# WILLOW LAKE SCHOOL ADDITION

WILLOW LAKE SCHOOL DISTRICT

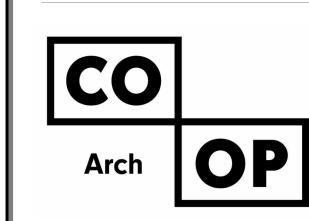
WILLOW LAKE, SOUTH DAKOTA



OWNER:

400 Garfield Street Willow Lake, SD 57278 Phone: 605-625-5945

www.willowlake.k12.sd.us



ARCHITECT:

**CO-OP Architecture** 440 E 8th Street #221 Sioux Falls, SD 57103 Phone: 605-334-9999 S200C

S300

S303

S304

D101B

D101C

A101C

A105B

A105C

A105D

A110C

**DEMOLITION** 

ARCHITECTURAL

www.co-oparch.com

STRUCTURAL ASSOCIATES INC.

Rise Structural Associates, Inc. 6909 S Lyncrest PI #110 Sioux Falls, SD 57108 Phone: 605-743-2510

riseincorp.com

MECHANICAL & ELECTRICAL ENGINEER:

SICHMELLER **ENGINEERING** 

Sichmeller Engineering 801 Railroad Avenue SE Aberdeen, SD 57401 Phone: 605-225-4344

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LANDSCAPE ARCHITECT:

STRUCTURAL ENGINEER:

CONFLUENCE

Confluence 440 E 8th Street #121 Sioux Falls, SD 57103 Phone: 605-339-1205

www.thinkconfluence.com

FOOD SERVICE CONSULTANT:

**Envision Kitchen** PO Box 90833 Sioux Falls, SD 57109 envisionkitchen.com

DRAWING	SHEET INDEX:						
CENEDAL		1110		<b>NAAOO</b> A	ADEA A DELOVA CDADE	E 404E	ADEA E LICUTING BLAN
GENERAL	0005 071110 1000	A119	FINISH SCHEDULE & LEGENDS	M400A	AREA A - BELOW GRADE PLUMBING & HYDRONICS PLAN	E404E	AREA E - LIGHTING PLAN
G000	CODE STANDARDS	A120	ENLARGED FINISH PLANS- AREA	N//O1D	AREA B - BELOW GRADE	E500A	AREA A - SPECIAL SYSTEMS PLAN
G001	BUILDING CODE SUMMARY &	۸131		M401B	PLUMBING & HYDRONICS PLAN	FFO1D	
C002	SYMBOLS LEGEND	A121	ENLARGED FINISH PLANS- AREA B	M402C	AREA C - BELOW GRADE	E501B	AREA B - SPECIAL SYSTEMS PLAN
G002	BUILDING CODE PLAN	A122	ENLARGED FINISH PLANS-	WITOZC	PLUMBING & HYDRONICS PLAN	E502C	AREA C - SPECIAL SYSTEMS
G003	TYPICAL ASSEMBLIES & GENERAL NOTES	AIZZ	AREA(S) C & E	M403D	AREA D - BELOW GRADE	LJUZC	PLAN
G004	PHASING PLAN	A123	ENLARGED FINISH PLANS- AREA		PLUMBING & HYDRONICS PLAN	E503D	AREA D - SPECIAL SYSTEMS
G004	FHASING FLAN	7125	D	M404E	AREA E - BELOW GRADE	23002	PLAN
SITE PREP	ADATION	A200	EXTERIOR ELEVATIONS		PLUMBING & HYDRONICS PLAN	E504E	AREA E - SPECIAL SYSTEMS
		A201	EXTERIOR ELEVATIONS	M500A	AREA A - ABOVE GRADE		PLAN
SP101	SITE DEMOLITION PLAN	A300	BUILDING SECTIONS		PLUMBING & HYDRONICS PLAN	E600	ELECTRICAL DETAILS
SP102	STORMWATER POLLUTION PREVENTION PLAN (SWPPP)	A301	BUILDING SECTIONS	M501B	AREA B - ABOVE GRADE	E700	ELECTRICAL SCHEDULES
SP103	STORMWATER POLLUTION	A302	BUILDING SECTIONS		PLUMBING & HYDRONICS PLAN	E701	ELECTRICAL SCHEDULES -
31 103	PREVENTION PLAN (SWPPP)	A310	WALL SECTIONS	M502C	AREA C - ABOVE GRADE		CONTINUED
SP201	SITE LAYOUT PLAN	A311	WALL SECTIONS		PLUMBING & HYDRONICS PLAN	E702	ELECTRICAL SCHEDULES -
SP301	SITE GRADING PLAN	A312	WALL SECTIONS	M503D	AREA D - ABOVE GRADE		CONTINUED 2
SP401	UTILITY PLAN & PROFILE	A313	WALL SECTIONS		PLUMBING & HYDRONICS PLAN		
SP501	SITE DETAILS	A314	WALL SECTIONS	M504E	AREA E - ABOVE GRADE	FOOD SER	RVICE
SP502	SITE DETAILS	A315	WALL SECTIONS	N 4 C O O	PLUMBING & HYDRONICS PLAN	F101	FOOD SERVICE / PLAN VIEW
SP503	SITE DETAILS	A320	STAIR/RAMP SECTIONS &	M600	FIRE PROTECTION - LEGENDS & DETAILS	F102	FOOD SERVICE / ELEVATIONS
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38303	STANDARD PLATES	71100	ELEVATIONS	M602D	AREA D - FIRE PROTECTION	F104	FOOD SERVICE / DETAILS
	DINIC	A401	ENLARGED PLANS & INTERIOR	1010020	PLAN	F105	FOOD SERVICE / WALL BACKING
LANDSCAF		-	ELEVATIONS	M603E	AREA E - FIRE PROTECTION	F106	FOOD SERVICE / UTILITIES
L101	SITE PLANTING PLAN	A402	<b>ENLARGED PLANS &amp; INTERIOR</b>	1410032	PLAN		
CTDLLCTLL			ELEVATIONS	M700A	AREA A - HVAC PLAN		
STRUCTUF		A403	<b>ENLARGED PLANS &amp; INTERIOR</b>	M701B	AREA B - HVAC PLAN		
S000	STRUCTURAL GENERAL NOTES		ELEVATIONS	M702C	AREA C - HVAC PLAN		
S001	STRUCTURAL SCHEDULES	A404	<b>ENLARGED PLANS &amp; INTERIOR</b>	M703D	AREA D - HVAC PLAN		
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C4.00D	- AREA A	A405	ENLARGED PLANS & INTERIOR	M705	HVAC TEMPERATURE CONTROL		
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21000	ADEA D	A408	INTERIOR ELEVATIONS	IAIDOT	CONTINUED		

**EXTERIOR DETAILS** 

**EXTERIOR DETAILS** 

**EXTERIOR DETAILS** 

**INTERIOR DETAILS** 

**INTERIOR DETAILS** 

A510

A511

A600

A601

A610

A611

A991

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EM100

EM101

M103

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MOTOR SCHEDULE, LEGENDS &

**ELECTRICAL & MECHANICAL** 

**ENLARGED KITCHEN LAYOUT** 

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HYDRONICS DEMOLITION PLAN

HYDRONICS DEMOLITION PLAN

HYDRONICS DEMOLITION PLAN

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AREA A - LIGHTING PLAN

AREA B - LIGHTING PLAN

AREA C - LIGHTING PLAN

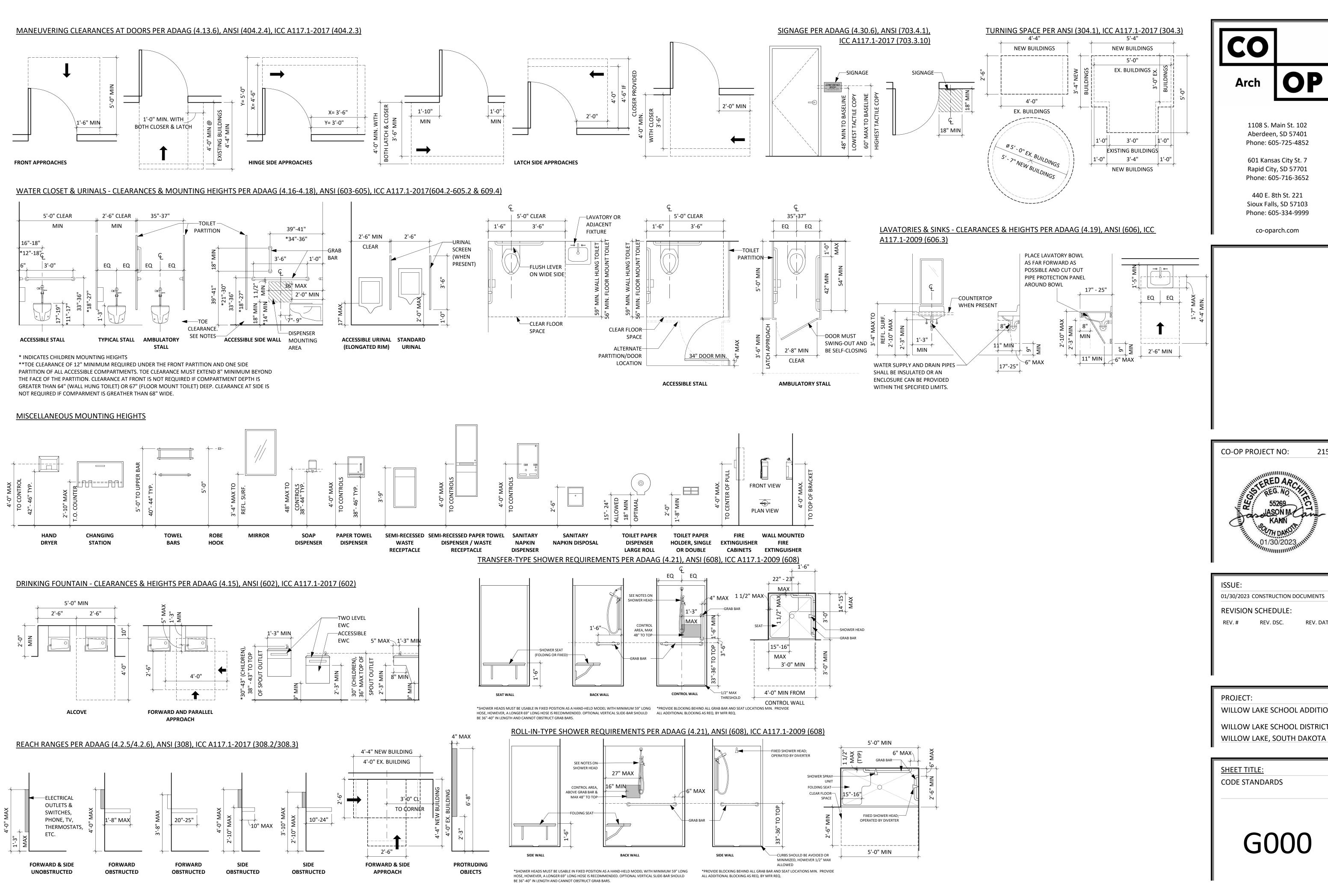
AREA D - LIGHTING PLAN

DEMOLITION PLAN

MECHANICAL SCHEDULES

**DOCUMENTS** 01/30/2023

CONSTRUCTION



601 Kansas City St. 7 Rapid City, SD 57701 Phone: 605-716-3652

440 E. 8th St. 221 Sioux Falls, SD 57103 Phone: 605-334-9999

co-oparch.com

CO-OP PROJECT NO: 2153

01/30/2023 CONSTRUCTION DOCUMENTS

**REVISION SCHEDULE:** 

WILLOW LAKE SCHOOL ADDITION

WILLOW LAKE SCHOOL DISTRICT

CODE STANDARDS

	מוח ווום	IC CODE O	SUMMARY							
	DUILDIN	IG CODE S	DUIVIIVIAKT							
APPLICABLE CODES  1. BUILDING CODE: 2015 INTERNATIONAL BUILDING CODE  2. MECHANICAL CODE: 2015 INTERNATIONAL MECHANICAL CODE	GENERAL BUILDING HEIGHTS & AREA CONSTRUCTION TYPE: IIB/VB	AS (CHAPTER 5)		MEANS OF EGR  1. MAXIMUM FI  A. ACCESSORY	LOOR ARE	A ALLOWAN		•	•	
3. PLUMBING CODE: <b>2015</b> UNIFORM PLUMBING CODE		MAX PERMITTED	PROPOSED	B. ASSEMBLY		=				
4. ELECTRICAL CODE: NATIONAL ELECTRICAL CODE <b>2022</b>	BUILDING 1 (IIB): EXISTING SCHOOL V	W/ RENOVATIONS 55 FT	EXISTING	C. ASSEMBLY	-	•	NCENTRATE	O): 7 NET		
5. ENERGY CONSERVATION CODE: <b>2009 IECC</b> 6. FIRE CODE: FIRE CODE <b>2015</b> OF SOUTH DAKOTA	# OF STORIES ABOVE GRADE PLAN	1 STORIES	EXISTING	<b>D.</b> BUSINESS A <b>E.</b> EDUCATION			NET			
	ALLOWABLE AREA FACTOR	$(A_a) = 14,500 SF$	EXISTING	F. EDUCATION						
USE AND OCCUPANCY CLASSIFICATION (CHAPTER 3)  1. OCCUPANCY CLASSIFICATION:	FRONTAGE INCREASE SPRINKLER INCREASE	$(I_f) = N/A$	N/A NOT SPRINKLERED	<b>G.</b> KITCHENS - <b>H.</b> LIBRARY - F						
• GROUP E  2. ACCESSORY OCCUPANCIES:	PROPOSED TOTAL		EXISTING; 2975 SF RENOVATED	I. LOCKER ROG	OMS: 50 G		<b>V</b> E.			
GROUP A PER 303.1.3 (COMMONS SPACE)      GROUP B (OFFICES WORKDOMS)	PLUI DING 3 (VP), EVISTING SCHOOL N	MALA DENIGNATIONS		2 CALCULATED	OCCUDAN	IT I OADC				
<ul> <li>GROUP B (OFFICES, WORKROOMS)</li> <li>GROUP S-1 (STORAGE ROOMS)</li> </ul>	BUILDING 2 (VB): EXISTING SCHOOL V	55 FT	EXISTING	2. CALCULATED GENERAL SCH			CCUPANT LO	AD: <b>1,327</b>		
3. MIXED OCCUPANCY: <b>NONE</b>	# OF STORIES ABOVE GRADE PLAN	1 STORIES	EXISTING	(EXCLUDES G)	YMNASIUN	MS, STAGE, C	COMMONS, L	OCKER ROC	MS, LIBRARY	, CONCESSIONS)
4. OCCUPANCY SEPARATION: <i>NONSEPARATED OCCUPANCIES (SECTION 508.3)</i> 5. HAZARDOUS AREAS: <i>NONE</i>	ALLOWABLE AREA FACTOR FRONTAGE INCREASE	$(A_a) = 14,500 SF$ $(I_f) = N/A$	N/A N/A	EVENT USE O	CCUPANT	LOADS:				
6. INCIDENTAL USE AREAS:	SPRINKLER INCREASE	( ', ', '	NOT SPRINKLERED	COMMONS: 4						
A. MECHANICAL ROOM(S): AUTOMATIC FIRE-EXTINGUISHING SYSTEM B. ELECTRICAL ROOM(S): AUTOMATIC FIRE-EXTINGUISHING SYSTEM	PROPOSED TOTAL		EXISTING; 635 SF RENOVATED	STAGE: 78 GYMNASIUM	1: 702					
C. STORAGE ROOMS OVER 100 SF: AUTOMATIC FIRE-EXTINGUISHING SYSTEM	PROPOSED TOTAL		EXISTING, 033 SI RENOVATED	GYMNASIUM						
D. OTHER	BUILDING 3 (ASSUMED TYPE VB): EXI			CONCESSIONS	5: 4					
SPECIAL DETAILED REQUIREMENTS BASED ON OCCUPANCY AND USE (CHAPTER 4)	# OF STORIES ABOVE GRADE PLAN	<b>40</b> FT <b>1</b> STORIES	EXISTING EXISTING	NOTE: IT IS AS	SSUMED T	HAT DURING	SCHOOL US	E, THE COM	IMONS, STAG	GE, GYMNASIUMS,
	ALLOWABLE AREA FACTOR	$(A_a) = 9000 \text{ SF}$	EXISTING	LOCKER ROOM	MS, LIBRAI	RY, AND CON	NCESSIONS W	OULD BE O	CCUPIED ON	LY BY STUDENTS
1. STAGES (410) A. STAGE CONSTRUCTION PER 410.2.1	FRONTAGE INCREASE SPRINKLER INCREASE	$(I_f) = N/A$	N/A NOT SPRINKLERED	ALREADY WIT			ND EVENT US	E OF THESE	SPACES WOL	JLD ONLY OCCUR
a. IIB W/ NOM. 2" WOOD DECK ALLOWED WHERE STAGE IS SEPARATED PER (410.2.4)										
<ul> <li>STAGE HEIGHT IS LESS THAN 50FT TALL</li> <li>PROSCENIUM WALL (410.2.4)</li> </ul>	PROPOSED TOTAL		EXISTING; 4230 SF RENOVATED	3. EGRESS WIDT A. OTHER EGR			•		ION SDRINKI	FRED OR 0 15
a. WHERE STAGE IS GREATER THAN 50 FEET, STAGE SHALL BE SEPARATED FROM SEATING	<b>BUILDING 4 (IIB): EXISTING GYMNAS</b>	IUM W/ ADDITION	<u>:</u>	INCHES/OC			=	ACCOLAIN I	NOW SI KIINKE	ENED ON 0.15
AREA BY PROSCENIUM WALL W/ 2HR FIRE RATING FROM FOUNDATION TO ROOF.	ALLOWABLE BUILDING HEIGHT	<b>45</b> FT	EXSTING	B. EXIT STAIR\			AR WIDTH: 4	8" MIN.		
<ul><li>C. PROSCENIUM CURTAIN (410.2.5)</li><li>a. WHERE PROSCENIUM WALL IS REQ'D TO BE RATED, STAGE OPENING SHALL BE RATED.</li></ul>	# OF STORIES ABOVE GRADE PLAN ALLOWABLE AREA FACTOR	<b>2</b> STORIES $(A_a) = 58,000 \text{ SF}$	EXISTING 29,535 SF	C. DOOR ENCE DOOR SW			CT REQUIRED	WIDTH BY	MORE THAN	1/2
HORIZONTAL SLIDING DOORS PER 716 SHALL BE NOT LESS THAN 1HR.	FRONTAGE INCREASE	$(I_f) = N/A$	N/A			NOT PROJEC	T MORE THA	N 7"		
D. EGRESS (410.5) a. NOT FEWER THAN 1 EXIT PROVIDED ON EACH SIDE OF STAGE (410.5.1)	SPRINKLER INCREASE		SPRINKLERED	4. EXIT REQUIRE		DISTANCE: 2	00 FFFT W/O	SPRINKI FR	250 W/ SPR	INKLER <i>(1017.2)</i>
E. AUTOMATIC SPRINKLER SYSTEM (410.6): STAGES SHALL BE EQUIPPED WITH AUTOMATIC	BASE BID PROPOSED TOTAL		29,600 SF	B. COMMON	PATH OF 1				, 230 11, 31 11	
SPRINKLER SYSTEM PER 903.3.1.1. a. EXCEPTION 1: SPRINKLERS NOT REQUIRED UNDER STAGE AREAS LESS THAN 4 FT IN CLEAR			20,508SF ADDITION 1255 SF RENOVATION	5. CORRIDORS (: A. FIRE RESIST	•		D E W/O SDD	INIVI ED CVCT	TENA O LID INI	CPOLID E W/
HEIGHT USED EXCLUSIVELY FOR STORAGE OF TABLES AND CHAIRS, PROVIDED CONCEALED			7,837 SF EXISTING	SPRINKLER		HK IN GROU	P E W/O SPR	IINKLEK 3131	I EIVI. U FIK IIV	GROUP E W/
SPACE IS SEPARATED FROM ADJACENT SPACES BY 5/8" TYPE X GYPBOARD	ALTERNATE PROPOSED TOTAL	A.I.	20.445.65							THERWISE (1020.3)
BUILDING LOCATION	ALTERNATE PROPOSED TOTA	AL	<b>30,145 SF</b> 21,053 SF ADDITION	OCCUPANC		-	CLEK, 50 FEET	W/ SPRINK	LEK PEK EXCI	EPTION FOR GROUP E
1. WILLOW LAKE, SD AREA REGULATIONS (2.05.05)			1255 SF RENOVATION	6. MINIMUM N						
A. <b>ZONING DISTRICT:</b> R-1 B. <b>MAXIMUM LOT COVERAGE:</b> SHALL NOT EXCEED 30% OF TOTAL LOT AREA			7,837 SF EXISTING	A. PER STORY	•	-	: UPANCY LOA	D PFR STOR	RY OF <b>1-500</b>	
a. LOT AREA: 179,901 SF EXISTING	BUILDING 5 (IIB): EXISTING GYMNAS			MINIMUN	M OF <b>4</b> EXI	ITS FOR OCC	UPANCY LOA			
b. BUILDING AREA: EXISTING: 59,027 SF, NEW: 20,365 SF, TOTAL: 79,392 SF C. MINIMUM YARD REQUIREMENTS: AS DETERMINED BY BOARD OF ADJUSTMENT FOR NON-	# OF STORIES ABOVE GRADE PLAN	<b>45</b> FT <b>2</b> STORIES	EXISTING EXISTING	7. RAMPS (SECT A. SLOPE: <b>1:1</b> 2	,	•	NS OF FGRES	22		
RESIDENTAL STRUCTURES. RESIDENTIAL STRUCTURES: FRONT = 20FT, SIDE = 7FT, REAR =	ALLOWABLE AREA FACTOR	$(A_a) = 14,500 \text{ SF}$	EXISTING	B. RISE: <b>30" N</b>		JOED AS IVILA	NIS OF EGILES	55.		
20FT	FRONTAGE INCREASE	$(I_f) = N/A$	N/A	C. WIDTH: NO						
D. <b>HEIGHT REGULATIONS:</b> 45FT FOR PRINCIPLE BUILDING; 75FT FOR TOWERS AND STEEPLES  2. REFERENCE SITE & CODE PLAN	SPRINKLER INCREASE		NOT SPRINKLERED				SSIBLE ROUT		ENGIH: 60 I	MIN FOR ACCESSIBLE
BUILDING 1: N: EXCEEDS 30' CLEAR				E. HANDRAILS						(
E: EXCEEDS 30' CLEAR S: SHARED WALL WITH BUILDING 2	PROPOSED TOTAL		NO CHANGE	HEIGHT (10		RED AT LAND	JINGS GREAT	ER THAN 30	ABOVE FLO	OR (1015.2). 42"
W: 21" (SOUTH PORTION), 28FT (NORTH PORTION) TO INTERIOR LOT LINE	BUILDING 6 (IIB): EXISTING AG SHOP									
BUILDING 2: N: SHARED WALL WITH BUILDING 1	# OF STORIES ABOVE GRADE PLAN	<b>45</b> FT <b>2</b> STORIES	EXISTING EXISTING	1. ACCESSIBLE E			INCORPORAT	TED INTO TH	HE DOCUMEN	ITS
E: EXCEEDS 30' CLEAR	ALLOWABLE AREA FACTOR	$(A_a) = 14,500 SF$	N/A							
S: SHARED WALL WITH BUILDING 3 W: 19" (NORTH PORTION), 4'-9" (SOUTH PORTION)	FRONTAGE INCREASE SPRINKLER INCREASE	$(I_f) = N/A$	N/A NOT SPRINKLERED	PLUMBING CAL 1. TABLE 2902.1		NS (CHAPTEF	<u>R 29)</u>			
				1. 17.022 2302.1	WATER C	CLOSETS	<u>LAVATO</u>	<u>RIES</u>	<u>DF</u>	SERVICE SINK
<ul> <li>BUILDING 3: N: PARTIALLY SHARED WALL WITH BUILDING 2; EXCEEDS 30FT ELSEWHERE</li> <li>E: EXCEEDS 30' CLEAR</li> </ul>	PROPOSED TOTAL		NO CHANGE	_	MALE <b>1:50</b>	FEMALE <b>1:50</b>	MALE <b>1:100</b>	FEMALE <b>1:100</b>	1:100	1
S: SHARED WALL WITH BUILDING 4				<i>B</i>	1:25 1ST		1:40 1ST		1:100	1
W: 4'-9" TO INTERIOR LOT LINE	TYPES OF CONSTRUCTION (CHAPTER	<u>: 6)</u>		A	1:125	1:65	1:200	1:200	1:500	1
BUILDING 4: N: PARTIALLY SHARED WALL WITH BUILDING 3; EXCEEDS 30FT ELSEWHERE	TYPE IIB CONSTRUCTION FIRE RESISTIVE RATING REQUIREMEN	TS FOR BUILDING E	LEMENTS (TABLE 601 & 602):	TOTAL OCCUPA	NTS PER C	OCCUPANCY:				
E: 23FT TO BUILDING 6, EXCEEDS 30FT ELSEWHERE.	ELEMENT OF CONSTRUCTION		STANCE RATING (HRS)							
S: PARTIALLY SHARED WALL WITH BUILDING 6; EXCEEDS 30FT ELSEWHERE W: PARTIALLY SHARED WALL W/ BUILDING 5	PRIMARY STRUCTURAL FRAME BEARING WALLS (INTERIOR & EXTERIOR)	OR)	<i>0</i> <i>0</i> *	<u>TYPICAL SCHOO</u> <b>E (1307)</b> REQ'D:		<u>13.08</u>	6.54	6.54	13.08	1
	NONBEARING WALLS AND PARTITION	IS EXTERIOR	PER <i>TABLE 705.5</i>	<b>B (20)</b> REQ'D:		0.4	0.25	0.25	1	1
<ul> <li>BUILDING 5: N: SHARED WALL WITH BUILDING 4</li> <li>E: PARTIALLY SHARED WITH BUILDING 4; EXCEEDS 30FT ELSEWHERE</li> </ul>	NONBEARING WALLS AND PARTITION FLOOR CONSTRUCTION & SECONDAR		0	TOTAL REQ'D:	14	14	7	7	15	2
S: 20'-5" TO INTERIOR LOT LINE	ROOF CONSTRUCTION & SECONDARY		0	ISTAL REQ D.	<b>-</b> 7	<b>-</b> 7	•	•		<u>~</u>
W: 3'-6"(NORTH PORTION); 13'4" (SOUTH PORTION) TO INTERIOR LOT LINE	*SEE PLAN FOR RATED WALLS DUE TO	O FSD		PROVIDED:	23	22	13	13	15*	4
BUILDING 6: N: SHARED WALL WITH BUILDING 4	FIRE AND SMOKE PROTECTION FEAT	URES (CHAPTER 7)		*12 HI/LO WAT	ER FOUNT	TAINS PROV	IDED; 3 WAT	ER DISPENS	SERS PROVID	ED.
E: 26'-8" (NORTH PORTION) TO BUILDING 4; EXCEEDS 30FT ELSEWHERE	1. FIRE WALLS (SECTION 706):	2 HR (TYPE II C	CONSTRUCTION EXCEPTION)					_		
S: EXCEEDS 30' CLEAR W: 23FT TO BUILDING 4; EXCEEDS 30FT ELSEWHERE	2. FIRE BARRIERS (SECTION 707): 3. FIRE PARTITION (SECTION 708):	<b>2</b> HR <b>1 HR</b> CORRIDO	OR WALLS @ BUILDINGS 1,2,3,5 & 6							
, English don't Elsewhene		(NON-SPRINKL	ERED)							
	4. OPENING PROTECTIVES (SECTION 7	716) - TO COMPLY W	VITH TABLES 716.3 & 716.5							

**ABBREVIATIONS** A/C AIR CONDITION FFE FINISHED FLOOR ELEVATION PSF POUNDS PER SQAURE FOOT AB ANCHOR BOLT FF FINISHED FLOOR PVT PAVER TILE ACPL ACOUSTICAL PLASTER FLR FLOOR PTB PAVER TILE BASE ADJ ADJUSTABLE FRP FIBERGLASS REINFORCED PANEL PWD PLYWOOD AFF ABOVE FINISH FLOOR FT FOOT AHU AIR HANDELING UNIT FTG FOOTING QB QUARRY TILE BASE ALUM ALUMINUM FWC FABRIC WALL COVERING ALT ALTERNATE QT QUARRY TILE ANC ANCHOR APC ACOUSTICAL PANEL CEILING GALV GALVANIZED GB GRAB BAR RB RESILIENT BASE GC GENERAL CONTRACTOR RD ROOF DRAIN BC BOTTOM OF CURB GLAZ GLAZED BLOCK REF REFRIDGERATOR BD BOARD GWB GYPSUM WALL BOARD RM ROOM BLDG BUILDING GWT GLAZED WALL TILE RO ROUGH OPENING GTB GLAZED WALL TILE BASE RST RESILIENT STAIR TREAD BLKG BLOCKING RT RUBBER TILE BN BULLNOSE B.O. BOTTOM OF RV REVEAL BOW BOTTOM OF WALL HB HOSE BIB RVB RUBBER VENTED BASE BRG BEARING HC HANDICAPPED BRL BRICK LEDGE HLB HORIZONTAL LOUVER BLINDS BURN BURNISHED BLOCK HM HOLLOW METAL SB SPLASH BLOCK HPC HIGH PERFORMANCE COATING SC-# SPECIAL COATING (COLOR #) HT HEIGHT SCONC SEALED CONCRETE CG CORNER GUARD HVAC HEATING, VENTING & AIR CONDITIONING SECT SECTION CJ CONTROL JOINT SIM SIMILAR CLG CEILING SQ SQUARE CMU CONCRETE MASONRY UNIT ID INSIDE DIAMETER SS STAINLESS STEEL INSL INSULATION COL COLUMN STD STANDARD COMP COMPARTMENT INT INTERIOR STL STEEL CONC CONCRETE SV SHEET VINYL FLOORING **CONSTRUCTION** SYM SYMETRICAL CONT CONTINUOUS OR CONTINUE JBE JOIST BEARING ELEVATION CONTR CONTRACTOR JST JOIST T&G TONGUE & GROOVE CPT CARPET JT JOINT CSV COVE SHEET VINYL BASE TB TACKBOARD CT CERAMIC TILE TBD TO BE DETERMINED CTB CERAMIC TILE BASE LAM LAMINATE TC TOP OF CURB LAV LAVATORY TERR TERRAZZO T.O. TOP OF DBL DOUBLE TOC TOP OF CONCRETE MAX MAXIMUM DIA DIAMETER TOF TOP OF FOOTING DIM DIMENSION MB MARKER BOARD TOM TOP OF MASONRY DEMO DEMOLITION MC MECHANICAL CONTRACTOR TOO TOP OF OPENING DET DETAIL MECH MECHANICAL TOP TOP OF PRECAST DF DRINKING FOUNTAIN MTL METAL TOS TOP OF STEEL DR DOOR MIN MINIMUM TOW TOP OF WALL DS DOWNSPOUT MO MASONRY OPENING TPD TOILET PAPER DISPENSER DW DISH WASHER MST MOSAIC TILE TS TALL STORAGE DWG DRAWING MTB MOSAIC TILE BASE TV TELEVISION TYP TYPICAL EA EACH NIC NOT IN CONTRACT EC ELECTRICAL CONTRACTOR NO NUMBER UNO UNLESS NOTED OTHERWISE EIFS EXTERIOR INSULATION FINISH SYSTEM NOM NOMINAL EJ EXPANSION JOINT NTS NOT TO SCALE ELEV ELEVATION VCT VINYL COMPOSITION TILE ELEC ELECTRIC VEND VENDING MACHINE EQ EQUAL OC ON CENTER VERT VERTICAL OD OUTSIDE DIAMETER VTR VENT THRU ROOF EQUIP EQUIPMENT ES EXPOSED STRUCTURE OH OVERHEAD VWB VINYL WALL BORDER EW EACH WAY VWC VINYL WALL COVERING EWC ELECTRIC WATER COOLER EXPO EXPOSED PT PAINT EXIST EXISTING EXT EXTERIOR PLAS PLASTER W/O WITHOUT PLAM PLASTIC LAMINATE WB WOOD BASE PJ PANEL JOINT WC WATER CLOSET FBO FURNISHED BY OTHERS WD WOOD FD FLOOR DRAIN WH WATER HEATER FDN FOUNDATION WOM WALK OFF MAT

# ARCHITECTURAL SYMBOLS LEGEND

WT WEIGHT

FE FIRE EXTINGUISHER

FEC FIRE EXTINGUISHER CABINET





Arch



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STERED ARCHITICAL STREET NO. 1141

STREE

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REVISION SCHEDULE:

REV. # REV. DSC.

PROJECT:

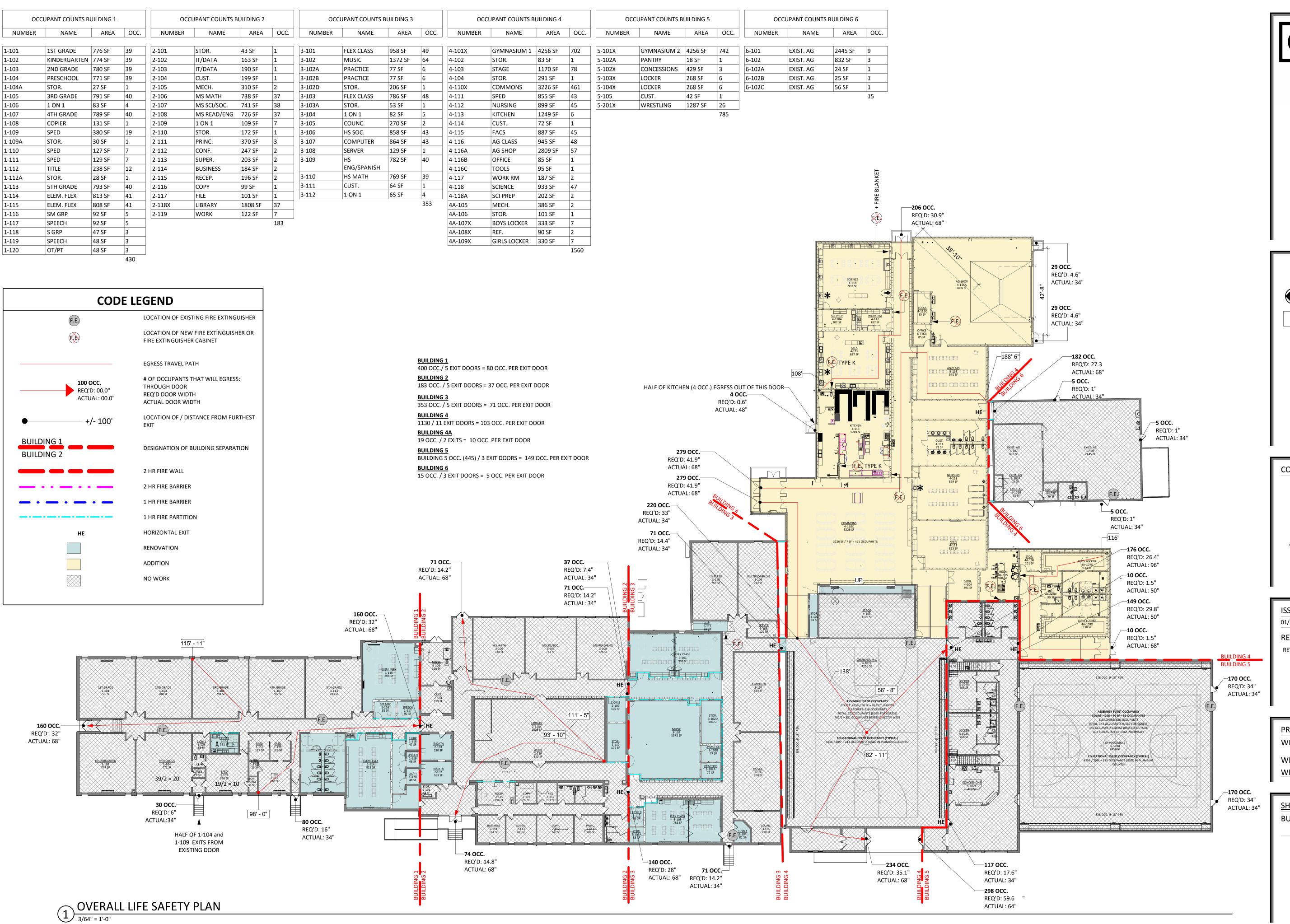
WILLOW LAKE SCHOOL ADDITION

WILLOW LAKE SCHOOL DISTRICT WILLOW LAKE, SOUTH DAKOTA

SHEET TITLE:

BUILDING CODE SUMMARY & SYMBOLS LEGEND

3001

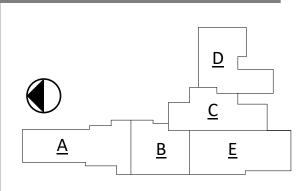


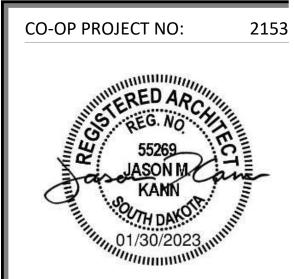


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PROJECT:
WILLOW LAKE SCHOOL ADDITION

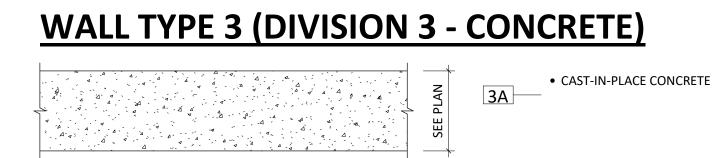
WILLOW LAKE SCHOOL DISTRICT

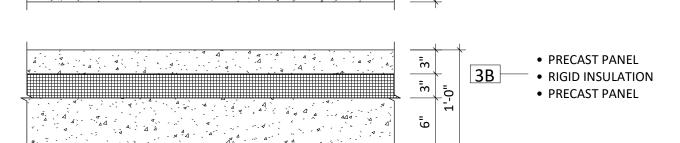
WILLOW LAKE SCHOOL DISTRICT

SHEET TITLE:

**BUILDING CODE PLAN** 

G002

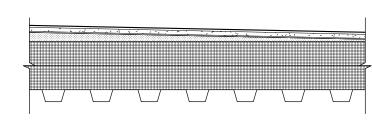


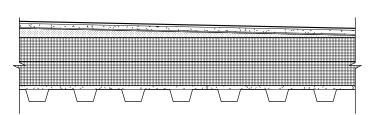


WALL TYPE 4 (DIVISION 4 - MASONRY)

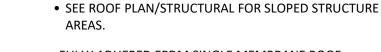
# **ROOF TYPES**

**FLOOR TYPES** 





#### FULLY ADHERED EPDM SINGLE MEMBRANE ROOF (WRAP PARAPET WHERE OCCURS). SEE ROOF PLAN FOR METAL STUD FRAMING. SEE CLASS 'B' LOCATIONS. PARTITION TYPE FOR SIZE, • 1/2" GYPSUM COVERBOARD TAPERED INSULATION • RIGID INSULATION SYSTEM (R-30 MIN.)



 FULLY ADHERED EPDM SINGLE MEMBRANE ROOF (WRAP PARAPET WHERE OCCURS)

STEEL ROOF DECK (SEE STRUCTURAL)

- 1/2" COVERBOARD
- TAPERED INSULATION

REQUIREMENTS.

- RIGID INSULATION SYSTEM (R-30 MIN.) 1/2" COVERBOARD

- ACOUSTIC ROOF DECK (SEE STRUCTURAL) SEE ROOF PLAN/STRUCTURAL FOR SLOPED STRUCTURE AREAS.

• CONCRETE SLAB ON GRADE WITH 15 MIL. VAPOR

STRUCTURAL FOR ADDITIONAL INFORMATION /

• DRAINAGE COURSE (SEE GEOTECHNICAL REPORT FOR ADDITIONAL INFORMATION/REQUIREMENTS)

ENGINEERED FILL (SEE GEOTECHNICAL REPORT FOR

ADDITIONAL INFORMATION / REQUIREMENTS)

• CONCRETE SLAB ON GRADE WITH 15 MIL. VAPOR

STRUCTURAL FOR ADDITIONAL INFORMATION /

ADDITIONAL INFORMATION / REQUIREMENTS)

• 8" PRECAST HOLLOWCORE PLANK WITH 2" MINIMUM

BARRIER BELOW. (SEE ARCHITECTURAL AND

• RIGID FOAM BLOCK (SEE STRUCTURAL FOR

CONCRETE TOPPING. (SEE STRUCTURAL FOR

ADDITIONAL INFORMATION/REQUIREMENTS)

BARRIER BELOW. (SEE ARCHITECTURAL AND

#### 1) BLOCKING DESIGN SHALL RESIST 250 LBS APPLIED IN ANY DIRECTION. 2) PROVIDE BLOCKING AT ALL WATER **CLOSETS AND SHOWERS FOR FUTURE GRAB** BAR INSTALLATION.

TYPE AND SPACING.

FASTEN 2 X 4'S TO-

2 X 6 BLOCKING -

**FASTEN TO WALL** 

2 X 4 BLOCKING TOP,-

**BOTTOM AND SIDES** 

FRAMING

2 X 6

3) ALL BLOCKING TO BE TREATED.

TYPICAL BLOCKING DETAIL

TYPICAL TOP & BOTTOM OF WALL PARTITION(S)

SLIP TRACK AT BOTTOM OF STRUCTURE (SEE STRUCT.

-B.O. STRUCTURE

ACOUSTICAL SEALANT

SOUND ATTENUATION

VERIFY WALL ASSEMBLY

ACOUSTICAL SEALANT

(TYP. BOTH SIDES)

BOND BREAK IN CAST-IN-

PLACE CONCRETE

ARCHITECT)

INTERIOR

**METAL STUD** 

**FRAMED WALL** 

(COORDINATE WITH

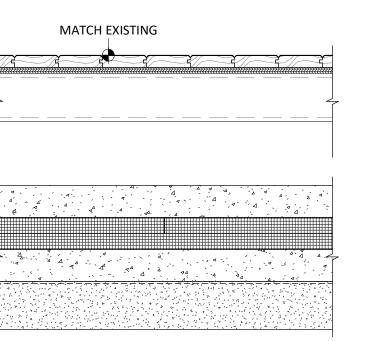
(TYP. BOTH SIDES)

**BATT INSULATION** 

w/ WALL TYPES

FOR ADDITIONAL

INFORMATION)



• 2" NOM. TONGUE AND GROOVE WOOD FLOOR; FINISH TO MATCH EXISTING STAGE FLOOR. • 3/4" PLYWOOD SUBSTRATE • 6" STRUCTURAL STEEL STUD FRAMING

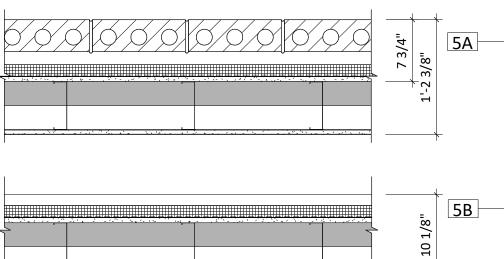
 CONCRETE SLAB BELOW WALK-IN COOLER/FREEZER (SEE STRUCT. / FOOD SERVICE FOR ADDITIONAL INFORMATION / REQUIREMENTS.

 2 LAYERS OF 2" RIGID INSULATION (LAP ALL SEAMS) CONCRETE SLAB ON GRADE WITH 15 MIL. VAPOR BARRIER BELOW. (SEE ARCHITECTURAL AND STRUCTURAL FOR ADDITIONAL INFORMATION /

REQUIREMENTS. • DRAINAGE COURSE / ENGINEERED FILL. SEE GEOTECHNICAL REPORT FOR ADDITIONAL

INFORMATION / REQUIREMENTS).

# WALL TYPE 5 (DIVISION 5 - STRUCTURAL STEEL)



 FACE BRICK AIR SPACE

FACE BRICK

AIR SPACE

• 8" CMU; PAINTED

• 13/8" METAL PANEL

FURRING AS REQ'D

• 8" CMU, PAINTED

• 8" CMU, PAINTED

• 8" CMU, PAINTED

• 7/8" CARRYING CHANNELS

• 3" RIGID INSULATION (R-13.3CI MIN.)

• LIQUID AIR & MOISTURE WEATHER BARRIER

• 3" RIGID INSULATION (R-13.3CI MIN.) W/ ZEE

• LIQUID AIR & MOISTURE WEATHER BARRIER

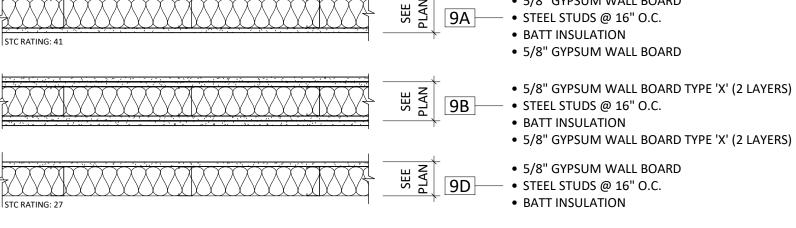
• SPRAY APPLIED SOUND INSULATION IN CMU CORES

- 1 1/2" RIGID INSULATION (R-7.5 CI MIN.) • AIR & MOISTURE WEATHER BARRIER
- 5/8" GYPSUM EXTERIOR SHEATHING 6" STRUCTURAL STEEL STUDS @ 16" O.C.
- 3" MIN. SPRAY APPLIED INSULATION (R-13 MIN.)
- 5/8" GYPSUM WALL BOARD
- 1 3/8" METAL PANEL (BASIS OF DESIGN: HIGHLINE B2 BY PAC CLAD)
- 1 1/2" RIGID INSULATION (R-7.5CI MIN.) W/ ZEE FURRING AS REQ'D
- AIR & MOISTURE WEATHER BARRIER
- 5/8" GYPSUM EXTERIOR SHEATHING • 6" STRUCTURAL STEEL STUDS @ 16" O.C.
- 3" MIN. SPRAY APPLIED INSULATION (R-13 MIN.)
- 5/8" GYPSUM WALL BOARD
- 1 3/8" METAL PANEL (BASIS OF DESIGN: HIGHLINE B2 BY PAC CLAD)
- 1 1/2" RIGID INSULATION (R-7.5CI MIN.) W/ ZEE FURRING AS REQ'D
- AIR & MOISTURE WEATHER BARRIER
- 2 LAYERS 5/8" GYPSUM EXTERIOR SHEATHING W/ TYPE 'X' CORE
- 6" STRUCTURAL STEEL STUDS @ 16" O.C.
- 3" MIN. SPRAY APPLIED INSULATION (R-13 MIN.) • 2 LAYERS TYPE 'X' 5/8" GYPSUM WALL BOARD

### FACE BRICK

- AIR SPACE
- AIR & MOISTURE WEATHER BARRIER
- 5/8" GYPSUM EXTERIOR SHEATHING
- 6" STRUCTURAL STEEL STUDS @ 16" O.C. • 5/8" GYPSUM WALL BOARD

# WALL TYPE 9 (DIVISION 9 - INTERIORS)



- 5/8" GYPSUM WALL BOARD • STEEL STUDS @ 16" O.C.
- BATT INSULATION • 5/8" GYPSUM WALL BOARD
- STEEL STUDS @ 16" O.C.
- BATT INSULATION
- 5/8" GYPSUM WALL BOARD TYPE 'X' (2 LAYERS)
- STEEL STUDS @ 16" O.C. BATT INSULATION
- HIGH PRESSURE LAMINATE (HPL) • 5/8" GYPSUM WALL BOARD
- STEEL STUDS @ 16" O.C.
- BATT INSULATION

# **GENERAL NOTES**

- FIRE RATED WALLS ARE INDICATED ON THE CODE PLANS. PROVIDE FIRE EXTINGUISHERS AND CABINETS AS SHOWN ON THE CODE PLAN(S).
- SEE CIVIL, STRUCTURAL, MECHANICAL, AND ELECTRICAL FOR ADDITIONAL INFORMATION AND COORDINATION.
- REFER TO SHEET <u>G000</u> FOR ALL ADA CODE STANDARDS.
- SQUARE FOOTAGES LISTED ARE FOR CODE REVIEW PURPOSES ONLY AND SHOULD NOT BE USED FOR ANY OTHER PURPOSES.
- COORDINATE WORK DONE BY OTHERS AS INDICATED ON THE DRAWINGS.
- CONTRACTOR TO VERIFY ALL EXISTING CONDITIONS, ELEVATIONS AND DIMENSIONS.
- ALL WORK SHALL BE IN ACCORDANCE WITH OSHA CODES AND STANDARDS. NOTHING INDICATED ON THESE DRAWINGS SHALL RELIEVE THE CONTRACTOR FROM COMPLYING WITH
- ANY APPROPORIATE SAFETY REGULATIONS. THE CONTRACTOR SHALL CONSTRUCT ALL ITEMS WITHIN THIS CONTRACT IN ACCORDANCE WITH THE STATE AND LOCAL REGULATIONS AND CODES.
- COMPARE AND MATCH EXISTING CONDITIONS. ALL FLOOR ELEVATIONS, ROOF SLOPES, PRECAST SHAPES AND ELEVATIONS, BANDINGS AND MILLWORK TO MATCH THAT OF THE
- REVIEW ALL INTERIOR ELEVATION SHEETS FOR ACCESSORY AND EQUIPMENT INFORMATION. COORDINATE WITH CODE STANDARD SHEET G000.
- COORDINATE ANY EXTERIOR REQUIRED WORK WITH MECH. & ELECTRICAL. VERIFY HOISTWAY SHAFT SIZE REQUIREMENTS w/ ELEVATOR MANUFACTURER & COORDINATE.
- COORDINATE ALL CHASE SIZES AND LOCATIONS W/ MECHANICAL. PROVIDE CHASES AT ALL EXPOSED MACHANICAL & ELECTRICAL WITH ADJACENT WALL MATERIAL AS REQUIRED. COORDINATE ALL SHEAR WALL LOCATIONS W/ STRUCTURAL PLANS.

### DEMOLITION NOTES

- SEE MECHANICAL, AND ELECTRICAL DRAWINGS FOR ADDITIONAL INFORMATION RELEVANT TO DEMOLITION & PATCHING.
- PATCH REMAINING EXISTING CONSTRUCTION, AFFECTED BY DEMOLITION, TO MATCH
- COORDINATE WITH OWNER ANY DEMO ITEMS TO BE SALVAGED FOR THE OWNERS REUSE.

# CASEWORK NOTES

- SEE FLOOR PLAN FOR CASE WORK PLAN INFORMATION. SEE INTERIOR ELEVATIONS FOR ADDITIONAL CASEWORK INFORMATION. FIELD VERIFY ALL CASEWORK OPENINGS.
- PROVIDE COUNTERTOP SUPPORTS AT ALL OPEN SPACES AT MIN. OF 32" O.C. AND MAX. OF
- COORDINATE DEVICE PENETRATIONS AT COUNTERTOPS W/ MECHANICAL & ELECTRICAL. • TALL CABINETS OVER 30" WIDE SHALL HAVE VERTICAL DIVIDER FULL HEIGHT.
- MILLWORK SUPPLIER SHALL PROVIDE FILLER PANELS & SCRIBE STRIPS AS NEEDED FOR COMPLETE INSTALLATION.
- PROVIDE FINISHED END PANELS AT ALL EXPOSED MILLWORK SURFACES. PROVIDE ONE GROMENT FOR EVERY 8' OF COUNTERTOP WITHOUT CASEWORK BELOW. COORDINATE INSTALLATION LOCATION WITH OWNER.

# **CEILING NOTES**

 ALL ITEMS INSTALLED IN CEILINGS, INCLUDING SPRINKLER HEADS, ARE TO BE CENTERED OR SYMMETRICALLY ARRANGED ON OR ABOUT CENTERLINES OF ROOMS AND CENTERED IN CEILING TILES.

**ARCHITECTURAL GENERAL NOTES** 

- WALL MOUNTED EXIT SIGNS AND FIXTURES ARE TO BE CENTERED OVER DOOR OR DOOR OPENING WHERE APPLICABLE.
- REFER TO SPECIFICATIONS FOR CEILING AND FIXTURE SUSPENSION REQUIREMENTS.
- PROVIDE ACCESS DOORS AT ALL MECHANICAL UNIT LOCATIONS ABOVE SOFFIT. COORD. NUMBER REQUIRED AND LOCATIONS WITH MECHANICAL SHEETS. • CENTER CEILING GRID IN AREAS SUCH THAT THERE WILL BE NO CEILING TILE LESS THAN 6" IN
- THE SMALLEST DIMENSION, U.N.O. • THE REFLECTED CEILING PLANS ARE INTENDED TO AID IN COORDINATION ONLY AND ARE NOT
- INTENDED TO BE COMPREHENSIVE. SEE MECHANICAL AND ELECTRICAL DRAWINGS FOR ADDITIONAL INFORMATION. WHERE CONFLICTS OCCUR, NOTIFY ARCHITECT.
- COORDINATE WITH MEP FOR LOCATION OF CEILING ACCESS PANELS. • CENTER LIGHT FIXTURES BETWEEN WALLS AND/OR CEILING BULKHEADS UNLESS DIMENSIONED OTHERWISE.
- ALIGN GYPSUM BOARD CEILINGS AND SOFFITS WITH ADJACENT PARTITIONS, U.N.O.
- IN ALL EXPOSED TO STRUCTURE ROOMS, CENTER LIGHT FIXTURE WITHIN ROOM

# **DOORS, HARDWARE & WINDOWS NOTES**

- ALL HM FRAMES IN STUD PARTITIONS SHALL BE WRAPPED AROUND BOTH SIDES OF
- PARTITION (U.O.N.) SEE PLAN FOR WALL THICKNESS. ALL EXTERIOR FRAMES & DOORS ARE TO BE THERMALLY BROKEN.
- CAULK ENTIRE PERIMETER OF H.M. FRAMES (BOTH SIDES).
- PAINT FRAMES TO MATCH WALL. SPLIT PAINT COLOR AT DOOR GASKET AS REQUIRED. • PROVIDE ROOM SIGNAGE AT ALL DOORS. WHERE MOUNTED TO GLAZING, PROVIDE A BLANK BACK PLATE ON OPPOSIZE SIDE OF GLAZING. SEE CODE STANDARDS FOR MOUNTING HEIGHTS
- AND LOCATIONS. SEE SPECIFICATIONS FOR SPECIAL SIGNAGE REQ. REFER TO WALL TYPES FOR WALL CONSTRUCTION ELEMENTS FOR ALL DOOR AND WINDOW DETAILS. COORDINATE ALL STRUCTURAL REQ. WITH STRUCTURAL DRAWINGS.
- WALL MOUNTED EXIT SIGNS AND FIXTURES ARE TO BE CENTERED OVER DOOR OR DOOR OPENING WHERE APPLICABLE.

### **FINISHES NOTES**

- SEE DRAWING SHEET <u>A119</u> FOR ROOM FINISH SCHEDULE.
- INTERIOR WALL FINISHES ARE FULL HEIGHT, U.N.O. • PREP ALL EXISTING WALLS AS REQUIRED FOR PROPER ADHESION OF NEW WALL TILE.
- PREP ALL EXISTING WALLS AS REQUIRED FOR NEW PAINTING.

# FIXTURES NOTES

- COORDINATE INSTALLATION OF OWNER PROVIDED EQUIPMENT WITH NEW CONSTRUCTION. CAULK PERIMETER OF ALL TUB/SHOWER UNITS, TOILETS, URINALS, SINKS & COUNTERTOPS AS
- REVIEW ALL INTERIOR ELEVATION SHEETS FOR ACCESSORY AND EQUIPMENT INFORMATION. • PROVIDE 2x BLOCKING AT ALL GRAB BAR AND FUTURE GRAB BAR LOCATIONS. SEE CODE
- SHEETS FOR ADDITIONAL BLOCKING INFORMATION.

### FLOOR NOTES

• SEE MECHANICAL FOR ALL FLOOR DRAIN SIZES AND LOCATIONS U.N.O. SET FLOOR DRAINS MINIMUM 3/4" BELOW FINISHED FLOOR. PROVIDE EVEN SLOPE FROM WALL TO DRAIN W/ A MAXIMUM SLOPE OF 1/4" PER FOOT.

### **ROOF NOTES**

- SEE CIVIL, STRUCTURAL, MECHANICAL, AND ELECTRICAL FOR ADDITIONAL INFORMATION AND
- ALL ROOF TAPERED ROOF SYSTEM SLOPES ARE ¼" PER FOOT U.O.N.
- ALL THRU ROOF PENETRATION BOOTS IN ROOF SYSTEM ARE TO BE PROVIDED. • THE AIR & MOISTURE WEATHER BARRIER IS TO BE CONTINUOUS FROM THE BASE OF THE
- WALLS UP TO & TYING INTO THE ROOF BARRIER SYSTEM. • COORDINATE ROOF PENETRATIONS WITH MECHANICAL, ELECTRICAL, AND PLUBMING
- ALL ROOF SADDLES AND CRICKETS SHALL HAVE A MINIMUM OF 1/2" PER FOOT SLOPE. • PROVIDE ROOF CURBS FOR ALL EQUIPMENT SCHEDULED TO BE ON THE ROOF. COORDINATE SIZE AND LOCATION WITH APPLICABLE TRADES.
- PROVIDE CRICKETS AT ALL ROOF TOP EQUIPEMENT TO ALLOW FOR UNIMPEDED WATER • DIMENSIONS AND LOCATIONS OF EQUIPMENT ON THE ROOF ARE APPROX., DO NOT SCALE
- THE DRAWINGS. VERIFY WITH APPLICABLE TRADES. • TAPERED INSULATION SHALL HAVE A MINIMUM OF 1/4" PER FOOT SLOPE. PROVIDE TAPERED
- INSULATION AS REQUIRED TO ACHIEVE 1/4" PER FOOT SLOPE.
- PROVIDE R-30 MINIMUM ROOF INSULATION AT ROOF DRAINS. PROVIDE ROOF WALKING PADS AS SHOWN.

# SITE NOTES

 SEE SITE PLAN FOR ADDITIONAL INFORMATION REGARDING CONSTRUCTION LIMITS, STAGING, LAWN IRRIGATION, SOD & LANDSCAPING.

- ALL WALLS TO BE TYPE 4C U.N.O. AND EXTEND TO DECK UNLESS OTHERWISE NOTED ON
- ALL DIMENSIONS ARE FROM FACE GWB TO FACE OF GWB U.N.O.

WALLS UP TO & TYING INTO THE ROOF BARRIER SYSTEM.

- COORDINATE ALL CHASE SIZES AND LOCATIONS W/ MECHANICAL. PROVIDE CHASES AT ALL EXPOSED MACHANICAL & ELECTRICAL WITH ADJACENT WALL MATERIAL AS REQUIRED.
- INCREASE WALL THICKNESS OF METAL STUD AND CONCRETE BLOCK WALLS AS REQUIRED TO ACCOMMODATE MECHANICAL AND ELECTRICAL DEVICES- VERIFY WITH ARCHITECT PRIOR TO
- PROVIDE WATER-RESISTANT GYPSUM BOARD PANELS AT ALL BATHROOM AND SHOWER ROOM WALLS AND CEILINGS WHERE EXPOSED TO MOISTURE.
- RESTROOM WALLS ARE SOUND INSULATED AND EXTEND TO THE DECK.
- VERIFY DRYWALL CONTROL JOINT LOCATIONS w/ARCHITECT ON SITE PRIOR TO INSTALLATION. THIS INCLUDES, BUT IS NOT LIMITED TO, CONTROL JOINTS AT 30'-0" O.C. MAX. IN LONG WALL EXPANSES. CONTROL JOINTS AT DOOR JAMBS EXTENDING FROM DOOR HEAD TO CEILING. CONSIDERATION SHALL ALSO BE GIVEN TO LOCATING CONTROL JOINTS FROM FLOOR
- TO CEILING AT EITHER EDGE OF LARGE WINDOW OPENINGS. • THE AIR & MOISTURE WEATHER BARRIER IS TO BE CONTINUOUS FROM THE BASE OF THE

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SOUND ATTENUATION

**BATT INSULATION** 

(TYP. BOTH SIDES)

CMU WALL (SEE

-EXPANSION JOINT

CONC. SLAB (SEE

STRUCTURAL)

FOOTING (SEE

STRUCTURAL)

—B.O. STRUCTURE

L2x2x3/8

PLAN)

—CAULK

**INTERIOR** 

CMU WALL



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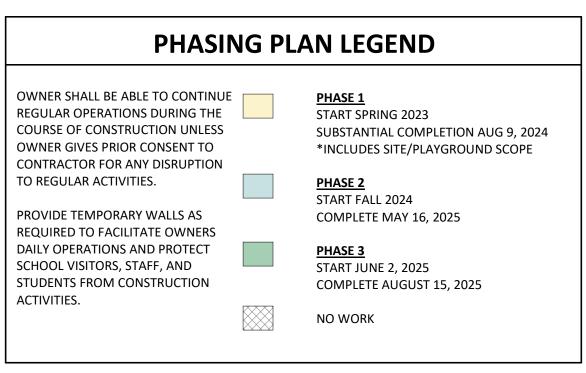
WILLOW LAKE SCHOOL ADDITION WILLOW LAKE SCHOOL DISTRICT

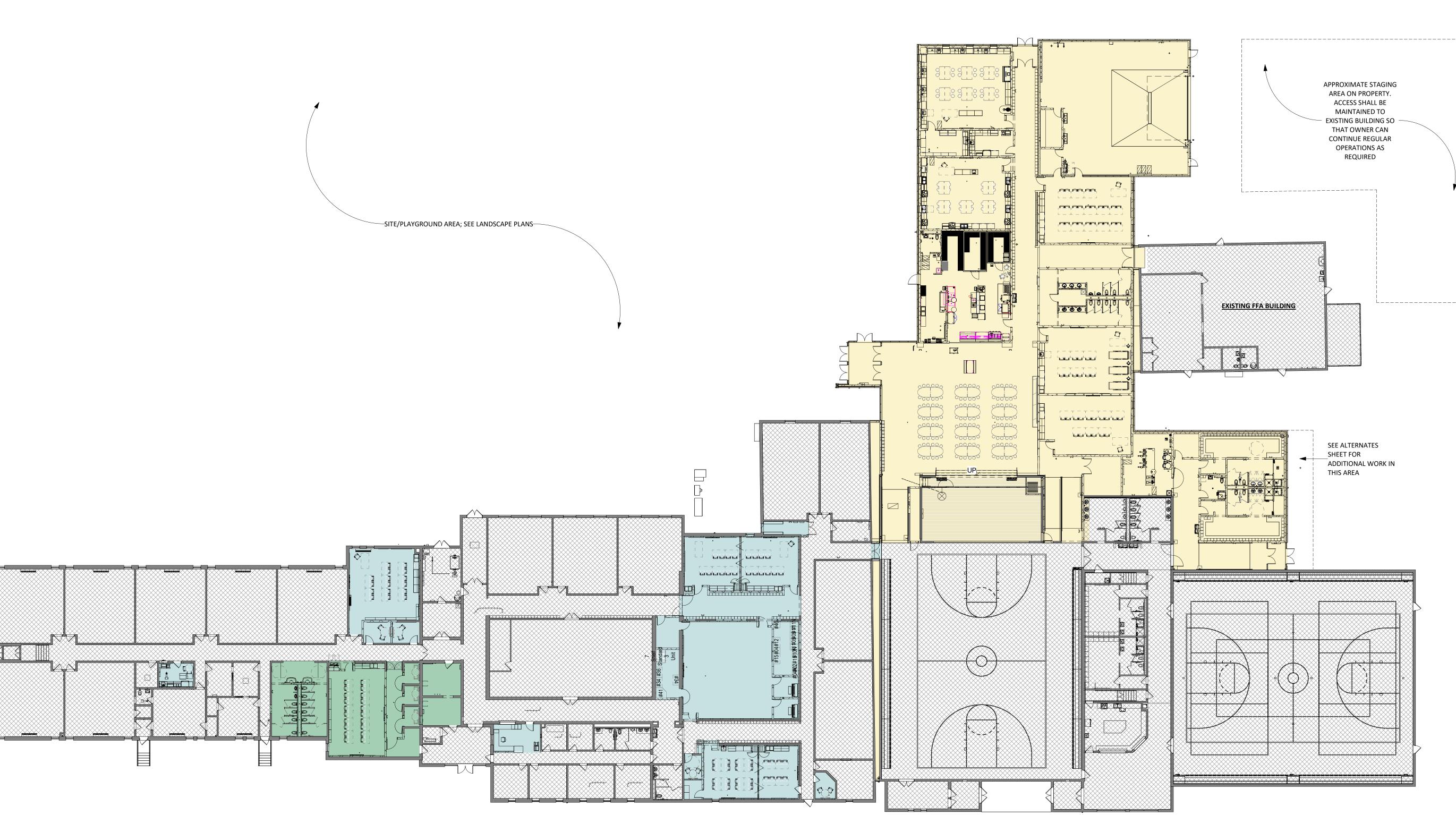
WILLOW LAKE, SOUTH DAKOTA

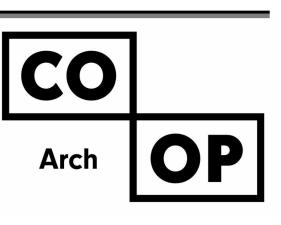
**SHEET TITLE:** 

TYPICAL ASSEMBLIES & GENERAL NOTES

**2HR RATING** 



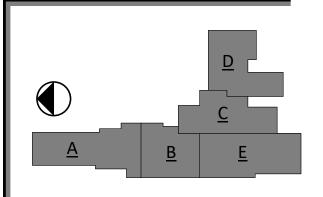




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CO-OP PROJECT NO: 2153

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01/30/2023 CONSTRUCTION DOCUMENTS

REVISION SCHEDULE:

PROJECT:

WILLOW LAKE SCHOOL ADDITION

WILLOW LAKE SCHOOL DISTRICT WILLOW LAKE, SOUTH DAKOTA

SHEET TITLE:

PHASING PLAN

G004

#### **DEMOLITION GENERAL NOTES**

PRIOR TO ANY EXCAVATION AT THE SITE, CONTRACTOR SHALL CONSULT WITH OWNER'S PERSONNEL AND UTILITY COMPANIES REPRESENTATIVES TO DETERMINE POSSIBLE UTILITY LOCATIONS AND DEPTHS. NO COMPENSATION WILL BE ALLOWED FOR DAMAGE RESULTING FROM FAILURE TO COMPLY WITH THIS REQUIREMENT. REPORT ANY DAMAGE TO EXISTING UTILITIES PRIOR TO REPAIR. DAMAGE TO UTILITIES AND STRUCTURES SHALL BE REPAIRED BY THE CONTRACTOR TO THE SATISFACTION OF THE OWNER OF THE UTILITY.

SCHOOL BELL MONUMENT

RIM ELEV = 1777.14

8" VCP - INV. (N) = 1767.64

8" VCP - INV. (S) = 1767.74

GARFIELD STREET

16. REMOVE EXISTING CHAIN LINK FENCE.

**KEYNOTES** 

PAVEMENT.

REMOVE EXISTING ASPHALT PAVEMENT.

REMOVE EXISTING CONCRETE WALK.

2. SAW CUT EDGE OF EXISTING ASPHALT FOR CLEAN TRANSITION TO NEW

17. REMOVE EXISTING SANITARY SEWER SERVICE TO EDGE OF EXISTING CONCRETE. CAP REMAINING LINE AND ABANDON IN PLACE.

18. REMOVE EXISTING WATER SERVICE TO EDGE OF EXISTING CONCRETE.

CAP REMAINING LINE AND ABANDON IN PLACE.

19. EXISTING WATER SERVICE TO BE DISCONNECTED AT BUILDING. ABANDON

KEYNOTES - EROSION CONTROL

A. PROVIDE VEHICLE TRACKING STATION AT CONSTRUCTION ENTRANCE. SEE STANDARD PLATE, SP505

FFE = 1781.82

— WATER VALVE

RIM ELEV = 1781.20

SCALE:1"=30'

- B. INSTALL SILT FENCE. SEE STANDARD PLATE, SP505
- C. CONCRETE WASHOUT FACILITY. SEE STANDARD PLATE, SP505

CO OP

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# CONFLUENCE

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CO-OP PROJECT NO:

ANDSCAD

REG. NO.

10018

PULWILL

PULWILL

OTH DAKOTE.

ISSUE:

01-30-2023 CONSTRUCTION DOCUMENTS

REVISION SCHEDULE:

REV. DSC.

PROJECT:

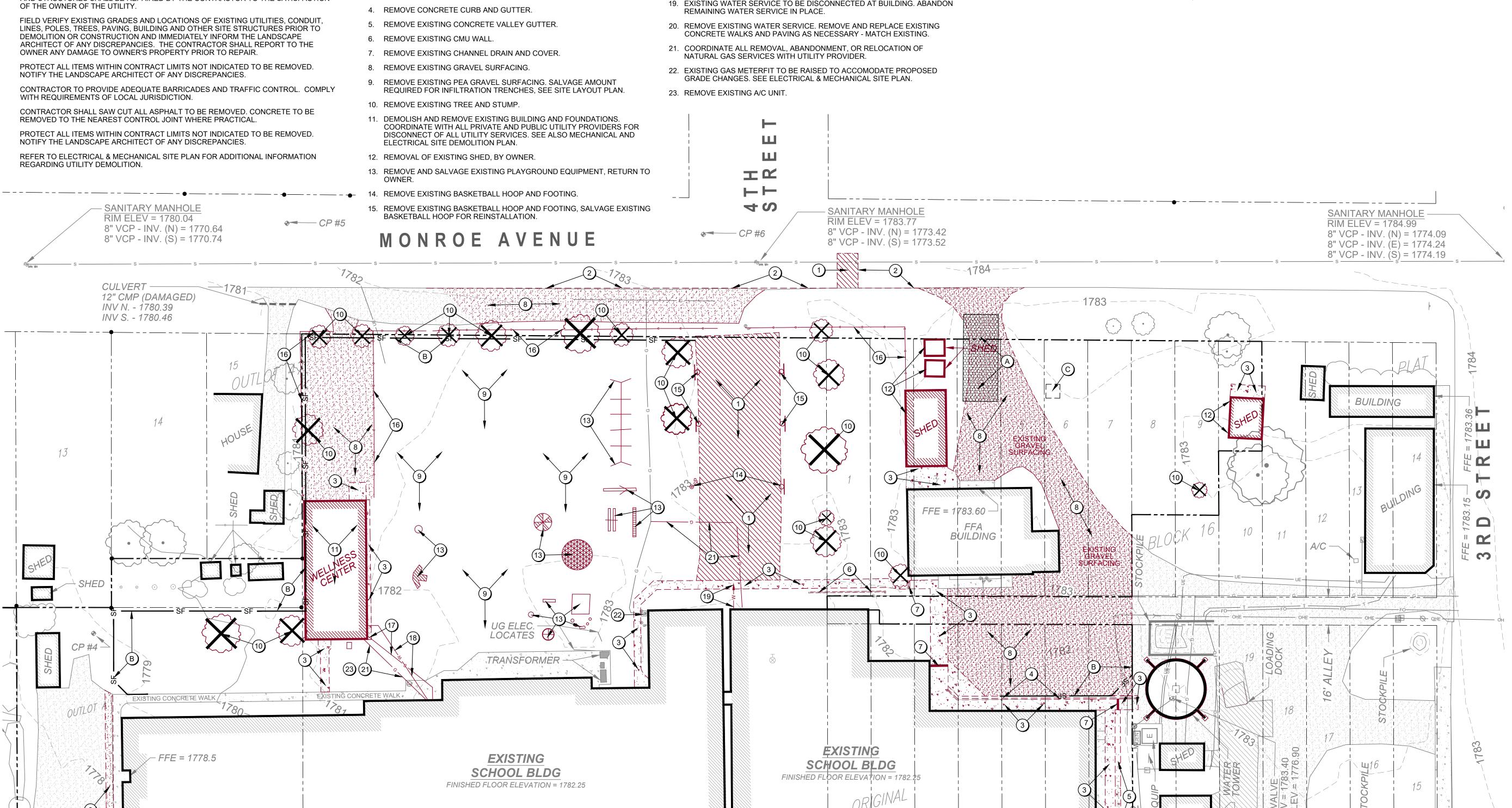
WILLOW LAKE SCHOOL ADDITION WILLOW LAKE SCHOOL DISTRICT

WILLOW LAKE, SD

SHEET TITLE:

SITE DEMOLITION PLAN

SP101



APPROXIMATE LOCATION OF WATER SERVICE - CONTRACTOR TO VERIFY EXACT LOCATION.

SANITARY MANHOLE

RIM ELEV = 1780.06

8" VCP - INV. (N) = 1769.06

8" VCP - INV. (S) = 1769.16

6" PVC

WATER VALVE RIM ELEV = 1781.09

WATER VALVE RIM ELEV = 1782.64

T/NUT ELEV = 1778.24

### **EROSION CONTROL NOTES**

PROJECT OWNER
Willow Lake School District 12-3
400 Garfield Avenue
Willow Lake, SD 57278
Chris Lee, Superintendent
Ph: 605-625-5945
Email: chris.lee@k12.sd.us

### LANDSCAPE ARCHITECT

440 E 8th Street, Suite 121 Sioux Falls, SD 57103 Lyle Pudwill, ASLA Ipudwill@thinkconfluence.com 605-339-1205

#### PRIME CONTRACTOR

-	

#### PRIME CONTRACTOR SIGNATURE

The "Department of Environment and Natural Resources - Contractor Certification Form" (SD Form - 2110LD) is to be executed by the Prime Contractor or his representative after the award of the contract. Work may not begin on the project until this section is signed.

The form certifies under penalty of law that the Contractor understands and will comply with the terms and conditions of the Surface Water Discharge General Permit for Storm Water Discharges Associated with Construction Activities for the Project.

I am acknowledging the review and acceptance of responsibility as the primary responsible party for the installation, maintenance, and proper function of this SWPPP.

Name:		
	Printed Name	
Signed:		
-	Contractor	Date

#### LANDSCAPE ARCHITECT SIGNATURE

I hereby certify that these plans were prepared under my direct supervision and

that I am a duly registered professional Landscape Architect under the laws of the State of South Dakota.

Name:	Printed Name	
Signed:		
_	Landscape Architect	Date

#### NOTICE OF INTENT (PERMIT TO BE OBTAINED BY THE CONTRACTOR)

A Notice of Intent (NOI) for coverage under the General Permit for Storm Water Discharges Associated with Construction Activities is required prior to any removals or excavation. Contractor is required to coordinate with the Owner/Landscape Architect to complete and submit NOI to SDDANR. The NOI form can be found on the SDDANR website at www.danr.sd.gov.

### PERMIT AND EROSION CONTROL CONTACT INFORMATION POSTING

The Contractor is required to post and maintain for public viewing a laminated copy of the Department of Environment and Natural Resources authorization letter. The Contractor is also required to post and maintain for public viewing an Erosion Control Contact Information Posting (ECCIP) sign. The sign shall include the name and contact information of the Contractor. The letter and ECCIP sign must be posted in a prominent location such as the project's information board or the main entrance of the construction site. Multiple ECCIP signs should be posted on projects that have multiple entrances such as a street type project.

### INSPECTIONS

The Contractor will be required to perform inspections on the project at the following minimum frequency until the site has reached final stabilization and a Notice of Termination is submitted to the SDDANR:

- Prior to the removal of any surfacing or topsoil.
- 2. Once every seven calendar days or once every 14 calendar days *and* within 24 hours of precipitation exceeding 0.25 inches.
- When runoff is unlikely due to winter conditions the inspections may be reduced to once a month.

  3. After a snow melt generating runoff causing surface erosion.
- 4. Within 24 hours of a complaint being made to the Contractor or Owner.

The Owner reserves to right to perform inspections more frequently than identified and additional inspections will be made if obvious items of non-compliance exist. If the Contractor fails to attend any inspection it does not relieve them of their responsibility to comply with any corrective or maintenance actions needed.

Items noted as being non-compliant or needing maintenance as a result of the inspections must be corrected before the next runoff event or no later than seven (7) calendar days after notification. The site shall continue to be considered in non-compliance until the issue has been corrected to the satisfaction of the Owner. Failure to correct items of non-compliance or those needing maintenance prior to the next inspection will result in price adjustment to the contract. The minimum price adjustment to the contract will be \$100 per day per item per individual location. The Architect may delay the issuance of the price adjustment(s) if the Architect has determined all the following apply:

- 1. The Contractor has made a good faith effort to bring the items into compliance with the Erosion and Sediment Control Plan
- (ESCP) also known as a Storm Water Pollution Prevention Plan (SWPPP) and the State's General Permit.
- 2. Compliance was not achieved due to weather conditions outside the Contractor's control and the conditions were severe enough to prevent the Contractor from bringing the item into compliance.
- 3. The Contractor brought the item into compliance no later than seven (7) calendar days after the weather and site conditions permit.

Any price adjustment or formal enforcement actions taken by the City, State or Federal governments for the failure to implement the accepted ESCP is the Contractor's sole responsibility and shall not be a reimbursable expense to the project owner.

### NOTICE OF TERMINATION (PERMIT TO BE OBTAINED BY THE CONTRACTOR)

The Contractor is responsible for complying with the SWPPP until a Notice of Termination (NOT) of coverage under the General Permit has been issued. The N.O.T. will be prepared by the Contractor when all storm water discharges covered by the permit are eliminated and final stabilization has been achieved on all portions of the site for which the permittee is responsible. Final stabilization means either or a combination of:

All soil disturbing activities at the site have been completed and a uniform perennial vegetative cover with a density of 70% of the native cover for unpaved areas and areas not covered by permanent structures has been established, or equivalent permanent stabilization measures (such as the use of riprap, gabions, or geotextiles) have been employed.

## PROJECT DESCRIPTION

Selective demolition of paving and sidewalks, removal of two buildings, removal of existing parking and paving, and the construction of a new building addition and playground.

### **EXISTING SITE CONDITIONS**

The project area is currently an existing gravel parking lot, pavement and sidewalks, open space, and an existing house and garage.

### **ADJACENT AREAS**

The project is bordered on the north by a residential neighborhood; on the east and west by residential; with a church, an office, and residential to the south of the site.

#### <u>OILS</u>

See geotechnical report.

#### AREA AND VOLUME DISTURBED

The total surface area to be disturbed is approximately 4.18 acres.

#### SEDIMENT CONTROL MEASURES

See SP101 for erosion control. Sediment control measures shall consist of temporary vehicle tracking control, silt fence and concrete washout area.

#### AREA FOR STOCKPILES AND STORAGE

Stockpiling of excess soil on site is not anticipated.

#### **EROSION/SEDIMENT CONTROL SEQUENCE AND TIME SCHEDULE**

The following erosion and sediment control sequencing shall be followed by the Contractor/owner/operator involved in this construction site activity. Changes in the projects construction plans and timelines may require this sequence to be changed. Any changes to this erosion and sediment control plan (escp) sequence must be approved by the Landscape Architect of record prior to making modifications in the field.

#### Time Schedule:

Install preliminary erosion control measures prior to beginning grading activities.

- Removal of existing pavement. Utility construction.
- Building construction.
- Sidewalk/parking lot construction.
- Remove sediment control after final stabilization.

Contractor shall maintain erosion control measures as indicated on plans and shall seed no more than 14 days after final grading work is complete. The Owner shall decide if any additional erosion control measures are needed once final grading surfacing and planting are complete.

#### PERMANENT STABILIZATION MEASURES

All areas disturbed by construction that do not receive pavement will be seeded and mulched.

#### **GOOD HOUSEKEEPING**

Nonstructural BMPs such as good housekeeping measures can, to some degree, prevent the deposition of pollutants on the urban landscape or remove pollutants at their source. The source of pollutants for assimilation into storm water is the land surface itself, especially the impervious surfaces in the urban area. Thus, it is expected that when nonstructural measures are effectively implemented, they will reduce the amount of pollutants being deposited on land surfaces for eventual contact with storm water and transported to the receiving water system. Therefore, the Contractor should evaluate and determine which appropriate good housekeeping measures listed below could be used.

Operation and Maintenance: To assure that equipment and work related processes are working well, the following practices can be

- 1. Maintain dry and clean floors and ground surfaces by using brooms, shovels, vacuum cleaners, or cleaning machines rather than wet cleanup methods.
- Regularly pick up and dispose of garbage and waste material.
- 3. Make sure all equipment and related processes are working properly and preventative maintenance is kept up with on both.
- 4. Routinely inspect equipment and processes for leaks or conditions that could lead to discharges of chemicals or contact of storm
- water with raw materials, intermediate materials, waste materials, or products used on site.

  5. Assure all spill cleanup procedures are understood by employees. Training of employees on proper cleanup procedures shall be
- 6. Designate separate areas of the site for auto parking, vehicle refueling, and routine maintenance.
- 7. Clean up leaks, drips, and other spills immediately.
- 8. Cover and maintain dumpsters and waste receptacles.

**Material Storage Practices:** Improperly storing material on site can lead to the release of materials and chemicals that can cause storm water runoff pollution. Proper storage techniques include the following:

- 1. Provide adequate aisle space to facilitate material transfer and ease of access for inspection.
- 2. Store containers, drums, and bags away from direct traffic routes to prevent accidental spills.
- 3. Stack containers according to manufacturer's instructions to avoid damaging the containers from improper weight distribution.

  4. Store containers on pallets or similar devices to prevent corrosion of containers that results from containers coming in contact
- 5. Store toxic or hazardous liquids within curbed areas or secondary containers.
- 6. Assign responsibility of hazardous material inventory to a limited number of people who are trained to handle such materials.

Material Inventory Practices. An up-to-date inventory kept on all materials (both hazardous and nonhazardous) present on site will help track how materials are stored and handled onsite, and identify which materials and activities pose the most risk to the environment. The following description provides the basic steps in completing a material inventory:

1. Identify all chemical substances present at work site. Perform a walk-through of the site, review purchase orders, list all chemical

- substances used, and obtain Material Safety Data Sheets (MSDS) for all chemicals.
- 2. Label all containers. Labels shall provide name and type of substance, stock number, expiration date, health hazards, handling suggestions, and first aid information. This information can also be found on an MSDS.
- Clearly mark on the hazardous materials inventory which chemicals require special handling, storage, use, and disposal considerations. Decisions on the amounts of hazardous materials that are stored on site shall include an evaluation of any emergency control systems that are in place. All storage areas shall be designed to contain any spills.

### SPILL CONTROL PRACTICES

Chemical and petroleum product spills of toxic or hazardous material will be reported to the appropriate federal, state or local government agency. All spills will be cleaned up immediately after discovery.

### METHODS OF ENSURING SURFACE WATER QUALITY

The Contractor shall be responsible to ensure no sediment laden waters leave the project without exposure to an erosion or sediment control device.

The only non storm water discharge allowed by the General Permit for Storm Water Discharges Associated with Construction Activities is uncontaminated ground water or waters, used as a best management practice, to wash vehicles and control dust. It is the responsibility of the Contractor to obtain a General permit to discharge under the South Dakota Surface Water Discharge System for temporary discharge activities in South Dakota (dewatering permit) for all other non storm water discharges. All monitoring, testing, and other requirements of the dewatering permit are the responsibility of the Contractor.

Pumping (mechanically discharging) sediment laden water including ponded storm water or contaminated trench dewatering into the storm sewer or off the project site is not covered under the General Permit. It is the responsibility of the Contractor to obtain and comply with a dewatering permit for these activities. The Landscape Architect may notify the SDDANR if the Contractor is observed pumping sediment laden water into the storm sewer or off site. Pumping sediment laden water through inlet protection is not allowed as a BMP.

In lieu of pumping sediment laden water the following are some methods the Contractor may use to control sediment laden water.

- The best method is for the Contractor to maintain positive drainage during all phases of the project to prevent water from ponding on the project.
- Treat the sediment laden water onsite through the use of filter bags, deflocculating chemicals, sediment basins, or a portable
- Pump or discharge the water to other portions of the site. This is allowed if the waters do not leave the project limits.

No payment will be made to the Contractor to comply with a dewatering permit unless otherwise specified and it will be considered incidental to the various bid items.

### AGENCY COORDINATION

Are wetlands an issue? No

If wetlands are an issue, has a determination been made by the US Army Corps of Engineers?  $\mbox{N/A}$ 

Does the State Historical Preservation Office (SHPO) need to review these plans? No

Does the SD Game Fish and Parks need to review these plans? No

Does the US Fish and Wildlife Service need to review these plans? No

#### MODIFICATIONS OF EROSION AND SEDIMENT CONTROL DEVICES TO PREVENT PROPERTY DAMAGE

The Contractor is responsible to maintain drainage. In the event that an erosion or sediment control device is obstructing drainage and damage to property is possible the Contractor may temporarily modify or remove the device to facilitate drainage. An example is inlet protection in a sump location surrounded by buildings. If a device is removed for this purpose, the Contractor shall immediately notify the Landscape Architect to discuss and implement alternatives to comply with the SWPPP and General Permit.

#### SOIL SURFACE STABILIZATION PRACTICES

After construction begins, soil surface stabilization shall be applied within 14 days to all disturbed areas that may not be at final grade but will remain dormant (undisturbed) for periods longer than 21 calendar days. Within 14 days after final grade is reached on any portion of the site, permanent or temporary soil surface stabilization shall be applied to disturbed areas and soil stockpiles. The following table lists the amount of time various erosion control measures are applicable.

#### Maximum Time Limits of Land Exposures for Selection of Erosion Controls

Maximum Allowable Period of Exposure (Months)
1
12
12 - 24
24 Or More
2
1

#### MAINTENANCE

The Contractor is responsible for maintaining and repairing all temporary erosion control, sediment control, and permanent erosion control measures until the Notice of Termination is filed. General maintenance requirements are listed but are not all inclusive and additional measures may need to be taken to comply with the General Permit and SWPPP.

### REMOVAL OF TEMPORARY EROSION AND SEDIMENT CONTROL DEVICES

The Contractor is responsible to remove all temporary erosion control and sediment control devices when the site reaches final stabilization. No payment will be made to the Contractor for removing these items unless otherwise specified. The Landscape Architect may order specific temporary erosion control and sediment control devices to remain in place past final stabilization. The Contractor will not be responsible to remove these items.

#### SEDIMENT CONTROL MEASURES

#### INSTALLATION OF SEDIMENT CONTROL MEASURES

The Contractor shall not begin the removal of surfacing or topsoil within the applicable work area until all applicable sediment control measures are placed. Sediment control measures shall be installed as necessary as construction progresses and these sediment control devices shall be installed within 24 hours at locations identified on the SWPPP.

#### TEMPORARY VEHICLE TRACKING CONTROL

Temporary vehicle tracking control should be inspected frequently to ensure that mud and dirt are not being tracked onto the roadway. Temporary vehicle tracking control material must be cleaned or replaced when the effectiveness of dirt removal is reduced.

#### STREET SWEEPING

Street sweeping is required during construction and before final completion of work to keep streets adjacent to and within the project area clean. The minimum equipment to be used for street sweeping shall be a skid loader with a pick up broom attachment or Landscape Architect approved equal. No rotary broom without the pick up broom attachment/ containment system will be acceptable to perform this work.

Sweeping shall be performed as needed to remove tracked mud from the roadway and sediment/debris from pavement and curb. Daily sweeping may be necessary if project conditions warrant.

#### **INLET PROTECTION**

N/A

# SILT FENCE

Areas of damage including water damage, fabric tears, and failures shall be repaired. When accumulated sediment reaches one half of the height of the fence, new silt fence shall be installed. When site conditions require that silt fence be cleaned and mucked out, rather than replaced, care must be taken to ensure the existing silt fence is not damaged.

Mucking silt fence is the removal of muck trapped by the silt fence as described above. Removed muck should be spread out and stabilized within the projects limits or at an alternate location approved by the Landscape Architect.

# CONCRETE WASHOUT AREA

A concrete washout area shall be installed on the project site at a location approved by the Landscape Architect if concrete trucks deliver concrete to the site. No washout area is necessary if all concrete trucks are going to wash out at approved site constructed by the concrete supplier.

The concrete washout area must be kept in a condition to maintain the capacity for all wasted concrete and washout water on the

# PERMANENT EROSION CONTROL MEASURES

## INSTALLATION OF PERMANENT EROSION CONTROL MEASURES

This work shall be done as soon as possible after finish grading and topsoil placement is completed

Refer to planting plan and project specifications for topsoil and seeding requirements.

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CONTACT: LYLE PUDWILL, ASLA

CONFLUENCE

SIOUX FALLS, SD 57103

CO-OP PROJECT NO:



ISSUE:

01-30-2023 CONSTRUCTION DOCUMENTS

REV. DATE

REVISION SCHEDULE:

REV. # REV. DSC.

PROJECT:
WILLOW LAKE SCHOOL ADDITION
WILLOW LAKE SCHOOL DISTRICT

WILLOW LAKE, SD

SHEET TITLE:

STORMWATER POLLUTION PREVENTION PLAN (SWPPP)

#### WORKSHEET #1 - SCHEDULE OF GRADING & CONSTRUCTION ACTIVITIES

INSTRUCTIONS: DESCRIBE THE GRADING & CONSTRUCTION ACTIVITIES THAT TOOK PLACE ON SITE, INCLUDING THE DATES STARTED AND ENDED AND THE DATE STABILIZATION BMP WAS COMPLETED. DEADLINE TO COMPLETE TEMPORARY STABILIZATION - AS SOON AS PRACTICABLE, BUT NO LATER THAN 14 CALENDAR DAYS

AFTER INITIATING SOIL	STABILIZATION MEASURES, AS STATED IN THE GE	NERAL PERMIT SECTI	ON 3.18.
LOCATION	GRADING ACTIVITY CEASED DATE	DATE STABILIZATION INITIATED	DESCRIPTION OF STABILIZATION BMP & LOCATION
NOTE: CONTRACTOR SH	  ALL MAKE ADDITIONAL COPIES OF THIS SHEET A	S NEEDED FOR RECOR	RD KEEPING, OR MAINTAIN YOUR OWN RECORDS TO MEET THE GENERAL

#### **WORKSHEET #2 - INSPECTION AND CORRECTIVE ACTION LOG**

INSTRUCTIONS: NOTE THE DATE OF EACH INSPECTION, ANY DEFICIENCIES IN BMPS, AND THE CORRECTIVE ACTIONS TAKEN TO RESTORE BMPS FUNCTION. A SUMMARY OF YOUR INSPECTION FINDINGS, COVERING, AT A MINIMUM, THE OBSERVATIONS YOU MADE AS REQUIRED IN SECTIONS 4.4. AND 4.5 OF THE GENERAL PERMIT. IF AN INSPECTION DOES NOT IDENTIFY ANY INCIDENTS OF NONCOMPLIANCE, INCLUDE A STATEMENT IN THE REPORT THAT THE SITE IS IN COMPLIANCE WITH THE SWPPP AND THE GENERAL PERMIT.

INSPECTION DATE & TIME	RAIN FALL AMOUNT	INSPECTOR NAME	DESCRIPTION OF BMP DEFICIENCY	LOCATION	CORRECTIVE ACTION REQUIRED		TION ECTED
DATE & TIME	AMOUNT	NAME				DATE	INITIALS
						<u> </u>	
						-	
						<u> </u>	
NOTE: CONTRAC	TOR SHALL MA	KE ADDITIONAL COP	IES OF THIS SHEET AS NEEDED FOR RECORD KEEPIN	IG, OR MAINTAIN YOUR	OWN RECORDS TO MEET THE GENERAL PERMIT.		

# **WORKSHEET #3 - RECORD OF SPILLS AND LEAKS**

INSTRUCTIONS: RECORD BELOW ALL SPILLS AND SIGNIFICANT LEAKS OF TOXIC OR HAZARDOUS POLLUTANTS THAT HAVE OCCURRED ON SITE; SIGNIFICANT SPILLS INCLUDE, BUT ARE NOT LIMITED TO, RELEASES OF OIL OR HAZARDOUS SUBSTANCES IN EXCESS OF REPORTABLE QUANTITIES.

				ADDDOVIMATE			
DATE	LEAK/SPILL	LOCATION	TYPE OF LIQUID	APPROXIMATE AMOUNT	SOURCE & CAUSE	RESPONSE PROCEDURE	PREVENTATIVE MEASURES TAKEN

TO REPORT A RELEASE OR SPILL, CALL SDDENR AT 605-773-3296 DURING REGULAR OFFICE HOURS (8 A.M. TO 5 P.M. CENTRAL STANDARD TIME). TO REPORT THE RELEASE AFTER HOURS, ON WEEKENDS OR HOLIDAYS, CALL SOUTH DAKOTA EMERGENCY MANAGEMENT AT 605-773-3231. REPORTING THE RELEASE TO SDDENR DOES NOT MEET ANY OBLIGATION FOR REPORTING TO OTHER STATE, LOCAL, OR FEDERAL AGENCIES. THEREFORE, YOU MUST ALSO CONTACT LOCAL AUTHORITIES TO DETERMINE THE LOCAL REPORTING REQUIREMENTS FOR RELEASES. A WRITTEN REPORT OF THE UNAUTHORIZED RELEASE OF ANY REGULATED SUBSTANCE, INCLUDING QUANTITY DISCHARGED AND THE LOCATION OF THE DISCHARGE SHALL BE SENT TO SDDENR WITHIN 14 DAYS OF THE DISCHARGE.

SPILLS ARE SUBJECT TO THE FEDERAL REPORTING REQUIREMENTS OF 40 CFR PART 110, PART 117, AND PART 302 RELATING TO SPILLS OR OTHER RELEASES OF OILS OR HAZARDOUS SUBSTANCES. YOU MUST REPORT SPILLS IN EXCESS OF THE

REPORTABLE QUANTITIES AS REQUIRED IN SECTION 7.1.

# WORKSHEET #4 - SWPPP AMENDMENT LOG

INSTRUCTIONS: DESCRIBE CHANGES TO THE SWPPP

AMENDMENT NUMBER	DESCRIPTION	REASON	DATE	AUTHORIZED BY
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				

NOTE: CONTRACTOR SHALL MAKE ADDITIONAL COPIES OF THIS SHEET AS NEEDED FOR RECORD KEEPING, OR MAINTAIN YOUR OWN RECORDS TO MEET THE GENERAL PERMIT.

CO

Arch



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440 E. 8th St. 221 Sioux Falls, SD 57103 Phone: 605-334-9999

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CO-OP PROJECT NO:



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REV. DATE

REVISION SCHEDULE:

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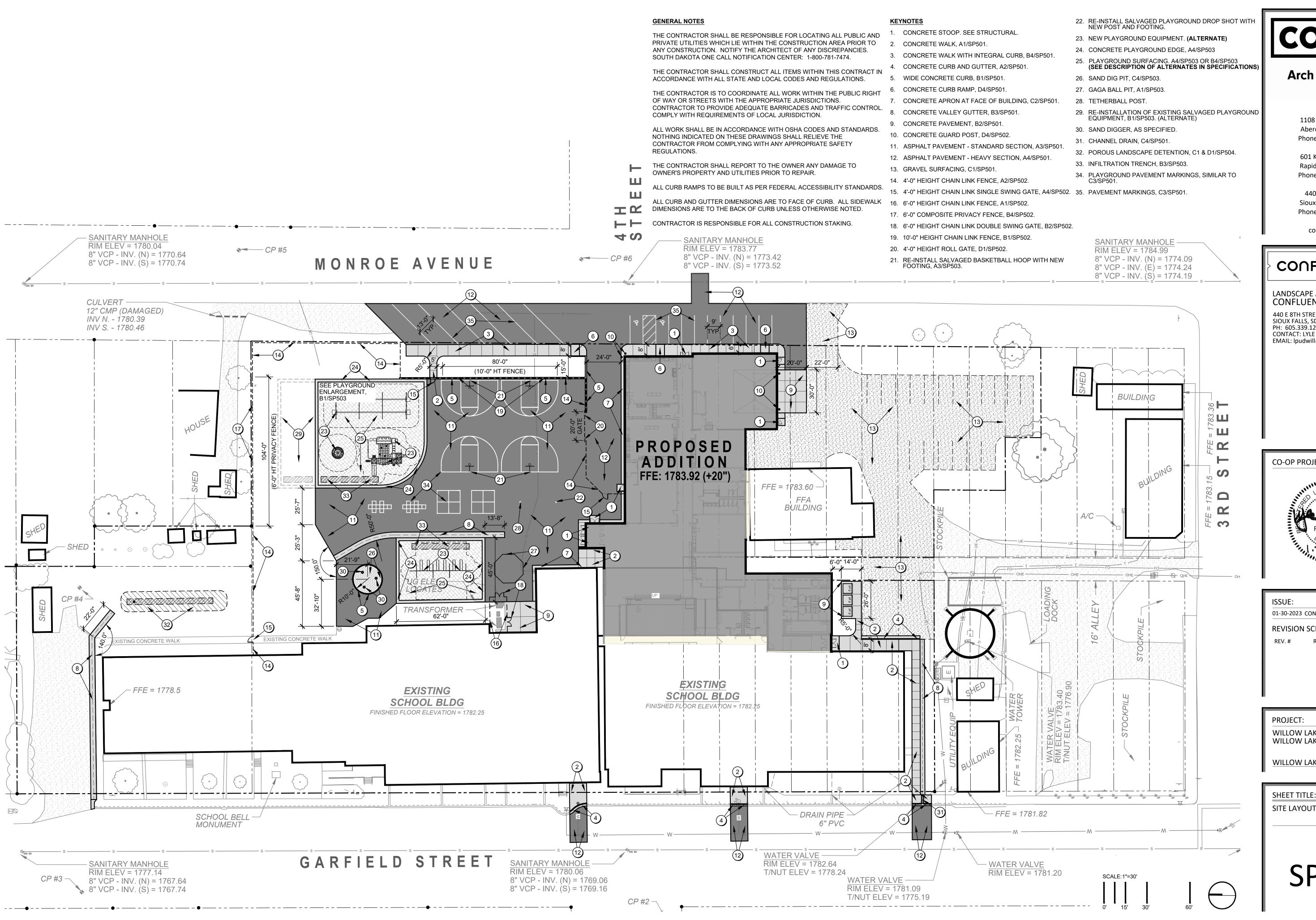
PROJECT:

WILLOW LAKE SCHOOL ADDITION
WILLOW LAKE SCHOOL DISTRICT

WILLOW LAKE, SD

SHEET TITLE:

STORMWATER POLLUTION PREVENTION PLAN (SWPPP)



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CONFLUENCE

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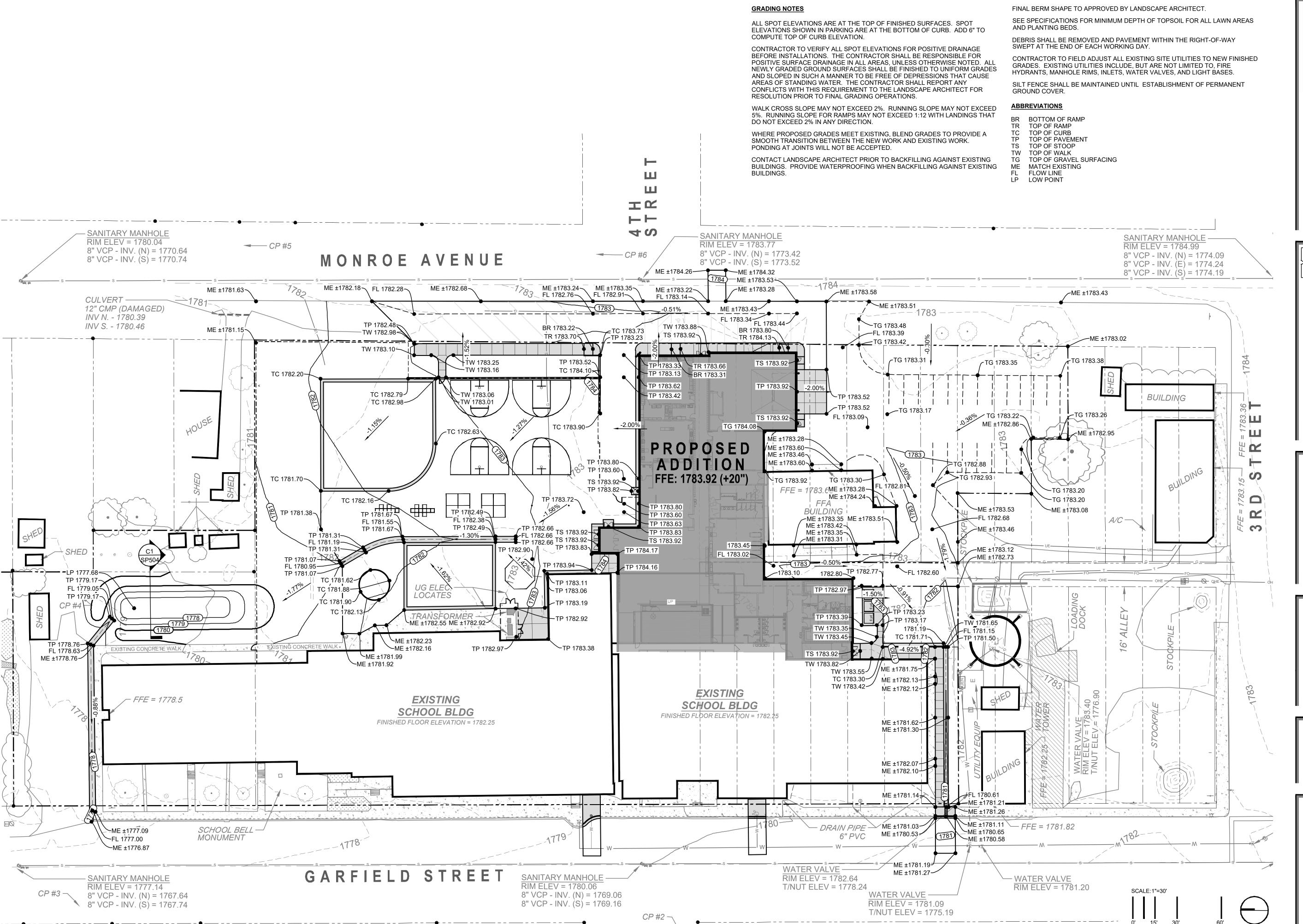
PROJECT:

WILLOW LAKE SCHOOL ADDITION WILLOW LAKE SCHOOL DISTRICT

WILLOW LAKE, SD

SHEET TITLE:

SITE LAYOUT PLAN





Phone: 605-334-9999

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ISSUE:

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**REVISION SCHEDULE:** 

REV. DSC.

PROJECT:

WILLOW LAKE SCHOOL ADDITION WILLOW LAKE SCHOOL DISTRICT

WILLOW LAKE, SD

SHEET TITLE:

SITE GRADING PLAN

#### **GENERAL NOTES**

#### **SANITARY SEWER GENERAL**

SANITARY SEWER WORK INCLUDES INSTALLING NEW 6 INCH GRAVITY SEWER SERVICING PROPOSED BUILDING AND CONNECTING TO EXISTING 8 INCH VCP SANITARY SEWER IN MONROE AVENUE.

CONTRACTOR SHALL COORDINATE WITH OWNER ON WATER USAGE DURING THE REMOVAL AND INSTALLATION OF SERVICES. AT NO POINT WILL RAW SEWAGE BE ALLOWED TO DUMP INTO THE TRENCH.

PIPE SHALL BE POLYVINYL CHLORIDE (PVC) SEWER PIPE AND SHALL MEET THE REQUIREMENTS OF ASTM D-3034, TYPE PSM. PIPE AND FITTINGS SHALL BE SDR 35 MINIMUM.

THE CONTRACTOR SHALL OBTAIN A "SOUTH DAKOTA STATE SEWER AND WATER PLUMBING CONTRACTOR'S LICENSE" PRIOR TO CONSTRUCTION.

#### WATER MAIN AND APPURTENANCES

WATER MAIN WORK INCLUDES INSTALLING NEW 6 INCH WATER MAIN SERVICING PROPOSED BUILDING, NECESSARY APPURTENANCES, AND CONNECTION TO EXISTING WATER MAIN IN GARFIELD AVENUE.

ALL WATER DISTRIBUTION MATERIALS SHALL MEET NSF/ANSI 61 - DRINKING WATER COMPONENTS, HEALTH EFFECTS, NSF/ANSI61, AND NSF/ANSI 372. ALL MATERIALS SHALL BE APPROVED AND COORDINATED WITH THE CITY OF WILLOW LAKE.

PIPE FOR NEW MAIN SHALL BE POLYVINYL CHLORIDE (PVC) PIPE, CONFORMING TO AWWA C900 (PRESSURE CLASS), JOINTS CONFORMING TO ASTM D 3139 WITH ELASTOMERIC SEALS (GASKETS) CONFORMING TO ASTM F477, FITTINGS SHALL CONFORM TO AWWA C110 AND AWWA C111 FOR DUCTILE AND GRAY IRON FITTINGS. ALL DIRECT BURY FITTINGS SHALL BE WRAP POLYETHYLENE ENCASMENTS CONFORMING TO

#### **CONNECTIONS TO EXISTING WATER MAIN**

IT IS ANTICIPATED THAT TRACER WIRE WILL BE ENCOUNTERED ON THE EXISTING WATER MAIN IN GARFIELD AVENUE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO REPLACE ANY DAMAGED TRACER WIRE FROM CONNECTING TO THE EXISTING WATER MAIN. ALL COSTS AND WORK ASSOCIATED SHALL BE INCIDENTAL TO DIDE THAT TO NOTE: PIPE INSTALLATION COSTS.

ALL VALVE OPERATIONS WILL BE COORDINATED WITH THE CITY OF WILLOW LAKE.

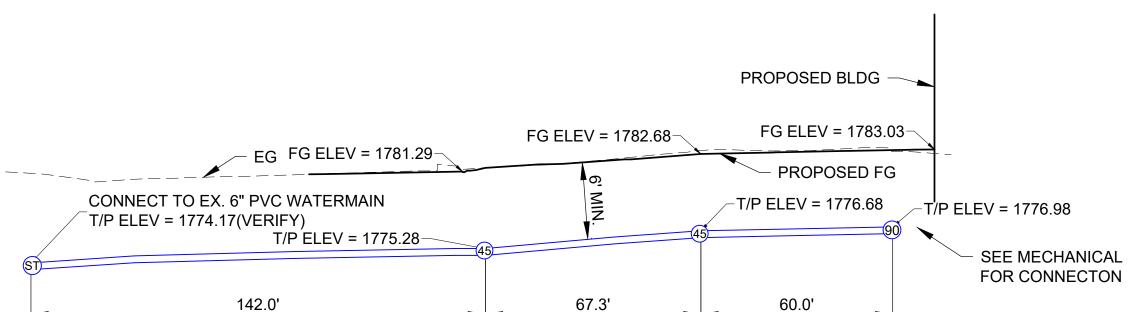
#### **WATER MAIN DISINFECTION**

WHEN MINOR WATER MAIN WORK OCCURS (I.E. TIE-IN CONNECTIONS OF NEW WATER MAIN TO EXISTING WATER MAIN, WATER MAIN ADJUSTMENTS, INSTALLATION OF NEW VALVES ON EXISTING MAIN OR ANY OTHER WORK DEEMED MINOR BY THE ENGINEER) THE EXISTING MAIN, PRIOR TO THE COMPLETION OF THE BACTERIA TESTING, MAY BE RETURNED TO SERVICE ONCE THE LINE HAS BEEN FLUSHED AND A BOIL ORDER HAS BEEN ISSUED. THE BOIL ORDER WILL BE RESCINDED WITH THE PASSING OF THE BACTERIA TEST.

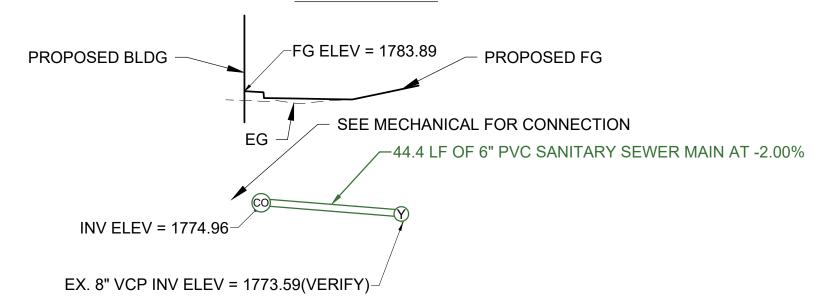
WATER THAT IS DISCHARGED DURING WATER MAIN FLUSHING SHALL NOT REACH A STREAM, RIVER OR WATER WAY IF THE CHLORINE RESIDUAL EXCEEDS 0.05MG/L.

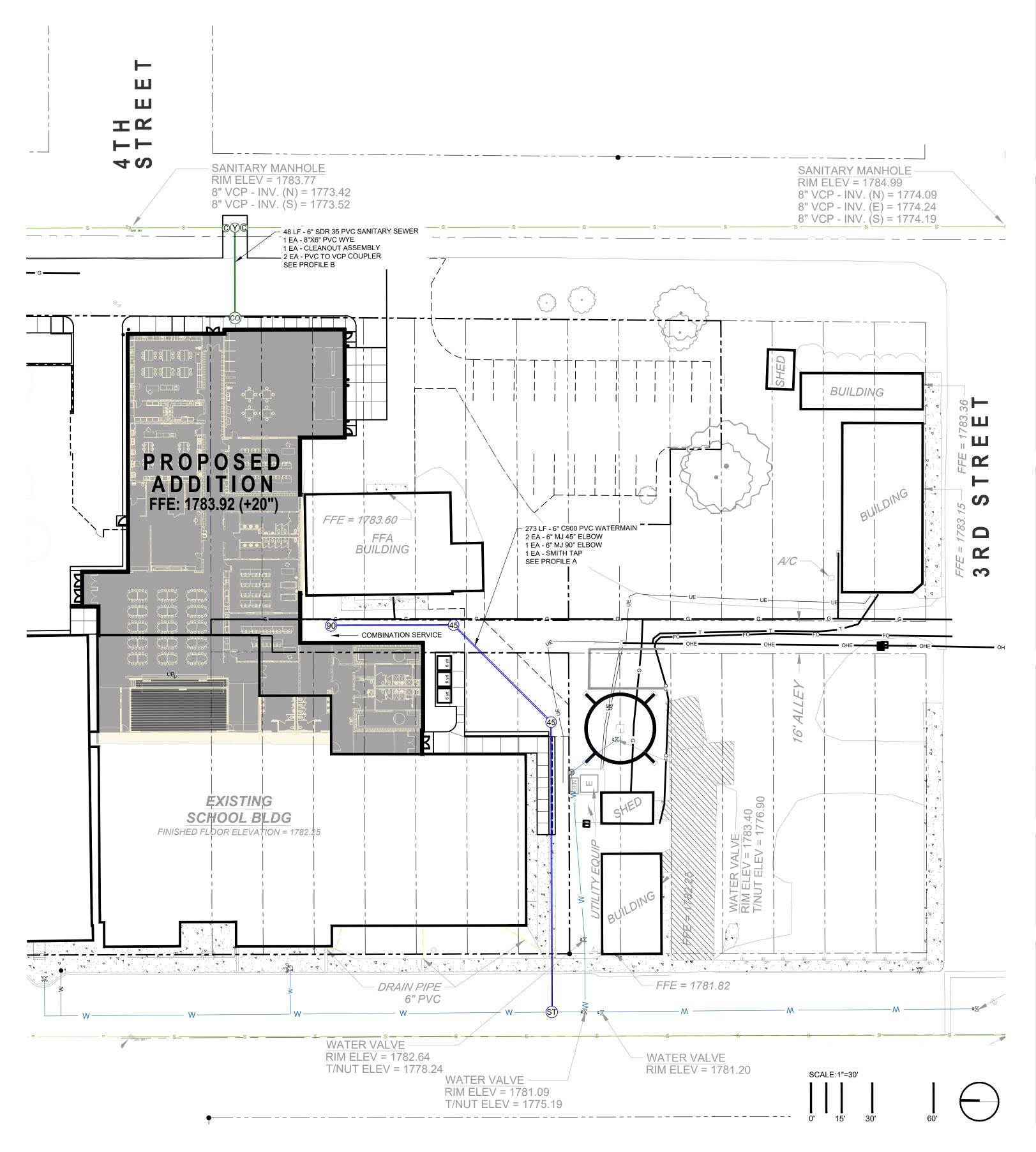
THE CITY OF WILLOW LAKE OR IT'S REPRESENTATIVE SHALL NOTIFY ALL CONSUMERS AFFECTED BY ANY INTERRUPTION OF WATER SERVICE AT LEAST 24 HOURS BEFORE THE INTERRUPTION OF WATER SERVICE. IN THE EVENT A CONSUMER CANNOT BE VERBALLY NOTIFIED, A DOOR HANGAR SHALL BE SECURED TO THE MOST FREQUENTLY USED ENTRANCE BY THE CITY OF WILLOW LAKE OR ITS REPRESENTATIVE.

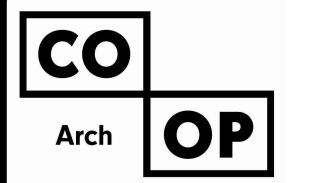
# **PROFILE A**



# **PROFILE B**







1108 S. Main St. 102 Aberdeen, SD 57401 Phone: 605-725-4852

601 Kansas City St. 7 Rapid City, SD 57701 Phone: 605-716-3652

440 E. 8th St. 221 Sioux Falls, SD 57103 Phone: 605-334-9999

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116 W. 69TH STREET, SUITE 200, SIOUX FALLS, SD 57108 PH: 605.271.5527 FAX: 605.271.2753



**CO-OP PROJECT NO:** 

ISSUE:

01-30-2023 CONSTRUCTION DOCUMENTS

REV. DATE

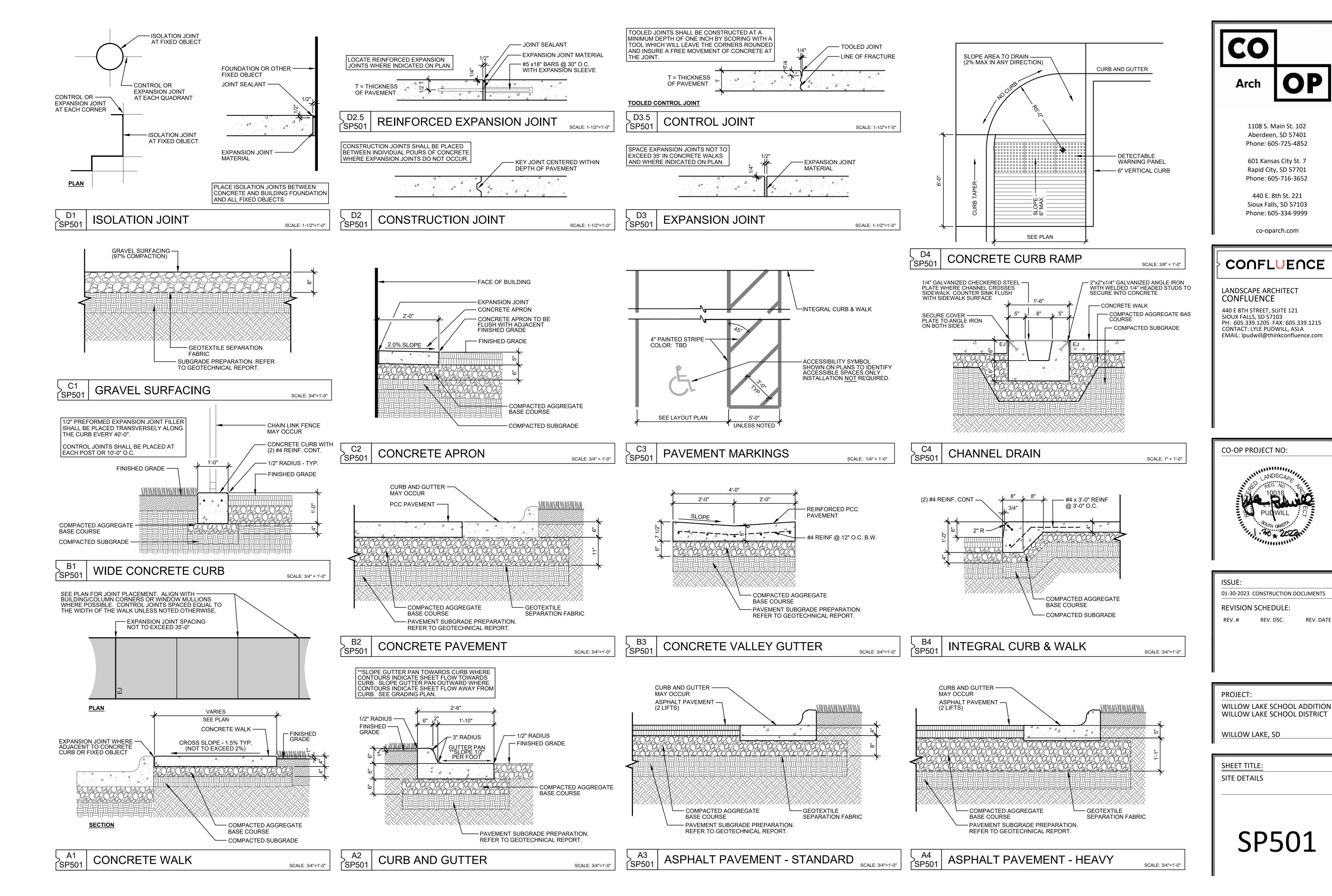
**REVISION SCHEDULE:** REV. # REV. DSC.

PROJECT: WILLOW LAKE SCHOOL ADDITION WILLOW LAKE SCHOOL DISTRICT

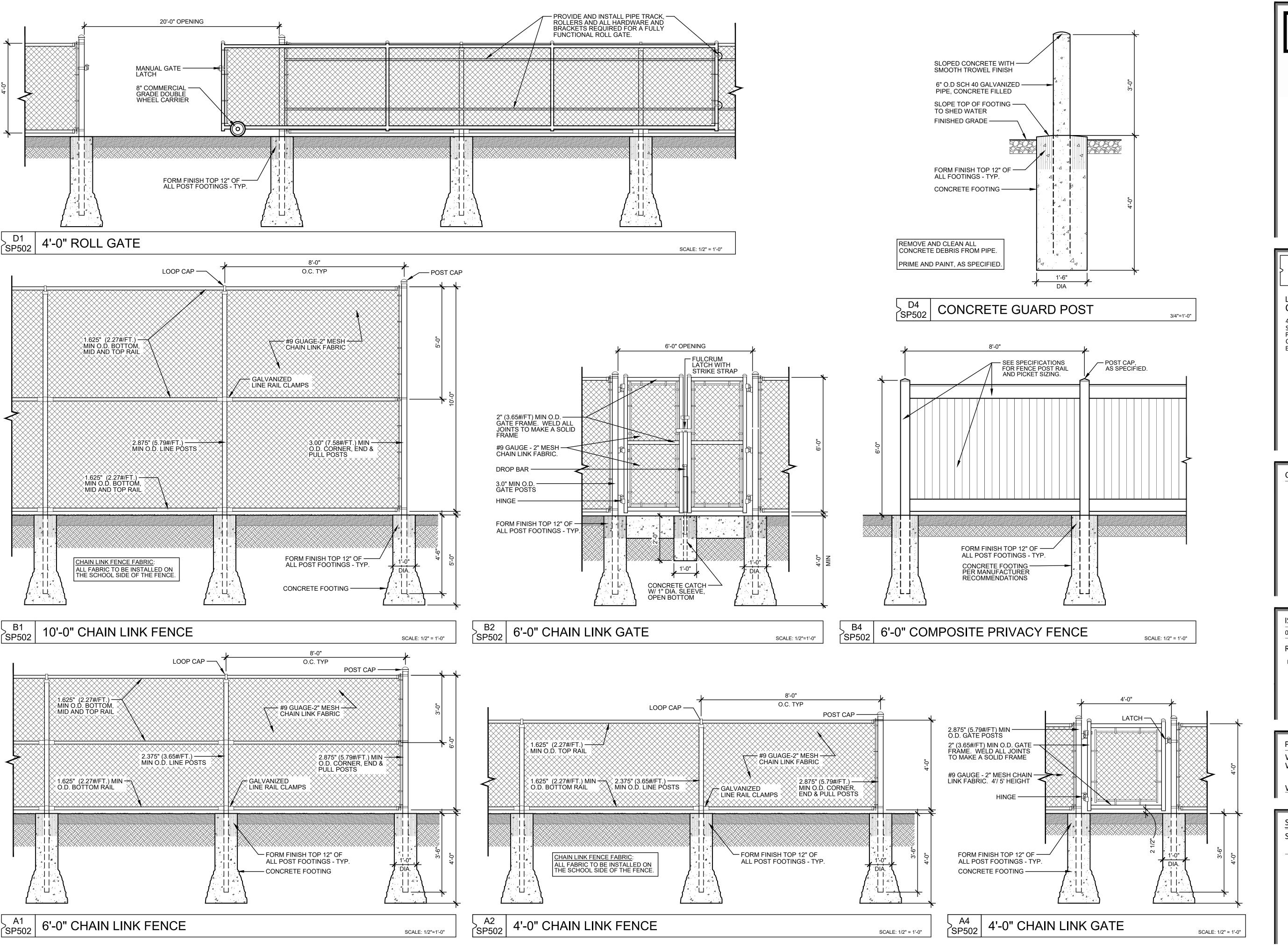
WILLOW LAKE, SD

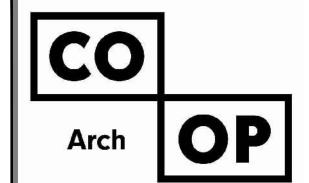
SHEET TITLE:

**UTILITY PLAN & PROFILE** 



REV. DATE





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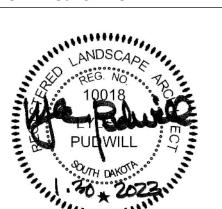
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# CONFLUENCE

LANDSCAPE ARCHITECT CONFLUENCE

440 E 8TH STREET, SUITE 121 SIOUX FALLS, SD 57103 PH: 605.339.1205 FAX: 605.339.1215 CONTACT: LYLE PUDWILL, ASLA EMAIL: lpudwill@thinkconfluence.com

CO-OP PROJECT NO:



ISSUE:

01-30-2023 CONSTRUCTION DOCUMENTS

REV. DATE

REVISION SCHEDULE:

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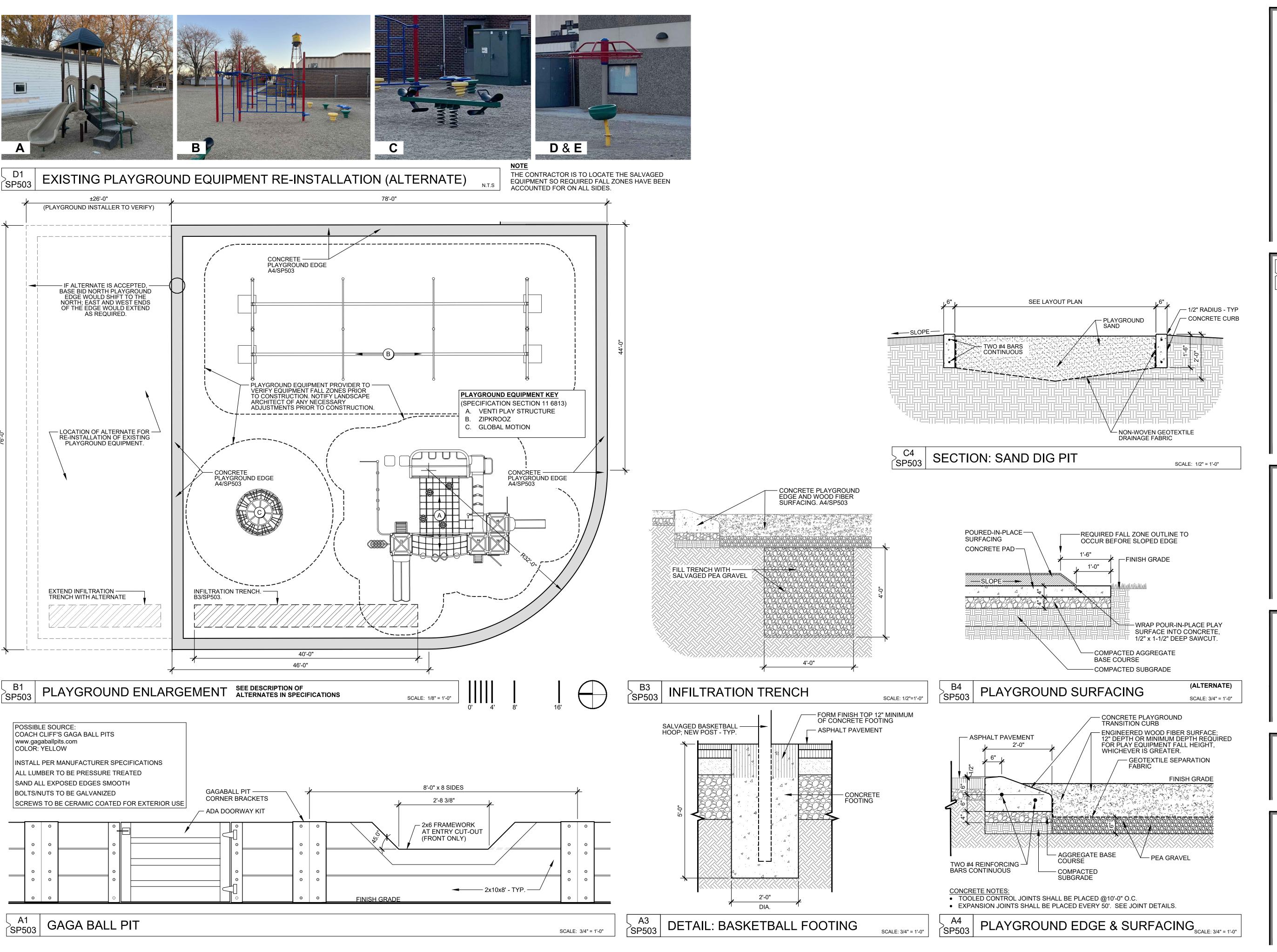
PROJECT:

WILLOW LAKE SCHOOL ADDITION WILLOW LAKE SCHOOL DISTRICT

WILLOW LAKE, SD

SHEET TITLE:

SITE DETAILS



601 Kansas City St. 7 Rapid City, SD 57701 Phone: 605-716-3652

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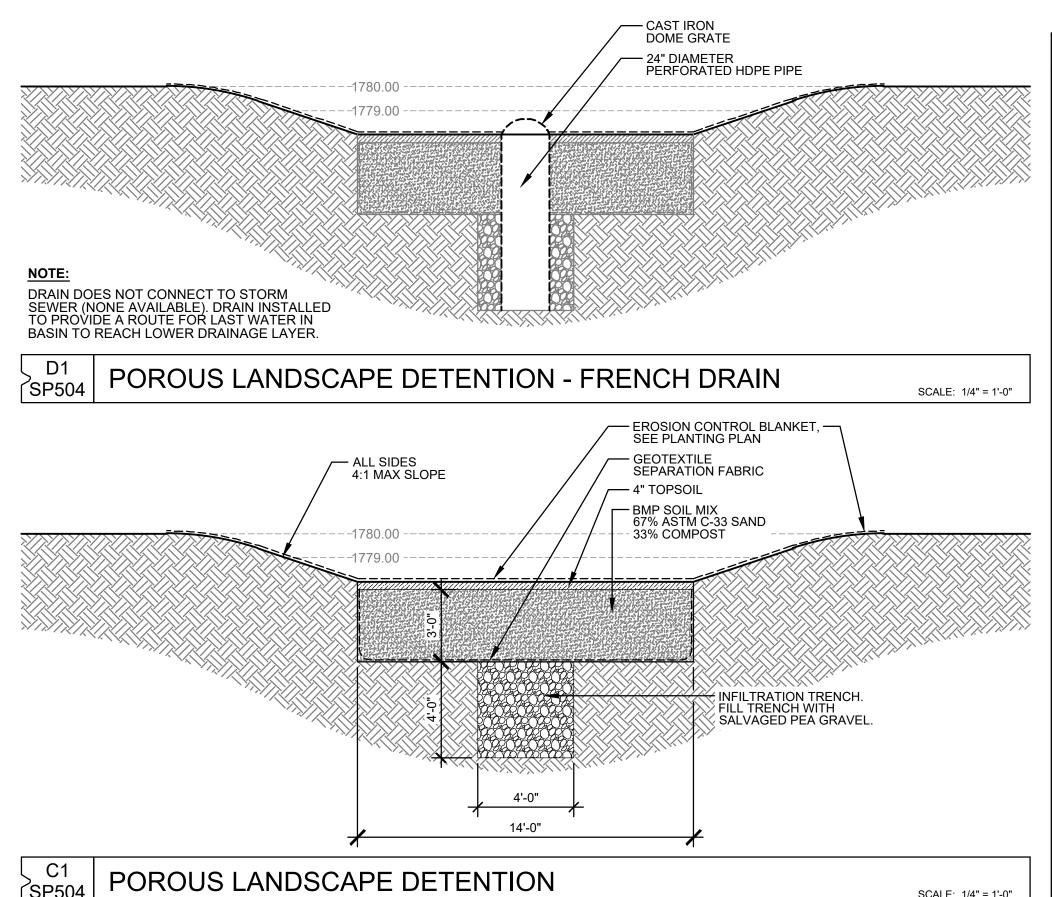
PROJECT:

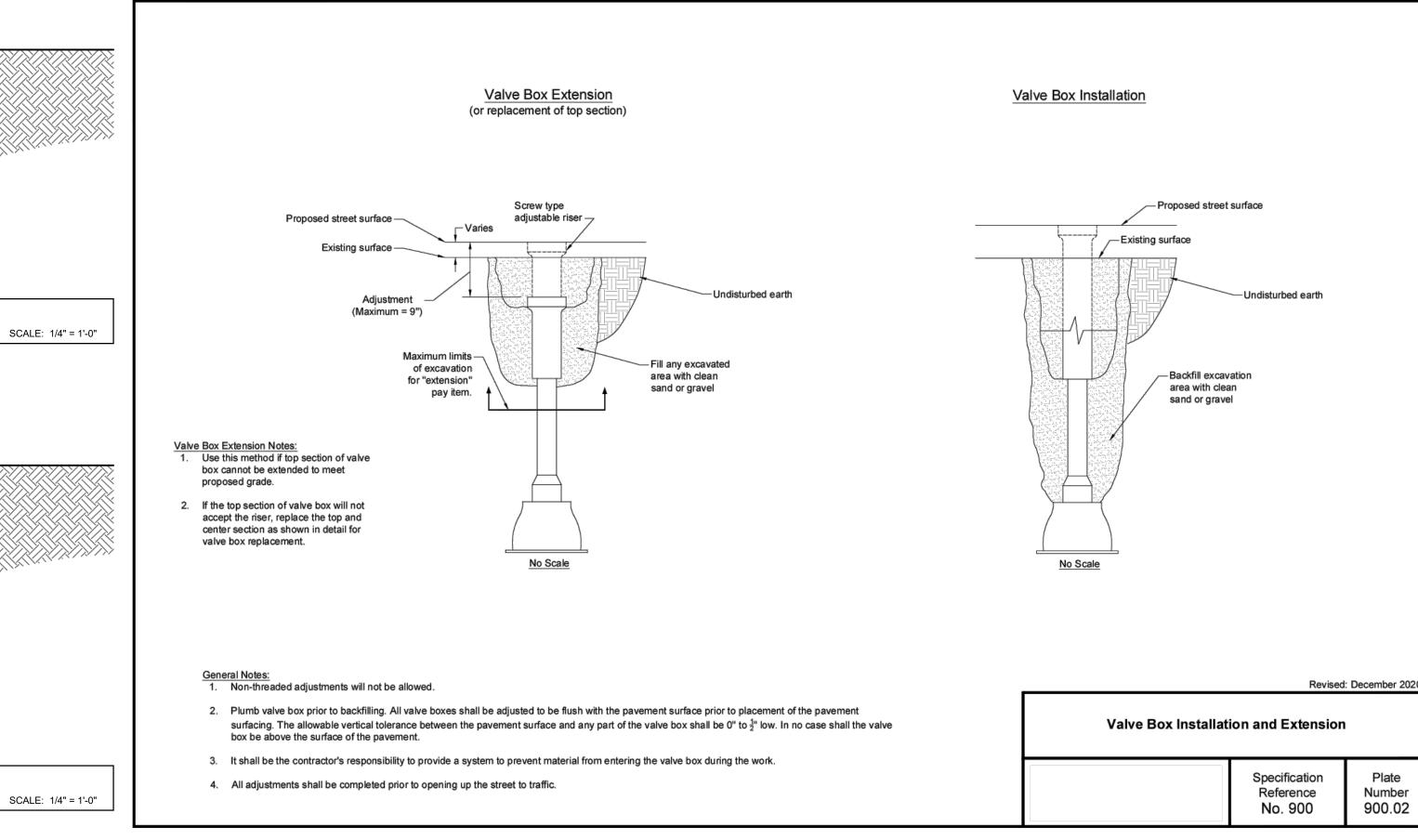
WILLOW LAKE SCHOOL ADDITION WILLOW LAKE SCHOOL DISTRICT

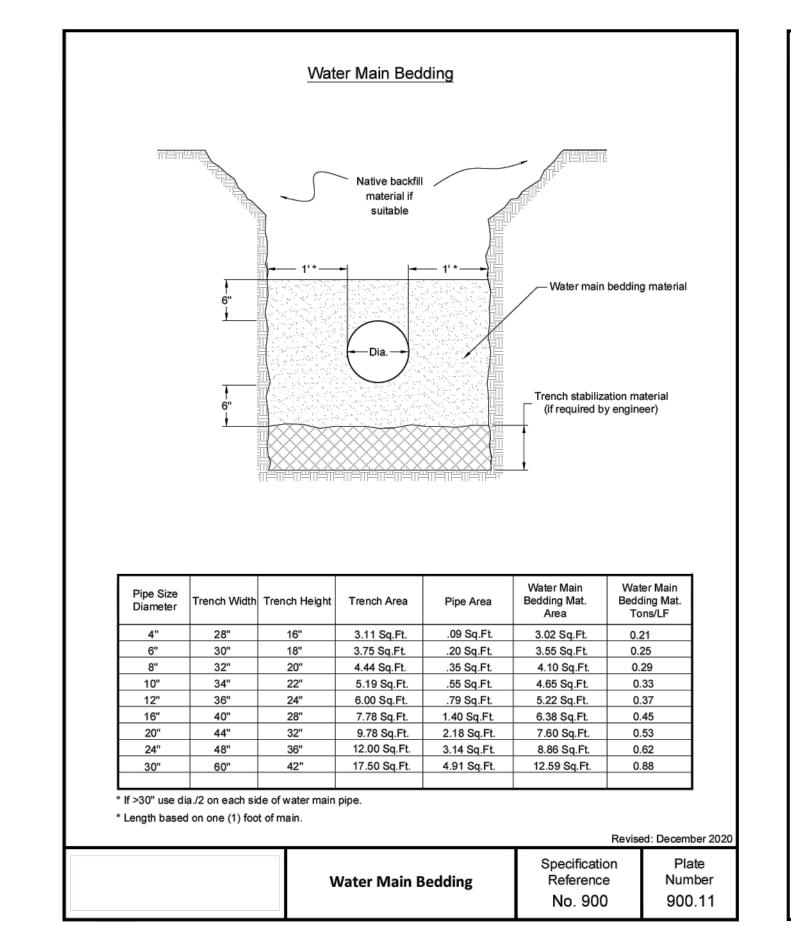
WILLOW LAKE, SD

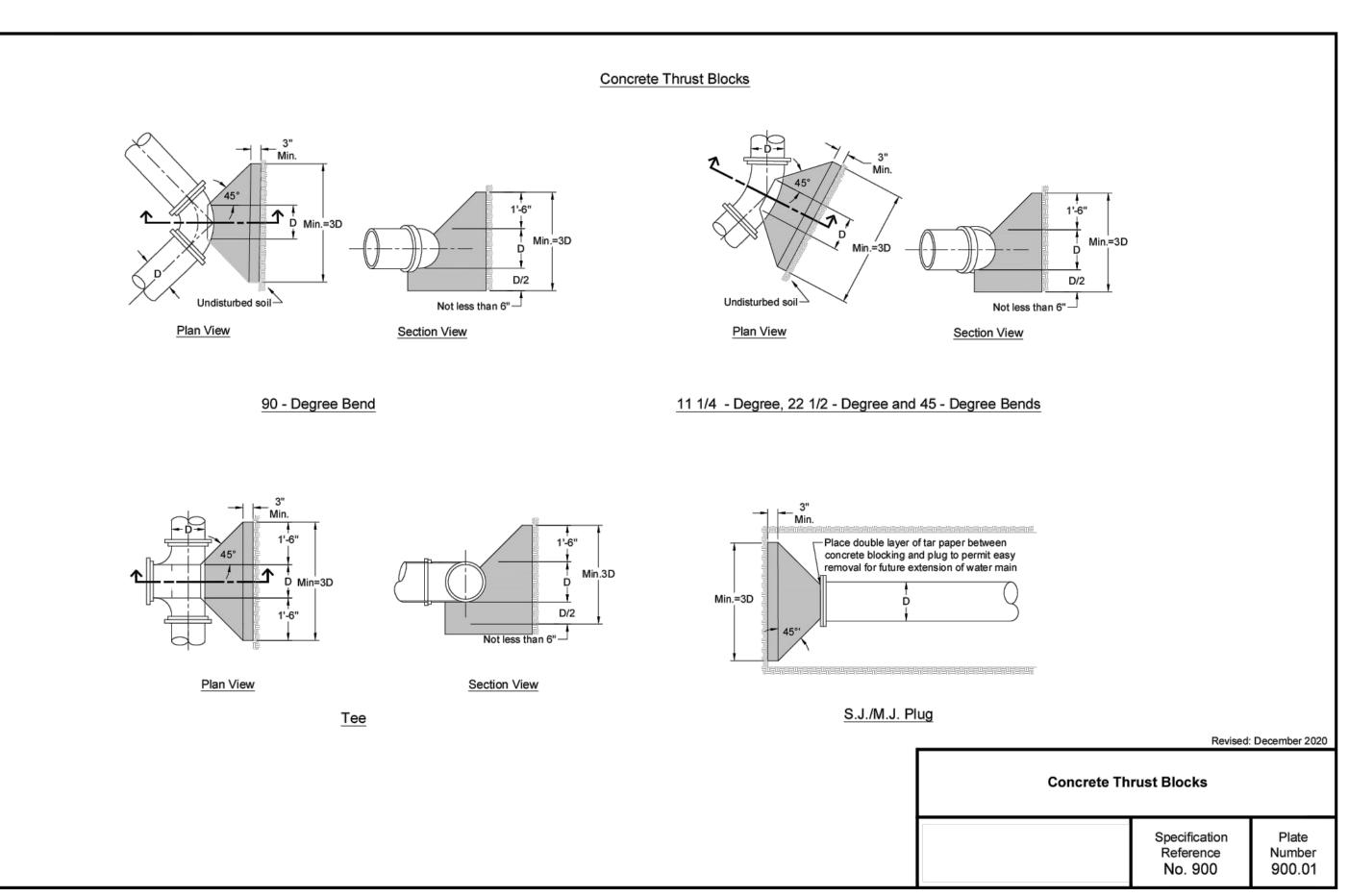
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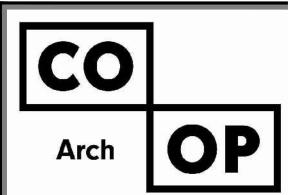
SITE DETAILS











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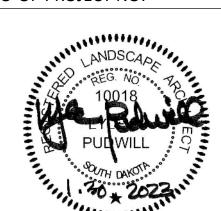
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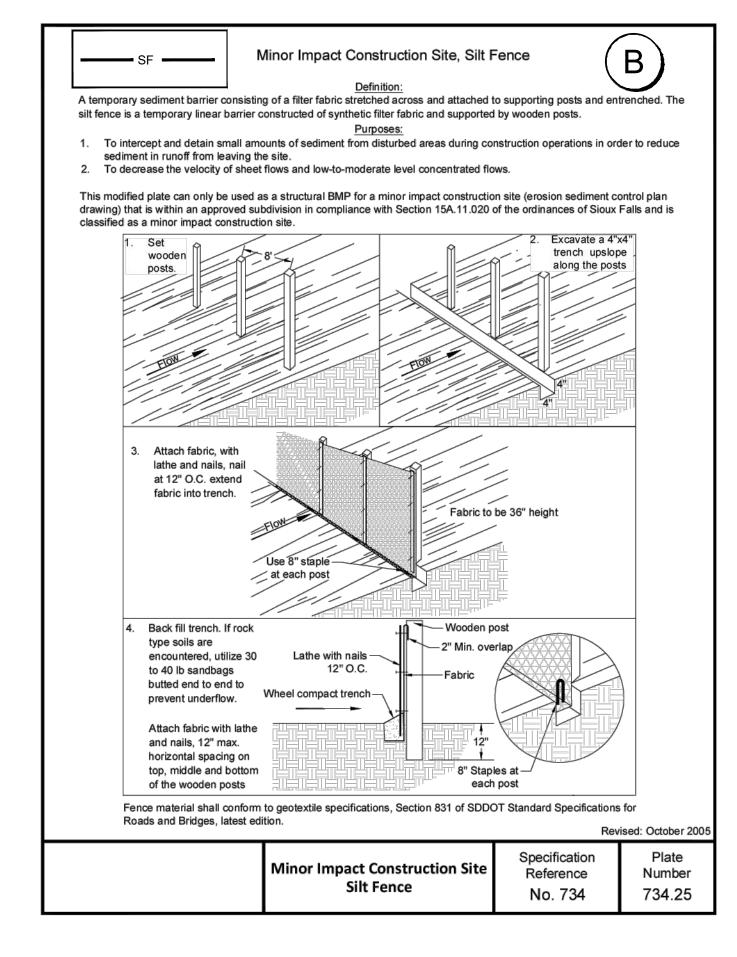
PROJECT:

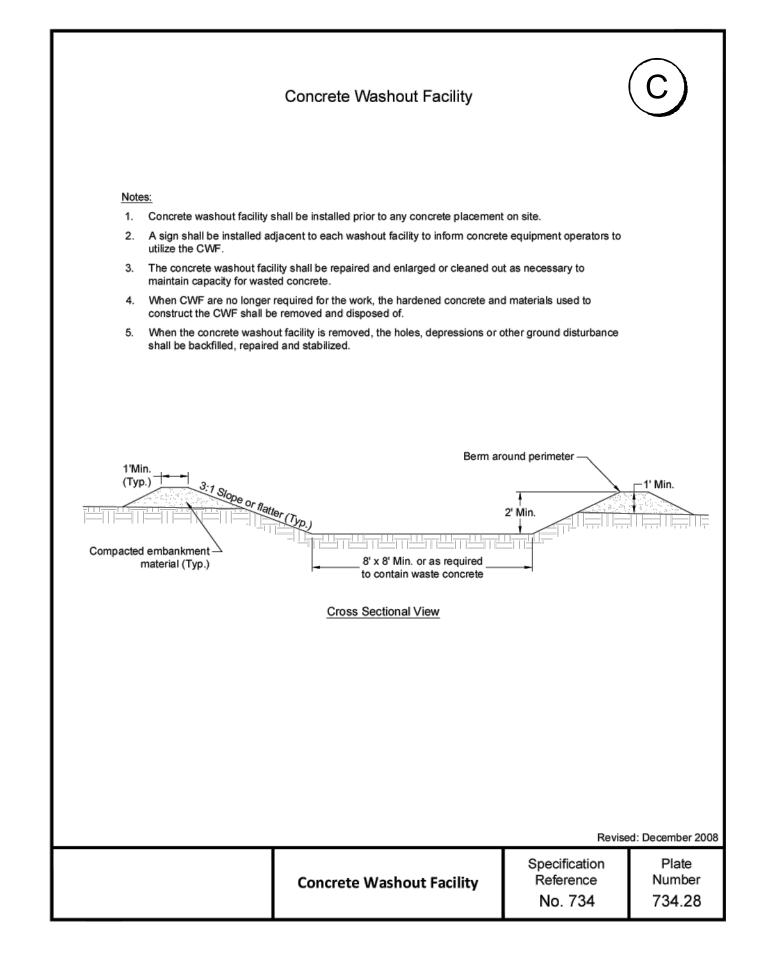
WILLOW LAKE SCHOOL ADDITION
WILLOW LAKE SCHOOL DISTRICT

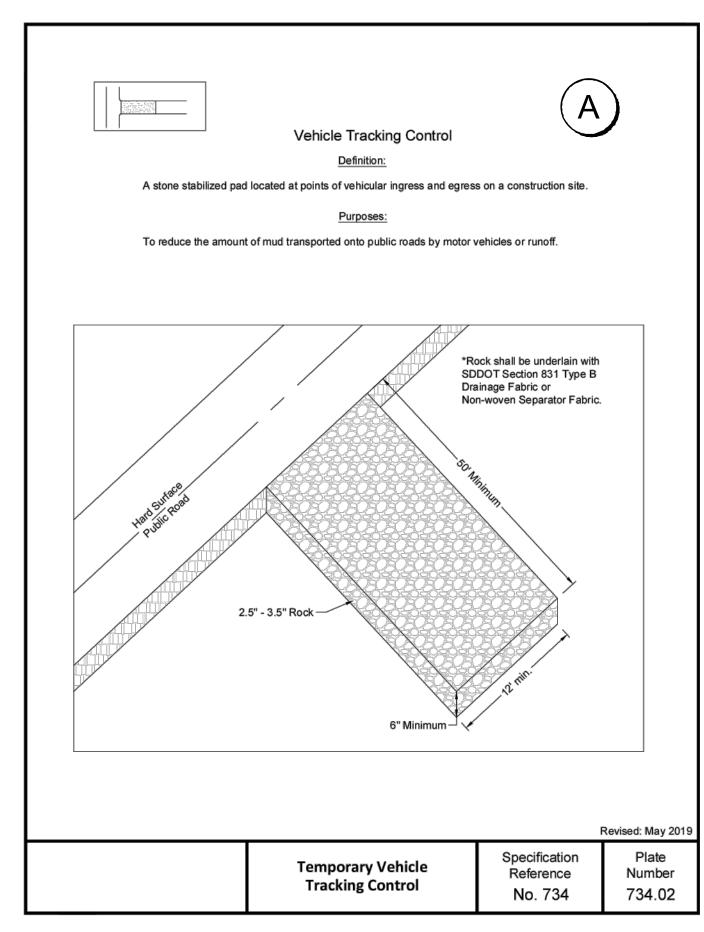
WILLOW LAKE, SD

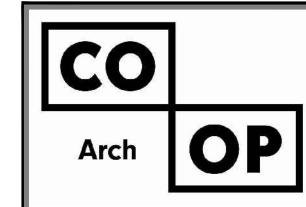
SHEET TITLE:

STANDARD PLATES









601 Kansas City St. 7 Rapid City, SD 57701 Phone: 605-716-3652

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# CONFLUENCE

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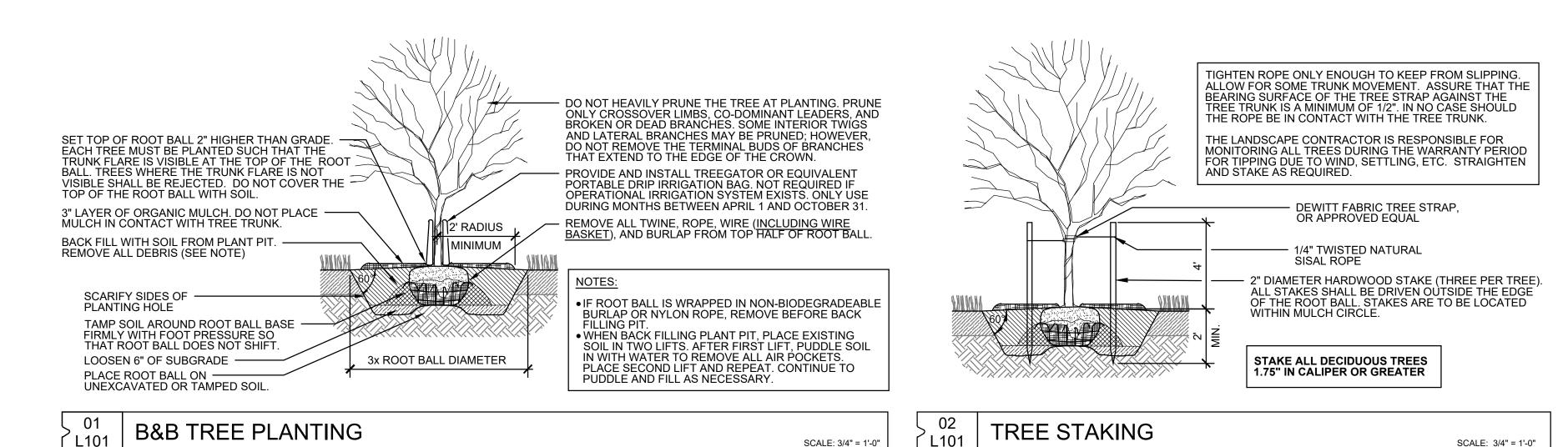
PROJECT:

WILLOW LAKE SCHOOL ADDITION
WILLOW LAKE SCHOOL DISTRICT

WILLOW LAKE, SD

SHEET TITLE:

STANDARD PLATES



**◆** *CP #5* 

ALL WORK SHALL BE IN ACCORDANCE WITH OSHA CODES AND STANDARDS. NOTHING INDICATED ON THESE DRAWINGS SHALL RELIEVE THE CONTRACTOR FROM COMPLYING WITH ANY APPROPRIATE SAFETY REGULATIONS.

**GENERAL NOTES** 

**KEYNOTES** 1. B&B TREE - TYP. DETAIL 01/L101

APPROPRIATE JURISDICTIONS.

CALL NOTIFICATION CENTER: 1-800-781-7474.

- 2. TILL, FERTILIZE, FINE GRADE AND SEED, AS SPECIFIED. LANDSCAPE CONTRACTOR IS RESPONSIBLE FOR SEEDING ALL AREAS DISTURBED BY
- 3. EROSION CONTROL BLANKET, AS SPECIFIED.

THE LANDSCAPE ARCHITECT PRIOR TO PLANTING.

4. TURF REINFORCEMENT MAT, AS SPECIFIED.

PLANT SCHEDULE								
KEY	QTY	BOTANICAL NAME	COMMON NAME	SIZE	COND	NOTE		
CANOPY TREES								
GD	3	GYMNOCLADUS DIOICA 'ESPRESSO'	ESPRESSO KENTUCKY COFFEETREE	2-1/2" CAL	B&B			

THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING ALL PUBLIC AND PRIVATE UTILITIES WHICH LIE WITHIN THE

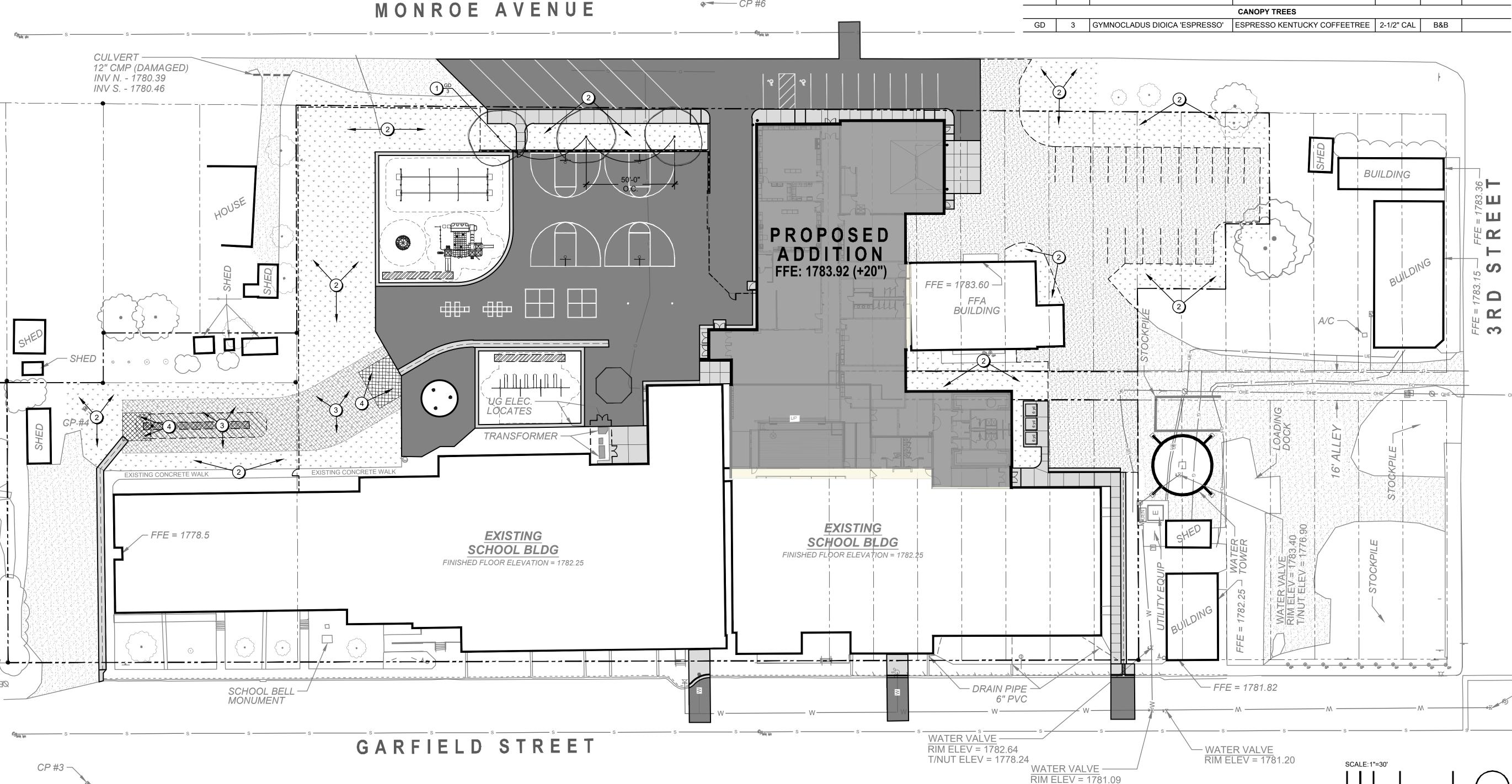
CONSTRUCTION AREA PRIOR TO ANY CONSTRUCTION. NOTIFY THE ARCHITECT OF ANY DISCREPANCIES. SOUTH DAKOTA ONE

THE CONTRACTOR SHALL CONSTRUCT ALL ITEMS WITHIN THIS CONTRACT IN ACCORDANCE WITH ALL STATE AND LOCAL CODES

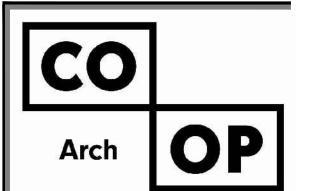
AND REGULATIONS. CONTRACTOR TO COORDINATE ALL WORK WITHIN THE PUBLIC RIGHT OF WAY OR STREETS WITH THE

THE CONTRACTOR SHALL REPORT TO THE OWNER ANY DAMAGE TO OWNER'S PROPERTY AND UTILITIES PRIOR TO REPAIR.

LANDSCAPE CONTRACTOR TO MARK ALL TREE LOCATIONS AND LAY OUT ALL PLANT MATERIAL IN THE FIELD FOR APPROVAL BY



**←** *CP* #6



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# CONFLUENCE

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CO-OP PROJECT NO:



ISSUE:

01-30-2023 CONSTRUCTION DOCUMENTS

**REVISION SCHEDULE:** 

REV. DSC.

PROJECT:

WILLOW LAKE SCHOOL ADDITION WILLOW LAKE SCHOOL DISTRICT

WILLOW LAKE, SD

SHEET TITLE:

SITE PLANTING PLAN

```
    INTERNATIONAL BUILDING CODE, 2018

    AMERICAN INSTITUTE OF STEEL CONSTRUCTION, LATEST EDITION

                                                                                                                                                                   2. STEEL SHALL BE AS FOLLOWS:

    AMERICAN CONCRETE INSTITUTE, LATEST EDITION

    AMERICAN WOOD COUNCIL, NATIONAL DESIGN SPECIFICATION, LATEST EDITION

    COMPLY WITH ALL LOCAL CODES AND LAWS, INCLUDING OSHA REGULATIONS

                                                                                                                                                                   3. ALL FIELD BENDING OF REINFORCING SHALL BE DONE COLD. DO NOT HEAT REINFORCEMENT.
                                                                                                                                                                   4. BAR LAPS SHALL BE AS FOLLOWS, UNLESS NOTED OTHERWISE. STAGGER SPLICES OF REINFORCING BY 24 INCHES AT ALTERNATE BARS.
  LATERAL LOADS:

    LATERAL SYSTEM- CMU WALLS, PRECAST WALLS

    BUILDING OCCUPANCY: III

             SEISMIC:
                                                                                                                                                                   5. HOLD REINFORCING IN PLACE DURING CASTING OPERATIONS.

    SEISMIC DESIGN CATEGORY A

    IMPORTANCE FACTOR le=1.00

    ACCELERATIONS: SS= 0.104 S1= 0.028

    SITE CLASS D

    SPECTRAL: SDS= 0.111 SD1= 0.045

                                                                                                                                                                     . HOLLOW CONCRETE MASONRY UNITS: NORMAL WEIGHT, F'M=2000, MORTAR TYPE S, GROUT STRENGTH - 2000PSI.

    ANALYSIS PROCEDURE:

    EQUIVALENT LATERAL FORCE

    BASIC WIND SPEED: 121 MPH

    EXPOSURE C

    INTERNAL PRESSURE COEFFICIENT: ENCLOSED

             COMPONENTS AND CLADDING WIND (UNFACTORED):
                                               NET UPLIFT ROOF PRESSURE
                                                                                                                                                                   10. USE GROUTED KEYWAYS OR PREMANUFACTURED JOINTS AT ALL CONTROL JOINTS.
                                                                                                                                                                    11. DO NOT PLACE CONDUIT, CHASES, OR OTHER EMBED ITEMS IN GROUTED CELLS WITHOUT PRIOR APPROVAL FROM THE STRUCTURAL ENGINEER.
      ROOF (ZONE 1'):
                                                      -13PSF
                        +16PSF / -16PSF
      ROOF (ZONE 2):
                         +16PSF / -42PSF
                                                      -39PSF
      ROOF (ZONE 3):
                         +16PSF / -42PSF
                                                      -39PSF
                                                                                                                                                                   14. ALL NON-LOAD BEARING CMU WALLS TO HAVE #5 REBAR GROUTED SOLID @ 48" O.C. U.N.O.
      WALL (ZONE 4):
                         +20PSF / -26PSF
                                                                                                                                                                 LINTELS:
      WALL (ZONE 5):
                         +20PSF / -29PSF
      WALL (ZONE 4P):
                         +80PSF / -57PSF
                                                                                                                                                                   1. LINTELS SHALL BE PLACED ABOVE ALL OPENINGS AND RECESSES IN MASONRY CONSTRUCTION.
      WALL (ZONE 5P):
                         +80PSF / -57PSF
                                                                                                                                                                   2. LINTELS NOT SHOWN ON THE CONSTRUCTION DRAWINGS SHALL BE AS FOLLOWS, FOR EVERY 4IN NOMINAL THICKNESS OF MASONRY:
   3. SUPERIMPOSED – DEAD LOADS:
             ROOF:
                        . METAL DECK:
                                                      3PSF
                       2. INSULATION/MEMBRANE:
                                                     3PSF

    CMEP:

                                                      8PSF
                      4. JOIST/BRIDGING:
                                                     5PSF
                                                                                                                                                                   3. LINTELS NOT SHOWN ON THE STRUCTURAL DRAWINGS SHALL BE AS FOLLOWS, FOR EVERY 6IN NOMINAL OF MASONRY THICKNESS (EG. 6" CMU'
                       . CONCRETE ON DECK:
                                                     43PSF
                       CMEP:
                                                      7PSF
                      FLOORING/MISC.
                                                     5PSF
                      4. PONDING:
                                                     5PSF

    PRECAST:

                       1. HOLLOWCORE
                                                      85PSF
                       TOPPING SLAB:
                                                      20PSF
                      3. PARTITIONS:
                                                      15PSF
                                                                                                                                                                   4. STEEL LINTELS SHALL HAVE A MINIMUM OF 8" BEARING ON FULLY GROUTED CELL
                      CMEP:
                                                                                                                                                                     GROUT ALL CMU CORES SOLID UNDER LINTEL BEARING, BEAMS AND BEARING PLATES.
                                                                                                                                                                   6. GALVANIZE ALL STEEL EXPOSED TO WEATHER.
  LIVE LOADS

    GROUND SNOW LOAD:

                                                                                                                                                                 STRUCTURAL STEEL:

    FLAT ROOF SNOW LOAD (MINIMUM): 43PSF

    IMPORTANCE FACTOR Is= 1.00

    SNOW EXPOSURE FACTOR Ce= 1.00

                                                                                                                                                                   1. STEEL SHALL BE DETAILED, FABRICATED AND ERECTED PER AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC) CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND

    THERMAL FACTOR Ct= 1.10

    SNOW DRIFT LOAD: ASCE-7 (APPROPRIATE YEAR)

    STORAGE (LIGHT/HEAVY)

                                                      125PSF/250PSF
                                                                                                                                                                   PROPERTIES:

    STAGE:

                                                      150PSF
GENERAL
   1. THE CONTRACT DRAWINGS REPRESENT THE COMPLETED STRUCTURE, AT TIME OF SUBSTANTIAL COMPLETION. UNLESS NOTED OTHERWISE, THEY DO NOT REPRESENT THE MEANS
      AND METHODS OF CONSTRUCTION. SEQUENCING AND MEANS-AND-METHODS OF CONSTRUCTION SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR.
                                                                                                                                                                   4. SIMPLE SHEAR CONNECTIONS NOT FULLY DETAILED ON THE STRUCTURAL DRAWINGS SHALL BE SELECTED BY THE STEEL FABRICATOR FROM APPROPRIATE AISCC LOAD TABLES
                                                                                                                                                                   USING END REACTION SHOWN ON PLANS, DOUBLE ANGLE, SINGLE ANGLE, OR WELDED SHEAR PLATE CONNECTIONS SHALL BE USED, BOLTED CONNECTIONS SHALL USE A MINIMUM OF 2
   2. THE CONTRACTOR IS RESPONSIBLE FOR THE STRENGTH, SAFETY, AND STABILITY OF THE NEW AND EXISTING STRUCTURE DURING CONSTRUCTION AND SHALL PROVIDE TEMPORARY
      SHORING, BRACING, AND OTHER ELEMENTS REQUIRED TO MAINTAIN STABILITY UNTIL THE STRUCTURE IS COMPLETE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO BE FAMILIAR WITH
                                                                                                                                                                   5. ALL WELDING SHALL BE PERFORMED BY CERTIFIED WELDERS WITH EXPERIENCE IN THAT TYPE OF JOINT. WELDING SHALL BE ACCORDING TO AMERICAN WELDING SOCIETY,
       THE WORK REQUIRED IN THE CONSTRUCTION DOCUMENTS AND THE REQUIREMENTS FOR EXECUTING IT PROPERLY. THE CONTRACTOR SHALL, AT HIS DISCRETION, EMPLOY A
      REGISTERED PROFESSIONAL ENGINEER FOR THE DESIGN OF ANY TEMPORARY BRACING AND SHORING.
                                                                                                                                                                   STRUCTURAL WELDING CODE. IN LIEU OF AWS WELDING CERTIFICATES, WELDERS EMPLOYED ON THE WORK MAY PROVIDE WELDING TESTS THAT HAVE BEEN PERFORMED WITHIN THE
     FIELD VERIFY ANY EXISTING DIMENSIONS, SIZES, AND THICKNESSES SHOWN ON DRAWINGS. IMMEDIATELY NOTIFY ARCHITECT OF ANY DISCREPANCIES.
                                                                                                                                                                    UNLESS NOTED OTHERWISE, WELDS SHALL BE 3/16" THROAT THICKNESS. ALL WELDS SHALL USE E70XX ELECTRODES.
     DETAILS AND NOTES SHOWN ON THE STRUCTURAL DOCUMENTS ARE TYPICAL FOR SIMILAR SITUATIONS IN THE PROJECT.
                                                                                                                                                                     PAINT STEEL EXPOSED TO VIEW WITH MANUFACTURER'S STANDARD PRIMER. DO NOT PRIME STEEL RECEIVING FIRE-PROOFING, OR AT WELDS. IF STEEL MEMBERS ARE NOT
     OPTIONS, IF SHOWN, ARE FOR THE CONVENIENCE OF THE CONTRACTOR.
     THE COST OF ADDITIONAL DESIGN WORK NECESSITATED BY SEQUENCING OR CONSTRUCTION ERRORS SHALL BE PAID BY THE CONTRACTOR.
                                                                                                                                                                    EXPOSED TO VIEW, CONTRACTOR MAY ELECT TO NOT PRIME THIS STEEL. GALVANIZE ALL STEEL EXPOSED TO WEATHER.
                                                                                                                                                                     HEADED STEEL STUDS SHALL BE PLACED ON BEAMS IN FIELD, ARC-WELDED THROUGH METAL FLOOR DECK. SEE STUD REPLACEMENT DETAIL.

    ANY ENGINEERING PROVIDED BY OTHERS SHALL BE STAMPED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE WHERE THE PROJECT IS LOCATED

                                                                                                                                                                   9. DO NOT FIELD TORCH-CUT HOLES OR NOTCHES IN STEEL MEMBERS WITHOUT PRIOR APPROVAL FROM THE STRUCTURAL ENGINEER.
SPECIAL INSPECTION:
                                                                                                                                                                   10. BOLTS SHOWN ON STRUCTURAL DRAWINGS SHALL BE 3/4" DIAM., A325-N BOLTS UNLESS NOTED OTHERWISE. USE TWIST-OFF TYPE BOLTS FOR CONNECTIONS REQUIRING FULLY
                                                                                                                                                                   TIGHTENED CONDITIONS.
THE OWNER SHALL EMPLOY SPECIAL INSPECTORS TO PERFORM SPECIAL INSPECTION. BASED ON IBC 2018, SPECIAL INSPECTION WILL BE REQUIRED FOR THE FOLLOWING:
                                                                                                                                                                   11. FURNISH AND INSTALL OTHER MISCELLANEOUS STEEL AS CALLED OUT OR REQUIRED BY ARCHITECTURAL, MECHANICAL, PLUMBING AND ELECTRICAL DRAWINGS.
                                                                                                                                                                   12. PROVIDE 5,000 PSI NON-SHRINK GROUT UNDER BASE PLATES AND BEARING PLATES WHERE INDICATED. ANCHOR BOLTS SHALL BE EMBEDDED 12 X (DIAM OF BOLT) MEASURED TO

    GEOTECHNICAL INVESTIGATIONS

    CAST-IN-PLACE CONCRETE

                                                                                                                                                                   UNDERSIDE OF HEAD.

    STRUCTURAL MASONRY

    STRUCTURAL STEEL

                                                                                                                                                                 STEEL DECK:

    POST-INSTALLED ANCHORS

    PRECAST CONCRETE

FOOTING AND FOUNDATIONS:
                                                                                                                                                                     STEEL DECK SHALL BE ATTACHED TO SUPPORTING STRUCTURE AS NOTED ON PLANS.
                                                                                                                                                                     USE WELD-WASHERS WHEN WELDING THROUGH DECK. POWDER DRIVEN FASTENERS, IF DESIRED FOR DECK ATTACHMENT, SHALL BE SUBMITTED FOR REVIEW.

    NET ALLOWABLE BEARING PRESSURE (PER STI REPORT #22-1782):

    COLUMN FOOTINGS:

                                                      2000PSI
     CENTER FOOTINGS UNDER WALLS AND COLUMNS, UNLESS NOTED OTHERWISE.
                                                                                                                                                                   6. ROOF DECK AND NON-COMPOSITE DECK ENDS SHALL BE LAPPED 2" OVER SUPPORT. COMPOSITE DECK ENDS SHALL BE BUTTED OVER CENTER OF SUPPORT.
     CONCRETE SHALL NOT BE CAST ON FROZEN GROUND OR GROUND CONTAINING STANDING WATER. OWNER'S SOILS CONSULTANT SHALL REVIEW SUBGRADE PRIOR TO CASTING OF
   FOOTINGS AND SLABS. PROTECT SOIL FROM FREEZING AFTER CASTING FOOTING.
  4. UNLESS NOTED OTHERWISE, SLABS ON GRADE SHALL CONTAIN FIBERMESH REINFORCEMENT. SLAB SHALL BE PLACED OVER VAPOR BARRIER AND 6" MINIMUM COMPLACTED
   GRANULAR FILL. OWNER'S SOILS CONSULTANT SHALL VERIFY SUBGRADE PRIOR TO PLACEMENT OF ANY FILL BELOW SLABS.
                                                                                                                                                                     HANG LOADS FROM STEEL BEAMS AND JOISTS WHENEVER POSSIBLE. PROVIDE UNISTRUT, ANGLES, OR TUBES TO ACCOMMODATE THIS. DO NOT HANG ANY LOADS FROM ROOF DECK
   5. PLACE REINFORCING IN ALL FOOTINGS PRIOR TO CASTING. FLOATING OF REINFORCING INTO FOOTING AFTER CASTING IS NOT PERMITTED. HOLD REINFORCING IN PLACE DURING
   CASTING OPERATIONS, CONSOLIDATE CONCRETE.
   6. BASEMENT WALLS SHALL NOT BE BACKFILLED UNTIL LOWER LEVEL SLAB AND FIRST FLOOR STRUCTURE IS IN PLACE, UNLESS BRACING IS PROVIDED.
     BACKFILL PLACED AGAINST FOUNDATION WALLS SHALL BE CLEAN, FREE-DRAINING GRANULAR MATERIAL FOR A MINIMUM OF 2FT AGAINST WALL. COMPACT SOILS ADJACENT TO
                                                                                                                                                              STEEL JOISTS:
   FOUNDATION WALLS USING HAND EQUIPMENT.
   STEPS IN FOOTING, FOUNDATION WALLS, AND GRADE BEAMS SHALL BE COORDINATED WITH WALL FORMING SYSTEM.
  9. SEE ARCHITECTURAL DRAWINGS FOR OTHER REVEALS, INSERTS, EMBEDS, AND BOLTS.
                                                                                                                                                                     THE BASIS OF DESIGN FOR JOIST SIZES SHOWN ON THE DRAWINGS IS PER VULCRAFT DESIGN CATALOG. SPECIAL JOIST PRELIMINARY SIZES SHOWN ARE BASED ON SNOW DRIFT AND
   10. PIPING RUNNING BELOW FOOTING SHALL BE PLACED PRIOR TO FOOTING OPERATIONS AND THE HOLE FILLED WITH LEAN CONCRETE
CONCRETE:
  1. CONCRETE STRENGTHS: 145PCF CONCRETE DENSITY. MINIMUM 28-DAY CONCRETE STRENGTHS SHALL BE AS FOLLOWS:
                                                                                                                                                                     TO AID IN BEARING SEAT DESIGN FOR JOISTS, IF JOIST MANUFACTURER WOULD LIKE TO STAGGER JOISTS ON EITHER SIDE OF A SUPPORT, THIS SHALL BE SUBMITTED FOR APPROVAL

    FOOTINGS:

                                                      3500PSI

    FOUNDATION WALLS:

                                                      3500PSI
                                                                                                                                                                   8. JOISTS BEARING ABOVE A COLUMN LINE SHALL HAVE ERECTION BOLTS IN THE BEARING SEAT. BOTTOM CHORDS SHALL BE ALSO EXTENDED TO THE FACE OF THE COLUMN.

    SLABS ON GRADE:

                                                      4000PSI
                                                                                                                                                                   9. JOISTS SHALL BE WELDED TO SUPPORTS, TYPICAL.
   2. ALL CONCRETE WORK SHALL CONFORM TO THE LATEST EDITIONS OF ACI 301, 305, 306, 311, 315, 318 AND 347.
                                                                                                                                                                    10. LIGHT-WEIGHT MECHANICAL DUCTS, CONDUIT, AND CEILING MAY BE HUNG AT ANY POINT ALONG THE JOIST BOTTOM OR TOP CHORD.
     CONCRETE MIX DESIGN SHALL CONFORM TO ACI 301 AND 318. WATER SHALL NOT BE ADDED ON SITE, UNLESS CALLED OUT ON THE APPROVED MIX DESIGN.
                                                                                                                                                                   11. LOADS GREATER THAN 100LBS SHALL BE HUNG WITHIN 6" OF TOP AND BOTTOM CHORD POINTS. LOADS HUNG OUTSIDE THIS RANGE SHALL HAVE ADDED BRACING TO NEAREST
   4. CONCRETE MIX DESIGN PERAMETERS:

    INTERIOR SLAB ON GRADE:

    WATER TO CEMENT RATIO (W/C): ≤ 0.48
```

5. CONCRETE SLABS ON GRADE SHALL HAVE CONSTRUCTION JOINTS OR CUT JOINT AT 12FT O.C. MAXIMUM IN EACH DIRECTION. CUT SLAB BETWEEN 4 AND 12 HOURS AFTER CASTING

PROVIDE CONSTRUCTION JOINTS IN EXPOSED WALLS AT A MAXIMUM SPACING OF 40FT. COORDINATE LOCATION OF JOINT WITH ARCHITECTURAL DRAWINGS. PROVIDE

SLAB. ISOLATE COLUMNS, WALLS, AND PIERS FROM SLABS AS SHOWN ON DRAWINGS. DO NOT CUT SLABS-ON-DECK OR PRECAST TOPPING SLABS. SEE ARCHITECTURAL DRAWINGS FOR SLAB DEPRESSIONS. PITCH SLAB TO DRAIN WITHOUT REDUCING THICKNESS OF CONCRETE SECTION.

8. ALL JOINTS IN CONCRETE CONSTRUCTION SHALL BE KEYED WITH A MINIMUM 2X4 KEYWAY. PROPERLY CONSOLIDATE CONCRETE WHEN CASTING. 9. DO NOT PLACE CONDUIT, PIPES, OR DUCTS WITHIN COLUMNS, BEAMS, WALLS, OR SLAB SYSTEMS WITHOUT APPROVAL FROM STRUCTURAL ENGINEER. REINFORCING BARS:

REBAR- ASTM A605- GR 60

TIES – 38DB

2FT-4FT

4FT-6FT

6FT-8FT

2FT-4FT

4FT-6FT

6FT-8FT

WELDABLE REINFORCING- A706, GR 60

COLUMN/WALL VERTICAL BARS – 48DB

BEAMS/JOIST TOP AND BOTTOM BARS – 48DB

WELDED WIRE FABRIC- ASTM A185

CMU SHALL BE LAID IN A RUNNING-BOND PATTERN.

GROUT CELLS FLOOR-TO-FLOOR AT JAMBS OF OPENINGS. LAP BARS 48 BAR DIAMETERS, UNLESS NOTED OTHERWISE.

L-3.5X3.5X1/4"

L-5X3.5X1/4" LLV

L-5X3.5X1/4" LLV

WT 4X9

WT 4X9

ROLLED W-SHAPED MEMBERS: ASTM A992

STEEL ANGLES, CHANNELS, PLATES: ASTM A36

RECOMMENDATIONS OF THE STEEL DECK INSTITUTE (SDI).

SUPPORT DECK AT SUMP PANS AND OTHER ROOF DECK OPENINGS. SEE DETAILS.

MANUFACTURER. UPLIFT BRIDGING MAY BE REQUIRED- SEE DRAWINGS.

INSTANCES THE DECKING SHALL BE PRIME-PAINTED.

MECHANICAL LOADS SHOWN ON DOCUMENTS.

CHOARD POINT. AS SHOWN ON THE DETAILS.

LOCATIONS PRIOR TO REMOVAL.

ON THE SHOP DRAWINGS.

CONTRACTOR.

STEEL TUBES: ASTM A500, GRADE B

STEEL PIPES: ASTM A53, GRADE B

ANCHOR BOLTS: ASTM A307

PROVIDE HORIZONTAL JOINT REINFORCEMENT AT 16" O.C. MAX SPACING PER SPECIFICATION.

1/4" PLATE, OR BOND BEAM WITH 2 #5

BACK-TO-BACK ANGELS SHALL BE WELDED TOGETHER WITH 2" WELD AT 12" O.C.

1/4" PLATE, OR BOND BEAM WITH 1 #5

L-5X3.5X1/4" W/ BOT PL- 1/4"X5"

BAR DETAILING SHALL CONFORM TO THE LATEST ACI DETAILING MANUAL. PROVIDE COVER TO REINFORCEMENT AS LISTED IN ACI 318.

MASONRY CONSTRUCTION SHALL COMPLY WITH THE LATEST VERSION OF ACI 530.1. SEE IBC 2018 FOR HOT AND COLD WEATHER PROCEDURES.

PROVIDE REINFORCING AT CENTER OF CORES OF CMU CONSTRUCTION, OR AS INDICATED ON STRUCTURAL DRAWINGS. HOLD REINFORCING IN PLACE SURING GROUTING

OPERATIONS. FILL ALL REINFORCED CELLS WITH GROUT. FILL ALL CMU CELLS SOLID BELOW GRADE. SEE DRAWINGS FOR OTHER GROUTING. CONSOLIDATED GROUT.

PROVIDE BOND BEAMS WITH 2 #5 AT ALL FLOOR LINES, ROOF LINES, TOP OF WALL, AND AT 12'-0" O.C. MAXIMUM SPACING IN WALL

HIGH LIFT GROUTING WILL NOT BE PERMITTED WITHOUT AN APPROVED WRITTEN PROCEDURE SUBMITTED THROUGH THE ARCHITECT.

HIGH STRENGTH BOLTS SHALL BE INSTALLED PER AISC SPECIFICATIONS FOR STRUCTURAL JOINTS USING ASTM A325 OR A490 BOLTS

DESIGN. FABRICATE, DELIVER, AND ERECT METAL ROOF DECK, NON-COMPOSITE METAL DECK, AND COMPOSITE METAL DECK ACCORDING TO THE SPECIFICATIONS AND

ROOF/FLOOR DECKING THAT WILL HAVE CONCRETE POURED ON TOP OF IT OR IS LOCATED IN AN AREA THAT WILL HAVE HIGH HUMIDITY SHALL BE GALVANIZED. FOR ALL OTHER

PROVIDE HIP AND VALLEY PLATES, GIRDER FILLERS, END CLOSERS, CANT STRIPS, SUMP PANS, EDGE FORMS AND OTHE ACCESSORIES AS SHOWN ON THE STRUCTURAL AND

OR NON-COMPOSITE DECK. LOADS LESS THAN 100LBS MAY BE HUNG FROM CURED, COMPOSITE DECK. RESPONSIBILITYFOR DESIGN OF MEP SUPPORT SYSTEMS WILL BE WITH THE

DESIGN, FABRICATE, DELIVER, AND ERECT OPEN WEB STEEL JOISTS, JOIST GIRDERS, AND ACCESSORIES ACCORDING TO THE SPECIFICATIONS OF THE STEEL JOIST INSTITUTE (SJI).

PROVIDE BRIDGING, EXTENDED ENDS, SLOPED BEARINGS, CEILING EXTENSIONS AND OTHER ACCESSORIES AS SHOWN ON THE STRUCTURAL AND ARCHITECTUAL DRAWINGS.

BRIDGING SHOWN ON DRAWINGS SHALL BE USED FOR ESTIMATING ONLY. FINAL SIZE, CONFIGURATION, AND QUANTITY OF BRIDGING SHALL BE DETEMINED BY THE JOIST

WHERE BRIDGING INTERFERES WITH MECHANICAL DUCTWORK OR PIPING, BRIDING MAY BE REMOVED AFTER ROOF DECK ATTACHEMNT. NOTIFY STRUCTURAL ENGINEER OF

STEEL DECK PROPERTIES SHALL BE (AT MINIMUM), THOSÉ LISTED IN VULCRAFT CATALOGS FOR THE TYPE AND GAGE SHOWN ON THE DRAWINGS.

PAINT JOISTS WITH MANUFACTURER'S STANDARD RUST-INHIBITING PRIMER. JOISTS TO RECEIVE FIREPROOFING ARE NOT TO BE PAINTED.

ARCHITECTURAL DRAWINGS, OR AS NEEDED TO PROVIDE A COMPLETE DECK SYSTEM SHOWN ON THE DRAWINGS.

GENERAL DESIGN CRITERIA:

 AIR CONTENT: 3% +/- 0.5% FOOTINGS & FOUNDATION WALLS

WATER TO CEMENT RATIO (W/C): ≤ 0.48

CONSTRUCTION JOINTS IN UNEXPOSED WALLS AT A MAXIMUM SPACING OF 60FT.

CODES:

#### LIGHT GAGE STEEL:

- LIGHT GAGE STEEL DESIGN, DETAILING AND ERECTION SHALL FOLLOW STEEL STUD MANUFACTURERS ASSOCIATION (SSMA) GUIDELINES.
- BOTTOM TRACK. STUDS SHALL NOT HAVE PUNCH-OUT LOCATED AT ENDS OF STUDS.
- 5. PROVIDE BRIDGING AT 4'-0" O.C. MAXIMUM SPACING IN BEARING, SHEAR AND EXTERIOR WALLS. PROVIDE FULL DEPTH BLOCKING AT ALL SHEAR PANEL EDGES.
- 6. SCREW SHEATHING FOR FLOORS & ROOFS WITH #8 SCREWS AT 6" O.C. AT PANEL EDGES AND 12" O.C. IN THE FIELD. STAGGER EDGES OF PANELS.

- 1. THE FOLLOWING STRUCTURAL COMPONENTS OF THE BUILDING WILL REQUIRE SHOP DRAWINGS AND/OR MIX DESIGNS TO BE SUBMITTED BY THE
- . CONCRETE MIX DESIGNS
- PRECAST DESIGNS

- RECORD THAT HAVE BEEN SIGNED AND STAMPED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE WHERE THE PROJECT IS LOCATED.
- THE DESIGN OF THE FOLLOWING STRUCTURAL COMPONENTS OF THE BUILDING HAVE BEEN DELEGATED TO THE CONTRACTOR/SUPPLIER.

Phone: 605-334-9999

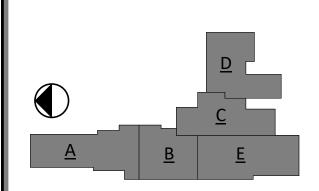
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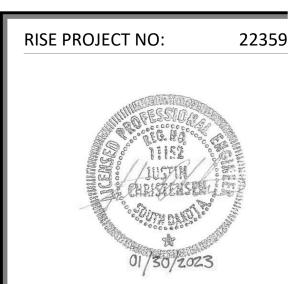
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01-30-23 100% CONSTRUCTION DOCUMENTS

REVISION SCHEDULE:

PROJECT:

WILLOW LAKE SCHOOL ADDITION

WILLOW LAKE SCHOOL DISTRICT WILLOW LAKE, SOUTH DAKOTA

SHEET TITLE:

STRUCTURAL NOTES

- 2. LIGHT GAGE CALLED OUT ON THE DRAWINGS SHALL HAVE A MINIMUM PROPERTIES CALLED OUT IN THE LATEST EDITION OF SSMA PRODUCT TECHNICAL
- 3. END TRACK GAGE SHALL MATCH WALL STUD GAGE. ALIGN STUDS BELOW STRUCTURAL MEMBERS ABOVE. PROVIDE FULL BEARING OF WALL STUDS TO TOP AND
- 4. PROVIDE TRACK, BRIDGING, BLOCKING, HEADERS, CLIP-ANGLES, SLIDE CLIPS, FASTENERS, AND OTHER ACCESSORIES AS NEEDED TO SUPPLY A COMPLETED LIGHT-
- PROVIDE 2 FULL HEIGHT STUDS AT JAMBS OF OPENINGS, UNLESS NOTED OTHERWISE.
- 8. ALL WELDED CONNECTIONS SHALL BE DONE BY PERSONNEL CERTIFIED IN LIGHT-GAGE WELDING.

- CONTRACTOR/SUPPLIER TO THE ENGINEER OF RECORD FOR REVIEW BEFORE FABRICATION.
- 4. CONCRETE AND/OR CMU REINFORCING SHOPS
- 5. STRUCTURAL STEEL FRAMING SHOPS 6. STEEL JOIST SHOPS

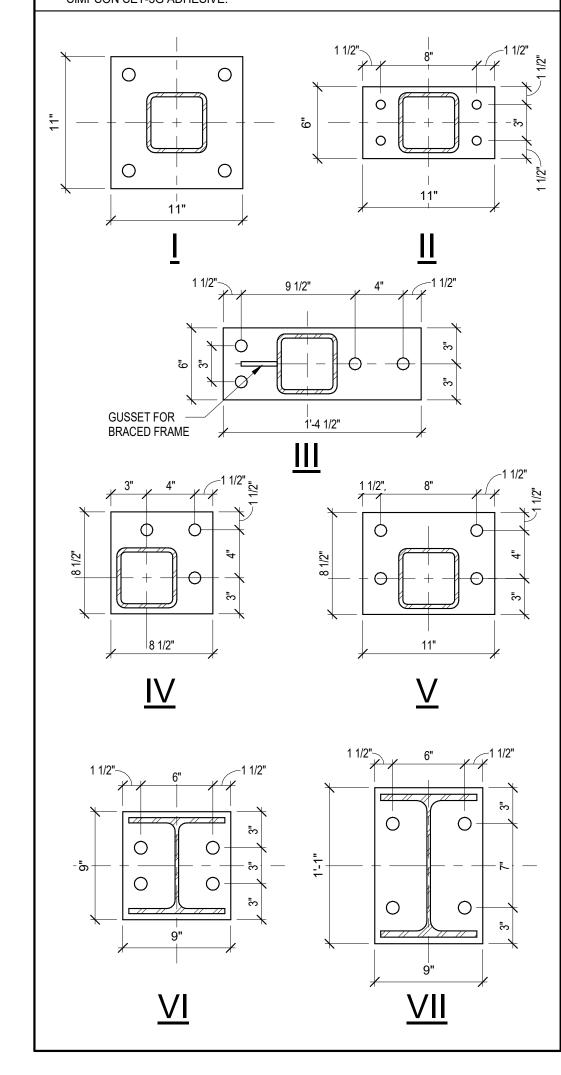
#### **DELEGATED DESIGNS:**

- 1. DESIGN ITEMS THAT HAVE BEEN DELEGATED WILL REQUIRE THE CONTRACTOR/SUPPLIER TO PROVIDE SHOP DRAWINGS AND CALCULATIONS TO THE ENGINEER OF
- THE DESIGN OF DELEGATED STRUCTURAL ITEMS MAY BE DEFERRED UNTIL AFTER A BUILDING PERMIT HAS BEEN ISSUED.
- 12. LOCATE CONTROL JOINTS IN CMU AT A MAXIMUM SPACING OF 20FT, UNLESS NOTED OTHERIWSE. LOCATE CONTROL JOINTS IN EXTERIOR MASONRY PER ARCHITECTURAL DRAWINGS. 4. STRUCTURAL STEEL CONNECTIONS AND/OR STEEL STAIRS, GUARD RAILS, & HANDRAILS
- 13. CONTINUE REINFORCING THROUGH CONTROL JOINTS. WRAP REBAR WITH BOND-BREAKING TAPE 2'-0" EACH SIDE OF JOINT. DO NOT SPLICE REINFORCING WITHIN 4FT OF JOINTS.

  5. STRUCTURAL & ARCHITECTURAL PRECAST

COLUMN SCHEDULE							
MARK	SECTION	BASE PLATE	ANCHOR BOLTS	REMARKS			
C1	HSS 5x5x1/4"	I	4	POST-INSTALLED (SEE NOTE 3)			
C2	HSS 5x5x1/4"	I	4	POST-INSTALLED (SEE NOTE 3)			
C3	HSS 5x5x1/4"	I	4	POST-INSTALLED (SEE NOTE 3)			
C4	HSS 5x5x1/4"	IV	3	POST-INSTALLED (SEE NOTE 3)			
C5	HSS 5x5x1/4"	V	4	POST-INSTALLED (SEE NOTE 3)			
C6	HSS 5x5x5/16"	V	4	POST-INSTALLED (SEE NOTE 3)			
C7	W8x31	VI	4	3/4" DIA. x 9" EMBED. PABs (WET-SET			
C8	W12x40	VII	4	3/4" DIA. x 9" EMBED. PABs (WET-SET			

- ALL BASE PLATES 3/4" THICK U.N.O.
   T.O.C. ELEV. 99'-4". U.N.O.
- 3. POST-INSTALLED ANCHORAGE TO BE 3/4" DIA. x 9" EMBED THREADED ROD w/ SIMPSON SET-3G ADHESIVE.



#### WALL FOOTING SCHEDULE MARK REINFORCEMENT WF1 (2) #5 CONT. 2'-0" x 1'-0" 3'-0" x 1'-0" (3) #5 CONT. w/ #4 TRANS. BARS @ 24" O.C. WF3 1'-4" x 1'-0" (2) #5 CONT.

PA	D FOOTIN	IG SCHEDULE
MARK	SIZE	REIFORCEMENT
F1	3'-0" x 3'-0" x 1'-0"	4-#5 EA. WAY
F2	4'-0" x 4'-0" x 1'-0"	5-#5 EA. WAY
F3	5'-0" x 5'-0" x 1'-0"	6-#5 EA. WAY.

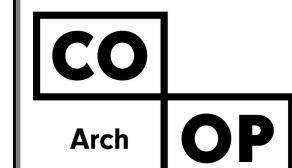
	PIER	SCHE	DULE	
MARK	SIZE	VERT. REINF.	TIES	T/PIER
P1	18" x 18"	(4) #6	#4 @ 12" O.C.	99'-4"
P2	24" x 24"	(8) #6	#4 @ 12" O.C.	99'-4"

LINTEL SCHEDULE			
MARK	LINTEL	DETAIL	REMARKS
L1	(2)-L5x3-1/2x1/4" (LLV)	JL	
L2	W8x15 w/ 7"x5/16" BOT. PL.	I	
L3	W8x21 w/ 7"x5/16" BOT. PL.	I	
L4	W16x26 w/ 7"x5/16" BOT. PL.	I	1/2" DIA. x 4" HASs @ 24" O.C. ON TO

- 1. PROVIDE MIN. 8" BEARING ON BLOCK AT ALL LINTELS.
- 2. STOP PLATE 1" SHORT OF JAMB EA. END.
- FULLY GROUT CMU CORES BELOW LINTEL BEARING.
   PROVIDE 7"x5/8"x8" STL. BEARING PL. w/ (2) 1/2" DIA. x 4" HASs EA. END OF LINTEL.
- 5. 3/8" STL. BOT. PLATE TO SUPPORT BRICK FACING WHERE NECESSARY.

# METAL DECK SCHEDULE

- ACOUSTICAL ROOF DECK (AG SHOP & COMMONS ROOFS)
- a. FOR 5'-0" O.C. MAX. SPACING SUPPORTING MEMBERS DECK: 1.5BA 22 GA
- FASTENERS (STRUCTURAL STEEL): HILTI X-ENP19 PAFs @ 36/5 PATTERN
  FASTENERS (BAR JOISTS): HILTI X-HSN24 PAFs @ 36/5 PATTERN
  SIDELAP FASTENERS: #12 SIDELAP SCREWS @ 18" O.C.
- STANDARD ROOF DECK
- a. FOR STEEL PURLIN SUPPORTING MEMBERS
- DECK: 1.5B 22 GA
- FASTENERS (STRUCTURAL STEEL): HILTI X-ENP19 PAFs @ 36/5 PATTERN FASTENERS (BAR JOISTS): HILTI X-HSN24 PAFs @ 36/5 PATTERN SIDELAP FASTENERS: #12 SIDELAP SCREWS @ 18" O.C.



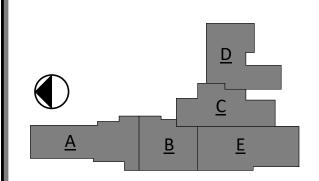
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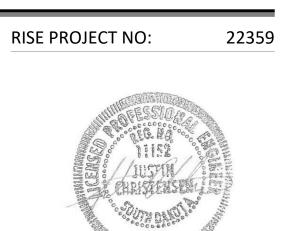
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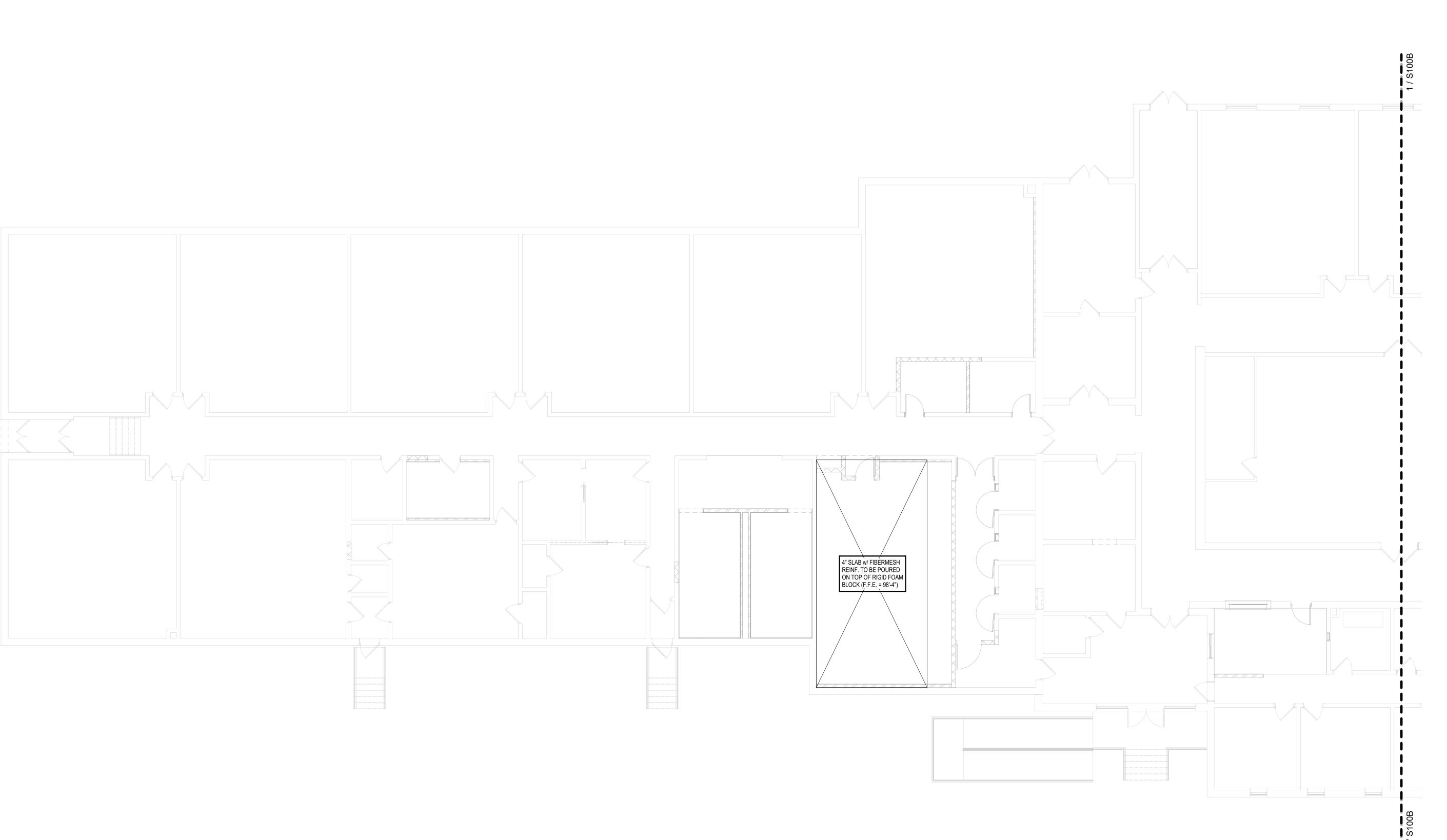
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WILLOW LAKE SCHOOL ADDITION

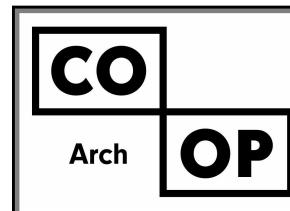
WILLOW LAKE SCHOOL DISTRICT WILLOW LAKE, SOUTH DAKOTA

SHEET TITLE:

STRUCTURAL SCHEDULES



FOOTING & FOUNDATION PLAN - AREA A



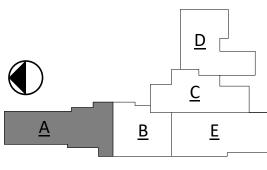
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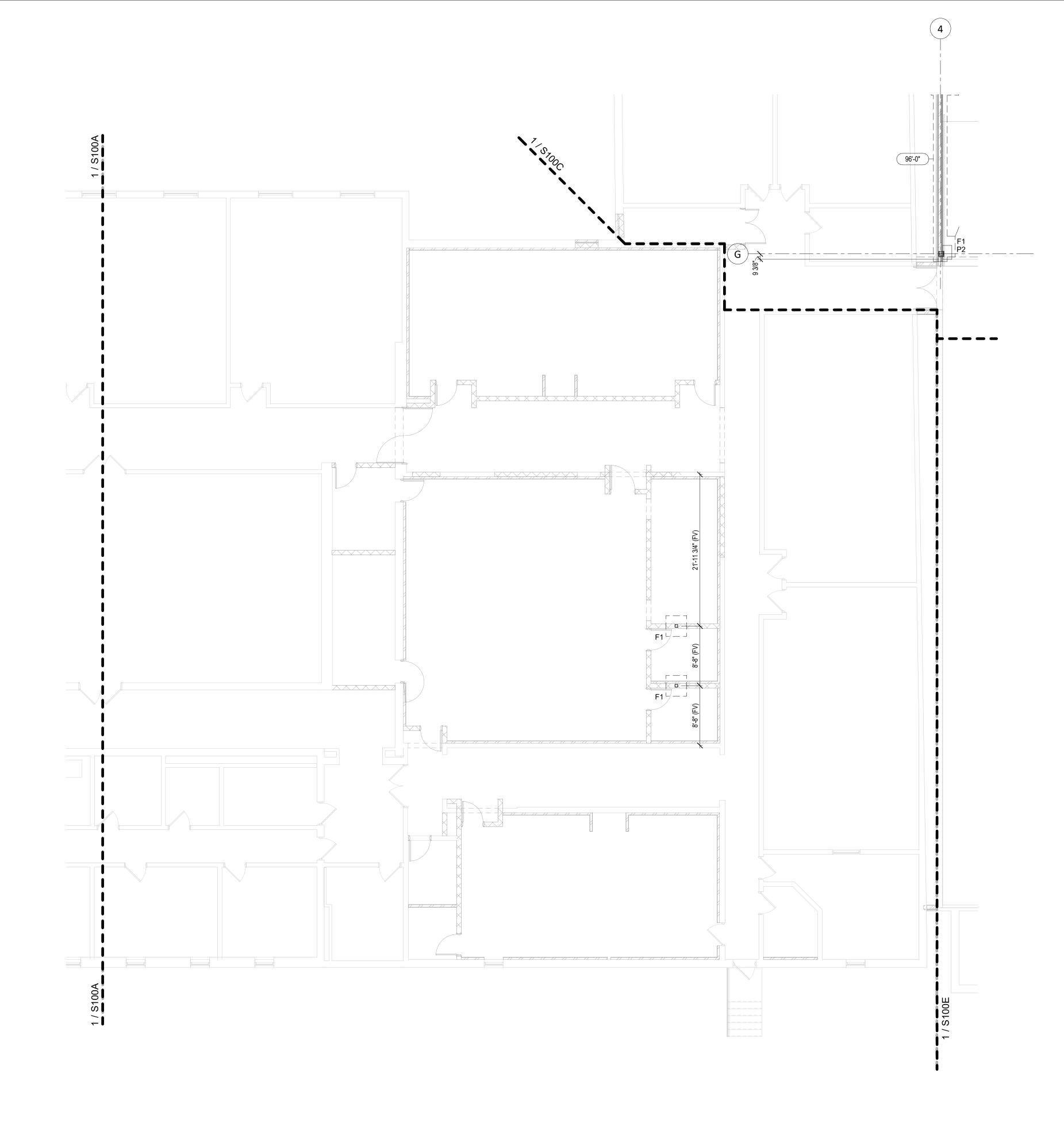
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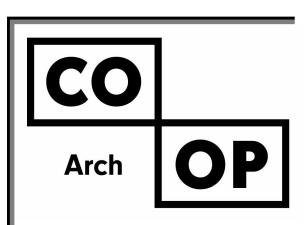
SHEET TITLE:

FOOTING & FOUNDATION PLAN -

S100A





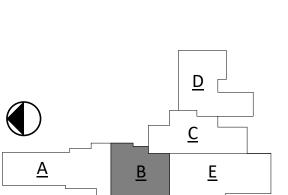


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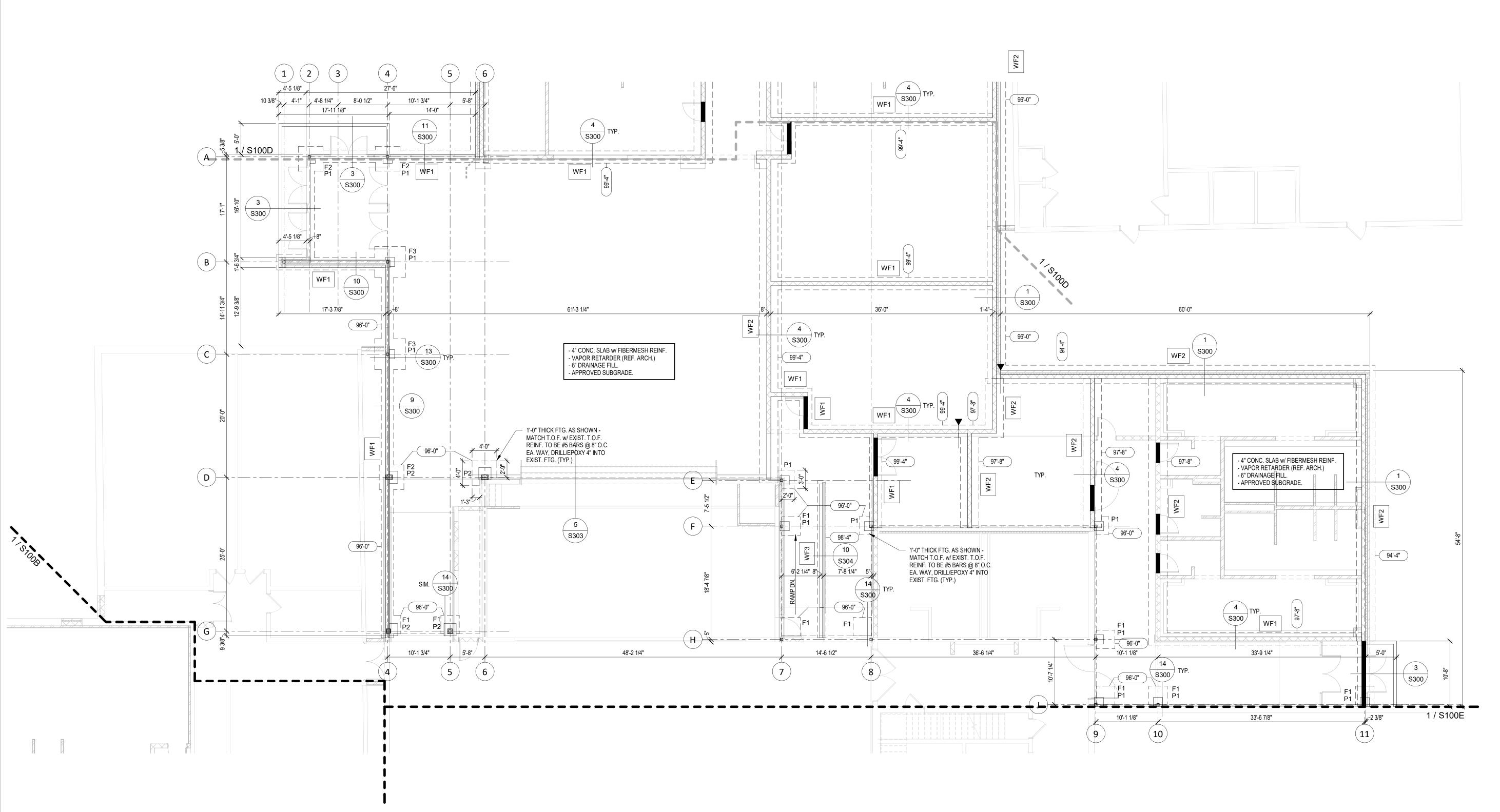
WILLOW LAKE SCHOOL ADDITION

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SHEET TITLE:

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S100B



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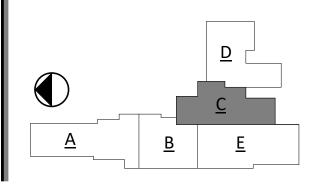
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WILLOW LAKE SCHOOL DISTRICT WILLOW LAKE, SOUTH DAKOTA

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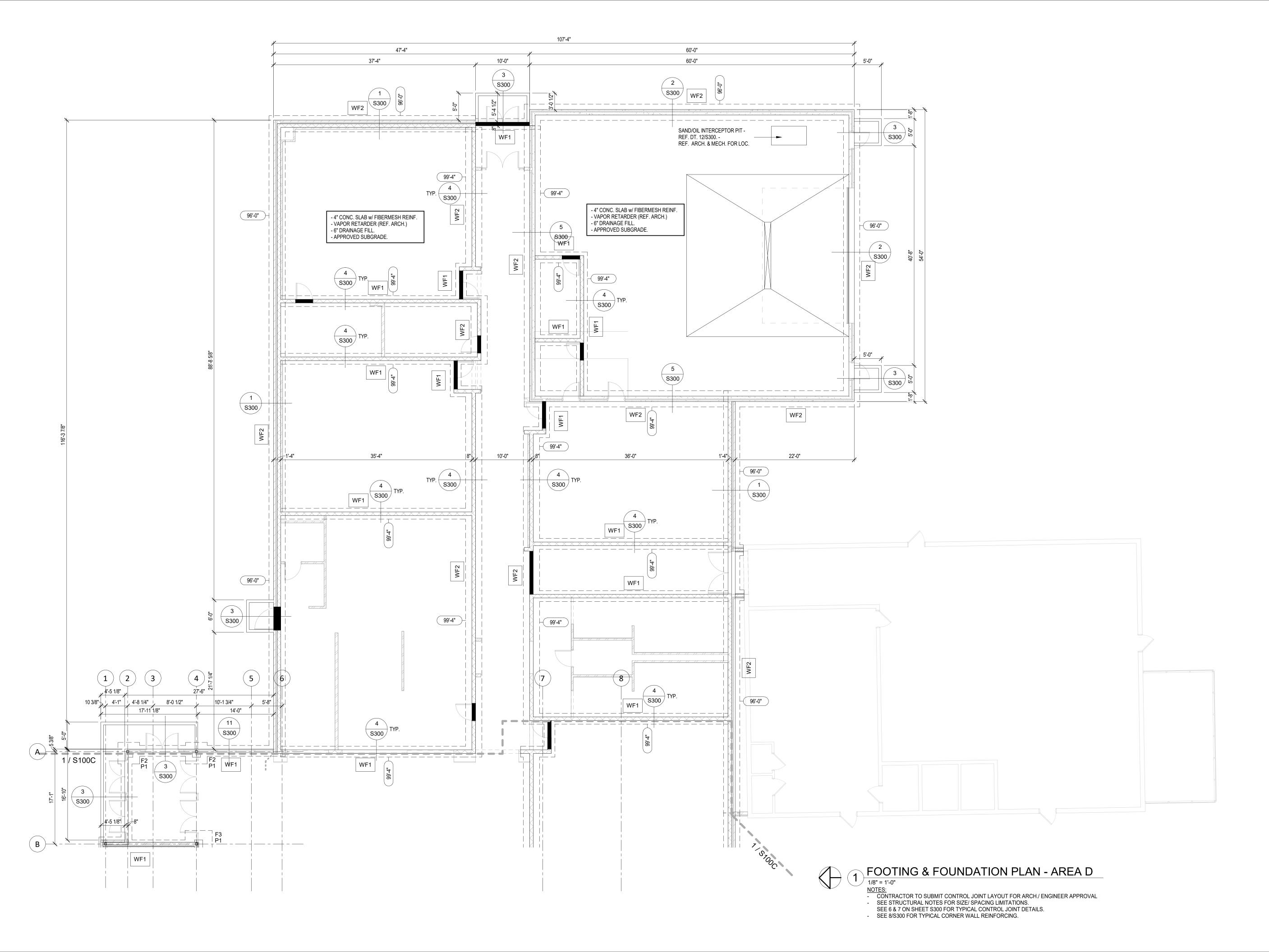
FOOTING & FOUNDATION PLAN - AREA C

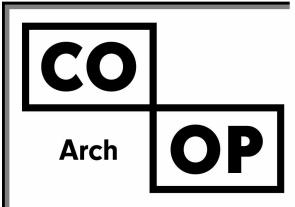
S100C

1/8" = 1'-0"
 NOTES:

 CONTRACTOR TO SUBMIT CONTROL JOINT LAYOUT FOR ARCH./ ENGINEER APPROVAL
 SEE STRUCTURAL NOTES FOR SIZE/ SPACING LIMITATIONS.

SEE 6 & 7 ON SHEET S300 FOR TYPICAL CONTROL JOINT DETAILS.
- SEE 8/S300 FOR TYPICAL CORNER WALL REINFORCING.



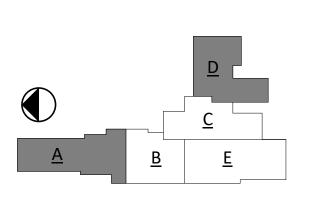


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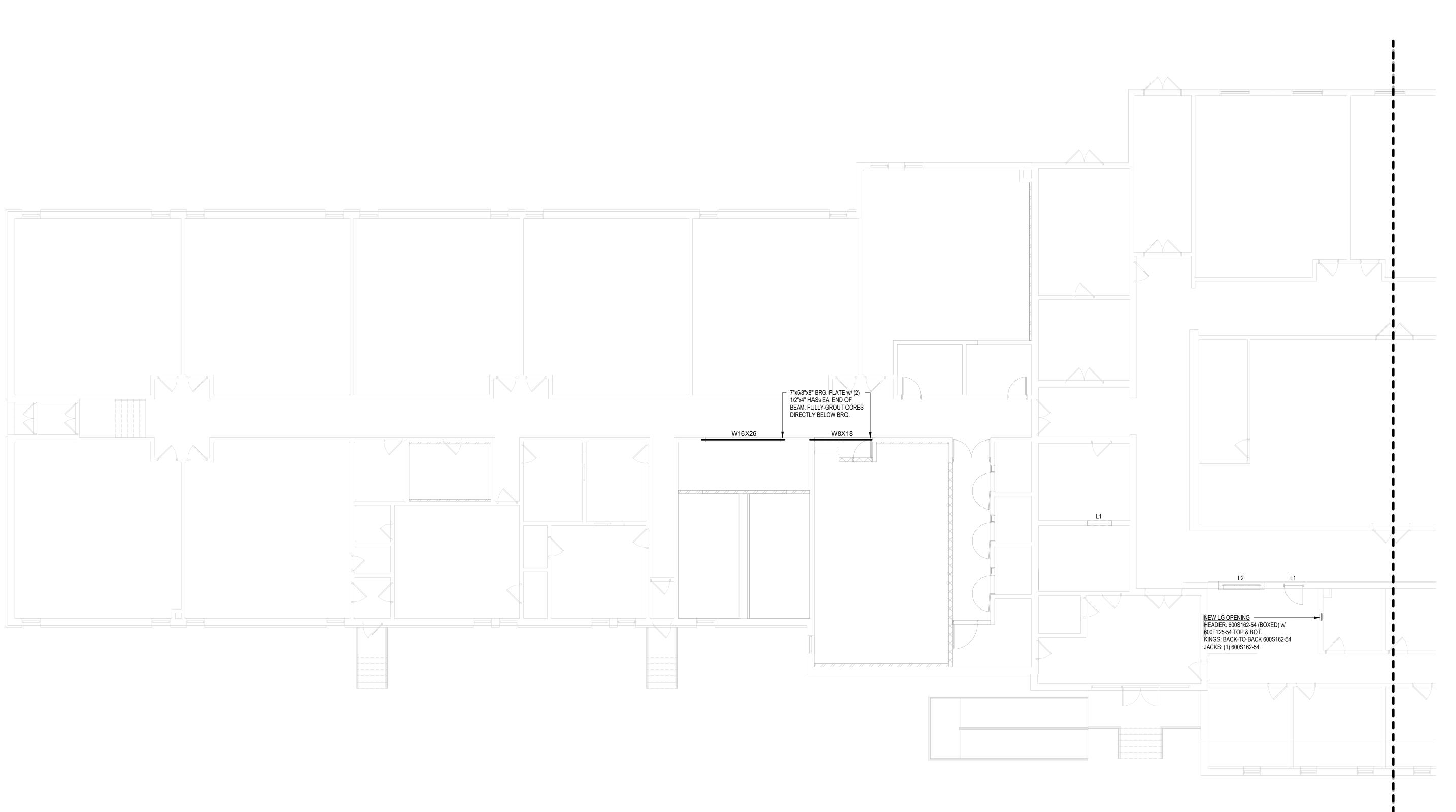
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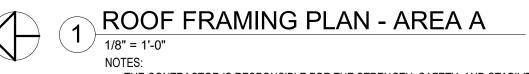
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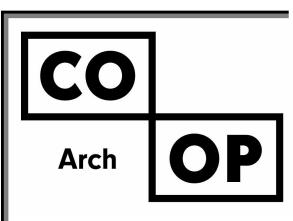
FOOTING & FOUNDATION PLAN -AREA D

S100D





- THE CONTRACTOR IS RESPONSIBLE FOR THE STRENGTH, SAFETY, AND STABILITY OF THE NEW AND EXISTING STRUCTURE DURING CONSTRUCTION AND SHALL PROVIDE TEMPORARY SHORING, BRACING, AND OTHER ELEMENTS REQUIRED TO MAINTAIN STABILITY UNTIL THE STRUCTURE IS COMPLETE.



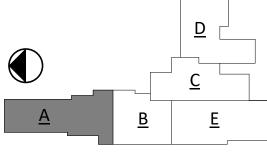
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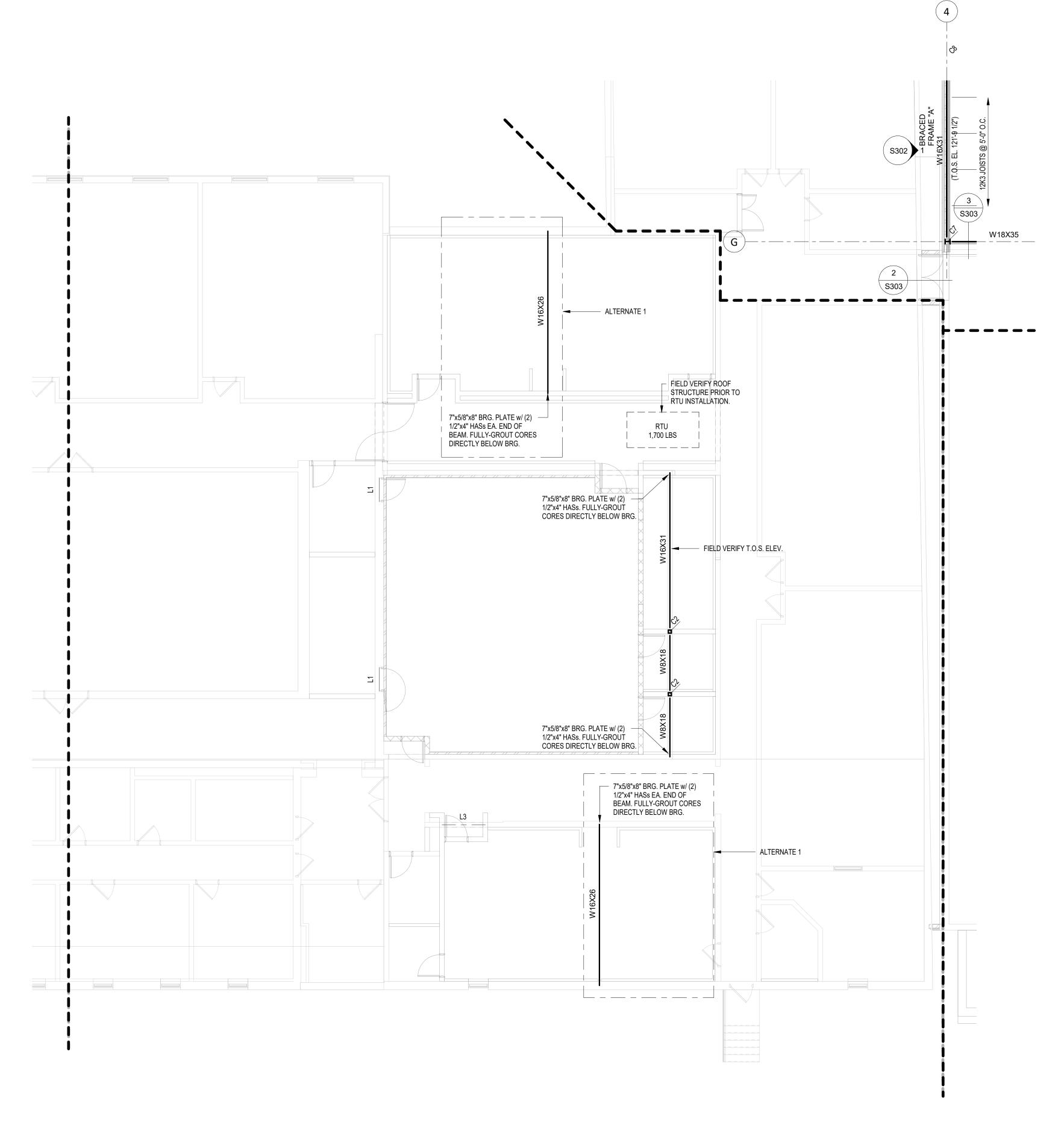
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WILLOW LAKE SCHOOL DISTRICT WILLOW LAKE, SOUTH DAKOTA

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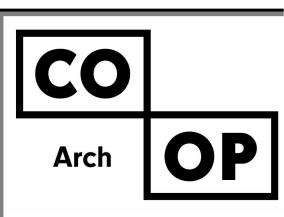
ROOF FRAMING PLAN - AREA A

S200A





NOTES:
- THE CONTRACTOR IS RESPONSIBLE FOR THE STRENGTH, SAFETY, AND STABILITY
OF THE NEW AND EXISTING STRUCTURE DURING CONSTRUCTION AND SHALL
PROVIDE TEMPORARY SHORING, BRACING, AND OTHER ELEMENTS REQUIRED TO
MAINTAIN STABILITY UNTIL THE STRUCTURE IS COMPLETE.



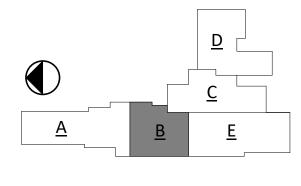
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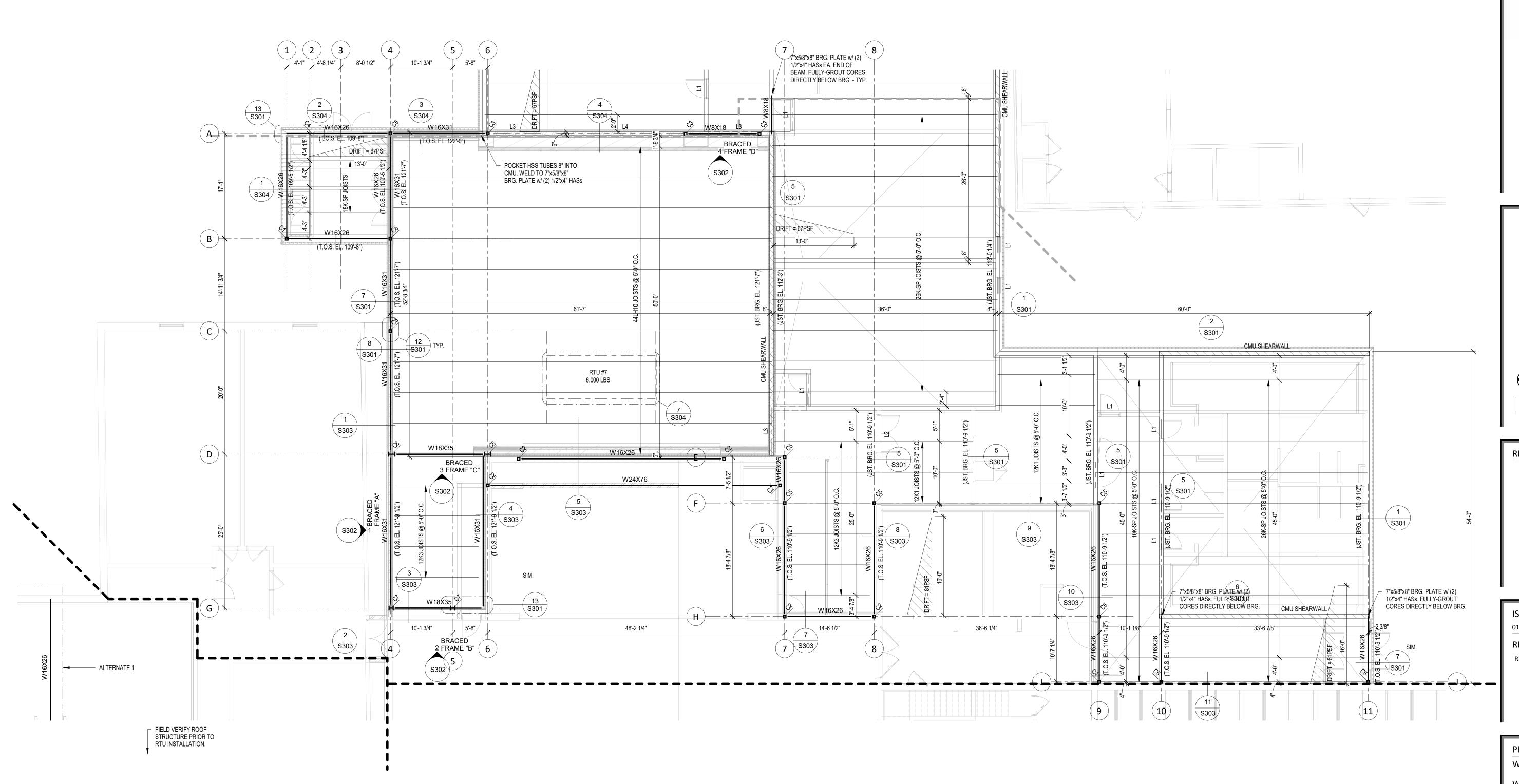
WILLOW LAKE SCHOOL ADDITION

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SHEET TITLE:

ROOF FRAMING PLAN - AREA B

S200B

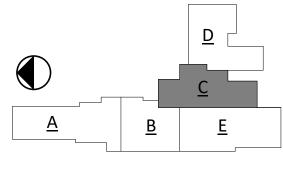


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PROJECT:

WILLOW LAKE SCHOOL ADDITION

WILLOW LAKE SCHOOL DISTRICT WILLOW LAKE, SOUTH DAKOTA

**SHEET TITLE:** 

ROOF FRAMING PLAN - AREA C

S200C

ROOF FRAMING PLAN - AREA C

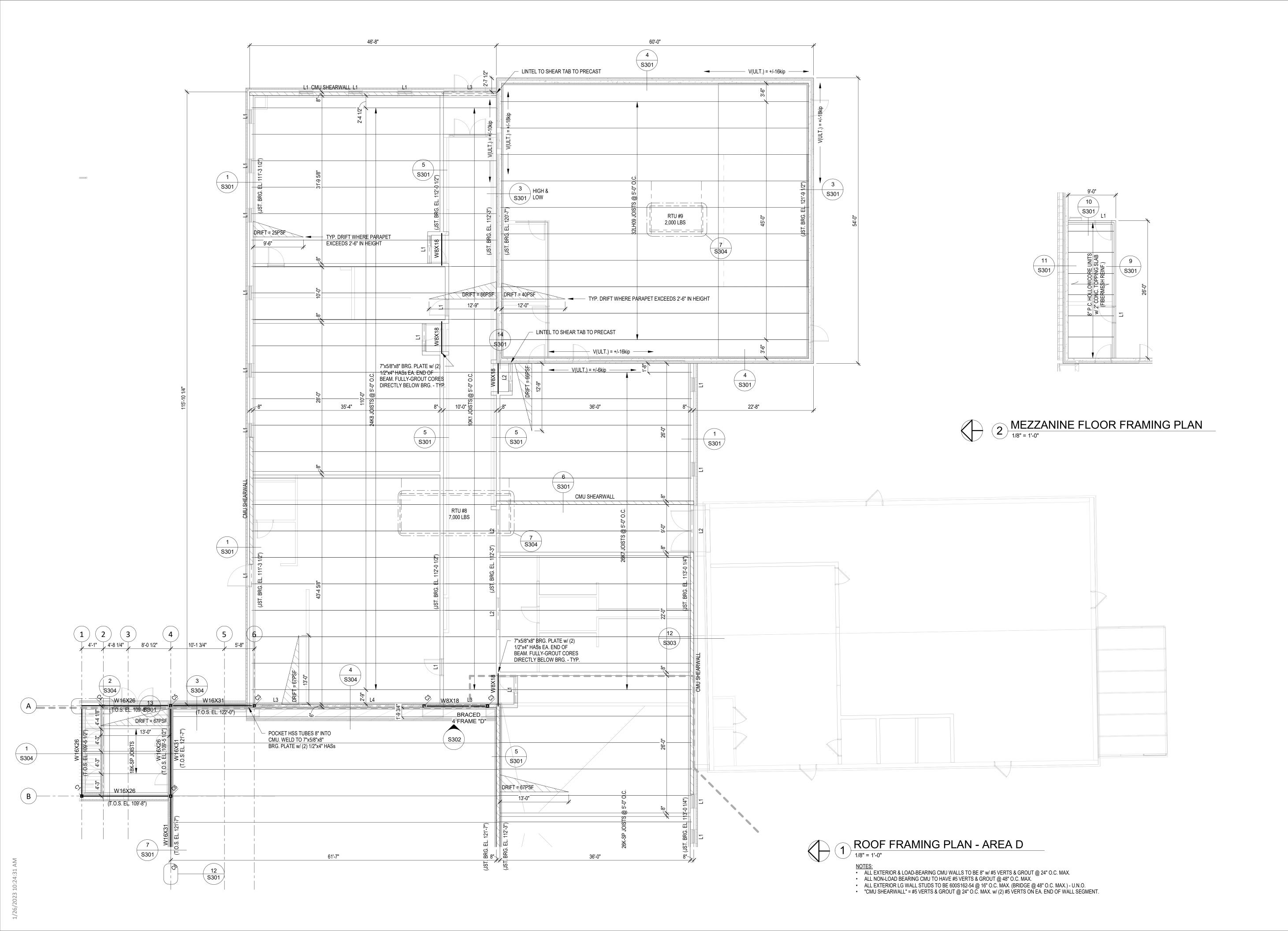
NOTES:

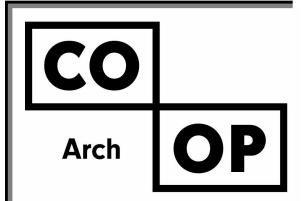
ALL EXTERIOR & LOAD-BEARING CMU WALLS TO BE 8" w/ #5 VERTS & GROUT @ 24" O.C. MAX.

ALL NON-LOAD BEARING CMU TO HAVE #5 VERTS & GROUT @ 48" O.C. MAX.

ALL EXTERIOR LG WALL STUDS TO BE 600S162-54 @ 16" O.C. MAX. (BRIDGE @ 48" O.C. MAX.) - U.N.O.

"CMU SHEARWALL" = #5 VERTS & GROUT @ 24" O.C. MAX. w/ (2) #5 VERTS ON EA. END OF WALL SEGMENT.





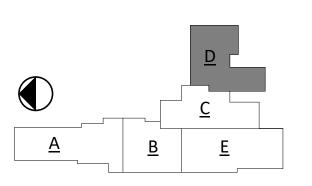
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PROJECT:

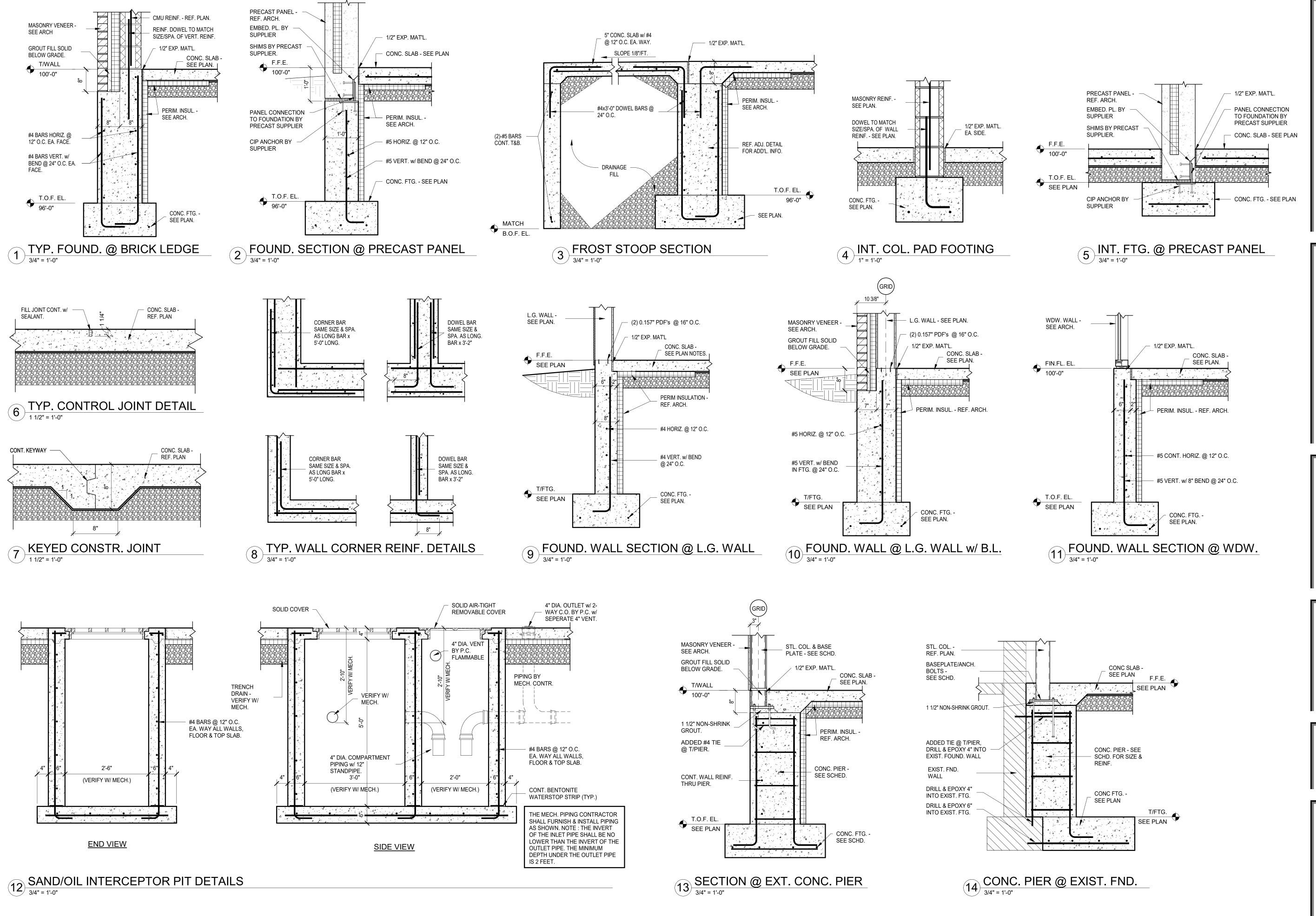
WILLOW LAKE SCHOOL ADDITION

WILLOW LAKE SCHOOL DISTRICT WILLOW LAKE, SOUTH DAKOTA

SHEET TITLE:

ROOF FRAMING PLAN - AREA D

S200D



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OP

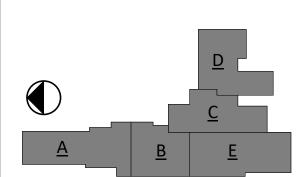
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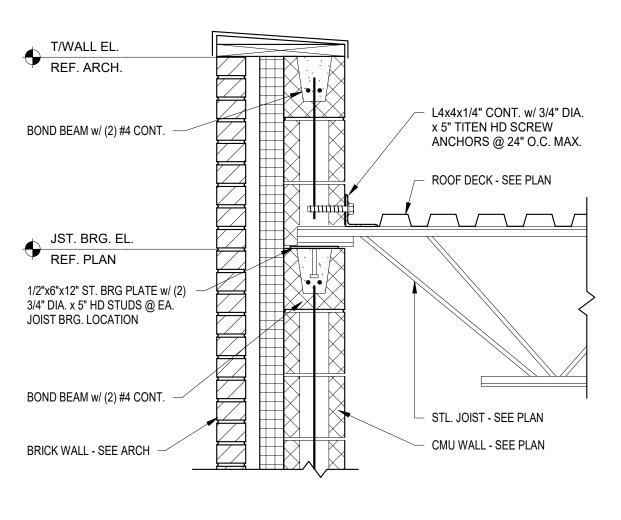
PROJECT:

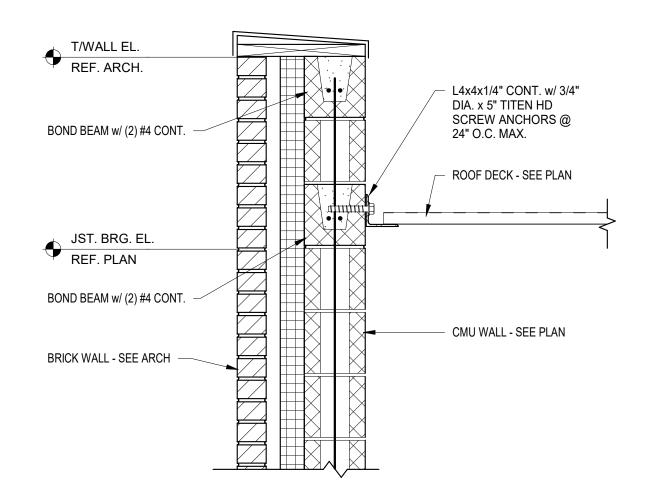
WILLOW LAKE SCHOOL ADDITION

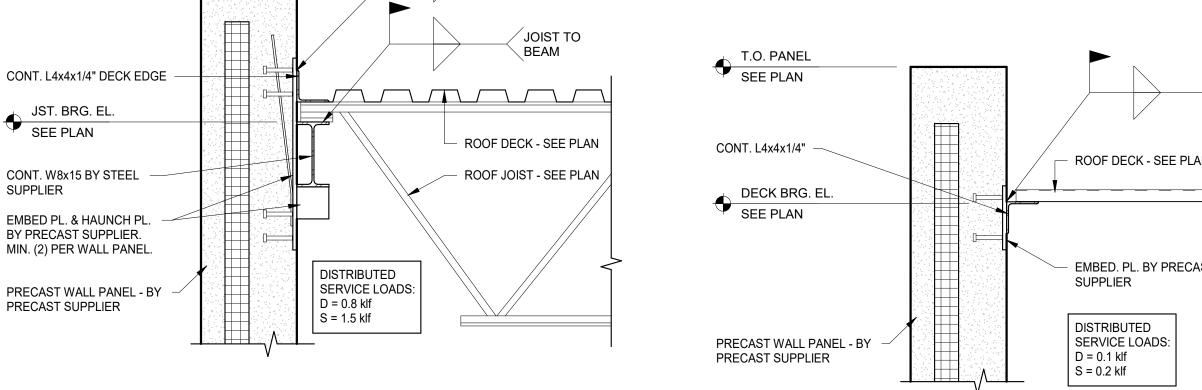
WILLOW LAKE SCHOOL DISTRICT WILLOW LAKE, SOUTH DAKOTA

SHEET TITLE:

STRUCTURAL DETAILS

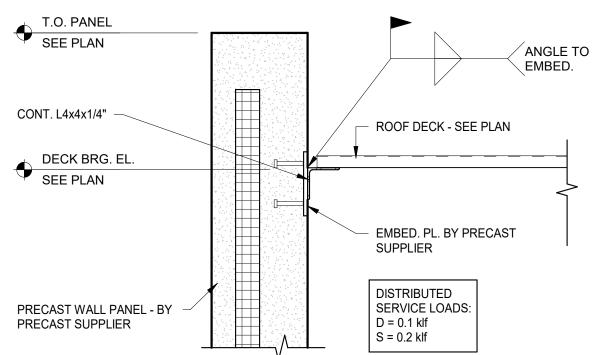




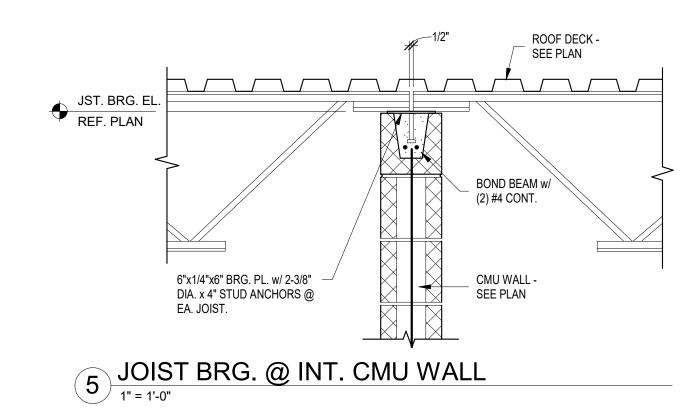


ANGLE TO

EMBED.

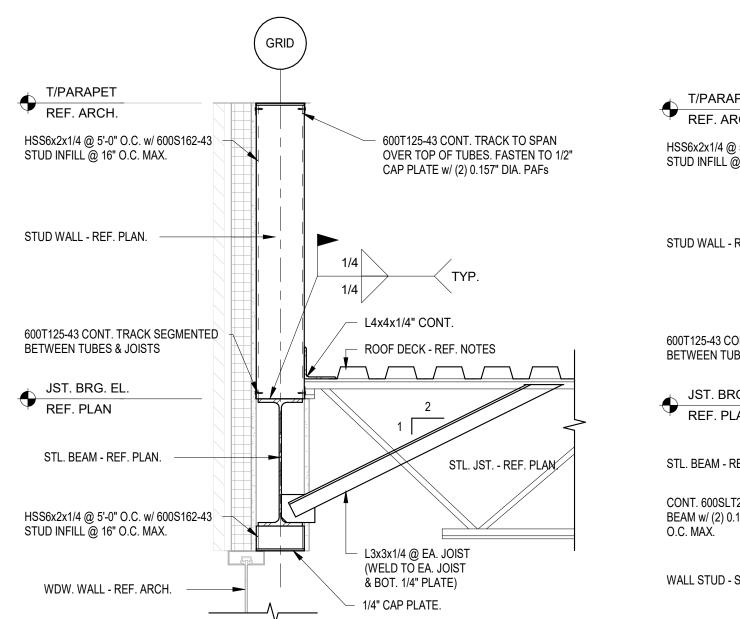








7 JOIST BRG. @ EXT. BEAM

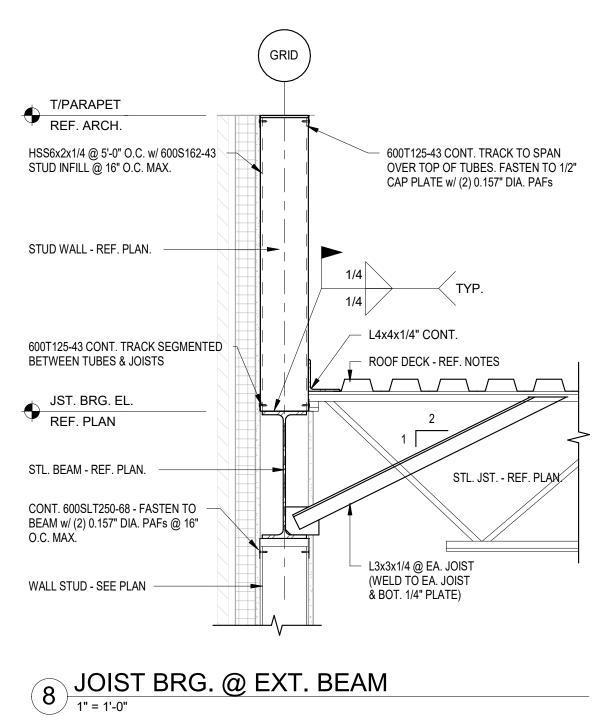


JOIST BRG. @ PRECAST PANEL (HAUNCH)

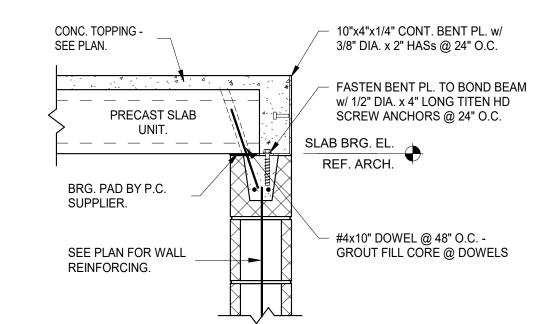
T.O. PANEL
SEE PLAN

SEE PLAN

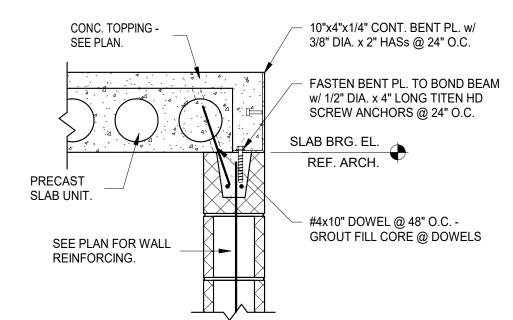
SUPPLIER



ROOF DECK BRG. @ PRECAST PANEL







ROOF DECK BRG. @ CMU WALL

# JOIST BRG. @ INT. CMU WALL

ROOF JOIST - SEE PLAN

CONT. 6"x1/4" PLATE w/ 3/8"

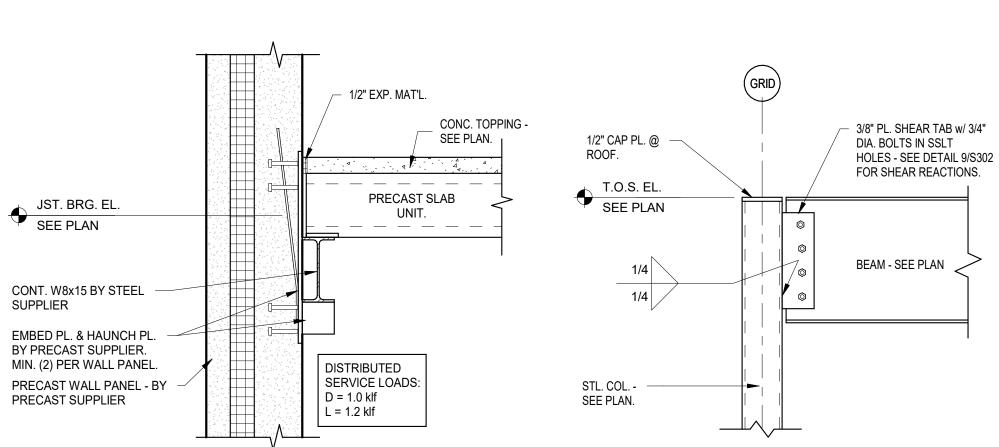
DIA. x 4" HASs @ 24"O.C. MAX.

CMU WALL - SEE PLAN

JST. BRG. EL.
SEE PLAN

PRECAST SUPPLIER

11 H.C. BRG. @ P.C. WALL

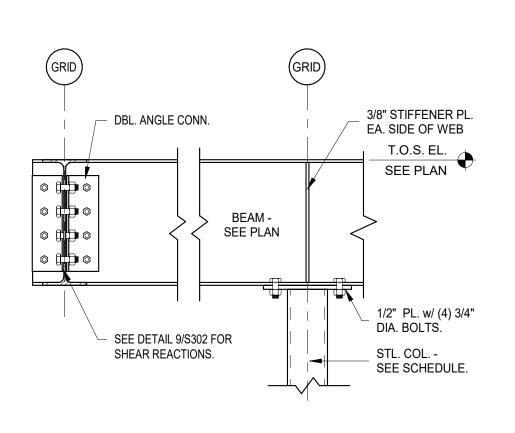


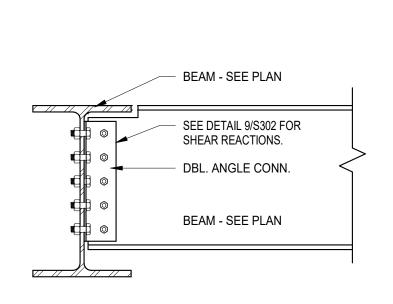
- ROOF DECK - SEE PLAN

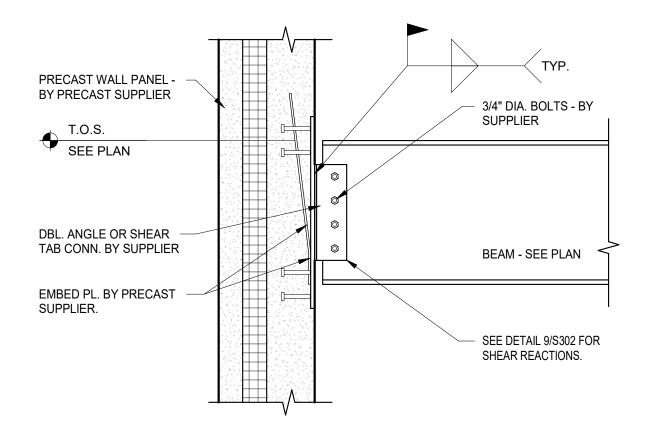
CONT. HSS10x4x1/4 TUBE

CUT TO SLOPE OF ROOF

BOND BEAM w/ (2) #4 CONT.







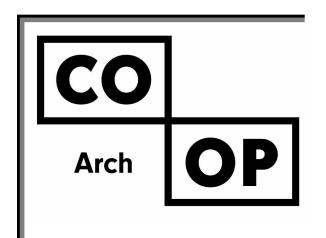
STEEL BEAM CONN. @ PRECAST PANEL

12 STL. BM. CONN. TO COL.

CANT. BEAM DETAIL

1" = 1'-0"

TYP. BM. TO BM. CONN. DETAIL



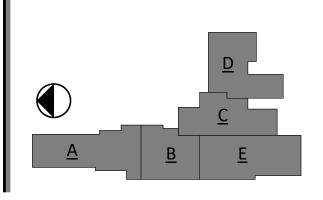
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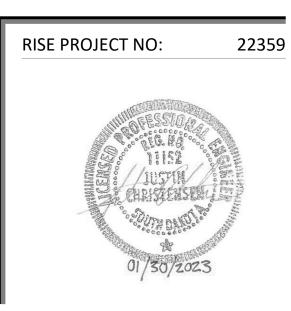
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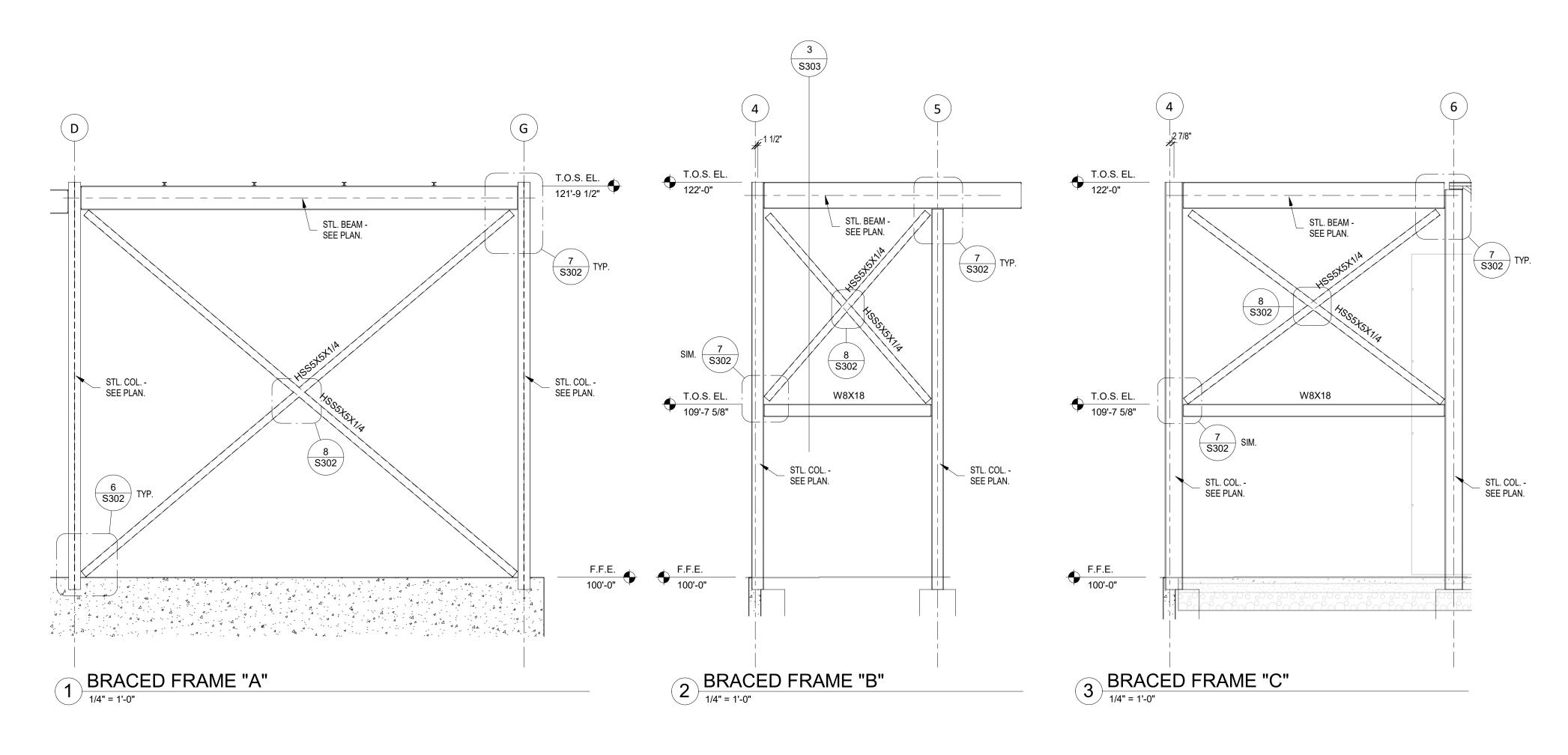
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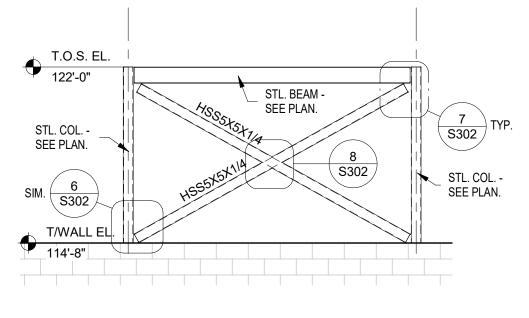
REV. DSC. REV. DATE

PROJECT: WILLOW LAKE SCHOOL ADDITION

WILLOW LAKE SCHOOL DISTRICT WILLOW LAKE, SOUTH DAKOTA

**SHEET TITLE:** STRUCTURAL DETAILS



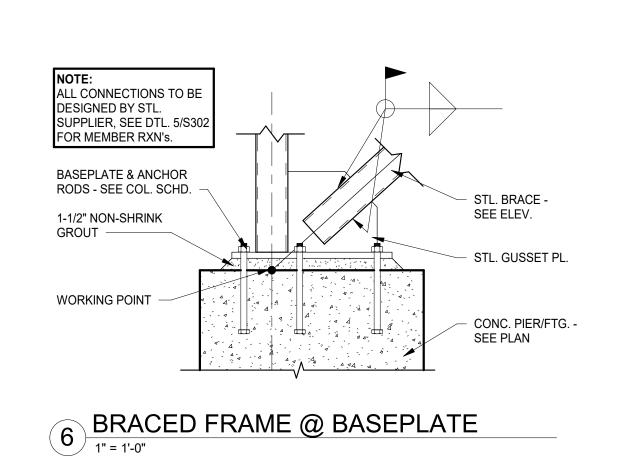


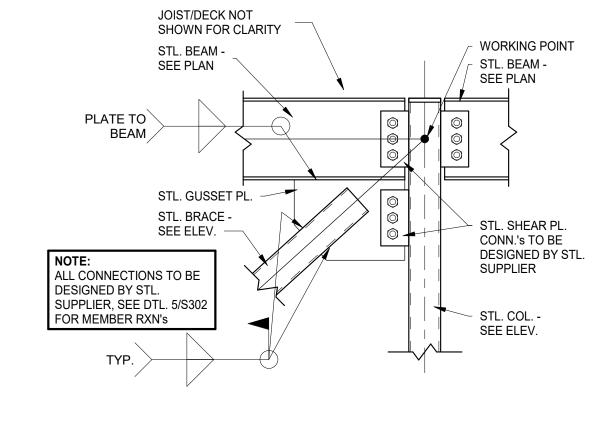
4 BRACED FRAME "D"

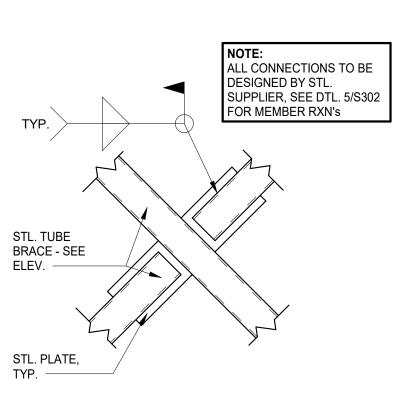
1/4" = 1'-0"

BRA	ACE FRAME MEME	BER RXN. TABLE	(ASD)
FRAME MARK	BRACE AXIAL RXN	COL. AXIAL RXN	BEAM SHEAR RXN
BRACE "A"	12 KIPS	29KIPS	8 KIPS
BRACE "B"	6 KIPS	15 KIPS	8 KIPS
BRACE "C"	14 KIPS	29 KIPS	8 KIPS
BRACE "D"	4 KIPS	4 KIPS	2 KIPS

5 BRACED FRAME MEMBER RXN. TABLE







BEAM SHEAR RXN. TABLE (ASD)		
BEAM SHAPE	BEAM SHEAR RXN	
W8X15	9 KIPS	
W8X18	10 KIPS	
W8X21	10 KIPS	
W16X26	10 KIPS	
W16X31	22 KIPS	
W18X35	22 KIPS	
W24X76	10 KIPS	
SHEAR REACTIONS LISTED ABOVE ARE FOR ALL SIMPLE SHEAR CONNECTIONS		

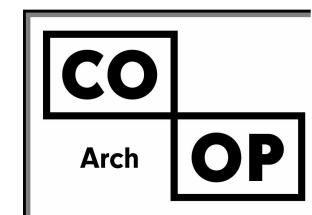
7 BRACED FRAME @ BEAM/COL.

8 BRACED FRAME @ SPLICE

9 SHEAR CONNECTION RXN. TABLE

(BEAM TO BEAM, BEAM TO COLUMN, BEAM

TO PRECAST, ETC.).



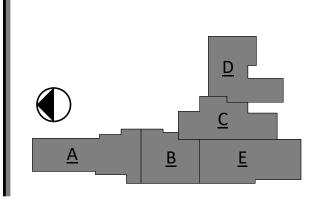
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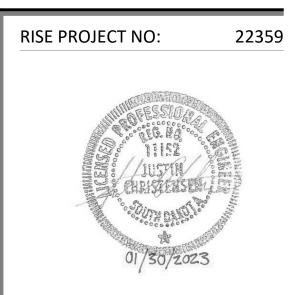
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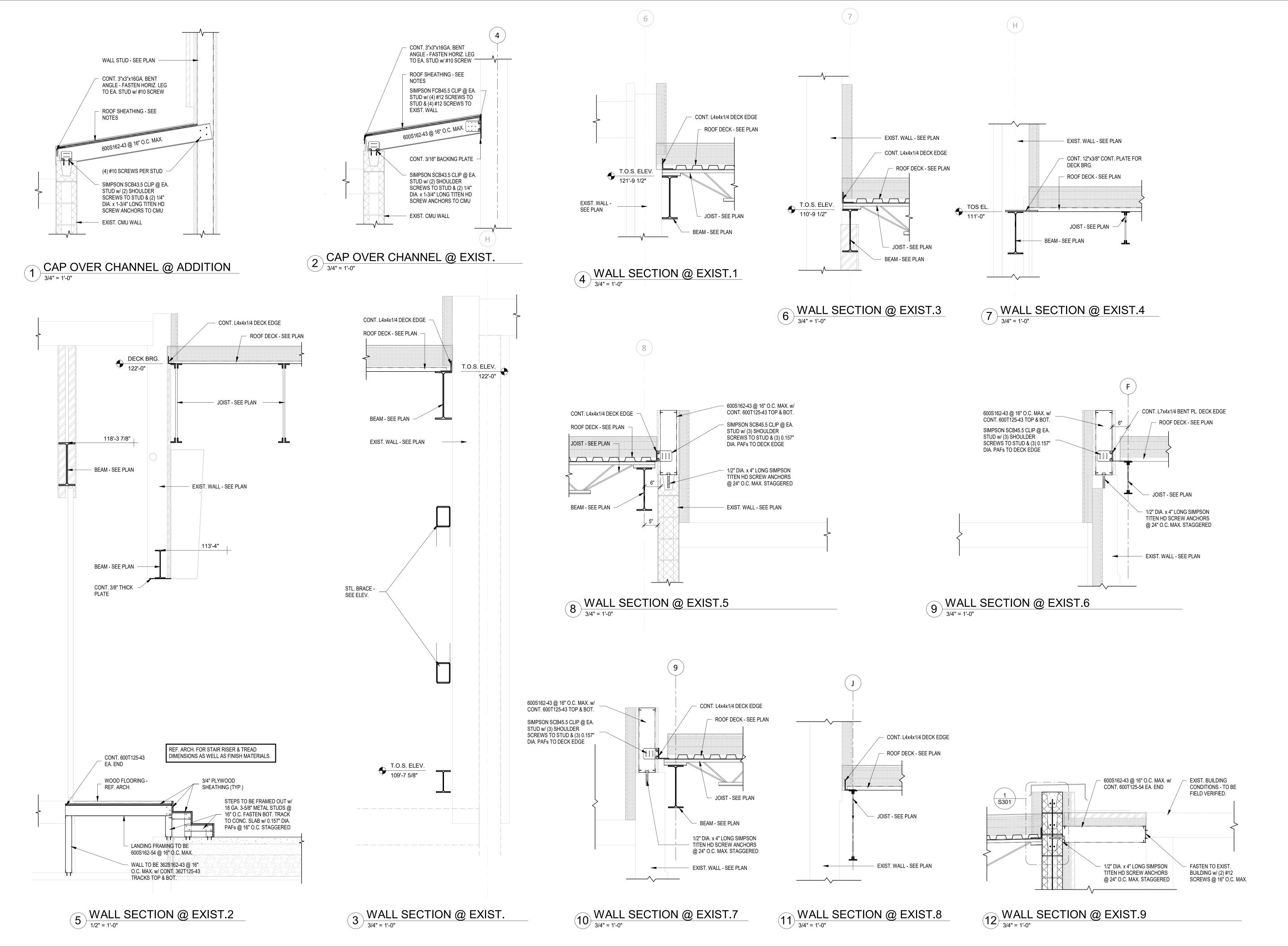
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WILLOW LAKE SCHOOL ADDITION

WILLOW LAKE SCHOOL DISTRICT WILLOW LAKE, SOUTH DAKOTA

SHEET TITLE:

BRACED FRAME ELEVATIONS



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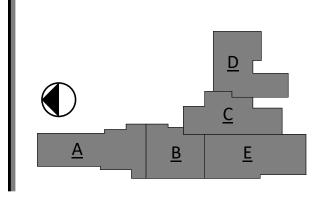
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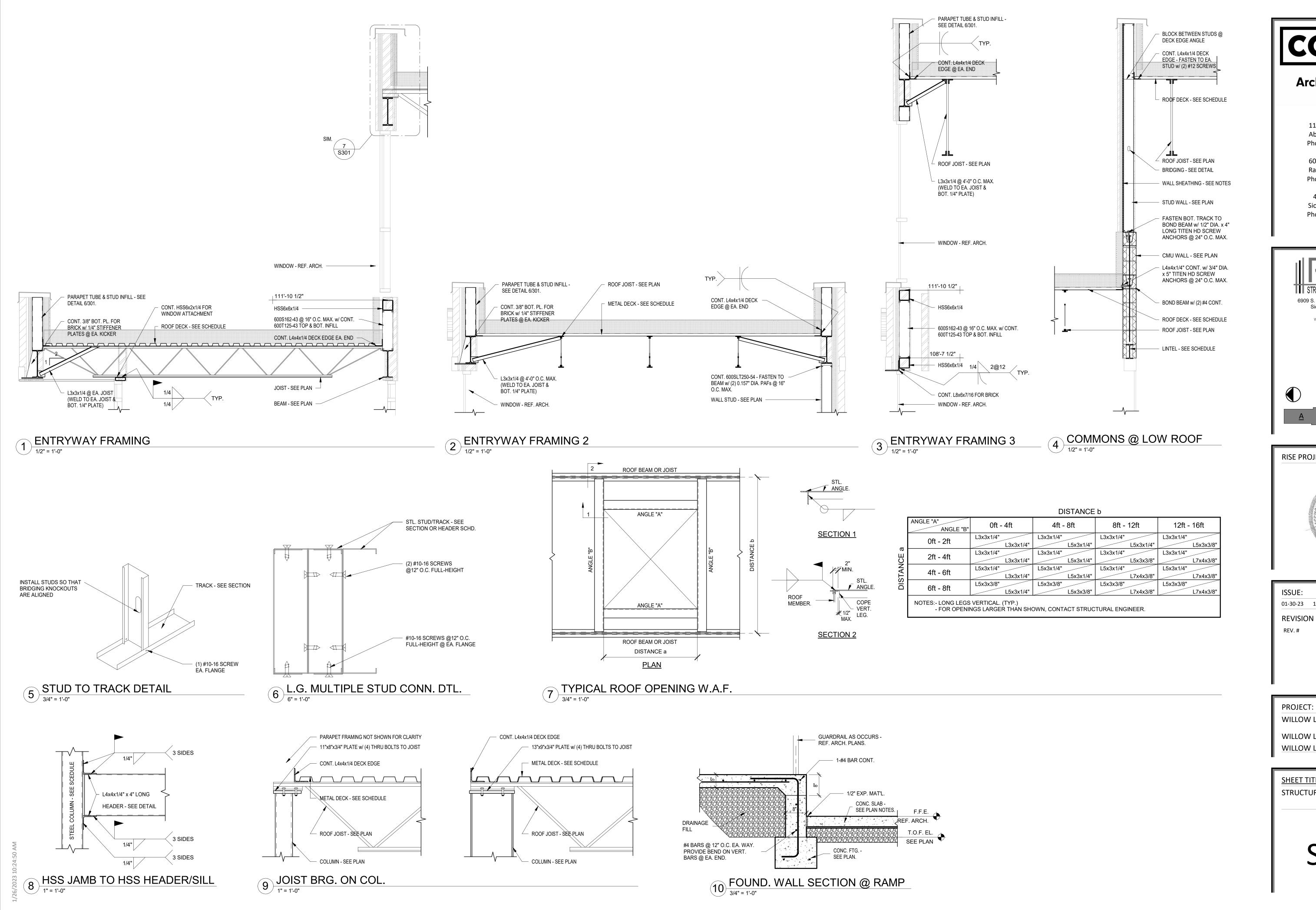
PROJECT:

WILLOW LAKE SCHOOL ADDITION

WILLOW LAKE SCHOOL DISTRICT WILLOW LAKE, SOUTH DAKOTA

SHEET TITLE:

WALL SECTIONS



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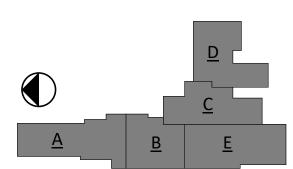
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WILLOW LAKE SCHOOL ADDITION

WILLOW LAKE SCHOOL DISTRICT WILLOW LAKE, SOUTH DAKOTA

**SHEET TITLE:** 

STRUCTURAL DETAILS

# **GENERAL NOTES - DEMOLITION**

- 1. THE OWNER'S NORMAL OPERATIONS WILL BE CONTINUED DURING DEMOLITION. DEMOLITION CONTRACTOR SHALL NOT INTERFERE WITH THESE OPERATIONS IN ANY WAY WITHOUT THE OWNER'S EXPRESSED CONSENT.
- 2. PROVIDE TEMPORARY BARRICADES AND OTHER FORMS OF PROTECTION TO PROTECT OWNER'S PERSONNEL AND GENERAL PUBLIC FROM INJURY DUE TO SELECTIVE DEMOLITION WORK.
- 3. PROVIDE 1HR FIRE RESISTANT CONSTRUCTION BARRIERS WHERE REQ'D TO PROTECT EXISTING CONSTRUCTION AND OWNERS OPERATIONS.
- 4. PRIOR TO CUTTING EXISTING CONSTRUCTION, LOCATE AND IDENTIFY SERVICES TO REMAIN IN OPERATION, INCLUDING ALL FLOOR PENETRATIONS. UNDOCUMENTED CONDITIONS, UTILITY RISERS, ETC. AND ANY WALLS THAT CONTAIN LIFE SAFETY VERTICAL RISERS THAT MUST REMAIN IN OPERATION DURING THE DEMOLITION WORK.
- 5. PROVIDE SHORING, BRACING AND ANY OTHER MEANS REQ'D TO PROTECT AND MAINTAIN THE SAFETY, INTEGRITY AND STABILITY OF ALL EXISTING AND NEW CONSTRUCTION.
- 6. WHEN ROOFING, GLAZING, FLASHING, COPING OR POERTIONS OF EXTIOER WALLS ARE REMOVED OR OPENED, SUITABLE WEATHER PROTECTION SHALL BE PROVIDED AND MAINTANED FOR THE DURATION OF WORK.
- 7. WHEREVER WATER CLOSETS, FLOOR SINKS OR OTHER EQUIPMENT AND RELATED PIPING ARE TO BE REMOVED, PATCH FLOOR SLAB W/ CONCRETE AS REQUIRED.
- . ALL CONCRETE FLOOR SLABS NOTED TO BE REMOVED SHALL BE SAWCUT TO PROVIDE A NEAT JOINT.
- SEE MECHANICAL, LANDSCAPE, AND ELECTRICAL DEMOLITION DRAWINGS FOR ADDITIONAL SCOPE OF DEMOLITION WORK.
   SALVAGE ALL EXISTING REMOVED BRICK FOR PATCHING AND REFINISH WORK AS REQ'D.
- 11. ALL DEMOLITION SHALL COMPLY WITH APPLICABLE LOCAL CODES AND STATE CODES AND ORDINANCES.
- 12. REFER TO SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.

# **DEMOLITION LEGEND**

- EXISTING TO REMAIN

- EXISTING TO BE REMOVED

- COMPLETELY REMOVE ALL EXISTING CEILINGS U.N.O. (EITHER LAY-IN, PLASTER, OR GYPBOARD INCLUDING ALL CURTAIN, CEILING MOUNTED EQUIPMENT, SUPPORTS, TRACKS, ETC.)

ALL DEMOLITION WORK REQUIRED IS NOT NECESSARILY LIMITED TO WHAT IS SHOWN ON THE DEMOLITION PLANS. THE INTENT IS TO REMOVE ALL MECHANICAL, ELECTRICAL AND ARCHITECTURAL ITEMS AS REQUIRED TO FACILITATE NEW CONSTRUCTION.

REFER TO FINISH SCHEDULE FOR ADDITIONAL FINISH WORK REQUIRED IN OTHER AREAS THAT ARE NOT DOCUMENTED TO RECEIVE DEMOLITION/REMOVAL WORK INDICATED ON THE DEMOLITION PLANS.

# **KEYNOTE SCHEDULE**

REMOVE ENTIRE STRUCTURE TO EXTENTS AS INDICATED

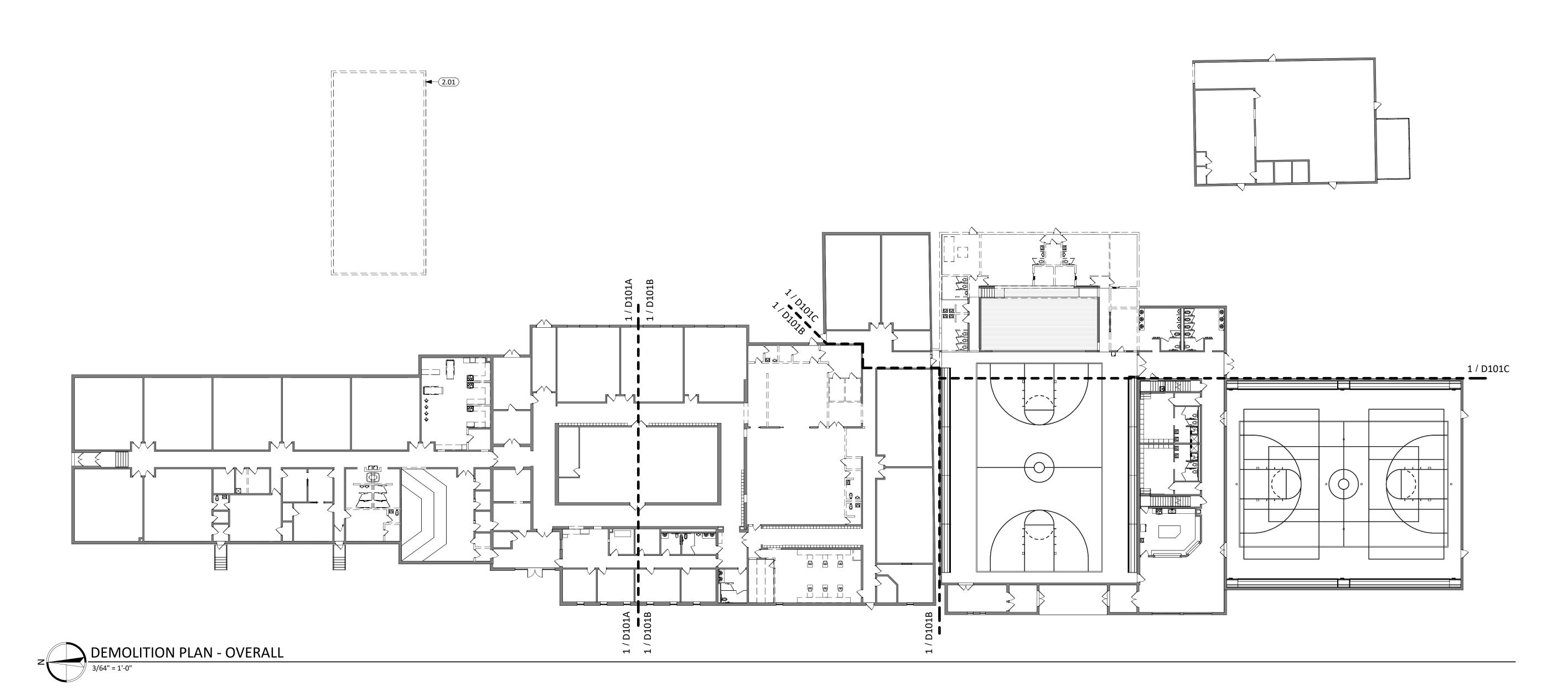
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WILLOW LAKE SCHOOL ADDITION

WILLOW LAKE SCHOOL DISTRICT WILLOW LAKE, SOUTH DAKOTA

SHEET TITLE:

DEMOLITON PLAN - OVERALL

D100

# **GENERAL NOTES - DEMOLITION**

- THE OWNER'S NORMAL OPERATIONS WILL BE CONTINUED DURING DEMOLITION. DEMOLITION CONTRACTOR SHALL NOT INTERFERE WITH THESE OPERATIONS IN ANY WAY WITHOUT THE OWNER'S EXPRESSED CONSENT.
- PROVIDE TEMPORARY BARRICADES AND OTHER FORMS OF PROTECTION TO PROTECT OWNER'S PERSONNEL AND GENERAL PUBLIC FROM INJURY DUE TO SELECTIVE DEMOLITION WORK.
- PROVIDE 1HR FIRE RESISTANT CONSTRUCTION BARRIERS WHERE REQ'D TO PROTECT EXISTING CONSTRUCTION AND OWNERS OPERATIONS.
- PRIOR TO CUTTING EXISTING CONSTRUCTION, LOCATE AND IDENTIFY SERVICES TO REMAIN IN OPERATION, INCLUDING ALL FLOOR PENETRATIONS. UNDOCUMENTED CONDITIONS, UTILITY RISERS, ETC. AND ANY WALLS THAT CONTAIN LIFE SAFETY VERTICAL RISERS THAT MUST REMAIN IN OPERATION DURING THE DEMOLITION WORK.
- PROVIDE SHORING, BRACING AND ANY OTHER MEANS REQ'D TO PROTECT AND MAINTAIN THE SAFETY, INTEGRITY AND STABILITY OF ALL EXISTING AND NEW CONSTRUCTION.
- WHEN ROOFING, GLAZING, FLASHING, COPING OR POERTIONS OF EXTIOER WALLS ARE REMOVED OR OPENED, SUITABLE WEATHER PROTECTION SHALL BE PROVIDED AND
- WHEREVER WATER CLOSETS, FLOOR SINKS OR OTHER EQUIPMENT AND RELATED PIPING ARE TO BE REMOVED, PATCH FLOOR SLAB W/ CONCRETE AS REQUIRED.
- ALL CONCRETE FLOOR SLABS NOTED TO BE REMOVED SHALL BE SAWCUT TO PROVIDE A NEAT
- SEE MECHANICAL, LANDSCAPE, AND ELECTRICAL DEMOLITION DRAWINGS FOR ADDITIONAL SCOPE OF DEMOLITION WORK.
- 10. SALVAGE ALL EXISTING REMOVED BRICK FOR PATCHING AND REFINISH WORK AS REQ'D.
- 11. ALL DEMOLITION SHALL COMPLY WITH APPLICABLE LOCAL CODES AND STATE CODES AND

MAINTANED FOR THE DURATION OF WORK.

# **DEMOLITION LEGEND** - EXISTING TO REMAIN r----- - EXISTING TO BE REMOVED Ĺ\_\_\_\_\_ - COMPLETELY REMOVE ALL EXISTING CEILINGS U.N.O. (EITHER LAY-IN, PLASTER, OR GYPBOARD INCLUDING ALL CURTAIN, CEILING MOUNTED EQUIPMENT, SUPPORTS, TRACKS, ETC.) ALL DEMOLITION WORK REQUIRED IS NOT NECESSARILY LIMITED TO WHAT IS SHOWN ON THE DEMOLITION PLANS. THE INTENT IS TO REMOVE ALL MECHANICAL, ELECTRICAL AND

REFER TO FINISH SCHEDULE FOR ADDITIONAL FINISH WORK REQUIRED IN OTHER AREAS THAT

ARE NOT DOCUMENTED TO RECEIVE DEMOLITION/REMOVAL WORK INDICATED ON THE

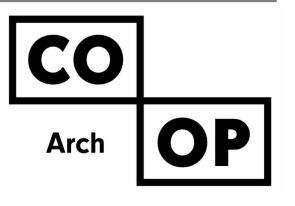
ARCHITECTURAL ITEMS AS REQUIRED TO FACILITATE NEW CONSTRUCTION.

DEMOLITION PLANS.

2.24	REMOVE PORTION OF MASONRY WALL
2.26	REMOVE PORTION OF STUD FRAMED WALL
2.36	REMOVE DOOR & H.M. FRAME
2.41	REMOVE WINDOW UNIT
2.54	REMOVE SINK; SEE MEP FOR MORE INFORMATION.
2.55	REMOVE TOILET AND TOILET ACCESSORIES. SEE MEP FOR MORE INFORMATION
2.56	REMOVE MOP SINK; SEE MEP FOR MORE INFORMATION.
2.57	REMOVE DRINKING FOUNTAIN; SEE MEP FOR MORE INFORMATION.
2.58	REMOVE URINAL; SEE MEP FOR MORE INFORMATION.
2.59	REMOVE TOILET, TOILET ACCESSORIES, AND TOILET PARTITIONS. SEE MEP FOR MORE INFORMATION.
2.60	REMOVE EQUIPMENT AND RETURN TO OWNER
2.61	REMOVE DESK
2.62	REMOVE KITCHEN STATION CASEWORK, SINK, RANGE, AND ASSOCIATED EQUIPMENT. COORDINATE WITH OWNER PRIOR TO DEMOLITION FOR ANY EQUIPMENT TO BE RETURNED
2.63	REMOVE WASHER/DRYER AND RETURN TO OWNER

2.64	REMOVE FRIDGE/FREEZER AND RETURN TO OWNER
2.65	REMOVE AND DISPOSE OF ALL CASEWORK IN THIS ROOM.
2.66	REMOVE AND RETURN TO OWNER ALL MARKERBOARDS, TACKBOARDS, AND SMARTBOARDS IN THIS ROOM.
2.67	REMOVE PORTIONS OF CONCRETE SLAB AS REQUIRED FOR NEW PLUMBING OR FOUNDATION WORK. SEE STRUCTURAL AND MEP FOR EXTENTS OF REQUIRED CUTTING AND PATCHING.
2.68	REMOVE CASEWORK AND PROTECT FOR REINSTALLATION.
2.69	REMOVE EQUIPMENT; SEE MEP FOR MORE INFORMATION
2.80	HATCHED AREA INDICATES REMOVAL OF EXISTING FLOOR SLAB AS REQUIRED FOR NEW PLUMBING; SEE MEP FOR MORE INFORMATION AND ANY ADDITIONAL AREAS TO BE CUT/PATCHED. COORDINATE W/ GC ON FINAL WIDTHS AND LENGTHS OF CUTTING AND PATCHING. FLOOR SHALL BE CUT CLEANLY SO THAT THERE IS A NEAT JOINT WHEN RECEIVING A NEW FLOOR SLAB.
2.84	REMOVE AND PROTECT FOR REINSTALLATION PORTIONS OF ACOUSTIC TILE CEILING AS REQUIRED FOR NEW MEP WORK. SEE MEP DRAWINGS FOR MORE INFORMATION.



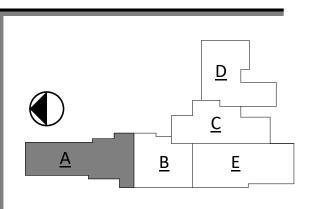


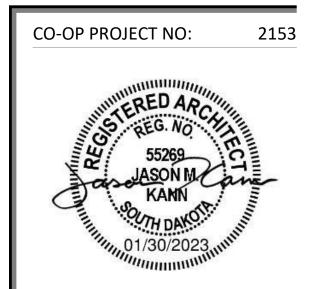
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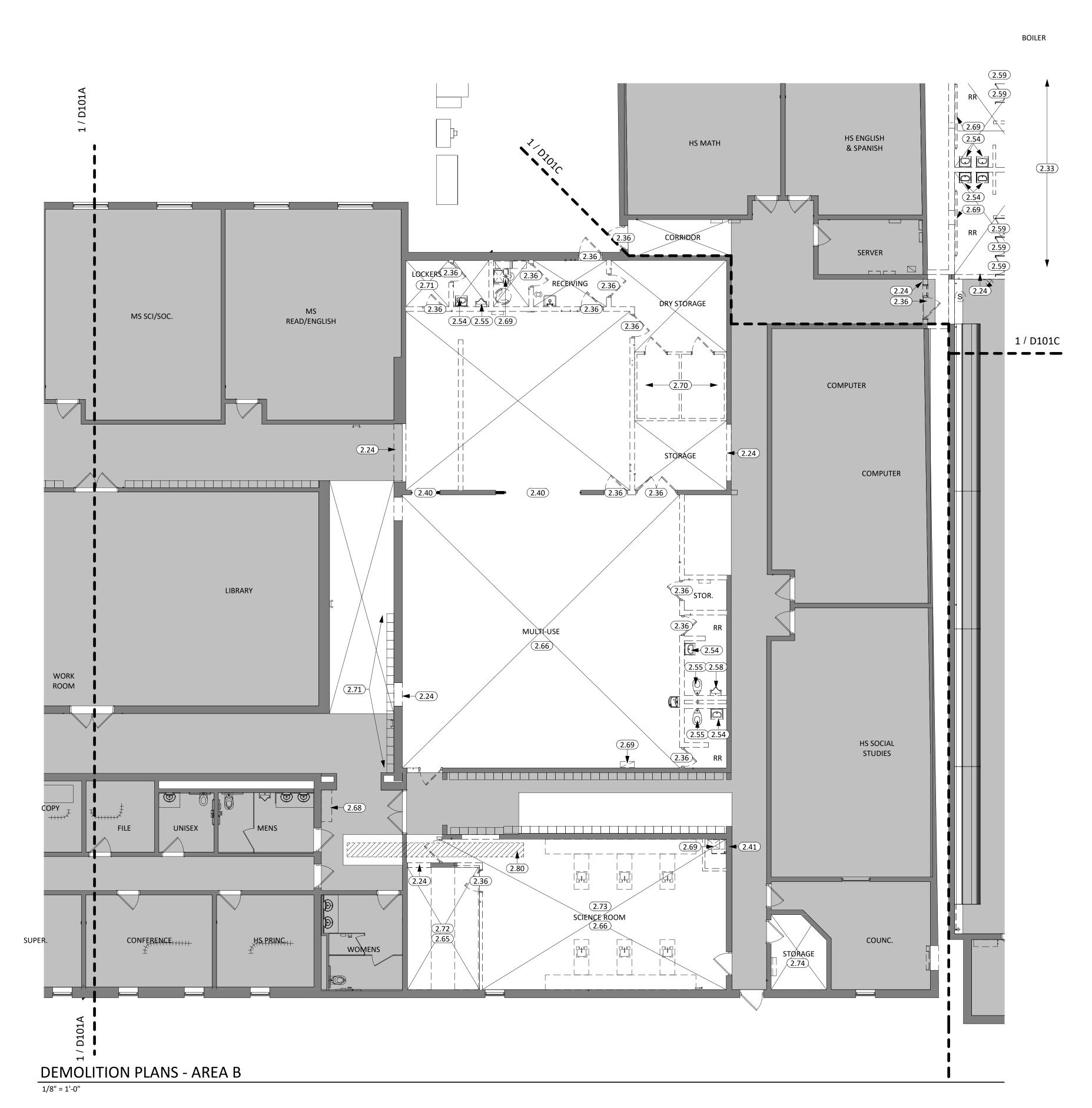
WILLOW LAKE SCHOOL ADDITION

WILLOW LAKE SCHOOL DISTRICT WILLOW LAKE, SOUTH DAKOTA

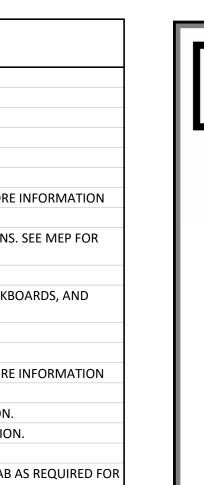
**SHEET TITLE:** 

DEMOLITION PLAN - AREA A

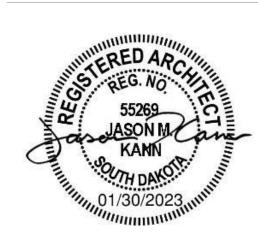
D101A



**KEYNOTE SCHEDULE** REMOVE PORTION OF MASONRY WALL REMOVE ACOUSTIC PANEL CEILING REMOVE DOOR & H.M. FRAME REMOVE OPERABLE WALL PARTITION **REMOVE WINDOW UNIT** REMOVE SINK; SEE MEP FOR MORE INFORMATION. REMOVE TOILET AND TOILET ACCESSORIES. SEE MEP FOR MORE INFORMATION REMOVE URINAL; SEE MEP FOR MORE INFORMATION. REMOVE TOILET, TOILET ACCESSORIES, AND TOILET PARTITIONS. SEE MEP FOR MORE INFORMATION. REMOVE AND DISPOSE OF ALL CASEWORK IN THIS ROOM. REMOVE AND RETURN TO OWNER ALL MARKERBOARDS, TACKBOARDS, AND SMARTBOARDS IN THIS ROOM. REMOVE CASEWORK AND PROTECT FOR REINSTALLATION. REMOVE EQUIPMENT; SEE MEP FOR MORE INFORMATION REMOVE FREEZER/COOLER; SEE MEP/FOOD SERVICE FOR MORE INFORMATION 2.71 REMOVE LOCKERS AND RETURN TO OWNER. REMOVE TIERED CONCRETE SLABS TO MAIN FLOOR ELEVATION. 2.73 REMOVE SCIENCE STATIONS; SEE MEP FOR MORE INFORMATION. REMOVE CASEWORK IN THIS ROOM. HATCHED AREA INDICATES REMOVAL OF EXISTING FLOOR SLAB AS REQUIRED FOR NEW PLUMBING; SEE MEP FOR MORE INFORMATION AND ANY ADDITIONAL AREAS TO BE CUT/PATCHED. COORDINATE W/ GC ON FINAL WIDTHS AND LENGTHS OF CUTTING AND PATCHING. FLOOR SHALL BE CUT CLEANLY SO THAT THERE IS A NEAT JOINT WHEN RECEIVING A NEW FLOOR SLAB.







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# **GENERAL NOTES - DEMOLITION**

ARE NOT DOCUMENTED TO RECEIVE DEMOLITION/REMOVAL WORK INDICATED ON THE

ALL DEMOLITION WORK REQUIRED IS NOT NECESSARILY LIMITED TO WHAT IS SHOWN ON THE

REFER TO FINISH SCHEDULE FOR ADDITIONAL FINISH WORK REQUIRED IN OTHER AREAS THAT

DEMOLITION PLANS. THE INTENT IS TO REMOVE ALL MECHANICAL, ELECTRICAL AND

ARCHITECTURAL ITEMS AS REQUIRED TO FACILITATE NEW CONSTRUCTION.

**DEMOLITION LEGEND** 

- COMPLETELY REMOVE ALL EXISTING CEILINGS U.N.O. (EITHER

LAY-IN, PLASTER, OR GYPBOARD INCLUDING ALL CURTAIN, CEILING MOUNTED EQUIPMENT, SUPPORTS, TRACKS, ETC.)

- EXISTING TO REMAIN

DEMOLITION PLANS.

- THE OWNER'S NORMAL OPERATIONS WILL BE CONTINUED DURING DEMOLITION. DEMOLITION CONTRACTOR SHALL NOT INTERFERE WITH THESE OPERATIONS IN ANY WAY WITHOUT THE OWNER'S EXPRESSED CONSENT.
- PROVIDE TEMPORARY BARRICADES AND OTHER FORMS OF PROTECTION TO PROTECT OWNER'S PERSONNEL AND GENERAL PUBLIC FROM INJURY DUE TO SELECTIVE DEMOLITION WORK.
- PROVIDE 1HR FIRE RESISTANT CONSTRUCTION BARRIERS WHERE REQ'D TO PROTECT EXISTING CONSTRUCTION AND OWNERS OPERATIONS.
- PRIOR TO CUTTING EXISTING CONSTRUCTION, LOCATE AND IDENTIFY SERVICES TO REMAIN IN OPERATION, INCLUDING ALL FLOOR PENETRATIONS. UNDOCUMENTED CONDITIONS, UTILITY RISERS, ETC. AND ANY WALLS THAT CONTAIN LIFE SAFETY VERTICAL RISERS THAT MUST REMAIN IN OPERATION DURING THE DEMOLITION WORK.
- PROVIDE SHORING, BRACING AND ANY OTHER MEANS REQ'D TO PROTECT AND MAINTAIN THE SAFETY, INTEGRITY AND STABILITY OF ALL EXISTING AND NEW CONSTRUCTION.
- WHEN ROOFING, GLAZING, FLASHING, COPING OR POERTIONS OF EXTIOER WALLS ARE REMOVED OR OPENED, SUITABLE WEATHER PROTECTION SHALL BE PROVIDED AND MAINTANED FOR THE DURATION OF WORK.
- WHEREVER WATER CLOSETS, FLOOR SINKS OR OTHER EQUIPMENT AND RELATED PIPING ARE TO BE REMOVED, PATCH FLOOR SLAB W/ CONCRETE AS REQUIRED.
- ALL CONCRETE FLOOR SLABS NOTED TO BE REMOVED SHALL BE SAWCUT TO PROVIDE A NEAT
- SEE MECHANICAL, LANDSCAPE, AND ELECTRICAL DEMOLITION DRAWINGS FOR ADDITIONAL SCOPE OF DEMOLITION WORK. 10. SALVAGE ALL EXISTING REMOVED BRICK FOR PATCHING AND REFINISH WORK AS REQ'D.

11. ALL DEMOLITION SHALL COMPLY WITH APPLICABLE LOCAL CODES AND STATE CODES AND

12. REFER TO SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.

PROJECT:

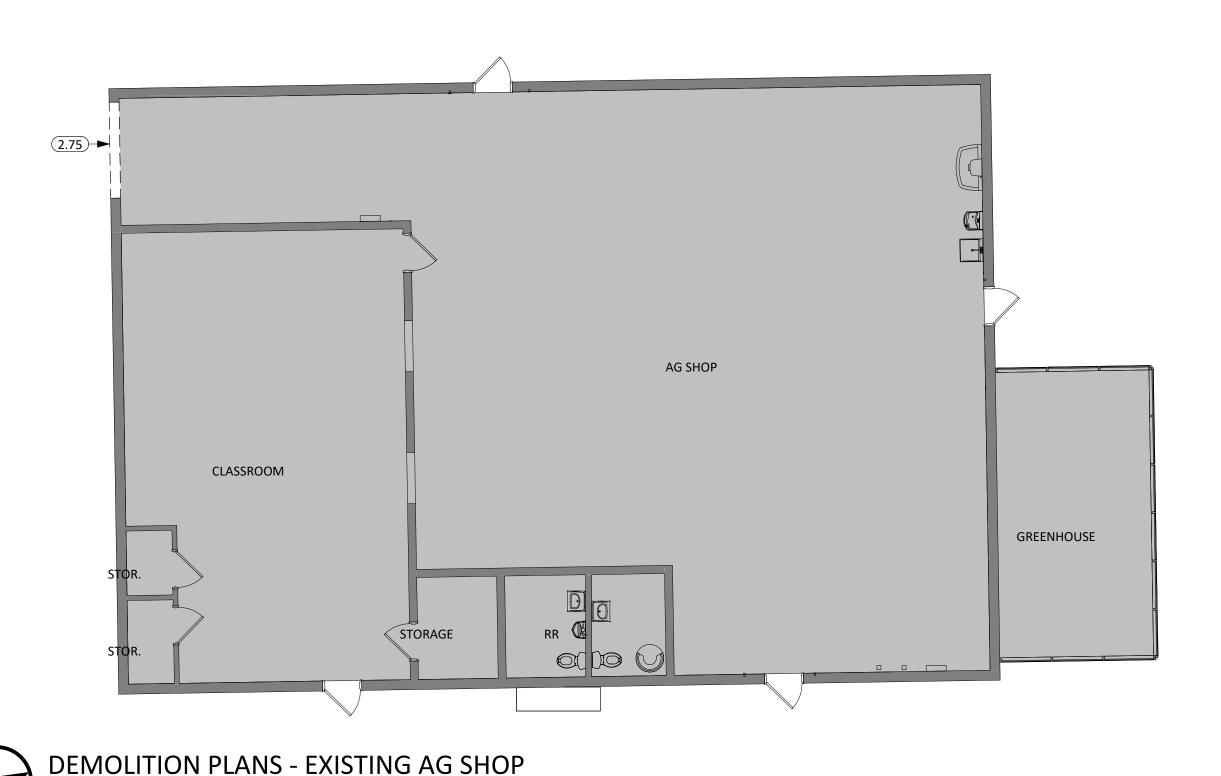
WILLOW LAKE SCHOOL ADDITION

WILLOW LAKE SCHOOL DISTRICT WILLOW LAKE, SOUTH DAKOTA

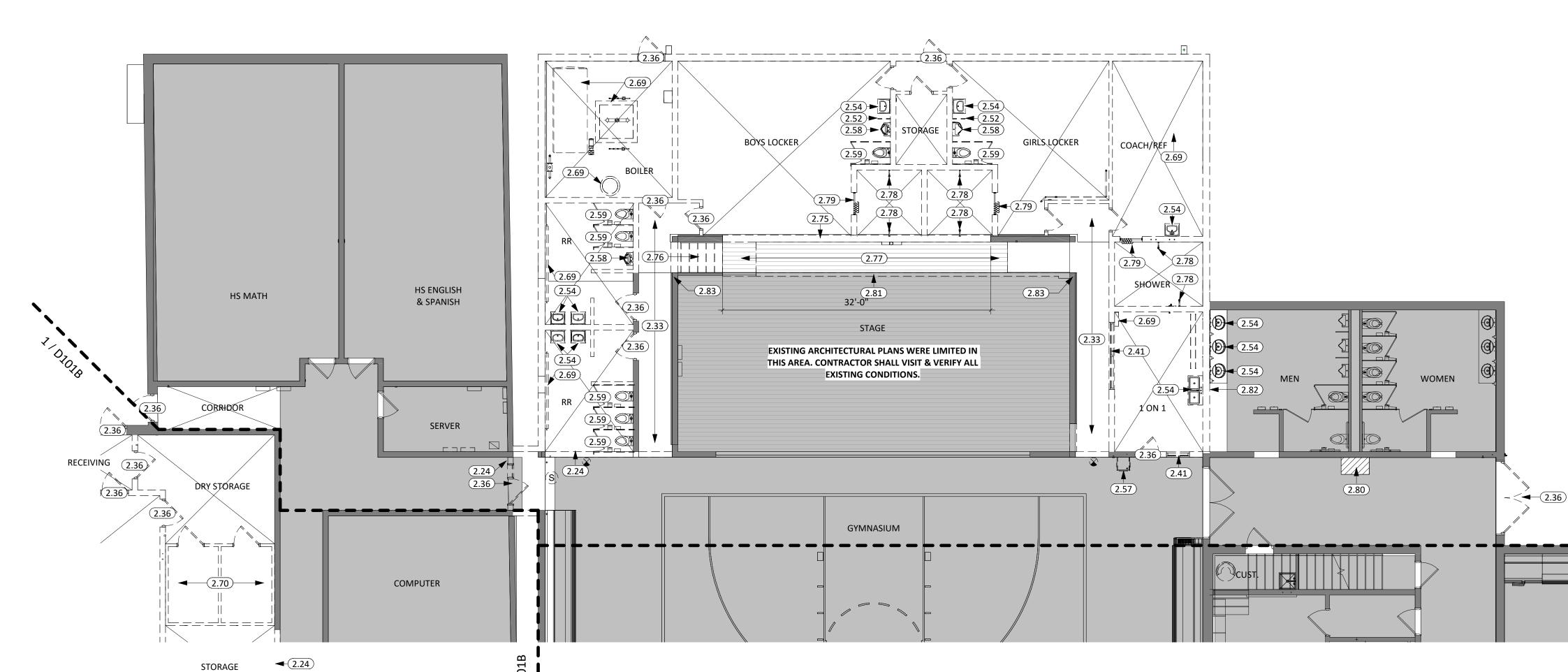
**SHEET TITLE:** 

DEMOLITION PLAN - AREA B

D101B



COMPUTER



**KEYNOTE SCHEDULE** REMOVE PORTION OF MASONRY WALL REMOVE ACOUSTIC PANEL CEILING REMOVE DOOR & H.M. FRAME **REMOVE WINDOW UNIT** REMOVE TOILET PARTITION REMOVE SINK; SEE MEP FOR MORE INFORMATION. REMOVE DRINKING FOUNTAIN; SEE MEP FOR MORE INFORMATION. REMOVE URINAL; SEE MEP FOR MORE INFORMATION. REMOVE TOILET, TOILET ACCESSORIES, AND TOILET PARTITIONS. SEE MEP FOR MORE INFORMATION. REMOVE EQUIPMENT; SEE MEP FOR MORE INFORMATION REMOVE FREEZER/COOLER; SEE MEP/FOOD SERVICE FOR MORE INFORMATION REMOVE PORTION OF METAL FRAMED WALL. **REMOVE STAIRS** REMOVE PORTION OF STAGE AND STAGE FRAMING REMOVE SHOWER AND SHOWER ACCESSORIES. SEE MEP FOR MORE INFORMATION REMOVE CURTAIN AND CURTAIN ROD HATCHED AREA INDICATES REMOVAL OF EXISTING FLOOR SLAB AS REQUIRED FOR NEW PLUMBING; SEE MEP FOR MORE INFORMATION AND ANY ADDITIONAL AREAS TO BE CUT/PATCHED. COORDINATE W/ GC ON FINAL WIDTHS AND LENGTHS OF CUTTING AND PATCHING. FLOOR SHALL BE CUT CLEANLY SO THAT THERE IS A NEAT JOINT WHEN RECEIVING A NEW FLOOR SLAB. REMOVE PORTION OF WALL TO STAGE FLOOR BELOW. MAINTAIN SEPARATION BETWEEN EXISTING BELOW STAGE STORAGE AREA AND NEW BELOW STAGE REMOVE AND PROTECT FOR REINSTALLATION MIRRORS, SOAP DISPENSERS, PAPER TOWEL DISPENSERS, AND ANY OTHER WALL MOUNTED ITEMS ALONG THIS

## **DEMOLITION LEGEND**

REMOVE PORTION OF WALL AS REQUIRED FOR INSTALLATION OF NEW COLUMN

CEILING MOUNTED EQUIPMENT, SUPPORTS, TRACKS, ETC.)

- EXISTING TO REMAIN

r----- - EXISTING TO BE REMOVED L-----

- COMPLETELY REMOVE ALL EXISTING CEILINGS U.N.O. (EITHER LAY-IN, PLASTER, OR GYPBOARD INCLUDING ALL CURTAIN,

ALL DEMOLITION WORK REQUIRED IS NOT NECESSARILY LIMITED TO WHAT IS SHOWN ON THE DEMOLITION PLANS. THE INTENT IS TO REMOVE ALL MECHANICAL, ELECTRICAL AND ARCHITECTURAL ITEMS AS REQUIRED TO FACILITATE NEW CONSTRUCTION.

REFER TO FINISH SCHEDULE FOR ADDITIONAL FINISH WORK REQUIRED IN OTHER AREAS THAT ARE NOT DOCUMENTED TO RECEIVE DEMOLITION/REMOVAL WORK INDICATED ON THE DEMOLITION PLANS.

## **GENERAL NOTES - DEMOLITION**

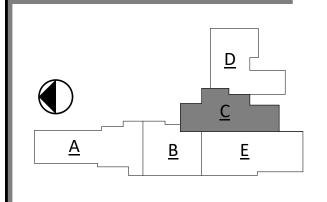
- THE OWNER'S NORMAL OPERATIONS WILL BE CONTINUED DURING DEMOLITION. DEMOLITION CONTRACTOR SHALL NOT INTERFERE WITH THESE OPERATIONS IN ANY WAY WITHOUT THE OWNER'S EXPRESSED CONSENT.
- PROVIDE TEMPORARY BARRICADES AND OTHER FORMS OF PROTECTION TO PROTECT OWNER'S PERSONNEL AND GENERAL PUBLIC FROM INJURY DUE TO SELECTIVE DEMOLITION WORK. PROVIDE 1HR FIRE RESISTANT CONSTRUCTION BARRIERS WHERE REQ'D TO PROTECT EXISTING
- CONSTRUCTION AND OWNERS OPERATIONS. PRIOR TO CUTTING EXISTING CONSTRUCTION, LOCATE AND IDENTIFY SERVICES TO REMAIN IN OPERATION, INCLUDING ALL FLOOR PENETRATIONS. UNDOCUMENTED CONDITIONS, UTILITY
- RISERS, ETC. AND ANY WALLS THAT CONTAIN LIFE SAFETY VERTICAL RISERS THAT MUST REMAIN IN OPERATION DURING THE DEMOLITION WORK.
- PROVIDE SHORING, BRACING AND ANY OTHER MEANS REQ'D TO PROTECT AND MAINTAIN THE SAFETY, INTEGRITY AND STABILITY OF ALL EXISTING AND NEW CONSTRUCTION.
- WHEN ROOFING, GLAZING, FLASHING, COPING OR POERTIONS OF EXTIOER WALLS ARE REMOVED OR OPENED, SUITABLE WEATHER PROTECTION SHALL BE PROVIDED AND MAINTANED FOR THE DURATION OF WORK.
- WHEREVER WATER CLOSETS, FLOOR SINKS OR OTHER EQUIPMENT AND RELATED PIPING ARE TO BE REMOVED, PATCH FLOOR SLAB W/ CONCRETE AS REQUIRED.
- ALL CONCRETE FLOOR SLABS NOTED TO BE REMOVED SHALL BE SAWCUT TO PROVIDE A NEAT
- SEE MECHANICAL, LANDSCAPE, AND ELECTRICAL DEMOLITION DRAWINGS FOR ADDITIONAL
- SCOPE OF DEMOLITION WORK. 10. SALVAGE ALL EXISTING REMOVED BRICK FOR PATCHING AND REFINISH WORK AS REQ'D.
- 11. ALL DEMOLITION SHALL COMPLY WITH APPLICABLE LOCAL CODES AND STATE CODES AND
- 12. REFER TO SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.

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**REVISION SCHEDULE:** 

REV. DSC. REV. DATE

PROJECT:

WILLOW LAKE SCHOOL ADDITION

WILLOW LAKE SCHOOL DISTRICT WILLOW LAKE, SOUTH DAKOTA

**SHEET TITLE:** 

DEMOLITION PLAN - AREA C

D101C

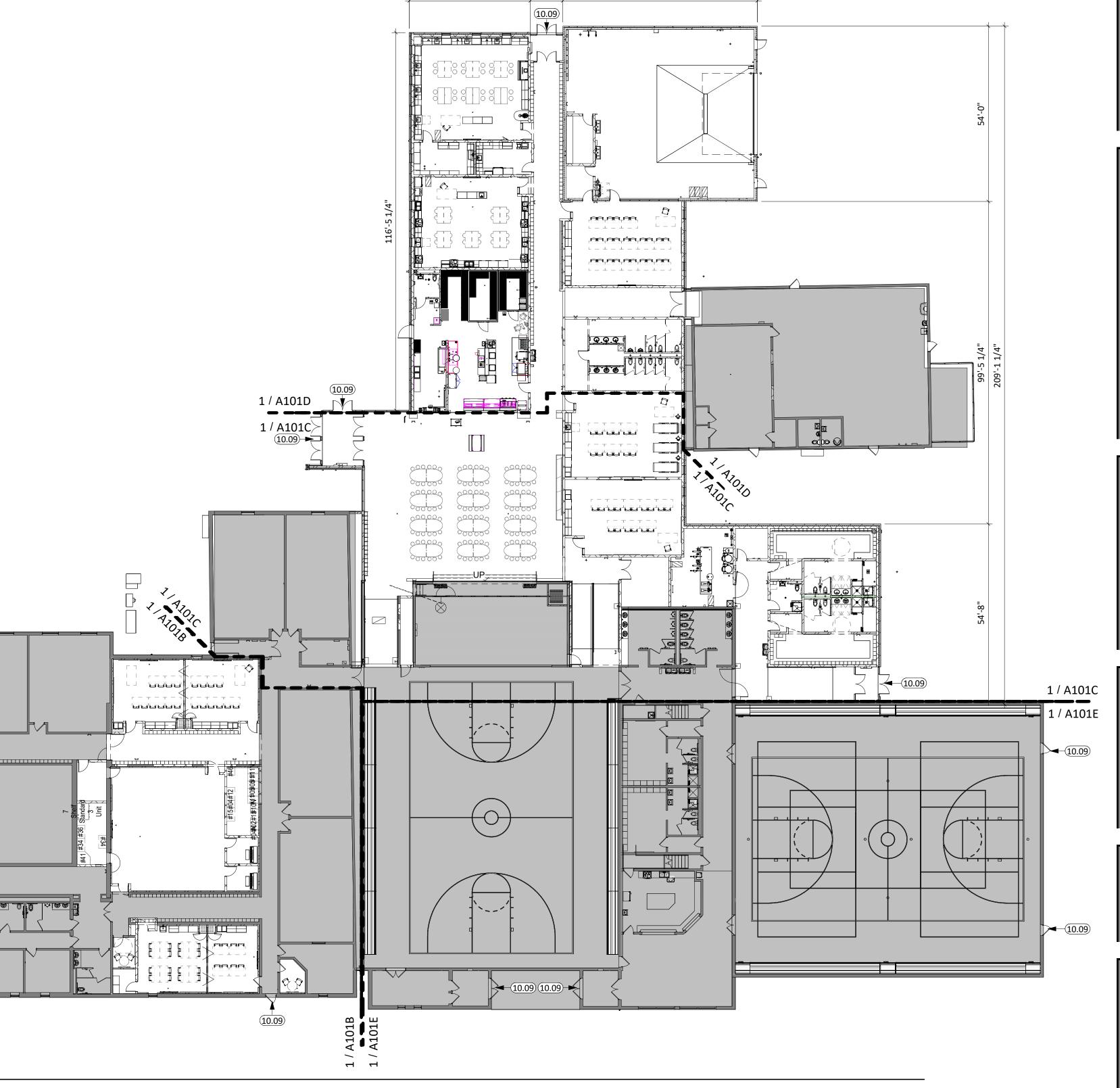
**DEMOLITION PLANS - AREA C** 

## **GENERAL NOTES**

- 1. FIRE RATED WALL ARE INDICATED ON THE CODE PLANS.
- 2. PROVIDE FIRE EXTINGUISHERS AND CABINETS AS SHOWN ON THE CODE PLAN(S).
- 3. REFER TO SHEET <u>G000</u> FOR ADA STANDARDS.
- 4. REFER TO SHEET <u>6000</u> FOR ADA STANDARDS. 4. REFER TO SHEET <u>6003</u> FOR WALL, ROOF, AND FLOOR TYPES.
- 5. INTERIOR DIMENSIONS ARE FROM FACE OF GWB/CMU TO FACE OF GWB/CMU UNLESS OTHERWISE NOTED.
- 6. ALL WALL TYPES TO EXTEND TO DECK UNLESS OTHERWISE NOTED ON WALL TYPES.
- 7. EXTERIOR DIMENSIONS ARE FROM FACE OF BRICK/SHEATHING UNLESS OTHERWISE NOTED.
- 8. COORDINATE WORK DONE BY OTHERS AS INDICATED ON THE DRAWINGS.
- 9. INCREASE WALL THICKNESS OF METAL STUD AND CONCRETE BLOCK WALLS AS REQUIRED TO ACCOMODATE MECHANICAL AND ELECTRICAL DEVICES VERIFY w/ ARCHITECT PRIOR TO WORK.
- 10. SEE MECHANICAL FOR ALL FLOOR DRAIN SIZES AND LOCATIONS U.N.O. SET FLOOR DRAINS MINIMUM ¾"
  BELOW FINISHED FLOOR. PROVIDE EVEN SLOPE FROM WALL TO DRAIN W/ A MAXIMUM SLOPE OF ¼" PER
  FOOT.
- 11. VERIFY DRYWALL CONTROL JOINT LOCATIONS w/ ARCHITECT ON SITE PRIOR TO INSTALLATION. THIS INCLUDES, BUT IS NOT LIMITED TO, CONTROL JOINTS AT 30'-0" O.C. MAX. IN LONG WALL EXPANSES. CONTROL JOINTS AT DOOR JAMBS EXTENDING FROM DOOR HEAD TO CEILING. CONSIDERATION SHALL ALSO BE GIVEN TO LOCATING CONTROL JOINTS FROM FLOOR TO CEILING AT EITHER EDGE OF LARGE WINDOW OPENINGS.
- 12. VERIFY HOISTWAY SHAFT SIZE REQUIREMENTS w/ ELEVATOR MANUFACTURER & COORDINATE.
- 13. COORDINATE ALL CHASE SIZES AND LOCATIONS W/ MECHANICAL. PROVIDE CHASES AT ALL EXPOSED
- MECHANICAL & ELECTRICAL WITH ADJACENT WALL MATERIAL AS REQUIRED.
- 14. COORDINATE ALL SHEAR WALL LOCATIONS W/ STRUCTURAL PLANS.
- 15. THE AIR & MOISTURE WEATHER BARRIER IS TO BE CONTINUOUS FROM THE BASE OF THE WALLS UP TO & TYING INTO THE ROOF BARRIER SYSTEM.
- 16. WALL TYPES ARE '4C' TYPICALLY UNLESS NOTED OTHERWISE
- 17. NEW CMU IN EXISTING AREAS SHALL ALIGN WITH EXISTING BONDING PATTERNS (STACKED OR RUNNING)

## **KEYNOTE SCHEDULE**

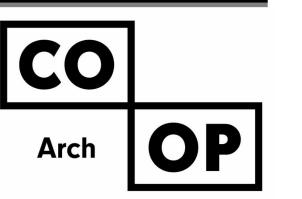
PROVIDE APPROXIMATELY 8"X8" ARIAL FONT WINDOW FILM FOR ENTRANCE IDENTIFICATION. COORDINATE WITH ARCHITECT ON LETTERING. FINISH TO BE WHITE



107'-4"

60'-0"

37'-4"

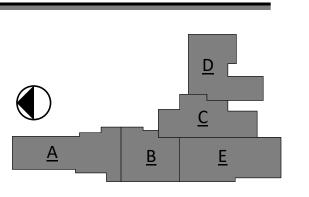


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REVISION SCHEDULE:

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PROJECT:

WILLOW LAKE SCHOOL ADDITION

WILLOW LAKE SCHOOL DISTRICT WILLOW LAKE, SOUTH DAKOTA

SHEET TITLE:

OVERALL FIRST FLOOR PLAN

A100

FIRST FLOOR PLAN - OVERALL

1" = 20'-0"

10.09

## **GENERAL NOTES**

- FIRE RATED WALL ARE INDICATED ON THE CODE PLANS.
- PROVIDE FIRE EXTINGUISHERS AND CABINETS AS SHOWN ON THE CODE PLAN(S).
- REFER TO SHEET <u>G000</u> FOR ADA STANDARDS.
- REFER TO SHEET <u>**G003</u>** FOR WALL, ROOF, AND FLOOR TYPES.</u>
- INTERIOR DIMENSIONS ARE FROM FACE OF GWB/CMU TO FACE OF GWB/CMU UNLESS OTHERWISE NOTED.
- ALL WALL TYPES TO EXTEND TO DECK UNLESS OTHERWISE NOTED ON WALL TYPES.
- EXTERIOR DIMENSIONS ARE FROM FACE OF BRICK/SHEATHING UNLESS OTHERWISE NOTED.
- COORDINATE WORK DONE BY OTHERS AS INDICATED ON THE DRAWINGS.
- INCREASE WALL THICKNESS OF METAL STUD AND CONCRETE BLOCK WALLS AS REQUIRED TO ACCOMODATE MECHANICAL AND ELECTRICAL DEVICES - VERIFY w/ ARCHITECT PRIOR TO WORK.
- LO. SEE MECHANICAL FOR ALL FLOOR DRAIN SIZES AND LOCATIONS U.N.O. SET FLOOR DRAINS MINIMUM ¾" BELOW FINISHED FLOOR. PROVIDE EVEN SLOPE FROM WALL TO DRAIN W/ A MAXIMUM SLOPE OF 1/4" PER
- 11. VERIFY DRYWALL CONTROL JOINT LOCATIONS w/ ARCHITECT ON SITE PRIOR TO INSTALLATION. THIS INCLUDES, BUT IS NOT LIMITED TO, CONTROL JOINTS AT 30'-0" O.C. MAX. IN LONG WALL EXPANSES. CONTROL JOINTS AT DOOR JAMBS EXTENDING FROM DOOR HEAD TO CEILING. CONSIDERATION SHALL ALSO BE GIVEN TO LOCATING CONTROL JOINTS FROM FLOOR TO CEILING AT EITHER EDGE OF LARGE WINDOW
- OPENINGS. 12. VERIFY HOISTWAY SHAFT SIZE REQUIREMENTS W/ ELEVATOR MANUFACTURER & COORDINATE.
- 13. COORDINATE ALL CHASE SIZES AND LOCATIONS W/ MECHANICAL. PROVIDE CHASES AT ALL EXPOSED MECHANICAL & ELECTRICAL WITH ADJACENT WALL MATERIAL AS REQUIRED.
- 14. COORDINATE ALL SHEAR WALL LOCATIONS W/ STRUCTURAL PLANS.
- 15. THE AIR & MOISTURE WEATHER BARRIER IS TO BE CONTINUOUS FROM THE BASE OF THE WALLS UP TO & TYING INTO THE ROOF BARRIER SYSTEM.
- 16. WALL TYPES ARE '4C' TYPICALLY UNLESS NOTED OTHERWISE

1ST GRADE

KINDERGARTEN

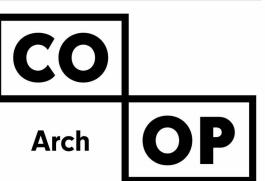
17. NEW CMU IN EXISTING AREAS SHALL ALIGN WITH EXISTING BONDING PATTERNS (STACKED OR RUNNING)

2ND GRADE

PRESCHOOL





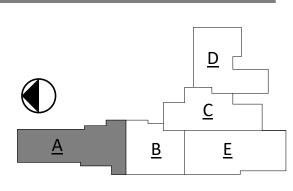


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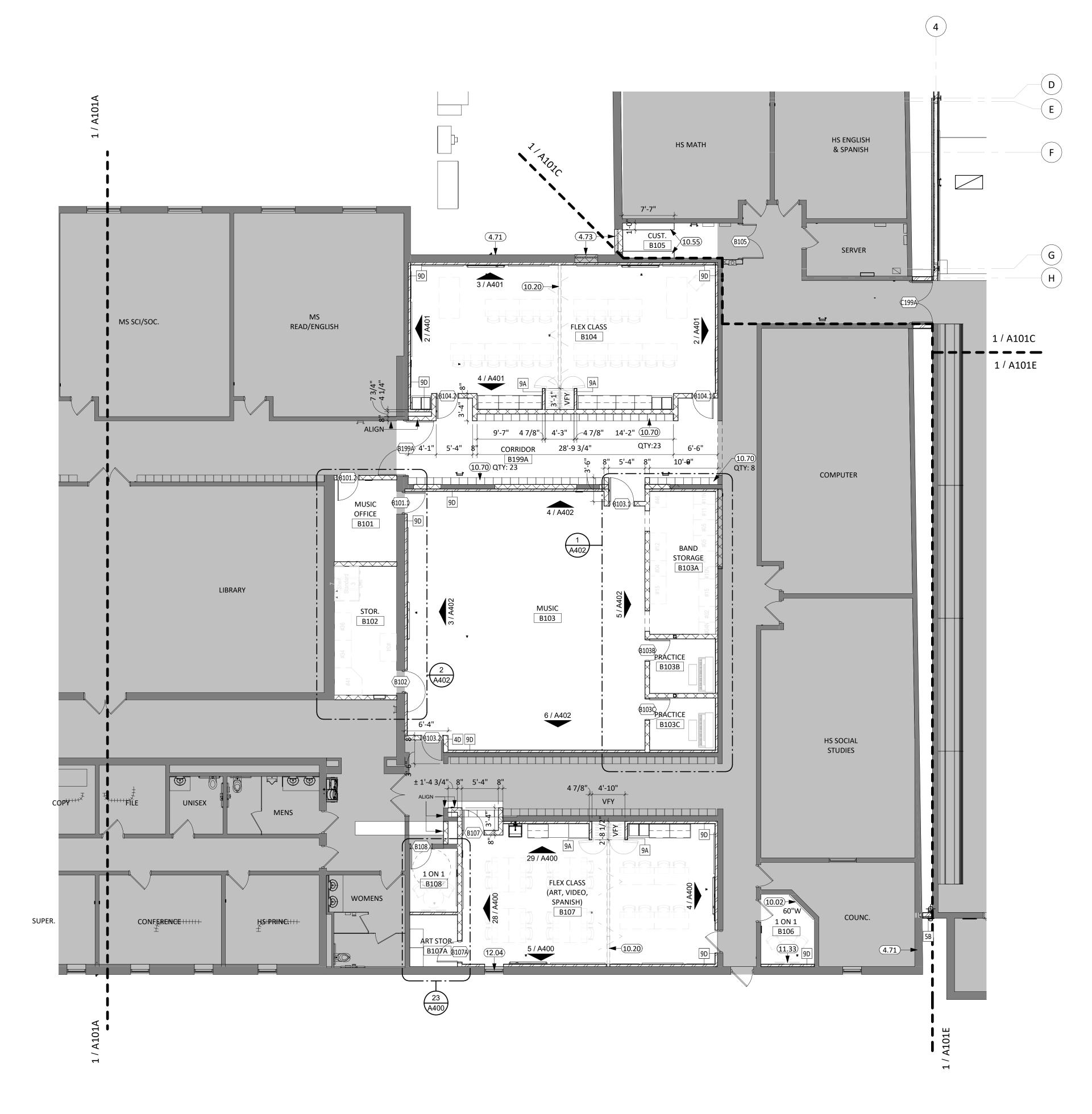
WILLOW LAKE SCHOOL ADDITION

WILLOW LAKE SCHOOL DISTRICT WILLOW LAKE, SOUTH DAKOTA

**SHEET TITLE:** 

FIRST FLOOR PLAN - AREA A

A101A



# **KEYNOTE SCHEDULE**

4.71	INFILL LOUVER OPENING W/ BRICK, INSULATION, AND CMU TO MATCH EXISTING WALL CONSTRUCTION/FINISH; SEE MECHANICAL PLANS FOR DEMOLISHED LOUVER LOCATIONS.
4.73	INFILL EXISTING DOOR OPENING W/ BRICK, INSULATION, AND CMU TO MATCH EXISTING WALL CONSTRUCTION/FINISH.
10.02	MARKERBOARD, B.O.DCLARIDGE SERIES 1 WALLBOARD W/ 1" CORK/MAP RAIL [WHITE],
10.20	OPERABLE PANEL PARTITIONS
10.55	WALL MOUNTED STANDARDS AND BRACKETS

TV MONITOR (OWNER PROVIDED CONTRACTOR INSTALLED)

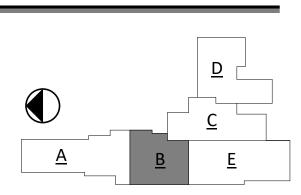
15"W x 12"D x 6'H SINGLE TIER METAL LOCKERS W/ 4" METAL BASE

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FIRE RATED WALL ARE INDICATED ON THE CODE PLANS. PROVIDE FIRE EXTINGUISHERS AND CABINETS AS SHOWN ON THE CODE PLAN(S).

**ROLLER WINDOW SHADES** 

REFER TO SHEET <u>G000</u> FOR ADA STANDARDS.

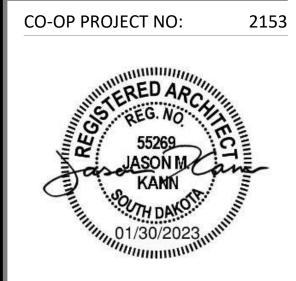
10.70

11.33

- REFER TO SHEET **G003** FOR WALL, ROOF, AND FLOOR TYPES.
- INTERIOR DIMENSIONS ARE FROM FACE OF GWB/CMU TO FACE OF GWB/CMU UNLESS OTHERWISE NOTED. ALL WALL TYPES TO EXTEND TO DECK UNLESS OTHERWISE NOTED ON WALL TYPES.
- EXTERIOR DIMENSIONS ARE FROM FACE OF BRICK/SHEATHING UNLESS OTHERWISE NOTED.
- COORDINATE WORK DONE BY OTHERS AS INDICATED ON THE DRAWINGS. INCREASE WALL THICKNESS OF METAL STUD AND CONCRETE BLOCK WALLS AS REQUIRED TO ACCOMODATE MECHANICAL AND ELECTRICAL DEVICES - VERIFY w/ ARCHITECT PRIOR TO WORK.

**GENERAL NOTES** 

- 10. SEE MECHANICAL FOR ALL FLOOR DRAIN SIZES AND LOCATIONS U.N.O. SET FLOOR DRAINS MINIMUM ¾" BELOW FINISHED FLOOR. PROVIDE EVEN SLOPE FROM WALL TO DRAIN W/ A MAXIMUM SLOPE OF 1/4" PER
- 1. VERIFY DRYWALL CONTROL JOINT LOCATIONS w/ ARCHITECT ON SITE PRIOR TO INSTALLATION. THIS INCLUDES, BUT IS NOT LIMITED TO, CONTROL JOINTS AT 30'-0" O.C. MAX. IN LONG WALL EXPANSES. CONTROL JOINTS AT DOOR JAMBS EXTENDING FROM DOOR HEAD TO CEILING. CONSIDERATION SHALL ALSO BE GIVEN TO LOCATING CONTROL JOINTS FROM FLOOR TO CEILING AT EITHER EDGE OF LARGE WINDOW
- 12. VERIFY HOISTWAY SHAFT SIZE REQUIREMENTS w/ ELEVATOR MANUFACTURER & COORDINATE.
- 13. COORDINATE ALL CHASE SIZES AND LOCATIONS W/ MECHANICAL. PROVIDE CHASES AT ALL EXPOSED
- MECHANICAL & ELECTRICAL WITH ADJACENT WALL MATERIAL AS REQUIRED.
- 14. COORDINATE ALL SHEAR WALL LOCATIONS W/ STRUCTURAL PLANS. 15. THE AIR & MOISTURE WEATHER BARRIER IS TO BE CONTINUOUS FROM THE BASE OF THE WALLS UP TO &
- TYING INTO THE ROOF BARRIER SYSTEM. 16. WALL TYPES ARE '4C' TYPICALLY UNLESS NOTED OTHERWISE
- 17. NEW CMU IN EXISTING AREAS SHALL ALIGN WITH EXISTING BONDING PATTERNS (STACKED OR RUNNING)



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**REVISION SCHEDULE:** 

PROJECT:

WILLOW LAKE SCHOOL ADDITION

WILLOW LAKE SCHOOL DISTRICT WILLOW LAKE, SOUTH DAKOTA

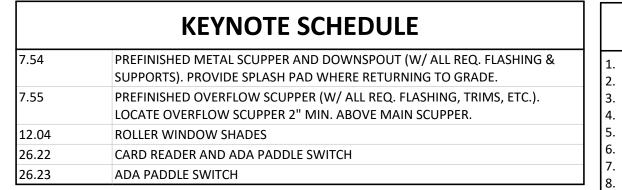
**SHEET TITLE:** 

FIRST FLOOR PLAN - AREA B

A101B

FIRST FLOOR PLAN - AREA B

1/8" = 1'-0"



## **GENERAL NOTES**

- FIRE RATED WALL ARE INDICATED ON THE CODE PLANS.
- PROVIDE FIRE EXTINGUISHERS AND CABINETS AS SHOWN ON THE CODE PLAN(S).
- REFER TO SHEET <u>G000</u> FOR ADA STANDARDS.
- REFER TO SHEET <u>G003</u> FOR WALL, ROOF, AND FLOOR TYPES.
- INTERIOR DIMENSIONS ARE FROM FACE OF GWB/CMU TO FACE OF GWB/CMU UNLESS OTHERWISE NOTED.
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- INCREASE WALL THICKNESS OF METAL STUD AND CONCRETE BLOCK WALLS AS REQUIRED TO ACCOMODATE MECHANICAL AND ELECTRICAL DEVICES - VERIFY w/ ARCHITECT PRIOR TO WORK.
- 10. SEE MECHANICAL FOR ALL FLOOR DRAIN SIZES AND LOCATIONS U.N.O. SET FLOOR DRAINS MINIMUM ¾" BELOW FINISHED FLOOR. PROVIDE EVEN SLOPE FROM WALL TO DRAIN W/ A MAXIMUM SLOPE OF 1/4" PER
- 11. VERIFY DRYWALL CONTROL JOINT LOCATIONS W/ ARCHITECT ON SITE PRIOR TO INSTALLATION. THIS INCLUDES, BUT IS NOT LIMITED TO, CONTROL JOINTS AT 30'-0" O.C. MAX. IN LONG WALL EXPANSES. BE GIVEN TO LOCATING CONTROL JOINTS FROM FLOOR TO CEILING AT EITHER EDGE OF LARGE WINDOW

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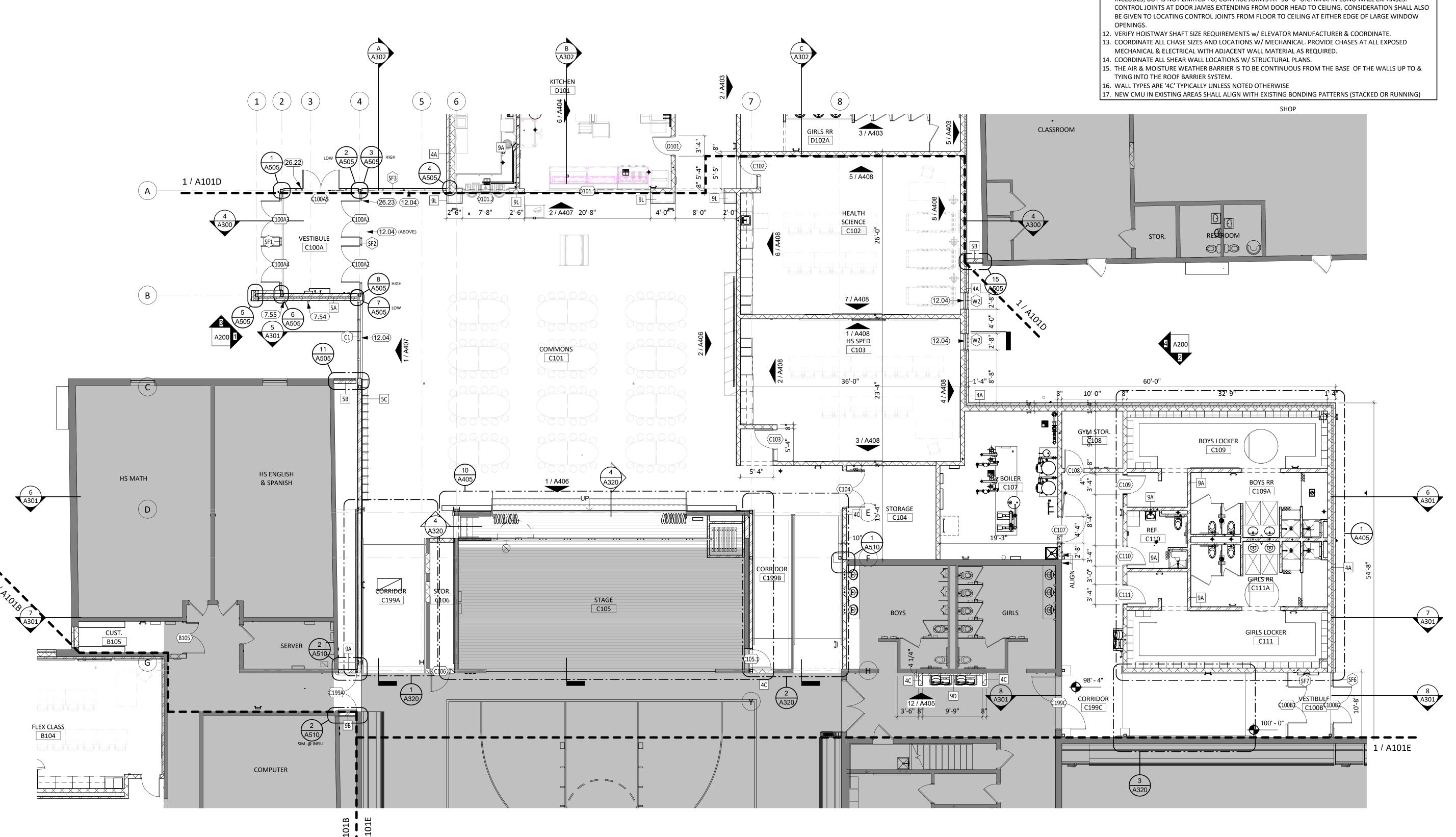
WILLOW LAKE SCHOOL ADDITION

WILLOW LAKE SCHOOL DISTRICT WILLOW LAKE, SOUTH DAKOTA

**SHEET TITLE:** 

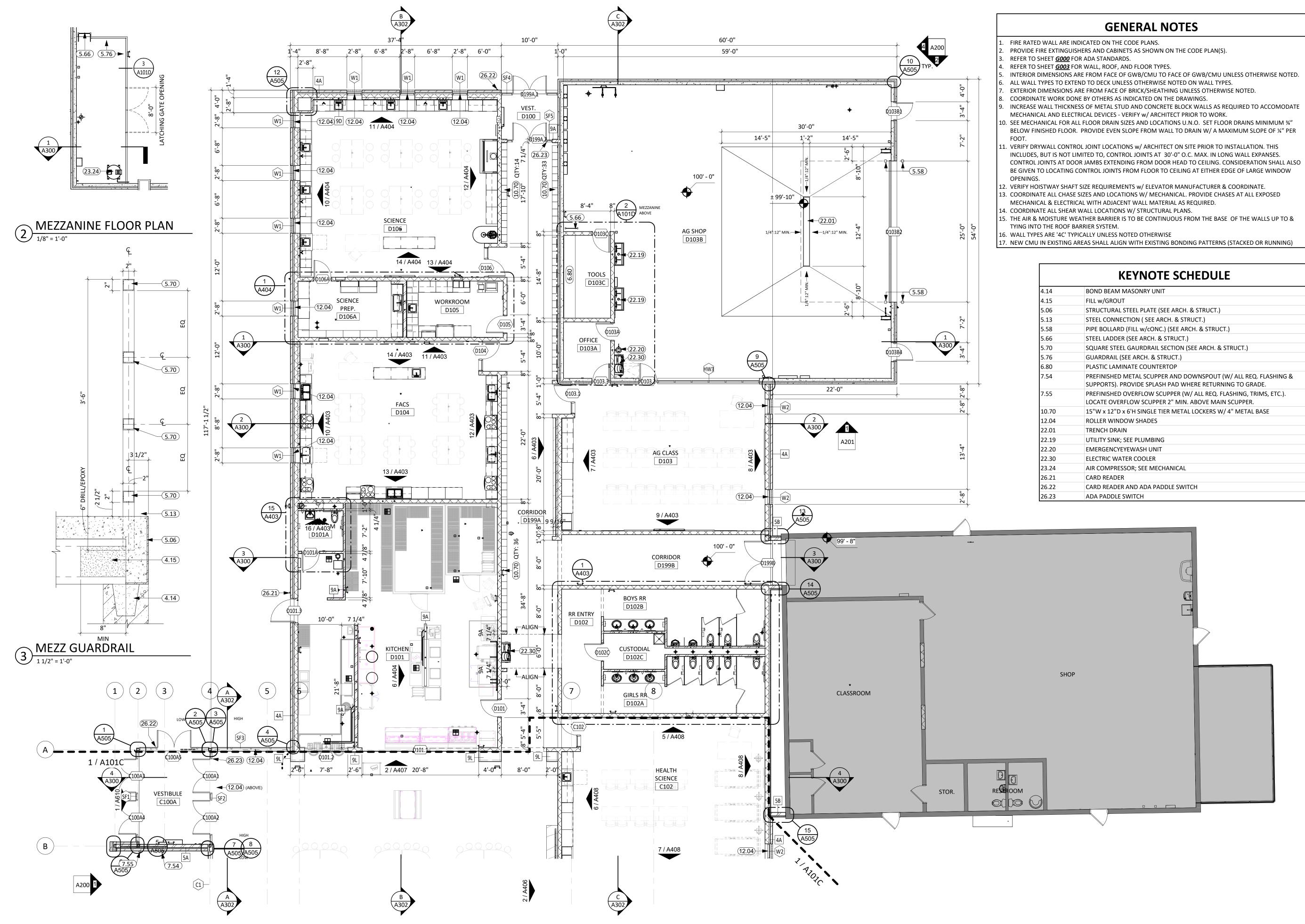
FIRST FLOOR PLAN - AREA C

A101C



1/8" = 1'-0"

FIRST FLOOR PLAN - AREA C



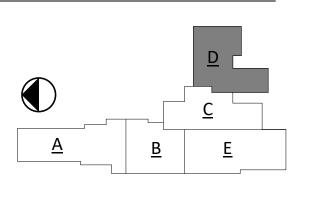
- INCREASE WALL THICKNESS OF METAL STUD AND CONCRETE BLOCK WALLS AS REQUIRED TO ACCOMODATE

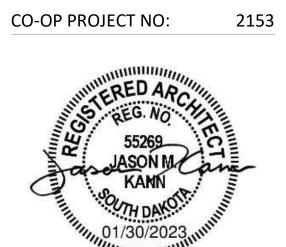
	<b>KEYNOTE SCHEDULE</b>
4.14	BOND BEAM MASONRY UNIT
4.15	FILL w/GROUT
5.06	STRUCTURAL STEEL PLATE (SEE ARCH. & STRUCT.)
5.13	STEEL CONNECTION ( SEE ARCH. & STRUCT.)
5.58	PIPE BOLLARD (FILL w/cONC.) (SEE ARCH. & STRUCT.)
5.66	STEEL LADDER (SEE ARCH. & STRUCT.)
5.70	SQUARE STEEL GAURDRAIL SECTION (SEE ARCH. & STRUCT.)
5.76	GUARDRAIL (SEE ARCH. & STRUCT.)
6.80	PLASTIC LAMINATE COUNTERTOP
7.54	PREFINISHED METAL SCUPPER AND DOWNSPOUT (W/ ALL REQ. FLASHING & SUPPORTS). PROVIDE SPLASH PAD WHERE RETURNING TO GRADE.
7.55	PREFINISHED OVERFLOW SCUPPER (W/ ALL REQ. FLASHING, TRIMS, ETC.). LOCATE OVERFLOW SCUPPER 2" MIN. ABOVE MAIN SCUPPER.
10.70	15"W x 12"D x 6'H SINGLE TIER METAL LOCKERS W/ 4" METAL BASE
12.04	ROLLER WINDOW SHADES
22.01	TRENCH DRAIN
22.19	UTILITY SINK; SEE PLUMBING
22.20	EMERGENCYEYEWASH UNIT
22.30	ELECTRIC WATER COOLER
23.24	AIR COMPRESSOR; SEE MECHANICAL
26 21	CARD BEADER

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**REVISION SCHEDULE:** 

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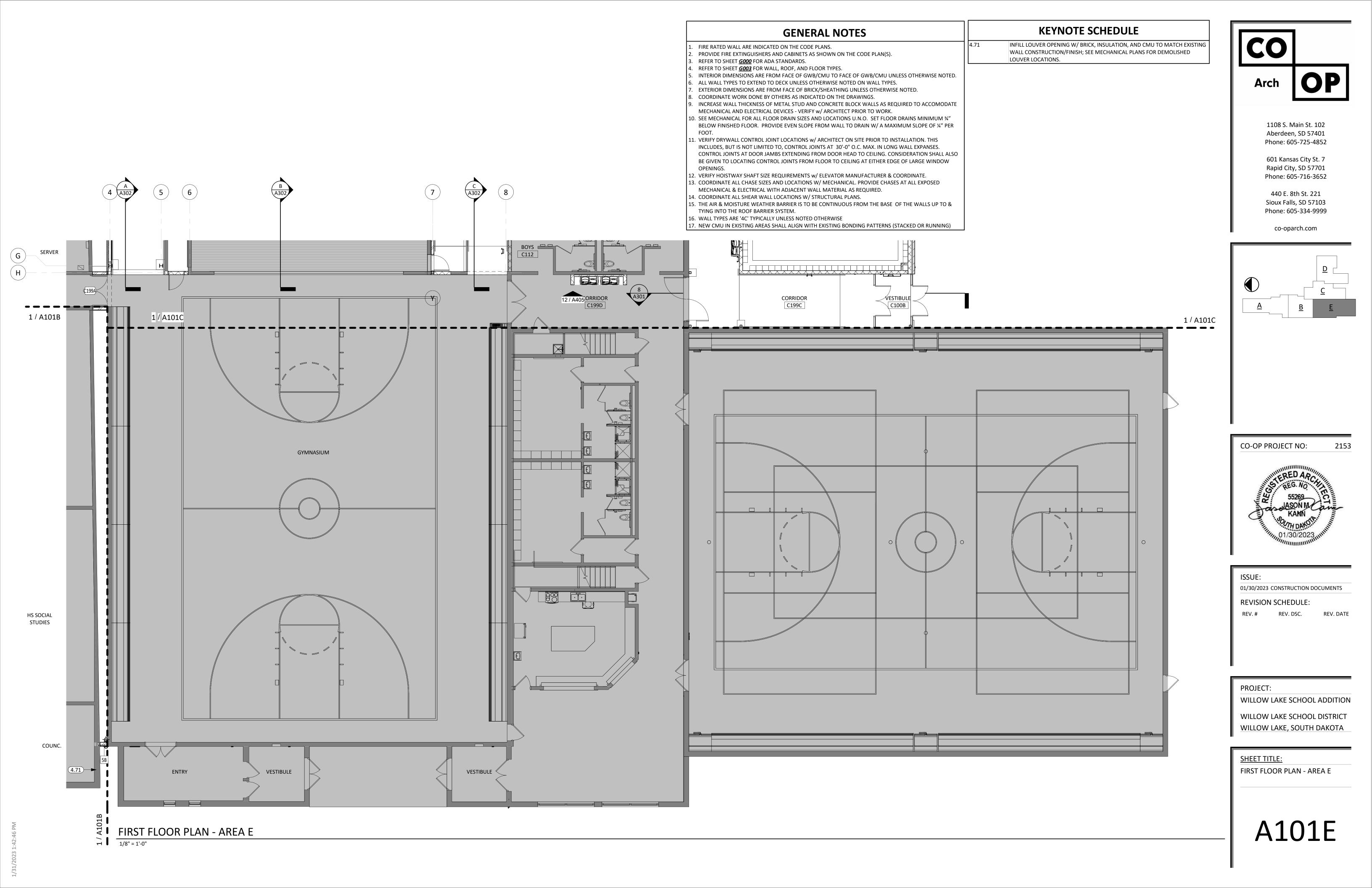
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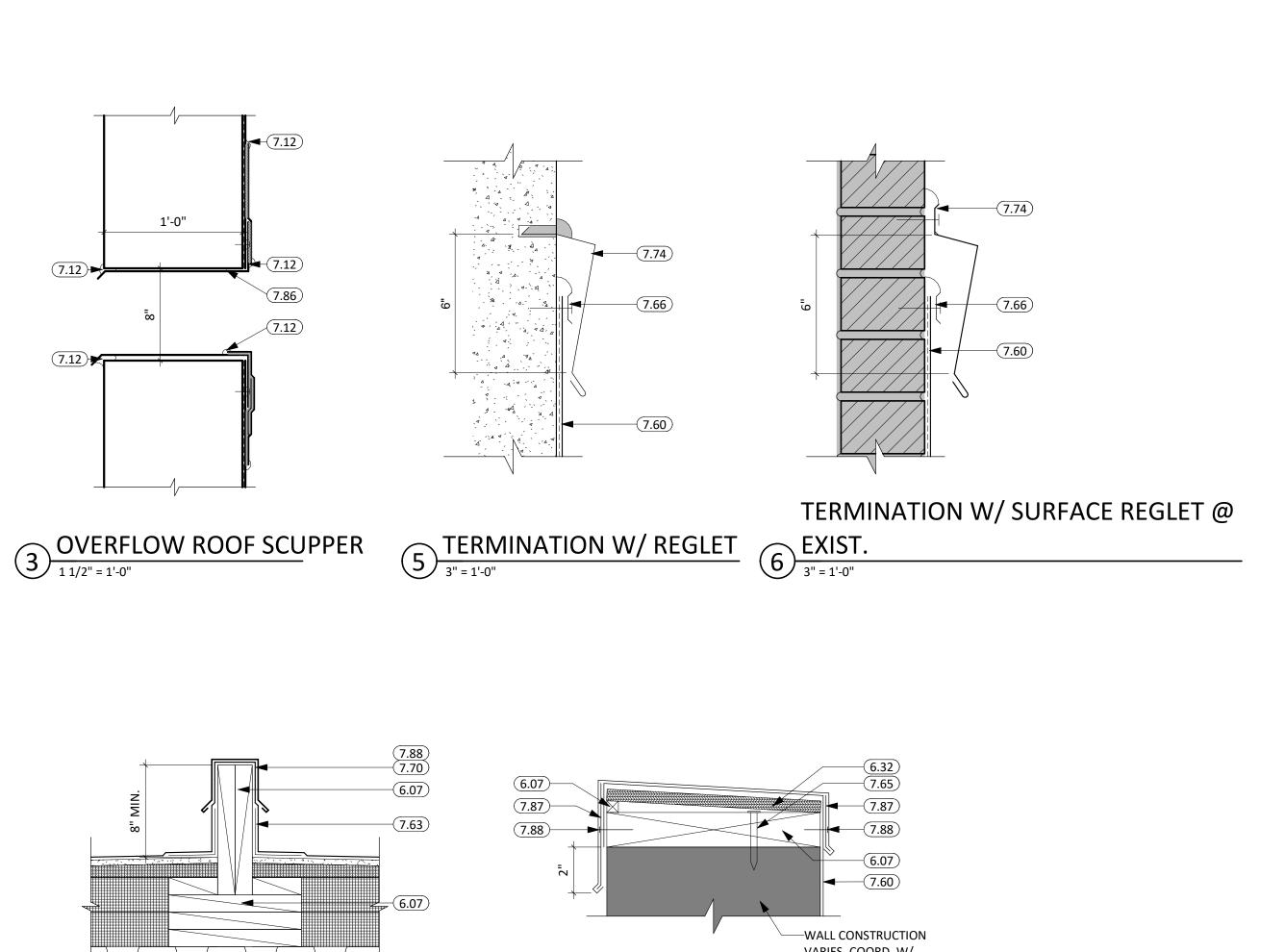
FIRST FLOOR PLAN - AREA D

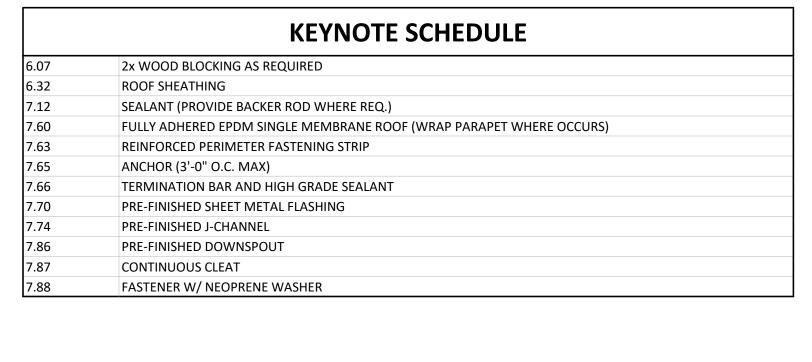
A101D

FIRST FLOOR PLAN - AREA D

1/8" = 1'-0"







## **GENERAL NOTES**

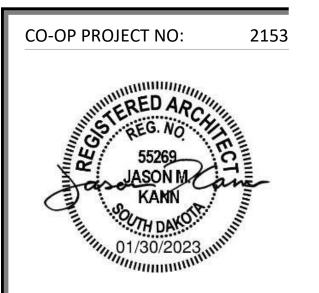
- SEE CIVIL, STRUCTURAL, MECHANICAL, AND ELECTRICAL FOR ADDITIONAL INFORMATION AND
- ALL TAPERED ROOF SYSTEM SLOPES ARE ¼" PER FOOT UNLESS OTHERWISE NOTED.
- ALL THRU ROOF PENETRATION BOOTS IN ROOF SYSTEM ARE TO BE PROVIDED.
- THE AIR & MOISTURE WEATHER BARRIER IS TO BE CONTINUOUS FROM THE BASE OF THE WALLS UP TO & TYING INTO THE ROOF BARRIER SYSTEM.
- COORDINATE ROOF PENETRATIONS WITH MECHANICAL, ELECTRICAL, AND PLUMBING CONTRACTORS.
- ALL ROOF SADDLES SHALL HAVE A MINIMUM OF 1/2" PER FOOT SLOPE.
- PROVIDE ROOF CURBS FOR ALL EQUIPMENT SCHEDULED TO BE ON THE ROOF. COORDINATE
- SIZE AND LOCATION WITH APPLICABLE TRADES. PROVIDE CRICKETS AT ALL ROOF TOP EQUIPEMENT TO ALLOW FOR UNIMPEDED WATER FLOW.
- DIMENSIONS AND LOCATIONS OF EQUIPMENT ON THE ROOF ARE APPROX., DO NOT SCALE THE DRAWINGS. VERIFY WITH APPLICABLE TRADES.
- 10. TAPERED INSULATION SHALL HAVE A MINIMUM OF 1/4" PER FOOT SLOPE. PROVIDE TAPERED INSULATION AS REQUIRED TO ACHIEVE 1/4" PER FOOT SLOPE.
- 11. PROVIDE R-30 MINIMUM ROOF INSULATION AT ROOF DRAINS. 12. PROVIDE ROOF WALKING PADS AS SHOWN.

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01/30/2023 CONSTRUCTION DOCUMENTS

REV. DATE

REVISION SCHEDULE: REV. DSC.

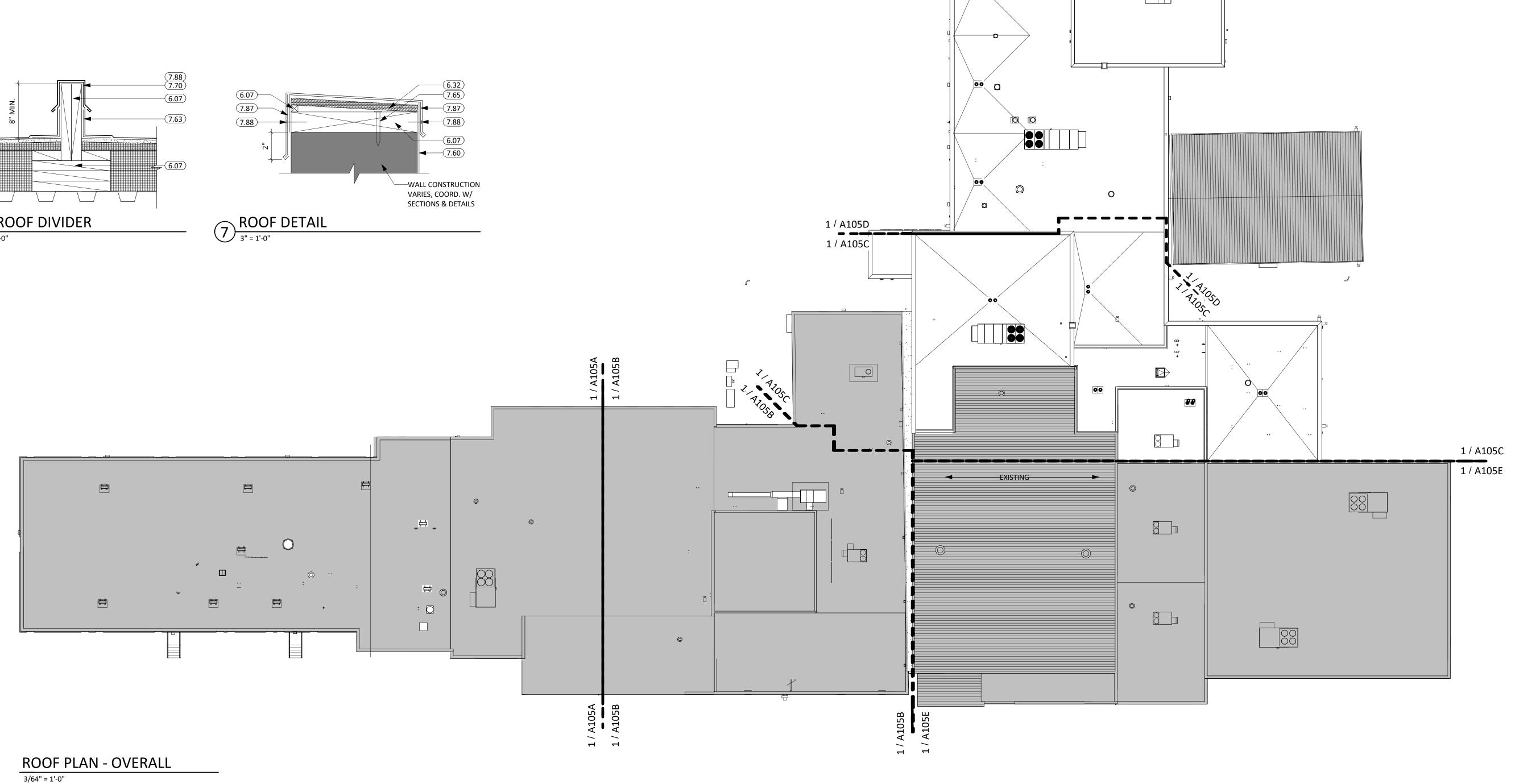
PROJECT:

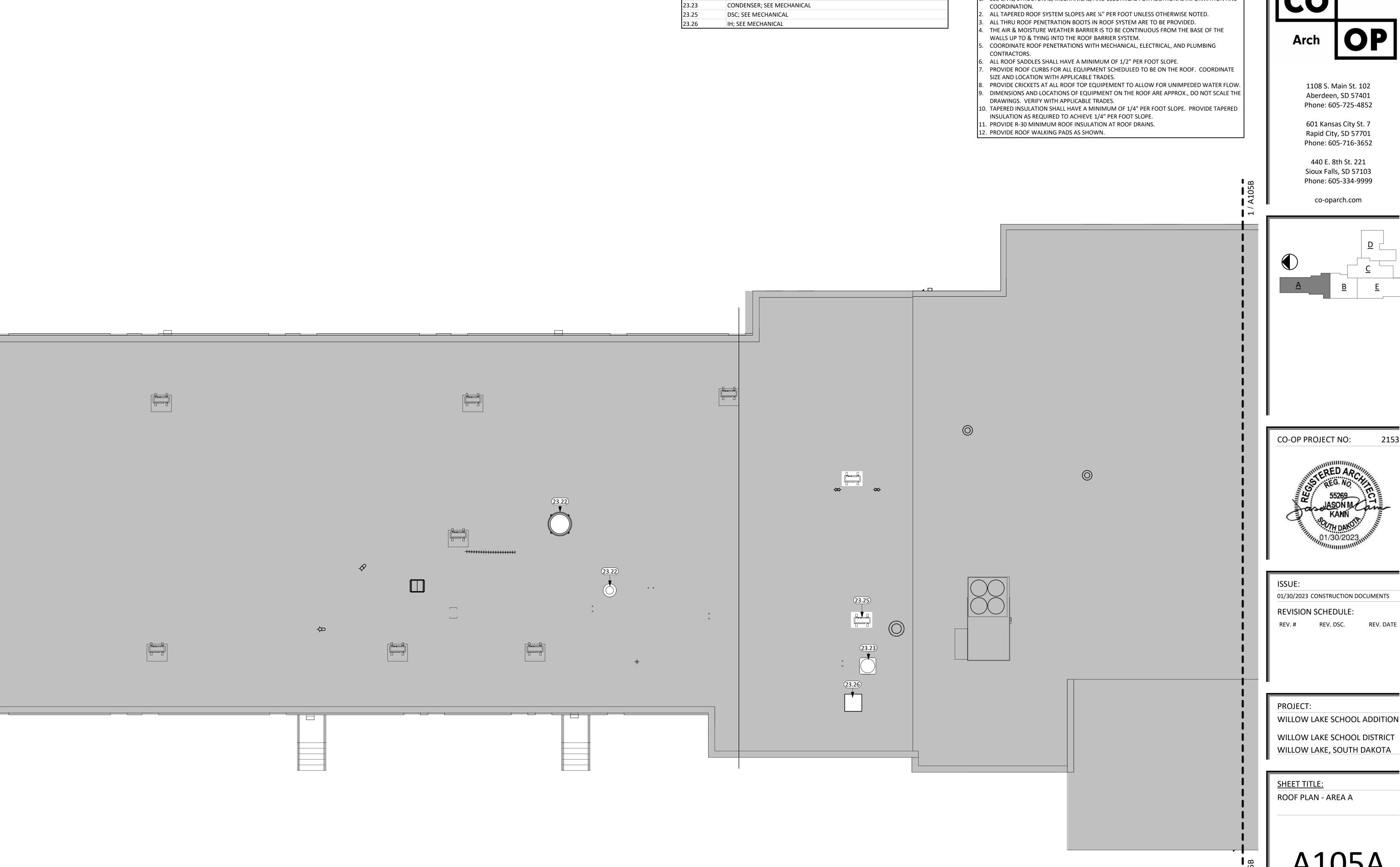
WILLOW LAKE SCHOOL ADDITION

WILLOW LAKE SCHOOL DISTRICT WILLOW LAKE, SOUTH DAKOTA

SHEET TITLE:

ROOF PLAN OVERALL





23.22

**KEYNOTE SCHEDULE** 

EXHAUST FAN; SEE MECHANICAL

**GENERAL NOTES** 

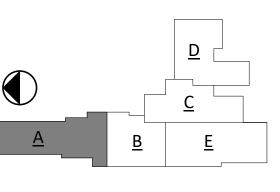
SEE CIVIL, STRUCTURAL, MECHANICAL, AND ELECTRICAL FOR ADDITIONAL INFORMATION AND

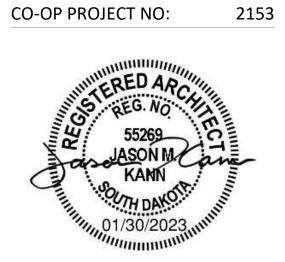
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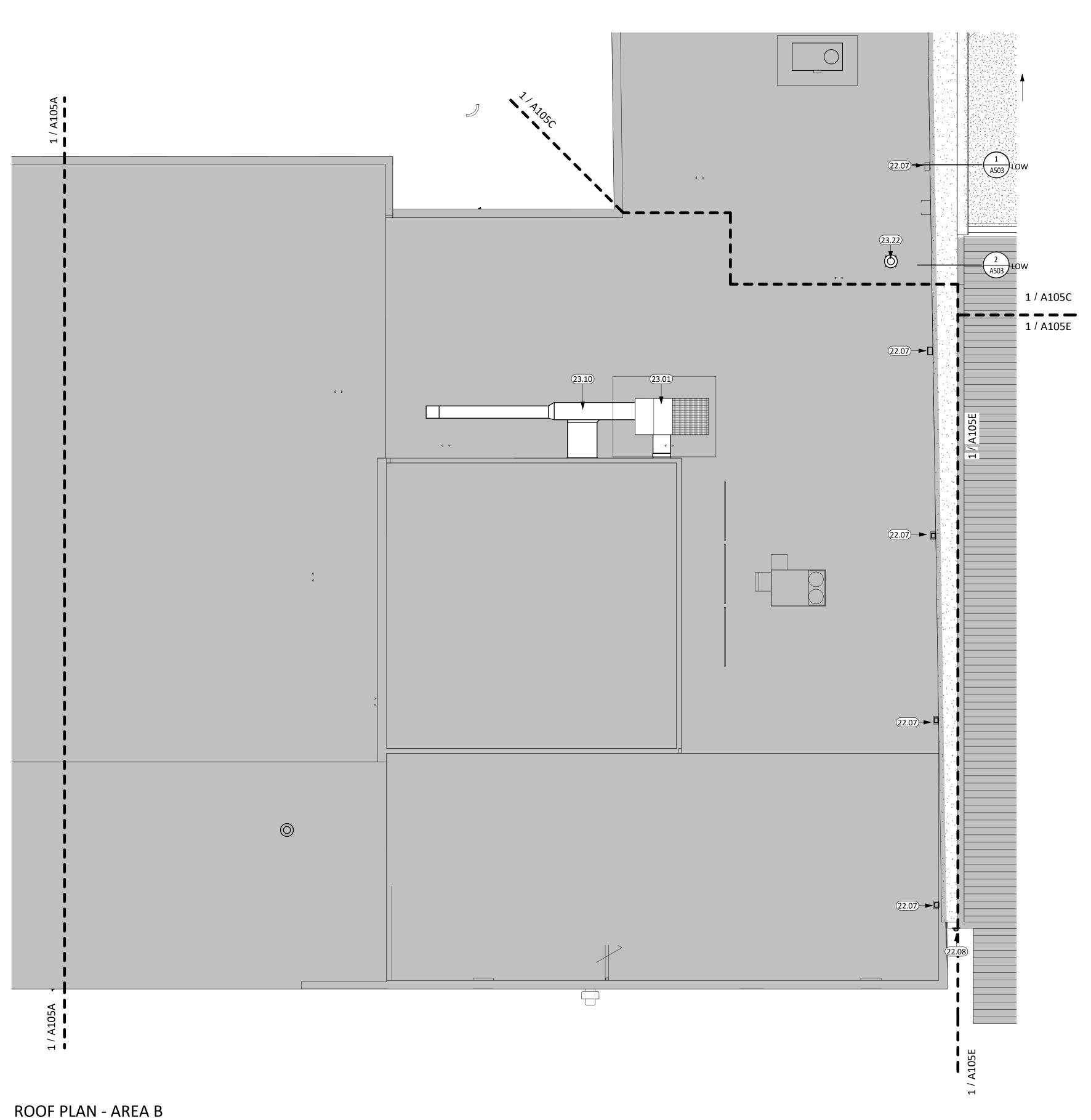


WILLOW LAKE SCHOOL ADDITION

WILLOW LAKE SCHOOL DISTRICT WILLOW LAKE, SOUTH DAKOTA

ROOF PLAN - AREA A

A105A



1/8" = 1'-0"

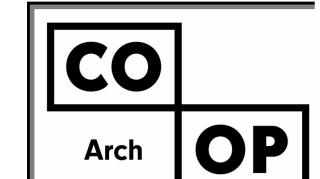
## **GENERAL NOTES**

- . SEE CIVIL, STRUCTURAL, MECHANICAL, AND ELECTRICAL FOR ADDITIONAL INFORMATION AND COORDINATION.
- ALL TAPERED ROOF SYSTEM SLOPES ARE ¼" PER FOOT UNLESS OTHERWISE NOTED.
- ALL THRU ROOF PENETRATION BOOTS IN ROOF SYSTEM ARE TO BE PROVIDED. THE AIR & MOISTURE WEATHER BARRIER IS TO BE CONTINUOUS FROM THE BASE OF THE
- WALLS UP TO & TYING INTO THE ROOF BARRIER SYSTEM. COORDINATE ROOF PENETRATIONS WITH MECHANICAL, ELECTRICAL, AND PLUMBING
- CONTRACTORS.
- ALL ROOF SADDLES SHALL HAVE A MINIMUM OF 1/2" PER FOOT SLOPE.
- PROVIDE ROOF CURBS FOR ALL EQUIPMENT SCHEDULED TO BE ON THE ROOF. COORDINATE
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- 10. TAPERED INSULATION SHALL HAVE A MINIMUM OF 1/4" PER FOOT SLOPE. PROVIDE TAPERED
- INSULATION AS REQUIRED TO ACHIEVE 1/4" PER FOOT SLOPE.
- 11. PROVIDE R-30 MINIMUM ROOF INSULATION AT ROOF DRAINS. 12. PROVIDE ROOF WALKING PADS AS SHOWN.

DRAWINGS. VERIFY WITH APPLICABLE TRADES.

## **KEYNOTE SCHEDULE**

22.08	DOWNSPOUT ROOF NOZZLE; PROVIDE SPLASH BLOCK AT GRADE LOCATIONS
23.01	HVAC UNIT; SEE MECHANICAL
23.10	DUCTWORK
23.22	EXHAUST FAN; SEE MECHANICAL

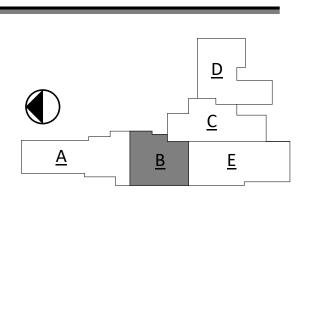


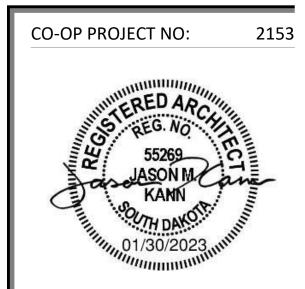
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REV. # REV. DSC.

PROJECT:

WILLOW LAKE SCHOOL ADDITION

WILLOW LAKE SCHOOL DISTRICT WILLOW LAKE, SOUTH DAKOTA

SHEET TITLE:

ROOF PLAN AREA B

A105B

# KEYNOTE SCHEDULE

HVAC UNIT; SEE MECHANICAL

DUCTWORK

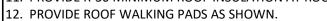
EXHAUST FAN; SEE MECHANICAL

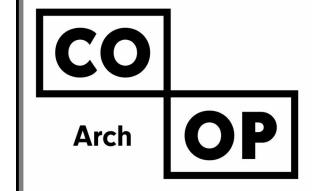
## **GENERAL NOTES**

- SEE CIVIL, STRUCTURAL, MECHANICAL, AND ELECTRICAL FOR ADDITIONAL INFORMATION AND
- 2. ALL TAPERED ROOF SYSTEM SLOPES ARE ¼" PER FOOT UNLESS OTHERWISE NOTED.
- 3. ALL THRU ROOF PENETRATION BOOTS IN ROOF SYSTEM ARE TO BE PROVIDED.4. THE AIR & MOISTURE WEATHER BARRIER IS TO BE CONTINUOUS FROM THE BASE OF THE
- WALLS UP TO & TYING INTO THE ROOF BARRIER SYSTEM.

  5. COORDINATE ROOF PENETRATIONS WITH MECHANICAL, ELECTRICAL, AND PLUMBING
- CONTRACTORS.
- 6. ALL ROOF SADDLES SHALL HAVE A MINIMUM OF 1/2" PER FOOT SLOPE.7. PROVIDE ROOF CURBS FOR ALL EQUIPMENT SCHEDULED TO BE ON THE ROOF. COORDINATE
- SIZE AND LOCATION WITH APPLICABLE TRADES.

  8. PROVIDE CRICKETS AT ALL ROOF TOP EQUIPEMENT TO ALLOW FOR UNIMPEDED WATER FLOW.
- 9. DIMENSIONS AND LOCATIONS OF EQUIPMENT ON THE ROOF ARE APPROX., DO NOT SCALE THE DRAWINGS. VERIFY WITH APPLICABLE TRADES.
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- 11. PROVIDE R-30 MINIMUM ROOF INSULATION AT ROOF DRAINS.



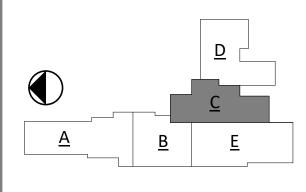


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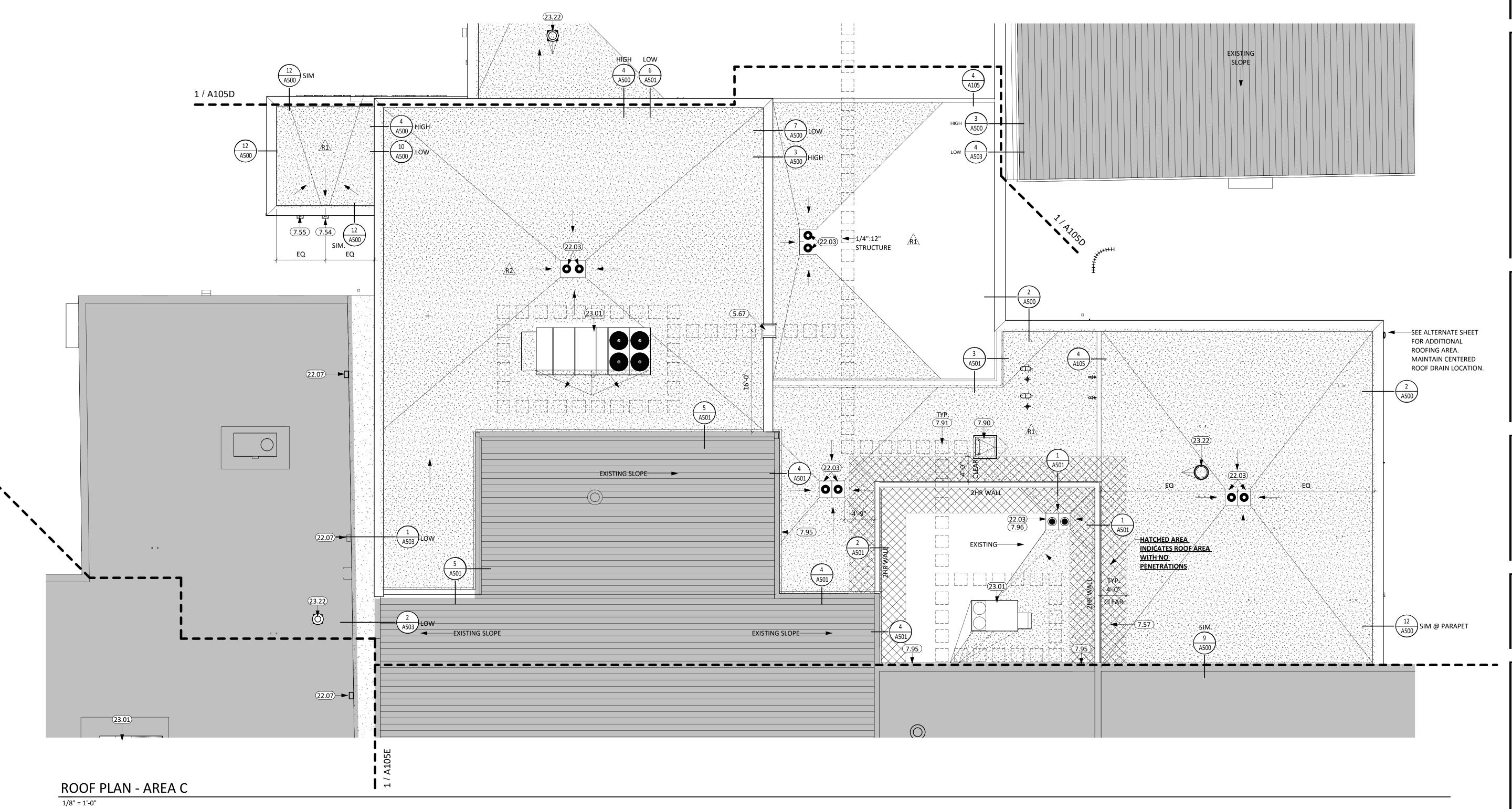
WILLOW LAKE SCHOOL ADDITION

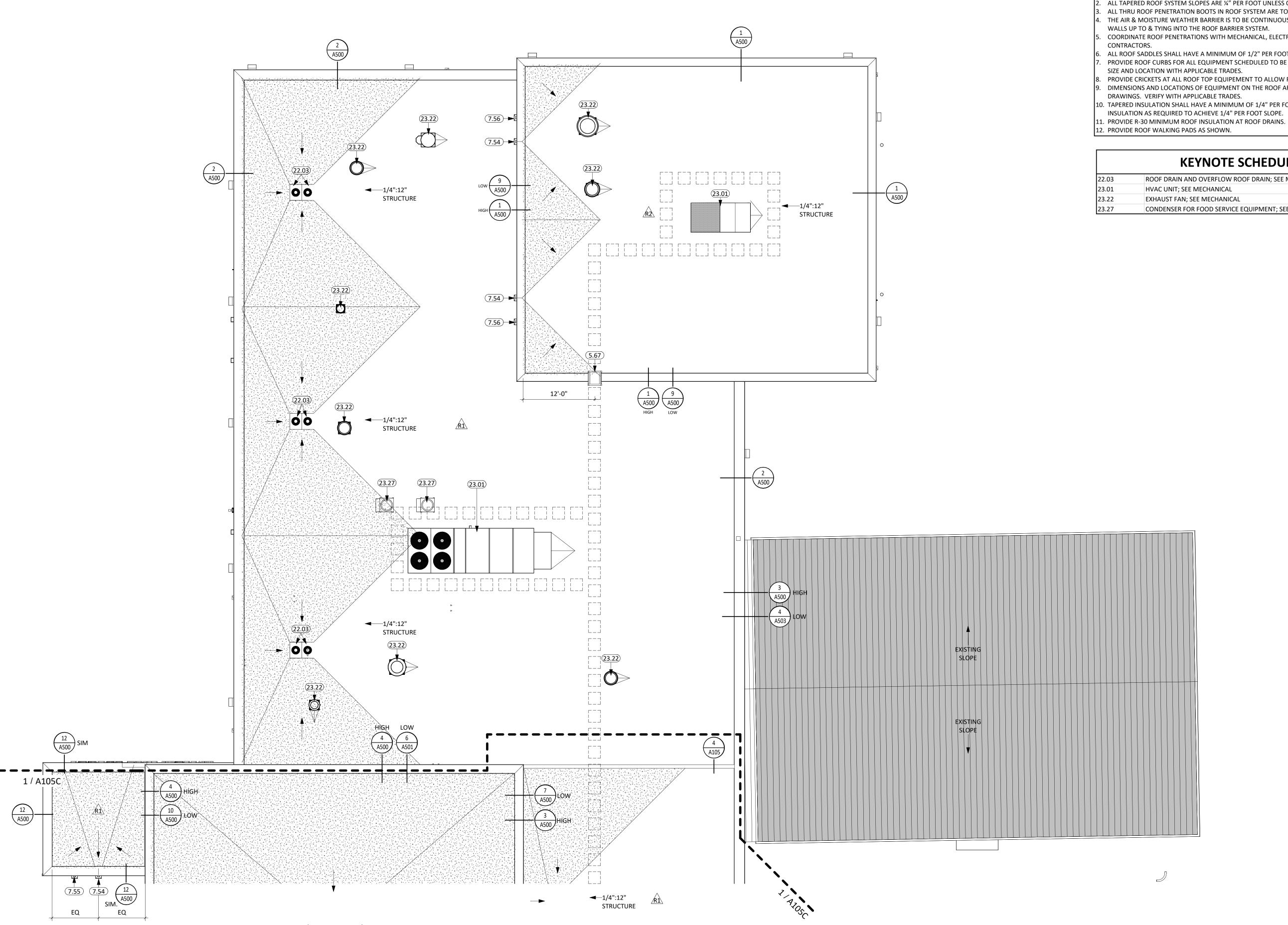
WILLOW LAKE SCHOOL DISTRICT WILLOW LAKE, SOUTH DAKOTA

SHEET TITLE:

ROOF PLAN - AREA C

A105C





ROOF PLAN - AREA D

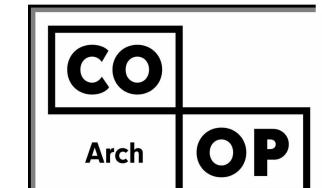
1/8" = 1'-0"

## **GENERAL NOTES**

- SEE CIVIL, STRUCTURAL, MECHANICAL, AND ELECTRICAL FOR ADDITIONAL INFORMATION AND
- ALL TAPERED ROOF SYSTEM SLOPES ARE ¼" PER FOOT UNLESS OTHERWISE NOTED.
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- PROVIDE ROOF CURBS FOR ALL EQUIPMENT SCHEDULED TO BE ON THE ROOF. COORDINATE SIZE AND LOCATION WITH APPLICABLE TRADES.
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- 10. TAPERED INSULATION SHALL HAVE A MINIMUM OF 1/4" PER FOOT SLOPE. PROVIDE TAPERED
- INSULATION AS REQUIRED TO ACHIEVE 1/4" PER FOOT SLOPE.

## KEYNOTE SCHEDULE

	KLINOIL SCILDOLL
22.03	ROOF DRAIN AND OVERFLOW ROOF DRAIN; SEE MECHANICAL
23.01	HVAC UNIT; SEE MECHANICAL
23.22	EXHAUST FAN; SEE MECHANICAL
23.27	CONDENSER FOR FOOD SERVICE EQUIPMENT; SEE FOOD SERVICE/MECHANICAL

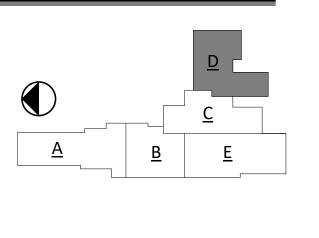


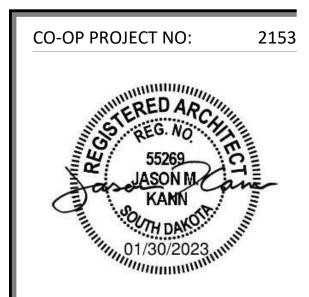
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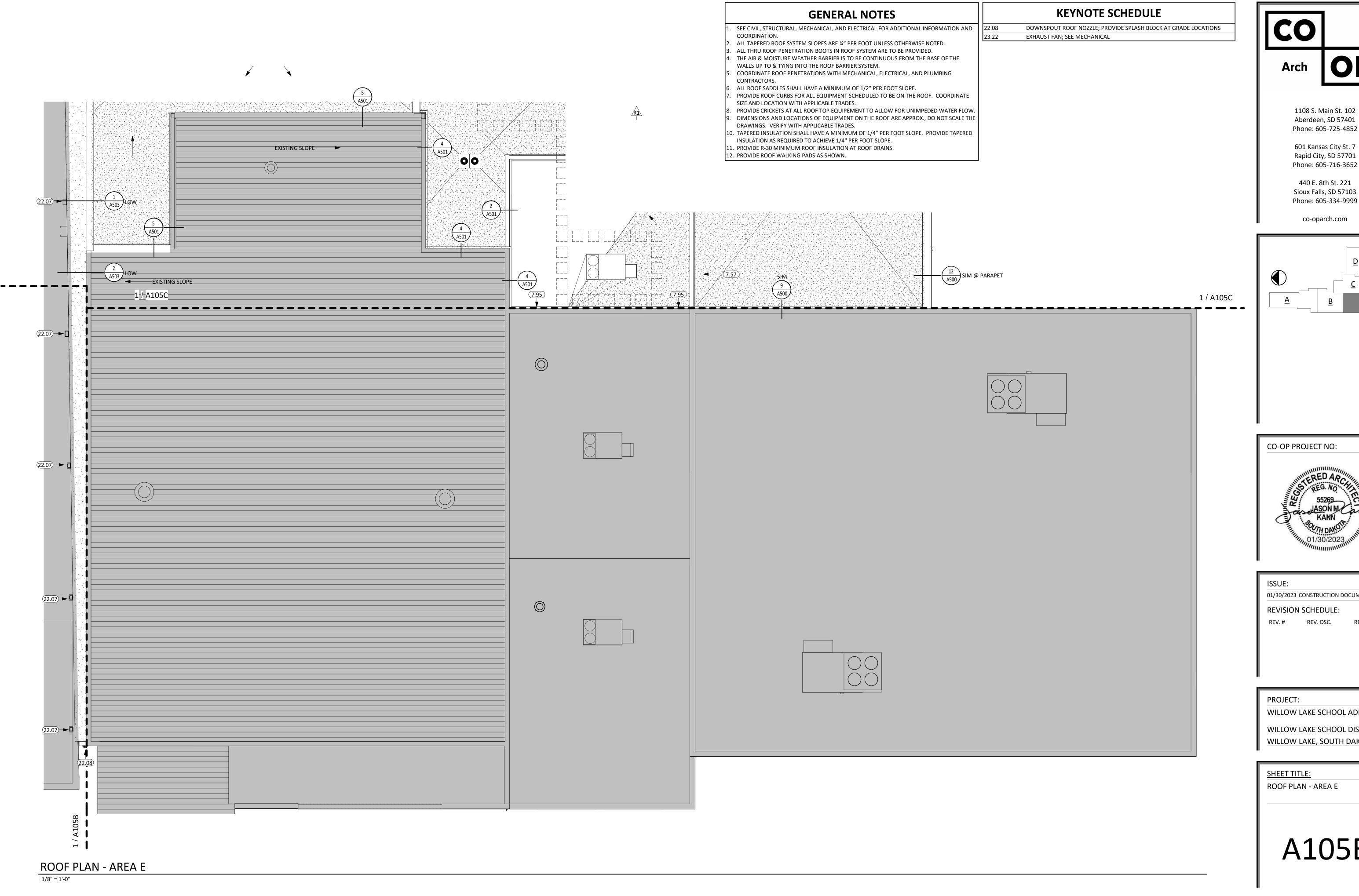
WILLOW LAKE SCHOOL ADDITION

WILLOW LAKE SCHOOL DISTRICT WILLOW LAKE, SOUTH DAKOTA

SHEET TITLE:

ROOF PLAN - AREA D

A105D

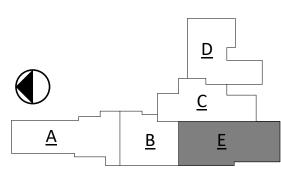


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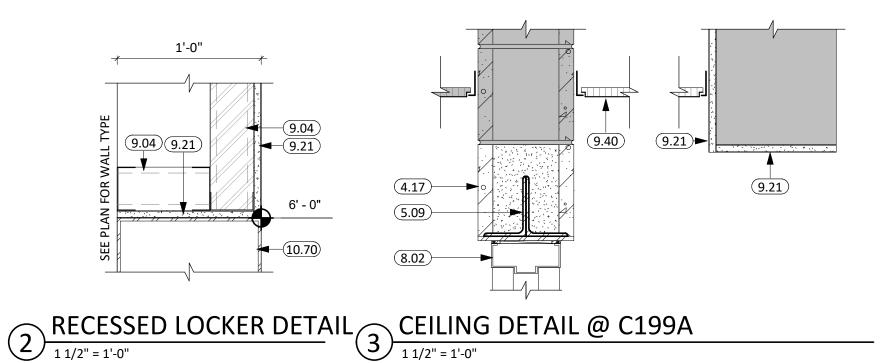
2153

01/30/2023 CONSTRUCTION DOCUMENTS

WILLOW LAKE SCHOOL ADDITION

WILLOW LAKE SCHOOL DISTRICT WILLOW LAKE, SOUTH DAKOTA

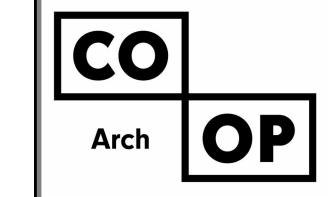
A105E



**KEYNOTE SCHEDULE** CMU SOAPBLOCK STRUCTURAL STEEL LINTLE (SEE ARCH. & STRUCT.) 8.02 FRAME (SEE SCHED.) 3 5/8" STEEL STUD & TRACK FRAMING 5/8" GYPSUM BOARD ACOUSTICAL PANEL CEILINGS SYSTEM (COORD. w/ MECH. & ELEC. FOR FIXTURE REQ./LOCATIONS) 15"W x 12"D x 6'H SINGLE TIER METAL LOCKERS W/ 4" METAL BASE

## **GENERAL NOTES**

- ALL DIMENSIONS ARE FROM FACE OF FINISH MATERIAL UNLESS OTHERWISE NOTED. REFER TO SPECIFICATIONS FOR CEILING AND FIXTURE SUSPENSION REQUIREMENTS.
- PROVIDE ACCESS DOORS AT MECHANICAL UNIT LOCATIONS ABOVE CEILING. COORDINATE
- NUMBER REQUIRED AND LOCATIONS WITH MECHANICAL SHEETS. CENTER CEILING GRID IN AREAS SUCH THAT THERE WILL BE NO CEILING TILE LESS THAN 6" IN
- THE SMALLEST DIMENSION, UNLESS OTHERWISE NOTED. CENTER LIGHT FIXTURES BETWEEN WALLS AND/OR CEILING BULKHEADS UNLESS OTHERWISE
- DIMENSIONED. IN EXPOSED TO STRUCTURE ROOMS, CENTER LIGHTS FIXTURES WITHIN ROOMS UNLESS
- OTHERWISE NOTED.
- THE REFLECTED CEILING PLANS ARE INTENDED TO AID IN COORDINATION ONLY AND ARE NOT INTENDED TO BE COMPREHENSIVE. SEE MECHANICAL AND ELECTRICAL DRAWINGS FOR ADDITIONAL INFORMATION. NOTIFY ARCHITECT WHERE CONFLICTS OCCUR.
- PROVIDE WATER-RESISTANT GYPSUM BOARD PANELS AT ALL BATHROOM WALLS AND ANY WALLS EXPOSED TO MOISTURE.
- PROVIDE GLASS-MATT FACED GYPSUM SHEATHING BEHIND TILE FINISHES AT ALL SHOWERS AND BATHTUBS.
- 10. ELEVATION MARKERS INDICATE HEIGHT FROM FLOOR OF THE ROOM THE CEILING IS IN.

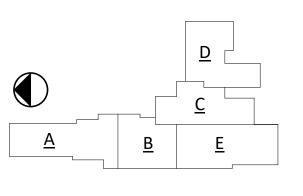


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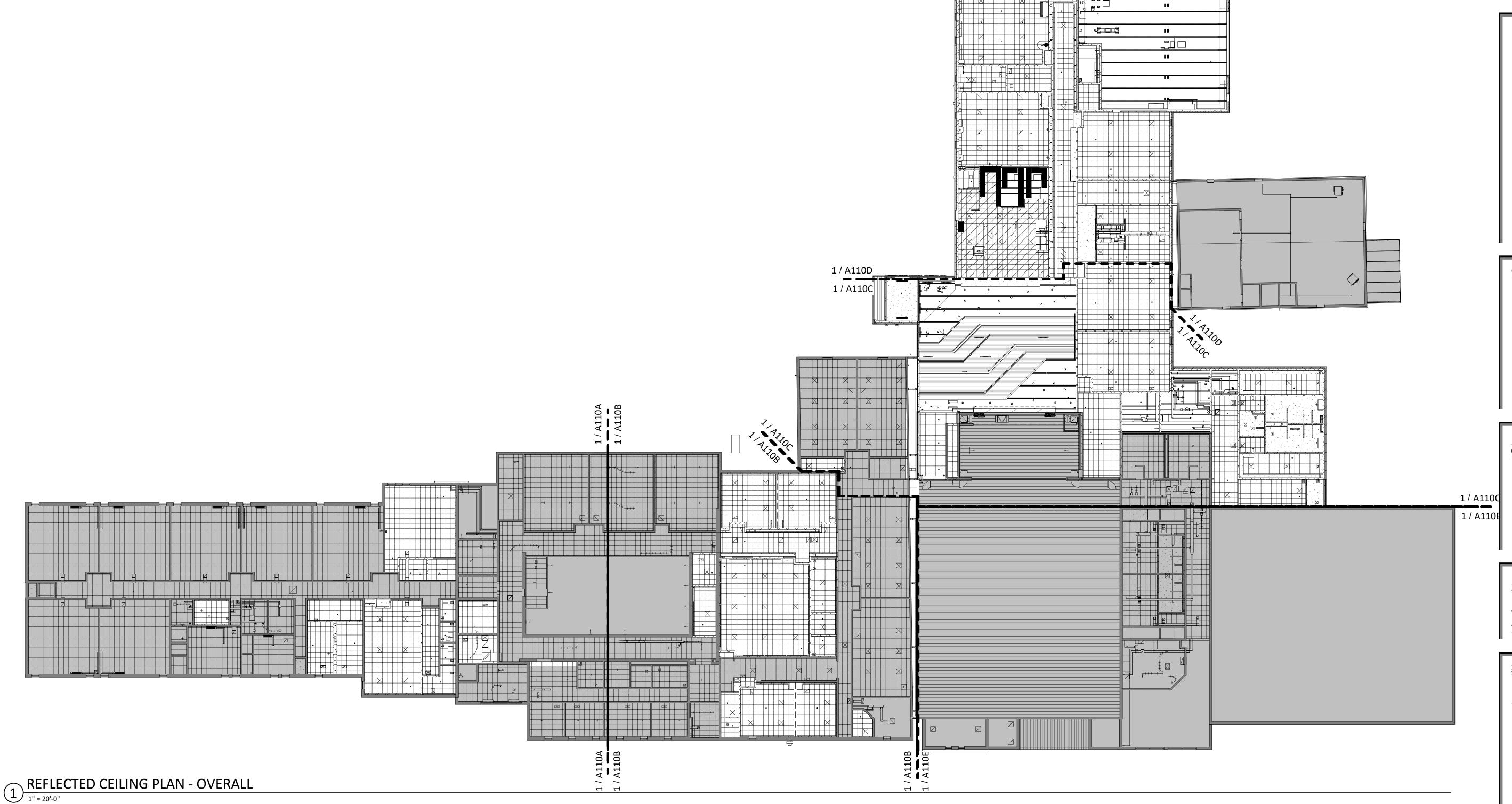
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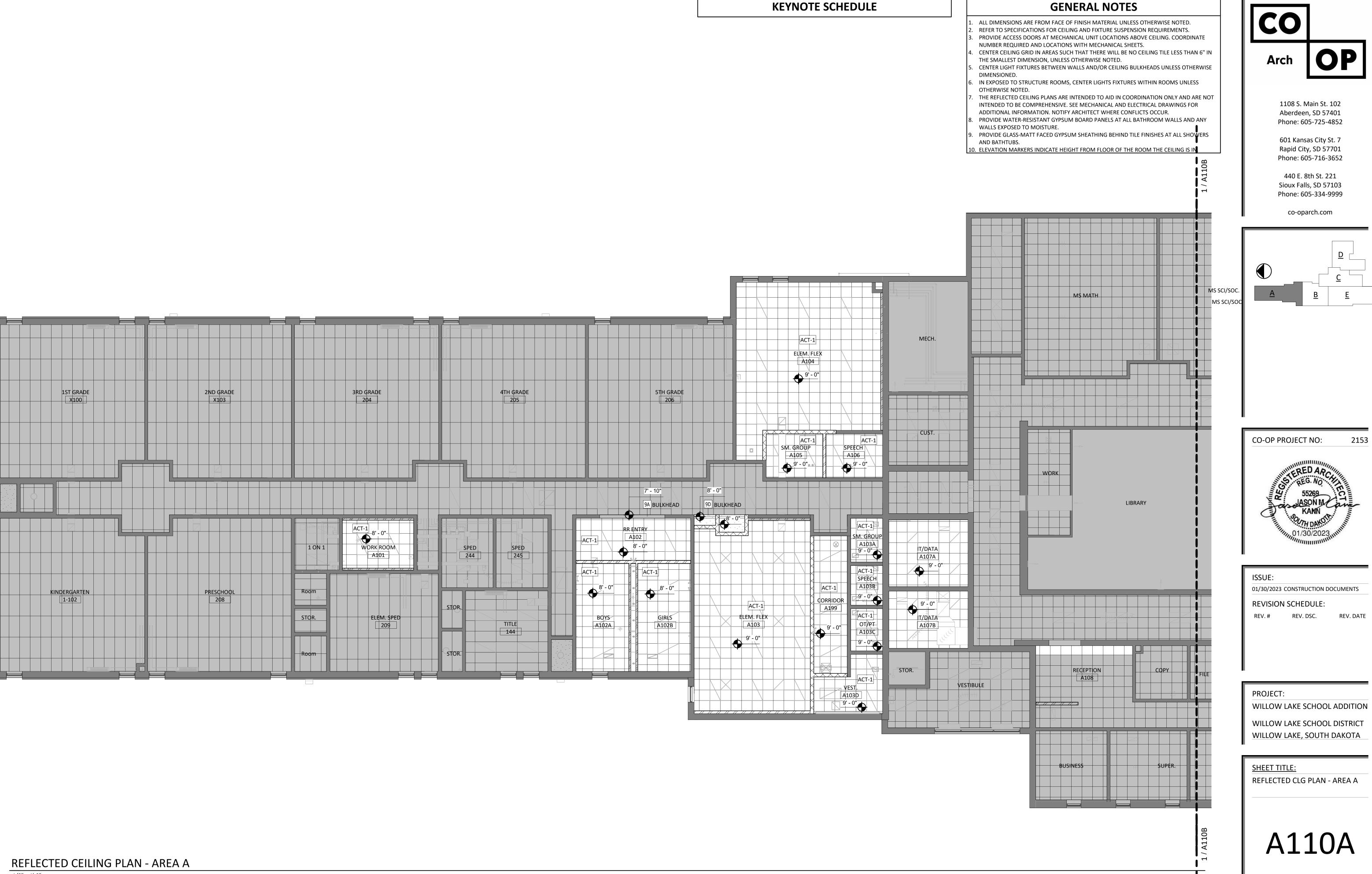
WILLOW LAKE SCHOOL ADDITION WILLOW LAKE SCHOOL DISTRICT

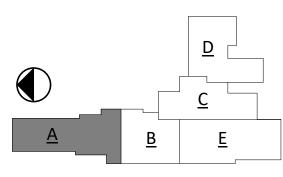
WILLOW LAKE, SOUTH DAKOTA

**SHEET TITLE:** 

REFLECTED CLG PLAN - OVERALL







## **KEYNOTE SCHEDULE**

(2) LAYERS OF 5/8" TYPE 'X' GYPSUM WALLBOARD FASTENED UNDERNEATH STRUCTURE ABOVE.

**OPERABLE PANEL PARTITIONS** 

## HS ENGLISH HS MATH & SPANISH SERVER M\$ SCI/SOC. READ/ENGLISH MS SCI/SQC. 9.27 9.27 8' - 6" 8' - 6" ACT-1 ACT-1 LOCKERS CORRIDOR COMPUTER ACT-1 MUSIC OFFICE B101 ACT-1 BAND STORAGE B103A LIBRARY ACT-1 MUSIC B103 13' - 0" 8' - 0" ACT-1 STOR. B102 PRACTICE B103B 8' - 0" ACT-1 B103C HS SOCIAL HS SOCIAL \$TUDIES STUDIES MATCH EXISTING MATCH EXISTING MENS UNISEX ACT-1 ACT-1 B108 9.27 FLEX CLASS | (ART, VIDEO, SPANISH) CONFERENCE COUNC. 1 ON 1 HS PRINC. 8' - 6" B106 ART STOR. B107A

## **GENERAL NOTES**

- ALL DIMENSIONS ARE FROM FACE OF FINISH MATERIAL UNLESS OTHERWISE NOTED. REFER TO SPECIFICATIONS FOR CEILING AND FIXTURE SUSPENSION REQUIREMENTS.
- PROVIDE ACCESS DOORS AT MECHANICAL UNIT LOCATIONS ABOVE CEILING. COORDINATE
- NUMBER REQUIRED AND LOCATIONS WITH MECHANICAL SHEETS.
- CENTER CEILING GRID IN AREAS SUCH THAT THERE WILL BE NO CEILING TILE LESS THAN 6" IN THE SMALLEST DIMENSION, UNLESS OTHERWISE NOTED. CENTER LIGHT FIXTURES BETWEEN WALLS AND/OR CEILING BULKHEADS UNLESS OTHERWISE
- DIMENSIONED.
- IN EXPOSED TO STRUCTURE ROOMS, CENTER LIGHTS FIXTURES WITHIN ROOMS UNLESS OTHERWISE NOTED.
- THE REFLECTED CEILING PLANS ARE INTENDED TO AID IN COORDINATION ONLY AND ARE NOT INTENDED TO BE COMPREHENSIVE. SEE MECHANICAL AND ELECTRICAL DRAWINGS FOR ADDITIONAL INFORMATION. NOTIFY ARCHITECT WHERE CONFLICTS OCCUR.
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- PROVIDE GLASS-MATT FACED GYPSUM SHEATHING BEHIND TILE FINISHES AT ALL SHOWERS
- 10. ELEVATION MARKERS INDICATE HEIGHT FROM FLOOR OF THE ROOM THE CEILING IS IN.

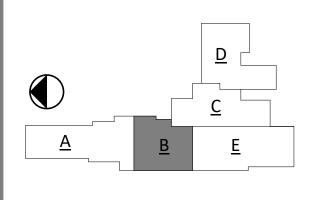


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CO-OP PROJECT NO:



2153

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REVISION SCHEDULE:

REV. # REV. DSC.

PROJECT:

WILLOW LAKE SCHOOL ADDITION

WILLOW LAKE SCHOOL DISTRICT WILLOW LAKE, SOUTH DAKOTA

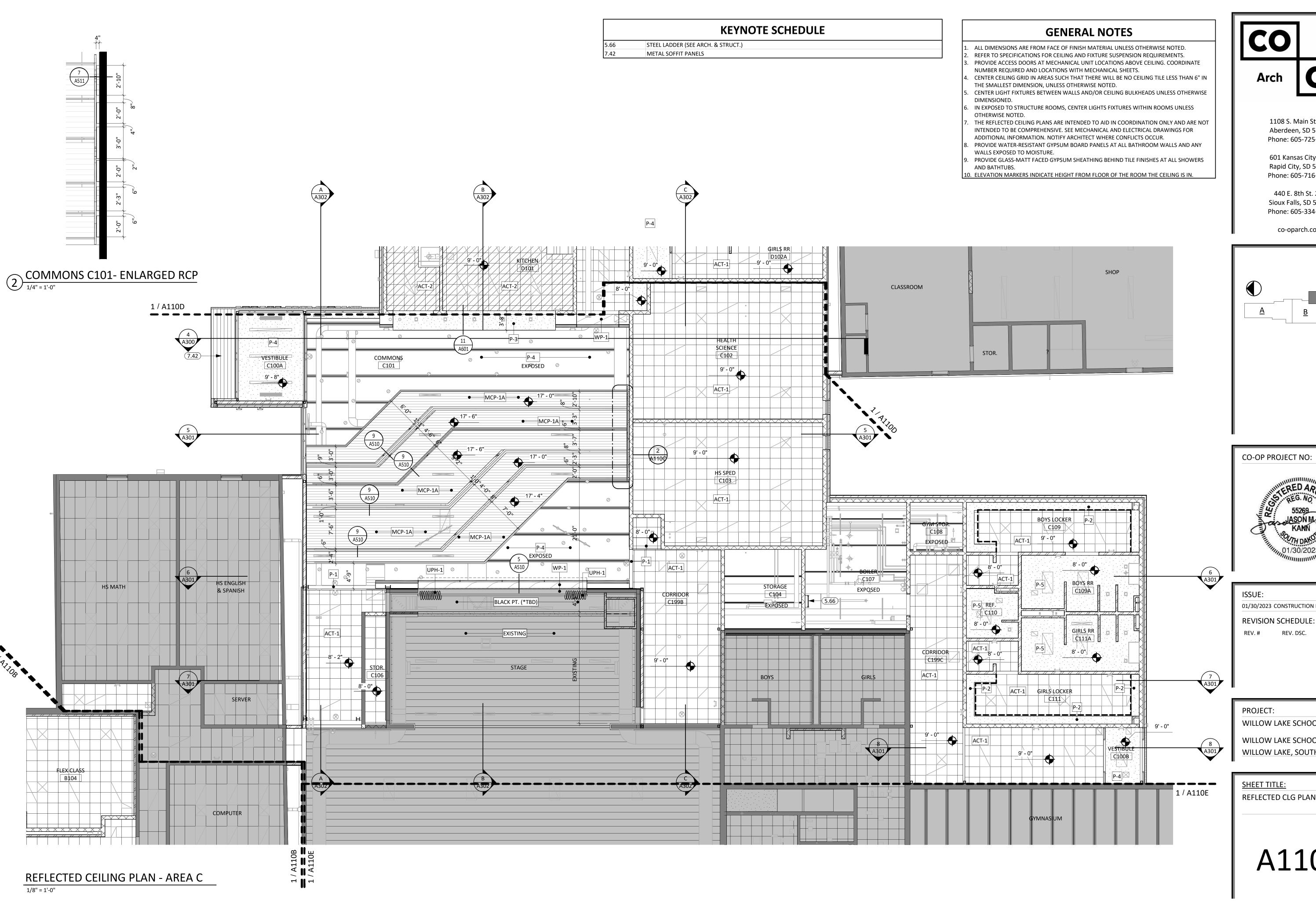
**SHEET TITLE:** 

REFLECTED CLG PLAN - AREA B

A110B

REFLECTED CEILING PLAN - AREA B

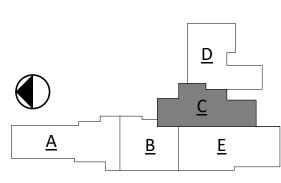
1/8" = 1'-0"

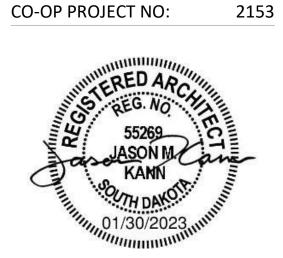


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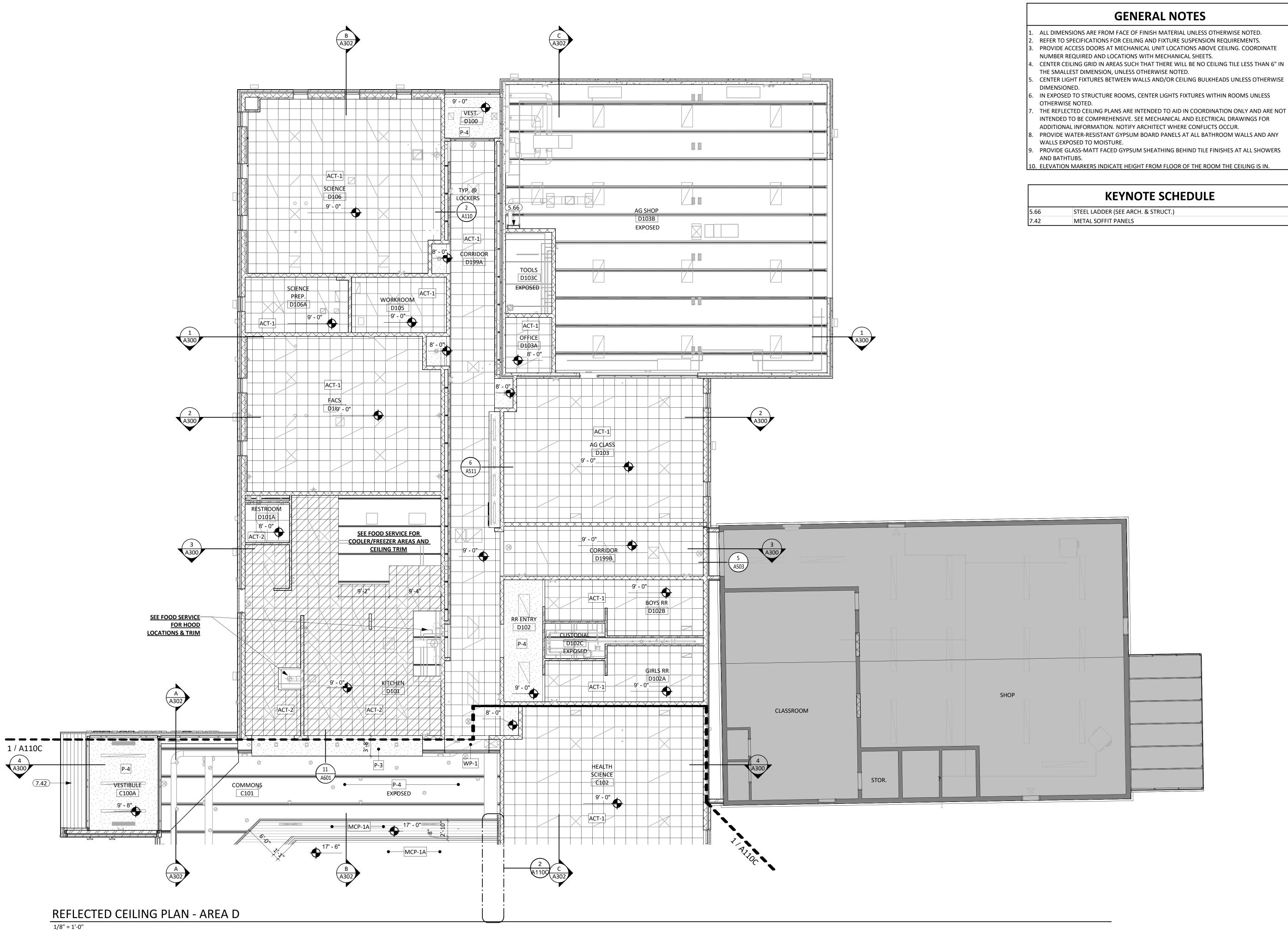
WILLOW LAKE SCHOOL ADDITION

WILLOW LAKE SCHOOL DISTRICT WILLOW LAKE, SOUTH DAKOTA

SHEET TITLE:

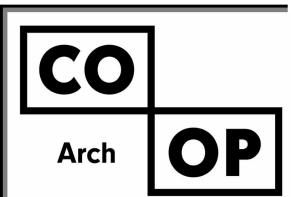
REFLECTED CLG PLAN - AREA C

A110C



- ALL DIMENSIONS ARE FROM FACE OF FINISH MATERIAL UNLESS OTHERWISE NOTED.
- PROVIDE ACCESS DOORS AT MECHANICAL UNIT LOCATIONS ABOVE CEILING. COORDINATE
- NUMBER REQUIRED AND LOCATIONS WITH MECHANICAL SHEETS.

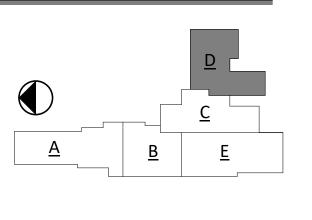
- THE REFLECTED CEILING PLANS ARE INTENDED TO AID IN COORDINATION ONLY AND ARE NOT
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- PROVIDE GLASS-MATT FACED GYPSUM SHEATHING BEHIND TILE FINISHES AT ALL SHOWERS
- 10. ELEVATION MARKERS INDICATE HEIGHT FROM FLOOR OF THE ROOM THE CEILING IS IN.

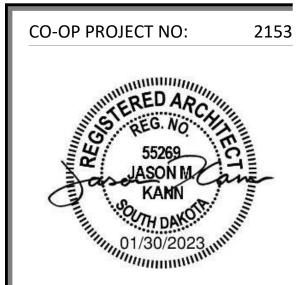


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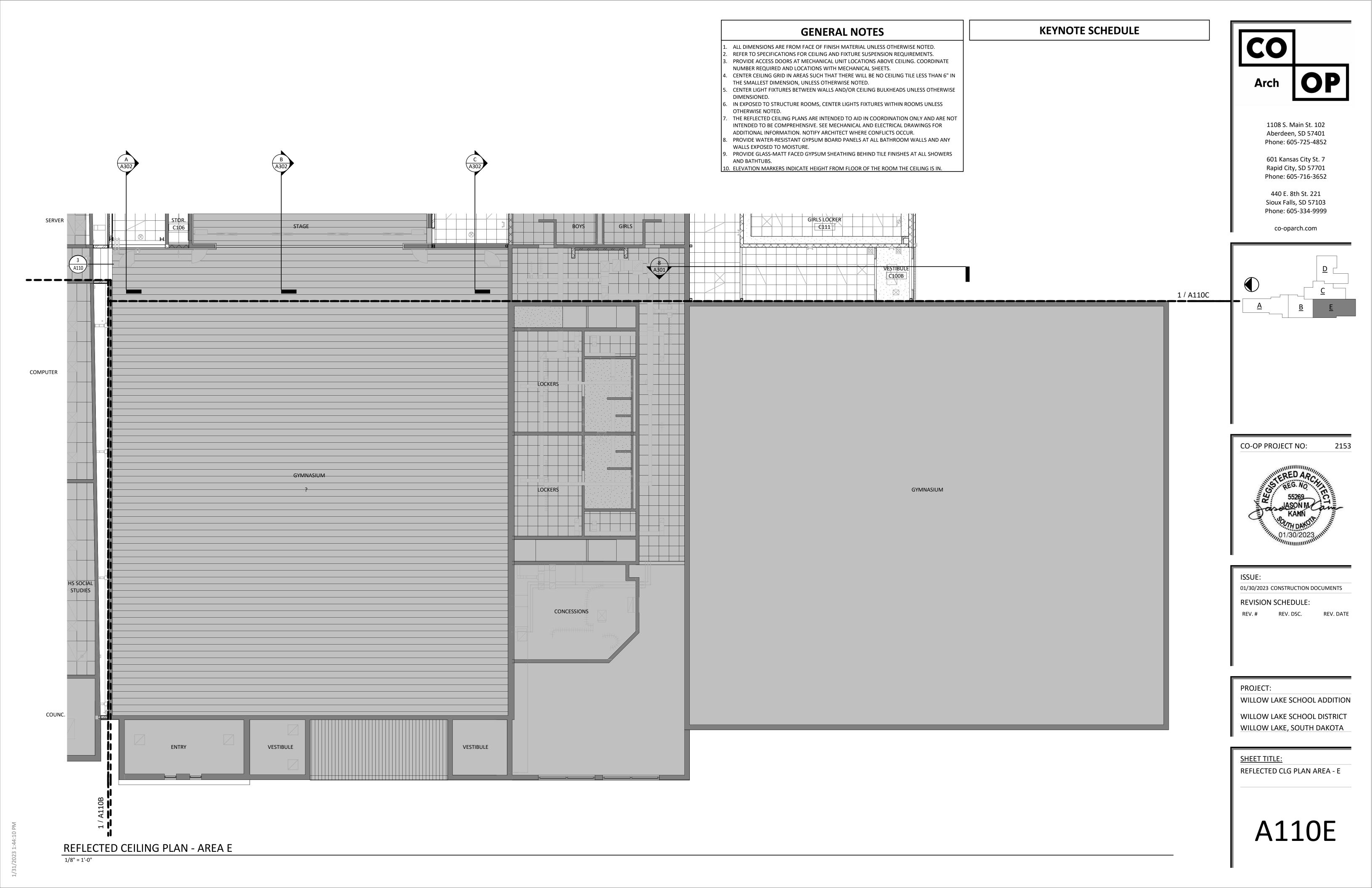
WILLOW LAKE SCHOOL ADDITION

WILLOW LAKE SCHOOL DISTRICT WILLOW LAKE, SOUTH DAKOTA

**SHEET TITLE:** 

REFLECTED CLG PLAN AREA - D

A110D



## WHITE ACM FORTITION OF THE CONTROL OF THE CONTRO					FI	MICHIECEND			
Column   C		1					_		
March   Marc		MARK	MANUFACTURER	STYLE	COLOR	STYLE/COLOR NO.	SIZE	INSTALL	NOTES
March   Marc	CEILINGS	ACT-1	ARMSTRONG CEILINGS	ACOUSTIC CEILING, FIELD	WHITE	FINE FISSURED, HHF-157	2X2	ROCKFON GRID 211.01	
March   18.5	ACOUSTICAL			·		· ·			USED FOR COMMERCIAL KITCHEN AREAS
Second Column	CEILING	AWP-1	G&S, OR SIMILAR	ACOUSTI-PANELS (AP)	4149-801	-	VARIES	SEE ELEVATIONS, ZCLIP	MUSIC ROOM WALL PANELS
Property		MCP-1A	ARMSTRONG CEILINGS	METALWORKS DIVERGE CEILING		·			DMAINZ@ARMSTRONGCEILINGS.COM, FOR PRODUCT
PROPRIES		MCP-1B	ARMSTRONG CEILINGS	METALWORKS LINEAR DIVERGE		-		-	WALL MOUNTED/ VERT. INSTALLATION. CONTACT:
March   Marc	FLOORING & T	TLING			GON METAL [MI]	ARIVISTROING DETAIL		PLAINT END CAPS WHERE PLAINT END IS	DIVIAINZ@ARIVISTRONGCEILINGS.COIVI
MAIN   PARCES   MAIN			MILLIKEN ELOORING	WALK OFF GRID FLOORING	DARK GREA	OREY BAR - CLITY	27CM X 1M	SURFACE MOUNTED W// TRANSITIONS	
Part								·	
Control   Cont				WALK OFF CARPET TILE	00500 STRUT	54860 STEP RIGHT IN	24X24	RANDOM/ NOT QTR-TURN	
CP-26	CARPET	CPT-1	PATCRAFT	CARPET TILE	00710 PURPOSE	I0491 ACHIEVE	24X24	MONOLITHIC	·
## CONTROLLED ##	CARTET								
PATE   MATERIAL CONTROLS								·	
VII.   MATCH   PROVINCE   CONTROL   PROVINCE   CONTROL   PROVINCE   CONTROL   PROVINCE   CONTROL   PROVINCE   CONTROL   PROVINCE   PROVINCE   CONTROL   PROVINCE								·	
VALUE					CSC77 RUSH	CASCADE	24X24	ASHLAR	
## PROPRIES   PROPRIES			•	12X12 CVT, MATCH EXISTING					**CHECK SCHOOL'S ATTIC STOCK BEFORE BIDDING
17.5   PRINTER MAI AND STREAM PRODUCES AND THE CONTROL STREA	VINYL			APEX- SLIP RESISTANT VINYL	4202	CHROMITE	PVC SHEET	4" CONTINUOUS COVE	HEAT WELD CONT. WALL BASE UP TO WALL FINISH PLY-1
MODE   19-2   MOD   19-2   MODE   19-2   M		LVT-3	POLYFLOR, WET AREA	POLYSAFE- HYDRO EVOLVE	4252	AMAZON	PVC SHEET		HEAT WELD CONT. WALL BASE UP TO WALL FINISH PLY-1
MICHAELD   MORE   PRECIMENTS   PRANK DOUGH, SAME   217 247	DUDDED			-				INSTALL RBF-2/ RBF-3 ACCENTS	REVIEW INSTALLATION DIMS/LINES @ COMMONS
## PART   PART PLONING SALED   DATE PLONING SALED	RUBBER			•					
CHANGE   C	WOOD					WATERBASED			BID TO INCLUDE- STRIPPING EXISTING STAGE AND REFINISH
Transport   Color   Color		CT-1	CERAMIC TILE, SOLID	DALTILE 'NATURAL HUES'	LACE	QH34	6" X 6"	50% OF 100% MIX, SEE MIX PAIRING	FIELD RR TILE
CF-MANUAL COMMON   PT   CAMPACT ILL CANADO   DATE NOTION INCOLUNG   PEPPER   DISA   2 * X 9 * VIE.   PMON STRUCK MARKED SCREET OF THE STRUCK IN CONTROL OF THE STRUCK IN			· · · · · · · · · · · · · · · · · · ·		· ·	·		·	
Colonia   Colo			· · · · · · · · · · · · · · · · · · ·		·				
## PAINT & WALL COVERNOS  ## PRESIDENT MARKED PRINTED PRINT PROCESS PR	PORCELAIN	CT-5	CERAMIC TILE, GLAZED	*MATCH EXISTING				@ BOYS RR (C122)	PREFERENCE TO MATCH EXISTING BEFORE RESELECTING
P.   PR SPC   GREN ACCENT   MATCH PISTING   PR SPC   LIT SPECTORS SWAPES   PRODUCTIONS SWAPES   SCIENCATION   SCIENCATION   PR SPC   PR SPC   PR SPC   GREN ACCENT   MATCH PISTING   PR SPC   PR SPC   LIT SPECTORS SWAPES   PR SPC   GREN ACCENT   MATCH PISTING   PR SPC   PR SPC   PR SPC   GREN ACCENT   MATCH PISTING   PR SPC   PR SPC   PR SPC   PR SPC   GREN ACCENT   SWAPES   PR SPC   PR		PT-1	PORCELAIN TILE, 12X24	VIRGINIA TILE   ATLAS CONCORDE	WHITE	PATH, COLOR BODY	12" X 24" RECT.	·	RESTROOM FLOORING
P-1	PAINT & WALL	COVERIN	IGS					SAHARA GROUT	
P	7711107 @ 777122			FIELD DAINT	MATCH EXIST	MATCH EXISTING	DEB SDEC	ALT SPEC/ COLOR: SW7638	PROVIDE STRIKE OFF SAMPLE OF EXISTING PAINT VS. ALT
P-3								·	
PAIN ALL PROCESS DICTIONS, WHITE						•	+	_	_
PAINTED   PAINTED MURIAL   STRATES SORT SELECTION   PT 2									PAINT ALL EXPOSED DUCTWORK, PIPES, INVISACOUSTIC
GROD   PAINTED MURAL	DAINT	P-5	PER SPEC	BATHROOM CEILING, SHOWER	EXTRA WHITE	SW7006. SEMI-GLOSS	PER SPEC	WET/ DAMP AREA	PAINLLS, LTC.
GR-02	FAINT			·				,	G.C. TO PROVIDE TAKE-OFF FOR SCHOOL APPROVAL
GR 04   PAINTED MURAL   HIS BOYS FLEVATION   PT 2   G.C. TO PROVIDE TAKE OF FOR SCHOOL APPROVA		GR-02	PAINTED MURAL	FITNESS GIRLS ELEVATION	PT-2				G.C. TO PROVIDE TAKE-OFF FOR SCHOOL APPROVAL
GR.05   PAINTED MURAL   HS 807S ELEVATION   P7-2   G.C. TO PROVIDE TAXE-OFF FOR SCHOOL APPROVA   GR.05   PAINTED MURAL   HS GIRS FLEVATION   P7-2   G.C. TO PROVIDE TAXE-OFF FOR SCHOOL APPROVA   VWC-1   PRE SURCOMPRACTOR   OPERABLE PARTITION   VINNY, FIRM-**TRD   ** BLACK, OR SMILLAR TO									G.C. TO PROVIDE TAKE-OFF FOR SCHOOL APPROVAL
GR. 66   PAINTED MURAL   MS GIRS SELEVATION   PF.2   MVILT   PER SUBCONTRACTOR   OPERAGE PARTITION   VIVILY   TRIM-*TID   ** SELEVATION   VIVILY   PRESUBCONTRACTOR   OPERAGE PARTITION   VIVILY   TRIM-*TID   ** SELEVATION   VIVILY   PRESUBCONTRACTOR   OPERAGE PARTITION   VIVILY   TRIM-*TID   ** SELEVATION   VIVILY   VI									
WALL COVERING									
TR-1	VAVALL COVERING								
Tackboard   Tack	WALL COVERING				·	·			
IRLABIGATION    18.2 & 26   GS. OKI SIMILAR   ACUOSITIAL (ATIT), 5/2* THICK   DESIGNITY		TB-1	CLARIDGE	VINYL	KL483 DOWNING STONE		PER ELEV.	MAP TRIM & CLIP SYSTEM	
PLY-1 POLYFLOR-WALL POLYCLAD PRO 4095 GREY STEEL SHEET, 1.5MM HEAT WELDED TO FLOOR 4" COVE FRP-1 MARITE SMOOTH FRP BOARD/ PVC TRIM LIGHT GREY S 490N 4X8 STANDARD 4XW STANDARD 4XW W W W W W W W W W W W W W W W W W W	TACKBOARDS		·	, , ,	·	NAVY-404			
SPECIALTY FRP-1 MARLITE SMOOTH FRP BOARD/ PVC TRIM UGHT GREY S 490N  4X8 STANDARD 4X8 STANDARD 4X8 STANDARD 4X8 W FULL LENGTH OF WALL IF LESS THAN 4"W W/OCORD. TRIM W/OCO								·	GLUE TO PLYWOOD SUBSTRATE FOR ADD. STRENGTH
LAMINATE WP-1 PSI WALL PANEL SYSTEMS HPL WALL PANELS/ WILSONART PL-4 HORIZONTAL PER ELEVATIONS & FINSHED OPENING SYSTEM 310 SPACERS, BLACK  CURTAINS UPH-1 ROSE BRAND, OR SIMILAR VELOUR CURTAIN W/O FRINGE BLACK CHARISMA SYNTHETIC, IFR 2502* FIXED END-PANELS AND VALANCE "GC TO MATCH EXISTING STAGE CURTAIN OZ. & FULLY  WALL BASE, TRANSITIONS & MISC. TRIMS  VINYL COVE BASE V9-1 VINYL COVE BASE JOHNSONITE, OR SIMILAR CHARCOAL  WOOD DOOR WDD-1 PER SPEC AND SCHEDULES OAK SLAB WOOD DOOR PROVIDE 18" KICK PLATE  WOOD BENCH WD-1 ASISTITIAGE SOLUTION LACQUERED HARDWOOD TBD 13/4" HARDWOOD 9.5"D FLOOR ANCHORED  WILLWORK  MILLWORK  PI-1 WILSONART LAMINATE CASEWORK STH AVE. ELM 7966-60 MATTE TFL MATCHING EDGEBAND  LAMINATE PL-3 WILSONART LAMINATE CASEWORK SLATE GREY D91-60, MATTE TFL MATCHING EDGEBAND @ Science room/storage/ class room cubbies PL-4 WILSONART PLAM COTO/ BENCH SEAT/BACK FRENCH LINEN SOLG-38 THE VILLY LINE SELE SAID OF PROPRIED EDTAIL  STONE & SOLID STAILS OF THE VILLY ON THE VILLY LINE SELE SAID OF PROPRED EDTAIL  STONE & SOLID SS-1 CORIAN SOLID SURFACE BLAN SOLID SURFACE PARTITIONS  TOLET P	SPECIALTY							*RUN FULL LENGTH OF WALL IF LESS THAN	
CURTAINS UPH-1 ROSE BRAND, OR SIMILAR VELOUR CURTAIN W/O FRINGE BLACK CHARISMA SYNTHETIC, IFR 250Z* FIXED END-PANELS AND VALANCE "GC TO MATCH EXISTING STAGE CURTAIN 0Z. & FULL WALL BASE, TRANSITIONS & MISC. TRIMS  VINYL COVE BASE VB-1 VINYL COVE BASE JOHNSONITE, OR SIMILAR CHARCOAL DESIGN INTENT: MATCH EXIST.  WOOD DOOR WDD-1 PER SPEC AND SCHEDULES OAK SLAB WOOD DOOR PROVIDE 18" KICK PLATE  WOOD BROKH WD-1 AS STORAGE SOLUTION LACQUERED HARDWOOD TBD 13/4" HARDWOOD 9.5"D FLOOR ANCHORED  SCHLUTER INTERIOR DETAILS/ AS11  MILLWORK  PL-1 WILSONART LAMINATE CASEWORK STH AVE. ELM 7966-60 MATTE TFL MATCHING EDGEBAND  PL-2 FORMICA PLAM COUNTERTOPS, MATCH EXIST. FERRO GRAFITE, *MATCH EXISTING BASE AS10 DETAIL WALL ADJACEMCIES AND ALTE OF THE COMMENT OF THE SELF EDGE, SEE AS10 DETAIL WALL ADJACEMCIES AND GRAFITE, *MATCH BASE AS 10 DETAIL WALL ADJACEMCIES AND GRAFITE AND GRAFITE AND GRAFITE AND GRAFIT AND GRAFITE AND GRAFITE AND GRAFIT AND GRAFI	LANGINIATE			·		3 43014		48"W	·
WALL BASE, TRANSITIONS & MISC. TRIMS  VINYL COVE BASE   VB-1   VINYL COVE BASE   JOHNSONITE, OR SIMILAR   CHARCOAL   DESIGN INTENT: MATCH EXIST.  WOOD DOOR   WDD-1   PER SPEC AND SCHEDULES   OAK SLAB WOOD DOOR   PROVIDE 18" KICK PLATE   WOOD BENCH   WD-1   ASI STORAGE SOLUTION   LACQUERED HARDWOOD   TBD   13/4" HARDWOOD   9.5"D   FLOOR ANCHORED   SCHLUTER   INTERIOR DETAILS/ASI1    MILLWORK    PL-1   WILSONART   LAMINATE CASEWORK   STH AVE. ELM   7966-60 MATTE   TFL   MATCHING EDGEBAND				,		GUADIO CONTRA			
VINYL COVE BASE   VB-1			<u> </u>	VELOUR CURTAIN W/O FRINGE	BLACK	CHARISMA SYNTHETIC, IFR	250Z*	FIXED END-PANELS AND VALANCE	*GC TO MATCH EXISTING STAGE CURTAIN OZ. & FULLNESS
WOOD DOOR WDD-1 PER SPEC AND SCHEDULES OAK SLAB WOOD DOOR WDD-1 PER SPEC AND SCHEDULES OAK SLAB WOOD DOOR WDD-1 PER SPEC AND SCHEDULES OAK SLAB WOOD DOOR BOAT SCHEDULES OAK SLAB WOOD DOOR AS SCHUTEN WD-1 ASI STORAGE SOLUTION LACQUERED HARDWOOD TBD 13/4" HARDWOOD 9.5"D FLOOR ANCHORED  SCHUTER THE WILSONART LAMINATE CASEWORK STH AVE. ELM 7966-60 MATTE TFL MATCHING EDGEBAND  PL-2 FORMICA PLAM COUNTERTOPS, MATCH EXIST. EXISTING PASS-11 SATIN TOUCH PA				TOTAL CONTRACTOR	CHARCOAL				DECICALINITENT, MATCH EVICT
PL-1   WILSONART   LAMINATE CASEWORK   STH AVE. ELM   7966-60 MATTE   TFL   MATCHING EDGEBAND	WOOD DOOR	WDD-1	PER SPEC AND SCHEDULES	OAK SLAB WOOD DOOR		1 3/4" HARDWOOD	9.5"D	FLOOR ANCHORED	
PL-1 WILSONART LAMINATE CASEWORK 5TH AVE. ELM 7966-60 MATTE TFL MATCHING EDGEBAND  PL-2 FORMICA PLAM COUNTERTOPS, MATCH EXIST.  FERRO GRAFITE, *MATCH EXISTING P483-11 SATIN TOUCH FXISTING P1-3 WILSONART LAMINATE CASEWORK SLATE GREY D91-60, MATTE TFL MATCHING EDGEBAND @science room/ storage/ class room cubbies P1-4 WILSONART PLAM CTOP/ BENCH SEAT/BACK FRENCH LINEN 5016-38 FINE VELVET HPL SEE A510 CTOP PROFILE DETAIL @class rooms P1-5 FORMICA WALL PANEL, SEE WP-1 CAMEL ELM 5795-NG HPL SEE LEVATIONS AND DETAILS @PSI Walls  STONE & SOLID SS-1 CORIAN SOLID SURFACE LAVA ROCK CTOP, 3CM MATTE FINISH 2CM SURFACE SS-2 PII PRIME INDUSTRIES, INC EPOXY RESIN SURFACE @ LAB BLACK 2CM SCIENCE CTOP & INTEGRATED SINKS  MISCELLANEOUS  TOILET PARTITIONS TLT-1 BRADLEY, OR SIMILAR POWDER COATED STEEL PARTITIONS DOVE GRAY 2125 ADA HEIGHT			INTERIOR DETAILS/ A511						
PI-2 FORMICA PLAM COUNTERTOPS, MATCH EXIST. FERRO GRAFITE, *MATCH EXISTING PL-3 WILSONART LAMINATE CASEWORK SLATE GREY D91-60, MATTE TFL MATCHING EDGEBAND @science room/ storage/ class room cubbies PL-4 WILSONART PLAM CTOP/ BENCH SEAT/BACK FRENCH LINEN 5016-38 FINE VELVET HPL SEE AS10 CTOP PROFILE DETAIL @class rooms PL-5 FORMICA WALL PANEL, SEE WP-1 CAMEL ELM 5795-NG HPL SEE ELEVATIONS AND DETAILS @PSI Walls PL-6 WILSONART PLAM BENCH PARK ELM 7967K-12 SOFT GRAIN HPL SEE ELEVATIONS AND DETAILS @PSI Walls USED ON SERVING LINE EQUIP.  STONE & SOLID SURFACE SS-2 PII PRIME INDUSTRIES, INC EPOXY RESIN SURFACE @ LAB BLACK 2CM SCIENCE CTOP & INTEGRATED SINKS  MISCELLANEOUS  TOILET PARTITIONS TLT-1 BRADLEY, OR SIMILAR POWDER COATED STEEL PARTITIONS DOVE GRAY 2125 ADA HEIGHT	IVIILLUVUKK	PL-1	WILSONART	LAMINATE CASEWORK	5TH AVE. ELM	7966-60 MATTE	TFL	MATCHING EDGEBAND	
PL-4 WILSONART PLAM CTOP/ BENCH SEAT/BACK FRENCH LINEN 5016-38 FINE VELVET HPL SEE A510 CTOP PROFILE DETAIL @class rooms PL-5 FORMICA WALL PANEL, SEE WP-1 CAMEL ELM 5795-NG HPL SEE ELEVATIONS AND DETAILS @PSI Walls PL-6 WILSONART PLAM BENCH PARK ELM 7967K-12 SOFT GRAIN HPL SEE LEVATIONS AND DETAILS USED ON SERVING LINE EQUIP.  STONE & SOLID SS-1 CORIAN SOLID SURFACE LAVA ROCK CTOP, 3CM MATTE FINISH 2CM SURFACE SS-2 PII PRIME INDUSTRIES, INC EPOXY RESIN SURFACE @ LAB BLACK 2CM SCIENCE CTOP & INTEGRATED SINKS  MISCELLANEOUS  TOILET PARTITIONS TLT-1 BRADLEY, OR SIMILAR POWDER COATED STEEL PARTITIONS DOVE GRAY 2125 ADA HEIGHT		PL-2			•				SIDE SPLASH WHERE NOTED ONLY. CAULK & PAINT AT ALL WALL ADJACENCIES
PL-5 FORMICA WALL PANEL, SEE WP-1 CAMEL ELM 5795-NG HPL SEE ELEVATIONS AND DETAILS @PSI Walls PL-6 WILSONART PLAM BENCH PARK ELM 7967K-12 SOFT GRAIN HPL USED ON SERVING LINE EQUIP.  STONE & SOLID SS-1 CORIAN SOLID SURFACE LAVA ROCK CTOP, 3CM MATTE FINISH 2CM SURFACE SS-2 PII PRIME INDUSTRIES, INC EPOXY RESIN SURFACE @ LAB BLACK 2CM SCIENCE CTOP & INTEGRATED SINKS  MISCELLANEOUS  TOILET PARTITIONS TLT-1 BRADLEY, OR SIMILAR POWDER COATED STEEL PARTITIONS DOVE GRAY 2125 ADA HEIGHT	LAMINATE					· · · · · · · · · · · · · · · · · · ·			
PL-6 WILSONART PLAM BENCH PARK ELM 7967K-12 SOFT GRAIN HPL USED ON SERVING LINE EQUIP.  STONE & SOLID SS-1 CORIAN SOLID SURFACE LAVA ROCK CTOP, 3CM MATTE FINISH 2CM  SURFACE SS-2 PII PRIME INDUSTRIES, INC EPOXY RESIN SURFACE @ LAB BLACK 2CM SCIENCE CTOP & INTEGRATED SINKS  MISCELLANEOUS  TOILET PARTITIONS TLT-1 BRADLEY, OR SIMILAR POWDER COATED STEEL PARTITIONS DOVE GRAY 2125 ADA HEIGHT									
SURFACE SS-2 PII PRIME INDUSTRIES, INC EPOXY RESIN SURFACE @ LAB BLACK 2CM SCIENCE CTOP & INTEGRATED SINKS  MISCELLANEOUS  TOILET PARTITIONS TLT-1 BRADLEY, OR SIMILAR POWDER COATED STEEL PARTITIONS DOVE GRAY 2125 ADA HEIGHT				·				JEE ELEVATIONS AIND DETAILS	_
MISCELLANEOUS  TOILET PARTITIONS TLT-1 BRADLEY, OR SIMILAR POWDER COATED STEEL PARTITIONS DOVE GRAY 2125 ADA HEIGHT						CTOP, 3CM MATTE FINISH			COURTING OTOD O WITTOT ITT
TOILET PARTITIONS TLT-1 BRADLEY, OR SIMILAR POWDER COATED STEEL PARTITIONS DOVE GRAY 2125 ADA HEIGHT			PII PRIME INDUSTRIES, INC	EPOXY RESIN SURFACE @ LAB	BLACK		2CM		SCIENCE CTOP & INTEGRATED SINKS
CONCRETE SC-1 PER CONTRACTOR SEALED CONCRETE		T	BRADLEY, OR SIMILAR	POWDER COATED STEEL PARTITIONS	DOVE GRAY	2125			ADA HEIGHT
	CONCRETE	SC-1	PER CONTRACTOR	SEALED CONCRETE					

		R	OOM FINISI	H SCHEDULE		
RM#	NAME	FLR FIN.	BASE FIN.	WALL FIN.	CLG FIN.	NOTES
A101 A102	WORK ROOM  RR ENTRY	CPT-1 CT-3	VB-1 CT-1/ CT-2	P-1 P-1/ CT-1/ CT-2/ GR-03/	ACT-1	SEE ELEVATION 2/ A400
A102A	BOYS	CT-3	CT-1/ CT-2	GR-04 P-1/ CT-1/ CT-2	ACT-1	SEE ELEVATIONS FOR TILE INSTALL/ TLT-1 FOR
A102B	GIRLS	CT-3	CT-1/ CT-2	P-1/ CT-1/ CT-2	ACT-1	TOILET PARTITION  SEE ELEVATIONS FOR TILE INSTALL/ TLT-1 FOR
A103	ELEM. FLEX	CPT-1	VB-1	P-1	ACT-1	TOILET PARTITION
A103A	SM. GROUP	CPT-3	VB-1	P-1	ACT-1	
A103B	SPEECH	CPT-3	VB-1	P-1	ACT-1	
A103C	ОТ/РТ	CPT-3	VB-1	P-1	ACT-1	
A103D A104	VEST. ELEM. FLEX	CPT-1 CPT-1	VB-1 VB-1	P-1 P-1	ACT-1	
A104	SM. GROUP	CPT-3	VB-1	P-1	ACT-1	
A106	SPEECH	CPT-3	VB-1	P-1	ACT-1	
A107A	IT/DATA	EXISTING	EXISTING	P-1	EXIST.	TOUCH UP PAINT AS NEEDED
A107B A108	IT/DATA  RECEPTION	EXISTING EXISTING	EXISTING EXISTING	P-1 P-1	EXIST.	TOUCH UP PAINT AS NEEDED TOUCH UP PAINT AS NEEDED AT WALL OPENING
A108	CORRIDOR	CPT-1	VB-1	P-1	ACT-1	TOOCH OF FAINT AS NEEDED AT WALL OF LINING
B101	MUSIC OFFICE	CPT-2B	VB-1	P-1	ACT-1	
B102	STOR.	CPT-2B	VB-1	P-1	ACT-1	
B103	MUSIC BAND STORAGE	CPT-2B/ CPT-2A/ CPT-2C CPT-2C	VB-1 VB-1	P-1/ AWP-1	ACT-1	
B103A B103B	PRACTICE	CPT-2C	VB-1	P-1 P-1	ACT-1	
B103C	PRACTICE	CPT-2C	VB-1	P-1	ACT-1	
B104	FLEX CLASS	CPT-1	VB-1	P-1/ VWC-1*	ACT-1	*VINYL WC SELECTED WITH BID ALT #1
B105 B106	CUST. 1 ON 1	EXISTING CPT-3	EXISTING VB-1	EXISTING/ P-1 P-1	EXIST.	TOUCH UP PAINT AT NEW CONSTRUCTION
B106	FLEX CLASS (ART, VIDEO, SPANISH)	CPT-1	VB-1 VB-1	P-1/ VWC-1*	ACT-1	*VINYL WC SELECTED WITH BID ALT #1
B107A	ART STOR.	CPT-1	VB-1	P-1	ACT-1	
B108	1 ON 1	CPT-3	VB-1	P-1	ACT-1	
B199A C100A	CORRIDOR VESTIBULE	VCT-1 WLK-1	VB-1 VB-1	P-1 P-1	ACT-1 P-4	
C100A	VESTIBULE	WLK-2*	VB-1	P-1	P-4	*REVIEW ALT #3 FOR ADDITIONAL WALK OFF CARPET LOCATIONS, PER FINISH PLANS
C101	COMMONS	RBF-1/ RBF-2/ RBF-3/ WLK-1	VB-1/ WP-1	P-1/ P-4/ WP-1/ MCP-1B/ PL-6/ TB-3		SEE ELEVATIONS. P-3 @ SOFFIT (ALL EXPOSED SIDES)
C102	HEALTH SCIENCE	RBF-2	VB-1	P-1	ACT-1	
C103 C104	HS SPED STORAGE	CPT-1 RBF-1	VB-1 VB-1	P-1 P-1	ACT-1 N/A	
C105	STAGE	*WDF-1	VB-1/ WP-1	EXISTING/ WP-1/ UPH-1/ VWC-2	EXIST.	*STRIP & REFINISH EXISTING STAGE FLOOR ADJACENT
C106	STOR.	EXISTING	EXISTING	EXISTING	N/A	
C107 C108	BOILER GYM STOR.	SC-1 RBF-3	VB-1 VB-1	P-1 P-1	N/A N/A	
C108	BOYS LOCKER	RBF-3/ CPT-4	VB-1/ CT-4	P-1/ P-2/ CT-4	ACT-1/ P-2	P-2 AT SOFFIT ONLY
C109A	BOYS RR	LVT-3	CT-1/ CT-4/ LVT-3*	CT-1/ P-1/ PLY-1*/ CT-4	P-5	* HEAT WELD WALL VINYL TO FLOOR @ 6" WALL BASE COVE HT.
C110	REF.	P-5	CT-1/ LVT-3*	CT-1/ P-1/ PLY-1*	P-5	* HEAT WELD WALL VINYL TO FLOOR @ 6" WALL BASE COVE HT.
C111 C111A	GIRLS LOCKER GIRLS RR	RBF-3/ CPT-4 LVT-3	VB-1/ CT-4 CT-1/ CT-4/ LVT-3*	P-1/ P-2/ CT-4 CT-1/ P-1/ PLY-1*/ CT-4	ACT-1/ P-2 P-5	P-2 AT SOFFIT ONLY  * HEAT WELD WALL VINYL TO FLOOR @ 6" WALL BASE COVE HT.
C112	BOYS	EXISTING	EXISTING	CT-5	EXISTING	REPLACES SINK VANITY WALL TILE FOR PLUMBING ACCESS
C199A	CORRIDOR	RBF-1/ RBF-3	VB-1	P-1/TB-3	ACT-1	SEE ELEVATION 1/A407
C199B C199C	CORRIDOR CORRIDOR	RBF-1/ RBF-3 RBF-3/ WLK-2	VB-1 VB-1	P-1 P-1/ GR-01/ GR-02	ACT-1	SEE ELEVATION 11/ A405
C199C	CORRIDOR	RBF-3/ WLK-2	VB-1	P-1/ GR-01/ GR-02 P-1 (CMU)/ CT-4	EXISTING	OLL LLEVATION II/ A400
D100	VEST.	WLK-2	VB-1	P-1	P-4	
D101 D101A	KITCHEN RESTROOM	LVT-2/ LVT-3	LVT-2*/ LVT-3* 	PLY-1*	ACT-2	* HEAT WELD WALL VINYL TO FLOOR @ 6" WALL BASE COVE HT.  * HEAT WELD WALL VINYL TO FLOOR @ 6" WALL
- 101N	NESTINOON .				7.01 2	BASE COVE HT.
D102	RR ENTRY	RBF-3	VB-1	P-1/ GR-05/ GR-06	P-4	SEE ELEVATION
D102A	GIRLS RR	PT-1	CT-1/ CT-3/ VB-1	CT-1/ CT-3/ P-1	ACT-1	
D102B D102C	BOYS RR CUSTODIAL	PT-1 SC-1	CT-1/ CT-3/ VB-1 VB-1	CT-1/ CT-3/ P-1 P-1/ FRP-1*	ACT-1 N/A	*PROVIDE FRP ON ALL SIDES OF MOP SINK, 48"AFF
D103	AG CLASS	CPT-1	VB-1	P-1/ TB-2A/ TB-2B	ACT-1	
D103A D103B	OFFICE AG SHOP	CPT-1 SC-1	VB-1 N/A	P-1 P-1/ FRP-1*	ACT-1 N/A	*PROVIDE FRP BEHIND ALL SINKS & WATER
D103C	TOOLS	SC-1	N/A	P-1	N/A	FOUNTAIN, 48"AFF
D103C	FACS	RBF-2	VB-1	P-1	ACT-1	
D105	WORKROOM	RBF-1	VB-1	P-1	ACT-1	
D106	SCIENCE PREP	RBF-2	VB-1	P-1	ACT-1	
D106A D199A	SCIENCE PREP.  CORRIDOR	RBF-2 RBF-1/ RBF-2/ RBF-3	VB-1 VB-1	P-1 P-1/ PL-6/ TB-3/ P-3 (SOFFIT)	ACT-1/*P-4/P-3	*P-4 @ DOOR ENTRY BULKHEAD
D199A D199B	CORRIDOR	RBF-1	VB-1 VB-1	P-1	ACT-1/ P-4/ P-3	
		ROOM	∕I FINISH SC	HEDULE - ALT #	2	
RM#	NAME	FLR FIN.	BASE FIN.	WALL FIN.	CLG FIN.	NOTES
ALT 100	STORAGE	EXISTING	VB-1	EXISTING	EXISTING	

NOTE: SEE ENLARGED FINISH PLANS FOR FINISHES CONNECTED TO ALT #3, WALK OFF CARPET REPLACEMENT AREAS.



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601 Kansas City St. 7 Rapid City, SD 57701 Phone: 605-716-3652

440 E. 8th St. 221 Sioux Falls, SD 57103 Phone: 605-334-9999

co-oparch.com

CO-OP PROJECT NO:



2153

ISSUE:

01/30/2023 CONSTRUCTION DOCUMENTS

**REVISION SCHEDULE:** 

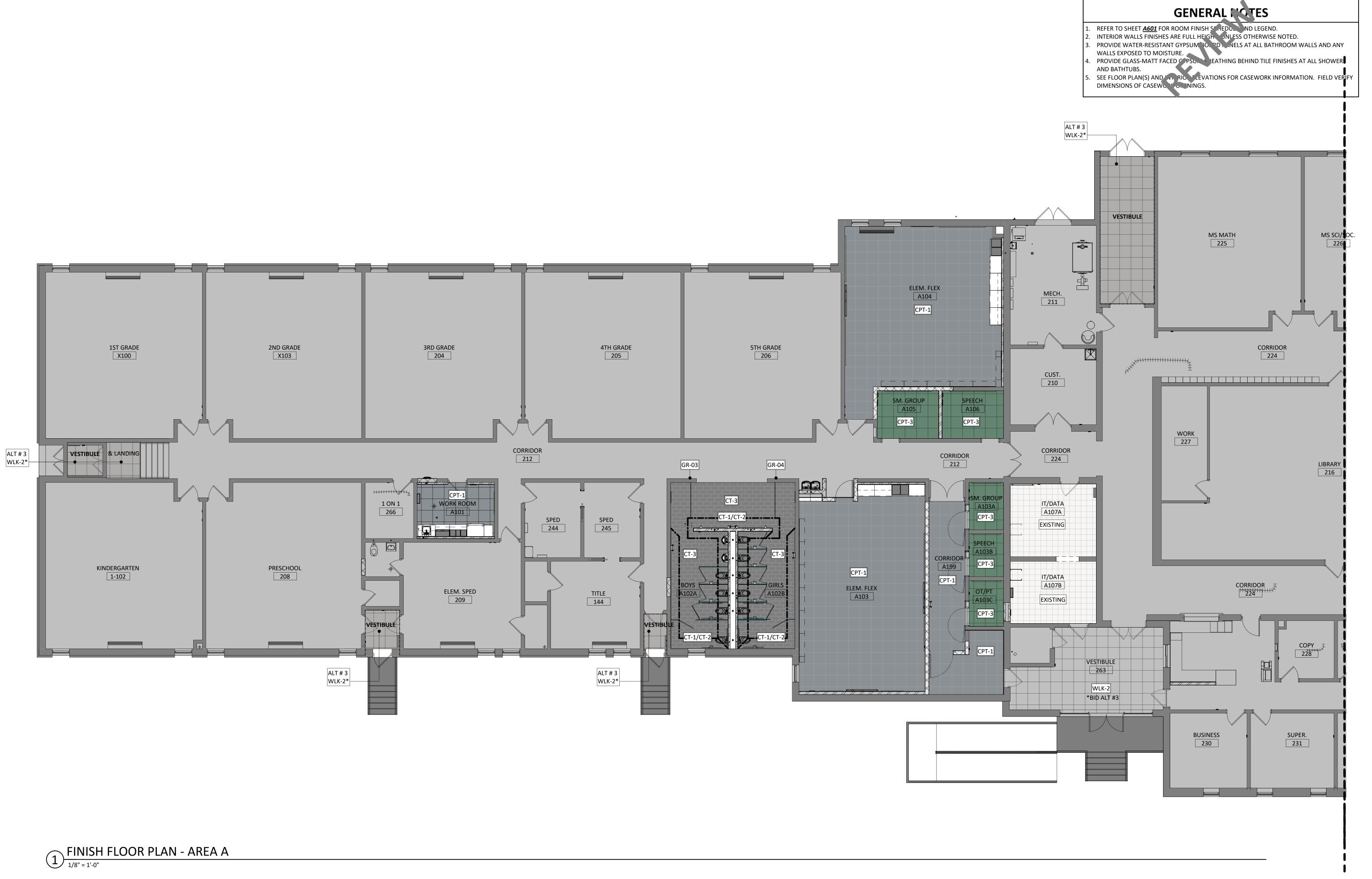
PROJECT:

WILLOW LAKE SCHOOL ADDITION

WILLOW LAKE SCHOOL DISTRICT WILLOW LAKE, SOUTH DAKOTA

SHEET TITLE:

FINISH SCHEDULE & LEGENDS



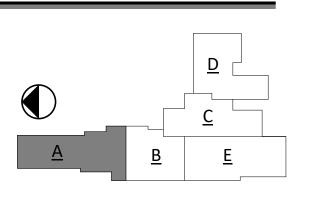
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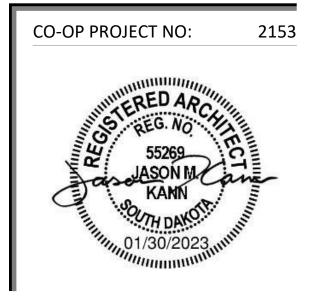
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REVISION SCHEDULE:

REV. DATE

REV. # REV. DSC.

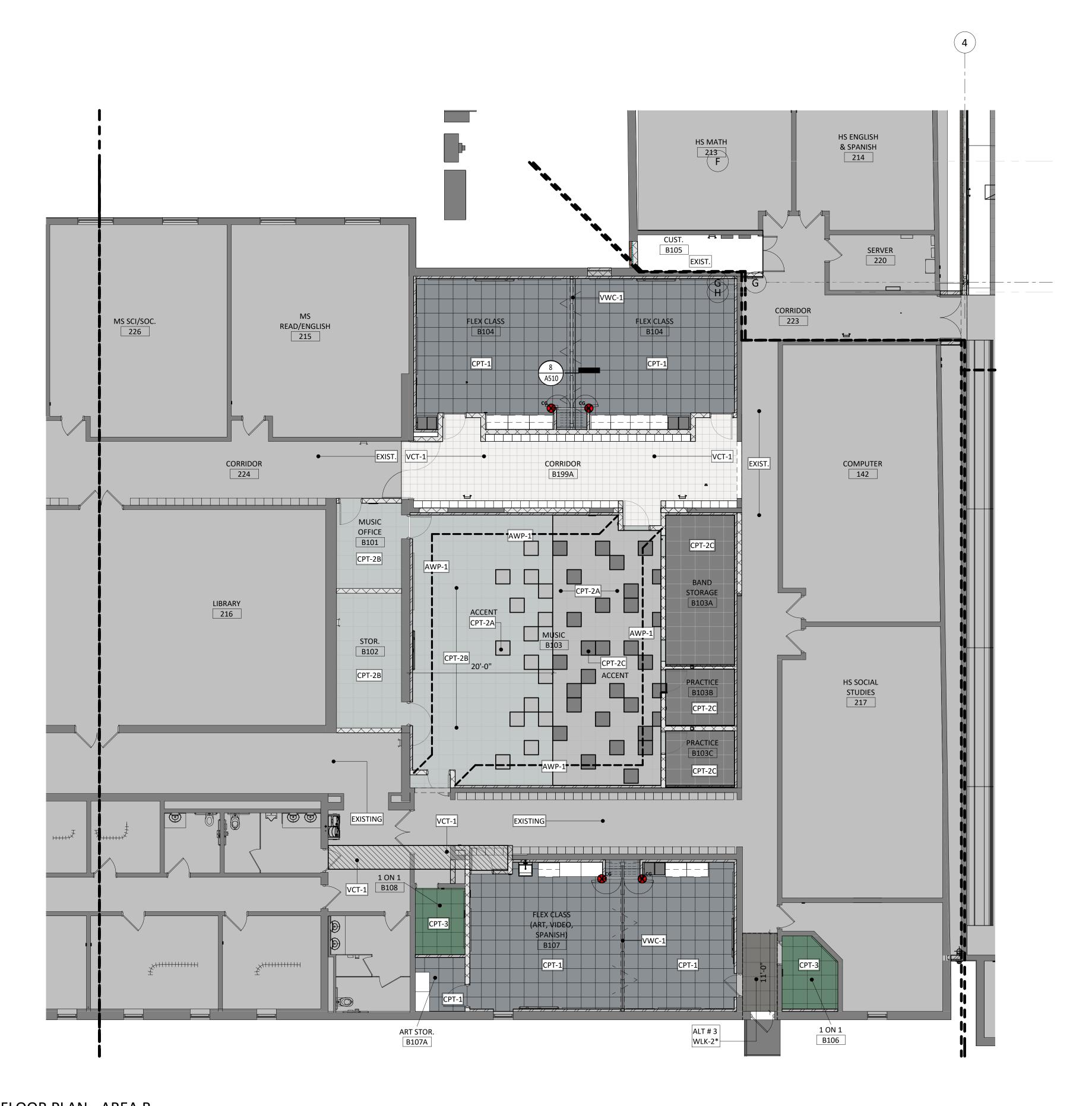
PROJECT:

WILLOW LAKE SCHOOL ADDITION

WILLOW LAKE SCHOOL DISTRICT WILLOW LAKE, SOUTH DAKOTA

SHEET TITLE:

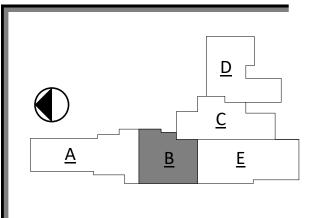
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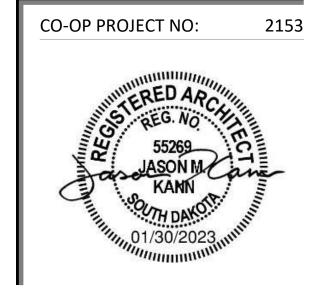


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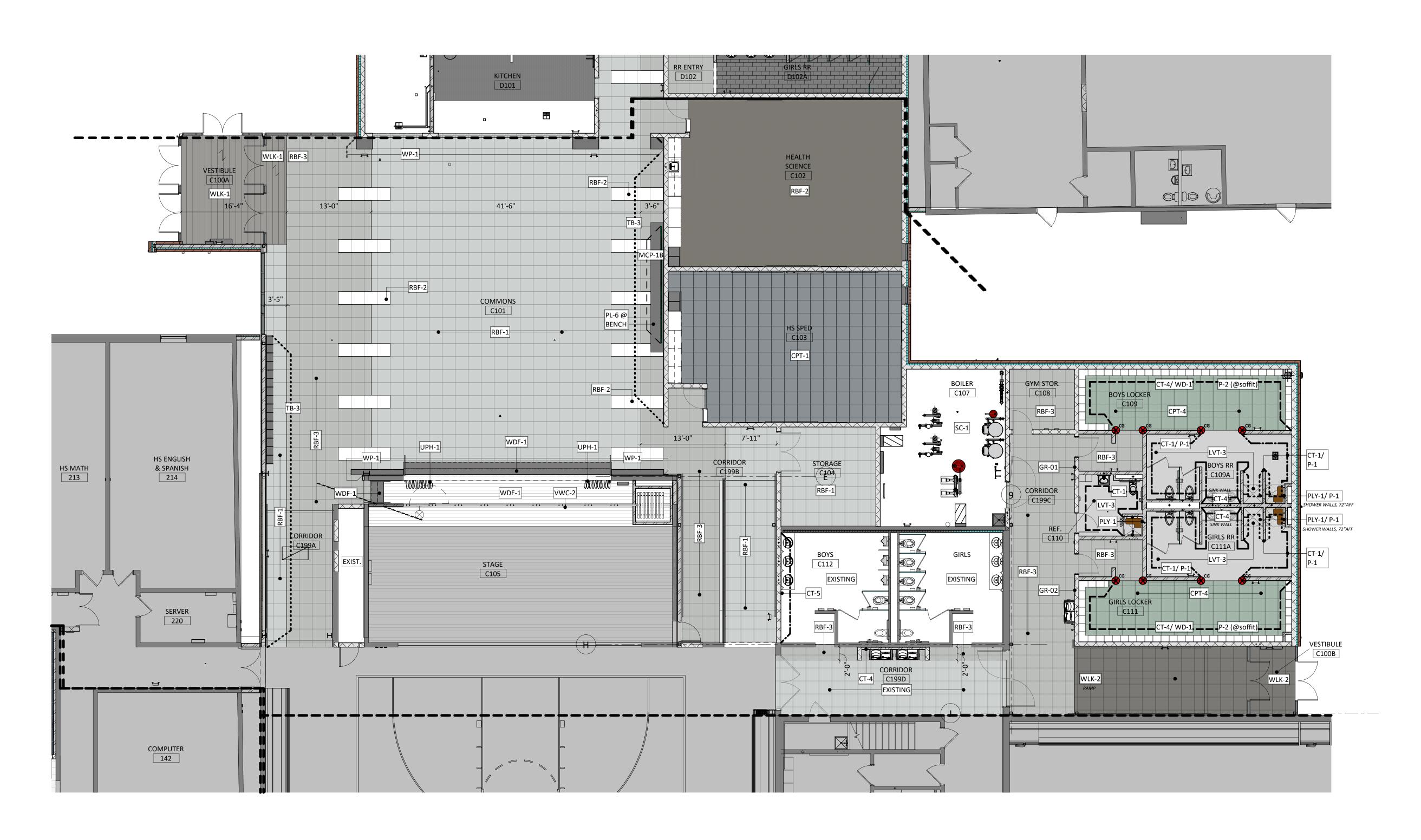
PROJECT:

WILLOW LAKE SCHOOL ADDITION

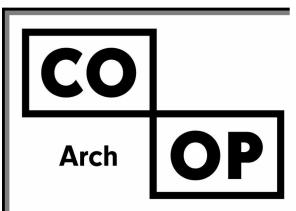
WILLOW LAKE SCHOOL DISTRICT WILLOW LAKE, SOUTH DAKOTA

SHEET TITLE:

ENLARGED FINISH PLANS- AREA B



FINISH FLOOR PLAN - AREA C & E

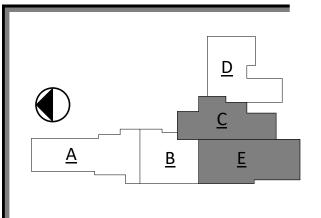


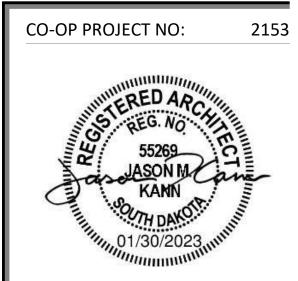
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WILLOW LAKE SCHOOL DISTRICT WILLOW LAKE, SOUTH DAKOTA

SHEET TITLE:

ENLARGED FINISH PLANS-AREA(S) C & E



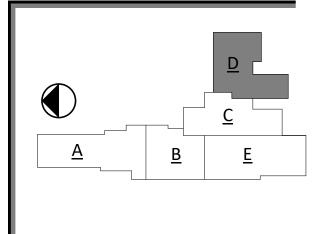
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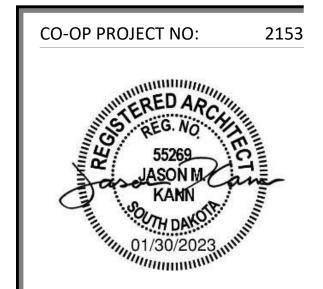
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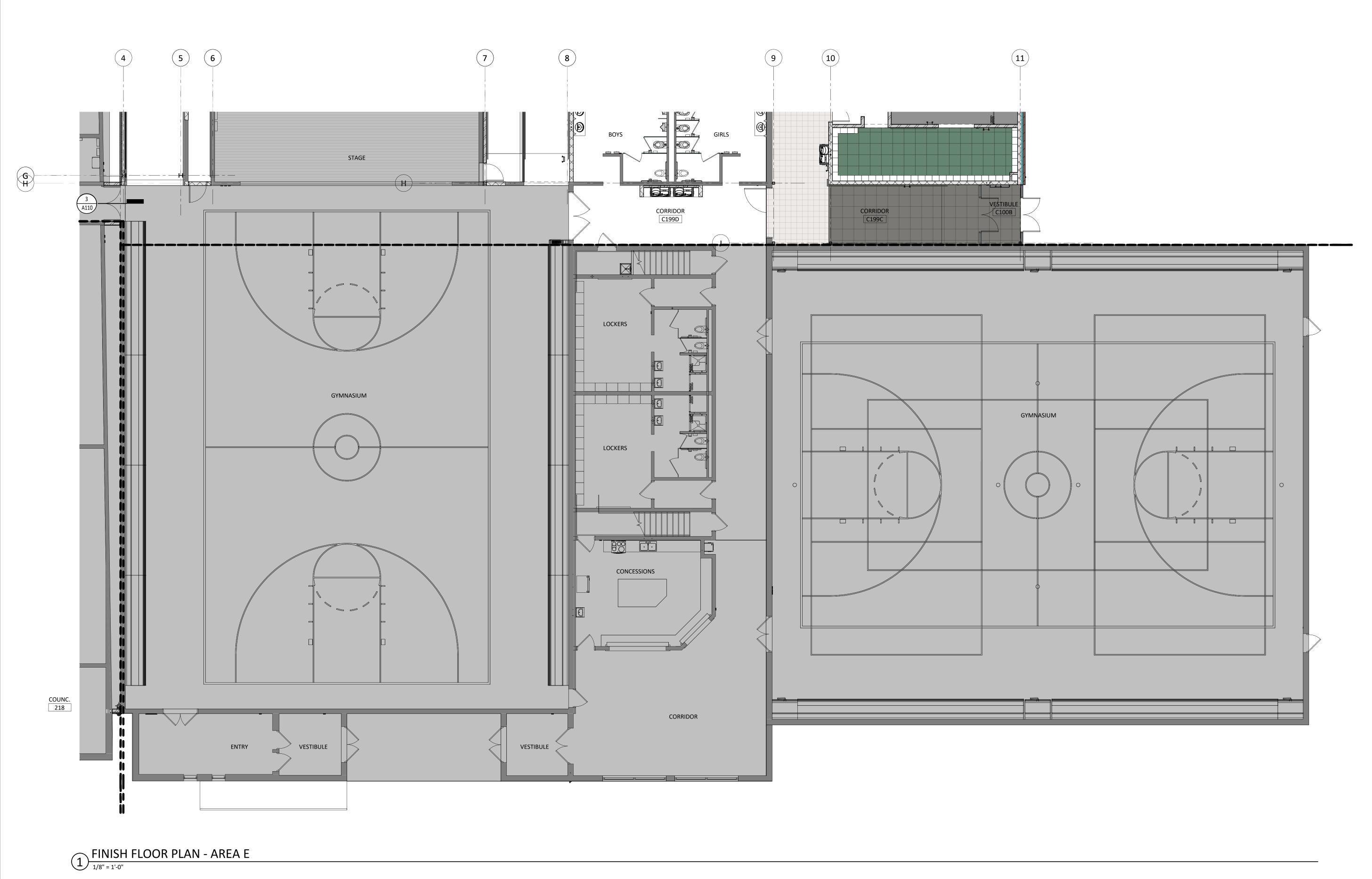
PROJECT:

WILLOW LAKE SCHOOL ADDITION

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SHEET TITLE:

ENLARGED FINISH PLANS- AREA D



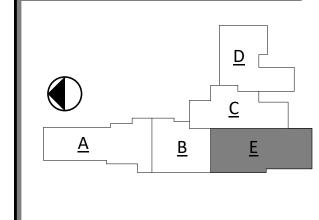
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REVISION SCHEDULE:

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REV. # REV. DSC.

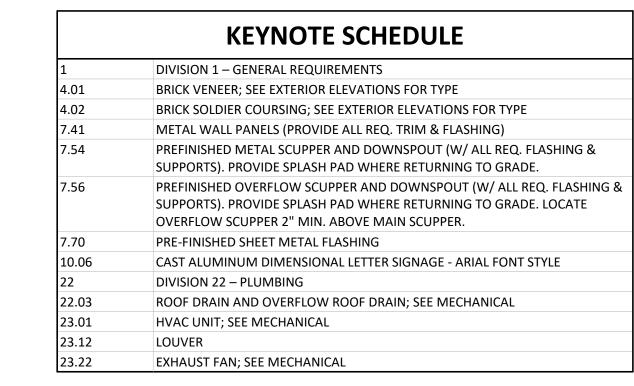
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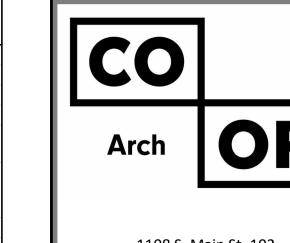
WILLOW LAKE SCHOOL ADDITION

WILLOW LAKE SCHOOL DISTRICT WILLOW LAKE, SOUTH DAKOTA

SHEET TITLE:

ENLARGED FINISH PLANS- AREA E

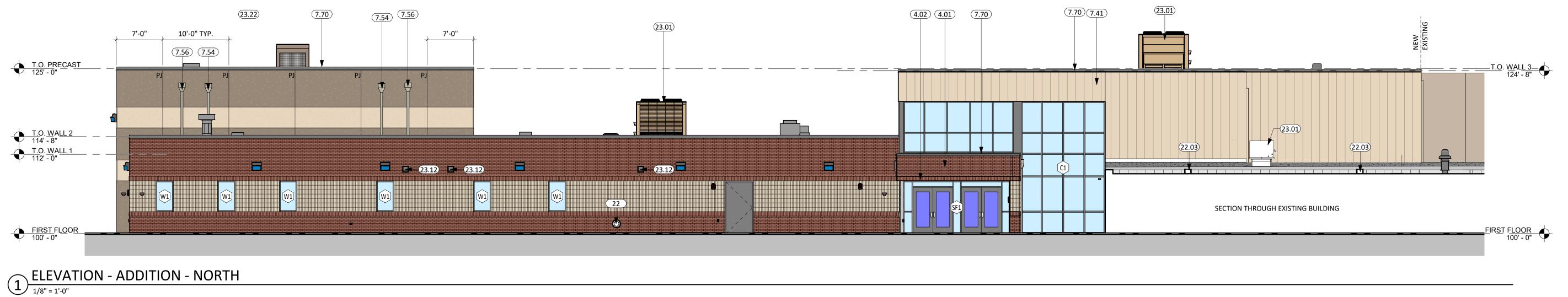


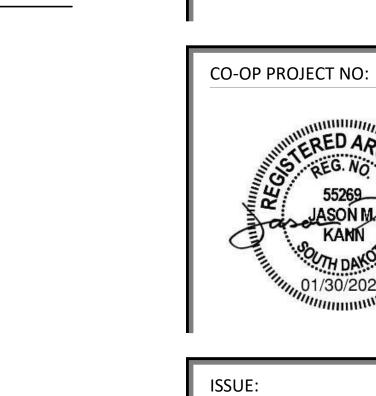


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2153

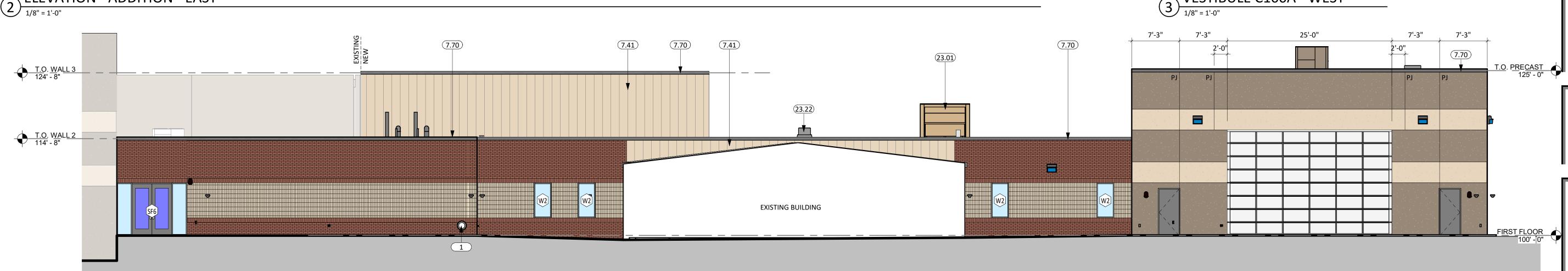
REV. DATE

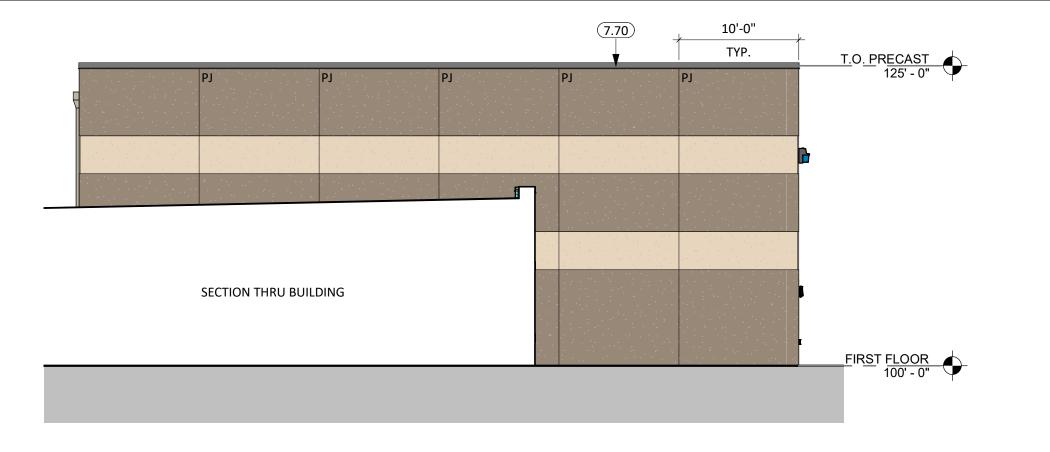
REV. # REV. DSC.

# PROJECT: WILLOW LAKE SCHOOL ADDITION WILLOW LAKE SCHOOL DISTRICT WILLOW LAKE, SOUTH DAKOTA

SHEET TITLE:

EXTERIOR ELEVATIONS

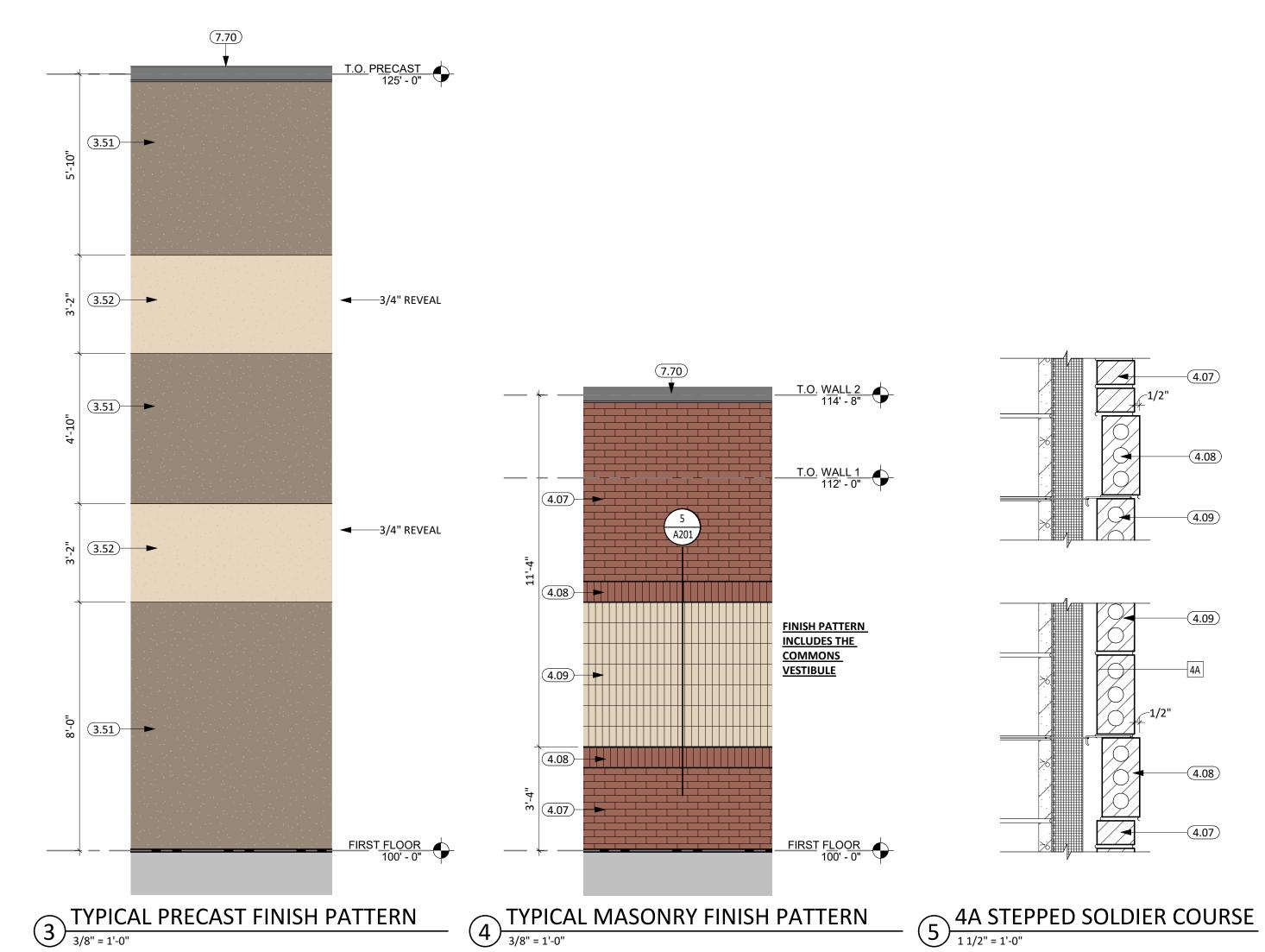


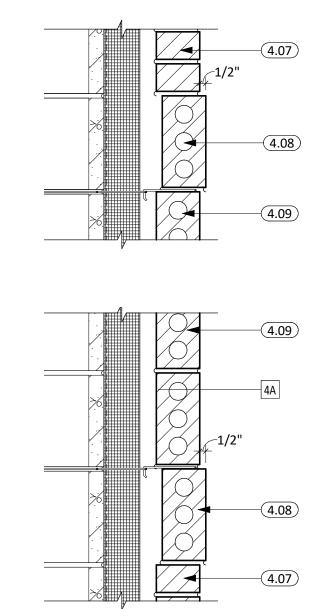


AG SHOP - WEST

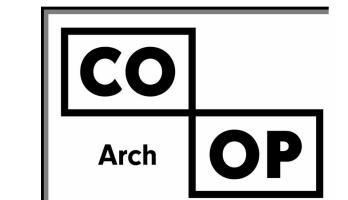
1/8" = 1'-0" SEE ALTERNATES SHEET FOR EXTENSION OF THIS WALL 7.70 T.O. WALL 2 114' - 8" FIRST FLOOR 100' - 0" EXISTING 98' - 4"

2 LOCKER ROOMS - EAST





	KEYNOTE SCHEDULE
3.51	PRECAST FINISH-1; MATCH EXISTING DARK PRECAST FINISH
3.52	PRECAST FINISH-2; MATCH EXISTING LIGHT PRECAST FINISH
4.07	BRICK-1 VENEER
4.08	BRICK-1 SOLDIER COURSING
4.09	BRICK-2 SOLDIER COURSING
7 70	PRE-FINISHED SHEET METAL FLASHING

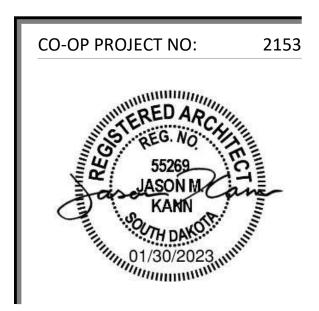


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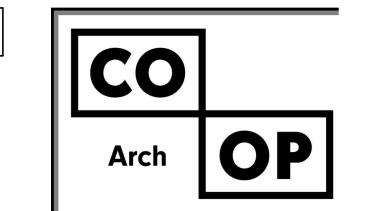
PROJECT:

WILLOW LAKE SCHOOL ADDITION

WILLOW LAKE SCHOOL DISTRICT WILLOW LAKE, SOUTH DAKOTA

SHEET TITLE:

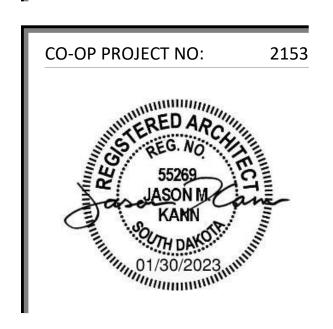
**EXTERIOR ELEVATIONS** 



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PROJECT:

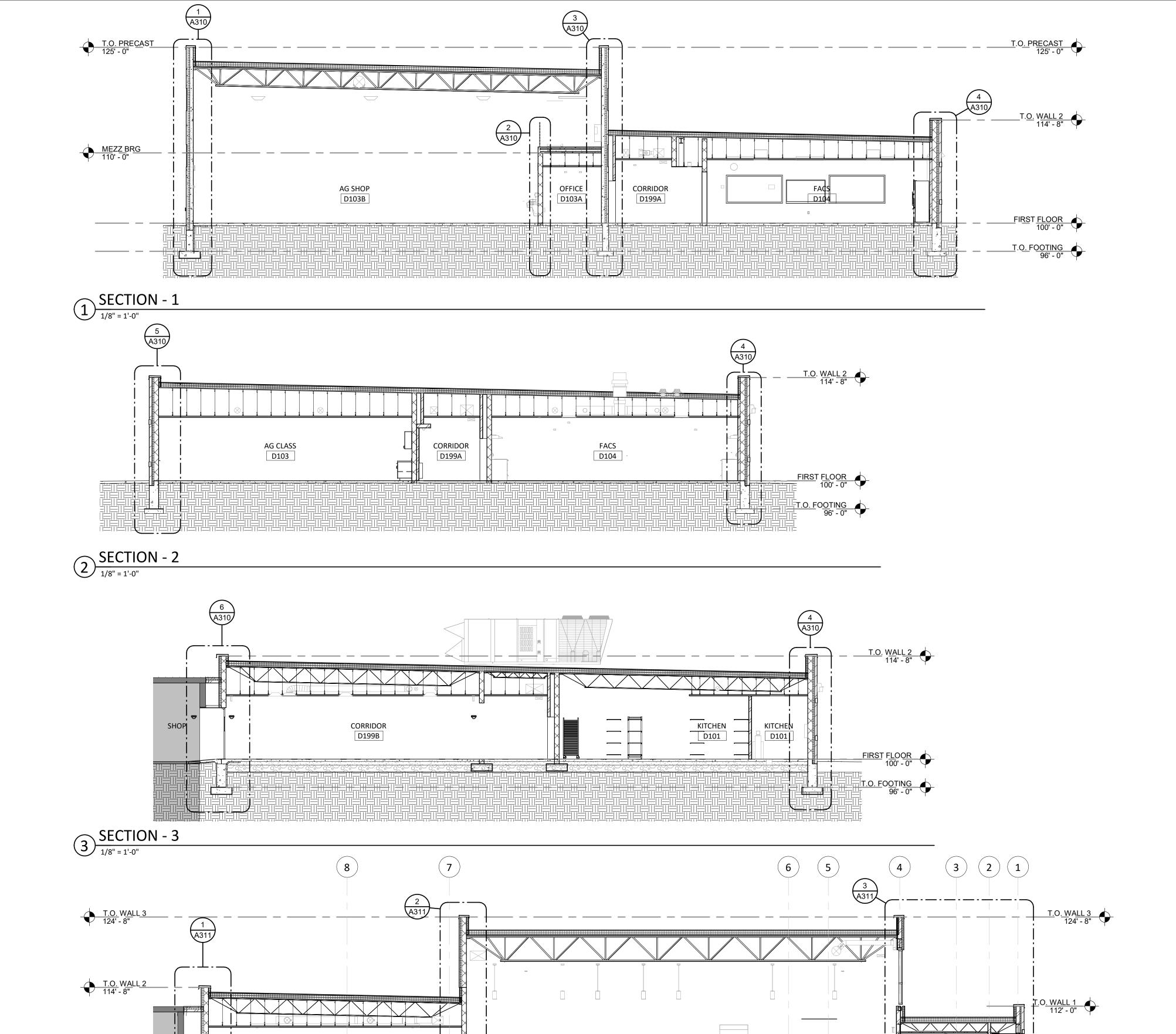
WILLOW LAKE SCHOOL ADDITION

WILLOW LAKE SCHOOL DISTRICT WILLOW LAKE, SOUTH DAKOTA

SHEET TITLE:

**BUILDING SECTIONS** 

A300



COMMONS C101 VESTIBULE C100A

FIRST FLOOR

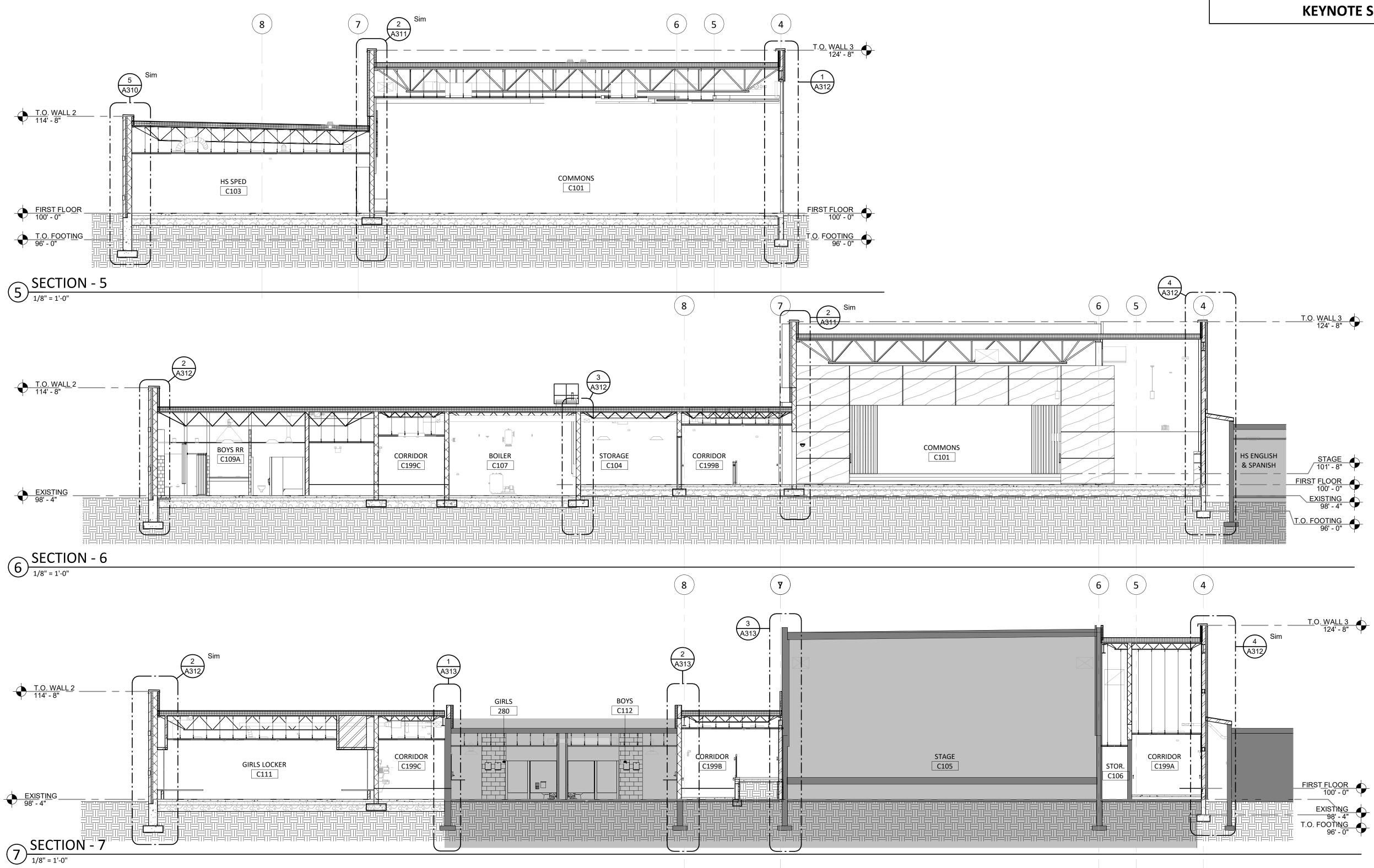
T.O. FOOTING 96' - 0"

<u>SECTION - 4</u>
1/8" = 1'-0"

HEALTH SCIENCE

C102





PROJECT:

ISSUE:

WILLOW LAKE SCHOOL ADDITION

CO-OP PROJECT NO:

JASON M SOUTH DANGER

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REVISION SCHEDULE:

2153

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WILLOW LAKE SCHOOL DISTRICT WILLOW LAKE, SOUTH DAKOTA

SHEET TITLE:

**BUILDING SECTIONS** 

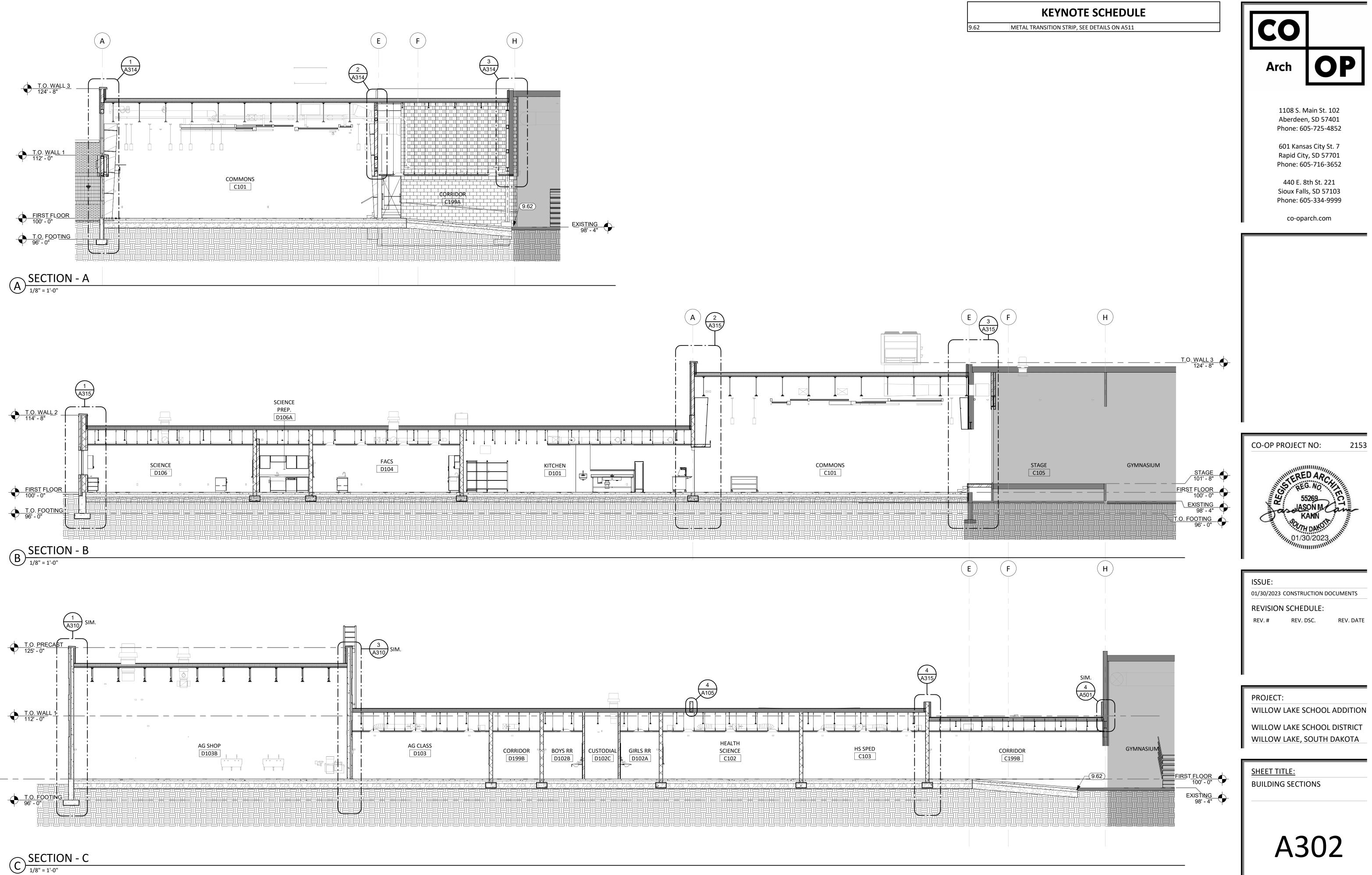
A301

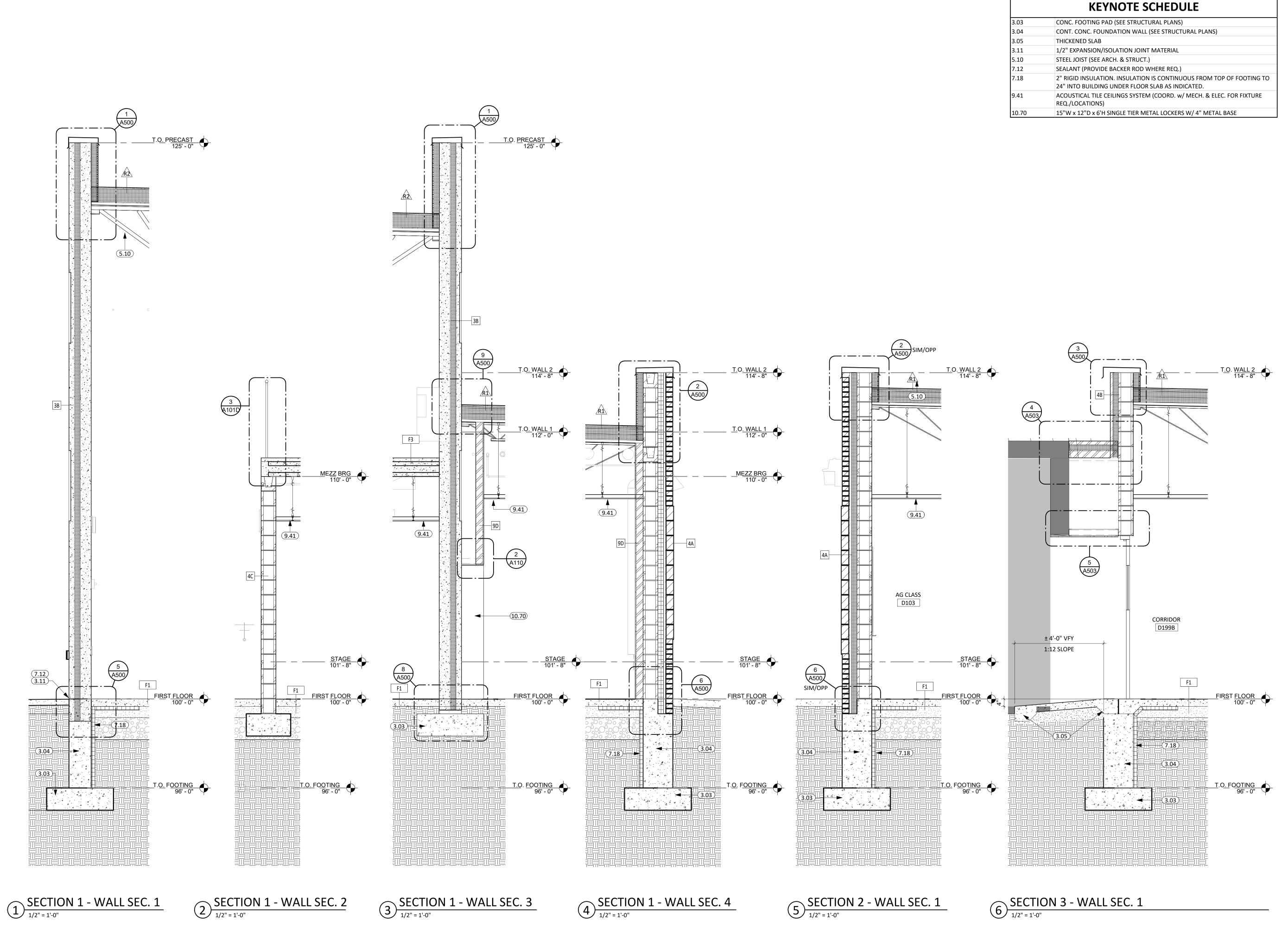
FIRST FLOOR 100' - 0" EXISTING 98' - 4" T.O. FOOTING 96' - 0" 8 SECTION - 8

VESTIBULE ¢100B

CORRIDOR C199C

T.O. WALL 2
114' - 8"





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ISSUE:

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REVISION SCHEDULE:

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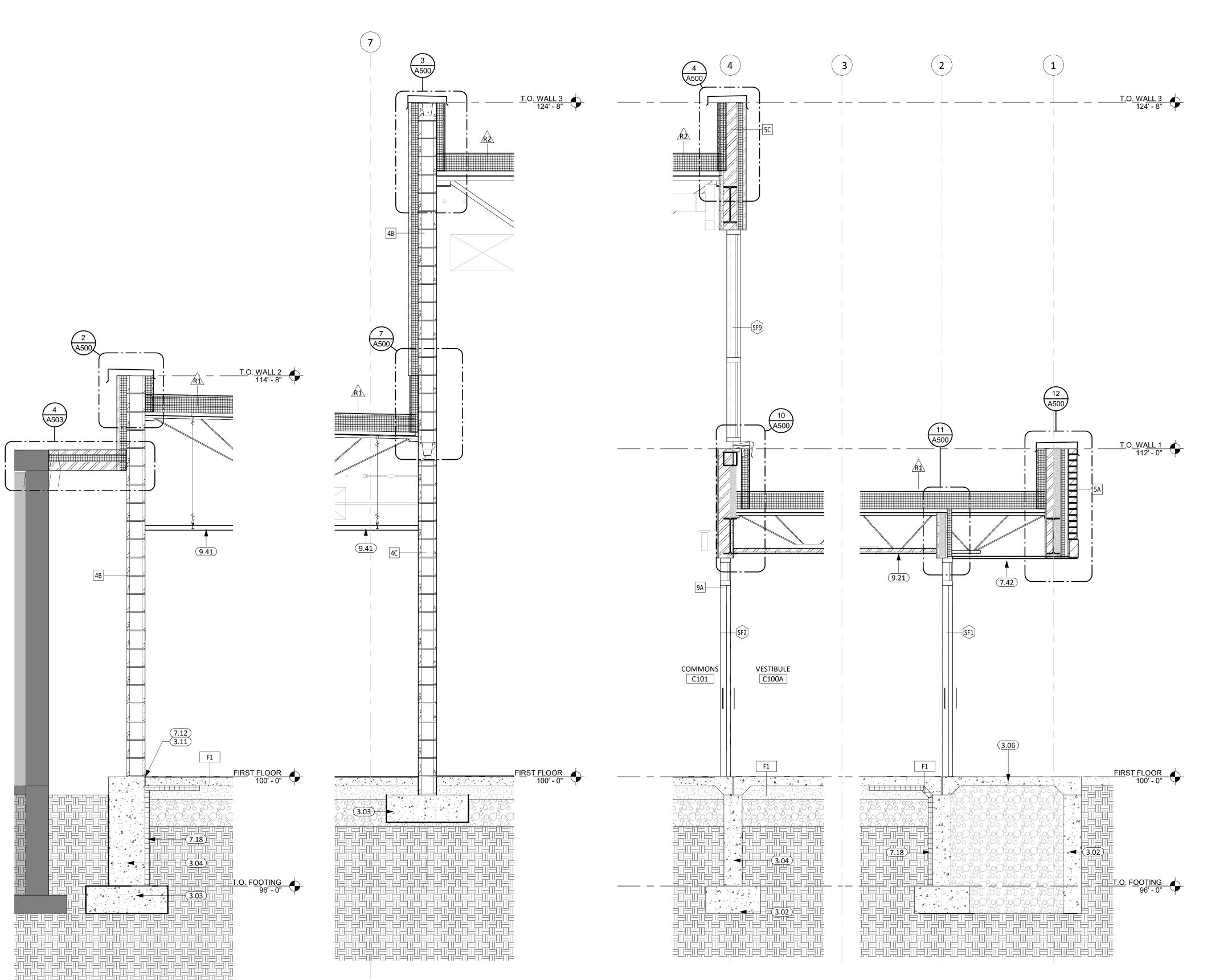
PROJECT:

WILLOW LAKE SCHOOL ADDITION

WILLOW LAKE SCHOOL DISTRICT WILLOW LAKE, SOUTH DAKOTA

SHEET TITLE:

WALL SECTIONS

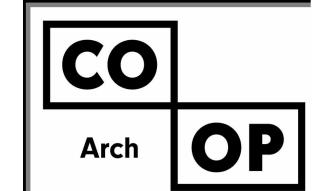


2 SECTION 4 - WALL SEC. 2

## **GENERAL NOTES**

- SEE CIVIL, STRUCTURAL, MECHANICAL, AND ELECTRICAL FOR ADDITIONAL INFORMATION AND COORDINATION.
- ALL TAPERED ROOF SYSTEM SLOPES ARE ¼" PER FOOT UNLESS OTHERWISE NOTED.
- ALL THRU ROOF PENETRATION BOOTS IN ROOF SYSTEM ARE TO BE PROVIDED.
- THE AIR & MOISTURE WEATHER BARRIER IS TO BE CONTINUOUS FROM THE BASE OF THE WALLS UP TO & TYING INTO THE ROOF BARRIER SYSTEM.
- COORDINATE ROOF PENETRATIONS WITH MECHANICAL, ELECTRICAL, AND PLUMBING CONTRACTORS.
- ALL ROOF SADDLES SHALL HAVE A MINIMUM OF 1/2" PER FOOT SLOPE.
- PROVIDE ROOF CURBS FOR ALL EQUIPMENT SCHEDULED TO BE ON THE ROOF. COORDINATE SIZE AND LOCATION WITH APPLICABLE TRADES.
- PROVIDE CRICKETS AT ALL ROOF TOP EQUIPEMENT TO ALLOW FOR UNIMPEDED WATER FLOW. DIMENSIONS AND LOCATIONS OF EQUIPMENT ON THE ROOF ARE APPROX., DO NOT SCALE THE DRAWINGS. VERIFY WITH APPLICABLE TRADES.
- LO. TAPERED INSULATION SHALL HAVE A MINIMUM OF 1/4" PER FOOT SLOPE. PROVIDE TAPERED
- INSULATION AS REQUIRED TO ACHIEVE 1/4" PER FOOT SLOPE.
- 11. PROVIDE R-30 MINIMUM ROOF INSULATION AT ROOF DRAINS. 12. PROVIDE ROOF WALKING PADS AS SHOWN.

	KEYNOTE SCHEDULE
3.02	CONT. CONC. FOOTING (SEE STRUCTURAL PLANS)
3.03	CONC. FOOTING PAD (SEE STRUCTURAL PLANS)
3.04	CONT. CONC. FOUNDATION WALL (SEE STRUCTURAL PLANS)
3.06	CONCRETE STOOP w/FROST FREE FOOTING (SEE STRUCTURAL/LANDSCAPE PLANS)
3.11	1/2" EXPANSION/ISOLATION JOINT MATERIAL
7.12	SEALANT (PROVIDE BACKER ROD WHERE REQ.)
7.18	2" RIGID INSULATION. INSULATION IS CONTINUOUS FROM TOP OF FOOTING TO 24" INTO BUILDING UNDER FLOOR SLAB AS INDICATED.
7.42	METAL SOFFIT PANELS
9.21	5/8" GYPSUM BOARD
9.41	ACOUSTICAL TILE CEILINGS SYSTEM (COORD. w/ MECH. & ELEC. FOR FIXTURE REQ./LOCATIONS)



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REVISION SCHEDULE:

PROJECT:

WILLOW LAKE SCHOOL ADDITION

WILLOW LAKE SCHOOL DISTRICT WILLOW LAKE, SOUTH DAKOTA

SHEET TITLE:

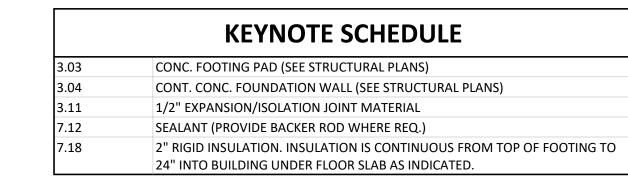
WALL SECTIONS

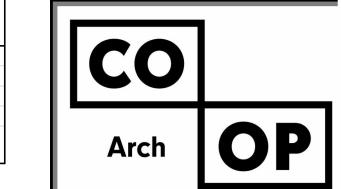
A311

3 SECTION 4 - WALL SEC. 3

SECTION - 4 - WALL SEC. 1

1/2" = 1'-0"

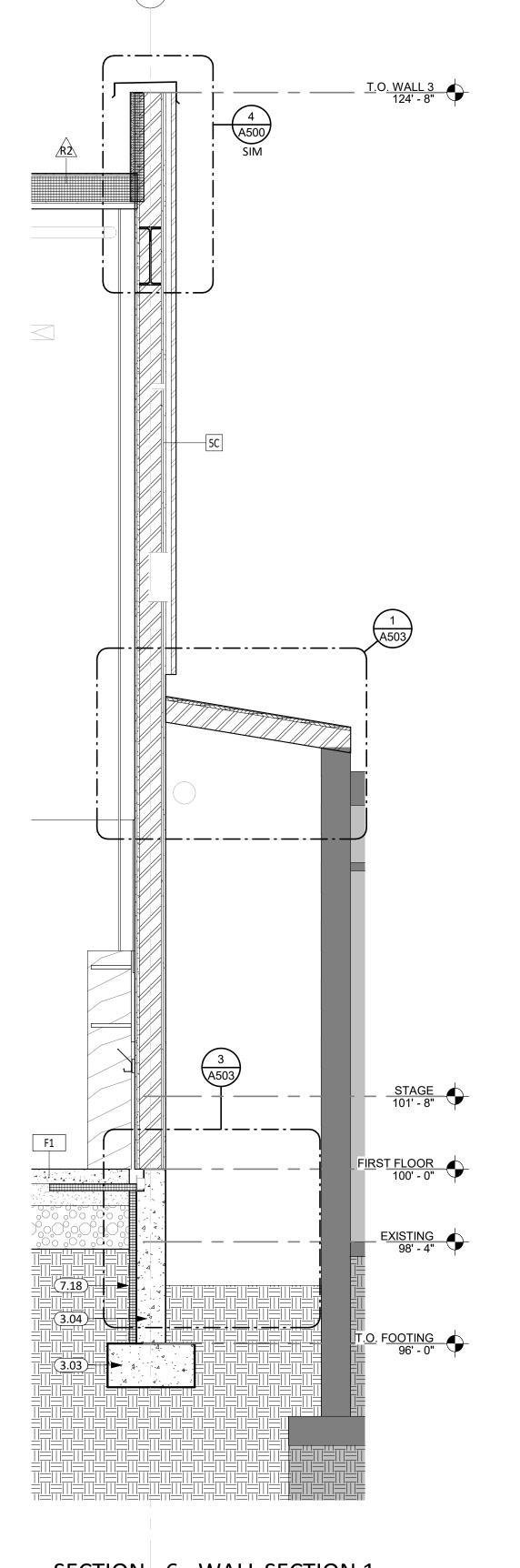




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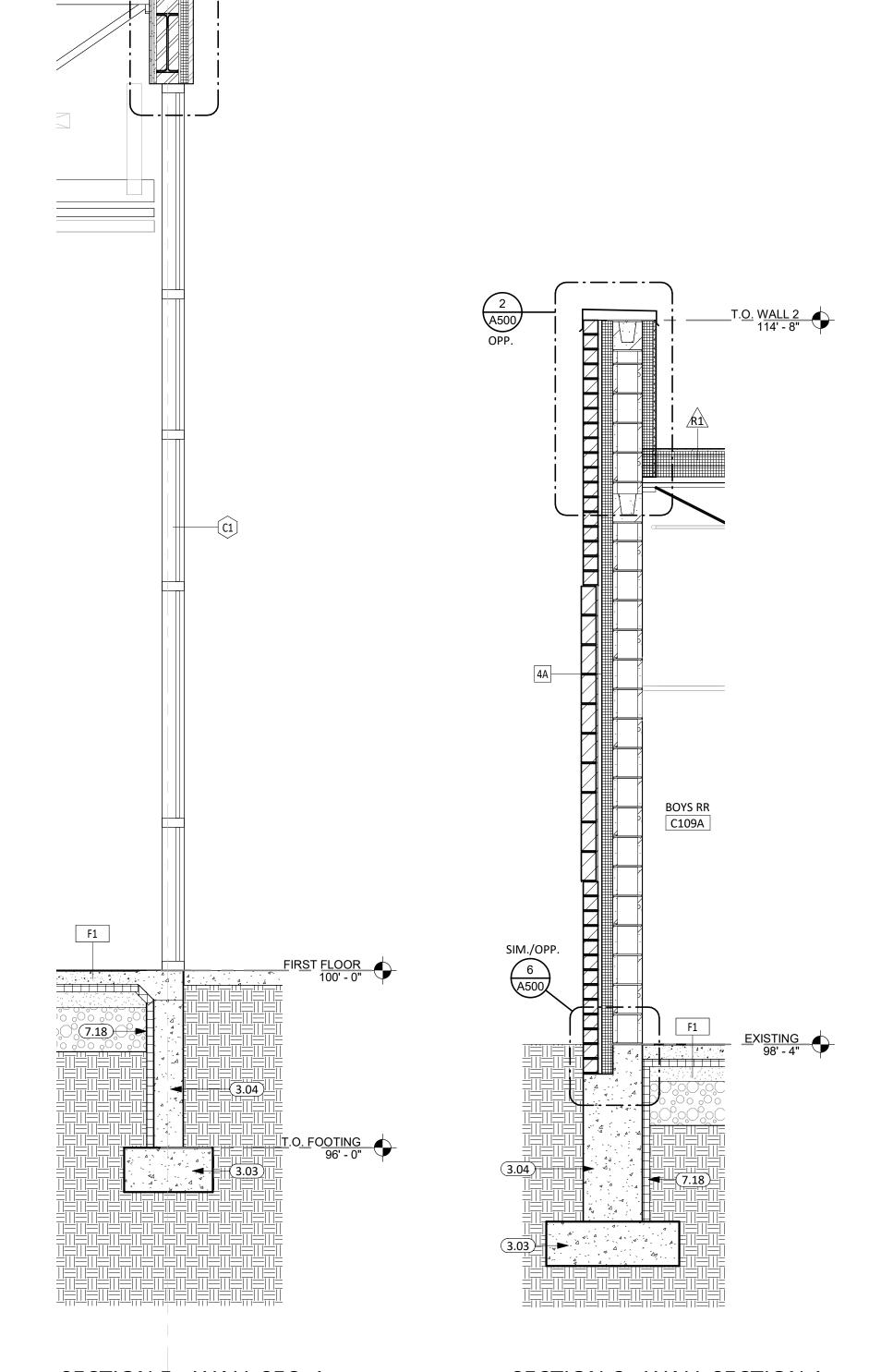
ISSUE:

2153

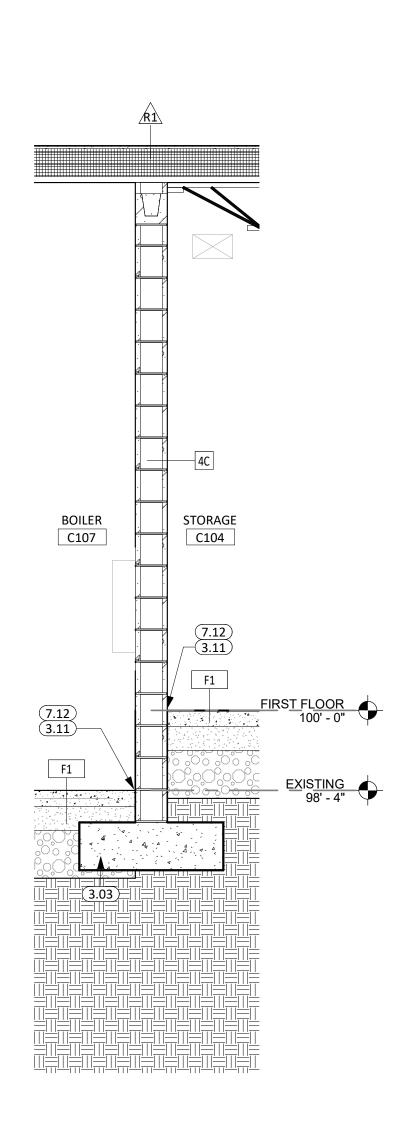
WILLOW LAKE SCHOOL DISTRICT WILLOW LAKE, SOUTH DAKOTA

SHEET TITLE: WALL SECTIONS

A312



\_ T<u>.O</u>. <u>WALL 3</u> 124' - 8"



SECTION 6 - WALL SECTION 2

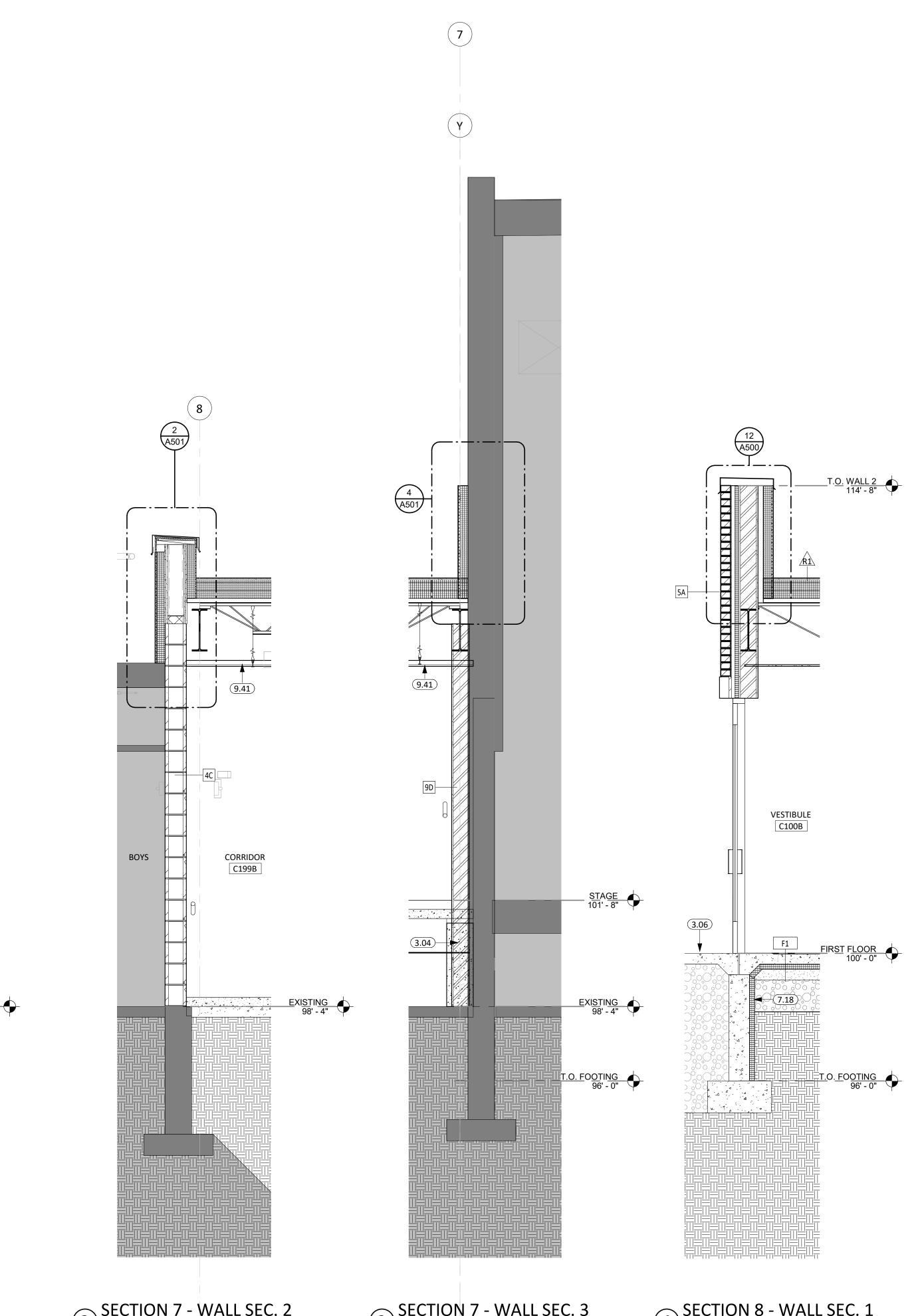
SECTION - 6 - WALL SECTION 1

1/2" = 1'-0"

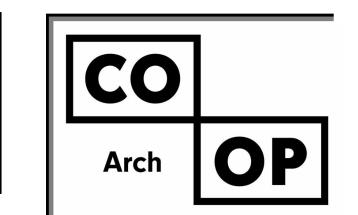
SECTION 5 - WALL SEC. 1

SECTION 6 - WALL SECTION 1

1/2" = 1'-0"



**KEYNOTE SCHEDULE** CONT. CONC. FOUNDATION WALL (SEE STRUCTURAL PLANS) CONCRETE STOOP w/FROST FREE FOOTING (SEE STRUCTURAL/LANDSCAPE 2" RIGID INSULATION. INSULATION IS CONTINUOUS FROM TOP OF FOOTING TO 24" INTO BUILDING UNDER FLOOR SLAB AS INDICATED. ACOUSTICAL TILE CEILINGS SYSTEM (COORD. w/ MECH. & ELEC. FOR FIXTURE REQ./LOCATIONS)

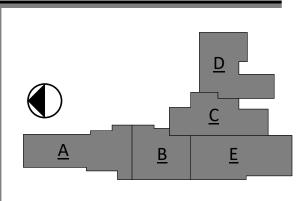


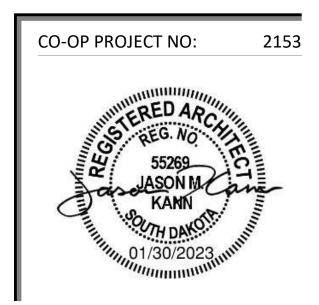
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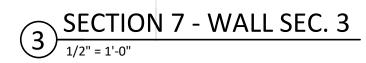
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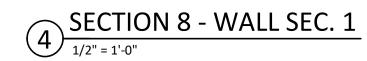
WALL SECTIONS

A313

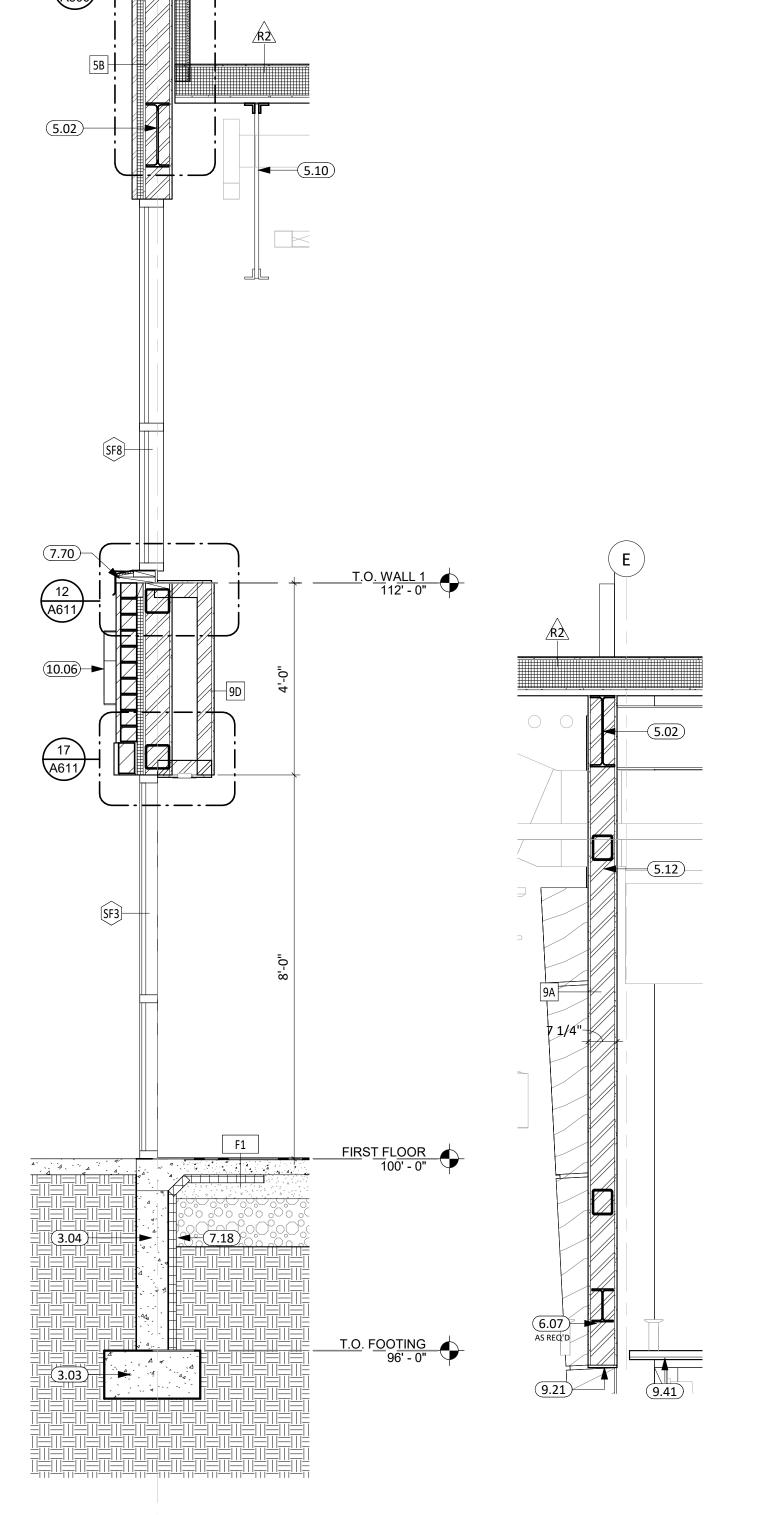
CORRIDOR C199C



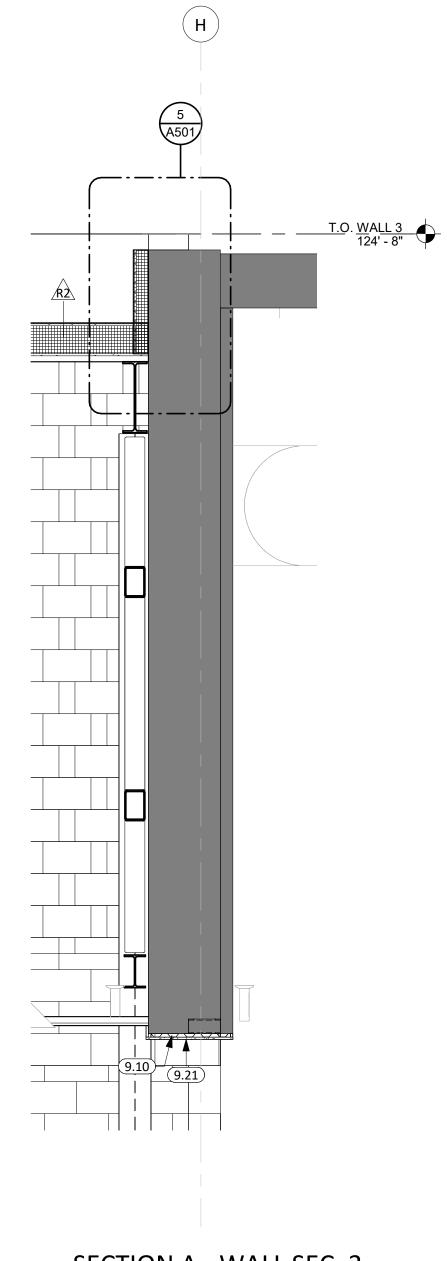








T.O. WALL 3



SECTION A - WALL SEC. 1

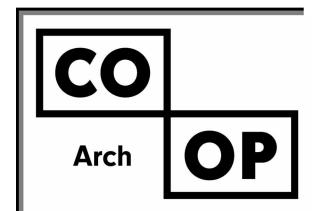
1/2" = 1'-0"

SECTION A - WALL SEC. 2

1/2" = 1'-0"



	<b>KEYNOTE SCHEDULE</b>
3.03	CONC. FOOTING PAD (SEE STRUCTURAL PLANS)
3.04	CONT. CONC. FOUNDATION WALL (SEE STRUCTURAL PLANS)
5.02	STRUCTURAL STEEL BEAM (SEE ARCH. & STRUCT.)
5.10	STEEL JOIST (SEE ARCH. & STRUCT.)
5.12	STEEL BRACE FRAME (SEE ARCH. & STRUCT.)
6.07	2x WOOD BLOCKING AS REQUIRED
7.18	2" RIGID INSULATION. INSULATION IS CONTINUOUS FROM TOP OF FOOTING TO 24" INTO BUILDING UNDER FLOOR SLAB AS INDICATED.
7.70	PRE-FINISHED SHEET METAL FLASHING
9.10	7/8" FURRING CHANNEL
9.21	5/8" GYPSUM BOARD
9.41	ACOUSTICAL TILE CEILINGS SYSTEM (COORD. w/ MECH. & ELEC. FOR FIXTURE REQ./LOCATIONS)
10.06	CAST ALUMINUM DIMENSIONAL LETTER SIGNAGE - ARIAL FONT STYLE

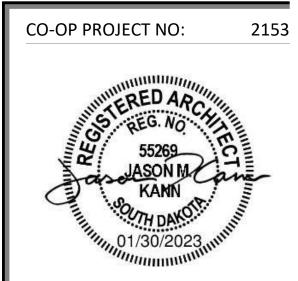


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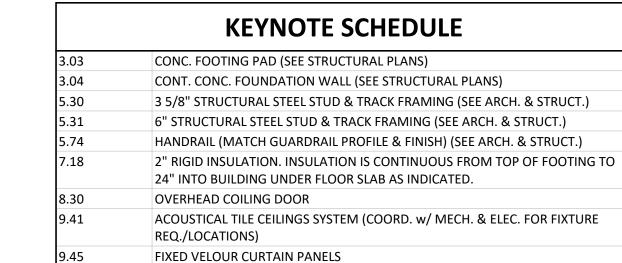
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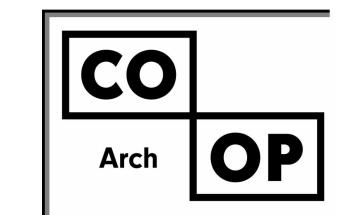
WILLOW LAKE SCHOOL ADDITION

WILLOW LAKE SCHOOL DISTRICT WILLOW LAKE, SOUTH DAKOTA

SHEET TITLE:

WALL SECTIONS

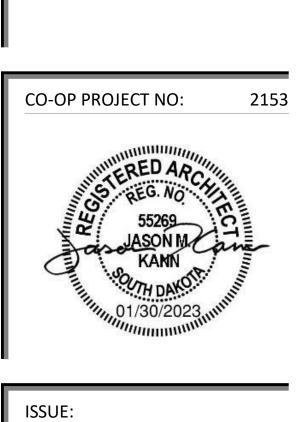




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PROJECT:

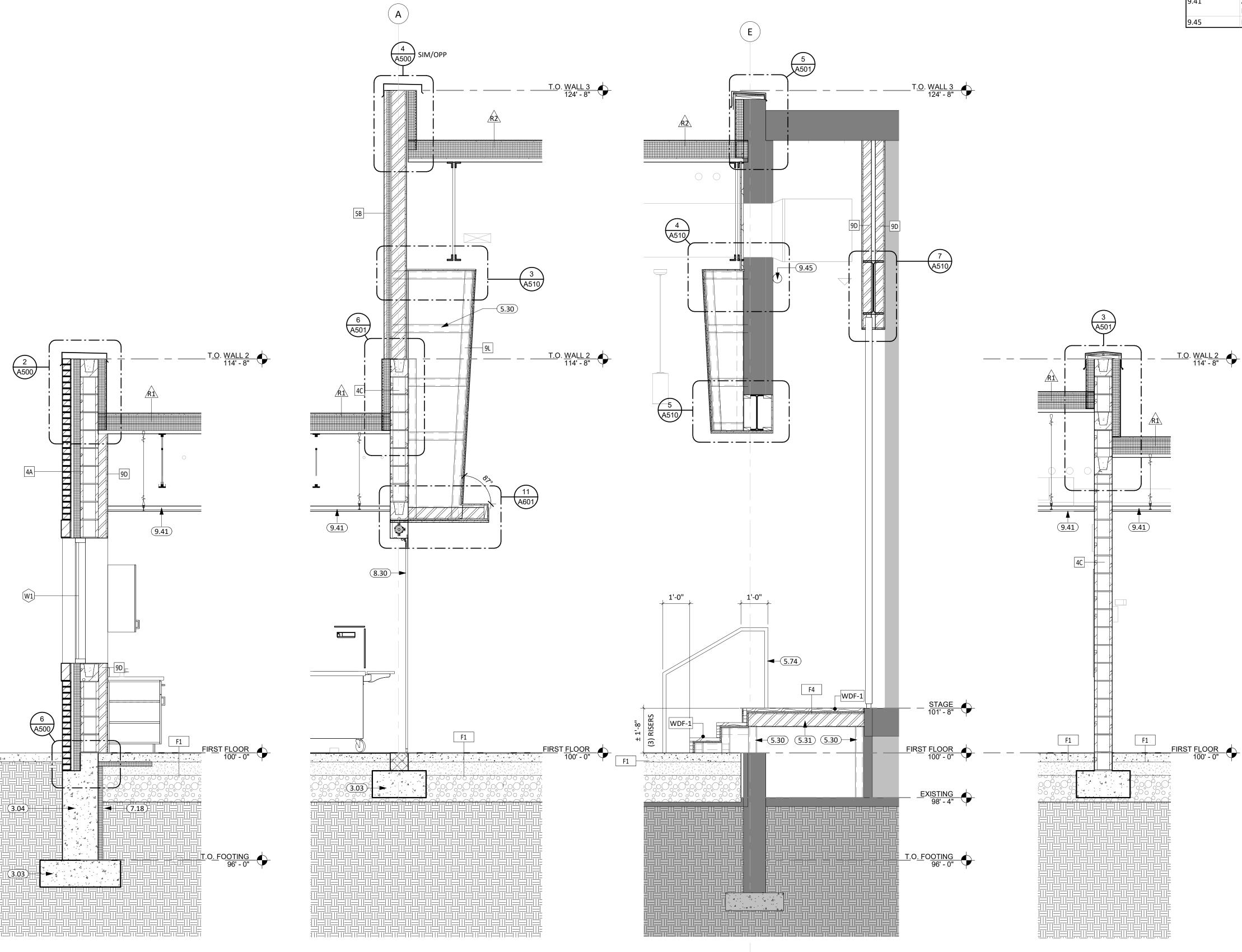
WILLOW LAKE SCHOOL ADDITION

WILLOW LAKE SCHOOL DISTRICT WILLOW LAKE, SOUTH DAKOTA

SHEET TITLE:

WALL SECTIONS

A315



SECTION B - WALL SEC. 1

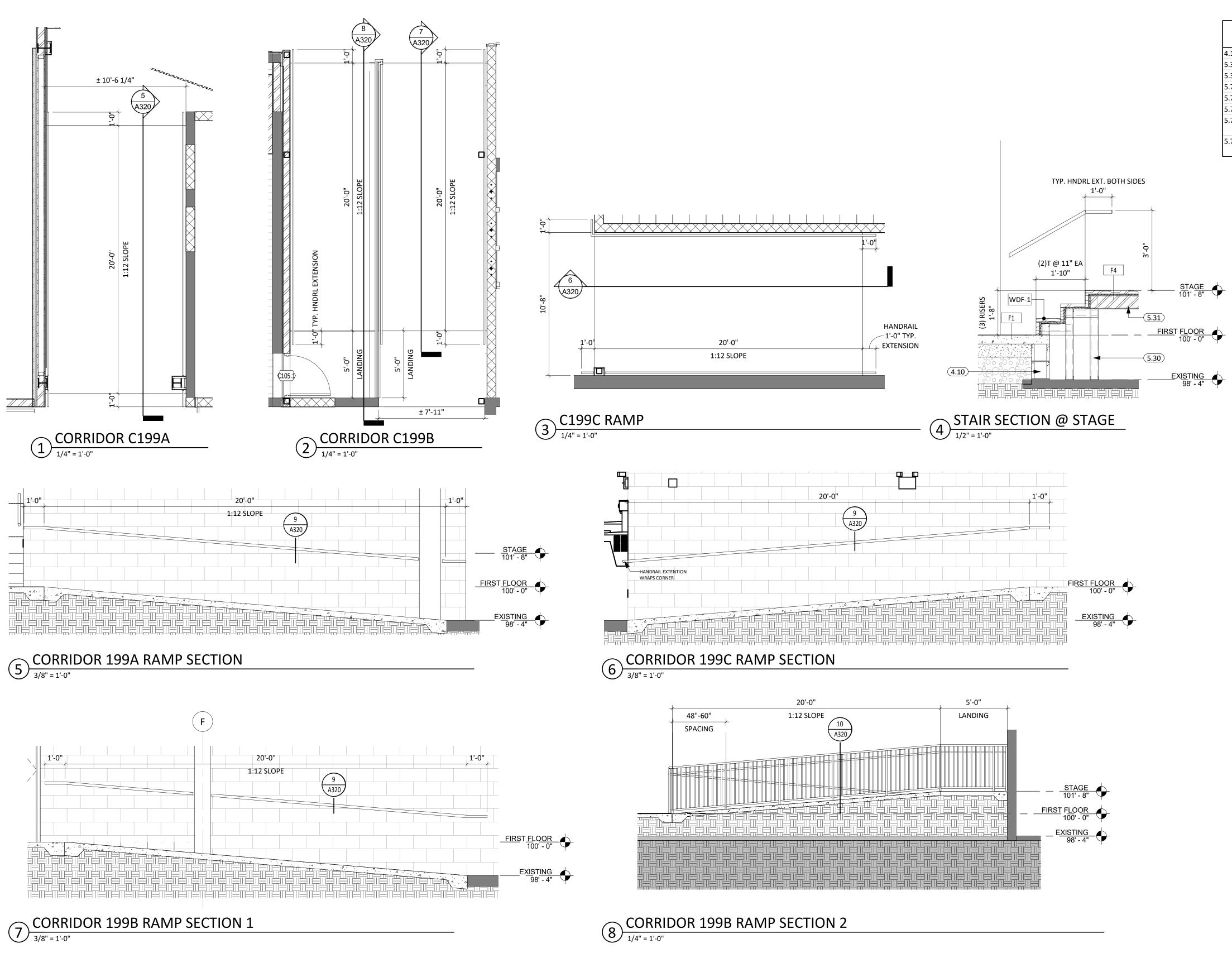
1/2" = 1'-0"

SECTION B - WALL SEC. 2

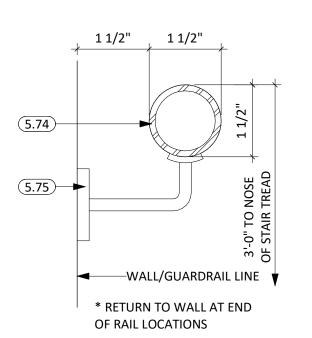
3 SECTION B - WALL SEC. 3

SECTION C - WALL SEC. 1

1/2" = 1'-0"

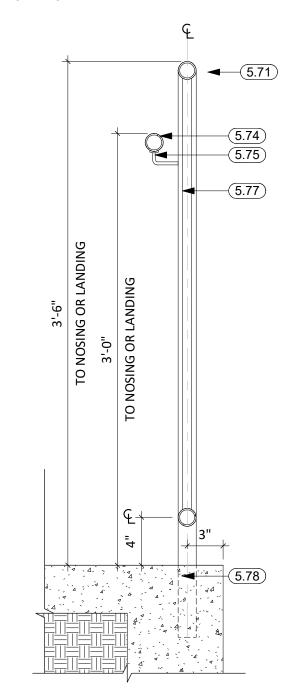


4.10 CMU MASONRY UNIT
5.30 3 5/8" STRUCTURAL STEEL STUD & TRACK FRAMING (SEE ARCH. & STRUCT.)
5.31 6" STRUCTURAL STEEL STUD & TRACK FRAMING (SEE ARCH. & STRUCT.)
5.71 ROUND STEEL GUARDRAIL SECTION (SEE ARCH. & STRUCT.)
5.74 HANDRAIL (MATCH GUARDRAIL PROFILE & FINISH) (SEE ARCH. & STRUCT.)
5.75 HANDRAIL BRACKET (SEE ARCH. & STRUCT.)
5.77 3/4" ROUND STEEL BALUSTERS; 4" ON CENTER SPACING. (MATCH GUARDRAIL FINISH) (SEE ARCH. & STRUCT.)
5.78 DRILL AND EPOXY GUARDRAIL BALUSTERS INTO CONCRETE BELOW. 6" MIN DEPTH. (SEE ARCH. & STRUCT.)



9 HANDRAIL DETAIL

6" = 1'-0"



GUARDRAIL DETAIL @ RAMP

1 1/2" = 1'-0"

CO Arch

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CO-OP PROJECT NO: 2153

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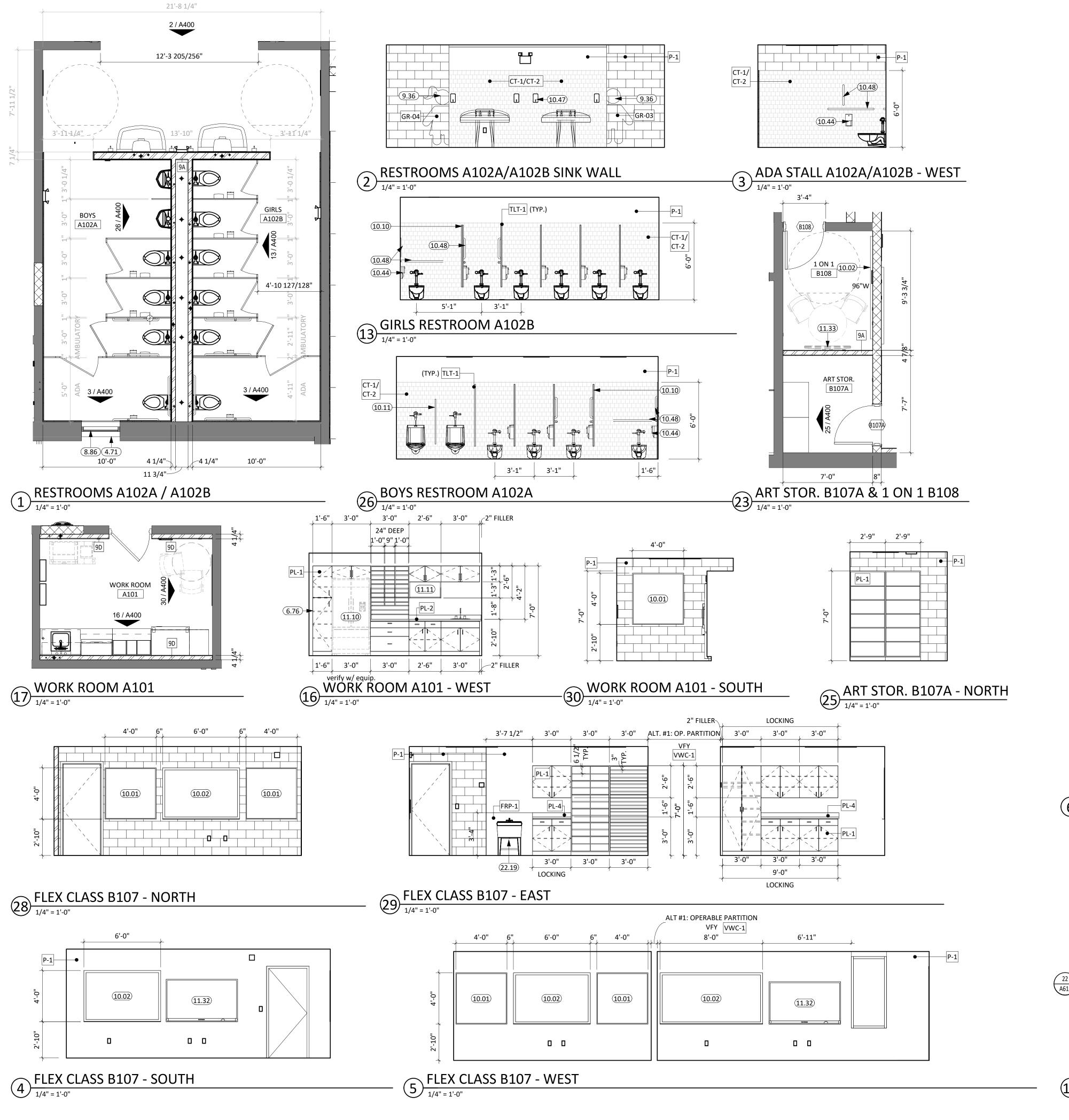
PROJECT:

WILLOW LAKE SCHOOL ADDITION

WILLOW LAKE SCHOOL DISTRICT WILLOW LAKE, SOUTH DAKOTA

SHEET TITLE:

STAIR/RAMP SECTIONS & DETAILS



# **GENERAL NOTES**

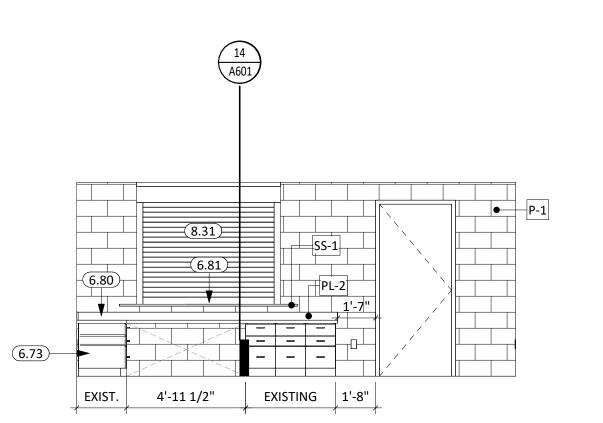
- SEE SHEET **G000** FOR REQUIRED ADA CLEARANCES & MOUNTING HEIGHTS.
- FIRE RATED WALLS ARE INDICATED ON THE CODE PLANS. ALL WALLS TO EXTEND TO DECK UNLESS OTHERWISE NOTED ON WALL TYPES.
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- OPENINGS. COORDINATE ALL CASEWORK DIMPNSIC S VITH OWNER PROVIDED AND CONTRACTOR PROVIDED APPLIANCES/EQUIP 15 T.

  PROVIDE COUNTERTOP SUPPORTS AT OPEN SPA 5 AT MINIMUM OF 32" ON CENTER AND
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- COORDINATE DEVICE PENETRAT INS AT COUNTERTOPS W/ MECHANICAL AND ELECTRICAL.
- MILLWORK SUPPLIER SHALL OV. ET LLER PANELS AND SCRIBE STRIPS AS NEEDED FOR COMPLETE INSTALLATION.
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- 12. COORDINATE INSTALLATION OF OWNER PROVIDED EQUIPMENT WITH NEW CONSTRUCTION. 13. CAULK PERIMETER OF TUB/SHOWER UNITS, TOILETS, URINALS, SINKS AND COUNTERTOPS AS
- 14. PROVIDE 2x BLOCKING AT GRAB BAR AND FUTURE GRAB BAR LOCATIONS. SEE CODE SHEETS FOR ADDITIONAL BLOCKING INFORMATION.
- 15. PJ = PANEL JOINT

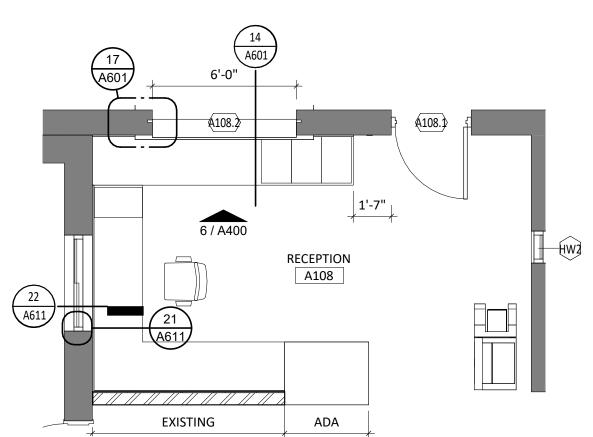
16. RV = REVEAL

# **KEYNOTE SCHEDULE**

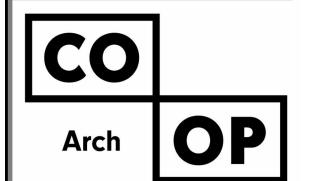
	KLINOIL SCIILDOLL
4.71	INFILL LOUVER OPENING W/ BRICK, INSULATION, AND CMU TO MATCH EXISTING WALL CONSTRUCTION/FINISH; SEE MECHANICAL PLANS FOR DEMOLISHED LOUVER LOCATIONS.
6.73	PLASTIC LAMINATE BASE CABINET
6.76	FINISHED END
6.80	PLASTIC LAMINATE COUNTERTOP
6.81	SOLID SURFACE
8.31	OVERHEAD COILING COUNTER DOOR
8.86	EXISTING GLAZING TO BE REPLACED WITH 1" INSULATED FROSTED GLASS
9.36	SINGLE-TONE PAINTED SIGNAGE GRAPHIC
10.01	TACKBOARD, SEE FINISH LEGEND [TB-1]
10.02	MARKERBOARD, B.O.DCLARIDGE SERIES 1 WALLBOARD W/ 1" CORK/MAP RAIL [WHITE],
10.10	TOILET PARTITION
10.11	URINAL SCREEN
10.44	TOILET TISSUE DISPENSER, PER OWNER
10.47	SOAP DISPENSER, PER OWNER
10.48	GRAB BAR
11.10	REFRIGERATOR
11.11	MICROWAVE; (OWNER PROVIDED CONTRACTOR INSTALLED)
11.32	SMARTBOARD (OWNER PROVIDED CONTRACTOR INSTALLED)
11.33	TV MONITOR (OWNER PROVIDED CONTRACTOR INSTALLED)
22.19	UTILITY SINK; SEE PLUMBING



# 6 RECEPTION A108- EAST





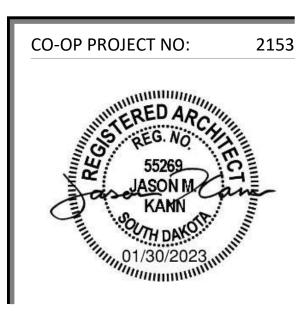


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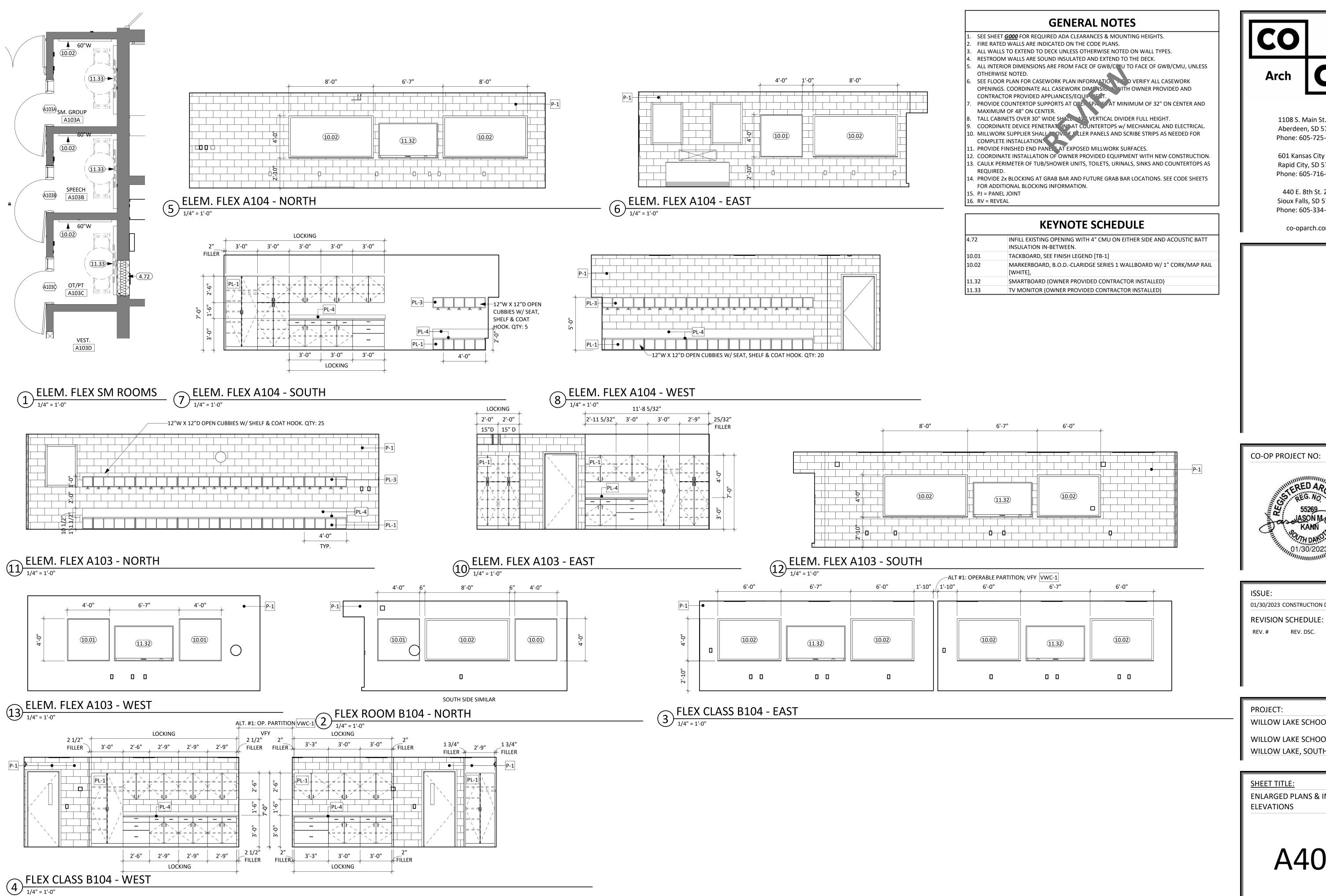
PROJECT:

WILLOW LAKE SCHOOL ADDITION

WILLOW LAKE SCHOOL DISTRICT WILLOW LAKE, SOUTH DAKOTA

**SHEET TITLE:** 

**ENLARGED PLANS & INTERIOR ELEVATIONS** 



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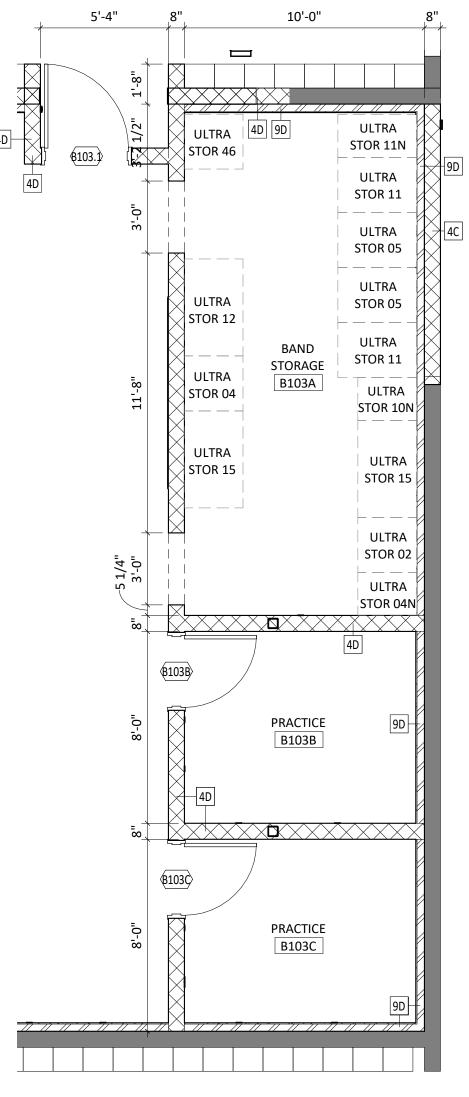
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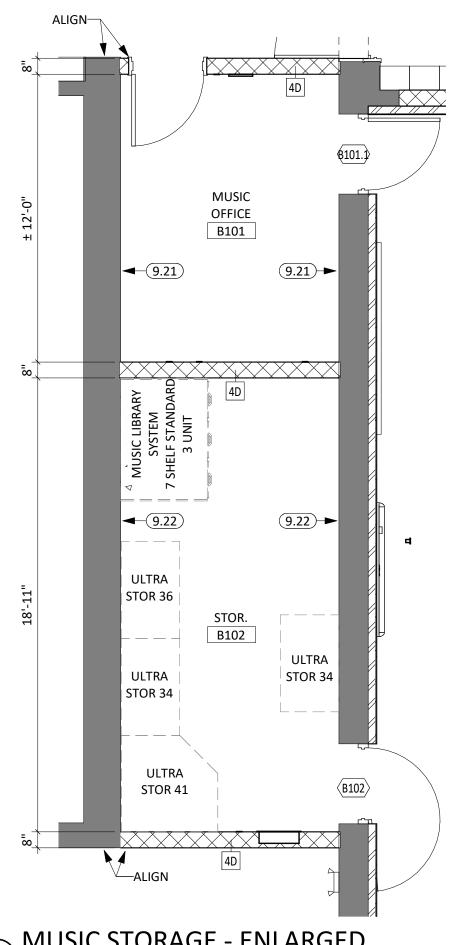
WILLOW LAKE SCHOOL DISTRICT WILLOW LAKE, SOUTH DAKOTA

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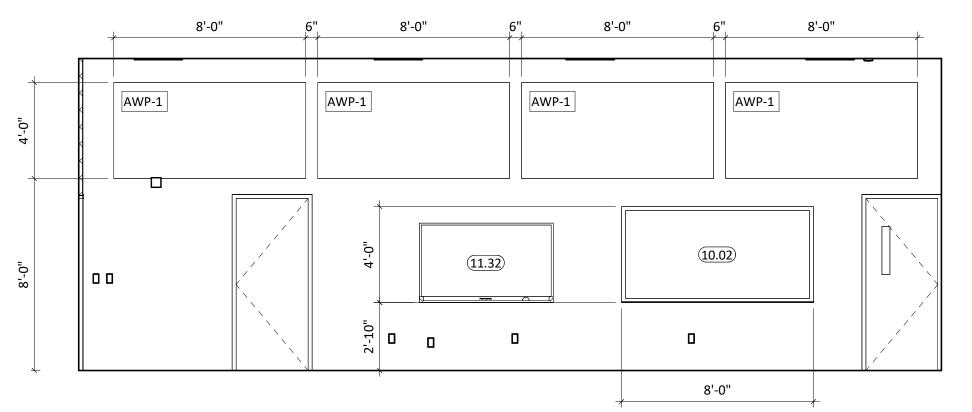




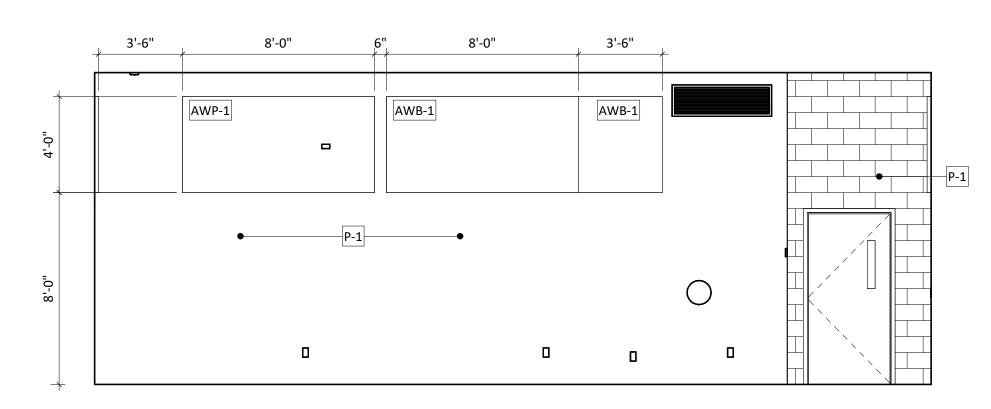


MUSIC STORAGE - ENLARGED

1/4" = 1'-0"

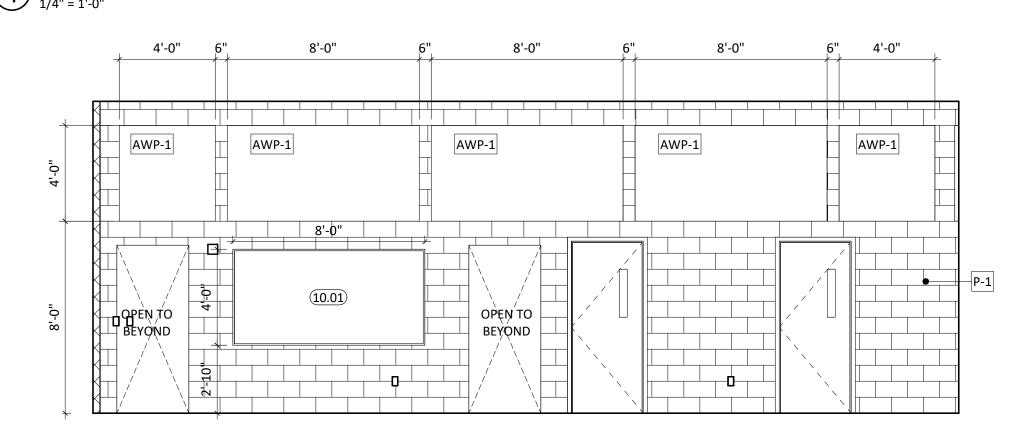


3 MUSIC B103 - NORTH



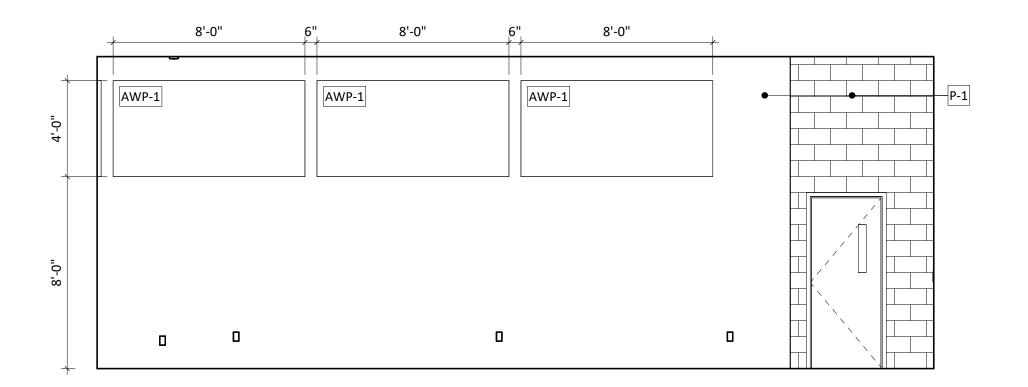
MUSIC B103 - EAST

1/4" = 1'-0"



5 MUSIC B103 - SOUTH

1/4" = 1'-0"



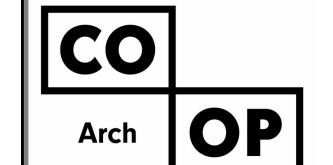
6 MUSIC B103 - WEST

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	KEYNOTE SCHEDULE										
9.21	5/8" GYPSUM BOARD										
9.22	5/8" HIGH IMPACT GYPSUM BOARD										
10.01	TACKBOARD, SEE FINISH LEGEND [TB-1]										
10.02	MARKERBOARD, B.O.DCLARIDGE SERIES 1 WALLBOARD W/ 1" CORK/MAP RAIL [WHITE],										
11.32	SMARTBOARD (OWNER PROVIDED CONTRACTOR INSTALLED)										

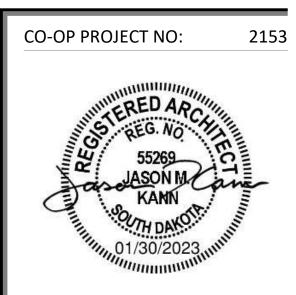


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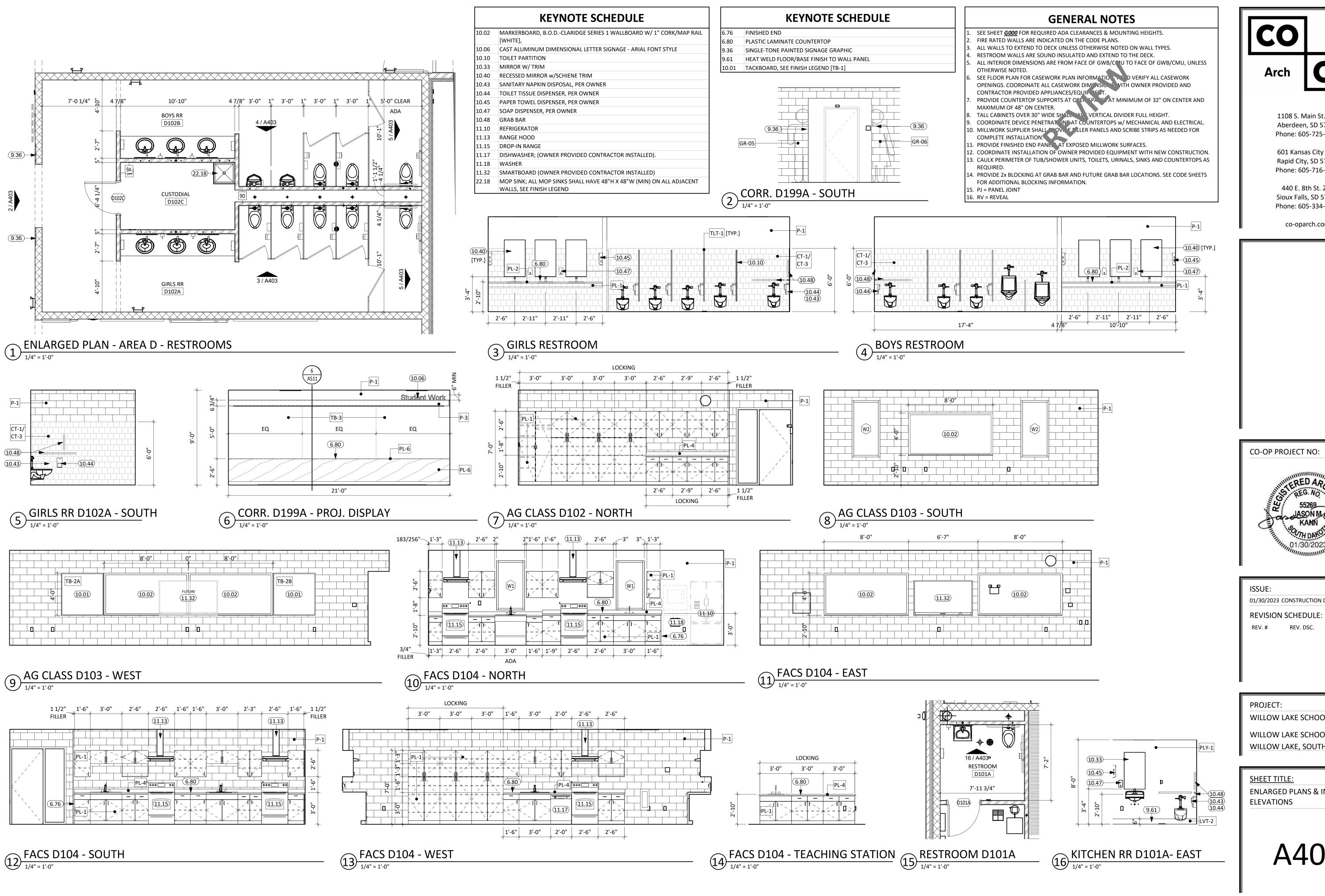
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WILLOW LAKE SCHOOL ADDITION

WILLOW LAKE SCHOOL DISTRICT WILLOW LAKE, SOUTH DAKOTA

**SHEET TITLE:** 

ENLARGED PLANS & INTERIOR **ELEVATIONS** 



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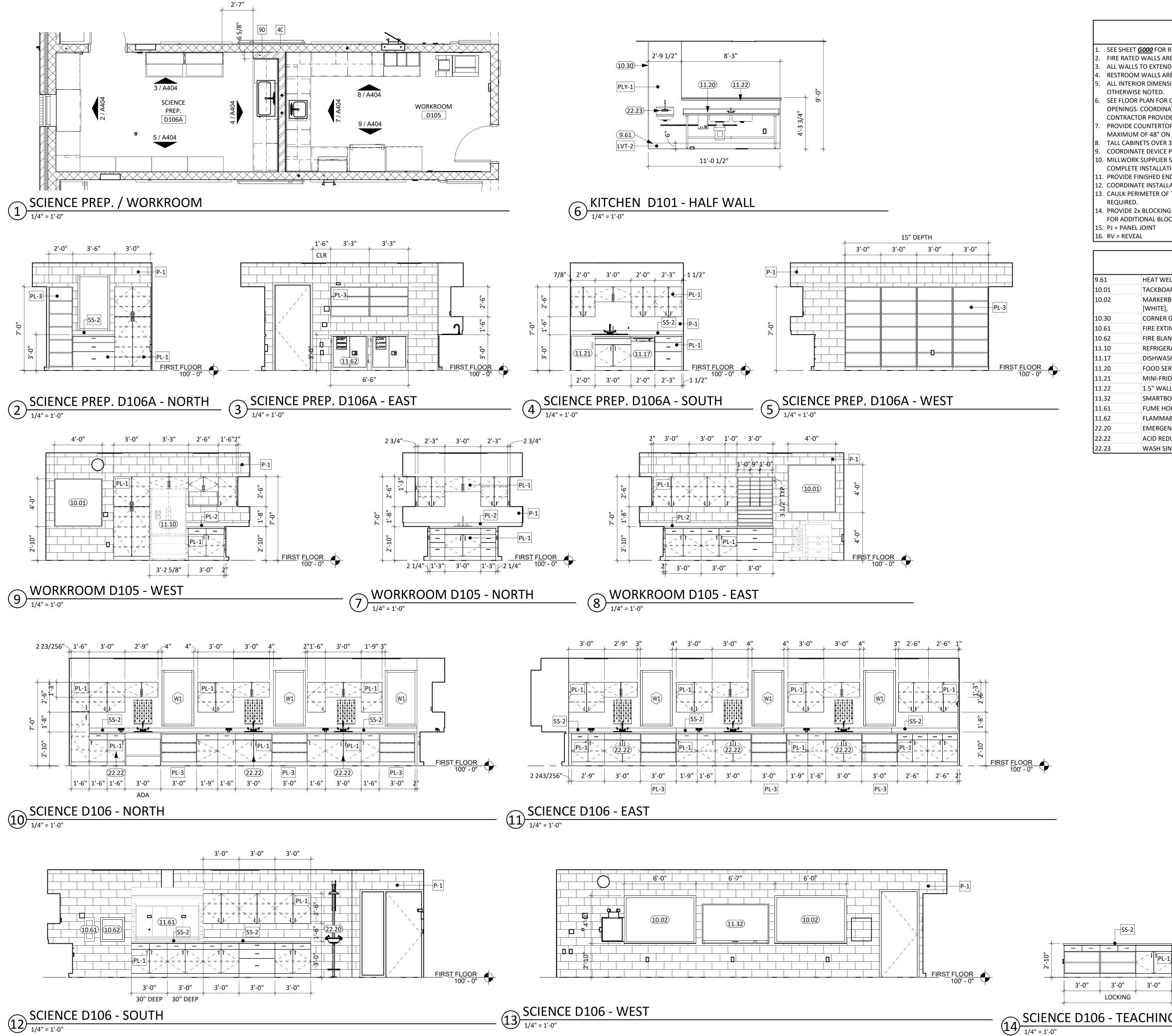
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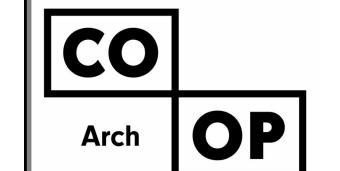
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WASH SINK; SEE PLUMBING

15. PJ = PANEL JOINT 16. RV = REVEAL

	KEYNOTE SCHEDULE
9.61	HEAT WELD FLOOR/BASE FINISH TO WALL PANEL
10.01	TACKBOARD, SEE FINISH LEGEND [TB-1]
10.02	MARKERBOARD, B.O.DCLARIDGE SERIES 1 WALLBOARD W/ 1" CORK/MAP RAIL [WHITE],
10.30	CORNER GUARDS
10.61	FIRE EXTINGUISHER AND WALL CABINET
10.62	FIRE BLANKET AND WALL CABINET
11.10	REFRIGERATOR
11.17	DISHWASHER; (OWNER PROVIDED CONTRACTOR INSTALLED).
11.20	FOOD SERVICE EQUIPMENT (SEE SCHEDULE)
11.21	MINI-FRIDGE (OWNER PROVIDED CONTRACTOR INSTALLED
11.22	1.5" WALL CAP, PROVIDED W/ EQUIPMENT
11.32	SMARTBOARD (OWNER PROVIDED CONTRACTOR INSTALLED)
11.61	FUME HOOD
11.62	FLAMMABLE STORAGE CABINET
22.20	EMERGENCYEYEWASH UNIT
22.22	ACID REDUCER; SEE MECHANICAL

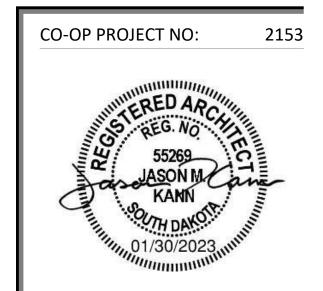


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WILLOW LAKE SCHOOL DISTRICT WILLOW LAKE, SOUTH DAKOTA

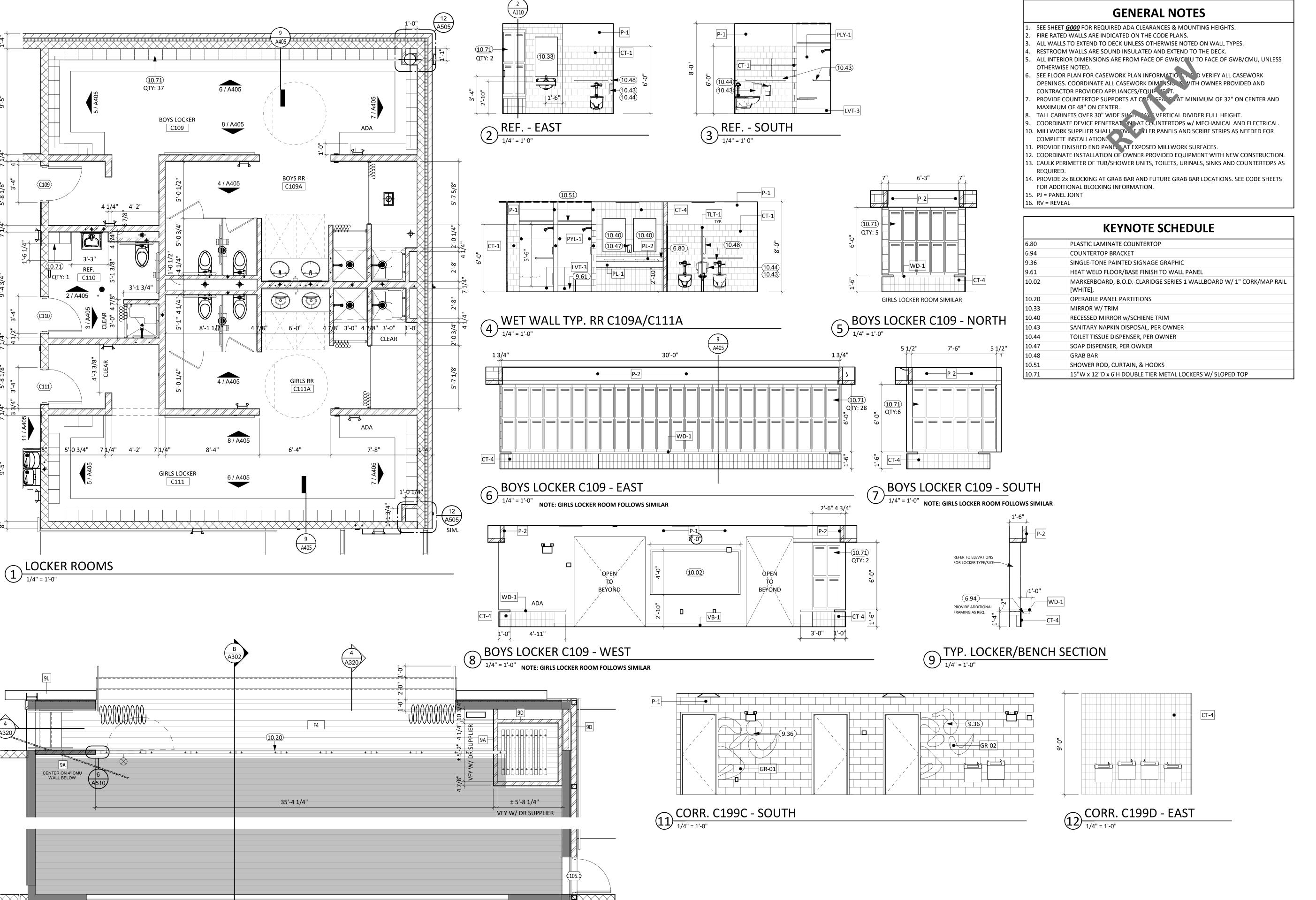
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**ENLARGED PLANS & INTERIOR ELEVATIONS** 

SCIENCE D106 - TEACHING STATION

1/4" = 1'-0"

SS-2



ENLARGED STAGE PLAN

1/4" = 1'-0"

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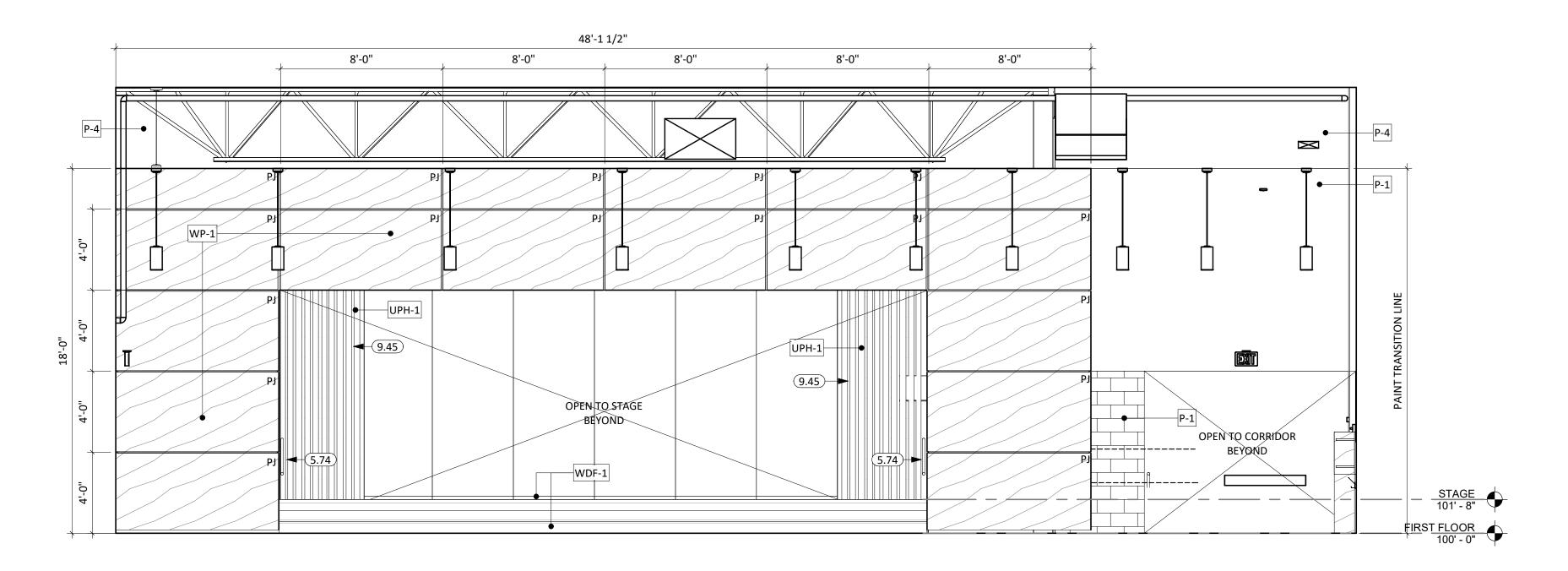
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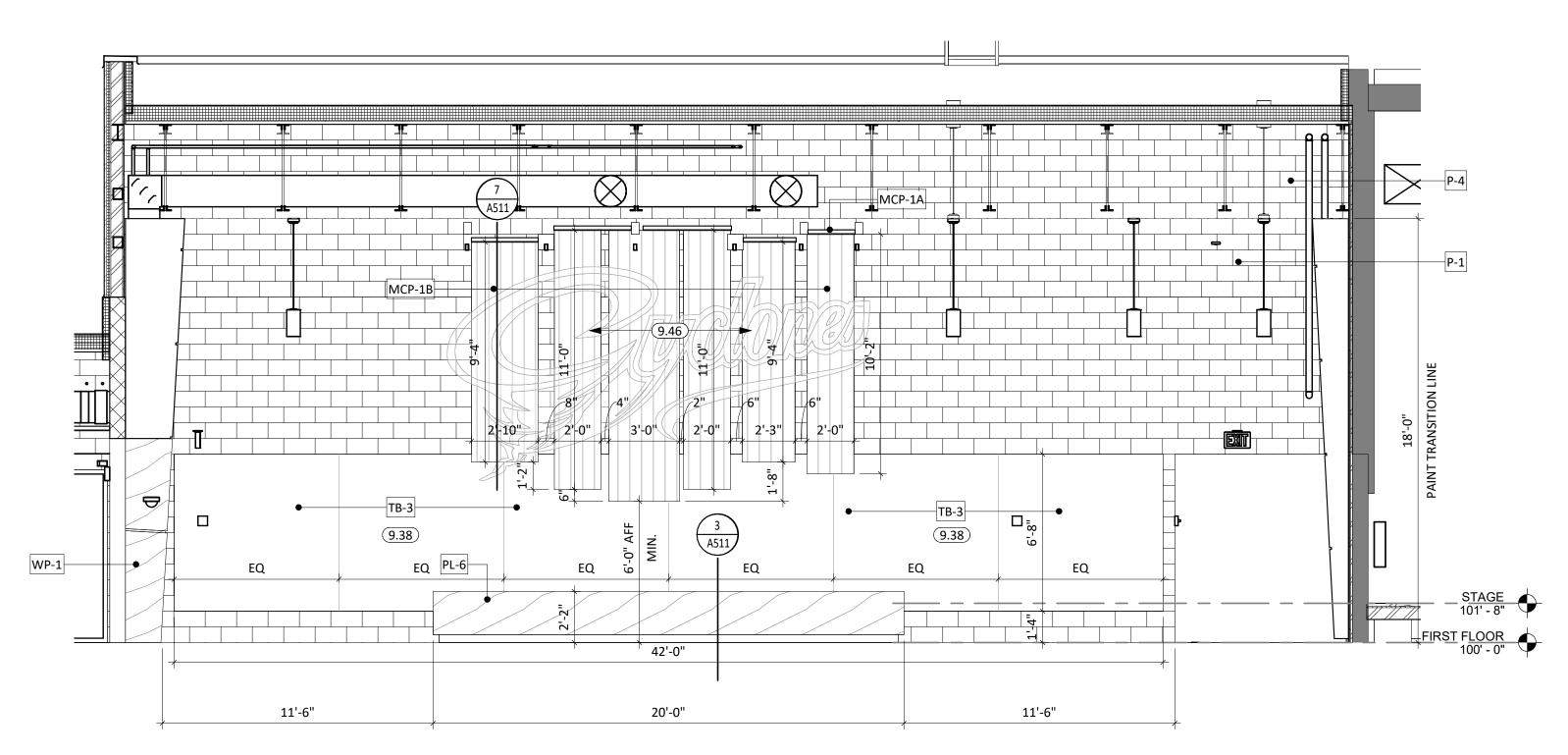
WILLOW LAKE SCHOOL DISTRICT WILLOW LAKE, SOUTH DAKOTA

SHEET TITLE:

ENLARGED PLANS & INTERIOR ELEVATIONS



1 COMMONS C101 - WEST



2 COMMONS C101 - SOUTH

1/4" = 1'-0"

# **GENERAL NOTES**

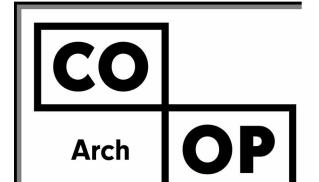
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- 16. RV = REVEAL

# **KEYNOTE SCHEDULE**

5.74	HANDRAIL (MATCH GUARDRAIL PROFILE & FINISH) (SEE ARCH. & STRUCT.)
9.38	WALLCOVERING WRAPPED 5/8" X 60" (MIN) CORK BOARD
9.45	FIXED VELOUR CURTAIN PANELS
9.46	1/8" ACRYLIC DIMENSIONAL SIGNAGE ON STRUCTURAL STAND-OFF(S) @ METAL
	WALL PANEL. FLOAT CYCLONE-LOGO & SCALE DOWN, AS NEEDED



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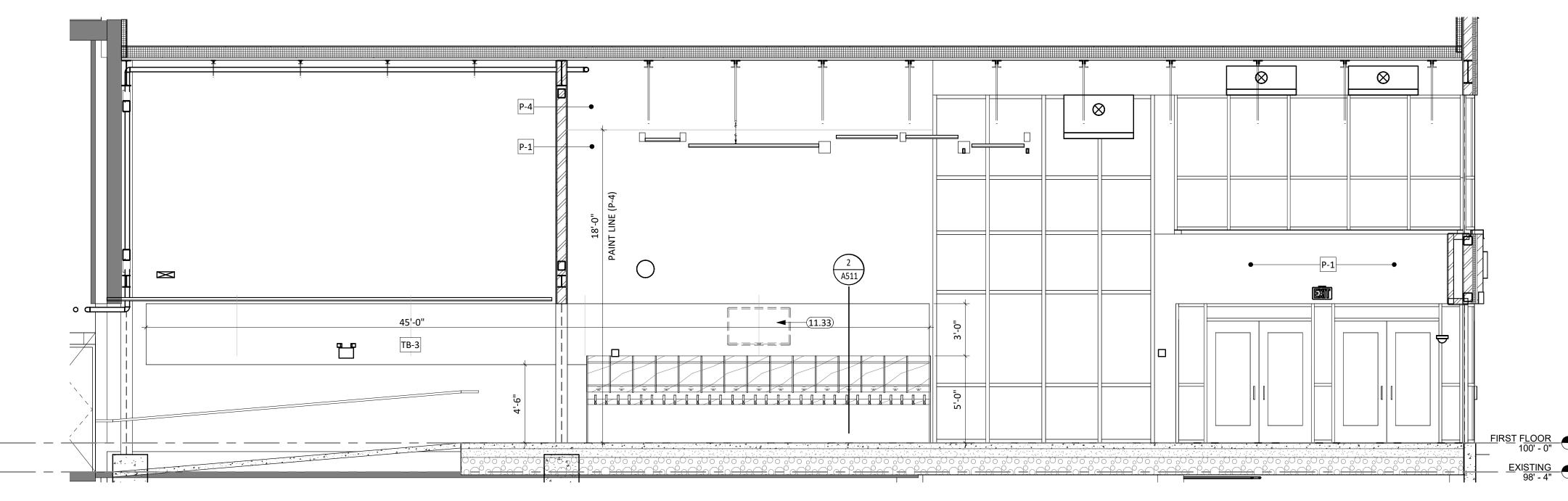
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WILLOW LAKE SCHOOL ADDITION

WILLOW LAKE SCHOOL DISTRICT WILLOW LAKE, SOUTH DAKOTA

SHEET TITLE:

**ENLARGED PLANS & INTERIOR ELEVATIONS** 



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# **KEYNOTE SCHEDULE**

CAST ALUMINUM DIMENSIONAL LETTER SIGNAGE - ARIAL FONT STYLE TV MONITOR (OWNER PROVIDED CONTRACTOR INSTALLED)

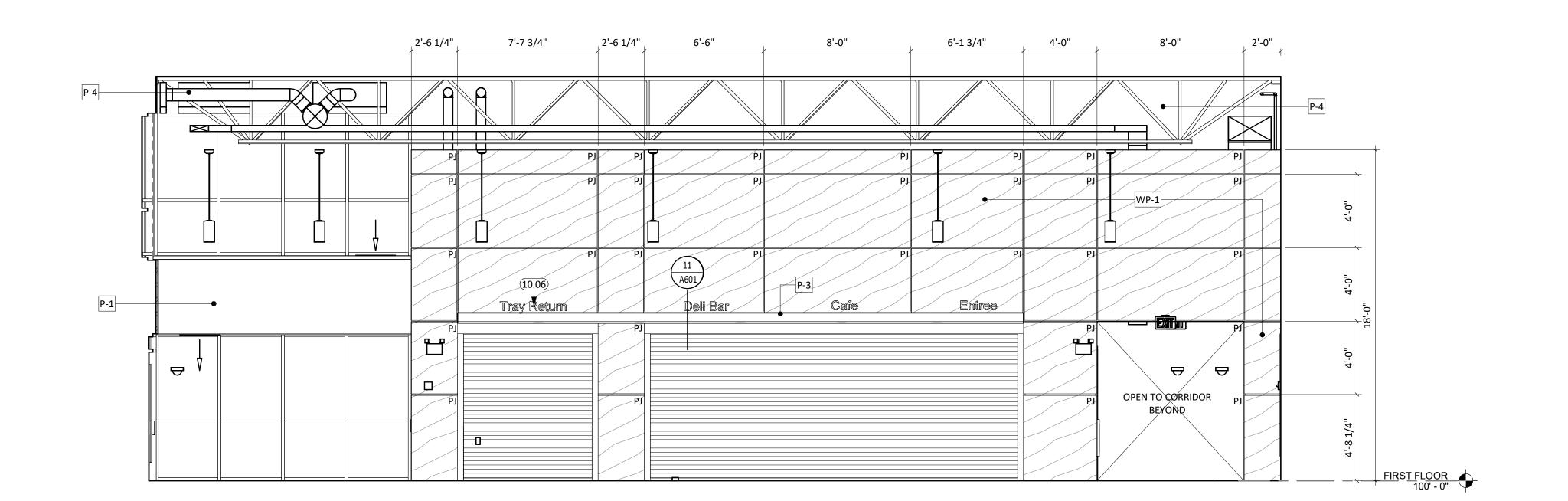
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1 COMMONS C101 - NORTH



2 COMMONS C101 - EAST

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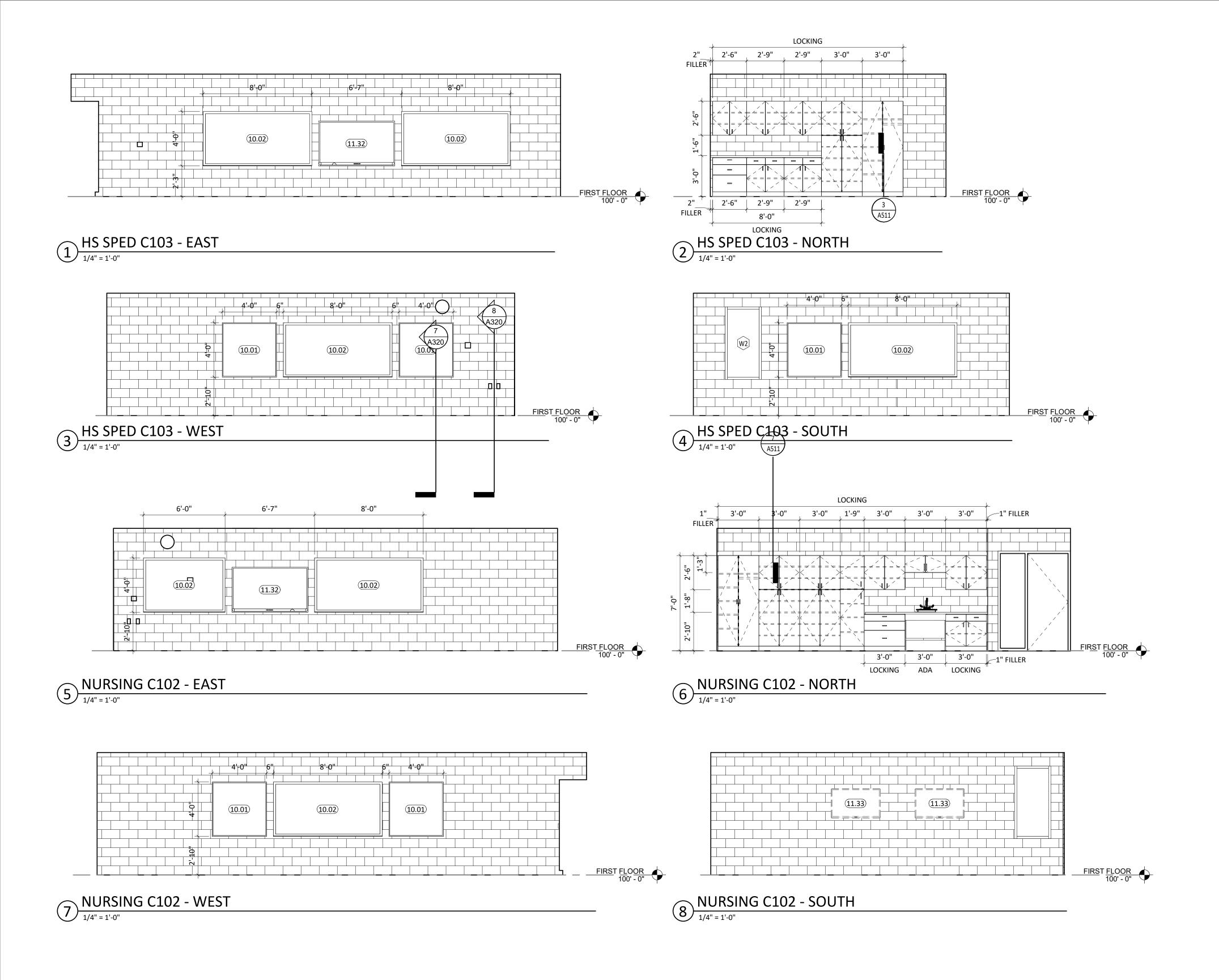
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WILLOW LAKE SCHOOL DISTRICT WILLOW LAKE, SOUTH DAKOTA

SHEET TITLE:

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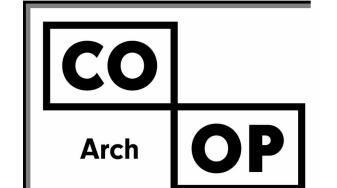
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16. RV = REVEAL

10.01

KEYNOTE SCHEDULE
TACKBOARD, SEE FINISH LEGEND [TB-1]
MARKERBOARD, B.O.DCLARIDGE SERIES 1 WALLBOARD W/ 1" CORK/MAP RAIL [WHITE],
SMARTBOARD (OWNER PROVIDED CONTRACTOR INSTALLED)
TV MONITOR (OWNER PROVIDED CONTRACTOR INSTALLED)



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REVISION SCHEDULE:

REV. # REV. DSC.

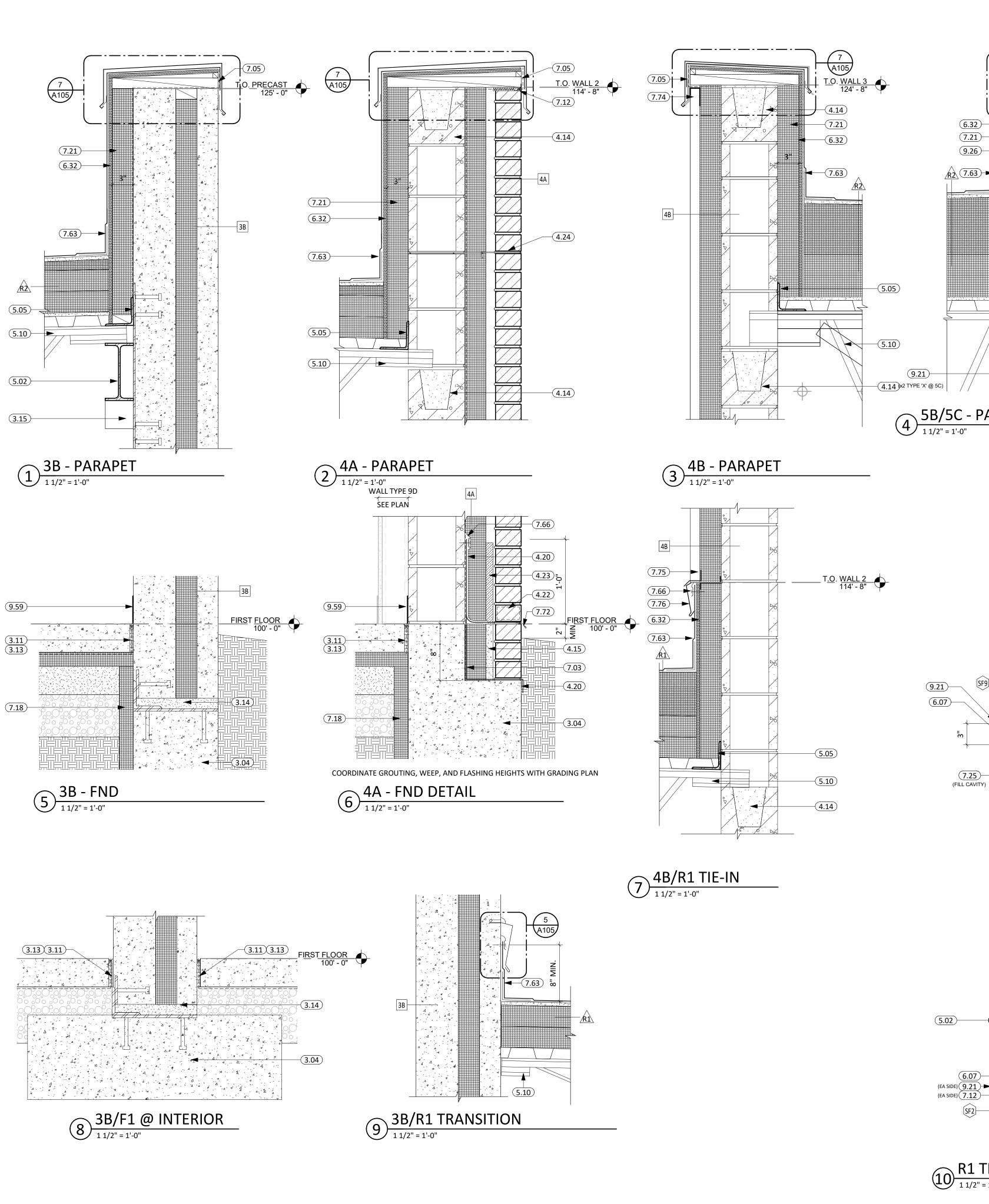
PROJECT:

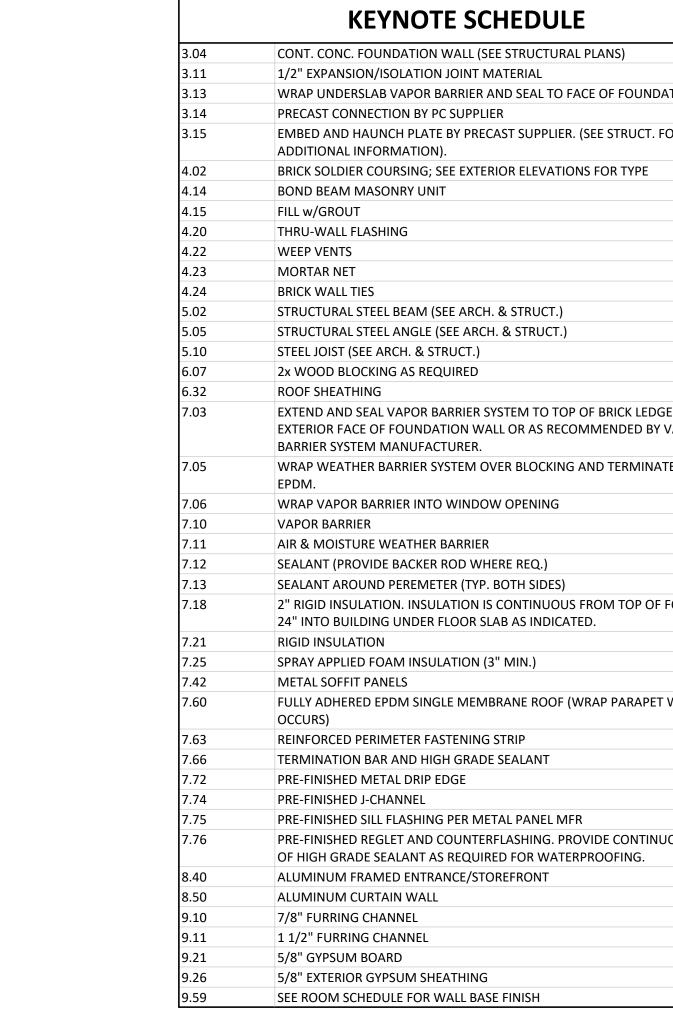
WILLOW LAKE SCHOOL ADDITION

WILLOW LAKE SCHOOL DISTRICT WILLOW LAKE, SOUTH DAKOTA

**SHEET TITLE:** 

INTERIOR ELEVATIONS





7 A105

6.32

7.60

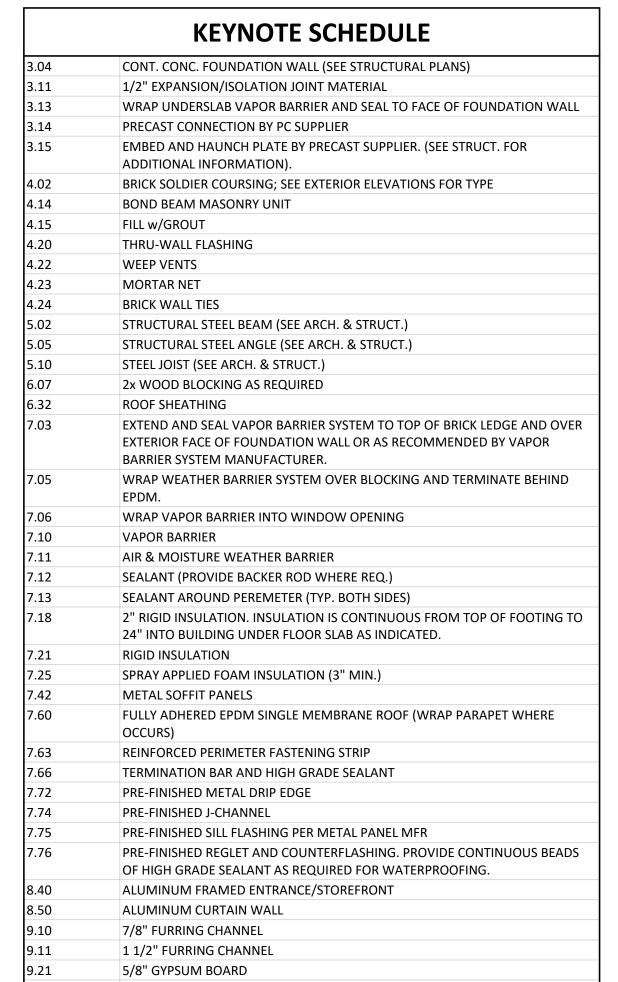
7.63

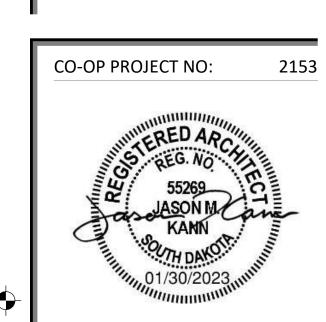
7.10

5.05

 $\underbrace{9.26}^{\downarrow} \underbrace{7.11}^{\downarrow} \underbrace{9.11}^{\downarrow} \underbrace{7.42}^{\downarrow}$ 

(2)





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REVISION SCHEDULE:

REV. DATE

PROJECT:

WILLOW LAKE SCHOOL ADDITION

WILLOW LAKE SCHOOL DISTRICT WILLOW LAKE, SOUTH DAKOTA

**SHEET TITLE:** 

**EXTERIOR DETAILS** 

A500



**—**(9.26)

**(5.05)** 

7.25

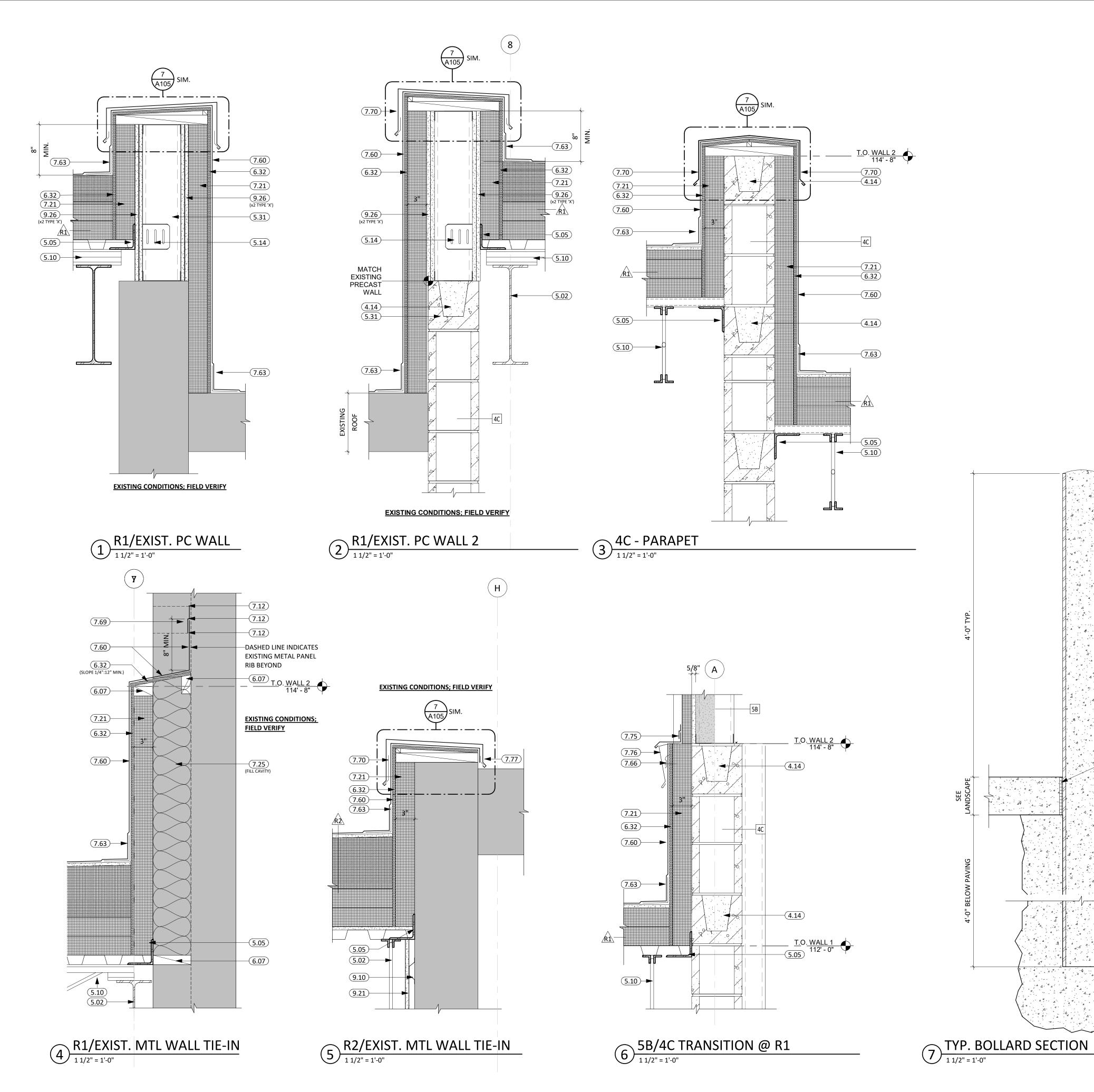
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A105

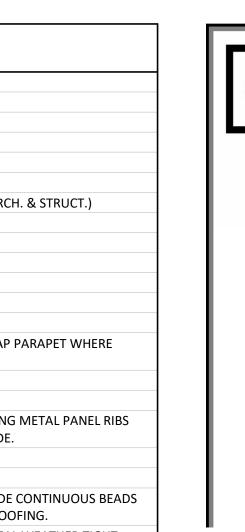
**5.05** 

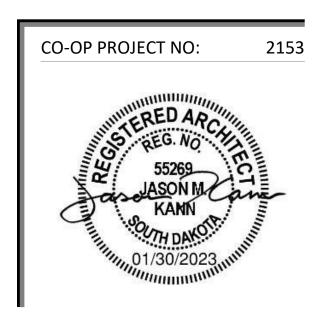
-(9.26)

(x2 TYPE 'X' @ 5C)









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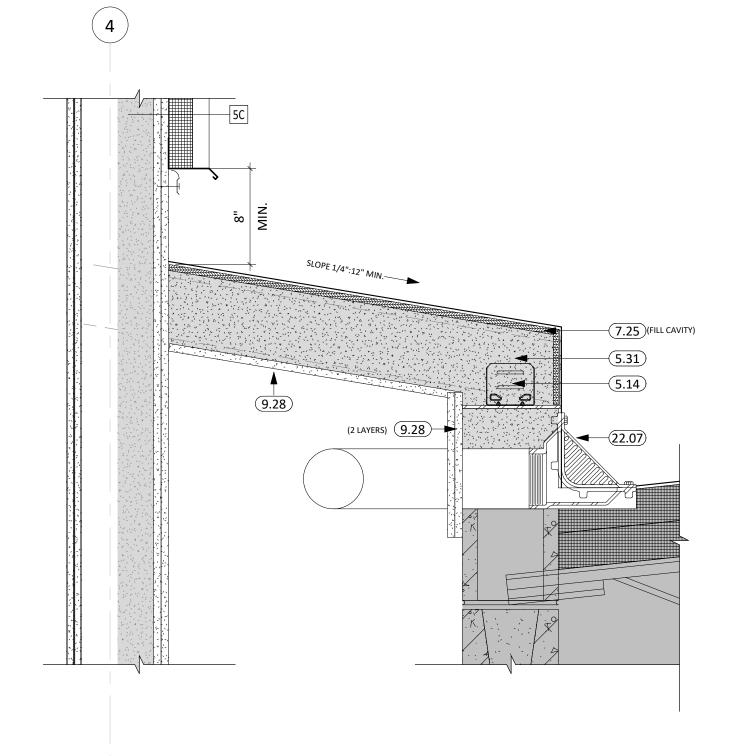
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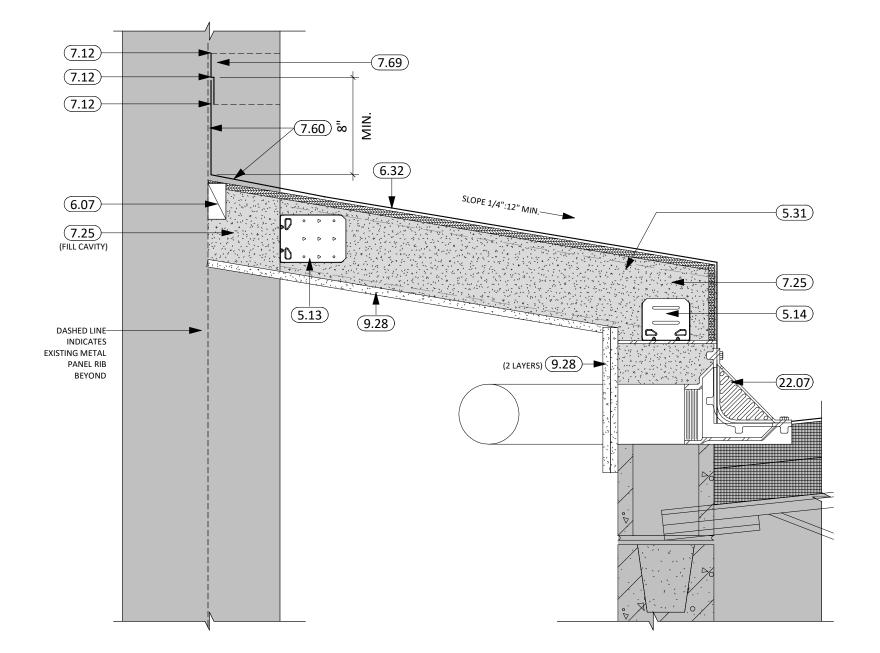
WILLOW LAKE SCHOOL ADDITION

WILLOW LAKE SCHOOL DISTRICT WILLOW LAKE, SOUTH DAKOTA

**SHEET TITLE:** 

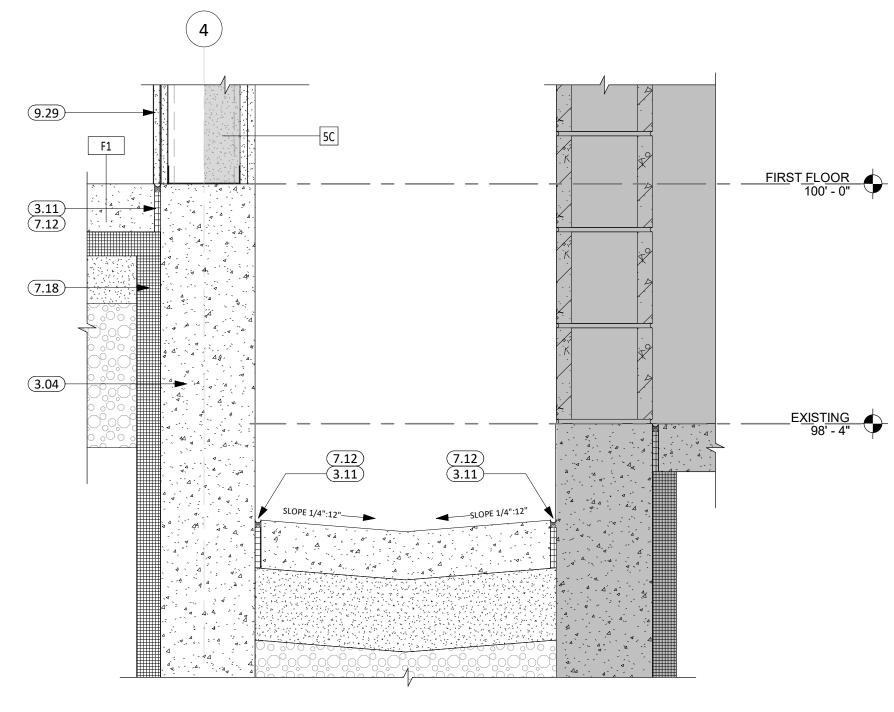
**EXTERIOR DETAILS** 





DRAIN CHANNEL ROOF BRG @ NEW

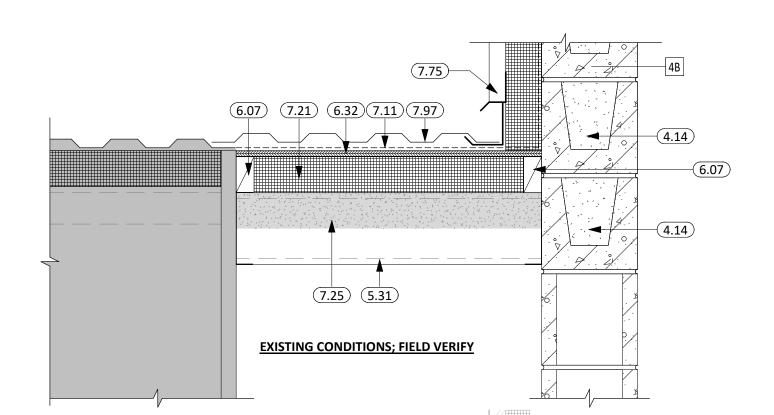
1 1/2" = 1'-0"



EXISTING CONDITIONS; FIELD VERIFY

5C FND @ DRAIN CHANNEL

1 1/2" = 1'-0"



DRAIN CHANNEL ROOF BRG @ EXISTING

1 1/2" = 1'-0"

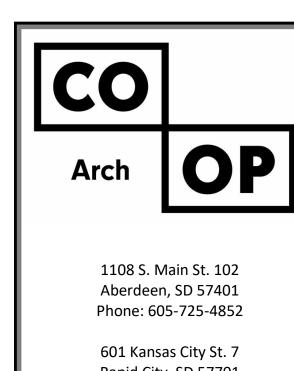
9.28

5 CORRIDOR D199B BRG

4B/EXISTING AG SHOP ROOF

1 1/2" = 1'-0"

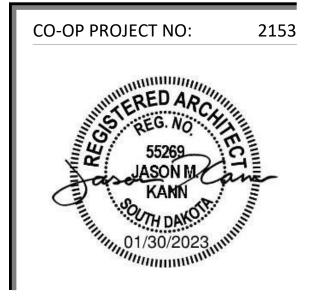
	KEYNOTE SCHEDULE
3.04	CONT. CONC. FOUNDATION WALL (SEE STRUCTURAL PLANS)
3.11	1/2" EXPANSION/ISOLATION JOINT MATERIAL
4.14	BOND BEAM MASONRY UNIT
4.17	CMU SOAPBLOCK
5.09	STRUCTURAL STEEL LINTLE (SEE ARCH. & STRUCT.)
5.13	STEEL CONNECTION ( SEE ARCH. & STRUCT.)
5.14	SLIDE-CLIP CONNECTOR; (SEE STRUCT.)
5.31	6" STRUCTURAL STEEL STUD & TRACK FRAMING (SEE ARCH. & STRUCT.)
6.07	2x WOOD BLOCKING AS REQUIRED
6.08	1x WOOD NAILER
6.32	ROOF SHEATHING
7.11	AIR & MOISTURE WEATHER BARRIER
7.12	SEALANT (PROVIDE BACKER ROD WHERE REQ.)
7.18	2" RIGID INSULATION. INSULATION IS CONTINUOUS FROM TOP OF FOOTING T 24" INTO BUILDING UNDER FLOOR SLAB AS INDICATED.
7.21	RIGID INSULATION
7.25	SPRAY APPLIED FOAM INSULATION (3" MIN.)
7.60	FULLY ADHERED EPDM SINGLE MEMBRANE ROOF (WRAP PARAPET WHERE OCCURS)
7.69	FLEXIBLE ROOF MEMBRANE FLASHING; FOLLOW EXISTING METAL PANEL RIBS AND PROVIDE WEATHER TIGHT SEALANT ON EITHER SIDE.
7.75	PRE-FINISHED SILL FLASHING PER METAL PANEL MFR
7.97	PROFILED SHEET METAL ROOFING TO MATCH EXISTING AG SHOP ROOFING. LAAND SEAL TOGETHER AND PROVIDE ALL REQUIRED FLASHINGS AND SEALANTS
8.01	DOOR (SEE SCHED.)
8.02	FRAME (SEE SCHED.)
9.04	3 5/8" STEEL STUD & TRACK FRAMING
9.28	5/8" TYPE 'X' GYPSUM BOARD
9.29	EXTEND LAYER OF GYP OVER FOUNDATION WALL AND SCRIBE TO RAMP BELO SECURE TO FOUNDATION WALL WITH MANUFACTURER APPROVED ADHESIVE
22.07	OBLIQUE ROOF DRAIN; SEE MECHANICAL



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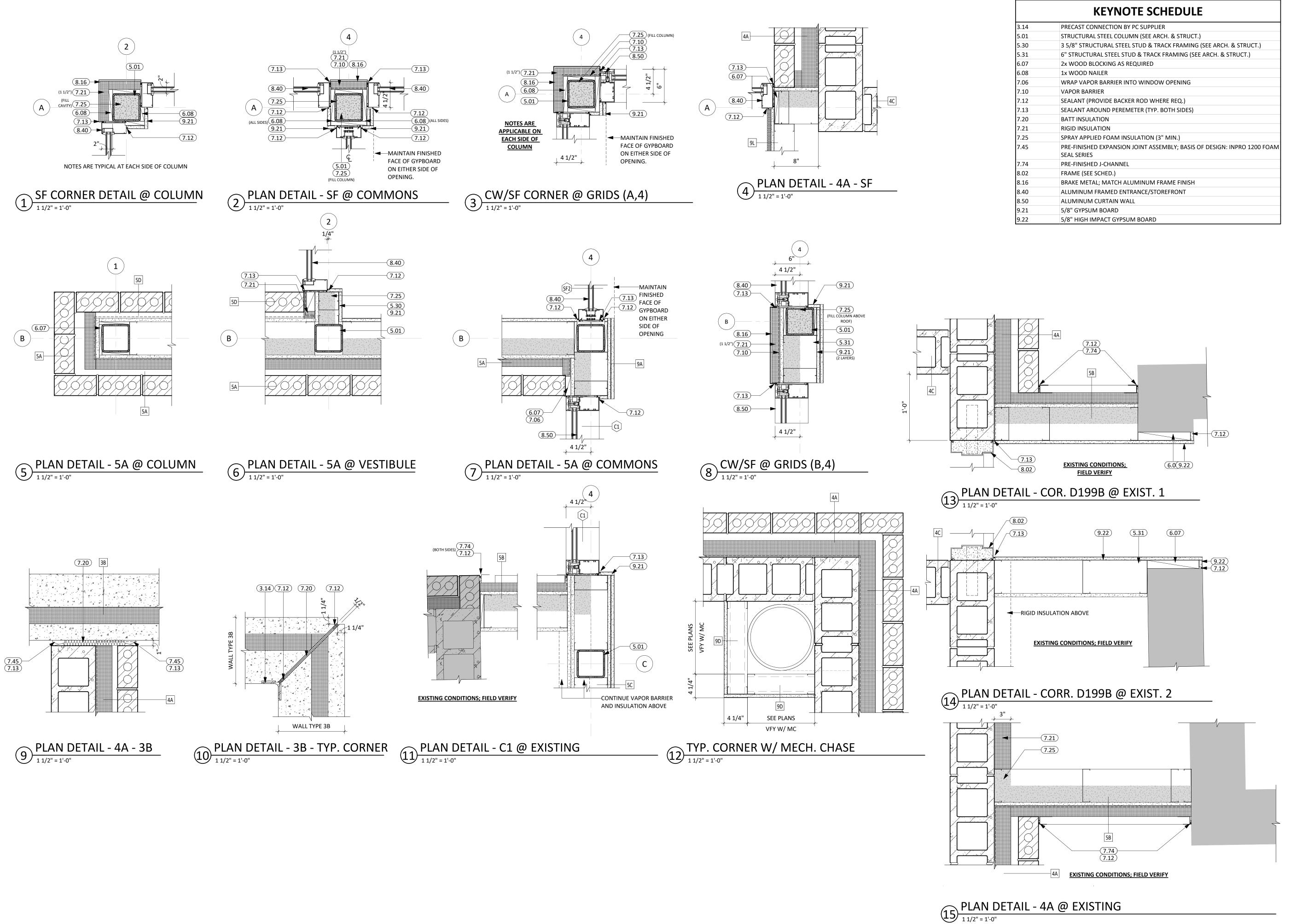
PROJECT:

WILLOW LAKE SCHOOL ADDITION

WILLOW LAKE SCHOOL DISTRICT WILLOW LAKE, SOUTH DAKOTA

SHEET TITLE:

EXTERIOR DETAILS



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CO-OP PROJECT NO: 2153

ISSUE:

01/30/2023 CONSTRUCTION DOCUMENTS

REVISION SCHEDULE:

EV. # REV. DSC.

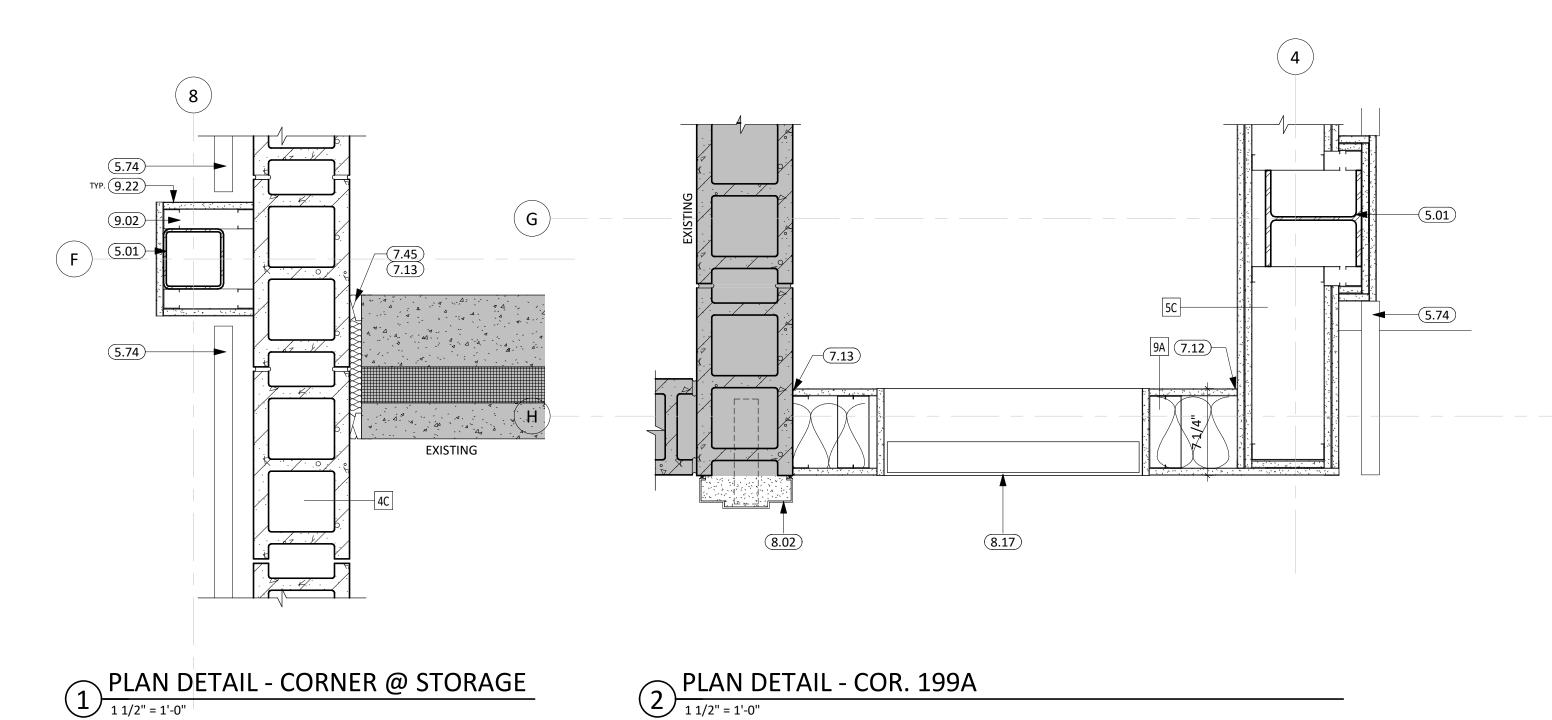
PROJECT:

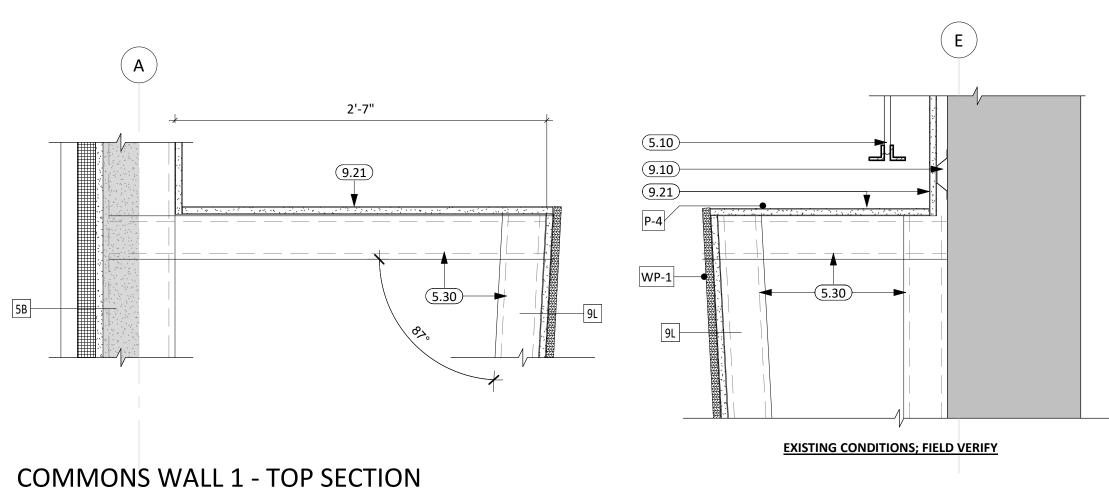
WILLOW LAKE SCHOOL ADDITION

WILLOW LAKE SCHOOL DISTRICT WILLOW LAKE, SOUTH DAKOTA

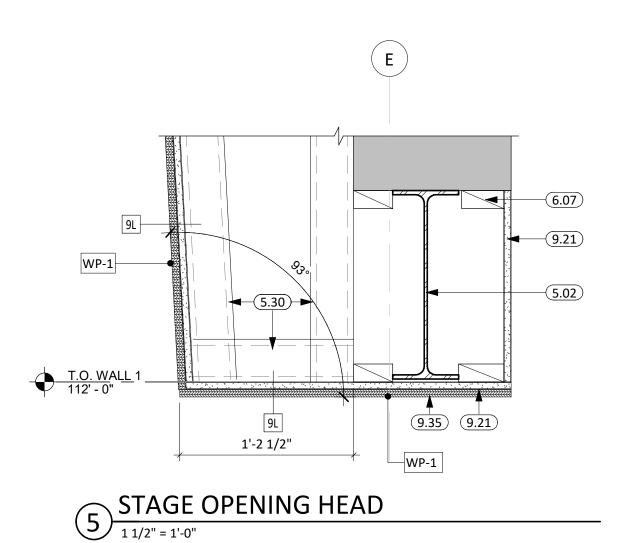
SHEET TITLE:

EXTERIOR PLAN DETAILS

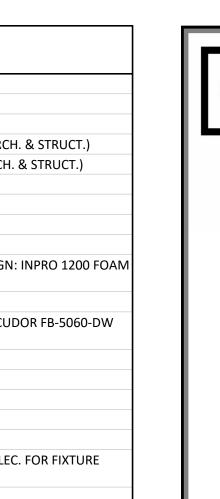








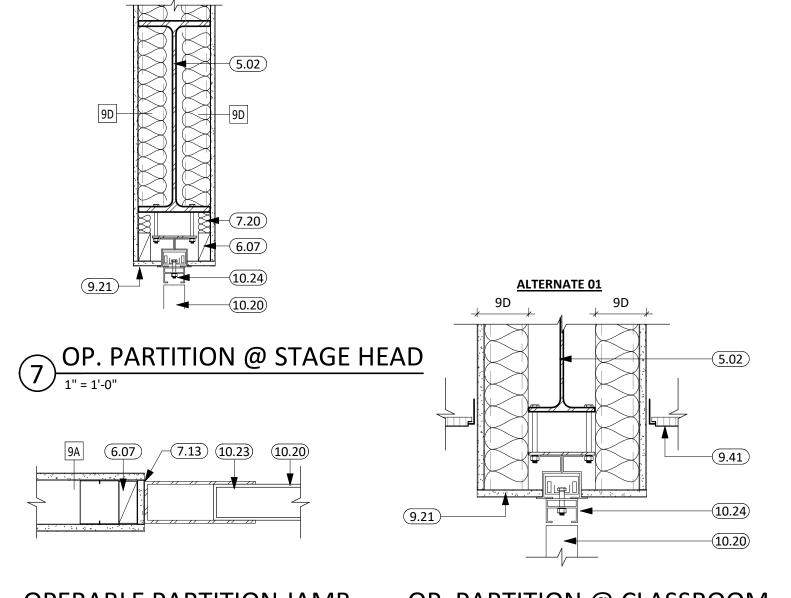






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CO-OP PROJECT NO: 2153

OPERABLE PARTITION JAMB
OP. PARTITION @ CLASSROOM
11/2" = 1'-0"

ISSUE:

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REVISION SCHEDULE:

PROJECT:

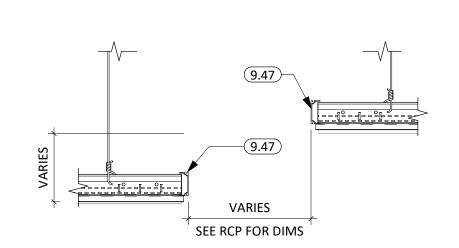
WILLOW LAKE SCHOOL ADDITION

WILLOW LAKE SCHOOL DISTRICT WILLOW LAKE, SOUTH DAKOTA

**SHEET TITLE:** 

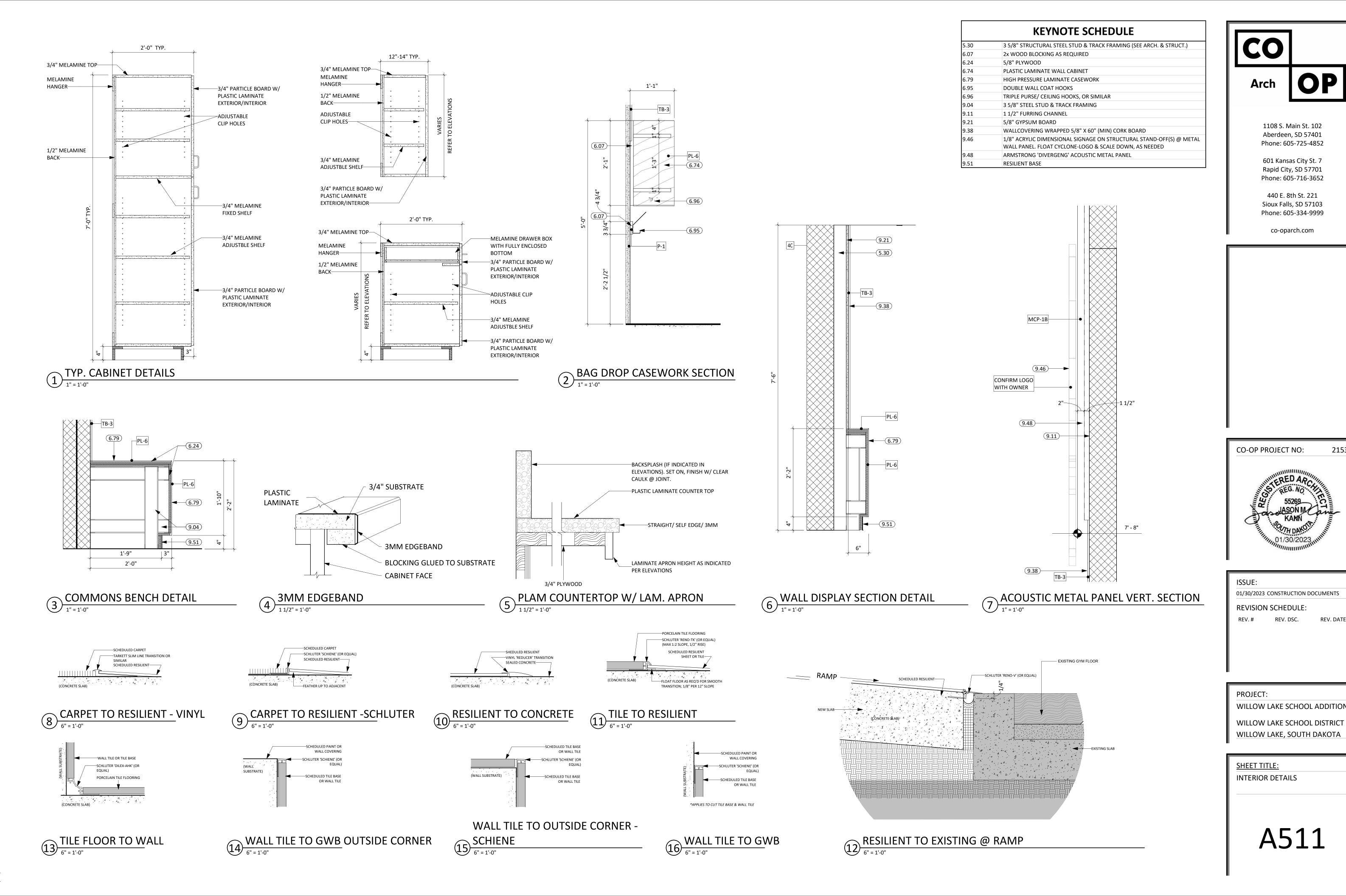
INTERIOR DETAILS

A510



9 AXIOM DETAIL- 2" PERIMETER TRIM

3 DETAIL
1 1/2" = 1'-0"



2153

REV. DATE

						DOOI	R & FI	RAME SCH	IEDULE				
			DOOR			FRA	ME		FRAME DETAILS				
NO.	W	Н	Т	TYPE	MAT'L	TYPE	MAT'L	HEAD	JAMB	SILL	FIRE	HDWRE	ADDITIONAL NOTES
A103.1	3' - 0"	7' - 2"	0' - 1 3/4"	NV	WD	HM-001	НМ	5/A601	5/A601		20MIN	14	
4103A	3' - 0"	7' - 2"	0' - 1 3/4"	F	WD	HM-011B	НМ	3/A601 (SIM.)	3/A601(SIM.)			13	
A103B	3' - 0"	7' - 2"	0' - 1 3/4"	F	WD	HM-011B	НМ	3/A601 (SIM.)	3/A601(SIM.)			13	
4103C	3' - 0"	7' - 2"	0' - 1 3/4"	F	WD	HM-011B	НМ	3/A601 (SIM.)	3/A601(SIM.)			13	
\103D	4' - 0"	7' - 2"	0' - 1 3/4"	F	WD	HM-001	НМ	5/A601	5/A601			11	
<b>A105</b>	3' - 0"	7' - 2"	0' - 1 3/4"	NV	WD	HM-001	НМ	5/A601 (SIM.)	5/A601 (SIM.)		20MIN	16	
<b>\106</b>	3' - 0"	7' - 2"	0' - 1 3/4"	NV	WD	HM-001	НМ	5/A601 (SIM.)	5/A601 (SIM.)		20MIN	16	
108.1	3' - 0"	7' - 2"	0' - 1 3/4"	NV	WD	HM-002	НМ	19/A601	19/A601		20MIN	17	
108.2	6' - 0"	5' -(8" '	0' - 0 1/2"	OHC-3	AL	OHC-3	STL	14/A601	17/A601	14/A601	20MIN		
\199	6' - 0"	7' - 2"	0' - 1 3/4"	NV	WD	HM-002	НМ	6/A601	6/A601		20MIN	10	
3101.1	3' - 0"	7' - 2"	0' - 1 3/4"	NV	WD	HM-002	НМ	20/A601	20/A601		90MIN	15	
3101.2	3' - 0"	7' - 2"	0' - 1 3/4"	NV	WD	HM-001	НМ	5/A601	5/A601		20MIN	16	
3102	3' - 0"	7' - 2"	0' - 1 3/4"	F	WD	HM-002	НМ	20/A601	20/A601		90MIN	23	
3103.1	3' - 6"	7' - 2"	0' - 1 3/4"	NV	WD	HM-001	НМ	5/A601	5/A601		20MIN	29	
3103.2	3' - 0"	7' - 2"	0' - 1 3/4"	NV	WD	HM-001	НМ	5/A601	5/A601		20MIN	29	
3103B	3' - 0"	7' - 2"	0' - 1 3/4"	NV	WD	HM-001	НМ	5/A601	5/A601			09	
3103C	3' - 0"	7' - 2"	0' - 1 3/4"	NV	WD	HM-001	НМ	5/A601	5/A601			09	
3104.1	3' - 0"	7' - 2"	0' - 1 3/4"	NV	WD	HM-001	НМ	5/A601	5/A601		20MIN	14	
3104.2	3' - 0"	7' - 2"	0' - 1 3/4"	NV	WD	HM-001	HM	5/A601	5/A601		20MIN	14	
3105	5' - 0"	7' - 0"	0' - 1 3/4"	F	WD	HM-001	HM	5/A601	5/A601		20MIN	28	
3107	3' - 0"	7' - 2"	0' - 1 3/4"	NV	WD	HM-001	HM	5/A601	5/A601		20MIN	14	
3107A	3' - 0"	7' - 2"	0' - 1 3/4"	F	WD	HM-001	HM	5/A601	5/A601			21	
3108	3' - 0"	7' - 2"	0' - 1 3/4"	NV	WD	HM-001	HM	5/A601 (SIM.)	5/A601 (SIM.)		20MIN	27	
3199A	8' - 0"	7' - 2"	0' - 1 3/4"	F	WD	HM-004	HM	6/A601 (SIM.)	6/A601 (SIM.)		90MIN	30	
100A1	6' - 0"	7' - 0"	3 13, 1	SEE ELEV.	AL	SEE ELEV.	AL	SEE ELEV.	SEE ELEV.	SEE ELEV.	30.0	04	
100A2	6' - 0"	7' - 0"		SEE ELEV.	AL	SEE ELEV.	AL	SEE ELEV.	SEE ELEV.	SEE ELEV.		03	
100A3	6' - 0"	7' - 0"		SEE ELEV.	AL	SEE ELEV.	AL	SEE ELEV.	SEE ELEV.	SEE ELEV.		01	
100A3	6' - 0"	7' - 0"		SEE ELEV.	AL	SEE ELEV.	AL	SEE ELEV.	SEE ELEV.	SEE ELEV.		01	
100A5	6' - 0"	7' - 0"		SEE ELEV.	AL	SEE ELEV.	AL	SEE ELEV.	SEE ELEV.	SEE ELEV.		02	
C100A3	6' - 0"	7' - 10"		SEE ELEV.	AL	SEE ELEV.	AL	SEE ELEV.	SEE ELEV.	SEE ELEV.		03	
C100B1	6' - 0"	7' - 10"		SEE ELEV.	AL	SEE ELEV.	AL	SEE ELEV.	SEE ELEV.	SEE ELEV.		01	
	3' - 0"	7' - 10	0' - 1 3/4"		WD		HM			SEE ELEV.			
C102	3'-0"	7' - 2"	-	F		HM-011A		3/A601	3/A601			13	
C103		_	0' - 1 3/4"	F	WD	HM-011A	HM	3/A601	3/A601			13	
C104	6' - 0"	7' - 2"	0' - 1 3/4"	F	WD	HM-001	HM	5/A601	5/A601			24	
2105.1	3' - 0"	7' - 0"	0' - 1 3/4"	F	WD	HM-002	HM	20/A601 (SIM.)	20/A601 (SIM.)			33	
2106	3' - 0"	7' - 2"	0' - 1 3/4"	F	WD	HM-001	HM	5/A601	5/A601			22	
2107	4' - 0"	7' - 10"	0' - 1 3/4"	F	WD	HM-001	HM	5/A601	5/A601			07	
2108	3' - 0"	7' - 2"	0' - 1 3/4"	F	WD	HM-001	HM	5/A601	5/A601			21	
1109	3' - 0"	7' - 2"	0' - 1 3/4"	F	WD	HM-001	HM	5/A601	5/A601			12	
110	3' - 0"	7' - 2"	0' - 1 3/4"	F	WD	HM-001	HM	5/A601	5/A601			20	
2111	3' - 0"	7' - 2"	0' - 1 3/4"	F	WD	HM-001	HM	5/A601	5/A601		000.000	12	
199A	6' - 0"	7' - 2"	0' - 1 3/4"	F	WD	HM-002	HM	2/A510	3/A110		90MIN	32	
199C	8' - 8"	7' - 2"	0' - 1 3/4"	F	WD	HM-004	HM	1/A601 (SIM.)	1/A601 (SIM.)		90MIN	30	
)101	3' - 0"	7' - 2"	0' - 1 3/4"	F	WD	HM-001	HM	5/A601	5/A601			18	
101.1	20' - 0"	8' - 0"		OHC-1	AL	OHC-1	STL	11/A601	12/A601				
101.2	7' - 0"	8' - 0"		OHC-2	AL	OHC-2	STL	11/A601	11/A601			25	
101.3	4' - 0"	7' - 10"	0' - 1 3/4"	F	HM	HM-002	HM	10/A601	4/A601	9/A601		05	
101A	3' - 0"	7' - 0"	0' - 1 3/4"	F	WD	HM-001	HM	2/A601	2/A601			19	
102C	3' - 0"	7' - 0"	0' - 1 3/4"	F -	WD	HM-001	HM	2/A601	2/A601			25	
103.1	3' - 0"	7' - 2"	0' - 1 3/4"	F -	WD	HM-011A	HM	3/A601	3/A601, 1/A601 (SIM.)			13	
103.2	3' - 0"	8' - 0"	0' - 1 3/4"	F	WD	SEE ELEV.	HM	1/A601	1/A601			08	
103.3	3' - 0"	7' - 0"	0' - 1 3/4"	NV	WD	HM-002	HM	1/A601	1/A601			13	
103A	3' - 0"	7' - 2"	0' - 1 3/4"	G	HM	HM-001	НМ	5/A601	5/A601			13	
103B1	3' - 0"	7' - 0"	0' - 1 3/4"	F	HM	HM-002	HM	1/A601	1/A601	9/A601		06	
103B2	25' - 0"	16' - 0"	0' - 2 1/8"	OHS-1	STL	OHS-1	STL	15/A601	16/A601				
103B4	3' - 0"	7' - 0"	0' - 1 3/4"	F	HM	HM-002	НМ	1/A601	1/A601	9/A601		06	
)103C	3' - 0"	7' - 2"	0' - 1 3/4"	G	НМ	HM-001	НМ	5/A601	5/A601			21	
104	3' - 0"	7' - 2"	0' - 1 3/4"	F	WD	HM-011A	НМ	3/A601	3/A601			13	
105	3' - 0"	7' - 2"	0' - 1 3/4"	NV	WD	HM-001	НМ	5/A601	5/A601			15	
106	3' - 0"	7' - 2"	0' - 1 3/4"	F	WD	HM-011A	НМ	3/A601	3/A601			13	
106A	3' - 0"	7' - 2"	0' - 1 3/4"	F	WD	HM-001	НМ	5/A601	5/A601			22	
D199A.1	6' - 0"	7' - 0"		SEE ELEV.	AL	SEE ELEV.	AL	SEE ELEV.	SEE ELEV.	SEE ELEV.		01	
	6' - 0"	7' - 0"		SEE ELEV.	AL	SEE ELEV.	AL	SEE ELEV.	SEE ELEV.	SEE ELEV.		03	

HOLLOW METAL WRAP AROUND FRAME W/ 2" HEAD  HM-001	HOLLOW METAL INSET FRAME W/ 2" HEAD  HM-002	HOLLOW METAL WRAP FRAME W/ 4" HEAD  HM-003	HOLLOW METAL INSET DOUBLE EGRESS FRAME W/ 2" HEAD  HM-004	HOLLOW METAL WRAP AROUND FRAME W/ 2" HEAD & 22" SIDELITE  HM-011A	HOLLOW METAL WRAP AROUND FRAME W/ 2" HEAD & 12" SIDELITE  HM-011B
---	---	--	---	---	---

FLUSH DOOR

W/ HALF

GLASS

# FRAME TYPES

1/4" = 1'-0" FLUSH DOOR

FLUSH DOOR W/ FULL GLASS

FG

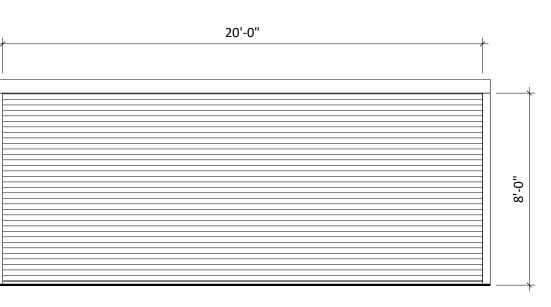
FLUSH DOOR W/ NARROW VISION LITE

**DOOR TYPES** 

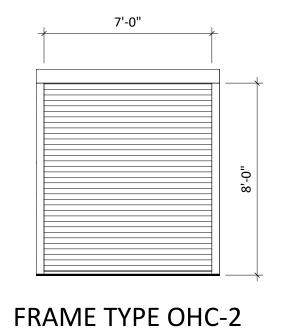
1/4" = 1'-0"

# SEE SCHEDULE

FRAME TYPE OHS-1 1/4" = 1'-0"



FRAME TYPE OHC-1 1/4" = 1'-0"



1/4" = 1'-0"

FRAME TYPE OHC-3

1/4" = 1'-0"

# **GENERAL NOTES**

- ALL HM FRAMES IN STUD PARTITIONS SHALL BE WRAPPED AROUND BOTH SIDES OF PARTITION UNLESS OTHERWISE NOTED. SEE FLOOR PLAN(S) FOR WALL THICKNESS.
- ALL EXTERIOR FRAMES & DOORS ARE TO BE THERMALLY BROKEN.
- . CAULK ENTIRE PERIMTER OF H.M. FRAMES (BOTH SIDES).

OPENING WHERE APPLICABLE.

- 4. PAINT H.M. FRAMES TO MATCH WALL. SPLIT PAINT COLOR AT DOOR GASKET AS REQUIRED. PROVIDE ROOM SIGNAGE AT ALL DOORS. WHERE MOUNTED TO GLAZING, PROVIDE A BLANK BACK PLATE ON OPPOSIZE SIDE OF GLAZING. SEE CODE STANDARDS FOR MOUNTING HEIGHTS
- AND LOCATIONS. SEE SPECIFICATIONS FOR SPECIAL SIGNAGE REQUIREMENTS. REFER TO WALL TYPES FOR WALL CONSTRUCTION ELEMENTS FOR ALL DOOR AND WINDOW DETAILS. COORDINATE ALL STRUCTURAL REQ. WITH STRUCTURAL DRAWINGS. WALL MOUNTED EXIT SIGNS AND FIXTURES ARE TO BE CENTERED OVER DOOR OR DOOR

# **KEYNOTE SCHEDULE**

CO-OP PROJECT NO: 2153

1108 S. Main St. 102

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601 Kansas City St. 7

Rapid City, SD 57701 Phone: 605-716-3652

440 E. 8th St. 221

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**REVISION SCHEDULE:** 

REV. # REV. DSC. REV. DATE

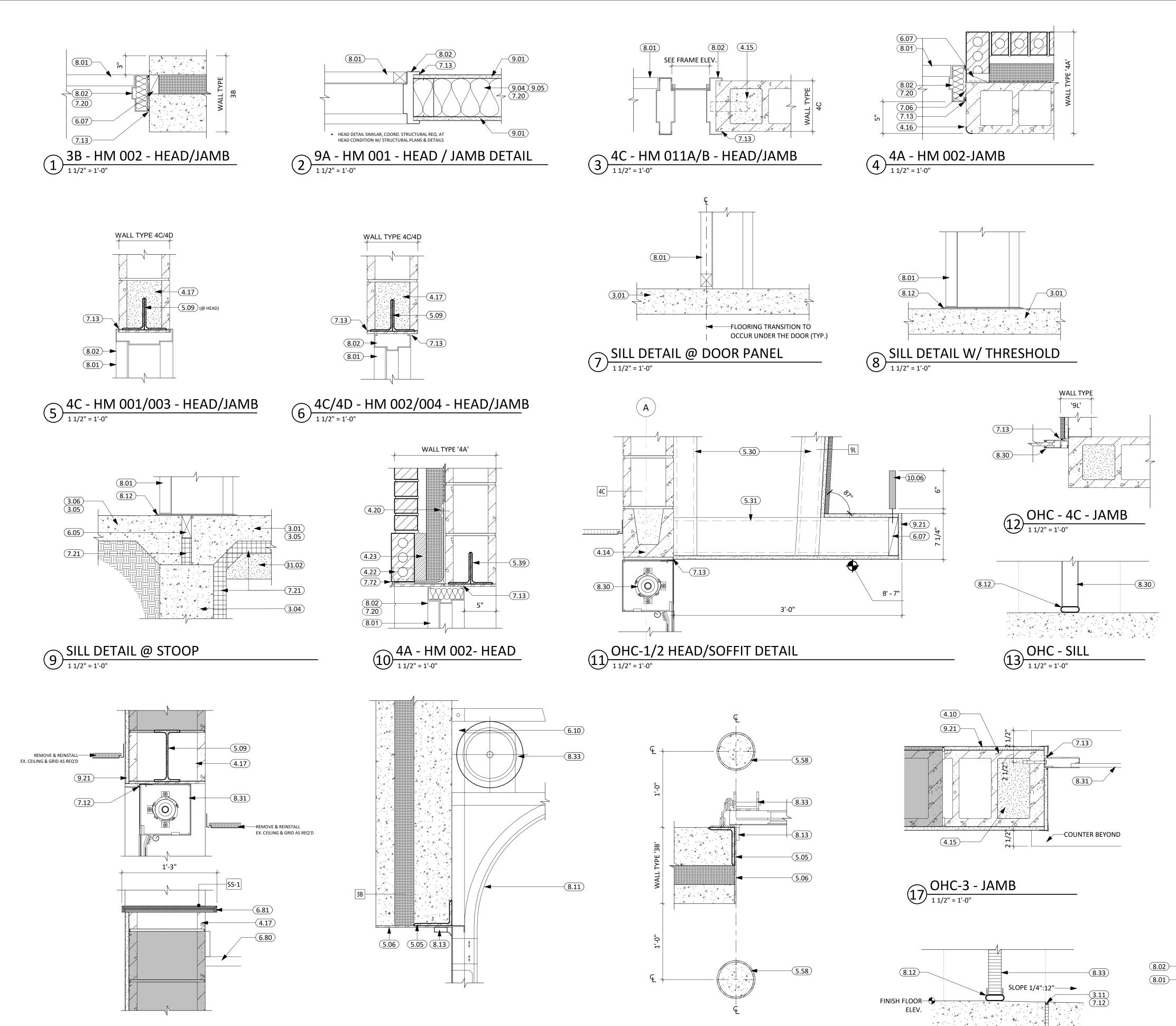
PROJECT:

WILLOW LAKE SCHOOL ADDITION

WILLOW LAKE SCHOOL DISTRICT WILLOW LAKE, SOUTH DAKOTA

SHEET TITLE:

DOOR SCHEDULE & DETAILS



OHS-1 - 3B - JAMB

OHS-1 - 3B - HEAD

1 1/2" = 1'-0"

OHC-3 - HEAD/SILL

1 1/2" = 1'-0"

# **GENERAL NOTES**

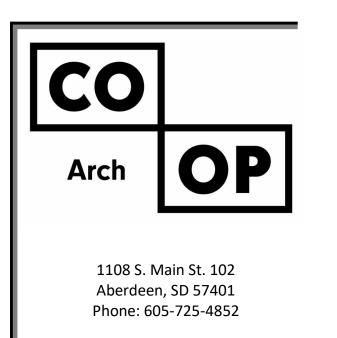
- ALL HM FRAMES IN STUD PARTITIONS SHALL BE WRAPPED AROUND BOTH SIDES OF PARTITION UNLESS OTHERWISE NOTED. SEE FLOOR PLAN(S) FOR WALL THICKNESS.
- ALL EXTERIOR FRAMES & DOORS ARE TO BE THERMALLY BROKEN.
- CAULK ENTIRE PERIMTER OF H.M. FRAMES (BOTH SIDES).
- PAINT H.M. FRAMES TO MATCH WALL. SPLIT PAINT COLOR AT DOOR GASKET AS REQUIRED. PROVIDE ROOM SIGNAGE AT ALL DOORS. WHERE MOUNTED TO GLAZING, PROVIDE A BLANK BACK PLATE ON OPPOSIZE SIDE OF GLAZING. SEE CODE STANDARDS FOR MOUNTING HEIGHTS AND LOCATIONS. SEE SPECIFICATIONS FOR SPECIAL SIGNAGE REQUIREMENTS.
- REFER TO WALL TYPES FOR WALL CONSTRUCTION ELEMENTS FOR ALL DOOR AND WINDOW
- DETAILS. COORDINATE ALL STRUCTURAL REQ. WITH STRUCTURAL DRAWINGS.
- WALL MOUNTED EXIT SIGNS AND FIXTURES ARE TO BE CENTERED OVER DOOR OR DOOR OPENING WHERE APPLICABLE.

	<b>KEYNOTE SCHEDULE</b>
3.01	CONC. FLOOR SLAB ON GRADE (SEE STRUCT. FOR THICKNESS AND REINF.) MIL. VAPOR BARRIER BELOW
3.04	CONT. CONC. FOUNDATION WALL (SEE STRUCTURAL PLANS)
3.05	THICKENED SLAB
3.06	CONCRETE STOOP w/FROST FREE FOOTING (SEE STRUCTURAL/LANDSCAPE PLANS)
3.11	1/2" EXPANSION/ISOLATION JOINT MATERIAL
4.10	CMU MASONRY UNIT
4.14	BOND BEAM MASONRY UNIT
4.15	FILL w/GROUT
4.16	CMU BULLNOSE CORNER UNIT
4.17	CMU SOAPBLOCK
4.20	THRU-WALL FLASHING
4.22	WEEP VENTS
4.23	MORTAR NET
5.05	STRUCTURAL STEEL ANGLE (SEE ARCH. & STRUCT.)
5.06	STRUCTURAL STEEL PLATE (SEE ARCH. & STRUCT.)
5.09	STRUCTURAL STEEL LINTLE (SEE ARCH. & STRUCT.)
5.30	3 5/8" STRUCTURAL STEEL STUD & TRACK FRAMING (SEE ARCH. & STRUCT.
5.31	6" STRUCTURAL STEEL STUD & TRACK FRAMING (SEE ARCH. & STRUCT.)
5.39	HEADER CONDITION (SEE ARCH. & STRUCT.)
5.58	PIPE BOLLARD (FILL w/cONC.) (SEE ARCH. & STRUCT.)
6.05	DOUBLE SILL PLATE
6.07	2x WOOD BLOCKING AS REQUIRED
6.10	BLOCKING (SEE STRUCT. FOR ADDITIONAL REQ.)
6.80	PLASTIC LAMINATE COUNTERTOP
6.81	SOLID SURFACE
7.06	WRAP VAPOR BARRIER INTO WINDOW OPENING
7.12	SEALANT (PROVIDE BACKER ROD WHERE REQ.)
7.13	SEALANT AROUND PEREMETER (TYP. BOTH SIDES)
7.20	BATT INSULATION
7.21	RIGID INSULATION
7.72	PRE-FINISHED METAL DRIP EDGE
8.01	DOOR (SEE SCHED.)
8.02	FRAME (SEE SCHED.)
8.11	TRACK
8.12	THRESHOLD
8.13	WEATHERSTRIPPING
8.30	OVERHEAD COILING DOOR
8.31	OVERHEAD COILING COUNTER DOOR
8.33	OVERHEAD SECTIONAL GARAGE DOOR
9.01	GYPSUM SHAFT WALL
9.04	3 5/8" STEEL STUD & TRACK FRAMING
9.04	6" STEEL STUD & TRACK FRAMING
9.05	
	5/8" GYPSUM BOARD
9.22	5/8" HIGH IMPACT GYPSUM BOARD
10.06	CAST ALUMINUM DIMENSIONAL LETTER SIGNAGE - ARIAL FONT STYLE
31.02	DRAINAGE FILL (COORD. REQ. w/ SOILS REPORT)

**EXISTING WALL** 

OHS-1 - SILL

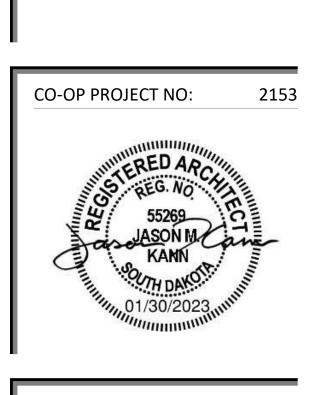
1 1/2" = 1'-0"



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ISSUE:

01/30/2023 CONSTRUCTION DOCUMENTS

REV. DATE

REVISION SCHEDULE:

REV. DSC.

PROJECT:

WILLOW LAKE SCHOOL ADDITION

WILLOW LAKE SCHOOL DISTRICT WILLOW LAKE, SOUTH DAKOTA

SHEET TITLE:

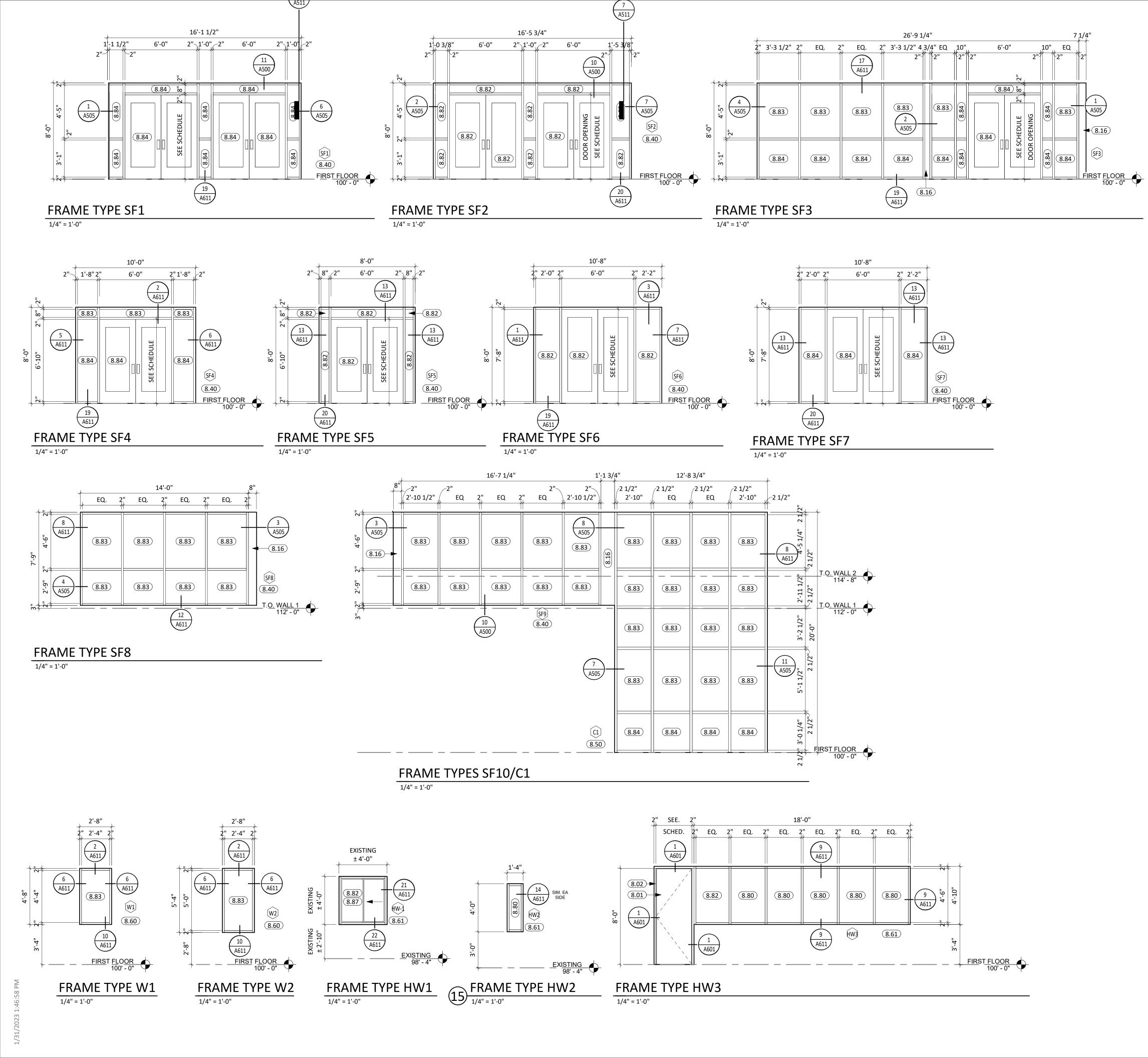
DOOR & FRAME DETAILS

A601 

9D EXISTING WALL

9.22

8.01



# **GENERAL NOTES**

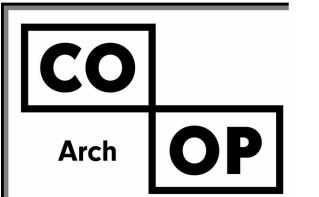
SEE SHEET **G000** FOR REQUIRED ADA CLEARANCES & MOUNTING HEIGHTS.

FIRE RATED WALLS ARE INDICATED ON THE CODE PLANS.

- ALL WALLS TO EXTEND TO DECK UNLESS OTHERWISE NOTED ON WALL TYPES.
- RESTROOM WALLS ARE SOUND INSULATED AND EXTEND TO THE DECK.
- ALL INTERIOR DIMENSIONS ARE FROM FACE OF GWB/CMU TO FACE OF GWB/CMU, UNLESS
- SEE FLOOR PLAN FOR CASEWORK PLAN INFORMATIO. 1.5 D VERIFY ALL CASEWORK OPENINGS. COORDINATE ALL CASEWORK DIMPNSIC. 15 VITH OWNER PROVIDED AND CONTRACTOR PROVIDED APPLIANCES/EQUIP. 15 T. PROVIDE COUNTERTOP SUPPORTS AT OPEN SPA. 5 AT MINIMUM OF 32" ON CENTER AND
- MAXIMUM OF 48" ON CENTER. TALL CABINETS OVER 30" WIDE SHALL "AV VERTICAL DIVIDER FULL HEIGHT.
- COORDINATE DEVICE PENETRAT INS AT COUNTERTOPS W/ MECHANICAL AND ELECTRICAL. MILLWORK SUPPLIER SHALL OV. E FILLER PANELS AND SCRIBE STRIPS AS NEEDED FOR COMPLETE INSTALLATION.
   PROVIDE FINISHED END PANELS AT EXPOSED MILLWORK SURFACES.
- 12. COORDINATE INSTALLATION OF OWNER PROVIDED EQUIPMENT WITH NEW CONSTRUCTION. 13. CAULK PERIMETER OF TUB/SHOWER UNITS, TOILETS, URINALS, SINKS AND COUNTERTOPS AS
- 4. PROVIDE 2x BLOCKING AT GRAB BAR AND FUTURE GRAB BAR LOCATIONS. SEE CODE SHEETS FOR ADDITIONAL BLOCKING INFORMATION.
- 15. PJ = PANEL JOINT

16. RV = REVEAL

	KEYNOTE SCHEDULE									
8.01	DOOR (SEE SCHED.)									
8.02	FRAME (SEE SCHED.)									
8.16	BRAKE METAL; MATCH ALUMINUM FRAME FINISH									
8.40	ALUMINUM FRAMED ENTRANCE/STOREFRONT									
8.50	ALUMINUM CURTAIN WALL									
8.60	ALUMINUM WINDOW UNIT									
8.61	HOLLOW-METAL WINDOW UNIT									
8.80	¼" FLOAT GLASS									
8.82	¼" TEMPERED GLASS									
8.83	1" INSULATED GLASS									
8.84	1" INSULATED TEMPERED GLASS									
8.87	SINGLE PANEL SLIDING TRANSACTION WINDOW, 1HR RATED									

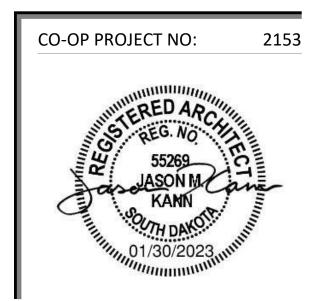


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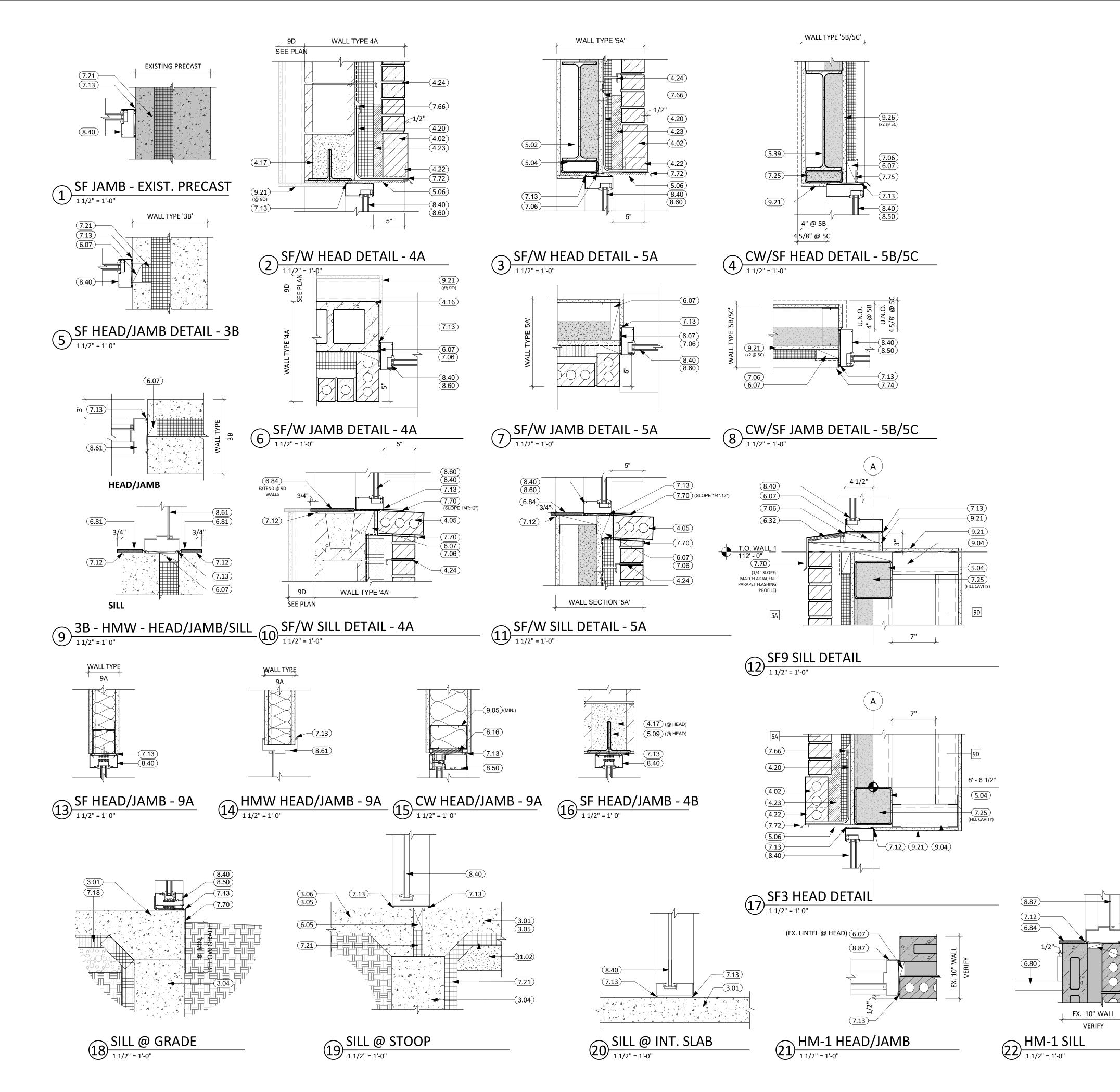
PROJECT:

WILLOW LAKE SCHOOL ADDITION

WILLOW LAKE SCHOOL DISTRICT WILLOW LAKE, SOUTH DAKOTA

**SHEET TITLE:** 

**GLAZING ELEVATIONS** 

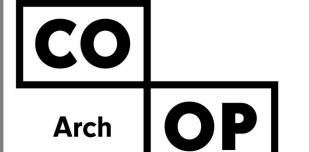




- SEE SHEET **G000** FOR REQUIRED ADA CLEARANCES & MOUNTING HEIGHTS.
- FIRE RATED WALLS ARE INDICATED ON THE CODE PLANS. ALL WALLS TO EXTEND TO DECK UNLESS OTHERWISE NOTED ON WALL TYPES.
- RESTROOM WALLS ARE SOUND INSULATED AND EXTEND TO THE DECK.
- ALL INTERIOR DIMENSIONS ARE FROM FACE OF GWB/CMU TO FACE OF GWB/CMU, UNLESS
- SEE FLOOR PLAN FOR CASEWORK PLAN INFORMATIO CONTROL OF VERIFY ALL CASEWORK OPENINGS. COORDINATE ALL CASEWORK DIMPNSIONS VITH OWNER PROVIDED AND
- CONTRACTOR PROVIDED APPLIANCES/EQUIP. 15 /T.
  PROVIDE COUNTERTOP SUPPORTS AT OPER SPACE AT MINIMUM OF 32" ON CENTER AND
- MAXIMUM OF 48" ON CENTER. TALL CABINETS OVER 30" WIDE SHALL 'AV VERTICAL DIVIDER FULL HEIGHT.
- COORDINATE DEVICE PENETRAT INS AT COUNTERTOPS W/ MECHANICAL AND ELECTRICAL. D. MILLWORK SUPPLIER SHALL TOVE EXCLER PANELS AND SCRIBE STRIPS AS NEEDED FOR
- COMPLETE INSTALLATION.

  11. PROVIDE FINISHED END PANE. AT EXPOSED MILLWORK SURFACES.
- 12. COORDINATE INSTALLATION OF OWNER PROVIDED EQUIPMENT WITH NEW CONSTRUCTION. 13. CAULK PERIMETER OF TUB/SHOWER UNITS, TOILETS, URINALS, SINKS AND COUNTERTOPS AS
- 14. PROVIDE 2x BLOCKING AT GRAB BAR AND FUTURE GRAB BAR LOCATIONS. SEE CODE SHEETS FOR ADDITIONAL BLOCKING INFORMATION.
- 15. PJ = PANEL JOINT 16. RV = REVEAL

	KEYNOTE SCHEDULE
3.01	CONC. FLOOR SLAB ON GRADE (SEE STRUCT. FOR THICKNESS AND REINF.) w/ 1 MIL. VAPOR BARRIER BELOW
3.04	CONT. CONC. FOUNDATION WALL (SEE STRUCTURAL PLANS)
3.05	THICKENED SLAB
3.06	CONCRETE STOOP w/FROST FREE FOOTING (SEE STRUCTURAL/LANDSCAPE PLANS)
4.02	BRICK SOLDIER COURSING; SEE EXTERIOR ELEVATIONS FOR TYPE
4.05	BRICK-1 ROWLOCK WINDOW SILL (SLOPE AS NEEDED)
4.16	CMU BULLNOSE CORNER UNIT
4.17	CMU SOAPBLOCK
4.20	THRU-WALL FLASHING
4.22	WEEP VENTS
4.23	MORTAR NET
4.24	BRICK WALL TIES
5.02	STRUCTURAL STEEL BEAM (SEE ARCH. & STRUCT.)
5.04	STRUCTURAL STEEL TUBE (SEE ARCH. & STRUCT.)
5.06	STRUCTURAL STEEL PLATE (SEE ARCH. & STRUCT.)
5.09	STRUCTURAL STEEL LINTLE (SEE ARCH. & STRUCT.)
5.39	HEADER CONDITION (SEE ARCH. & STRUCT.)
6.05	DOUBLE SILL PLATE
6.07	2x WOOD BLOCKING AS REQUIRED
6.16	ZX WOOD BEOCKING AS REQUIRED
6.32	ROOF SHEATHING
6.80	PLASTIC LAMINATE COUNTERTOP
6.81	SOLID SURFACE
6.84	SOLID SURFACE WINDOW SILL
	000000000000000000000000000000000000000
7.06	WRAP VAPOR BARRIER INTO WINDOW OPENING
7.12	SEALANT (PROVIDE BACKER ROD WHERE REQ.)
7.13	SEALANT AROUND PEREMETER (TYP. BOTH SIDES)
7.18	2" RIGID INSULATION. INSULATION IS CONTINUOUS FROM TOP OF FOOTING TO 24" INTO BUILDING UNDER FLOOR SLAB AS INDICATED.
7.21	RIGID INSULATION
7.25	SPRAY APPLIED FOAM INSULATION (3" MIN.)
7.66	TERMINATION BAR AND HIGH GRADE SEALANT
7.70	PRE-FINISHED SHEET METAL FLASHING
7.72	PRE-FINISHED METAL DRIP EDGE
7.74	PRE-FINISHED J-CHANNEL
7.75	PRE-FINISHED SILL FLASHING PER METAL PANEL MFR
8.40	ALUMINUM FRAMED ENTRANCE/STOREFRONT
8.50	ALUMINUM CURTAIN WALL
8.60	ALUMINUM WINDOW UNIT
8.61	HOLLOW-METAL WINDOW UNIT
8.87	SINGLE PANEL SLIDING TRANSACTION WINDOW, 1HR RATED
9.04	3 5/8" STEEL STUD & TRACK FRAMING
9.05	6" STEEL STUD & TRACK FRAMING
9.21	5/8" GYPSUM BOARD
9.26	5/8" EXTERIOR GYPSUM SHEATHING
31.02	DRAINAGE FILL (COORD. REQ. w/ SOILS REPORT)

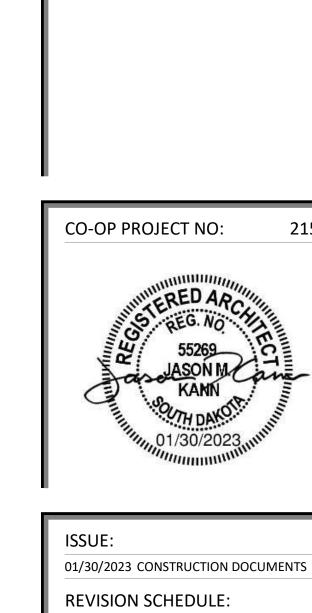


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REV. DATE

PROJECT:

WILLOW LAKE SCHOOL ADDITION

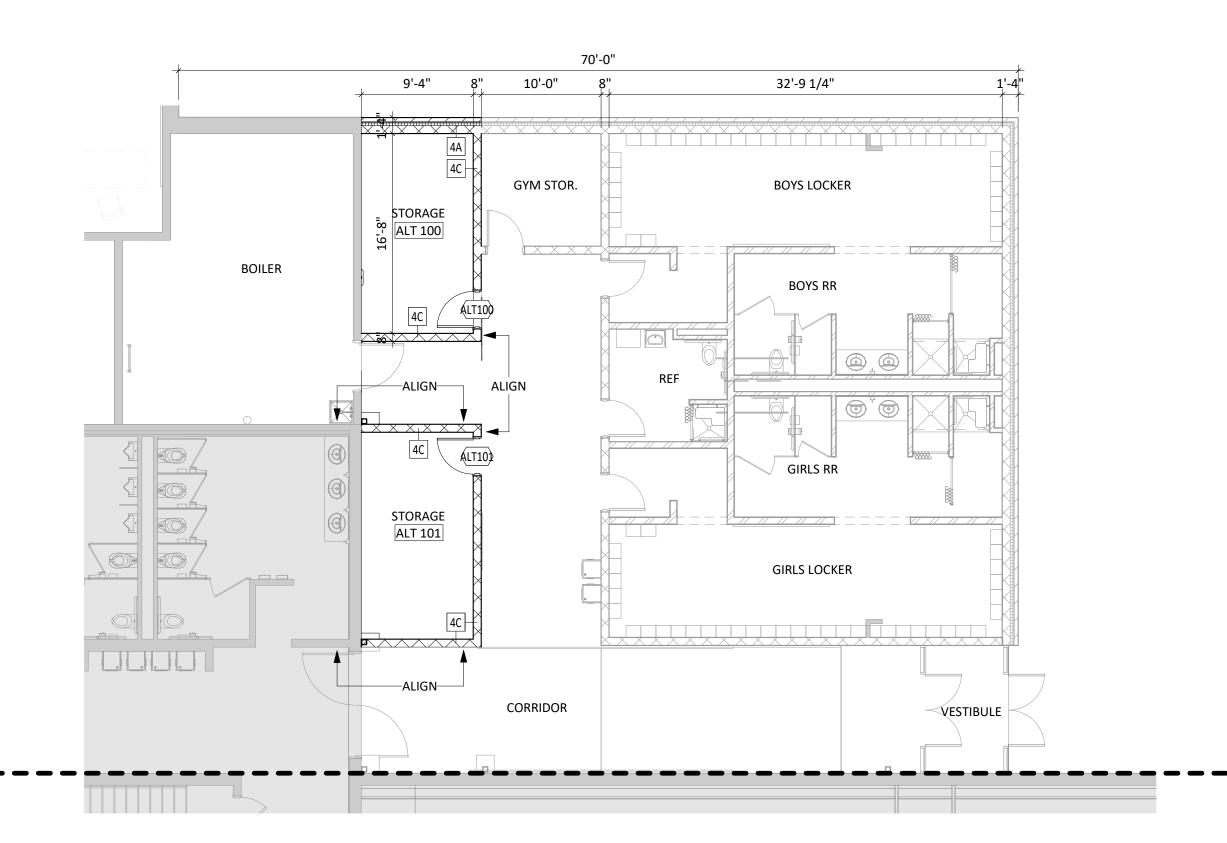
REV. DSC.

WILLOW LAKE SCHOOL DISTRICT WILLOW LAKE, SOUTH DAKOTA

SHEET TITLE:

**GLAZING DETAILS** 

	DOOR & FRAME SCHEDULE ALTERNATES													
		DOOR			FRAME			FRAME DETAILS						
NO.	W	Н	Т	TYPE	MAT'L	TYPE	MAT'L	HEAD	JAMB	SILL	FIRE	HDWRE	ADDITIONAL NOTES	
ALT100	3' - 0"	7' - 2"	0' - 1 3/4"	F	WD	HM-001	НМ	5/A601	5/A601			26		
ALT101	3' - 0"	7' - 2"	0' - 1 3/4"	F	WD	HM-001	НМ	5/A601	5/A601			26		



# FIRST FLOOR PLAN - AREA C - ALTERNATE 1

1/8" = 1'-0"

# **KEYNOTE SCHEDULE**

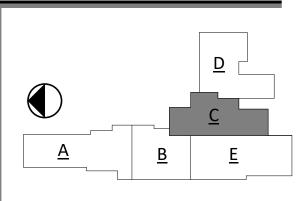


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CO-OP PROJECT NO:

2153

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**REVISION SCHEDULE:** 

REV. DSC.

PROJECT:

WILLOW LAKE SCHOOL ADDITION

WILLOW LAKE SCHOOL DISTRICT WILLOW LAKE, SOUTH DAKOTA

**SHEET TITLE:** 

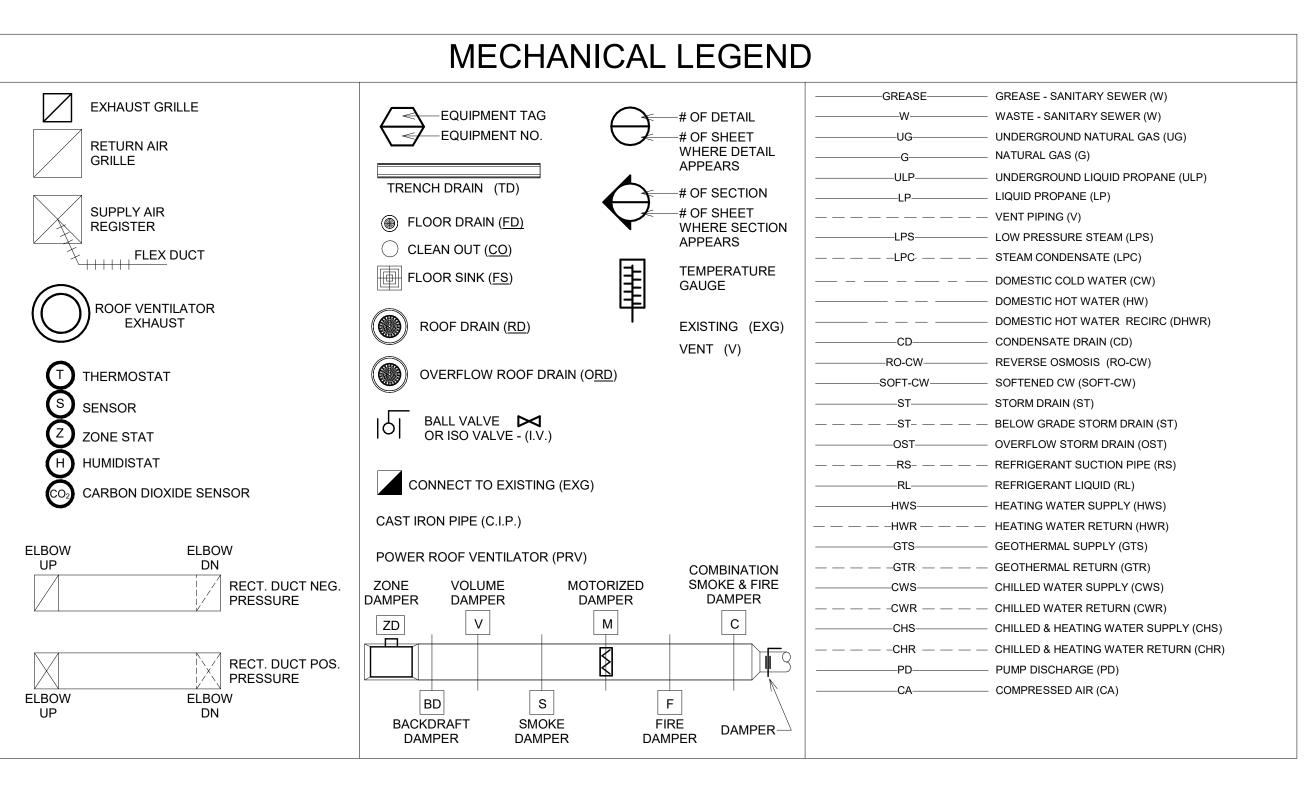
ALTERNATE

# **GENERAL NOTES**

- FIRE RATED WALL ARE INDICATED ON THE CODE PLANS. PROVIDE FIRE EXTINGUISHERS AND CABINETS AS SHOWN ON THE CODE PLAN(S).
- REFER TO SHEET <u>**G000</u>** FOR ADA STANDARDS.</u>
- REFER TO SHEET <u>G003</u> FOR WALL, ROOF, AND FLOOR TYPES.
- INTERIOR DIMENSIONS ARE FROM FACE OF GWB/CMU TO FACE OF GWB/CMU UNLESS OTHERWISE NOTED.
- ALL WALL TYPES TO EXTEND TO DECK UNLESS OTHERWISE NOTED ON WALL TYPES. EXTERIOR DIMENSIONS ARE FROM FACE OF BRICK/SHEATHING UNLESS OTHERWISE NOTED.
- COORDINATE WORK DONE BY OTHERS AS INDICATED ON THE DRAWINGS. INCREASE WALL THICKNESS OF METAL STUD AND CONCRETE BLOCK WALLS AS REQUIRED TO ACCOMODATE
- MECHANICAL AND ELECTRICAL DEVICES VERIFY w/ ARCHITECT PRIOR TO WORK. .0. SEE MECHANICAL FOR ALL FLOOR DRAIN SIZES AND LOCATIONS U.N.O. SET FLOOR DRAINS MINIMUM ¾"
- BELOW FINISHED FLOOR. PROVIDE EVEN SLOPE FROM WALL TO DRAIN W/ A MAXIMUM SLOPE OF 1/4" PER 1. VERIFY DRYWALL CONTROL JOINT LOCATIONS w/ ARCHITECT ON SITE PRIOR TO INSTALLATION. THIS
- INCLUDES, BUT IS NOT LIMITED TO, CONTROL JOINTS AT 30'-0" O.C. MAX. IN LONG WALL EXPANSES. CONTROL JOINTS AT DOOR JAMBS EXTENDING FROM DOOR HEAD TO CEILING. CONSIDERATION SHALL ALSO BE GIVEN TO LOCATING CONTROL JOINTS FROM FLOOR TO CEILING AT EITHER EDGE OF LARGE WINDOW
- 12. VERIFY HOISTWAY SHAFT SIZE REQUIREMENTS w/ ELEVATOR MANUFACTURER & COORDINATE.
- 13. COORDINATE ALL CHASE SIZES AND LOCATIONS W/ MECHANICAL. PROVIDE CHASES AT ALL EXPOSED MECHANICAL & ELECTRICAL WITH ADJACENT WALL MATERIAL AS REQUIRED.
- 14. COORDINATE ALL SHEAR WALL LOCATIONS W/ STRUCTURAL PLANS.
- 15. THE AIR & MOISTURE WEATHER BARRIER IS TO BE CONTINUOUS FROM THE BASE OF THE WALLS UP TO & TYING INTO THE ROOF BARRIER SYSTEM.
- 16. WALL TYPES ARE '4C' TYPICALLY UNLESS NOTED OTHERWISE
- 17. NEW CMU IN EXISTING AREAS SHALL ALIGN WITH EXISTING BONDING PATTERNS (STACKED OR RUNNING)

# **GENERAL NOTES**

- ALL DIMENSIONS ARE FROM FACE OF FINISH MATERIAL UNLESS OTHERWISE NOTED.
- REFER TO SPECIFICATIONS FOR CEILING AND FIXTURE SUSPENSION REQUIREMENTS. PROVIDE ACCESS DOORS AT MECHANICAL UNIT LOCATIONS ABOVE CEILING. COORDINATE
- NUMBER REQUIRED AND LOCATIONS WITH MECHANICAL SHEETS.
- CENTER CEILING GRID IN AREAS SUCH THAT THERE WILL BE NO CEILING TILE LESS THAN 6" IN THE SMALLEST DIMENSION, UNLESS OTHERWISE NOTED.
- CENTER LIGHT FIXTURES BETWEEN WALLS AND/OR CEILING BULKHEADS UNLESS OTHERWISE DIMENSIONED.
- . IN EXPOSED TO STRUCTURE ROOMS, CENTER LIGHTS FIXTURES WITHIN ROOMS UNLESS OTHERWISE NOTED.
- THE REFLECTED CEILING PLANS ARE INTENDED TO AID IN COORDINATION ONLY AND ARE NOT INTENDED TO BE COMPREHENSIVE. SEE MECHANICAL AND ELECTRICAL DRAWINGS FOR
- ADDITIONAL INFORMATION. NOTIFY ARCHITECT WHERE CONFLICTS OCCUR. PROVIDE WATER-RESISTANT GYPSUM BOARD PANELS AT ALL BATHROOM WALLS AND ANY
- WALLS EXPOSED TO MOISTURE. PROVIDE GLASS-MATT FACED GYPSUM SHEATHING BEHIND TILE FINISHES AT ALL SHOWERS
- 10. ELEVATION MARKERS INDICATE HEIGHT FROM FLOOR OF THE ROOM THE CEILING IS IN.

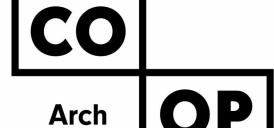


		EL	ECTRICAL LEGEND		
SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
\$ \$3 \$4	SINGLE POLE SWITCH THREE WAY SWITCH FOUR WAY SWITCH	## a,b	LIGHTING FIXTURE E = EMERGENCY BALLAST NL = NIGHT LIGHT ## = FIXTURE ID TAG a,b = CNTRL/RELAY ID TAG	S <sub>FA</sub>	SMOKE DETECTOR  CEILING SPEAKER FIRE ALARM  HEAT DETECTOR (FT = FIXED TEMPERATURE)  MANUAL PULL STATION
\$LV \$D	LOW VOLTAGE PUSH BUTTON SWITCH DIMMER SWITCH		UNDER CABINET FIXTURE		SPEAKER/STROBE HORN/STROBE STROBE ONLY
<sup>\$</sup> т	TIMER SWITCH	<u></u>	WALL MOUNTED FIXTURE  RECESSED FIXTURE	FACP	FIRE ALARM CONTROL PANEL
*O	OCCUPANCY SENSOR PILOT LIGHT SWITCH	PC	PHOTO CONTROL	ANNC	FIRE ALARM ANNUNCIATOR PANEL TAMPER SWITCH
* K	KEYED SWITCH  VARIABLE SPEED FAN SWITCH		SECURITY CAMERA  WALL SPEAKER	FS	FLOW SWITCH
F OS1	OCCUPANCY SENSOR - CEILING MOUNTED	S		ВТ	BEAM TRANSMITTER
♦ PR	POWER PACK FOR LOW VOLTAGE OCCUPANCY SENSOR	<b>&amp;</b>	EXIT FIXTURE  EMERGENCY WALL PACK	REC	BEAM RECEIVER  SMOKE DAMPER
φ	DUPLEX RECEPTACLE	C)-	CLOCK (PROVIDE CLOCK RECEPTACLE CONN. TO ROOM BRANCH CIRCUIT)	MD	MOTORIZED DAMPER
•	GROUND FAULT CIRCUIT INTERRUPTER DUPLEX RECEPTACLE	N	NURSE CALL PULL STATION	DSD	DUCT SMOKE DETECTOR
⊕ <sub>D1</sub>	DROP CORD RECEPTACLE (SEE DETAILS)	D	NURSE CALL DUTY STATION	DS	DOOR STRIKE
•	250V 4-WIRE RECEPTACLE	N	NURSE CALL CORRIDOR LIGHT	CR	CARD READER/KEYPAD
#	DOUBLE DUPLEX RECEPTACLE	NCCP	NURSE CALL CONTROL PANEL		DISCONNECT (F = FUSED)
	TOP SWITCHED DUPLEX RECEPTACLE	T	THERMOSTAT		COMBINATION STARTER
	SPECIAL OUTLET	S	INTERCOM SPEAKER	R	RELAY
R ▼	DATA/PHONE OUTLET "R" INDICATES ROUGH-IN ONLY	H	INTERCOM CALL STATION	VFD	CONNECT TO EXISTING  VARIABLE FREQUENCY DRIVE
54" ▽	WALL PHONE OUTLET	J	JUNCTION BOX	WM	SURFACE MOUNTED RACEWAY (WIREMOLD)
<b>V</b>	CEILING DATA/PHONE OUTLET	TC	TIME CLOCK	WP	WEATHER PROOF
<b>⊙</b> ◀	FLOOR BOX WITH POWER AND DATA	V	VOLUME CONTROL	AC	ABOVE COUNTER
0	FLOOR BOX WITH POWER ONLY		TRANSFORMER	UC UPS	UNDER COUNTER  UNINTERRUPTIBLE POWER SUPPLY
\$ <b>M</b>	MANUAL MOTOR STARTER		CABLE TV - ONE CAT6 & ONE COAX CABLE	EXG	EXISTING
	MOTOR CONNECTION	DH	DOOR HOLDER	TGL	TOGGLE MOTOR RATED SWITCH

		T	Н	VAC	EQ	UIP			COC	ORE	IN	AT]	ION	& I	MOTOR SCHE		DULE					E.C. = ELECTRICAL CONTRACTOR P.C. = PLUMBING CONTRACTOR V.C. = VENTILATION CONTRACTOR T.C. = TEMPERATURE CONTROL CONTRACTOR		
				NAL (F)			POWER		s	TARTE	1	co	ONTROL	SWI	тсн 1	NFORMA	TION		DISCONNECT					
EQUIPMENT NUMBER	360	LOGATION	FIRE ALARM INTERLOCK REQUIRED	HP OR WATTAGE (KW) OR FRACTIONAL	MCA	FLA	VOLTAGE	PHASE	TYPE	SIZE	ВУ	ВУ	WIRING TEMPERATURE CONTROL WIRING		AQUASTAT BY	SPEED SELECT SWITCH BY	TIME CLOCK BY	ВУ	SIZE/TYPE/FUSE SIZE	NEMA	CIRCUIT	CONDUIT SIZE	CONDUCTOR SIZE	NOTES
RTU-7	HVAC - EXG 1968 GYM & STAGE C105 WITH GAS HEAT	NEW ADDITION ROOF	Y	15	178.3		208	3	VFD		VC	тс	то	тс				vc			MDPS-1,3,5	2"	3/0	DUCT SMOKE DETECTOR SHUTDOWNS BY EC; T-STAT/CO2/HUMIDITY SPACE SENSOR CONTROL; FACTORY INSTALLED VFD
RTU-8	HVAC - CLASS ROOM ADDITION VAV TERMINALS	NEW ADDITION ROOF	Y	20	223.2		208	3	VFD		VC	тс	т					vc			MDPS-7,9,11	2 1/2"	#300	DUCT SMOKE DETECTOR SHUTDOWNS BY EC; CO2/HUMIDITY SENSORS IN RA DUCT; FACTORY INSTALLED VFDS
RTU-9	HVAC - SHOP WITH GAS HEAT	NEW ADDITION ROOF	Υ	3	75.6		208	3	VFD		vc	тс	то	тс				VC			L7-1,3,5	1 1/4"	#3	DUCT SMOKE DETECTOR SHUTDOWNS B' EC; T-STAT/CO2/HUMIDITY SPACE SENSOR CONTROL;
RTU-10	HVAC - AREA B REMODEL VAV TERMINALS	EXG ROOF	Υ	5	83.1		208	3	VFD		VC	TC	то					VC			MSWB	1 1/4"	#2	DUCT SMOKE DETECTOR SHUTDOWNS B' EC; CO2/HUMIDITY SENSORS IN RA
VAV-218	HVAC - COUNC 218	SEE PLAN										тс	т	TC										DUCT; FACTORY INSTALLED VFDS
VAV-B101 VAV-B103	HVAC - MUSIC OFFICE B101 & STORAGE B102 HVAC - MUSIC B103	SEE PLAN										TC TC	TO											
VAV-B103B	HVAC - BAND STORAGE B103A, PRACTICE B103B & B103C	SEE PLAN										тс	то											
VAV-B104A VAV-B104B	HVAC - FLEX CLASS B104	SEE PLAN										TC TC	TO	+										
VAV-B106 VAV-B107A	HVAC - 1 ON 1 B106  HVAC - FLEX CLASS B107 & ART STORAGE B107A	SEE PLAN										TC TC	TO	+										
/AV-B107B VAV-B108	HVAC - FLEX CLASS B107 HVAC - 1 ON 1 B108	SEE PLAN										TC TC	TO											
VAV-B199A VAV-B199B	- HVAC - CORRIDOR B199A & CORRIDOR 223	SEE PLAN										тс	TO	тс										
VAV-C101	HVAC - COMMONS C101	SEE PLAN										тс	т	тс										
VAV-C102 VAV-C103	HVAC - CLASSROOM C102 HVAC - CLASSROOM C103	SEE PLAN										TC TC	TO											
VAV-C107	HVAC - BOILER C107  HVAC - GYM STOR. C108, BOYS C109	SEE PLAN										TC TC	TO	+										
VAV-C111 VAV-C199	HVAC - GIRLS C111  HVAC - REF. C110, CORRIDOR C199C	SEE PLAN										TC TC	TO						_		_			
VAV-D101	HVAC - KITCHEN D101	SEE PLAN										TC TC	TO	тс										
VAV-D103A	HVAC - OFFICE D103A	SEE PLAN										тс	TO	тс										
VAV-D104 VAV-D105	HVAC - FACS D104	SEE PLAN										TC TC	TO	+								_		
VAV-D106 VAV-D106A	HVAC - SCIENCE D106 HVAC - SCIENCE PREP. D106A	SEE PLAN										TC TC	TO		$\vdash$									
VAV-D199	HVAC - CORRIDORS D199A & B, GIRLS D102A, BOYS D102B  DUCTLESS SPLIT SYSTEM HEAT PUMP	SEE PLAN		75			001					TC	TO VC	+				F.			FROM	4	(5)	
DSA-10A DSA-10B	INDOOR UNIT - SM GROUP A103A  DUCTLESS SPLIT SYSTEM HEAT PUMP INDOOR UNIT - SPEECH A103B	SEE PLAN		(F) (F)		0.3	208	1				-	vc vc	-				EC			DSC-10 FROM DSC-10	1/2"	#12 (5) #12	
DSA-10C DSA-10D	DUCTLESS SPLIT SYSTEM HEAT PUMP INDOOR UNIT - OT/PT A103C DUCTLESS SPLIT SYSTEM HEAT PUMP INDOOR UNIT - CORRIDOR A199	SEE PLAN		(F)		0.3	208	1			-	$\dashv$	vc vc	+				EC EC			FROM DSC-10 FROM DSC-10	1/2"	(5) #12 (5) #12	
DSA-11A	DUCTLESS SPLIT SYSTEM HEAT PUMP INDOOR UNIT - SM GROUP A105 DUCTLESS SPLIT SYSTEM HEAT PUMP	SEE PLAN		(F)		0.3	208	1				-	VC VC	-				EC			FROM DSC-10 FROM	1/2"	(5) #12	
DSC-10	INDOOR UNIT - SPEECH A106 AIR COOLED CONDENSING UNIT FOR DSA-10A/B/C/D	SEE PLAN EXISTING ROOF		(F)	26.0	12.2	208	1				+	VC VC	+				EC EC			DSC-10 FROM DSC-11	3/4"	#12 (5) #12	
DSC-11 FC-A101	AIR COOLED CONDENSING UNIT FOR DSA-11A/B HEATING & VENTILATION - WORK ROOM A101, 1 ON 1 266, SPED 244 & SPED 245	EXISTING ROOF WORK ROOM A101		1/4	26.0	12.2	208 120	1				vc TC	VC VC					EC VC			FROM DSC-11 A-16	3/4"	(5) #12 #12	
M (X2)	24V MOTORIZED DAMPERS FOR FC-A101 OUTSIDE AIR & RETURN AIR	WORK ROOM A101										тс	то											LOW VOLTAGE CONTROLS
FC-A103 CU-A103	HVAC - ELEM. FLEX A103  AIR COOLED CONDENSING UNTI - FC-A103	SEE PLAN  EXISTING ROOF		1/2	9.63	7.70	120 208	1				TC TC	TO	+				VC EC	60/F/35		L1-15/1	3/4"	#12	
EF-6	EXHAUST - STORAGE C104, GYM STOR. C108, BOYS C109, REF. C110, GIRLS C111	NEW ROOF		1/3		7.2	120	1				тс	то					VC			L4-19	3/4"	#12	
EF-7	GREASE EXHAUST - KITCHEN D101	NEW ROOF		1		4.6	208	3				EC	EC TO					vc			LK-34,36, 38	3/4"	#12	EC TO WIRE TO INTEGRAL SWITCH ON HOOD, MONITORED BY TC EC TO CONNECT TO ANSUL SYSTEM
EF-8 EF-9	CONDENSATE EXHAUST - KITCHEN D101  EXHAUST - RESTROOM D101A	NEW ROOF RESTROOM D101A		1/8 (F)		3.8 0.27	120 120	1				-	EC TO					VC VC			LK1-19 LK1-21	3/4"	#12	LIGHTED PILOT SWITCH BY EC, MONITORED BY TC  ENABLED WITH LIGHTS BY EC
EF-10	EXHAUST - GIRLS RR D102A, CUST. D102C, BOYS RR D102B, CHASE ENCLOSURE	NEW ROOF		1/8		3.8	120	1				тс	то					VC			L4-16	3/4"	#12	
EF-11	EXHAUST - FACS D104	NEW ROOF		1/2		9.8	120	1				тс	то					VC	TUT50041		L5-24	3/4"	#10	MANUAL OVERRIDE TIMER SWITCH BY TC; TC TO MAINTAIN NEGATIVE PRESSURE IN COMMON EXHAUST DUCT
EF-12 EF-13	EXHAUST - WORKROOM D105  EXHAUST - SCIENCE PREP D106A	WORKROOM D105 NEW ROOF		(F)		3.0	120	1			_	EC TC	EC TO				EC	vc vc	INTEGRAL PLUG		L6-13	3/4"	#12	TIMER SWITCH BY EC
EF-14 EF-15	EXHAUST - SCIENCE D106	NEW ROOF		1/4		5.8	120	1					EC TO	+				VC	00 (NE		L6-29 L6-29	3/4"	#12	LIGHTED PILOT SWITCH BY EC, MONITORED BY TC  EC TO WIRE TO INTEGRAL
	EXHAUST - SCIENCE D106 FUME HOOD			1/2		9.8												EC	20/NF		L8-41,43,			SWITCH ON HOOD BY GC, MONITORED BY TC  LIGHTED PILOT SWITCH BY TC; GAS DETECTION SYSTEM PROVIDED &
EF-16	EXHAUST - AG SHOP D103B	NEW ROOF		1		4.6	208	3	VFD				EC TO					VC	INTEGRAL		45	3/4"	#12	INSTALLED BY TC; VFD PROVIDED B' TC, INSTALLED BY EC
EF-17	EXHAUST - WORK ROOM A101  EXHAUST - BOYS A102 & GIRLS A103	WORK ROOM A101 EXG ROOF		(F) 1/8		3.8	120	1			_	TC TC	EC TO	:			EC	vc	PLUG		A-19 A-21	3/4"	#12	TIMER SWITCH BY EC
EF-19	EXHAUST - WELDING HOODS	NEW ROOF		2		7.5	208	3	VFD		TC	TC	EC TO					VC			L7-37,39,41	3/4"	#12	LIGHTED PILOT SWITCH BY TC; VFE FURNISHED BY TC, INSTALLED BY E
EF-20	EXHAUST - AREA A BUILDING RELIEF	EXG ROOF		2		7.5	208	3	VFD		TC	тс	EC TO					vc			L1-43,45,47	3/4"	#12	VFD FURNISHED BY TC, INSTALLED E EC; TC TO MODULATE BASED ON BUILDING PRESSURE
EF-21	EXHAUST - AREA B&C CHASE ENCLOSURE	EXG ROOF		1/30		3.0	120	1				TC	TO	тс	-			vc			EXT 98 - 20/1 MULTIPLE	3/4"	#12	INTEGRAL SWITCH CONTROL, ADA WAL
EF-A'S HD-1	RANGEHOOD EXHAUST  KITCHEN GREASE HOOD	FACS D106  KITCHEN D101		(F)		1.8	120	1				EC	EC	+	-			VC			MULTIPLE SEE PLANS	3/4"	#12	SWITCH CONTROL BY EC WHERE SPECIFIED  EC TO WIRE LIGHTING TO INTEGRAL SWITCH ON HOOD; EC TO CONNECT TO
HD-2	KITCHEN DISHWASHER CONDENSATE HOOD	KITCHEN D101																						ANSUL SYSTEM
	AIR COMPRESSOR - AG SHOP D103B  COMPRESSED AIR FILTER DRYER	AG SHOP D103B MEZZANINE AG SHOP D103B MEZZANINE		5 (F)		16.7	208	3				+		+	$\vdash$			EC EC			L7-27,29,31 L8-39	3/4"	#8	VERIFY CONNECTION TYPE  CORD CONNECTED
DC-1	DUST COLLECTOR - AG SHOP D103B	AG SHOP D103B		1-1/2		11.0	120	1						-				EC			TBD	3/4"	#12	CORD CONNECTED
AC-1	AIR CLEANING - AG SHOP D103B	AG SHOP D103B		3/4	12.8	10.2	120	1						+	-			EC EC			L8-40 L8-42	3/4"	#12	
AC-3	AIR CLEANING - AG SHOP D103B SUPPLEMENTAL HEAT - BOYS RR C109A	AG SHOP D103B BOYS RR C109A		3/4	12.8	10.2	120	1					то	TC				EC			L8-42	3/4"	#12	
RP	SUPPLEMENTAL HEAT - GIRLS RR C111A	GIRLS RR C111A											TO	тс										
RAD-7I	SUPPLEMENTAL HEAT - BOYS A102A SUPPLEMENTAL HEAT - GIRLS A102B	BOYS A102A GIRLS A102B											TO	тс										
RAD-6I RAD-4I	SUPPLEMENTAL HEAT - VESTIBULE A103D SUPPLEMENTAL HEAT - RESTROOM D101A	VESTIBULE A103D RESTROOM D101A											TO	+										
CUH-C100A	SUPPLEMENTAL HEAT - VESTIBULE C100A SUPPLEMENTAL HEAT - VESTIBULE C100B	VEST. C100A VEST. C100B		1/6		1.7	120 120	1			1	7	TO					EC EC	20/TGL 20/TGL		M-2 L4-12	3/4"	#12	
CUH-D100	SUPPLEMENTAL HEAT - VESTIBULE D100  NATURAL GAS FIRED NEAR CONDENSING	VEST. D100		1/10		1.7	120	1					т	тс				EC	20/TGL		L6-31	3/4"	#12	FHEDORNO
B-1 B-2	BOILER - ADDITION  NATURAL GAS FIRED NEAR CONDENSING BOILER - ADDITION	BOILER C107 BOILER C107		2			480	3					TO	+				EC			M-3 M-5	3/4"	#12	EMERGENCY BOILER SHUTDOWN BY EC TO TO CONTROL BOILER & ASSOCIATE CIRCULATOR
EXG WH-1 WH-2	RELOCATED NATURAL GAS FIRED HOT WATER 140°F - HOT WATER HEATER NATURAL GAS FIRED HOT WATER 140°F - HOT WATER HEATER	BOILER C107		(F)			120 120	1						+	-			EC EC	20/TGL 20/TGL		M-6 M-7	3/4"	#12	RELOCATED FROM CUSTODIAN; STORAGE TEMP 140°F STORAGE TEMP 140°F
	DIGITAL WATER MIXING VALVE	BOILER C107		(F)		-	120	1						+				EC	20/TGL		M-7	3/4"	#12	PLUG & GFCI RECEPTACLE BY EC; P TO SET TO 120°F OUTPUT
CP-1	BOILER B-1 CIRCULATOR  BOILER B-2 CIRCULATOR	BOILER C107		1-1/2		6.6	208	3						+							M-12,14,16 M-18,20,22	3/4"	#12	COMBINATION STARTER BY EC
CP-3	PRIMARY PUMP HEATING - ADDITION & FUTURE  BACKUP PUMP HEATING - ADDITION & FUTURE	BOILER C107		7-1/2		24.2	208	3	VFD VFD		TC TC	+		+	-						M-13,15,17 M-7,9,11	3/4"	#10	VFD FURNISHED BY T.C INSTALLE BY E.C.  VFD FURNISHED BY T.C INSTALLE BY E.C.
EXG CP-5	RELOCATED EXG WH-1 DOMESTIC HOT WATER RECIRC - 120°F	BOILER C107		1/6		2.0	120	1						+	PC		PC				M-8	3/4"	#12	GFCI OUTLET, CORD CONNECTED, TIMER/AQUASTAT CONTROL GFCI OUTLET, CORD CONNECTED,
CP-6	DOMESTIC HOT WATER RECIRC - 120°F  AIR COOLED CONDENSER - WALK IN FREEZER	BOILER C107		1/6		11.6	120 208	1				+		+	PC		PC	EC			M-10 LK-15,17	3/4"	#12	TIMER/AQUASTAT CONTROL
WIF EVAP	EVAPORATOR - WALK IN FREEZER	WIF				9.8	208	1						1				EC			LK-33,35	3/4"	#10	
WIC CU	AIR COOLED CONDENSER - WALK IN COOLER  EVAPORATOR - WALK IN COOLER	NEW ROOF				7.0	208 120	1				-		-				EC EC			LK-32,25	3/4"	#10	

Sheet	
Number EM100	Sheet Name MOTOR SCHEDULE, LEGENDS & SHEET INDEX
EM101	ELECTRICAL & MECHANICAL SITE PLAN
EM102	ENLARGED KITCHEN LAYOUT
M103	MECHANICAL ROOF PLAN
M200A	AREA A - PLUMBING & HYDRONICS DEMOLITION PLAN
M201B	AREA B - PLUMBING & HYDRONICS DEMOLITION PLAN
M202C	AREA C - PLUMBING & HYDRONICS DEMOLITION PLAN
M203E	AREA E - PLUMBING & HYDRONICS DEMOLITION PLAN
M300A	AREA A - HVAC DEMOLITION PLAN
M301B	AREA B - HVAC DEMOLITION PLAN
M302C	AREA C - HVAC DEMOLITION PLAN
M303E	AREA E - HVAC DEMOLITION PLAN
M400A	AREA A - BELOW GRADE PLUMBING & HYDRONICS PLAN
M401B	AREA B - BELOW GRADE PLUMBING & HYDRONICS PLAN
M402C	AREA C - BELOW GRADE PLUMBING & HYDRONICS PLAN
M403D	AREA D - BELOW GRADE PLUMBING & HYDRONICS PLAN
M404E	AREA E - BELOW GRADE PLUMBING & HYDRONICS PLAN
M500A	AREA A - ABOVE GRADE PLUMBING & HYDRONICS PLAN
M501B	AREA B - ABOVE GRADE PLUMBING & HYDRONICS PLAN
M502C M503D	AREA C - ABOVE GRADE PLUMBING & HYDRONICS PLAN  AREA D - ABOVE GRADE PLUMBING & HYDRONICS PLAN
M503D M504E	AREA E - ABOVE GRADE PLUMBING & HYDRONICS PLAN
M600	FIRE PROTECTION - LEGENDS & DETAILS
M601C	AREA C - FIRE PROTECTION PLAN
M602D	AREA D - FIRE PROTECTION PLAN
M603E	AREA E - FIRE PROTECTION PLAN
M700A	AREA A - HVAC PLAN
M701B	AREA B - HVAC PLAN
M702C	AREA C - HVAC PLAN
M703D	AREA D - HVAC PLAN
M704E	AREA E - HVAC PLAN
M705	HVAC TEMPERATURE CONTROL ZONE PLAN
M800	PLUMBING FIXTURE SCHEDULE
M900	MECHANICAL DETAILS
M901	MECHANICAL DETAILS CONTINUED
M902	MECHANICAL DETAILS & ISOMETRICS
M903	MECHANICAL SECTIONS
M904	MECHANICAL SCHEDULES
E200A E201B	AREA A - ELECTRICAL DEMOLITION PLAN  AREA B - ELECTRICAL DEMOLITION PLAN
E201B E202CD	AREA C & D - ELECTRICAL DEMOLITION PLAN
E203E	AREA E - ELECTRICAL DEMOLITION PLAN
E300A	AREA A - POWER & DATA PLAN
E301B	AREA B - POWER & DATA PLAN
E302C	AREA C - POWER & DATA PLAN
E303D	AREA D - POWER & DATA PLAN
E304E	AREA E - POWER & DATA PLAN
E400A	AREA A - LIGHTING PLAN
E401B	AREA B - LIGHTING PLAN
E402C	AREA C - LIGHTING PLAN
E403D	AREA D - LIGHTING PLAN
E404E	AREA E - LIGHTING PLAN
E500A	AREA A - SPECIAL SYSTEMS PLAN
E501B	AREA B - SPECIAL SYSTEMS PLAN
E502C	AREA C - SPECIAL SYSTEMS PLAN
E503D	AREA D - SPECIAL SYSTEMS PLAN
E504E	AREA E - SPECIAL SYSTEMS PLAN
E600	ELECTRICAL COLUMNIA
E700	ELECTRICAL SCHEDULES
E701 E702	ELECTRICAL SCHEDULES - CONTINUED  ELECTRICAL SCHEDULES - CONTINUED 2

# Mechanical & Electrical Engineering



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# SICHMELLER ENGINEERING

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220900771

SE PROJECT NO:



# SPECIAL NOTES

- REFER TO THE FRONT END BIDDING DOCUMENTS FOR DESCRIPTION OF ALTERNATES. IN AREAS WHERE EXISTING CEILINGS ARE TO REMAIN. EACH TRADE SHALL BE RESPONSIBLE FOR ANY DAMAGE
- OR REPAIR NEEDED TO EXISTING CEILINGS AS A RESULT OF THEIR WORK. 3. EACH TRADE SHALL BE RESPONSIBLE FOR CUTTING AND PATCHING AS NECESSARY TO ALLOW FOR

COMPLETION OF THEIR WORK. REFER TO ARCHITECTURAL PLANS FOR SELECTIVE DEMOLITION BY OTHERS. 4. ALL CONTRACTORS SHALL VISIT THE SITE AND VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS. NOTIFY THE ENGINEER IMMEDIATELY OF ANY DISCREPANCIES.

- ALL ROOFING WORK BY ROOFING CONTRACTOR, ALL TRADES TO COORDINATE. THE EXISTING BUILDING WILL BE IN USE DURING THIS CONSTRUCTION. SCHEDULE AND CARRY OUT THE WORK IN SUCH A MANNER AS TO CAUSE THE OWNER A MINIMUM OF INCONVENIENCE DUE TO SERVICE INTERRUPTIONS. TEMPORARY SERVICES SHALL BE INSTALLED IF ONE PHASE OF CONSTRUCTION DISRUPTS SERVICE TO ANOTHER AREA OF THE BUILDING OR IF EQUIPMENT HAS TO BE RELOCATED TO ALLOW CONSTRUCTION TO PROGRESS. SERVICE INTERRUPTIONS SHALL BE CONFINED TO THE SMALLEST AREA POSSIBLE AT ANY ONE TIME AND INTERRUPTIONS SHALL BE SCHEDULE WITH THE OWNER'S SITE REPRESENTATIVE. AFTER SERVICE HAS BEEN RESTORED FOLLOWING AN INTERRUPTION, INSPECT AREAS AFFECTED BY THE INTERRUPTION AND BE RESPONSIBLE FOR RETURNING AUTOMATICALLY CONTROLLED
- EQUIPMENT TO THE SAME OPERATING CONDITION, WHICH EXISTED PRIOR TO THE INTERRUPTION. 7. DURING THE SHOP DRAWING PROCESS, ALL M&E CONTRACTORS TO BE RESPONSIBLE FOR MARKING UP ALL OPENINGS IN THE CONCRETE SLAB, PRECAST WALL, CORE FLOOR, OR STRUCTURAL STEEL FRAMING, AND STRUCTURAL STEEL ROOF JOIST SYSTEMS REQUIRED FOR THE INSTALLATION OF THEIR RESPECTIVE SYSTEMS IN NEW AND EXISTING STRUCTURAL SYSTEMS.

 WHERE PEX PIPING IS USED, PIPING SHALL BE UPONOR PEX-A POTABLE WATER PIPING WITH UPONOR F1960 EXPANDABLE FITTINGS, NO CRIMP FITTINGS TO BE ACCEPTED, PROVIDED THE CONTRACTOR IS TRAINED AND FOLLOWING ALL MANUFACTURER'S RECOMMENDATIONS TO FULFILL ALL AVAILABLE UPONOR 25 YEAR WARRANTY COVERAGE.

9. HYDRONICS SOLUTION:

- A. EXISTING AREA A & B HOT WATER HEATING SYSTEM BEING TIED INTO (100% WATER): EXISTING SYSTEM IS 100% WATER, NO PRELIMINARY ANALYSIS OR SALVAGE IS REQUIRED. THE PLUMBING CONTRACTOR SHALL BE RESPONSIBLE FOR CLEANING AND FLUSHING THE NEW HOT WATER HEATING SYSTEM PIPING. THE EXISTING HOT WATER HEATING SYSTEM SHALL BE DRAINED AS NECESSARY FOR PROPOSED TIE INS AND FILLED WITH NEW HEATING SOLUTION, NO CLEANING AND FLUSHING ON EXISTING PIPING. 3. UPON COMPLETION OF THE PROPOSED WORK & SYSTEM FLUSHING, THE NEW 100% INHIBITED
  - WATER SOLUTION SHALL BE PUMPED BACK IN. 4. AFTER PROPOSED WORK IS COMPLETE, THE PLUMBING/HYDRONICS CONTRACTOR IS TO PROVIDE A COMPLETE ANALYSIS OF THE HOT WATER HEATING SYSTEM TO CONFIRM PROPER WATER TREATMENT. SUBMIT ANALYSIS/RECOMMENDATIONS TO SICHMELLER ENGINEERING & OWNER. IF SOLUTION ANALYSIS INDICATES SOLUTION IS NOT SATISFACTORY, THIS CONTRACTOR TO MAKE ADJUSTMENTS AS RECOMMENDED BY INHIBITOR SUPPLER & RETEST UNTIL ANALYSIS IS

SATISFACTORY. B. NEW HOT WATER HEATING SYSTEM SERVING ADDITION AND REMODELED AREAS OF B (30% GLYCOL): NEW HEATING SYSTEM SOLUTION SHALL BE 30% PROPYLENE GLYCOL.

CALCULATED PROPOSED HEATING SYSTEM VOLUME: 820 GALLONS. THE PLUMBING CONTRACTOR SHALL BE RESPONSIBLE FOR CLEANING AND FLUSHING THE NEW HOT WATER HEATING SYSTEM PIPING PRIOR TO PUMPING IN NEW HEATING

SOLUTION/STARTUP. 4. AFTER PROPOSED WORK IS COMPLETE, THE PLUMBING/HYDRONICS CONTRACTOR IS TO PROVIDE A COMPLETE ANALYSIS OF THE HOT WATER HEATING SYSTEM TO CONFIRM PROPER GLYCOL % AND TREATMENT. SUBMIT ANALYSIS/RECOMMENDATIONS TO SICHMELLER ENGINEERING & OWNER. IF SOLUTION ANALYSIS INDICATES SOLUTION IS NOT SATISFACTORY, THIS CONTRACTOR TO MAKE ADJUSTMENTS AS RECOMMENDED BY GLYCOL SUPPLER & RETEST

10. ORIGINAL PLANS ARE AVAILABLE FOR REFERENCE. PLEASE CONTACT THE ENGINEER'S OFFICE TO REQUEST. CONTACT LUKE @ 605-225-4344.

UNTIL ANALYSIS IS SATISFACTORY.

ISSUE:

1/30/23 CONSTRUCTION DOCUMENTS

**REVISION SCHEDULE:** 

REV. # REV. DSC. REV. DATE

PROJECT: WILLOW LAKE SCHOOL ADDITION

WILLOW LAKESCHOOL DISTRICT WILLOW LAKE, SOUTH DAKOTA

**SHEET TITLE:** 

MOTOR SCHEDULE, LEGENDS & SHEET INDEX

### **SPECIAL NOTES**

- 1. REFER TO THE FRONT END BIDDING DOCUMENTS FOR DESCRIPTION OF ALTERNATES.
- 2. CLARIFICATION TO THE BIDDING ANY NATURAL GAS OR ELECTRIC UTILITY COSTS FROM NORTHWESTERN ENERGY WILL BE PAID DIRECTLY BY THE OWNER AND SHALL NOT BE INCLUDED AS PART OF THE CONTRACT.
- 3. CIVIL UTILITIES ARE NOT SHOWN. REFER TO CIVIL ENGINEERS
- -CONDITIONS AND DIMENSIONS. NOTIFY THE A/E IMMEDIATELY OF ANY DISCREPANCIES.

### **MECHANICAL KEYNOTES ELECTRICAL KEYNOTES**

M1. PLUMBING CONTRACTOR TO CONNECT NEW 6" COMBINATION

SERVICE INSTALLED BY SITE UTILITY AT THIS LOCATION 5' OUTSIDE OF

DOMESTIC & FIRE PROTECTION WATER SERVICE TO NEW 6" WATER

ACCORDANCE WITH THE LOCAL WATER DEPARTMENT STANDARDS

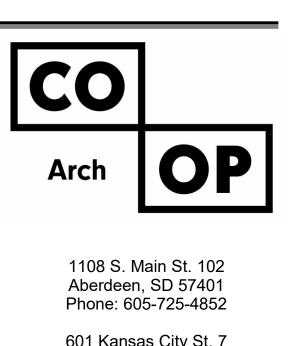
AND REGULATIONS, AND PROVIDE 6" FLANGED CONNECTION FOR SPRINKLER CONTRACTOR'S USE. AS-BUILTS AND REQUIRED

BUILDING. PLUMBING CONTRACTOR TO EXTEND INTO BUILDING,

FURNISH AND INSTALL THRUST BLOCKS AND/OR TIE-RODS IN

E1. WELLNESS CENTER: PROVIDE DISCONNECTION OF 100 AMP, 208/120 VOLT, 3 PHASE FEEDER FROM WELLNESS CENTER TO PANEL DP. COORDINATE DISCONNECTION AND REMOVAL OF FEEDER WITH GENERAL CONTRACTOR.

E2. AG SHOP POWER: PROVIDE PROTECTION OF EXISTING 400 AMP, 208/120 VOLT, 3 PHASE FEEDER FROM MAIN SWB TO AG SHOP. LOCATE AND EXCAVATE DIRT AROUND FEEDERS FOR FOOTINGS AND FOUNDATION WORK.



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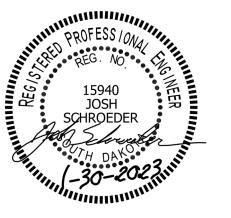
Rapid City, SD 57701 Phone: 605-716-3652 440 E. 8th St 221

Sioux Falls, SD 57103 Phone: 605-334-9999

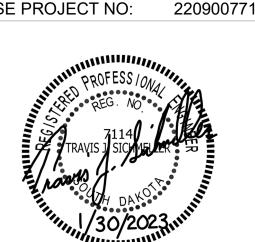
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# SICHMELLER ENGINEERING Mechanical & Electrical Engineering

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SE PROJECT NO:



ISSUE:

1/30/23 CONSTRUCTION DOCUMENTS

REVISION SCHEDULE:

REV. # REV. DSC.

PROJECT:

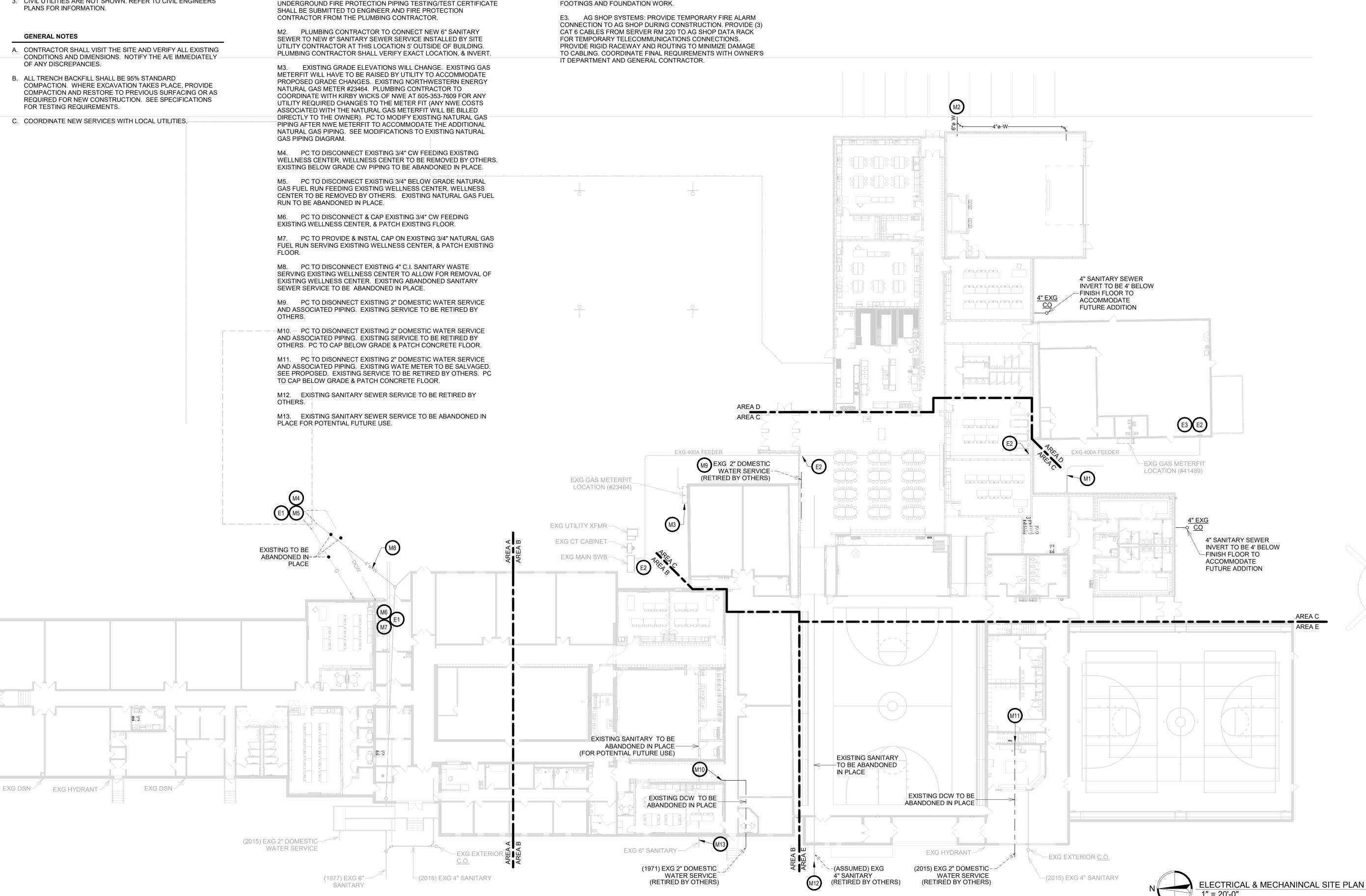
WILLOW LAKE SCHOOL ADDITION

WILLOW LAKESCHOOL DISTRICT WILLOW LAKE, SOUTH DAKOTA

**SHEET TITLE:** 

**ELECTRICAL & MECHANICAL** SITE PLAN

EM101



ITEM#	QTY	UNIT	CATEGORY
1	1	EA	S/S WORK TABLE
2	1	EA	CONVECTION OVEN, DOUBLE DECK (RELOCATE EXISTING)
2.1	1	KT	GAS HOUSE @ CONVECTION OVEN
3	1	EA	TILTING SKILLET (RELOCATE EXISTING)
3.1	1	KT	GAS HOUSE @ TILT SKILLET
3.2	1	EA	FLOOR TROUGH
4	1	EA	KETTLE FILLER STANCHION
5	1	EA	RANGE, 6 BURNER
5.1	1	KT	GAS HOSE @ RANGE
6	1	EA	S/S FILLER TABLE
7	1	LT	S/S WALL PANELS
8	1	EA	EXHAUST HOOD
9	1	EA	EXHAUST FAN (BY M/C)
10	1	EA	SUPPLY FAN (BY M/C)
11	1	EA	FIRE SUPPRESSION SYSTEM
12	1	EA	CONTROLS @ EXHAUST HOOD
13	-	-	SPARE NUMBER
14	-	-	SPARE NUMBER
15	1	EA	MILK COOLER (RELOCATE EXISTING)
16	1	EA	HOT FOOD SERVING COUNTER W/ SNEEZE GUARD
17	1	EA	SERVING COUNTER W/ SNEEZE GUARD
18	1	EA	COLD FOOD SERVING COUNTER W/ SNEEZE GUARD
19	1	EA	CASHIER STATION (RELOCATE EXISTING)
20	1	EA	SERVING COUNTER
21	1	EA	HEATED CABINET, MOBILE
22	1	EA	S/S WORK TABLE W/ (2) DRAWERS
23	1	EA	S/S SHELF
24	1	EA	FOOD SLICER W/ STAND (RELOCATE EXISTING)
25	-	-	SPARE NUMBER
26	2	EA	WALL MOUNT HAND SINK W/ FAUCET
27	1	EA	S/S WORK TABLE W/ TWO-COMPARTMENT SINK
28	1	EA	FAUCET @ ITEM 27
28.1	1	EA	DISPOSER & CONTROLS
29	3	EA	BUN / SHEET PAN RACK, MOBILE
30	1	EA	REACH-IN REFRIGERATOR, 2-SECTION (RELOCATE EXISTING)

ITEM#	QTY	UNIT	CATEGORY			
31	1	EA	THREE-COMPARTMENT SINK			
32	2	EA	FAUCET @ ITEM 31			
33	1	EA	S/S WALL MOUNT POT RACK			
34	1	EA	GREASE INTERCEPTOR (BY P/C)			
35			NOT USED***			
36	1	EA	CLEAN DISHTABLE			
37	1	EA	S/S WALL MOUNT SHELF			
38	-	-	SPARE NUMBER			
39	1	EA	DISHWASHER W/BUILT IN BOOSTER HEATER (BY OWNER'S VENDO			
40	1	EA	CONDENSATE EXHAUST HOOD			
41	1	EA	CONDENSATE EXHAUST FAN (BY M/C)			
42	1	EA	SOILED DISHTABLE, "L" SHAPED			
43	1	EA	PRE-RINSE FAUCET @ ITEM 42			
44	1	EA	DECK MOUNT FAUCET @ ITEM 42			
45	1	EA	DISPOSER & CONTROLS			
46	1	EA	S/S WALL MOUNT SORTING SHELF			
47	1	LT	S/S WALL PANELS @ DISH			
48	3	EA	WASTE CONTAINER (BY OWNER)			
49	2	EA	TABLE / TRAY CART (RELOCATE EXISTING)			
50	2	EA	RACK DOLLY, MOBILE			
51	1	EA	SHELVING UNIT, 4-TIER			
52	-	-	SPARE NUMBER			
53	-	-	SPARE NUMBER			
54	1	EA	MOP SINK & FAUCET			
55	1	EA	S/S WALL MOUNT UTILITY SHELF			
56	1	EA	MOP BUCKET & WRINGER (BY OWNER)			
57	8	SET	SHELVING UNIT, 4-TIER			
58	1	EA	WALK-IN FREEZER			
59	1	EA	REFRIGERATION SYSTEM AT WALK-IN FREEZER			
61	6	SET	SHELVING UNIT, 4-TIER			
62	1	EA	WALK-IN COOLER			
63	1	EA	REFRIGERATION SYSTEM AT WALK-IN COOLER			
64	6	SET	SHELVING UNIT, 4-TIER			
GP	1	LT	GENERAL PURPOSE OUTLET			

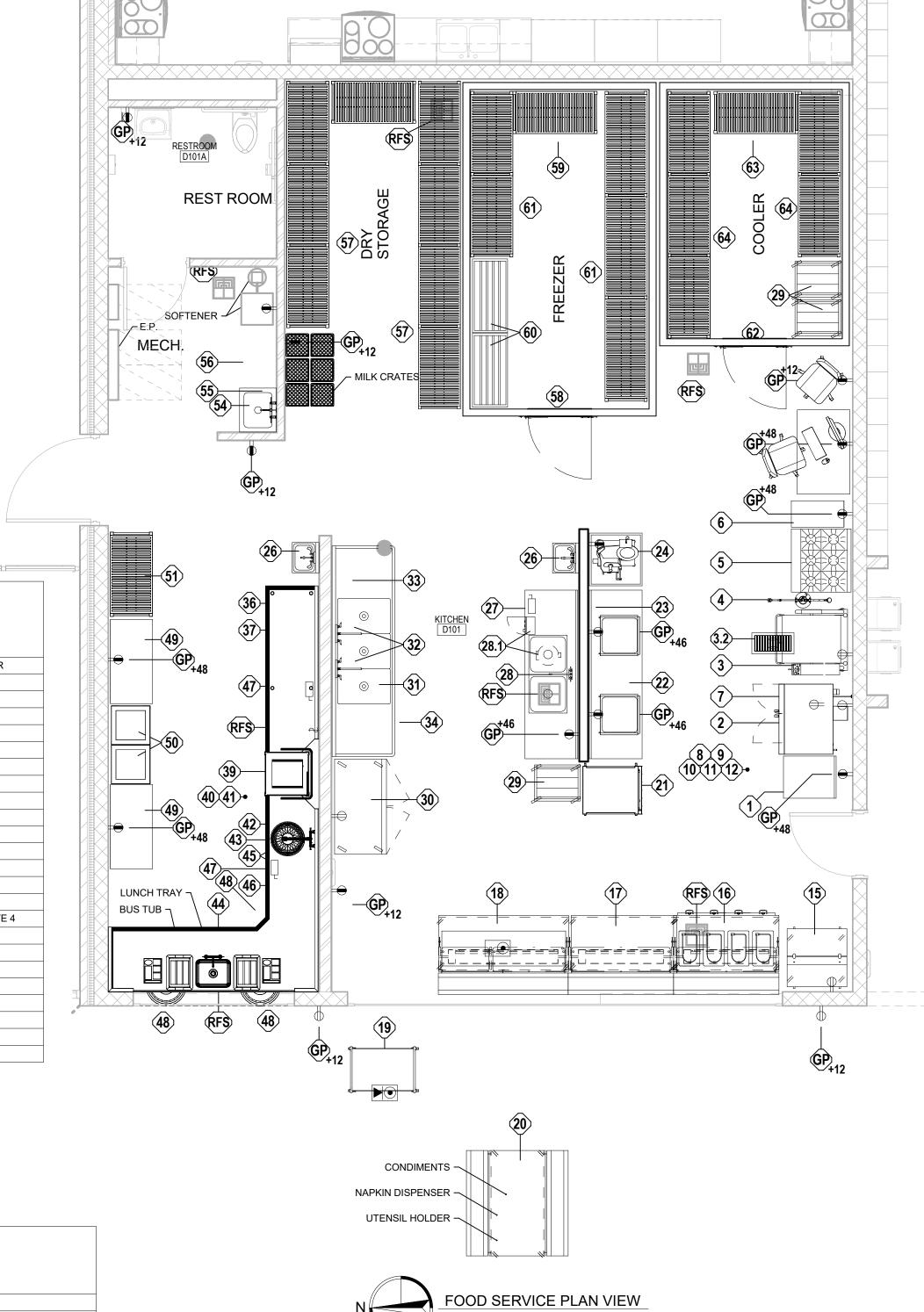
F	OODSERVICE ABBREVIATIONS
CW	COLD WATER
DD	DIRECT DRAIN
DFA	DOWN FROM ABOVE
EC	ELECTRICAL CONTRACTOR
FD	FLOOR DRAIN (BY PC)
FS	FOOD SERVICE
GP	GENERAL PURPOSE OUTLET (BY EC)
HW	HOT WATER
IDD	INDIRECT DRAIN
KEC	KITCHEN EQUIPMENT CONTRACTOR
MC	MECHANICAL CONTRACTOR
PC	PLUMBING CONTRACTOR
RFS	RECESSED FLOOR SINK (BY PC)
	•

ITEM#	QTY	UNIT	CATEGORY	C.M.	4,40	walletun Rolletun	ndrec'ste	DREC'STE WASTERN	ORECTA IN DESCRIPTION OF THE PROPERTY OF THE P	casconn.	castur Royaleri	GASTU METU	COMMENTS
2	1	EA	CONVECTION OVEN, DOUBLE DECK (RELOCATE EXISTING)							3/4"	32"	100	RELOCATE EXISTING, TWO OVENS @ 50 MBTU, MANIFOLD OVENS FOR ONE FLEXIBLE CONNECTOR
3	1	EA	TILTING SKILLET (RELOCATE EXISTING)							3/4"	32"	125	RELOCATE EXISTING, CONNECT GAS TO FLEXIBLE GAS CONNECTOR
3.2	1	EA	FLOOR TROUGH					4"	FLOOR				
4	1	EA	KETTLE FILLER STANCHION	1/2"	1/2"	FLOOR							ROUGH IN FROM FLOOR ON 2" CENTERS TO A HEIGHT OF 6"
5	1	EA	RANGE, 6 BURNER							3/4"	32"	215	CONNECT GAS TO FLEXIBLE GAS CONNECTOR
16	1	EA	HOT FOOD SERVING COUNTER W/ SNEEZE GUARD				3/4"						EXTEND FLEXIBLE DRAIN LINE TO RFS
18	1	EA	COLD FOOD SERVING COUNTER W/ SNEEZE GUARD										FURNISHED W/CONDENSATE EVAPORATOR
26	2	EA	WALL MOUNT HAND SINK W/ FAUCET	1/2"	1/2"	21"		1-1/2"	24"				
27	1	EA	S/S WORK TABLE W/ TWO-COMPARTMENT SINK				1-1/2"						EXTEND INDIRECT DRAIN TO RFS
28	1	EA	FAUCET @ ITEM 27	1/2"	1/2"	18"							
28.1	1	EA	DISPOSER & CONTROLS	1/2"		15"		2"	8"				TWO WATER CONNECTIONS, DISPOSER CONE & DISPOSER BODY
31	1	EA	THREE-COMPARTMENT SINK		1/2"	12"	(3) 1-1/2"						MANIFOLD DRAINS ON LEFT AND CENTER BOWLS & EXTEND TO GREASE INTERCEPTOR, NOTE 3
32	2	EA	FAUCET @ ITEM 31	1/2"	1/2"	15"							
34	1	EA	GREASE INTERCEPTOR (BY P/C)										PROVIDED & INSTALLED BY P/C
35			NOT USED***										
39	1	EA	DISHWASHER W/BUILT IN BOOSTER		3/4"	12"	1-1/2"						HOT SOFT WATER SUPPLY AT 110 DEGREE MIN. TEMP, EXTEND COPPER DRAIN LINE TO RFS, NOTE 4
	1	EA	DRAIN WATER TEMPERING KIT	1/2"		12"							NOTE 1
42	1	EA	SOILED DISHTABLE, "L" SHAPED (SCRAP SINK)				1-1/2"						EXTEND INDIRECT DRAIN TO RFS
43	1	EA	PRE-RINSE FAUCET	1/2"	1/2"	18"							NOTE 2
44	1	EA	DECK MOUNT FAUCET @ ITEM 42	1/2"	1/2"	18"							ROUGH IN WATER AT WALL, EXTEND WATER SUPPLY ON UNDERSIDE OF DISH TABLE TO FAUCET
45	1	EA	DISPOSER & CONTROLS	1/2"		15"		2"	8"				TWO WATER CONNECTIONS, DISPOSER CONE & DISPOSER BODY
54	1	EA	MOP SINK & FAUCET	1/2"	1/2"			2"	FLOOR				CONFIRM UTILITY REQUIREMENTS
59	1	EA	REFRIGERATION SYSTEM AT WALK-IN FREEZER				1"						EXTEND INDIRECT DRAIN TO RFS
63	1	EA	REFRIGERATION SYSTEM AT WALK-IN COOLER				1"						EXTEND INDIRECT DRAIN TO RFS

# NOTES

- 1. P/C PROVIDE AND INSTALL DRAIN WATER TEMPERING KIT ON DISHWASHER DRAIN. COORDINATE EXACT MODEL REQUIRED WITH FOOD SERVICE EQUIPMENT
- 2. P/C PROVIDE AND INSTALL SHUT OFF IN HOT WATER LINE W/ 1/4" COMPRESSION FITTING AT 12" AFF, VENDOR TO EXTEND HOT WATER SUPPLY TO CHEMICAL
- 3. P/C PROVIDE AND INSTALL SHUT OFF IN HOT WATER LINE W/ 3/8" COMPRESSION FITTING AT 12" AFF, VENDOR TO EXTEND HOT WATER SUPPLY TO CHEMICAL
- DISPENSING EQUIPMENT
- 4. P/C PROVIDE AND INSTALL PRESSURE REDUCING VALVES, DISH MACHINE OPERATING PRESSURE RANGE 15 25 psi.
- 5. P/C PROVIDE AND INSTALL ALL RFS AND FD'S.

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ITEM#	QTY	UNIT	CATEGORY	VOLTAGE	PHASE	AMPS	416	Kay	COMM. TYPE	NEMA	the Helek	COMMENTS
2	1	EA	CONVECTION OVEN, DOUBLE DECK (RELOCATE EXISTING)	120	1	7.7			CORD & PLUG		24", 48"	RELOCATE EXISTING, TWO OVENS @ 7.7 AMPS
3	1	EA	TILTING SKILLET (RELOCATE EXISTING)	120	1	1.4			CORD & PLUG	5-15P	24"	RELOCATE EXISTING
8	1	EA	EXHAUST HOOD	120	1						DFA	20 AMP CIRCUIT, ROUGH-IN ABOVE UTILITY CABINET, REFER TO CA DRAWINGS FOR ADDITIONAL DETAILS
15	1	EA	MILK COOLER (RELOCATE EXISTING)	120	1	5.8	1/3		CORD & PLUG	5-15P	24"	RELOCATE EXISTING
16	1	EA	HOT FOOD SERVING COUNTER W/ SNEEZE GUARD	208	1	17.3		3.6	CORD & PLUG		FLOOR	
18	1	EA	COLD FOOD SERVING COUNTER W/ SNEEZE GUARD	120	1	6.78			CORD & PLUG	5-15P	FLOOR	
19	1	EA	CASHIER STATION (RELOCATE EXISTING)								FLOOR	RELOCATE EXISTING, CONFIRM UTILITY REQUIREMENTS
21	1	EA	HEATED CABINET, MOBILE	120	1	16.7		2	CORD & PLUG	5-20P	24"	
24	1	EA	FOOD SLICER W/ STAND (RELOCATE EXISTING)	120	1	6					48"	RELOCATE EXISTING
28.1	1	EA	DISPOSER & CONTROLS	208	3	3.6	2		DIRECT		18"	
30	1	EA	REACH-IN REFRIGERATOR, 2-SECTION (RELOCATE EXISTING)	120	1	9.2	1/2		CORD & PLUG	5-15P	86"	RELOCATE EXISTING
35			NOT USED***									
39	1	EA	DISHWASHER W/BUILT IN BOOSTER HEATER (BY OWNER'S VENDOR)	208	3	51.7			DIRECT		24"	SINGLE POINT POWER CONNECTION (INCLUDES BOOSTER HEATER), MCA 60 AMPS
			NOT USED***									
45	1	EA	DISPOSER & CONTROLS	208	3	3.6	2				18"	
58	1	EA	WALK-IN FREEZER, FRAME & LIGHTS	120	1	5.0					DFA	ROUGH-IN POWER ABOVE FREEZER, EXTEND POWER TO DOOR SECTION AND LIGHTS
59	1	EA	REFRIGERATION SYSTEM AT WALK-IN FREEZER, CONDENSING UNIT	208-230	1	11.6					ROOF	ROUGH-IN POWER ON ROOF FOR CONNECTION TO CONDENSING UNIT
			REFRIGERATION SYSTEM AT WALK-IN FREEZER, EVAP COIL (DEFROST)	208-230	1	9.8					DFA	ROUGH-IN POWER ABOVE FREEZER, EXTEND TO EVAP COIL
			REFRIGERATION SYSTEM AT WALK-IN FREEZER, EVAP COIL (FAN)	208-230	1	2					DFA	ROUGH-IN POWER ABOVE FREEZER, EXTEND TO EVAP COIL
			REFRIGERATION SYSTEM AT WALK-IN FREEZER, DRAIN LINE HEAT TAPE	120	1	15					DFA	ROUGH-IN POWER ABOVE FREEZER, PROVIDE RECEP NEAR EVAP COIL FOR HEAT TAPE
62	1	EA	WALK-IN COOLER, FRAME & LIGHTS	120	1	5.0					DFA	ROUGH-IN POWER ABOVE COOLER, EXTEND POWER TO DOOR SECTION AND LIGHTS
63	1	EA	REFRIGERATION SYSTEM AT WALK-IN COOLER, CONDENSING UNIT	208-230	1	7					ROOF	ROUGH-IN POWER ON ROOF FOR CONNECTION TO CONDENSING UNIT
	1	EA	REFRIGERATION SYSTEM AT WALK-IN COOLER, EVAP COIL	120	1	1.6					DFA	ROUGH-IN POWER ABOVE COOLER, EXTEND TO EVAP COIL
									_		•	





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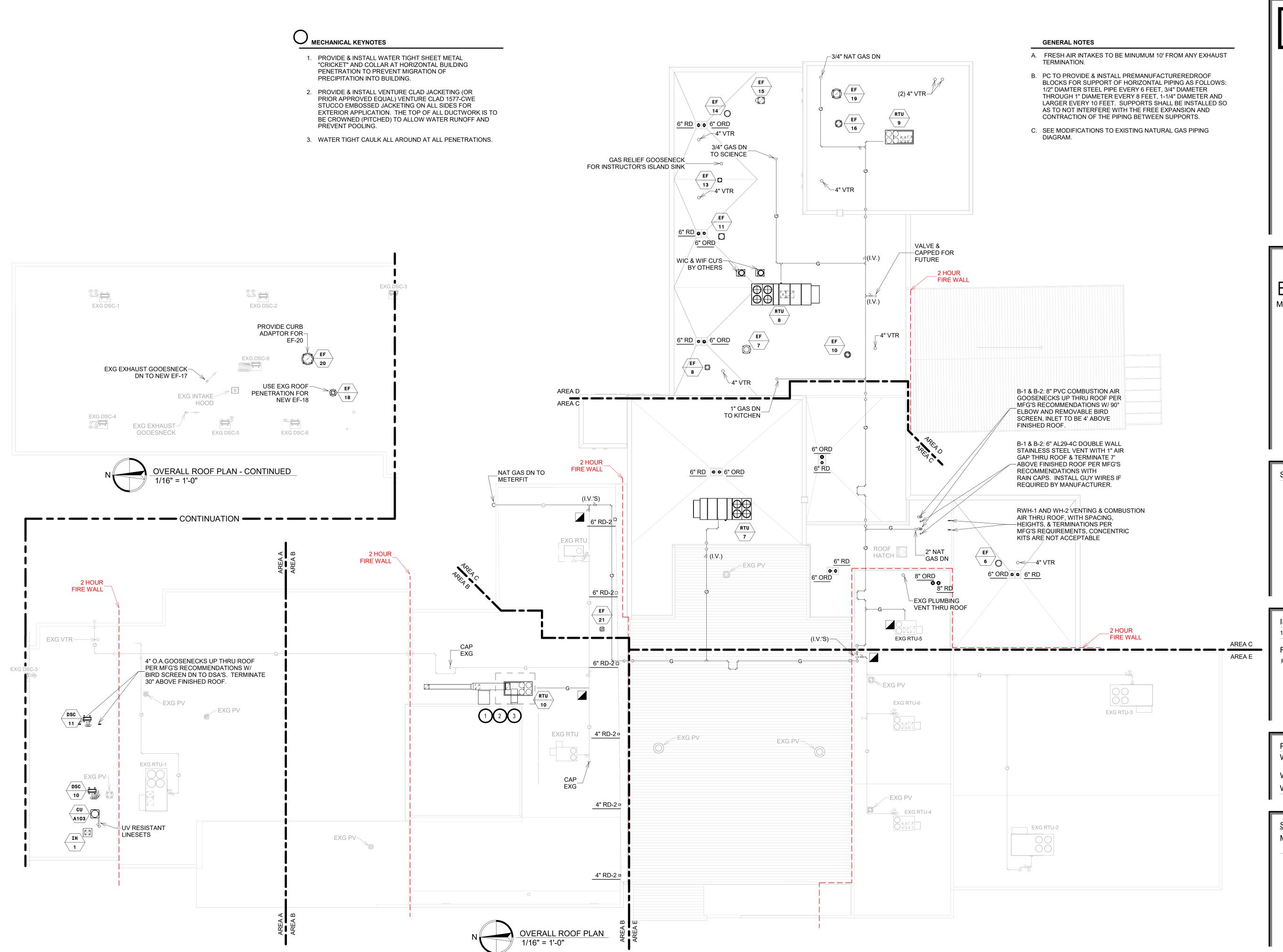
WILLOW LAKE SCHOOL ADDITION

WILLOW LAKESCHOOL DISTRICT
WILLOW LAKE, SOUTH DAKOTA

SHEET TITLE:

ENLARGED KITCHEN LAYOUT

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PROJECT:

WILLOW LAKE SCHOOL ADDITION

WILLOW LAKESCHOOL DISTRICT WILLOW LAKE, SOUTH DAKOTA

SHEET TITLE:

MECHANICAL ROOF PLAN

M103

## **MECHANICAL GENERAL NOTES:**

- A. CONTRACTOR SHALL VISIT THE SITE AND VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS. NOTIFY THE ENGINEER IMMEDIATELY OF ANY DISCREPANCIES. INCLUDING ANY NECESSARY DEMOLITION.
- B. REMOVE MECHANICAL EQUIPMENT IN THE AREAS SHOWN ON THE PLAN, DISCONNECT SERVICES AND REMOVE TO A POINT OUT OF THE WAY OF THE GENERAL DEMOLITION. MARK ON THE PLAN TO CLEARLY SHOW WHERE THESE SERVICES ARE STOPPED. DEMOLITION WORK SHALL BE COORDINATED WITH THE OWNER. SHOULD QUESTIONS ARISE REGARDING THE REMOVAL OF EQUIPMENT, CONFER WITH THE OWNER BEFORE SUCH EQUIPMENT IS DEMOLISHED. MATERIALS REMOVED BY DEMOLITION SHALL REMAIN THE PROPERTY OF THE OWNER UNLESS OTHERWISE SPECIFICALLY NOTED. MATERIAL THE OWNER DOES NOT WISH TO RETAIN SHALL BE REMOVED AND
- DISPOSED OF PROPERLY BY THE CONTRACTOR. C. EQUIPMENT SHOWN ON DRAWINGS AS EXISTING IS BASED ON EXISTING PLANS AND LIMITED FIELD INVESTIGATION. THE FIELD SURVEY WAS CONDUCTED TO VERIFY, AS MUCH AS POSSIBLE, THE ACCURACY OF THE LOCATIONS SHOWN. THE CONTRACTOR SHALL VERIFY THE ACCURACY OF THE "EXISTING CONDITIONS" AS SHOWN ON THE DRAWINGS AS THE DEMOLITION WORK PROGRESSES. PERFORM MODIFICATIONS AND ADDITIONS AS NECESSARY TO CORRECT FOR THESE HIDDEN CONDITIONS AND ALLOW FOR THE COMPLETION OF THE NEW WORK.
- D. THE EXISTING BUILDING WILL BE IN USE DURING THIS CONSTRUCTION. SCHEDULE AND CARRY OUT THE WORK IN SUCH A MANNER AS TO CAUSE THE OWNER A MINIMUM OF INCONVENIENCE DUE TO SERVICE INTERRUPTIONS. TEMPORARY SERVICES SHALL BE INSTALLED IF ONE PHASE OF CONSTRUCTION DISRUPTS SERVICE TO ANOTHER AREA OF THE BUILDING OR IF EQUIPMENT HAS TO BE RELOCATED TO ALLOW CONSTRUCTION TO PROGRESS. SERVICE INTERRUPTIONS SHALL BE CONFINED TO THE SMALLEST AREA POSSIBLE AT ANY ONE TIME AND INTERRUPTIONS SHALL BE SCHEDULED WITH THE OWNER'S SITE REPRESENTATIVE. AFTER SERVICE HAS BEEN RESTORED FOLLOWING AN INTERRUPTION, INSPECT AREAS AFFECTED BY THE INTERRUPTION AND BE RESPONSIBLE FOR RETURNING AUTOMATICALLY CONTROLLED EQUIPMENT TO THE SAME OPERATING CONDITION, WHICH EXISTED PRIOR TO THE INTERRUPTION.
- PROVIDE PENETRATIONS TO THE BUILDING STRUCTURE AS REQUIRED FOR INSTALLATION. WHERE EXISTING OR TEMPORARY SYSTEMS ARE BEING DEMOLISHED, WHICH LEAVE OPENINGS IN THE EXISTING BUILDING STRUCTURE THE BUILDING STRUCTURE SHALL BE PATCHED TO MATCH THE EXISTING CONSTRUCTION AND MAINTAIN THE EXISTING BUILDING FIRE RATINGS. ALL PENETRATIONS THROUGH DRAFT STOPS AND OTHER FIRE-RATED PARTITIONS SHALL BE FIRE STOPPED AS PER SPECIFICATIONS AND LOCAL CODES.
- ALL MECHANICAL WORK SHALL BE INSTALLED IN STRICT ACCORDANCE WITH ALL APPLICABLE LOCAL, STATE, NATIONAL PLUMBING REGULATIONS, AND THE AUTHORITY HAVING JURISDICTION.
- G. THE MECHANICAL CONTRACTOR IS RESPONSIBLE FOR THE TESTING & CLEANING OF EACH RESPECTIVE SYSTEM IN ACCORDANCE WITH APPLICABLE STATE & LOCAL CODES. TESTS SHALL BE PERFORMED IN THE PRESENCE OF THE AUTHORITY HAVING JURISDICTION. WRITTEN NOTIFICATION OF TEST, DATE, AND RESULTS SHALL BE COVERING THE INSTALLATION. TESTS SHALL BE

1. PC TO DISCONNECT EXISTING 3/4" CW FEEDING EXISTING WELLNESS CENTER, WELLNESS CENTER TO BE REMOVED BY OTHERS. EXISTING BELOW GRADE CW PIPING TO BE ABANDONED AND REMOVED BY OTHERS.

**KEYNOTES** 

2. PC TO DISCONNECT EXISTING 3/4" BELOW GRADE NATURAL GAS FUEL RUN FEEDING EXISTING WELLNESS CENTER, WELLNESS CENTER TO BE REMOVED BY OTHERS. EXISTING NATURAL GAS FUEL RUN TO BE ABANDONED AND REMOVED BY OTHERS.

3. PC TO DISCONNECT & CAP EXISTING 3/4" CW FEEDING EXISTING WELLNESS CENTER, EXISTING -

WELLNESS CENTER TO BE REMOVED BY OTHERS. PATCHING OF FLOOR BY PC.

4. PC TO PROVIDE & INSTAL CAP ON EXISTING 3/4" NATURAL GAS FUEL RUN SERVING EXISTING WELLNESS CENTER, EXISTING WELLNESS CENTER TO BE REMOVED BY OTHERS. PATCHING BY PC.

--EXISTING ABANDONED IN PLACE

EXISTING MANHOLE-

5. PC TO DISCONNECT EXISTING 4" C.I. SANITARY WASTE SERVING EXISTING WELLNESS CENTER TO ALLOW FOR REMOVAL OF EXISTING WELLNESS CENTER. EXISTING ABANDONED SANITARY SEWER SERVICE TO BE REMOVED BY OTHERS.

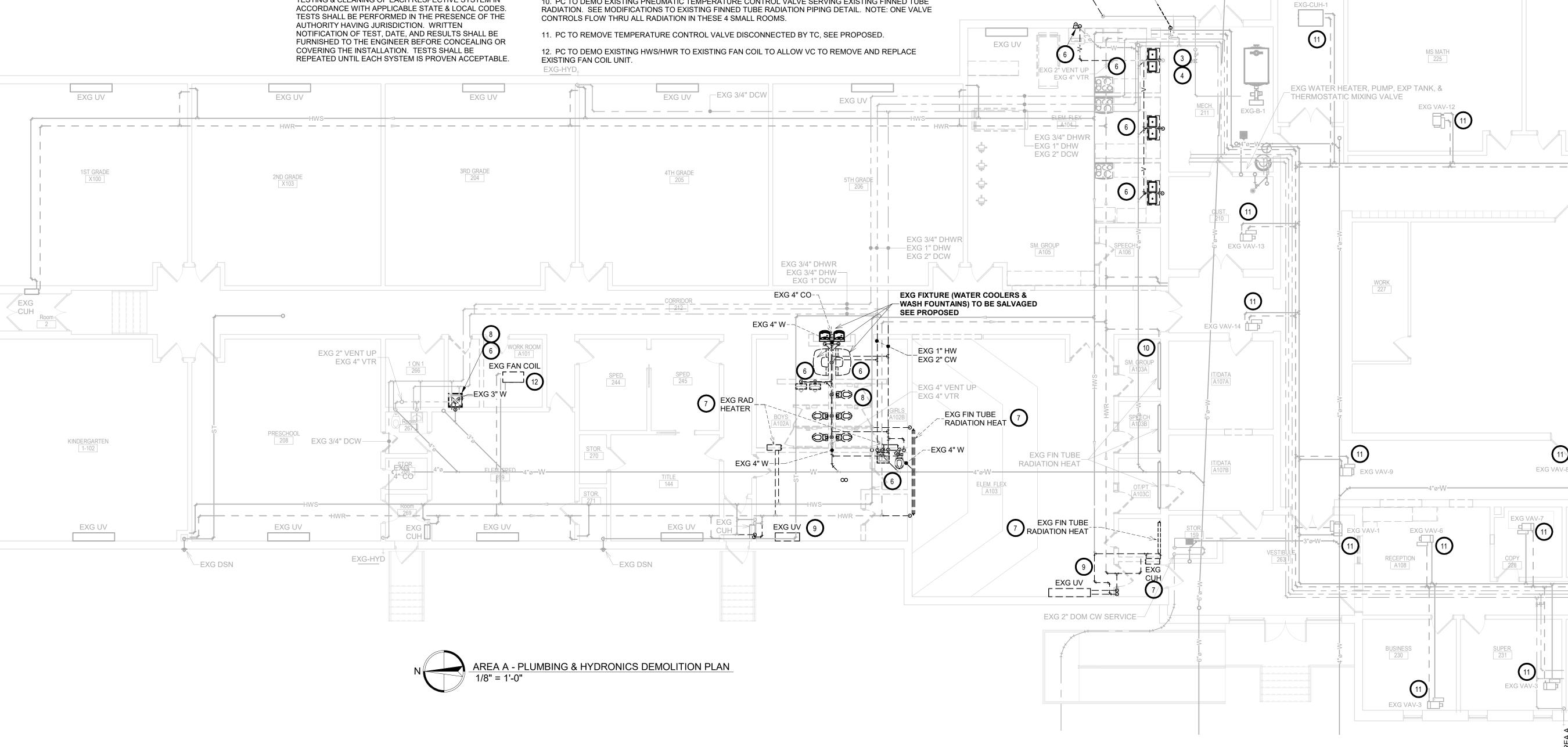
6. PC TO DISCONNECT AND REMOVE EXISTING PLUMBING FIXTURE, WASTE, VENTING, DOMESTIC WATER AND INSTALL CAP NEAR MAINS. PATCH FLOORS AND WALLS

7. PC TO DISCONNECT AND REMOVE EXISTING RADIANT HEATER OR EXG CUH AND ASSOCIATED PIPING. INSTALL CAP NEAR MAINS. GROUT/PATCH WALL PENETRATIONS. PAINTING BY PAINTING CONTRACTOR.

8. PC TO COORDINATE FLOOR CUTTING BY OTHERS WITH GC FOR NEW BELOW GRADE PIPING. SEE PROPOSED.

9. PC TO DISCONNECT AND REMOVE EXISTING HYDRONIC PIPING & VALVES TO ALLOW VC TO REMOVE EXISTING UNIT VENTILATOR. PC TO REMOVE EXISTING PIPING ENCLOSURE & CAP PIPING NEAR MAINS. PC TO PATCH EXG HYDRONIC PIPING WALL PENETRATIONS IN BLOCKWALL. PAINTING BY PAINTING CONTRACTOR.

10. PC TO DEMO EXISTING PNEUMATIC TEMPERATURE CONTROL VALVE SERVING EXISTING FINNED TUBE



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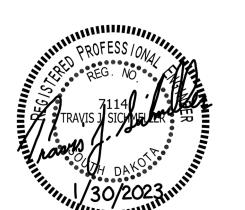
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REVISION SCHEDULE:

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PROJECT:

WILLOW LAKE SCHOOL ADDITION

WILLOW LAKESCHOOL DISTRICT WILLOW LAKE, SOUTH DAKOTA

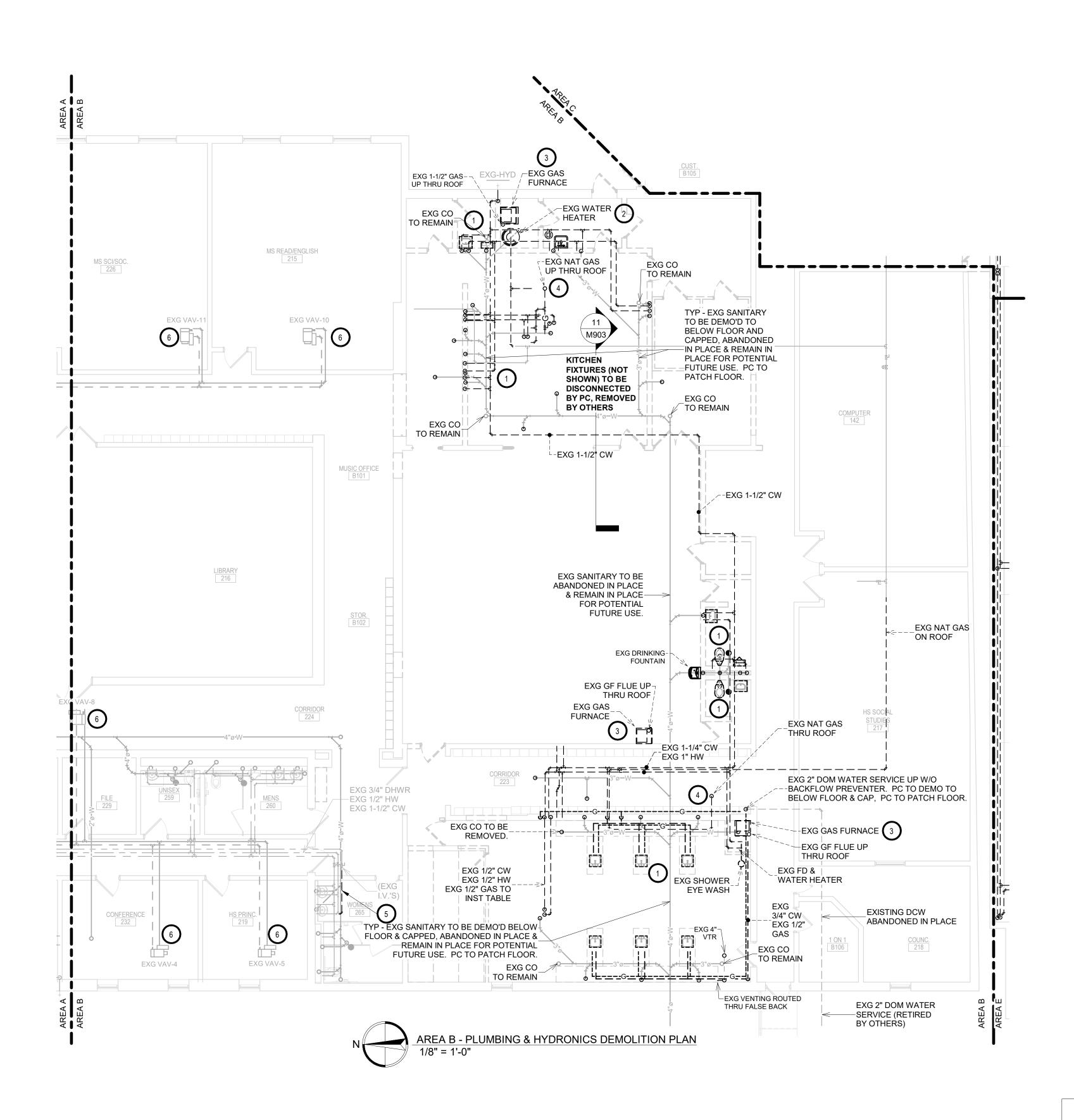
**SHEET TITLE:** 

Ag Shop

<u>KEYPLAN</u>

AREA A - PLUMBING & HYDRONICS DEMOLITION PLAN

M200A



MECHANICAL GENERAL NOTES:

A. CONTRACTOR SHALL VISIT THE SITE AND VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS. NOTIFY THE ENGINEER IMMEDIATELY OF ANY DISCREPANCIES, INCLUDING ANY NECESSARY DEMOLITION.

B. REMOVE MECHANICAL EQUIPMENT IN THE AREAS SHOWN ON THE PLAN, DISCONNECT SERVICES AND REMOVE TO A POINT OUT OF THE WAY OF THE GENERAL DEMOLITION. MARK ON THE PLAN TO CLEARLY SHOW WHERE THESE SERVICES ARE STOPPED. DEMOLITION WORK SHALL BE COORDINATED WITH THE OWNER. SHOULD QUESTIONS ARISE REGARDING THE REMOVAL OF EQUIPMENT, CONFER WITH THE OWNER BEFORE SUCH EQUIPMENT IS DEMOLISHED. MATERIALS REMOVED BY DEMOLITION SHALL REMAIN THE PROPERTY OF THE OWNER UNLESS OTHERWISE SPECIFICALLY NOTED. MATERIAL THE OWNER DOES NOT WISH TO RETAIN SHALL BE REMOVED AND DISPOSED OF PROPERLY BY THE CONTRACTOR.

C. EQUIPMENT SHOWN ON DRAWINGS AS EXISTING IS BASED ON EXISTING PLANS AND LIMITED FIELD INVESTIGATION. THE FIELD SURVEY WAS CONDUCTED TO VERIFY, AS MUCH AS POSSIBLE, THE ACCURACY OF THE LOCATIONS SHOWN. THE CONTRACTOR SHALL VERIFY THE ACCURACY OF THE "EXISTING CONDITIONS" AS SHOWN ON THE DRAWINGS AS THE DEMOLITION WORK PROGRESSES. PERFORM MODIFICATIONS AND ADDITIONS AS NECESSARY TO CORRECT FOR THESE HIDDEN CONDITIONS AND ALLOW FOR THE COMPLETION OF THE NEW WORK.

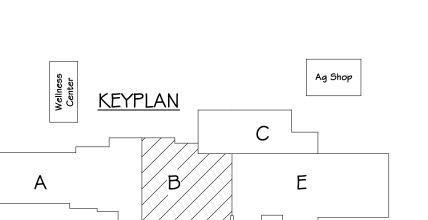
- D. THE EXISTING BUILDING WILL BE IN USE DURING THIS CONSTRUCTION. SCHEDULE AND CARRY OUT THE WORK IN SUCH A MANNER AS TO CAUSE THE OWNER A MINIMUM OF INCONVENIENCE DUE TO SERVICE INTERRUPTIONS. TEMPORARY SERVICES SHALL BE INSTALLED IF ONE PHASE OF CONSTRUCTION DISRUPTS SERVICE TO ANOTHER AREA OF THE BUILDING OR IF EQUIPMENT HAS TO BE RELOCATED TO ALLOW CONSTRUCTION TO PROGRESS. SERVICE INTERRUPTIONS SHALL BE CONFINED TO THE SMALLEST AREA POSSIBLE AT ANY ONE TIME AND INTERRUPTIONS SHALL BE SCHEDULED WITH THE OWNER'S SITE REPRESENTATIVE. AFTER SERVICE HAS BEEN RESTORED FOLLOWING AN INTERRUPTION, INSPECT AREAS AFFECTED BY THE INTERRUPTION AND BE RESPONSIBLE FOR RETURNING AUTOMATICALLY CONTROLLED EQUIPMENT TO THE SAME OPERATING CONDITION, WHICH EXISTED PRIOR TO THE INTERRUPTION.
- E. PROVIDE PENETRATIONS TO THE BUILDING STRUCTURE AS REQUIRED FOR INSTALLATION. WHERE EXISTING OR TEMPORARY SYSTEMS ARE BEING DEMOLISHED, WHICH LEAVE OPENINGS IN THE EXISTING BUILDING STRUCTURE, THE BUILDING STRUCTURE SHALL BE PATCHED TO MATCH THE EXISTING CONSTRUCTION AND MAINTAIN THE EXISTING BUILDING FIRE RATINGS. ALL PENETRATIONS THROUGH DRAFT STOPS AND OTHER FIRE-RATED PARTITIONS SHALL BE FIRE STOPPED AS PER SPECIFICATIONS AND LOCAL CODES.

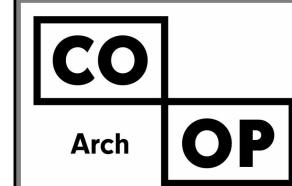
F. ALL MECHANICAL WORK SHALL BE INSTALLED IN STRICT ACCORDANCE WITH ALL APPLICABLE LOCAL, STATE, NATIONAL PLUMBING REGULATIONS, AND THE AUTHORITY HAVING JURISDICTION.

G. THE MECHANICAL CONTRACTOR IS RESPONSIBLE FOR THE TESTING & CLEANING OF EACH RESPECTIVE SYSTEM IN ACCORDANCE WITH APPLICABLE STATE & LOCAL CODES. TESTS SHALL BE PERFORMED IN THE PRESENCE OF THE AUTHORITY HAVING JURISDICTION. WRITTEN NOTIFICATION OF TEST, DATE, AND RESULTS SHALL BE FURNISHED TO THE ENGINEER BEFORE CONCEALING OR COVERING THE INSTALLATION. TESTS SHALL BE REPEATED UNTIL EACH SYSTEM IS PROVEN ACCEPTABLE.

# KEYNOTES

- 1. PC TO DISCONNECT AND REMOVE EXISTING PLUMBING FIXTURE, FLOOR DRAIN, WASTE, VENTING, DOMESTIC WATER PIPING SHOWN DARK AND DASHED, NATURAL GAS (AS NEEDED) AND INSTALL CAP NEAR MAINS. ALL EXISTING SANITARY WASTE ROUGH-INS UP THRU FLOOR SHALL BE REMOVED TO A POINT BELOW FLOOR AND CAPPED. FLOOR PATCHING BY PC.
- 2. PC TO DISCONNECT AND REMOVE EXISTING WATER HEATER, GAS PIPING, AND ASSOCIATED PIPING.
- 3. PC TO DISCONNECT EXISTING GAS FURNACE, AND NATURAL GAS PIPING. FURNACE REMOVED BY VC.
- 4. PC TO DISCONNECT EXISTING NATURAL GAS PIPING AND CAP ON ROOF NEAR MAIN.
- 5. PC TO REMOVE EXISTING 3/4" DHWR AS NECESSARY TO ACCOMMODATE REMODEL. SEE PROPOSED.
- 6. PC TO REMOVE DDC TEMPERATURE CONTROL VALVE DISCONNECTED BY TC, SEE PROPOSED.





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Mechanical & Electrical Engineering

SE PROJECT NO: 220900771



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PROJECT:

WILLOW LAKE SCHOOL ADDITION

WILLOW LAKESCHOOL DISTRICT
WILLOW LAKE, SOUTH DAKOTA

SHEET TITLE:

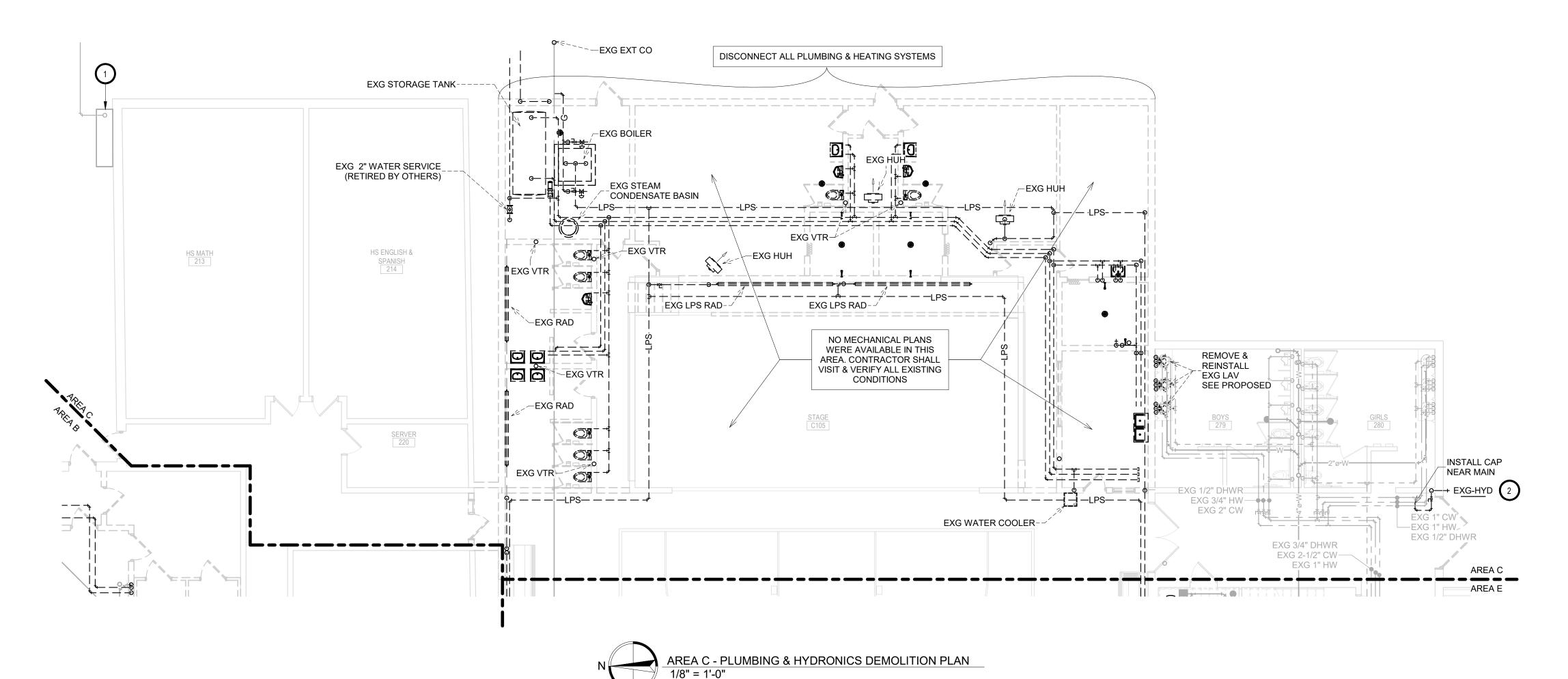
AREA B - PLUMBING & HYDRONICS DEMOLITION PLAN

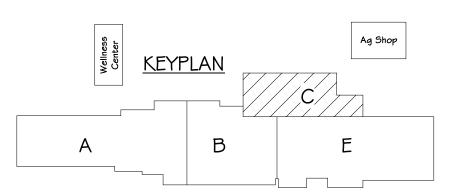
M201B

- A. CONTRACTOR SHALL VISIT THE SITE AND VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS. NOTIFY THE
- ENGINEER IMMEDIATELY OF ANY DISCREPANCIES, INCLUDING ANY NECESSARY DEMOLITION.

  B. REMOVE MECHANICAL EQUIPMENT IN THE AREAS SHOWN ON THE PLAN, DISCONNECT SERVICES AND REMOVE TO A POINT OUT OF THE WAY OF THE GENERAL DEMOLITION. MARK ON THE PLAN TO CLEARLY SHOW WHERE THESE SERVICES ARE STOPPED. DEMOLITION WORK SHALL BE COORDINATED WITH THE OWNER. SHOULD QUESTIONS ARISE REGARDING THE REMOVAL OF EQUIPMENT, CONFER WITH THE OWNER BEFORE SUCH EQUIPMENT IS DEMOLISHED. MATERIALS REMOVED BY DEMOLITION SHALL REMAIN THE PROPERTY OF THE OWNER UNLESS OTHERWISE SPECIFICALLY NOTED. MATERIAL THE OWNER DOES NOT WISH TO RETAIN SHALL BE REMOVED AND DISPOSED OF PROPERLY BY THE CONTRACTOR.
- C. EQUIPMENT SHOWN ON DRAWINGS AS EXISTING IS BASED ON EXISTING PLANS AND LIMITED FIELD INVESTIGATION. THE FIELD SURVEY WAS CONDUCTED TO VERIFY, AS MUCH AS POSSIBLE, THE ACCURACY OF THE LOCATIONS SHOWN. THE CONTRACTOR SHALL VERIFY THE ACCURACY OF THE "EXISTING CONDITIONS" AS SHOWN ON THE DRAWINGS AS THE DEMOLITION WORK PROGRESSES. PERFORM MODIFICATIONS AND ADDITIONS AS NECESSARY TO CORRECT FOR THESE HIDDEN CONDITIONS AND ALLOW FOR THE COMPLETION OF THE NEW WORK.
- D. THE EXISTING BUILDING WILL BE IN USE DURING THIS CONSTRUCTION. SCHEDULE AND CARRY OUT THE WORK IN SUCH A MANNER AS TO CAUSE THE OWNER A MINIMUM OF INCONVENIENCE DUE TO SERVICE INTERRUPTIONS. TEMPORARY SERVICES SHALL BE INSTALLED IF ONE PHASE OF CONSTRUCTION DISRUPTS SERVICE TO ANOTHER AREA OF THE BUILDING OR IF EQUIPMENT HAS TO BE RELOCATED TO ALLOW CONSTRUCTION TO PROGRESS. SERVICE INTERRUPTIONS SHALL BE CONFINED TO THE SMALLEST AREA POSSIBLE AT ANY ONE TIME AND INTERRUPTIONS SHALL BE SCHEDULED WITH THE OWNER'S SITE REPRESENTATIVE. AFTER SERVICE HAS BEEN RESTORED FOLLOWING AN INTERRUPTION, INSPECT AREAS AFFECTED BY THE INTERRUPTION AND BE RESPONSIBLE FOR RETURNING AUTOMATICALLY CONTROLLED EQUIPMENT TO THE SAME OPERATING CONDITION, WHICH EXISTED PRIOR TO THE INTERRUPTION.
- E. PROVIDE PENETRATIONS TO THE BUILDING STRUCTURE AS REQUIRED FOR INSTALLATION. WHERE EXISTING OR TEMPORARY SYSTEMS ARE BEING DEMOLISHED, WHICH LEAVE OPENINGS IN THE EXISTING BUILDING STRUCTURE, THE BUILDING STRUCTURE SHALL BE PATCHED TO MATCH THE EXISTING CONSTRUCTION AND MAINTAIN THE EXISTING BUILDING FIRE RATIONS. ALL PENETRATIONS THROUGH IN ART STOPS AND OTHER FIRE-
- RATED PARTITIONS SHALL BE FIRE STOPPED AS PER SPECIFICATIONS AND LOCAL CODES.

  F. ALL MECHANICAL WORK SHALL BE INSTALLED IN STRICT ACCORDANCE WITH ALL APPLICABLE LOCAL, STATE, NATIONAL PLUMBING REGULATIONS, AND THE AUTHORITY HAVING JURISDICTION.
- G. THE MECHANICAL CONTRACTOR IS RESPONSIBLE FOR THE TESTING & CLEANING OF EACH RESPECTIVE SYSTEM IN ACCORDANCE WITH APPLICABLE STATE & LOCAL CODES. TESTS SHALL BE PERFORMED IN THE PRESENCE OF THE AUTHORITY HAVING JURISDICTION. WRITTEN NOTIFICATION OF TEST, DATE, AND RESULTS SHALL BE FURNISHED TO THE ENGINEER BEFORE CONCEALING OR COVERING THE INSTALLATION. TESTS SHALL BE REPEATED UNTIL EACH SYSTEM IS PROVEN ACCEPTABLE.

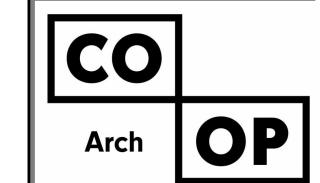






1. EXISTING GRADE ELEVATIONS WILL CHANGE. EXISTING GAS METERFIT WILL HAVE TO BE RAISED BY UTILITY TO ACCOMMODATE PROPOSED GRADE CHANGES. EXISTING NORTHWESTERN ENERGY NATURAL GAS METER #23464. PLUMBING CONTRACTOR TO COORDINATE WITH KIRBY WICKS OF NWE AT 605-353-7609 FOR ANY UTILITY REQUIRED CHANGES TO THE METER FIT (ANY NWE COSTS ASSOCIATED WITH THE NATURAL GAS METERFIT WILL BE BILLED DIRECTLY TO THE OWNER). PC TO MODIFY EXISTING NATURAL GAS PIPING AFTER NWE METERFIT TO ACCOMMODATE THE ADDITIONAL NATURAL GAS PIPING. SEE MODIFICATIONS TO EXISTING NATURAL GAS PIPING DIAGRAM.

2. PC TO DISCONNECT AND REMOVE EXISTING PLUMBING FIXTURE, DOMESTIC WATER AND INSTALL CAP NEAR MAIN.



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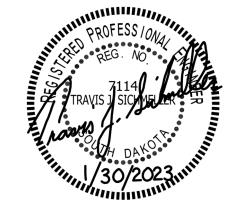
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# SICHMELLER ENGINEERING Mechanical & Electrical Engineering

801 Railroad Ave. SE Aberdeen, SD 57401 Phone: 605-225-4344 www.siceng.biz

SE PROJECT NO: 220900771



ISSUE:

1/30/23 CONSTRUCTION DOCUMENTS

REVISION SCHEDULE:

REV. # REV. DSC. REV. DATE

PROJECT:

WILLOW LAKE SCHOOL ADDITION

WILLOW LAKESCHOOL DISTRICT
WILLOW LAKE, SOUTH DAKOTA

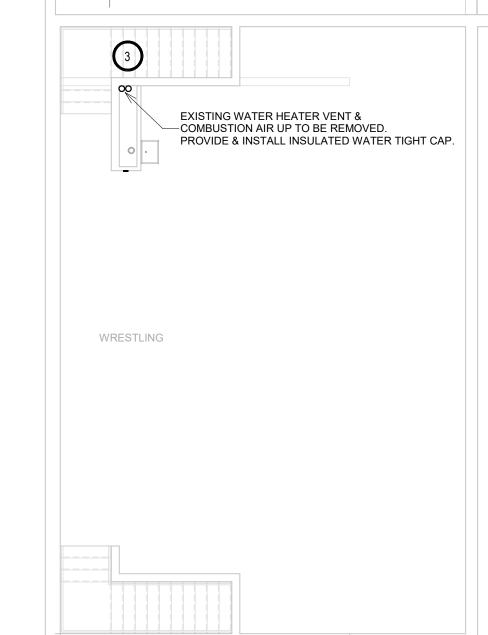
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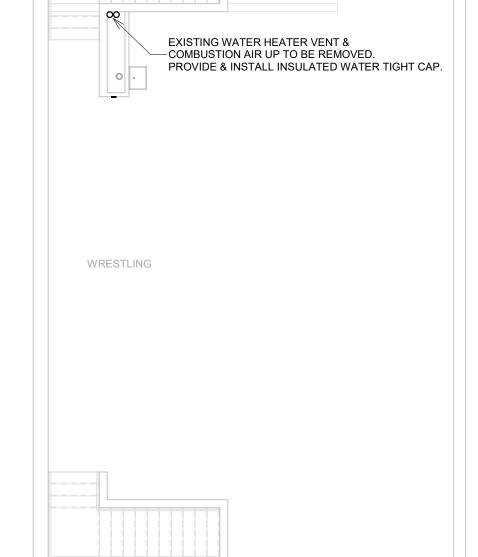
AREA C - PLUMBING &
HYDRONICS DEMOLITION PLAN

M202C

### MECHANICAL GENERAL NOTES:

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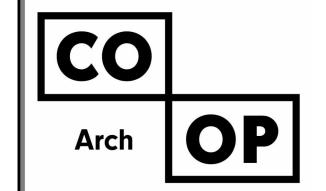








- 1. PC TO DISCONNECT AND REMOVE EXISTING STEAM HUH'S AND ASSOCIATED PIPING SHOWN DARK AND DASHED.
- 2. PC TO DISCONNECT AND REMOVE EXISTING STEAM CABINET UNIT HEATER. PATCHING AND PAINTING BY
- 3. PC TO DISCONNECT AND REMOVE EXISTING WATER HEATER, THERMOSTATIC MIXING VALVE, DOMESTIC HW RECIRC PUMP, AND VENT/COMB AIR. PROVIDE & INSTALL INSULATED WEATHER TIGHT ON VENT AND COMB AIR. EXISTING WATER HEATER AND RECIRC PUMP TO BE RELOCATED. SEE PROPOSED. CONTRACTOR TO SALVAGE EXISTING THERMOSTATIC MIXING VALVE TO OWNER.
- 4. PC TO DISCONNECT AND REMOVE EXISTING WATER METER, EXG 2-1/2" PIPING AND CAP BELOW GRADE. EXG 2" WATER SERVICE TO BE RETIRED (BY OTHERS). EXG 2" WATER METER TO BE RELOCATED. PC TO PATCH CONCRETE FLOOR. SEE PROPOSED.
- 5. PC TO DEMO EXISTING FLOOR SINK AND CAP PIPE BELOW GRADE. PC TO PATCH EXISTING CONCRETE FLOOR.



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SE PROJECT NO: 220900771



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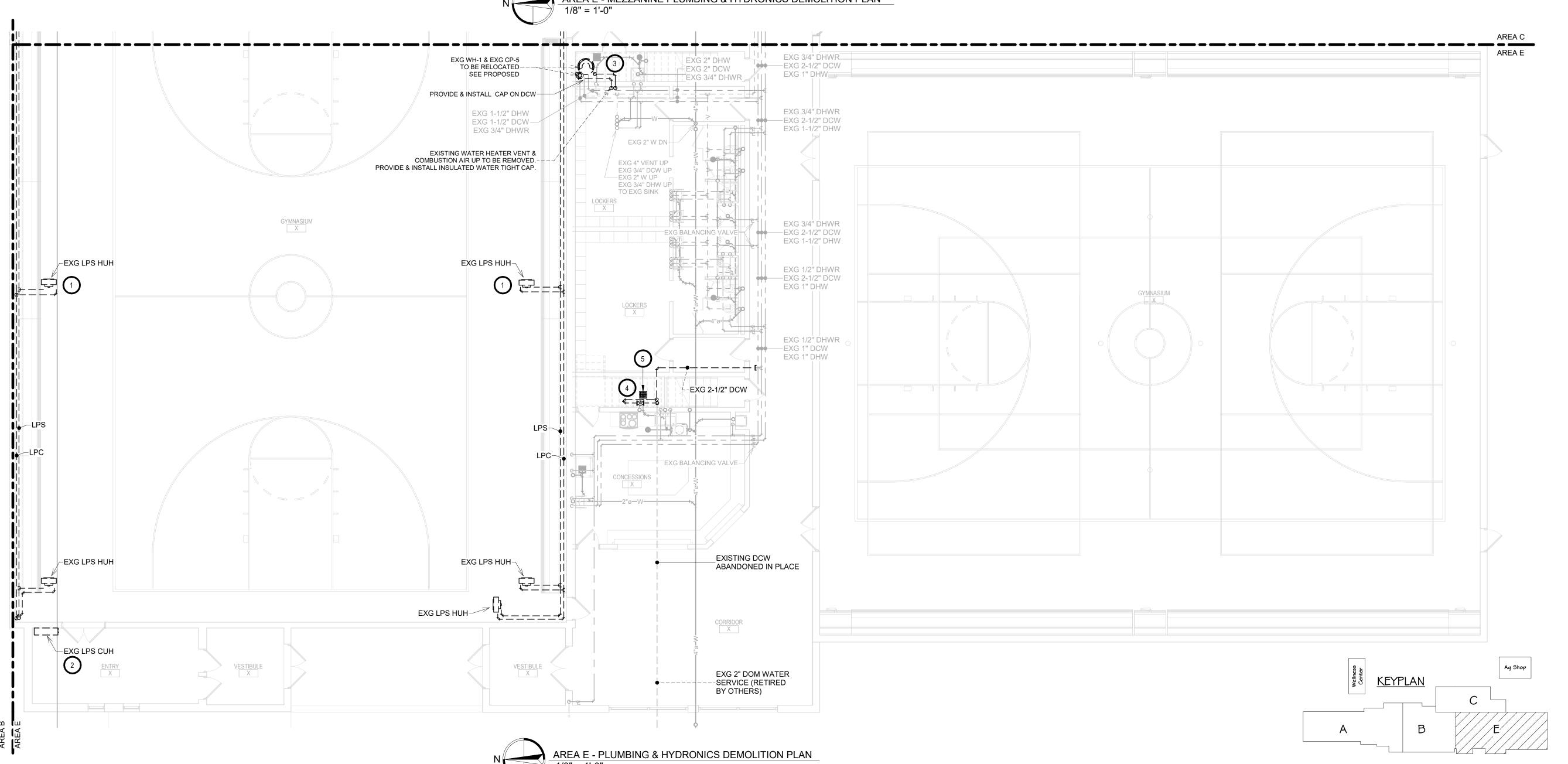
WILLOW LAKE SCHOOL ADDITION

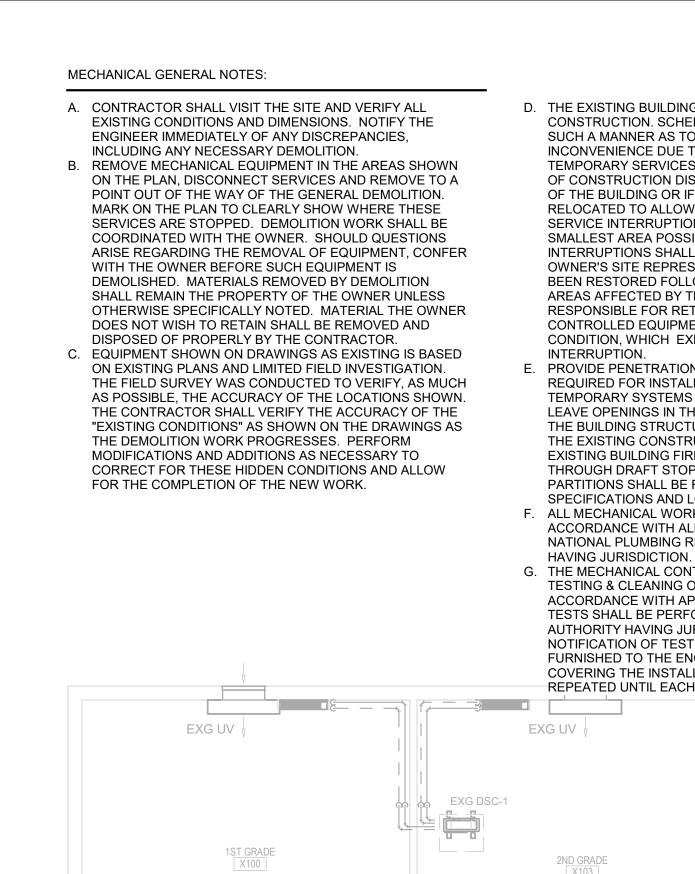
WILLOW LAKESCHOOL DISTRICT WILLOW LAKE, SOUTH DAKOTA

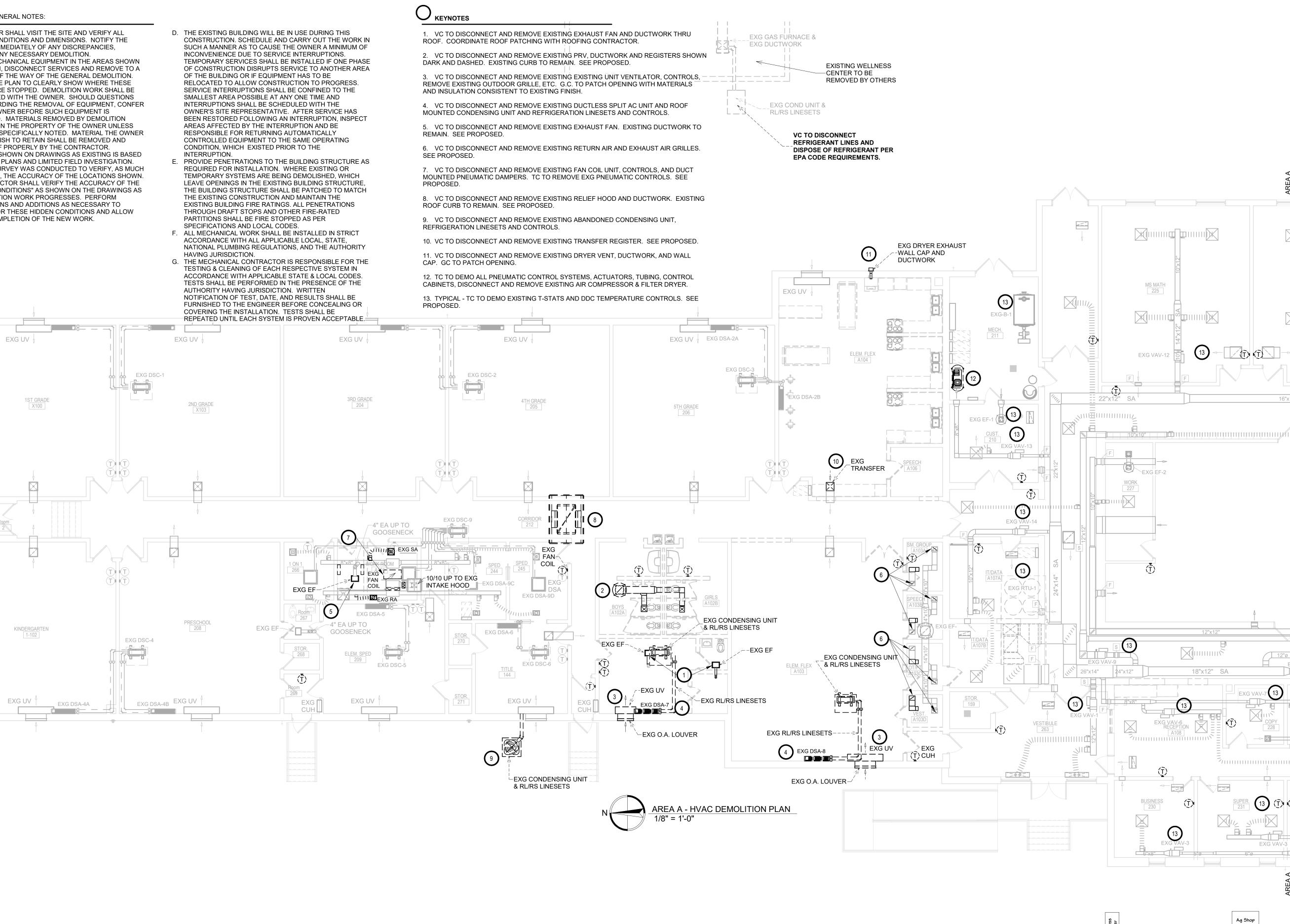
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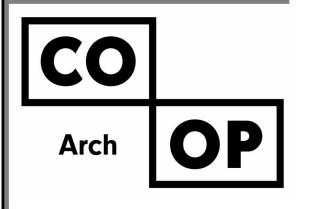
AREA E - PLUMBING & HYDRONICS DEMOLITION PLAN

M203E









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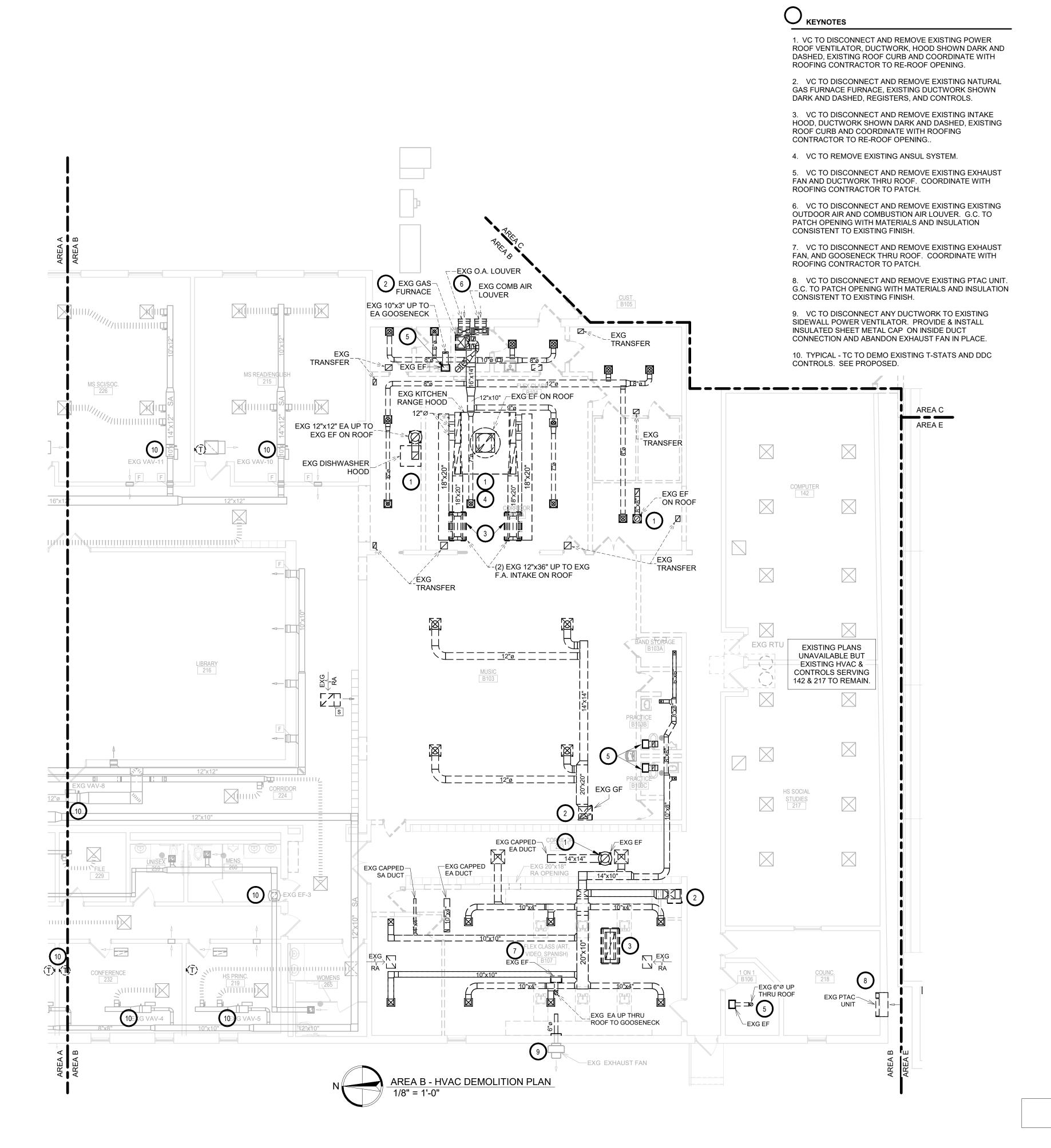
WILLOW LAKESCHOOL DISTRICT WILLOW LAKE, SOUTH DAKOTA

SHEET TITLE:

<u>KEYPLAN</u>

AREA A - HVAC DEMOLITION PLAN

M300A



MECHANICAL GENERAL NOTES:

A. CONTRACTOR SHALL VISIT THE SITE AND VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS. NOTIFY THE ENGINEER IMMEDIATELY OF ANY DISCREPANCIES, INCLUDING ANY NECESSARY DEMOLITION.

B. REMOVE MECHANICAL EQUIPMENT IN THE AREAS SHOWN ON THE PLAN, DISCONNECT SERVICES AND REMOVE TO A POINT OUT OF THE WAY OF THE GENERAL DEMOLITION. MARK ON THE PLAN TO CLEARLY SHOW WHERE THESE SERVICES ARE STOPPED. DEMOLITION WORK SHALL BE COORDINATED WITH THE OWNER. SHOULD QUESTIONS ARISE REGARDING THE REMOVAL OF EQUIPMENT, CONFER WITH THE OWNER BEFORE SUCH EQUIPMENT IS DEMOLISHED. MATERIALS REMOVED BY DEMOLITION SHALL REMAIN THE PROPERTY OF THE OWNER UNLESS OTHERWISE SPECIFICALLY NOTED. MATERIAL THE OWNER DOES NOT WISH TO RETAIN SHALL BE REMOVED AND DISPOSED OF PROPERLY BY THE CONTRACTOR.

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<u>KEYPLAN</u>

CO Arch OP

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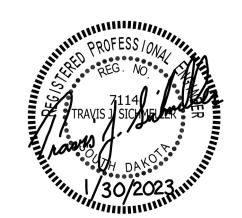
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# SICHMELLER ENGINEERING

801 Railroad Ave. SE Aberdeen, SD 57401 Phone: 605-225-4344 www.siceng.biz

Mechanical & Electrical Engineering

SE PROJECT NO: 220900771



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PROJECT:

WILLOW LAKE SCHOOL ADDITION

WILLOW LAKESCHOOL DISTRICT
WILLOW LAKE, SOUTH DAKOTA

SHEET TITLE:

AREA B - HVAC DEMOLITION PLAN

M301B

O KEYNOTES

1. TYPICAL - TC TO DEMO EXISTING T-STATS AND DDC TEMPERATURE CONTROLS. SEE PROPOSED.

MECHANICAL GENERAL NOTES:

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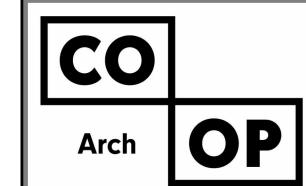
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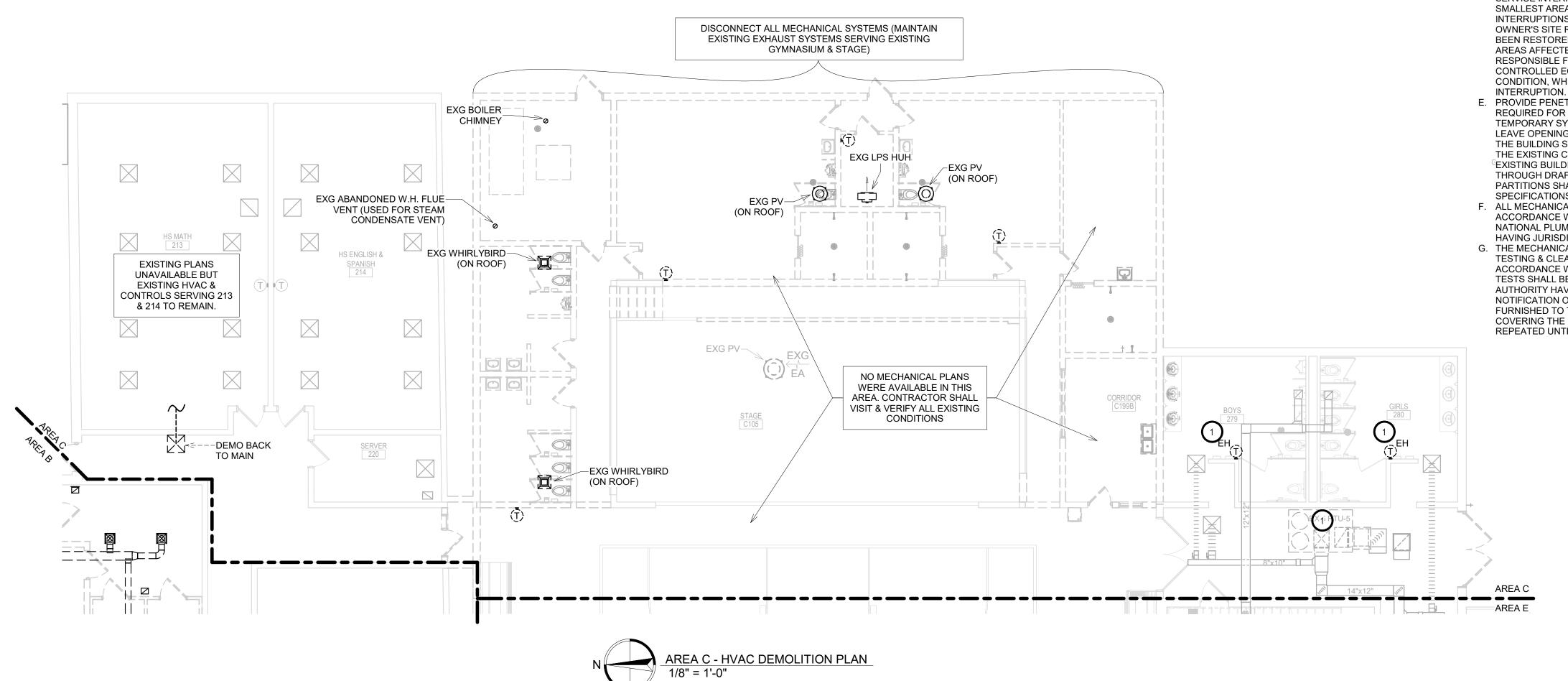
WILLOW LAKE SCHOOL ADDITION

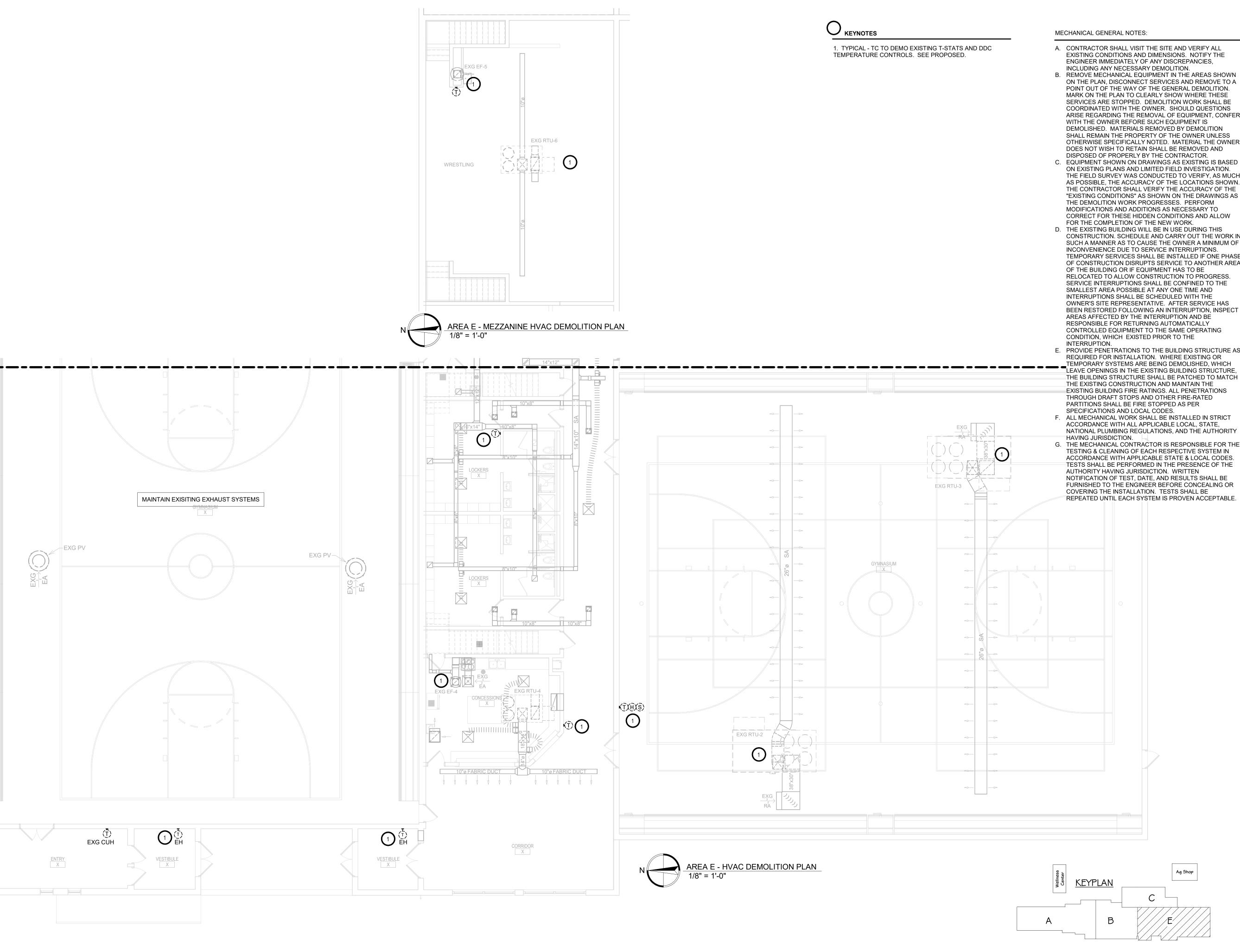
WILLOW LAKESCHOOL DISTRICT WILLOW LAKE, SOUTH DAKOTA

SHEET TITLE:

AREA C - HVAC DEMOLITION PLAN

M302C





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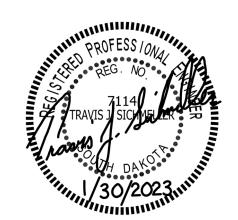
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WILLOW LAKE SCHOOL ADDITION

WILLOW LAKESCHOOL DISTRICT WILLOW LAKE, SOUTH DAKOTA

SHEET TITLE:

AREA E - HVAC DEMOLITION PLAN

M303E



1ST GRADE X100

KINDERGARTEN
1-102

- A. ALL MECHANICAL SYSTEMS, EXCLUDING DROPS, TO BE INSTALLED AS HIGH AS POSSIBLE TO PROVIDE MAXIMUM CLEARANCES FOR OWNER.
- B. FLOOR DRAINS & SINK LOCATIONS SHALL BE INSTALLED IN LOCATIONS PROPER TO ACCEPT INDIRECT DRAIN PIPING FROM BOILERS, WATER HEATER, RELIEFS, ETC. (TRIP HAZARDS FROM PIPING WILL NOT BE ACCEPTABLE).
- C. ALL FLOOR CLEANOUTS TO BE LOCATED IN INCONSPICUOUS LOCATIONS. CLEANOUTS LOCATED IN DOORWAYS AND MIDDLE OF HALLWAYS WILL NOT BE ACCEPTABLE.

1. THIS SPACE IS RESERVED FOR ELECTRICAL GEAR. PIPING AND EQUIPMENT SHALL NOT BE LOCATED IN FRONT OF OR ROUTED ABOVE ELECTRICAL PANELS. COORDINATE WITH DIVISION 26.

KEYNOTES

3RD GRADE 204

2. PC TO COORDINATE FLOOR CUTTING BY OTHERS WITH GC FOR NEW BELOW GRADE PIPING.

### GENERAL NOTES:

4TH GRADE 205

CORRIDOR 212

A. ALL WORK SHALL BE PERFORMED IN A CLEAN AND WORKMANLIKE MANNER.

B. THE MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE FOR PATCHING ANY OPENINGS LEFT IN FLOORS, WALLS, AND CEILINGS THAT WERE CAUSED BY HIS/HER ACTIONS. PATCHING SHALL MATCH EXISTING SURFACE IN COLOR, TEXTURE AND QUALITY SO THAT PATCH IS INDISTINGUISHABLE FROM ORIGINAL SURFACE.

C. ALL PENETRATIONS THROUGH DRAFT STOPS AND OTHER FIRE-RATED PARTITIONS SHALL BE FIRE STOPPED AS PER SPECIFICATIONS AND LOCAL CODES.

D. ALL MECHANICAL WORK SHALL BE INSTALLED IN STRICT ACCORDANCE WITH ALL APPLICABLE LOCAL, STATE, NATIONAL PLUMBING REGULATIONS, AND THE AUTHORITY HAVING JURISDICTION.

E. THE MECHANICAL DRAWINGS SHOW GENERAL ARRANGEMENT ONLY. EXACT LOCATION SHALL AVOID INTERFERENCE WITH ELECTRICAL EQUIPMENT & REQUIRED ELECTRICAL CLEARANCES.

F. CONTRACTOR SHALL COORDINATE ALL PLUMBING WITH LIGHT FIXTURES, HVAC, FIRE SPRINKLER, AND STRUCTURAL TO ACCOMMODATE LIMITED CEILING SPACE.

G. FRESH AIR INTAKES TO BE MINIMUM 10' FROM ANY EXHAUST TERMINATION.

H. ALL FLOOR EQUIPMENT SHALL BE SET ON 4" HIGH CONCRETE BASES FURNISHED BY THIS CONTRACTOR.

I. CONTRACTOR SHALL VISIT THE SITE AND VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS. NOTIFY THE A/E IMMEDIATELY OF ANY DISCREPANCIES.

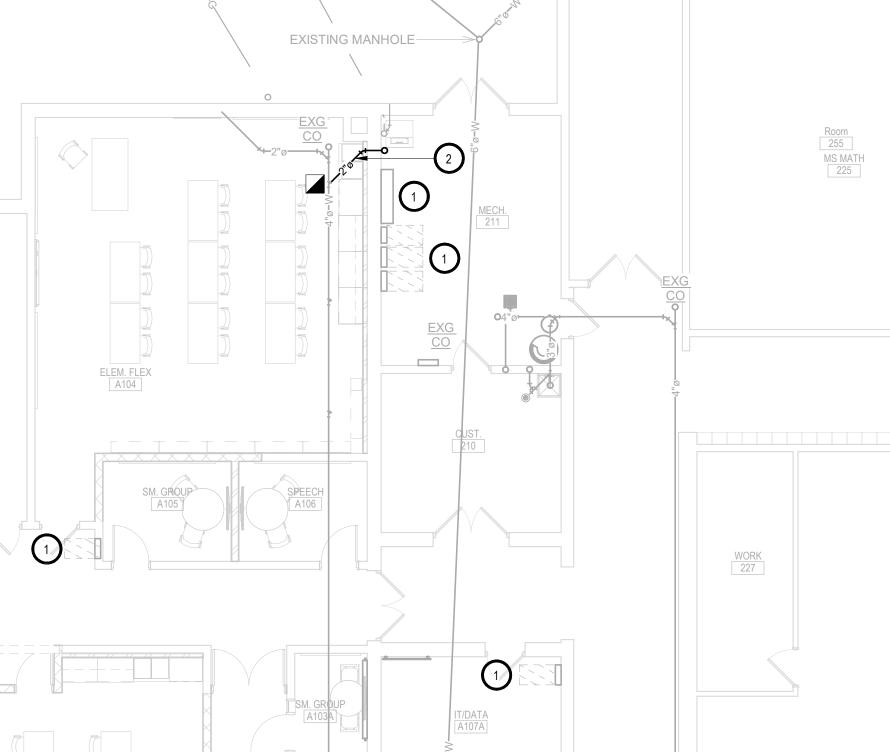
J. COORDINATE NEW SERVICES WITH LOCAL UTILITIES.

\_K.\_\_PLUMBING CONTRACTOR TO PROVIDE VENTING FOR ALL FLOOR DRAINS, TRENCH DRAINS, AND FLOOR SINKS AS SHOWN OR AS REQUIRED BY CODE.

5TH GRADE 206

ELEM. FLEX

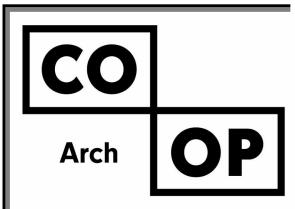
EXG 2" DOM CW SERVICE-



AREA A - BELOW GRADE PLUMBING & HYDRONICS PLAN

1

<u>KEYPLAN</u>



1108 S. Main St. 102 Aberdeen, SD 57401 Phone: 605-725-4852

601 Kansas City St. 7 Rapid City, SD 57701 Phone: 605-716-3652

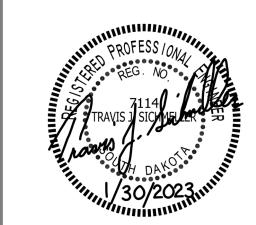
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# SICHMELLER ENGINEERING Mechanical & Electrical Engineering

801 Railroad Ave. SE Aberdeen, SD 57401 Phone: 605-225-4344 www.siceng.biz

SE PROJECT NO:



220900771

ISSUE:

1/30/23 CONSTRUCTION DOCUMENTS

REVISION SCHEDULE:

REV. # REV. DSC.

PROJECT:

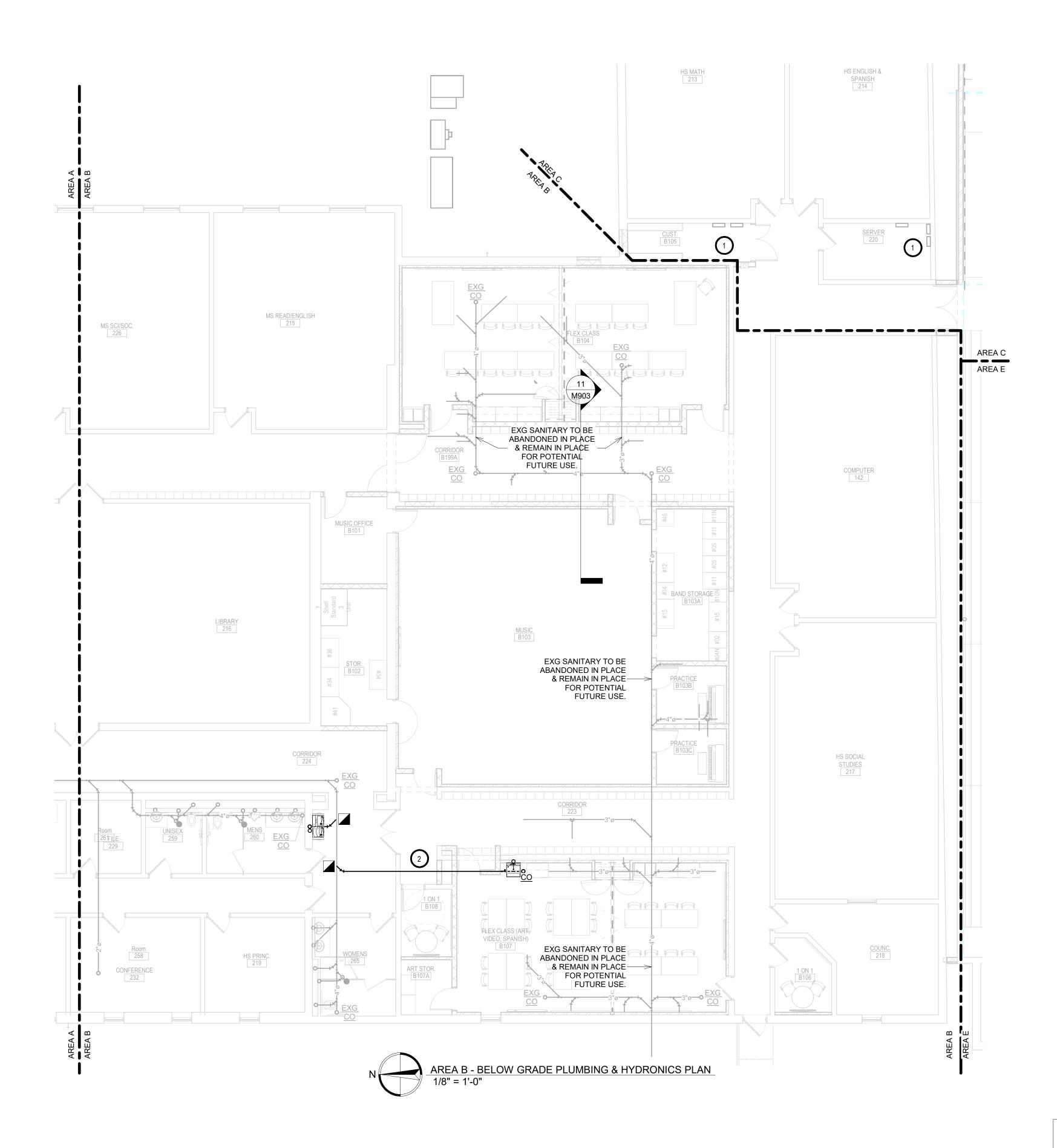
WILLOW LAKE SCHOOL ADDITION

WILLOW LAKESCHOOL DISTRICT WILLOW LAKE, SOUTH DAKOTA

SHEET TITLE:

AREA A - BELOW GRADE PLUMBING & HYDRONICS PLAN

M400A



GENERAL NOTES:

A. ALL WORK SHALL BE PERFORMED IN A CLEAN AND WORKMANLIKE MANNER.

B. THE MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE FOR PATCHING ANY OPENINGS LEFT IN FLOORS, WALLS, AND CEILINGS THAT WERE CAUSED BY HIS/HER ACTIONS. PATCHING SHALL MATCH EXISTING SURFACE IN COLOR, TEXTURE AND QUALITY SO THAT PATCH IS INDISTINGUISHABLE FROM ORIGINAL SURFACE.

C. ALL PENETRATIONS THROUGH DRAFT STOPS AND OTHER FIRE-RATED PARTITIONS SHALL BE FIRE STOPPED AS PER SPECIFICATIONS AND LOCAL CODES.

D. ALL MECHANICAL WORK SHALL BE INSTALLED IN STRICT ACCORDANCE WITH ALL APPLICABLE LOCAL, STATE, NATIONAL PLUMBING REGULATIONS, AND THE AUTHORITY HAVING JURISDICTION.

E. THE MECHANICAL DRAWINGS SHOW GENERAL ARRANGEMENT ONLY. EXACT LOCATION SHALL AVOID INTERFERENCE WITH ELECTRICAL EQUIPMENT & REQUIRED ELECTRICAL CLEARANCES.

F. CONTRACTOR SHALL COORDINATE ALL PLUMBING WITH LIGHT FIXTURES, HVAC, FIRE SPRINKLER, AND STRUCTURAL TO ACCOMMODATE LIMITED CEILING SPACE.

G. FRESH AIR INTAKES TO BE MINIMUM 10' FROM ANY EXHAUST TERMINATION.

H. ALL FLOOR EQUIPMENT SHALL BE SET ON 4" HIGH CONCRETE BASES FURNISHED BY THIS CONTRACTOR.

I. CONTRACTOR SHALL VISIT THE SITE AND VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS. NOTIFY THE A/E IMMEDIATELY OF ANY DISCREPANCIES.

J. COORDINATE NEW SERVICES WITH LOCAL UTILITIES.

K. PLUMBING CONTRACTOR TO PROVIDE VENTING FOR ALL FLOOR DRAINS, TRENCH DRAINS, AND FLOOR SINKS AS SHOWN OR AS REQUIRED BY CODE.

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Arch OP

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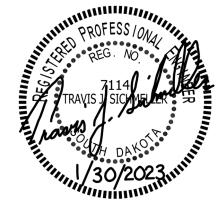
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# KEYNOTES

1. THIS SPACE IS RESERVED FOR ELECTRICAL GEAR. PIPING AND EQUIPMENT SHALL NOT BE LOCATED IN FRONT OF OR ROUTED ABOVE ELECTRICAL PANELS. COORDINATE WITH DIVISION 26.

2. PC TO COORDINATE FLOOR CUTTING BY OTHERS WITH GC FOR NEW BELOW GRADE PIPING.





ISSUE:

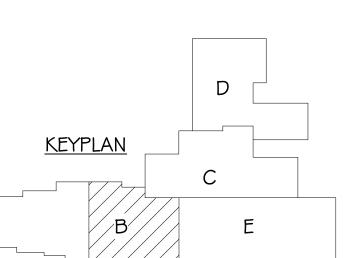
1/30/23 CONSTRUCTION DOCUMENTS

REVISION SCHEDULE:

REV. # REV. DSC.

# SPECIAL NOTES

- A. ALL MECHANICAL SYSTEMS, EXCLUDING DROPS, TO BE INSTALLED AS HIGH AS POSSIBLE TO PROVIDE MAXIMUM CLEARANCES FOR OWNER.
- B. FLOOR DRAINS & SINK LOCATIONS SHALL BE INSTALLED IN LOCATIONS PROPER TO ACCEPT INDIRECT DRAIN PIPING FROM BOILERS, WATER HEATER, RELIEFS, ETC. (TRIP HAZARDS FROM PIPING WILL NOT BE ACCEPTABLE).
- C. ALL FLOOR CLEANOUTS TO BE LOCATED IN INCONSPICUOUS LOCATIONS. CLEANOUTS LOCATED IN DOORWAYS AND MIDDLE OF HALLWAYS WILL NOT BE ACCEPTABLE.



# PROJECT:

WILLOW LAKE SCHOOL ADDITION

WILLOW LAKESCHOOL DISTRICT WILLOW LAKE, SOUTH DAKOTA

# SHEET TITLE:

AREA B - BELOW GRADE
PLUMBING & HYDRONICS PLAN

M401B

**W** KEYNOTES SPECIAL NOTES A. ALL WORK SHALL BE PERFORMED IN A CLEAN AND A. ALL MECHANICAL SYSTEMS, EXCLUDING DROPS, TO 1. THIS SPACE IS RESERVED FOR ELECTRICAL GEAR. PIPING AND EQUIPMENT SHALL NOT BE LOCATED IN FRONT BE INSTALLED AS HIGH AS POSSIBLE TO PROVIDE OF OR ROUTED ABOVE ELECTRICAL PANELS. COORDINATE MAXIMUM CLEARANCES FOR OWNER. B. THE MECHANICAL CONTRACTOR SHALL BE WITH DIVISION 26. RESPONSIBLE FOR PATCHING ANY OPENINGS LEFT IN B. FLOOR DRAINS & SINK LOCATIONS SHALL BE 2. PLUMBING CONTRACTOR TO CONNECT NEW 6" FLOORS, WALLS, AND CEILINGS THAT WERE CAUSED BY INSTALLED IN LOCATIONS PROPER TO ACCEPT COMBINATION DOMESTIC & FIRE PROTECTION WATER HIS/HER ACTIONS. PATCHING SHALL MATCH EXISTING INDIRECT DRAIN PIPING FROM BOILERS, WATER SERVICE TO NEW 6" WATER SERVICE INSTALLED BY SITE SURFACE IN COLOR, TEXTURE AND QUALITY SO THAT HEATER, RELIEFS, ETC. (TRIP HAZARDS FROM PIPING PATCH IS INDISTINGUISHABLE FROM ORIGINAL SURFACE. WILL NOT BE ACCEPTABLE). UTILITY AT THIS LOCATION 5' OUTSIDE OF BUILDING. PLUMBING CONTRACTOR TO EXTEND INTO BUILDING, FURNISH AND INSTALL THRUST BLOCKS AND/OR TIE-RODS IN C. ALL FLOOR CLEANOUTS TO BE LOCATED IN C. ALL PENETRATIONS THROUGH DRAFT STOPS AND INCONSPICUOUS LOCATIONS. CLEANOUTS LOCATED ACCORDANCE WITH THE LOCAL WATER DEPARTMENT OTHER FIRE-RATED PARTITIONS SHALL BE FIRE STOPPED STANDARDS AND REGULATIONS, AND PROVIDE 6" FLANGED AS PER SPECIFICATIONS AND LOCAL CODES. IN DOORWAYS AND MIDDLE OF HALLWAYS WILL NOT CONNECTION FOR SPRINKLER CONTRACTOR'S USE. AS-BE ACCEPTABLE. BUILTS AND REQUIRED UNDERGROUND FIRE PROTECTION D. ALL MECHANICAL WORK SHALL BE INSTALLED IN STRICT PIPING TESTING/TEST CERTIFICATE SHALL BE SUBMITTED TO ACCORDANCE WITH ALL APPLICABLE LOCAL, STATE, ENGINEER AND FIRE PROTECTION CONTRACTOR FROM THE NATIONAL PLUMBING REGULATIONS, AND THE AUTHORITY PLUMBING CONTRACTOR. 3. EXISTING GRADE ELEVATIONS WILL CHANGE. EXISTING E. THE MECHANICAL DRAWINGS SHOW GENERAL GAS METERFIT WILL HAVE TO BE RAISED BY UTILITY TO ARRANGEMENT ONLY. EXACT LOCATION SHALL AVOID ACCOMMODATE PROPOSED GRADE CHANGES. EXISTING INTERFERENCE WITH ELECTRICAL EQUIPMENT & REQUIRED NORTHWESTERN ENERGY NATURAL GAS METER #23464. PLUMBING CONTRACTOR TO COORDINATE WITH F. CONTRACTOR SHALL COORDINATE ALL PLUMBING WITH KIRBY WICKS OF NWE AT 605-353-7609 FOR ANY UTILITY REQUIRED CHANGES TO THE METER FIT (ANY NWE COSTS LIGHT FIXTURES, HVAC, FIRE SPRINKLER, AND STRUCTURAL ASSOCIATED WITH THE NATURAL GAS METERFIT WILL BE TO ACCOMMODATE LIMITED CEILING SPACE. BILLED DIRECTLY TO THE OWNER). PC TO MODIFY EXISTING NATURAL GAS PIPING AFTER NWE METERFIT TO G. FRESH AIR INTAKES TO BE MINIMUM 10' FROM ANY ACCOMMODATE THE ADDITIONAL NATURAL GAS PIPING. SEE MODIFICATIONS TO EXISTING NATURAL GAS PIPING DIAGRAM. H. ALL FLOOR EQUIPMENT SHALL BE SET ON 4" HIGH 4. PC TO COORDINATE FLOOR CUTTING BY OTHERS WITH CONCRETE BASES FURNISHED BY THIS CONTRACTOR. GC FOR NEW BELOW GRADE PIPING. CONTRACTOR SHALL VISIT THE SITE AND VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS. NOTIFY THE A/E IMMEDIATELY OF ANY DISCREPANCIES. J. COORDINATE NEW SERVICES WITH LOCAL UTILITIES. AREA D K. PLUMBING CONTRACTOR TO PROVIDE VENTING FOR ALL FLOOR DRAINS, TRENCH DRAINS, AND FLOOR SINKS AS AREA C HEALTH SCIENCE 1-1/2" HWR & HWS ROUTED BELOW GRADE SHALL BE 1-1/2" UNINSULATED PEX IN 6" PVC SLEEVE. PVC SLEEVE TO TERMINATE AT A HEIGHT TO MATCH BASE TRIM HEIGHT IN KITCHEN. PIPING TO COME UP IN WALL IN VEST C100A. 3-WAY VALVE MUST BE INSTALLED INSIDE CUH CABINET TO ENSURE HOT WATER FLOW THRU UNDERGROUND PIPING. DEDICATED FIRE SPRINKLER RISER SPACE <u>co</u> PVC◀┐ HS ENGLISH & SPANISH 214 HS MATH —►CAST IRON SERVER 220 1

OUTLINE REPRESENT EXTENTS OF ALTERNATE #1  $\times$   $\times$   $\times$   $\times$   $\times$   $\times$ GYM STOR. CORRIDOR

6" COMBINATION WATER SERVICE UP

─3" V UP

AREA E

FS-2

AREA C

AREA E

**BOYS LOCKER** 

GIRLS LOCKER
C111

KEYPLAN

4" SANITARY SEWER

INVERT TO BE 4'

BELOW FINISHED

FLOOR TO ACCOMMODATE FUTURE ADDITION.

\_\_\_

AREA C - BELOW GRADE PLUMBING & HYDRONICS PLAN - ADD ALTERNATE #1

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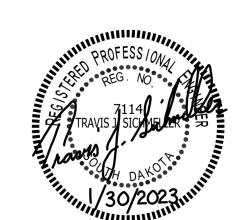
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# SICHMELLER ENGINEERING Mechanical & Electrical Engineering

801 Railroad Ave. SE Aberdeen, SD 57401 Phone: 605-225-4344 www.siceng.biz

SE PROJECT NO:



220900771

ISSUE:

CONSTRUCTION DOCUMENTS

REVISION SCHEDULE:

REV. DSC.

PROJECT:

WILLOW LAKE SCHOOL ADDITION

WILLOW LAKESCHOOL DISTRICT WILLOW LAKE, SOUTH DAKOTA

SHEET TITLE:

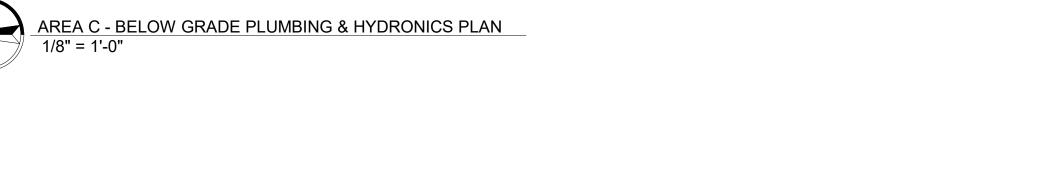
AREA C

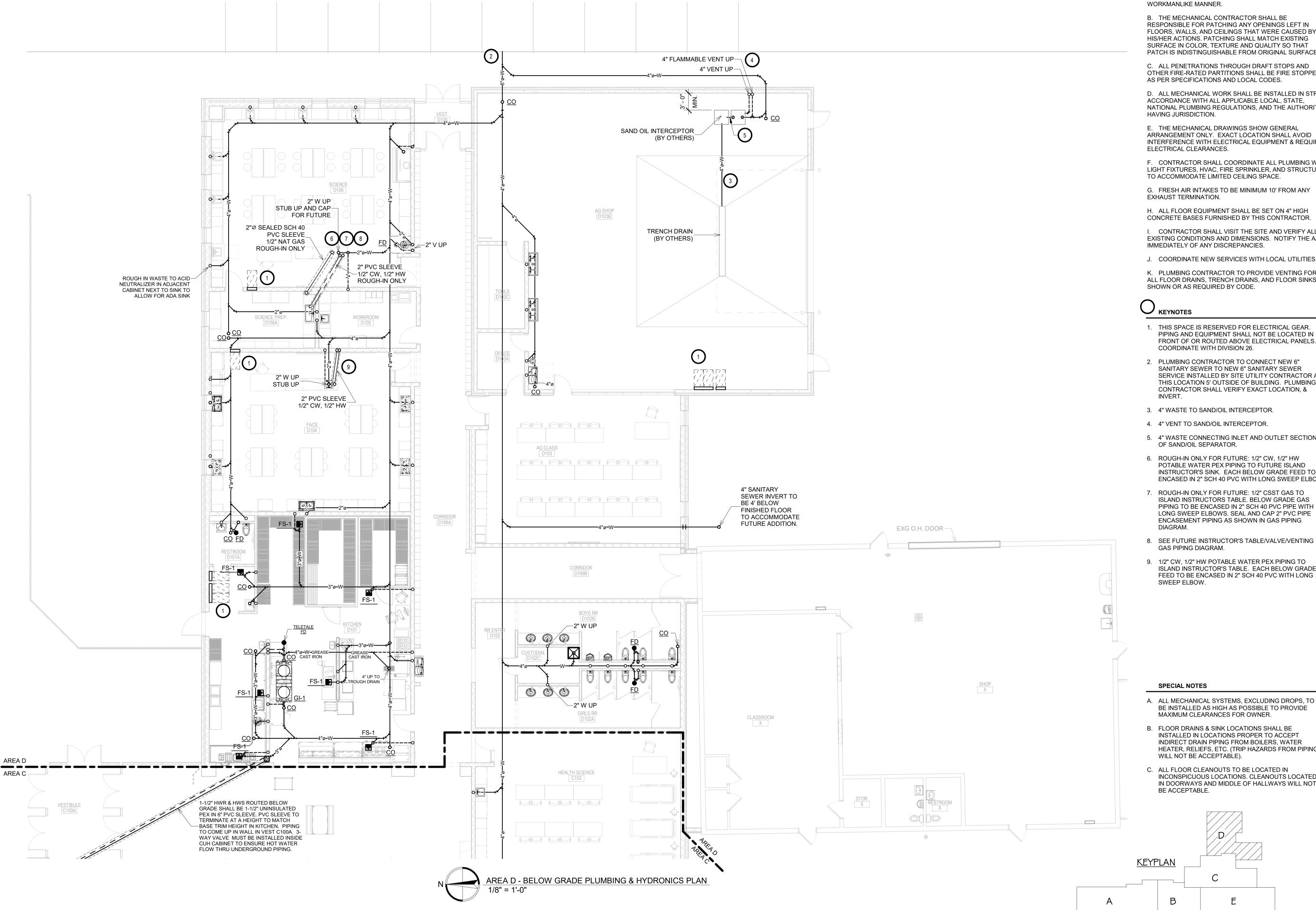
AREA E

AREA C - BELOW GRADE PLUMBING & HYDRONICS PLAN

M402C







#### GENERAL NOTES:

A. ALL WORK SHALL BE PERFORMED IN A CLEAN AND WORKMANLIKE MANNER.

B. THE MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE FOR PATCHING ANY OPENINGS LEFT IN FLOORS, WALLS, AND CEILINGS THAT WERE CAUSED BY HIS/HER ACTIONS. PATCHING SHALL MATCH EXISTING SURFACE IN COLOR, TEXTURE AND QUALITY SO THAT PATCH IS INDISTINGUISHABLE FROM ORIGINAL SURFACE.

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E. THE MECHANICAL DRAWINGS SHOW GENERAL ARRANGEMENT ONLY. EXACT LOCATION SHALL AVOID INTERFERENCE WITH ELECTRICAL EQUIPMENT & REQUIRED ELECTRICAL CLEARANCES.

F. CONTRACTOR SHALL COORDINATE ALL PLUMBING WITH LIGHT FIXTURES, HVAC, FIRE SPRINKLER, AND STRUCTURAL TO ACCOMMODATE LIMITED CEILING SPACE.

G. FRESH AIR INTAKES TO BE MINIMUM 10' FROM ANY EXHAUST TERMINATION.

H. ALL FLOOR EQUIPMENT SHALL BE SET ON 4" HIGH CONCRETE BASES FURNISHED BY THIS CONTRACTOR.

I. CONTRACTOR SHALL VISIT THE SITE AND VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS. NOTIFY THE A/E IMMEDIATELY OF ANY DISCREPANCIES.

J. COORDINATE NEW SERVICES WITH LOCAL UTILITIES.

K. PLUMBING CONTRACTOR TO PROVIDE VENTING FOR ALL FLOOR DRAINS, TRENCH DRAINS, AND FLOOR SINKS AS SHOWN OR AS REQUIRED BY CODE.

### **✓** KEYNOTES

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2. PLUMBING CONTRACTOR TO CONNECT NEW 6" SANITARY SEWER TO NEW 6" SANITARY SEWER SERVICE INSTALLED BY SITE UTILITY CONTRACTOR AT THIS LOCATION 5' OUTSIDE OF BUILDING. PLUMBING CONTRACTOR SHALL VERIFY EXACT LOCATION, &

3. 4" WASTE TO SAND/OIL INTERCEPTOR.

4. 4" VENT TO SAND/OIL INTERCEPTOR.

5. 4" WASTE CONNECTING INLET AND OUTLET SECTION OF SAND/OIL SEPARATOR.

6. ROUGH-IN ONLY FOR FUTURE: 1/2" CW, 1/2" HW POTABLE WATER PEX PIPING TO FUTURE ISLAND INSTRUCTOR'S SINK. EACH BELOW GRADE FEED TO BE ENCASED IN 2" SCH 40 PVC WITH LONG SWEEP ELBOW.

. ROUGH-IN ONLY FOR FUTURE: 1/2" CSST GAS TO ISLAND INSTRUCTORS TABLE. BELOW GRADE GAS PIPING TO BE ENCASED IN 2" SCH 40 PVC PIPE WITH LONG SWEEP ELBOWS. SEAL AND CAP 2" PVC PIPE ENCASEMENT PIPING AS SHOWN IN GAS PIPING DIAGRAM.

8. SEE FUTURE INSTRUCTOR'S TABLE/VALVE/VENTING

GAS PIPING DIAGRAM. 9. 1/2" CW, 1/2" HW POTABLE WATER PEX PIPING TO ISLAND INSTRUCTOR'S TABLE. EACH BELOW GRADE

SE PROJECT NO:



220900771

REV. DATE

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Phone: 605-725-4852

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Rapid City, SD 57701

Phone: 605-716-3652

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Mechanical & Electrical Engineering

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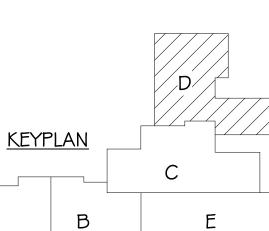
1/30/23 CONSTRUCTION DOCUMENTS

REVISION SCHEDULE:

REV. # REV. DSC.

### **SPECIAL NOTES**

- A. ALL MECHANICAL SYSTEMS, EXCLUDING DROPS, TO BE INSTALLED AS HIGH AS POSSIBLE TO PROVIDE MAXIMUM CLEARANCES FOR OWNER.
- B. FLOOR DRAINS & SINK LOCATIONS SHALL BE INSTALLED IN LOCATIONS PROPER TO ACCEPT INDIRECT DRAIN PIPING FROM BOILERS, WATER HEATER, RELIEFS, ETC. (TRIP HAZARDS FROM PIPING WILL NOT BE ACCEPTABLE).
- C. ALL FLOOR CLEANOUTS TO BE LOCATED IN INCONSPICUOUS LOCATIONS. CLEANOUTS LOCATED IN DOORWAYS AND MIDDLE OF HALLWAYS WILL NOT BE ACCEPTABLE.



PROJECT:

WILLOW LAKE SCHOOL ADDITION

WILLOW LAKESCHOOL DISTRICT WILLOW LAKE, SOUTH DAKOTA

SHEET TITLE:

AREA D - BELOW GRADE PLUMBING & HYDRONICS PLAN

M403D

SPECIAL NOTES

- A. ALL MECHANICAL SYSTEMS, EXCLUDING DROPS, TO BE INSTALLED AS HIGH AS POSSIBLE TO PROVIDE MAXIMUM CLEARANCES FOR OWNER.
- B. FLOOR DRAINS & SINK LOCATIONS SHALL BE INSTALLED IN LOCATIONS PROPER TO ACCEPT INDIRECT DRAIN PIPING FROM BOILERS, WATER HEATER, RELIEFS, ETC. (TRIP HAZARDS FROM PIPING WILL NOT BE ACCEPTABLE).
- C. ALL FLOOR CLEANOUTS TO BE LOCATED IN INCONSPICUOUS LOCATIONS. CLEANOUTS LOCATED IN DOORWAYS AND MIDDLE OF HALLWAYS WILL NOT BE ACCEPTABLE.

O KEYNOTES

 PC TO DEMO EXISTING FLOOR SINK, DCW, AND CAP PIPE BELOW GRADE. PC TO PATCH EXISTING CONCRETE FLOOR. GENERAL NOTES:

A. ALL WORK SHALL BE PERFORMED IN A CLEAN AND WORKMANLIKE MANNER.

B. THE MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE FOR PATCHING ANY OPENINGS LEFT IN FLOORS, WALLS, AND CEILINGS THAT WERE CAUSED BY HIS/HER ACTIONS. PATCHING SHALL MATCH EXISTING SURFACE IN COLOR, TEXTURE AND QUALITY SO THAT PATCH IS INDISTINGUISHABLE FROM ORIGINAL SURFACE.

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F. CONTRACTOR SHALL COORDINATE ALL PLUMBING WITH LIGHT FIXTURES, HVAC, FIRE SPRINKLER, AND STRUCTURAL TO ACCOMMODATE LIMITED CEILING SPACE.

G. FRESH AIR INTAKES TO BE MINIMUM 10' FROM ANY EXHAUST TERMINATION.

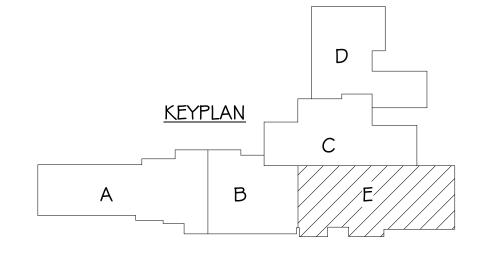
H. ALL FLOOR EQUIPMENT SHALL BE SET ON 4" HIGH CONCRETE BASES FURNISHED BY THIS CONTRACTOR.

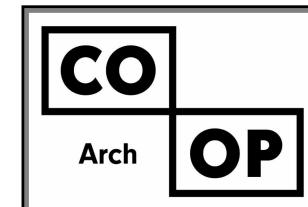
I. CONTRACTOR SHALL VISIT THE SITE AND VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS. NOTIFY THE A/E IMMEDIATELY OF ANY DISCREPANCIES.

J. COORDINATE NEW SERVICES WITH LOCAL UTILITIES.

AREA C SHOWN OR AS REQUIRED BY CODE.

AREA E 2" UP TO MEZZ SINK VESTIBULE X EXG EXT CO AREA E - BELOW GRADE PLUMBING & HYDRONICS PLAN





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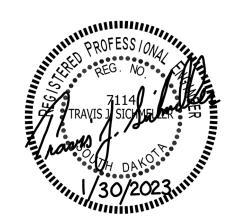
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SE PROJECT NO:



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REVISION SCHEDULE:

REV. # REV. DSC. REV. DATE

PROJECT:

WILLOW LAKE SCHOOL ADDITION

WILLOW LAKESCHOOL DISTRICT
WILLOW LAKE, SOUTH DAKOTA

SHEET TITLE:

AREA E - BELOW GRADE PLUMBING & HYDRONICS PLAN

M404E



- A. ALL MECHANICAL SYSTEMS, EXCLUDING DROPS, TO BE INSTALLED AS HIGH AS POSSIBLE TO PROVIDE MAXIMUM CLEARANCES FOR OWNER.
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- C. ALL FLOOR CLEANOUTS TO BE LOCATED IN INCONSPICUOUS LOCATIONS. CLEANOUTS LOCATED IN DOORWAYS AND MIDDLE OF HALLWAYS WILL NOT BE ACCEPTABLE.
- D. ALL STORM DRAINAGE TO BE 1/8" SLOPE UNLESS OTHERWISE SPECIFIED.

### KEYNOTES:

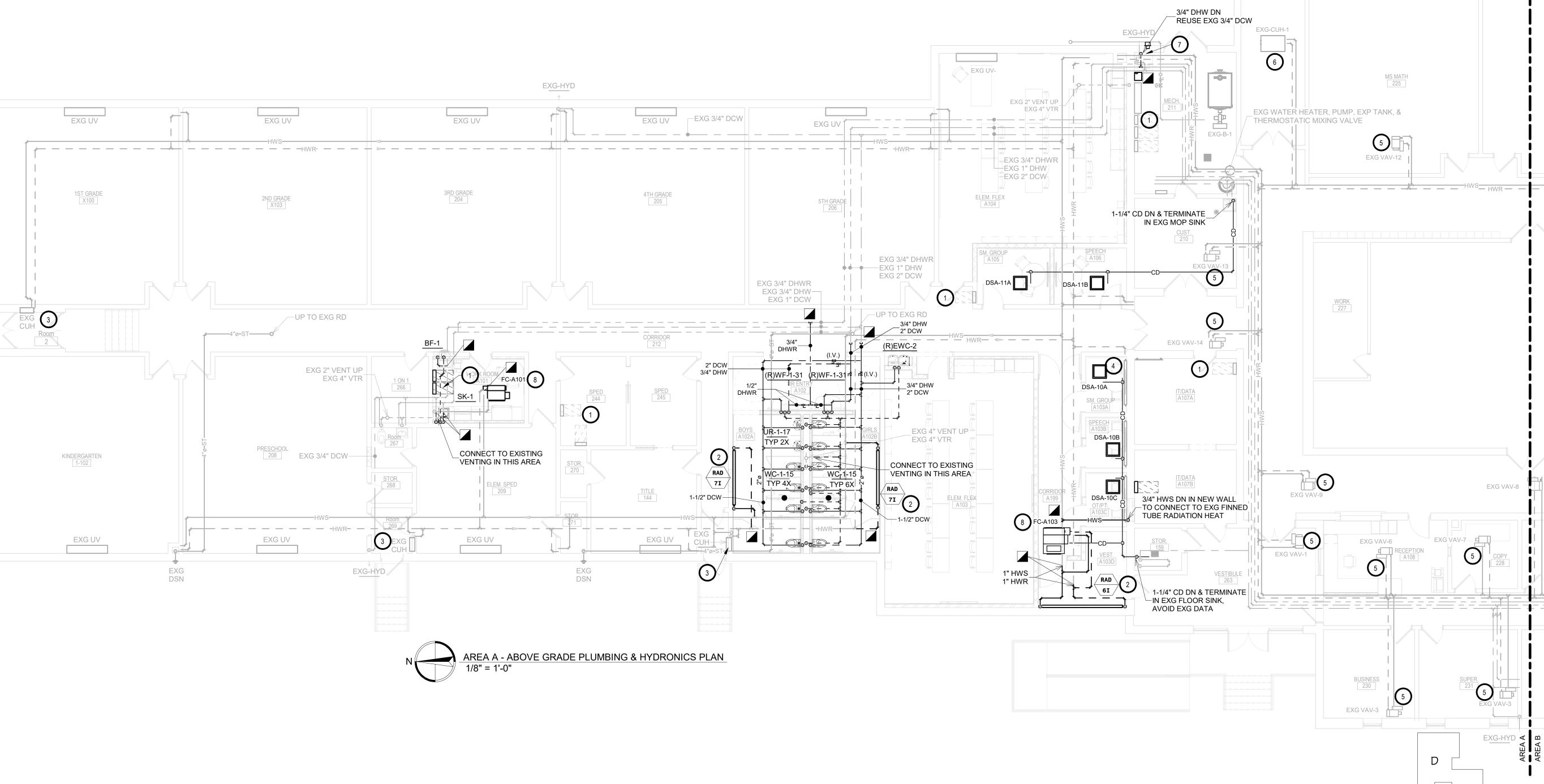
- THIS SPACE IS RESERVED FOR ELECTRICAL GEAR. PIPING AND EQUIPMENT SHALL NOT BE LOCATED IN FRONT OF OR ROUTED ABOVE ELECTRICAL PANELS. COORDINATE WITH DIVISION 26.
- 2. SEE INVERTED FIN TUBE RADIATION PIPING DETAIL.
- HEATER PIPING DETAIL.

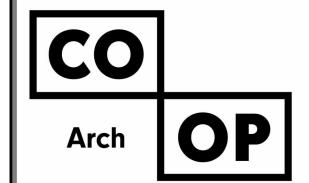
3. SEE MODIFICATIONS TO EXISTING CABINET UNIT

- 4. SEE MODIFICATIONS TO EXISTING FINNED TUBE RADIATION DETAIL.
- 5. PC TO INSTALL NEW 2-WAY NORMALLY OPEN MODULATING CONTROL VALVE ON EXISTING VAV'S.
- 6. PC TO INSTALL NEW 3-WAY NORMALLY OPEN MODULATING CONTROL VALVE ON EXISTING CUH.
- 7. PROVIDE & INSTALL LEAD FREE DCW & DHW HOSE BIBBS WITH WATER HAMMER ARRESTORS FOR RELOCATED CLOTHES WASHER. PROVIDE & INSTALL CLOTHES WASHER STANDPIPE, COORDINATE FLOOR CUTTING & PATCHING FOR NEW WASTE WITH GC.
- 8. SEE FAN COIL HEATING COIL PIPING DETAIL.

#### GENERAL NOTES:

- A. ALL WORK SHALL BE PERFORMED IN A CLEAN AND WORKMANLIKE MANNER.
- B. THE MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE FOR PATCHING ANY OPENINGS LEFT IN FLOORS, WALLS, AND CEILINGS THAT WERE CAUSED BY HIS/HER ACTIONS. PATCHING SHALL MATCH EXISTING SURFACE IN COLOR, TEXTURE AND QUALITY SO THAT PATCH IS INDISTINGUISHABLE FROM ORIGINAL SURFACE.
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- F. CONTRACTOR SHALL COORDINATE ALL PLUMBING WITH LIGHT FIXTURES, HVAC, FIRE SPRINKLER, AND STRUCTURAL TO ACCOMMODATE LIMITED CEILING SPACE.
- G. FRESH AIR INTAKES TO BE MINIMUM 10' FROM ANY EXHAUST TERMINATION.
- H. ALL FLOOR EQUIPMENT SHALL BE SET ON 4" HIGH CONCRETE BASES FURNISHED BY THIS CONTRACTOR.
- I. CONTRACTOR SHALL VISIT THE SITE AND VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS. NOTIFY THE A/E IMMEDIATELY OF ANY DISCREPANCIES.
- J. COORDINATE NEW SERVICES WITH LOCAL UTILITIES.
- K. PLUMBING CONTRACTOR TO PROVIDE VENTING FOR ALL FLOOR DRAINS, TRENCH DRAINS, AND FLOOR SINKS AS SHOWN OR AS REQUIRED BY CODE.





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SE PROJECT NO:



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REV. # REV. DSC.

PROJECT:

WILLOW LAKE SCHOOL ADDITION

WILLOW LAKESCHOOL DISTRICT WILLOW LAKE, SOUTH DAKOTA

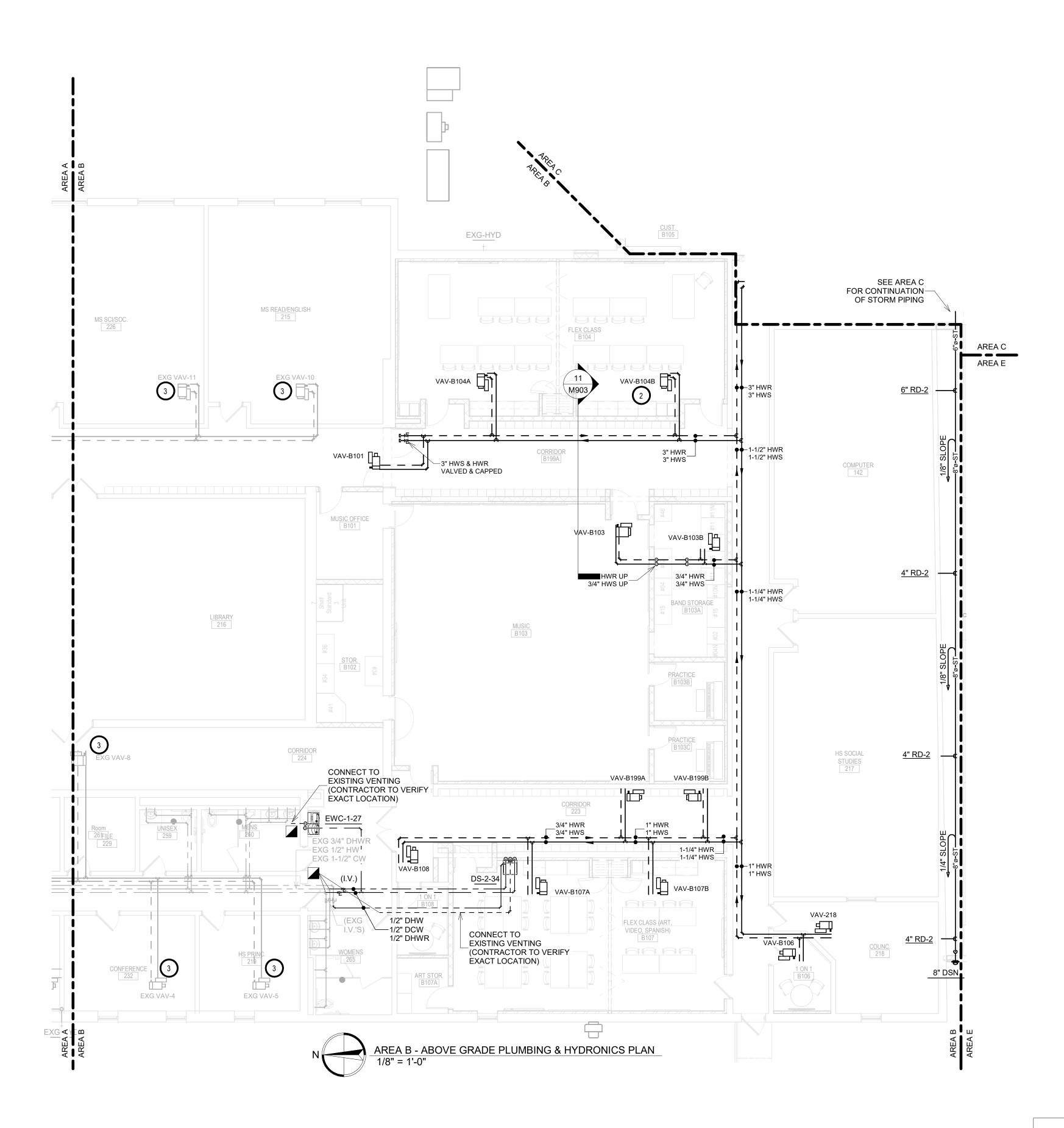
SHEET TITLE:

<u>KEYPLAN</u>

AREA A - ABOVE GRADE PLUMBING & HYDRONICS PLAN

M500A

1/30/2003 3.55.34 DM

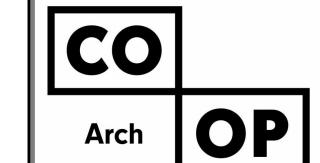


**GENERAL NOTES:** 

- A. ALL WORK SHALL BE PERFORMED IN A CLEAN AND WORKMANLIKE MANNER.
- B. THE MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE FOR PATCHING ANY OPENINGS LEFT IN FLOORS, WALLS, AND CEILINGS THAT WERE CAUSED BY HIS/HER ACTIONS. PATCHING SHALL MATCH EXISTING SURFACE IN COLOR, TEXTURE AND QUALITY SO THAT PATCH IS INDISTINGUISHABLE FROM ORIGINAL SURFACE.
- C. ALL PENETRATIONS THROUGH DRAFT STOPS AND OTHER FIRE-RATED PARTITIONS SHALL BE FIRE STOPPED AS PER SPECIFICATIONS AND LOCAL CODES.
- D. ALL MECHANICAL WORK SHALL BE INSTALLED IN STRICT ACCORDANCE WITH ALL APPLICABLE LOCAL, STATE, NATIONAL PLUMBING REGULATIONS, AND THE AUTHORITY HAVING JURISDICTION.
- E. THE MECHANICAL DRAWINGS SHOW GENERAL ARRANGEMENT ONLY. EXACT LOCATION SHALL AVOID INTERFERENCE WITH ELECTRICAL EQUIPMENT & REQUIRED ELECTRICAL CLEARANCES.
- F. CONTRACTOR SHALL COORDINATE ALL PLUMBING WITH LIGHT FIXTURES, HVAC, FIRE SPRINKLER, AND STRUCTURAL TO ACCOMMODATE LIMITED CEILING SPACE.
- G. FRESH AIR INTAKES TO BE MINIMUM 10' FROM ANY EXHAUST TERMINATION.
- H. ALL FLOOR EQUIPMENT SHALL BE SET ON 4" HIGH CONCRETE BASES FURNISHED BY THIS CONTRACTOR.
- I. CONTRACTOR SHALL VISIT THE SITE AND VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS. NOTIFY THE A/E IMMEDIATELY OF ANY DISCREPANCIES.
- J. COORDINATE NEW SERVICES WITH LOCAL UTILITIES.
- K. PLUMBING CONTRACTOR TO PROVIDE VENTING FOR ALL FLOOR DRAINS, TRENCH DRAINS, AND FLOOR SINKS AS SHOWN OR AS REQUIRED BY CODE.

### KEYNOTES:

- THIS SPACE IS RESERVED FOR ELECTRICAL GEAR. PIPING AND EQUIPMENT SHALL NOT BE LOCATED IN FRONT OF OR ROUTED ABOVE ELECTRICAL PANELS. COORDINATE WITH DIVISION 26.
- 2. TYPICAL SEE VAV HEATING COIL PIPING DETAIL.
- 3. PC TO INSTALL NEW 2-WAY NORMALLY OPEN MODULATING CONTROL VALVE ON EXISTING VAV'S.



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SE PROJECT NO:



220900771

ISSUE:

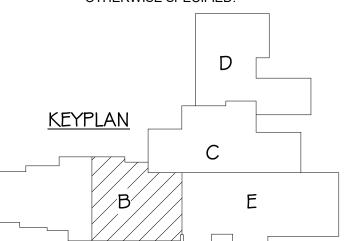
1/30/23 CONSTRUCTION DOCUMENTS

REVISION SCHEDULE:

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#### SPECIAL NOTES:

- A. ALL MECHANICAL SYSTEMS, EXCLUDING DROPS, TO BE INSTALLED AS HIGH AS POSSIBLE TO PROVIDE MAXIMUM CLEARANCES FOR OWNER.
- B. FLOOR DRAINS & SINK LOCATIONS SHALL BE INSTALLED IN LOCATIONS PROPER TO ACCEPT INDIRECT DRAIN PIPING FROM BOILERS, WATER HEATER, RELIEFS, ETC. (TRIP HAZARDS FROM PIPING WILL NOT BE ACCEPTABLE).
- C. ALL FLOOR CLEANOUTS TO BE LOCATED IN INCONSPICUOUS LOCATIONS. CLEANOUTS LOCATED IN DOORWAYS AND MIDDLE OF HALLWAYS WILL NOT BE ACCEPTABLE.
- D. ALL STORM DRAINAGE TO BE 1/8" SLOPE UNLESS OTHERWISE SPECIFIED.



PROJECT:

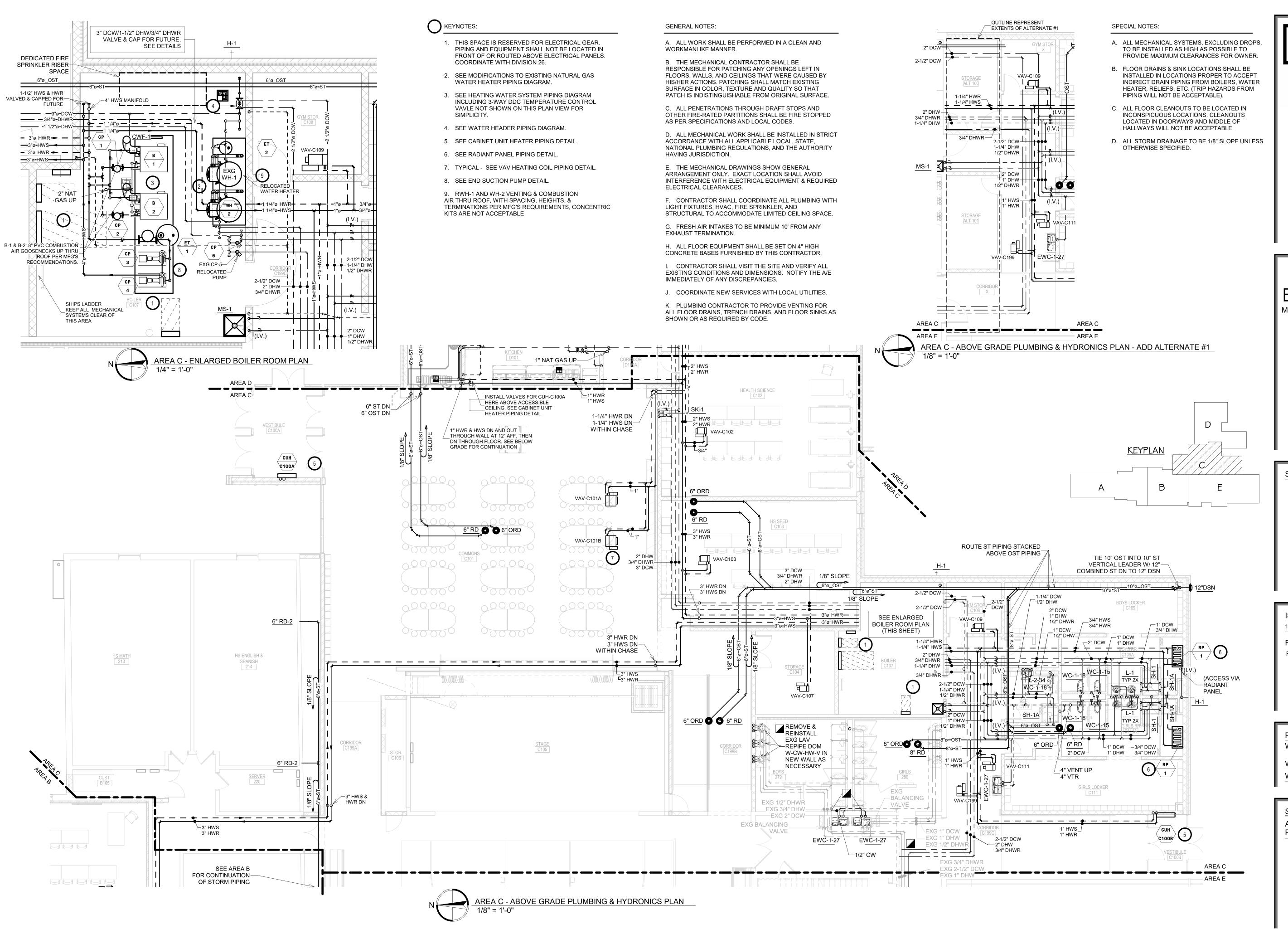
WILLOW LAKE SCHOOL ADDITION

WILLOW LAKESCHOOL DISTRICT WILLOW LAKE, SOUTH DAKOTA

SHEET TITLE:

AREA B - ABOVE GRADE
PLUMBING & HYDRONICS PLAN

M501B



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SE PROJECT NO:



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REVISION SCHEDULE:

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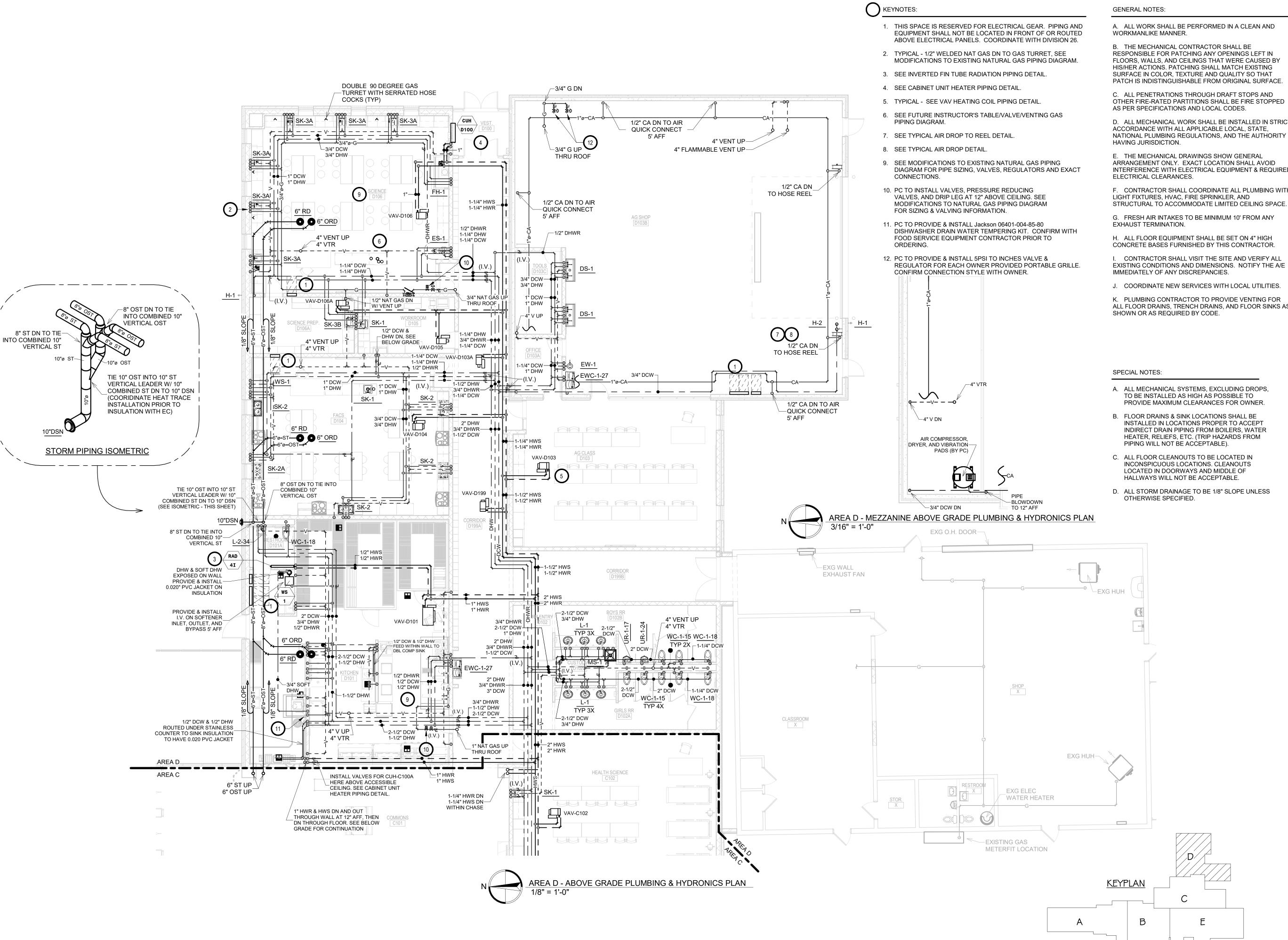
WILLOW LAKE SCHOOL ADDITION

WILLOW LAKESCHOOL DISTRICT WILLOW LAKE, SOUTH DAKOTA

SHEET TITLE:

AREA C - ABOVE GRADE PLUMBING & HYDRONICS PLAN

M502C



A. ALL WORK SHALL BE PERFORMED IN A CLEAN AND

RESPONSIBLE FOR PATCHING ANY OPENINGS LEFT IN FLOORS, WALLS, AND CEILINGS THAT WERE CAUSED BY HIS/HER ACTIONS. PATCHING SHALL MATCH EXISTING SURFACE IN COLOR, TEXTURE AND QUALITY SO THAT

C. ALL PENETRATIONS THROUGH DRAFT STOPS AND OTHER FIRE-RATED PARTITIONS SHALL BE FIRE STOPPED

D. ALL MECHANICAL WORK SHALL BE INSTALLED IN STRICT ACCORDANCE WITH ALL APPLICABLE LOCAL, STATE, NATIONAL PLUMBING REGULATIONS, AND THE AUTHORITY

ARRANGEMENT ONLY. EXACT LOCATION SHALL AVOID INTERFERENCE WITH ELECTRICAL EQUIPMENT & REQUIRED

F. CONTRACTOR SHALL COORDINATE ALL PLUMBING WITH

H. ALL FLOOR EQUIPMENT SHALL BE SET ON 4" HIGH

EXISTING CONDITIONS AND DIMENSIONS. NOTIFY THE A/E

J. COORDINATE NEW SERVICES WITH LOCAL UTILITIES.

ALL FLOOR DRAINS, TRENCH DRAINS, AND FLOOR SINKS AS

- PROVIDE MAXIMUM CLEARANCES FOR OWNER.
- INSTALLED IN LOCATIONS PROPER TO ACCEPT INDIRECT DRAIN PIPING FROM BOILERS, WATER HEATER, RELIEFS, ETC. (TRIP HAZARDS FROM



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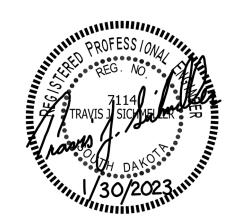
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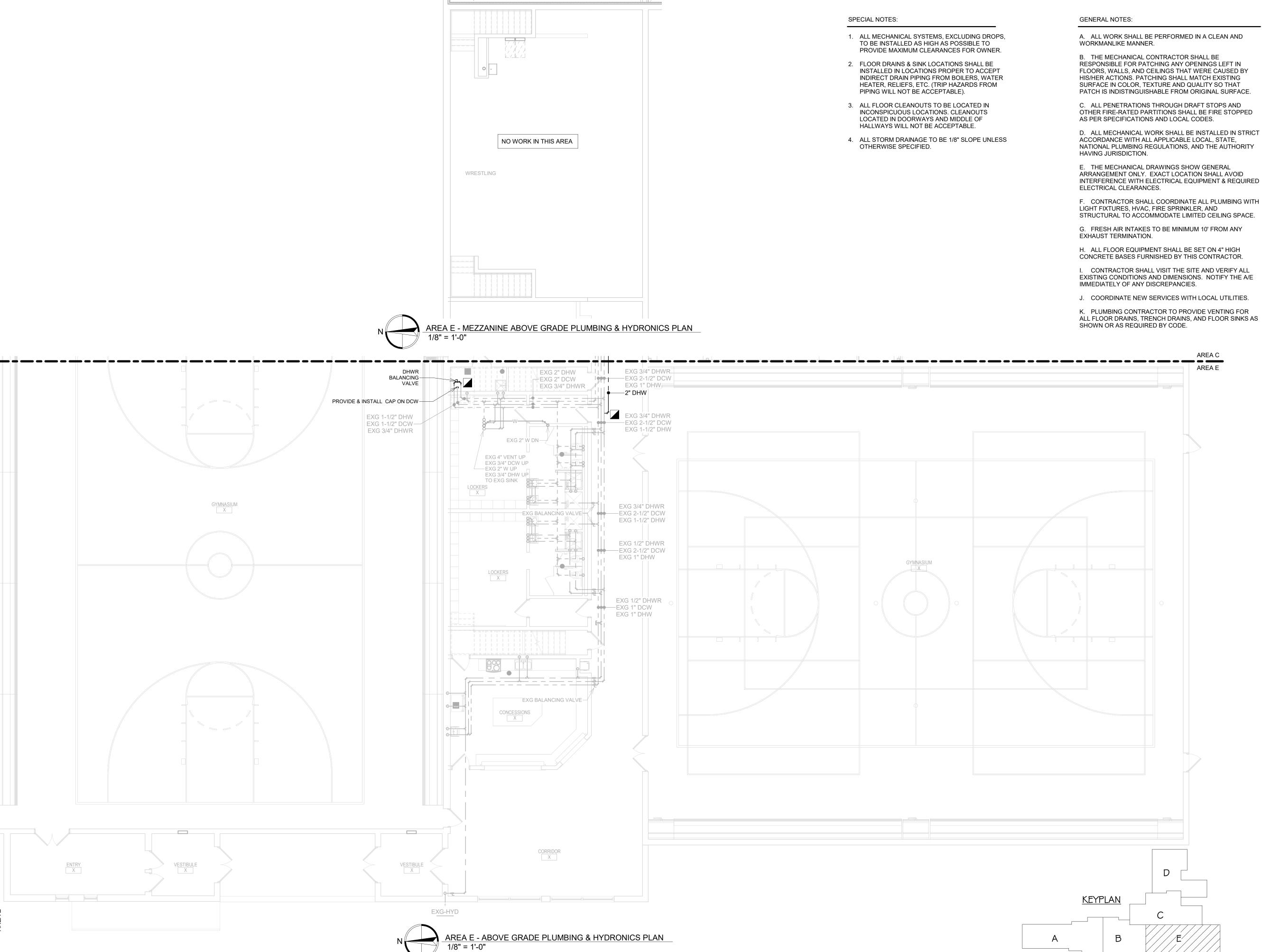
WILLOW LAKE SCHOOL ADDITION

WILLOW LAKESCHOOL DISTRICT WILLOW LAKE, SOUTH DAKOTA

**SHEET TITLE:** 

AREA D - ABOVE GRADE PLUMBING & HYDRONICS PLAN

M503D



- A. ALL WORK SHALL BE PERFORMED IN A CLEAN AND
- RESPONSIBLE FOR PATCHING ANY OPENINGS LEFT IN FLOORS, WALLS, AND CEILINGS THAT WERE CAUSED BY HIS/HER ACTIONS. PATCHING SHALL MATCH EXISTING SURFACE IN COLOR, TEXTURE AND QUALITY SO THAT
- C. ALL PENETRATIONS THROUGH DRAFT STOPS AND OTHER FIRE-RATED PARTITIONS SHALL BE FIRE STOPPED
- D. ALL MECHANICAL WORK SHALL BE INSTALLED IN STRICT ACCORDANCE WITH ALL APPLICABLE LOCAL, STATE, NATIONAL PLUMBING REGULATIONS, AND THE AUTHORITY
- ARRANGEMENT ONLY. EXACT LOCATION SHALL AVOID INTERFERENCE WITH ELECTRICAL EQUIPMENT & REQUIRED
- STRUCTURAL TO ACCOMMODATE LIMITED CEILING SPACE.
- CONCRETE BASES FURNISHED BY THIS CONTRACTOR.
- EXISTING CONDITIONS AND DIMENSIONS. NOTIFY THE A/E
- J. COORDINATE NEW SERVICES WITH LOCAL UTILITIES.
- K. PLUMBING CONTRACTOR TO PROVIDE VENTING FOR ALL FLOOR DRAINS, TRENCH DRAINS, AND FLOOR SINKS AS

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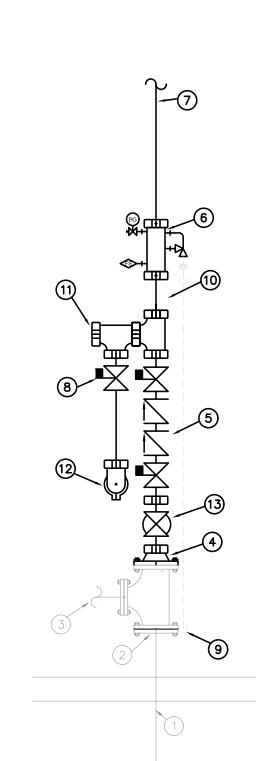
WILLOW LAKE SCHOOL ADDITION

WILLOW LAKESCHOOL DISTRICT WILLOW LAKE, SOUTH DAKOTA

SHEET TITLE:

AREA E - ABOVE GRADE PLUMBING & HYDRONICS PLAN

M504E





RISER LEGEND - SERVICE ENTRY

BUTTERFLY VALVES

GALVANIZED

FLANGED TEE - BY PLUMBING CONTRACTOR

MAIN DRAIN W/ PRESSURE RELIEF VALVE

OUT TO DOMESTIC - BY PLUMBING CONTRACTOR

6" UNDERGROUND WATER SERVICE (BY SITE UTILITY CONTRACTOR)

REDUCER IF PROVEN HYDRAULICALLY - FRSP CONTRACTOR START

DOUBLE CHECK VALVE BACKFLOW PREVENTER W/ SUPERVISED

RISER MANIFOLD W/ FLOW SWITCH, PRESSURE GAUGE, & TEST &

NOTES:

PIPE BEFORE DOUBLE CHECK BACKFLOW VALVE TO BE GALVANIZED

ALL PIPE & FITTINGS THAT PENETRATE EXTERIOR WALLS SHALL BE

ALL DRAIN PIPE & PIPE AFTER FDC CHECK VALVE TO BE SCH. 40

OUT TO WET ZONE & FIRE DEPARTMENT CONNECTION

SUPERVISED BUTTERFLY VALVE - NORMALLY CLOSED

MAIN DRAIN DISCHARGE TO BUILDING'S EXTERIOR

13. SUPERVISED BUTTERFLY WALL POST INDICATOR VALVE

0. SPOOL PIECE FOR FUTURE ZONE CONTROL VALVE

11. PROVIDE GROOVED CAP FOR FUTURE ZONES

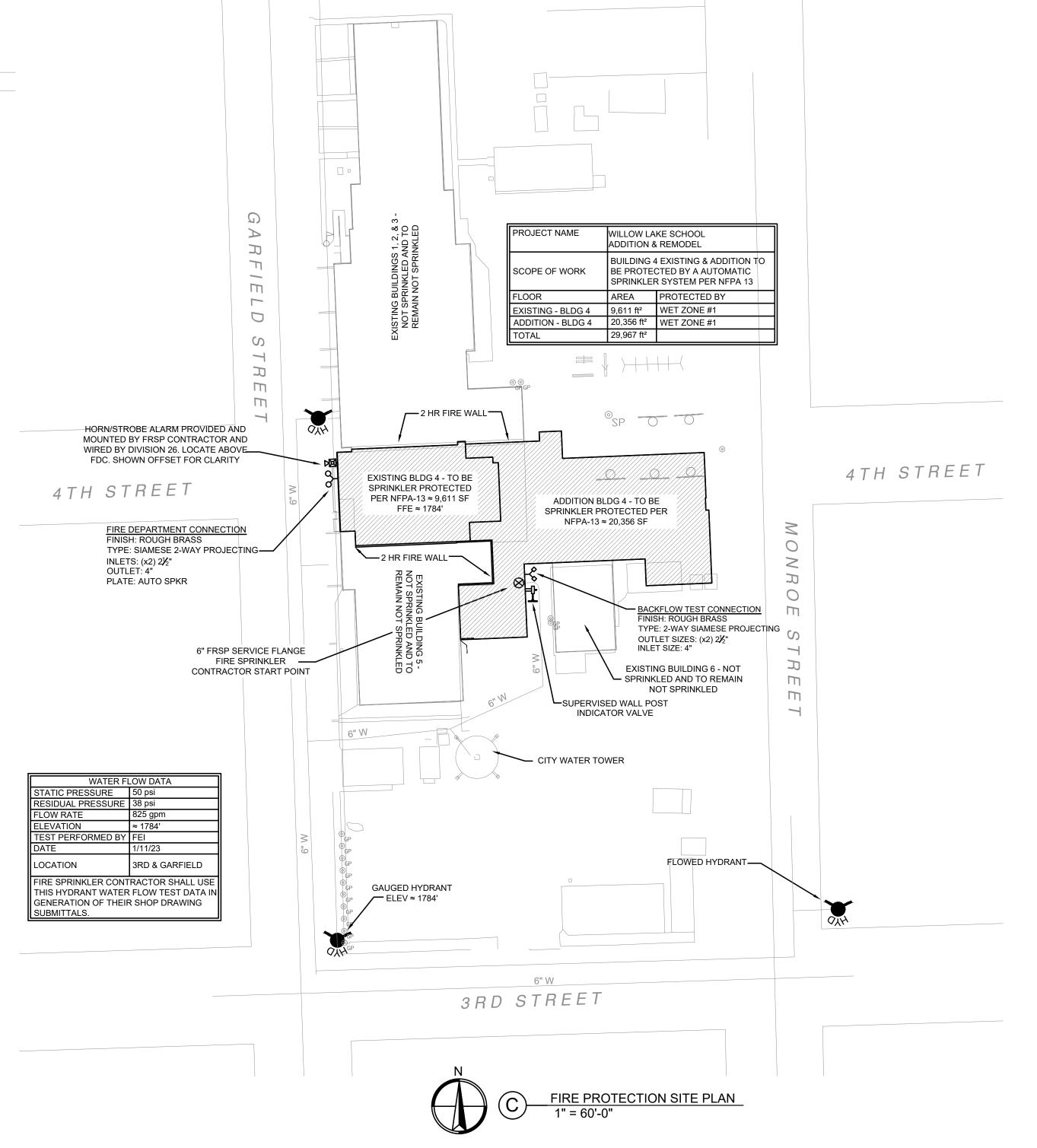
2. OUT TO BACKFLOW TEST CONNECTION

SYM	POSITION	FINISH	TEMP	K	NPT	SIN	MFG.	MODEL#	ESCUTCHEON	NOTES
•	PENDENT	WHITE	155°	5.6	1/2"	TY3231	TYCO	TY-FRB	RECESSED	1, 3, 4
٩	PENDENT	WHITE	200°	5.6	1"	TY3235	TYCO	DS-1	RECESSED	1
Ø	PENDENT	WHITE	155°	11.2	3/4"	TY5237	TYCO	TY-FRB	RECESSED	1, 3
	PENDENT	WHITE	200°	5.6	1/2"	TY3231	TYCO	TY-FRB	RECESSED	1, 4
0	UPRIGHT	BRASS	155°	5.6	1/2"	TY3131	TYCO	TY-FRB	NONE	1, 2, 4, 5
Ø	UPRIGHT	BRASS	155°	8.0	3/4"	TY4131	TYCO	TY-FRB	NONE	1, 2, 4, 5
•	SIDEWALL	BRASS	155°	8.0	3/4"	TY4332	TYCO	TY-FRB	NONE	1, 2, 4, 5

#### OR EQUAL

- STANDARD RESPONSE SPRINKLERS MAY BE USED IN ORDINARY AND EXTRA HAZARD AREAS
- STANDARD COVERAGE OR EXTENDED COVERAGE SPRINKLERS MAY BE USED AT THE CONTRACTOR'S OPTION WHERE PROVEN HYDRAULICALLY
- INTERMEDIATE TEMPERATURE RATED HEADS SHALL BE INSTALLED IN MECHANICAL AND ELECTRICAL ROOMS. HIGH TEMPERATURE RATED HEADS TO BE USED NEAR HEAT PRODUCING DEVICES PER NFPA-13.
- SPRINKLER GUARDS ARE TO BE INSTALLED ON ALL EXPOSED SPRINKLERS ELEVATED BELOW 7'-0" AND THROUGHOUT AREAS WHERE HEADS ARE EXPOSED TO INTERFERENCE DAMAGE, INCLUDING BUT NOT LIMITED TO COMPETITION GYM 145 AND BELOW OVERHEAD DOORS.





- <u>GENERAL NOTES:</u>
  1. THIS PROJECT INCLUDES THE DESIGN AND INSTALLATION OF SINGLE ZONE (1) WET SYSTEM ZONE FOR THE BUILDING ADDITION AND THE PORTION OF THE EXISTING BUILDING DEFINED BY THESE PLANS DESIGNED PER NFPA 13 (2019 ed.) AND LOCAL BUILDING CODES. THE SYSTEM WILL BE SUPPLIED BY A 6" UNDERGROUND WATER SERVICE LINE FED BY THE CITY'S UNDERGROUND WATER SYSTEM. EXISTING BUILDING IS NOT SPRINKLED AND ONLY A PORTION OF THE EXISTING BUILDING AS DEFINED BY THESE PLANS WILL BE REQUIRED TO BE SPRINKLER PROTECTION AS PART OF THE SCOPE OF WORK OF THIS PROJECT. A 2 HR FIRE WALL SEPARATION WILL BE CONSTRUCTED BETWEEN THE ADDITION AND THE NON SPRINKLED PORTIONS OF THE EXISTING BUILDING.
- FINAL PIPE SIZING AND LOCATION IS TO BE DETERMINED BY THE FIRE SPRINKLER CONTRACTOR AND IS SUBJECT TO APPROVAL BY THE ENGINEER. NOT ALL REQUIRED
- REFER TO SPECIFICATION DIVISION 211000 FOR ADDITIONAL FIRE SPRINKLER SYSTEM INFORMATION.
- ALL SPRINKLERS IN LIGHT HAZARD OCCUPANCIES ARE TO BE OF THE QUICK
- SPRINKLERS ARE REQUIRED TO BE PROTECTED DURING PAINTING.
- SPRINKLERS SHALL BE LOCATED IN THE CENTER POINT OF SQUARE CEILING TILES AND ALLOWED TO BE IN THE QUARTER AND/OR CENTER POINTS OF RECTANGULAR CEILING TILES.
- SPRINKLER GUARDS ARE TO BE INSTALLED ON ALL EXPOSED SPRINKLERS LOCATED IN COMPETITION GYM 145, ELEVATED BELOW 7'-0", SIDEWALL SPRINKLERS LOCATED BELOW OVERHEAD DOORS, AND THROUGHOUT AREAS WHERE HEADS ARE EXPOSED TO INTERFERENCE DAMAGE.
- ALL SYSTEMS PIPING AND FITTINGS TO MEET THE REQUIREMENTS OF NFPA 13. REQUIRED SYSTEM TESTING IS THE RESPONSIBILITY OF THE FIRE SPRINKLER
- CONTRACTOR PER NFPA 25.
- 10. NOT ALL REQUIRED SPRINKLERS AND PIPING ARE SHOWN. CONSIDERATION OF ADDITIONAL SPRINKLERS, PIPING, AND FITTINGS DUE TO INTERFERENCE WITH OTHER TRADES, OBSTRUCTIONS, IMPROVED AESTHETICS, OR OWNER/AHJ REQUESTS SHALL BE MADE PRIOR TO BID BY THE FIRE SPRINKLER CONTRACTOR.
- 11. FIRE SPRINKLER CONTRACTOR TO PROVIDE ALL NECESSARY MATERIAL, INCLUDING BUT NOT LIMITED TO, SPRINKLERS, PIPING, VALVES, AND LABOR TO PROVIDE A COMPLETE SYSTEM TO COMPLY WITH NFPA 13 AND LOCAL BUILDING CODES. ALL HYDRAULIC CALCULATIONS AND PIPE SIZING ARE THE RESPONSIBILITY OF THE FIRE SPRINKLER CONTRACTOR. ANY AND ALL CLARIFICATIONS TO BID DOCUMENTS SHALL BE MADE PRIOR TO BID.
- 12. UPRIGHT SPRINKLERS TO HAVE A BRASS FINISH THROUGHOUT, UNLESS NOTED OTHERWISE.
- 13. ALL GROOVED STEEL PIPING SHALL BE SCHEDULE 10 MINIMUM. 14. ALL THREADED STEEL PIPING SHALL BE SCHEDULE 40.
- 15. ALL DRY PIPING SHALL BE SCHEDULE 40.
- 16. ALL PIPING PENETRATING AN EXTERIOR WALL SHALL BE GALVANIZED SCHEDULE 40.
- 17. ALL THREADED FITTINGS SHALL BE DUCTILE IRON. 18. LISTED FLEX PIPING TO PENDENT HEADS IN CEILINGS IS ALLOWED FOR THIS
- PROJECT IF PROVEN HYDRAULICALLY. 19. CPVC IS ALLOWED FOR THIS PROJECT WHERE APPROVED BY IT'S LISTING AND
- INSTALLED IN A CONCEALED SPACE. NO EXPOSED CPVC PIPING IS ALLOWED. 20. FURNISH AND INSTALL AN AUTOMATIC AIR VENT FOR EACH WET SPRINKLER ZONE. AUTOMATIC AIR VENT SHALL BE LOCATED NEAR A HIGH POINT IN THE WET SYSTEM. THAT ALLOWS FOR THE MAXIMUM AMOUNT OF AIR REMOVAL FROM THAT SYSTEM.
- 21. ALL MATERIAL BEING INSTALLED MUST BE NEW AND LISTED FOR USE. 22. THE FIRE SPRINKLER CONTRACTOR SHALL VERIFY LOCATIONS AND ROUTING OF PIPE PRIOR TO BID. NO ALLOWANCES FOR EXTRA FITTINGS, PIPING, SPRINKLERS, ETC.
- WILL BE ALLOWED AFTER AWARD OF CONTRACT. 23. ALL ARCHITECTURAL, MECHANICAL, STRUCTURAL, CIVIL, & ELECTRICAL FEATURES INDICATED ON THE FP SHEETS SHALL BE VERIFIED BY CONSULTING THE A, M, S, C, &
- 24. PIPING SHOWN ON THESE PLANS IS CONCEPTUAL BUT SHALL BE CLOSELY FOLLOWED BY THE FIRE SPRINKLER CONTRACTOR. ANY MAJOR CHANGES TO WHAT IS BEING
- INDICATED ON THESE PLANS SHALL FIRST BE APPROVED BY THE ARCHITECT AND 25. ALL SPRINKLERS LOCATED NEAR HEAT PRODUCING DEVICES SHALL BE PROVIDED
- WITH THE APPROPRIATE TEMPERATURE RATING PER THE REQUIREMENTS OF NFPA
- 25. THE FIRE SPRINKLER CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING ALL EXISTING CONDITIONS PRIOR TO BID.
- 26. THESE PLANS SHALL BE USED AS A GENERAL GUIDE IN THE GENERATION OF THE FIRE SPRINKLER CONTRACTOR'S BID AND ARE NOT INTENDED TO INDICATE THE ENTIRE EXTENT OF SPRINKLER PROTECTION REQUIRED. ANY AREAS REQUIRED TO BE PROTECTED PER NFPA 13 THAT MAY OR MAY NOT BE SHOWN WITH PROTECTION ON THESE PLANS SHALL BE INCLUDED IN THE CONTRACTOR'S BID. NO ALLOWANCES FOR EXTRAS WILL BE ALLOWED AFTER AWARD OF CONTRACT.
- SPARE SPRINKLERS SHALL BE PROVIDED PER THE REQUIREMENTS OF NFPA 13 28. CONTRACTOR TO PROVIDE OWNER WITH COPY OF NFPA 25
- OCCUPANCY HAZARD CLASSIFICATIONS:

  SEE PLAN FOR HAZARD NOTATIONS. ALL AREAS TO BE DESIGNED AS LIGHT
- HAZARD UNLESS NOTED OTHERWISE LIGHT HAZARD OCCUPANCIES
- •• 0.10 gpm/ft² PER MOST DEMANDING 1500 ft² ORDINARY HAZARD GROUP 1 OCCUPANCIES
- 0.15 gpm/ft² PER MOST DEMANDING 1500 ft²
   ORDINARY HAZARD GROUP 2 OCCUPANCIES
- •• 0.20 gpm/ft<sup>2</sup> PER MOST DEMANDING 1500 ft<sup>2</sup> REMOTE AREA REDUCTIONS WILL BE ALLOWED PER NFPA 13
- REMOTE AREA INCREASES ARE REQUIRED PER NFPA 13
- REQUIRED SYSTEM PRESSURE SHALL BE A MINIMUM OF 5 PSI LESS THAN THAT WHICH IS AVAILABLE AT SPRINKLER SYSTEM DEMAND PLUS HOSE ALLOWANCE

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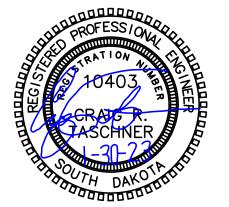
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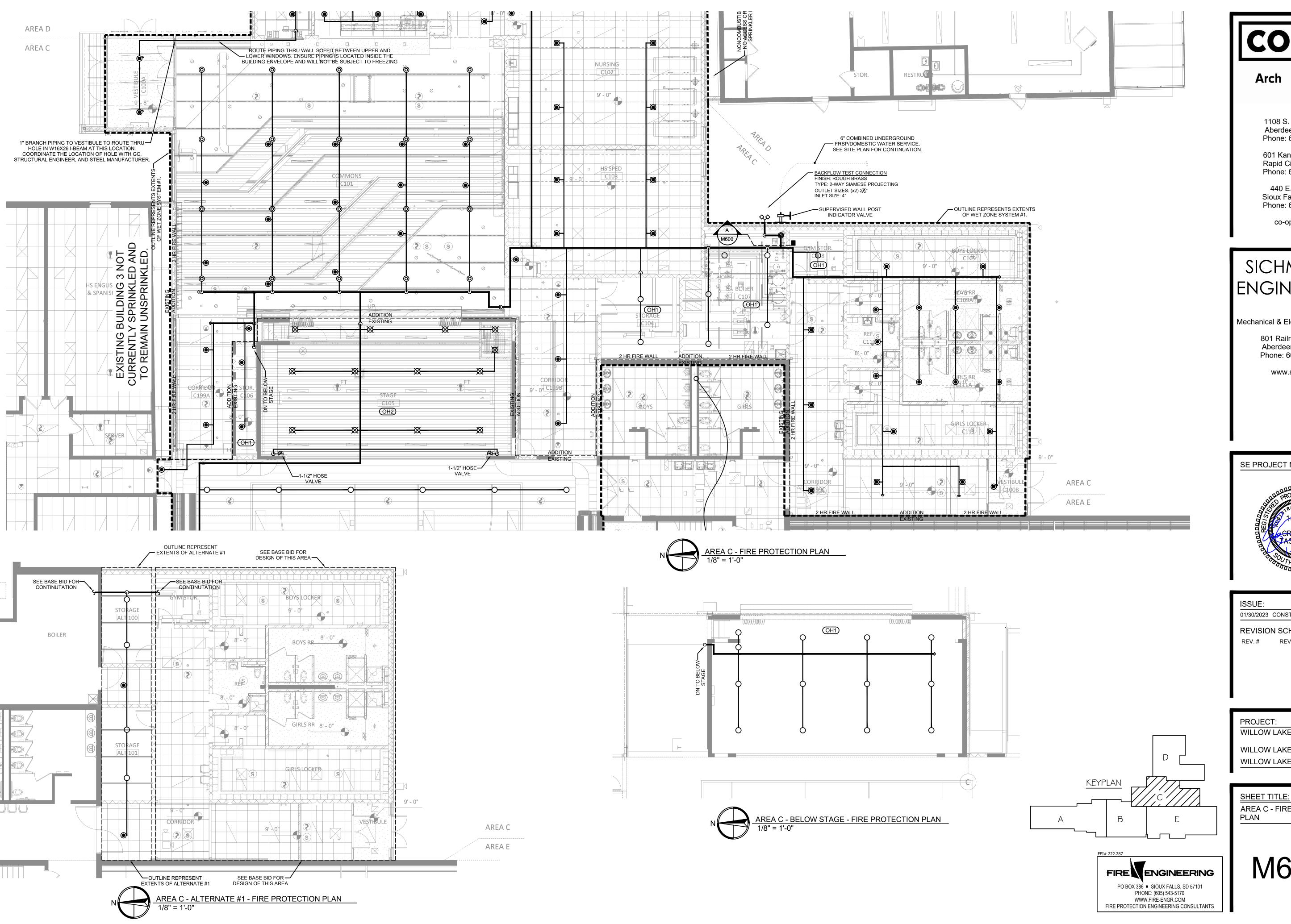
WILLOW LAKE SCHOOL ADDITION

WILLOW LAKE SCHOOL DISTRICT WILLOW LAKE, SOUTH DAKOTA

SHEET TITLE:

FIRE PROTECTION - LEGENDS & DETAILS





Arch

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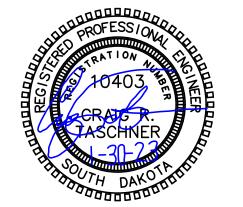
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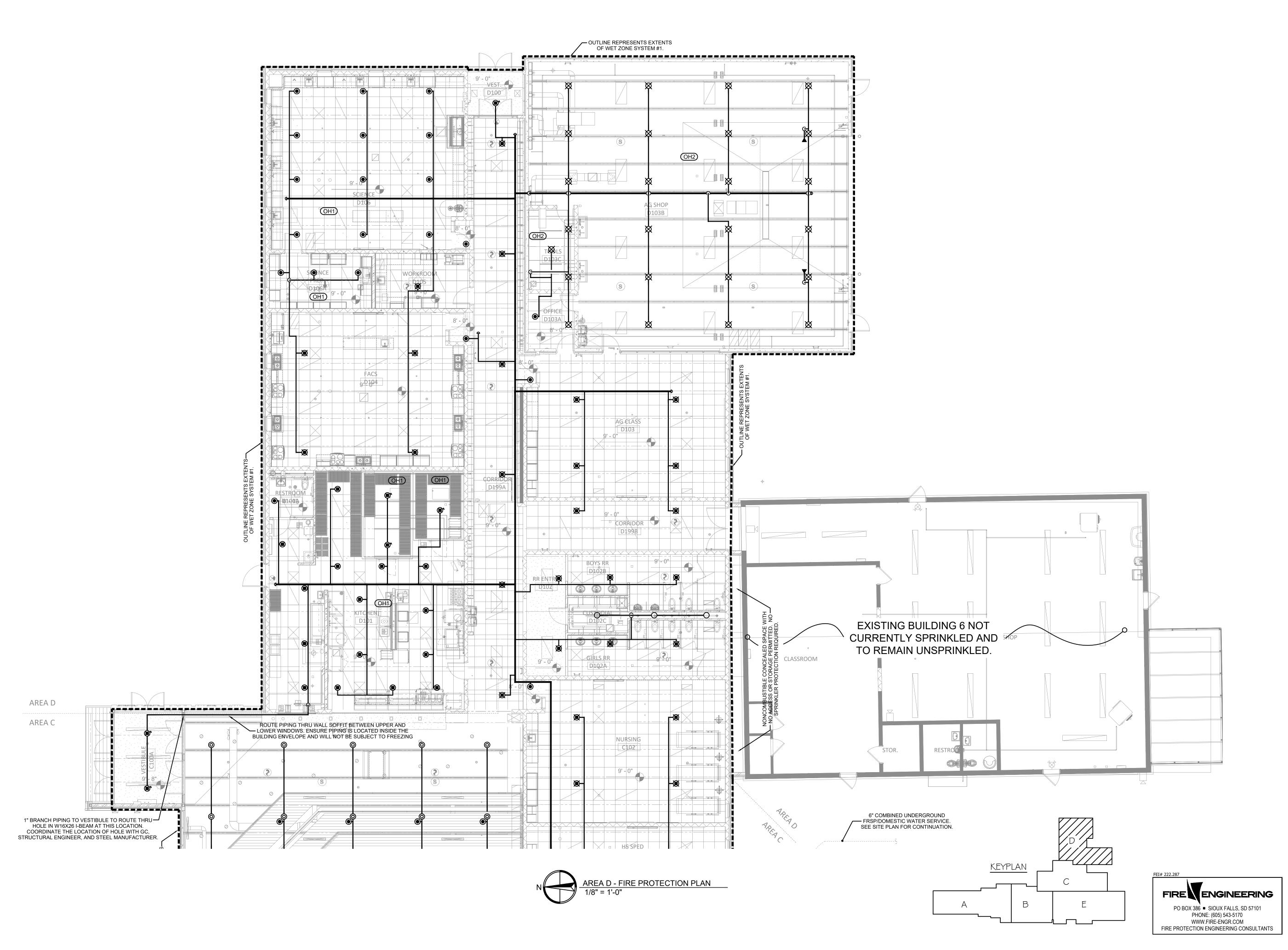
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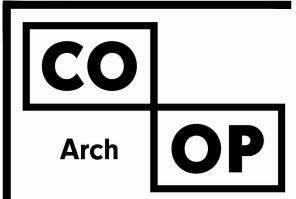
PROJECT: WILLOW LAKE SCHOOL ADDITION

WILLOW LAKE SCHOOL DISTRICT WILLOW LAKE, SOUTH DAKOTA

AREA C - FIRE PROTECTION

M601C





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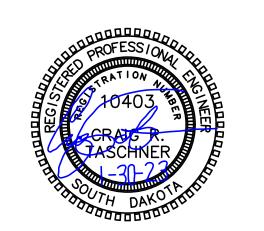
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01/30/2023 CONSTRUCTION DOCUMENTS

REV. DATE

REVISION SCHEDULE:

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PROJECT:

WILLOW LAKE SCHOOL ADDITION

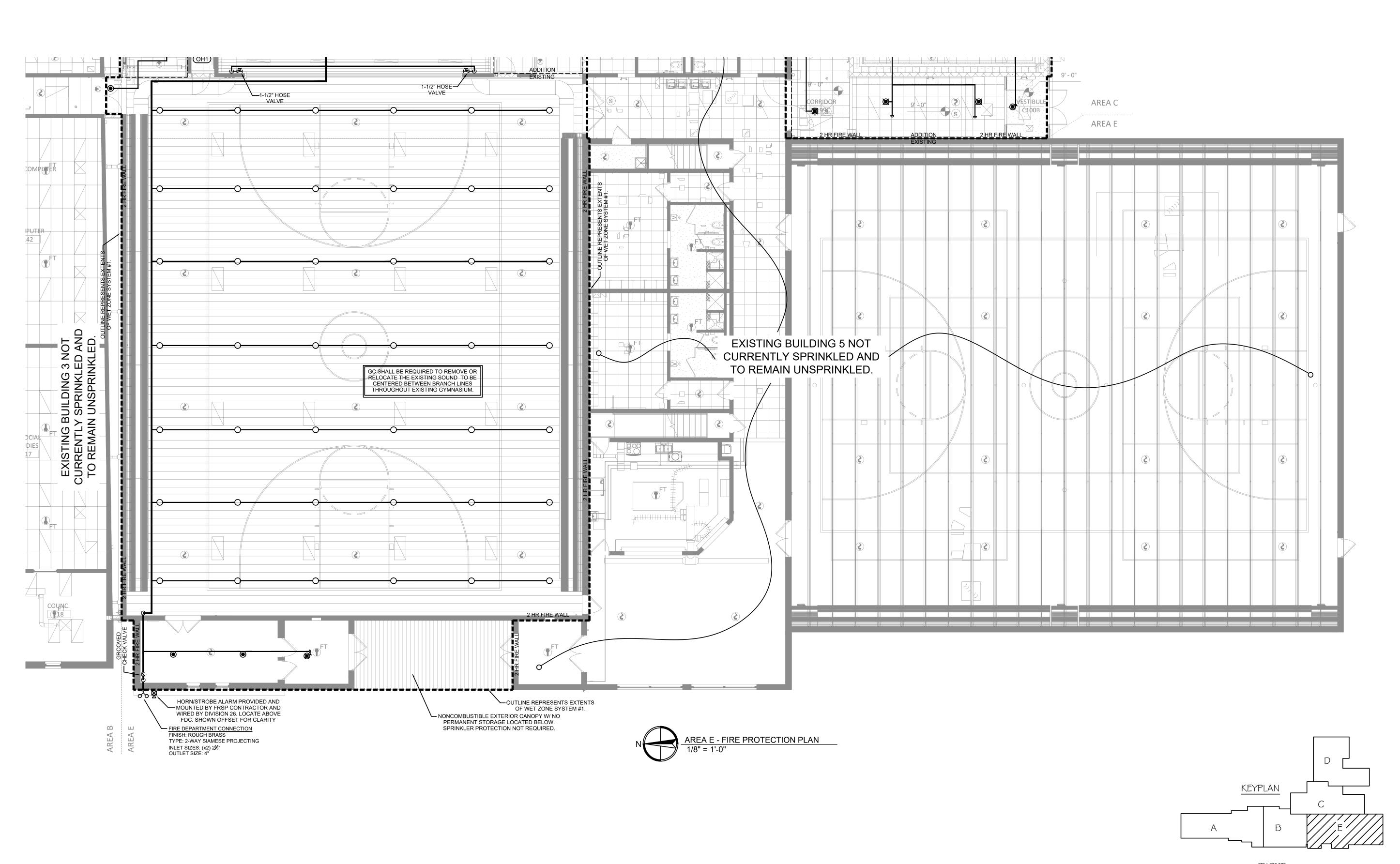
WILLOW LAKE SCHOOL DISTRICT WILLOW LAKE, SOUTH DAKOTA

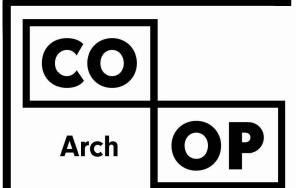
SHEET TITLE:

AREA D - FIRE PROTECTION

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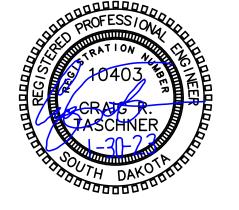
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01/30/2023 CONSTRUCTION DOCUMENTS

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PROJECT:
WILLOW LAKE SCHOOL ADDITION

WILLOW LAKE SCHOOL DISTRICT WILLOW LAKE, SOUTH DAKOTA

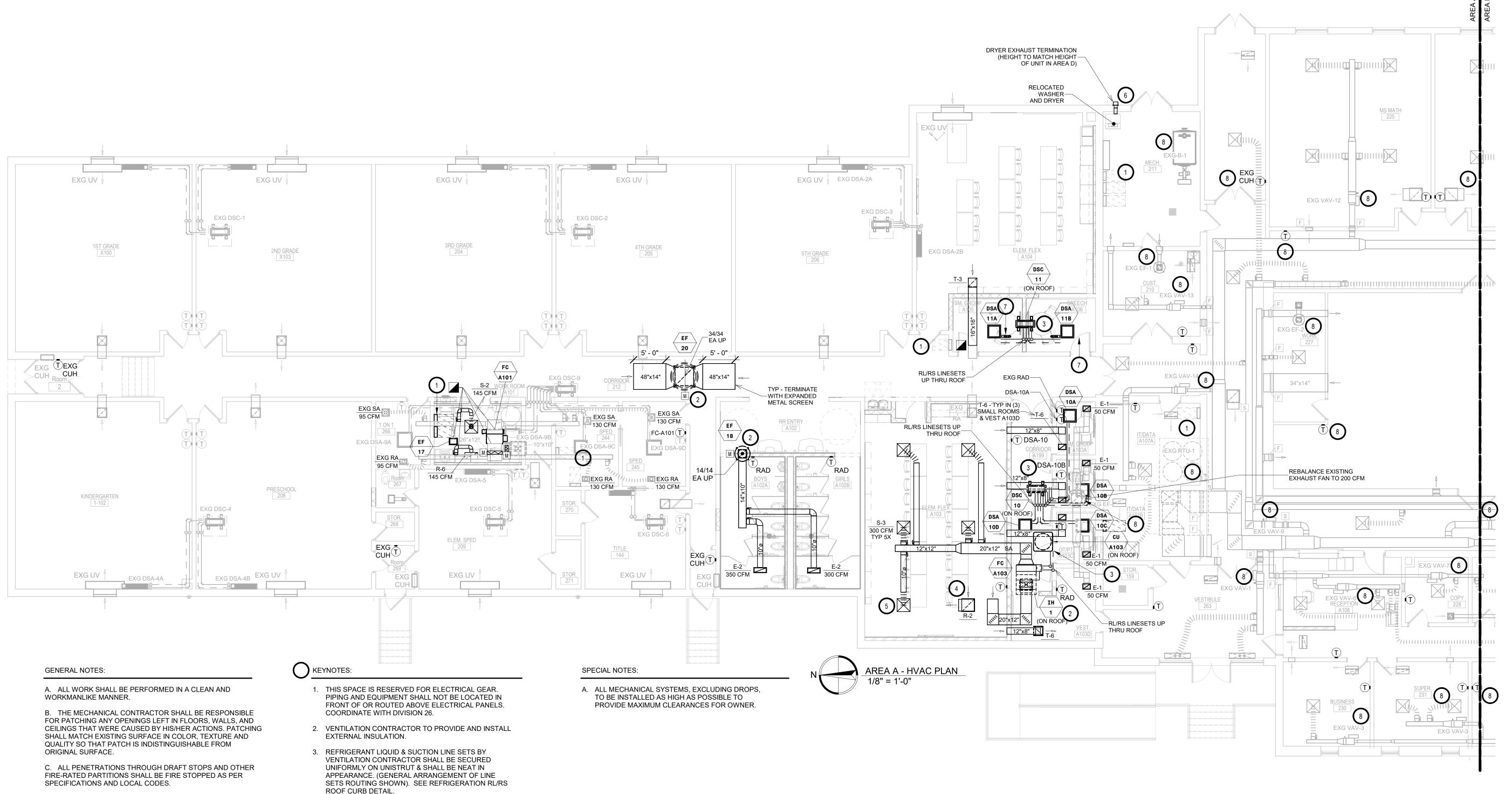
SHEET TITLE:

FIRE ENGINEERING

PO BOX 386 SIOUX FALLS, SD 57101
PHONE: (605) 543-5170
WWW.FIRE-ENGR.COM
FIRE PROTECTION ENGINEERING CONSULTANTS

AREA E - FIRE PROTECTION PLAN

M603E



KEYPLAN C

B
E

CO
Arch OP

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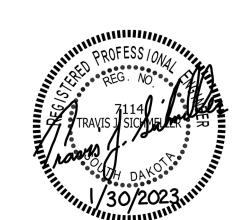
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PROJECT:

WILLOW LAKE SCHOOL ADDITION

WILLOW LAKESCHOOL DISTRICT WILLOW LAKE, SOUTH DAKOTA

SHEET TITLE:

AREA A - HVAC PLAN

M700A

4. TYPICAL - SEE INSULATED RETURN ELBOW DETAIL.

DRYER LOCATION.

5. TYPICAL - SEE TYPICAL DIFFUSER CONNECTION

DETAIL.

6. VC TO PROVIDE AND INSTALL DRYER VENT. ALL PIPING TO BE 4" DIAMETER RIGID WITH SEALED JOINTS WITHOUT ANY FASTENERS PROTRUDING TO THE INTERIOR OF THE PIPE AND SHALL TERMINATE AT WALL CAP WITH DAMPER. VERIFY WITH OWNER

7. 4" DIAMETER FULLY INSULATED AND VAPOR SEALED OUTSIDE AIR DUCT UP TO GOOSENECK WITH BIRD SCREEN.

8. TC TO PROVIDE NEW T-STATS, CONTROL CABLING, CONTROL VALVE (PC TO PIPE) AND DDC TEMPERATURE CONTROL SYSTEM FOR EXISTING EQUIPMENT, SEE SPECS.

H. ALL FLEXIBLE DUCTWORK AND CONNECTORS BETWEEN THE LOW PRESSURE DUCTWORK AND THE DIFFUSERS SHALL BE THE SIZE OF THE DIFFUSER INLET.

D. ALL MECHANICAL WORK SHALL BE INSTALLED IN STRICT ACCORDANCE WITH ALL APPLICABLE LOCAL, STATE, NATIONAL

INTERFERENCE WITH ELECTRICAL EQUIPMENT & REQUIRED

FIRE SPRINKLER, LIGHT FIXTURES, AND STRUCTURE TO

G. FOR SIMPLICITY DUCT INSULATION NOT SHOWN, DUCT

F. COORDINATE INSTALLATION OF ALL HVAC WITH PLUMBING,

SIZES INDICATED ON DRAWING ARE INTERNAL DIMENSIONS. AS

NEEDED ADJUST ACTUAL SIZE FOR INSULATION THICKNESS AS

PLUMBING REGULATIONS, AND THE AUTHORITY HAVING

E. THE MECHANICAL DRAWINGS SHOW GENERAL ARRANGEMENT ONLY. EXACT LOCATION SHALL AVOID

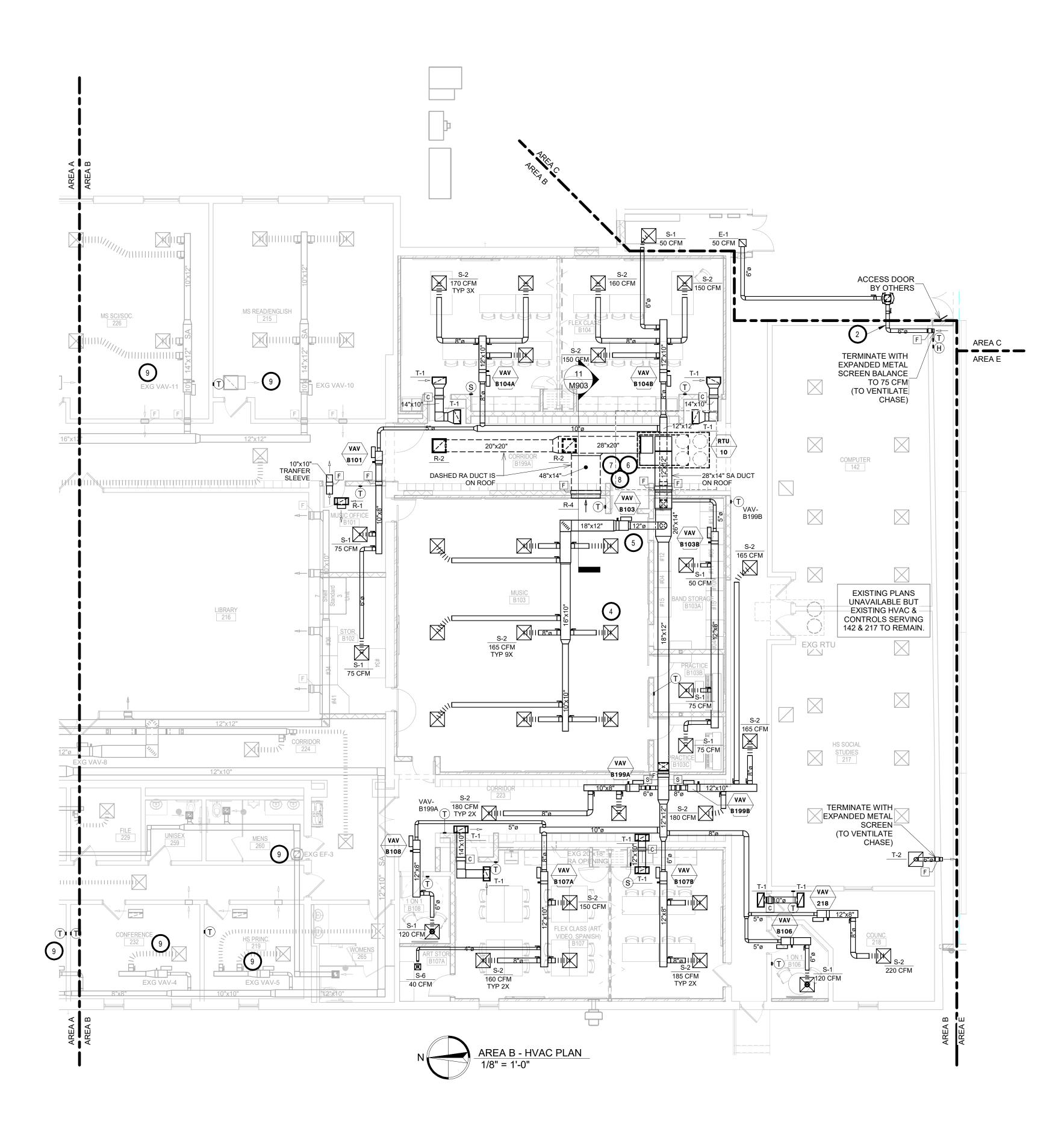
ACCOMMODATE LIMITED CEILING SPACE.

JURISDICTION.

SPECIFIED.

ELECTRICAL CLEARANCES.

- I. PROVIDE & INSTALL VIBRATION ISOLATION ON ALL HANGING EQUIPMENT. PROVIDE & INSTALL VIBRATION ABSORPTION MOUNTING PADS ON ALL EQUIPMENT MOUNTED ON FLOOR.
- J. PROVIDE AND INSTALL DURODINE FLEX DUCT CONNECTORS AT ALL EQUIPMENT CONNECTIONS.
- K. ALL DUCTWORK TO BE SEALED AIRTIGHT.
- H. FRESH AIR INTAKES TO BE MINIMUM 10' FROM ANY EXHAUST TERMINATION.
- I. ALL FLOOR EQUIPMENT SHALL BE SET ON 4" HIGH CONCRETE BASES FURNISHED BY THIS CONTRACTOR.



**GENERAL NOTES:** 

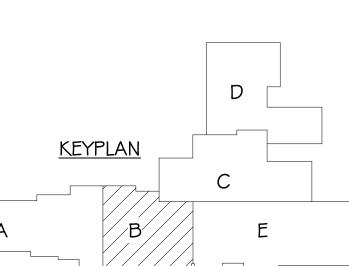
- A. ALL WORK SHALL BE PERFORMED IN A CLEAN AND WORKMANLIKE MANNER.
- B. THE MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE FOR PATCHING ANY OPENINGS LEFT IN FLOORS, WALLS, AND CEILINGS THAT WERE CAUSED BY HIS/HER ACTIONS. PATCHING SHALL MATCH EXISTING SURFACE IN COLOR, TEXTURE AND QUALITY SO THAT PATCH IS INDISTINGUISHABLE FROM ORIGINAL SURFACE.
- C. ALL PENETRATIONS THROUGH DRAFT STOPS AND OTHER FIRE-RATED PARTITIONS SHALL BE FIRE STOPPED AS PER SPECIFICATIONS AND LOCAL CODES.
- D. ALL MECHANICAL WORK SHALL BE INSTALLED IN STRICT ACCORDANCE WITH ALL APPLICABLE LOCAL, STATE, NATIONAL PLUMBING REGULATIONS, AND THE AUTHORITY HAVING JURISDICTION.
- E. THE MECHANICAL DRAWINGS SHOW GENERAL ARRANGEMENT ONLY. EXACT LOCATION SHALL AVOID INTERFERENCE WITH ELECTRICAL EQUIPMENT & REQUIRED ELECTRICAL CLEARANCES.
- F. COORDINATE INSTALLATION OF ALL HVAC WITH PLUMBING, FIRE SPRINKLER, LIGHT FIXTURES, AND STRUCTURE TO ACCOMMODATE LIMITED CEILING SPACE.
- G. FOR SIMPLICITY DUCT INSULATION NOT SHOWN, DUCT SIZES INDICATED ON DRAWING ARE INTERNAL DIMENSIONS. AS NEEDED ADJUST ACTUAL SIZE FOR INSULATION THICKNESS AS SPECIFIED.
- H. ALL FLEXIBLE DUCTWORK AND CONNECTORS BETWEEN THE LOW PRESSURE DUCTWORK AND THE DIFFUSERS SHALL BE THE SIZE OF THE DIFFUSER INLET.
- I. PROVIDE & INSTALL VIBRATION ISOLATION ON ALL HANGING EQUIPMENT. PROVIDE & INSTALL VIBRATION ABSORPTION MOUNTING PADS ON ALL EQUIPMENT MOUNTED ON FLOOR.
- J. PROVIDE AND INSTALL DURODINE FLEX DUCT CONNECTORS AT ALL EQUIPMENT CONNECTIONS.
- K. ALL DUCTWORK TO BE SEALED AIRTIGHT.
- H. FRESH AIR INTAKES TO BE MINIMUM 10' FROM ANY EXHAUST TERMINATION.
- I. ALL FLOOR EQUIPMENT SHALL BE SET ON 4" HIGH CONCRETE BASES FURNISHED BY THIS CONTRACTOR.

### KEYN

- 1. THIS SPACE IS RESERVED FOR ELECTRICAL GEAR. PIPING AND EQUIPMENT SHALL NOT BE LOCATED IN FRONT OF OR ROUTED ABOVE ELECTRICAL PANELS. COORDINATE WITH DIVISION 26.
- VENTILATION CONTRACTOR TO PROVIDE AND INSTALL EXTERNAL INSULATION.
- 3. NOT USED.
- 4. TYPICAL SEE TYPICAL DIFFUSER CONNECTION DETAIL.
- 5. TYPICAL SEE VAV BOX DUCT CONNECTION DETAIL.
- 6. PROVIDE & INSTALL WATER TIGHT SHEET METAL "CRICKET" AND COLLAR AT HORIZONTAL BUILDING PENETRATION TO PREVENT MIGRATION OF PRECIPITATION INTO BUILDING.
- 7. PROVIDE & INSTALL VENTURE CLAD JACKETING (OR PRIOR APPROVED EQUAL) VENTURE CLAD 1577-CWE STUCCO EMBOSSED JACKETING ON ALL SIDES FOR EXTERIOR APPLICATION. THE TOP OF ALL DUCTWORK IS TO BE CROWNED (PITCHED) TO ALLOW WATER RUNOFF AND PREVENT POOLING.
- 8. WATER TIGHT CAULK ALL AROUND AT ALL PENETRATIONS.
- 9. TYPICAL TC TO PROVIDE NEW T-STATS AND DDC TEMPERATURE CONTROL SYSTEM FOR CONTROL CABLING, CONTROL VALVE (PC TO PIPE) EXISTING EQUIPMENT, SEE SPECS.

### SPECIAL NOTES:

A. ALL MECHANICAL SYSTEMS, EXCLUDING DROPS, TO BE INSTALLED AS HIGH AS POSSIBLE TO PROVIDE MAXIMUM CLEARANCES FOR OWNER.





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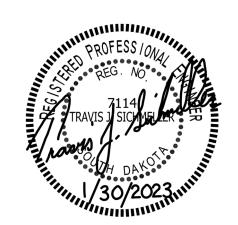
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### SICHMELLER ENGINEERING

801 Railroad Ave. SE Aberdeen, SD 57401 Phone: 605-225-4344 www.siceng.biz

Mechanical & Electrical Engineering

SE PROJECT NO: 220900771



ISSUE:

1/30/23 CONSTRUCTION DOCUMENTS

REVISION SCHEDULE:

REV. # REV. DSC. REV. DATE

PROJECT:

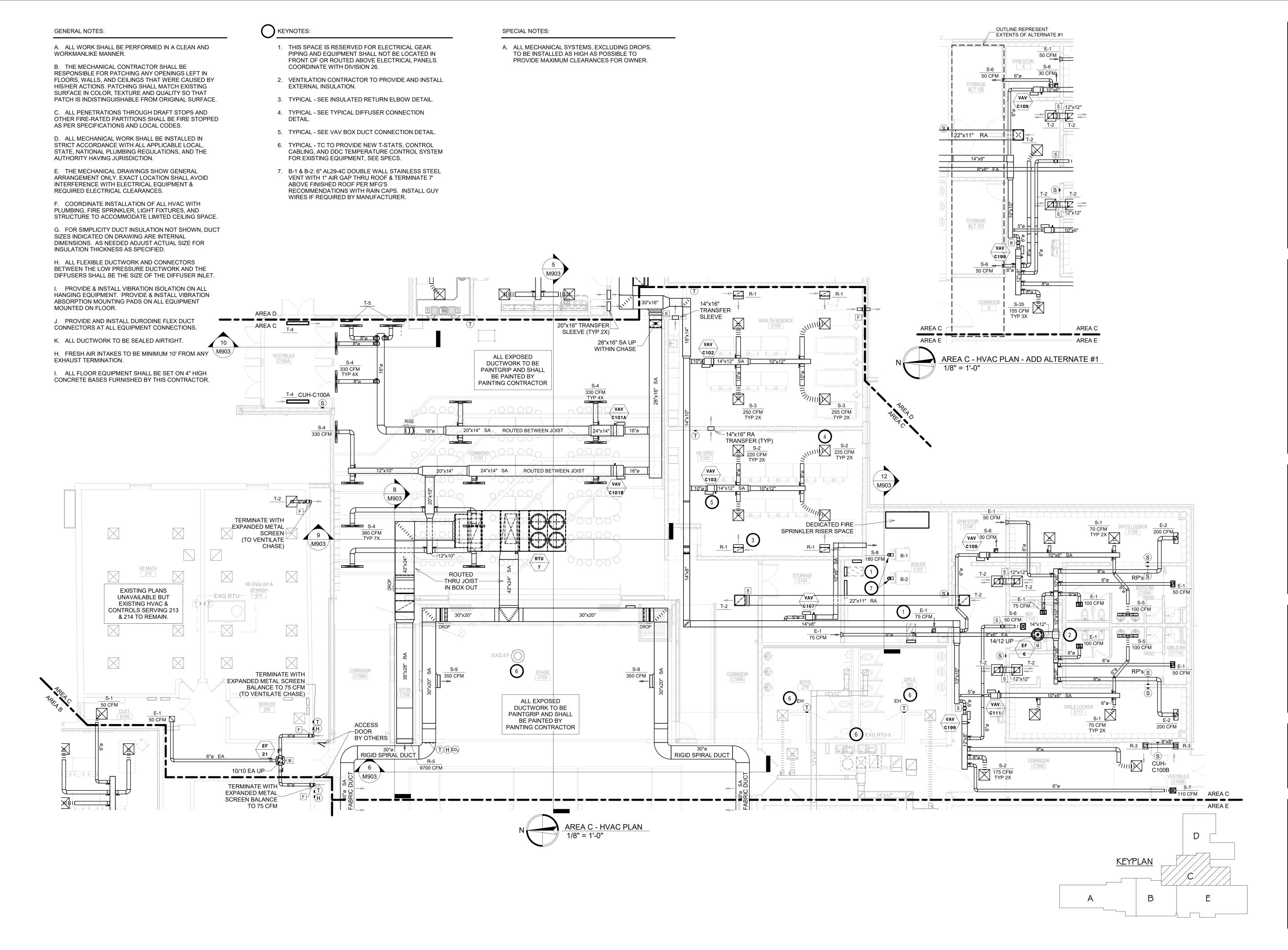
WILLOW LAKE SCHOOL ADDITION

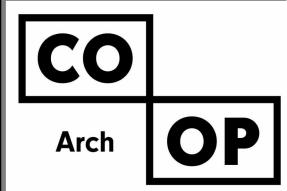
WILLOW LAKESCHOOL DISTRICT WILLOW LAKE, SOUTH DAKOTA

SHEET TITLE:

AREA B - HVAC PLAN

M701B





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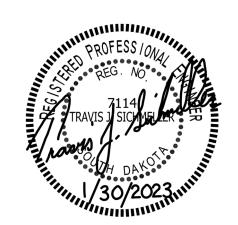
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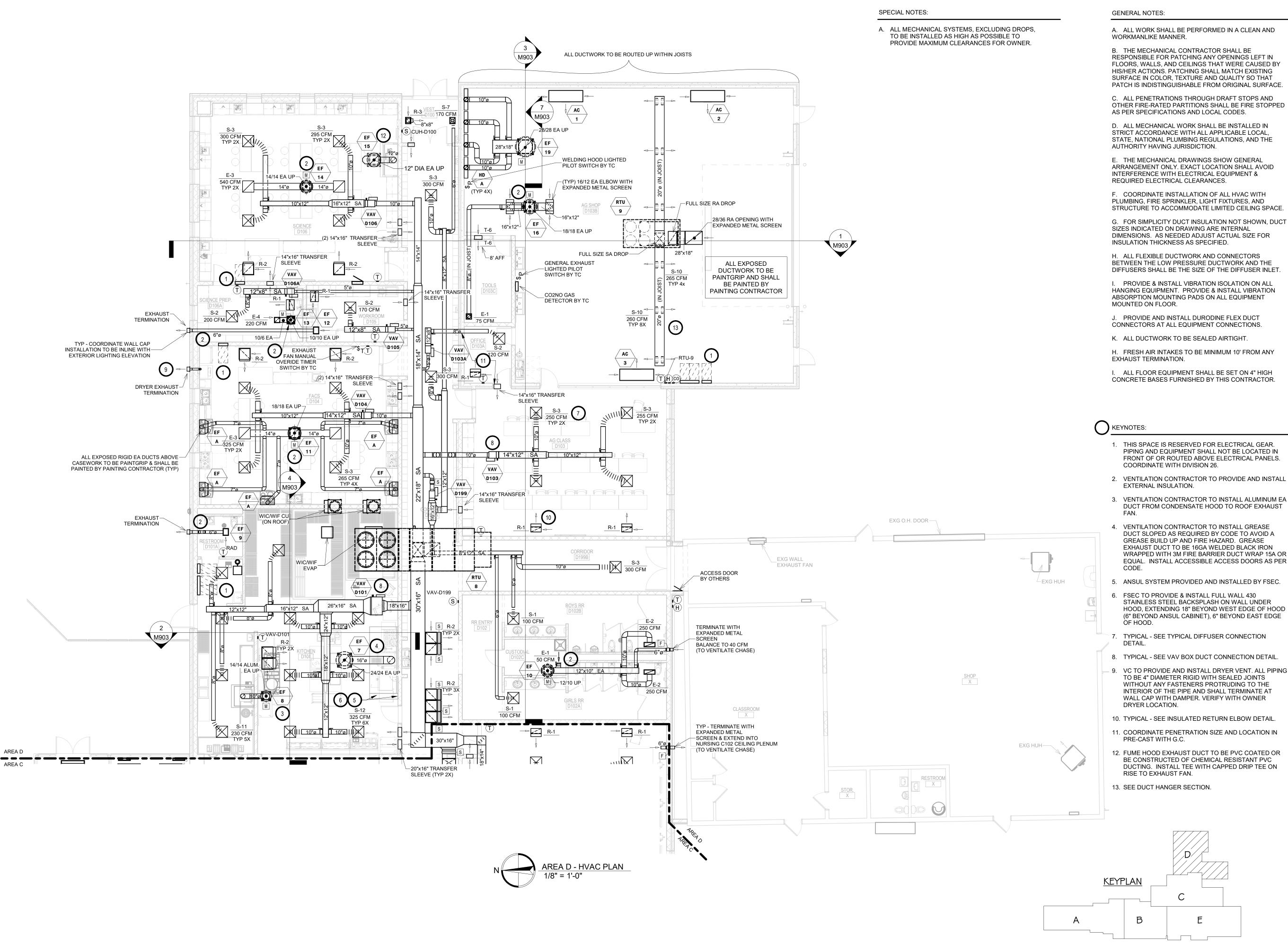
WILLOW LAKE SCHOOL ADDITION

WILLOW LAKESCHOOL DISTRICT WILLOW LAKE, SOUTH DAKOTA

SHEET TITLE:

AREA C - HVAC PLAN

M702C



RESPONSIBLE FOR PATCHING ANY OPENINGS LEFT IN FLOORS, WALLS, AND CEILINGS THAT WERE CAUSED BY HIS/HER ACTIONS. PATCHING SHALL MATCH EXISTING SURFACE IN COLOR, TEXTURE AND QUALITY SO THAT

C. ALL PENETRATIONS THROUGH DRAFT STOPS AND OTHER FIRE-RATED PARTITIONS SHALL BE FIRE STOPPED

STRUCTURE TO ACCOMMODATE LIMITED CEILING SPACE.

I. PROVIDE & INSTALL VIBRATION ISOLATION ON ALL HANGING EQUIPMENT. PROVIDE & INSTALL VIBRATION

I. ALL FLOOR EQUIPMENT SHALL BE SET ON 4" HIGH

1. THIS SPACE IS RESERVED FOR ELECTRICAL GEAR. PIPING AND EQUIPMENT SHALL NOT BE LOCATED IN FRONT OF OR ROUTED ABOVE ELECTRICAL PANELS.

2. VENTILATION CONTRACTOR TO PROVIDE AND INSTALL

3. VENTILATION CONTRACTOR TO INSTALL ALUMINUM EA DUCT FROM CONDENSATE HOOD TO ROOF EXHAUST

DUCT SLOPED AS REQUIRED BY CODE TO AVOID A EXHAUST DUCT TO BE 16GA WELDED BLACK IRON WRAPPED WITH 3M FIRE BARRIER DUCT WRAP 15A OR EQUAL. INSTALL ACCESSIBLE ACCESS DOORS AS PER

STAINLESS STEEL BACKSPLASH ON WALL UNDER HOOD, EXTENDING 18" BEYOND WEST EDGE OF HOOD (6" BEYOND ANSUL CABINET), 6" BEYOND EAST EDGE

9. VC TO PROVIDE AND INSTALL DRYER VENT. ALL PIPING

BE CONSTRUCTED OF CHEMICAL RESISTANT PVC DUCTING. INSTALL TEE WITH CAPPED DRIP TEE ON PROJECT:

ISSUE:

WILLOW LAKE SCHOOL ADDITION

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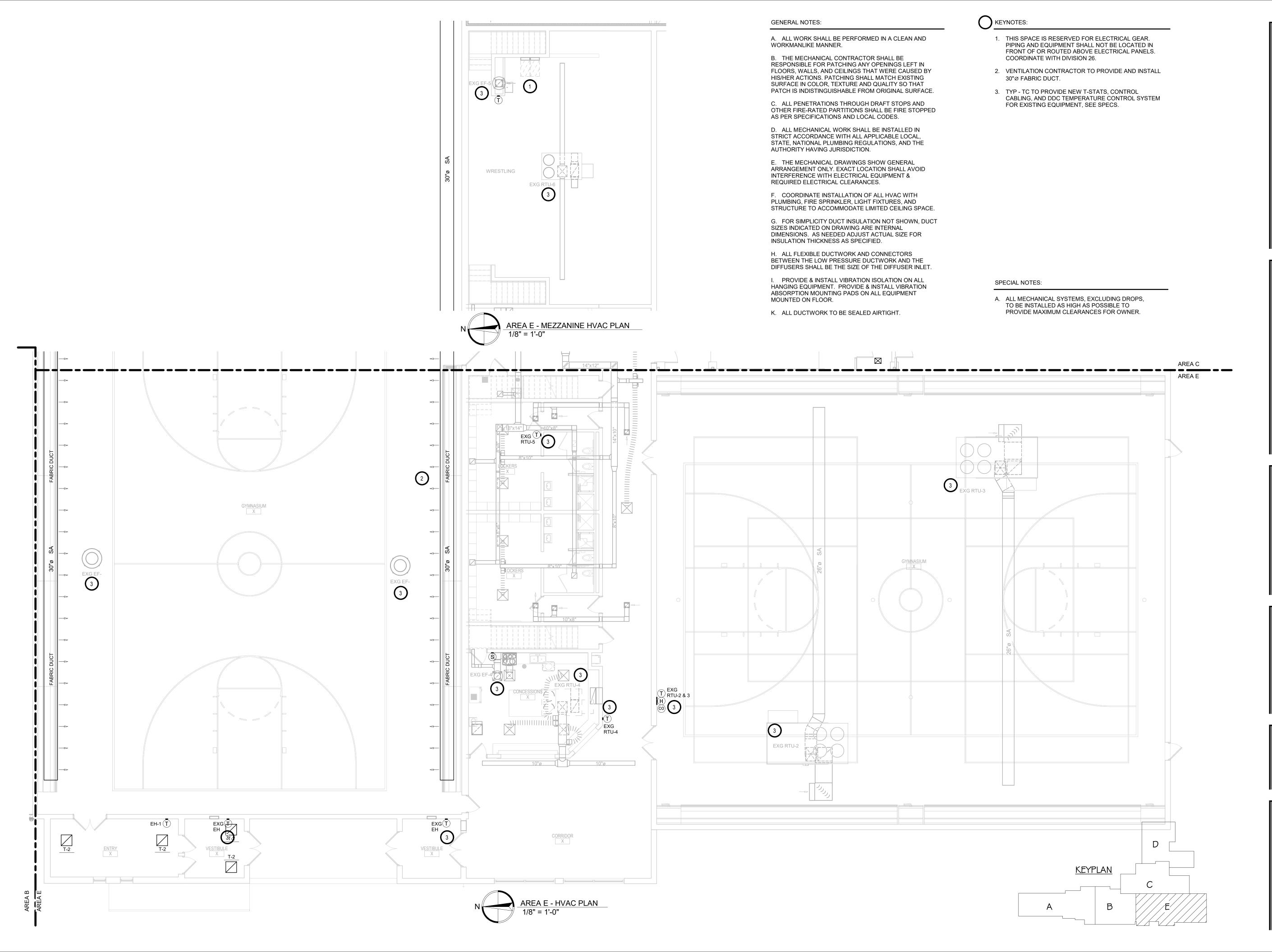
REV. DATE

WILLOW LAKESCHOOL DISTRICT WILLOW LAKE, SOUTH DAKOTA

SHEET TITLE:

AREA D - HVAC PLAN

M703D



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PROJECT:

WILLOW LAKE SCHOOL ADDITION

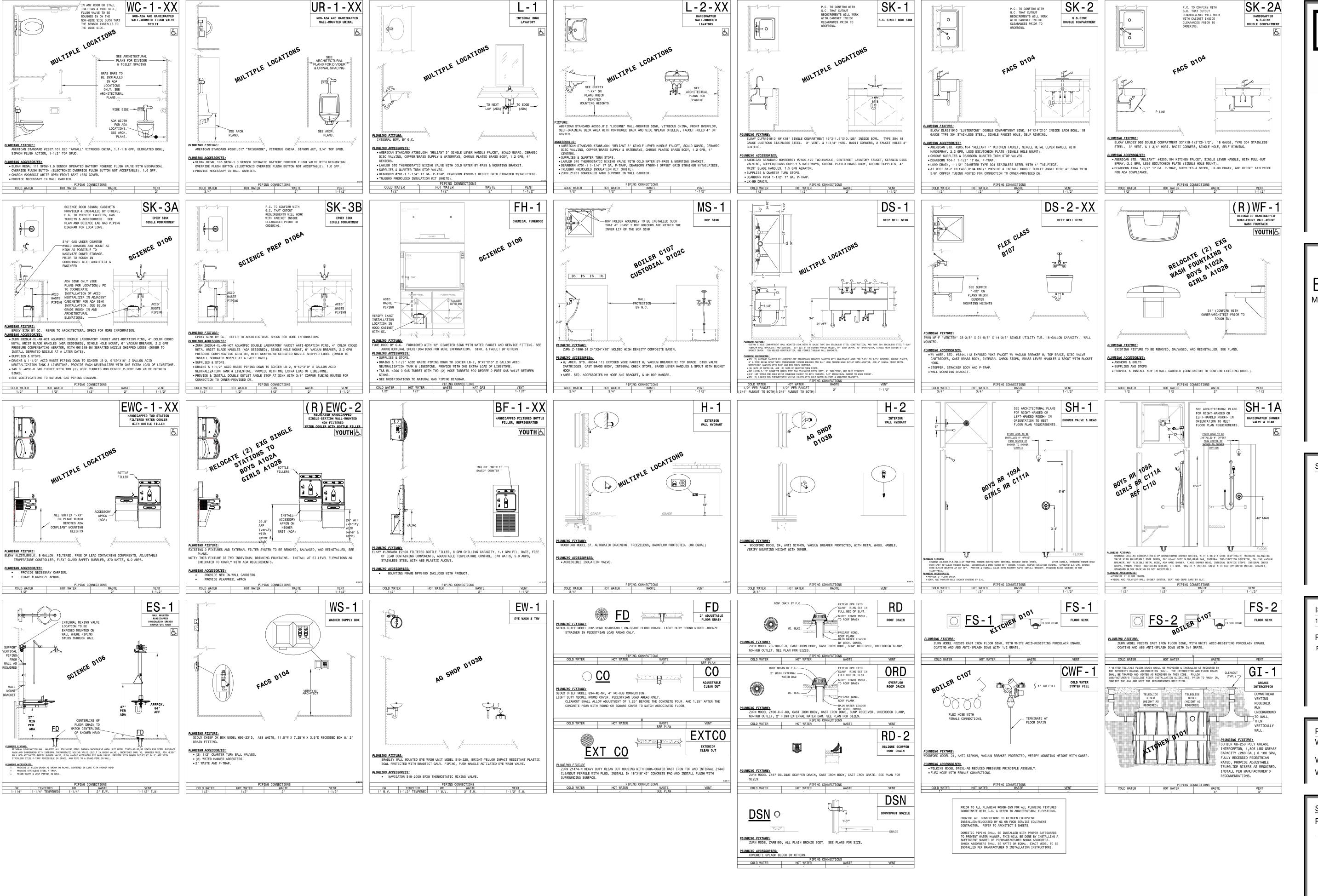
WILLOW LAKESCHOOL DISTRICT WILLOW LAKE, SOUTH DAKOTA

SHEET TITLE:

AREA E - HVAC PLAN

M704E





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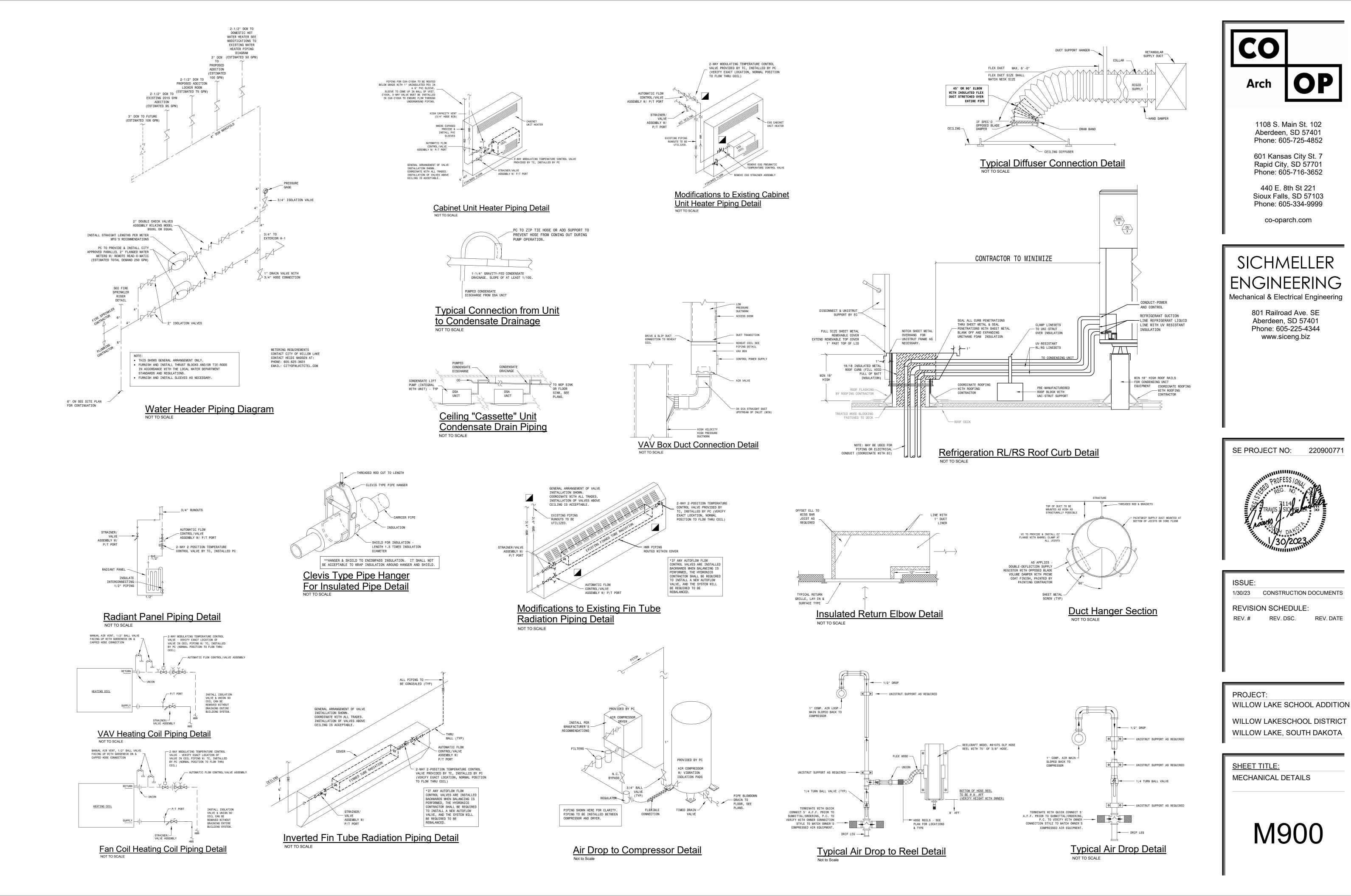
PROJECT:

WILLOW LAKE SCHOOL ADDITION

WILLOW LAKESCHOOL DISTRICT WILLOW LAKE, SOUTH DAKOTA

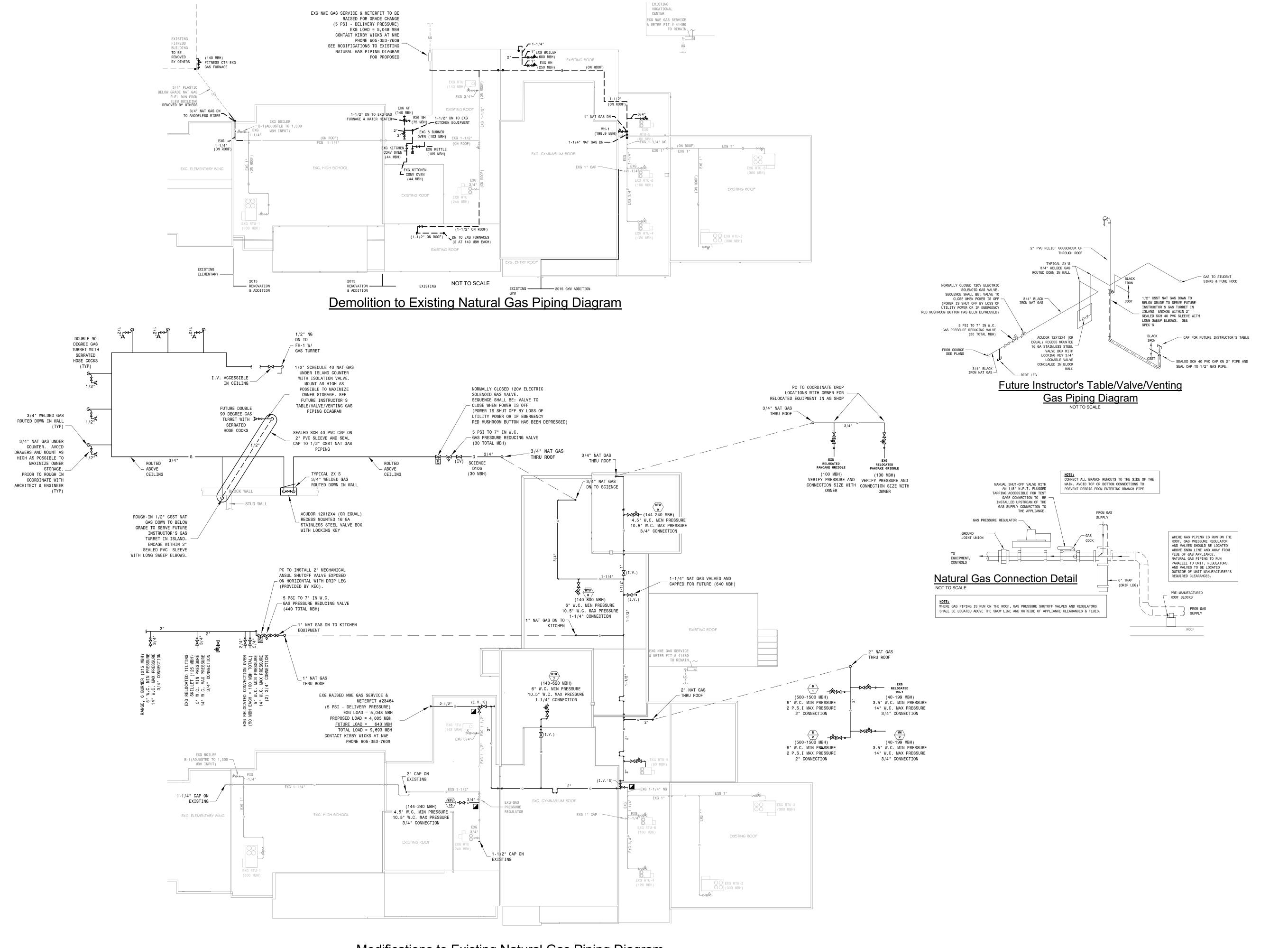
SHEET TITLE:

PLUMBING FIXTURE SCHEDULE



220900771

REV. DATE



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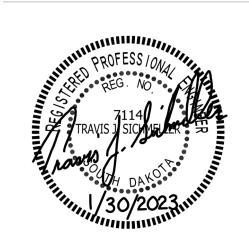
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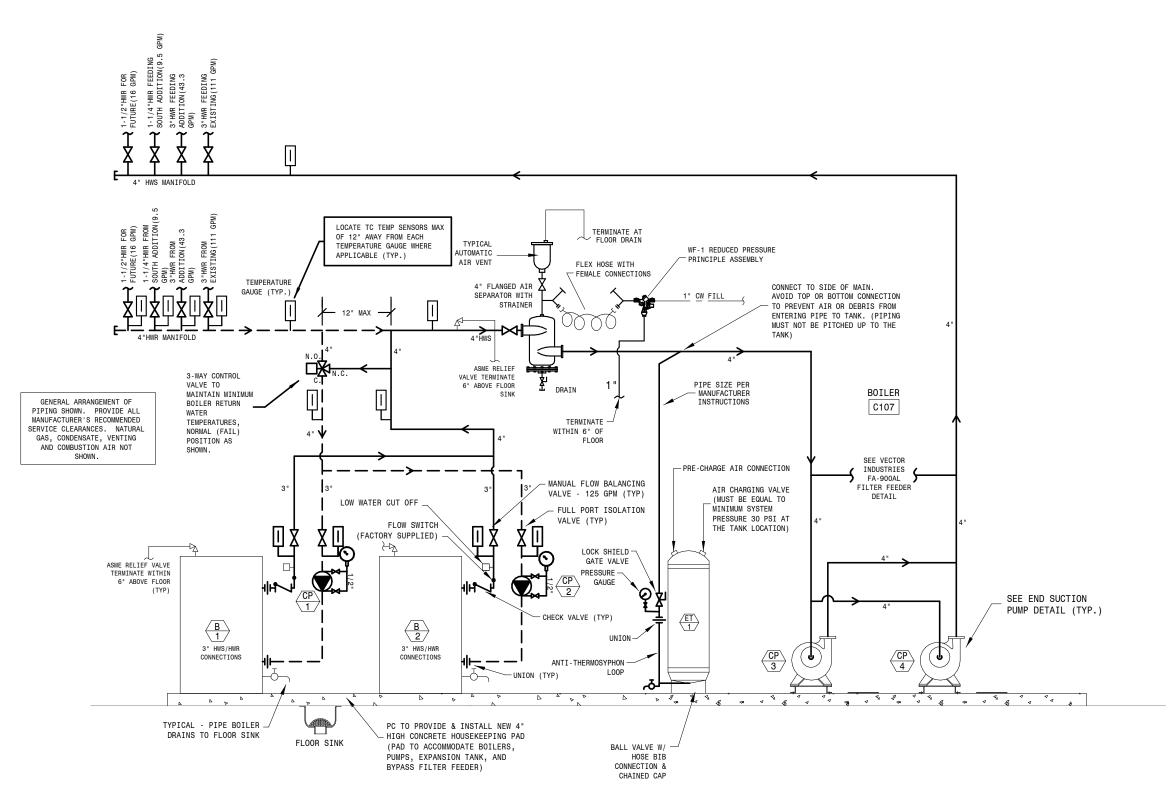
PROJECT:

WILLOW LAKE SCHOOL ADDITION

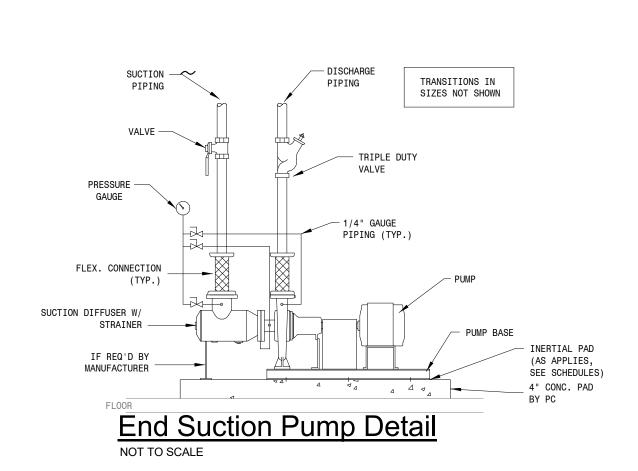
WILLOW LAKESCHOOL DISTRICT WILLOW LAKE, SOUTH DAKOTA

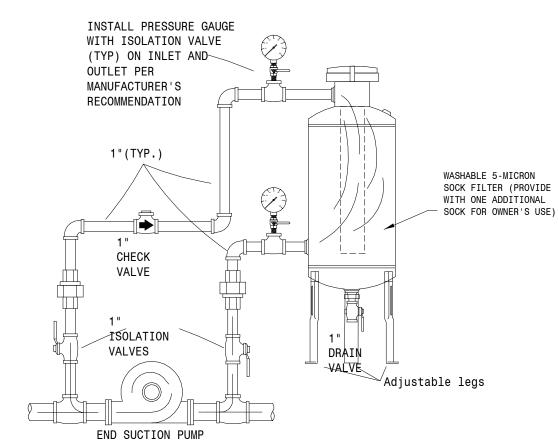
SHEET TITLE:

MECHANICAL DETAILS CONTINUED



### Heating Water System Piping Diagram NOT TO SCALE

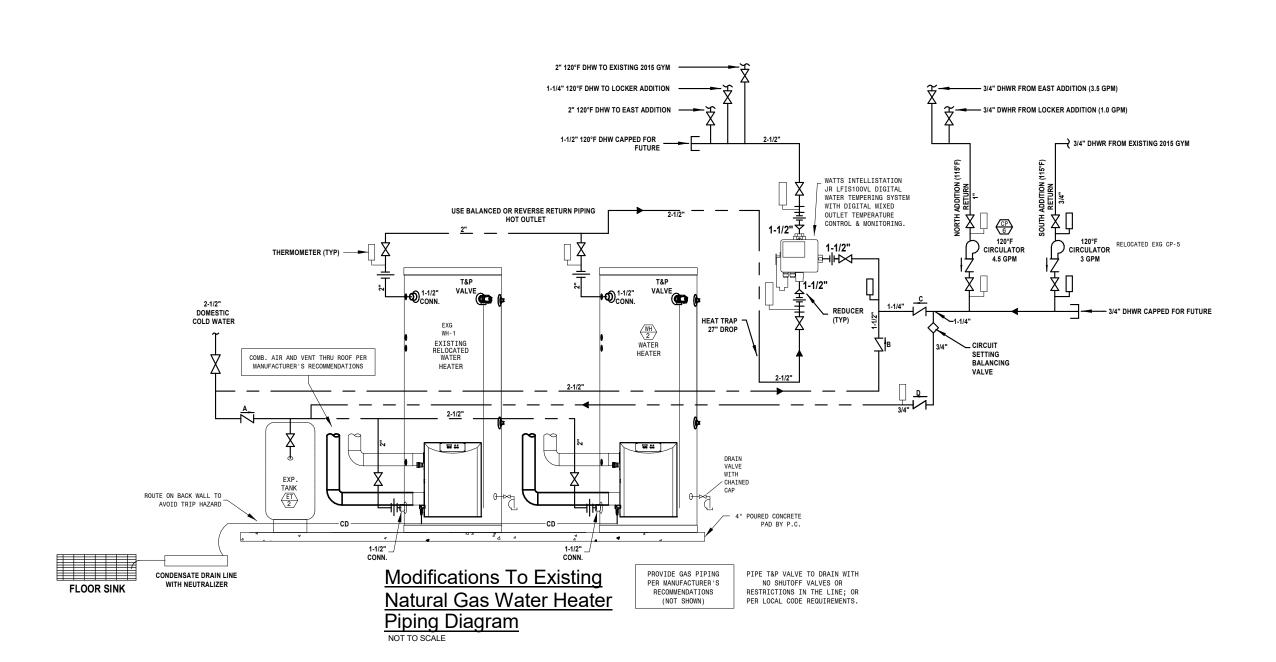


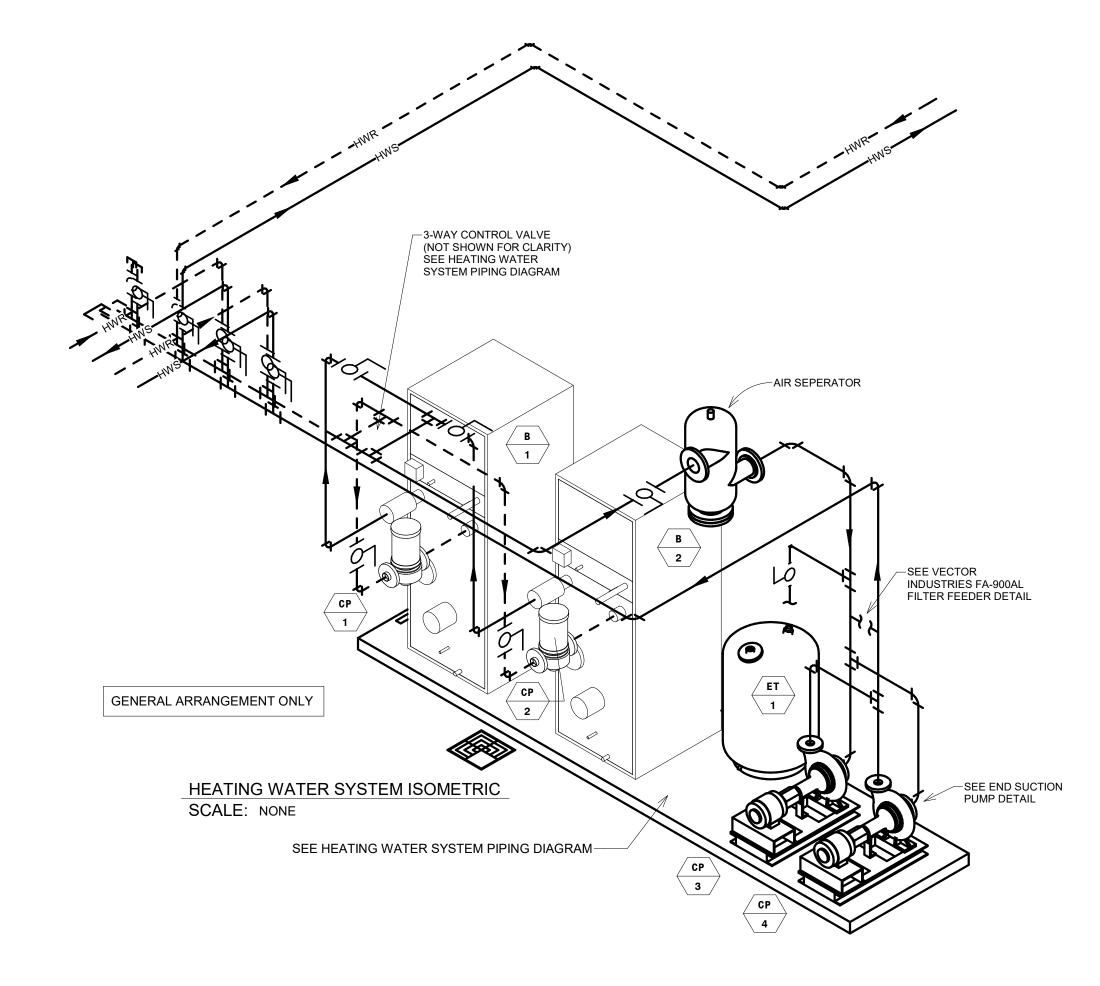


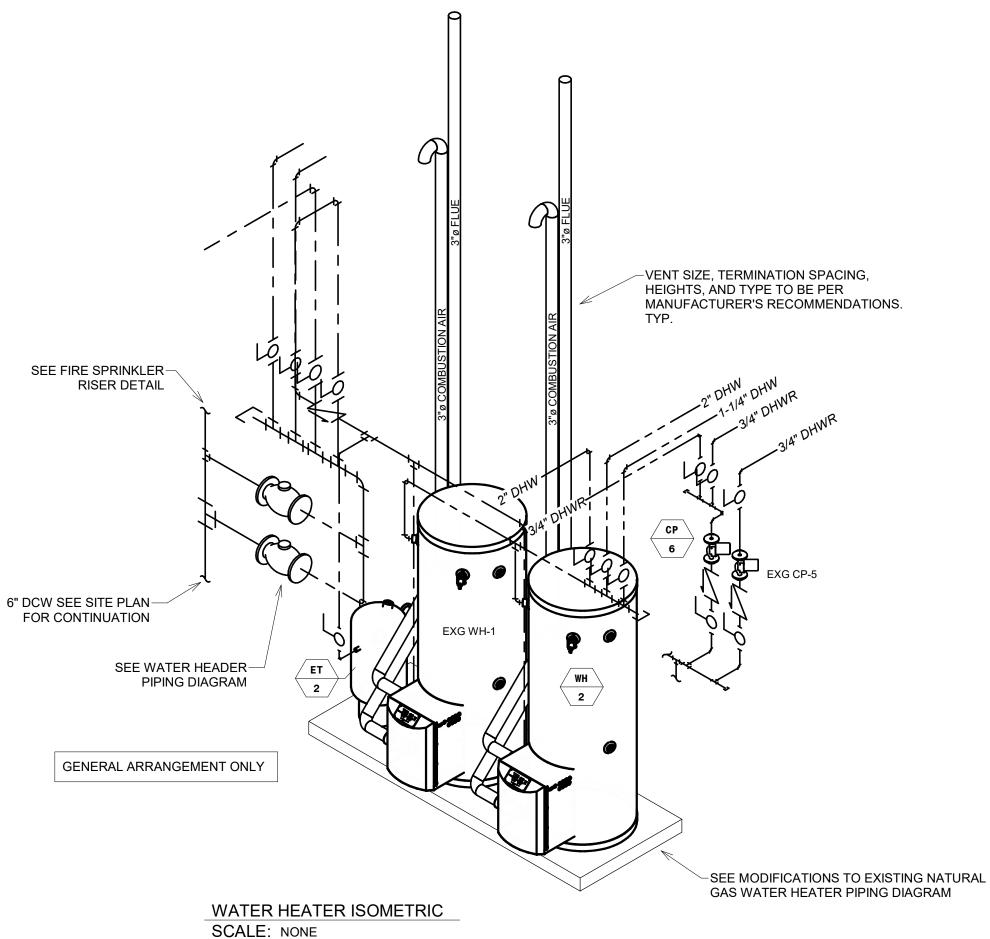
Vector Industries FA-900AL

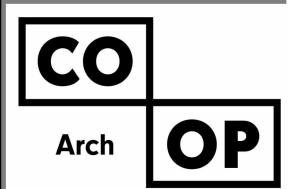
(with adjustable legs)

High Flow Bypass Filter Feeder Detail









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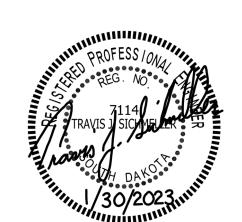
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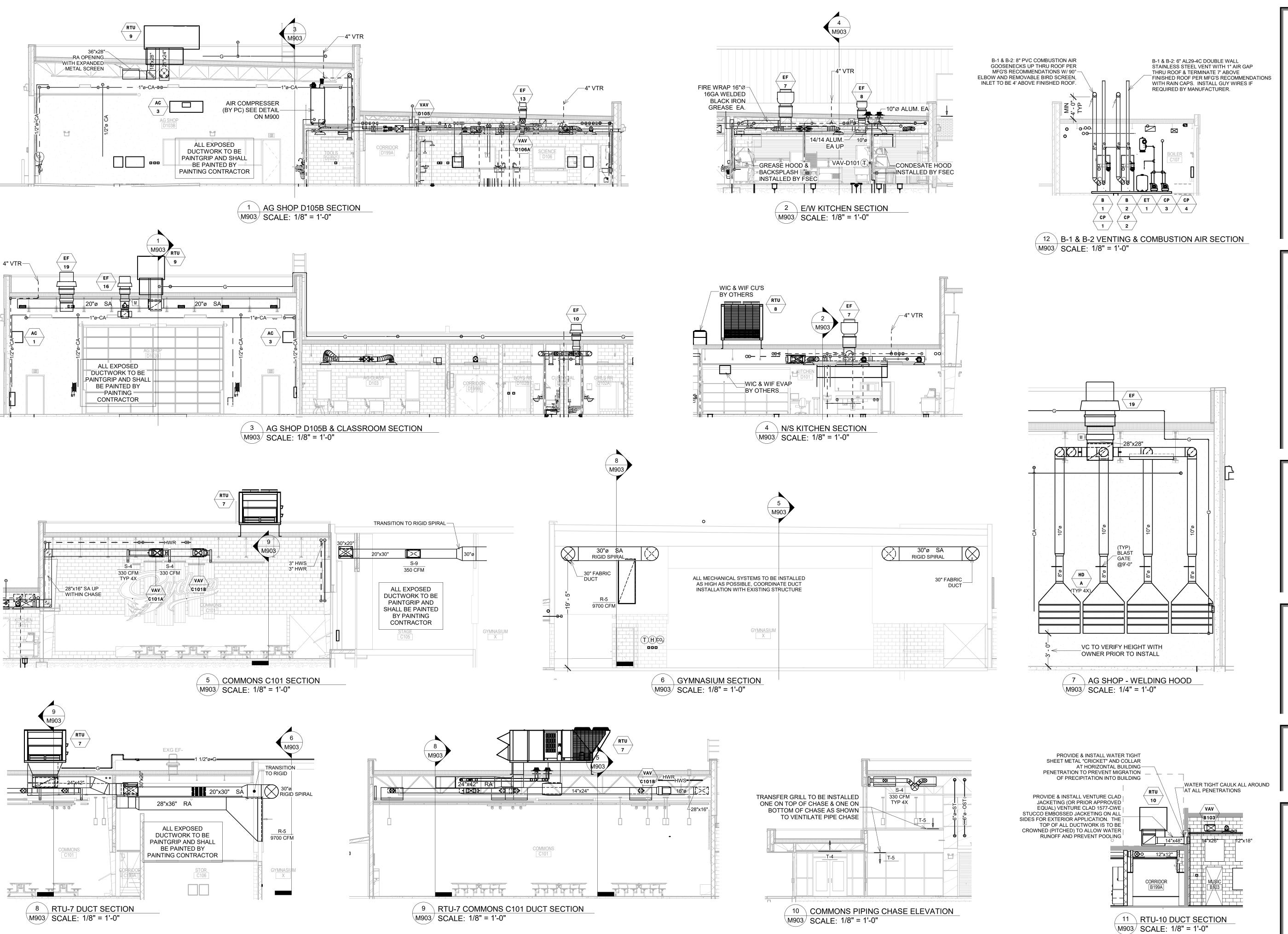
PROJECT:

WILLOW LAKE SCHOOL ADDITION

WILLOW LAKESCHOOL DISTRICT WILLOW LAKE, SOUTH DAKOTA

SHEET TITLE:

MECHANICAL DETAILS & ISOMETRICS



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PROJECT:

WILLOW LAKE SCHOOL ADDITION

WILLOW LAKESCHOOL DISTRICT WILLOW LAKE, SOUTH DAKOTA

SHEET TITLE:

MECHANICAL SECTIONS

									PACK	AGED R	OOFTOP	UNIT	SCH	<b>EDULE</b>	- NA	TURAI	_ GAS	HEAT													\(\frac{1}{2}\)
					SUPPLY	POWERED				COOLING				HOT GAS REHEAT				NATURAL GAS HEA	TING				MOTOR				ELECTRICAL				
EQUIP. NO. MANUFACTURER & MODEL	LOCATION	SERVING	SUPPLY AIR CFM	OUTSIDE AIR CFM	FAN E.S.P. (IN)	EXHAUST FAN E.S.P. (IN)	NOM. TONS	TOTAL MBH	EAT (DB/WB) (°F)	LAT (DB/WB) (°F)	EER	IEER	МВН	LAT (DB/WB) (°F)	%RH	MBH INPUT	MBH OUTPUT	EAT (DB) (°F)	LAT (DB) (°F)	STAGES	QTY	HP (EACH)	FRPM	FAN TYPE/ SIZE (IN) EACH	V./PH./CY.	FLA	MCA	MOCP	MIN SCCR (KAIC)	UNIT WEIGHT (LBS)	NOTE
RTU-7 JCI JV28T3DX2K1CARA6L2	NEW ADDITION ROOF	EXG GYMNASIUM	9,700	3,400	2.27	0.2	27 1/2	306.5	80.1/66.4	60.2/56.3	10.5	13.8	-	-	-	620.0	502.2	36.9	84.8	MOD	1	15	1077	-	208/3/60	-	178.3	200	65	5,040 + CURB	1,3,4,6 9,10,
RTU-8 JCI JV40T3DH2K1CARA6L2	NEW ADDITION ROOF	CLASSROOM ADDITION VAV TERMINALS	14,860	3,700	2.33	0.2	40	427.6	78.9/65.0	58.4/55.5	10.8	15.2	-	-	-	800.0	648.0	44.9	85.3	MOD	1	20	1006	-	208/3/60	-	223.2	275	65	6,877 + CURB	1,2,3,6 9,10,
RTU-9 JCI ZT120S24R2D6BCD2E2	NEW ADDITION ROOF	SHOP	3,140	1,090	1.55	0.2	10	117.4	80.6/65.6	54.6/53.1	13.1	21.2	-	-	-	240.0	194.0	40.5	97.7	2	1	3	1264	-	208/3/60	-	75.6	90	65	1,725 + CURB	1,4,5,6 9,10,
RTU-10 JCI ZT150S24R2D6BCD2A2	EXG ROOF	AREA B REMODEL VAV TERMINALS	4,500	1,350	1.25	0.2	12 1/2	149.4	79.7/65.5	55.9/54.5	12.5	20.2	-	-	-	240.0	194.0	31.6	71.5	2	1	5	1466	-	208/3/60	-	83.1	100	65	1,743 + CURB	1,2,5,6 9,10,
NOTES: 1. PROVIDE UNIT WITH FACTORY INST	AV APPLICATION WITH FACTORY INS	FRACE FOR CONNECTION TO BUILDING DDC SYSTEM. FALLED VFD ON SUPPLY FAN, FACTORY POWERED CONVENIENCE	E OUTLET, THROUGH THE	HE BASE ELECTRICAL	PROVISIONS, PHASE	MONITOR, 2" MERV	8 PLEATED FILTERS	AND FACTORY INST	TALLED ENTHALPY ECONO	OMIZER WITH MODULATING	POWERED EXHAUST.	DELOW SWITCH HIGH	HEAT ELLIE EVHALIS	ET EACTORY INSTALLED	LOUIVEDED HATI	CHARDS HINGED A	CESS DANELS AND S	EDVICE ISOLATION VAL	ures.							•					•

2. PROVIDE UNIT CONFIGURED FOR NAW APPLICATION WITH FACTORY INSTALLED UPON SUPPLY FAM, FACTORY POWERD COMMENDED CONFERD COMPENIED CONFIDENCING, 2" MERV 8 PLEATED FILTERS AND FACTORY INSTALLED CONSTRUCTION, 4-STACE COLDING, 4-STACE COLDING, 5-MAGE MONITOR, 2" MERV 8 PLEATED FILTERS AND FACTORY INSTALLED CONSTRUCTION, FACTORY INSTALLED CONSTRUCTION, FACTORY INSTALLED CONSTRUCTION, FACTORY INSTALLED CONSTRUCTION, SHAFT GROUNDED RESIDENCE OF STRUCT, HIGH HEAT FLUE EMMANT, FACTORY INSTALLED CONTROLLED CONT

			DUST	COLL	ECTOR S	CHEDU	LE				DC
EQUIP.	MANUFACTURER & MODEL	SERVING	LOCATION	CFM	STATIC PRESS.		E	LECTRICAL		UNIT WEIGHT	NOTES
NO.	MANOT ASTOTELL & MODEL	OLIVING.	LOURITON	OT III	(IN W.G.)	HP	FRPM	VOLT./PH./CY.	FLA	(LBS)	NOTES
DC - 1	JET DC-1100VX-CK	SEE PLANS	AG SHOP D105B	1100	10.5	1 1/2		120/1/60	11.0	117	1,2
NOTES:	PORTABLE DUST COLLECTOR W.     PROVIDE WITH TWO ANTI-STA BLAST GATES AT EACH PIECE	TIC DUCT HOSES & ACCESS	ORIES NECESSARY TO SERVE	OWNER EQUIPMÉN	T, INCLUDING RIGID	CONNECTIONS W	/ITH				

								AIR	CLE	ANER	SCH	EDUL	.E									(AC)
									ELECTRIC	PRE-HEAT		NATURA	L GAS HEAT	(10:1 TU	RNDOWN)		ELECT	RICAL			UNIT	
EQUIP NO.	MANUFACTURER & MODEL	SERVING	SUPPLY AIR CFM	OUTSIDE AIR CFM	E.S.P. (IN)	T.S.P. (IN)	FAN RPM	CAPACITY (KW)	STAGES	EAT (°F) (DB/WB)	LAT (°F) (DB/WB)	MBH INPUT	MBH OUTPUT	EAT (°F) (DB/WB)	LAT (°F) (DB/WB)	MOTOR HP	V./PH./CY.	FLA	MCA	МОСР	WEIGHT (LBS)	NOTES
AC-1	BLUE OX OX3000	AG SHOP D105B	3000	-	-	-	-	-	-	-	-	-	-	-	-	3/4	120/1/60	10.2	12.8	20	165	1,2,3
AC-2	BLUE OX OX3000	AG SHOP D105B	3000	-	-	-	-	-	-	-	-	-	-	-	-	3/4	120/1/60	10.2	12.8	20	165	1,2,3
AC-3	BLUE OX OX3000	AG SHOP D105B	3000		-	-		-	-	-	-	-	-	-	-	3/4	120/1/60	10.2	12.8	20	165	1,2,3
	1. PROVIDE WITH (2) 24X 2. PROVIDE WITH SILENCE 3. PROVIDE WITH MAGNAHE	R WITH 4 WAY	DIRECTIONAL		S AND (2	) 24X24X	22 65%	8 POCKET	BAG FILTE	RS.												

						VA	V TE	RMIN	AL S	CHE	ULE								VAV
EQUIP.		MAX	MIN	INLET	MAX	MAX	MAX			HEA	TING COIL	(EWT =180	)°F)			COIL	RUNOUT	WEIGHT	
NO.	MANUFACTURER & MODEL	CFM	CFM	SIZE	TERM APD	RAD NC	DISCH NC	CFM	MIN MBH	EAT (°F)	LAT (°F)	GPM	LWT (°F)	WPD (FT)	ROWS	CONN. SIZE	SIZE	(LBS.)	NOTES
VAV-218	TITUS DESV	220	90	5	0.50	35	35	220	10.3	55.0	98.3	1.0	158.3	0.22	2	1/2"	3/4"	30	1,2,3,4,
VAV-B101	TITUS DESV	150	80	5	0.50	35	35	120	6.2	55.0	102.5	0.5	154.1	0.06	2	1/2"	3/4"	30	1,2,3,4,
VAV-B103	TITUS DESV	1480	890	12	0.50	35	35	890	29.1	55.0	85.1	1.5	139.2	0.32	2	7/8"	3/4"	45	1,2,3,4,
VAV-B103B	TITUS DESV	200	100	5	0.50	35	35	195	7.4	55.0	90.1	0.5	148.8	0.06	2	1/2"	3/4"	30	1,2,3,4,
VAV-B104A	TITUS DESV	510	310	8	0.50	35	35	310	13.6	55.0	95.4	1.0	151.5	0.29	2	1/2"	3/4"	32	1,2,3,4,
VAV-B104B	TITUS DESV	510	310	8	0.50	35	35	310	13.6	55.0	95.4	1.0	151.5	0.29	2	1/2"	3/4"	32	1,2,3,4,
VAV-B106	TITUS DESV	120	70	5	0.50	35	35	120	6.2	55.0	102.5	0.5	154.1	0.06	2	1/2"	3/4"	30	1,2,3,4
VAV-B107A	TITUS DESV	510	305	8	0.50	35	35	305	13.5	55.0	95.8	1.0	151.7	0.29	2	1/2"	3/4"	32	1,2,3,4
VAV-B107B	TITUS DESV	370	225	6	0.50	35	35	225	10.4	55.0	97.7	1.0	158.1	0.22	2	1/2"	3/4"	30	1,2,3,4
VAV-B108	TITUS DESV	120	65	5	0.50	35	35	120	6.2	55.0	102.5	0.5	154.1	0.06	2	1/2"	3/4"	30	1,2,3,4
VAV-B199A	TITUS DESV	360	145	6	0.50	35	35	285	11.4	55.0	91.9	1.0	156.1	0.22	2	1/2"	3/4"	30	1,2,3,4
VAV-B199B	TITUS DESV	510	205	8	0.50	35	35	405	14.9	55.0	88.9	1.0	148.7	0.29	2	1/2"	3/4"	32	1,2,3,4
VAV-C101A	TITUS DESV	2640	2195	16	0.50	35	35	2295	84.0	55.0	88.8	6.0	150.6	0.69	2	7/8"	1"	60	1,2,3,4
VAV-C101B	TITUS DESV	2640	2195	16	0.50	35	35	2295	84.0	55.0	88.8	6.0	150.6	0.69	2	7/8"	1"	60	1,2,3,4
VAV-C102	TITUS DESV	1010	895	10	0.50	35	35	895	29.2	55.0	85.1	2.0	149.3	0.46	2	7/8"	3/4"	38	1,2,3,4
VAV-C103	TITUS DESV	890	785	10	0.50	35	35	785	28.0	55.0	87.9	2.0	150.6	0.46	2	7/8"	3/4"	38	1,2,3,4
VAV-C107	TITUS DESV	180	75	5	0.50	35	35	140	6.6	55.0	98.3	0.5	152.4	0.06	2	1/2"	3/4"	30	1,2,3,4,
VAV-C109	TITUS DESV	270	115	6	0.50	35	35	240	19.7	55.0	130.8	2.0	159.3	0.79	3	1/2"	3/4"	30	1,2,3,4
VAV-C111	TITUS DESV	240	100	5	0.50	35	35	230	10.5	55.0	97.2	1.0	157.9	0.22	2	1/2"	3/4"	30	1,2,3,4
VAV-C199	TITUS DESV	510	205	8	0.50	35	35	510	19.8	55.0	90.8	1.5	152.3	0.54	2	1/2"	3/4"	32	1,2,3,4
VAV-D101	TITUS DESV	3100	1240	24x16	0.50	35	35	2315	96.7	55.0	93.5	5.0	139.3	0.68	2	7/8"	1"	89	1,2,3,4
VAV-D103	TITUS DESV	1010	900	10	0.50	35	35	900	29.3	55.0	85.0	2.0	149.3	0.46	2	7/8"	3/4"	38	1,2,3,4
VAV-D103A	TITUS DESV	120	65	5	0.50	35	35	120	6.2	55.0	102.5	0.5	154.1	0.06	2	1/2"	3/4"	30	1,2,3,4
VAV-D104	TITUS DESV	1060	935	10	0.50	35	35	935	29.6	55.0	84.2	2.0	148.9	0.46	2	7/8"	3/4"	38	1,2,3,4
VAV-D105	TITUS DESV	170	70	5	0.50	35	35	130	6.4	55.0	100.3	0.5	153.2	0.06	2	1/2"	3/4"	30	1,2,3,4
VAV-D106	TITUS DESV	1190	1055	10	0.50	35	35	1055	40.1	55.0	90.0	4.0	159.0	1.08	2	7/8"	1"	38	1,2,3,4
VAV-D106A	TITUS DESV	200	185	5	0.50	35	35	185	7.3	55.0	91.3	0.5	149.4	0.06	2	1/2"	3/4"	30	1,2,3,4,
VAV-D199	TITUS DESV	1270	510	10	0.50	35	35	1270	36.3	55.0	81.3	2.5	149.5	0.62	2	7/8"	3/4"	38	1,2,3,4

1. SOUND DATA SMALL BE TAKEN FROM ARI STANDARD BBO (LATEST EDITION) PUBLISHED DATA.
2. INLET STATIC PRESSURE FOR TERMINAL SELECTION IS 1.0°. TERMINAL S.P. INCLUDES COIL APD.
3. PERFORMANCE BASED ON 30% PROPYLENE GLYCOL
4. LH OR RH CONNECTION ON COIL PIPING VARIES, SEE PLAN.
5. SEE VAY HEATING COIL PIPING DETAIL.

				FAN	SC	HEDU	JLE								EF
EQUIP.	MANUFACTURER & MODEL	SERVING	LOCATION	TYPE	CFM	LOW SPEED	STATIC PRESS. (IN	SONES			MO.	TOR		UNIT WEIGHT	NOTES
NO.	(STYLE)	OLIVING.	LOOKITON	11112	OI III	CFM	W.G.)	CONED	WATTS	HP	FRPM	VOLT./PH./CY.	FLA	(LBS)	
EF-6	AEROVENT ACXD 120B	EXHAUST - STORAGE C104, GYM STOR. C108, BOYS C109, REF. C110, GIRLS C111	NEW ROOF	PRV	975	-	0.35	9.8	-	1/3	1268	120/1/60	7.2	92	1,2,3,4
EF-7	AEROVENT ATD 180B	GREASE EXHAUST - KITCHEN D101	NEW ROOF	PRV	2550	-	0.50	11.5	-	1	970	208/3/60	4.6	151	2,5,6,
EF-8	AEROVENT PCU 110	CONDENSATE EXHAUST - KITCHEN D101	NEW ROOF	PRV	600	-	0.50	4.0	-	1/8	1025	120/1/60	3.8	72	2,3,4,6,1
EF-9	PANASONIC FV-0511VQ1	EXHAUST - RESTROOM D101A	RESTROOM D101A	CEILING	80	-	0.25	0.6	10.8	-	1172	120/1/60	0.27	9.3	7,8,1
EF-10	AEROVENT ACXD 120B	EXHAUST - GIRLS RR D102A, BOYS RR D102B, CUST. D102C, CHASE ENCLOSURE	NEW ROOF	PRV	550	-	0.30	6.0	-	1/8	983	120/1/60	3.8	92	1,2,3,
EF-11	AEROVENT ACXD 130B	EXHAUST - FACS D104	NEW ROOF	PRV	1440	-	0.35	13.5	-	1/2	1229	120/1/60	9.8	114	1,2,3,4
EF-12	PANASONIC FV-30VQ3	EXHAUST - WORKROOM D105	WORKROOM D107	CEILING	250	-	0.25	2.5	65.8	-	990	120/1/60	0.52	17.0	7,8,
EF-13	AEROVENT PC-083	EXHAUST - SCIENCE PREP D106A	NEW ROOF	PRV	220	-	0.25	5.5	-	1/30	1445	120/1/60	3.0	63	1,2,3,
EF-14	AEROVENT ACXD 130B	EXHAUST - SCIENCE D106	NEW ROOF	PRV	1080	-	0.35	10.4	-	1/4	1064	120/1/60	5.8	114	1,2,3,
EF-15	AEROVENT AFE 90C6	EXHAUST - SCIENCE D106 FUME HOOD	NEW ROOF	PRV	780	-	0.5	20.0	-	1/2	2706	120/1/60	9.8	557	2,4,6
EF-16	AEROVENT ACXD 170B	EXHAUST - SHOP D103B	NEW ROOF	PRV	2200	1090	0.35	11.3	-	1	943	208/3/60	4.6	126	1,2,3,4
EF-17	PANASONIC FV-30VQ3	EXHAUST - WORK ROOM A101	WORK ROOM A101	CEILING	250	-	0.25	2.5	65.8	-	990	120/1/60	0.52	17.0	7,8,
EF-18	AEROVENT ACXD 120B	EXHAUST - BOYS A102 & GIRLS A103	EXG ROOF	PRV	650	-	0.35	7.2	-	1/8	1089	120/1/60	3.8	92	1,2,3
EF-19	AEROVENT ACX 240D	EXHAUST - WELDING HOODS	NEW ROOF	PRV	4000	-	1.5	16.7	-	2	836	208/3/60	7.5	300	1,2,4,2
EF-20	AEROVENT ACX 300D	AREA A RELIEF	EXG ROOF	PRV	10000	-	0.25	16.4	-	2	732	208/3/60	7.5	350	1,2,9
F-21	AEROVENT PC 083	EXHAUST - AREA B&C CHASE INCLOSURE	EXG ROOF	PRV	200	-	0.25	5.1	-	1/30	1391	120/1/60	3.0	63	1,2,3,
EF-A	BROAN MODEL 433004	RANGEHOOD EXHAUST	FACS D106	RANGE HOOD	190		0.1	7.0	207	-		120/1/60	1.8		16,17

S: 1. PROVIDE AND INSTALL LINE VOLTAGE BACKDRAFT DAMPER (MATCH FAN VOLTAGE) TO BE INSTALLED IN THE ROOF CURB.

2. PROVIDE WITH FACTORY WISED FAN SPEED CONTROLLER FOR BALANCING.

3. PROVIDE & INSTALL MINIMUM 19 "HIGH, UNDITED FACTORY POOF CURB, VERIFY SLOPE WITH GC PRIOR TO GROERING.

5. PROVIDE & INSTALL MINIMUM 24" HIGH, VENTED FACTORY ROOF CURB WITH GREASE TERMINATION KIT AND HINGED BASE KIT.

6. ALL ROOFING WORK TO BE SY OTHERS (ROOFING BID PACKAGE), VC, & TC TO COORDINATE.

7. PROVIDE WITH INTEGRAL BACKDRAFT DAMPER, FACTORY PLUG DISCONMECT, AND COME FAN MOTOR WITH 3 SPEED FAN SPEED CONTROLLER.

8. PROVIDE & INSTALL HANGING VIBRATION ISOLATION, FLEXIBLE DUCT CONNECTIONS OR SHORT PIECE OF FLEXIBLE DUCT WITH 2.5 FT STRAIGHT RUN OF 6° RIGID DUCT BEFORE WALL CAP
TERMINATION OR BEFORE UP THEN BOOF TO GOOSSENGKE TERMINATION.

9. VC TO VERLIFY EXISTING CONDITIONS. PROVIDE & INSTALL ROOF CURB ADAPTER AS NECESSARY TO UTILIZE EXISTING ROOF CURB.

10. T.C. TO PROVIDE & INSTALL BRASCH 6SE2-NCM-24 NOZOO GAS DETECTOR WHERE SHOWN ON PLANS. WHEN SWITCH IS EMBALED, FAN TO BE ENABLED AT LOW SPEED INDICATED ON SCHEDULE.

11. T.C. TO PROVIDE & INSTALL BRASCH 6SE2-NCM-24 NOZOO GAS DETECTOR WHERE SHOWN ON PLANS (24V POWER WIRING AND CONTROL WIRING BY TC). WHEN DETECTOR IS ENABLED, TC TO OVERRIDE FAN TO HIGH SPEED INDICATED ON SCHEDULE.

22. FAN TO OPERATE WITH VFD PROVIDED BY TC, INSTALLED BY EC.
23. TC TO PROVIDE & INSTALL LIGHTED PILOT SWITCH WHERE SHOWN ON PLANS NEAR WELDING STATIONS. WHEN SWITCH IS ENABLED, ENABLE FAN.

10. 1.C. 10 PROVIDE & INSTALL ENSHIED FILDI SWITCH BYEARS A NOCCO GAS DETECTOR WHERE SHOWN ON PLANS (24V POWER WIRING AND CONTROL WIRING BY TC). WHEN DETECTOR IS EMABLED, TC TO OVERRIDE FAN TO HIGH SPEED INDICATED ON SCHEDULE.

12. FAN TO OPERATE WITH LIGHTER PLICIT SWITCH BY E.C.

13. FAN TO OPERATE WITH LIGHTER BY BY E.C.

14. FAN TO OPERATE WITH LIGHTER BY BY E.C.

15. FAN TO OPERATE WITH LIGHTER BY BY E.C.

16. FAN TO OPERATE WITH LIGHTER SWITCH BY E.C.

17. FAN TO OPERATE WITH LIGHTER BY BY E.C.

18. FAN TO OPERATE WITH INTEGRAL SWITCH OF GREASE HOOD HD-1. E.C. TO PROVIDE & INSTALL CONTROL WIRING.

18. FAN TO OPERATE WITH INTEGRAL SWITCH OF GREASE HOOD HD-1. E.C. TO PROVIDE & INSTALL CONTROL WIRING.

19. PROVIDE UNIT WITH INTEGRAL BACKGRAFT DAMPER AND INTEGRAL TWO-SPEED SWITCH. WHERE NOTED ON PLANS, WALL SWITCH CONTROL TO BE INSTALLED FOR ADA COMPLIANCE BY EC (RPILAGES INTEGRAL TWO-SPEED SWITCH).

17. SCHEDULED RANGEHOOD IS 30° WIDTH AND STAINLESS STEEL FINISH. CONTRACTOR SHALL VERIFY EXACT WIDTH BEFORE CROERING.

18. REFER TO ARCHITECTURAL PLANS FOR HOOD INSTALLATION HEIGHT ABOVE COOKING SURFACE (1s' MINIMUM, 25° MAXIMUM ABOVE COOKING SURFACE).

19. PROVIDE CONSTANT VOLUME BELT DRIVEN UNIT WITH HINIMUM 3000 FPH OUTLET VELOCITY, BOLTED ACCESS DOOR, DAILN, WEATER COVER WITH DISCHARGE BACKDRAFT DAMPER WITH VENTURE CAP, EXTENDED LIVEL LINES, STAINLESS STEEL HARDWARE, AND OPTIONAL STACK TO ACHIEVE MINIMUM OVERALL TERMINATION HEIGHT OF TOFT ABOVE CURB. PROVIDE & INSTALL PVC COATED EXHAUST DUCT FOR 12° EXHAUST CONNECTION OF HOOD. HOOD BY OTHERS. FAN TO OPERATE WITH INTEGRAL SWITCH ON HOOD, WIRED BY E.C.

20. T.C. TO PROVIDE & INSTALLED BY V.C. PROVIDE & INSTALL ALL NECESSARY CONTROLS TO MODULATE THE EXHAUST FAN BASED ON COMMON DUCT PRESSURE. AS THE PRESSURE WARLES, T.C. TO ADJUSTE & WITH A MINITAL THE PRESSURE SET-DRIVEN WITH SEES SPEED FORTOMERS. TO PROVIDE AND INSTALL TIME SWITCH TO OVERALE WITH YEAR OF THE AIR TOWN OF THE FAN TO MAINTAIN THE PERESON FOR HEAVE THE SWING SWING HARD WERE BUY AND A TOWN OF THE FA

IIP. O.	MANUFACTURER & MODEL	NOMINAL SIZE	THROAT SIZE	MAX CFM	MAX APD	THROW (50 FPM)	NC	FRAME	MATERIAL	FINISH	NOTES
-1	TITUS TMS	24X24	6"Ø	100	0.03"	5'	< 10	LAY-IN	STEEL	WHITE	1
S-2	TITUS TMS	24X24	8"ø	230	0.04"	9'	14	LAY-IN	STEEL	WHITE	1
S-3	TITUS TMS	24X24	10"ø	410	0.06"	14'	20	LAY-IN	STEEL	WHITE	1
S-4	TITUS ML-39 3-SLOT	48" X 6-3/4"	47-1/4" X 5-7/8"	360	0.07"	22 '	28	SURFACE	ALUMINUM	WHITE	1,4
S-5	TITUS ML-39 1-SLOT	48" X 3-1/4"	47-1/4" X 2-3/8"	100	0.05"	16'	19	SURFACE	ALUMINUM	WHITE	1,6
S-6	TITUS 300RL	8X6	6X4	50	0.04"	10'	< 10	SURFACE	STEEL	WHITE	1
S-7	TITUS 300RL	10X8	8X6	110	0.04"	15'	< 10	SURFACE	STEEL	WHITE	1
S-8	TITUS 300RL	12X10	10X8	200	0.04"	20 '	< 10	SURFACE	STEEL	WHITE	1
S-9	TITUS 300RL	16X12	14X10	350	0.04"	27'	13	SURFACE	STEEL	WHITE	1
S-10	TITUS S300FL	16X10	14X8	265	0.04"	23 '	< 10	DUCT MTD	STEEL	WHITE	1,2,5
S-11	TITUS PAS-AA	24X24	8X8	230	0.09"	12'	20	LAY-IN	STEEL	WHITE	1
S-12	TITUS PAS-AA	24X24	10X10	325	0.08"	14'	21	LAY-IN	STEEL	WHITE	1
R-1	TITUS 350RL	24X12	22X10	800	0.07"		30	LAY-IN	STEEL	WHITE	1,3
R-2	TITUS 350RL	24X24	22X22	1800	0.07"		34	LAY-IN	STEEL	WHITE	1,3
R-3	TITUS 350RL	10X8	8X6	110	0.04"		20	SURFACE	STEEL	WHITE	1,3,4
R-4	TITUS 350RL	50X16	48X14	1480	0.02"		30	SURFACE	STEEL	WHITE	1,3
R-5	TITUS 33RS	38X98	36X96	9700	0.04"		27	SURFACE	STEEL	WHITE	1
R-6	TITUS 350RL	24X8	22X6	250	0.02"		22	LAY-IN	STEEL	WHITE	1,3
E-1	TITUS 350FL	10X8	8X6	100	0.03"		19	SURFACE	ALUMINUM	WHITE	1,2,3
E-2	TITUS 350FL	24X8	22X6	250	0.02"		22	LAY-IN	ALUMINUM	WHITE	1,3
E-3	TITUS 350FL	24X24	22X22	540	0.01"		22	LAY-IN	ALUMINUM	WHITE	1,2,3
E-4	TITUS 350FL	12X12	10X10	220	0.03"		22	SURFACE	ALUMINUM	WHITE	1,3
T-1	TITUS 350RL	24X12	22X10	800	0.07"		30	LAY-IN	STEEL	WHITE	1,3,4
T-2	TITUS 350RL	24X24	22X22	1800	0.07"		34	LAY-IN	STEEL	WHITE	1,3,4
T-3	TITUS 350RL	18X18	16X16	500	0.02"		25	SURFACE	STEEL	WHITE	1,3
T-4	TITUS MLR-39 2-SLOT	60" X 5"	59-1/4" X 4-1/8"	250	0.03"		15	SURFACE	ALUMINUM	WHITE	1,6
T-5	TITUS MLR-39 2-SLOT	36" X 5"	35-1/4" X 4-1/8"	150	0.03"		13	SURFACE	ALUMINUM	WHITE	1,6
T-6	TITUS 350RL	10X8	8X6	100	0.03"		19	SURFACE	STEEL	WHITE	1,3

EQUIP.	MANUFACTURER & MODEL	SERVING	COOLING CAPACITY	HEATING CAPACITY	REFRIGERA	NT PIPING	ELEC	TRICAL				DIMENSIONS		UNIT	NOTES
NO.	MANUFACIURER & MUDEL	SERVING	(BTU/HR.)	(BTU/HR @47F)	LIQUID	SUCTION	V./PH./CY.	FLA	MOCP	WI	DTH	HEIGHT	DEPTH	(LBS)	NOTES
DSA-10A	SAMSUNG ACOO9BNNDCH/AA CEILING CASSETTE	SM GROUP A103A	9,100	10,000	1/4"	3/8"	208/1/60	0.3	N/A	22-	5/8"	10"	22-5/8"	25.6	1,2,3,4
DSA-10B	SAMSUNG ACOO9BNNDCH/AA CEILING CASSETTE	SPEECH A103B	9,100	10,000	1/4"	3/8"	208/1/60	0.3	N/A	22-	5/8"	10"	22-5/8"	25.6	1,2,3,4
DSA-10C	SAMSUNG ACOOSBNNDCH/AA CEILING CASSETTE	0T/PT A103C	9,100	10,000	1/4"	3/8"	208/1/60	0.3	N/A	22-	5/8"	10"	22-5/8"	25.6	1,2,3,4
DSA-10D	SAMSUNG ACOO9BNNDCH/AA CEILING CASSETTE	CORRIDOR A199	9,100	10,000	1/4"	3/8"	208/1/60	0.3	N/A	22-	5/8"	10"	22-5/8"	25.6	1,2,3,4
DSA-11A	SAMSUNG AC018BNNDCH/AA CEILING CASSETTE	SM GROUP A105	17,400	20,000	1/4"	1/2"	208/1/60	0.3	N/A	22-	5/8"	10"	22-5/8"	26.0	1,2,3,4,
DSA-11B	SAMSUNG AC018BNNDCH/AA CEILING CASSETTE	SPEECH A106	17,400	20,000	1/4"	1/2"	208/1/60	0.3	N/A	22-	5/8"	10"	22-5/8"	26.0	1,2,3,4,
	PROVIDE WITH 4-WAY AIRFLOW PROVIDE WITH FRESH AIR DUC		,	,											/
5.			DUCT	LESS SP			OUTDO			SCH	łEDUL			IINTT	\(\sigma_{\text{DS}}\)
5.			,	LESS SP	REFRIG	ERANT PIPING		ELECTRIC	AL .			DIMENSIONS	ПЕРТИ	UNIT WEIGHT	NOTES
EQUIP. NO.	PROVIDE WITH FRESH AIR DUC	T CONNECTION KIT.	DUCT	LESS SP	REFRIG	SUCTION	OUTDO  V./PH./CY. 208/1/60			SCH MOCP	HEDUL WIDTH 37"		<b>DEPTH</b> 13*		
EQUIP.	PROVIDE WITH FRESH AIR DUC	SERVING	DUCT  COOLING CAPACITY (BTU/HR)	LESS SP HEATING CAPACII (BTU/HR @47F)	REFRIG	SUCTION (2) 3/8" (2) 1/2"	V./PH./CY.	ELECTRIC FLA	AL MCA	MOCP	WIDTH	DIMENSIONS HEIGHT		WEIGHT (LBS)	

DUCTLESS SPLIT SYSTEM INDOOR UNIT SCHEDULE

					F	AN CO	IL S	CHE	DUL	E								FC
EQUIP				SUPPLY	OA.	ESP	DX		HEATI	NG COIL	(EWT =	180.0)		EL	ECTRICAL		WEIGHT	
NO.	MANUFACTURER & MODEL	SERVING	LOCATION	AIR (CFM)	(CFM)	(IN. W.G.)	COOLING MBH	MBH	EAT	LAT	LWT	GPM	WPD	V/PH/CY	MCA	MOCP	(LBS.)	NOTES
FC-A101	JCI FHP-D06	RMS A101,244, 245 & 266	WORK ROOM A101	500	140	0.25	N/A	28.7	43.8	96.4	160.0	3.0	5.3	120/1/60	2.5	15	59	1,4,5,6,7,8,9
FC-A103	JCI FNP12	ELEM FLEX A103	CORRIDOR A199	1000	290	0.25	27.9	46.9	40.0	81.3	160.0	4.7	4.0	120/1/60	9.63	15	246	1,2,3,4,5,6,7,8
3. 4. 5. 6. 7.	PROVIDE & INSTALL COOLIN PROVIDE WITH FACTORY MIX PROVIDE WITH 2" (MERV 8) LH OR RH CONNECTION ON C	G CONDENSATE & VING BOX WITH RESIDE ACCESS FILE OIL PIPING VARIE URE 30% PROPYLEE TALLED TOGGLE DE	VENT DRAIN PIPIN TURN AIR AND OUT LTERS AND (1) AD ES, SEE PLANS. C NE GLYCOL (PROPO ISCONNECT SWITCH	G PER MANU SIDE AIR C DITIONAL S OORDINATE SED SYSTEM	FACTURER'S DNTROL DAMI ET OF DISPO HANDING WI TO BE 1009	RECOMMENDATION PERS. DSABLE FILTER TH THE PC PRION NOTE: INHIBITED W.	ONS & PLUMB: S. OR TO ORDER: ATER).	ING CODE	DOWN TO	O MOP S	INK.		BE NORM	LLY CLOSED.	тс то г	PROVIDE A	CTUATOR A	ND CONTROL.

	Α	IR COOL	ED CONDE	NSING U	NIT SCH	EDULE			CU
HANNIFACTURER & HORE	0504705		COOLING			ELECTRICAL		WEIGHT	HOTEO
MANUFACTURER & MODEL	SERVICE	AMB. TEMP	BTU/HR	SEER	V./PH./CY.	MCA	MOCP	(LBS.)	NOTES
FRASER-JOHNSTON TC17B3621S	FC-A103	95.0	32,100	17.0	208/1/60	21.4	35	265	1,2,3,4,5
PROVIDE & INSTALL HARD START KIT A PROVIDE & INSTALL PRE-INSULATED RE ROOFING WORK BY ROOFING CONTRACTOR, A	ND LIQUID LINE SOL FRIGERANT LINESETS LL TRADES TO COORDIN MANUFACTURED ROOF BL	ENOID VALVE. . LINESETS AND INS ATE. SEE REFRIGERATIO	SULATION TO BE UV RE ON RL/RS ROOF CURB DET	SISTANT.	,		18" HIGH 18X18 ROOF		
	PROVIDE & INSTALL LIQUID LINE FILT PROVIDE & INSTALL HARD START KIT A PROVIDE & INSTALL PRE-INSULATED RE ROOFING WORK BY ROOFING CONTRACTOR, A CURB, AND INSTALL RL/RS NEATLLY ON PRE-	MANUFACTURER & MODEL  FRASER-JOHNSTON TC1783621S  FROVIDE & INSTALL LIQUID LINE FILTER DRYER, ANTI-SHO PROVIDE & INSTALL HARD START KIT AND LIQUID LINE SOL PROVIDE & INSTALL PRE-INSULATED REFRIGERANT LINESETS ROOFINS WORK BY ROOFING KONTRACTOR, ALL TRADES TO COORDIN	MANUFACTURER & MODEL  SERVICE  AMB. TEMP  FRASER-JOHNSTON TC1783621S  FC-A103  95.0  PROVIDE & INSTALL LIQUID LINE FILTER DRYER, ANTI-SHORT CYCLE TIMER, TXX  PROVIDE & INSTALL HARD START KIT AND LIQUID LINE SOLENOID VALVE.  PROVIDE & INSTALL PRE-INSULATED REFRIGERANT LINESETS. LINESETS AND INS  ROOFINW MORK BY MOOFING CONTRACTOR, ALL TRADES TO COORDINATE. SEE REFRIGERATI	MANUFACTURER & MODEL  SERVICE  AMB. TEMP  BTU/HR  FRASER-JOHNSTON TC17B3621S  FC-A103  95.0  32,100  PROVIDE & INSTALL LIQUID LINE FILTER DRYER, ANTI-SHORT CYCLE TIMER, TXV KIT, LOW AMBIENT OF PROVIDE & INSTALL HARD START KIT AND LIQUID LINE SOLENDID VALVE. PROVIDE & INSTALL PRE-INSULATED REFIGERANT LINESETS. LINESETS AND INSULATION TO BE UV RE	MANUFACTURER & MODEL  SERVICE  AMB. TEMP BTU/HR  SEER  FRASER-JOHNSTON TC17B3621S  FC.A103  95.0  32,100  17.0  PROVIDE & INSTALL LIQUID LINE FILTER DRYER, ANTI-SHORT CYCLE TIMER, TXV KIT, LOW AMBIENT CONTROL, RUBBER ISO PROVIDE & INSTALL PRE-INSULATED REFRIGERANT LINESETS. LINESETS AND INSULATION TO BE UV RESISTANT. ROOFING WORK BY ROOFING CONTRACTOR, ALL TRADES TO COORDINATE. SEE REFRIGERATION RL/RS ROOF CUBB DETAIL FOR LINESETS/POW	MANUFACTURER & MODEL  SERVICE  AMB. TEMP  BTU/HR  SEER  V./PH./CY.  FRASER-JOHNSTON TC1783621S  FC.4103  95.0  32,100  17.0  208/1/60  PROVIDE & INSTALL LIQUID LINE FILTER DRYER, ANTI-SHORT CYCLE TIMER, TXV KIT, LOW AMBIENT CONTROL, RUBBER ISOLATION KIT, & GRANN PROVIDE & INSTALL HARD START KIT AND LIQUID LINE SOLENOID VALVE. PROVIDE & INSTALL PRE-INSULATED REFRIGERANT LINESETS. AND INSULATION TO BE UV RESISTANT. ROOFINW ORMS by MODIFUS CONTRACTOR, ALL TRADES TO COMORDINATE. SEE REFRIGERATION BL/RS ROOF CURB DETAIL FOR LINESETS/POWER TO CU THRU ROOF.	MANUFACTURER & MODEL  SERVICE  AMB. TEMP BTU/HR SEER V./PH./CY. MCA  FRASER-JOHNSTON TC1783621S FC-A103 95.0 32,100 17.0 208/1/60 21.4  PROVIDE & INSTALL LIQUID LINE FILTER DRYER, ANTI-SHORT CYCLE TIMER, TXV KIT, LOW AMBIENT CONTROL, RUBBER ISOLATION KIT, & CRANKCASE HEATER. PROVIDE & INSTALL HARD START KIT AND LIQUID LINE SOLENDID VALVE. PROVIDE & INSTALL PRE-INSULATED REFRIGERANT LINESETS AND INSULATION TO BE UV RESISTANT. ROOFING WORK BY ROOFING CONTRACTOR, ALL TRADES TO COORDINATE. SEE REFRIGERATION RL/RS ROOF CURB DETAIL FOR LINESETS/POWER TO CU THRU ROOF. PROVIDE & INSTALL MIN	MANUFACTURER & MODEL  SERVICE  AMB. TEMP BTU/HR SEER V./PH./CY. MCA MOCP  FRASER-JOHNSTON TC1783621S FC-A103 95.0 32,100 17.0 208/1/60 21.4 35  PROVIDE & INSTALL LIQUID LINE FILTER DRYER, ANTI-SHORT CYCLE TIMER, TXV KIT, LOW ANBIENT CONTROL, RUBBER ISOLATION KIT, & CRANKCASE HEATER. PROVIDE & INSTALL HARD START KIT AND LIQUID LINE SOLENOID VALVE. PROVIDE & INSTALL PRE-INSULATED REFRIGERANT LINESETS. AND INSULATION TO BE UV RESISTANT. ROOFING WORK BY ROOFING CONTRACTOR, ALL TRADES TO CORDINATE. SEE REFRIGERATION BL/DS ROOF COURB DETAIL FOR LINESETS/POWER TO CU THRU ROOF. PROVIDE & INSTALL MIN 18* HIGH 18X18 ROOF	MANUFACTURER & MODEL  SERVICE  AMB. TEMP BTU/HR SER V./PH./CY. MCA MOCP (LBS.)  FRASER-JOHNSTON TC1783621S FC-A103 95.0 32,100 17.0 208/1/60 21.4 35 265  PROVIDE & INSTALL LIQUID LINE FILTER DRYER, ANTI-SHORT CYCLE TIMER, TXV KIT, LOW AMBIENT CONTROL, RUBBER ISOLATION KIT, & CRANKCASE HEATER. PROVIDE & INSTALL HARD START KIT AND LIQUID LINE SOLENOID VALVE. PROVIDE & INSTALL PRE-INSULATED REFRIGERANT LINESETS. AND INSULATION TO BE UV RESISTANT. ROOFING WORK BY ROOFING WORK B

			INT	AKE HO	OD SCHI	EDULE					(IH)
EQUIP. NO.	MANUFACTURER & MODEL	LOCATION	SERVING	CFM	S.P. (IN. H <sub>2</sub> 0)	FACE VELOCITY (FPM)	THROAT SIZE	THROAT VELOCITY (FPM)	UNIT WEIGHT (LBS)	BIRD/ INSECT SCREEN	NOTES
IH-1	ACME MANUFACTURING TIV	EXG FLAT ROOF	FC-A103 OUTSIDE AIR INTAKE	1000	0.01	155	21X21	327	130	Y/N	1,2,3
	. PROVIDE NEOPRENE GASKET FO	OR CURBS AND MINI	RACING & OVERHANG FOR STORM PR MUM 24" THROAT.	OTECTION.							

		_									
SERVING	LOCATION	EXHAUST AIR (CFM)	STATIC PRESSURE LOSS (IN. W.G.)	EXHAUST AIR CONNECTION (IN. DIAM)	WIDTH (IN)	DEPTH (IN)	HEIGHT (IN)	NO. OF SLOTS	SLOT HEIGHT (IN)	UNIT WEIGHT (LBS)	NOTES
4 WELDING STATION	SHOP D103B	1,000	1.5	8	45"	8"	34"	4	13/32	-	1,2,3
R	SERVING  H4 WELDING STATION RED SLOTTED FUME EXHAUST HOO		SERVING   LOCATION   AIR (CFM)		SERVING	SERVING   LOCATION   AIR   LOSS   CONNECTION   (IN. W.G.)   (IN. DIAM)	SERVING	SERVING	SERVING	SERVING   LOCATION   AIR   LOSS   CONNECTION   (IN)   (I	SERVING

			HVA	AC SHEET	METAL	. DUCT	WORK C	ONSTRU	CTION	& INSUL	ATION S	SCHEDU	LE			
	DI	JCTWORK						INSULATION	THICKNESS (E	XTERIOR WRAP UNL	ESS OTHERWISE N	OTED)				
SYSTEM	MAX DIMENSION OF RECTANGULAR DUCTS OR DIAMETER OF ROUND DUCTS	GALVANIZED SHEET METAL GAUGE NUMBER	PRESSURE RATING	CONSTRUCTION	RECTANGULAR SUPPLY AIR BEFORE VAV	ROUND SUPPLY AIR BEFORE VAV	RECTANGULAR SUPPLY AIR AFTER VAV	ROUND SUPPLY AIR AFTER VAV	RETURN AIR	EXHAUST AIR DUCT (INCLUDING FUME HOOD EXHAUST)	EXHAUST AIR DUCT SERVING WELDING HOODS IN SHOP	TRANSFER AIR	PLENUM TO PLENUM Transfer Sleeves	OUTSIDE AIR	RELIEF AIR	NOTES
	UP THRU 12"	26		WHEN LONGEST						1-1/2"	1-1/2" FULL LENGTH OF					
LOW	OVER 12" THRU 30"	24		SIDE IS 36" OR GREATER, SHALL						WITHIN 15' OF POWER	RECTANGULAR DUCT,					1.0
PRESSURE	OVER 30" THRU 54"	22	2" W.G.	BE CONSTRUCTED USING DUCTMATE	-	-	1/2" LINER	1-1/2"	1/2" LINER	ROOF VENTILATOR	EXPOSED	1/2" LINER	1/2" LINER	2"	2"	1,2, 3,4,5, 7,8
DUCTWORK	OVER 54" THRU 84"	20		35/25 SLIDE ON SYSTEM, TDF						OR FUME HOOD EXHAUST	SPIRAL RUNOUTS					7,8
	OVER 84"	18		FLANGE						(SEE NOTE 7)	UN-INSULATED PAINTGRIP					
	UP THRU 18"	24		SHALL BE												
MEDIUM	OVER 19" THRU 48"	22	]	CONSTRUCTED USING DUCTMATE	4.4/01	4.4.0										1,2,
PRESSURE DUCTWORK	OVER 48" THRU 72"	20	3" W.G.	35/25 SLIDE ON SYSTEMS, TDF	1-1/2"	1-1/2"	-	-	-	-			-	-	-	3,6, 8
	OVER 73" THRU 96"	18	1	FLANGE												

2. ALL DUCTWORK 18" AND GREATER IN WIDTH SHALL BE CROSS-BROKEN.

2. ALL DUCTWORK 18\* AND GREATER IN WIDTH SHALL BE CROSS-BROKEN.

3. ALL SYSTEMS TO BE COMPLETELY INSULATED UNISULATED INISULATED INISULATED INISULATED INISULATED WITH RIGID BOARD OR FLEXIBLE FIBERGLASS INSULATION. EXPOSED DUCTS SHALL BE INSULATED WITH RIGID BOARD FIBERGLASS INSULATION ONLY. EXHAUST DUCTS IN SHOP, AND MEDIUM PRESSURE SUPPLY AIR IN COMMONS C101 ARE CONSIDERED EXPOSED AND MUST BE INSULATED WITH RIGID INSULATION. DO NOT INSULATE LOW PRESSURE ROUNDS EXPOSED IN COMMONS C101. ALL DUCTWORK ABOVE CLOUDS IN COMMONS C101 TO BE INSULATED AS NORMAL.

5. ALL EXPOSED WINISULATED DUCTWORK ROUTED EXPOSED AND ABOVE COMMONS C101 CLOUD CEILING SHALL BE INSULATED WITH RIGID BOARD INSULATION.

7. GREASE EXHAUST DUCT SHALL BE 16GA WELDED BLACK IRON WRAPPED WITH 3M FIRE BARRIER DUCT WRAP 15A OR EQUAL.

8. ALL DUCTWORK ROUTED OUTSIDE SHALL BE INSULATED WITH 2\* RIGID INSULATION WITH VENTURECLAD 1577CW SMOOTH JACKETING ON ALL SIDES, THROUGH EXTERIOR WALL PENETRATION.

TOP OF ALL EXTERIOR DUCTWORK SHALL BE CROWNED (PITCHED) TO ALLOW WATER RUNOFF AND PREVENT POOLING.

	PIPING		INSU	LATION THICKN	IESS	
SYSTEM	TYPE/MATERIAL	FITTINGS	PIPE SIZES 1" OR SMALLER	PIPE SIZES 1-1/4" TO 2"	PIPE SIZES 2-1/2" AND LARGER	NOTE
DOMESTIC COLD, HOT, AND HOT RECIRC	TYPE L COPPER	SOLDER, PRO-PRESS	1/2"	1"	1-1/2"	1,2
BELOW GRADE STORM PIPING	SEE SPECIFICATIONS (SCH 40 PVC WHERE PERMITTED)	SEE SPECIFICATIONS (SCH 40 DWV SOLVENT WELD WHERE PERMITTED)		NONE		1,3
ABOVE GRADE STORM PIPING	SEE SPECIFICATIONS (SCH 40 PVC WHERE PERMITTED)	SEE SPECIFICATIONS (SCH 40 DWV SOLVENT WELD WHERE PERMITTED)		1"		1,3
BELOW GRADE SANITARY NASTE & VENT PIPING	SEE SPECIFICATIONS (SCH 40 PVC WHERE PERMITTED)	SEE SPECIFICATIONS (SCH 40 DWV SOLVENT WELD WHERE PERMITTED)		NONE		1
ABOVE GRADE SANITARY NASTE & VENT PIPING	SEE SPECIFICATIONS (SCH 40 PVC WHERE PERMITTED)	SEE SPECIFICATIONS (SCH 40 DWV SOLVENT WELD WHERE PERMITTED)	NONE	, WITH EXCER SEE NOTE 3		1,3
CONDENSATE DRAIN PIPING/VENTING	TYPE M COPPER, SCH 40 PVC OR ABS WHERE PERMITTED	SOLDER, PRO-PRESS, SOLVENT WELD		1/2"		1,3
HOT WATER SUPPLY, HOT WATER RETURN	TYPE L COPPER, SCH 40 BLACK STEEL	SOLDER, PRO-PRESS, SEE SPECS FOR STEEL FITTINGS	1/2"	1"	1-1/2"	1,2

		NATURAL	. GAS	S WAT	ΓER	HE	ΑT	ER	SCH	IED	ULE					WH
			STORAGE	RECOVERY @					ELECTRIC	AL	PIPING CO	NNECTIONS	DIMEN	ISIONS	SHIPPING	
MANUFACTURER & MODEL	SERVING	LOCATION	CAPACITY (GAL.)	100F RISE (GPH)	FUEL	INPUT (N	MBH)	%	V./PH./CY.	AMPS	C.W.	H.W.	HEIGHT (IN)	DIA. (IN)	WEIGHT (LBS)	NOTE
HTP PH199-119	DOM HOT WATER 140°F	BOILER C107	119	230	NAT GAS	40 - 19	99	96	120/1/60	-	1-1/2"	1-1/2"	74	27	405 + WATER	1
HTP PH199-119	DOM. HOT WATER 140 F	BOILER C107	119	230	NAT GAS	40 - 19	99	96	120/1/60	-	1-1/2"	1-1/2"	74	27	405 + WATER	2,3,4 5,6,
	HTP PH199-119	MODEL SERVING  HTP PH199-119  DOM. HOT WATER 140°F	MANUFACTURER & SERVING LOCATION  HTP PH199-119  DOM. HOT WATER 140°F  BOILER C107	MANUFACTURER & SERVING LOCATION STORAGE CAPACITY (GAL.)  HTP PH199-119  DOM. HOT WATER 140°F  BOILER C107  119	MANUFACTURER & SERVING LOCATION CAPACITY (GAL.)  HTP PH199-119  DOM. HOT WATER 140°F  BOILER C107  STORAGE CAPACITY (GAL.)  RECOVERY @ 100F RISE (GPH)  119  230	MANUFACTURER & SERVING LOCATION STORAGE CAPACITY (GAL.) 100F RISE (GPH) FUEL  HTP PH199-119  DOM. HOT WATER 140°F  DOM. HOT WATER 140°F  DOM. HOT WATER 140°F	MANUFACTURER &   SERVING   LOCATION   STORAGE   CAPACITY (GAL.)   GPH)   FUEL   INPUT (I GAL.)   CAPACITY (GAL.)   CA	MANUFACTURER &   SERVING   LOCATION   STORAGE   CAPACITY (GAL.)   TOP RISE (GPH)   FUEL   INPUT (MBH)    HTP PH199-119   DOM. HOT WATER 140°F   DOM. HOT WATER	MANUFACTURER & SERVING   LOCATION   STORAGE CAPACITY (GAL.)   GPH)   FUEL   INPUT (MBH)   AFUE (GPH)	MANUFACTURER & SERVING   LOCATION   STORAGE CAPACITY (GAL.)   FUEL   INPUT (MBH)   AFUE (GPH)   V./PH./CY.    HTP PH199-119   DOM. HOT WATER 140°F   DOM. HOT	MANUFACTURER & SERVING   LOCATION   STORAGE CAPACITY (GAL.)   FUEL   INPUT (MBH)   AFUE (GPH)   V./PH./CY.   AMPS    HTP PH199-119   DOM. HOT WATER 140°F   DOM. HOT WATER 140°F   POILER C107   110   230   NAT (A0 100 06 120/1/60 -	MANUFACTURER & SERVING   LOCATION   STORAGE CAPACITY (GAL.)   FUEL (MBH)   AFUE %   V./PH./CY.   AMPS   C.W.    HTP PH199-119   DOM. HOT WATER 140°F   DOM. HOT WATER 140°F   POLICE C107   110   230   NAT   40   199   96   120/1/60   - 1-1/2°   110/2°	NAT   NAT	NAT   NAT	MANUFACTURER & SERVING  LOCATION  STORAGE CAPACITY (GAL.)  HTP PH199-119  DOM. HOT WATER 140°F  DOM. HOT WATER 140°F  DOM. HOT WATER 140°F  RECOVERY & CAPACITY (GAL.)  RECOVERY & FUEL INPUT (MBH)  FUEL INPUT (MBH)  FUEL INPUT (MBH)  AFUE  5  V./PH./CY. AMPS  C.W. H.W. HEIGHT (IN)  DIA.  (IN)  PRILED C107  110  230  NAT  GAS  A0 - 199  96  120/1/60  - 1-1/2"  1-1/2"  1-1/2"  74  27	MANUFACTURER & SERVING  LOCATION  STORAGE CAPACITY (GAL.)  MODEL  THE PH199-119  DOM. HOT WATER 140°F  BOILER C107  THE PH199-119  BOILER C107  BOIL

PC TO RELOCATE EXISTING UNIT, FOR REFERENCE ONLY. PC TO INSTALL NEW 4" PVC VENT & COMBUSTION AIR THRU ROOF.
PROVIDE & INSTALL 4" PVC SEALED COMBUSTION AIR AND 4" PVC DIRECT VENT THROUGH ROOF AS PER THE MANUFACTURER'S RECOMMENDATIONS. CONCENTRIC KIT SHALL NOT BE ACCEPTABLE.

NOTES: 1. PROVIDE UNIT RATED FOR AT LEAST 140°F FEED WATER TEMPERATURE WITH STRUCTURAL FRP VINYLESTER RESIN TANK (BLACK COLOR), AND 10% CROSS-LINK RESIN.

 PROVIDE & INSTALL 4" PVC SEALED COMBUSTION AIR AND 4" PVC DIRECT VENT THROUGH ROOF AS PER THE MANUFACTURER'S RECOMMENDATIONS. CONCENTRIC KIT SHALL NOT BE ACCEPTABLE.
 SEE MODIFICATIONS TO EXISTING NATURAL GAS WATER HEATER PIPING DIAGRAM.
 PROVIDE & INSTALL CONDENSATE DRAIN PIPING WITH CONDENSATE NEUTRALIZER TO FLOOR SINK PER MANUFACTURER'S RECOMMENDATIONS. CONDENSATE DRAIN PIPING TO BE SUPPORTED APPROXIMATELY 6" ABOVE FINISHED FLOOR WITH SPLIT RING STANDOFFS WITH ELBOW DOWN TO EXISTING FLOOR DRAIN SUCH THAT CONDENSATE DOES NOT POOL ON FLOOR. ROUTE CONDENSATE PIPING ALONG BACK WALL TO MINIMIZE TRIP HAZARDS.
 4" POURED CONCRETE HOUSEKEEPING PAD BY PC. PAD TO ACCOMMODATE WATER HEATERS & FLOOR MOUNTED EXPANSION TANK ET-2.
 DOMESTIC HOT WATER TO BE STORED AT 140°F. 6. DOMESTIC HOT WATER TO BE STORED AT 140°F.
7. PROVIDE & INSTALL WATES INTELLISTATION JR. LFIS100VL DIGITAL WATER TEMPERING SYSTEM WITH DIGITAL MIXED OUTLET TEMPERATURE CONTROL & MONITORING. 120V POWER & PLUG PROVIDED & INSTALLED BY EC.

DOMESTIC HOT WATER TO BE STORED AT 140°F AND TEMPERED TO 120°F, CONTROLLED BY TC.

WATER SOFTENER SCHEDULE RATED SOFTENER EXCHANGE CAPACITY

GRAINS SALT DOSAGE LBS/CU.FT CONTINUOUS CLBS/CU.FT CAPACITY CAPACITY CLBS

RATE (GPM) R WS-1 CULLIGAN SD010441 WITH DISHWASHER D101 ATTER D101 ATTER D1 ATTER D101 AT

2. PROVIDE WITH SERIES 4650 HOT WATER CONTROL VALVE WITH ALL BRASS CONSTRUCTION, 7-DAY TIMER AUTOMATIC REGENERATION CONTROLLER, STAINLESS STEEL BYPASS VALVE, AND PRE-WIRED POWER CABLE.

				NA	TURAL	GAS	BOILE	R SC	HED	ULE					<b>B</b>
EQUIP.	MANUFACTURER & MODEL	LOCATION	MEDIA	SYSTEM	RELIEF	INPUT	ОИТРИТ	AFUE %	MIN	VOLUME		MOTOR		UNIT	HOTEC
NO.	MANUFACTURER & MODEL	LOCATION	MEDIA	PRESSURE (PSI)	PRESSURE (PSI)	MBH	MBH	AFUE %	EWT	(GAL)	HP	V./PH./CY.	FLA	WEIGHT (LBS)	NOTES
B-1	THERMAL SOLUTIONS EVS-1500	MECH/ELEC ROOM	30% GLYCOL	30	75	500-1500	417-1,251	87%	135°F	17.4	1-1/2	120/1/60	7.5	1,327 +FLUID	1,2,3,4,5,6, 7,8,9,10,11,12
B-2	THERMAL SOLUTIONS EVS-1500	MECH/ELEC ROOM	30% GLYCOL	30	75	500-1500	417-1,251	87%	135°F	17.4	1-1/2	120/1/60	7.5	1,327 +FLUID	1,2,3,4,5,6, 7,8,9,10,11,12
OTES:	1. UNITS SHALL BE COMPL 2. PER MFG'S RECOMMENDA ADJACENT COMBUSTION 3. PC TO PROVIDE & INST ON PLANS. ROOFING W	TIONS, VC TO PRO AIR GOOSNECK PER ALL 8" SCH.40 PV	OVIDE & INST. MANUFACTUR C COMBUSTIO	ALL 6" AL29-4 ER'S RECOMME	4C DOUBLE WAI	LL (1" AIR GAP NSTALL GUY WIR	) VENT THRU R ES IF REQUIRE	OOF. SEE P D BY VENTI	LANS FOR NG MANUFA	VENT LENGT ACTURER.	HS. TERM	MINATE WITH RA	IN CAP 2	4" ABOVE TOP	0F

5. SEE HEATING WATER SYSTEM PIPING DIAGRAM 5. SEE HEATING WATER SYSTEM PIPING DIAGRAM.
6. INSTALL ON EXISTING 4" POURED CONCRETE HOUSEKEEPING PAD. EXTEND PAD AS NECESSARY TO ACCOMMODATE PUMPS, PUMP CLEARANCES, & BOILER CLEARANCES, SEE PLANS.
7. PROVIDE FACTORY AUTHORIZED STARTUP.
8. PROVIDE AND INSTALL BOILER DRAIN VALVE AND EXTEND TO EXISTING FLOOR DRAIN. DRAIN PIPING TO BE SUPPORTED APPROXIMATELY 6" ABOVE FINISHED FLOOR WITH SPLIT RING STANDOFFS WITH ELBOW DOWN ONTO CENTER OF EXISTING FLOOR DRAIN SUCH THAT DRAINAGE DOES NOT POOL ON FLOOR OR TOP LEDGE OF FLOOR DRAIN. ROUTE PIPING TO MINIMIZE TRIP HAZARDS.
9. PERFORMANCE BASED ON 30% PROPYLENE GLYCOL.
10. PROVIDE WITH FULL LOCKUP GAS REGULATOR.
11. PROVIDE WITH FACTORY INSTALLED LOW WATER CUT OFF.

		ER'S REQUIRED CLEARANCES.	r.										
				Pl	JMP \$	SCHEDU	ILE					EXG CP-5	& CP
Р.					HEAD			El	LECTRICAL				
	MANUFACTURER & MODEL	SERVING	LOCATION	GPM	(FEET)	TYPE	HP (W)	RPM	V./PH./CY.	FLA	WEIGHT (LBS)		NOTES

EQUIP.					HEAD			E	LECTRICAL			
NO.	MANUFACTURER & MODEL	SERVING	LOCATION	GPM	(FEET)	TYPE	HP (W)	RPM	V./PH./CY.	FLA	WEIGHT (LBS)	NOTES
CP-1	BELL & GOSSETT E-90 2AAB	BOILER CIRCULATOR FOR B-1	BOILER C107	125	20'	IN-LINE	1-1/2	1800	208/3/60	6.6	67	1,2,8
CP-2	BELL & GOSSETT E-90 2AAB	BOILER CIRCULATOR FOR B-2	BOILER C107	125	20'	IN-LINE	1-1/2	1800	208/3/60	6.6	67	1,2,8
CP-3	BELL & GOSSETT E-1510 2BD	PRIMARY HEATING WATER LOOP	BOILER C107	180	80 '	BASE MOUNTED END SUCTION	7-1/2	1800	208/3/60	24.2	342	1,2,3,4,5,6,7,
CP-4	BELL & GOSSETT E-1510 2BD	BACKUP HEATING WATER LOOP	BOILER C107	180	80 '	BASE MOUNTED END SUCTION	7-1/2	1800	208/3/60	24.2	342	1,2,3,4,5,6,7,
EXG CP-5	ARMSTRONG E13.2B	EXG WH-1 DOM. RECIRC	BOILER C107	3.0	9'	IN-LINE	1/6	3400	120/1/60	2.0	14.8	1,10,12
CP-6	ARMSTRONG R40-45 SS	WH-2 DOM. RECIRC	BOILER C107	4.5	25 '	IN-LINE	1/6	4000	120/1/60	2.0	10.21	1,10,11
3 4 5 6 7 8 9	PERFORMANCE BASED ON 30 3. T.C. TO PROVIDE VFD, E. 4. PROVIDE & INSTALL TRIPL 5. PROVIDE WITH SHAFT GROU 6. PC TO PROVIDE LASER ALI 7. PC TO PROVIDE 4" CONCRE 8. SEE HEATING WATER SYSTE 9. SEE MODIFICATIONS TO NA	C. TO INSTALL. E DUTY VALVE AND SUCTION DIFFUS NDING KITS. GOMMENT IN FIELD. TE HOUSEKEEPING PAD (PAD IN BOJ M PIPING DIAGRAM. TURAL GAS WATER HEATER PIPING I STEEL CONSTRUCTION AND PROVIDE	SER. ELER C107 TO ACCOMM	IODATE ALL PU	MPS, BOILERS	EXPANSION TANK,	AND BYPASS		,	c.		

EQUIP. NO. MANUFACTURER & MODEL SERVING LOCATION SYSTEM VOLUME (GAL) SYSTEM VOLUME (GAL) WITH SAFETY FACTOR (GAL) MAX MIN MAX **EXPANSION TANK SCHEDULE** 

4. OLL MEALING WATER SISTEM PIPING ULAUMAN.
5. PROVIDE & INSTALL BAG R-4 4" AIR SEPARATOR WITH STRAINER WITH PROPER SERVICE CLEARANCE AND PROPER PIPING TO FLOOR MOUNTED BLADDER STYLE EXPANSION TANK PER MANUFACTURER'S REQUIREMENTS.
6. THE HEATING EXPANSION TANK HAS BEEN SIZED FOR 820 GALLONS, WHICH IS INCLUDES THE ADDITION, REMODEL AND EXISTING ELEMENTARY VOLUME OF 274 GALLONS. THIS IS 1.15 TIMES THE CALCULATED VOLUME OF 715 GALLONS.
7. PROVIDE POTABLE WATER ASME RATED FULL ACCEPTANCE REPLACEABLE EPDM BLADDER STYLE UNIT, DIAPHRAGM STYLE SHALL NOT BE ACCEPTABLE.
8. SEE MODIFICATIONS NATURAL GAS WATER HEATER PIPING DIAGRAM.

				H	OT V	VATE	ER (	CABI	NET	UNI	T HEA	TER				CUH
EQUIP.	MANUFACTURER & MODEL	LOCATION	CFM	МВН	GPM	LAT	EWT	LWT	WPD		ELECTRI	CAL		RUNOUT SIZE	UNIT WEIGHT	NOTES
NO.	MANUFACIURER & MUDEL	LUCATION	CFM	мьн	GPM	LAI	EWI	LWI	(FT)	HP	V/PH/CY	RPM	FLA	KUNUUI SIZE	(LBS)	NUTES
CUH-C100A	SIGMA SFF-A-10-SRI	VEST. C100B	1000	69.2	8.167	126.4	180	160.0	1.591	1/6	120/1/60	1500	2.0	1-1/4"	150 + WATER	1,2,3,4,5,6,7
CUH - C100B	SIGMA SFF-A-04-SRI	VEST. C100A	400	33.5	4.0	140.2	180	160.0	2.39	1/10	120/1/60	1075	1.7	1"	125 + WATER	1,2,3,4,5,6,7
CUH-D100	SIGMA SFF-A-04-SRI	VEST. D100	400	33.5	4.0	140.2	180	160.0	2.39	1/10	120/1/60	1075	1.7	1"	125 + WATER	1,2,3,4,5,6,7

3. UNIT MOUNTED 3 SPEED SMITHOR. UNIT 10 BE CONFIDENCE FOR FIELD INSTALLED DUC CONTROLS.

4. CUSTOM COLOR BAKED ENMALE, STANDARD COLOR NOT ACCEPTABLE. CUSTOM COLOR TO BE SELECTED BY ARCHITECT.

5. SEE CABINET UNIT HEATER PIPING DETAIL.

6. PROVIDE WITH (1) ADDITIONAL SET OF DISPOSABLE FILTERS.

7. PROVIDE UNIT WITH FACTORY INSTALLED MANUAL STARTER DISCONNECT (NO OVERLOADS).

				RAI	DIANT	PANEL	SCHEDU	JLE					RP
EQUIP. NO.	MANUFACTURER & MODEL	LOCATION	PANEL QTY IN ZONE	BTU/HR PER PANEL	BTU/HR PER PANEL GROUP	AVG GPM PER PANEL	GPM PER PANEL SERIES	PRESSURE DROP PER PANEL (FT)	AVG. WATER TEMP	OVERALL WIDTH	OVERALL LENGTH	FINISH	NOTE
RP - 1	AIRTEX HPH2448	BOYS RR C109A	1	1,500	1,500	0.5	0.5	0.23	170	24"	48"	WHITE	1,2
RP - 1	AIRTEX HPH2448	GIRLS RR C111A	1	1,500	1,500	0.5	0.5	0.23	170	24"	48"	WHITE	1,2

EQUIP.			CAPACITY		AVG WATER	FLOW			ELEN	MENT				ENCLO		EMENT, ">	,
NO.	MANUFACTURER & MODEL	TYPE AND/OR MOUNTING	(BTU/HR)	LOCATIONS	TEMP. (°F)	GPM/ FOOT	TUBE SIZE	FIN SIZE	FINS/FT	BTU/FT	LENGTH	ROWS	GAUGE	LENGTH	HEIGHT	DEPTH	NOTES
RAD-XI	SIGMA SWE-12S-44C075	CU-AL / STYLE "S" SLOPE TOP	VARIES	MULTIPLE LOCATIONS	170	0.1	3/4"	4" SQ.	48	1,118	SEE PLAN	1	16	SEE PLAN	12"	5-1/4"	1,2,3,4,5

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SE PROJECT NO: 220900771

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REVISION SCHEDULE: REV. # REV. DSC. REV. DATE

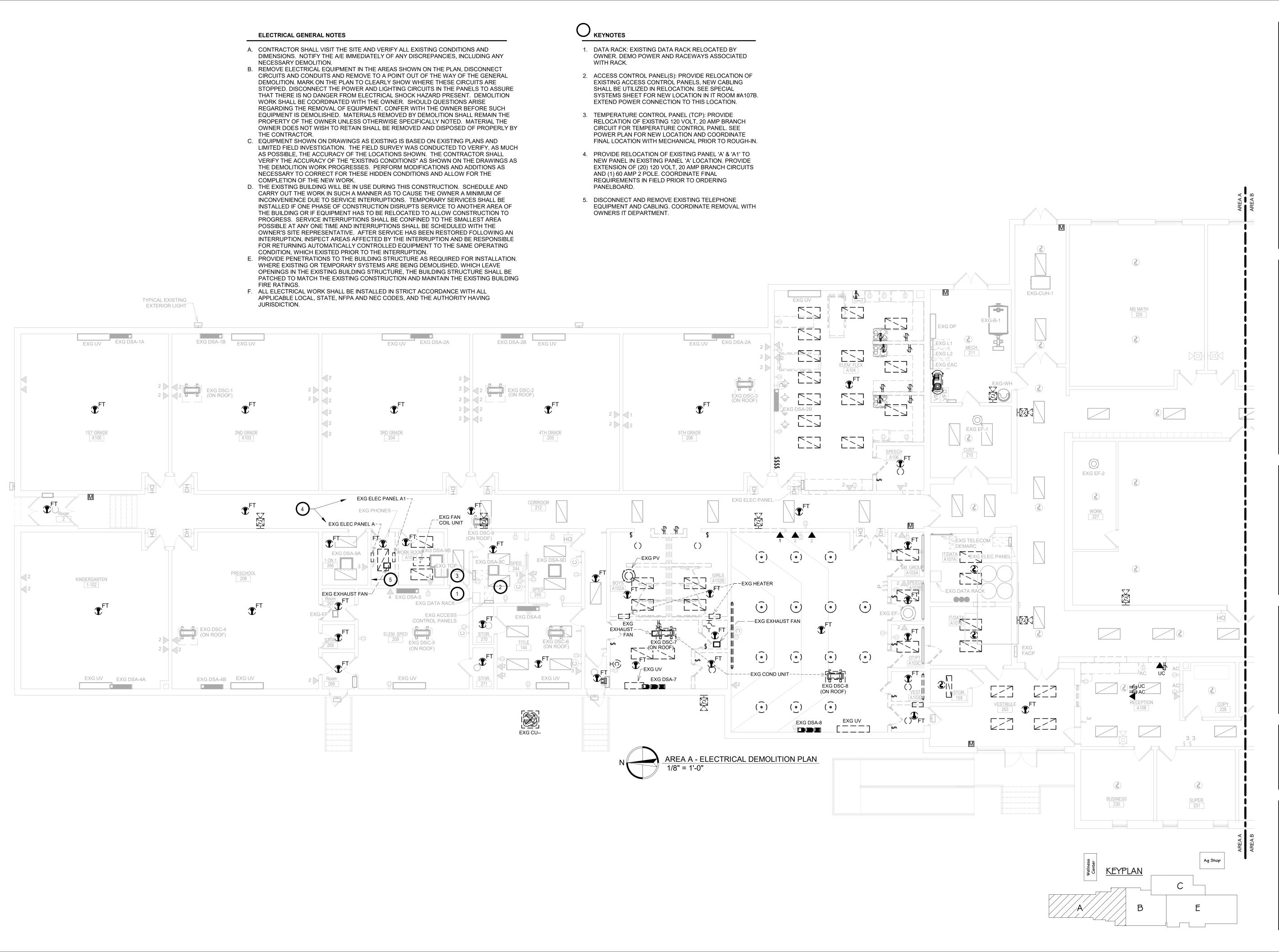
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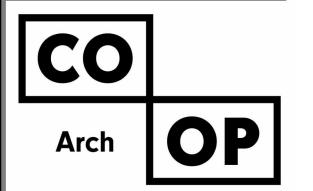
WILLOW LAKE SCHOOL ADDITION

WILLOW LAKESCHOOL DISTRICT WILLOW LAKE, SOUTH DAKOTA

**SHEET TITLE:** 

MECHANICAL SCHEDULES





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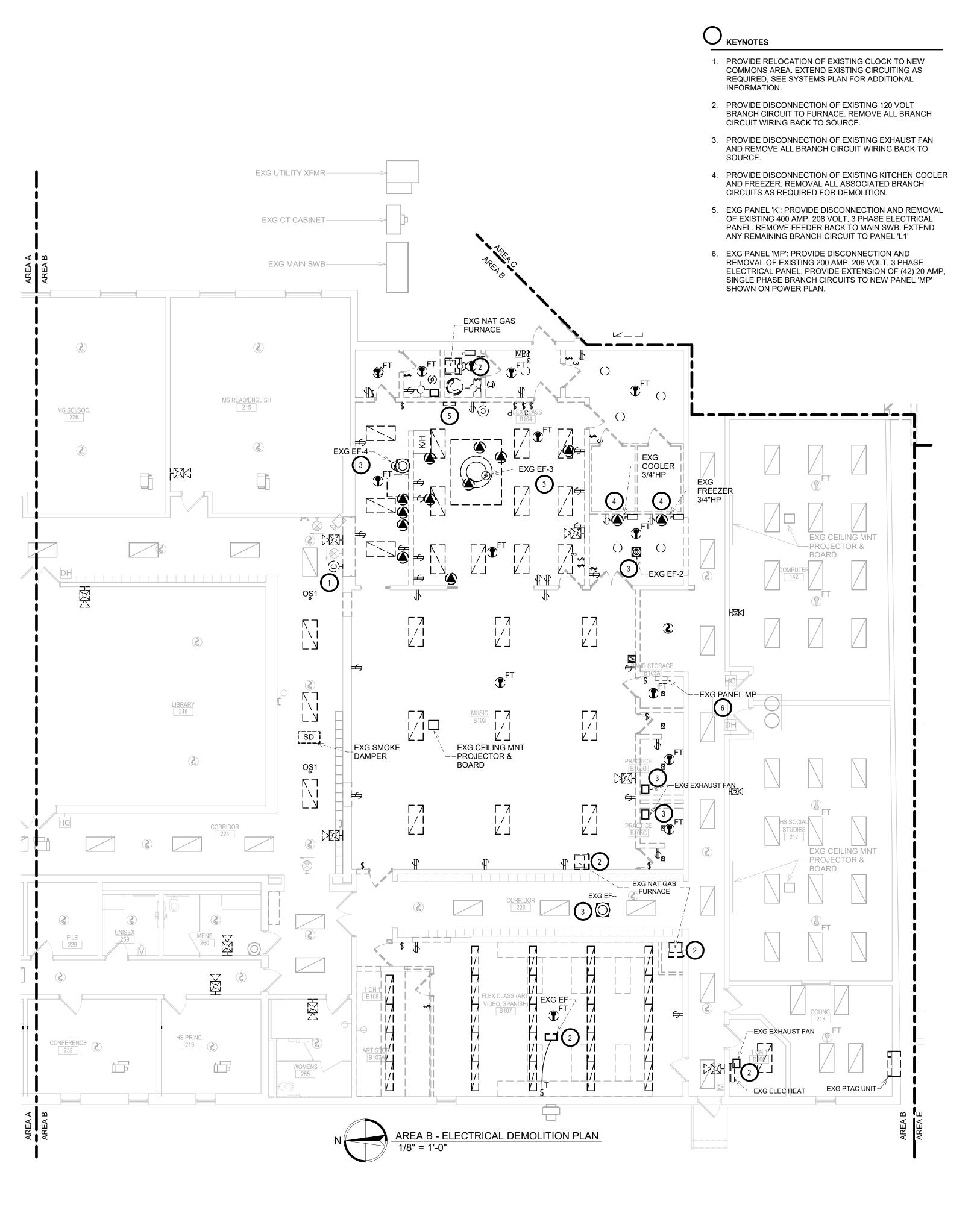
WILLOW LAKE SCHOOL ADDITION

WILLOW LAKESCHOOL DISTRICT
WILLOW LAKE, SOUTH DAKOTA

SHEET TITLE:

AREA A - ELECTRICAL DEMOLITION PLAN

E200A



#### **ELECTRICAL GENERAL NOTES**

- A. CONTRACTOR SHALL VISIT THE SITE AND VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS. NOTIFY THE A/E IMMEDIATELY OF
- ANY DISCREPANCIES, INCLUDING ANY NECESSARY DEMOLITION. B. REMOVE ELECTRICAL EQUIPMENT IN THE AREAS SHOWN ON THE PLAN, DISCONNECT CIRCUITS AND CONDUITS AND REMOVE TO A POINT OUT OF THE WAY OF THE GENERAL DEMOLITION. MARK ON THE PLAN TO CLEARLY SHOW WHERE THESE CIRCUITS ARE STOPPED. DISCONNECT THE POWER AND LIGHTING CIRCUITS IN THE PANELS TO ASSURE THAT THERE IS NO DANGER FROM ELECTRICAL SHOCK HAZARD PRESENT. DEMOLITION WORK SHALL BE COORDINATED WITH THE OWNER. SHOULD QUESTIONS ARISE REGARDING THE REMOVAL OF EQUIPMENT, CONFER WITH THE OWNER BEFORE SUCH EQUIPMENT IS DEMOLISHED. MATERIALS REMOVED BY DEMOLITION SHALL REMAIN THE PROPERTY OF THE OWNER UNLESS OTHERWISE SPECIFICALLY NOTED. MATERIAL THE OWNER DOES NOT WISH TO RETAIN SHALL BE REMOVED AND DISPOSED OF PROPERLY BY THE CONTRACTOR.
  - C. EQUIPMENT SHOWN ON DRAWINGS AS EXISTING IS BASED ON EXISTING PLANS AND LIMITED FIELD INVESTIGATION. THE FIELD SURVEY WAS CONDUCTED TO VERIFY, AS MUCH AS POSSIBLE, THE ACCURACY OF THE LOCATIONS SHOWN. THE CONTRACTOR SHALL VERIFY THE ACCURACY OF THE "EXISTING CONDITIONS" AS SHOWN ON THE DRAWINGS AS THE DEMOLITION WORK PROGRESSES. PERFORM MODIFICATIONS AND ADDITIONS AS NECESSARY TO CORRECT FOR THESE HIDDEN CONDITIONS AND ALLOW FOR THE COMPLETION OF THE NEW WORK.
  - D. THE EXISTING BUILDING WILL BE IN USE DURING THIS CONSTRUCTION. SCHEDULE AND CARRY OUT THE WORK IN SUCH A MANNER AS TO CAUSE THE OWNER A MINIMUM OF INCONVENIENCE DUE TO SERVICE INTERRUPTIONS. TEMPORARY SERVICES SHALL BE INSTALLED IF ONE PHASE OF CONSTRUCTION DISRUPTS SERVICE TO ANOTHER AREA OF THE BUILDING OR IF EQUIPMENT HAS TO BE RELOCATED TO ALLOW CONSTRUCTION TO PROGRESS. SERVICE INTERRUPTIONS SHALL BE CONFINED TO THE SMALLEST AREA POSSIBLE AT ANY ONE TIME AND INTERRUPTIONS SHALL BE SCHEDULED WITH THE OWNER'S SITE REPRESENTATIVE. AFTER SERVICE HAS BEEN RESTORED FOLLOWING AN INTERRUPTION, INSPECT AREAS AFFECTED BY THE INTERRUPTION AND BE RESPONSIBLE FOR RETURNING AUTOMATICALLY CONTROLLED EQUIPMENT TO THE SAME OPERATING CONDITION, WHICH EXISTED PRIOR TO THE INTERRUPTION.
- E. PROVIDE PENETRATIONS TO THE BUILDING STRUCTURE AS REQUIRED FOR INSTALLATION. WHERE EXISTING OR TEMPORARY SYSTEMS ARE BEING DEMOLISHED, WHICH LEAVE OPENINGS IN THE EXISTING BUILDING STRUCTURE, THE BUILDING STRUCTURE SHALL BE PATCHED TO MATCH THE EXISTING CONSTRUCTION AND MAINTAIN THE EXISTING BUILDING FIRE
- F. ALL ELECTRICAL WORK SHALL BE INSTALLED IN STRICT ACCORDANCE WITH ALL APPLICABLE LOCAL, STATE, NFPA AND NEC CODES, AND THE AUTHORITY HAVING JURISDICTION.



Arch C

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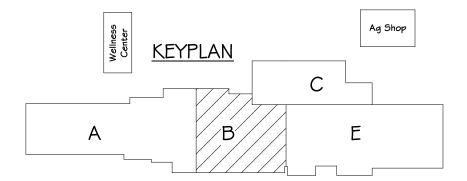
WILLOW LAKE SCHOOL ADDITION

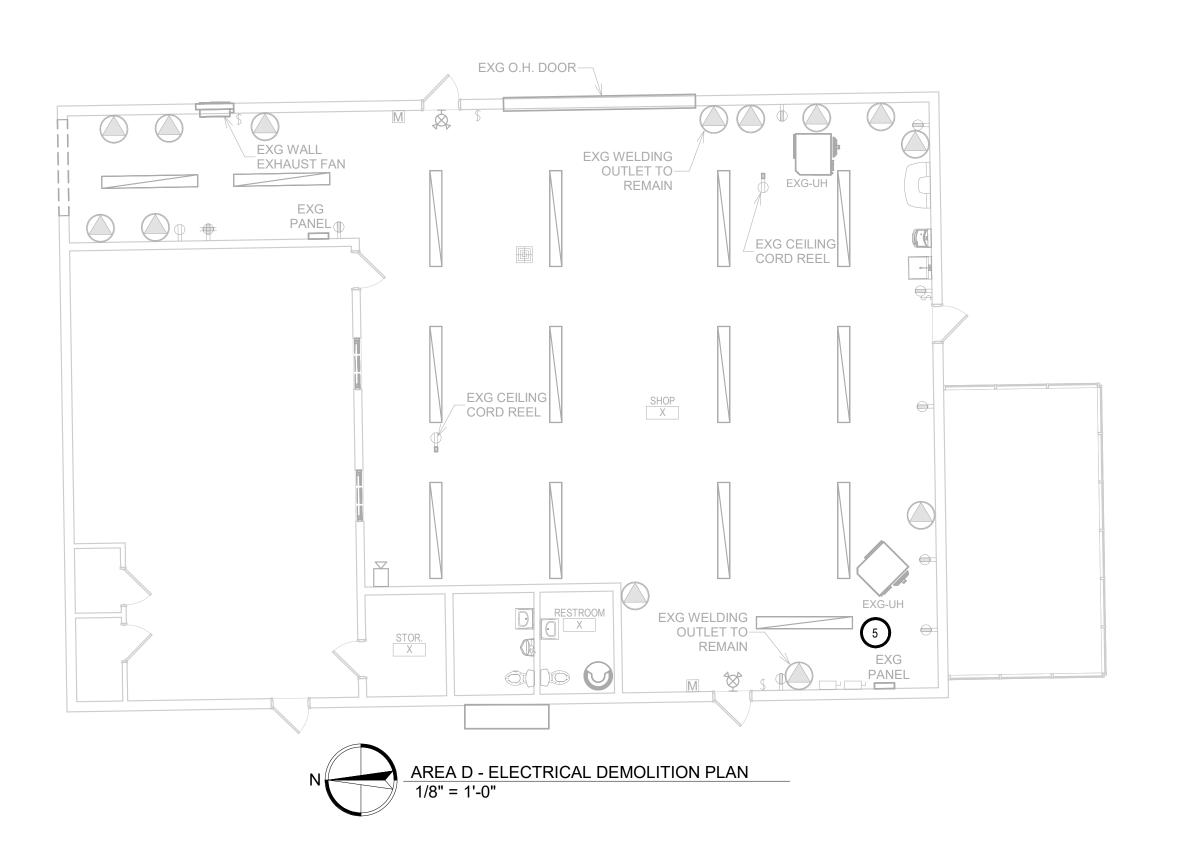
WILLOW LAKESCHOOL DISTRICT WILLOW LAKE, SOUTH DAKOTA

SHEET TITLE:

AREA B - ELECTRICAL DEMOLITION PLAN

E201B



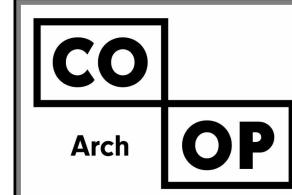


### O KEYNOTES

- 1. ELECTRICAL CONTRACTOR SHALL SURVEY EXISTING ELECTRICAL RACEWAYS FOR UTILIZATION. IF DEEMED TO REMAIN BY OWNER PROVIDE RELOCATION OF CONDUITS AROUND CONSTRUCTION AREAS AND PROTECTION OF CIRCUITS DURING CONSTRUCTION PHASES.
- 2. ELECTRICAL CONTRACTOR SHALL PROVIDE REMOVAL AND REINSTALLATION OF SPEAKER AS REQUIRED FOR CONSTRUCTION IN AREA, PROVIDE PROTECTION OF CIRCUIT AND DEVICE DURING CONSTRUCTION PHASES.
- 3. ELECTRICAL CONTRACTOR SHALL PROVIDE REMOVAL OF 200 AMP DISCONNECT AND UNDERGROUND FEEDER BACK TO MAIN DISTRIBUTION PANEL. VERIFY EXISTING BRANCH CIRCUITS ARE BEING DEMOED UNDER CURRENT CONSTRUCTION. PROVIDE EXTENSION OF ANY SMALL BRANCH CIRCUITS TO PANEL IN NEW ADDITION.
- PROVIDE REMOVAL OF EXISTING FACP FOR INSTALLATION OF NEW FACP WITH VOICE NOTIFICATION. VERIFY FINAL REQUIREMENTS WITH SIEMENS FIRE ALARM SUPPLIER AND SYSTEMS PLANS.
- 5. EXISTING AG SHOP ELECTRICAL TO REMAIN IN WORKING ORDER FOR SCHOOL USE DURING CONSTRUCTION. PROVIDE PROTECTION OF EXISTING FEEDER FROM MAIN SWB. SEE SITE PLAN EM101 FOR ADDITIONAL INFORMATION.

#### **ELECTRICAL GENERAL NOTES**

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- F. ALL ELECTRICAL WORK SHALL BE INSTALLED IN STRICT ACCORDANCE WITH ALL APPLICABLE LOCAL, STATE, NFPA AND NEC CODES, AND THE AUTHORITY HAVING JURISDICTION.



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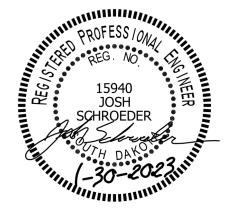
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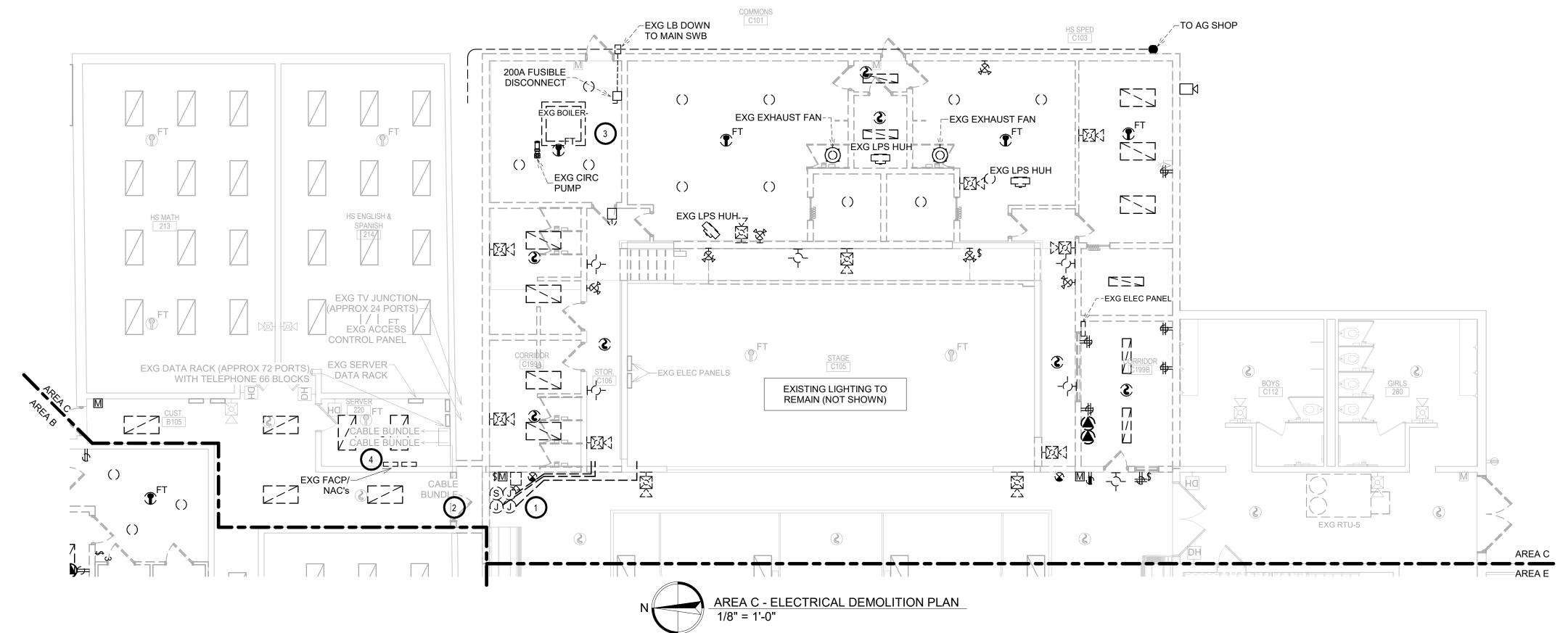
WILLOW LAKE SCHOOL ADDITION

WILLOW LAKESCHOOL DISTRICT WILLOW LAKE, SOUTH DAKOTA

SHEET TITLE:

AREA C & D - ELECTRICAL DEMOLITION PLAN

E202CD

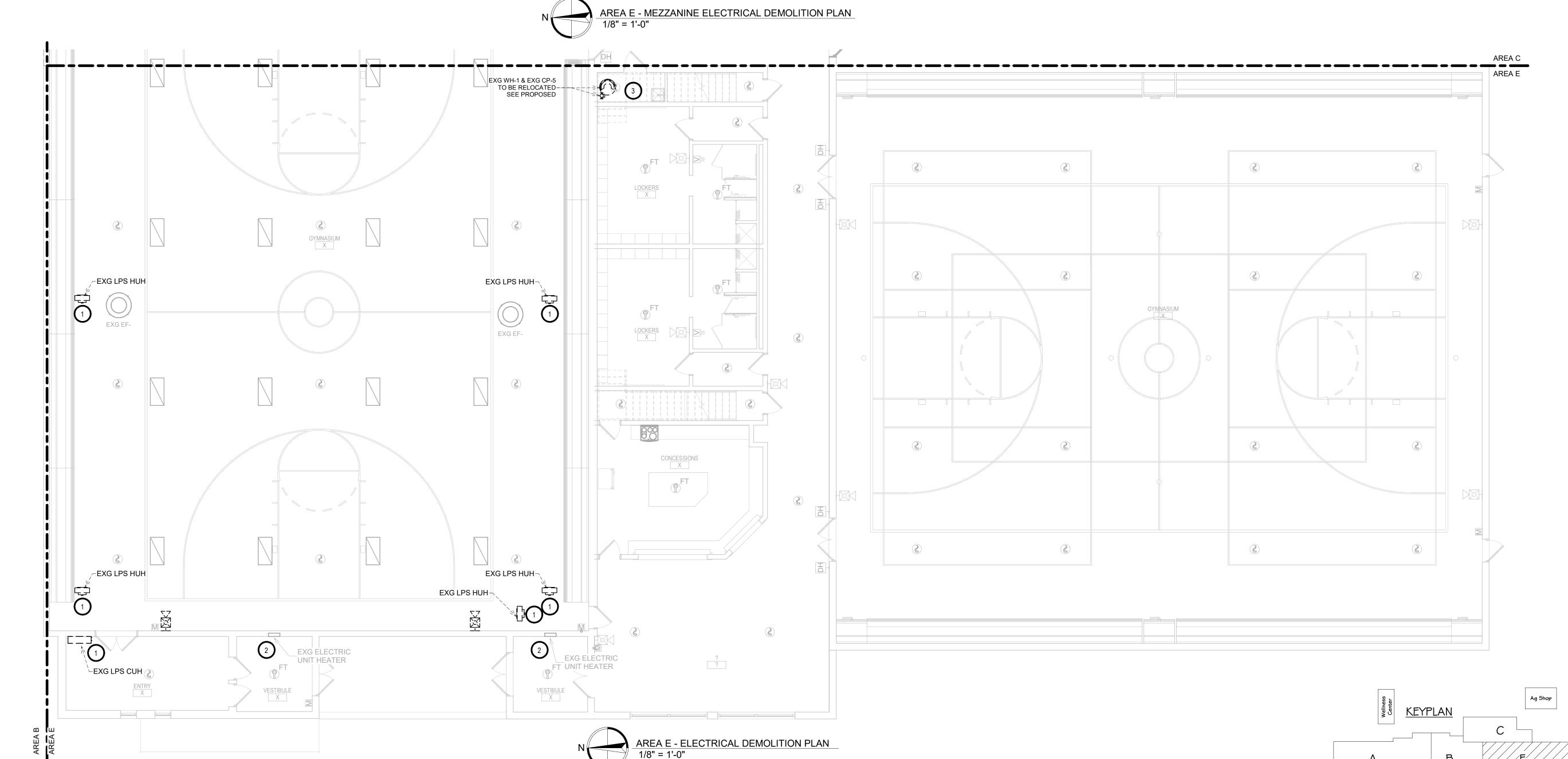


### KEYNOTES

- 1. PROVIDE DISCONNECTION OF EXISTING HEATER AND REMOVE EXISTING BRANCH CIRCUIT BACK TO SOURCE.
- 2. ELECTRIC HEATER TO REMAIN.
- 3. PROVIDE DISCONNECTION OF WATER HEATER AND PUMP FOR RELOCATION, VERIFY FINAL REQUIREMENTS WITH MECHANICAL CONTRACTOR PRIOR TO DISCONNECTION. UPDATE PANEL 'L3' SCHEDULE ACCORDINGLY WITH NEW PRINTED SCHEDULE.

#### **ELECTRICAL GENERAL NOTES**

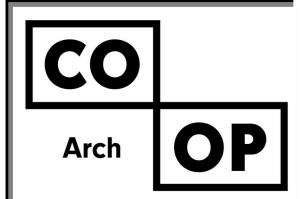
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- F. ALL ELECTRICAL WORK SHALL BE INSTALLED IN STRICT ACCORDANCE WITH ALL APPLICABLE LOCAL, STATE, NFPA AND NEC CODES, AND THE AUTHORITY HAVING JURISDICTION.



EXG PANEL L3

WRESTLING

X



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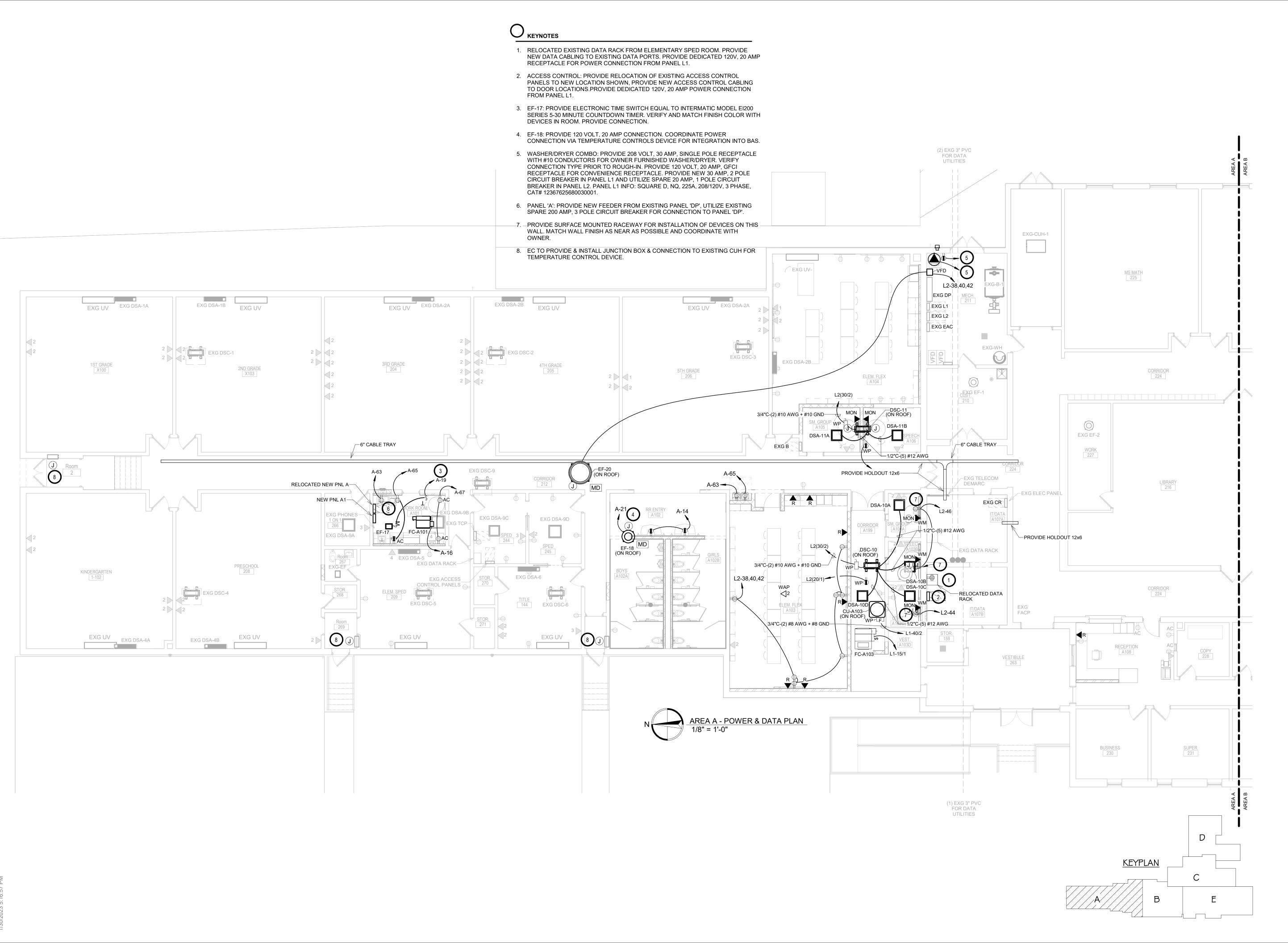
WILLOW LAKE SCHOOL ADDITION

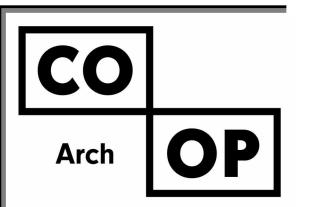
WILLOW LAKESCHOOL DISTRICT WILLOW LAKE, SOUTH DAKOTA

SHEET TITLE:

AREA E - ELECTRICAL DEMOLITION PLAN

E203E





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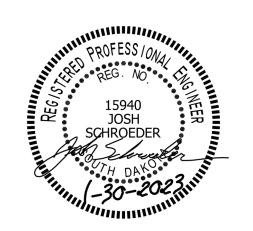
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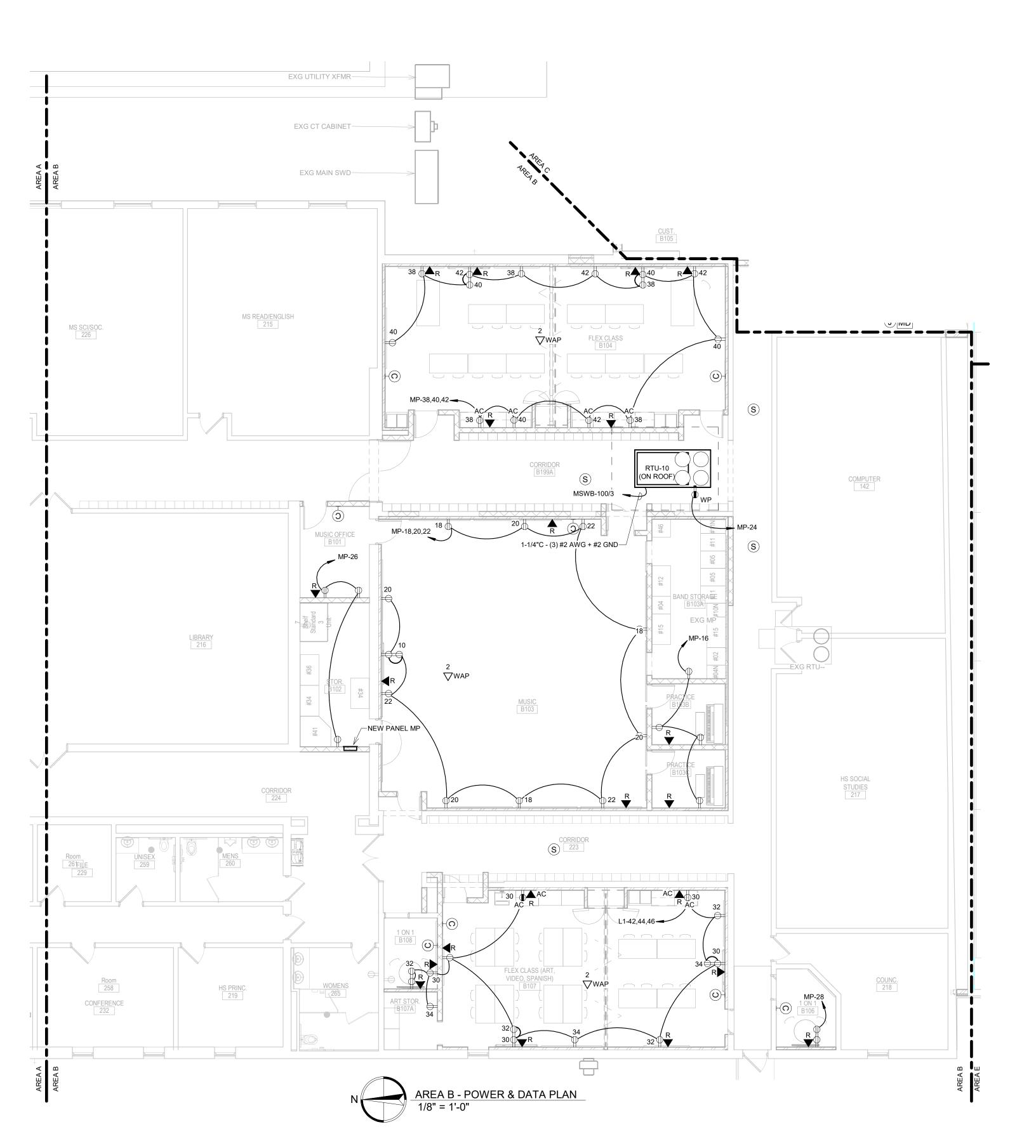
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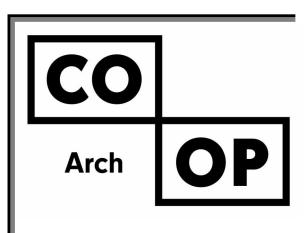
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SHEET TITLE:

AREA A - POWER & DATA PLAN

E300A





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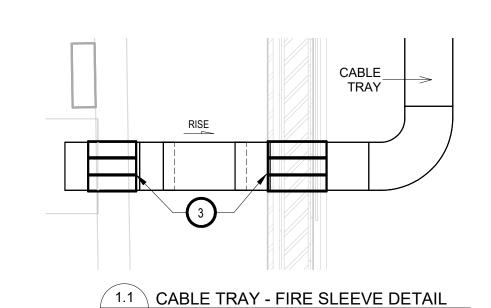
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WILLOW LAKE, SOUTH DAKOTA

SHEET TITLE:

AREA B - POWER & DATA PLAN

E301B

KEYPLAN C
A B E



AREA D

AREA C

CUH-C100A M

EXG DATA RACK-

EXG RTU

E302C SCALE: 1/2" = 1'-0"



O KEYNOTES

- 2. PROVIDE 2 DATA CABLES ABOVE CEILING FOR FUTURE USE. PROVIDE 30' OF ADDITIONAL CABLING FOR ROUTING TO FUTURE LOCATION. NEATLY COIL AND TIE ABOVE CEILING SPACE, TERMINATE AND TEST CABLES.
- 3. FIRE SLEEVE: PROVIDE HILTI FIRE SLEEVES THROUGH FIRE WALLS FOR TELECOMMUNICATION CABLING. PROVIDE TOTAL OF (6) 4 INCH HILTI SPEED SLEEVES MODEL CFS-SL-GA-L.
- 4. PROVIDE 120 VOLT, 20 AMP CONNECTION TO EF-21 FROM CORRIDOR PANEL. PANEL INFO: SQUARE D,208/120 VOLT, 400 AMP, NQOD PANELBOARD.

HEALTH SCIENCE C102

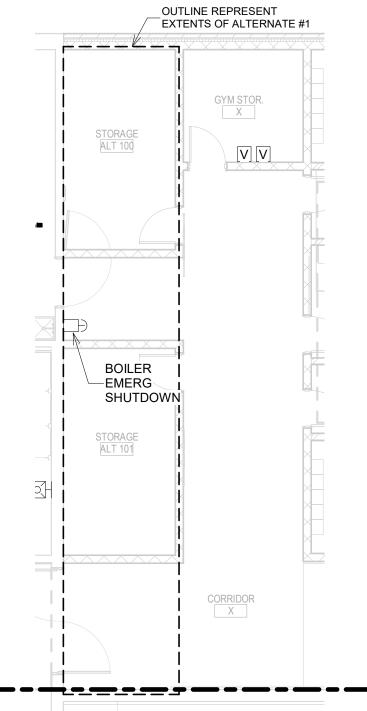
L4-1,3,5

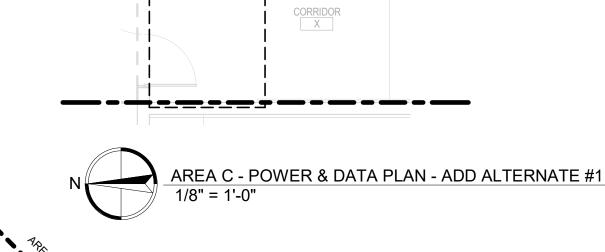
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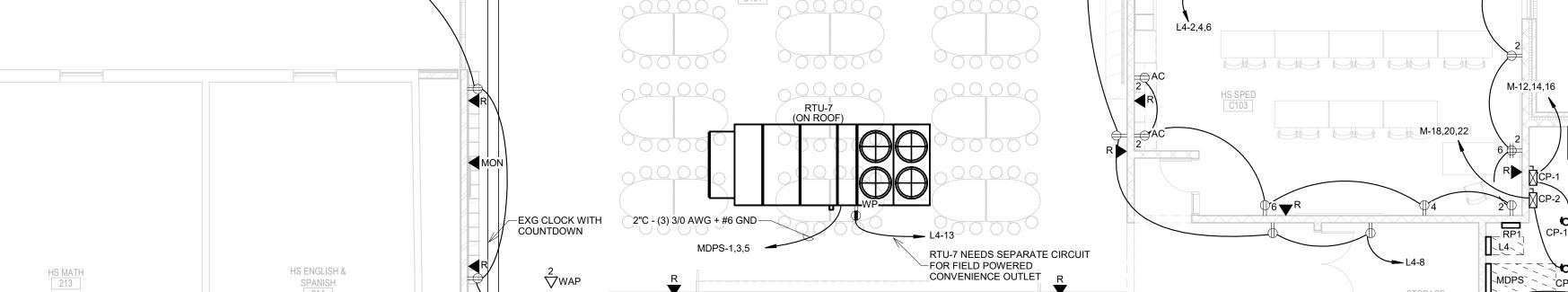
MON (R

MON R

MON/







EXG EF

AREA C - POWER & DATA PLAN
1/8" = 1'-0"

R ▶

—12" CABLE TRAY ROUTED UP WITHIN STRUCTURE

—12" CABLE TRAY UP TO HIGHER CEILING 12" CABLE TRAY DN $^{\perp}$ 

TO LOWER CEILING

**▽**WAP

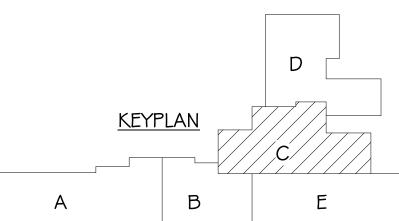
SPACE

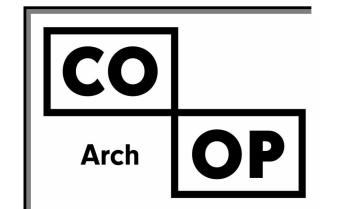
SP

DEDICATED FIRE
—SPRINKLER RISER

STORAGE C104 WH-2 WH-2 WH-2 WH-2 AC C104 AC C1

L4-33 — CORRIDOR CUH-C100B VESTIBULE C100R





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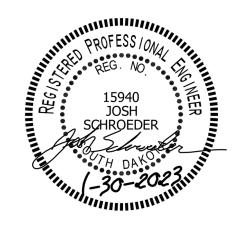
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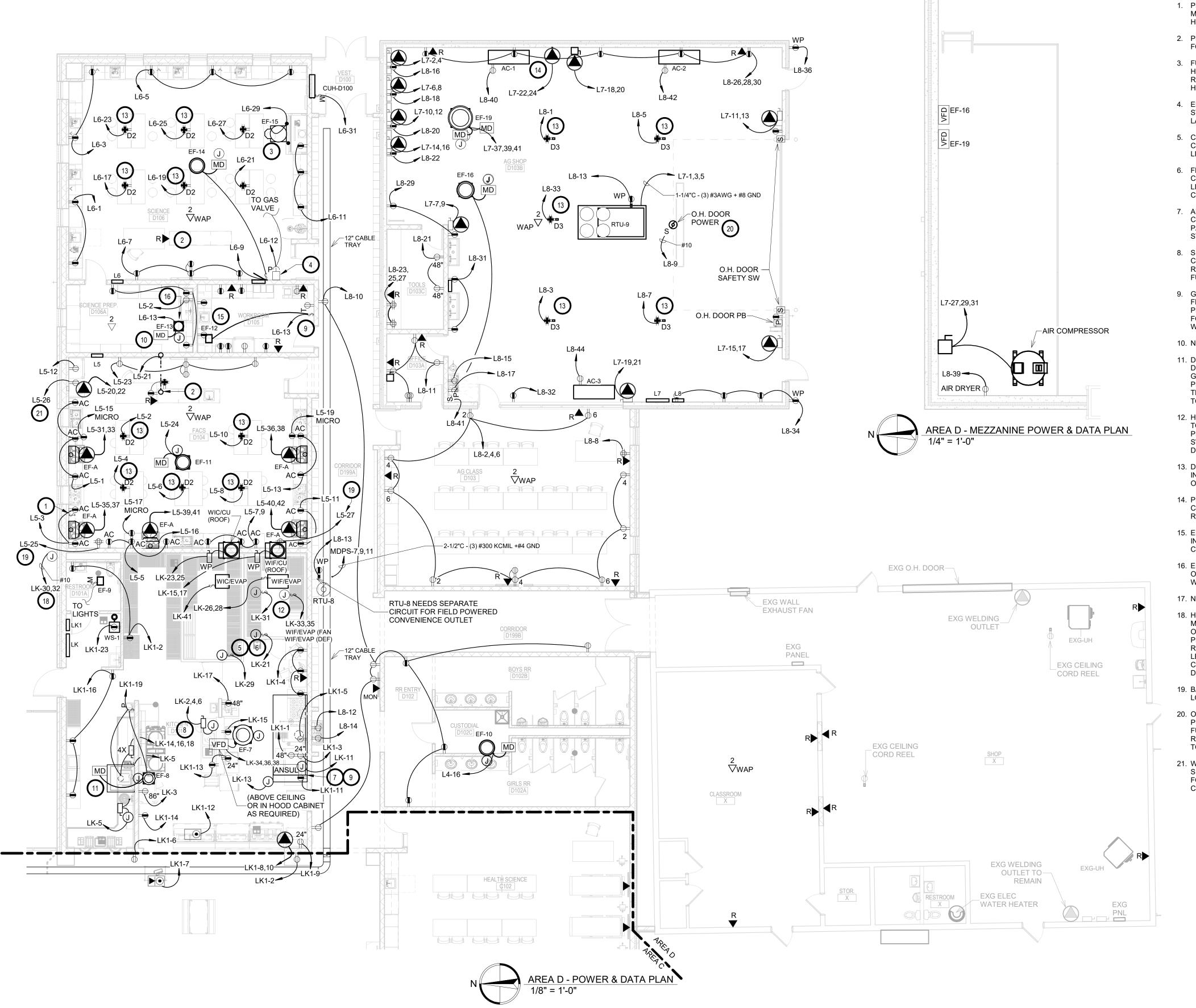
WILLOW LAKESCHOOL DISTRICT
WILLOW LAKE, SOUTH DAKOTA

SHEET TITLE:

AREA C - POWER & DATA PLAN

E302C

323 5:17:08 PM





- PROVIDE MOTOR RATED PILOT SWITCH AT ADA HEIGHT MOUNTED ON WALL BESIDE HOOD TO OPERATE THE HOOD.
- 2. PROVIDE (2) 1 INCH CONDUITS TO TEACHERS STATION FOR POWER AND DATA CABLE ROUTING.
- 3. FUME HOOD: PROVIDE INTERCONNECT BETWEEN HOOD CONTROLS AND EF-15. COORDINATE FINAL REQUIREMENTS WITH MECHANICAL CONTRACTOR AND HOOD SUPPLIER.
- 4. EMERGENCY GAS SHUTDOWN PROVIDE STI STOPPER STATION SS2241ZA-EN, OR EQUAL, WITH CUSTOM LABEL "GAS SHUTDOWN".
- 5. COOLER: PROVIDE CONNECTION TO COOLER CONTROLLER, DEFROSTER, SOLENOIDS, AND COOLER LIGHTS.
- 6. FREEZER: PROVIDE CONNECTION TO FREEZER CONTROLLER, DEFROSTER, SOLENOIDS, COOLER LIGHTS AND PROVIDE 8 WATT SR HEAT TRACE FOR CONDENSATE LINES.
- 7. ANSUL SYSTEM: PROVIDE CONNECTION VIA ANSUL CONTROL CONTACTS FOR SHUNT-TRIP ACTIVATION OF PANEL 'LK1'. PROVIDE CONNECTION TO FIRE ALARM SYSTEM FOR MONITORING AND CONTROL.
- 8. SINK DISPOSER: PROVIDE INSTALLATION OF DISPOSER CONTROLS VIA LIQUID-TITE FOOD GRADE FLEXIBLE RACEWAY. COMBINATION DISCONNECT/CONTROLLER FURNISHED BY FOOD SERVICE SUPPLIER.
- 9. GAS VALVE SOLENOID: PROVIDE CONTROL WIRING FROM ANSUL SYSTEM FOR GAS VALVE CONTROL. PROVIDE 120 VOLT POWER CONNECTION AS REQUIRED FOR GAS VALVE. COORDINATE GAS VALVE LOCATION WITH MECHANICAL CONTRACTOR.

#### 10. NOT USED.

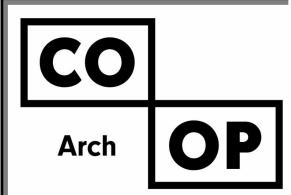
- 11. DISHWASHER/HEATER: PROVIDE CONNECTION FROM DISCONNECT TO DISHWASHER VIA LIQUID-TITE FOOD GRADE FLEXIBLE RACEWAY. PROVIDE 60 AMP, 208V, 3 PHASE, NEMA 4X DISCONNECT BY EC. DRAIN TEMPERING: PROVIDE 120 VOLT 20 AMP CONNECTION TO UNIT. PROVIDE DISCONNECT AS REQUIRED.
- 12. HEAT TAPE: PROVIDE 120 VOLT, 20 AMP CONNECTION TO DRAIN LINE HEAT TAPE (BY KITCHEN EQ. SUPPLIER). PROVIDE GFI PROTECTION PER 2020 NEC, PROVIDE SWITCH WITH LABEL IDENTIFYING "HEAT TAPE DISCONNECT".
- 13. DROP CORD: SEE DETAILS PAGE FOR DROP CORD INFORMATION. VERIFY FINAL LOCATION IN FIELD WITH OWNER PRIOR TO ROUGH-IN.
- 14. PROVIDE NEMA L7-20 RECEPTACLE FOR EQUIPMENT CONNECTION, VERIFY RECEPTACLE TYPE PRIOR TO ROUGH-IN.
- 15. EF-12: PROVIDE ELECTRONIC TIME SWITCH EQUAL TO INTERMATIC MODEL EI200 SERIES 5-30 MINUTE COUNTDOWN TIMER.
- 16. EF-13: PROVIDE 120 VOLT, 20 AMP CONNECTION FROM OCCUPANCY SENSOR, COORDINATE BAS CONNECTION WITH TEMPERATURE CONTROLS CONTRACTOR.

#### 17. NOT USED.

- 18. HEAT TAPE: PROVIDE EASYHEAT SR TRACE HEAT TAPE MODEL SR52J, 8 WATTS PER FOOT, 208 VOLT, 1 PHASE OR EQUAL WITHIN DOWNSPOUT FOR ICE REMOVAL. PROVIDE 30MA GFI CIRCUIT BREAKER IN PANEL AS REQUIRED BY THE NEC. SEE MECHANICAL SHEETS FOR LENGTHS AND LOCATIONS. PROVIDE TOGGLE SWITCH CONTROL NEXT TO ELECTRICAL AND LABEL 'HEAT TAPE DWNSPT'.
- 19. BABY CHARGING STATIONS: COORDINATE FINAL LOCATION IN FIELD WITH OWNER PRIOR TO ROUGH-IN.
- 20. OVERHEAD DOOR: PROVIDE POWER RECEPTACLE, PUSHBUTTON CONTROLLER, INSTALLATION OF FURNISHED SAFETY EYES/STRIP. COORDINATE POWER REQUIREMENTS WITH GENERAL CONTRACTOR PRIOR TO ROUGH-IN.

<u>KEYPLAN</u>

21. WASHER/DRYER COMBO: PROVIDE 208 VOLT, 30 AMP, SINGLE POLE RECEPTACLE WITH #10 CONDUCTORS FOR OWNER FURNISHED WASHER/DRYER. VERIFY CONNECTION TYPE PRIOR TO ROUGH-IN.



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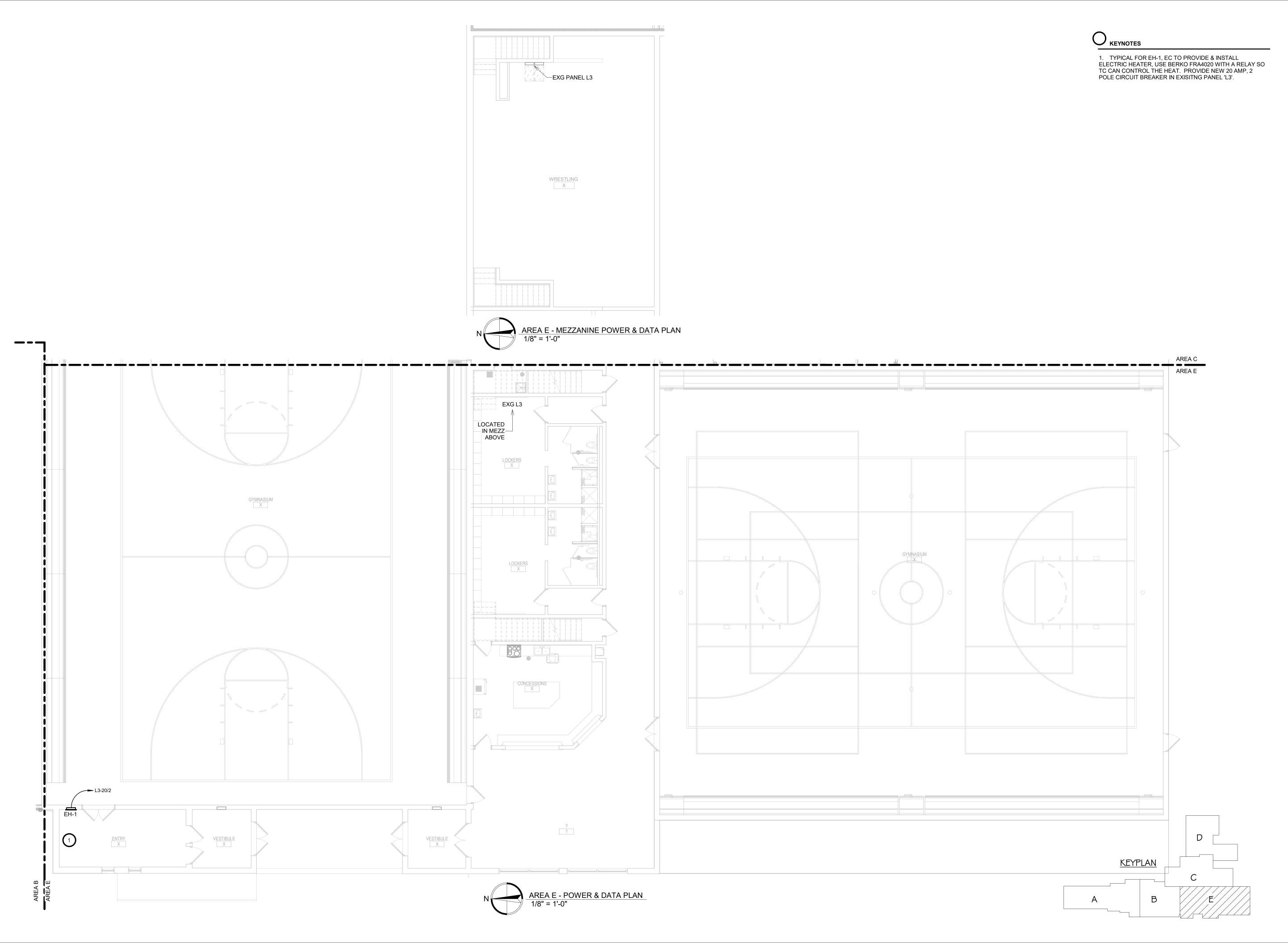
WILLOW LAKE SCHOOL ADDITION

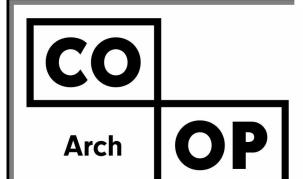
WILLOW LAKESCHOOL DISTRICT WILLOW LAKE, SOUTH DAKOTA

SHEET TITLE:

AREA D - POWER & DATA PLAN

E303D





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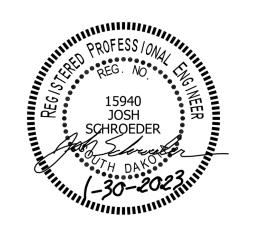
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WILLOW LAKE SCHOOL ADDITION

WILLOW LAKESCHOOL DISTRICT WILLOW LAKE, SOUTH DAKOTA

SHEET TITLE:

AREA E - POWER & DATA PLAN

E304E



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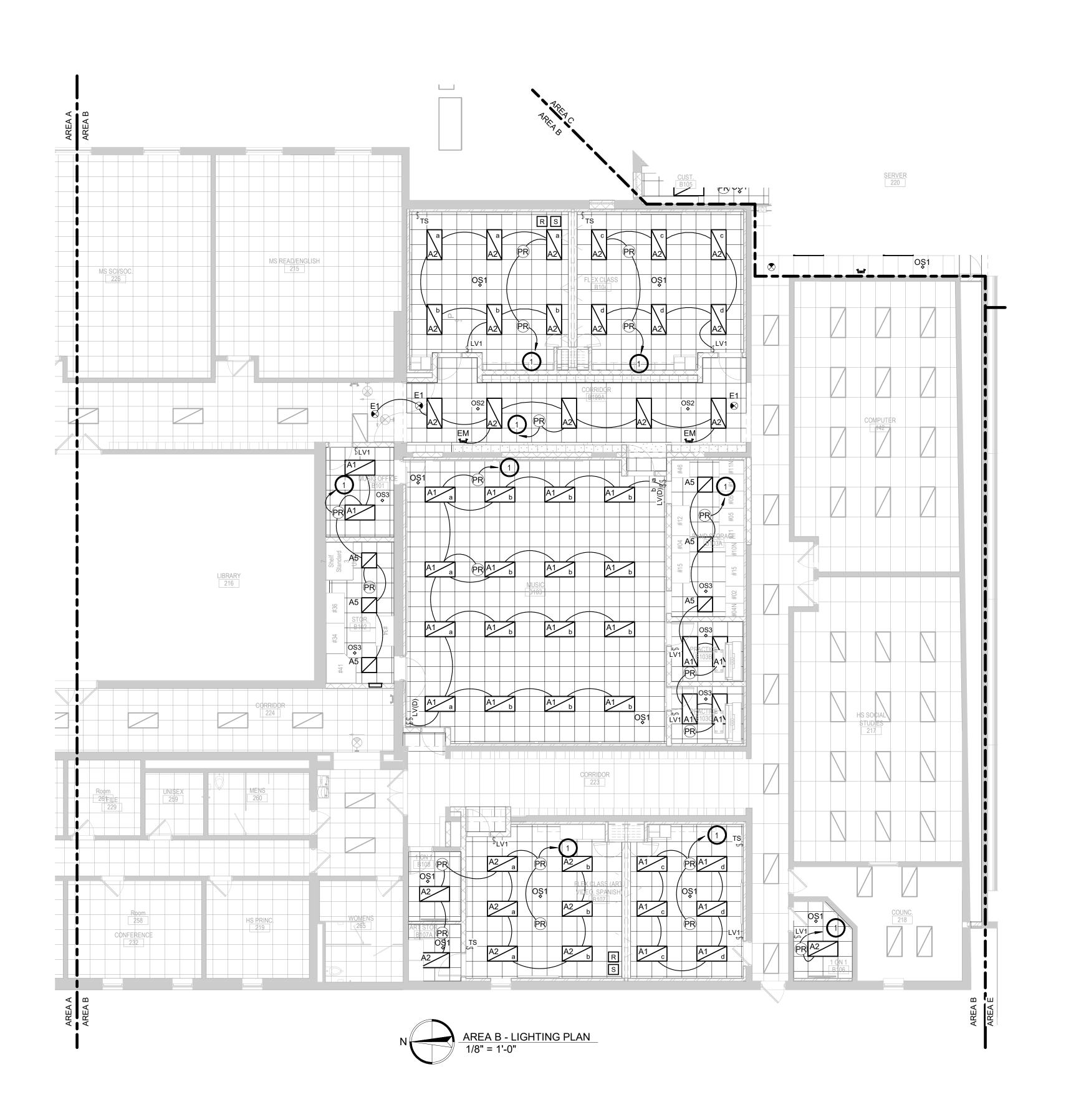
REVISION SCHEDULE:

WILLOW LAKE SCHOOL ADDITION

WILLOW LAKESCHOOL DISTRICT WILLOW LAKE, SOUTH DAKOTA

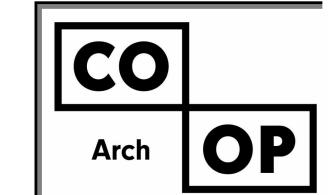
AREA A - LIGHTING PLAN

E400A





1. PROVIDE BRANCH CIRCUIT CONNECTION TO EXISTING LIGHTING BRANCH CIRCUIT FOR ROOM SALVAGED DURING DEMOLITION. VERIFY EXISTING BRANCH CIRCUIT LOADING IN FIELD AND NOTIFY ENGINEER OF ANY OVERLOAD CONDITIONS.



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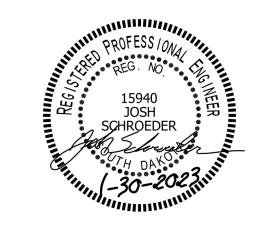
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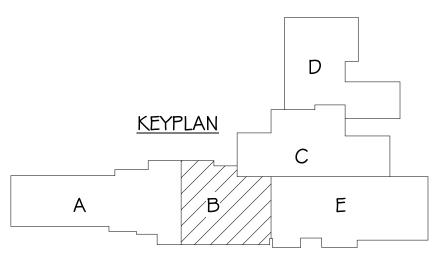
WILLOW LAKE SCHOOL ADDITION

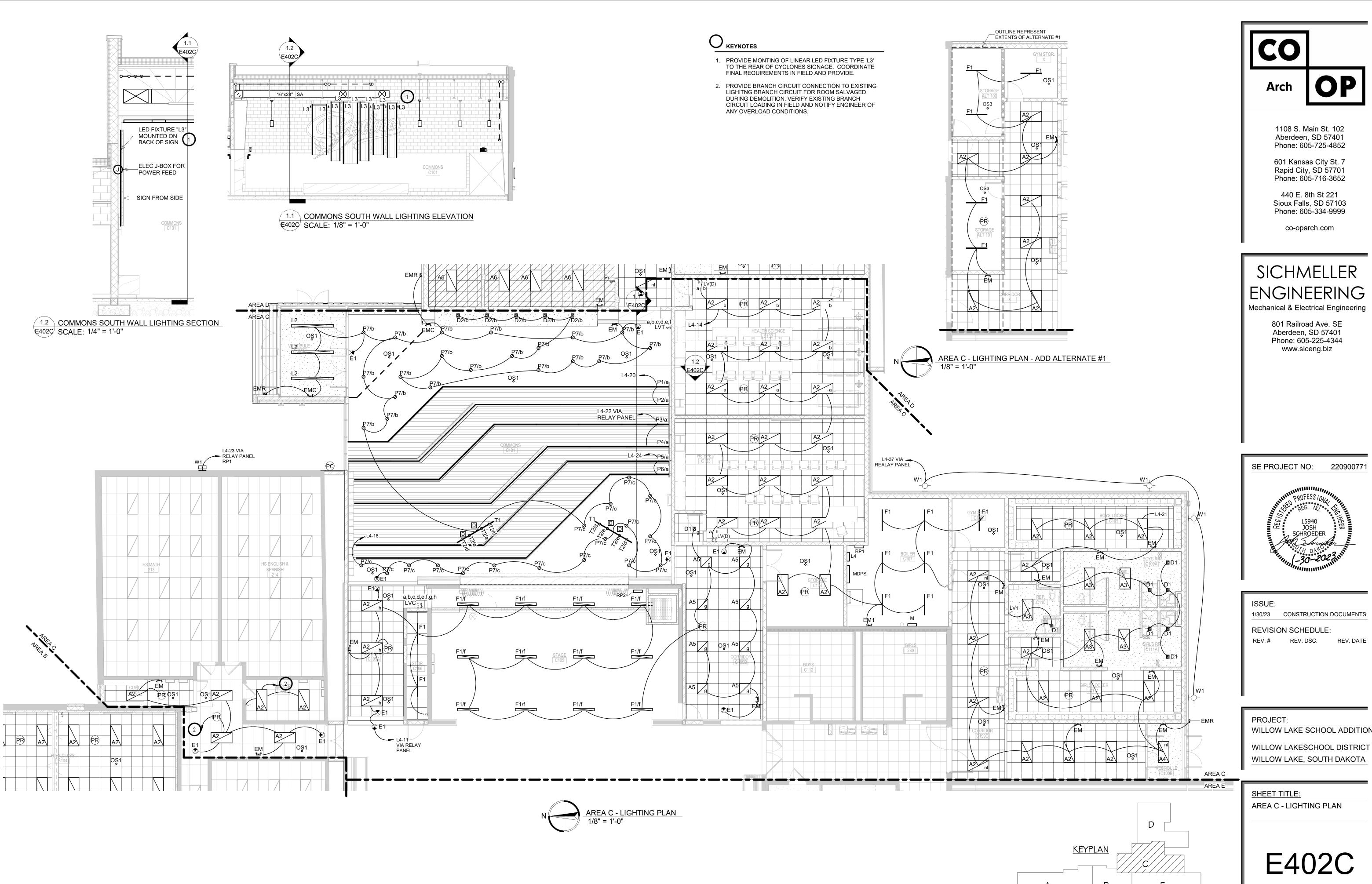
WILLOW LAKESCHOOL DISTRICT
WILLOW LAKE, SOUTH DAKOTA

SHEET TITLE:

AREA B - LIGHTING PLAN

E401B



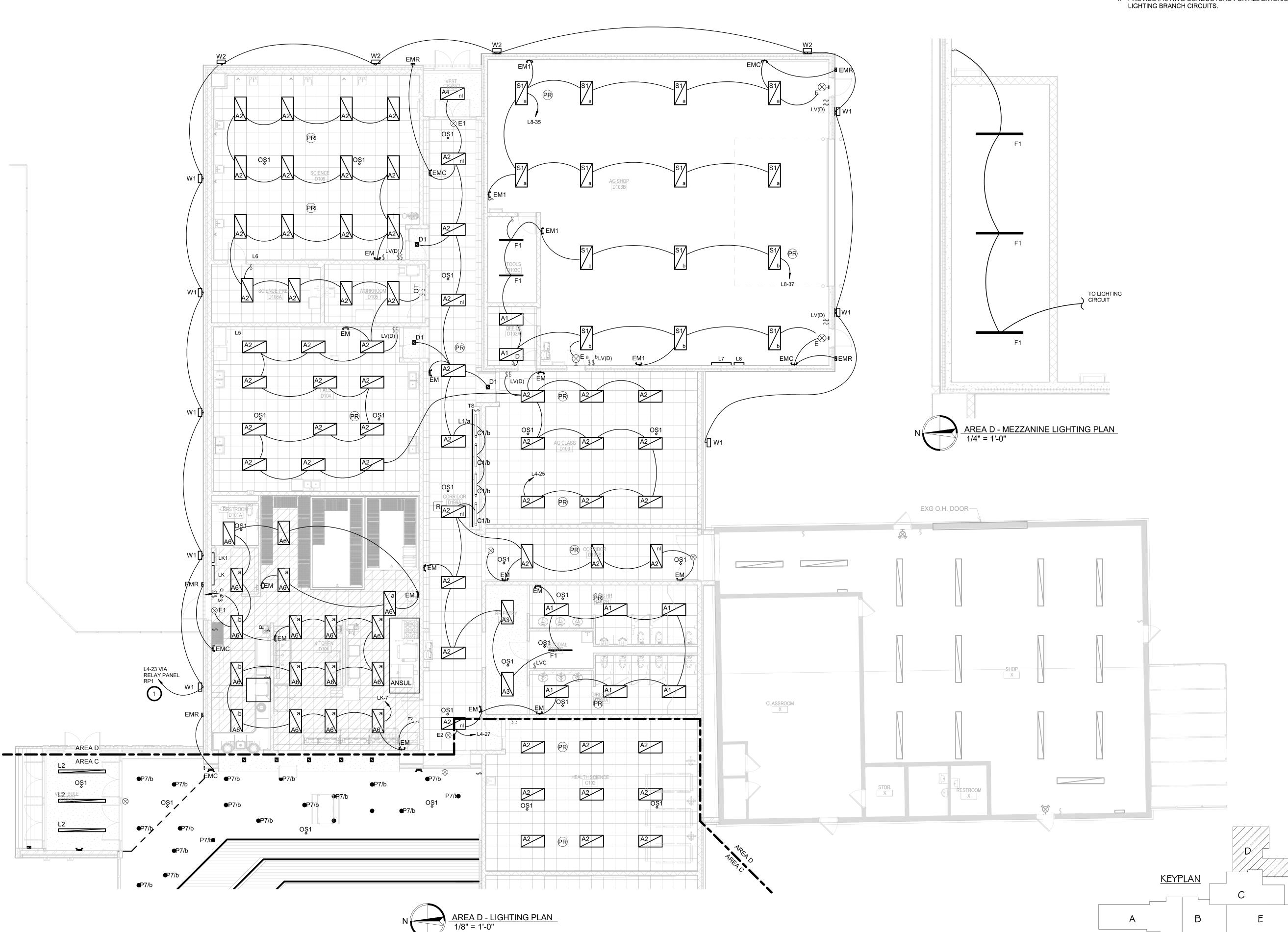


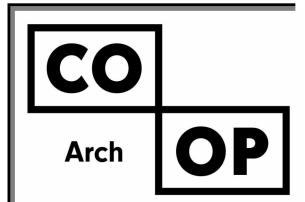
E402C

220900771



PROVIDE #10 AWG CONDUCTORS FOR ALL EXTERIOR LIGHTING BRANCH CIRCUITS.





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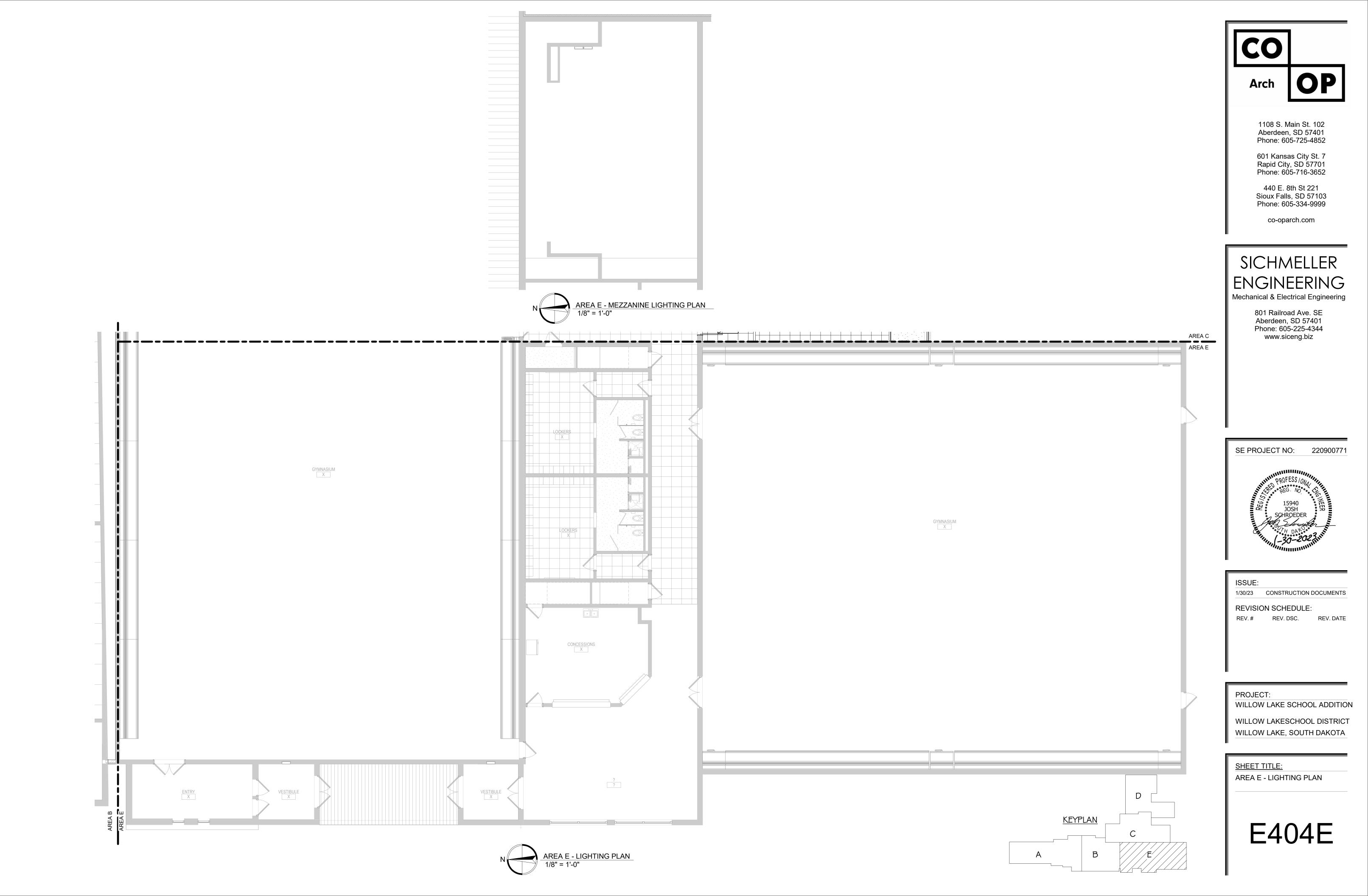
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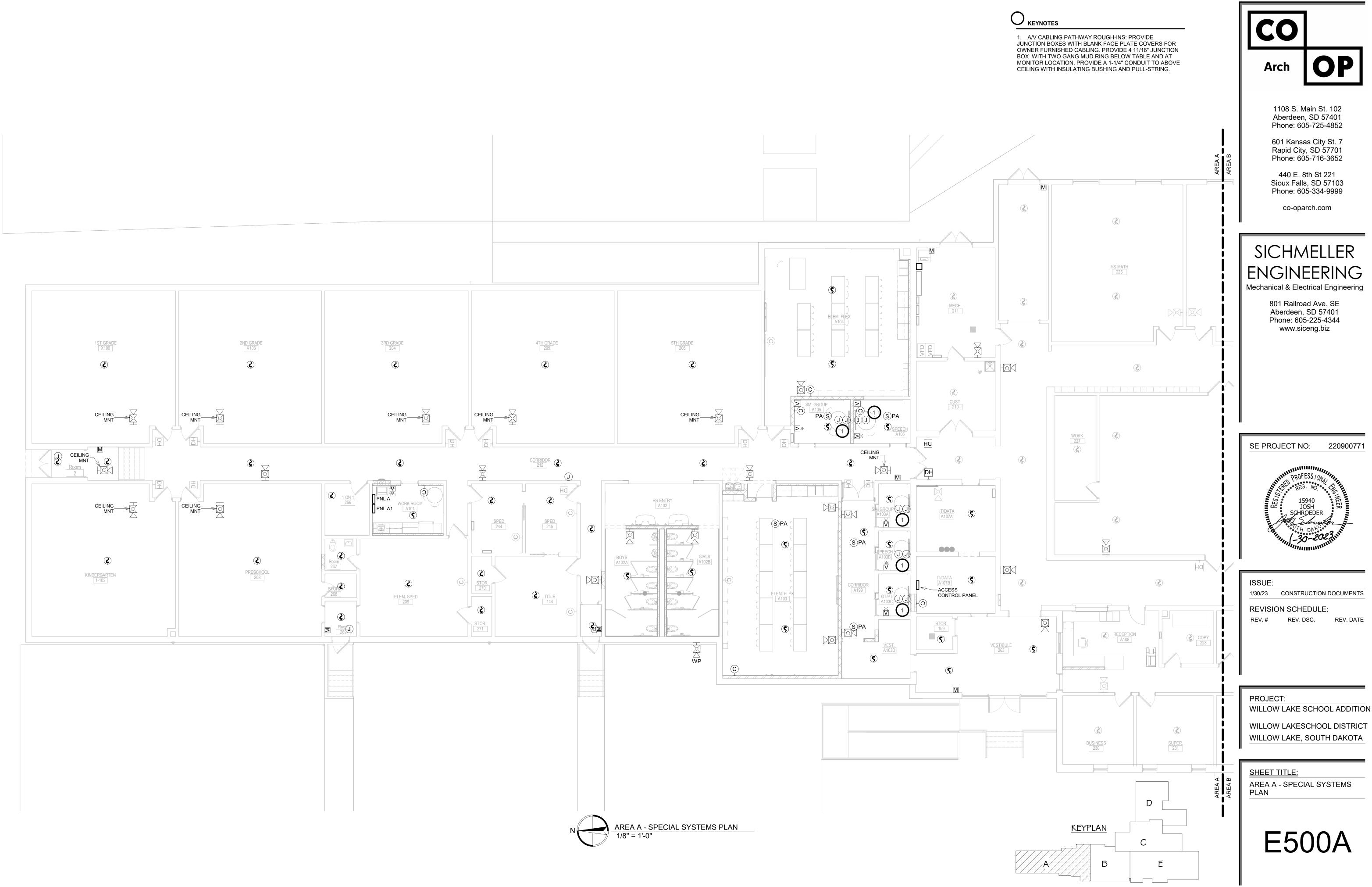
WILLOW LAKESCHOOL DISTRICT WILLOW LAKE, SOUTH DAKOTA

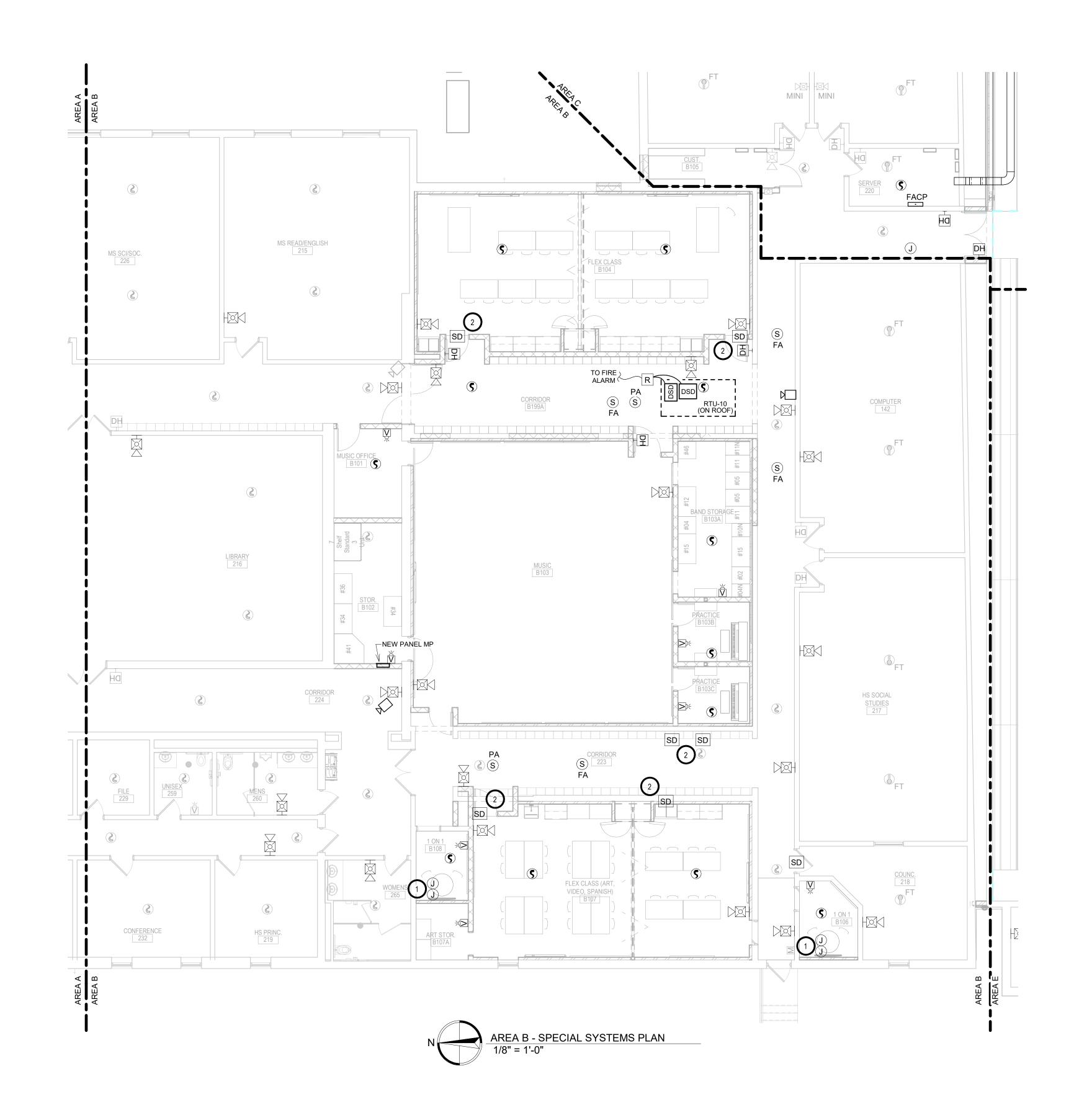
SHEET TITLE:

AREA D - LIGHTING PLAN

E403D







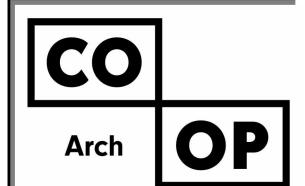
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## KEYNOTES

1. A/V CABLING PATHWAY ROUGH-INS: PROVIDE JUNCTION BOXES WITH BLANK FACE PLATE COVERS FOR OWNER FURNISHED CABLING. PROVIDE 4 11/16" JUNCTION BOX WITH TWO GANG MUD RING BELOW TABLE AND AT MONITOR LOCATION. PROVIDE A 1-1/4" CONDUIT TO ABOVE CEILING WITH INSULATING BUSHING AND PULL-STRING.

2. TYPICAL - SMOKE DAMPERS ARE 120V POWER OPEN. USE MONITOR MODULE/FIRE ALARM RELAY TO OPEN 120V POWER ON ALARM. PROVIDE BRANCH CIRCUIT WIRING TO NEAREST 120 VOLT PANEL, PROVIDE NO MORE THAN (3) DAMPERS PER 20 AMP CIRCUIT. SEE PANEL SCHEDULE FOR CIRCUIT LOCATIONS.

**KEYPLAN** 



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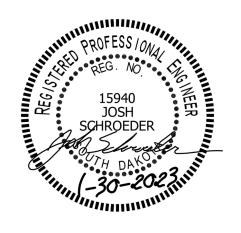
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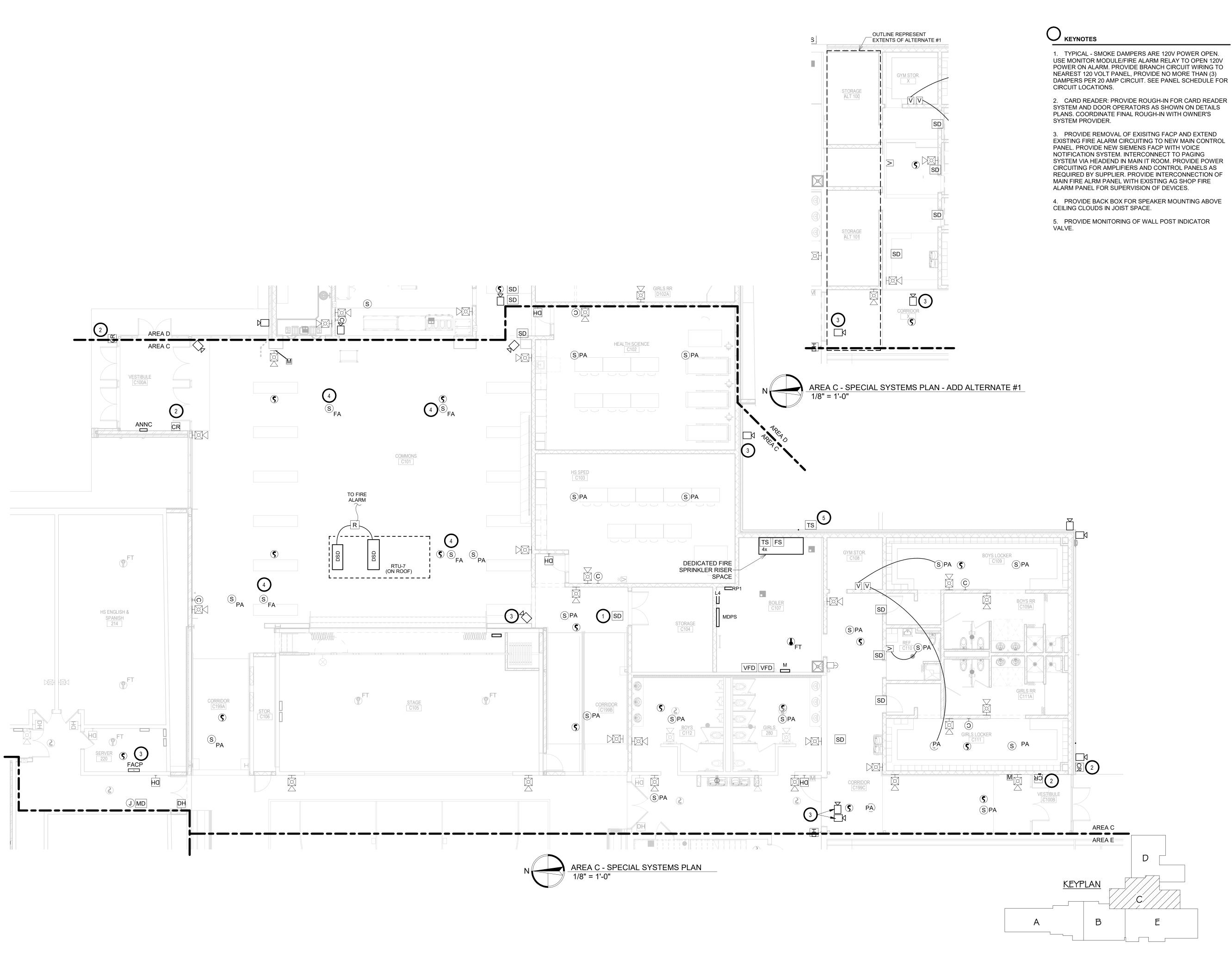
WILLOW LAKE SCHOOL ADDITION

WILLOW LAKESCHOOL DISTRICT
WILLOW LAKE, SOUTH DAKOTA

SHEET TITLE:

AREA B - SPECIAL SYSTEMS PLAN

E501B





Arch

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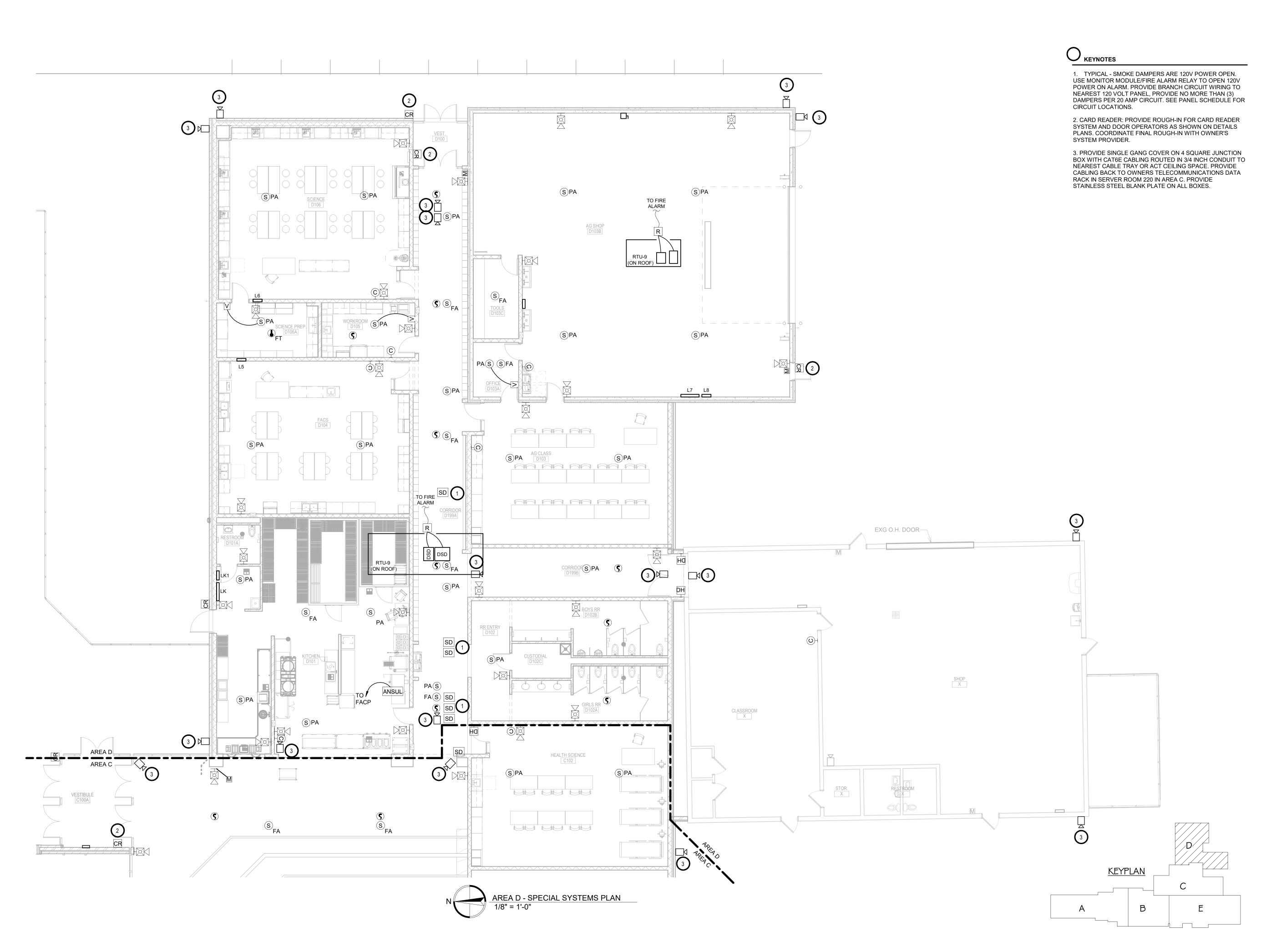
WILLOW LAKE SCHOOL ADDITION

WILLOW LAKESCHOOL DISTRICT WILLOW LAKE, SOUTH DAKOTA

SHEET TITLE:

AREA C - SPECIAL SYSTEMS PLAN

E502C



CO
Arch OP

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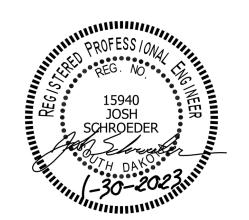
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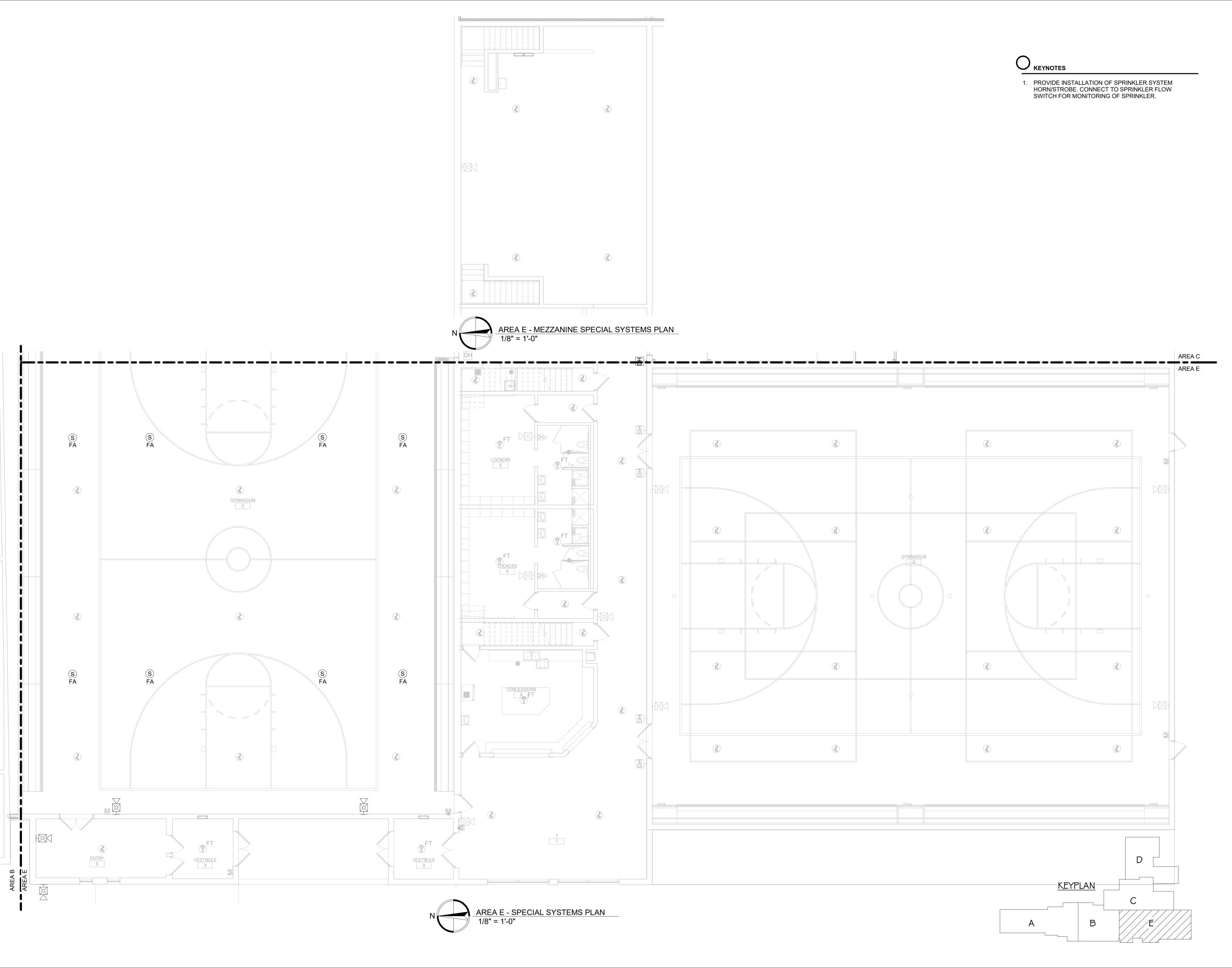
WILLOW LAKE SCHOOL ADDITION

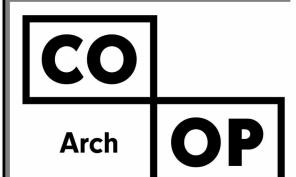
WILLOW LAKESCHOOL DISTRICT WILLOW LAKE, SOUTH DAKOTA

SHEET TITLE:

AREA D - SPECIAL SYSTEMS PLAN

E503D





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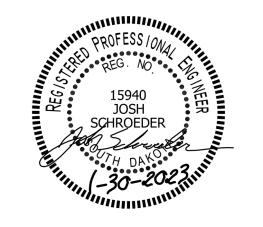
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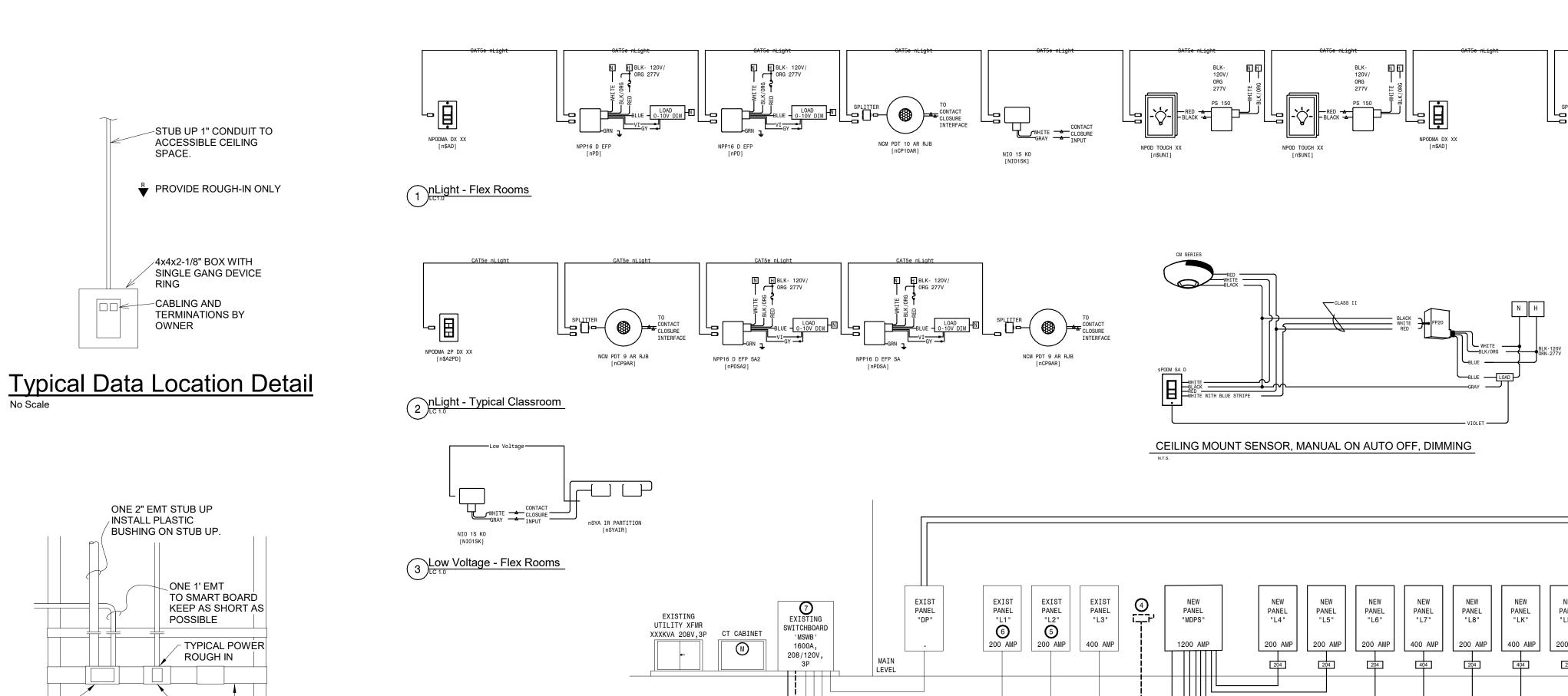
WILLOW LAKE SCHOOL ADDITION

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WILLOW LAKE, SOUTH DAKOTA

SHEET TITLE:

AREA E - SPECIAL SYSTEMS PLAN

E504E



1. SWITCHBOARD 'MH': PROVIDE NEW 480 VOLT, 200 AMP, 3 POLE CIRCUIT BREAKER FOR CONNECTION OF NEW FEEDER. SWITCHBOARD INFO; GENERAL ELECTRIC COMPANY, REQ. NO. 386NBG94, JOB NO.

2. SWITCHBOARD 'ML': UTILIZE EXISTING SPARE 208 VOLT, 100 AMP, 3 POLE CIRCUIT BREAKER FOR

4. PROVIDE DEMOLITION AND REMOVAL OF EXISTING 200 AMP DISCONNECT AND FEEDER LOCATED IN

5. EXISTING PANEL 'L2': PROVIDE (2) NEW 30 AMP, 2 POLE CIRCUIT BREAKERS IN PANEL FOR CONNECTION OF DSC-10, DSC-11. PANEL INFO - SQUARE D SERIES NQ, 225 MAX AMP, 208Y/120V,

6. EXISTING PANEL 'L1': PROVIDE NEW (1) 40 AMP, 2 POLE CIRCUIT BREAKERS, AND (1) 15 AMP SINGLE POLE CIRCUIT BREAKER IN PANEL FOR CONNECTION OF FC-A103 AND CU-A103. PANEL INFO -

7. EXISTING MAIN SWD 'MDP': PROVIDE NEW (1) 800AMP, 3 POLE CIRCUIT BREAKER AND (1) 100

AMP, 3 POLE CIRCUIT BREAKER IN SWB FOR CONNECTION OF PANEL 'MDPS' AND RTU-10. PANEL INFO

- SQUARE D QED SERIES 2, 1600 AMP, 208Y/120V, 3 PHASE, 4 WIRE, CAT#36762568-00, PLANT 44.

SQUARE D SERIES NQ, 225 MAX AMP, 208Y/120V, 3 PHASE, 4 WIRE, 10KAIC,

3. UTILIZE EXISTING 400 AMP 3 POLE FUSIBLE SWITCH FOR CONNECTION OF TRANSFORMER 'WL'.

O RISER DIAGRAM NOTES:

AREA C BOILER ROOM.

178SB15133E01, SECTION 3 OF 3 2500 AMP.

PROVIDE 300 AMP FUSES AS REQUIRED FOR CONNECTION.



DEVICE

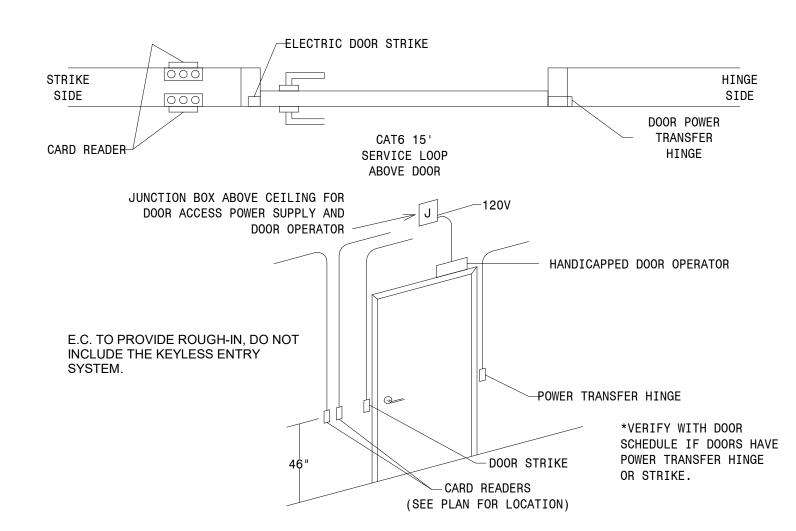
SINGLE GANG

-RING WITH 4X4

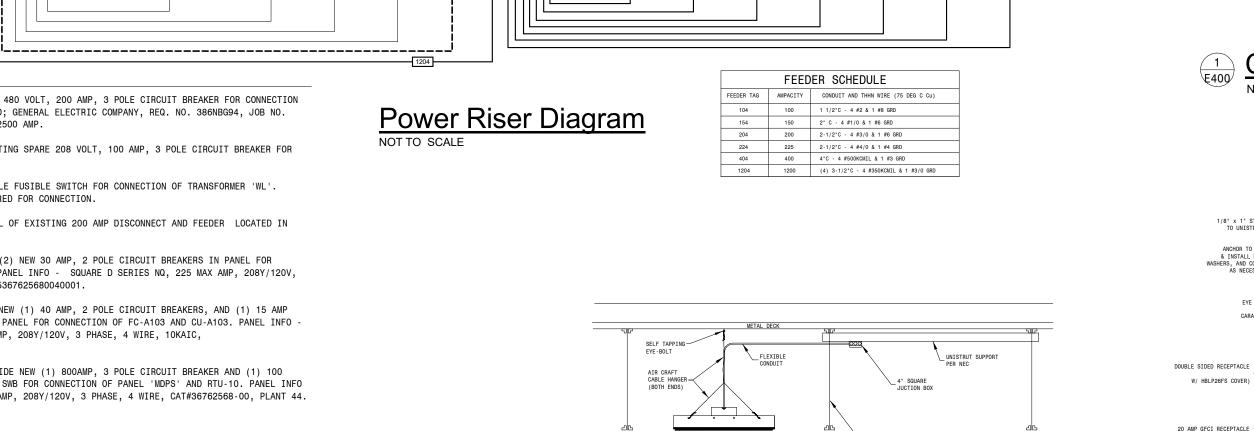
L CADDY RBS16 OR RBS24

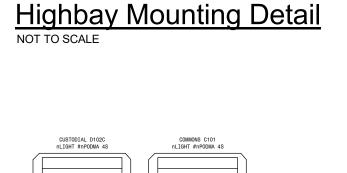
THREE GANG BOX USE HUBBELL

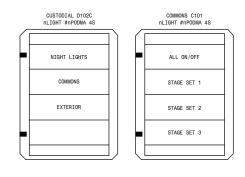
HBL986



TYP	ICA	AL DOOR WIRING ROUGH-IN
DEVICE		EC PROVIDE
DOOR STRIKE	DS	1/2" CONDUIT FROM STRIKE TO ACCESSIBLE CEILING ABOVE DOOR
CARD READERS	CR	3/4" CONDUIT TO ACCESSIBLE CEILING, 4X4X2 1/8 BOX WITH SINGLE GANG DEVICE RING
DOOR OPERATOR		120V CONNECTION TO OPERATOR, AND EMPTY 1/2" CONDUIT TO ABOVE CEILING FOR SECURITY CONTRACTOR
JUNCTION BOX		120V CIRCUIT TO J-BOX ABOVE DOOR FOR SECURITY/DOOR LOCK POWER SUPPLY
POWER TRANSFER HINGE		1/2" CONDUIT FROM FRAME TO ACCESSIBLE CEILING ABOVE DOOR

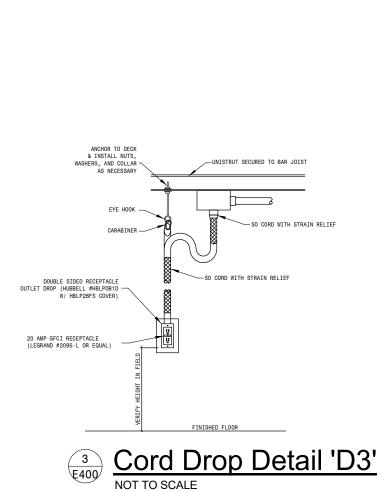






- 1. PROVIDE ENGRAVED BUTTONS AS INDICATED, LABELS WILL NOT BE ACCEPTED.
- 2. "ALL ON/OFF" SHALL TURN ON ALL LIGHTING COMMONS C101, OFF SHALL TURN OFF THE SAME LIGHT FIXTURES EXCEPT NIGHT LIGHTING CIRCUIT (NL) FOR ALL AREAS.
- 3. "NIGHT LIGHTS" SHALL CONTROL ALL CORRIDOR NIGHT LIGHTS INCLUDING MAIN ENTRY FIXTURES.
- 4. "COMMONS" SHALL TURN ON/OFF ALL LIGHT FIXTURE IN COMMONS EXCEPT TRACK LIGHTING.
- 5. "EXTERIOR" SHALL CONTROL ALL EXTERIOR BUILDING LIGHT FIXTURES.
- 6. "STAGE SET 1" PROGRAM TYPICAL STAGE LIGHITNG FOR FLOODS ONLY.
- 7. ""STAGE SET 2" PROGRAM TYPICAL STAGE LIGHITNG FOR FLOODS ONLY AND SPOT LIGHTS ON/OFF WITH
- 8. "STAGE SET 3" PROGRAM TYPICAL STAGE LIGHTING PER OWNER REQUEST.

4 Lighting Control Engraving Detail



OUTLET DROP (HUBBELL #HBLPOB1D

NPP16 D EFP

PP20 SINGLE CIRCUIT W/MULTIPLE OCC SENSORS

NEW PANEL

SO CORD WITH STRAIN RELIEF

Cord Drop Detail 'D1'
NOT TO SCALE

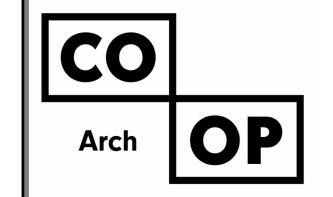
-SO CORD WITH STRAIN RELIEF

Cord Drop Detail 'D2'

SINGLE SIDED RECEPTACLE

OUTLET DROP (HUBBELL #HBLPOB1
W/ HBLP26FS COVER)

PROVIDE NEMA L5-20 TWIST LOCK RECEPTACLE/PLUG.
—RECEPTACLE TO BE FLUSH MOUNTED IN ACT (PROVIDE MOUNTING HARDAWARE AS REQUIRED).



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WILLOW LAKE SCHOOL ADDITION

WILLOW LAKESCHOOL DISTRICT WILLOW LAKE, SOUTH DAKOTA

SHEET TITLE:

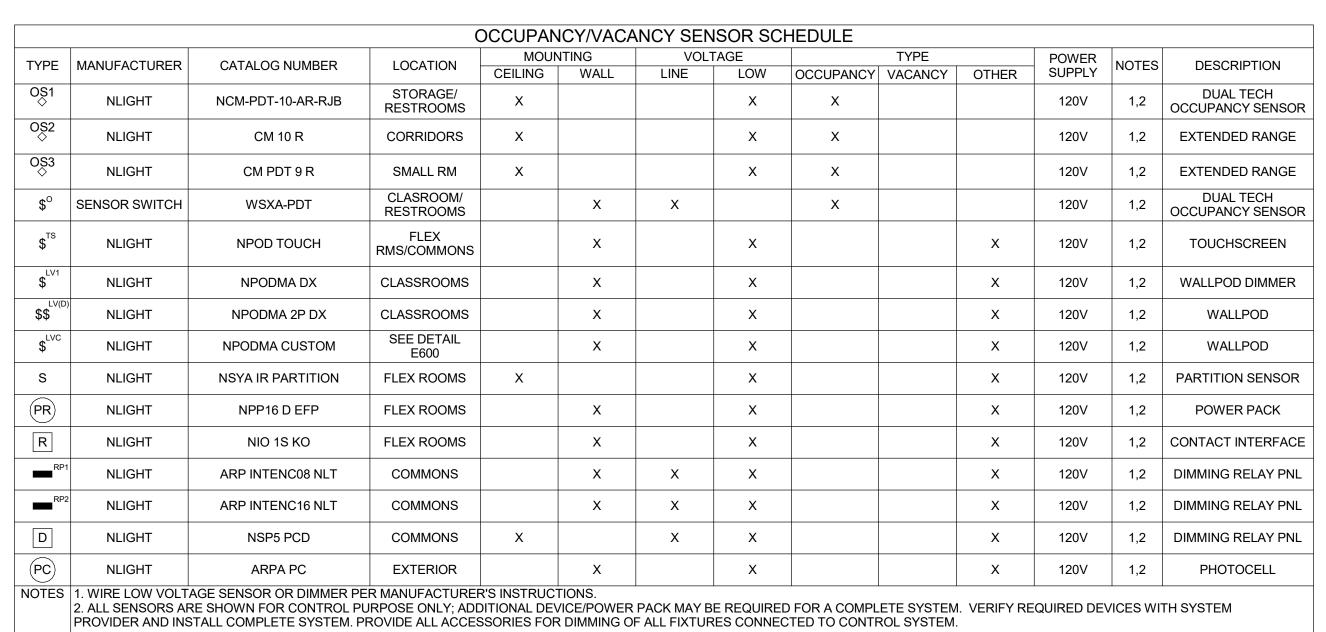
ELECTRICAL DETAILS

								PANE	L '	'L4'								
VOL	TAGE:	20	8/120, 3	P, 4W	BUS	RATING:	2	25 AMP		ENCL. TYPE:	NEM	IA 1	LOC	ATION:	BOILER	RM		•
	TYPE:		МСВ		AIC	RATING:	2	22,000		MOUNTING:	SUR	FACE	FED	FROM:	MDP	S	-	
C	RKT BR	KR			CONNECT	ED LOAD (	VA)				CONN	ECTED LOA	D (VA)			CRI	KT BRI	KR
#	AMPS	POLE	LIGHTING	MOTORS	HVAC	KITCHEN	RECPT	DESCRIPTION	PH	DESCRIPTION	RECPT	KITCHEN	_ ` /	MOTORS	LIGHTING	AMPS	POLE	#
1	20	1					800	NURSE	Α	HS SPED	800					20	1	2
3	20	1					800	NURSE	В	HS SPED	800					20	1	4
5	20	1					800	NURSE	С	HS SPED	800					20	1	6
7	20	1					800	NURSE S	Α	S COMMONS	800					20	1	8
9	20	1					600	NURSE S	В	N COMMONS	800					20	1	10
11	20	1	812					STAGE/CORR	С	CUH-C100				200		20	1	12
13	20	1					400	ROOF RECP	Α	NURSE/BOILER					1213	20	1	14
15	20*	1					1200	WATER CLR	В	EF-10				1200		20	1	16
17	20*	1					1200	WATER CLR	С	COMMON (P)					1289	20	1	18
19	20	1			1200			EF-6	Α	Comm (CLOUD)					1048	20	1	20
21	20	1	692					LOCKER/CORR	В	Comm (CLOUD)					1040	20	1	22
23	20	1	793					EXTERIOR LTS	С	Comm (CLOUD)					1064	20	1	24
25	20	1	1184					SCI/FACS LTS	Α	SMOKE DMPR						20+	1	26
27	20	1	852					CORR/RR LTS	В	SMOKE DMPR						20+	1	28
29	20	1					600	BOY LOCKER	С	SMOKE DMPR						20+	1	30
31	20	1					600	GIRLS LOCKER	Α	SMOKE DMPR						20+	1	32
33	20*	1					200	WC	В	SMOKE DMPR						20+	1	34
35	20*	1					200	WC	С	SPARE						20	1	36
37	20	1	150					EXTERIOR LTS	Α	SPARE						20	1	38
39	20*	1						SPARE	В	SPARE						20	1	40
41	20*	1						SPARE	С	SPARE						20	1	42
				LOAD (	CALCULAT	IONS												
			V	A / PHASI	 E	CONN.		DIVERSIFIED	1	NOTES:								
	TYPE		A	В	С	LOAD	DEMAND	LOAD		1. BREAKERS	NOTED WI	TH * TO BE	E GFCI			=		
	LIGHTIN	NG	3595	2584	3958	10137	1.00	10137	-	2. BREAKERS				AKER LOC	KED ON.			
•	MOTORS		0	1200	200	1400	0.90	1260	1									
	HVAC		1200	0	0	1200	0.75	900	1									
(IT	CHEN E		0	0	0	0	0.65	0	1									
	CEPTAC		4200	4400	3600	12200	0.60	7320	1									
			AMPS:		4	TOTAL		19617	1									

								PANE	L'	L6'								
VOL	TAGE:	20	08/120, 3F	P, 4W	BUS	RATING:	2	25 AMP		ENCL. TYPE:	NEN	MA 1	LO	CATION:	SCIEN	CE	-	
7	ΓΥΡE:		MCB		AIC	RATING:	2	22,000		MOUNTING:	RECE	ESSED	FE	D FROM:	MDPS	3		
	RKT BF	סעם														CD	KT BR	
			LIGHTING	MOTORS	HVAC	ED LOAD ( KITCHEN	RECPT	DESCRIPTION	ДЦ	DESCRIPTION		NECTED LOA	HVAC	MOTORS	LIGHTING			
#			LIGHTING	MOTORS	HVAC	KIICHEN				DESCRIPTION	REUPT	KITCHEN	пуас	MOTORS	LIGHTING	AIVIFO	FULL	+
1	20	1					400	NW STATION	A	SPARE						20	2	-
3	20						400	NE STATION	В	OMORE DADD						001	_	+
5	20	1					600	E STATION	C	SMOKE DMPR						20+	1	+
7	20	1		1000			800	W WALL	A	SMOKE DMPR						20+	1	+
9	20	1		1200			000	EF-14	В	SMOKE DMPR	050					20+	1	+
11	20	1		750			600	S WALL	C	GAS VALVE	250					20	1	4
13	20	1		750			400	EF-12,13	Α	SPARE						20	1	+
15	20	1					400	INSTRC TBL	В	SPARE						20	1	+
17	20	1					400	DROP CORD 1	С	SPARE						20	1	4
19	20	1					400	DROP CORD 2	A	SPARE						20	1	+
21	20	1					400	DROP CORD 3	В	SPARE						20	1	_
23	20	1					400	DROP CORD 4	С	SPARE						20	1	_
25	20	1					400	DROP CORD 5	Α	SPARE						20	1	_
27	20	1					400	DROP CORD 6	В	SPARE						20	1	_
29	20	1		1200				EF-15	С	SPARE						20	1	4
31	20	1		200				CUH-D100	Α	SPARE						20	1	_
33	20	1						SPARE	В	SPARE						20	1	_
35	20	1						SPARE	С	SPARE						20	1	
37	20	1						SPARE	Α	SPARE						20	1	1
39	20	1						SPARE	В	SPARE						20	1	
41	20	1						SPARE	С	SPARE						20	1	
				LOAD (	CALCULAT	IONS												
	-:/		V	A / PHASI		CONN.		DIVERSIFIED		NOTES:								
	TYPE		Α	В	С	LOAD	DEMAND	LOAD		1. BREAKERS	NOTED WI	TH * SHAL	L BE GI	-CI				
L	IGHTI	NG	0	0	0	0	1.00	0		2. BREAKERS	NOTED WI	TH + SHAL	L BE BRE	EAKER LO	CKED ON.			
	MOTOR		950	1200	1200	3350	0.90	3015										
	HVAC		0	0	0	0	0.75	0										
<itc< td=""><td>CHEN E</td><td></td><td>0</td><td>0</td><td>0</td><td>0</td><td>0.65</td><td>0</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></itc<>	CHEN E		0	0	0	0	0.65	0										
	CEPTA		2000	1600	2250	5850	0.60	3510										
			AMPS:	1		TOTAL		6525										

								PANE	L '								
/OLT	AGE:	20	08/120, 3F	P, 4W	BUS	RATING:	2	25 AMP	-	ENCL. TYPE:	NEI	MA 1	LO	CATION:	FACS	-	
Т	YPE:		MCB		AIC	RATING:	2	22,000	_	MOUNTING:	RECI	ESSED	FE	D FROM:	MDPS	_	
CR	KT BF	RKR			CONNECT	ΓED LOAD (	(VA)				CONI	NECTED LOA	D (VA)		CR	KT BRI	KR
#	AMPS	POLE	LIGHTING	MOTORS	HVAC	KITCHEN	RECPT	DESCRIPTION	PH	DESCRIPTION	RECPT	KITCHEN	HVAC	MOTORS	LIGHTING AMPS	POLE	#
1	20	1					400	N STATION	Α	NE DROP	400				20	1	2
3	20	1					400	N STATION	В	NW DROP	400				20	1	4
5	20	1					400	W STATION	С	W DROP	400				20	1	6
7	20	1					400	W STATION	Α	SW DROP	400				20	1	8
9	20	1					200	W STATION	В	SE DROP	400				20	1	10
11	20	1					400	S STATION	С	FRIDGE		1800			20	1	12
13	20	1					400	S STATION	Α	N HOODS				500	20	1	14
15	20	1				1500		N MICRO	В	W HOODS				500	20	1	16
17	20	1				1500		W MICRO	С	S HOODS				500	20	1	18
19	20	1				1500		S MICRO	Α	DD)/ED		2400					20
21	20	1						E WALL	В	DRYER		2400			30	2	22
23	20	1						FRONT/DESK	С	EF-11				1656	25	1	24
25	20	1					400	BABY CRG	Α	WASHER		1200			30	1	26
27	20	1					400	BABY CRG	В	SPARE					20	1	28
29	20	1						SPARE	С	SPARE					20	1	30
31						4000		DANIOE	Α	SPARE					20	1	32
33	50	2				4000		RANGE	В	SPARE					20	1	34
35		_				4000		54405	С	54405		4000					36
37	50	2				4000		RANGE	Α	RANGE		4000			50	2	38
39		_				4000		544405	В	54405		4000					40
41	50	2				4000		RANGE	С	RANGE		4000			50	2	42
			1	LOAD	CALCULA	TIONS						-				1	
			V	A / PHAS	F	CONN.		DIVERSIFIED		NOTES:							
	TYPE		Α	В	С	LOAD	DEMAND	LOAD	1	1. BREAKERS	NOTED WI	TH * SHAL	L BE GFO	OI .			
L:	IGHTI	NG	0	0	0	0	1.00	0									
	MOTOR		500	500	2156	3156	0.90	2840									
	HVAC		0	0	0	0	0.75	0									
	HEN E		17100	15900	19300	52300	0.65	33995									
	EPTAC		2400	1800	1200	5400	0.60	3240									
			AMPS:	1		TOTAL		40075									

								PANE	<u>L</u> '	L7 '								
VOL.	TAGE:	20	08/120, 3F	P, 4W	BUS	RATING:	4	00 AMP	-	ENCL. TYPE:	NE	//A 1	L0	CATION:	AG SH	IOP	_	
	ГҮРЕ:		MCB		AIC	RATING:	2	22,000	_	MOUNTING:	SUR	FACE	FE	D FROM:	MDPS	S	=	
С	RKT BF	RKR			CONNECT	ED LOAD (	VA)				CON	NECTED LOA	D (VA)			CR	KT BRI	(R
#	AMPS	POLE	LIGHTING	MOTORS	HVAC	KITCHEN	RECPT	DESCRIPTION	PH	DESCRIPTION	RECPT	KITCHEN	HVAC	MOTORS	LIGHTING	AMPS	POLE	#
1					10080				Α	WELDER				4500		50*		2
3	100	3			10080			RTU-9	В	STATION				4500		30"	2	4
5					10080				С	WELDER				4500		50*	_	6
7	50*	2		4500				WELDER	Α	STATION				4500		30"	2	8
9	50^	2		4500				WELDER	В	WELDER				4500		E0+	_	10
11	50*	2		4500				WELDER	С	STATION				4500		50*	2	12
13	50^	2		4500				WELDER	Α	WELDER				4500		50*	_	14
15	E0*	0		4500				WELDED	В	STATION				4500		50*	2	16
17	50*	2		4500				WELDER	С	WELDER				4500		E0+	_	18
19	E0*	•		4500				WELDED	Α	STATION				4500		50*	2	20
21	50*	2	4500	WELDER	В	TUBING				1500		20*	_	22				
23	E0*	0						CDADE	С	BENDER				1500		20^	2	24
25	50*	2						SPARE	Α	SPARE						40*	2	26
27				2000					В	5PARE						40^	2	28
29	35	3		2000				AIR COMP	С	CDADE						00+	_	30
31				2000					Α	SPARE						30*	2	32
33	20	1							В	CDADE						00	_	34
35	20	1							С	SPARE						20	2	36
37				900					Α									38
39	15	3		900				EF-19	В	SPARE						200	3	40
41				900					С									42
				LOAD (	CALCULAT	TIONS								·		•	•	
	T)/DE		V	A / PHAS	E	CONN.	DEMAND	DIVERSIFIED		NOTES:								
	TYPE		Α	В	С	LOAD	DEMAND	LOAD		1. BREAKERS	NOTED WI	TH * SHALL	L BE GI	FCI		-		
L	IGHTI	NG	0	0	0	0	1.00	0										
	MOTOR	S	34400	31400	26900	92700	0.90	83430										
	HVAC		10080	10080	10080	30240	0.75	22680										
(ITC	HEN E	QUIP.	0	0	0	0	0.65	0										
RE	CEPTAC	LES	0	0	0	0	0.60	0										
		TOTAL	AMPS:	29	95	TOTAL	VA:	106110										





1108 S. Main St. 102 Aberdeen, SD 57401 Phone: 605-725-4852

601 Kansas City St. 7 Rapid City, SD 57701 Phone: 605-716-3652

440 E. 8th St 221 Sioux Falls, SD 57103 Phone: 605-334-9999

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# SICHMELLER ENGINEERING Mechanical & Electrical Engineering

801 Railroad Ave. SE Aberdeen, SD 57401 Phone: 605-225-4344 www.siceng.biz

SE PROJECT NO:



220900771

ISSUE:

1/30/23 CONSTRUCTION DOCUMENTS

REVISION SCHEDULE:
REV. # REV. DSC. REV. DATE

PROJECT:

WILLOW LAKE SCHOOL ADDITION

WILLOW LAKESCHOOL DISTRICT WILLOW LAKE, SOUTH DAKOTA

SHEET TITLE:

ELECTRICAL SCHEDULES

**=700** 

								PANE										
VOLT/	AGE:	20	08/120, 3F	P, 4W	BUS	RATING:	2	25 AMP	-	ENCL. TYPE:	NEN	//A 1	L0	CATION:	AG SH	0P		
T۱	YPE:		MCB		AIC	RATING:	2	22,000		MOUNTING:	SUR	FACE	FE	D FROM:	MDPS	3		
CRI	KT BF	RKR			CONNECT	ED LOAD (	VA)				CON	NECTED LOAI	) (VA)			CRI	KT BRI	KR
			LIGHTING	MOTORS		KITCHEN	RECPT	DESCRIPTION	PH	DESCRIPTION		KITCHEN	HVAC	MOTORS L	TGHTTNG			
1	20	1					400	NE DROP	Α	AG CLASS	600					20	1	2
3	20	1					400	NW DROP	В	AG CLASS	600					20	1	4
5	20	1					400	SE DROP	С	AG CLASS	600					20	1	6
7	20	1					400	SW DROP	Α	AG TEACHER	400					20	1	8
9	20	1					1200	OH DOOR	В	CORRIDOR	800					20	1	10
11	20	1					800	OFFICE	С	CORR WTR CLR	500					20*	1	12
13	20	1					400	ROOF RECP	Α	CORR WTR CLR	500					20*	1	14
	20*	1					500	WATER CLR	В	WELD STATION	1800					20	1	16
	20*	1					500	WATER CLR	С	WELD STATION	1800					20	1	18
19	20*	1					200	SINK	Α	WELD STATION	1800					20	1	20
21	20	1					400	TOOLS	В	WELD STATION	1800					20	1	22
23	20	1					400	TOOL CHARGER	С	WELD STATION	1800					20	1	24
25	20	1					400	TOOL CHARGER	Α	EAST RECP	400					20	1	26
27	20	1					400	TOOL CHARGER	В	EAST RECP	400					20	1	28
29	20	1					600	NORTH RECP	С	EAST RECP	400					20	1	30
31	20	1					400	NW RECP	Α	NW RECP	200					20	1	32
33	20	1					400	CENTER DROP	В	SW/EXT RECP	600					20	1	34
35	20	1	1100					LIGHTS	С	SE EXT RECP	200					20	1	36
37	20	1	800					LIGHTS	Α	CENTER RECP	200					20	1	38
39	20	1		240				DRYER	В	AC-1						20	1	40
41				552					С	AC-2						20	1	42
43	15	3		552				EF-16	Α	AC-3						20	1	44
45				552					В	SPARE						20	1	46
	20	1						SPARE	C	SPARE						20	1	48
49		1						SPARE	A	SPARE						20	1	50
51	20	1						SPARE	В	SPARE						20	1	52
53	20	1						SPARE	С	SPARE						20	1	54
55	20	1						SPARE	A	SPARE						20	1	56
57	20	1						SPARE	В								-	58
59	20	1						SPARE	С	SPARE						20	3	60
61	20	1						SPARE	A									62
63	20							SPARE	В									64
		1								SPARE						20	2	
65	20	1						SPARE	С									66
				LOAD	CALCULAT	IONS		T										
	TYPE		V	A / PHAS	E	CONN.	DEMAND	DIVERSIFIED		NOTES:								
	- · · · <b>-</b>		Α	В	С	LOAD		LOAD		1. BREAKERS	NOTED WI	TH * SHALL	BE GF	CI				
LI	GHTI	NG	800	0	1100	1900	1.00	1900										
M	OTOR	S	0	240	552	792	0.90	713										
	HVAC		0	0	0	0	0.75	0	1									
		QUIP.	0	0	0	0	0.65	0	1									
									1									
KEU	EPTAC		6300	9300	8000	23600	0.60	14160	1									
		TUTAL	AMPS:	4	7	TOTAL	. VA:	16773										

								PANEL	. '	LK1'								
VOL.	TAGE:	20	8/120, 3F	P, 4W	BUS	RATING:	2	25 AMP	-	ENCL. TYPE:	NEN	MA 1	LO	CATION:	KITCH	HEN		-
-	TYPE:	MC	B SHUNT-	TRIP	AIC	RATING:	2	22,000		MOUNTING:	SUR	FACE	FEI	D FROM:	MDP	S		
	RKT BF					ΓED LOAD (					CONN	NECTED LOA	D (VA)			CB	KT BR	KB
			LIGHTING	MOTORS	HVAC	KITCHEN	RECPT	DESCRIPTION	PH	DESCRIPTION	RECPT	KITCHEN	HVAC	MOTORS	LIGHTING			
1	20*	1		III O T O T O	1117.10	924	11201 1	TOP OVEN	Α	N. RECP	600	INT I OTILIT	1117.10	III O T OTTO	210111110	20	1	2
3	20*	1				924		BOTTOM OVEN	В	S. RECP	600					20	1	4
5	20*	1				200		SKILLET	С	W. RECP	400					20	1	6
7	20	1						POS	A		100	1800					-	8
9	20*	1				720		MILK CLR	В	HOT TABLE		1800				30*	2	10
11	20*	1				1 1 1	200	SW RECP	С	COLD TABLE		912				20*	1	1:
13	20*	1					400	ISLAND RECP	A	NW RECP	200					20*	1	1
15	20*	1				1900		HOT CABINET	В	DISH RECP	600					20*	1	1
17	20*	1				720		SLICER	С	HOOD LTS						20	1	1
19	20	1		500				EF-8	Α	SW RECP	200					20	1	2
21	20	1		500				EF-9	В	SPARE						20	1	2
23	20*	1					250	WS - 1	С	SPARE						20	1	2
25	20*	1						SPARE	Α	SPARE						20	1	2
27	20*	1						SPARE	В	SPARE						20	1	2
29	20	1						SPARE	С	SPARE						20	1	3
31	20	1						SPARE	Α	SPARE						20	1	3:
33	20	1						SPARE	В	SPARE						20	1	3.
35	20	1						SPARE	С	SPARE						20	1	3
37	20	1						SPARE	Α	SPARE						20	1	3
39	20	1						SPARE	В	SPARE						20	1	4
41	20	1						SPARE	С	SPARE						20	1	4:
	•			LOAD (	CALCULA	TIONS										•		
			V	A / PHAS	 E	CONN.		DIVERSIFIED		NOTES:								
	TYPE		Α	В	С	LOAD	DEMAND	LOAD		1. PROVIDE S	HUNT TRI	P MATN CT	RCUTT BE	FAKER AN	ID CONTRO	)I VTA		-
L	IGHTI	NG	0	0	0	0	1.00	0		ANSUL.				,,		,		
	MOTOR		500	500	0	1000	0.90	900		2. PROVIDE S	UB FEED	BREAKER						
	HVAC		0	0	0	0	0.75	0		3. BREAKERS			L BE GFC	Ι				
KITO	CHEN E		2724	5344	1832	9900	0.65	6435										
	CEPTAC		1400	1200	850	3450	0.60	2070										
			AMPS:	2	!6	TOTAL		9405										

RELAY ID	RELAY #	DISCRIPTION	SWITCH LOCATION(S)	LOCATION	LOAD VOLTAGE	CIRCUIT	NOTE
а	1	EXTERIOR LIGHTS	PC	EXT	120 VOLT	L4-23	2
n1	2	MAIN CORRIDOR NIGHT LIGHTING	D102C	D199A&B	120 VOLT	L4-27	
С	3	MAIN CORRIDOR		D199A&B	120 VOLT	L4-27	
d	4	EXTERIOR LIGHTS	PC	C101	120 VOLT	L4-37	2
е	5	SPARE		C101	120 VOLT		
f	6	SPARE		C105	120 VOLT		
g	7	SPARE		C101	120 VOLT		
h	8	SPARE			120 VOLT		

3. PROVI...

/O! T	AGE -		0/100 0	D 41/4	DIIC	DATTNO -		PANE		ENCL. TYPE:	NI T		1.04	CATTON -	KITCH	ENI		
OLI	AGE:	20	8/120, 31	P, 4W	B02	KAIING:	4	OO AMP		ENGL. TYPE:	NEI	VIA I	LU	CAITON:	KIICH	EN	-	
Т	YPE:		МСВ		AIC	RATING:	2	22,000		MOUNTING:	SUR	FACE	FEI	D FROM:	MDPS	3	-	
CR	KT BI	RKR			CONNECT	ED LOAD (	VA)				CONI	NECTED LOA	D (VA)			CR	KT BR	KR
#	AMPS	POLE	LIGHTING	MOTORS	HVAC	KITCHEN	RECPT	DESCRIPTION	РΗ	DESCRIPTION	RECPT	KITCHEN	HVAC	MOTORS	LIGHTING	AMPS	POLE	#
1	20	1						KITCHEN RECP	Α			432						2
3	20	1				1200		FRIDGE	В	DISPOSER		432				15	3	4
5	20	1				240		DRAIN TMPR	С			432						6
7	20	1	544					LIGHTS	Α									8
9	20	1						SPARE	В	SPARE						60	3	10
11	20	1					250	ANSUL	С									12
13	20	1					250	HOOD CNTRL	Α			6204						14
15	20	2		1206				WIF-CU	В	DISHWASHER		6204				60	3	16
17	20			1206				MTI - OO	С			6204						18
19	20	1						SPARE	Α			432						20
21	20	1		600				WIF	В	DISPOSER		432				15	3	22
23	20	2		728				WIC-CU	С			432						24
25	20			728				W10-00	Α	WIF-FAN		208				15	2	26
27	20	1						SPARE	В	WIF-FAN		208				15		28
29	20	1		600				WIC	С	HEAT TRACE				1500		20**	2	30
31	20**	1		1800				HEAT TAPE	Α	TILAT TRACE				1500		20		32
33	20	2		1020				WIF-EVAP	В					552				34
35	20			1020				WII - LVAF	С	EF-7				552		15	3	36
37	20	2						SPARE	Α					552				38
39	20							SPARE	В	SPARE						20	1	40
41	15	1						WIC EVAP	С	SPARE						20	1	42
43	20	1						SPARE	С	SPARE						15	2	44
45	20	1						SPARE	Α	OI AIL						13		46
47	30	2						SPARE	В									48
49		_						OI AIL	С	SPARE						20	3	50
51	40	2						SPARE	Α									52
53		_						OI AIL	В	SPARE						20	1	54
55	15	1						SPARE	С	SPARE						20	1	56
				LOAD (	CALCULAT	TIONS												
	<b>-</b> ,		V	A / PHASI	 E	CONN.	DE	DIVERSIFIED		NOTES:								
	TYPE		Α	В	С	LOAD	DEMAND	LOAD		1. PROVIDE S	UB FEED	BREAKER						
1.	GHTI	NG	544	0	0	544	1.00	544		2. BREAKERS			_ BE GFO	ΣI				
	OTOR		4580	3378	5606	13564	0.90	12208		3. BREAKERS					MENT GET			
I										O. BILAKERO	MOILD MI	. III GIIAL	_ DL 301	" L COTL	VILINI UII			
	HVAC		0	0	0	0	0.75	0										
		QUIP.	7276	8476	7308	23060	0.65	14989										
REC	EPTA(	CLES	250	0	250	500	0.60	300										
		TOTAL	AMPS:	7	8	TOTAL	VA:	28041										

								PANEL	' N	MDPS'								
VOL.	TAGE:	20	08/120, 3F	P, 4W	BUS	RATING:	12	200 AMP	-	ENCL. TYPE:	NE	//A 1	LO	CATION:	BOILER	RM	-	
7	ГҮРЕ:		MCB	100%	AIC	RATING:	2	22,000	_	MOUNTING:	SUR	FACE	FEI	D FROM:	MDP		_	
С	RKT BF	RKR			CONNECT	ED LOAD (	VA)				CON	NECTED LOA	D (VA)			CR	KT BR	KR
#	AMPS	POLE	LIGHTING	MOTORS	HVAC	KITCHEN	RECPT	DESCRIPTION	PH	DESCRIPTION		KITCHEN	HVAC	MOTORS	LIGHTING	AMPS	POLE	#
1					21480				Α									2
3	200	3			21480			RTU-7	В	SPARE						200	3	4
5					21480				С									6
7					26880				Α				10080	34400				8
9	300	3			26880			RTU-8	В	PNL L7			10080	31400		400	3	10
11					26880				С				10080	26900				12
13			3445		1200		4200		Α		400		450	7392				14
15	200	3	2584	1200			4200	PNL L4	В	PNL M			1700	7392		200	3	16
17			3958	200			3500		С				1450	7392				18
19				500 17100 2400 500 15900 1800		Α									20			
21	200	3		500		15900	15900 1800 PNL L5 B S	SPARE						200	3	22		
23				2156		19300										24		
25				950			2000		Α									26
27	200	3		1200			1600	PNL L6	В	SPARE						125	3	28
29				1200			2250		С									30
31			800				6300		Α									32
33	200	3		240			9300	PNL L8	В									34
35			1100	552			8000		С									36
37									Α									38
39									В									40
41									С									42
				LOAD (	CALCULAT	IONS												
	->		V	A / PHASI	 E	CONN.		DIVERSIFIED	1	NOTES:								
	TYPE		Α	В	С	LOAD	DEMAND	LOAD										
L	IGHTI	NG	4245	2584	5058	11887	1.00	11887	1									
	MOTOR	S	43242	41932	38400	123574	0.90	111217	1									
	HVAC		60090	60140	59890	180120	0.75	135090	1									
KITO	HEN E		17100	15900	19300	52300	0.65	33995	1									
	CEPTAC		15300	16900	14950	47150	0.60	28290	1									
			AMPS:		90	TOTAL		320479	1									

RELAY ID	RELAY #	DISCRIPTION	SWITCH LOCATION(S)	LOCATION	LOAD VOLTAGE	CIRCUIT	NOTES
а	1	COMMONS STORM COUDS	C101,C105	C101	120 VOLT	L4-20	
b	2	COMMONS EAST PENDANTS	C101,C105	C101	120 VOLT	L4-18	
С	3	COMMONS WEST PENDANTS	C101,C105	C101	120 VOLT	L4-18	
d	4	TRACK SPOTS	C101,C105	C101	120 VOLT	L4-18	3
е	5	TRACK FLOODS	C101,C105	C101	120 VOLT	L4-18	3
f	6	STAGE	C101,C105	C105	120 VOLT	L4-11	
g	7	WEST CORRIDOR SOUTH	C199A, C199B	C199A, C199B	120 VOLT	L4-11	
h	8	WEST CORRIDOR NORTH	C199A, C199B	C199A, C199B	120 VOLT	L4-11	
i	9	MAIN ENTRY	SCHEDULE ON	C101A	120 VOLT	L4-18	4
j	10	SPARE			120 VOLT		
k	11	SPARE			120 VOLT		
1	12	SPARE			120 VOLT		
т	13	SPARE			120 VOLT		
n	14	SPARE			120 VOLT		
0	15	SPARE			120 VOLT		
р	16	SPARE			120 VOLT		

- 1. RELAY PANEL EQUAL TO NLIGHT #ARP-INTENC16-NLT
- 2. PROVIDE PHOTOCELL FOR CONTROL OF EXTERIOR LIGHT FIXTURES
- 3. PROVIDE NLIGHT NSP5 PCD DIMMING PACK FOR DIMMING. 4. PROVIDE DIMMED NIGHT LIGHTING AFTER HOURS.

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ISSUE:

1/30/23 CONSTRUCTION DOCUMENTS

REVISION SCHEDULE: REV. # REV. DSC. REV. DATE

PROJECT:

WILLOW LAKE SCHOOL ADDITION

WILLOW LAKESCHOOL DISTRICT

WILLOW LAKE, SOUTH DAKOTA

SHEET TITLE:

ELECTRICAL SCHEDULES -CONTINUED

								PANE	L	'A'							
/OLT	AGE:	20	08/120, 3F	P, 4W	BUS	RATING:	2	25 AMP	-	ENCL. TYPE:	NEMA 1	L0	CATION:	WRK I	RM		
Т	YPE:		МСВ	200A	AIC	RATING:	2	22,000	=	MOUNTING:	SURFACE	FE	D FROM:	EXST F	PNL '[	)P '	-
CR	KT BRK	(R			CONNECT	ED LOAD (	(VA)				CONNECTED LOA	D (VA)			CR	KT BRI	KR
#	AMPS F	POLE	LIGHTING	MOTORS	HVAC	KITCHEN	RECPT	DESCRIPTION	PH	DESCRIPTION	RECPT KITCHEN	HVAC	MOTORS	LIGHTING	AMPS	POLE	#
1	20	1					750	HUB ROOM	Α	KINDER	750				20	1	2
3	20	1					750	THIRD GRD	В	FIRST GRD	750				20	1	4
5	20	1					750	SECOND GRD	С	FOURTH GRD	750				20	1	6
7	20	1					750	FOURTH GRD	Α	FOURTH GRD	750				20	1	8
9	20	1					750	FOURTH GRD	В	ADMIN RM	750				20	1	10
11	20	1					750	FIFTH GRD	С	HOME ECO	750				20	1	12
13	20	1					750	SIXTH GRD	Α	WATER					20*	1	14
15	20*	1					750	EXIST BC	В	FC-A101			1200		20	1	16
17	20*	1					750	EXIST BC	С	FC-A103			1200		20	1	18
19	20	1		1200				EF-17	Α	EXIST BC	750		1200		20*	1	20
21	20	1		1200				EF-18	В	EXIST BC	750				20	1	22
23	20	1	1200					1ST GRD LTS	С	1ST GRD LTS				1200	20	1	24
25	20	1	1200					2ND GRD LTS	Α	2ND GRD LTS				1200	20	1	26
27	20	1	1200					5TH GRD LTS	В	5TH GRD LTS				1200	20	1	28
29	20	1	1200					RR/ENTRY LTS		HALLWAY LTS				1800	20	1	30
31	20	1	1200					B&G RR, TEACH		KINDER UH	400		1200	1000	20	1	32
33	20	1		1200			400	KINDER UH	В	5TH GRD UH	400		1200		20	<u>'</u> 1	34
35	20	1		1200			400	5TH UH	<u>г</u>	OFFICE RECP	1200		1200		20	<u>'</u> 	36
37	20	1		1200			400	4TH UH	٨	6TH GRD UH	400		1200			1	38
39	20			1200			600	PRINC RECP	A		400		1200	1200	20		
		1							B C	6TH GRD LTS LTS						1	40
41	20*	1	1000				1200	TEACH L RECP	_					1200	20	1	42
43	20	1	1200					6TH GRD LTS	A	3RD GRD LTS				1200	20	1	44
45	20	1	1200					KINDER LTS	В	4TH GRD LTS				1200	20	1	46
47	20	1	1200					3RD GRD LTS	C	SPCL ED LTS				1200	20	1	48
49	20	1	1200							N. ENTRY LTS	400		1000	1200	20	1	50
51	20	1	1200	1000			400	OFFICE LTS	В	2ND GRD UH	400		1200		20	1	52
53	20	1		1200			400	3RD GRD UH	С	SPCL, ENTRY UH	400		1200		20	1	54
55	20	1		1200			400	SMALL GROUP	В	HALL RECP					20	1	56
57	20	1		1200			400	SUPER UH	С	INTERCOM RECP	200				20	1	58
59	20	1		1200				WATERCLR	Α	TEACH L RECP	1200				20	1	60
61	20	1					1200	TEACH E RECP	В								62
63	20	1					400	WRK RM	С	EF-20					20	3	64
65	20	1					400	WRK RM	Α								66
67	20*	1					400	WRK RM	В	EVIOT 50						^	68
69	20*	1						EXIST BC	С	EXIST BC					50	2	70
				LOAD	CALCULAT	TONS	l								<u> </u>		5
			.,					DIVERGITIES		NOTEC:							
	TYPE			A / PHASE		CONN. LOAD	DEMAND	DIVERSIFIED LOAD		NOTES:	EED TUE!! !!!						
			Α	В	С					1. PROVIDE F							
L.	IGHTIN	G	2400	3600	6600	12600	1.00	12600			XISTING CIRCUIT BE		OR CONNE	CITON TO	PNL '	' אט	
ı	MOTORS		6000	4800	2400	13200	0.90	11880		3. BREAKERS	NOTED WITH * TO BE	E GFCI					
_	HVAC		0	0	0	0	0.75	0		4. PROVIDE 1	/2 HOUR OF CIRCUIT	TRACIN	IG FOR ID	ENTIFICA	TION C	)F	
(ITC	HEN EQ	UIP.	0	0	0	0	0.65	0			CIRCUITS NOTED.						
	EPTACL		5700	5900	6550	18150	0.60	10890									
.,_0			AMPS:	TBD E		TOTAL		TBD BY EC									

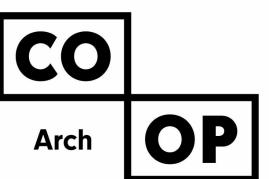
								PANE	L '	'MP'								
VOLTAGE: 208/120, 3P, 4W BUS RATING:				2	25 AMP	-	ENCL. TYPE:	NE	NEMA 1 LOCATION:				C					
TYPE: MCB 200A AIC RATING: 2				22,000	MOUNTING:	ESSED	FED FROM: EXST				PNL 'DP'							
C	RKT BF	RKR			CONNECT	ED LOAD (	VA)				CON	NECTED LOA	D (VA)	CRI	 RKR			
#			LIGHTING	MOTORS	HVAC	KITCHEN	RECPT	DESCRIPTION	PH	DESCRIPTION	RECPT	KITCHEN	HVAC	MOTORS	LIGHTING			
1	15	1						SPARE A		CLASSROOM	600					20	1	2
3	15	1						SPARE B		CLASSROOM	600					20	1	4
5	15	1						EXIST	С	CLASSROOM	600					20	1	6
7	15	1						EXIST	Α	CLASSROOM	600					20	1	8
9	20	1						EXIST		CLASSROOM	600					20	1	10
11	20	1						EXIST		CLASSROOM	600					20	1	12
13	20	1						EXIST		CLASSROOM	600					20	1	14
15	20*	1						EXIST		PRACTICE	800					20	1	16
17	20*	1						EXIST		MUSIC	1000					20	1	18
19	20*	1						EXIST		MUSIC	1000					20	1	20
21	20	1						EXIST	В	MUSIC	1000					20	1	22
23	20	1						EXIST	С	ROOF	200					20	1	24
25	20	1						EXIST	Α	MUSIC OFF	400					20	1	26
27	20	1						EXIST	В	1 ON 1	400					20	1	28
29	20	1						EXIST	С	FLEX ART/SPAN	1000					20	1	30
31	20	1						EXIST	Α	FLEX ART/SPAN	1000		3000			20	1	32
33	20	1						EXIST	В	FLEX ART/SPAN	1000		3000			20	1	34
35	20	1						EXIST	С	SPARE						20	1	36
37	20+	1						SMOKE DMPR	Α	FLEX RM	1200					20	1	38
39	20+	1						SMOKE DMPR	В	FLEX RM	1200					20	1	40
41	20+	1						SMOKE DMPR	С	FLEX RM	1200					20	1	42
				LOAD (	CALCULAT	TIONS												
	TVDE		V	A / PHASI	E	CONN.	DEMAND	DIVERSIFIED		NOTES:								
TYPE			Α	В	С	LOAD	DEINIAIND	LOAD		1. PROVIDE C	ONNECTIO	ON TO PNL	'DP' VIA	EXIST 2	200/3 CIR	CUIT	BREAK	ŒR.
L	IGHTI	NG	0	0	0	0	1.00	0		2. PROVIDE N	EW CIRCU	JIT BREAKE	R IN PNL	'DP' FO	R CONNEC	TION		
	MOTOR	S	0	0	0	0	0.90	0		3. BREAKERS NOTED WITH * SHALL BE GFCI								
	HVAC	HVAC 3000 3000 0 6000 0.75 4500		4500	4. PROVIDE 1/2 HOUR OF CIRCUIT TRACING FOR IDENTIFICATION OF													
KIT	CHEN E	QUIP.	0	0	0	0	0.65	0	EXIST BRANCH CIRCUITS NOTED.									
RE	CEPTA	CLES	5400	5600	3400	14400	0.60	8640		5. BREAKERS	NOTED W	ITH + SHAL	L BE BRE	AKER LOC	CKED ON.			
		TOTAL	AMPS:	TBD E	BY EC	TOTAL	VA:	TBD BY EC										

								PANE	EL	'M'								
VOL	VOLTAGE:		08/120, 3F	P, 4W	BUS	RATING:	2	25 AMP	_	ENCL. TYPE:	NEI	MA 1	LOCATION:		BOILER	RM	-	
1	ГҮРЕ:		MCB		AIC	RATING:	2	22,000	_	MOUNTING:	SURFACE				MDPS	3	-	
CI	RKT BF	RKR			CONNEC	ΓED LOAD (	VA)				CONI	NECTED LOA	D (VA)			CRKT BRI		KR
#	AMPS	POLE	LIGHTING	MOTORS	HVAC	KITCHEN	RECPT	DESCRIPTION	РН	DESCRIPTION	RECPT	KITCHEN	HVAC	MOTORS	LIGHTING	AMPS	POLE	#
1	20	1					400	BLR RM RECP	Α	CUH-C100B			200			20	1	2
3	20	1			1200			BOILER B-1	В	WH - 1			250			20	1	4
5	20	1			1200			BOILER B-2	С	WH-2			250			20	1	6
7				2904					Α	CP-5			250			20	1	8
9	50	3		2904				CP-3	В	CP-6			250			20	1	10
11				2904					С					792				12
13				2904					Α	CP-1				792		20	3	14
15	50	3		2904				CP-4	В					792				16
17				2904					С					792				18
19									Α	CP-2				792		20	3	20
21	35	3						SPARE	В					792				22
23									С									24
25									Α	SPARE						15	3	26
27	35	3						SPARE	В									28
29									С									30
31	20+	1						SMOKE DMPR	Α	SPARE						15	3	32
33	20+	1						SMOKE DMPR	В									34
35	20+	1						SMOKE DMPR	С									36
37	20+	1						SMOKE DMPR	Α									38
39	20*	1						SPARE	В									40
41	20*	1						SPARE	С									42
				LOAD (	CALCULA	TIONS												
			V	A / PHAS	 E	CONN.		DIVERSIFIED		NOTES:								
	TYPE		Α	В	С	LOAD	DEMAND	LOAD		1. PROVIDE F	EED THRU	J LUGS						
L	IGHTI	NG	0	0	0	0	1.00	0			UB FEED	BREAKER						
	MOTOR	S	7392	7392	7392	22176	0.90	19958		3. BREAKERS	NOTED WI	TH * SHAL	L BE GFC	Ι				
	HVAC		450	1700	1450	3600	0.75			4. BREAKERS	NOTED WI	TH + SHAL	L BE BRE	AKER LO	CKED ON.			
KITO	HEN E	QUIP.	0	0	0	0	0.65	0	1									
RE	ECEPTACLES 400 0 0 400 0.60 240		240	1														
		TOTAL	AMPS:	6	64	TOTAL	VA:	22898	1									

						LE	D DATA		DRIVER DATA		
TYPE	MANUFACTURERS	CATALOG SERIES	FIXTURE DESCRIPTION	MOUNTING	VOLTAGE	LUMENS	CCT	CRI	DIMMING/CNTRL	INPUT WATTS	NOTES
A1	LITHONIA	STAK	2X4 RECESSED LED TROFFER, WHITE FINISH, ACRYLIC LENS.	RECESSED	MVOLT	3000	4000K	90	STANDARD	25	2,3
A2	LITHONIA	STAK	2X4 RECESSED LED TROFFER, WHITE FINISH, ACRYLIC LENS.	RECESSED	MVOLT	4000	4000K	90	STANDARD	32	2,3
A3	LITHONIA	STAK	2X4 RECESSED LED TROFFER, WHITE FINISH, ACRYLIC LENS, DRYWALL GRID ADAPTER.	RECESSED	MVOLT	3000	4000K	90	STANDARD	25	2,3
A4	LITHONIA	STAK	2X4 RECESSED LED TROFFER, WHITE FINISH, ACRYLIC LENS, DRYWALL GRID ADAPTER.	RECESSED	MVOLT	4000	4000K	90	STANDARD	32	2,3
A5	LITHONIA	STAK	2X2 RECESSED LED TROFFER, WHITE FINISH.	RECESSED	MVOLT	3000	4000K	90	STANDARD	25	2,3
A6	LITHONIA	2GTL	2X4 RECESSED LED TROFFER, WHITE FINISH, .125 ACRYLIC LENS, GASKETED ALUMINUM DOOR.	RECESSED	MVOLT	4000	4000K	90	STANDARD	32	2
C1	SSL	MINI COVE	48" LOW PROFILE LINEAR COVE FIXTURE, 60 DEGREE BEAM,	RECESSED	MVOLT	2250	4000K	80	0-10V	20	2,3
D1	GOTHAM	EV0	6 INCH ROUND LED RECESSED FIXTURE, FLUSH SMOOTH LENS WITH ANTI-MICROBIAL FINISH.	RECESSED	MVOLT	1000	4000K	80	STANDARD	10	2
D2	LITHONIA	LDN6	6 INCH ROUND LED RECESSED FIXTURE, SWITCHABLE LUMENS 1000/1500/2000, CLEAR SEMI SPECULAR LENS, BLACK TRIM	RECESSED	MVOLT	1000	4000K	90	0-10V	25	2,3
E1	LITHONIA	LQM	LED EXIT LIGHT, RED LETTERS, BATTERY BACK-UP 90 MINUTES, SELF DIAGNOSTICS, WHITE FINISH THERMOPLASTIC HOUSING	UNIVERSAL	MVOLT	RED			LINE	2	2
E2	LITHONIA	LQM	LED EXIT LIGHT, DUAL FACE, RED LETTERS, BATTERY BACK-UP 90 MINUTES, WHITE FINISH THERMOPLASTIC HOUSING, SELF DAIGNOSTICS.	UNIVERSAL	MVOLT	RED			LINE	2	2
EM	LITHONIA	ELM2L	LED EMERGENCY BATTERY PACK, WHITE FINISH, 90 MINUTE BATTERY LIFE, SELF DIAGNOASTICS.	WALL	MVOLT	220			LINE	2	2
EMC	LITHONIA	ELM2L	LED EMERGENCY BATTERY PACK, WHITE FINISH, 90 MINUTE BATTERY LIFE, SELF DIAG., WITH ADDITIOANAL REMOTE CAPACITY FOR REMOTE HEAD.	220			LINE	2	2		
EMR	LITHONIA	ELMRW	REMOTE EMERGENCY LED, TWIN HEAD, DARK BRONZE FINISH,	WALL	MVOLT	220			LINE	2	2,5
EM1	LITHONIA	ELM4L	LED EMERGENCY BATTERY PACK, BLACK FINISH, 90 MINUTE BATTERY LIFE, SELF DIAGNOASTICS.	WALL	MVOLT	640			LINE	3	2
F1	LITHONIA	CSS	LED STRIP LIGHT, WHITE FINISH, ACRYLIC LENS.	AIRCRAFT CABLE	MVOLT	4200	4000K	80	STANDARD	35	2,3
L1	PRUDENTIAL	BIONICPRO2	2 INCH LINEAR LED WALLWASH, CONTINUOUS DESIGN, FLAT WALLWASH, PREMIUM COLOR SELECTED BY ARCHITECT, HARD CEILING FLANGE W/OPTIONAL OMB BRACKETS FOR INSTALLATION.	AIRCRAFT CABLE	MVOLT	875/FT	4000K	80	0-10V	156	2,3,7
L2	PRUDENTIAL	BIONICPRO2	4 INCH LINEAR LED, CONTINUOUS DESIGN, FLAT WALLWASH, PREMIUM COLOR SELECTED BY ARCHITECT, HARD CEILING FLANGE.	AIRCRAFT CABLE	MVOLT	875/FT	4000K	80	0-10V	156	2,3,7
L3	WAC LIGHTING	INVISILED PRO24	LED TAPE LIGHT WITH SURFACE MOUNTED ALUMINUM CHANNEL MOUNT WITH LENS COVER,	SURFACE	MVOLT	200/FT	4500K	80	0-10V	3/FT	2,3,7
S1	LITHONIA	СРНВ	LED COMPACT PRO HIGHBAY LIGHT, WHITE FINISH, ACRYLIC LENS.	AIRCRAFT CABLE	MVOLT	12000	4000K	80	0-10V	133	2,3
P1	BARBICAN ARCHITECTURAL	AVENUE	CONTINUOUS FULL LUMINUOS LED FIXTURE, 3W X 4W, CONTIUNOUS LENGTH(SEE PLANS)	PENDANT	MVOLT	760/FT	4000K	90	0 - 10V	8W/FT	1,3,6,
P2	BARBICAN ARCHITECTURAL	AVENUE	CONTINUOUS FULL LUMINUOS LED FIXTURE, 6W X 4W, CONTIUNOUS LENGTH(SEE PLANS)	PENDANT	MVOLT	760/FT	4000K	90	0 - 10V	8W/FT	1,3,6,7
Р3	BARBICAN ARCHITECTURAL	AVENUE	CONTINUOUS FULL LUMINUOS LED FIXTURE, 3W X 4W, CONTIUNOUS LENGTH(SEE PLANS)	PENDANT	MVOLT	760/FT	4000K	90	0-10V	8W/FT	1,3,6,7
P4	BARBICAN ARCHITECTURAL	AVENUE	CONTINUOUS FULL LUMINUOS LED FIXTURE, 6W X 4W, CONTIUNOUS LENGTH(SEE PLANS)	PENDANT	MVOLT	760/FT	4000K	90	0-10V	8W/FT	1,3,6,7
P5	BARBICAN ARCHITECTURAL	AVENUE	CONTINUOUS FULL LUMINUOS LED FIXTURE, 3W X 4W, CONTIUNOUS LENGTH(SEE PLANS)	PENDANT	MVOLT	760/FT	4000K	90	0-10V	8W/FT	1,3,6,7
P6	BARBICAN ARCHITECTURAL	AVENUE	CONTINUOUS FULL LUMINUOS LED FIXTURE, 3W X 4W, CONTIUNOUS LENGTH(SEE PLANS)	PENDANT	MVOLT	760/FT	4000K	90	0-10V	8W/FT	1,3,6,
P7	SSL	SSC4D - 13	4 INCH ROUND PENDANT, WIDE FLOOD, ARCHITECT TO SELECT STANDARD FINISH, DROP DIFFUSER FROSTED.	AIRCRAFT CABLE	MVOLT	1500	4000K	90	0 - 10V	10	1,3,6,7
T1	WAC LIGHTING	J2 TRACK	8 FOOT, 2 CIRCUIT ALUMINUM TRACK. BLACK FINISH, PENDANT MOUNT.	PENDANT	120	220			LINE	13	2
T2	WAC LIGHTING	SILO X42	ADJUSTABLE LED TRACK HEAD 15-50 DEGREES, BLACK FINISH,	UNIVERSAL	120	640	4000K	90	LINE	42	2
W1	LITHONIA	WSQ	QUARTER SPHERE EXTERIOR LED WALL PACK, TYPE IV DISTRIBUTION, DARK BRONZE FINISH,	WALL	MVOLT	6400	4000K	90	STANDARD	60	2,3
W2	LITHONIA	WSQ LED	QUARTER SPHERE EXTERIOR LED WALL PACK, TYPE II DISTRIBUTION, DARK BRONZE FINISH,	WALL	MVOLT	2200	4000K	80	STANDARD	20	2,3

- 1. PROVIDE FIXTURE AS SPECIFIED, ALL OTHER FIXTURES SHALL BE APPROVED AS EQUAL
- 2. PROVIDE FIXTURE EQUAL TO SPECIFICATION. VARIATONS FROM SPECIFICATON SHALL BE APPROVED.
- 3.PROVIDE #14 AWG CONDUCTORS FOR ALL 0-10V DIMMING
- 4. PROVIDE COLOR CHIP SAMPLE TO ARCHITECT/OWNER FOR FINAL FINISH TO BE DETERMINED.

5. PROVIDE CONNECTION FROM OUTDOOR UNIT TO INDOOR FIXTURE TYPE EMC. 6. PROVIDE COORDINATION WITH ARCHITECTURAL DRAWINGS FOR FIXTURE DIMENSIONS. 7. PROVIDE FIXTURE MOUNTING BASED ON ARCHITECTURAL DETAILS AND MODEL, SEE ARCHITECTURAL FOR DETAILS.



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SE PROJECT NO:



220900771

ISSUE:

1/30/23 CONSTRUCTION DOCUMENTS

REVISION SCHEDULE: REV. # REV. DSC. REV. DATE

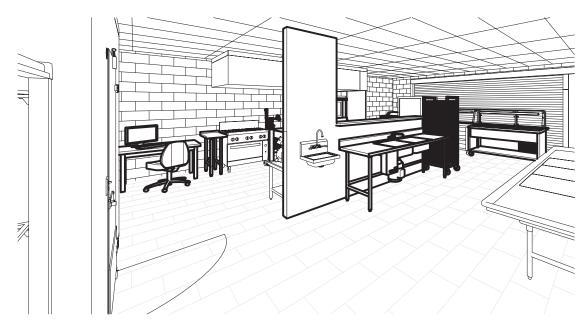
PROJECT:

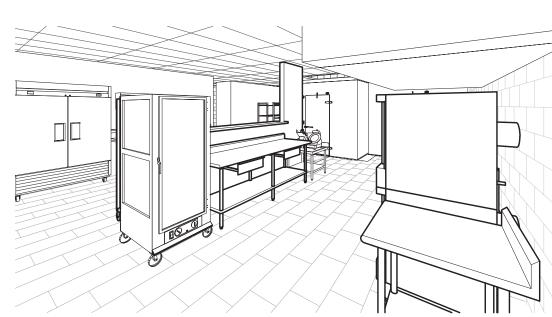
WILLOW LAKE SCHOOL ADDITION

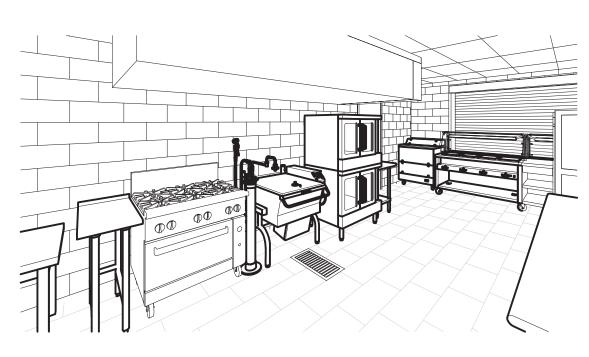
WILLOW LAKESCHOOL DISTRICT WILLOW LAKE, SOUTH DAKOTA

SHEET TITLE:

ELECTRICAL SCHEDULES -CONTINUED 2

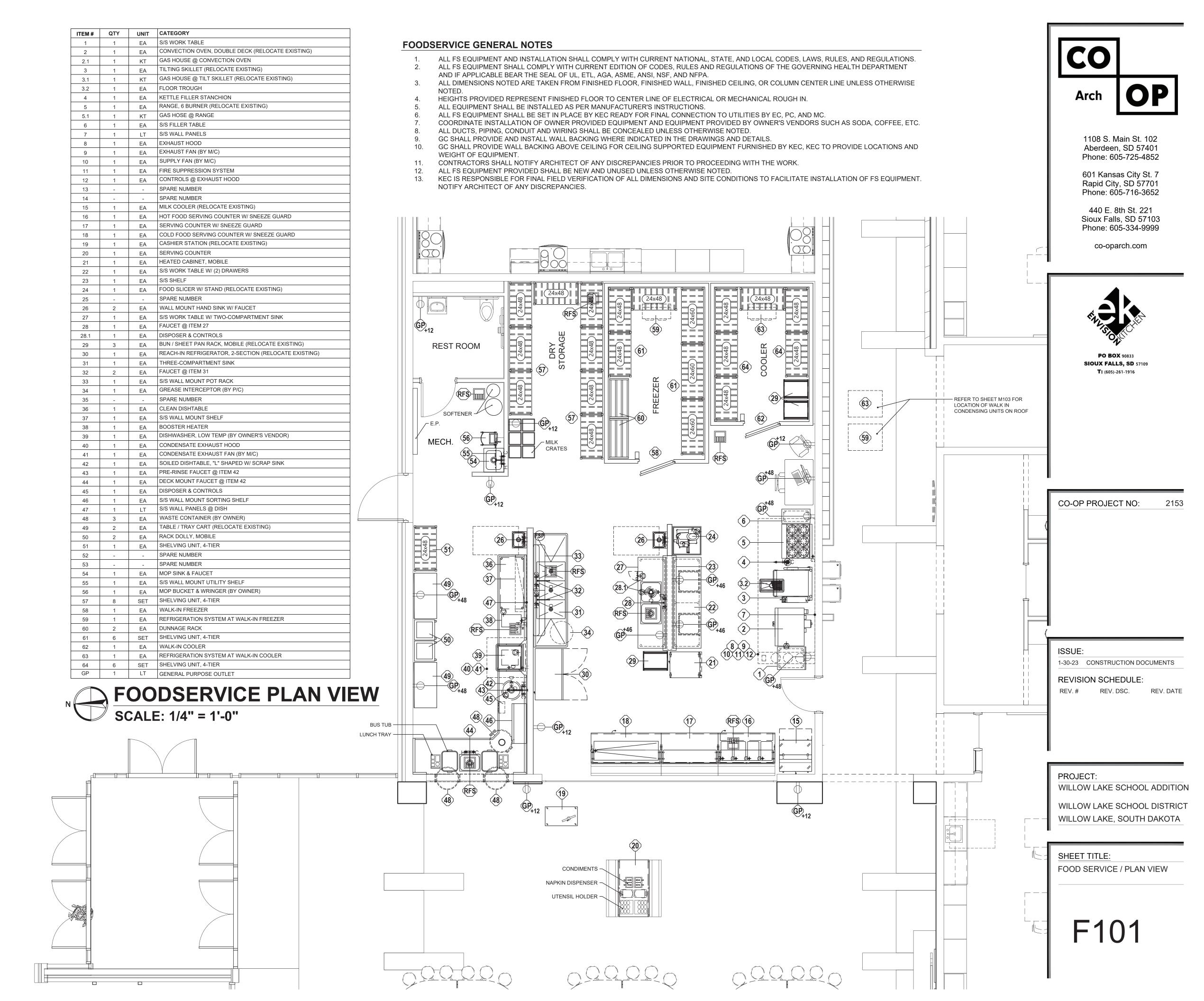


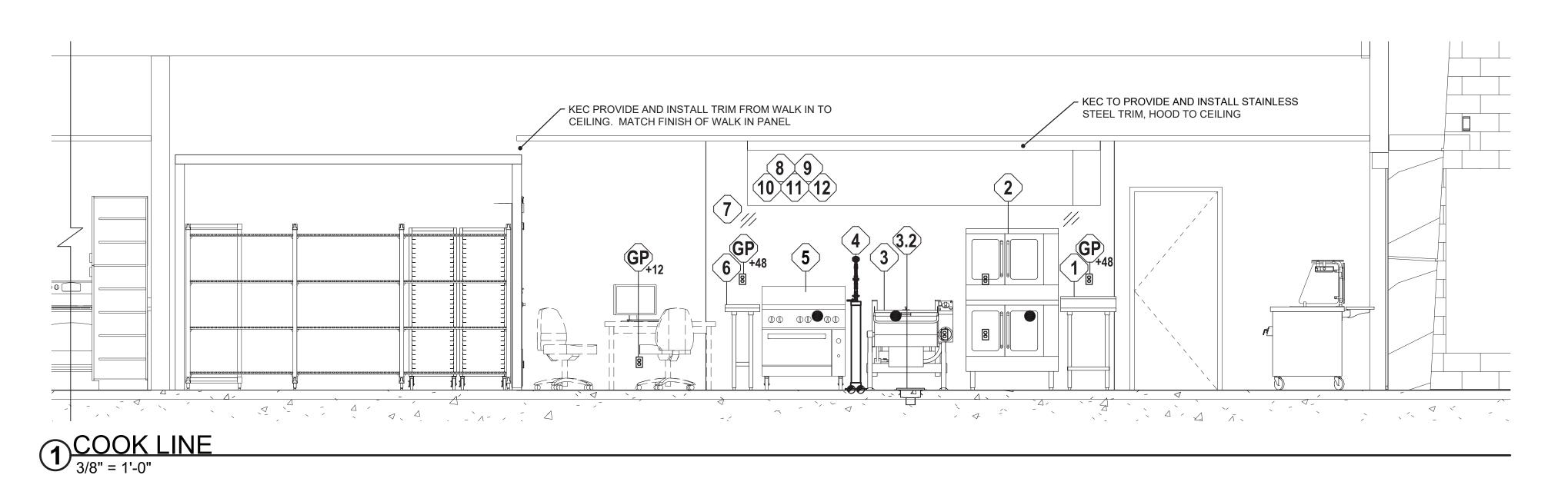


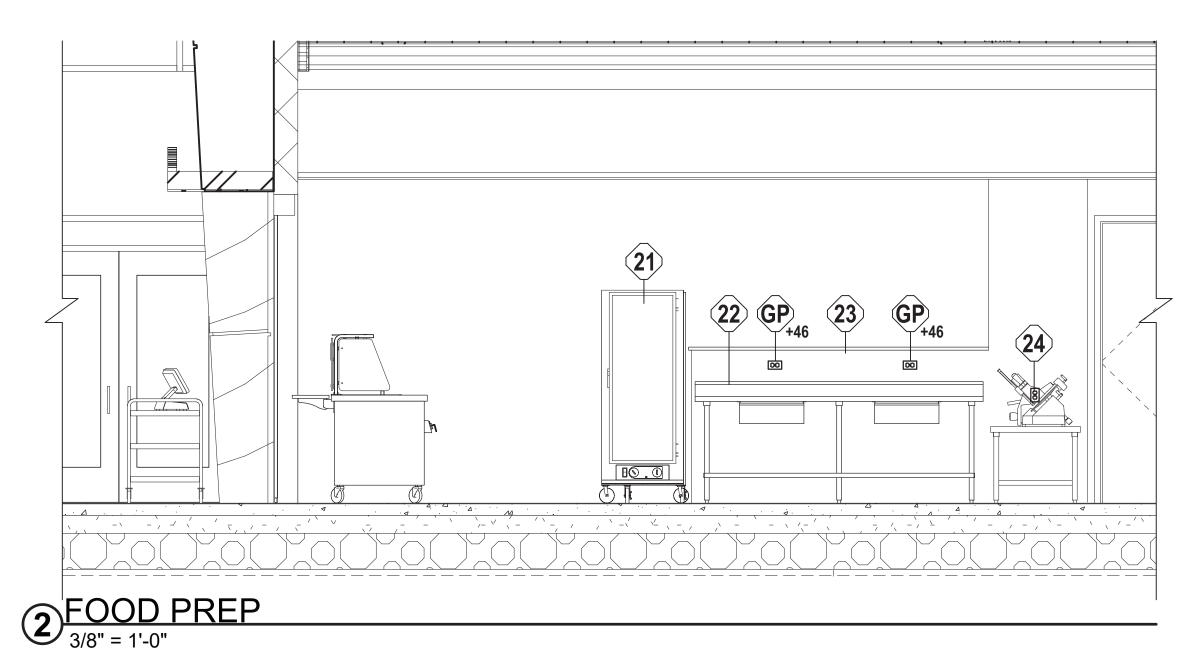


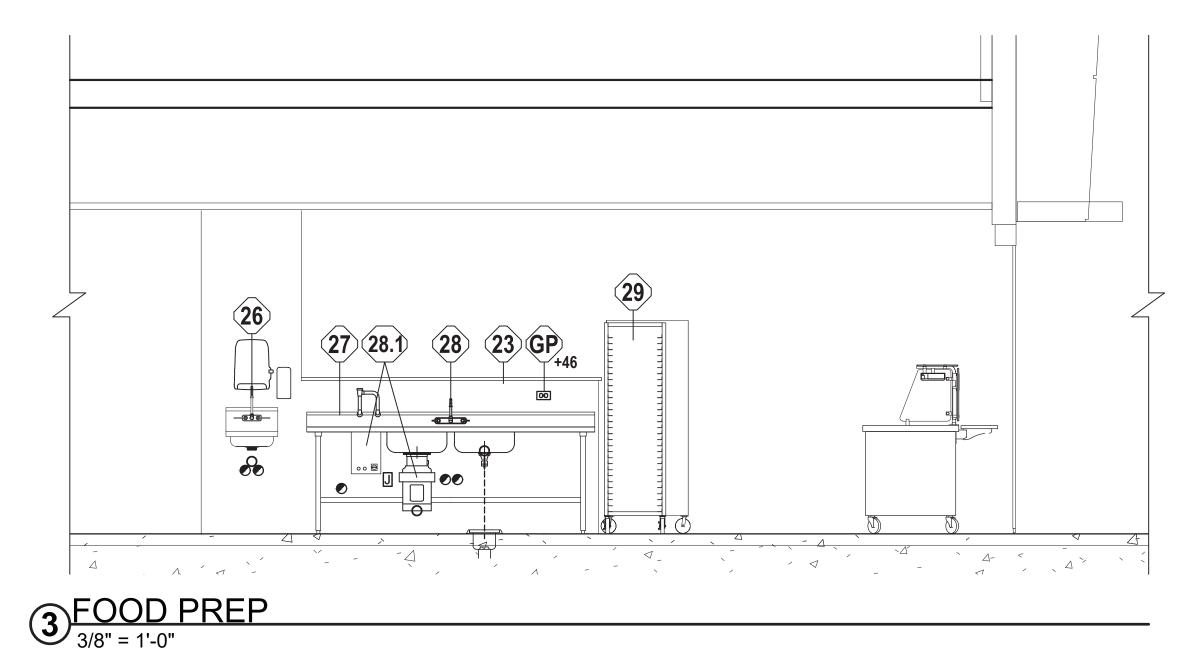












**ELEVATION LEGEND** 

FLOOR MOUNTED RECEPTACLE

O DIRECT DRAIN / INDIRECT DRAIN

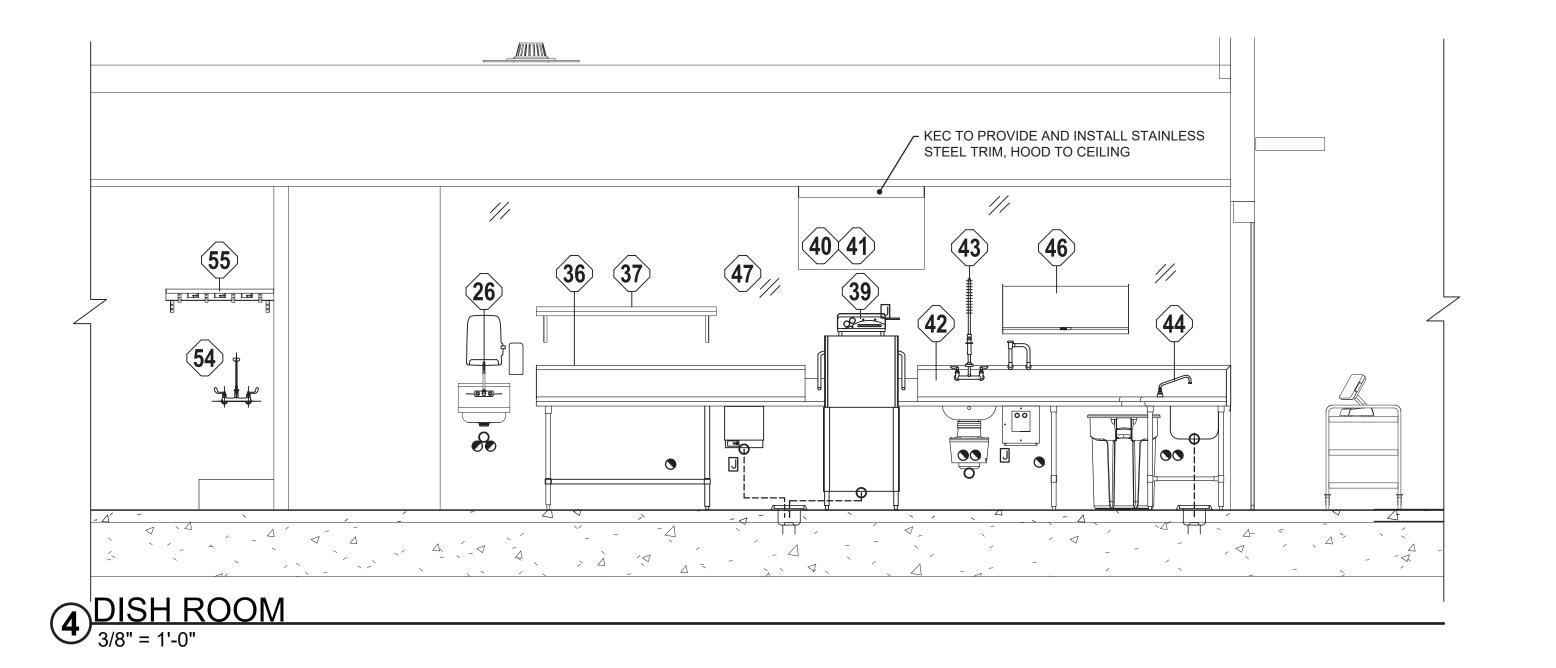
8 DUPLEX RECEPTACLE

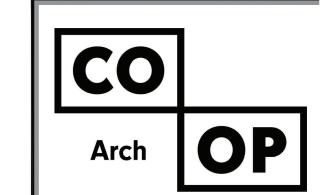
RECESSED FLOOR SINK.

J JUNCTION BOX

HOT / COLD WATER

NATURAL GAS





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CO-OP PROJECT NO:

2153

REV. DATE

ISSUE:

1-30-23 CONSTRUCTION DOCUMENTS

REVISION SCHEDULE:

REV. # REV. DSC.

PROJECT:

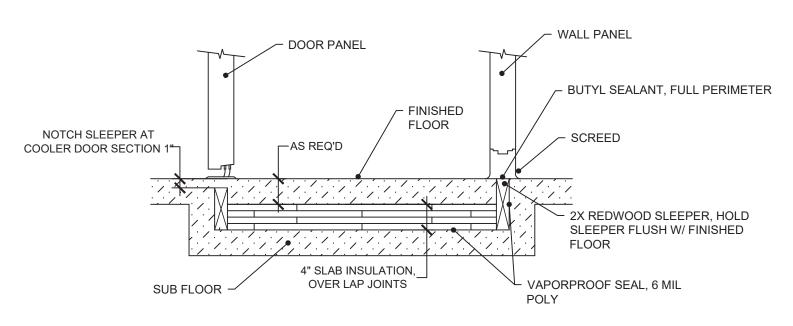
WILLOW LAKE SCHOOL ADDITION

WILLOW LAKE SCHOOL DISTRICT
WILLOW LAKE, SOUTH DAKOTA

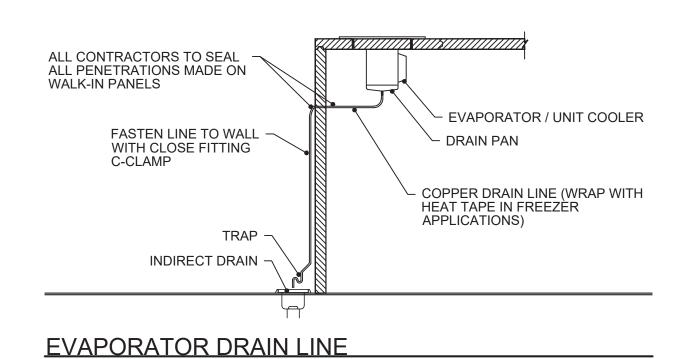
SHEET TITLE:

FOOD SERVICE / ELEVATIONS

F102



## SLEEPER CROSS SECTION AT WALK-IN COOLER NOT TO SCALE



SLEEPER CROSS SECTION AT WALK-IN FREEZER

4" SLAB

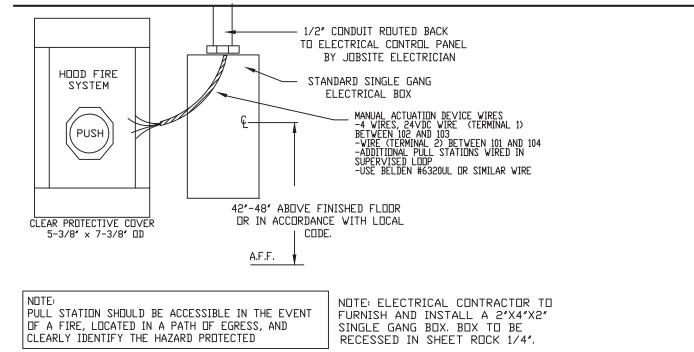
INSULATION, OVER-

LAP JOINTS

- DOOR PANEL

⊢AS REQ'D

SUB FLOOR



- FINISHED

FLOOR

- WALL PANEL

**FLOOR** 

VAPORPROOF SEAL, 6 MIL

- BUTYL SEALANT, FULL PERIMETER

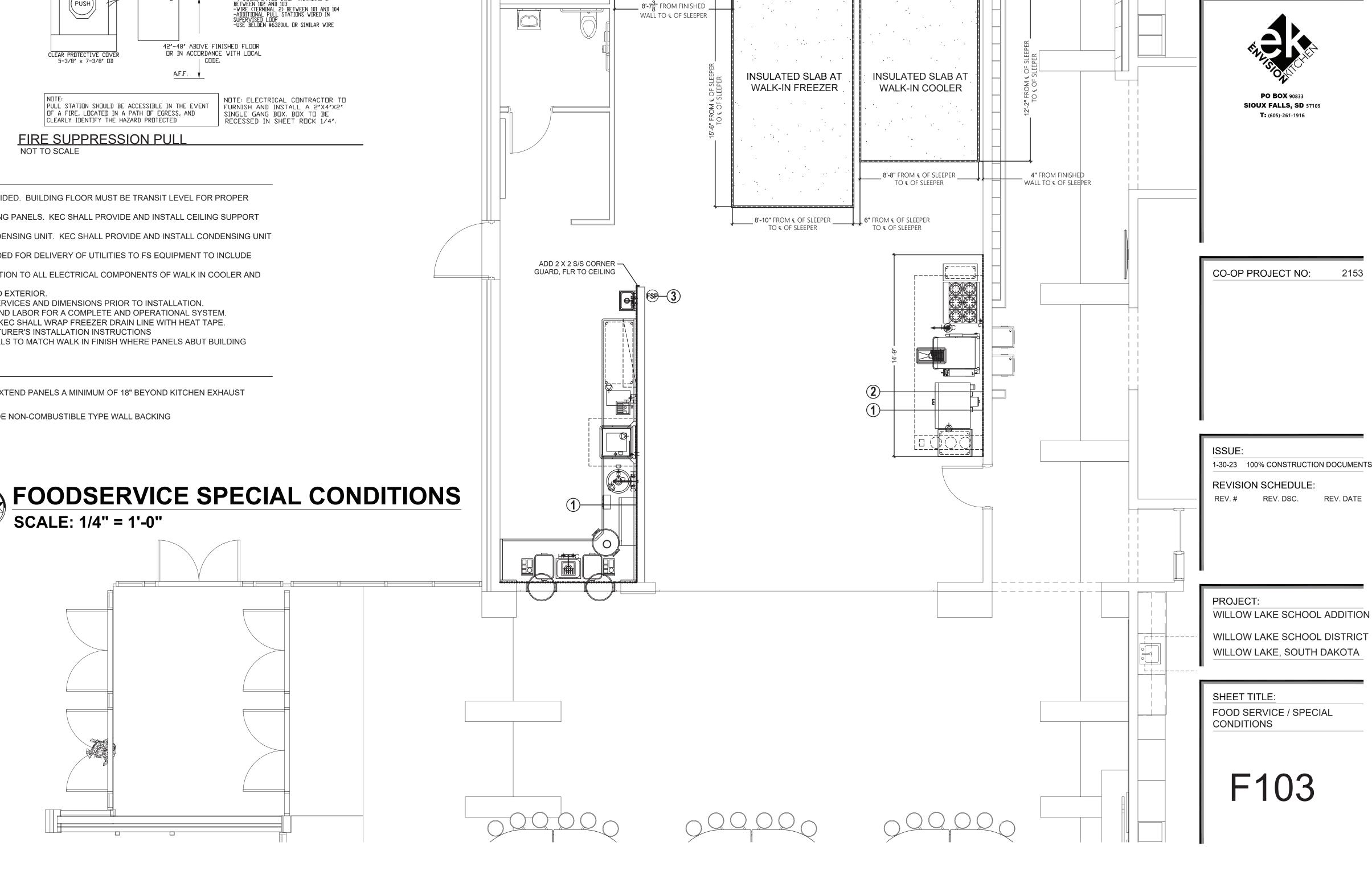
- 2X REDWOOD SLEEPER, HOLD

SLEEPER FLUSH W/ FINISHED

- **WALK-IN REFRIGERATION NOTES** GENERAL CONTRACTOR SHALL INSULATE THE SLAB PER THE DETAILS PROVIDED. BUILDING FLOOR MUST BE TRANSIT LEVEL FOR PROPER
- INSTALLATION OF WALK-IN PANELS. GENERAL CONTRACTOR SHALL PROVIDE STRUCTURAL SUPPORT FOR CEILING PANELS. KEC SHALL PROVIDE AND INSTALL CEILING SUPPORT
- SYSTEM AS PER MANUFACTURE'S INSTRUCTIONS. GENERAL CONTRACTOR SHALL PROVIDE AND INSTALL ROOF PAD FOR CONDENSING UNIT. KEC SHALL PROVIDE AND INSTALL CONDENSING UNIT
- AND RACK/STAND. GC TO PROVIDE PENETRATIONS AND SLEEVES THROUGH BUILDING AS NEEDED FOR DELIVERY OF UTILITIES TO FS EQUIPMENT TO INCLUDE
- DUCTS, PIPES, CONDUIT, ETC.
- ELECTRICAL CONTRACTOR SHALL ROUGH IN FOR AND MAKE FINAL CONNECTION TO ALL ELECTRICAL COMPONENTS OF WALK IN COOLER AND FREEZER.
- ALL TRADES SHALL SEAL PENETRATIONS OF WALK-IN PANELS INTERIOR AND EXTERIOR.
- ALL CONTRACTORS SHALL FIELD VERIFY ALL CONDITIONS, CLEARANCES, SERVICES AND DIMENSIONS PRIOR TO INSTALLATION.
- KEC SHALL PROVIDE AND INSTALL ALL COMPONENTS, PARTS, MATERIALS, AND LABOR FOR A COMPLETE AND OPERATIONAL SYSTEM. KEC SHALL PROVIDE AND INSTALL DRAIN LINES AT COOLER AND FREEZER. KEC SHALL WRAP FREEZER DRAIN LINE WITH HEAT TAPE.
- KEC SHALL INSTALL WALK-IN COOLER AND FREEZER AS PER THE MANUFACTURER'S INSTALLATION INSTRUCTIONS
- KEC SHALL PROVIDE AND INSTALL METAL TRIM AND CEILING CLOSURE PANELS TO MATCH WALK IN FINISH WHERE PANELS ABUT BUILDING

#### **KEYED NOTES**

- (1) PROVIDE AND INSTALL STAINLESS STEEL WALL PANELS FLOOR TO CEILING. EXTEND PANELS A MINIMUM OF 18" BEYOND KITCHEN EXHAUST
- (2) NON-COMBUSTIBLE CONSTRUCTION NEEDED AT COOK LINE WALLS TO INCLUDE NON-COMBUSTIBLE TYPE WALL BACKING
- (3) ROUGH-IN LOCATION FOR FIRE SUPPRESSION PULL STATION



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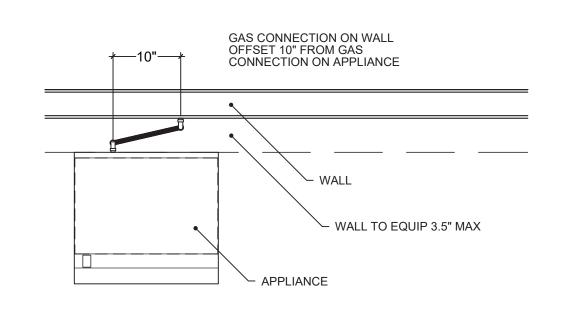
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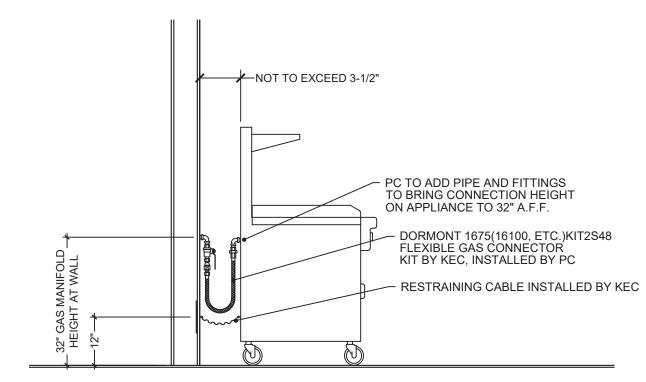
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4"FROM FINISHED WALL

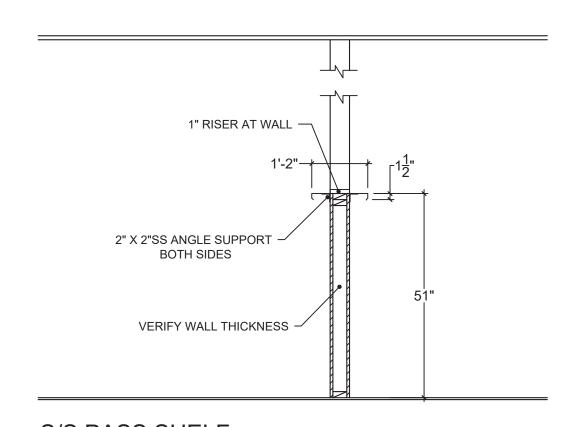
TO & OF SLEEPER



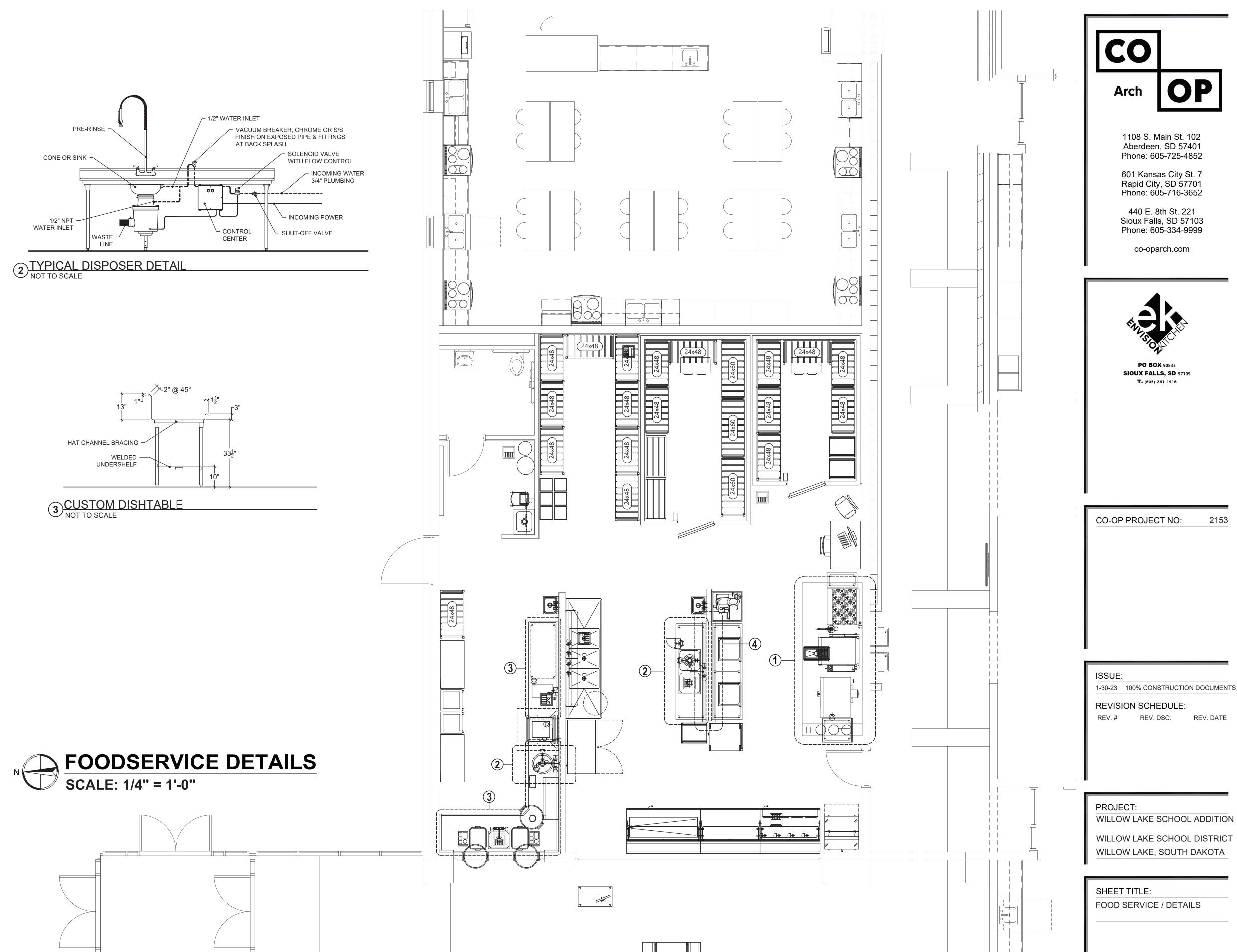
## 1 FLEXIBLE GAS CONNECTOR NOT TO SCALE



FLEXIBLE GAS CONNECTOR
NOT TO SCALE



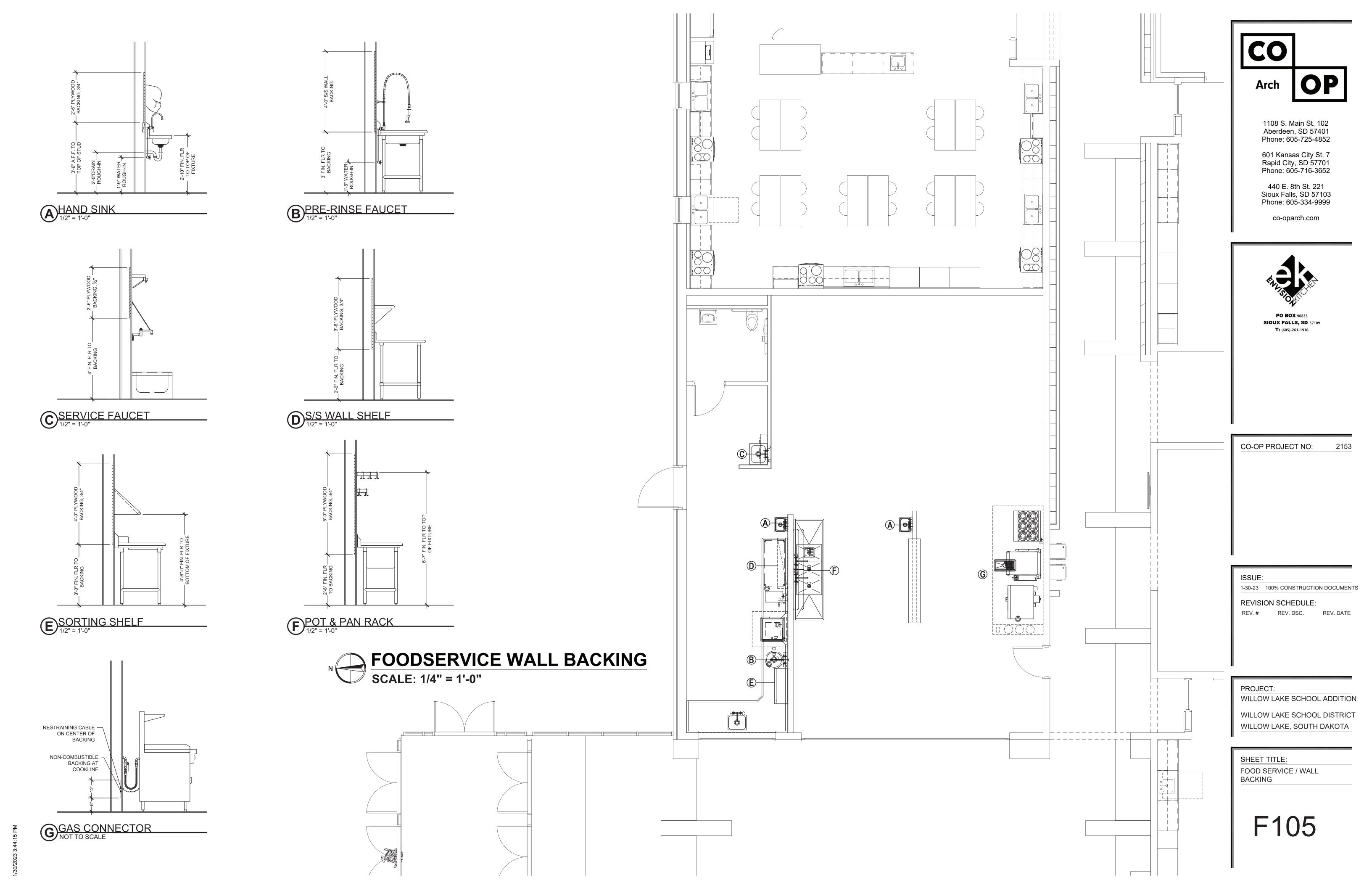
S/S PASS SHELF
NOT TO SCALE



2153

REV. DATE

F104



### PLUMBING ROUGH-IN SCHEDULE

ITEM#	QTY	UNIT	CATEGORY	c'in	H.M.	WATER IN ROLEICHT	WORKE SILE	DIRECT STE WASTERN	DREGIE IN ROLLER	cascond.	eastin Rough	GASTU MBTU	COMMENTS
2	1	EA	CONVECTION OVEN, DOUBLE DECK (RELOCATE EXISTING)							3/4"	32"	100	RELOCATE EXISTING, TWO OVENS @ 50 MBTU, MANIFOLD OVENS FOR ONE FLEXIBLE CONNECTOR
3	1	EA	TILTING SKILLET (RELOCATE EXISTING)							3/4"	32"	125	RELOCATE EXISTING, CONNECT GAS TO FLEXIBLE GAS CONNECTOR
3.2	1	EA	FLOOR TROUGH					4"	FLOOR				EXTEND DRAIN TO GREASE INTERCEPTOR
4	1	EA	KETTLE FILLER STANCHION	1/2"	1/2"	FLOOR							ROUGH IN FROM FLOOR ON 2" CENTERS TO A HEIGHT OF 6"
5	1	EA	RANGE, 6 BURNER (RELOCATE EXISTING)							3/4"	32"	215	RELOCATE EXISTING, CONFIRM UTILITY REQUIREMENTS. CONNECT GAS TO FLEXIBLE GAS CONNECTOR
16	1	EA	HOT FOOD SERVING COUNTER W/ SNEEZE GUARD				3/4"						EXTEND FLEXIBLE DRAIN LINE TO RFS
18	1	EA	COLD FOOD SERVING COUNTER W/ SNEEZE GUARD										FURNISHED W/CONDENSATE EVAPORATOR
26	2	EA	WALL MOUNT HAND SINK W/ FAUCET	1/2"	1/2"	21"		1-1/2"	24"				
27	1	EA	S/S WORK TABLE W/ TWO-COMPARTMENT SINK				1-1/2"						EXTEND INDIRECT DRAIN TO RFS
28	1	EA	FAUCET @ ITEM 27	1/2"	1/2"	18"							
28.1	1	EA	DISPOSER & CONTROLS	1/2"		15"		2"	8"				TWO WATER CONNECTIONS, DISPOSER CONE & DISPOSER BODY
31	1	EA	THREE-COMPARTMENT SINK					(3) 1-1/2"					MANIFOLD DRAINS & EXTEND TO GREASE INTERCEPTOR, NOTE 3
32	2	EA	FAUCET @ ITEM 31	1/2"	1/2"	15"							
34	1	EA	GREASE INTERCEPTOR (BY P/C)										PROVIDED & INSTALLED BY P/C
38	1	EA	BOOSTER HEATER	3/4"		15"	1"						EXTEND 140 DEGREE WATER SUPPLY TO DISHMACHINE ITEM 39, EXTEND PRESSURE RELIEF DRAIN TO RFS
39	1	EA	DISHWASHER, LOW TEMP (BY OWNER'S VENDOR)				2"						HOT SOFT WATER SUPPLY AT 140 DEGREE MIN. TEMP FROM BOOSTER HEATER ITEM 38, EXTEND COPPER DRAIN LINE TO RFS, NOTE 4
42	1	EA	SOILED DISHTABLE, "L" SHAPED (SCRAP SINK)				1-1/2"						EXTEND INDIRECT DRAIN TO RFS
43	1	EA	PRE-RINSE FAUCET	1/2"	1/2"	18"							NOTE 2
44	1	EA	DECK MOUNT FAUCET @ ITEM 42	1/2"	1/2"	18"							ROUGH IN WATER AT WALL, EXTEND WATER SUPPLY ON UNDERSIDE OF DISH TABLE TO FAUCET
45	1	EA	DISPOSER & CONTROLS	1/2"		15"		2"	12"				TWO WATER CONNECTIONS, DISPOSER CONE & DISPOSER BODY
54	1	EA	MOP SINK & FAUCET	1/2"	1/2"	36"		2"	FLOOR				
59	1	EA	REFRIGERATION SYSTEM AT WALK-IN FREEZER				1"						EXTEND INDIRECT DRAIN TO RFS
63	1	EA	REFRIGERATION SYSTEM AT WALK-IN COOLER				1"						EXTEND INDIRECT DRAIN TO RFS

#### NOTES:

- P/C PROVIDE AND INSTALL DRAIN WATER TEMPERING KIT ON RIGHT SINK BOWL (TO BE USED AS A SANITIZER SINK)
- P/C PROVIDE AND INSTALL SHUT OFF IN HOT WATER LINE W/ 1/4" COMPRESSION FITTING AT 12" AFF, VENDOR TO EXTEND HOT WATER SUPPLY TO CHEMICAL DISPENSING EQUIPMENT
- P/C PROVIDE AND INSTALL SHUT OFF IN HOT WATER LINE W/ 3/8" COMPRESSION FITTING AT 12" AFF, VENDOR TO EXTEND
- HOT WATER SUPPLY TO CHEMICAL DISPENSING EQUIPMENT P/C PROVIDE AND INSTALL PRESSURE REDUCING VALVES, DISH MACHINE OPERATING PRESSURE RANGE 15 - 25 psi
- P/C PROVIDE AND INSTALL ALL RFS AND FD'S

### **ELECTRICAL ROUGH-IN SCHEDULE**

ITEM#	QTY	UNIT	CATEGORY	VOLTAGE	PHASE	AMPS	40	Kzn	COMM. TYPE	NEMA	ELECTRICAL ELECTRICAL	COMMENTS
2	1	EA	CONVECTION OVEN, DOUBLE DECK (RELOCATE EXISTING)	120	1	7.7			CORD & PLUG		24", 48"	RELOCATE EXISTING, TWO OVENS @ 7.7 AMPS
3	1	EA	TILTING SKILLET (RELOCATE EXISTING)	120	1	1.4			CORD & PLUG	5-15P	24"	RELOCATE EXISTING
8	1	EA	EXHAUST HOOD	120	1						DFA	20 AMP CIRCUIT, ROUGH-IN ABOVE UTILITY CABINET, REFER TO CA DRAWINGS FOR ADDITIONAL DETAILS
15	1	EA	MILK COOLER (RELOCATE EXISTING)	120	1	5.8	1/3		CORD & PLUG	5-15P	24"	RELOCATE EXISTING
16	1	EA	HOT FOOD SERVING COUNTER W/ SNEEZE GUARD	208	1	17.3		3.6	CORD & PLUG		FLOOR	
18	1	EA	COLD FOOD SERVING COUNTER W/ SNEEZE GUARD	120	1	6.8			CORD & PLUG	5-15P	FLOOR	
19	1	EA	CASHIER STATION (RELOCATE EXISTING)								FLOOR	RELOCATE EXISTING, CONFIRM UTILITY REQUIREMENTS
21	1	EA	HEATED CABINET, MOBILE	120	1	16.7		2.0	CORD & PLUG	5-20P	24"	
24	1	EA	FOOD SLICER W/ STAND (RELOCATE EXISTING)	120	1	6.0					36"	RELOCATE EXISTING
28.1	1	EA	DISPOSER & CONTROLS	208	3	3.6	2		DIRECT		18"	
30	1	EA	REACH-IN REFRIGERATOR, 2-SECTION (RELOCATE EXISTING)	120	1	9.2	1/2		CORD & PLUG	5-15P	86"	RELOCATE EXISTING
38	1	EA	BOOSTER HEATER	208	3	33.4		12.0	DIRECT		15"	
39	1	EA	DISHWASHER, LOW TEMP (BY OWNER'S VENDOR)	120	1	12.0			DIRECT		66"	
45	1	EA	DISPOSER & CONTROLS	208	3	3.6	2				18"	
58	1	EA	WALK-IN FREEZER, FRAME & LIGHTS	120	1	5.0					DFA	ROUGH-IN POWER ABOVE FREEZER, EXTEND POWER TO DOOR SECTION AND LIGHTS
59	1	EA	REFRIGERATION SYSTEM AT WALK-IN FREEZER, CONDENSING UNIT	208-230	3	12.3					ROOF	ROUGH-IN POWER ON ROOF FOR CONNECTION TO CONDENSING UNIT, SEE SHEET M103 FOR LOCATION
			REFRIGERATION SYSTEM AT WALK-IN FREEZER, EVAP COIL (DEFROST)	208-230	1	9.8					DFA	ROUGH-IN POWER ABOVE FREEZER, EXTEND TO EVAP COIL
			REFRIGERATION SYSTEM AT WALK-IN FREEZER, EVAP COIL (FAN)	208-230	1	2.0					DFA	ROUGH-IN POWER ABOVE FREEZER, EXTEND TO EVAP COIL
			REFRIGERATION SYSTEM AT WALK-IN FREEZER, DRAIN LINE HEAT TAPE	120	1	15.0					DFA	ROUGH-IN POWER ABOVE FREEZER, PROVIDE RECEP NEAR EVAP COIL FOR HEAT TAPE
62	1	EA	WALK-IN COOLER, FRAME & LIGHTS	120	1	5.0					DFA	ROUGH-IN POWER ABOVE COOLER, EXTEND POWER TO DOOR SECTION AND LIGHTS
63	1	EA	REFRIGERATION SYSTEM AT WALK-IN COOLER, CONDENSING UNIT	208-230	1	7.0					ROOF	ROUGH-IN POWER ON ROOF FOR CONNECTION TO CONDENSING UNIT, SEE SHEET M103 FOR LOCATION
	1	EA	REFRIGERATION SYSTEM AT WALK-IN COOLER, EVAP COIL	120	1	1.6					DFA	ROUGH-IN POWER ABOVE COOLER, EXTEND TO EVAP COIL

#### **FOODSERVICE ABBREVIATIONS**

CW	COLD WATER
DD	DIRECT DRAIN
DFA	DOWN FROM ABOVE
EC	ELECTRICAL CONTRACTOR
FD	FLOOR DRAIN (BY P/C)
FS	FOOD SERVICE
GP	GENERAL PURPOSE OUTLET (BY E/C)
HW	HOT WATER
IDD	INDIRECT DRAIN
KEC	KITCHEN EQUIPMENT CONTRACTOR
MC	MECHANICAL CONTRACTOR
PC	PLUMBING CONTRACTOR

RFS RECESSED FLOOR SINK (BY P/C)

#### PLUMBING GENERAL NOTES

- ALL WORK SHALL COMPLY WITH NATIONAL, STATE, AND LOCAL CODES, LAWS, RULES AND REGULATIONS. CONTRACTORS SHALL FIELD VERIFY ALL CONDITIONS, CLEARANCES, SERVICES, AND DIMENSIONS PRIOR TO
- PC SHALL PROVIDE ALL ROUGH IN AND FINAL CONNECTION TO FS EQUIPMENT. KEC SHALL UNCRATE, ASSEMBLE, SET IN PLACE, AND LEVEL ALL FS EQUIPMENT UNLESS OTHERWISE NOTED
- AND MAKE READY FOR FINAL CONNECTION TO UTILITIES. PC TO PROVIDE GAS PRESSURE REGULATOR TO REDUCE BUILDING GAS PRESSURE TO FS EQUIPMENT
- MFG'S SPECIFIED WATER COLUMN REQUIREMENTS. VENT REGULATOR PER MFG INSTRUCTIONS.
- PC TO PROVIDED RECESSED FLOOR SINKS WHERE SPECIFIED.
- GENERAL WATER PRESSURE IN THE KITCHEN IS NOT TO EXCEED 50 PSI. PC SHALL PROVIDE AND INSTALL DEVICES TO REDUCE PRESSURE TO MATCH MFG'S REQUIREMENTS OF THE FS EQUIPMENT.
- PC SHALL PROVIDE AND INSTALL PRESSURE REDUCING VALVES, BLACK FLOW PREVENTION DEVICES, FLOW CONTROLS, WATER HAMMER ARRESTOR, STOPS AND SHUT OFF VALVES AS SPECIFIED, NEEDED AND/OR REQUIRED BY CODE.
- KEC IS RESPONSIBLE FOR PENETRATIONS IN FS EQUIPMENT FOR ELECTRICAL LINES AND PLUMBING LINES.
- GC TO PROVIDE PENETRATIONS AND SLEEVES THROUGH BUILDING AS NEEDED FOR DELIVERY OF UTILITIES
- TO FS EQUIPMENT TO INCLUDE DUCTS, BEVERAGE LINES, PIPES, CONDUIT, ETC. KEC SHALL PROVIDE FAUCETS AS SPECIFIED, PC SHALL INSTALL THESE FAUCETS.
- KEC SHALL PROVIDE LEVER DRAIN ASSEMBLIES AS SPECIFIED, PC SHALL INSTALL ASSEMBLIES.
- KEC SHALL PROVIDE DISPOSER, PC SHALL INSTALL DISPOSER.
- KEC SHALL PROVIDE FLEXIBLE GAS CONNECTORS WHERE SPECIFIED, PC SHALL INSTALL CONNECTOR KITS (KEC TO INSTALL RESTRAINING DEVICES).
- CONNECTIONS SHOWN ARE RELATIVE TO FOOD AND BEVERAGE EQUIPMENT ONLY.
- HEIGHTS PROVIDED REPRESENT FINISHED FLOOR TO CENTER LINE OF MECHANICAL ROUGH IN.

#### **ELECTRICAL GENERAL NOTES**

- ALL WORK SHALL COMPLY WITH NATIONAL, STATE, AND LOCAL CODES, LAWS, RULES AND REGULATIONS. CONTRACTORS SHALL FIELD VERIFY ALL CONDITIONS, CLEARANCES, SERVICES, AND DIMENSIONS PRIOR TO INSTALLATION
- EC SHALL PROVIDE ALL ELECTRICAL ROUGH IN, INTERWIRING AND FINAL CONNECTION TO FS EQUIPMENT.
- 4. KEC SHALL UNCRATE, ASSEMBLE, SET IN PLACE, AND LEVEL ALL FS EQUIPMENT UNLESS OTHERWISE NOTED AND MAKE READY FOR FINAL CONNECTION TO UTILITIES.
- KEC IS RESPONSIBLE FOR PENETRATIONS IN FS EQUIPMENT FOR ELECTRICAL AND PLUMBING LINES AND
- CONNECTIONS SHOWN ARE RELATIVE TO FOOD AND BEVERAGE EQUIPMENT ONLY. EC SHALL PROVIDE AND INSTALL ALL SWITCHES, SHUNT TRIPS, DISCONNECTS, STARTERS AND RELATED
- COMPONENTS AS NEEDED FOR A COMPLETE AND OPERATIONAL SYSTEM. GC TO PROVIDE PENETRATIONS AND SLEEVES THROUGH BUILDING AS NEEDED FOR DELIVERY OF UTILITIES
- TO FS EQUIPMENT TO INCLUDE DUCTS, BEVERAGE LINES, PIPES, CONDUIT, ETC. EC TO PROVIDE GFCI RECEPTACLES AND/OR BREAKERS WHERE REQUIRED BY CODE.
- KEC SHALL PROVIDE DISPOSER CONTROLS, EC SHALL INSTALL DISPOSER CONTROLS.
- 11. EC TO REVIEW GENERAL PURPOSE OUTLETS WITH OWNER.
- 12. HEIGHTS PROVIDED REPRESENT FINISHED FLOOR TO CENTER LINE OF ELECTRICAL ROUGH IN.

PROJECT: WILLOW LAKE SCHOOL ADDITION

WILLOW LAKE SCHOOL DISTRICT WILLOW LAKE, SOUTH DAKOTA

1-30-23 CONSTRUCTION DOCUMENTS

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