEDULE FOR EACH ROOM.
- B. COORDINATE WITH AND ALLOW OWNER'S SEPARATE ACCESS TO CEILING INTERSTITIAL SPACES FOR INS WIRING AND EQUIPMENT PRIOR TO INSTALLING LAY I PANELS.
- C. ALL GYPSUM BOARD CEILINGS, SOFFITS, HEADERS, RECEIVE PAINT FINISH.

CEILING PLAN KEY NOTES

PATCH IN EXISTING CEILING PANELS AND GRID BAC PROVIDE NEW MATCHING GRID PIECES AND USE SA PANELS IF POSSIBLE. (V.I.F.)

	LUDED IN PROJECT		
	ILING GRID SYSTEM. GRID AND PANEL ACH ROOM.		v ■ 0 Ξ
	EILING ON SUSPENSION SCHEDULE FOR		Pryby 815-727-13 N. : 184-0004
	IXTURE IN ACOUSTIC JINGS.		
	DF LED SURFACE ELECTRICAL AGED EXIT SIGN.		
	TION. HEAD TO BE BOTH DIRECTIONS -		and ITE is 60451
	R IN ACOUSTIC UINGS.		OmsI OmsI ACF enox, Illino
DHANGAE DRAWINGD DICATED IN THE ATE VERDORS AT IN CEEDING BS, ETC. ARE TO INCLUDING	E MECHANICAL		Str AF New Ld
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PROJECT NO. 2202-03 SHEET NUMBER A 2 OF 8 SHEETS	BACK TO NEW WALLS.		A DULING B UNIDING B DULING B DULING B JOLIET JUNIOR COLLEGE - BUILINOS JOLIET, ILLINOS DATE: 3/18/2024 REVISED:
SHEET NUMBER A2 COPYRIGHT 2024© S D P ARCHITECTURE GROUP, INC.			PROJECT NO. 2202-03
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DEMO CEILING PLAN LEGEND HATCH DENOTES AREAS NOT INCLUDED IN PROJECT DENOTES EXISTING 2' X 2' SUSPENDED CEILING GRID SYSTEM AND ACOUSTICAL PANELS TO REMAIN (U.N.O.) -----DENOTES EXISTING 2' X 2' ACOUSTICAL CEILING PANEL AND GRID SYSTEM TO BE REMOVED, SEE DEMO KEY NOTES FOR ADDITIONAL INFORMATION -i---i-DENOTES EXISTING SUSPENDED LIGHT FIXTURE TO BE REMOVED. SEE ELECTRICAL DRAWINGS. L_____ DENOTES EXISTING SUPPLY DIFFUSER TO BE REMOVED, SEE MECHANICAL DRAWINGS DENOTES EXISTING SPRINKLER HEAD TO BE REMOVED. SEE PLUMBING DRAWINGS X DENOTES EXISTING OCCUPANCY SENSOR TO BE REMOVED. SEE ELECTRICAL DRAWINGS (<u>o</u>c) DENOTES EXISTING WIFI ANTENNA TO BE REMOVED μĻ AND SALVAGED. SEE ELECTRICAL DRAWINGS DENOTES EXISTING PROJECTOR MOUNT TO BE COMPLETELY REMOVED. SALVAGE FOR POSSIBLE REUSE.(V.I.F.) г — ¬ DENOTES EXISTING AUDIO SPEAKER TO BE REMOVED AND SALVAGED FOR REUSE. SPK ... نليديدين

DEMO CEILING PLAN GENERAL NOTES

- A. ALL SALVAGED ITEMS NOT REUSED SHALL BE PLACED IN STORAGE, ON SITE, AT A LOCATION DESIGNATED BY THE OWNER.
- B. ALL ITEMS REMOVED AND NOT SALVAGED SHALL BE PROPERLY DISPOSED OF OFF SITE BY THE CONTRACTOR.
- PATCH & REPAIR ALL EXISTING GYPSUM BOARD SURFACES TO "LIKE NEW" CONDITION PRIOR TO INSTALLING NEW FINISHES. С.
- COORDINATE WITH AND ALLOW OWNER'S SEPARATE VENDORS ACCESS TO CEILING INTERSTITIAL SPACES FOR INSTALLATION OF WIRING AND EQUIPMENT PRIOR TO INSTALLING LAY IN CEILING PANELS. D.
- E. EXISTING POWER DROPS TO BE REMOVED AND RELOCATED BY OWNERS STAFF.

DEMO CEILING PLAN KEY NOTES

- EXISTING EXHAUST HOOD CONTROLS AND DUCTWORK TO BE REMOVED BACK TO EQUIPMENT AND PROPERLY CAPPED. EXHAUST FAN TO BE PROPERLY DISCONNECTED. SEE ELECTRICAL AND MECHANICAL DRAWINGS. \bigcirc
- EXISTING DUCTWORK TO BE REMOVED BACK TO EXHAUST FAN ABOVE CEILING AND BE PROPERLY DISCONNECTED. SEE ELECTRICAL AND MECHANICAL DRAWINGS. 2
- 3 EXISTING EXHAUST DUCT TO REMAIN. (V.I.F.)

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OF 8 SHEETS

PRE-FINISHED 8" WIDE ALUMINUM THRU-WALL SCUPPER. SCUPPER TO HAVE BENT FLANGES ON OUTSIDE ALL AROUND (BOTTOM TO EXTEND OUT WITH DRIP)AND ON INSIDE AT TOP. SIDES AND BOTTOM FOR FASTENING/SEAMING TO ROOFING FLASHINGS.

PROVIDE SEALANT BEAD AROUND ALL SIDES OF SCUPPER AT WALL, INSIDE AND OUTSIDE.

E.IF.S SYSTEM ON EXTERIOR --WALL CONSTRUCTION - SEE LEGEND AND WALL SECTION FOR WALL TYPE AND CONSTRUCTION

SECTION AT

SCALE: 3" = 1'-0"

30" SQUARE ROOF PROTECTION PADS AT BOTTOM OF STAIRS.

A4

EXISTING ROOF TO -REMAIN.

CONTINUE NEW ROOFING MEMBRANE UP WALL ON NEW 2" POLYISOCYANURATE INSULATION ATTACHED TO EXISTING MASONRY WALL.

FULLY ADHERED EPDM ROOFING. SEE ROOF PLAN AND SPECIFICATION

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OF 8 SHEETS

R	DOM FINISH SC	CHEDULE						
RM. NO.	ROOM NAME	FLOOR	BASE	WALLS	CEILING	CLG. HT.	REMARKS	RM. NO.
B <i>0</i> 40	CORRIDOR	CPT-I	4" RUBBER COVE	EX/PNT- I	EX/ APC-I	-	1	BOI4O
BIOI8	CLASSROOM	EXISTING	EX	EX	APC-I	±10'-0"		BIOI8
BI025	ISOLATION ROOM	EXISTING	EX	PNT-I	EX	-	1	BIO25
BIO26	STORAGE	EXISTING	EX	PNT-I	EX	-	1	BI026
BI027	EXISTING DOG KENNEL	EX/QUARTZ	EX	PNT-2	EX	-	1	BI027
BI027A	NEW DOG KENNEL	QUARTZ	4" INTEGRAL BASE	PNT-2	EPOXY /APC-2	9'-2"	2	BI027B
BIO4I	CAT KENNEL	QUARTZ	4" INTEGRAL BASE	PNT-2	APC-2	9'-2"		BIO4I
SCHEDULEABBREVIATIONSQUARTZRESINOUS FLOORINGCPT-ICARPET TILEPNT-IPAINT, EGGSHELL FINISHPNT-2PAINT, SATIN FINISH				SCHE I. PATO (V.I.F. 2. PRO IN DO	DULE REMA CH IN AREAS WITH D(U.N.O.) VIDE EPOXY COA DG WASH AREA,	RKS H NEW MAT ATING ON W SEE SPECIF	CHING MATERIA ALLS AND CEIL FICATION 09960	AL _ING ≥Ø.
EPO APC	2XY EPOXY COATING, SA 2-1 15/16" SUSPENSION GR 5/8" MINERAL FIBER	TIN FINISH RD PANELS						

GENERAL NOTES A. ALL HOLLOW METAL DOORS AND FRAMES TO RECEIVE FIELD PAINT FINISH (SEMI-GLOSS) PER SPECIFICATION 099123.

APC-2 15/16" SUSPENSION GRID 1/2" VINYL FACED GYPSUM BOARD PANELS

NEW LOCATION FOR EXISTING SOAP DISPENSER. SEE PLUMBING DRAWINGS -NEW VACUUM BREAKER SERVICE SINK FAUCET. SEE PLUMBING DRAWINGS NEW FLUSHING CLINICAL SINK. SEE PLUMBING DRAWINGS -NEW LOCATION FOR EXISTING HOSE REEL. SEE PLUMBING DRAWINGS. MOUNT WITH STAINLESS STEEL THROUGH BOLTS. - NEW LOCATION FOR EXISTING EYEWASH. SEE PLUMBING DRAWINGS - Adde ELEVATION I DOG KENNEL SCALE: 1/4" = 1'-0" STAINLESS STEEL SURFACE MOUNTED TOWEL HOOK. 1301-S BY ASI, INC. OR APPROVED EQUAL. ELEVATION 3

DOG KENNEL

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

- 5" CONCRETE FLOOR SLAB W/ W.W.F. 6 x 6 X 2.9 x 2.9 I I/2" DOWN FROM TOP OF SLAB. OVER VAPOR RETARDER ON 6" MINIMUM COMPACTED GRANULAR DRAINAGE FILL ON COMPACTED BACKFILL.

I/2"& DOWELS X I'-O" LONG AT 24" O.C. STAGGERED – DRILL RECEPTOR HOLES 6" INTO EXISTING SLAB AND EPOXY BARS IN.

- STAINLESS STEEL DOG LEASH HITCH ULTIMATE BY DOGHOOK OR APPROVED EQUAL. (TYP.) PROVIDE STAINLESS STEEL FASTENERS FOR MASONRY WALL MOUNTING

-8" X 8" STAINLESS STEEL CORNER SHELF. MODEL 950-8X8 BY FROST OR APPROVED EQUAL.

NEW VACUUM BREAKER SERVICE SINK FAUCET WITH HOSE AND SPRAYER. SEE PLUMBING DRAWINGS

DOG WASH SCALE: 1/4" = 1'-0"

ELEVATION 2

YET TECH ADDITION Termsland + de young + prybys VET TECH ADDITION Termsland + de young + prybys Jollet JUNIOR COLLEGE - BUILDING B JOLIET JUNIOR COLLEGE - BUILDING B Parchitecture GROUP 200 Veterars Parkway-201 Jollet, ILLINOIS 315 HOUBOLT ROAD JOLIET, ILLINOIS 315 FOURDOLT ROAD JOLIET, ILLINOIS 316 Veterars Parkway-201 Image: Status Parkway-201 316 Veterars Parkway-201 Image: Status Parkway-201 315 FOURDOLT ROAD Image: Status Parkway - 201 315 FOURDOLT ROAD Image: Status Parkway - 201 315 FOURDOLT ROAD	
RET LECH ADDITON BUILD UNIOR COLLEGE - BUILDING B JOLIET JUNIOR COLLEGE - BUILDING 1215 HOUBOLT ROAD JOLIET, ILLINOIS MANNER A 5	stromsland + de young + prybys e
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LASS		HARD	DETAILS				
YPE	LABEL	SET	HEAD	JAMB	SILL	REMARKS	MARK
-	-	5 <i>.0</i> 1	3/A6	4/A6	5/A6	1,2	BIO27A
Gl	-	4.01	1/A6	2/A6	-		BI027B
-	-	5.02	-	-	-		BI040
Gl	-	4.01	1/A6	2/A6	-		BIO4I

HAKK	NUMBER	TYPE	MATERIAL	FINISH	GLASS	SYST					
А	-	-	-	-	-	2" × 4 1/2					
В	B0140	1	ALUM	ANOD	G3	2" × 4 1/2					
SCH ALUM ANOD	SCHEDULE ABBREVIATIONS G										
GLA	SS TY	PES				В.					
GI 1/ G2 1"	4" CLEAR	R TEMPE	ERED GLASS			<u>R</u>					

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В

- NO REINFORCING REQUIRED 4" (S (- 8" - 0.045" PLATE (19 GAUGE) FASTENED TO EACH CELL ALL AROUND W/ #10 TEK SCREWS 8" (S (- 12" - 0.011" PLATE (15 GAUGE) FASTENED TO EACH CELL ALL AROUND W/ #10 TEK SCREWS - FRAME OPENING IN ACCORDANCE

CONSTRUCTION AND CODE COMPLIANCE NOTE

ALL CONSTRUCTION SHALL COMPLY WITH ALL REQUIREMENTS OF CHAPTERS 18-23 OF 2015 IBC IN ADDITION TO ANY AND ALL NOTES, CODES AND STANDARDS GIVEN IN THESE DRAWINGS. ANY CONFLICTS BETWEEN THESE REQUIREMENTS HALL BE BROUGHT TO THE ATTENTION OF THE STRUCTURAL ENGINEER WHO SHALL PROVIDE INTERPRETATION AND FINAL DIRECTION ON HOW TO PROCEED.

GENERAL NOTES

THE CONTRACTOR SHALL INSPECT THE SITE AND SHALL VERIFY ALL DATA PERTAINING TO THE EXISTING STRUCTURE AND TO THE SITE CONDITIONS INCLUDING THEIR RELATION/ORIENTATION TO THE NEW WORK. ANY DISCREPANCIES WHICH MAY AFFECT THE CONTRACTOR'S WORK SHALL BE REPORTED TO THE ARCHITECTS-ENGINEERS.

SHOULD UNFORESEEN CONDITIONS OR OTHER CAUSES NECESSITATE CONSTRUCTION DETAILS NOT IN ACCORDANCE WITH THESE DRAWINGS, THE CONTRACTOR SHALL NOTIFY THE ARCHITECTS-ENGINEERS AND SUBMIT HIS DETAILS SHOWING THE PROPOSED METHOD TO ACCOMPLISH THE REQUIRED RESULTS.

CONSTRUCTION AND SAFETY NOTES

IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO COMPLY WITH ALL APPLICABLE CITY, STATE AND FEDERAL LAWS, INCLUDING THE OCCUPATIONAL SAFETY AND HEALTH ACT (OSHA) AND REGULATIONS ADOPTED PURSUANT THERETO.

THE CONTRACTOR AND SUBCONTRACTORS SHALL PROVIDE AND BE SOLELY RESPONSIBLE FOR ALL MEASURES NECESSARY TO PROTECT THE STRUCTURE(S), WORKMEN OR OTHER PERSONS DURING CONSTRUCTION. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR MAKING ALL DETERMINATIONS RELATING TO WHERE AND HOW ANY BRACING, SHORING FOR CONSTRUCTION EQUIPMENT/BUILDING/EARTH BANKS, FORMS, SCAFFOLDING, PLANKING, SAFETY NETS, SUPPORT AND BRACING FOR CRANES, ETC. SHALL BE USED.

THE CONTRACTOR AND SUBCONTRACTORS SHALL BE SOLELY RESPONSIBLE FOR ENGAGING PROPERLY QUALIFIED PERSON(S) TO DETERMINE WHERE AND HOW TEMPORARY PRECAUTIONARY MEASURES SHALL BE USED INCLUDING FIELD INSPECTION.

THE CONTRACTOR AND SUBCONTRACTORS SHALL SUPERVISE AND DIRECT THE WORK AND SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, PROCEDURES, AND SAFETY PRECAUTIONS, ETC.

ALL FIELD WORK PERFORMED BY THE ARCHITECTURAL, STRUCTURAL, AND MECHANICAL TRADES SHALL BE COORDINATED AND CONTINUOUSLY SUPERVISED BY THE CONSTRUCTION MANAGER AND NOT THE ARCHITECT OR ENGINEER.

THE CONTRACTOR AND SUBCONTRACTORS SHALL BE SOLELY RESPONSIBLE FOR MAKING ALL DETERMINATIONS RELATING TO WHERE AND HOW ADEQUATE TEMPORARY BRACING SHALL BE PROVIDED WHENEVER THE CONTRACTOR DETERMINES THAT CONSTRUCTION SCHEDULING REQUIRES THE ERECTION OF STRUCTURAL MEMBERS WHICH BY THEMSELVES WOULD BE CONSIDERED LATERALLY UNSTABLE.

OBSERVATION VISITS TO THE SITE BY THE FIELD REPRESENTATIVE(S) OF THE ARCHITECT OR ENGINEER SHALL NOT INCLUDE INSPECTION OF ANY OF THE ABOVE ITEMS.

NOTWITHSTANDING ANYTHING TO THE CONTRARY IN ANY CONTRACT, SPECIFICATION, OR OTHER CONTRACT DOCUMENT, NEITHER THE ARCHITECT NOR THE ENGINEER SHALL HAVE CONTROL OVER OR CHARGE OF CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, OR PROCEDURES, OR FOR SAFETY PRECAUTIONS AND PROGRAMS, SINCE THESE ARE SOLELY THE CONTRACTOR'S RESPONSIBILITY.

THE CONTRACTOR SHALL VERIFY/DETERMINE THE LOCATION OF ALL EXISTING UTILITY LINES AND SUBSEQUENTLY DETERMINE ANY INTERFERENCE R TO THE COMMENCEMENT OF ANY CHITECT SHALL BE NOTIFIED IN WRITING OF

OI5 INTERNATIONAL BUILDING CODE

- 2.ROOF SNOW LOADS: A. GROUND SNOW LOAD: B. FLAT ROOF DESIGN SNOW LOAD: C. SNOW EXPOSURE FACTOR: D. SNOW LOAD IMPORTANCE FACTOR: Pg = 30 PSF Pf = 25 PSF C = 1.0 ls = 1.0
 - THERMAL FACTOR:
- NOTE: DRIFT LOAD IS IN ADDITION TO FLAT ROOF SNOW LOAD.
- 3. ROOF RAIN LOADS: A. RAIN LOAD DESIGN CRITERIA: INDEPENDENT SECONDARY DRAINAGE SYSTEM AND/OR SCUPPERS SHALL BE PROVIDED. SECONDARY DRAINAGE SYSTEM SHALL HAVE SEPARATE LINES FROM THE PRIMARY DRAINAGE SYSTEM AND DISCHARGE TO DAYLIGHT. SUCH SECONDARY SYSTEM SHALL BE SIZED & LOCATED IN ACCORDANCE WITH THE APPLICABLE BUILDING CODE SUCH THAT THE DEPTH OF WATER FROM THE INLET OF THE PRIMARY DRAINAGE SYSTEM TO THE INLET OF THE SECONDARY DRAINAGE SYSTEM PLUS THE ADDITIONAL WATER THAT ACCUMULATES ABOVE THE SECONDARY DRAINAGE SYSTEM AT IT'S DESIGN FLOW SHALL NOT EXCEED (" IF THE PRIMARY DRAINAGE SYSTEM IS BLOCKED.
- 4. WIND DESIGN DATA:
- A.ULTIMATE DESIGN WIND SPEED (3 SECOND GUST): Vult = II5 MPHB.NOMINAL DESIGN WIND SPEED: C.RISK CATEGORY: Vasd = 89MPH D.WIND EXPOSURE

E.INTERNAL PRESSURE COEFFICIENT:

5.EARTHQUAKE DESIGN DATA:

A.RISK CATEGORY B.SEISMIC IMPORTANCE FACTOR: |e=|.0|MAPPED SPECTRAL RESPONSE ACCELERATIONS:Ss = 0.1397, SI = 0.069 C.NAFFED SFECTRAL RESPONSE COEFFICIENTS: E.SPECTRAL RESPONSE COEFFICIENTS: F.SEISMIC DESIGN CATEGORY: G.BASIC FORCE RESISTING SYSTEM: SDS = 0.149, SDI = 0.11ORDINARY MASONRY BEARING SHEAR WALLS H.RESPONSE MODIFICATION FACTORS: I.ANALYSIS PROCEDURE USED: R=2 EQUIVALENT LATERAL

±.18

FORCE PROCEDURE

FOUNDATION NOTES

MASONRY CONSTRUCTION AND MATERIALS SHALL CONFORM TO ALL REQUIREMENTS OF THE LATEST EDITION OF "SPECIFICATIONS FOR MASONRY STRUCTURES (ACI-ASCE 530.1)" PUBLISHED BY THE AMERICAN CONCRETE INSTITUTE, DETROIT, MICHIGAN, EXCEPT AS MODIFIED BY THE REQUIREMENTS OF SITE PREPARATION: REMOVE THE EXISTING TOPSOIL INCLUDING ALL VEGETATION, ROOT SYSTEMS, AND DELETERIOUS MATERIALS WITHIN BUILDING AREA PLUS IO' ON ALL SIDES AND AS RECOMMENDED BY THE PROJECT GEO-TECHNICAL ENGINEER. NO PROJECT GEO-TECHNICAL EXPLORATION AVAILABLE. PRIOR TO THE PLACEMENT OF ANY FOUNDATION. THE APPOINTED PROJECT GEO-TECHNICAL ENGINEER SHALL REVIEW THE SITE, EXISTING SOIL CONDITIONS AND THESE DRAWINGS TO DETERMINE IF ANY MODIFICATIONS TO THE SLAB ON GRADE ND FOUNDATIONS CONSTRUCTION, AND/OR DESIGN ASSUMPTIONS, IS REQUIRED. ARCHITECTS-ENGINEERS DO NOT ASSUME ANY RESPONSIBILITY FOR DEVIATION IN UNDERGROUND SOIL CONDITIONS FROM THAT ASSUMED. THESE CONTRACT DOCUMENTS. PROVIDE ADEQUATE FIELD SUPERVISION OF MASONRY CONSTRUCTION, BY THE CONTRACTOR'S ENGINEER, TO INSURE THAT THE DESIGN REQUIREMENTS ARE MET.

IT IS A REQUIREMENT OF THESE SPECIFICATIONS THAT ALL SITE/FOUNDATION PREPARATION BE MONITORED BY THE GEO-TECHNICAL ENGINEER OF RECORD TO INSURE THAT THE DESIGN CRITERIA ARE MET. MONITORING/TESTING PROGRAMS SHALL BE AS DIRECTED BY HE GEO-TECHINCAL ENGINEER. THE GEO-TECHINCAL ENGINEER. THE GEO-TECHNICAL ENGINEER SHALL REPORT ANY MODIFICATIONS/ADJUSTMENTS REQUIRED TO THE FOUNDATIONS DESIGNS, OR THE DESIGN CRITERIA, TO THE STRUCTURAL ENGINEER WHO SHALL DIRECT ADDITIONAL WORK AS REQUIRED TO COMPLETE THE FOUNDATIONS OF THE PROJECT.

FOUNDATIONS SHALL BEAR ON UNDISTURBED SOIL, OR ENGINEERED FILL WITH A MINIMUM NET USABLE SAFE SOIL BEARING PRESSURE AS INDICATED ON THE FOUNDATION PLAN.

NO FOUNDATION CONCRETE OR REINFORCING STEEL SHALL BE PLACED UNTIL SOIL CONDITIONS HAVE BEEN INSPECTED AND APPROVED BY AN EXPERIENCED GEO-TECHNICAL ENGINEER.

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OUNDATION CONCRETE	JHALL NUT	DL	FLACED		INCLUM	GROUND	111
EACAVATIONS CONTAIN	NG WATER.						

ALL EXCAVATIONS SHALL BE KEPT DRY BY PUMPING, WELL POINTS OR OTHER MEANS UNTIL ALL UNDERGROUND CONSTRUCTION IS COMPLETED AND CONCRETE HAS ATTAINED ITS INITIAL SET.

THE BOTTOM ELEVATIONS OF ALL EXTERIOR FOOTINGS AND GRADE BEAMS SHALL BE A MINIMUM OF 3'-6" BELOW EXTERIOR FINISHED GRADE.

BACKFILL MATERIALS AND COMPACTION FOR ALL FOUNDATIONS SHALL BE APPROVED/DIRECTED BY THE GEO-TECHNICAL ENGINEER. UNLESS DIRECTED OTHERWISE BACKFILL SHALL BE GRANULAR FILL INSTALLED IN 12" MAXIMUM LOOSE LIFTS AND COMPACTED TO 95% (ATM DI557).

STRUCTURAL CONCRETE NOTES

ALL STRUCTURAL CONCRETE WORK SHALL CONFORM TO THE REQUIREMENTS AND RECOMMENDATIONS/SUGGESTIONS OF THE LATEST EDITIONS OF THE FOLLOWING "AMERICAN CONCRETE INSTITUTE" (ACI) SPECIFICATIONS/STANDARDS: "BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE" (ACI 318), "SPECIFICATIONS FOR STRUCTURAL CONCRETE" (ACI 301), GUIDE FOR CONCRETE FLOOR AND SLAB CONSTRUCTION (ACI 302.1) OTHER PERTINENT "ACI" SPECIFICATIONS/STANDARDS (ACI 304, 347, ETC.)

ALL REINFORCING AND ACCESSORIES SHALL BE DETAILED AND PLACED IN ACCORDANCE WITH THE LATEST EDITIONS OF THE "AMERICAN CONCRETE INSTITUTE" STANDARDS: "DETAILS AND DETAILING OF CONCRETE REINFORCEMENT" (ACI 315), "MANUAL OF ENGINEERING AND PLACING DRAWINGS FOR REINFORCED CONCRETE STRUCTURES" (ACI 315R), AND CRSI "MANUAL OF STANDARD PRACTICE". REBAR SHOP DETAILS SHALL INCLUDE PLANS SHOWING ALL ACCESSORY BARS, ETC. FOR SUPPORT OF THE TOP/BOTTOM BARS. MATERIALS:

FOUNDATION CONCRETE:

- ULTIMATE 28-DAY COMPRESSIVE STRENGTH (f'c) = 3,500 PSI
- SLAB ON GRADE CONCRETE:
- ULTIMATE 28-DAY COMPRESSIVE STRENGTH (f'_c) = 4,000 PSI REINFORCING STEEL:
- DEFORMED NEW BILLET STEEL, ASTM A45, GRADE 60 WELDED WIRE REINFORCEMENT
- ASTM A185, $f_y = 60,000$ PSI

STRUCTURAL STEEL NOTES

ALL STRUCTURAL STEEL WORK SHALL CONFORM TO THE LATEST REQUIREMENTS OF THE "AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC) SPECIFICATION FOR THE DESIGN. FABRICATION AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS" AND THE "CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS". UNLESS NOTED OTHERWISE, THE FOLLOWING MATERIAL SPECIFICATIONS SHALL BE USED:

STRUCTURAL STEEL FRAMING (SHAPES): MISC. STRUCTURAL STEEL (PLATES & ANGLES): HSS TUBING: BOLTS: WELDS:

ANCHOR BOLTS: GROUT UNDER BASE PLATES:

ASTM A36 U.N.O. ASTM A500 GRADE B OR C (Fy=46 KSI MIN) 3/4" ASTM A-325-N U.N.O. 10 KSI_TENSILE_STRENGTH (MIN.) ASTM FI554 GRADE 55 "SHRINKAGE COMPENSATING" WITH f'c=6,000 PSI

WELDING SHALL CONFORM TO THE AISC REQUIREMENTS AS SUPPLEMENTED BY THE LATEST EDITION OF THE AWS STANDARD DI.I. ALL MANUAL SHIELDED METAL ARC WELDING ELECTRODES TO BE ETOIX; THE ELECTRODES SHALL BE OF THE LOW HYDROGEN CLASSIFICATION. ALL WELDING SHALL BE PERFORMED BY QUALIFIED WELDERS, AWS CERTIFIED FOR THE SPECIFIC WELD.

WELDING INSPECTION AND ACCEPTABILITY SHALL BE IN ACCORDANCE WITH AWS

ALL MEMBERS DISTORTED DURING WELDING SHALL BE STRAIGHTENED IN THE SHOP.

ALL STRUCTURAL STEEL ITEMS AND ACCESSORIES LOCATED IN REINFORCED CONCRETE, ETC., SHALL BE SUPPLIED BY THIS CONTRACTOR AND SET BY RESPECTIVE TRADE CONTRACTOR.

ALL STRUCTURAL STEEL SHALL BE SHOP PRIME PAINTED ON ALL SURFACES TYPICAL (U.N.O.) VERIFY COLOR WITH G.C./OWNER.

METAL DECK

ALL METAL DECK SHALL BE DETAILED, FABRICATED AND INSTALLED IN ACCORDANCE WITH THE CORRESPONDING LATEST EDITION OF THE STEEL DECK INSTITUTE SPECIFICATIONS. METAL DECK TYPE, THICKNESS AND CONNECTIONS SHALL BE AS SPECIFIED IN THE PLAN, SECTIONS AND FLOOR/ROOF CONSTRUCTION NOTES.

DECK WELDING AND INSPECTION SHALL CONFORM TO AWS DI.3.

STEEL DECK SUPPLIER SHALL DESIGN AND PROVIDE ALL POUR STOPS AT EDGE OF SLAB AS REQUIRED BY PLANS AND DETAILS. METAL DECK SHALL BE GALVANIZED.

STEEL JOIST NOTES

THE DESIGN, FABRICATION, HANDLING AND ERECTION OF OPEN WEB STEEL JOISTS AND JOIST GIRDERS SHALL COMPLY WITH THE "STEEL JOIST INSTITUTE" (SJI) LATEST STANDARD SPECIFICATIONS FOR K SERIES, LH SERIES, DLH SERIES, AND JOIST GIRDERS AND THE SJI "CODE OF STANDARD PRACTICE FOR STEEL JOISTS AND JOIST GIRDERS".

THE STEEL JOIST AND JOIST GIRDER MANUFACTURER SHALL BE A CERTIFIED STEEL JOIST INSTITUTE MEMBER.

THE STEEL JOIST AND JOIST GIRDER MANUFACTURER SHALL SUBMIT DESIGN CALCULATIONS FOR ALL STEEL JOISTS, JOIST GIRDERS, AND CONNECTIONS CERTIFIED BY A STRUCTURAL ENGINEER LICENSED IN THE STATE OF ILLINOIS RESPONSIBLE FOR THE PRODUCT DESIGN. SUCH SUBMITTAL SHALL BE IN CONFORMANCE WITH THE REQUIREMENTS OF THE SJI "CODE OF STANDARD PRACTICE FOR STEEL JOISTS AND JOIST GIRDERS". REVIEW OF SAID CALCULATIONS BY THE ENGINEER OF RECORD SHALL NOT CONSTITUTE A RE-CERTIFICATION OR APPROVAL THAT THE DESIGN MEETS THE PROJECT STRUCTURAL DESIGN REQUIREMENTS STRUCTURAL DESIGN REQUIREMENTS.

MASONRY WALL NOTES

MASONRY CONSTRUCTION SHALL BE SUCH THAT THE REQUIRED MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 2,000 PSI (f'm) IS REACHED. PRIOR TO START OF CONSTRUCTION, THE COMPRESSIVE STRENGTH (f'm) SHALL BE DETERMINED BY EITHER THE PRISM TEST METHOD OR THE UNIT STRENGTH METHOD. RESULTS OF SUCH TESTS SHALL BE FORWARDED TO THE ENGINEER/ARCHITECT FOR REVIEW.

stromsland + de young + prybys m m m m m m m
VET TECH ADDITION JOLIET JUNIOR COLLEGE - BUILDING B 1215 HOUBOLT ROAD JOLIET, ILLINOIS
DATE: 3/18/2024 REVISED:
PROJECT NO. 2202-03
SHEET NUMBER
OF 3 SHEETS

FIRE PROTECTION SPECIFICATIONS

1. THE GENERAL CONDITIONS AND SUPPLEMENTAL GENERAL CONDITIONS ISSUED BY THE ARCHITECT SHALL GOVERN WHERE APPLICABLE.

WORKMANLIKE MANNER. THE COMPLETED SYSTEMS SHALL BE FULLY OPERATIONAL; ACCEPTANCE BY THE OWNER SHALL BE A CONDITION WITH OTHER TRADES IN ORDER TO AVOID INTERFERENCES, PRESERVE MAXIMUM HEADROOM AND AVOID OMISSIONS.

3. CONTRACTOR TO MAKE ALL NECESSARY TAPS.

4. THIS CONTRACTOR SHALL REMOVE ALL DEBRIS ON COMPLETION OF THE JOB AND CLEAN ALL FIXTURES. 5. IT SHALL BE THE RESPONSIBILITY OF THIS CONTRACTOR TO START-UP,

ADJUST AND CHECK FOR PROPER OPERATION, ALL EQUIPMENT INSTALLED

6. THIS CONTRACTOR SHALL ALLOW IN HIS INITIAL BID THE COST OF SERVICE ON ALL EQUIPMENT INSTALLED UNDER HIS CONTRACT FOR A PERIOD OF ONE (1) YEAR FROM DATE OF FINAL INSPECTION OF THE WORK.

7. RESPONSIBILITY FOR LAYOUT IS BY INDIVIDUAL TRADES.

9. THIS CONTRACTOR SHALL SUBMIT TO THE ARCHITECT, ENGINEER, OWNERS INSURANCE UNDERWRITER, AND LOCAL FIRE DEPARTMENT FOR APPROVAL COMPLETE INSTALLATION AND DESIGN DRAWINGS SHOWING THE SPRINKLER SYSTEM LAYOUTS. THE LAYOUT SHALL INDICATE ALL OF THE SPRINKLER PIPING, SPRINKLER HEAD LOCATIONS, EQUIPMENT AND DETAILS

10. THE SPRINKLER SYSTEM SHALL BE LAID OUT TO ELIMINATE ALL CONFLICTS BETWEEN THE SPRINKLER SYSTEM AND THE STRUCTURE INCLUDING THE MECHANICAL AND ELECTRICAL SYSTEMS AS THEY ARE SHOWN ON THE

11. THE LAYOUT SHALL INDICATE COORDINATION BETWEEN SUCH ITEMS AS DUCTWORK, LIGHTS, STRUCTURAL MEMBERS, ETC. PIPE FOR ABOVE GRADE SHALL BE NEW SCHEDULE 40 FOR BRANCHES AND SCHEDULE 10 FOR MAINS, STANDARD WEIGHT STEEL DESIGNED FOR 175 LB, WORKING PRESSURE, CONFORMING TO A.S.A. B36.10 MANUFACTURED IN THE U.S.

12. FITTINGS SHALL BE NEW 125 LB. CAST IRON SCREWED OR FLANGED CONFORMING TO A.S.A. B16.4, MANUFACTURED IN THE U.S. AND APPROVED FOR FIRE PROTECTION SPRINKLER SYSTEMS.

13. THE SPRINKLER RISERS, MAINS AND BRANCH PIPING SHALL BE SUPPORTED FROM THE BUILDING STRUCTURE, USING APPROVED TYPE STEEL HANGERS, BRACKETS, ANCHORS AND STUDS, OF SIZE AND NUMBER IN ACCORDANCE

14. THE SPRINKLER SYSTEM SHALL BE INSTALLED IN CONFORMANCE WITH PAMPHLET 13 OF THE NATIONAL FIRE PROTECTION ASSOCIATION AND ALL REQUIREMENTS OF THE LOCAL FIRE DEPARTMENT AND OWNER'S

15. ALL PIPING ABOVE GRADE SHALL BE HYDROSTATICALLY TESTED AT 200 PSIG FOR A TWO-HOUR PERIOD IN ACCORDANCE WITH N.F.P.A. #24 AS

16. CONTRACTOR IS RESPONSIBLE FOR SPACING, PIPE SIZE, OFFSETS, CLEARANCES, VALVES, ELBOWS, HANGERS, ALL ACCESSORIES AND

17. ALL MECHANICAL ROOMS AND STORAGE ROOMS SHALL BE DESIGNED FOR ORDINARY HAZARD, GROUP I OCCUPANCY.

18. SPRINKLER SYSTEM TO BE DESIGNED AND INSTALLED PER NFPA AND LOCAL

19. AN APPROVED FIRE PROTECTION SYSTEM IS REQUIRED THROUGHOUT THE PROPOSED STRUCTURE. A MINIMUM OF THREE SETS OF FIRE PROTECTION PLANS MUST BE SUBMITTED TO THE FIRE PREVENTION BUREAU FOR REVIEW AND APPROVAL. A PERMIT SHALL BE REQUIRED FOR ALL WORK.

20. ALL 2" AND LARGER PIPE SHALL BE SCHEDULE 10 STEEL AND ALL 1-1/2" AND SMALLER PIPE SHALL BE SCHEDULE 40 PER NFPA 13.

21. PORTABLE ABC FIRE EXTINGUISHERS ARE REQUIRED IN LOCATIONS SPECIFIED BY THE FIRE PREVENTION BUREAU. ALL EXTINGUISHERS MUST BE PROPERLY HUNG AND SHALL BE READILY ACCESSIBLE AND VISIBLE. THE MINIMUM FIRE EXTINGUISHER SIZE SHALL BE 4A60BC.

22. ALL FLOW TEST CONNECTIONS, VALVES, SWITCHES, PANELS, OR OTHER TEST DEVICES SHALL BE READILY ACCESSIBLE TO THE FIRE MARSHAL WITHOUT THE REQUIREMENT OF A LADDER OR OTHER DEVICE.

23. ALL FIRE PROTECTION PIPING SHALL BE SUSPENDED WITH CLEVIS AND/OR

24. ALL PIPE PASSING THRU WALLS SHALL HAVE A GALVANIZED SHEET METAL OR SCHEDULE 40 STEEL PIPE SLEEVE INSTALLED AROUND THE PIPE AND PIPE INSULATION. SEE SLEEVE DETAILS THESE DRAWINGS.

25. PITCH ALL FIRE PROTECTION LINES TO DRAIN COMPLETELY THROUGH LOWER EQUIPMENT FIXTURES, UNIONS, OR DRAIN VALVES. INSTALL A 1/2" DRAIN VALVE WITH 3/4" HOSE THREAD OUTLET IN ALL MAIN PIPING RUNS WHICH WOULD NOT BE ABLE TO DRAIN THRU A LOWER PIECE OF

26. UNUSED OPENINGS IN PIPING SHALL BE CAPPED OR PLUGGED; STRUCTURAL MEMBERS AND SUPPORTS SHALL NOT BE CUT UNLESS AUTHORIZED BY ARCHITECT IN WRITING.

27. CONTRACTOR SHALL PROVIDE ADDITIONAL SPRINKLER HEADS ABOVE AND BELOW MECHANICAL/ELECTRICAL DUCTS AND EQUIPMENT WHICH EXCEEDS 48 INCHES IN WIDTH IN ACCORDANCE WITH NFPA-13.

28. CONTRACTOR SHALL PROVIDE A COMPLETE HYDRAULICALLY DESIGNED FIRE PROTECTION SYSTEM. THE INCOMING SERVICE, BACKFLOW PREVENTER, ALARM VALVES, RISER ACCESSORIES AND FIRE DEPARTMENT CONNECTION PIPING AND CONNECTIONS ARE A MINIMUM AND MAY NOT BE DEVIATED FROM WITHOUT WRITTEN PERMISSION FROM THE ENGINEER. THE RISER SERVICE PIPE, CROSSMAINS AND BRANCH LINES CAN BE DEVIATED IN SIZE IN ACCORDANCE WITH THE HYDRAULIC CALCULATION.

29. CONTRACTOR TO VERIFY EXISTING AVAILABLE FLOW DATA WITH MUNICIPALITY AND FIELD CONDITIONS. CONTRACTOR TO CONTACT ARCHITECT/ENGINEER AND LOCAL MUNICIPALITY 48 HOURS PRIOR TO FLOW

30. CONTRACTOR TO PROVIDE ADDITIONAL HEADS TO ACCOMMODATE CODE REQUIREMENTS AS NECESSARY. COORDINATE WITH ARCHITECTURAL

31. CONTRACTOR TO FLUSH UNDERGROUND WATER SERVICE PRIOR TO CONNECTION OF BACKFLOW PREVENTER IN ACCORDANCE WITH NFPA 13. CONTRACTOR TO CONTACT ARCHITECT/ENGINEER AND LOCAL FIRE DEPARTMENT 48 HOURS PRIOR TO FLUSHING SERVICE.

32. MINIMUM PIPE SIZE SHALL BE 1 INCH. ANY REDUCING OF SIZE SHALL OCCUR AT SPRINKLER HEAD CONNECTION.

33. WHEN 2'X4' TILE WITH 2'X2' APPEARANCE IS USED, CENTER HEAD IN 2'X2'

34. EXISTING SPRINKLER LINES/HEAD (IF ANY) TO BE ADJUSTED/REVISED TO MEET CEILING HEIGHT AND SPRINKLER HEAD REQUIREMENTS. COORDINATE CONFLICTS WITH OTHER TRADES.

35. THIS WORK IS TO BE DONE DESIGN/BUILD. THESE PLANS ARE PROVIDED FOR INFORMATIONAL PURPOSES. IT IS THE CONTRACTOR'S RESPONSIBILITY TO DESIGN AND INSTALL A FULLY FUNCTIONAL AND APPROVED SYSTEM FOR THE SPACE(S) INDICATED. CONTRACTOR MUST PREPARE ALL SHOP DRAWINGS, HYDRAULIC CALCULATIONS AND OBTAIN PERMIT PRIOR TO ANY

36. THIS CONTRACTOR SHALL VERIFY EXISTING SITE CONDITIONS AT THE JOB SITE BEFORE SUBMITTING BID. FAILURE TO RECOGNIZE WORK REQUIRED SHALL BE AT THE EXPENSE OF THIS CONTRACTOR. NO CONSIDERATION SHALL BE GIVEN FOR ADDITIONAL COMPENSATION AFTER THE LETTING OF

GENERAL NOTES

- FIRE PROTECTION CONTRACTOR IS TO LOCATE AND INSTALL SPRINKLER HEADS PER ILLINOIS BUILDING CODE AND COORDINATE ELEVATIONS AND HEAD LOCATIONS WITH CEILING LAYOUT, MECHANICAL EQUIPMENT, & LIGHTING.
- THIS DRAWING IS FOR REFERENCES PURPOSE ONLY. THE FIRE SPRINKLER CONTRACTOR SHALL BE RESPONSIBLE FOR THE FULL DESIGN OF THE SPRINKLER SYSTEM AND ITS CONFORMANCE TO NFPA 13 AND ANY LOCAL CODE REQUIREMENTS. THE FIRE PROTECTION CONTRACTOR SHALL INCLUDE ALL NEEDED OFFSETS, CHANGES IN DIRECTION, TRANSITIONS, ETC. NEEDED FOR COMPLETE AND OPERATIONAL SYSTEMS.
- THE CONTRACTOR WILL VISIT THE SITE AND BE FAMILIAR WITH SITE CONDITIONS. NO EQUIPMENT OR MATERIAL IS TO BE ORDERED OR FABRICATED PRIOR TO FIELD VERIFICATION OF ALL MEASUREMENTS, CLEARANCES, POTENTIAL CONFLICTS WITH EXISTING CONDITIONS OR THAT OF OTHER TRADES ON THE JOB.
- PERFORM ALL WORK IN ACCORDANCE WITH THE, RULES & REGULATIONS OF THE APPROPRIATE STATE AND LOCAL BUILDING CODES AND SUBTITLES.
- SPRINKLER CONTRACTOR SHALL REVIEW ARCHITECTURAL DRAWINGS FOR CEILING TYPES, HEIGHTS, COLOR, ELEVATIONS, SOFFITS, DISPLAY WINDOWS, ETC.
- SPRINKLER CONTRACTOR SHALL SUBMIT WORKING FIRE PROTECTION PLANS, HYDRAULIC CALCULATIONS, ETC... TO THE FIRE DEPARTMENT FOR SEPARATE PLAN CHECK.

FIRE SPRINKLER LEGEND

KEY PLAN

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ILLINOIS DESIGN FIRM NO. 184-005411

stromsland + de young + prybys mm mm mm mm
DATE:03.18.24
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DATE: 03–18–2024 REVISED:
SHEET NUMBER
FP1

L	UMBING GENERAL NOTES:		PLUM	BING PIPE M	IATER
	DRAWINGS ARE DIAGRAMMATIC ONLY AND REPRESENT THE GENERAL SCOPE	Г	PIPING S	YSTEM	
	OF THE WORK. REVIEW THE GENERAL NOTES, SPECIFICATIONS AND PLANS FOR ADDITIONAL REQUIREMENTS THAT MAY NOT BE SPECIFICALLY CALLED		SANITAR	Y DRAINAGE & VENT (ABOVE G
	OUT IN THIS PORTION OF THE CONSTRUCTION DOCUMENTS. NOTIFY THE ARCHITECT OF ANY CONFLICTS OR DISCREPANCIES PRIOR TO SUBMISSION OF		SANITAR	Y DRAINAGE & VENT (BELOW G
	BID.		POTABLE	WATER (ABOVE GRA	DE)
	FURNISH A CONSTRUCTION RECORD SET OF "AS-BUILT" DOCUMENTS TO THE		POTABLE	WATER - 2" & SMALLI	ER (BELO
	EQUIPMENT CONTRARY TO THE CONSTRUCTION DOCUMENTS PREPARED BY THE ENGINEER-OF-RECORD AFTER FINAL INSPECTION OF INSTALLED PLUMBING SYSTEMS.		* PVC SH	ALL NOT BE USED IN	RETURN A
	FURNISH TO THE OWNER A COPY OF INSPECTION REPORTS AND APPROVAL CERTIFICATES FROM LOCAL AND STATE INSPECTIONS.		PLUM	BING FIXTUF	RE UN
	PLANS AND SPECIFICATIONS GOVERN WHERE THEY EXCEED CODE REQUIREMENTS.		TAG	FIXTU	JRE
	REFER TO ARCHITECTURAL PLANS FOR EXACT LOCATION AND MOUNTING HEIGHTS OF PLUMBING FIXTURES.		WC	WATER CLOSET	-FLUSH VA
	DO NOT SCALE FLOOR PLANS FOR EXACT HORIZONTAL LOCATION OF PIPE		LAV	LAVATORY	(PUBLIC)
	ROUTING.	_		MOP B	ASIN
	VALVES SHALL BE LINE SIZE UNLESS OTHERWISE NOTED.		SK	KITCHEN SINI	K (PRIVATE
	PIPING IN FINISHED AREAS SHALL BE ROUTED CONCEALED; EXPOSED PIPING, WHERE NECESSARY, SHALL BE ROUTED AS HIGH AS POSSIBLE AND TIGHT TO WALLS.	Т	OTALS		
	COORDINATE ALL WORK WITH OTHER TRADES AND CONTRACTORS.		PLUM		RE SC
-	COORDINATE PIPING INSTALLATION WITH STRUCTURAL GRADE BEAMS,		DESIG.	COMPONENT	
	FOOTINGS, COLOWIN PIERS, ETC. SLEEVE PIPING THROUGH GRADE BEAMS, FOOTING, ETC. WHERE REQUIRED AND AS NOTED ON PLANS. COORDINATE SLEEVE INSTALLATIONS WITH THE ARCHITECT, STRUCTURAL ENGINEER, STRUCTURAL CONTRACTOR AND GENERAL CONTRACTOR BEFORE CONCRETE IS INSTALLED		CS-1	CLINICAL SINK	AMERI #9
	CLEAN FAUCET AERATORS AND PIPE STRAINERS PRIOR TO TURNING BUILDING OVER TO THE OWNER.		NFWH-1	NON-FREEZE WALL HYDRANT	w
	PROVIDE TRAP PRIMERS WHERE REQUIRED BY LOCAL AUTHORITIES.		FD-1	DOG WASH FLOOR DRAIN	JA
-	COORDINATE PIPE ROUTING AWAY FROM ELECTRICAL PANELS. DO NOT ROUTE PIPING OVER ELECTRICAL PANELS.		FD-2	DOG WASH FLOOR DRAIN	JA
•	PAINT ALL EXPOSED GAS PIPING USING RUST INHIBITOR PAINT. PAINT AND COLOR SHALL BE COORDINATED WITH THE ARCHITECT AND/OR OWNER.		FS-1	FLOOR SINK	JA #96
	COORDINATE ALL ROOF PENETRATIONS WITH OTHER TRADES. MAINTAIN 10' MINIMUM CLEARANCE FROM ALL AIR INTAKES. MAINTAIN 2' CLEARANCE FROM		RD-1	PRIMARY ROOF DRAIN	JA
	ALL OTHER EQUIPMENT.		DW-1	DOG WASH FAUCET	T #PG-8
	BATT INSULATION TO PREVENT FREEZING. ALL COLD WATER LINES SHALL BE INSULATED WITH MINIMUM OF 3/4" FIBERGLASS INSULATION WITH VAPOR BARRIER. ALL HOT WATER AND HOT WATER RECIRCULATING LINES SHALL BE INSULATED WITH MINIMUM OF 1" INSULATION HAVING A CONDUCTIVITY NOT EXCEEDING 0.27 BTU PER IN/HxSFx°F.		WF-1	WALL MOUNTED FAUCET	CHICA #30
-	PROVIDE SHIELDED ADAPTER COUPLINGS FOR CONNECTION OF PVC DWV TO CAST IRON AT SLAB ON GRADE. SEE DIVISION 15 SPECIFICATION SECTION "DRAINAGE AND VENT SYSTEMS" FOR MORE INFORMATION.	╞	NOTE: ALL NEW	AND REPLACED PLUI	
	WATER HAMMER ARRESTORS SHALL BE SIZE "A" UNLESS NOTED OTHERWISE.		UNITED S	TATES ENVIRONMEN	TAL PROT
	PROVIDE CHECK VALVES IN HOT AND COLD WATER SUPPLIES FOR MOP SINK FAUCETS DOWNSTREAM OF SHUTOFF VALVES.	Γ	PIPIN	G INSULATIO)N

- 20. EXPOSED HOT WATER PIPES AND DRAINPIPES UNDER HANDICAPPED ACCESSIBLE LAVATORIES SHALL BE CONFIGURED OR INSULATED TO PROTECT AGAINST CONTACT.
- 21. RPZ SHALL BE INSTALLED IN THE POTABLE WATER SUPPLY TO EACH LOCATION WHERE SANITIZING CHEMICALS OR DETERGENTS WILL BE ASPIRATED OR PUSHED BY WATER PRESSURE INTO CLEANSING/SANITIZING OPERATION.
- 22. DRAINAGE AND VENT SYSTEM SHALL BE PRESSURE TESTED WITH WATER OR AIR.
- 23. ALL RPZ ASSEMBLIES SHALL BE TESTED AND APPROVED BY A CROSS CONNECTION CONTROL DEVICE INSPECTOR BEFORE INITIAL OPERATION. RECORDS TO VERIFY THIS TESTING SHALL BE AVAILABLE ON SITE.
- 24. ALL PENETRATIONS OF FLOOR/CEILING ASSEMBLIES SHALL BE FIRE STOPPED IN ACCORDANCE WITH THE INTERNATIONAL BUILDING CODE.
- 25. ALL DRY VENTS SHALL RISE VERTICALLY TO A MINIMUM OF 6 INCHES ABOVE THE FLOOD LEVEL RIM OF THE HIGHEST TRAP OR TRAPPED FIXTURE BEING VENTED.

26. ALL STORM DRAIN PIPES TO BE FULL INSULATED

PLUM	BING FIX		OUGH-IN	
FIXTURE	CW	HW	SANITARY	VENT
SINK	1/2"	1⁄2"	2"	1 ½"
MOP BASIN / UTILITY SINK	3⁄4"	³ ⁄4"	3"	2"
FLOOR DRAIN	-	-	4"	2"

PLUMBING FIXTURE UNIT CALC										
ТАС	EIYTI IDE	ΟΤΥ	DFU		CWFU		HWFU		TOTAL WSFU	
TAG	FIATORE		FIXTURE	TOTAL	FIXTURE	TOTAL	FIXTURE	TOTAL	FIXTURE	TOTAL
WC	WATER CLOSET-FLUSH VALVE	1	8	8	10	10	0	0	10	10
LAV	LAVATORY (PUBLIC)	1	2	2	1	1	1	1	2	2
MB/ CS	MOP BASIN	3	4	12	5	15	2	6	5	15
DW	SHOWER STALL	1	3	3	1.5	1.5	1.5	1.5	2	2
SK	KITCHEN SINK (PRIVATE)	1	2	2	1.5	1.5	1.5	1.5	2	2
TOTALS		7		27		29		10		31

FLUIVI										
DESIG.	COMPONENT	MANUF./MODEL	REMARKS							
CS-1	CLINICAL SINK	AMERICAN STANDARD #9504.999.020	FLOOR MOUNTED CLINIC SERVICE SINK ,COLOR WHITE. PROVIDE W/ AMERICAN STANDARD PEDESTAL BASE 71009-201.081, FRONT SIDE RIM GUARDS 7832504075. PROVIDE W/ SLOAN ROYAL FLUSH VALVE #117 MANUAL FLUSHVALVE, & CHICAGO FAUCETS # 815-VBCP FAUCET W/ WATTS 8A-C VACUUM BREAKER							
NFWH-1	NON-FREEZE WALL HYDRANT	WOODFORD #B65	RECESSED WALL HYDRANT IN BOX WITH INTEGRAL BACKFLOW PREVENTER, ALL BRONZE INTERIOR PARTS, AND COMBINATION 3/4 FEMALE SOLDER AND 3/4 MALE PIPE THREAD INLET CONNECTION STANDARD. REGULARLY FURNISHED WITH 3/4 MALE HOSE CONNECTION. INCLUDE WITH OPERATING KEY.							
FD-1	DOG WASH FLOOR DRAIN	JAY R SMITH #2010	CAST IRON DRAIN AND FLASHING COLLAR WITH 6" SQUARE ADJUSTABLE NICKEL BRONZE TOP.							
FD-2	DOG WASH FLOOR DRAIN	JAY R SMITH #2010	CAST IRON DRAIN AND FLASHING COLLAR WITH 6" SQUARE ADJUSTABLE NICKEL BRONZE TOP. PROVIDE W/ REMOVABLE STRAINER BASKET/ SEDIMENT BUCKET FOR FUR REMOVAL.							
FS-1	FLOOR SINK	JAY R SMITH #9691 SERIES	14 GAGE TYPE 304 SS RECEPTOR BODY WITH "SEEPAGE CONTROL HOLES", STAINLESS GRATE W/ SQUARE HOLES. PROVIDE W/ SEDIMENT BUCKET. FOR INDIRECT KENNEL DRAIN WASTE DISPOSAL.							
RD-1	PRIMARY ROOF DRAIN	JAY R SMITH #1083	CAST IRON ROOF DRAINS WITH FLASHING CLAMP AND POLYETHYLENE DOME. FURNISH EXTENSION SUFFIX (-E) FOR INSULATED SUMP RECEIVER SUFFIX (-R) AND UNDERDECK CLAMP SUFFIX (-C) FOR ALL BUT POURED-IN-PLACE INSTALLATIONS. SPECIFY VANDAL PROOF DOME SUFFIX (-U) WHEN REQUIRED.							
DW-1	DOG WASH FAUCET	T&S BRASS #PG-8WESV08ZCJZF	8" WALL MOUNT MIXING FAUCET, QUARTER-TURN CERAMA CARTRIDGES W/ CHECK VALVES, LEVER HANDLES, ADD-ON FAUCET, 8" SWING NOZZLE W/ STREAM REGULATOR OUTLET, VACUUM BREAKER, HIGH FLOW ANGLED SPRAY VALVE, 9' COILED HOSE & TRAVELERS REST, 1/2" NPT FEMALE INLETS.							
WF-1	WALL MOUNTED FAUCET	CHICAGO FAUCETS #305-VB Series	SINK FAUCET FOR HOT AND COLD WATER, WALL-MOUNTED 3-3/8" BODY WITH ADJUSTABLE ARMS FOR 3" - 8-3/8" CENTERS. CHROME PLATED. RIGID SPOUT WITH ATMOSPHERIC VACUUM BREAKER, PAIL HOOK, AND 3/4" HOSE THREAD, 2-3/8" CENTER-TO-CENTER. 2-3/8" METAL, VANDAL-PROOF, LEVER HANDLES WITH SIXTEEN-POINT, TAPERED BROACH AND SECURED BLUE AND RED INDEX BUTTONS. QUATURN™ REBUILDABLE COMPRESSION CARTRIDGE, OPENS AND CLOSES 90°, CLOSES WITH WATER PRESSURE, FEATURES SQUARE, TAPERED STEM. 2-1/2" OFFSET INLET SUPPLY ARM WITH 1/2" NPT FEMALE THREAD INLET. 2-5/16" DIAMETER SLIP FLANGE.							
NOTE.										

G FIXTURES SHALL BE LABELED WATERSENSE PRODUCT, AS SPECIFIED BY THE PROTECTION AGENCY.

ALL PIPING FROM WATER HEATER TO THE FIXTURE SUPPLY PIPE SHALL BE INSULAT TABLE C403.11.3. MINIMUM 1-1/2" THICK IN CONDUCTIVITY OF 0.28 BTU PER IN/HxSFx 1-1/2"Ø, AND MINIMUM 2" THICK INSULATIO GREATER.

ALL CHILLED WATER PIPING SHALL BE INSULATED IN ACCORDANCE WITH 2018 IECC TABLE C403.11.3. MINIMUM 1" THICK INSULATION, WITH MAXIMUM CONDUCTIVITY OF 0.26 BTU PER IN/HxSFx°F, FOR ALL CHILLED WATER PIPING 1"Ø OR GREATER AND 1/2" INSULATION ON PIPING UNDER 1"Ø.

ALL NON-TEMPERED DOMESTIC COLD WATER PIPING SHALL BE INSULATED WITH MINIMUM 1/2" INSULATION TO PREVENT CONDENSATION.

ALL INSULATION SHALL BE FIBERGLASS WITH VAPOR BARRIER & PVC JACKETING

RIAL SCHEDULE									
	ABBREVIATION	PIPING MATERIAL							
RADE)	S, W OR V	SCH. 40 PVC*; CAST IRON, COPPER							
RADE)	S, W OR V	SCH. 40 PVC*; CAST IRON, COPPER							
	CW, HW OR HWR	TYPE L HARD DRAWN COPPER							
W GRADE)	CW, HW OR HWR	TYPE K SOFT ANNEALED COPPER							

JRN AIR PLENUMS, OR SHALL BE WRAPPED WITH A PLENUM RATED FIRE JACKET.

E TERMINATION OF THE HEATED WA TED IN ACCORDANCE WITH 2018 IEC NSULATION, WITH MAXIMUM x°F, FOR ALL HOT WATER PIPING UN ON FOR HOT WATER PIPING 1-1/2"Ø	ATER C IDER OR

PLUMBING NOTES		PLUMBING SY	MBOLS		
STANDARD MOUNTING HEIGHTS		PIPING			
	(AFF, AFG, UNLESS NOTED OTHERWISE)		EXISTING TO REMAIN DOMESTIC COLD WATER (CW)		
FIXTURE MOUNTING HEIGHTS. UNO, INST.	ALL PLUMBING FIXTURES WITH THE		• NEW DOMESTIC COLD WATER (CW)		
MOUNTING HEIGHTS AS LISTED BELOW W	/ITH FINAL APPROVAL BY THE ARCHITECT.		EXISTING TO REMAIN HOT WATER (HW)		
			EXISTING TO BE DEMO HOT WATER (HW)		
ADA ACCESSIBLE LAVATORIES	34" FLOOR TO RIM		NEW HOT WATER		
ADA ACCESSIBLE SHOWER VALVES	FLOOR TO CENTERLINE		NEW HOT WATER RETURN		0437
ADA ACCESSIBLE TUB VALVES	CENTER BETWEEN GRAB BAR		EXISTING TO BE DEMO SANITARY (SAN)	<u>ب</u>	
	AND TUB RIM		• NEW GREASE SANITARY (GSAN)		315-7 182
ADA ACCESSIBLE URINALS			EXISTING TO REMAIN VENT (V)		₽ ∎ ữ [∞] z
ADA ACCESSIBLE WATER CLOSET	17" TO 19" FLOOR TO	XXXXXXXX	EXISTING TO BE DEMO VENT (V)		י ד <u>ר</u>ך ⊐
ADA ACCESSIBLE WATER COOLER	35" FLOOR TO RIM		NEW VENT (V)		
ADULT STANDARD DRINKING FOUNTAIN	40" FLOOR TO RIM		SQUARE FLOOR DRAIN (FS), SIZE & TYPE		5 ■ Ш о. фл
ADULT STANDARD WATER COOLER	30" FLOOR TO RIM	₿	ROUND FLOOR DRAIN (FD), SIZE & TYPE		
		(Õ)	ROOF DRAIN (RD), SIZE & TYPE		
	14" FLOOR TO RIM	R			
CLINIC SERVICE SINKS	30" FLOOR TO RIM	→ → → → → → → → → → → → → → → → → → →			
JANITOR'S SINK FAUCET FITTINGS	42" FLOOR TO CENTERLINE	N	CHECK VALVE		
HOSE BIBS	18" AFF TO CENTERLINE	K	BALANCING VALVE WITH PRESSURE PORTS		way 604
	24" FLOOR TO CENTER OF BOX	Č	WATER METER		Dark T ar
LAVATORY OR SINK	18" AEG TO CENTERI INE		STRAINER		
SHOWER HEADS	6'-0" MEN & 5'-6" WOMEN		STRAINER WITH BLOWOFF		
	FLOOR TO CENTERLINE				
SHOWER VALVES	48" MEN & 42" WOMEN FLOOR) \ $\stackrel{\scriptstyle \sim}{\scriptstyle \sim}$ $\stackrel{\scriptstyle \sim}{\scriptstyle \sim}$ $\stackrel{\scriptstyle \sim}{\scriptstyle \sim}$
		×	GAS PRESSURE REGULATOR		
STANDARD URINALS	22" FLOOR TO RIM	k	THERMOSTATIC MIXING VALVE		
TUB VALVES	32" FLOOR TO CENTERLINE	+ PA	PIPE ANCHOR		
WASHING MACHINE OUTLET BOXES	42" FLOOR TO RIM		EXPANSION JOINT	20	PROFESSION
WATER CLOSET	15" FLOOR TO RIM		BACKFLOW PREVENTER	Electron	Hundlewill 2
				E C	MANUEL GERARDO
					062-064529
				Inter	NOIS WOLS
AFF ABOVE FINISHED FLOOR	MBH 1000 BTO PER HOOR MH MANHOLE	+	HOSE BIBB (HB)		Concernation of ILL Manual
AFG ABOVE FINISHED GRADE	MIN MINIMUM	 +	NONFREEZE WALL HYDRANT (NW)	DATE:	03.18.24 EXP:11.30.25
AHU AIR HANDLING UNIT	N/C NORMALLY CLOSED	<u>^</u>	MANUAL / AUTOMATIC AIR VENT OR VACUUM		
BFF BELOW FINISHED FLOOR BFG BELOW FINISHED GRADE	ORD OVERFLOW ROOF DRAIN		RELIEF VALVE		
BFP BACK FLOW PREVENTOR	PDI PLUMBING DRAINAGE INSTITUTE	4	CLEANOUT		
BOP BOTTOM OF PIPE	PVC POLYVINYL CHLORIDE	3			
BOS BOTTOM OF STRUCTURE BTU BRITISH THERMAL UNIT	PRV PRESSURE REDUCING VALVE	6,	FLOOR CLEANOUT (FCO)		
BV BALL VALVE	RPM REVOLUTIONS PER MINUTE	l I I I I I	EXTERIOR CLEANOUT (ECO))
CPVC CHLORINATED POLYVINYL		ф	ELBOW UP	 	
CHLORIDE CK CHECK VALVE	SF SQUARE FEET, SUPPLY FAN	e+	ELBOW DOWN		
CO CLEAN OUT	SS STAINLESS STEEL, SANITARY		TEE UP		2
DN DOWN	SEWER, SOIL STACK				
DFU DRAINAGE FIXTURE UNIT	TDH TOTAL DYNAMIC HEAD				{
ETR EXISTING TO REMAIN	TFB TO FLOOR BELOW	iō;	TEE UP WITH SHUT-OFF VALVE (SOV)		
EWC ELECTRIC WATER COOLER	TYP TYPICAL		TEE DOWN WITH SHUT-OFF VALVE (SOV)		
FCO FLOOR CLEAN OUT		¶ "A"	WATER HAMMER ARRESTER (WHA)		l <u>H</u> ž
FFA FROM FLOOR ABOVE	UNO UNLESS NOTED OTHERWISE		WITH PDI SIZES, (A, B, C, D, & E)		
FFB FROM FLOOR BELOW	UPS UNINTERRUPTIBLE POWER				
FF FINISHED FLOOR		æ			
FL FLOW LINE FLA FULL LOAD AMPS	V VOLT(S) VB VACUUM BREAKER				± ○ ,,
FLR FLOOR	VCP VITRIFIED CLAY PIPE	<u>~</u>	TRAP PRIMER WITH DISTRIBUTION UNIT		
GPM GALLONS PER MINUTE	VS VENT STACK				SIHA
HU HEAD, HUB DRAIN	VIR VENI IHROUGH ROOF W/ WITH	NOTE: THIS IS A M	ASTER LEGEND AND NOT ALL SYMBOLS. ABBREVIATIONS		
IN WC INCHES OF WATER COLUMN	W/O WITHOUT	ETC. ARE N	ECESSARILY USED ON THE DRAWINGS.		
JB JUNCTION BOX	WC WATER COLUMN			_ Z	
J-BOX JUNCTION BOX	WCO WALL CLEANOUT	ANNOTATION			
MAU MAKE-UP AIR UNIT	WSFU WATER SUPPLY FIXTURE UNIT				: R2=
MAX MAXIMUM			PLAN NOTE CALLOUT و		、 ┼── ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
			G EQUIPMENT DESIGNATION (CONTRACTOR		▞▎ᡛ┻₿≌╝╡
SLOPE OF HORIZON	AL DRAINAGE PIPE		ED AND INSTALLED UNLESS NOTED OTHERWISE)		
SIZE (INCHES)	MINIMUM SLOPE (INCH PER FOOT)				

SIZE (INCHES)	MINIMUM SLOPI
2 1/2" OB LESS	
3" TO 6"	
8 OR LARGER	

PE (INCH PER FOOT)

1/4 1/8 1/16

1 FURNISHED AND INSTALLED UNLESS NOTED OTHERWISE) CONNECTION POINT OF NEW WORK TO EXISTING $\mathbf{\Theta}$ 1DETAIL REFERENCE UPPER NUMBER INDICATES DETAILP1NUMBER LOWER NUMBER INDICATES SHEET NUMBER

DATE:

REVISED:

PROJECT NO.

03-18-2024

2304-02

SHEET NUMBER

MGH Consulting Engineers, LLC 409 S. Highland Ave., Arlington Heights, IL 60005 MWright@MGHengineering.com Phone: 630.205.6379

ILLINOIS DESIGN FIRM NO. 184-005411

2 PLUMBING DEMOLITION PLAN - DOMESTIC WATER

0 1' 2' 4' 6'

GENERAL NOTES

- THE PLUMBING CONTRACTOR SHALL REVIEW THE DRAWINGS FOR DEMOLITION REQUIREMENTS AND LAYOUT HIS WORK IN A COMPATIBLE AND COMPLEMENTARY MANNER. ALL ITEMS TO BE REMOVED OR MODIFIED MAY NOT BE SHOWN, HOWEVER, THIS CONTRACTOR SHALL REMOVE ANY PLUMBING WORK AS REQUIRED BY THE CONSTRUCTION OR AS DIRECTED BY THE OWNER OR THE ENGINEER. SURVEY THE AFFECTED AREAS BEFORE SUBMITTING A BID.
- 2. ALL EXISTING PLUMBING FIXTURES, EQUIPMENT AND PIPING SHALL REMAIN UNLESS SPECIFICALLY NOTED TO BE REMOVED.
- THESE DRAWINGS ARE COMPILED BY THE ENGINEER FROM THE LIMITED FIELD VERIFICATION OF EXISTING CONDITIONS FOR THE PURPOSE OF INDICATING THE WORK REQUIRED AND ARE BELIEVED TO BE CORRECT. NOTWITHSTANDING, THE PLUMBING CONTRACTOR SHALL VERIFY ALL PIPING, FIXTURE LOCATIONS, DIMENSIONS, MATERIALS AND ALL FIELD CONDITIONS AFFECTING HIS WORK.
- WHERE PLUMBING SYSTEMS PASS THROUGH THE DEMOLITION AREAS TO SERVE OTHER PORTIONS OF THE PREMISES, THEY SHALL REMAIN OR BE SUITABLY RELOCATED AND THE SYSTEM RESTORED TO NORMAL OPERATION. ADVISE THE ARCHITECT / ENGINEER IMMEDIATELY IF SUCH CONDITIONS ARE UNCOVERED BEFORE PROCEEDING WITH ADDITIONAL WORK.
- SURVEY THE EFFECTED AREAS BEFORE SUBMITTING A BID AS ALL EXISTING CONDITIONS CANNOT BE COMPLETELY DEPICTED ON THE DRAWINGS AND SOME UNUSUAL CONDITIONS MAY EXIST.

LEGEND												
х	EXISTING TO REMAIN											
хо	EXISTING TO BE REMOVED											
XRR	EXISTING TO BE RELOCATED											
XR	EXISTING RELOCATED											
Ν	NEW											
	POINT OF DISCONNECT											
•	POINT OF NEW CONNECTION											

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≥∎О 184 184 ā 🔳 Ŷ Z + U ∎ ∎ Ш $\mathbf{\mathcal{L}}$ jo ∎ U 🗖 + Ш and ay -045 omslå \bigcirc $\mathbf{\mathcal{L}}$ **A A A New** MANUEL GERARD DATE:03.18.24 EXP:11.30.25 ING DEMOLITION PLANS ECH ADDITION IOR COLLEGE - BUILDING B ILT ROAD NOIS PLUMBING <u>UNNIO</u> <u>JOLIE</u> 1215 | JOLIE DATE: 03-18-2024 REVISED: PROJECT NO. 2304-02 SHEET NUMBER

@@DWGFULLNAMEEXT

GENERAL NOTES

- SAWCUT EXISTING FLOOR AND WALL CONSTRUCTION AS REQUIRED IN ORDER TO ACCOMMODATE NEW WASTE, VENT AND WATER SUPPLY PIPING. PATCH ALL NEW WORK TO MATCH EXISTING CONSTRUCTION. DEMOLITION OF ALL PLUMBING WASTE LINES SHALL NOT RESULT IN DEAD ENDS GREATER THAN 10'-0" IN LENGTH AND ALL WATER SUPPLY PIPING DEAD ENDS SHALL NOT EXCEED 2'-0" IN LENGTH.
- 2. PROVIDE DI-ELECTRIC UNIONS, COUPLINGS, ADAPTORS OR FLANGES AT ALL TRANSITIONS OF FERROUS PIPING TO NON-FERROUS PIPING.
- 3. PLUMBING CONTRACTOR TO VERIFY ALL EXISTING WASTE, VENT AND WATER SUPPLY PIPING WHERE NEW CONNECTIONS ARE TO BE MADE PRIOR TO BID. VERIFY EXACT SIZE, LOCATION, INVERT, CONDITION AND REQUIREMENTS IN FIELD. REPORT ANY MAJOR DISCREPANCIES TO ARCHITECT/ENGINEER.
- ALL VALVES AND SPECIALTY EQUIPMENT FOR THE PLUMBING INSTALLATION IS TO BE RUN IN ACCESSIBLE CEILING AREAS. NO VALVIES OR EQUIPMENT ARE TO BE INSTALLED ABOVE A DRYWALL CEILING OR WITHIN THE WALLS.
- 5. COORDINATE ROUTING OF ALL PIPING SYSTEMS TO AVOID DUCTWORK, ELECTRICAL CONDUIT, BEAMS AND OTHER STRUCTURAL MEMBERS.
- 6. PLUMBING CONTRACTOR TO RUN ALL PLUMBING WATER DISTRIBUTION PIPING AT THE SAME ELEVATION WHERE POSSIBLE. ALL PIPING IS TO BE LABELED AS TO TYPE AND DIRECTION OF FLOW ON THE OUTSIDE OF THE INSULATION SO THAT IT IS READABLE FROM THE GROUND.
- PROVIDE PROTECTIVE INSULATED PIPE COVERS ON P-TRAPS, ANGLE STOPS, OFFSET TAILPIECES, RISER SUPPLY TUBES, ETC. FOR ALL ADA ACCESSIBLE FIXTURES.
- 8. ALL WORK MUST COMPLY WITH LOCAL AND STATE PLUMBING CODES.
- 9. PIPE ROUTING SHOWN IS DIAGRAMMATIC AND SHALL BE ADJUSTED ACCORDINGLY PER ACTUAL FIELD CONDITIONS.
- WATER PIPING TO BE INSTALLED WITH ISOLATION VALVES IN COMPLIANCE WITH THE LOCAL PLUMBING CODE
 LAVATORIES TO BE SUPPLIED WITH TEMPERED WATER NOT
- TO EXCEED 105°F 12. NO DEAD ENDS IN WATER SUPPLY OR SANITARY
- 13. JOINTS BETWEEN PLASTIC PIPE AND NON PLASTIC MATERIAL SHALL BE MADE ONLY WITH AN APPROPRIATE TYPE OF ADAPTER
- 14. ANY HEALTH OR SAFETY HAZARDS IN EXISTING PLUMBING SYSTEM MUST BE REVISED TO COMPLY WITH ALL CURRENT APPLICABLE CODES
- 15. COORDINATE ALL REQUIRED INSPECTIONS WITH LOCAL AHJ.

KEYED NOTES

1 NEW FLOOR SINK W/ SEDIMENT BUCKET FOR INDIRECT KENNEL WASTE DISPOSAL. REFER TO KENNEL MANUFACTURERS INSTRUCTIONS FOR ADDITIONAL INFORMATION.

	LEGEND
Х	EXISTING TO REMAIN
хо	EXISTING TO BE REMOVED
XRR	EXISTING TO BE RELOCATED
XR	EXISTING RELOCATED
Ν	NEW
	POINT OF DISCONNECT
•	POINT OF NEW CONNECTION

FIELD VERIFICATION

CONTRACTOR SHALL PROVIDE A CAMERA INSPECTION OF ALL EXISTING UNDERGROUND PIPING ON THE AREA OF WORK AND VERIFY CONDITION FOR POSSIBLE REUSE. WHERE PIPING IS IDENTIFIED TO BE IN POOR CONDITION AND UNABLE TO BE REUSED, CONTRACTOR SHALL PROVIDE A PRICE FOR REPLACEMENT.

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≥∎О Ō. ω Ŕ Z + C ∎ ∎ Ш Ľ ō 🔳 · >U 🗖 + Ш and vay -6045 I S I **E** \mathbf{O} 0 Ŷ MANUEL GERARDO IERNANDE 062-064529 ATE OF ILL DATE:03.18.24 EXP:11.30.25 Ż <Ε G PLAN - SANITARY BING O % O PLUM ΞωΞ 121 JOL DATE: 03-18-2024 REVISED: PROJECT NO. 2304-02 SHEET NUMBER P

@@DWGFULLNAMEEXT

- 1. SAWCUT EXISTING FLOOR AND WALL CONSTRUCTION AS REQUIRED IN ORDER TO ACCOMMODATE NEW WASTE, VENT AND WATER SUPPLY PIPING. PATCH ALL NEW WORK TO MATCH EXISTING CONSTRUCTION. DEMOLITION OF ALL PLUMBING WASTE LINES SHALL NOT RESULT IN DEAD ENDS GREATER THAN 10'-0" IN LENGTH AND ALL WATER SUPPLY PIPING DEAD ENDS SHALL NOT EXCEED 2'-0" IN LENGTH.
- 2. PROVIDE DI-ELECTRIC UNIONS, COUPLINGS, ADAPTORS OR FLANGES AT ALL TRANSITIONS OF FERROUS PIPING TO NON-FERROUS PIPING.
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- 4. ALL VALVES AND SPECIALTY EQUIPMENT FOR THE PLUMBING INSTALLATION IS TO BE RUN IN ACCESSIBLE CEILING AREAS. NO VALVIES OR EQUIPMENT ARE TO BE INSTALLED ABOVE A DRYWALL CEILING OR WITHIN THE WALLS.
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- 9. PIPE ROUTING SHOWN IS DIAGRAMMATIC AND SHALL BE ADJUSTED ACCORDINGLY PER ACTUAL FIELD CONDITIONS.
- 10. WATER PIPING TO BE INSTALLED WITH ISOLATION VALVES IN COMPLIANCE WITH THE LOCAL PLUMBING CODE
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- 14. ANY HEALTH OR SAFETY HAZARDS IN EXISTING PLUMBING SYSTEM MUST BE REVISED TO COMPLY WITH ALL CURRENT APPLICABLE CODES
- 15. COORDINATE ALL REQUIRED INSPECTIONS WITH LOCAL AHJ.

KEYED NOTES

1 RELOCATE PLUMBING FIXTURES FROM EXISTING SPACE WHERE SHOWN TO NEW ADDITION. REINSTALL HOSE REEL, EYEWASH , & MIXING VALVE. REPLACE EXISTING FAUCET W/ NEW (WF-1) W/ INTEGRAL VACUUM BREAKER.

	LEGEND
Х	EXISTING TO REMAIN
хо	EXISTING TO BE REMOVED
XRR	EXISTING TO BE RELOCATED
XR	EXISTING RELOCATED
Ν	NEW
	POINT OF DISCONNECT
Ð	POINT OF NEW CONNECTION

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ROOM #	ROOM NAME
B1018	CLASSROOM
B1027A	NEW DOG KENNEL
B0140	CORRIDOR
B1041	CAT KENNEL
	TOTALS

			IFFR	9	SUPPLY	BLOWER	SECTION	
TAG	/MODEL #	NOM. TONS	(MRE)	CFM	O.A. CFM	ESP [IN W.C.]	DRIVE	FAN [HP]
RTU-1	RUPP AIR / #RARTU1-I.75-13-5T-ERV	5	17.9 (6.1)	1,200	1,200	1.0	DIRECT	1.5
- VER - INDIF - FACT - VARI - FIXEI - CON - MANU - SS D - CONI - MER - HING - FACT - 2" SC	TICAL AIRFLOW CONFIGUE RECT FIRED NATURAL GAS ORY INSTALLED INTAKE A ABLE SPEED INVERTER D D 100% OUTSIDE AIR INTA TROL PANEL ENCLOSURE UAL CONTROL FOR ERV E RAINPAN, DOUBLE SLOPE DENSER COIL HAILGUARD V 13 FILTERS ED ACCESS PANELS TORY NON-FUSED DISCON DLID DOUBLE-WALL CONS	RATION, S HEATIN AND DISA UTY CO KE HEATER XHAUST D S INECT W TRUCTIO	PROVIDE NG COIL \ CHARGE MPRESS(R FAN // 115V C(DN WITH	e with With el Firest Or, ecm Onv ou Min R-1	18" ROC ECTRO AT. FAC A COND	F CURB NIC MODU TORY INS ENSING F/ 0KAIC SCO TED FOAM	LATION TALLED F ANS CR RATING 1 INSULAT	REEZES

- PROVIDE UNITS TO MEET OR EXCEED SCHEDULED MRE VALUES PER AHRI STD 920

VENTILATION SCHEDULE																
				IMC TA	ABLE			IMC RE	QUIREMENTS				ACTUAL		EQUIP	MENT
OCCUPANCY CLASSIFICATION	FLOOR AREA FT ²	NUMBER OF PEOPLE/UNITS	OCCUPANT DENSITY (#/1000 SF)	PEOPLE OUTDOOR AIRFLOW RATE (CFM/PERSON)	AREA OUTDOOR AIRFLOW RATE (CFM/SF)	EXHAUST AIRFLOW RATE (CFM/FIXTURE)	TOTAL OCCUPANTS	TOTAL OCCUPANT OA CFM	TOTAL AREA OA CFM	TOTAL OA CFM	TOTAL EA CFM	SUPPLY CFM	OA CFM	EXHAUST CFM	SUPPLY FAN	EXHAUST FAN
CLASSROOM (AGE 9+)	1,160	20	35	10	0.12	0	20	200	139	339	0	1680	353	850	(X)TAB-118	-
PET SHOP	525	2	10	7.5	0.18	0.9	2	15	95	110	473	850	850	850	RTU-1	RTU-1
CORRIDORS	290	0	0	0	0.06	0	0	0	17	17	0	50	50	50	RTU-1	RTU-1
PET SHOP	190	1	10	7.5	0.18	0.9	1	8	34	42	171	300	300	300	RTU-1	RTU-1
	2,165	23					23	223	285	508	644	2,880	1,553	2,050		

	RTU SCHEDULE																					
																	ELECTRICAL DATA			WEIGHT		
[°F DB/WB]	[°F DB/WB]	[°F DB/WB]	[°F DB/WB]	[°F DB/WB]	[°F DB/WB]	STAGES	TYPE	TYPE	[MBH]	[MBH]	[°F DB]	[°F WB]	[°F DB]	[°F WB]	TYPE	[KW/MBH]	STAGE	RISE	V/PH/Hz	MCA	MOCP	[LBS]
89.7 / 74.4	75.0 / 55.0	78.4 / 65.6	-2.0 / -2.0	70.0 / 50.0	51.4 / 43.7	VARI	(1) DIG. SCROLL	R-410A	49.5	34.6	78.4	65.6	51.0	51.0	NG	100 MBH	6:1	75°F	480/3/60	22.2	25	1800

/ MEASURING ON EACH FAN ARRAY

STAT.

				E	ΧΗΑΙ	JST F		CHED	ULE				
TAG	ΟΤΧ		MODEL #	TVDE			BLOWER	R SECTION		ELECTRIC	CAL DATA		DEMADIZO
TAG		MANOFACTORER				CFM	E.S.P (IN .WC.)	RPM	NOM.POWER	VOLT-PH-HZ	F.L.A. [AMPS]	[LBS.]	KEIVIAKKS
EF-1	1	"GREENHECK"	#SP-A390-VG	CEILING	DIRECT	200	0.5"	1,239	37 W	120-1-60	1.5 AMPS	24	1-5
REMARKS	<u>S</u> TALL AS F	PER MANUFACTURE	RRECOMMEND	ATIONS.									

VERIFY EXACT VOLTAGE PRIOR TO ORDERING EQUIPMENT. ELECTRICAL CONTRACTOR SHALL PROVIDE DISCONNECT SWITCH AND LINE WIRING.

PROVIDE WITH BACKDRAFT DAMPER. FAN TO BE CONTROLLED BY WALL SWITCH.

		AIR DEVICE	SCHEDUL	E			
TAG	MAKE/ MODEL	DESCRIPTION	SERVICE	SIZE	NECK SIZE	MAX N.C.	REMARKS
А	"TITUS" #OMNI	24"x24" LAY-IN SQUARE PLAQUE 4-WAY DIFFUSER W/ ROUND NECK	SUPPLY	24"x24"	SEE PLAN	25	1,3,4
В	"TITUS" #350FL	24"x24" LOUVERED RETURN GRILLE WITH SQUARE TO ROUND NECK ADAPTER	RETURN/EXHAUST	24"x24"	SEE PLAN	25	1,2,3
REMARKS: 1. PROVI 2. PROVI 3. PROVI 4. PROVI	REMARKS: 1. PROVIDE WITH WHITE FINISH. 2. PROVIDE SQUARE TO ROUND ADAPTER WHERE REQUIRED 3. PROVIDE WITH LAY-IN FRAME 4. PROVIDE WITH INSULATED BACKPAN					IS AND RE	

DESIGN CRITERIA

BASED ON ASHRAE HANDBOOK - 2021 FUNDAMENTALS JOLIET, ILLINOIS

OUTDOOR DESIGN CONDITION 1% COOLING: 89.7°/74.4°F DB/WB

99.6% HEATING: -1.8°F D.B

INDOOR DESIGN CONDITION

SUMMER: 75°F DB/50% RH WINTER: 70°F DB

MECHANICAL ABBREVIATIONS

х	EXISTING TO REMAIN
хо	EXISTING TO BE DEMOLISHED
XRR	EXISTING TO BE RELOCATED
XR	EXISTING RELOCATED
N	NEW

MECHANICAL LEGEND

EQUIPMENT	RTU #
AIR DEVICE	S-200-A — T 8"Ø NK — N
$\mathbf{\bullet}$	POINT OF CONN

ARK (SEE SCHEDULE) EQUIPMENT NUMBER

TYPE-CFM-DEVICE TAG NECK SIZE

NECTION TO EXISTING

MECHANICAL NOTES

ALL WORK SHALL BE IN ACCORDANCE WITH ALL STATE AND LOCAL APPLICABLE CODES.

- . ALL EQUIPMENT SHALL BE U.L., ETL, AND/OR AGA LABELED AS REQUIRED.
- ALL DUCTWORK SHALL BE PRIME GRADE GALVANIZED SHEET METAL PER SMACNA STANDARDS.
- DUCTWORK SHALL BE SUPPORTED WITH APPROVED HANGERS AT INTERVALS NOT EXCEEDING TEN (10) FEET OR BY OTHER APPROVED DUCT SUPPORT SYSTEMS DESIGNED IN ACCORDANCE WITH THE BUILDING CODE. FLEXIBLE AND OTHER FACTORY-MADE DUCTS SHALL BE SUPPORTED IN ACCORDANCE WITH THE MANUFACTURER'S INSTALLATION INSTRUCTIONS.
- MECHANICAL CONTRACTOR SHALL PROVIDE SPIN-IN COLLARS WITH DAMPERS AT ALL ROUND BRANCH TAKEOFFS TO DIFFUSERS.
- 5. DUCTWORK CONSTRUCTION MATERIALS, INCLUDING COVERINGS, LININGS, AND ADHESIVES, EXPOSED WITHIN PLENUMS SHALL BE NONCOMBUSTIBLE OR SHALL HAVE A FLAME SPREAD RATING OF NOT MORE THAN 25 AND A SMOKE-DEVELOPED RATING OF NOT MORE THAN 50 WHEN TESTED IN ACCORDANCE WITH ASTM E-84.
- PROVIDE FIRE DAMPERS BY "NAILOR" OR APPROVED EQUAL AT ALL PENETRATIONS THRU RATED ASSEMBLIES. REFER TO ARCHITECTURAL PLANS FOR ALL LOCATIONS AND RATINGS. ALL FIRE DAMPERS MAY NOT BE SHOWN ON THE PLANS. THIS CONTRACTOR SHALL VERIFY EXACT LOCATIONS AND QUANTITIES.
- MECHANICAL CONTRACTOR SHALL PROVIDE FLEXIBLE CANVAS CONNECTIONS AT ALL EQUIPMENT.
- MECHANICAL CONTRACTOR SHALL PROVIDE FLEXIBLE AIR CONNECTORS FOR ALL DIFFUSERS. FLEXIBLE CONNECTORS SHALL NOT EXCEED FIVE (5) FEET.
- 10. FLEXIBLE AIR DUCTS AND FLEXIBLE AIR CONNECTORS, BOTH METALLIC AND NONMETALLIC, SHALL BE TESTED IN ACCORDANCE WITH UL 181. SUCH DUCTS SHALL BE LISTED AND LABELED AS CLASS 0 OR CLASS 1.
- 11. OUTSIDE AIR INTAKES SHALL BE A MINIMUM OF TEN (10) FEET FROM ANY EXHAUST VENT, FLUE VENT OR ANY OTHER MECHANICAL SOURCE OF CONTAMINATION AND TWELVE (12) FEET FROM ANY PLUMBING VENT.
- 12. MECHANICAL CONTRACTOR SHALL PROVIDE BALANCING REPORTS BY A CERTIFIED BALANCER UPON COMPLETION OF PROJECT. PROVIDE INSPECTOR REPORTS PRIOR TO FINAL INSPECTION.
- 13. ALL THERMOSTATS SHALL BE MOUNTED IN ACCORDANCE WITH ADA REQUIREMENTS. WHERE THE THERMOSTAT IS ACCESSIBLE BY FRONTAL APPROACH ONLY, THEN THE MOUNTING HEIGHT OF THE THERMOSTAT SHALL BE 4'-0" A.F.F. WHERE THE THERMOSTAT IS ACCESSIBLE FROM A SIDE APPROACH, THEN THE MOUNTING HEIGHT OF THE THERMOSTAT SHALL BE 4'-6" A.F.F.
- 14. ELECTRICAL CONTRACTOR SHALL WIRE ALL EQUIPMENT AND SHALL PROVIDE DISCONNECT SWITCHES, STARTERS AND/OR RELAYS AS REQUIRED.
- 15. ELECTRICAL CONTRACTOR SHALL PROVIDE CONDUIT, UTILITY BOXES, AND WIRING FOR ALL THERMOSTATS. MECHANICAL CONTRACTOR SHALL FURNISH, MOUNT, AND TERMINATE THERMOSTATS ONLY.
- 16. ELECTRICAL CONTRACTOR SHALL PROVIDE RETURN SMOKE DETECTORS IN SYSTEMS WITH A DESIGN CAPACITY OF GREATER THAN 2,000 CFM AND SUPPLY SMOKE DETECTORS IN SYSTEMS GREATER THAN 15,000 CFM. WIRE PER LOCAL CODE.
- 17. ELECTRICAL CONTRACTOR SHALL PROVIDE A 120 VOLT, 15 OR 20 AMP GFCI CONVENIENCE OUTLET FOR ALL ROOFTOP, ATTIC SPACE, OR CRAWL SPACE HVAC EQUIPMENT. CONVENIENCE OUTLET SHALL BE ON THE SAME LEVEL AND WITHIN 25'-0" OF HVAC EQUIPMENT.
- 18. EQUIPMENT AND APPLIANCES SHALL BE INSTALLED AS REQUIRED BY THE TERMS OF THEIR APPROVAL, IN ACCORDANCE WITH THE CONDITIONS OF THE LISTING, THE MANUFACTURER'S INSTALLATION INSTRUCTIONS AND THIS CODE. MANUFACTURER'S INSTALLATION INSTRUCTIONS SHALL BE AVAILABLE ON THE JOB SITE AT TIME OF INSPECTION, INCLUDING LISTING FOR OUTSIDE INSTALLATION WHEN APPLICABLE.
- 19. SUBMIT UL LISTED FIRE STOPPING MATERIALS AND SYSTEMS WHERE FIRE RATED ASSEMBLIES ARE BREACHED.

INSULATION SCHEDULE

ALL EXPOSED DUCTWORK IN CONDITIONED SPACES ALL EXTERIOR DUCTWORK ALL CONCEALED SUPPLY AND RETURN DUCT

ALL EXHAUST UP TO 10'-0" FROM DISCHARGE

1/2" LINED MIN. R-12 MIN. R-6 MIN. R-6

ALL SUPPLY AND RETURN AIR DUCTS AND PLENUMS SHALL BE INSULATED WITH A MINIMUM OF R-6 INSULATION WHEN LOCATED IN UNCONDITIONED SPACES AND WITH A MINIMUM OF R-12 INSULATION WHEN LOCATED OUTSIDE THE BUILDING ENVELOPE. WHEN LOCATED WITHIN A BUILDING ENVELOPE ASSEMBLY, THE DUCT OR PLENUM SHALL BE SEPARATED FROM THE BUILDING EXTERIOR OR UNCONDITIONED OR EXEMPT SPACES BY A MINIMUM OF R-12 INSULATION. ALL JOINTS, LONGITUDINAL AND TRANSVERSE SEAMS, AND CONNECTIONS IN DUCTWORK SHALL BE SECURELY FASTENED AND SEALED WITH WELDS, GASKETS, MASTICS, MASTIC-PLUS-EMBEDDED-FABRIC SYSTEMS OR TAPES. TAPES AND MASTICS SHALL BE LISTED AND LABELED IN ACCORDANCE WITH UL 181A OR UL 181B. DUCT CONNECTIONS TO FLANGES OF AIR DISTRIBUTION SYSTEM EQUIPMENT SHALL BE SEALED AND MECHANICALLY FASTENED. DUCT TAPE IS NOT PERMITTED AS A SEALANT ON ANY METAL DUCTS.

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GENERAL NOTES

- BECOME FAMILIAR WITH THE EXISTING CONDITIONS PRIOR TO SUBMITTING A COMPLETE BID WITHIN THE SCOPE OF THE PLANS AND SPECIFICATIONS. WHEN UNCLEAR, VERIFY THE EXTENT OF REMOVALS PRIOR TO BID. BRING TO THE ATTENTION OF THE ENGINEER ANY QUESTIONS IN REGARD TO THE EXTENT OF WORK OR ANY OTHER ISSUES RELATING TO THIS PROJECT.
- FLEX DUCT SHALL NOT EXCEED 5'-0".
- CONTRACTOR IS RESPONSIBLE FOR ADJUSTING DIFFUSER AIRFLOWS AS SHOWN ON PLAN. PROVIDE A DETAILED TEST & BALANCE REPORT PRIOR TO CLOSEOUT.
- DIFFUSER NECK SIZES SHALL BE THE SAME AS ROUND DUCT THAT CONNECTS TO IT. PROVIDE RECTANGULAR TO ROUND TRANSITIONS WHERE NEEDED.
- CONTRACTOR SHALL VERIFY FOR EXACT LOCATION OF ALL STRUCTURAL MEMBERS AND COORDINATE NEW DUCT SIZES/ROUTING ACCORDINGLY. IDENTIFY ANY CONFLICTS PRIOR TO INSTALLATION.
- COORDINATE HEIGHT OF DUCTWORK AND DIFFUSERS WITH ARCHITECTURAL PLANS AND ALL OTHER TRADES. ADJUST AS NECESSARY.
- CONTRACTOR SHALL PROVIDE & INSTALL ALL CODE REQUIRED FIRE DAMPERS WHERE DUCTWORK PENETRATES FIRE RATED ASSEMBLIES.
- EXPOSED DUCTWORK SHALL BE INTERNALLY LINED AND SEALED IN A NEAT MANNER. ALL EXPOSED DUCTWORK SHALL HAVE A NEAT FINISHED APPEARANCE.
- ALL CONCEALED SUPPLY AND RETURN DUCTWORK SHALL BE WRAPPED WITH R-6 INSULATION
- ALL TRANSFER DUCTS SHALL HAVE $m 1\!\!2$ " DUCT LINER FOR SOUND ATTENUATION.
- PROVIDE NEW ENERGY CODE COMPLIANT, 24/7 PROGRAMMABLE THERMOSTATS FOR ALL UNITS.
- VENTILATION SYSTEMS SHALL BE BALANCED BY AN APPROVED METHOD. PROVIDE A TEST AND BALANCE REPORT TO THE MUNICIPALITY PRIOR TO THE FINAL INSPECTION FOR THEIR FILE. ALSO PROVIDE A COPY TO THE FIELD INSPECTOR AT TIME OF FINAL INSPECTION.

KEYED NOTES

- 1 NEW 7-DAY PROGRAMMABLE THERMOSTAT, MOUNT AT 48" A.F.F. COORDINATE FINAL LOCATION WITH OWNER.
- 2 FURNISH & INSTALL NEW ROOFTOP UNIT WITH GAS HEATING AND DX COOLING PER EQUIPMENT SCHEDULE. INSTALL ON NEW ROOF CURB.
- 3 PROVIDE NEW 1" GAS PIPING TO NEW HVAC UNIT ON ROOF. CONTRACTOR TO REVIEW EXISTING CONDITIONS BACK TO EXISTING GAS MAIN. ALL GAS PIPING SHALL BE INSTALLED IN ACCORDANCE WITH THE INTERNATIONAL FUEL GAS CODE. ALL PIPE SIZING SHALL BE BASED ON IFGC SECTION 402. INSTALL GAS PIPING WITH UNION, REGULATOR, DIRT LEG, AND SHUT OFF VALVE. VERIFY REQUIREMENTS WITH OWNER.
- $\langle 4 \rangle$ provide a 8"Ø exhaust to exterior wall with wall cap AND BACKDRAFT DAMPER.
- 5 EXTEND DRYER VENTING TO NEW EXTERIOR WALL. PROVIDE NEW WALL CAP AND BACKDRAFT DAMPER.

LEGEND

х	EXISTING TO REMAIN
хо	EXISTING TO BE REMOVED
XRR	EXISTING TO BE RELOCATED
XR	EXISTING RELOCATED
N	NEW
\bullet	POINT OF DISCONNECT
•	POINT OF NEW CONNECTION

MGH Consulting Engineers, LLC 409 S. Highland Ave., Arlington Heights, IL 60005 MWright@MGHengineering.com Phone: 630.205.6379 ILLINOIS DESIGN FIRM NO. 184-005411

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GENERAL DEMO NOTES

- I. BECOME FAMILIAR WITH THE EXISTING CONDITIONS PRIOR TO SUBMITTING A COMPLETE BID WITHIN THE SCOPE OF THE PLANS AND SPECIFICATIONS. WHEN UNCLEAR, VERIFY THE EXTENT OF REMOVALS PRIOR TO BID. BRING TO THE ATTENTION OF THE ENGINEER ANY QUESTIONS IN REGARD TO THE EXTENT OF WORK OR ANY OTHER ISSUES RELATING TO THIS PROJECT.
- 2. REMOVE ALL EXISTING MATERIAL AND EQUIPMENT INDICATED ON PLAN. THE OWNER SHALL HAVE FIRST RIGHTS TO ALL EQUIPMENT TO BE REMOVED. DISPOSE OF ALL EQUIPMENT AND MATERIAL THAT IS NOT WANTED BY OWNER IN AN APPROVED MANNER PER LOCAL AUTHORITY.
- 3. WHEN THE EXTENT OF REMOVALS IS UNCLEAR, REQUEST CLARIFICATION FROM THE ENGINEER PRIOR TO COMMENCING WORK.
- 4. WHEN MECHANICAL SYSTEMS ARE BEING REMODELED, COVER AND SEAL OPENINGS IN DUCTWORK, PIPING, OR MECHANICAL EQUIPMENT IN OPERATION THROUGH THE REMAINDER OR THE PROJECT.
- 5. REPAIR ALL DAMAGE TO WALLS, CEILING, ETC. IN A WORKLIKE MANNER. SEAL ALL WALL AND CEILING OPENINGS WITH MATCHING MATERIAL.
- 6. THE LOCATION OF EQUIPMENT SHOWN ON THE DRAWINGS IS BASED ON SITE OBSERVATIONS AND THE THE BEST AVAILABLE INFORMATION AT THE TIME OF DRAWING PREPARATION AND SOME DISCREPANCIES MAY EXIST. VERIFY EXACT LOCATIONS OF EQUIPMENT TO BE REMOVED IN THE FIELD AND REQUEST CLARIFICATION FROM THE ENGINEER WHEN LOCATION OR EXISTENCE DIFFERS FROM PLANS.
- COORDINATE WITH LANDLORD PRIOR TO REMOVING PIPING, DUCTWORK, EQUIPMENT, ETC... THAT MAY AFFECT OPERATIONS OUTSIDE OF TENANT SPACE.
- 8. REMOVE ALL REMAINING UNUSED DUCTWORK, PIPING, ETC., NOT BEING REUSED BY TENANT. VERIFY THAT DUCTWORK OR PIPING IS NOT BEING USED OUTSIDE OF TENANT SPACE PRIOR TO REMOVAL.
- 9. IN AREAS WHERE CEILINGS OR OTHER ARCHITECTURAL SYSTEMS ARE BEING REWORKED, TEMPORARILY REMOVE AND STORE AIR DEVICES OR OTHER EQUIPMENT AS NECESSARY.

DEMOLITION KEYED NOTES

- 1 CAP DUCTWORK AT UNDERSIDE OF ROOF DECK. UNIT TO REMAIN AND BE ABANDONED IN PLACE. COORDINATE WITH OWNER FOR REMOVAL OF CONTROLS.
- 2 CAP DUCTWORK AT UNDERSIDE OF ROOF DECK. EXHAUST FAN ON ROOF TO REMAIN AND BE ABANDONED IN PLACE. COORDINATE WITH OWNER FOR REMOVAL OF CONTROLS.
- 3 REMOVE INLINE EXHAUST FAN ABOVE CEILING. CAP DUCTWORK AT UNDERSIDE OF ROOF DECK. ROOF HOOD TO REMAIN AND BE ABANDONED IN PLACE. COORDINATE WITH OWNER FOR REMOVAL OF CONTROLS.

LEGEND EXISTING TO REMAIN

ХО	EXISTING TO BE REMOVED
XRR	EXISTING TO BE RELOCATED
XR	EXISTING RELOCATED
Ν	NEW
\bullet	POINT OF DISCONNECT
•	POINT OF NEW CONNECTION

MECHANIC	AL PLAN	
1/4" = 1'-0"		
-	0 1' 2'	4'

GENERAL NOTES

- BECOME FAMILIAR WITH THE EXISTING CONDITIONS PRIOR TO SUBMITTING A COMPLETE BID WITHIN THE SCOPE OF THE PLANS AND SPECIFICATIONS. WHEN UNCLEAR, VERIFY THE EXTENT OF REMOVALS PRIOR TO BID. BRING TO THE ATTENTION OF THE ENGINEER ANY QUESTIONS IN REGARD TO THE EXTENT OF WORK OR ANY OTHER ISSUES RELATING TO THIS PROJECT.
- 2. FLEX DUCT SHALL NOT EXCEED 5'-0".
- . CONTRACTOR IS RESPONSIBLE FOR ADJUSTING DIFFUSER AIRFLOWS AS SHOWN ON PLAN. PROVIDE A DETAILED TEST & BALANCE REPORT PRIOR TO CLOSEOUT.
- DIFFUSER NECK SIZES SHALL BE THE SAME AS ROUND DUCT THAT CONNECTS TO IT. PROVIDE RECTANGULAR TO ROUND TRANSITIONS WHERE NEEDED.
- CONTRACTOR SHALL VERIFY FOR EXACT LOCATION OF ALL STRUCTURAL MEMBERS AND COORDINATE NEW DUCT SIZES/ROUTING ACCORDINGLY. IDENTIFY ANY CONFLICTS PRIOR TO INSTALLATION.
- COORDINATE HEIGHT OF DUCTWORK AND DIFFUSERS WITH ARCHITECTURAL PLANS AND ALL OTHER TRADES. ADJUST AS NECESSARY.
- 7. CONTRACTOR SHALL PROVIDE & INSTALL ALL CODE REQUIRED FIRE DAMPERS WHERE DUCTWORK PENETRATES FIRE RATED ASSEMBLIES.
- B. EXPOSED DUCTWORK SHALL BE INTERNALLY LINED AND SEALED IN A NEAT MANNER. ALL EXPOSED DUCTWORK SHALL HAVE A NEAT FINISHED APPEARANCE.
- ALL CONCEALED SUPPLY AND RETURN DUCTWORK SHALL BE WRAPPED WITH R-6 INSULATION
- 10. ALL TRANSFER DUCTS SHALL HAVE $\frac{1}{2}$ " DUCT LINER FOR SOUND ATTENUATION.
- 11. PROVIDE NEW ENERGY CODE COMPLIANT, 24/7
- PROGRAMMABLE THERMOSTATS FOR ALL UNITS.
 2. VENTILATION SYSTEMS SHALL BE BALANCED BY AN APPROVED METHOD. PROVIDE A TEST AND BALANCE REPORT TO THE MUNICIPALITY PRIOR TO THE FINAL INSPECTION FOR THEIR FILE. ALSO PROVIDE A COPY TO THE FIELD INSPECTOR AT TIME OF FINAL INSPECTION.

	LEGEND
х	EXISTING TO REMAIN
хо	EXISTING TO BE REMOVED
XRR	EXISTING TO BE RELOCATED
XR	EXISTING RELOCATED
N	NEW
\bullet	POINT OF DISCONNECT
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orybys OUP /27-1311 4-000437 Pr√ Ľ + **∎** Ū annog Ľ \supset (L) ⊢ \bigcirc + and S I Stroms B = 1 ARC 280 Veterans New Lenox, III JANUEL GERARI DATE:03.18.24 EXP:11.30.25 CH ADDITION COLLEGE - BUILDING B ROAD IS **MECHANICAI** TEC JUNIOR CC OUBOLT RC JOLIET 1215 HC JOLIET, DATE: 03-18-2024 REVISED: PROJECT NO. 2304-02 SHEET NUMBER

- 4. PROVIDE SURFACE MOUNTING FLANGE FOR GYP

MINIMUM CONICAL TAP METAL GAUGE					
TAP DIA. (IN.)	GAUGE - GALV. STOCK	DAMPER GAUGE			
8 AND BELOW	24	22			
9 - 14	24	22			
15 - 16	22	20			
27 - 36	20	18			
37 - 50	18	16			

MECHANICAL

MECHANICAL

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	GENERAL NOTES
1.	THIS INSTALLATION SHALL BE IN COMPLIANCE WITH THE 2023 JOLIET, IL CODES
2	NEC2014, IECC2021, AND NETIONAL CODES INCLUDING BUT NOT LIMITED TO: NEC2014, IECC2021, AND NEPA72.
۷.	FULLY INFORM HIMSELF OR HERSELF OF ALL CONDITIONS THAT AFFECT THE WORK, EXAMINE THE DRAWINGS AND SPECIFICATIONS SHEET, AND SUBMIT ANY QUESTIONS IN WRITING TO THE ARCHITECT AND ENGINEER.
3.	ALL ELECTRICAL DRAWINGS ARE TO BE READ IN CONJUNCTION WITH THE PROJECT SPECIFICATION SHEET AND ALL OTHER DRAWINGS RELATED TO THE PERFORMANCE OF THE WORK.
4.	THE CONTRACTOR RESPONSIBLE FOR THE EXECUTION OF THIS WORK SHALL BECOME THOROUGHLY FAMILIAR WITH THE PROJECT REQUIREMENTS BEFORE COMMENCING ANY WORK. THE PROJECT DRAWINGS FORM THE BASIS OF THIS CONTRACT REQUIREMENTS AND INCLUDE THE TYPE AND GRADE OF MATERIALS TO BE INSTALLED, EQUIPMENT TO BE FURNISHED, THE MANNER BY WHICH TO BE INSTALLED AND WHERE TO BE LOCATED. IN THE EVENT OF A CONFLICT BETWEEN THE PROJECT SPECIFICATIONS AND DRAWINGS, THE MOST STRICT METHOD GOVERN UNLESS THE ARCHITECT/ENGINEER DIRECTS OTHERWISE.
5.	THE ELECTRICAL CONTRACTOR SHALL CHECK CAREFULLY ALL CONSTRUCTION DRAWINGS AND SPECIFICATION SHEET THAT ARE PART OF THIS PROJECT TO ENSURE THAT NO FIXTURE, OUTLET, ALARM STATION, CONTROL DEVICE, POWER WIRING DEVICE, ETCIS OMITTED. HE/SHE SHALL CONSULT ALL TRADES FURNISHING EQUIPMENT AND OBTAIN FROM THEM ALL DATA. IN SOME CASES EQUIPMENT, FIXTURES AND DEVICES ARE SHOWN ONLY. ASCERTAIN AND PROVIDE THE WIRING AND CONTROL STATIONS REQUIRED FOR THE PROPER FUNCTION OF BUILDING EQUIPMENT. NO EXTRA CHARGES SHALL BE ACCEPTED BY OWNER AFTER BIDDING FOR SUCH EQUIPMENT AND LABOR.
6.	EQUIPMENT LABELS AND INSTRUCTIONS REGARDING THE APPLICATION AND INSTALLATION OF THE LISTED EQUIPMENT SHALL BE FOLLOWED TO INSURE THAT THE EQUIPMENT IS BEING INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S LISTING INSTRUCTIONS. THE TEMPERATURE RATING OF THE EQUIPMENT TERMINATIONS MUST BE CAREFULLY CORRELATED WITH THE CONDUCTOR AMPACITY TO PREVENT OVERHEATING AND PREMATURE FAILURE.
7.	INSTALL ELECTRICAL DEVICES AS INDICATED IN THIS SET OF DRAWINGS. ADJUST FINAL DEVICE LOCATIONS AS REQUIRED TO ACCOMMODATE WORK. COORDINATE WITH ALL TRADES INVOLVED AND WITH ARCHITECTURAL CASEWORK AND ELEVATIONS DRAWINGS. NOTIFY THE ENGINEER AND/OR THE ARCHITECT IF ANY CONFLICTS ARE FOUND PRIOR TO BIDDING PROJECT. INSTALL CONDUIT AND BOXES TO CLEAR EMBEDDED DUCTS, OPENINGS AND OTHER STRUCTURAL FEATURES.
8.	ALL LIGHTING FIXTURES ARE TO BE LOCATED AS REQUIRED ON THE JOB TO CLEAR DUCTS, PIPING, EQUIPMENT, AND/OR MECHANICAL UNITS.
9.	CONDUIT RUNS SHOWN ON DRAWINGS ARE DIAGRAMMATIC. ALL CONDUITS SHALL RUN CONCEALED, EXCEPT IN EQUIPMENT ROOMS AND WHERE APPROVED BY THE ARCHITECT.
10.	FURNISH AND INSTALL EQUIPMENT DISCONNECT SWITCHES IN STRICT COMPLIANCE WITH CODE REQUIREMENTS.
11.	ADJACENT POWER AND DATA DEVICES SHALL BE SPACED NO MORE THAN 4" APART. PROVIDE JUNCTION BOX MOUNTING BRACKET BETWEEN STUDS AS NEEDED. SEE DETAIL THIS SHEET FOR ADDITIONAL INFORMATION.
12.	ALL RECEPTACLES, VOICE AND DATA OUTLETS SHALL BE MOUNTED PER MOUNTING HEIGHT LEGEND, UNLESS OTHERWISE NOTED. SEE DETAIL THIS SHEET FOR ADDITIONAL INFORMATION. ALL DEVICES SHALL BE NEW. REFER TO ARCHITECTURAL CASEWORK DRAWINGS AND ARCHITECTURAL ELEVATIONS FOR EXACT DEVICES MOUNTING HEIGHTS.
13.	REFER TO FIRE ALARM SHEET IN THIS SET OF DRAWINGS FOR FIRE ALARM SYSTEM INFORMATION.
14.	DETERMINE, IN ADVANCE OF PURCHASE, THAT ALL ELECTRICAL MATERIALS AND EQUIPMENT TO BE INSTALLED SHALL FIT INTO THE ROOM OR SPACE ALLOCATED, AS INDICATED ON THE DRAWINGS, ALLOWING SUFFICIENT CLEARANCE FOR THE SAFE SERVICE AND/OR MAINTENANCE OF RELATED EQUIPMENT, INCLUDING THAT OF OTHER TRADES.
15.	ALL CIRCUITS SHALL HAVE AN EQUIPMENT GROUNDING CONDUCTOR INSTALLED. COLOR OF GROUNDING CONDUCTOR SHALL BE GREEN. SIZE OF GROUNDING CONDUCTOR SHALL BE AS REQUIRED PER NEC ARTICLE 250.122.
16.	ALL BRANCH CIRCUITS SHALL HAVE A DEDICATED NEUTRAL CONDUCTOR INSTALLED UNLESS OTHERWISE INDICATED. COLOR OF NEUTRAL CONDUCTOR SHALL BE WHITE.
17.	ALL CONDUCTOR SHALL BE MADE OF COPPER. MINIMUM WIRE SIZE SHALL BE #12AWG UNLESS OTHERWISE INDICATED. UTILIZE SOLID CONDUCTORS FOR WIRE GAGES UP TO #12AWG AND STRANDED CONDUCTOR FOR GAGES #10AWG AND LARGER.
18.	SPECIAL RECEPTACLES PLUG CONFIGURATION REQUIREMENTS SHALL BE COORDINATED WITH EQUIPMENT PLUG REQUIREMENTS PRIOR TO INSTALLATION.
19.	ALL FEEDER AND BRANCH CIRCUIT WIRING INSTALLED INDOORS SHALL USE THHN INSULATION (90C). ALL WIRING INSTALLED OUTDOORS SHALL USE THWN INSULATION (75C). REFER TO SPECIFICATION SHEET FOR COLOR CODED REQUIREMENTS.
20.	ALL POWER WIRING SHALL BE INSTALLED IN A DEDICATED RACEWAY SYSTEM. MINIMUM RACEWAY SIZE SHALL BE 3/4"C UNLESS OTHERWISE INDICATED. CONTRACTOR SHALL SIZE ALL CONDUITS SO AS TO NOT EXCEED 40% OF CONDUIT FILLING CAPACITY. WHEN MORE THAN THREE CURRENT CARRYING CONDUCTORS ARE INSTALLED IN THE SAME CONDUIT AND AMBIENT TEMPERATURES ADJUSTMENT FACTORS PER ELECTRICAL CODE TABLES 310.15(B)(2)(A), 310.15(B)(3)(A) SHALL BE APPLIED.
21.	ALL CIRCUITS SERVING EMERGENCY EXIT SINGS, NIGHT LIGHTS AND EXTERIOR LIGHTS SHALL UTILIZE #10 WIRE TO MINIMIZED VOLTAGE DROP UNLESS OTHERWISE INDICATED.
22.	ALL BREAKERS SERVING FIRE ALARM EQUIPMENT AND EXIT SIGNS SHALL HAVE LOCK-OUT DEVICE INSTALLED UNLESS OTHERWISE INDICATED.
23.	DISTRIBUTION PANELS AND BRANCH CIRCUIT PANELBOARDS, SHALL BE LABELED WITH PANEL NAME AND ALSO HAVE A PANEL DIRECTORY INSTALLED. UTILIZE TYPE WRITER AS A MINIMUM FOR COMPLIANCE. HAND WRITTEN CARD DIRECTORIES ARE NOT ACCEPTABLE.
24.	DISTRIBUTION PANELS, BRANCH PANELBOARDS, DISCONNECT SWITCHES, ETC. SHALL BE LABEL WITH A READILY VISIBLE LABEL PER NFPA 70E, STANDARD FOR SAFETY IN THE WORKPLACE, LABEL SHALL BE CLEARLY VISIBLE TO PERSONNEL AND SHALL READ "CAUTION ARC FLASH HAZARD" ALSO LABELS SHALL INDICATE THE AVAILABLE SHORT CIRCUIT CURRENT AT EQUIPMENT, VOLTAGE, PHASES, SIZE AND COLOR OF TEXT SHALL BE PER STANDARD.

- 25. ALL FINAL CONNECTIONS TO MOTORS AND VIBRATING EQUIPMENT SHALL BE DONE WITH LIQUID TIGHT FLEXIBLE METAL CONDUIT. INSTALL GREEN GROUNDING CONDUCTOR.
- 26. ALL FINAL BREAKERS AND CONDUCTORS SIZES SERVING MECHANICAL EQUIPMENT SHALL BE COORDINATED WITH MECHANICAL SHOP DRAWINGS AND CONTRACTOR PRIOR TO INSTALLATION. E.C. SHALL COORDINATE WITH HVAC CONTRACTORS EXACT POINT OF CONNECTION TO THE EQUIPMENT PRIOR TO ROUGH-IN.

bys bys CD 727-1311 1-000437 ABBREVIATIONS ≥∎О WEATHER PROOF WP WG WIRE GUARD + ABOVE THE COUNTER AC D CLG C CEILING MOUNTED DEVICE TAMPER GUARD ΤG TAMPER RESISTANT TR Ο (R) RETURN DUCTWORK >۵ ا (S) SUPPLY DUCTWORK MECHANICAL CONTRACTOR M.C. ELECTRICAL CONTRACTOR E.C. VEL VERIFY EXACT LOCATION PRIOR TO ROUGH-IN DEVICE MOUNTED AT 42 INCHES AFF +42 - **■ =** -AFF ABOVE FINISH FLOOR Ι S I ELECTRICAL WATER COOLER EWC E O METAL WHILE-IN-USE COVER WEATHER PROOF SIMILAR TO WP/ EATON WIUMH-1 SERIES IN USE to Ŷ OHD OVERHEAD DOOR NIGHT LIGHT NI ABOVE ACCESSIBLE CEILING ACC S.C. SECURITY CONTRACTOR WEATHER PROOF WP AUTOMATIC TRANFER SWITCH ATS AHJ AUTHORITY HAVING JURISDICTION ELECTRICAL HAND DRYER HD INSTANTANEOUS ELECTRICAL WATER HEATER IWH Munpelin EXISTING DEVICE TO REMAIN S MANUEL GERARDO HERNANDEZ 062-064529 EXISTING DEVICE TO BE REMOVED AND RELOCATED XRR XR EXISTING DEVICE RELOCATED NEW DEVICE FF FURNITURE FEEDER DATE:03.15.24 EXP:11.30.25 ELECTRICAL DRAWING LIST ΕO ELECTRICAL SYMBOL LIST & GENERAL NOTES ED1 PARTIAL FLOOR PLANS - ELECTRICAL DEMOLITION S PARTIAL FLOOR PLANS - ELECTRICAL PROPOSED E1 O EL1 PARTIAL FLOOR PLANS – LIGHTING PROPOSED Ζ EXITING ELECTRICAL RISER DIAGRAM & DETAILS E2 N N N N N E3 EXISTING PANEL SCHEDULES E4 ELECTRICAL SPECIFICATION SHEET **TI** C অ AD EGE -S **D**AO L ന Σ **O**IS SIS S ┛╚ᅇ╚ 11 DATE: 03-15-2024 REVISED: PROJECT NO. 2304–02 MGH SHEET NUMBER ENGINEERING MGH Consulting Engineers, LLC 409 S. Highland Ave., Arlington Heights, IL 60005 MWright@MGHengineering.com Phone: 630.205.6379 ILLINOIS DESIGN FIRM NO. 184-005411 COPYRIGHT 2024 (C) S D P ARCHITECTURE GROUP, INC.

ELECTRICAL PLAN NOTES

- 1 RELOCATE EXISTING SECURITY DEVICE, AND CONNECT TO EXISTING SECURITY SYSTEM CABLING PREVIOUSLY ON FOR A COMPLETE INSTALLATION & OPERATING SYSTEM. FURNISH AND INSTALL NEW RACEWAY AND CABLING AS REQUIRED. AMTCH EXISTING
- 2 FURNISH AND INSTALL NEW FIRE ALARM DEVICE COMPATIBLE WITH THE EXISTING FIRE ALARM (FA) SYSTEM SERVING THE BUILDING AND CONNECT FOR A COMPLETE
- 3 FURNISH AND INSTALL NEW SECURITY DEVICE AND CONNECT TO EXISTING SECURITY SYSTEM WIRING FOR A COMPLETE INSTALLATION AND OPERATING SYSTEM. COORDINATE
- $\langle 4 \rangle$ FURNISH AND INSTALL NEW WEATHER PROOF COVER ON EXISTING GFI RECEPTACLE,
- 5 RELOCATE EXISTING FIRE ALARM DEVICE AND CONNECT TO EXISTING FIRE ALARM WIRING PREVIOUSLY ON FOR A COMPLETE INSTALLATION AND OPERATING SYSTEM.
- 6 REINSTALL EXISTING CEILING MOUNTED PROJECTOR AND ASSOCIATED MIC AND SPEAKER CEILING DEVICE AT NEW LOCATION BY OWNER STAFF REQUIREMENTS. RECONNECT TO EXISTING POWER CIRCUIT PREVIOUSLY ON.
- 7 DISCONNECT SWITCH AND SERVICE RECEPTACLE PROVIDED INTEGRALLY WITH MECHANICAL UNIT. COORDINATE EXACT POINT OF CONNECTION TO MECHANICAL UNIT PRIOR TO ROUGH-IN. E.C. SHALL PROVIDE ALL INTERCONNECTIONS AS REQUIRED FOR A COMPLETE INSTALLATION AND OPERATING SYSTEM. CORE DOWN THRU ROOF NEXT TO UNIT (DO NOT RUN FEEDERS ON ROOF. FILL RACEWAYS SERVING POWER AND CONTROL WITH APPROVED SEALANT MATERIAL TO PREVENT THE CIRCULATION OF COLDER AIR TO WARMER SECTIONS OF THE RACEWAY OR SLEEVE TO PREVENT CONDENSATION.
- 8 E.C. TO INSTALL CARD READER JUNCTION BOX AND CONDUIT STUBBED UP INTO ACCESSIBLE CEILING, THEN CONTRACTOR TO INSTALL OWNER PROVIDED CABLING FROM ACCESS BOX IN IT ROOM AND STUBBED INTO DOOR FRAME DOWN TO DOOR STRIKE LOCATION AND ALSO STUBBED INTO CARD READER BOX. FINAL DEVICE CONNECTIONS TO

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MANUEL GERARDO HERNANDEZ 062-064529 DATE:03.15.24 EXP:11.30.25
FLOOR PLANS - ELECTRICAL PROPOSEI VET TECH ADDITION JOLIET JUNIOR COLLEGE - BUILDING B 1215 HOUBOLT ROAD JOLIET, ILLINOIS
DATE: 03-15-2024 REVISED: PROJECT NO. 2304-02
SHEET NUMBER

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Project Information			Hundlend					
Energy Code: Project Title:	2021 IECC Vet Tech		HERNANDEZ 062-064529			- FROM	I NG SOURCE	X
Project Type:	Addition		OF ILLING					M M 2
Construction Site: 1215 Houbolt road (Building B)	Owner/Agent:	Des	igner/Contractor: anuel Hernandez		< 0			31
Joliet, Illinois 60431		M(10 Ar	GH ENGINEERING 16 W Campbell St. lington Heights, Illinois 6	60005				
		77 ml	3-314-7819 nernandez@mghenginee	ering.com			X	S
Allowed Interior Lighting P	Power						PNL "L1"	
Area C	A ategory	B Floor Area (ft2)	C a Allowed Watts / ft2	D Allowed Watts			100A MLO >	x 5
-Common Space Types:Laboratory F	or Classrooms	2174	1.11 Total Allowed Watts -	2413			277/480V 3P-4W	5
Proposed Interior Lighting	Power			Z+13 F			30CCTS	
Fixture ID : Description /	A Lamp / Wattage Per Lan	np / Ballast La Fi>	B C D mps/ # of Fixtu cture Fixture Wat	е ure (СХD) tt.				
-Common Space Types:Laborato	ory For Classrooms		1 12 4	2 504				
LED: F2: 2X2: Other:			1 21 4 Total Proposed Wat	5	MEZZANINE			
nterior Lighting PASSES: Design	40% better than code					ROOM	: B-1002	
Statement Compliance Statement: The propose	d interior lighting design repre	esented in this docume	nt is consistent with the	building plans,				
specifications, and other calculations designed to meet the 2021 IECC requ mandatory requirements listed in the	submitted with this permit ap lirements in COMcheck Versio Inspection Checklist.	plication. The proposed n COMcheckWeb and to	l interior lighting system comply with any applic	ns have been cable				
Manuel G Hernandez, Proj. Name - Title	Eng. Signature	Home Shert	03-14-2	2024				
	- 9							
Project Title: Vet Tech			Report	t date: 03/08/24				
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Project Title: Vet Tech Data filename: COMcheck Exterio	k Software Ver r Lighting (sion COMch Complian	Report P eckWeb ice Certif	t date: 03/08/24 Page 1 of 6			Х Т—DР 150КVА 480V—120/20 3PH—4W	1 08v
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Project Title:	Vet Tech	
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UFACTURER	MODEL NUMBER	LAMPS	VOLTAGE	WATTAGE	MOUNTING	NOTES
COOPER IUBBELL ITHONIA	SIMILAR TO LITHONIA: CSVT-L48-5000LM-MVOLT-40K-80CRI	LED 5000LM 4000K-82CRI	120V–277V	42W	SURFACE	1X4 VAPOR TIGHT, MATCH EXISTING FIXTURES (COLOR , LUM
COOPER IUBBELL ITHONIA	SIMILAR TO LITHONIA: EPANL 2X2 4800LM-80CRI-40K-ZT-MVOLT (MATCH EXISTING COLOR TEMPERATURE CURRENTLY BEING USED)	LED 4843LM 4000K–82CRI	120V-277V	45W	RECESSED	2X2 TROOFER. (MATCH BUILDING COLOR STANDARD)
COOPER IUBBELL ITHONIA	SIMILAR TO LITHONIA: TWPX2 LED ALO 40K MVOLT PE DDBXD (MATCH EXISTING COLOR TEMPERATURE CURRENTLY BEING USED)	LED 4000K	120V–277V	22W	WALL MOUNTED	WALL PACK LIGHTING FIXTURE (MATCH BUILDING COLOR STANDARD)
HLORIDE SIGNIFY	EXIT SIGN – EDGE GLOW SERIES RGLO-LED_ R SS	LED	120V-277V	7 5W	WALL/CEILING	LED EXIT SIGN — APPROVED BUILDING STAND/ BATTERY SHALL PROVIDE 90MIN OF ILLUMINAT

EXISTING PANEL "P4 SEC1"

	-,		D4 05	<u></u>			0004						400/0		
PANE	PANEL: P4 - SEC1			FRAI	ME SIZE:	200A					VOLTAGE	: 120/2	.08V		
LOCATION: MEZZANINE ABOVE JANITOR			NINE ABOVE JANITOR	FTL: X						PHASE: 30					
FEEDER: EXISTING		NG	AIC:			EXISTING RATING				WIRE: 4W					
CKT NO.	BR	Ρ	FAULT C.B.	CIRCUIT DESCRIPTION	PHAS	SE A	PHA	SE B	PHAS	EC	CIRCUIT DESCRIPTION	FAULT C.B.	BR I	- C	;KT 10.
1	20	1	-	RECEPT							RECEPT (CH)	-	20	1	2
3	20	1	-	RECEPT							RECEPT	-	20	1 -	4
5	20	1	-	RECEPT DOOR OPERATOR SOUTH GFCI							RECEPT	-	20	1 -	6
7	20	1	-	RECEPT							RECEPT	-	20	1 -	8
9	20	1	-	RECEPT REFRIG							RECEPT BY SHOWER	-	20	1 –,	10
11	20	1	-	RECEP, OUTSIDE GFI							RECEPT	-	20	1 –,	12
13	20	1	-	RECEP, WASHER							RECEPT, AUTOCLAVE	-	20	1 –,	14
15	20	1	-	DISWASHER							RECEPT, 2 F19	-	20	1 —,	16
17	20	1	-	RECEP REFRIG							RECEPT HALL BY OFFICE	-	20	1 —,	18
19	20	1	-	RECEPT							RECEPT, F19, F20, EF8	-	20	1	20
21	20	1	-	RECEPT							RECEPT, EF5	-	20	1	22
23	20	1	-	RECEPT							RECEP T	-	20	1 _	24
25	20	1	-	V 1077 N WALL OVER SINKS							3 F16	-	20	1	26
27											SPARE	-	20	1 -	28
29	100	2	-	X-RAY							PROCESSOR PHOTO RM	-	20	1 -	30
TOT	AL (100	NECTI	ED LOADS (VA)	#	#	#	#	#	#		I			50
тот	AL C	201	NECTI	ED LOADS (VA)	#	ŧ	#	<i>‡</i>	#		-	GFI BF	EAKE	R	
тот	AL A	AMF	PERAG	Ξ			##	##			_	-L.O. L	OCK (JUT	-

FEE	DER	:	EXISTI	NG
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31	20	1	-	RECEPT
33	20	1	-	6 F9, 1 F12, E
35	20	1	-	CAB-3 HEATE
37	20	1	-	COOLER LIG
39		_		000155
41	30	2	-	COOLER
43	20	1	-	1 F17, 2 F15
45	20	1	-	RECEPT
47	20	1	-	RECEPT
49	20	1	-	RECEPT
51	20	1	-	RECEPT EM L
53	20	1	-	SPARE
55	20	1	-	FIRE ALARM
57	20	1	-	RECEPT BY 2
59	20	1	-	RECEPT BY X
TOT	AL C	0	NECT	ED LOADS (V

23 1 - SPACE

27 1 -

29 1 - V

25 1 -

TOTAL AMPERAGE

1	

E	XISTING PANEL NOTES: E.C. MUST PERFORM THIS WORK
1.	ELECTRICAL CONTRACTOR SHALL FIELD VERIFY EXACT CIRCUIT NUMBER INFORMATION PRIOR TO CONNECT CIRCUITS TO THE PANEL. CIRCUIT NUMBER INFORMATION AND DESCRIPTIONS HAVE BEEN GIVEN ONLY FOR INFORMATION PURPOSES BASED ON EXISTING PANEL CARD DIRECTORY AND SURVEY. <u>E.C. MUST MODIFY CIRCUIT</u> PANEL CONNECTIONS AND LABELING INFORMATION TO MATCH THE NEW ROOM NAMES AND NUMBERS.
2.	ELECTRICAL CONTRACTOR SHALL PROVIDE NEW UPDATED PANEL CARD DIRECTORIES AFTER ALL CONNECTIONS HAVE BEEN COMPLETED. EXISTING PANEL'S MARKER WRITING SHALL BE CLEANED SO THAT NOT MARKER WRITING IS VISIBLE. ALL NOT VALID INFORMATION SHALL BE DELETED.
3.	UTILIZE EXISTING EMPTY CIRCUITS/MODIFY CIRCUIT INFORMATION GIVEN AS REQUIRED FOR CONNECTION OF LOADS.
4.	PROVIDE UPDATED RECORD DOCUMENTS AFTER CONSTRUCTION IS DONE FOR FUTURE USE. FURNISH AND INSTALL NEW CARD DIRECTORIES WITH UPDATED INFORMATION.
5.	FURNISH AND INSTALL NEW BREAKERS AS REQUIRED.
6.	ALL RECEPTACLE OUTLETS SHALL BE PROVIDED W/ P-TOUCH LABEL WITH CIRCUIT $\#$ AND SOURCE PANEL

TAGS.

- A. <u>GENERAL REQUIREMENTS:</u>
- 1. SCOPE OF WORK:
- a. FURNISH AND INSTALL A COMPLETE ELECTRICAL SYSTEM AS SHOWN ON THE CONTRACT DRAWINGS. THE INSTALLATION SHALL BE COMPLETE IN EVERY DETAIL ESSENTIAL TO PROPER AND SATISFACTORY OPERATION, READY FOR USE AND IN CONDITION FOR SERVICE WHEN DELIVERED TO THE OWNER. ALL MANUFACTURED ITEMS SHALL BE ERECTED AND INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S DIRECTIONS AND RECOMMENDATIONS EXCEPT AS OTHERWISE SPECIFIED HEREIN.
- b. REFER TO ARCHITECTURAL, MECHANICAL, PLUMBING AND FIRE PROTECTION DRAWINGS FOR ADDITIONAL INFORMATION AND COORDINATION.

2. APPROVALS:

- OBTAIN APPROVALS FROM INSPECTION AUTHORITIES FOR ELECTRICAL INSTALLATIONS REQUIRING SPECIFIC APPROVAL. PRINTS OF THE ELECTRICAL DRAWINGS, FOR THIS PURPOSE, WILL BE FURNISHED UPON REQUEST. REQUIRED WIRING DIAGRAMS SHALL BE PROVIDED AND SUBMITTED FOR APPROVAL BY THE CONTRACTOR. COPIES OF THE FINAL APPROVALS SHALL BE OBTAINED BEFORE COMMENCEMENT OF RELATED WORK.
- 3. CODES AND STANDARDS:
- a. THE WORK SHALL COMPLY WITH ALL APPLICABLE LOCAL, MUNICIPAL, AND NATIONAL CODES WHERE THE CONSTRUCTION DOCUMENTS INDICATE MORE RESTRICTIVE REQUIREMENTS, THE CONSTRUCTION DOCUMENTS SHALL GOVERN. HOWEVER, THE CONSTRUCTION DOCUMENTS SHALL NOT BE INTERPRETED AS AUTHORITY TO VIOLATE ANY CODE OR REGULATION.
- b. MATERIALS, EQUIPMENT AND INSTALLATION SHALL CONFORM TO LOCAL CODE AND STANDARDS, THE NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION (NEMA), UNDERWRITER'S LABORATORIES (UL), NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) AND ALL LAWS AND ORDINANCES OF LOCAL, STATE AND FEDERAL GOVERNING AGENCIES.

- a. ALL PERMIT FEES SHALL BE PAY BY THE OWNER. CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING REQUIRED INSURANCE, INSPECTIONS, APPLICATIONS, PERMITS, LICENSES, ETC. RELATING TO THE ELECTRICAL WORK.
- 5. CONTRACTOR'S LIABILITY:
- a. THE CONTRACTOR SHALL AGREE THAT THE OWNER, THE ARCHITECT AND THE ENGINEER SHALL NOT IN ANY FORM OR MANNER BE ANSWERABLE OR ACCOUNTABLE FOR ANY VIOLATION OF ORDINANCES, CODES OR REGULATIONS OF ANY AUTHORITIES, UTILITIES, INSURANCE COMPANIES AND GOVERNMENT AGENCIES HAVING JURISDICTION, OR FOR ANY ACCIDENTS, INJURY, LOSS OR DAMAGE TO ANY PERSON OR PERSONS AND THEIR PROPERTIES ARISING FROM NEGLIGENCE OR CARELESSNESS ON THE PART OF THE CONTRACTOR (NOR ANYONE IN HIS EMPLOY), ANY OF HIS SUBCONTRACTORS, OR ANY OTHER PARTIES OR AGENTS TO THIS CONTRACT.
- b. THE CONTRACTOR SHALL AGREE TO MAKE GOOD TO SAID OWNER, ARCHITECT, AND ENGINEER ANY LOSS, DAMAGE OR EXPENSE SO INCURRED, TOGETHER WITH REASONABLE ATTORNEY'S FEES.
- c. THE CONTRACTOR SHALL BE RESPONSIBLE FOR READING AND COMPLYING WITH BOTH THE DRAWINGS AND SPECIFICATIONS. IN THE EVENT OF A CONFLICT OR INCONSISTENCY BETWEEN THE DRAWINGS, NOTES, SPECIFICATIONS, OR CODES, THE REFERENCE WHICH PROVIDES THE MORE COMPLETE OR HIGHER STANDARD SHALL PREVAIL.
- d. THE CONTRACTOR SHALL CHECK ALL DRAWINGS FURNISHED TO THEM IMMEDIATELY UPON THEIR RECEIPT AND SHALL PROMPTLY NOTIFY THE OWNER OF ANY DISCREPANCIES. FIGURES MARKED ON DRAWINGS SHALL IN GENERAL BE FOLLOWED IN PREFERENCE TO SCALE MEASUREMENTS. LARGE SCALE DRAWINGS SHALL IN GENERAL GOVERN SMALL SCALE DRAWINGS. THE CONTRACTOR SHALL COMPARE ALL DRAWINGS AND VERIFY THE FIGURES BEFORE LAYING OUT THE WORK AND WILL BE RESPONSIBLE FOR ANY ERRORS WHICH MIGHT HAVE BEEN AVOIDED THEREBY.
- 6. EXAMINATION OF DRAWINGS AND SITE:
- a. THE ELECTRICAL CONTRACTOR SHALL OBTAIN A COMPLETE SET OF ARCHITECTURAL AND ENGINEERING DOCUMENTS AND COORDINATE WITH MECHANICAL, PLUMBING, ARCHITECTURAL CIVIL AND OTHER TRADES FOR EXACT DIMENSIONS, CLEARANCES, ROUGH-IN LOCATIONS, AND OTHER ADDITIONAL SCOPES OF WORK THAT MAY NOT BE SHOWN ON THE ELECTRICAL PLANS. THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR THE POWER TO OTHER TRADES EQUIPMENT AND HARDWARE. THIS SHALL INCLUDE, BUT NOT BE LIMITED TO, CONTROLS, FIRE, MOTORIZED DOORS, DAMPERS, POLE LIGHTS, AND OTHER SYSTEMS UNLESS SPECIFICALLY NOTED OTHERWISE ON THE ELECTRICAL PLANS. THE ELECTRICAL CONTRACTOR SHALL FURNISH ALL SAFETY DISCONNECT SWITCHES TO MECHANICAL EQUIPMENT AND TRANSFORMERS UNLESS OTHERWISE INDICATED.
- BY THE ACT OF HAVING SUBMITTED A BID, THE CONTRACTOR SHALL DEEM TO HAVE MADE SUCH AN EXAMINATION AND SHALL HAVE ACCEPTED THE PREVAILING CONDITIONS. NO SUBSEQUENT ALLOWANCE WILL BE MADE TO CONTRACTOR BECAUSE OF HIS NEGLECT IN COMPLYING WITH THE FOREGOING.
- GUARANTEE:
- a. THE CONTRACTOR SHALL FURNISH THE OWNER WITH A WRITTEN GUARANTEE COVERING ALL OF THE EQUIPMENT AND INSTALLATION FURNISHED UNDER THE CONTRACT AGAINST FAILURE FOR A MINIMUM PERIOD OF ONE YEAR FROM THE DATE OF FINAL ACCEPTANCE OF THE ENTIRE PROJECT. THE CONTRACTOR SHALL ASSUME THE LIABILITY OF ALL EQUIPMENT AND INSTALLATION COVERED IN THIS CONTRACT, INCLUDING ALL COSTS OF LABOR, MATERIALS AND EQUIPMENT RENTALS REQUIRED.
- b. ANY ADDITIONAL COSTS INCURRED IN THE REPAIR AND RECONSTRUCTION OF ALL OTHER INSTALLATIONS NOT PART OF THIS CONTRACT BUT WHICH MIGHT BE DAMAGED BY THE EQUIPMENT GUARANTEED OR AFFECTED BY THE REPAIR WORK COVERED UNDER THE GUARANTEE, SHALL BE PART OF THIS GUARANTEE
- 8. INTERPRETATION OF THE DOCUMENTS:
- a. CAREFULLY COMPARE THE DRAWINGS AND SPECIFICATIONS, CHECKING MEASUREMENTS AND CONDITIONS UNDER WHICH THIS INSTALLATION IS TO BE MADE. FOR CLARIFICATION BETWEEN VARIOUS DRAWINGS, BETWEEN DRAWINGS OR SPECIFICATION, OR BETWEEN SECTIONS OF THE SPECIFICATION. THE MATTER SHALL BE REFERRED TO THE ENGINEER BEFORE ANY WORK IS EXECUTED THE CONTRACTOR SHALL STATE IN THEIR PROPOSAL ANY EXCEPTIONS NECESSARY TO MAKE THIS A COMPLETE, READY TO USE INSTALLATION. IF NOT STATED IN THE PROPOSAL, IT WILL NOT BE CONSIDERED EXTRA.
- OMISSIONS FROM THE DRAWINGS, SPECIFICATION NOTES, OR DETAILS OF WORK WHICH ARE NECESSARY TO CARRY OUT THE INTENT OF THE DRAWINGS AND SPECIFICATIONS, OR WHICH ARE CUSTOMARILY PERFORMED, SHALL NOT RELIEVE THE CONTRACTOR FROM PERFORMING SUCH OMITTED DETAILS OF THE WORK BUT THEY SHALL BE PERFORMED AS IF FULLY AND CORRECTLY SET FORTH AND DESCRIBED IN THE DRAWINGS AND SPECIFICATIONS.
- 9. ELECTRICAL DRAWINGS:
- g. THE ELECTRICAL DRAWINGS ARE DIAGRAMMATIC AND SHALL NOT BE SCALED. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL DOORS, WALLS, FURNITURE, EQUIPMENT, ETC. THE LOCATION OF RACEWAY SYSTEM COMPONENTS IS SCHEMATIC. THE EXACT LOCATION OF RACEWAY SYSTEM COMPONENTS SHALL BE DETERMINED BY THE CONTRACTOR IN THE FIELD. THE CONTRACTOR SHALL CONFIRM THE DIMENSIONS OF THE ACTUAL EQUIPMENT TO BE SUPPLIED FOR THIS PROJECT, AND VERIFY CLEARANCES AND ROUGH-INS PRIOR TO STARTING WORK.
- 10. SHOP DRAWINGS AND SUBMITTALS:
- c. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SHOP DRAWING SUBMITTALS WHICH SHALL INCLUDE, BUT NOT BE LIMITED TO: PRODUCT DATA AND EQUIPMENT SPECIFICATIONS SHEETS, SCHEMATIC DIAGRAMS, WIRING DIAGRAMS, SIZES, MOUNTING DETAILS (WITH REQUIRED ELEVATIONS), TECHNICAL DESCRIPTIONS OF COMPONENTS, TEST REPORTS, CERTIFICATES, OPERATING AND MAINTENANCE MANUALS AND PROPER CALCULATIONS TO ENSURE SPECIFIED PERFORMANCE OF THE SYSTEMS, NO EQUIPMENT SHALL BE ORDERED, PURCHASED, OR INSTALLED PRIOR TO APPROVAL OF THE SUBMITTALS AND SHOP DRAWINGS.
- d. SUBMIT COMPLETE SHOP DRAWINGS FOR MANUFACTURED EQUIPMENT: CLEARLY MARK SUBMISSIONS FOR LIGHTING FIXTURES WITH THE TYPE ASSIGNED TO EACH FIXTURE IN THE FIXTURES SCHEDULE. INCLUDE SELECTION OF INTENDED PART. INCLUDE LAMPS AND BALLASTS.
- e. PROVIDE SUFFICIENT INFORMATION AND DATA REQUIRED TO REASONABLY DETERMINE PROPER COMPLIANCE WITH THE SPECIFICATIONS.
- f. IN ADDITION, THE CONTRACTOR SHALL SUBMIT A COMPLETE LIST OF MATERIALS PROPOSED, GIVING THE MANUFACTURER'S NAME, CATALOG NUMBER, OR OTHER MEANS OF IDENTIFICATION TO SHOW COMPLIANCE WITH THESE SPECIFICATIONS.
- g. REVIEW OF SHOP DRAWINGS IS RENDERED AS A SERVICE ONLY, AND SHALL NOT BE CONSIDERED AS A GUARANTEE OF MEASUREMENTS OR BUILDING CONDITIONS, NOR SHALL IT BE CONSTRUED AS RELIEVING THE CONTRACTOR OF BASIC RESPONSIBILITY UNDER THE CONTRACT. SHOP DRAWINGS SHALL BE SUBMITTED ON. BUT NOT BE LIMITED TO THE FOLLOWING SYSTEMS: LIGHT FIXTURES AND ALL ASSOCIATED LIGHT FIXTURES HARDWARE INCLUDING LAMPS, WIRING DEVICES, COVER PLATES, ELECTRICAL GEAR, PANELS, BREAKERS, DISCONNECTS, BUSS DAVA/VOICE AND CABLING (WHEN INCLUDED IN THE PROJECT), CABLE (WHEN INDICATED), FIRE ALARM DEVICES, AUTOMATIC TRANSFER SWITCHES, GENERATOR, ETC.

B. MATERIAL AND EQUIPMENT

- 1. GENERAL:
- THE ENGINEER

2. RACEWAYS:

- ELECTRICAL EQUIPMENT IN GENERAL.
- ARE NOT PERMITTED. CONDUIT UNDER SLAB OR LOCATED IN THE EXTERIOR OF THE BUILDING SHALL BE RGSC.
- e. GENERALLY, ALL CONDUIT SHALL BE CONCEALED EXCEPT FOR UNFINISHED
- CONDUCTOR
- m. HOME RUNS AND MAIN CONDUIT RUNS ARE TO BE HELD TIGHT TO STRUCTURE ABOVE OR AS REQUIRED TO ALLOW PROPER CLEARANCE OF CEILING AND OTHER TRADES WORK. RACEWAYS SHALL BE SECURELY SUPPORTED BY APPROVED STRUCTURAL METHODS AT FIVE FOOT (5') INTERVALS.
- n. ALL CONDUITS SHALL BE RUN PARALLEL OR PERPENDICULAR TO COLUMN LINES. o. ALL CONDUITS MUST BE SIZED PER CODE.
- p. WHERE RACEWAY IS SUBJECT TO MECHANICAL INJURY OR CORROSION UTILIZE RGSC OR INTERMEDIATE METAL CONDUIT (IMC), FITTINGS SHALL BE THREADED.
- q. PROVIDE PULL BOXES IN RUNS OVER 100 FEET, WHEN MORE THAN THE EQUIVALENT OF THREE (3) 90° BENDS ARE USED, AND AS SHOWN ON DRAWINGS.
- ELECTRICAL BOXES:

- OUTLET BOXES SHALL NOT BE SMALLER THAN REQUIRED BY CODE FOR THE NUMBER AND SIZE OF WIRES TO BE INSTALLED.
- d. BOXES IN COVE AND LOCATED ABOVE SUSPENDED CEILING SHALL BE PLENUM RATED WHEN THE SPACE IS PLENUM RATED. e. FLOOR BOXES: PROVIDE SYSTEMS PER DRAWINGS.
- f. PROVIDE JUNCTION BOXES, PULL BOXES, CABLE SUPPORTS, AND WIREWAYS AS REQUIRED FOR PROPER INSTALLATION OF THE ELECTRICAL WORK, WHETHER OR NOT SPECIFICALLY SHOWN ON THE DRAWINGS. COVERS SHALL BE ACCESSIBLE. SMALL JUNCTION BOXES SHALL BE SIMILAR TO OUTLET BOXES.
- g. JUNCTION BOXES AND COVERS SHALL BE FABRICATED FROM GALVANIZED NEC GAGE SHEET STEEL. OUTLET BOXES TO BE OF THE HOT-DIPPED GALVANIZED, PRESSED STEEL, KNOCKOUT TYPE. BOXES SHALL GENERALLY BE 4 INCHES SQUARE, 1-1/2"DEEP MINIMUM, EXCEPT WHERE NOTED OTHERWISE.
- g. PULL BOXES, CABLE SUPPORT BOXES, AND LARGE JUNCTION BOXES FOR INDOOR USE SHALL BE MADE OF CODE GAUGE STEEL. COVERS SHALL BE HELD IN PLACE WITH STAINLESS STEEL SCREWS. PAINT INTERIOR AND EXTERIOR SURFACES WITH RUST-INHIBITIVE PAINT.
- & STEEL CITY.

4. SLEEVES:

- 2" ABOVE THE FLOOR.
- CONCEALED VERTICAL CONDUIT.
- FOR THE INSTALLATION OF OPEN CABLING.

WIRING:

- c. ALUMINUM CONDUCTORS ARE NOT PERMITTED.
- d. ALL WIRING SHALL BE IN RACEWAY.
- f. ALL WIRING TO BE COLOR-CODED AS FOLLOWS:

6. WIRING DEVICES: g. THIS CONTRACTOR SHALL FURNISH AND INSTALL SWITCHES AND RECEPTACLES AS SHOWN ON THE DRAWINGS AND AS NECESSARY FOR A COMPLETE INSTALLATION.

a. PROPOSALS SHALL BE BASED UPON THE FURNISHING OF ALL MATERIALS AND EQUIPMENT AS SPECIFIED. WHICH IN EVERY CASE SHALL BE NEW AND OF THE BEST GRADE AND QUALITY AVAILABLE. EQUIPMENT AND MATERIALS SHALL BE WITHOUT BLEMISH OR DEFECT AND SHALL NOT BE USED FOR TEMPORARY POWER PURPOSES, WITHOUT THE ENGINEER'S PRIOR WRITTEN AUTHORIZATION.

b. ALL ITEMS OF EQUIPMENT OF ONE TYPE, EXCEPT CONDUIT, CONDUIT FITTINGS, OUTLET BOXES, WIRE, AND CABLE, SHALL BE THE PRODUCT OF ONE MANUFACTURER THROUGHOUT UNLESS OTHERWISE INDICATED OR ACCEPTED BY

a. THE CONTRACTOR SHALL PROVIDE ALL CONDUITS SERVING ALL EQUIPMENT, INCLUDING BUT NOT LIMITED TO LIGHTING, RECEPTACLES, HEATING, AIR CONDITIONS, PLUMBING EQUIPMENT, VOICE/DATA/CATV/AV OUTLETS AND

b. ALL PANEL AND SERVICE FEEDERS SHALL BE IN RIGID GALVANIZED STEEL CONDUIT (RGSC) UNLESS OTHERWISE INDICATED. ALL CONDUIT SHALL BE UL LABELED. EMT SHALL BE ACCEPTABLE FOR BRANCH CIRCUITS RUN ABOVE SUSPENDED CEILINGS OR CONCEALED IN INTERIOR PARTITIONS. EMT CONNECTORS SHALL BE COMPRESSION TYPE UNLESS OTHERWISE INDICATED, SET SCREW FITTINGS

c. MINIMUM SIZES OF CONDUIT SHALL BE 3/4" FOR INDIVIDUAL LIGHTING FIXTURE CONNECTION OR TO INDIVIDUAL LIGHT SWITCHES AND FOR ALL OTHER LOCATIONS UNLESS OTHERWISE INDICATED. IF HVAC CONTROL WIRING IS REQUIRED TO BE RUN IN CONDUIT, IT SHALL BE MINIMUM OF 1/2" SIZE, UNLESS NOTED OTHERWISE ON DRAWINGS. ALL IN/UNDER FLOOR SLAB CONDUIT SHALL BE A MINIMUM OF 1"C SIZE UNLESS OTHERWISE INDICATED IN THE DRAWINGS.

d. SUPPORT ALL CONDUIT, INCLUDING SEISMIC AND SWAY BRACING.

AREAS, SUCH AS EQUIPMENT ROOMS. EXPOSED CONDUIT SHALL BE ALLOWED ONLY AS NOTED ON PLAN AND AS APPROVED BY THE OWNER'S CONSTRUCTION MANAGER. PAINTING OF CONDUITS WILL BE BY GENERAL CONTRACTOR.

f. FLEXIBLE METAL CONDUIT AND THEIR ASSOCIATED FITTINGS ARE TO BE LISTED FOR GROUNDING. A GREEN GROUNDING CONDUCTOR SHALL BE PROVIDED. ALL CONNECTORS ARE TO BE OF A NEMA APPROVED TYPE.

g. FLEXIBLE CONDUIT SHALL BE ACCEPTABLE FOR THE FOLLOWING APPLICATIONS AND SHALL NOT EXCEED 6 FEET IN LENGTH. INSTALL GREEN GROUNDING

• FINAL CONNECTIONS TO VIBRATING EQUIPMENT SUCH AS MOTORS TRANSFORMERS, ETC SHALL BE MADE WITH LIQUIDTIGHT FLEXIBLE METAL CONDUIT

• FINAL INTER-CONNECTIONS BETWEEN LIGHT FIXTURES. • FINAL CONNECTIONS WHERE RIGID CONDUIT IS NOT PRACTICAL.

I. PROVIDE POLY PULL-STRING IN ALL EMPTY CONDUITS.

a. UNLESS OTHERWISE NOTED, OUTLET BOXES SHALL BE GALVANIZED PRESSED STEEL, KNOCKOUT TYPE, WITH SUITABLE PLASTER RINGS AND COVER PLATES

b. UNUSED KNOCKOUT HOLES SHALL REMAIN CLOSED AND THOSE OPENED BY ERROR SHALL BE CLOSED WITH SNAP-IN BLANKS.

e. BOXES SHALL BE AS MANUFACTURED BY: APPLETON, GARVIN, RACO (HUBBELL)

a. THE CONTRACTOR SHALL PROVIDE SLEEVES TO PROTECT EQUIPMENT OR FACILITIES IN THE INSTALLATION. EACH SLEEVE SHALL EXTEND THROUGH IT'S RESPECTIVE FLOOR, WALL OR PARTITION AND SHALL BE CUT FLUSH WITH EACH SURFACE EXCEPT SLEEVES THAT PENETRATE THE FLOOR, WHICH SHALL EXTEND

b. UNLESS OTHERWISE NOTED, ALL SLEEVES AND OPENINGS THROUGH FIRE RATED WALLS SHALL BE FIRE SEALED WITH CALCIUM SILICATE, SILICONE "RTV" FOAM, "3M" FIRE RATED SEALANTS OR EQUAL, SO AS TO RETAIN THE FIRE RATING OF THE FLOOR OR WALL. CONFORM TO UL ASSEMBLY RATING OF FLOOR OR WALL. 2. SLEEVES IN BEARING AND MASONRY WALLS, FLOORS AND PARTITIONS SHALL BE STANDARD WEIGHT BLACK STEEL PIPE FINISHED WITH SMOOTH EDGES. FOR OTHER THAN MASONRY PARTITIONS, THROUGH SUSPENDED CEILINGS, OR FOR

d. SLEEVES SHALL HAVE PLASTIC END BUSHES INSTALLED WHEN THEY ARE USE

a. CONDUCTORS FOR FEEDERS AND BRANCH CIRCUITS SHALL BE COPPER AND THE AWG SIZE AND TYPE AS SHOWN ON DRAWINGS MINIMUM WIRE SIZE SHALL BE #12 UNLESS OTHERWISE INDICATED IN THE DRAWINGS. THE CONDUCTORS SHALL HAVE 600 VOLT INSULATION, TYPE THHW OR THHN.

b. CONDUCTORS SHALL BE STRANDED FOR SIZES #10AWG AND LARGER.

e. WIRE CONNECTORS SHALL BE EQUAL TO "SCOTCH LOCK" FOR #10 AWG WIRE

AND SMALLER AND EQUAL TO T & B "LOCKTIGHT" FOR #8 AWG AND LARGER. EQUALS BY BUCHANAN OR IDEAL ARE ACCEPTABLE.

COLOR OF DEVICES AND PLATES SHALL BE AS DIRECTED BY THE ARCHITECT THE DEVICES SHALL BE OF THE TYPES AND RATINGS LISTED, OR EQUALS AS MANUFACTURED BY: PASS & SEYMOUR, HUBBELL, LEVITON, LEGRAND. WEATHERPROOF GFI RECEPTACLES SHALL BE INSTALLED WHERE SHOWN ON DRAWINGS OR AS REQUIRED BY CODE • TOGGLE SWITCHES: 20A-120V COMMERCIAL SPECIFICATION GRADE • DUPLEX RECEPTACLES: 20A-125V COMMERCIAL SPECIFICATION GRADE. GROUND FAULT CIRCUIT INTERRUPTING RECEPTACLE: 20A-125V, 5mA. COMMERCIAL SPECIFICATION GRADE.

- b. 120 WALL SWITCHES SHALL BE MOUNTED IN SUITABLE OUTLET BOXES IN THE WALL OR PARTITIONS. THEY SHALL BE OF THE QUIET DESIGN, TOGGLE HANDLE.
- c. RECEPTACLES SHALL BE GROUNDING TYPE, THREE WIRE (HOT, NEUTRAL WIRES PLUS EQUIPMENT GROUND) SINGLE, DUPLEX OR SPECIAL AS INDICATED ON THE DRAWINGS.
- d. SPECIAL PURPOSE NEMA RECEPTACLES OTHER THAN 20 AMP CONVENIENCE RECEPTACLES SHALL BE AS SHOWN ON PLANS. FINAL PLUG CONFIGURATION SHALL BE COORDINATED WITH EQUIPMENT SELECTION.
- e. COLOR OF WIRING DEVICES AND COVER PLATES SHALL BE SELECTED BY ARCHITECT.
- 7. WALL PLATES:
- a. WALL PLATES SHALL BE AS SPECIFIED BY ARCHITECT AND/OR OWNER. WHERE STANDARD PLATES WILL NOT FIT WALL FINISH, UNPLASTERED BRICK OR SPECIAL FINISH WALLS, USE SPECIAL SIZE PLATES TO SUIT CONDITIONS. ALL WALL PLATES LINE UP AND FLUSH WITH MOUNTING SURFACE AND SECURELY ATTACHED IN PLACE.
- b. WHERE SWITCHES, RECEPTACLES OR COMBINATIONS THEREOF ARE GROUNDED, USE GANG PLATES AND OUTLET BOXES TO SUIT THE SPECIFIC ARRANGEMENTS.
- c. VERIFY MOUNTING HEIGHTS OF WIRING DEVICES WITH ARCHITECT/OWNER: IN GENERAL, RECEPTACLES 15" ABOVE FLOOR OR 4.5" ABOVE COUNTER TOP WHERE COUNTERS OCCUR, AND SWITCHES 3'-6" ABOVE FLOOR, EXCEPT WHERE SPECIFIC HEIGHTS ARE INDICATED. SPECIAL RECEPTACLE SHALL BE LOCATED AS DIRECTED BY ARCHITECT AND ENGINEER OR AS REQUIRED BY THE EQUIPMENT
- d. WALL PLATES SHALL BE OF THE SAME MANUFACTURER AS WIRING DEVICES.
- 8. POKE THRUS (WHEN INDICATED ON DRAWINGS):
- a. PROVIDE SYSTEM, FIRE RATED POKE THROUGH PER DRAWINGS. b. FURNISH AND INSTALL ALL REQUIRED HARDWARE FOR A COMPLETE INSTALLATION SYSTEM.
- c. ACCEPTED MANUFACTURERS: HUBBELL, WIREMOLD, OR APPROVED EQUAL.
- LIGHT FIXTURES:
- a. FIXTURES SHALL BE PROVIDED COMPLETE WITH ACCESSORIES SUCH AS PLASTER FRAMES, AND OTHER SUPPORTING DEVICES FOR: RECESSED, SURFACE, OR PENDANT MOUNT AS REQUIRED.
- b. SPLICES IN INTERNAL WIRING SHALL BE MADE WITH APPROVED INSULATED "WIRE NUT" TYPE MECHANICAL CONNECTORS, SUITABLE FOR THE TEMPERATURE AND VOLTAGE CONDITIONS TO WHICH THEY ARE SUBJECTED.
- c. EACH LIGHTING FIXTURE SHALL BE INDEPENDENTLY SUPPORTED FROM THE BUILDING
- STRUCTURE BY MEANS OF (2) 12 GAGE STEEL WIRE. SEE DETAIL IN FRONT SHEET. d. MANUFACTURER MODEL TYPES SHALL BE AS NOTED OR SCHEDULED ON THE DRAWINGS
- UNLESS OTHERWISE INDICATED.
- e. PROVIDE LAMPS FOR FIXTURES FROM: PHILLIPS, GENERAL ELECTRIC.
- f. LED DRIVERS SHALL BE ELECTRONIC WITH A POWER FACTOR OF NOT LESS THAN 98 PERCENT, TOTAL HARMONIC DISTORTION OF NOT MORE THAT 10%. ACCEPTABLE MANUFACTURERS: AS PART OF THE LIGHT FIXTURE SYSTEM.
- g. THIS CONTRACTOR SHALL FURNISH ADDITIONAL AUXILIARY SUPPORTING STEEL HANGER WIRES ADEQUATELY SIZED TO SUPPORT THE WEIGHT OF THE FIXTURE AND FASTENED TO BUILDING STRUCTURE (MINIMUM TWO PER FIXTURE) FOR FIXTURES NOT MOUNTED ON BUILDING FRAMEWORK. FIXTURES SHALL NOT BE SUPPORTED SOLELY BY THE CEILING STRUCTURE.
- h. THIS CONTRACTOR SHALL PROVIDE ANY NECESSARY FITTINGS, ACCESSORIES, ETC. AS NECESSARY TO MAKE A COMPLETE INSTALLATION.
- REMOVE ALL DIRT. OIL OR GREASE FROM LIGHT FIXTURES. CLEAN ALL GLASS, LENSES, ETC. AND POLISH FIXTURES AND TRIM.
- 10. OCCUPANCY SENSORS (REFER TO DRAWING FOR INFORMATION).
- 8. PANELS (UTILIZE EXISTING PANELS WITH NEW BREAKERS WHEN INDICATED):
- a. PANEL BOARDS SHALL BE OF THE DEAD-FRONT, SAFETY TYPE, WITH BOLTED-TYPE UI LISTED MOLDED CASE CIRCUIT BREAKERS. CIRCUIT BREAKERS SHALL BE LISTED AS HID FOR LIGHTING CIRCUITS, HACR FOR HVAC LOADS, SWD FOR SWITCHING LOADS ON-OFF DIRECTLY FROM THE PANEL, VOLTAGE RATINGS, NUMBER OF POLES, FRAME SIZES, TRIE RATINGS, MAIN BREAKER, NEUTRAL BUS, AND EQUIPMENT GROUND BARS ARE AS SHOWN ON THE DRAWINGS. PANEL BOARDS ARE TO BE FULLY RATED FOR THE SHORT CIRCUIT RATING SHOWN ON THE DRAWINGS BUT NOT LESS THAN 10,000 AMPS. BUS BARS SHALI BE RECTANGULAR, SOLID COPPER, 1000 AMPS PER SQUARE INCH TYPE, SECURELY MOUNTED AND BRACED. ALL CONNECTIONS TO BUS BARS SHALL BE SECURELY BOLTED. CABINETS BOXES SHALL BE CONSTRUCTED OF CODE GRADE GALVANIZED STEEL, SIZED TO PROVIDE MINIMUM 4-INCH WIDE WIRING GUTTERS ON SIDES, TOPS AND BOTTOM. FRONTS SHALL BE CONSTRUCTED OF CODE GRADE STEEL, ADJUSTABLE INDICATING TRIM CLAMPS AND WITH DOOR PROVIDED WITH CONCEALED HINGES AND CYLINDER TYPE LOCK AND CATCH, PROVIDE DOOR WITHIN DOOR. TWO KEYS PER PANEL SHALL BE FURNISHED, AND ALL LOCKS KEYED ALIKE. FINISH SHALL BE ANSI 61 GRAY. ACCEPTABLE MANUFACTURERS: SQUARE D, CUTLER-HAMMER, PHILLIPS, GENERAL ELECTRIC.
- b. IDENTIFICATION OF PANEL BOARDS. PANEL BOARD SHALL HAVE A TYPEWRITTEN CIRCUIT DIRECTORY, MOUNTED UNDER TRANSPARENT PLASTIC ON THE INSIDE OF DOOR TO IDENTIFY EACH CIRCUIT LOAD AND LOCATION. EACH PANEL BOARD SHALL HAVE A LAMINATED BAKELITE NAMEPLATE ATTACHED TO THE OUTSIDE OF THE PANEL BOARD. THE NAMEPLATE SHALL INCLUDE PANEL BOARD DESIGNATION, VOLTAGE, AND PHASE. NAMEPLATES SHALL HAVE BLACK 1/2 INCH LETTERS MINIMUM ON A WHITE BACKGROUND. ATTACH THE NAMEPLATE BY SCREWS OR RIVETS.
- 12. DISCONNECT SWITCHES (HEAVY DUTY, REFER TO DRAWINGS FOR INFORMATION)
- a. PROVIDE HEAVY DUTY SURFACE-MOUNTED SAFETY SWITCHES FOR MOTORS, TRANSFORMER FOUIPMENT, FTC, UNI FSS OTHERWISE INDICATED, OF TYPES, SIZES, AND FLECTRICAL CHARACTERISTICS AS INDICATED ON THE DRAWINGS. THE SWITCHES SHALL BE FUSED OR NON-FUSED AS INDICATED ON THE DRAWINGS AND SHALL BE MANUFACTURED BY SQUARE D, CUTLER HAMMER, EATON, PHILLIPS OR GENERAL ELECTRIC.
- SWITCHES SHALL HAVE SWITCH BLADES WHICH SHALL BE FULLY VISIBLE IN THE OFF POSITION WHEN THE ENCLOSURE DOOR IS OPEN. CURRENT CARRYING PARTS SHALL BE PLATED COPPER AND SWITCH CONTACTS SHALL BE SILVER-TUNGSTEN. SWITCHES SHALL BE QUICK-MADE, QUICK-BREAK TYPE. THE OPERATING HANDLE SHALL BE AN INTEGRAL PART OF THE ENCLOSURE BASE AND SHALL BE PAD LOCKABLE IN THE OFF POSITION. THE HANDLE POSITION SHALL INDICATE WHETHER THE SWITCH IS ON OR OFF. SWITCHES SHALL BE HORSE POWER RATED FOR 250 AC OR DC OR 600 VOLTS AC AS REQUIRED.
- 13. FIRE ALARM SYSTEM (REFER TO FIRE ALARM SHEET FOR ADDITIONAL INFORMATION):
- 14. IDENTIFICATION:

OR RIVETS.

- a. PROVIDE TYPED DIRECTORIES IN PANEL BOARDS TO DEPICT ACTUAL EQUIPMENT CONNECTED TO INDIVIDUAL BREAKERS/SWITCHES.
- b. LABEL EACH PIECE OF EQUIPMENT WITH EQUIPMENT NAME DESIGNATION, SOURCE, VOLTAGE, PHASES. c. PROVIDE ORANGE LABELS WITH BLACK LETTER/NUMBERS INDICATING VOLTAGE
- SERVICE 120/208V-_PH-_W.; 480/277V-_PH-_W. d. FURNISH AND INSTALL OUTSIDE OF EQUIPMENT: DESIGNATION, SHALL HAVE BLACK 1/2 INCH LETTERS MINIMUM ON A WHITE BACKGROUND. ATTACH THE NAMEPLATE BY SCREWS

- C. INSTALLATION (VERIFY WITH G.C./MEANS AND METHODS SHOULD BE APPROVED BY GC AND ARCHITECT) 1. CUTTING AND PATCHING:
- EQUIPMENT UNDER THIS CONTRACT SHALL BE DONE BY THIS CONTRACTOR. b. ALL DISTURBED CONSTRUCTION AND FINISHED SHALL BE RETURNED TO ITS ORIGINAL STATE. HOLES IN CONCRETE WALLS AND FLOORS SHALL BE CORE
- INSTALLATION OF WORK:

ALLOWED

- a. THE CONTRACTOR SHALL TAKE ALL STEPS NECESSARY TO ENSURE THE SAFETY OF THE OWNERS EMPLOYEES, BUILDING EMPLOYEES AND GUESTS, AS WELL AS THEIR OWN FORCES. BY ADEQUATELY PROTECTING ANY EXPOSED LIVE CONDUCTORS, OR DEVICES THROUGHOUT THE COURSE OF THIS WORK.
- b. WIRE SHALL BE INSTALLED CONTINUOUS BETWEEN DEVICES, WITH SPLICES LOCATED ONLY IN JUNCTION BOXES, PULL BOXES, OUTLET BOXES OR IN CABINETS. CONDUCTORS SHALL BE OF SUFFICIENT LENGTH TO REACH THE FARTHEST TERMINAL IN PANELS. A MINIMUM OF 6" LOOPS SHALL REMAIN WHERE CONNECTIONS OR TAPS ARE TO BE MADE IN BRANCH CIRCUIT WIRING.
- c. CONTRACTOR SHALL BE RESPONSIBLE FOR EXACT LOCATION OF ALL EQUIPMENT AND IN CASE ANY OUTLETS DO NOT COME IN CORRECT LOCATION, HE SHALL MOVE SAME, DO NECESSARY CUTTING AND PATCHING.
- d. OWNER RESERVES THE RIGHT TO CHANGE LOCATION OF OUTLETS WITHIN 10'-0" RADIUS BEFORE WORK IS INSTALLED WITHOUT EXTRA COST.
- e. CHECK WITH HVAC CONTRACTOR AS TO LOCATION OF UNITS, DUCTS AND GRILLES AND PLUMBING CONTRACTOR AS TO LOCATION OF PIPING BEFORE INSTALLING THE WORK.
- f. CONTRACTOR SHALL CONSULT WITH THE ARCHITECT AND REVIEW THE PLANS TO VERIFY THE EXACT LOCATIONS OF ALL OUTLETS ARE ABOVE COUNTERS WHERE CABINET WORK OCCURS, AND VERIFY THAT SWITCHES ARE AT THE CORRECT SIDE OF DOOR SWINGS.
- d. THE CONTRACTOR SHALL CONSULT WITH THE EQUIPMENT SUPPLIERS FOR THE CORRECT SIZES OF ALL OUTLETS IN SUFFICIENT TIME BEFORE WALL CONSTRUCTION.
- e. FAILURE OF THE CONTRACTOR TO COMPLY WITH ALL OF THE ABOVE SHALL MAKE HIM/HER RESPONSIBLE FOR ANY RELOCATIONS AT HIS EXPENSE DUE TO CONFLICT WITH OTHER EQUIPMENT.
- 3. GROUNDING:
- a. CONTRACTOR SHALL INSTALL ENTIRE CONDUIT SYSTEM, INCLUDING BOXES, CABINETS, PANELS, ETC. SO AS TO INSURE PROPER GROUND CONTINUITY THROUGHOUT THE SYSTEM WHICH INCLUDES BUT IS NOT LIMITED TO: PROVIDE COMPLETE WIRE GROUNDING CONDUCTOR SYSTEM, #12 AWG MINIMUM, SIZED AND
- INSTALLED IN ACCORDANCE WITH THE LATEST ADOPTED EDITION OF THE CODE. b. ALL DEVICES SHALL BE BONDED TO THE CONDUIT SYSTEM. USE A BONDING JUMPER BETWEEN THE OUTLET BOX AND THE DEVICE GROUNDING TERMINAL METAL-TO-METAL JUST CONTACT BETWEEN THE DEVICES YOKE AND THE OUTLET BOX IS NOT SUFFICIENT AND IS NOT ACCEPTABLE AS A BOND FOR EITHER SURFACE MOUNTED BOXES OR FLUSH TYPE BOXES. ALL JUNCTION BOXES, OUTLET BOXES AND PULL BOXES SHALL BE BONDED TO THE CONDUIT SYSTEM. ALL CONDUIT, INCLUDING FLEXIBLE CONDUIT, SHALL BE GROUNDED WITH GREEN GROUNDING CONDUCTOR.
- c. ALL ENCLOSURES AND NON-CURRENT CARRYING METAL PARTS ARE TO BE GROUNDED. CONDUIT SYSTEM IS TO BE ELECTRICALLY CONTINUOUS. ALL LOCK NUTS MUST CUT THROUGH ENAMELED OR PAINTED SURFACES ON ENCLOSURES. WHERE ENCLOSURES AND NON-CURRENT CARRYING METAL PARTS ARE ISOLATED FROM THE CONDUIT SYSTEM, USE BONDING JUMPERS WITH APPROVED CLAMPS. ALL GROUND CLAMPS SHALL BE "PENN-UNION" OR EQUAL, SIMILAR TO "GPL"
- d. THE COMPLETE ELECTRICAL INSTALLATION SHALL BE PERMANENTLY AND EFFECTIVELY GROUNDED IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE AND LOCAL CODE. EQUIPMENT GROUNDING SYSTEM CABLE SHALL BE COPPER.
- e. EQUIPMENT GROUNDING CONDUCTORS SHALL BE INSTALLED IN ALL RACEWAYS AND ENCLOSURES WITHIN THE BUILDING.
- ACCESSIBLE GROUNDING CONNECTIONS SHALL BE BOLTED OR CLAMP TYPE UNLES OTHERWISE INDICATED. SOLDERED CONNECTIONS WILL NOT BE PERMITTED IN THE GROUNDING SYSTEM.
- 4. FIRE STOPPING (MEANS AND METHODS- SHOULD BE APPROVED BY G.C. AND ARCHITECT)
- a. ALL PENETRATIONS IN WALL, FLOOR OR CEILINGS SHALL BE SUITABLY CLOSED UP AND SEALED WITH A FIRE STOPPING COMPOUND LISTED IN THE MOST RECENT FACTORY RESEARCH. FIRE STOPPING PRODUCTS SHALL BE MANUFACTURED BY 3M
- 5. ELECTRICAL CONNECTIONS
- a. ALL WIRE CONNECTIONS SHALL BE MADE BY MEANS OF SOLDERLESS CONNECTORS.
- b. JOINT AND SPLICES SHALL BE COVERED WITH 3M ELECTRICAL TAPE TO 150% OF INSULATION VALUE
- c. NO SPLICES SHALL BE MADE IN THE CONDUCTOR EXCEPT AT OUTLET BOXES, JUNCTION BOXES, OR IN SPLICE BOXES.
- 6. EQUIPMENT CONNECTIONS
- f. PROVIDE FINAL CONNECTIONS FOR ALL EQUIPMENT FURNISHED UNDER OTHER DIVISIONS AND FOR ALL OWNER FURNISHED EQUIPMENT. PROVIDE A FLEXIBLE LIQUID TIGHT CONNECTIO TO ALL VIBRATION PRODUCING EQUIPMENT.

MEET ALL STRUCTURAL CODE REQUIREMENTS.

SPECIFICATIONS AND RECOMMENDATIONS.

7. MISCELLANEOUS SUPPORTING MEMBERS

COORDINATED WITH THE G.C.

8. SPECIAL SYSTEMS:

3/4"C.

- g. THE CONTRACTOR SHALL MAKE POWER CONNECTIONS TO ALL MOTORS AND EQUIPMENT FURNISHED BY OTHERS. SEE ARCHITECTURAL, MECHANICAL AND PLUMBING DRAWINGS, AND DRAWING NOTES FOR ADDITIONAL INFORMATION
- h. ALL CIRCUIT BREAKERS, FUSES AND ELECTRICAL EQUIPMENT SHALL HAVE AN INTERRUPTING RATING NOT LESS THAN THE MAXIMUM SHORT CIRCUIT CURRENT TO WHICH THEY MAY BE SUBJECTED.
- i. ALL MATERIALS AND EQUIPMENT SHALL BE NEW AND SHALL BEAR THE UNDERWRITERS' LABEL (UL) AND SHALL BE INSTALLED IN THE MANNER FOR WHICH THEY ARE DESIGNED AND APPROVED.
- ALL DEVICES INSTALLED OUTSIDE OR IN DAMP LOCATIONS SHALL BE APPROVED WEATHERPROOF RATED.

a. ALL CUTTING, DRILLING, PATCHING, ETC. NECESSARY FOR INSTALLATION OF DRILLED AND SLEEVED. NO CUTTING OF STRUCTURAL MEMBERS WILL BE

- THE CONTRACTOR SHALL INSTALL ALL CONDUITS AND WIRES WITH A MINIMUM NUMBER OF BENDS AND IN SUCH A MANNER AS TO CONFORM TO THE STRUCTURE, AVOID OBSTRUCTIONS, PRESERVE HEAD ROOM, KEEP OPENINGS AND PASSAGEWAYS CLEAR AND
- I. BRANCH CIRCUITS TO RECEPTACLES, LIGHTING AND MISC. SMALL LOADS (20 AMP CIRCUITS), UNLESS SPECIFICALLY NOTED OTHERWISE, SHALL BE 2-#12, 1-#12G,
- m. CONTRACTOR SHALL INSTALL ALL EQUIPMENT, WIRE AND CABLE FURNISHED TO HIM. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL INSTALLATION DRAWINGS AND WIRING DIAGRAMS FROM THE EQUIPMENT MANUFACTURER. ALL EQUIPMENT SHALL BE INSTALLED ACCORDING TO THE MANUFACTURER'S
- n. CONTRACTOR SHALL MAKE FINAL CONNECTIONS AND TERMINATIONS TO THE OWNER, MECHANICAL, AND PLUMBING CONTRACTOR'S FURNISHED EQUIPMENT.
- a. THE INSTALLATION OF ANGLES CHANNELS, AND OTHER MISCELLANEOUS STEEL, BOLTS, RODS, ETC. REQUIRED TO SUPPORT LIGHT FIXTURE, CONDUIT, RACEWAY, LADDER TRAY, OR OTHER ELECTRICAL EQUIPMENT OR DEVICES SHALL BE
- VOICE/DATA/CABLE TV SYSTEMS: UNDER THIS SET OF ELECTRICAL DRAWINGS CONTRACTOR SHALL INSTALL CONDUITS AND J-BOXES. G.C. IS RESPONSIBLE FOR COORDINATION BETWEEN ALL SUB CONTRACTORS AND IS ULTIMATELY RESPONSIBLE FOR ACCURATELY DICTATING THE SCOPE BETWEEN SUB CONTRACTS.

- b. ELECTRICAL CONTRACTOR SHALL COORDINATE WITH THE G.C. TO PROVIDE LOW VOLTAGE CABLING, APPROPRIATE TAGS BACK TO MAIN DEMARC AREA.
- a. THE CONTRACTOR SHALL NOT BORE, NOTCH OR IN ANY WAY CUT INTO ANY STRUCTURAL MEMBER WITHOUT WRITTEN APPROVAL FROM THE ARCHITECT OR STRUCTURAL ENGINEER.
- b. THE CONTRACTOR SHALL PROVIDE SUPPORT FOR ALL FIXTURES AND ELECTRICAL EQUIPMENT TO COMPLY WITH THE SEISMIC REQUIREMENTS OF THE BUILDING CODE AND
- ALL LOCAL ORDINANCES. c. THE CONTRACTOR SHALL FURNISH AND INSTALL ALL CONDUITS, WIRES, BOXES, SWITCHES, LIGHT FIXTURES (WITH LAMPS), RECEPTACLES, SERVICE DEVICES, SWITCHBOARDS AND PANELBOARDS (WHEN INDICATED AS NEW) REQUIRED FOR A COMPLETE INSTALLATION AND OPERATIONAL ELECTRICAL SYSTEM.
- d. PROVIDE A EXTERNAL MANUAL DISCONNECTING MEANS AT ALL MOTORS OR PACKAGED MECHANICAL EQUIPMENT UNLESS NOTED OTHERWISE. SOME UNITS ARE PROVIDED BY MECHANICAL CONTRACTOR A PART OF A MECHANICAL PACKAGE.
- e. PROVIDE AN ENCLOSURE OF EQUAL FIRE RESISTANT RATING AROUND ALL FIXTURES AND EQUIPMENT INSTALLED IN OR PENETRATING THROUGH FIRE RATED SEPARATIONS. THROUGH STOP FIRE SEALING OF CONDUITS SHALL BE MADE WITH 3M CP25WP+ CAULK ACCORDING TO UL APPLICATION.
- LOCATIONS SHOWN ON THE ARCHITECTURAL, MECHANICAL AND PLUMBING DRAWINGS TAKE PRECEDENCE OVER THOSE SHOWN ON THE ELECTRICAL DRAWINGS. REFER TO THE MECHANICAL AND PLUMBING DRAWINGS FOR THE EXACT LOCATIONS, RATINGS, TYPE CONNECTIONS, WIRING DIAGRAMS AND AUXILIARY DEVICES
- g. THE CONTRACTOR SHALL FURNISH AND INSTALL CONDUIT, WIRE AND CONNECTIONS FOR LINE VOLTAGE LIGHTING CONTROLS AND LOW VOLTAGE LIGHTING CONTROL UNLESS NOTED OTHERWISE ON DRAWINGS. THE CONTRACTOR SHALL MAKE ALL POWER CONNECTIONS TO HVAC EQUIPMENT INCLUDING 120 VOLT POWER CONTROL, MONITORING, AND SIGNALING EQUIPMENT FURNISHED BY OTHER DISCIPLINES. COORDINATE WITH OTHER DISCIPLINES FOR REQUIREMENTS.
- h. THE CONTRACTOR SHALL RECEIVE, STORE AND INSTALL ALL ELECTRICAL ITEMS FURNISHED BY THE OWNER. REFER TO THE REFLECTED CEILING PLAN AND THE ARCHITECTURAL FLOOR PLANS FOR THE
- EXACT LOCATIONS OF ALL LIGHTING FIXTURES AND DEVICES. RECEPTACLES SHALL HAVE PRINTED LABELS WITH THE PANEL AND CIRCUIT NUMBER PLACED ON THE COVER. THE LABEL SHALL BE RED WITH BLACK LETTERS FOR
- EMERGENCY RECEPTACLES, AND WHITE WITH BLANK LETTERS FOR NORMAL RECEPTACLES. k. THE CONTRACTOR SHALL PROVIDE A SET OF AS-BUILT DRAWINGS SHOWING THE LOCATIONS OF ALL UNDERGROUND CONDUITS, INDICATE ALL CHANGES MADE DURING CONSTRUCTION, AND ANY DEVIATIONS FROM THE ELECTRICAL DRAWINGS.
- I. PROVIDE PULL WIRE IN ALL EMPTY CONDUITS.

9. GENERAL INSTALLATION NOTES

- m. FOR PURPOSES OF CLEARNESS AND LEGIBILITY, THE ELECTRICAL DRAWINGS ARE ESSENTIALLY DIAGRAMMATIC. THE SIZE AND LOCATION OF EQUIPMENT IS SHOWN TO SCALE WHEREVER POSSIBLE. THE CONTRACTOR SHALL VERIFY ALL CONDITIONS AND INFORMATION AS INDICATED ON THE DRAWINGS AND IN THE SPECIFICATION SECTIONS WHERE ELECTRICAL WORK INTERFACES WITH OTHER TRADES.
- n. THIS CONTRACTOR SHALL VISIT THE SITE AND FAMILIARIZE HIMSELF/HERSELF WITH CONSTRUCTION CONDITIONS. NO ALLOWANCE WILL BE MADE SUBSEQUENTLY, ON THIS CONDITION, IN BEHALF OF THE CONTRACTOR FOR ANY ERROR OR NEGLIGENCE ON HIS
- o. ALL CONDUIT SHALL BE CONCEALED WHEREVER POSSIBLE. THE CONTRACTOR SHALL REVIEW THE PLANS AND SPECIFICATIONS TO DETERMINE WHERE NEW WALLS AND CEILINGS ARE TO BE INSTALLED AND SHALL MAKE USE OF THESE AREAS TO CONCEAL CONDUIT. THE CONTRACTOR SHALL USE SURFACE RACEWAYS SUCH AS WIREMOLD WHERE NECESSARY (ONLY WHERE INDICATED OR AS DIRECTED).
- 10. TEMPORARY LIGHTING, POWER, FIRE, AND SAFETY
- a. E.C. TO PROVIDE TEMPORARY LIGHTING AND POWER AS REQUIRED IN AREAS UNDERGOING WORK DURING CONSTRUCTION.
- b. E.C. SHALL COMPLY WITH NFPA 241 FOR SAFEGUARDING DURING CONSTRUCTION AND ALTERATION OPERATIONS.
- 11. BALANCING OF LOADS
- a. UPON CONNECTING ALL CIRCUITS TO PANELS, THE CONTRACTOR SHALL BALANCE THE LOAD IN AMPERES TO +/-20% BETWEEN PHASES FOR EACH PANEL OR PER OWNERS SATISFACTION
- 12. TESTING AND INSPECTION:
- a. THE ELECTRICAL CONTRACTOR SHALL THOROUGHLY TEST THE ENTIRE ELECTRICAL SYSTEM FOR GROUNDS SHORTS AND PROPER GROUNDING RESISTANCE A MAXIMUM OF 25 OHMS RESISTANCE FROM NEUTRAL CONDUCTOR AND CONDUIT TO EARTH GROUND SHALL BE PERMITTED. ONLY A GROUND RESISTANCE MEASURING METER OF APPROVED TYPE SHALL BE USED. A COMMON OHM METER IS NOT ACCEPTABLE.
- b. THE ELECTRICAL CONTRACTOR SHALL SEE THAT LOCAL INSPECTION AUTHORITIES ARE NOTIFIED WHEN INSPECTIONS ARE REQUIRED BY CODE AND SHALL GIVE ALL NECESSARY ASSISTANCE TO THE INSPECTOR WHEN HE IS MAKING AN INSPECTION.
- c. THE ELECTRICAL CONTRACTOR WILL SATISFY ALL REGULATIONS HAVING JURISDICTION ON THIS PROJECT.
- d. THE ENTIRE WIRING SYSTEM SHALL BE TESTED FOR SHORT CIRCUITS, GROUNDS AND INSULATION RESISTANCE BETWEEN CONDUCTORS AND TO GROUND.

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