

ADDENDUM 1

Client: Indiana University

Project: NW 827 Anderson Library Conference Center Transformer

Replacement

Client Project No.: 20222216
Applied Project No.: 23-111

Addendum No.: 1

Date: 3/24/2025

The following changes and clarifications shall be incorporated into the Contract Documents for the above-referenced project. The information contained herein modifies the original Bidding Documents and all prior Addenda as applicable. Requirements of the original Bidding Documents and previous Addenda remain in effect except as modified by this Addendum. Bidders must acknowledge receipt of this Addendum on the Bid Form. Failure to acknowledge receipt of this Addendum may subject Bidder to disqualification.

GENERAL

1. Notes for Pre-bid meeting are attached.

DRAWINGS

Drawing E301

- 1. Contractor to provide transformer.
- 2. Added Alternate # 1 Provide refurnished transformer meeting current specifications.
- 3. Alternate # 2 Fire Pump Feeders: Contractor shall disconnect existing conductors and reconnect to newly installed transformer.
- 4. Alternate # 3 Contractor to drain existing transformer and make ready for storage. Contractor shall protect and store transformer for 6 months. Include all rigging and transportation from the project site and back to the project site. Contractor shall properly dispose of old oil and provide owner receipt of disposal.

END

Click or tap to enter a date. Addendum

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IU Project 20222216 March 13, 2025 NW 827 Anderson Library Conference Center Transformer Replacement Pre-bid Meeting Minutes

Those present:

Adam Price Austgen Electric
Jason Gallion Emcor/Hyre

Jim Wright IU
Gary Greiner IU
Larry Stuffle IU

Topics of Discussion:

- The scope includes complete replacement of the pad-mounted liquid transformer serving the Anderson Library and Conference Center at the IU Northwest campus.
 Replacement of the feeder cabling from this transformer secondary tap to the building fire pump is also indicated.
- 2. Construction documents are available on the IU Plan Room website at https://iuplanroom.com.
- 3. Bidding documents to include the Bid Form; Minority, Women's, and Veterans Participation Plan; a 5% Bid Bond; and a copy of the contractor's drug testing program.
- 4. Outage required to disconnect and reconnect service to the building will be coordinated with the IUN facilities management. Contractor shall notify owner of the expected length of outage and provide a backup generator if the outage falls between twenty-four and forty-eight hours.
- 5. Contractor to provide pricing for Alternate 1. Alternate includes the option to provide a reconditioned transformer in lieu of new unit. Cost as well as lead time to be included with the alternate proposal. The alternate will hinge on review and approval of transformer submittal by Applied Engineering Services.
- 6. Contractor to provide pricing for Alternate 2. Alternate includes option to temporarily hold the existing transformer for possible owner recall. The cost shall include transport of the transformer and contractor storage for a total of six months. Should the transformer not be recalled by owner in that time frame, the transformer shall become the contractor's property.
- 7. An addendum to the construction documents is forthcoming. Items to include clarification of Plan Note 1 on sheet E301 to indicate the transformer is to be provided in its entirety by the contractor, not the owner. The addendum will also address the possible deletion of the fire pump feeder replacement pending engineering review.

Questions regarding the contract documents will be accepted until Friday March 21, 2025. Addendum will be posted on March 24, 2025.



Bid opening is scheduled for March 27, 2025, at 1:00PM Central Time

Contact the following should you have engineering questions or concerns:
Dan James, Senior Project Manager
Applied Engineering Services
317.402.0442
djames@applied-e-s.com

Thank you again for your interest in our project. Larry Stuffle

Larry D. Stuffle

Electrical Engineer
IU Capital Planning & Facilities
Health Sciences Building, Room 4140
1050 Wishard Blvd
Indianapolis, IN 46202
O: (317) 274-2669
C: (317) 646-0808
larstuff@iu.edu



BID FORM

for

NW827 - ANDERSON LIBRARY CONFERENCE CENTER – REPLACE PAD MOUNTED TRANSFORMER

Indiana University NW Campus Gary, Indiana IU 20222216

TO: The Trustees of Indiana University Bloomington, Indiana

Submit bid online via www.iuplanroom.com

FROM:	
Bidder's Name	
Phone Number	FAX Number
CONTACTS:	N.
	Name:
Phone:	E-mail:
Proposed Project Manager:	Name:
Phone:	E-mail:
Indicate if your firm is a certified If "Yes", please attach a copy of	minority-, women-, or veteran-owned businessYes No certification
FOR: Unified Bid to include Ge	eneral, Mechanical, and Electrical Construction Work
Bidders:	

LUMP SUM BASE BID

The undersigned Bidder, with a complete understanding of existing conditions at the Project Site and a complete understanding of the Bidding Documents, including any Addenda acknowledged hereinafter, for Anderson Library Conference Center –Replace Pad Mounted Transformer on the Indiana University IUNW campus, as prepared by Applied Engineering Services hereby proposes to complete the project, in full and complete accordance with the requirements of the Bidding documents, for the LUMP SUM BASE BID PRICE of:

	Dollars \$	
(written amount)		(numerals)

MAJOR SUBCONTRACTORS

Subcontractors and other persons and organizations proposed by the Bidder and accepted by the Owner and the Owner's Representative must be used on the work for which they were proposed and

accepted and shall not be changed except with the written approval of the Owner and the Owner's Representative.

If requested, the supplemental Subcontractors and Products List will be submitted by email to the Owner, bidtab@iu.edu, and Applied Engineering Services, Dan James at DJames@Applied-e-s.com within 48 hours of the bid opening. The understanding of the Owner and the design team is that these same Major Subcontractors will be the same subcontractors listed below.

The Contractor proposes to utilize the following primary subcontractors for the work indicated.

<u>List one major subcontractor per trade</u>. Any deviation could result in the Owner removing the bid from consideration.

Indicate which are certified by the State of Indiana as an MBE, WBE, or VBE company by circling the M/W/VBE after the name.

ALTERNATE PROPOSALS

- 1. Alternate proposals are requested as part of Addendum #1 of the Bidding Documents.
- 2. The alternate proposal shall indicate the amount to be added to or deducted from the Lump Sum Base Bid if the alternate proposal is accepted by the Owner.
- 3. The alternate proposal shall include all costs necessary for the complete installation of the materials or items indicated for the alternate proposal, including materials, labor, equipment, operations, administration, overhead, profit, and taxes (as applicable).
- 4. The alternate proposal shall also include all costs for changes in the work (including work of other Separate Contracts) that will be made necessary by acceptance of the alternate proposal.
- 5. The Bidder shall submit prices for all the alternates listed below in the manner indicated. Cross out (Add) or (Deduct) as applicable. If there is no change in price to the Lump Sum Base Bid, write in "No Change".

Alternate No. 1:	Contractor shall provide a 'Refurbished Transformer'.						
(Add) (Deduct)		Dollars \$					
	(written amount)		(numerals)				
Alternate No. 2:	Re-use existing Fire Pump Feeder						
(Add) (Deduct)		Dollars \$					
. , , ,	(written amount)		(numerals)				

Alternate No. 3:	Contractor shall store transf	Former for 6 months.	
(Add) (Deduct)		Dollars \$	
`	(written amount)		(numerals)

TAX EXEMPTIONS

The undersigned Bidder has informed himself and all his prospective sub-contractors and suppliers of the tax exempt status of the Owner, as set forth in the General Conditions, and therefore, has <u>not</u> included these taxes in his Lump Sum Base Bid price.

SUBSTITUTIONS

The undersigned Bidder has based his bid upon the materials, products, articles, equipment, brands, manufacturers and processes described in the Bidding Documents or upon approved equivalents. Proof of equivalency of substitutions is the responsibility of the Bidder, but the Architect/Engineer shall be the sole judge of equivalency. Proposed equivalent substitutions shall be equal in all respects to the requirements of the Bidding Documents, including but not limited to the design, quality, physical size, performance characteristics, strength, previous history of use, and to the method of installation, attachment, or connection to related or adjoining work. Determination of

equivalency of proposed substitutions shall be by the Architect/Engineer, before the bid opening date, as described in paragraph entitled "Substitutions" in the Instructions to Bidders.

COMPLETION DATE

The Undersigned Bidder agrees to coordinate and expedite his work, and shall take into consideration any lead time and schedule parameters, with all contractors and that this Work will be completed no later than July 16, 2026.

ASSIGNMENT OF COORDINATION

The undersigned Bidder agrees, to the assignment of Mechanical and Electrical work to the successful General Contractor for the responsibility of complete coordination of the work as stated in the Instructions to Bidders.

PERFORMANCE AND PAYMENT BOND

The undersigned Bidder agrees, if awarded the Contract, to deliver to the Owner a satisfactory Performance Bond, in the full amount (100%) of the total Contract price, not later than the date of execution of the contract. The cost of the Bond shall be included in the Lump Sum Base Bid contained in this Proposal.

SUPPLEMENTAL AND REQUIRED DOCUMENTS

Bid Security; State Form 96 (Revised 2013); Written Drug Testing Program, which must be in full compliance with IC 4-13-18; a completed Minority, Women's and Veteran's Business Enterprise Participation Plan; Contractor Asbestos Certification; Asbestos Protocol for Contractors.

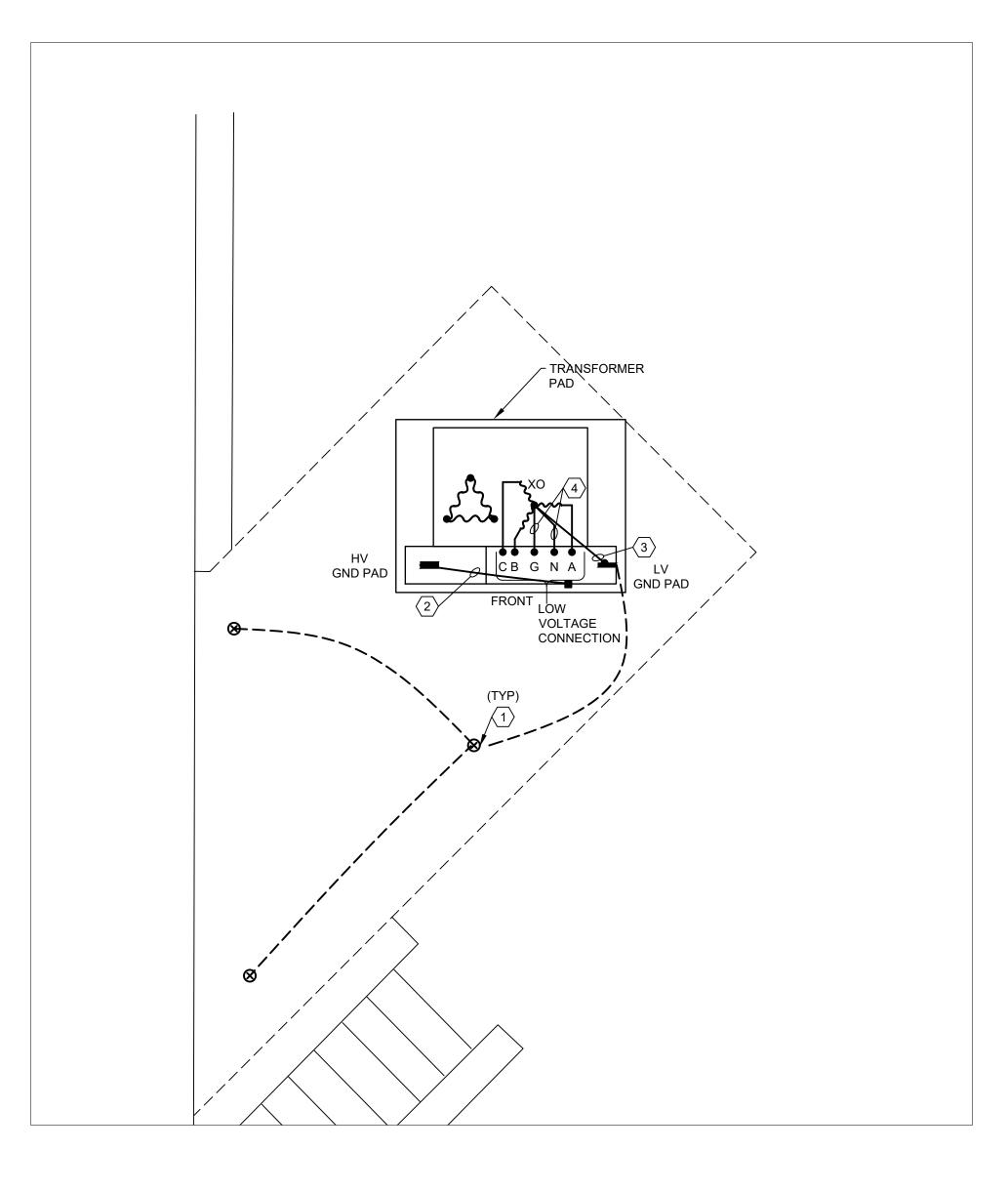
<u>ADDENDA</u>

these	Addenda have been included in th	e prepa	ration o	f this Bid Form:
	Addendum NoAddendum NoAddendum No	Dated		
SIGN	ATURES			
1.	When a Bidder is an Individua	al:		
	Witness			Bidder
	Date:		Address	::
2.	When a Bidder is a Partnersh	ip:		Name of Partnership
	Date:	,	Address	::
	Partner			Partner
3.	When Bidder is a Corporation	ı: <u> </u>		Name of Corporation
	Date:	1	Address	::
]	Ву:	President
	Attest:Secretary			

The following Addenda have been received by the undersigned Bidder; and all costs resulting from

END

Submit bid online via www.iuplanroom.com



GROUNDING PLAN NOTES:

SPECIFICATIONS

(LSZH) design

Directory R21213

FEATURES & BENEFITS:

Meets FT2 Horizontal Flame

for 600V power applications

- $\langle 1 \rangle$ EXISTING GROUND ROD.
- 2 1-#4/0 AWG BARE COPPER GROUND CONDUCTOR IN 1" SCHEDULE 40 PVC CONDUIT, COIL 6'-0" MINIMUM AT EACH STUB UP.
- \langle 3 \rangle BOND EQUIPMENT CASING, MINIMUM TWO (2) LOCATION WITH 500KCMIL OR EQUIVALENT GROUND CONDUCTOR.

effective means of protecting critical emergency systems when under fire conditions.

Description: The only full-range product on the market, 14 AWG through 500 MCM

Certified to UL 2196 / ULC S-139 Standard for Two-Hour Fire Resistive Cable

Electrical Circuit Integrity System FHIT 28E & FHIT7 28E. Fire Resistive

The most comprehensive and versatile two-hour fire-rated solution

Full range of constructions 14 AWG through 500 MCM

 Easy to install - no special tools or procedures required Long length availability eliminates need for splice

• Two-Hour Certified for both vertical and horizontal installations

 Meets NFPA 70 Articles 517, 695, 700, 708 & 660 Meets NFPA 130 and 502 with AHJ approval

Meets IEEE 1202/FT4-ST1 10 AWG and larger

Installs in EMT or phenolic conduit

Low Smoke, Zero Halogen

Certification includes ancillary components

• Economic alternative to both MI and MC options

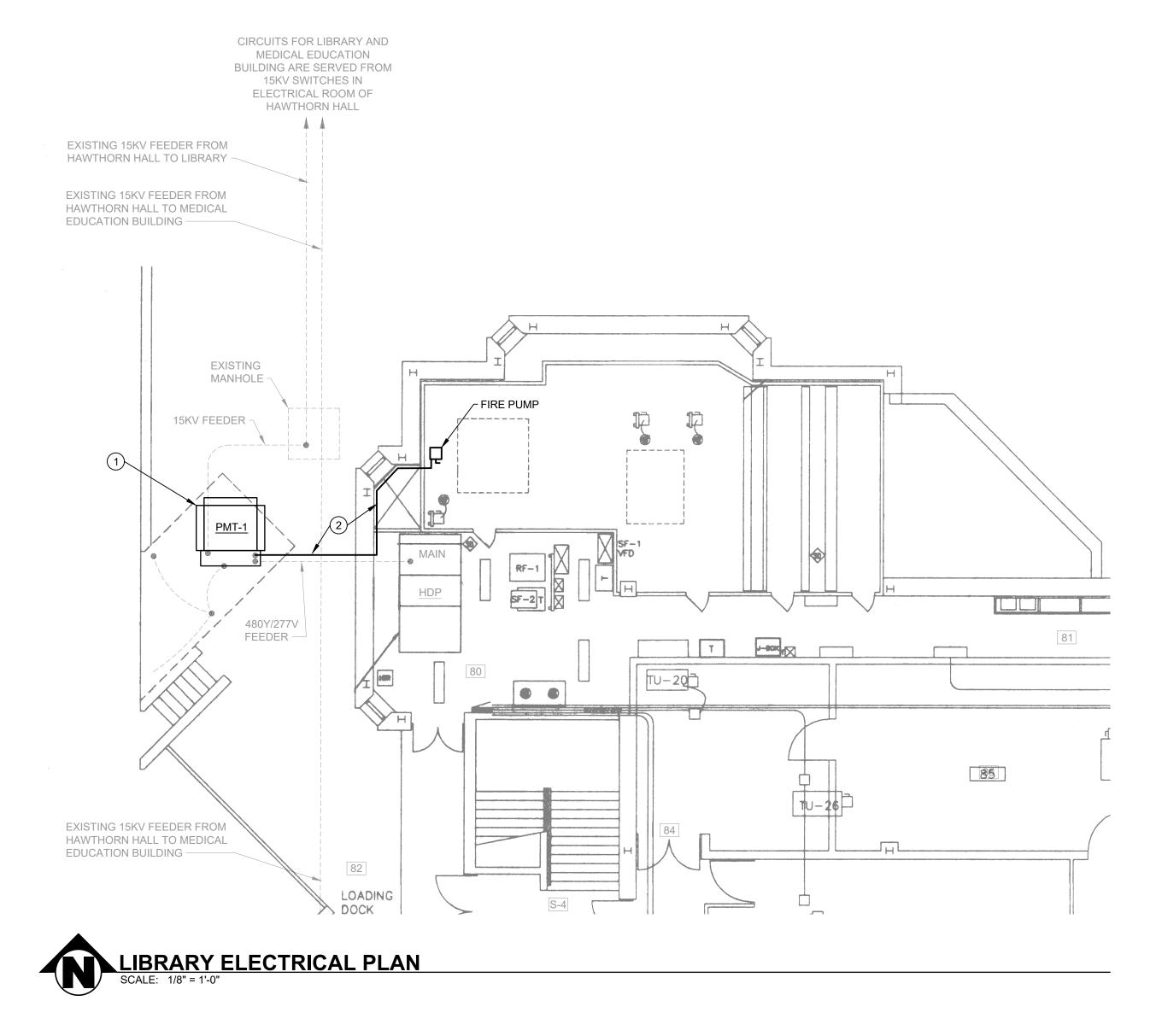
UL44 Listed for Thermoset Insulated Wires & Cables 600V/90°C RHH/R90

two-hour UL 2196 rated in both vertical and horizontal configurations, EMT and Champion Flame Shield Phenolic Conduit Type XW, Low Smoke, Zero Halogen

DuraLife® RHH/R90 meets the code requirements for circuit survivability.

4 PROVIDE BONDING JUMPER BETWEEN NEUTRAL AND GROUND, SIZE AS DESCRIBED IN NEC 250.28.

ANDERSON GROUNDING PLAN



DuraLife® RHH/R90 Two-Hour Fire-Rated Power Cables SPECIFICATIONS

UL 2196 Intertek UL 44

DuraLife® RHH/R90 Two-Hour Fire-Rated Power Cables

2020 NFPA 70® Table 310.16

HARDWARE & ACCESSORIES CERTIFIED: (Refer to DuraLife® Il Installation Instructions for details) Certified to the harsh requirements of the UL 2196 Test for Fire Resistive Cables, DuraLife® • EMT/Conduit: Wheatland/Western Tube; Set-Screw Coupling & Fittings: Hubbell Raco RHH/R90 is a 600V two-hour fire-rated cable designed to provide an easy-to-install, cost

RH500A037 500 MCM

• Phenolic Conduit: Conduit & Couplings: Champion Fiberglass; Conduit clamps: Erico

 Pull Boxes - NEMA 1: Eaton/Cooper; Type 4X: Nvent/Hoffman Pulling Lubricant - Polywater LZ

Radix DuraLife® Power Cables					Horizontal / Vertical Installation – EMT Raceway		Horizontal Installation- Champion Flame Shield Phenolic Conduit Type XW		Vertical Installation- Champion Flame Shield Phenolic Conduit Type XW				
DuraLife	Conductor	Conductor	Overall						Number of Conductors		Number of Conductors		
Part Number	Size	Strands	Diameter	System Thickness	Weight (lbs/1,000')	75°C (amps)	90°C (amps)	1 to 4	5	1 to 4	5	1 to 4	5
RH14A007	14 awg	7	.195"	45 mils	29	20	25	1"	1 1/4"	1"	1 1/4"	1"	1 1/4"
RH12A007	12 awg	7	.220"	45 mils	38	25	30	1 1/4"	1 1/4"	1 1⁄4"	1 1/4"	1"	1 1/4"
RH10A007	10 awg	7	.250"	45 mils	54	35	40	1 1⁄4"	1 ½"	1 1/4"	1 1/4"	1"	1 1/4"
RH08A007	8 awg	7	.310"	60 mils	84	50	55	1 1⁄4"	1 1/2"	1 1/4"	1 1/2"	1"	1 1/4"
RH06A007	6 awg	7	.380"	75 mils	131	65	75	1 ½"	2"	1 ½"	2"	1 1/4"	1 1/2"
RH04A007	4 awg	7	.420"	75 mils	186	85	95	2"	2 1/2"	2"	2 1/2"	1 1/4"	1 ½"
RH03A007	3 awg	7	.450"	75 mils	225	100	115	2"	2 1/2"	2 1/2"	2 1/2"	1 1/4"	2"
RH02A007	2 awg	7	.480"	75 mils	270	115	130	2"	2 1/2"	2 ½"	3"	1 ½"	2"
RH01A019	1 awg	19	.560"	100 mils	365	130	145	2 ½"	3"	2 1/2"	3"	2 1/2"	3"
RHX1A019	1/0	19	.600"	100 mils	443	150	170	2 ½"	3"	2 ½"	3"	2 ½"	3"
RHX2A019	2/0	19	.650"	100 mils	537	175	195	2 ½"	3"	2 1/2"	3"	2 1/2"	3"
RHX3A019	3/0	19	.700"	100 mils	658	200	225	3"	3 1/2"	3"	3 1/2"	3"	3 1/2"
RHX4A019	4/0	19	.760"	100 mils	806	230	260	3"	3 ½"	3"	3 ½"	3"	3 1/2"
RH250A037	250 MCM	37	.865"	130 mils	991	255	290	3 ½"	4"	3"	3 ½"	3"	4"
RH300A037*	300 MCM	37	.920"	130 mils	1165	285	320	4"	4"	3 ½"	4"	3 ½"	4"***
RH350A037	350 MCM	37	.970"	130 mils	1306	310	350	4"	4"	3 ½"	4"	3 ½"	4"***
RH400A037*	400 MCM	37	1.020"	130 mils	1672	335	380	4"	Х	4"	Х	4"	Х

See manufacturer's instructions for additional options and detailed conduit fill by awg size, orientation, conduit type. Must follow UL Electrical Circuit

Protective System (FHIT/7) #28E and all provisions of the National Electrical Code (NFPA 70). Ampacity based on three current

130 mils | 1825 | 380 | 430 | 4" | X | 4" | X

 High Rise Buildings Hospitals Emergency Generators

Places of Mass Assembly

Emergency Lighting

Fire Pumps

APPLICATIONS:

Emergency Elevators

Ventilating Fans

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Survivable Cable Solutions

Radix proprietary -

certifiable silicone

LSZH XLPO Outer Layer ----

carrying conductors in a conduit and a 30°C (88°F). * 300 & 400 MCM sizes are available as a special order item. ** See National Electrical Code (NFPA 70) section 240-3. *** Max 4 x 300MCM + 1 x 2/0 ground; Max 4 x 350MCM + 1 x 1/0 ground

Use or disclosure of data contained on this sheet is subject to the restrictions on the title page.

1.105"



HAWTHORN HALL EXISTING 15KV FEEDER FROM HAWTHORN HALL TO LIBRARY -EXISTING 15KV FEEDER FROM HAWTHORN HALL TO MEDICAL EDUCATION BUILDING — **EXISTING** MANHOLE FEEDER — EXISTING 15KV FEEDER FROM HAWTHORN HALL TO MEDICAL EDUCATION BUILDING — LOADING DOCK

CIRCUITS FOR LIBRARY AND MEDICAL EDUCATION

BUILDING ARE SERVED FROM

15KV SWITCHES IN

ELECTRICAL ROOM OF

GENERAL NOTES:

- A. FOR SYMBOLS AND GENERAL NOTES SEE SHEET E001.
- B. PROVIDE GENERATOR TO PROVIDE TEMPORARY POWER FOR ANY OUTAGE OVER FOUR (4) HOURS, AND IF MULTIPLE OUTAGES ARE TO OCCUR OF ANY LENGTH, PROVIDE TEMPORARY POWER TO PROVIDE 100% BACKUP POWER INCLUDING
- COVERAGE OF FIRE PUMP FOR ALL OUTAGES. C. PROVIDE FIRE WATCH AS APPROVED BY OWNER FOR ANY OUTAGE.
- D. TRANSFORMER DELIVERY: CONTRACTOR SHALL TAKE DELIVERY OF TRANSFORMER AND PROTECT THE UNIT UNTIL DELIVERED TO PROJECT SITE. TRANSFORMER SHALL NOT BE DELIVERED T SIT UNTIL THE TRANSFORMER IS READY TO BE SET IN

#PLANNOTES:-----

DEMOLITION NOTES:

1 ALTERNATE #2 - RETAIN EXISTING FIRE PUMP CABLING.

CABLING AND TERMINATIONS.

1. REMOVE EXISTING PAD MOUNT TRANSFORMER. RETAIN SECONDARY AND PRIMARY

2. REMOVE FEED FOR FIRE PUMP. REMOVE CONDUIT AND CABLE COMPLETELY.

EXISTING FIRE PUMP CONTROLLER SHALL REMAIN AND BE PROTECTED.

COORDINATE WORK WITH OWNER TO ENSURE BUILDING IS NOT OCCUPIED WITHOUT AN OPERATIONAL FIRE POMP.

PROVIDE PMT-1, PAD MOUNT TRANSFORMER. 2000KVA, 12,470V/480-277V, PADMOUNT, 5.75%Z. CONNECT TO EXISTING PRIMARY AND SECONDARY CABLING. PROVIDE GROUNDING PER DETAIL A ON THIS SHEET. ALTERNATE #1 - PROVIDE REFURBISHED PAD-MOUNT TRANSFORMER CONFORMING TO ALL OTHER SPECIFICATIONS.

2. PROVIDE FEED FOR FIRE PUMP. 3" FIBERGLASS CONDUIT, (3) #2/0 & (1) #6GND. POWER AND GROUND CABLING SHALL BE RADIX DURALIFE RHH/R90 TWO-HOUR FIRE-RATED CABLE. SEE CUT SHEET ON THIS PAGE. CONDUIT SHALL MEET CABLE REQUIREMENTS FOR 2 HOUR FIRE RATING. UTILIZE EXISTING OPENING IN BUILDING AND RUN CONDUIT ALONG EXISTING EXTERIOR WALL. SEAL OPENING IN BUILDING ENVELOPE TO BE WATERTIGHT. CONDUIT ROUTES THROUGH/ALONG EXISTING EXTERIOR WALL. PATCH AND PAINT WALL, AS REQUIRED. ROUTE CONDUIT ALONG WALL TO EXISTING FIRE PUMP PULL BOX LOCATED BELOW FIRE

~PUMP CONTROLLER. ALTERNATE #2 - REUSE EXIATING FIRE PUMP CABLING. TERMINATE ON NEW

> **NORTHWEST Indiana University**

Northwest 3400 Broadway Gary, IN 46408

Engineering Services 5975 Castle Creek Parkway N Drive, Suite 300 • Indianapolis, Indiana 46250

Tel: 317.810.4141 • Fax: 317.810.4140 • www.applied-e-s.com

NW827 - ANDERSON LIBRARY CONFERENCE **CENTER - REPLACE PAD MOUNTED TRANSFORMER** IU Project #20222216

Construction Documents March 6, 2025

REVISIONS NO. DATE DESCRIPTION. 2025-03-24 ADDENDUM 1

DESIGNED BY CERTIFICATION CHECKED BY APPROVED BY PROJECT NO. 3/8/24

ELECTRICAL PLANS AND GROUNDING DETAIL

SHEET NUMBER

E301

SHEET TITLE **ANDERSON LIBRARY**