DOCUMENT 00 90 00
ADDENDUM

ADDENDUM NO. [3] **Date: March 29, 2018**

RE: **WESTERN TECHNICAL COLLEGE**
ARC LIBRARY REMODELING & VETERAN'S CENTER ADDITION
400 SEVENTH STREET NORTH
LA CROSSE, WISCONSIN 54601
HSR PROJECT NO. 17026

FROM: HSR Associates, Inc
100 Milwaukee Street
La Crosse, WI 54603
(608) 784-1830

To: Prospective Bidders

This addendum forms a part of the Contract Documents and modifies the original Bidding Documents dated March 2018. Acknowledge receipt of this Addendum in the space provided on the bid form. Failure to do so may subject the Bidder to disqualification.

This Addendum consists of [2] pages and [5] 30 x 42 drawings.

CHANGES TO DRAWINGS

1. Sheet M100R HVAC REMODEL PLAN 30 x 42 attached hereto
    a. Revisions clouded on Drawing.
2. Sheet M600R HVAC SCHEDULES AND DETAILS 30 x 42 attached hereto
    a. Revisions clouded on Drawing.
3. Sheet E102R PARTIAL SECOND FLOOR LIGHTING PLAN 30 x 42 attached hereto
    a. In classroom #209, provide a Wattstopper, model # LMIO-101 digital input/output interface relay. This relay will be used by the Temperature Control Contractor to control HVAC fan powered FVAV 4-6 Box. Refer to clouded change.
    b. In Reception #210, move low voltage light switch from West wall adjacent to entrance door to North wall adjacent to group of four (4) low-voltage switches. Refer to clouded change.
4. Sheet E202R PARTIAL SECOND FLOOR POWER PLAN & MOTOR AND EQUIPMENT SCHEDULE 30 x 42 attached hereto
    a. In Learning Commons 202 provide a double duplex receptacle on East wall. Refer to clouded change.
    b. In Study 5 delete note #23 pointing at existing poke thru floor outlet. This is an existing poke thru junction box with receptacles. Feed receptacles with two branch-circuits for copy machines to be installed in this area.
    c. In Classroom 209 Make final connection to 1/3HP, 120VAC, HVAC Fan Powered FVAV Box 4-6. Refer to clouded change.
    d. Refer to keyed note #2: Add the following to the note: "Coordinate clock backbox installation with acoustic wall placement".
    e. Refer to Keyed Note #18: Change wiremold size from 6000 to 4000.

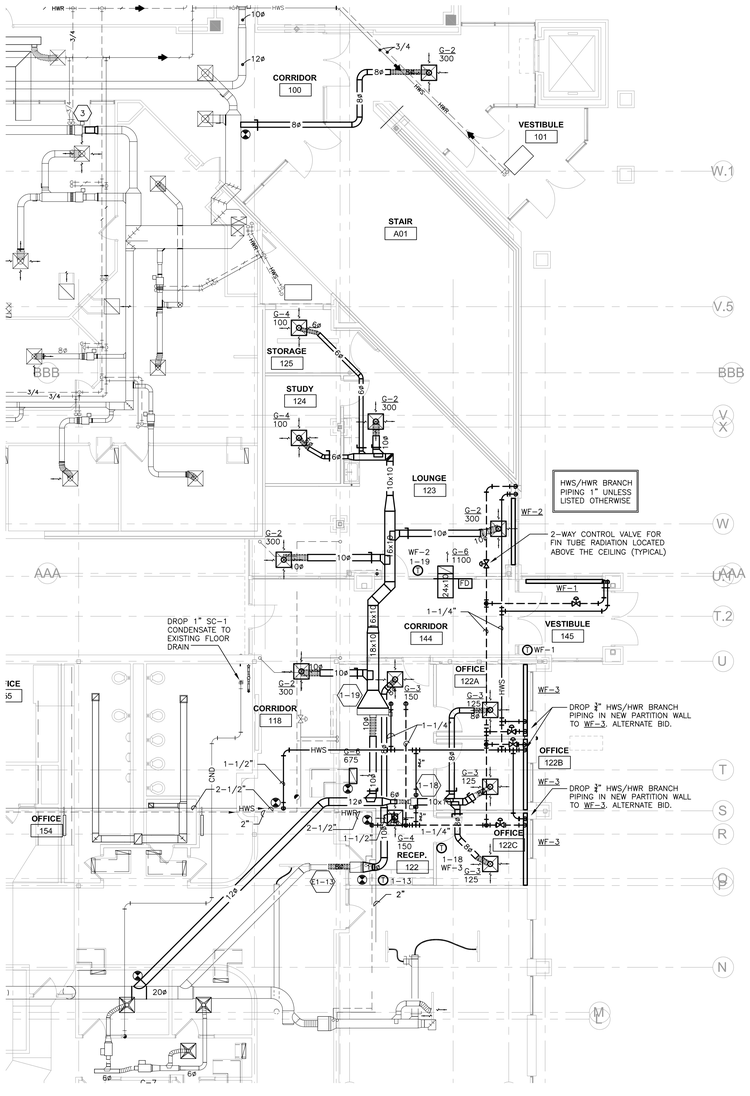
f. Keyed note #23:
    i. The ‘Thread’ underfloor raceway system shall be provided and installed by ‘Steelcase Inc.’ furniture provider. The Electrical Contractor is responsible to make 120VAC line voltage connection only. Coordinate with Steelcase Inc.
    ii. Manufacturer’s: Connectrac (https:connectrac.com/products/under-carpet-wireway/). Or comparable.
g. For the Electric Water Cooler located on the North-East end of the Library, install GFCI receptacle outside of drinking fountain housing. Do not conceal inside housing.
h. Panel Board Schedule:
    i. Circuit number #27 shall be connected to FV V 3-11. Refer to clouded change.
    ii. Circuit number #LB-26 and #LB-28 shall be connected to wiremold #4000. Refer to clouded change.
i. Equipment/Motor Schedule: Fan powered FV V 3-11 added to the schedule, refer to clouded change.

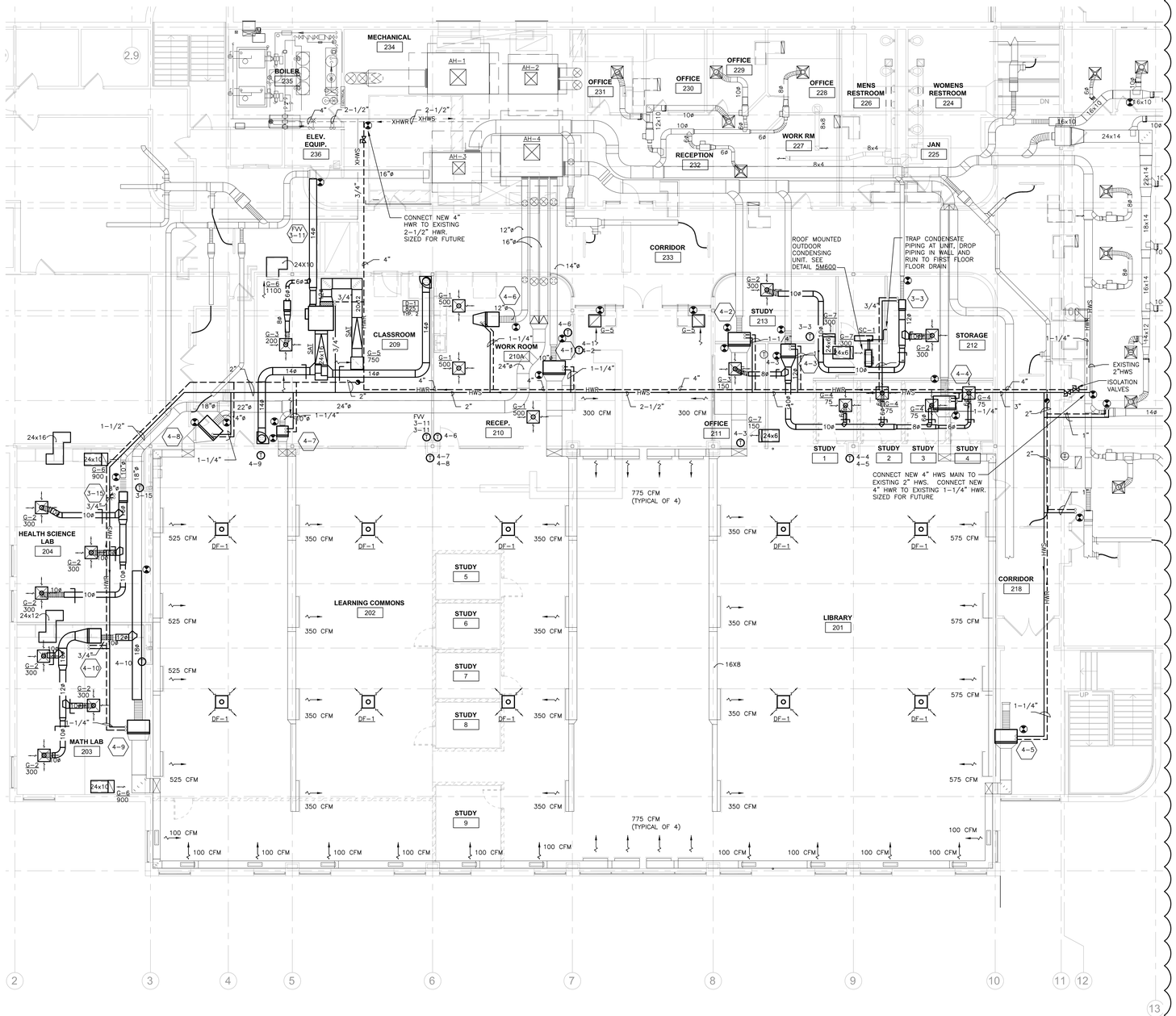
5. Sheet E302R1 SECOND FLOOR REMODEL – LOW VOLTAGE PLAN 30 x 42 attached hereto
    a. One (1) 1-port data jack is added on the West Wall in Study #9 in the Library #201. Refer to clouded change.
    b. Keyed note #6 shall change from 2-port data jack to 1-port data jack. Refer to clouded change.

END OF DOCUMENT 00 90 00

HVAC PIPE SIZING CHART

REQUIRED PIPE SIZE	COPPER PIPE GPM	IRON PIPE GPM
1/2"	0 – 1.1	
3/4"	1.2 – 3.0	
1"	3.1 – 6.6	
1-1/4"	6.7 – 11.3	6.8 – 14.0
1-1/2"	11.4 – 18.0	14.1 – 21.0
2"	18.1 – 38.0	21.1 – 41.0
2-1/2"	38.1 – 69.0	41.1 – 66.0
3"	69.1 – 109.0	66.1 – 119.0
4"		119.1 – 242.0
5"		242.1 – 440.0
6"		440.1 – 710.0





1 FIRST FLOOR HVAC REMODEL PLAN
1/8" = 1'-0"

2 SECOND FLOOR HVAC REMODEL PLAN
1/8" = 1'-0"

ARCHITECTURE
ENGINEERING
INTERIOR DESIGN

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Project Title: **WESTERN TECHNICAL COLLEGE ARC LIBRARY REMODELING & VETERANS CENTER ADDITION**

Project Location: WESTERN TECHNICAL COLLEGE
400 N. 7TH STREET

Sheet Title: **HVAC REMODEL PLANS**

HSR Project Number: **LA CROSSE, WI**

Project Date: **3/13/2018**

Drawn By: **kkl**

Key Plan:

Revisions:

No.	Description	Date
A3	ADDENDUM #3	03/29/2018

Graphic Scale: **VARIES**

Last Update: **3/28/2018**

M100R

DESTRATIFICATION FANS

UNIT TAG	SERVES ROOM	LOCATION	MODEL NO.	SOUNND (DB)	C.F.M.	MOTOR	AMPS (VOLTAGE)	REMARKS REF. NO.
DF-1	LIBRARY 201 LEARNING 202	201,202	AIR PEAR S-25-EC	51	620	ECM	0.4 (120/1)	1, 2, 3

REMARKS:
1. BASED ON PRODUCT BY AIRUS.
2. PROVIDE HEAT SENSOR AND INTEGRATE WITH BAS.
3. PROVIDE 2'X2' LAY-IN MOUNTING.

AIR DISTRIBUTION DEVICES

UNIT REF.	FIXTURE TYPE	SIZE	LOCATION	DAMPER	INLET SIZE	MODEL NUMBER	MOUNTING	REMARKS REF. NO.
G-1	SUPPLY	24 X 24	CEILING	RADIAL	12"ø	SERIES PLQ 4-WAY	LAY-IN	1,2,3
G-2	SUPPLY	24 X 24	CEILING	RADIAL	10"ø	SERIES PLQ 4-WAY	LAY-IN	1,2,3
G-3	SUPPLY	24 X 24	CEILING	RADIAL	8"ø	SERIES PLQ 4-WAY	LAY-IN	1,2,3
G-4	SUPPLY	24 X 24	CEILING	RADIAL	6"ø	SERIES PLQ 4-WAY	LAY-IN	1,2,3
G-5	TRANSFER	24 X 24	CEILING	NO	N/A	EGC-5 1/2" EGG CRATE	LAY-IN	1,4
G-6	TRANSFER	24 X 12	CEILING	NO	N/A	EGC-5 1/2" EGG CRATE	LAY-IN	1,4
G-7	TRANSFER	24 X 6	CEILING	NO	N/A	EGC-5 1/2" EGG CRATE	LAY-IN	1,4
D-1	DISPLACEMENT	24" RADIUS	CEILING	NO	14"ø	TITUS DVVC - 14-24X48	WALL	5,6

REMARKS:
1. BASED ON PRODUCT BY KRUEGER
2. DIFFUSERS SHALL BE STEEL CONSTRUCTION
3. INCLUDE DIRECTIONAL BLOW PATTERN CONTROL TABS FOR DIFFUSERS SHOWN OTHER THAN 4-WAY THROW
4. GRILLES SHALL BE ALUMINUM CONSTRUCTION
5. BASED ON PRODUCT BY HALTON
6. PROVIDE CONTINUOUS PERFORATED COVER THAT MATCHES THE DIFFUSER PATTERN

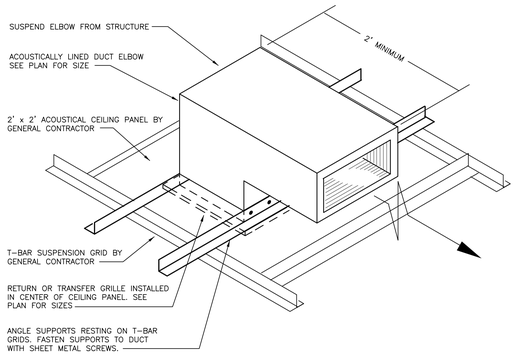
A3

A3

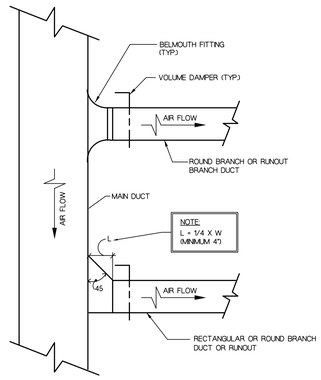
FIN TUBE RADIATION

UNIT NO.	TOTAL MBH INSTALLED	TYPE	PANEL RADIATOR LENGTH	PANEL RADIATOR DEPTH	PANEL RADIATOR HEIGHT	PANEL RADIATOR PIPING CONNECTIONS	TEMP. CONTR.	REMARKS REF. NO.
WF-1	19.0	R3F-10	10'-0"	4.8"	29"	SAME RIGHT	2-WAY	1,2,3,5
WF-2	14.3	R3F-6	10'-0"	4.8"	17.25"	SAME RIGHT	2-WAY	1,2,3,5
WF-3	3.4	R3F-2	5'-0"	4.8"	8.62"	SAME RIGHT	2-WAY	1,2,3,4,5

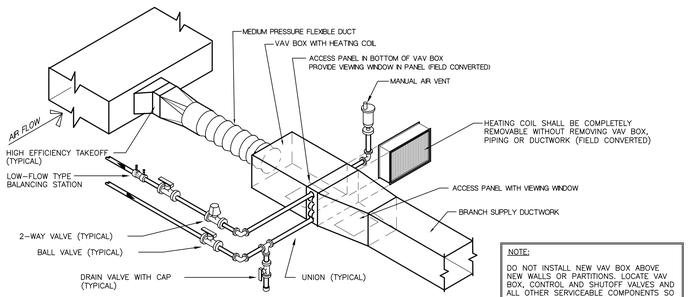
REMARKS:
1. BASED ON PRODUCT BY RUNTAL RADIATORS
2. UNIT SHALL BE PANEL TYPE WITH FLOOR POSTS FOR MOUNTING
3. UNIT SIZE WITH AVERAGE WATER TEMPERATURE 130°F 30% PROPYLENE GLYCOL
4. ALERNATE BID
5. SEE DETAIL 4M600



1 TYPICAL RETURN / TRANSFER GRILLE DETAIL
NTS



2 TYPICAL BRANCH TAKE-OFF
NTS



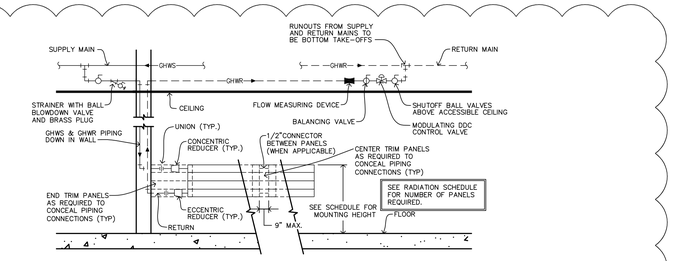
NOTE:
PIPING AND DUCTWORK SHALL BE INSULATED PER STATE CODE REQUIREMENTS.

NOTE:
REFER TO SCHEDULE FOR UNITS WITH 3-WAY CONTROL VALVES.

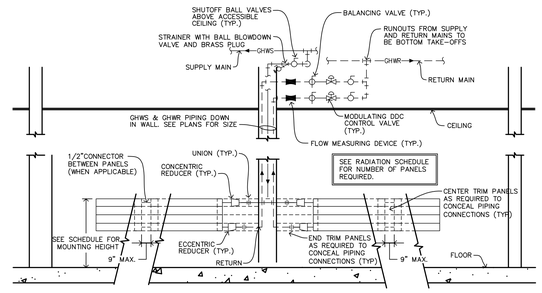
NOTE:
DO NOT INSTALL NEW VAV BOX ABOVE NEW WALLS OR PARTITIONS. LOCATE VAV BOX, CONTROL AND SHUTOFF VALVES AND ALL OTHER SERVICEABLE COMPONENTS SO THEY ARE COMPLETELY ACCESSIBLE. PROVIDE ADEQUATE CLEARANCE TO REMOVE REHEAT COIL WITHOUT DISRUPTING VAV BOX, DUCTWORK OR PIPING.

3 DETAIL @ TYPICAL TAKE-OFF TO VAV BOX
NTS

A3



4 WALL PANEL RADIATION DETAIL
NTS



6 BACK TO BACK WALL PANEL RADIATION DETAIL
N.T.S.

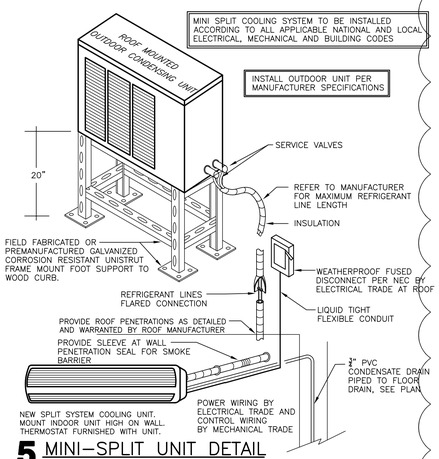
VAV BOXES

	UNIT NO.	SERVES ROOM	MODEL NO.	INLET DUCT SIZE	MAX CFM	MIN COOLING CFM	MIN HEATING CFM	AVAILABLE DESIGN INLET S.P. NOTE 1	MAX UNIT S.P. DROP NOTE 2	DOWNSTREAM UNIT S.P. DROP	NC LEVEL (BOX RADIATED	COIL SIZING AND CAPACITY DATA: MAIN COIL TYPE	HTG FLOW RATE GPM	COIL FLUID P.D. FT H20	ENT. H.W. TEMP.	LVG H.W. TEMP.	ENT. AIR TEMP.	ROOM HTG SETPOINT	TOTAL MBH NOTE 3	REMARK REF NO.
EXISTING	1-13	122 RECEPTION	VCWF	12	300	150	150	1.0	<0.4"	0.25	27	1-ROW	1	3.2	140	120	50.0	75	6.5	
	1-18	122A,122B,122C	SDR	8	375	150	300	1.0	<0.4"	0.25	<20	2-ROW	1.8	<5.0	140	120	50.0	75	13.3	1.2.
	1-19	VET CENTER	SDR	12	1100	400	800	1.0	<0.4"	0.25	<20	3-ROW	5.0	<5.0	140	120	50.0	75	39.1	1.2.
	3-3	212 STORAGE 213 STUDY	SDR	8	600	200	500	1.0	<0.4"	0.25	<20	2-ROW	2.9	<5.0	140	120	50.0	75	19.0	1.2.
	3-11	209 CLASSROOM	SDR	6	200	70	N/A	1.0	<0.4"	0.25	<20	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1.
	3-15	204 HEALTH SCIENCE	SDR	10	900	270	500	1.0	<0.4"	0.25	<20	2-ROW	2.3	<5.0	140	120	50.0	75	19.0	1.2.
	4-1	201/202	SDR	16	3250	975	975	1.0	<0.4"	0.25	<20	4-ROW	12	<5.0	140	120	50.0	75	68.2	1.2.
	4-2	201/202	SDR	16	3250	975	975	1.0	<0.4"	0.25	<20	4-ROW	12	<5.0	140	120	50.0	75	68.2	1.2.
	4-3	STUDY 1,2,3,4	SDR	6	300	200	300	1.0	<0.4"	0.25	<20	3-ROW	1.5	<5.0	140	120	50.0	75	11.4	1.2.
	4-4	201	SDR	14	2300	690	1000	1.0	<0.4"	0.25	<20	4-ROW	9.4	<5.0	140	120	50.0	75	54.1	1.2.
	4-5	201	SDR	14	2050	650	900	1.0	<0.4"	0.25	<20	4-ROW	12.5	<5.0	140	120	50.0	75	52.8	1.2.
	4-6	210A WORKROOM	SDR	12	1500	500	750	1.0	<0.4"	0.25	<20	2-ROW	4.1	<5.0	140	120	50.0	75	17.9	1.2.
	4-7	201	SDR	12	1400	420	600	1.0	<0.4"	0.25	<20	3-ROW	5.4	<5.0	140	120	50.0	75	31.5	1.2.
	4-8	201	SDR	14	2100	630	630	1.0	<0.4"	0.25	<20	2-ROW	5.2	<5.0	140	120	50.0	75	53.1	1.2.
	4-9	202	SDR	16	2925	880	880	1.0	<0.4"	0.25	<20	2-ROW	12	<5.0	140	120	50.0	75	67.0	1.2.
	4-10	203	SDR	10	900	270	500	1.0	<0.4"	0.25	<20	2-ROW	2.3	<5.0	140	120	50.0	75	19.0	1.2.
	FW 3-11	209 CLASSROOM	VFR	12	900	650	750	1.0	<0.4"	0.25	<20	2-ROW	1.4	<5.0	140	120	50.0	75	12.2	1.3.

NOTES:
1. HEATING COIL CAPACITY IS DETERMINED AT MINIMUM BOX CFM AND INCLUDES SPACE HEAT LOSS PLUS REHEAT LOAD.
2. REHEAT COILS SIZE AT 140 F EWT AND 30% PROPYLENE GLYCOL.

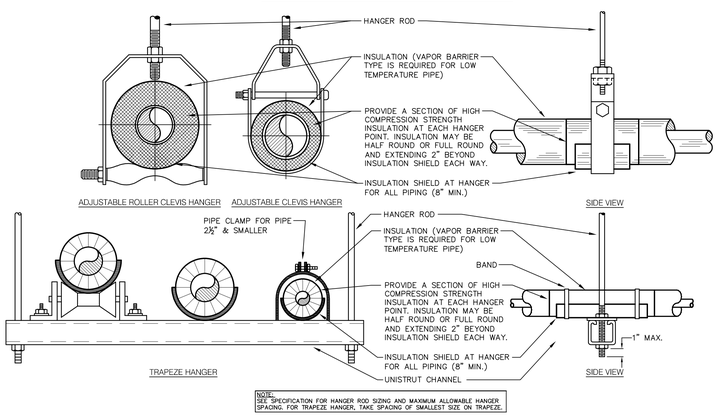
REMARKS:
1. BASED ON PRODUCT BY ENVIRO-TEC SDR
2. UNIT WILL HAVE 2-WAY VALVE. SEE DETAIL 3M600
3. PARALLEL FAN-POWERED VAV TERMINAL UNIT WITH HOT WATER REHEAT SCHEDULE UNIT 5 MAX AIRFLOW 1650 CFM

A3



5 MINI-SPLIT UNIT DETAIL
N.T.S.

NOTE:
THIS INFORMATION MAY NOT CONTAIN ALL DETAILS REQUIRED FOR CONSTRUCTION. APPROPRIATE MODIFICATION MAY BE REQUIRED TO ENSURE SUITABILITY OF THESE DRAWINGS FOR THE SPECIFIC APPLICATION. IT IS THE USER'S RESPONSIBILITY TO ENSURE INSTALLATION OF THE EQUIPMENT/SYSTEM IS IN ACCORDANCE WITH BUILDING/PROJECT SPECIFICATIONS, APPLICABLE CODES AND STANDARDS.



NOTE:
SEE SPECIFICATION FOR HANGER ROD SIZING AND MAXIMUM ALLOWABLE HANGER SPACING. FOR TRAPEZE HANGER, TAKE SPACING OF SMALLEST SIZE ON TRAPEZE.

7 TYPICAL PIPE HANGER DETAIL
N.T.S.

DATA COOLING UNIT

UNIT NO.	MODEL NO. INDOOR/OUTDOOR	TOTAL COOLING BTUH	VOLTAGE	INDOOR UNIT CFM	INDOOR UNIT ECM FAN MOTOR	INDOOR UNIT QUANTITY FANS	INDOOR UNIT MCA	INDOOR UNIT MAX. SOUND	OUTDOOR UNIT (CU-1) AIR VOLUME	QUANTITY FANS	FAN MOTOR	COMP. TYPE	QUANTITY COMP	REFRIG TYPE	ELECTRICAL TOTAL INPUT	ELECTRICAL MCA	ELECTRICAL FUSE SIZE	RFRIG. PIPE SIZE	REMARKS REF. NO.
SC-1	PKAATBHA4/ PUYA18NHA4	18,000	208/60/1	370	0.33FLA	1	1.0 A	43 dBA	1200	1	0.35 FLA	ROTARY	2	R-410A	1190 W	13A	20A	1/4" 1/2"	1,2,3,4,5,6

REMARKS:
1. BASED ON PRODUCT BY MITSUBISHI (15.3 SEER)
2. DISCONNECT SWITCH AT OUTDOOR UNIT BY ELECTRICAL TRADE
3. PROVIDE LOW AMBIENT WIND BAFFLE (WB-PA1)
4. INCLUDE REMOTE THERMOSTAT
5. INCLUDE FACTORY PRE-CHARGED REFRIGERANT LINE SET
6. SEE DETAIL 5M600 FOR INSTALLATION.

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Consultant:

Project Title: **WESTERN TECHNICAL COLLEGE ARC LIBRARY REMODELING &**

Project Location: WESTERN TECHNICAL COLLEGE 400 N. 7TH STREET

Sheet Title: **HVAC SCHEDULES AND DETAILS**

HSR Project Number: **LA CROSSE, WI**

Project Date: **3/13/2018**

Drawn By: **kkl**

Key Plan:

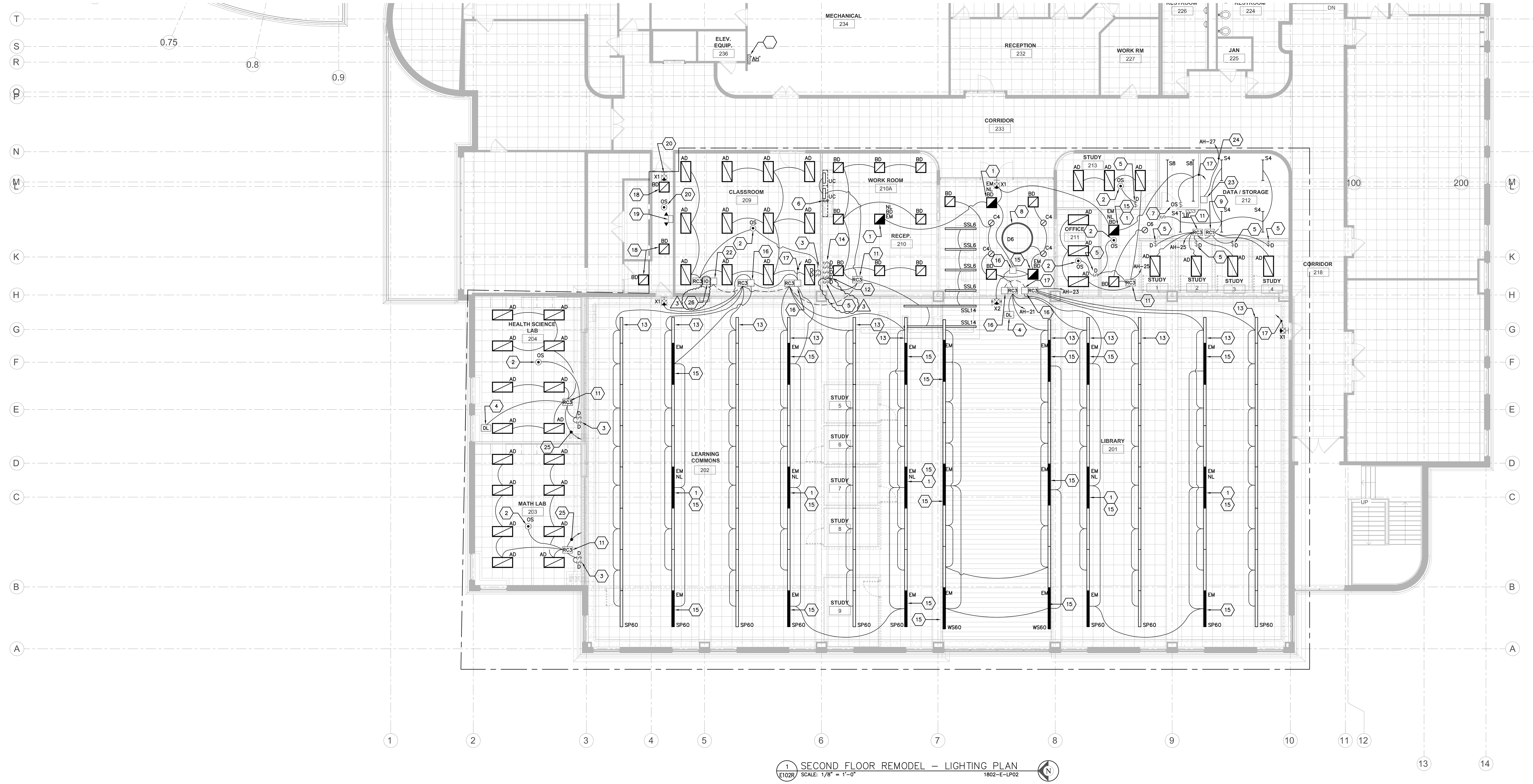
Revisions:

No.	Description	Date
A3	ADDENDUM #3	03/29/2018

Graphic Scale: **VARIES**

Last Update: **3/28/2018**

M600R



SECOND FLOOR REMODEL – LIGHTING PLAN

1 E102R SCALE: 1/8" = 1'-0" 1802-E-LP02

GENERAL NOTES:

a. LIGHTING CONTROL SYSTEM BASED UPON WATTSTOPPER MANUFACTURER. EQUALS Not ALLOWED, THIS IS A CAMPUS WIDE STANDARD. REFER TO DETAILS ON SHEET **E401**.

KEYED LIGHTING PLAN NOTES E102R:

1. THIS FIXTURE CONTROLLED BY CIRCUIT BREAKER ONLY AND SHALL SERVE AS A NIGHT LIGHT. CONNECT TO INVERTER LOCATED IN STORAGE ROOM **#212**.
2. PROVIDE CEILING MOUNTED DUAL TECH OCCUPANCY SENSOR TO INTERFACE WITH ROOM CONTROLLER. ROOM CONTROLLER IS EITHER A LMRC-211, LMRC-212 OR A LMRC-213. REFER TO INSTALLATION DETAILS ON SHEET **E401**. TYPICAL
3. PROVIDE TWO (2) WATTSTOPPER LMDM MULTILOCATION 0-10VDC DIMMING CONTROLLERS TO INTERFACE WITH A LMRC-211, LMRC212 OR LMRC-213. REFER TO INSTALLATION DETAILS ON SHEET **E401.** TYPICAL FOR EACH CLASSROOM.
4. PROVIDE ONE (1) WATTSTOPPER DAYLIGHT PHOTOSENSOR LMLS 500 TO CONTROL LIGHT FIXTURES IN DAYLIGHT AREA BELOW THE DOME. PHOTOSENSOR SHALL INTERFACE WITH LMRC-211, LMRC-212, OR LMRC-213. LOCATE AND INSTALL AS RECOMMENDED BY MANUFACTURER. REFER TO INSTALLATION DETAILS ON SHEET **E401.**
5. PROVIDE WATTSTOPPER LMDM MULTILOCATION 0-10VDC DIMMING CONTROLLER(S) TO INTERFACE WITH A LMRC-211, LMRC212 OR LMRC-213. REFER TO INSTALLATION DETAILS ON SHEET **E401**.
6. PROVIDE ONE (1) WATTSTOPPER LMSW-101-I MULTILOCATION SINGLE BUTTON ON/OFF DIGITAL LOW VOLTAGE ROOM SWITCH TO INTERFACE WITH A LMRC-211, LMRC-212 OR LMRC-213 ROOM CONTROLLER FOR UNDERCABINET LIGHTS. REFER TO INSTALLATION DETAILS ON SHEET **E401**.
7. PROVIDE INFRARED SINGLE RELAY WALL-MOUNTED LINE VOLTAGE OCCUPANCY SENSOR. WATTSTOPPER PW-100.
8. INSTALL A 72" DIA. RING LIGHTING FIXTURE. REFER TO PHOTO **#1/E101** FOR AN EXAMPLE.
9. PROVIDE WATTSTOPPER LMRC-211, ONE RELAY, ON/OFF/0-10 VOLT DIMMING ROOM CONTROLLER SUITABLE FOR CONTROL OF LED. REFER TO INSTALLATION DETAILS ON SHEET **E401.** RC1 SYMBOL IS TYPICAL FOR THIS CONTROLLER.
10. PROVIDE WATTSTOPPER LMRC-212, TWO RELAY, ON/OFF/0-10 VOLT DIMMING ROOM CONTROLLER SUITABLE FOR CONTROL OF LED. REFER TO INSTALLATION DETAILS ON SHEET **E401.** RC2 SYMBOL IS TYPICAL FOR THIS CONTROLLER.
11. PROVIDE WATTSTOPPER LMRC-213, THREE RELAY, ON/OFF/0-10 VOLT DIMMING ROOM CONTROLLER SUITABLE FOR CONTROL OF LED. REFER TO INSTALLATION DETAILS ON SHEET **E401.** RC3 SYMBOL IS TYPICAL FOR THIS CONTROLLER.
12. PROVIDE ONE (1) WATTSTOPPER MULTIBUTTON (6-BUTTONS) DIGITAL LOW VOLTAGE SWITCH TO INTERFACE WITH ROOM LIGHTING CONTROLLERS SERVING THE 'LIBRARY' LIGHTING AREA. REFER TO INSTALLATION DETAILS ON SHEET **E401**. PROVIDE LOW VOLTAGE WIRING AS RECOMMENDED BY WATTSTOPPER MANUFACTURER. THE INTENT IS PROVIDE 'SCENE' DIMMING CONTROL FOR THE 'LIBRARY' AND 'DOME'. COORDINATE THOROUGHLY WITH WTC FACILITY DEPARTMENT FOR PROGRAMMING EACH DIMMMING BUTTON.
13. INSTALL ROW OF LIGHTING FIXTURES AT APPROXIMATELY 15'-6" ABOVE FINISH FLOOR. THE INTENT IS TO INSTALL THE NEW LIGHTING FIXTURES TO MATCH THE SAME MOUNTING HEIGHT AS EXISTING. TAKE CLOSE MEASUREMENTS OF THE MOUNTING HEIGHT OF THE EXISTING FIXTURES PRIOR TO REMOVAL. THE INTENT IS TO INSTALL THE NEW LIGHTING FIXTURES AT THE SAME MOUNT HEIGHT AS THE EXISTING PREVIOUSLY REMOVED. REFER TO PHOTOS **#3/E002**, **#4/E002** & **#5/E002**.
14. PROVIDE THREE (3) WATTSTOPPER LMDM MULTILOCATION 0-10VDC DIMMING CONTROLLERS TO INTERFACE WITH A LMRC-211, LMRC212 OR LMRC-213. REFER TO INSTALLATION DETAILS ON SHEET **E401.** THE FIRST DIMMER WILL CONTROL RECEPTION #210 AND WORKROOM #210A, THE SECOND DIMMER WILL CONTROL THE FIXTURES ABOVE THE RECEPTION DESK AND THE THIRD DIMMER WILL CONTROL THE FIXTURES IN THE MAIN LOBBY.
15. THIS LIGHTING FIXTURE SHALL SERVE AS AN EMERGENCY EGRESS FIXTURE, CONNECT TO INVERTER SYSTEM LOCATED IN STORAGE ROOM **#212**.
16. PROVIDE A WATTSTOPPER ELCU-200 EMERGENCY LIGHTING CONTROL UNIT (LIGHTING TRANSFER SWITCH), CONNECT TO INVERTER SYSTEM LOCATED IN STORAGE ROOM **#212**.
17. PROVIDE A HOME-RUN TO INVERTER SYSTEM LOCATED IN STORAGE ROOM **#212** AND CONNECT TO A CIRCUIT BREAKER.
18. INSTALL NEW TYPE 'BD' LIGHTING FIXTURE IN SAME LOCATION AS PREVIOUSLY REMOVED LIGHTING FIXTURE, THIS IS A ONE FOR ONE REPLACEMENT, REUSE EXISTING WIRING, FIXTURE WHIP, JUNCITON BOX, CONDUIT, ETC. TO THE EXTENT POSSIBLE.
19. EXISTING EMERGENCY LIGHTING UNIT TO REMAIN AS IS.
20. EXISTING EXIT LIGHT FIXTURE TO REMAIN AS IS.
21. EXISTING CEILING MOUNTED OCCUPANCY SENSOR TO REMAIN AS IS.
22. REUSE EXISTING 277VAC LIGHTING BRANCH-CIRCUITS TO THE EXTENT POSSIBLE TO FEED NEW ROOM LIGHTING CONTROLLERS IN THIS AREA OF THE LIBRARY. FIELD VERIFY QUANTITY AND AMPERAGE AND CONSULT WITH OWNER AND ELECTRICAL DESIGNER. THE EXISTING BRANCH CIRCUITS ARE LOCATED IN A WALL MOUNTED JUNCTION BOXES PREVIOUSLY REMOVED, EXTEND BRANCH-CIRCUIT WIRING TO NEW ROOM CONTROLLERS AS REQUIRED. REFER TO PHOTO **#7/E002**.
23. PROVIDE A 5,000VA EMERGENCY EGRESS INVERTER SYSTEM, MANUFACTURER: MYERS, MODEL #: 6-IE-5-G-R90-B-D-20-05-2YE. PROVIDE THE FOLLOWING FEATURES: 277 VAC INPUT AND OUTPUT, 5,000 VA/WATTS, 20 YEAR BATTERY, RUN TIME OF 90 MINUTES, FIVE (5) 20 AMP NORMALLY ON CIRCUIT BREAKERS, TWO YEAR WARRANTY.
24. PROVIDE A 30 AMP., 277VAC, BRANCH-CRICUIT FROM PANELBOARD 'AH' LOCATED IN MECHANICAL ROOM **#234**.
25. REUSE AN EXISTING LIGHTING BRANCH CIRCUIT IN THIS AREA TO FEED NEW LIGHTING CONTROLLER.
26. PROVIDE A WATTSTOPPER, MODEL #LMIO-101 DIGITAL INPUT/OUTPUT INTERFACE RELAY. THIS RELAY WILL BE USED BY THE TEMPERATURE CONTROL CONTRACTOR TO CONTROL FAN POWERED FVAV 4-6 BOX.

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2920 EAST AVENUE SOUTH SUITE 102
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PHONE: (608) 787-9106 FAX: (608) 787-8995
E-MAIL: PPopowich@galileo-group.us

Project Title: **WESTERN TECHNICAL COLLEGE ARC LIBRARY REMODELING & VETERANS CENTER ADDITION**

Project Location: WESTERN TECHNICAL COLLEGE
400 N. 7th STREET
LA CROSSE, WI 54601

Sheet Title: PARTIAL SECOND FLOOR LIGHTING PLAN

HSR Project Number: 17026

Project Date: 3/14/2018

Drawn By: CSP

Key Plan: KEY PLAN (WORK AREA)

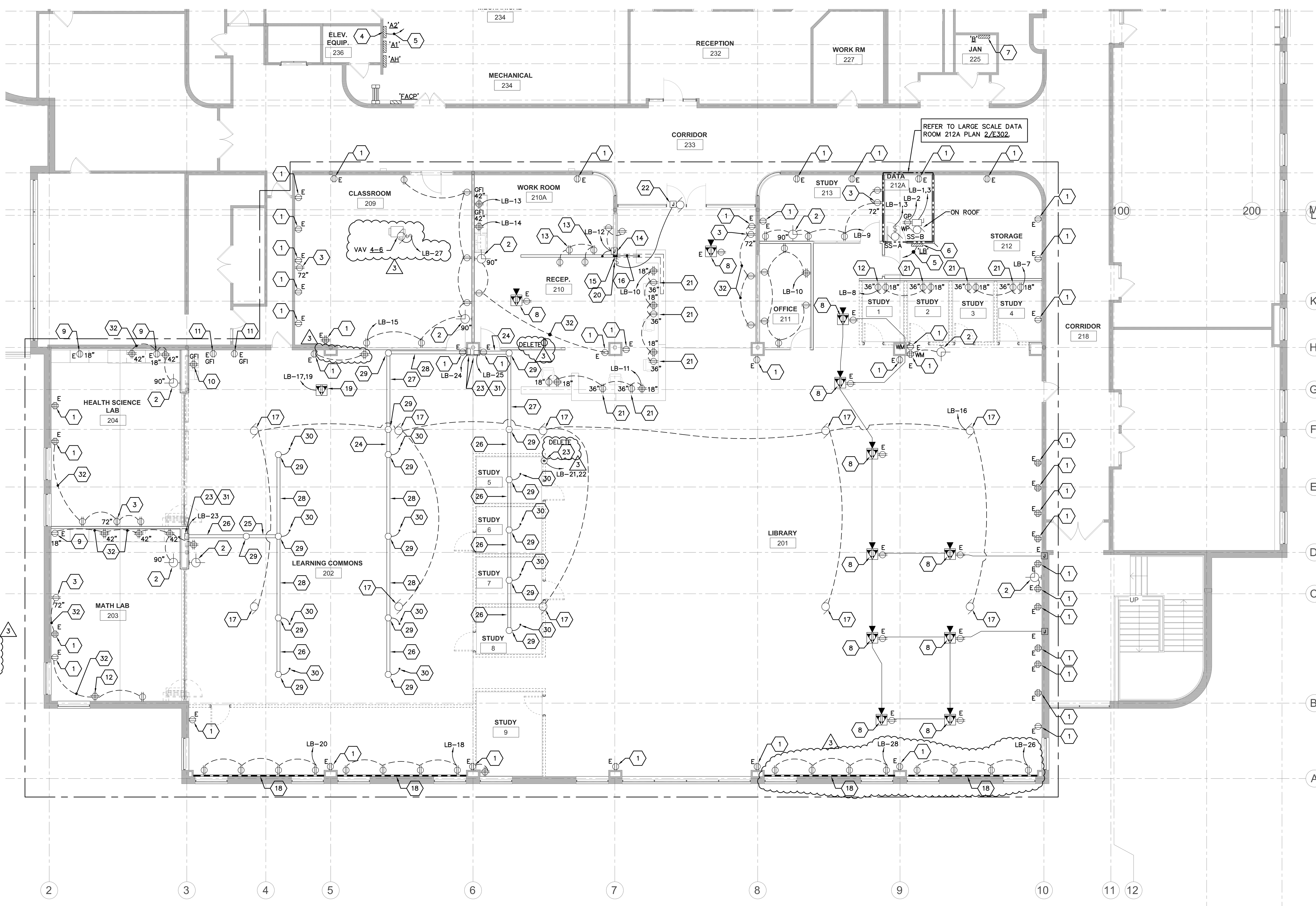
Revisions:

No.	Description	Date
2	ADDENDUM # 2	03-28-2018
3	ADDENDUM # 3	03-29-2018

Graphic Scale: VARIES

Last Update: 3/28/2018

E102R



1 E202R SECOND FLOOR REMODEL – POWER PLAN
SCALE: 1/8" = 1'-0"
1802-E-PP02

Panel 'LB', 125 Amps., 120/208V AC, 3-Phase, 4- Wire, M.L.O. 14KAIC

Space No.	Serves	C/B Size/Type	Load (KVA)	Load (KVA)	C/B Size/Type	Serves	Space No.
1	MOTOR (SS-A, SS-B)	20/2	1.12	0.18	20/1	ROOF RECEPTACLE	2
3	"	20/2	1.12	0.75	20/1	RECEPTACLE	4
5	RECEPTACLE	20/1	0.75	0.72	20/1	RECEPTACLE	6
7	RECEPTACLE	20/1	0.72	0.72	20/1	RECEPTACLE	8
9	RECEPTACLE	20/1	0.90	1.10	20/1	RECEPTACLE	10
11	RECEPTACLE	20/1	1.10	0.72	20/1	RECEPTACLE	12
13	RECEPTACLE	20/1	0.36	0.36	20/1	RECEPTACLE	14
15	RECEPTACLE	20/1	1.10	0.30	20/1	MOTOR (DESTR. FANS)	16
17	RECEPTACLE	20/1	1.00	0.72	20/1	RECEPTACLE	18
19	RECEPTACLE	20/1	1.00	0.72	20/1	RECEPTACLE	20
21	FLOOR RECEPTACLE	20/1	0.36	0.36	20/1	FLOOR RECEPTACLE	22
23	THREAD SYSTEM	20/1	1.00	1.00	20/1	THREAD SYSTEM	24
25	THREAD SYSTEM	20/1	1.00	0.72	20/1	RECEPTACLE	26
27	MOTOR (FVV 3-11)	20/1	0.84	0.72	20/1	RECEPTACLE	28
29	SPARE	20/1			20/1	SPARE	30
31	SPARE	20/1			20/1	SPARE	32
33	SPARE	20/1			20/1	SPARE	34
35	SPARE	20/1			20/1	SPARE	36
37	SPARE	20/1			20/1	SPARE	38
39	SPARE	20/1			20/1	SPARE	40
41	SPARE	20/1			20/1	SPARE	42

MOTOR	2.24
RECEPTACLE	17
	0
	0
	0
TOTAL (KVA):	19.24

NOTE: 1 PROVIDEA 42 SPACE PANELBOARD.

TOTAL AMP. : 53.4

KEYED POWER PLAN NOTES E202:

1. EXISTING 'BROWN' DUPLEX RECEPTACLE TO BE REMOVED AND REPLACED WITH A NEW 20AMP., 120VAC, 'GRAY' DUPLEX RECEPTACLE AS SPECIFIED. REUSE EXISTING BRANCH-CIRCUIT WIRING AND STAINLESS STEEL COVER PLATE.
2. ELECTRICAL CONTRACTOR SHALL INSTALL A WTC 'STANDARDIZED' LATHEM AIRTIME CLOCK AND BACKBOX AT THIS LOCATION PROVIDED BY WTC FACILITY MAINTENANCE DEPARTMENT (OWNER). INSTALL A LATHEM AIRTIME BACKBOX WITH 120VAC RECEPTACLE PROVIDED BY OWNER. INSTALL A 120VAC LATHEM AIRTIME WIRELESS CLOCK PROVIDED BY OWNER. PROVIDE 120VAC BRANCH-CIRCUIT WIRING AND MAKE FINAL CONNECTION AS REQUIRED. IF AN EXISTING BACKBOX IS PRESENT REUSE AND INSTALL NEW CLOCK IN EXISTING LOCATION AS DIRECTED BY OWNER. COORDINATE CLOCK BACKBOX INSTALLATION WITH ACOUSTIC WALL PLACEMENT.
3. PROVIDE A DUPLEX RECEPTACLE AND MOUNT BEHIND WALL-MOUNTED A/V COMPUTER MONITOR.
4. EXISITNG 400 AMP., SQUARE 'D', 120/208 VAC, 3-PHASE, 4-WIRE PANELBOARD 'A2'. PROVIDE A 125 AMP., 3-POLE CIRCUIT BREAKER TO FEED NEW PANELBOARD 'LB' LOCATED IN STORAGE ROOM #212.
5. PROVIDE 4-#1 THWN-2 COPPER CONDUCTORS AND 1-#6 THWN-2 CU (GRD) IN 1-1/2" EMT CONDUIT FOR 125 AMP. FEEDER BETWEEN EXISTING PANELBOARD 'A2' IN MECHANICAL ROOM #234 AND NEW PANELBOARD 'LB' LOCATED IN STORAGE ROOM #212. RECOMMEND FIELD VERIFICATION OF CONDUIT ROUTE AND SCOPE OF WORK PRIOR TO SUBMITTING BID.
6. PROVIDE A NEW 125 AMP., 120/208 VAC, 3-PHASE, 4-WIRE PANELBOARD. STUB A MINIMUM OF 5-3/4" EMT CONDUITS TO ABOVE SUSPENDED CEILING FOR 'FUTURE' WIRING.
7. LOCATION OF EXISTING 225 AMP., 120/208VAC, 3-PHASE, 4-WIRE PANELBOARD 'B'.
8. EXISTING POWER RECEPTACLE TO REMAIN AS IS IN FLOOR BOX. REFER TO PHOTO #8/E002.
9. EXISTING DUPLEX RECEPTACLE TO BE CUT INTO THE BACK OF THE CABINET CASEWORK, PROVIDE AN EXTENSION RING AS REQUIRED ON JUNCTION BOX. PROVIDE A NEW 20 AMP., 120VAC, 'GRAY' RECEPTACLE.
10. PROVIDE A GFI RECEPTACLE FOR ELECTRIC WATER COOLER, COORDINATE MOUNTING HEIGHT AND LOCATION WITH PLUMBING CONTRACTOR.
11. REMOVE EXISTING DUPLEX RECEPTACLE AND REPLACE WITH A 'GRAY' GFI RECEPTACLE. REUSE EXISTING BRANCH-CIRCUIT WIRING.
12. CUT-IN A DOUBLE DUPLEX RECEPTACLE IN EXISTING SHEETROCK WALL FOR TEACHERS STATION. FISH FLEXIBLE METAL CONDUIT FROM ABOVE SUSPENDED CEILING DOWN THE WALL TO JUNCTION BOX.
13. PROVIDE AND INSTALL DUPLEX RECEPTACLE IN 'FURNITURE' WALL.
14. PROVID E A 4"X4"X2-1/8" JUNCTION BOX WITH SINGLE GANG MUDRING, PROVIDE A BLANK STAINLESS STEEL COVER PLATE WITH ½" KNOCKOUT, FEED 'FURNITURE' WALL WITH A SHORT PIECE OF LIQUID TIGHT (SEALTIGHT) CONDUIT FOR POWER TO THE FURNITURE WALL.
15. FEED RECEPTION DESK WITH ¾" PVC SCHEDULE 40 CONDUIT, ROUTE CONDUIT FROM ABOVE SUSPENDED CEILING AND STUB OUT TO RECEPTION DESK IN TRENCH BETWEEN WALL AND RECEPTION DESK. SAWCUT EXISTING CONCRETE FLOOR WITH A 6" WIDE X 3" DEEP TRENCH BETWEEN WALL AND RECEPTION DESK.
16. ELECTRICAL CONTRACTOR SHALL SAW CUT CONCRETE FLOOR BETWEEN WALL AND RECEPTION DESK. THERE WILL BE A TOTAL OF 3-1" PVC CONDUITS (2-DATA, 1-POWER).
17. MAKE FINAL CONNECTION TO 120 VAC, 30 WATT, DESTRATIFICATION FAN. COORDINATE WITH HVAC CONTRACTOR. PLEASE NOTE THIS FAN WILL BE CONNECTED TO THE BUILDING AUTOMATION SYSTEM (BAS).
18. PROVIDE A WIREMOLD, MODEL #4000 SERIES SURFACE RACEWAY FOR COMBINATION POWER/LOW VOLTAGE WIRING. FIELD VERIFY MOUNTING HEIGHT WITH WTC FACILITY DEPARTMENT PRIOR TO INSTALLING.
19. PROVIDE A 6" DIA. WIREMOLD, MODEL #6ATCFF, POKETHRU FLOOR BOX. COORDINATE THOROUGHLY WITH WTC FACILITY MAINTENANCE DEPARTMENT AND WTC IT DEPARTMENT FOR EXACT LOCATION OF FLOOR BOX. PROVIDE A 6" DIA. CORE DRILL THROUGH CONCRETE FLOOR. PROVIDE A FURNTURE FEEED COVER PLATE WITH A ¾" SCREW PLUG OPENING FOR POWER AND 1-1/4" SCREW PLUG OPENING FOR DATA CABLING.
20. PROVIDE A 20 AMP., 120VAC, SINGLE-POLE SWITCH TO DISCONNECT POWER TO THE EXISTING POWER ACTUATED ENTRANCE DOOR. CLEARLY LABEL SWITCH "ENTRANCE DOOR". THE INTENT IS TO BE ABLE TO DISCONNECT POWER TO THE ENTRANCE DOOR IN CASE OF AN EMERGENCY.
21. PROVIDE A 20 AMP., 120VAC, LEVITON, MODEL #T5632-G OR EQUAL, COMBINATION DUPLEX RECEPTACLE/USB CHARGER WIRING DEVICE.
22. INTERRUPT EXISTING BRANCH-CIRCUIT AND EXTEND TO A SINGLE-POLE SWITCH TO DISCONNECT POWER IN THE EVENT OF AN EMERGENCY. COORDINATE WITH WTC FACILITY MAINTENANCE DEPARTMENT.
23. ELECTRICAL CONTRACTOR SHALL PROVIDE AND INSTALL A UNDERCARPET POWER DISTRIBUTION SYSTM AS FOLLOWS:

MANUFACTURER: STEELCASE INC.
CONTACT: WWW.STEELCASE.COM
PHONE: 800-333-9939
SYSTEM: THREAD PORTABLE POWER DISTRIBUTION
MAJOR COMPONENTS:

1. WALL POWER TRACK INFEED WITH RAMPS
2. POWER HUB
3. POWER TRACK (12" INCREMENTS) WITH RAMPS
4. CONNECTOR

24. PROVIDE A THREAD SYSTEM - POWER TRACK (4'-0") IN LENGTH WITH RAMPS.
25. PROVIDE A THREAD SYSTEM - POWER TRACK (6'-0") IN LENGTH WITH RAMPS.
26. PROVIDE A THREAD SYSTEM - POWER TRACK (8'-0") IN LENGTH WITH RAMPS.
27. PROVIDE A THREAD SYSTEM - POWER TRACK (10'-0") IN LENGTH WITH RAMPS.
28. PROVIDE A THREAD SYSTEM - POWER TRACK (12'-0") IN LENGTH WITH RAMPS.
29. PROVID A THREAD CONNECTOR WITH A 2-HUB LOW PROFILE COVER PLATE. VERIFY EXACT LOCATION WITH OWNER.
30. PROVIDE A THREAD SYSTEM POWER HUB - DESK TOP HEIGHT (37-1/8"), PLATINUM METALLIC PAINT, STANDARD UNDERSCORE PLUG.
31. PROVIDE A THREAD SYSTEM - WALL POWER TRACK INFEED WITH RAMPS.
32. EXTEND EXISTING BRANCH-CIRCUIT WIRING TO NEW RECEPTACLES. THE INTENT IS TO REUSE EXISTING BRANCH-CIRCUIT WIRING IN THE AREA TO FEED NEW RECEPTACLES INSTALLED.

MOTOR & EQUIPMENT SCHEDULE

EQUIPMENT REFERENCE I.D.	EQUIPMENT DESCRIPTION	EQUIPMENT LOCATION			MOTOR OR EQUIPMENT REQUIREMENTS AND CHARACTERISTICS							MOTOR STARTERS				DISCONNECT SWITCHES						CONTROL WIRING BY		Branch Circuit or Feeder				REMARKS
		Room No.	Room Name	Elevation	Motor HP	Equipment Watts	VOLT	PH.	FLA	MCA	MOP	Starter Type	Provided By	Installed By	Starter Size	Disconnect Type	Provided By	Installed By	NEMA Enclo.	Fuse Size	Lockable?	MC	EC	N.C.	Conductor Size	Conduit Min. Size	Ground Size	
SS-A	Split System A (Indoor unit)	212A	Data Room	Wall		208	208	1	1.0	1.0	20.0	N/A	N/A	N/A	N/A	Manual	EC	EC	1	N/A	Yes	X		2	12	3/4"	12	1
SS-B	Split System B (Outdoor Unit)	Roof	Data Room	Roof		2,240	208	1	13.0	15.0	20.0	N/A	N/A	N/A	N/A	Manual	EC	EC	1	N/A	Yes	X		2	12	3/4"	12	2
FVV 3-11	Fan Powered VAV Box	209	Classroom	clg.	1/3	840	120	1	7.0	15.0	20.0	N/A	N/A	N/A	N/A	Manual	EC	EC	1	N/A	Yes	X		2	12	3/4"	12	3

REMARKS:

1. Provide a 20 amp., motor rated, 250VAC, 2-pole, non-fused, disconnect switch, provide a lockable cover plate.
2. Provide a 30 amp., 250VAC, Non-Fused, 2-pole, Nema 3R Disconnect Switch.
3. Provide a 20 amp., motor rated, 120VAC, 1-pole, non-fused disconnect switch, provide lockable cover plate,

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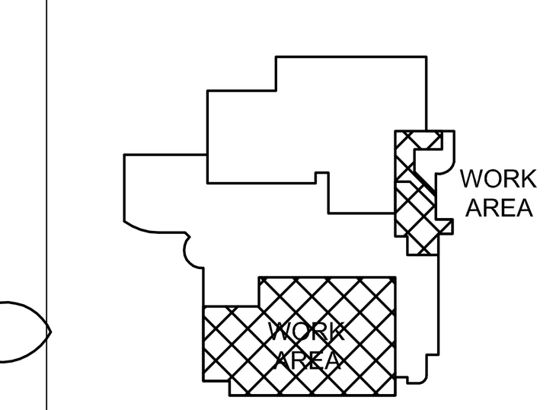
galileo CONSULTING GROUP

Project Title: WESTERN TECHNICAL COLLEGE
ARC LIBRARY REMODELING & VETERANS CENTER ADDITION
Project Location: WESTERN TECHNICAL COLLEGE
400 N. 7th STREET
LA CROSSE, WI 54601
Sheet Title: PARTIAL SECOND FLOOR POWER PLAN AND MOTOR SCHEDULE

HSR Project Number: 17026
Project Date: 3/14/2018
Drawn By: CSP
Key Plan:

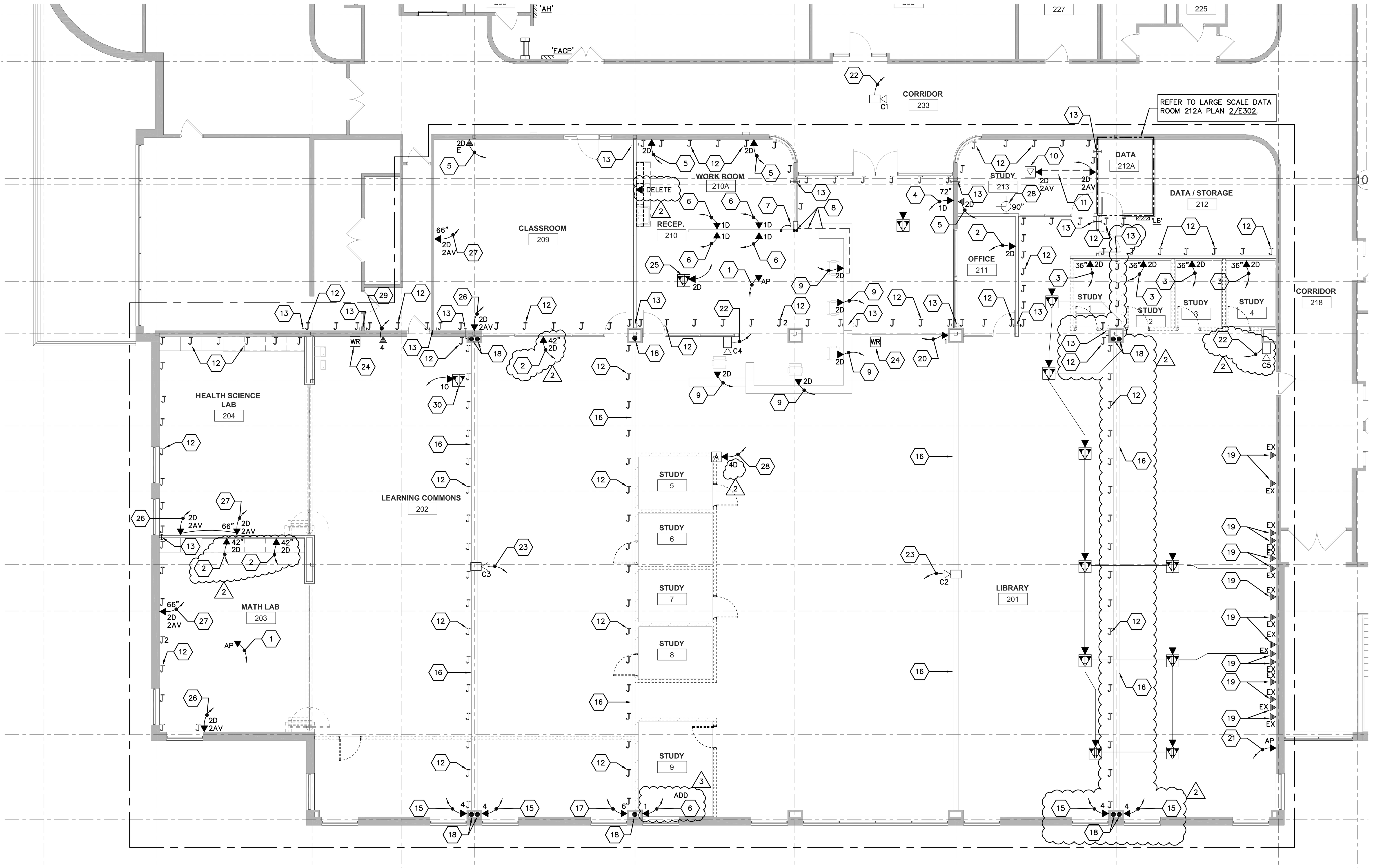


Revisions:

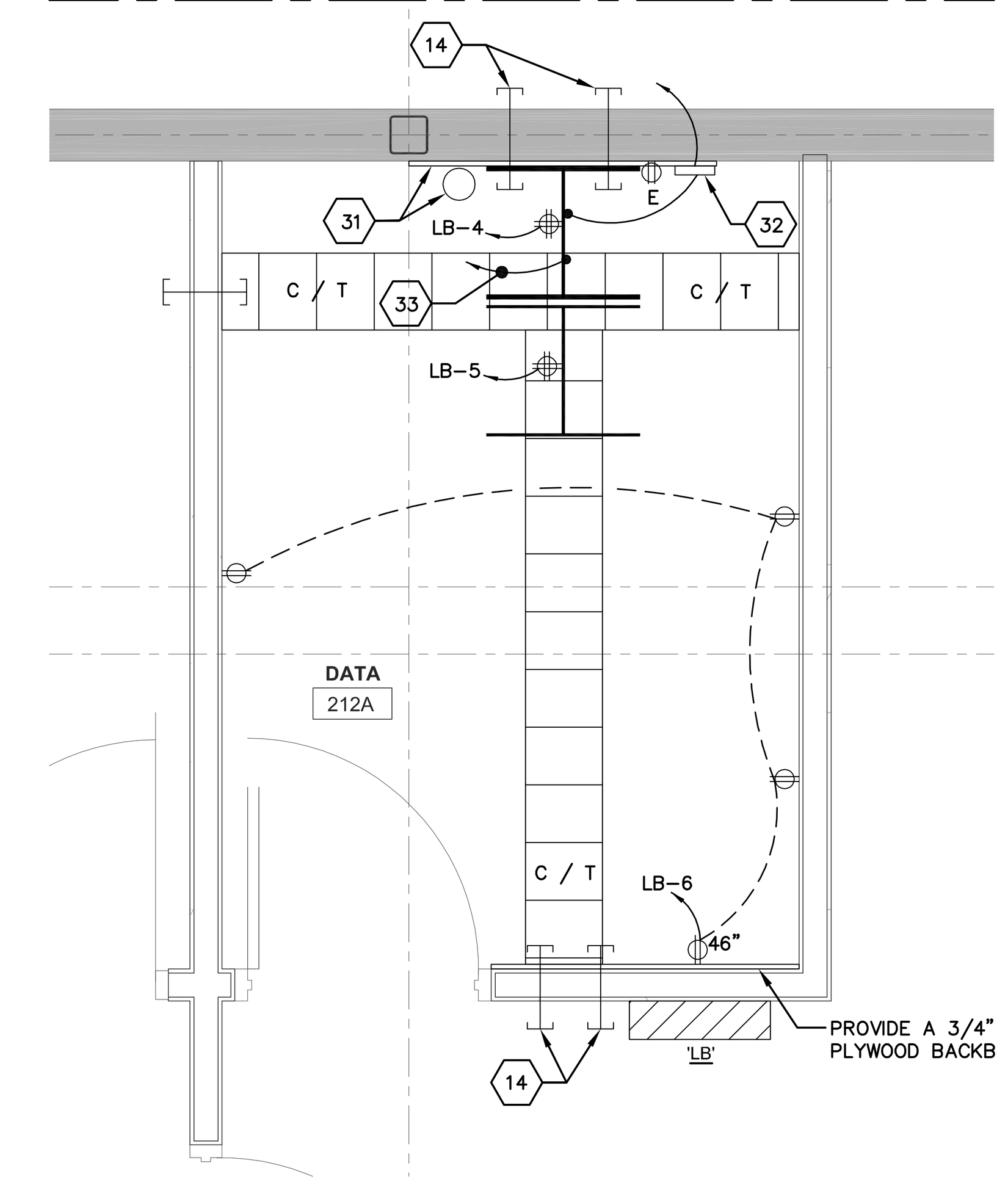
No.	Description	Date
2	ADDENDUM # 2	03-28-2018
3	ADDENDUM # 3	03-29-2018

Graphic Scale: VARIES
Last Update: 3/28/2018

E202R



1 E302R SECOND FLOOR REMODEL – LOW VOLTAGE PLAN
SCALE: 1/8" = 1'-0"
1802-E-LV02



2 E302R LARGE SCALE DATA ROOM 212A
SCALE: 1/2" = 1'-0"
1802-E-ENLARGED-LV02

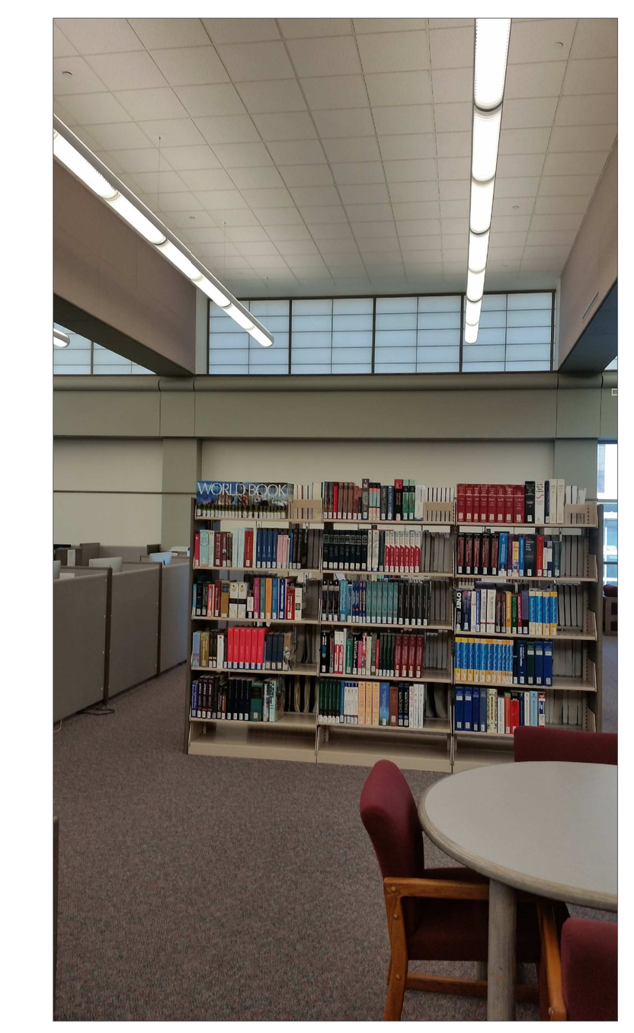


PHOTO #1
092802

PHOTO #2
092811

KEYED LOW VOLTAGE SYSTEMS NOTES SHEET E302 :

GENERAL NOTES:

A. FOR ALL TELECOMMUNICATIONS OUTLETS - DATA JACKS AND CABLING WILL BE DESIGNATED ON THIS PLAN AS FOLLOWS:

a. NETWORKING (DATA) = ORANGE DATA JACKS WITH BLUE CAT 6 CABLES .
b. PHONE (PH) = ORANGE DATA JACKS WITH BLUE CAT 6 CABLES.
c. AUDIO/VIDEO (A/V) - GREEN DATA JACKS WITH GREEN CAT 6 CABLE. ONLY ONE SET OF A/V CABLES NEEDED FOR PROJECTORS AND MONITORS. FOR AN EXAMPLE, REFER TO **5/E403**.
d. SECURITY CAMERAS (CAM) - WHITE JACKS WITH WHITE CAT 6 CABLES.
e. DOOR ACCESS - YELLOW SMART CABLE
f. FAX/ANALOG (ANA) - PURPLE JACKS WITH PURPLE CAT 6 CABLES.
g. THE ELECTRICAL CONTRACTOR IS RESPONSIBLE TO PROVIDE EMPTY JUNCTION BOXES, CONDUIT STUBS TO ABOVE SUSPENDED CEILING TO 'J' HOOKS, AND CONDUIT SLEEVES THROUGH WALLS FOR LOW VOLTAGE CABLE ROUTING. THE INTENT IS FOR THE ELECTRICAL CONTRACTOR TO PROVIDE AN EMPTY RACEWAY SYSTEM PATH FOR LOW VOLTAGE WIRING PROVIDED AND INSTALLED BY WTC IT DEPARTMENT VENDOR.

KEYED NOTES:

1. APPROXIMATE LOCATION OF WIRELSS ROUTER PROVIDED AND INSTALLED BY WESTERN TECHNICAL COLLEGE. ELECTRICAL CONTRACTOR SHALL PROVIDE A SINGLE-GANG JUNCTION BOX INSTALLED FLUSH IN ACOUSTIC CEILING TILE. WESTERN TECHNICAL COLLEGE SHALL PROVIDE AND INSTALL ONE (1) CAT 6 CABLE BETWEEN WIRELESS ROUTER AND IT EQUIPMENT RACK LOCATED IN DATA ROOM **#212A**.
2. WESTERN TECHNICAL COLLEGE SHALL PROVIDE AND INSTALL A TWO (2) PORT DATA JACK AT THIS APPROXIMATE LOCATION AND SHALL PROVIDE TWO (2) CAT 6 CABLES BETWEEN DATA JACKS AND IT EQUIPMENT RACK LOCATED IN DATA ROOM **#212A**. ELECTRICAL CONTRACTOR IS RESPONSIBLE TO PROVIDE A JUNCTION BOX AND ONE (1) EMPTY ¾" EMT CONDUIT STUBBED ABOVE SUSPENDED CEILING FOR TELECOMMUNICATIONS WIRING. REFER TO DETAIL **2/E402**.
3. WESTERN TECHNICAL COLLEGE SHALL PROVIDE AND INSTALL A TWO (2) PORT DATA JACK AT THIS APPROXIMATE LOCATION AND SHALL PROVIDE TWO (2) CAT 6 CABLES BETWEEN DATA JACKS AND IT EQUIPMENT RACK LOCATED IN DATA ROOM **#212A** . ELECTRICAL CONTRACTOR IS RESPONSIBLE TO PROVIDE A JUNCTION BOX AND ONE (1) EMPTY ¾" EMT CONDUIT STUBBED ABOVE SUSPENDED CEILING FOR TELECOMMUNICATIONS WIRING. REFER TO DETAIL **1/E402**.
4. WESTERN TECHNICAL COLLEGE SHALL PROVIDE AND INSTALL ONE (1) CAT 6 CABLE BETWEEN SINGLE-PORT DATA JACK AND DATA ROOM #212A FOR MESSAGE MONITOR SCREEN. PROVIDE A DOUBLE GANG JUNCTION BOX WITH A SINGLE GANG MUDRING AND MOUNT BEHIND MONITOR SCREEN. STUB AN EMPTY 3/4" EMT CONDUIT TO 'J' HOOKS ABOVE SUSPENDED CEILING. VERIFY MOUNTING HEIGHT WITH WTC IT DEPARTMENT PRIOR TO ROUGH-IN. REFER TO DETAIL **3/E402**.
5. WESTERN TECHNICAL COLLEGE SHALL PROVIDE AND INSTALL A TWO (2) PORT DATA JACK IN THIS EXISTING JUNCTION BOX AND SHALL PROVIDE TWO (2) CAT 6 CABLES BETWEEN DATA JACKS AND IT EQUIPMENT RACK LOCATED IN DATA ROOM **#212A**. REUSE EXISTING JUNCTION BOX AND CONDUIT STUBBED ABOVE SUSPENDED CEILING FOR INSTALLING TELECOMMUNICATIONS WIRING.
6. WESTERN TECHNICAL COLLEGE SHALL PROVIDE AND INSTALL A ONE (1) PORT DATA JACK IN THIS 'FURNITURE WALL' AND SHALL PROVIDE ONE (1) CAT 6 CABLE BETWEEN DATA JACK AND IT EQUIPMENT RACK LOCATED IN DATA ROOM **#212A**. ELECTRICAL CONTRACTOR IS RESPONSIBLE TO PROVIDE AN EMPTY ¾" RACEWAY FROM ABOVE THE SUSPENDED CEILING TO THE FURNITURE WALL. COORDINATE WITH WTC FURNITURE SUBCONTRACTOR AND WTC IT DEPARTMENT.
7. ELECTRICAL CONTRACTOR SHALL PROVIDE A 4"X4"X2-1/8" JUNCTION BOX WITH A SINGLE-GANG MUDRING, PROVIDE A BLANK STAINLESS STEEL COVER PLATE WITH A ¾" KNOCKOUT AND INSTALL A SHORT PIECE OF LIQUID TIGHT (SEAL-TIGHT) FLEXIBLE CONDUIT BETWEEN THIS JUNCTION BOX AND THE FURNITURE WALL. PROVIDE A ¾" EMT CONDUIT STUBBED ABOVE THE SUSPENDED CEILING FROM THE JUNCTION BOX. THE INTENT IS TO PROVIDE AN EMPTY RACEWAY FROM ABOVE THE SUSPENDED CEILING TO THE FURNITURE WALL TO INSTALL 4-CAT6 CABLES.
8. ELECTRICAL CONTRACTOR PROVIDE AND INSTALL 2-1" SCHEDUEL 40 PVC CONDUITS FROM ABOVE SUSPENDED CEILING TO RECEPTION DESK FOR LOW VOLTAGE CABLES. SAWCUT A 6" WIDE X 2" DEEP TRENCH IN EXISTING CONCRETE FLOOR BETWEEN WALL AND RECEPTION DESK AREA. REFER TO DETAIL **4/E402**.
9. WESTERN TECHNICAL COLLEGE SHALL PROVIDE AND INSTALL A TWO (2) PORT DATA JACK IN THIS 'RECEPTION DESK WALL' AND SHALL PROVIDE TWO (2) CAT 6 CABLES BETWEEN DATA JACKS AND IT EQUIPMENT RACK LOCATED IN DATA ROOM **#212A**. ELECTRICAL CONTRACTOR IS RESPONSIBLE TO PROVIDE AN EMPTY ¾" RACEWAY FROM ABOVE THE SUSPENDED CEILING TO THE RECEPTION DESK WALL. COORDINATE WITH GENERAL CONTRACTOR. REFER TO RECEPTION DESK DETAIL **4/E402**.
10. ELECTRICAL CONTRACTOR SHALL PROVIDE AND INSTALL A 'CONNECT TRAC' FLOOR MOUNTED COMBINATION POWER AND LOW VOLTAGE MODULE UNDER THE TABLE. THIS MODULE INCLUDES 2-DUPLEX RECEPTACLES, 2-DATA JACKS AND 2-A/V JACKS. REFER TO DETAIL **4/E403** FOR MANUFACTURER MODEL NUMBERS.
11. ELECTRICAL CONTRACTOR SHALL PROVIDE AND INSTALL AN UNDERFLOOR 'CONNECTRAC' COMBINATION POWER AND LOW-VOLTAGE WIRING SYSTEM. REFER TO DETAIL **4/E403**. THE INTENT IS TO PROVIDE POWER AND LOW VOLTAGE CABLES BETWEEN THE WALL TO A FLOOR MOUNTED COMBINATION POWER/LOW VOLTAGE MODULE LOCATED BELOW THE TABLE.
12. WTC IT DEPARTMENT SHALL PROVIDE AND INSTALL 'J' HOOKS APPROXIMATELY 4'-0" ON-CENTER ON THIS WALL ABOVE THE SUSPENDED CEILING FOR LOW VOLTAGE CABLE SUPPORT. TYPICAL.
13. ELECTRICAL CONTRACTOR SHALL PROVIDE AND INSTALL A 2" EMT CONDUIT SLEEVE THROUGH WALL, LENGTH SHALL BE APPROXIMATELY 12", INSTALL ABOVE SUSPENDED CEILING FOR LOW VOLTAGE WIRING PATH. FIRE CAULK AS REQUIRED. PROVIDE PLASTIC BUSHINGS ON BOTH ENDS OF SLEEVE.
14. ELECTRICAL CONTRACTOR SHALL PROVIDE AND INSTALL A 4" EMT CONDUIT SLEEVE THROUGH WALL, LENGTH SHALL BE APPROXIMATELY 12", INSTALL ABOVE SUSPENDED CEILING FOR LOW VOLTAGE WIRING PATH. FIRE CAULK AS REQUIRED. PROVIDE PLASTIC BUSHINGS ON BOTH ENDS OF SLEEVE.
15. WESTERN TECHNICAL COLLEGE SHALL PROVIDE AND INSTALL A FOUR (4) PORT DATA JACK AT THIS APPROXIMATE LOCATION AND SHALL PROVIDE FOUR (4) CAT 6 CABLES BETWEEN DATA JACKS AND IT EQUIPMENT RACK LOCATED IN DATA ROOM **#212A**. ELECTRICAL CONTRACTOR IS RESPONSIBLE TO PROVIDE A JUNCTION BOX AND ONE (1) EMPTY 1" FLEXIBLE METAL CONDUIT STUBBED ABOVE SUSPENDED CEILING FOR TELECOMMUNICATIONS CAT6 WIRING. ROUTE FLEXIBLE METAL CONDUIT INSIDE COLUMN AND RISE TO ABOVE SUSPENDED CEILING. PLEASE NOTE SUSPENDED IS APPROXIMATELY 19'-0" ABOVE FINISH FLOOR. REFER TO PHOTO **#1/E302**. COORDINATE CLOSELY WITH WTC IT DEPARTMENT.
16. EXISTING HVAC SOFFIT, WTC IT DEPARTMENT MAY CHOOSE TO INSTALL CAT6 CALBES IN THIS SOFFIT IN LIEU OF ABOVE SUSPENDED CEILING. ELECTRICAL CONTRACTOR AND WTC IT DEPARTMENT SHALL COORDINATE BEST ROUTE FOR CAT 6 CABLES. REFER TO PHOTO **#1/E302**.
17. WESTERN TECHNICAL COLLEGE SHALL PROVIDE AND INSTALL A SIX (6) PORT DATA JACK AT THIS APPROXIMATE LOCATION AND SHALL PROVIDE SIX (6) CAT 6 CABLES BETWEEN DATA JACKS AND IT EQUIPMENT RACK LOCATED IN DATA ROOM **#212A**. ELECTRICAL CONTRACTOR IS RESPONSIBLE TO PROVIDE A JUNCTION BOX AND TWO (2) EMPTY 3/4" FLEXIBLE METAL CONDUITS STUBBED ABOVE SUSPENDED CEILING FOR TELECOMMUNICATIONS CAT6 WIRING. ROUTE FLEXIBLE METAL CONDUITS INSIDE COLUMN AND RISE TO ABOVE SUSPENDED CEILING. PLEASE NOTE SUSPENDED IS APPROXIMATELY 19'-0" ABOVE FINISH FLOOR. REFER TO PHOTO **#1/E302**. COORDINATE CLOSELY WITH WTC IT DEPARTMENT.
18. ELECTRICAL CONTRACTOR SHALL ROUTE CONDUIT(S) FOR LOW VOLTAGE WIRING IN THIS COLUMN. COORDINATE CLOSELY WITH WTC IT DEPARTMENT AND WITH GENERAL CONTRACTOR. REFER TO PHTO **#1/E302**R.
19. EXISTING CAT5 DATA JACKS ON THIS WALL WILL REMAIN AS IS.
20. WESTERN TECHNICAL COLLEGE SHALL PROVIDE AND INSTALL ONE (1) CAT 6 CABLE BETWEEN SINGLE-PORT DATA JACK AND DATA ROOM **#212A**. PROVIDE A DOUBLE GANG JUNCTION BOX WITH A SINGLE GANG MUDRING. STUB AN EMPTY 3/4" FLEXIBLE EMPTY CONDUIT TO 'J' HOOKS ABOVE SUSPENDED CEILING, ROUTE FLEXIBLE CONDUIT INSIDE THIS COLUMN TO ABOVE SUSPENDED CEILING.
21. APPROXIMATE LOCATION OF WALL-MOUNTED WIRELSS ACCESS POINT PROVIDED AND INSTALLED BY WESTERN TECHNICAL COLLEGE. ELECTRICAL CONTRACTOR SHALL PROVIDE A SINGLE-GANG JUNCTION BOX INSTALLED FLUSH IN SHEETROCK WALL WITH A ¾" EMT CONDUT STUBBED ABOVE SUSPENDED CEILING, MOUNT AT THE SAME HEIGHT AS EXISTING WIRELESS ACSESS POINTS. WESTERN TECHNICAL COLLEGE SHALL PROVIDE AND INSTALL ONE (1) CAT 6 CABLE BETWEEN ACCESS POINT AND IT EQUIPMENT RACK LOCATED IN DATA ROOM **#212A**.
22. WESTERN TECHNICAL COLLEGE SHALL PROVIDE AND INSTALL AN IP CCTV CAMERA AT THIS LOCATION. WTC SHALL ALSO PROVIDE AND INSTALL ONE (1) CAT 6 CABLE BETWEEN IP CAMERA AND POINT OVER ETHERNET (P.O.E.) SWITCH LOCATED IN EQUIPMENT RACK LOCATED IN DATA ROOM #212A. ELECTRICAL CONTRACTOR IS RESPONSIBLE TO PROVIDE JUNCTION BOX AND 3/4" EMT CONDUIT STUB TO NEAREST 'J-HOOK' PATH LOCATED ABOVE ACOUSTIC CEILING. ALL CABLE TERMINATION BY WTC DEPARTMENT. THE INTENT IS FOR WTC TO INSTALL CAT 6 CABLE BETWEEN CAMERA AND DATA ROOM **#212A** 'FREE-AIR' UTILIZING J-HOOKS AND/OR D-RINGS PROVIDED AND INSTALLED BY WTC FOR CABLE SUPPORT. REFER TO PHOTO **#1/E302**.
23. WESTERN TECHNICAL COLLEGE SHALL PROVIDE AND INSTALL AN IP CCTV CAMERA MOUNTED TO BOTTOM OF THIS HVAC SOFFIT. WTC SHALL ALSO PROVIDE AND INSTALL ONE (1) CAT 6 CABLE BETWEEN IP CAMERA AND POINT OVER ETHERNET (P.O.E.) SWITCH LOCATED IN EQUIPMENT RACK LOCATED IN DATA ROOM **#212A**. ELECTRICAL CONTRACTOR IS RESPONSIBLE TO PROVIDE JUNCTION BOX FOR MOUNTING CAMERA. ALL CABLE TERMINATION BY WTC DEPARTMENT. THE INTENT IS FOR WTC TO INSTALL CAT 6 CABLE ROUTED THROUGH THIS HVAC SOFFIT BETWEEN CAMERA AND DATA ROOM **#212A**. ELECTRICAL CONTRACTOR SHALL ASSIST WITH PROVIDING EMPTY RACEWAY AS REQUIRED. REFER TO PHOTO **#1/E302**.
24. EXISTING WIRELESS ACCESS POINT TO REMAIN AS IS. REFER TO PHOTO **#2/E302**.
25. WESTERN TECHNICAL COLLEGE SHALL PROVIDE AND INSTALL A TWO (2) PORT DATA JACK IN THIS EXISTING FLOOR JUNCTION BOX AND SHALL PROVIDE TWO (2) CAT 6 CABLES BETWEEN DATA JACKS AND IT EQUIPMENT RACK LOCATED IN DATA ROOM **#212A**. REFER TO PHOTO **#3/E302**.
26. WESTERN TECHNICAL COLLEGE SHALL PROVIDE AND INSTALL A FOUR (4) PORT DATA JACK AT THIS APPROXIMATE LOCATION FOR TEACHER'S STATION AND SHALL PROVIDE TWO (2) CAT 6 CABLES TO AN IT EQUIPMENT RACK LOCATED IN DATA ROOM **#212A**. WTC IT DEPARTMENT SHALL ALSO PROVIDE TWO (2) CAT6 CABLES TO THE JUNCTION-BOX AT WALL MOUNTED MONITOR/TV. ELECTRICAL CONTRACTOR IS RESPONSIBLE TO PROVIDE A DOUBLE GANG JUNCTION BOX AND ONE (1) EMPTY ¾" EMT CONDUIT STUBBED ABOVE SUSPENDED CEILING FOR DATA AND A/V WIRING. REFER TO DETAIL **5/E402**. SEE GENERAL NOTE #2.
27. WESTERN TECHNICAL COLLEGE SHALL PROVIDE AND INSTALL A FOUR (4) PORT DATA JACK BEHIND THE WALL-MOUNTED MONITOR/TV AT THIS APPROXIMATE LOCATION AND SHALL PROVIDE TWO (2) CAT 6 CABLES TO AN IT EQUIPMENT RACK LOCATED IN DATA ROOM **#212A**. WTC IT DEPARTMENT SHALL ALSO PROVIDE TWO (2) CAT6 CABLES TO THE JUNCTION-BOX AT TEACHER'S STATION. ELECTRICAL CONTRACTOR IS RESPONSIBLE TO PROVIDE A DOUBLE GANG JUNCTION BOX AND ONE (1) EMPTY ¾" EMT CONDUIT STUBBED ABOVE SUSPENDED CEILING FOR DATA AND A/V WIRING. REFER TO DETAIL **5/E402**. SEE GENERAL NOTE #2.
28. WESTERN TECHNICAL COLLEGE SHALL PROVIDE AND INSTALL A FOUR (4) PORT DATA JACK IN THIS EXISTING POKE THRU FLOOR JUNCTION BOX AND SHALL PROVIDE FOUR (4) CAT 6 CABLES BETWEEN DATA JACKS AND AND IT EQUIPMENT RACK LOCATED IN DATA ROOM #212A. ELECTRICAL CONTRACTOR SHALL PROVIDE PROPER POKE-THRU COVER PLATE FOR EXISTING JUNCTION BOX. FIELD VERIFY REQUIREMENTS PRIOR TO SUBMITTING BID".
29. WESTERN TECHNICAL COLLEGE SHALL PROVIDE AND INSTALL A FOUR (4) PORT DATA JACK IN THIS EXISTING JUNCTION BOX AND SHALL PROVIDE FOUR (4) CAT 6 CABLES BETWEEN DATA JACKS AND IT EQUIPMENT RACK LOCATED IN DATA ROOM **#212A**. REUSE EXISTING JUNCTION BOX AND CONDUIT STUBBED ABOVE SUSPENDED CEILING FOR INSTALLING TELECOMMUNICATIONS WIRING.
30. WESTERN TECHNICAL COLLEGE SHALL PROVIDE AND INSTALL TEN (10) CAT 6 CABLES BETWEEN 6" POKE THRU FLOOR BOX AND IT EQUIPMENT RACK LOCATED IN DATA ROOM **#212A**. ELECTRICAL CONTRACTOR IS RESPONSIBLE TO PROVIDE A WIREMOLD, MODEL # 6ATCFF POKE THRU FLOOR BOX WITH FURNITURE FEED FITTING COVER. PROVIDE LIQUID TYPE CONDUIT TO EXTEND CAT6 CABLES TO TEN (10) COMPUTER WORK STATIONS. COORDINATE WITH WTC IT DEPARTMENT.
31. ELECTRICAL CONTRACTOR SHALL PROVIDE A 5" COREDRILL THROUGH CONCRETE FLOOR, PROVDE A 4" SCHEDULE 80 PVC SLEEVE THROUGH FLOOR FOR LOW VOLTAGE CABLES. PROVIDE A 4' X 8'X3/4" PLYWOOD BACKBOARD FOR SUPPORTING LOW VOLTAGE CABLES. PVC SLEEVE SHALL EXTEND APPROXIMATELY 12" ABOVE FINISH FLOOR, PROVIDE A PLASTIC BUSHING ON BOTH ENDS OF SLEEVE.
32. ELECTRICAL CONTRACTOR SHALL PROVIDE A COPPER GROUNDING BAR AND INSTALL ADJACENT TO IT RACKS, PROVIDE A BARE #3/0 COPPER GROUNDING CONDUCTOR BETWEEN GROUND BAR TO PANELBOARD 'A2' IN MECHANICAL ROOM **#234**. PROVIDE A #4 COPPER GROUND BETWEEN COPPER GROUND BAR AND EACH IT RACK.
33. WTC IT DEPARTMENT SHALL PROVIDE AND INSTALL ONE (1) 6-STRAND SINGLE-MODE FIBEROPTIC CABLE BETWEEN NEW DATA CLOSET #212A AND EXISTING EQUIPMENT RACK LOCATED IN MECHANICAL ROOM **#234**.

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Project Title: **WESTERN TECHNICAL COLLEGE ARC LIBRARY REMODELING & VETERANS CENTER ADDITION**

Project Location: **WESTERN TECHNICAL COLLEGE, 400 N. 7th STREET, LA CROSSE, WI 54601**

Sheet Title: PARTIAL SECOND FLOOR LOW VOLTAGE PLAN

HSR Project Number:	17026
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Key Plan:

KEY PLAN (WORK AREA)

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