



CENTRAL HARDIN HIGH SCHOOL RENOVATION/ADDITION - BID GROUP I

ELIZABETHTOWN, KENTUCKY



PACKAGE

CONSTRUCTION DOCUMENTS

1-20-2021

OWNER
HARDIN COUNTY SCHOOLS
65 W A Jenkins Rd
Elizabethtown, Kentucky 42701
P: 270.769.8800
F: 270.769.8888

**HARDIN COUNTY BOARD OF
EDUCATION**
Charlie Wise Chairman
Dawn Johnson Vice Chair
Kay Sharon
John Emary
Ben Sego

Teresa Morgan Superintendent

ARCHITECT
JRA ARCHITECTS
3225 Summit Square Place, Suite 200
Lexington, KY 40509
P: 859.252.6781
F: 859.255.5483

STRUCTURAL ENGINEER
BROWN & KUBICAN
2224 Young Drive
Lexington, Kentucky 40506
P: 859.543.0933
F: 859.543.0733

MECHANICAL / ELECTRICAL ENGINEER
SHROUT TATE WILSON
628 Winchester Rd.
Lexington, Kentucky 40505
P: 859.277.8177

CIVIL ENGINEER
ENGINEERING DESIGN GROUP
315 Mulberry St
Elizabethtown, Kentucky 42701
P: 270.769.1436

FOOD SERVICE
JOBY SMITH & ASSOCIATES
8111 Lesourdsville Westchester
West Chester Township, OH 45609
P: 513.779.7970

CONSTRUCTION MANAGER
ALLIANCE CORPORATION
116 E College St
Glasgow, Kentucky 42141
P: 270.651.8848
F: 270.651.2915

DRAWING INDEX

GENERAL
G-000 COVER SHEET - BID GROUP I

SITE UTILITIES
U300 MECHANICAL SITE UTILITIES
U301 MECHANICAL SITE DETAILS



CONSTRUCTION DOCUMENTS

CENTRAL HARDIN HIGH SCHOOL
RENOVATION/ADDITION - BID GROUP I

HARDIN COUNTY SCHOOLS
ELIZABETHTOWN, KENTUCKY



GENERAL

PROJECT 2019111
DATE 1-20-2021

REVISIONS

No.	Description	Date

JRA ARCHITECTS HAS RETAINED AN ELECTRONIC VERSION OF THESE DRAWINGS. THE CLIENT AGREES NOT TO REUSE THESE DRAWINGS - IN ELECTRONIC OR ANY OTHER FORMAT - IN WHOLE OR IN PART FOR ANY PURPOSE OTHER THAN FOR THE PROJECT. THE CLIENT AGREES NOT TO TRANSFER THESE ELECTRONIC FILES TO OTHERS WITHOUT THE PRIOR WRITTEN CONSENT OF THE ARCHITECT. THE CLIENT FURTHER AGREES TO WAIVE ALL CLAIMS AGAINST THE ARCHITECT RESULTING IN ANY WAY FROM ANY UNAUTHORIZED CHANGES TO OR REUSE OF THE ELECTRONIC FILES FOR ANY OTHER PROJECT BY ANYONE OTHER THAN THE ARCHITECT.

COVER SHEET -
BID GROUP I

G-000

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"KY BUD" BEFORE YOU DIG: (811)

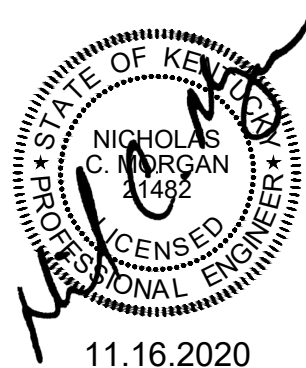
UNDERGROUND UTILITY LOCATIONS WERE DETERMINED FROM SITE SURVEY AND VISUAL INSPECTION OF THE PROPERTY AND SHOULD BE CONSIDERED APPROXIMATE ONLY. CONTACT ALL INDIVIDUAL UTILITY COMPANIES AND "KY BUD" PRIOR TO BEGINNING ANY EXCAVATION.

COORDINATION NOTE

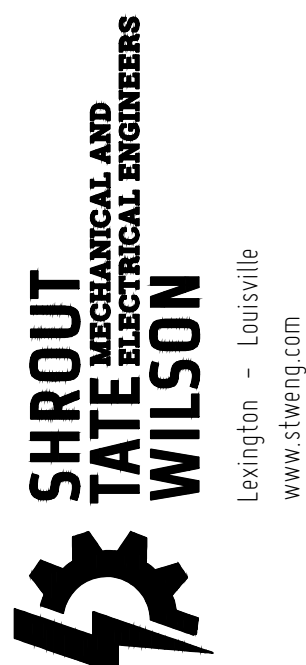
GEOTHERMAL CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING LOCATION OF WELLS AND LATERALS WITH ALL OTHER DISCIPLINES PRIOR TO INSTALLATION. COORDINATION ITEMS INCLUDE BUT ARE NOT LIMITED TO THE FOLLOWING: EXTERIOR LIGHTING POLE BASES, UTILITY LINES, SANITARY SEWER, STORM SEWER, DOMESTIC WATER



3225 Summit Square Place, Suite 200
Lexington, Kentucky 40509
859.252.6781



11.16.2020



CONSTRUCTION DOCUMENTS

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RENOVATION/ADDITION - BID GROUP I

HARDIN COUNTY SCHOOLS
ELIZABETHTOWN, KENTUCKY



MECHANICAL

PROJECT 2019111

DATE 11-16-20

REVISIONS

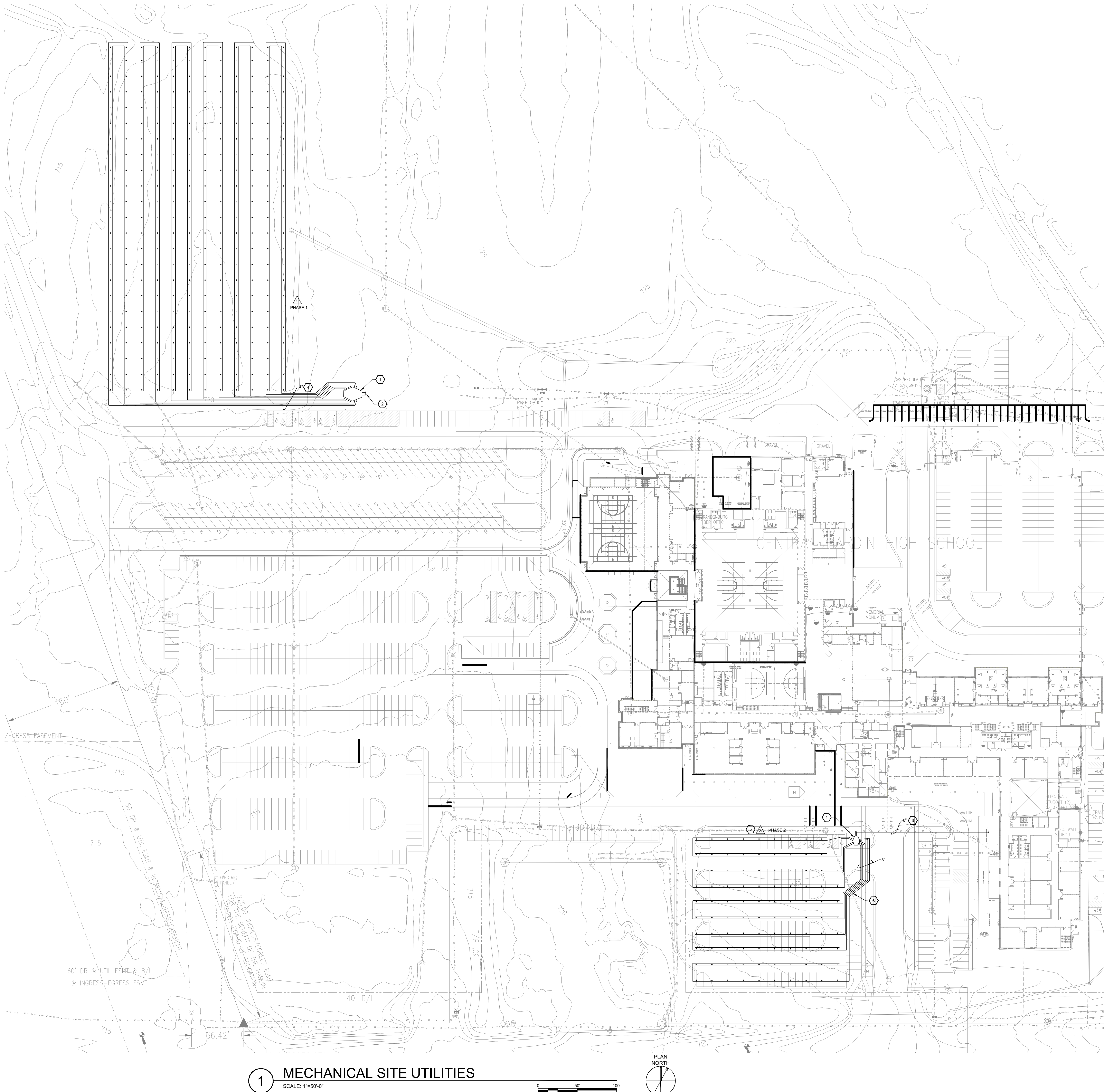
No.	Description	Date

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MECHANICAL
SITE UTILITIES

U300

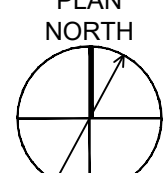
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1 MECHANICAL SITE UTILITIES

SCALE: 1"=50'-0"

0 50' 100'



GENERAL NOTES

- THE CONTRACTOR SHALL CONTACT THE LOCAL UTILITY COMPANIES AND SHALL LOCATE AND MARK ALL UNDERGROUND UTILITIES PRIOR TO BORING. CONTRACTOR SHALL ALSO HAVE THE MEANS TO LOCATE THE UTILITIES USING HIS OWN INSTRUMENTS. ANY DAMAGE TO EXISTING UNDERGROUND UTILITIES SHALL BE REPAIRED BACK TO ORIGINAL CONDITION WITHOUT COST TO THE OWNER.
- THE CONTRACTOR SHALL COORDINATE THE INSTALLATION OF THE GEOTHERMAL WELL FIELD AND LATERALS WITH ALL OF THE OTHER PROPOSED SITE UTILITIES AND SITE DRAINAGE PRIOR TO INSTALLATION. PIPING ROUTE ELEVATIONS SHALL BE ALTERED (DEEPER) AS REQUIRED FROM ELEVATIONS CALLED OUT ON THE PLANS, BUT SHALL NOT BE TRAPPED IN ANY INSTANCE. MINIMUM DEPTH OF ALL GEOTHERMAL PIPING SHALL BE 60" BELOW GRADE AS SHOWN ON THE DRAWINGS.
- INSTALL GEOTHERMAL WELLS MIN. 20 FT. ON CENTER AND TO THE DEPTH INDICATED IN THE WELL LOOP SCHEDULE.
- THE CONTRACTOR SHALL BRING THE DISTURBED AREAS OF THE WELL FIELD AND LATERALS BACK TO WITHIN 12" OF FINAL GRADE.
- CONTRACTOR SHALL KEEP DETAILED DRILLING LOGS FOR EACH WELL DRILLED. LOG SHALL INDICATE BORE DIAMETER, GPS COORDINATES, EARTH CONDITIONS DURING DRILLING, WATER (GPM), GAS LEVELS (PPM), AND LINEAR FEET OF CASING INSTALLED.
- COORDINATE LOCATION OF LATERALS WITH NEW TREES AND SHRUBBERY. WHERE THERE IS CONFLICT IN THESE AREAS BURY LATERALS 60" DEEP.

SHEET KEYNOTES:

- PROVIDE AND INSTALL HEADER VAULT IN THIS APPROXIMATE LOCATION (NOT TO SCALE). SUMP PUMP AND PIPING FOR SUMP DISCHARGE BY PLUMBING CONTRACTOR. REFER TO VAULT DETAIL ON SHEET U301.
- ROUTE 10" DIA. POLYETHYLENE HEAT PUMP WATER SUPPLY AND RETURN LATERALS MIN. 5'-0" BELOW FINISHED GRADE. REFER TO DETAIL ON SHEET U301 AND SPECIFICATIONS FOR TRENCHING AND BACKFILLING INFORMATION. CAP LINES JUST OUTSIDE OF VAULT FOR FUTURE CONNECTION.
- ROUTE 6" DIA. POLYETHYLENE HEAT PUMP WATER SUPPLY AND RETURN LATERALS MIN. 5'-0" BELOW FINISHED GRADE. REFER TO DETAIL ON SHEET U301 AND SPECIFICATIONS FOR TRENCHING AND BACKFILLING INFORMATION. CAP LINES WHERE SHOWN FOR FUTURE CONNECTION.
- GEOTHERMAL LATERALS. ROUTE MINIMUM 5'-0" BELOW FINISHED GRADE. PROVIDE WITH TRACE TAPE AS INDICATED ON SHEET U301. COORDINATE FINAL ELEVATION WITH STORM SEWER AND/OR UNDERGROUND ELECTRIC PRIOR TO INSTALLATION.
- REFER TO CM SCHEDULE FOR TIMELINE FOR DRILLING THIS FIELD.
- COORDINATE ROUTING WITH EXISTING ELECTRIC UNDERGROUND AT THIS APPROXIMATE LOCATION.

TEST WELL RESULTS:

- 0-33' - CLAY MUD
- 33'-39' - FRACTURE, SMALL MUDDY WATER (1 GPM)
- 39'-44' - GREY LIMESTONE
- 44'-73' - GREY LIMESTONE AND SHALE
- 73'-76' - SAND AND WATER (5GPM)
- 76'-123' - GREY LIMESTONE
- 123'-125' - WATER ZONE (20GPM)
- 125'-212' - GREY LIMESTONE AND SHALE
- 212'-215' - WATER ZONE (20GPM)
- 215'-402' - GREY LIMESTONE AND SHALE

WELL FIELD LOOP SCHEDULE

WELL FIELD DESIGNATION	NO. OF WELLS	EACH WELL DEPTH	WELL PIPE SIZE	GPM PER WELL	GPM PER LOOP
1	276	400'	1"	6.0	276
2	98	400'	1"	6.0	120

NO SCALE

NO SCALE

NO SCALE

PUMP SCHEDULE													
MARK	MANUFACTURER	MODEL	LOCATION	FLOW (GPM)	HEAD (FT)	RPM	CONNECTIONS		ELECTRICAL				REMARKS
							INLET	OUTLET	HP	V / Ø / Hz	MCA	MOCP	
SP-1	ZOELLER	NO 76	GEO THERMAL VAULT	17	20	3,400	1-1/4"	1-1/4"	1/12	115/1/60	—	—	1
SP-2	ZOELLER	NO 76	GEO THERMAL VAULT	17	20	3,400	1-1/4"	1-1/4"	1/12	115/1/60	—	—	1
REMARKS: 1. PUMP TO DISCHARGE TO TOP OF VAULT.													
OTHER ACCEPTABLE MANUFACTURERS INCLUDE: GRUNDFOS, BELL & GOSSETT.													

NO SCALE

NO SCALE

NO SCALE

NO SCALE