



**Via E-Mail (jbecker@yonkerspublicschools.org)**

October 13, 2020

Mr. John Becker  
School Facilities Management Department  
Yonkers Public Schools  
One Larkin Center, 3<sup>rd</sup> Floor  
Yonkers, NY 10701

**Re: Consulting Services for HVAC Upgrades  
Yonkers Middle High School  
YPS Request for Proposal Number 420-19-25**

Dear Mr. Becker:

LiRo Engineers, Inc. (LiRo) is pleased to submit this proposal to provide design services for the above-referenced project at Yonkers Middle High School (YMHS). Work shall be executed under the terms and conditions of LiRo's agreement with Yonkers Public Schools (YPS) Contract CP10881.

## **1. Project Background**

The existing HVAC systems at YMHS make use of existing underground ducts to deliver conditioned air and provide ventilation. The School Facilities Management Department (SFMD) for YPS is upgrading the HVAC systems eliminate usage of underground ducts as part of an environmental remediation effort. LiRo provided design services for a design intent report that identified design recommendations to upgrade HVAC systems at YMHS. SFMD would now like to proceed with the design recommendations.

The design will affect the following two (2) systems:

1. Existing rooftop unit EC-5, serving as a ventilation unit for 1st-floor classrooms and spaces
2. Existing rooftop unit EC-13, serving corridor and storage spaces around the auditorium/arena.

### **EC-5:**

The design will abandon portions of existing ducts in-place and provide alternative routing for the supply air ductwork to reconnect to the existing ducts by establishing new routing via new riser shafts and enclosures. Rerouting will require multiple new duct shafts in existing spaces (hallway, faculty dining area, kitchen, school store) and loss of ceiling height in the hallways of the 2nd floor. There will also be some ceiling work in the 1st-floor ceiling to disconnect and seal asbestos ducts and connect new routing. Refer to sketch SK-2 attached.

### **EC-13:**

The design will remediate and directly replace portions of existing ductwork while preserving the overall routing and existing system. Impacted ductwork is located below the slab of the 3rd floor under the following spaces: hallways, lobby, the passage at the top of arena bleachers, and nurse's office. Accessibility thru the piping tunnel needs to be investigated. Scope of work will involve partial demolition of spaces above the



ducts, saw cutting and trenching thru the existing 3rd-floor slab, abatement of AC ducts, and replacement with new ducts, restoration of fill, slab and existing conditions in the spaces above. Refer to sketch SK-4 attached.

Refer to LiRo's design intent report (dated August 17<sup>th</sup>, 2020) for more detailed information about the scope, size and character of the entire project.

## **2. Scope of Services**

Design services to include:

1. Complete plans and specifications for the two (5) systems identified above.
2. Environmental remediation plans and specs.
3. Mechanical, Electrical, Fire Alarm construction plans that reflect existing conditions and proposed measures.
4. Structural plans and details to support the HVAC modifications, including:
  - a. Frame out new penetrations for new duct shafts to penetrate from upper to lower floor.
  - b. Provide structural support details for trenches cut in existing slab on grade for replacement of underground underslab ductwork.
5. Architectural plans and details to support the HVAC modifications, including:
  - a. Demolition & restoration of finishes
  - b. New soffits for new ductwork routing
  - c. New floor slab penetrations for ductwork
6. Updated Construction Cost Estimate based on developed Construction Documents.
7. Documentation required for SED permit application.
8. Bidding and negotiation services including attendance at the pre-bid conference, responses to RFIs, issuances of Addendums, and attendance at pre-award interview.
9. Ground penetrating radar (GPR) services for planned trenching through existing floor slabs to verify new duct routes.

## **3. Project Team**

LiRo will act as the prime consultant and will provide MEP, environmental, structural, and cost estimating services. LiRo will engage Fuller and D'Angelo PC as a subconsultant for architectural services.

## **4. Compensation**

YPS purchase order PO 2020-00006383 was issued to LiRo for \$165,400 plus a \$15,000 reimbursable budget and included the following scope:

1. Verifying the location of HVAC ducts and performing a visual assessment of these ducts to determine the overall impact associated with isolating and cleaning these ducts.
  - a. Ambient air testing to establish the base level air quality
2. Performing a 3-D scan of the school interior, including mechanical rooms. Building a 3-d Building Information Model (BIM) of architectural conditions



3. Preparing a report outlining recommendations for viable system upgrades including cost estimates for modification or replacement of HVAC systems.
4. Preparing schematic design plans for the viable recommendation presented to YPS - Design includes,
  - a. Remediation plans and specs
  - b. HVAC plans that reflect existing conditions and proposed measures

PO 2020-0006383 was issued to LiRo when the number of HVAC systems requiring corrective measures was unknown. In light of the scope now being limited to EC-5 and EC-13 as described above, LiRo proposes the following lump sum fees per milestone:

1. 75% Construction Documents:	<b>\$0</b>
<ol style="list-style-type: none"> <li>a. The remaining balance of PO 2020-006383 is adequate for LiRo to complete 75% CDs. YPS to confirm that the PO can be extended to include 75% CDs.</li> </ol>	
2. 100% Construction Documents:	<b>\$39,300.00</b>
3. GPR services (reimbursable expense):	<b>\$5,000.00</b>
<b>Total:</b>	<b>\$44,300.00</b>

LiRo will bill additional reimbursables under the purchase order associated with the design intent report.

## 5. Assumptions

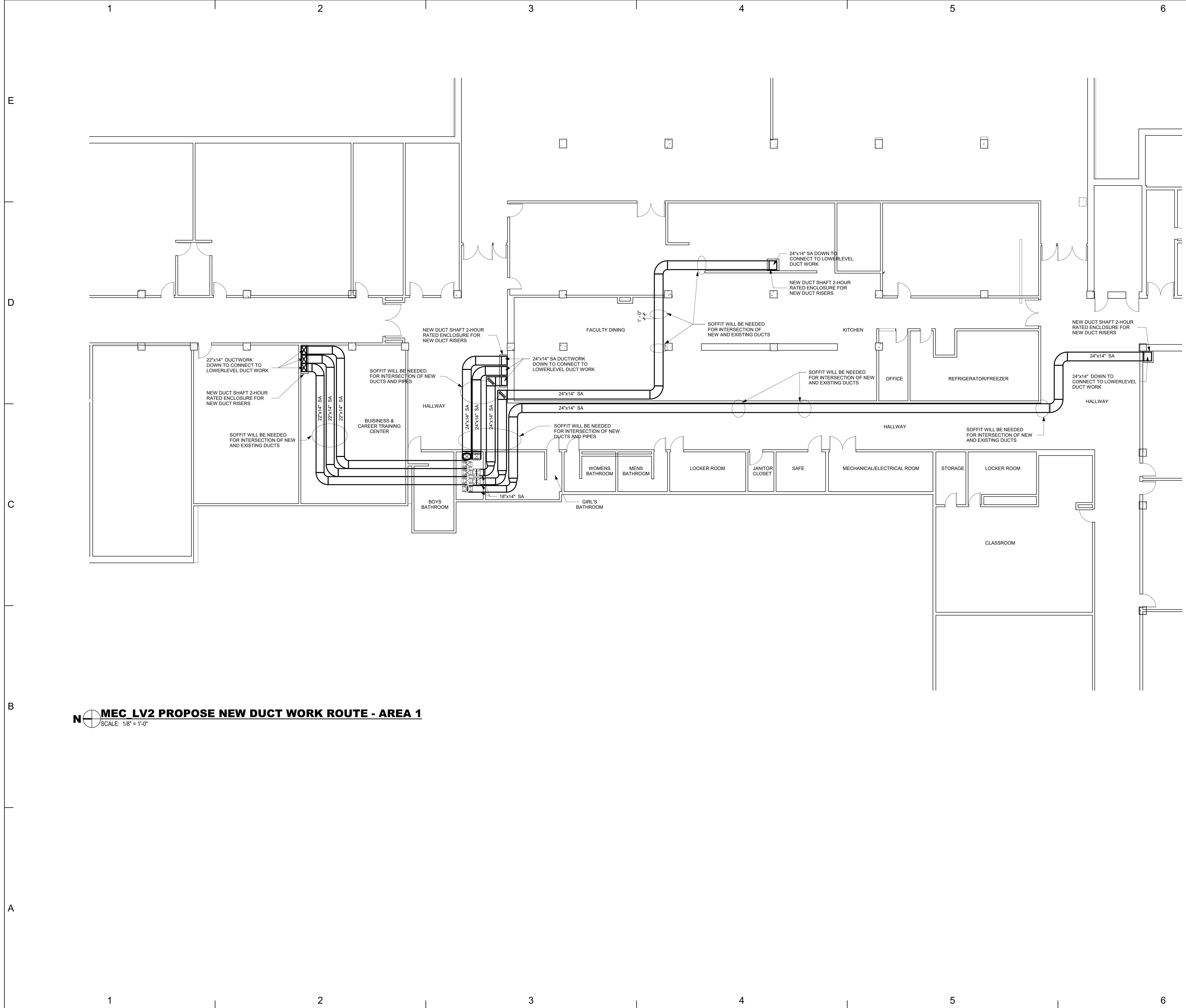
LiRo assumes the following:

1. Construction management services can be provided upon request by LiRo but are excluded from this proposal.
2. Energy calculations and LEED documentation are excluded.
3. LiRo will not investigate systems besides those listed in the design intent report and will not implement changes in scope until agreed upon between YPS and LiRo.
4. Environmental sampling and testing in addition to the design intent report effort shall be billed hourly as a reimbursable.
5. Engineering services during construction are excluded from this proposal.
6. LiRo anticipates YPS will submit the 100% CD package for procurement and SED filing and will assist in those efforts as requested by YPS.

We appreciate the opportunity to submit this proposal and look forward to the project. Should you require additional information or wish to discuss our proposal in more detail please contact me at 516-880-8503.

Sincerely,

Jonah Allaben  
Senior Associate Vice President  
LiRo Engineers, Inc.



PROJECT TITLE

**YPS Middle School  
Env-Eng Svcs**

PROJECT ADDRESS

**150 Rockland Avenue,  
Yonkers, NY  
10701**

OWNER

**YONKERS PUBLIC  
SCHOOLS**

ARCHITECT

**FULLER AND  
D'ANGELO P.C.**

45 KNOLLWOOD ROAD  
ELMSFORD, NY 10523  
(T) 914.592.4444

MEP ENGINEER AND ENVIRONMENTAL ENGINEER



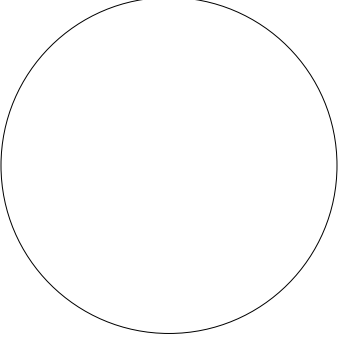
KEY PLAN: NOT TO SCALE

SHEET SIZE 30X42

MARK	DATE	DESCRIPTION

MARK	DATE	DESCRIPTION

ISSUE  
 SED #: xx-xx-xx-xx-xx-xx-xx-xx  
 YPS JOB: xxxxxx  
 DESIGN BY: Designer  
 DRAWN BY: Author  
 CHKD BY: Checker  
 COPYRIGHT:  
 LIRO ENGINEERS, INC.  
 ENGINEER'S SEAL



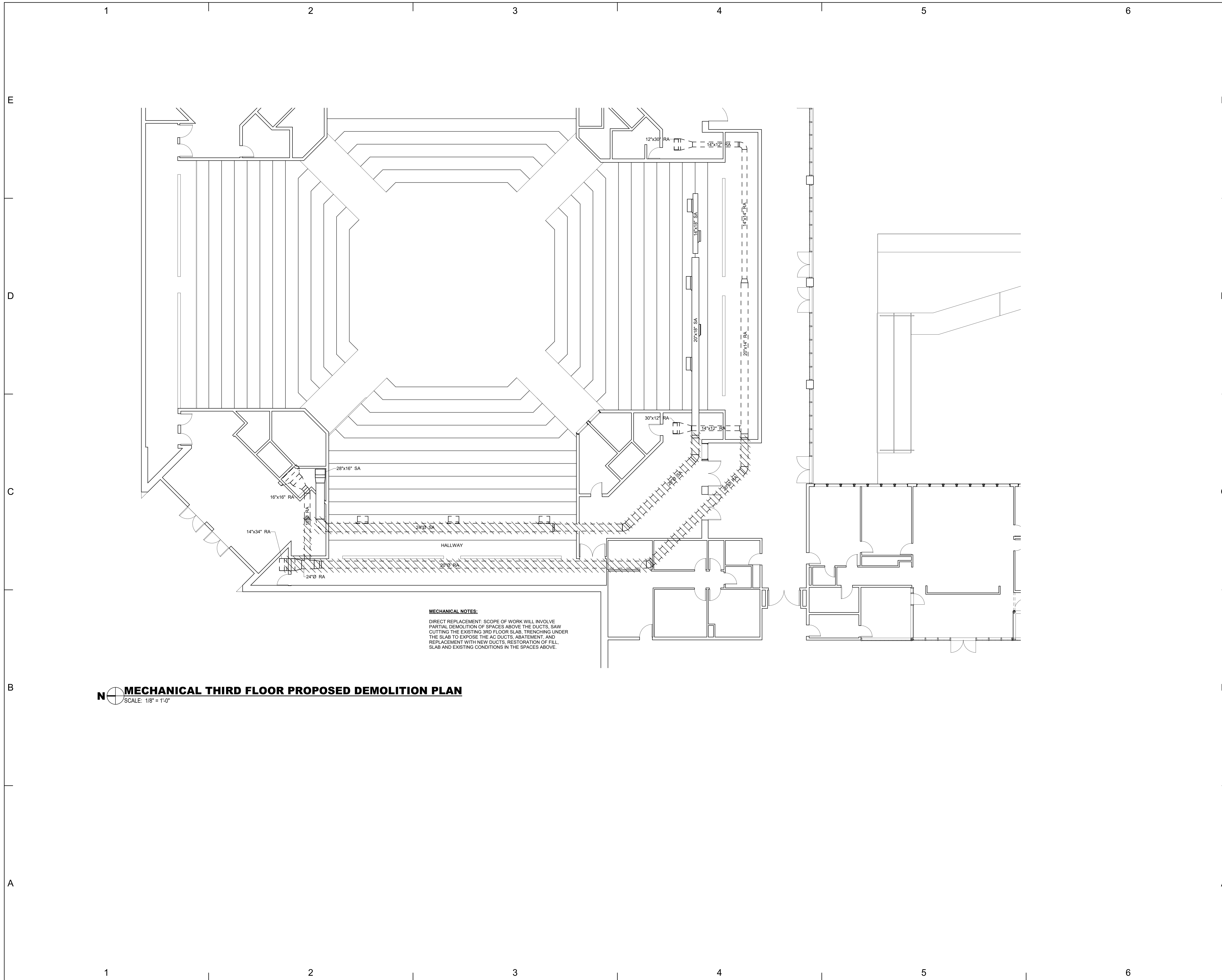
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SHEET TITLE

**MECHANICAL SECOND  
FLOOR PROPOSED  
DUCTWORK LAYOUT**


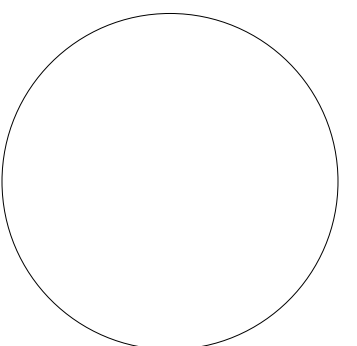
**SK-2**

8/14/2020 5:05:54 PM BIM 360://Yonkers Middle High School/MHS\_MEP.rvt



**MECHANICAL NOTES:**  
 DIRECT REPLACEMENT. SCOPE OF WORK WILL INVOLVE PARTIAL DEMOLITION OF SPACES ABOVE THE DUCTS, SAW CUTTING THE EXISTING 3RD FLOOR SLAB, TRENCHING UNDER THE SLAB TO EXPOSE THE AC DUCTS, ABATEMENT, AND REPLACEMENT WITH NEW DUCTS, RESTORATION OF FILL SLAB AND EXISTING CONDITIONS IN THE SPACES ABOVE.

**MECHANICAL THIRD FLOOR PROPOSED DEMOLITION PLAN**  
 SCALE: 1/8" = 1'-0"

PROJECT TITLE	<b>YPS Middle School Env-Eng Svcs</b>	
PROJECT ADDRESS	<b>150 Rockland Avenue, Yonkers, NY 10701</b>	
OWNER	<b>YONKERS PUBLIC SCHOOLS</b>	
ARCHITECT	<b>FULLER AND D'ANGELO P.C.</b> 45 KNOLLWOOD ROAD ELMSFORD, NY 10523 (T) 914.592.4444	
MEP ENGINEER AND ENVIRONMENTAL ENGINEER	 <b>LiRo Engineers, Inc.</b> A LiRo Group Company Syosset, N.Y. 516-214-8157(T)	
KEY PLAN: NOT TO SCALE		
SHEET SIZE	30X42	
MARK	DATE	DESCRIPTION
REVISION		
MARK	DATE	DESCRIPTION
ISSUE		
SED #:	XX-XX-XX-XX-XX-XX-XX	
YPS JOB:	XXXXX	
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DRAWN BY:	MH	
CHKD BY:	EG	
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SHEET TITLE		
<b>MECHANICAL THIRD FLOOR PROPOSED DEMOLITON PLAN</b>		
<b>SK-4</b>		