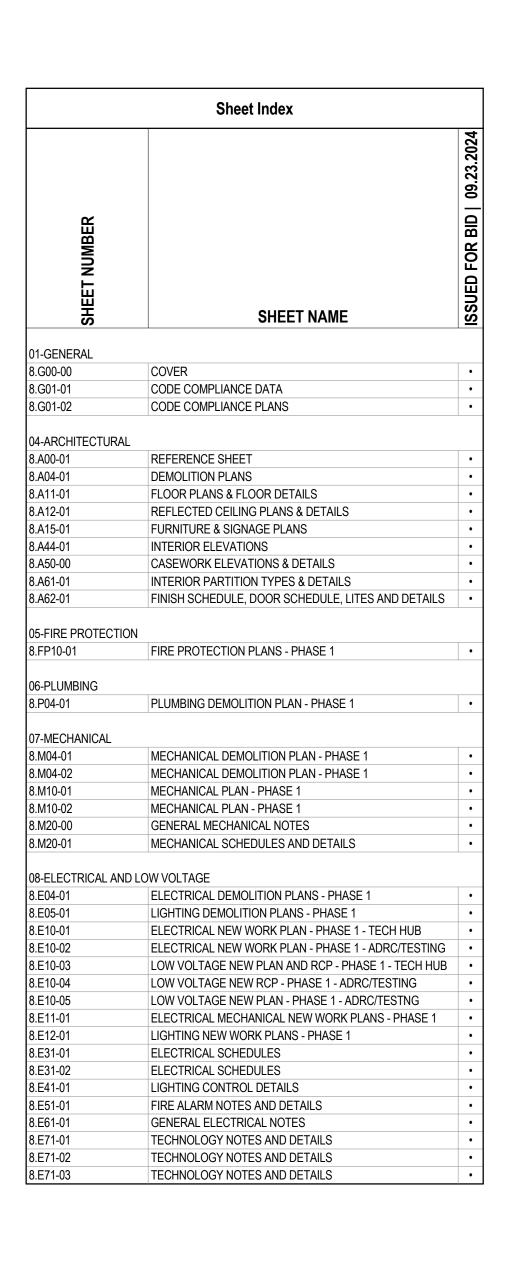
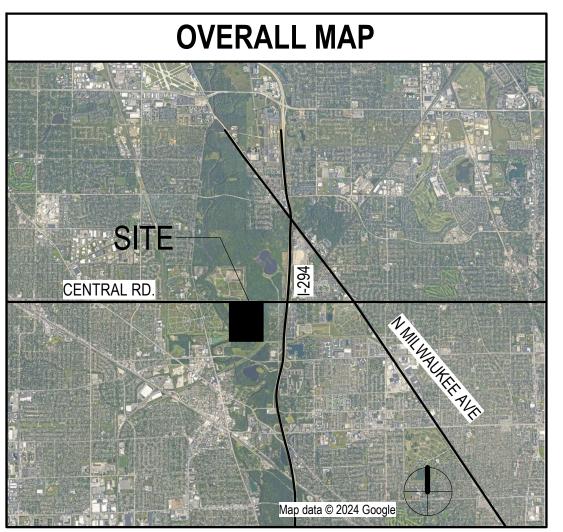
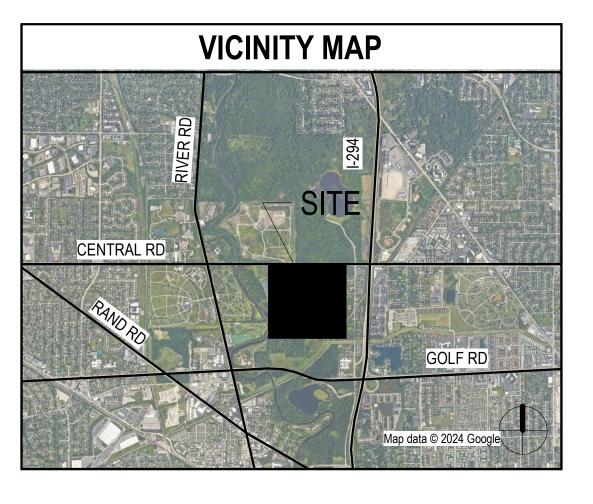
Perkins&Will ADJACENCIES RENOVATIONS PHASE 1

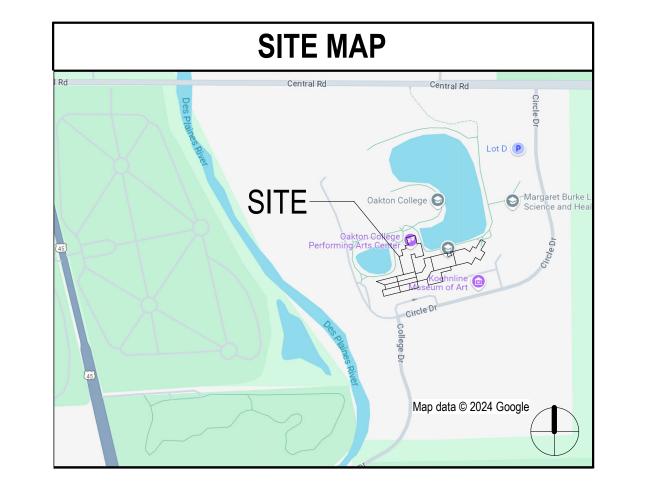






OWNER	ARCHITECT	MECH., PLUMBING, ELEC., LOW VOLTAGE, & FIRE PROTECTION ENGINEERING
OAKTON COLLEGE 1600 E. GOLF RD. DES PLAINES, IL 60016	PERKINS AND WILL 410 N. MICHIGAN AVE. STE. 1600 CHICAGO, IL 60611 DESIGN FIRM #: 184000338-0001	MECHANICAL SERVICES ASSOCIATES, CORP. 111 S. VIRGINIA ST. CRYSTAL LAKE, IL 60014 DESIGN FIRM #: 184001504-0002





	FINISH REQUIRE	MENTS	ACCESSIBILITY NOTES
WALL AND CEILIN	G FINISH CLASSIFICATION		7.002001512111110120
CLASS	FLAME SPREAD	SMOKE DEVELOPED	1. APPLICABLE ACCESSIBILITY CODES AND STANDARDS: 2018 ILLINOIS ACCESSIBILITY CODE (IAC)
CLASS A	0-25	0-450	2010 ADA STANDARDS FOR ACCESSIBLE DESIGN (ADA)
CLASS B	26-75	0-450	ICC A117.1-2009
CLASS C	76-200	0-450	2. PATH OF TRAVEL:
WALL AND CEILIN	G FINISH REQUIREMENTS		BUILDING HAS A FULLY ACCESSIBLE MAIN ENTRY AT GROUND LEVEL. BUILDING HAS A FULLY ACCESSIBLE ROUTE FROM THE MAIN ENTRY TO THE ELEVATOR
CLASS B	EXITS, EXIT STAIRWAYS, EXIT	PASSAGEWAYS	LOBBY AREA BUILDING HAS A FULLY ACCESSIBLE ELEVATOR LEADING UP TO THE FLOOR BEING ALTERED. BUILDING HAS PARKING FACILITIES THAT INCLUDE ACCESSIBLE PARKING SPACES
CLASS B	ROOMS AND ENCLOSED SPACE	OR EXIT ACCESS STAIRWAYS/ RAMPS, CES; CLASS C INTERIOR FINISH MATERIALS VE SPACES OR IN ROOMS WITH A CAPACITY	BUILDING HAS ACCESSIBLE ROUTE FROM PUBLIC WAY OR ACCESSIBLE PARKING TO ACCESSIBLE ENTRY.  3. TOILET FACILITIES: PROJECT HAS ACCESS TO ACCESSIBLE MEN'S AND WOMEN'S TOILET ROOM.
FLOOR FINISH CLA	ASSIFICATION		5. DOORS:
CLASS I	CRITICAL RADIANT FLUX OF 0 HIGHER.	.45 WATTS PER SQUARE CENTIMEMTER OR	ALL PUBLIC AND COMMON AREA INTERIOR DOORS TO HAVE A MAXIMUM OPENING FORCE OF 5 POUNDS PER IAC SECTION 404.2.9.
CLASS II	CRITICAL RADIANT FLUX BETY CENTIMEMTER OR GREATER.	NEEN 0.22 WATTS PER SQUARE	6. FIRE ALARM: ALL NEW, ALTERED, RELOCATED OR REPLACED FIRE ALARM OR EMERGENCY WARNING SYSTEM DEVICES TO COMPLY FULLY WITH ICC A117.1-2009 SECTION 702. ALL VISUAL ALARMS
FLOOR FINISH RE	QUIREMENTS		TO BE SYNCHRONIZED THROUGHOUT.
CLASS II	INTERIOR EXIT STAIRWAYS, II AND LOBBIES WHICH ARE PAI	NTERIOR EXIT RAMPS, EXIT PASSAGEWAYS RT OF THE EXIT DISCHARGE	
CLASS II	ALL AREAS EXECPT THOSE LI	STED ABOVE	NOTE TO AHJ:

THE PROPOSED PROJECT DOES NOT CHANGE BUILDING CONSTRUCTION TYPE.
 THE PROPOSED PROJECT DOES NOT "IMPROVE" THE BUILDING AT A VALUE EXCEEDING 50% OF ITS REPLACEMENTS COSTS. (TRIGGERS WHOLISTIC CODE/ACCESSIBILITY UPGRADES)

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CRYSTAL LAKE, IL 60014

ADJACENCIES
RENOVATIONS
PHASE 1

DES PLAINES CAMPUS 1600 EAST GOLF ROAD DES PLAINES, IL, 60016

Oakton College
OAKTON COLLEGE

OAKTON COLLEGE

**KEY PLAN** 

ISSUE CHART

CODE COMPLIANCE DATA

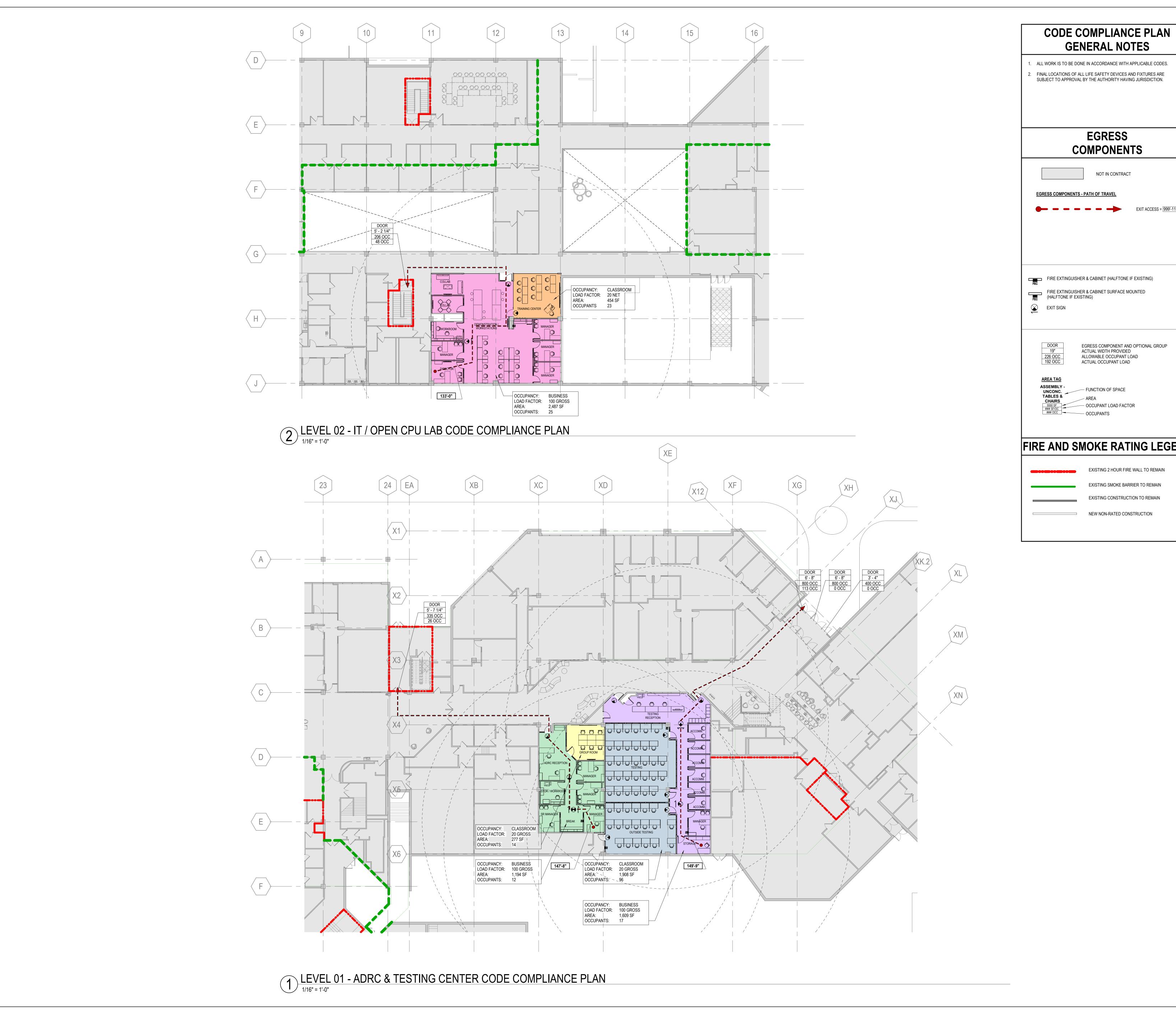
DAI

8.G01-01

**Exception:** The maximum transmitted temperature rise is not required.

2.4. The area is used only for means of egress and exits directly to the outside.

**SHEET NUMBER** 



. ALL WORK IS TO BE DONE IN ACCORDANCE WITH APPLICABLE CODES. . FINAL LOCATIONS OF ALL LIFE SAFETY DEVICES AND FIXTURES ARE SUBJECT TO APPROVAL BY THE AUTHORITY HAVING JURISDICTION.

EXIT ACCESS = 999'-11"

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**EGRESS COMPONENTS** 

NOT IN CONTRACT

FIRE EXTINGUISHER & CABINET (HALFTONE IF EXISTING)

EGRESS COMPONENT AND OPTIONAL GROUP ACTUAL WIDTH PROVIDED ALLOWABLE OCCUPANT LOAD ACTUAL OCCUPANT LOAD

ASSEMBLY - FUNCTION OF STABLES & CHAIRS

5550 SF OCCUPANT LOA

### SF/OC
### OCC
### OCCUPANTS FUNCTION OF SPACE OCCUPANT LOAD FACTOR

FIRE AND SMOKE RATING LEGEND

EXISTING 2 HOUR FIRE WALL TO REMAIN EXISTING SMOKE BARRIER TO REMAIN EXISTING CONSTRUCTION TO REMAIN

NEW NON-RATED CONSTRUCTION

**ADJACENCIES RENOVATIONS** PHASE 1

PROJECT

DES PLAINES CAMPUS 1600 EAST GOLF ROAD DES PLAINES, IL, 60016

**OAKTON COLLEGE** 

**KEY PLAN** 

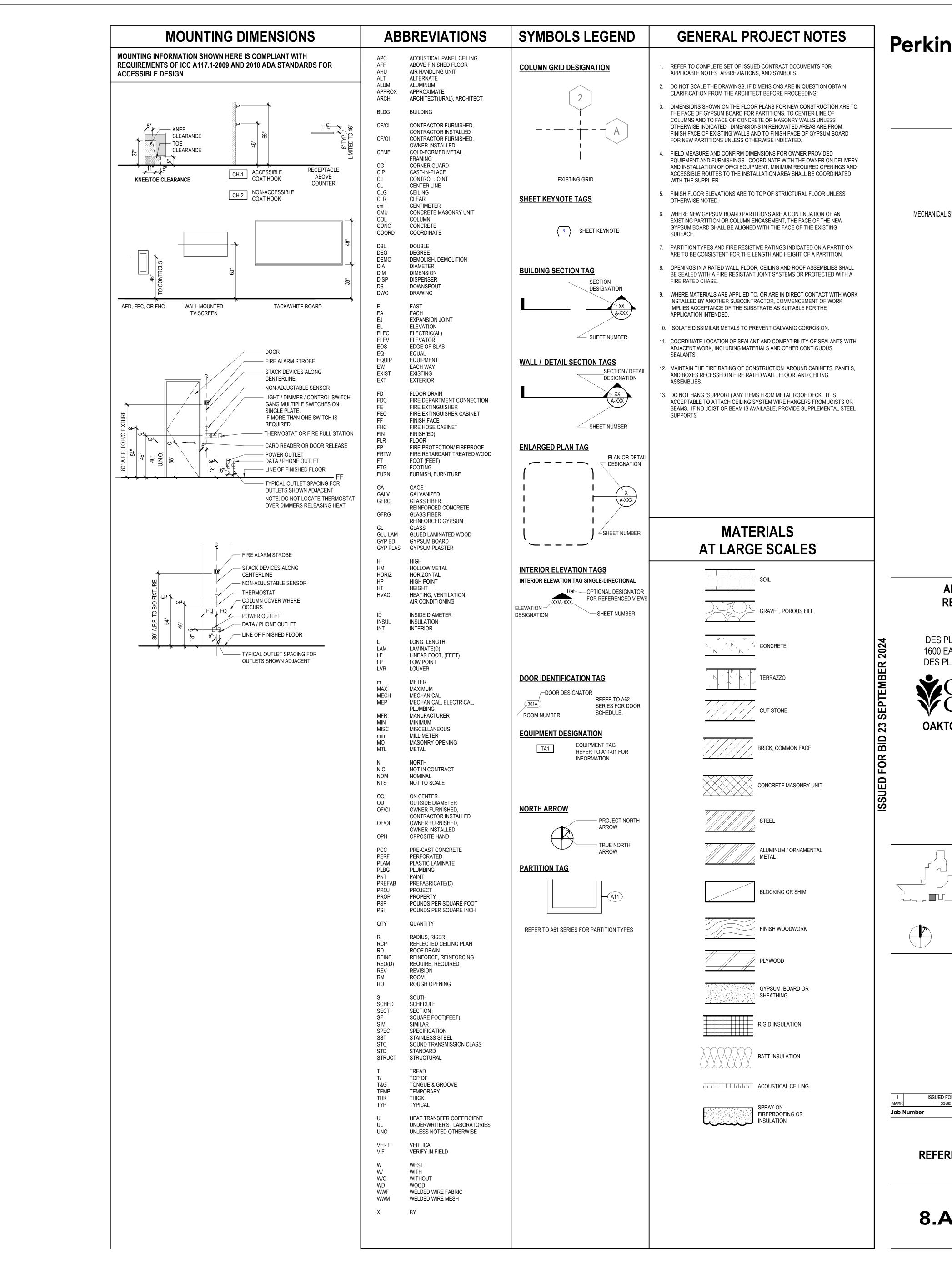
**ISSUE CHART** 

ISSUED FOR BID

CODE COMPLIANCE **PLANS** 

SHEET NUMBER

8.G01-02



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> **PROJECT ADJACENCIES RENOVATIONS** PHASE 1

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**OAKTON COLLEGE** 

**KEY PLAN** 

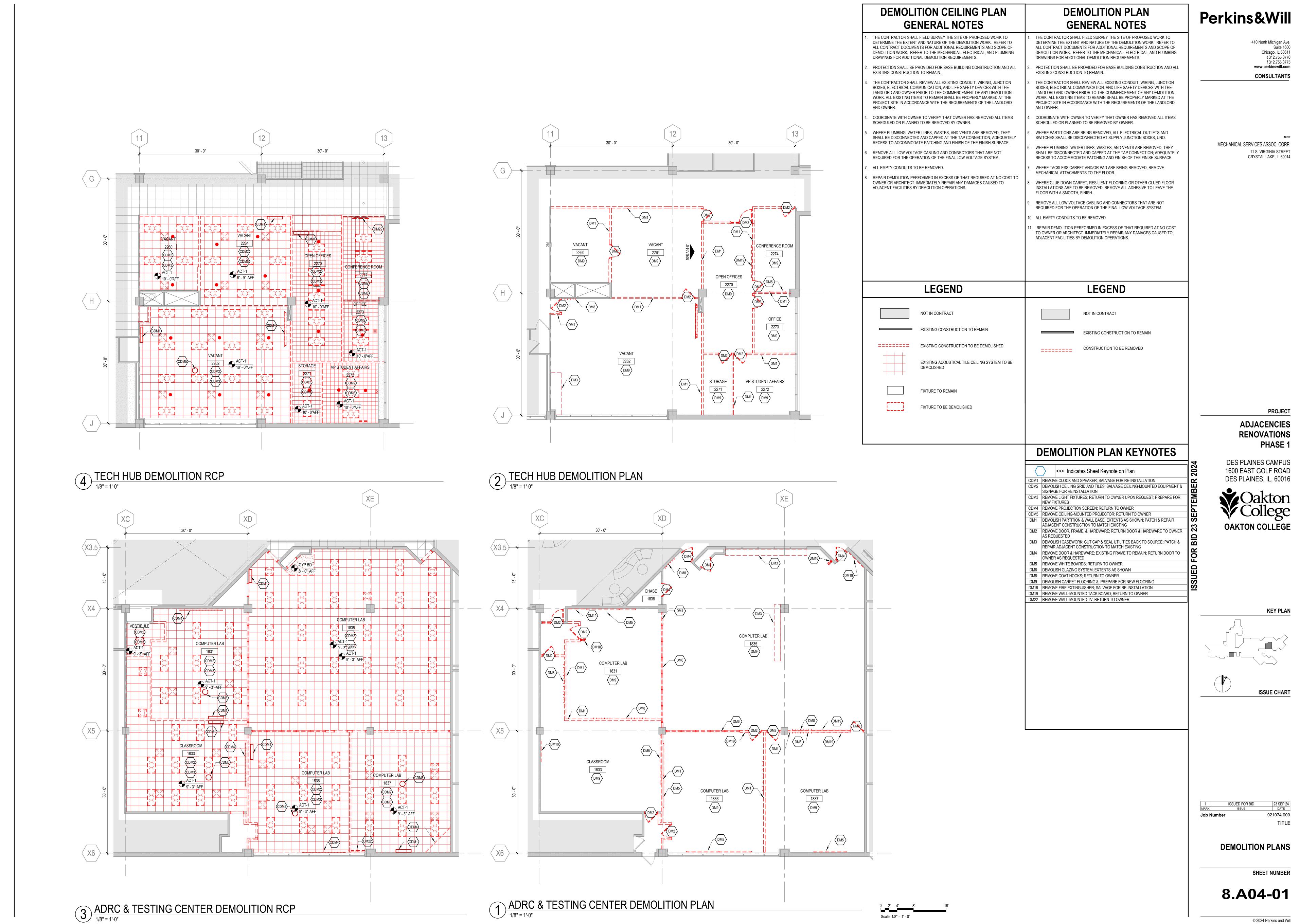
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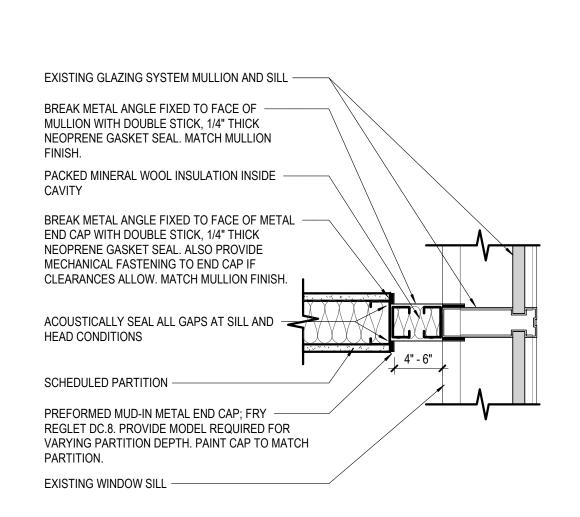
ISSUED FOR BID 021074.000

REFERENCE SHEET

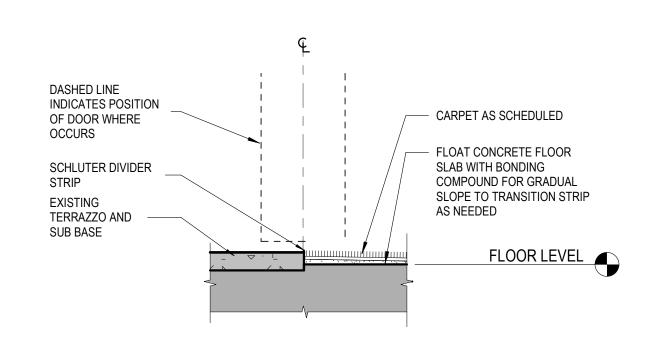
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8.A00-01

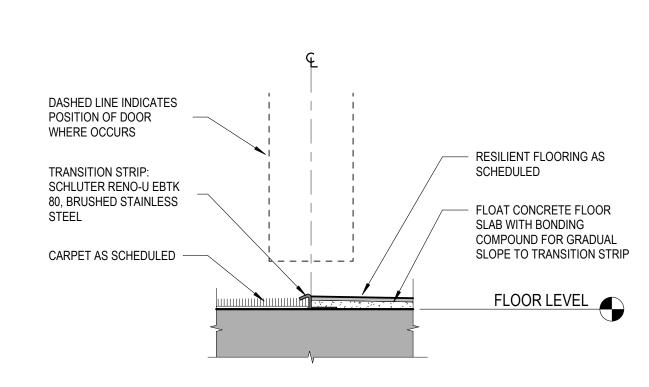




# WALL AT EXISTING MULLION PLAN DETAIL SCALE 1 1/2" = 1'-0"

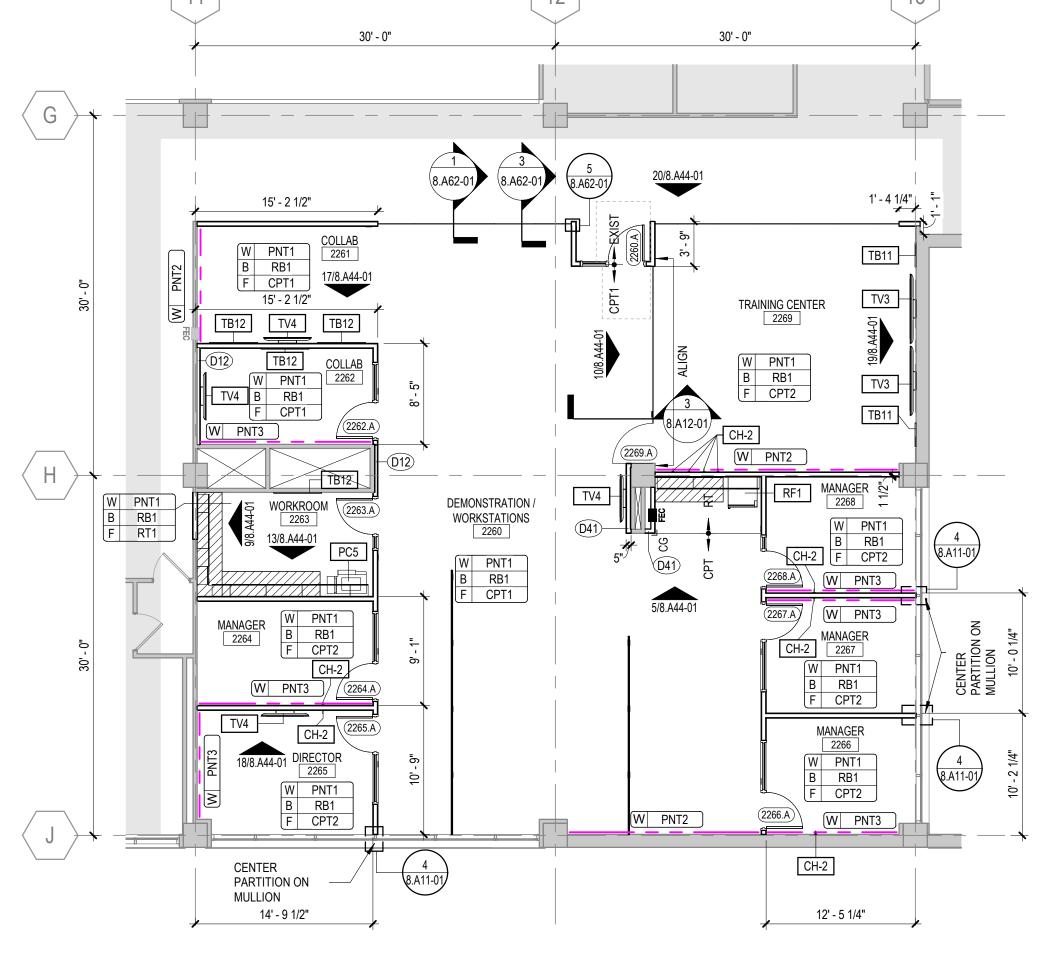


#### FLOORING TRANSITION **CARPET - EXISTING TERRAZZO**



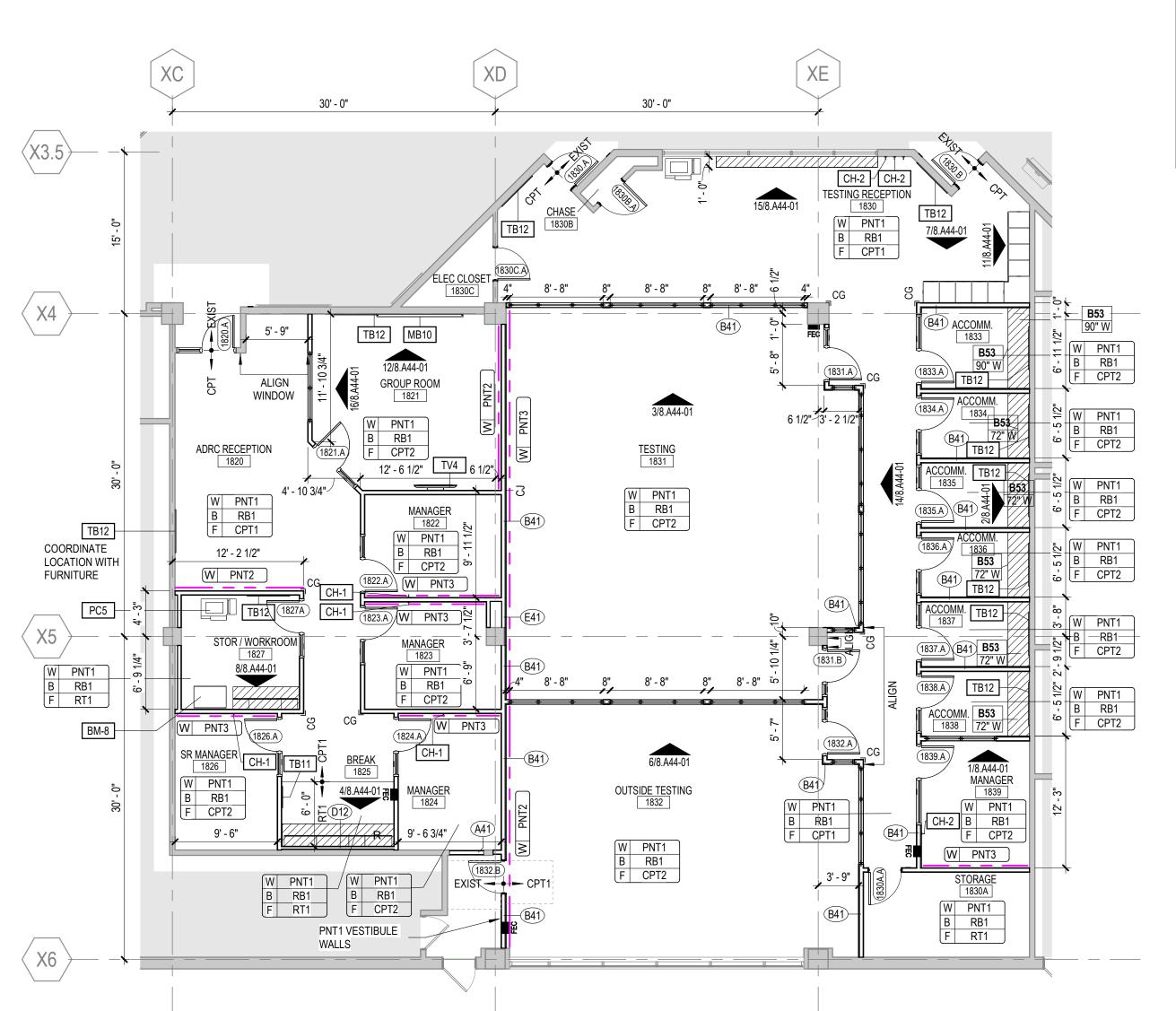
#### **FLOORING TRANSITION CARPET - RESILIENT**

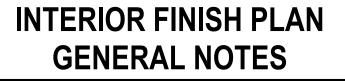
- **FLOORING TRANSITION NOTES:**
- 1. METAL FLOORING TRANSITIONS SHALL BE CLEAR ANODIZED ALUMINUM OR SATIN STAINLESS
- 2. COORDINATE HEIGHT OF FLOORING TRANSITION PRODUCTS WITH THICKNESSES OF CORRESPONDING FLOORING ASSEMBLIES.



TECH HUB FLOOR PLAN

1/8" = 1'-0"





- 1. REFER TO INTERIOR FINISH LEGEND IN A60 SERIES FOR INFORMATION.
- 2. SEE A50 SERIES FOR CASEWORK INFORMATION

3. TYPICAL FLOOR FINISH TO BE **CPT1**, UNO.

FROM ADJACENT ROOM INTO CLOSETS

- 4. TYPICAL WALL FINISH TO BE **PNT1**, UNO.
- 5. TYPICAL WALL BASE TO BE **RB1**, UNO.
- ALL FINISHES INSIDE COAT AND STORAGE CLOSETS SHALL BE CONSISTENT WITH THE ADJACENT ROOM FINISHES, UNO. FLOOR COVERINGS SHALL CONTINUE
- PROVIDE A FINISH AT ALL AREAS THAT ARE EXPOSED BEHIND MILLWORK, FILE CABINETS, PANELING, ETC. DUE TO REVEALS, JOINTS, END CONDITIONS, ETC.
- SEE ELEVATIONS FOR ADDITIONAL FINISH INFORMATION.

- NEW WALL BASE SHALL BE INSTALLED ON ALL NEW AND EXISTING WALLS AND COLUMNS, UNO.
- 0. RESILIENT WALL BASE AT ALL CARPETED AREAS SHALL BE STRAIGHT BASE, UNO. RESILIENT WALL BASE AT ALL HARD SURFACE FLOORS SHALL BE COVED BASE,

- 1. PAINT REVEALS AND FILER PANELS TO MATCH ADJACENT FINISHES, UNO. 2. PAINT EXPOSED ELECTRICAL RACEWAYS TO MATCH THE ADJACENT WALL
- 3. PROVIDE A PRIME PAINT COAT IN UNEXPOSED AREAS COVERED BY MILLWORK, PANELING, AND OTHER FIXED ARCHITECTURAL ELEMENTS UNO.
- 14. DOORS TO RECEIVE PAINT SHALL BE PAINTED PNT4.
- 15. HOLLOW METAL FRAMES SHALL BE PAINTED PNT4.
- 16. VISION LITE FRAMES SHALL BE PAINTED **PNT4**. 17. FIRE EXTINGUISHER CABINETS SHALL BE PAINTED TO MATCH ADJACENT WALL,
- 18. ACCESS PANELS SHALL BE PAINTED TO MATCH ADJACENT SURFACE. 19. GYPSUM BOARD SOFFITS ABUTTING A WALL SHALL BE PAINTED TO MATCH THE
- WALL. GYPSUM BOARD SOFFITS NOT ABUTTING A WALL SHALL BE PAINTED TO MATCH ADJACENT GYPSUM BOARD CEILING, IF APPLICABLE. GYPSUM BOARD SOFFITS ADJACENT TO ONLY ACOUSTICAL PANEL CEILINGS SHALL BE PAINTED

### 20. FLOORING TRANSITIONS AT DOORWAYS SHALL BE ALIGNED WITH THE FACE OF

THE FRAME'S STOP FACING THE DOOR.



WALL FINISH WALL BASE FINISH

FLOOR FINISH

**ACCENT FINISHES** 

LEGEND

\_\_\_\_\_\_ (PNT) PAINT

FINISH SYMBOLS

FLOOR FINISH TRANSITION SYMBOL

CONTROL JOINT

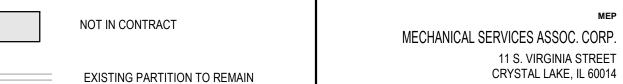
FLOOR FINISH MATERIAL PATTERN DIRECTION

\_---

### **FLOOR PLAN GENERAL NOTES**

- . SEE THE A61 SERIES FOR PARTITION TYPES
- 2. ALL PARTITIONS ARE TYPE **A41** UNLESS NOTED OTHERWISE
- 3. DOOR DIMENSIONS ARE TO EDGE OF DOOR LEAF UNLESS NOTED OTHERWISE. 4. FOR SWINGING DOORS, THE HINGE SIDE OF OF THE DOOR JAMB SHALL BE LOCATED 4" FROM THE ADJACENT PERPENDICULAR WALL, UNLESS NOTED

### FLOOR PLAN LEGEND



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**PROJECT** 

PHASE 1

**ADJACENCIES** 

**RENOVATIONS** 

**OAKTON COLLEGE** 

CRYSTAL LAKE, IL 60014

CORNER GUARD

**NEW PARTITION** 

**EQUIPMENT** DESCRIPTION COMMENTS BM-8 BRAILLE MACHINE OFOI COORDINATE CABINETRY WITH EXISTING EQUIPMENT.. CH-1 COAT HOOK CFCI STAINLESS STEEL CH-2 COAT HOOK CFCI STAINLESS STEEL EQ14 FIRE EXTINGUISHER CABINET, CFCI FULLY RECESSED FEC13 FIRE EXTINGUISHER CABINET, CFCI SEMI-RECESSED MB10 MARKERBOARD, 8' WIDE CFCI SEE ELEVATIONS AND MOUNTING MW2 DRAWER MICROWAVE OFCI | COORDINATE CABINETRY WITH SELECTED PC5 PRINTER/COPIER RF1 FULL HEIGHT REFRIGERATOR OFOI COORDINATE CABINETRY WITH SELECTE AND FREEZER RF7 UNDER COUNTER OFOI COORDINATE CABINETRY WITH SELECTE REFRIGERATOR TB11 TACK BOARD, 2' WIDE CFCI SEE ELEVATIONS AND MOUNTING DIMENSIONS SCHEDULE

CFCI SEE ELEVATIONS AND MOUNTING

OFCI WALL MOUNTED. CONTRACTOR TO PROVIDE BLOCKING FOR MOUNT.

OFCI WALL MOUNTED. CONTRACTOR TO

COORDINATE LOCATION WITH OWNER

DIMENSIONS SCHEDULE

TV9 TV SCREEN, 55" COUNTER TOP OFCI

TV3 TV SCREEN 81

TV4 TV SCREEN, 55"

TB12 TACK BOARD, 4' WIDE

**OFOI** OWNER FURNISHED, OWNER INSTALLED **OFCI** OWNER FURNISHED, CONTRACTOR INSTALLED

CFCI CONTRACTOR FURNISHED, CONTRACTOR INSTALLED

DES PLAINES CAMPUS PROVIDE BLOCKING FOR MOUNT.
COORDINATE LOCATION WITH OWNER 1600 EAST GOLF ROAD DES PLAINES, IL, 60016

**KEY PLAN** 

**ISSUE CHART** 

ISSUED FOR BID 021074.000 TITLE

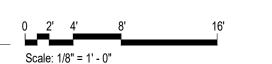
FLOOR PLANS & FLOOR **DETAILS** 

8.A11-01

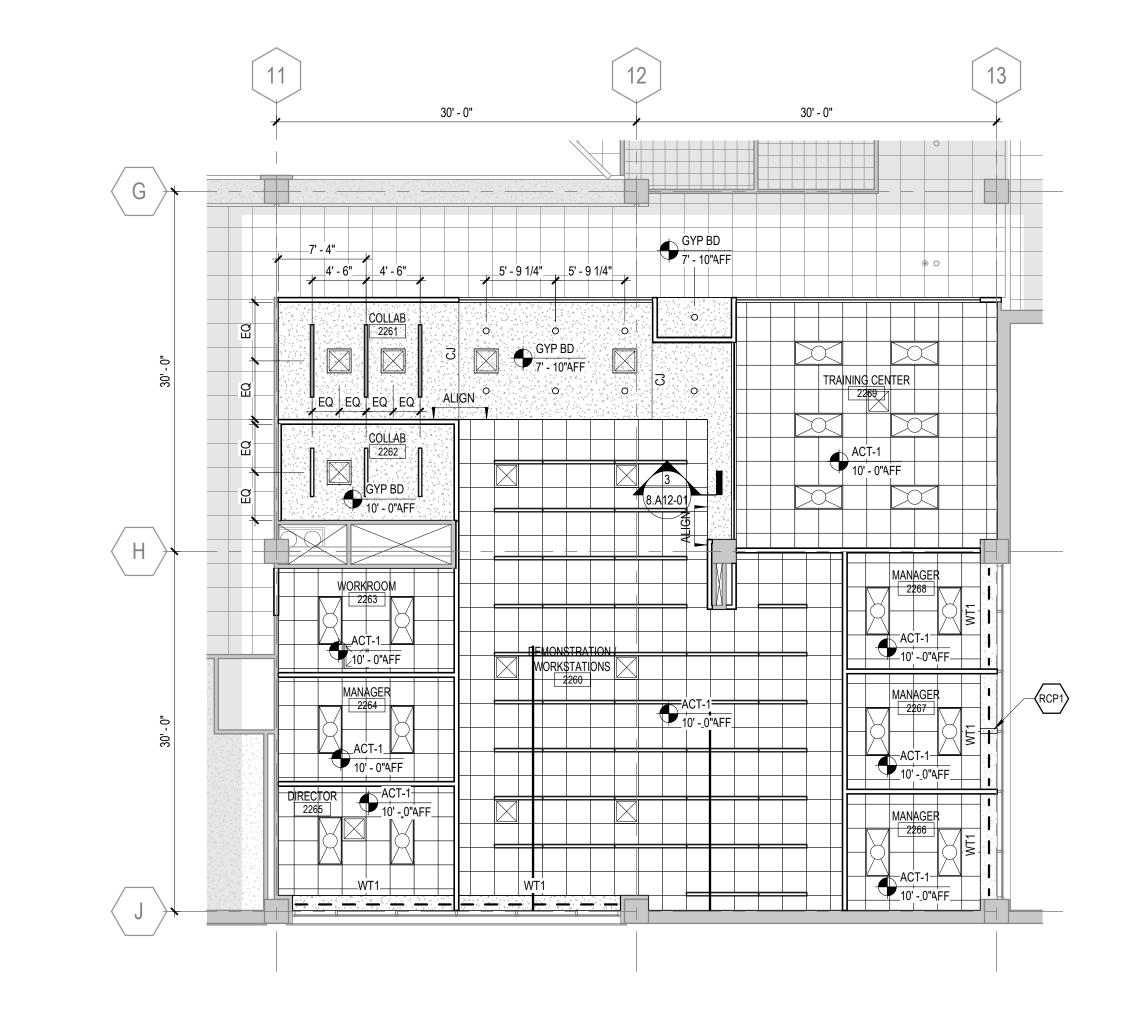
FLOOR FINISH TRANSITIONS

1 ADRC & TESTING CENTER FLOOR PLAN

1/8" = 1'-0"

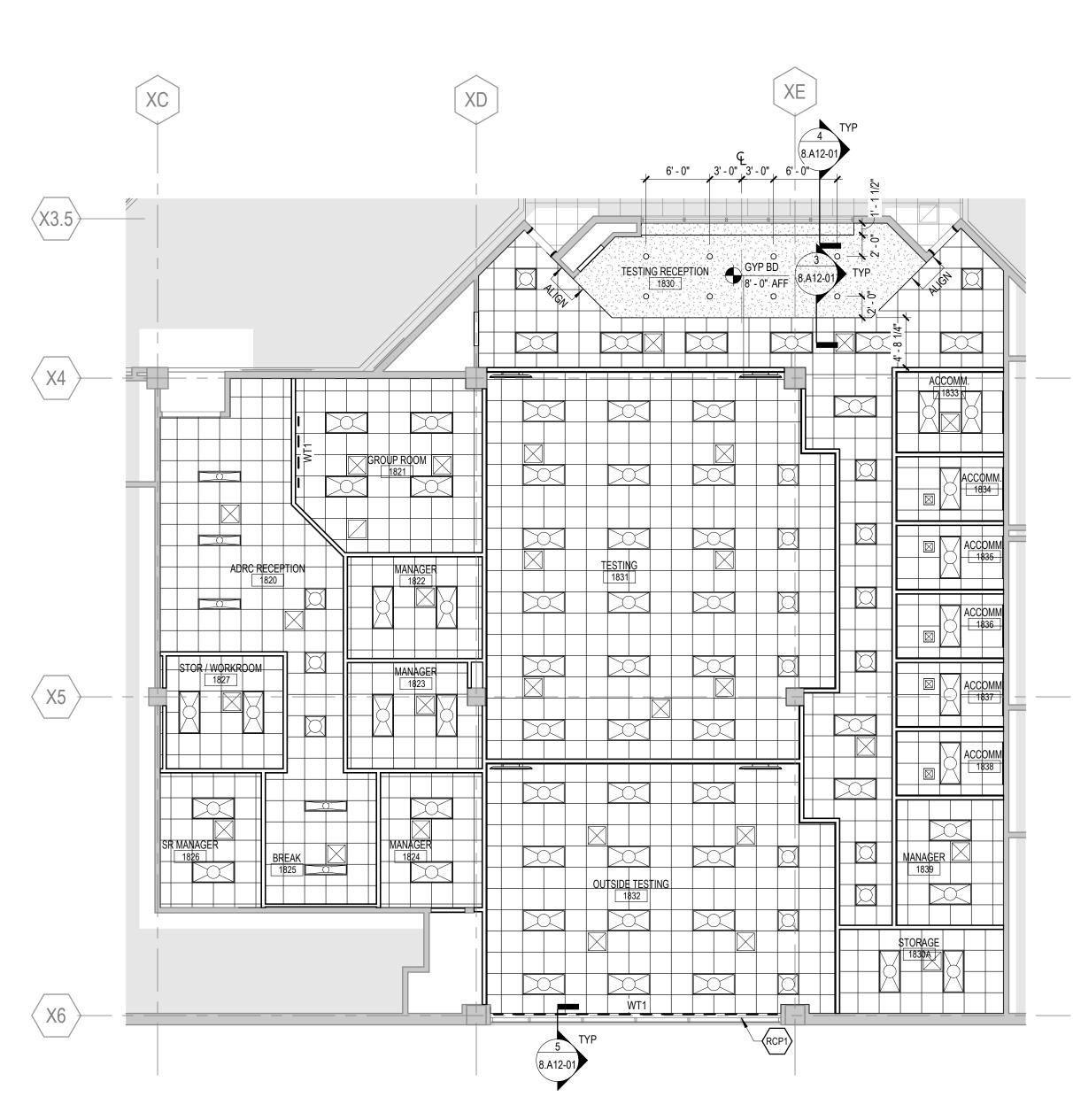


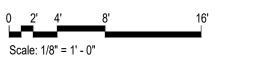
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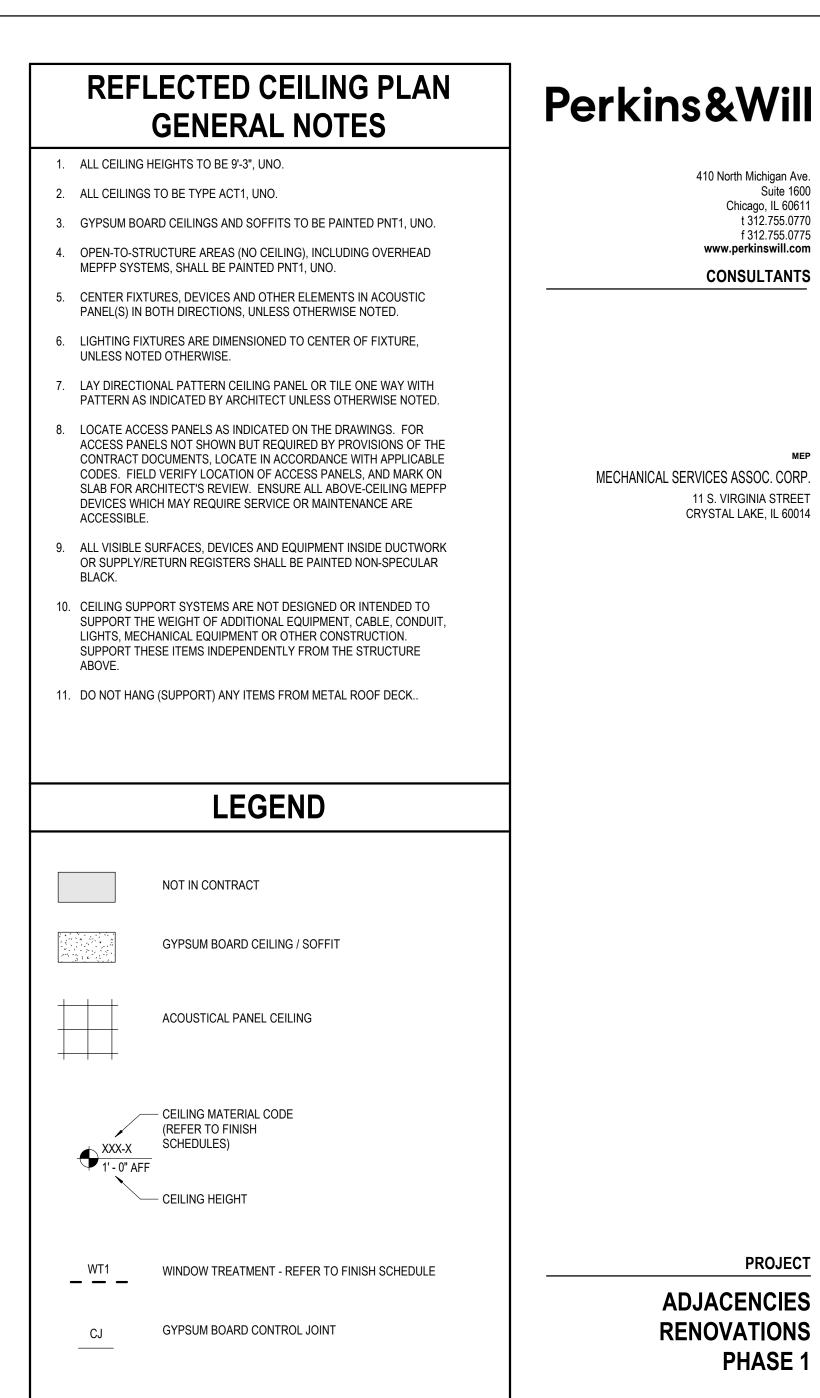


TECH HUB REFLECTED CEILING PLAN

1/8" = 1'-0"







REFLECTED CEILING PLAN

**KEYNOTES** 

<>< Indicates Sheet Keynote on Plan

RCP1 PATCH SOFFIT AT LOCATION OF REMOVED SOFFIT; PATCH TO MATCH EXISTING

PROJECT **ADJACENCIES RENOVATIONS** PHASE 1

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DES PLAINES CAMPUS 1600 EAST GOLF ROAD DES PLAINES, IL, 60016

\*Oakton College **OAKTON COLLEGE** 

**KEY PLAN** 

**ISSUE CHART** 

REFLECTED CEILING **PLANS & DETAILS** 

SHEET NUMBER

8.A12-01



3 CEILING TRANSITION DETAIL
SCALE 1 1/2" = 1'-0"

SUSPENDED CEILING -

PATCH/REPAIR OR PROVIDE NEW 5/8" GYPSUM BOARD ON **EXISTING SOFFIT** 

EXISTING WINDOW TO REMAIN

CEILING TRANSITION DETAIL

SCALE 1 1/2" = 1'-0"

EXTEND GYP BD TO 6" ABOVE CEILING

SCHEDULED ACOUSTICAL CEILING TILE AND

NON-STRUCTURAL METAL FRAMING EXTEND TO STRUCTURE ABOVE AND PROVIDE LATERAL BRACING

5/8" GYP BOARD CEILING AND FRAMING

124' - 0"

5 SECTION - NEW CEILING @ EXT. WALL
SCALE 1 1/2" = 1'-0"

SYSTEM

- PATCH/REPAIR OR PROVIDE NEW

5/8" GYPSUM BOARD ON EXISTING WALL SUBSTRATE AND SOFFIT

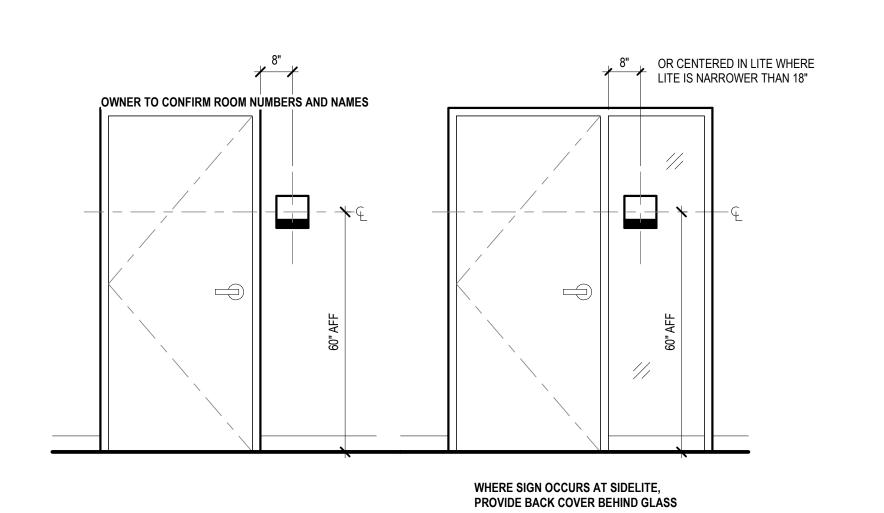
- MANUAL ROLLER SHADE

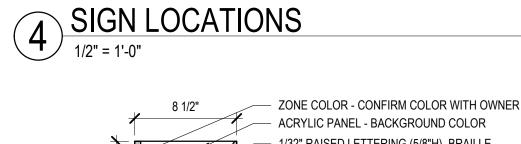
FRAMING TO STRUCTURE ABOVE

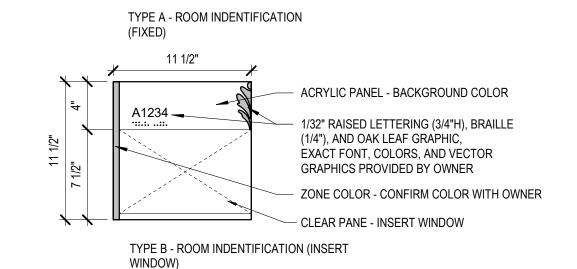
GYPSUM BOARD

108' - 0"

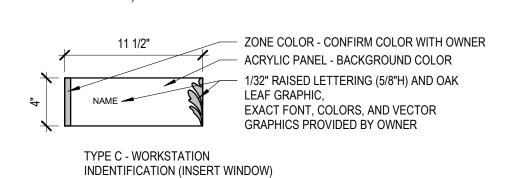
			SIGNAGE SCHEDULE
TAG	TYPE	NUMBER	TITLE ON SIGNAGE
F1	Α	1820	ACCESS AND DISABILITY RESOURCE CENTER
F2	A		GROUP ROOM
F3	В		[WINDOW INSERT]
F4	В	1823	[WINDOW INSERT]
F5	В	1824	[WINDOW INSERT]
F6	В	1826	[WINDOW INSERT]
F7	Α	1827	WORK ROOM
F8	Α	1830	TESTING CENTER
F9	Α	1830	TESTING CENTER
F10	Α	1830A	STORE ROOM
F11	Α	1831	TESTING ROOM
F12	Α	1831	TESTING ROOM
F13	Α	1832	TESTING ROOM
F14	Α	1833	ACCOMMODATION TESTING
F15	Α	1834	ACCOMMODATION TESTING
F16	Α	1835	ACCOMMODATION TESTING
F17	Α	1836	ACCOMMODATION TESTING
F18	Α	1837	ACCOMMODATION TESTING
F19	Α	1838	ACCOMMODATION TESTING
F20	В	1839	[WINDOW INSERT]
F21	Α		TECHNOLOGY HUB
F22	Α		COLLABORATION SPACE
F23	Α		COLLABORATION SPACE
F24	Α		WORKROOM
F25	В		[WINDOW INSERT]
F26	В		[WINDOW INSERT]
F27	В		[WINDOW INSERT]
F28	В		[WINDOW INSERT]
F29	В		[WINDOW INSERT]
F30	Α		TRAINING CENTER
F31	С		[WORKSTATION INSERT]
F32	С		[WORKSTATION INSERT]
F33	С		[WORKSTATION INSERT]
F34	С		[WORKSTATION INSERT]
F35	С		[WORKSTATION INSERT]
F36	С		[WORKSTATION INSERT]
F37	С		[WORKSTATION INSERT]
F38	С		[WORKSTATION INSERT]
F39	С		[WORKSTATION INSERT]
F40	C	2263	[WORKSTATION INSERT]



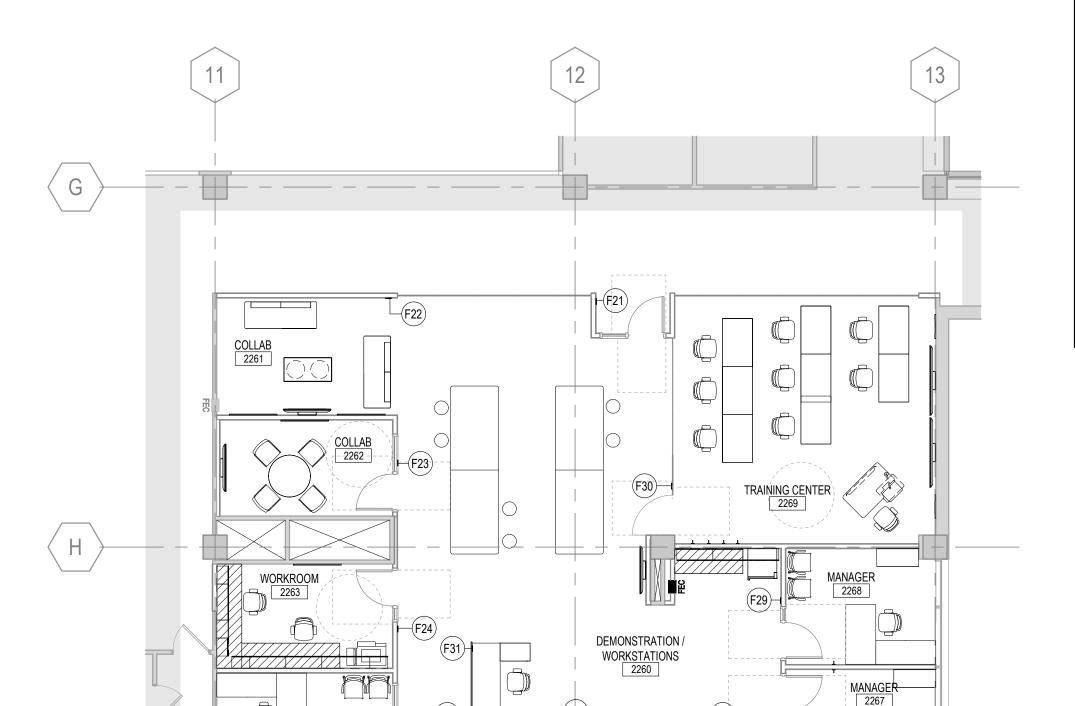




EXACT FONT, COLORS, AND VECTOR



3 SIGNAGE GRAPHICS
SCALE 1 1/2" = 1'-0"



### **FURNITURE PLAN GENERAL NOTES FOR BID**

1. FURNITURE SHOWN FOR REFERENCE ONLY

ARCHITECT AND GENERAL CONTRACTOR

- 2. FURNITURE DEALER TO MAINTAIN REQUIRED CLEARANCES AT ALL EGRESS PATHS. FIELD VERIFICATION REQUIRED FOR FINAL LAYOUTS PRIOR TO
- INSTALLATION. 3. COORDINATE EXACT LOCATION AND LAYOUT OF FURNITURE WITH ADJACENT
- CONSTRUCTION 4. FURNITURE INSTALLER TO PROVIDE LAYOUT OF WORKSTATIONS FOR REVIEW BY
- FURNITURE INSTALLER/DEALER SHALL COORDINATE LOCATION OF UTILITY CONNECTIONS FOR SYSTEMS FURNITURE, PRIVATE OFFICE FURNITURE, AND CONFERENCE TABLES WITH GENERAL CONTRACTOR. THESE LOCATIONS ARE TO
- BE SHOWN ON THE FURNITURE INSTALLATION DRAWINGS. FURNITURE INSTALLER/DEALER SHALL ENSURE THERE ARE NOT CONFLICTS BETWEEN FURNITURE BASES/SUPPORTS AND WALL/FLOOR UTILITY FEEDS.
- FURNITURE INSTALLATION DRAWINGS SHALL INDICATE, WITH DIMENSIONS, OPENINGS OR MEANS OF ACCESSING WALL UTILITIES TO TO BE OBSCURED OR BLOCKED BY FURNITURE
- CASEWORK, REFER TO INTERIOR WALL ELEVATIONS AND CASEWORK DETAILS

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> **PROJECT ADJACENCIES RENOVATIONS** PHASE 1

DES PLAINES CAMPUS 1600 EAST GOLF ROAD DES PLAINES, IL, 60016

**OAKTON COLLEGE** 

**KEY PLAN** 

**ISSUE CHART** 

ISSUED FOR BID
ISSUE

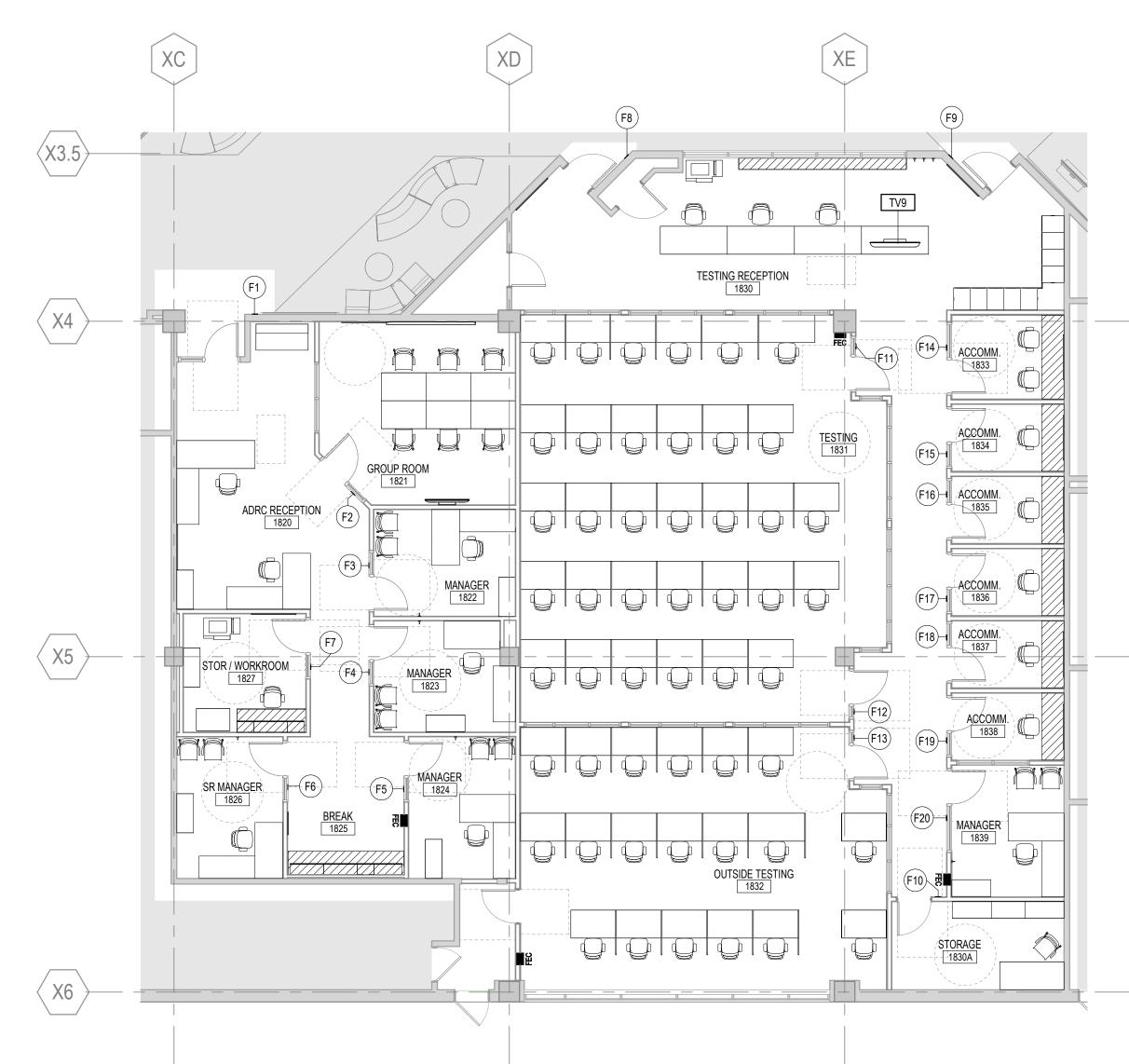
**FURNITURE & SIGNAGE PLANS** 

SHEET NUMBER

8.A15-01

TECH HUB FURNITURE & SIGNAGE PLAN

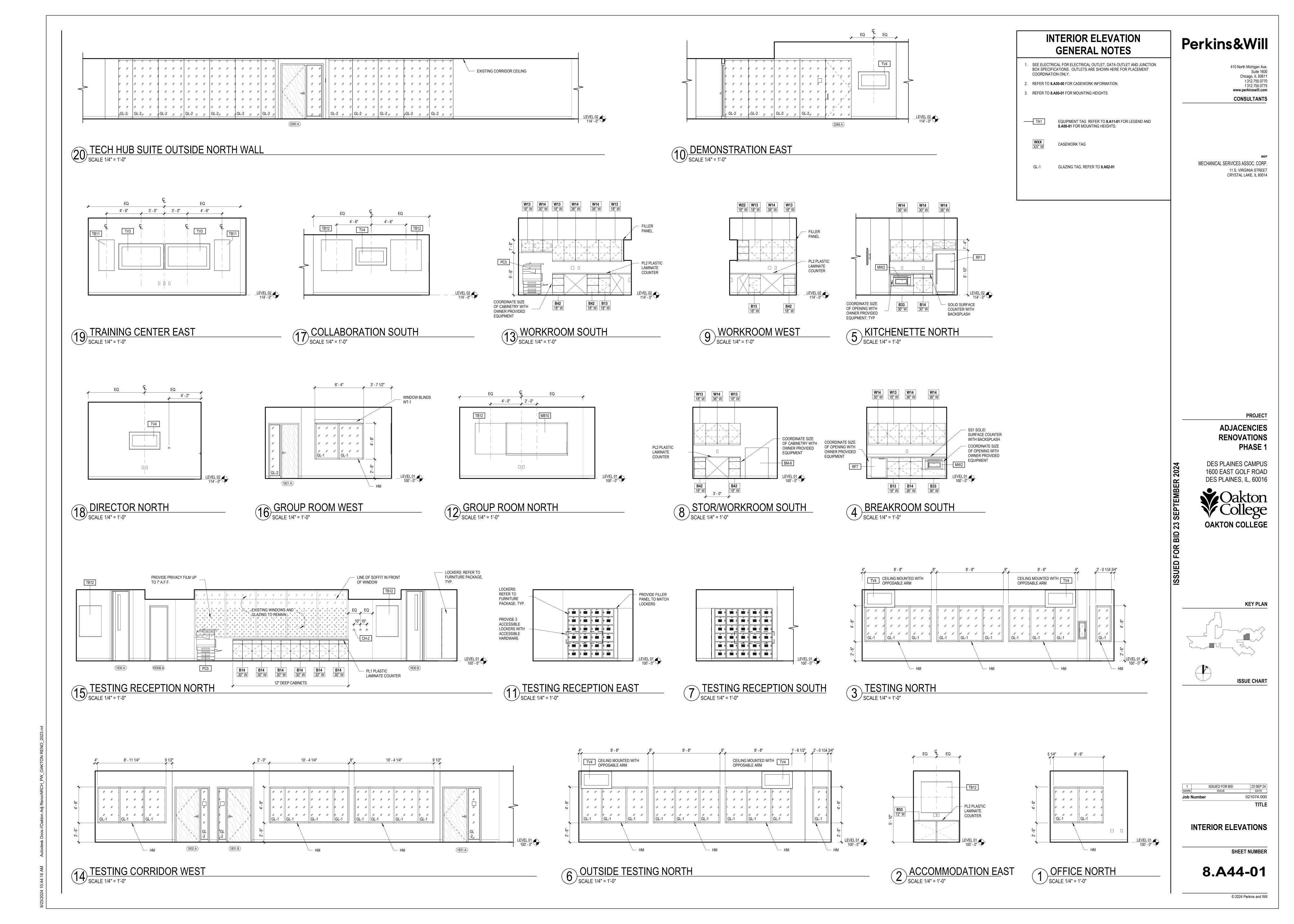
1/8" = 1'-0" FURNITURE FOR REFERENCE ONLY; REFER TO FURNITURE PACKAGE

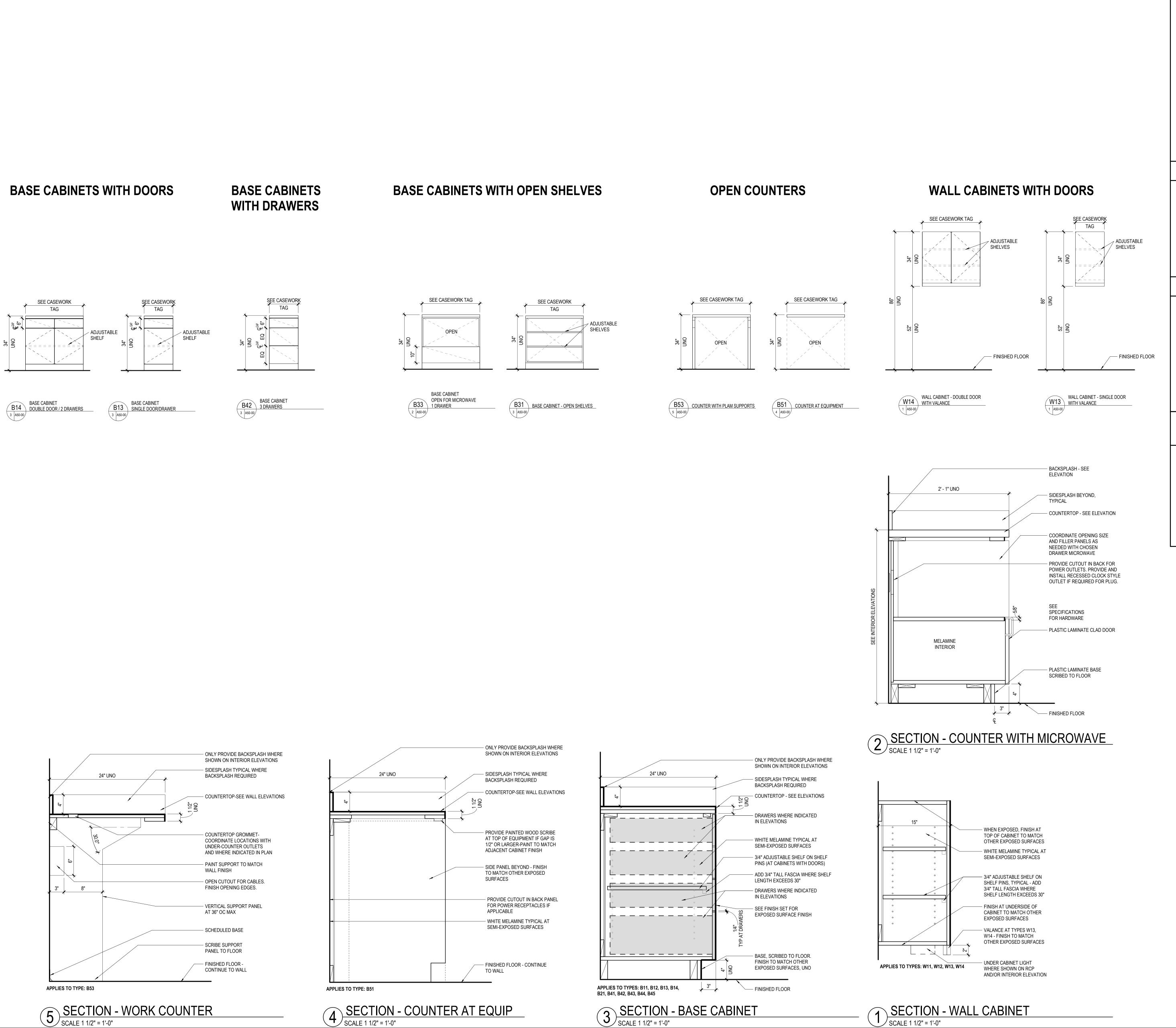


ADRC & TESTING CENTER FURNITURE & SIGNAGE PLAN

1/8" = 1'-0"

FURNITURE FOR REFERENCE ONLY: REFER TO FURNITURE PACKAGE FURNITURE FOR REFERENCE ONLY; REFER TO FURNITURE PACKAGE





SCALE 1 1/2" = 1'-0"

### **CASEWORK GENERAL NOTES**

- . THE CASEWORK TYPES SHOWN ON THIS SHEET REPRESENT THE STANDARD TYPES WHICH FREQUENTLY OCCUR IN PROJECTS OF THIS NATURE. SOME TYPES MAY NOT BE USED.
- THE 'CASEWORK TAG' SYMBOLS SPECIFYING THE PARTICULAR MODULES ARE
- SHOWN ON THE INTERIOR ELEVATIONS. 3. FOR SPECIAL CASEWORK CONFIGURATIONS AND/ OR COMPONENTS REFER
- 4. REFER TO THE 'CASEWORK TAG' SHOWN IN THE INTERIOR ELEVATIONS FOR SCHEDULED FINISH MATERIALS.
- 5. FIELD VERIFY ALL DIMENSIONS PRIOR TO FABRICATION.

TO THE INTERIOR ELEVATIONS.

- PROVIDE NECESSARY BACKING, BLOCKING AND OTHER STRUCTURAL
- AT END UNITS WITH EXPOSED SIDES PROVIDE FINISH EQUAL TO OTHER EXPOSED SURFACES.
- 8. AT END UNITS WITH ADDITIONAL SPACE BETWEEN CABINET AND WALL
- 9. CABINET HEIGHTS ARE TO BE AS SHOWN ON THIS SHEET UNLESS INDICATED OTHERWISE IN THE CONTRACT DOCUMENTS.

PROVIDE FINISH FILLER PANELS TO MATCH OTHER EXPOSED SURFACES.

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Suite 1600

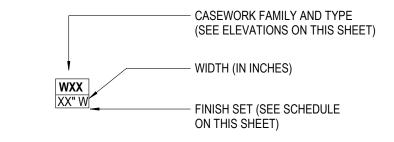
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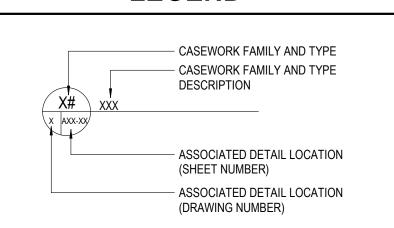
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### **LEGEND**



### **CASEWORK DETAILS GENERAL NOTES**

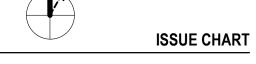
- ALL VERTICAL SURFACES OF CASEWORK TO BE PL1 FINISH, U.N.O. REFER TO ELEVATIONS AND FINISH SCHEDULE FOR COUNTER TOP FINISHES
- CASEWORK HARDWARE IS NOT SHOWN FOR CLARITY. DOOR/DRAWER PULLS ARE IDENTIFIED IN THE FINISH SETS, OTHER HARDWARE IS DEFINED ELSEWHERE IN THE DRAWINGS AND IN THE SPECIFICATIONS.
- DOOR PULLS FOR FULL HEIGHT CABINETS ARE TO BE LOCATED WITH THE TOPS AT 48" AFF MAX, UNO.

### PROJECT **ADJACENCIES RENOVATIONS** PHASE 1

DES PLAINES CAMPUS 1600 EAST GOLF ROAD



**KEY PLAN** 

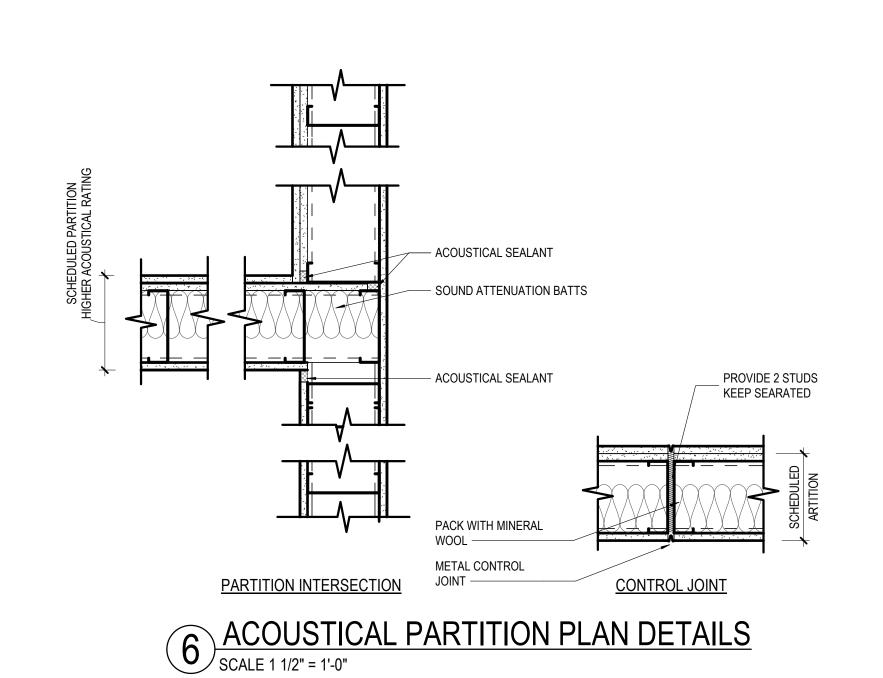


ISSUED FOR BID 021074.000 TITLE

**CASEWORK ELEVATIONS & DETAILS** 

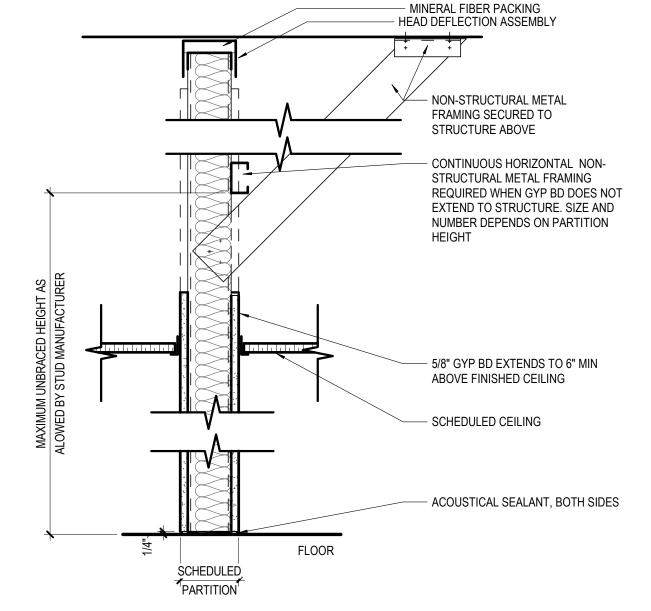
SHEET NUMBER

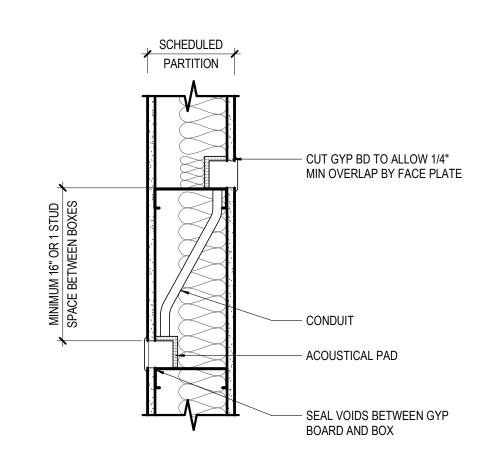
8.A50-00



SCHEDULED

5 ACOUSTICAL PARTITION @ FLOOR SCALE 1 1/2" = 1'-0"

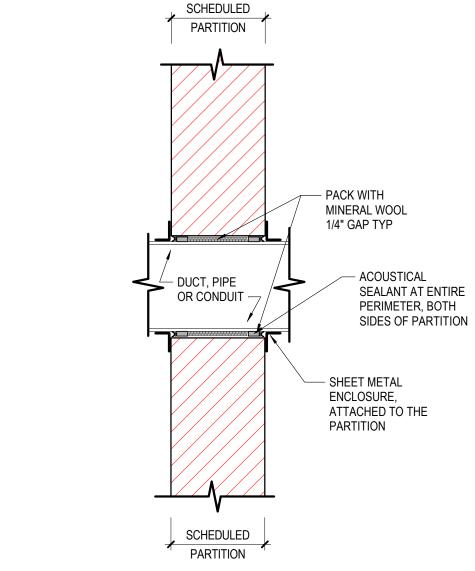


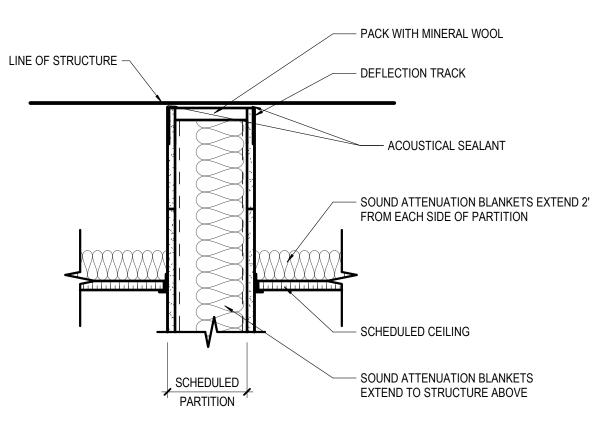


PARTITION SECTION

SCALE 1 1/2" = 1'-0"

2 ACOUSTICAL PARTITION PLAN DETAIL
SCALE 1 1/2" = 1'-0"

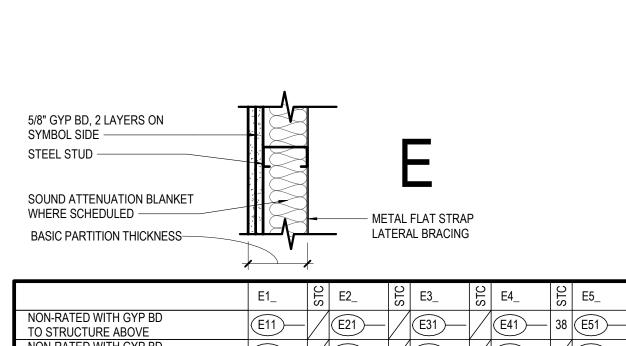




3 ACOUSTICAL SLEEVE SECTION
SCALE 1 1/2" = 1'-0"

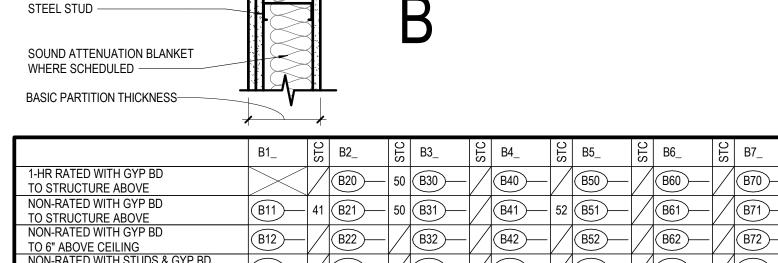
ACOUSTICAL PARTITION @ CEILING

SCALE 1 1/2" = 1'-0"



— ACOUSTICAL SEALANT, BOTH

BASIC PARTITION THICKNESS————		<u> </u>	<b>—</b> LA	TERA	AL BRACING											
	E1_	STC	E2_	STC	E3_	STC	E4_	STC	E5_	STC	E6_	STC	E7_	STC	E8_ SI	E9_
NON-RATED WITH GYP BD TO STRUCTURE ABOVE	E11)—	-//	(E21)—		E31)—		E41)—	38	E51)—	$\overline{/}$	(E61)—	$\overline{A}$	(E71)—	/	E81 /	E91)—
NON-RATED WITH GYP BD TO 6" ABOVE CEILING	E12—	-//	E22—		E32)—		E42—		E52)—	$\overline{/}$		$\overline{/}$	E72)—		E82 /	E92 —
NON-RATED WITH STUDS & GYP BD TO FINISHED CEILING	E13—	-	E23—		E33—		E43—		E53—		E63—		E73)—		E83—/	E93—
STUD SIZE	2 1/2"		2 1/2"		3 5/8"		3 5/8"		4"		4"		6"		6"	1 5/8"
BASIC PARTITION THICKNESS	3 3/4"		3 3/4"		4 7/8"		4 7/8"		5 1/4"		5 1/4"		7 1/4"		7 1/4"	2 3/4"
ACOUSTICAL INSULATION	_		YFS		_		YFS		_		YFS		_		YFS	YFS

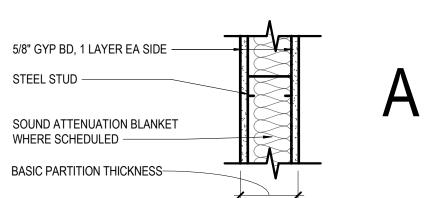


5/8" GYP BD, 2 LAYERS ON SYMBOL SIDE & 1 LAYER OTHER SIDE ———

	DI_	S	DZ_	S	DJ_	LS	D4_	S	P2_	S	D0_	LS	D1_	S	DO_	S
1-HR RATED WITH GYP BD TO STRUCTURE ABOVE			B20 —	50	B30—		B40—		B50—		B60—		B70—		B80—	
NON-RATED WITH GYP BD TO STRUCTURE ABOVE	B11)—	41	B21 —	50	B31 —		B41)—	52	B51 —		B61)—		B71)—		B81 —	
NON-RATED WITH GYP BD TO 6" ABOVE CEILING	B12 —		B22 —		B32—		B42 —		B52 —		B62—		B72—		B82 —	
NON-RATED WITH STUDS & GYP BD TO FINISHED CEILING	B13)—		B23 —		B33 —		B43—		B53 —		B63—		B73—		B83)—	
STUD SIZE	2 1/2"		2 1/2"		3 5/8"		3 5/8"		4"		4"		6"		6"	
BASIC PARTITION THICKNESS	4 3/8"		4 3/8"		5 1/2"		5 1/2"		5 7/8"		5 7/8"		7 7/8"		7 7/8"	
ACOUSTICAL INSULATION	-		YES		-		YES		-		YES		-		YES	
FIRE TEST NUMBER	-		UL DES U494		UL DES U465		UL DES U465		UL DES U465		UL DES U465		UL DES U465		UL DES U465	

SOUND ATTENUATION BLANKET WHERE SCHEDULED  BASIC PARTITION THICKNESS  METAL FLAT STRAP LATERAL BRACING
--

	1 1																	
	D1_	STC	D2_	STC	D3_	STC	D4_	STC	D5_	STC	D6_	STC	D7_	STC	D8_	STC	D9_	STC
NON-RATED WITH GYP BD TO STRUCTURE ABOVE	D11)—	/	D21)—		D31)—	/	D41)—	34	D51)—		D61)—	$\overline{/}$	D71)—		D81)—	37	D91)—	
NON-RATED WITH GYP BD TO 6" ABOVE CEILING	D12)—		D22—		D32 —		D42)—				D62)—		D72—		D82)—		D92)—	
NON-RATED WITH STUDS & GYP BD TO FINISHED CEILING	D13 —		D23—		D33—		D43—		D53—		D63—		D73—		D83—		D93—	
STUD SIZE	2 1/2"		2 1/2"		3 5/8"		3 5/8"		4"		4"		6"		6"		1 1/2"	
BASIC PARTITION THICKNESS	3 1/8"		3 1/8"		4 1/4"		4 1/4"		4 5/8"		4 5/8"		6 5/8"		6 5/8"		2 1/8"	
ACOUSTICAL INSULATION	-		YES		-		YES		-		YES		-		YES		YES	



	A1_	STC	A2_	STC	A3_	STC	A4_	STC	A5_	STC	A6_	STC	A7_	STC	A8_	STC
1-HR RATED WITH GYP BD TO STRUCTURE ABOVE			(A20)—	47	(A30)—	40	(A40)—	47	(A50)—		(A60)—		(A70)—		(A80)—	49
NON-RATED WITH GYP BD TO STRUCTURE ABOVE	<u>(A11)</u> —		(A21)—	47	(A31)—	40	(A41)	47	A51 —		<u>A61</u> —		(A71)—		(A81)—	49
NON-RATED WITH GYP BD TO 6" ABOVE CEILING	(A12)—		(A22)—		(A32)—		(A42)—		(A52)—		A62—		(A72)—		(A82)—	
NON-RATED WITH STUDS & GYP BD TO FINISHED CEILING	(A13)—		(A23)—		(A33)—		(A43)—		(A53)—		(A63)—		(A73)—		(A83)—	
STUD SIZE	2 1/2"		2 1/2"		3 5/8"		3 5/8"		4"		4"		6"		6"	
BASIC PARTITION THICKNESS	3 3/4"		3 3/4"		4 7/8"		4 7/8"		5 1/4"		5 1/4"		7 1/4"		7 1/4"	
ACOUSTICAL INSULATION	-		YES		-		YES		-		YES		1		YES	
FIRE TEST NUMBER	-		UL DES U494		UL DES U465	;										

# INTERIOR PARTITION CHARTS GENERAL NOTES

#### PARTITION TYPE GENERAL NOTES

- NOT ALL PARTITION TYPES SHOWN ARE UTILIZED.
   PARTITION TYPE, FIRE-RESISTANCE RATING AND STC RATING INDICATED
  - FOR A GIVEN PARTITION ARE TO BE CONTINUOUS FOR THE LENGTH AND HEIGHT OF THAT PARTITION UNLESS OTHERWISE NOTED.
- CONSTRUCT FIRE-RESISTANCE RATED PARTITIONS BEFORE NON-RATED.
   ABUT NON-RATED PARTITIONS INTO RATED PARTITIONS.
   ISOLATE NON-LOAD-BEARING FRAMING FROM STRUCTURAL ELEMENTS TO PREVENT THE TRANSFER OF LOAD TO PARTITION FRAMING. UNLESS OTHERWISE NOTED, STOP VERTICAL STUDS 3/4" BELOW TOP OF CEILING
- RUNNER (TOP TRACK) TO ALLOW FOR VERTICAL DEFLECTION. DO NOT ATTACH STUDS OR GYPSUM BOARD TO CEILING RUNNER (TOP TRACK). THIS MAY ALSO BE ACHIEVED BY UTILIZING PROPRIETARY SYSTEMS DESCRIBED IN THE SPECIFICATIONS.

  PROVIDE DOUBLE-STUD FRAMING AT JAMBS OF ALL PARTITION OPENINGS. WHERE CONTROL JOINTS ARE REQUIRED BASED UPON SPECIFIED FREQUENCY, AND ARE NOT SHOWN ON INTERIOR ELEVATIONS, LOCATE

CONTROL JOINTS ON BOTH STRIKE AND HINGE SIDES OF DOORS. WHEN

PROVIDING CONTROL JOINTS AT DOORS DOES NOT MEET THE SPECIFIED FREQUENCY, PROVIDE DOUBLE-STUD CONTROL JOINT CONSTRUCTION AND VERIFY LOCATION WITH THE ARCHITECT PRIOR TO PROCEEDING.

7. PROVIDE SHEET METAL BLOCKING/BACKING FOR WALL MOUNTED ITEMS SPECIFIED OR SHOWN IN THE DRAWINGS.

### FIRE-RESISTANCE RATED PARTITIONS (THE FOLLOWING NOTES APPLY TO ALL PARTITIONS INDICATED TO HAVE A FIRE-RESISTANCE RATING.)

- PROVIDE PERMANENTLY STENCILED IDENTIFICATION ABOVE THE CEILING AT 4'-0" OC ON ALL FIRE-RESISTANCE RATED PARTITIONS. THE IDENTIFICATION SHALL BE A MINIMUM OF 4" HIGH AND READ AS FOLLOWS: "FIRE AND SMOKE BARRIER PROTECT ALL OPENINGS".
   FIRE-RESISTANCE RATED PARTITIONS SHALL BE CONSTRUCTED FROM THE
- TOP OF NON-FINISHED FLOOR TO THE UNDERSIDE OF THE FLOOR OR ROOF STRUCTURE ABOVE.

  3. THROUGH-PENETRATIONS IN FIRE-RESISTANCE RATED PARTITIONS SHALL BE SEALED WITH MATERIALS AND ASSEMBLIES NECESSARY TO MAINTAIN THE REQUIRED FIRE-RESISTANCE RATING.

ACOUSTICAL PARTITIONS (THE FOLLOWING NOTES APPLY TO ALL PARTITIONS DESIGNATED TO HAVE EITHER SOUND ATTENUATION BLANKETS OR A SOUND

### SEAL PARTITIONS AT ENTIRE PERIMETER WITH NON-HARDENING ACOUSTICAL SEALANT.

- 2. SOUND ATTENUATION BLANKETS ARE TO FILL THE DEPTH OF THE FRAMING
  CAVITY UNITESS OTHERWISE NOTED.
- CAVITY UNLESS OTHERWISE NOTED.

  3. DO NOT COMPRESS SOUND ATTENUATION BLANKETS AT BLOCKING OR
- 4. SEAL ALL WALL INTERSECTIONS AND CONTROL JOINTS WITH NON-HARDENING ACOUSTICAL SEALANT.
- SEAL ALL CONDUIT, STRUCTURAL, DUCT AND PIPE PENETRATIONS WITH NON-HARDENING ACOUSTICAL SEALANT.
   PROVIDE ACOUSTICAL PADS AROUND ANY ITEMS PENETRATING THE FACE
- OF PARTITION, INCLUDING ELECTRICAL AND TECHNOLOGY JUNCTION OR DEVICE BOXES.
- DEVICE BOXES.

  ELECTRICAL/TECHNOLOGY BOXES ON OPPOSITE SIDES OF A PARTITION ARE TO BE SEPARATED BY A MINIMUM OF 1 STUD SPACE.

TRANSMISSION CLASS (STC) RATING.)

RECESSED ITEMS.

## Perkins&Will

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MECHANICAL SERVICES ASSOC. CORP.

11 S. VIRGINIA STREET
CRYSTAL LAKE, IL 60014

ADJACENCIES
RENOVATIONS
PHASE 1

DES PLAINES CAMPUS
1600 EAST GOLF ROAD
DES PLAINES, IL, 60016



KEY PLAN

**ISSUE CHART** 

 1
 ISSUED FOR BID
 23 SEP 24

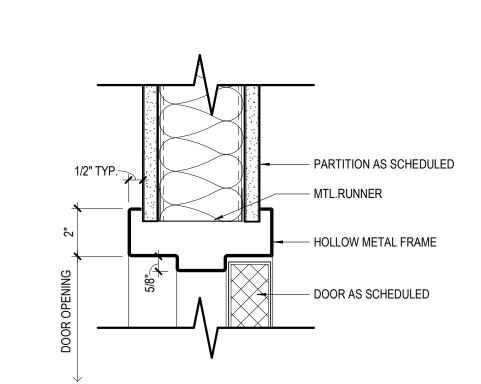
 MARK
 ISSUE
 DATE

 Joh Number
 021074 000

INTERIOR PARTITION TYPES & DETAILS

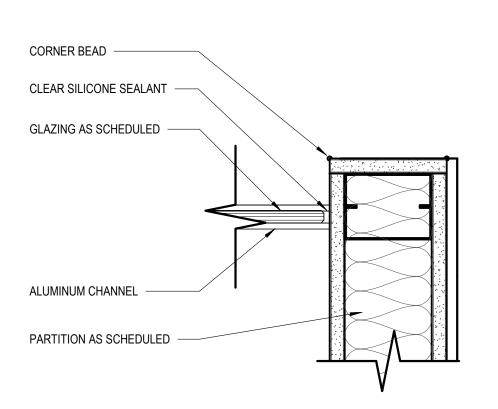
SHEET NUMBER

8.A61-01

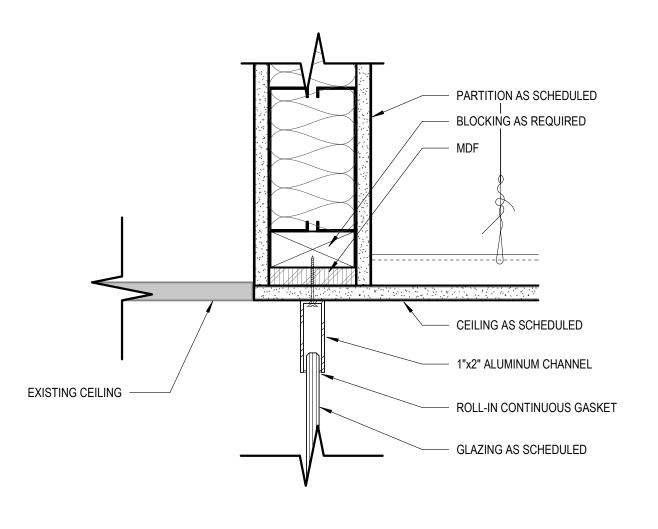


DETAIL - HM FRAME HEAD, TYP

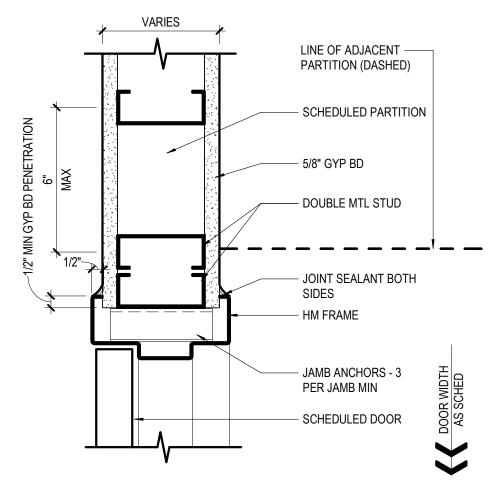
SCALE 3" = 1'-0"



5 TYP PLAN DETAIL GLASS PARTITION
SCALE 3" = 1'-0"

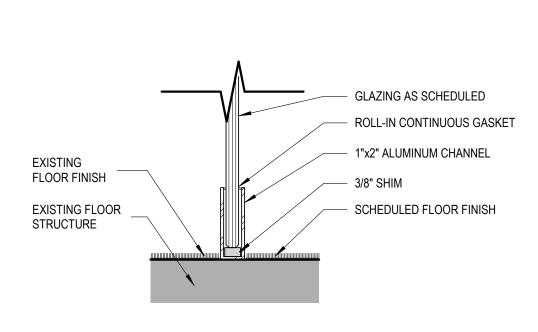


3 TYP HEAD DETAIL GLASS PARTITION SCALE 3" = 1'-0"



DETAIL - HM DOOR JAMB, TYP.

SCALE 3" = 1'-0"



BASE DETAIL GLASS PARTITION

SCALE 3" = 1'-0"

		FIRE	OPENII	NG SIZE		DOOR			FRAME		DE.	TAILS	HARDWARE	
DOOR NO	ROOM NAME	RATING	WIDTH	HEIGHT	TYPE	MATL	FINISH	TYPE	MATL	FINISH	HEAD	JAMB	SET NO	REMARKS
1820.A	ADRC RECEPTION		3' - 0"	9' - 1"	F	НМ	PT	F2	НМ	PT	4 / 8.A62-01	2 / 8.A62-01	E1.00	AUTOMATIC WAVE OPERATOR
1821.A	GROUP ROOM	_	3' - 0"	7' - 0"	F.	WD	PREFIN	F2-24	HM	PT	4 / 8.A62-01	2 / 8.A62-01	4.01	7.0.10.10.11.11.10.11.11.10.1
1822.A	MANAGER	_	3' - 0"	7' - 0"	F.	WD	PREFIN	F2-24	HM	PT	4 / 8.A62-01	2 / 8.A62-01	2.00	
1823.A	MANAGER	_	3' - 0"	7' - 0"	F	WD	PREFIN	F2-24	HM	PT	4 / 8.A62-01	2 / 8.A62-01	2.00	
1824.A	MANAGER	_	3' - 0"	7' - 0"	F	WD	PREFIN	F2-24	HM	PT	4 / 8.A62-01	2 / 8.A62-01	2.00	
1826.A	SR MANAGER	_	3' - 0"	7' - 0"	F.	WD	PREFIN	F2-24	HM	PT	4 / 8.A62-01	2 / 8.A62-01	2.00	
1827A	STOR / WORKROOM	_	3' - 0"	7' - 0"	F	WD	PREFIN	F2-24	HM	PT	4 / 8.A62-01	2 / 8.A62-01	2.00	
1830.A	TESTING RECEPTION	-	3' - 0"	9' - 1"	N	HM	PT	ETR	HM	PT	-	-	E1.01	AUTOMATIC PUSH PAD OPERATOR
1830.B	TESTING RECEPTION	-	3' - 0"	9' - 1"	N	НМ	PT	ETR	НМ	PT	-	-	E1.01	AUTOMATIC PUSH PAD OPERATOR
1830A.A	STORAGE	-	3' - 0"	7' - 0"	F	НМ	PT	F1	НМ	PT	4 / 8.A62-01	2 / 8.A62-01	2.01	
1830B.A	TESTING RECEPTION	-	3' - 0"	7' - 0"	F	НМ	PT	ETR	НМ	PT	-	-	3.01	
1830C.A	TESTING RECEPTION	-	3' - 0"	7' - 0"	F	НМ	PT	ETR	НМ	PT	-	-	3.00	
1831.A	TESTING RECEPTION	-	3' - 0"	7' - 0"	F	WD	PREFIN	F2-18	НМ	PT	4 / 8.A62-01	2 / 8.A62-01	1.00	
1831.B	TESTING RECEPTION	-	3' - 0"	7' - 0"	F	WD	PREFIN	F2-12	НМ	PT	4 / 8.A62-01	2 / 8.A62-01	1.00	
1832.A	TESTING RECEPTION	-	3' - 0"	7' - 0"	F	WD	PREFIN	F2-12	НМ	PT	4 / 8.A62-01	2 / 8.A62-01	1.00	
1832.B	OUTSIDE TESTING	-	3' - 0"	7' - 0"	F	HM	PT	F1	НМ	PT	4 / 8.A62-01	2 / 8.A62-01	4.00	
1833.A	ACCOMM.	-	3' - 0"	7' - 0"	F	WD	PREFIN	F2-36	НМ	PT	4 / 8.A62-01	2 / 8.A62-01	1.01	
1834.A	ACCOMM.	-	3' - 0"	7' - 0"	F	WD	PREFIN	F2-24	НМ	PT	4 / 8.A62-01	2 / 8.A62-01	1.01	
1835.A	TESTING RECEPTION	-	3' - 0"	7' - 0"	F	WD	PREFIN	F2-24	НМ	PT	4 / 8.A62-01	2 / 8.A62-01	1.01	
1836.A	ACCOMM.	-	3' - 0"	7' - 0"	F	WD	PREFIN	F2-24	НМ	PT	4 / 8.A62-01	2 / 8.A62-01	1.01	
1837.A	TESTING RECEPTION	-	3' - 0"	7' - 0"	F	WD	PREFIN	F2-24	НМ	PT	4 / 8.A62-01	2 / 8.A62-01	1.01	
1838.A	ACCOMM.	-	3' - 0"	7' - 0"	F	WD	PREFIN	F2-24	НМ	PT	4 / 8.A62-01	2 / 8.A62-01	1.01	
1839.A	MANAGER	-	3' - 0"	7' - 0"	F	WD	PREFIN	F2-48	НМ	PT	4 / 8.A62-01	2 / 8.A62-01	2.00	
2260.A	DEMONSTRATION / WORKSTATIONS	-	3' - 0"	7' - 0"	F	WD	PREFIN	F2-24	НМ	PT	4 / 8.A62-01	2 / 8.A62-01	2.02	
2262.A	COLLAB	-	3' - 0"	7' - 0"	F	WD	PREFIN	F2-36	НМ	PT	4 / 8.A62-01	2 / 8.A62-01	1.01	
2263.A	WORKROOM	-	3' - 0"	7' - 0"	F	HM	PT	F2-12	НМ	PT	4 / 8.A62-01	2 / 8.A62-01	2.00	
2264.A	MANAGER	-	3' - 0"	7' - 0"	F	WD	PREFIN	F2-48	НМ	PT	4 / 8.A62-01	2 / 8.A62-01	2.00	
2265.A	DIRECTOR	-	3' - 0"	7' - 0"	F	WD	PREFIN	F2-48	НМ	PT	4 / 8.A62-01	2 / 8.A62-01	2.00	
2266.A	DEMONSTRATION / WORKSTATIONS	-	3' - 0"	7' - 0"	F	WD	PREFIN	F2-48	НМ	PT	4 / 8.A62-01	2 / 8.A62-01	2.00	
2267.A	MANAGER	-	3' - 0"	7' - 0"	F	WD	PREFIN	F2-48	НМ	PT	4 / 8.A62-01	2 / 8.A62-01	2.00	
2268.A	MANAGER	-	3' - 0"	7' - 0"	F	WD	PREFIN	F2-12	НМ	PT	4 / 8.A62-01	2 / 8.A62-01	2.00	
2269.A	DEMONSTRATION / WORKSTATIONS	-	3' - 3 15/16"	7' - 7"	CW	-	-	-	-	-	-	-	5.00	DOOR & HARDWARE WITHIN CURTAIN WALL SYSTEM

DOOR TYPES	DOOR SCHEDULE GENERAL NOTES
HEFER TO DOOR SCHEDULE  REFER TO DOOR SCHEDULE  36" 21"	<ol> <li>GLAZING IN FIRE RESISTANCE RATED DOORS SHALL MATCH THE FIRE RESISTANCE RATING OF THE DOOR.</li> <li>ALL DOORS TO HAVE BOXED HEADERS UNLESS STEEL CHANNELS ARE INDICATED IN THE REMARKS COLUMN OF THE DOOR SCHEDULE OR UNLESS OTHERWISE INDICATED BY HEAD DETAIL.</li> <li>GLAZING IN DOORS SHALL BE CLEAR TEMPERED UNLESS NOTED OTHERWISE.</li> </ol>
FRAME TYPES	
DOOR FRAME F1  DOOR FRAME WITH SIDELITE F2-12 12" SIDELITE F2-14 18" SIDELITE F2-24 24" SIDELITE F2-36 36" SIDELITE F2-48 48" SIDELITE F2-48 48" SIDELITE	

		GLA	ZING SCHEDU	JLE	
TAG	TYPE	MFR (BASIS OF DESIGN)	DESCRIPTION / COLOR	THK	COMMENTS
GL-1	LAMINATED	-	CLEAR	3/8"	
GL-2	VISION UNIT	GUARDIAN	CLEAR; TEMPERED	3/8"	

SPEC SECTION	MARK	BASIS OF DESIGN MANUFACTURER	PRODUCT / STYLE	COLOR		TYPICAL LOCATIONS	NOTES
CASEWORK AND W	OODWORK						
06 62 20	PL1	WILSONART	PLASTIC LAMINATE	KENSINGTON MAPL	E 10776-60	TYPICAL BASE AND UPPER CABINETS	WOOD EFFECT
06 62 20	PL2	PIONITE	PLASTIC LAMINATE	AV971 MOONLIGHT	ING PAPEL	WORK SURFACE COUNTER TOPS	
06 40 00	WD1	CHICAGO DOORWAYS	PLAIN SLICED WHITE MAPLE	MATCH EXISTING D	OOORS	DOORS	GARDALL FINISH TO MATCH SAMPLE N2759-18GL
06 61 17	SS1	AVONITE SURFACES	SOLID SURFACE	7842 SATIN		BREAK ROOM COUNTERTOPS	EASED EDGES
CEILINGS							·
09 51 00	A C T 4	CERTAINTEER	24" X 24" - SYMPHONY M BEVELED, WHITE			TYPICAL ACQUICTIC PANIEL CELLING	
09 51 00	ACT1	CERTAINTEED	CHANNEL SLOT SYSTEM			TYPICAL ACOUSTIC PANEL CEILING	
FLOORING AND BAS	SE						·
09 65 19	RT1	ARMSTRONG FLOORING	PARALLEL USA 12	HAVANA HEATHER	J5262	18"x18" QUARTER TURN	PROVIDE MOISTURE MITIGATION ACCORDING TO TESTING PER SPEC
09 65 13	RB1	TARKETT	JOHNSONITE STANDARD WALL BASE 4"	ARCHITECT TO SEL	ECT FROM MANUF. FULL RANGE	TYPICAL THROUGHOUT	
CARPETS							
09 68 00	CPT1	SHAW CONTRACT	5T202 ACTIVE ADVANCE TILE, 12"x48" MONOLITHIC	04555 STRATEGY		OFFICE FIELD	
09 68 00	CPT2	SHAW CONTRACT	5T205 ACTIVE TURN TILE, 12"x48" MONOLITHIC	04555 STRATEGY		OFFICE ACCENT	
PAINTS							
09 91 00	PNT1	SHERWIN WILLIAMS			SW 7005 PURE WHITE	TYPICAL - WALLS & CEILINGS	
09 91 00	PNT2	SHERWIN WILLIAMS			SW 6779 LIQUID BLUE	ACCENT	
09 91 00	PNT3	SHERWIN WILLIAMS			SW 6710 MELANGE GREEN	ACCENT	
09 91 00	PNT4	BENJAMIN MOORE			BM 2135-30 NOCTURNAL GREY	DOOR FRAMES	
WINDOW SHADES							
12 24 00	WT1	DRAPER	E SCREEN - 3% OPEN	CHARCOAL/GREY		PERIMETER ROOMS	
OTHER	·						
08 87 00	GF1	3M	FASARA	MILKY WAY SH2MA	ML-1201	TYPICAL PRIVACY FILM AT TESTING	

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CONSULTANTS

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ADJACENCIES
RENOVATIONS
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1600 EAST GOLF ROAD
DES PLAINES, IL, 60016



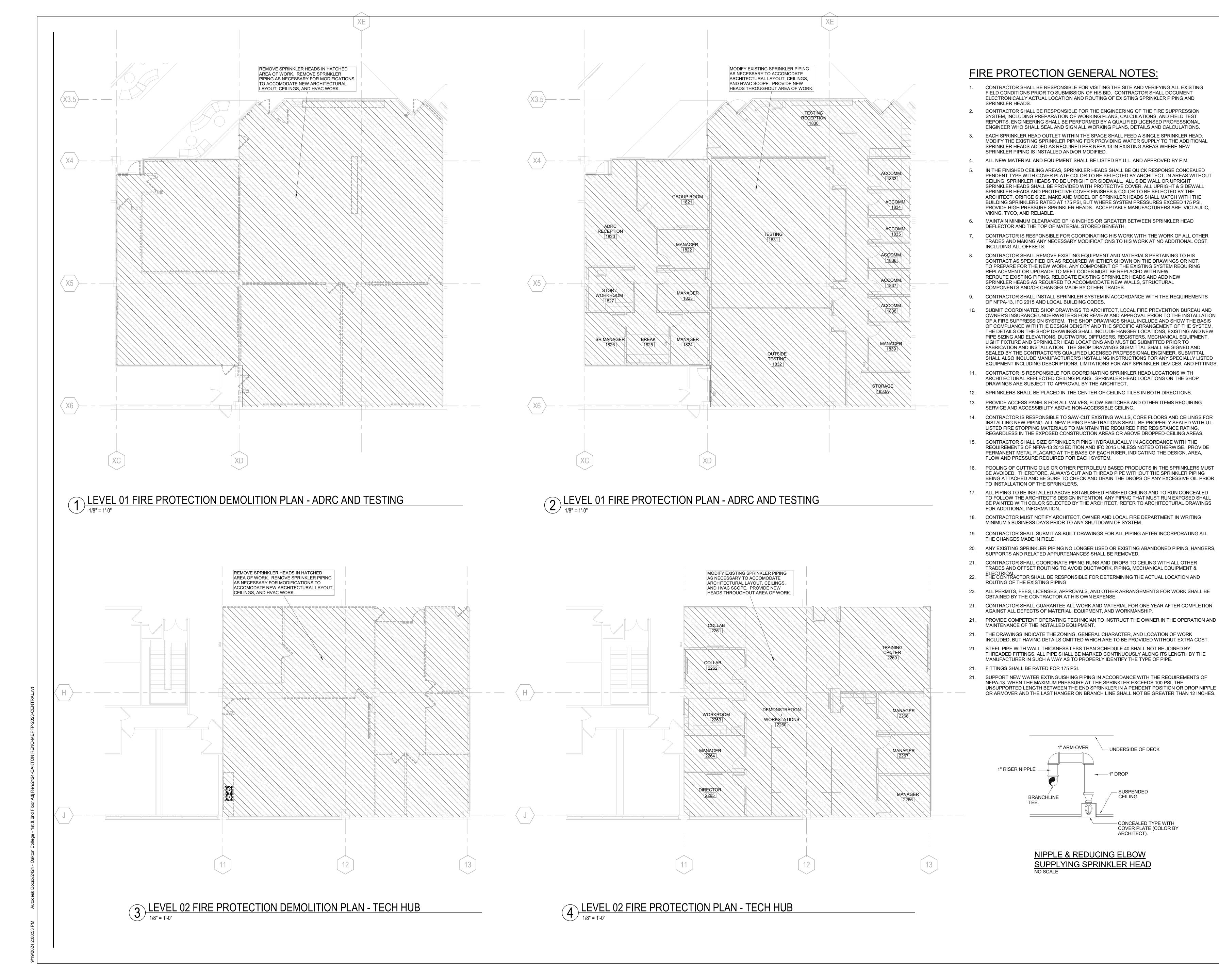
KEY PLAN

ISSUE CHART

FINISH SCHEDULE, DOOR SCHEDULE, LITES AND DETAILS

SHEET NUMBER

8.A62-01



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> **PROJECT ADJACENCIES RENOVATIONS**

DES PLAINES CAMPUS 1600 EAST GOLF ROAD DES PLAINES, IL, 60016



**KEY PLAN** 

**ISSUE CHART** 

1" ARM-OVER

- UNDERSIDE OF DECK

CEILING.

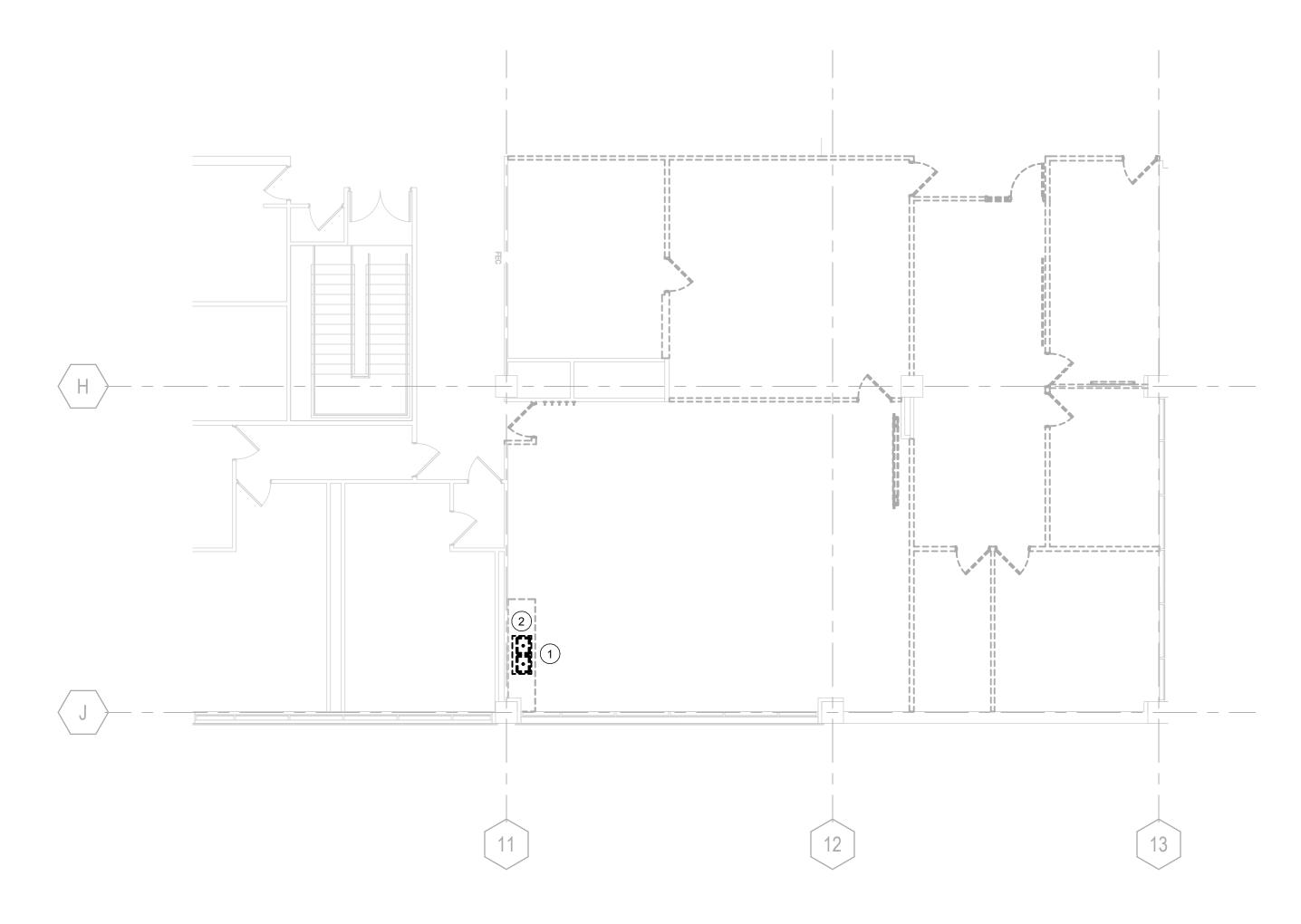
CONCEALED TYPE WITH COVER PLATE (COLOR BY ARCHITECT).

→ 1" DROP

FIRE PROTECTION **PLANS - PHASE 1** 

SHEET NUMBER

FP10-01



3 LEVEL 02 PLUMBING DEMOLITION PLAN - TECH HUB

1/8" = 1'-0"

### **GENERAL PLUMBING NOTES:**

#### **EXISTING CONDITIONS:**

- VERIFY EXISTING CONDITIONS AND LOCATIONS IN FIELD PRIOR TO BIDDING. FAILURE TO DO SO SHALL NOT RELIEVE CONTRACTOR FROM PERFORMING THE WORK REQUIRED UNDER THIS CONTRACT.
- 2. MAKE NECESSARY MODIFICATIONS AND ADJUSTMENTS TO ALL MECHANICAL, PLUMBING, AND ELECTRICAL ITEMS AND EQUIPMENT, BOTH NEW AND EXISTING, AS MAY BE REQUIRED BY THESE ALTERATIONS AND ADDITIONS.
- 3. DISCONNECT AT SOURCE AND REMOVE EXISTING PLUMBING FIXTURES, PIPING, HANGERS, ANCHORS, AND OTHER ITEMS WHICH ARE RENDERED OBSOLETE BY THESE ALTERATIONS AND ADDITIONS.
- THE OWNER RESERVES THE RIGHT TO SALVAGE ANY EQUIPMENT OR MATERIALS REMOVED BY THE CONTRACTOR. SALVAGED EQUIPMENT WILL BE IDENTIFIED & TAGGED BY OWNER PRIOR TO START OF DEMOLITION AND DIRECTION WILL BE GIVEN TO THE CONTRACTOR FOR TURN OVER OF THIS EQUIPMENT AT THE SCHOOL LOADING DOCK. COORDINATE WITH OWNER.
- 5. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO MAINTAIN THE EXISTING BUILDING IN OPERATION AT ALL TIMES DURING OCCUPIED PERIOD. IF IT IS ABSOLUTELY NECESSARY TO SHUT DOWN THE FACILITY AT ANY TIME, THE CONTRACTOR SHALL CONSULT WITH THE OWNER AND MAKE ARRANGEMENTS TO DO SO AT THE OWNER'S CONVENIENCE DURING OFF HOURS. CONTRACTOR SHALL PROVIDE OWNER ADVANCE NOTICE IN WRITING MINIMUM 3 BUSINESS DAYS PRIOR TO SHUT DOWN.
- 6. COORDINATE WORK WITH OTHER TRADES TO AVOID CONFLICTS AND DELAYS.
- 7. ALL CUTTING AND PATCHING AS REQUIRED FOR WORK TO BE BY THE CONTRACTOR. REFER TO SPECIFICATIONS.
- 8. WHERE THE EXISTING PIPING SERVING ANY EXISTING FIXTURE IN AREA OF EXISTING BUILDING NOT TO BE ALTERED IS INTERFERED WITH, CONTRACTOR SHALL REROUTE AND RECONNECT ALL SUCH PIPING WITH PRIOR APPROVAL FROM THE ENGINEER.

#### INSPECTING EXISTING BUILDING:

- 1. THE CONTRACTORS SHALL VISIT AND INSPECT THE EXISTING BUILDING AND SHALL THOROUGHLY FAMILIARIZE THEMSELVES WITH ACTUAL JOB CONDITIONS PRIOR TO BIDDING. NO EXTRAS WILL BE ALLOWED FOR WORK WHICH MIGHT HAVE BEEN REASONABLY FORESEEN BY AN INSPECTION OF THESE PREMISES.
- 2. WHILE THE SIZE AND LOCATION OF NEW WORK AND EQUIPMENT IN THE EXISTING BUILDING HAS BEEN INDICATED ON THE DRAWINGS AS ACCURATELY AS POSSIBLE, CONTRACTOR SHALL ADJUST HIS WORK AS REQUIRED TO AVOID EXISTING DUCTS, PIPINGS, CONDUITS, AND BEAMS NOT SHOWN ON PLANS. CONTRACTOR SHALL ADAPT HIS WORK TO MEET ALL ACTUAL CONDITIONS ON THE EXISTING PREMISES.
- 3. CONTRACTOR SHALL INSPECT THE PREMISES AND MAKE A DETAILED EXAMINATION OF ALL LOCATIONS WHERE NEW WORK IS TO BE INSTALLED AND SHALL EXAMINE EXISTING PIPING, CONDUITS, STRUCTURAL SUPPORTING BEAMS, ETC.

### **PLUMBING DEMOLITION NOTES:**

- (1) REMOVE LABORATORY SINK COMPLETE. COORDINATE REMOVAL OF ASSOCIATED CASEWORK WITH ARCHITECTURAL. REMOVE DRAIN AND VENT PIPING BACK TO SOURCE IN WALL, ABOVE CEILING, AND/OR BELOW FLOOR AND CAP. REMOVE DOMESTIC WATER PIPING BACK TO ACTIVE SOURCE AND CAP. FIELD VERIFY EXISTING PIPING AND EXTENT OF DEMOLITION NECESSARY. SAWCUT AND PATCH WALLS, FLOORS, ETC. AS NECESSARY FOR DEMOLITION OF PLUMBING. COORDINATE WITH ARCHITECTURAL FOR PATCHING OF ALL SURROUNDING MATERIALS.
- (2) REMOVE LABORATORY GAS VALVE COMPLETE. REMOVE BACK TO ACTIVE SOURCE AND CAP. FIELD VERIFY EXITING PIPING AND EXTENT OF DEMOLITION NECESSARY. SAWCUT AND PATCH WALLS, FLOORS, ETC. AS NECESSARY FOR DEMOLITION OF GAS PIPING. COORDINATE WITH ARCHITECTURAL FOR PATCHING OF ALL SURROUNDING MATERIALS.

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ADJACENCIES RENOVATIONS

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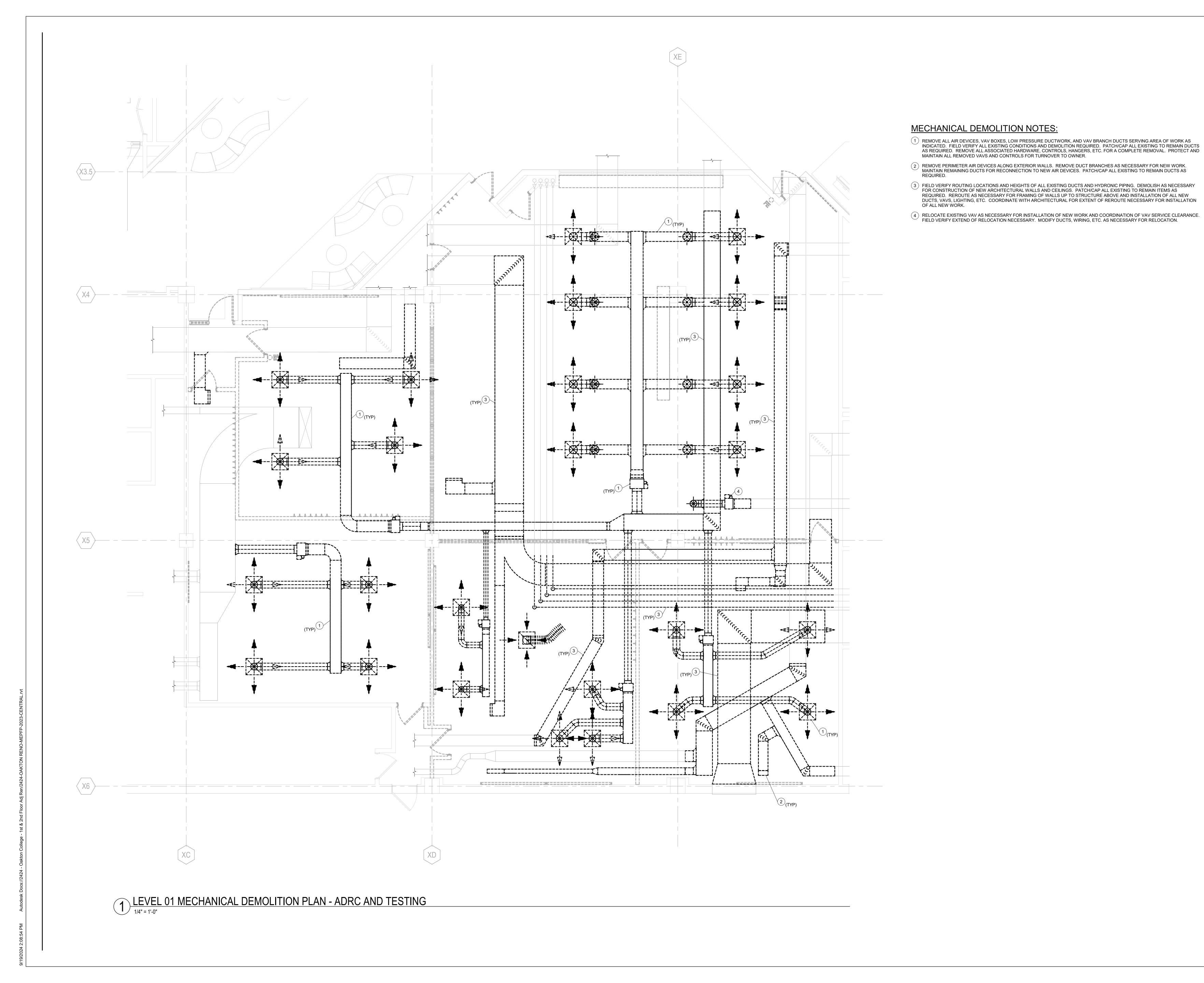
KEY PLAN

ISSUE CHART

PLUMBING DEMOLITION PLAN - PHASE 1

SHEET NUMBER

P04-01



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PROJECT **ADJACENCIES RENOVATIONS** 

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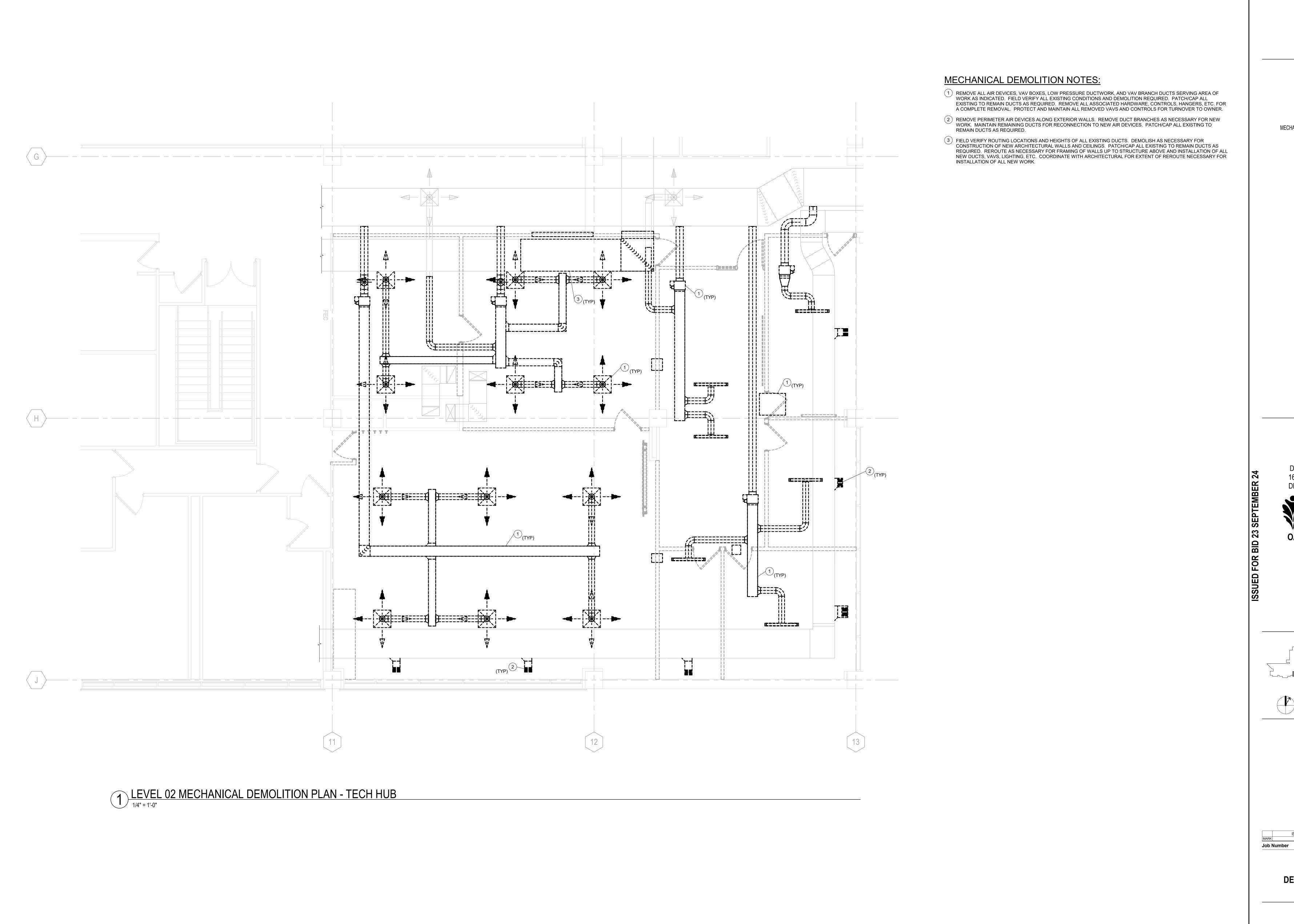
**KEY PLAN** 

**ISSUE CHART** 

**MECHANICAL DEMOLITION PLAN -**PHASE 1

SHEET NUMBER

M04-01



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ADJACENCIES RENOVATIONS

DES PLAINES CAMPUS 1600 EAST GOLF ROAD DES PLAINES, IL, 60016



KEY PLAN

ISSUE CHART

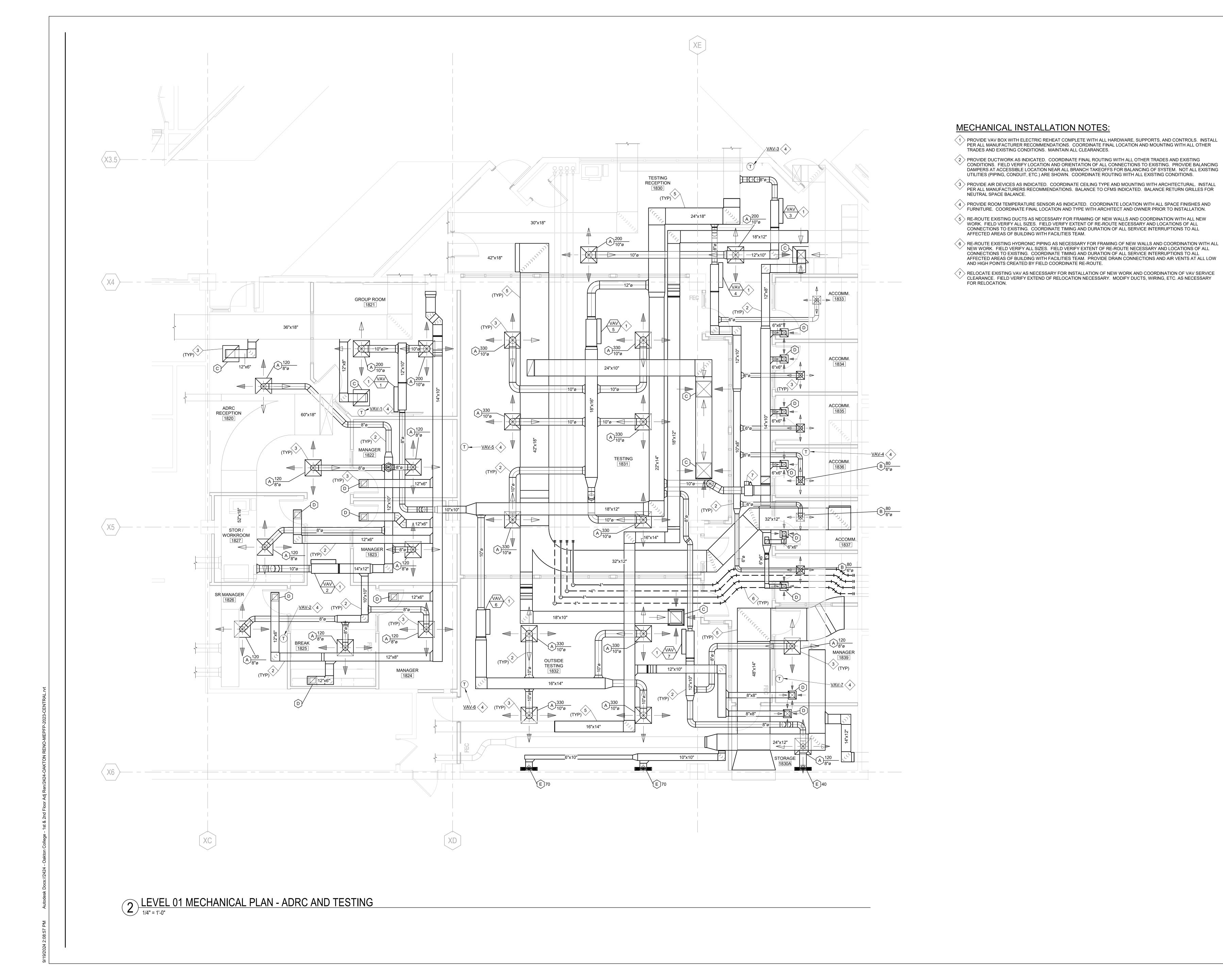
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TITLE MECHANICAL

DEMOLITION PLAN -PHASE 1

SHEET NUMBER

M04-02



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> PROJECT **ADJACENCIES RENOVATIONS**

DES PLAINES CAMPUS 1600 EAST GOLF ROAD DES PLAINES, IL, 60016

**OAKTON COLLEGE** 

**KEY PLAN** 

**ISSUE CHART** 

**MECHANICAL PLAN -**PHASE 1

SHEET NUMBER

M10-01

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## PROVIDE DUCTWORK AS INDICATED. COORDINATE FINAL ROUTING WITH ALL OTHER TRADES AND EXISTING CONDITIONS. FIELD VERIFY LOCATION AND ORIENTATION OF ALL CONNECTIONS TO EXISTING. PROVIDE BALANCING DAMPERS AT ACCESSIBLE LOCATION NEAR ALL BRANCH TAKEOFFS FOR BALANCING OF SYSTEM. NOT ALL EXISTING

4 PROVIDE ROOM TEMPERATURE SENSOR AS INDICATED. COORDINATE LOCATION WITH ALL SPACE FINISHES AND FURNITURE. COORDINATE FINAL LOCATION AND TYPE WITH ARCHITECT AND OWNER PRIOR TO INSTALLATION.

PER ALL MANUFACTURERS RECOMMENDATIONS. BALANCE TO CFMS INDICATED. BALANCE RETURN GRILLES FOR NEUTRAL SPACE BALANCE.

1 PROVIDE VAV BOX WITH ELECTRIC REHEAT COMPLETE WITH ALL HARDWARE, SUPPORTS, AND CONTROLS. INSTALL PER ALL MANUFACTURER RECOMMENDATIONS. COORDINATE FINAL LOCATION AND MOUNTING WITH ALL OTHER

igs 5 RE-ROUTE EXISTING RETURN DUCT AS NECESSARY FOR FRAMING OF NEW WALLS AND COORDINATION WITH ALL NEW WORK. FIELD VERIFY ALL SIZES. FIELD VERIFY EXTENT OF RE-ROUTE NECESSARY AND LOCATIONS OF ALL CONNECTIONS TO EXISTING. COORDINATE TIMING AND DURATION OF ALL SERVICE INTERRUPTIONS TO ALL AFFECTED AREAS OF BUILDING WITH FACILITIES TEAM.

UTILITIES (PIPING, CONDUIT, ETC.) ARE SHOWN. COORDINATE ROUTING WITH ALL EXISTING CONDITIONS.

(3) PROVIDE AIR DEVICES AS INDICATED. COORDINATE CEILING TYPE AND MOUNTING WITH ARCHITECTURAL. INSTALL

MECHANICAL INSTALLATION NOTES:

TRADES AND EXISTING CONDITIONS. MAINTAIN ALL CLEARANCES.

- 6 MAINTAIN EXISTING SUPPLY AIR DEVICE IN CORRIDOR. CLEAN THOROUGHLY FOR REUSE. MODIFY BRANCH DUCTS AS NECESSARY AND CONNECT TO NEW SUPPLY DUCTWORK AS INDICATED. FIELD VERIFY BRANCH SIZES. REBALANCE TO CFM INDICATED.
- PROVIDE PERIMETER SLOT DIFFUSER AS INDICATED. COORDINATE FINAL LOCATION AND MOUNTING WITH ARCHITECTURAL. PROVIDE WITH PLENUM AND CONNECT TO EXISTING SUPPLY MAIN. BALANCE TO CFM INDICATED.

PROJECT ADJACENCIES RENOVATIONS

DES PLAINES CAMPUS 1600 EAST GOLF ROAD DES PLAINES, IL, 60016



**KEY PLAN** 

**ISSUE CHART** 

**MECHANICAL PLAN -**PHASE 1

SHEET NUMBER

M10-02

- CONTRACTOR SHALL BE RESPONSIBLE FOR VISITING THE SITE AND VERIFYING ALL EXISTING FIELD CONDITIONS PRIOR TO SUBMISSION OF HIS BID. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CHASES, DUCTWORK AND PIPE SIZES. NO EXTRA COMPENSATION WILL BE ALLOWED FOR
- THE CONTRACTOR FAILING TO DO SO. CONTRACTOR SHALL FIELD VERIFY LOCATIONS, SIZES AND CAPACITIES OF ALL EQUIPMENT, APPARATUS AND DEVICES, INCLUDING BUT NOT LIMITED TO TERMINAL UNITS, FANS, CONVECTORS, FANS, ETC.
- CONTRACTOR SHALL FAMILIARIZE THEMSELVES WITH PROCESS FOR ACCESSING SITE, ROOF, FLOOR AND SPACE. CONTRACTOR SHALL NOT CUT ANY HOLES, IN FACADE, ROOF, FLOORS, ETC. UNLESS COMPLETELY NECESSARY AND WITH PRIOR APPROVAL FROM THE OWNER AND ARCHITECT. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COSTS INCLUDING PATCHING AND REPAIR REQUIRED TO RETURN TO ORIGINAL
- THE CONTRACT DOCUMENTS ARE DIAGRAMMATIC IN NATURE AND INDICATE APPROXIMATE LOCATION OF DUCTWORK, PIPING AND EQUIPMENT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING THE ACTUAL LOCATIONS, SIZES AND ROUTING OF THE EXISTING DUCTS, PIPING, ETC. A) CONTRACTOR SHALL REMOVE EXISTING EQUIPMENT AND MATERIALS PERTAINING TO HIS CONTRACT AS SPECIFIED OR AS REQUIRED WHETHER SHOWN ON THE DRAWINGS OR NOT, TO PREPARE FOR THE NEW WORK. OWNER TO BE PROVIDED WITH RIGHT OF REFUSAL FOR SALVAGE VALUE OR ATTIC STOCK. IF OWNER REFUSES CONTRACTOR SHALL REMOVE ALL DEMOLISHED EQUIPMENT AND MATERIALS FROM
  - THE SITE AND PROPERLY DISPOSE. CONTRACTOR SHALL PROVIDE LABOR, MATERIALS AND EQUIPMENT AND INSTALL SAME AS REQUIRED TO ACCOMPLISH WORK AND PROVIDE COMPLETE AND FULLY FUNCTIONING SYSTEMS.
- CONTRACTOR IS RESPONSIBLE FOR COORDINATING HIS WORK WITH THE WORK OF ALL OTHER TRADES AND MAKING ANY NECESSARY MODIFICATIONS TO HIS WORK AT NO ADDITIONAL COST, INCLUDING ALL OFFSETS.
- CONTRACTOR SHALL BE RESPONSIBLE FOR RELOCATION OF ANY EXISTING MINOR INTERFERENCES, INCLUDING CONDUIT, HANGERS, ETC., AT NO ADDITIONAL COST.
- ALL WORK SHALL BE IN ACCORDANCE WITH 2015 INTERNATIONAL MECHANICAL CODE AND THE LATEST EDITION OF THE ILLINOIS ENERGY CONSERVATION CODE. THESE CODES SHALL BE FOLLOWED AS MINIMUM PROVIDING HIGHER GRADES OF MATERIAL AND WORKMANSHIP WHERE REQUIRED BY THESE DOCUMENTS. PROVIDE ALL TESTS REQUIRED BY LOCAL CODES.
- ALL EQUIPMENT, MATERIALS, ETC. SHALL COMPLY WITH THE 2021 INTERNATIONAL ENERGY CONSERVATION CODE (IECC).
- ALL PERMITS, FEES, LICENSES, APPROVALS AND OTHER ARRANGEMENTS FOR WORK SHALL BE OBTAINED BY THE CONTRACTOR AT HIS OWN EXPENSE.
- ALL EQUIPMENT, TERMINAL UNITS, REHEAT COILS, DAMPERS, DIFFUSERS AND GRILLES SHALL BE UL LISTED.
- SUBMITTALS
- SUBMIT EQUIPMENT SPECIFICATIONS AND CUTS FOR REVIEW AND APPROVAL. SUBMIT ASSEMBLED PRINTED OPERATION AND MAINTENANCE MANUALS OF EACH ITEM INSTALLED ALONG WITH EQUIPMENT CUTS AND
- CONTROL WIRING DIAGRAMS IN ACCORDANCE WITH SECTION C408.1.1 OF THE 2018 IECC. SUBMIT COORDINATED SHOP DRAWINGS FOR REVIEW. THE SHOP DRAWINGS SHALL INDICATE PIPING, DUCT, DIFFUSER, LIGHT FIXTURE.
- STRUCTURE AND THERMOSTAT LOCATIONS AND MUST BE SUBMITTED PRIOR TO FABRICATION AND INSTALLATION. CONTRACTOR SHALL SUBMIT CERTIFIED TEST AND BALANCE REPORTS FOR APPROVAL PRIOR TO FINAL INSPECTION BY AHJ. SUBMIT EQUIPMENT FUNCTIONAL TEST RESULTS, CONTROLS FUNCTIONAL TEST RESULTS AND ECONOMIZER FUNCTIONAL TEST RESULTS
- PRIOR TO FINAL INSPECTION BY AHJ. SUBMIT ITEMIZED DEFICIENCIES LIST AND DEFERRED TESTING LIST PRIOR TO FINAL INSPECTION BY AHJ.
- SUBMIT SCHEDULE FOR ALL REQUIRED TRAINING PRIOR TO FINAL INSPECTION BY AHJ. SUBMIT AS-BUILT DRAWING INDICATING A NUMBERING SYSTEM WHICH CORRELATES PLAN WITH BALANCE REPORT, VAV BOXES, ETC.
- SUBMIT AS-BUILT DRAWINGS FOR DUCTWORK AND PIPING, INCLUDING THERMOSTAT LOCATIONS. SUBMIT EQUIPMENT AND CONTROL OPERATIONS AND MAINTENANCE MANUALS TO OWNER WITHIN 90 DAYS OF ISSUANCE OF CERTIFICATE
- ALL DEFICIENCIES SHALL BE CORRECTED AND THE FUNCTIONAL TEST RESULTS SUBMITTED WITHIN 90 DAYS OF ISSUANCE OF CERTIFICATE
- CONTRACTOR SHALL GUARANTEE ALL WORK AND MATERIAL FOR ONE YEAR AFTER FINAL ACCEPTANCE AGAINST ALL DEFECTS OF MATERIAL.
- EQUIPMENT AND WORKMANSHIP.
- PROVIDE COMPETENT MANUFACTURER CERTIFIED OPERATING TECHNICIAN TO INSTRUCT THE OWNER IN THE OPERATION AND MAINTENANCE OF ALL INSTALLED EQUIPMENT AND TEMPERATURE CONTROLS. TRAINING MUST BE COMPLETED WITHIN 90 DAYS OF THE ISSUANCE OF CERTIFICATE OF OCCUPANCY. SUBMIT SCHEDULE OF TRAINING SESSIONS PRIOR TO FINAL INSPECTION BY AHJ.
- 12) THE DRAWING INDICATES GENERAL CHARACTER AND LOCATION OF WORK INCLUDED, BUT HAVING MINOR SPECIALTIES OMITTED WHICH ARE TO BE
- 13) PROVIDE ISOLATION VALVES FOR ALL PIPING TAKE-OFFS FROM MAINS.
- PROVIDE ALL CORES, OPENINGS, SLEEVES AND CAULKING FOR INSTALLATION OF THIS WORK. CAULKING TO CONFORM TO FIRE RATING OF WALLS.
- VERIFY EXACT LOCATION OF TEMPERATURE SENSORS WITH OWNER AND ARCHITECT PRIOR TO INSTALLATION.
- PROVIDE AND INSTALL VALVE TAGS, PIPE LABELS AND DUCTWORK LABELS. SUBMIT PROPOSED VALVE TAG AND LABELING NOMENCLATURE FOR REVIEW. PROVIDE OWNER WITH VALVE SCHEDULE IN FORMAT DETERMINED BY OWNER.
- CONTRACTOR SHALL CUT ALL OPENINGS REQUIRED FOR HIS WORK. ALL OPENINGS SHALL BE SEALED AIR TIGHT. CONTRACTOR SHALL ALSO PATCH AND SEAL ANY EXISTING OPENINGS LEFT UNUSED AS A RESULT OF THIS WORK.
- ALL NEW CONTROLS SHALL BE DDC. EXTEND EXISTING SYSTEM AS REQUIRED FOR NEW WORK. PROVIDE AND INSTALL TEMPERATURE SENSORS, CONDUIT. CABLING AND NECESSARY LOCAL AND NETWORK CONTROLLERS REQUIRED FOR A FULLY OPERATING SYSTEM. INCORPORATE NEW WORK, USING OWNER STANDARD SEQUENCES FOR SIMILAR SYSTEMS AND PROVIDE NEW GRAPHICS, ALARMS, ETC. TO MEET OWNER'S STANDARD.
- COMMISSIONING PLAN.
- CERTIFY THAT HVAC&R SYSTEMS. SUBSYSTEMS, AND EQUIPMENT HAVE BEEN INSTALLED. CALIBRATED, AND STARTED AND ARE OPERATING ACCORDING TO THE CONTRACT DOCUMENTS AND APPROVED SHOP DRAWINGS AND SUBMITTALS. CERTIFY THAT HVAC&R INSTRUMENTATION AND CONTROL SYSTEMS HAVE BEEN COMPLETED AND CALIBRATED, THAT THEY ARE OPERATING ACCORDING TO THE CONTRACT DOCUMENTS AND APPROVED SHOP DRAWINGS AND SUBMITTALS, AND THAT PRETEST SET POINTS HAVE
- CERTIFY THAT TAB PROCEDURES HAVE BEEN COMPLETED AND THAT TAB REPORTS HAVE BEEN SUBMITTED, DISCREPANCIES CORRECTED,
- SET SYSTEMS, SUBSYSTEMS, AND EQUIPMENT INTO OPERATING MODE TO BE TESTED ACCORDING TO APPROVED TEST PROCEDURES (E.G., NORMAL SHUTDOWN, NORMAL AUTO POSITION, NORMAL MANUAL POSITION, UNOCCUPIED CYCLE, EMERGENCY POWER, AND ALARM
- MEASURE CÁPACITIES AND EFFECTIVENESS OF SYSTEMS, ASSEMBLIES, SUBSYSTEMS, EQUIPMENT, AND COMPONENTS, INCLUDING OPERATIONAL AND CONTROL FUNCTIONS TO VERIFY COMPLIANCE WITH ACCEPTANCE CRITERIA.
- TEST SYSTEMS, ASSEMBLIES, SUBSYSTEMS, EQUIPMENT, AND COMPONENTS OPERATING MODES, INTERLOCKS, CONTROL RESPONSES, AND RESPONSES TO ABNORMAL OR EMERGENCY CONDITIONS, AND RESPONSE ACCORDING TO ACCEPTANCE CRITERIA.
- CONSTRUCTION CHECKLISTS: PREPARE AND SUBMIT DETAILED CONSTRUCTION CHECKLISTS FOR HVAC&R SYSTEMS, SUBSYSTEMS, EQUIPMENT, AND COMPONENTS.
- CONTRIBUTORS TO THE DEVELOPMENT OF CONSTRUCTION CHECKLISTS SHALL INCLUDE, BUT ARE NOT LIMITED TO, THE FOLLOWING:
- HVAC&R SYSTEMS AND EQUIPMENT INSTALLERS. TAB TECHNICIANS.

REPORT IT TO OWNER. AFTER DEFICIENCIES ARE RESOLVED, RESCHEDULE TESTS.

- HVAC&R INSTRUMENTATION AND CONTROLS INSTALLERS. PERFORM TESTS USING DESIGN CONDITIONS, WHENEVER POSSIBLE.
  - SIMULATED CONDITIONS MAY, WITH APPROVAL OF ARCHITECT, BE IMPOSED USING AN ARTIFICIAL LOAD WHEN IT IS IMPRACTICAL TO TEST UNDER DESIGN CONDITIONS. BEFORE SIMULATING CONDITIONS, CALIBRATE TESTING INSTRUMENTS. PROVIDE EQUIPMENT TO SIMULATE LOADS. SET SIMULATED CONDITIONS AS DIRECTED BY COMMISSIONING COORDINATOR AND DOCUMENT SIMULATED CONDITIONS AND METHODS OF SIMULATION. AFTER TESTS, RETURN CONFIGURATIONS AND SETTINGS TO NORMAL OPERATING CONDITIONS.
  - COMMISSIONING TEST PROCEDURES MAY DIRECT THAT SET POINTS BE ALTERED WHEN SIMULATING CONDITIONS IS IMPRACTICAL. COMMISSIONING TEST PROCEDURES MAY DIRECT THAT SENSOR VALUES BE ALTERED WITH A SIGNAL GENERATOR WHEN DESIGN OR
- SIMULATING CONDITIONS AND ALTERING SET POINTS ARE IMPRACTICAL. IF TESTS CANNOT BE COMPLETED BECAUSE OF A DEFICIENCY OUTSIDE THE SCOPE OF THE HVAC&R SYSTEM, DOCUMENT THE DEFICIENCY AND
- IF SEASONAL TESTING IS SPECIFIED, COMPLETE APPROPRIATE INITIAL PERFORMANCE TESTS AND DOCUMENTATION AND SCHEDULE SEASONAL
- COORDINATE SCHEDULE WITH, AND PERFORM THE FOLLOWING ACTIVITIES AT THE DIRECTION OF, COMMISSIONING COORDINATOR.
- COMPLY WITH CONSTRUCTION CHECKLIST REQUIREMENTS, INCLUDING MATERIAL VERIFICATION, INSTALLATION CHECKS, START-UP, AND PERFORMANCE TESTS REQUIREMENTS SPECIFIED IN SECTIONS SPECIFYING HVAC SYSTEMS AND EQUIPMENT.
- PROVIDE TECHNICIANS, INSTRUMENTATION, TOOLS, AND EQUIPMENT TO COMPLETE AND DOCUMENT THE FOLLOWING:
- PERFORMANCE TESTS.
- DEMONSTRATION OF A SAMPLE OF PERFORMANCE TESTS. COMMISSIONING TESTS.
- COMMISSIONING TEST DEMONSTRATIONS.
- COMMISSIONING AND COMPLETION REQUIREMENTS: PRIOR TO FINAL INSPECTION BY AUTHORITY HAVING JURISDICTION SUBMIT THE FOLLOWING
  - HVAC SYSTEMS TEST AND BALANCE REPORT.
  - FUNCTIONAL PERFORMANCE TESTING REPORTS FOR THE FOLLOWING: HVAC EQUIPMENT SHALL UNDERGO FUNCTIONAL PERFORMANCE TESTING TO DEMONSTRATE THAT THE INSTALLATION AND OPERATION OF COMPONENTS. SYSTEMS AND SYSTEM TO SYSTEM INTERFACING ARE IN ACCORDANCE WITH APPROVED PLANS AND SPECIFICATIONS. TESTING SHALL INCLUDE ALL MODES AS DESCRIBED IN THE SEQUENCE OF OPERATION AT FULL LOAD AND PART LOAD, REDUNDANT MODE, PERFORMANCE OF ALARMS AND MODE OF OPERATION UPON LOSS OF POWER AND RESTORATION
  - HVAC CONTROL SYSTEM SHALL BE TESTED TO DOCUMENT PROPER CALIBRATION AND ADJUSTMENT AND THAT THE SYSTEMS OPERATE IN ACCORDANCE WITH PLANS AND SPECIFICATIONS. SEQUENCE OF OPERATIONS SHALL BE FUNCTIONALLY TESTED TO
  - AIR ECONOMIZERS SHALL BE TESTED TO DOCUMENT PROPER OPERATION IN ACCORDANCE WITH THE MANUFACTURERS
  - ITEMIZED LIST OF DEFICIENCIES FOUND DURING TESTING THAT HAVE NOT BEEN CORRECTED. DEFERRED TESTS THAT COULD NOT BE PERFORMED BECAUSE OF CLIMATIC CONDITIONS AND THE CLIMATIC CONDITIONS REQUIRED FOR
- FUNCTIONAL PERFORMANCE TEST PROCEDURES USED DURING COMMISSIONING PROCESS AND MEASURABLE CRITERIA FOR TEST
- RECORD OF TRANSMITTANCE OF ALL OPERATION AND MAINTENANCE MANUALS

### MECHANICAL GENERAL DEMOLITION NOTES:

NOTES RE: EXISTING CONDITIONS

- 1. VERIFY EXISTING CONDITIONS AND LOCATIONS IN FIELD PRIOR TO BIDDING. FAILURE TO DO SO SHALL NOT RELIEVE CONTRACTOR FROM PERFORMING THE WORK REQUIRED UNDER THIS CONTRACT.
- MAKE NECESSARY MODIFICATIONS AND ADJUSTMENTS TO ALL MECHANICAL AND ELECTRICAL ITEMS AND EQUIPMENT, BOTH NEW AND EXISTING, AS MAY BE REQUIRED BY THESE ALTERATIONS AND ADDITIONS.
- DISCONNECT AT SOURCE AND REMOVE EXISTING ELECTRICAL MATERIALS AND EQUIPMENT AND ALL OTHER MECHANICAL ITEMS WHICH ARE RENDERED OBSOLETE BY THESE ALTERATIONS AND ADDITIONS. THESE ARE THE PROPERTY OF THE OWNER AND SHALL EITHER BE REMOVED FROM THE SITE OR RETURNED TO THE OWNER'S STOCK AT THE DISCRETION OF THE OWNER.
- DISCONNECT, REMOVE AND RELOCATE EXISTING MECHANICAL MATERIALS AND EQUIPMENT, AND ALL OTHER MECHANICAL ITEMS WHICH INTERFERE OR ARE INTERFERED WITH, OBSTRUCT OR ARE OBSTRUCTED BY THESE LOCATIONS AS DIRECTED. RECONNECT SUCH ITEMS IN PROPER OPERATING CONDITION AT NEW LOCATIONS.
- 5. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO MAINTAIN THE EXISTING BUILDING IN MECHANICAL OPERATION AT ALL TIMES DURING THE ENTIRE CONSTRUCTION PERIOD. IF IT IS ABSOLUTELY NECESSARY TO SHUT DOWN THE FACILITY AT ANY TIME, THE CONTRACTOR SHALL CONSULT WITH THE OWNER AND MAKE ARRANGEMENTS TO DO SO AT THE OWNER'S CONVENIENCE. PRIOR NOTICE SHALL BE GIVEN.
- COORDINATE WORK WITH OTHER TRADES TO AVOID CONFLICTS AND DELAYS.
- ALL CUTTING AND PATCHING AS REQUIRED FOR WORK TO BE BY THE CONTRACTOR. 8. WHERE EXISTING CONDUITS HAVE BEEN MADE OBSOLETE BY THESE ALTERATIONS AND ADDITIONS AND IT
  - IS IMPRACTICAL TO REMOVE SAME, CONTRACTOR SHALL: CUT PIPING, CONDUITS AND DUCTS OFF AT SLAB OR WALL LINE.

CAP ALL OBSOLETE PIPING AND DUCTWORK.

- WHERE THE EXISTING PIPING, CONDUIT OR DUCTWORK SERVING ANY EXISTING MECHANICAL EQUIPMENT IN AREA OF EXISTING BUILDING NOT BE ALTERED IS INTERFERED WITH, CONTRACTOR SHALL REROUTE AND RECONNECT ALL SUCH PIPES OR DUCTWORK.
- 10. CONTRACTOR IS RESPONSIBLE FOR ISOLATING, DRAINING, REFILLING & VENTING OF ALL SYSTEMS REQUIRED FOR EXECUTION OF WORK. COORDINATE PROCEDURES WITH OWNER.

#### NOTES RE: INSPECTING EXISTING BUILDING

- THE CONTRACTORS SHALL VISIT AND INSPECT THE EXISTING BUILDING AND SHALL THOROUGHLY FAMILIARIZE THEMSELVES WITH ACTUAL JOB CONDITIONS PRIOR TO BIDDING. NO EXTRAS WILL BE ALLOWED FOR WORK WHICH MIGHT HAVE BEEN REASONABLY FORESEEN BY AN INSPECTION OF THESE
- WHILE THE SIZE AND LOCATION OF NEW WORK AND EQUIPMENT IN THE EXISTING BUILDING HAS BEEN INDICATED ON THE DRAWINGS AS ACCURATELY AS POSSIBLE, CONTRACTOR SHALL ADJUST HIS WORK AS REQUIRED TO AVOID EXISTING DUCTS, PIPES, CONDUITS AND BEAMS NOT SHOWN ON PLANS. CONTRACTOR SHALL ADAPT HIS WORK TO MEET ALL ACTUAL CONDITIONS ON THE EXISTING PREMISES.
- CONTRACTOR SHALL INSPECT THE PREMISES AND MAKE A DETAILED EXAMINATION OF ALL LOCATIONS WHERE NEW WORK IS TO BE INSTALLED AND SHALL EXAMINE EXISTING PIPING, CONDUITS, STRUCTURAL SUPPORTING BEAMS, ETC.
- CONTRACTOR AFTER INSPECTING THE PREMISES AND THE DRAWINGS SHALL CALL TO THE ATTENTION OF THE ARCHITECT ANY LACK OF ANY NECESSARY SPACE OR CLEARANCE REQUIRED BY THE VARIOUS EQUIPMENT PRIOR TO BIDDING. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CHANGES NECESSARY IF HE NEGLECTS TO DO SO.

### LEGENDS:

——— INDICATES EXISTING TO REMAIN. ---- INDICATES EXISTING TO BE DISCONNECTED AND REMOVED. E.T.R. EXISTING TO REMAIN.

### **CONTROLS REQUIREMENTS:**

CONTROLS FOR ALL NEW EQUIPMENT ARE TO BE FULLY INTEGRATED INTO EXISTING BUILDING CONTROLS

REMOVE AND REINSTALL CEILINGS AS NEEDED FOR CONTROLS AND CONTROLS CABLING. ALL CONTROLS CABLING AND WIRING TO BE PLENUM RATED. PROVIDE 120V CONNECTIONS TO NEW CONTROLS EQUIPMENT AS REQUIRED. PROVIDE SWITCHBOARD CONNECTION. COORDINATE REQUIREMENTS WITH ELECTRICAL.

### **GENERAL CONTROLS NOTES:**

- ALL SYSTEMS NEW AND EXISTING PROVIDED WITH NEW CONTROLLER AND CONTROLS.
- ALL SYSTEMS NEW AND EXISTING PROVIDED WITH NEW CONTROLLERS AND CONTROLS TO BE BALANCED FOR
- COORDINATE ALL ROOM TEMPERATURE SENSOR REQUIREMENTS AND INSTALLATION LOCATIONS WITH SCHOOL PREFERENCES.
- ALL CONTROLS ASSOCIATED WITH DEMOLISHED EQUIPMENT ARE TO BE FULLY REMOVED

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MECHANICAL SERVICES ASSOC. CORP. 11 S. VIRGINIA STREET CRYSTAL LAKE, IL 60014

> **PROJECT ADJACENCIES** RENOVATIONS

DES PLAINES CAMPUS DES PLAINES, IL. 60016

**KEY PLAN** 

**ISSUE CHART** 

**GENERAL MECHANICAL** 

M20-00

SHEET NUMBER

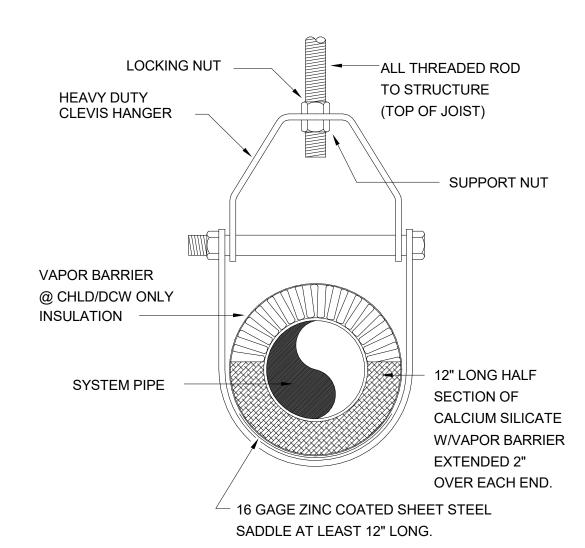
	GENERAL MECHA	ANICAL	SYMBOLS
SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
CFM	CUBIC FEET PER MINUTE	-	SUPPLY DUCT
СН	CABINET HEATER		RETURN/EXHAUST DUCT
EA	EXHAUST AIR		OUTSIDE AIR
EF	EXHAUST FAN	4000000034	REINFORCED/INSULATED FLEX
FC	FLEX CONNECTION	-	SUPPLY DIFFUSER
RA	RETURN AIR	1	RETURN REGISTER
SA	SUPPLY AIR		45 DEGREE TAP
OA	OUTSIDE AIR		CAP
T	ROOM TEMP SENSOR		GATE VALVE
H	HUMIDISTAT	_	B & G CIRCUIT SETTER
UH	UNIT HEATER		CHECK VALVE
VD	VOLUME DAMPER		GAS COCK/ PLUG COCK
WG	WITH GUARD	-1001-	GLOBE VALVE
O.A.C.	OPENING ABOVE CEILING	<b>-</b>	TEMP. CONTROL VALVE
	SUPPLY UP - DOWN		WELDED ELBOW
	RETURN/EXHAUST UP - DN.		BUTTERFLY VALVE
	OUTSIDE AIR UP - DOWN		STRAINER
cws	CONDENSER WATER SUPPLY	-+0	ELBOW UP
CWR	CONDENSER WATER RETURN	+	ELBOW DOWN

	GRILLE, DIFFUSER & REGISTER SCHEDULE									
TAG	MANUFACTURER	MODEL NUMBER	S/R	DESCRIPTION	OBD	REMARKS				
A	TITUS	TMSA-AA	S	SQ FACE ALUMINUM ADJUSTABLE DIFFUSER (SEE PLANS FOR SIZE & CEILING TYPE)	Y	1, 2, 3, 5				
B	TITUS	TMSA-AA	S	SQ FACE ALUMINUM ADJUSTABLE DIFFUSER (SEE PLANS FOR SIZE & CEILING TYPE)	Y	1, 3, 5, 6				
C	TITUS	350FL	R/E	ALUMINUM RETURN/EXHAUST REGISTER (SEE PLANS FOR SIZE & CEILING TYPE)	Y	1, 2, 3, 4, 5				
D	TITUS	350FL	R/E	ALUMINUM RETURN/EXHAUST REGISTER (SEE PLANS FOR SIZE & CEILING TYPE)	Y	1, 3, 4, 5, 6				
E	TITUS	TBDI-80	S	PLENUM SLOT DIFFUSER, 2 SLOTS, 1" SLOT WIDTH, 24" LONG. (SEE PLANS FOR SIZE & CEILING TYPE)	Y	1, 3, 5, 7				
DE144D										

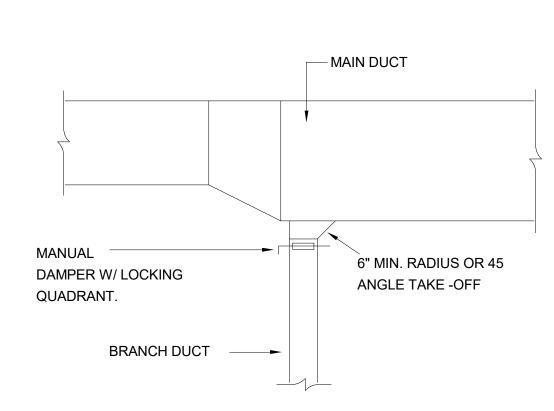
- FINISH & COLOR BY ARCHITECT. LAY-IN FULL FACE; 23-5/8" X 23-5/8" PANEL SIZE-
- 22" x 22" NECK SIZE TRANSITIONING TO DUCT SIZE UNLESS SHOWN OTHERWISE ON PLANS. COORDINATE WITH ARCHITECTURAL REFLECTED CEILING DRAWINGS. SURFACE MOUNT.
- 45 DEGREE DEFLECTION, 1/2" SPACING. COORDINATE WITH ARCHITECTURAL REFLECTED CEILING DRAWINGS.
- 6. 12" X 12" NOMINAL SIZE 10" x10" NECK SIZE TRANSITIONING TO DUCT SIZE UNLESS SHOWN OTHERWISE ON PLANS. COORDINATE WITH ARCHITECTURAL FOR MOUNTING TYPE. LAY-IN. COORDINATE LOCATION AND MOUNTING WITH ARCHITECTURAL CEILING.

#### FOR USE WITH ALL MULTIPLE HORIZONTAL RUNS, WITH OR WITHOUT VAPOR BARRIER INSULATION. MAXIMUM SPACING PIPE (TYP.) 2'-0" C TO C INSULATION VAPOR BARRIER (NOT VAPOR BARRIER) INSULATION -WELD (TYP.) PIPE SADDLE AT LEAST 12" LONG HANGER ROD (TYP.) ROLLER (TYP.) STAND (TYP.) LOCKING NUT SUPPORT NUT NO INSULATION **BOLT PIPE ROLLER** 16 GAGE SADDLE 6" CHANNEL (TYP.) TO CHANNEL (TYP.)

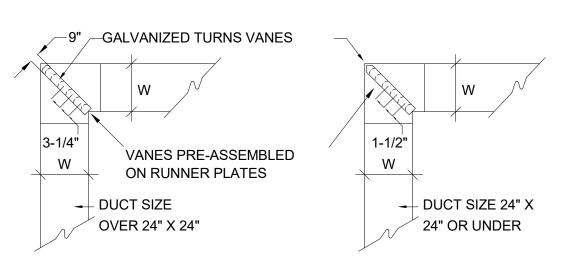




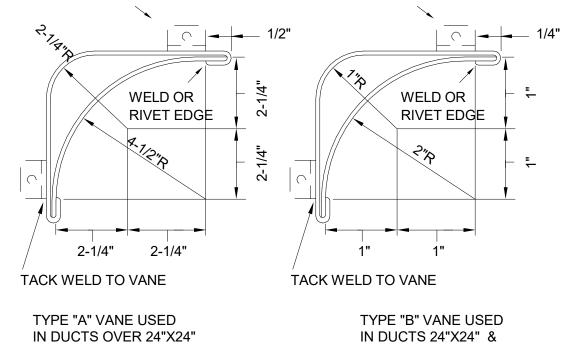
**CLEVIS HANGER DETAIL** NO SCALE



**BRANCH DUCT CONNECTION** NO SCALE



1"X1"X1/8" ANGLE CLIPS USED AS SUPPORT AT BOTH ENDS OF VANE & RIVETED TO PLATE OR VANES WELDED TO PLATE WITH CLIPS



SQUARE DUCT ELBOWS

- CIRCULAR AIR MAIN OR

- CONICAL TEE.

SHEET METAL DUCT DETAILS

ALTERNATE BRANCH CONNECTION.

BRANCH CONNECTION

**RISER** 

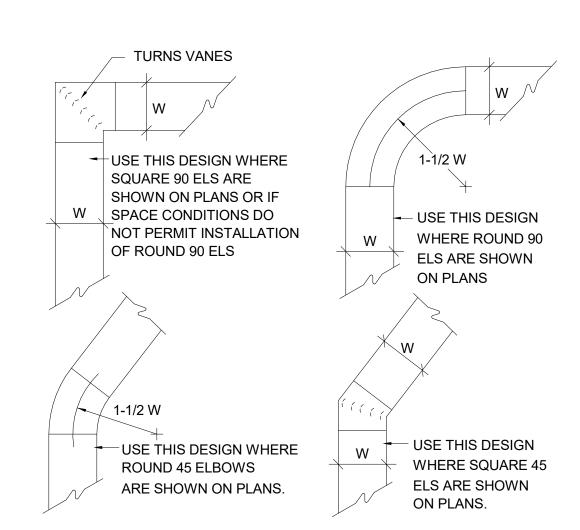
UNDER SAME GAGE

THICKNESS AS DUCT

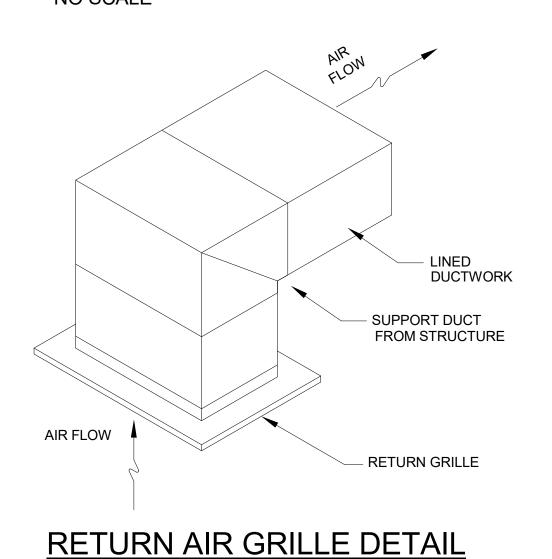
SAME GAGE THICKNESS

AS DUCT, NOT TO

EXCEED 20 US GAGE



SHEET METAL DUCT DETAILS NO SCALE



LOCATION MODEL NUMBER SIZE K.W. STEPS MAX. HEAT MIN. VOLTAGE 277 VOLT ADRC 400 SCR 120 200 1, 2, 3, 4 1 PHASE DESV 1821 60 HZ 277 VOLT **ADRC** SCR 960 290 480 1, 2, 3, 4 1 PHASE 1820 DESV 60 HZ 277 VOLT TESTING 400 SCR 120 200 1, 2, 3, 4 1 PHASE DESV 1830 60 HZ 277 VOLT **TESTING** 500 250 2.5 SCR 150 1, 2, 3, 4 1 PHASE 1830 DESV 60 HZ 480 VOLT **TESTING** 1980 9.5 SCR 590 990 1, 2, 3, 4 3 PHASE DESV 60 HZ 480 VOLT TESTING 1320 SCR 1, 2, 3, 4 3 PHASE 1832 DESV 60 HZ 277 VOLT TESTING 240 120 SCR 1, 2, 3, 4 1 PHASE DESV 1832 60 HZ 277 VOLT TECH HUB 720 360 SCR 210 1, 2, 3, 4 1 PHASE DESV 2269 60 HZ 277 VOLT TECH HUB SCR 360 110 180 1, 2, 3, 4 1 PHASE DESV 2269 60 HZ 480 VOLT TECH HUB 720 SCR 1440 430 1, 2, 3, 4 3 PHASE DESV 2260 60 HZ 277 VOLT TECH HUB 510 2.5 SCR 255 1, 2, 3, 4 1 PHASE DESV 2260 60 HZ 480 VOLT TECH HUB 1260 370 630 SCR 1, 2, 3, 4 3 PHASE DESV 2260 60 HZ REMARKS: 1. V.A.V. BOXES SHALL HAVE FIELD INSTALLED D.D.C. CONTROLS.

VARIABLE AIR VOLUME BOX SCHEDULE

INLET

MANUFACTURER

ZONE /

TAG

ELECT. REHEAT COIL

REMARKS

- 2. VAV UNITS SHALL HAVE INTEGRAL ELECTRIC HEATING COIL AS FOLLOWS:
- A. PROPORTIONAL, MODULATING ELECTRIC COILS SHALL BE SUPPLIED & INSTALLED ON THE TERMINAL BY ATTENUATE SECTION INTEGRAL WITH THE TERMINAL WITH
- ELEMENT GRID RECESSED FROM UNIT DISCHARGE A MIN. OF 5" TO PREVENT DAMAGE TO ELEMENTS DURING SHIPPING & INSTALLATION. ELEMENTS SHALL BE 80/20 NICKEL CHROME, SUPPORTED BY CERAMIC ISOLATORS A MAX. OF 3.5" APART, STAGGERED
- FOR MAXIMUM THERMAL TRANSFER & ELEMENT LIFE, AND BALANCED TO ENSURE EQUAL OUTPUT PER STEP. THE INTEGRAL PANEL SHALL BE HOUSED IN A NEMA 1 ENCLOSURE WITH HINGED ACCESS DOOR FOR ACCESS TO ALL CONTROLS AND SAFETY DEVICES.
- B. ELECTRIC COILS SHALL CONTAIN A PRIMARY AUTOMATIC RESET THERMAL CUTOUT, A
- SECONDARY MANUAL RESET THERMAL CUTOUT, PROPORTIONAL ELECTRONIC AIRFLOW SENSOR TO PROOF OF FLOW, AND LINE TERMINAL BLOCK. THE PROPORTIONAL ELECTRONIC AIRFLOW SENSOR SHALL BE TOTALLY INDEPENDENT OF THE DUCT STATIC
- PRESSURE AND SHALL ADJUST THE HEATER CAPACITY ACCORDING TO THE AVAILABLE AIRFLOW. THE HEATERS SHALL DELIVER MAXIMUM HEATING WHEN NEEDED WITH NORMAL
- MINIMUM AIRFLOW, REDUCE HEATING WITH LOWER THAN MINIMUM AIRFLOW AND STOP HEATING WITH NO AIRFLOW. UNIT SHALL INCLUDE AN INTEGRAL DOOR TO BE OPENED WHEN POWER IS ON. NON-INTERLOCKING TYPE DISCONNECTS ARE NOT ACCEPTABLE. ALL INDIVIDUAL COMPONENTS SHALL BE UL LISTED OR RECOGNIZED.
- C. HEATERS SHALL BE EQUIPPED WITH A PROPORTIONAL SCR CONTROLLER TO MODULATE THE HEATER LOAD ACCORDING TO THE TEMPERATURE CONTROL SIGNAL. THE ELECTRONIC CONTROLLER SHALL BE COMPATIBLE WITH THE FOLLOWING INPUT SIGNALS:
- (1) VARIABLE VOLTAGE SIGNAL 0-10 VDC.
- (I1) PULSE WIDTH MODULATION AC OR DC. 3. BOXES ARE TO BE PRESSURE INDEPENDENT WITH AVERAGING AIR FLOW SENSOR AND GASKETED ENCLOSURE.

4. BOXES TO BE LINED WITH 1-1/2" CLOSED CELL ELASTOMERIC INSULATION COMPLIANT WITH UL181 AND NFPA 90A.

PROVIDE CLEARANCE OF 1/8" PER RETAIN ANGLES: 1-1/2" X 1-1/2" X 1/8" LINEAL FOOT OF SLEEVE MIN. ANGLE (DUCT UP TO 48"); 2" X DIMENSION (1/2" MAX) 2-1/2" X 1/8" MIN. ANGLE (DUCTS 49" ON TOP & SIDE OF SLEEVE. & OVER); FASTENED TO SLEEVE ONLY W/ CLEARANCE TO BE PACKED 1/4" BOLTS & NUTS 8" O.C. OR 1/2" WELDS. (8" O.C. FOR DUCTS UP TO 48"; W/ MINERAL WOOL. BOLTS & WELDS, 6" O.C. FOR DUCTS 49" OR OVER) STEEL BLADES WITH INTERLOCKING JOINTS 14 GA. MIN. SLEEVE TO BE OF THE FOLLOWING GAGES: 0" TO 30" PROVIDE ACCESS DOOR IN DUCT 18" X 12" MIN. FOR FIRE DAMPER UNLESS OTHERWISE 24 GA. 31" THRU 54" 22 GA. 55" THRU 84", 20 GA., 85" AND OVER 18 GA. NOTED ON PLANS. WHEN DUCT IS LOCATED ABOVE HUNG CEILING OR SOFFITT, PROVIDE FUSSIBLE LINK (REPLACEABLE) AD'S WHICH IS TO BE AT LEAST 2" LARGER 165 F RATED. THAN A.D. IN DUCT UNLESS NOTED OTHERWISE ON PLANS. ROUND, OVAL OR RECTANGULAR DUCT FASTEN DUCT TO SLEEVE W/ "S" SLIP ON TOP & BOTTOM & DRIVE SLIP ON SIDES FIRE RATED WALL OR FLOOR SLAB.

STYLE "B" INTERLOCKING BLADE FIRE DAMPER

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> **PROJECT ADJACENCIES RENOVATIONS**

DES PLAINES CAMPUS 1600 EAST GOLF ROAD DES PLAINES, IL, 60016



**KEY PLAN** 

**ISSUE CHART** 

ISSUED FOR BID 021074.000

> **MECHANICAL SCHEDULES AND DETAILS**

> > SHEET NUMBER

M20-01

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TITLE

- 2. DISCONNECT AND REMOVE EXISTING FLOORBOX COMPLETE. DISCONNECT AND REMOVE EXISTING CONDUIT AND WIRES BACK TO NEAREST UNAFFECTED JUNCTION BOX. BYPASS EXISTING CONDUIT AND WIRES AS REQUIRED TO KEEP EXISTING TO REMAIN DEVICES IN EXISTING CIRCUIT ENERGIZED. PATCH AND REPAIR FLOOR AS REQUIRED UPON REMOVAL. COORDINATE ADDITIONAL FLOOR REPAIR WITH ARCHITECT AS REQUIRED. EC TO VERIFY QUANTITIES IN FIELD PRIOR TO START OF WORK.
- 3. DISCONNECT AND REMOVE EXISTING RECEPTACLE FOR EXISTING PROJECTOR. DISCONNECT AND REMOVE EXISTING CONDUIT AND WIRES BACK TO NEAREST UNAFFECTED JUNCTION BOX. BYPASS EXISTING CONDUIT AND WIRES AS REQUIRED TO KEEP EXISTING TO REMAIN DEVICES IN EXISTING CIRCUIT ENERGIZED. REMOVE DATA CABLING BACK TO DATA RACK SERVING DEVICE.
- DISCONNECT AND REMOVE EXISTING CLOCK/SPEAKER UNIT. DISCONNECT AND REMOVE EXISTING BACKBOX AND CONDUIT COMPLETE. WIRING TO BE REMOVED BY LOW VOLTAGE CONTRACTOR. BYPASS EXISTING CLOCK CIRCUITS AND SPEAKER CABLING AS REQUIRED TO KEEP EXISTING DEVICES IN CIRCUIT OPERATIONAL.
- 5. WIRELESS ACCESS POINT (WAP) TO BE DISCONNECTED AND REMOVE. DISCONNECT AND REMOVE RELATED DATA JACK AND CABLING BACK TO DATA RACK SERVING WAP. WIRELESS ACCESS POINT DEVICE, DEVICE MOUNTING BRACKET, AND RELATED PATCH CORDS TO BE TURNED OVER TO THE OWNER.
- DISCONNECT AND REMOVE EXISTING TV AND ASSOCIATED POWER, DATA, HDMI, ETC.. COMPLETE. DISCONNECT AND REMOVE EXISTING CONDUIT AND WIRES BACK TO NEAREST UNAFFECTED JUNCTION BOX. BYPASS EXISTING CONDUIT AND WIRES AS REQUIRED TO KEEP EXISTING TO REMAIN DEVICES IN EXISTING CIRCUIT ENERGIZED. REMOVE EXISTING CABLING BACK TO SOURCE.
- 7. DISCONNECT AND REMOVE EXISTING JUNCTION BOX AND WHIP COMPLETE. DISCONNECT AND REMOVE EXISTING CONDUIT AND WIRES BACK TO NEAREST UNAFFECTED JUNCTION BOX. BYPASS EXISTING CONDUIT AND WIRES AS REQUIRED TO KEEP EXISTING TO REMAIN DEVICES IN EXISTING CIRCUIT ENERGIZED. REMOVE DATA CABLING BACK TO DATA RACK SERVING COMPLITERS
- 8. DISCONNECT AND REMOVE EXISTING CEILING MOUNTED SPECIAL RECEPTACLE.DISCONNECT AND REMOVE EXISTING CONDUIT AND WIRES BACK TO NEAREST UNAFFECTED JUNCTION BOX. BYPASS EXISTING CONDUIT AND WIRES AS REQUIRED TO KEEP EXISTING TO REMAIN DEVICES IN EXISTING CIRCUIT ENERGIZED. REMOVE DATA CABLING BACK TO DATA RACK SERVING COMPUTERS.
- 9. DISCONNECT AND REMOVE EXISTING POWER POLE. DISCONNECT AND REMOVE EXISTING CONDUIT AND WIRES BACK TO NEAREST UNAFFECTED JUNCTION BOX. BYPASS EXISTING CONDUIT AND WIRES AS REQUIRED TO KEEP EXISTING TO REMAIN DEVICES IN CIRCUIT ENERGIZED. RETURN POWER POLES TO OWNER. REMOVE DATA CABLING BACK TO DATA RACK SERVING POWER POLE. REPAIR FLOOR AND CEILING UPON REMOVAL OF POWER POLE.
- 10. DISCONNECT AND REMOVE EXISTING PUSHBUTTON COMPLETE. DISCONNECT AND REMOVE EXISTING CONDUIT AND CABLING AS REQUIRED.
- 11. DISCONNECT AND REMOVE EXISTING RECEPTACLES AND DATA JACKS. DISCONNECT AND REMOVE EXISTING CONDUIT AND WIRES BACK TO NEAREST UNAFFECTED JUNCTION BOX. BYPASS EXISTING CONDUIT AND WIRES AS REQUIRED TO KEEP EXISTING TO REMAIN DEVICES IN EXISTING CIRCUIT ENERGIZED. REMOVE DATA CABLING BACK TO DATA RACK SERVING DEVICE. EC SHALL CONFIRM QUANTITIES OF RECEPTACLES AND DATA JACKS IN FIELD PRIOR TO DELIVERY OF BIDS.
- 12. DISCONNECT AND REMOVE EXISTING POWER FROM EXISTING VAV UNIT COMPLETE. DISCONNECT AND REMOVE EXISTING CONDUIT, WIRES, AND DISCONNECT SWITCH BACK TO NEAREST UNAFFECTED JUNCTION BOX. BYPASS EXISTING CONDUIT AND WIRES AS REQURIED TO KEEP EXISTING TO REMAIN DEVICES IN CIRCUIT ENERGIZED.
- 13. DISCONNECT AND REMOVE EXISTING FIRE ALARM DEVICE. DISCONNECT AND REMOVE EXISTING FIRE ALARM CABLING AND CONDUIT BACK TO NEAREST UNAFFECTED JUNCTION BOX. BYPASS EXISTING CABLE AND CONDUIT AS REQUIRED TO KEEP EXISTING TO REMAIN DEVICES IN CIRCUIT ENERGIZED.
- 14. DISCONNECT AND REMOVE EXISTING RECEPTACLE. DISCONNECT AND REMOVE EXISTING CONDUIT AND WIRES BACK TO NEAREST UNAFFECTED JUNCTION BOX. BYPASS EXISTING CONDUIT AND WIRING AS REQUIRED TO KEEP EXISTING TO REMAIN DEVICES ENERGIZED.
- 15. DISCONNECT AND REMOVE EXISTING DATA JACK. DISCONNECT AND REMOVE CABLE AND CONDUIT BACK TO DATA RACK SERVING DEVICE.
- 16. TEMPORARILY DISCONNECT AND REMOVE EXISTING POWER FROM EXISTING VAV FOR RECONNECITON AT NEW LOCATION.
  TEMPORARILY DISCONNECT AND REMOVE EXISTING CONDUIT, WIRES, AND DISCONNECT SWITCH AS REQUIRED.

### GENERAL CEILING DEVICE DEMOLITION NOTE:

ALL CEILING MOUNTED ELECTRICAL DEVICES INCLUDING BUT NOT LIMITED TO FIRE ALARM SYSTEM DEVICES, INTERCOM SYSTEM DEVICES, SECURITY INTRUSION SYSTEM DEVICES, SECURITY CAMERAS, WIRELESS ACCESS POINT (WAP) DEVICES, ETC... MAY NOT BE SHOWN ON THESE DRAWINGS. IT IS THE INTENT TO REMOVE THESE DEVICES AND THEIR RELATED MOUNTING BRACKETS AS REQUIRED FOR THE DEMOLITION AND INSTALLATION OF NEW CEILING SYSTEMS. DEVICES SHALL BE RETAINED AND RETURNED TO THE OWNER UPON REMOVAL. CONTRACTOR SHALL INSPECT THE CONDITION AND OPERATION OF DEVICES TO BE REMOVED PRIOR TO PERFORMING WORK AND REPORT TO THE ARCHITECT AND OWNER OF ANY DEVICES THAT ARE NON-OPERATIONAL. IF THIS IS NOT COMPLETED, IT WILL BE THE CONTRACTOR'S RESPONSIBILITY TO REPLACE DAMAGED DEVICES WITH NEW TO MATCH. ALL ASSOCIATED RACEWAY AND WIRING TO BE REMOVED BACK TO HEADEND EQUIPMENT SERVING DEVICES. CONTRACTOR SHALL VERIFY QUANTITY OF DEVICES IN FIELD PRIOR TO BIDDING.

### CARD DIRECTORY NOTE:

TYPICAL FOR PANELS AFFECTED BY DEMOLITION/NEW WORK. MODIFY PANEL CARD DIRECTORIES TO REFLECT MODIFICATIONS MADE TO PANEL. TRACE OUT ALL EXISTING TO REMAIN CIRCUITS. LABEL BREAKERS NO LONGER SERVING LOADS AS "SPARE". PROVIDE A NEW TYPED CARD DIRECTORY. DO NOT HAND WRITE DIRECTORIES OR MODIFY EXISTING ONES. (TYPICAL FOR ALL PANELS AFFECTED BY DEMOLITION/NEW WORK)

### EXISTING FIRE ALARM CABLING NOTE:

EXISTING TO REMAIN FREE AIR FIRE ALARM CABLES LOCATED ABOVE CEILING SHALL BE REINSTALLED IN CONDUIT. EC SHALL REFER TO ARCHITECTURAL DRAWINGS AND SPECIFICATIONS FOR ALLOWANCE AMOUNT REFER TO SHEET E51-01 FOR FURTHER INFORMATION.

### GENERAL DEMOLITION NOTE:

ALL ELECTRICAL DEVICES INCLUDING BUT NOT LIMITED TO RECEPTACLES, POWER POLES, FLOORBOXES, DATA JACKS, CONDUIT, CLOCK/SPEAKERS, FIRE ALARM DEVICES, ETC... MAY NOT BE SHOWN ON THESE DRAWINGS. IT IS THE INTENT TO REMOVE THESE DEVICES FOR DEMOLITION UNLESS NOTED OTHERWISE. ALL ASSOCIATED RACEWAY AND WIRING TO BE REMOVED BACK TO NEAREST UNAFFECTED JUNCTION BOX. CONTRACTOR SHALL VERIFY QUANTITY OF DEVICES IN FIELD PRIOR TO BIDDING.

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CRYSTAL LAKE, IL 60014



KEY PLAN

ISSUE CHART

ELECTRICAL
DEMOLITION PLANS PHASE 1

SHEET NUMBER

E04-01

TITLE

### ELECTRICAL DEMOLITION NOTES (#)

- 1. DISCONNECT AND REMOVE EXISTING LIGHT FIXTURE. DISCONNECT AND REMOVE EXISTING CONTROLS ASSOCIATED WITH FIXTURE. DISCONNECT AND REMOVE EXISTING CONDUIT AND WIRES BACK TO POINT FOR RECONNECTION TO NEW LIGHT FIXTURES. DISPOSE OF FIXTURES AND CONTROLS PER EPA REQUIREMENTS.
- 2. DISCONNECT AND REMOVE EXISTING EXIT SIGN. DISCONNECT AND REMOVE EXISTING CONDUIT AND WIRES BACK TO POINT FOR RECONNECTION TO NEW EXIT SIGNS. DISPOSE PER EPA REQUIREMENTS.

# LIGHTING DEMOLITION PLANS ADRC/TESTING 1/8" = 1'-0"

### GENERAL CEILING DEVICE DEMOLITION NOTE:

EC SHALL FURNISH AND INSTALL PERMANENT SUPPORTS FOR ANY UNSUPPORTED CONDUIT, BOX, OR CABLES FOUND ABOVE THE CEILING DURING ABOVE CEILING WORK AND/OR AREAS WITH CEILINGS BEING REMOVED BY THE ARCHITECT. EXISTING FREE AIR WIRES SERVING LIGHT FIXTURES FOUND ABOVE CEILING CONDUIT SHALL BE INSTALLED IN 3/4" CONDUIT MINIMUM UNLESS NOTED OTHERWISE. COORDINATE REQUIREMENTS WITH OWNER.

### GENERAL LIGHTING DEMOLITION NOTE:

EXIT SIGNS WITHIN AREAS OF SCOPE TO BE DISCONNECTED AND REMOVED. DISCONNECT AND REMOVE ASSOCIATED CONDUIT/RACEWAYS AND WIRING BACK TO NEAREST UNAFFECTED JUNCTION BOX. BYPASS WIRING AS REQUIRED TO KEEP EXISTING TO REMAIN DEVICES ENERGIZED. EXISTING CONDUIT/RACEWAYS AND WIRING MAY REMAIN AND REUSED IF NEW FIXTURES ARE TO BE INSTALLED AT EXISTING LOCATIONS. MODIFY CONDUIT/RACEWAYS AND WIRING AS REQUIRED TO ACCOMMODATE NEW EXIT SIGNS. ANY CIRCUITS NO LONGER REQUIRED SHALL BE TAKEN BACK TO SOURCE PANELBOARD AND CIRCUIT LABELED AS "SPARE". DISPOSE OF EXIT SIGNS AND BATTERIES PER EPA REQUIREMNENTS. HAUL DEVICES TO EPA APPROVED DISPOSAL SITE. PROVIDE PROPER PAPERWORK TO THE ARCHITECT SHOWING LEGAL DISPOSAL FOR DEVICES. DISPOSE OF FIXTURE HOUSINGS AS REQUIRED.

INSTALL BLANK FINISHED COVERPLATES OVER ALL FLUSH MOUNTED WALL OPENINGS WHERE DEVICES HAVE BEEN REMOVED AND LOCATIONS WILL NOT BE REUSED. WHERE SURFACE MOUNTED BOXES AND RACEWAYS WILL NO LONGER BE USED AND CONSIDERED ABANDONED, THEY WILL BE REMOVED COMPLETELY AND WALL PATCHED AND PAINTED TO MATCH SURROUNDING AREA. ANY CEILING TILES LEFT WITH HOLES IN THEM FROM REMOVAL OF DEVICES SHALL BE REPLACED WITH NEW MATCHING CEILING TILES. ALL HOLES IN WALLS, CEILINGS, AND FLOORS SHALL BE PATCHED AND PAINTED TO MATCH AREA.

IT IS THE INTENT OF THESE DEMOLITION DRWAINGS TO IDENTIFY ALL EXIT SIGNS WITHIN AREAS OF SCOPE AND ARE TO BE REPLACED COMPLETELY. ALL DEVICES MAY NOT BE SHOWN AND IT WILL BE THE CONTRACTOR'S RESPONSIBILITY FOR REMOVAL OF ALL OF FIXTURES AS NEEDED TO ACCOMMODATE THE NEW FIXTURES BEING INSTALLED.

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ADJACENCIES RENOVATIONS

DES PLAINES CAMPUS
1600 EAST GOLF ROAD
DES PLAINES, IL, 60016



KEY PLAN

ISSUE CHART

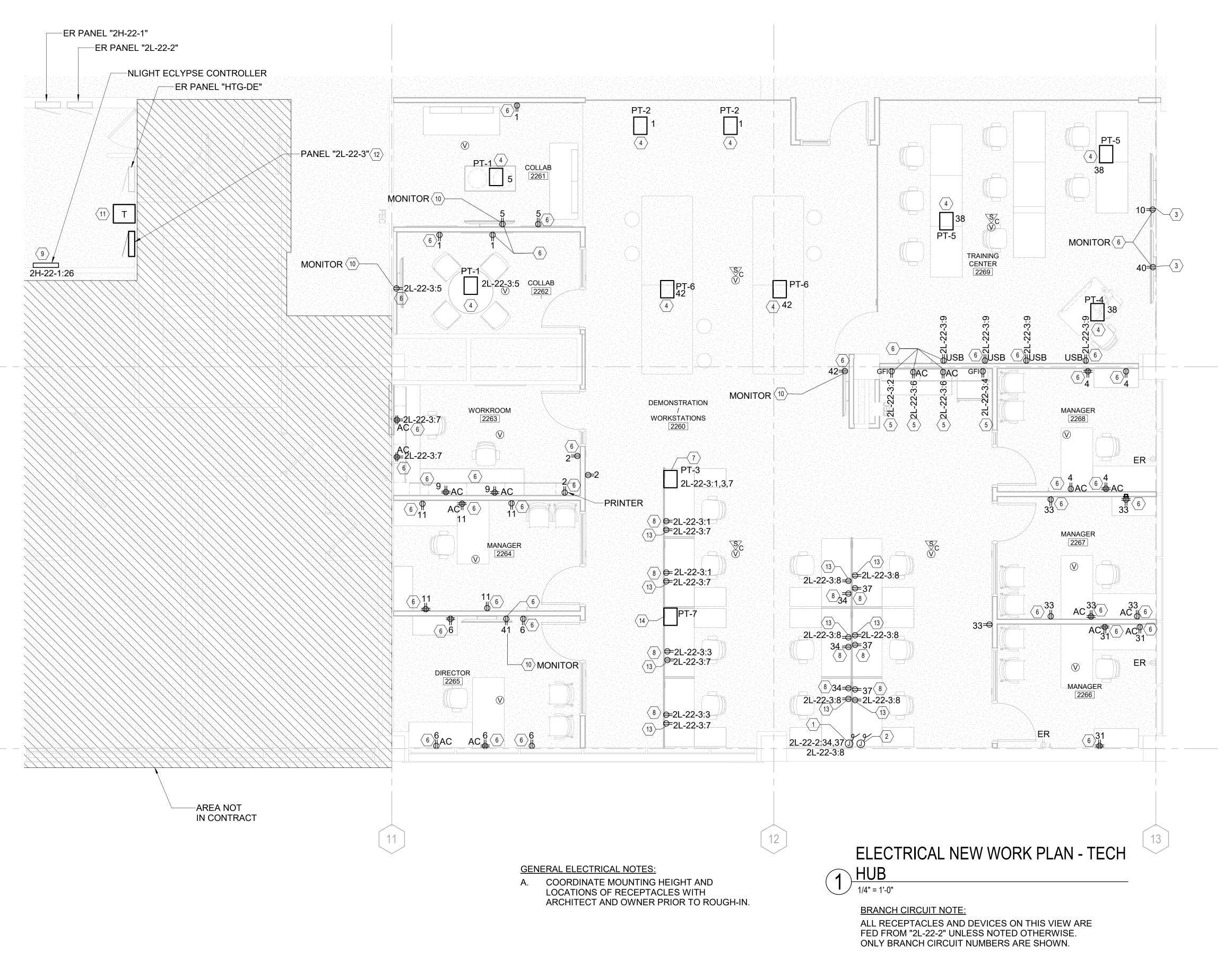
ISSUED FOR BID	23 SEP 24	
MARK	ISSUE	DATE
Job Number	021074.000	
TITLE		

LIGHTING DEMOLITION PLANS - PHASE 1

SHEET NUMBER

E05-01

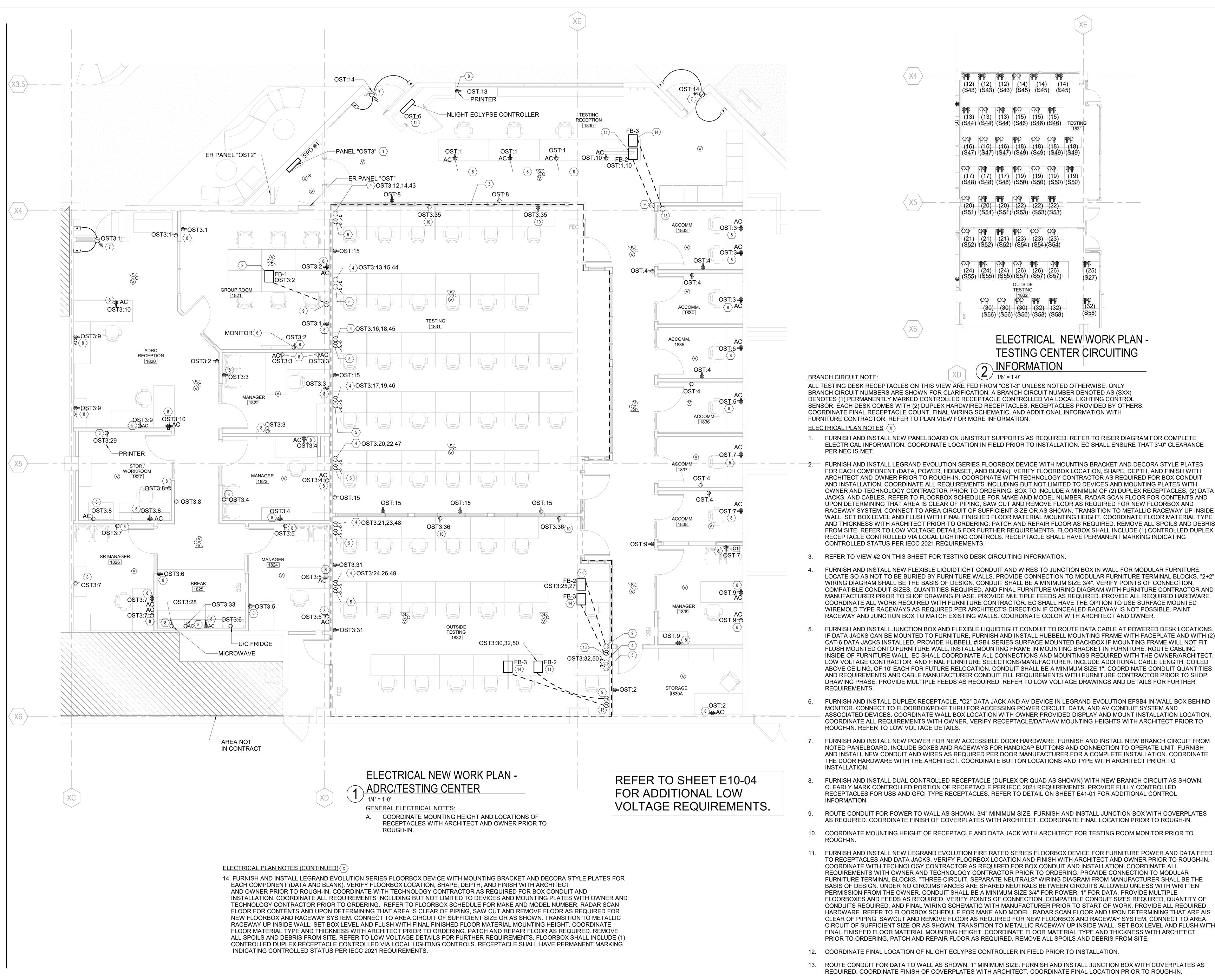
- 1. FURNISH AND INSTALL NEW FLEXIBLE LIQUIDTIGHT CONDUIT AND WIRES TO JUNCTION BOX IN WALL FOR MODULAR FURNITURE. LOCATE SO AS NOT TO BE BURIED BY FURNITURE WALLS. PROVIDE CONNECTION TO MODULAR FURNITURE TERMINAL BLOCKS. "THREE-CIRCUIT, SEPARATE NEUTRALS" WIRING DIAGRAM FROM MANUFACTURER SHALL BE THE BASIS OF DESIGN. UNDER NO CIRCUMSTANCES ARE SHARED NEUTRALS BETWEEN CIRCUITS ALLOWED. CONDUIT SHALL BE A MINIMUM SIZE 3/4". VERIFY POINTS OF CONNECTION, COMPATIBLE CONDUIT SIZE, QUANTITIES REQUIRED, AND FINAL WIRING SCHEMATIC WITH MANUFACTURER PRIOR TO SHOP DRAWING PHASE. PROVIDE MULTIPLE FEEDS AS REQUIRED. PROVIDE ALL REQUIRED HARDWARE. COORDINATE ALL WORK REQUIRED WITH FURNITURE MANUFACTURER. EC SHALL HAVE THE OPTION TO USE SURFACE MOUNTED WIREMOLD TYPE RACEWAYS AS REQUIRED PER ARCHITECT'S DIRECTION IF CONCEALED RACEWAY IS NOT POSSIBLE. PAINT RACEWAY TO MATCH EXISTING WALLS AS REQUIRED. COORDINATE COLOR WITH ARCHITECT.
- 2. FURNISH AND INSTALL JUNCTION BOX AND FLEXIBLE LIQUIDTIGHT CONDUIT TO ROUTE DATA CABLE AT POWERED DESK LOCATIONS. LOCATE SO AS NOT TO BE BURIED BY FURNITURE WALLS. IF DATA JACKS CAN BE MOUNTED TO FURNITURE, FURNISH AND INSTALL HUBBELL MOUNTING FRAME WITH FACEPLATE AND WITH (2) CAT-6A DATA JACKS INSTALLED. PROVIDE HUBBELL #ISB4 SERIES SURFACE MOUNTED BACK BOX IF MOUNTING FRAME WILL NOT FIT FLUSHED MOUNTED ONTO FURNITURE WALL. INSTALL MOUNTING FRAME IN MOUNTING BRACKET IN FURNITURE. ROUTE CABLING INSIDE OF FURNITURE WALL. CONTRACTOR SHALL COORDINATE ALL CONNECTIONS AND MOUNTINGS REQUIRED WITH THE OWNER/ARCHITECT AND FINAL FURNITURE SELECTIONS/MANUFACTURER. INCLUDE ADDITIONAL CABLE LENGTH, COILED ABOVE CEILING, OF 10' EACH FOR FUTURE RELOCATION. CONDUIT SHALL BE A MINIMUM SIZE 1". COORDINATE CONDUIT QUANTITIES REQUIRED, COMPATIBLE CONDUIT SIZES, AND REQURIEMENTS WITH MANUFACTURER AND CABLE MANUFACTURER CONDUIT FILL REQUIREMENTS PRIOR TO SHOP DRAWING PHASE. REFER TO LOW VOLTAGE DETAILS.
- 3. FURNISH AND INSTALL DUPLEX RECEPTACLE IN LEGRAND EVOLUTION EFSB4 IN-WALL BOX BEHIND MONITOR. CONNECT TO POKE THRU "PT-4" FOR ACCESSING POWER CIRCUIT, DATA, AND AV CONDUIT SYSTEM AND ASSOCIATED DEVICES. COORDINATE WALL BOX LOCATION WITH OWNER PROVIDED DISPLAY AND MOUNT INSTALLATION LOCATION. COORDINATE ALL REQUIREMENTS WITH OWNER/IT DEPARTMENT. VERIFY RECEPTACLE/DATA/AV MOUNTING HEIGHTS WITH ARCHITECT PRIOR TO ROUGHIN. REFER TO LOW VOLTAGE DRAWINGS AND DETAILS FOR FURTHER REQUIREMENTS.
- FURNISH AND INSTALL LEGRAND EVOLUTION FIRE RATED SERIES POKE THRU DEVICE WITH MOUNTING BRACKET AND DECORA STYLE PLATES FOR EACH COMPONENT. VERIFY POKE THRU LOCATION AND FINISH WITH ARCHITECT AND OWNER PRIOR TO ROUGH-IN. COORDINATE WITH TECHNOLOGY CONTRACTOR AS REQURIED FOR BOX CONDUIT AND INSTALLATION. COORDINATE ALL REQUIREMENTS INCLUDING BUT NOT LIMITED TO DEVICES AND MOUNTING PLATES REQUIRED WITH OWNER AND TECHNOLOGY CONTRACTOR PRIOR TO ORDERING. BOX TO INCLUDE A MINIMUM OF (2) DUPLEX RECEPTACLES, (4) DATA JACKS AND CABLES, AV AND CABLES, AND HDBASET. POKE THRU SHALL INCLUDE (1) CONTROLLED DUPLEX RECEPTACLE CONTROLLED VIA LOCAL LIGHTING CONTROLS. RADAR SCAN FLOOR FOR CONTENTS AND SURVEY ABOVE CEILING CONDITIONS BELOW FOR CONTENTS AND UPON DETERMINING THAT AREA IS CLEAR OF PIPING, CORE AND REMOVE FLOOR AS REQUIRED FOR NEW POKE THRU AND RACEWAY SYSTEM. CONNECT TO AREA CIRCUIT OF SUFFICIENT SIZE OR AS SHOWN. TRANSITION TO METALLIC RACEWAY UP INSIDE WALL. SET POKE THRU LEVEL AND FLUSH WITH FINAL FINISHED FLOOR MATERIAL MOUNTING HEIGHT. COORDINATE FLOOR MATERIAL TYPE AND THICKNESS WITH ARCHIECT. PATCH AND REPAIR FLOOR AS REQUIRED. REMOVE ALL SPOILS AND DEBRIS FROM SITES ABOVE AND BELOW. PROVIDE PROTECTION TO AREAS BELOW WHEN CORING AND INSTALLING DEVICE. REFER TO LOW VOLTAGE DRAWINGS AND DETAILS FOR LOW VOLTAGE CONDUIT SIZES AND REQUIREMENTS. REFER TO FLOORBOX/POKE THRU SCHEDULE FOR MAKE AND MODEL NUMBER. CONTROLLED RECEPTACLE SHALL HAVE PERMANENT MARKING INDICATING CONTROLLED STATUS PER IECC 2021 REQUIREMENTS.
- 5. COORDINATE MOUNTING HEIGHT OF KITCHENETTE RECEPTACLES WITH ARCHITECTURAL DRAWINGS PRIOR TO ROUGH-IN.
- 6. FURNISH AND INSTALL SPLIT CONTROLLED RECEPTACLE (DUPLEX OR QUAD AS SHOWN) WITH NEW BRANCH CIRCUIT AS SHOWN. CLEARLY MARK CONTROLLED PORTION OF RECEPTACLE PER IECC 2021. PROVIDE FULLY CONTROLLED RECEPTACLES FOR USB AND GFCI TYPE RECEPTACLES. REFER TO DETAIL ON SHEET E41-01 FOR ADDITIONAL INFORMATION.
- FURNISH AND INSTALL NEW LEGRAND EVOLUTION FIRE RATED SERIES POKE THRU DEVICE FOR FURNITURE POWER FEED TO MODULAR FURNITURE. VERIFY POKE THRU LOCATION AND FINISH WITH ARCHITECT AND OWNER PRIOR TO ROUGH-IN. COORDINATE WITH TECHNOLOGY CONTRACTOR AS REQUIRED FOR BOX CONDUIT AND INSTALLATION. COORDINATE ALL REQUIREMENTS WITH OWNER AND TECHNOLOGY CONTRACTOR PRIOR TO ORDERING. RADAR SCAN FLOOR FOR CONTENTS AND SURVEY ABOVE CEILING CONDITIONS BELOW FOR CONTENTS AND UPON DETERMINING THAT AREA IS CLEAR OF PIPING, CORE AND REMOVE FLOOR AS REQUIRED FOR NEW POKE THRU AND RACEWAY SYSTEM. CONNECT TO AREA CIRCUIT OF SUFFICIENT SIZE OR AS SHOWN. TRANSITION TO METALLIC RACEWAY UP INSIDE WALL. SET POKE THRU LEVEL AND FLUSH WITH FINAL FINISHED FLOOR MATERIAL MOUNTING HEIGHT, COORDINATE FLOOR MATERIAL TYPE AND THICKNESS WITH ARCHIECT, PATCH AND REPAIR FLOOR AS REQUIRED. REMOVE ALL SPOILS AND DEBRIS FROM SITE ABOVE AND BELOW. PROVIDE PROTECTION TO AREAS BELOW WHEN CORING AND INSTALLING DEVICE. FURNISH AND INSTALL FLEXIBLE LIQUIDTIGHT CONDUIT TO ROUTE POWER AND DATA CABLE TO MODULAR FURNITURE TERMINAL BLOCKS. "THREE CIRCUIT-SEPARATE NEUTRALS (3+1)" WIRING DIAGRAM FROM MANUFACTURER SHALL BE THE BASIS OF DESIGN. CONDUIT SHALL BE A MINIMUM SIZE 3/4" FOR POWER. VERIFY POINTS OF CONNECTION, COMPATIBLE CONDUIT SIZES REQUIRED, QUANTITY OF CONDUITS REQUIRED, AND FINAL WIRING SCHEMATIC WITH MANUFACTURER PRIOR TO START OF WORK. PROVIDE MULTIPLE FEEDS AND POKE THRU'S AS REQUIRED. PROVIDE ALL REQUIRED HARDWARE. COORDINATE ALL WORK REQUIRED WITH FURNITURE MANUFACTURER. REFER TO FLOORBOX SCHEDULE FOR MAKE AND MODEL NUMBER.
- 3. INTEGRAL RECEPTACLES PROVIDED BY OTHERS IN MODULAR FURNITURE. EACH WORKSTATION COMES WITH (2) DUPLEX HARDWIRED RECEPTACLES. (1) DUPLEX RECEPTACLE PER WORKSTATION SHALL BE A PERMANENTLY MARKED CONTROLLED RECEPTACLE CONTROLLED VIA LOCAL LIGHTING CONTROL. COORDINATE FINAL RECEPTACLE COUNT WITH FURNITURE MANUFACTURER PRIOR TO START OF WORK.
- 9. COORDINATE FINAL LOCATION OF NLIGHT ECLYPSE CONTROLLER IN FIELD PRIOR TO INSTALLATION.
- 10. FURNISH AND INSTALL DUPLEX RECEPTACLE IN LEGRAND EVOLUTION EFSB IN-WALL BOX BEHIND MONITOR AND CHIEF CHPAC526FWP4 IN-WALL BOX BELOW. COORDINATE WALL BOX LOCATIONS WITH OWNER PROVIDED DISPLAY AND MOUNT INSTALLATION LOCATION. COORDINATE ALL REQUIREMENTS WITH OWNER/IT DEPARTMENT. VERIFY RECEPTACLE/DATA/AV MOUNTING HEIGHTS WITH ARCHITECT PRIOR TO ROUGH-IN. REFER TO LOW VOLTAGE DRAWINGS AND DETAILS FOR FURTHER REQUIREMENTS
- 11. FURNISH AND INSTALL NEW WALL MOUNTED 15KVA 480V/208V TRASNFORMER. REFER TO RISER DIAGRAM FOR COMPLETE ELECTRICAL DETAILS. COORDINATE FINAL LOCATION IN FIELD PRIOR TO INSTALLATION.
- 12. FURNISH AND INSTALL NEW PANELBOARD. REFER TO RISER DIAGRAM FOR COMPLETE ELECTRICAL DETAILS. COORDINATE FINAL LOCATION IN FIELD PRIOR TO INSTALLATION.
- 13. WORKSTATION RECEPTACLE SHALL BE CONTROLLED VIA LOCAL LIGHTING CONTROLS.
- 14. FURNISH AND INSTALL LEGRAND EVOLUTION FIRE RATED SERIES POKE THRU DEVICE WITH MOUNTING BRACKET AND DECORA STYLE PLATES FOR EACH COMPONENT. VERIFY POKE THRU LOCATION AND FINISH WITH ARCHITECT AND OWNER PRIOR TO ROUGH-IN. COORDINATE WITH TECHNOLOGY CONTRACTOR AS REQURIED FOR BOX CONDUIT AND INSTALLATION. COORDINATE ALL REQUIREMENTS INCLUDING BUT NOT LIMITED TO DEVICES AND MOUNTING PLATES REQUIRED WITH OWNER AND TECHNOLOGY CONTRACTOR PRIOR TO ORDERING. BOX TO INCLUDE A MINIMUM OF (8) DATA JACKS AND CABLES. RADAR SCAN FLOOR FOR CONTENTS AND SURVEY ABOVE CEILING CONDITIONS BELOW FOR CONTENTS AND UPON DETERMINING THAT AREA IS CLEAR OF PIPING, CORE AND REMOVE FLOOR AS REQUIRED FOR NEW POKE THRU AND RACEWAY SYSTEM. CONNECT TO AREA CIRCUIT OF SUFFICIENT SIZE OR AS SHOWN. TRANSITION TO METALLIC RACEWAY UP INSIDE WALL. SET POKE THRU LEVEL AND FLUSH WITH FINAL FINISHED FLOOR MATERIAL MOUNTING HEIGHT. COORDINATE FLOOR MATERIAL TYPE AND THICKNESS WITH ARCHIECT. PATCH AND REPAIR FLOOR AS REQUIRED. REMOVE ALL SPOILS AND DEBRIS FROM SITES ABOVE AND BELOW. PROVIDE PROTECTION TO AREAS BELOW WHEN CORING AND INSTALLING DEVICE. REFER TO LOW VOLTAGE DRAWINGS AND DETAILS FOR LOW VOLTAGE CONDUIT SIZES AND REQUIREMENTS. REFER TO FLOORBOX/POKE THRU SCHEDULE FOR MAKE AND MODEL



REFER TO SHEET E10-03 FOR ADDITIONAL LOW VOLTAGE REQUIREMENTS. ELECTRICAL NEW WORK PLAN - PHASE 1 -TECH HUB

E10-01

**SHEET NUMBER** 



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**OAKTON COLLEGE** 

**KEY PLAN** 

**ISSUE CHART** 

ISSUED FOR BID

Job Number

**ELECTRICAL NEW WORK PLAN - PHASE 1 -**ADRC/TESTING

SHEET NUMBER

021074.000

E10-02

12. COORDINATE FINAL LOCATION OF NLIGHT ECLYPSE CONTROLLER IN FIELD PRIOR TO INSTALLATION.

REQUIRED. COORDINATE FINISH OF COVERPLATES WITH ARCHITECT. COORDINATE FINAL LOCATION PRIOR TO ROUGH-IN.

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 $\langle X6 \rangle$ ELECTRICAL NEW WORK PLAN -TESTING CENTER CIRCUITING **INFORMATION** 

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COORDINATE FINAL RECEPTACLE COUNT, FINAL WIRING SCHEMATIC, AND ADDITIONAL INFORMATION WIT FURNITURE CONTRACTOR. REFER TO PLAN VIEW FOR MORE INFORMATION.

ELECTRICAL PLAN NOTES (X)

FURNISH AND INSTALL NEW PANELBOARD ON UNISTRUT SUPPORTS AS REQUIRED. REFER TO RISER DIAGRAM FOR COMPLETE ELECTRICAL INFORMATION. COORDINATE LOCATION IN FIELD PRIOR TO INSTALLATION. EC SHALL ENSURE THAT 3'-0" CLEARANCE PER NEC IS MET.

FURNISH AND INSTALL LEGRAND EVOLUTION SERIES FLOORBOX DEVICE WITH MOUNTING BRACKET AND DECORA STYLE PLATES FOR EACH COMPONENT (DATA, POWER, HDBASET, AND BLANK). VERIFY FLOORBOX LOCATION, SHAPE, DEPTH, AND FINISH WITH ARCHITECT AND OWNER PRIOR TO ROUGH-IN. COORDINATE WITH TECHNOLOGY CONTRACTOR AS REQUIRED FOR BOX CONDUIT AND INSTALLATION. COORDINATE ALL REQUIREMENTS INCLUDING BUT NOT LIMITED TO DEVICES AND MOUNTING PLATES WITH OWNER AND TECHNOLOGY CONTRACTOR PRIOR TO ORDERING. BOX TO INCLUDE A MINIMUM OF (2) DUPLEX RECEPTACLES, (2) DATA JACKS, AND CABLES. REFER TO FLOORBOX SCHEDULE FOR MAKE AND MODEL NUMBER. RADAR SCAN FLOOR FOR CONTENTS AND RMINING THAT AREA IS CLEAR OF PIPING, SAW CUT AND REMOVE FLOOR AS REQUIRED FOR NEW FLOORBOX AND RACEWAY SYSTEM. CONNECT TO AREA CIRCUIT OF SUFFICIENT SIZE OR AS SHOWN. TRANSITION TO METALLIC RACEWAY UP INSIDE WALL. SET BOX LEVEL AND FLUSH WITH FINAL FINISHED FLOOR MATERIAL MOUNTING HEIGHT. COORDINATE FLOOR MATERIAL TYPE AND THICKNESS WITH ARCHITECT PRIOR TO ORDERING. PATCH AND REPAIR FLOOR AS REQUIRED. REMOVE ALL SPOILS AND DEBRIS | 🕮 FROM SITE. REFER TO LOW VOLTAGE DETAILS FOR FURTHER REQUIREMENTS. FLOORBOX SHALL INCLUDE (1) CONTROLLED DUPLEX RECEPTACLE CONTROLLED VIA LOCAL LIGHTING CONTROLS. RECEPTACLE SHALL HAVE PERMANENT MARKING INDICATING CONTROLLED STATUS PER IECC 2021 REQUIREMENTS.

REFER TO VIEW #2 ON THIS SHEET FOR TESTING DESK CIRCUITING INFORMATION.

FURNISH AND INSTALL NEW FLEXIBLE LIQUIDTIGHT CONDUIT AND WIRES TO JUNCTION BOX IN WALL FOR MODULAR FURNITURE LOCATE SO AS NOT TO BE BURIED BY FURNITURE WALLS. PROVIDE CONNECTION TO MODULAR FURNITURE TERMINAL BLOCKS. "2+2" WIRING DIAGRAM SHALL BE THE BASIS OF DESIGN. CONDUIT SHALL BE A MINIMUM SIZE 3/4". VERIFY POINTS OF CONNECTION COMPATIBLE CONDUIT SIZES, QUANTITIES REQUIRED, AND FINAL FURNITURE WIRING DIAGRAM WITH FURNITURE CONTRACTOR AND MANUFACTURER PRIOR TO SHOP DRAWING PHASE. PROVIDE MULTIPLE FEEDS AS REQUIRED. PROVIDE ALL REQUIRED HARDWARE. COORDINATE ALL WORK REQUIRED WITH FURNITURE CONTRACTOR. EC SHALL HAVE THE OPTION TO USE SURFACE MOUNTED WIREMOLD TYPE RACEWAYS AS REQUIRED PER ARCHITECT'S DIRECTION IF CONCEALED RACEWAY IS NOT POSSIBLE. PAINT RACEWAY AND JUNCTION BOX TO MATCH EXISTING WALLS. COORDINATE COLOR WITH ARCHITECT AND OWNER.

FURNISH AND INSTALL JUNCTION BOX AND FLEXIBLE LIQUIDTIGHT CONDUIT TO ROUTE DATA CABLE AT POWERED DESK LOCATIONS. IF DATA JACKS CAN BE MOUNTED TO FURNITURE, FURNISH AND INSTALL HUBBELL MOUNTING FRAME WITH FACEPLATE AND WITH (2) CAT-6 DATA JACKS INSTALLED. PROVIDE HUBBELL #ISB4 SERIES SURFACE MOUNTED BACKBOX IF MOUNTING FRAME WILL NOT FIT FLUSH MOUNTED ONTO FURNITURE WALL. INSTALL MOUNTING FRAME IN MOUNTING BRACKET IN FURNITURE. ROUTE CABLING INSIDE OF FURNITURE WALL. EC SHALL COORDINATE ALL CONNECTIONS AND MOUNTINGS REQUIRED WITH THE OWNER/ARCHITECT ABOVE CEILING, OF 10' EACH FOR FUTURE RELOCATION. CONDUIT SHALL BE A MINIMUM SIZE 1". COORDINATE CONDUIT QUANTITIES AND REQUIREMENTS AND CABLE MANUFACTURER CONDUIT FILL REQUIREMENTS WITH FURNITURE CONTRACTOR PRIOR TO SHOP DRAWING PHASE. PROVIDE MULTIPLE FEEDS AS REQUIRED. REFER TO LOW VOLTAGE DRAWINGS AND DETAILS FOR FURTHER REQUIREMENTS.

FURNISH AND INSTALL DUPLEX RECEPTACLE, "C2" DATA JACK AND AV DEVICE IN LEGRAND EVOLUTION EFSB4 IN-WALL BOX BEHIND MONITOR. CONNECT TO FLOORBOX/POKE THRU FOR ACCESSING POWER CIRCUIT, DATA, AND AV CONDUIT SYSTEM AND ASSOCIATED DEVICES. COORDINATE WALL BOX LOCATION WITH OWNER PROVIDED DISPLAY AND MOUNT INSTALLATION LOCATION. COORDINATE ALL REQUIREMENTS WITH OWNER. VERIFY RECEPTACLE/DATA/AV MOUNTING HEIGHTS WITH ARCHITECT PRIOR TO ROUGH-IN. REFER TO LOW VOLTAGE DETAILS.

- FURNISH AND INSTALL NEW POWER FOR NEW ACCESSIBLE DOOR HARDWARE. FURNISH AND INSTALL NEW BRANCH CIRCUIT FROM NOTED PANELBOARD. INCLUDE BOXES AND RACEWAYS FOR HANDICAP BUTTONS AND CONNECTION TO OPERATE UNIT. FURNISH AND INSTALL NEW CONDUIT AND WIRES AS REQUIRED PER DOOR MANUFACTURER FOR A COMPLETE INSTALLATION. COORDINATE THE DOOR HARDWARE WITH THE ARCHITECT. COORDINATE BUTTON LOCATIONS AND TYPE WITH ARCHITECT PRIOR TO INSTALLATION.
- FURNISH AND INSTALL DUAL CONTROLLED RECEPTACLE (DUPLEX OR QUAD AS SHOWN) WITH NEW BRANCH CIRCUIT AS SHOWN. CLEARLY MARK CONTROLLED PORTION OF RECEPTACLE PER IECC 2021 REQUIREMENTS. PROVIDE FULLY CONTROLLED RECEPTACLES FOR USB AND GFCI TYPE RECEPTACLES. REFER TO DETAIL ON SHEET E41-01 FOR ADDITIONAL CONTROL INFORMATION.
- ROUTE CONDUIT FOR POWER TO WALL AS SHOWN. 3/4" MINIMUM SIZE. FURNISH AND INSTALL JUNCTION BOX WITH COVERPLATES AS REQUIRED. COORDINATE FINISH OF COVERPLATES WITH ARCHITECT. COORDINATE FINAL LOCATION PRIOR TO ROUGH-IN
- COORDINATE MOUNTING HEIGHT OF RECEPTACLE AND DATA JACK WITH ARCHITECT FOR TESTING ROOM MONITOR PRIOR TO
- TO RECEPTACLES AND DATA JACKS. VERIFY FLOORBOX LOCATION AND FINISH WITH ARCHITECT AND OWNER PRIOR TO ROUGH-IN. COORDINATE WITH TECHNOLOGY CONTRACTOR AS REQUIRED FOR BOX CONDUIT AND INSTALLATION. COORDINATE ALL REQUIREMENTS WITH OWNER AND TECHNOLOGY CONTRACTOR PRIOR TO ORDERING. PROVIDE CONNECTION TO MODULAR FURNITURE TERMINAL BLOCKS. "THREE-CIRCUIT, SEPARATE NEUTRALS" WIRING DIAGRAM FROM MANUFACTURER SHALL BE THE BASIS OF DESIGN. UNDER NO CIRCUMSTANCES ARE SHARED NEUTRALS BETWEEN CIRCUITS ALLOWED UNLESS WITH WRITTEN PERMISSION FROM THE OWNER. CONDUIT SHALL BE A MINIMUM SIZE 3/4" FOR POWER, 1" FOR DATA. PROVIDE MULTIPLE FLOORBOXES AND FEEDS AS REQUIRED. VERIFY POINTS OF CONNECTION, COMPATIBLE CONDUIT SIZES REQUIRED, QUANTITY OF CONDUITS REQUIRED, AND FINAL WIRING SCHEMATIC WITH MANUFACTURER PRIOR TO START OF WORK. PROVIDE ALL REQUIRED HARDWARE. REFER TO FLOORBOX SCHEDULE FOR MAKE AND MODEL. RADAR SCAN FLOOR AND UPON DETERMINING THAT ARE AIS CLEAR OF PIPING, SAWCUT AND REMOVE FLOOR AS REQUIRED FOR NEW FLOORBOX AND RACEWAY SYSTEM. CONNECT TO AREA CIRCUIT OF SUFFICIENT SIZE OR AS SHOWN. TRANSITION TO METALLIC RACEWAY UP INSIDE WALL. SET BOX LEVEL AND FLUSH WITH

13. ROUTE CONDUIT FOR DATA TO WALL AS SHOWN. 1" MINIMUM SIZE. FURNISH AND INSTALL JUNCTION BOX WITH COVERPLATES AS

DEMONSTRATION

WORKSTATIONS 2260

WORKROOM

MANAGER

WAP

TRAINING CENTER

 $\langle 3 \rangle$ WAP

MANAGER 2268

MANAGER

MANAGER 2266

#### LOW VOLTAGE PLAN NOTES $\langle x \rangle$

- FURNISH AND INSTALL NEW INTERCOM SYSTEM SPEAKER AND CONNECT TO EXISTING INTERCOM SYSTEM. SPEAKERS IN SAME ROOM/AREA SHALL BE ON SAME DEDICATED CIRCUIT. COORDINATE CIRCUITING REQUIREMENT WITH OWNER IN FIELD. SET POWER LEVEL IN ACCORDANCE WITH OWNER'S EXISTING SETTINGS FOR ROOMS OF SIMILAR SIZE AND TYPE.
- FURNISH AND INSTALL NEW DATA CONNECTION FOR OWNER FURNISHED AND INSTALL CEILING MOUNTED SECURITY CAMERA. REFER TO GENERAL CAT-6 NOTE AND DETAILS FOR ADDITIONAL INSTALLATION REQUIREMENTS. FURNISH AND INSTALL NEW (1) CAT-6 DATA FOR OWNER FURNISHED AND INSTALLED WIRELESS ACCESS POINT. REFER TO
- GENERAL CAT-6 NOTE AND DETAIL SHEETS FOR ADDITIONAL INSTALLATION REQUIREMENTS. FURNISH AND INSTALL THE FOLLOWING EQUIPMENT AND INFRASTRUCTURE FOR TRAINING CENTER 2269 AUDIO VISUAL
- SYSTEM (REFERENCE DETAIL SHEET E71-03 FOR ADDITIONAL DETAILS): FURNISH AND INSTALL (3) NEW CAT-6 DATA CONNECTIONS IN 'PT-4'.
- FURNISH AND INSTALL WEBCAM OVER IP DATA CONNECTION BETWEEN FLOOR BOX AND PTZ WEBCAM. FURNISH AND INSTALL (6) HDBASET OVER IP DATA CONNECTIONS BETWEEN VARIOUS INPUTS AND OUTPUTS (REFER
- TO AV SYSTEM DETAIL). FURNISH AND INSTALL (3) AUDIO OVER IP CONNECTIONS FOR CEILING MOUNTED SPEAKERS AND MICROPHONE
- CONTACTOR TO INSTALL OWNER FURNISHED CEILING MOUNTED SHURE SPEAKERS (2) AND MICROPHONE AND ASSOCIATED CABLING TO POKE THRU. FURNISH AND INSTALL ALL ASSOCIATED BACK BOXES, WALL BOXES AND CONDUIT IN EXISTING WALL TO SUPPORT
- OWNER AV SYSTEM (REFER TO AV SYSTEM DETAIL SHEET). FURNISH AND INSTALL (2) DATA AND (2) HDBASET OVER IP CONNECTIONS IN LEGRAND EFSB43 WALL BOX FOR EACH
- DISPLAY. TWO SETS FOR THIS AV SYSTEM, ONE TO SUPPORT EACH DISPLAY. FURNISH AND INSTALL WALL BACKING TO SUPPORT OWNER FURNISHED, CONTRACTOR INSTALLED DISPLAY MOUNTS. TWO LOCATIONS. COORDINATE THIS REQUIREMENT WITH ARCHITECTURAL DRAWINGS.
- INSTALL OWNER FURNISHED DISPLAYS (2) AND ASSOCIATED WALL MOUNTS (2). FURNISH AND INSTALL THE FOLLOWING EQUIPMENT AND INFRASTRUCTURE FOR "COLLAB 2261" AUDIO VISUAL SYSTEM (REFERENCE DETAIL SHEET E71-03 FOR ADDITIONAL DETAILS):
- A. FURNISH AND INSTALL (2) NEW CAT-6 DATA CONNECTIONS IN 'PT-1' AND (2) NEW CAT-6 DATA CONNECTIONS IN 'AV2'
- FURNISH AND INSTALL (2) HDBASET CONNECTION BETWEEN 'PT-1' AND 'AV2' WITH GREEN JACKS
- FURNISH AND INSTALL ALL ASSOCIATED BACK BOXES, WALL BOXES AND CONDUIT IN NEW WALL TO SUPPORT OWNER AV SYSTEM (REFER TO AV SYSTEM DETAIL SHEET).
- FURNISH AND INSTALL 'AV1' WALL BOX 'WMPAC525W' AT LOCATION SPECIFIED ON DRAWINGS AND (2) CAT-6 DATA CONNECTIONS IN NEW WALL BOX.
- FURNISH AND INSTALL WALL BACKING TO SUPPORT OWNER FURNISHED, CONTRACTOR INSTALLED DISPLAY MOUNT. COORDINATE THIS REQUIREMENT WITH ARCHITECTURAL DRAWINGS. INSTALL OWNER FURNISHED DISPLAYS (1) AND ASSOCIATED WALL MOUNT (1)
- FURNISH AND INSTALL THE FOLLOWING EQUIPMENT AND INFRASTRUCTURE FOR "COLLAB 2262" AUDIO VISUAL SYSTEM (REFERENCE DETAIL SHEET E71-03 FOR ADDITIONAL DETAILS):
- A. FURNISH AND INSTALL (2) NEW CAT-6 DATA CONNECTIONS IN 'PT-1' AND (2) NEW CAT-6 DATA CONNECTIONS IN 'AV2' FURNISH AND INSTALL (2) HDBASET CONNECTION BETWEEN 'PT-1' AND 'AV2' WITH GREEN JACKS
- FURNISH AND INSTALL ALL ASSOCIATED BACK BOXES, WALL BOXES AND CONDUIT IN NEW WALL TO SUPPORT OWNER AV SYSTEM (REFER TO AV SYSTEM DETAIL SHEET).
- D. FURNISH AND INSTALL 'AV1' WALL BOX 'WMPAC525W' AT LOCATION SPECIFIED ON DRAWINGS AND (2) CAT-6 DATA CONNECTIONS IN NEW WALL BOX.
- E. FURNISH AND INSTALL WALL BACKING TO SUPPORT OWNER FURNISHED, CONTRACTOR INSTALLED DISPLAY MOUNT. COORDINATE THIS REQUIREMENT WITH ARCHITECTURAL DRAWINGS.
- INSTALL OWNER FURNISHED DISPLAYS (1) AND ASSOCIATED WALL MOUNT (1).
- FURNISH AND INSTALL NEW DATA CAT-6 (QUANTITY AS SPECIFIED), REFER TO GENERAL CAT-6 NOTE. 'AC' REFERS TO ABOVE COUNTER INSTALLATION, COORDINATE WITH FURNITURE CONTRACTOR AND ARCHITECTURAL DRAWINGS. FURNISH AND INSTALL MULTIPLE LARGE 2 GANG DATA OUTLET BOXES WITH 8-PORT COMMSCOPE #M28L-262 SERIES FACEPLATES FOR QUANTITY NOTED ON DRAWING. FURNISH AND INSTALL BLANKS FOR OUTLETS NOT USED. FURNISH AND

INSTALL ASSOCIATED JACKS, CABLES, PATCH CORDS AND LABELED COVER PLATES FOR EACH CAT-6 DATA CONNECTION.

- REFER TO GENERAL CAT-6 NOTE. FURNISH AND INSTALL CAT-6 DATA CABLES (QUANTITY AS SPECIFIED) IN NEW POKE THROUGH OR FLOOR BOX. REFER TO ELECTRICAL DRAWINGS FOR POKE THRU SCHEDULE AND ADDITIONAL INFORMATION. REFER TO GENERAL CAT-6 NOTE.
- 10. FURNISH AND INSTALL WALL BACKING FOR OWNER FURNISHED, CONTRACTOR INSTALLED DISPLAY MOUNT AND DISPLAY.

LEVEL 02 LOW VOLTAGE NEW WORK

PLAN - TECH HUB

NEW CEILING MOUNTED PTZ WEBCAM. FURNISHED BY OWNER, INSTALLED BY CONTRACTOR. COORDINATE FINAL LOCATION IN FIELD WITH OWNER. CABLING TO BE ROUTED TO NEW PT-4,

CONTRACTOR TO FURNISH AND INSTALL SUPPORT FOR OWNER FURNISH, CONTRACTOR INSTALLED DISPLAYS AND ASSOCIATED MOUNTS. REFER TO ARCHITECTURAL PLAN FOR MORE INFORMATION.

### LOW VOLTAGE SYMBOL LIST

SYMBOL	DESCRIPTION	COMMENTS					
C1 C2 C4	CAT-6 DATA CONNECTION AND QUANTITY	FURNISH AND INSTALL COMPLETE CAT-6 DATA JACKS, CABLES, PATCH AND LABELED COVER PLATES FOR EACH					
WAP	WIRELESS ACCESS POINT	WIRELESS ACCESS POINT					
Sc	INTERCOM / PA SYSTEM SPEAKER						
(SS) <sub>C</sub>	AV SYSTEM SPEAKER						
AV1 AV2	AV SYSTEM WALL BOXES	FURNISH AND INSTALL DATA AND HDBASET COMPONENTS AS SPECIFIED IN NOTES AND DETAILS					

-REFER TO ELECTRICAL DRAWINGS FOR ADDITIONAL INFORMATION ON FLOOR BOX AND WALL BOX COORDINATION. -REFER TO ELECTRICAL DRAWINGS TO COORDINATE DATA AND POWER OUTLET INSTALLATION HEIGHTS. IN GENERAL DATA AND POWER OUTLETS SHALL BE INSTALLED AT SAME HEIGHT.

-REFER TO DETAILS AND NOTES FOR AV1 AND AV2 REQURIEMENTS, THESE REFER TO WALL BOXES WITH POWER, DATA AND HDBASET OVER IP CONNECTIONS.

-ALL CABLING SHALL BE PLENUM RATED.

GENERAL CAT-6 NOTE (TYPICAL)
FOR ALL CAT-6 DATA CONNECTIONS INDICATED ON DRAWINGS AND REFERENCED IN PLAN NOTES, CONTRACTOR SHALL FURNISH AND INSTALL ORIGINATION CABLE, JACKS AND TERMINATION AT BOTH ENDS AND ASSOCIATED COVER PLATES. PATCH CORDS TO BE FURNISHED AND INSTALL BY OWNER. HDBASET CONNECTIONS ARE TO BE FURNISHED AND INSTALL BY CONTARCTOR UTILIZING SAME CAT-6 ORIGINATION CABLE, USING GREEN JACKS. HDBASET CONNECTIONS ARE BETWEEN POKE THROUGH, FLOOR BOXES AND ASSOCIATED WALL BOXES AND DO NOT GO BACK TO IDF CLOSETS. WEBCAM CAT-6 CABLE TO BE FURNISHED AND INSTALL BY CONTRACTOR UTILIZING PURPLE JACKS. ADDITIONAL CABLE LENGTH OF 20' SERVICE LOOP REQUIRED FOR DATA JACK CONNECTIONS MOUNTED ABOVE CEILING SYSTEMS. NO SERVICE LOOP IS REQUIRED FOR WALL OR FLOOR MOUNTED DATA INSTALLATIONS.

LEVEL 02 LOW VOLTAGE NEW RCP -

REFER TO SHEET E10-01 ELECTRICAL SHEET FOR FOR COORDINATION AND ADDITIONAL INFORMATION

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**OAKTON COLLEGE** 

**KEY PLAN** 

**ISSUE CHART** 

ISSUED FOR BID 021074.000

**LOW VOLTAGE NEW** PLAN AND RCP - PHASE 1 - TECH HUB

SHEET NUMBER

E10-03

1 TECH HUB

1/4" = 1'-0"

PROJECT

**ADJACENCIES** 

**RENOVATIONS** 

DES PLAINES CAMPUS

1600 EAST GOLF ROAD DES PLAINES, IL, 60016

OAKTON COLLEGE

**KEY PLAN** 

**ISSUE CHART** 

### LOW VOLTAGE PLAN NOTES ?

RECEPTION

S

- FURNISH AND INSTALL NEW INTERCOM, PUBLIC ADDRESS, SYSTEM SPEAKER AND CONNECT TO EXISTING INTERCOM SYSTEM. SPEAKERS IN SAME ROOM/AREA SHALL BE ON SAME DEDICATED CIRCUIT. COORDINATE CIRCUITING REQUIREMENT WITH OWNER IN FIELD. SET POWER LEVEL IN
- ACCORDANCE WITH OWNER'S EXISTING SETTINGS FOR ROOMS OF SIMILAR SIZE AND TYPE. FURNISH AND INSTALL NEW DATA CONNECTION FOR OWNER FURNISHED AND INSTALL CEILING MOUNTED SECURITY CAMERA. REFER TO GENERAL CAT-6 NOTE AND DETAILS FOR ADDITIONAL INSTALLATION REQUIREMENTS.
- FURNISH AND INSTALL NEW (1) CAT-6 DATA FOR OWNER FURNISHED AND INSTALLED WIRELESS ACCESS POINT. REFER TO GENERAL CAT-6 NOTE AND DETAIL SHEETS FOR ADDITIONAL INSTALLATION REQUIREMENTS.

### LOW VOLTAGE SYMBOL LIST

	- WIS OE E10 1	
SYMBOL	DESCRIPTION	COMMENTS
C1 C2 C4	CAT-6 DATA CONNECTION AND QUANTITY	FURNISH AND INSTALL COMPLETE CAT-6 DATA JACKS, CABLES, PATCH AND LABELED COVER PLATES FOR EACH
WAP	WIRELESS ACCESS POINT	WIRELESS ACCESS POINT
Sc	INTERCOM / PA SYSTEM SPEAKER	
(SS) <sub>C</sub>	AV SYSTEM SPEAKER	
AV1 AV2	AV SYSTEM WALL BOXES	FURNISH AND INSTALL DATA AND HDBASET COMPONENTS AS SPECIFIED IN NOTES AND DETAILS

MANAGER

GENERAL NOTES:
-REFER TO ELECTRICAL DRAWINGS FOR ADDITIONAL INFORMATION ON FLOOR BOX AND WALL BOX

-REFER TO ELECTRICAL DRAWINGS TO COORDINATE DATA AND POWER OUTLET INSTALLATION HEIGHTS. IN GENERAL DATA AND POWER OUTLETS SHALL BE INSTALLED AT SAME HEIGHT. -ALL CABLING SHALL BE PLENUM RATED.
-REFER TO DETAILS AND NOTES FOR AV1 AND AV2 REQURIEMENTS, THESE REFER TO WALL BOXES

WITH POWER, DATA AND HDBASET OVER IP CONNECTIONS.

FOR ALL CAT-6 DATA CONNECTIONS INDICATED ON DRAWINGS AND REFERENCED IN PLAN NOTES ENDS AND ASSOCIATED COVER PLATES. PATCH CORDS TO BE FURNISHED AND INSTALL BY OWNER. FLOOR BOXES AND ASSOCIATED WALL BOXES AND DO NOT GO BACK TO IDF CLOSETS. WEBCAM CAT-6 CABLE TO BE FURNISHED AND INSTALL BY CONTRACTOR UTILIZING PURPLE JACKS. ADDITIONAL CABLE LENGTH OF 20' SERVICE LOOP REQUIRED FOR DATA JACK CONNECTIONS MOUNTED ABOVE CEILING SYSTEMS. NO SERVICE LOOP IS REQUIRED FOR WALL OR FLOOR MOUNTED DATA INSTALLATIONS.

> REFER TO SHEET E10-02 AND E10-05 SHEETS FOR FOR COORDINATION AND ADDITIONAL INFORMATION

**LOW VOLTAGE NEW** RCP - PHASE 1 -ADRC/TESTING

SHEET NUMBER

E10-04

LEVEL 01 LOW VOLTAGE NEW RCP -

GROUP ROOM

MANAGER

OUTSIDE TESTING 1832

RECEPTION

STOR / WORKROOM

SR MANAGER 1826

ADRC/TESTING

1/4" = 1'-0"

LEVEL 01 LOW VOLTAGE NEW WORK

1 PLAN - ADRC/TESTING

1/4" = 1'-0"

LOW VOLTAGE PLAN NOTES (X)

- 1. FURNISH AND INSTALL NEW DATA CAT-6 (QUANTITY AS SPECIFIED), REFER TO GENERAL CAT-6 NOTE. 'AC' REFERS TO ABOVE COUNTER INSTALLATION, COORDINATE WITH FURNITURE CONTRACTOR AND ARCHITECTURAL DRAWINGS.
- 2. FURNISH AND INSTALL MULTIPLE LARGE 2 GANG DATA OUTLET BOXES WITH 8-PORT COMMSCOPE #M28L-262 SERIES FACEPLATES FOR QUANTITY NOTED ON DRAWING. FURNISH AND INSTALL BLANKS FOR OUTLETS NOT USED. FURNISH AND INSTALL ASSOCIATED JACKS, CABLES, PATCH CORDS AND LABELED COVER PLATES FOR EACH CAT-6 DATA CONNECTION. REFER TO GENERAL CAT-6 NOTE.
- FURNISH AND INSTALL THE FOLLOWING EQUIPMENT AND INFRASTRUCTURE FOR "GROUP ROOM 1821" AUDIO VISUAL SYSTEM (REFERENCE DETAIL SHEET E71-03 FOR ADDITIONAL DETAILS):.
- A. FURNISH AND INSTALL (2) NEW CAT-6 DATA CONNECTIONS IN 'FB-1' AND (2) NEW CAT-6 DATA CONNECTIONS IN 'AV2' WALL BOX.
- B. FURNISH AND INSTALL (2) HDBASET CONNECTION BETWEEN 'FB-1' AND 'AV2' WITH GREEN JACKS
- C. FURNISH AND INSTALL ALL ASSOCIATED BACK BOXES, WALL BOXES AND CONDUIT IN NEW WALL TO SUPPORT OWNER AV SYSTEM (REFER TO AV SYSTEM DETAIL SHEET).
  - FURNISH AND INSTALL 'AV1' WALL BOX 'WMPAC525W' AT LOCATION SPECIFIED ON DRAWINGS AND (2) CAT-6 DATA CONNECTIONS IN NEW WALL BOX.
- E. FURNISH AND INSTALL WALL BACKING TO SUPPORT OWNER FURNISHED, CONTRACTOR INSTALLED DISPLAY MOUNT. COORDINATE THIS REQUIREMENT WITH ARCHITECTURAL DRAWINGS.
- F. INSTALL OWNER FURNISHED DISPLAYS (1) AND ASSOCIATED WALL MOUNT (1).

  4. FURNISH AND INSTALL COMPLETE CAT-6 DATA JACKS OF QUANTITY NOTED ON DRAWING IN NEW FLOOR BOX AND/OR POKE THRU. FURNISH AND INSTALL
- ASSOCIATED JACKS, CABLES, PATCH CORDS AND LABELED COVER PLATES FOR EACH CAT-6 DATA CONNECTION. REFER TO GENERAL CAT-6 NOTE.

  5. FURNISH AND INSTALL (2) CAT-6 DATA CONNECTIONS UTILIZING NEW FURNITURE FEED BOX SPARE ACCESS. TERMINATE JACKS FOR OWNER'S USE. REFER TO GENERAL
- 6. FURNISH AND INSTALL WALL BACKING FOR OWNER FURNISHED, CONTRACTOR INSTALLED DISPLAY MOUNT AND DISPLAY.

### LOW VOLTAGE SYMBOL LIST

SYMBOL	DESCRIPTION	COMMENTS
C1 C2 C4	CAT-6 DATA CONNECTION AND QUANTITY	FURNISH AND INSTALL COMPLETE CAT-6 DATA JACKS, CABLES, PATCH AND LABELED COVER PLATES FOR EACH
WAP	WIRELESS ACCESS POINT	WIRELESS ACCESS POINT
© <sub>C</sub>	INTERCOM / PA SYSTEM SPEAKER	
(SS) <sub>C</sub>	AV SYSTEM SPEAKER	
AV1 AV2	AV SYSTEM WALL BOXES	FURNISH AND INSTALL DATA AND HDBASET COMPONENTS AS SPECIFIED IN NOTES AND DETAILS

GENERAL NOTES:
-REFER TO ELECTRICAL DRAWINGS FOR ADDITIONAL INFORMATION ON FLOOR BOX AND WALL BOX COORDINATION.

-REFER TO ELECTRICAL DRAWINGS TO COORDINATE DATA AND POWER OUTLET INSTALLATION HEIGHTS.
IN GENERAL DATA AND POWER OUTLETS SHALL BE INSTALLED AT SAME HEIGHT.
-ALL CABLING SHALL BE PLENUM RATED.

-REFER TO DETAILS AND NOTES FOR AV1 AND AV2 REQURIEMENTS, THESE REFER TO WALL BOXES WITH POWER, DATA AND HDBASET OVER IP CONNECTIONS.

GENERAL CAT-6 NOTE (TYPICA

FOR ALL CAT-6 DATA CONNECTIONS INDICATED ON DRAWINGS AND REFERENCED IN PLAN NOTES, CONTRACTOR SHALL FURNISH AND INSTALL ORIGINATION CABLE, JACKS AND TERMINATION AT BOTH ENDS AND ASSOCIATED COVER PLATES. PATCH CORDS TO BE FURNISHED AND INSTALL BY OWNER. HDBASET CONNECTIONS ARE TO BE FURNISHED AND INSTALL BY CONTARCTOR UTILIZING SAME CAT-6 ORIGINATION CABLE, USING GREEN JACKS. HDBASET CONNECTIONS ARE BETWEEN POKE THROUGH, FLOOR BOXES AND ASSOCIATED WALL BOXES AND DO NOT GO BACK TO IDF CLOSETS. WEBCAM CAT-6 CABLE TO BE FURNISHED AND INSTALL BY CONTRACTOR UTILIZING PURPLE JACKS. ADDITIONAL CABLE LENGTH OF 20' SERVICE LOOP REQUIRED FOR DATA JACK CONNECTIONS MOUNTED ABOVE CEILING SYSTEMS. NO SERVICE LOOP IS REQUIRED FOR WALL OR FLOOR MOUNTED DATA INSTALLATIONS.

REFER TO SHEET E10-02 & E10-04 SHEETS FOR FOR COORDINATION AND ADDITIONAL INFORMATION

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PROJECT ADJACENCIES

**RENOVATIONS** 

DES PLAINES CAMPUS
1600 EAST GOLF ROAD
DES PLAINES, IL, 60016



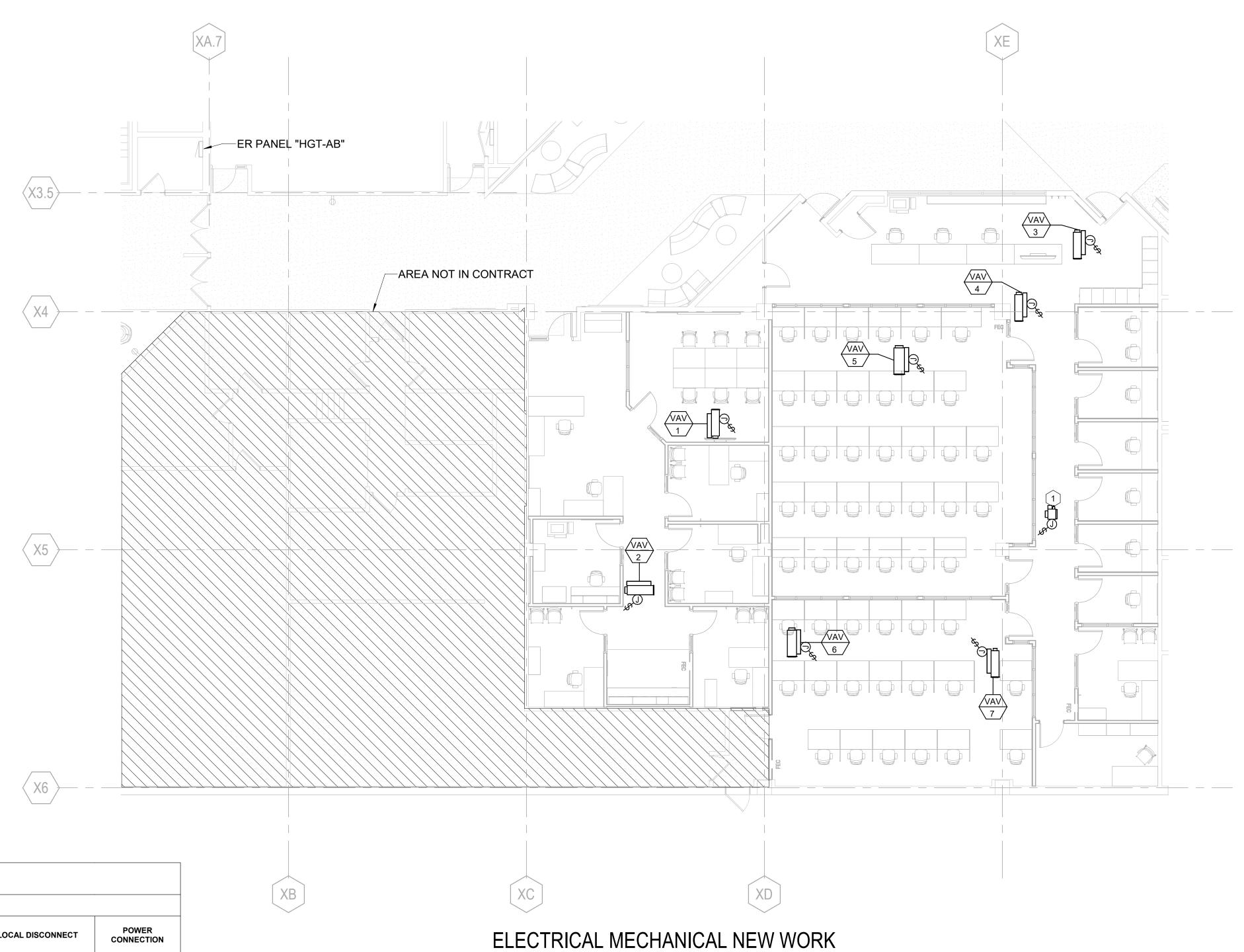
KEY PLAN

**ISSUE CHART** 

LOW VOLTAGE NEW PLAN - PHASE 1 -ADRC/TESTING

SHEET NUMBER

E10-05



PLAN - ADRC/TESTING CENTER

1/8" = 1'-0"

 RECONNECT EXISTING VAV TO EXISTING BRANCH CIRCUIT. EXTEND EXISTING CONDUIT AND WIRES AS REQUIRED.

 PROVIDE NEUTRAL AS REQUIRED FOR NEW VAV UNIT. COORDINATE REQUIREMENTS WITH MC.

FURNISH AND INSTALL NEW 277V/1P MOTOR RATED TOGGLE SWITCH. VERIFY RATING OF TOGGLE SWITCH REQUIRED IN

ELECTRICAL PLAN NOTES (X)

FIELD.

								MECH	ANICAL	<b>EQUIPMENT</b>	WIRING SCHEDULE				
											ELECTRICAL				
	EQUIPMENT TAG	DESCRIPTION	VOLTS	PHASE	НР	AMPS (FLA)	AMPS (MCA)	WATTAGE	OCPD SIZE	CIRCUIT NUMBER	PANEL FEED	FEEDER SIZE	EQUIPMENT CONTROL TYPE	LOCAL DISCONNECT	POWER CONNECTION
	VAV-1	VARIABLE AIR VOLUME BOX	277	1	_	_	_	2000	20A/1P	12	HGT-AB	2#12, 1#12GRD IN 3/4"C	-	20A/1P MOTOR RATED TOGGLE SWITCH	HARD WIRE
	VAV-2	VARIABLE AIR VOLUME BOX	277	1	_	_	_	5000	35A/1P	22	HGT-AB	2#8, 1#10GRD IN 3/4"C	-	35A/1P MOTOR RATED TOGGLE SWITCH	HARD WIRE
	VAV-3	VARIABLE AIR VOLUME BOX	277	1	_	_	_	2000	20A/1P	16	HGT-AB	2#12, 1#12GRD IN 3/4"C	-	20A/1P MOTOR RATED TOGGLE SWITCH	HARD WIRE
	VAV-4	VARIABLE AIR VOLUME BOX	277	1	_	_	_	2500	20A/1P	18	HGT-AB	2#12, 1#12GRD IN 3/4"C	-	20A/1P MOTOR RATED TOGGLE SWITCH	HARD WIRE
<b>2</b>	VAV-5	VARIABLE AIR VOLUME BOX	480	3	_	_	_	9500	20A/3P	24,26,28	HGT-AB	4#12, 1#12GRD IN 3/4"C	-	30A/3P NON-FUSED DISCONNECT SWITCH	HARD WIRE
<b>2</b>	VAV-6	VARIABLE AIR VOLUME BOX	480	3	_	_	_	6500	20A/3P	30,32,34	HGT-AB	4#12, 1#12GRD IN 3/4"C	-	30A/3P NON-FUSED DISCONNECT SWITCH	HARD WIRE
	VAV-7	VARIABLE AIR VOLUME BOX	277	1	_	_	_	1500	20A/1P	20	HGT-AB	2#12, 1#12GRD IN 3/4"C	-	20A/1P MOTOR RATED TOGGLE SWITCH	HARD WIRE
	VAV-8	VARIABLE AIR VOLUME BOX	277	1	_	_	_	4000	25A/1P	13	2H-22-1	2#10, 1#10GRD IN 3/4"C	-	30A/1P MOTOR RATED TOGGLE SWITCH	HARD WIRE
	VAV-9	VARIABLE AIR VOLUME BOX	277	1	_	_	_	2000	20A/1P	15	2H-22-1	2#12, 1#12GRD IN 3/4"C	-	20A/1P MOTOR RATED TOGGLE SWITCH	HARD WIRE
2	VAV-10	VARIABLE AIR VOLUME BOX	480	3	_	_	_	7500	20A/3P	14,16,18	2H-22-1	4#12, 1#12GRD IN 3/4"C	-	30A/3P NON-FUSED DISCONNECT SWITCH	HARD WIRE
	VAV-11	VARIABLE AIR VOLUME BOX	277	1	_	_	_	2500	20A/1P	17	2H-22-1	2#12, 1#12GRD IN 3/4"C	-	20A/1P MOTOR RATED TOGGLE SWITCH	HARD WIRE
2	VAV-12	VARIABLE AIR VOLUME BOX	480	3	-	_	_	6000	20A/3P	20,22,24	2H-22-1	4#12, 1#12GRD IN 3/4"C	-	30A/3P NON-FUSED DISCONNECT SWITCH	HARD WIRE

### SCHEDULE NOTES:

A. COORDINATE FINAL MOCP REQUIREMENTS WITH MC PRIOR TO ORDERING CIRCUIT BREAKERS AND LOCAL DISCONNECTING MEANS.

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ADJACENCIES RENOVATIONS

DES PLAINES CAMPUS
1600 EAST GOLF ROAD
DES PLAINES, IL, 60016



KEY PLAN

ISSUE CHART

ELECTRICAL MECHANICAL NEW WORK PLANS - PHASE 1

SHEET NUMBER

E11-01

- A. REUSE EXISTING BRANCH CIRCUITS FOR ALL NEW LIGHT FIXTURES UNLESS NOTED OTHERWISE. EXTEND EXISTING CONDUIT AND WIRES AS REQUIRED. RECONNECT EXISTING EMERGENCY CIRCUITS TO NEW FIXTURES AS SHOWN. FURNISH AND INSTALL NEW CONTROLS AS SHOWN. ZONING SHALL BE PROGRAMMED AS SHOWN ON DRAWINGS.
- B. ALL EXIT SIGNS SHALL BE CONNECTED TO EXISTING EMERGENCY EXIT SIGN BRANCH CIRCUIT UNLESS NOTED OTHERWISE. EXTEND EXISTING CONDUIT AND WIRES AS REQUIRED. USE #10 WIRE FOR 277V CIRCUITS LONGER THAN 200 FEET.
- C. ALL NIGHT LIGHTS SHALL BE RECONNECTED TO EXISTING NIGHT LIGHT BRANCH CIRCUIT AHEAD OF LOCAL CONTROLS. EXTEND EXISTING CONDUIT AND WIRES AS REQUIRED. USE #10 WIRE FOR 277V CIRCUITS LONGER THAN 200 FEET.
- D. VERIFY EXISTING LIGHTING BRANCH CIRCUIT VOLTAGE IN FIELD PRIOR TO ORDERING FIXTURES.
- E. COORDINATE LIGHT SWITCH LOCATIONS WITH ARCHITECT AND OWNER PRIOR TO ROUGH-IN.
- F. COORDINATE MOUNTING OF CEILING MOUNTED CONTROL DEVICES WITH ARCHITECT PRIOR TO START OF WORK. ENSURE MAXIMUM COVERAGE IS ACHIEVED.

- ELECTRICAL PLAN NOTES  $\langle x \rangle$
- EXTEND NEAREST EXISTING EMERGENCY EXIT SIGN BRANCH CIRCUIT FOR NEW EXIT SIGN. EXTEND EXISTING CONDUIT AND WIRES AS REQUIRED. COORDINATE FINAL LOCATION WITH ARCHITECT PRIOR TO INSTALLATION.
- 2. EXTEND NEAREST EXISTING EMERGENCY BRANCH CIRCUIT FOR NEW EM FIXTURE. EXTEND EXISTING CONDUIT AND WIRES AS REQUIRED. REFER TO LIGHTING SEQUENCE OF OPERATIONS FOR FURTHER INFORMATION.
- 3. SECTION OF FIXTURE SHALL BE ON NEAREST EXISTING EMERGENCY/NIGHT LIGHT BRANCH CIRCUIT FOR NEW FIXTURE WIRED AHEAD OF LOCAL CONTROLS. EXTEND EXISTING CONDUIT AND WIRES AS REQUIRED. COORDINATE FIXTURE EMERGENCY CIRCUIT REQUIREMENTS WITH MANUFACTURER AS REQUIRED. NIGHT LIGHTS SHALL REMAIN ON 100% OF THE TIME.
- 4. CONNECT EXISTING NORMAL POWER CORRIDOR LIGHTING CIRCUIT TO NEW LIGHT FIXTURE. EXTEND EXISTING CONDUIT AND WIRES AS REQUIRED. CONNECT TO LOCAL CORRIDOR LIGHTING CONTROL ZONE.
- 5. PROVIDE CLEAR LOCKABLE COVER FOR WALL MOUNTED MANUAL LIGHT FIXTURE CONTROLS.

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ADJACENCIES RENOVATIONS

DES PLAINES CAMPUS 1600 EAST GOLF ROAD DES PLAINES, IL, 60016



KEY PLAN

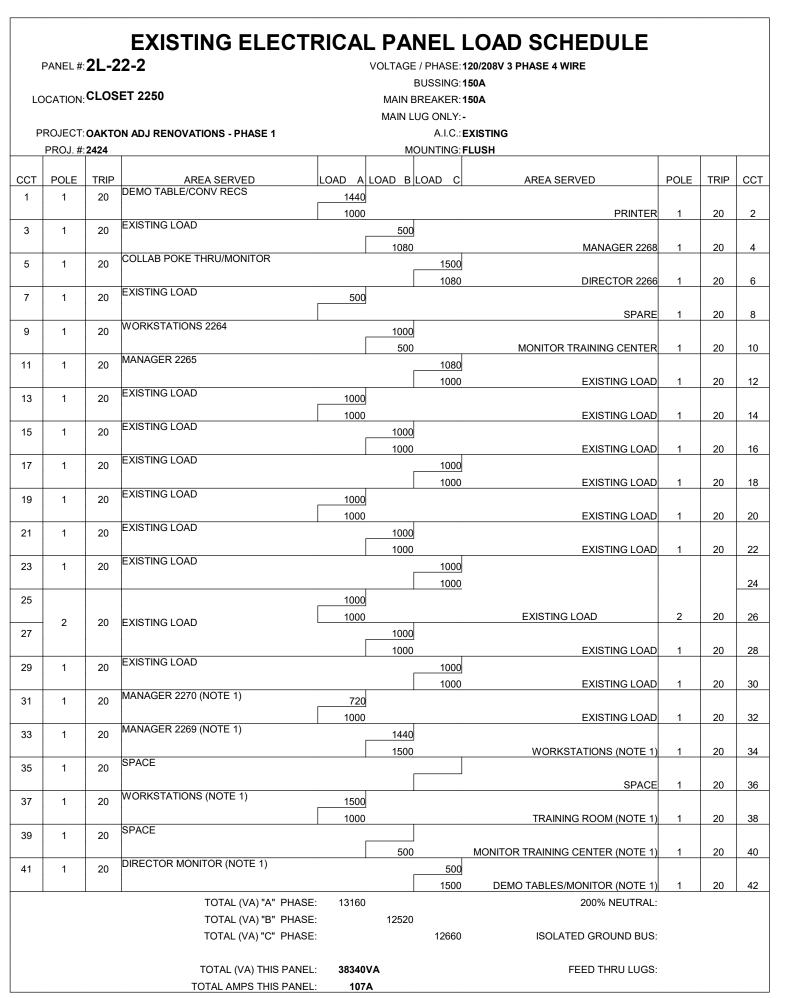
**ISSUE CHART** 

ISSUED FOR BID	23 SEP 24	
MARK	ISSUE	DATE
Job Number	021074.000	
TITLE		

LIGHTING NEW WORK PLANS - PHASE 1

SHEET NUMBER

E12-01



	PANEL#		ET 1838		MAIN BF	USSING: 80 REAKER: 80 G ONLY: -				
Р	ROJECT:		N ADJ. RENOVATION - PHASE 1				XISTING LUSH			
ст	POLE	TRIP	AREA SERVED	LOAD A	LOAD B L	OAD C	AREA SERVED	POLE	TRIP	ССТ
1	1	20	RECEPTION TESTING	1500			0700405	_	00	
3	1	20	ACCOMMODATION	540	1000 1260		STORAGE  ACCOMMODATION RECEPTACLES		20	4
5	1	20	ACCOMMODATION		1200	500 500	ECLYPSE CONTROLLER		20	6
7	1	20	ACCOMMODATION	1180						
9	1	20	TESTING MANAGER OFFICE	360	1220		RECEPTION RECS		20	8
11	1	20	SPARE		500	1000	RECEPTION MONITOR  RECEPT RM F59/WEST 1635 CCTV (ER)		20	10
13	1	20	PRINTER	1000		1000	ADA DOORS		20	14
15	1	20	TESTING ROOM CONVENIENCE RECS	1000	1080		SPARE		20	16
17	1	20	SPARE			1000			20	
19	1	20	SPARE	_		1000	RECEPT RM F61/WEST 1637 CCTV (ER)			18
21	1	20	SPARE	<u> </u>	_		SPARE	1	20	20
23	1	20	SPARE		<del>-</del>	_	SPARE		20	22
25	1	20	SPARE	-		<del>-</del>	SPARE		20	24
27	1	20	SPARE		1000		SPARE		20	26
29	1	20	CCTV POWER/QUAD (ER)		1000	1000	RECEPT RM F72 (ER)		20	28
31	1	20	RECEPT RM F72 (ER)	1000		1000	RECEPT RM F72 (ER)		20	30
33	1	20	RECEPT RM F72 (ER)	1000	1000		EXISTING LOAD		20	32
35	1	20	EXISTING LOAD		1000	1000	EXISTING LOAD		20	34
37	1	20	EXISTING LOAD	1000		1000	EXISTING LOAD		20	36
39	1	20	EXISTING LOAD	1000	1000		EXISTING LOAD		20	38
41	1	20	SHUNT TRIP		1000	100	EXISTING LOAD		20	40
	<u> </u>		TOTAL (VA) "A" PHASE TOTAL (VA) "B" PHASE		10060	<del>-</del>	EXISTING LOAD 200% NEUTRAL:		20	42
			TOTAL (VA) "C" PHASE			7100	ISOLATED GROUND BUS:			

FURNISH AND INSTALL NEW CIRCUIT BREAKER AS SHOWN. NEW

CIRCUIT BREAKER SHALL MATCH EXISTING MAKE, MODEL, AND

SHOWN. EXTEND EXISTING CONDUIT AND WIRES AS REQUIRED.

UPDATE ALL EXISTING CARD DIRECTORIES THAT ARE AFFECTED BY

CONSTRUCTION AND DEMOLITION. ALL CARD DIRECTORIES ARE TO BE

RELOCATE EXISTING BRANCH CIRCUITS TO NEW PANEL AS

VERIFY MOCP REQUIREMENTS AND NUMBER OF POLES OF

CIRCUIT BREAKER WITH FURNITURE CONTRACTOR AND

MANUFACTURER PRIOR TO ORDERING CIRCUIT BREAKERS.

LC	OCATION:	CLOS	ET 1838		MAIN BF	USSING:400A REAKER:- G ONLY:YES				
Р	ROJECT:	OAKTO	N ADJ. RENOVATIONS - PHASE 1		WAIN LO	A.I.C.: EXIST	ING			
	PROJ. #:	2424	T		MO	UNTING: SURF	ACE		l	
СТ	POLE	TRIP	ADEA SEDVED	I OAD A	LOAD B L		AREA SERVED	POLE	TRIP	CCT
1	1		AREA SERVED EXISTING LOAD	1000		OAD C	AREA SERVED	FOLE	INF	CCT
•	· ·			1000			EXISTING LOAD	1	20	2
3	1	20	EXISTING LOAD		1000		-		-	
					1000		EXISTING LOAD	1	20	4
5	1	20	EXISTING LOAD		_	1000				
			EVICTING			1000	EXISTING LOAD	1	20	6
7	1	20	EXISTING LOAD	1000						
			EXISTING LOAD	1000			EXISTING LOAD	11	20	8
9	1	20		ı	1000					
11	4	200	EXISTING LOAD		1000	1000	EXISTING LOAD	11	20	10
11	1	20			Г	1000 1000	EVICTIMO LOAD	1	20	10
13	1	20	EXISTING LOAD	1000		1000	EXISTING LOAD	<u> </u>		12
ıJ	'	20		1000			EXISTING LOAD	1	20	14
15	1	20	EXISTING LOAD	1000	1000		LAIOTINO LOAD			'-
					1000		EXISTING LOAD	1	20	16
17	1	20	EXISTING LOAD			1000				
						1000	EXISTING LOAD	1	20	18
19	1	20	EXISTING LOAD	1000	·					
				1000			EXISTING LOAD	1	20	20
21	1	20	EXISTING LOAD		1000					
			EVICTING LOAD		1000		EXISTING LOAD	1	20	22
23	1	20	EXISTING LOAD		Г	1000				
			EXISTING LOAD			1000	EXISTING LOAD	11	20	24
25	1	20	EXIOTING EGAD	1000						
0.7	4	00	FLOORBOX (ER)	500			FLOORBOX (ER)	11	20	26
27	1	20	,		500		EVICTING LOAD	4	20	20
29	1	20	EXISTING LOAD		1000	1000	EXISTING LOAD	11	20	28
دع	'	20			Γ	1000	EXISTING LOAD	1	20	30
31	1	20	EXISTING LOAD	1000		1000	LAIGHING LOAD	1		50
				1000			EXISTING LOAD	1	20	32
33	1	20	EXISTING LOAD		1000					
					1000		EXISTING LOAD	1	20	34
35	1	20	EXISTING LOAD			1000				
			007.0 (NOTE 1)			1000	EXISTING LOAD	1	20	36
37			OST-3 (NOTE 1)	18380						
				1000			EXISTING LOAD	1	20	38
39				ı	16832					
4.4			-		1000	17100	EXISTING LOAD	11	20	40
41	_	000			Г	17192	EVIOTINO LOS	4	00	40
	3	200	TOTAL (\/A\ "A" DLL	AQE: 20000		1000	EXISTING LOAD	1	20	42
			TOTAL (VA) "A" PH/ TOTAL (VA) "B" PH/		29332		200% NEUTRAL:			
			TOTAL (VA) "C" PH		23332	30192	ISOLATED GROUND BUS:			
			TOTAL (VA) O FID			00102	ISOLITED SHOUND BOS.			
			TOTAL (VA) THIS PA	NEL: <b>90404</b>	VA		FEED THRU LUGS:			
			TOTAL AMPS THIS PA							

Oakton Adj. Renovation Phase 1 - Load Calculation (OST2)

41000.0

10000

23660

500

1500

1000

**ELECTRICAL PANEL LOAD SCHEDULE** 

816 1224

2720

TOTAL (VA) "A" PHASE: 4540

TOTAL (VA) THIS PANEL: 9260VA

TOTAL (VA) "B" PHASE:

TOTAL (VA) "C" PHASE:

TOTAL AMPS THIS PANEL:

EX. PANEL RATING

VOLTAGE / PHASE: 120/208V 3 PHASE 4 WIRE

BUSSING: 60A

A.I.C.: 22,000

MOUNTING: SURFACE

MAIN BREAKER: 60A

MAIN LUG ONLY: -

125%

100%

100%

100%

100%

VOLTAGE/PHASE

208V/3PH

AREA SERVED

51250

10000

11830 500

1500

1000

AMP

211.33

400

POLE TRIP CCT

MICROWAVE 1 20 2

SPARE 1 20 10

SPARE 1 20 12

SPARE 1 20 14

SPARE 1 20 16

REFRIGERATOR 1 20 4

KITCHENETTE

200% NEUTRAL:NO

ISOLATED GROUND BUS:NO

FEED THRU LUGS:NO

WORKSTATION MONITORS

**EXISTING LOADS** 

RECEPTACLES (1ST 10000VA)

RECEPTACLES (REMAINDER)

ADA DOOR

MICROWAVE

PANEL #: **2L-22-3** 

LOCATION: CLOSET 2250

PROJ. #: **2424** 

PROJECT: OAKTON ADJ. RENOVATION - PHASE 1

WORKSTATIONS

WORKSTATION MONITORS

TRAINING CENTER RECS

U/C REFRIGERATOR

TOTAL DEMAND LOAD

1/						1500				
19	2	20	TESTING COMPUTERS FOURTH ROW (NOTE 3)	1500		1500				
19			, ,	1500			TESTING COMPUTERS FIFTH ROW			
21	1	20		1300	1500		(NOTE 3)	2	20	$\vdash$
_	'	20	TESTING COMPUTERS SIXTH ROW		1500					
23	1	20	(NOTE 3)		1300	1500				$^{+}$
	•	20					TESTING COMPUTERS SEVENTH ROW			
25	1	20	TESTING DESK MONITOR	204	I		(NOTE 3)	2	20	Г
				1500						
27	1	20	TESTING DESK		500					T
					1500		MICROWAVE	1	20	
29	1	20	PRINTER			1000				
						1500	TESTING COMPUTERS EIGHTH ROW	1	20	
31	1	20	TESTING CONVENIENCE RECEPTACLES	360						
				1500			TESTING COMPUTERS EIGHTH ROW	1	20	1
33	1	20	BREAK AREA RECEPTACLES		360					
			TESTING CENTED MONITORS				SPARE	1	20	1
35	1	20	TESTING CENTER MONITORS			1000				
			EXISTING LOAD FROM OST-2 (NOTE 2)			500	TESTING CENTER MONITOR	1	20	-
37	1	20	EXISTING LOAD FROM 031-2 (NOTE 2)	1000						
			EXISTING LOAD FROM OST-2 (NOTE 2)	-	. 1					
39	1	20			1000			3	30	
47			EXISTING LOAD FROM OST-2 (NOTE 2)		-					
41	1	20				1000	000 "1			
40			-	242		-	SPD #1			
43			ſ	612						
45	2	20	TESTING ROW 1 MONITORS (NOTE 3)	612	640		TESTING ROW 2 MONITORS (NOTE 3)	2	20	
45					612 612					
47			<u> </u>		012	612				+
+′						816				
19	2	20	TESTING ROW 3 MONITORS (NOTE 3)	816		010	TESTING ROW 4 MONITORS (NOTE 3)	2	20	
-5			[	612						
51				012	612					Τ
´					612					
53	2	20	TESTING ROW 5 MONITORS (NOTE 3)	l .	012	612	TESTING ROW 6 MONITORS (NOTE 3)	2	20	
						612				
55				612						T
	•		TESTING DOW T MONITORS (NOTE 8)	612			TENTINO DOM A MONITODO (NOTE A)			
57	2	20	TESTING ROW 7 MONITORS (NOTE 3)		612		TESTING ROW 8 MONITORS (NOTE 3)	2	20	
					612					
59	1	20	SPARE	<u> </u>						T
							SPARE	1	20	
31	1	20	SPARE	-	,					T
				_			SPARE	1	20	
63	1	20	SPARE		_					T
							SPARE	1	20	
65	1	20	SPARE	<u> </u>						T
						_	SPARE	1	20	
67	1	20	SPARE	_		-		-		1
				_			SPARE	1	20	
69	1	20	SPARE							T
							SPARE	1	20	
71	1	20	SPARE		•			-		T
							SPARE	1	20	
			TOTAL (VA) "A" PHASE:	18380		-	200% NEUTRAL:			
			TOTAL (VA) "B" PHASE:		16832					
			TOTAL (VA) "C" PHASE:			17192	ISOLATED GROUND BUS:	NO		
			iona (vi) o i inol.			., .02	.552 (125 5)(65)(15 600.			
			TOTAL (VA) THIS PANEL:	52404VA			FEED THRU LUGS:	NO		
			TOTAL AMPS THIS PANEL:				1 225 11110 2000.			

ELECTRICAL PANEL LOAD SCHEDULE

VOLTAGE / PHASE: 120/208V 3 PHASE 4 WIRE

AREA SERVED

RECEPTION WORKSTATIONS

1500 TESTING COMPUTERS FIRST ROW

TESTING COMPUTERS THIRD ROW

(NOTE 3)

POLE TRIP CCT

GROUP ROOM 1 20

MANAGER OFFICE 1823 1 20

WORKROOM RECS 1 20 8

BUSSING: 200A

MOUNTING: SURFACE

MAIN BREAKER: -

MAIN LUG ONLY: YES

PANEL #: OST3

PROJ. #: **2424** 

LOCATION: CLOSET 1838

PROJECT: OAKTON ADJ RENOVATION - PHASE

ADA DOORS/RECS

MANAGER OFFICE 1822

MANAGER OFFICE 1824

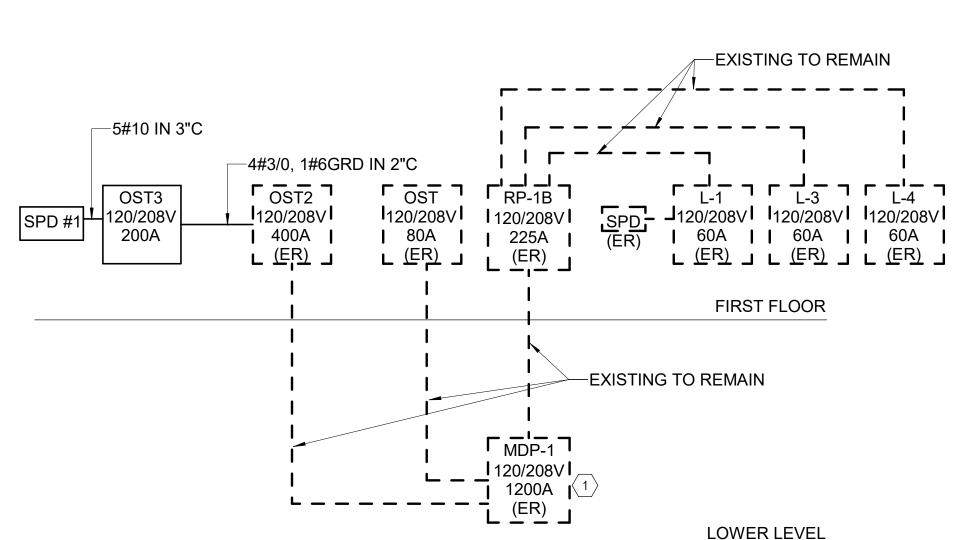
MANAGER OFFICE 1826

ASSIST. TECH WORKSTATIONS

TESTING COMPUTERS SECOND ROW 1500

(NOTE 3)

Oakton Adj. F	Renovation Phase 1 - Load Calcul	lation (2L-22-2)	
LOAD TYPE	CONNECTED LOAD (VA)	DEMAND	VA
EXISTING LOADS	21000.0	125%	26250
RECEPTACLES (1ST 10000VA)	10000	100%	10000
RECEPTACLES (REMAINDER)	4220	50%	2110
PRINTER	1000	100%	1000
TOTAL DEMAN	ID LOAD	VOLTAGE/PHASE	AMP
	39360	208V/3PH	109.33
	EX. PANEL	RATING	150



- - EXISTING ---- NEW

## LEVEL 01 NEW WORK RISER DIAGRAM - PHASE 1

PROVIDE ENGRAVED LABEL "OST-2" ON CIRCUIT BREAKER #13 IN MDP-1 LOCATED IN 0703 ON

BRANCH PANELBOARD SUPPRESSOR: | SPD #1 120/208 VOLT RATED, 3 PHASE, 4 WIRE

SURFACE MOUNTED.

SEE SPECIFICATIONS FOR MODEL NUMBER/ADDITIONAL INFORMATION.

ALL UNITS TO HAVE EMI/RFI FILTERING, VISUAL FAULT DISPLAYS AND FORM-C CONTACTS.

NO OTHER MANUFACTURERS WILL BE ACCEPTED. MANUFACTURERS REP. SHALL BE ON SITE FOR START UP PROCEDURES.

PROTECTION CIRCUITS SHALL BE MONITORED AND PROVIDE INDICATION OF SUPPRESSION OPERABILITY OR FAILURE.

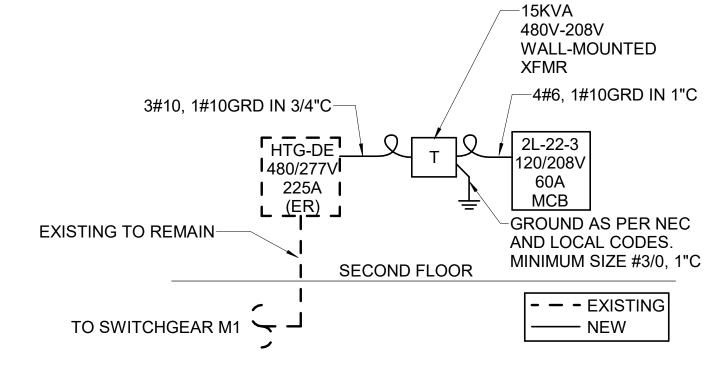
DEVICE MUST BE UL 1449 5TH EDITION LISTED UNDER THE MOST CURRENT REVISION. THE SPECIFIED UNIT SHALL BE FUSED WITH FUSES CAPABLE OF ALLOWING THE SUPPRESOR'S MAXIMUM RATED TRANSIENT CURRENT TO PASS THROUGH SUPPRESSOR WITHOUT FUSE OPERATION. FUSES, WHETHER INTERNAL OR EXTERNAL, MUST BE UL LISTED. IF ANY EXTERNAL LIMITING DEVICES ARE REQUIRED, THOSE DEVICES SHALL BE DETAILED AND INCLUDED IN THE SUBMITTAL/PROPOSAL. IF AN EXTERNAL DEVICE IS TO BE INCLUDED, ITS IMPACT ON SURGE CURRENT CAPABILITY AND CLAMPING LEVEL SHALL BE PROVIDED. ALL OVERCURRENT

-ALL UNITS MUST COME WITH A 5 YEAR WARRANTY ON ALL PARTS AND LABOR -ALL UNITS REQUIRING SERVICE SHALL BE RECTIFIED WITHIN 48 HOURS OF NOTIFICATION.

THE SURGE PROTECTION DEVICE SPECIFIED HAS BEEN TESTED TO AND FULL PHASE VOLTAGE-HIGH CURRENT ABNORMAL OVERVOLTAGE TEST)

WILL INDICATE HOW THE CLAMPING VOLTAGE AND SURGE CURRENT CAPACITY OF THE SURGE PROTECTION DEVICE IS AFFECTED.

PRIMARY SURGE SUPPRESSION ELEMENT MEETS OR EXCEEDS THE SPECIFIED SURGE CURRENT CAPABILITY OF THE SURGE PROTECTION DEVICE.



LEVEL 02 NEW WORK RISER DIAGRAM - PHASE 1

APPLY YELLOW FLOOR PAINT OR TAPE AND HATCH OUT AREA AROUND NEW AND EXISTING TRANSFORMERS. DISTRIBUTION PANELS. AND POWER PANELS TO IDENTIFY NEC REQUIRED CLEARANCE AREA AROUND EQUIPMENT. MINIMUM 3'-0" CLEAR IN FRONT OF 208V EQUIPMENT AND 3'-6" IN FRONT OF 480V EQUIPMENT. FOR PANELS IN FINISHED AREAS WITH FLOOR TILES INCLUDE HEAVY BRADY FLOOR MARKING TAPE (TOUGHSTRIPE MAX). COORDINATE OUTLINE WITH ENGINEER AND OWNER. ALL EXISTING FLOOR SERVICE AREA PAINTING/HATCHING SHALL BE REMOVED/MODIFIED TO ACCOMMODATE NEW EQUIPMENT. COORDINATE PAINTING WITH PAINTER AND INCLUDE ALL PAINTING COSTS. REFER TO SPEC SECTION 260553 FOR ADDITIONAL INFORMATION.

Perkins&Will

410 North Michigan Ave. Suite 1600 Chicago, IL 60611 t 312.755.0770 f 312.755.0775 www.perkinswill.com **CONSULTANTS** 

MECHANICAL SERVICES ASSOC. CORP. 11 S. VIRGINIA STREET CRYSTAL LAKE, IL 60014

> **PROJECT ADJACENCIES RENOVATIONS**

DES PLAINES CAMPUS 1600 EAST GOLF ROAD DES PLAINES, IL, 60016

**OAKTON COLLEGE** 

**KEY PLAN** 

**ISSUE CHART** 

ISSUED FOR BID 021074.000 Job Number

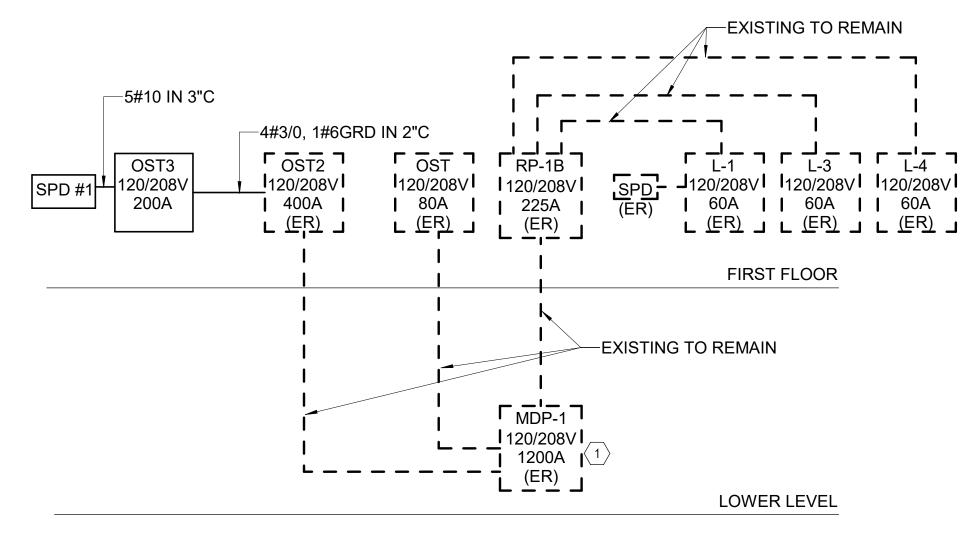
> **ELECTRICAL SCHEDULES**

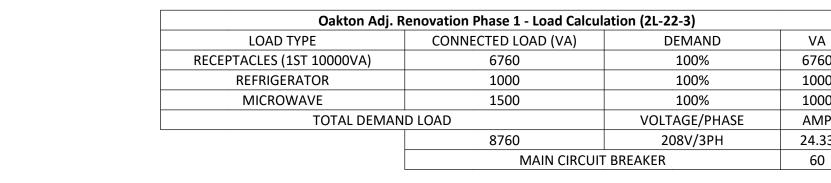
TITLE

SHEET NUMBER

E31-01

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TYPED. HANDWRITING IS NOT ALLOWED.

PANEL SCHEDULE NOTES

AIC RATING.

**GENERAL ELECTRICAL NOTES** 

VA 6760 1000 1000 AMP 24.33 60

**UL 1449 5TH EDITION STIPULATION:** 

PASSED ALL UL 1449 5TH EDITION CRITERIA (AND SPECIFICALLY THE

WITHOUT USE OF AN EXTERNAL OVERCURRENT DEVICE. IF AN EXTERNAL OVERCURRENT DEVICE IS RECOMMENDED FOR USE WITH THE SURGE PROTECTION DEVICE, THE SUBMITTAL/PROPOSAL

THE TRANSIENT CAPACITY OF ALL INTERNAL FUSING AHEAD OF THE

RISER NOTES:  $\langle x \rangle$ LOWER LEVEL.

			L	LIGH	T FIXT	URE S	CHEDU	LE		
TAG	MANUFACTURER	MODEL NUMBER	QTY	LAMPS	S / LUMINAR WATTS	VOLTS	DRIVER	MOUNTING	DESCRIPTION	REMARKS
F1	LITHONIA LIGHTING	2BLT4-48L-ADP-GZ1-LP840	PER DWG.	LED	39.3	120/277	0-10 DIMMING	RECESSED	2X4 LED TROFFER	VERIFY VOLTAGE OF EXISTING LIGHTING BRANCH CIRCUIT PRIOR TO ORDERING. VERIFY EXACT GRID TYPE PRIOR TO ORDERING ANY LAY-IN FIXTURE.
F2A	AXIS LIGHTING	BBRLED-500-80CRI-40K-FL-S(L)-W-UNV-DP-1 (OR 2 AS REQUIRED)+E(2)(AS REQUIRED)-ST	PER DWG.	LED	5W/FT	120/277	0-10 DIMMING	RECESSED	DIRECT LINEAR FIXTURE	RUN FIXTURE IN (2) 6'-0" AND (1) 4'-0" SECTIONS. PROVIDE SEPARATE EM CIRCUIT AND NEUTRAL AS REQUIRED PER EM/NIGHT LIGHT SECTIONS OF FIXTURE AS SHOWN ON THE DRAWINGS. COORDINATE QUANTITY OF DRIVERS REQUIRED WITH MANUFACTURER. VERIFY VOLTAGE OF EXISTING LIGHTING BRANCH CIRCUIT PRIOR TO ORDERING. COORDINATE MOUNTING REQUIREMENTS WITH ARCHITECTURAL CEILING REQUIREMENTS PRIOR TO ORDERING. REFER TO FLOOR PLAN FOR LENGTHS.
F2B	AXIS LIGHTING	BBRLED-500-80CRI-40K-FL-S(L)-W-UNV-DP-1 (OR 2 AS REQUIRED)+E(1)(OR 2 AS REQUIRED)-ST	PER DWG.	LED	5W/FT	120/277	0-10 DIMMING	RECESSED	DIRECT LINEAR FIXTURE	RUN FIXTURE IN (3) 6'-0" AND (2) 4'-0" SECTIONS. PROVIDE SEPARATE EM CIRCUIT AND NEUTRAL AS REQUIRED PER EM/NIGHT LIGHT SECTIONS OF FIXTURE AS SHOWN ON THE DRAWING. VERIFY VOLTAGE OF EXISTING LIGHTING BRANCH CIRCUIT PRIOR TO ORDERING. COORDINATE MOUNTING REQUIREMENTS WITH ARCHITECTURAL CEILING REQUIREMENTS PRIOR TO ORDERING. REFER TO FLOOR PLAN FOR LENGTHS.
F2C	AXIS LIGHTING	BBRLED-600-80CRI-40K-FL-4-W-UNV-DP-1+E(1)(AS REQUIRED)-DF	PER DWG.	LED	6W/FT	120/277	0-10 DIMMING	RECESSED	DIRECT LINEAR FIXTURE	VERIFY VOLTAGE OF EXISTING LIGHTING BRANCH CIRCUIT PRIOR TO ORDERING. COORDINATE MOUNTING REQUIREMENTS WITH ARCHITECTURAL CEILING REQUIREMENTS PRIOR TO ORDERING. REFER TO FLOOR PLAN FOR LENGTHS.
F2D	AXIS LIGHTING	BBRLED-600-80CRI-40K-FL-6-W-UNV-DP-1+E(1)(AS REQUIRED)-DF	PER DWG.	LED	6W/FT	120/277	0-10 DIMMING	RECESSED	DIRECT LINEAR FIXTURE	VERIFY VOLTAGE OF EXISTING LIGHTING BRANCH CIRCUIT PRIOR TO ORDERING. COORDINATE MOUNTING REQUIREMENTS WITH ARCHITECTURAL CEILING REQUIREMENTS PRIOR TO ORDERING. REFEF TO FLOOR PLAN FOR LENGTHS.
F2E	AXIS LIGHTING	BBRLED-600-80CRI-40K-FL-10-W-UNV-DP-1+E(1)(AS REQUIRED)-ST	PER DWG.	LED	6W/FT	120/277	0-10 DIMMING	RECESSED	DIRECT LINEAR FIXTURE	RUN FIXTURE IN (1) 6'-0" AND (1) 4'-0" SECTIONS. VERIFY VOLTAGE OF EXISTING LIGHTING BRANCH CIRCUIT PRIOR TO ORDERING. COORDINATE MOUNTING REQUIREMENTS WITH ARCHITECTURAL CEILING REQUIREMENTS PRIOR TO ORDERING. REFER TO FLOOR PLAN FOR LENGTHS.
F2F	AXIS LIGHTING	BBRLED-600-80CRI-40K-FL-4-W-UNV-DP-1+E(1)(AS REQUIRED)-ST	PER DWG.	LED	6W/FT	120/277	0-10 DIMMING	RECESSED	DIRECT LINEAR FIXTURE	VERIFY VOLTAGE OF EXISTING LIGHTING BRANCH CIRCUIT PRIOR TO ORDERING. COORDINATE MOUNTING REQUIREMENTS WITH ARCHITECTURAL CEILING REQUIREMENTS PRIOR TO ORDERING. REFER TO FLOOR PLAN FOR LENGTHS.
F3	GOTHAM	EVO6-40/20-AR-LSS-MD-MVOLT-GZ1	PER DWG.	LED	19.7	120/277	0-10 DIMMING	RECESSED	6" DOWNLIGHT	VERIFY VOLTAGE OF EXISTING LIGHTING BRANCH CIRCUIT PRIOR TO ORDERING. VERIFY MOUNTING TYPE REQUIRED WITH ARCHITECT PRIOR TO ORDERING.
F4	LITHONIA LIGHTING	2BLT2-48L-ADP-GZ1-LP840	PER DWG.	LED	42.9	120/277	0-10 DIMMING	RECESSED	2X2 LED TROFFER	VERIFY VOLTAGE OF EXISTING LIGHTING BRANCH CIRCUIT PRIOR TO ORDERING. VERIFY EXACT GRID TYPE PRIOR TO ORDERING ANY LAY-IN FIXTURE.
F5	LITHONIA LIGHTING	BLT4-48L-ADP-GZ1-LP840	PER DWG.	LED	38.8	120/277	0-10 DIMMING	RECESSED	1X4 LED TROFFER	VERIFY VOLTAGE OF EXISTING LIGHTING BRANCH CIRCUIT PRIOR TO ORDERING. VERIFY EXACT GRID TYPE PRIOR TO ORDERING ANY LAY-IN FIXTURE.
X1	LITHONIA LIGHTING	LRP-W-(1 OR 2 AS REQUIRED)-RW-(DIRECTIONAL INDICATORS AS REQUIRED)-120/277	PER DWG.	LED	5	120/277	-	WALL OR CEILING	EXIT SIGN (ONE/TWO SIDED AS REQUIRED)	FINAL ARROW LOCATION SHALL BE COORDINATED WITH THE DRAWINGS. VERIFY VOLTAGE OF EXISTING EXIT SIGNS BRANCH CIRCUIT PRIOR TO ORDERING.

1 OTHER MANUFACTURERS ARE ALLLOWED UPON ARCHITECT/OWNER'S PRIOR APPROVAL.

2 LIGHT FIXTURES SHALL BE INDEPENDANTLY SUPPORTED TO THE BUILDING STRUCTURE SEPARATE FROM THE CEILING SYSTEM. REFER TO SPECIFICATIONS SECTION 265100 FOR ADDITIONAL INFORMATION.

3 REFER TO ARCHITECTURAL DRAWINGS FOR EXACT LOCATION AND LENGTH OF FIXTURES.

4 FURNISH AND INSTALL ALL LIGHT FIXTURE MOUNTING HARDWARE REQUIRED FOR A COMPLETE INSLALLATION OF LIGHT FIXTURES (IE. PENDANTS, FLANGE KITS, CANOPIES, TONG HANGERS, SAFETY CHAINS, UNI-STRUT, ETC.)

5 CATALOG NUMBERS MAY NOT REFLECT ALL OF THE REQUIREMENTS INCLUDED IN THE DRAWINGS AND SPECIFICATIONS. COORDINATE EXACT REQUIREMENTS WITH MANUFACTURER AND EXISTING SITE CONDITIONS. COORDINATE CEILING TYPES AND MOUNTING TYPES REQUIRED WITH ARCHITECTURAL RCP'S PRIOR TO ORDERING.

6 COORDINATE FIXTURE COLOR AND LAMP COLOR TEMPERATURE WITH ARCHITECT AND OWNER PRIOR TO ORDERING.

7 VERIFY ABOVE CEILING CLEARANCE FOR ALL RECESSED FIXTURES PRIOR TO ORDERING.

### LIGHT FIXTURE INSTALLATION:

A. SUPPORT FOR LIGHTING FIXTURES IN OR ON GRID-TYPE SUSPENDED CEILINGS:

B. INSTALL A MINIMUM OF FOUR CEILING SUPPORT SYSTEM RODS OR WIRES FOR EACH FIXTURE. LOCATE NOT MORE THAN 6 INCHES FROM LIGHTING FIXTURE CORNERS. RODS/WIRE MUST BE INSTALLED FROM STRUCTURE AND SIZED IN ORDER TO SUPPORT EACH FIXTURE INDEPENDENTLY OF GRID. WIRE SHALL HAVE BREAKING STRENGTH OF THE WEIGHT OF THE WEIGHT OF THE FIXTURE AT A SAFETY FACTOR OF 3 TIMES UNITS WEIGHT. PROVIDE NO MORE THAN 2" OF SLACK IN EACH FIXTURE SUPPORT CABLE AFTER FIXTURES HAVE BEEN INSTALLED WITHIN GRID.

C. SUPPORT CLIPS: FASTEN TO LIGHTING FIXTURES AND TO CEILING GRID MEMBERS AT OR NEAR EACH FIXTURE CORNER WITH CLIPS THAT ARE UL LISTED FOR THE APPLICATION, PER NEC 410-16-C.

D. FIXTURES OF SIZES LESS THAN CEILING GRID: INSTALL AS INDICATED ON REFLECTED CEILING PLANS OR CENTER IN ACOUSTICAL PANEL, AND SUPPORT FIXTURES INDEPENDENTLY WITH AT LEAST TWO 3/4-INCH METAL CHANNELS SPANNING AND SECURED TO CEILING TEES. INSTALL AT LEAST ONE INDEPENDENT SUPPORT ROD OR WIRE FROM STRUCTURE TO A TAB ON EACH END OF LIGHTING FIXTURE. WIRE OR ROD SHALL HAVE BREAKING STRENGTH OF THE WEIGHT OF FIXTURE AT A SAFETY FACTOR OF 3.

E. ALL JUNCTION BOXES USED FOR SUPPORTING LIGHT FIXTURES WILL BE HEAVY DUTY UL LISTED FOR THE APPLICATION. DO NOT SUPPORT FROM CEILING GRID. SUPPORT FROM STRUCTURE AND USE GRID TO STABILIZE UNIT.

		FLOOR BOX AND POKE THRU SCHEDULE		
TAG	TYPE	DESCRIPTION	MANUFACTURE	MODEL#
FB-1	FLOOR BOX	FOUR GANG: POWER, DATA. HDBASET ONE CONTROLLED DUPLEX RECEPTACLE,	LEGRAND	EFB45S-OG WITH MOUNTING BRACKET EFB8-MB
FB-2	FLOOR BOX	DOUBLE GANG: POWER ONLY. 3/4* POWER FLEX WHIP.	LEGRAND	EFBFF
FB-3	FLOOR BOX	FOUR GANG: DATA ONLY. REFER TO LOW VOLTAGE DRAWINGS AND DETAILS.	LEGRAND	EF45S-OG
PT-1	POKE-THRU	8*POKE.THRU: POWER, DATA, HDBASET, CONTROLLED QUADRUPLEX RECEPTACLE. REFER TO LOW VOLTAGE DRAWINGS AND DETAILS.	LEGRAND	8AT
PT-2	POKE-THRU	6*POKE.THRU: POWER AND DATA. CONTROLLED QUADRUPLEX RECEPTACLE AND (4) DATA JACKS.	LEGRAND	6AT
PT-3	POKE-THRU	6"POKE THRU: POWER ONLY. 3/4" POWER FLEX WHIP.	LEGRAND	6ATCFF
PT-4	POKE-THRU	10"POKE THRU: POWER, DATA, HDBASET AND AV, CONTROLLED QUADRUPLEX RECEPTACLE.	LEGRAND	10AT
PT-5	POKE-THRU	8*POKE.THRU: POWER AND DATA. CONTROLLED QUADRUPLEX RECEPTACLE AND (8) DATA JACKS.	LEGRAND	8AT
PT-6	POKE-THRU	6*POKE.THRU: POWER AND DATA. CONTROLLED QUADRUPLEX RECEPTACLE AND (6) DATA JACKS.	LEGRAND	6AT
PT-7	POKE-THRU	6*POKE.THRU: DATA ONLY. (16) DATA JACKS.	LEGRAND	6AT

NOTES:

1. COVER PLATE FINISH AND COLORS TO BE COORDINATED WITH ARCHITECT AND OWNER PRIOR TO ORDERING.

2. PROVIDE MOUNTING DEVICE PLATES, COVERS, AND ACCESSORIES AS REQUIRED BY THE OWNER AND TECHNOLOGY CONTRACTOR. COORDINATE ALL POWER, DATA, HDMI, AND AV REQUIREMENTS OF ALL

DEVICES WITH OWNER PRIOR TO PURCHASE.

3. COORDINATE INSTALLATION, CORING, CHISLING AND SLAB CUTTING WITH STRUCTURAL ENGINEER /ARCHITECT.

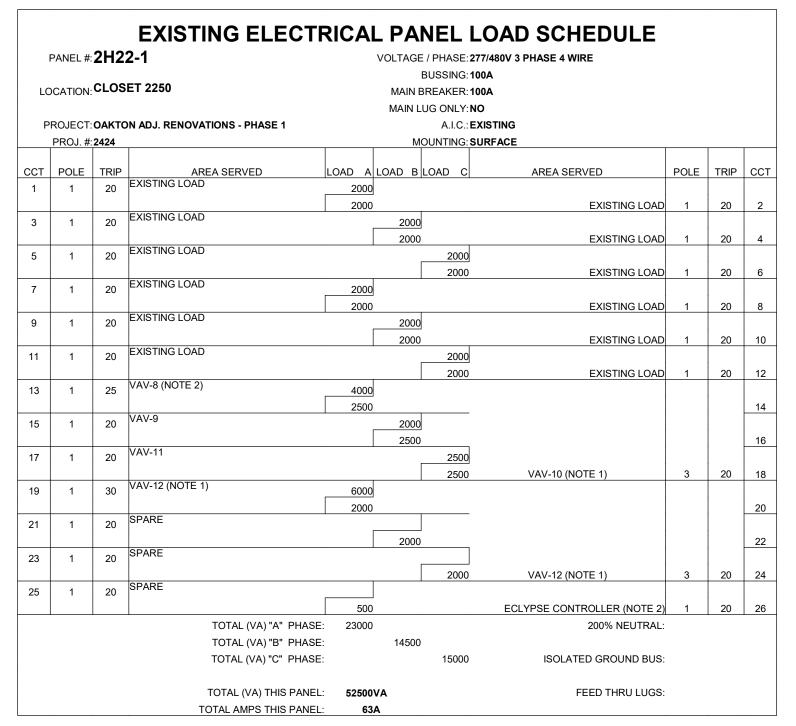
4. FINAL LOCATION SHALL BE COORDINATED WITH ARCHITECT PRIOR ROUGH-IN.

5. EC SHALL RADAR SCAN ALL FLOORS PRIOR TO CUTTING OR CORING. WHEN CORING, EC SHALL PROVIDE PROTECTION TO ALL FURNITURE, FLOORING, AND DEVICES IN SPACE BELOW FROM DAMAGE.

6. REFER TO LOW VOLTAGE DRAWINGS AND DETAILS FOR DATA, AV, AND HDBASET REQUIREMENTS.

	PANEL #:	нте	EXISTING ELECTE G-DE	RICA	VOLTAGE	/ PHASE:	277/480V 3 PHASE 4 WIRE			
LC	OCATION:	CLOS	ET 2250		MAIN E	BUSSING: BREAKER:	-			
_					MAIN L	UG ONLY:				
۲	PROJECT: :#		ON ADJ. RENOVATION		N 40		EXISTING SURFACE			
	PROJ. #.	2424			IVI	JUNTING.	SURFACE			Т
СТ	POLE	TRIP	AREA SERVED	LOAD A	LOAD B	LOAD C	AREA SERVED	POLE	TRIP	CC
1	1	20	VAV 57 (ER)	1000						
			VAV 50 (5D)	1000			VAV 231, 238 (ER)	1	20	2
3	1	20	VAV 58 (ER)		1000					
	-		VAV 58A (ER)		1000		VAV 230, 232 (ER)	1	20	4
5	1	30	VAV 30A (EIV)			2000				
7	1	20	VAV 59 (ER)	1000		1000	VAV 236, 237 (ER)	1	20	6
7	1	20		1000 1000			VAV 238, 240 (ER)	1	20	8
9	1	30	VAV 60 (ER)	1000	2000		VAV 200, 240 (EN)			+
_					1000		VAV 239 (ER)	1	20	1
11	1	20	VAV 60A (ER)			1000	· ·			
						1000	VAV 241 (ER)	1	20	1:
13	1	20	VAV 61 (ER)	1000						
			M. (20 (52)	1000			VAV 234 (ER)	1	20	14
15	1	20	VAV 62 (ER)		1000					
	ļ ,		VAV 63 (ER)		1000		VAV 235, 233 (ER)	1	20	10
17	1	20	VAV 03 (EK)			1000				
	1	20	VAV 64 (ER)			1000	VAV 244, 245 (ER)	1	20	18
19	'	20	V/10 01 (E11)	1000			VAV 004 000 (FR)		00	
21	1	30	2100 VAV	1000	2000		VAV 264, 262 (ER)	1	20	2
21					1000		VAV 260 (ER)	1	20	2
23	1	20			1000	_	VAV 200 (ETV)		20	
			SPARE			1000	VAV 261, 263 (ER)	1	20	24
25	1	30	VAV 217 (ER)	1000						
			, ,	1000						20
27	1	30	VAV 218, 219, 219A (ER)		2000					
			\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\		1000					2
29	1	20	VAV 223 (ER)			1000				
	1	20	VAV 224 (ER)			1000	EXISTING LOAD	3	30	30
31	1	20	V//V 224 (EIV)	1000			SPARE	1	20	
22	1	20	VAV 225 (ER)	-	1000				20	32
33	'	20	, ,		1000		SPARE	1	20	34
35	1	20	VAV 222, 221, 220 (ER)		1	1000				1 34
50	'	20				.000	SPARE	1	20	30
37	1	20	VAV 226 (ER)	1000						
				4540						3
39	1	20	VAV 227, 29 (ER)		1000		TRANSFORMER FOR 2L-22-3 (NOTE 1)	3	25	
			00405		2720		attor Ortwick Tok 22-22-0 (NOTE 1)	J	23	4
41	1	20	SPARE			-				
						2000			<u></u>	4
			TOTAL (VA) "A" PHASE:				200% NEUTRAL:			
			TOTAL (VA) "B" PHASE:		17720					
			TOTAL (VA) "C" PHASE:			13000	ISOLATED GROUND BUS:			
			TOTAL 440 TWO 540-	4800-						
			TOTAL (VA) THIS PANEL: TOTAL AMPS THIS PANEL:	47260	VA		FEED THRU LUGS:			

	PANEL#	HTC	G-AB	VOLTAGE / PHASE: 277/480V 3 PHASE 4 WIRE									
		CI OS	ET 1701	BUSSING: 200A									
LC	CATION:	CLOS	E1 1701	MAIN BREAKER:-									
D	PO IECT	·OAKTO	ON ADJ. RENOVATION	MAIN LUG ONLY:YES									
Г	PROJ. #		ON ADJ. RENOVATION	A.I.C.: <b>EXISTING</b> MOUNTING: <b>SURFACE</b>									
	11100.11				1		001117102						
ССТ	POLE	TRIP	AREA SERVED	LOAD A	LOAD B	LOAD C	AREA SERVED	POLE	<u> </u> -				
1	1	20	VAV 156, 166 (ER)	2000	)								
			NAV 407 400 (FP)	2000	)		VAV 700 (ER)	1					
3	1	20	VAV 167, 168 (ER)		2000								
			VAV 169, 170 (ER)		2000		VAV 203 (ER)	1	$\perp$				
5	1	20	VAV 109, 170 (EK)			2000		-					
			VAV 171, 187 (ER)			2000	VAV 200, 204, 205 (ER)	) 1	+				
7	1	20	V/W 17 1, 107 (E1V)	2000									
			VAV 188, 189, 190 (ER)	2000			VAV 206, 207 (ER)	1	+				
9	1	20	,,,		2000		\/A\/ 000 (ED)						
11			VAV 191 (ER)		2000		VAV 208 (ER)	1	+				
1.1			, ,			2000 2000	VAV-1	1					
13				2000		2000	VAV-I	-	$\dagger$				
.0	3	20		2000			VAV 134 (ER)	) 1					
15				2000	2000		V/(V 10-7 (E1()	'	†				
-					2000		VAV-3	1					
17			VAV 192 (ER)			2000			1				
						2500	VAV-4	1					
19	3	20		2000	)								
	3	20		1500	)		VAV-7	1					
21					2000								
					5000		VAV-2 (NOTE 1)	1	1				
23	1	20	VAV 193 (ER)			2000							
	4	00				3167							
25	1	20	VAV 194,195 (ER)	3167	<b>'</b>								
07	4	30	VAV 196 (ER)		0000								
27	1	30			2000 3167		VAV-5 (NOTE 1)	3	ł				
29			VAV 197 (ER)		3107	2000	VAV-5 (NOTE 1)	3	+				
20						2167							
31	_			2000		2107							
	3	20		2167									
33					2000								
					2167		VAV-6 (NOTE 1)	3					
35	1	20	VAV 198, 199 (ER)			2000	SPARE		Ţ				
			NAV 474 4004 (55)			_	OF AILE	1	1				
37	1	20	VAV 171, 198A (ER)	2000	)		SPARE						
			SPARE		-			1	+				
39	1		OF AILE		-		SPARE						
	4		SPARE		-			1	+				
41	1					-	SPARE	1					
			TOTAL (1/1) TOTAL	0.105		_	0000/ 1171177						
			TOTAL (VA) "A" PHASE:				200% NEUTRAL:						
			TOTAL (VA) "B" PHASE: TOTAL (VA) "C" PHASE:		28334	23834	ISOLATED GROUND BUS:						
			IUIAL (VA) "C" PHASE:			∠აఠა4	ISOLATED GROUND BUS:	•					
			TOTAL AVANTUR DANEL	77000	)\/A		EEED TUBLILLION						
			TOTAL AMPS THIS PANEL:				FEED THRU LUGS:	-					
			TOTAL AMPS THIS PANEL:	93	BA								



PANEL SCHEDULE NOTES:

- FURNISH AND INSTALL NEW CIRCUIT BREAKER AS SHOWN. NEW CIRCUIT BREAKER SHALL MATCH EXISTING MAKE, MODEL, AND AIC RATING.
- 2. COORDINATE MOCP REQUIREMENTS WITH MANUFACTURER PRIOR TO INSTALLATION. PROVIDE NEW CIRCUIT BREAKER AS REQUIRED. NEW CIRCUIT BREAKER SHALL MATCH EXISTING MAKE, MODEL, AND AIC RATING.

**GENERAL ELECTRICAL NOTES:** 

- A. COORDINATE ALL HVAC EQUIPMENT OVERCURRENT PROTECTION REQUIREMENTS WITH MECHANICAL CONTRACTOR PRIOR TO ORDERING CIRCUIT BREAKERS.
- UPDATE ALL EXISTING CARD DIRECTORIES THAT ARE AFFECTED BY CONSTRUCTION AND DEMOLITION. ALL CARD DIRECTORIES ARE TO BE TYPED. HANDWRITING IS NOT ALLOWED.

## Perkins&Will

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MECHANICAL SERVICES ASSOC. CORP.

11 S. VIRGINIA STREET
CRYSTAL LAKE, IL 60014

ADJACENCIES RENOVATIONS

DES PLAINES CAMPUS
1600 EAST GOLF ROAD
DES PLAINES, IL, 60016

College

KEY PLAN

ISSUE CHART

ELECTRICAL SCHEDULES

TITLE

SHEET NUMBER

E31-02

ROOMS DESCRIPTION	LIGHTING CONTROL				
PICAL SMALL ROOM	OCCUPANCY SENSOR CONTROLLED AND DIMMABLE LUMINARIES AUTO ON, AUTO OFF WHEN UNOCCUPIED. MANUAL DIMMING CONTROL VIA DIMMING SWITCH.				
	MARKED RECEPTACLES (AS SHOWN ON PLAN) SHALL BE CONTROLLED VIA CEILING MOUNTED OCCUPANCY SENSOR. AUTO ON, AUTO OFF WHEN SPACE IS UNOCCUPIED				
CEPTION AREAS	OCCUPANCY SENSOR CONTROLLED AND DIMMABLE LUMINAIRES AUTO ON, AUTO OFF WHEN UNOCCUPIED. MANUAL DIMMING CONTROL VIA DIMMING SWITCH. MARKED RECEPTACLES (AS SHOWN ON PLAN) SHALL BE CONTROLLED VIA CEILING MOUNTED OCCUPANCY SENSOR. AUTO ON, AUTO OFF WHEN SPACE IS UNOCCUPIED				
EN OFFICE SPACE/TESTING CENTER	OCCUPANCY SENSOR CONTROLLED DIMMABLE LUMINARIES AUTO ON, ZONED DIMMING, AUTO OFF WHEN UNOCCUPIED. GENERAL: ALL LUMINARIES OPERABLE AT FULL OUTPUT TRIMMED TO MAINTAIN A MINIMUM ILLUMINATION LEVEL OF 50FC. ALL NORMAL LUMINAIRES OFF WHEN UNOCCUPIED. ALL EMERGENCY AND NIGHT LIGHTS DIMMED DOWN TO 50%.				
	MARKED RECEPTACLES (AS SHOWN ON PLAN) SHALL BE CONTROLLED VIA CEILING MOUNTED OCCUPANCY SENSOR. AUTO ON, AUTO OFF WHEN SPACE IS UNOCCUPIED				
NFERENCE/COLLAB/TRAINING ROOM	OCCUPANCY SENSOR CONTROLLED DIMMABLE LUMINARIES. AUTO ON, AUTO OFF WHEN UNOCCUPIED. MANUAL DIMMING CONTROL VIA DIMMING SWITCH. ALL LUMINAIRES OFF WHEN UNOCCUPIED.				
	MARKED RECEPTACLES (AS SHOWN ON PLAN) SHALL BE CONTROLLED VIA CEILING MOUNTED OCCUPANCY SENSOR. AUTO ON, AUTO OFF WHEN SPACE IS UNOCCUPIED				
RRIDOR	OCCUPANCY SENSOR CONTROLLED DIMMABLE LUMINAIRES. AUTO ON, AUTO OFF WHEN UNOCCUPIED. MANUAL DIMMING CONTROL VIA DIMMING SWITCH. ALL NORMAL LUMINAIRES OFF WHEN UNOCCUPIED. ALL NIGHT LIGHTS DIMMED DOWN TO 50%.				

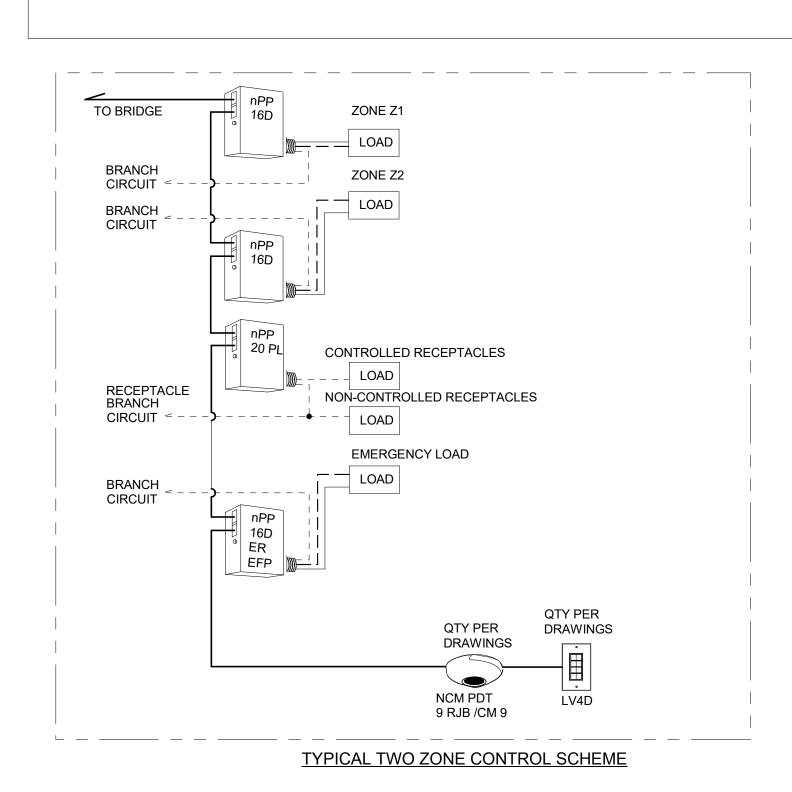
LIGHTING CONTROL SYSTEM BASIS OF DESIGN IS THE ACUITY NLIGHT PRODUCT. ELECTRICAL CONTRACTOR SHALL FURNISH AND INSTALL ALL SOFTWARE AND HARDWARE TO PROVIDE A COMPLETE AND OPERABLE LIGHTING CONTROL SYSTEM INCLUDING BUT NOT LIMITED TO BRIDGES, SMART SENSORS (OCCUPANCY AND PHOTOSENSOR), WALL STATIONS, POWER SUPPLIES, COMMUNICATIONS MODULES, CABLING, START UP AND COMMISSIONING. CONTRACTOR SHALL INCLUDE TASK TUNING LIGHTING DURING FINAL SETUP.

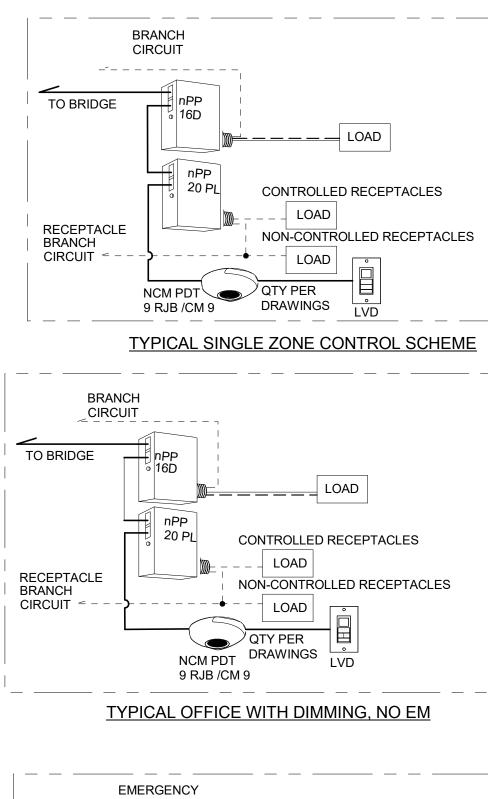
ELECTRICAL CONTRACTOR TO PROVIDE NLIGHT ECLYPSE SYSTEM CONTROLLER FOR TIME CLOCK AND SCHEDULING, BAS CONNECTIVITY AND OTHER FUNCTIONALITY AS REQUIRED. ELECTRICAL CONTRACTOR SHALL FURNISH AND INSTALL ALL REQUIRED CONDUIT AND WIRING FOR AND BETWEEN ALL DEVICES PER MANUFACTURER REQUIREMENT. ELECTRICAL CONTRACTOR TO INSTALL CAT6A PLENUM RATED CABLE BACK TO IDF/MDF CLOSET AND COORDINATE FINAL TERMINATION WITH THE OWNER.

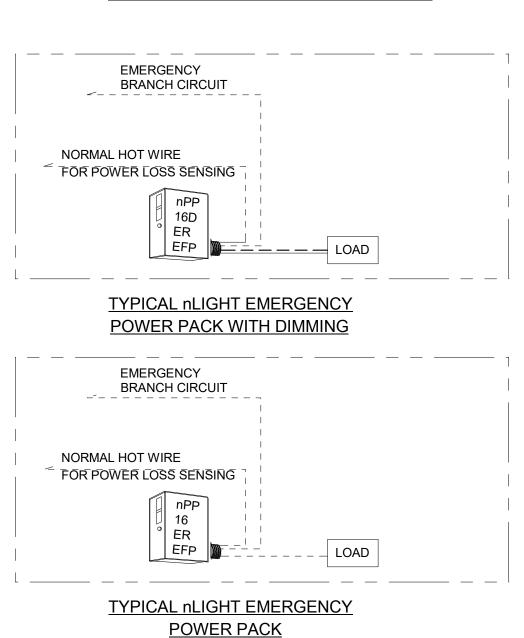
ELECTRICAL CONTRACTOR TO COORDINATE WITH THE OWNER FOR SOFTWARE INSTALLATION AND ACCESS TO WINDOWS BASE SERVER. ELECTRICAL CONTRACTOR TO PROVIDE TRAINING TO THE OWNER, PROGRAMING AND TROUBLESHOOTING THE LIGHTING CONTROL SYSTEM

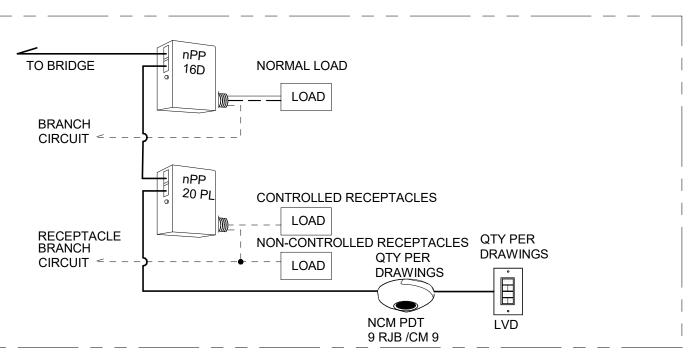
#### **GENERAL NOTES**

- 1. OCCUPANCY SENSOR, DAYLIGHT SENSOR, AND SWITCH QUANTITIES: PROVIDE QUANTITIES OF NOTED DEVICES AS SHOWN ON FLOOR PLANS, BUT NO LESS THAN ONE OF EACH DEVICE INDICATED ON THE WIRING DIAGRAMS. LIGHTING CONTROLS VENDOR MUST PROVIDE ALL ADDITIONAL APPARATUSES AND DEVICES REQUIRED FOR A FULLY FUNCTIONAL SYSTEM AS NOTED ON THIS SHEET, ON THE DRAWING SET, AND AS REQUIRED IN THE PROJECT SPECIFICATION BOOK.
- LIGHTING VENDOR TO CONFIRM QUANTITIES AND TYPE OF RELAY POWER PACKS REQUIRED MEET PROJECT SPECIFICATIONS AND DESIGN DRAWINGS. ALL LAYOUTS SHOW MINIMUM NUMBER OF DEVICES AND MUST BE EXPANDED TO APPLY TO EACH SPACE WITHIN PROJECT.
- POWER LOSS SENSE CIRCUIT: EMERGENCY POWER PACKS MUST HAVE NON-EMERGENCY LIGHTING BRANCH CIRCUIT PROVIDED FOR PROPER POWER-LOSS SENSING. PROVIDE NON-EMERGENCY BRANCH CIRCUIT AHEAD OF LIGHTING CONTROLS FROM NEAREST LOCAL LIGHTING BRANCH. LIGHTS FED FROM NON-EM BRANCH MUST SERVE SAME AREA AS EMERGENCY LIGHTS.
- 4. PROVIDE PLENUM RATED CAT-5 INTERCONNECTION ACROSS MULTIPLE SPACES FOR ALL NLIGHT CONTROL SYSTEMS TO PROVIDE FLEXIBILITY FOR FUTURE NETWORKING.
- COORDINATE FINAL LOCATION FOR BRIDGE, LIGHT SWITCHES, SENSORS, AND ECLYPSE PANEL WITH THE ARCHITECT.

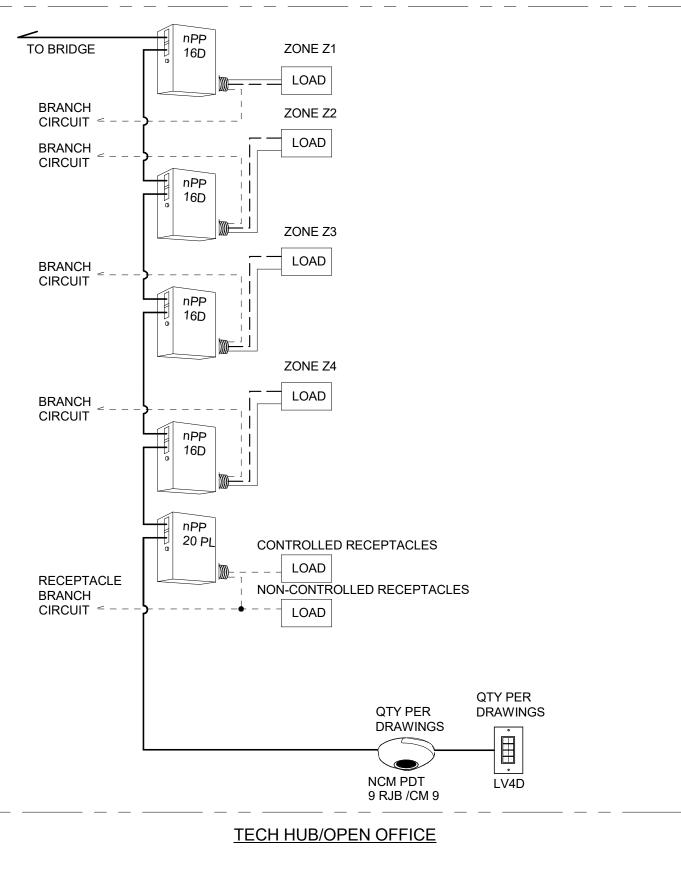


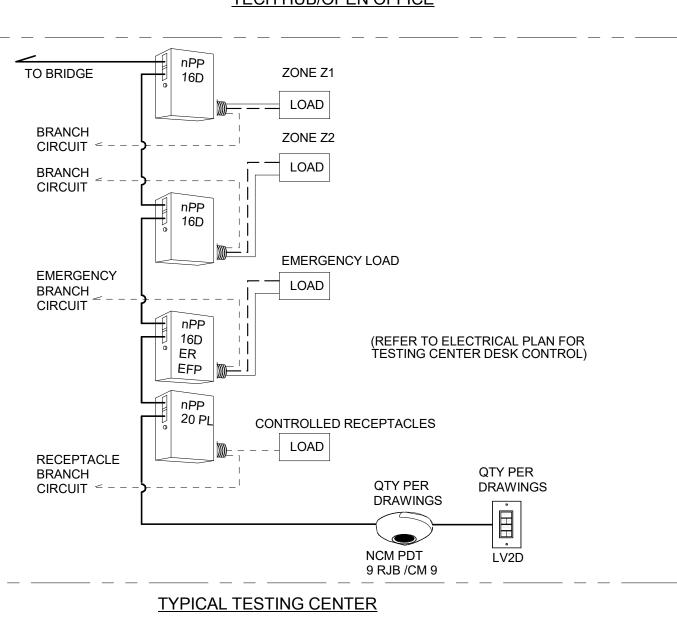


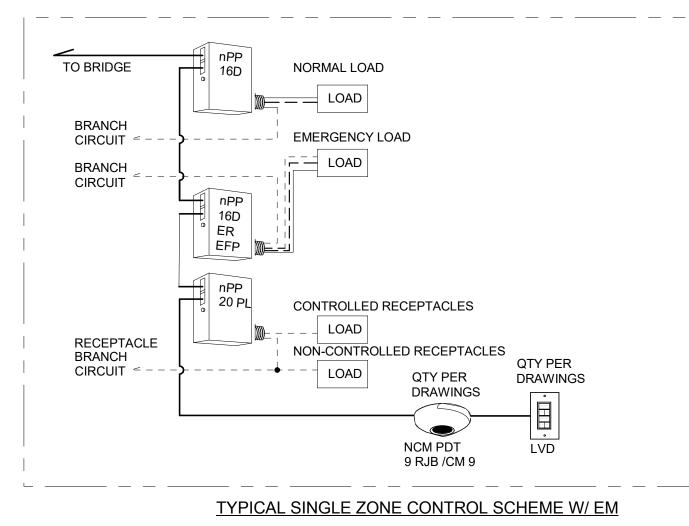


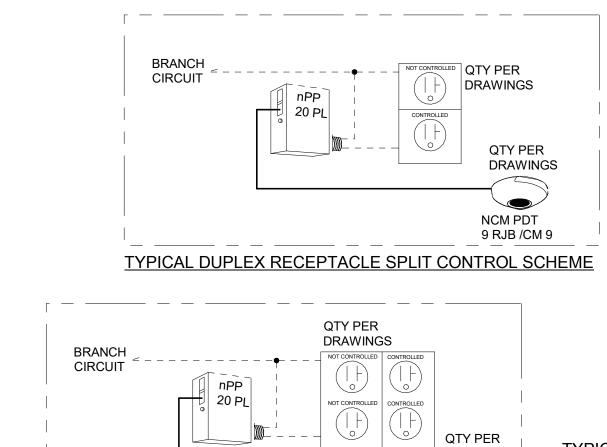


TYPICAL ENCLOSED OFFICE W/O EM





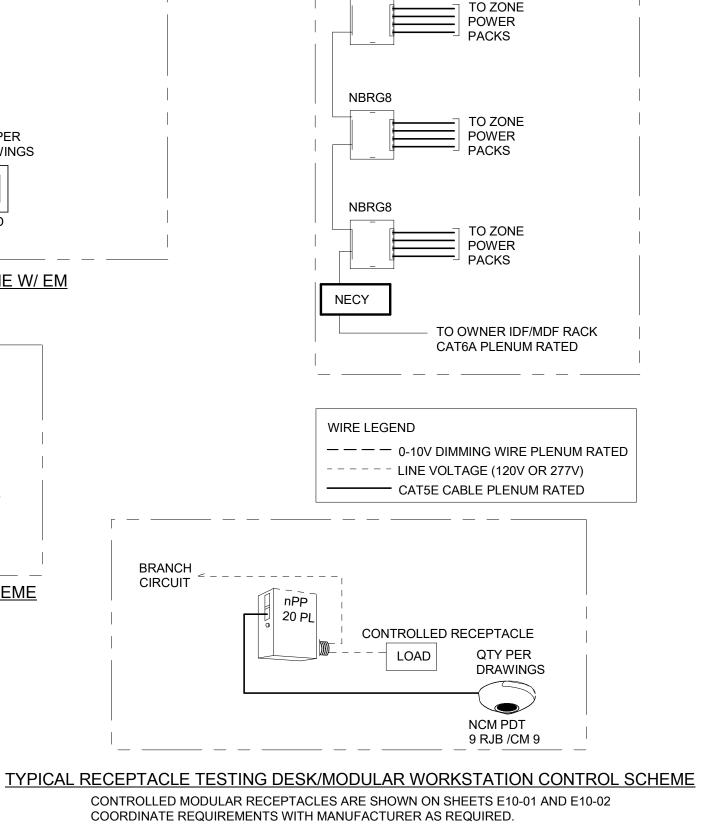




TYPICAL QUAD RECEPTACLE SPLIT CONTROL SCHEME

NCM PDT

9 RJB /CM 9



DIAGRAM

nPP16D

nPP16

° ER

nPP

16D ER

NECY

nIO X

BRANCH CIRCUIT

EFP )

EFP )

SYMBOL

PLAN

SYMBOL

DESCRIPTION

WALLPOD: PUSH BUTTON ON/OFF + RAISE/LOWER 1-POLE, LOW VOLTAGE nLIGHT #nPODM DX WH

WALLPOD: PUSH BUTTON

WALLPOD: PUSH BUTTON ON/OFF + RAISE/LOWER 4-POLE, LOW VOLTAGE LIGHT #nPODM 4P DX WH

CEILING MOUNTED, DUAL-TECH, LOW

nLIGHT SERIES RELAY/POWER PACK FOR

nLIGHT SERIES RELAY/POWER PACK FOR CIRCUIT CONTROL. PROGRAMMED AND

nLIGHT SERIES RELAY/POWER PACK FOR

VOLTAGE VACANCY SENSOR

(Model # CM 10) / (Model # CM 9)

CIRCUIT CONTROL AND DIMMING. PROGRAMMED AND NETWORKED OVER

(OS) | WITH REAR PORT CONNECTION.

nLIGHT #High Mount 360°

CAT5E nLIGHT #NPP16D

NETWORKED OVER CAT5E

NETWORKED OVER CAT5E

nLIGHT SERIES EMERGENCY

EMERGENCY CIRCUIT CONTROL.

RELAY/POWER PACK FOR

NETWORKED OVER CAT5E

nLIGHT SERIES EMERGENCY

EMERGENCY CIRCUIT CONTROL.

nLIGHT SERIES BACKBONE BRIDGE DEVICE. USED FOR NETWORKING ALL NLIGHT DEVICES

NLIGHT ECLYPSE SYSTEM CONTROLLER TO

COMMUNICATES OVER IP, ALLOWING THE

SYSTEM CONTROLLER AND CONNECTED

ACCESSED AND CONFIGURED ACROSS A

BACNET TESTING LABORATORIES (BTL)

LISTED AS A BACNET BUILDING CONTRÓLLER

PROVIDES TIME-OF-DAY AND ASTRONOMICAL

TIME CLOCK CAPABILITIES FOR SCHEDULED LIGHTING CONTROL EVENTS

NLIGHT A SMALL INLINE WIRED DEVICE THAT

ZONE WITH A NON-NLIGHT DEVICE WITH

DIGITALLY INTERFACES AN NLIGHT-ENABLED

LIGHTING CONTROLS DEVICES TO BE

LOCAL AREA NETWORK.

RS-232 OR RS-485 OUTPUTS

nLIGHT BRIDGE QTY AS EQUIRED FINAL LOCATION SHALL BE COORDINATED

AT JOB SITE

TOGETHER IN A NETWORK OVER CAT5E

RELAY/POWER PACK FOR

NETWORKED OVER CAT5E nLIGHT #nPP16D ER EFP

PROGRAMMED AND

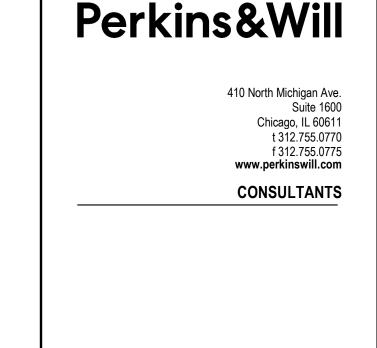
nLIGHT #nPP16 ER EFP

PROGRAMMED AND

nLIGHT #NPP20 PL

nLIGHT #NPP16

ON/OFF + RAISE/LOWER 2-POLE, LOW VOLTAGE nLIGHT #nPODM 2P DX WH



MECHANICAL SERVICES ASSOC. CORP. 11 S. VIRGINIA STREET CRYSTAL LAKE, IL 60014 RECEPTACLE CONTROL. PROGRAMMED AND

> **PROJECT ADJACENCIES RENOVATIONS**

DES PLAINES CAMPUS 1600 EAST GOLF ROAD DES PLAINES, IL, 60016 **OAKTON COLLEGE** 

**KEY PLAN** 

**ISSUE CHART** 

ISSUED FOR BID 021074.000

> LIGHTING CONTROL **DETAILS**

> > SHEET NUMBER

E41-01

### FIRE ALARM SYSTEM GENERAL NOTES: (EXISTING SYSTEM)

- FIRE ALARM CONTRACTOR TO PROVIDE AND INSTALL NEW FIRE ALARM DEVICES IN LOCATIONS GIVEN AND WIRE BACK TO EXISTING FIRE ALARM CONTROL PANEL. ALL FIRE ALARM WIRING TO BE PLENUM RATED AND INSTALLED IN RED RACEWAY. ALL RACEWAY IN FINISHED AREAS TO BE OF THE METALLIC WIREMOLD TYPE (COLOR SELECTED BY ARCHITECT). WHERE CONDUIT IS USED AS THE
- PREDOMINATE TYPE OF RACEWAY CONDUIT MAY BE USED (AT ARCHITECT'S DISCRETION) AND MUST BE PAINTED OUT TO MATCH SURROUNDING AREA. ANY SURFACE MOUNTED RACEWAY TYPE ON FINISHED WALL IN OCCUPIED SPACES SHALL BE SELECTED BY ARCHITECT INCLUDING COLOR.
- PRIOR TO SUBMITTING BID, CONTRACTOR SHALL WALK EACH BUILDING AND BECOME FAMILIARIZED WITH THE BUILDING CONSTRUCTION. TAKE NOTE TO ALL CEILING AND WALL MATERIALS PRIOR TO BIDDING. NO ADDITIONAL COST WILL BE INCURRED BY THE OWNER FOR WORK THAT COULD HAVE BEEN REASONABLY DETERMINED AND/OR AVOIDED HAD THE CONTRACTOR FIELD VERIFIED EXISTING
- 3. FIRE ALARM CONTRACTOR TO MOUNT VISUAL STROBES AT 80" AFF TO BOTTOM OF BOX OR AS REQUIRED BY LOCAL JURISDICTION.
- 4. FIRE ALARM CONTRACTOR TO MOUNT PULL STATIONS AT 48" AFF TO TOP OF BOX. OPERATING HANDLE HEIGHT NOT TO EXCEED 48" AFF.
- 5. FIRE ALARM CONTRACTOR SHALL VERIFY THAT ALL FIRE ALARM DEVICES CONFORM TO ILLINOIS ACCESSIBLITY CODE REQUIREMENTS.
- 6. FIRE ALARM CONTRACTOR TO PROVIDE AND INSTALL FIRE ALARM ZONE MAP IN A PLEXI-GLASS FRAME. MAPS TO BE MOUNTED NEXT TO CONTROL AND ANNUNCIATOR PANELS. GIVE (5) COPIES TO OWNER. SHOW ALL INITIATING DEVICES AND NAC PANELS. MAPS SHALL BE LEGIBLE AND OF A SIZE NO LARGER THAN 17"x22" UNLESS OTHERWISE AGREED UPON BY THE OWNER AND ENGINEER. DEVICES AND TEXT (I.E. ROOM NUMBERS) SHALL BE OF A SIZE SO AS TO BE CLEARLY LEGIBLE. TEXT TO BE A MINIMUM 3/32" IN HEIGHT.
- 7. TAMPER SWITCHES TO INDICATE "SUPERVISORY" ONLY.

BUILDING CONSTRUCTION TYPE AND CONDITIONS PRIOR TO BIDDING.

- 8. EACH SIGNAL CIRCUIT SHALL NOT EXCEED 1.3 AMPS. ADJUST WIRE SIZES TO LIMIT VOLTAGE DROP AS PER NFPA 72 AND LOCAL CODE.
- 9. PROVIDE AND INSTALL ADDITIONAL POWER SUPPLIES/EXTENDER PANELS ("NAC" PANELS) AND VOICE AMP PANELS AS REQUIRED FOR PROPER OPERATION OF NOTIFICATION CIRCUITS AND TO MINIMIZE WIRING RUNS TO FIRE ALARM CONTROL PANEL AND TO MEET SLC CIRCUIT DISTANCE LIMITATIONS. "NAC" PANELS SHALL BE INSTALLED IN JANITOR CLOSETS OR STORAGE ROOMS IF APPROVED BY THE OWNER. "NAC" PANELS WILL NOT BE INSTALLED ABOVE CEILINGS OR IN CEILING SPACES.
- 10. PROVIDE AND INSTALL RED PREFINISHED BACK BOX WHERE SURFACE MOUNTED BOXES ARE REQUIRED. INSTALL MANUFACTURER TRIM PLATE AS REQUIRED. COORDINATE COLOR PRIOR TO ORDERING.
- 11. CONTRACTOR SHALL MAINTAIN AN OPERABLE FIRE ALARM SYSTEM AT ALL TIMES. AT NO TIME SHALL THE BUILDING BE LEFT UNPROTECTED WITHOUT NOTIFICATION IN WRITING TO OWNER AND FIRE DEPARTMENT. MINIMUM 48 HOURS ADVANCED NOTICE IS REQUIRED. CONTRACTOR SHALL HIRE FIRE DEPARTMENT APPROVED GUARD/FIRE DEPARTMENT PERSONNEL TO WATCH BUILDING WHEN LEFT UNPROTECTED. MINIMIZE SYSTEM DOWN TIME TO THE FULLEST EXTENT POSSIBLE.
- 12. CONTRACTOR SHALL PROVIDE BATTERY BACKUP IN ORDER TO OBTAIN 24 HOURS OF STAND BY OPERATION IN THE EVENT OF A POWER FAILURE, THEN 2 HOURS OF ALARM TIME OR 15 MINUTES OF EMERGENCY ALARM OPERATION THEREAFTER AT MAXIMUM LOAD.
- 13. PROGRAM FIRE ALARM CONTROL PANEL TO DISPLAY ADDRESSABLE DEVICE TYPE, ITS ADDRESS AND ITS RESPECTIVE LOCATION. EXACT ROOM NAMES AND NUMBERS SHALL BE VERIFIED IN THE FIELD WITH THE OWNER. DO NOT USE ROOM NAME AND NUMBER INFORMATION INDICATED ON THE DRAWINGS WITHOUT ARCHITECT/OWNERS CONSENT IN WRITING. PRIOR TO PROGRAMMING FIRE ALARM CONTROL PANEL, SURVEY THE BUILDING WITH THE ARCHITECT/OWNER TO OBTAIN THE CORRECT ROOM NAME AND NUMBERING INFORMATION TO BE DISPLAYED ON THE CONTROL PANEL AND ANNUNCIATOR PANEL. SURVEYING AND PROGRAMMING OF THE CONTROL PANEL AS DESCRIBED ABOVE WILL BE DONE BY THE CONTRACTOR AS PART OF THIS CONTRACT.
- 14. SET EACH INITIATING DEVICE WITH ADDRESSABLE STATION NUMBER AS REQUIRED. LABEL EACH DEVICE WITH ADDRESS NUMBER. PROVIDE LIST OF ADDRESSABLE DEVICE LOCATION NUMBERS TO OWNER. LABEL EACH NOTIFICATION DEVICE WITH CIRCUIT INFORMATION. INCLUDE BAR CODE ON EACH DEVICE AS WELL. SEE SPECIFICATIONS.
- 15. CONTRACTOR SHALL TURN OVER ALL SMOKE DETECTOR DUST CAPS TO OWNER UPON COMPLETION OF PROJECT.
- 16. SMOKE AND/OR HEAT DETECTORS SHALL BE INSTALLED A MINIMUM OF 6 FEET AWAY FROM AIR SUPPLY OR AIR RETURN DIFFUSER GRILLES SO AS PREVENT FALSE ALARMS.
- 17. THE CONTRACTOR SHALL PERFORM AN INITIAL SYSTEM CHECKOUT TO DETERMINE FUNCTIONABILITY OF THE EXISTING SYSTEM PRIOR TO THE START OF WORK. PROVIDE DOCUMENTATION TO THE OWNER IDENTIFYING ANY FIRE ALARM COMPONENTS NOT CURRENTLY WORKING. IF THIS DOCUMENT IS NOT PROVIDED TO THE OWNER PRIOR TO THE START OF WORK, THE CONTRACTOR IS ACKNOWEDGING THAT ALL EXISTING SYSTEM COMPONENTS ARE IN PROPER WORKING ORDER.
- 18. FIRE ALARM SYSTEM DEMOLITION WORK SHALL BE PERFORMED AS SOON AS PRACTICAL IN ORDER TO LEAVE SUFFICIENT TIME DURING CONSTRUCTION TO CORRECT ANY PROBLEMS ENCOUNTERED WITH THE WIRING SYSTEM. THE CONTRACTORS SCOPE OF WORK SHALL INCLUDE REMOVAL OF FIRE ALARM DEVICES SHOWN ON DEMOLITION PLAN (TO BE REMOVED) AND TO ASCERTAIN ANY WIRING PROBLEMS OR ILLEGAL T-TAPPING OF HARD WIRED INITIATING AND NOTIFICATION CIRCUITS AS THEY MAY HAVE AN AFFECT ON ALL REMAINING DEVICES. PROVIDE A WRITTEN REPORT TO THE OWNER IDENTIFYING ALL DEFECTIVE DEVICES OR IMPROPER WIRING CONDITIONS.
- 19. IN FINISHED AREAS WHERE EXISTING SURFACE MOUNTED BACKBOXES, WIREMOLD OR CONDUIT HAVE BEEN REMOVE, PATCH AND PAINT WALLS AND/OR CEILINGS TO MATCH SURROUNDING AREAS. COORDINATE WITH THE ARCHITECT AND OWNER. NEW DEVICES AND RACEWAYS MAY BE MOUNTED AT NEW LOCATIONS.
- 20. ANY PORTIONS OF EXISTING CEILINGS TO BE REMOVED BY CONTRACTOR FOR INSTALLATION OF THEIR WORK SHALL BE RETURNED TO THEIR ORIGINAL CONDITION. MATCH EXISTING CEILING MATERIAL. PATCH AND PAINT AS REQUIRED. CONTRACTOR SHALL ARCHIVE AND DOCUMENT ALL EXISTING CEILING CONDITIONS ELECTRONICALLY PRIOR TO BEGINNING THE PROJECT. IF ANY DAMAGE IS FOUND THEY SHALL BRING IT TO THE ATTENTION OF THE OWNER IN WRITING PRIOR TO PERFORMING WORK. IF THIS DOCUMENTATION IS NOT PROVIDED THE CONTRACTOR IS ASSUMING THE LIABILITY FOR REPLACING ALL DAMAGED CEILING SYSTEMS DISCOVERED AFTER THE COMPLETION OF THE PROJECT. ALL DAMAGED CEILING SYSTEMS WILL BE REPLACED AT THE CONTRACTORS EXPENSE. PROVIDE WRITTEN DOCUMENTATION TO THE OWNER AT THE PRE-CONSTRUCTION MEETING.
- 21. ALL WALL AND FLOOR PENETRATIONS SHALL BE SLEEVED AND FIREPROOFED.
- 22. THE CONTRACTOR SHALL COORDINATE PROJECT SCHEDULING WITH THE OWNER TO ACCOMODATE ALL SCHOOL PROGRAMS. THE SCHOOL WILL OCCUPY ONLY AREAS DETERMINED TO BE SAFE AND NOT UNDER CONSTRUCTION PER THE AGREED UPON SCHEDULE. COORDINATE SCHEDULING OF WORK WITH THE OWNER UPON AWARD OF BID.
- 23. CONTRACTOR SHALL INCLUDE ALL EXPENSES FOR LOCATING AND REPLACING ALL EXISTING END-OF-LINE RESISTORS IN ORDER TO ALLOW EXISTING DEVICES TO BE COMPATIBLE WITH THE NEW SYSTEM AND/OR EXISTING (NEWER) CONTROL PANEL.
- 24. ALL NEW PULL STATIONS LOCATED NEAR VESTIBULES SHALL BE COORDINATED WITH ARCHITECT/FIRE DEPARTMENT PRIOR TO INSTALLATION. IN SOME CASES, THE FIRE DEPARTMENT MAY REQUIRE DEVICES TO BE INSTALLED WITHIN THE VESTIBULE. INCLUDE ALL ASSOCIATED COST FOR RELOCATION OF DEVICES TO THE VESTIBULE PER THE FIRE DEPARTMENTS DIRECTION.
- 25. INITIATING DEVICE, NOTIFICATION APPLIANCE AND SIGNALING LINE CIRCUITS: MEET NFPA 72 REQUIREMENTS.

INITIATING DEVICE CIRCUITS: CLASS A, LEVEL 1

NOTIFICATION APPLIANCE CIRCUITS: CLASS A, LEVEL 1

SIGNALING LINE CIRCUITS: CLASS A, LEVEL 1. INSTALL NO MORE THAN 200 TOTAL ADDRESSABLE DEVICES ON EACH SIGNALING LINE CIRCUIT.

INCLUDE NO MORE THAN 125 INITIATING DEVICES AND 75 MODULES.

- 26. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS PER SPECIFICATIONS. INCLUDE ONE LINE RISER DIAGRAMS AND POINT-TO-POINTS. INCLUDE ACTUAL BUILDING WIRING PLANS SHOWING WIRING OF ALL DEVICES. WIRE ALL DEVICES FROM DEVICE-TO-DEVICE. DO NOT INSTALL INTERMEDIATE JUNCTION BOXES FOR T-TAPS.
- 27. FIRE ALARM CONTRACTOR SHALL BE A LICENSED STATE OF ILLINOIS FIRE ALARM CONTRACTOR HOLDING AT LEAST A NICET LEVEL 2 CERTIFICATION.
- 28. SYSTEM INSTALLATION SHALL BE TESTED AND CERTIFIED PER NFPA 72 REQUIREMENTS. SYSTEM TESTING MUST BE REVIEWED AND ACCEPTED BY THE LOCAL FIRE DEPARTMENT.
- ALL WORK SHALL BE PERFORMED BY THE COLLEGE'S FIRE ALARM INTEGRATOR OF RECORD:

FOR SYSTEM UPGRADES, PARTS AND INSTALLATION CONTACT: BRIAN SCHMID - 630.961.5900 - b.schmid@first-sec.com

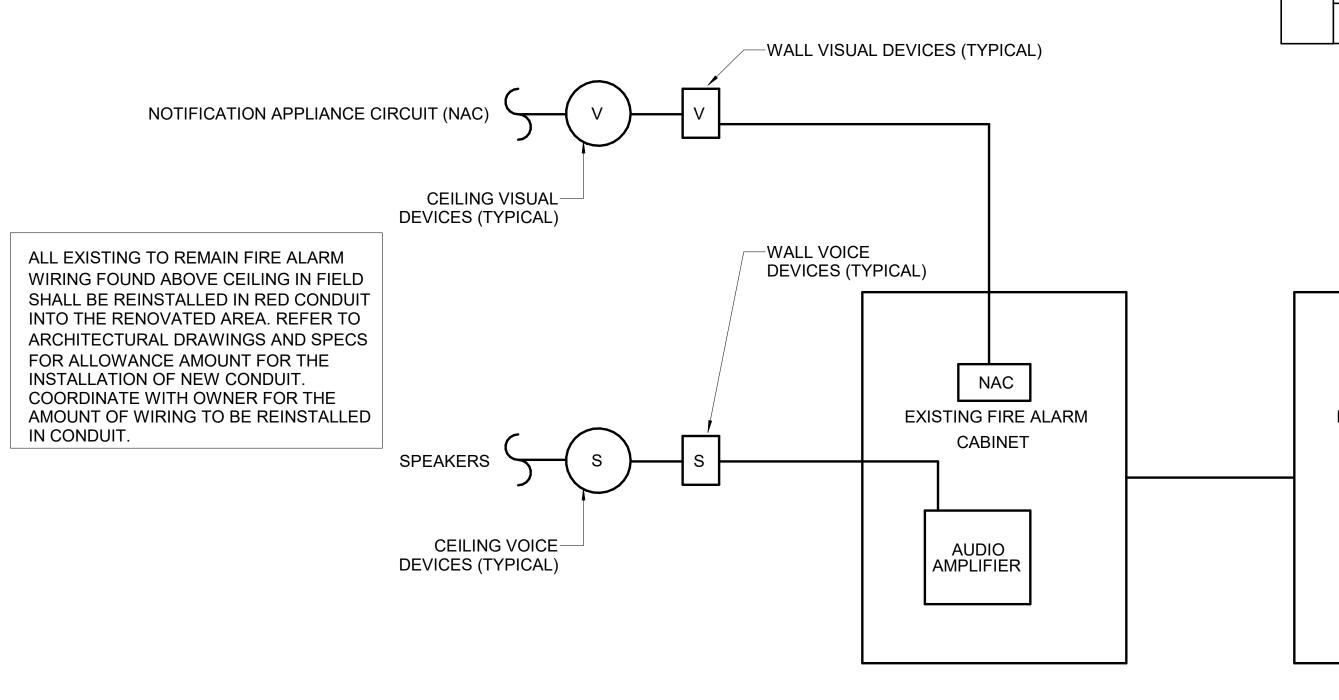
FIRST SECURITY SYSTEMS, INC. 1811 HIGH GROVE, SUITE 191, NAPERVILLE, IL 60540

FOR SYSTEM PROGRAMMING CONTACT:

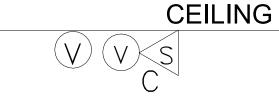
STEPHEN HUPP - 847.217.7509 FIRE SAFETY & SECURITY LIFE CYCLE SALES EXECUTIVE

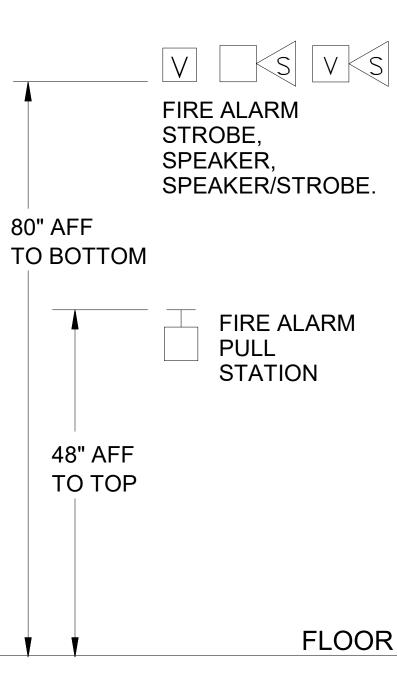
SIEMENS SMART INFRASTRUCTURE 585 SLAWIN CT., MOUNT PROSPECT, IL 60056

UPON COMPLETION OF ALL FIRE ALARM WORK, THE CONTRACTOR SHALL TURN OVER ALL SYSTEM PASSCODES TO THE OWNER FOR SAFEKEEPING. INCLUDE ALL DOCUMENTATION SHOWING TRANSFERRING OF PASSCODES TO THE OWNER.



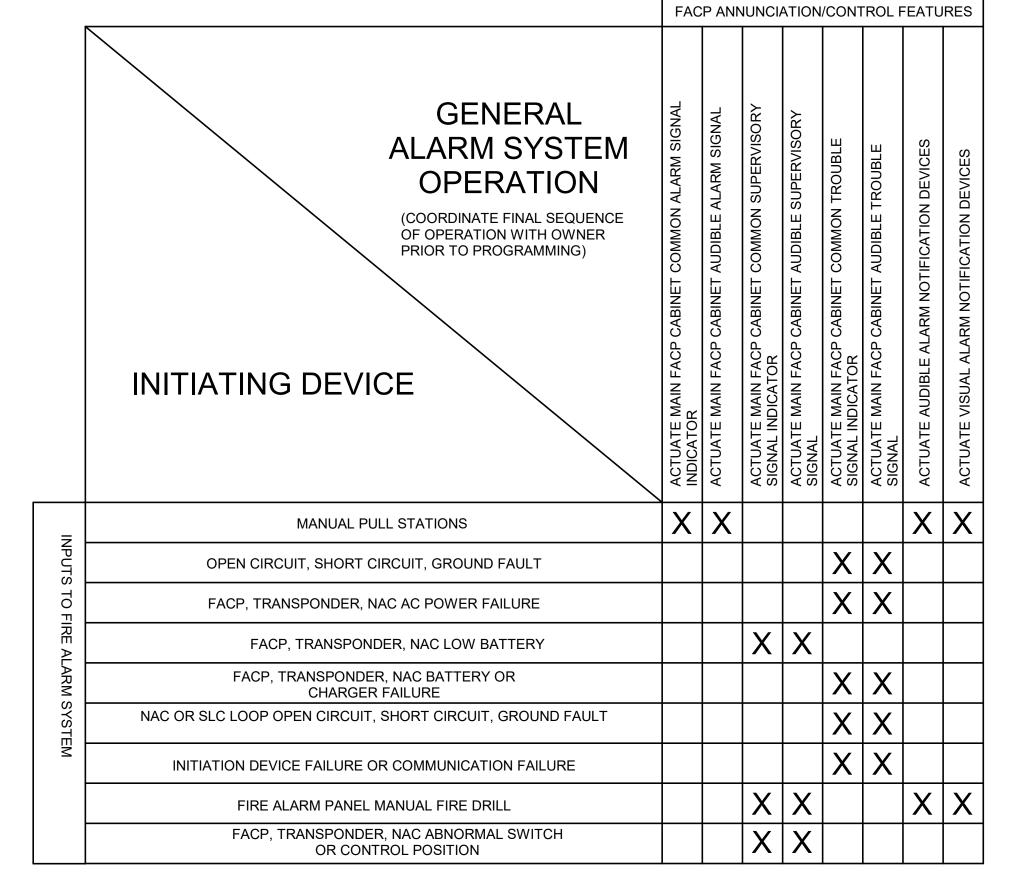
A EXISTING FIRE ALARM RISER DIAGRAM

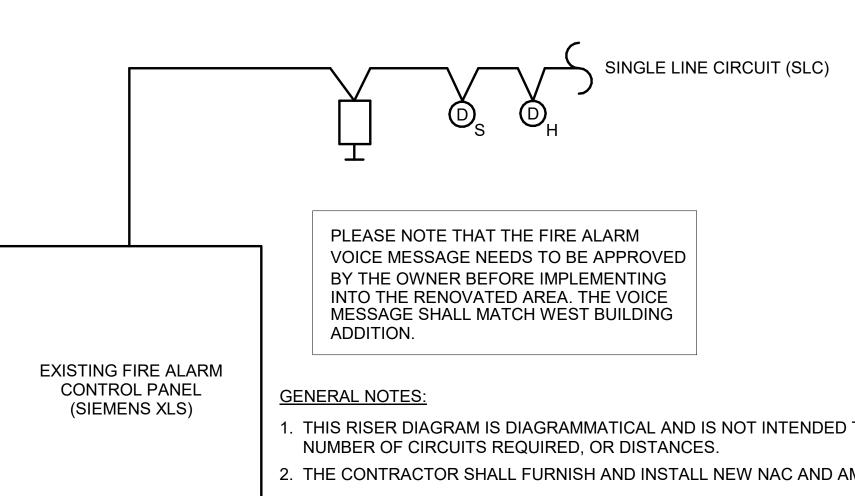




- ALIGN DEVICES VERTICALLY WHERE POSSIBLE.
- DEVICE BACK BOXES SHALL MATCH FACEPLATE CONFIGURATION
- (I.E. SINGLE-GANG, TWO-GANG, ETC...).
- REFER TO GENERAL ELECTRICAL AND FIRE ALARM NOTES FOR ADDITIONAL INFORMATION.

### FIRE ALARM MOUNTING DETAIL





- . THIS RISER DIAGRAM IS DIAGRAMMATICAL AND IS NOT INTENDED TO REFLECT QUANTITIES, THE
- 2. THE CONTRACTOR SHALL FURNISH AND INSTALL NEW NAC AND AMP PANELS AS REQUIRED.
- 3. THE COMPLETE FIRE ALARM SYSTEM SHALL MEET ALL APPLICABLE CODES AND MANUFACTURER'S RECOMMENDATIONS.
- 4. ALL VISUAL DEVICES SHALL BE SYNCHRONIZED.
- 5. ALL +120VAC WIRING REQUIRED FOR OPERATION OF THE SYSTEM SHALL BE CONNECTED TO LOCAL 120V EMERGENCY POWER PANEL AND PROVIDED BY THE ELECTRICAL CONTRACTOR AS REQUIRED.
- 6. ALL NECESSARY RELAYS MAY NOT BE SHOWN IN THESE PLANS, BUT WHERE REQUIRED FOR PROPER OPERATION OF THE SYSTEM THEY SHALL BE FURNISHED AND INSTALLED BY THE CONTRACTOR.
- 7. ALL WIRING SHALL BE INSTALLED IN RED CONDUIT ABOVE CEILINGS.
- 8. ALL ROUGH-IN FOR FIRE ALARM DEVICES SHALL BE FLUSH MOUNTED IN WALLS. CUT, PATCH, AND PAINT AS REQUIRED. NO EXPOSED RACEWAYS WILL BE ALLOWED UNLESS APPROVED BY THE ARCHITECT AND OWNER IN WRITING.

Perkins&Will

410 North Michigan Ave. Suite 1600 Chicago, IL 60611 t 312.755.0770 f 312.755.0775 www.perkinswill.com **CONSULTANTS** 

MECHANICAL SERVICES ASSOC. CORP. 11 S. VIRGINIA STREET CRYSTAL LAKE, IL 60014

> **PROJECT ADJACENCIES** RENOVATIONS

DES PLAINES CAMPUS 1600 EAST GOLF ROAD DES PLAINES, IL, 60016



**KEY PLAN** 

**ISSUE CHART** 

021074.000

TITLE

ISSUED FOR BID

Job Number

FIRE ALARM NOTES AND DETAILS

SHEET NUMBER

E51-01

PRIOR TO SUBMITTING THIS BID, THE CONTRACTOR SHALL VISIT THE PROJECT SITE AND THOROUGHLY ACQUAINT THEMSELVES WITH ALL EXISTING CONDITIONS AND DETERMINE HOW THEY EFFECTIVELY WORK. THEY SHALL INCLUDE IN THEIR BID ANY ALTERATION, RELOCATION, REROUTING, ETC... OF EXISTING FACILITIES, WIRING, CONDUIT, PANELBOARDS REQUIRED FOR INSTALLATION OF NEW WORK. UNDER NO CIRCUMSTANCES WILL THE CONTRACTOR BE GIVEN CONSIDERATION FOR ADDITIONAL COMPENSATION DUE TO THEIR NEGLECT TO COMPLY WITH FOREGOING REQUIREMENTS.

2. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE FOLLOWING CODES:

2015 INTERNATIONAL BUILDING CODE 2014 NATIONAL ELECTRICAL CODE 2015 INTERNATIONAL MECHANICAL CODE

2015 INTERNATIONAL FIRE CODE, NFPA 72 ILLINOIS ACCESSIBILITY CODE

2021 INTERNATIONAL ENERGY CONSERVATION CODE IN ADDITION TO THE ABOVE, FOLLOW ALL LOCAL CODES AND AMENDMENTS, UTILITY COMPANY REQUIREMENTS AND ANY OTHER REQUIREMENTS APPLICABLE TO THIS JOB. ELECTRICAL CONTRACTOR SHALL SUBMIT ANY REQUIRED DRAWINGS FOR APPROVAL TO ANY AGENCIES REQUIRING THEM AND OBTAIN NECESSARY PERMITS AT NO ADDITIONAL BID COSTS. ALL EQUIPMENT SHALL BE NEMA STANDARDS AND SHALL BE U.L. LISTED.

MOUNT RECEPTACLES, DATA JACKS AND TELEPHONE JACKS AT 16" AFF TO BOTTOM UNLESS OTHERWISE INDICATED.

RECEPTACLES FOR GENERAL POWER SHALL BE NEMA 5-20R "TAMPER RESISTANT" HEAVY DUTY SPEC GRADE DUPLEX RECEPTACLE, WHITE IN COLOR UNLESS OTHERWISE DIRECTED BY THE ARCHITECT/OWNER. CONTROLLED RECEPTACLES SHALL BE NEMA 5-20R "TAMPER RESISTANT" LEGRAND TR5362 SERIES. WHITE IN COLOR UNLESS OTHERWISE DIRECTED BY THE ARCHITECT/OWNER. REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION.

REFER TO TECHNOLOGY NOTES AND DETAILS FOR ADDITIONAL INFORMATION ON DATA AND TELEPHONE JACKS

- ALL SPECIAL RECEPTACLES INDICATED ON DRAWINGS BY 🕏 SHALL BE COORDINATED WITH THE OWNERS EQUIPMENT PLUG CONFIGURATION SO THAT NO CONFLICTIONS OCCUR BEFORE INSTALLATION. VERIFY WIRE SIZE AND QUANTITY WITH PLUG CONFIGURATION AS WELL (I.E. COPIER, RANGE/OVEN).
- MOUNT WALL SWITCHES AT 48" AFF TO TOP. SWITCHES IDENTIFIED AS 120VOLT RATED SHALL BE 20 AMP RATED HEAVY DUTY SPEC GRADE. WHITE IN COLOR UNLESS OTHERWISE INDICATED. COORDINATE COLOR WITH ARCHITECT. REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION. WHEN USING LINE VOLTAGE SWITCHES, INCLUDE NEUTRAL WIRE PER CODE.
- REFER TO ALL ARCHITECTURAL AND CASEWORK DRAWINGS DURING INSTALLATION OF ALL SWITCHES, RECEPTACLES, TELEPHONE JACKS, DATA JACKS, JUNCTION BOXES, CLOCKS, VISUAL STROBES/HORN DEVICES, PULL STATIONS AND OTHER DEVICES SO THAT NO CONFLICTIONS WILL BE ENCOUNTERED. INFORM ARCHITECT OF ANY CONFLICTS THAT DO OCCUR BEFORE THE INSTALLATION OF ABOVE LISTED
- MOUNT CONDUIT AND ELECTRICAL DEVICES FROM THE TOP CHORD OF BAR JOISTS ONLY. DO NOT RUN CONDUITS ABOVE TOP CHORD OF BAR JOIST, THROUGH WEB OF ROOF DECKING MATERIAL ABOVE OR WITHIN 6" OF ROOF DECK SO AS TO PREVENT DAMAGE FROM ROOFING NAILS.
- MINIMUM SIZE OF CONDUCTORS SHALL BE #12 AWG FOR POWER AND LIGHTING BRANCH CIRCUITS. USE #10 AWG MINIMUM IF RUNS ARE OVER 75 FEET. MINIMUM SIZE FOR "EMERGENCY CIRCUITS" SUCH AS EXIT SIGN AND EMERGENCY/NIGHT LIGHTS SHALL BE MINIMUM #10 AWG. SIZE ALL CONDUCTORS IN ACCORDANCE WITH N.E.C. SECTION 310-15. MAINTAIN PROPER CONDUIT FILL CAPACITIES AND SIZE CONDUCTORS IN ACCORDANCE WITH ADJUSTMENT FACTORS LISTED IN N.E.C. 310-15 TABLE NOTE #8a (MORE THAN THREE CURRENT CARRYING CONDUCTORS IN A RACEWAY). USE MULTIPLE PARALLEL RACEWAYS TO AVOID DERATING OF CONDUCTOR CAPACITIES, OTHERWISE INCREASE SIZE OF CONDUCTORS SO AS TO FOLLOW N.E.C. REQUIREMENTS.
- 9. ELECTRICAL CONTRACTOR SHALL SIZE ALL CONDUCTORS OVER 75 FEET SO AS TO MAINTAIN A VOLTAGE DROP EQUAL TO OR LESS THAN 2%.
- 10. BALANCE ALL PHASE WIRES WITHIN 5%.
- 11. INSTALL A SEPARATE DEDICATED NEUTRAL CONDUCTOR FOR EACH PHASE OF BOTH LIGHTING AND POWER MULTI-WIRE BRANCH CIRCUITS. IF A MULTI-WIRE BRANCH CIRCUIT CONTAINS THREE PHASE WIRES, THE CIRCUIT WILL REQUIRE THREE DEDICATED NEUTRALS. THE USE OF MULTI-POLE BRANCH BREAKERS TO ELIMINATE NEUTRAL CONDUCTORS IS NOT ALLOWED.
- 12. FOR ALL RECEPTACLES AND LIGHTING FIXTURES THAT DO NOT HAVE CIRCUIT INFORMATION PROVIDED, THE CONTRACTOR WILL CONNECT THESE DEVICES TO THE NEAREST AVAILABLE POWER PANEL SPARE CIRCUIT (OF MATCHING VOLTAGE) FOR THE DEVICE. CONTRACTOR ALSO HAS THE OPTION TO CONNECT TO THE LINE SIDE OF THE NEAREST AVAILABLE CIRCUIT IN THE AREA OF SUFFICIENT SIZE, PROVIDED THERE IS NO DETRIMENTAL EFFECTS IN DOING SO TO THE CIRCUIT CONNECTED TO.
- 13. INSTALL GROUNDING WIRE TO ALL DEVICES. USE GREEN WIRE. CONNECT THE GROUND WIRE TO A DEDICATED GROUND TERMINAL IN ALL DEVICE BOXES AND TO THE DEVICE GROUNDING WIRE.
- 14. STUB CONDUITS FOR ALL TELEPHONE JACKS, DATA JACKS, VIDEO JACKS, ETC... OUT TO ABOVE ACCESSIBLE CORRIDOR CEILING OR TO CORRIDOR CABLE TRAY IF PRESENT. INSTALL END BUSHINGS AND FITTINGS ON END OF EACH CONDUIT STUB IN ORDER TO PROTECT CABLING.
- 15. ALL JUNCTION BOXES ABOVE CEILINGS SHALL HAVE PANEL AND CIRCUIT INFORMATION IDENTIFIED ON OUTSIDE OF COVERPLATE. ALL RECESSED WALL MOUNTED/FLOOR MOUNTED JUNCTION BOXES SHALL HAVE PANEL AND CIRCUIT INFORMATION IDENTIFIED ON THE INSIDE OF THE JUNCTION BOX TOWARD FRONT OF BOX LIP SO AS TO BE VISIBLE WITHOUT REMOVING WIRING DEVICE.
- 16. ALL JUNCTION BOXES INSTALLED ABOVE LAY-IN CEILINGS MUST BE INSTALLED BELOW FIREPROOF/GYPSUM CEILING. BOXES MUST NOT BE INSTALLED WITHIN GYPSUM CEILING MATERIAL. ALL CONDUIT
- PENETRATIONS THROUGH GYPSUM CEILING MUST BE FIREPROOFED/PATCHED.
- 17. FURNISH AND INSTALL NEMA 3R ELECTRICAL DEVICES FOR ALL EXTERIOR LOCATIONS.
- 18. "EMT" CONDUIT WILL NOT BE INSTALLED IN CONCRETE SLABS. ALL CONDUIT WILL BE INSTALLED PER SPECIFICATION SECTION 260533.
- 19. ALL UNDERGROUND WIRING WILL BE IN CONDUIT AND WILL BE INSTALLED PER N.E.C. AND LOCAL CODES AND COORDINATED IN FIELD PRIOR TO INSTALLATION.
- 20. SLEEVE AND FIREPROOF ALL PENETRATIONS THROUGH WALLS AND FLOORS. ALL CORING BY CONTRACTOR SHALL BE COORDINATED WITH ARCHITECT. PROVIDE AND INSTALL EXPANSION FITTINGS ON ALL
- 21. CIRCUIT BREAKERS SERVING FIRE ALARM CONTROL PANEL, SECURITY CONTROL PANEL, EMERGENCY LIGHTS/NIGHT LIGHTS, EXIT SIGNS AND POWER FOR SHUNT TRIP BREAKERS SHALL HAVE LOCK OUT DEVICE INSTALLED ON BREAKER TO PREVENT ACCIDENTAL TURN OFFS.
- 22. ALL NEW RECESSED PANELS BEING INSTALLED SHALL HAVE A MINIMUM OF (3) SPARE 3/4" CONDUITS STUBBED UP IN WALL AND DOWN BELOW FLOOR LINE WHEN LOWER LEVEL IS PRESENT TO ABOVE
- 23. ALL HOUSEKEEPING PADS INDICATED ON DRAWINGS SHALL BE 4" THICK REINFORCED CONCRETE. REFER TO ARCHITECTURAL FOR PARTIAL DETAIL
- 24. FOR EXISTING ELECTRICAL PANELBOARDS AFFECTED BY NEW WORK, CONTRACTOR SHALL REVIEW EXISTING PANEL CARD DIRECTORIES AND VERIFY CORRECTNESS BY TRACING BRANCH CIRCUITS. UPDATE AND RECORD INFORMATION ON NEW TYPED PANEL CARD DIRECTORY. VERIFY CURRENT ROOM NAMES AND NUMBERS IN THE FIELD. DO NOT USE ROOM NAMES AND NUMBERS INDICATED ON THE
- 25. INSTALL BLANK PREFINISHED STAINLESS STEEL COVERPLATES ON ALL JUNCTION BOXES IN FINISHED AREAS NO LONGER USED AND CREATED BY DEMOLITION. USE BLANK GALVANIZED STEEL COVERPLATES FOR ALL BOXES ABOVE CEILINGS OR IN EXPOSED NON-FINISHED AREAS.
- 26. ALL OUTLETS, VIDEO JACKS, CLOCKS, PROGRAM BELLS, FIRE ALARM DEVICES, SECURITY DEVICES, SPEAKERS, ETC.. CONFLICTING WITH NEW CEILINGS/CEILING HEIGHTS SHALL BE RELOCATED AT/OR BELOW NEW CEILINGS, WHICHEVER APPLIES. CONTRACTOR SHALL FURNISH AND INSTALL NEW JUNCTION BOXES, RACEWAY AND WIRING AS REQUIRED FOR EXTENDING SYSTEMS. ALL EXPOSED
- 27. WHERE EXISTING CONDUIT AND WIRE CONFLICTS WITH NEW LIGHT FIXTURES BEING INSTALLED, CONTRACTOR SHALL REROUTE AROUND NEW LIGHT FIXTURE. EXTEND CONDUIT AND WIRING AS REQUIRED.
- 28. CONTRACTOR SHALL NOT DISTURB EXISTING COMPUTER/DATA CABLING UNLESS OTHERWISE INDICATED ON DRAWINGS.
- 29. ANY PORTIONS OF EXISTING CEILINGS TO BE REMOVED BY CONTRACTOR FOR INSTALLATION OF THEIR WORK SHALL BE RETURNED TO THEIR ORIGINAL CONDITION. MATCH EXISTING CEILING MATERIAL PATCH AND PAINT AS REQUIRED. CONTRACTOR SHALL ARCHIVE AND DOCUMENT ALL EXISTING CEILING CONDITIONS ELECTRONICALLY PRIOR TO BEGINNING WORK. IF ANY DAMAGE IS FOUND THEY SHALL BRING IT TO THE ATTENTION OF THE OWNER IN WRITING PRIOR TO PERFORMING WORK. IF THIS DOCUMENTATION IS NOT PROVIDED THE CONTRACTOR IS ASSUMING THE LIABILITY FOR REPLACING ALL DAMAGED TILES DISCOVERED AFTER THE COMPLETION OF THE PROJECT. ALL DAMAGED TILES FOUND WILL BE REPLACED AT THE CONTRACTORS EXPENSE.
- 30. ALL EXPOSED RACEWAYS INSTALLED IN FINISHED AREAS WILL ONLY BE ALLOWED WHEN APPROVED BY THE ARCHITECT AND THEN SHALL BE OF THE WIREMOLD TYPE. EXPOSED CONDUIT WILL ONLY BE INSTALLED BY PERMISSION OF THE ARCHITECT. ALL EXPOSED CONDUIT INSTALLED IN FINISHED AREAS SHALL BE PAINTED TO MATCH SURROUNDING AREAS.
- 31. CONTRACTOR SHALL REFER TO ARCHITECTURAL CUTTING AND PATCHING SPECIFICATIONS FOR INFORMATION REGARDING PERFORMANCE STANDARDS AND PROCEDURES.
- 32. REFER TO ARCHITECTURAL REFLECTED CEILING PLANS FOR EXACT LIGHT FIXTURE ORIENTATION AND PLACEMENT. VERIFY EXACT LOCATION OF ALL CEILING DEVICES (I.E. FIRE ALARM DEVICES, CEILING SPEAKERS) WITH ARCHITECTURAL REFLECTED CEILING PLANS FOR COORDINATION PRIOR TO INSTALLATION.
- 33. THE LIGHTING CONTRACTOR MUST HOLD AN ICC ENERGY EFFICIENCY INSTALLER CERTIFICATION IN ORDER TO PERFORM LIGHTING WORK THAT WILL ALLOW THE OWNER TO OBTAIN COMED ENERGY FOR DEMOLITION OF LIGHT FIXTURES, CONTRACTOR MUST FOLLOW ALL E.P.A. REQUIREMENTS FOR DISPOSAL OF FLUORESCENT LAMPS, BALLASTS AND BATTERIES. HAUL LAMPS, BALLASTS AND BATTERIES TO AN E.P.A. APPROVED DISPOSAL SITE. USE D.O.T. APPROVED CONTAINMENT FOR TRANSFER OF LAMPS, BALLASTS AND BATTERIES. PROVIDE PROPER PAPER WORK TO THE OWNER SHOWING LEGAL DISPOSAL OF LAMPS, BALLASTS AND BATTERIES. FIXTURE HOUSINGS SHALL BE DISPOSED OF AS REQUIRED. CONTRACTOR SHALL KEEP AND INVENTORY OF EXISTING AND NEW FIXTURES AND ASSIST THE OWNER WITH THE PROPER PAPER WORK AND SUBMISSION OF PAPER WORK TO COMED. THE FOLLOWING INVENTORY ITEMS SHALL BE PROVIDED FOR EACH FIXTURE TYPE:
- FIXTURE TYPE: RECESSED, SURFACE, PENDANT, ETC. LAMPS: QUANTITY OF EACH TYPE, LAMP TYPE, LAMP VOLTAGE, LAMP WATTAGE.
- BALLASTS: QUANTITY OF EACH TYPE, BALLAST TYPE, BALLAST VOLTAGE, BALLAST WATTAGE RATINGS. BATTERIES: QUANTITY OF EACH TYPE, BATTERY TYPE, BATTERY VOLTAGE, BATTERY CAPACITY.
- 34. ELECTRICAL CONTRACTOR SHALL FURNISH AND INSTALL ALL LIGHT FIXTURE MOUNTING HARDWARE INCLUDING PENDANTS, CANOPIES, TONG HANGERS, FLANGES, SAFETY CHAINS AND UNI-STRUT. WHEN PENDENT MOUNTING CONTINUOUS ROWS OF 4 FOOT FIXTURES, CONTRACTOR SHALL UTILIZE UNI-STRUT. PAINT OUT PENDANTS AND UNI-STRUT TO MATCH LIGHT FIXTURES. WIPE OIL FROM PENDANTS AND UNI-STRUT WITH CHEMICAL CLEANER PRIOR TO PAINTING. LIGHT FIXTURES INSTALLED IN A GRID SHALL BE SUPPORTED FROM THE STRUCTURE WITH A MINIMUM OF (4) PENCIL ROD WIRES PER EACH
- 35. ELECTRICAL CONTRACTOR SHALL COORDINATE EXACT ELECTRICAL REQUIREMENTS OF ALL MECHANICAL EQUIPMENT WITH THE MECHANICAL CONTRACTOR AND MECHANICAL EQUIPMENT SHOP DRAWINGS PRIOR TO ORDERING CIRCUIT BREAKERS, DISCONNECT SWITCHES, STARTERS, FUSES, CONDUIT AND WIRING, ETC... ASSOCIATED WITH CONNECTION OF MECHANICAL EQUIPMENT TO ENSURE A
- 36. ALL FINAL CONNECTIONS MADE WITH FLEXIBLE CONDUIT FEEDING MECHANICAL EQUIPMENT SHALL BE LIQUIDTIGHT, FLEXIBLE METAL CONDUIT AND SHALL HAVE GROUNDING WIRE INSTALLED.
- 37. ALL OVERCURRENT PROTECTION AND WIRE SIZING FOR HVAC EQUIPMENT WILL BE COORDINATED BY THE CONTRACTOR WITH DRAWINGS AND MANUFACTURERS RECOMMENDATIONS.
- THE CONTRACTOR SHALL FURNISH AND INSTALL JUNCTION BOX AND CONDUIT STUBBED UP TO ABOVE CEILING FOR MECHANICAL CONTRACTORS THERMOSTAT. MOUNT AT 48" TO TOP. REFER TO MECHANICAL DRAWINGS AND COORDINATE WITH TEMPERATURE CONTROL CONTRACTOR FOR ALL THERMOSTAT LOCATIONS. FOR EXISTING WALLS WHERE SURFACE MOUNTING IS REQUIRED. CONTRACTOR SHALL UTILIZE METALLIC WIREMOLD RACEWAY. IN EXISTING FINISHED AREAS WHERE NO LAY-IN CEILINGS ARE PRESENT, CONTRACTOR SHALL CONNECT THERMOSTAT TO MECHANICAL DEVICE WITH A CONTINUOUS RACEWAY SYSTEM. FOR LINE VOLTAGE THERMOSTATS:
- THE CONTRACTOR SHALL FURNISH AND INSTALL JUNCTION BOX AND CONTINUOUS CONDUIT SYSTEM TO MECHANICAL UNIT SERVING FOR MECHANICAL CONTRACTORS THERMOSTAT AND WIRING. MOUNT JUNCTION BOX AT 48" TO TOP. REFER TO MECHANICAL DRAWINGS AND COORDINATE WITH TEMPERATURE CONTROL CONTRACTOR FOR ALL THERMOSTAT LOCATIONS. FOR EXISTING WALLS WHERE SURFACE MOUNTING IS REQUIRED, CONTRACTOR SHALL UTILIZE METALLIC WIREMOLD RACEWAY. ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR CONNECTION OF LINE VOLTAGE THERMOSTAT TO MECHANICAL UNIT SERVING. FURNISH AND INSTALL REQUIRED WIRING. COORDINATE EXACT REQUIREMENTS WITH MECHANICAL CONTRACTOR PRIOR TO INSTALLATION.
- 39. THE ELECTRICAL CONTRACTOR SHALL REVIEW THE ARCHITECTURAL SPECIFICATIONS/DRAWING DOOR HARDWARE SCHEDULE FOR ALL ELECTRICAL REQUIREMENTS. INCLUDE CONDUIT, WIRING AND DEVICES AS REQUIRED FOR OPERATION OF LISTED DEVICES.
- 40. ELECTRICAL CONTRACTOR SHALL INCLUDE IN THEIR BID, AN ALLOWANCE FOR FURNISHING AND INSTALLING THE FOLLOWING ADDITIONAL DEVICES NOT SHOWN ON DRAWINGS:
  - (2) DATA JACKS (1) LIGHT SWITCH
- CONTRACTOR SHALL INCLUDE ASSOCIATED BACKBOXES, COVERPLATES, CONDUIT AND WIRING FOR CONNECTION OF ABOVE ITEMS FOR AVERAGE LENGTH OF A 50 FOOT RUN, 150 FOOT RUN FOR DATA

### **GENERAL ELECTRICAL DEMOLITION NOTES:**

- 1. VERIFY EXISTING CONDITIONS AND LOCATIONS IN FIELD PRIOR TO SUBMITTING PROPOSAL. FAILURE TO DO SO SHALL NOT RELIEVE CONTRACTOR FROM PERFORMING THE WORK
- MAKE NECESSARY MODIFICATIONS AND ADJUSTMENTS TO ALL ELECTRICAL ITEMS AND EQUIPMENT, BOTH NEW AND EXISTING, AS MAY BE REQUIRED BY THESE ALTERATIONS AND
- 3. DISCONNECT AT SOURCE AND REMOVE EXISTING ELECTRICAL MATERIALS AND EQUIPMENT AND ALL OTHER ELECTRICAL ITEMS WHICH ARE RENDERED OBSOLETE BY THESE ALTERATIONS AND ADDITIONS. THESE ARE THE PROPERTY OF THE OWNER AND SHALL EITHER BE REMOVED FROM THE SITE OR RETURNED TO THE OWNER'S STOCK AT THE DISCRETION OF THE OWNER.
- DISCONNECT, REMOVE AND RELOCATE EXISTING ELECTRICAL MATERIALS AND EQUIPMENT, AND ALL OTHER ELECTRICAL ITEMS WHICH INTERFERE OR ARE INTERFERED WITH, OBSTRUCT OR ARE OBSTRUCTED BY THESE LOCATIONS AS DIRECTED. RECONNECT SUCH ITEMS IN PROPER OPERATING CONDITION AT NEW LOCATIONS.
- IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO MAINTAIN THE EXISTING BUILDING IN ELECTRICAL OPERATION AT ALL TIMES DURING THE ENTIRE CONSTRUCTION PERIOD. IF IT IS ABSOLUTELY NECESSARY TO SHUT DOWN THE FACILITY AT ANY TIME, THE CONTRACTOR SHALL CONSULT WITH THE OWNER AND MAKE ARRANGEMENTS TO DO SO AT THE OWNER'S CONVENIENCE. PRIOR NOTICE SHALL BE GIVEN.
- 6. COORDINATE WORK WITH OTHER TRADES TO AVOID CONFLICTS AND DELAYS.
- 7. ALL CUTTING AND PATCHING AS REQUIRED FOR NEW WORK & ABANDONED DEVICES TO BE BY THE CONTRACTOR.
- WHERE EXISTING CONDUITS HAVE BEEN MADE OBSOLETE BY THESE ALTERATIONS AND ADDITIONS AND IT IS IMPRACTICAL TO REMOVE SAME, CONTRACTOR SHALL: CUT CONDUITS OFF AT SLAB OR WALL LINE
- 9. WHERE THE EXISTING WIRING & CONDUIT SERVING ANY EXISTING ELECTRICAL EQUIPMENT IN AREA OF EXISTING BUILDING NOT BE ALTERED IS INTERFERED WITH, CONTRACTOR SHALL REROUTE AND RECONNECT ALL SUCH CONDUIT & WIRING.
- 10. THE LIGHTING CONTRACTOR MUST HOLD AN ICC ENERGY EFFICIENCY INSTALLER CERTIFICATION IN ORDER TO PERFORM LIGHTING WORK THAT WILL ALLOW THE OWNER TO OBTAIN COMED ENERGY EFFICIENCY INCENTIVES, NO EXCEPTIONS FOR DEMOLITION OF LIGHT FIXTURES, CONTRACTOR MUST FOLLOW ALL E.P.A. REQUIREMENTS FOR DISPOSAL OF FLUORESCENT LAMPS, BALLASTS AND BATTERIES. HAUL LAMPS, BALLASTS AND BATTERIES TO AN E.P.A. APPROVED DISPOSAL SITE. USE D.O.T. APPROVED CONTAINMENT FOR TRANSFER OF LAMPS, BALLASTS AND BATTERIES. PROVIDE PROPER PAPER WORK TO THE OWNER SHOWING LEGAL DISPOSAL OF LAMPS, BALLASTS AND BATTERIES. FIXTURE HOUSINGS SHALL BE DISPOSED OF AS REQUIRED. CONTRACTOR SHALL KEEP AND INVENTORY OF EXISTING AND NEW FIXTURES AND ASSIST THE OWNER WITH THE PROPER PAPER WORK AND SUBMISSION OF PAPER WORK TO COMED. THE FOLLOWING INVENTORY ITEMS SHALL BE PROVIDED FOR EACH FIXTURE TYPE: FIXTURE TYPE: RECESSED, SURFACE, PENDANT, ETC LAMPS: QUANTITY OF EACH TYPE, LAMP TYPE, LAMP VOLTAGE, LAMP WATTAGE. BALLASTS: QUANTITY OF EACH TYPE, BALLAST TYPE, BALLAST VOLTAGE, BALLAST WATTAGE RATINGS.

#### NOTES RE: INSPECTING EXISTING BUILDING:

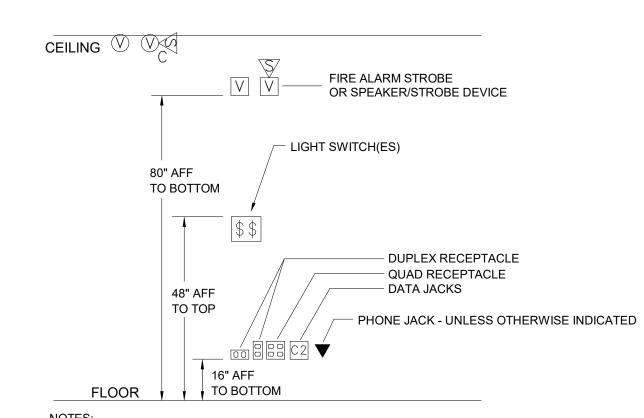
REQUIRED UNDER THIS CONTRACT

THE CONTRACTORS SHALL VISIT AND INSPECT THE EXISTING BUILDING AND SHALL THOROUGHLY FAMILIARIZE THEMSELVES WITH ACTUAL JOB CONDITIONS BEFORE SIGNING CONTRACTS. NO EXTRAS WILL BE ALLOWED FOR WORK WHICH MIGHT HAVE BEEN REASONABLY FORESEEN BY AN INSPECTION OF THESE PREMISES.

BATTERIES: QUANTITY OF EACH TYPE, BATTERY TYPE, BATTERY VOLTAGE, BATTERY CAPACITY.

- WHILE THE SIZE AND LOCATION OF NEW WORK AND EQUIPMENT IN THE EXISTING BUILDING HAS BEEN INDICATED ON THE DRAWINGS AS ACCURATELY AS POSSIBLE. CONTRACTOR SHALL ADJUST HIS WORK AS REQUIRED TO AVOID EXISTING DUCTS, PIPES, CONDUITS AND BEAMS NOT SHOWN ON PLANS. CONTRACTOR SHALL ADAPT HIS WORK TO MEET ALL ACTUAL CONDITIONS ON THE EXISTING PREMISES.
- CONTRACTOR SHALL INSPECT THE PREMISES AND MAKE A DETAILED EXAMINATION OF ALL LOCATIONS WHERE NEW WORK IS TO BE INSTALLED AND SHALL EXAMINE EXISTING PIPING, CONDUITS, STRUCTURAL SUPPORTING BEAMS, ETC.
- 4. CONTRACTOR AFTER INSPECTING THE PREMISES AND THE DRAWINGS SHALL CALL TO THE ATTENTION OF THE ARCHITECT ANY LACK OF ANY NECESSARY SPACE OR CLEARANCE BE RESPONSIBLE FOR ALL CHANGES NECESSARY IF HE NEGLECTS TO DO SO.

ALL DEVICES SHOWN DOTTED, DASHED, OR INDICATED WITH A PLAN NOTE (INDICATING REMOVAL) ARE EXISTING TO BE REMOVED. ALL DEVICES SHOWN SOLID ARE EXISTING TO REMAIN. IF THE CONTRACTOR DEEMS IT NECESSARY FOR A DEVICE TO BE REMOVED. THEY SHALL COORDINATE IN FIELD WITH THE ARCHITECT/ENGINEER FOR APPROVAL.



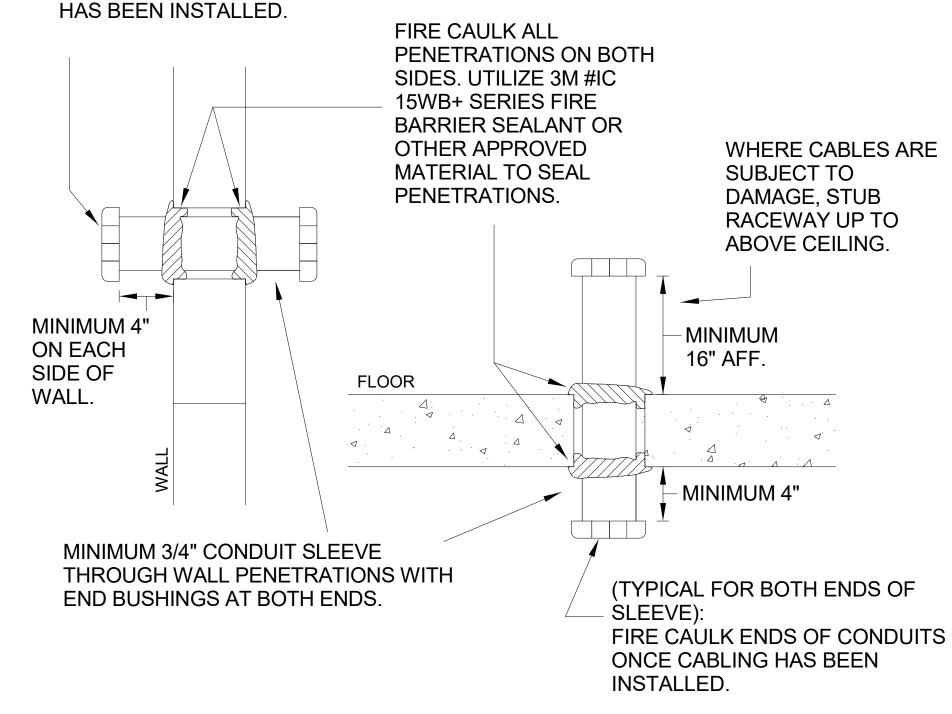
- ALIGN DEVICES VERTICALLY WHERE POSSIBLE. - DEVICE BACK BOXES SHALL MATCH FACEPLATE CONFIGURATION (I.E. SINGLE-GANG, TWO-GANG, ETC...). - DEVICE ORIENTATION (HORIZONTAL OR VERTICAL) SHALL BE COORDINATED WITH THE OWNER IN ORDER TO CONFORM TO OWNERS PREFERENCE AND STANDARDS. - RECEPTACLES MOUNTED VERTICALLY SHALL HAVE THE GROUND PIN UP UNLESS OTHERWISE DIRECTED BY THE OWNER. RECEPTACLES MOUNTED HORIZONTALLY SHALL HAVE NEUTRAL BLADE UP UNLESS OTHERWISE DIRECTED BY THE OWNER. - REFER TO GENERAL ELECTRICAL, FIRE ALARM, INTERCOM/CLOCK, SOUND SYSTEM AND TECHNOLOGY NOTES FOR ADDITIONAL INFORMATION.

### **ELECTRICAL DEVICE MOUNTING HEIGHT DETAIL**

ALL RACEWAYS TO BE CONCEALED INSIDE OF WALLS WHERE POSSIBLE. ALL EXISTING WALLS SHALL BE FISHED WITH FLEXIBLE METAL CONDUIT "FMC" TO CONCEAL WIRING UP TO ABOVE CEILING, DEVICES SHALL BE FLUSH MOUNTED IN ALI NEW AND EXISTING WALLS UNLESS THERE IS A CONDITION THAT DOES NOT ALLOW FOR THIS, COORDINATE WITH ARCHITECT. CUT, PATCH, AND PAINT TO MATCH SURROUNDING AREA. WHERE UNABLE TO FISH WALL, USE METALLIC WIREMOLD RACEWAY SURFACE MOUNTED ON WALL UP TO ABOVE CEILING WHEN APPROVED BY ARCHITECT. COLOR SELECTED BY THE OWNER.

### (TYPICAL FOR BOTH ENDS OF SLEEVE): FIRE CAULK ENDS OF

CONDUITS ONCE CABLING



### WALL/FLOOR PENETRATION DETAIL

	GENERAL ELEC	TRICA	L SYMBOLS
SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
J.	JUNCT. BOX & FLEX CONDUIT	C1 C2 C4	DATA OUTLET/JUNCT.BOX AND STUB
	SYSTEMS PANEL	\$	WALL SWITCH
Т	TRANSFORMER	<u></u>	SINGLE FACE EXIT SIGN
$\rightleftharpoons$	DUPLEX RECEPTACLE TAMPER RESISTANT	<b>★</b>	DOUBLE FACE EXIT SIGN
<b>\( \begin{array}{c} \\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ </b>	QUAD-RECEPTACLE TAMPER RESISTANT		RECESSED 2 X 4 LIGHT FIXTURE
lacktriangle	SPECIAL RECEPTACLE		SURFACE STRIP LIGHT FIXTURE
⇒ GFI	GROUND FAULT INTERUPTER TAMPER RESISTANT		EMERGENCY/ NIGHT LIGHT
$\Leftrightarrow$ AC	RECEPTACLE ABOVE COUNTER	OS)	OCCUPANCY SENSOR (CEILING)
	ADA DOOR PADDLE	PP	POWER POLE
ER	EXISTING DEVICE TO REMAIN	V	FIRE ALARM VISUAL STROBE
AC	MOUNTED ABOVE COUNTER	VS	WALL MOUNTED SPEAKER/STROBE DEVICE
EM	EMERGENCY FIXTURE	(V)<5	CEILING MOUNTED SPEAKER/STROBE DEVICE
NL	NIGHT LIGHT FIXTURE	V	CEILING MOUNTED STROBE DEVICE

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> **PROJECT ADJACENCIES RENOVATIONS**

**ISSUE CHART** 

**GENERAL ELECTRICAL** 

SHEET NUMBER

TITLE

E61-01

CADDY #CAT HP SERIES J-HOOK DETAIL NO SCALE FOR INSTALLATION ABOVE CEILINGS

#### - MINIMUM I 1/4" CONDUIT SLEEVE FOR MULTIPLE CABLES THROUGH WALL PENETRATIONS WITH FND BUSHINGS AT BOTH ENDS. SIZE AS REQUIRED TO ACCOMMODATE QUANTITY OF CABLES USED. SEE "EMT" CONDUIT FILL SCHEDULE THIS SHEET. SIZE OF SLEEVES SHOWN ON DRAWINGS ARE USED AS A GUIDE AND SIZES/QUANTITIES SHOULD BE VERIFIED FURNISH AND INSTALL WITH CONTRACTORS FINAL CABLE ROUTING AND REMOVABLE FIRE CAULK CABLE QUANTITIES USED. INSIDE OF CONDUITS AT BOTH ENDS AFTER ALL FIRE CAULK ALL PENETRATIONS ON CABLES HAVE BEEN INSTALLED. BOTH SIDES. UTILIZE 3M (TYPICAL) #IC I5MB+ SERIES FIRE BARRIER SEALANT OR WHERE CABLES OTHER APPROVED ARE SUBJECT TO MATERIAL TO SEAL DAMAGE, STUB PENETRATIONS. RACEWAY UP TO ABOVE CEILING. 16" AFF. MINIMUM 4" BELOW FLOOR MINIMUM 3/4" CONDUIT SLEEVE FOR SINGLE CABLES THROUGH WALL PENETRATIONS WITH END BUSHINGS AT BOTH ENDS. ALL GROUP DATA CABLING PENETRATIONS SHALL USE 1-1/4" CONDUIT. ALL SEPARATE SLEEVES FOR FIRE ALARM OR WHERE SINGLE CABLES ARE USED, SHALL USE MINIMUM OF 3/4" CONDUIT. UTILIZE MULTIPLE 3" CONDUIT SLEEVES AT ALL MDF AND IDF CLOSETS. INSTALL REMOVABLE FIRE PROOFING AT ENDS OF CONDUITS AFTER CABLES HAVE BEEN

## WALL/FLOOR PENETRATION DETAIL

	COLOR	CATALOG # T568B WIRING	CONDITION
	DATA — WHITE	MGS400-262	GENERAL NETWORK PORT
(AT&T)	DATA — GREEN	MGS400-262	HDBASET VIDEO OVER IP
T1 T4 R3 R4	DATA – PURPLE	MGS400-262	WEBCAM OVER IP

SNAP IN COLORED ICONS

1. MGS400 JACKS ARE UL (#E129878 AND CSA (#LR80837) LISTED. . JACK CONTACTS ARE BERYLLIUM COPPER AND NICKLE PLATED. . MODULAR JACKS MEET OR EXCEDE F.C.C. PART 68.5.

WIRING FORMAT

NEW CONDUIT

000

FRONT OF BOX

FOR NEW DATA CABLING.

MINIMUM I" CONDUIT. SEE

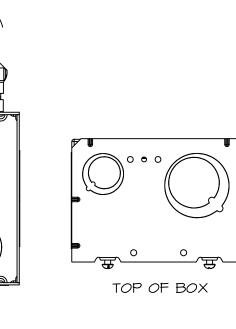
FILL SIZE SCHEDULE AND

NEC FILL REQUIREMENTS.

4. JACK HOUSINGS ARE MADE OF HIGH IMPACT, 94 V-O TED THERMOPLASTIC . 110 CONTACTS ARE TIN LEAD PLATED IDC. 5. COMPATIBLE WIRE SIZES, 22-26 AWG AND A MAX INSULATION SIZE OF .050 INCH. SEE ABOVE FOR WIRING FORMATS. 7. FOR MORE INFORMATION CONTACT YOUR CUSTOMER

SERVICE REPRESENTATIVE. 8 POSITION CATEGORY 6 - COMMSCOPE SYSTIMAX MGS400 SERIES MODULAR JACKS

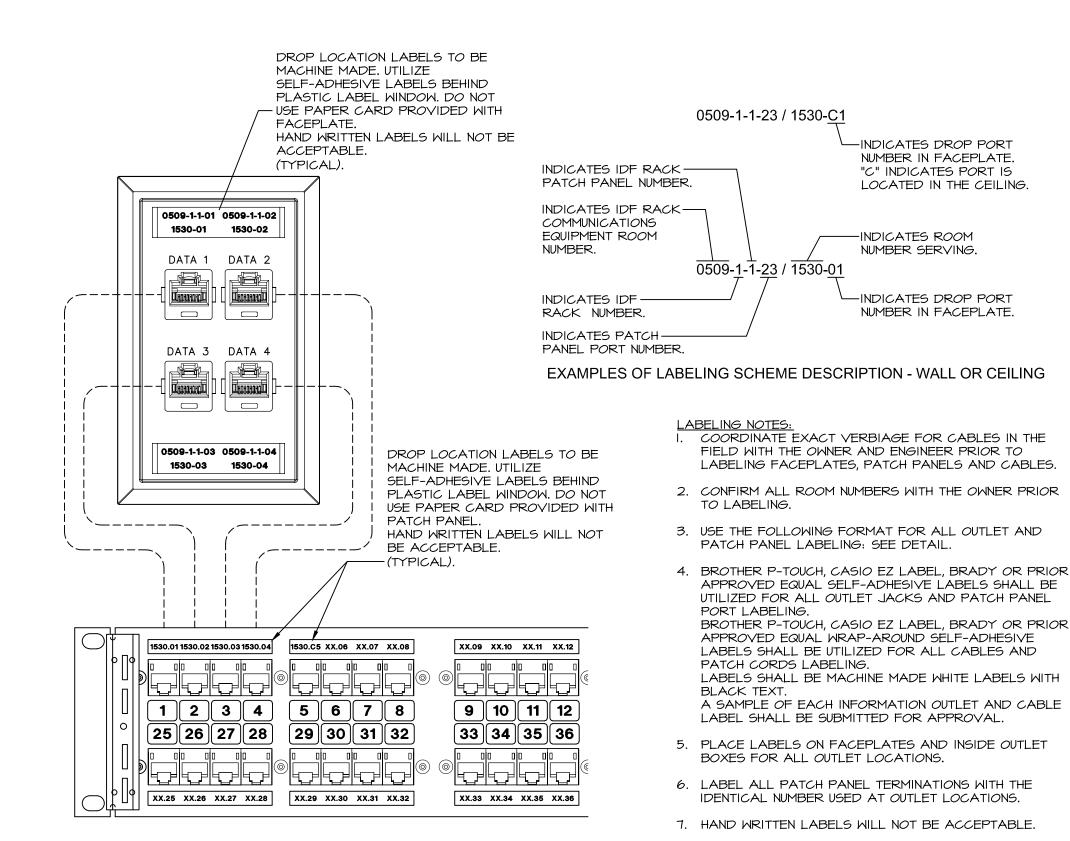
(USE FOR WORKSTATION JACKS)



HUBBELL #HBL260 SERIES LARGE CAPACITY WALL BOX WITH 2-GANG MUD RING. INSTALL NEW COVERPLATE (WITH LABEL FIELD). LABEL ALL CABLES AND INSTALL NEW ID LABELS.

### HUBBELL LARGE CAPACITY WALL BOXES NO SCALE

LOW VOLTAGE CONTRACTOR TO COORDINATE BOXES AND ORIENTATION WITH THE ELECTRICAL CONTRACTOR SO AS TO HAVE USE OF APPROPRIATE SIZE KNOCK-OUT. VERIFY WALL CONSTRUCTION DEPTHS BEFORE ORDERING DEEP BACK BOXES.



DATA JACK AND PATCH PANEL LABELING DETAIL

CABLE LABEL DETAIL

**EXAMPLE - CABLES SERVING CEILING PORTS** (I.E. SECURITY CAMERAS, WIRELESS AP'S, ETC...

0509-1-1-23 / 1530-C01

"IDF-RACK # - PATCH PANEL # - PORT # / ROOM-PORT"

EXAMPLE - CABLES SERVING WALL PORTS

0509-1-1-23 / 1530-01

"IDF-RACK # - PATCH PANEL # - PORT # / ROOM-PORT"

COORDINATE EXACT VERBIAGE FOR CABLES IN THE

LABEL CABLE AT EACH END (MDF/IDF CLOSET AND

LABELS SHALL BE A WRAP AROUND SELF-ADHESIVE

TYPE WHITE LABEL WITH BLACK TEXT TYPICAL TO

HAND-WRITTEN LABELS WILL NOT BE ACCEPTABLE.

PANDUIT SELF-ADHESIVE POLYESTER LABELS.

TEXT SHALL BE TYPED ONTO LABEL.

ROOM BEING SERVED) WITH THE DEVICE BEING SERVED.

FIELD WITH THE OWNER AND ENGINEER PRIOR TO

LABELING CABLES.

ARE AVAILABLE

LEVELS AND ARE U.L. CERTIFIED.

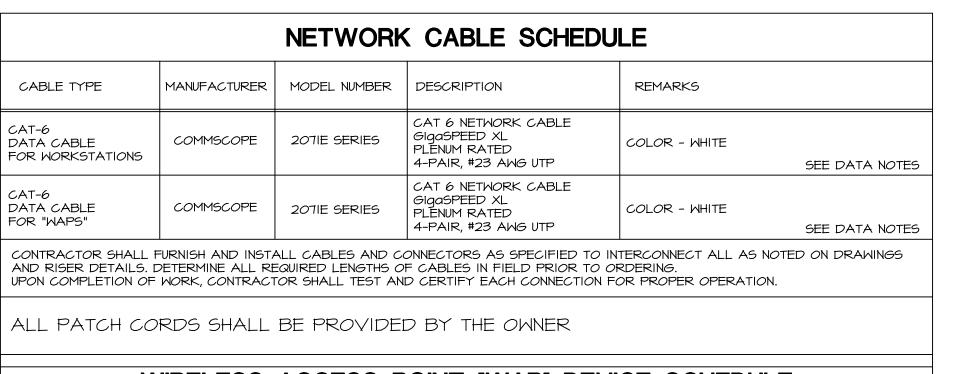
5. U.L. #E129878 AND CSA #LR80837.

3. ADAPTERS EXCEED TIA/EIA-568-B CAT. 6 MINIMUM PERFORMANCE

CABLE

4. TERMINATION TOOL NUMBER IS IPT110B. ANY OTHER INDUSTRY

ACCEPTED 110 TERMINATION TOOL MAY BE USED.



WIRELESS ACCESS POINT "WAP" DEVICE SCHEDULE  (FURNISHED BY THE OWNER AND INSTALLED BY THE CONTRACTOR)							
DEVICE	MANUFACTURER	MODEL NUMBER	DESCRIPTION	REMARKS			
WAP			CEILING MOUNTED WIRELESS ACCESS POINT FURNISHED BY THE OWNER.	WAP DEVICES, CEILING MOUNTING BRACKETS AND PATCH CORDS TO BE FURNISHED BY THE OWNER. CONTRACTOR SHALL INSTALL 'CI' DATA AT EACH WAP LOCATION ABOVE CEILING.			

FIREPROOF ALL SLEEVES/WALL PENETRATIONS WHEN COMPLETE.

MINIMUM CONDUIT SIZE IS I"

No. OF CABLES AT 40% CONDUIT FILL BASED PLENUM ON "EMT" TRADE SIZE OF THE CONDUIT (INCHES)										
CABLE	TYPE	0.D.	Ι"	1 1/4"	1 1/2"	2"	2 1/2"	3"	3 1/2"	4"
CATEGORY 6 GigaSPEED XL	4pr UTP	0.226	6	9	14	24	38	55	75	98
CATEGORY 6 GIGASPEED XIOD SHIELDED	4pr UTP	0.276	4	7	10	18	28	41	56	73

#### DATA CABLE & DATA JACK NOTES:

- REFER TO "CABLE SCHEDULE" FOR DATA CABLE INFORMATION
- 2. ALL DATA CABLES TO BE RUN BACK TO LOCAL AREA RACK (REFER TO RISER DIAGRAM). MAINTAIN A MINIMUM CLEARANCE OF 5" AWAY FROM LIGHT FIXTURES (REFER TO RISER DIAGRAM).
- DATA JACKS TO BE COMMSCOPE/SYSTIMAX #MGS400 SERIES CAT-6, RJ45 MODULAR JACK WITH 110 TERMINATION. COLOR TO BE WHITE. SEE SCHEDULE FOR ADDITIONAL COLORS FOR HDBASET AND WEBCAM OVER IP CONNECTIONS. FINAL COLOR SELECTIONS SHALL BE COORDINATED WITH THE OWNER AND THEIR REQUIREMENTS. INSTALL DATA JACKS IN ALL COVER PLATES AND MODULAR PATCH PANELS AS INDICATED ON DRAWINGS AND DETAILS.
- REFER TO FACE PLATE DETAILS FOR FACE PLATE INFORMATION. PROVIDE EQUAL AMOUNTS OF BLUE ICONS TO SATISFY AMOUNT OF JACKS.
- EXISTING "MDF"/"IDF" RACK: FURNISH AND INSTALL ENOUGH PATCH PANELS TO COVER ALL CABLING AND HAVE A MINIMUM OF (15) SPARE PORTS. PATCH PANELS SHALL BE CAT-6, IIO, 48 PORT PATCH PANEL COMMSCOPE/SYSTIMAX #360-IPR-IIO-E-GS3-2U-48 WITH EQUAL AMOUNTS OF IBLU50 BLUE ICONS, IYEL50 YELLOW ICONS AS AMOUNT OF PORTS AVAILABLE, FURNISH AND INSTALL CABLE MANAGEMENT PANELS ABOVE AND BELOW EACH PATCH PANEL, TERMINATE ALL DATA CABLES ON PATCH PANELS. PROVIDE LABELING KITS TO OWNER UPON COMPLETION OF WORK. PROVIDE CLEAR DUST COVER ON ALL JACKS. UTILIZE 9" VELCRO STRAPS AS REQUIRED FOR PATCH PANEL CABLE MANAGEMENT.
- ALL PATCH CORDS ARE TO BE PROVIDED BY THE OWNER UNLESS OTHERWISE SPECIFIED.

14. PROVIDE ALL NECESSARY WIRING, HARDWARE, ETC., FOR A COMPLETE SYSTEMS INSTALLATION.

- 7. RUN ALL CABLE ABOVE CEILING THROUGH CADDY CABLECAT "ORIGINAL" J-HOOKS (NO MORE THAN 4'-0" SPACING) SUITABLE FOR CAT-6 CABLING AND CABLE TIES (DO NOT OVER FASTEN). KEEP CABLE SAG WITHIN 4"-12" AND MOUNT AS HIGH AS POSSIBLE AUDIBLE OTHER SYSTEMS/TRADES. UTILIZE EXISTING CABLE TRAY WHEN AVAILABLE. DO NOT INSTALL CABLING ABOVE TOP CHORD OF BAR JOISTS OR WITHIN 6" OF ROOF DECK TO PREVENT ROOFING NAIL DAMAGE. DO NOT USE WEBS OF BAR JOISTS FOR SUPPORTING CABLING. DO NOT SUPPORT CABLING FROM CEILING SUPPORT WIRES. DO NOT SUPPORT CABLING FROM OTHER SYSTEMS.
- 8. PROVIDE SPARE RJ45 JACKS TO OWNER UPON COMPLETION OF JOB. REFER TO SPECIFICATIONS FOR QUANTITY.
- 9. ALL SYSTEMS SHALL MEET OR EXCEED COMMSCOPE/SYSTIMAX REQUIREMENTS, STATE OR LOCAL CODES AND ORDINANCES AND U.L. STANDARDS. THE ENTIRE COMMSCOPE/SYSTIMAX SYSTEM SHALL BE PROVIDED WITH A 20 YEAR WARRANTY AND SYSTEM PERFORMANCE GUARANTEE PROGRAM. ALL LABOR AND MATERIALS SHALL BE PROVIDED AT NO EXPENSES TO THE OWNER. GUARANTEE PERIOD SHALL BEGIN ON THE DAY OF ACCEPTANCE BY THE OWNER/ENGINEER.
- IO. INSTALLER SHALL BE A COMMSCOPE/SYSTIMAX CERTIFIED COMPETENT INSTALLER IN THE FIELD OF COMPUTER DATA WIRING INSTALLATION.

II. INSTALLER SHALL HAVE A MINIMUM OF THREE YEARS OF EXPERIENCE INSTALLING I GIG AND IO GIG UTP CABLING FOR COMPUTER DATA SYSTEMS.

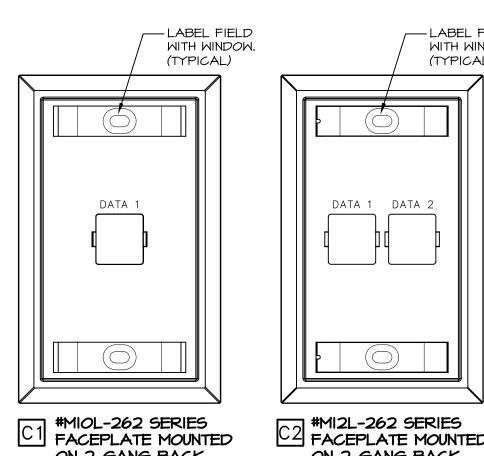
- 12. THE DATA CABLING CONTRACTOR SHALL PROVIDE SHOP DRAWINGS SHOWING THE DESIRED CABLING ROUTES (THROUGH THE BUILDING) TO EACH AREA'S RESPECTIVE MDF/IDF RACK TO MEET DISTANCE LIMITATION OF 90 METERS. ROUTINGS SHALL FOLLOW PRIMARY PATHWAYS (I.E. CORRIDORS), SHORTEST DISTANCE POSSIBLE AND BE CONCEALED ABOVE LAY-IN CEILINGS. ALTERNATE PATHWAYS (SPECIAL CONDITIONS) SHALL BE COORDINATED IN THE SHOP DRAWING STAGE WITH THE ENGINEER, PLEASE NOTE THAT ZONING OF BUILDING IS SHOWN ON THE DRAWINGS IDENTIFYING MDF/IDF RACK LOCATION SERVING
- 13. PROVIDE THREE SETS OF AS-BUILT DRAWINGS INCLUDING COVER SHEET, NOTES AND DETAILS SHEETS INDICATING RECORD CONDITIONING OF EQUIPMENT LOCATION AND CABLING. DRAWINGS TO INCLUDE EACH JACK LOCATION AND ITS TERMINATION RACK/PATCH PANEL/PORT INFORMATION.
- 15. PROVIDE ALL NECESSARY WIRING, AS NOTED ON DRAWINGS. ALL EXPOSED WIRING SHALL BE RUN IN RACEWAY, NO WIRING SHALL BE RUN EXPOSED ON CEILINGS, FLOORS, OR WALLS UNLESS APPROVED BY OWNER/ENGINEER OR INDICATED OTHERWISE ON DRAWINGS.
- 16. ALL JACKS, PATCH PANELS, WIRES (BOTH ENDS) AND OTHER ACCESSORIES SHALL BE CLEARLY & PERMANENTLY IDENTIFIED AND LABELED. PROVIDE A WIRING LOG BOOK SHOWING ALL TERMINATION AND WIRING CORRESPONDING TO EACH ROOM. COORDINATE WITH OWNER.
- 17. CONDUCT LINK TESTS & INSPECTIONS AFTER INSTALLATION HAS BEEN COMPLETED TO ASSURE THE OWNER'S REQUIREMENTS FOR INSTALLATION HAVE BEEN MET (FOLLOW TIA/EIA 568.C STANDARDS). UPON REQUEST, PRIOR TO OWNER'S ACCEPTANCE, ALLOW ACCESS BY THE OWNER TO TEST THE EQUIPMENT AND WIRING SYSTEM. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LINK TESTING EACH RUN "END-TO-END" AND CERTIFYING, IN WRITING, THAT THE CABLING MEETS IOGIG CATEGORY 6 UTP SPECIFICATIONS AND IS IN PROPER WORKING CONDITION. EACH UTP CABLE SHALL BE FULLY TESTED. A LANTEK II-500 OR FLUKE DTX-1800 SERIES TESTER, OR EQUIVALENT, SHALL BE USED TO TEST/CERTIFY EACH UTP CABLE (USE A LEVEL 4 TESTER). THE OUTPUT FROM EACH UTP CABLE TEST/CERTIFICATION SHALL BE PRINTED AND PROVIDED TO OWNER.
- a. REQUIRED TEST DATA FOR EACH UTP CABLE SHALL INCLUDE THE FOLLOWING: INSERTION LOSS (IL); NEAR END CROSSTALK (NEXT); POWER SUM NEAR END CROSSTALK (PS NEXT); ATTENUATION TO CROSSTALK RATIO - NEAR END (ACR-N); POWER SUM ATTENUATION TO CROSSTALK RATIO - NEAR END (PSACR-N); FAR END CROSSTALK (FEXT); ATTENUATION TO CROSSTALK RATIO - FAR END (ACR-F); POWER SUM ATTENUATION TO CROSSTALK RATIO - FAR END (PSACR-F); RETURN LOSS (RL); WIRE MAP; PROPAGATION DELAY; DELAY SKEW; LENGTH. PROVIDE A PRINT OUT AND DISKETTE TO ENGINEER AND HUBBELL SALES REPRESENTATIVE. TEST DATA MUST BE PROVIDED FOR BOTH HORIZONTAL AND BACKBONE LINKS. REFER TO PROJECT MANUAL SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.
- ALL UTP CABLES FROM ROOM LOCATIONS TO COMMUNICATIONS RACK PATCH PANELS MUST BE WITHIN THE CAT-6 DISTANCE OF 295 FEET. THE CONTRACTOR SHALL NOTIFY OWNER OF ANY LOCATIONS THAT EXCEED THE DISTANCE LIMITATION.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING COMPLETE DETAILED DOCUMENTATION OF "AS INSTALLED" FOR THE DATA NETWORK WIRING SYSTEM. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLETING DOCUMENTATION CHECKLISTS PROVIDED BY THE OWNER, PROVIDE FINAL AS-BUILT DRAWINGS TO THE OWNER IN HARD COPY AND ELECTRONIC AUTOCAD AND PDF FORMATS. ALL DATA/VOICE JACK LOCATIONS SHALL HAVE THEIR RACK AND PORT INFORMATION SHOWN ON AS-BUILTS. ALL WAPS ON AS-BUILTS. ALL WAPS AND TIME CLOCKS SHALL HAVE THEIR RACK/PORT INFORMATION SHOWN AS WELL AS SERIAL NUMBER SHOWN FOR TRACKING PURPOSES. INCLUDE WAP SERIAL NUMBER, MAC ADDRESS, RACK, PATCH PANEL AND PORT INFORMATION.
- 18. ALL LABOR AND MATERIALS SHALL BE PROVIDED TO THE OWNER, GUARANTEE PERIOD SHALL BEGIN ON THE DAY OF ACCEPTANCE BY THE OWNER/ENGINEER. 19. CONTRACTOR SHALL CORE WALLS AS REQUIRED FOR INSTALLATION OF DATA CABLING. VERIFY ALL LOCATIONS OF CORES WITH OWNER/ENGINEER IN FIELD ALL CORES SHALL BE SLEEVED WITH CONDUIT & FIRE PROOFED AS REQUIRED. FIELD VERIFY ALL EQUIPMENT & PIPING LOCATIONS BEFORE MAKING CORES. UNDER NO CIRCUMSTANCES WILL ANY STRUCTURAL MEMBER BE CUT IN THIS PROCESS. CONTRACTOR SHALL SIZE SLEEVES PER NEC 40% FILL REQUIREMENTS. ALL SLEEVES SHALL HAVE 50% SPARE CAPACITY FOR FUTURE CABLES, SIZE AS REQUIRED. FURNISH AND INSTALL FITTINGS AND END BUSHINGS AT ENDS OF SLEEVES IN ORDER TO PROTECT CABLING. WHERE WALLS DO NOT EXTEND ALL THE WAY UP TO THE DECK, THE CONTRACTOR WILL CONTINUE TO INSTALL CABLING CONDUIT SLEEVES AT THOSE
- 20. ALL CEILINGS SHALL BE REMOVED, REINSTALLED AND/OR REPLACED BY CONTRACTOR FOR INSTALLATION OF NEW CABLING, REPLACE ALL DAMAGED TILES WITH TYPE/STYLE TO MATCH EXISTING. ALL CEILINGS MUST BE PROFESSIONALLY RESTORED.
- 21. <u>INSTALLATION PRACTICES:</u>
  STRIP BACK ONLY AS MUCH CABLE JACKET AS IS REQUIRED FOR TERMINATION AND MAINTAIN PAIR TWISTS AS CLOSE AS POSSIBLE TO THE POINT OF STRIP BACK ONLY AS MUCH CABLE JACKET AS IS REQUIRED FOR TERMINATION AND MAINTAIN PAIR TWISTS AS CLOSE AS POSSIBLE TO THE POINT OF AXIO TO THE POINT OF THE PO MECHANICAL TERMINATION. AT A MINIMUM, NEVER ALLOW UNTWISTING OF PAIRS TO EXCEED 0.5" MAXIMUM. MAINTAIN A MAXIMUM BEND RADIUS OF 4X THE CABLE DIAMETER (4-PAIR CABLES). 6X IF IN CONDUIT. APPLY CABLE TIES LOOSELY AND AT RANDOM INTERVALS. TRY TO MINIMIZE THE AMOUNT OF JACKET TWISTING. AVOID STRETCHING THE CABLE. USE APPROPRIATE METHODS FOR DRESSING AND SECURING CABLES (I.E. CABLE TIES, WIRE MANAGEMENT PANELS, CABLE SUPPORT BAR, RESEALABLE VELCRO STRAPS).

NEVER EXCEED A 90 DEGREE BEND. MINIMUM BEND RADIUS OF 4X CABLE O.D. REQUIRED. DO NOT OVER TIGHTEN CABLE TIES. DO NOT OVER TWIST CABLE (IT CAN LEAD TO TORN JACKETS). DO NOT EXCEED 25 lbs. OF PULLING TENSION. DO NOT USE STAPLE GUNS TO POSITION OR FASTEN CABLES.

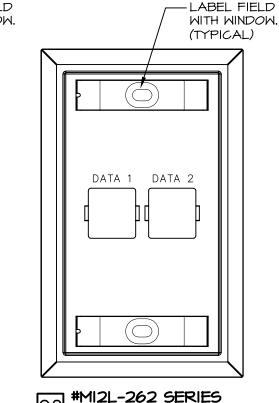
- 22. WHEN STORING SLACK IN CABLES AS A SERVICE LOOP, STORE IN A FIGURE EIGHT PATTERN TO REDUCE EMI COUPLING.
- 23. COORDINATE ALL FINAL "WAP" LOCATIONS IN THE FIELD WITH OWNER AND ENGINEER PRIOR TO ROUGH-IN. ALL WAP LOCATIONS SHALL BE NOTED ON AS-BUILTS. INCLUDE WAP SERIAL NUMBER, MAC ADDRESS, RACK, PATCH PANEL AND PORT INFORMATION.
- 24. INSPECTION OF EXISTING SYSTEM: THE CONTRACTOR WILL BE RESPONSIBLE FOR INSPECTING THE EXISTING NETWORK SYSTEMS THAT WILL BE WORKED ON (DURING THE COURSE OF THE CONSTRUCTION PROJECT) BEFORE TOUCHING, THIS INSPECTION WILL NEED TO DOCUMENT ANY ISSUES WITH THE EXISTING SYSTEM THAT ARE AFFECTING THEIR PROPER OPERATION. IF THIS REPORT IS NOT PROVIDED, THE CONTRACTOR IS ATTESTING THAT ALL SYSTEMS WERE FUNCTIONAL AND PROPERLY OPERATING BEFORE THE START OF THE CONSTRUCTION AND WILL BE RESPONSIBLE FOR ALL REPAIRS. THE ONUS IS ON THE CONTRACTOR TO IDENTIFY PROBLEMS WITH ANY ANY OF THE SYSTEMS TO THE OWNER PRIOR TO CONSTRUCTION.

110 CONNECTORS-1. PANEL ASSEMBLIES ARE INDIVIDUALLY BOXED WITH MOUNTING SCREWS, CABLE TIES, MANAGEMENT BARS, AND INSTRUCTION SHEETS STUFFER CAPS CAN BE ORDERED SEPARATELY. 2. PANELS ARE GRAY ANODIZED ALUMINUM, FITS INDUSTRY STANDARD 19" RACKS. EXTENSIONS TO FIT LARGER RACK SIZES

## COMMSCOPE GigaSPEED XL SERIES CAT. 6 PATCH PANEL



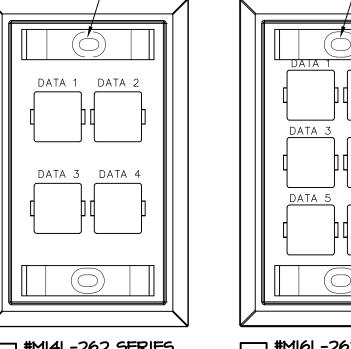
ON 2-GANG BACK BOX WITH MUD RING AND (I) I" CONDUIT



24 PORT - 360-IPR-1100-E-GS3-1U-24

48 PORT - 360-IPR-1100-E-GS3-2U-48

I FACEPLATE MOUNTED ON 2-GANG BACK BOX WITH MUD RING AND (I) I" CONDUIT



- LABEL FIELD

WITH WINDOW.

(TYPICAL)

LOCATIONS FOR FUTURE WALL EXTENSIONS.

#MI4L-262 SERIES 1 FACEPLATE MOUNTED ON 2-GANG BACK BOX WITH MUD RING AND (I) I" CONDUIT

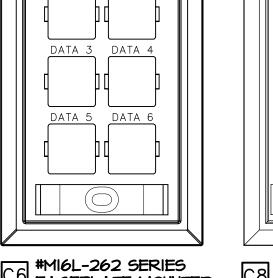
1. USE DEEP BOXES TO FIT NEW COMPONENTS.

2. UTILIZE APPROPRIATE SIZE RACEWAY TO FIT

3. FOLLOW ALL COMMSCOPE/SYSTIMAX CABLING

CABLING REQUIREMENTS.

INSTALLATION REQUIREMENTS.



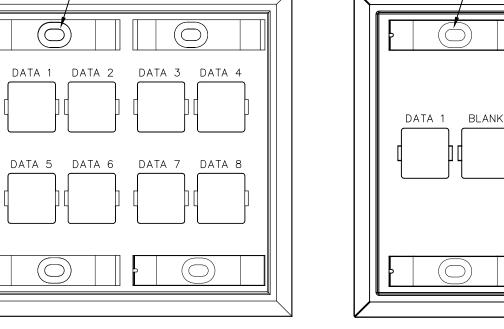
- LABEL FIELD

WITH WINDOW.

(TYPICAL)

FACEPLATE MOUNTED ON 2-GANG BACK BOX WITH MUD RING AND (I) I" CONDUIT

COMMSCOPE "L" TYPE SERIES FACEPLATES



- LABEL FIELD

(TYPICAL)

WITH LABEL FIELD

WITH WINDOW.

#M28L-262 SERIES FACEPLATE ∽ MOUNTED ON 2-GANG BACK BOX AND (I) I-I/4" CONDUIT STUB. MULTIPLE INSTALLED SIDE BY AND (I) I" CONDUIT SIDE FOR TESTING ROOM. FURNISH AND INSTALL BLANK TABS FOR UNUSED SPACES.

ISSUED FOR BID WAP FACEPLATE MOUNTED **Job Number** ON 2-GANG BACK BOX WITH MUD RING

- LABEL FIELD

(TYPICAL)

WITH WINDOW.

**TECHNOLOGY NOTES AND DETAILS** 

**SHEET NUMBER** 

021074.000

TITLE

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**CONSULTANTS** 

11 S. VIRGINIA STREET

**PROJECT** 

**KEY PLAN** 

**ISSUE CHART** 

**ADJACENCIES** 

RENOVATIONS

DES PLAINES CAMPUS

1600 EAST GOLF ROAD

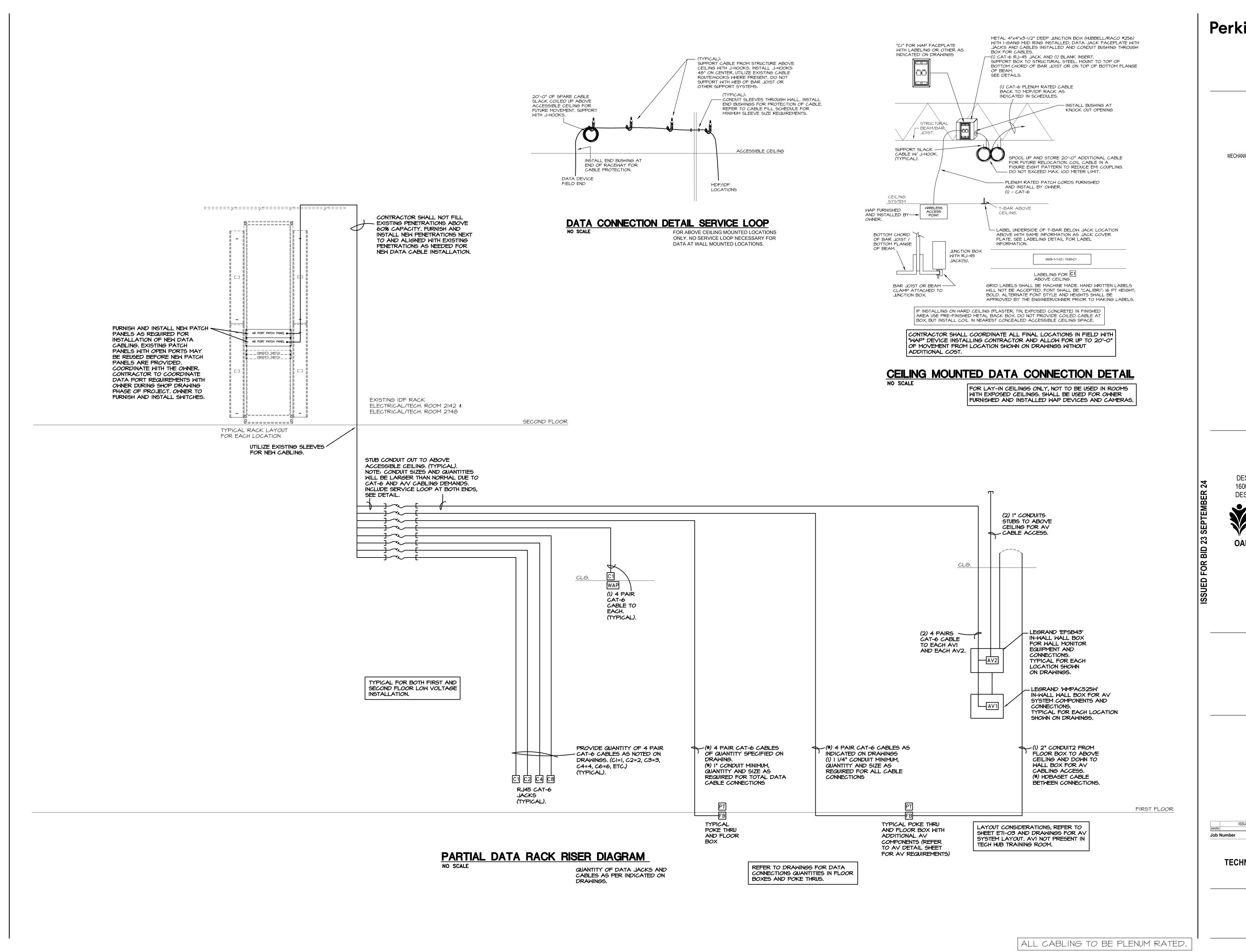
DES PLAINES, IL, 60016

CRYSTAL LAKE, IL 60014

MECHANICAL SERVICES ASSOC. CORP.

E71-01

ALL CABLING TO BE PLENUM RATED



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Oakton College
OAKTON COLLEGE

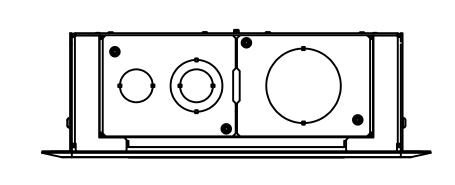
KEY PLAN

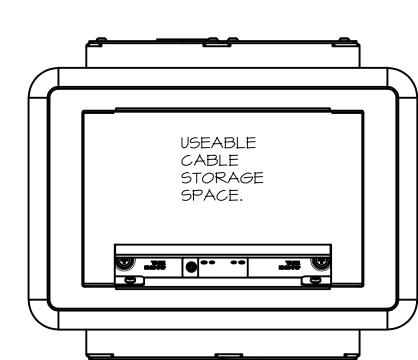
ISSUE CHART

TECHNOLOGY NOTES
AND DETAILS

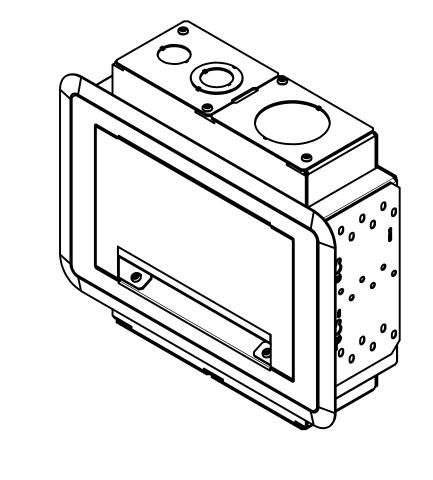
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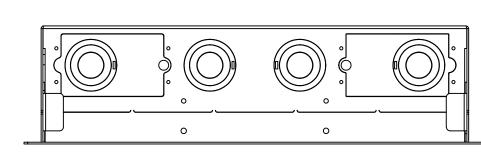
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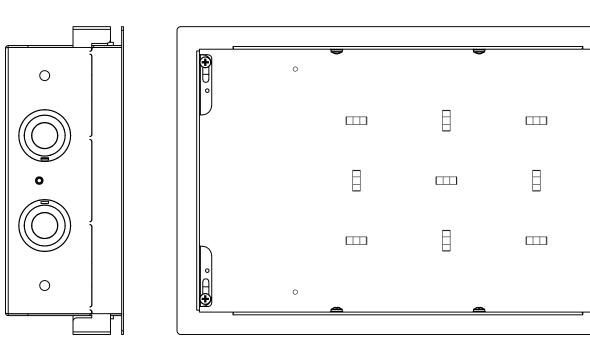


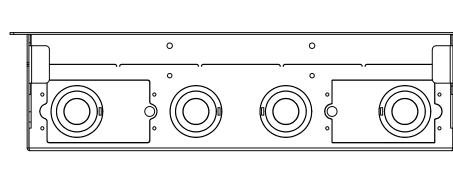




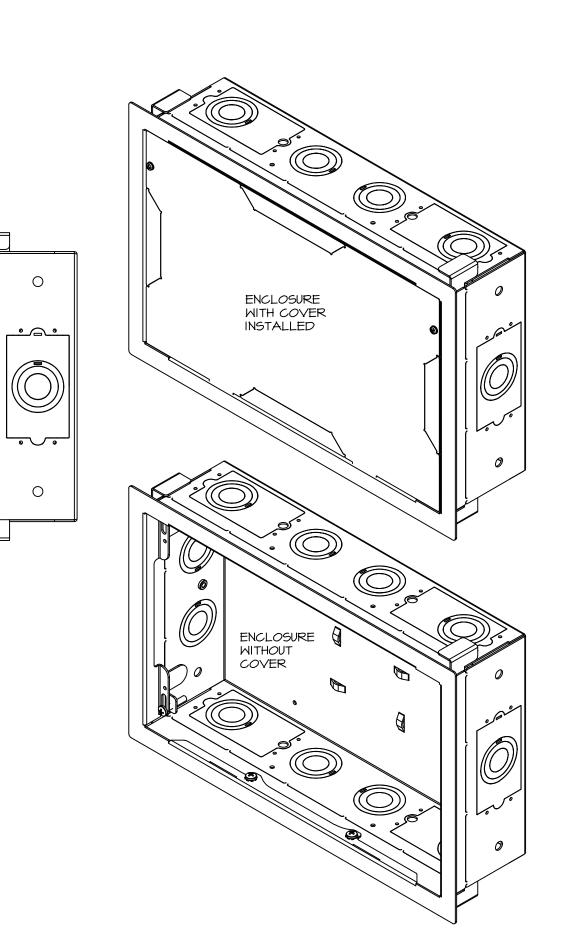


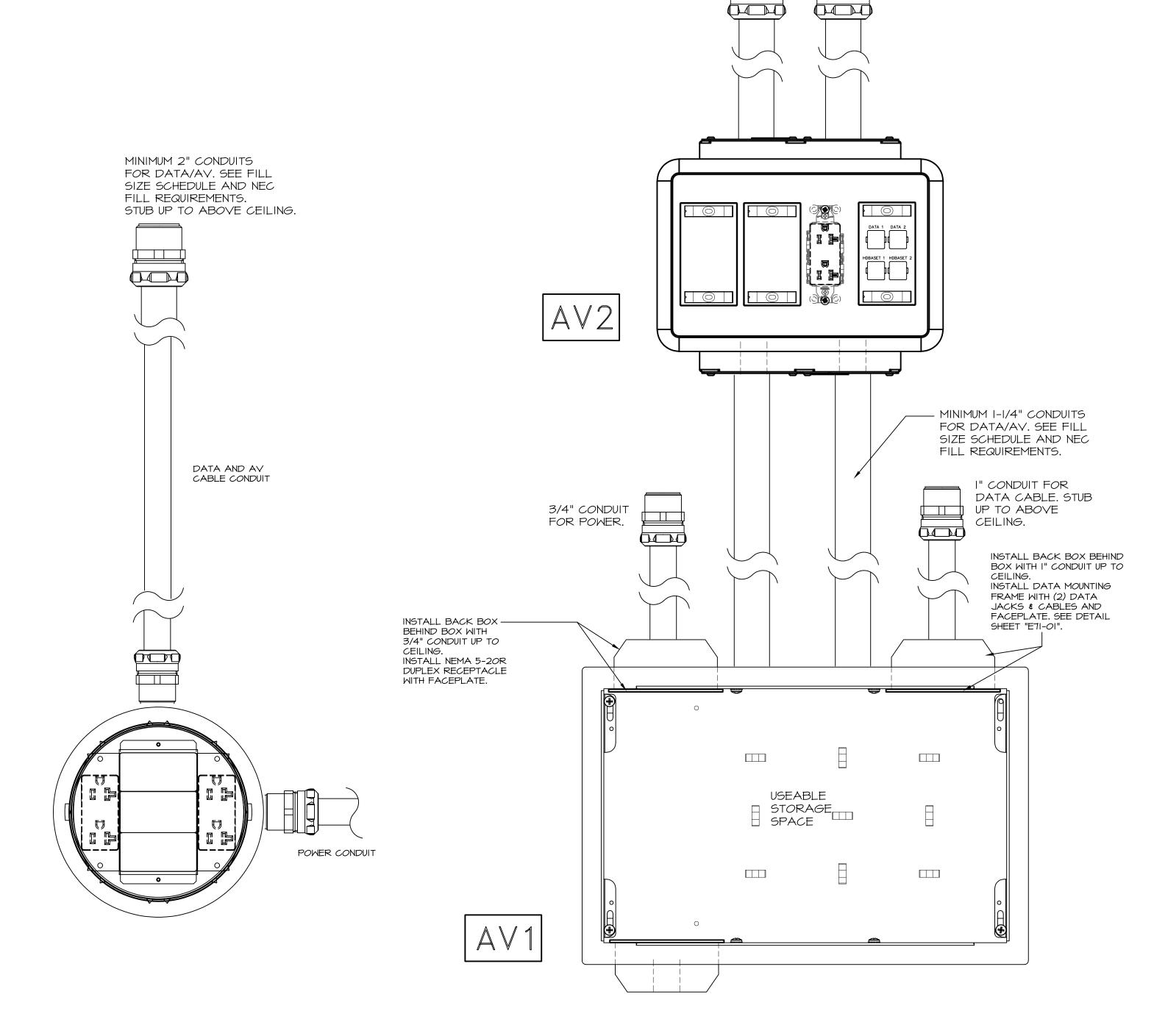






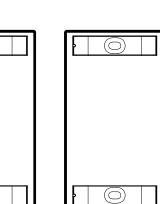
LEGRAND EVOLUTION WMPAC525W IN-WALL STORAGE BOX WITH FLANGE KIT AND COVER KIT. COLOR OF FLANGE AND COVER TO BE WHITE OR AS DIRECTED BY OWNER/ARCHITECT.

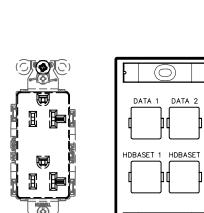




TYPICAL WALL BOX AND POKE THRU LAYOUT: LEGRAND IN-WALL 'AV1' STORAGE BOX AND IN WALL 'AV2' DISPLAY CONNECTION BOXES



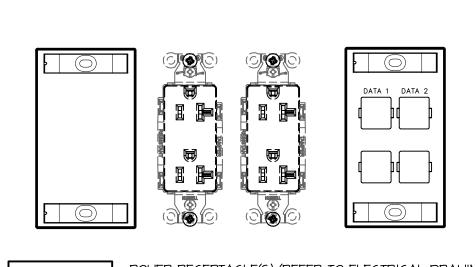






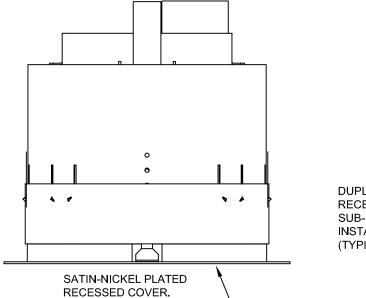
- POWER RECEPTACLE(S) (REFER TO ELECTRICAL DRAWINGS)
- MI2L-262 PLATE WITH HGS620 SERIES CAT-6 DATA JACKS
- BLANK COVER PLATES

AV WALL BOX DEVICES
NO SCALE



- POWER RECEPTACLE(S) (REFER TO ELECTRICAL DRAWINGS)
- MI4L-262 PLATE WITH HGS620 SERIES CAT-6 DATA JACKS
- BLANK COVER PLATE

AV STORAGE WALL BOX
NO SCALE INTERCONNECT BETWEEN WALL BOXES.



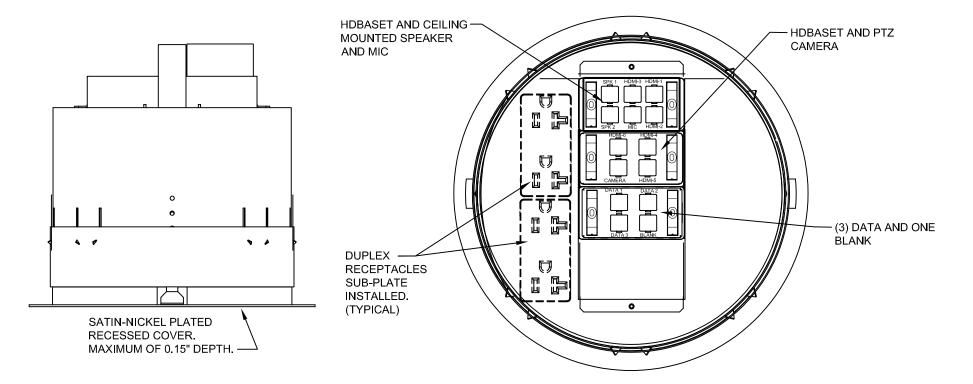
SATIN-NICKEL PLATED
RECESSED COVER.
MAXIMUM OF 0.15" DEPTH.

LEGRAND #8AT SERIES 8 INCH POKE-THRU

NO SCALE

FIRE-RATED POKE-THRU, SEE MEP DRAWINGS
FOR POKE-THRU NOTES AND DETAILS

FIRE-RATED POKE-THRU, SEE MEP DRAWINGS
FOR POKE-THRU NOTES AND DETAILS.
CONTRACTOR SHALL FURNISH AND INSTALL
POKE THRU, CABLING CONNECTIONS AND
JACKS. REFER TO DRAWINGS AND DETAILS.



POKE THRU, CABLING CONNECTIONS AND

JACKS. REFER TO DRAWINGS AND DETAILS.

LEGRAND #10AT SERIES 10 INCH POKE-THRU

NO SCALE

FIRE-RATED POKE-THRU, SEE MEP DRAWINGS
FOR POKE-THRU NOTES AND DETAILS.
CONTRACTOR SHALL FURNISH AND INSTALL

ALL CABLING TO BE PLENUM RATED.

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DES PLAINES CAMPUS 1600 EAST GOLF ROAD DES PLAINES, IL, 60016



KEY PLAN

ISSUE CHART

| ISSUED FOR BID | 23 SEP 24 |
| MARK | ISSUE | DATE |
| Job Number | 021074.000

TECHNOLOGY NOTES
AND DETAILS

SHEET NUMBER

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E71-03

TITLE