CHEROKEE NATION
VINITA, OKLAHOMA
VINITA CULTURAL DEVELOPMENT CENTER
RENOVATION OF A FACILITY FOR CULTURAL GALLERY, EDUCATIONAL CLASSROOMS, RETAIL, & CAFE

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VICINITY MAP

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ARCHITECT-OF-RECORD

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PROJECT INFORMATION

SUMMARY OF WORK:

THE BELOW IS A NARRATIVE/BRIEF DESCRIPTION OF WORK FOR THE PROJECT.
THE VINITA CULTURAL DEVELOPMENT CENTER IS A PROJECT COORDINATED BY CHEROKEE NATION BUSINESS. THE PROJECT IS AN INTERIOR RENOVATION OF AN EXISTING STRUCTURE TO HOUSE CULTURAL EXHIBITS, RETAIL ITEMS, AND A CAFé. THE BUILDING WILL ACCOMMODATE PUBLIC FACILITIES SIMILAR TO A TOURISM CENTER AND PROVIDE AMENITIES FOR LOCAL AND INTERSTATE TOURIST GROUPS.

THE BUILDING INCLUDES 5 MAJOR FUNCTIONS:

1. A GALLERY THAT INCLUDES POTTERY, ART, AND HISTORIC ARTIFACTS THAT HIGHLIGHT THE CULTURE AND HISTORY OF THE CHEROKEE NATION. THE GALLERY WILL BE OPEN TO THE PUBLIC DURING BUSINESS HOURS AND SPECIAL EVENTS.
2. A RETAIL DESTINATION THAT WILL OFFER ITEMS SUCH AS CLOTHING, BOOKS, BLANKETS, MAPS AND OTHER ITEMS FOR SALE.
3. A CAFé AND LOUNGE SERVING COFFEE, GRAB-AND-GO PASTRIES.
4. INFORMATION CENTER AND SELF-SERVE PAMPHLETS TO PROVIDE GUESTS.
5. PUBLIC RESTROOMS PROVIDING CLEAN AND ACCESSIBLE FACILITIES FOR MEN 'S, WOMEN 'S, AND A FAMILY RESTROOM. EACH RESTROOM INCLUDES CHANGING TABLES, UPGRADED FINISHES TO MATCH IMPROVEMENTS MADE IN THE REMAINDER OF THE FACILITY.

ADDITIONAL CLASSROOM AND STUDIO SPACES ARE AVAILABLE ON THE LOWER LEVEL FOR PRIVATE EVENTS AND SCHEDULED ACTIVITIES. THESE SPACES ARE ACCESSIBLE FROM THE SOUTH SIDE OF THE BUILDING AND INCLUDE UPGRADED RESTROOM FACILITIES.

THIS IS A DESCRIPTION OF THE PROJECT BUT IS NOT INCLUSIVE OF ALL WORK AND SHOULD BE REVIEWED WITH THE DESIGN DOCUMENT. THE PROJECT WILL PROVIDE A VARIETY OF NEW FINISHES AND STRUCTURES THROUGHOUT THE BUILDING AND SITE. AN ABBREVIATED LIST OF WORK TO BE DONE IS LISTED BELOW:

DEMO OF EXISTING SPACES AND INSTALLING NEW MATERIALS, FULLY RENOVATED BATHROOMS TO INCLUDE ADA STANDARDS, NEW FINISHES THROUGHOUT; NEW FLOORING (WOOD FLOORING UPSTAIRS, VINYL PLANK DOWNSTAIRS AND PORCELAIN TILES IN THE BATHROOMS), WOOD CEILING (CUSTOM WOOD PANELS IN THE ENTRY AND LOBBY WITH INTEGRATED LIGHTS), LIGHT FIXTURES (A MIXTURE OF STANDARD AND LOW VOLTAGE WILL BE USED RECESSED CANS, TRACK, AND SPECIALTY LIGHTING), ADDING NEW WALLS (INFILL, NEW PARTITIONS, TEMPORARY/REMOVEABLE GALLERY WALLS, TILE, STONE WALLS, PAINTING NEW AND EXISTING WALLS AND CEILINGS , NEW MILLWORK (IN THE RETAIL, CAFé, AND CUSTOM RECEPTION DESK) A SHELL KITCHEN SPACE WILL BE MADE READY FOR A VENDOR TO INSTALL EQUIPMENT IN THE FUTURE. THE PROJECT WILL ALSO RECEIVE A NEW WOOD AND STEEL PORTO-COCHERE, LANDSCAPING, VESSEL (4 RETAINING WALL THAT OPEN TO A SEMI-ENCLOSED OUTDOOR SPACE WITH A REFLECTING POOL), AND ASPHALT PARKING LOT AND DRIVE. ALONG WITH THE NARRATIVE AND BID DOCUMENTS THE CONTRACTOR SHOULD REVIEW THE PROJECT AND BE PREPARED TO BID TO THE BEST OF THERE ABILITY. BID COMMENTS/QUESTIONS SHOULD BE COMPILED AS A SINGLE LIST DIRECTED TO CHEROKEE NATION BUSINESS PURCHASING, AMY EUBANKS AMY.EUBANKS@CNENT.COM.

THE TOTAL PROPERTY SIZE IS APPROXIMATELY 7.96 ACRES AND THE LEGAL DESCRIPTION IS AS FOLLOWS:

A TRACT LYING IN THE NORTHWEST QUARTER OF THE SOUTHWEST QUARTER (NW/4 SW/4) AND THE SOUTHWEST QUARTER OF THE NORTHWEST QUARTER (SW/4 NW/4) OF SECTION TWENTY-THREE (23), TOWNSHIP TWENTY-FIVE (25) NORTH, RANGE TWENTY (20) EAST OF THE INDIAN MERIDIAN, CRAIG COUNTY, OKLAHOMA, ACCORDING TO THE U.S. GOVERNMENT SURVEY THEREOF, MORE PARTICULARLY DESCRIBED AS:

COMMENCING AT THE SOUTHWEST QUARTER OF SAID SW/4 NW/4 OF SAID SECTION 23; THENCE N01°44'58"W 48.17 FEET TO THE POINT OF BEGINNING; THENCE N01°44'58"W 60.46 FEET; THENCE S67°13'45"E 939.35 FEET; THENCE N22°46'13"E 20.00 FEET; THENCE S67°13'47"E 74.70 FEET; THENCE 360.51 FEET ALONG A CURVE TO THE RIGHT, HAVING A RADIUS OF 1830.10 FEET, A CENTRAL ANGLE OF 11°17'12", AND A CHORD BEARING OF S61°35'11"E 359.93 FEET; THENCE S88°21'37"W 588.38 FEET; S01°38'23"E 98.41 FEET; THENCE S88°21'37"W 384.62 FEET; THENCE N01°38'23"W 496.49 FEET; THENCE N67°13'47"W 296.61 FEET TO THE POINT OF BEGINNING.

AND

A TRACT COMMENCING AT THE SOUTHWEST QUARTER OF SW/4 NW/4 OF SAID SECTION 23; THENCE N01°44'58"W 159.87 FEET TO THE POINT OF BEGINNING; THENCE S67°16'25"E 1027.42 FEET; THENCE 354.81 FEET ALONG A CURVE TO THE RIGHT HAVING A RADIUS OF 1860.08 FEET AND A DELTA ANGLE OF 10°55'45"; THENCE S01°44'58"E 32.23 FEET; THENCE 360.51 FEET ALONG A CURVE TO THE LEFT HAVING A RADIUS OF 1830.10 FEET AND A DELTA ANGLE OF 11°17'12"; THENCE N67°13'47"W 74.70 FEET; THENCE S22°46'13"W 20.00 FEET; THENCE N67°13'45"W 939.35 FEET; THENCE N01°44'58"W 51.4 FEET TO THE POINT OF BEGINNING.

HISTORY:

ORIGINAL CONSTRUCTION DATE: N/A
SUBSEQUENT WORK: NOVEMBER, 2021

ZONING

ZONING: R-1
JURISDICTION: CITY OF VINITA
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VINITA, OKLAHOMA 74301

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PROJECT
VINITA CULTURAL DEVELOPMENT CENTER - ASI 1

PROJECT
CHEROKEE NATION
VINITA, OKLAHOMA

KEY PLAN

No.	Description	Date
	BID SET	5/07/2021
1	ASI-1	5/19/2021

SHEET TITLE
ASI 1 DRAWINGS

PROJECT NO: 111-049.20
DRAWN BY:
CHK'D BY:
ISSUE DATE: 5/19/2021

G001

Scale: As indicated

STATE OF OKLAHOMA · GARY W. SPARKS · 1249 · TULSA, OKLA. · LICENSED ARCHITECT

5/19/2021

ABBREVIATIONS

#	NUMBER	FBR	FABRIC	PLAM	PLASTIC LAMINATE
&	AND	FCU	FAN COIL UNIT	PLAS	PLASTER
@	AT	FE	FIRE EXTINGUISHER	PLUMB	PLUMBING
		FEC	FIRE EXTINGUISHER CABINET	PLYWD	PLYWOOD
ACP	ACOUSTICAL CEILING PANEL	FF	FINISH FLOOR	PT	PRESSURE TREATED
AD	ACCESS DOOR	FLR	FLOOR	PTD	PAINTED
ADJ	ADJACENT	FRP	FIBER REINFORCED PLASTER	PVC	POLYVINYL CHLORIDE
AFF	ABOVE FINISH FLOOR	FRT	FIRE RETARDENT TREATED WOOD	QTR	QUARTER
AIW	ACRYLIC IMPREGNATED WOOD	FT	FEET/FOOT	RAD	RADIUS
ALT	ALTERNATIVE	FTG	FOOTING	RB	RESILIENT BASE
ALUM	ALUMINUM	GA	GAUGE	RCP	REFLECTED CEILING PLAN
ARCH	ARCHITECTURAL	GALV	GALVINIZED	RD	ROOF DRAIN
ASTM	AMERICAN SOCIETY OF TESTING & MATERIALS	GP	GLAZING PANEL	REINF	REINFORCED
		GWB	GYPSUM WALL BOARD	REQ	REQUIRED
BCJ	BRICK CONTROL JOINT	H	HIGH	RM	ROOM
BD	BOARD	HC	HOLLOW CORE	RO	ROUGH OPENING
BLDG	BUILDING	HDWR	HARDWARE	SIM	SIMILAR
BLKG	BLOCKING	HM	HOLLOW METAL	SQ	SQUARE
BOT	BOTTOM	HORIZ	HORIZONTAL	SS	STAINLESS STEEL
BRG	BEARING	HR	HOUR	STL	STEEL
BSMT	BASEMENT	IN	INCH	STOR	STORAGE
CBB	CEMENT BACKER BOARD	INSUL	INSULATION	STRUCT	STRUCTURAL
CI	CAST IRON	INT	INTERIOR	SUSP	SUSPENDED
CJ	CONTROL JOINT	JAN	JANITORS	THK	THICK
CLG	CEILING	JT	JOINT	THRU	THROUGH
CLO	CLOSET	L	LONG	TOF	TOP OF FOUNDATION
CMU	CONCRETE MASONRY UNIT	LVL	LEVEL	TOS	TOP OF STEEL
COL	COLUMN	MANF	MANUFACTURER	TYP	TYPICAL
CONC	CONCRETE	MAS	MASONRY	UL	UNDERWRITER'S LABORATORIES
CONST	CONSTRUCTION	MATL	MATERIAL	UNO	UNLESS NOTED OTHERWISE
CONT	CONTINUOUS	MAX	MAXIMUM	VCT	VINYL COMPOSITE TILE
CPT	CARPET	MDF	MEDIUM DENSITY FIBERBOARD	VERT	VERTICAL
CT	CERAMIC TILE	MDO	MEDIUM DENSITY OVERLAY	VEST	VESTIBULE
DEMO	DEMOLITION	MECH	MECHANICAL	VIF	VERIFY IN FIELD
DIA	DIAMETER	MEMB	MEMBRANE	VWC	VINYL WALL COVERING
DIM	DIMENSIONS	MEP	MECHANICAL, ELECTRICAL & PLUMBING	W/	WITH
DN	DOWN	MIN	MINIMUM	W/O	WITHOUT
DR	DOOR	MO	MASONRY OPENING	WC	WALL COVERING
DS	DOWNSPOUT	MTL	METAL	WD	WOOD
EIFS	EXTERIOR INSULATE FINISH SYSTEM	NIC	NOT IN CONTRACT		
EL	ELEVATION	NO	NUMBER		
ELEC	ELECTRIC	OC	ON CENTER		
EQ	EQUAL	OD	OUTSIDE DIAMETER		
EQUIP	EQUIPMENT				
ETR	EXISTING TO REMAIN				
EWC	ELECTRIC WATER COOLER				
EXIST	EXISTING				
EXPN	EXPANSION				
EXT	EXTERIOR				

FILL PATTERN LEGEND

CONCRETE
- CONCRETE
- CEMENTITIOUS TOPPING
- PRECAST CONCRETE
- GROUT

MASONRY
- BRICK
- CAST STONE
- MARBLE
- CMU
- SLATE
- CUT STONE
- SAND

METALS
- STEEL
- OTHER METALS
- ALUMINUM

WOOD & INTERIOR
- CONT. WD
- INTERMITTENT WOOD
- GLUE-LAM
- PLYWOOD
- CORK
- FINISH WOOD
- HARD BOARD
- SOLID SURFACE
- GYPSUM WALL BOARD
- PARTICLE BOARD

THERMAL & MOISTURE
- BATT / BLOWN INSUL.
- LOOSE FILL INSULATION
- RIGID INSULATION
- SEALANT & BACKER ROD
- SEALANT & COMPRESSIBLE MATERIAL

OPENINGS
- GLASS
- PLASTIC GLAZING

SITE
- EARTH
- BASE COURSE
- BACKFILL
- GRANULAR FILL
- DRAINAGE FILL

GENERAL NOTES

1. **INTENT**
CONTRACTOR SHALL MAKE SURE THAT THE INTENT OF THE DRAWINGS IS MET, ACTUAL CONDITIONS SHALL GOVERN OVER WRITTEN DIMENSIONS. WRITTEN DIMENSIONS SHALL GOVERN OVER ACTUAL DRAWING REPRESENTATION. ATTEMPTS TO UTILIZE SCALING OR ELECTRONIC MEANS TO DETERMINE QUANTITY TAKE-OFF MAY BE AFFECTED BY NOT-TO-SCALE ITEMS. THE ARCHITECT AND CONSULTING ENGINEERS ARE NOT RESPONSIBLE FOR, AND SHALL NOT BE HELD LIABLE FOR THE ACCURACY OF RESULTS OF SUCH TAKE-OFFS.

2. **GOVERNING CODE**
ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE REQUIREMENTS OF THE 2012 IRC, INCLUDING REFERENCES TO FIRE CODES THEREIN, AND LOCAL CODES, LAWS, REGULATIONS, AND ORDINANCES. THE GENERAL CONTRACTOR SHALL MAINTAIN A COPY OF THE ABOVE DOCUMENTS AT THE SITE, ADDITIONALLY, ALL ASPECTS OF THE AMERICANS WITH DISABILITIES ACT SHALL BE FOLLOWED ON THIS PROJECT.

3. **OWNER OCCUPANCY**
THE BUILDING AND SITE WILL BE OCCUPIED DURING CONSTRUCTION. THE CONTRACTOR SHALL OBTAIN THE OWNER'S APPROVAL AND COORDINATE AND SCHEDULE IN ADVANCE WITH THE OWNER ALL WORK THAT MAY AFFECT THE OWNER'S OPERATIONS, SUCH WORK INCLUDES DELIVERIES, STORAGE OF MATERIALS, STAGING OPERATIONS, INTERIOR WORK INCLUDING REMOVAL AND REPLACEMENT INTERIOR FINISHES AND WORK ABOVE THE CEILINGS, INTERRUPTIONS IN POWER, AIR CONDITIONING AND HEATING, AND SIMILAR WORK, IF NECESSARY TO ACCOMMODATE THE OWNER'S SCHEDULE, SOME OUTAGES MAY NEED TO BE SCHEDULED AFTER HOURS OR ON WEEKENDS, SEE SPECIFICATIONS FOR ADDITIONAL INFORMATION.

4. **MEASUREMENTS & EXISTING CONDITIONS**
DIMENSIONS ARE FROM FACE OF FRAMING LAYER TO FACE OF FRAMING LAYER UNLESS NOTED OTHERWISE. INFORMATION CONTAINED IN THESE DOCUMENTS IS BASED ON EXISTING DOCUMENTS AND FIELD MEASUREMENTS. THE CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS AND ALL MEASUREMENTS AT THE BUILDING AND SHALL BE RESPONSIBLE FOR CORRECTNESS OF SAME. WHERE CONFLICTS OCCUR BETWEEN THE DOCUMENTS AND THE EXISTING CONDITIONS, THE CONTRACTOR SHALL NOTIFY THE ARCHITECT FOR RESOLUTION OF DISCREPANCIES BEFORE PROCEEDING WITH THE WORK. IF THE CONTRACT ENCOUNTERS MATERIAL SUSPECTED MATERIAL SUSPECTED OF CONTAINING HAZARDOUS SUBSTANCES HE SHALL STOP WORK AND NOTIFY THE ARCHITECT AND OWNER IMMEDIATELY.

5. **DEMOLITION**
DEMOLITION INCLUDES CONTROLLED DESTRUCTION OF EXISTING CONSTRUCTION AND THE REMOVAL AND DISPOSAL OF DEMOLISHED MATERIALS AS SHOWN ON THE DRAWINGS AND/OR INCLUDED IN THESE NOTES, DEMOLITION SHALL BE PERFORMED IN SECTIONS SMALL ENOUGH SO AS NOT TO ENDANGER ANY ADJACENT MATERIALS OR FACILITIES TO REMAIN IN PLACE. PROVIDE ADEQUATE SHORING, BRACING, AND PROTECTION TO PREVENT MOVEMENT, SETTLEMENT, COLLAPSE, OR DAMAGE TO EXISTING MATERIALS OR FACILITIES WHICH ARE TO REMAIN, CONTRACTOR SHALL SUBMIT TO THE ARCHITECT FOR REVIEW AND ACCEPTANCE, PRIOR TO BEGINNING THE WORK, COMPLETE DETAILS OF SHORING PROCEDURES SIGNED BY A REGISTERED PROFESSIONAL ENGINEER, PROMPTLY REPAIR ALL DAMAGES CAUSED BY THE DEMOLITION TO ADJACENT FACILITIES OR MATERIALS AT NO COST TO THE OWNER.

6. **CUTTING & PATCHING OF THE WORK**
THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CUTTING, FITTING, AND PATCHING THAT MAY BE REQUIRED TO COMPLETE THE WORK AND MAKE ITS SEVERAL PARTS FIT TOGETHER TO ACHIEVE THE PROFESSIONAL QUALITY OF NEW WORK, WHERE EXISTING CONSTRUCTION IS DISTURBED, THE AFFECTED AREA SHALL BE REPLACED AND REPAIRED WITH MATCHING MATERIALS AND FINISHES AND BLENDED WITH EXISTING WORK. WHERE PAINT CANNOT BE TOUCHED UP TO MATCH, REPAINT ENTIRE SURFACE; HOLES CUT IN SURFACES, NEW OR EXISTING, SHALL BE CORED OR DRILLED FIRST AT ALL CORNERS TO ELIMINATE OVERCUTTING, AS AN OPTION, IF CUTTING TOOLS ARE AVAILABLE THAT ELIMINATE OVERCUTTING THEY MAY BE USED. OVERCUTTING AND PATCHING WILL NOT BE ACCEPTED.

7. **TEMPORARY FACILITIES**
THE OWNER WILL PROVIDE UTILITIES AVAILABLE FROM THE EXISTING BUILDING FOR USE BY THE CONTRACTOR. THE CONTRACTOR SHALL PROVIDE TEMPORARY TOILET FACILITIES FOR THE WORKMEN AND SHALL MAKE ADDITIONAL PROVISIONS IF REQUIRED TO ACCOMPLISH THE WORK, AT THE COMPLETION OF CONSTRUCTION AND BEFORE REQUEST FOR FINAL PAYMENT, ALL EXISTING FACILITIES USED BY THE CONTRACTOR SHALL BE CLEANED AND RESTORED TO ORIGINAL CONDITION TO THE OWNER'S SATISFACTION.

8. **TEMPORARY CONSTRUCTION BARRIERS**
THE CONTRACTOR WILL COMPLY WITH THE OWNER'S AND LOCAL JURISDICTION'S REQUIREMENTS FOR ERECTION OF NON-COMBUSTIBLE SAFETY BARRICADES FOR PROTECTION OF PEOPLE AND PROPERTY AT AND AROUND ALL WORK AREAS. PAINT WITH APPROPRIATE COLORS, GRAPHICS, AND WARNING SIGNS TO INFORM PERSONNEL AND THE PUBLIC OF THE HAZARD BEING PROTECTED AGAINST, THE CONTRACTOR MUST MAINTAIN ACCESS TO ALL EXITS AND MAINTAIN REQUIRED EGRESS PASSAGE WIDTHS THROUGHOUT THE DEMOLITION AND CONSTRUCTION PERIOD, THE EGRESS PASSAGE MAY NOT BE USED AS A PATHWAY TO TRANSPORT MATERIALS TO AND FROM THE AREA OF WORK WHILE THE BUILDING IS OCCUPIED.

9. **FIELD COORDINATION**
CONTRACTOR SHALL COORDINATE BUILDING ACCESS NECESSARY TO PERFORM THE WORK WITH THE OWNER'S REPRESENTATIVE. CONTRACTOR SHALL PROTECT THE SPACE AND EQUIPMENT THAT IS OUTSIDE OF THE SPECIFIC AREA OF WORK FROM DAMAGE, SHOULD ANY DAMAGE OCCUR, CONTRACTOR SHALL REPAIR TO THE OWNER'S SATISFACTION AT NO ADDITIONAL COST TO THE OWNER.

10. **WORK EXECUTION**
ALL MATERIALS AND PRODUCTS ARE TO BE MANUFACTURED, ASSEMBLED, AND INSTALLED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS. REQUIREMENTS, AND SHOP DRAWINGS. THE CONTRACTOR AGREES TO TAKE ALL NECESSARY SAFETY PRECAUTIONS AS REQUIRED BY FEDERAL, TRIBAL, STATE AND LOCAL AUTHORITIES TO PROTECT PEDESTRIAN AND VEHICULAR TRAFFIC IN THE CONSTRUCTION AREA, WHICH INCLUDES, BUT IS NOT LIMITED TO: MAINTAINING ADEQUATE WARNING SIGNS, BARRICADES, LIGHTS, GUARD FENCES, WALKS AND BRIDGES.

11. **CLEANING**
THE WORK SITE MUST BE KEPT CLEAN OF CONSTRUCTION DEBRIS AND DISCARDED PACKAGING MATERIAL. THE CONTRACTOR SHALL ARRANGE FOR HIS OWN TRASH CONTAINERS AND THEIR REMOVAL. LOCATION OF THE CONTAINERS MUST BE COORDINATED WITH THE OWNER'S REPRESENTATIVE. ALL WORK SHALL BE THOROUGHLY CLEANED AND POLISHED BEFORE FINAL INSPECTION. CLEANING MUST BE APPROVED BY THE OWNER PRIOR TO FINAL ACCEPTANCE.

12. **PRICING**
THE GENERAL CONTRACTOR SHALL PROMPTLY NOTIFY THE ARCHITECT AND OWNER FOR CLARIFICATION OF ANY AMBIGUITY OR INCONSISTENCY WHICH HE MAY DISCOVER UPON EXAMINATION OF THE CONSTRUCTION DOCUMENTS OR THE SITE AND EXISTING CONDITIONS PRIOR TO SUBMITTING HIS PRICE. THE GENERAL CONTRACTOR, BY MAKING HIS BID, REPRESENTS THAT;

1. HE HAS READ AND UNDERSTANDS THE DOCUMENTS AND HIS BID IS MADE IN ACCORDANCE THEREWITH.
2. HE HAS VISITED THE SITE, HAS FAMILIARIZED HIMSELF WITH THE SITE AND JOB CONDITIONS AND JURISDICTIONAL REQUIREMENTS UNDER WHICH THE WORK IS TO BE PERFORMED AND HAS CORRELATED HIS OBSERVATIONS WITH THE REQUIREMENTS OF THE CONTRACT DOCUMENTS.
3. HIS PRICE IS BASED UPON THE MATERIALS, SYSTEMS, AND EQUIPMENT REQUIRED BY THE BIDDING DOCUMENTS WITHOUT EXCEPTION. THE GENERAL CONTRACTOR SHALL CONTACT THE OWNER'S REPRESENTATIVE TO MAKE AN APPOINTMENT TO VISIT THE SITE, FAILURE TO VISIT THE SITE WILL NOT RELIEVE THE GENERAL CONTRACTOR OF THE OBLIGATION TO FURNISH ALL MATERIAL AND LABOR NECESSARY TO CARRY OUT THE PROVISIONS OF THE CONTRACT DOCUMENTS AND TO COMPLETE THE WORK FOR THE CONSIDERATION SET FORTH IN HIS BID. THE OWNER'S PROJECT MANAGER IS DONALD WALLIS AND HIS PHONE NUMBER IS 918.430.3462.

13. **SHOP DRAWINGS & SUBMITTALS**
SUBMIT SHOP DRAWINGS AND PRODUCT DATA TO THE ARCHITECT AS INDICATED IN EACH SECTION OF THE SPECIFICATIONS, OR AS LISTED BELOW, NEITHER THE SPECIFICATIONS, NOR THE LIST BELOW SHALL PRECLUDE THE VALIDITY OF EITHER. SHOP DRAWINGS, PRODUCT DATA, WARRANTIES, OPERATION AND MAINTENANCE MANUALS, QUALIFICATIONS, AND OTHER REQUIRED APPLICABLE INFORMATION FOR A SINGLE SPECIFICATION SECTION SHALL BE CONSOLIDATED INTO ONE SUBMITTAL OR AS FEW SUBMITTALS AS ECONOMICALLY POSSIBLE. SHOP DRAWINGS SHALL BE SUFFICIENT IN SCALE AND DETAIL TO INDICATE MATERIALS, METHODS OF FABRICATION, JOINTS, AND GENERAL CONFIGURATION. WORK SHALL NOT COMMENCE ON EACH ITEM UNTIL THE OWNER HAS APPROVED THE SUBMITTAL.
- DOORS, FRAMES, SIDELITES, & HARDWARE
- ALUMINUM FRAMED ENTRANCES & SIDELITES
- TUBULAR DAYLIGHTING DEVICES
- WINDOWS
- GLAZING
- PAINT COLORS AND CUT SHEETS ON PRODUCT DATA
- INTERIOR TILE
- WINDOW BLINDS
- ROOF SHINGLES AND TRIM
- EXTERIOR SIDING AND TRIM
- CABINET FACES AND PULLS
- BASE TRIM WITH FINISH OPTIONS
- MECHANICAL EQUIPMENT
- ELECTRICAL EQUIPMENT
- PLUMBING FIXTURES
- LIGHT FIXTURES
- SIGNAGE

14. **REMOVAL & DISPOSAL**
THE OWNER HAS THE OPTION OF KEEPING OR SALVAGING ITEMS WITH THE RIGHT OF FIRST REFUSAL, OTHERWISE, THE CONTRACTOR SHALL PROMPTLY REMOVE ANY CONSTRUCTION DEBRIS FROM THE PROJECT SITE AS IT IS PRODUCED, WASTE MATERIALS SHALL BE REMOVED IN A MANNER WHICH PREVENTS INJURY OR DAMAGE TO PERSONS, ADJOINING PROPERTIES AND THE PUBLIC RIGHTS-OF-WAY, PLACE IN LARGE COLLECTION CONTAINERS, AND DEPOSIT OFF OF THE OWNER 'S PROPERTY IN A LEGAL DUMP UNLESS OTHERWISE INSTRUCTED, THE CONTRACTOR WILL BE RESPONSIBLE FOR THE DISPOSING OF ALL WASTE, THE TERM "REMOVE" USED IN THE CONSTRUCTION DOCUMENTS INCLUDES THE DISPOSAL OF SAID MATERIAL IN ACCORDANCE WITH THE SPECIFICATIONS.

15. **COORDINATION**
THE CONTRACTOR SHALL NOTIFY HIS SUBCONTRACTORS OF ANY WORK ON THE ARCHITECTURAL SHEETS/SPECIFICATIONS NOT SHOWN ON THE LANDSCAPE, CIVIL, STRUCTURAL, MECHANICAL, ELECTRICAL OR PLUMBING SHEETS/SPECIFICATIONS AND VISA-VERSA.

GRAPHIC SYMBOLS

- LEVEL INDICATOR
- ROOM TAG (NAME / 101)
- WALL TAG (#)
- DOOR TAG
- WINDOW TAG
- CEILING TAG (42'-0" A.F.F.)
- EXISTING DOOR
- NEW DOOR

- **SECTIONS** — SECTION NUMBER; SHEET NUMBER WHERE SECTION IS LOCATED
- **ELEVATIONS** — ELEVATION NUMBER; SHEET NUMBER WHERE ELEVATION IS LOCATED
- **ELEVATIONS (INTERIOR)** — ELEVATION NUMBER (A909); SHEET NUMBER WHERE ELEVATION IS LOCATED
- **DETAILS** — DETAIL NUMBER; SHEET NUMBER WHERE DETAIL IS LOCATED

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PROJECT: VINITA CULTURAL DEVELOPMENT CENTER - ASI 1

PROJECT
CHEROKEE NATION
VINITA, OKLAHOMA

KEY PLAN

No.	Description	Date
1	ASI-1	5/19/2021

SHEET TITLE
ASI 1 DRAWINGS

PROJECT NO: 111-049.20
DRAWN BY:
CHKD BY:
ISSUE DATE: 5/7/2021

G002

Scale As indicated

STATE OF OKLAHOMA · GARY W. SPARKS · 1265 · TULSA, OKLA. · REGISTERED ARCHITECT

5/4/2021 6:45:42 PM

1/16"=1'-0" 1/8"=1'-0" 1/4"=1'-0" 1/2"=1'-0" 3/4"=1'-0" 1"=1'-0" 1 1/2"=1'-0" 3"=1'-0"

CODE SUMMARY - PHASE 1

APPLICABLE CODES:

FEDERAL:
- ADAAG
- OSHA

STATE:
OKLAHOMA
IBC FAMILY
- INTERNATIONAL BUILDING CODE®, 2015 EDITION (IBC, 2015®) *
- INTERNATIONAL RESIDENTIAL CODE®, 2015 EDITION (IRC, 2015®) *
- INTERNATIONAL EXISTING BUILDING CODE®, 2015 EDITION (IEBC, 2015®) *
- INTERNATIONAL FIRE CODE®, 2015 EDITION (IFC, 2015®) *
- INTERNATIONAL FUEL GAS CODE®, 2015 EDITION (IFGC, 2015®) *
- INTERNATIONAL MECHANICAL CODE®, 2015 EDITION (IMC, 2015®) *
- INTERNATIONAL PLUMBING CODE®, 2015 EDITION (IPC, 2015®) *
- INTERNATIONAL ENERGY CONSERVATION CODE®, 2006 EDITION (IECC, 2006®) *
- NATIONAL ELECTRICAL CODE®, 2014 EDITION (NEC, 2014®) *

* NOTE: OKC NOT YET UPDATED TO 2015

LOCAL:
CRAIG COUNTY
- 2018 INTERNATIONAL BUILDING CODE (IBC)
- 2018 INTERNATIONAL RESIDENTIAL CODE (IRC)
- 2018 INTERNATIONAL EXISTING BUILDING CODE (IEBC)
- 2018 INTERNATIONAL MECHANICAL CODE (IMC)
- 2018 INTERNATIONAL FUEL GAS CODE (IFGC)
- 2018 INTERNATIONAL PLUMBING CODE (IPC)
- 2018 INTERNATIONAL ENERGY CONSERVATION CODE (IECC)
- 2018 INTERNATIONAL PROPERTY MAINTENANCE CODE (IPMC) - CITY OF CRAIG ONLY

TRIBAL:
CHEROKEE NATION
- NO ADOPTED CODES

AREAS

	SITE (AC.)	LOWER LEVEL (SF)	MAIN LEVEL (SF)	TOTALS (AC. & SF)
EXISTING BUILDING AREAS:	24,000 SF	3,287 SF	6,147 SF	9,434 SF
RENOVATION AREA:	T.B.D.	3,287 SF	6,147 SF	9,434 SF

EXISTING BUILDING HEIGHT: 2 STORIES
CONSTRUCTION CLASSIFICATION: 3-B (EXISTING)
FULLY SPRINKLERED? NO
FIRE ALARM? YES. NEW FIRE ALARM SYSTEM SHALL BE ADDED AS AN EXTENSION OF THE EXISTING SYSTEM

FIRE RESISTANCE RATINGS BASED ON TYPE 3-B

STRUCTURAL FRAME (NO NEW WORK)	0 HOURS	NON-BEARING WALLS AND PARTITIONS	0 HOURS
BEARING WALLS - EXTERIOR	0 HOURS	FLOOR CONSTRUCTION (NO NEW WORK)	0 HOURS
BEARING WALLS - INTERIOR	0 HOURS	ROOF CONSTRUCTION (NO NEW WORK)	0 HOURS

PLUMBING FIXTURE CALCS

TABLE 2902.1 MINIMUM NUMBER OF REQUIRED PLUMBING FIXTURES

NO.	CLASSIFICATION	DESCRIPTION	USE	AREA	OCCUPANTS	WATER CLOSETS M	WATER CLOSETS F	LAV M	LAV F	BATHTUBS / SHOWERS	DRINKING FOUNTAINS	SERVICE SINKS
1	A-3	AUDITORIUMS WITHOUT PERMANENT SEATING, ART GALLERIES, EXHIBITION HALLS, MUSEUMS, LECTURE HALLS, LIBRARIES, ARCADES, & GYMNASIUMS.	LOWER LEVEL									
			ACCESSORY STORAGE AREAS, MECHANICAL EQUIPMENT ROOM	793 SF	9 / 2 = 5 MEN 5 WOMEN	1 PER 125	1 PER 65	1 PER 200		-	1 PER 500	1 SERVICE SINK
			EDUCATIONAL - CLASSROOM AREA	1,786 SF	90 / 2 = 45 MEN 45 WOMEN							
			LOCKER ROOMS	338 SF	8 / 2 = 4 MEN 4 WOMEN							
						54 / 125 = 0.43 ROUND TO 1	54 / 65 = 0.83 ROUND TO 1	108 / 200 = 0.54 ROUND TO 1 PER		N/A	107 / 500 = 0.21 ROUND TO 1	1 / 1 = 1.00 ROUND TO 1
			MAIN LEVEL									
			ACCESSORY STORAGE AREAS, MECHANICAL EQUIPMENT ROOM	1,354 SF	10 / 2 = 5 MEN 5 WOMEN	1 PER 125	1 PER 65	1 PER 200		-	1 PER 500	1 SERVICE SINK
			EXHIBIT GALLERY & MUSEUM	1,407 SF	45 / 2 = 23 MEN 23 WOMEN							
			UNCONCENTRATED (TABLES & CHAIRS)	619 SF	42 / 2 = 21 MEN 21 WOMEN							
			BUSINESS AREAS	496 SF	9 / 2 = 5 MEN 5 WOMEN							
			KITCHENS, COMMERCIAL	302 SF	2 / 2 = 1 MEN 1 WOMEN							
			LOCKER ROOMS	453 SF	12 / 2 = 6 MEN 6 WOMEN							
			MERCANTILE	1,255 SF	20 / 2 = 10 MEN 10 WOMEN							
						71 / 125 = 0.57 ROUND TO 1	71 / 65 = 1.09 ROUND TO 2	142 / 200 = 0.71 ROUND TO 1 PER		N/A	142 / 500 = 0.28 ROUND TO 1	1 / 1 = 1.00 ROUND TO 1

ROOM & SITE OCCUPANCY TAKEOFF

ROOMS NUMBER	NAME	AREA	OCCUPANCY PARAMETERS PER TABLE 1004.1.2 USE	FACTOR	CALCULATION RULES	OCCUPANTS PER ROOM	Location
Lower Level							
201A	WASH STATION	31 SF	A-3 - Accessory Storage Areas, Mechanical Equipment Room	300	Gross	1	Lower Level
290	UTILITY & JANITOR CLOSET	180 SF	A-3 - Accessory Storage Areas, Mechanical Equipment Room	300	Gross	1	Lower Level
291	STORAGE	211 SF	A-3 - Accessory Storage Areas, Mechanical Equipment Room	50	Gross	5	Lower Level
201	LOBBY	277 SF	A-3 - Accessory Storage Areas, Mechanical Equipment Room	300	Gross	1	Lower Level
291A	IT CLOSET	70 SF	A-3 - Accessory Storage Areas, Mechanical Equipment Room	300	Gross	1	Lower Level
A-3 - Accessory Storage Areas, Mechanical Equipment Room: 5		768 SF				9	
240	CLASSROOM	1147 SF	A-3 - Educational - Classroom Area	20	Net	58	Lower Level
241	STUDIO	607 SF	A-3 - Educational - Classroom Area	20	Net	32	Lower Level
A-3 - Educational - Classroom Area: 2		1755 SF				90	
280	WOMEN'S RESTROOM	186 SF	A-3 - Locker Rooms	50	Gross	4	Lower Level
281	MEN'S RESTROOM	167 SF	A-3 - Locker Rooms	50	Gross	4	Lower Level
A-3 - Locker Rooms: 2		353 SF				8	
Lower Level: 9		2875 SF				107	
Upper Level							
190	JANITOR SINK	54 SF	A-3 - Accessory Storage Areas, Mechanical Equipment Room	300	Gross	1	Upper Level
121	ELECTRICAL CLOSET	46 SF	A-3 - Accessory Storage Areas, Mechanical Equipment Room	300	Gross	1	Upper Level
191	UTILITY CLOSET	34 SF	A-3 - Accessory Storage Areas, Mechanical Equipment Room	300	Gross	1	Upper Level
141	STORAGE	69 SF	A-3 - Accessory Storage Areas, Mechanical Equipment Room	300	Gross	1	Upper Level
132	STORAGE	345 SF	A-3 - Accessory Storage Areas, Mechanical Equipment Room	300	Gross	2	Upper Level
201B	STAIRS	54 SF	A-3 - Accessory Storage Areas, Mechanical Equipment Room	300	Gross	1	Upper Level
100	LOBBY	753 SF	A-3 - Accessory Storage Areas, Mechanical Equipment Room	300	Gross	3	Upper Level
A-3 - Accessory Storage Areas, Mechanical Equipment Room: 7		1354 SF				10	
140	GALLERY	1380 SF	A-3 - Assembly - Exhibit Gallery and Museum	30	Net	45	Upper Level
A-3 - Assembly - Exhibit Gallery and Museum: 1		1380 SF				45	
120	LOUNGE	Redundant Room	A-3 - Assembly - Unconcentrated (Tables and Chairs)	15	Net	42	Upper Level
A-3 - Assembly - Unconcentrated (Tables and Chairs): 1		0 SF				42	
100B	BROCHURE ALCOVE B	38 SF	A-3 - Business Areas	100	Gross	1	Upper Level
170	CAFE	753 SF	A-3 - Business Areas	100	Gross	2	Upper Level
131	OFFICE	164 SF	A-3 - Business Areas	100	Gross	3	Upper Level
111	RECEPTION	126 SF	A-3 - Business Areas	100	Gross	2	Upper Level
100A	BROCHURE ALCOVE A	25 SF	A-3 - Business Areas	100	Gross	1	Upper Level
A-3 - Business Areas: 5		1105 SF				9	
171	KITCHEN	302 SF	A-3 - Kitchens, Commercial	200	Gross	2	Upper Level
A-3 - Kitchens, Commercial: 1		302 SF				2	
182	FAMILY RESTROOM	62 SF	A-3 - Locker Rooms	50	Gross	2	Upper Level
180	MEN'S RESTROOM	161 SF	A-3 - Locker Rooms	50	Gross	4	Upper Level
181	WOMENS RESTROOM	199 SF	A-3 - Locker Rooms	50	Gross	5	Upper Level
183	STAFF RESTROOM	22 SF	A-3 - Locker Rooms	50	Gross	1	Upper Level
A-3 - Locker Rooms: 4		443 SF				12	
130	RETAIL	1253 SF	A-3 - Mercantile	60	Gross	20	Upper Level
A-3 - Mercantile: 1		1253 SF				20	
Upper Level: 20		5837 SF				140	
Grand total: 29		8713 SF				247	

AREA TAKEOFF

NUMBER	NAME	AREA (SF)
T.O. FLOOR - LOWER LEVEL		
A-3		
1	A-3 ASSEMBLY	3287 SF
1		3287 SF
T.O. FLOOR - MAIN LEVEL		
A-3		
2	A-3 ASSEMBLY	6147 SF
1		6147 SF
Grand total: 2		9434 SF

AREA CLASSIFICATION - LOWER LEVEL 2B
1/16" = 1'-0" G003

AREA CLASSIFCATION - MAIN LEVEL 2A
1/16" = 1'-0" G003

AREA
A-3

EGRESS DOOR TAG LEGEND
XX (XXX) — DOOR OCCUPANCY CALCULATED; MAX DOOR CAPACITY
0 OCCUPANTS — OCCUPANT COUNT EXITING AT THIS LOCATION; DIRECTION OF EGRESS

OCCUPANCY ROOM TAG LEGEND
XXXXXXXXXXXX / RM # 150 SF / 99 OCC:999
ROOM NAME; ROOM NUMBER; AREA (GROSS OR NET PER IBC); OCCUPANCY LOAD FACTOR; OCCUPANTS

FIRE PROTECTION LEGEND
FE — FIRE EXTINGUISHER LOCATION

AREA OCCUPANCY TAG LEGEND
AREA CLASSIFICATION 999 SF — OCCUPANCY CLASSIFICATION NAME OF THIS PORTION OF BUILDING(S); AREA IN SF

OCCUPANCY GROUP
- A-3 - Accessory Storage Areas, Mechanical Equipment Room
- A-3 - Educational - Classroom Area
- A-3 - Locker Rooms

MAXIMUM OCCUPANCY PLAN - LOWER LEVEL 1B
1/8" = 1'-0" G003

OCCUPANCY GROUP
- A-3 - Accessory Storage Areas, Mechanical Equipment Room
- A-3 - Assembly - Exhibit Gallery and Museum
- A-3 - Assembly - Unconcentrated (Tables and Chairs)
- A-3 - Business Areas
- A-3 - Kitchens, Commercial
- A-3 - Locker Rooms
- A-3 - Mercantile

MAXIMUM OCCUPANCY PLAN - MAIN LEVEL 1A
1/8" = 1'-0" G003

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PROJECT
VINITA CULTURAL DEVELOPMENT CENTER - ASI 1

PROJECT
CHEROKEE NATION
VINITA, OKLAHOMA

KEY PLAN

No.	Description	Date
	BID SET	5/07/2021
1	ASI-1	5/19/2021

SHEET TITLE
ASI 1 DRAWINGS

PROJECT NO: 111-049.20
DRAWN BY:
CHK'D BY:
ISSUE DATE: 5/19/2021

G003

Scale: As indicated

STATE OF OKLAHOMA — GARY W. SPARKS — 1249 — TULSA, OKLA. — LICENSED ARCHITECT

SPECIFICATIONS

DIVISION 01 - ADMINISTRATIVE REQUIREMENTS
PART 1 GENERAL
PART 2 PRODUCTS - NOT USED
PART 3 EXECUTION

1. *ELECTRONIC DOCUMENT SUBMITTAL SERVICE*
   A. All documents transmitted for purposes of administration of the contract are to be in electronic (PDF) format, as appropriate to the document, and transmitted via an Internetbased submittal service that receives, logs and stores documents, provides electronic stamping and signatures, and notifies addressees via email.
      1. Besides submittals for review, information, and closeout, this procedure applies to
      2. Requests for Information (RFIs), progress documentation, contract modification documents (e.g, supplementary instructions, change proposals, change orders), applications for payment, field reports and meeting minutes. Contractor 's correction punchlist, and any other document any participant wishes to make part of the project record,
      3. Contractor and Architect are required to use this service.
      4. It is Contractor's responsibility to submit documents in allowable format.
      5. Subcontractors, suppliers, and Architect 's consultants will be permitted to use the service at no extra charge,
      6. Users of the service need an email address, internet access, and PDF review software that includes ability to mark up and apply electronic stamps (such as Adobe Acrobat, www.adobe.com, or Bluebeam PDF Revu, www.bluebeam.com), unless such software capability is provided by the service provider.
      7. Paper document transmittals will not be reviewed; emailed electronic documents will not be reviewed.
      8. All other specified submittal and document transmission procedures apply, except that electronic document requirements do not apply to samples or color selection charts.
   B. Submittal Service: Use one of the following:
   C. Training: One, one-hour, web-based training session will be arranged for all participants, with representatives of Architect and Contractor participating; further training is the responsibility of the user of the service,
      1. Representatives of Owner are scheduled and Included in this training,
   D. Project Closeout: Architect will determine when to terminate the service for the project and is responsible for obtaining archive copies of files for Owner,
2. *PROGRESS MEETINGS*
   A. Schedule and administer meetings throughout progress of the work at maximum bi-monthly intervals,
   B. Make arrangements for meetings, prepare agenda with copies for participants, preside at meetings.
   C. Attendance Required:
      1. Contractor,
      2. Owner,
      3. Architect,
      4. Contractor's superintendent.
      5. Major subcontractors,
   D. Record minutes and distribute copies within two days after meeting to participants, with two copies to Architect, Owner, participants, and those affected by decisions made,
3. *CONSTRUCTION PROGRESS SCHEDULE*
   A. If preliminary schedule requires revision after review, submit revised schedule within 10 days,
   B. Within 20 days after review of preliminary schedule, submit draft of proposed complete schedule for review,
      - Cherokee Nation - Vinita Cultural Development Center
      - Center 013000 - 2 Administrative Requirements
      1. Include written certification that major contractors have reviewed and accepted proposed schedule.
   C. Within 10 days after joint review, submit complete schedule,
   D. Submit updated schedule with each Application for Payment.
4. *DAILY CONSTRUCTION REPORTS*
   A. Include only factual information, Do not include personal remarks or opinions regarding operations and/or personnel,
   B. In addition to transmitting electronically a copy to Owner's Project Web Site, provide one hard copy at weekly intervals,
   C. Prepare a daily construction report recording the following information concerning events at Project site and project progress:
      1. Date,
      2. High and low temperatures, and general weather conditions,
      3. Safety, environmental, or industrial relations Incidents,
      4. Meetings and significant decisions,
      5. Stoppages, delays, shortages, and losses, Include comparison between scheduled work activities (in Contractor's most recently updated and published schedule) and actual activities. Explain differences, if any. Note days or periods when no work was in progress and explain the reasons why,
      6. Testing and/or Inspections performed,
      7. Signature of Contractor's authorized representative.
5. *PROGRESS PHOTOGRAPHS*
   A. Submit photographs with each application for payment, taken not more than 3 days prior to submission of application for payment,
6. *REQUESTS FOR INFORMATION (RFI)*
   A. Definition: A request seeking one of the following:
      1. An interpretation, amplification, or clarification of some requirement of Contract Documents arising from inability to determine from them the exact material, process, or system to be installed; or when the Contractor believes an apparent discrepancy or conflict is required to occupy the same space (interference); or when an Item of work is described differently at more than one place in Contract Documents,
      2. A resolution to an issue which has arisen due to field conditions and affects design Intent,
   B. Whenever possible, request clarifications at the next appropriate project progress meeting, with response entered into meeting minutes, rendering unnecessary the issuance of a formal RFI,
   C. Preparation: Prepare an RFI Immediately upon discovery of a need for Interpretation of Contract Documents, Failure to submit a RFI in a timely manner is not a legitimate cause for claiming additional costs or delays in execution of the work,
      1. Prepare a separate RFI for each specific Item,
      2. Prepare using software provided by the Electronic Document Submittal Service,
   D. Reason for the RFI; Prior to Initiation of an RFI, carefully study all Contract Documents to confirm that Information sufficient for their Interpretation is definitely not included,
   E. Content: Include Identifiers necessary for tracking the status of each RFI, and Information necessary to provide an actionable response,
   F. Attachments: Include sketches, coordination drawings, descriptions, photos, submittals, and other information necessary to substantiate the reason for the request,
   G. RFI Log: Prepare and maintain a tabular log of RFIs for the duration of the project.
   H. Review Time: Architect will respond and return RFIs to Contractor within seven calendar days of receipt, For the purpose of establishing the start of the mandated response period, RFIs received after 12:00 noon will be considered as having been received on the following regular working day,
7. *SUBMITTAL SCHEDULE*
   A. Submit to Architect for review a schedule for submittals in tabular format.
      1. 1, Submit at the same time as the preliminary schedule specified in Section - 013216 - Construction Progress Schedule,
      2. 2, Coordinate with Contractor's construction schedule and schedule of values,
      3. 3, Format schedule to allow tracking of status of submittals throughout duration of construction,
      4. 4, Arrange information to include scheduled date for initial submittal, specification number and title, submittal category (for review or for information), description of item of work covered, and role and name of subcontractor,
      5. Account for time required for preparation, review, manufacturing, fabrication and delivery when establishing submittal delivery and review deadline dates,
         A. For assemblies, equipment, systems comprised of multiple components and/or requiring detailed coordination with other work, allow for additional time to make corrections or revisions to initial submittals, and time for their review,
8. *SUBMITTALS FOR REVIEW*
   A. When the following are specified in individual sections, submit them for review:
      1. Product data,
      2. Design data,
      3. Shop drawings,
      4. Samples for selection,
      5. Samples for verification,
   B. Submit to Architect for review for the limited purpose of checking for compliance with information given and the design concept expressed in Contract Documents.
   C. Samples will be reviewed for aesthetic, color, or finish selection,
   D. After review, provide copies and distribute in accordance with SUBMITTAL PROCEDURES article below .
9. *SUBMITTALS FOR INFORMATION*
   A. When the following are specified in individual sections, submit them for information:
      1. Certificates,
      2. Test reports,
      3. Inspection reports,
      4. Manufacturer's instructions,
      5. Manufacturer's field reports,
      6. Other types indicated,
   B. Submit for Architect's knowledge as contract administrator or for Owner,
10. *SUBMITTALS FOR PROJECT CLOSEOUT*
   A. Submit Correction Punch List for Substantial Completion,
   B. Submit Final Correction Punch List for Substantial Completion,
   C. When the following are specified in individual sections, submit them at project closeout in compliance with requirements of Section 017800 - Closeout Submittals:
      1. Project record documents,
      2. Operation and maintenance data,
      3. Warranties,
      4. Bonds,
      5. Other types as Indicated,
   D. Submit for Owner's benefit during and after project completion,
11. *NUMBER OF COPIES OF SUBMITTALS*
   A. Electronic Documents: Submit one electronic copy in PDF format: an electronically-marked up file will be returned. Create PDFs at native size and right-side up; Illegible files will be rejected,
   B. Samples: Submit the number specified in individual specification sections; one of which will be retained by Architect,
      1. After review, produce duplicates,
      2. Retained samples will not be returned to Contractor unless specifically so stated.
12. *SUBMITTAL PROCEDURES*
   A. A; General Requirements:
      1. Use a separate transmittal for each item,
      2. Submit separate packages of submittals for review and submittals for information, when included in the same specification section,
      3. Transmit using approved form,
      4. Use form generated by Electronic Document Submittal Service software,
      4. Sequentially identify each Item, For revised submittals use original number and a sequential numerical suffix,
      5. Identify: Project; Contractor, subcontractor or supplier; pertinent drawing and detail number; and specification section number and article/paragraph, as appropriate on each copy,
      6. Apply Contractor's stamp, signed or initialed certifying that review, approval, verification of products required, field dimensions, adjacent construction work, and coordination of information is in accordance with the requirements of the work and Contract Documents,
      7. Deliver each submittal on date noted in submittal schedule, unless an earlier date has been agreed to by all affected parties, and is of the benefit to the project,
         a. Send submittals in electronic format via email to Architect,
         b. Upload submittals in electronic form to Electronic Document Submittal Service website,
      8. Schedule submittals to expedite the Project, and coordinate submission of related Items,
         a. For each submittal for review, allow 15 days excluding delivery time to and from the Contractor,
         b. For sequential reviews involving Architect's consultants, Owner, or another affected party, allow an additional 7 days,
         c. For sequential reviews involving approval from authorities having jurisdiction (AHJ), in addition to Architect's approval, allow an additional 30 days.
      9. Identify variations from Contract Documents and product or system limitations that may be detrimental to successful performance of the completed work,
      10. Provide space for Contractor and Architect review stamps,
      11. When revised for resubmission, identify all changes made since previous submission,
      12. Distribute reviewed submittals, Instruct parties to promptly report inability to comply with requirements,
      13. Incomplete submittals will not be reviewed, unless they are partial submittals for distinct portion(s) of the work, and have received prior approval for their use,
      14. Submittals not requested will not be recognized or processed.
   B. B, Product Data Procedures:
      1. Submit only Information required by individual specification sections,
      2. Collect required information into a single submittal,
      3. Do not submit (Material) Safety Data Sheets for materials or products,
   C. C, Shop Drawing Procedures:
      1. Prepare accurate, drawn-to-scale, original shop drawing documentation by interpreting Contract Documents and coordinating related work,
      2. Generic, non-project-specific information submitted as shop drawings do not meet the requirements for shop drawings,
   D. D, Samples Procedures:
      1. Transmit related Items together as single package,
      2. Identify each Item to allow review for applicability in relation to shop drawings showing installation locations,
13. *SUBMITTAL REVIEW*
   A. Submittals for Review: Architect will review each submittal, and approve, or take other appropriate action,
   B. Submittals for Information; Architect will acknowledge receipt and review, See below for actions to be taken,
   C. Architect's actions will be reflected by marking each returned submittal using virtual stampon electronic submittals,
   D. Architect's and consultants' actions on items submitted for review:
      1. Authorizing purchasing, fabrication, delivery, and installation:
         a. "Approved", or language with same legal meaning.
         b. "Approved as Noted, Resubmission not required", or language with same legal meaning,
            1. At Contractor's option, submit corrected Item, with review notations acknowledged and incorporated.
         c. "Approved as Noted, Resubmit for Record", or language with same legal meaning,
            1. Resubmit corrected Item, with review notations acknowledged and Incorporated, Resubmit separately, or as part of project record documents.
      2. Not Authorizing fabrication, delivery, and installation:
         a. "Revise and Resubmit".
            1. Resubmit revised Item, with review notations acknowledged and incorporated,
         b. "Rejected",
            1. Submit Item complying with requirements of Contract Documents.
   E, Architect's and consultants' actions on Items submitted for Information:
      1. 1, Items for which no action was taken:
         a. "Received" - to notify the Contractor that the submittal has been received for record only,
      2. Items for which action was taken:
         a. "Reviewed" - no further action is required from Contractor.

END OF SECTION

SECTION 01 7000 - EXECUTION AND CLOSEOUT REQUIREMENTS
PART 1 GENERAL

1. *SUBMITTALS*
   A. Survey work: Submit name, address, and telephone number of Surveyor before starting survey work,
   B. Demolition Plan: Submit demolition plan as specified by OSHA and Local authorities,
   C. Cutting and Patching: Submit written request in advance of cutting or alteration that affects:
      1. Structural integrity of any element of Project,
      2. Integrity of weather exposed or moisture resistant element,
      3. Efficiency, maintenance, or safety of any operational element,
   D. Project Record Documents: Accurately record actual locations of capped and active utilities,
2. *QUALIFICATIONS*
   A. For design of temporary shoring and bracing, employ a Professional Engineer experienced In design of this type of work and licensed in the State in which the Project is located.
3. *PROJECT CONDITIONS*
   A. Use of explosives is not permitted,
   B. Grade site to drain. Maintain excavations free of water. Provide, operate, and maintain pumping equipment,
   C. Ventilate enclosed areas to assist cure of materials, to dissipate humidity, and to prevent accumulation of dust, fumes, vapors, or gases,
   D. Dust Control: Execute work by methods to minimize raising dust from construction operations. Provide positive means to prevent air-borne dust from dispersing Into atmosphere and over adjacent property,
   E. Erosion and Sediment Control: Plan and execute work by methods to control surface drainage from cut and fills, from borrow and waste disposal areas, Prevent erosion and sedimentation,
   F. Noise Control: Provide methods, means, and facilities to minimize noise produced by construction operations,
   G. Pest and Rodent Control: Provide methods, means, and facilities to prevent pests and insects from damaging the work,
   H. Pollution Control: Provide methods, means, and facilities to prevent contamination of soil, water, and atmosphere from discharge of noxious, toxic substances, and pollutants produced by construction operations. Comply with federal, state, and local regulations,

PART 2 PRODUCTS

1. *PATCHING MATERIALS*
   A. New Materials: As specified in product sections: match existing products and work for patching and extending work,
   B. Type and Quality of Existing Products: Determine by inspecting and testing products where necessary, referring to existing work as a standard,

PART 3 EXECUTION

1. *LAYING OUT THE WORK*
   A. Verify locations of survey control points prior to starting work,
   B. Promptly notify Architect of any discrepancies discovered,
   C. Establish a minimum of two permanent bench marks on site, referenced to established control points. Record locations, with horizontal and vertical data, on project record documents,
   D. Establish elevations, lines and levels, Locate and lay out by instrumentation and similar appropriate means:
2. *GENERAL INSTALLATION REQUIREMENTS*
   A. Install products as specified in individual sections, in accordance with manufacturer's instructions and recommendations, and so as to avoid waste due to necessity for replacement,
   B. Make vertical elements plumb and horizontal elements level, unless otherwise indicated,
   C. Install equipment and fittings plumb and level, neatly aligned with adjacent vertical and horizontal lines, unless otherwise indicated,
   D. Make consistent texture on surfaces, with seamless transitions, unless otherwise indicated,
   E. Make neat transitions between different surfaces, maintaining texture and appearance,
3. *CUTTING AND PATCHING*
   A. Whenever possible, execute the work by methods that avoid cutting or patching,
   B. Perform whatever cutting and patching is necessary to:
      1. Complete the work,
      2. Fit products together to integrate with other work,
      3. Provide openings for penetration of mechanical, electrical, and other services,
      4. Match work that has been cut to adjacent work,
      5. Repair areas adjacent to cuts to required condition,
      6. Repair new work damaged by subsequent work,
      7. Remove samples of installed work for testing when requested,
      8. Remove and replace defective and non-complying work,
   C. Execute work by methods that avoid damage to other work and that will provide appropriate surfaces to receive patching and finishing, in existing work, minimize damage and restore to original condition,
   D. Patching:
      A. Finish patched surfaces to match finish that existed prior to patching, On continuous surfaces, refinish to nearest Intersection or natural break, For an assembly, refinish entire unit,
4. *PROGRESS CLEANING*
   A. Maintain areas free of waste materials, debris, and rubbish, Maintain site in a clean and orderly condition,
5. *PROTECTION OF INSTALLED WORK*
   A. Protect installed work from damage by construction operations,
   B. Provide special protection where specified in individual specification sections,
   C. Remove protective covers when no longer needed; reuse or recycle coverings if possible,
6. *FINAL CLEANING*
   A. Execute final cleaning prior to final project assessment .
   B. Use cleaning materials that are nonhazardous,
   C. Clean Interior and exterior surfaces exposed to view; remove temporary labels, stains and foreign substances, polish transparent and glossy surfaces, vacuum carpeted and soft surfaces,
   D. Remove all labels that are not permanent, Do not paint or otherwise cover fire test labels or nameplates on mechanical and electrical equipment,
   E. Clean equipment and fixtures to a sanitary condition with cleaning materials appropriate to the surface and material being cleaned,
   F. Clean filters of operating equipment,
7. *CLOSEOUT PROCEDURES*
   A. Make submittals as required by governing or other authorities,
   B. Notify Architect when work is considered ready for Architect's Substantial Completion inspection,
   C. Submit written certification that Contract Documents have been reviewed, work has been inspected, and that work is complete in accordance with Contract Documents and ready for Architect's Substantial Completion Inspection,
   D. Notify Architect when work is considered finally complete and ready for Architect's Substantial Completion final inspection,
   E. Complete Items of work determined by Architect listed In executed Certificate of Substantial Completion,

END OF SECTION

SECTION 017800 - CLOSEOUT SUBMITTALS
PART 1 GENERAL

1. *SUBMITTALS*
   A. Project Record Documents: Submit documents to Architect with claim for final Application for Payment,
   B. Operation and Maintenance Data:
      1. Submit two copies of preliminary draft or proposed formats and outlines of contents before start of Work, Architect will review draft and return one copy with comments,
   C. Materials Transparency Manual:
      1. Compile and submit a digital and a printed version of information disclosing materials content for interior finishes, furnishings (including workstations), built-in furniture, Meet IWBI (BS) requirements for format and submittal,
   D. Warranties and Bonds:
      1. For equipment or component parts of equipment put into service during construction with Owner's permission, submit documents within 10 days after acceptance,

PART 2 PRODUCTS - NOT USED
PART 3 EXECUTION

1. *PROJECT RECORD DOCUMENTS*
   A. Maintain on site one set of the following record documents; record actual revisions to the Work:
      1. Drawings,
      2. Specifications,
      3. Addenda,
      4. Change Orders and other modifications to the Contract,
      5. Reviewed shop drawings, product data, and samples,
      6. Manufacturer's instructions for assembly, installation, and adjusting,
2. *OPERATION AND MAINTENANCE DATA*
   A. Source Data: For each product or system, list names, addresses and telephone numbers of Subcontractors and suppliers, including local source of supplies and replacement parts,
   B. Product Data: Mark each sheet to clearly identify specific products and component parts, and data applicable to Installation, Delete inapplicable information,
   C. Drawings: Supplement product data to Illustrate relations of component parts of equipment and systems, to show control and flow diagrams, Do not use Project Record Documents as maintenance drawings,
3. *OPERATION AND MAINTENANCE DATA FOR MATERIALS AND FINISHES*
   A. For Each Product, Applied Material, and Finish:
      1. Product data, with catalog number, size, composition, and color and texture designations,
      2. Information for re-ordering custom manufactured products,
   B. Instructions for Care and Maintenance: Manufacturer's recommendations for cleaning agents and methods, precautions against detrimental cleaning agents and methods, and recommended schedule for cleaning and maintenance,
4. *OPERATION AND MAINTENANCE DATA FOR EQUIPMENT AND SYSTEMS*
   A. For Each Item of Equipment and Each System:
      1. Description of unit or system, and component parts,
      2. Identify function, normal operating characteristics, and limiting conditions,
      3. Include performance curves, with engineering data and tests,
      4. Complete nomenclature and model number of replaceable parts,
   B. Operating Procedures: Include start-up, break-In, and routine normal operating Instructions and sequences, Include regulation, control, stopping, shut-down, and emergency instructions, Include signal conditions, and special operating instructions,
   C. Maintenance Requirements: Include routine procedures and guide for preventative maintenance and trouble shooting: disassembly, repair, and reassembly instructions; and alignment, adjusting, balancing, and checking instructions,
5. *ASSEMBLY OF OPERATION AND MAINTENANCE MANUALS*
   A. Assemble operation and maintenance data into durable manuals for Owner's personnel use, with data arranged in the same sequence as identified by specification sections,
   B. Submit written request in advance of cutting or alteration that affects:
   C. Binders: Commercial quality, 8-1/2 by 11 inch (216 by 280 mm) three D side ring binders with durable plastic covers; 2 inch (50 mm) maximum ring size, When multiple binders are used, correlate data Into related consistent groupings,
   D. Cover: Identify each binder with typed or printed title OPERATION AND MAINTENANCE INSTRUCTIONS: identify title of Project; identify subject matter of contents,
6. *WARRANTIES AND BONDS*
   1. Obtain warranties and bonds, executed in duplicate by responsible Subcontractors, suppliers, and manufacturers, within 10 days after completing applicable item of work, Except for items put into use with Owner's permission, leave date of beginning of time of warranty until Date of Substantial completion is determined,

END OF SECTION

DIVISION 02 - EXISTING CONDITIONS

SECTION 02 4100 - DEMOLITION
PART 1 GENERAL

1. *SUBMITTALS*
   A. Demolition Plan: Submit demolition plan as specified by OSHA and local authorities,
   B. Project Record Documents: Accurately record actual locations of capped and active utilities and subsurface construction,
2. *QUALITY ASSURANCE*
   A. Demolition Firm Qualifications: Company specializing in the type of work required,

PART 2 PRODUCTS

1. *MATERIALS*
   A. Fill Material: Refer to Civil Specifications,

PART 3 EXECUTION

1. *GENERAL PROCEDURES AND PROJECT CONDITIONS*
   A. Comply with applicable codes and regulations for demolition operations and safety of adjacent structures and the public,
      1. Obtain required permits,
      2. Comply with applicable requirements of NFPA 241,
      3. Use of explosives is not permitted,
      4. Take precautions to prevent catastrophic or uncontrolled collapse of structures to be removed: do not allow worker or public access within range of potential collapse of unstable structures,
      5. Provide, erect, and maintain temporary barriers and security devices,
   B. Do not begin removal until bulk elements to be salvaged or relocated have been removed,
   C. Minimize production of dust due to demolition operations; do not use water if that will result in Ice, flooding, sedimentation of public roadways or storm sewers, or other pollution,
   D. If hazardous materials are discovered during removal operations, stop work and notify Architect and Owner; hazardous materials include regulated asbestos containing materials, lead, PCB's, and mercury,
   E. Perform demolition by the method or manner that maximizes salvage and recycling of materials,
2. *EXISTING UTILITIES*
   A. Coordinate work with utility companies: notify before starting work and comply with their requirements; obtain required permits,
   B. Protect existing utilities to remain from damage,
3. *SELECTIVE DEMOLITION FOR ALTERATIONS*
   A. Drawings showing existing construction and utilities are based on casual field observation and existing record documents only,
   B. Maintain weatherproof exterior building enclosure except for interruptions required for replacement or modifications; take care to prevent water and humidity damage,
   C. Remove existing work as indicated and as required to accomplish new work,
   D. Services (including but not limited to HVAC, Plumbing, Fire Protection, Electrical, and Telecommunications): Remove existing systems and equipment as indicated,
   E. Protect existing work to remain,
4. *DEBRIS AND WASTE REMOVAL*
   A. Remove debris, junk, and trash from site,

END OF SECTION

DIVISION 07 - THERMAL & MOISTURE PROTECTION

SECTION 074646 - FIBER-CEMENT SIDING
PART 1 GENERAL

1. *SUBMITTALS*
   A. Product Data: Submit manufacturer's data sheets on each product to be used, including:
      1. Preparation requirements for related materials to be installed by others,
      2. Installation methods, including nail patterns,
2. *WARRANTY*
   A. See Section 017800 - Closeout Submittals for additional warranty requirements.
   B. Correct defective work within a five year period after Date of Substantial Completion,
   C. Provide multi-year manufacturer warranty as indicated in the article heading "Warranty",
   D. Installation Warranty for Building Rainscreen Assembly: Installer of exterior rainscreen assembly (including air/vapor barrier and attachments, framing, and exterior panels) to provide 10-year warranty that includes coverage for defective work, including workmanship, This warranty will also clearly include materials, labor, necessary activity to access these areas and removal of any materials to effect repairs and restore to watertight conditions, www.edacontractors.com/title

PART 2 PRODUCTS

1. *MANUFACTURER*
   A. Basis of Design: James Hardie Building Products
   B. Website: https://www.jameshardie.com/
2. *FIBER-CEMENT SIDING*
   A. Shingle Panels: Panels giving appearance of multiple shingles made of cement and cellulose fiber formed under high pressure with integral surface texture, complying with ASTM C1186, Type A, Grade II' with machined edges, for nail attachment,
      1. Style: Random width, straight edge,
      2. Texture: Wood grain textured ,
      3. Length: 48 inches (1220 mm),
      4. Width (Height): 7 inches (178 mm),
      5. Thickness: 1/4 Inch (6 mm), nominal,
      6. Finish: Factory applied ,
      7. Color: As selected by Architect from manufacturers full range of available colors,
      8. Warranty: 50 year limited; transferable,

PART 3 EXECUTION

1. *INSTALLATION*
   A. Install in accordance with manufacturer's instructions and recommendations,
      1. Read warranty and comply with terms necessary to maintain warranty coverage,
      2. Install in accordance with conditions stated in model code evaluation report applicable to location of project,
   B. Over Wood and Wood-Composite Sheathing: Fasten siding through sheathing into studs,
   C. Do not install siding less than 6 inches (150 mm) from surface of ground nor closer than 1 inch (25 mm) to roofs, patios, porches, and other surfaces where water may collect,

END OF SECTION

SECTION 077100 - ROOF SPECIALTIES
PART 1 GENERAL

1. *SUBMITTALS*
   A. Product Data: Provide data on shape of components, materials and finishes, anchor types and locations,
   B. Shop Drawings: Indicate configuration and dimension of components, adjacent construction, required clearances and tolerances, and other affected work,
   C. Samples: Submit two appropriately sized samples of coping,

PART 2 PRODUCTS

1. *MANUFACTURERS*
   A. Basis of Design: Metal ERA Engineered Roof Solutions
   B. Websites: https://www.metalera.com/
2. *COMPONENTS*
   A. Roof Edge Flashings: Factory fabricated to sizes required: corners mitered; concealed fasteners,
      1. Configuration: Fascia, cant, and edge extension for roof membrane,
      2. Pull-Off Resistance: Tested in accordance with ANSI/SPRI/FM 4435/ES-1 using test methods RE-1 and RE-2 to positive and negative design wind pressure as defined by applicable local building code,
      3. Color: To be selected by Architect from manufacturer's standard range,
   B. Copings: Factory fabricated to sizes required: corners mitered; concealed fasteners,
      1. Configuration: Concealed continuous hold down cleat at both legs: internal splice piece at joints of same material, thickness, and finish as cap: concealed stainless steel fasteners,
      2. Pull-Off Resistance: Tested in accordance with ANSI/SPRI/FM 4435/ES-1 using test method RE-3 to positive and negative design wind pressure as defined by applicable local building code,
      3. Color: To be selected by Architect from manufacturer's standard range,
   C. Roof Penetration Sealing Systems: Premanufactured components and accessories as required to preserve integrity of roofing system and maintain roof warranty; suitable for conduits and roofing system to be installed; designed to accommodate existing penetrations where applicable,

PART 3 EXECUTION

1. *INSTALLATION*
   A. Install components in accordance with manufacturer's instructions and NRCA (RM) applicable requirements,

END OF SECTION

DIVISIONS 08 - OPENINGS

SECTION 081113 - HOLLOW METAL DOORS AND FRAMES
PART 1 GENERAL

1. *RELATED DOCUMENTS*
   A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section,
2. *SUMMARY*
   A. Section Includes:
      1. Standard and custom hollow metal doors and frames,
      2. Steel sidelight, borrowed lite and transom frames,
      3. Louvers installed in hollow metal doors,
      4. Light frames and glazing installed in hollow metal doors,
   B. Related Sections:
      1. Division 01 Section "General Conditions",
      2. Division 06 Section "Unit Masonry" for embedding anchors for hollow metal work into masonry construction,
      3. Division 08 Section "Flush Wood Doors ",
      4. Division 08 Section "Glazing" for glass view panels in hollow metal doors,
      5. Division 08 Section "Door Hardware",
      6. Division 09 Sections "Exterior Painting" and "Interior Painting" for field painting hollow metal doors and frames,
   C. Codes and Standards: Comply with the version year adopted by the Authority Having Jurisdiction,
      1. ANSI/SDI A250.8 - Recommended Specifications for Standard Steel Doors and Frames,
      2. ANSI/SDI A250.4 - Test Procedure and Acceptance Criteria for Physical Endurance for Steel Doors, Frames, Frames Anchors and Hardware Reinforcing,
      3. ANSI/SDI A250.6 - Recommended Practice for Hardware Reinforcing on Standard Steel Doors and Frames,
      4. ANSI/SDI A250.10 - Test Procedure and Acceptance Criteria for Prime Painted Steel Surfaces for Steel Doors and Frames,
      5. ANSI/SDI 100.11 - Recommended Erection Instructions for Steel Frames,
      6. ASTM A1008 - Standard Specification for Steel Sheet, Cold-Rolled, Carbon, Structural, High-Strength Low-Alloy and High-Strength Low-Alloy with Improved Formability,
      7. ASTM A653 - Standard Specification for Steel Sheet, Zinc-Coated (Galvanneale) or Zinc-Iron Alloy-Coated (Galvanneale) by the Hot-Dip Process,
      8. ASTM A924 - Standard Specification for General Requirements for Steel Sheet, Metallic-Coated by the Hot-Dip Process,
      9. ASTM C 1363 - Standard Test Method for Thermal Performance of Building Assemblies by Means of a Hot Box Apparatus,
      10. ANSI/BHMA A156.115 - Hardware Preparation in Steel Doors and Frames,
      11. ANSI/DSI 122 - Installation and Troubleshooting Guide for Standard Steel Doors and Frames,
      12. ANSI/NFPA 80 - Standard for Fire Doors and Fire Windows: National Fire Protection Association,
      13. ANSI/NFPA 105: Standard for the Installation of Smoke Door Assemblies,
      14. NFPA 252 - Standard Methods of Fire Tests of Door Assemblies; National Fire Protection Association,
      15. UL 10C - Positive Pressure Fire Tests of Door Assemblies,
      16. UL 1784 - Standard for Air Leakage Tests of Door Assemblies.
3. *SUBMITTALS*
   A. Product Data: For each type of product Indicated, Include construction details, material descriptions, core descriptions, hardware reinforcements, profiles, anchors, fire-resistance ratings, and finishes,
   B. Door hardware supplier is to furnish templates, template reference number and/or physical hardware to the steel door and frame supplier in order to prepare the doors and frames to receive the finish hardware items.
   C. Shop Drawings: Include the following:
      1. Elevations of each door design,
      2. Details of doors, including vertical and horizontal edge details and metal thicknesses,
      3. Frame details for each frame type, including dimensioned profiles and metal thicknesses,
      4. Locations of reinforcement and preparations for hardware,
      5. Details of anchorages, joints, field splices, and connections,
      6. Details of accessories,
      7. Details of moldings, removable stops, and glazing,
      8. Details of conduit and preparations for power, signal, and control systems,
   D. Samples for Verification:
      1. Steel Doors and Frames: Provide two samples of multiple shingles made of cement and cellulose fiber formed under high pressure with integral surface texture, complying with ASTM C1186, Type A, Grade II' with machined edges, for nail attachment,
      2. Fire-Rated, Borrowed-Light Frame Assemblies: Assemblies complying with NFPA 80 that are listed and labeled, by a testing and inspecting agency acceptable to authorities having jurisdiction, for fire-protection ratings indicated, based on testing according to NFPA 257, Provide labeled glazing material,
      3. Pre-Submittal Conference: Conduct conference in compliance with requirements in Division 01 Section "Project Meetings" with attendance by representatives of Supplier, Installer, and Contractor to review proper methods and procedures for installing hollow metal doors and frames and to verify installation of electrical knockout boxes and conduit at frames with electrified or access control hardware,
4. *DELIVERY, STORAGE, AND HANDLING*
   A. Deliver hollow metal work palletized, wrapped, or crated to provide protection during transit and Project site storage, Do not use non-vented shipping units,
   B. Deliver welded frames with two removable spreader bars across bottom of frames, tack welded to jambs and mullions,
   C. Store hollow metal work under cover at Project site, Place units in stacks of five units maximum in a vertical position with heads up, spaced by blocking, on minimum 4 inch high wood blocking, Do not store in a manner that may cause distortion or damage due to excessive humidity,
      1. Provide minimum 1/4-inch space between each stacked door to permit air circulation, Door and frames to be stacked in a vertical upright position,
5. *COORDINATION*
   A. Coordinate Installation of anchorages for hollow metal frames, Furnish setting drawings, templates, and directions for installing anchorages, including sleeves, concrete inserts, anchor bolts, and items with integral anchors, Deliver such items to Project site in time for installation,
   B. Building Information Modeling (BIM) Support: Utilize designated BIM software tools and obtain training needed to successfully participate in the Project BIM processes, All technical disciplines are responsible for the product data integration and data reliability of their work in the coordinated BIM applications,
6. *WARRANTY*
   A. Special Warranty: Manufacturer's standard form in which manufacturer agrees to repair or replace doors that fail in materials or workmanship within specified warranty period,
   B. Warranty Includes Installation and finishing that may be required due to repair or replacement of defective doors,

PART 2 PRODUCTS

1. *MANUFACTURERS*
   A. Manufacturers: Subject to compliance with requirements, provide steel doors and frames from a SDI Certified manufacturer:
      1. CECO Door Products (C),
      2. Curries Company (CU),
2. *MATERIALS*
   A. Cold-Rolled Steel Sheet: ASTM A 1008/A 1008M, Commercial Steel (CS), Type B: suitable for exposed applications,
   B. Metallic-Coated Steel Sheet: ASTM A 653/A 653M, Commercial Steel (CS), Type B: with minimum G60 (Z180) or A60 (ZF180) metallic coating,
   C. Frame Anchors: ASTM A 653/A 653M, Commercial Steel (CS), Commercial Steel (CS), Type B: with minimum G60 (Z180) or A60 (ZF180) coating,
3. *HOLLOW METAL DOORS*
   A. General: Provide 1-3/4 inch doors of design Indicated, not less than thickness Indicated: fabricated with smooth surfaces, without visible joints or seams on exposed faces unless otherwise Indicated, Comply with ANSI/SDI A250.8 and ANSI/NAAMM HMMA 867,
   B. Exterior Doors: Face sheets fabricated of commercial quality hot-dipped zinc coated steel that complies with ASTM A 653/A 653M, Coating Designation A60, Provide doors complying with requirements Indicated below by referencing ANSI/SDI A250.4 test procedure and ANSI/SDI A250.8 for physical and performance level:
      1. Design: Flush panel,
      2. Core Construction: Manufacturer's standard polystyrene, Where Indicated, provide doors fabricated as thermal-rated assemblies with a minimum R-value of 2,8 or better,
      3. Level/Model: Level 2 and Physical Performance Level B (Heavy Duty), Minimum 18 gauge (0,042-inch - 1,0-mm) thick steel, Model 2,
      4. Top and Bottom Edges: Reinforce tops and bottoms of doors with a continuous steel channel not less than 16 gauge, extending the full width of the door and welded to the face sheets, Doors with an inverted top channel to include a steel closure channel, screw attached, with the web of the channel flush with the face sheets of the door, Plastic or composite channel fillers are not acceptable,
      5. Hinge Reinforcement: Minimum 7 gauge (3/16") plate 1-1/4" x 9" or minimum 14 gauge continuous channel with pierced holes, drilled and tapped,
      6. Hardware Reinforcements: Fabricate according to ANSI/SDI A250.6 with reinforcing plates from same material as door face sheets,
   C. Interior Doors: Face sheets fabricated of commercial quality cold rolled steel that complies with ASTM A 1008/A 1008M, Provide doors complying with requirements indicated below by referencing ANSI/SDI A250.8 for level and model and ANSI/SDI A250.4 for physical performance level:
      1. Design: Flush panel,
      2. Core Construction: Manufacturer's standard kraft-paper honeycomb, or one-piece polystyrene core, securely bonded to both faces,
         a. Fire Door Core: As required to provide fire-protection and temperature-rise ratings indicated,
      3. Level/Model: Level 2 and Physical Performance Level B (Heavy Duty), Minimum 18 gauge (0,042-inch - 1,0-mm) thick steel, Model 2,
      4. Top and Bottom Edges: Reinforce tops and bottoms of doors with a continuous steel channel not less than 16 gauge, extending the full width of the door and welded to the face sheet,
      5. Hinge Reinforcement: Minimum 7 gauge (3/16") plate 1-1/4" x 9" or minimum 14 gauge continuous channel with pierced holes, drilled and tapped,
      6. Hardware Reinforcements: Fabricate according to ANSI/SDI A250.6 with reinforcing plates from same material as door face sheets,
   D. Manufacturers Basis of Design:
      1. Curries Company (CU) - Polystyrene Core - 707 Series.
4. *HOLLOW METAL FRAMES*
   A. General: Comply with ANSI/SDI A250.8 and with details indicated for type and profile,
   B. Exterior Frames: Fabricate frames from commercial quality hot-dipped zinc coated steel that complies with ASTM A 653/A 653M, Coating Designation A60,
      1. Fabricate frames with mitered or coped corners, Profile as indicated on drawings,
      2. Frames: Minimum 16 gauge (0,053-inch -1,3-mm) thick steel sheet,
      3. Manufacturers Basis of Design:
         a. Curries Company (CU) - C Series,
         b. Curries Company (CU) - M Series,
   C. Interior Frames: Fabricated from cold-rolled steel sheet that complies with ASTM A 1008/A 1008M,
      1. Fabricate frames with mitered or coped corners, Profile as indicated on drawings,
      2. Frames: Minimum 16 gauge (0,053-inch -1,3-mm) thick steel sheet,
      3. Manufacturers Basis of Design:
         a. Curries Company (CU) - C Series,
         b. Curries Company (CU) - M Series,
   D. Fire rated hollow metal frames in accordance with NFPA 80, listed and labeled by a qualified testing agency, for fire-protection ratings indicated,
   E. Hardware Reinforcement: Fabricate according to ANSI/SDI A250.6 Table 4 with reinforcement plates from same material as frames,
5. *FRAME ANCHORS*
   A. Jamb Anchors:
      1. Masonry Type: Ad

SPECIFICATIONS (CONTINUED)

2. PREPARATION
A. Hollow Metal Doors and Frames: Comply with ANSI/DHI A115 series.
B. Wood Doors: Comply with ANSI/DHI A115-W series.
3. INSTALLATION
A. Install each item of mechanical and electromechanical hardware and access control equipment to comply with manufacturer's written instructions and according to specifications.
1. Installers are to be trained and certified by the manufacturer on the proper installation and adjustment of fire, life safety, and security products including: hanging devices; locking devices; closing devices; and seals.

PART 2 PRODUCTS
1. SCHEDULED DOOR HARDWARE
A. General: Provide door hardware for each door to comply with requirements in Door Hardware Sets and each referenced section that products are to be supplied under.
B. Designations: Requirements for quantity, item, size, finish or color, grade, function, and other distinctive qualities of each type of door hardware are indicated in the Door Hardware Sets at the end of Part 3. Products are identified by using door hardware designations, as follows:
1. Named Manufacturer's Products: Product designation and manufacturer are listed for each door hardware type required for the purpose of establishing requirements. Manufacturers' names are abbreviated in the Door Hardware Schedule.
C. Substitutions: Requests for substitution and product approval for inclusive mechanical and electromechanical door hardware in compliance with the specifications must be submitted in writing and in accordance with the procedures and time frames outlined in Division 01, Substitution Procedures. Approval of requests is at the discretion of the architect, owner, and their designated consultants.
2. HANGING DEVICES
A. Hinges: ANSI/BHMA A156.1 certified butt hinges with number of hinge knuckles and other options as specified in the Door Hardware Sets.
1. Quantity: Provide the following hinge quantity:
a. Two Hinges: For doors with heights up to 60 inches.
b. Three Hinges: For doors with heights 61 to 90 inches.
c. Four Hinges: For doors with heights 91 to 120 inches.
d. For doors with heights more than 120 inches, provide 4 hinges, plus 1 hinge for every 30 inches of door height greater than 120 inches.
2. Hinge Size: Provide the following, unless otherwise indicated, with hinge widths sized for door thickness and clearances required:
a. Widths up to 3'0": 4-1/2" standard or heavy weight as specified.
b. Sizes from 3'1" to 4'0": 5" standard or heavy weight as specified.
3. Hinge Weight and Base Material: Unless otherwise indicated, provide the following:
a. Exterior Doors: Heavy weight, non-ferrous, ball bearing or oil impregnated bearing hinges unless Hardware Sets indicate standard weight.
b. Interior Doors: Standard weight, steel, ball bearing or oil impregnated bearing hinges unless Hardware Sets indicate heavy weight.
4. Hinge Options: Comply with the following:
a. Non-removable Pins: Provide set screw in hinge barrel that, when tightened into a groove in hinge pin, prevents removal of pin while door is closed; for the all out-swinging lockable doors.
5. Manufacturers:
a. McKinney Products; ASSA ABLOY Architectural Door Accessories (MK).
3. DOOR OPERATING TRIM
A. Flush Bolts and Surface Bolts: ANSI/BHMA A156.3 and A156.16, Grade 1, certified.
1. Flush bolts to be furnished with top rod of sufficient length to allow bolt retraction device location approximately six feet from the floor.
2. Furnish dust proof strikes for bottom bolts.
3. Surface bolts to be minimum 8 " in length and U.L. listed for labeled fire doors and U.L. listed for windstorm components where applicable.
4. Provide related accessories (mounting brackets, strikes, coordinators, etc.) as required for appropriate installation and operation.
5. Manufacturers:
a. Rockwood Products; ASSA ABLOY Architectural Door Accessories (RO).
B. Door Push Plates and Pulls: ANSI/BHMA A156.6 certified door pushes and pulls of type and design specified in the Hardware Sets. Coordinate and provide proper width and height as required where conflicting hardware dictates.
1. Push/Pull Plates: Minimum .050 inch thick, size as indicated in hardware sets, with beveled edges, secured with exposed screws unless otherwise indicated.
2. Fasteners: Provide manufacturer's designated fastener type as indicated in Hardware Sets.
3. Manufacturers:
a. Rockwood Products; ASSA ABLOY Architectural Door Accessories (RO).
4. CYLINDERS AND KEYING
A. General: Cylinder manufacturer to have minimum (10) years experience designing secured master key systems and have on record a published security keying system policy.
B. Source Limitations: Obtain each type of keyed cylinder and keys from the same source manufacturer as locksets and exit devices, unless otherwise indicated.
1. Manufacturers:
a. Yale Commercial (YA).
C. Cylinder Types: Original manufacturer cylinders able to supply the following cylinder formats and types:
1. Threaded mortise cylinders with rings and cams to suit hardware application.
2. Rim cylinders with back plate, flat-type vertical or horizontal tailpiece, and raised trim ring.
3. Bored or cylindrical lock cylinders with tailpieces as required to suit locks.
4. Tubular deadlocks and other auxiliary locks.
5. Mortise and rim cylinder collars to be solid and recessed to allow the cylinder face to be flush and be free spinning with matching finishes.
6. Keyway: Manufacturer's Standard.
D. Keying System: Each type of lock and cylinders to be factory keyed.
1. Supplier shall conduct a "Keying Conference" to define and document keying system instructions and requirements.
2. Furnish factory cut, nickel-silver large bow permanently inscribed with a visual key control number as directed by Owner.
3. New System: Key locks to a new key system as directed by the Owner.
E. Key Quantity: Provide the following minimum number of keys:
1. Change Keys per Cylinder: Two (2)
2. Master Keys (per Master Key Level/Group): Five (5).
F. Key Registration List (Bitting List):
1. Provide keying transcript list to Owner's representative in the proper format for importing into key control software.
2. Provide transcript list in writing or electronic file as directed by the Owner.
5. MECHANICAL LOCKS AND LATCHING DEVICES
A. Cylindrical Locksets, Grade 1 (Commercial Duty): ANSI/BHMA A156.2, Series 4000, Operational Grade 1 Certified Products Directory (CPD) listed.
1. Locks are to be non-handed and fully field reversible.
2. Manufacturers:
a. Yale Commercial(YA) 4700LN Series.
6. AUXILIARY LOCKS
A. Cylindrical Deadlocks: ANSI/BHMA A156.36 Grade 1 Certified Products Directory (CPD) listed deadlocks to fit standard ANSI 161 preparation and 1 3/8" to 1 3/4" thickness doors. Provide tapered collars to resist vandalism and 1" throw solid steel bolt with hardened steel roller pins. Deadlocks to be products of the same source manufacturer and keyway as other locksets.
1. Manufacturers:
a. Yale Commercial(YA) - D100 Series
1. LOCK AND LATCH STRIKES
A. Strikes: Provide manufacturer's standard strike with strike box for each latch or lock bolt, with curved lip extended to protect frame, finished to match door hardware set, unless otherwise indicated, and as follows:
1. Flat-Lip Strikes: For locks with three-piece antifriction latchbolts, as recommended by manufacturer.
2. Extra-Long-Lip Strikes: For locks used on frames with applied wood casing trim.
3. Aluminum-Frame Strike Box: Provide manufacturer's special strike box fabricated for aluminum framing.
4. Double-lipped strikes: For locks at double acting doors. Furnish with retractable stop for rescue hardware applications.
B. Standards: Comply with the following:
1. Strikes for Mortise Locks and Latches: BHMA A156.13.
2. Strikes for Bored Locks and Latches: BHMA A156.2.
3. Strikes for Auxiliary Deadlocks: BHMA A156.36.
4. Dustproof Strikes: BHMA A156.16.
2. CONVENTIONAL EXIT DEVICES
A. General Requirements: All exit devices specified herein shall meet or exceed the following criteria:
1. At doors not requiring a fire rating, provide devices complying with NFPA 101 and listed and labeled for "Panic Hardware" according to UL305. Provide proper fasteners as required by manufacturer including sex nuts and bolts at openings specified in the Hardware Sets.
2. Where exit devices are required on fire rated doors, provide devices complying with NFPA 80 and with UL labeling indicating "Fire Exit Hardware". Provide devices with the proper fasteners for installation as tested and listed by UL. Consult manufacturer's catalog and template book for specific requirements.
3. Except on fire rated doors, provide exit devices with hex key dogging device to hold the pushbar and latch in a retracted position. Provide optional keyed cylinder dogging on devices where specified in Hardware Sets.
4. Devices must fit flat against the door face with no gap that permits unauthorized dogging of the push bar. The addition of filler strips is required in any case where the door light extends behind the device as in a full glass configuration.
5. Lever Operating Trim: Where exit devices require lever trim, furnish manufacturer's heavy duty escutcheon trim with threaded studs for thru-bolts.
a. Lock Trim Design: As indicated in Hardware Sets, provide finishes and designs to match that of the specified locksets.
b. Where function of exit device requires a cylinder, provide a cylinder (Rim or Mortise) as specified in Hardware Sets.
6. Vertical Rod Exit Devices: Where surface or concealed vertical rod exit devices are used at interior openings, provide as less bottom rod (LBR) unless otherwise indicated. Provide dust proof strikes where thermal pins are required to project into the floor.
7. Narrow Stile Applications: At doors constructed with narrow stiles, or as specified in Hardware Sets, provide devices designed for maximum 2 " wide stiles.
8. Dummy Push Bar: Nonfunctioning push bar matching functional push bar.
9. Rail Sizing: Provide exit device rails factory sized for proper door width applic
3. DOOR CLOSERS
A. All door closers specified herein shall meet or exceed the following criteria:
1. General: Door closers to be from one manufacturer, matching in design and style, with the same type door preparations and templates regardless of application or spring size. Closers to be non-handed with full sized covers.
2. Standards: Closers to comply with UL-10C for Positive Pressure Fire Test and be U.L. listed for use of fire rated doors.
3. Size of Units: Comply with manufacturer's written recommendations for sizing of door closers depending on size of door, exposure to weather, and anticipated frequency of use. Where closers are indicated for doors required to be accessible to the Americans with Disabilities Act, provide units complying with ANSI ICC/A117.1.
4. Closer Arms: Provide heavy duty, forged steel closer arms unless otherwise indicated in Hardware Sets.
5. Closers shall not be installed on exterior or corridor side of doors; where possible install closers on door for optimum aesthetics.
6. Closer Accessories: Provide door closer accessories including custom templates, special mounting brackets, spacers and drop plates as required for proper installation. Provide through-bolt and security type fasteners as specified in the hardware sets.
B. Door Closers, Surface Mounted (Commercial Duty): ANSI/BHMA 156.4, Grade 1 Certified Products Directory (CPD) listed surface mounted, institutional grade door closers with complete spring power adjustment, sizes 1 thru 6; and fully operational adjustable according to door size, frequency of use, and opening force. Closers to be rack and pinion type, one piece cast iron or aluminum alloy body construction, with adjustable backcheck, closing sweep, and latch speed control valves. Provide non-handed units standard.
1. Manufacturers:
a. Norton Door Controls (NO) - 8500 Series.
4. ARCHITECTURAL TRIM
A. Door Protective Trim
1. General: Door protective trim units to be of type and design as specified below or in the Hardware Sets.
2. Size: Fabricate protection plates (kick, armor, or mop) not more than 2" less than door width (LDW) on stop side of single doors and 1" LDW on stop side of pairs of doors, and not more than 1" less than door width on pull side. Coordinate and provide proper width and height as required where conflicting hardware dictates. Height to be as specified in the Hardware Sets.
3. Where plates are applied to fire rated doors with the top of the plate more than 16 " above the bottom of the door, provide plates complying with NFPA 80. Consult manufacturer 's catalog and template book for specific requirements for size and applications.
4. Protection Plates: ANSI/BHMA A156.6 certified protection plates (kick, armor, or mop), fabricated from the following:
a. Stainless Steel: 300 grade, 050-inch thick.
5. Options and fasteners: Provide manufacturer's designated fastener type as specified in the Hardware Sets. Provide countersunk screw holes.
Manufacturers:
a. Rockwood Products; ASSA ABLOY Architectural Door Accessories (RO).
1. DOOR STOPS AND HOLDERSGeneral:
A. Door stops and holders to be of type and design as specified below or in the Hardware Sets.
B. Door Stops and Bumpers: ANSI/BHMA A156.16, Grade 1 certified door stops and wall bumpers. Provide wall bumpers, either convex or concave types with anchorage as indicated, unless floor or other types of door stops are specified in Hardware Sets. Do not mount floor stops where they will impede traffic. Where floor or wall bumpers are not appropriate, provide overhead type stops and holders.
1. Manufacturers:
a. Rockwood Products; ASSA ABLOY Architectural Door Accessories (RO).
C. Overhead Door Stops and Holders: ANSI/BHMA A156.8, Grade 1 Certified Products Directory (CPD) listed overhead stops and holders to be surface or concealed types as indicated in Hardware Sets. Track, slide, arm and jamb bracket to be constructed of extruded bronze and shock absorber spring of heavy tempered steel. Provide non-handed design with mounting brackets as required for proper operation and function.
1. Manufacturers:
a. Rixson Door Controls (RF).
2. ARCHITECTURAL SEALS
A. General: Thresholds, weatherstripping, and gasket seals to be of type and design as specified below or in the Hardware Sets. Provide continuous weatherstrip gasketing on exterior doors and provide smoke, light, or sound gasketing on interior doors where indicated. At exterior applications provide non-corrosive fasteners and elsewhere where indicated.
B. Smoke Labeled Gasketing: Assemblies complying with NFPA 105 that are listed and labeled by a testing and inspecting agency acceptable to authorities having jurisdiction, for smoke control ratings indicated, based on testing according to UL 1784.
1. Provide smoke labeled perimeter gasketing at all smoke labeled openings.
C. Fire Labeled Gasketing: Assemblies complying with NFPA 80 that are listed and labeled by a testing and inspecting agency acceptable to authorities having jurisdiction, for fire ratings indicated, based on testing according to UL-10C.
1. Provide intumescent seals as indicated to meet UL10C Standard for Positive Pressure Fire Tests of Door Assemblies, and NFPA 252, Standard Methods of Fire Tests of Door Assemblies.
D. Sound-Rated Gasketing: Assemblies that are listed and labeled by a testing and inspecting agency, for sound ratings indicated.
E. Replaceable Seal Strips: Provide only those units where resilient or flexible seal strips are easily replaceable and readily available from stocks maintained by manufacturer.
F. Manufacturers:
1. Pemko Products; ASSA ABLOY Architectural Door Accessories (PE).
3. FABRICATION
A. Fasteners: Provide door hardware manufactured to comply with published templates generally prepared for machine, wood, and sheet metal screws. Provide screws according to manufacturers recognized installation standards for application intended.
4. FINISHES
A. Standard: Designations used in the Hardware Sets and elsewhere indicate hardware finishes complying with ANSI/BHMA A156.18, including coordination with traditional U.S. finishes indicated by certain manufacturers for their products.
B. Provide quality of finish, including thickness of plating or coating (if any), composition, hardness, and other qualities complying with manufacturer's standards, but in no case less than specified by referenced standards for the applicable units of hardware
Protect mechanical finishes on exposed surfaces from damage by applying a strippable, temporary protective covering before shipping.

PART 3 EXECUTION
1. EXAMINATION
A. Examine scheduled openings, with Installer present, for compliance with requirements for installation tolerances, labeled fire door assembly construction, wall and floor construction, and other conditions affecting performance.
B. Notify architect of any discrepancies or conflicts between the door schedule, door types, drawings and scheduled hardware. Proceed only after such discrepancies or conflicts have been resolved in writing.

2. PREPARATION
A. Hollow Metal Doors and Frames: Comply with ANSI/DHI A115 series.
B. Wood Doors: Comply with ANSI/DHI A115-W series.
3. INSTALLATION
A. Install each item of mechanical and electromechanical hardware and access control equipment to comply with manufacturer's written instructions and according to specifications.
1. Installers are to be trained and certified by the manufacturer on the proper installation and adjustment of fire, life safety, and security products including: hanging devices; locking devices; closing devices; and seals.
B. Mounting Heights: Mount door hardware units at heights indicated in following applicable publications, unless specifically indicated or required to comply with governing regulations:
1. Standard Steel Doors and Frames: DHI's "Recommended Locations for Architectural Hardware for Standard Steel Doors and Frames."
2. Wood Doors: DHI WDHS.3, "Recommended Locations for Architectural Hardware for Wood Flush Doors."
3. Where indicated to comply with accessibility requirements, comply with ANSI A117.1 "Accessibility Guidelines for Buildings and Facilities."
4. Provide blocking in drywall partitions where wall stops or other wall mounted hardware is located.
C. Retrofitting: Install door hardware to comply with manufacturer's published templates and written instructions. Where cutting and fitting are required to install door hardware onto or into surfaces that are later to be painted or finished in another way, coordinate removal, storage, and reinstallation of surface protective trim units with finishing work specified in Division 9 Sections. Do not install surface-mounted items until finishes have been completed on substrates involved.
D. Thresholds: Set thresholds for exterior and acoustical doors in full bed of sealant complying with requirements specified in Division 7 Section "Joint Sealants."
E. Storage: Provide a secure lock up for hardware delivered to the project but not yet installed. Control the handling and installation of hardware items so that the completion of the work will not be delayed by hardware losses before and after installation.
4. ADJUSTING
A. Initial Adjustment: Adjust and check each operating item of door hardware and each door to ensure proper operation or function of every unit. Replace units that cannot be adjusted to operate as intended. Adjust door control devices to compensate for final operation of heating and ventilating equipment and to comply with referenced accessibility requirements.
5. CLEANING AND PROTECTION
A. Protect all hardware stored on construction site in a covered and dry place. Protect exposed hardware installed on doors during the construction phase. Install any and all hardware at the latest possible time frame.
B. Clean adjacent surfaces soiled by door hardware installation.
C. Clean operating items as necessary to restore proper finish. Provide final protection and maintain conditions that ensure door hardware is without damage or deterioration at time of owner occupancy.
6. DOOR HARDWARE SETS
A. The hardware sets represent the design intent and direction of the owner and architect. They are a guideline only and should not be considered a detailed hardware schedule. Discrepancies, conflicting hardware and missing items should be brought to the attention of the architect with corrections made prior to the bidding process. Omitted items not included in a hardware set should be scheduled with the appropriate additional hardware required for proper application and functionality.
1. Quantities listed are for each pair of doors, or for each single door.
2. The supplier is responsible for handing and sizing all products.
3. Where multiple options for a piece of hardware are given in a single line item, the supplier shall provide the appropriate application for the opening.
4. At existing openings with new hardware the supplier shall field inspect existing conditions prior to the submittal stage to verify the specified hardware will work as required. Provide alternate solutions and proposals as needed.
B. Manufacturer's Abbreviations:
1. MK - McKinney
2. RO - Rockwood
3. YA - Yale
4. RF - Rixson
5. NO - Norton
6. PE - Pemko
7. OT - Other

Hardware Sets
Set 1.0
Set 2.0
Set 3.0
Set 4.0
Set 5.0
Set 6.0
Set 7.0
Set 8.0
Set 9.0
Set 10.0
Set 11.0
Set 12.0
Set 13.0
Set 14.0
Set 15.0
Set 16.0
Set 17.0
Set 18.0
Set 19.0

SECTION 083323 - OVERHEAD COILING DOORS
PART 1 GENERAL
1. *SUBMITTALS*
A. Product Data: Provide general construction, electrical equipment, and component connections and details .
B. Shop Drawings: Indicate pertinent dimensioning, anchorage methods, hardware locations, and installation details.
C. Samples: Submit two slats, in sufficient size illustrating shape, color and finish texture.
2. *QUALITY ASSURANCE*
A. Products Requiring Electrical Connection: Listed and classified by ITS (DIR), UL (DIR), or testing firm acceptable to authorities having jurisdiction as suitable for purpose specified.
3. *WARRANTY*
A. Provide lifetime manufacturer limited warranty for counterweights and tension springs.
PART 2 PRODUCTS
1. *MANUFACTURER*
A. Basis of Design: Overhead Door Company of Tulsa
B. Website: https://www.overheaddoortulsa.com/
2. *COILING DOORS*
A. Non-Fire-Rated Interior Coiling Doors: Aluminum tubular curtain.
1. Finish: As selected by Architect from manufacturer's full line.
2. Model: 670 Series
3. Manual hand chain lift operation.
4. Mounting: As indicated on drawings.
5. Curtain: Horizontal 5/16 inch (7.8 mm) diameter rods with network of vertically interlocking links to form a pattern. Bottom bar extruded aluminum tubular shape.
6. Material: Aluminum.
7. Vertical Rod Spacing: 2 inches (51 mm) on center.
8. Pattern: Straight lattice; horizontal spacing 3 inches (76 mm) on center.
9. Bottom Bar: Tubular extruded aluminum, mill finish.
10. Guides: Extruded aluminum shapes with retainer grooves and continuous silicone treated wool-pile strips or PVC inserts to reduce noise and assist operation.
a. Guides face mounted on adjacent construction.
11. Brackets: Minimum 3/16 inch (4.8 mm) steel to support barrel, counterbalance and hood as applicable.
12. Counterbalance: Helical torsion spring type housed in a steel tube or pipe barrel, supporting the curtain with maximum deflection of 0.03 inches per foot of span. Counterbalance adjustable by means of an adjusting tension wheel.
13. Hood: Aluminum, mill finish with intermediate supports as required.
14. Locking: Chain keeper locks for chain hoist operation.
3. *MATERIALS AND COMPONENTS*
A. Metal Curtain Construction: Interlocking slats.
1. Aluminum Slats: ASTM B221 (ASTM B221M) , aluminum alloy Type 6063 .
B. Guide Construction: Continuous, of profile to retain door in place , mounting brackets of same metal.
C. Hood Enclosure and Trim: Internally reinforced to maintain rigidity and shape.
1. Prime paint.
D. Lock Hardware:
1. Cylindrical Locking Mechanism: As selected by Architect from manufacturer's full line.
2. Manual Chain Lift: Provide padlockable chain keeper on guide.
PART 3 EXECUTION
1. *INSTALLATION*
A. Install units in accordance with manufacturer's instructions.
B. Fit and align assembly including hardware; level and plumb, to provide smooth operation.
END OF SECTION

SECTION 08 8000 - GLAZING
PART 1 GENERAL
1. *SUBMITTALS*
A. Product Data on Plastic Film Glazing Types: Provide structural, physical and environmental characteristics, size limitations, special handling and installation requirements.
B. Product Data on Glazing Compounds and Accessories: Provide chemical, functional, and environmental characteristics, limitations, special application requirements, and identify available colors.
C. Samples: Submit two samples 4 by 6 inch (101.6 by 152.4 mm) in size , showing coloration and design.
2. *QUALITY ASSURANCE*
A. Perform Work in accordance with GANA (GM), GANA (SM), GANA (LGRM), and IGMA TM-3000 for glazing installation methods . Maintain one copy on site.
3. *MOCK-UPS*
A. Provide on-site glazing mock-up with the specified glazing components.
B. Locate as indicated by Architect .
C. Mock-ups may remain as part of the Work.
PART 2 PRODUCTS
1. *MANUFACTURERS*
2. *PERFORMANCE REQUIREMENTS - EXTERIOR GLAZING ASSEMBLIES*
A. Provide type and thickness of exterior glazing assemblies to support assembly dead loads, and to withstand live loads caused by positive and negative wind pressure acting normal to plane of glass.
1. Comply with ASTM E1300 for design load resistance of glass type, thickness, dimensions, and maximum lateral deflection of supported glass.
2. Provide glass edge support system sufficiently stiff to limit the lateral deflection of supported glass edges to less than 1/175 of their lengths under specified design load.
3. Glass thicknesses listed are minimum.
B. Vapor Retarder and Air Barrier Seals: Provide completed assemblies that maintain continuity of building enclosure vapor retarder and air barrier.
1. In conjunction with vapor retarder and joint sealer materials described in other sections.
C. Thermal and Optical Performance: Provide exterior glazing products with performance properties as indicated. Performance properties are in accordance with manufacturer's published data as determined with the following procedures and/or test methods:
1. Center of Glass U-Value: Comply with NFRC 100 using Lawrence Berkeley National Laboratory (LBNL) WINDOW 6.3 computer program.
2. Center of Glass Solar Heat Gain Coefficient (SHGC): Comply with NFRC 200 using Lawrence Berkeley National Laboratory (LBNL) WINDOW 6.3 computer program.
3. Solar Optical Properties: Comply with NFRC 300 test method.
3. *GLASS MATERIALS*
4. *PLASTIC FILMS*
A. 3M Window Films - Solar Control Plastic Film: Metalized Polyester type.
1. Application: Locations as indicated on drawings.
2. Series Type: Night Vision 15 .
3. Color: Metalized .
4. Thickness Without Liner: 0.0020 inch (0.0508 mm) .
PART 3 EXECUTION
1. *INSTALLATION - PLASTIC FILM*
A. Install plastic film with adhesive, applied in accordance with film manufacturer's instructions.
B. Place without air bubbles, creases or visible distortion.
END OF SECTION

DIVISION 09 - FINISHES

SECTION 09 9113 - EXTERIOR PAINTING
PART 1 GENERAL
1. *SECTION INCLUDES*
A. Scope: Finish exterior surfaces exposed to view, unless fully factory-finished and unless otherwise indicated.
1. Both sides and edges of plywood backboards for electrical and telecom equipment before installing equipment.
2. Exposed surfaces of steel lintels and ledge angles.
3. Mechanical and Electrical:
a. On the roof and outdoors, paint equipment exposed to weather or to view, including factory-finished materials.
B. Do Not Paint or Finish the Following Items:
1. Items factory-finished unless otherwise indicated; materials and products having factory-applied primers are not considered factory finished.
2. Items indicated to receive other finishes.
3. Items indicated to remain unfinished.
4. Fire rating labels, equipment serial number and capacity labels, and operating parts of equipment.
5. Non-metallic roofing and flashing.
6. Stainless steel, anodized aluminum, bronze, terne-coated stainless steel, zinc, and lead.
7. Marble, granite, slate, and other natural stones.
8. Floors, unless specifically indicated.
9. Ceramic and other types of tiles.
10. Brick, glass unit masonry, architectural concrete, cast stone, integrally colored plaster and stucco.
11. Glass.
12. Concealed pipes, ducts, and conduits.
2. *SUBMITTALS*
A. Product Data: Provide complete list of products to be used, with the following information for each:
1. Manufacturer's name, product name and/or catalog number, and general product category (e.g. "alkyd enamel").
2. MPI product number (e.g. MPI #47).
3. Cross-reference to specified paint system(s) product is to be used in; include description of each system.
B. Samples: Submit three paper "draw down" samples, 8-1/2 by 11 inches (216 by 279 mm) in size, illustrating range of colors available for each finishing product specified.
1. Where sheen is specified, submit samples in only that sheen.
2. Where sheen is not specified, submit each color in each sheen available.
3.

PART 2 PRODUCTS
1. *MANUFACTURERS*
A. Provide paints and finishes from the same manufacturer, no exceptions.
1. Metal Roof Paints Manufacturer
a. Basis of Design: Gaco
b. Colors: As selected by Architect from manufacturer's full line.
2. All Other Applications Manufacturer
a. Basis of Design: Sherwin Williams
b. Colors: As selected by Architect from manufacturer's full line.
2. *PAINTS AND FINISHES - GENERAL*
A. Paints and Finishes: Ready-mixed, unless required to be a field-catalyzed paint.
1. Provide paints and finishes of a soft paste consistency, capable of being readily and uniformly dispersed to a homogeneous coating, with good flow and brushing properties, and capable of drying or curing free of streaks or sags.
2. Provide materials that are compatible with one another and the substrates indicated under conditions of service and application, as demonstrated by manufacturer based on testing and field experience.
3. Supply each paint material in quantity required to complete entire project's work from a single production run.
4. Do not reduce, thin, or dilute paint or finishes or add materials unless such procedure is described explicitly in manufacturer's product instructions.
B. Volatile Organic Compound (VOC) Content:
1. Provide paints and finishes that comply with the most stringent requirements specified in the following:
a. 40 CFR 59, Subpart D--National Volatile Organic Compound Emission Standards for Architectural Coatings.
1. Determination of VOC Content: Testing and calculation in accordance with 40 CFR 59, Subpart D (EPA Method 24), exclusive of colorants added to a tint base and water added at project site; or other method acceptable to authorities having jurisdiction.
A. Colors: As indicated on drawings.
1. Extend colors to surface edges; colors may change at any edge as directed by Architect.
1. *PAINT SYSTEMS - EXTERIOR*
A. Exterior Surfaces to be Painted, Unless Otherwise Indicated: Including fiber cement siding, primed wood, and primed metal .
1. Two top coats and one coat primer.
2. Primer: As recommended by top coat manufacturer for specific substrate.
B. Masonry/Concrete, Opaque, Latex, 2 Coat:
1. One coat of latex primer sealer.
2. Semi-gloss: One coat of latex enamel .
2. *PRIMERS*
A. Primers: Provide the following unless other primer is required or recommended by manufacturer of top coats.
PART 3 EXECUTION
1. *EXAMINATION*
A. Measure moisture content of surfaces using an electronic moisture meter. Do not apply finishes unless moisture content of surfaces are below the following maximums:
1. Fiber Cement Siding: 12 percent.
2. Masonry, Concrete, and Concrete Masonry Units: 12 percent.
3. Exterior Wood: 15 percent, measured in accordance with ASTM D4442.
2. *PREPARATION*
A. Clean surfaces thoroughly and correct defects prior to application.
B. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.
3. *APPLICATION*
A. Apply products in accordance with manufacturer's written instructions and recommendations in "MPI Architectural Painting Specification Manual".
B. Do not apply finishes to surfaces that are not dry. Allow applied coats to dry before next coat is applied.
END OF SECTION

SECTION 09 9123 - INTERIOR PAINTING
PART 1 GENERAL
1. *SECTION INCLUDES*
A. Scope: Finish interior surfaces exposed to view, unless fully factory-finished and unless otherwise indicated.
B. Do Not Paint or Finish the Following Items:
1. Items factory-finished unless otherwise indicated; materials and products having factory-applied primers are not considered factory finished.
2. Items indicated to receive other finishes.
3. Items indicated to remain unfinished.
4. Fire rating labels, equipment serial number and capacity labels, bar code labels, and operating parts of equipment.
5. Stainless steel, anodized aluminum, bronze, terne-coated stainless steel, and lead items.
6. Marble, granite, slate, and other natural stones.
7. Floors, unless specifically indicated.
8. Ceramic and other tiles.
9. Glass.
10. Acoustical materials, unless specifically indicated.
11. Concealed pipes, ducts, and conduits.
2. *SUBMITTALS*
A. Product Data: Provide complete list of products to be used, with the following information for each:
1. Manufacturer's name, product name and/or catalog number, and general product category (e.g., "alkyd enamel").
2. MPI product number (e.g., MPI #47).
3. Cross-reference to specified paint system(s) product is to be used in; include description of each system.
B. B. Samples: Submit three paper "draw down" samples, 8-1/2 by 11 inches (216 by 279 mm) in size, illustrating range of colors available for each finishing product specified.
1. Where sheen is specified, submit samples in only that sheen.
2. Where sheen is not specified, submit each color in each sheen available.

PART 2 PRODUCTS
1. *MANUFACTURERS*
A. Provide paints and finishes from the same manufacturer, no exceptions.
B. Basis of Design: The Sherwin Williams Company
C. Website: https://www.sherwin-williams.com/
2. *PAINTS AND FINISHES - GENERAL*
A. Paints and Finishes: Ready-mixed, unless intended to be a field-catalyzed paint.
1. Provide paints and finishes of a soft paste consistency, capable of being readily and uniformly dispersed to a homogeneous coating, with good flow and brushing properties, and capable of drying or curing free of streaks or sags.
2. Provide materials that are compatible with one another and the substrates indicated under conditions of service and application, as demonstrated by manufacturer based on testing and field experience.
3. Supply each paint material in quantity required to complete entire project's work from a single production run.
4. Do not reduce, thin, or dilute paint or finishes or add materials unless such procedure is specifically described in manufacturer's product instructions.
B. Volatile Organic Compound (VOC) Content:
1. Provide paints and finishes that comply with the most stringent requirements specified in the following:
a. 40 CFR 59, Subpart D--National Volatile Organic Compound Emission Standards for Architectural Coatings.
2. Determination of VOC Content: Testing and calculation in accordance with 40 CFR 59, Subpart D (EPA Method 24), exclusive of colorants added to a tint base and water added at project site; or other method acceptable to authorities having jurisdiction.
C. Colors: As indicated on drawings.
3. *PAINT SYSTEMS - INTERIOR*
A. Interior Surfaces to be Painted, Unless Otherwise Indicated: Including gypsum board, concrete, concrete masonry units, wood, plaster, uncoated steel, shop primed steel, galvanized steel, aluminum, and acoustical ceilings .
1. Two top coats and one coat primer.
B. Medium Duty Door/Trim: For surfaces subject to frequent contact by occupants, including metals and wood :
1. Two top coats and one coat primer.
2. Primer: As recommended by top coat manufacturer for specific substrate.
C. Concrete Floors to be Painted.
1. Two top coats and one coat primer.
2. Primer: As recommended by top coat manufacturer for specific substrate.
PART 3 EXECUTION
1. *EXAMINATION*
A. Measure moisture content of surfaces using an electronic moisture meter. Do not apply finishes unless moisture content of surfaces is below the following maximums:
1. Gypsum Wallboard: 12 percent.
2. Plaster and Stucco: 12 percent.
3. Masonry, Concrete, and Concrete Masonry Units: 12 percent.
4. Interior Wood: 15 percent, measured in accordance with ASTM D4442.
5. Concrete Floors and Traffic Surfaces: 8 percent.
2. *PREPARATION*
A. Clean surfaces thoroughly and correct defects prior to application.
B. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.
3. *APPLICATION*
A. Apply products in accordance with manufacturer's written instructions and recommendations in "MPI Architectural Painting Specification Manual".
B. Do not apply finishes to surfaces that are not dry. Allow applied coats to dry before next coat is applied.
END OF SECTION

DIVISION 10 - SPECIALTIES

SECTION 10 2800 - TOILET, BATH, AND LAUNDRY ACCESSORIES
PART 1 GENERAL
1. *SUBMITTALS*
A. Product Data: Submit data on accessories describing size, finish, details of function, and attachment methods.
B. Samples: Submit two samples of each accessory, illustrating color and finish.
PART 2 PRODUCTS
1. *MANUFACTURERS*
A. Provide products of all category types by single manufacturer to the greatest extent possible.
B. Basis of Design: American Specialties, Inc.
C. Website: https://americanspecialties.com/
2. *MATERIALS*
A. Accessories - General: Shop assembled, free of dents and scratches and packaged complete with anchors and fittings, steel anchor plates, adapters, and anchor components for installation.
B. Keys: Provide three keys for each accessory to Owner; master key lockable accessories.
C. Mirror Glass: Annealed float glass, ASTM C1036 Type I, Class 1, Quality Q2, with silvering, protective and physical characteristics complying with ASTM C1503.
3. *FINISHES*
A. Stainless Steel: Satin finish, unless otherwise noted.
4. *COMMERCIAL TOILET ACCESSORIES*
A. Toilet Paper Dispenser: Double roll , surface-mounted , stainless steel unit with pivot hinge , tumbler lock .
B. Paper Towel Dispenser: Electric, roll paper type.
1. Cover: Stainless steel.
2. Paper Discharge: Touchless automatic.
3. Capacity: 8 inch diameter roll.
4. Mounting: Surface mounted .
5. Power: AC power adapter.
6. Refill Indicator: Illuminated refill indicator.
C. Waste Receptacle: Stainless steel, freestanding style with swing top.
1. Liner: Removable seamless stainless steel receptacle.
2. Minimum capacity: 10 gallons (38 liters).
D. Automated Soap Dispenser: Liquid soap dispenser, wall-mounted, with stainless steel cover and window to gauge soap level, tumbler lock.
1. Minimum Capacity: 48 ounces (1.5 liters).
E. Air Freshener Dispenser: Wall-mounted, battery operated.
F. Mirrors: Stainless steel framed, 1/4 inch (6 mm) thick annealed float glass; ASTM C1036.
G. Grab Bars: Stainless steel, smooth surface.
1. Standard Duty Grab Bars:
a. Push/Pull Point Load: 250 pound-force (1112 N), minimum.
b. Dimensions: 1-1/4 inch (32 mm) outside diameter, minimum 0.05 inch (1.3 mm) wall thickness, exposed flange mounting, 1-1/2 inch (38 mm) clearance between wall and inside of grab bar.
c. Length and Configuration: As indicated on drawings.
H. Sanitary Napkin Disposal Unit: Stainless steel, surface-mounted, self-closing door, locking bottom panel with full-length stainless steel piano-type hinge, removable receptacle.
5. *DIAPER CHANGING STATIONS*
A. Diaper Changing Station: Wall-mounted folding diaper changing station for use in commercial toilet facilities, meeting or exceeding ASTM F2285.
1. Material: Polyethylene.
2. Mounting: Surface.
3. Color: Gray.
4. Minimum Rated Load: 250 pounds (113.4 kg).
6. *UTILITY ROOM ACCESSORIES*
A. Combination Utility Shelf/Mop and Broom Holder: 0.05 inch (1.3 mm) thick stainless steel, Type 304, with 1/2 inch (12 mm) returned edges, 0.06 inch (1.6 mm) steel wall brackets.
1. Drying rod: Stainless steel, 1/4 inch (6 mm) diameter.
2. Hooks: Two, 0.06 inch (1.6 mm) stainless steel rag hooks at shelf front.
3. Mopbroom holders: Three spring-loaded rubber cam holders at shelf front.
4. Length: Manufacturer's standard length for number of holders/hooks.
PART 3 EXECUTION
1. *INSTALLATION*
A. Install accessories in accordance with manufacturers' instructions in locations indicated on drawings.
B. Install plumb and level, securely and rigidly anchored to substrate.
C. Mounting Heights: As required by accessibility regulations, unless otherwise indicated.
END OF SECTION

SECTION 10 7500 - FLAGPOLES
PART 1 GENERAL
1. *SUBMITTALS*
A. Product Data: Provide data on pole, accessories, and configurations.
B. Shop Drawings: Indicate detailed dimensions, base details, anchor requirements, and imposed loads.
2. *QUALITY ASSURANCE*
A. Designer Qualifications: Design flagpole foundation under direct supervision of a Professional Structural Engineer experienced in design of this Work and licensed the State in which the Project is located.
PART 2 PRODUCTS
1. *MANUFACTURERS*
A. Basis of Design: LIBERTY FLAGS, The American Wave
B. Website: https://libertyflags.com/
2. *FLAGPOLES*
A. Flagpoles: Designed in accordance with NAAMM FP 1001
1. Material: Aluminum.
2. Design: Cone tapered.
3. Mounting: Ground mounted type.
4. Nominal Height: As selected by Architect from manufacturer's full line; measured from nominal ground elevation.
5. Halyard: As selected by Architect from manufacturer's full line.
3. *POLE MATERIALS*
A. Aluminum: ASTM B241/B241M , 6063 alloy , T6 temper.
B. Finish: As selected by Architect from manufacturer's full line.
C. Steel: ASTM A53/A53MType S, Grade B .
D. Stainless Steel: ASTM A312/A312MTP304 grade .
4. *ACCESSORIES*
A. Finial Ball: As selected by Architect from manufacturer's full line.
B. Truck Assembly: Cast aluminum ; revolving , stainless steel ball bearings, non-fouling.
C. Flag: As selected by Architect from manufacturer's full line.
D. Cleats: 9 inch (230 mm) size, aluminum with galvanized steel fastenings, two per halyard.
E. Cleat Box: Aluminum, with built-in hinge and hasp assembly, attached to pole with tamper proof screws inside box.
F. Halyard: 5/16 inch (8 mm) diameter polypropylene, braided, white.
5. *OPERATORS*
A. As selected by Architect from manufacturer's full line.
6. *MOUNTING COMPONENTS*
A. Foundation Tube Sleeve: AASHTO M 36, corrugated 16 gauge, 0.0598 inch (1.52 mm) steel, galvanized, depth of as required for the size of pole selected.
B. Pole Base Attachment: Flush; steel base with base cover .
7. *FINISHING*
A. Aluminum: Mill finish .
B. Color: As selected by Architect from manufacturer's full line.
PART 3 EXECUTION
1. *INSTALLATION*
A. Install flagpole , base assembly, and fittings in accordance with manufacturer's instructions.
B. Install foundation plate and centering wedges for flagpoles base set in concrete base and fasten.
C. Fill foundation tube sleeve with concrete specified in Section 033000.
END OF SECTION

DIVISION 22 - PLUMBING FIXTURES
SEE PLUMBING SPECIFICATIONS ON SHEETS.

DIVISION 26 - ELECTRICAL
SEE ELECTRICAL SPECFICATIONS ON SHEETS.

SECTION 26 5100 - INTERIOR LIGHTING
PART 1 GENERAL
1. *SUBMITTALS*
A. Shop Drawings:
1. For nonstandard or custom lighting fixtures. Include plans, elevations,sections, details, and attachments to other work.
2. Indicate dimensions and components for each luminaire that is not a standard product of the manufacturer.
3. Provide photometric calculations where luminaires are proposed for substitution upon request.
B. Product Data: Provide manufacturer's standard catalog pages and data sheets including detailed information on luminaire construction, dimensions, ratings, finishes, mounting requirements, listings, service conditions, photometric performance, installed accessories, and ceiling compatibility; include model number nomenclature clearly marked with all proposed features.
C. LED Luminaires:
1. Include estimated useful life, calculated based on IES LM-80 test data.
b. Include IES LM-79 test report upon request.
1. Provide electronic files of photometric data certified by a National Voluntary Laboratory Accreditation Program (NVLAP) lab or independent testing agency in IES LM-63 standard format upon request.
2. Ballasts: Include wiring diagrams and list of compatible lamp configurations.
D. Samples:
1. Provide one sample(s) of each custom luminaire where indicated .
E. Certificates for Dimming Ballasts: Manufacturer's documentation of compatibility with dimming controls to be installed.
F. Field quality control reports.
G. Project Record Documents: Record actual connections and locations of luminaires and any associated remote components.
2. *QUALITY ASSURANCE*
A. Comply with requirements of NFPA 70.
B. Electrical must sign off that the custom luminair will work with electrical provided.
C. Structural must sign off that the custom luminair will work with structure provided.
PART 2 PRODUCTS
1. *CUSTOM LUMINAIRES, BY OTHERS*
A. New Products: Reception Luminaire & Retail Luminaire.
B. Provide products that comply with requirements of NFPA 70.
C. Provide products that are listed and labeled as complying with UL 1598, where applicable.
D. Provide products listed, classified, and labeled as suitable for the purpose intended.
E. Unless otherwise indicated, provide complete luminaires including lamp(s) and all sockets, ballasts, reflectors, lenses, housings and other components required to position, energize and protect the lamp and distribute the light.
F. Unless specifically indicated to be excluded, provide all required conduit, boxes, wiring, connectors, hardware, supports, trims, accessories, etc. as necessary for a complete operating system.
G. Provide products suitable to withstand normal handling, installation, and service without any damage, distortion, corrosion, fading, discoloring, etc.
H. Hazardous (Classified) Location Luminaires: Listed and labeled as complying with UL 844 for the classification of the installed location.
I. LED Luminaires:
1. Components: UL 8750 recognized or listed as applicable.
2. Tested in accordance with IES LM-79 and IES LM-80.
3. LED Estimated Useful Life: Minimum of 50,000 hours at 70 percent lumen maintenance, calculated based on IES LM-80 test data.
2. *BALLASTS AND DRIVERS*
A. Dimmable LED Drivers:
1. Dimming Range: Continuous dimming from 100 percent to five percent relative light output unless dimming capability to lower level is indicated, without flicker.
2. Control Compatibility: Fully compatible with the dimming controls to be installed.
PART 3 EXECUTION
1. *INSTALLATION*
A. Coordinate locations of outlet boxes provided as required for installation of luminaires provided under this section.
B. Perform work in accordance with NECA 1 (general workmanship).
C. Install products in accordance with manufacturer's instructions.
D. D. Install luminaires securely, in a neat and workmanlike manner, as specified in NECA 500 (commercial lighting) .
E. Provide required support and attachment.
F. Install luminaires plumb and square and aligned with building lines and with adjacent luminaires.
G. Suspended Luminaires:
1. Unless otherwise indicated, specified mounting heights are to bottom of luminaire.
2. Provide minimum of two supports for each luminaire equal to or exceeding 4 feet nominal length, with no more than 4 feet (1.2 m) between supports.
3. Unless otherwise indicated, support pendants from swivel hangers.
H. Bond products and metal accessories to branch circuit equipment grounding conductor.
I. Install lamps in each luminaire.
J. Lamp Burn-In: Operate lamps at full output for prescribed period per manufacturer's recommendations prior to use with any dimming controls. Replace lamps that fail prematurely due to improper lamp burn-in.
2. *CLOSEOUT ACTIVITIES*
A. Demonstration: Consultant to demonstrate proper operation of system to Owner, and correct deficiencies or make adjustments as directed.

DIVISION 28 - ELECTRONIC SAFETY & SECURITY
SEE ELECTRICAL SPECIFICATIONS ON SHEETS

SECTION 28 2000 - VIDEO & SECURITY SURVEILLANCE
PART 1 GENERAL
1. *SUBMITTALS*
A. Shop Drawings: Include plan views indicating locations of system components and proposed size, type, and routing of conduits and/or cables. Include elevations and details of proposed equipment arrangements. Include system interconnection schematic diagrams.
B. Include requirements for interface with other systems.
PART 2 PRODUCTS
A. Conduit and connections to be provided by Contractor.
B. Equipment and fixtures to be Owner Provided.
PART 3 EXECUTION
A. Conduit and connection to be installed by Contractor.
B. Equipment and fixtures to be Owner Installed.

DIVISION 31 - EARTHWORK
SEE CIVIL SPECIFICATIONS ON SHEETS

SECTION 31 1000 - SITE CLEARING
PART 1 GENERAL
1. *SUBMITTALS*
A. Site Plan: Showing:
1. Areas for temporary construction and field offices.
PART 2 PRODUCTS -- NOT USED
PART 3 EXECUTION
1. *SITE CLEARING*
A. Minimize production of dust due to clearing operations; do not use water if that will result in ice, flooding, sedimentation of public waterways or storm sewers, or other pollution.
2. *VEGETATION*
A. Scope: Remove trees, shrubs, brush, and stumps in areas to be covered by building structure, paving, playing fields, lawns, and planting beds.
B. Install substantial, highly visible fences at least 3 feet high (at least 1 m high) to prevent inadvertent damage to vegetation to remain:
1. At vegetation removal limits.
C. In areas where vegetation must be removed but no construction will occur other than pervious paving, remove vegetation with minimum disturbance of the subsoil.
D. Vegetation Removed: Do not burn, bury, landfill, or leave on site, except as indicated.
3. *DEBRIS*
A. Remove debris, junk, and trash from site.

DIVISION 32 - SITE IMPROVEMENTS
SEE CIVIL SPECIFICATIONS ON SHEETS

SECTION 32 3119 - DECORATIVE METAL FENCES AND GATES
PART 1 GENERAL
1. *SUBMITTALS*
A. Product Data: Submit manufacturer's data sheets on each product to be used, including:
1. Preparation instructions and recommendations.
2. Storage and handling requirements and recommendations.
3. Installation methods.
B. B. Shop Drawings:
1. Indicate plan layout, spacing of components, post foundation dimensions, hardware anchorage, gates, and schedule of components.
2. *WARRANTY*
A. A. Correct defective Work within a five year period after Date of Substantial Completion.
PART 2 PRODUCTS
1. *FENCES*
A. Fences: Complete factory-fabricated system of posts and panels, accessories, fittings, and fasteners; finished with electrodeposition coating, and having the following performance characteristics:
1. Capable of resisting vertical load, horizontal load and infill performance requirements for fence categories defined in ASTM F2408.
B. Electro-Deposition Coating: Multistage pretreatment/wash with zinc phosphate, followed by epoxy primer and acrylic topcoat.
C. Steel: ASTM A653/A653M; tensile strength 45,000 psi (310 MPa), minimum.
1. Hot-dip galvanized: ASTM A653/A653M, G60.
2. 62 percent recycled steel, minimum.
D. Fasteners: ASTM A276/A276M, Type 302 stainless steel; finished to match fence components.
1. Tamper-proof security bolts.
2. Self-drilling hex-head screws.
2. *SPECIALTY HARDWARE*
A. Hinges: Finished to match fence components.
1. Closing: Self .
2. Mechanism: Spring.
3. Material: Steel.
PART 3 EXECUTION
1. *INSTALLATION*
A. Install in accordance with manufacturer's instructions.
Set fence posts in accordance with the manufacturer recommended spacing.

ALTERNATES:

1

ALTERNATE #1:
- Artist pottery collection Location to be coordinated with owner and architect. Owner provided contractor installed. Artisan supplied.

ALTERNATE #2:
- Reflecting Pool RE: Landscaping plan for location. Owner provided Contractor installed. Contractor to provide add amount for fabrication per landscape design.

ALTERNATE #3:
- Basket Weave / Screenwall Contractor to provide add amount for fabrication per sheet A601. Base bid includes installation of 2 walls (40' long with gate, and 20' long) freestanding steel structure, foundations, cedar wood slats, copper letters, and sight lighting .

ALTERNATE #4:
- Concrete Paving vs. Asphalt Contractor to provide pricing for concrete paving and asphalt for owner and architect review. RE: Site plan and civil.

ALTERNATE #5:
- Conduit at Light Poles Contractor to provide add amount to furnish and install data conduit to support security equipment, running parallel to specified electrical conduit from the building to exterior light poles. Refer to Civil drawings.

ALTERNATE #6:
- Basketweave 3-dimensional feature. Contractor to provide add amount for fabrication per sheet A405. Base bid includes installation of similar owner-provided 3 Dimensional feature at this location (Cafe North & Cafe South).

ALTERNATE #7:
- Restroom Vessel Sinks. Contractor to provide add amount for Iron Plains Oval Wading Pool Vessel bathroom sinks with white painted underside K-5403-W-0 at restroom vanities, rooms 180,181,182 (5 sinks total). Base bid includes installation for (5) owner-provided artisan sinks.

EFG DESIGN & ARCHITECTURE
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PROJECT
VINITA CULTURAL DEVELOPMENT CENTER - ASI 1

PROJECT
CHEROKEE NATION
VINITA, OKLAHOMA

KEY PLAN

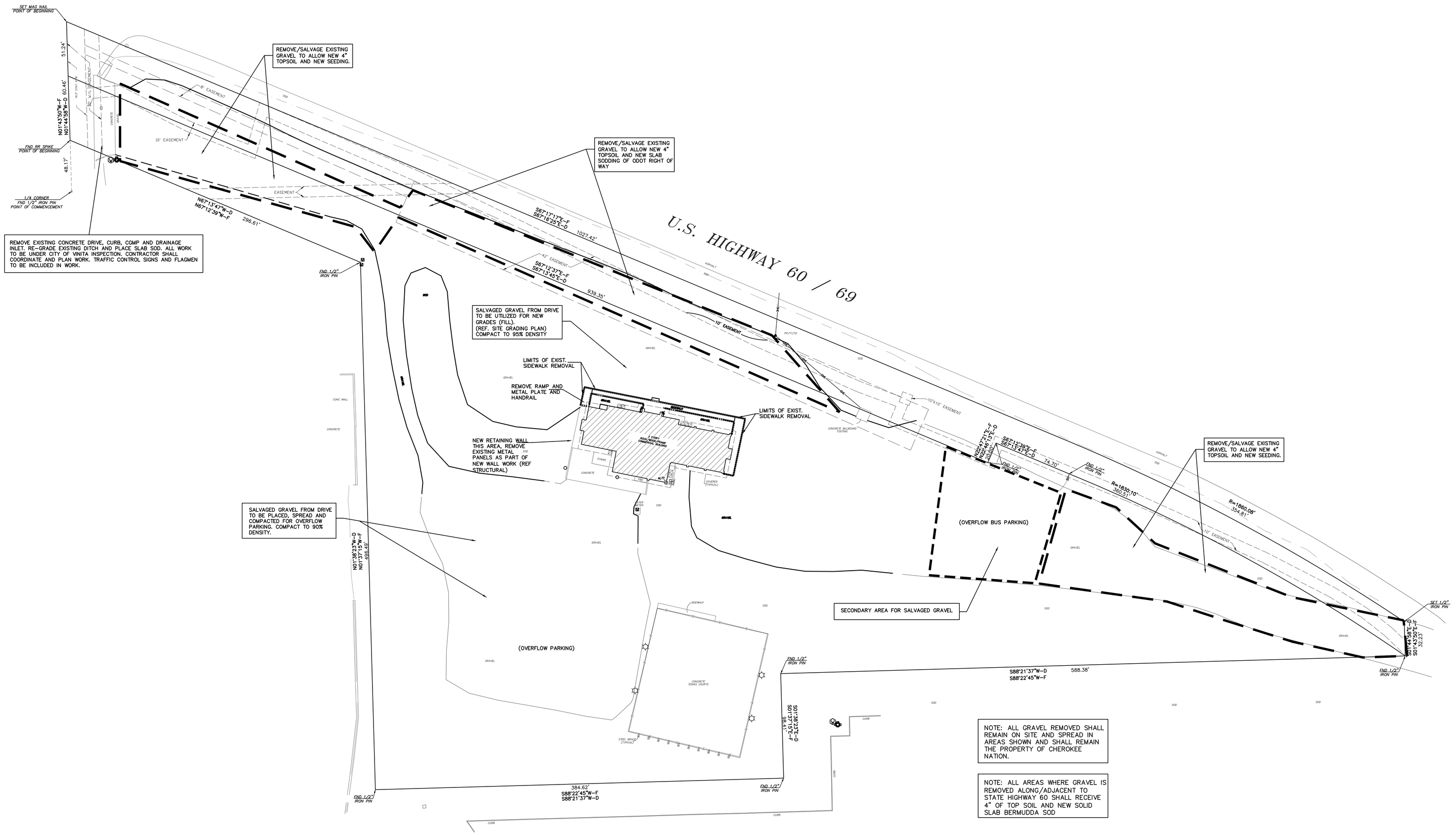
No.	Description	Date
	BID SET	5/07/2021
1	ASI-1	5/19/2021

SHEET TITLE
ASI 1 DRAWINGS

PROJECT NO: 111-049.20
DRAWN BY:
CHK'D BY:
ISSUE DATE: 5/19/2021

G005

Scale: As indicated



NOTE: ALL GRAVEL REMOVED SHALL REMAIN ON SITE AND SPREAD IN AREAS SHOWN AND SHALL REMAIN THE PROPERTY OF CHEROKEE NATION.

NOTE: ALL AREAS WHERE GRAVEL IS REMOVED ALONG/ADJACENT TO STATE HIGHWAY 60 SHALL RECEIVE 4" OF TOP SOIL AND NEW SOLID SLAB BERMUDDA SOD

0' 20' 40' 80'

SCALE: 1" = 20'

RED PLAINS PROFESSIONAL INC.

2933 S. Bryant Avenue, Edmond, Oklahoma 73013
Telephone: 405-341-4031, Fax: 405-341-4037
Certificate of Authorization No. 2926 June 30, 2021

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PROJECT
VINITA CULTURAL DEVELOPMENT CENTER

PROJECT
CHEROKEE NATION
VINITA, OKLAHOMA

KEY PLAN

No.	Description	Date

SHEET TITLE
SITE DEMOLITION PLAN

BID SET

PROJECT NO: 111-049.20
DRAWN BY: JT
CHKD BY: MAF
ISSUE DATE: 5/7/2021

C0.0

Scale 1" = 20'

REGISTERED PROFESSIONAL ENGINEER
MARK ALLEN FARRIS
15395
05/07/21
OKLAHOMA

01 January, 2000

Site Plan
GENERAL CONSTRUCTION NOTES

1. All construction work performed and materials supplied shall conform to the Site Work Specifications and the City of Vinita "Standard Specifications For Construction". Any work not covered in the above shall conform to the "Standard Specifications for Highway Construction", Oklahoma Department of Transportation, latest edition and supplementals.

2. The utilities as shown hereon are approximate in location as obtained from the survey records and atlas'. The contractor shall be responsible for notifying all utility companies and governmental agencies who might have utility lines on or across the premises, or who might be affected by the construction. The contractor shall coordinate his activities with the utility companies to ensure compliance with the project schedule established by the General Contractor. The contractor shall make every effort to protect existing utility lines, and shall repair any damages at his own expense.

3. Unless otherwise specified, the contractor shall be responsible for his own Construction Staking. The contractor shall further be responsible for the accuracy of all staking in accordance with the approved plans. In the event that discrepancy's are found, the contractor shall immediately notify the engineer or project manager prior to commencing with construction operations.

4. Upon completion of work, the paving contractor shall be responsible for backfilling all islands and curbs, with the upper 4" depth to be topsoil.

5. The landscaping contractor shall be responsible for seeding and/or slab sodding areas disturbed by construction in accordance with the plans or as directed by the owner or engineer. The contractor shall further be responsible for all necessary fertilization and watering of areas to be seeded or sodded for the period of time necessary to establish proper root growth. The contractor shall further be responsible for replacement of slab sod which dies prior to establishing root growth.

6. The general contractor shall be responsible for insurance of materials, installation and maintenance of the combination silt fence barrier around the limits of construction and as shown on the approved plan, during construction and until all work is complete and vegetation is reestablished.

7. The contractor shall place additional erosion control devices (sand bags) around any open storm drains or inlets located within the area of construction in order to control siltation of such structures.

8. The contractor shall be subject to frequent inspection of all methods and materials for erosion protection, and shall replace any item considered defective by the engineer in a timely manner.

9. All signs, pavement markings, and other traffic control devices, shall conform to the Oklahoma Standard Manual on Uniform Traffic Control Devices, latest edition. All pavement striping shall be four (4) inches wide, unless shown otherwise on the plans.

10. In areas where concrete paving is to abut asphaltic paving, the contractor shall construct a 11" thickened edge in the concrete.

11. All pavement removal contiguous to pavement remaining, shall be saw-cut in a straight line to the full depth of the existing pavement. All debris from removal operations shall be removed from the site at the time of excavation. Stockpiling of debris on-site will not be permitted.

12. Unless otherwise stated in the General Conditions, the contractor shall be responsible for all testing. All subgrade, concrete and asphaltic pavement testing shall conform to the "Standard Specifications for Highway Construction", Oklahoma Dept. of Transportation, latest edition and supplementals. All test results shall be forwarded to the engineer for his review and approval.

13. The Contractor shall provide a medium broom finish on all concrete walks, ramps and paving surfaces.

14. The contractor shall be responsible for the demolition and removal of all concrete, foundations, walks, walls, trees and other debris indicated on the survey or specified in the Site Work Specifications. All salvagable storm sewer grates, inlets or manhole ring and covers which are not being re-used on site shall be returned to the City of Vinita.

15. All exterior lighting (building and parking lot) shall be directional lighting and directed away from any residential areas.

16. All mechanical equipment shall be screened from view. The dumpster shall be enclosed with a sight-proof fence of materials compatable to the architecture of the building, and shall be a minimum 6' in height.

17. Construction access to the Site shall be from public streets or Highways unless otherwise directed by the engineer or the City.

Grading Plan
GENERAL CONSTRUCTION NOTES

1. All work performed and materials supplied shall conform to the Site Work Specifications. Any work not covered in the Site work Specifications shall conform to the City of Vinita City Standard Specifications or "Standard Specifications for Highway Construction, Oklahoma Department of Transportation, latest edition and supplementals.

2. The contractor shall be responsible for notifying all utility companies and governmental agencies who might have utility lines on or about the premises, or who might be affected by the construction. The contractor shall also coordinate his activities with the utility companies to ensure compliance with the project schedule established by the General Contractor. The contractor shall make every effort to protect existing utility lines, and shall repair any damages at his own expense.

3. Unless otherwise specified, the contractor shall be responsible for his own construction staking.

4. All topsoil shall be removed and stockpiled in an area designated by the owner. Upon completion of construction, topsoil at a minimum of 4" in depth, shall be spread over areas disturbed by construction.

5. All pavement removal contiguous to pavement remaining, shall be sawed in straight lines to the full depth of the existing pavement. All debris from removal operations shall be removed from the site at the time of excavation. Stockpiling of debris will not be permitted.

6. Prior to placement of fill, the ground shall be stripped of vegetation, scarified and recompacted. Fill shall be placed in maximum 9" lifts and compacted to a dry density of at least 95% of the maximum dry density obtained by the Standard Compaction Test (ASTM D-698) at a water content within 3 percent of optimum.

7. In areas of excavation, the subgrade shall be scarified to the depth shown on the detail, and recompacted in accordance with the above specification.

8. The contractor shall provide a medium broom finish on all concrete walks, ramps and paved surfaces.

9. Unless otherwise stated in the General Conditions, the contractor shall be responsible for all testing. The results of the tests shall be forwarded to the engineer for his review and approval. The soils laboratory shall determine the suitability of existing on site material prior to beginning any fill operations.

10. The contractor shall be responsible for erecting and maintaining barricades and other traffic control devices as necessary around the perimeter and adjacent to public streets or highways.

11. During construction and until such time as vegetation is reestablished, the contractor shall keep exposed dirt areas within the limits of construction and in stockpile areas, damped to prevent blowing due to wind.

12. The contractor shall be responsible for providing and maintaining adequate erosion protection during construction and following construction, until such time as proper vegetation is reestablished. The contractor shall construct and maintain a combination filter fabric barrier as shown on the attached Erosion Contol Sheet.

13. The contractor shall be responsible for the demolition and removal of all concrete, foundations, walks, walls, trees and other debris indicated on the survey or specified in the Site Work Specifications.

14. Construction access to the site shall be from public streets or highways unless otherwise directed by the engineer or the City.

Utility Plan
GENERAL CONSTRUCTION NOTES

1. All work performed and materials supplied shall conform to the Site Work Specifications. Any work not covered in the Site work Specifications shall conform to the City of Vinita City Standard Specifications or "Standard Specifications for Highway Construction, Oklahoma Department of Transportation, latest edition and supplementals.

2. The contractor shall be responsible for notifying all utility companies and governmental agencies who might have utility lines on or about the premises, or who might be affected by the construction. The contractor shall also coordinate his activities with the utility companies to ensure compliance with the project schedule established by the General Contractor. The contractor shall make every effort to protect existing utility lines, and shall repair any damages at his own expense.

3. Unless otherwise specified, the contractor shall be responsible for his own construction staking.

4. The contractor shall be responsible for obtaining approved plans, work orders and connection permits required by the City of Vinita. The responsibility for the fees is established in the General Conditions.

5. All utility lines shall be backfilled and compacted in accordance with the Site Work Specifications or the City of Vinita Standard Specifications.

6. All utilities shall terminate five (5) feet outside the building unless otherwise noted. The end of all service lines shall be tightly capped or plugged and marked until such time as connections are made inside the building.

7. All materials shall be U.L. listed and Factory Mutual Approved unless otherwise directed by the owner's representative.

8. Use only pvc water pipe (class C900) and fittings for pipe over 3 inches in diameter. Pipe 3 inches and smaller shall be Type K copper unless otherwise stated in the Specifications. Fittings shall be copper or cast bronze. Joints shall be solder or flare tube type.

9. The contractor shall be responsible for providing and maintaining adequate erosion protection during construction and following construction, until such time as proper vegetation is reestablished.

10. The contractor shall be responsible for erecting and maintaining barricades and other traffic warning devices as necessary around the perimeter of construction and adjacent to any open trenches.

11. Those utilities which are public, shall be installed by a contractor licensed and bonded with the City of Vinita. All public utilities will require a separate work order from the City.

12. All valves, manhole lids and sewer clean-outs located in paved areas, shall be H-20 traffic rated.

13. The contractor shall be responsible for verifying elevations and adjusting all covers and lids in paved areas to finished grade. All field adjustments shall be noted and brought to the engineers attention for approval.

14. Construction access to the site shall be from public streets or highways unless otherwise directed by the engineer or the City.

15. All utilities located beneath paved surfaces shall be backfilled with crushed rock or approved material and compacted to 98% S.P.D compaction shall be accomplished by tamping.

16. The contractor shall notify City Traffic Management 48 hours prior to any street closing.

RED PLAINS PROFESSIONAL INC.
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Telephone: 405-341-4031, Fax: 405-341-4037
Certificate of Authorization No. 2926: June 30, 2021

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PROJECT
VINITA CULTURAL DEVELOPMENT CENTER

PROJECT
CHEROKEE NATION
VINITA, OKLAHOMA

KEY PLAN

No.	Description	Date

SHEET TITLE
SITE CONSTRUCTION NOTES

BID SET

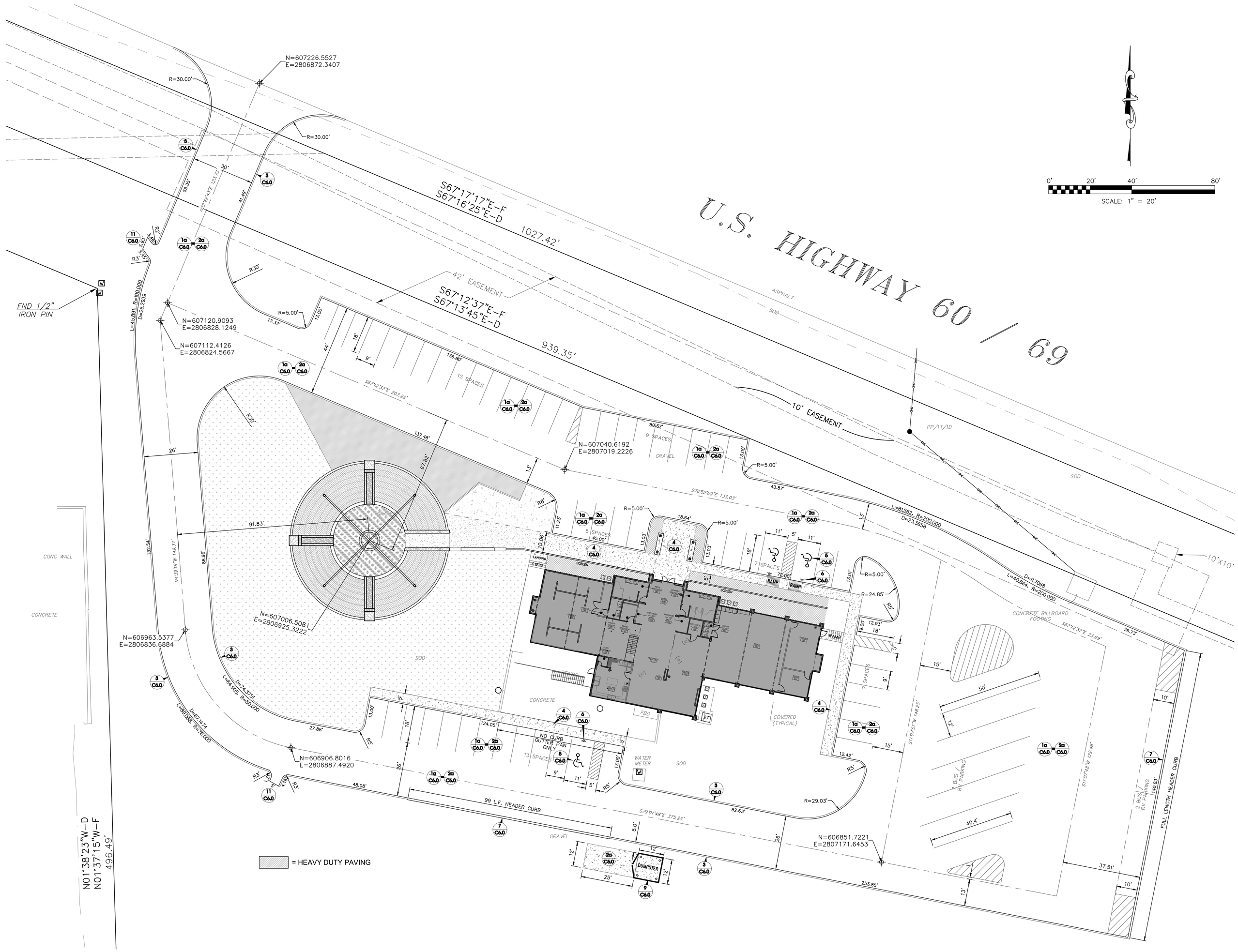
PROJECT NO: 111-049.20
DRAWN BY: JT
CHKD BY: MAF
ISSUE DATE: 5/7/2021

C0.1

Scale 1" = 20'

REGISTERED PROFESSIONAL ENGINEER
MARK ALLEN FARRIS
19398
05.07.21
OKLAHOMA

01 January 2000



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PROJECT
VINITA CULTURAL DEVELOPMENT CENTER

PROJECT
CHEROKEE NATION
VINITA, OKLAHOMA

KEY PLAN

No.	Description	Date

SHEET TITLE
SITE DIMENSION PLAN

BID SET

RED PLAINS PROFESSIONAL INC.
2933 S. Bryant Avenue, Edmond, Oklahoma 73013
Telephone: 405-341-4031, Fax: 405-341-4037
Certificate of Authorization No. 2926 June 30, 2021

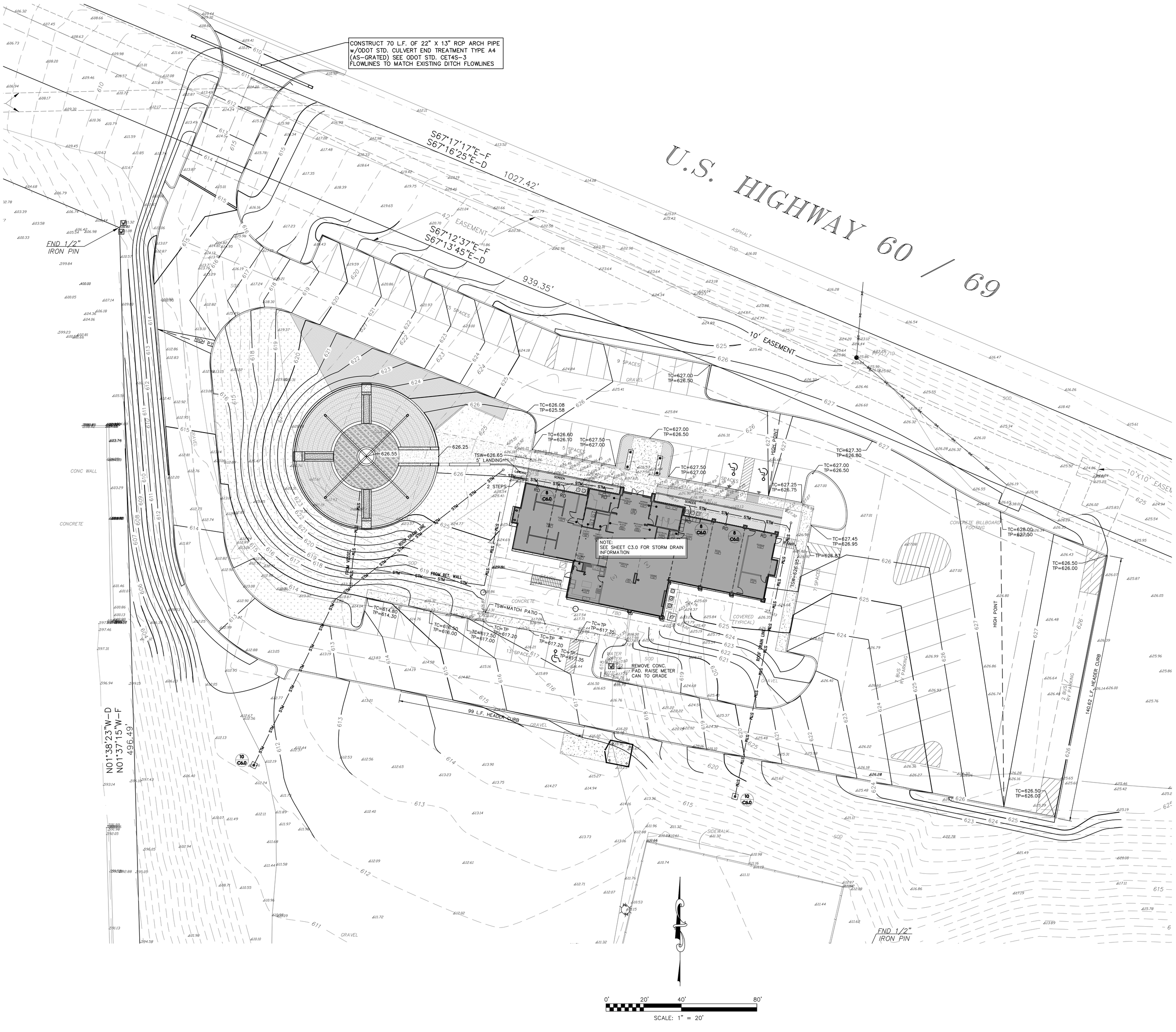
PROJECT NO: 111-049.20
DRAWN BY: JT
CHKD BY: MAF
ISSUE DATE: 5/7/2021

C1.0

Scale 1" = 20'

REGISTERED PROFESSIONAL ENGINEER
MARK ALLEN FARRIS
15198
05/07/21
OKLAHOMA

01 January 2000



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918.584.0102

PROJECT: VINITA CULTURAL DEVELOPMENT CENTER

PROJECT: CHEROKEE NATION VINITA, OKLAHOMA

KEY PLAN

No.	Description	Date

SHEET TITLE: SITE GRADING PLAN

BID SET

PROJECT NO: 111-049.20
DRAWN BY: JT
CHK'D BY: MAF
ISSUE DATE: 5/7/2021

C2.0

Scale 1" = 20'

REGISTERED PROFESSIONAL ENGINEER
MARK ALLEN FARRIS
15395
05/07/21
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RED PLAINS PROFESSIONAL INC.
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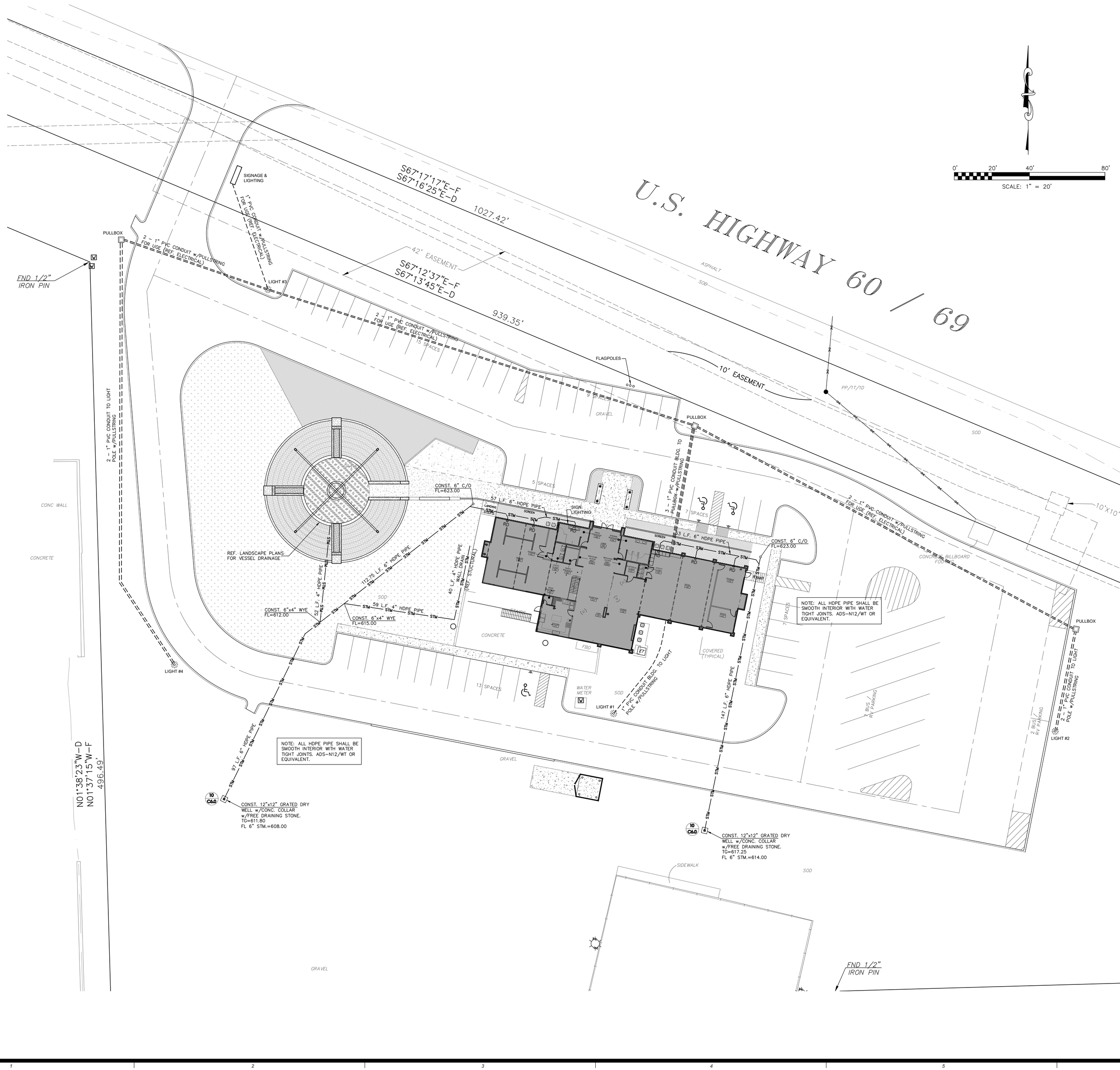
01 January, 2000



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PROJECT
VINITA CULTURAL DEVELOPMENT CENTER

PROJECT
CHEROKEE NATION
VINITA, OKLAHOMA

KEY PLAN

No.	Description	Date

SHEET TITLE
SITE UTILITY PLAN

BID SET

PROJECT NO: 111-049.20
DRAWN BY: JT
CHKD BY: MAF
ISSUE DATE: 5/7/2021

C3.0

Scale 1" = 20'

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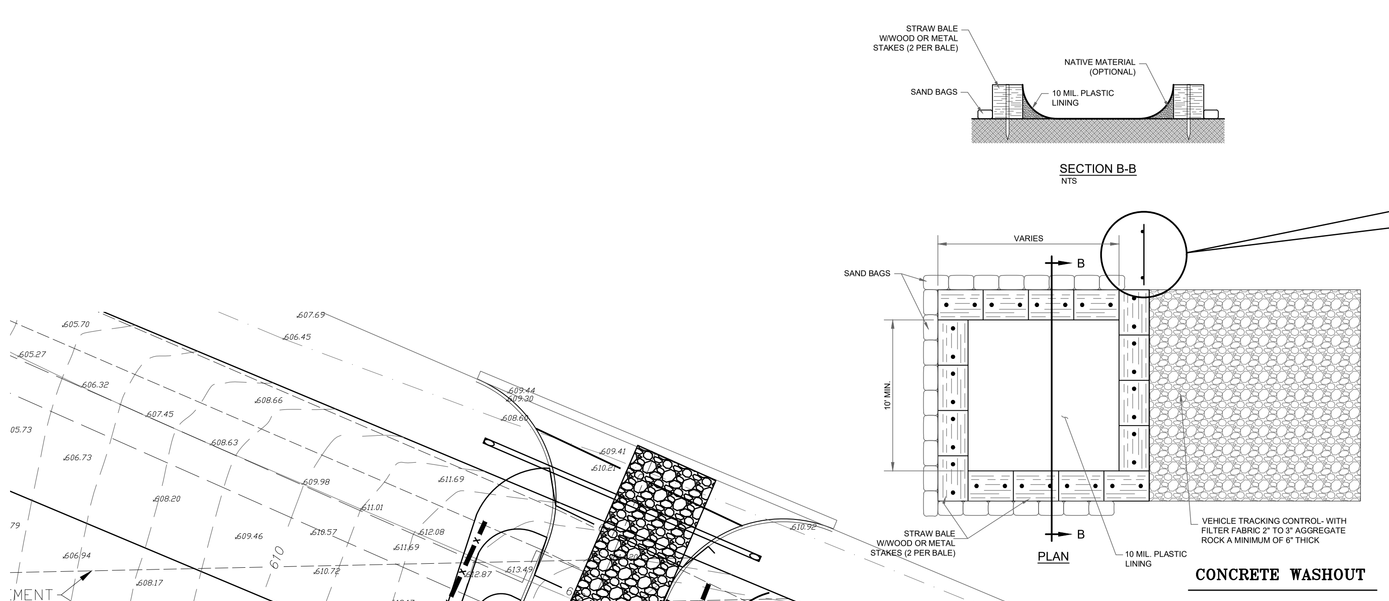
Certificate of Authorization No. 2926 June 30, 2021

REGISTERED PROFESSIONAL ENGINEER — MARK ALLEN FARRIS — 15198 — 05/07/21 — OKLAHOMA

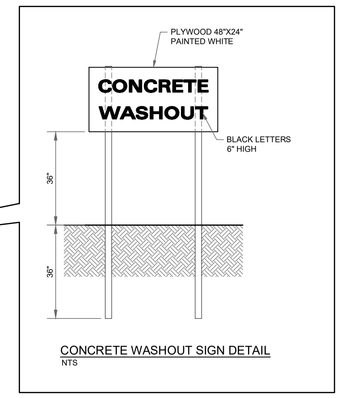
01 January 2000



SECTION B-B
NTS

PLAN

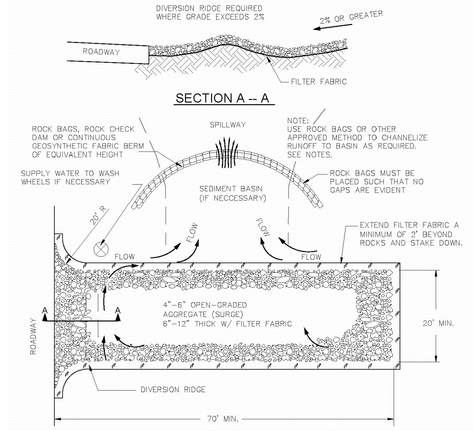
CONCRETE WASHOUT



CONCRETE WASHOUT SIGN DETAIL
NTS

NOTES:

1. CWA SHALL BE INSTALLED PRIOR TO CONCRETE PLACEMENT.
2. SEE PLAN VIEW FOR CWA INSTALLATION LOCATION. THE LOCATION OF ALL CONCRETE WASHOUT STRUCTURES MUST BE CONSTRUCTED WITH A MINIMUM SETBACK DIMENSIONS OF 5 FEET ABOVE GROUNDWATER, AND 50 FEET FROM THE TOP OF BANK OF PERENNIAL STREAM, OTHER SURFACE WATER BODY, OR WETLAND.
3. CWA SHALL INCLUDE A FLAT SURFACE PIT THAT IS A LEAST 10' X 10' WITH THE WALLS BUILT OF HAY BALES END TO END DOUBLE STAKES IN TO THE GROUND.
4. CWA MUST BE INSTALLED WITH A LOW PERMEABLE POLYPROPYLENE OR POLYETHYLENE GEOMEMBRANE WITH A MINIMUM 10-MIL. THICKNESS.
5. VEHICLE TRACKING PAD SHALL BE SLOPED TOWARDS THE CWA AND SHALL BE CONSTRUCTED WITH A FILTER FABRIC UNDER 2" TO 3" AGGREGATE ROCK A MINIMUM OF 6" THICK.
6. SIGNS SHALL BE PLACED AT THE CONSTRUCTION ENTRANCE, AT THE CWA AND ELSEWHERE AS NECESSARY TO CLEARLY INDICATE THE LOCATION OF THE CWA TO OPERATORS OF CONCRETE TRUCKS AND PUMP RIGS.

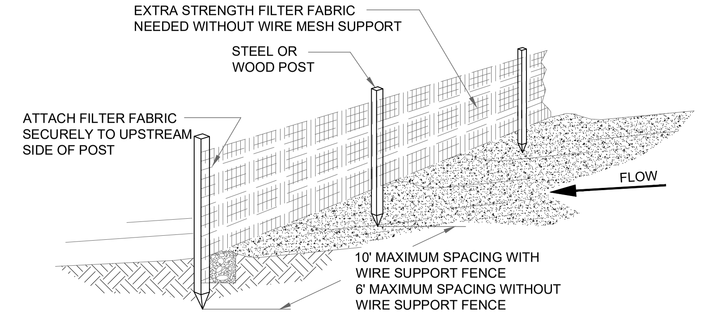


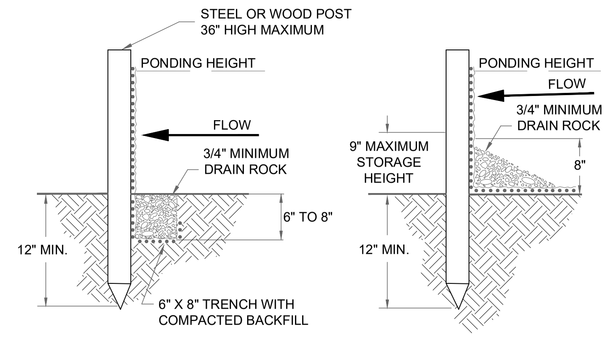
PLAN

NOTES:

1. A STABILIZED CONSTRUCTION ENTRANCE SHALL BE USED AT ALL POINTS OF CONSTRUCTION INGRESS AND EGRESS.
2. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY.
3. ALL SEDIMENT DEPOSITS ON PAVED ROADWAYS SHALL BE SWEPT AND REMOVED DAILY OR MORE FREQUENTLY AS NEEDED.
4. WHEN NECESSARY, WHEELS SHALL BE CLEANED PRIOR TO ENTRANCE ONTO PUBLIC RIGHT-OF-WAYS AND SHALL BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE THAT DRAINS INTO AN APPROVED SEDIMENT TRAP OR SEDIMENT BASIN.
5. INSTALL FILTER FABRIC AS BARRIER BETWEEN SUBGRADE AND SPECIFIED AGGREGATE. FILTER FABRIC TO EXTEND BEYOND AGGREGATE.
6. WHEN THE WIDTH OF THE ENTRANCE EXCEEDS 20', INSTALL SPECIFIED AGGREGATE FOR THE FULL WIDTH OF THE INGRESS/EGRESS POINT, OR INSTALL BARRICADES TO DIRECT VEHICULAR TRAFFIC TO THE CONSTRUCTION ENTRANCE.

TEMPORARY GRAVEL CONSTRUCTION ENTRANCE



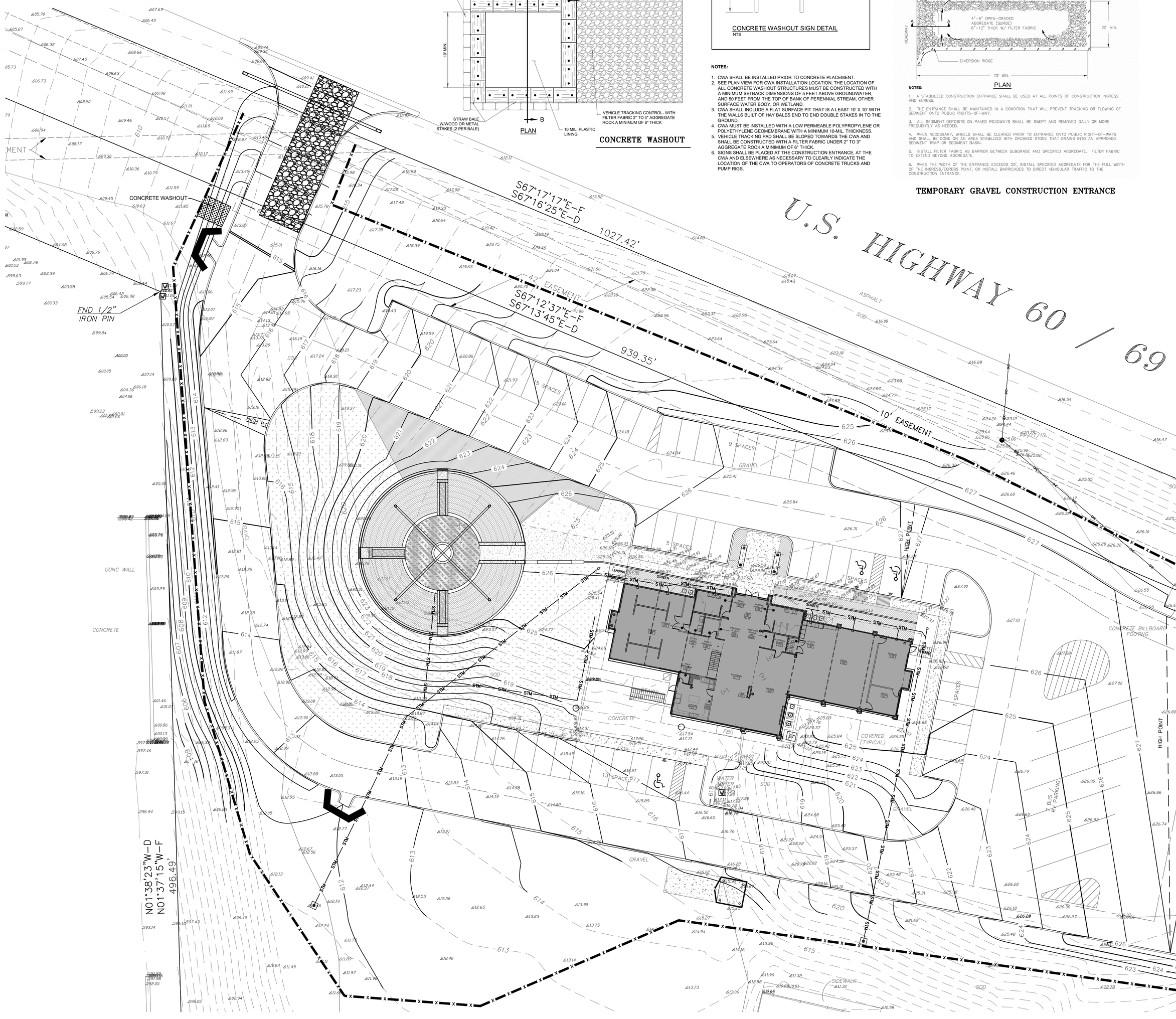


TRENCH DETAIL

INSTALLATION WITHOUT TRENCHING

NOTES:

1. MUST BE INSTALLED PROPERLY TO AVOID NOTICE OF VIOLATION.
2. SILT FENCE SHALL BE PLACED ON SLOPE CONTOURS TO MAXIMIZE PONDING EFFICIENCY.
3. INSPECT AND REPAIR FENCE AFTER EACH STORM EVENT AND REMOVE SEDIMENT WHEN NECESSARY. 9" MAXIMUM RECOMMENDED STORAGE HEIGHT.
4. REMOVED SEDIMENT SHALL BE DEPOSITED TO AN AREA THAT WILL NOT CONTRIBUTE TO SEDIMENT OFF-SITE AND CAN BE PERMANENTLY STABILIZED.



LEGEND

- FABRIC SILT FENCE
- GRAVEL CONST. ENTRANCE
- TRIANGULAR SILT BARRIER
- CONCRETE WASHOUT

0' 20' 40' 80'

SCALE: 1" = 20'

RED PLAINS PROFESSIONAL INC.
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Certificate of Authorization No. 2926 June 30, 2021

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VINITA CULTURAL DEVELOPMENT CENTER

PROJECT

CHEROKEE NATION
VINITA, OKLAHOMA

KEY PLAN

No.	Description	Date

SHEET TITLE

EROSION CONTROL PLAN

BID SET

PROJECT NO:	111-049.20
DRAWN BY:	JT
CHKD BY:	MAF
ISSUE DATE:	5/7/2021

C4.0

Scale 1" = 20'

REGISTERED PROFESSIONAL ENGINEER — MARK ALLEN FARRIS — 19398 — 05.07.21 — OKLAHOMA

01 January 2020

CHEROKEE CULTURAL CENTER
CONSTRUCTION POLLUTION PREVENTION PLAN

PROJECT NAME & LOCATION(Address):
CHEROKEE CULTURAL CENTER
HIGHWAY 60/69
VINITA, OK.

Operator Name and Address:
CHEROKEE NATION
TAHLEQUAH, OK.

Project Description: (Purpose and Types of Soil Disturbing Activities)
This project will consist of: construction of grading, drainage and asphalt paving, concrete sidewalks, and underground utilities. The work included under the specifications shall consist of furnishing all items, materials, operations, or methods listed, mentioned, indicated, or scheduled on the plans and/or the specifications.

Soil disturbing activities will include: clearing and grubbing; installing a stabilized construction entrance, perimeter, and other erosion and sediment controls; grading; excavation (or fill), rough and final grading around improvements, compaction of soil base, appropriate grading for drainage ; installing drainage imrovements; placing of roadway improvements; construction of the underground utilities and solid sod.

Suggested Sequence of Major Activities:
The general order of activities will be as follows: (May vary due to weather or other unforeseen conditions.)
1. Clear and Grub the existing site
2. Install Silt Fence & stablized constr. Entrance
3. Removal & Storage of topsoil
4. Earthwork, cut/fill and compaction
5. Install underground utilities
7. Construct roadways
8. Final grading and install sod & landscape.
9. Remove erosion controls and temporary drives.
10. Final clean-up and acceptance.

The Contractor is responsible for the following:

NOTICE OF INTENT (NOI):
The Contractor shall file EPA form 3510-9, as required by the provisions of the Clean Water Act, as amended, (33 U.S.C. 1251 et. seq. ; the Act). OBTAIN AND READ A COPY OF THE APPROPRIATE EPA STORM WATER CONSTRUCTION GENERAL PERMIT FOR THE AREA OF THE PROJECT. The Contractor should contact the Notice of Intent Processing Center at (703) 931-3230 with any questions or concerns. NOTICE OF INTENT (form 3510-9) must be filed 48 hours before construction begins.

Waste Materials:
All waste materials will be collected and stored in a secured area, a metal dumpster if necessary, will be rented from a licensed solid waste disposal company in the local area. The materials shall be placed in dump site which meets all State and Local regulations. All trash and construction debris from the site will be transported to an approved disposal site or to the City dump. All construction waste shall be hauled off-site as soon as practical to keep site safe during and after working hours. No large piles of debris shall be allowed to climb to a height over five feet above the existing grade on site. No construction waste materials will be buried on-site. All personnel will be instructed regarding the correct procedure(s) for waste disposal. Notices and information regarding these procedures will be posted and/or provided to appropriate personnel by the Contractor or the person responsible for the day-to-day construction activities and operations at this site. The Contractor is responsible for the implementation of these procedures throughout his contract for construction.

Hazardous Waste:
All hazardous waste materials will be disposed of in a manner specified by State or Local regulation or by the manufacturer. Site personnel will be instructed in any special procedures and/or practices by the Contractor's day-to-day manager of site operations.

Sanitary Waste:
All sanitary waste will be collected from the portable restroom units (if supplied) a minimum of once per week by a sanitary waste contractor to a location approved for disposal by State and Local regulations.

Offsite Vehicle Tracking:
A stabilized construction entry is required (more than one if needed) to reduce vehicle tracking of sediments. The paved street adjacent to the site entrance will be swept often or as necessary or directed to remove any excess mud, dirt or rock tracked from the site. Dump trucks hauling waste material from the construction site will be covered with a tarpaulin.

TIMING OF CONTROLS/MEASURES
The Sequence of Major Activities gives the general timing of the construction activities. Sediment and erosion controls identified in the plan will be installed immediately upon earthwork being initiated. Grading and stabilization of the site shall commence as soon as other improvements have been completed and approved by the City. Sodding of the areas indicated will take place as weather permits as soon as finish grading has been approved by the City. Temporary controls and measures will be removed when project has been final inspected and approved by the Building Department.

MAINTENANCE/INSPECTION PROCEDURES
Erosion and Sediment Control Inspection and Maintenance Practices
These are the inspection and maintenance practices Contractor will use to maintain erosion and sediment controls.
All control measures will be inspected at least once each week and following any storm event of 0.5 inches or greater.
All measures will be maintained in good working order; if a repair is necessary, it will be initiated within 24 hours of report.
Built up sediment will be removed from silt fence when it has reached one-third the height of the fence.
Silt fence will be inspected for depth of sediment, tears, to see if the fabric is securely attached to the fence posts, and to see that the fence posts are firmly in the ground.
Temporary and permanent seeding and planting will be inspected for bare spots, washouts, and healthy growth.
A maintenance inspection report will be made after each inspection. A copy of the report form to be completed by the inspector is attached.
Contractor's site superintendent will be responsible for filling out inspection and maintenance reports. Another individual will be selected as an alternate to be responsible for inspections, maintenance and repair activities, and filling out the inspection and maintenance report should the superintendent by unavailable.
Personnel selected for inspection and maintenance responsibilities will receive training from Contractor. They will be trained in all the inspection and maintenance practices necessary for keeping the erosion and sediment controls used onsite in good working order.
Non-Storm Water Discharges
It is expected that the following non-storm water discharges will occur from the site during the construction period:
Pavement wash waters (where no spills or leaks of toxic or hazardous materials have occurred).

LOCATIONS OF UNDERGROUND UTILITIES WERE OBTAINED FROM THE UTILITY OWNERS. BEFORE DOING ANY WORK WITH HEAVY EQUIPMENT, THE CONTRACTOR SHALL NOTIFY THE UTILITY OWNERS OR "CALL OKIE (OKLAHOMA ONE-CALL)" NOT LESS THAN 48 HOURS IN ADVANCE AND SHALL ESTABLISH THE EXACT LOCATION AND DEPTH OF ALL UNDERGROUND UTILITIES.

CERTIFICATION OF COMPLIANCE WITH FEDERAL, STATE, AND LOCAL REGULATIONS
This storm water pollution prevention plan reflects the guidelines set forth by in the EPA's general Construction Activities, EPA 833-R-92-001.

INVENTORY FOR POLLUTION PREVENTION PLAN

The materials or substances listed below are expected to be present onsite during construction:

Concrete	Fertilizers	Asphalt	Detergents
PVC pipe	Paints (enamel)	Cleaning solvents	
Metal columns and roofs	Petroleum based products	Wood and wood products	Sand and limestone rock

SPILL PREVENTION
Material Management Practices
The following are the material management practices that will be used to reduce the risk of spills or other accidental exposure of materials and substances to storm water runoff.

Good Housekeeping:
The following good housekeeping practices will be followed onsite during the construction project.
An effort will be made to store only enough product required to do the job
All materials stored onsite will be stored in a neat, orderly manner in their appropriate containers and, if possible, under a roof or other enclosure.
Products will be kept in their original containers with the original manufacturer's label.
Substances will not be mixed with one another unless recommended by the manufacturer.
Manufacturers' recommendations for proper use and disposal will be followed.
The site superintendent will inspect daily to ensure proper use and disposal of materials onsite.

Hazardous Products:
These practices are used to reduce the risks associated with hazardous materials.
Products will be kept in original containers unless they are not resealable
Original labels and material safety data will be retained; they contain important product information
If surplus product must be disposed of, manufacturers' or local and State recommended methods for proper disposal will be followed.
The following product specific practices will be followed onsite:

Petroleum Products:
All onsite vehicles will be monitored for leaks and receive regular preventive maintenance to reduce the chance of leakage. Petroleum products will be stored in tightly sealed containers which are clearly labeled. Any asphalt substances used onsite will be applied according to the manufacturer;s recommendations.

Fertilizers:
Fertilizers used will be applied only in the minimum amounts recommended by the manufacturer. Once applied, fertilizer will be worked into the soil to limit exposure to storm water. Storage will be in a covered shed. The contents of any partially used bags of fertilizer will be transferred to a sealable plastic bin to avoid spills.

Paints:
All containers will be tightly sealed and stored when not required for use. Excess paint will not be discharged to the storm sewer system but will be properly disposed of according to manufacturers' instructions of state and local regulations.

Concrete Trucks:
The Contractor will establish a single wash-out basin for concrete trucks. Concrete trucks will only be allowed to wash out or discharge surplus concrete or drum wash water on the site at this location. When the project is completed, and as a part of the final clean-up, the Contractor will be responsible for removing all concrete spoils and waste in the basin to an off-site location. The basin area will be filled with dirt, compacted, graded, sodded and restored to original condition or better.

Spill Control Practices
In addition to the good housekeeping and material management practices discussed in the previous sections of this plan, the following practices will be followed for spill prevention and cleanup:
Manufacturers' recommended methods for spill cleanup will be followed and site personnel will be made aware of the procedures and the location of the information and cleanup supplies.
Materials and equipment necessary for spill cleanup will be readily available. Equipment and materials may include, but not be limited to brooms, dust pans, mops, rags, gloves, goggles, kitty litter, sand sawdust, and plastic and metal trash containers specifically for this purpose.
All spills will be cleaned up immediately after discovery.
The spill area will be kept well ventilated and personnel will wear appropriate protective clothing to prevent injury from contact with a hazardous substance.
Spills of toxic or hazardous material will be reported to the appropriate state or local government agency, regardless of the size.
The spill prevention plan will be adjusted to include measures to prevent this type of spill from reoccurring and how to clean up the spill if there is another one. A description of the spill, what caused it, and the cleanup measures will also be included.
The Contractor's site superintendent responsible for the day-to-day site operations, will be the spill prevention and cleanup coordinator. He will designate at least one other site person who will be in responsible chare upon the Site superintendant absence and will be aware of spill prevention and cleanup methods. The names of responsible spill personnel will be available to inspection personnel.

RED PLAINS PROFESSIONAL INC.
2933 S. Bryant Avenue, Edmond, Oklahoma 73013
Telephone: 405-341-4031, Fax: 405-341-4037
Certificate of Authorization No. 2926 June 30, 2021

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PROJECT: VINITA CULTURAL DEVELOPMENT CENTER

PROJECT
CHEROKEE NATION
VINITA, OKLAHOMA

KEY PLAN

No.	Description	Date

SHEET TITLE
POLLUTION PREVENTION PLAN

BID SET

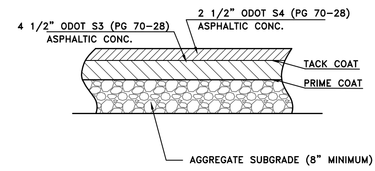
PROJECT NO: 111-049.20
DRAWN BY: JT
CHK'D BY: MAF
ISSUE DATE: 5/7/2021

C5.0

Scale 1" = 20'

REGISTERED PROFESSIONAL ENGINEER — MARK ALLEN FARRIS — 15198 — 05/07/21 — OKLAHOMA

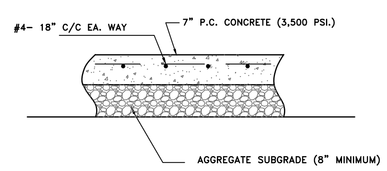
© January 2020



1 **DETAIL**
ASPHALT PAVING SECTION (RESERVED) SCALE: NONE

1a **DETAIL**
ASPHALT PAVING SECTION SCALE: NONE

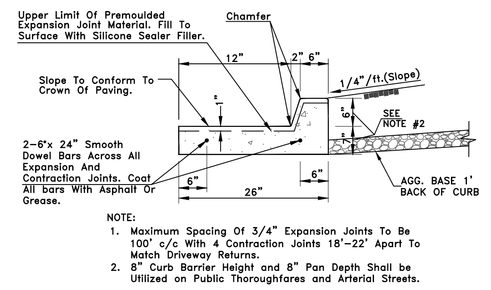
NOTE: ASPHALT AND CONGRETE PAVING SECTIONS PROVIDED BY OWNER.



2 **DETAIL**
CONCRETE PAVING SECTION (RESERVED) SCALE: NONE

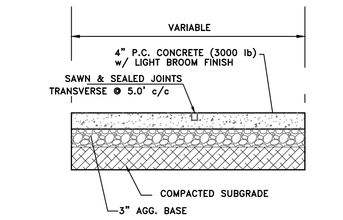
2a **DETAIL**
CONCRETE PAVING SECTION SCALE: NONE

NOTE: AGG. SUBGRADE SHALL EXTEND MIN. 1' BACK OF CURB

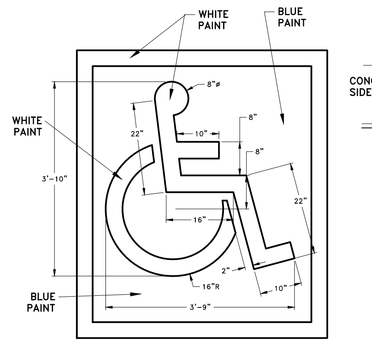


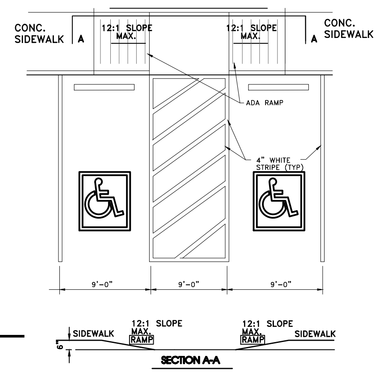
NOTE:
1. Maximum Spacing Of 3/4" Expansion Joints To Be 100' c/c With 4 Contraction Joints 18'-22' Apart To Match Driveway Returns.
2. 8" Curb Barrier Height and 8" Pan Depth Shall be Utilized on Public Thoroughfares and Arterial Streets.

3 **DETAIL**
CONCRETE CURB & GUTTER DETAIL 6' BARRIER PARKING LOT CURB SCALE: NONE

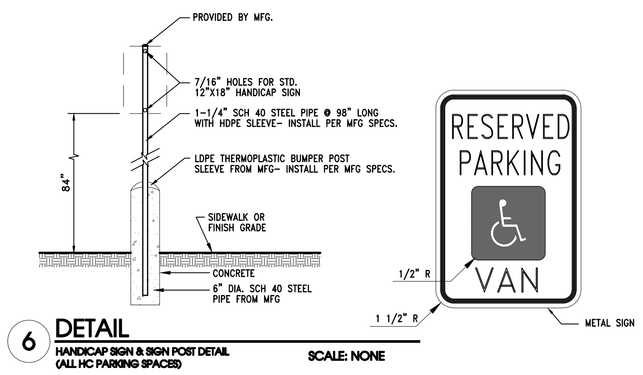


4 **DETAIL**
SIDEWALK DETAIL SCALE: NONE

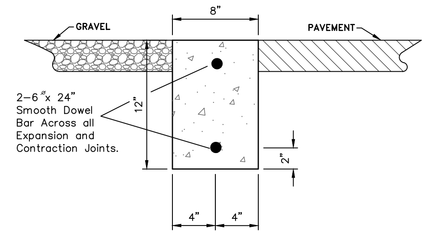




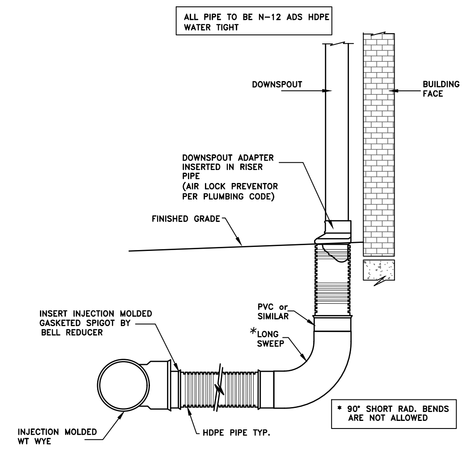
5 **DETAIL**
HANDICAP PARKING, MARKING & SIDEWALK DETAIL (PER LATEST MUTCD EDITION) SCALE: NONE



6 **DETAIL**
HANDICAP SIGN & SIGN POST DETAIL (ALL HC PARKING SPACES) SCALE: NONE

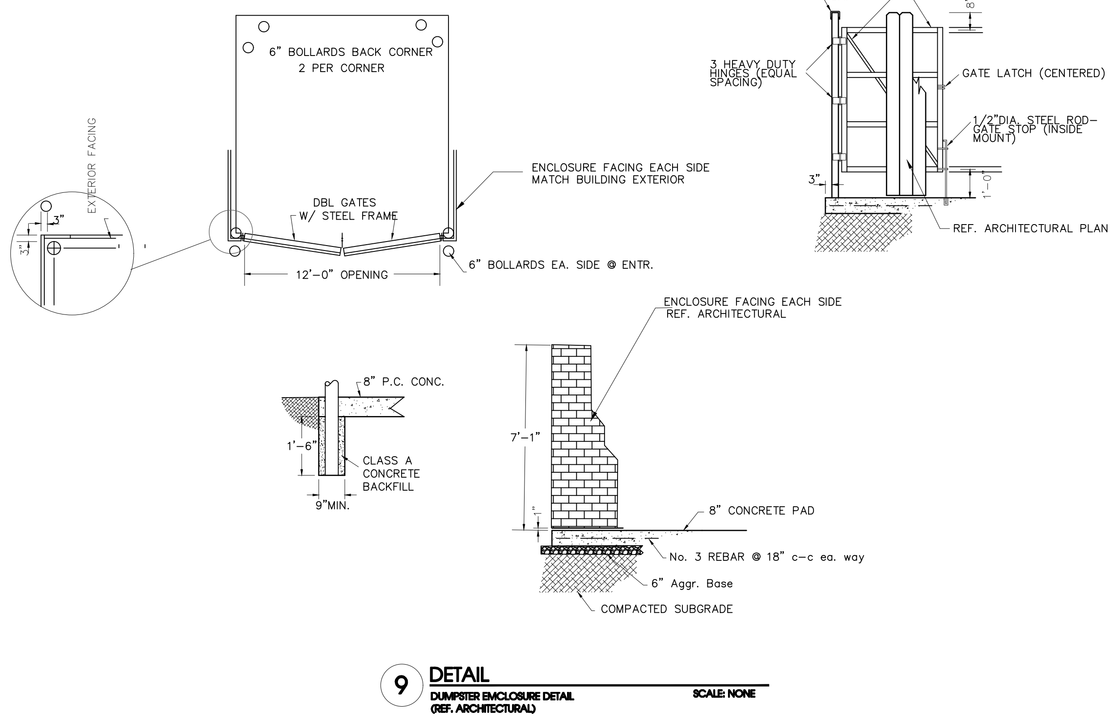


7 **DETAIL**
CONCRETE HEADER CURB SCALE: NONE

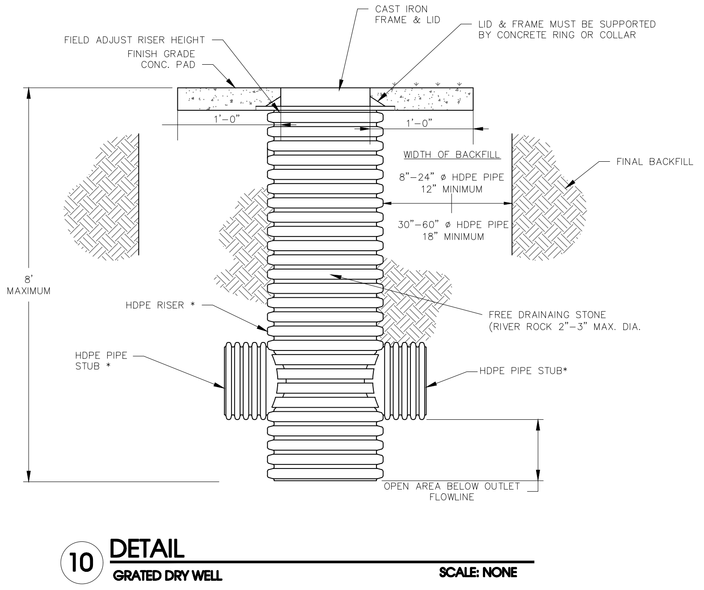


ROOF DOWNSPOUT DRAIN (N-12 ADS)

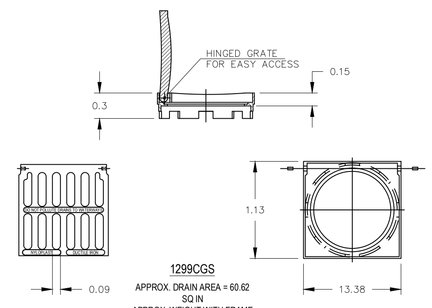
8 **DETAIL**
ROOF DRAIN CONNECTION DETAIL SCALE: NONE



9 **DETAIL**
DUMPSTER ENCLOSURE DETAIL (REF. ARCHITECTURAL) SCALE: NONE

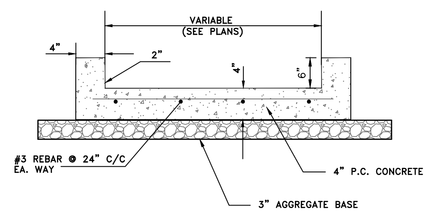


10 **DETAIL**
GRATED DRY WELL SCALE: NONE



1299CGS
APPROX. DRAIN AREA = 60.62 SQ IN
APPROX. WEIGHT WITH FRAME = 40.68 LBS

AREA DRAIN FRAME & GRATE DETAIL



11 **DETAIL**
CONCRETE FLUME SCALE: NONE

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PROJECT
VINITA CULTURAL DEVELOPMENT CENTER

PROJECT
CHEROKEE NATION
VINITA, OKLAHOMA

KEY PLAN

No.	Description	Date

SHEET TITLE
SITE CONSTRUCTION DETAILS

BID SET

RED PLAINS PROFESSIONAL INC.
2933 S. Bryant Avenue, Edmond, Oklahoma 73013
Telephone: 405-341-4031, Fax: 405-341-4037
Certificate of Authorization No. 2926 June 30, 2021

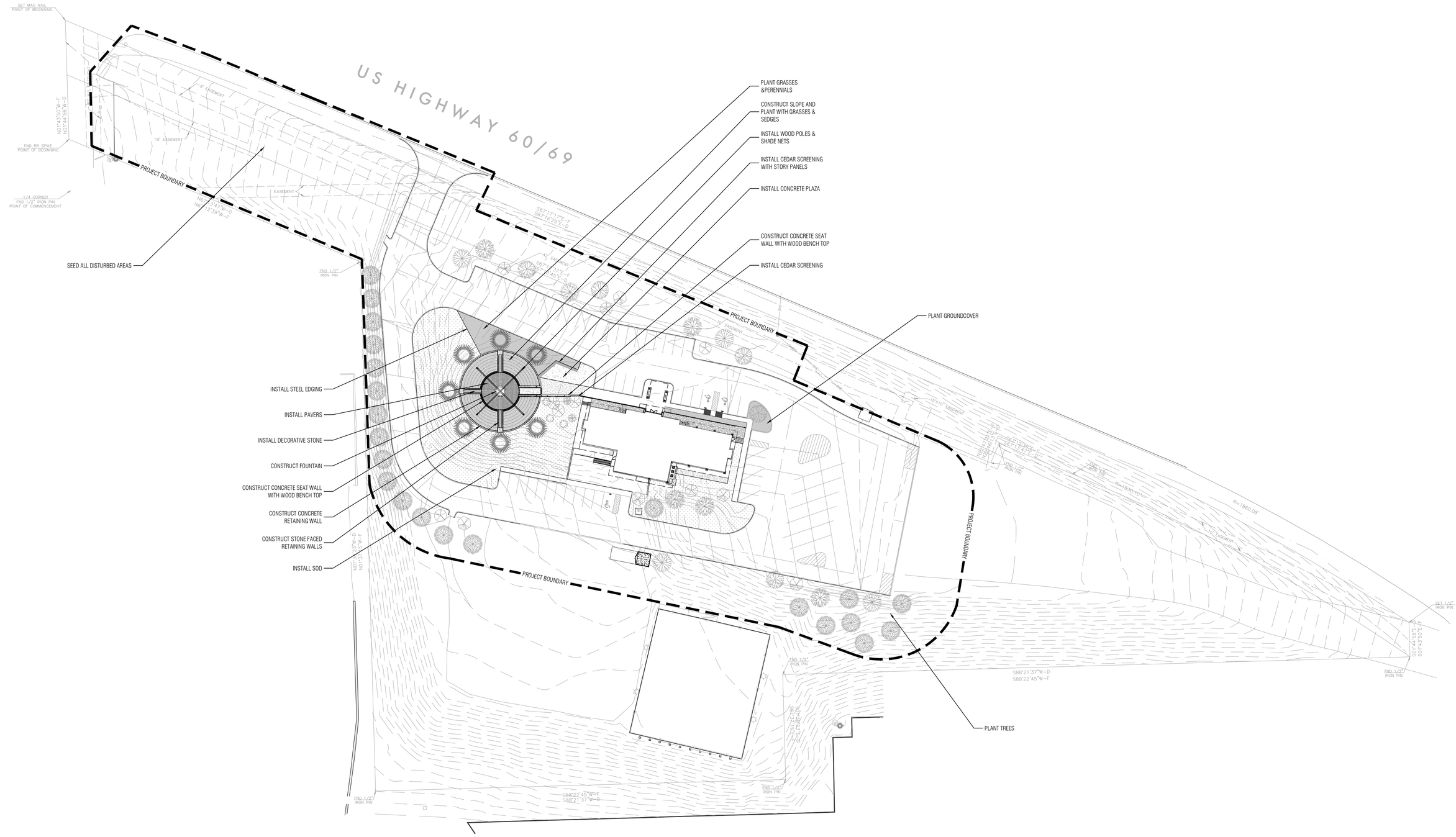
PROJECT NO: 111-049.20
DRAWN BY: JT
CHKD BY: MAF
ISSUE DATE: 5/7/2021

C6.0

Scale 1" = 20'

REGISTERED PROFESSIONAL ENGINEER — MARK ALLEN FARRIS — 15198 — OKLAHOMA — 05/07/21

01 January 2000



SITE PLAN

1" = 50' — 0' 50' 100' 150'

GENERAL NOTES

1. WORK PERFORMED SHALL COMPLY WITH THE FOLLOWING:
   A. THESE GENERAL NOTES, AND CONSTRUCTION DOCUMENTS AND SPECIFICATIONS.
   B. ALL APPLICABLE LOCAL, STATE, AND FEDERAL CODES, ORDINANCES AND REGULATIONS. ALL CODES LISTED IN SPECIFICATIONS AND DRAWINGS SHALL BE INCLUSIVE OF ALL CODES, REGULATIONS AND REQUIREMENTS ADOPTED BY THE STATE OF OKLAHOMA AND THE CITY OF VINITA, INCLUDING ALL AMENDMENTS.
2. SOURCE OF BASE INFORMATION IS ASSUMED TO BE CORRECT. REPORT ANY DISCREPANCIES IMMEDIATELY TO THE OWNER'S REPRESENTATIVE.
3. IT IS THE CONTRACTORS RESPONSIBILITY TO BE FAMILIAR WITH AND TO LOCATE ALL EXISTING SITE CONDITIONS,UNDERGROUND UTILITIES, DROP WIRES, POLES, PIPES, AND OTHER SUBSTRUCTURES AND TO PROTECT THEM FROM DAMAGE. THE EXPENSE OF REPAIR, BODILY INJURY, OR REPLACEMENT OF SAID SUBSTRUCTURES INCLUDING DAMAGE OF THE OWNER'S PROPERTY SHALL BE BORN BY THE CONTRACTOR. THE CONTRACTOR SHALL HAND DIG FOOTINGS, TREE WELLS, PLANTING BEDS, ETC. AS REQUIRED. CONTRACTOR RESPONSIBLE FOR CONTACTING UTILITY COMPANIES PRIOR TO EXCAVATION.
4. THE CONTRACTOR SHALL PROTECT ALL EXISTING UTILITIES, LANDSCAPING, AND FEATURES TO REMAIN ON/OR ADJACENT TO THE PROJECT SITE DURING CONSTRUCTION. CONTRACTOR SHALL REPAIR, AT HIS OWN EXPENSE, ALL DAMAGE RESULTING FROM HIS OPERATIONS OR NEGLIGENCE.
5. THE CONTRACTOR SHALL NOTIFY OWNER'S REPRESENTATIVE OR LANDSCAPE ARCHITECT 48 HOURS PRIOR TO COMMENCEMENT OF WORK TO COORDINATE PROJECT INSPECTION SCHEDULES. CONTRACTOR SHALL FURNISH ALL LABOR, MATERIALS, EQUIPMENT AND SERVICES NECESSARY TO PROVIDE ALL WORK. WORK TO BE COMPLETED IN PLACE AS SPECIFIED.
6. ALL MATERIALS SHALL BE OF STANDARD, APPROVED AND FIRST GRADE QUALITY AND SHALL BE IN PRIME CONDITION WHEN INSTALLED AND ACCEPTED. ALL MATERIALS SHALL BE SUBMITTED TO THE LANDSCAPE ARCHITECT FOR APPROVAL BEFORE INSTALLATION.
7. ALL WORK AREAS SHALL BE CORDONED OFF OR FENCED DURING CONSTRUCTION.
8. A COPY OF THE EROSION CONTROL SITE PLAN MUST BE ON SITE AT ALL TIMES AND MADE AVAILABLE TO THE INSPECTOR UPON REQUEST.
9. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REPAIR OR REPLACEMENT OF ALL EROSION CONTROL DEVICES DAMAGED DUE TO CONSTRUCTION.

LAYOUT NOTES

1. ON-SITE VERIFICATION OF ALL DIMENSIONS AND CONDITIONS SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR. NOTED DIMENSIONS TAKE PRECEDENCE OVER SCALE, LARGER SCALE OVER SMALLER SCALE, ADDENDA AND CLARIFICATIONS OVER PREVIOUS DOCUMENTS.
2. CONTRACTOR TO LAY OUT HARDSCAPE ELEMENTS AND VERIFY LAYOUT WITH LANDSCAPE ARCHITECT PRIOR TO CONSTRUCTION. HARDSCAPE ELEMENTS ARE DIMENSIONED ON THE LANDSCAPE LAYOUT PLAN. ANY DISCREPANCIES OR CONFLICTS WITH EXISTING CONDITIONS OR OTHER DRAWINGS SHALL BE REPORTED TO THE LANDSCAPE ARCHITECT IMMEDIATELY FOR PROPER CLARIFICATION OR ADJUSTMENT.
3. FOR DIMENSIONS OF EXISTING BUILDINGS, PROPOSED BUILDING IMPROVEMENTS, AND RELATED WORK, REFER TO THE ARCHITECTURAL AND OR CIVIL DRAWINGS.
4. INSTALL INTERSECTING ELEMENTS AT 90 DEGREE ANGLES TO EACH OTHER UNLESS OTHERWISE NOTED.
5. "SAND BACKFILL" IS NOT PERMITTED. LIMESTONE SCREENINGS , CRUSHER RUN, RECYCLED PC CONCRETE OR OTHER APPROVED AGGREGATE SHALL BE USED AS BACKFILL MATERIAL. THE MATERIAL SHALL BE DAMPENED AND HAND TAMPED IN LIFTS NOT EXCEEDING FOUR (4) INCHES IN DEPTH. ANY REFERENCE TO "SAND BACKFILL"CONTAINED IN THESE PLANS AND/OR SPECIFICATIONS IS REPLACED BY THIS REQUIREMENT. UNLESS OTHERWISE PROVIDED, INCLUDE COST IN THE PRICE BID FOR OTHER ITEMS OF WORK.

PLANTING NOTES

BY USE OF THESE DRAWINGS BEARING THE SEAL AND SIGNATURE OF THE LANDSCAPE ARCHITECT, FOR ANY REASON, THE USER ACKNOWLEDGES AND ACCEPTS THE FOLLOWING:

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAKING HIMSELF FAMILIAR WITH UNDERGROUND UTILITIES AND STRUCTURES. THE CONTRACTOR SHALL TAKE SOLE RESPONSIBILITY FOR ANY COST INCURRED TO DAMAGE OF SAID UTILITIES OR STRUCTURES IF PROPER VERIFICATION BY CONTRACTOR WAS NOT PERFORMED.

2. DO NOT WILLFULLY PROCEED WITH PLANTING OPERATIONS AS DESIGNED WHEN IT IS OBVIOUS THAT OBSTRUCTIONS AND/OR GRADE DIFFERENCES EXIST THAT WERE NOT KNOWN DURING THE DESIGN PROCESS. SUCH CONDITIONS SHALL IMMEDIATELY BE BROUGHT TO THE ATTENTION OF THE OWNER AND LANDSCAPE ARCHITECT. THE CONTRACTOR SHALL ASSUME ALL RESPONSIBILITY FOR ALL NECESSARY CHANGES DUE TO FAILURE TO GIVE SUCH NOTIFICATION.

3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY COORDINATION WITH SUBCONTRACTORS AS REQUIRED TO ACCOMPLISH PLANTING OPERATIONS.

4. ANY DISCREPANCIES BETWEEN THE NOTES AND PLANS SHALL BE BROUGHT TO THE ATTENTION OF THE LANDSCAPE ARCHITECT FOR RESOLUTION.

5. IF CONFLICTS ARISE BETWEEN THE ACTUAL SIZE OF THE AREAS ON SITE AND THE DRAWINGS THE CONTRACTOR SHALL CONTACT THE OWNER'S AUTHORIZED REPRESENTATIVE FOR RESOLUTION. THE CONTRACTOR SHALL ASSUME ALL RESPONSIBILITY FOR NECESSARY REVISIONS DUE TO FAILURE TO GIVE SUCH NOTIFICATION.

6. AFTER FINISH GRADES HAVE BEEN ESTABLISHED FOR ALL ON-GRADE PLANTING AREAS, THE CONTRACTOR SHALL HAVE SOIL SAMPLES TESTED BY A QUALIFIED SOILS TESTING LABORATORY FOR SOIL FERTILITY, AGRICULTURAL SUITABILITY, AND SOIL PREPARATION RECOMMENDATIONS. THE CONTRACTOR MAY BE REQUESTED TO AMEND THE SOIL TO CONFORM TO THE RECOMMENDATIONS, HOWEVER, ANY AMENDMENT THAT MIGHT BE REQUESTED OF THE CONTRACTOR SHALL ONLY BE UPON RECEIPT OF WRITTEN CHANGE ORDER FROM OWNER.

7. REFER TO DRAWINGS FOR PLANTING REQUIREMENTS, MATERIALS, AND EXECUTION. MULCH SHALL BE CEDAR.

8. ALL TREES SHALL BE TAGGED BY THE LANDSCAPE ARCHITECT.

9. FINAL LOCATION OF ALL PLANT MATERIAL SHALL BE SUBJECT TO THE REVIEW AND APPROVAL OF THE LANDSCAPE ARCHITECT. CONTRACTOR SHALL COMPLETE THE FOLLOWING TASKS BEFORE BEGINNING PLANTING OPERATIONS:

   SHRUBS- LAYOUT CONTAINER LOCATIONS FOR APPROVAL BY LANDSCAPE ARCHITECT ONSITE PRIOR TO DIGGING HOLES FOR PLANTING.

   TREES- STAKE ALL TREE LOCATIONS FOR APPROVAL BY LANDSCAPE ARCHITECT PRIOR TO DIGGING HOLES FOR PLANTING. ANY TREE PLANTED WITHOUT ITS FINAL LOCATION APPROVED BY THE LANDSCAPE ARCHITECT IS SUBJECT TO RELOCATION AT THE SOLE EXPENSE OF THE CONTRACTOR. ENSURE PROPER COORDINATION OF ALL FOOTINGS, SUB-STRUCTURE AND UTILITIES.

   ELECTRICAL- STAKE THE LOCATIONS FOR APPROVAL BY LANDSCAPE ARCHITECT PRIOR TO INSTALLATION. REVIEW WITH PROPOSED TREE STAKING MENTIONED ABOVE. ANY SITE LIGHTING INSTALLED WITHOUT ITS FINAL LOCATION APPROVED BY THE LANDSCAPE ARCHITECT IS SUBJECT TO RELOCATION AT THE SOLE EXPENSE OF THE CONTRACTOR.

10. THE CONTRACTOR SHALL ALWAYS ASSUME THE SMALLER SIZE OF EACH PLANT WHEN A RANGE IS GIVEN CONCERNING SPACING, i.e.PLANT TYPE IS 12" TO 18" WIDE. THE CONTRACTOR SHALL USE 12" (THE SMALLER SIZE) TO ESTIMATE PLANTS REQUIRED TO FILL A GIVEN AREA.

11. SPECIAL WARRANTY: WARRANT THE FOLLOWING PLANTS, FOR THE WARRANTY PERIOD INDICATED, AGAINST DEFECTS AND/OR LOSS RESULTING FROM MATERIALS AND EXECUTION INCLUDING DEATH AND UNSATISFACTORY GERMENANTION/GROWTH, BUT EXCLUDING DAMAGE AND/OR LOSS RESULTING FROM MAINTENANCE, NEGLECT, ABUSE, VANDALISM, THEFT BY OTHERS AND/OR UNSEASONAL SEVERE WEATHER CONDITIONS.

12. WARRANTY PERIOD FOR TURF, GRASSES, SHRUBS TREES AND ALL VEGETATION: TWELVE MONTHS FROM DATE OF SUBSTANTIAL COMPLETION.

13. WARRANTY REPLACEMENTS: REMOVE DEAD AND/OR DEFECTIVE PLANTS IMMEDIATELY AND REPLACE WITHIN THIRTY DAYS WHEN WEATHER CONDITIONS PERMIT BUT BEFORE FINAL COMPLETION. MATCH SIZE AND SPECIES OF ADJACENT PLANTS. REINSTATE THE WARRANTY FOR THE CORRECTED WORK FROM DATE WHEN THE CORRECTION IS COMPLETED.

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PROJECT: VINITA CULTURAL DEVELOPMENT CENTER

PROJECT: CHEROKEE NATION, OKLAHOMA

KEY PLAN

No.	Description	Date
1	100% CD SET	05/07/21

SHEET TITLE: SITE PLAN AND GENERAL NOTES

05/17/21 ASI 1

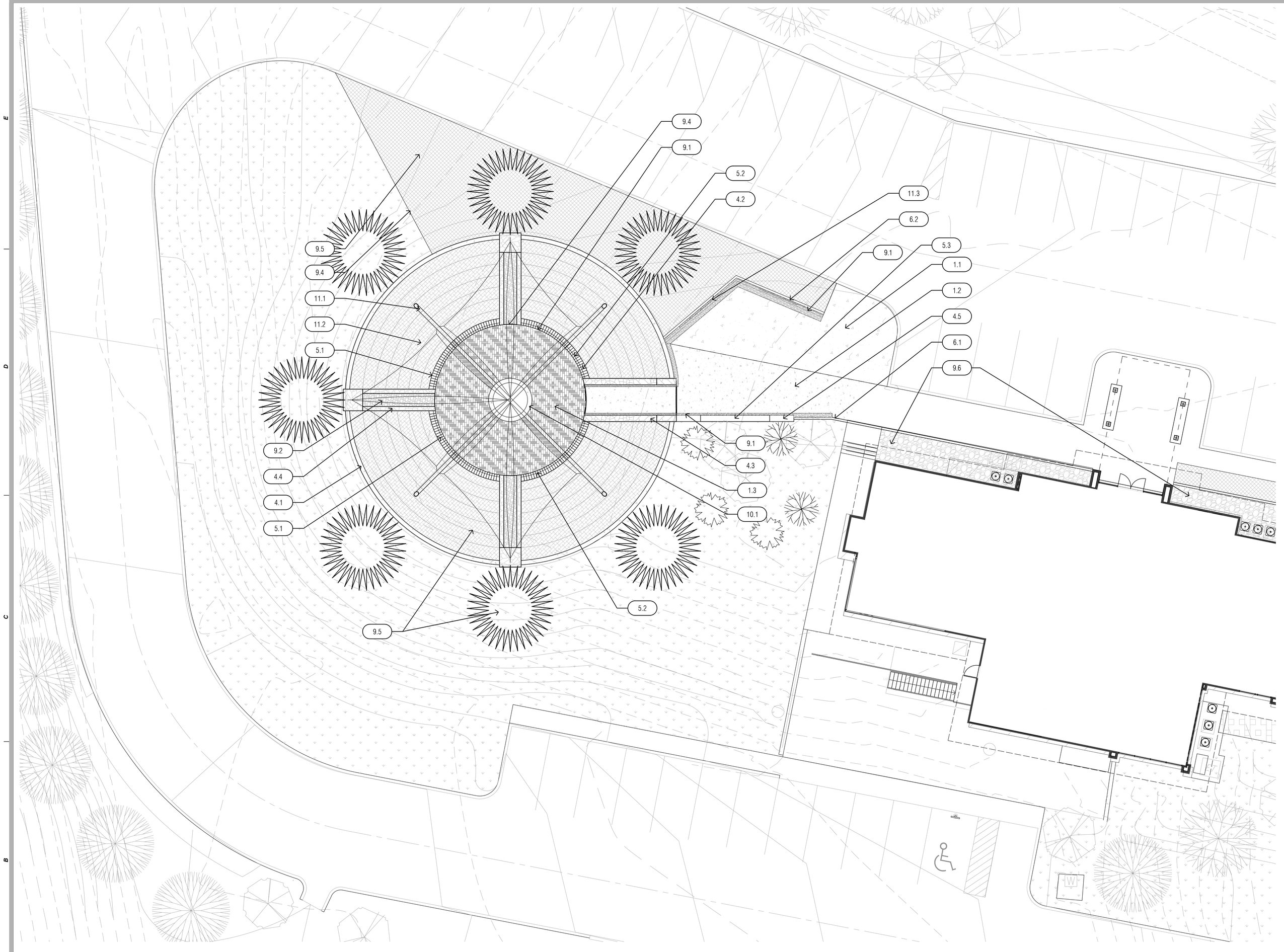
PROJECT NO: 111-049.20
DRAWN BY: JCL
CHK'D BY: BW
ISSUE DATE: 5/17/2021

L0.01

Scale: As indicated

STATE OF OKLAHOMA — BRENT WALL — #374 — LANDSCAPE ARCHITECT

CA# 02418



MATERIALS PLAN

1" = 10'

0' 10' 20' 30'

MATERIALS SCHEDULE

1.0	PAVEMENTS	MANUFACTURER	DETAILS
1.1	Portland Grey Concrete, Finish: Light Broom		RE: 4/C6.0
1.2	Integrated Color Concrete, Color: Mesa Bluff, Finish: Rock Salt	Davis Colors	RE: 1/L7.01
1.3	Industria Granitex Pavers, Colors:Beige Cream, Chestnut Brown, Onyx Black, Pattern: Custom	Techo Bloc	RE: 1,2,5/L7.01
2.0	JOINTING - NOT USED AT THIS TIME		
3.0	STEPS - NOT USED AT THIS TIME		
4.0	SITE WALLS		
4.1	Concrete Retaining Wall, 7'-0" H x 0'-12" D x 215'-3.75" L, Integrated Color: Mesa Bluff, Formliner: Custom Spiral	Davis Colors, Creative Formliners	RE: 5/S501 & 4/L7.01
4.2	Concrete Retaining Wall (Seat), 1'-3" H x 1'-6" D x 84'-9.5" L, Integrated Color: Mesa Bluff	Davis Colors	RE: 1/L7.02
4.3	Concrete Retaining Wall w. Stone Facing to Match Existing Building, 1'-6" D, Height:7'-6" max, 18" min		RE: 3/L7.02
4.4	Concrete Retaining Wall w. Stone Facing to Match Existing Building, 1'-0" D Height:7'-6" max, 18" min		RE: 1/L7.01
4.5	Concrete Seat Wall, 1'-3" H x 1'-0" D		RE: 1/L7.02
5.0	SITE FURNISHINGS		
5.1	Radius Bench Seat, Long Segment Mount: Wall	Custom	RE: 1/L7.02
5.2	Radius Bench Seat, Short Segment Mount: Wall	Custom	RE: 1/L7.02
5.3	Straight Bench Seat, Mount: Wall	Custom	RE: 1/L7.02
6.0	RAILINGS, BARRIERS, AND FENCING		
6.1	Cedar Screen	Custom	RE: 2/A501
6.2	Cedar Screen for CHPL Panels, Height: 7'	Custom	RE: 9/L7.01
7.0	SITE LIGHTING - RE: Lighting Plan L/6.01		
8.0	DRAINAGE		
8.1	4" Perforated Drain Line		RE: 2/L7.01
8.2	Solid Wall PVC Sch. 40, See Civil for continuation		
9.0	LANDSCAPE		
9.1	Aztec Stone, Size: 5/8"-7/8", Depth: 2"		RE: 2&4/L7.01
9.2	Aztec Stone, Size: 2"-3", Depth: 6"		RE: 1/L7.01
9.4	Steel Edging, 1/4"x6", weld seams, weld #3 rebar stakes 18" at 18" on center		RE: 5/L9.02
9.5	Plantings		RE: L9.01
9.6	Salvaged Decorative Aggregate Existing On Site		RE: 6/L9.02
10.0	SPA AND WATER FEATURES		
10.1	Fountain, 18" H x 10' D	Custom	RE: 2/L7.02
11.0	MISC. SITE FEATURES		
11.1	Wood Poles with steel base and center anchors	American Pole & Timber, Custom	RE: 6/L7.01
11.2	Shade Nets	InCord	RE: 3/L7.01
11.3	CHPL Panels w. Z-Brackets, Size: 36"x48", Qty: 5, Content Design by Owner	Fossil Graphics	RE: 9/L7.01

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PHILLIPS + GOMEZ
15 West 6th Street, Suite 2510
Tulsa, Oklahoma 74119
918.584.0102

PROJECT: VINITA CULTURAL DEVELOPMENT CENTER

PROJECT: CHEROKEE NATION, OKLAHOMA

KEY PLAN

No.	Description	Date
1	100% CD SET	05/07/21

SHEET TITLE: MATERIALS PLAN

05/17/21 ASI 1

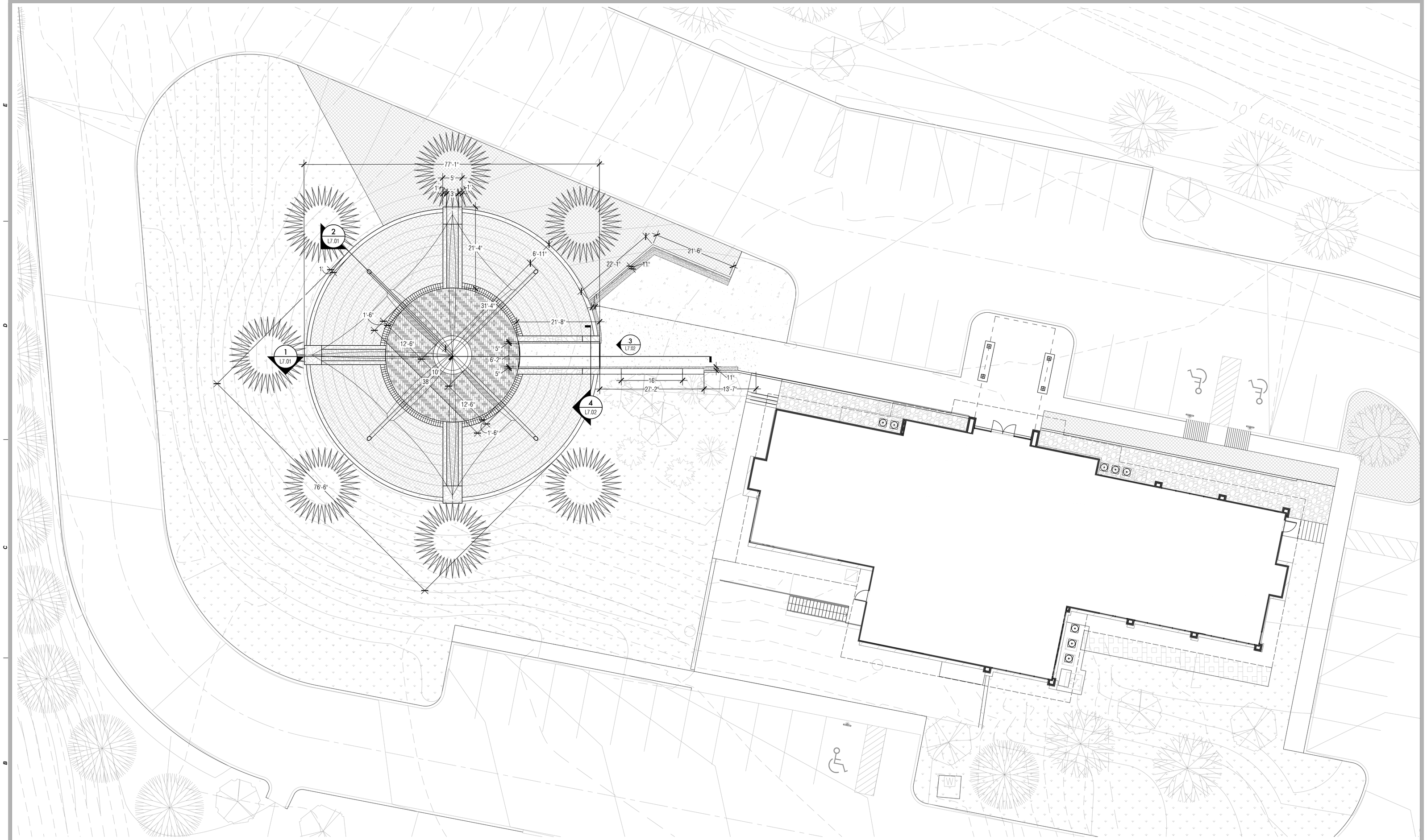
PROJECT NO:	111-049.20
DRAWN BY:	JOI
CHK'D BY:	BW
ISSUE DATE:	5/17/2021

L3.01

Scale: As indicated

State of Oklahoma — Brian Williams — #3421 — Registered Landscape Architect

CA# 02418



LAYOUT PLAN

1 " = 1 0 ' 0' 10' 20' 30'

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PROJECT
VINITA CULTURAL DEVELOPMENT CENTER

PROJECT
CHEROKEE NATION, OKLAHOMA

KEY PLAN

No.	Description	Date
1	100% CD SET	05/07/21

SHEET TITLE
LAYOUT PLAN
05/17/21 ASI 1

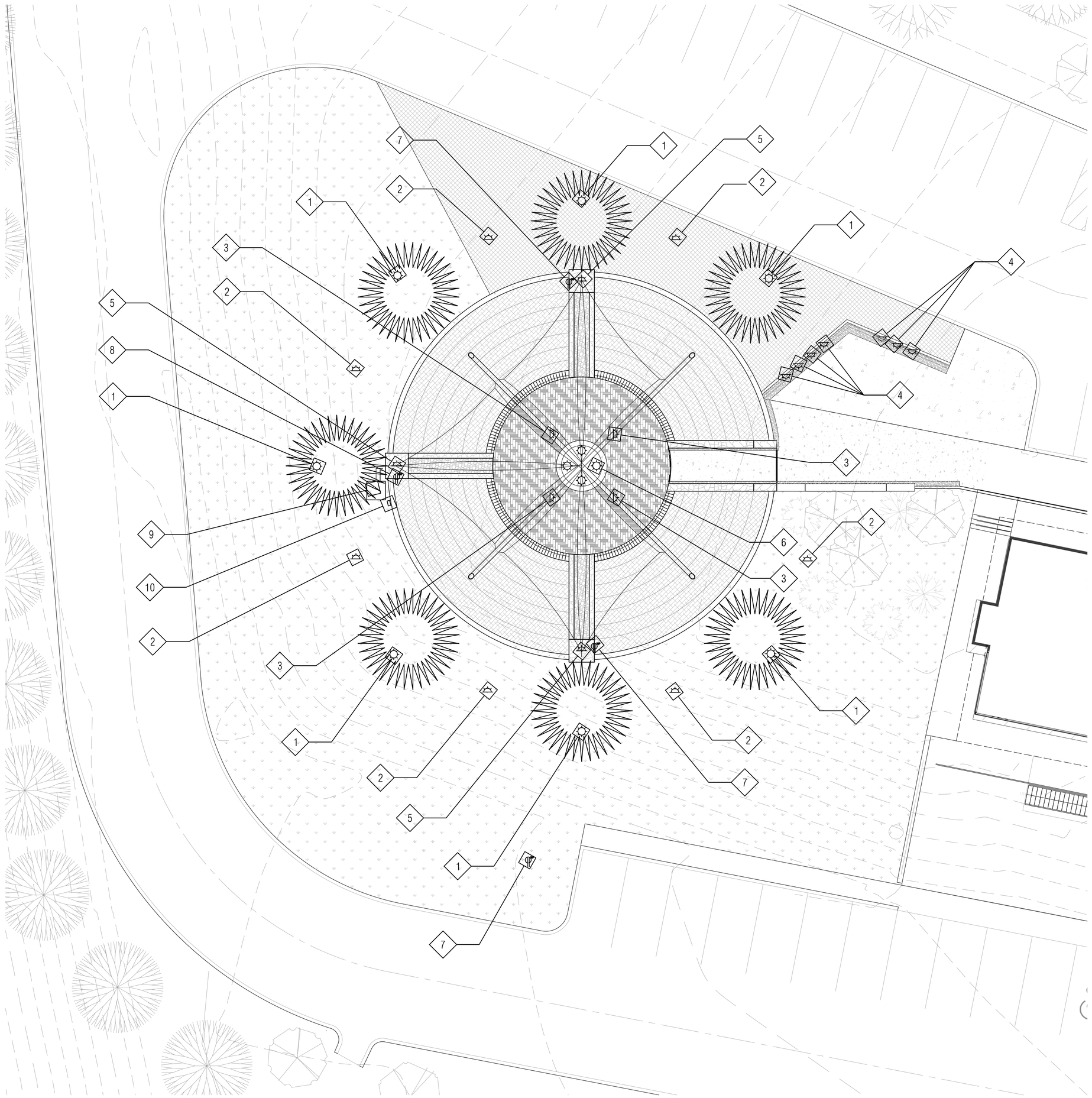
PROJECT NO:	111-049.20
DRAWN BY:	JCL
CHKD BY:	BW
ISSUE DATE:	5/17/2021

L4.01

Scale As indicated

State of Oklahoma — Brent Wilt #374 — Certified Landscape Architect

CA# 02418



LIGHTING PLAN

1" = 10' 0' 10' 20' 30'

LIGHTING SCHEDULE

		SITE LIGHTING	MANUFACTURER & CATOLOG NUMBER	DESCRIPTION	DETAIL
1		Tree Up Light	Lumiere Cambria 203 203-8LED3036-12-BZ or approved equal by BK Lighting	Lumiere Cambria 203 LED, Standard Side Swivel, 8 LED, 3000K, 36 Degree Wide, Bronze Finish, Ground Spike Required. LED furnished with fixture. GS01 ground spike ordered separately. Provide documentation from fixture manufacturere for the field replaceable LED lamps or LED lamp modules for futre LED lamp replacement. Provide five year minimum complete materials and labor replacement warranty for light fixture.	Per Manufacturer
2		Landscape Flood Light	Lumiere Eon 303A1 303-A1-LEDB1-3000-UNV-T2-DIM10-BZ-6-LCF or approved equal by BK Lighting	Lumiere Eon LED, One Mini LightBAR Head, Universal 120-277, 3000K, 0-10V Dimming, Optics T2 Lateral Throw, Bronze Finish, 6" Stem Length. Provide documentation from fixture manufacturere for the field replaceable LED lamps or LED lamp modules for futre LED lamp replacement. Provide five year minimum complete materials and labor replacement warranty for light fixture.	Per Manufacturer
3		Down Lights in Poles	Adjustable Static White Downlight 55 841 55 841+ K3 Bega Downlight or approved equal	55 841 Bega Downlight with adjustable light distribution, 120 V, 3000K, Bronze Finish	Per Manufacturer
4		Sign Light for Art Panels	Lumiere Cambria 922 Sign Light 922-8LED3036-12-BZ-SA14 or approved equal by BK Lighting	Lumiere Cambria 922 Sign Light, 8 LED, 3000K, 36 Degree Wide, 12 V, Bronze Finish, SA14 14" Length. Provide documentation from fixture manufacturere for the field replaceable LED lamps or LED lamp modules for futre LED lamp replacement. Provide five year minimum complete materials and labor replacement warranty for light fixture.	Per Manufacturer
5		LED In Ground Light	Lumiere Boca 696 Inground LED Uplight 696-8LED3025-120/12-BZ or approved equal by BK Lighting	Lumier Boca 696 Inground LED Uplight, Standard Round Trim, 8 LED, 3000K, 25 Degree Narrow, 120V Integral Transformer, Bronze Finish. Provide documentation from fixture manufacturere for the field replaceable LED lamps or LED lamp modules for futre LED lamp replacement. Provide five year minimum complete materials and labor replacement warranty for light fixture.	Per Manufacturer
6		Submersible Water Feature Light	Lumiere Atlantis 1407 1407-8LED3025-12-NBZ or approved equal by BK Lighting	Lumiere Atlantis 1407, Yoke Mounted, 8 LED, 3000K, 25 Degree Narrow, 12 Volt, Bronze Finish. Provide documentation from fixture manufacturere for the field replaceable LED lamps or LED lamp modules for futre LED lamp replacement. Provide five year minimum complete materials and labor replacement warranty for light fixture.	Per Manufacturer
7		Duplex Outlet		Include While In Use Weatherproof Cover by Taymac in Bronze Finish	Per Manufacturer
8		Quadplex Outlet		Include While In Use Weatherproof Cover by Taymac in Bronze Finish	Per Manufacturer
9		Water Feature Pump and Vault	Roman Fountains Pump and Vault RDP-1-050 or approved equal	RDP-1 Sereis Direct Burial Fiberglass Pump Vault, RDP-1-050, 120/ 208-240V,1PH System Power, 10 Single Speed Horsepower	Per Manufacturer
10		Low Voltage Transformer	See MEP for specifications		Per Manufacturer

LIGHTING NOTES

1. CONTRACTOR TO SUPPLY ALL WIRE, CONDUIT, TIMERS, AND APPURTENANCES RELATED TO ELECTRICAL ROUGH IN AND FINISHING.

2. ALL LIGHT LOCATIONS ARE APPROXIMATE AND MAY BE FIELD ADJUSTED TO CONDITIONS.

3. CONTRACTOR SHALL UTILIZE A LICENSED ELECTRICIAN WHERE NEEDED TO SUPPLY POWER TO OUTDOOR OUTLETS AND LIGHTING POWER SUPPLY.

4. REFER TO ELECTRICAL SHEETS FOR ADDITIONAL INFORMATION

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PROJECT
VINITA CULTURAL DEVELOPMENT CENTER

PROJECT
CHEROKEE NATION, OKLAHOMA

KEY PLAN

No.	Description	Date
1	100% CD SET	05/07/21

SHEET TITLE
MATERIALS PLAN

05/17/21 ASI 1

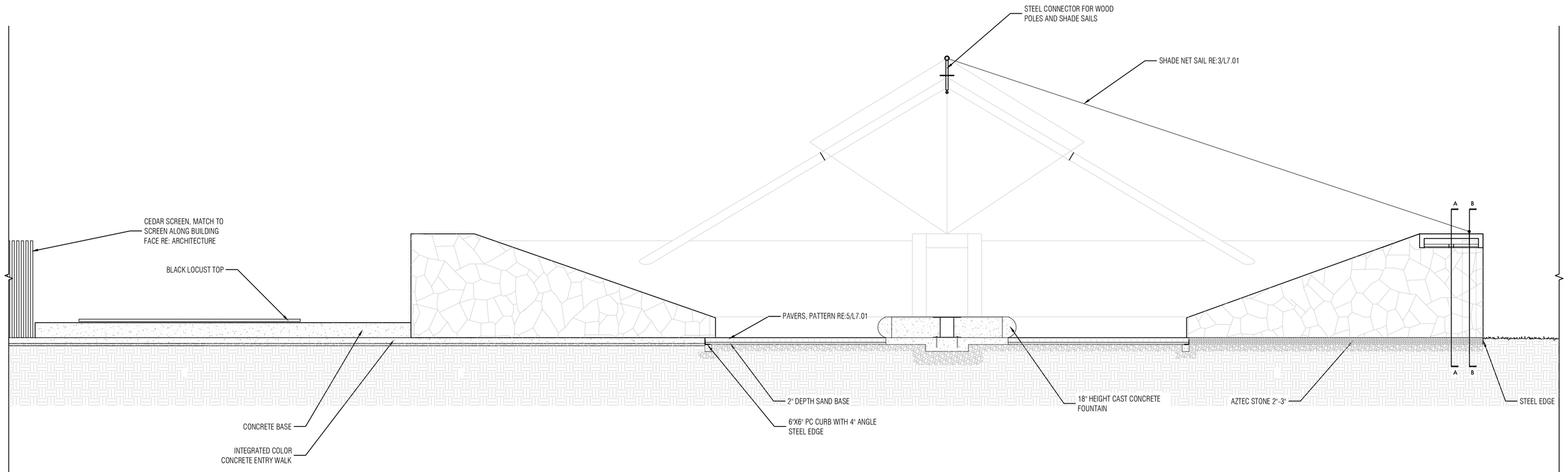
PROJECT NO: 111-049.20
DRAWN BY: JCL
CHK'D BY: BW
ISSUE DATE: 5/17/2021

L6.01

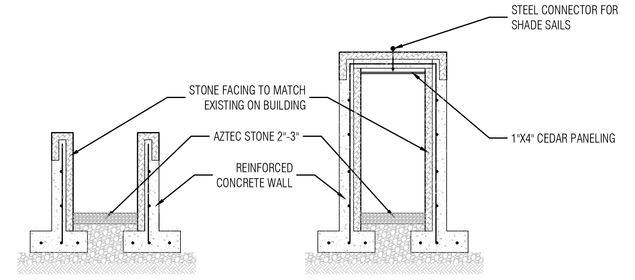
Scale As indicated

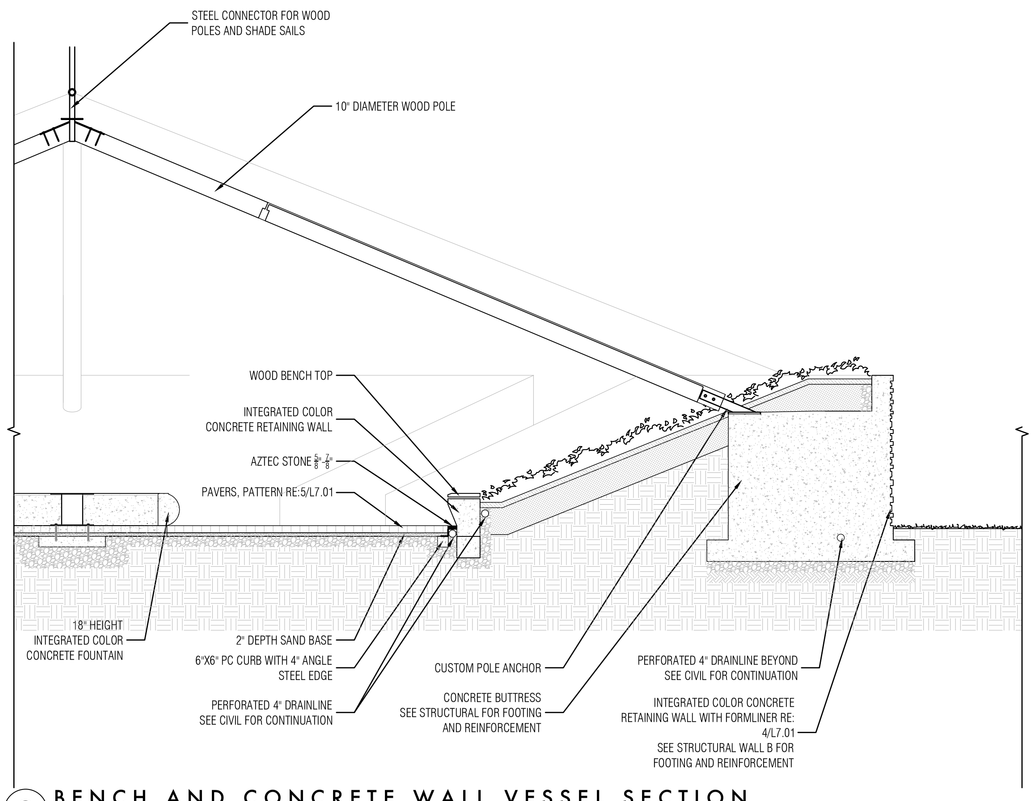
State of Oklahoma — Brett Wall — 2374 — Registered Landscape Architect

CA# 02418

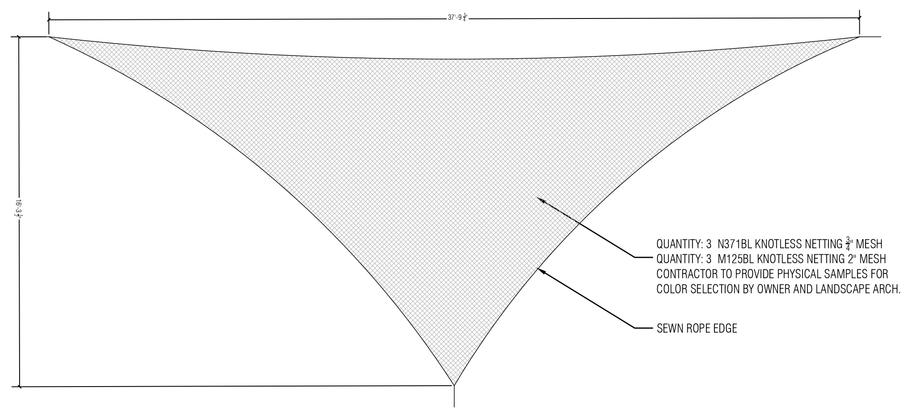


1 ENTRY AND WINDOW VESSEL SECTION
1 / 4 " = 1 '

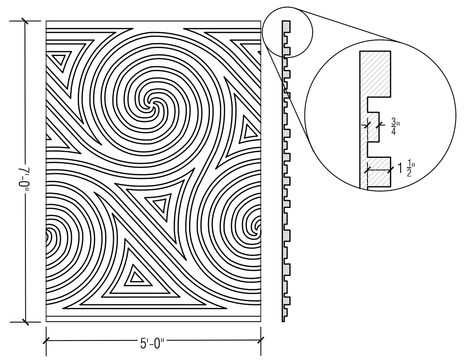




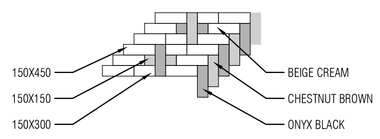
2 BENCH AND CONCRETE WALL VESSEL SECTION
1 / 4 " = 1 '



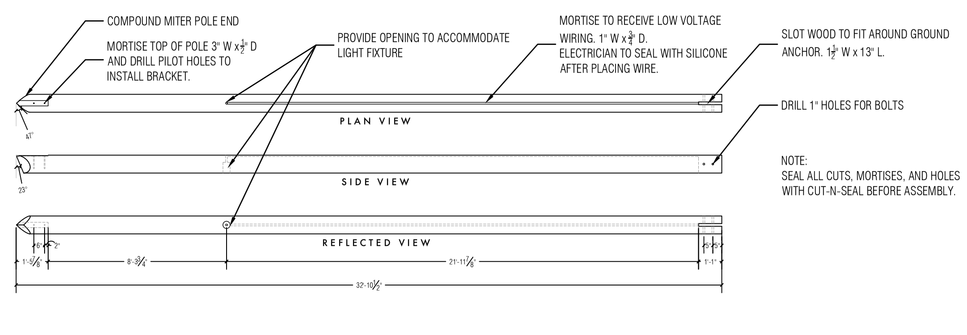
3 NET SAILS
1 / 4 " = 1 '



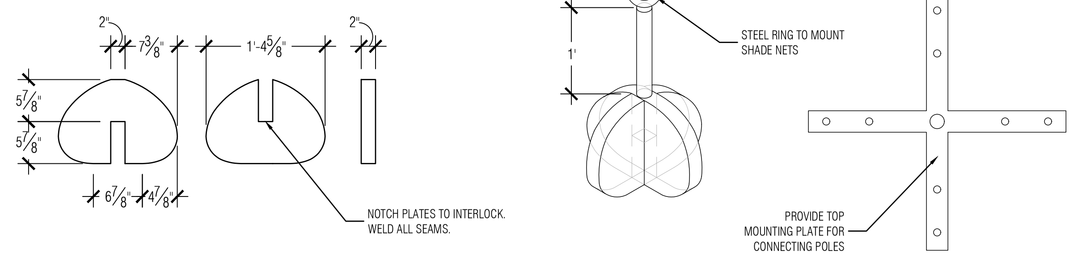
4 FORMLINER PATTERN
1 / 2 " = 1 '



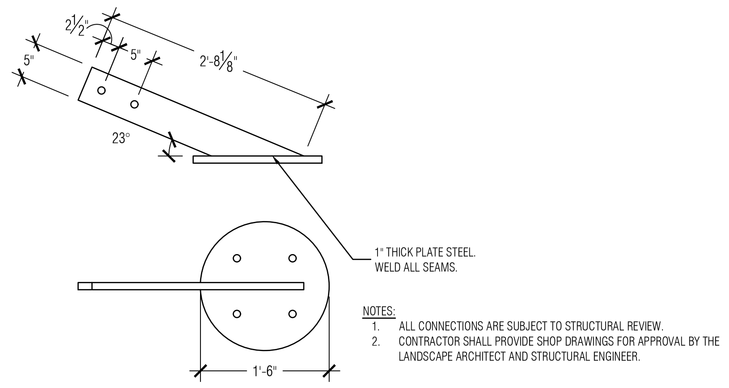
5 PAVER PATTERN
1 / 4 " = 1 '



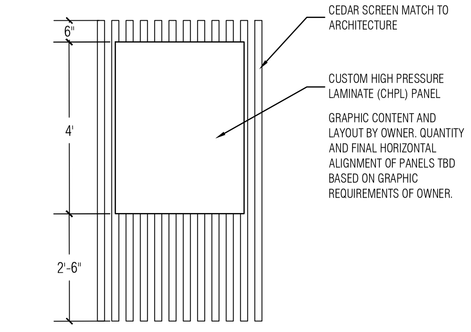
6 WOOD POLES
1 / 4 " = 1 '



7 CENTER ANCHOR
1 " = 1 '



8 END ANCHORS
1 " = 1 '



9 CHPL STORY PANEL
1 / 2 " = 1 '

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PROJECT
VINITA CULTURAL DEVELOPMENT CENTER

PROJECT
CHEROKEE NATION, OKLAHOMA

KEY PLAN

No.	Description	Date
1	100% CD SET	05/07/21

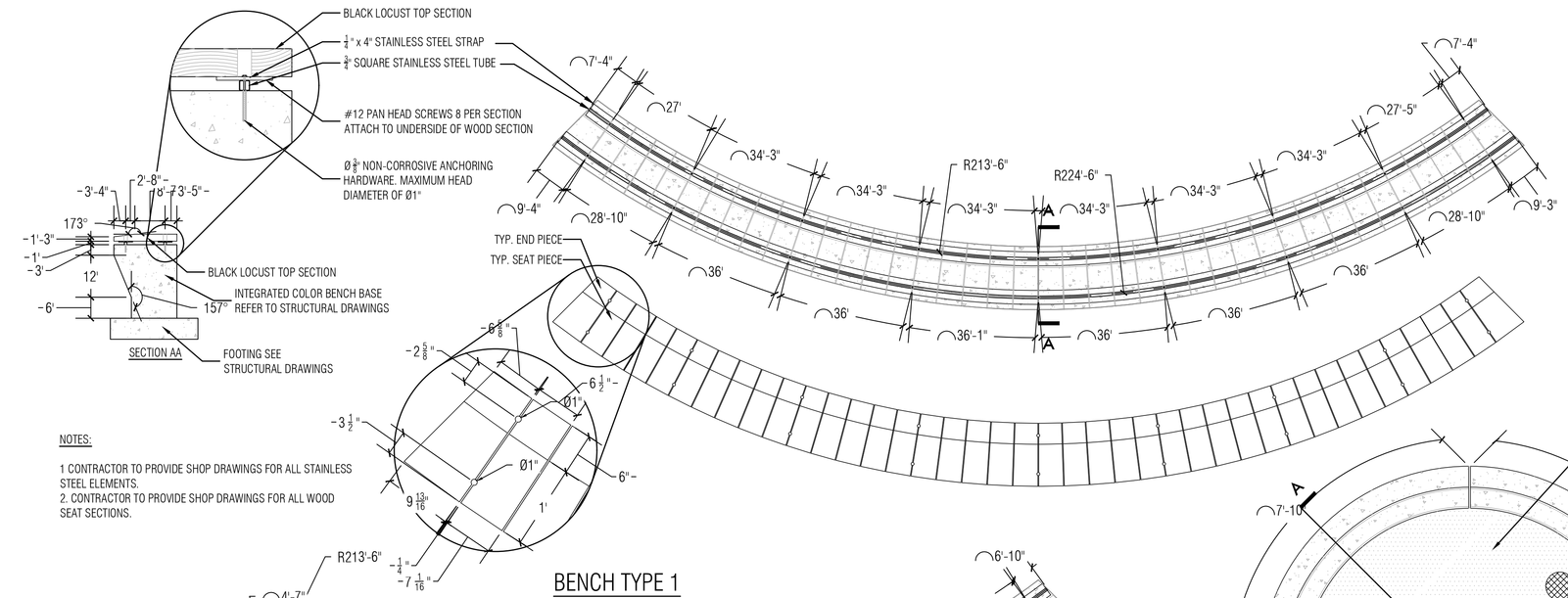
SHEET TITLE
DETAILS
05/17/21 ASI 1

PROJECT NO:	111-049.20
DRAWN BY:	JCL
CHKD BY:	BW
ISSUE DATE:	5/17/2021

L7.01
Scale As indicated

State of Oklahoma Brandy Wall #2241 Landscape Architect 6-30-22

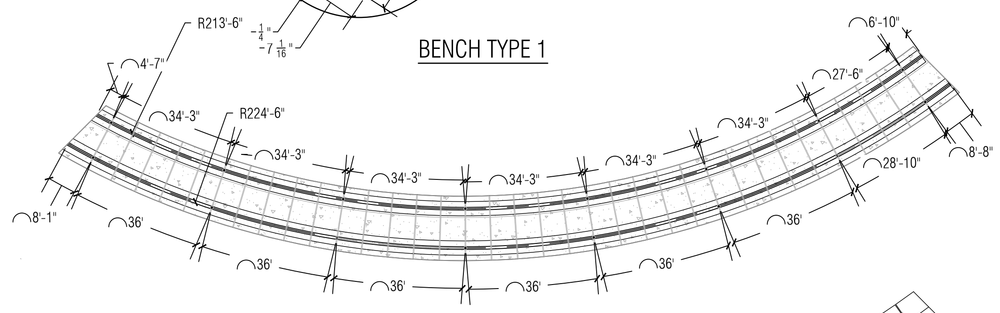
CA# 02418



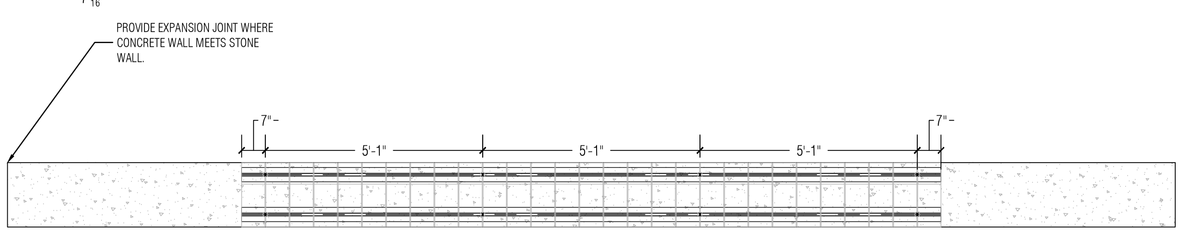
NOTES:

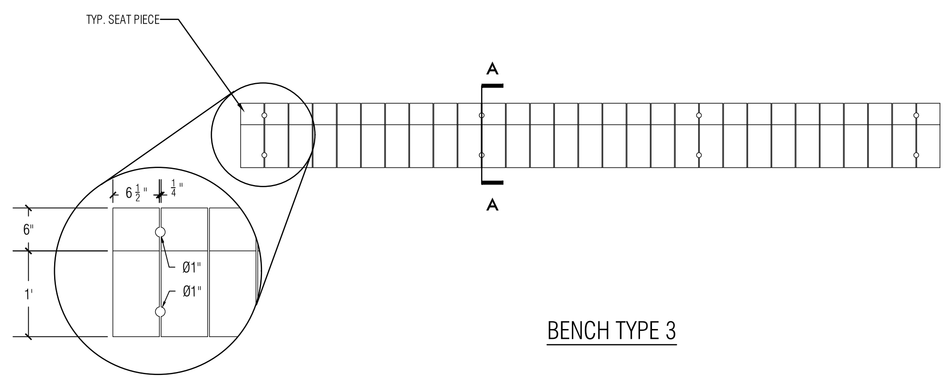
1 CONTRACTOR TO PROVIDE SHOP DRAWINGS FOR ALL STAINLESS STEEL ELEMENTS.
2. CONTRACTOR TO PROVIDE SHOP DRAWINGS FOR ALL WOOD SEAT SECTIONS.

BENCH TYPE 1



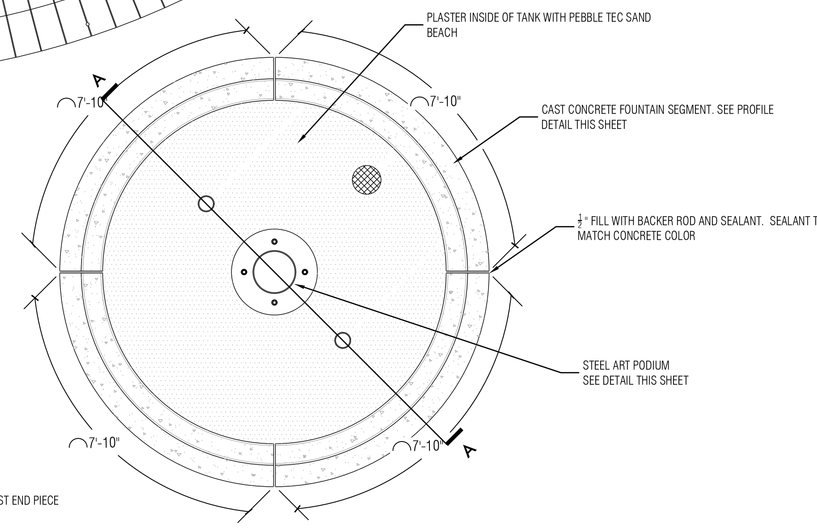
BENCH TYPE 2



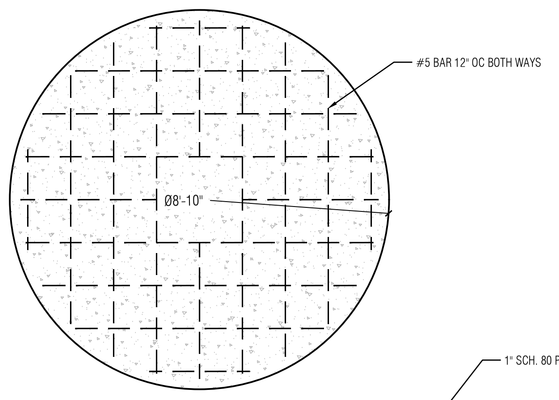


BENCH TYPE 3

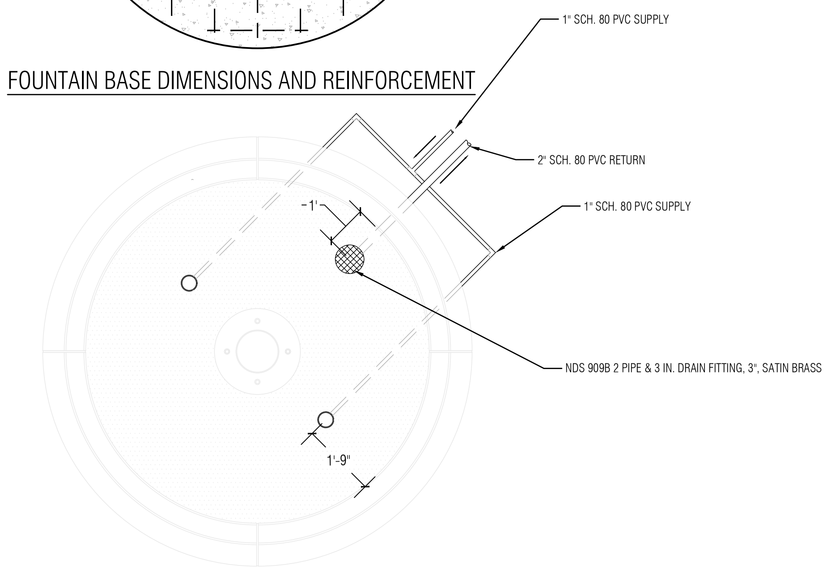
1 BENCH DETAILS
1 / 2 " = 1 '



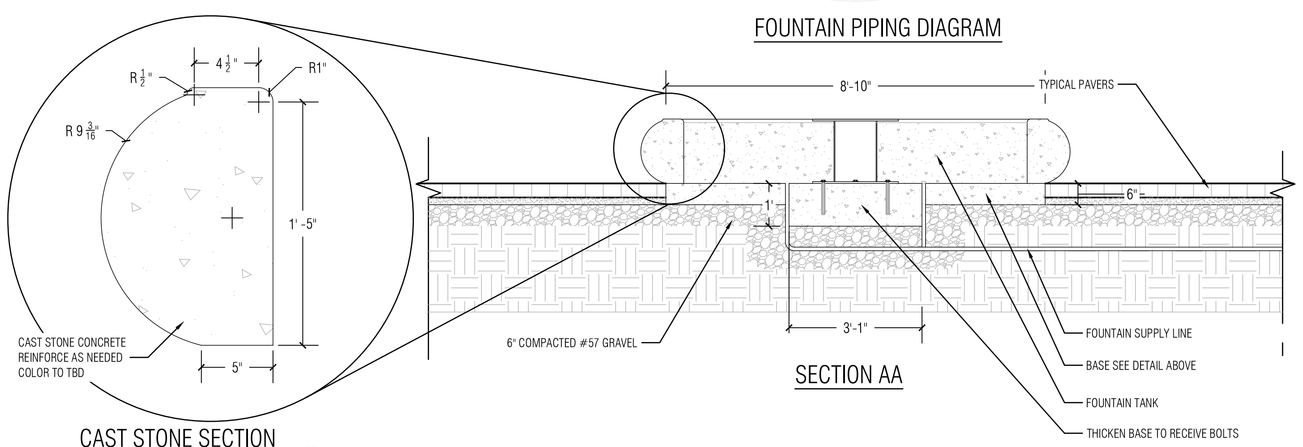
FOUNTAIN PLAN VIEW DIMENSIONS



FOUNTAIN BASE DIMENSIONS AND REINFORCEMENT



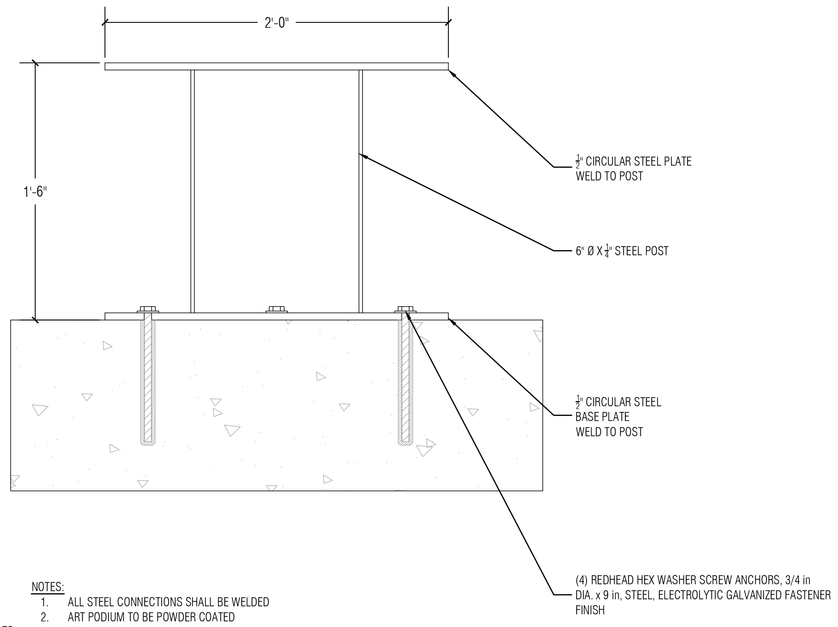
FOUNTAIN PIPING DIAGRAM



CAST STONE SECTION

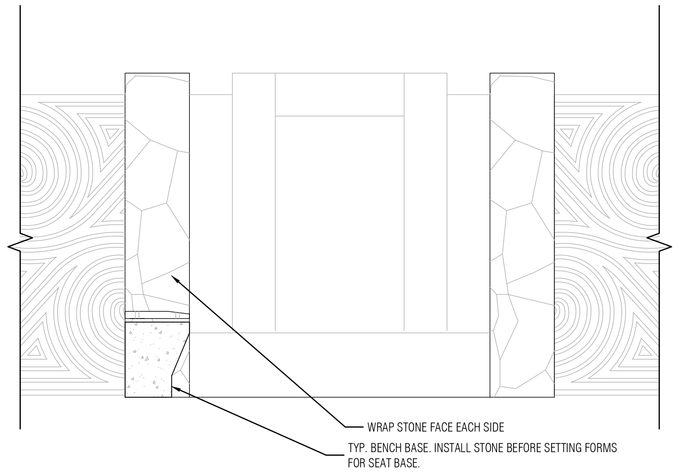
SECTION AA

2 FOUNTAIN
1 / 2 " = 1 '

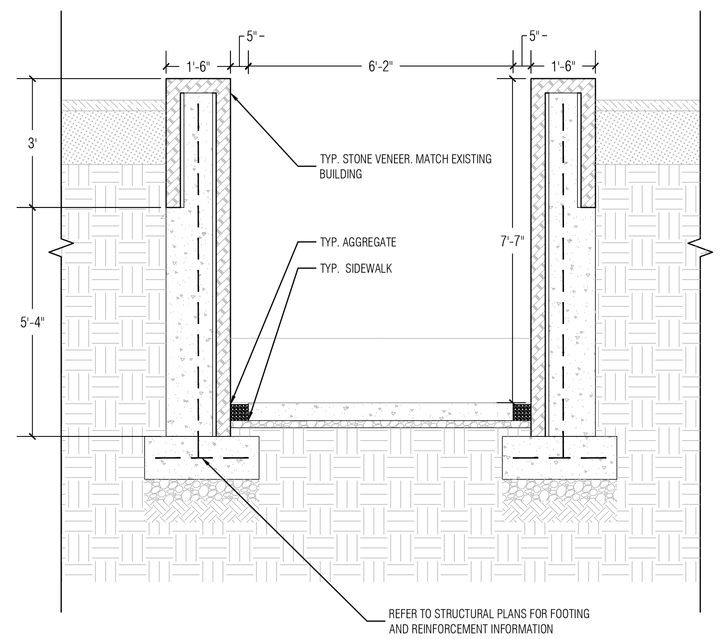


NOTES:

1. ALL STEEL CONNECTIONS SHALL BE WELDED
2. ART PODIUM TO BE POWDER COATED
3. COLOR TBD
4. CONTRACTOR TO PROVIDE SHOP DRAWINGS OF ALL CAST CONCRETE AND STEEL ELEMENTS FOR APPROVAL BY THE LANDSCAPE ARCHITECT.
5. CONTRACTOR SHALL PROVIDE A MOCK UP OF CAST STONE COLOR AND PLASTER FOR APPROVAL BY THE LANDSCAPE ARCHITECT
6. CONTRACTOR SHALL PROVIDE COLOR SAMPLE OF POWDER COATING FOR APPROVAL BY THE LANDSCAPE ARCHITECT.



3 ENTRY WALL ELEVATION
1 / 2 " = 1 '



4 ENTRY WALL DETAIL
1 / 2 " = 1 '

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PROJECT
VINITA CULTURAL DEVELOPMENT CENTER

PROJECT
CHEROKEE NATION, OKLAHOMA

KEY PLAN

No.	Description	Date
1	100% CD SET	05/07/21

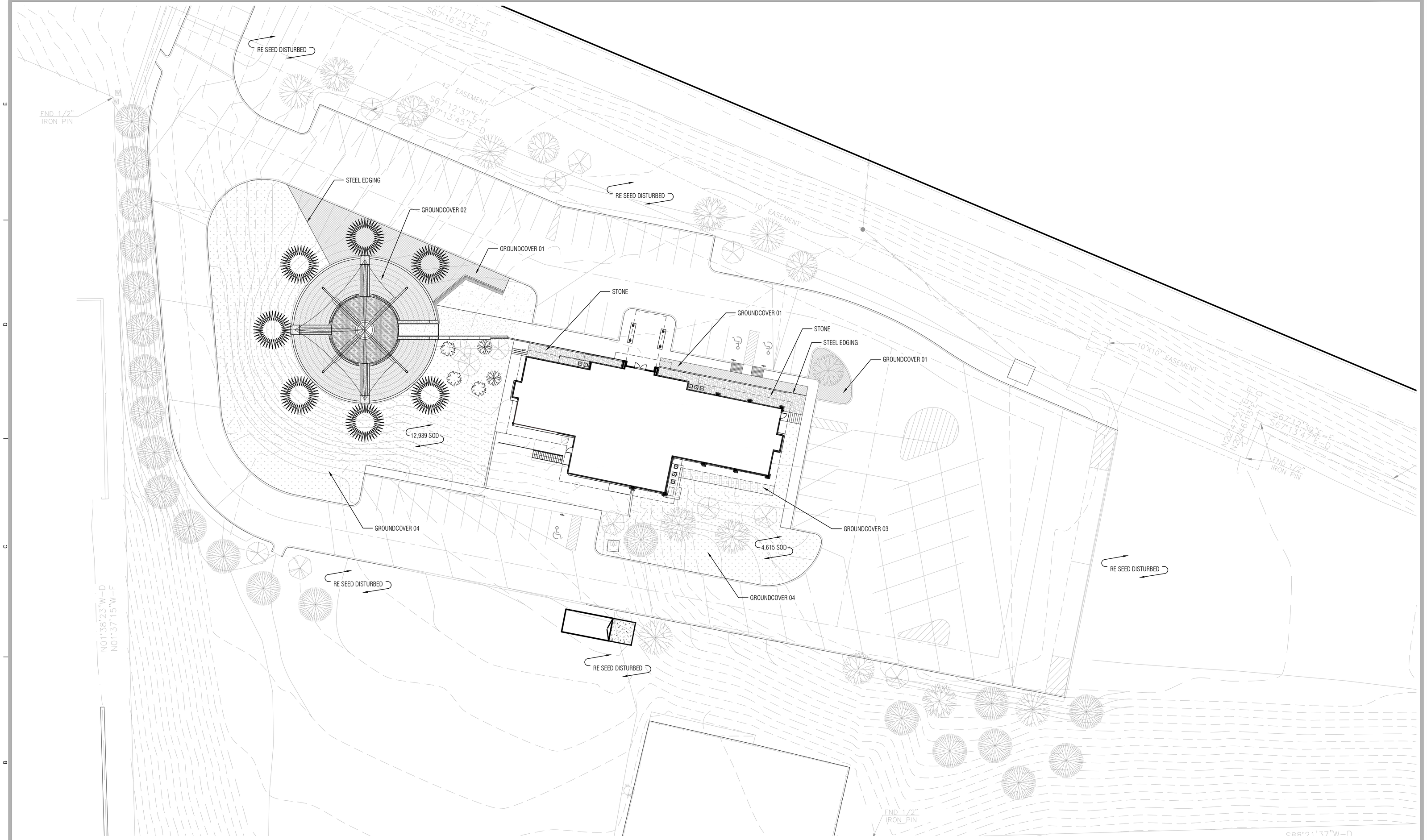
SHEET TITLE
DETAILS
05/17/21 ASI 1

PROJECT NO:	111-049.20
DRAWN BY:	JCL
CHK'D BY:	BW
ISSUE DATE:	5/17/2021

L7.02
Scale As indicated

State of Oklahoma · Brent Wolf · 2074 · Registered Landscape Architect

CA# 02418



PLANTING PLAN

1" = 20'

0' 20' 40' 60'

As	Acer saccharum 'Caddo'	Ca	Cupressus arizonica	Cf	Cornus florida	Iv	Ilex vomitoria	Mc	Morella cerifera	Pt	Pinus taeda	Qs	Quercus Shumardii	Rp	Robinia psuedocacia	Sc	Sambucus canadensis

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918.584.0102

PROJECT
VINITA CULTURAL DEVELOPMENT CENTER

PROJECT
CHEROKEE NATION, OKLAHOMA

KEY PLAN

No.	Description	Date
1	100% CD SET	05/07/21

SHEET TITLE
PLANTING PLAN

05/17/21 ASI 1

PROJECT NO:	111-049.20
DRAWN BY:	JCL
CHK'D BY:	BW
ISSUE DATE:	5/17/2021

L9.01

Scale As indicated

State of Oklahoma
Brent Wall
#374
Licensed Landscape Architect
5-17-21

CA# 02418

PLANT SCHEDULE

TREES AND SHRUBS							
QTY	SYMBOL	BOTANICAL NAME	COMMON NAME	SELECTION	SIZE	SPACING	NOTES
5	As	Acer saccharum 'Caddo'	Caddo Maple		2" cal	As Shown	
22	Ca	Cupressus arizonica	Arizona Cypress		2" cal	As Shown	
5	Cf	Cornus florida	Flowering Dogwood		7-8'H	As Shown	Multi Trunk
8	Iv	Ilex vomitoria	Yaupon Holly		30 gal	As Shown	Multi Trunk
2	Mc	Morella cerifera	Wax Myrtle		30 gal	As Shown	
7	Pt	Pinus taeda	Loblolly Pine		5" cal	As Shown	
5	Qs	Quercus shumardii	Shumard Oak		2" cal	As Shown	
5	Rp	Robinia psuedocacia	Black Locust		2" cal	As Shown	
3	Sc	Sambucus canadensis	Elderberry		5 gal	As Shown	
GROUNDCOVER 01 - 2,979 SF							
QTY	SYMBOL	BOTANICAL NAME	COMMON NAME	SELECTION	SIZE	SPACING	
20%	Ba	Baptisia australis	Blue Indigo		1 gallon	24"	
50%	Bg	Bouteloua gracilis	Blonde Ambition Grass	'Blonde Ambition'	1 gallon	18"	
30%	Ep	Echinacea purpurea	Purple Coneflower		1 gallon	18"	
GROUNDCOVER 02							
1678	Ct	Carex tumulicola	Berkeley Sedge		4"	12"	
1678	Sh	Sporobolus heterolepis	Prairie Dropseed		4"	12"	
GROUNDCOVER 03 - 273 SF							
25%	Ea	Euonymus americanus	Hearts a Bustin		1 gallon	24"	
50%	Ra	Rhus Aromatica 'Gro-Low'	Gro-Low Sumac	Gro-Low'	1 gallon	3'	
25%	Sc	Sambucus canadensis	Elderberry		1 gallon	4'	
GROUNDCOVER 04							
17,554	SOD	Bouteloua dactyloides	Buffalo Grass		Sq Ft		
	SEED	Bouteloua dactyloides	Buffalo Grass		Sq Ft		Seed Disturbed Areas

SPECIFICATIONS

SOIL & PLANTING PREPARATION

SECTION 329100 - SOIL AND PLANTING PREPARATION
PART 1 - GENERAL
1.1 DESCRIPTION
A. Work included: Excavate, backfill, compact and grade the site to the elevations shown on the drawings as specified herein and as needed to meet the requirements of the construction shown in the Contract Documents.

1. Work Included: Do all cutting, filling, compacting of fills and rough grading required to bring the entire project area to sub-grades as follows:

a. For surfaced areas – to the respective surfacing or base course, and fixed by the finished grades therefore. Plans indicate finish spot elevations. Calculate sub-grade elevations and finish work to provide designed grades and drainage.
1.2 QUALITY ASSURANCE
A. Use adequate numbers of skilled workmen who are thoroughly trained and experienced in the necessary crafts and who are completely familiar with the specified requirements and the methods needed for proper performance of the work of this Section.
B. Use equipment adequate in size, capacity and numbers to accomplish the work of this Section in a timely manner.
C. Protection: Protect newly graded areas from the actions of the elements. Any settlement or washing that occurs prior to acceptance of the work shall be repaired, and grades re-established to the required elevations and slopes. Fill to required sub-grade levels any areas where settlement occurs.
PART 2 - PRODUCTS
2.1 SOIL MATERIALS
A. Fill and backfill materials:

1. Provide soil materials free from organic matter and deleterious substances, containing no rocks or lumps over 4" in greatest dimension and with not more than 15% of the rocks or lumps larger than 2-3/8" in their greatest dimension. Fill shall be reasonably free from roots, wood, or other organic material.

2. Fill materials shall meet the criteria outlined in appendix 1 to this specification and shall be obtained from the sources indicated in appendix 1 to this specification section.

3. Do not permit rocks having a dimension greater than 1" in the upper 12" of fill or embankment.

4. Excavated material that is suitable may be used for fills indicated or required.

5. Quality of fill material shall be approved by Engineer where fill is required to raise the existing grades outside of building areas to a new sub-grade elevation indicated on Drawings.

6. All stone discovered during excavation shall be retained and stored on site.
PART 3 - EXECUTION
3.1 SURFACE CONDITIONS
A. Utilities: Refer to Site Work or other related specifications in this document.
B. Protection of persons and property:

1. Barricade open holes and depressions occurring as part of the work and post warning lights on property adjacent to or with public access.

2. Operate warning lights during hours from dusk to dawn each day and as otherwise required.

3. Protect structures, utilities, sidewalks, pavements and other facilities from damage caused by settlement, lateral movement, washout and other hazards created by operations under this Section.
C. Dewatering:

1. Remove all water, including rain water, encountered during trench and sub-structure work to an approved location by pumps, drains and other approved methods.

2. Keep excavations and site construction area free from water.
D. Use means necessary to prevent dust becoming a nuisance to the public, to neighbors and to other work being performed on or near the site.
E. Maintain access to adjacent areas at all times.
F. Job Conditions:

1. Do not deposit any fill on a sub-grade that is muddy, frozen, or that contains frost.

2. Positive drainage should be provided during construction and maintained throughout the life of the proposed development. Infiltration of water into utility or foundation excavations must be prevented during construction.
3.2 EXCAVATING
A. Perform excavating of every type of material encountered within the limits of the work to the lines, grades and elevations indicated and specified herein.
B. Excavation of rock:

1. Where rocks, boulders, granite or similar material is encountered and cannot be removed or excavated by conventional earth moving or ripping equipment, take required steps to proceed with the general grading operations of the work and remove or excavate such material by means which will neither cause additional cost to the Owner nor endanger buildings or structures whether on or off the site.

2. Do not use explosives without written permission from City Engineer.
C. Excavate and backfill in a manner and sequence that will provide proper drainage at all times. Excess cut shall be placed on-site to match existing grade in a location determined by a representative of the Parks and Recreation Department.
D. Remove all debris subject to termite attack, rot or corrosion, and all other deleterious materials from areas to be filled. Prior to placing fill material, the surface of the ground shall be scarified to a depth of six inches (6") and the moisture content of the loosened materials shall be such that it will readily bond with the first layer of fill material.
E. Hauled Borrow:

1. Obtain material required for fill as outlined in appendix 1 to this specification:
F. Swales, ditches, gutters:

1. Cut accurately to the grades and elevations shown.

2. Maintain excavations free from detrimental quantities of leaves, sticks, trash and other debris until completion of the work.
G. Unauthorized excavation:

1. Unauthorized excavation consists of removal of materials beyond indicated sub-grade elevations or dimensions without specific instruction from the Owner's Representative.

2. Under footings or retaining walls:

a. Fill unauthorized excavations by extending the indicated bottom elevation of the footing or base to the excavated bottom without altering the required top elevation.

3. Elsewhere:

a. Backfill and compact unauthorized excavations as specified for authorized excavations, unless otherwise directed by the Owner's Representative.
H. Stability of Excavations:

1. Slope sides of excavations to 1:1 or flatter, unless otherwise directed by the Owner's Representative.

2. Shore and brace where sloping is not possible because of space restrictions or stability of the materials being excavated.

3. Maintain sides and slopes of excavations in a safe condition until backfilling is completed.
I. Excavating for Structures:

1. Conform to elevations and dimensions shown within a tolerance of 0.10 ft and extending a sufficient distance from footings and foundations to permit placing and removing concrete formwork, installation of services, other construction required and for inspection.

2. In excavating for footings and foundations, take care not to disturb bottom of excavation:

a. Excavate by hand tools to final grade just before concrete is placed.

b. Trim bottoms to required lines and grades to leave solid base to receive concrete.

3. Excavate for footings and foundations only after general site excavating, filling and grading are complete.
J. Cold weather protection:

1. Protect excavation bottoms against freezing when atmospheric temperature is less than 35 degrees F.
3.3 FILLING AND BACKFILLING
A. General:

1. For each classification listed below, place acceptable soil material in layers to required sub-grade elevations.

a. In excavations: Use satisfactory excavated or borrow materials.

b. Under slabs: Use granular fill, if so called for on the Drawings.

c. Fill areas shall consist of good dirt and shall be compacted to required standard proctor density (see 3.04 "Compacting").
B. Ground surface preparation:

1. Remove vegetation, debris, unsatisfactory soil materials, obstructions and deleterious matter from ground surface prior to placement of fills.

2. Plow, strip or break up sloped surfaces steeper than one vertical to four horizontal so that fill material will bond with existing surface.

3. When existing ground surface has a density less than that specified under "compacting" for the particular area:

a. break up the ground surface

b. pulverize

c. moisture-condition to the optimum moisture content

d. compact to required depth and percentage of maximum density.
C. Rough Grading:

1. Rough grading of all areas within the project, including excavated and filled sections and adjacent transition areas shall be reasonably smooth, compacted and free from irregular surface changes.

2. The degree of finish shall be that ordinarily obtainable from either blade-grader or scraper operations, except as otherwise specified.

3. The finished sub-grade surface generally shall be not more than 0.33 feet above or below the established grade or approved cross section, with due allowance for topsoil, sod and pavement depths.

4. The tolerance for areas within ten feet (10') of buildings and all areas to be paved, shall not exceed 0.15 feet above or below the established sub-grade.

5. All ditches, swales and gutters shall be finished to drain readily.

6. The sub-grade shall be evenly sloped to provide drainage away from building walls in all directions at a grade not less than one-quarter inch (1/4") per foot.

7. Provide roundings at top and bottom of banks and at other breaks in grade.
D. Replacing Topsoil:

1. Place no topsoil until sub-grade has been approved.

2. Scarify soil to a depth of three inches (3").

3. Spread, rake, and compact topsoil to form a layer with minimum depth of six inches (6") so that after settlement there will be proper drainage conforming to elevations on Drawings.

4. Maintain surfaces (protecting with cover if necessary).
3.4 COMPACTING
A. Control soil compaction during construction according to ASTM D1557, and as approved by Owner's representative.

1. Structures:

a. Compact the top 8" of sub-grade and each layer of fill material or backfill material at 95% of proctor density.

2. Lawn and unpaved area:

a. Compact the top 8" of sub-grade and each layer of fill material or backfill material at 85% of proctor density.

b. Compact the upper 12" of filled areas, or natural soils exposed by excavating, at 85% of proctor density.

3. Walks:

a. Compact the top 8" of sub-grade and each layer of fill material or backfill material at 95% of proctor density.

4. Pavements:

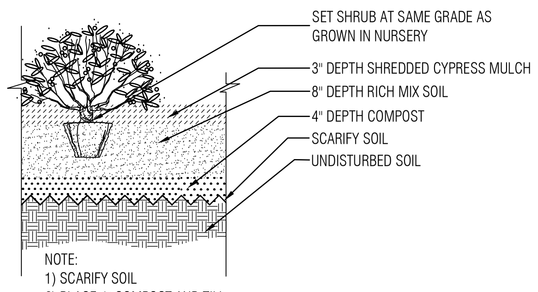
a. Compact the top 8" of sub-grade and each layer of fill material or backfill material at 95% of proctor density.

5. Moisture control:

a. Wet soil material may be stockpiled or spread and allowed to dry.

b. Assist drying by disking, harrowing or pulverizing until moisture content is reduced to a satisfactory value as determined by moisture density relation tests approved by the Owner's Representative.
3.5 FIELD QUALITY CONTROL
A. Secure Owner's Representative's inspection and approval of subgrades and fill layers before subsequent construction is permitted thereon.
B. Provide field density testing of earthwork areas as required by the Owner's Representative.
C. If, in the Owner's Representative's opinion based on reports of the testing laboratory, sub-grade or fills which have been placed are below specified density, Contractor shall provide at their cost, additional compacting and testing as required to provide proof of compliance to these specifications.
3.6 MAINTENANCE
A. Protection of newly graded areas:

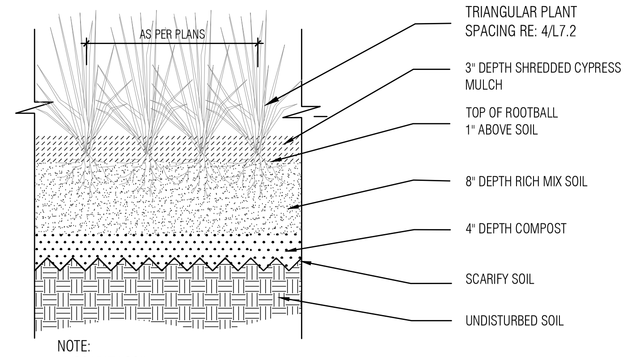
1. Protect newly graded areas from traffic and erosion and keep free from trash and weeds. Repair and reestablish grades in settled, eroded and rutted areas to the specified tolerances.



NOTE:
1) SCARIFY SOIL
2) PLACE 4" COMPOST AND TILL
3) PLACE RICH MIX SOIL AND COMPACT NO MORE THAN 75%

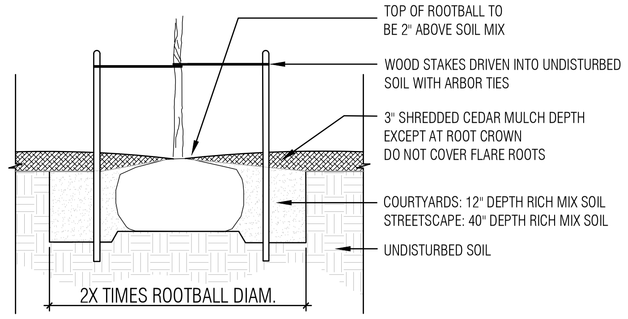
PRUNE ALL DAMAGED OR DEAD WOOD PRIOR TO PLANTING

1 SHRUB PLANTING
SCALE: AS SHOWN



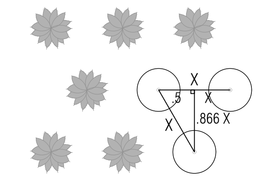
NOTE:
1) SCARIFY SOIL
2) PLACE 4" COMPOST AND TILL
3) PLACE RICH MIX SOIL AND COMPACT NO MORE THAN 75%

2 GROUNDCOVER PLANTING
SCALE: AS SHOWN



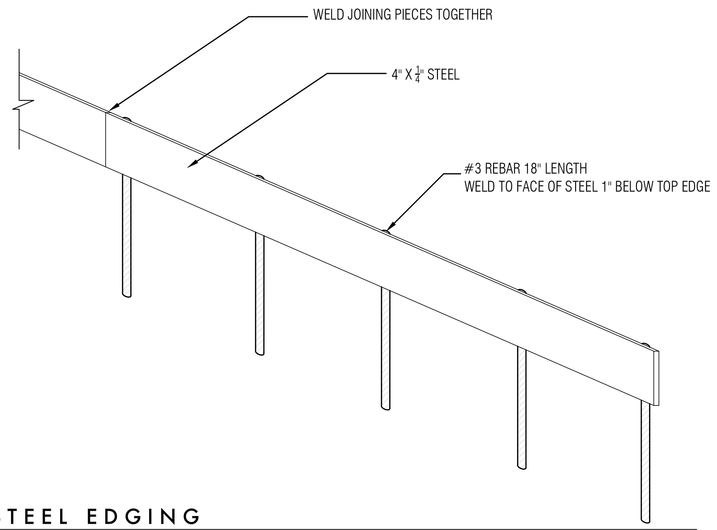
NOTE:
1) CUT TWINE & BURLAP FROM AROUND TRUNK, FOLD BURLAP TO EXPOSE TOP $\frac{1}{3}$ OF ROOTBALL. REMOVE ALL BASKETS IF PRESENT
2) PRUNE ALL DAMAGED OR DEAD WOOD PRIOR TO PLANTING
2) BUILD INVERTED WELL AS SHOWN
4) SATURATE AFTER PLANTING TO REMOVE AIR VOIDS
5) WOUND TRACE ALL INJURIES INCURRED DURING PLANTING
6) ALL TREES TO BE INSTALLED WITH A 20 GAL TREE WATERING BAG UNLESS TREE IS INCLUDED IN IRRIGATION PLANS.

3 TREE PLANTING
SCALE: AS SHOWN

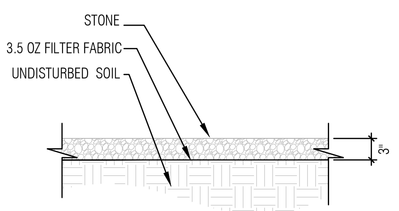


X = PLANT SPACING AS SHOWN ON PLANT SCHEDULE RE: L8.7

4 TRIANGULAR SPACING
SCALE: AS SHOWN



5 STEEL EDGING
SCALE: AS SHOWN



NOTE:
1) SALVAGE ALL DECORATIVE AGGREGATE STONE AT FRONT BUILDING PLANTERS AND REUSE. IF MORE DECORATIVE AGGREGATE STONE IS NEEDED, MATCH EXISTING.

6 STONE SECTION
SCALE: AS SHOWN

SOIL & PLANTING PREPARATION CONTINUED

2. Where completed compacted areas are disturbed by subsequent construction operations or adverse weather, scarify the surface, reshape and compact to the required density prior to further construction.
3.7 CERTIFICATION
A. Upon completion of this portion of the work and as a condition of its acceptance:

1. Deliver to the Owner's Representative a written report certifying that the compaction requirements have been obtained.

a. State in the report the area or fill or embankment, the compaction density obtained and the type or classification of fill material placed.

END OF SECTION

SODDING

SECTION 329223 - SODDING
PART 1 - GENERAL
1.1 DESCRIPTION
A. Perform sodding work in areas designated on drawings and areas distributed by construction.
1.2 QUALITY ASSURANCE
A. Sod shall comply with the American Sod Producer's Publication.
1.3 SECTION REQUIREMENTS
A. Submittals: Verification of species from grower; identify source location.
B. Sod: Harvest, deliver, store, and handle sod according to requirements in "Specifications for Turfgrass Sod Materials" and "Specifications for Turfgrass Sod Transplanting and Installation" in TPI's "Guideline Specifications to Turfgrass Sodding."
C. Maintain sod until project receives final acceptance.
1.4 DELIVERY, STORAGE AND HANDLING
A. Sod to have following characteristics during delivery and handling:

1. Shall be transplanted within 24 hours after sod is stripped

2. If stacked, it shall be placed roots to roots, or grass to grass.

3. Shall be kept moist during delivery and protected from wind, sun, dehydration, and freezing

4. Shall be cut and moved only when the soil moisture conditions are such that favorable results can be expected

5. Shall not be dumped from vehicles
B. Damaged sod will be rejected.
PART 2 - PRODUCTS
2.1 GRASSES
A. Turfgrass Sod. Provide strongly rooted sod free of weeds, undesirable grasses, stones, and roots. Provide sod in uniform color, leaf texture and density, and extraneous materials, capable of growth and development when planted, composed principally of the following:

1. Species: Buffalo Grass (Bouteloua dactyloides)
2.2 SOILS AND AMENDMENTS
A. Topsoil: ASTM D 5268, with pH range of 5 to 7, free of stones ½ inch (12.5 mm) or larger and other extraneous materials harmful to plant growth.
B. Compost: Well-composted, mature, stable, and weed-free organic matter; pH range of 5 to 7.
C. Commercial Fertilizer: Commercial-grade complete fertilizer, consisting of 1 lb/1000 sq. ft. (0.5 kg/100 sq. m) of actual nitrogen, 4 percent phosphorous, and 2 percent potassium, by weight. (To determine the amount of a particular fertilizer needed to supply 1 pound of actual nitrogen per 1,000 square feet, divide the percentage of nitrogen in the fertilizer into 100.)

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VINITA CULTURAL DEVELOPMENT CENTER

PROJECT
CHEROKEE NATION, OKLAHOMA

KEY PLAN

No.	Description	Date
1	100% CD SET	05/07/21

SHEET TITLE
PLANTING SCHEDULE, DETAILS, AND SPECIFICATIONS

05/17/21 ASI 1

PROJECT NO: 111-049.20
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SPECIFICATIONS

SODDING CONTINUED

D. Slow-Release Fertilizer: Granular fertilizer consisting of 50 percent water-insoluble nitrogen, phosphorus, and potassium; 10 percent nitrogen; 20 percent phosphorous; and 10 percent potassium; by weight. Fertilizer to be delivered to the site in fully labeled bags/containers bearing the trade name and manufacturer's guaranteed statement of analysis.
PART 3 - EXECUTION
3.1 PREPARATION
A. Rake or disc-scar to loosen subgrade to a minimum depth of 4 inches (100 mm); remove stones, sticks, existing grass, vegetation, and other extraneous materials.

1. At unchanged grades, apply soil amendments and fertilizers according to specifications. Rake and smooth soil to a smooth, even surface with loose, uniformly fine texture.

B. Grade lawn areas to a smooth, even surface with loose, uniformly fine texture. Roll and rake, remove ridges, and fill depressions to meet finish grades. Moisten before planting.
3.2 INSTALLATION
A. Planting Restrictions: Plant during one of the following periods:

1. Spring Planting: April 15 – May 31

2. Fall Planting: August 31 – October 31

B. Perform sodding work after all work affecting groundwork has been completed. Irrigation system (when applicable) shall be fully operational or watering procedures in place prior to sodding.
C. Lay sod within 24 hours of harvesting. Do not install on saturated or frozen soil. Lay sod with tightly fitted joints, offsetting joints in adjacent courses. Fill minor cracks between pieces of sod with soil or sand. On slopes exceeding 1:6, lay sod in horizontal courses, alternating seams, and anchor with wood pegs or steel staples. Water sod thoroughly immediately after planting.
D. Erect warning signs or barriers as necessary to protect sodded areas against damage.
3.3 INITIAL ACCEPTANCE
A. At the request of the Contractor, the Owner's Representative will review the sodding installation. Initial acceptance will occur at substantial completion providing all sod is in place, healthy, and meets specifications.
3.4 ESTABLISHMENT AND MAINTENANCE PERIOD
A. Maintain sod during establishment as required for optimum growth until project receives final acceptance.
B. Establish lawn by watering for the first 2 weeks after installation, ¼" every day in the absence of rain. Roll, regrade, and replant bare or eroded areas and remulch to produce a uniformly smooth lawn. Provide materials and installation specifications the same as those used in the original installation.

1. Provide all self-contained watering equipment (such as truck or "water buffalo") as needed, to irrigate newly installed sod when irrigation system is not available.

2. Utilize domestic water supply on park property (when available) at no cost to Contractor. Coordinate use with Park Department.

3. Water used from fire hydrants shall be at the expense of Contractor.

4. Contractor is responsible for verifying source of water prior to bidding.

C. After the first 2 weeks of establishment, water less frequently and apply greater amounts of water during each irrigation to saturate the soil. Roll, regrade, and replant bare or eroded areas and remulch to produce a uniformly smooth lawn. Provide materials and installation specifications the same as those used in the original installation.
D. Mow lawn as soon as top growth is 1 ½ times the desired mowing height. Remove no more than one-third of grass-leaf growth in initial or subsequent mowings. Do not delay mowing until grass blades bend over and become matted. Do not mow when grass is wet. Do not remove clippings unless clumping occurs.
E. Remove excess waste material daily.
3.5 FINAL ACCEPTANCE
A. When sodding is substantially completed, including the maintenance period, Owner's Representative will, upon request, make an inspection to determine acceptability.
B. Sodded lawns will be acceptable provided requirements, including maintenance, have been complied with and a healthy, uniform, close stand of specified grass is established free of weeds, bare spots, and surface irregularities.
C. When inspected work does not comply with requirements, replace rejected work and continue specified maintenance until re-inspected by Owner's Representative and found acceptable.
D. Upon final acceptance, Owner will assume lawn maintenance.

END OF SECTION

PLANTS

SECTION 329300 - PLANTS
PART 1 - GENERAL
1.1 RELATED DOCUMENTS
A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.
1.2 SUMMARY
A. This Section includes:

1. Locating, purchasing, growing and delivering plants other than advanced trees.
2. Planting trees, shrubs, ground cover.
3. Organic mulch.
4. Tree stabilization.
B. Products Installed But Not Supplied Under This Section:

1. Advanced Trees are supplied and delivered by Others. (Base Bid)
C. Related Sections include:

1. Division 32 Section "Soils & Planting Preparation" for landscape soils, root barriers.
2. Division 32 Section "Irrigation" for irrigation of the plants.
3. Division 32 Section "Sodding" for plants established by seeding and/or sodding.
4. Division 32 Section "Maintenance of Landscape" for maintenance of planting.
1.3 REFERENCED STANDARDS
A. The following are referred to in this section:

1. "ANSI Z60.1 American Standard for Nursery Stock", Current Edition, American Association of Nurserymen.
2. "ANSI A300 Standards for Tree Care Operations", Current Edition, American National Standards Institute.
3. "USDA Cold Hardiness System" United States Department of Agriculture published zone map.
4. "Structural Pruning: A Guide For The Green Industry" current edition; published by Urban Tree Foundation, Visalia, California.
5. Glossary of Arboricultural Terms, International Society of Arboriculture, Champaign IL, current edition.
6. "ASTM D-3385-09 Infiltration Testing".
1.4 DEFINITIONS
A. General Nomenclature: as suggested by ANSI Z60.1.
B. Advanced Trees: Deciduous trees greater than 2.0 inch (50mm) caliper and/or Conifers greater than 10 feet high at the time of planting.
C. Balled and Burlapped (B&B) Stock: Trees grown in filed soil for at least 12 months dug with firm, natural balls of earth in which they are grown, wrapped in burlap and/or wire. B&B trees shall be "heeled-in" or "cured" between 6 and 52 weeks.
D. Balled and Potted Stock: Trees dug with firm, natural balls of earth in which they are grown and placed, unbroken, in a container and established for at least 12 months before planting on site.
E. Bare-Root Stock: Trees with a well-branched, fibrous-root system developed by transplanting or root pruning, with soil or growing medium removed.
F. Clear Trunk or Branching Height: The portion of the lower trunk maintained free of any branches measured from the top of root ball to the underside of the first lowest permanent branch.
G. Container-Grown Stock: Healthy, vigorous, well-rooted plants grown in a container with well established root system reaching sides of container and maintaining a firm ball when removed from container or box.
H. Crown Spread or Diameter: The average diameter of the widest portion of the crown and that diameter perpendicular to it.
I. Fabric Bag-Grown Stock: Healthy, vigorous, well-rooted trees established and grown in-ground in a porous fabric bag with well-established root system reaching sides of fabric bag.
J. Hardened Off: Plants that have be gradually acclimated from their previous growing conditions to conditions on site.
K. Included Bark: Bark between a branch and trunk or between trunks that is squeezed together in the crotch of the branch resulting in a weak branch union.
L. Non-conforming Plant: Any plant that fails to meet the requirements of this specification.
M. Root Ball Diameter: The average diameter of the widest portion of the root ball and that diameter measured perpendicular to it.
N. Root Collar (root crown, root flare, trunk flare, flare): The region at the base of the trunk where the majority of the structural roots join the plant stem, usually at or near ground level.
O. Trunk Wound: A trunk injury that is open and not callused over. A properly executed pruning cut that has yet to close over is not considered a trunk wound.
P. Finish Grade: Elevation of finished surface.
Q. Plant, Plants, Plant Material: These terms refer to vegetation in general, including trees, shrubs, vines, ground covers, ornamental grasses, bulbs, corms, tubers, or herbaceous vegetation.
R. Root Flare: Also called "trunk flare." The area at the base of the plant's stem or trunk where the stem or trunk broadens to form roots; the area of transition between the root system and the stem or trunk.
S. Stem Girdling Roots: Any root more than . inch diameter currently touching the trunk, or with the potential to touch the trunk, above the root collar approximately tangent to the trunk circumference or circling the trunk. Roots shall be considered as Stem Girdling that have, or are likely to have in the future, root to trunk bark contact.
T. Structural root: One of the largest roots emerging from the root collar.
1.5 MEASUREMENT, GRADING & QUANTITIES
A. Time: The specified sizes and grades shall be at the time of delivery to site. Any assessment or measurement before this time can only be based on the plant characteristics at that time and not any future or predicted growth potential of the plant.
B. Size: The measurements specified or referenced shall be the minimum sizes acceptable after any necessary pruning and with branches, trunks or canes in their normal position. Plants that meet measurements specified but do not possess a normal balance between height and spread shall be rejected. Plants larger than specified may be used if approved. If larger plants are approved by the Project Site Representative, increase the root ball size in proportion to the size of the plant at no additional cost to the The City.
C. Quantity: If there is a discrepancy between the number of plants drawn and the number of plants listed or noted, then the number of plants drawn shall take precedence.
1.6 PERFORMANCE REQUIREMENTS
A. Plant Supply: Supply scheduled plant species, quantities, sizes and quality on the dates required.
B. Sourcing and Growing Methods: Be responsible for all the means and methods of supplying the plants.
C. Delegated Design: Structurally advanced tree deadman anchoring, including comprehensive engineering analysis by a qualified professional engineer licensed in Project's State, using performance requirements and design criteria indicated.
1.7 SUBMITTALS
A. Qualification Data for Plant Suppliers and/or Growers: Include list of similar projects completed by growers demonstrating their capabilities and experience in the last five years. Include project names, addresses, and year completed, and include names and addresses of prior contact personnel as references.
B. Qualification Data for Plant Installer: Include list of similar projects completed by Installer demonstrating their capabilities and experience in the last five years. Include project names, addresses, and year completed, and include names and addresses of prior contact personnel as references.
C. Sourcing and Growing Method: Submit method statement with bid and revise as necessary outlining sourcing, growing systems, holding and delivery methods proposed.
D. Supply Problems & Substitutions: Submit immediate notice of any supply difficulties and substantiate if any material specified is not obtainable including copies of grower's correspondence. Submit in writing to the Project Site Representative no later than twenty-one days after the Notice to Proceed any proposed plant substitutions of equivalent size and/or variety with corresponding proposed adjustment of the Contract Price. Substitutions shall not be considered after this time.
E. Photographs: Submit images of each plant species of each size and each quality grade clearly showing the full range of variations between the grades.

1. Format: digital high resolution jpeg file.
2. Scale: Include a yardstick in each photograph to provide scale.
3. Background: Ensure form and condition of plant is clear from background.
4. Identification: On or adjacent to each image, provide the following information:

a. Name of Project & Owner.
b. Name & address of grower.
c. Date photograph was taken.
d. Species name and quality grade.

PLANTS CONTINUED

5. Plants to photograph:

a. Advanced trees and hedges.
F. Proof of Supply: Submit proof of holding/deposit/purchase agreements from growers for the following:

1. Grower's nursery/plantation name and address.
2. Nursery/plantation layout showing lots & batches.
3. Quality and Inventory control procedures.
4. Confirmation of Advanced Tree grower, species and quantities ordered within fourteen days after tree tagging if the Project Site Representative requires tagging and/or approval of photographs if no tree tagging is required.
G. Nursery Progress Reports: Submit copies at not less than 6 monthly intervals and after any damage from natural causes. Describe status, size, condition and progress of each batch of plants. Use a spreadsheet format common to all growers.
H. Permits & Certificates: Provide evidence of all certificates and permits required by Federal, State, or local authorities in sourcing, growing and transporting plants.
I. Product Data: For each type of product indicated submit copies within fourteen days of proposed use.
J. Schedule Delays: Submit immediate notice of any delays in the Work that would extend the planting times into unfavorable seasonal conditions and/or would promote the growth of the plants so much as to render them too large for planting.
K. Samples for Verification: For each of the following:

1. Mulch: 5 lb (2.2 kg) of mulch for each color and texture required, in labeled plastic bags.
2. Edging: 12 inches (304 mm) of edging for each edge type and stake type.
3. Root Barrier: 24 inches (609 mm) of barrier.
L. Product Certificates: For each type of manufactured product, signed by product manufacturer, and complying with the following:

1. Manufacturer's certified analysis for standard products.
2. Analysis of other materials by a recognized laboratory made according to methods established by the Association of Official Analytical Chemists, where applicable.
M. Delivery Schedule: Indicating agreed delivery dates, quantities, trailer numbers and frequency. Continuously revise and reissue as necessary.
N. Maintenance Instructions: Submit at Substantial Completion, recommended procedures to be followed by the The City to maintain the plants during a calendar year.
O. Warranty: Submit sample of special warranty.
1.8 QUALITY ASSURANCE
A. Plant Installer: The installation of the planting shall be by the same subcontractor who is also installing the Landscape Soils and Preparation.
B. Plant Supplier Qualifications: A qualified supplier whose work has resulted in successful sourcing, growing and delivery of exterior plants.

1. Sourcing: Require an experienced plant finder whose work has resulted in successful sourcing, selection and delivery of quality plants. Hire a plant broker if necessary.
C. Plant Installer Qualifications: A qualified landscape installer whose work has resulted in successful establishment of exterior plants.

1. Professional Membership: Installer shall be a member in good standing of either the Professional Landcare Network or the American Nursery and Landscape Association.
2. Delivery Supervision: Require an experienced person who can assess the condition of the plants at the time of loading and unloading and who has the authority to resolve any disputes on site.
3. Installer's Field Supervision: Maintain an experienced full-time supervisor on Project site when exterior planting is in progress.
4. Personnel Certifications: Installer's field supervisor shall have certification in at least 2 of the following categories from the Professional Landcare Network:

a. Certified Landscape Technician - Exterior, with installation specialty area, designated CLT-Exterior.
b. Certified Landscape Technician - Interior, designated CLT-Interior.
c. Certified Ornamental Landscape Professional, designated COLP.

5. Pesticide Applicator: State licensed, commercial.
D. Field Observations: Plants may be subject to review both at the nursery/plantation and at the delivery site for conformity. Review at the nursery shall not impair the Project Site Representative right of review and possible rejection during progress of the Work onsite. Project Site Representative reserves the right to postpone the review it, in the Project Site Representative's opinion, a sufficient quantity of plants are not available.
E. Allowance for Losses: Grow additional plants to ensure that the contract quantities shall be achieved after normal production losses from natural causes, destructive sampling, breakage, random non-conformities, transplant shock and/or delivery damage.
F. Preinstallation Conference: Conduct conference at Project site to comply with Project Management and Coordination requirements.
1.9 SECURING PLANT SUPPLY
A. Securing the specified plant material at the sizes and times required is the sole responsibly of the Contractor. The The City has no liability for additional costs associated with potting-on or extended holding charges due to schedule delays caused by the Contractor.
B. Once the Contractor has secured the supply of the plants and submitted proof of such, the Contractor shall not cancel orders without first notifying the Owner Representative in writing.
1.10 DELIVERY, STORAGE, AND HANDLING
A. Packing: Prior to delivery, propose suitable temporary storage locations. Deliver the plants to the site after preparations have been made and as close as possible to the time of planting.
B. Protecting: Protect bark, branches, and root systems from sunscald, drying, sweating, whipping, and other handling and tying damage. Ensure all machinery handling plants have sharp edges padded. Do not bend or bind-tie plants in such a manner as to destroy their natural shape. Provide protective covering of plants during delivery. Do not drop plants during delivery. Handle plants by the root ball.
C. Acceptance at Site: Inspect unloaded plants in an upright position with tops untied to enable inspection of all sides. The Project Site Representative may also review. If the plant is not in conformance with the Contract.

1. Reject and remove the plant(s) from site and replace it within 2 days at no cost.
2. Or if approved in writing by the Project Site Representative accept the plant(s) on-site and at lower value as assessed by the Project Site Representative.
D. Storage: If planting is delayed overnight after delivery and acceptance, set plants and protect from stress, traffic, erosion, wilting, wind and secure against theft.

1. Set balled stock on ground and cover ball with soil, peat moss, mulch, or other acceptable material.
2. Set plants so that no branches are in contact with the ground.
3. Do not remove container-grown stock from containers before time of planting.
4. Water root systems of plants stored on-site with a fine-mist spray. Water as often as necessary to maintain root systems in a moist condition.
5. Store bulbs, corms, and tubers in a dry place at 60 to 65 deg F (16 to 18 deg C) until planting.
E. Size Variations due to change in schedule by The City:

1. Delivery or planting earlier than scheduled:

a. If plants are smaller than specified they shall be revalued using unit prices given with the bid.

2. Delivery or planting later than scheduled:

a. If the plants are so larger than specified that they require potting-on and/or additional time held offsite, then the Contractor is entitled to claim additional costs using unit prices given with the bid.
F. Size Variations due to change in schedule by Contractor:

1. Delivery or planting earlier than scheduled:

a. If plants are smaller than specified they shall be either rejected or replaced by the Contractor or at the The City's option revalued using unit prices given with the bid.

2. Delivery or planting later than scheduled:

a. If the plants are larger than specified that they require potting-on and/or additional time held offsite, then the Contractor is not entitled to claim additional costs.
1.11 DELIVERY COORDINATION
A. Allow for coordinating the actual delivery sequence and scheduling with Others who are supplying and delivering the advanced plants for the The City.
B. Others shall deliver advanced plants by full trailer loads for each distinct area or phase shown on the Plant Schedule.
C. Provide maximum time frame for delivery, maximum number of trailers at any one time and maximum waiting time for trailers for each distinct area or phase.
D. Allow to develop and revise the delivery schedule as necessary. During delivery periods update daily to show actual number of plants delivered.
E. Any delays in the installation of the plants by the installer that results in delays to delivery by the advanced plant supplier may be subject to damages incurred by the advanced plant supplier recoverable by the The City through the installer.
1.12 DELIVERY RESPONSIBILITIES
A. Responsibility of the advanced plant supplier:

1. Provide delivery time frame,
2. Ensure trailers find the temporary unloading areas,
3. Remove transport ropes, covers etc.,
4. Jointly inspect the plants,
5. Tag any non-conforming plants,
6. Prune any minor damage.
7. Remove and replace non-conforming plants.
B. Responsibility of the installer:

1. Nominate delivery times within suppliers time frame,
2. Designate temporary unloading areas,
3. Provide trafficable access to temporary unloading areas,
4. Unload the plants & holding upright for inspection,
5. Jointly inspect the plants,
6. Store & protect the plants until needed for planting,
7. Segregate any non-conforming plants.
1.13 SCHEDULING
A. Ordering: Be responsible for searching, locating, holding and ordering specified plants that are short in supply, and/or have long lead times and/or are sensitive to seasonal dependencies. No extensions of time or additional costs shall be granted if supply is compromised by sourcing and/or ordering too late or too early by the Contractor. This includes but is not limited to:

1. Advanced trees & hedges,
2. Meadow plants,
3. Wetland plants,
B. Planting Restrictions: Plant during one of the following periods or as agreed with the The City to protect the Warrantee: Coordinate planting periods with digging periods and deliveries:

1. Spring Planting: April to May.
2. Summer Planting: June or August subject to weather limitations and reliable watering.
3. Fall Planting: September to October.
C. Seasonal Contingencies: Br responsible for including and executing acceptable contingencies to reduce the risk of seasonal stress while meeting completion dates and the protecting the warrantee.
D. Weather Limitations: Proceed with planting only when existing and forecasted weather conditions permit. Suspend excavation of planting pits if clay/silt based soils are wet.
E. Coordination with Lawns: Plant trees and shrubs after finish grades are established and before planting lawns, unless otherwise acceptable to the Project Site Representative.
1.14 WARRANTY
A. Special Warranty: The Contractor agrees to replace non-conforming work and non-conforming plants. The Project Site Representative shall make the final determination if plants meet these specifications or that plants are non-conforming.
B. Warranty: Warrant the following plants, for the warranty period indicated, against defects, and/or loss resulting from materials and execution including death, die-back and unsatisfactory growth, but excluding third party damage, loss, neglect, abuse, vandalism, theft and/or unseasonal severe weather conditions.

1. Warranty Period for trees, shrubs, groundcovers: Twenty-four months from date of Substantial Completion.
C. Warrantee Replacements: Upon Project Site Representative's instruction remove nonconforming plants immediately and replace within thirty days when weather conditions within the specified planting season permit. Match size and species of adjacent plants. Reinstate the warranty for the corrected work from date when the correction is completed.
1.15 MAINTENANCE
A. If continuing maintenance is including in this contract, refer Division 32 "Maintenance of Landscape".
B. If continuing maintenance is not included in this contract, periodically inspect the site (not less than once per month) during the warrantee period and notify the The City in writing if proper maintenance is not being performed.
PART 2 - PRODUCTS

2.1 PLANTS
A. Propagules: Seek and obtain necessary approvals if propagation material is collected from natural and/or conservation lands. Do not use propagules from protected lands.
B. Growing Location: Supply plants grown in climatic conditions similar to those of the Project Site (USDA Hardiness Zone 7a, 7b, 8a) and then acclimated within 100 miles of the Project Site for at least 1 full growing season (May to September).
C. General Quality: Provide quality, size, genus, species, variety and sex of plants indicated conforming with the Plant List and which;

1. Are fit for purpose and hardened-off to the proposed site conditions.
2. Have an optimum habit and sound, healthy, growth with normal seasonal variations.
3. Comply with the dimension requirements of ANSI Z60.1.
4. Have a normal amount of flowers, fruit, cones, and seeds.
5. If containerized have:

a. Sturdy root ball when stem bends along its vertical length with no pivoting at the base or moving the root ball.
b. No cracked or broken root balls.
c. A symmetrical/radial pattern of well-branched fibrous roots without crushed/torn ends.

6. If non-containerized have:

a. Sufficient stored energy to ensure viability.

7. Have no weeds.
8. Free of die-back and disease.
D. Batching: Select, grade and blend plants into batches appropriate to their final arrangement on site and delivery sequence. For formal arrangements, rows, allees, hedges and/or bosques group plants in batches so that within each batch,

1. Trees & Hedges;

a. Height variation between individual plants is less than 1 foot,
b. Spread variation between individual plants is less than 1 foot,
c. Clear height variation between individual plants is less than 6 inches.
d. Provenance of individual plants is the same.

2. Shrubs;

a. Height variation between individual plants is less than 6 inches.
b. Spread variation between individual plants is less than 6 inches.
E. Vines: Provide two-year plants with heavy, well-branched tops, with not less than 3 runners 18 inches (450 mm) or more in length.
F. Plug Quality: Use plugs with a minimum depth and width of 4 inches.
G. Dormant Propagule Quality: Use hard and resilient bulbs, tubers and rhizomes with top growth cut back.
H. Unrooted Cutting Quality: Use cuttings that are alive, fresh, with bark intact and at least two bud scars near the top to facilitate branch development.

1. Vary length between 24 and 36 inches.
2. Vary caliper between 1 and 2 inches.
3. Bottom with clean angle cut and top with clean square cut.
2.2 GROWING SYSTEMS
A. Cultivation: Use plants that have been propagated using established horticultural practices specifically for ornamental landscape purposes and not for agriculture, forestry, retail chain sale or Christmas tree production.

1. Bare Root: Not permitted.
2. Processed Balled: Not permitted.
3. Balled and Burlapped: Sized according to ANSI Z60.1 for kind, type, and size of plant required.
4. Balled and Potted: Sized according to ANSI Z60.1 for kind, type, and size of plant required.
5. Container Grown: Sized according to ANSI Z60.1 for kind, type, and size of plant required. Grow plants in a medium that is compatible with the intended soils and site watering method. Do not carry out potting-on unless approved.
6. Fabric Bag Grown: Sized according to ANSI Z60.1 for kind, type, and size of plant required.
7. Wet Cultured: If specified for wetland plants, grow in saturated soil for a minimum of three months during the growing season.
8. Nursery Irrigation: Use an irrigation system to achieve growth rates and optimum quality.
2.3 SOURCE QUALITY CONTROL
A. Contractor's Delivery Supervisor: Inspect the following prior to delivery and again upon delivery:

1. The quality grade, general conformance and labeling.
2. The blending and batching of plants to suit the delivery sequence.
3. The proposed on-site temporary delivery areas.
2.4 TEMPORARY HOLDING AREAS

A. Irrigation system: Supply and install a system that has the following features:

1. bypasses existing irrigation main with a temporary diversion main and associated control wires.
2. ability to maintain the plants in peak condition at all times by having the capacity to apply a summer weekly target application rate of 2 inches.
3. a fully automatic, night-time, unattended low maintenance operation, vandal resistant.
4. a meter to record volume of water used.
5. a QCV valve to wash foliage.
B. Enclosures: 6 foot high galvanized chain wire and lockable gates. Provide padlocks to gates and submit a set of keys to the Project Site Representative.
C. Reinstatement: Restore any areas, which have been disturbed by the work to their original condition prior to the works commencing.
2.5 FERTILIZER
A. Slow-Release Fertilizer: Granular or pelleted fertilizer consisting of 50 percent water-insoluble nitrogen, phosphorus, and potassium in the following composition:

1. Composition: 20 percent nitrogen, 10 percent phosphorous, and 10 percent potassium, by weight.
2. Composition: Nitrogen, phosphorus, and potassium in amounts recommended in soil reports from a qualified soil-testing agency.
B. Mycorrhizal Fungi with Slow-Release Fertilizer: Dry, granular inoculant combined with a slow-release organic fertilizer in the following composition:

1. Slow Release Organic Fertilizer: 5 percent nitrogen, 3 percent phosphorous, and 2 percent potassium, by weight.
2. Mycorrhizal Fungi: Contains a minimum of 4 Endomycorrhizal and 7 Ectomycorrhizal fungi.

a. Products: Subject to compliance with requirements, provide products by one of the following:

1) Mycorrhizal Applications Inc. – "MycoApply Endo/Ecto Plus".
2) Other approved equivalent.
2.6 WATER
A. Provide a temporary metered connection to The City's potable mains. Be responsible for and pay for the distribution of water from this connection to all portions of the planting work. Remove connection prior to Substantial Completion. Additional water supply on or off site shall be at the Contractor's expense. Failures in the irrigation system shall not relieve the Contractor from watering.
2.7 ORGANIC MULCHES
A. Organic Mulch: Free from deleterious materials and suitable as a top dressing of trees and shrubs, consisting of one of the following:

1. Type: [Ground or shredded pine bark] [Pine straw] [Shredded hardwood] [Salt hay or threshed straw] [Wood and bark chips] [Peanut, pecan, and cocoa-bean shells].
2. Size Range: . to 1 inch diameter.
3. Color: No artificial dyes permitted.
B. Compost Mulch: Well-composted, stable, and weed-free organic matter, pH range of 5.5 to 8; moisture content 35 to 55 percent by weight; 100 percent passing through 1-inch (25-mm) sieve; soluble salt content of 4 to 8 decisiemens/m; not exceeding 0.5 percent inert contaminants and free of substances toxic to plantings; and as follows:

1. Organic Matter Content: 50 to 60 percent of dry weight.
2. Feedstock: Agricultural, food, or industrial residuals; biosolids; yard trimmings; or source-separated or compostable mixed solid waste.
2.8 TREE STABILIZATION MATERIALS
A. Stake & Tie Systems: hardwood or steel stakes pointed at one end and of a thickness to resist loads and be visually unobtrusive and by the length indicated on details. Plastic Ties: Soft polypropylene woven tie for 900 lb strength.

1. Manufacturer: Subject to compliance with requirements, provide products by one of the following:

a. DeepRoot – Arbor Tie
B. Anchor & Guy Systems: polypropylene webbing or galvanized-steel cable with loop and zinccoated soil anchor.

1. Manufacturer: Subject to compliance with requirements, provide products by one of the following:

a. Berkshire Products Inc. – "Earthwings Cable Kit".
b. Arborbrace – "Tree Guying System".
c. Duckbill – "Anchors".
C. Root-Ball Anchor Systems:

1. Horizontal Hold-Down: Rough-sawn, sound, new hardwood or softwood, free of knots, holes, cross grain, and other defects, 2-by-2-inch nominal (38-by-38-mm actual) by length indicated; stakes pointed at one end.

2. Proprietary Root-Ball Stabilization Devices: Proprietary at- or below-grade stabilization systems to secure each new planting by root ball; sized per manufacturer's written recommendations unless otherwise indicated.

a. Products: Subject to compliance with requirements, provide products by one of the following:

1) Berkshire Products Inc. – "Earthwings Root Ball Anchors".
2) Duckbill Rootball Fixing System.
3) Arborguy.
2.9 PESTICIDES
A. General: Pesticide registered and approved by EPA, acceptable to authorities having jurisdiction, and of type recommended by manufacturer for each specific problem and as required for Project conditions and application. Do not use restricted pesticides unless authorized in writing by authorities having jurisdiction.
B. Pre-Emergent Herbicide (Selective and Non-Selective): Effective for controlling the germination or growth of weeds within planted areas at the soil level directly below the mulch layer.
C. Post-Emergent Herbicide (Selective and Non-Selective): Effective for controlling weed growth that has already germinated.
2.10 MISCELLANEOUS PRODUCTS
A. Root Ball Support: Flat-bottom wire baskets manufactured to evenly distribute loads and minimize crimping. Use compatible burlap liners to prevent ball from fracturing and to ensure root growth into the surrounding soil.
B. Antidesiccant: Water-insoluble emulsion, permeable moisture retarder, film forming, for trees and shrubs. Deliver in original, sealed, and fully labeled containers and mix according to manufacturer's written instructions.
C. Trunk-Wrap Tape: Two layers of crinkled paper cemented together with bituminous material, 4-inch- (100-mm-) wide minimum, with stretch factor of 33 percent.
D. Root Barrier: High-density polyethylene (0.08") or high impact polystyrene (0.06") with vertical ribs, 24" deep unless otherwise noted on Drawings.
E. Temporary Tree Watering Systems: If there is no permanent irrigation system, provide temporary watering bags that allow the slow-release of water until new roots have established.
2.11 EROSION CONTROL PRODUCTS
A. Erosion Control Fabric: Biodegradable woven fabric.

1. Requirements:

a. Material: 100% spun coir or jute functional for at least 2 growing seasons.
b. Open area: 50% to 65% suitable for seeding after installation.
c. Wide width tensile (wet): 38 lbs.
d. Elongation at failure (wet): 47%.
e. Water Flow Velocity: 8 ft/sec.
f. Application: specifically recommended for use as erosion control on slopes up to 1 in 2 until planting is established.

2. Manufacturer: Subject to compliance with requirements, provide products by one of the following:

a. Belton Industries Inc.– "Geocoir DeKoWe 900" Coir mat
b. RoLanka International Inc. – "Jute mat"
B. Stabilization Fabric: 8 inch high biodegradable fabric strip.

1. Requirements:

a. Material: 100% spun coir functional for at least 4 growing seasons.
b. Open area: 24%.
c. Wide width tensile (wet): 130 lbs.
d. Elongation at failure (wet): 84%.
e. Application: specifically recommended for use as cellular confinement system on slopes up to 1 in 2.

2. Manufacturer: Subject to compliance with requirements, provide products by one of the following:

a. Belton Industries Inc.– "Geocoir DeKoWe 2307 Stabilization Fencing System" .
PART 3 - EXECUTION
3.1 EXAMINATION
A. Before starting Planting, examine preceding related work. Verify that Landscape Soil works are conforming and within specified tolerances. Correct non-conforming conditions before proceeding with Planting.
B. Testing Tree Hole and Trench Infiltration: For each different soil profile without subdrainage select representative holes and trenches (not less than 10% of undrained holes and trenches) and test to ASTM D-3385. Notify Project Site Representative if infiltration rate is outside the specified range in Division 32 Section Soils & Planting Preparation. Install supplemental subdrainage to holes and trenches until infiltration rate is within specified range. Refer to Division 33 Section On Site Storm Utility Drainage.
C. Notify Project Site Representative in writing of any non-conforming or unexpected soils and/or drainage conditions that the Contractor considers detrimental to the growth of plants prior to planting.
D. Locate and mark existing utilities, underground structures, and aboveground obstructions before planting and avoid disruption of and/or damage to utilities.
3.2 PREPARATION
A. Protect utilities, structures, foundations, sidewalks, pavements, other facilities, lawns and plants from damage caused by operations.

1. Damage to utilities: After locating and marking, verify the status of utilities. Protect or temporarily divert existing utilities to remain "live". Rectify immediately any obstruction or damage to utilities to remain "live" and provide and pay for temporary utilities whilst repairs are carried out to the satisfaction of the utility owner.

2. Damage to property: Do not interfere with or damage property that is to remain on or adjacent to the site, including adjoining property to the site, and trees. Rectify immediately any interference or damage to such property.

3. Damage to existing trees: If the trees are damaged or placed under unnecessary and avoidable stress by the Contractor, the Project Site Representative shall deduct damages from the Contractor's progress claim.

4. Existing Irrigation: Install a temporary diversion main, control cable and valves to isolate contract area and to maintain service to areas outside of the contract area.
B. Provide erosion control measures to prevent erosion, displacement of soils, discharge of soilbearing water runoff or airborne dust to adjacent properties and completed work. Be responsible for any additional temporary erosion control in areas that rely on the establishment of plant roots to stabilize soils.
3.3 LAYOUT
A. Use 3 foot lath or approved equivalent, color coded for each species to stake location of each tree and shrub. The Project Site Representative may review the layout in the field and the Contractor shall adjust exact positions before planting begins. The Project Site Representative reserves the right to refuse review at this time if, in his opinion, the layout is insufficient.
B. If it appears necessary to vary the locations and spacing to avoid utilities or to cover the area uniformly notify the Project Site Representative.
3.4 PLANTING ADVANCED TREES AND SHRUBS
A. Do not excavate if soil or subgrade is frozen, muddy, or excessively wet.
B. Excavating Holes and Trenches:

1. Excavate a square hole as shown in the drawings. Trim the base and compact directly under the root ball only.
2. Scarify all sides of the hole and trench to remove smeared hard-panned surfaces.
3. If subdrain is shown or required, install as specified.
4. Notify Project Site Representative if any obstructions detrimental to plant health or that prevent layout are encountered in excavations including but not limited to existing utilities, unforeseeable rock, industrial landfill, hardpan layers and perched water tables. Seek direction before making any changes to the plant layout.
C. Pedestals: Place and compact drainage course material between 90% to 95% percent of maximum Standard Proctor density according to ASTM D 698 and form a pedestal. Set pedestal height taking into consideration the rootball depth and allow for initial consolidation from weight and settlement.
D. Placing: Clear surface of any weed growth prior to planting. Set plant plumb and in center of pit / trench with top of root ball flush with adjacent finish grades. Consider the form and health of each plant and accordingly rotate and/or place plants in relation to sight-lines and appearance. Use best quality plants at corners and facing pavements.

1. For B&B stock - remove burlap, twine and wire baskets from the top half of the root ball. Remove pallets, if any, before setting. Do not use planting stock if root ball is cracked or broken before or during planting operation.

2. For container or bag stock - Carefully remove root ball from container or without damaging root ball or plant.

3. For boxed stock - Carefully remove box sides from root ball or without damaging root ball or plant.

4. For bare root stock - Spread roots without tangling or turning toward surface, and. remove injured roots by cutting cleanly; do not break.
E. Backfilling: Place Planting Soil around root ball in lifts not exceeding 12 inches (305 mm), tamping to settle mix and eliminate voids and air pockets up to . of backfill depth. Do not use subgrade and/or sub bases as backfill.

1. Place fertilizer evenly distributed when backfilled . using four (4) tablets for each 1/2" of the tree caliper measured at 12" above grade.

2. Water thoroughly before placing remainder of backfill. Repeat watering until no more water is absorbed. Water again after placing and tamping final layer of Landscape Soil.

3. Ensure that all plants are plumb and set flush with the surrounding soil levels. Ensure soil does not mix with mulch.

4. Form a temporary saucer with 3 inches (75 mm) high berm centered on the plant, 12 inches (303-mm) wider than ball diameter. Install a temporary 2-inch (50-mm) deep layer of mulch within berm area. Do not place mulch within 2-inches (50-mm) of trunks or stems.
F. Reinstatement: Restore any soil areas that have been compacted and /or disturbed by the planting work to a conforming condition.
G. Finish Grading: Grade planting areas to conform to specified grades after full settlement has occurred. Remove temporary saucers and mulch around trees upon installing final surface finishes.
H. Watering in: Hand-water plant foliage, rootball and surrounding soil during the same day of planting and continue watering until roots penetrate the surrounding soil. Do not saturate and destabilize soils on slopes greater than 1V in 3H.
I. Pruning: Prune, thin, and shape plants according to ANSI A300. Unless otherwise indicated by Project Site Representative, do not cut tree leaders; remove only injured or dead branches from flowering trees. Prune shrubs to retain natural character unless otherwise noted as a hedge.
J. Cleaning: Remove all plant containers from the site after planting and thoroughly clean all areas at the close of each day's planting.
K. Protecting: Install temporary measures to protect plants from physical damage and animal grazing until Final Acceptance.
L. Labels: Remove all plant labels upon Substantial Completion.
3.5 PLANTING SMALL TREES, SHRUBS & GROUNDCOVERS
A. Watering pots: Hand water plant containers to capacity prior to planting.
B. Excavation: Excavate planting holes as detailed to dimensions dictated by the rootball dimensions. Holes should be irregular in shape. Scarify all sides to remove smeared surface. Do not excavate into subgrade unless it has been suitable prepared as subsoil and/or subdrainage is present.
C. Placing: Lay out plants to specified spacings. Clear surface of any weed growth prior to planting. Remove plants from containers and gently tease outer roots, if necessary. Immediately set plants in the centre of the hole.
D. Backfilling: Backfill with planting soil and fertiliser and ensure that all plants are plumb and set flush with the surrounding soil levels. Work soil around roots to eliminate air pockets. Ensure soil does not mix with mulch.
E. Mycorrhizal Fungi: When required, add mycorrhizal fungi in Landscape Topsoil backfill.
F. Watering in: Hand-water plant foliage, rootball and surrounding soil during the same day of planting and continue watering until roots penetrate the surrounding soil. Do not saturate and destabilize soils on slopes greater than 1 in 3.
G. Cleaning: Remove all plant containers from the site immediately after planting and thoroughly clean all areas at the close of each day's planting.
H. Finish Grading: Grade planting beds to a smooth, uniform surface plane with loose, uniformly fine texture. Roll and rake, remove ridges, and fill depressions to meet finish grades.
I. Protecting: Install preventative measures to protect plants from feeding-animal damage until plants are established.
J. Labels: Remove all plant labels upon Substantial Completion.
K. Replacing: 30 days after planting replace, without cost to the The City as soon as weather conditions permit, all plants that have not shown signs of establishing roots outside of original container potting mix as determined by the Project Site Representative. Match quality and size of adjacent species.
3.6 TREE WRAPPING
A. Where freezing conditions are anticipated anytime during the Warranty Period, wrap trunks of deciduous trees of 1-1/2" or more caliper with a spiral wrapping to height of third branch. Wrap from bottom up and tie wrapping securely in place.
B. Within 50 feet of water bodies, where beavers are anticipated anytime during the Warranty Period, wrap trunks of trees of 1-1/2" or more caliper with split 4 inch PE subdrainage pipe to 2 feet above ground level.
3.7 TREE STABILIZATION
A. General: Be responsible for all plants remaining upright and stable in all conditions from installation through to Final Acceptance. Conform to the tree stabilization details. Attach to trunk / stem as low as possible. Verify location of utilities prior to driving stakes or anchors. For formal arrangements, rows, allees, hedges and/or bosques, stabilize all trees with the same system for uniformity.
3.8 PLACING EROSION CONTROL FABRIC
A. Lay loosely on surface to ensure fabric/ground contact. Provide at least 12 inches (300mm) overlap at joints. If not detailed on drawings use dead stout stake to manufacturer's written recommendations.
3.9 PLANTERS
A. Additional Requirement: Do not penetrate or damage fabrics and/or membranes.
3.10 PESTICIDE APPLICATION
A. Apply pesticides and other chemical products and biological control agents in accordance with authorities having jurisdiction and manufacturer's written recommendations. Coordinate applications with The City's operations and others in proximity to the Work. Notify The City before each application is performed.
B. Pre-Emergent Herbicides (Selective and Non-Selective): Apply to tree, shrub, and groundcover areas in accordance with manufacturer's written recommendations. Do not apply to seeded areas.
C. Post-Emergent Herbicides (Selective and Non-Selective): Apply only as necessary to treat already-germinated weeds and in accordance with manufacturer's written recommendations.
3.11 MULCHING
A. Mulch surfaces of planting beds and other areas as indicated on the drawings.

1. Prior to application of mulch remove all grass, weeds, rubbish and other deleterious matter from surface.

2. Organic Mulch: Apply average thickness of organic mulch shown on the drawings. Do not place mulch against plant stems.

3. Unless otherwise shown mulch surfaces shall finish flush with adjoining paving and 25mm below tops of walls.

4. Rake surface smooth and free from clumps.

5. Do not mound mulch around trees in grass.
3.12 CLEANUP AND PROTECTION
A. Keep adjacent paving and construction clean and work area in an orderly condition.
B. Protect plants from damage due to landscape operations, operations by Others. Maintain protection during installation and maintenance periods. Treat, repair, or replace damaged plants.
C. After Substantial Completion and before Final Acceptance remove nursery tags, nursery stakes, tie tape, labels, wire, burlap, temporary tree watering bags, and other debris from plant material, planting areas, and Project site.
3.13 DISPOSAL
A. Disposal: Remove surplus and waste material, including excess subsoil, unsuitable soil, trash, and debris, and legally dispose or recycle them off site.
END OF SECTION

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PROJECT
VINITA CULTURAL DEVELOPMENT CENTER

PROJECT
CHEROKEE NATION, OKLAHOMA

KEY PLAN

No.	Description	Date
1	100% CD SET	05/07/21

SHEET TITLE
PLANTING SPECIFICATIONS

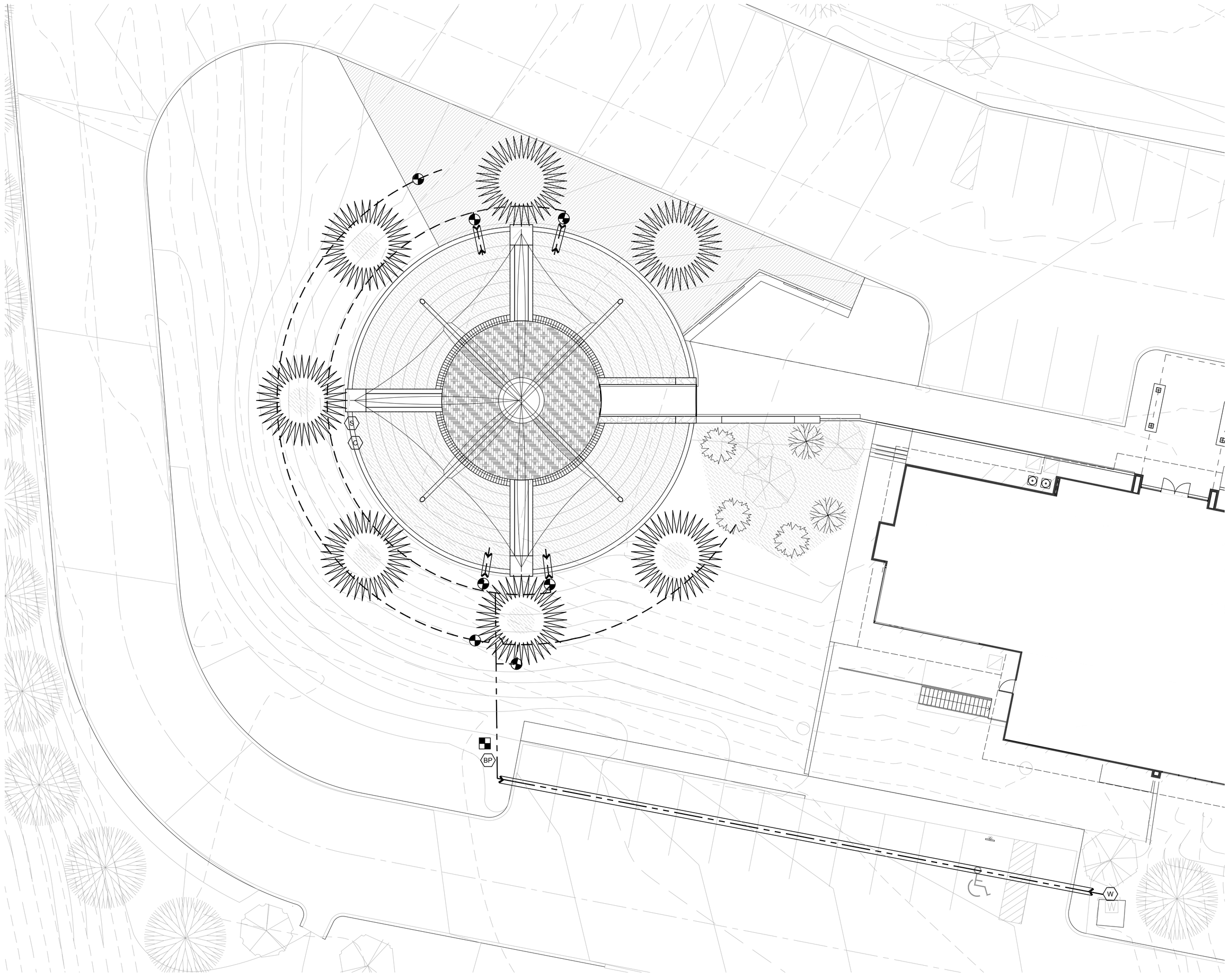
05/17/21 ASI 1

PROJECT NO: 111-049.20
DRAWN BY: JCL
CHK'D BY: BW
ISSUE DATE: 5/17/2021

L9.03
Scale: As indicated

State of Oklahoma, Brent Wall, #374, Licensed Landscape Architect

CA# 02418



IRRIGATION PLAN

1 " = 1 0 '

0' 10' 20' 30'

IRRIGATION LEGEND

BP BACKFLOW PREVENTER
C CONTROLLER
S FREEZE/RAIN SENSOR
W WATER METER
MASTER VALVE
SPRINKLER VALVE
BALL VALVE
ROOT WATERER
MAINLINE
WIRE SLEEVES
LATERAL LINE
POP-UP AREA
ROTORS AREA
DRIP AREA

GENERAL IRRIGATION NOTES

1. PRIOR TO SUBMITTING A BID FOR THE IRRIGATION WORK THE CONTRACTOR SHALL VISIT THE SITE TO VERIFY ALL INSTALLATION CONDITIONS.
2. THE CONTRACTOR SHALL READ THOROUGHLY AND BECOME FAMILIAR WITH THE PLANS, SPECIFICATIONS AND INSTALLATION DETAILS FOR THIS AND RELATED WORK PRIOR TO CONSTRUCTION.
3. QUANTITIES OF IRRIGATION COMPONENTS NOTED ON THE PLANS, DETAILS OR SPECIFICATIONS ARE FOR CONVENIENCE ONLY. THE CONTRACTOR IS RESPONSIBLE FOR ALL ITEMS REQUIRED TO PROVIDE A COMPLETE WORKING IRRIGATION SYSTEM AS DESIGNED, AND SHALL PROVIDE OWN MATERIAL TAKE OFF QUANTITIES.
4. IRRIGATION COMPONENTS CALLED OUT BY MANUFACTURER AND MODEL NUMBER DESIGNATE A TYPE OF MATERIAL, SIZE AND LEVEL OF PERFORMANCE. THE CONTRACTOR MAY SUBSTITUTE ALTERNATE COMPONENTS AS EQUAL WITH WRITTEN APPROVAL FROM LANDSCAPE ARCHITECT.
5. BEFORE STARTING ANY WORK THE CONTRACTOR SHALL CONTACT UTILITIES OFFICIALS TO VERIFY LOCATIONS AND DEPTHS OF UNDERGROUND UTILITIES THAT MAY BE AFFECTED BY THEIR WORK, AND THEY SHALL BE RESPONSIBLE FOR DAMAGES TO SUCH UTILITIES CAUSED AS A RESULT OF THEIR IRRIGATION INSTALLATION.
6. THE CONTRACTOR SHALL NOT PROCEED WITH THE INSTALLATION OF THE IRRIGATION SYSTEM WHEN IT IS OBVIOUS IN THE FIELD THAT OBSTRUCTIONS OR GRADE DIFFERENCES EXIST THAT MIGHT NOT HAVE BEEN CONSIDERED IN THE DESIGN, OR IF DISCREPANCIES IN CONSTRUCTION DETAILS, LEGENDS, NOTES, OR SPECIFICATIONS ARE DISCOVERED. BRING ALL SUCH OBSTRUCTIONS OR DISCREPANCIES TO THE ATTENTION OF THE LANDSCAPE ARCHITECT IN WRITING PRIOR TO CONSTRUCTION.
7. IRRIGATION COMPONENTS ARE SHOWN SCHEMATICALLY AND MAY BE DRAWN OUTSIDE OF PLANTING AREAS FOR GRAPHIC CLARITY. INSTALL ALL COMPONENTS IN LANDSCAPE AREAS WHENEVER POSSIBLE. AVOID CONFLICTS BETWEEN THE IRRIGATION SYSTEM, UTILITIES, PLANT MATERIAL, AND ARCHITECTURAL FEATURES.
8. THE IRRIGATION CONTRACTOR IS RESPONSIBLE FOR 100% COVERAGE TO ALL PLANT MATERIAL. COORDINATE IRRIGATION INSTALLATION WITH LANDSCAPE PLANS AND LANDSCAPE CONTRACTOR.
9. THE CONTRACTOR SHALL COMPLY WITH ALL LOCAL, STATE AND FEDERAL LAWS, CODES, AND REGULATIONS APPLICABLE TO THE IRRIGATION SYSTEM COVERED BY THESE PLANS.
10. INSTALL ALL ELECTRICAL POWER TO BACKFLOW PREVENTION IN ACCORDANCE WITH THE NATIONAL ELECTRIC CODE AND ALL APPLICABLE LOCAL CODES. ALL ELECTRICAL PRODUCTS UTILIZED ON THE PROJECT SHALL BE UL LISTED. THE IRRIGATION CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING ALL CONDUIT AND CONDUCTORS FROM THE 120 VOLT SOURCE LOCATION SUPPLIED BY THE ELECTRICAL CONTRACTOR.
11. THE IRRIGATION CONTRACTOR IS RESPONSIBLE FOR ALL IRRIGATION SLEEVING. SLEEVES SHALL BE PROVIDED FOR ALL IRRIGATION PIPING, LOW VOLTAGE (24 VOLT) WIRING, COMMUNICATION CABLE, AND HIGH VOLTAGE (120 VOLT AND GREATER) WIRING REQUIRED FOR THE IRRIGATION SYSTEM. SLEEVING FOR THE HIGH VOLTAGE WIRE SHALL BE SEPARATE FROM THE WATER PIPE, LOW VOLTAGE AND COMMUNICATION SLEEVES. HIGH VOLTAGE WIRING SHALL BE PLACED IN CONDUIT WITHIN IT'S SLEEVE. SEPARATE SLEEVES SHALL BE PROVIDED WITHIN THE PRIMARY SLEEVE FOR LOW VOLTAGE AND COMMUNICATION WIRING WHEN THEY SHARE A SLEEVE WITH THE IRRIGATION PIPING. SLEEVES SHALL BE PROVIDED UNDER ALL PAVING, SIDEWALKS, PATHS, AND THROUGH ALL WALLS. ANY PIPE OR WIRE WHICH PASSES BENEATH EXISTING HARDSCAPE WHERE SLEEVING WAS NOT INSTALLED REQUIRES HORIZONTAL BORING BY THE IRRIGATION CONTRACTOR. SLEEVE SIZES SHALL BE TWICE THE AGGREGATE DIAMETER OF ALL PIPE AND WIRE CONTAINED WITHIN THE SLEEVE.
12. CROSS ALL SIDEWALKS, CONCRETE, AND HARDSCAPE AT RIGHT ANGLES WHEREVER POSSIBLE.
13. THE CONTRACTOR SHALL ARRANGE FOR THE FOLLOWING INSPECTIONS AND MEETINGS DURING THE IRRIGATION SYSTEM INSTALLATION:
    A. PRE-CONSTRUCTION CONFERENCE
    B. LAYOUT OF MAJOR COMPONENTS: BACKFLOW, MAINLINE AND WIRE ROUTING.
    C. PRESSURE TESTING OF MAINLINE
    D. FINAL WALK THROUGH/BEGINNING OF MAINTENANCE-WARRANTY PERIOD
    E. FINAL ACCEPTANCE/END OF MAINTENANCE-WARRANTY PERIOD.
14. THE IRRIGATION MAINLINE SHALL BE TESTED AT 120 PSI FOR NOT LESS THAN FOUR (4) HOURS WITH NO LOSS OF PRESSURE. DO NOT BACKFILL MAINLINE UNTIL AFTER SUCCESSFUL COMPLETION OF MAINLINE TEST. MAINLINE SHALL BE TESTED WITH VALVES AND QUICK COUPLERS INSTALLED.
15. INSTALL ALL MAINLINES 2" AND SMALLER WITH 18" MINIMUM COVER.
16. ALL PIPE TO BE INSTALLED PER THE MANUFACTURER'S SPECIFICATIONS.
17. PIPE BEDDING SHALL CONSIST OF CLEAN NATIVE SOIL WITH NO STONE LARGER THAN ½" DIAMETER. 3" OF MORTAR SAND PLACED COMPLETELY AROUND THE PIPE IS AN ACCEPTABLE SUBSTITUTE FOR NATIVE SOIL. PIPING 4"-12" SHALL RECEIVE 6" OF BEDDING MATERIAL.
18. TRENCHES THAT CONTAIN MULTIPLE PIPES SHALL MAINTAIN A MINIMUM OF 3" OF SEPARATION BETWEEN PIPES.
19. MAINLINE FITTINGS TO BE SCHEDULE 80. USE TOE (THREADED ONE END) NIPPLES, NO MALE ADAPTERS WILL BE ACCEPTED.
20. ALL PVC SCHEDULE 40 AND SCHEDULE 80 FITTINGS TO BE LASCO OR APPROVED EQUAL.
21. ALL THREADED JOINTS SHALL BE WRAPPED WITH TEFLON TAPE UNLESS OTHERWISE SPECIFIED BY THE MANUFACTURER. USE LIQUID TEFLON ON METAL PIPE THREADS ONLY.
22. FLUSH ALL LINES PRIOR TO THE INSTALLATION OF QUICK COUPLERS.
23. ALL LOW VOLTAGE CONTROL WIRE TO BE #12-1 AWG UF 600 DIRECT BURIAL. COMMON WIRE TO BE #12-1 AWG UF 600 DIRECT BURIAL. CONTROL TO BE RED, COMMON TO BE WHITE. PROVIDE ONE SPARE GREEN #12-1 AWG DIRECT BURIAL WIRES FROM THE CONTROLLER ALONG THE ENTIRE LENGTH OF THE MAINLINE LOOPED INTO EACH VALVE BOX.
24. VALVE BOXES SHALL BE RAINBIRD VB-6RND OR APPROVED EQUAL.
25. MAINTAIN AS-BUILT PLANS OF IRRIGATION ON A DAILY BASIS, NOTING ALL CHANGES REGARDING INSTALLATION OF SYSTEM THAT DIFFER FROM PLANS. UPON FINAL ACCEPTANCE OF PROJECT BY ENGINEER, CONTRACTOR SHALL TURN IN ALL AS-BUILT PLANS ON A REPRODUCIBLE SET.
26. SUPPLY THE FOLLOWING MATERIALS TO THE OWNER AT FINAL WALK THROUGH/ BEGINNING OF WARRANTY-MAINTENANCE:
    A. TWO OPERATING KEYS FOR BALL VALVES.
    B. TWO QUICK COUPLER VALVE KEYS, COVER KEYS, AND HOSE SWIVELS.
    C. OPERATING/ OWNERS/ PARTS MANUALS FOR BACKFLOW, VALVES, AND QUICK COUPLERS, AND EMITTERS.
    D. APPROVED BACKFLOW TEST CERTIFICATION.
27. INSTALL ESP-LX BASIC CONTROLLER.
28. INSTALL WR2 SERIES WIRELESS RAIN/ FREEZE SENSOR.
29. INSTALL ZURN WILKINS MODEL 720A PRESSURE VACUUM BREAKER.
30. INSTALL ZURN WILKINS MODEL 375 XL BACKFLOW PREVENTOR.
31. INSTALL SAFE-T-COVER SERIES 100/200 INSULATED ENCLOSURE BY ZURN WILKINS.
32. ALL CONTROLS TO BE MOUNTED AT MINIMUM HEIGHT ALLOWED BY CODE.

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PROJECT
VINITA CULTURAL DEVELOPMENT CENTER

PROJECT
CHEROKEE NATION, OKLAHOMA

KEY PLAN

No.	Description	Date
1	100% CD SET	05/07/21

SHEET TITLE
IRRIGATION PLAN

05/17/21 ASI 1

PROJECT NO:	111-049.20
DRAWN BY:	JCI
CHK'D BY:	BW
ISSUE DATE:	5/17/2021

IR1.01

Scale As indicated

STATE OF OKLAHOMA · BRIAN WALL · 199.21 · REGISTERED LANDSCAPE ARCHITECT

CA# 02418

DESIGN PARAMETERS

1. BUILDING CODE: 2015 INTERNATIONAL BUILDING CODE
2. DEAD LOADS:
   A. ROOF — 20 PSF
3. LIVE LOADS:
   A. ROOF — 20 PSF (UNIFORM)
4. SNOW LOADS:
   A. GROUND SNOW LOAD, Pg — 15 PSF
5. WIND LOADS:
   A. BASIC WIND SPEED (3 SECOND GUST) — 115 MPH
   B. RISK CATEGORY — II
   C. EXPOSURE CLASSIFICATION — C
   D. INTERNAL PRESSURE COEFFICIENT — ± 0.18
   E. BASIC WIND PRESSURE (qh,UNFACTORED) — 19.7 PSF
   F. DESIGN WIND PRESSURE ON EXTERIOR WALLS (C&C LOAD BASED ON 100 FT² AREA)
      - END ZONES, (a=10'-0") — 22.1 PSF
      - INTERIOR ZONES — 19.9 PSF
   G. DESIGN UPLIFT PRESSURE ON ROOFS (C&C LOAD BASED ON 100 FT² AREA)
      - CORNER ZONES, (a=10'-0") — 17.2 PSF
      - EDGE ZONES, (a=10'-0") — 17.2 PSF
      - INTERIOR ZONES — 13.3 PSF
6. SEISMIC LOADS:
   A. SPECTRAL RESPONSE ACCELERATION; (SHORT PERIOD), Ss — 0.123
   B. SPECTRAL RESPONSE ACCELERATION; (1-SEC. PERIOD), S1 — 0.074
   C. SPECTRAL RESPONSE COEFFICIENT; (SHORT PERIOD), Sds — 0.131
   D. SPECTRAL RESPONSE COEFFICIENT; (1-SEC. PERIOD), Sd1 — 0.118
   E. SITE CLASS — D
   F. IMPORTANCE FACTOR, I — 1.0
   G. SEISMIC DESIGN CATEGORY — B
   H. BASIC STRUCTURAL SYSTEM AND SEISMIC RESISTING SYSTEM — STEEL ORDINARY CANTILEVER COLUMN SYSTEMS
   I. RESPONSE MODIFICATION FACTOR, R — 1.25
   J. SYSTEM OVER-STRENGTH FACTOR, W — 1.25
   K. DEFLECTION AMPLIFICATION FACTOR, Cd — 1.25
   L. ANALYSIS PROCEDURE — EQUIVALENT LATERAL FORCE
7. FOUNDATIONS:
   ISOLATED AND CONTINUOUS FOUNDATIONS HAVE BEEN DESIGN FOR AN ASSUMED ALLOWABLE NET BEARING PRESSURE OF 1500 PSF. THE OWNER AND/OR CONTRACTOR IS RESPONSIBLE FOR VERIFYING THESE ASSUMPTIONS WITH ACTUAL CONDITIONS PRIOR TO CONSTRUCTION OR BUILD AT THEIR OWN RISK. ACHIEVING AN ALLOWABLE BEARING PRESSURE DOES NOT PRECLUDE THE BUILDING FROM BEING SUBJECT TO DIFFERENTIAL MOVEMENT. SHOULD THE OWNER BE CONCERNED, THEY SHALL ENGAGE THE SERVICES OF A LICENSED GEOTECHNICAL ENGINEER TO INVESTIGATE AND PROVIDE RECOMMENDATIONS.

GENERAL

1. STRUCTURAL DRAWINGS ARE NOT STAND-ALONE DOCUMENTS AND ARE INTENDED TO BE USED IN CONJUNCTION WITH CIVIL, ARCHITECTURAL, MECHANICAL, ELECTRICAL, AND DRAWINGS FROM OTHER DISCIPLINES. THE CONTRACTOR SHALL COORDINATE ALL REQUIREMENTS OF THE CONTRACT DOCUMENTS INTO THE SHOP DRAWINGS AND FIELD WORK.
2. WHERE CONFLICT EXISTS AMONG VARIOUS PARTS OF THE STRUCTURAL CONTRACT DOCUMENTS, STRUCTURAL DRAWINGS, GENERAL NOTES, AND SPECIFICATIONS, THE STRICTEST REQUIREMENTS, AS INDICATED BY THE ENGINEER, SHALL GOVERN.
3. WHERE MEMBER LOCATIONS ARE NOT SPECIFICALLY DIMENSIONED, THE FOLLOWING RULES SHALL APPLY:
   A. DO NOT SCALE DRAWINGS.
   B. COLUMNS ARE CENTERED ON GRID LINES.
   C. FOOTINGS ARE CENTERED BENEATH COLUMNS.
   D. CONTINUOUS FOOTINGS ARE CENTERED BENEATH WALLS.
   E. FRAMING MEMBERS ARE EITHER LOCATED ON GRID LINES OR ARE EQUALLY SPACED BETWEEN LOCATED MEMBERS.
4. ALL STRUCTURAL ELEMENTS OF THE PROJECT HAVE BEEN DESIGNED BY THE STRUCTURAL ENGINEER TO RESIST THE REQUIRED CODE VERTICAL AND LATERAL FORCES THAT COULD OCCUR IN THE FINAL COMPLETED STRUCTURE ONLY. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO PROVIDE ALL REQUIRED BRACING DURING CONSTRUCTION TO MAINTAIN THE STABILITY AND SAFETY OF ALL STRUCTURAL ELEMENTS DURING THE CONSTRUCTION PROCESS UNTIL THE LATERAL LOAD RESISTING OR STABILITY-PROVIDING SYSTEM IS COMPLETELY INSTALLED AND THE STRUCTURE IS COMPLETELY TIED TOGETHER.
5. THE STRUCTURE HAS BEEN DESIGNED FOR THE LOADS IDENTIFIED WITHIN THESE STRUCTURAL DRAWINGS THAT ARE ANTICIPATED TO BE APPLIED TO THE FINAL STRUCTURE ONCE COMPLETED AND OCCUPIED. THE CONTRACTOR SHALL NOT OVERLOAD THE STRUCTURE DURING CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CHECKING THE ADEQUACY OF THE STRUCTURE TO SUPPORT ANY APPLIED CONSTRUCTION LOADS, INCLUDING THOSE DUE TO CONSTRUCTION VEHICLES OR EQUIPMENT, MATERIAL HANDLING OR STORAGE, SHORING AND RESHORING, OR ANY OTHER PROPOSED CONSTRUCTION LOADS THAT ARE IN EXCESS OF THE STATED DESIGN LOADS. THE STRUCTURAL ENGINEER IS NOT RESPONSIBLE TO DESIGN OR CHECK THE STRUCTURE FOR LOADS APPLIED TO THE STRUCTURE FOR ANY CONSTRUCTION ACTIVITY.
6. WEIGHTS OF MECHANICAL EQUIPMENT SHOWN ON THE STRUCTURAL PLANS ARE FOR UNITS SPECIFIED BY THE MECHANICAL ENGINEER. CONTRACTOR SHALL VERIFY THE WEIGHTS. ANY SUBSTITUTIONS THAT RESULT IN INCREASED WEIGHT SHALL BE APPROVED BY THE STRUCTURAL ENGINEER OF RECORD.
7. THE SIZE AND LOCATION OF EQUIPMENT PADS AND PENETRATIONS THROUGH THE STRUCTURE FOR MECHANICAL, ELECTRICAL, AND PLUMBING WORK SHALL BE VERIFIED BY THE CONTRACTOR. OPENINGS AND PENETRATIONS NOT SPECIFICALLY SHOWN ON THE STRUCTURAL DRAWINGS SHALL BE SUBJECT TO APPROVAL BY THE STRUCTURAL ENGINEER OF RECORD.
8. PRIOR TO FABRICATION AND/OR ERECTION OF ANY MATERIALS, THE CONTRACTOR SHALL FIELD VERIFY ALL PERTINENT EXISTING DIMENSIONS, ELEVATIONS, AND CONDITIONS AND SHALL REPORT ANY DISCREPANCIES TO THE STRUCTURAL ENGINEER OF RECORD OR THE ARCHITECT IMMEDIATELY UPON DISCOVERY.
9. BACKFILL BOTH SIDES OF ALL FOUNDATION AND RETAINING WALLS EQUALLY UNTIL LOW SIDE IS UP TO FINISH GRADE. DO NOT BACKFILL ANY WALLS UNTIL CONCRETE HAS REACHED ITS SPECIFIED 28-DAY COMPRESSIVE STRENGTH.
10. CONNECTIONS OF SYSTEMS DESIGNED BY THE CONTRACTOR'S ENGINEER SUCH AS, BUT NOT LIMITED TO, CLADDING, STAIRS, ELEVATORS AND MEP LOADS ARE ASSUMED TO IMPOSE VERTICAL AND/OR HORIZONTAL LOADS ON THE BASE BUILDING STRUCTURAL MEMBERS WITHOUT GENERATING TORSION IN THE SUPPORTING STRUCTURAL MEMBERS. CONTRACTOR IS RESPONSIBLE FOR FURNISHING AND INSTALLING ALL SUPPLEMENTARY BRACING MEMBERS AS REQUIRED TO PREVENT TORSION ON THE BASE BUILDING STRUCTURE.
11. ANY MATERIALS OR PRODUCTS SUBMITTED FOR APPROVAL THAT ARE DIFFERENT FROM THE MATERIAL OR PRODUCTS SPECIFIED IN THE STRUCTURAL CONTRACT DOCUMENTS WILL BE APPROVED ONLY IF THE FOLLOWING CRITERIA ARE SATISFIED:
    A. A COST SAVINGS TO THE OWNER IS DOCUMENTED AND SUBMITTED WITH THE REQUEST.
    B. THE MATERIAL OR PRODUCT HAS BEEN APPROVED BY THE INTERNATIONAL CODE COUNCIL (ICC) AND THE ICC REPORT IS SUBMITTED WITH THE REQUEST.
12. THE ENGINEER SHALL NOT HAVE CONTROL NOR CHARGE OF, AND SHALL NOT BE RESPONSIBLE FOR, CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, OR PROCEDURES, FOR SAFETY PRECAUTIONS AND PROGRAMS IN CONNECTION WITH THE WORK, FOR THE ACTS OR OMISSION OF THE CONTRACTOR, SUBCONTRACTOR, OR ANY OTHER PERSONS PERFORMING ANY OF THE WORK, OR FOR THE FAILURE OF ANY OF THEM TO CARRY OUT THE WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.
13. PERIODIC SITE OBSERVATION BY FIELD REPRESENTATIVES OF 360 ENGINEERING GROUP, PLLC. IS SOLELY FOR THE PURPOSE OF BECOMING GENERALLY FAMILIAR WITH THE PROGRESS AND QUALITY OF THE WORK COMPLETED AND DETERMINING, IN GENERAL, IF THE WORK OBSERVED IS BEING PERFORMED IN A MANNER INDICATING THAT THE WORK, WHEN FULLY COMPLETED, WILL BE IN ACCORDANCE WITH THE STRUCTURAL CONTRACT DOCUMENTS. THIS LIMITED SITE OBSERVATION SHOULD NOT BE CONSTRUED AS AN EXHAUSTIVE OR CONTINUOUS CHECK OF THE QUALITY OR QUANTITY OF THE WORK, BUT RATHER PERIODIC IN AN EFFORT TO GUARD THE OWNER AGAINST DEFECTS OR DEFICIENCIES IN THE WORK OF THE CONTRACTOR.

DIVISION 2 - FOUNDATIONS

1. FOOTINGS SHALL BEAR EITHER ON COMPETENT NATIVE SOIL OR COMPACTED STRUCTURAL FILL.
2. EXTERIOR AND EXTERIOR PERIMETER FOOTINGS SHALL BEAR NOT LESS THAN 24 INCHES BELOW FINISH GRADE UNLESS OTHERWISE SPECIFIED BY A GEOTECHNICAL ENGINEER AND/OR BUILDING OFFICIAL. IF THE SOIL AT THE BEARING ELEVATIONS SHOWN IS OF QUESTIONABLE BEARING VALUE, THE STRUCTURAL ENGINEER OF RECORD OR ARCHITECT SHALL BE NOTIFIED IMMEDIATELY.
3. PROVIDE A MINIMUM OF A 4-INCH CLEAN, FREE-DRAINING GRANULAR SUBBASE FILL BELOW ALL INTERIOR SLABS-ON-GRADE UNLESS NOTED OR DETAILED OTHERWISE. SUBBASE SHALL MEET GRADATION REQUIREMENTS OF ASTM C-33 SIZE NO. 67, UNLESS SPECIFICALLY NOTED OTHERWISE.
4. A 15-MIL MINIMUM POLYETHYLENE FILM VAPOR RETARDER, MEETING THE REQUIREMENTS IN THE SPECIFICATIONS, SHALL BE PLACED BELOW ALL INTERIOR SLABS-ON-GRADE.
5. THE CONTRACTOR IS CAUTIONED AGAINST LOADING SLAB-ON-GRADE WITH CONSTRUCTION EQUIPMENT. THE SLAB HAS NOT BEEN DESIGNED FOR CONSTRUCTION EQUIPMENT AND MAY REQUIRE AN INCREASE IN SLAB THICKNESS AND/OR REINFORCEMENT. IF THE CONSTRUCTION LOADING EXCEEDS THE DESIGN LOADS SHOWN IN THE DESIGN CRITERIA, THE CONTRACTOR IS REQUIRED TO SUBMIT CALCULATIONS SIGNED AND SEALED BY A REGISTERED STRUCTURAL, CIVIL, OR GEOTECHNICAL ENGINEER IN THE STATE WHERE THE PROJECT IS LOCATED VERIFYING THE ADEQUACY OF THE SLAB.
6. EXTERIOR FOOTINGS FOR STAIRS AND RAMPS SHALL BEAR AT OR BELOW MINIMUM BEARING DEPTH.
7. FOUNDATION WALLS SHALL HAVE ADEQUATE TEMPORARY BRACING INSTALLED BY THE CONTRACTOR BEFORE BACKFILL IS PLACED AGAINST THEM. TEMPORARY BRACING SHALL NOT BE REMOVED UNTIL WALL IS PERMANENTLY BRACED.

DIVISION 3 - CONCRETE

1. ALL CONCRETE SHALL CONFORM TO THE SPECIFICATIONS FOR STRUCTURAL CONCRETE, ACI 301.
2. CONTRACTOR SHALL FOLLOW ACI 305.1 FOR HOT WEATHER CONCRETE, ACI 306.1 FOR COLD WEATHER CONCRETE PLACEMENT AND CURING GUIDELINES.
3. ARRANGEMENTS AND DETAIL OF REINFORCING BENDS SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF PUBLICATION SP-66, "ACI DETAILING MANUAL" AND ACI 318, "BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE."
4. UNLESS NOTED OTHERWISE, BAR SPLICES SHALL BE CLASS B TENSION LAPS AND SHALL BE LAPPED WITH MINIMUM LENGTHS AS LISTED IN THE LAP LENGTH SCHEDULE, WHERE REQUIRED IN REINFORCING. SHORTER LAPS MAY BE ACCEPTABLE IF SPECIFIC LOCATIONS OF ALTERNATE LAPS ARE SHOWN ON THE REINFORCING PLACEMENT DRAWINGS AND CALCULATIONS ARE SUBMITTED BY A REGISTERED PROFESSIONAL ENGINEER, LICENSED TO PRACTICE IN THE STATE IN WHICH THE PROJECT IS LOCATED, JUSTIFYING THE ALTERNATE LAP LENGTHS.
5. PROVIDE SUITABLE WIRE SPACERS, CHAIRS, TIES, ETC. FOR SUPPORTING REINFORCING STEEL IN THE PROPER POSITION BEFORE PLACING CONCRETE.
6. ALL WELDED WIRE FABRIC SHALL BE LAPPED A MINIMUM OF 12" AT THE SIDES AND ENDS.
7. LOCATIONS AND SIZES OF OPENINGS, SLEEVES, ETC. REQUIRED FOR OTHER TRADES MUST BE VERIFIED BY THESE TRADES BEFORE PLACING CONCRETE.
8. ALL SLOTS, SLEEVES, TRENCHES AND OTHER EMBEDDED ITEMS SHALL BE SET AND SECURED AGAINST MOVEMENT BEFORE THE CONCRETE IS PLACED. SEE ARCHITECTURAL, ELECTRICAL, MECHANICAL, PLUMBING, AND VENDOR DRAWINGS FOR SIZES, AND LOCATIONS. COORDINATE LOCATIONS, SPACING, AND SIZES WITH THE STRUCTURAL ENGINEER OF RECORD PRIOR TO PLACING CONCRETE.
9. AS PART OF THE SUBMITTAL PROCESS, THE ELECTRICAL AND MECHANICAL CONTRACTOR(S) SHALL SUBMIT PROPOSED ROUTING PLAN FOR ALL PIPES, CONDUITS, OR OTHER DEVICES TO BE EMBEDDED IN THE CONCRETE. THE SUBMITTAL SHALL SHOW SPECIFIC SIZES AND LOCATIONS OF ALL PROPOSED EMBED ITEMS REFERENCING PROXIMITY TO BEAM, COLUMN, AND SLAB EDGES. NO ITEMS SHALL BE ALLOWED TO BE EMBEDDED IN THE CONCRETE WITHOUT PRIOR WRITTEN APPROVAL FROM THE STRUCTURAL ENGINEER OF RECORD.
10. CONDUITS AND PIPES EMBEDDED IN CONCRETE SLABS MAY BE NO LARGER THAN 1/3 OF THE SLAB THICKNESS (BASED ON THE MAXIMUM OUTSIDE DIAMETER) AND SHALL HAVE A CENTER-TO-CENTER SPACING NO LESS THAN THREE (3) CONDUIT DIAMETERS. REGARDLESS OF DIAMETER, THE MINIMUM CLEAR SPACING BETWEEN CONDUITS OR REINFORCING SHALL BE (1) INCH.
11. NO MORE THAN FOUR CONDUITS MAY BE PLACED ADJACENT TO EACH OTHER WITHOUT PRIOR APPROVAL IN WRITING FROM THE STRUCTURAL ENGINEER OF RECORD.
12. NO ALUMINUM CONDUITS, DEVICES, OR FIXTURES MAY BE EMBEDDED INTO THE CONCRETE SO THAT THE ALUMINUM IS IN DIRECT CONTACT WITH THE CONCRETE.
13. CORNER BARS SHALL BE PROVIDED FOR ALL HORIZONTAL REINFORCING BARS AT THE INTERSECTIONS AND CORNERS OF ALL STRIP FOOTINGS, BEAMS, AND WALLS UNLESS NOTED OTHERWISE. CORNER BARS SHALL BE OF THE SAME SIZE AND GRADE AS THE HORIZONTAL REINFORCING THEY CONNECT. MINIMUM LAP LENGTHS SHALL BE AS INDICATED ABOVE UNLESS NOTED OTHERWISE.
14. FOR EXTERIOR RETAINING WALLS AND BUILDING STEM WALLS EXPOSED TO VIEW ACROSS THE LENGTH OF WALL, PROVIDE FORMED "V" CONTROL JOINTS AT 15'-0" OC MAX.
15. CRACKING IS INHERENT TO THE MATERIAL PROPERTIES OF CONCRETE CONSTRUCTION WHILE EVERY EFFORT HAS BEEN MADE TO MINIMIZE THE EFFECTS IF UNSIGHTLY CRACKING, THE PRESENCE OF CRACKS ARE NORMAL AND UNAVOIDABLE. THE DESIGN OF THE CONCRETE STRUCTURAL ITEMS HAVE BEEN ANALYZED USING A "CRACKING SECTION." THE PRESENCE OF THE CRACKING SHOULD NOT BE CONSIDERED DETRIMENTAL TO THE STRUCTURE. CRACK LARGER THAN 5 MILS SHALL BE FILLED AND SEALED WITH AN APPROVED CRACK FILLER TO PREVENT FUTURE DETERIORATION. AN ALLOWANCE SHALL BE MADE IN THE CONSTRUCTION BUDGET FOR SEALING OF SUCH CRACKS. IN SOME CASE, CRACKS DO NOT APPEAR UNTIL WELL AFTER CONSTRUCTION HAS BEEN COMPLETED. ITS THE RESPONSIBILITY OF THE OWNER TO MAINTAIN THE STRUCTURE PROPERLY OVER THE LIFE OF THE STRUCTURE. CONCRETE CRACKS, SHOULD THEY OCCUR, SHALL BE FILLED AND SEALED TO PREVENT PREMATURE DETERIORATION OF THE STRUCTURE.

LAP LENGTHS FOR SPLICES

BAR SIZE	TOP BARS**	OTHER
#3	1'-11"	1'-6"
#4	2'-6"	1'-11"
#5	3'-1"	2'-5"
#6	3'-8"	2'-10"
#7	5'-3"	4'-0"
#8	6'-0"	4'-7"
#9	6'-9"	5'-2"

REQUIRED CONCRETE STRENGTHS (28 DAY)

CONCRETE ELEMENT	f'c (PSI)
FOOTINGS, PIERS AND GRADE BEAMS	3,000
FOUNDATION WALLS AND PEDESTALS	4,000
SLABS-ON-GRADE	3,500
SUSPENDED SLABS AND SLABS ON COMPOSITE DECK	3,000
STEEL STAIR PANS (SLABS ON NON-COMPOSITE DECK)	3,000
EXTERIOR STRUCTURAL CONCRETE (AIR ENTRAINED)	4,500
SIDEWALKS (AIR ENTRAINED)	3,500

* BASED ON MINIMUM CONCRETE COVER OF 1 1/2", A MINIMUM CENTER-TO-CENTER BAR SPACING OF THREE BAR DIAMETERS, AND 3,000 PSI CONCRETE. CLASS A SPLICE VALUES SHOWN ASSUME CLEARANCE & SPACING REQUIREMENTS PER ACI 318.

** TOP BARS ARE HORIZONTAL BARS WITH MORE THAN (12) INCHES OF CONCRETE CAST BELOW BARS.

REINFORCEMENT MATERIALS

REINFORCING ELEMENT	ASTM	Fy (KSI)	Fu (KSI)
TYP REINFORCEMENT	A615	60	90
WELDED AND BENT REINF	A706	60	80
WELDED WIRE REINFORCING, SMOOTH	A185	65	75
WELDED WIRE REINFORCING, DEFORMED	A497	70	80

REINFORCEMENT COVER REQUIREMENTS

LOCATION	COVER (IN)
COLUMNS, GIRDERS, AND BEAMS	1 1/2
CONCRETE CAST AGAINST EARTH	3
CONCRETE CAST IN FORMS, EXPOSED TO WEATHER OR EARTH	2
CONCRETE CAST ON VOID FORMS WITH MASONITE OR PLYWOOD COVERING	2
JOISTS	1 1/2
SLABS OR WALLS NOT EXPOSED TO EARTH OR WEATHER	1

DIVISION 5 - STRUCTURAL STEEL

1. STRUCTURAL STEEL SHALL MEET THE FOLLOWING MINIMUM YIELD STRENGTHS (Fy):

	YIELD	ASTM SPECIFICATION
A. WIDE FLANGE SHAPES	50 KSI	A992
B. OTHER SHAPES, BARS, PLATES AND RODS	36 KSI	A36
C. SQUARE AND RECTANGULAR HSS	46 KSI	A500, GRADE B
D. ROUND HSS	42 KSI	A500, GRADE A
E. STRUCTURAL STEEL PIPE	35 KSI	A53, TYPE E, GRADE B
F. ANCHOR RODS	55 KSI	F1554
G. ALL-THREAD RODS	36 KSI	A36
H. HEADED STUD ANCHORS	65 KSI (TENSILE)	A108 (GRADE DESIGNATIONS 1010-1020 INCLUSIVE)

2. BOLTS FOR STEEL BEAM AND COLUMN CONNECTIONS SHALL BE 3/4" DIAMETER ASTM A325 HIGH-STRENGTH BOLTS INSTALLED SNUG TIGHT, UNO.
3. WHERE FIELD AND SHOP WELDS ARE INDICATED ON THE DRAWINGS, THEY SHALL BE THE SIZE AND TYPE NOTED. ALL WELDING OF STRUCTURAL STEEL SHALL BE DONE IN ACCORDANCE WITH LATEST EDITION OF AWS D1.1 CORRESPONDING TO THE AISC SPECIFICATION USED, AND ALL WELDS INCLUDING FIELD WELDS SHALL BE MADE BY CERTIFIED WELDERS USING E70XX ELECTRODES.
4. WHERE FILLED WELD SIZES ARE NOT INDICATED ON WELD SYMBOLS, FILLET SIZE SHALL BE 1/16TH INCH SMALLER THAN THICKNESS OF THINNER MATERIALS BEING JOINED.
5. COMPLETE PENETRATION WELDS ARE INDICATED BY NOTATION "CP" ON WELD SYMBOLS, PARTIAL PENETRATION BY "PP".
6. PROVIDE DOUBLE NUTS AND DOUBLE WASHERS FOR STEEL COLUMN ANCHOR BOLTS TO ALLOW FOR ADJUSTMENT IN BASE PLATE ELEVATION.
7. COMPOSITE CONSTRUCTION STEEL BEAMS AND GIRDERS DO NOT REQUIRE SHORING.
8. STUD CONNECTORS FOR COMPOSITE BEAMS AND GIRDERS SHALL BE 3/4" DIA. X 3 3/4" AND SHALL BE WELDED THROUGH METAL DECK DIRECTLY TO THE STEEL MEMBER.
9. STUD SPACING ON COMPOSITE BEAMS AND GIRDERS SHALL NOT BE LESS THAN 4 1/2" ALONG THE LENGTH OF ANY MEMBER AND SHALL NOT EXCEED 32". MINIMUM STUD SPACING ACROSS THE WIDTH OF ANY FLANGE SHALL NOT BE LESS THAN 3".
10. DO NOT PAINT SURFACES WHICH RECEIVE WELDED STUDS.
11. EXPOSED STEEL LABELED AS ARCHITECTURALLY EXPOSED STEEL REQUIRES HIGHER TOLERANCES FOR CONSTRUCTION. REFER TO SPECIFICATIONS SECTION 051200 FOR REQUIREMENTS. FLARE BEVEL WELDS FOR ARCHITECTURALLY EXPOSED TUBE SHAPED SECTIONS SHALL BE BEVELED 45 DEGREES, WELDED AND GRINDED SMOOTH.
12. ALL STEEL MEMBERS NOTED OR INDICATED ON PLANS, ELEVATIONS, SECTIONS OR DETAILS SHALL BE SHOP ROLLED BY THE STEEL FABRICATOR. SHOP DRAWINGS SHALL INDICATE CURVATURE DATA AND FULL PENETRATION SPLICE LOCATIONS.
13. REFERENCE SPECIFICATIONS FOR MISC. STEEL REQUIREMENTS NOT SHOWN ON STRUCTURAL PLANS.
14. TOUCH UP ALL FIELD WELDS ON GALVANIZED SURFACES WITH GALVANIZING REPAIR PAINT.
15. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR INCLUDING THE COSTS FOR ALL MISCELLANEOUS STEEL IN THEIR BID, REGARDLESS OF WHETHER THOSE ITEMS ARE INDICATED ON THE STRUCTURAL DRAWINGS. THESE COSTS SHALL INCLUDE, BUT NOT LIMITED TO, MISCELLANEOUS STEEL ITEMS SHOWN ON ARCHITECTURAL, CIVIL, MECHANICAL, PLUMBING, AND ELECTRICAL DRAWINGS.
16. UNLESS DETAILED OTHERWISE OR REACTIONS ARE INDICATED, BEAM CONNECTIONS SHALL BE SELECTED TO SUPPORT ONE-HALF THE TOTAL UNIFORM LOAD CAPACITY SHOWN IN THE "ALLOWABLE UNIFORM LOAD TABLES" IN PART 3 OF THE AISC STEEL CONSTRUCTION MANUAL, 13TH EDITION, FOR THE GIVEN BEAM SIZE, SPAN AND STEEL SPECIFICATION OR FOR THE BEAM REACTION SHOWN ON THE DRAWINGS, WHICHEVER IS GREATER. THE MINIMUM BEAM CONNECTION SHALL NOT BE SMALLER THAN THOSE LISTED IN TABLES 10-1 AND 10-2 OF THE AISC STEEL CONSTRUCTION MANUAL, 13TH EDITION, FOR THE GIVEN BEAM DEPTH, BOLT DIAMETER AND WELD SPECIFICATION.
17. THE FABRICATOR SHALL BE RESPONSIBLE FOR THE DESIGN AND ADEQUACY OF ALL CONNECTIONS THAT ARE NOT DESIGNED OR FULLY DETAILED ON THE CONTRACT DOCUMENTS. SHOP DRAWINGS, DEPICTING THE CONFIGURATIONS AND FABRICATION DETAILS, ALONG WITH CALCULATIONS, SEALED BY A REGISTERED PROFESSIONAL ENGINEER, LICENSED TO PRACTICE IN THE STATE IN WHICH THE PROJECT IS LOCATED, SHALL BE SUBMITTED TO THE STRUCTURAL ENGINEER OF RECORD FOR REVIEW.
18. UNLESS OTHERWISE INDICATED, BEAM REACTIONS SHOWN ON THE PLANS ARE DESIGN SERVICE LEVEL (ASD) GRAVITY (DEAD LOAD PLUS LIVE LOAD) SHEAR LOADS. ANY AXIAL OR OTHER LOADS REQUIRED MUST BE CONSIDERED IN ADDITION TO THE VERTICAL REACTIONS SHOWN.
19. THE MINIMUM DESIGN LOAD FOR ANY CONNECTION SHALL BE 6 KIPS (ASD) OR 10 KIPS (LRFD), REGARDLESS OF THE BEAM REACTION(S) SHOWN ON THE PLANS.
20. STEEL FRAMES ARE NON SELF-SUPPORTING AND COLUMN ANCHOR RODS ARE DESIGNED FOR A COMPLETED CONDITION ONLY. METAL ROOF DECK, BEAM-TO-COLUMN MOMENT CONNECTIONS, PORTAL FRAMES, AND DIAGONAL BRACES ARE REQUIRED TO PROVIDE LATERAL STABILITY FOR THE FRAME AND BUILDING. THIS INCLUDES RESISTANCE TO WIND AND SEISMIC FORCES DURING AND AFTER CONSTRUCTION. THE CONTRACTOR SHALL PROVIDE ALL TEMPORARY BRACING REQUIRED TO MAINTAIN STABILITY UNTIL THE LATERAL FORCE RESISTING SYSTEM FOR THE BUILDING IS COMPLETE.
21. STAIR SUPPLIER TO PROVIDE POST/HANGER SUPPORTS AT INTERMEDIATE LANDINGS AS REQUIRED. POST/HANGERS ARE TO CONCENTRICALLY LOAD BEAMS.
22. AT ROOF ACCESS LADDERS, PROVIDE (2) C6X10.2 VERTICALS IN STUD WALL. SEE ARCH FOR LOCATIONS.
23. FIELD CUTTING, DRILLING OR OTHER MODIFICATION OF STRUCTURAL STEEL COMPONENTS IS NOT PERMITTED WITHOUT WRITTEN APPROVAL OF THE STRUCTURAL ENGINEER OF RECORD. WHERE BEAM PENETRATIONS CANNOT BE AVOIDED OR WHERE CUTTING IS REQUIRED, THE CONTRACTOR SHALL SUBMIT TO THE STRUCTURAL ENGINEER OF RECORD ALL PERTINENT INFORMATION INCLUDING PENETRATION SHAPE, SIZE, LOCATION AND METHOD OF CUTTING OPENINGS.
24. ALL STEEL MEMBERS EXPOSED TO WEATHER SHALL BE GALVANIZED OR PAINTED WITH TNEMEC EPOXY SYSTEM OR SIMILAR SYSTEM MEETING THE REQUIREMENT FOR PAINTING STRUCTURAL STEEL IN THE PROJECT SPECIFICATIONS. ALL OTHER STEEL MEMBERS SHALL BE FURNISHED WITH A SHOP COAT OF TNEMEC RED OR GRAY OXIDE PRIMER OR SIMILAR SYSTEM MEETING THE REQUIREMENT FOR PAINTING STRUCTURAL STEEL IN THE PROJECT SPECIFICATIONS. ALL PRIMERS SHALL BE COMPATIBLE WITH TOP COATINGS SPECIFIED.

SUBMITTALS

1. TRANSMIT SUBMITTALS SUFFICIENTLY IN ADVANCE OF RELATED CONSTRUCTION ACTIVITIES TO AVOID UNNECESSARY DELAY. THE STRUCTURAL ENGINEER OF RECORD MAY WITHHOLD ACTION ON A SUBMITTAL REQUIRING COORDINATION WITH OTHER SUBMITTALS UNTIL ALL RELATED SUBMITTALS ARE RECEIVED.
2. THE GENERAL CONTRACTOR SHALL SUBMIT ONE ELECTRONIC PORTABLE DOCUMENT FORMAT (PDF) COPY OF ALL REQUIRED SUBMITTALS THROUGH THE ARCHITECT FOR REVIEW. THE ELECTRONIC COPY WILL BE MARKED UP BY THE STRUCTURAL ENGINEER OF RECORD. ONE COPY WILL BE KEPT BY THE STRUCTURAL ENGINEER OF RECORD AND AN ADDITIONAL COPY WILL BE RETURNED TO THE ARCHITECT. THE ARCHITECT WILL KEEP ONE COPY AND RETURN A COPY TO THE CONTRACTOR. THE CONTRACTOR WILL MAKE ADDITIONAL COPIES AS REQUIRED.
3. THE GENERAL CONTRACTOR SHALL SUBMIT, FOR ENGINEER REVIEW, SHOP DRAWINGS FOR THE FOLLOWING ITEMS:
   A. CONCRETE MIX DESIGNS (3)
   B. CONSTRUCTION JOINT LOCATIONS IN STRUCTURAL FLOORS, WALLS AND SLABS-ON-GRADE.
   C. EXTERIOR WINDOW WALL SYSTEMS (1,2)
   D. MISCELLANEOUS STEEL
   E. REINFORCING STEEL
   F. STRUCTURAL STEEL: SHOP AND ERECTION DRAWINGS (1)
   G. STRUCTURAL STEEL CONNECTIONS OF FRAMING AND BRACING ELEMENTS (1, 4)
   H. EXTERIOR SIGNAGE (4)
   I. SITE CANOPY STRUCTURES (4)

   NOTES:
   1. SHALL BE SEALED BY A REGISTERED PROFESSIONAL ENGINEER IN THE STATE WHERE THE PROJECT IS LOCATED PER THE PROJECT SPECIFICATIONS
   2. SHALL BE SUBMITTED TO THE ENGINEER FOR RECORD ONLY AND WILL NOT RECEIVE THE ENGINEER'S SHOP DRAWING STAMP
   3. SHALL BE SUBMITTED TO THE ENGINEER AND THE OWNER'S TESTING AGENCY FOR REVIEW
   4. ITEM IS A DEFERRED SUBMITTAL WHICH HAS NOT BEEN COMPLETE AND IS TO BE SUBMITTED TO THE BUILDING OFFICIAL AND APPROVED PRIOR TO INSTALLATION. THE MANUFACTURER, CONSULTANT, OR CONTRACTOR, AS APPROPRIATE SHALL PROVIDE SUBMITTALS TO THE ENGINEER OF RECORD FOR REVIEW.
4. ALL SHOP DRAWINGS MUST BE REVIEWED AND ELECTRONICALLY STAMPED BY THE GENERAL CONTRACTOR PRIOR TO SUBMITTAL.

DIVISION 6 - WOOD FRAMING

1. ALL WOOD PLATES BEARING ON CONCRETE OR MASONRY SHALL BE PRESSURE TREATED LUMBER.
2. ALL METAL CONNECTORS SHALL MEET THE FOLLOWING:
   A. CLIPS AND FASTENERS SHALL BE CORROSION RESISTANT.
   B. RATED TO PROVIDE LOAD RESISTANCE EQUAL TO CLIP SHOWN ON THE PLANS.
   C. APPROVED BY I.C.C. AND OTHER REQUIRED LOCAL CODE AGENCIES.
   D. INSTALLED AS RECOMMENDED BY THEIR MANUFACTURER.
3. ALL WOOD TRUSSES OR JOIST AND RAFTERS SHALL BE FASTENED TO TOP PLATE WITH ONE (1) SIMPSON H3 AND ONE (1) SIMPSON A34 METAL CLIP OR APPROVED EQUAL, UNO.
4. FOLLOW MANUFACTURER'S RECOMMENDATIONS FOR FASTENING OF HANGERS IN ORDER TO ACHIEVE THE REQUIRED ALLOWABLE LOADS SHOWN ON THE PLANS. WHERE REQUIRED ALLOWABLE LOADS ARE NOT SHOWN, USE THE MAXIMUM RATED STRENGTH OF THE HANGER.
5. WHEN CONNECTORS ARE NOT SHOWN, TABLE 2304.10.1 FASTENING SCHEDULE OF THE INTERNATIONAL BUILDING CODE SHALL APPLY.
6. WHEN HEADERS ARE NOT SHOWN, TABLE 2308.4.1 HEADER DESIGN CHART OF THE INTERNATIONAL BUILDING CODE SHALL APPLY.
7. PROVIDE SUPPLEMENTAL STRUCTURAL FRAMING AND BLOCKING AS REQUIRED TO ACHIEVE SOLID AND SOUND STRUCTURAL AND NON-STRUCTURAL ELEMENTS USING ACCEPTED FRAMING PRACTICES.
8. MINIMUM WOOD FRAMING MATERIAL SPECIFICATIONS ARE AS FOLLOWS:
   A. FRAMING 2-4 INCHES THICK, 2 INCHES AND WIDER, DOUGLAS FIR SOUTH #2
      1. Fb = 850 PSI (SINGLE MEMBER USE)
      2. Ft = 525 PSI
      3. Fc = 1350 PSI (PARALLEL TO GRAIN)
      4. Fc = 520 PSI (PERPENDICULAR TO GRAIN)
      5. Fv = 180 PSI
      6. E = 1,200,000 PSI
   B. LAMINATED VENEER LUMBER (LVL)
      1. Fb = 2,600 PSI
      2. Ft = 1555 PSI
      3. Fc = 2510 PSI (PARALLEL TO GRAIN)
      4. Fc = 750 PSI (PERPENDICULAR TO GRAIN)
      5. Fv = 285 PSI
      6. E = 2,000,000 PSI
   C. VISUALLY GRADED TIMBERS (5"x5" AND LARGER), BEAMS AND STRINGERS, WESTERN CEDAR #2
      1. Fb = 625 PSI
      2. Ft = 324 PSI
      3. Fc = 475 PSI (PARALLEL TO GRAIN)
      4. Fc = 425 PSI (PERPENDICULAR TO GRAIN)
      5. Fv = 140 PSI
      6. E = 800,000 PSI
   D. VISUALLY GRADED TIMBERS (5"x5" AND LARGER) POSTS AND TIMBERS, WESTERN CEDAR #2
      1. Fb = 550 PSI
      2. Ft = 350 PSI
      3. Fc = 550 PSI (PARALLEL TO GRAIN)
      4. Fc = 425 PSI (PERPENDICULAR TO GRAIN)
      5. Fv = 140 PSI
      6. E = 800,000 PSI

DIVISION 6 - WOOD ROOF SHEATHING

1. ALL ROOF SHEATHING SHALL BE PLACED IN SUCH A MANNER TO STAGGER ALL END JOINTS OF PANELS AND WITH LONG DIRECTION PERPENDICULAR TO SUPPORTS. ALUMINUM PANEL CLIPS SHALL BE PLACED AT MID-SPAN OF PANELS BETWEEN EACH TRUSS AS DECKING IS BEING LAID. INSTALLER SHALL LEAVE 1/8" SPACE AT ALL PANEL EDGES AND END JOINTS, UNLESS OTHERWISE RECOMMENDED BY MANUFACTURER.
2. FASTENING REQUIREMENTS FOR DECKING TO SUPPORTS SHALL BE IN COMPLIANCE WITH THE AMERICAN PLYWOOD ASSOCIATIONS (APA) RECOMMENDED MINIMUM FASTENING SCHEDULE FOR APA PANEL ROOF (OR WALL) SHEATHING AS STATED HEREIN. SEE ROOF FRAMING PLAN (S-201) FOR ROOF SHEATHING FASTENING REQUIREMENTS. CLIPS AND FASTENERS SHALL BE CORROSION RESISTANT.
3. COVER SHEATHING AS SOON AS POSSIBLE WITH ROOFING FELT FOR PROTECTION AGAINST EXCESSIVE MOISTURE PRIOR TO ROOFING APPLICATION. PROTECTION MATERIAL MUST BE APPROVED BY I.C.C. AND FOLLOW OTHER REQUIRED LOCAL CODE AGENCIES.
4. UNLESS NOTED OTHERWISE, PLYWOOD STRUCTURAL PANELS NOTED ON THE DRAWINGS SHALL CONFORM TO U.S. DEPARTMENT OF COMMERCE VOLUNTARY PRODUCT STANDARDS, PS 1, STRUCTURAL PLYWOOD (DOC PS 1), OR PS 2, PERFORMANCE STANDARD FOR WOOD-BASED STRUCTURAL-USE PANELS (DOC PS 2), AND TO BE IDENTIFIED BY THE MARK OF AN APPROVED TESTING AND GRADING AGENCY.

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Certificate of Authorization:
OK #5996 | EXP 6.30.2022

PROJECT
VINITA CULTRAL DEVELOPMENT CENTER

PROJECT
CHEROKEE NATION
OKLAHOMA

KEY PLAN

No.	Description	Date

SHEET TITLE
GENERAL NOTES

CONSTRUCTION DOCUMENTS

PROJECT NO:	21215
DRAWN BY:	Author
CHK'D BY:	Checker
ISSUE DATE:	05.07.2021

LICENSED PROFESSIONAL ENGINEER
ELIAS R. JOHANNSSON
24349
OKLAHOMA
05/19/2021

S001

Scale 12" = 1'-0"

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SPECIAL INSPECTIONS

1. SPECIAL INSPECTION SHALL BE PROVIDED BY THE OWNER ACCORDING TO SECTION 1705 OF IBC 2015. THE APPROVED SPECIAL INSPECTOR SHALL DEMONSTRATE COMPETENCE FOR INSPECTION OF THE PARTICULAR TYPE OF CONSTRUCTION OR OPERATION REQUIRING SPECIAL INSPECTION. THE SPECIAL INSPECTOR SHALL SEND REPORTS TO THE OWNER, THE BUILDING OFFICIAL, THE ARCHITECT, THE STRUCTURAL ENGINEER OF RECORD, AND TO THE CONTRACTOR. THE SPECIAL INSPECTOR SHALL BRING NON-CONFORMING ITEMS TO THE IMMEDIATE ATTENTION OF THE CONTRACTOR AND NOTE ALL SUCH ITEMS IN THE REPORTS. ANY UNRESOLVED ITEM ABOUT THE COVERED WORK SHALL BE BROUGHT TO THE ATTENTION OF THE OWNER'S CONSTRUCTION MANAGER AS WELL AS THE ARCHITECT AND STRUCTURAL ENGINEER OF RECORD. THE SPECIAL INSPECTOR SHALL SUBMIT A FINAL SIGNED REPORT STATING WHETHER OR NOT THE WORK REQUIRING SPECIAL INSPECTION WAS, TO THE BEST OF THE INSPECTOR'S KNOWLEDGE, IN CONFORMANCE WITH THE APPROVED PLANS AND SPECIFICATIONS. THE CONTRACTOR IS RESPONSIBLE FOR NOTIFYING THE SPECIAL INSPECTION AGENCY REGARDING INDIVIDUAL INSPECTIONS FOR ITEMS LISTED ON THE SCHEDULE AND AS NOTED ON THE BUILDING DEPARTMENT APPROVED PLANS. ADEQUATE NOTICE AND ACCESS TO APPROVED PLANS SHALL BE PROVIDED SO THAT THE SPECIAL INSPECTOR HAS TIME TO BECOME FAMILIAR WITH THE PROJECT.
2. SEE ARCHITECTURAL, MECHANICAL, ELECTRICAL, AND PLUMBING CONSTRUCTION DOCUMENTS FOR ADDITIONAL NON-STRUCTURAL SPECIAL INSPECTION ITEMS.
3. IN ACCORDANCE WITH IBC CHAPTER 17, THE FOLLOWING TYPES OF WORK REQUIRE SPECIAL INSPECTIONS AND TESTING:

SPECIAL INSPECTION AND VERIFICATION OF STEEL CONSTRUCTION PRIOR TO WELDING
REFERENCE AISC 360-10, TABLE N5.4-1

VERIFICATION AND INSPECTION TASK	PERFORM	OBSERVE
WELDING PROCEDURE SPECIFICATIONS (WPS) AVAILABLE	X	--
MANUFACTURER CERTIFICATIONS FOR WELDING CONSUMABLES AVAILABLE	X	--
MATERIAL IDENTIFICATION (TYPE/GRADE)	--	X
WELDER IDENTIFICATION SYSTEM	--	X
FIT-UP OF GROOVE WELDS (INCLUDING JOINT GEOMETRY) A. JOINT PREPARATION B. DIMENSIONS (ALIGNMENT, ROOT OPENING, ROOT FACE, BEVEL) C. CLEANLINESS (CONDITION OF STEEL SURFACES) D. TACKING (TACK WELD QUALITY AND LOCATION) E. BACKING TYPE AND FIT (IF APPLICABLE)	--	X
CONFIGURATION AND FINISH OF ACCESS HOLES	--	X
FIT-UP OF FILLET WELDS A. DIMENSIONS (ALIGNMENT, ROOT OPENING, ROOT FACE, BEVEL) B. CLEANLINESS (CONDITION OF STEEL SURFACES) C. TACKING (TACK WELD QUALITY AND LOCATION)	--	X
CHECK WELDING EQUIPMENT	--	X

SPECIAL INSPECTION AND VERIFICATION OF STEEL CONSTRUCTION DURING WELDING
REFERENCE AISC 360-10, TABLE N5.4-2

VERIFICATION AND INSPECTION TASK	PERFORM	OBSERVE
USE OF QUALIFIED WELDERS	--	X
CONTROL AND HANDLING OF WELDING CONSUMABLES A. PACKAGING B. EXPOSURE CONTROL	--	X
NO WELDING OVER CRACKED TACK WELDS	--	X
ENVIRONMENTAL CONDITIONS A. WIND SPEED WITHIN LIMITS B. PRECIPITATION AND TEMPERATURE	--	X
WPS FOLLOWED A. SETTINGS ON WELDING EQUIPMENT B. TRAVEL SPEED C. SELECTED WELDING MATERIALS D. SHIELDING GAS TYPE/FLOW RATE E. PREHEAT APPLIED F. INTERPASS TEMPERATURE MAINTAINED (MIN./MAX.) G. PROPER POSITION	--	X
FIT-UP OF FILLET WELDS A. INTERPASS AND FINAL CLEANING B. EACH PASS WITHIN PROFILE LIMITATIONS C. EACH PASS MEETS QUALITY REQUIREMENTS	--	X

SPECIAL INSPECTION AND VERIFICATION OF STEEL CONSTRUCTION AFTER WELDING
REFERENCE AISC 360-10, TABLE N5.4-3

VERIFICATION AND INSPECTION TASK	PERFORM	OBSERVE
WELDS CLEANED	--	X
SIZE, LENGTH AND LOCATION OF WELDS	X	--
WELDS MEET VISUAL ACCEPTANCE CRITERIA A. CRACK PROHIBITION B. WELD/BASE-METAL FUSION C. CRATER CROSS SECTION D. WELD PROFILES E. WELD SIZE F. UNDERCUT G. POROSITY	X	--
ARC STRIKES	X	--
K-AREA[1]	X	--
BACKING REMOVED AND WELD TABS REMOVED (IF REQUIRED)	X	--
REPAIR ACTIVITIES	X	--
DOCUMENT ACCEPTANCE OR REJECTION OF WELDED JOINT OR MEMBER	X	--

1. WHEN WELDING OF DOUBLER PLATES, CONTINUITY PLATES OR STIFFENERS HAS BEEN PERFORMED IN THE K-AREA, VISUALLY INSPECT THE WEB K-AREA FOR CRACKS WITHIN 3" OF THE WELD.

SPECIAL INSPECTION AND VERIFICATION OF STEEL CONSTRUCTION PRIOR TO BOLTING
REFERENCE AISC 360-10, TABLE N5.6-1

VERIFICATION AND INSPECTION TASK	PERFORM	OBSERVE
MANUFACTURER'S CERTIFICATIONS AVAILABLE FOR FASTENER MATERIALS	X	--
FASTENERS MARKED IN ACCORDANCE WITH ASTM REQUIREMENTS	--	X
PROPER FASTENERS SELECTED FOR THE JOINT DETAIL (GRADE, TYPE, BOLT LENGTH IF THREADS ARE TO BE EXCLUDED FROM SHEAR PLANE)	--	X
PROPER BOLTING PROCEDURE SELECTED FOR JOINT DETAIL	--	X
CONNECTING ELEMENTS, INCLUDING THE APPROPRIATE FAYING SURFACE CONDITION AND HOLE PREPARATION, IF SPECIFIED, MEET APPLICABLE REQUIREMENTS	--	X
PRE-INSTALLATION VERIFICATION TESTING BY INSTALLATION PERSONNEL OBSERVED AND DOCUMENTED FOR FASTENER ASSEMBLIES AND METHODS USED	--	X
PROPER STORAGE PROVIDED FOR BOLTS, NUTS, WASHERS AND OTHER FASTENER COMPONENTS	--	X

SPECIAL INSPECTION AND VERIFICATION OF STEEL CONSTRUCTION DURING BOLTING
REFERENCE AISC 360-10, TABLE N5.6-2

VERIFICATION AND INSPECTION TASK	PERFORM	OBSERVE
FASTENER ASSEMBLIES, OF SUITABLE CONDITION, PLACED IN ALL HOLES AND WASHERS (IF REQUIRED) ARE POSITIONED AS REQUIRED	--	X
JOINT BROUGHT TO THE SNUG-TIGHT CONDITION PRIOR TO THE PRETENSIONING OPERATION	--	X
FASTENER COMPONENT NOT TURNED BY THE WRENCH PREVENTED FROM ROTATING	--	X
FASTENERS ARE PRETENSIONED IN ACCORDANCE WITH THE RCSC SPECIFICATION, PROGRESSING SYSTEMATICALLY FROM THE MOST RIGID TOWARD THE FREE EDGES	--	X

SPECIAL INSPECTION AND VERIFICATION OF STEEL CONSTRUCTION AFTER BOLTING
REFERENCE AISC 360-10, TABLE N5.6-3

VERIFICATION AND INSPECTION TASK	PERFORM	OBSERVE
DURING ACCEPTANCE OR REJECTION OF BOLTED CONNECTIONS	X	--

SPECIAL INSPECTION AND VERIFICATION OF CONCRETE CONSTRUCTION
REFERENCE IBC 2015, TABLE 1705.3

VERIFICATION AND INSPECTION TASK	CONTINUOUS	PERIODIC
INSPECT REINFORCEMENT, INCLUDING PRESTRESSING TENDONS, AND VERIFY PLACEMENT	--	X
REINFORCING BAR WELDING: A. VERIFY WELDABILITY OF REINFORCING BARS OTHER THAN ASTM A706 B. INSPECT SINGLE-PASS FILLET WELDS, MAXIMUM 5/16" C. INSPECT ALL OTHER WELDS	-- -- X	X X --
INSPECT ANCHORS CAST IN CONCRETE	X	--
INSPECTION OF ANCHORS POST-INSTALLED IN HARDENED CONCRETE MEMBERS. A. ADHESIVE ANCHORS INSTALLED IN HORIZONTALLY OR UPWARDLY INCLINED ORIENTATIONS TO RESIST SUSTAINED TENSION LOADS. B. MECHANICAL ANCHORS AND ADHESIVE ANCHORS NOT DEFINED IN A	X --	-- X
VERIFY USE OF REQUIRED DESIGN MIX.	--	X
PRIOR TO CONCRETE PLACEMENT, FABRICATE SPECIMENS FOR STRENGTH TESTS, PERFORM SLUMP AND AIR TESTS, AND DETERMINE THE TEMPERATURE OF THE CONCRETE.	X	--
INSPECTION OF CONCRETE AND SHOTCRETE PLACEMENT FOR PROPER APPLICATION TECHNIQUES.	X	--
VERIFY MAINTENANCE OF SPECIFIED CURING TEMPERATURE AND TECHNIQUES.	--	X
INSPECT PRESTRESSED CONCRETE FOR: A. APPLICATION OF PRESTRESSING FORCES B. GROUTING OF BONDED PRESTRESSING TENDONS	X X	-- --
INSPECT ERECTION OF PRECAST CONCRETE MEMBERS.	--	X
VERIFY IN-SITU CONCRETE STRENGTH, PRIOR TO STRESSING TENDONS IN POST-TENSIONED CONCRETE AND PRIOR TO REMOVAL OF SHORES AND FORMS FROM BEAMS AND STRUCTURAL SLABS.	--	X
INSPECT FORMWORK FOR SHAPE, LOCATION AND DIMENSIONS OF THE CONCRETE MEMBER BEING FORMED.	--	X

SPECIAL INSPECTION AND VERIFICATION OF SOILS
REFERENCE IBC 2015, TABLE 1705.6

VERIFICATION AND INSPECTION TASK	CONTINUOUS	PERIODIC
VERIFY MATERIALS BELOW SHALLOW FOUNDATIONS ARE ADEQUATE TO ACHIEVE THE DESIGN BEARING CAPACITY.	--	X
VERIFY EXCAVATIONS ARE EXTENDED TO PROPER DEPTH AND HAVE REACHED PROPER MATERIAL.	--	X
PERFORM CLASSIFICATION AND TESTING OF COMPACTED FILL MATERIALS.	--	X
VERIFY USE OF PROPER MATERIALS, DENSITIES AND LIFT THICKNESS DURING PLACEMENT AND COMPACTION OF COMPACTED FILL.	X	--
PRIOR TO PLACEMENT OF COMPACTED FILL, OBSERVE SUBGRADE AND VERIFY THAT SITE HAS BEEN PREPARED PROPERLY.	--	X

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Certificate of Authorization: CA #5995 | EXP 6.30.2022

PROJECT
VINITA CULTRAL DEVELOPMENT CENTER

PROJECT
CHEROKEE NATION OKLAHOMA

KEY PLAN

No.	Description	Date

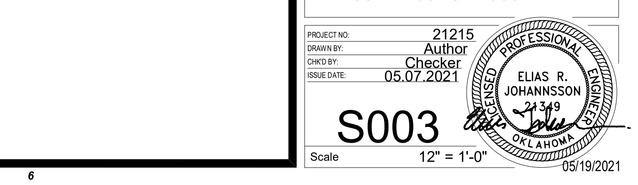
SHEET TITLE
SPECIAL INSPECTIONS

CONSTRUCTION DOCUMENTS

PROJECT NO: 21215
DRAWN BY: Author
CHKD BY: Checker
ISSUE DATE: 05.07.2021

S003

Scale 12" = 1'-0"



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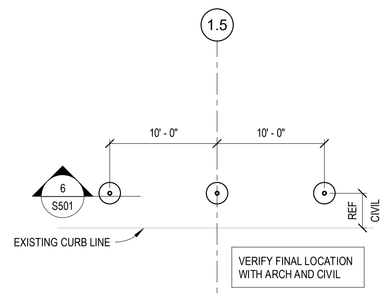

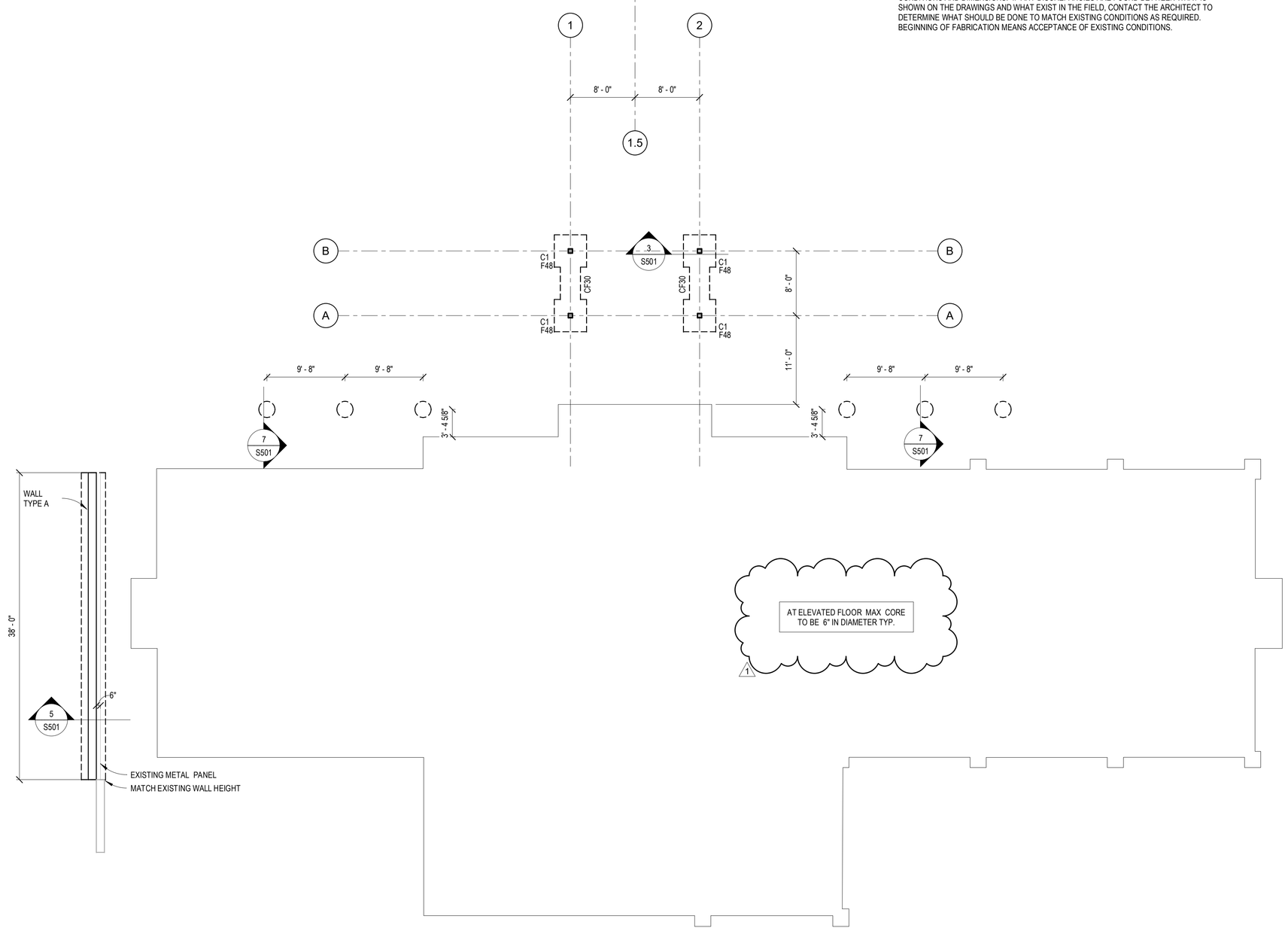

FOUNDATION PLAN NOTES

1. SEE SHEET S001 FOR GENERAL NOTES.
2. SEE ARCHITECTURAL PLANS FOR DIMENSIONS NOT SHOWN. COORDINATE SLAB ELEVATIONS AND SLOPES WITH ARCHITECTURAL PLANS.
3. SEE MECHANICAL AND ARCHITECTURAL DRAWINGS FOR SIZES AND LOCATION OF PENETRATIONS NOT INDICATED ON STRUCTURAL DRAWINGS.
4. CONTRACTOR SHALL PROVIDE POSITIVE DRAINAGE DURING CONSTRUCTION FOR THE SLAB AREA. SLAB SUBGRADE SHALL NOT BE ALLOWED TO RETAIN WATER DURING CONSTRUCTION.
5. SEE SHEET S501 FOR REINFORCEMENT AT RE-ENTRANT CORNERS AND DISCONTINUOUS JOINTS.
6. CENTER FOOTING BENEATH COLUMN AND LOAD BEARING WALLS SHOWN.
7. TOP OF EXTERIOR/EXTERIOR PERIMETER FTG = 99'-4" UNO.

ISOLATED FOOTING SCHEDULE		
MARK	SIZE (LxWxD)	REINFORCEMENT
F48	4'-0"x4'-0"x1'-6"	(6) #5 BOT BARS, EW

CONTINUOUS FOOTING SCHEDULE		
MARK	SIZE (WxD)	REINFORCEMENT
CF30	2'-6"x1'-6"	(2) #5 CONT T&B W/ #3 TIES AT 48" OC

COLUMN SCHEDULE		
MARK	SIZE	COMMENTS
C1	HSS6X6X1/4	USE BASEPLATE B1

FIELD VERIFICATION NOTE

VERIFY ALL DIMENSIONS AND EXISTING STRUCTURAL MEMBER SIZES IN THE FIELD PRIOR TO FABRICATION OF STRUCTURAL ITEMS. EXISTING PORTION OF THE PLANS ARE FROM A PRELIMINARY FIELD SURVEY, WHICH MAY OR MAY NOT REFLECT ACTUAL AS-BUILT CONDITIONS AND DIMENSIONS. IF ANY DISCREPANCIES ARE FOUND BETWEEN WHAT IS SHOWN ON THE DRAWINGS AND WHAT EXIST IN THE FIELD, CONTACT THE ARCHITECT TO DETERMINE WHAT SHOULD BE DONE TO MATCH EXISTING CONDITIONS AS REQUIRED. BEGINNING OF FABRICATION MEANS ACCEPTANCE OF EXISTING CONDITIONS.

1 FOUNDATION PLAN
1/8" = 1'-0"

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Certificate of Authorization:
OK #5996 | Exp 6.30.2022

PROJECT: VINITA CULTRAL DEVELOPMENT CENTER

PROJECT: CHEROKEE NATION OKLAHOMA

KEY PLAN

No.	Description	Date
1	Revision 1	05.19.21

SHEET TITLE: FOUNDATION PLAN

CONSTRUCTION DOCUMENTS

PROJECT NO: 21215
DRAWN BY: Author
CHKD BY: Checker
ISSUE DATE: 05.07.2021

LICENSED PROFESSIONAL ENGINEER — ELIAS R. JOHANNSSON — 24349 — OKLAHOMA

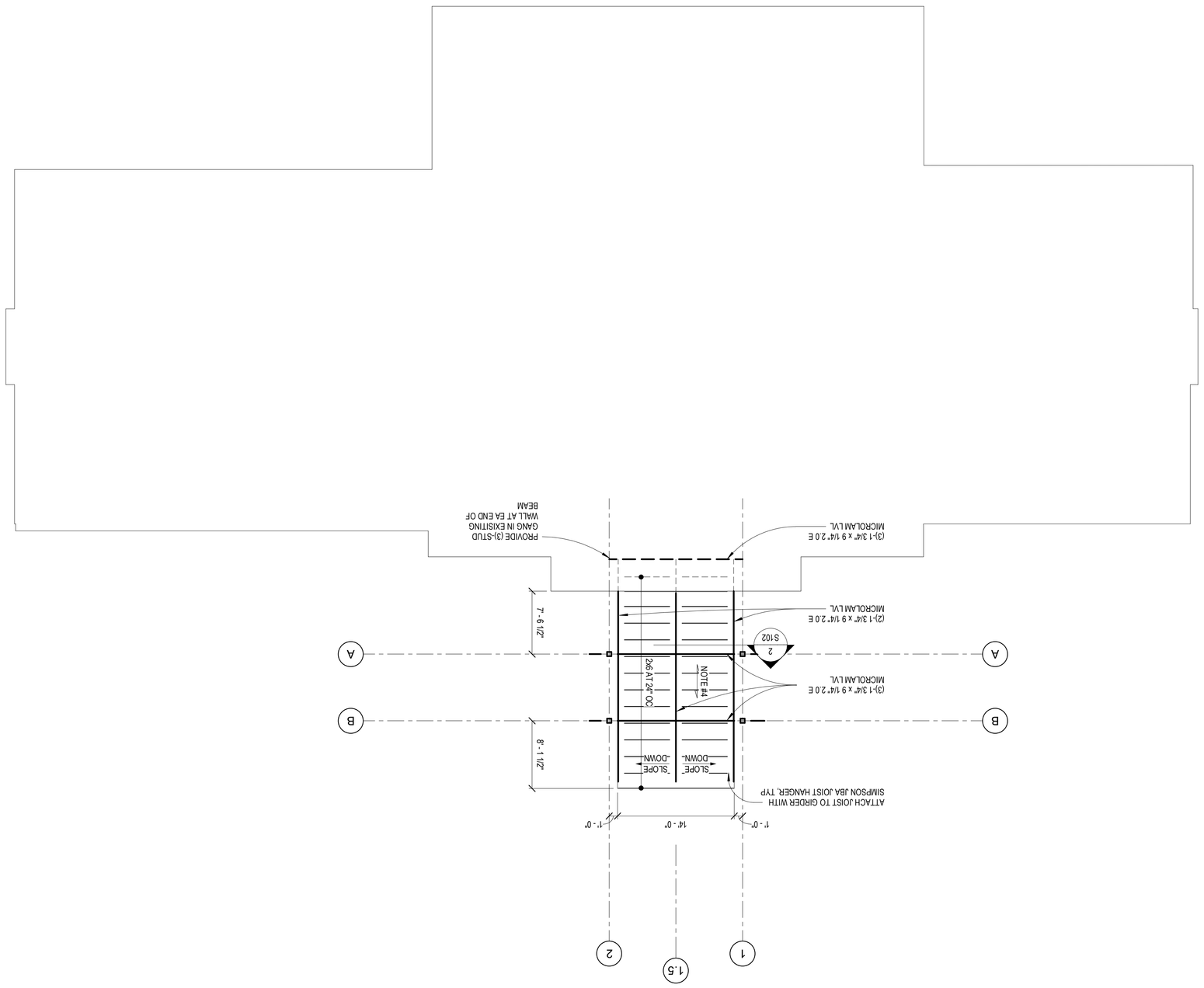
S101

Scale: As indicated

05/19/2021

5/19/2021 3:42:23 PM

1/16"=1'-0" 0 8" 16" 32" | 1/8"=1'-0" 0 4' 8' 16" | 1/4"=1'-0" 0 2' 4' 8' | 1/2"=1'-0" 0 1' 2' 4' | 3/4"=1'-0" 0 1' 2' | 1"=1'-0" 0 6" 1' 2' | 1 1/2"=1'-0" 0 3" 6" 1' | 3"=1'-0" 0 3" 6"

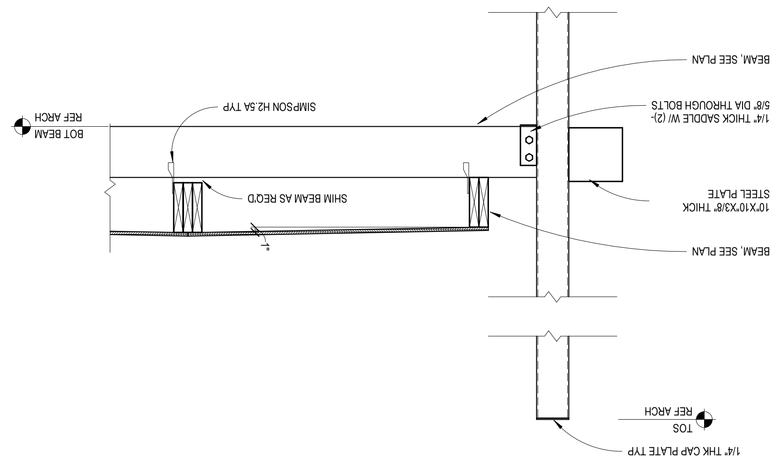


FRAMING PLAN NOTES

1. SEE SHEET S001 FOR GENERAL NOTES
2. SEE ARCHITECTURAL PLANS FOR DIMENSIONS NOT SHOWN
3. SEE MECHANICAL AND ARCHITECTURAL DRAWINGS FOR SIZES AND LOCATION OF PENETRATIONS NOT INDICATED ON STRUCTURAL DRAWINGS
4. ALL ROOF SHEATHING SHALL BE APA RATED STRUCTURAL I/EXPOSURE 1 SHEATHING WITH A MINIMUM THICKNESS OF 15/32". WITH A SPAN RATING OF AT LEAST 32/16 NAILED WITH 8d OAL UNNZED COMMON NAILS AT 6" OC AT PANEL EDGES AND AT 12" OC AT INTERMEDIATE SUPPORTS TYP. UNO
5. SEE SCHEDULE FOR HEADER INFORMATION.
6. SEE IBC 2015 TABLE 2308.7.1 FOR SIZE AND SPACING OF CEILING JOISTS UNO.

FIELD VERIFICATION NOTE

VERIFY ALL DIMENSIONS AND EXISTING STRUCTURAL MEMBER SIZES IN THE FIELD PRIOR TO FABRICATION OF STRUCTURAL ITEMS. EXISTING PORTION OF THE PLANS ARE FROM A PRELIMINARY FIELD SURVEY, WHICH MAY OR MAY NOT REFLECT ACTUAL AS-BUILT CONDITIONS AND DIMENSIONS. IF ANY DISCREPANCIES ARE FOUND BETWEEN WHAT IS SHOWN ON THE DRAWINGS AND WHAT EXIST IN THE FIELD, CONTACT THE ARCHITECT TO DETERMINE WHAT SHOULD BE DONE TO MATCH EXISTING CONDITIONS AS REQUIRED BEGINNING OF FABRICATION MEANS ACCEPTANCE OF EXISTING CONDITIONS.



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OK 6556 | COA 6.b.2022

PROJECT

VINITA CULTRAL DEVELOPMENT CENTER

PROJECT

CHEROKEE NATION
OKLAHOMA

KEY PLAN

No.	Description	Date

SHEET TITLE

ROOF FRAMING PLAN

CONSTRUCTION DOCUMENTS

PROJECT NO 21215
DRAWN BY Author
CHK'D BY Checker
ISSUE DATE 05.07.2021

ELIAS R. JOHANNSSON
21343
OKLAHOMA
REGISTERED PROFESSIONAL ENGINEER

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S102

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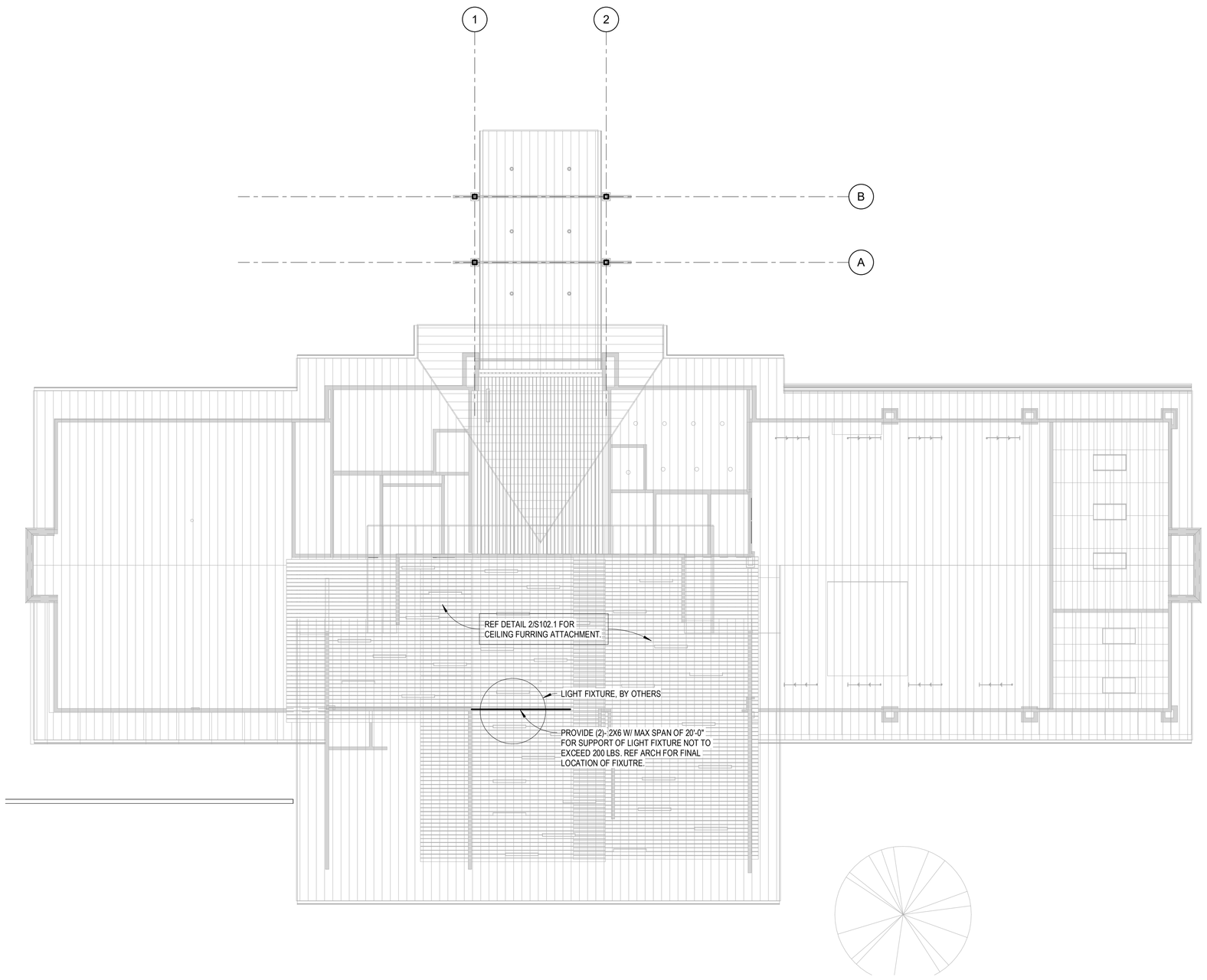

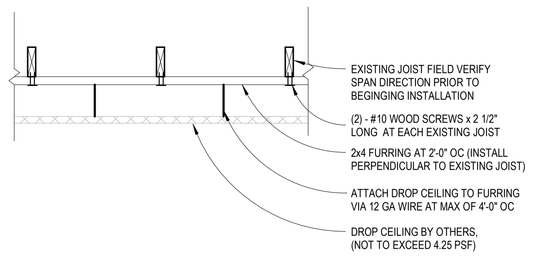

2 CEILING DETAIL
3/4" = 1'-0"

1 REFLECTED CEILING PLAN
1/8" = 1'-0"

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PROJECT
VINITA CULTRAL DEVELOPMENT CENTER

PROJECT
CHEROKEE NATION
OKLAHOMA

KEY PLAN

No.	Description	Date

SHEET TITLE
REFLECTED CEILING PLAN

CONSTRUCTION DOCUMENTS

PROJECT NO: 21215
DRAWN BY: Author
CHK'D BY: Checker
ISSUE DATE: 05.07.2021

S102.1

Scale: As indicated

LICENSED PROFESSIONAL ENGINEER
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21349
OKLAHOMA
05/19/2021

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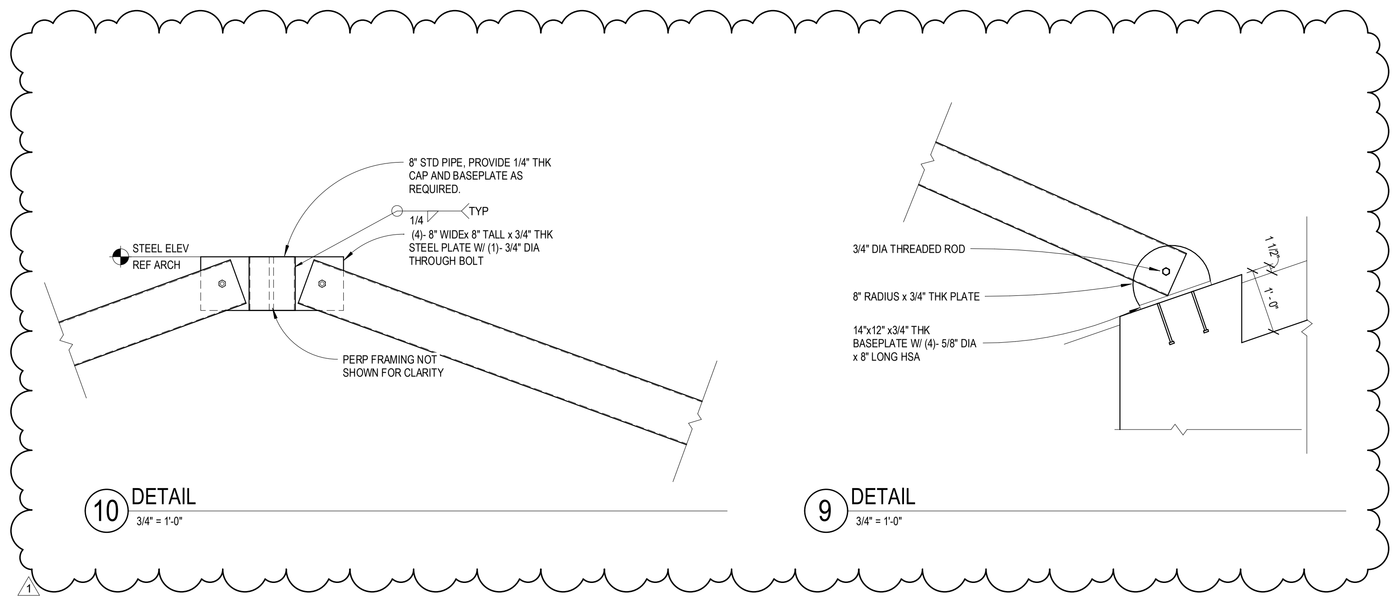
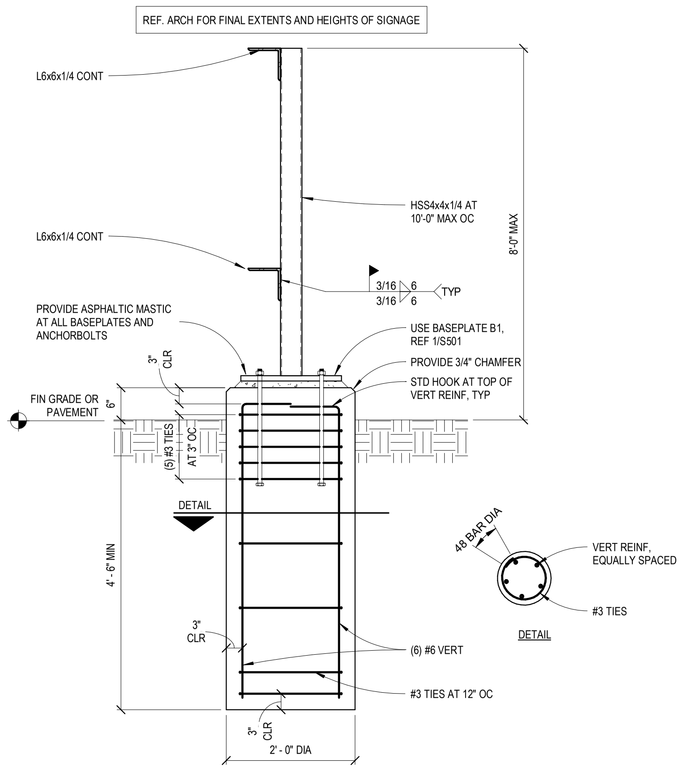


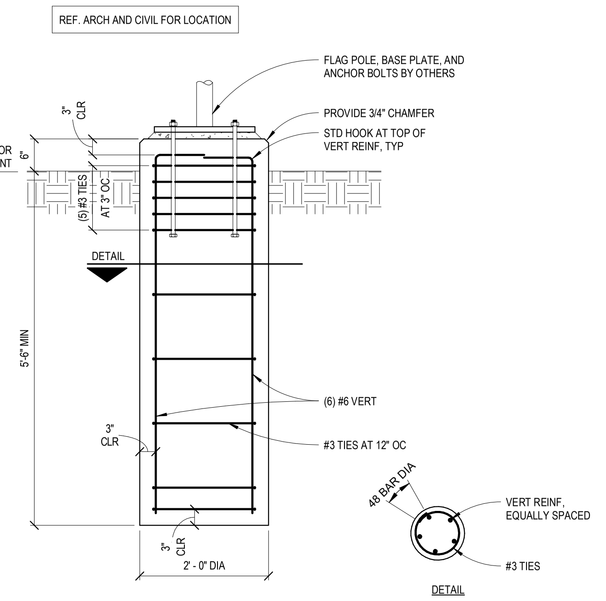
10 DETAIL
3/4" = 1'-0"

9 DETAIL
3/4" = 1'-0"

8 SLAB TRENCH DETAIL
3/4" = 1'-0"



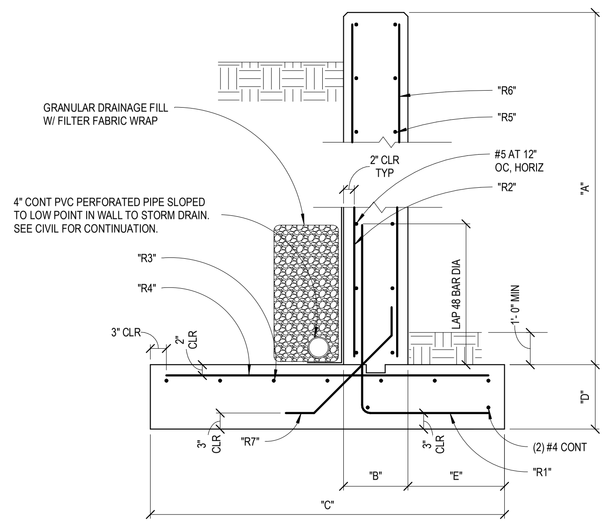
7 SIGNAGE DETAIL
3/4" = 1'-0"



6 FLAG POLE DETAIL
3/4" = 1'-0"

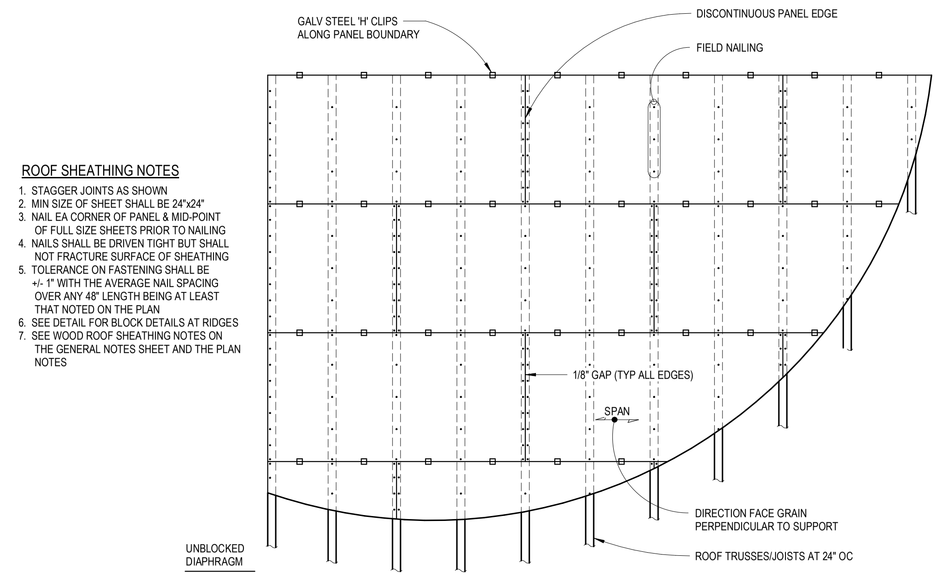
CONCRETE RETAINING WALL SCHEDULE

DIMENSIONS						REINFORCING						
WALL TYPE	MAX WALL HEIGHT "A"	WALL WIDTH "B"	FTG WIDTH "C"	FTG THK "D"	TOE LENGTH "E"	TOE "R1"	WALL "R2"	TOE "R3"	HEEL "R4"	WALL "R5"	WALL "R6"	WALL "R7"
A	1'1-0"	1'-0"	8'-9"	1'-6"	3'-4"	#6 AT 12" OC	#5 AT 12" OC	#6 AT 12" OC	#6 AT 12" OC	#5 AT 12" OC	#5 AT 12" OC	NA
B	8'-0"	8"	6'-0"	1'-6"	2'-0"	#5 AT 12" OC	#5AT 12" OC	#6 AT 12" OC	#6 AT 12" OC	#5 AT 12" OC	#5 AT 12" OC	NA



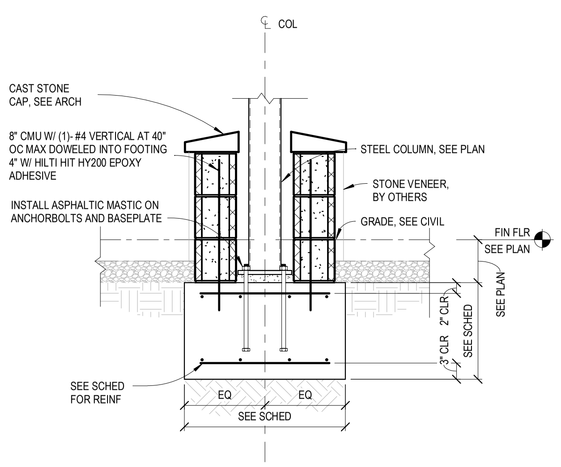
NOTES:
1. PROVIDE 3/4" CHAMFER AT ALL EXPOSED CONCRETE CORNERS
2. PROVIDE 1" X 1" KEY AT CONTROL AND CONSTRUCTION JOINTS. SPACE AT 15'-0" OC MAX.
3. TOF MUST BE AT LEAST 1'-0" BELOW FINISH GRADE.
4. FORMLINER IS IN ADDITION TO THE SPECIFIED WALL WIDTH. TYP UNO.

5 CONCRETE RETAINING WALL
3/4" = 1'-0"



ROOF SHEATHING NOTES
1. STAGGER JOINTS AS SHOWN
2. MIN SIZE OF SHEET SHALL BE 24"x24"
3. NAIL EA CORNER OF PANEL & MID-POINT OF FULL SIZE SHEETS PRIOR TO NAILING
4. NAILS SHALL BE DRIVEN TIGHT BUT SHALL NOT FRACTURE SURFACE OF SHEATHING
5. TOLERANCE ON FASTENING SHALL BE +/- 1" WITH THE AVERAGE NAIL SPACING OVER ANY 48" LENGTH BEING AT LEAST THAT NOTED ON THE PLAN
6. SEE DETAIL FOR BLOCK DETAILS AT RIDGES
7. SEE WOOD ROOF SHEATHING NOTES ON THE GENERAL NOTES SHEET AND THE PLAN NOTES

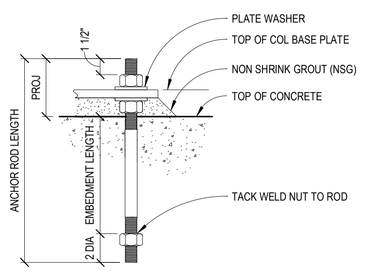
4 ROOF SHEATHING ON FRAMING
3/4" = 1'-0"



3 FOOTING DETAIL
3/4" = 1'-0"

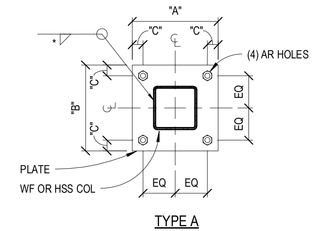
ANCHOR ROD SCHEDULE

DIA	NSG
≤ 3/4"	1 1/2"
≥ 1"	2"



NOTES:
1. SEE BASE PLATE SCHEDULE FOR ANCHOR ROD SIZE AND EMBEDMENT.
2. ANCHOR RODS SHALL MEET THE REQUIREMENTS OF ASTM F1554 UNLESS NOTED OTHERWISE.
3. ALL ANCHOR RODS SHALL BE FURNISHED WITH HEAVY HEX NUTS AND CUT WASHERS OF SPECIFICATIONS COMPATIBLE WITH THOSE OF THE THREADED SHANKS UNLESS NOTED OTHERWISE.
4. FOR CONVENTIONAL COLUMNS (WF AND HSS SHAPES) A NUT SHALL BE PLACED UNDER THE BASE PLATE AND USED FOR LEVELING.
5. HEADED BOLTS MAY BE SUBSTITUTED FOR RODS AS SHOWN.
6. NON-SHRINK GROUT (NSG) SHALL BE NONMETALLIC WITH A MINIMUM COMPRESSIVE STRENGTH OF 6,000 PSI AT 28 DAYS.

2 ANCHOR ROD DETAILS
NO SCALE



TYPE A

BASEPLATE SCHEDULE

MARK	TYPE	THICKNESS	DIMENSIONS "A"	"B"	"C"	"D"	ANCHOR RODS (DIA)x(EMB)
B1	A	3/4"	1'-0"	1'-0"	1 1/2"	--	3/4" x 1'-0"

NOTES:
1. USE OVERSIZED HOLES AND WASHERS FOR ANCHORS RODS ACCORDING TO AISC MANUAL (14 ED.) TABLE 14.2 UNO.
2. SEE THIS SHEET FOR ANCHOR ROD DETAIL AND GROUT INFORMATION.
3. * - INDICATES MINIMUM FILLET WELD PER AISC.

1 COLUMN BASE PLATE SCHEDULE
NO SCALE

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Red Plains Professional
2933 South Bryant Avenue
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405.341.4031

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LAUD Studio
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Oklahoma City, Oklahoma 73103
405.420.8800

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360 Engineering
1201 East 3rd Street
Tulsa, Oklahoma 74120
918.518.1124

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Tulsa, Oklahoma 74119
918.584.0102

360 Engineering Group, PLLC
www.360enggroup.com
1201 East 3rd Street
Tulsa, OK 74120
918.518.1124

Certificate of Authorization:
OK #5996 | EXP 6.30.2022

PROJECT
VINITA CULTRAL DEVELOPMENT CENTER

PROJECT
CHEROKEE NATION OKLAHOMA

KEY PLAN

No.	Description	Date
1	Revision 1	05.19.21

SHEET TITLE
DETAILS

CONSTRUCTION DOCUMENTS

PROJECT NO: 21215
DRAWN BY: Author
CHKD BY: Checker
ISSUE DATE: 05.07.2021

S501

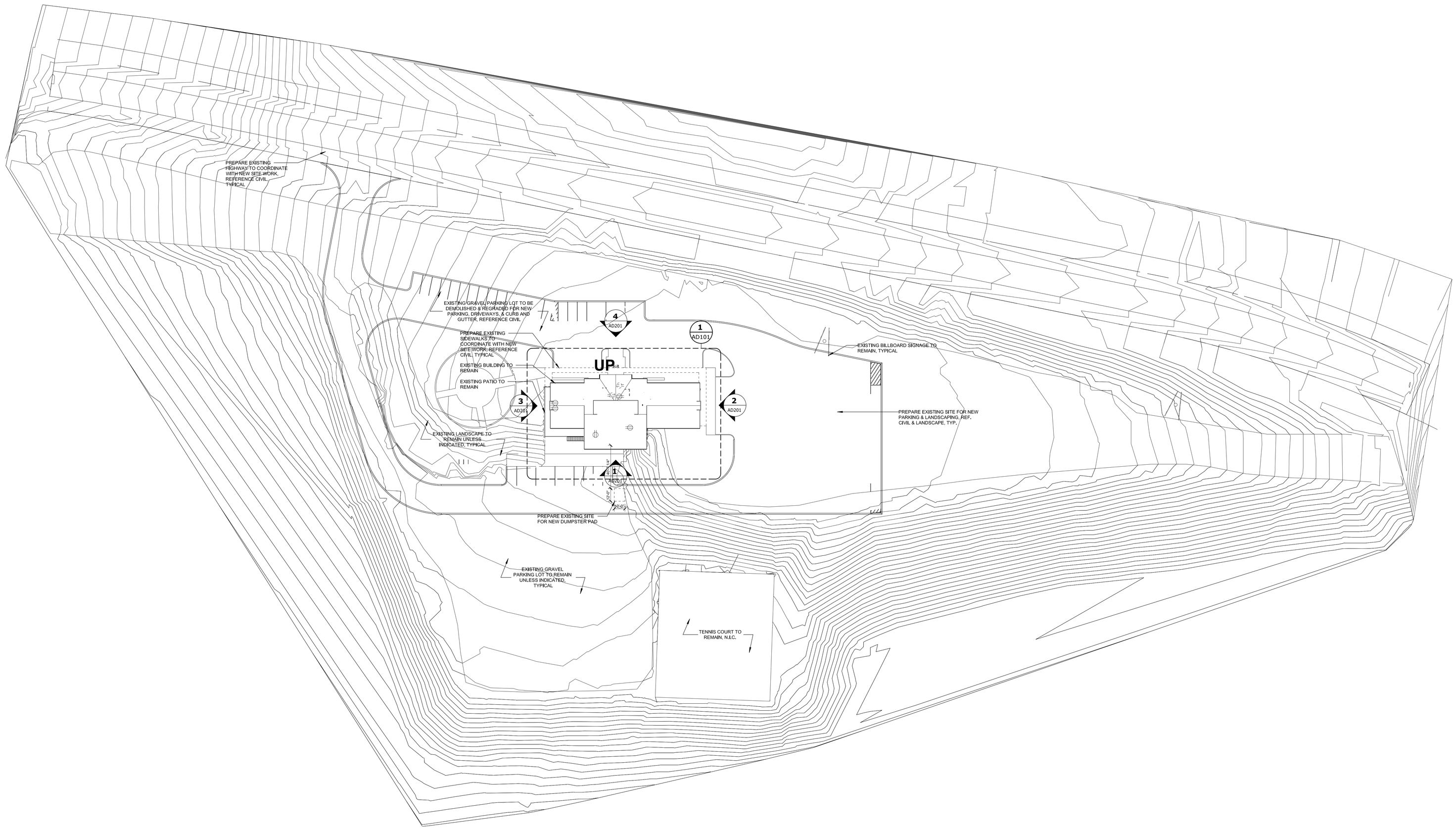
Scale: As indicated

05/19/2021

LICENSED PROFESSIONAL ENGINEER
ELIAS R. JOHANNSSON
21369
OKLAHOMA

5/19/2021 3:42:35 PM

1/16"=1'-0" 0 8" 16" 32"
1/8"=1'-0" 0 4" 8" 16"
1/4"=1'-0" 0 2" 4" 8"
1/2"=1'-0" 0 1' 2' 4'
3/4"=1'-0" 0 1' 2'
1"=1'-0" 0 6" 1' 2'
1 1/2"=1'-0" 0 3" 6" 1'
3"=1'-0" 0 3" 6"



SITE PLAN
1" = 40'-0"
ASD101
1

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PROJECT
VINITA CULTURAL DEVELOPMENT CENTER - ASI 1

PROJECT
CHEROKEE NATION
VINITA, OKLAHOMA

KEY PLAN

No.	Description	Date
	BID SET	5/07/2021
1	ASI-1	5/19/2021

SHEET TITLE
ASI 1 DRAWINGS

PROJECT NO: 111-049.20
DRAWN BY:
CHK'D BY:
ISSUE DATE: 5/19/2021

ASD101

Scale As indicated

STATE OF OKLAHOMA
GARY W. SPARKS
12465
TULSA, OKLA.
LICENSED ARCHITECT

5/19/2021

GENERAL DEMOLITION NOTES

1. ALL DIMENSIONS AND CONDITIONS TO BE FIELD VERIFIED.
2. THE DEMOLITION DRAWINGS FOR ARCHITECTURAL AND ENGINEERING WORK HAVE BEEN PREPARED USING "AS-DESIGNED" DOCUMENTS PROVIDED BY THE OWNER. NEITHER THE OWNER NOR THE ARCHITECT WARRANT THESE TO BE "AS-BUILT" DOCUMENTS, AND ACTUAL CONDITIONS MAY VARY. THE DEMOLITION WORK INDICATED IS INTENDED TO SHOW THE GENERAL SCOPE OF THE DEMOLITION WORK AND IN NO WAY RELIEVES THE CONTRACTOR FROM PERFORMING ANY AND ALL DEMOLITION REQUIRED TO COMPLETE THE NEW WORK.
3. REQUIRED DEMOLITION SHALL NOT BE LIMITED TO THAT PORTION ON PLANS, BUT SHALL INCLUDE ALL NECESSARY WORK (OR INCIDENTAL) THERE TO COMPLETE THE WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.
4. REMOVE FLOOR, WALL, AND CEILING FINISHES AS INDICATED.
5. REMOVE WALL MOUNTED MARKER BOARDS, TACK BOARDS, FIRE EXTINGUISHERS, HAND SANITIZERS, ETC. AND COORDINATE WITH OWNER ON ITEMS TO BE REINSTALLED. REINSTALL WHERE DIRECTED BY OWNER. STORE ITEMS AS NECESSARY FOR REINSTALLATION.
6. OWNER TO REMOVE ALL FREE STANDING FURNITURE & SHELVING.
7. REMOVE PORTIONS OF SLAB NECESSARY FOR NEW PLUMBING PER MEP SHEETS. REPAIR AND PATCH SLAB TO BE FLUSH WITH EXISTING.
8. REFER TO MEP GENERAL AND DEMOLITION NOTES FOR MAINTAINING BUILDING SYSTEMS.
9. REFER TO MECHANICAL, PLUMBING, AND ELECTRICAL DEMOLITION PLANS & FOR BUILDING SYSTEMS TO BE DEMOLISHED, CAPPED OR ABANDONED IN PLACE.
10. ALL EXPOSED SURFACES (FLOORS, COLUMNS, ETC) NOTED IN THE FLOORPLAN AND REFLECTED CEILING PLAN SHALL RECEIVE A NEW FINISH (CARPET, PAINT, ETC) AND MUST BE PREPPED (SANDED, SCRAPED, ETC) FOR FUTURE FINISH AS A PART OF DEMOLITION.
11. CONTRACTOR TO COORDINATE WITH OWNER THE STORAGE OF ALL SALAVAGED AND REUSED ITEMS, UNLESS SPECIFICALLY NOTED OTHERWISE OR REQUESTED BY OWNER.
12. DEMO ALL WOOD WALL PANELING UNLESS NOTED OTHERWISE AND PRESERVE SUBSURFACE AT ALL LOCATIONS.
13. DEMO AND SALVAGE ALL EXISTING LIGHT FIXTURES, UNLESS NOTED OTHERWISE.
14. ALL FLOOR REGISTERS TO REMAIN UNLESS NOTED OTHERWISE. ALL FLOOR REGISTERS TO RECEIVE NEW COVERS, RE: MEP.
15. PLUG & CAP SEWER & WATER CONNECTIONS FOR FIXTURES THAT WILL NOT BE REPLACED, REFERENCE FLOOR PLAN TYPICAL.
16. REMOVE ALL EXISTING CONSTRUCTIONS AND FINISHES NECESSARY FOR THE COMPLETION OF THE WORK AS DEPICTED ON THE DRAWINGS, INCLUDING BUT NOT LIMITED TO, ITEMS SHOWN ON THE PLANS WITH DASHED LINES. NECESSARY DISCONNECTS AND ALTERATIONS TO EXISTING MECHANICAL AND ELECTRICAL SYSTEMS SHALL BE INCLUDED. PATCH AS REQUIRED ALL CONSTRUCTIONS TO REMAIN IN ACCORDANCE WITH THE CONTRACT DRAWINGS. WHERE CONTRACTOR DESIGNATED TO MAKE REMOVALS, DISPOSITION OF MATERIALS IS THE RESPONSIBILITY OF THE CONTRACTOR. VERIFY WITH OWNER THE DISPOSITION AND REMOVAL OF ANY COMPONENTS OF SALVAGEABLE VALUE.
17. FOR ANY NEW LIGHTING INDICATED IN DOCUMENTS, SALVAGE AND REUSE EXISTING ELECTRICAL COMPONENTS AS NEEDED. RE: ELECTRICAL.
18. WHERE APPLICABLE, LEVEL ALL EXISTING FLOORS AS REQUIRED TO RECEIVE NEW FLOOR FINISHES, INSTALL REQUIRED TRANSITION PIECES BETWEEN VARIOUS FLOOR FINISHES SUITABLE FOR CONDITIONS AND ACCEPTABLE TO THE OWNER.
19. PROTECT ALL EXISTING STRUCTURE, SYSTEMS, FINISHES AND GENERAL CONSTRUCTION THAT ARE TO REMAIN THROUGHOUT THE COURSE OF THE WORK TO PREVENT DAMAGE OR LOSS. ANY SUCH DAMAGE CAUSED DURING THE COURSE OF THIS WORK WILL BE REPAIRED AT THE CONTRACTORS EXPENSE BEFORE THIS WORK IS CONCLUDED.
20. CONTRACTOR IS RESPONSIBLE FOR ALL PATCHING NECESSARY TO COMPLETE THE NEW WORK.
21. IF ANY QUESTIONS ARISE AS TO THE REMOVAL OF ANY MATERIALS OR FINISHES, CONSULT ARCHITECT/DESIGNER FOR DIRECTION.
22. PREP ALL SURFACES TO RECEIVE NEW FINISHES ACCORDING TO SPECIFICATIONS.
23. REMOVE ONLY NON-LOAD BEARING CONSTRICTION AND PARTITIONS. CONTRACTOR TO VERIFY, PRIOR TO REMOVAL, THAT NO STRUCTURAL COMPONENTS, I.E. BEARING WALLS, BEAMS, HEADERS, ETC., SUPPORTING FLOOR, ROOF OR CEILING JOISTS ARE DESIGNATED FOR REMOVAL. CONTACT THE ARCHITECT PRIOR TO REMOVAL OF ANY CONSTRUCTION IN QUESTION OR DEVIATING FROM THE DESIGN INTENT. CONTRACTOR'S NON-CONTACT OF ARCHITECT PRIOR TO REMOVAL OF ANY WORK INDICATES HIS COMPLETE UNDERSTANDING THAT NO LOAD BEARING OR STRUCTURAL WORK IS BEING ALTERED UNDER THIS CONTRACT.
24. WHERE APPLICABLE LEVEL ALL EXISTING FLOORS AS REQUIRED TO RECEIVE NEW FLOOR FINISHES. INSTALL REQUIRED TRANSITION PIECES BETWEEN VARIOUS FLOOR FINISHES SUITABLE FOR CONDITIONS AND ACCEPTABLE TO THE OWNER. MATCH EXISTING WHEREVER POSSIBLE.
25. WHERE REMOVAL OF PARTITIONS RESULTS IN ADJACENT SPACESI BECOMING ONE, REOWRK FLOORS, WALLS, AND CEILING TO PROVIDE SMOOTH TRANSITIONS WITHOUT BREAK, STEPS, OR BULKHEADS.
26. ALL EXISTING HOLES / CRACKS IN SLAB AND THOSE RESULTING FROM THE CONSTRUCTION PROCESS SHALL BE FILLED / PREPARED AND SURFACE PATCHED SMOOTHE AND LEVEL WITH ADJACENT FLOOR SURFACES.
27. ANY EXISTING CONDITIONS WHICH ARE INCONSISTENT WITH CONTRACT DRAWINGS RELEVANT TO THIS CONTRACT SHALL BE REPORTED TO THE ARCHITECT.
28. APPLY SELF-LEVELING COMPOUND TO FLOORING WHERE CMU WALLS ARE DEMOLISHED. GRIND FLOOR PRIOR TO APPLYING SELF-LEVELING COMPOUND IF REQUIRED TO ALLOW FOR LEVEL FLOOR SURFACE.
29. WHEREVER EXISTING EQUIPMENT, PIPING, DUCTS, ETC., ARE REQUIRED TO BE REMOVED, SUCH REMOVAL SHALL INCLUDE ALL ANCHORS, HANGARS, BRACING, FOUNDATION, ETC. AFTER REMOVAL, AFFECTED CONSTRUCTION AND SURFACES, SUCH AS FLOORS, WALLS, BASES, AND CEILINGS, SHALL BE FINISHED TO MATCH ADJACENT SURFACES UNLESS OTHERWISE NOTED.
30. ALL WINDOW COVERINGS TO BE DEMOLISHED UNLESS NOTED OTHERWISE.

DEMOLITION PLAN - ROOF 3
1/8" = 1'-0" AD101

DEMOLITION PLAN - LOWER LEVEL 2
1/8" = 1'-0" AD101

DEMOLITION PLAN - MAIN LEVEL 1
1/8" = 1'-0" AD101

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PROJECT
VINITA CULTURAL DEVELOPMENT CENTER - ASI 1

PROJECT
CHEROKEE NATION
VINITA, OKLAHOMA

KEY PLAN

No.	Description	Date
	BID SET	5/07/2021
1	ASI-1	5/19/2021

SHEET TITLE
ASI 1 DRAWINGS

PROJECT NO: 111-049.20
DRAWN BY:
CHK'D BY:
ISSUE DATE: 5/19/2021

AD101

Scale: As indicated

5/19/2021

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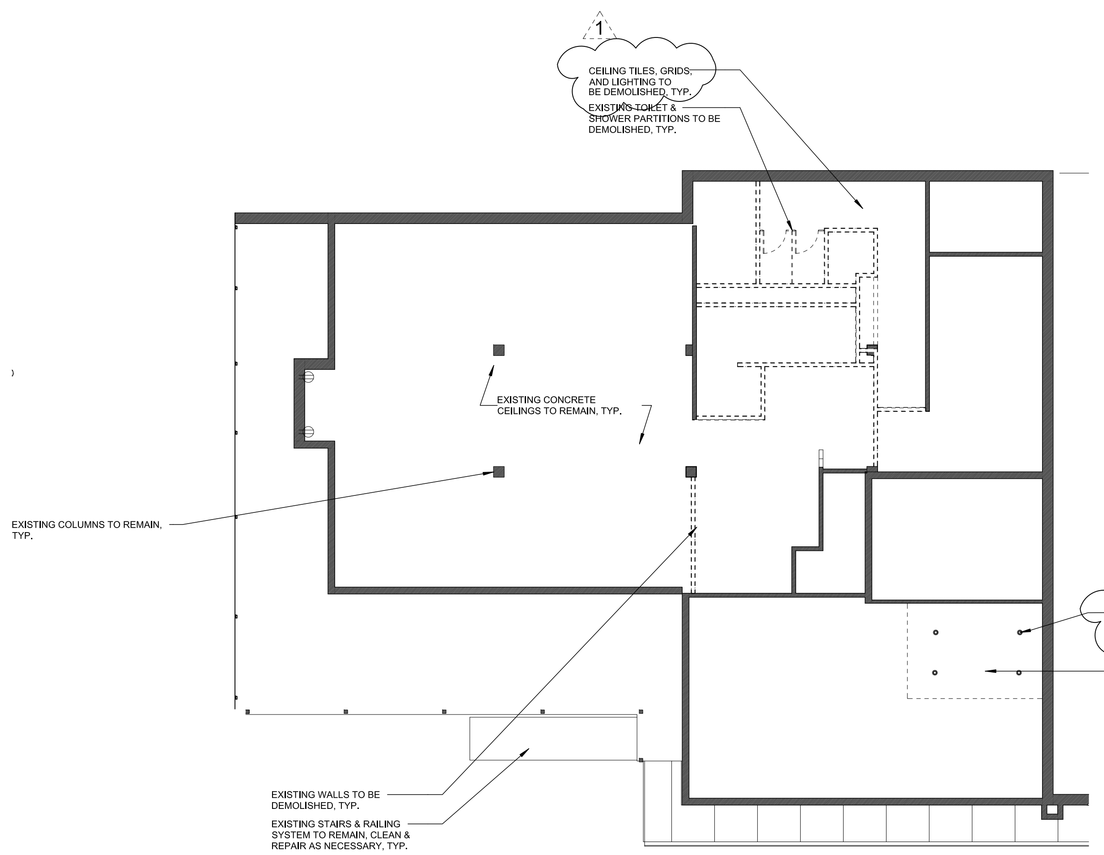
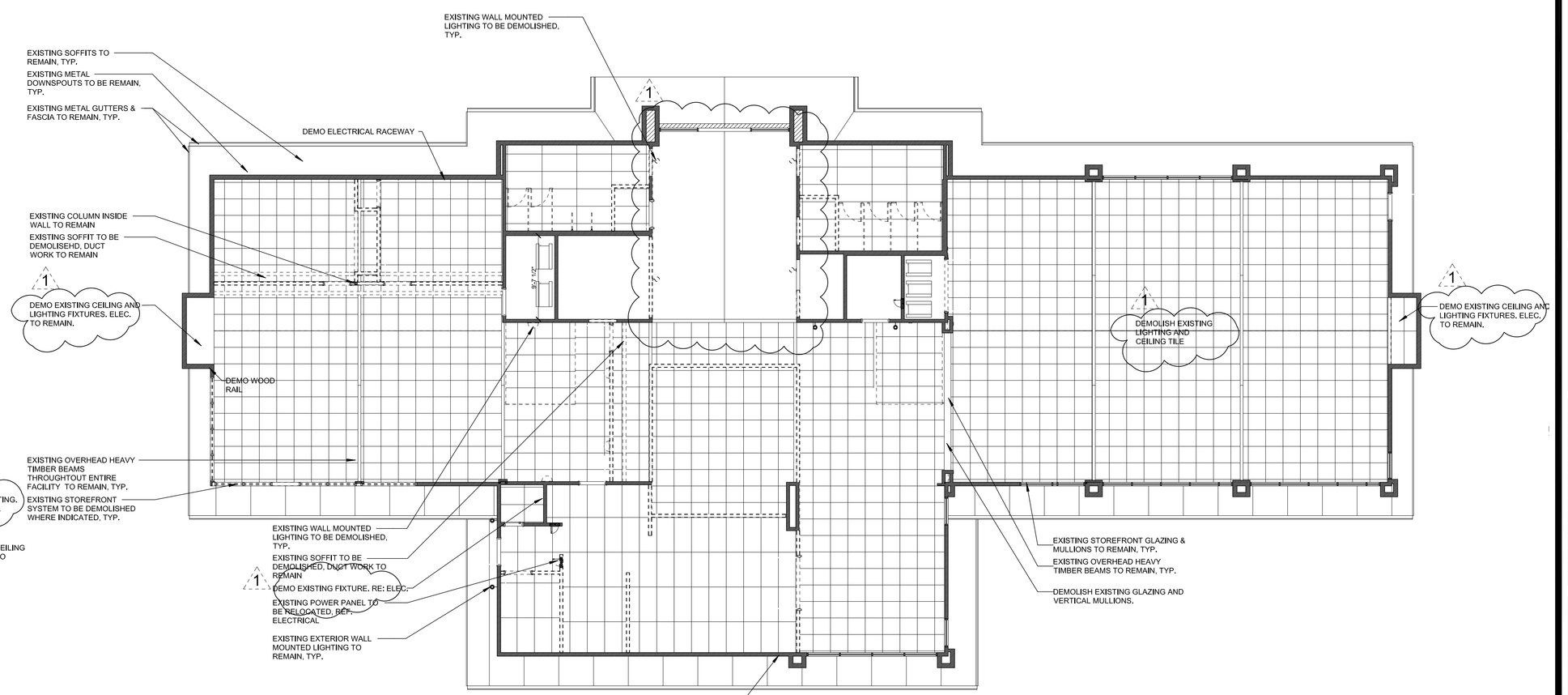
30. ALL WINDOW COVERINGS TO BE DEMOLISHED UNLESS NOTED OTHERWISE.
31. DEMOLISH EXISTING CEILING TILES AND GRIDS THROUGHOUT BUILDING UNLESS OTHERWISE NOTED.



DEMOLITION REFLECTED CEILING PLAN - LOWER LEVEL ◀2
1/8" = 1'-0" AD102



DEMOLITION REFLECTED CEILING PLAN - MAIN LEVEL ◀1
1/8" = 1'-0" AD102

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VINITA CULTURAL DEVELOPMENT CENTER - ASI 1

PROJECT

CHEROKEE NATION
VINITA, OKLAHOMA

KEY PLAN

No.	Description	Date
	BID SET	5/07/2021
1	ASI-1	5/19/2021

SHEET TITLE

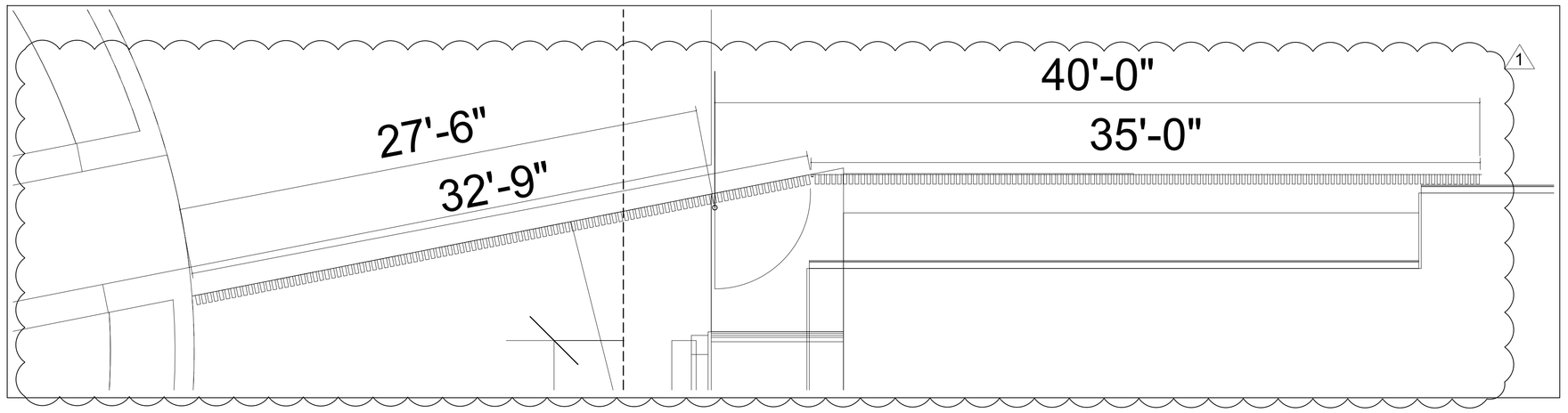
ASI 1 DRAWINGS

PROJECT NO: 111-049.20
DRAWN BY:
CHK'D BY:
ISSUE DATE: 5/19/2021

AD102
Scale As Indicated

STATE OF OKLAHOMA
GARY W. SPARKS
13462
TULSA, OKLA.
REGISTERED ARCHITECT

5/19/2021



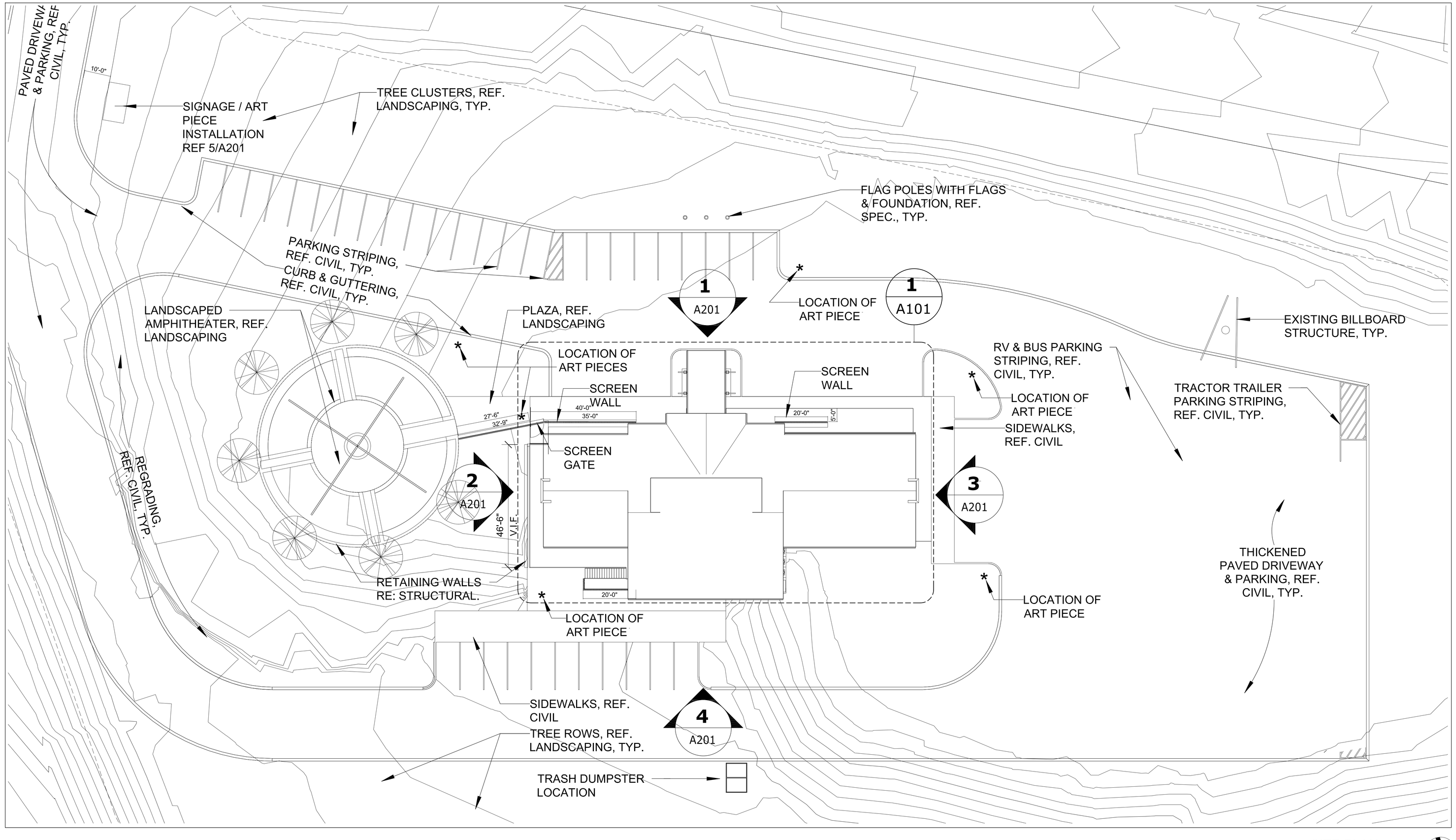
SITE PLAN 1A
1" = 32'-0" AS101

PHASING LEGEND

- EXISTING TO REMAIN
- EXISTING TO BE DEMOLISHED
- NEW CONSTRUCTION

GENERAL NOTES - SITE

1. OUTSIDE OF DOOR JAMB ROUGH OPENINGS TO BE 3" FROM WALL INTERSECTIONS UNLESS OTHERWISE INDICATED.
2. PROVIDE BLOCKING FOR KITCHEN, BATHROOM AND FUTURE ADA ACCESSORIES
3. DIMENSIONS ARE TO FACE OF STUD LAYER UNLESS OTHERWISE INDICATED.
4. FINISH FLOOR ELEVATIONS SHOULD BE COORDINATED WITH CIVIL
5. SEE CIVIL DRAWINGS FOR DETAILED INFORMATION ON NEW GRADING, STORMWATER, UTILITIES, ETC. HEIGHTS AND LOCATIONS
6. SEE LANDSCAPE DRAWINGS FOR DETAILED INFORMATION ON PLANTING LOCATIONS AND VEGETATION TYPES.
7. SEE MEP DRAWINGS FOR DETAILED INFORMATION ON SITE LIGHTING AS WELL AS ALL MECHANICAL, ELECTRICAL AND UTILITY ENTRANCES AT THE BUILDING FINISH FLOOR ELEVATIONS SHOWN ON CIVIL GRADING AND DRAINAGE SHEETS SHALL SET THE LEVEL OF THE GROUND FLOOR OF EACH INDIVIDUAL STRUCTURE WHICH IS INDICATED AT THE 0'-0" LEVEL ON THESE SHEETS. CIVIL FINISHED FLOOR INDICATIONS SHALL TAKE PRECEDENCE.



SITE PLAN 1A
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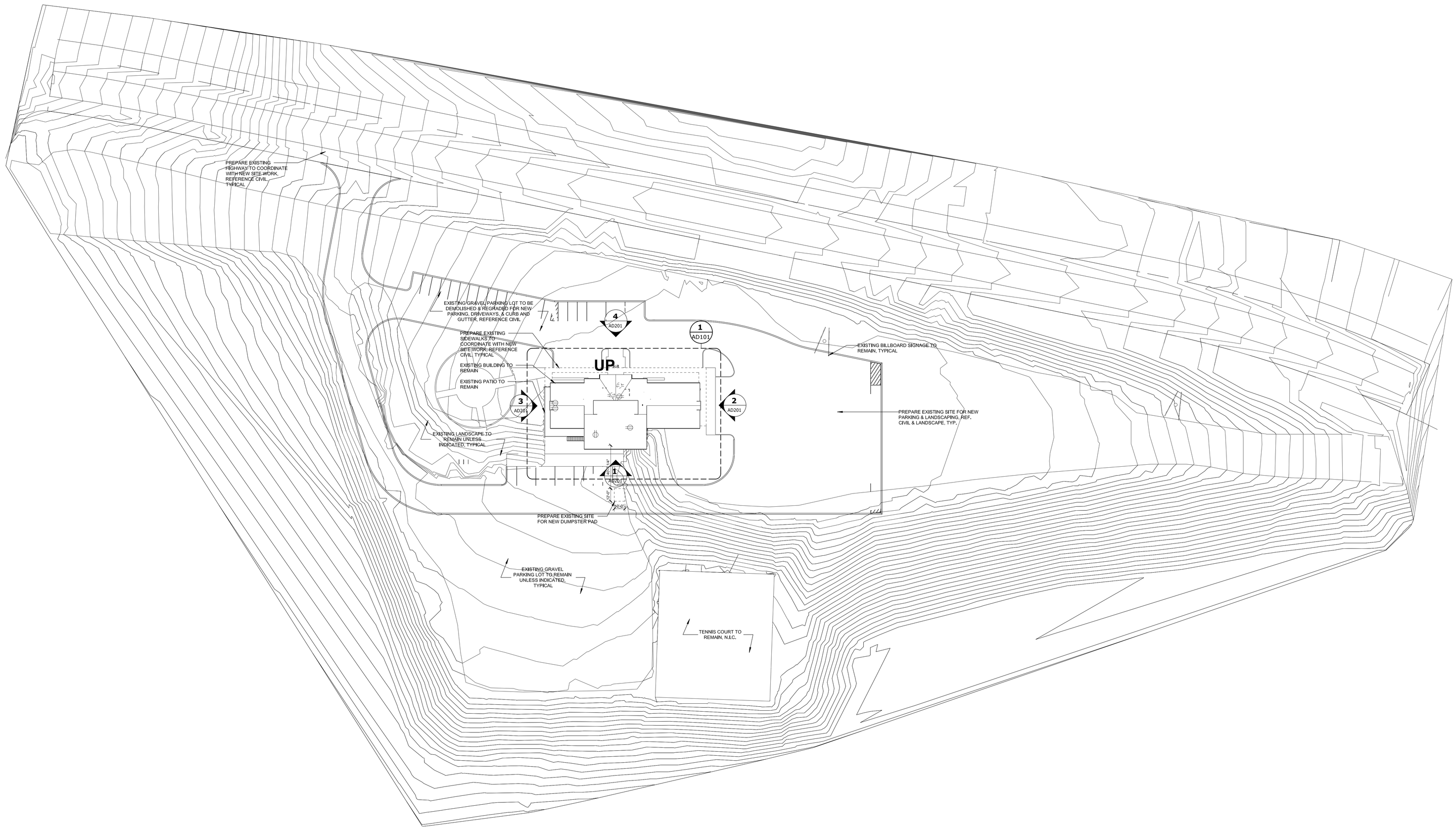

SITE PLAN
1" = 40'-0"
ASD101
1

EFG DESIGN & ARCHITECTURE
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PHILLIPS + GOMEZ
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918.584.0102

PROJECT
VINITA CULTURAL DEVELOPMENT CENTER - ASI 1

PROJECT
CHEROKEE NATION
VINITA, OKLAHOMA

KEY PLAN

No.	Description	Date
	BID SET	5/07/2021
1	ASI-1	5/19/2021

SHEET TITLE
ASI 1 DRAWINGS

PROJECT NO: 111-049.20
DRAWN BY:
CHK'D BY:
ISSUE DATE: 5/19/2021

ASD101

Scale As indicated

STATE OF OKLAHOMA
GARY W. SPARKS
12465
TULSA, OKLA.
LICENSED ARCHITECT

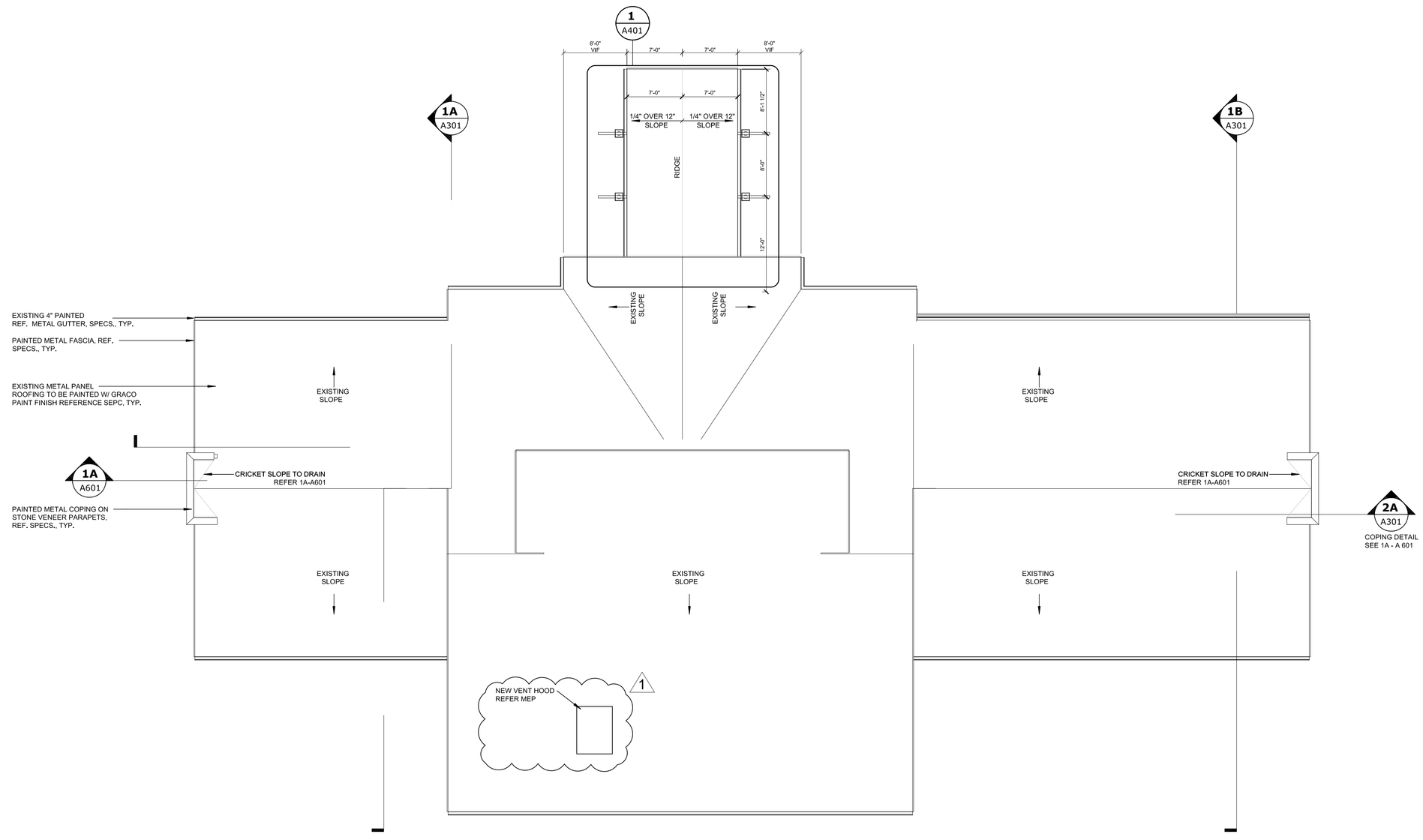
5/19/2021

GENERAL NOTES - NEW WORK

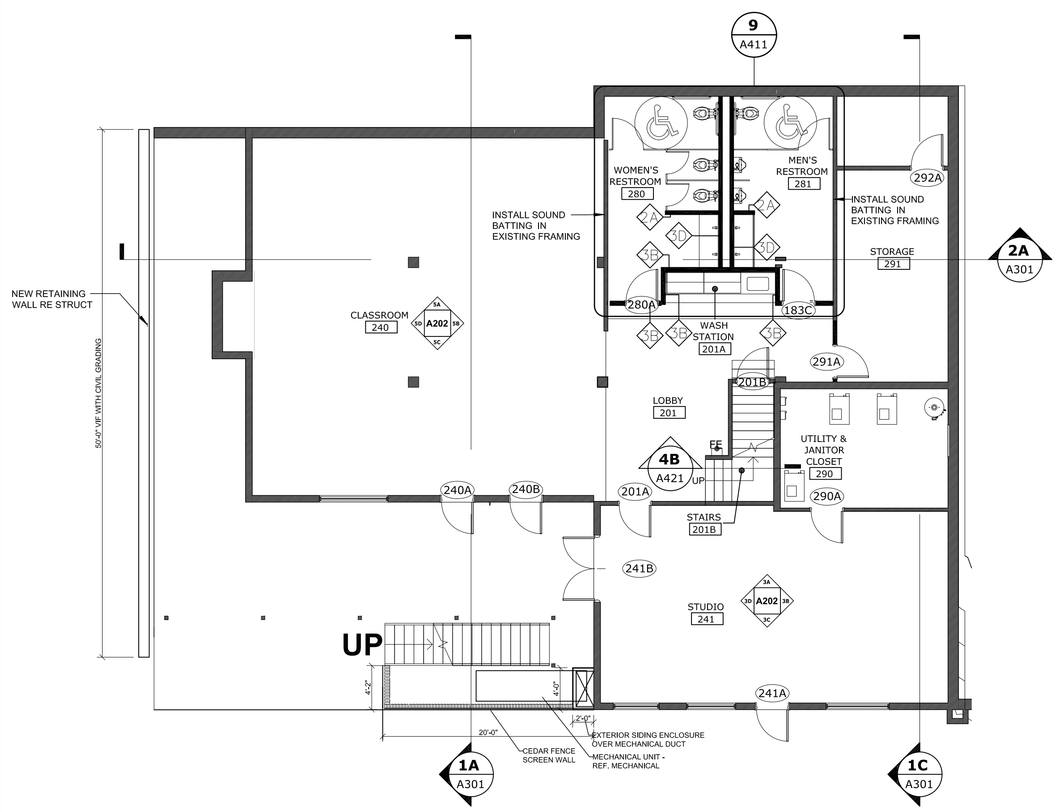
1. OUTSIDE OF DOOR JAMB ROUGH OPENINGS TO BE 3" FROM WALL INTERSECTIONS UNLESS OTHERWISE INDICATED.
2. PROVIDE BLOCKING FOR KITCHEN, BATHROOM AND FUTURE ADA ACCESSORIES
3. DIMENSIONS ARE TO FACE OF STUD LAYER UNLESS OTHERWISE INDICATED.
4. FINISH FLOOR ELEVATIONS SHOULD BE COORDINATED WITH CIVIL
5. SEE CIVIL DRAWINGS FOR DETAILED INFORMATION ON NEW GRADING, STORMWATER, UTILITIES, ETC. HEIGHTS AND LOCATIONS
6. SEE LANDSCAPE DRAWINGS FOR DETAILED INFORMATION ON PLANTING LOCATIONS AND VEGETATION TYPES.
7. SEE MEP DRAWINGS FOR DETAILED INFORMATION ON SITE LIGHTING AS WELL AS ALL MECHANICAL, ELECTRICAL AND UTILITY ENTRANCES AT THE BUILDING FINISH FLOOR ELEVATIONS SHOWN ON CIVIL GRADING AND DRAINAGE SHEETS SHALL SET THE LEVEL OF THE GROUND FLOOR OF EACH INDIVIDUAL STRUCTURE WHIHC IS INDICATED AT THE 0'-0" LEVEL ON THESE SHEETS. CIVIL FINISHED FLOOR INDICATIONS SHALL TAKE PRECEDENCE.
8. ALLOW FOR NO LESS THAN THREE PAINT MOCKUPS, APPROXIMATELY 200 SQUARE FEET EACH, FOR ARCHITECTS APPROVAL PRIOR TO PROCEEDING WITH FINAL PAINTING.
9. ALL GRILLES TO BE PAINTED TO MATCH ADJACENT WALL.
10.

PHASING LEGEND

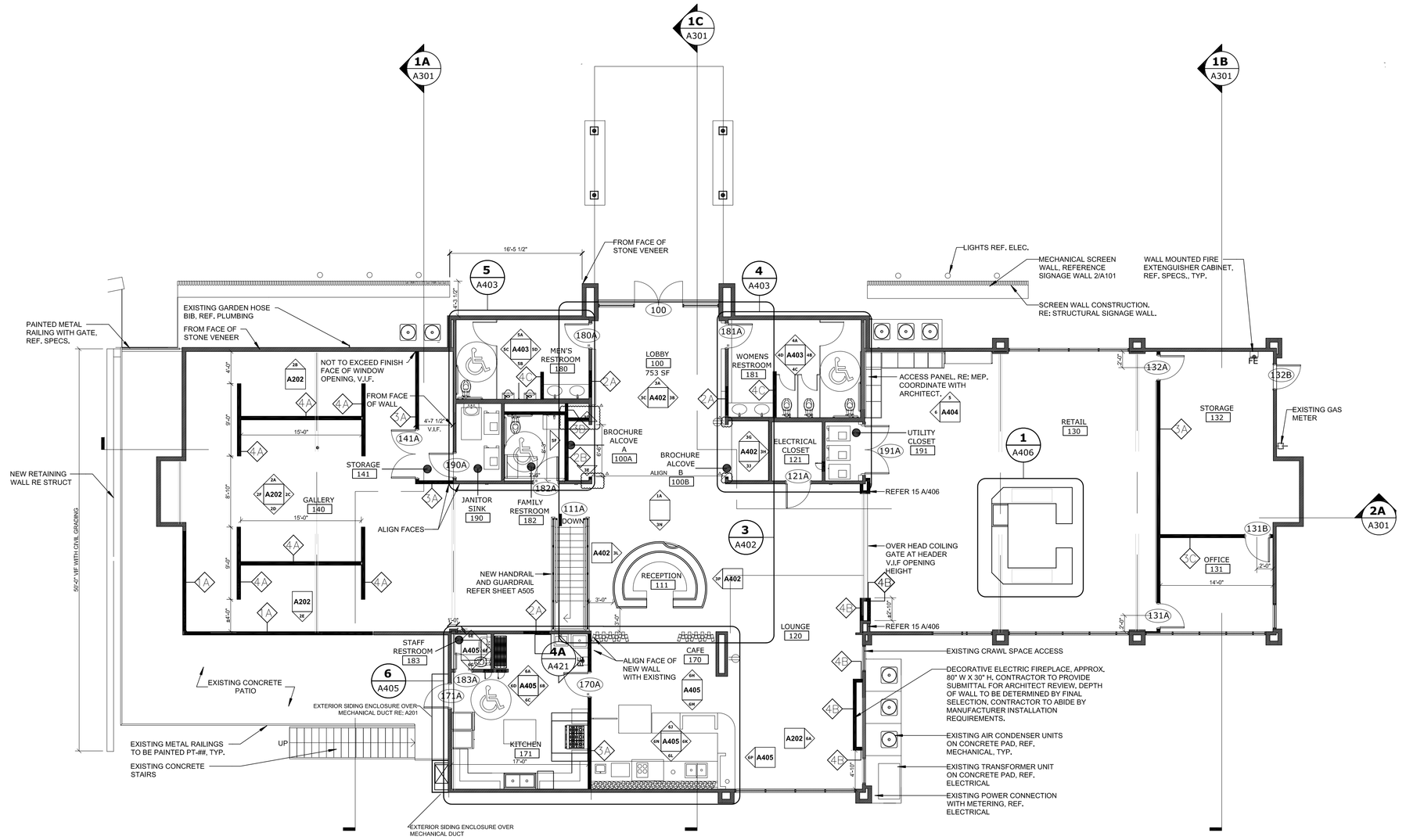
- EXISTING TO REMAIN
- EXISTING TO BE DEMOLISHED
- NEW CONSTRUCTION



ROOF PLAN - OVERALL 3
1/8" = 1'-0" A101



FLOOR PLAN - LOWER LEVEL 2
1/8" = 1'-0" A101



FLOOR PLAN - MAIN LEVEL 1
1/8" = 1'-0" A101

1/16"=1'-0" 1/8"=1'-0" 1/4"=1'-0" 1/2"=1'-0" 3/4"=1'-0" 1"=1'-0" 1 1/2"=1'-0" 3"=1'-0"

5/19/2021

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A101
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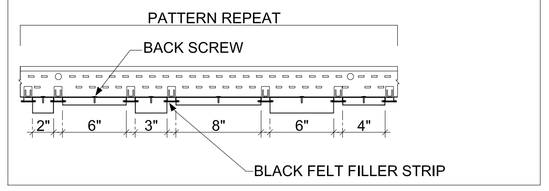
STATE OF OKLAHOMA · GARY W. SPARKS · 19625 · REGISTERED ARCHITECT

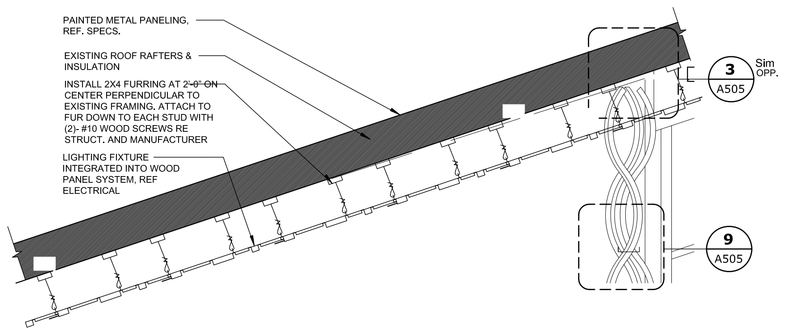
*REFER ASI ARCHITECTURAL FOR CUSTOM DESIGN CEILING PANELS



TYPICAL WOOD CEILING PANNEL (WC-1)
1 1/2" = 1'-0" A111 5

REFLECTED CEILING PLAN LEGEND

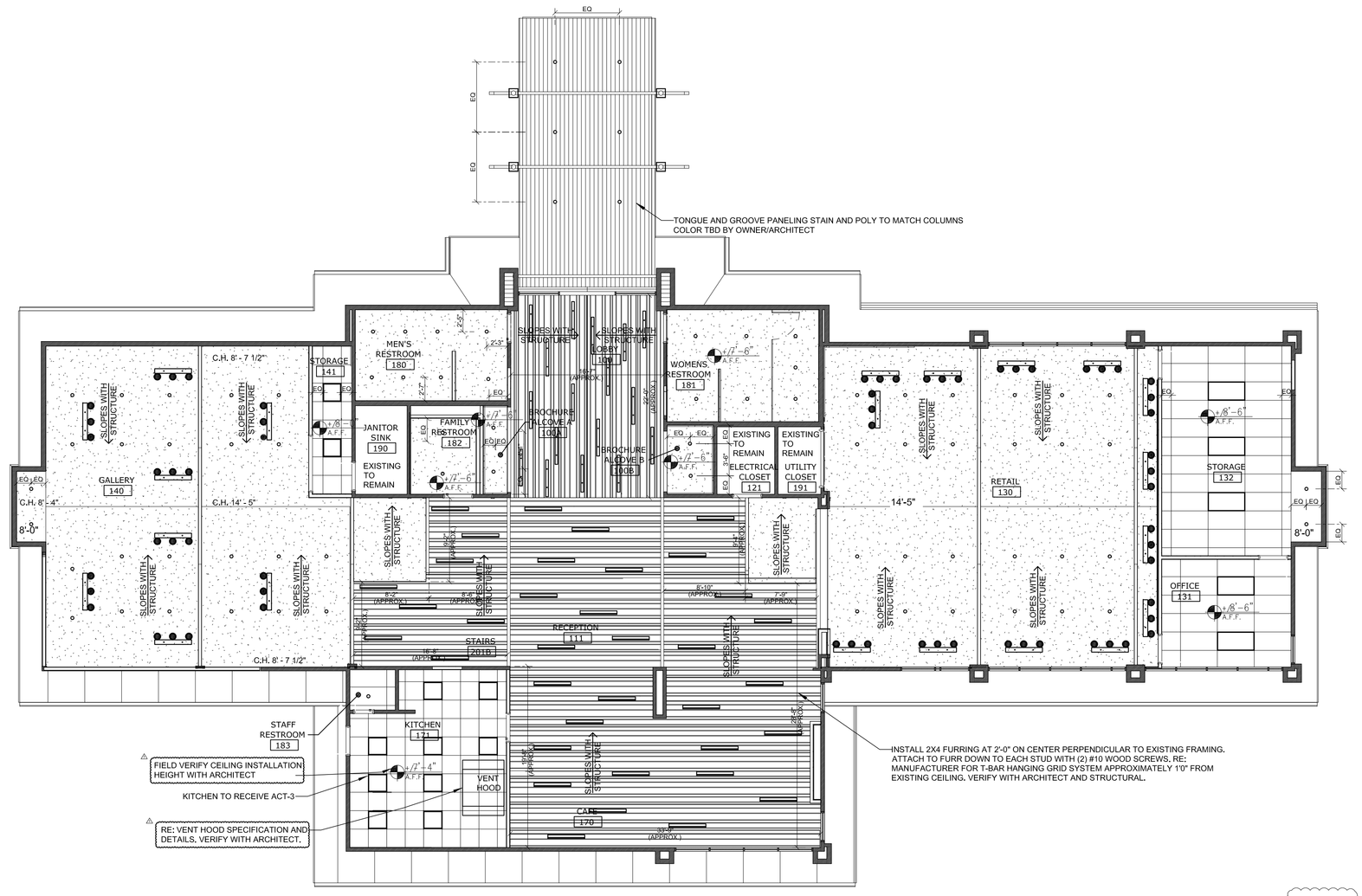
- GYP CEILING, PT-1 (RE: INTERIOR FINISH SCHEDULE)
- 2'X4' CEILING TILE & GRID - ACT-2 (RE: INTERIOR FINISH SCHEDULE) U.N.O.
- 2' X 2' CEILING TILE & GRID - ACT-1 (RE: INTERIOR FINISH SCHEDULE)
- 2' X 2' CLEANABLE CEILING TILE & GRID - ACT-3 (RE: INTERIOR FINISH SCHEDULE)
- WOOD CEILING - WC-1 (RE: INTERIOR FINISH SCHEDULE)



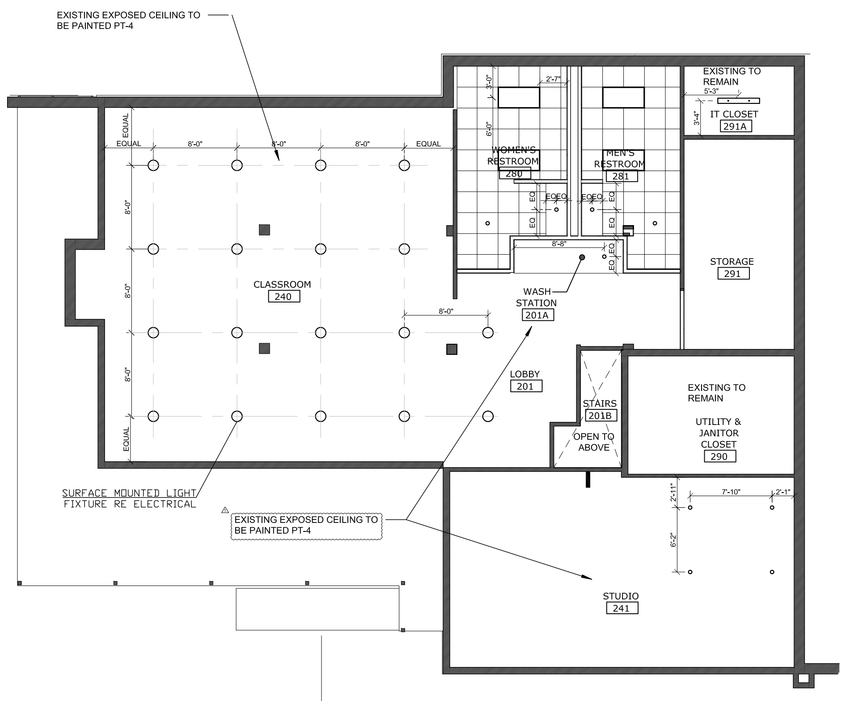
WOOD CEILING DETAIL
1/2" = 1'-0" A111 4

GENERAL NOTES - REFLECTED CEILING PLAN

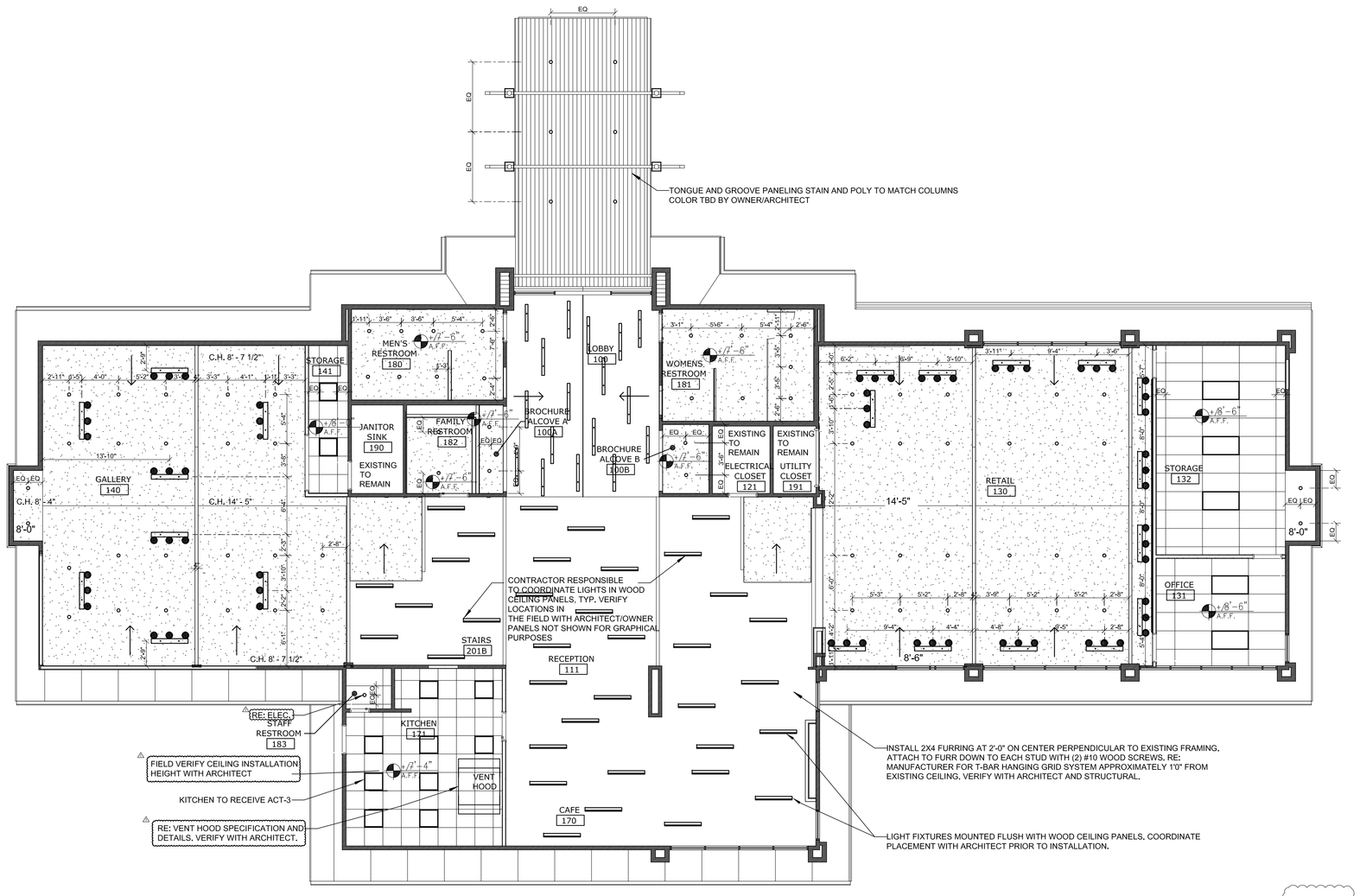
1. CEILING HEIGHTS SHOWN ON PLAN ARE APPROXIMATE, CONTRACTOR TO VERIFY ALL DIMENSIONS IN FIELD.
2. GYP CEILINGS TO RECEIVE PT-1 UNLESS NOTED OTHERWISE.
3. CENTER LIGHT FIXTURES ON CEILING PANEL UNLESS NOTED OTHERWISE.



REFLECTED CEILING PLAN- MAIN LEVEL
1/8" = 1'-0" A111 1 1



LOWER LEVEL REFLECTED CEILING PLAN - LIGHT LOCATIONS
1/8" = 1'-0" 2



REFLECTED CEILING PLAN - LIGHT LOCATIONS
1/8" = 1'-0" A111 1 1

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A111
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STATE OF OKLAHOMA — GARY W. SPARKS — 23403 — TULSA, OKLA. — REGISTERED ARCHITECT

FINISH SCHEDULE

CODE	CATEGORY	MANUFACTURER	PRODUCT NAME	PRODUCT NUMBER	COLOR - FINISH	PRODUCT DESCRIPTION	NOTES
CPT-1	FLOORING	SHAW CONTRACT	OFFSET	5T296 STRATAWORX TILE	94505 GLOSSY CHARCOAL	BROADLOOM	
CON-S	FLOORING	TBD	TBD	TBD		SEALED CONCRETE	
LVT-1	FLOORING	SHAW CONTRACT	RESPITE CORETECH FLOORING	TBD	TBD	7" X 48" LUXURY VINYL PLANKS	MOISTURE TESTING REQUIRED PRIOR TO INSTALL
PFT-1	FLOORING	CROSSVILLE	NOTORIOUS	NTR02 PRIVATE EYE	UPS	12"X12"	
QT-1	FLOORING	DALTILE	QUARRY TILE	0Q42	ARID GRAY	6"X6"	
VCT-1	FLOORING	ARMSTRONG	STANDARD EXCELON IMPERIAL TEXTURE	51927	FIELD GRAY	12"X12" VINYL COMPOSITION TILE	
WF-1	FLOORING	PREMIER WOOD FLOORING (OR EQUIVALENT)	WHITE OAK SOLID HARDWOOD PLANKS	N/A	STAIN COLOR TBD	3" WIDE X 3/4" THICK PLANKS OVER 5/8" PLYWOOD	RE: FINISHES GENERAL NOTES FOR INSTALL/FINISH INFO
PT-1	WALL	BENJAMIN MOORE	PER SPECIFICATIONS	CW-140 TIMSON SAND	EGGSHELL		
PT-2	WALL	SHERWIN WILLIAMS	PER SPECIFICATIONS	SW9111 ANTLER VELVET	EGGSHELL		
PT-3	WALL	SHERWIN WILLIAMS	PER SPECIFICATIONS	SW6172 HARDWARE	EGGSHELL		
PT-4	WALL	SHERWIN WILLIAMS	PER SPECIFICATIONS	SW7048 URBANE BRONZE	EGGSHELL		
EP-1	WALL	BENJAMIN MOORE	PER SPECIFICATIONS	CW-140 TIMSON SAND	EPOXY, EGGSHELL		
EP-2	WALL	SHERWIN WILLIAMS	PER SPECIFICATIONS	SW6172 HARDWARE	EPOXY, EGGSHELL		
FRP-1	WALL	MARLITE	STANDARD FRP	N/A	P100 WHITE	FIBERGLASS REINFORCED PLASTIC PANELS	CLASS A FIRE RATED
LS-1	WALL	INTERCERAMIC	TRAVERTINE LEDGER PANELS	N/A	AUTUMN LEAVES	LEDGER STONE PANEL (6"X24")	
LS-2	WALL	INTERCERAMIC	TRAVERTINE LEDGER PANELS	N/A	AUTUMN LEAVES	LEDGER STONE PANEL CORNER (3"X6")	
PWT-1	WALL	CROSSVILLE	NOTORIOUS	NTR02 PRIVATE EYE	UPS/HON	12"X12"	
PWT-2	WALL	PORCELANOSA	NOA-L,R		MINNESOTA MOKA	24"X24"	INSTALL LEFT & RIGHT TILES PER MFR RECOMENDATIONS
PWB-1	BASE	CROSSVILLE	NOTORIOUS	NTR02 PRIVATE EYE	UPS/HON	4"X12" BULLNOSE	
RB-1	BASE	TARKETT	TRADITIONAL 4" VINYL WALL BASE	TV	TBD		
WB-1	BASE	ARCHITECTURAL MILLWORK MFG.	WHITE OAK SOLID WOOD BASE	H1A	STAIN COLOR TBD	5/8" X 5 7/8"	
QTB-1		DALTILE					
SW-1	MISC	WINDMILL SLATWALL PRODUCTS	SLATWALL	N/A	CUSTOM LAMINATE SURFACE: LAMINART BLACK WALNUT (3135-E) VELLUM FINISH		VERTICAL CUT PANELS 3" O.C. WITHOUT EDGE CUTS WITH MILL ALUMINUM METAL INSERTS, CONTACT: 800-548-7528
PLAM-1	MISC	LAMINART	BLACK WALNUT	3135-E	VELLUM		
PLAM-2	MISC	LAMINART	ETRUSCAN BRONZE	2412-T	TEXTURED FINISH		
PLAM 3	MISC	FORMICA	GRAPHITE	837-58	MATTE FINISH		RESTROOM VANITY APRONS
SSM-1	MISC	CAMBRIA	TORQUAY	N/A	GLOSS	QUARTZ COUNTERTOPS	
SSM-2	MISC	CAMBRIA	BLACKPOOL MATTE	N/A	MATTE	QUARTZ COUNTERTOPS	
GT-1	MISC	MAPEI	GROUT	N/A	TBD		
GT-2	MISC	MAPEI	GROUT	N/A	TBD		
GT-3	MISC	MAPEI	GROUT	N/A	TBD		
MT-1	MISC	DALTILE	MARBLE THRESHOLD	M701	CARRERA WHITE	2" X DOOR WIDTH	AT RESTROOM ENTRIES
TS-1	MISC	TARKETT	ADAPTER STRIP	CTA-XX-A	TBD		AT CARPET TO RESILIENT FLOORING TRANSITIONS
TS-2	MISC	TARKETT	REDUCER STRIP	TBD	TBD		AT RESILIENT TO CONCRETE FLOORING TRANSITIONS
TS-3	MISC	PREMIER WOOD FLOORING	TRANSITION STRIP	N/A	STAIN COLOR TBD	WHITE OAK SOLID HARDWOOD STRIP TO MATCH WF-1	AT WF-1 TO ALL OTHER FLOORING TRANSITIONS
TS-4	MISC	SCHLUTER	TBD	TBD	TBD	FLOOR TRANSITION FROM LVT-1 TO PFT-1	
TS-5	MISC	SCHLUTER	TBD	TBD	TBD	FLOOR TRANSITION FROM LVT-1 TO CON-S	
TS-6	MISC	SCHLUTER	SCHIENE	N/A	TBD	MATCH INSTALLED HEIGHT OF PORCELAIN TILE	WALL TRANSITION STRIP AT PWT-2
TS-7	MISC	ROPPE	SUBFLOOR LEVELER	N/A	N/A		AT CARPET TO WF-1 TRANSITIONS
GL-1	MISC	PULP STUDIO, INC.	GLASS	REF #249-43			
WFL-1	MISC	SOLYX	TBD	TBD	TBD	WINDOW FILM - BLACKOUT	
TP-1	MISC	GLOBAL PARTITIONS	FLOOR MOUNTED HEADRAIL BRACED TOILET PARTITIONS	N/A	#9513 METALLIC BRONZE	TOILET PARTITION	ALUMINUM WRAP AROUND HINGES, CONTINUOUS ALUMINUM BRACKETS
ACT-1	CEILING	ARMSTRONG	LYRA PB	8494PB	WHITE	2' X 2' ACOUSTIC CEILING TILE	
ACT-2	CEILING	ARMSTRONG	LYRA PB	8495PB	WHITE	2' X 4' ACOUSTIC CEILING TILE	
ACT-3	CEILING	ARMSTRONG	KITCHEN ZONE	672	WHITE	2' X 2' CLEANABLE ACOUSTIC CEILING TILE	
WC-1	CEILING	ASI ARCHITECTURAL	LINEAR REVEAL	N/A	TBD	WOOD VENEER CEILING SYSTEM	FASTENED TO 15/16" HEAVY DUTY SUSPENDED T-GRID

FINISHES LEGEND

RE: FINISHES SCHEDULE FOR CODE DESCRIPTIONS

WALL / FLOOR / BASE — VARIES = REFER TO FINISHES PLAN & INTERIOR ELEVATIONS FOR MATERIAL LOCATIONS & EXTENTS

GENERAL NOTES - FINISHES

1. ALL MATERIALS AND FINISHES SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS. CONTRACTOR RESPONSIBLE FOR PROTECTING ADJACENT FINISHES AND CLEANUP.
2. WHERE APPLICABLE, LEVEL ALL EXISTING FLOORS AS REQUIRED TO RECEIVE NEW FLOOR FINISHES. INSTALL REQUIRED TRANSITION PIECES BETWEEN VARIOUS FLOOR FINISHES SUITABLE FOR CONDITIONS AND ACCEPTABLE TO THE OWNER.
3. COORDINATE AND VERIFY ALL DIMENSIONS, OPENINGS, AND CONDITIONS WITH ELECTRICAL AND ALL OTHER PERTINENT DRAWINGS AND TRADES PRIOR TO CONSTRUCTION. NOTIFY PROJECT DESIGNER OF DISCREPANCIES AS SOON AS POSSIBLE.
4. COORDINATE CEILING ACCESS PANELS WITH PROJECT DESIGNER.
5. EXIST'G GRILLES, DIFFUSERS, AND ACCESS PANELS TO BE PAINTED TO MATCH WALL OR CEILING IN WHICH THEY ARE LOCATED, U.N.O. VERIFY W/ ARCHITECT.
6. ALL ELECTRICAL RECEPTACLES AND LIGHT SWITCHES TO RECEIVE NEW FACEPLATES. CONTRACTOR TO SUBMIT CUTSHEETS FOR PROJECT DESIGNER APPROVAL.
7. CONTRACTOR TO SUBMIT CUTSHEETS AND SAMPLES OF ALL MATERIALS FOR PROJECT DESIGNER APPROVAL PRIOR TO ORDERING.
8. MOUNTING OF MIRRORS, FIXTURES, AND ACCESSORIES TO COMPLY WITH ADA ACCESSIBILITY REQUIREMENTS AND CLEARANCES.
9. ALL WALLS RECEIVING TILE TO RECEIVE CEMENTITIOUS BOARD.
10. ALL WALLS AND GYP. CEILINGS TO RECEIVE PT-1, U.N.O.
11. WALL BASE TO BE RB-1, U.N.O.
12. REFER TO ELECTRICAL DRAWINGS FOR ALL LIGHTING FIXTURE SPECIFICATIONS.
13. PAINT ALL EXPOSED COLUMNS PT-1, U.N.O.
14. NO BASE TO BE USED AT STONE COLUMNS. STONE TO EXTEND TO FINISHED FLOOR.
15. ALL RESTROOMS TO RECIEVE EPOXY PAINT.
16. ALL H.M. DOORS AND DOOR FRAMES TO RECEIVE PT-2, UNLESS NOTED OTHERWISE.
17. SUBMIT TILE LAYOUTS FOR ALL FLOOR AND WALL TILE LOCATIONS PRIOR TO INSTALLATION.
18. MOISTURE TESTING IN ACCORDANCE WITH ASTM F2170, ASTM F1869, ASTM F710 SHALL BE CONDUCTED PRIOR TO FLOORING INSTALLATION. PROVIDE RESULTS AND COORDINATE SOLUTIONS (MOISTURE BARRIER/MOISTURE TOLERANT ADHESIVE, ETC) WITH ARCHITECT, BASED ON FLOORING MANUFACTURERS ' RECOMMENDATIONS.
19. PREMIER WOOD FLOORING (WF-1) SPECIFICATIONS:
    INSTALL (from concrete slab up)

    1) On top of concrete slab foundation, 1 layer of 15 lb felt
    2) 1 layer of 6mm plastic
    3) 5/8" plywood
    4) Fasten plywood to concrete using 1/4" diameter anchor nails
    5) 1 layer of 15 lb felt
    6) Hardwood: 3/4" thick and 3" wide, white oak
    7) Fasten hardwood to Plywood using 1 1/4" staples

    SAND/FINISH
    1) Sand wood floor using 36 grit sandpaper to sand the floor
    2) Fill the wood floor using Bona brand wood filler
    3) Finish sanding wood floor using 100 grit sandpaper
    4) Buff the wood floor using 150 grit screen
    5) Apply DuraSeal stain color
    6) Apply 2 coats of Bona brand polyurethane
    7) Buff the wood floor using 220 grit screen
    8) Apply the final (3rd coat) of Bona brand polyurethane

    CONTACT PREMIER WOOD FLOORING, 1835 N. 105TH E. AVE. TULSA, OK 74116, (918) 633-5172 FOR PRICING.
20. FURNISH AND INSTALL TRANSITION STRIPS AT ALL FLOORING CHANGES AND TERMINATIONS. RE: FINISHES SCHEDULE FOR TYPE.
21. AT ALL WOOD FLOORING (WF-1) TRANSITIONS, PROVIDE TS-3 TRANSITION STRIP (SEE FINISH SCHEDULE) TO ALLOW FOR SMOOTH TRANSITION BETWEEN FLOORING MATERIALS AND ADA COMPLIANCE. ALL CARPET (CPT-1) TO WOOD FLOORING (WF-1) TRANSITIONS SHALL ALSO RECEIVE TS-7 SUBFLOOR LEVELER, IN ADDITION TO THE TS-3 TRANSITION STRIP.
22. REFER TO ELEVATIONS AND DETAILS FOR MATERIAL EXTENTS.
23. CONTRACTOR TO COORDINATE WITH INTERIOR DESIGNER THE LOCATIONS OF PAINT MOCK-UPS.
24. STAIN AND SEAL WOOD BASE (WB-1) TO MATCH WOOD FLOOR (WF-1).
25. CONTRACTOR TO UTILIZE ALL COMPONENTS REQUIRED BY MANUFACTURER INSTALLATION INSTRUCTIONS FOR QTB-1. FINISH OF ALL COMPONENTS TO MATCH. RE: FINISH SCHEDULE FOR PRODUCT INFORMATION.
26. CONTRACTOR TO UTILIZE ALL COMPONENTS REQUIRED BY MANUFACTURER INSTALLATION INSTRUCTIONS FOR FRP-1. FINISH OF ALL COMPONENTS TO MATCH RE: FINISH SCHEDULE FOR PRODUCT INFORMATION. CONTRACTOR TO USE MARLITE ONLY APPROVED ADHESIVES.
27. PROVIDE SHOP DRAWINGS FOR ALL MILLWORK, FIXTURES, SIGNAGE, ETC. FOR ARCHITECT APPROVAL.
28. PROVIDE MATERIAL AND FINISH SUBMITTALS FOR ARCHITECTS APPROVAL PRIOR TO PURCHASING PRODUCTS.

FINISH PLAN - LOWER LEVEL 1/8" = 1'-0" A121 1A

FINISH/FIXTURE PLAN - MAIN LEVEL 1/8" = 1'-0" A121 2A

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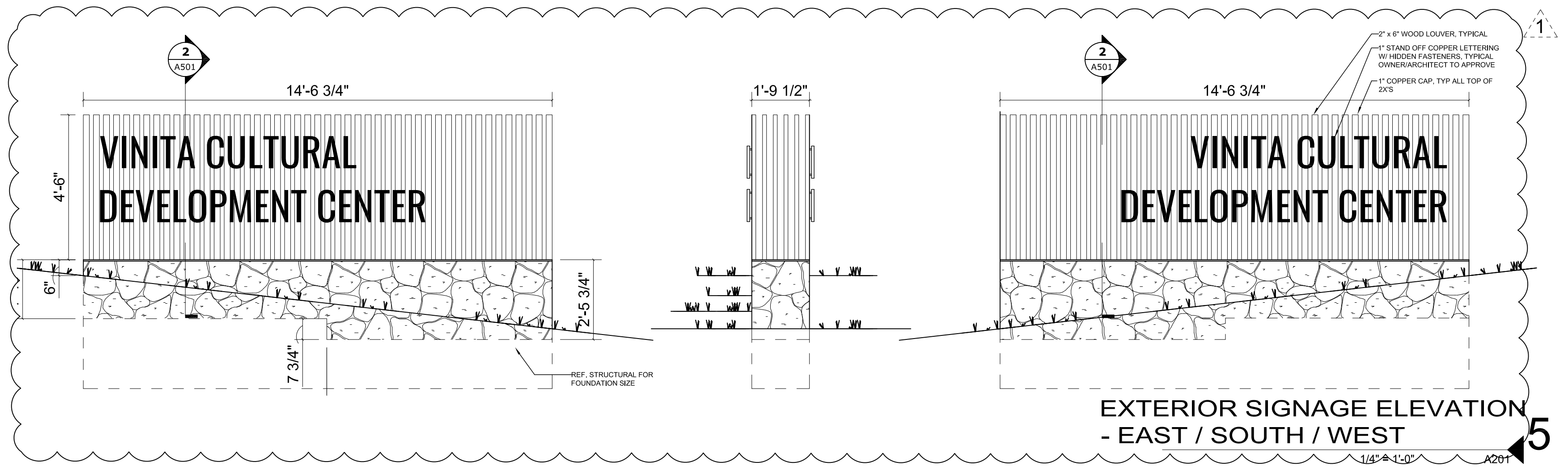

EXTERIOR SIGNAGE ELEVATION
- EAST / SOUTH / WEST 5

1/4" = 1'-0" A201

EXTERIOR MATERIALS LEGEND

KEYNOTE	TYPE	COLOR	REFERENCE
PT-10	EXTERIOR PAINT	SANTA FE	GACO 58
PT-11	EXTERIOR PAINT	GRAY	GACO 22
PT-12	EXTERIOR PAINT	CLASSIC FRENCH GRAY	SW 77
PT-13	EXTERIOR PAINT	TIKI HUT	SW 7509

GENERAL NOTES - NEW WORK

1. OUTSIDE OF DOOR JAMB ROUGH OPENINGS TO BE 3" FROM WALL INTERSECTIONS UNLESS OTHERWISE INDICATED.
2. PROVIDE BLOCKING FOR KITCHEN, BATHROOM AND FUTURE ADA ACCESSORIES
3. DIMENSIONS ARE TO FACE OF STUD LAYER UNLESS OTHERWISE INDICATED.
4. FINISH FLOOR ELEVATIONS SHOULD BE COORDINATED WITH CIVIL
5. SEE CIVIL DRAWINGS FOR DETAILED INFORMATION ON NEW GRADING, STORMWATER, UTILITIES, ETC. HEIGHTS AND LOCATIONS
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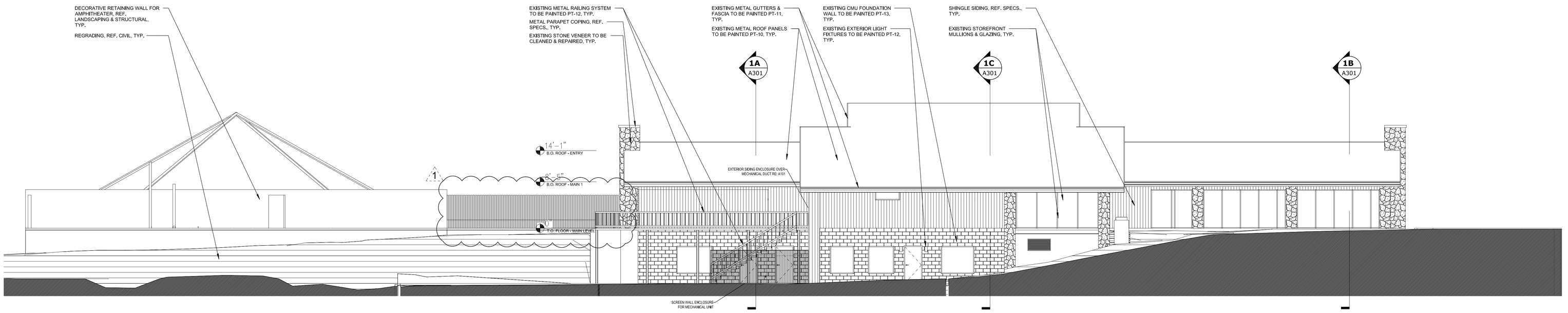
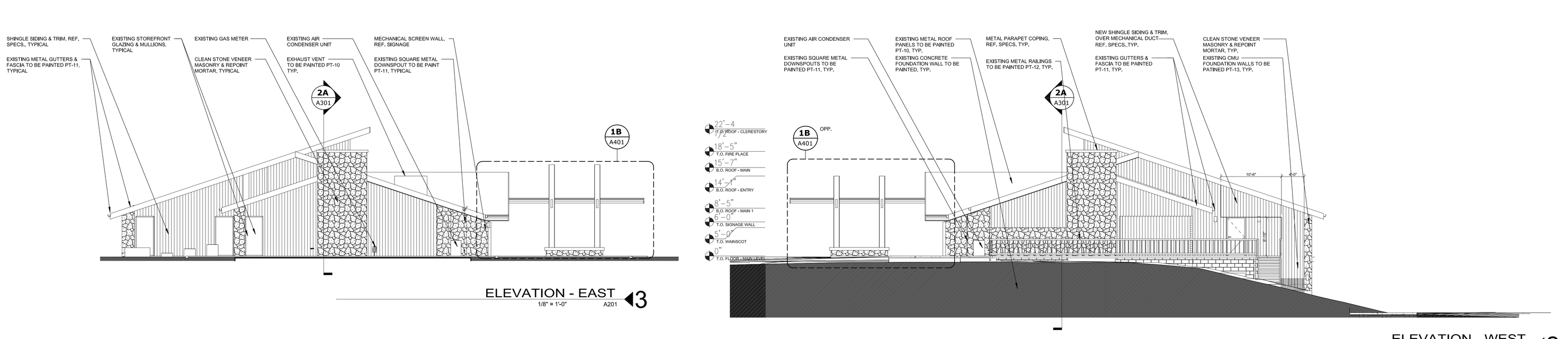
9. ALL GRILLES TO BE PAINTED TO MATCH ADJACENT WALL.



ELEVATION - SOUTH 4

1/8" = 1'-0" A201

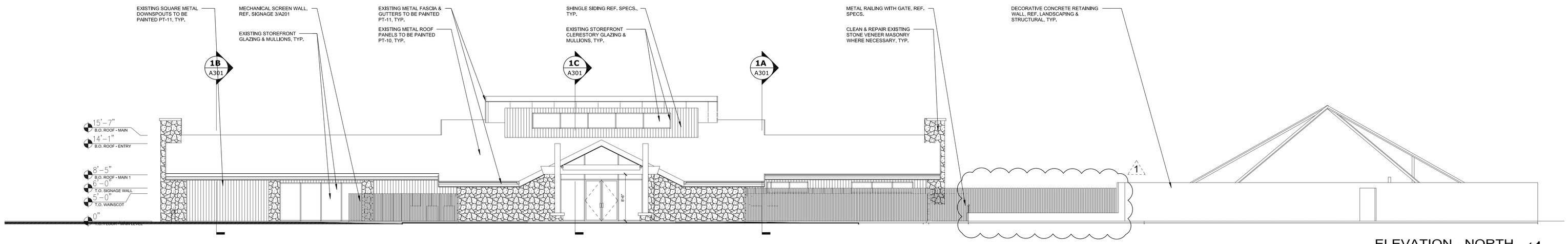


ELEVATION - EAST 3

1/8" = 1'-0" A201

ELEVATION - WEST 2

1/8" = 1'-0" A201



ELEVATION - NORTH 1

1/8" = 1'-0" A201

1/16"=1'-0" 1/8"=1'-0" 1/4"=1'-0" 1/2"=1'-0" 3/4"=1'-0" 1"=1'-0" 1 1/2"=1'-0" 3"=1'-0"

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Tulsa, Oklahoma 74119
918.584.0102

VINITA CULTURAL DEVELOPMENT CENTER - ASI 1

PROJECT

CHEROKEE NATION
VINITA, OKLAHOMA

KEY PLAN

No.	Description	Date
	BID SET	5/07/2021
1	ASI-1	5/19/2021

SHEET TITLE

ASI 1 DRAWINGS

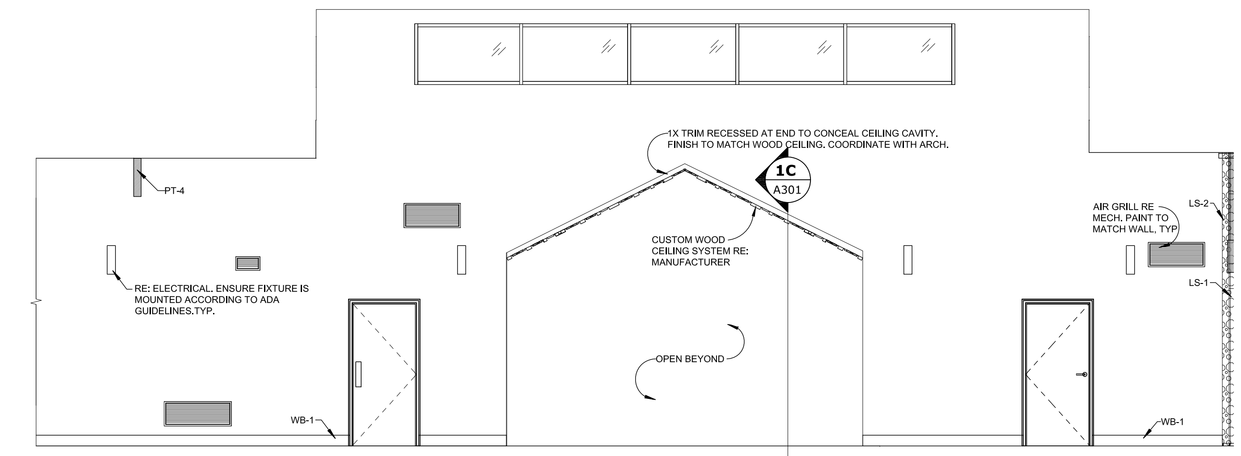
PROJECT NO: 111-049.20
DRAWN BY:
CHK'D BY:
ISSUE DATE: 5/19/2021

A201

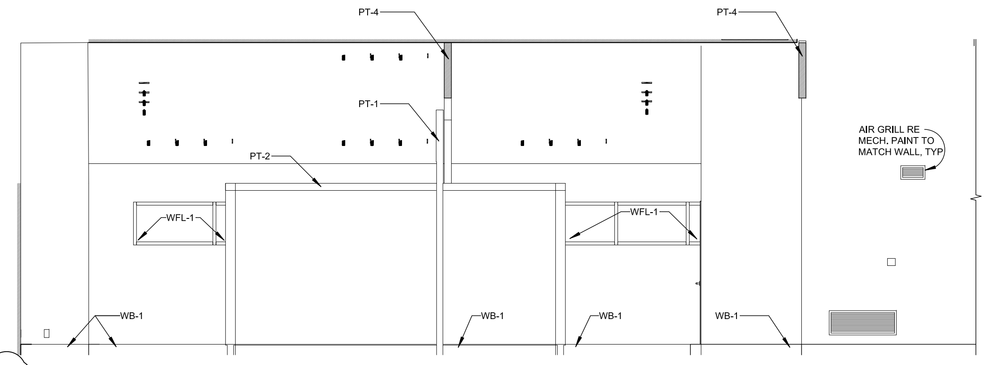
Scale As indicated

STATE OF OKLAHOMA
GARY W. SPARKS
13467
TULSA, OKLA.
REGISTERED ARCHITECT

5/19/2021



RECEPTION - NORTH 1A
1/4" = 1'-0" A202



GALLERY - NORTH 2A
1/4" = 1'-0" A202

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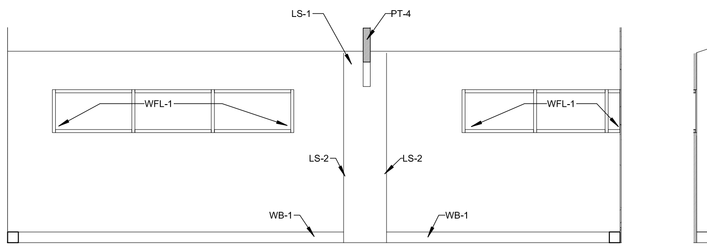
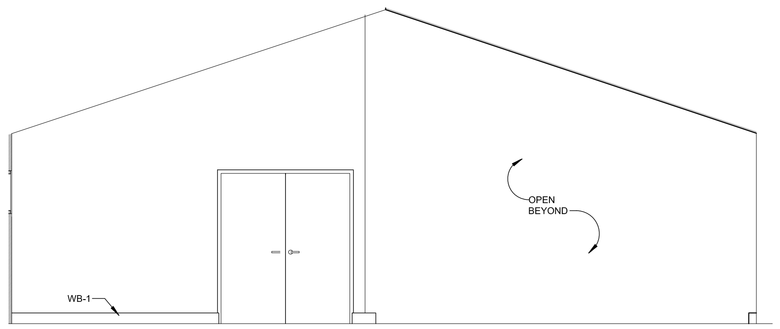
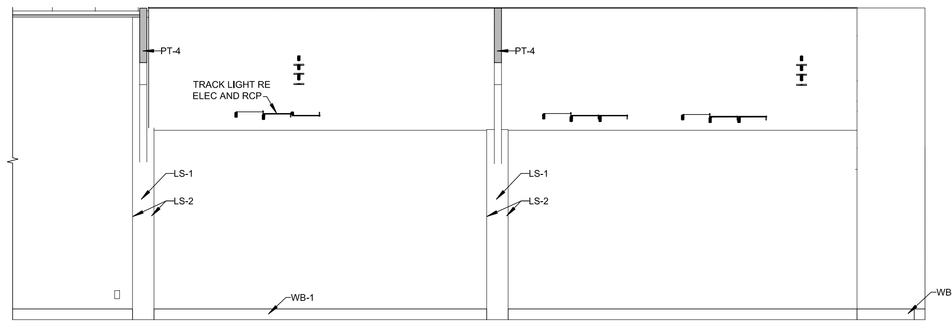


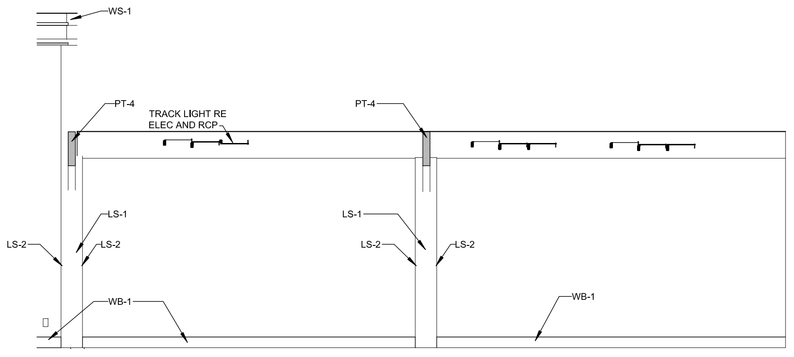
GALLERY - NORTH 2 2B
1/4" = 1'-0" A202



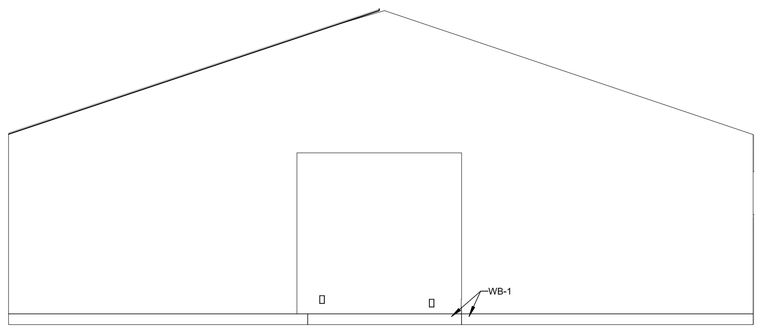
GALLERY - EAST 2C
1/4" = 1'-0" A202



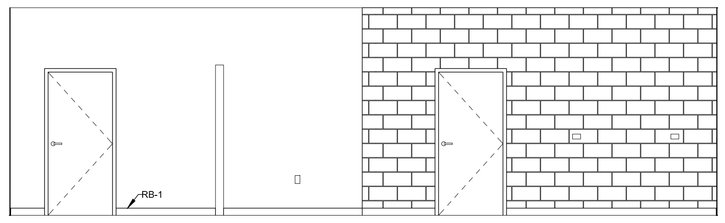
GALLERY - SOUTH 2D
1/4" = 1'-0" A202



GALLERY - SOUTH 2 2E
1/4" = 1'-0" A202

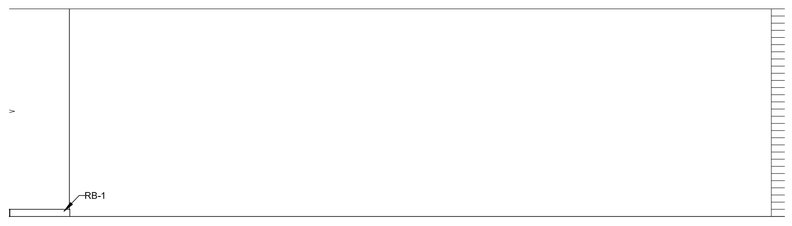


GALLERY - WEST 2F
1/4" = 1'-0" A202

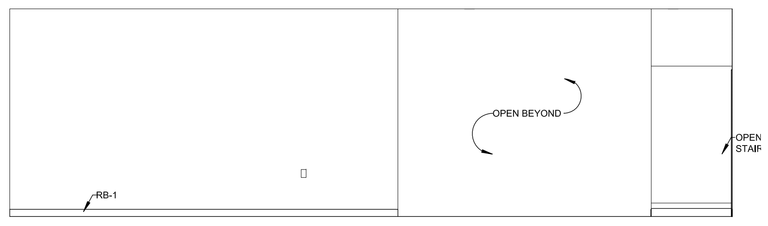


STUDIO - NORTH 3A
1/4" = 1'-0" A202

STUDIO - EAST 3B
1/4" = 1'-0" A202



CLASSROOM - NORTH 5A
1/4" = 1'-0" A202



CLASSROOM - EAST 5B
1/4" = 1'-0" A202
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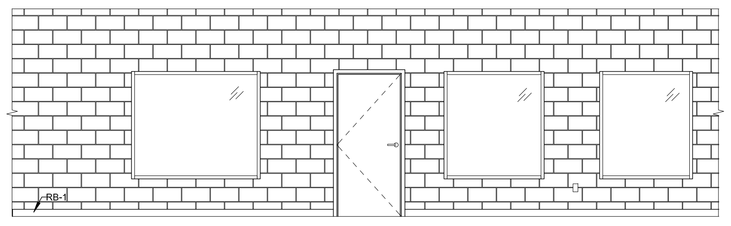
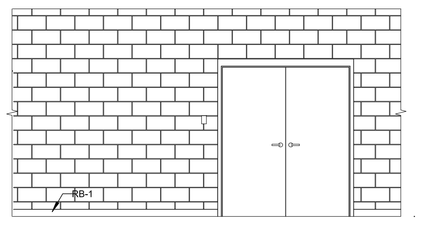
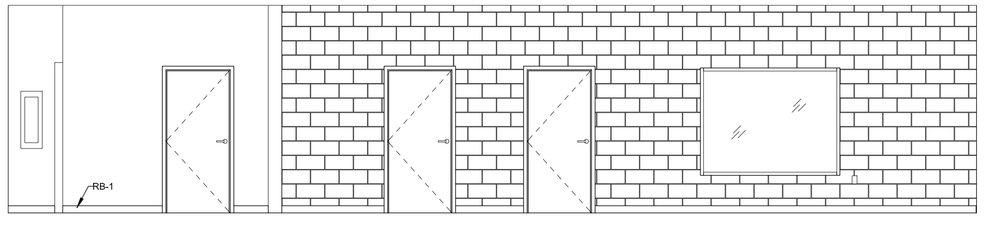


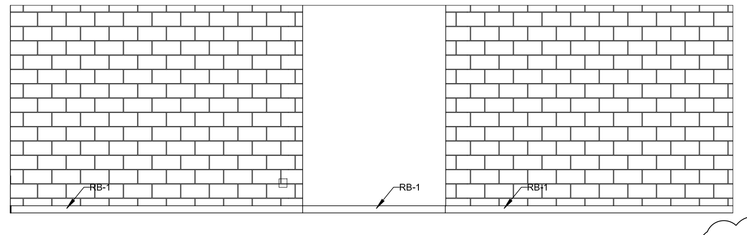
STUDIO - SOUTH 3C
1/4" = 1'-0" A202



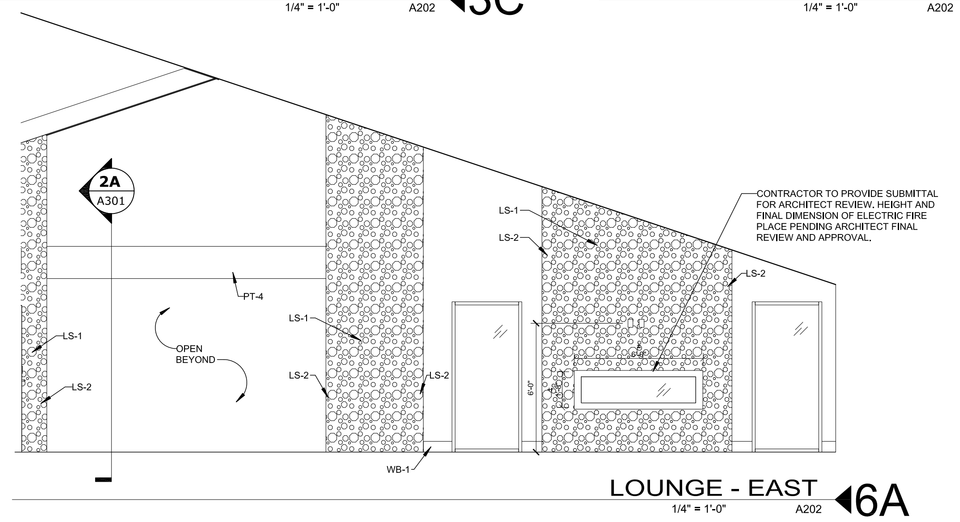
STUDIO - WEST 3D
1/4" = 1'-0" A202



CLASSROOM - SOUTH 5C
1/4" = 1'-0" A202



CLASSROOM - WEST 5D
1/4" = 1'-0" A202
1



LOUNGE - EAST 6A
1/4" = 1'-0" A202

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PROJECT
VINITA CULTURAL DEVELOPMENT CENTER - ASI 1

PROJECT
CHEROKEE NATION
VINITA, OKLAHOMA

KEY PLAN

No.	Description	Date
	BID SET	5/07/2021
1	ASI-1	5/19/2021

SHEET TITLE
ASI 1 DRAWINGS

PROJECT NO: 111-049.20
DRAWN BY:
CHKD BY:
ISSUE DATE: 5/19/2021

A202
Scale As indicated

STATE OF OKLAHOMA
GARY W. LYNCH
13567
TULSA, OKLA.
REGISTERED ARCHITECT

5/19/2021

EXTERIOR MATERIALS LEGEND

KEYNOTE	TYPE	COLOR	REFERENCE
PT-10	EXTERIOR PAINT	SANTA FE	GACO 58
PT-11	EXTERIOR PAINT	GRAY	GACO 22
PT-12	EXTERIOR PAINT	CLASSIC FRENCH GRAY	SW 77
PT-13	EXTERIOR PAINT	TIKI HUT	SW 7509

PHASING LEGEND

- EXISTING TO REMAIN
- EXISTING TO BE DEMOLISHED
- NEW CONSTRUCTION

GENERAL NOTES - NEW WORK

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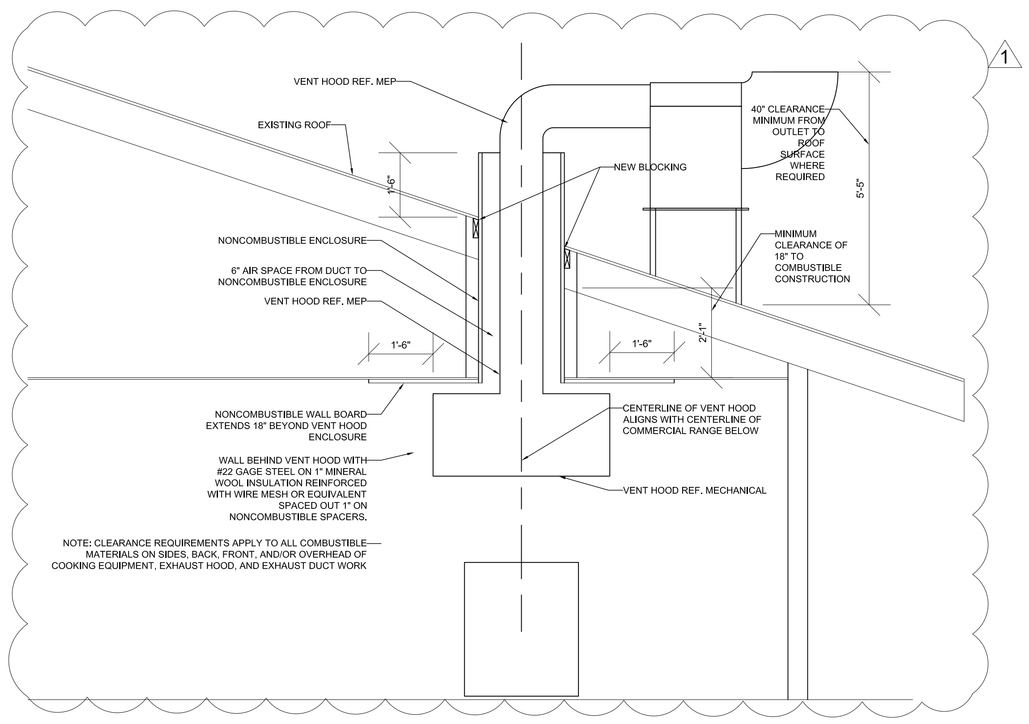
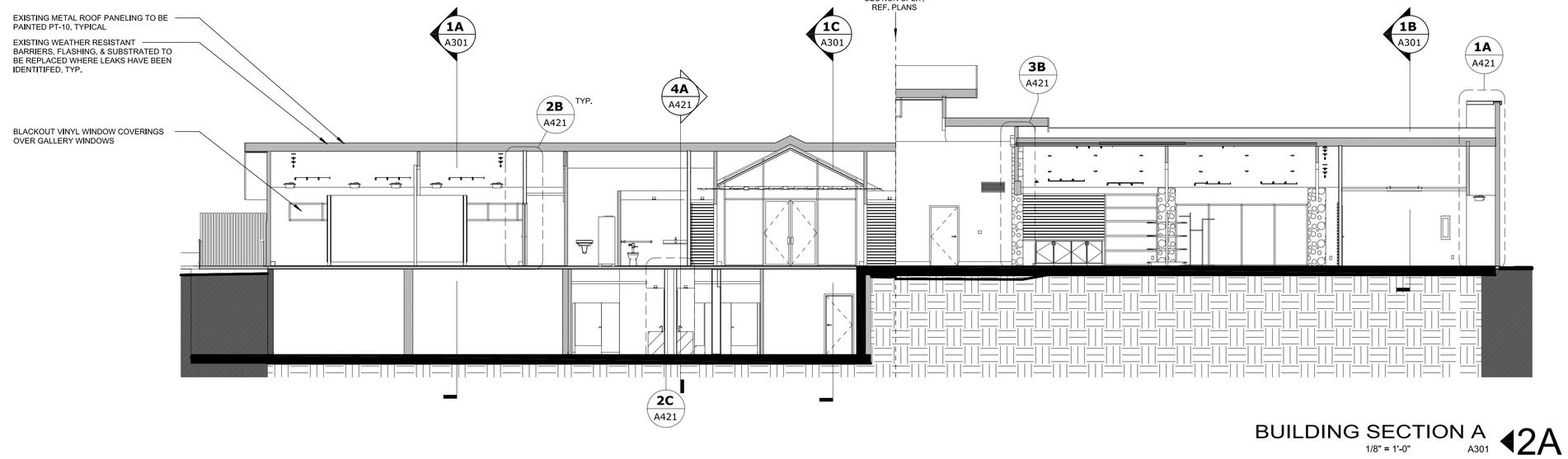
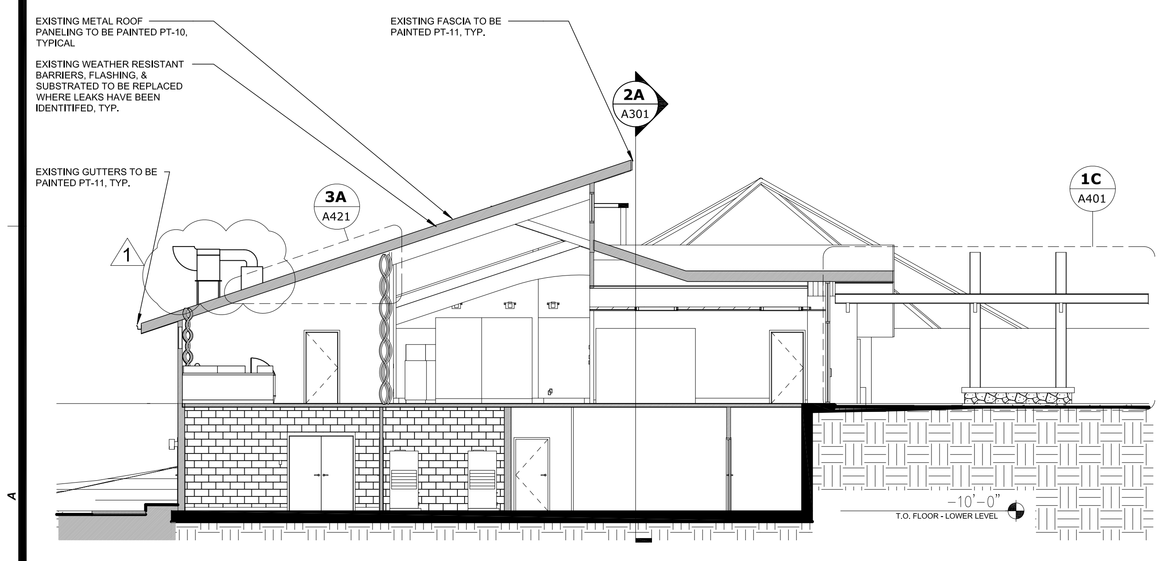
9. ALL GRILLES TO BE PAINTED TO MATCH ADJACENT WALL.
10. ALL NEW ROOF, FLASHING, TRIM, AND ROOF PENETRATIONS TO BE SEALED AND PROVIDED WITH WARRANTIES



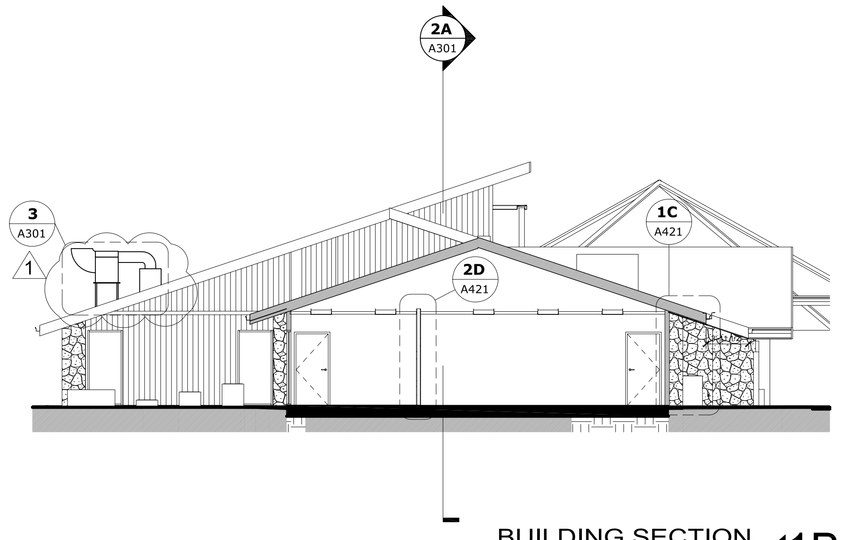
KITCHEN VENT HOOD SECTION DETAIL ◀3
1/2" = 1'-0" A301



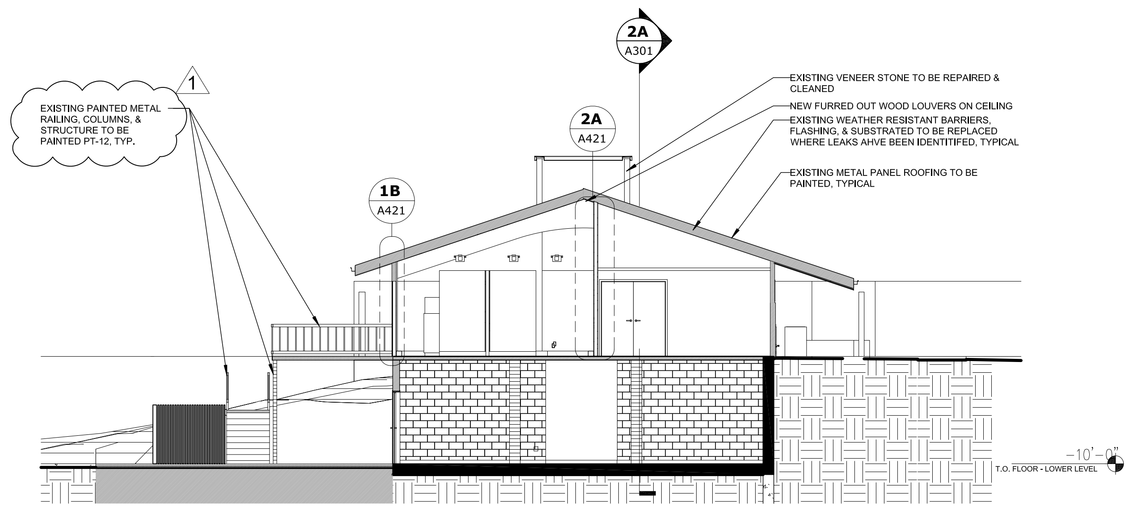
BUILDING SECTION A ◀2A
1/8" = 1'-0" A301



BUILDING SECTION C ◀1C
1/8" = 1'-0" A301



BUILDING SECTION ◀1B
1/8" = 1'-0" A301



BUILDING SECTION D ◀1A
1/8" = 1'-0" A301

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PROJECT NO: 111-049.20
DRAWN BY:
CHKD BY:
ISSUE DATE: 5/19/2021

STATE OF OKLAHOMA · GARY W. ROBERTS · 22240 · TULSA, OKLA. · REGISTERED ARCHITECT

A301
Scale As indicated

5/19/2021

1/16"=1'-0" 0 8" 16" 32"
1/8"=1'-0" 0 4" 8" 16"
1/4"=1'-0" 0 2" 4" 8"
1/2"=1'-0" 0 1" 2" 4"
3/4"=1'-0" 0 1" 2"
1"=1'-0" 0 6" 1" 2"
1 1/2"=1'-0" 0 3" 6" 1'
3"=1'-0" 0 3" 6"

EXTERIOR MATERIALS LEGEND

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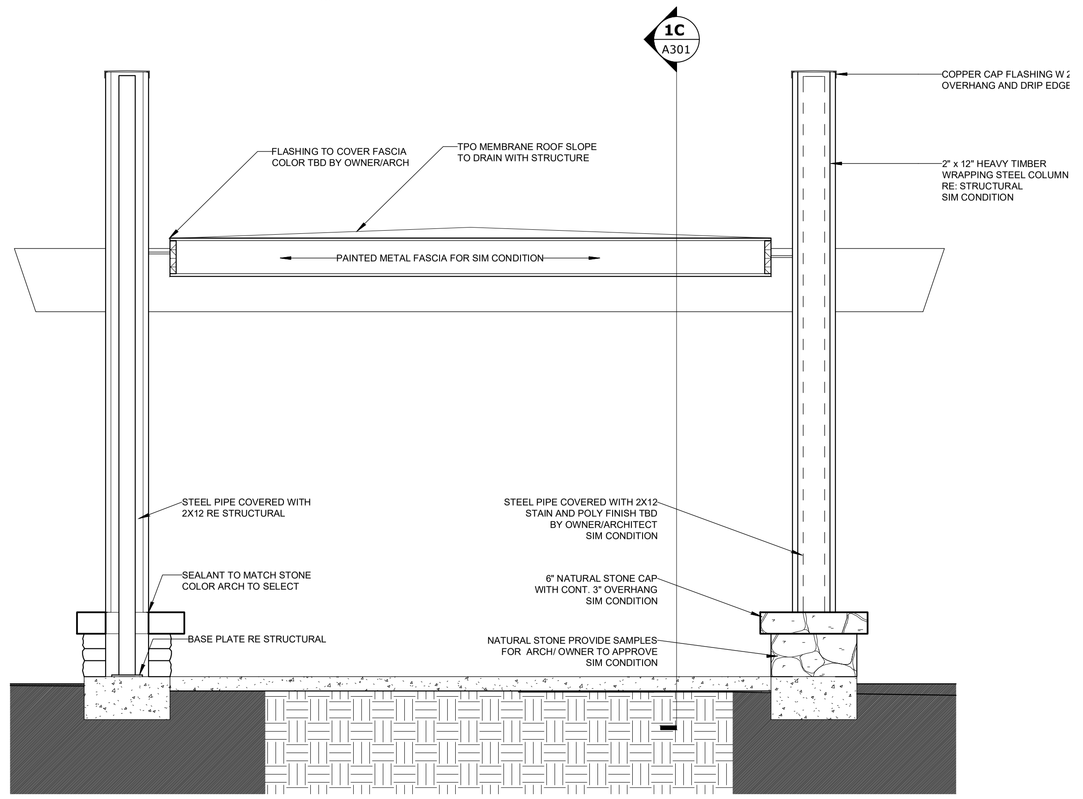
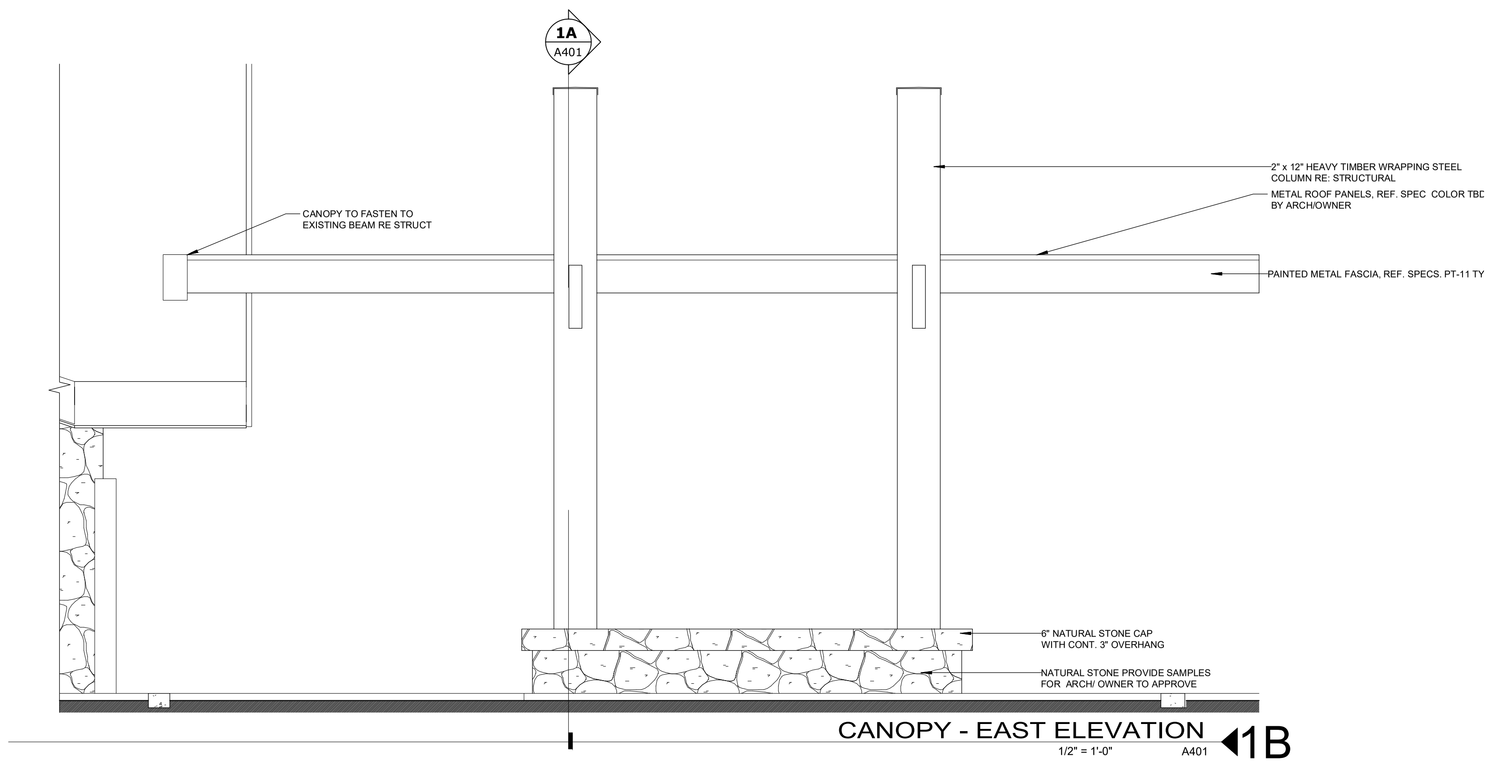
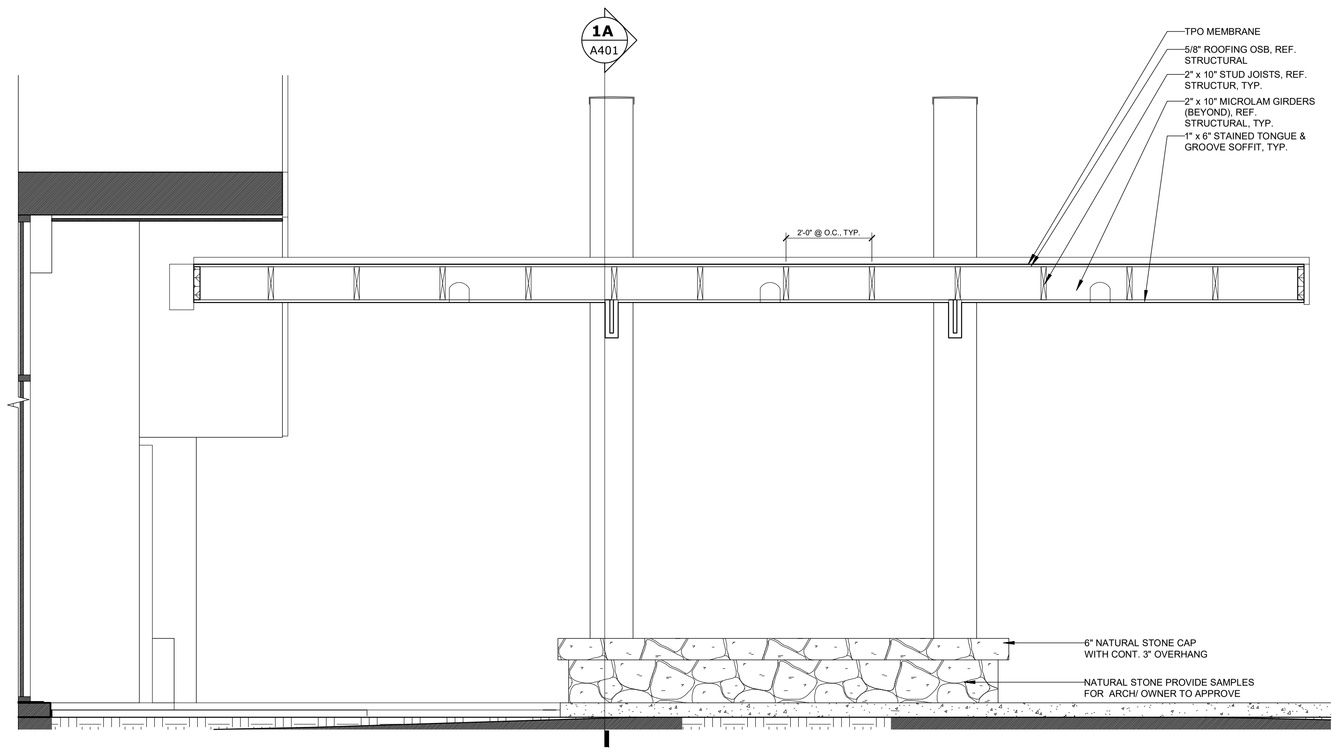


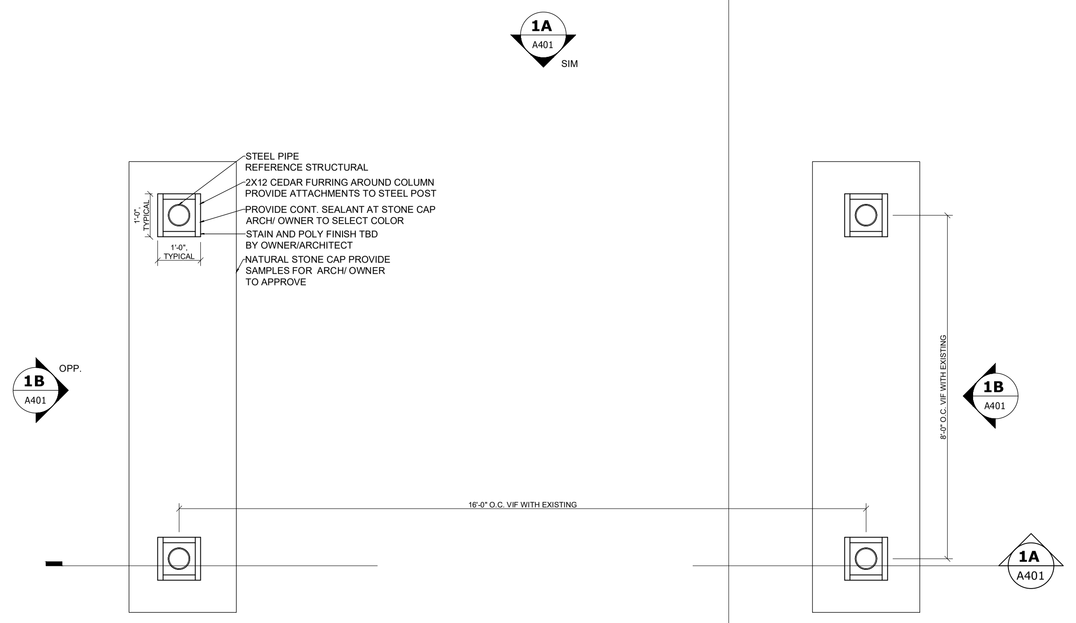
CANOPY - SECTION A - CANOPY ELEVATION SIM ◀1A
1/2" = 1'-0" A401



CANOPY - EAST ELEVATION ◀1B
1/2" = 1'-0" A401



CANOPY - SECTION B ◀1C
1/2" = 1'-0" A401



COVERED ENTRY ◀1
1/2" = 1'-0" A401

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PHILLIPS + GOMEZ
15 West 6th Street, Suite 2510
Tulsa, Oklahoma 74119
918.584.0102

VINITA CULTURAL DEVELOPMENT CENTER - ASI 1

PROJECT
CHEROKEE NATION
VINITA, OKLAHOMA

KEY PLAN

No.	Description	Date
	BID SET	5/07/2021
1	ASI-1	5/19/2021

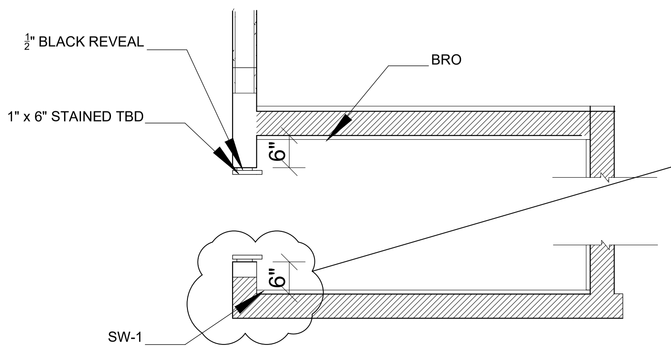
SHEET TITLE
ASI 1 DRAWINGS

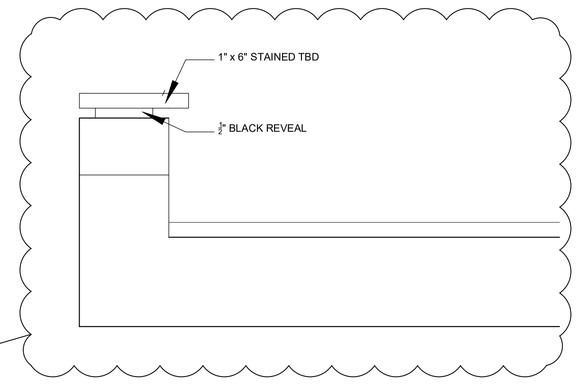
PROJECT NO. 111-049.20
DRAWN BY:
CHKD BY:
ISSUE DATE: 5/19/2021

A401
Scale As indicated

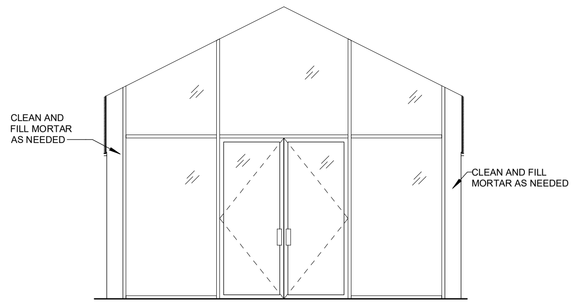
STATE OF OKLAHOMA · GARY W. LIKE · 19966 · TULSA, OKLA. · REGISTERED ARCHITECT

5/19/2021

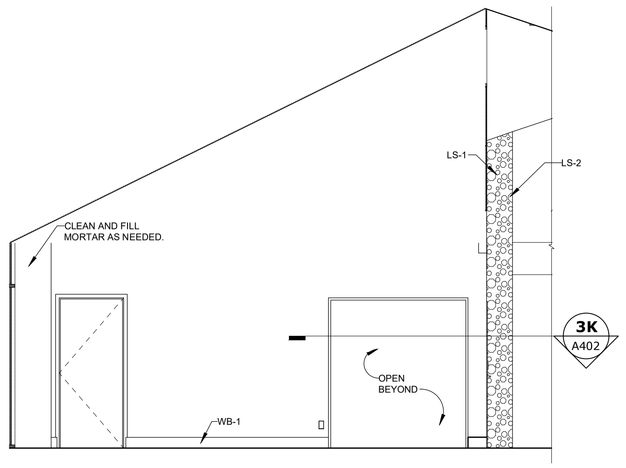




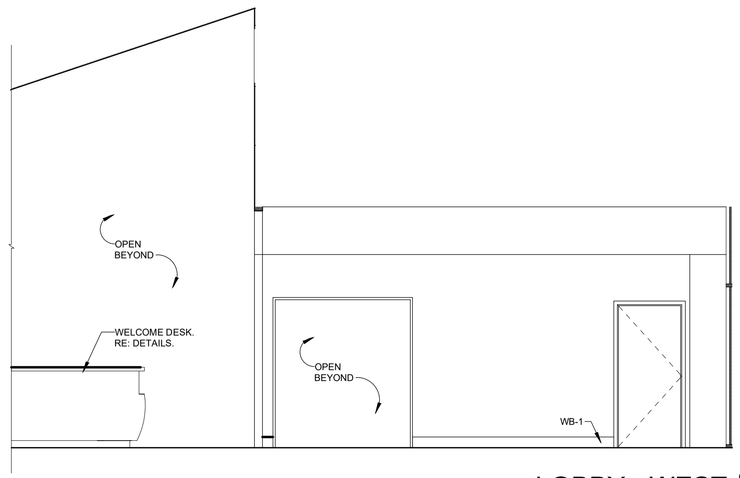
BROCHURE ALCOVE SECTION 3K — 3/4" = 1'-0" — A402



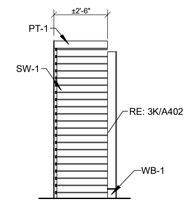
LOBBY - NORTH 3A — 1/4" = 1'-0" — A402



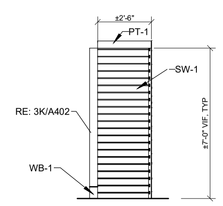
LOBBY - EAST 3B — 1/4" = 1'-0" — A402



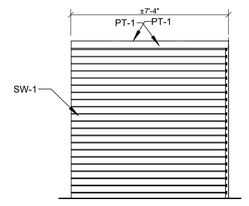
LOBBY - WEST 3C — 1/4" = 1'-0" — A402



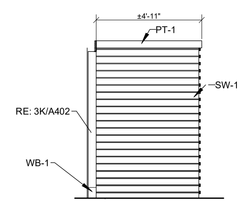
BROCHURE ALCOVE A - NORTH 3D — 1/4" = 1'-0" — A402



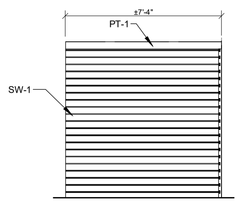
BROCHURE ALCOVE A - SOUTH 3E — 1/4" = 1'-0" — A402



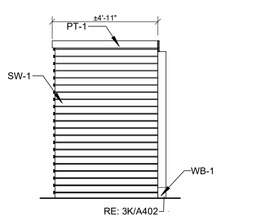
BROCHURE A - WEST 3F — 1/4" = 1'-0" — A402



BROCHURE ALCOVE B - NORTH 3G — 1/4" = 1'-0" — A402



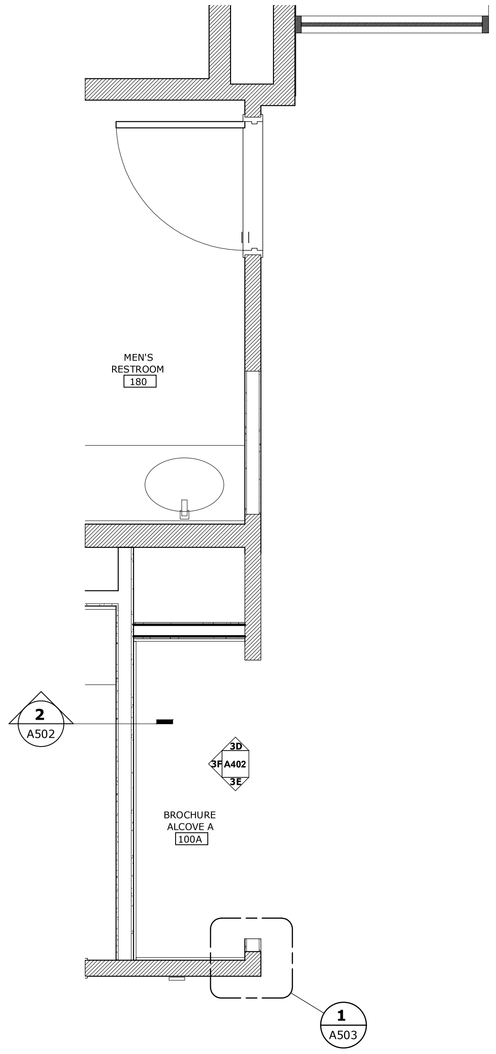
BROCHURE B - EAST 3H — 1/4" = 1'-0" — A402

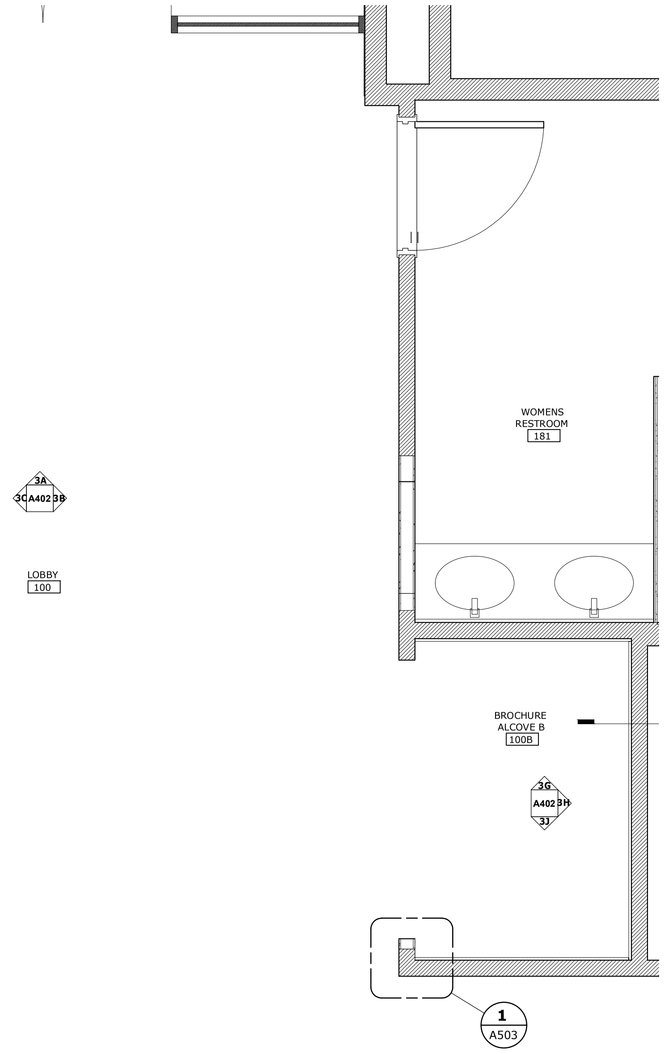


BROCHURE ALCOVE B - SOUTH 3J — 1/4" = 1'-0" — A402

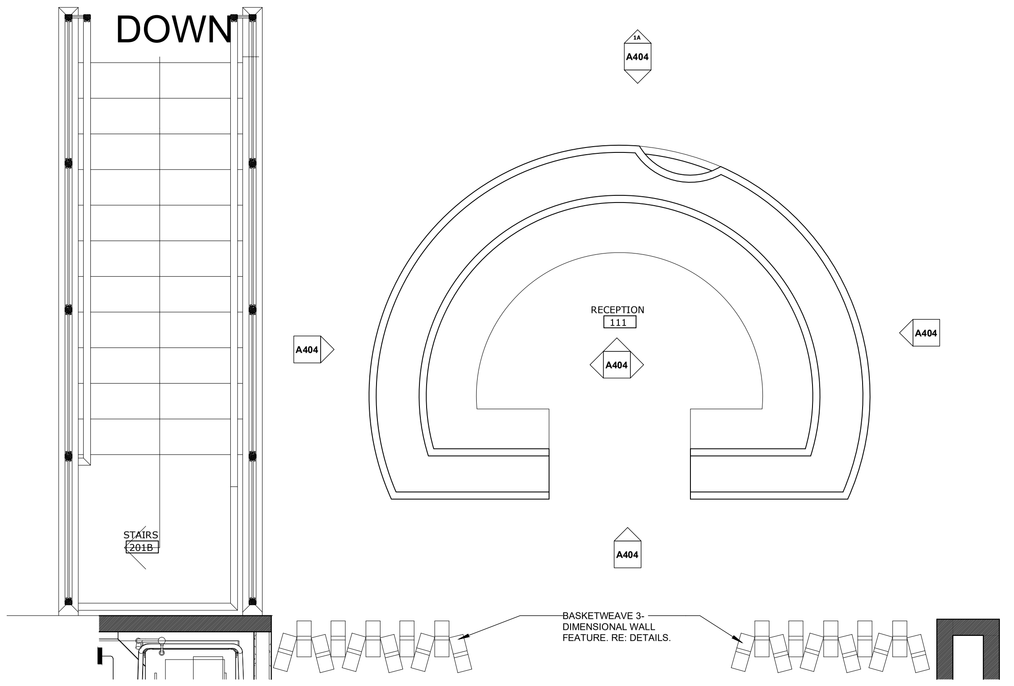
GENERAL NOTES - ENLARGED

1. OUTSIDE OF DOOR JAMB ROUGH OPENINGS TO BE 3" FROM WALL INTERSECTIONS UNLESS OTHERWISE INDICATED.
2. PROVIDE BLOCKING FOR KITCHEN, BATHROOM AND FUTURE ADA ACCESSORIES
3. DIMENSIONS ARE TO FACE OF STUD LAYER UNLESS OTHERWISE INDICATED.
4. FINISH FLOOR ELEVATIONS SHOULD BE COORDINATED WITH CIVIL
5. SEE CIVIL DRAWINGS FOR DETAILED INFORMATION ON NEW GRADING, STORMWATER, UTILITIES, ETC. HEIGHTS AND LOCATIONS
6. SEE LANDSCAPE DRAWINGS FOR DETAILED INFORMATION ON PLANTING LOCATIONS AND VEGETATION TYPES.
7. SEE MEP DRAWINGS FOR DETAILED INFORMATION ON SITE LIGHTING AS WELL AS ALL MECHANICAL, ELECTRICAL AND UTILITY ENTRANCES AT THE BUILDING FINISH FLOOR ELEVATIONS SHOWN ON CIVIL GRADING AND DRAINAGE SHEETS SHALL SET THE LEVEL OF THE GROUND FLOOR OF EACH INDIVIDUAL STRUCTURE WHIHC IS INDICATED AT THE 0'-0" LEVEL ON THESE SHEETS. CIVIL FINISHED FLOOR INDICATIONS SHALL TAKE PRECEDENCE.
8. WALL, FLOOR, & CEILING FINISHES SHOUDL BE REFERENCED WITH THE FINISH PLAN & RCPS.





ENLARGED - RECEPTION AREA 3 — 1/2" = 1'-0" — A402



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PROJECT: VINITA CULTURAL DEVELOPMENT CENTER - ASI 1

PROJECT: CHEROKEE NATION VINITA, OKLAHOMA

KEY PLAN

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SHEET TITLE: ASI 1 DRAWINGS

PROJECT NO. 111-049.20
DRAWN BY:
CHK'D BY:
ISSUE DATE: 5/19/2021

GARY W. LEMONS 18842 TULSA, OKLA. LICENSED ARCHITECT

A402
Scale As indicated

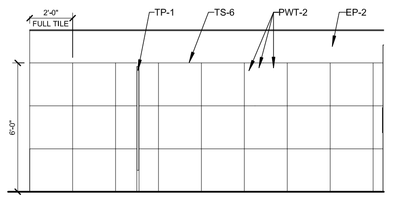
5/19/2021

RESTROOM ACCESSORY SCHEDULE				
KEY	ITEM	MANUFACTURER	MODEL NUMBER	DESCRIPTION
01	SANITARY NAPKIN DISPOSAL	AMERICAN SPECIALTIES, INC.	0852	SURFACE MOUNTED SANITARY NAPKIN DISPOSAL
02	TOILET TISSUE HOLDER	AMERICAN SPECIALTIES, INC.	0715	SURFACE MOUNTED DOUBLE TOILET TISSUE HOLDER, CHROME PLATED STEEL
03	TOILET SEAT COVER DISPENSER	AMERICAN SPECIALTIES, INC.	0477-SM	SURFACE MOUNTED TOILET SEAT COVER DISPENSER
04	GRAB BAR	AMERICAN SPECIALTIES, INC.	3800 SERIES	1 1/2" O.D. SNAP FLANGE GRAB BAR - 36" LENGTH
05	GRAB BAR	AMERICAN SPECIALTIES, INC.	3800 SERIES	1 1/2" O.D. SNAP FLANGE GRAB BAR - 42" LENGTH
06	BABY CHANGER	AMERICAN SPECIALTIES, INC.	9014	SURFACE MOUNTED HORIZONTAL PLASTIC BABY CHANGING STATION
07	SOAP DISPENSER	AMERICAN SPECIALTIES, INC.	0362-41	SURFACE MOUNTED AUTOMATIC LIQUID SOAP AND GEL HAND SANITIZER DISPENSER, MATTE BLACK
08	PAPER TOWEL DISPENSER / WASTE RECEPTACLE	AMERICAN SPECIALTIES, INC.	04692AC-6	SEMI-RECESSED AUTOMATIC ROLL PAPER TOWEL DISPENSER & WASTE RECEPTACLE, 110-240V / AC
09	MIRROR	AMERICAN SPECIALTIES, INC.	0620 - 2460 SERIES	24" W X 60" H STAINLESS STEEL CHAN-LOK FRAME MIRROR
10	MIRROR	URBAN MOOD		LYRA POSTMODERN SUSPENDED WALL MIRROR, SILVER
11	UTILITY SHELF/ HOOKS	AMERICAN SPECIALTIES, INC.	1308-3	SHELVES/UTILITY HOOK & MOP (4 HOOKS, 3 HOLDERS) 34" - SURFACE MOUNTED, TO BE INSTALLED @ ROOMS 190 & 290
12	AIR FRESHENER	AIR DELIGHTS	401218	MICROBURST 9000 AEROSOL DISPENSER

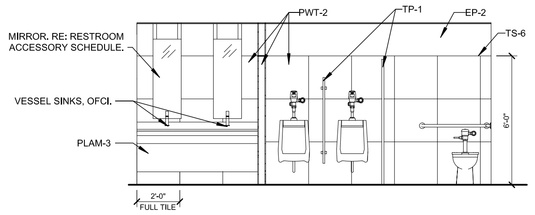
GENERAL NOTES - ENLARGED

1. PROVIDE BACK BLOCKING FOR MILLWORK, FIXTURES & ACCESSORIES AS REQ'D.
2. WALL, FLOOR, & CEILING FINISHES SHOULD BE REFERENCED WITH THE FINISH PLAN & RCPS.
3. TOILET PARTITIONS SHALL BE: GLOBAL PARTITIONS, FLOOR MOUNTED HEADRAIL BRACED, ALUMINUM WRAP AROUND HINGES, CONTINUOUS ALUMINUM BRACKETS, COLOR: #9513 METALLIC BRONZE

LASER CUT, COPPER FINISH, ADA COMPLIANT SIGNAGE AT RESTROOM ENTRIES. COORDINATE W/ ARCH.



MEN'S RESTROOM - NORTH ◀5A
1/4" = 1'-0" A403



MEN'S RESTROOM - SOUTH ◀5B
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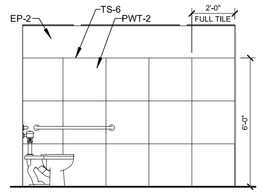

MEN'S RESTROOM - WEST ◀5C
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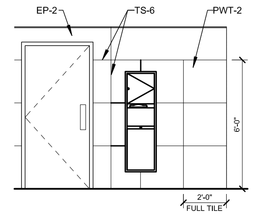

MEN'S RESTROOM - EAST ◀5D
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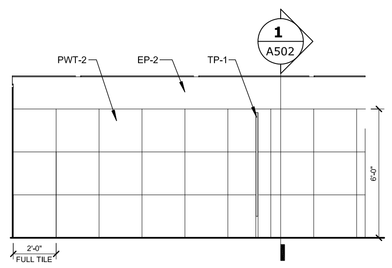

WOMEN'S RESTROOM - NORTH ◀4A
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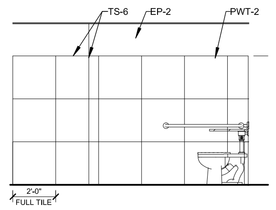

WOMEN'S RESTROOM - EAST ◀4B
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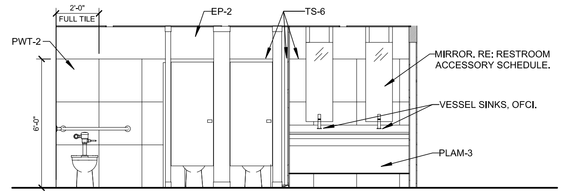

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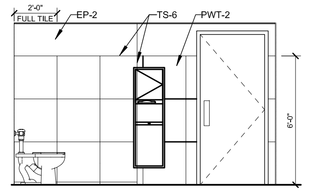

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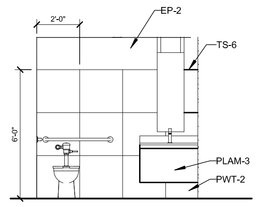

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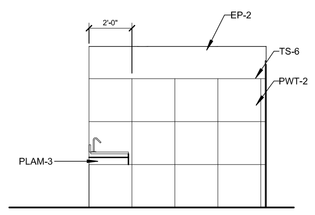

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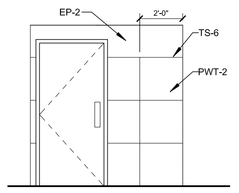

FAMILY RESTROOM - SOUTH ◀5G
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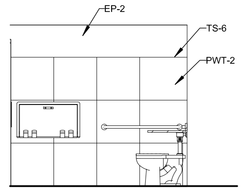

FAMILY RESTROOM - WEST ◀5H
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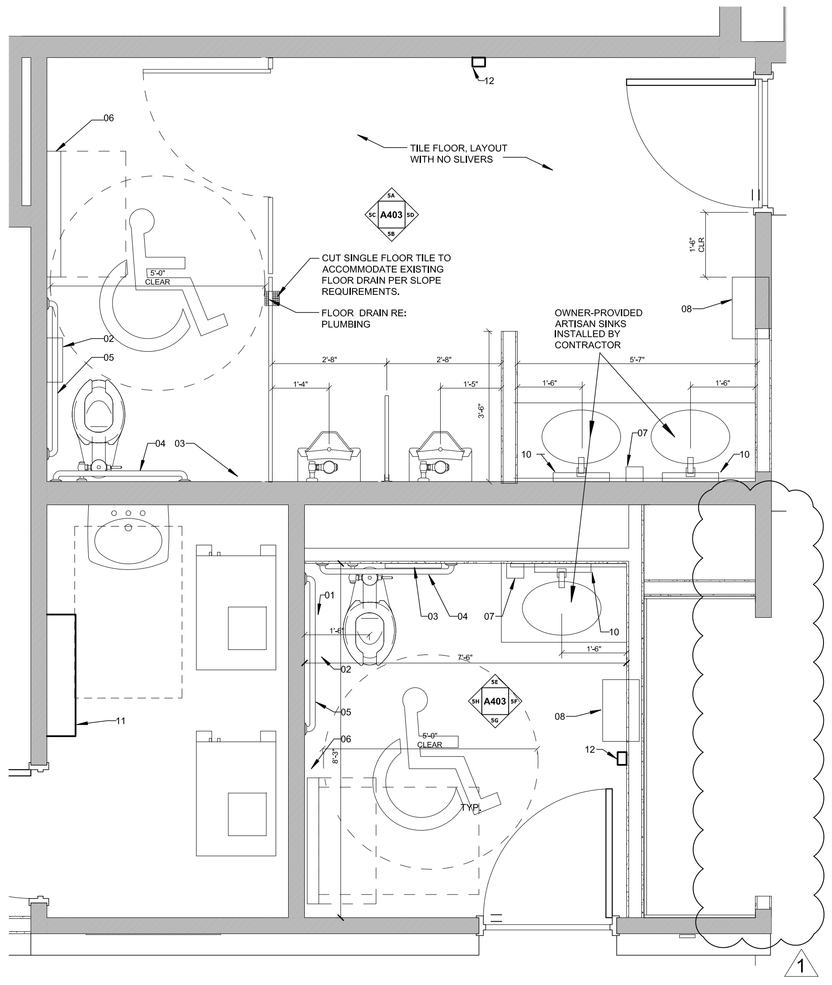
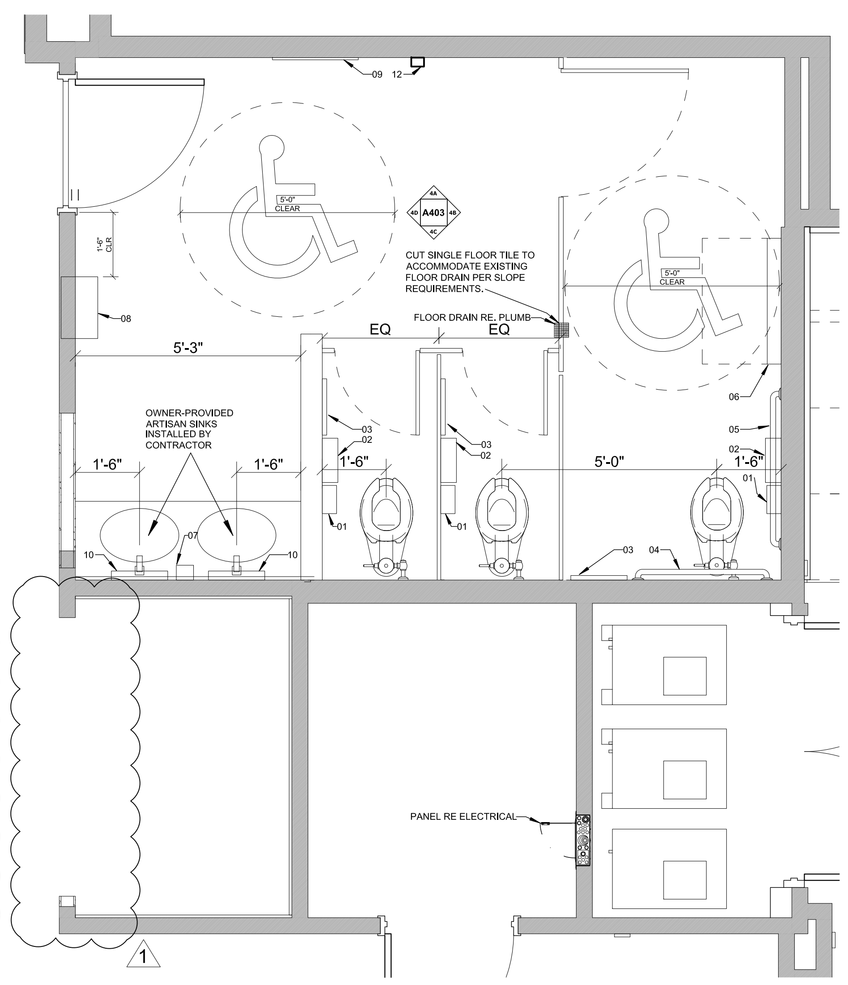


ENLARGED - MEN"S RESTROOM ◀5
1/2" = 1'-0" A403 1



ENLARGED - WOMEN'S RESTROOM ◀4
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CHEROKEE NATION
VINITA, OKLAHOMA

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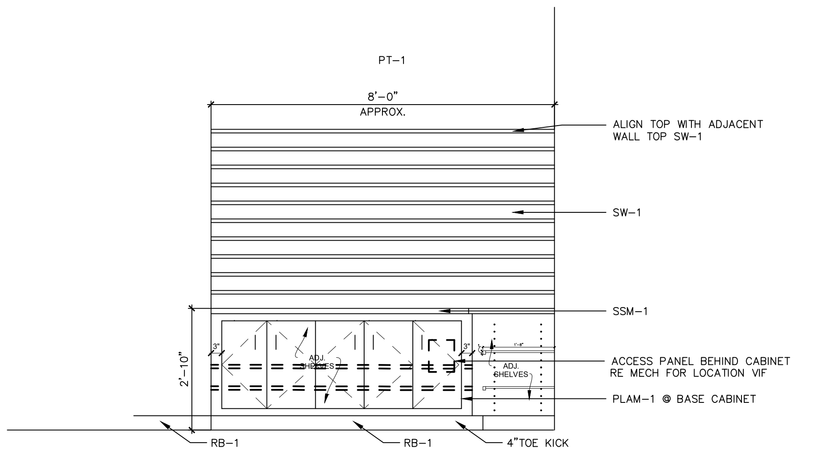
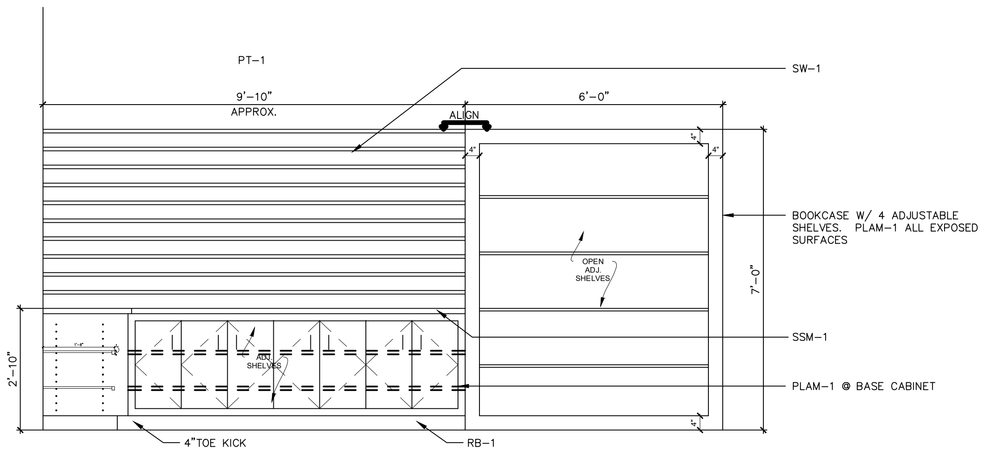
STATE OF OKLAHOMA · GARY W. LYNCH · 13567 · TULSA, OKLA. · REGISTERED ARCHITECT

A403
Scale As indicated

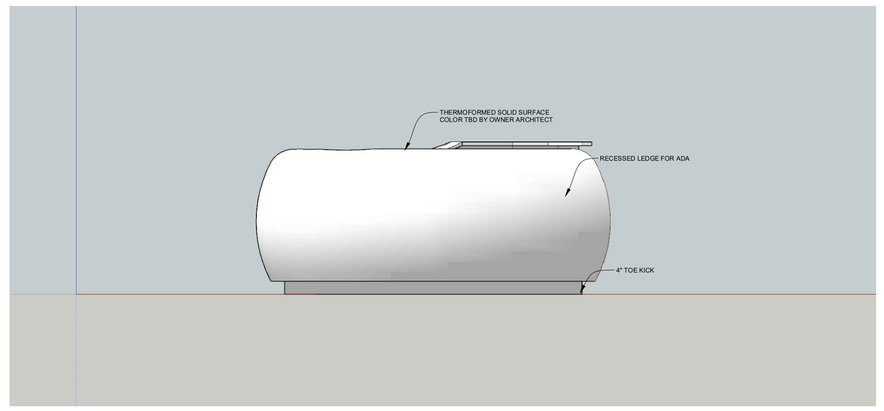
5/19/2021

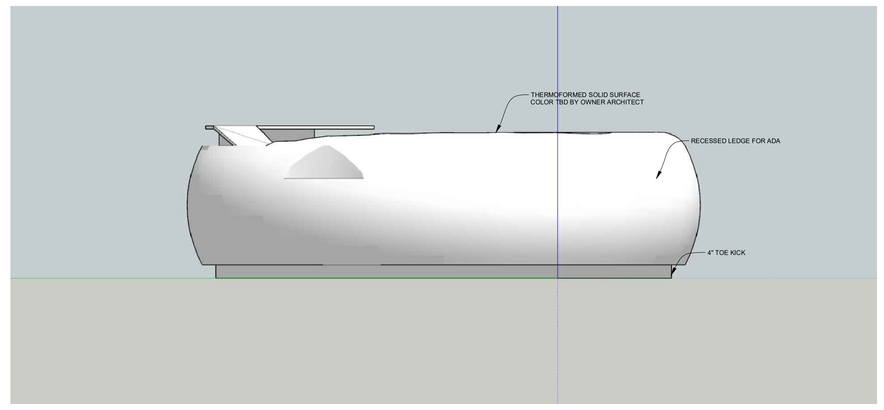


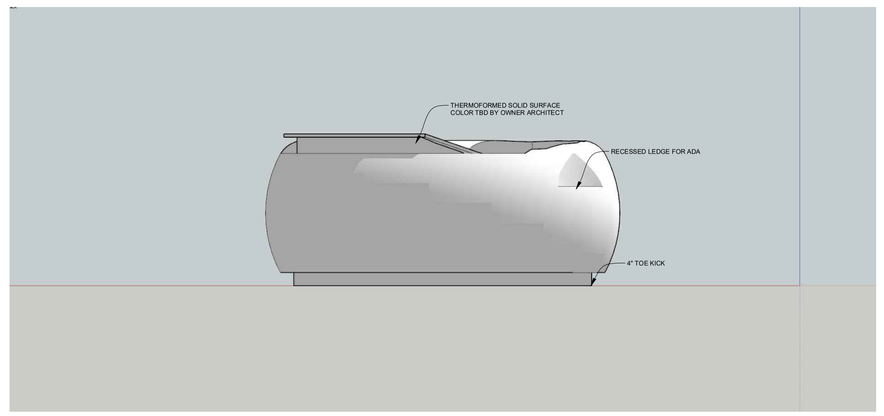
RETAIL CABINET - ELEVATION
1/2" = 1'-0" A404 6 1

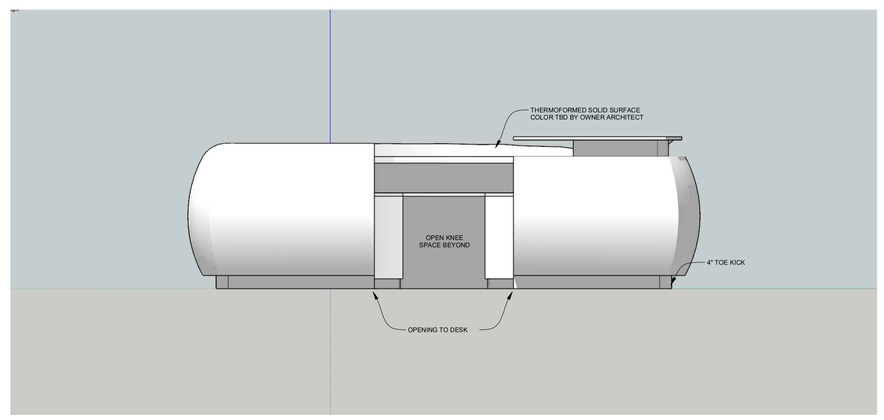


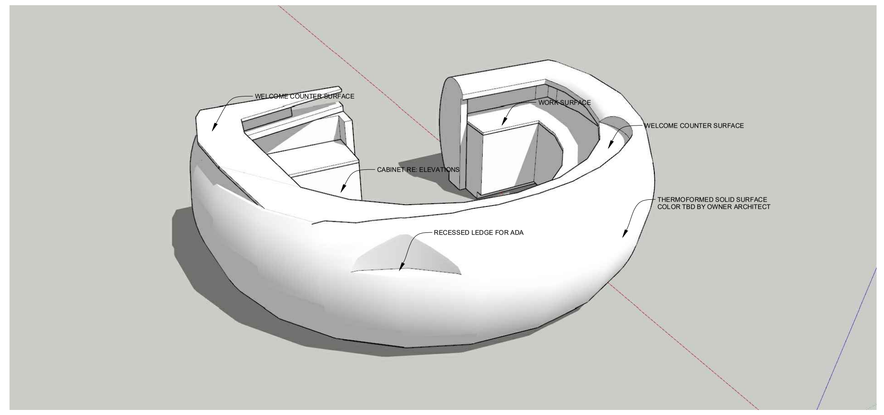
RETAIL CABINET - ELEVATION
1/2" = 1'-0" A404 5 1

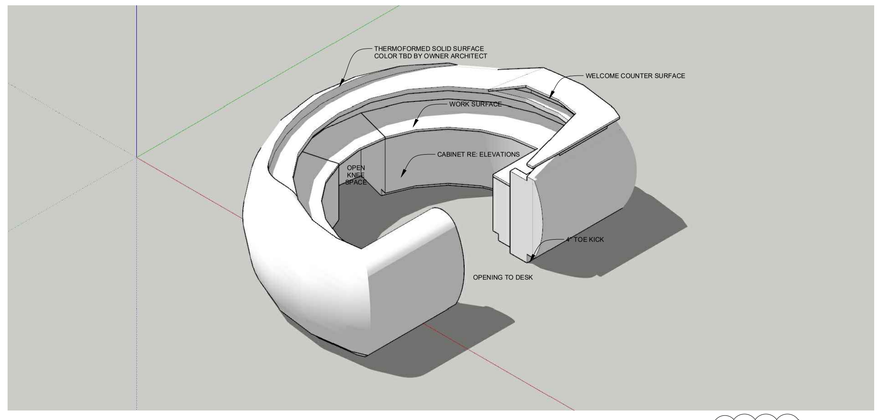












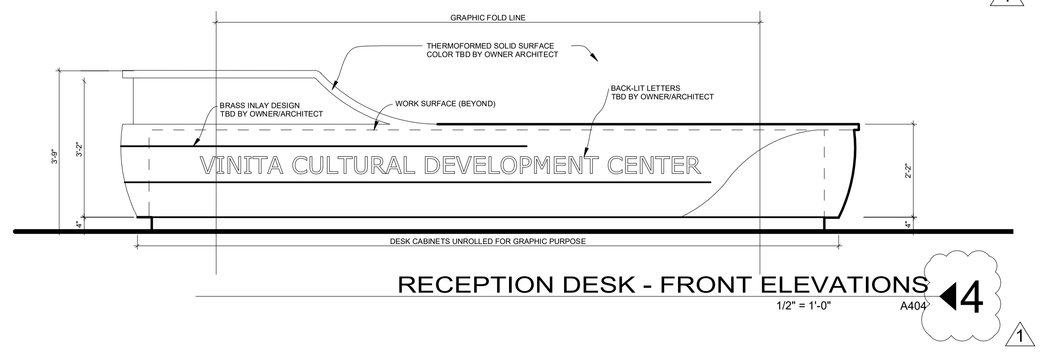
RECEPTION DESK - DESIGN INTENT
NTS A404 2 1

GENERAL NOTES:

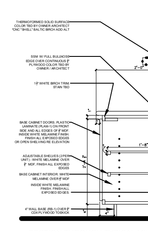
CUSTOM RECEPTION DESK WILL BE COORDINATED WITH OWNER/ARCHITECT FOR FINAL DESIGN APPROVAL. BID SHOULD ALLOW FOR CUSTOM FEATURE IE. BACK-LIT LIGHTING TBD OTHER SPECIFIC ITEMS DESCRIBED IN BID DOCUMENTS WILL NEED TO BE COORDINATED WITH CUSTOM MILL WORK MANUFACTURER AND ARCHITECT.

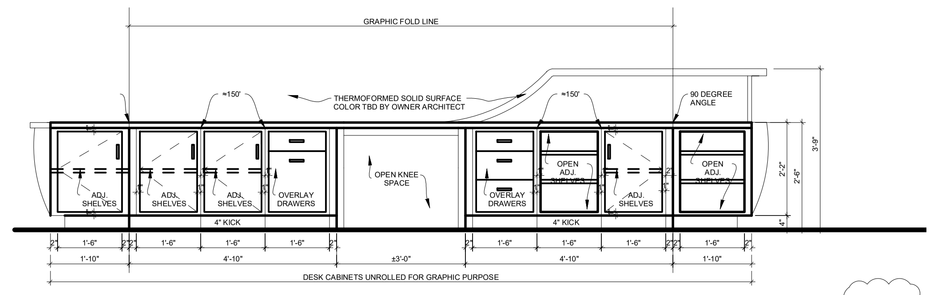
1 CONTRACTOR TO PROVIDE PRICING FOR (BALTIC BIRCH OR EQUAL) WOOD FINISH IN LIEU OF THERMOFORMED SOLID SURFACE. COORDINATE WITH MILLWORK MANUFACTURER AND ARCHITECT.

INSPIRATION RECEPTION DESK IMAGE
NTS A404 2 1

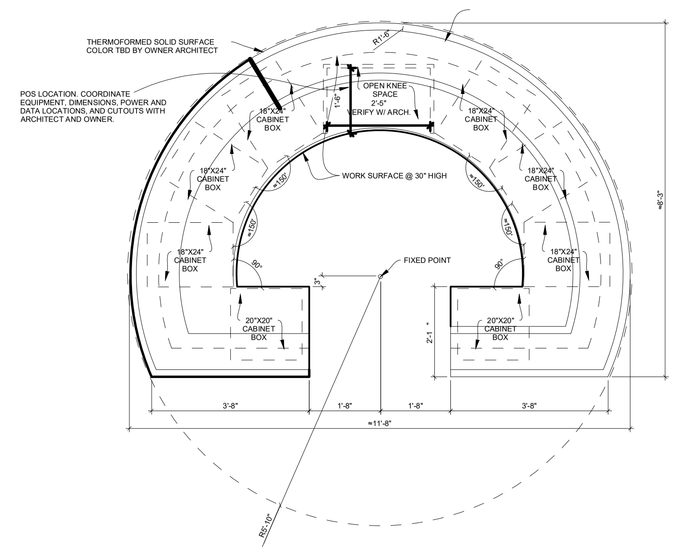


RECEPTION DESK - FRONT ELEVATIONS
1/2" = 1'-0" A404 4 1





RECEPTION DESK - INTERIOR ELEVATIONS
1/2" = 1'-0" A404 3 1



RECEPTION DESK - PLAN
1/2" = 1'-0" A404 1 1

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PROJECT
VINITA CULTURAL DEVELOPMENT CENTER - ASI 1

PROJECT
CHEROKEE NATION
VINITA, OKLAHOMA

KEY PLAN

No.	Description	Date
	BID SET	5/07/2021
1	ASI-1	5/19/2021

SHEET TITLE
ASI 1 DRAWINGS

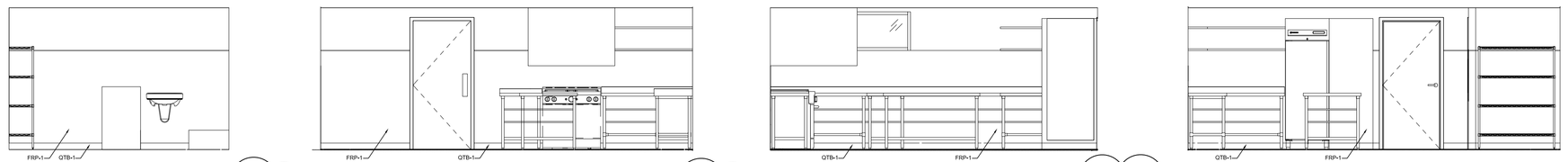
PROJECT NO: 111-049.20
DRAWN BY:
CHKD BY:
ISSUE DATE: 5/19/2021

STATE OF OKLAHOMA · GARY W. IRVING · 11/30 · TULSA, OKLA. · REGISTERED ARCHITECT

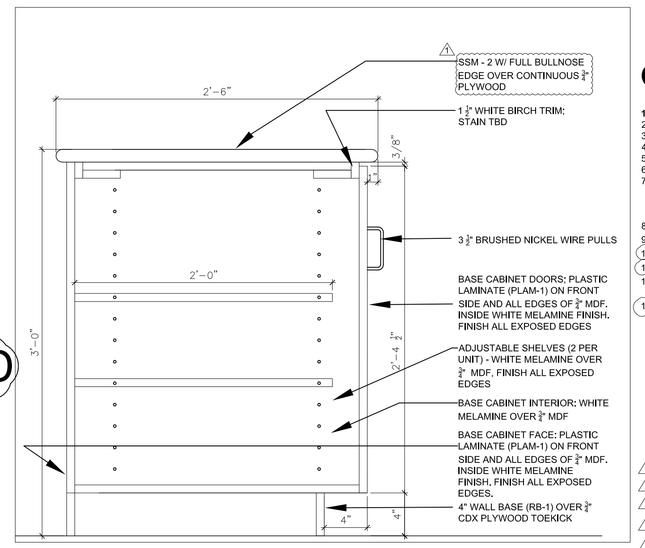
A404
Scale As indicated

5/19/2021

1/16"=1'-0" 0 8" 16" 32" | 1/8"=1'-0" 0 4" 8" 16" | 1/4"=1'-0" 0 2" 4" 8" | 1/2"=1'-0" 0 1' 2' 4' | 3/4"=1'-0" 0 1' 2' | 1"=1'-0" 0 6" 1' 2' | 1 1/2"=1'-0" 0 3" 6" 1' | 3"=1'-0" 0 3' 6'



KITCHEN - NORTH 6A — 1/4" = 1'-0" A405
KITCHEN - EAST 6B — 1/4" = 1'-0" A405
KITCHEN - SOUTH 6C — 1/4" = 1'-0" A405
KITCHEN - WEST 6D — 1/4" = 1'-0" A405



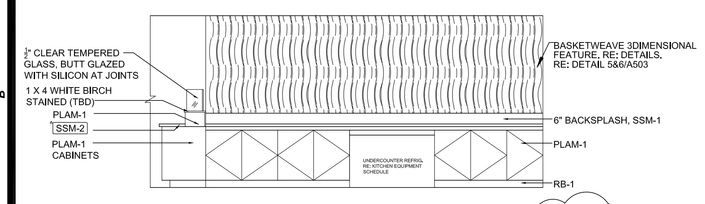
MILLWORK DETAIL 6S — 1 1/2" = 1'-0" A405

GENERAL NOTES - ENLARGED

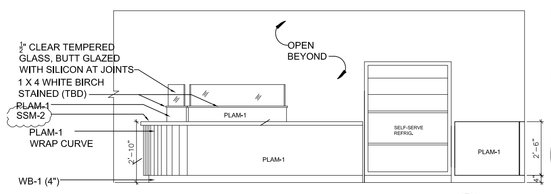
1. OUTSIDE OF DOOR JAMB ROUGH OPENINGS TO BE 3" FROM WALL INTERSECTIONS UNLESS OTHERWISE INDICATED.
2. PROVIDE BLOCKING FOR KITCHEN, BATHROOM AND FUTURE ADA ACCESSORIES
3. DIMENSIONS ARE TO FACE OF STUD LAYER UNLESS OTHERWISE INDICATED.
4. FINISH FLOOR ELEVATIONS SHOULD BE COORDINATED WITH CIVIL
5. SEE CIVIL DRAWINGS FOR DETAILED INFORMATION ON NEW GRADING, STORMWATER, UTILITIES, ETC. HEIGHTS AND LOCATIONS
6. SEE LANDSCAPE DRAWINGS FOR DETAILED INFORMATION ON PLANTING LOCATIONS AND VEGETATION TYPES.
7. SEE MEP DRAWINGS FOR DETAILED INFORMATION ON SITE LIGHTING AS WELL AS ALL MECHANICAL, ELECTRICAL AND UTILITY ENTRANCES AT THE BUILDING FINISH FLOOR ELEVATIONS SHOWN ON CIVIL GRADING AND DRAINAGE SHEETS SHALL SET THE LEVEL OF THE GROUND FLOOR OF EACH INDIVIDUAL STRUCTURE WHICH IS INDICATED AT THE 0'-0" LEVEL ON THESE SHEETS. CIVIL FINISHED FLOOR INDICATIONS SHALL TAKE PRECEDENCE.
8. WALL, FLOOR, & CEILING FINISHES SHOULD BE REFERENCED WITH THE FINISH PLAN & RCPS.
9. PROVIDE SHOP DRAWINGS FOR ALL MILLWORK, FOR ARCH. APPROVAL PRIOR TO CONSTRUCTING.
10. CONTRACTOR TO COORDINATE LOCATIONS OF REQUIRED DRAINS WITH PLUMBING DRAWINGS AND ARCHITECT.
11. CONTRACTOR IS RESPONSIBLE FOR ALL APPLICATIONS AND FEES.
12. CONTRACTOR TO COMPLY WITH ALL APPLICABLE REQUIREMENTS IN ACCORDANCE WITH THE OKLAHOMA ADMINISTRATIVE CODE (OAC) 310:257.
13. VERIFY CLEARANCES FOR ALL EQUIPMENT.

KITCHEN/CAFE EQUIPMENT (CONTRACTOR FURNISHED & INSTALLED)

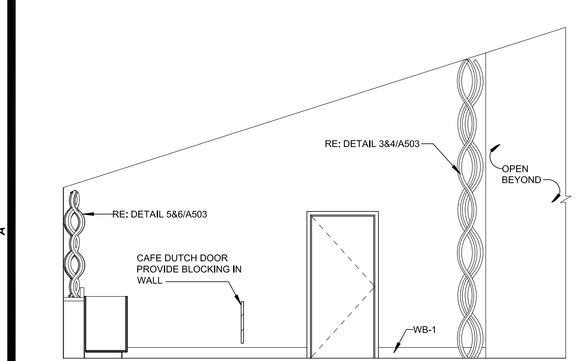
	A	NUGGET ICE MAKER WITH BIN, Scotsman Model No. UN324A1
	B	SERVICE/SELF SERVICE AMBIENT/REFRIG, MERCHANDISER, Structural Concepts Model No. C3Z4867
	C	UNDERCOUNTER REFRIGERATOR, Everest Refrigeration Model No. ETGSR2
	D	COFFEE BREWER, BUNN Model No. 38700.0014
	E	DISHWASHER, UNDERCOUNTER, Champion Model No. UH330B
	F	RANGE, 36", 6 OPEN BURNERS, Southbend Model No. H4361D
	G	EXHAUST HOOD, Custom Model No. CUSTOM
1	H,	REACH IN DUAL TEMP CABINET, Everest Refrigeration Model No. ESRF2A
1	J	PREPE TABLE, Custom Model No. ADVANCE TABLE 48" X 36" (VERIFY), Stainless Steel w/ galvanized legs & lower shelf and lockable casters
1	K	NOT USED
1	L	STAINLESS STEEL BASE CABINETS w/ open/adjustable shelves, stainless steel countertop & 6" backsplash
1	M	WIRE RACK, Eagle Group Wire shelving 4' w x 6' h x 18" d
1	N	ICE BIN, DROP-IN, LaCrosse, Model No. DI24IC
1	P	STAINLESS STEEL UPPER SHELVING, 12" D



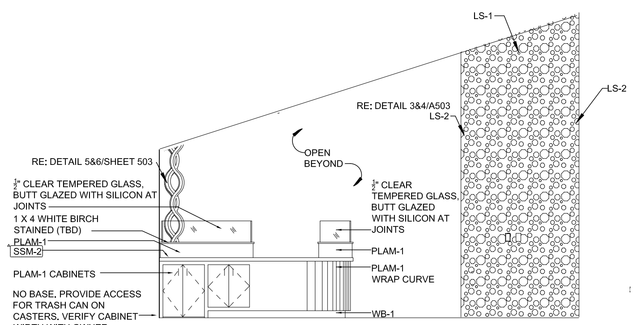
CAFE - SOUTH 6L — 1/4" = 1'-0" A405



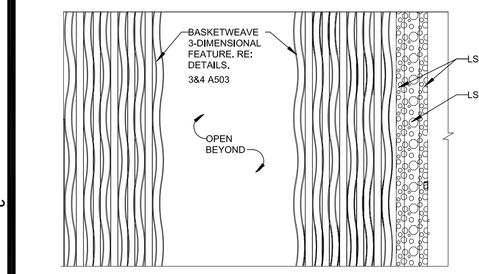
CAFE - SOUTH 2 6M — 1/4" = 1'-0" A405



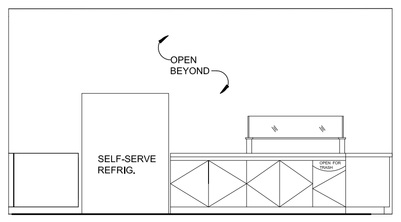
CAFE - WEST 6N — 1/4" = 1'-0" A405



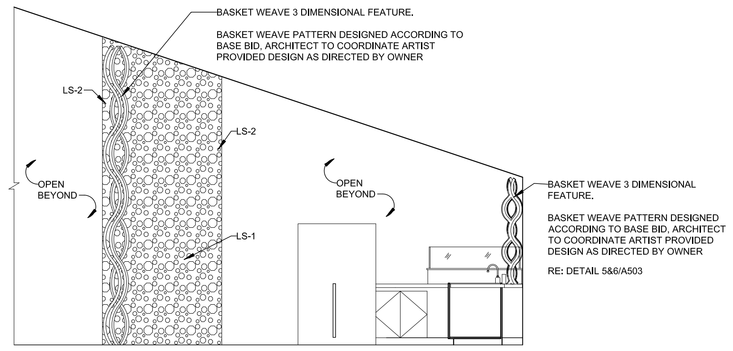
CAFE - WEST 2 6P — 1/4" = 1'-0" A405



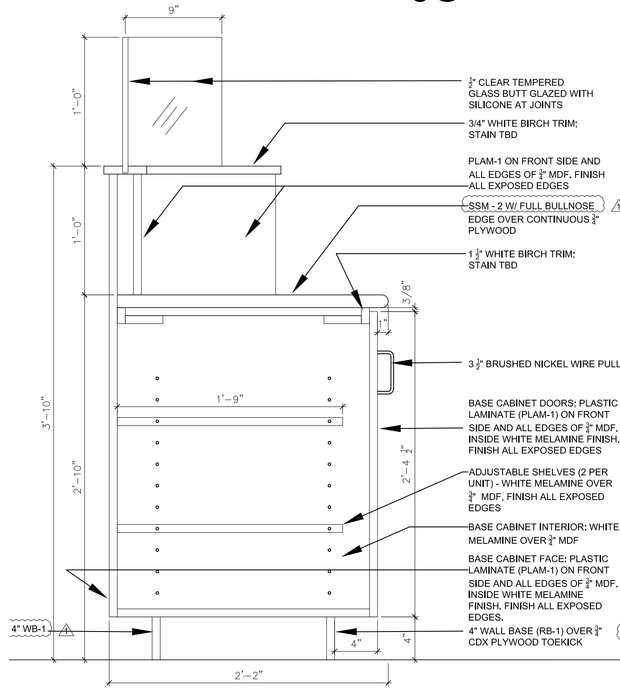
CAFE - NORTH 6H — 1/4" = 1'-0" A405



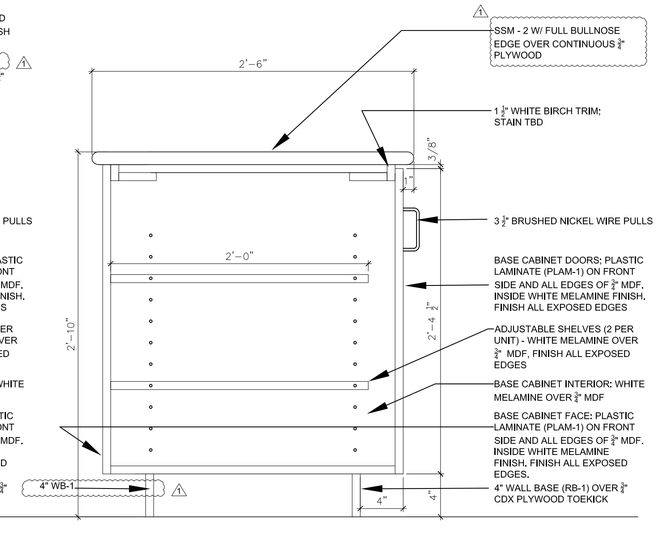
CAFE - NORTH 2 6J — 1/4" = 1'-0" A405



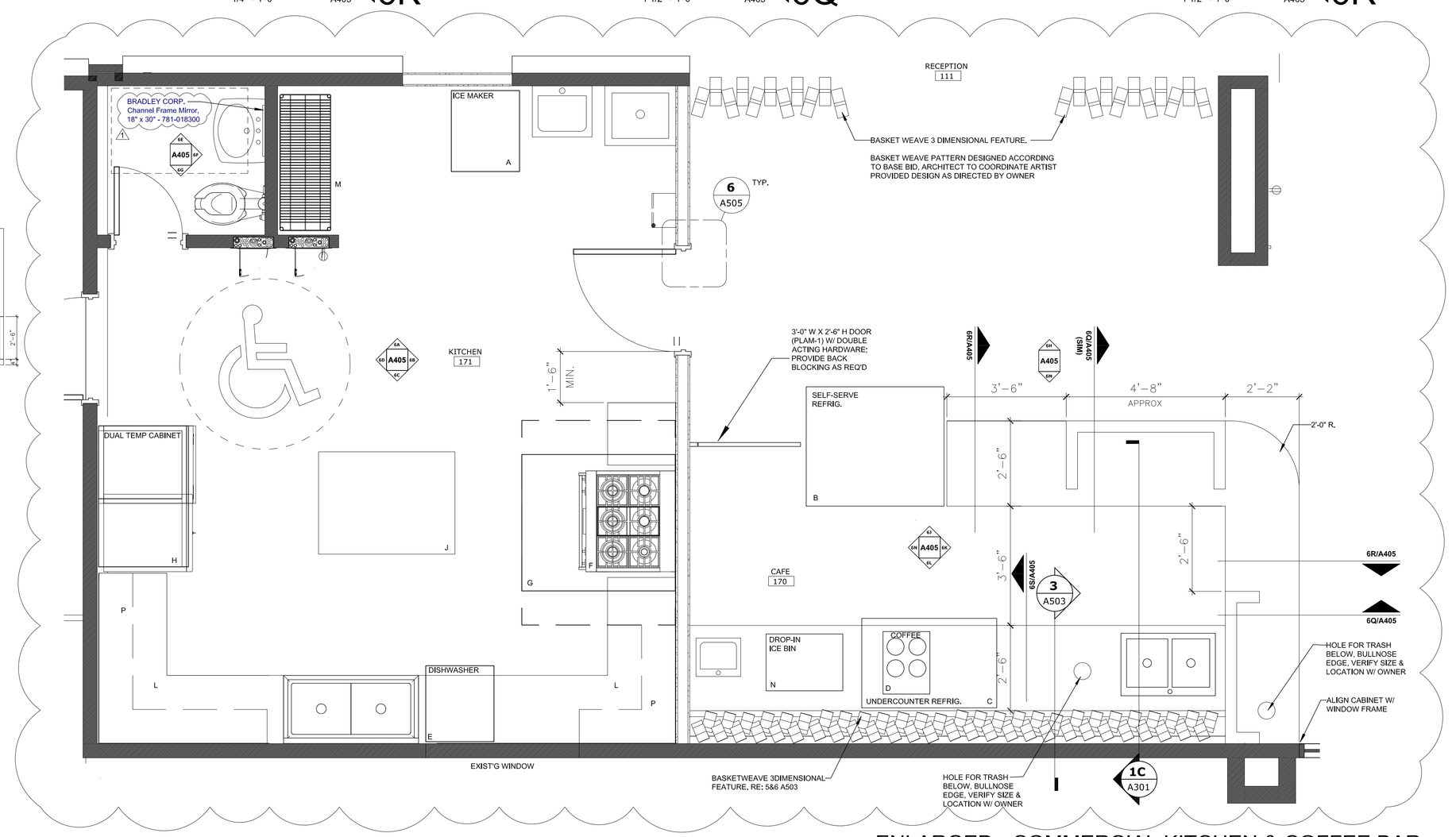
CAFE - EAST 6K — 1/4" = 1'-0" A405



MILLWORK DETAIL 6Q — 1 1/2" = 1'-0" A405



MILLWORK DETAIL 6R — 1 1/2" = 1'-0" A405



ENLARGED - COMMERCIAL KITCHEN & COFFEE BAR 6 — 1/2" = 1'-0" A405

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918.584.0102

PROJECT: VINITA CULTURAL DEVELOPMENT CENTER - ASI 1

PROJECT: CHEROKEE NATION VINITA, OKLAHOMA

KEY PLAN

No.	Description	Date
1	ASI-1	5/19/2021

SHEET TITLE: ENLARGED - KITCHEN & CAFE

ASI 1 DRAWINGS

PROJECT NO: 111-049.20
DRAWN BY:
CHKD BY:
ISSUE DATE: 5/7/2021

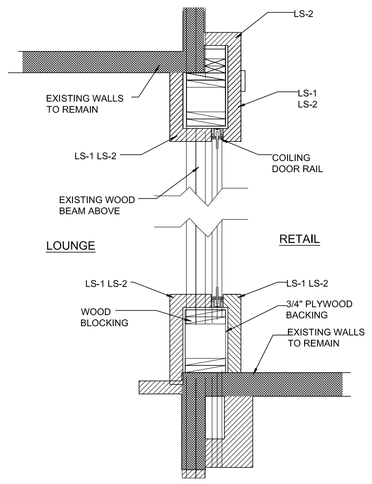
STATE OF OKLAHOMA — GARY W. GOMEZ — 1265 — TULSA, OKLA. — REGISTERED ARCHITECT

A405

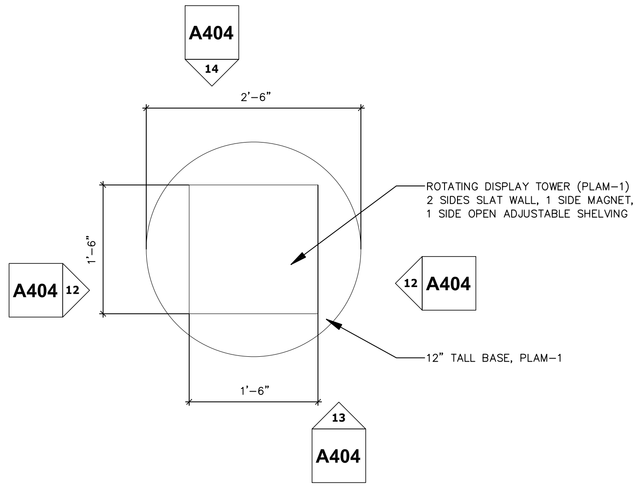
Scale: As indicated

5/19/2021

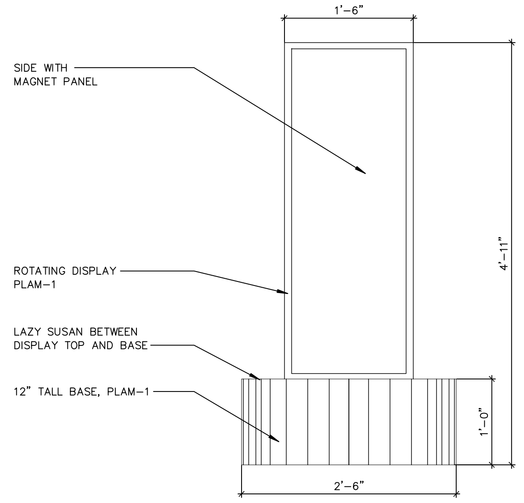
1/16"=1'-0" 0 8" 16" 32" | 1/8"=1'-0" 0 4' 8" 16" | 1/4"=1'-0" 0 2' 4' 8' | 1/2"=1'-0" 0 1' 2' 4' | 3/4"=1'-0" 0 1' 2' | 1"=1'-0" 0 6" 1' 2' | 1 1/2"=1'-0" 0 3" 6" 1' | 3"=1'-0" 0 3" 6"



O.H. GRILL FURRING DETAIL ◀15
NOT TO SCALE A406



MISC. DISP. TOWER - PLAN ◀16
1" = 1'-0" A406



MISC. DISP. TOWER - ELEVATION ◀14
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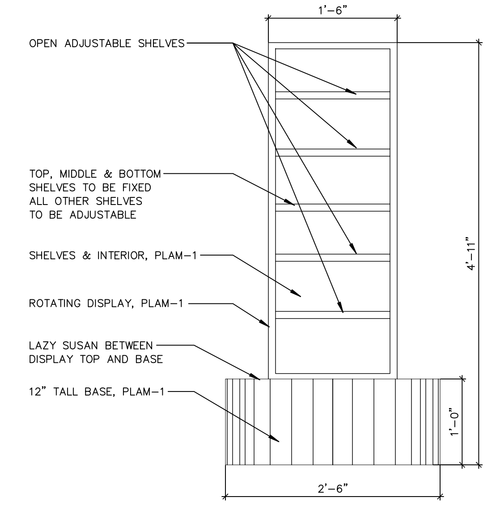

MISC. DISP. TOWER - ELEVATION ◀13
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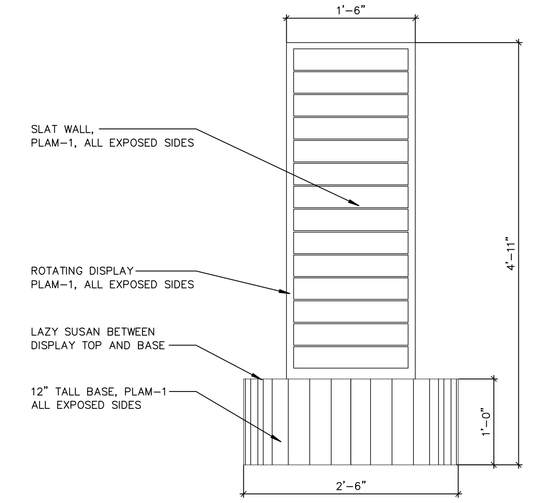

MISC. DISP. TOWER - ELEVATION ◀12
1" = 1'-0" A406
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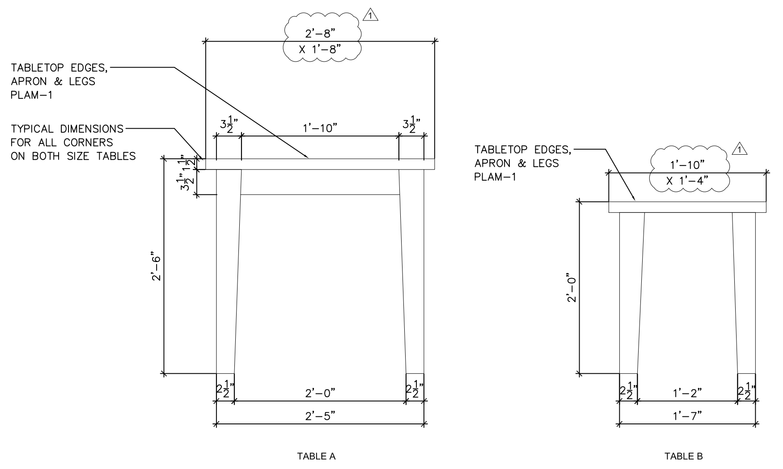
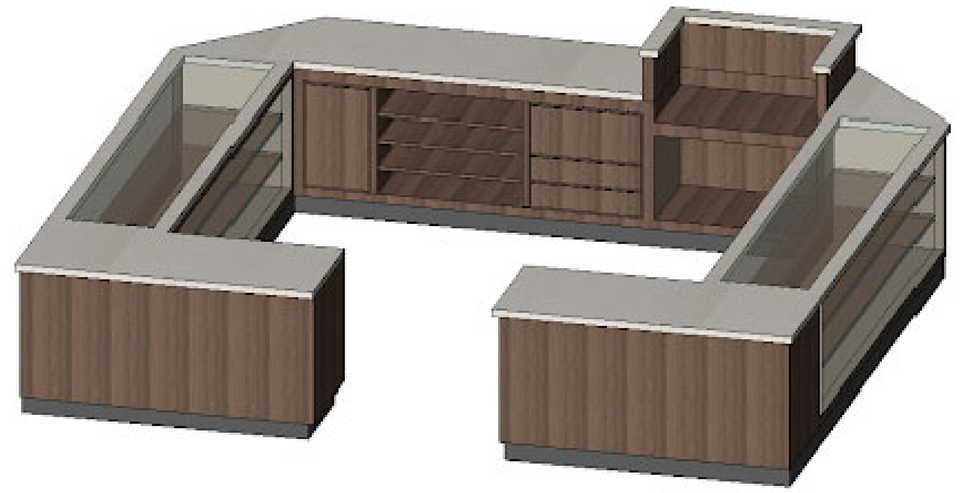


RECTANGULAR NESTING TABLES - ELEVATIONS ◀11
1" = 1'-0" A406

RETAIL DESK DESIGN INTENT- 3D IMAGE ◀10
NOT TO SCALE A406



RETAIL DESK - 3D IMAGE ◀9
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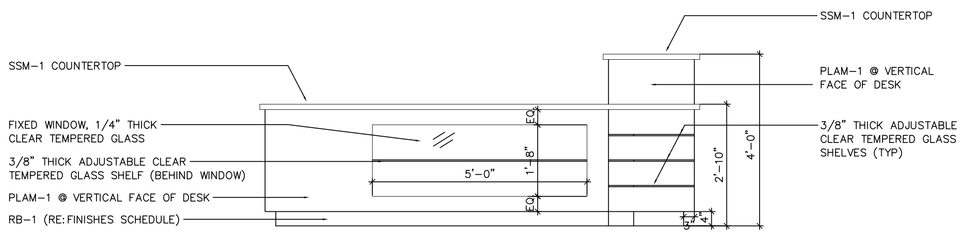
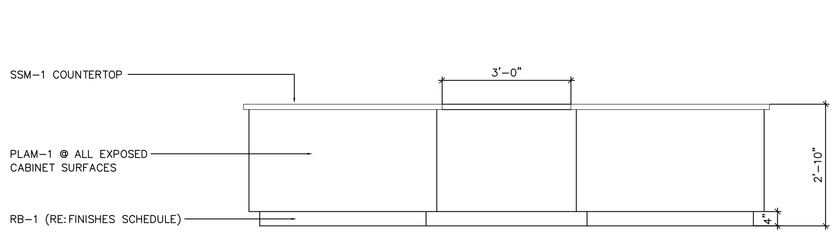
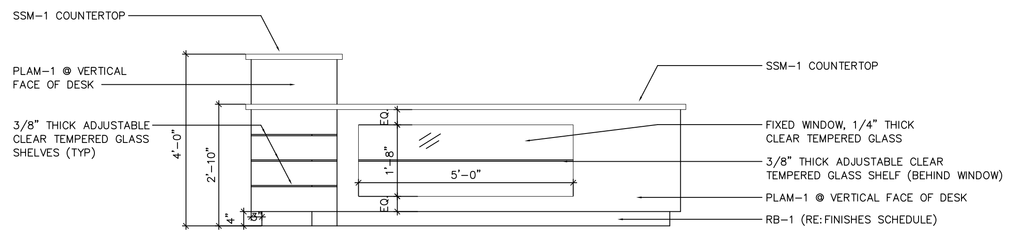


RETAIL DESK - ELEVATION ◀8
1/2" = 1'-0" A404



RETAIL DESK - ELEVATION ◀7
1/2" = 1'-0" A404



RETAIL DESK - ELEVATION ◀6
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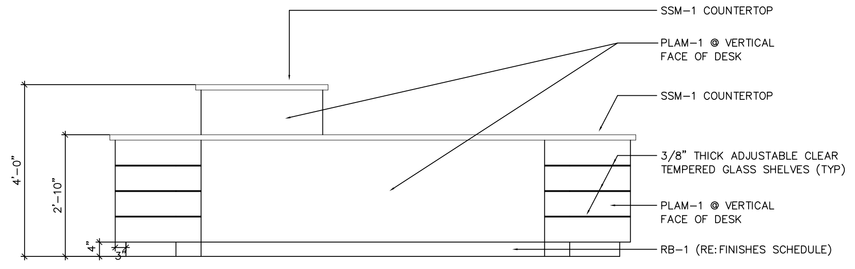

RETAIL DESK - ELEVATION ◀5
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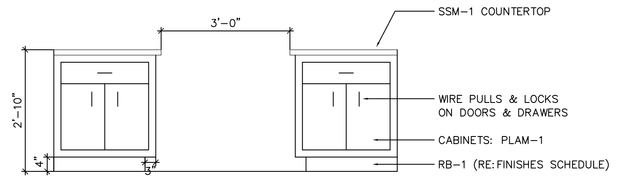
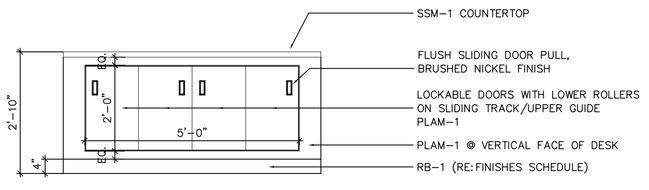
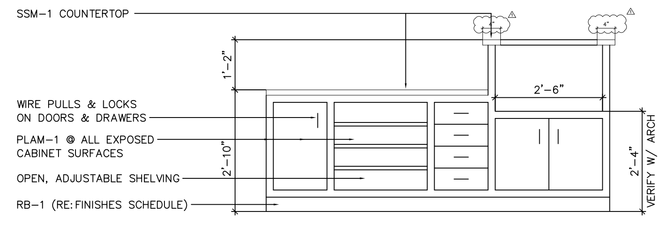


RETAIL DESK - ELEVATION ◀4
1/2" = 1'-0" A404



RETAIL DESK - ELEVATION ◀3
1/2" = 1'-0" A404



RETAIL DESK - ELEVATION ◀2
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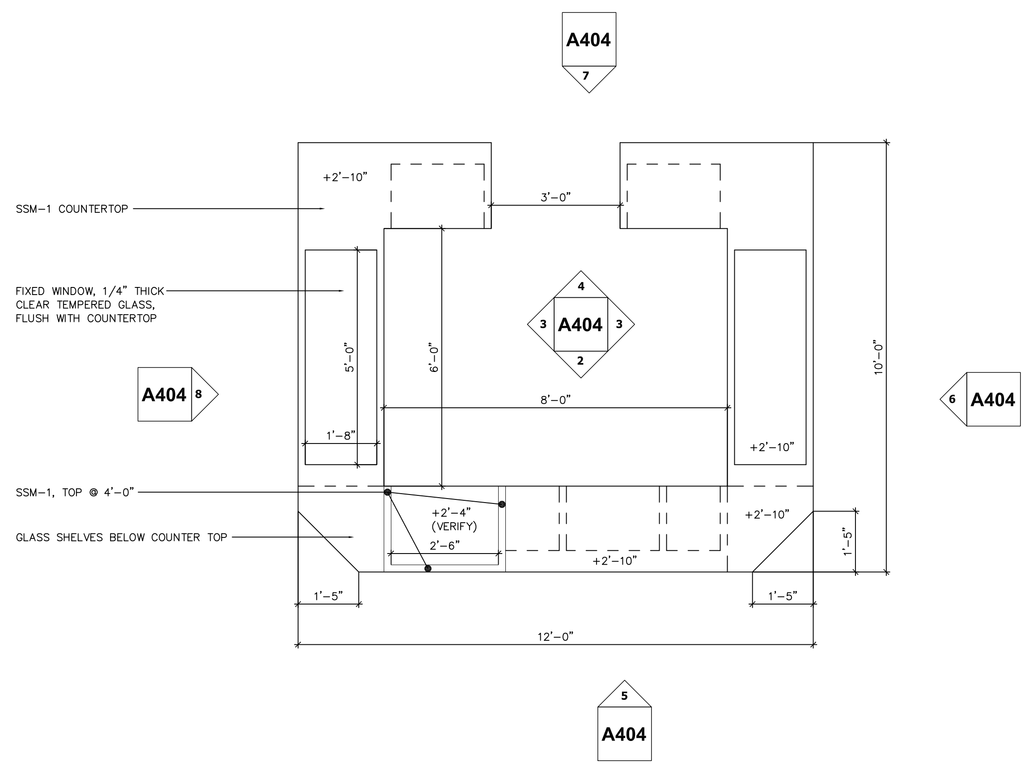

RETAIL DESK - PLAN ◀1
1/2" = 1'-0" A406

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VINITA CULTURAL DEVELOPMENT CENTER - ASI 1

PROJECT
CHEROKEE NATION
VINITA, OKLAHOMA

KEY PLAN

No.	Description	Date
	BID SET	5/07/2021
1	ASI-1	5/19/2021

SHEET TITLE
ASI 1 DRAWINGS

PROJECT NO: 111-049.20
DRAWN BY:
CHKD BY:
ISSUE DATE: 5/19/2021

A406
Scale As indicated

GARY W. GOMEZ — STATE OF OKLAHOMA — 1360 — TULSA, OKLA. — REGISTERED ARCHITECT

5/19/2021

5/19/2021

GENERAL NOTES - ENLARGED

1. PROVIDE BACK BLOCKING FOR MILLWORK, FIXTURES & ACCESSORIES AS REQ'D.
2. WALL, FLOOR, & CEILING FINISHES SHOULD BE REFERENCED WITH THE FINISH PLAN & RCP'S.
3. TOILET PARTITIONS SHALL BE: GLOBAL PARTITIONS, FLOOR MOUNTED HEADRAIL BRACED, ALUMINUM WRAP AROUND HINGES, CONTINUOUS ALUMINUM BRACKETS, COLOR: #9513 METALLIC BRONZE

LASER CUT, COPPER FINISH. ADA COMPLIANT SIGNAGE AT RESTROOM ENTRIES. COORDINATE W/ ARCH.

RESTROOM ACCESSORY SCHEDULE

KEY	ITEM	MANUFACTURER	MODEL NUMBER	DESCRIPTION
01	SANITARY NAPKIN DISPOSAL	AMERICAN SPECIALTIES, INC.	0852	SURFACE MOUNTED SANITARY NAPKIN DISPOSAL
02	TOILET TISSUE HOLDER	AMERICAN SPECIALTIES, INC.	0715	SURFACE MOUNTED DOUBLE TOILET TISSUE HOLDER, CHROME PLATED STEEL
03	TOILET SEAT COVER DISPENSER	AMERICAN SPECIALTIES, INC.	0417-SM	SURFACE MOUNTED TOILET SEAT COVER DISPENSER
04	GRAB BAR	AMERICAN SPECIALTIES, INC.	3800 SERIES	1 1/2" O.D. SNAP FLANGE GRAB BAR - 36" LENGTH
05	GRAB BAR	AMERICAN SPECIALTIES, INC.	3800 SERIES	1 1/2" O.D. SNAP FLANGE GRAB BAR - 42" LENGTH
06	BABY CHANGER	AMERICAN SPECIALTIES, INC.	9014	SURFACE MOUNTED HORIZONTAL PLASTIC BABY CHANGING STATION
07	SOAP DISPENSER	AMERICAN SPECIALTIES, INC.	0362-41	SURFACE MOUNTED AUTOMATIC LIQUID SOAP AND GEL HAND SANITIZER DISPENSER, MATTE BLACK
08	PAPER TOWEL DISPENSER / WASTE RECEPTACLE	AMERICAN SPECIALTIES, INC.	0469ZAC-6	SEMI-RECESSED AUTOMATIC ROLL PAPER TOWEL DISPENSER & WASTE RECEPTACLE, 110-240V / AC
09	MIRROR	AMERICAN SPECIALTIES, INC.	0620 - 2460 SERIES	24" W X 60" H STAINLESS STEEL CHANNLOK FRAME MIRROR
10	MIRROR	URBAN MOOD		LYRA POSTMODERN SUSPENDED WALL MIRROR, SILVER
11	UTILITY SHELF/ HOOKS	AMERICAN SPECIALTIES, INC.	1308-3	SHELVES/UTILITY HOOK & MOP (4 HOOKS, 3 HOLDERS) 24" - SURFACE MOUNTED, TO BE INSTALLED @ ROOMS 190 & 290
12	AIR FRESHENER	AIR DELIGHTS	401218	MICROBURST 9000 AEROSOL DISPENSER

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PROJECT

VINITA CULTURAL DEVELOPMENT CENTER - ASI 1

PROJECT

CHEROKEE NATION
VINITA, OKLAHOMA

KEY PLAN

No.	Description	Date
	BID SET	5/07/2021
1	ASI-1	5/19/2021

SHEET TITLE

ASI 1 DRAWINGS

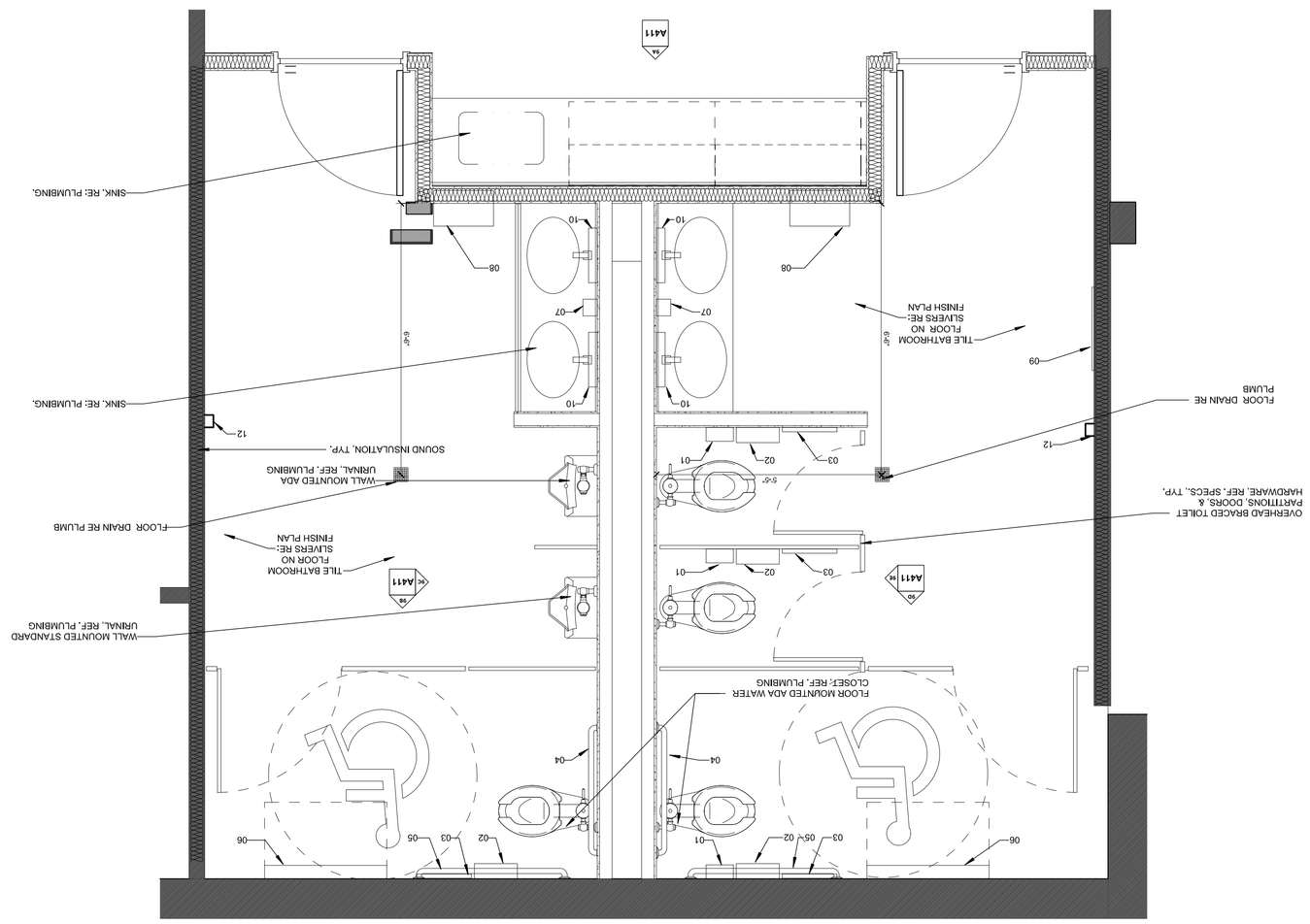
PROJECT NO: 111-049.20
DRAWN BY:
CHKD BY:
ISSUE DATE: 5/19/2021

A411

Scale: As Indicated

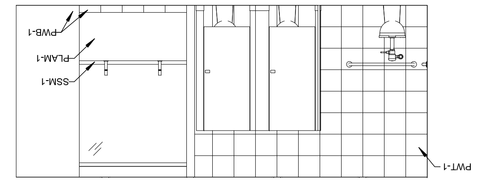
MEN'S & WOMEN'S RESTROOM 9

A411 — 1/2" = 1'-0"



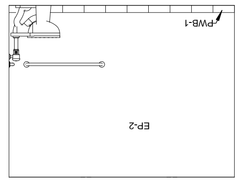
WOMENS RESTROOM - EAST 9E

1/4" = 1'-0" — A411



WOMENS RESTROOM - NORTH 9D

1/4" = 1'-0" — A411



MENS RESTROOM - WEST 9C

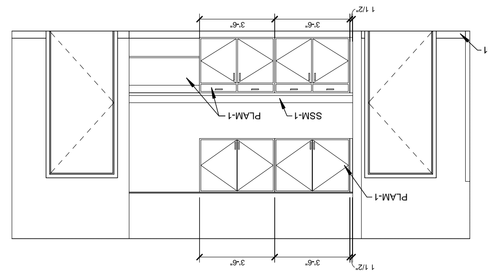
1/4" = 1'-0" — A411

MENS RESTROOM - NORTH 9B

1/4" = 1'-0" — A411

WORKSTATION - NORTH 9A

1/4" = 1'-0" — A411



PHASING LEGEND

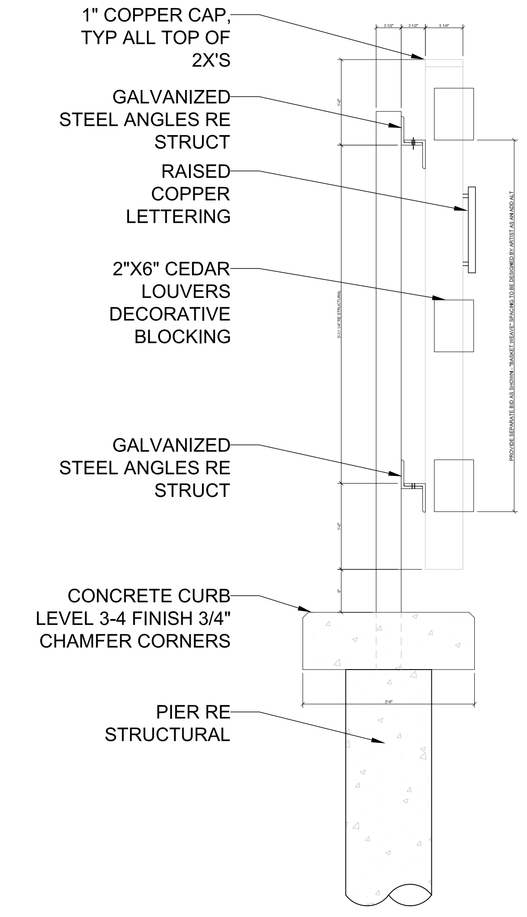
- EXISTING TO REMAIN
- EXISTING TO BE DEMOLISHED
- NEW CONSTRUCTION

GENERAL NOTES - NEW WORK

1. OUTSIDE OF DOOR JAMB ROUGH OPENINGS TO BE 3" FROM WALL INTERSECTIONS UNLESS OTHERWISE INDICATED.
2. PROVIDE BLOCKING FOR KITCHEN, BATHROOM AND FUTURE ADA ACCESSORIES
3. DIMENSIONS ARE TO FACE OF STUD LAYER UNLESS OTHERWISE INDICATED.
4. FINISH FLOOR ELEVATIONS SHOULD BE COORDINATED WITH CIVIL
5. SEE CIVIL DRAWINGS FOR DETAILED INFORMATION ON NEW GRADING, STORMWATER, UTILITIES, ETC. HEIGHTS AND LOCATIONS
6. SEE LANDSCAPE DRAWINGS FOR DETAILED INFORMATION ON PLANTING LOCATIONS AND VEGETATION TYPES.
7. SEE MEP DRAWINGS FOR DETAILED INFORMATION ON SITE LIGHTING AS WELL AS ALL MECHANICAL, ELECTRICAL AND UTILITY ENTRANCES AT THE BUILDING FINISH FLOOR ELEVATIONS SHOWN ON CIVIL GRADING AND DRAINAGE SHEETS SHALL SET THE LEVEL OF THE GROUND FLOOR OF EACH INDIVIDUAL STRUCTURE WHIHC IS INDICATED AT THE 0'-0" LEVEL ON THESE SHEETS. CIVIL FINISHED FLOOR INDICATIONS SHALL TAKE PRECEDENCE.
8. ALLOW FOR NO LESS THAN THREE PAINT MOCKUPS, APPROXIMATELY 200 SQUARE FEET EACH, FOR ARCHITECTS APPROVAL PRIOR TO PROCEEDING WITH FINAL PAINTING.
9. ALL GRILLES TO BE PAINTED TO MATCH ADJACENT WALL.

"SCREEN WALL" DESIGNED ACCORDING TO BASE BID, ARCHITECT TO COORDINATE ARTIST PROVIDED DESIGN AS DIRECTED BY OWNER

*SEE ARCHITECTURAL SITE PLAN (AS101) FOR LINEAL FEET OF ENTIRE SCOPE OF SCREEN WALL DESIGN



SCREEN SECTION 2
1" = 1'-0" A501

SCREEN DETAIL 3
1" = 1'-0" A501

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PROJECT
VINITA CULTURAL DEVELOPMENT CENTER - ASI 1

PROJECT
CHEROKEE NATION
VINITA, OKLAHOMA

KEY PLAN

No.	Description	Date
	BID SET	5/07/2021
1	ASI-1	5/19/2021

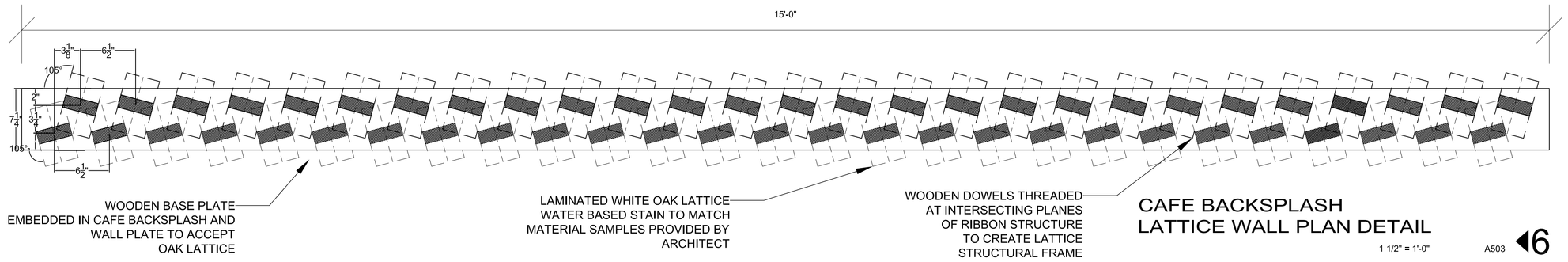
SHEET TITLE
ASI 1 DRAWINGS

PROJECT NO: 111-049.20
DRAWN BY:
CHK'D BY:
ISSUE DATE: 5/19/2021

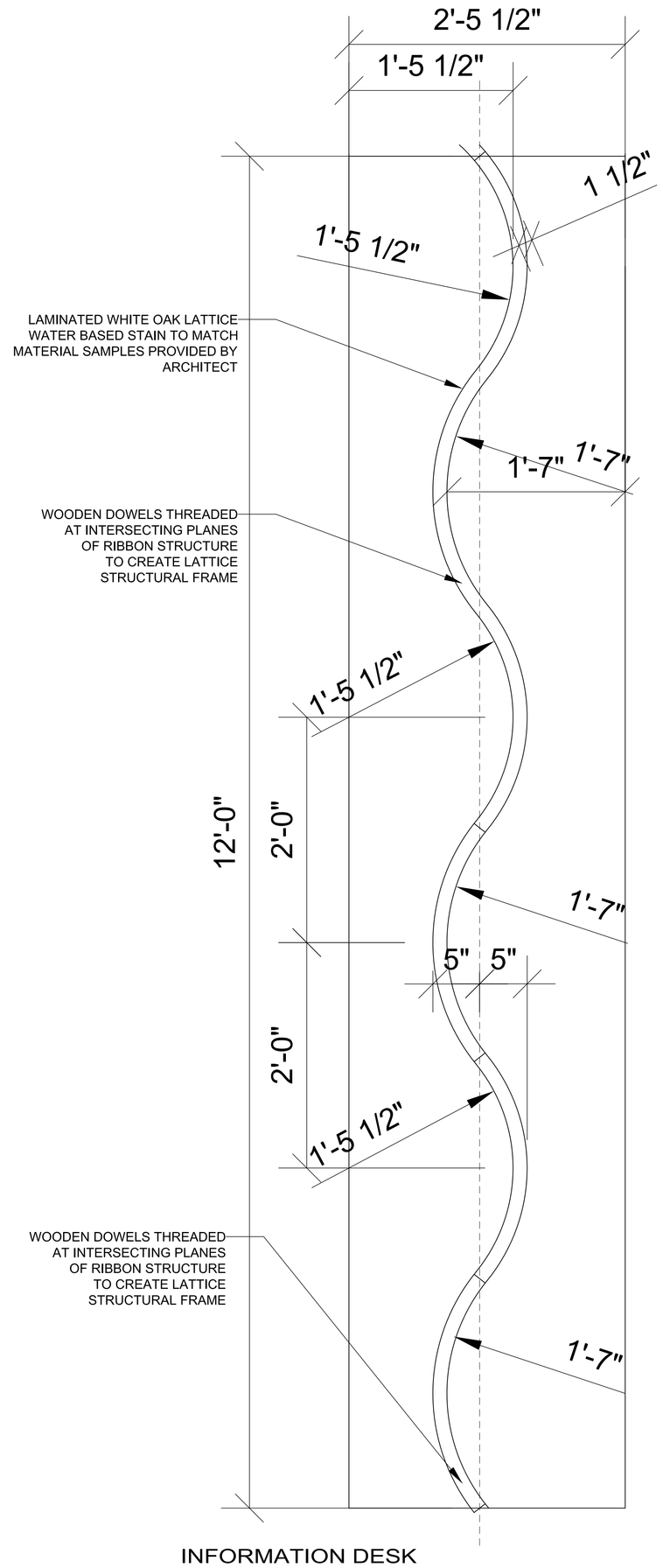
A501
Scale As indicated

STATE OF OKLAHOMA
GARY W. SPARKS
12465
TULSA, OKLA.
LICENSED ARCHITECT

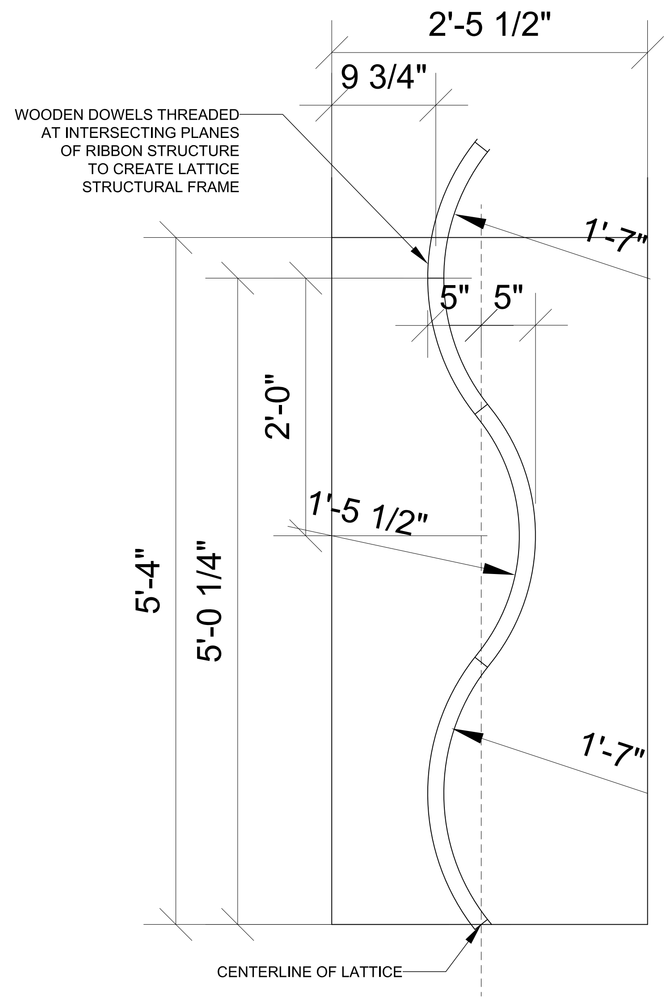
5/19/2021



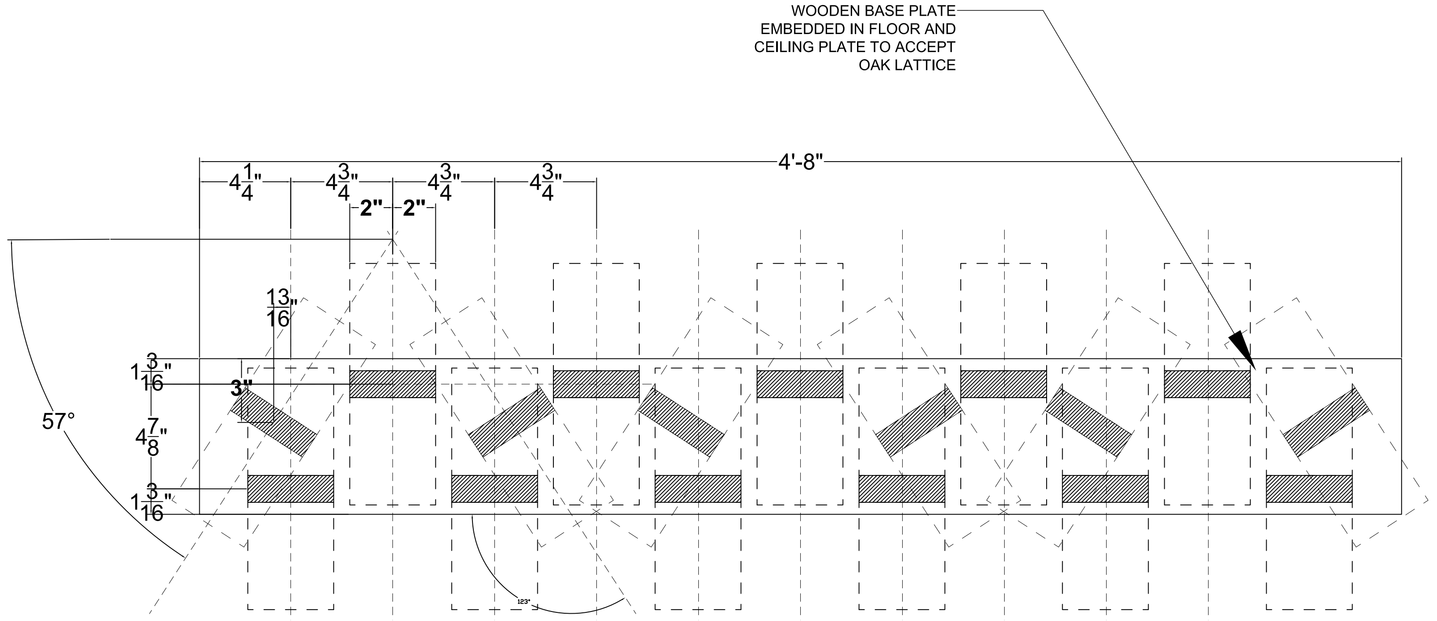
CAFE BACKSPLASH
LATTICE WALL PLAN DETAIL
1 1/2" = 1'-0" A503 6



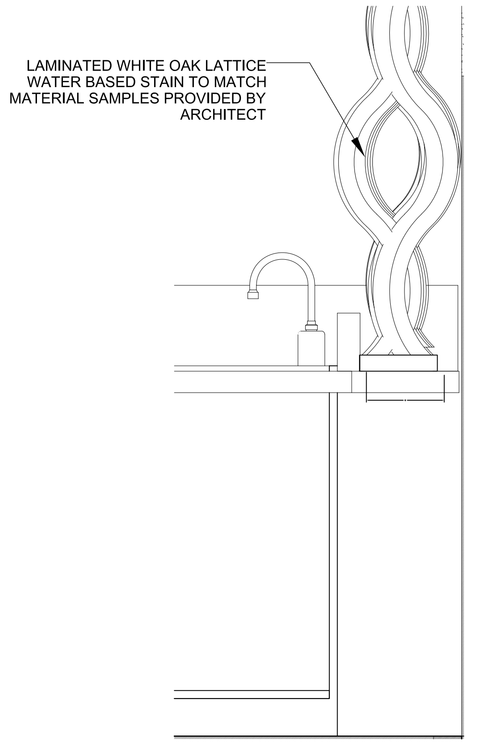
INFORMATION DESK
LATTICE WALL ELEVATION DETAIL
1 1/2" = 1'-0" A503 4



CAFE BACKSPLASH
LATTICE WALL ELEVATION DETAIL
1 1/2" = 1'-0" A503 5



INFORMATION DESK
LATTICE WALL PLAN DETAIL
1 1/2" = 1'-0" A503 3



COFFEE BAR SECTION
1 1/2" = 1'-0" A503 2

NOT USED
1 1/2" = 1'-0" A503 1

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PROJECT
VINITA CULTURAL DEVELOPMENT CENTER - ASI 1

PROJECT
CHEROKEE NATION
VINITA, OKLAHOMA

KEY PLAN

No.	Description	Date
	BID SET	5/07/2021
1	ASI-1	5/19/2021

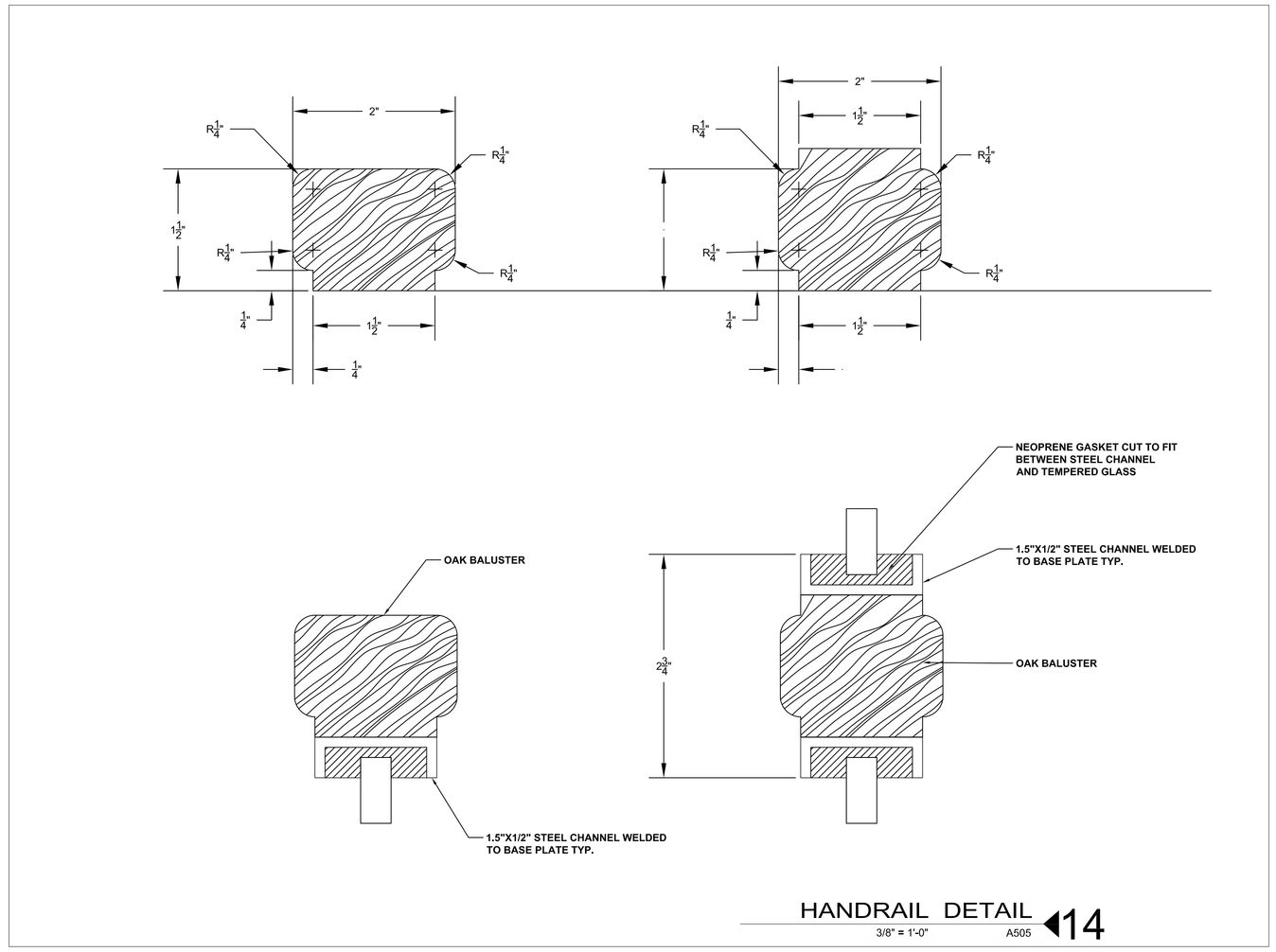
SHEET TITLE
ASI 1 DRAWINGS

PROJECT NO: 111-049.20
DRAWN BY:
CHK'D BY:
ISSUE DATE: 5/19/2021

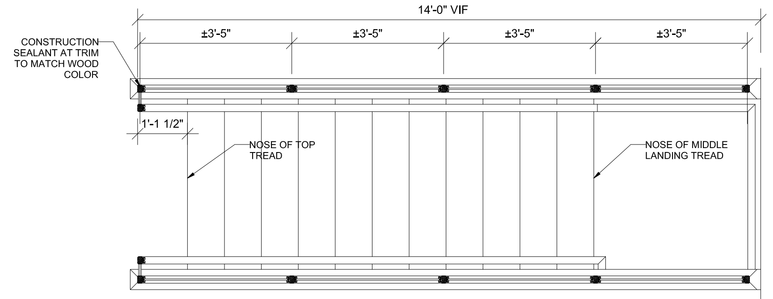
A503
Scale As indicated

STATE OF OKLAHOMA
GARY W. SPARKS
1249
TULSA, OKLA.
LICENSED ARCHITECT

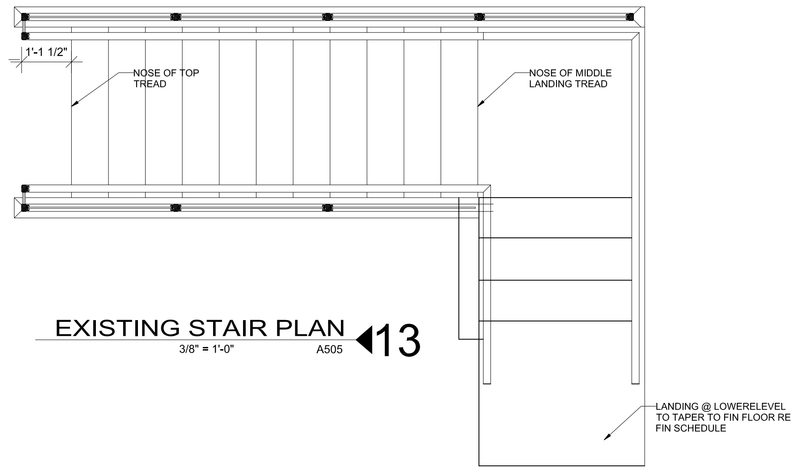
5/19/2021



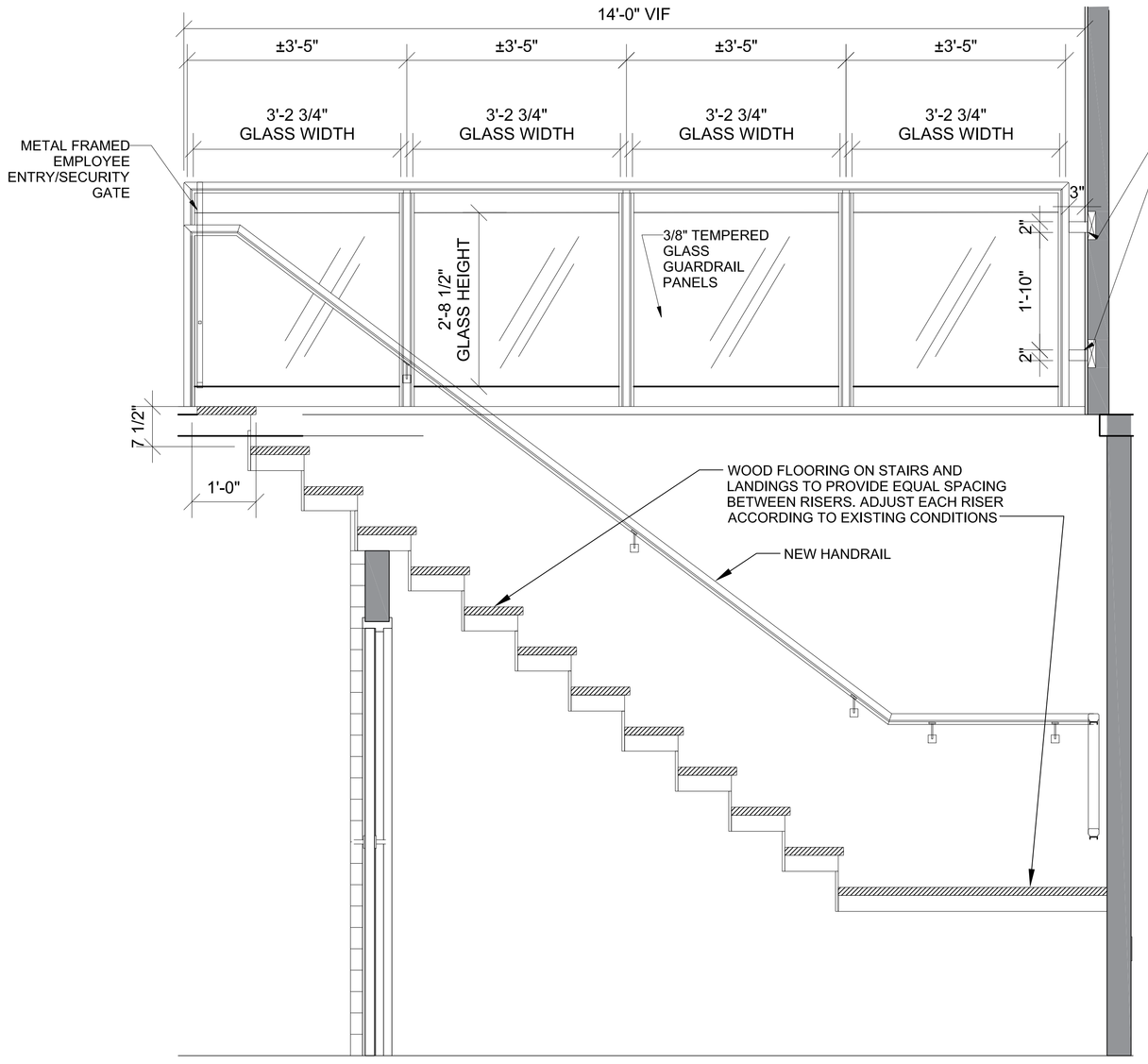
HANDRAIL DETAIL 14
3/8" = 1'-0" A505



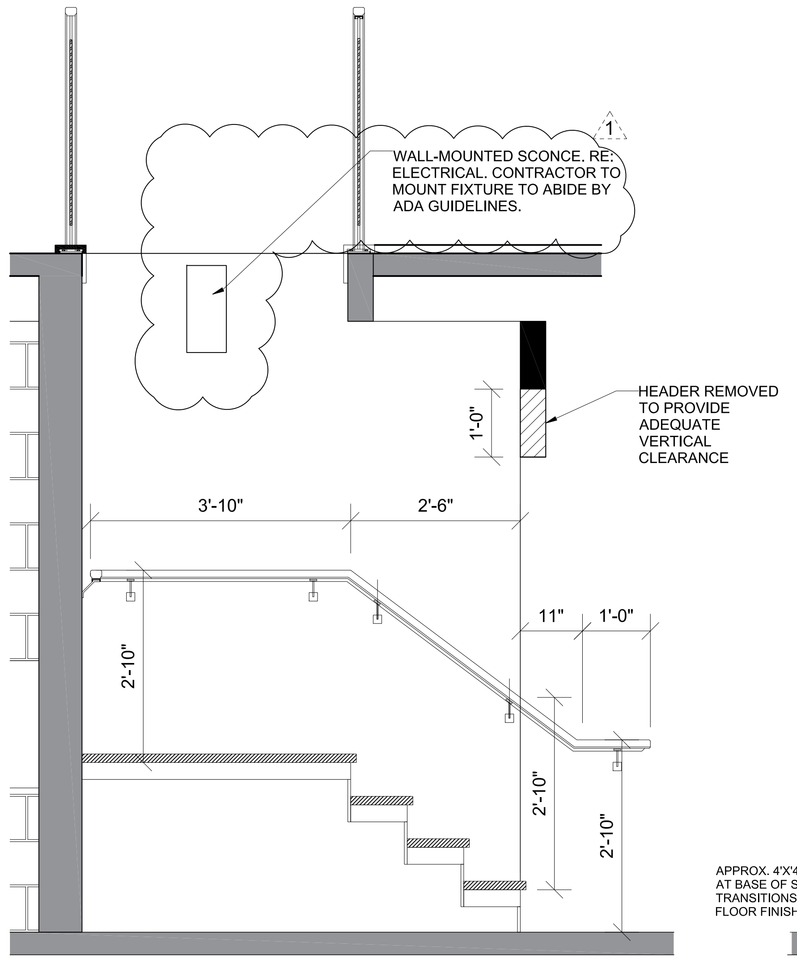
GAURDRAIL DETAIL 15
3/8" = 1'-0" A505



EXISTING STAIR PLAN 13
3/8" = 1'-0" A505



STAIR DETAIL 12
3/8" = 1'-0" A505



STAIR DETAIL 11
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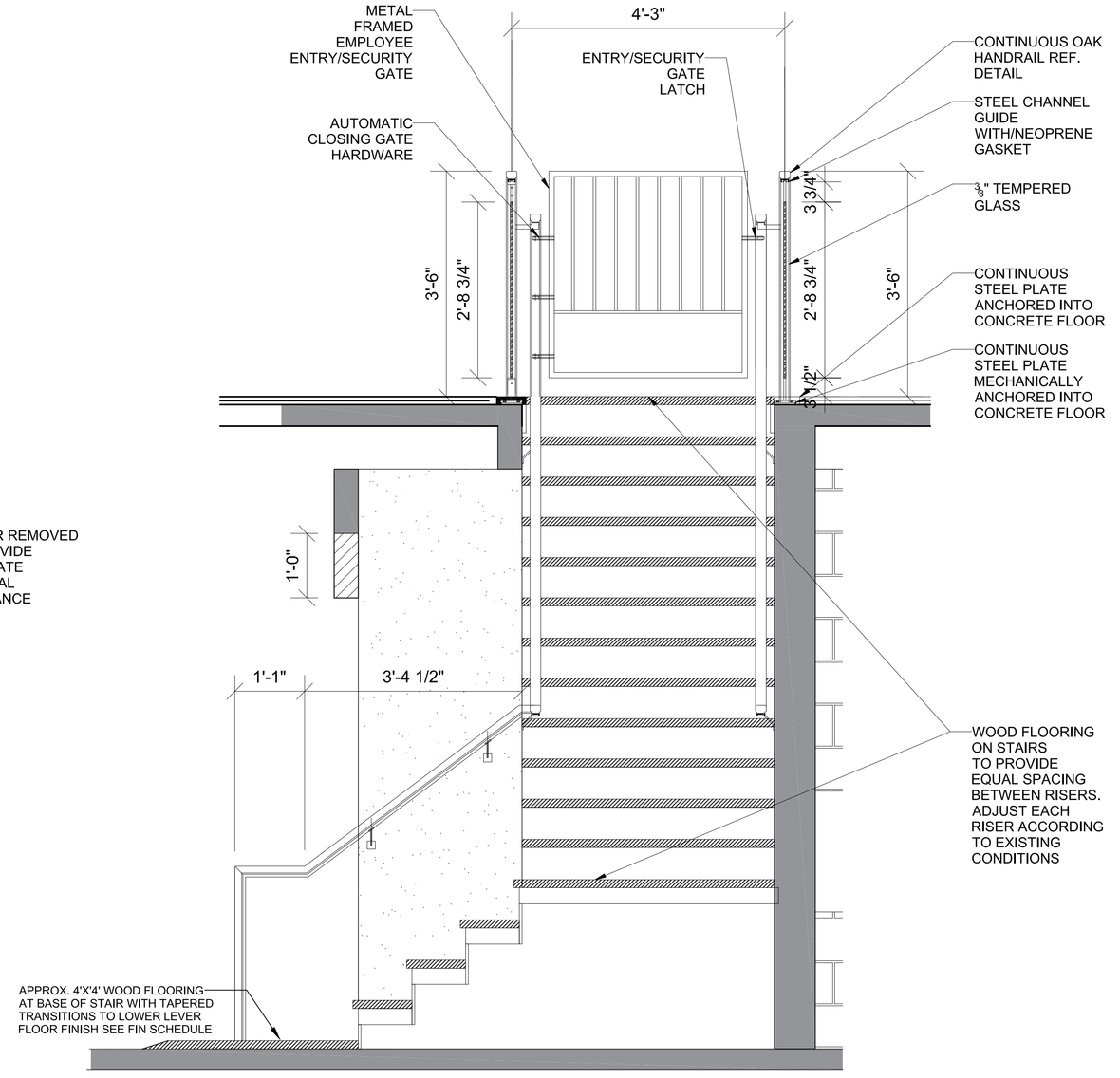

STAIR DETAIL 10
3/8" = 1'-0" A505

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VINITA CULTURAL DEVELOPMENT CENTER - ASI 1

PROJECT
CHEROKEE NATION
VINITA, OKLAHOMA

KEY PLAN

No.	Description	Date
	BID SET	5/07/2021
1	ASI-1	5/19/2021

SHEET TITLE
ASI 1 DRAWINGS

PROJECT NO: 111-049.20
DRAWN BY:
CHKD BY:
ISSUE DATE: 5/19/2021

A505
Scale As indicated

STATE OF OKLAHOMA · GARY W. GOMEZ · 1326 · REGISTERED ARCHITECT

5/19/2021

DOOR SCHEDULE

DOOR							FRAME								
		SIZE								DETAILS					
MARK	TYPE	WIDTH	HEIGHT	THICKNESS	MATERIAL	FINISH	TYPE	MATERIAL	FINISH	HEAD	JAMB	THRESHOLD	HARDWARE	RATING	COMMENTS
100	EX	6'0	8'0	1-3/4"	AL	DKBZ	EX	AL	DKBZ				17.0		EXISTING DOOR AND FRAME
111A	D	3'0	3'0	1-3/4"	WD	ST	3	HM	PT				18.0		1/2 DOOR - STAIR GATE
121A	C	3'0	7'0	1-3/4"	WD	PT	EX	HM	PT				5.0		EXISTING FRAME
131A	C	3'0	7'0	1-3/4"	WD	ST	1	HM	PT				10.0		
131B	C	3'0	7'0	1-3/4"	WD	ST	1	HM	PT				10.0		
132A	C	3'0	7'0	1-3/4"	WD	ST	1	HM	PT				6.0		
132B	C	3'0	7'0	1-3/4"	HM	PT	1	HM	PT				1.0		
141A	C	6'0	7'0	1-3/4"	WD	ST	2	HM	PT				7.0		
170A	A	3'0	7'0	1-3/4"	HM	PT	1	HM	PT				14.0		
171A	EX	3'0	7'0	1-3/4"	HM	PT	EX	HM	PT				2.0		EXISTING DOOR AND FRAME
180A	C	3'0	7'0	1-3/4"	WD	ST	EX	HM	PT				15.0		EXISTING FRAME
181A	C	3'0	7'0	1-3/4"	WD	ST	EX	HM	PT				15.0		EXISTING FRAME
182A	C	3'0	7'0	1-3/4"	WD	ST	1	HM	PT				13.0		
183A	EX	2'0	7'0	1-3/4"	WD	PT	EX	HM	PT				12.0		EXISTING DOOR AND FRAME
183C	C	3'0	7'0	1-3/4"	WD	PT	1	HM	PT				16.0		
190A	EX	3'0	7'0	1-3/4"	WD	PT	EX	HM	PT				11.2		EXISTING DOOR AND FRAME
191A	C	6'0	7'0	1-3/4"	WD	ST	EX	HM	PT				8.0		EXISTING FRAME
201A	EX	3'0	6'8	1-3/8"	WD	PT	EX	WD	PT				11.1		EXISTING DOOR AND FRAME
201B	EX	2'0	7'0	1-3/4"	WD	PT	EX	HM	PT				11.0		EXISTING DOOR AND FRAME
240A	EX	3'0	7'0	1-3/4"	HM	PT	EX	HM	PT				3.0		EXISTING DOOR AND FRAME, Note 1
240B	EX	3'0	7'0	1-3/4"	HM	PT	EX	HM	PT				19.0		EXISTING DOOR AND FRAME, Note 2
241A	B	3'0	7'0	1-3/4"	HM	PT	1	HM	PT				3.1		NEW DOOR AND FRAME, Note 3
241B	EX	6'0	7'0	1-3/4"	HM	PT	EX	HM	PT				19.0		EXISTING DOOR AND FRAME, Note 2
280A	C	3'0	7'0	1-3/4"	WD	PT	1	HM	PT				16.0		
290A	EX	3'0	7'0	1-3/4"	HM	PT	EX	HM	PT				4.0		EXISTING DOOR AND FRAME
291A	C	3'0	7'0	1-3/4"	WD	PT	1	HM	PT				9.0		
292A	EX	3'0	6'8	1-3/8"	WD	PT	EX	WD	PT				11.2		EXISTING DOOR AND FRAME

Note 1: Modify/patch/prep door to accept new exit device and weatherstrip, Threshold, Door Bottom - Reuse balance of existing hardware

Note 2: Remove locks, kickplates and closers. Patch holes and fix doors permanently closed, caulked and sealed.

Note 3: Saw cut and remove existing door and frame.

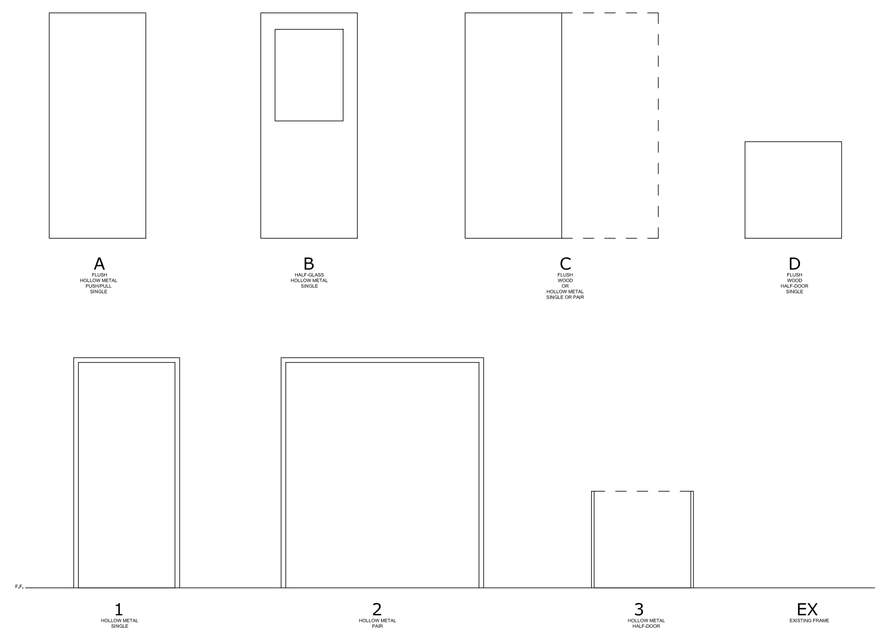
VENDOR CONTACT:

Dominic "Nic" Scatena, Door Security Solutions of the Southwest / Architectural Security Group
2855 Marquis Drive Suite 190, Garland, TX 75042
(972) 665-0140
(661) 246-5261
nscatena@doorsecurity.com

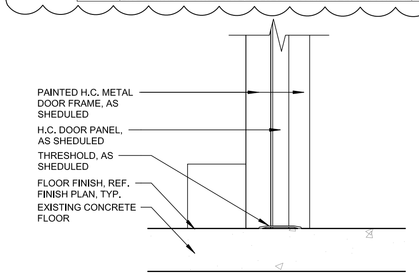
(OR EQUIVALENT PRODUCTS, SUBJECT TO ARCHITECTS APPROVAL)

GENERAL NOTES - OPENINGS

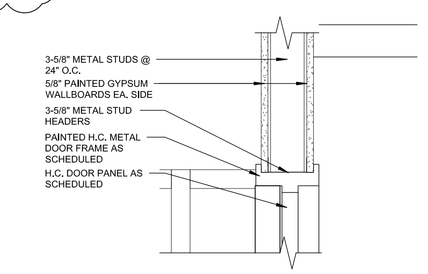
1. ALL OPERABLE EXTERIOR WINDOWS SHALL HAVE REMOVEABLE INSECT SCREENS
2. DIMENSIONS ARE TO FRAME SIZE AND FINAL DIMENSIONS ARE TO BE ADJUSTED FOR SHIM SPACE, AND FIELD VERIFIED PRIOR TO FABRICATION
3. SEE HARDWARE SCHEDULE IN SPECIFICATIONS FOR SPECIFIC HARDWARE INFORMATION
4. SEE SPECIFICATIONS FOR GLAZING
5. FOR ACCESSIBLE CLEARANCES, SEE FLOOR PLANS
6. COORDINATE ALL RECOMMENDED UNDERCUTTING OR OTHER AIR-FLOW MEASURES RELATED TO DOORS PER THE MECHANICAL SPECIFICATIONS PRIOR TO FABRICATION AND INSTALLATION.
7. ALL DOORS AND WINDOWS MUST MEET ENERGY STAR U-FACTOR AND OTHER STANDARDS BASED ON GEOGRAPHIC LOCATION OF XXX. XXX WHICH IS IN THE XXX CLIMATE ZONE AS INDICATED ON WWW.ENERGYSTAR.GOV



DOOR AND FRAME ELEVATIONS 9
3/8" = 1'-0" A505

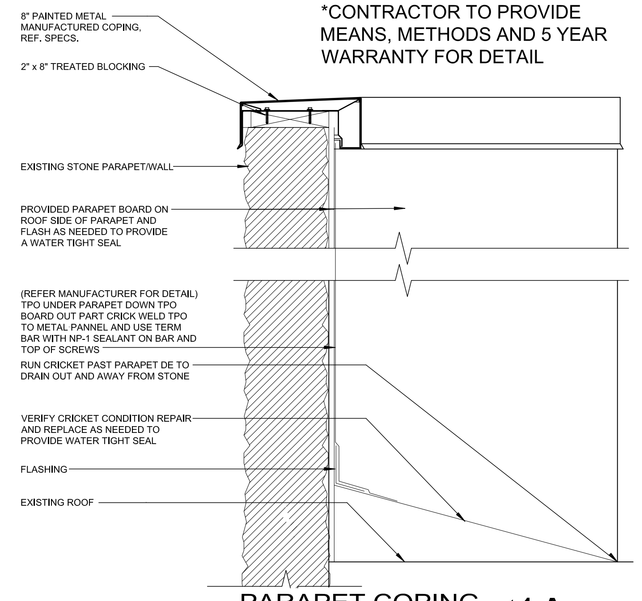


DOOR THRESHOLD 8
1 1/2" = 1'-0" A505

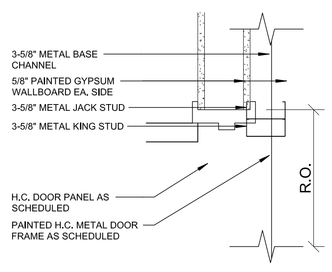


DOOR HEADER 7
1 1/2" = 1'-0" A505

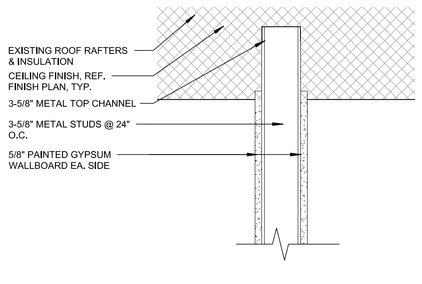
*CONTRACTOR TO PROVIDE MEANS, METHODS AND 5 YEAR WARRANTY FOR DETAIL



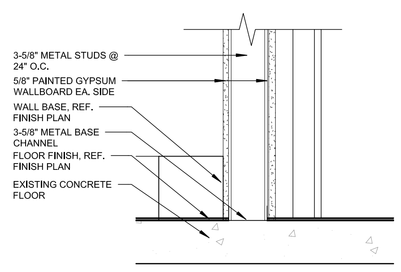
PARAPET COPING 1A
1 1/2" = 1'-0" A505



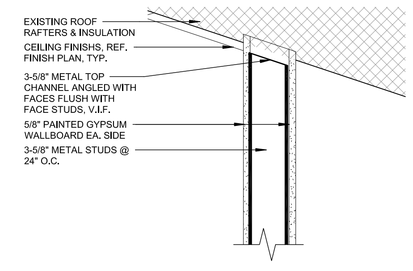
DOOR JAMB 6
1 1/2" = 1'-0" A505



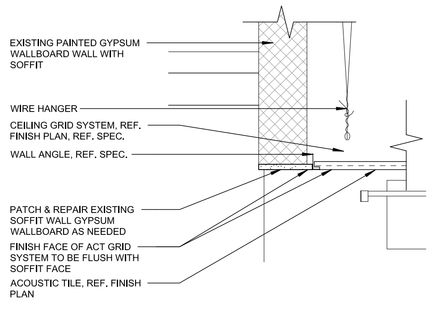
TOP PLATE - PARA. W/ SLOPE 5
1 1/2" = 1'-0" A505



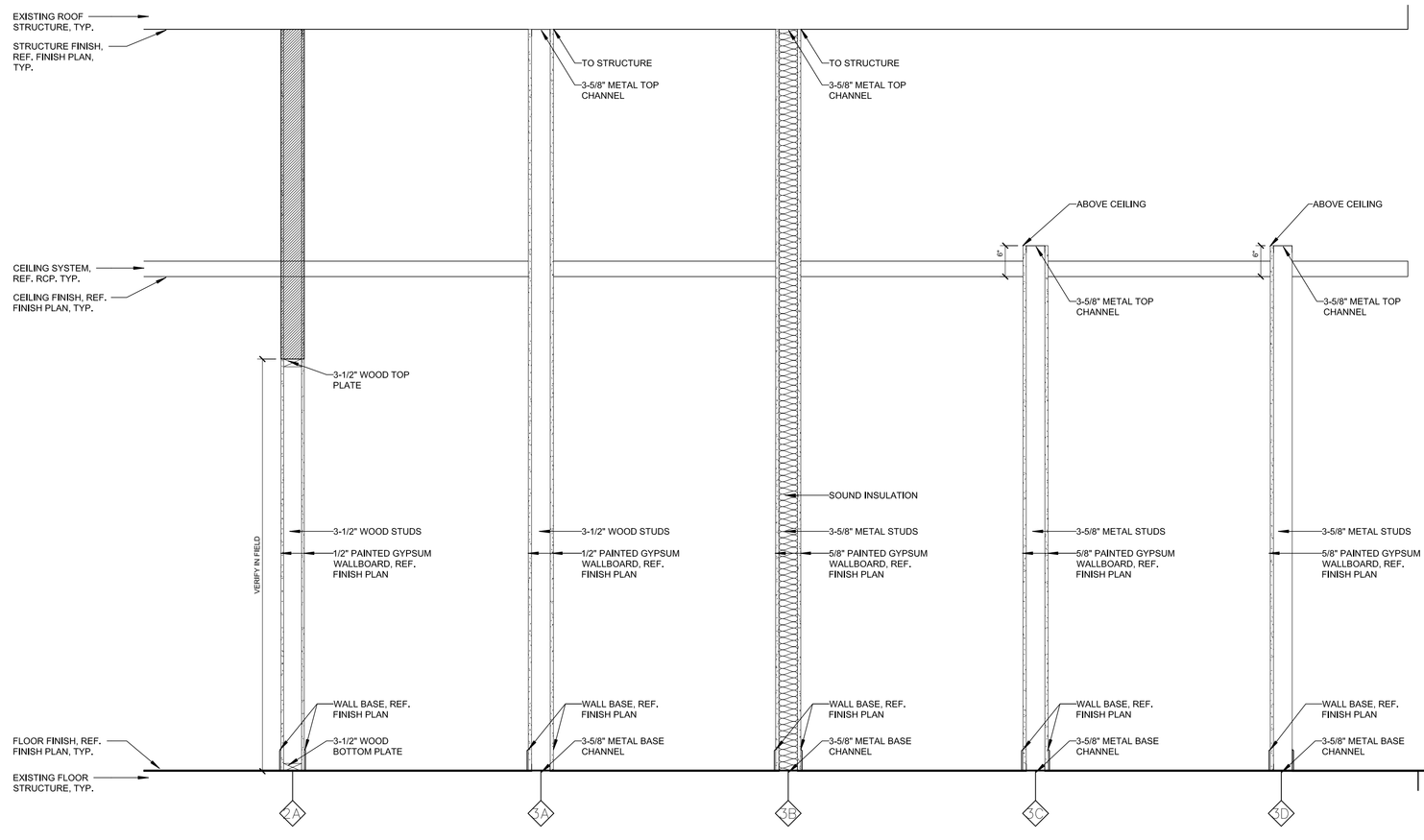
BASE PLATE 4
1 1/2" = 1'-0" A505



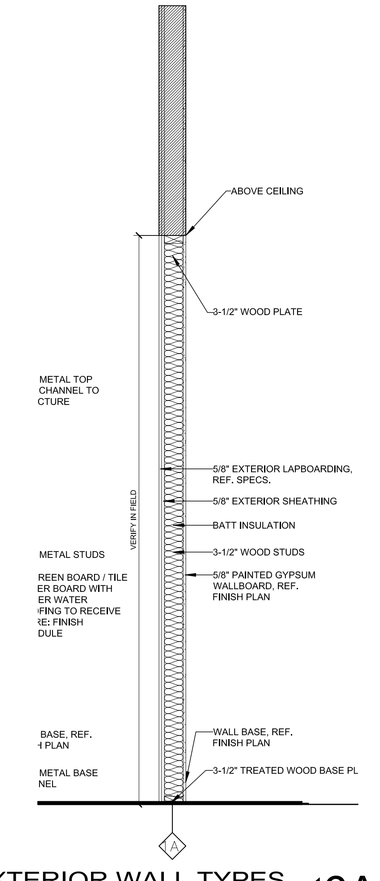
TOP PLATE - PERP. W/ SLOPE 3
1 1/2" = 1'-0" A505



New - Detail - ACT WITH SOFFIT 2
1 1/2" = 1'-0" A505



INTERIOR WALL TYPES 5A
3/4" = 1'-0" A601



EXTERIOR WALL TYPES 6A
3/4" = 1'-0" A601

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PROJECT
VINITA CULTURAL DEVELOPMENT CENTER - ASI 1

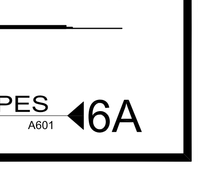
PROJECT
CHEROKEE NATION
VINITA, OKLAHOMA

KEY PLAN

No.	Description	Date
	BID SET	5/07/2021
1	ASI-1	5/19/2021

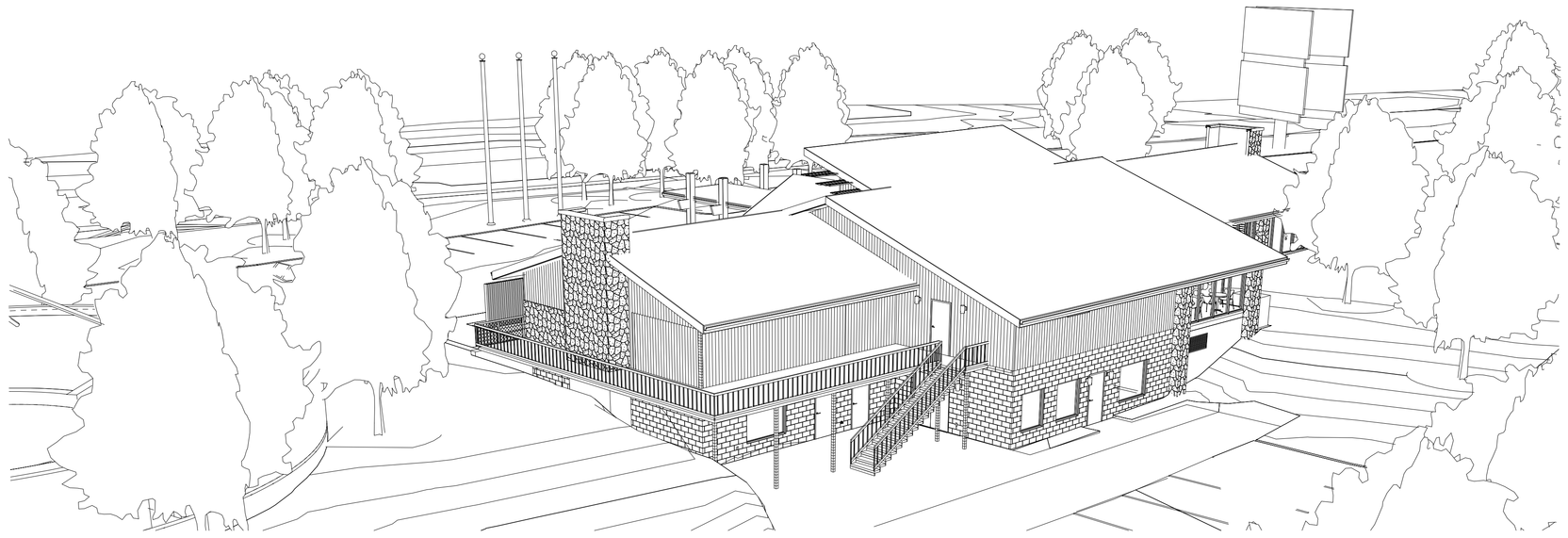
SHEET TITLE
ASI 1 DRAWINGS

PROJECT NO: 111-049.20
DRAWN BY:
CHKD BY:
ISSUE DATE: 5/19/2021

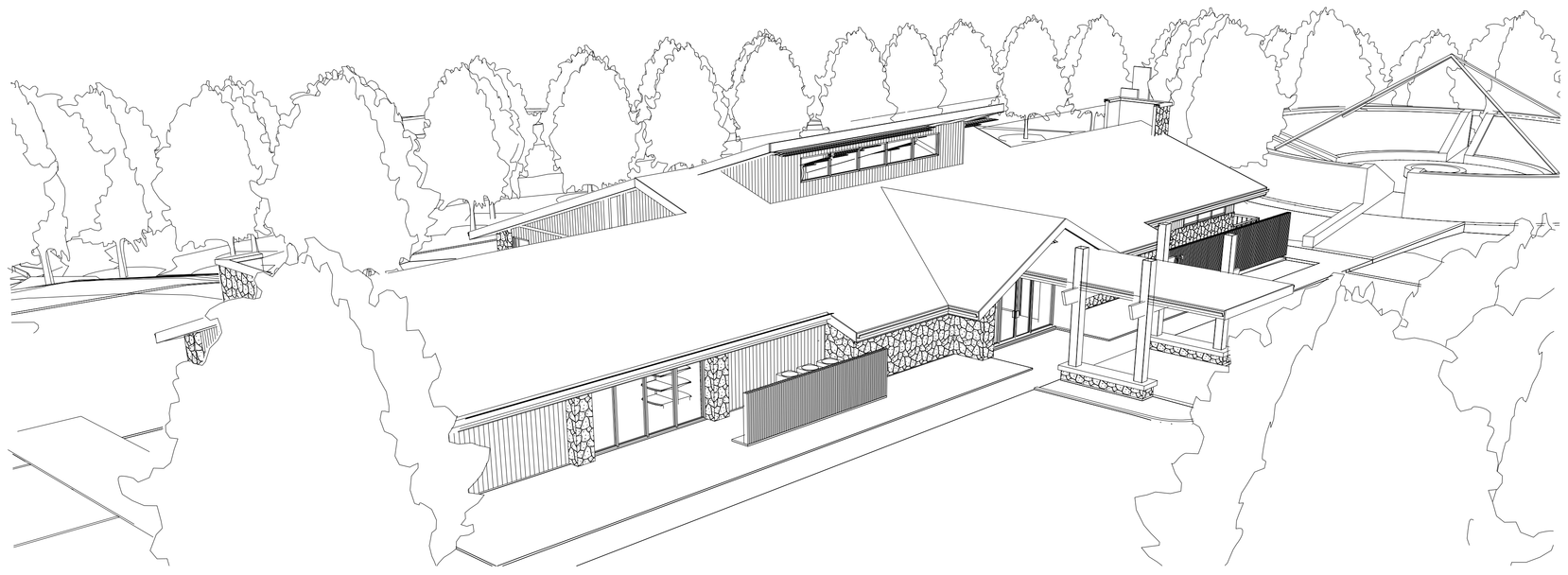


A601
Scale As indicated

5/19/2021



PERSPECTIVE - SOUTHWEST
A901 1



PERSPECTIVE - NORTHEAST
A901 2

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PROJECT
VINITA CULTURAL DEVELOPMENT CENTER - ASI 1

PROJECT
CHEROKEE NATION
VINITA, OKLAHOMA

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ASI 1 DRAWINGS

PROJECT NO: 111-049.20
DRAWN BY:
CHK'D BY:
ISSUE DATE: 5/19/2021

A901
Scale As indicated

STATE OF OKLAHOMA
GARY W. SPARKS
12649
TULSA, OKLA.
LICENSED ARCHITECT

5/19/2021

*IMAGE TO ILLUSTRATE DESIGN INTENT

LOBBY - 100

LOOKING SOUTHEAST

*IMAGE TO ILLUSTRATE DESIGN INTENT

RECEPTION - 111

LOOKING SOUTHEAST

GENERAL NOTES - DESIGN INTENT

1. ALL MATERIALS AND FINISHES SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS. CONTRACTOR RESPONSIBLE FOR PROTECTING ADJACENT FINISHES AND CLEANUP.
2. WHERE APPLICABLE, LEVEL ALL EXISTING FLOORS AS REQUIRED TO RECEIVE NEW FLOOR FINISHES. INSTALL REQUIRED TRANSITION PIECES BETWEEN VARIOUS FLOOR FINISHES SUITABLE FOR CONDITIONS AND ACCEPTABLE TO THE OWNER.
3. COORDINATE AND VERIFY ALL DIMENSIONS, OPENINGS, AND CONDITIONS WITH ELECTRICAL AND ALL OTHER PERTINENT DRAWINGS AND TRADES PRIOR TO CONSTRUCTION. NOTIFY PROJECT DESIGNER OF DISCREPANCIES AS SOON AS POSSIBLE.
4. COORDINATE CEILING ACCESS PANELS WITH PROJECT DESIGNER.
5. ALL GRILLES, DIFFUSERS, AND ACCESS PANELS TO BE PAINTED TO MATCH WALL OR CEILING IN WHICH THEY ARE LOCATED, U.N.O.
6. ALL ELECTRICAL RECEPTABLES AND LIGHT SWITCHES TO RECEIVE NEW FACEPLATES. CONTRACTOR TO SUBMIT CUTSHEETS FOR PROJECT DESIGNER APPROVAL.
7. CONTRACTOR TO SUBMIT CUTSHEETS AND SAMPLES OF ALL MATERIALS FOR PROJECT DESIGNER APPROVAL PRIOR TO ORDERING.
8. MOUNTING OF MIRRORS, FIXTURES, AND ACCESSORIES TO COMPLY WITH ADA ACCESSIBILITY REQUIREMENTS AND CLEARANCES.
9. ALL WALLS RECEIVING TILE TO RECEIVE CEMENTITIOUS BOARD.
10. ALL WALLS TO RECEIVE PT-1, U.N.O.
11. WALL BASE TO BE RB-1, U.N.O.
12. REFER TO ELECTRICAL DRAWINGS FOR ALL LIGHTING FIXTURE SPECIFICATIONS.
13. PAINT ALL EXPOSED COLUMNS PT-1, U.N.O.
14. NO BASE TO BE USED AT STONE COLUMNS. STONE TO EXTEND TO FINISHED FLOOR.

*IMAGE TO ILLUSTRATE DESIGN INTENT

RETAIL - 130

LOOKING EAST

*IMAGE TO ILLUSTRATE DESIGN INTENT

RETAIL - 130

LOOKING WEST

*IMAGE TO ILLUSTRATE DESIGN INTENT

RECEPTION - 111

LOOKING WEST

*IMAGE TO ILLUSTRATE DESIGN INTENT

CAFE - 170

LOOKING NORTHEAST

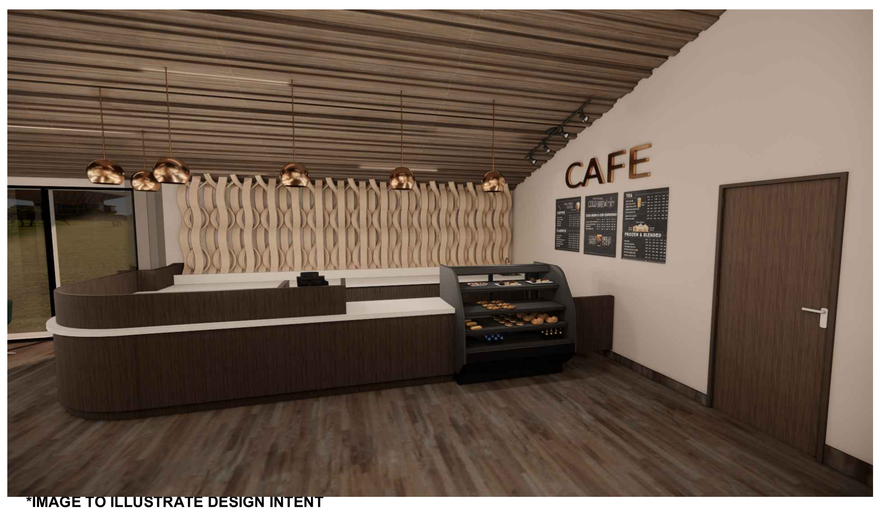

*IMAGE TO ILLUSTRATE DESIGN INTENT

CAFE - 170

LOOKING SOUTHWEST

*IMAGE TO ILLUSTRATE DESIGN INTENT

LOUNGE - 120

LOOKING NORTHWEST

1/16"=1'-0" 0 8' 16' 32' 1

1/8"=1'-0" 0 4' 8' 16'

1/4"=1'-0" 0 2' 4' 8' 2

1/2"=1'-0" 0 1' 2' 4'

3/4"=1'-0" 0 1' 2' 3

1"=1'-0" 0 6" 1' 2' 4

1 1/2"=1'-0" 0 3" 6" 1' 5

3"=1'-0" 0 3" 6" 6

5/19/2021

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PROJECT: VINITA CULTURAL DEVELOPMENT CENTER - ASI 1

PROJECT
CHEROKEE NATION
VINITA, OKLAHOMA

KEY PLAN

No.	Description	Date
	BID SET	5/07/2021
1	ASI-1	5/19/2021

SHEET TITLE
ASI 1 DRAWINGS

PROJECT NO: 111-049.20
DRAWN BY:
CHKD BY:
ISSUE DATE: 5/19/2021

A902

Scale: As indicated

STATE OF OKLAHOMA GARY W. SPURGIS 1260 TULSA, OKLA. REGISTERED ARCHITECT

SYMBOLS

PIPE

- EXISTING
- NEW
- EXISTING TO BE REMOVED
- CD — UNIT CONDENSATE RELIEF VALVE DRAIN
- LPS — LOW PRESSURE STEAM (0-15 PSIG)
- SR — STEAM CONDENSATE RETURN
- HG — REFRIGERANT HOT GAS
- RS — REFRIGERANT SUCTION
- RL — REFRIGERANT LIQUID
- PD — PUMPED DISCHARGE LINE

PIPE SPECIALTY

- BACKFLOW PREVENTER
- 2-WAY CONTROL VALVE
- 3-WAY CONTROL VALVE
- PRESSURE REDUCING VALVE
- UNION
- BALL VALVE
- OS & Y VALVE
- GATE VALVE
- GLOBE VALVE
- BUTTERFLY VALVE
- VERTICAL SHUT-OFF VALVE IN RISER
- DIRECTION OF FLOW
- CAP
- FM — FLOWMETER
- AUTOMATIC FLOW CONTROL VALVE
- PLUG VALVE OR COCK
- SWING CHECK VALVE
- WYE STRAINER WITH DRAIN VALVE & CAP
- TEMPERATURE & PRESSURE RELIEF VALVE
- PT — PRESSURE & TEMPERATURE TEST PLUGS
- P — PRESSURE GAUGE AND COCK
- THERMOMETER WITH WELL
- ANGLE THERMOMETER WITH WELL
- EXPANSION LOOP
- EJ — PIPE EXPANSION JOINT
- ALIGNMENT GUIDE
- ANCHOR
- FC — FLEXIBLE PIPE CONNECTOR

CONTROL DEVICES

- C — CONTROLLER
- DIFFERENTIAL PRESSURE SENSOR OR CONTROLLER
- F — FIRESTAT
- FL — FLOW TRANSMITTER OR CONTROLLER
- Fr — FREEZESTAT
- FS — FLOW SWITCH
- H — HUMIDITY SENSOR OR CONTROLLER
- H — HUMIDISTAT
- M — MANUAL ADJUSTER
- P — PRESSURE SENSOR OR CONTROLLER
- PE — PRESSURE SWITCH
- R — RELAY
- T — TEMPERATURE SENSOR OR CONTROLLER
- T — THERMOSTAT
- T — N — NIGHT THERMOSTAT
- S — SOLENOID OPERATOR
- PNEUMATIC OPERATOR
- P — PRESSURE GAUGE
- ELECTRIC CONNECTION
- PNEUMATIC CONNECTION
- Tr — TRAP
- MA — MAIN AIR
- PP — POSITIVE POSITIONER
- SD — SMOKE DETECTOR
- TD — TRANSDUCTER
- TS — TEMPERATURE SENSOR

MISC SYMBOLS

- ENLARGED/DETAILED PLAN (DRAWING NUMBER / SHEET NUMBER)
- PARTIAL SECTION (DRAWING NUMBER / SHEET NUMBER)
- POINT OF CONNECTION, NEW TO EXISTING
- NUMBERED NOTE REFERENCE

AIR MOVING DEVICES

- A — 6" ø — 95 CFM — DIFFUSER/GRILLE NOTATION (TYP "A", 6" RND NECK, 95 CFM)
- 6"ø — 45 CFM — SUPPLY AIR DIFFUSER, 6"Ø FLEX AND RIGID DUCT, 45 CFM, 6"Ø NECK
- 6"ø — 45 CFM — SUPPLY AIR DIFFUSER, 3-WAY THROW, 6"Ø FLEX AND RIGID DUCT, 45 CFM, 6"Ø NECK
- 10"ø — 100 CFM — LINEAR SUPPLY AIR DIFFUSER, 2 FEET LENGTH, 10"Ø NECK, 100 CFM
- 10"ø — 100 CFM — LINEAR SUPPLY AIR DIFFUSER, 4 FEET LENGTH, 10"Ø NECK, 100 CFM
- M — MOTORIZED DAMPER
- MANUAL VOLUME DAMPER
- MANUAL VOLUME DAMPER WITH REMOTE OPERATOR CABLE
- FIRE DAMPER
- F/S — COMBINATION FIRE AND SMOKE DAMPER
- DUCT CAP
- DUCT WITH 2" ACOUSTICAL LINER
- EXISTING
- EXISTING TO BE REMOVED
- NEW
- SUPPLY DUCT DOWN
- RETURN AIR DUCT DOWN
- EXHAUST AIR DUCT DOWN
- SUPPLY DUCT UP
- RETURN AIR DUCT UP
- EXHAUST AIR DUCT UP
- EXISTING DUCT
- EXISTING DUCT TO BE REMOVED
- NEW DUCT
- SIDEWALL SUPPLY REGISTER
- SIDEWALL SUPPLY GRILLE
- FLOOR SUPPLY DIFFUSER
- FLOOR RETURN GRILLE
- CEILING SUPPLY DIFFUSER WITH DAMPER (LINEAR)
- LOUVERED OR PERFORATED DIFFUSER
- DIFFUSER WITH DIRECTIONAL AIR FLOW (3-WAY
- CEILING RETURN OR EXHAUST GRILLE
- FLEXIBLE DUCT CONNECTION
- ø — ROUND DUCT
- ɵ — FLAT OVAL DUCT
- VAV-1 — EQUIPMENT TAG-NUMBER
- EQUIPMENT SERVICE CLEARANCE

ABBREVIATIONS:

ACU	AIR CONDITIONING UNIT
AD	ACCESS DOOR
AFF	ABOVE FINISH FLOOR
AHU	AIR HANDLING UNIT
BD	BACKDRAFT DAMPER
BE	BOTTOM ELEVATION
BFF	BELOW FINISH FLOOR
BOD	BOTTOM OF DUCT
BOG	BOTTOM OF GRILLE
BOP	BOTTOM OF PIPE
CD	CONDENSATE
CHP	CHILLED WATER PUMP
CHW	CHILLED WATER
CT	COOLING TOWER
CWP	CONDENSER WATER PUMP
CP	CIRCULATING PUMP
CKTS	CIRCUITS
CV	CONSTANT VOLUME OR CONTROL VALVE
DIFF	DIFFUSER
DN	DOWN
DHW	DOMESTIC HOT WATER
DWG	DRAWING
EOM	END OF MAIN
EA	EXHAUST AIR
EF	EXHAUST FAN
FBO	FURNISHED BY OWNER (COMPANY)
FD	FIRE DAMPER
FEC	FIELD EQUIPMENT CONTROLLER
FL	FLOW LINE (INVERT)
FLA	FULL LOAD AMPS
FLR	FLOOR
IBO	INSTALLED BY OWNER (COMPANY)
ID	INSIDE DIAMETER
MTD	MOUNTED
NC	NORMALLY CLOSED
NO	NORMALLY OPEN
NTS	NOT TO SCALE
OBD	OPPOSED BLADE DAMPER
OA	OUTSIDE AIR
RA	RETURN AIR
SD	SMOKE DAMPER
SA	SUPPLY AIR
SF	SQUARE FEET OR SUPPLY FAN
TA	TRANSFER AIR
TYP	TYPICAL
UNO	UNLESS NOTED OTHERWISE
VTR	VENT THROUGH ROOF

GENERAL NOTES:

1. COMPLY WITH CURRENT BUILDING, MECHANICAL, PLUMBING AND OTHER GOVERNING CODES, STATE STATUTES, CITY ORDINANCES, AND REGULATIONS OF REGULATORY BODIES HAVING JURISDICTION.
2. INSTALL ALL PIPING AND FITTINGS IN ACCORDANCE WITH RECOGNIZED INDUSTRY PRACTICES WHICH WILL ACHIEVE PERMANENTLY-LEAKPROOF PIPING SYSTEMS, CAPABLE OF PERFORMING EACH INDICATED SERVICE WITHOUT FAILURE OR DEGRADATION OF SERVICE.

HVAC GENERAL NOTES:

1. COORDINATE ALL DUCT AND HVAC PIPE ROUTING WITH PLUMBING, ELECTRICAL, ARCHITECTURAL AND STRUCTURAL TRADES PRIOR TO INSTALLATION. TRANSITION AS REQUIRED TO ROUTE DUCT UNDER STRUCTURAL BEAMS.
2. ROUTE ALL DUCT AND HVAC PIPING HIGH AS POSSIBLE.
3. ALL DUCT SIZES SHOWN ARE INSIDE CLEAR DIMENSIONS.
4. COORDINATE ACCESS DOOR REQUIREMENTS AND LOCATIONS WITH ARCHITECT AND GENERAL CONTRACTOR.
5. A MAXIMUM OF 5 FEET OF FLEXIBLE DUCT CAN BE PROVIDED AT CEILING DIFFUSER RUN OUTS. FLEXIBLE DUCT IS NOT ALLOWED ABOVE INACCESSIBLE CEILINGS (I.E. GYPBOARD CEILINGS, ETC.)
6. PROVIDE TURNING VANES IN ACCORDANCE WITH SPECIFICATIONS, ALTHOUGH NOT ALL ARE SHOWN ON THE DRAWINGS.
7. PROVIDE DAMPER REGULATOR AND EXTENSION CABLE/ROD FOR ALL DAMPERS LOCATED ABOVE INACCESSIBLE CEILINGS AND CHASES. COORDINATE EXACT LOCATION OF CEILING MOUNTED CONTROLLER WITH ARCHITECT PRIOR TO INSTALLATION.
8. PROVIDE BALANCE DAMPERS AT ALL BRANCH DUCTS AND BRANCH RUNOUTS TO DIFFUSERS AND GRILLES, ALTHOUGH ALL ARE NOT SHOWN ON THE DRAWINGS.
9. ALL INTERIOR DUCT, HVAC PIPING, AND MECHANICAL EQUIPMENT SHALL BE PAINTED TO MATCH THE CEILING OR UNDERSIDE OF SLAB.
10. PROVIDE EASEMENTS WHERE LOW-PRESSURE DUCTWORK CONFLICTS WITH STRUCTURAL AND PIPING, LIGHTS, OR OTHER EQUIPMENT; WHERE EASEMENTS EXCEED 10% DUCT AREA, SPLIT INTO TWO DUCTS MAINTAINING ORIGINAL DUCT AREA, OFFSET DUCTS AROUND OBSTRUCTIONS, OR TRANSITION DUCT TO AN EQUIVALENT DUCT SIZE USING ASHRAE TABLE OF EQUIVALENT RECTANGULAR AND ROUND DUCTS. NOTIFY ENGINEER FOR APPROVAL BEFORE EASEMENTS, DUCT SPLITS, OFFSETS AND TRANSITIONS ARE MADE. INCLUDE ALL COSTS FOR EASEMENTS, SPLIT DUCTS, OFFSETS AND TRANSITIONS NECESSARY TO COMPLETE THE INSTALLATION, ALTHOUGH NOT ALL ARE SHOWN ON THE DRAWINGS.
11. INCREASE DUCT HEIGHT OR WIDTH WHERE LOW-PRESSURE DUCTWORK DIMENSIONS SHOWN ARE LESS THAN THAT REQUIRED OR CONNECTION OF BRANCH DUCTS AND CONICAL OR STRAIGHT SPIN-INS. WHERE APPROPRIATE, DUCT MAIN MAY BE ROTATED 90 DEGREES TO ALLOW BRANCH DUCT CONNECTION TO OTHER SIDE OF MAIN DUCT; OR TRANSITION DUCT TO AN EQUIVALENT DUCT SIZE USING ASHRAE TABLE OF EQUIVALENT RECTANGULAR AND ROUND DUCTS. NOTIFY CITY CONTRACT ADMINISTRATOR FOR APPROVAL BEFORE ROTATIONS AND TRANSITIONS ARE MADE. INCLUDE ALL COSTS FOR ROTATIONS AND TRANSITIONS NECESSARY TO COMPLETE THE INSTALLATION, ALTHOUGH NOT ALL ARE SHOWN ON THE DRAWINGS.
12. PROVIDE TEMPORARY FILTERS TO ALL AFFECTED AIR HANDLING EQUIPMENT DURING CONSTRUCTION, REPLACE WITH FINAL FILTERS UPON PROJECT COMPLETION, PRIOR TO TEST AND BALANCE.

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PROJECT: VINITA CULTURAL DEVELOPMENT CENTER

PROJECT: CHEROKEE NATION, OKLAHOMA

KEY PLAN

No.	Description	Date

SHEET TITLE: MECHANICAL SYMBOLS, NOTES AND ABBREVIATIONS

BID SET

PROJECT NO:	111-049.20
DRAWN BY:	MBW
CHK'D BY:	KMZ
ISSUE DATE:	5/7/2021

KORY M. ZEHR — 05.07.2021 — 22834 — REGISTERED PROFESSIONAL ENGINEER — OKLAHOMA

M001

Scale 1/8" = 1'-0"

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GENERAL PROVISIONS

1.01 FURNISH ALL LABOR, MATERIALS, EQUIPMENT, FIXTURES, APPARATUS, SPECIAL OR OCCASIONAL SERVICES, AND OTHER APPURTENANCES REQUIRED FOR COMPLETE INSTALLATION OF MECHANICAL SYSTEMS AS INDICATED IN THE DRAWINGS AND AS DESCRIBED IN THE SPECIFICATIONS. THIS WORK SHALL INCLUDE ALL MATERIALS, APPARATUS, AND APPLIANCES NOT SPECIFICALLY MENTIONED HEREIN OR NOTED ON THE DRAWINGS AS BEING FURNISHED AND INSTALLED UNDER ANOTHER SECTION.

THE CONDITIONS OF THE CONTRACT AND APPLICABLE REQUIREMENTS OF DIVISION 1-- GENERAL CONDITIONS AND SUPPLEMENTARY CONDITIONS AND THIS SECTION GOVERN THESE DIVISIONS.

1.02 INSTALL ALL PIPING AND FITTINGS IN ACCORDANCE WITH RECOGNIZED INDUSTRY PRACTICES WHICH WILL ACHIEVE PERMANENTLY-LEAKPROOF PIPING SYSTEMS, CAPABLE OF PERFORMING EACH INDICATED SERVICE WITHOUT FAILURE OR DEGRADATION OF SERVICE.

1.03 COORDINATION OF MECHANICAL WORK/DRAWINGS: IT IS RECOGNIZED THAT THE CONTRACT DOCUMENTS ARE DIAGRAMMATIC IN NATURE AND SHOW CERTAIN PHYSICAL RELATIONSHIPS WHICH MUST BE ESTABLISHED WITHIN THE MECHANICAL WORK AND IN ITS INTERFACE WITH OTHER WORK, INCLUDING UTILITIES AND ELECTRICAL WORK. THIS ESTABLISHMENT IS THE EXCLUSIVE RESPONSIBILITY OF THE CONTRACTOR.

1.04 PERMITS AND INSPECTIONS: OBTAIN ALL PERMITS AND INSPECTIONS AND PAY ALL FEES FOR COMPLETION OF THIS WORK.

1.05 CODES AND STANDARDS: COMPLY WITH CURRENT BUILDING, MECHANICAL, PLUMBING AND OTHER GOVERNING CODES, STATE STATUTES, CITY ORDINANCES, AND REGULATIONS OF REGULATORY BODIES HAVING JURISDICTION.

1.06 SUBMITTALS AND REVIEW OF MATERIALS, SAMPLES, AND DRAWINGS: SUBMIT PRODUCT DATA, SHOP DRAWINGS, AND COORDINATION DRAWINGS. SUBMIT NO LESS THAN SIX (6) COPIES PROPERLY BOUND, IDENTIFIED, INDEXED, AND TABBED IN 3-RING BINDER. SHOP DRAWINGS SHALL HAVE THE ARCHITECT/ENGINEER'S APPROVAL PRIOR TO ORDERING OR FABRICATING EQUIPMENT.

1.07 GUARANTEES AND WARRANTIES: PROVIDE A ONE-YEAR WARRANTY FOR ALL MATERIALS AND SYSTEMS INSTALLED UNDER THIS SECTION.

1.08 OWNER'S MANUAL, SERVICE TOOLS, AND RECORD OF TESTING: PREPARE IN ACCORDANCE WITH THE CONDITIONS OF THE CONTRACT AS DESCRIBED HEREIN.

1.09 DELIVERY, STORAGE, HANDLING, AND PROTECTION OF MATERIALS: PROTECT ALL FIXTURES MATERIALS, EQUIPMENT DEVICES, AND APPARATUS INSTALLED UNDER THIS DIVISION FROM PHYSICAL AND MOISTURE DAMAGE. RESTORE TO ORIGINAL CONDITION OR REPLACE ANY FIXTURE, APPARATUS, OR EQUIPMENT DAMAGED PRIOR TO FINAL ACCEPTANCE. PROTECT BRIGHT FINISHED SURFACES AND SIMILAR ITEMS UNTIL IN SERVICE. NO RUST OR DAMAGE WILL BE PERMITTED.

WORK UNDER THIS DIVISION SHALL INCLUDE: SHIPPING FROM POINT OF MANUFACTURE TO JOB SITE; STORAGE ON-SITE AS REQUIRED; HOISTING AND SCAFFOLDING OF MATERIALS AND EQUIPMENT ENSURING THE SAFETY OF EMPLOYEES, MATERIALS, AND EQUIPMENT WHILE USING SUCH HOISTING EQUIPMENT AND SCAFFOLDING.

1.10 ALL MATERIALS IN HVAC SYSTEMS OR EXPOSED IN RETURN AIR PLENUM TO COMPLY WITH NFPA 90A FLAME SPREAD UNDER 25, SMOKE DEVELOPED AND FUEL CONTRIBUTED UNDER 50 FOR RETURN AIR PLENUMS.

1.11 PROVIDE ACCESS DOORS WHERE INDICATED ON DRAWINGS AND /OR AS REQUIRED TO PROPERLY OPERATE, ADJUST AND MAINTAIN ALL EQUIPMENT. COORDINATE EXACT LOCATION WITH ARCHITECT PRIOR TO INSTALLATION.

1.12 CAULKING AND FLASHING: SEAL ALL FLOOR, WALL AND ROOF PENETRATIONS 2WATER TIGHT WITH SUITABLE SEALANT. SEAL PENETRATIONS THROUGH FIRE RATED ASSEMBLIES WITH MINIMUM 1" THICKNESS 3M BRAND FIRE BARRIER CAULK CP-25 (OR OTHER APPROVED MANNER) TO MAINTAIN RATING OF ASSEMBLY.

1.13 CLEANING AND STERILIZATION: DISINFECT HOT AND COLD WATER SYSTEMS AS FOLLOWS: FILL SYSTEMS WITH WATER SOLUTION CONTAINING 50 PPM AVAILABLE CHLORINE; ALLOW TO STAND FOR 24 HOURS, OPENING AND CLOSING ALL VALVES SEVERAL TIMES DURING THIS PERIOD; THOROUGHLY FLUSH; REFILL AND PLACE SYSTEM IN SERVICE; ENSURE A RESIDUAL CHLORINE CONTENT OF 2.5 PPM. THE PROCEDURE SHALL BE REPEATED IF IT IS SHOWN BY A BACTERIOLOGICAL EXAMINATION MADE BY THE LOCAL AUTHORITY THAT CONTAMINATION IS STILL PRESENT IN THE SYSTEM. PROVIDE A CERTIFIED COPY OF THE TEST RESULTS VERIFYING COMPLIANCE WITH THIS REQUIREMENT.

1.14 TESTING: EQUIPMENT SHALL BE BLANKED OFF DURING TESTS. TESTS SHALL BE PERFORMED BEFORE PIPING IS ENCLOSED IN WALLS, FLOORS, PARTITIONS, OR IN ANY OTHER WAY CONCEALED FROM VIEW. TESTS MAY BE PERFORMED IN SECTIONS. TESTS SHALL BE WITNESSED BY LOCAL PLUMBING AND MECHANICAL INSPECTORS AND RESULTS PRESENTED TO THE ARCHITECT/ENGINEER FOR ACCEPTANCE AND APPROVAL PRIOR TO CONCEALING PIPING FROM VIEW.

POTABLE WATER SYSTEM: TEST HOT AND COLD WATER SYSTEMS HYDROSTATICALLY TO A PRESSURE OF 100 PSIG OR 1 1/2 TIMES WORKING PRESSURE, WHICHEVER IS GREATER, FOR A PERIOD OF 4 HOURS. REPAIR ALL LEAKS, REPLACING MATERIALS AS NECESSARY, AND REPEAT TESTS UNTIL SYSTEMS ARE PROVEN TIGHT.

SOIL, WASTE, AND VENT PIPING: TEST SOIL AND VENT PIPING BY PLUGGING ALL OPENINGS AND FILLING SYSTEM TO HEIGHT REQUIRED BY CITY PLUMBING INSPECTOR, BUT NO LESS THAN 20 FEET. INSPECT ALL JOINTS FOR LEAKS, REPAIR ANY LEAKS FOUND, AND RETEST UNTIL PIPING IS DEMONSTRATED TO BE FREE FROM LEAKS.

GRAVITY CONDENSATE DRAINAGE PIPING: TEST CONDENSATE DRAINAGE PIPING SYSTEM AS INDICATED ABOVE FOR SOIL, WASTE, AND VENT PIPING SYSTEM.

FINAL TEST AND BALANCE: TOTAL SYSTEM TEST AND BALANCE SHALL BE PERFORMED BY A CERTIFIED CONTRACTOR (AABC OR NEBB) THAT HAS COMPLETED A MINIMUM OF 10 PREVIOUS PROJECTS WHICH HAVE RENDERED SATISFACTORY SERVICE. AIR AND WATER FLOWS SHALL BE BALANCED TO WITHIN 10 PERCENT (PLUS OR MINUS) OF DESIGN REQUIREMENTS. SUBMIT ELECTRIONIC COPY OF THE FINAL COMPILATION OF DATA FOR EVALUATION AND APPROVAL. UPON COMPLETION OF BALANCING THE CONTRACTOR SHALL MAKE SUCH ADDITIONAL ADJUSTMENTS AS REQUIRED TO PRODUCE SATISFACTORY SPACE CONDITIONS.

1.15 START-UP: START-UP EQUIPMENT IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.

ON DATES SELECTED BY OWNER, OPERATE THE ENTIRE SYSTEM FOR THE INSTRUCTION OF THE DESIGNATED MAINTENANCE ENGINEER, INDOCTRINATING HIM AND THE PERSONNEL HE SELECTS IN THE MAINTENANCE AND OPERATION OF THE SYSTEM.

1.16 EQUIPMENT AND SYSTEMS INSTALLATION: INSTALL EQUIPMENT AND SYSTEMS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS AND IN ACCORDANCE WITH ACCEPTED INDUSTRY STANDARDS AND ALL APPLICABLE CODES.

1.17 PROJECT RECORD DOCUMENTS: MAINTAIN PROJECT RECORD DOCUMENTS AT THE SITE AND SUBMIT THREE (3) COPIES FOR APPROVAL.

1.18 OWNER FURNISHED EQUIPMENT: OWNER-FURNISHED EQUIPMENT SHALL BE RECEIVED AND INSTALLED BY THIS CONTRACTOR IN ACCORDANCE WITH THE CONTRACT DOCUMENTS AND OTHER REQUIREMENTS OF THE OWNER. START-UP FOR THIS EQUIPMENT SHALL BE BY THE MANUFACTURER'S AUTHORIZED REPRESENTATIVE AND THE START-UP COSTS INCLUDED BY THIS CONTRACTOR.

1.19 SPACE REQUIREMENTS: DETERMINE IN ADVANCE OF PURCHASE THAT THE EQUIPMENT AND MATERIALS PROPOSED FOR INSTALLATION WILL FIT INTO THE CONFINES INDICATED, LEAVING ADEQUATE CLEARANCES FOR ADJUSTMENT, REPAIR, OR REPLACEMENT.

1.20 MATERIALS AND WORKMANSHIP: ALL MATERIALS AND EQUIPMENT SHALL BE NEW AND OF BEST GRADE AND QUALITY, AND STANDARD PRODUCTS OF REPUTABLE MANUFACTURERS REGULARLY ENGAGED IN THE PRODUCTION OF SUCH MATERIALS AND EQUIPMENT.

WORK SHALL BE EXECUTED AND ALL MATERIALS INSTALLED IN ACCORDANCE WITH THE BEST PRACTICE OF THE TRADES IN A THOROUGH, SUBSTANTIAL, WORKMANLIKE MANNER BY COMPETENT WORKMEN, PRESENTING A NEAT APPEARANCE WHEN COMPLETED.

1.21 EQUIPMENT SCHEDULED: THE DESIGN IS BASED ON THE EQUIPMENT SCHEDULED; MANUFACTURERS NAMED IN THE SPECIFICATIONS SHALL HAVE PRIOR APPROVAL OF THE ARCHITECT/ENGINEER AND SHALL MATCH IN EVERY RESPECT, INCLUDING PERFORMANCE CHARACTERISTICS, THE EQUIPMENT SCHEDULED AND SPECIFIED.

1.22 CUTTING AND PATCHING: PLACE ALL EQUIPMENT IN TIME TO AVOID CUTTING NEW CONSTRUCTION.

IF HOLES OR SLEEVES ARE NOT PROPERLY INSTALLED AND CUTTING AND PATCHING BECOMES NECESSARY, IT SHALL BE DONE AT NO ADDITIONAL EXPENSE TO OWNER. UNDERTAKE NO CUTTING OR PATCHING WITHOUT FIRST SECURING APPROVAL FROM ARCHITECT/STRUCTURAL ENGINEER. ALL PATCHING SHALL CREATE A SURFACE WHICH IS STRUCTURALLY AND AESTHETICALLY EQUAL TO THE SURFACE SURROUNDING THE AREA PATCHED.

1.23 IDENTIFICATION:

PIPING: PROVIDE MANUFACTURER'S STANDARD PRE-PRINTED, FLEXIBLE OR SEMIRIGID, PERMANENT, COLOR-CODED, PLASTIC SHEET PIPE MARKERS, COMPLYING WITH ANSI A13.1. INSTALL IDENTIFICATION AFTER COMPLETION OF COVERING AND PAINTING AND PRIOR TO INSTALLATION OF ACOUSTICAL CEILINGS AND SIMILAR REMOVABLE CONCEALMENT. LOCATE PIPE MARKERS NEAR EACH CONTROL DEVICE, PIECE OF EQUIPMENT, EACH SIDE OF WALL PENETRATION, AND AT 20-FOOT INTERVALS WHEREVER PIPING IS EXPOSED TO VIEW OR ACCESSIBLE.

EQUIPMENT: PROVIDE PLASTIC LAMINATE NAMEPLATES ON ALL EQUIPMENT AND DEVICES. SIZE INDICATED, USE STRAINERS WITH BALL VALVE AND UNION CONNECTION, SUITABLE FOR 125 MINIMUM PSIG SWP AND 450° F (MTHW), AND 170 PSIG WOG AND 250° F (CHW). FIELD VERIFY SYSTEM PRESSURES PRIOR TO CONNECTING TO EXISTING SYSTEMS AND PROVIDE STRAINERS WITH HIGHER RATING WHERE REQUIRED.

1.14 PIPING INSTALLATION:

PROVIDE UNIONS AND ISOLATION VALVES AT ALL EQUIPMENT TO FACILITATE REMOVAL.

PROVIDE 5-POUND SACRIFICIAL ANODE BURIED AT SERVICE ENTRANCE ON UNDERGROUND GAS PIPING FOR CATHODIC PROTECTION. INSTALL GAS PIPING IN OPEN OR VENTILATED AREAS.

USE NON-CONDUCTING FITTINGS WHERE JOINTING DISSIMILAR METALS.

SLOPE ALL DRAINAGE PIPING 1/4" PER FOOT UNLESS APPROVED FOR EXPANSION AND CONTRACTION.

PROVIDE EXPANSION LOOPS, SWING JOINTS, ANCHORS, AND GUIDES WHERE REQUIRED.

1.15 SEAL ALL FLOOR PENETRATIONS WATERTIGHT. SEAL AROUND ALL MECHANICAL WALL PENETRATIONS. CAULK WITH REQUIRED THICKNESS 3M BRAND FIRE BARRIER CAULK CP-25 (OR OTHER APPROVED METHOD) TO MAINTAIN FIRE RESISTANCE RATING OF FIRE RATED ASSEMBLES.

INSULATION 220719 & 230719

1.01 WORK INCLUDED: ALL PIPING AND DUCT SYSTEM INSULATION AND ACOUSTICAL LINER.

1.02 DOMESTIC COLD WATER - PREFORMED FIBERGLASS, ASJ-VB.

1.03 DOMESTIC HOT WATER AND RETURN - PREFORMED FIBERGLASS, ASJ.

1.04 CONDENSATE DRAIN - PREFORMED FIBERGLASS, ASJ-VB.

1.05 REFRIGERANT PIPING – CLOSED CELL FOAM, PAINT EXTERIOR INSULATION WITH UV PROTECTIVE COATING.

1.06 SEAL ALL INSULATION JOINTS ON COLD PIPING VAPOR TIGHT.

1.07 DUCT INSULATION: REFER TO DUCT INSULATION SCHEDULE. INSULATE ROUND SUPPLY, RETURN, AND OUTSIDE AIR WITH MINIMUM FACED DUCT WRAP FIBERGLASS INSULATION (1 PCF). SEAL AND TAPE ALL JOINTS AND SEAMS. INSULATE RECTANGULAR OUTSIDE AIR DUCTS WITH FOIL SCRIM VAPOR BARRIER.

1.08 DUCT ACOUSTICAL LINER: REFER TO DUCT INSULATION SCHEDULE. LINE RECTANGULAR TRANSFER, EXHAUST, SUPPLY, AND RETURN DUCTS WITH 1 PCF LINER. LINER SHALL HAVE AN ACRYLIC, ANTI-MICROBIAL COATING ON EXPOSED SURFACES. LINER TO BE JOHNS-MANVILLE LINACOUSTIC STANDARD OR EQUAL. LINED DUCTS DO NOT REQUIRE INSULATION.

HVAC POWER VENTILATORS 233423

1.01 WORK INCLUDED: INSTALLATION OF POWER VENTILATORS, INCLUDING CENTRIFUGAL ROOF VENTILATORS, CENTRIFUGAL WALL VENTILATORS, CEILING-MOUNTED VENTILATORS, IN-LINE CENTRIFUGAL FANS, AND PROPELLER FANS.

1.02 REFERENCE STANDARD: CONFORM TO AMCA BULLETINS REGARDING CONSTRUCTION AND TESTING. FANS SHALL BEAR AMCA-CERTIFIED RATING SEAL.

1.03 PERFORMANCE: ALL FANS SHALL MEET OR EXCEED PERFORMANCE INDICATED IN THE EQUIPMENT SCHEDULES. EQUIVALENT FAN SELECTIONS SHALL NOT DECREASE MOTOR HORSEPOWER (WATTAGE), INCREASE NOISE LEVEL, INCREASE TIP SPEED BY MORE THAN 10%, NOR INCREASE INLET AIR VELOCITY BY MORE THAN 10% FROM THAT SPECIFIED.

1.05 SELECTION: PROVIDE FANS CAPABLE OF ACCOMMODATING STATIC PRESSURE VARIATIONS OF PLUS OR MINUS 10%. PROVIDE BALANCE VARIABLE SHEAVES FOR MOTORS 15 HP AND UNDER AND FIXED SHEAVES FOR 20 HP AND OVER.

1.06 ROOF AND WALL MOUNTED FANS: PROVIDE REINFORCE ALUMINUM DOME TYPE HOUSINGS FOR 20-INCH WHEELS AND LARGER, MULTI-BLADE RATTLE-FREE BACKDRAFT DAMPER WITH FELT-LINED BLADE EDGES, BIRD SCREEN, 12"-HIGH ROOF CURB CAPS (FOR ROOF MOUNTED FANS ONLY) AND FACTORY-MOUNTED DISCONNECT SWITCH.

1.07 INSTALLATION: SUPPLY AND INSTALL SHEAVES AS NECESSARY FOR FINAL AIR BALANCING, SET ROOF-MOUNTED FANS ON 12"-HIGH INSULATED CURBS, SET ROOF-MOUNTED BELTED VENT SETS ON RIGID WELDED ANGLE IRON FRAME WITH GALVANIZED FINISH, AND FABRICATE ALL CURBS AND MOUNTING FRAMES TO ALLOW LEVEL MOUNTING OF FANS ON SLOPED SURFACES.

AIR DISTRIBUTION 233113 & 233300

1.01 WORK INCLUDED: ALL DUCT DISTRIBUTION, GRILLES, REGISTERS, DAMPERS, ETC. REQUIRED FOR A COMPLETE OPERATING SYSTEM.

1.02 REFERENCE STANDARDS: FABRICATE ALL DUCTWORK IN ACCORDANCE WITH LATEST EDITION SMACNA DUCT MANUALS, ASHRAE HANDBOOKS AND LOCAL CODES. CONSTRUCT DUCTWORK TO NFPA 90A STANDARD FOR AIR CONDITIONING AND VENTILATING SYSTEMS, AND NFPA 90B STANDARD FOR THE INSTALLATION OF WARM AIR HEATING AND AIR CONDITIONING.

1.03 DUCT SIZES: ALL DUCT SIZES INDICATED ON DRAWINGS ARE CLEAR INSIDE DIMENSIONS. WHERE DUCT SIZES ARE NOT INDICATED, SIZE ALL DUCT AT 0.08"/100' MAXIMUM PRESSURE DROP.

1.04 DUCT PRESSURE CLASS: LOW PRESSURE CLASS - STATIC PRESSURE IN DUCT LESS THAN 2" W.G. AND VELOCITIES LESS THAN 2400 FPM.

ALL LOW-PRESSURE RECTANGULAR DUCTS TO BE SHEET METAL WITH LINER. LINER. ALL LOW-PRESSURE ROUND DUCTS TO SHEET METAL WITH EXTERNAL INSULATION WITH VAPOR BARRIER. REFER TO INSULATION SPECIFICATIONS. FABRICATE DUCTWORK IN ACCORDANCE WITH LATEST EDITION OF SMACNA.

DUCT MATERIAL: GALVANIZED SHEET METAL.

1.05 JOINTS: SEAL ALL LONGITUDINAL AND TRANSVERSE JOINTS WITH HEAVY LIQUID (HARDCAST GALVAGRIP) SEALANT. SCREW OR RIVET ALL ROUND DUCT JOINT CONNECTIONS.

1.06 FLEXIBLE DUCTS: MAXIMUM ALLOWABLE LENGTH IS 6'0". AVOID TIGHT RADIUS TURNS THAT RESTRICT AIR FLOW. WHERE TIGHT RADIUS TURNS ARE NECESSARY, PROVIDE RIGID SHEET METAL ELBOWS. USE ONLY IN ACCESSIBLE AREAS.

1.07 KICHEN EXHAUST DUCT: COMMERCIAL KITCHEN HOOD EXHAUST DUCT: WELDED BLACK STEEL WITH UL LISTED FIRE WRAP INSULATION EQUIVALENT TO 2-HOUR RATING, OR UL LISTED ZERO CLEARANCE MANUFACTURED GRESAE EXHAUST DUCT AND FITTINGS.

COMMERCIAL DISHWASHER EXHAUST DUCT: TYPE 304 STAINLESS STEEL WITH WELDED JOINTS AND SEAMS.

1.08 DAMPERS: PROVIDE BALANCE DAMPERS AT ALL INDIVIDUAL DIFFUSERS, GRILLES AND REGISTERS. PROVIDE DAMPER ROD EXTENSION AND CEILING FLANGE WHERE DAMPERS ARE CONCEALED AND INACCESSIBLE.

1.09 GRILLES, REGISTERS, AND DIFFUSERS: PROVIDE IN ACCORDANCE WITH SCHEDULE OR NOTATIONS ON DRAWINGS. ACCEPTABLE MANUFACTURES ARE NAILOR, TITUS, CARNES, PRICE, KRUEGER, METALAIRE, TUTTLE & BAILEY.

1.10 FIRE DAMPERS: PROVIDE UL LISTED FIRE DAMPERS WHERE INDICATED ON THE DRAWINGS OR OTHERWISE REQUIRED BY CODE.

1.11 TURNING VANES: PROVIDE AIRFOIL TYPE TURNING VANES AT RECTANGULAR ELBOWS.

1.12 SEAL ALL FLOOR PENETRATIONS WATERTIGHT. SEAL AROUND ALL MECHANICAL WALL PENETRATIONS. CAULK WITH REQUIRED THICKNESS 3M BRAND FIRE BARRIER CAULK CP-25 (OR OTHER APPROVED METHOD) TO MAINTAIN FIRE RESISTANCE RATING OF FIRE RATED ASSEMBLES.

1.13 PROVIDE TEMPORARY FILTERS AT AIR HANDLER(S) TO LIMIT THE INFUSION OF DUST AND FUMES GENERATED AS A RESULT OF THE PERFORMANCE OF WORK FOR THIS PROJECT. FILTERS ARE TO BE CHANGED AT A MINIMUM BIWEEKLY THROUGHOUT THE DURATION OF THE PROJECT. FILTERS AND ANY TEMPORARY BRACKETS ARE TO BE REMOVED AT THE COMPLETION OF PROJECT. THE COST OF THIS WORK IS TO BE INCLUDED IN THE MECHANICAL CONTRACTOR'S PRICE.

1.14 LOCATE DUCTS WITH SUFFICIENT SPACE AROUND EQUIPMENT TO ALLOW NORMAL OPERATION AND MAINTENANCE ACTIVITIES.

TEMPERATURE CONTROLS AND INSTRUMENTATION 230900

1.01 WORK INCLUDED: CONTROL APPARATUS FOR A COMPLETE OPERATING SYSTEM.

1.02 ELECTRICAL WIRING: ALL CONTROL WIRING, POWER WIRING FOR CONTROL SYSTEM COMPONENTS, INTERLOCK WIRING, AND OTHER ELECTRICAL DEVICES IN CONJUNCTION WITH THE CONTROL APPARATUS OF THE CONTROL SYSTEM SHALL BE PROVIDED BY THE MECHANICAL CONTRACTOR. ALL WIRING IN AIR PLENUMS SHALL BE IN CONDUIT OR SHALL BE RATED FOR PLENUM USE.

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PROJECT: VINITA CULTURAL DEVELOPMENT CENTER

PROJECT: CHEROKEE NATION, OKLAHOMA

KEY PLAN

No.	Description	Date

SHEET TITLE: MECHANICAL SPECIFICATIONS

BID

PROJECT NO: 111-049.2
DRAWN BY: MBW
CHK'D BY: KMZ
ISSUE DATE: 5/7/2021

M002

Scale

KORY M. ZEHR 05.07.2021 22834 OKLAHOMA

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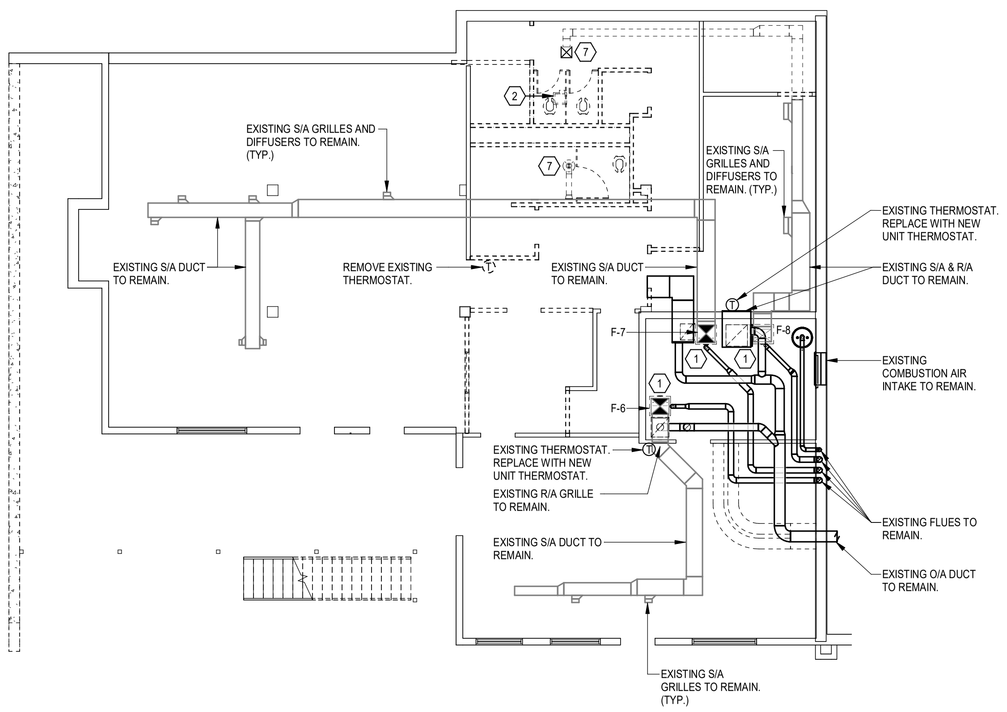
DEMOLITION GENERAL NOTES:

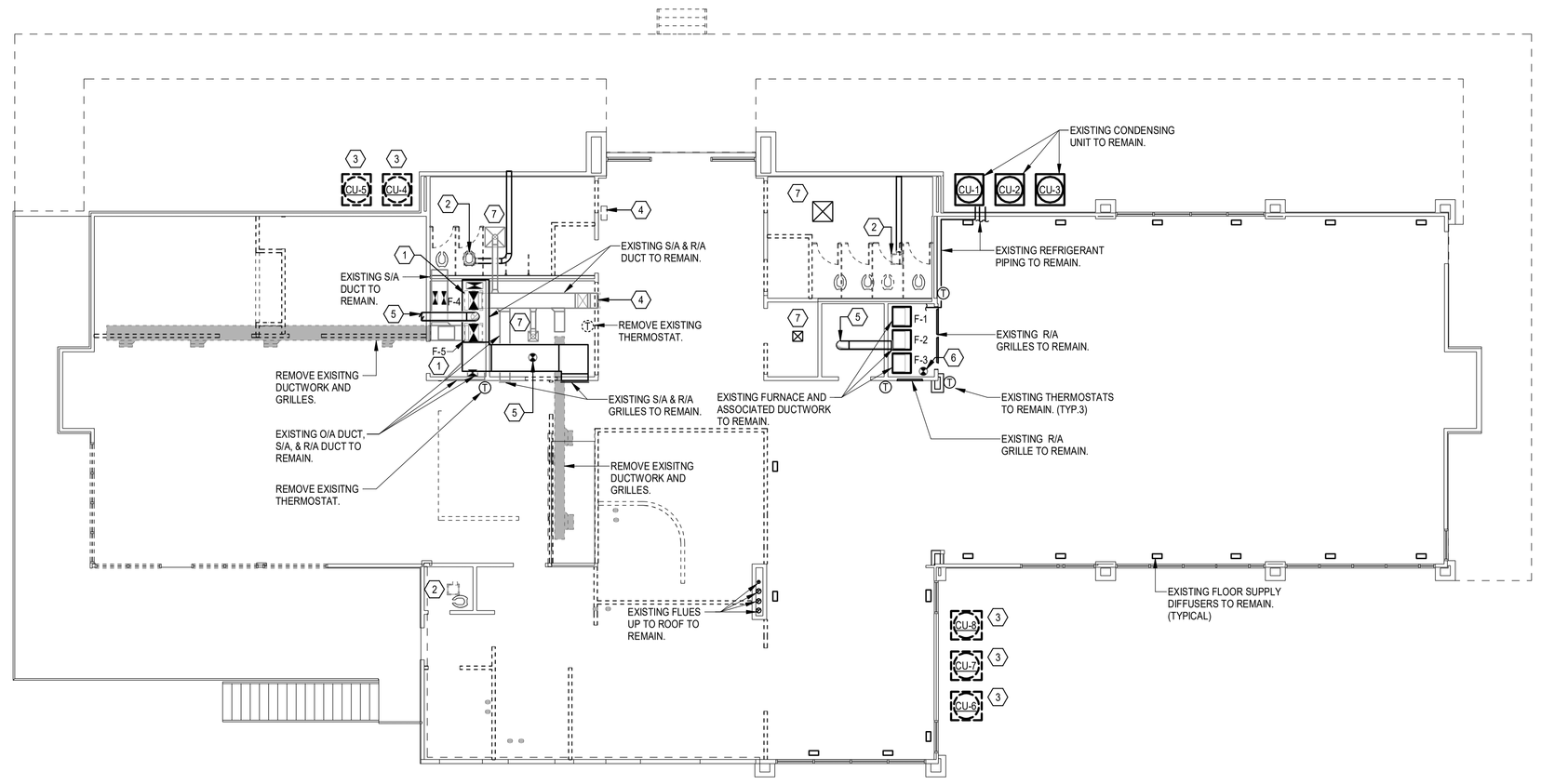
1. ALL SYSTEM SHUT-DOWNS SHALL BE COORDINATED WITH OWNER AND SCHEDULED AFTER NORMAL BUSINESS HOURS OR AS OTHERWISE APPROVED BY OWNER.
2. MEET WITH OWNER PRIOR TO DEMOLITION TO IDENTIFY WHETHER EXISTING MATERIALS, SYSTEMS, EQUIPMENT, ETC. ARE CONSIDERED SALVAGE OR DEBRIS. REMOVE DEBRIS FROM SITE AND DISPOSE OF IN APPROVED MANNER. RETURN SALVAGE TO OWNER IN A LOCATION AND MANNER AS DIRECTED BY OWNER.

KEYNOTES

1. REMOVE EXISTING FURNACE.
2. REMOVE EXISTING EXHAUST FAN.
3. REMOVE EXISTING CONDENSING UNIT AND ASSOCIATED PIPING.
4. REMOVE EXISTING DIFFUSER AND REPLACE WITH SLOT DIFFUSERS AS SHOWN ON 2/M101.
5. EXISTING O/A DUCT INTAKE THROUGH ROOF TO REMAIN.
6. EXISTING FLUE UP THROUGH ROOF TO REMAIN.
7. REMOVE EXISTING DIFFUSER AND REPLACE WITH NEW AS SHOWN ON 2/M101.



LOWER LEVEL HVAC PLAN - DEMO 2
1/8" = 1'-0" MD101



UPPER LEVEL HVAC PLAN - DEMO 1
1/8" = 1'-0" MD101

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PROJECT
VINITA CULTURAL DEVELOPMENT CENTER

PROJECT
CHEROKEE NATION, OKLAHOMA

KEY PLAN

No.	Description	Date

SHEET TITLE
DEMOLITION - HVAC FLOOR PLANS

BID

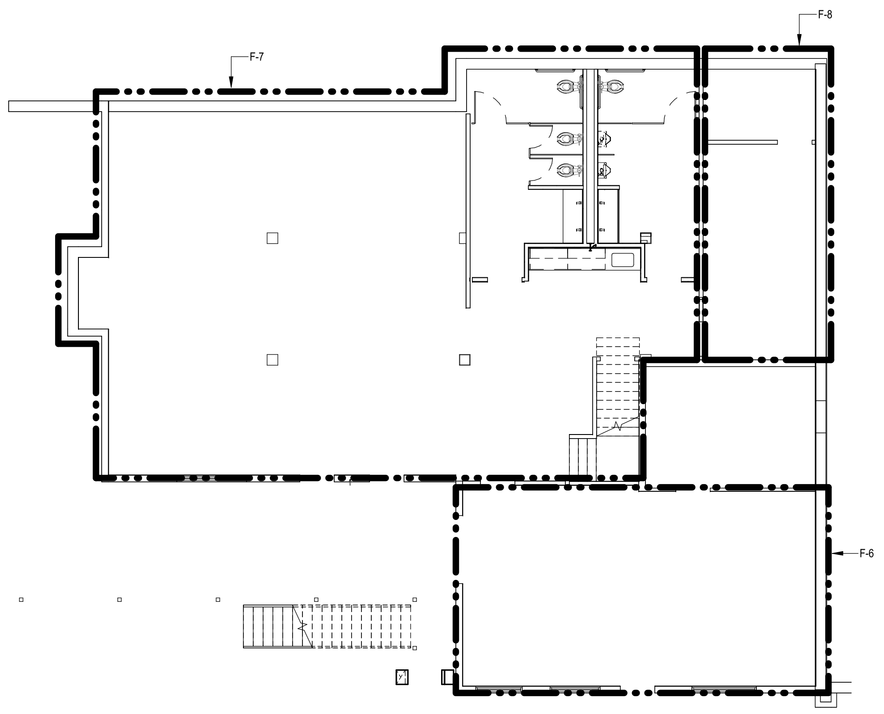
PROJECT NO. 111-049.2
DRAWN BY: MBW
CHK'D BY: KMZ
ISSUE DATE: 5/7/2021

MD101
Scale 1/8" = 1'

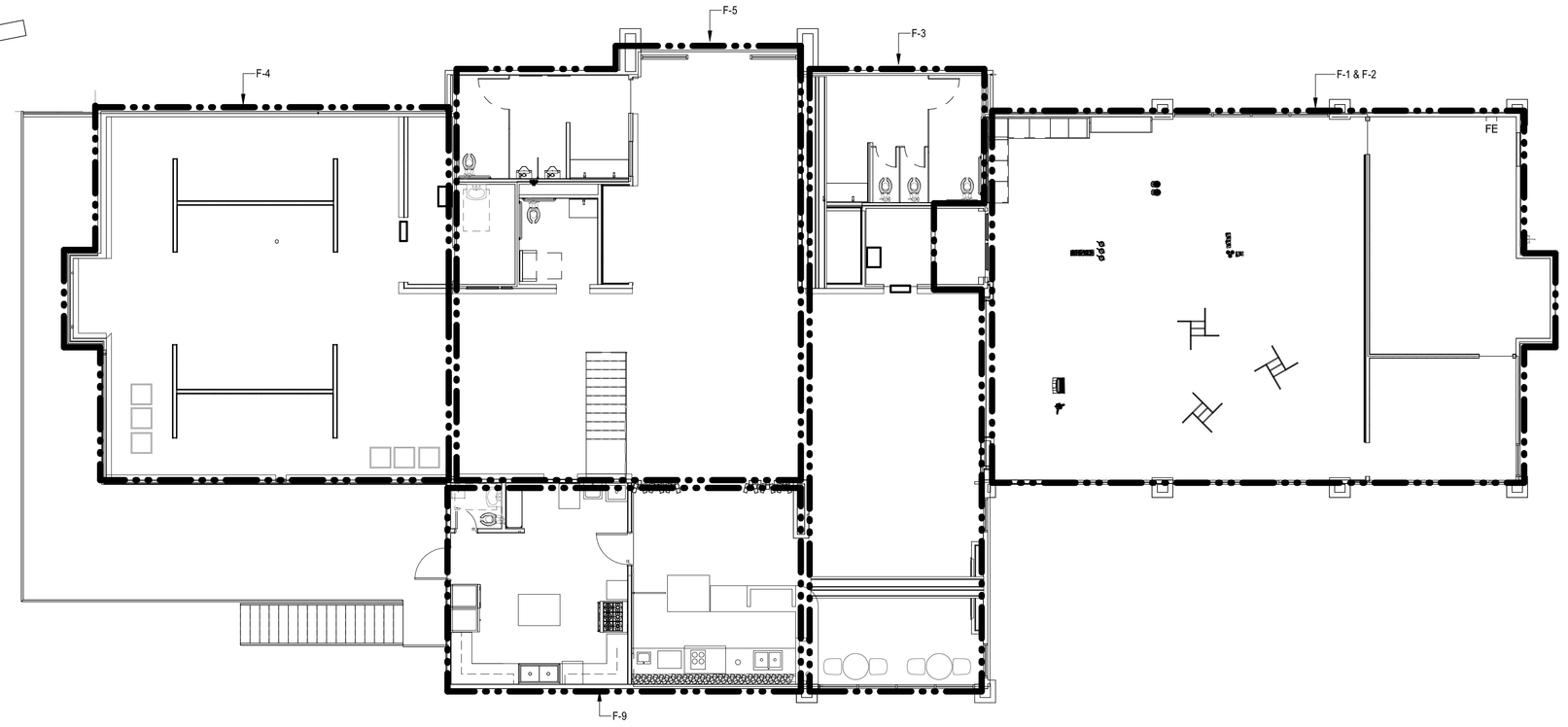
5/7/2021 7:53:15 PM

KEYNOTES

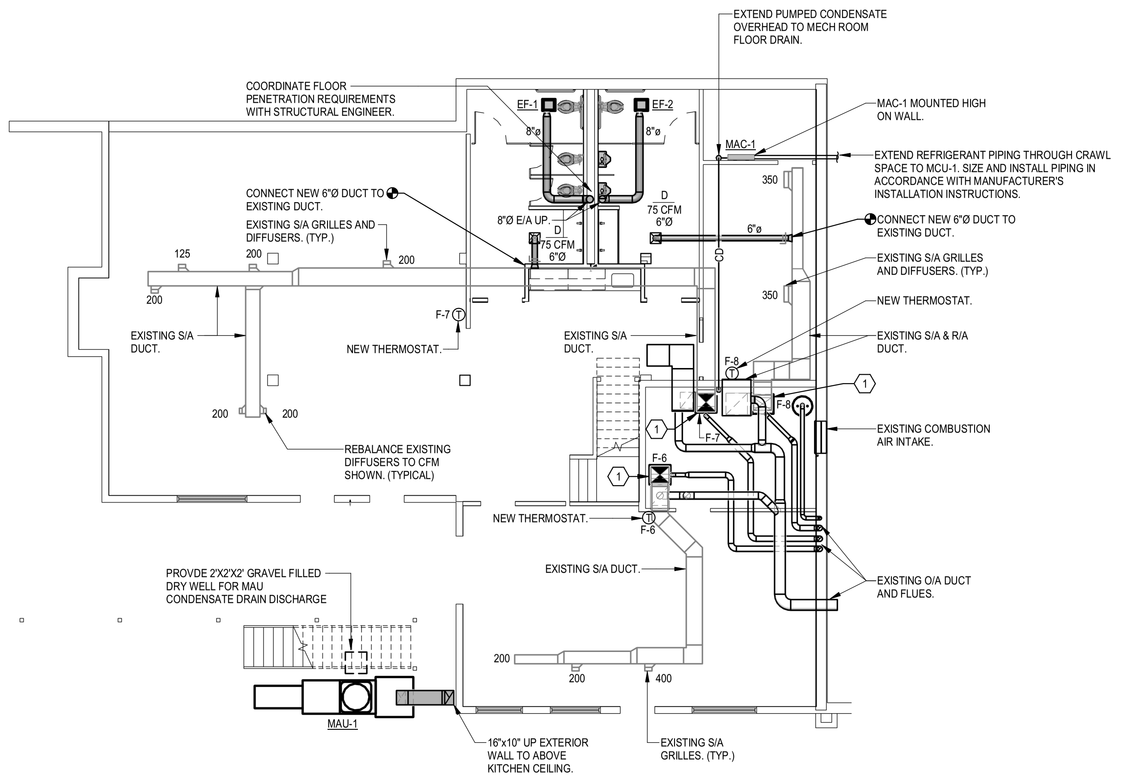
1. REMOVE EXISTING FURNACE AND REPLACE WITH NEW. REFER TO EQUIPMENT SCHEDULE. RECONNECT TO EXISTING SUPPLY AND RETURN DUCTWORK AND FLUE VENT. RECONNECT GAS PIPING. EXTEND CONDENSATE DRAINS TO EXISTING FLOOR DRAINS.



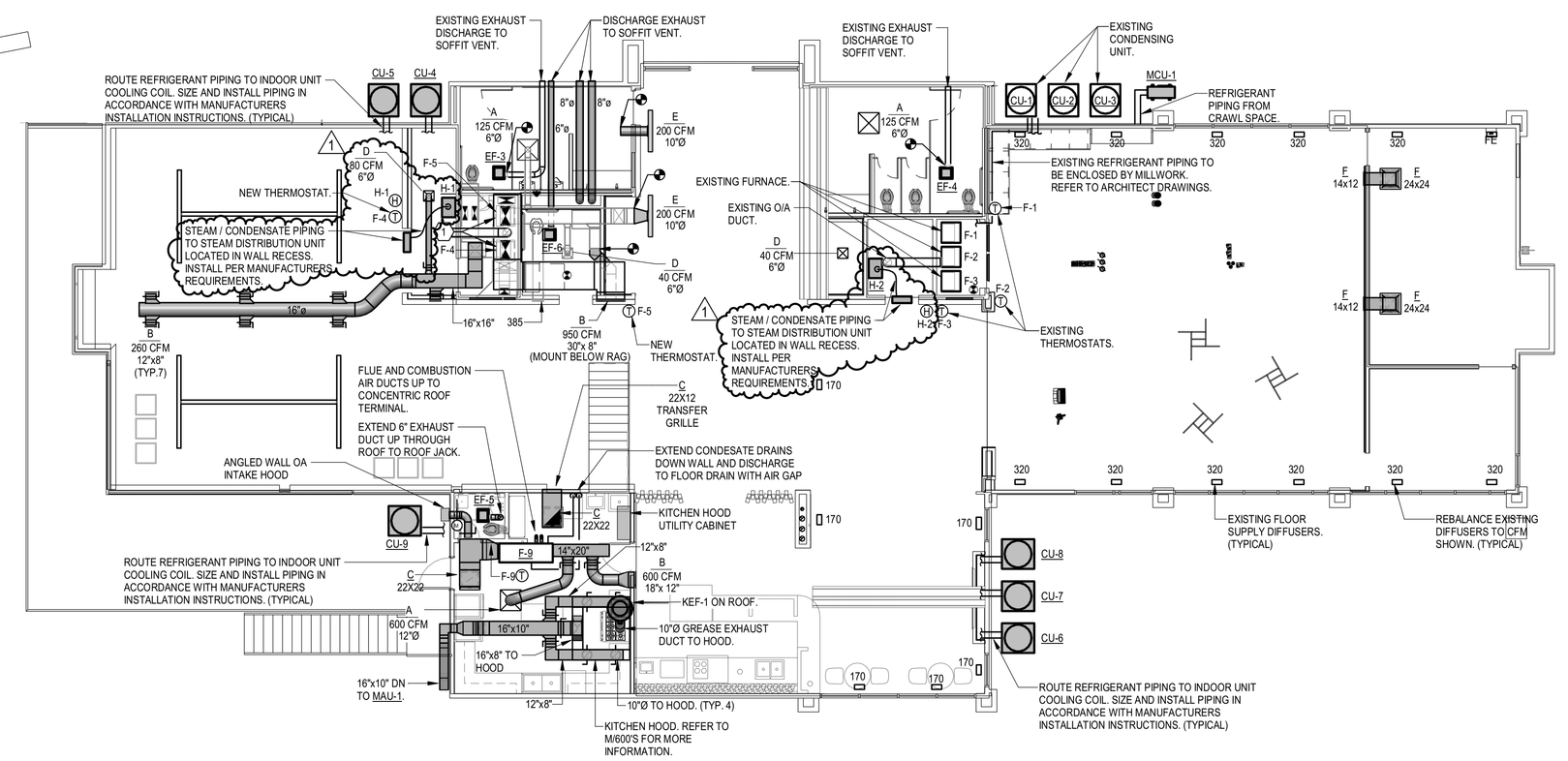
LOWER LEVEL HVAC ZONE MAP 3
1/8" = 1'-0" M101



UPPER LEVEL HVAC ZONE MAP 4
1/8" = 1'-0" M101



LOWER LEVEL HVAC PLAN 1
1/8" = 1'-0" M101



UPPER LEVEL HVAC PLAN 2
1/8" = 1'-0" M101

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PROJECT: VINITA CULTURAL DEVELOPMENT CENTER

PROJECT
CHEROKEE NATION, OKLAHOMA

KEY PLAN

No.	Description	Date
1	ASI-1	5/19/2021

SHEET TITLE
HVAC PLANS

BID SET

PROJECT NO: 111-049.20
DRAWN BY: MBW
CHK'D BY: KMZ
ISSUE DATE: 5/7/2021

KORY M. ZEHR 05.19.2021 22634 OKLAHOMA

M101
Scale 1/8" = 1'-0"

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VENTILATOR SCHEDULE

UNIT DESIGNATION		EF-1	EF-2	EF-3	EF-4	EF-5	EF-6
SERVICE		RESTROOM	RESTROOM	RESTROOM	RESTROOM	RESTROOM	RESTROOM
MANUFACTURER		GREENHECK	GREENHECK	GREENHECK	GREENHECK	GREENHECK	GREENHECK
MODEL NO.		SPA-A250	SPA-A250	SPA-A250	SPA-A250	SPA-A90	SPA-A90
AIR FLOW - CFM		225	225	225	225	75	75
EXTERNAL STATIC PRESS. - IN. WG.		0.3	0.3	0.3	0.3	0.25	0.25
TYPE		CENTRIFUGAL CEILING MOUNTED	CENTRIFUGAL CEILING MOUNTED	CENTRIFUGAL CEILING MOUNTED	CENTRIFUGAL CEILING MOUNTED	CENTRIFUGAL CEILING MOUNTED	CENTRIFUGAL CEILING MOUNTED
DRIVE		DIRECT	DIRECT	DIRECT	DIRECT	DIRECT	DIRECT
SONES		3	3	3	3	0.4	0.4
DAMPER		BACKDRAFT	BACKDRAFT	BACKDRAFT	BACKDRAFT	BACKDRAFT	BACKDRAFT
ELECTRICAL	HP	83 WATTS	83 WATTS	83 WATTS	83 WATTS	15 WATTS	15 WATTS
	VOLTAGE	120	120	120	120	120	120
	PHASE	1	1	1	1	1	1
	HERTZ	60	60	60	60	60	60
REMARKS		1,2,3,4,5	1,2,3,4,5	1,2,3,4,5	1,2,3,4,5	1,2,3,4,5	1,2,3,4,5

REMARKS
1. INTERLOCK WITH LIGHTS, REFER TO ELECTRICAL DRAWINGS.
2. SPEED CONTROLLER.
3. DISCONNECT SWITCH.
4. RUBBER-IN-SHEAR ISOLATORS.
5. GALVANIZED METAL GRILLE.

ACCEPTABLE MANUFACTURERS: COOK, GREENHECK, CARNES, PENN BARRY, TWIN CITY.

GRILLE, REGISTER, AND DIFFUSER SCHEDULE

UNIT DESIGNATION	A	B	C	D	E	F
MANUFACTURER	TITUS	TITUS	TITUS	TITUS	TITUS	TITUS
MODEL NO.	TMS	300RL	350RL	TMS	ML-39	350RL
SERVICE	SUPPLY	SUPPLY	RETURN/TRANSFER	SUPPLY	SUPPLY	RETURN/TRANSFER
TYPE	LOUVER	LOUVER	LOUVER	LOUVER	SLOT	LOUVER
NECK SIZE-IN.	--	--	--	--	--	--
FACE SIZE-IN.	24X24	--	24X24	12X12	48" LONG	--
NO. SLOTS/SLOT SIZE-IN.	--	--	--	--	2 SLOT/1"	--
MOUNTING	GYP./ LAY-IN	DUCT / WALL	GYP./ LAY-IN	GYP./ LAY-IN	WOOD CEILING	WALL / LAY-IN
FINISH	WHITE	WHITE	WHITE	WHITE	WHITE	WHITE
DAMPER	--	OBD	--	--	--	--
REMARKS						

NOTES:
1. REFER TO REFLECTED CEILING PLANS AND INTERIOR ELEVATIONS FOR EXACT CEILING TYPE & LOCATION OF ITEMS.
2. REFER TO MECHANICAL FLOOR PLANS FOR CONFIGURATION DATA THAT IS NOT SHOWN ABOVE.
3. ALL SUFACE MOUNTED FIXTURE SCREWS ARE TO BE SAME COLOR FINISH AS GRILLE.
4. MECHANICAL CONTRACTOR IS TO VERIFY GRILLE TYPE WITH CEILING TYPES BEFORE ORDERING GRILLES.
5. APPROVED MANUFACTURERS: TITUS, CARNES COMPANY, KRUEGER, METALAIRE INC., NAILOR, PRICE INDUSTRIES & TUTTLE BAILEY.

CONDENSATE CONNECTION DETAIL 1
NO SCALE M500

SPLIT SYSTEM AIR-CONDITIONING UNIT SCHEDULE

PLAN NO.			MAC-1
LOCATION			IT ROOM
MANUFACTURER			MITSUBISHI
MODEL NO.			PKA-A12HA
COOLING CAPACITY	TOTAL - Btuh (kW)		12,000
	SENSIBLE - Btuh (kW)		9,000
	SEASONAL ENERGY-EFFICIENCY RATIO		15.2
INDOOR UNIT	AIR FLOW	HIGH-CFM	425
		LOW-CFM	320
	EXTERNAL STATIC PRESSURE - IN. WG.		0.14
	SOUND PRESSURE LEVEL - dBa		43
	FAN MOTOR - HP		--
	FAN MOTOR - FLA		0.33
	VOLTS/PHASE/HERTZ		208/1/60
	MINIMUM AMPACITY		1
AIR COOLED OUTDOOR UNIT	PLAN NO.		MCU-1
	MODEL NO.		PUY-A12NHA3
	ENTERING-AIR TEMPERATURE - DEG F		95
	VOLTS/PHASE/HERTZ		208/1/60
	MINIMUM CIRCUIT AMPACITY		13
	FAN MOTOR FLA		0.35
	COMPRESSOR	RLA	7.4
		LRA	9.3
	REMARKS		1,2,3,4

REMARKS
1. REFER TO PLANS AND SPECIFICATIONS.
2. INTEGRAL DISCONNECT SWITCH.
3. WIND BAFFLE FOR LOW AMBIENT COOLING.
4. CONDENSATE DRAIN PUMP.

DUCT INSULATION SCHEDULE

SYSTEM		SUPPLY AIR	SUPPLY AIR	RETURN AIR	EXHAUST AIR	KITCHEN EXHAUST AIR
DUCT TYPE		ROUND	RECTANGULAR	RECTANGULAR	ROUND	ROUND/RECTANG.
INDOOR CONCEALED	THICKNESS	1"	1"	1"	1"	2 HOUR RATED
	TYPE	WRAP	LINER	LINER	WRAP	WRAP
	MATERIAL	FIBERGLASS	FIBERGLASS	FIBERGLASS	FIBERGLASS	FIRE RATED
	REMARKS				1	
INDOOR EXPOSED	SIZE/THICKNESS	1"	1"	1"	1"	2 HOUR RATED
	TYPE	DOUBLEWALL DUCT	LINER	LINER	WRAP	WRAP
	MATERIAL	FIBERGLASS	FIBERGLASS	FIBERGLASS	FIBERGLASS	FIRE RATED
	REMARKS				1	
ABOVEGROUND OUTDOOR/ UNCONDITIONED SPACE	SIZE/THICKNESS		2"	2"		
	TYPE		LINER	LINER		
	MATERIAL		FIBERGLASS	FIBERGLASS		
	REMARKS					

GENERAL NOTES
A. REFER TO HVAC INSULATION AND METAL DUCT SPECIFICATION AND PLANS FOR ADDITIONAL REQUIREMENTS.
B. REFER TO DIVISION 09 FOR PAINTING REQUIREMENTS.
C. EXPOSED FINISHED AREAS: AREAS EXPOSED TO VIEW INCLUDING ALL AREAS ABOVE ARCHITECTURAL CEILING CLOUDS AND ELEMENTS, OPEN TO STRUCTURE CEILING AREAS IN OCCUPIED SPACES
D. EXPOSED AREAS: AREAS EXPOSED TO VIEW INCLUDING FINISHED OCCUPIED SPACES AND MECHANICAL/ELECTRICAL RMS.
E. CONCEALED AREAS: AREAS COMPLETELY CONCEALED FROM VIEW(EXCEPT ABOVE ARCHITECTURAL CEILING CLOUDS). AND PROTECTED FROM PHYSICAL CONTACT BY BUILDING OCCUPANTS.
F. ITEMS NOT INSULATED UNLESS OTHERWISE INDICATED:
1. FIBROUS-GLASS DUCTS.
2. METAL DUCTS WITH LINER OF SUFFICIENT THICKNESS TO COMPLY WITH ENERGY CODE/ASHRAE 90.1
3. FACTORY-INSULATED ITEMS: FLEXIBLE DUCT, PLENUMS, CASINGS, ACCCESS PANELS, AND DOORS.
4. FLEXIBLE CONNECTORS AND VIBRATION-CONTROL DEVICES.

REMARKS
1. PROVIDE INSULATION ON DUCT WITHIN 10 FEET OF EXTERIOR PENETRATION.

FURNACE DETAIL 2
NO SCALE M500

FURNACE SCHEDULE

UNIT DESIGNATION		F-4 & 5	F-6	F-7	F-8	F-9
MANUFACTURER		TRANE	TRANE	TRANE	TRANE	TRANE
MODEL NO.		S8X2C100M5	S8X2B080M4	S8X2B080M4	S8X2A040M3	S9X2B080U4PSBA
FAN	AIR FLOW-CFM	1900	1400	1200	800	1200
	AIR FLOW CONFIGURATION	UPFLOW	UPFLOW	UPFLOW	UPFLOW	HORIZ. UPFLOW
	EXT. STATIC PRESSURE-IN. WG	0.5	0.5	0.5	0.5	0.5
	DRIVE (BELT/DIRECT)	DIRECT	DIRECT	DIRECT	DIRECT	DIRECT
	HORSEPOWER	1/2	1/2	1/3	1/5	1/3
	SPEED-RPM	--	--	--	--	--
	VOLTAGE	120	120	120	120	120
	PHASE	1	1	1	1	1
	HERTZ	60	60	60	60	60
COOLING COIL	MODEL NO.	4PXCCU60	4PXCBU42	4PXCBU36	4PXCBU24	4PXCBU36
	NOMINAL TONNAGE	5.0	3.5	3.0	2	3.0
	SENSIBLE CAPACITY-MBH	43.3	30.6	25.5	21.3	25.5
	TOTAL CAPACITY-MBH	57.3	40.8	34.2	28.4	34.2
	ENT. AIR TEMP.-DEG. F. DB/WB	80/67	80/67	80/67	80/67	80/67
	CONDENSATE DRAIN SIZE-IN.	(2) 3/4	(2) 3/4	(2) 3/4	(2) 3/4	(2) 3/4
	OUTDOOR UNIT DESIGNATION	CU-4 &5	CU-6	CU-7	CU-8	CU-9
HEATING	VENT TYPE	NON-CONDENSING	NON-CONDENSING	NON-CONDENSING	NON-CONDENSING	CONDENSING
	FUEL TYPE	NAT. GAS	NAT. GAS	NAT. GAS	NAT. GAS	NAT. GAS
	MINIMUM EFFICIENCY (AFUE)	80%	80%	80%	80%	96%
	INPUT CAPACITY-MBH	100	64	64	32	52
	OUTPUT CAPACITY-MBH	80	51	51	25	50.4
	STAGES	2	2	2	2	2
	VENT MATERIAL	GALVANIZED STEEL	GALVANIZED STEEL	GALVANIZED STEEL	GALVANIZED STEEL	PVC
	VENT SIZE-IN.	4	4	4	4	2
	COMBUSTION AIR VENT SIZE-IN.	--	--	--	--	2
AIR FILTERS	TYPE	MERV 8	MERV 8	MERV 8	MERV 8	MERV 8
	DEPTH	2"	2"	2"	2"	2"
ELECTRICAL	VOLTAGE	115	115	115	115	115
	PHASE	1	1	1	1	1
	HERTZ	60	60	60	60	60
OUTSIDE AIR FLOW-CFM		180	100	125	80	200
	REMARKS	1,2,3	1,2,3	1,2,3	1,2,3	1,3,4,5,6,7

REMARKS
1. PROVIDE CONDENSATE SHUTDOWN SAFETY SWITCH ON EVAPORATOR UNIT OVERFLOW DRAIN AND ON FURNACE CONDENSATE DRAIN WHERE APPLICABLE.
2. EXTERNAL FILTER RACK & LABOR SAVER PLENUM.
3. SEVEN DAY PROGRAMMABLE THERMOSTAT.
4. UNIT MANUFACTURER'S FILTER RACK.
5. UNIT MANUFACTURER'S CONCENTRIC ROOF TERMINAL KIT.
6. TWO-POSITION OUTSIDE AIR DAMPER, 24 VOLT, INTERLOCK WITH UNIT. OPEN DAMPER UPON UNIT OPERATION, CLOSE WHEN UNIT OFF.
7. PROVIDE AUXILIARY DRAIN PAN UNDER UNIT.
ACCEPTABLE MANUFACTURERS: TRANE, CARRIER, LENNOX.

CONDENSING UNIT SCHEDULE

UNIT DESIGNATION		CU-4 & CU-5	CU-6	CU-7	CU-8	CU-9
MANUFACTURER		TRANE	TRANE	TRANE	TRANE	TRANE
MODEL NO.		4TTA4060	4TTA4042	4TTA4036	4TTR4024	4TTA4036
NOMINAL TONNAGE		5	3.5	3	2	3
SEER (ARI CONDITIONS)		14	14	14	14	14
OUTDOOR AMBIENT TEMP.-DEG. F.		95	95	95	95	95
INDOOR UNIT DESIGNATION		F-4 & F-5	F-6	F-7	F-8	F-7
COMPRESSOR	COMPRESSOR TYPE	SCROLL	SCROLL	SCROLL	SCROLL	SCROLL
	COMPRESSOR QTY	1	1	1	1	1
	REFRIGERANT TYPE	R-410A	R-410A	R-410A	R-410A	R-410A
ELECTRICAL	VOLTAGE	208	230	230	208/230	230
	PHASE	3	3	3	1	3
	HERTZ	60	60	60	60	60
	REMARKS	1,2,3,4	1,2,3,4	1,2,3,4	1,2,3,4	1,2,3,4

REMARKS
1. INTEGRAL DISCONNECT SWITCH.
2. PROVIDE COMPRESSOR HARD START KIT .
3. PROVIDE LOW AMBIENT KIT.
4. PROVIDE SIGHT GLASS, TXV.

ACCEPTABLE MANUFACTURERS: TRANE, CARRIER, LENNOX.

HVAC PIPING INSULATION SCHEDULE

SYSTEM			UNIT CONDENSATE	REFRIGERANT SUCTION & HOT GAS		
INDOOR	SIZE/THICKNESS		ALL / 1/2"	< 1 "/ 1/2" >/= 1" / 1"		
	TYPE		WRAP	WRAP		
	MATERIAL		FIBERGLASS	CLOSED CELL		
	FIELD-APPLIED JACKET	CONCEALED	NONE	NONE		
		EXPOSED	NONE	NONE		
	REMARKS					
OUTDOOR	SIZE/THICKNESS			ALL / 2"		
	TYPE			WRAP		
	MATERIAL			CLOSED CELL		
	FIELD-APPLIED JACKET	CONCEALED		NONE		
		EXPOSED		NONE		
	REMARKS					

GENERAL
A. REFER TO HVAC INSULATION SPECIFICATION AND PLANS FOR ADDITIONAL REQUIREMENTS.
B. REFER TO DIVISION 09 FOR PAINTING REQUIREMENTS.
C. WHERE FIELD-APPLIED JACKET IS NOT REQUIRED, PROVIDE ZESTON 2000 PVC (OR EQUAL) PREMOLDED COVERS AND JACKETING AT ALL ELBOWS, TEES, FLANGES, CAPS AND SIMILAR FITTINGS.
D. USE BRUSH-APPLIED ULTRAVIOLET-PROTECTIVE COATING ON CLOSED-CELL INSULATION WHERE EXPOSED TO WEATHER.

1

HUMIDIFIER SCHEDULE

UNIT DESIGNATION		H-1	H-2
MANUFACTURER		NEPTRONIC	NEPTRONIC
MODEL NO.		SKE4-N10M	SKE4-N10M
TECHNOLOGY		ELECTRIC RESISTIVE	ELECTRIC RESISTIVE
RATED POWER - KW		10	10
NOMINAL CAPACITY - LB/HR		30	30
ELECTRIC	RATED CURRENT (A)	28	28
	VOLTAGE	208	208
	PHASE	3	3
	HERTZ	60	60
REMARKS		1,2,3	1,2,3

GENERAL NOTES:
A. INSTALL IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.

REMARKS
1. PROVIDE REMOTE STEAM DISTRIBUTION UNIT (SDU) BLOWER PACK.
2. WALL MOUNTED CONTROLLER, HUMIDITY HIGH LIMIT HUMIDISTAT AND SENSOR.
3. INTERNAL DRAIN TEMPERING DEVICE TO LESS THAN 140 DEGREES F.
ACCEPTABLE MANUFACTURERS: NEPTRONIC, NORTEC/CONDAIR, DRI-STEEM, ARMSTRONG.

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PROJECT
VINITA CULTURAL DEVELOPMENT CENTER

PROJECT
CHEROKEE NATION, OKLAHOMA

KEY PLAN

No.	Description	Date
1	ASI-1	5/19/2021

SHEET TITLE
MECHANICAL SCHEDULES AND DETAILS

BID SET

PROJECT NO. 111-049.20
DRAWN BY: MBW
CHK'D BY: KMZ
ISSUE DATE: 5/7/2021

LICENSED PROFESSIONAL ENGINEER KORY M. ZEHR 22834 05.19.2021 OKLAHOMA

M500
Scale 1/8" = 1'-0"

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PATENT NUMBERS

AC-PSP (UNITED STATES) - US PATENT 7963830 B2.
AC-PSP WALL (CANADA) - CA PATENT 2820509.
AC-PSP ISLAND (CANADA) - CA PATENT 2520330.

HOOD INFORMATION – JOB#4876742

HOOD NO	TAG	MODEL	MANUFACTURER	LENGTH	MAX COOKING TEMP	TYPE	APPLIANCE DUTY	DESIGN CFM/FT	TOTAL EXH CFM	EXHAUST PLENUM RISER(S) WIDTH	LENG	HEIGHT	DIA	CFM	VEL	SP	TOTAL SUPPLY CFM	HOOD CONSTRUCTION	HOOD CONFIG END TO END	ROW
1		5412 SND-2-PSP-FSS	CAPTIVEAIRE	4' 0"	600 DEG	I	HEAVY	300	1200			4"	10"	1200	2200	-1.304"	1068	430 SS WHERE EXPOSED	ALONE	ALONE

HOOD INFORMATION

HOOD NO	TAG	FILTER(S) TYPE	QTY	HEIGHT	LENGTH	EFFICIENCY @ 7 MICRONS	LIGHT(S) QTY	TYPE	WIRE GUARD	AVERAGE FOOT CANDLES @ 36" AFF	UTILITY CABINET(S) LOCATION	SIZE	FIRE SYSTEM TYPE	FIRE SYSTEM SIZE	ELECTRICAL MODEL #	SWITCHES QUANTITY	FIRE SYSTEM PIPING	HOOD HANGING WEIGHT
1		CAPTRATE SOLO FILTER	2	16"	20"	85% SEE FILTER SPEC	3	SCREW IN HALOGEN	NO	79							YES	378 LBS

HOOD OPTIONS

HOOD NO	TAG	OPTION
1		BACKSPLASH 110.00" HIGH X 86.00" LONG 430 SS VERTICAL.
		LEFT END STANDOFF(FIN/SLP) 1" WIDE 54" LONG INSULATED.
		RIGHT END STANDOFF(FIN/SLP) 1" WIDE 54" LONG INSULATED.
		LEFT QUARTER END PANEL 27" TOP WIDTH, 0" BOTTOM WIDTH, 27" HIGH 430 SS.
		RIGHT QUARTER END PANEL 27" TOP WIDTH, 0" BOTTOM WIDTH, 27" HIGH 430 SS.
		INSULATION FOR TOP OF HOOD.
		INSULATION FOR BACK OF HOOD.
		RISER SENSOR INSTALL 3IN DBL.
		RISER SENSOR INSTALL 6IN PLEN.

PERFORATED SUPPLY PLENUM(S)

HOOD NO	TAG	PDS	LENGTH	WIDTH	HEIGHT	TYPE	RISER(S) WIDTH	LENG	DIA	CFM	SP
1		Front	50"	12"	6"	MUA	8"	16"		293	0.095"
		Left	66"	12"	6"	MUA			10"	193	0.071"
						MUA			10"	193	0.071"
		Right	66"	12"	6"	MUA			10"	193	0.071"
						MUA			10"	193	0.071"

5

GREASE DUCT & CHIMNEY SPECIFICATIONS:
PROVIDE GREASE DUCT EQUAL TO CAPTIVEAIRE SYSTEMS MODEL "DW" ROUND 20 GAUGE 430 STAINLESS STEEL DUCTWORK. MODEL "DW" IS LISTED TO UL-1978 AND IS INSTALLED USING "V" CLAMP LOCKING CONNECTIONS SEALED WITH 3M FIRE BARRIER 2000 PLUS. MODEL "DW" DOES NOT REQUIRE WELDING PROVIDING IT HAS BEEN INSTALLED PER THE MANUFACTURES INSTALLATION GUIDE.
PROVIDE RATED ACCESS DOORS AT EVERY CHANGE IN DIRECTION AND EVERY 12' ON CENTER. PER MANUFACTURES LISTING MODEL "DW" HORIZONTAL RUNS LESS THAN 75 FT. CAN BE SLOPED 1/16" PER 12", HORIZONTAL RUNS MORE THAN 75 FT. CAN BE SLOPED 3/16" PER 12". DUCT SHOULD BE SLOPED AS MUCH AS POSSIBLE TO REDUCE THE CHANCE OF GREASE ACCUMULATION IN HORIZONTAL RUNS.

IF THE DUCT OR CHIMNEY IS WITHIN 18 INCHES OF COMBUSTIBLE MATERIAL, PROVIDE UL-2221 OR UL-103 HT LISTED DOUBLE WALL GREASE DUCT OR DOUBLE WALL CHIMNEY EQUAL TO CAPTIVEAIRE SYSTEMS MODEL "DW- 2R, 2R TYPE HT, 3R, OR 3Z" ROUND 20 GAUGE 430 STAINLESS INNER DUCT INSULATED WITH A 24 GAUGE 430 STAINLESS OUTER SHELL.

CAPTIVEAIRE SYSTEMS RECOMMENDS THE USE OF LISTED, PRE-FABRICATED ROUND GREASE EXHAUST DUCT TO REDUCE STATIC PRESSURE IN THE SYSTEM, MINIMIZE INSTALLATION AND INSPECTION TIMES, AND ENSURE DUCT IS LIQUID TIGHT

HVAC DISTRIBUTION NOTE

HIGH VELOCITY DIFFUSERS OR HVAC RETURNS SHOULD NOT BE PLACED WITHIN TEN (10) FEET OF THE EXHAUST HOOD. PERFORATED DIFFUSERS ARE RECOMMENDED.

VERIFY CEILING HEIGHT

___' - ___"

HEIGHT REQUIRED TO VERIFY THAT HOOD FITS SPACE AND TO SIZE THE ENCLOSURE PANELS

CUSTOMER APPROVAL TO MANUFACTURE:

APPROVED AS NOTED ☐
APPROVED WITH NO EXCEPTION TAKEN ☐
REVISE AND RESUBMIT ☐
SIGNATURE _____
YOUR TITLE _____ DATE _____ _____

SPECIFICATION: CAPTRATE® GREASE-STOP® SOLO FILTER

THE CAPTRATE GREASE-STOP SOLO FILTER IS A SINGLE-STAGE FILTER FEATURING A UNIQUE S-BAFFLE DESIGN IN CONJUNCTION WITH A SLOTTED REAR BAFFLE DESIGN, TO DELIVER EXCEPTIONAL FILTRATION EFFICIENCY.

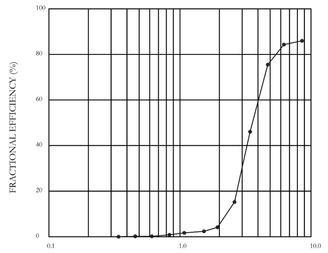
FILTER IS STAINLESS STEEL CONSTRUCTION, AND SIZED TO FIT INTO STANDARD 2-INCH DEEP HOOD CHANNEL(S).

UNITS SHALL INCLUDE STAINLESS STEEL HANDLES AND A FASTENING DEVICE TO SECURE THE TWO COMPONENTS WHEN ASSEMBLED.

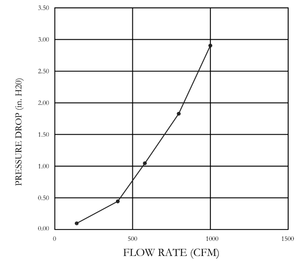
GREASE EXTRACTION EFFICIENCY PERFORMANCE SHALL REMOVE AT LEAST 75% OF GREASE PARTICLES FIVE MICRONS IN SIZE, AND 85% GREASE PARTICLES SEVEN MICRONS IN SIZE AND LARGER, WITH A CORRESPONDING PRESSURE DROP NOT TO EXCEED 1.0 INCHES OF WATER GAUGE.

THE CAPTRATE GREASE-STOP SOLO WAS TESTED TO ASTM STANDARD ASTM F2519-05. MANUFACTURER APPROVED FOR USE IN SOLID FUEL APPLICATIONS AS A SPARK ARRESTER.

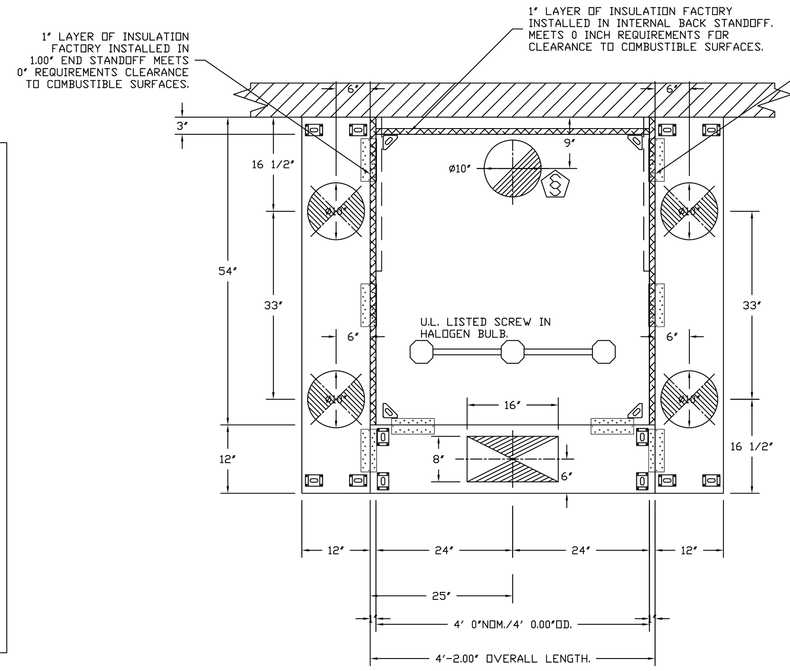
EFFICIENCY VS. PARTICLE DIAMETER



PRESSURE DROP VS. FLOW RATE



CAPTRATE FILTERS ARE BUILT IN COMPLIANCE WITH:
NFPA #96.
NSF STANDARD #2.
UL STANDARD #1046.
INT. MECH. CODE (IMC).
ULC-S649.



PLAN VIEW – HOOD #1
4' 0.00" LONG 5412SND-2-PSP-FSS

REVISIONS

	DESCRIPTION	DATE:
△		
△		
△		
△		

CAPTIVEAIRE
Tulsa Office
12101 East 51st Street, Suite 101A, Tulsa, OK. 74146 PHONE: (918) 258-0291 FAX: (919) 227-5947 EMAIL: reg80@captiveaire.com
www.captiveaire.com

Hood/MAU selection - Kory (Heat/Cool)
TULSA, OK, 74106

DATE: 5/7/2021
DWG.#: 4876742
DRAWN BY: RJH-80
SCALE: 3/4" = 1'-0"
MASTER DRAWING

SHEET NO. 1

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15 West 6th Street, Suite 2510
Tulsa, Oklahoma 74119
918.584.0102

PROJECT: VINITA CULTURAL DEVELOPMENT CENTER

PROJECT: CHEROKEE NATION, OKLAHOMA

KEY PLAN

No.	Description	Date

SHEET TITLE: KITCHEN HVAC DETAILS

BID ---

PROJECT NO: 111-049.2
DRAWN BY: MBW
CHK'D BY: KMZ
ISSUE DATE: 5/7/2021

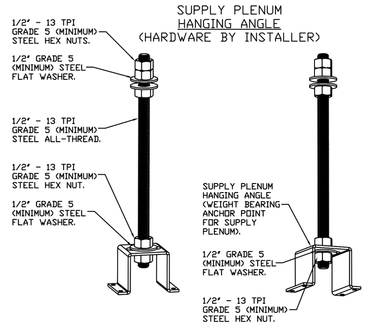
M600

Scale

KORY M. ZEHR 05.07.2021 22834 OKLAHOMA

5/7/2021 7:52:51 PM

1/16"=1'-0" 1/8"=1'-0" 1/4"=1'-0" 1/2"=1'-0" 3/4"=1'-0" 1"=1'-0" 1 1/2"=1'-0" 3"=1'-0"

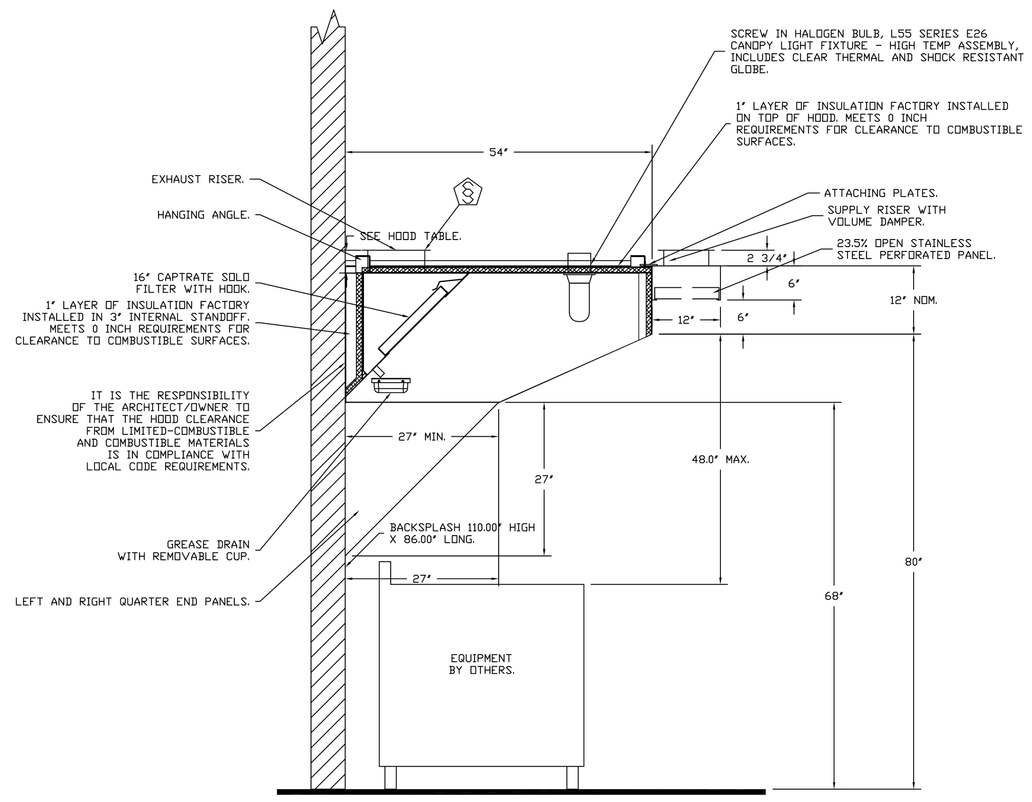


ASSEMBLY INSTRUCTIONS

HANGING ANGLE MUST BE SUPPORTED WITH 1/2" - 13 TPI GRADE 5 (MINIMUM) ALL-THREAD. SANDWICH HANGING ANGLES AND CEILING ANCHOR POINTS WITH 1/2" GRADE 5 (MINIMUM) STEEL FLAT WASHERS AND 1/2" - 13 TPI GRADE 5 (MINIMUM) HEX NUTS AS SHOWN. MUST USE DOUBLED HEX NUT CONFIGURATION ABOVE CEILING ANCHORS. SINGLE HEX NUT BENEATH HANGING ANGLE IS ACCEPTABLE FOR PSP HANGING ANGLES. MAINTAIN 1/4" OF EXPOSED THREADS BENEATH BOTTOM HEX NUT. TORQUE ALL HEX NUTS TO 57 FT-LBS.

ASSEMBLY INSTRUCTIONS

HANGING ANGLE MUST BE SUPPORTED WITH 1/2" - 13 TPI GRADE 5 (MINIMUM) ALL-THREAD. SANDWICH HANGING ANGLES AND CEILING ANCHOR POINTS WITH 1/2" GRADE 5 (MINIMUM) STEEL FLAT WASHERS AND 1/2" - 13 TPI GRADE 5 (MINIMUM) HEX NUTS AS SHOWN. MUST USE DOUBLED HEX NUT CONFIGURATION BENEATH HOOD HANGING ANGLES AND ABOVE CEILING ANCHORS. MAINTAIN 1/4" OF EXPOSED THREADS BENEATH BOTTOM HEX NUT. TORQUE ALL HEX NUTS TO 57 FT-LBS.



SECTION VIEW - MODEL 5412SND-2-PSP-FSS HOOD - #1

REVISIONS

	DESCRIPTION	DATE:
△		
△		
△		
△		

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www.captiveaire.com

Hood/MAU selection - Kory (Heat/Cool)

TULSA, OK, 74106

DATE: 5/7/2021

DWG.#: 4876742

DRAWN BY: RJH-80

SCALE: 3/4" = 1'-0"

MASTER DRAWING

SHEET NO. 2

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PROJECT
VINITA CULTURAL DEVELOPMENT CENTER

PROJECT
CHEROKEE NATION, OKLAHOMA

KEY PLAN

No.	Description	Date

SHEET TITLE
KITCHEN HVAC DETAILS

BID ---

PROJECT NO:	111-049.1
DRAWN BY:	MBV
CHK'D BY:	KMZ
ISSUE DATE:	5/7/2021

M601

Scale

KORY M. ZEHR 05.07.2021 22834 OKLAHOMA REGISTERED PROFESSIONAL ENGINEER

5/7/2021 7:52:54 PM

1/16"=1'-0" 0 8" 16" 32" | 1/8"=1'-0" 0 4' 8' 16' | 1/4"=1'-0" 0 2' 4' 8' | 1/2"=1'-0" 0 1' 2' 4' | 3/4"=1'-0" 0 1' 2' | 1"=1'-0" 0 6" 1' 2' | 1 1/2"=1'-0" 0 3" 6" 1' | 3"=1'-0" 0 3" 6"

FIRE SYSTEM INFORMATION – JOB#4876742

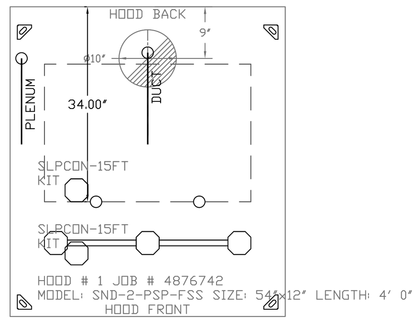
FIRE SYSTEM NO	TAG	TYPE	SIZE	FLOW POINTS	INSTALLATION	
					SYSTEM	LOCATION ON HOOD
1		CAS ELECTRIC WET CHEMICAL	4.0	4	WALL UTILITY CABINET LEFT	N/A

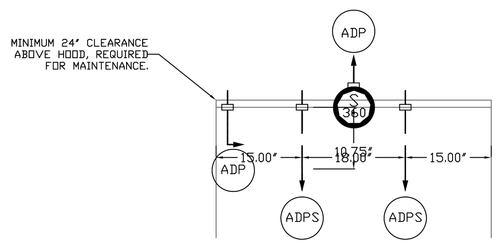
CAS VALVE(S)

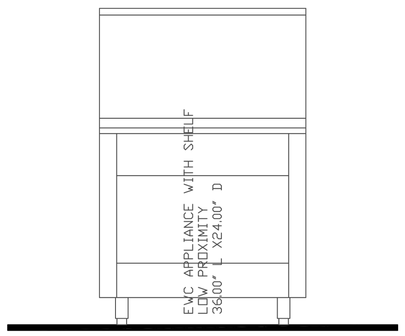
FIRE SYSTEM NO	TAG	TYPE	SIZE	SUPPLIED BY
1		SC ELECTRICAL	1.250	CAPTIVEAIRE SYSTEMS

FIRE SYSTEM PARTS LIST KEY

FIRE SYSTEM NO	TAG	KEY NUMBER – PART DESCRIPTION	QTY BY FACTORY	QTY BY DIST
1		0 – 0 – 100-BW 2X4 BLANK PLATE FOR J-BOX.	1	0
		0 – 0 – 12-F28021-005360 DUCT FIRE THERMOSTAT. NO, CLOSE ON TEMP RISE AT 360°F.	1	0
		0 – 0 – 59361-1/2 2X4 EXTENSION RING.	1	0
		0 – 0 – 60-9196984-000 VENT PLUG FOR FIRE SYSTEM DISTRIBUTION PIPING, TANK FIRE SUPPRESSION.	1	0
		0 – 0 – 87-120021-001 NOZZLE, SWIVEL, TANK FIRE SUPPRESSION.	2	0
		0 – 0 – 87-300001-001 TANK – PRESSURIZED TANK USED FOR TANK FIRE SUPPRESSION.	1	0
		0 – 0 – 87-300030-001 PRIMARY ACTUATOR KIT (PAK) – ACTUATOR AND RELEASE SOLENOID ASSEMBLY, ONE NEEDED PER FIRE SYSTEM, SUPERVISED, TANK FIRE SUPPRESSION.	1	0
		0 – 0 – 87-300033-001 DIN CONNECTOR, CANFIELD PART #5J560-201-EU0A, TANK FIRE SUPPRESSION, SUBMINATURE SOLENOID CONNECTION (CED VENDOR 30377).	1	0
		0 – 0 – 87-300152-001 HARDWARE, SVA BOLTS, TANK FIRE SUPPRESSION.	2	0
		0 – 0 – A0034332 JUNCTION BOX FOR MANUAL PULL STATION. 1.5" DEEP BACK BOX, RED COLOR.	1	0
		0 – 0 – ADP NOZZLE, DUCT, PLENUM, AND UPRIGHT APPLIANCES, CAS ELECTRICAL WET CHEMICAL.	4	0
		0 – 0 – CBI-146 CHROME PLATED PIPE NIPPLE 3/8" NPT 60 INCHES LONG.	2	0
		0 – 0 – SLPCON-15FT SUPERVISED LOOP CONNECTION KIT. CONTAINS THE PARTS NEEDED TO CONNECT THE SUPERVISED LOOP BETWEEN END TO END HOODS WITH LESS THAN A 14" GAP OR BACK TO BACK HOODS. KIT CONTAINS 17 FEET OF BLACK MG WIRE, 17 FEET OF TAN MG WIRE, 15 FEET OF FLEXIBLE CONDUIT, AND TWO 7/8" CONNECTORS.	3	0
		0 – 0 – TANK STRAP TANK STRAP – USED FOR TANK FIRE SUPPRESSION.	3	0
		0 – 0 – TFS-UCTANKBRACKET TANK BRACKET FOR FIRE SYSTEM TANK INSTALLATION IN UTILITY CABINETS, TANK FIRE SUPPRESSION.	1	0
		0 – 0 – WK-283952-000 DISCHARGE ADAPTER, TANK FIRE SUPPRESSION.	1	0
		26 – 26 – QSA-3/8 QUIK SEAL – 3/8" (UL).	4	0
		34 – 34 – A0034331 24VDC SINGLE ACTION MANUAL ACTUATION DEVICE (PUSH/PULL STATION) WITH PROTECTIVE COVER, ONE (1) NORMALLY OPEN CONTACT. RED COLOR.	1	0







NOTES
- FIELD PIPE DROPS AS SHOWN
  SLEEVING, ELBOWS, TEES, AND NOZZLES SUPPLIED BY CAS.
- RELOCATE NOZZLES IF FLOW PATTERN IS BLOCKED BY SHELVING, SALAMANDERS, ETC.
- MAXIMUM 9 ELBOWS IN SUPPLY LINE.
- MINIMUM 72 INCHES OF AGENT LINE FROM TANK TO FIRST NOZZLE COVERING A RANGE, FRYER, OR WOK TO REFLECT GENERAL PIPING REQUIREMENTS.
- IF APPLICABLE, PRE-PIPED CHARBROILER DROPS ARE SHIPPED LOOSE.
- FACTORY PIPING EXTENDS A MAXIMUM OF 6" ABOVE THE TOP OF THE HOOD.

- APPLIANCE DIMENSIONS LISTED REPRESENT THE COOKING SURFACE SIZE, NOT THE OVERALL APPLIANCE SIZE.

NOTES
- FIELD PIPE DROPS AS SHOWN
  PIPING, ELBOWS, TEES, AND NOZZLES SUPPLIED BY CAS.
- RELOCATE NOZZLES IF FLOW PATTERN IS BLOCKED BY SHELVING, SALAMANDERS, ETC.
- OVERLAPPING COVERAGE SHALL NOT BE USED ON ANY APPLIANCE WITH AN OBSTRUCTION.
- IF APPLICABLE, EXTENDED PRE-PIPED DROPS ARE SHIPPED LOOSE.
- FACTORY PIPING EXTENDS A MAXIMUM OF 6" ABOVE THE TOP OF THE HOOD.

- APPLIANCE DIMENSIONS LISTED REPRESENT THE COOKING SURFACE SIZE, NOT THE OVERALL APPLIANCE SIZE.

- THIS FIRE SYSTEM COMPLIES WITH U.L. 300 REQUIREMENTS.

- MINIMUM 24" CLEARANCE ABOVE HOOD, REQUIRED FOR MAINTENANCE.

- FOR THE FIRST SET OF NOZZLES NEAREST THE TANK, PIPE TO THE END OF THE NOZZLE RUN THEN RETURN THE PIPE TO THE NEAREST NOZZLES TO TANK.

JOB #: 4876742.
JOB NAME: HOOD/MAU SELECTION – KORY (HEAT/COOL).

SYSTEM SIZE: TANK-SP-1-WC TOTAL FP REQUIRED: 4.
HOOD # 1 4' 0.00" LONG x 54" WIDE x 12" HIGH.
RISER # 1 SIZE: 10" DIA.

- HEAVY-DUTY APPLIANCES (RATED 600°F) WILL REQUIRE AN ADDITIONAL DOWNSTREAM FIRESTAT IN THE EVENT THAT THE DUCTWORK CONTAINS ANY HORIZONTAL RUNS OVER 25 FT IN LENGTH.
- MEDIUM TO LIGHT-DUTY APPLIANCES (RATED 450°F) WILL NOT REQUIRE ANY ADDITIONAL DOWNSTREAM DETECTION.

LEGEND – FIRE CABINET CAS-EWC SYSTEM

1	4 GALLON TANK.
2	PRIMARY ACTUATOR RELEASE.
3	SECONDARY ACTUATOR RELEASE.
4	PRESSURE SUPERVISION SWITCH.
5	PRIMARY HOSE ASSEMBLY.
6	SECONDARY HOSE ASSEMBLY.
7	REMOTE MANUAL ACTUATION DEVICE.
TF1	NOZZLE ASSEMBLY (TF1).
ADP	NOZZLE ASSEMBLY (ADP).
R	NOZZLE ASSEMBLY (R).
S	SWIVEL ADAPTER.

JOB #: 4876742.
JOB NAME: HOOD/MAU SELECTION – KORY (HEAT/COOL).

SYSTEM SIZE: TANK-SP-1-WC TOTAL FP REQUIRED: 4.
HOOD # 1 4' 0.00" LONG x 54" WIDE x 12" HIGH.
RISER # 1 SIZE: 0" x 0".

WALL-MOUNT UTILITY CABINET
ASSEMBLY INSTRUCTIONS

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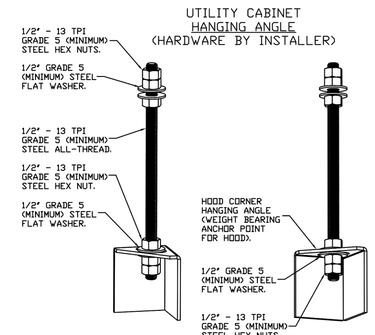
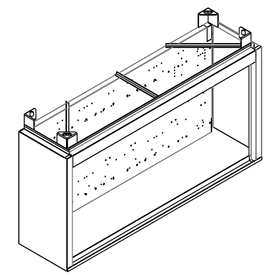


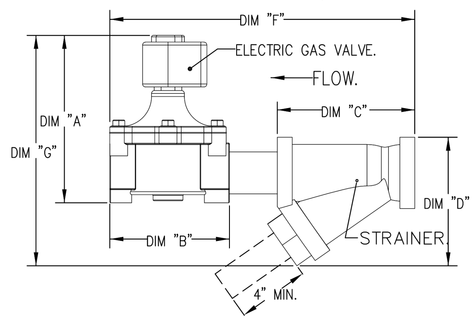


GAS VALVES AND STRAINERS

	GAS VALVE SIZING						GAS VALVE DIMENSIONS						INSTALLATION	PART NUMBERS		
	TYPE	SIZE	VOLTAGE	MIN. INLET PRESSURE	MAX. INLET PRESSURE	FLOW AT 1 IN.W.C. DROP NATURAL GAS	FLOW AT 1 IN.W.C. DROP PROPANE	DIM "A"	DIM "B"	DIM "C"	DIM "D"	DIM "F"	DIM "G"	MOUNTING ORIENTATION	GAS VALVE PART NUMBER	STRAINER PART NUMBER	GAS VALVE/STRAINER KIT
GAS VALVE FOR FS#1	ELECTRICAL	1-1/4"	120 VAC	0 PSI (0 IN.W.C.)	5 PSI (138 IN.W.C.)	1,925,000 BTU/HR	1,249,105 BTU/HR	7-5/8"	6-3/8"	5-1/8"	5-15/16"	13-1/2"	12-1/16"	HORIZONTAL/ VERTICAL	8214265	4417K66	(SC)EGVA1-1/4

ALL GAS VALVES/STRAINERS
PROPER CLEARANCE MUST BE PROVIDED IN ORDER TO SERVICE THE STRAINERS A MINIMUM OF 4" CLEARANCE DISTANCE MUST BE PROVIDED AT THE BASE OF THE STRAINER CUSTOMER MUST VERIFY BTU CONSUMPTION AS WELL AS PRESSURE RATING SPECIFIC GRAVITY OF NATURAL GAS = 0.64, SPECIFIC GRAVITY OF LP = 1.52.

CALCULATIONS
TO CALCULATE GAS FLOW FOR OTHER THAN 1 IN.W.C. PRESSURE DROP
NEW BTU/HR = (BTU/HR AT 1 IN.W.C. PRESSURE DROP) X NEW PRESSURE DROP$^{0.5}$
TO CALCULATE GAS FLOW FOR OTHER THAN 0.64 SPECIFIC GRAVITY
NEW BTU/HR = (BTU/HR AT 0.64) X (0.64 / NEW SPECIFIC GRAVITY)$^{0.5}$.



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DATE: 5/7/2021

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PROJECT
VINITA CULTURAL DEVELOPMENT CENTER

PROJECT
CHEROKEE NATION, OKLAHOMA

KEY PLAN

No.	Description	Date

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KITCHEN HVAC DETAILS

BID

PROJECT NO. 111-049.2
DRAWN BY: MBW
CHK'D BY: KMZ
ISSUE DATE: 5/7/2021

M602
Scale

KORY M. ZEHR 22834 05.07.2021 REGISTERED PROFESSIONAL ENGINEER OKLAHOMA

5/7/2021 7:52:57 PM

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EXHAUST FAN INFORMATION – JOB#4876742

FAN UNIT NO	TAG	QTY	FAN UNIT MODEL #	MANUFACTURER	CFM	ESP	RPM	MOTOR ENCL	HP	BHP	PHASE	VOLT	FLA	DISCHARGE VELOCITY	WEIGHT (LBS)	SONES
1		1	DU85HFA	CAPTIVEAIRE	1200	1.700	1485	TEAO-ECM	1.000	0.5790	1	208	6.9	380 FPM	92	14.8

CONDENSER DETAILS

FAN UNIT NO	TAG	FAN UNIT MODEL #	CONDENSER NO	TONNAGE	VOLTAGE	PHASE	FREQUENCY	MCA	RLA	MAX FUSE SIZE	MIN WIRE SIZE	SEER
2		A1-D.250-15D-MPU	1	2	208-230	1 PHASE	60 HZ	14.1 AMPS	11.4 AMPS	20 AMPS	12 AWG	14

MUA FAN INFORMATION – JOB#4876742

FAN UNIT NO	TAG	QTY	FAN UNIT MODEL #	BLOWER	HOUSING	MIN CFM	DESIGN CFM	ESP	RPM	MOTOR ENCL	HP	BHP	PHASE	VOLT	FLA	MCA	MOCP	WEIGHT (LBS)	SONES
2		1	A1-D.250-15D-MPU	15MF-1-MOD	A1-D.250	1000	1068	0.500	1459	TEAO-ECM	1.000	0.4500	1	208	6.9	8.7A	15A	993	11.9

COILS – JOB#4876742

FAN UNIT NO	TAG	COIL TYPE	DESIGN CFM	COOLING											HEATING								
				ENTERING DB TEMP	ENTERING WB TEMP	LEAVING DB TEMP	LEAVING WB TEMP	ENTERING FLUID TEMP	LEAVING FLUID TEMP	FLUID FLOW RATE	PERCENT GLYCOL	TOTAL CAPACITY	SENSIBLE CAPACITY	LATENT CAPACITY	ENTERING DB TEMP	LEAVING DB TEMP	ENTERING FLUID TEMP	LEAVING FLUID TEMP	FLUID FLOW RATE	PERCENT GLYCOL	STEAM PRESSURE	TOTAL CAPACITY	SENSIBLE CAPACITY
2		DX	1068	97.0°F	76.0°F	82.3°F	70.1°F	---	---	---	---	23.7 MBH	16.0 MBH	7.7 MBH	---	---	---	---	---	---	---	---	---

GAS FIRED MAKE-UP AIR UNIT(S)

FAN UNIT NO	TAG	INPUT BTUs	OUTPUT BTUs	TEMP RISE	REQUIRED INPUT GAS PRESSURE	GAS TYPE	BURNER EFFICIENCY(%)
2		70230	64612	58°F	7 IN. W.C. – 14 IN. W.C.	NATURAL	92

FAN OPTIONS

FAN UNIT NO	TAG	QTY	DESCRIPTION
1		1	GREASE BOX.
		1	ECM WIRING PACKAGE – PWM SIGNAL FROM ECPM03 PREWIRE (TELCO MOTOR), CCW ROTATION.
		1	2 YEAR PARTS WARRANTY.
2		1	INLET PRESSURE GAUGE, 0–35".
		1	MANIFOLD PRESSURE GAUGE, -5 TO 15" WC.
		1	CASLINK BUILDING MONITORING SYSTEM – INTERNET OR CELLULAR CONNECTION REQUIRED.
		1	MOTORIZED BACKDRAFT DAMPER FOR A1-D HOUSING. MEETS AMCA CLASS 1A RATING.
		1	TOTAL CFM MONITORING FOR MUA UNITS.
		1	2 TON SINGLE CIRCUIT MODULAR PACKAGED COOLING OPTION FOR SIZE 1 DF/EH MUA (1,000 TO 1,200 CFM), 208V/230V, 1 PHASE. COOLING THERMOSTAT OR PROGRAMMABLE STAT REQUIRED FOR PROPER OPERATION.
		1	UPTURN PLENUM FOR SIZE 1 DX COIL MODULE.
		1	OPPOSITE SIDE HEATER CONTROLS.
		1	ECM WIRING PACKAGE – DD SUPPLY – PWM SIGNAL FROM ECPM03 PREWIRE (TELCO MOTOR).
		1	2 YEAR PARTS WARRANTY.

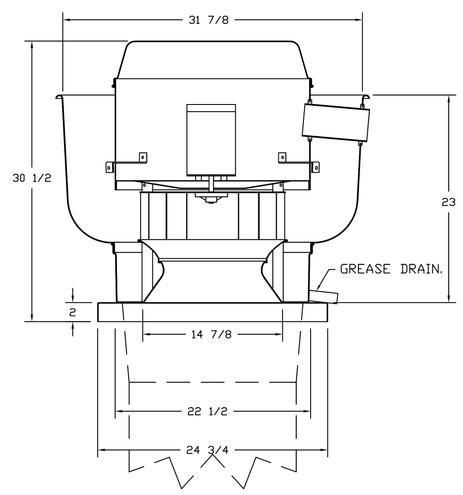
FAN ACCESSORIES

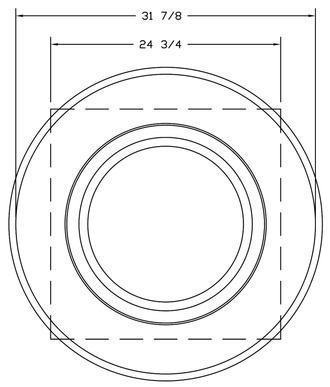
FAN UNIT NO	TAG	EXHAUST			SUPPLY			
		GREASE CUP	GRAVITY DAMPER	WALL MOUNT	SIDE DISCHARGE	GRAVITY DAMPER	MOTORIZED DAMPER	WALL MOUNT
1		YES						
2							YES	

CURB ASSEMBLIES

NO	ON FAN	WEIGHT	ITEM	SIZE
1	# 1	79 LBS	CURB	23.000"W X 23.000"L X 36.000"H 4.000:12.000 PITCH ALONG LENGTH, RIGHT VENTED HINGED.
2	# 2	83 LBS	CURB	21.000"W X 71.000"L X 12.000"H INSULATED.
	# 2		RAIL	6.000"W X 21.000"L X 12.000"H.

FAN #1 DU85HFA - EXHAUST FAN





TOP VIEW

FEATURES:

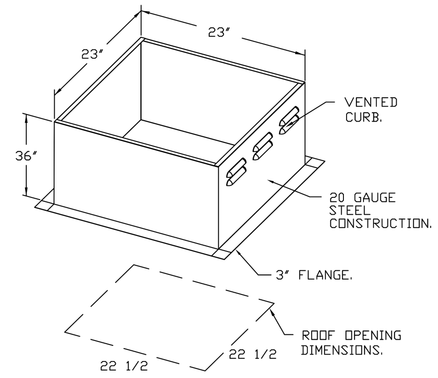
- DIRECT DRIVE CONSTRUCTION (NO BELTS/PULLEYS).
- ROOF MOUNTED FANS.
- RESTAURANT MODEL.
- UL705 AND UL762 AND ULC-S645
- VARIABLE SPEED CONTROL.
- INTERNAL WIRING.
- THERMAL OVERLOAD PROTECTION (SINGLE PHASE).
- HIGH HEAT OPERATION 300°F (149°C).
- GREASE CLASSIFICATION TESTING.
- NEMA 3R SAFETY DISCONNECT SWITCH.

NORMAL TEMPERATURE TEST
EXHAUST FAN MUST OPERATE CONTINUOUSLY WHILE EXHAUSTING AIR AT 300°F (149°C) UNTIL ALL FAN PARTS HAVE REACHED THERMAL EQUILIBRIUM, AND WITHOUT ANY DETERIORATING EFFECTS TO THE FAN WHICH WOULD CAUSE UNSAFE OPERATION.

ABNORMAL FLARE-UP TEST
EXHAUST FAN MUST OPERATE CONTINUOUSLY WHILE EXHAUSTING BURNING GREASE VAPORS AT 600°F (316°C) FOR A PERIOD OF 15 MINUTES WITHOUT THE FAN BECOMING DAMAGED TO ANY EXTENT THAT COULD CAUSE AN UNSAFE CONDITION.

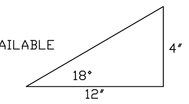
OPTIONS

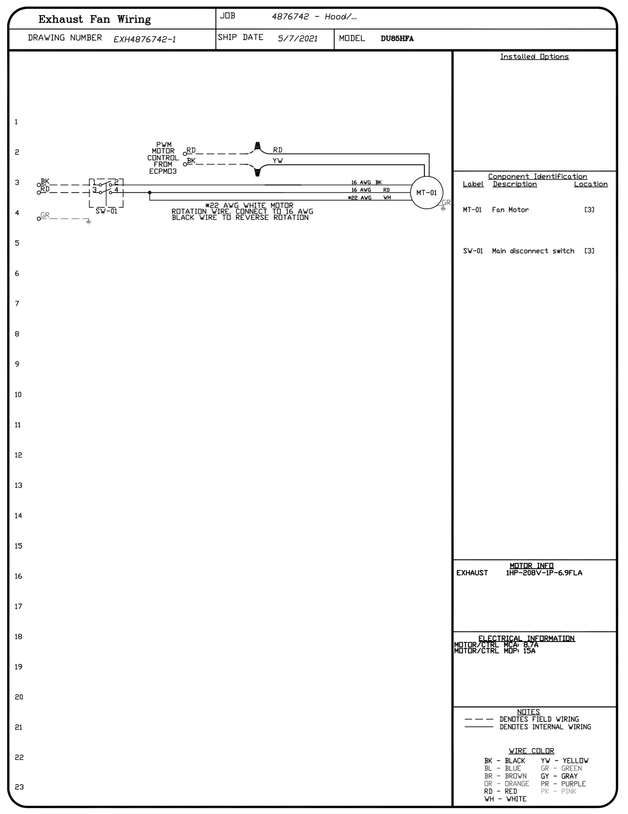
GREASE BOX.
ECM WIRING PACKAGE – PWM SIGNAL FROM ECPM03 PREWIRE (TELCO MOTOR), CCW ROTATION.
2 YEAR PARTS WARRANTY.



PITCHED CURBS ARE AVAILABLE FOR PITCHED ROOFS.

SPECIFY PITCH:
EXAMPLE: 7/12 PITCH = 30° SLOPE.





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Hood/MAU selection - Kory (Heat/Cool)
TULSA, OK, 74106

DATE: 5/7/2021

DWG.#: 4876742

DRAWN BY: RJH-80

SCALE: 3/4" = 1'-0"

MASTER DRAWING

SHEET NO. 4

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PROJECT
VINITA CULTURAL DEVELOPMENT CENTER

PROJECT
CHEROKEE NATION, OKLAHOMA

KEY PLAN

No.	Description	Date

SHEET TITLE
KITCHEN HVAC DETAILS

BID ---

PROJECT NO:	111-049.1
DRAWN BY:	MBV
CHK'D BY:	KMZ
ISSUE DATE:	5/7/2021

M603

Scale

KORY M. ZEHR 05.07.2021 22834 OKLAHOMA REGISTERED PROFESSIONAL ENGINEER

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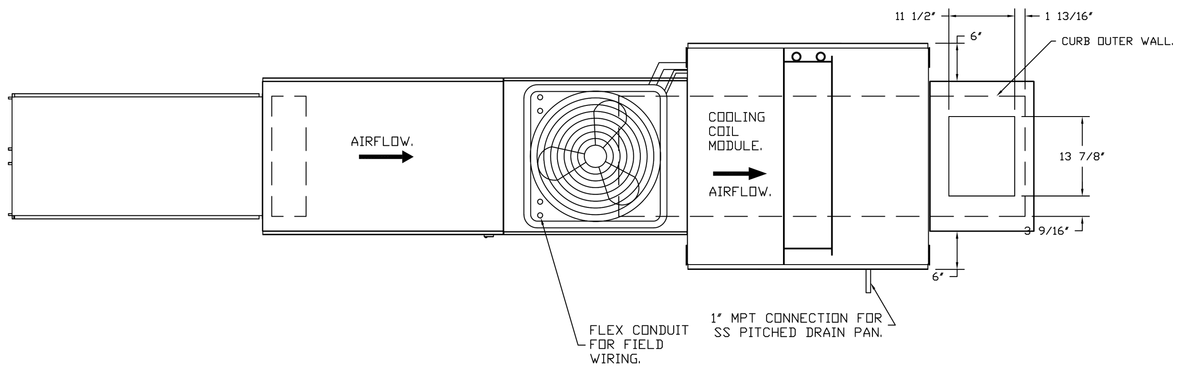
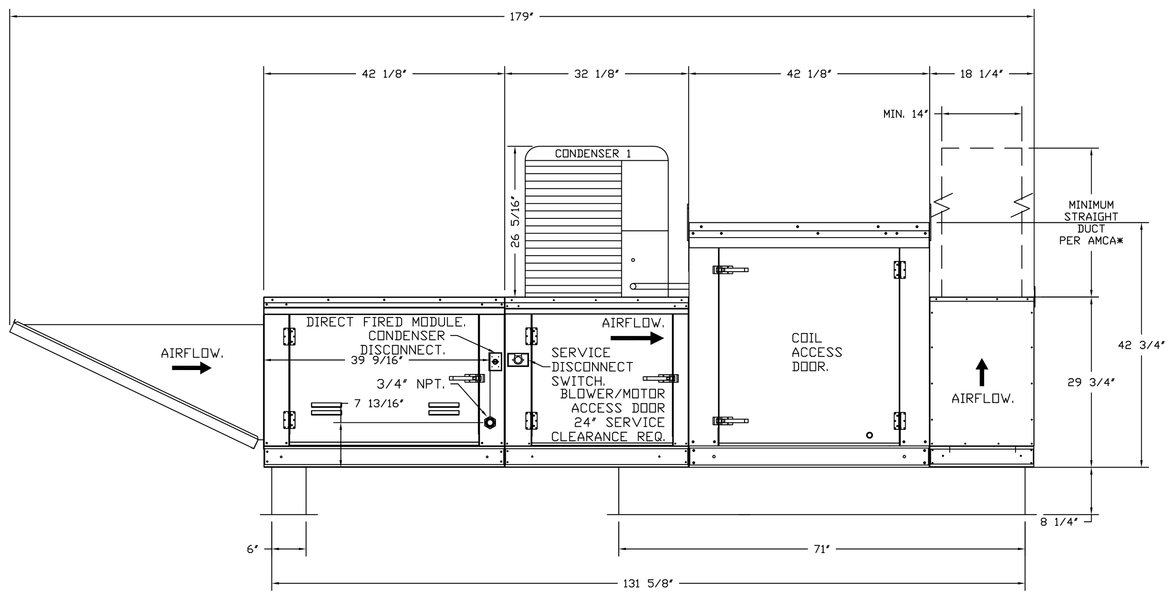
FAN #2 A1-D,250-15D-MPU - HEATER
1. DIRECT GAS FIRED HEATED MAKE UP AIR UNIT WITH 15" MIXED FLOW DIRECT DRIVE FAN.
2. INTAKE HOOD WITH EZ FILTERS.
3. UP DISCHARGE - AIR FLOW LEFT -> RIGHT.
4. GAS PRESSURE GAUGE, 0-25", 2.5" DIAMETER, 1/4" THREAD SIZE.
5. GAS PRESSURE GAUGE, -5 TO +15 INCHES WC, 2.5" DIAMETER, 1/4" THREAD SIZE.
6. CASLINK BUILDING MONITORING SYSTEM COMMUNICATIONS MODULE. REQUIRES INTERNET & FIELD WIRED ETHERNET CONNECTION OR 3G CELLULAR SERVICE. INCLUDES REV 3 COMM MODULE, RJ45 TO MODBUS CONVERTER, 3 FT CAT5 CABLE, AND 1 FT OF SHIELDED TWISTED PAIR.
7. MOTORIZED BACK DRAFT DAMPER 16" X 18" FOR SIZE 1 STANDARD & MODULAR HEATER UNITS W/EXTENDED SHAFT, STANDARD GALVANIZED CONSTRUCTION, 3/4" REAR FLANGE, LOW LEAKAGE, TFB120S ACTUATOR INCLUDED.
8. TOTAL CFM MONITORING FOR MUA UNITS. USES +/- 15 PRESSURE TRANSDUCER, RIVET NUTS, 1/4" AIRFLOW TUBING AND PUSH TO CONNECT FITTINGS.
9. 2 TON, SINGLE CIRCUIT MODULAR PACKAGED COOLING OPTION FOR SIZE 1 DF/EH MODULAR PACKAGED UNIT. INCLUDES CONDENSER, DX COIL, FILTER/DRYER KIT, HARD START KIT, THERMAL EXPANSION VALVE, R410A REFRIGERANT, AND REFRIGERANT PIPING. (1,000 TO 1,200 CFM) WHEN ORDERED WITH OPPOSITE AIRFLOW CONDENSERS ACCESS AND COIL PIPING WILL REMAIN IN STANDARD POSITION. DRAIN AND SLEDS WILL MOVE TO THE OPPOSITE SIDE. ANY OTHER CHANGE WILL REQUIRE CLI. CONDENSERS REQUIRE SEPARATE 208V, 1 PHASE POWER SUPPLY UNLESS ORDERED WITH SINGLE POINT CONNECTION. COIL = 2EZ0801M.
10. UPTURN PLENUM FOR SIZE 1 COOLING COIL MODULE - REQUIRED FOR UP DISCHARGE COOLING COIL APPLICATIONS.
11. MOUNT MOTOR AND CONTROLS ON OPPOSITE SIDE OF HEATER.
12. ECM WIRING PACKAGE FOR SUPPLY MOTORS WITH PWM SIGNAL FROM ECPM03 PREWIRE.
13. HINGED DOUBLE WALL INSULATED DOOR ASSEMBLY (BURNER/BLOWER/MPU SECTION).
14. 2 YEAR PARTS WARRANTY.

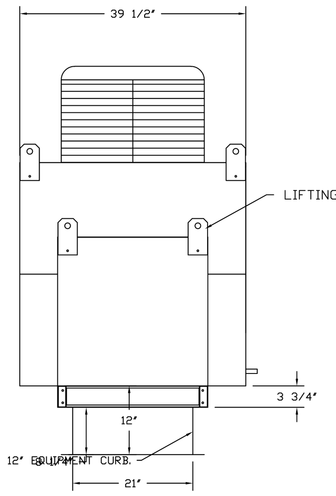
*NOTE: SUPPLY DUCT MUST BE INSTALLED TO MEET SMACNA STANDARDS. A MINIMUM STRAIGHT DUCT LENGTH MUST BE MAINTAINED DOWNSTREAM OF UNIT DISCHARGE AS OUTLINED IN AMCA PUBLICATION 201. WHEN USING RECTANGULAR DUCTWORK, ELBOWS MUST BE RADIUS THROAT, RADIUS BACK WITH TURNING VANES. FLEXIBLE DUCTWORK AND SQUARE THROAT/SQUARE BACK ELBOWS SHOULD NOT BE USED. ANY TRANSITION AND/OR TURNS IN THE DUCTWORK WILL CAUSE SYSTEM EFFECT. SYSTEM EFFECT WILL DRASTICALLY INCREASE STATIC PRESSURE AND REDUCE AIRFLOW. DO NOT RELY ON UNIT TO SUPPORT DUCT IN ANY WAY. FAILURE TO PROPERLY SIZE DUCTWORK MAY CAUSE SYSTEM EFFECTS AND REDUCE PERFORMANCE OF THE EQUIPMENT.
SUGGESTED STRAIGHT DUCT SIZE IS 14" x 14".

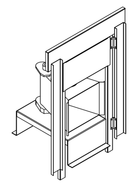
SUPPLY SIDE HEATER INFORMATION:

WINTER TEMPERATURE = 17°F. TEMP. RISE = 58°F.
BTUs CALCULATED OFF ACTUAL AIR DENSITY.
OUTPUT BTUs AT ALTITUDE OF 0.0 FT. = 66177.
INPUT BTUs AT ALTITUDE OF 0.0 FT. = 71932.
OUTPUT BTUs AT ALTITUDE OF 661 FT. = 64612.
INPUT BTUs AT ALTITUDE OF 661 FT. = 70230.









DIRECT FIRED (DF) PROFILE PLATE ASSEMBLY

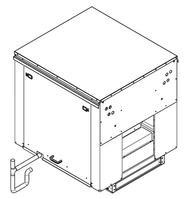
DIRECT FIRED PROFILE PLATE SPECIFICATIONS:
DESCRIPTION:
DIRECT FIRED BURNERS SHALL HAVE PATENTED (US PATENT NO: US6629529B2), SELF-ADJUSTING PROFILE PLATES DESIGNED TO ENSURE PROPER AIR VELOCITY AND PRESSURE DROP ACROSS THE BURNER. PROFILE PLATES SHALL ALLOW BURNERS TO ACHIEVE CLEAN COMBUSTION BY LIMITING BY-PRODUCT LEVELS TO A MAXIMUM OF 5PPM OF CARBON MONOXIDE (CO), AND 0.5PPM OF NITROGEN DIOXIDE (NO2)DIRECT FIRED UNITS SHALL BE CONFIGURED WITH THE BLOWER MOUNTED DOWNSTREAM OF THE BURNER. THIS ARRANGEMENT WILL ENSURE A CONSISTENT AIRFLOW, REGARDLESS OF INLET AIR TEMPERATURE.

APPLICATION:
SPRING-LOADED BURNER PROFILE PLATES ARE ENGINEERED TO AUTOMATICALLY REACT TO THE MOMENTUM OF A FRESH AIR STREAM, WITHOUT THE NEED FOR ANY MOTORS OR ACTUATORS TO MECHANICALLY ADJUST THEM. WITH THIS FEATURE, ALL DF UNITS ARE DESIGNED FOR DEMAND CONTROL VENTILATION (DCV) REQUIREMENTS.

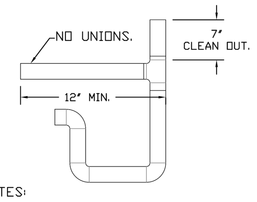
CERTIFICATIONS:
ALL PROFILE PLATE ASSEMBLIES SHALL BE INCLUDED IN THE DF UNIT'S ETL LISTING AND COMPLY WITH COMBINED SAFETY STANDARDS ANSI Z83.4 AND CSA 3.7 (NON-RECIRCULATING DF HEATERS) AND ANSI Z83.18 (RECIRCULATING DF HEATERS).

GENERAL CONSTRUCTION:
-PROFILE PLATES SHALL BE FORMED FROM G90 GALVANIZED STEEL.
-PROFILE PLATES SHALL VARY IN SIZE PER UNIT.
-PROFILE PLATES SHALL BE MOUNTED ALONG THE SAME PLANE AS THE DISCHARGE OF THE BURNER.
-DESIGN SHALL INCORPORATE PROPERLY TORQUED, PERMANENTLY MOUNTED SPRING HINGES.
-SPRING HINGES SHALL BE MADE FROM PLATED STEEL.

TYPICAL DRAIN TRAP INSTALL



RECOMMENDED COOLING COIL DRAIN TRAP CONFIGURATION.



NOTES:
1) 1" DIAMETER PVC PIPE ONLY.
2) USE ONLY LOW PROFILE COUPLINGS.
3) ADD CLEAN OUT AS SHOWN.

REVISIONS

	DESCRIPTION	DATE:
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2		
3		
4		

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Hood/MAU selection - Kory (Heat/Cool)
TULSA, OK, 74106

DATE: 5/7/2021

DWG.#: 4876742

DRAWN BY: RJH-80

SCALE: 3/4" = 1'-0"

MASTER DRAWING

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PROJECT: VINITA CULTURAL DEVELOPMENT CENTER

PROJECT: CHEROKEE NATION, OKLAHOMA

KEY PLAN

No.	Description	Date

SHEET TITLE: KITCHEN HVAC DETAILS

BID

PROJECT NO:	111-049.1
DRAWN BY:	MBW
CHK'D BY:	KMZ
ISSUE DATE:	5/7/2021

M604

Scale

KORY M. ZEHR 05.07.2021 22834 OKLAHOMA

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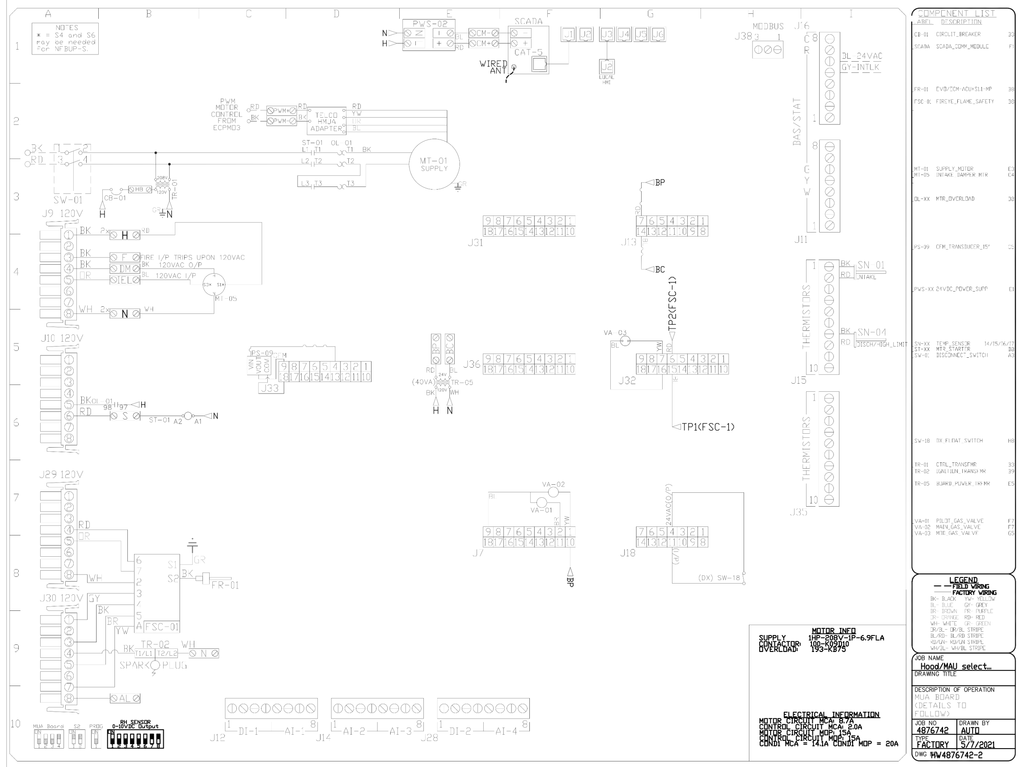

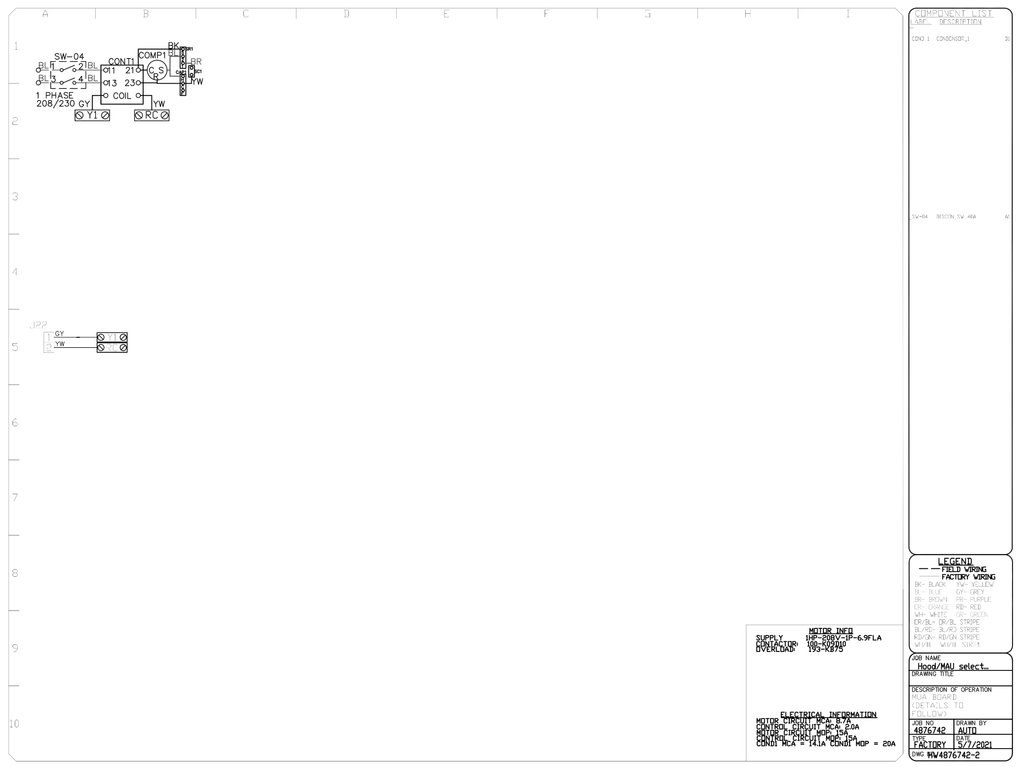

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Hood/MAU selection - Kory (Heat/Cool)
TULSA, OK, 74106

DATE: 5/7/2021

DWG.#: 4876742

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PROJECT: VINITA CULTURAL DEVELOPMENT CENTER

PROJECT: CHEROKEE NATION, OKLAHOMA

KEY PLAN

No.	Description	Date

SHEET TITLE: KITCHEN HVAC DETAILS

BID

PROJECT NO:	111-049.2
DRAWN BY:	MBW
CHK'D BY:	KMZ
ISSUE DATE:	5/7/2021

M605

Scale

LICENSED PROFESSIONAL ENGINEER — KORY M. ZEHR — 22834 — OKLAHOMA — 05.07.2021

5/7/2021 7:53:07 PM

ELECTRICAL PACKAGE – JOB#4876742

NO	TAG	PACKAGE #	LOCATION	SWITCHES LOCATION	SWITCHES QUANTITY	OPTION	FANS CONTROLLED TYPE	Φ	HP	VOLT	FLA
1		DCV-1111	WALL UTILITY CABINET LEFT	01 - FACE MOUNT LEFT SIDE OF HOOD	1 LIGHT	SMART CONTROLS DCV	EXHAUST	1	1.000	208	6.9
				HOOD # 1	1 FAN		SUPPLY	1	1.000	208	6.9

DEMAND CONTROL VENTILATION HOOD CONTROL PANEL SPECIFICATIONS:

- CONTROLS SHALL BE LISTED BY ETL (UL 508A) AND SHALL COMPLY WITH DEMAND VENTILATION SYSTEM TURNDOWN REQUIREMENTS OUTLINED IN IECC 403.2.8 (2015).
- THE CONTROL ENCLOSURE SHALL BE NEMA 1 RATED AND LISTED FOR INSTALLATION INSIDE OF THE EXHAUST HOOD UTILITY CABINET. THE CONTROL ENCLOSURE MAY BE CONSTRUCTED OF STAINLESS STEEL OR PAINTED STEEL.
- TEMPERATURE PROBE(S) LOCATED IN THE EXHAUST DUCT RISER(S) SHALL BE CONSTRUCTED OF STAINLESS STEEL.
- A DIGITAL CONTROLLER SHALL BE PROVIDED TO ACTIVATE THE HOOD EXHAUST FANS DYNAMICALLY BASED ON A FIXED DIFFERENTIAL BETWEEN THE AMBIENT AND DUCT TEMPERATURES SENSORS. THIS FUNCTION SHALL MEET THE REQUIREMENTS OF IMC 507.1.1.
- A DIGITAL CONTROLLER SHALL PROVIDE ADJUSTABLE HYSTERESIS SETTINGS TO PREVENT CYCLING OF THE FANS AFTER THE COOKING APPLIANCES HAVE BEEN TURNED OFF AND/OR THE HEAT IN THE EXHAUST SYSTEM IS REDUCED.
- A DIGITAL CONTROLLER SHALL PROVIDE AN ADJUSTABLE MINIMUM FAN RUN-TIME SETTING TO PREVENT FAN CYCLING.
- VARIABLE FREQUENCY DRIVES (VFDS) SHALL BE PROVIDED FOR FANS AS REQUIRED. THE DIGITAL CONTROLLER SHALL MODULATE THE VFDS BETWEEN A MINIMUM SETPOINT AND A MAXIMUM SETPOINT ON DEMAND. THE DUCT TEMPERATURE SENSOR INPUT(S) TO THE DIGITAL CONTROLLER SHALL BE USED TO CALCULATE THE SPEED REFERENCE SIGNAL.
- THE VFD SPEED RANGE OF OPERATION SHALL BE FROM 0% TO 100% FOR THE SYSTEM, WITH THE ACTUAL MINIMUM SPEED SET AS REQUIRED TO MEET MINIMUM VENTILATION REQUIREMENTS.
- AN INTERNAL ALGORITHM TO THE DIGITAL CONTROLLER SHALL MODULATE SUPPLY FAN VFD SPEED PROPORTIONAL TO ALL EXHAUST FANS THAT ARE LOCATED IN THE SAME FAN GROUP AS THE SUPPLY FAN.
- THE SYSTEM SHALL OPERATE IN PREP MODE DURING LIGHT COOKING LOAD OR COOL DOWN MODE WHEN SUFFICIENT HEAT REMAINS UNDERNEATH THE HOOD SYSTEM AFTER COOKING OPERATIONS HAVE COMPLETED. OPERATION DURING EITHER OF THESE PERIODS WILL DISABLE THE SUPPLY FANS AND PROVIDE AN EXHAUST FAN SPEED THAT IS EQUAL TO THE MINIMUM VENTILATION REQUIREMENT.
- A DIGITAL CONTROLLER SHALL DISABLE THE SUPPLY FAN(S), ACTIVATE THE EXHAUST FAN(S), ACTIVATE THE APPLIANCE SHUNT TRIP, AND DISABLE AN ELECTRIC GAS VALVE AUTOMATICALLY WHEN FIRE CONDITION IS DETECTED ON A COVERED HOOD.
- A DIGITAL CONTROLLER SHALL ALLOW FOR EXTERNAL BMS FAN CONTROL VIA DRY CONTACT (EXTERNAL CONTROL SHALL NOT OVERRIDE FAN OPERATION LOGIC AS REQUIRED BY CODE).
- AN LCD INTERFACE SHALL BE PROVIDED WITH THE FOLLOWING FEATURES:
  A. ON/OFF PUSH BUTTON FAN & LIGHT SWITCH ACTIVATION.
  B. INTEGRATED GAS VALVE RESET FOR ELECTRONIC GAS VALVES (NO RESET RELAY REQUIRED).
  C. VFD FAULT DISPLAY WITH AUDIBLE & VISUAL ALARM NOTIFICATION.
  D. DUCT TEMPERATURE SENSOR FAILURE DETECTION WITH AUDIBLE & VISUAL ALARM NOTIFICATION.
  E. MIS-WIRED DUCT TEMPERATURE SENSOR DETECTION WITH AUDIBLE & VISUAL ALARM NOTIFICATION.
  F. A SINGLE LOW VOLTAGE CAT-5 RJ45 WIRING CONNECTION.
  G. AN ENERGY SAVINGS INDICATOR THAT UTILIZES MEASURED KWH FROM THE VFDS.

TYPICAL HOOD CONTROL PANEL INSTALLATION

SEQUENCE OF OPERATIONS:
THE HOOD CONTROL PANEL IS CAPABLE OF OPERATING IN ONE OR MORE OF THE FOLLOWING STATES AT ANY GIVEN TIME:

- AUTOMATIC: THE SYSTEM OPERATES BASED ON THE DIFFERENTIAL BETWEEN ROOM TEMPERATURE AND THE TEMPERATURE AT THE HOOD CAVITY OR EXHAUST DUCT COLLAR. FANS ACTIVATE AT A CONFIGURABLE TEMPERATURE DIFFERENTIAL THRESHOLD. DEPENDING ON THE JOB CONFIGURATION EACH FAN ZONE CAN BE CONFIGURED AS STATIC OR DYNAMIC. THESE TERMS REFER TO WHETHER A VARIABLE MOTOR (SUCH AS EC MOTORS OR VFD DRIVEN MOTORS) MODULATE WITH TEMPERATURE. IF THE PANEL IS EQUIPPED WITH VARIABLE SPEED FANS AND THE ZONE IS DEFINED AS "DYNAMIC", THESE WILL MODULATE WITHIN A USER-DEFINED RANGE BASED ON THE TEMPERATURE DIFFERENTIAL. PANELS EQUIPPED WITH VARIABLE SPEED FANS AND A FAN ZONE DEFINED AS "STATIC", FANS WILL RUN AT A SET SPEED CALCULATED FOR THE DRIVE. DEMAND CONTROL VENTILATION SYSTEMS ARE CAPABLE OF MODULATING EXHAUST AND MAKE UP AIR FAN SPEEDS PER THE REQUIREMENTS OUTLINED IN IECC 403.2.8.
- MANUAL: THE SYSTEM OPERATES BASED ON HUMAN INPUT FROM AN HMI.
- SCHEDULE: A WEEKLY SCHEDULE CAN BE SET TO RUN FANS FOR A SPECIFIED PERIOD THROUGHOUT THE DAY. THERE ARE THREE OCCUPIED TIMES PER DAY TO ALLOW FOR THE USER TO SET UP A TIME THAT IS SUITABLE TO THEIR NEEDS. ANY TIME THAT IS WITHIN THE DEFINED OCCUPIED TIME, THE SYSTEM WILL RUN AT MODULATION MODE AND FOLLOW THE FAN PROCEDURE ALGORITHM BASED ON TEMPERATURE DURING THIS TIME. DURING UNOCCUPIED TIME, THE SYSTEM WILL HAVE AN EXTRA OFFSET TO PREVENT UNINTENDED ACTIVATION OF THE SYSTEM DURING A TIME WHERE THE SYSTEM IS NOT BEING OCCUPIED.
- OTHER: THE SYSTEM OPERATES BASED ON THE INPUT FROM AN EXTERNAL SOURCE (DDC, BMS OR HARD-WIRED INTERLOCK).
- FIRE: UPON ACTIVATION OF THE HOOD FIRE SUPPRESSION SYSTEM, THE EXHAUST FAN WILL COME ON OR CONTINUE TO TO RUN, THE HOOD MAKEUP AIR WILL SHUTDOWN, AND A SIGNAL WILL BE SENT FOR ACTIVATING THE SHUNT TRIP BREAKER PROVIDED BY THE ELECTRICIAN. FUEL GAS WILL SHUT OFF VIA A MECHANICAL/ELECTRICAL GAS VALVE ACTUATED BY THE HOOD FIRE SUPPRESSION SYSTEM.

REVISIONS

	DESCRIPTION	DATE:
△		
△		
△		
△		

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www.captiveaire.com
Tulsa Office
12101 East 51st Street, Suite 101A, Tulsa, OK, 74146 PHONE: (918) 258-0291 FAX: (919) 227-5947 EMAIL: reg80@captiveaire.com

Hood/MAU selection - Kory (Heat/Cool)
TULSA, OK, 74106

DATE: 5/7/2021
DWG.#: 4876742
DRAWN BY: RJH-80
SCALE: 3/4" = 1'-0"
MASTER DRAWING
SHEET NO. 7

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PROJECT
VINITA CULTURAL DEVELOPMENT CENTER

PROJECT
CHEROKEE NATION, OKLAHOMA

KEY PLAN

No.	Description	Date

SHEET TITLE
KITCHEN HVAC DETAILS

BID

PROJECT NO: 111-049.2
DRAWN BY: MBW
CHK'D BY: KMZ
ISSUE DATE: 5/7/2021

M606
Scale

LICENSED PROFESSIONAL ENGINEER KORY M. ZEHR 22834 OKLAHOMA 05.07.2021

5/7/2021 7:53:10 PM

SYMBOLS

PIPE

- EXISTING
- NEW
- EXISTING TO BE REMOVED
- G — NATURAL GAS
- V — VENT
- SS — SANITARY SEWER
- RD — ROOF DRAIN
- ORD — OVERFLOW ROOF DRAIN
- DOMESTIC COLD WATER
- DOMESTIC HOT WATER
- DOMESTIC HOT WATER RETURN
- F — FIRE LINE
- GW — GREASE WASTE
- PD — PUMPED DISCHARGE
- IR — IRRIGATION WATER

PIPE SPECIALTY

- BACKFLOW PREVENTER
- 2-WAY CONTROL VALVE
- 3-WAY CONTROL VALVE
- PRESSURE REDUCING VALVE
- UNION
- BALL VALVE
- OS & Y VALVE
- GATE VALVE
- GLOBE VALVE
- BUTTERFLY VALVE
- VERTICAL SHUT-OFF VALVE IN RISER
- DIRECTION OF FLOW
- CAP
- FM — FLOWMETER
- AUTOMATIC FLOW CONTROL VALVE
- PLUG VALVE OR COCK
- SWING CHECK VALVE
- WYE STRAINER WITH DRAIN VALVE & CAP
- TEMPERATURE & PRESSURE RELIEF VALVE
- PT — PRESSURE & TEMPERATURE TEST PLUGS
- P — PRESSURE GAUGE AND COCK
- THERMOMETER WITH WELL
- ANGLE THERMOMETER WITH WELL
- EXPANSION LOOP
- EJ — PIPE EXPANSION JOINT
- ALIGNMENT GUIDE
- ANCHOR
- FC — FLEXIBLE PIPE CONNECTOR

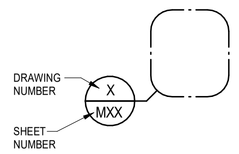
PLUMBING SPECIALTY

- P-X — PLUMBING FIXTURE TYPE. REFER TO PLUMBING FIXTURE SHCEDULE AND SPECIFICATIONS
- FROSTPROOF WALL HYDRANT
- FCO — FLOOR CLEANOUT
- WCO — CLEANOUT (ABOVE FLOOR)
- HB-X — HOSE BIBB
- HD-X — HUB DRAIN
- FD-X — SQUARE FLOOR DRAIN
- FD-X — ROUND FLOOR DRAIN
- RD-X — ROOF DRAIN
- P-TRAP

CONTROL DEVICES

- C — CONTROLLER
- DIFFERENTIAL PRESSURE SENSOR OR CONTROLLER
- F — FIRESTAT
- FL — FLOW TRANSMITTER OR CONTROLLER
- Fr — FREEZESTAT
- FS — FLOW SWITCH
- H — HUMIDITY SENSOR OR CONTROLLER
- H — HUMIDISTAT
- M — MANUAL ADJUSTER
- P — PRESSURE SENSOR OR CONTROLLER
- PE — PRESSURE SWITCH
- R — RELAY
- T — TEMPERATURE SENSOR OR CONTROLLER
- T — THERMOSTAT
- T — NIGHT THERMOSTAT (N)
- S — SOLENOID OPERATOR
- PNEUMATIC OPERATOR
- P — PRESSURE GAUGE
- ELECTRIC CONNECTION
- PNEUMATIC CONNECTION
- Tr — TRAP
- MA — MAIN AIR
- PP — POSITIVE POSITIONER
- SD — SMOKE DETECTOR
- TD — TRANSDUCTER
- TS — TEMPERATURE SENSOR

MISC SYMBOLS



- POINT OF CONNECTION, NEW TO EXISTING
- X — NUMBERED NOTE REFERENCE

FIRE SAFETY

- SPRINKLER HEAD UPRIGHT
- SPRINKLER HEAD PENDANT
- SPRINKLER HEAD FLUSH MOUNTED
- SPRINKLER HEAD SIDEWALL
- SPRINKLER HEAD (EXISTING)
- SPRINKLER HEAD (NEW OR RELOCATED LOCATION) AND NEW PIPING (1" UNLESS OTHERWISE INDICATED). REMOVE EXISTING (RELOCATE AS INDICATED)
- VPI — VALVE WITH POSITION INIDICATOR
- FHC-1 — FIRE HOSE CABINET-1
- FDVC-1 — FIRE DEPT. VALVE CABINET-1
- FAP — FIRE ALARM PANEL
- GAP — GRAPHIC ANNUNCIATOR PANEL
- RAP — REMOTE ANNUNCIATOR PANEL
- AUDIO/VISUAL ALARM
- M — MANUAL RELEASE STATION
- A — ABORT STATION
- E — EMERGENCY POWER OFF (EPO SWITCH)
- FIRE DEPARTMENT CONNECTION
- WATER MOTOR GONG

ABBREVIATIONS:

ACU	AIR CONDITIONING UNIT
AD	ACCESS DOOR
AFF	ABOVE FINISH FLOOR
AHU	AIR HANDLING UNIT
BD	BACKDRAFT DAMPER
BE	BOTTOM ELEVATION
BFF	BELOW FINISH FLOOR
BOD	BOTTOM OF DUCT
BOP	BOTTOM OF PIPE
CD	CONDENSATE
CHP	CHILLED WATER PUMP
CHW	CHILLED WATER
CT	COOLING TOWER
CWP	CONDENSER WATER PUMP
CP	CIRCULATING PUMP
CKTS	CIRCUITS
CV	CONSTANT VOLUME OR CONTROL VALVE
DIFF	DIFFUSER
DN	DOWN
DHW	DOMESTIC HOT WATER
DWG	DRAWING
EOM	END OF MAIN
EA	EXHAUST AIR
EF	EXHAUST FAN
FBO	FURNISHED BY OWNER (COMPANY)
FD	FIRE DAMPER
FL	FLOW LINE (INVERT)
FLA	FULL LOAD AMPS
FLR	FLOOR
IBO	INSTALLED BY OWNER (COMPANY)
ID	INSIDE DIAMETER
MTD	MOUNTED
NC	NORMALLY CLOSED
NO	NORMALLY OPEN
NTS	NOT TO SCALE
OBD	OPPOSED BLADE DAMPER
OA	OUTSIDE AIR
RA	RETURN AIR
SD	SMOKE DAMPER
SA	SUPPLY AIR
SF	SQUARE FEET OR SUPPLY FAN
TA	TRANSFER AIR
TYP	TYPICAL
UNO	UNLESS NOTED OTHERWISE
VTR	VENT THROUGH ROOF

GENERAL NOTES:

1. COMPLY WITH CURRENT BUILDING, MECHANICAL, PLUMBING AND OTHER GOVERNING CODES, STATE STATUTES, CITY ORDINANCES, AND REGULATIONS OF REGULATORY BODIES HAVING JURISDICTION.
2. INSTALL ALL PIPING AND FITTINGS IN ACCORDANCE WITH RECOGNIZED INDUSTRY PRACTICES WHICH WILL ACHIEVE PERMANENTLY-LEAKPROOF PIPING SYSTEMS, CAPABLE OF PERFORMING EACH INDICATED SERVICE WITHOUT FAILURE OR DEGRADATION OF SERVICE.

PLUMBING GENERAL NOTES:

1. ALL WORK SHALL MEET OR EXCEED APPLICABLE CODES AND SPECIFICATIONS.
2. LOCATE AND INSTALL ALL PLUMBING FIXTURES AND DEVICES IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
3. COORDINATE ALL PIPE ROUTING WITH MECHANICAL, ELECTRICAL, ARCHITECTURAL, AND STRUCTURAL TRADES PRIOR TO INSTALLATION.
4. REFER TO APPROPRIATE PLUMBING DETAILS FOR MOUNTING, SUPPORTING AND GROUPING OF PIPE RUNS AT VARIOUS LOCATIONS.
5. COORDINATE FLOOR SLAB AND FOUNDATION WALL PENETRATIONS WITH STRUCTURAL ENGINEER AND GENERAL CONTRACTOR PRIOR TO INSTALLATION OF FLOOR SLABS AND GRADE BEAMS.
6. INSTALL WALL CLEANOUT AT BASE OF ALL SANITARY SEWER AND ROOF DRAIN RISERS AS REQUIRED BY CODE, IF NOT ALREADY SHOWN ON DRAWINGS. COORDINATE LOCATION WITH ARCHITECT AND GENERAL CONTRACTOR.
7. INSTALL CLEANOUTS FOR ALL SANITARY SEWER, AND ROOF DRAIN PIPING AS REQUIRED BY CODE, IF NOT ALREADY SHOWN ON DRAWINGS. COORDINATE LOCATION WITH ARCHITECT AND GENERAL CONTRACTOR.
8. INSTALL TEST TEES FOR ALL SANITARY SEWER DRAIN PIPING AS REQUIRED BY CODE, IF NOT ALREADY SHOWN ON DRAWINGS. COORDINATE LOCATION WITH AUTHORITY HAVING JURISDICTION.
9. CLEANOUTS SIZES SHALL BE THE SAME NOMINAL SIZE AS THE PIPE THEY SERVE UP TO 4 INCHES. FOR PIPES LARGER THAN 4 INCHES NOMINAL SIZE, THE MINIMUM SIZE OF THE CLEANOUT SHALL BE 4", UNLESS NOTED OTHERWISE.

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PROJECT: VINITA CULTURAL DEVELOPMENT CENTER

PROJECT: CHEROKEE NATION, OKLAHOMA

KEY PLAN

No.	Description	Date

SHEET TITLE: PLUMBING SYMBOLS, NOTES AND ABBREVIATIONS

BID

PROJECT NO: 111-049.2
DRAWN BY: MBW
CHK'D BY: KMZ
ISSUE DATE: 5/7/2021

KORY M. ZEHR
05.07.2021
22834
REGISTERED PROFESSIONAL ENGINEER
OKLAHOMA

P001

Scale 1/8" = 1

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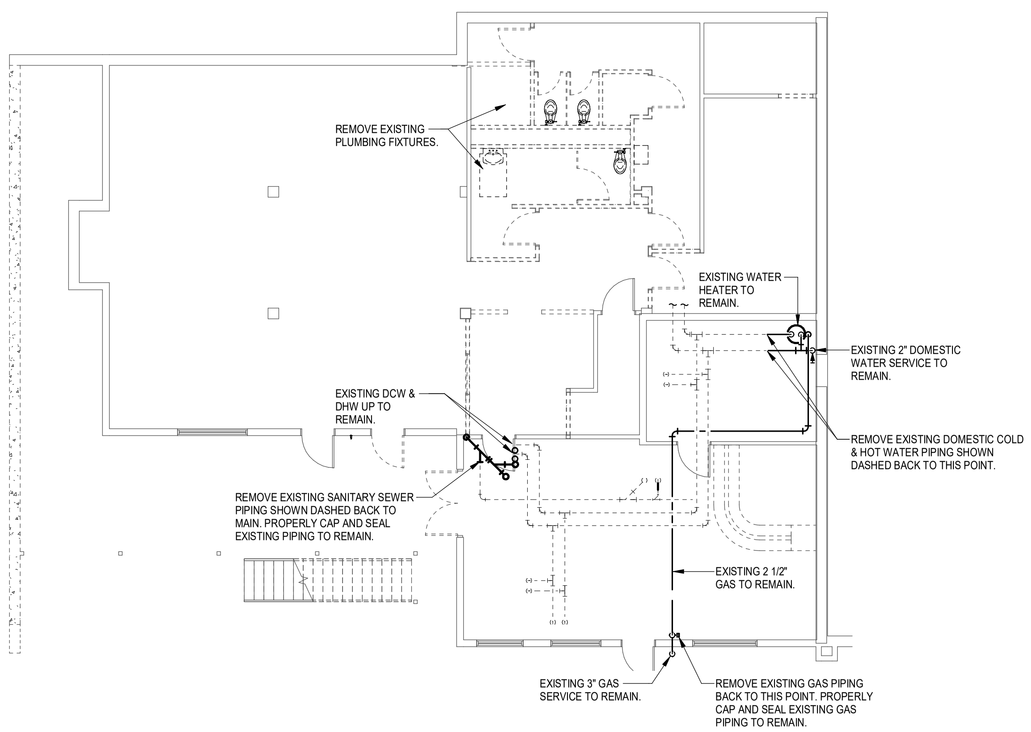
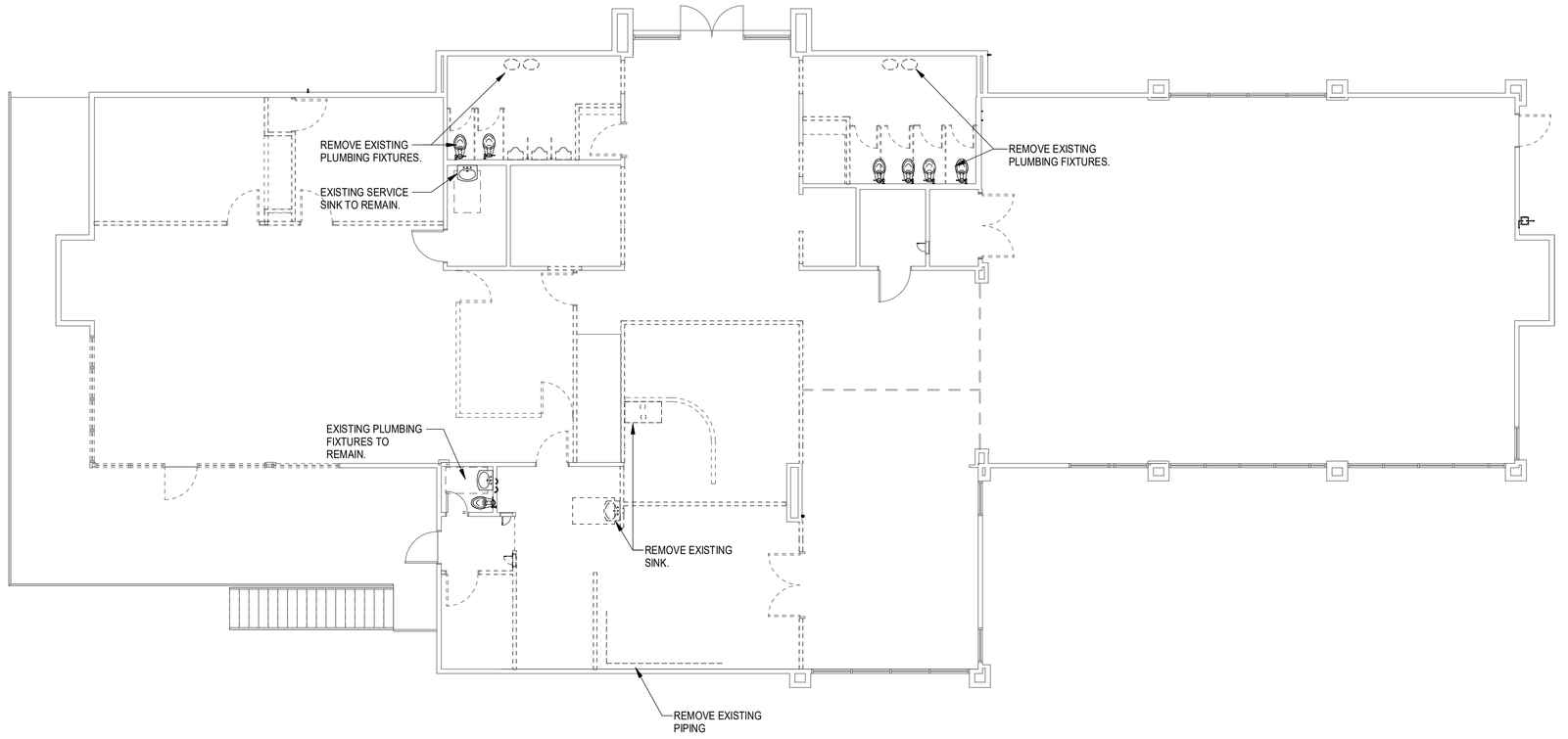
DEMOLITION GENERAL NOTES:

1. ALL SYSTEM SHUT-DOWNS SHALL BE COORDINATED WITH OWNER AND SCHEDULED AFTER NORMAL BUSINESS HOURS OR AS OTHERWISE APPROVED BY OWNER.
2. MEET WITH OWNER PRIOR TO DEMOLITION TO IDENTIFY WHETHER EXISTING MATERIALS, SYSTEMS, EQUIPMENT, ETC. ARE CONSIDERED SALVAGE OR DEBRIS. REMOVE DEBRIS FROM SITE AND DISPOSE OF IN APPROVED MANNER. RETURN SALVAGE TO OWNER IN A LOCATION AND MANNER AS DIRECTED BY OWNER.



LOWER LEVEL PLUMBING PLAN - DEMO ◀1
1/8" = 1'-0" PD101



UPPER LEVEL PLUMBING PLAN - DEMO ◀2
1/8" = 1'-0" PD101

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PROJECT: VINITA CULTURAL DEVELOPMENT CENTER

PROJECT
CHEROKEE NATION, OKLAHOMA

KEY PLAN

No.	Description	Date

SHEET TITLE
DEMOLITION - PLUMBING FLOOR PLANS

BID

PROJECT NO. 111-049.2
DRAWN BY: MBW
CHKD BY: KMZ
ISSUE DATE: 5/7/2021

PD101
Scale 1/8" = 1'

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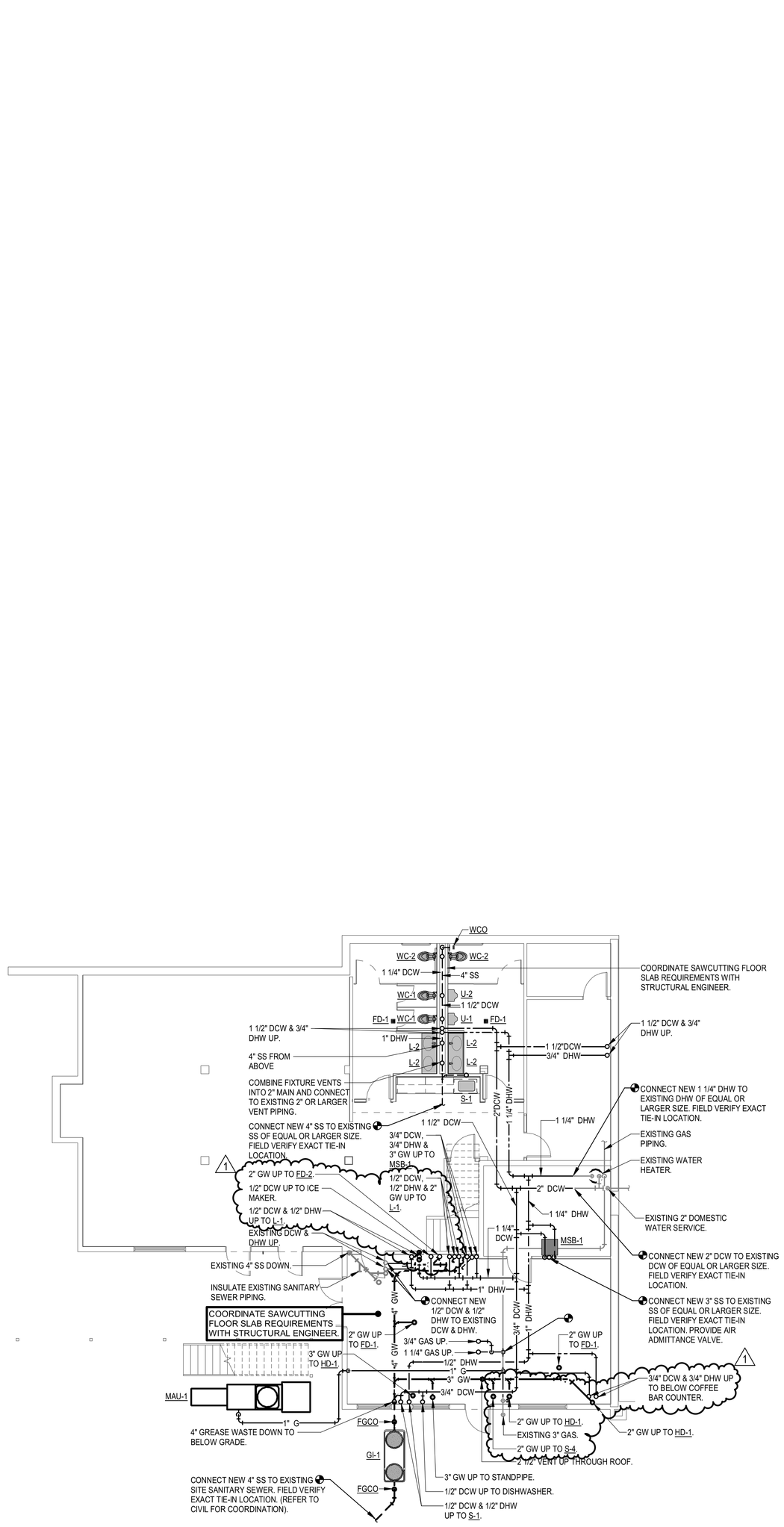
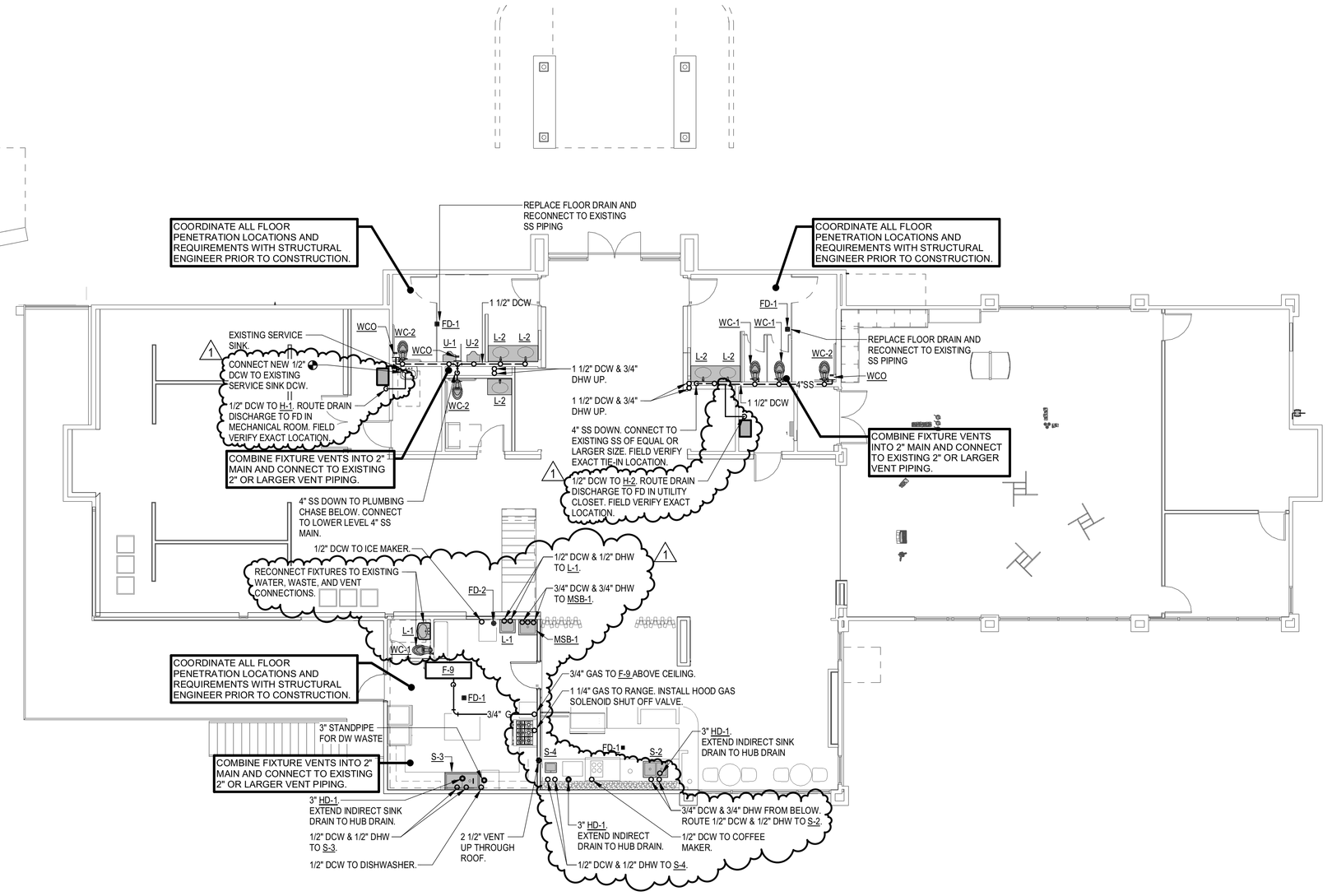
1/16"=1'-0" 0 8" 16" 32'
1/8"=1'-0" 0 4' 8' 16'
1/4"=1'-0" 0 2' 4' 8'
1/2"=1'-0" 0 1' 2' 4'
3/4"=1'-0" 0 1' 2'
1"=1'-0" 0 6" 1' 2'
1 1/2"=1'-0" 0 3" 6" 1'
3"=1'-0" 0 3" 6"



LOWER LEVEL PLUMBING PLAN ◀1

1/8" = 1'-0" P101



UPPER LEVEL PLUMBING PLAN ◀2

1/8" = 1'-0" P101

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PROJECT
VINITA CULTURAL DEVELOPMENT CENTER

PROJECT
CHEROKEE NATION, OKLAHOMA

KEY PLAN

No.	Description	Date
1	ASI-1	5/19/2021

SHEET TITLE
PLUMBING PLANS

BID SET

PROJECT NO:	111-049.20
DRAWN BY:	MBW
CHK'D BY:	KMZ
ISSUE DATE:	5/7/2021

KORY M. ZEHR 05.19.2021 22834 OKLAHOMA REGISTERED PROFESSIONAL ENGINEER

P101

Scale 1/8" = 1'-0"

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1/16"=1'-0" 0 8' 16' 32' | 1/8"=1'-0" 0 4' 8' 16' | 1/4"=1'-0" 0 2' 4' 8' | 1/2"=1'-0" 0 1' 2' 4' | 3/4"=1'-0" 0 1' 2' | 1"=1'-0" 0 6" 1' 2' | 1 1/2"=1'-0" 0 3" 6" 1' | 3"=1'-0" 0 3" 6"

GREASE INTERCEPTOR - SIZING CALCULATION

FIXTURE	QUANTITY	LENGTH	SIZE, EACH x WIDTH x	DEPTH	VOL. ea. Cu. In.	TOTAL GALS	DISPLACE-MENT MULT.	NET. VOL. GALLONS
KITCHEN SPACES								
2 COMPARTMENT SINK (S-2)	2	14	16	10	2240	19.39	0.75	14.5
HAND SINK	2	17	14	5	1190	10.30	0.75	7.7
2 COMPARTMENT SINK (S-3)	2	20	20	16	6400	55.41	0.75	41.6
MOP SINK	1	24	24	10	5760	24.94	0.75	18.7
						TOTAL GALLONS		83
TOTAL GALLONS		(FIXTURES) / 1 MINUTE FLOW RATE = (X)GPM						83
		DISH WASHER DRAIN (GPM) =						15
MINIMUM GPM =								**98**

NOTES: 1. SIZING CALCULATIONS ARE IN ACCORDANCE WITH PDI GUIDELINES AND 2015 INTERNATIONAL PLUMBING CODE.

INTERCEPTOR SCHEDULE

UNIT DESIGNATION	GI-1	
MANUFACTURER	ENDURA	
MODEL NO.	XL100	
INTERCEPTOR TYPE	GREASE	
FLOW RATE - GPM	100	
INLET/OUTLET PIPE SIZE - NPS	4	
VENT PIPE SIZE - NPS	4	
REMARKS	1,2,3,4	

REMARKS
1. TOP OF MANHOLE FLUSH WITH GRADE.
2. RISER EXTENSION TO GRADE. FIELD VERIFY HEIGHT.
3. TRAFFIC RATED ACCESS COVER AND FRAME.
4. INTERGRAL INTERIOR FLOW CONTROL SYSTEM.

PLUMBING FIXTURE SCHEDULE

UNIT DESIGNATION		WC-1	WC-2	U-1 & 2	L-1	L-2	S-1	S-2	S-3	MSB-1	S-4
FIXTURE TYPE		WATER CLOSET FLOOR MOUNTED FLUSH VALVE	WATER CLOSET FLOOR MOUNTED FLUSH VALVE	URINAL WALL MOUNTED FLUSH VALVE	LAVATORY WALL MOUNTED 21-1/4"X18-1/8"	LAVATORY CUSTOM VESSEL BY OTHERS	SINK SINGLE COMPART 25"X22"X8 1/2"	SINK TWO COMPART. (2) 14"X16"X10"	POT SINK TWO COMPART. (2) 20"X20"X16"	SQUARE MOP SINK BASIN 24"X24"X10"	HANDSINK SINGLE COMPART.
MATERIAL/COLOR		VITREOUS CHINA WHITE	VITREOUS CHINA WHITE	VITREOUS CHINA WHITE	VITREOUS CHINA WHITE	-- --	STAINLESS STEEL	STAINLESS STEEL	STAINLESS STEEL	MOLDED FIBERGLASS	STAINLESS STEEL
ADA COMPLIANT? (YES/NO)		NO	YES	YES	YES	YES	NO	NO	NO	NO	NO
MANUFACTURER		KOHLER	KOHLER	KOHLER	KOHLER	--	ELKAY	ADVANCE TABCO	CUSTOM BY OTHERS	FLORESTONE	ADVANCE TABCO
MODEL NUMBER		K-96053	K-96057	K-4991-ET	K-2007	--	LR2522	DI-2-1410		MSR-2424	DI-1-10
TRIM	VALVE	SLOAN 111 SFSM-1.6-HW	SLOAN 111 SFSM-1.6-HW	SLOAN REGAL 186 SFSSM-0.5-HW							
	SEAT	KOHLER: MODEL K-4670-SA	KOHLER: MODEL K-4670-SA								
	CARRIER			ZURN SERIES 1200		ZURN Z1231					
	FAUCET				SLOAN EFX-300 GRID	SLOAN EFX-100 GRID	ELKAY LKD2439C ELKAY	ADV. TABCO K-208 WRISTBLADE K-6 BASKET DRAINS	T&S BRASS B-0133 K-6 BASKET DRAINS	MOEN 8320 GRID STAINER	ADV. TABCO K-52 K-67 DRAIN W/LEVER HANDLE
	DRAIN				STRAINER	STRAINER	LK35			MOEN 8198 MOP HANGER & 8199 HOSE BRACKET, MR377 WALL GUARDS (2)	
	MISCELLANEOUS	HARD WIRED SENSOR OPERATED FLUSH VALVE EL-451 XFMR	HARD WIRED SENSOR OPERATED FLUSH VALVE EL-451 XFMR	HARD WIRED SENSOR OPERATED FLUSH VALVE EL-451 XFMR	0.5 GPM AERATOR, CHROME PLATED HARD WIRED SENSOR FAUCET EL-451 XFMR	0.5 GPM AERATOR, CHROME PLATED HARD WIRED SENSOR FAUCET EL-451 XFMR					
WASTE & VENT	ABOVE GROUND	4"	4"	2"	1 1/2"	1 1/2"	1 1/2"	1 1/2"	2"	3"	1 1/2"
	BELOW GROUND	4"	4"	2"	2"	2"	2"	2"	2"	3"	2"
	VENT	2"	2"	2"	1 1/2"	1 1/2"	1 1/2"	1 1/2"	2"	2"	1 1/2"
WATER SUPPLY	COLD	1"	1"	3/4"	1/2"	1/2"	1/2"	1/2"	1/2"	3/4"	1/2"
	HOT	---	---	---	1/2"	1/2"	1/2"	1/2"	1/2"	3/4"	1/2"
	TEMPERED	---	---	---	1/2"	1/2"	---	---	---	--	---
REMARKS					1,2,3	1,2,3	1,3	1,2,3			1,3

NOTES (APPLICABLE TO ALL FIXTURES)
A. REFER TO ARCHITECTURAL ELEVATIONS FOR FIXTURE MOUNTING HEIGHTS.
B. REFER TO SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.
C. PROVIDE COPPER PISTON TUBE WATER HAMMER ARRESTORS ON WATER LINES CONNECTED TO SOLENOID VALVES, FLUSH VALVES, AND TO FIXTURE GROUPS OR INDIVIDUAL FIXTURES. FURNISH WHERE INDICATED OR REQUIRED. SHOCK ABSORBERS SHALL BE PROPERLY SIZED, PROPERLY LOCATED IN AN EFFECTIVE RANGE FROM EQUIPMENT, AND IN ACCORDANCE WITH THE PDI STANDARD WH201.
D. PROVIDE FLEXIBLE CHROME PLATED SUPPLIES WITH LOOSE-KEY STOPS (HAND WHEEL STOPS) AND ESCUTCHEONS AT WATER SUPPLIES TO EACH FIXTURE.
E. DIMENSIONS SHOWN ABOVE ARE NOMINAL.

ACCEPTABLE MANUFACTURERS: KOHLER, SLOAN, AMERICAN STANDARD, ZURN, FIAT, CRANE, CHICAGO FAUCET, ELKAY, JUST, FLORESTONE,WOODFORD, MURDOCK, OASIS, HALSEY, HAWS, SUNROC, EAGLE, AERO, T&S.
REMARKS (APPLICABLE WHERE NOTED AT THE SPECIFIC FIXTURE)

1. PROVIDE ASSE 1070 THERMOSTATIC MIXING VALVE TO SUPPLY 110 DEG F. TEMPERED WATER TO FIXTURE HOT WATER SUPPLY (POWERS HYDROGUARD SERIES 480 OR EQUAL). INSTALL UNDER LAVATORY IN ACCESSIBLE LOCATION (UNIT MAY BE INSTALLED BEHIND REMOVABLE COUNTER SKIRT).
2. INSTALL TRUEBRO, INC. OR EQUAL, REMOVABLE (SNAP CLIP FASTENERS) WHITE PROTECTIVE COVERS ON DRAIN LINE AND WATER SUPPLIES/STOP VALVES FOR ADA COMPLIANT INSTALLATION.
3. PROVIDE 17 GAUGE CHROME PLATED P-TRAP WITH CLEANOUT, INSTALL WASTE ELL AT BOTTOM OF BOWL AND PIPE HORIZONTALLY BACK TO P-TRAP INSTALLED AGAINST WALL.

PLUMBING SPECIALTIES SCHEDULE

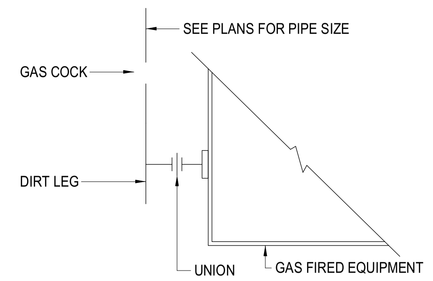
UNIT DESIGNATION		FD-1	FD-2	WCO	FCO	FGCO	HD-1
FIXTURE TYPE		FLOOR DRAIN FINISHED AREA	FLOOR DRAIN UNFINISHED AREA	WALL CLEANOUT	FLOOR CLEANOUT	FINISHED GRADE CLEANOUT COVER	HUB DRAIN
MANUFACTURER		ZURN	ZURN	ZURN	ZURN	JAY R. SMITH	STAINLESS DRAINS.
MODEL NUMBER		Z-415	Z-415	Z1441	Z1400	4880	SDCHB-R4X060
BODY MATERIAL		CAST IRON	CAST IRON	CAST IRON	CAST IRON	CAST IRON	STAINLESS STEEL
TOP OR STRAINER MATERIAL		NICKEL BRONZE	NICKEL BRONZE	STAINLESS STEEL	NICKEL BRONZE	NICKEL BRONZE	
TOP OF BODY AND STRAINER FINISH		POLISHED NICKEL BRONZE	POLISHED NICKEL BRONZE	STAINLESS STEEL	POLISHED NICKEL BRONZE	NICKEL BRONZE	
TOP SHAPE		SQUARE	ROUND	ROUND	ROUND	ROUND	ROUND
STRAINER TYPE		S	E				
TOP OR STRAINER SIZE - INCHES		6X6	6	SEE PLANS	SEE PLANS	SEE PLANS	
FUNNEL (YES OR NO)		NO	YES	NO	NO		
OUTLET		BOTTOM	BOTTOM	SIDE	BOTTOM		BOTTOM
TOP LOADING CLASSIFICATION		NONE	NONE	NONE	HEAVY DUTY	EXTRA HEAVY DUTY	NONE
MISCELLANEOUS				VANDAL PROOF SECURED COVER	VANDAL PROOF SECURED TOP	ROUND HOUSING AND COVER	
WASTE & VENT	ABOVE GROUND	2"	2"	SEE PLANS	SEE PLANS	SEE PLANS	SEE DRAWINGS
	BELOW GROUND	2"	2"	SEE PLANS	SEE PLANS	SEE PLANS	SEE DRAWINGS
	VENT	1 1/2"	1 1/2"	--	--	--	
REMARKS		1	1				2,3

GENERAL NOTE:
A. SELECTION BASED ON MANUFACTURERS AND MODEL NUMBERS INDICATED.
ACCEPTABLE MANUFACTURERS: ZURN, WADE, JAY R SMITH, JOSAM, WATTS.
REMARKS (APPLICABLE WHERE NOTED AT THE SPECIFIC FIXTURE)
1. RECTORSEAL SURESEAL ASSE 1072 DRAIN TRAP GUARD.
2. REFER TO DRAWINGS FOR OUTLET SIZE.
3. PROVIDE MANUFACTURER'S STAINLESS STEEL SEDIMENT BASKET.

PLUMBING PIPING INSULATION SCHEDULE

SYSTEM			DOMESTIC COLD WATER	DOMESTIC HOT AND RETURN	SANITARY SEWER	
INDOOR	SIZE/THICKNESS		</= 1" NPS / 1/2" >/= 1 1/4" NPS / 1"	>/= 1 1/4" NPS / 1" >/= 1 1/4" NPS / 1 1/2"	ALL / 1/2"	
	TYPE		WRAP	WRAP	WRAP	
	MATERIAL		FIBERGLASS	FIBERGLASS	FIBERGLASS	
	FIELD-APPLIED	CONCEALED	NONE	NONE	NONE	
	JACKET	EXPOSED	NONE	NONE	NONE	
	REMARKS				1	

REMARKS
1. INSULATE ALL OVERHEAD SANITARY SEWER PIPING, ABOVE CEILING AND EXPOSED.



GAS CONNECTION DETAIL 1
NO SCALE P500

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PROJECT
VINITA CULTURAL DEVELOPMENT CENTER

PROJECT
CHEROKEE NATION, OKLAHOMA

KEY PLAN

No.	Description	Date
1	ASI-1	5/19/2021

SHEET TITLE
PLUMBING SCHEDULES AND DETAILS

BID SET

PROJECT NO: 111-049.20
DRAWN BY: MBW
CHK'D BY: KMZ
ISSUE DATE: 5/7/2021

KORY M. ZEHR 05.19.2021 22634 OKLAHOMA

P500
Scale 1/8" = 1'-0"

5/19/2021 3:05:15 PM

ELECTRICAL SYMBOLS LIST

3	DUPLEX CONVENIENCE OUTLET, +18" A.F.F. U.O.N., NUMBER DENOTES CIRCUIT, (EXAMPLE 3).
2	SIMPLEX CONVENIENCE OUTLET, +18" A.F.F. U.O.N., NUMBER DENOTES CIRCUIT, (EXAMPLE 2).
GFI	GFI DENOTES GROUNG FAULT INTERUPTING.
WP	WP DENOTES IN-USE WEATHERPROOF COVER.
IG	IG DENOTES ISOLATED GROUND.
R	R DENOTES DEVICE TO BE REMOVED.
	SPECIAL RECEPTACLE OUTLET CONFIGURATION.
	DOUBLE DUPLEX RECEPTACLE OUTLET.
J1	JUNCTION BOX, NUMBER DENOTES CIRCUIT (EXAMPLE 1)
HB	JUNCTION BOX WITH BLANK COVER PLATE +18" A.F.F U.O.N., PROVIDE PLASTER RING AND PULL STRING TO ACCESSIBLE CEILING SPACE.
	COMBINATION FIRE RATED POWER/TELEPHONE/DATA OUTLET.
	TELEPHONE OUTLET, +18" A.F.F. U.O.N. INSTALL 4" SQUARE EXTRA DEEP BOX WITH SINGLE GANG RAISED COVER (MUD RING) AND 3/4" C. STUBBED INTO ACCESSIBLE CEILING SPACE. IN CEILING PLENUM, THE CONDUIT SHALL BE FURNISHED WITH A PROTECTIVE BUSHING AND PULL STRING. PROVIDE ONE DEDICATED CONDUIT PER OUTLET. FURNISH AND INSTALL TWO (2) PHONE CABLE AND JACK.
W	TELEPHONE OUTLET, WALL MOUNTED +46" A.F.F. U.O.N. INSTALL 4" SQUARE EXTRA DEEP BOX WITH SINGLE GANG RAISED COVER (MUD RING) AND 3/4" C. STUBBED INTO ACCESSIBLE CEILING SPACE. IN CEILING PLENUM, THE CONDUIT SHALL BE FURNISHED WITH A PROTECTIVE BUSHING AND PULL STRING. PROVIDE ONE DEDICATED CONDUIT PER OUTLET. FURNISH AND INSTALL TWO (2) PHONE CABLE AND JACK.
	COMBINATION TELEPHONE/DATA OUTLET, +18" A.F.F. U.O.N. INSTALL 4" SQUARE EXTRA DEEP BOX WITH SINGLE GANG RAISED COVER (MUD RING) AND 3/4" C. STUBBED INTO ACCESSIBLE CEILING SPACE. IN CEILING PLENUM, THE CONDUIT SHALL BE FURNISHED WITH A PROTECTIVE BUSHING AND PULL STRING. PROVIDE ONE DEDICATED CONDUIT PER OUTLET. FURNISH AND INSTALL TWO (2) DATA CABLE/JACK AND TWO (2) PHONE CABLE/JACK.
C	EXTERIOR DATA CABLE SERVICE, +18" A.F.F. U.O.N. PROVIDE DEDICATED CONDUIT, DATA CABLE AND JACK AS INDICATED, REFER TO ELECTRICAL NUMBERED NOTES.
WAP	WIRELESS ACCESS POINT AT CEILING. PROVIDE 20' OF COILED COMMUNICATION CABLE WITH RJ-45 TERMINATION ABOVE CEILING. OWNER TO FURNISH WIRELESS DEVICE.
T	OUTLET FOR CABLE TV, +18" A.F.F. U.O.N. INSTALL 4" SQUARE EXTRA DEEP BOX WITH SINGLE GANG RAISED COVER (MUD RING) AND 3/4" C. STUBBED INTO ACCESSIBLE CEILING SPACE. IN CEILING PLENUM, THE CONDUIT SHALL BE FURNISHED WITH A PROTECTIVE BUSHING AND PULL STRING. PROVIDE ONE DEDICATED CONDUIT PER OUTLET. FURNISH AND INSTALL ONE (1) CABLE TV COAX CABLE AND JACK. PROVIDE COAX CABLE WITH HDTV TRANSMISSION CAPABILITY.
FACP	FIRE ALARM CONTROL PANEL.
F	FIRE ALARM MANUAL PULL STATION, +46" A.F.F. U.O.N. INTERFACE TO BASE BUILDING FIRE ALARM SYSTEM.
SB	ADA APPROVED STROBE LIGHT. MATCH BUILDING STANDARD. MOUNT BOTTOM OF DEVICE AT 80" A.F.F. INTERCONNECT TO BASE BUILDING FIRE ALARM SYSTEM. VERIFY CAPACITY OF POWER SUPPLY. PROVIDE NEW POWER SUPPLY AS REQUIRED.
SSB	ADA APPROVED STROBE LIGHT WITH SPEAKER. MATCH BUILDING STANDARD. MOUNT BOTTOM OF DEVICE AT 80" A.F.F. INTERCONNECT TO BASE BUILDING FIRE ALARM SYSTEM. VERIFY CAPACITY OF POWER SUPPLY. PROVIDE NEW POWER SUPPLY AS REQUIRED.
1 SC	SECURITY CAMERAS, FURNISHED AND INSTALLED BY OWNER. CABLING, TERMINATIONS, TESTING AND MAPPING BY THE CONTRACTOR.

F	DISCONNECT SWITCH, FUSED.
	DISCONNECT SWITCH, NON-FUSED.
F	COMBINATION STARTER, FUSED.
	COMBINATION STARTER, NON-FUSED.
S_T	MANUAL MOTOR STARTER WITH THERMAL OVERLOAD.
2	ELECTRIC MOTOR, NEC, MAKE CONNECTIONS ONLY. NUMBER DENOTES CIRCUIT. (EXAMPLE: 2)
	PANELBOARD, SURACE MOUNTED.
	PANELBOARD, RECESSED MOUNTED.
	CONDUIT HOMERUN, CONTINUOUS RUN TO PANEL OR EQUIPMENT CABINET.
G	CROSSMARKS ON BRANCH CIRCUIT CONDUIT RUNS INDICATE THE QUANTITY OF CONDUCTORS, EXCEPT NO CROSSMARKS INDICATE TWO #12 AWG CONDUCTORS. LONG CROSSMARKS INDICATE PHASE CONDUCTORS AND SHORT CROSSMARKS WITHOUT DESIGNATION ARE NEUTRAL CONDUCTORS. SHORT CROSSMARKS WITH "G" ARE SEPARATE EQUIPMENT GROUNDING CONDUCTORS. ALL CONDUCTORS SHALL BE #12 AWG U.O.N. ALL PVC CONDUITS SHOULD HAVE SEPARATE GROUNDING CONDUCTOR.
	FLEXIBLE METALLIC CONDUIT.
E	EMERGENCY POWER OFF PUSHBUTTON WITH LIFT COVER +46" A.F.F. U.O.N.
S_a	SINGLE POLE TOGGLE OR MOMENTARY CONTACT SWITCH, +46" A.F.F. U.O.N. "a" INDICATES FIXTURES SWITCHED. ALSO USED IN LOW VOLTAGE SWITCHING TO CONTROL REMOTE CONTACTOR OR IN DIRECT LINE VOLTAGE SWITCHING.
S_3	THREE-WAY TOGGLE SWITCH, +46" A.F.F. U.O.N.
S_D	WALL BOX DIMMER SWITCH, +46" A.F.F. U.O.N.
a B 3	LED FIXTURE. LOWER CASE LETTER INDICATES CONTROLLING SWITCH, "a". UPPER CASE LETTER INDICATES FIXTURE TYPE, i.e. "B". NUMERAL INDICATES PANEL CIRCUIT NUMBER, i.e. "3". SWITCH, FIXTURE TYPE, AND CIRCUIT NUMBERS ARE TYPICAL FOR ALL LIGHTING FIXTURES. WHERE TWO SWITCHING DESIGNATIONS ARE SHOWN CIRUCIT ONE LAMP OF TWO LAMP FIXTURES AND OUTER LAMPS OF 3 AND 4 LAMP FIXTURES TO THE FIRST SWITCHING DESIGNATION SHOWN. AND THE REMAINING LAMP(S) TO THE SECOND DESIGNATION SHOWN.
	LED FIXTURE.
	LED, INCANDESCENT, FLUORESCENT OR H. I. D. FIXTURE.
O	LED, INCANDESCENT, FLUORESCENT OR H. I. D. FIXTURE, WALL MOUNTED.
	LED, INCANDESCENT, FLUORESCENT OR H. I. D. SCONCE.
	LED, INCANDESCENT, FLUORESCENT OR H. I. D. WALL WASHER.
SF	SINGLE FACE EXIT FIXTURE, CEILING OR WALL MOUNTED, PROVIDE DIRECTIONAL ARROW IF SHOWN. BRACKET DENOTES WALL MOUNTING. MOUNT FIXTURE FACE PARALLEL TO ADJACENT DOOR WHERE APPLICABLE.
DF	DOUBLE FACE EXIT FIXTURE, CEILING OR WALL MOUNTED, PROVIDE DIRECTIONAL ARROWS AS SHOWN. BRACKET DENOTES WALL MOUNTING. MOUNT FIXTURE FACE PERPENDICULAR TO ADJACENT DOOR WHERE APPLICABLE.
1	NUMBERED NOTE: REFER TO SHEET CONTAINING NUMBERED NOTES.
H	HEAT DETECTOR, INTERCONNECT TO BASE BUILDING FIRE ALARM SYSTEM.
SD	SMOKE DETECTOR, INTERCONNECT TO BASE BUILDING FIRE ALARM SYSTEM.
S	SOUND SYSTEM OR VOICE ALARM/PAGING SPEAKER. INTERFACE WITH FIRE ALARM SYSTEM.

ELECTRICAL GENERAL NOTES

1. THE SPACE ALLOCATION SHOWN ON THE PLAN DRAWINGS ARE BASED ON ONLY ONE MANUFACTURER. THE CONTRACTOR SHALL VERIFY THAT THE PROPOSED SWITCHGEAR (INCLUDING SWITCHBOARDS, PANELBOARDS AND TRANSFORMERS) WILL SATISFY THE SPACE REQUIREMENTS SHOWN ON THE DRAWINGS.
2. WHERE CEILING SPACE IS A RETURN AIR PLENUM, ALL WIRING IN CEILING SPACE MUST BE IN CONDUIT OR USE TEFLON JACKETED CABLE TO MEET RETURN AIR PLENUM REQUIREMENTS.
3. THE CONTRACTOR IS RESPONSIBLE FOR SURVEYING THE SITE TO DETERMINE ALL EXISTING CONDITIONS RELATED TO THE NEW CONSTRUCTION.
4. SURFACE MOUNTED PANELS, DEVICES, AND RACEWAY WILL ONLY BE ALLOWED IN MECHANICAL AREAS.
5. COMBINATION OF HOMERUN CIRCUITS SHALL BE AS FOLLOWS:
   A. ALL CIRCUITS WITH SEPARATE HOMERUN ARROWS SHALL BE INSTALLED IN DEDICATED CONDUITS. DO NOT COMBINE WITH OTHER BRANCH CIRCUITS.
   B. ALL BRANCH CIRCUITS LARGER THAN 20A SHALL BE SEPARATELY HOMERUN TO PANEL.
   C. A MAXIMUM OF SIX 20A BRANCH CIRCUIT PHASE CONDUCTORS IN COMMON HOMERUN.
   D. MINIMUM BRANCH CIRCUIT CONDUCTOR SHALL BE #12AWG, THHN.
   E. ALL 120V CIRCUITS SERVING NON-LIGHTING BRANCH CIRCUITS SHALL HAVE SEPARATE #12 AWG EQUIPMENT GROUNDING CONDUCTOR.
6. ELECTRICAL CONTRACTOR TO COORDINATE THE MOUNTING HEIGHTS OF ALL COMMUNICATION OUTLETS AND RECEPTACLES WITH ARCHITECTURAL DETAILS.
7. IN AREAS WHERE COMMUNICATION OUTLETS ARE INSTALLED IN WALLS THAT DO NOT GO UP TO THE CEILING OR IN WALLS OF ROOM WITH A GYPBOARD CEILING, CONTRACTOR SHALL INSTALL 3/4" CONDUIT FROM OUTLET TO ACCESSIBLE CEILING.
8. ALL 120V BRANCH CIRCUITS GREATER THAN 100' SHALL BE #10 THHN, MINIMUM.
9. CONTRACTOR SHALL INSTALL A PULL STRING IN ALL EMPTY CONDUITS.
10. CONTRACTOR SHALL MAINTAIN MINIMUM SEPARATION OF 24" BETWEEN TELEPHONE CONDUIT AND PRIMARY CONDUIT.
11. CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING STARTER TYPE, OVERLOAD SIZE, AND DISCONNECT SIZE FOR ALL MOTORS IN EACH AIR HANDLER UNIT ROOM WITH MECHANICAL CONTRACTOR.
12. REFER TO ARCHITECTURAL DRAWINGS FOR EXACT LOCATION OF ALL FLOOR DEVICES. LOCATIONS SHALL BE IN ACCORDANCE WITH ALL UNDERWRITERS LABORATORIES AND LOCAL AUTHORITY REQUIREMENTS. IN NO CASE SHALL FIRE RATED POKE-THROUGH DEVICES BE INSTALLED LESS THAN 24" ON CENTER AND/OR MORE THAN ONE (1) PENETRATION PER 65 SQUARE FEET OF FLOOR AREA OF BEAM SPACE.
13. CONTRACTOR TO LOCATE ALL LIGHTING FIXTURES PER ARCHITECTURAL REFLECTED CEILING PLANS.
14. ALL DEVICES IN ONE ROOM SHALL BE INSTALLED AT THE SAME HEIGHT. REFER TO SYMBOLS LIST FOR PREFERRED MOUNTING HEIGHTS OF DEVICES. MAXIMUM MOUNTING HEIGHT OF SWITCHES/OUTLETS SHALL BE 48". MAXIMUM MOUNTING HEIGHT OF RECEPTACLES/OUTLETS SHALL BE 18", MINIMUM MOUNTING HEIGHT SHALL BE 14".

1
15. ALL NEW ELECTRICAL PANELS SHALL BE INSTALLED A MINIMUM OF 8" FROM ADJACENT PERPENDICULAR WALLS (TO ALLOW FOR FUTURE INSTALLATION OF ELECTRICAL PANELS ON ADJACENT PERPENDICULAR WALLS).
16. CONTRACTOR SHALL ALLOW A MAXIMUM OF 5% VOLTAGE DROP ON ALL EMERGENCY BRANCH CIRCUITS THROUGHOUT THE AREAS UNDER THIS CONTRACT. CONTRACTOR SHOULD SIZE THE EMERGENCY BRANCH CIRCUITS FEEDERS ACCORDINGLY TO MAINTAIN THE MAXIMUM VOLTAGE DROP AS LISTED ABOVE.

ELECTRICAL DEMOLITION NOTES

1. CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING EXISTING ELECTRICAL SERVICE TO ALL REMAINING AREAS OF THE FACILITY THROUGHOUT THE PROJECT EXCEPT DURING SCHEDULED SHUTDOWN TIMES. ANY SHUTDOWNS OF THE EXISTING FACILITY SHALL BE MUTUALLY AGREED UPON BY OWNER AND CONTRACTOR. CONTRACTOR SHALL GIVE OWNER MINIMUM OF TWO WEEKS NOTICE OF ANY SHUTDOWNS OF EXISTING FACILITY.
2. CONTRACTOR SHALL SURVEY THE SITE TO CONFIRM FIELD CONDITIONS. THE CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFYING THESE CONDITIONS.
3. UNLESS OTHERWISE NOTED ALL EXISTING ELECTRICAL EQUIPMENT/DEVICES, FIRE ALARM EQUIPMENT/DEVICES, AND COMMUNICATIONS EQUIPMENT/DEVICES SHALL BE REMOVED. EQUIPMENT/DEVICES SHALL INCLUDED, BUT NOT BE LIMITED TO: SWITCH BOARDS, PANELBOARDS, FEEDERS, TRANSFORMERS, DISCONNECTS, ELECTRICAL OUTLETS, CONDUITS, JUNCTION BOXES, CONDUCTORS, LIGHT FIXTURES, FIRE ALARM CABLES, SMOKE DETECTORS, PULL STATIONS, HORNS, STROBES, COMMUNICATION CABLES, COMMUNICATION OUTLETS.

   ITEMS TO REMAIN SHALL INCLUDE:
   A. EXTERIOR "PERIOD" FIXTURES AND THEIR ASSOCIATED CONDUITS (REMOVE EXISTING EXTERIOR SURFACE MOUNTED HID FIXTURES AND SURFACE MOUNTED CONDUIT). CONTRACTOR SHALL PROVIDE A PULL STRING IN CONDUITS SERVING FIXTURES.
   B. EXISTING UNDERGROUND, IN-SLAB, AND SERVICE ENTRANCE CONDUITS.
   C. EXISTING COMMUNICATION (COPPER AND FIBER) SERVICE ENTRANCES.
4. CONTRACTOR TO COORDINATE DEMOLITION WITH OWNER.
5. CONTRACTOR SHALL COORDINATE WITH THE OWNER AS TO DISPOSITION OF ANY EXISTING SALVAGEABLE ELECTRICAL DEVICES, LIGHT FIXTURES, OR ELECTRICAL EQUIPMENT.
6. CONTRACTOR SHOULD NOT START ANY OF THE DEMOLITION UNTIL ALL EQUIPMENT AND DEVICES ARE REMOVED THAT THE OWNER WANTS TO SALVAGE.
7. CONTRACTOR SHOULD NOT BEGIN REMOVAL OF ANY OF THE TELEPHONE, DATA OR FIRE ALARM SYSTEMS UNTIL:
   A. OWNER HAS REMOVED TELEPHONE OR DATA DEVICES.
   B. CONTRACTOR HAS COORDINATED WITH OWNER THE DISPOSITION OF ALL TELEPHONE, DATA AND FIRE ALARM EQUIPMENT.
8. REFER TO THE ARCHITECTURAL DEMOLITION PLANS AND DIVISION 1 SPECIFICATION FOR FURTHER INFORMATION.
9. CONTRACTOR COORDINATE THE REUSE OF ANY EXISTING OUTLET/SWITCH BOXES IN WALLS SCHEDULED TO REMAIN. REFER TO THE ARCHITECTURAL DEMOLITION DOCUMENTS. CONTRACTOR SHALL REMOVE BRANCH CIRCUIT WIRING TO NEAREST ACCESSIBLE JUNCTION BOX.
10. CONTRACTOR SHALL DIRECTLY SUPERVISE THE WORK FROM BEGINNING TO COMPLETION.
11. ALL EXISTING FLOOR OUTLETS SHALL BE REMOVED AND THE SLAB PENETRATION SHALL BE REPAIRED TO RESTORE ORIGINAL FIRE RESISTANCE AND STRUCTURAL INTEGRITY.

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PROJECT: VINITA CULTURAL DEVELOPMENT CENTER

PROJECT
CHEROKEE NATION, OKLAHOMA

KEY PLAN

No.	Description	Date
1	ASI-1	5/19/2021

SHEET TITLE
SYMBOLS LIST, GENERAL NOTES

BID SET

PROJECT NO:	111-049.20
DRAWN BY:	RGD
CHK'D BY:	BDH
ISSUE DATE:	5/7/2021

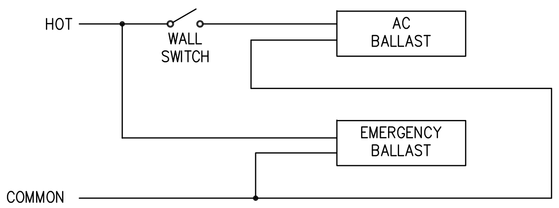
LICENSED PROFESSIONAL ENGINEER — BRIAN D. HUNLEY — 05-16-21 — 25504 — OKLAHOMA

E001

Scale: AS NOTED

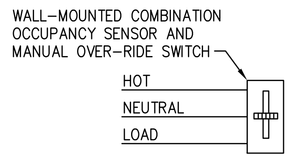
4/29/2021 6:15:14 PM

1/16"=1'-0" 0 8" 16" 32" | 1/8"=1'-0" 0 4' 8' 16' | 1/4"=1'-0" 0 2' 4' 8' | 1/2"=1'-0" 0 1' 2' 4' | 3/4"=1'-0" 0 1' 2' | 1"=1'-0" 0 6" 1' 2' | 1 1/2"=1'-0" 0 3" 6" 1' | 3"=1'-0" 0 3" 6"



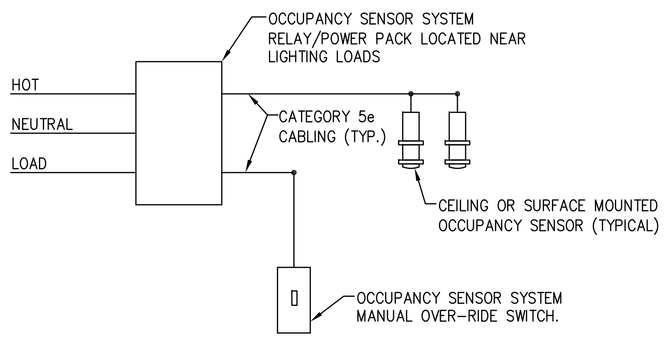
A EMERGENCY BALLAST WIRING DIAGRAM

SCALE: NONE



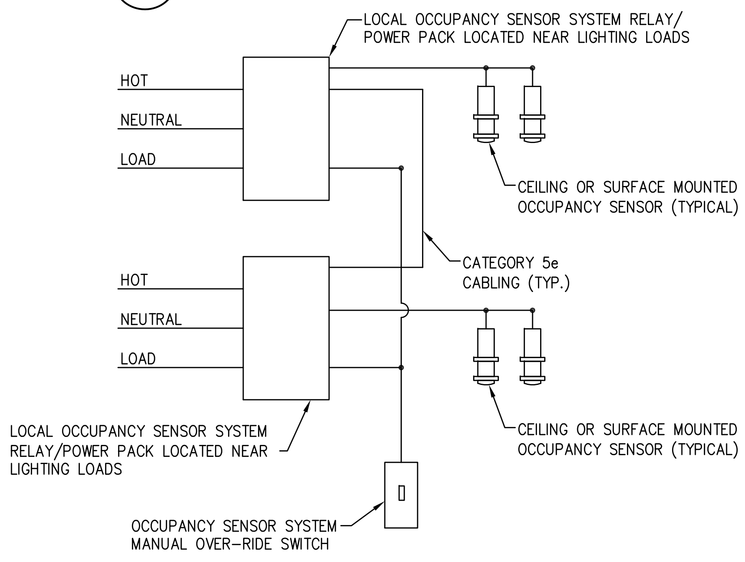
B TYPICAL OFFICE WALL MOUNTED OCCUPANCY SENSOR WIRING DIAGRAM

SCALE: NONE



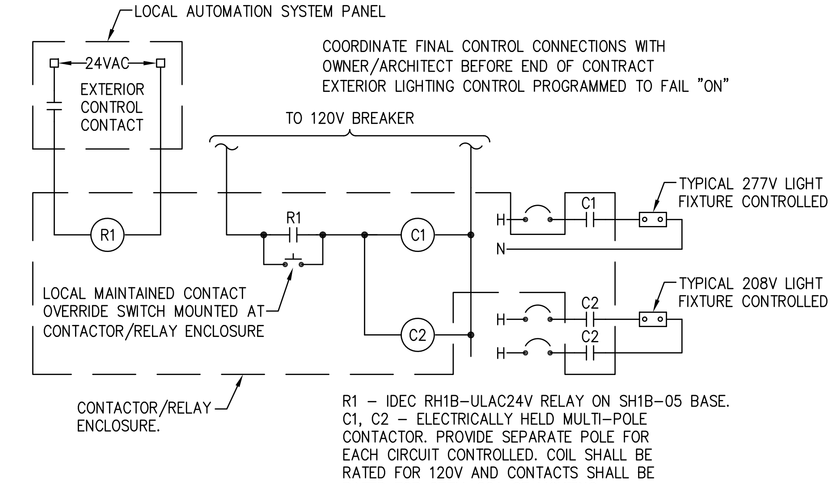
C TYPICAL LARGE OFFICE OR AREA OCCUPANCY SENSOR WIRING DIAGRAM

SCALE: NONE



D TYPICAL CORRIDOR/COMMON AREA OCCUPANCY SENSOR WIRING DIAGRAM

SCALE: NONE



E EXTERIOR - LIGHTING CONTROL SCHEMATIC

SCALE: NONE

FIXTURE SCHEDULE

TYPE	MANUFACTURER & CATALOG NUMBER	LAMP QUANTITY/TYPE MANUFACTURER	DESCRIPTION
A	DAY-BRITE FLUXGRID LED 2X4 2FGG-42B-840-DS-UNV-DIM HE WILLIAMS LP-24-L50-840-DIM-UNV-LP242SL OR EQUAL BY METALUX OR LITHONIA	LED FURNISHED WITH FIXTURE	2' X 4', RECESSED, LED DIRECT/INDIRECT TROFFER. PROVIDE WITH 4200 LUMENS, 4000K COLOR TEMPERATURE, INTEGRAL 0-10V DIMMING DRIVER AND 120V OPERATION. PROVIDE DOCUMENTATION FROM FIXTURE MANUFACTURER FOR THE FIELD REPLACEABLE LED LAMPS OR LED LAMP MODULES FOR FUTURE LED LAMP REPLACEMENT. PROVIDE FIVE (5) YEAR MINIMUM COMPLETE MATERIALS AND LABOR REPLACEMENT WARRANTY FOR LIGHT FIXTURE. DIMMING DRIVER AND DIMMING CONTROL SHALL BE COMPATIBLE.
B	DAY-BRITE FLUXGRID LED 2X2 2FGG-30L-840-DS-UNV-DIM HE WILLIAMS LP-22-L50-840-DIM-UNV OR EQUAL BY METALUX OR LITHONIA	LED FURNISHED WITH FIXTURE	2' X 2', RECESSED, LED DIRECT/INDIRECT TROFFER. PROVIDE WITH 3000 LUMENS, 4000K COLOR TEMPERATURE, INTEGRAL 0-10V DIMMING DRIVER AND 120V OPERATION. PROVIDE DOCUMENTATION FROM FIXTURE MANUFACTURER FOR THE FIELD REPLACEABLE LED LAMPS OR LED LAMP MODULES FOR FUTURE LED LAMP REPLACEMENT. PROVIDE FIVE (5) YEAR MINIMUM COMPLETE MATERIALS AND LABOR REPLACEMENT WARRANTY FOR LIGHT FIXTURE. DIMMING DRIVER AND DIMMING CONTROL SHALL BE COMPATIBLE.
C	COOPER LIGHTING PORTFOLIO 6" SERIES LD6B-30-D010-EU6B-3050-80-40 OR EQUAL BY HALO OR GOTHAM	LED FURNISHED WITH FIXTURE	6" RECESSED ROUND LED DOWNLIGHT. PROVIDE WITH 3000 LUMENS, 4000K COLOR TEMPERATURE, INTEGRAL 0-10V 1% DIMMING DRIVER AND 120V OPERATION. PROVIDE WITH DIFFUSE REFLECTOR AND WHITE FLANGE TRIM EXCEPT WHERE INSTALLED IN WOOD CEILINGS PROVIDE DARK BRONZE FLANGE TRIM. PROVIDE FIXTURES MARKED AS 'UNSW' WITH INTEGRAL BATTERY BACKUP. PROVIDE DOCUMENTATION FROM FIXTURE MANUFACTURER FOR THE FIELD REPLACEABLE LED LAMPS OR LED LAMP MODULES FOR FUTURE LED AMP REPLACEMENT. PROVIDE FIVE (5) YEAR MINIMUM COMPLETE MATERIALS AND LABOR REPLACEMENT WARRANTY FOR LIGHT FIXTURE. DIMMING DRIVER AND DIMMING CONTROL SHALL BE COMPATIBLE.
D	COOPER LIGHTING HALO SERIES HL618TAT-HLM6940-HL6FL-455SC-456W OR EQUAL BY HALO OR GOTHAM	LED FURNISHED WITH FIXTURE	6" RECESSED ROUND SLOPE CEILING LED DOWNLIGHT. PROVIDE WITH 2200 LUMENS, 4000K COLOR TEMPERATURE, INTEGRAL 0-10V 1% DIMMING DRIVER AND 120V OPERATION. PROVIDE WITH DIFFUSE REFLECTOR AND WHITE FLANGE TRIM EXCEPT WHERE INSTALLED IN WOOD CEILINGS PROVIDE DARK BRONZE FLANGE TRIM. PROVIDE FIXTURES MARKED AS 'UNSW' WITH INTEGRAL BATTERY BACKUP. PROVIDE DOCUMENTATION FROM FIXTURE MANUFACTURER FOR THE FIELD REPLACEABLE LED LAMPS OR LED LAMP MODULES FOR FUTURE LED LAMP REPLACEMENT. PROVIDE FIVE (5) YEAR MINIMUM COMPLETE MATERIALS AND LABOR REPLACEMENT WARRANTY FOR LIGHT FIXTURE. DIMMING DRIVER AND DIMMING CONTROL SHALL BE COMPATIBLE.
E	CHLORIDE 45V SERIES ER45VXL-1/2-GM-XX MULE LIGHTING CEL-1/2-B-GC/GM-X-U-SD OR EQUAL BY SURE-LITES OR LITHONIA	LED FURNISHED WITH FIXTURE	LED EXIT SIGN LIGHT. PROVIDE WITH GREEN LETTERS, UNIVERSAL MOUNTING, EMERGENCY BATTERY BACK-UP WITH SELF-DIAGNOSTIC TESTING AND 120V OPERATION. PROVIDE SINGLE OR DOUBLE FACE AND DIRECTIONAL ARROWS AS SHOWN.
F	CORONET MAGENTO SERIES MAG-SPT-MED-40-LTG1-BLK-FL OR EQUAL BY IGUZZINI OR JUNO	LED FURNISHED WITH FIXTURE	2.75" LED CYLINDER TRACK HEAD WITH COMPATIBLE TRACK. PROVIDE WITH 340 LUMENS, 4000K COLOR TEMPERATURE, INTEGRAL 0-10V DIMMING DRIVER AND 120V OPERATION. PROVIDE DOCUMENTATION FROM FIXTURE MANUFACTURER FOR THE FIELD REPLACEABLE LED LAMPS OR LED LAMP MODULES FOR FUTURE LED LAMP REPLACEMENT. PROVIDE FIVE (5) YEAR MINIMUM COMPLETE MATERIALS AND LABOR REPLACEMENT WARRANTY FOR LIGHT FIXTURE.
G	FOCAL POINT SEEM 4 SERIES FSM4L-FL-375-40K-1C-UNV-XXXV OR EQUAL BE LEADLITE OR A LIGHT	LED FURNISHED WITH FIXTURE	4' RECESSED LINEAR LED STRIP FIXTURE. PROVIDE WITH 375 LUMENS PER FOOT, 4000K COLOR EMPERATURE, INTEGRAL DIMMING DRIVER, 120V OPERATION. PROVIDE FIXTURES MARKED AS UNSW WITH INTEGRAL BATTERY BACKUP. VERIFY CEILING MOUNTING TYPE AND FINISH WITH ARCHITECT. PROVIDE DOCUMENTATION FROM FIXTURE MANUFACTURER FOR THE FIELD REPLACEABLE LED LAMPS OR LED LAMP MODULES FOR FUTURE LED LAMP REPLACEMENT. PROVIDE FIVE (5) YEAR MINIMUM COMPLETE MATERIALS AND LABOR REPLACEMENT WARRANTY FOR LIGHT FIXTURE.
H	FOCAL POINT SEEM 4 SERIES FSM4L-FL-625-40K-1C-UNV-XXXV OR EQUAL BE LEADLITE OR A LIGHT	LED FURNISHED WITH FIXTURE	4' RECESSED LINEAR LED STRIP FIXTURE. PROVIDE WITH 625 LUMENS PER FOOT, 4000K COLOR TEMPERATURE, INTEGRAL DIMMING DRIVER, 120V OPERATION. PROVIDE FIXTURES MARKED AS UNSW WITH INTEGRAL BATTERY BACKUP. VERIFY CEILING MOUNTING TYPE AND FINISH WITH ARCHITECT. PROVIDE DOCUMENTATION FROM FIXTURE MANUFACTURER FOR THE FIELD REPLACEABLE LED LAMPS OR LED LAMP MODULES FOR FUTURE LED LAMP REPLACEMENT. PROVIDE FIVE (5) YEAR MINIMUM COMPLETE MATERIALS AND LABOR REPLACEMENT WARRANTY FOR LIGHT FIXTURE.

FIXTURE SCHEDULE

TYPE	MANUFACTURER & CATALOG NUMBER	LAMP QUANTITY/TYPE MANUFACTURER	DESCRIPTION
J	KLUS FLEXIBLE LED STRIP K-40-1210-12V EXTRUSION MICRO -ALU	LED FURNISHED WITH FIXTURE	FLEXIBLE LED TAPE LIGHT IN ALUMINUM EXTRUSION. PROVIDE WITH 120 LM/FT, 4000K COLOR TEMPERATURE AND 0-10V DIMMING. COORDINATE EXACT FINISH AND LOCATION WITH ARCHITECT PRIOR TO ORDERING. PROVIDE DOCUMENTATION FROM FIXTURE MANUFACTURER FOR THE FIELD REPLACEABLE LED LAMPS OR LED LAMP MODULES FOR FUTURE LED LAMP REPLACEMENT. PROVIDE FIVE (5) YEAR MINIMUM COMPLETE MATERIALS AND LABOR REPLACEMENT WARRANTY FOR LIGHT FIXTURE.
K	DAYBRITE FLUXSTREAM SERIES FSS-8-60L-840-UNV-DIM OR EQUAL BY METALUX OR LITHONIA	LED FURNISHED WITH FIXTURE	8' LINEAR LED STRIP FIXTURE. PROVIDE WITH 3000 LUMENS, 4000K COLOR TEMPERATURE AND 120V OPERATION. PROVIDE DOCUMENTATION FROM FIXTURE MANUFACTURER FOR THE FIELD REPLACEABLE LED LAMPS OR LED LAMP MODULES FOR FUTURE LED LAMP REPLACEMENT. PROVIDE FIVE (5) YEAR MINIMUM COMPLETE MATERIALS AND LABOR REPLACEMENT WARRANTY FOR LIGHT FIXTURE.
L	COOPER LIGHTING PORTFOLIO SERIES LER6B-15-D010-MB OR EQUAL BY METALUX OR LITHONIA	LED FURNISHED WITH FIXTURE	6" SURFACE MOUNT ROUND LED CYLINDER LIGHT. PROVIDE WITH 1500 LUMENS, 4000K COLOR TEMPERATURE, INTEGRAL 0-10V 1% DIMMING DRIVER AND 120V OPERATION. PROVIDE WITH DIFFUSE REFLECTOR AND WHITE FLANGE TRIM EXCEPT WHERE INSTALLED IN WOOD CEILINGS PROVIDE DARK BRONZE FLANGE TRIM. PROVIDE FIXTURES MARKED AS 'UNSW' WITH INTEGRAL BATTERY BACKUP.PROVIDE DOCUMENTATION FROM FIXTURE MANUFACTURER FOR THE FIELD REPLACEABLE LED LAMPS OR LED LAMP MODULES FOR FUTURE LED LAMP REPLACEMENT. PROVIDE FIVE (5) YEAR MINIMUM COMPLETE MATERIALS AND LABOR REPLACEMENT WARRANTY FOR LIGHT FIXTURE. DIMMING DRIVER AND DIMMING CONTROL SHALL BE COMPATIBLE.
M	SPECTRUM C0618UDXT-20L-XN-20L-XN-40K-DS2W1-WL-TCY-SO-WM3-MB OR ARCHITECT/ENGINEER APPROVED EQUAL	LED FURNISHED WITH FIXTURE	6" DIAMETER BY 18" TALL EXTERIOR SURFACE MOUNTED LED WALL UP/DOWN CYLINDER FIXTURE. PROVIDE WITH 2000 LUMENS UP AND 2000 LUMENS DOWN, 4000K COLOR TEMPERATURE, INTEGRAL DIMMING DRIVER, 120V OPERATION AND MATTE BLACK FINISH. MOUNT BOTTOM OF FIXTURE AT 12'-10" AFG. COORDINATE EXACT MOUNTING WITH ARCHITECTURAL. VERIFY FINISH WITH ARCHITECT PRIOR TO ORDERING. PROVIDE DOCUMENTATION FROM FIXTURE MANUFACTURER FOR THE FIELD REPLACEABLE LED LAMPS OR LED LAMP MODULES FOR FUTURE LED LAMP REPLACEMENT. PROVIDE FIVE (5) YEAR MINIMUM COMPLETE MATERIALS AND LABOR REPLACEMENT WARRANTY FOR LIGHT FIXTURE.
N		LED FURNISHED WITH FIXTURE	SIMILAR TO TYPE C BUT PROVIDE WITH WET LOCATION LISTING.
P	MCGRAW-EDISON GLEON SERIES GLEON-SA1-B-830-U-T3-BK OR EQUAL BY MCGRAW-EDISON OR PHILLIPS	LED FURNISHED WITH FIXTURE	POLE MOUNTED LED FIXTURE. ASSEMBLY WITH 20'-0" POLE AND TYPE III DISTRIBUTION. FURNISH WITH 120V OPERATION AND BLACK FINISH. PROVIDE DOCUMENTATION FROM FIXTURE MANUFACTURER FOR THE FIELD REPLACEABLE LED LAMPS OR LED LAMP MODULES FOR FUTURE LED LAMP REPLACEMENT. PROVIDE FIVE (5) YEAR MINIMUM COMPLETE MATERIALS AND LABOR REPLACEMENT WARRANTY FOR LIGHT FIXTURE.
R	HADCO WAML1D C3-A-XXV	LED FURNISHED WITH FIXTURE	LED FLOODLIGHT. FULLY-ADJUSTABLE SWIVEL ARM WITH VIBRATION PROOF LOCKING TEETH. PROVIDE WITH 4000K COLOR TEMPERATURE AND CLEAR TEMPERED LENS.
S	COOPER LIGHTING PORTFOLIO SERIES LSRWM2B-05-25-80-40 OR EQUAL BY METALUX OR LITHONIA	LED FURNISHED WITH FIXTURE	2" WALL MOUNT ROUND LED CYLINDER LIGHT. PROVIDE WITH 500 LUMENS, 4000K COLOR TEMPERATURE, INTEGRAL 0-10V 1% DIMMING DRIVER AND 120V OPERATION. VERIFY FINISH WITH ARCHITECT. PROVIDE DOCUMENTATION FROM FIXTURE MANUFACTURER FOR THE FIELD REPLACEABLE LED LAMPS OR LED LAMP MODULES FOR FUTURE LED LAMP REPLACEMENT. PROVIDE FIVE (5) YEAR MINIMUM COMPLETE MATERIALS AND LABOR REPLACEMENT WARRANTY FOR LIGHT FIXTURE.
T	EUROSAFE SPRINGFIELD SERIES 37080-037 OR EQUAL BY METALUX OR LITHONIA	LED FURNISHED WITH FIXTURE	24" WALL MOUNT LED FIXTURE. PROVIDE WITH 1400 LUMENS, 4000K COLOR TEMPERATURE AND 120V OPERATION. VERIFY FINISH WITH ARCHITECT. PROVIDE DOCUMENTATION FROM FIXTURE MANUFACTURER FOR THE FIELD REPLACEABLE LED LAMPS OR LED LAMP MODULES FOR FUTURE LED LAMP REPLACEMENT. PROVIDE FIVE (5) YEAR MINIMUM COMPLETE MATERIALS AND LABOR REPLACEMENT WARRANTY FOR LIGHT FIXTURE.
U	CIRCA LIGHTING BOWEN SERIES S 2520BZ-L OR ENGINEER/ARCHITECT APPROVED EQUAL	LED FURNISHED WITH FIXTURE	16" WALL MOUNT LED FIXTURE. PROVIDE WITH 4000K COLOR TEMPERATURE, 120V OPERATION AND BRONZE FINISH. VERIFY FINISH WITH ARCHITECT. PROVIDE DOCUMENTATION FROM FIXTURE MANUFACTURER FOR THE FIELD REPLACEABLE LED LAMPS OR LED LAMP MODULES FOR FUTURE LED LAMP REPLACEMENT. PROVIDE FIVE (5) YEAR MINIMUM COMPLETE MATERIALS AND LABOR REPLACEMENT WARRANTY FOR LIGHT FIXTURE.

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PROJECT: VINITA CULTURAL DEVELOPMENT CENTER

PROJECT: CHEROKEE NATION, OKLAHOMA

KEY PLAN

No.	Description	Date
1	ASI-1	5/19/2021

SHEET TITLE: Fixture Schedule and Wiring Diagrams

BID SET

PROJECT NO: 111-049.20
DRAWN BY: JCP
CHK'D BY: JCP/BDH
ISSUE DATE: 5/7/2021

LICENSED PROFESSIONAL ENGINEER
BRIAN D. HUNLEY
05-14-21
25504
OKLAHOMA

E002

Scale: AS NOTED

4/29/2021 6:15:14 PM

1/16"=1'-0" 0 8" 16" 32" | 1/8"=1'-0" 0 4" 8" 16" | 1/4"=1'-0" 0 2" 4" 8" | 1/2"=1'-0" 0 1' 2' 4' | 3/4"=1'-0" 0 1' 2' | 1"=1'-0" 0 6" 1' 2' | 1 1/2"=1'-0" 0 3" 6" 1' | 3"=1'-0" 0 3" 6"

SECTION 16010
ELECTRICAL GENERAL PROVISIONS

PART I GENERAL

1.01 DESCRIPTION

A. GENERAL: FURNISH LABOR, MATERIALS, APPARATUS, TOOLS, EQUIPMENT, TRANSPORTATION, TEMPORARY CONSTRUCTION AND SERVICES AS REQUIRED TO MAKE A COMPLETE WORKING ELECTRICAL INSTALLATION, AS SHOWN ON THE DRAWINGS OR DESCRIBED IN THESE SPECIFICATIONS. THE WORK SHALL INCLUDE MATERIALS, APPLIANCES AND APPARATUS NOT SPECIFICALLY MENTIONED HEREIN OR NOTED ON THE DRAWINGS, BUT REQUIRED FOR A COMPLETE INSTALLATION. ALL MATERIALS AND EQUIPMENT SHALL BE NEW AND UNUSED UNLESS OTHERWISE SPECIFIED. IN ADDITION, IT SHALL INCLUDE CONNECTION, INTERCONNECTION, AND POWER FOR ELECTRICAL EQUIPMENT FURNISHED UNDER OTHER SECTIONS.

CONTRACTOR SHALL REVIEW ALL CONTRACT DOCUMENTS INCLUDING, BUT NOT LIMITED TO, ARCHITECTURAL CEILING PLANS, ARCHITECTURAL DETAILS, DOOR HARDWARE SCHEDULES, AND MECHANICAL DOCUMENTS. ALL POWER SERVICE WIRING, BRANCH CIRCUIT WIRING, CONTROL WIRING OR OTHER WIRING NECESSARY FOR COMPLETE OPERATION OF EQUIPMENT OR FIXTURES, NOT SPECIFICALLY REQUIRED TO BE INSTALLED UNDER ANOTHER SECTION OF THIS SPECIFICATION, SHALL BE PROVIDED WHETHER OR NOT SUCH WIRING IS SPECIFICALLY SHOWN ON ELECTRICAL DRAWINGS OR DESCRIBED IN DIVISION 16 SPECIFICATIONS.

B. WORK INCLUDED:

1. WORK DESCRIBED IN DIVISION 16.
2. ELECTRICAL WORK REQUIRED FOR CORRECT ELECTRICAL OPERATION OF EQUIPMENT AND APPARATUS FURNISHED UNDER DIVISION 15.
3. ELECTRICAL WORK REQUIRED FOR CORRECT ELECTRICAL OPERATION OF EQUIPMENT FURNISHED UNDER ALL OTHER DIVISIONS OF THIS SPECIFICATION OR ON DRAWINGS.

C. WORK FURNISHED AND INSTALLED UNDER ANOTHER SECTION REQUIRING POWER SUPPLY WIRING AND/OR CONNECTIONS UNDER THIS SECTION:

1. ELECTRIC MOTORS.
2. PACKAGE MECHANICAL EQUIPMENT; FANS, PUMPS, COMPRESSORS, ETC.
3. TEMPERATURE CONTROL EQUIPMENT POWER SUPPLY WIRING.

D. THE CONTRACTOR SHALL NOTIFY THE ENGINEER, ARCHITECT AND CONSTRUCTION MANAGER IF THE DELIVERY SCHEDULE OF ANY SPECIFIED PRODUCT WILL PROHIBIT THE CONSTRUCTION TO BE COMPLETED AS SCHEDULED. THE CONTRACTOR WILL BE RESPONSIBLE FOR ANY EXPEDITED DELIVERY COSTS WHICH MAY BE NECESSARY TO ACCOMPLISH THE COMPLETION SCHEDULE. ALL NOTIFICATIONS SHALL BE MADE IN WRITING A MINIMUM OF SEVEN BUSINESS DAYS PRIOR TO THE BID DATE.

E. ALL REQUESTS FOR PRODUCT SUBSTITUTIONS SHALL BE SUBMITTED TO THE ENGINEER, ARCHITECT AND CONSTRUCTION MANAGER. ALL REQUESTS SHALL BE MADE IN WRITING A MINIMUM OF SEVEN BUSINESS DAYS PRIOR TO THE BID DATE.

1.02 GENERAL REQUIREMENTS, CODES AND STANDARDS

A. REFERENCE TO CODES, STANDARDS, SPECIFICATIONS AND RECOMMENDATIONS OF TECHNICAL SOCIETIES, TRADE ORGANIZATIONS AND GOVERNMENTAL AGENCIES SHALL MEAN THAT LATEST EDITION OF SUCH PUBLICATIONS ADOPTED AND PUBLISHED PRIOR TO SUBMITTAL OF THE BID PROPOSED. SUCH CODES OR STANDARDS SHALL BE CONSIDERED A PART OF THIS SPECIFICATION AS THOUGH FULLY REPEATED HEREIN.

B. WHEN CODES, STANDARDS, REGULATIONS, ETC. ALLOW WORK OF LESSER QUALITY OR EXTENT THAN IS SPECIFIED UNDER THIS DIVISION, NOTHING IN SAID CODES SHALL BE CONSTRUED OR INFERRED AS REDUCING THE QUALITY, REQUIREMENTS OR EXTENT OF THE DRAWINGS AND SPECIFICATIONS.

C. WORK SHALL BE PERFORMED IN ACCORDANCE WITH ALL APPLICABLE REQUIREMENTS OF ALL GOVERNING CODES, RULES AND REGULATIONS, INCLUDING THE FOLLOWING MINIMUM STANDARDS, WHETHER STATUTORY OR NOT:

1. NATIONAL ELECTRIC CODE (NEC).
2. NATIONAL FIRE PROTECTION ASSOCIATION (NFPA).
3. AMERICAN DISABILITY ACT (ADA)
4. LOCAL CODES AND AMENDMENTS
5. ADOPTED ENERGY CODE
6. BASE BUILDING STANDARDS
7. UNIFORM BUILDING CODE (UBC)

D. EQUIPMENT AND MATERIALS SPECIFIED UNDER THIS DIVISION SHALL CONFORM TO THE FOLLOWING STANDARDS WHERE APPLICABLE:

1. UNDERWRITER'S LABORATORIES (UL).
2. AMERICAN SOCIETY FOR TESTING MATERIALS (ASTM).
3. CERTIFIED BALLAST MANUFACTURERS (CBM).
4. INSULATED POWER CABLE ENGINEERS ASSOCIATION (IPCEA).
5. NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION (NEMA).
6. AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI).
7. ELECTRICAL TESTING LABORATORIES (ETL).

BASE MATERIAL SHALL BE ASTM AND/OR ANSI STANDARDS. ELECTRICAL APPARATUS FURNISHED UNDER THIS SECTION SHALL CONFORM TO NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION (NEMA) STANDARDS AND THE NEC AND BEAR THE UNDERWRITER'S LABORATORIES (UL) LABEL WHERE SUCH LABEL IS APPLICABLE.

1.03 CUTTING, PAINTING AND PATCHING

A. STRUCTURAL MEMBERS SHALL IN NO CASE BE DRILLED, BORED OR NOTCHED IN SUCH A MANNER THAT WILL IMPAIR THEIR STRUCTURAL VALUE. CUTTING OF HOLES, IF REQUIRED, SHALL BE DONE WITH CORE DRILL AND ONLY WITH THE APPROVAL OF THE ARCHITECT AND OF THE BUILDING MANAGEMENT.

1.04 PENETRATIONS:

A. METAL SLEEVES: EXPOSED EXTERIOR CONDUIT RUNS PASSING THROUGH CONCRETE FLOORS OR WALLS. FOLLOWING CONDUIT INSTALLATION, SEAL ALL PENETRATIONS USING NON-IRON BEARING, CHLORIDE FREE, NON-SHRINKING, DRY-PACK GROUTING COMPOUND. CONDUITS PENETRATING EXTERIOR BUILDING WALLS AND BUILDING FLOOR SLAB SHALL BE RIGID STEEL.

B. FIRE SEPARATION WALLS/FLOORS: PACK OPENING AROUND CONDUITS OR CABLES WITH FIRE BARRIER CAULK 3M CP 25 NELSON FLAMESEAL.

1.05 SUPERVISION

A. CONTRACTOR SHALL PERSONALLY OR THROUGH AN AUTHORIZED AND COMPETENT REPRESENTATIVE CONSTANTLY SUPERVISE THE WORK FROM BEGINNING TO COMPLETION AND WITHIN REASON, KEEP THE SAME WORKMEN AND FOREMAN ON THE PROJECT THROUGHOUT THE PROJECT DURATION.

1.06 PROTECTION

A. KEEP CONDUITS, JUNCTION BOXES, OUTLET BOXES AND OTHER OPENINGS CLOSED TO PREVENT ENTRY OF FOREIGN MATTER. COVER FIXTURES, EQUIPMENT, DEVICES, APPARATUS AND PROTECT THEM AGAINST DIRT, PAINT, WATER, CHEMICAL OR MECHANICAL DAMAGE, BEFORE AND DURING CONSTRUCTION PERIOD. RESTORE TO ORIGINAL CONDITION ANY FIXTURE, APPARATUS OR EQUIPMENT DAMAGED PRIOR TO FINAL ACCEPTANCE. PROTECT BRIGHT FINISHED SURFACES AND SIMILAR ITEMS UNTIL IN SERVICE. NO RUST OR DAMAGE WILL BE PERMITTED.

1.07 EXAMINATION OF SITE

A. THE CONTRACTOR SHALL VISIT THE SITE AND DETERMINE THE LOCAL, WORKING CONDITIONS, CONFLICTING UTILITIES AND THE CONDITIONS IN WHICH THE ELECTRICAL WORK WILL TAKE PLACE. NO ALLOWANCES WILL BE MADE SUBSEQUENTLY FOR ANY COSTS WHICH MAY BE INCURRED BECAUSE OF ANY ERROR OR OMISSION DUE TO FAILURE TO EXAMINE THE SITE AND TO NOTIFY THE ARCHITECT OF ANY DISCREPANCIES BETWEEN DRAWINGS AND SPECIFICATIONS AND ACTUAL SITE CONDITIONS.

1.08 SUBSTITUTIONS

A. DURING THE BIDDING PROCESS, THE CONTRACTOR MAY SUBMIT PERTINENT TEST DATA, CATALOG CUTS AND PRODUCT INFORMATION REQUIRED TO SUBSTANTIATE THAT THE PRODUCT IS IN FACT EQUAL. REFER TO GENERAL CONDITIONS AND DIVISION 1 FOR REQUIREMENTS. ONLY ONE SUBSTITUTION WILL BE CONSIDERED FOR EACH PRODUCT SPECIFIED EXCEPT FOR WIRING DEVICES. SUBSTITUTION REQUESTS SHOULD BE SUBMITTED IN A TIMELY FASHION TO ALLOW TIME FOR REVIEW AND PUBLICATION TO ALL CONTRACTORS. SUBSTITUTION REQUESTS WHICH DO NOT ALLOW FOR THE PRECEDING WILL NOT BE CONSIDERED.

1.09 SUBMITTALS

A. GENERAL: REFER TO GENERAL CONDITIONS FOR SUBMITTAL PROCEDURES AND REQUIREMENTS.

B. FORMAT: FURNISH SUBMITTAL DATA NEATLY BOUND IN AN 8-1/2" X 11" FOLDER OR BINDER WITH A TABLE OF CONTENTS LISTING SPECIFICATION SECTION AND PARAGRAPH NUMBER. DRAWINGS REQUIRED TO BE SUBMITTED SHALL BE PREPARED BY COMPETENT DRAFTING PEOPLE ACCORDING TO GENERALLY ACCEPTED DRAFTING PRACTICES. THESE DRAWINGS AND SUBMITTAL DATA ON ALL ELECTRICAL EQUIPMENT (PANELBOARDS, LIGHT FIXTURES, ETC.) SHALL BE MODIFIED, AS NECESSARY, TO BECOME "AS BUILT" DOCUMENTS.

C. SUBMITTALS SHALL CONSIST OF DETAILED SHOP DRAWINGS, SPECIFICATIONS, "CATALOG CUTS" AND DATA SHEETS CONTAINING PHYSICAL AND DIMENSIONAL INFORMATION, PERFORMANCE DATA, ELECTRICAL CHARACTERISTICS, MATERIALS USED IN FABRICATION, MATERIAL FINISH AND SHALL CLEARLY INDICATE THOSE OPTIONAL ACCESSORIES WHICH ARE INCLUDED AND THOSE WHICH ARE EXCLUDED.

D. SUBMIT SHOP DRAWINGS FOR:

1. PANELBOARDS.

E. SUBMIT MANUFACTURER'S DATA FOR:

1. LIGHTING FIXTURES.
2. WIRING DEVICES AND DEVICE PLATES (ALL TYPES).
3. FIRE ALARM DEVICES.
4. TRANSFORMERS.
5. DISCONNECT SWITCHES.
6. PANELBOARDS
7. MOTOR STARTERS
8. METERS

1.10 DRAWINGS

A. LAYOUT: GENERAL LAYOUT SHOWN ON THE DRAWINGS SHALL BE FOLLOWED EXCEPT WHERE OTHER WORK MAY CONFLICT WITH OTHER EQUIPMENT. IN SUCH CASE, ENGINEER SHOULD BE NOTIFIED.

B. ACCURACY:

1. DRAWINGS FOR THE WORK UNDER THIS SECTION ARE DIAGRAMMATIC.
2. CONTRACTOR SHALL VERIFY LINES, LEVELS AND DIMENSIONS SHOWN ON THE DRAWINGS AND SHALL BE RESPONSIBLE FOR THE ACCURACY OF THE SETTING OUT OF WORK AND FOR ITS STRICT CONFORMANCE WITH EXISTING CONDITIONS AT THE SITE.

1.11 EQUIPMENT LOCATION

A. SURFACE MOUNTED PANELS, DEVICES, AND RACEWAY WILL ONLY BE ALLOWED IN MECHANICAL EQUIPMENT AREAS OR WHERE SUCH CONSTRUCTION ALREADY EXISTS.

1.12 WORKMANSHIP

A. PREPARATION, HANDLING AND INSTALLATION SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S WRITTEN INSTRUCTIONS AND TECHNICAL DATA PARTICULAR TO THE PRODUCT SPECIFIED AND/OR ACCEPTED EQUAL EXCEPT AS OTHERWISE SPECIFIED. COORDINATE WORK AND COOPERATE WITH OTHERS IN FURNISHING AND PLACING THIS WORK. REVIEW SHOP DRAWINGS FOR WORK DONE BY OTHER TRADES AND TO FIELD MEASUREMENTS AS NECESSARY TO PROPERLY FIT THE WORK.

B. CONFORM TO THE NATIONAL ELECTRICAL CONTRACTORS ASSOCIATION'S "STANDARD OF INSTALLATION" FOR GENERAL INSTALLATION PRACTICE.

1.13 SPECIAL TOOLS

A. ALL SPECIAL TOOLS FOR PROPER OPERATION AND MAINTENANCE OF THE EQUIPMENT PROVIDED UNDER THIS SECTION SHALL BE DELIVERED TO THE OWNER'S REPRESENTATIVE.

1.14 PROJECT RECORD DRAWINGS

A. REFER TO GENERAL CONDITIONS. PROVIDE PROJECT RECORD DRAWINGS, SUCH DRAWINGS SHALL FULLY REPRESENT INSTALLED CONDITIONS, INCLUDING ACTUAL LOCATION OF OUTLETS, TRUE PANELBOARD CONNECTIONS FOLLOWING PHASE BALANCING ROUTINES, CORRECT CONDUIT AND WIRE SIZING AS WELL AS ROUTING, REVISED FIXTURE SCHEDULE LISTING THE MANUFACTURER AND PRODUCTS ACTUALLY INSTALLED AND REVISED PANEL SCHEDULE. CHANGES TO DRAWINGS SHALL BE MADE BY QUALIFIED DRAFTSPERSONS TO MATCH EXISTING LINEWORK AND LETTERING AS CLOSE AS POSSIBLE. CHANGES SHALL BE MADE ON REPRODUCIBLE MYLAR SEPIAS OF ORIGINAL DRAWINGS FURNISHED BY CONTRACTOR. DRAWINGS SHALL BE SUBMITTED TO ENGINEER FOR APPROVAL.

B. TYPEWRITTEN PANEL SCHEDULES SHALL BE PROVIDED FOR PANELBOARDS INDICATING THE LOADS SERVED AND THE CORRECT BRANCH CIRCUIT NUMBER. SCHEDULES SHALL MATCH THE FORMAT SHOWN ON THE PANEL SCHEDULES CONTAINED ON THE CONTRACT DOCUMENTS.

1.15 CLEANING

A. AFTER OTHER WORK SUCH AS SANDING, PAINTING, ETC. HAS BEEN COMPLETED, CLEAN LIGHTING FIXTURES, PANELBOARDS, SWITCHBOARDS AND OTHER ELECTRICAL EQUIPMENT TO REMOVE DUST, DIRT, GREASE OR OTHER MARKS AND LEAVE WORK IN CLEAN CONDITION.

1.16 VOLTAGE CHECK

A. AT COMPLETION OF JOB, CHECK VOLTAGE AT SEVERAL POINTS OF UTILIZATION ON THE SYSTEM WHICH HAS BEEN INSTALLED UNDER THIS CONTRACT. DURING TEST, ENERGIZE INSTALLED LOADS.

1.17 TESTS

A. PERFORM TESTS AS SPECIFIED TO PROVE INSTALLATION IS IN ACCORDANCE WITH CONTRACT REQUIREMENTS. TESTS SHALL BE CONDUCTED DURING THE CONSTRUCTION PERIOD AND AT COMPLETION TO DETERMINE CONFORMITY WITH APPLICABLE CODES AND WITH THESE SPECIFICATIONS. TYPED RECORDS OF ALL THE FOLLOWING TESTS SHALL BE INCLUDED IN MAINTENANCE INSTRUCTIONS. TESTS, IN ADDITION TO SPECIFIC SYSTEM TEST DESCRIBED ELSEWHERE, SHALL INCLUDE:

1. CIRCUIT CONTINUITY: TEST FEEDER AND BRANCH CIRCUITS FOR CONTINUITY. TEST NEUTRALS FOR IMPROPER GROUNDS.
2. EQUIPMENT OPERATIONS: TEST MOTORS FOR CORRECT OPERATION AND ROTATION.
3. CIRCUIT NUMBERING VERIFICATION: SELECT ON A RANDOM BASIS, VARIOUS CIRCUIT BREAKERS IN THE PANELBOARDS AND CYCLE THEM ON AND OFF TO VERIFY COMPLIANCE OF THE TYPED PANEL DIRECTORIES WITH ACTUAL FIELD WIRING.
4. PRODUCT FAILURE: PRODUCTS WHICH FAIL DURING THE TESTS OR ARE RULED UNSATISFACTORY BY THE ARCHITECT SHALL BE REPLACED, REPAIRED OR CORRECTED AS PRESCRIBED BY THE ARCHITECT AT THE EXPENSE OF THE CONTRACTOR. TESTS SHALL BE PERFORMED AFTER REPAIRS, REPLACEMENTS OR CORRECTIONS UNTIL SATISFACTORY PERFORMANCE IS DEMONSTRATED.
5. MISCELLANEOUS: INCLUDE TEST RESULTS IN THE MAINTENANCE MANUAL. COST, IF ANY, FOR ALL TESTS SHALL BE PAID BY THE CONTRACTOR.
6. FIRE ALARM AND INTERLOCK SYSTEMS: PRODUCE MALFUNCTION SYMPTOMS IN OPERATING SYSTEMS TO TEST ALARM AND INTERLOCK SYSTEMS. EACH FIRE ALARM SIGNAL INITIATING DEVICE, INCLUDING ALL SMOKE DETECTORS, SHALL BE ACTIVATED TO VERIFY PROPER ZONE ANNUNCIATION AND ALARM SIGNAL INTERLOCKS. ACTIVATION OF IONIZATION TYPE SMOKE DETECTORS, BOTH CEILING AND DUCT TYPE, SHALL BE ACCOMPLISHED BY MEANS OF A SMOKE EMITTING DEVICE PER MANUFACTURER'S RECOMMENDATIONS. PHOTOELECTRIC TYPE SHALL BE TESTED BY INTERRUPTING LIGHT BEAM. CORRECT OPERATION OF ALARM CIRCUIT ANNUNCIATION IN THE FIRE ALARM ZONE ANNUNCIATION PANEL SHALL BE VERIFIED. ALL FIRE ALARM DEVICES, BOTH EXISTING AND NEW, INSTALLED ON THE TENANT FLOORS SHALL BE TESTED.
7. EMERGENCY LIGHTING AND EXIT LIGHT: CONTRACTOR SHALL TEST IN FIELD AFTER INSTALLATION EACH EMERGENCY LIGHT AND EXIT LIGHT. TEST RESULTS SHALL BE DOCUMENTED IN TYPE WRITTEN REPORT AND SUBMITTED TO ENGINEER.

SECTION 16100
BASIC MATERIALS & METHODS

PART I GENERAL

1.01 DESCRIPTION

A. GENERAL: WORK SPECIFIED IN THIS SECTION ENCOMPASSES PRODUCTS, ASSEMBLIES AND BASIC INSTALLATION METHODS REQUIRED FOR ELECTRICAL PROJECT SYSTEMS SPECIFIED UNDER THIS SECTION AND INCLUDES, BUT IS NOT LIMITED TO:

1. CONDUIT, RACEWAYS AND FITTINGS.
2. WIRES AND CABLES.
3. WIRE CONNECTIONS AND DEVICES.
4. OUTLET BOXES.
5. PULL AND JUNCTION BOXES.
6. SWITCHES AND RECEPTACLES.
7. DEVICE PLATES.
8. MOTOR STARTERS.
9. DISCONNECT SWITCHES.
10. CIRCUIT BREAKERS.
11. BRANCH CIRCUIT PANELBOARDS.
12. LOW VOLTAGE DRY-TYPE TRANSFORMERS
13. LIGHTING FIXTURES

PART 2 PRODUCTS

2.01 CONDUIT AND FITTINGS

A. ELECTRICAL METALLIC TUBING:

1. CONDUIT: FORMED OF COLD ROLLED STRIP STEEL, ELECTRICAL RESISTANCE WELDED CONTINUOUSLY ALONG THE LONGITUDINAL SEAM AND HOT-DIP GALVANIZED AFTER FABRICATION. CONFORM TO ANSI C80.3 AND MEET UL REQUIREMENTS.
2. COUPLINGS: STEEL, ZINC PLATED SET SCREW COUPLINGS. OZ/GEDNEY 5000 SERIES.

B. FLEXIBLE METALLIC CONDUIT:

1. CONDUIT: FABRICATED IN CONTINUOUS LENGTHS FROM GALVANIZED STEEL STRIP, SPIRAL WOUND AND FORMED TO PROVIDE AN INTERLOCKING DESIGN.
2. FITTINGS: ONE SCREW (USE TWO SCREW WHEN AVAILABLE) DOUBLE CLAMP VARIETY CONNECTORS WITH CAST MALLEABLE IRON BODIES AND THREADED MALE HUBS WITH INSULATED THROATS.

C. LIQUID TIGHT FLEXIBLE METALLIC CONDUIT:

1. CONDUIT: ANACONDA TYPE UA, COLEMAN TYPE UXT1.
2. FITTINGS: CONNECTOR BODY AND GLAN NUT SHALL BE OF CADMIUM PLATED CAST MALLEABLE IRON, WITH TAPERED, MALE THREADED HUB; INSULATED THROAT AND NEOPRENE "O" RING GASKET RECESSED INTO THE FACE OF THE STOP NUT. THE CLAMPING GLAND SHALL BE OF MOLDED NYLON WITH AN INTEGRAL BRASS PUSH-IN FERRULE.

2.02 WIRES AND CABLES

A. GENERAL:

1. APPROVED MANUFACTURERS: AMERICAN INSULATED WIRE, SOUTHWIRE, ROME CABLE, OR TRIANGLE.
2. CONDUCTOR MATERIAL: ALL WIRE AND CABLE SHOWN ON THE DRAWINGS IS INSULATED COPPER CONDUCTOR UNLESS OTHERWISE NOTED.
3. MINIMUM CONDUCTOR SIZE: AWG NO. 12 FOR POWER AND LIGHTING BRANCH CIRCUITS. ALL BRANCH CIRCUITS EXCEEDING 100' SHALL UTILIZE #10 MINIMUM CONDUCTOR. AWG NO. 14 FOR SIGNAL AND CONTROL CIRCUITS UNLESS OTHERWISE NOTED ON THE DRAWINGS OR SPECIFIED HEREIN.
4. COLOR CODING: COLOR CODING SHALL CONFORM TO ALL LOCAL AND GOVERNING CODES, RULES AND REGULATIONS. SYSTEM CONDUCTORS SHALL BE IDENTIFIED AS TO VOLTAGE AND PHASE CONNECTIONS BY MEANS OF COLOR IMPREGNATED INSULATION OR APPROVED COLOR MARKING TAPE AS FOLLOWS:

A. FOR 120/208 VOLT, 3 PHASE, 4 WIRE SYSTEMS:
PHASE A - BLACK
PHASE B - RED
PHASE C - BLUE
NEUTRAL - WHITE
GROUND - GREEN
ISOLATED GROUND - GREEN WITH A YELLOW TRAVELER

B. FOR 277/480 VOLT, 3 PHASE, 4 WIRE SYSTEMS:
PHASE A - BROWN
PHASE B - ORANGE
PHASE C - YELLOW
NEUTRAL - GRAY
GROUND - GREEN

B. SECONDARY WIRE, 0 TO 600 VOLTS:

1. NEC TYPE THHN FOR FEEDERS AND BRANCH CIRCUITS IN DRY LOCATIONS, THWN IN WET LOCATIONS.
2. NEC TYPE THHN FOR WIRE INSTALLED IN FIXTURE RACEWAYS AND USED AS BRANCH CIRCUIT FEEDERS IN DRY LOCATIONS.
3. MC CABLE MAY BE USED FOR 20A GENERAL PURPOSE BRANCH CIRCUITS. MC-IG CABLE MAY BE USED FOR COMPUTER BRANCH CIRCUITS, AS DESIGNATED WITH A 'D'. MC AND MC-IG CABLE IS PROHIBITED IN THE EQUIPMENT ROOM. EACH MC-IG CABLE SHALL HAVE A DEDICATED ISOLATED GROUND CONDUCTOR AND A DEDICATED NEUTRAL CONDUCTOR FOR EACH PHASE CONDUCTOR, REFER TO THE ISOLATED GROUND DETAIL. MC AND MC-IG CABLE MAY BE INSTALLED IN VERTICAL WALLS ONLY. AFC OR ENGINEER APPROVED EQUAL.

2.03 WIRE CONNECTIONS AND DEVICES

A. WIRE JOINTS: WIRES IN SIZES FROM NO. 18 TO NO. 8 AWG, SOLID OR STRANDED CONDUCTOR, WITH INSULATION RATED 105°C. OR LESS SHALL BE JOINED WITH ELECTRICAL SPRING CONNECTORS OF THREE-PART CONSTRUCTION INCORPORATING A NON-RESTRICTED, ZINC COATED STEEL SPRING ENCLOSED IN A STEEL SHELL WITH AN OUTER JACKET OF VINYL PLASTIC WITH A FLEXIBLE INSULATING SKIRT.

B. MECHANICAL COMPRESSION CONNECTORS AND TAPS: STRANDED CONDUCTORS FROM NO. 6 AWG TO 750 MCM SHALL BE JOINED OR TAPPED USING BOLTED PRESSURE CONNECTORS HAVING CAST BRONZE COMPRESSION BOLTS. FITTINGS SHALL BE WIDE RANGE-TAKING AND DESIGNED TO FACILITATE THE MAKING OF PARALLEL TAPS, TEES, CROSSES OR END-TO-END CONNECTIONS.

C. FIXTURE CONNECTIONS: SPLICE FIXTURE WIRE TO CIRCUIT WIRING WITH SOLDERLESS CONNECTORS IN ACCORDANCE WITH PARAGRAPH A, PART 2, 2.03.

D. TERMINATING LUGS: CONDUCTORS FROM SIZE NO. 6 AWG TO 750 MCM, COPPER, SHALL BE TERMINATED USING TIN PLATED COPPER COMPRESSION LUGS ATTACHED WITH HAND OR HYDRAULICALLY OPERATED CRIMPING TOOLS AND DIES AS STIPULATED BY THE LUG MANUFACTURER. LUGS SHALL BE 3M "SCOTCHLOK" SERIES 30014, BURNDY TYPE Y-AL SERIES.

E. SPLICING AND INSULATING TAPE (600 VOLTS AND BELOW): GENERAL PURPOSE ELECTRICAL TAPE SHALL BE SUITABLE FOR TEMPERATURES FROM MINIMUM 18°C. 105°C., SHALL BE BLACK, ULTRAVIOLET PROOF, SELF-EXTINGUISHING, 7 MIL THICK WITH A DIELECTRIC STRENGTH OF 10,000 VOLTS.

F. INSULATING PUTTY (600 VOLTS AND BELOW): PADS OR ROLLS OF NON CORROSIVE, SELF-FUSING, 1/8 INCH THICK RUBBER PUTTY WITH PVC BACKING SHEET. PUTTY SHALL BE SUITABLE FOR TEMPERATURES FROM MINUS 17.8°C. TO 80°C. AND SHALL HAVE A DIELECTRIC STRENGTH OF 570 VOLTS/MIL MINIMUM.

G. INSULATING RESIN: TWO-PART LIQUID EPOXY RESIN WITH RESIN AND CATALYST IN PREMEASURED, SEALED MIXING POUCH. RESIN SHALL HAVE A SETUP TIME OF APPROXIMATELY 30 MINUTES AT 21.1°C. AND SHALL HAVE THERMAL AND DIELECTRIC PROPERTIES EQUAL TO THE INSULATION PROPERTIES OF THE CABLES IMMERSED IN THE RESIN.

H. TERMINAL STRIP CONNECTORS: TERMINATE WIRE IN LOCKING TONGUE STYLE, PRESSURE TYPE, SOLDERLESS LUG WHERE APPLICABLE.

2.04 OUTLET BOXES

A. STANDARD OUTLET BOXES: GALVANIZED, ONE-PIECE, DIE FORMED OR DRAWN STEEL, KNOCK-OUT TYPE OF SIZE AND CONFIGURATION BEST SUITED TO THE APPLICATION INDICATED ON THE PLANS. MINIMUM BOX SIZE, 2 INCH IN WIDTH, 3-1/2 INCH IN HEIGHT AND 2-1/2 INCH IN DEPTH.

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PROJECT: VINITA CULTURAL DEVELOPMENT CENTER

PROJECT: CHEROKEE NATION, OKLAHOMA

KEY PLAN

No.	Description	Date

SHEET TITLE: ELECTRICAL SPECIFICATIONS

BID SET

PROJECT NO: 111-049.20
DRAWN BY: RGS
CHK'D BY: BDH
ISSUE DATE: 5/7/2021

E003

Scale: AS NOTED

LICENSED PROFESSIONAL ENGINEER — BRIAN D. HUNLEY — 25504 — OKLAHOMA

4/29/2021 6:15:14 PM

1/16"=1'-0" 0 8' 16' 32' | 1/8"=1'-0" 0 4' 8' 16' | 1/4"=1'-0" 0 2' 4' 8' | 1/2"=1'-0" 0 1' 2' 4' | 3/4"=1'-0" 0 1' 2' | 1"=1'-0" 0 6" 1' 2' | 1 1/2"=1'-0" 0 3" 6" 1' | 3"=1'-0" 0 3" 6"

B. CONCRETE RINGS: GALVANIZED STEEL, 4 INCH OCTAGON RINGS WITH MOUNTING LUGS, BACKPLATE AND ADAPTER RING AS REQUIRED. SELECT HEIGHT AS NECESSARY TO POSITION KNOCKOUTS ABOVE CONCRETE REINFORCING STEEL.

C. SWITCH BOXES: 2 INCH WIDE BY 3 INCH LONG GALVANIZED STEEL SWITCH BOXES USED FOR THE INSTALLATION OF SINGLE SWITCHES. INSTALL MULTIPLE SWITCHES IN STANDARD GANG BOXES WITH RAISED DEVICE COVERS SUITABLE FOR THE APPLICATION INDICATED.

D. TILE BOXES: OUTLET BOXES INSTALLED IN TILE; STEEL CITY GW SERIES, APPLETON M SERIES. STANDARD OUTLET BOXES WITH RAISED, SQUARE CORNERED, DEVICE COVERS ARE ACCEPTABLE.

E. CAST METAL OUTLET BOXES: 4 INCH, CAST IRON ALLOY WITH THREADED HUBS AND MOUNTING LUGS AS REQUIRED. BOXES SHALL BE FURNISHED WITH CAST COVER PLATES OF THE SAME MATERIAL AS THE BOX AND NEOPRENE COVER GASKETS. CROUSE-HINDS FS AND FD SERIES. APPLETON JBX SERIES.

2.05 PULL AND JUNCTION BOXES

A. SHEET METAL BOXES: USE STANDARD OUTLET OR CONCRETE RING BOXES WHEREVER POSSIBLE, OTHERWISE USE MINIMUM 16 GAUGE GALVANIZED SHEET METAL. NEMA 1 BOXES, SIZED TO CODE REQUIREMENTS WITH COVERS SECURED BY CADMIUM PLATED MACHINE SCREWS LOCATED 6 INCHES ON CENTERS. CIRCLE AW PRODUCTS, HOFFMAN ENGINEERING COMPANY.

B. CAST METAL BOXES: USE STANDARD CAST MALLEABLE IRON OUTLET OR DEVICE BOXES WHEREVER POSSIBLE; OTHERWISE USE CADMIUM PLATED, CAST MALLEABLE IRON JUNCTION BOXES WITH BOLT-ON, INTERCHANGEABLE CONDUIT HUB PLATES WITH NEOPRENE GASKETS. CROUSE HINDS SIDEWALK BOXES, TYPE WJBF OR APPLETON RS SERIES.

2.06 RECEPTACLES AND SWITCHES

A. GENERAL:

1. ALL GENERAL PURPOSE 20 AMPERE, 125/250 VOLT RECEPTACLES AND 120/277 VOLT SWITCHES (NEMA WD-1).
2. UNLESS OTHERWISE NOTED BY THE ARCHITECT, THE COLOR OF ALL DEVICES SHALL BE IVORY EXCEPT DEDICATED COMPUTER (ISOLATED GROUND) RECEPTACLES SHALL BE IVORY WITH AN ORANGE TRIANGLE.
3. UNLESS OTHERWISE NOTED BY THE ARCHITECT, THE FINISH OF ALL DEVISE PLATES SHALL BE IVORY.

B. RECEPTACLES, NEMA 5-20R, 20 AMP, 125 VOLT, 2 POLE, 3 WIRE, GROUNDING TYPE:

1. GENERAL PURPOSE SINGLE OUTLET SELF-GROUNDING, SIDE WIRED, WITH BINDING HEAD STAKED TERMINAL SCREW. LEVITON 5351 OR EQUAL BY GENERAL ELECTRIC, PASS AND SEYMOUR, HUBBELL.
2. GENERAL PURPOSE DUPLEX RECEPTACLES SELF-GROUNDING, SIDE WIRED, WITH BINDING HEAD STAKED TERMINAL SCREWS AND BREAK-OFF STRIP FOR TWO CIRCUIT WIRING. LEVITON 5342 OR EQUAL BY GENERAL ELECTRIC, PASS AND SEYMOUR, HUBBELL.
3. ISOLATED GROUND DUPLEX RECEPTACLES SELF-GROUNDING, SIDE WIRED WITH BINDING HEAD STAKED TERMINAL SCREWS. LEVITON 5362-IG-I OR EQUAL BY GENERAL ELECTRIC, PASS AND SEYMOUR, HUBBELL.
4. CLOCK RECEPTACLE/HANGER, SIDE WIRED WITH BINDING HEAD STAKED TERMINAL SCREWS. LEVITON 628-I OR EQUAL BY GENERAL ELECTRIC, PASS AND SEYMOUR, HUBBELL.

C. LIGHT SWITCHES: TWENTY AMPERE 120/277 VOLT, FAST MAKE-FAST BREAK, QUIET TYPE SWITCH WITH SILVER CADMIUM ALLOY CONTACTS, BINDING HEAD TERMINAL SCREWS, SIDE WIRED.

1. SINGLE-POLE, SINGLE-THROW: LEVITON 1121 SERIES OR EQUAL BY GENERAL ELECTRIC, PASS AND SEYMOUR, HUBBELL.
2. DOUBLE-POLE, SINGLE-THROW: LEVITON OR EQUAL BY GENERAL ELECTRIC, PASS AND SEYMOUR, HUBBELL. MATCH ITEM 1 STYLE.
3. THREE-WAY: LEVITON OR EQUAL BY GENERAL ELECTRIC, PASS AND SEYMOUR, HUBBELL. MATCH ITEM 1 STYLE.

D. DIMMER(S) SHALL BE LUTRON NOVA T SERIES, SIZE AND DERATE IN ACCORDANCE WITH LUTRON'S RECOMMENDATIONS. SWITCHES AT DIMMER LOCATIONS SHALL BE LUTRON NOVA T SERIES. AT LOCATIONS WHERE BOTH DIMMER CONTROLS AND SWITCHES ARE SHOWN CONTRACTOR SHALL FURNISH AND INSTALL ONE-PIECE MULTIGANG FACEPLATE WHICH SHALL INCLUDE DIMMERS AND SWITCHES. UNLESS OTHERWISE NOTED BY THE ARCHITECT, THE COLOR OF ALL DIMMERS AND FACEPLATES SHALL BE IVORY.

E. MOTOR RATED SWITCHES: FRACTIONAL HORSEPOWER MANUAL STARTERS WITH MELTING ALLOY TYPE THERMAL OVERLOAD RELAY, PILOT LIGHT AND LOCK-OFF/HANDLE GUARD. 1 OR 2 POLE, 115/230 VOLT, SQUARE D, CLASS 2510.

2.07 DEVICE PLATES

A. GENERAL:

1. FURNISH DEVICE PLATES FOR SWITCHES AND RECEPTACLES. DEVICE PLATE COLOR AND MATERIAL SHALL BE SELECTED BY ARCHITECT AT SUBMITTAL TIME REGARDLESS OF WHAT IS SPECIFIED BELOW.
2. PLATES: SMOOTH AND FREE OF GROOVES, EMBOSSING OR OTHER EMBELLISHMENT.
3. MOUNTING SCREWS: MATCH PLATE FINISH.
4. MARKER PLATES: PERMANENTLY ENGRAVED WITH 1/8 INCH HIGH PAINT FILLED LETTERS, UNLESS OTHERWISE NOTED.

B. PLASTIC DEVICE PLATES: SOLID .100" THICK WITH OPENINGS TO ACCOMMODATE DEVICES INDICATED ON THE DRAWINGS. LEVITON, PASS AND SEYMOUR, HUBBELL.

C. STAINLESS STEEL DEVICE PLATES: SOLID 0.032" THICK TYPE 430 WITH OPENINGS TO ACCOMMODATE DEVICES INDICATED ON THE DRAWINGS. LEVITON, PASS AND SEYMOUR, HUBBELL.

2.08 MOTOR STARTERS

A. FULL VOLTAGE STARTERS: ACROSS-THE-LINE, MAGNETIC TYPE, DOUBLE-BREAK SILVER ALLOY CONTACTS, GRAVITY DROP-OUT, MOLDED OPERATING COIL AND MELTING ALLOY THERMAL OVERLOAD RELAYS ON PHASE CONDUCTORS. 120V CONTROL WITH TRANSFORMER. SIZE: 0 MINIMUM. ALL LINE AND LOAD TERMINALS OF THE DEVICE RATED 100 AMPERES OR LESS SHALL BE RATED FOR 75°C.

B. OVERLOAD RELAYS AND THERMAL UNITS:

1. ELEMENTS FOR 100% FULL LOAD CURRENT FOR 55°C. RISE MOTORS OR 115% FULL LOAD CURRENT FOR 40°C. RISE MOTORS AND SHALL BE AMBIENT COMPENSATED.
2. IF THE OVERLOAD ELEMENTS ARE OF THE WRONG SIZE FOR THE NAMEPLATE RATING OF THE MOTOR, REPLACE WITH ELEMENTS OF THE CORRECT SIZE.

2.09 FIRE RATED POKE THROUGH

A. SERVICE FITTING: CAST ALUMINUM HOUSING WITH FINISH SELECTED BY ARCHITECT. REFER TO 2.06 FOR RECEPTACLE SPECIFICATION. PROVIDE COMPLETE BARRIER BETWEEN LOW TENSION AND 120 VAC SERVICE. SUBMIT TO ENGINEER PRIOR TO INSTALLATION.

2.10 SEPARATELY ENCLOSED COMBINATION STARTERS

A. MEET THE REQUIREMENTS OF MOTOR STARTERS. IN ADDITION, STARTER AND FUSED DISCONNECT DEVICE SHALL BE HOUSED TOGETHER IN ENCLOSURE OF REQUIRED TYPE MEETING OR EXCEEDING NEMA STANDARDS. GREEN "RUNNING" INDICATING LAMP WITH PUSH TO TEST FEATURE. HAND/OFF/AUTO CONTROL SWITCH ON COVER. 120 VOLT CONTROL VOLTAGE. NEMA 1 FOR INDOORS AND NEMA 3R FOR OUTDOORS OR AS SHOWN ON DRAWINGS. ALL LINE AND LOAD TERMINALS OF THE DEVICE RATED 100 AMPERES OR LESS SHALL BE RATED FOR 75°C.

2.11 DISCONNECT SWITCHES

A. SWITCH INTERIOR: DEAD-FRONT CONSTRUCTION WITH HINGED ARC SUPPRESSER AND SWITCH BLADES WHICH ARE FULLY VISIBLE IN THE "OFF" POSITION AND WITH DOOR OPEN.

B. SWITCH MECHANISM: QUICK-MAKE AND QUICK-BREAK OPERATING HANDLE AND MECHANISM WITH A DELETE DUAL COVER INTERLOCK TO PREVENT UNAUTHORIZED OPENING OF THE SWITCH DOOR IN THE "ON" POSITION OR CLOSING THE SWITCH MECHANISM WHILE THE DOOR IS OPEN. AN ELECTRICAL INTERLOCK SWITCH SHALL BE PROVIDED TO DEGENERIZE CONTROL WIRING AS REQUIRED. ALL LINE AND LOAD TERMINALS OF THE DEVICE RATED 100 AMPERES OR LESS SHALL BE RATED FOR 75°C.

C. RATINGS: SWITCHES HORSEPOWER RATED FOR 600 VOLTS, 60 HZ AND WHERE INDICATED TO BE FUSED SHALL HAVE PROVISIONS FOR FUSES.

D. ENCLOSURES: NEMA 1, CODE GAUGE SHEET STEEL WITH HINGED COVER, UNLESS USED WHERE EXPOSED TO THE WEATHER, IN WHICH CASE, USE NEMA 3R.

2.12 PROTECTIVE DEVICES

A. FUSED SWITCHES:

1. GENERAL: FUSED SWITCHES FOR SIZES 30 AMP THROUGH 1200 AMP.
2. FUSIBLE SWITCHES: QUICK-MAKE, QUICK-BREAK OF THE SIZES SHOWN ON THE DRAWINGS. APPROVED BY UNDERWRITER'S LABORATORIES AND, WHERE APPLICABLE, DUAL HORSEPOWER RATED FOR BOTH STANDARD ONE-TIME OR DUAL ELEMENT FUSES. ALL LINE AND LOAD TERMINALS OF THE DEVICE RATED 100 AMPERES OR LESS SHALL BE RATED FOR 75°C.
3. UNITS PADLOCKING: IN THE "OFF" POSITION AND THE OPERATING HANDLING POSITION SHALL GIVE POSITIVE SWITCH INDICATION, I.E., HORIZONTAL "OFF". DIAGONAL "ON". SWITCHES SHALL PASS INDUSTRY STANDARD I-SQUARED-T WITHSTANDABILITY TEST AND FUSE RACE TEST.

B. CIRCUIT BREAKERS:

1. CIRCUIT BREAKERS: INTERRUPTING CAPACITY AS NOTED ON THE DRAWINGS AND IF NOT SHOWN, BREAKERS FOR 208 VOLT SYSTEM SHALL HAVE INTERRUPTING CAPACITY OF NOT LESS THAN 10,000 AMPS. CIRCUIT BREAKERS FOR 480 VOLT SYSTEM SHALL HAVE A MINIMUM INTERRUPTING RATING OF 18,000 AMPS. CIRCUIT BREAKERS MOLDED CASE, TRIP INDICATING, THERMAL MAGNETIC TYPE, 40°C., AMBIENT TEMPERATURE COMPENSATED 40°C. RATED OR AMBIENT COMPENSATED. ALL LINE AND LOAD TERMINALS OF THE DEVICE RATED 100 AMPERES OR LESS SHALL BE RATED FOR 75°C.
2. FACTORY CERTIFICATION OF TRIP CHARACTERISTICS PROVIDED WITH THE SUBMITTALS FOR EVERY CIRCUIT BREAKER.
3. COVERS: SEALED ON NON-INTERCHANGEABLE TRIP BREAKERS AND TRIP UNIT COVERS SEALED ON INTERCHANGEABLE TRIP BREAKERS TO PREVENT TAMPERING. BREAKER CIRCUIT RATINGS CLEARLY VISIBLE AFTER INSTALLATION OR ENGRAVED NAMEPLATES STATING THE RATING. FERROUS PARTS PLATED TO MINIMIZE CORROSION.
4. BREAKERS: BOLT ON, TOGGLE, QUICK-MAKE AND QUICK-BREAK OPERATING MECHANISMS WITH TRIP-FREE FEATURE TO PREVENT CONTACTS BEING HELD CLOSED AGAINST OVERCURRENT CONDITIONS IN THE CIRCUIT. TRIP POSITION OF THE BREAKERS SHALL BE CLEARLY INDICATED BY OPERATING HANDLES MOVING TO A CENTER POSITION.
5. MAGNETIC TRIP ELEMENT: EACH POLE BEING INDIVIDUALLY CALIBRATED. MULTIPLE BREAKERS SHALL HAVE A SINGLE HANDLE TO OPEN AND CLOSE CONTACT SIMULTANEOUSLY IN BOTH MANUAL OPERATING AND UNDER AUTOMATIC TRIPPING. INTERPOLE BARRIERS SHALL BE PROVIDED INSIDE THE BREAKER TO PREVENT ANY PHASE-TO-PHASE FLASHOVER. EACH POLE OF THE BREAKERS SHALL HAVE ADEQUATE MEANS OF ARC EXTINCTION.
6. CIRCUIT BREAKERS OF STANDARD RATINGS: UNDERWRITER'S LABORATORIES, INC. LABEL AND NATIONAL ELECTRIC MANUFACTURERS ASSOCIATION PUBLICATION AB-1-1975.
7. ALL 20 AMP CIRCUIT BREAKERS SHALL BE RATED FOR FREQUENT SWITCHING, SWD RATING.

C. FUSES, UNLESS OTHERWISE NOTED ON THE DRAWINGS:

1. MOTOR CIRCUITS, FEEDERS AND FEEDERS FOR CIRCUIT BREAKER PANEL BOARDS – DUAL ELEMENT FUSES: 0-600 AMPS, BUSSMAN LOW-PEAK (LPN-RK, LPS-RK), CLASS RK-1.

2.13 ELECTRICAL SUPPORTING DEVICES

A. CONCRETE FASTENERS: PHILLIPS "RED-HEAD". POWER DRIVEN CONCRETE PIN FASTENERS, LOW VELOCITY TYPE. POWER DRIVEN FASTENERS SHALL BE REMINGTON, RAMSET OR HILTI POWER DRIVEN CONCRETE PIN FASTENERS, LOW VELOCITY TYPE.

B. CONDUIT STRAPS: HOT-DIP GALVANIZED, CAST MALLEABLE IRON, ONE HOLE TYPE STRAP WITH CAST CLAMP-BACKS AND SPACERS AS REQUIRED. OZ/GEDNEY NO. 14-50G STRAP AND NO. 141G SPACER; EFCOR NO. 23L STRAP AND NO. 131 SPACER.

C. CONCRETE INSERTS: PRESSED GALVANIZED STEEL, SPOT INSERT WITH OVAL SLOT CAPABLE OF ACCEPTING SUPPORT NUTS OF 1/4 INCH TO 1/2 INCH DIAMETER THREAD. UNISTRUT NO. M2506 SERIES, GLOBE-STRUT CSI SERIES.

D. CONSTRUCTION CHANNEL: 1 5/8 INCH BY 1 5/8 INCH 12 GAUGE GALVANIZED STEEL CHANNEL WITH 17/32 INCH DIAMETER BOLT HOLES, 1-1/2 INCH ON CENTER, IN THE BASE OF THE CHANNEL. KINDORF 905 SERIES, UNISTRUT P-1000-HS.

E. CABLE TIES AND CLAMPS: THOMAS AND BETTS CO. "TY-RAPS" PANDUIT "PAN-TY", ONE-PIECE, NYLON, REUSABLE TYPE LASHING TIES.

F. FASTENERS (GENERAL): WOOD SCREWS FOR FASTENING TO WOOD. MACHINE SCREWS FOR FASTENING TO STEEL. TOGGLE BOLTS FOR FASTENING TO GYPSUM BOARD OF PLASTER WALLS. EXPANSION ANCHORS FOR ATTACHMENTS TO PREPOURED CONCRETE.

2.14 FIRE ALARM SYSTEM

A. ALL FIRE ALARM SYSTEM COMPONENTS SHALL BE BASE BUILDING UNLESS OTHERWISE NOTED.

2.15.1 BRANCH CIRCUIT PANELBOARDS

A. MANUFACTURE SHALL BE CUTLER-HAMMER, SQUARE D, GENERAL ELECTRIC, CHALLENGER OR ITE SIEMENS..

B. CONSTRUCTION: CABINETS SHALL BE PROVIDED WITH STRETCHER LEVELED, STEEL DOORS AND TRIM OF CODE THICKNESS. COMPLETE WITH CONCEALED BUTT HINGES. PROVIDE COMBINATION SPRING CATCH AND LOCK ON INSIDE EDGE OF DOOR TRIMS WITH FLUSH FITTING JOINT BETWEEN DOOR AND TRIM. LOCKS ON ALL PANELBOARDS SHALL BE KEYED ALIKE.

C. BUS ASSEMBLY:

1. BUS SHALL BE PLATED ALUMINUM WITH TAPS ARRANGED FOR "DISTRIBUTED PHASE" CONNECTIONS TO BRANCH CIRCUIT BREAKERS.
2. SPACE CONNECTORS SHALL BE DRILLED AND TAPPED FOR BOLT ON CIRCUIT BREAKER CONNECTIONS, ARRANGED FOR DOUBLE ROW PLACEMENT OF BREAKERS AND DESIGNED TO PERMIT REMOVAL OR ADDITION OF PROTECTIVE DEVICES WITHOUT DISTURBING ADJACENT BREAKERS OR REMOVING MAIN BUS CONNECTIONS.

D. FINISH: FIVE-STEP ZINC PHOSPATIZING PRE-TREATMENT, ONE COAT RUST INHIBITING DICHROMATE PRIMER, ONE COAT BAKED-ON ENAMEL.

E. TERMINAL LUGS: APPROVED FOR USE WITH COPPER CONDUCTORS.

F. MISCELLANEOUS REQUIREMENTS:

1. CIRCUIT NUMBERING: STARTING AT THE TOP, ODD NUMBERED CIRCUITS IN SEQUENCE DOWN THE LEFT HAND SIDE AND EVEN NUMBERED CIRCUITS DOWN THE RIGHT HAND SIDE.
2. DIRECTORIES: A CIRCUIT DIRECTORY FRAME AND CARD WITH CLEAR PLASTIC COVERING SHALL BE PROVIDED INSIDE THE PANEL DOOR.
3. EQUIPMENT GROUND BUS: PROVIDE A SEPARATE EQUIPMENT GROUNDING BUS.
4. REFER TO PANEL SCHEDULES AND ELECTRICAL DRAWINGS FOR THE FOLLOWING:

A. SERVICE VOLTAGE.
B. TERMINAL LUG SIZE, LOCATION AND QUANTITY. (WHERE NOT SPECIFIED, USE ARRANGEMENT COMPATIBLE WITH EXTERNAL WIRING.)
C. BUS AMPACITY.
D. INTERRUPTING CAPACITY OF BUS AND BREAKERS. (USE BREAKER RATING SPECIFIED IN SECTION 16100 WHEN NOT SPECIFIED ON SCHEDULE).
E. QUANTITY, POLES AND RATING OF PROTECTIVE DEVICES.

2.16 LOW VOLTAGE K-RATED DRY-TYPE TRANSFORMER

A. SHALL HAVE THE FOLLOWING FEATURES:

1. SELF-COOLED BY NATURAL CONVECTION, ISOLATING WINDINGS, INDOOR, DRY TYPE APPROVED BY THE UL. AUTOTRANSFORMERS WILL NOT BE ACCEPTED.
2. RATINGS AND WINDING CONNECTIONS SHALL BE AS INDICATED ON THE DRAWINGS. UNLESS OTHER SPECIFIED TRANSFORMERS SHALL BE 480-208Y/120V, DELTA CONNNECTED PRIMARY AND WYE CONNECTED SECONDARY.
3. RATINGS INDICATED ARE FOR CONTINUOUS DUTY WITHOUT THE USE OF COOLING FANS.
4. TEMPERATURE RISE SHALL NOT EXCEED 150°C WITH LIMITING TEMPERATURE IN ACCORDANCE WITH NEMA STANDARDS.
5. CORE AND COIL ASSEMBLIES:

A. RIGIDLY BRACED TO WITHSTAND THE STRESSES CAUSED BY SHORT CIRCUIT CURRENTS AND ROUGH HANDLING DURING SHIPPING.

B. CORES SHALL BE COMMON CORE CONSTRUCTION HAVING LOW HYSTERISIS AND EDDY CURRENT LOSSES. CORE FLUX DENSITY SHALL BE BELOW SATURATION PINT AT RATED HARMONIC AND 60 HERTZ LOADS.

C. COILS SHALL BE CONTINUOUS WINDINGS WITHOUT SPLICES EXCEPT FOR TAPS.

D. COIL LOSS AND CORE LOSS SHALL BE OPTIMUM FOR EFFICIENT OPERATION.

E. PRIMARY, SECONDARY AND TAP CONNECTIONS SHALL BE BRAZED OR PRESSURE TYPE.

B. SOUND LEVELS SHALL NOT EXCEED THE FOLLOWING MAXIMUM LEVELS IN ACCORDANCE WITH NEMA STANDARDS:

1. 25-50 KVA, 45 DB
2. 51-150 KVA, 50 DB
3. 151-300 KVA, 55 DB

C. IMPEDANCE SHALL CONFORM TO NEMA STANDARDS WITH A MINIMUM OF 3.2 PERCENT AND MAXIMUM OF 5.2 PERCENT.

D. CORE ASSEMBLIES SHALL BE GROUNDED TO THEIR ENCLOSURES BY ADEQUATE, FLEXIBLE, GROUND STRAPS.

E. ENCLOSURES:

1. NOT LESS THAN CODE GAUGE STEEL.
2. TEMPERATURE RISE AT HOTTEST SPOT SHALL CONFORM TO NEMA STANDARDS.
3. VENTILATION OPENINGS SHALL PREVENT ACCIDENTAL ACCESS TO LIVE COMPONENTS.
4. THOROUGHLY CLEAN AND PAINT AT THE FACTORY WITH PRIMER AND MANUFACTURER'S STANDARD FINISH.

F. STANDARD NEMA FEATURES AND ACCESSORIES INCLUDING GROUND PAD, LIFTING PROVISIONS AND NAMEPLATE WITH THE WIRING DIAGRAM AND SOUND LEVEL INDICATED.

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PROJECT: VINITA CULTURAL DEVELOPMENT CENTER

PROJECT: CHEROKEE NATION, OKLAHOMA

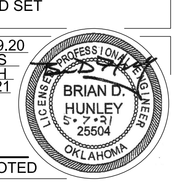
KEY PLAN

No.	Description	Date

SHEET TITLE: ELECTRICAL SPECIFICATIONS

BID SET

PROJECT NO: 111-049.20
DRAWN BY: RGS
CHK'D BY: BDH
ISSUE DATE: 5/7/2021



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G. DIMENSIONS AND CONFIGURATIONS SHALL CONFORM TO THE SPACES DESIGNATED FOR THEIR INSTALLATIONS.

H. THE NEUTRAL BUS SHALL BE SIZED AND CONFIGURED FOR A MINIMUM CAPACITY OF 200% OF THE FULL LOAD CURRENT.

I. FULL CAPACITY TAPS SHALL BE PROVIDED ON THE PRIMARY SIDE OF THE TRANSFORMER HAVING TWO 2.5% ABOVE NORMAL AND FOUR 2.5% BELOW NORMAL.

J. TRANSFORMER SHALL BE UL LISTED FOR THE REQUIRED K RATING.

K. TRANSFORMER SHALL INCORPORATE AN ELECTROSTATIC SHIELD GROUNDED TO THE TRANSFORMER CORE FOR ATTENUATION OF SPIKES, LINE NOISE AND TRANSIENTS.

L. USE PEABODY ISOLATION HANGERS MODEL SFH AT ALL–THREADS FOR SUSPENDED TRANSFORMERS WITH PEABODY MODEL NGD ISOLATION PADS BETWEEN TRANSFORMER AND ITS SUPPORTING STRUCTURE. USE PEABODY MODEL RD ISOLATION PADS FOR FLOOR MOUNTED TRANSFORMERS.

M. MANUFACTURER: CUTLER–HAMMER/WESTINGHOUSE, SQUARE D, GENERAL ELECTRIC, CHALLENGER, OLSUN OR ITE SIEMENS.

SECTION 260923
LIGHTING CONTROL DEVICES

PART 1 – PRODUCTS

1.1 MANUFACTURERS

A. IN OTHER PART 2 ARTICLES WHERE TITLES BELOW INTRODUCE LISTS, THE FOLLOWING REQUIREMENTS APPLY TO PRODUCT SELECTION:

1. MANUFACTURERS: SUBJECT TO COMPLIANCE WITH REQUIREMENTS, PROVIDE PRODUCTS BY ONE OF THE MANUFACTURERS SPECIFIED.

1.2 INDOOR OCCUPANCY SENSORS

A. MANUFACTURERS:

1. WATT STOPPER (THE).
2. LUTRON

B. MANUFACTURER PRODUCT SERIES:

1. WATT STOPPER (THE) DIGITAL LIGHTING MANAGEMENT (DLM) SYSTEM.

a. PROVIDE INDEPENDENT AND NON–NETWORKED OCCUPANCY SENSOR SYSTEM(S) UTILIZING DLM COMPONENTS TO ALLOW FOR FUTURE NETWORKED INTEGRATION FOR OCCUPANCY SENSOR SYSTEM(S).
b. THE DLM COMPONENTS SHALL ONLY BE UTILIZED FOR CEILING MOUNTING OCCUPANCY SENSORS AND SYSTEM(S) INDICATED ON THE DRAWINGS.
c. NETWORK BRIDGES, ADDITIONAL CATEGORY CABLING AND OTHER NETWORKING TYPE COMPONENTS SHALL NOT BE REQUIRED.

2. LUTRON MAESTRO OCCUPANCY SENSING SWITCH.
a. PROVIDE LUTRON MODEL #MS–OPS6M2–DV–XX DEVICES FOR ALL WALL–MOUNTED COMBINATION OCCUPANCY SENSOR AND MANUAL OVER–RIDE CONTROL STATIONS (EXAMPLE: OFFICES AND STORAGE ROOMS WITH $OS SYMBOLOGY).

C. GENERAL DESCRIPTION: WALL– OR CEILING–MOUNTING, SOLID–STATE UNITS WITH A SEPARATE RELAY UNIT.

1. OPERATION: UNLESS OTHERWISE INDICATED, TURN LIGHTS ON WHEN COVERED AREA IS OCCUPIED AND OFF WHEN UNOCCUPIED; WITH A TIME DELAY FOR TURNING LIGHTS OFF, ADJUSTABLE OVER A MINIMUM RANGE OF 1 TO 15 MINUTES.
2. SENSOR OUTPUT: CONTACTS RATED TO OPERATE THE CONNECTED RELAY, COMPLYING WITH UL 773A. SENSOR SHALL BE POWERED FROM THE RELAY UNIT.
3. RELAY UNIT: DRY CONTACTS RATED FOR 20–A BALLAST LOAD AT 120– AND 277–V AC, FOR 13–A TUNGSTEN AT 120–V AC, AND FOR 1 HP AT 120–V AC. POWER SUPPLY TO SENSOR SHALL BE 24–V DC, 150–MA, CLASS 2 POWER SOURCE AS DEFINED BY NFPA 70.
4. MOUNTING:

a. SENSOR: SUITABLE FOR MOUNTING IN ANY POSITION ON A STANDARD OUTLET BOX.
b. RELAY: EXTERNALLY MOUNTED THOUGH A 1/2–INCH KNOCKOUT IN A STANDARD ELECTRICAL ENCLOSURE.
c. TIME–DELAY AND SENSITIVITY ADJUSTMENTS: RECESSED AND CONCEALED BEHIND HINGED DOOR.

5. INDICATOR: LED, TO SHOW WHEN MOTION IS BEING DETECTED DURING TESTING AND NORMAL OPERATION OF THE SENSOR.
6. BYPASS SWITCH: OVERRIDE THE ON FUNCTION IN CASE OF SENSOR FAILURE.
7. AUTOMATIC LIGHT–LEVEL SENSOR: ADJUSTABLE FROM 2 TO 200 FC; KEEPS LIGHTING OFF WHEN SELECTED LIGHTING LEVEL IS PRESENT.

D. PIR TYPE: CEILING MOUNTING; DETECT OCCUPANCY BY SENSING A COMBINATION OF HEAT AND MOVEMENT IN AREA OF COVERAGE.

1. DETECTOR SENSITIVITY: DETECT OCCURRENCES OF 6–INCH MINIMUM MOVEMENT OF ANY PORTION OF A HUMAN BODY THAT PRESENTS A TARGET OF AT LEAST 36 SQ. IN.
2. DETECTION COVERAGE (ROOM): DETECT OCCUPANCY ANYWHERE IN A CIRCULAR AREA OF 1000 SQ. FT. WHEN MOUNTED ON A 96–INCH– HIGH CEILING.
3. DETECTION COVERAGE (CORRIDOR): DETECT OCCUPANCY WITHIN 90 FEET WHEN MOUNTED ON A 10–FOOT– HIGH CEILING.
4. PIR TYPE OCCUPANCY SENSORS SHALL BE USED IN ALL OFFICES, CLASSROOMS, MEETING ROOMS, STORAGE ROOMS, BREAKROOMS, CORRIDORS, LOBBIES AND OTHER PUBLIC AREAS, EXCLUDING RESTROOMS.

E. ULTRASONIC TYPE: CEILING MOUNTING; DETECT OCCUPANCY BY SENSING A CHANGE IN PATTERN OF REFLECTED ULTRASONIC ENERGY IN AREA OF COVERAGE.

1. DETECTOR SENSITIVITY: DETECT A PERSON OF AVERAGE SIZE AND WEIGHT MOVING AT LEAST 12 INCHES IN EITHER A HORIZONTAL OR A VERTICAL MANNER AT AN APPROXIMATE SPEED OF 12 INCHES/S.
2. DETECTION COVERAGE (SMALL ROOM): DETECT OCCUPANCY ANYWHERE WITHIN A CIRCULAR AREA OF 600 SQ. FT. WHEN MOUNTED ON A 96–INCH– HIGH CEILING.
3. DETECTION COVERAGE (STANDARD ROOM): DETECT OCCUPANCY ANYWHERE WITHIN A CIRCULAR AREA OF 1000 SQ. FT. WHEN MOUNTED ON AN 8–FOOT– HIGH CEILING.
4. DETECTION COVERAGE (LARGE ROOM): DETECT OCCUPANCY ANYWHERE WITHIN A CIRCULAR AREA OF 2000 SQ. FT. WHEN MOUNTED ON A 96–INCH– HIGH CEILING.
5. DETECTION COVERAGE (CORRIDOR): DETECT OCCUPANCY ANYWHERE WITHIN 90 FEET WHEN MOUNTED ON A 10–FOOT–HIGH CEILING IN A CORRIDOR NOT WIDER THAN 14 FEET.
6. ULTRASONIC TYPE OR DUAL–TECHNOLOGY TYPE OCCUPANCY SENSORS SHALL ONLY BE INSTALLED IN RESTROOMS.

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BRIAN D. HUNLEY — 25504 — PROFESSIONAL ENGINEER — OKLAHOMA

E005

Scale AS NOTED

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1/16"=1'-0" 0 8' 16' 32' | 1/8"=1'-0" 0 4' 8' 16' | 1/4"=1'-0" 0 2' 4' 8' | 1/2"=1'-0" 0 1' 2' 4' | 3/4"=1'-0" 0 1' 2' | 1"=1'-0" 0 6" 1' 2' | 1 1/2"=1'-0" 0 3" 6" 1' | 3"=1'-0" 0 3" 6"

ELECTRICAL NUMBERED NOTES

1. EXISTING LIGHTING IN THIS AREA TO BE REMOVED. COORDINATE EXACT AREA OF DEMOLITION WITH ARCHITECT.
2. EXISTING LIGHTING IN THIS AREA TO REMAIN.
3. EXISTING WALL MOUNTED FIXTURE TO BE REMOVED. PRESERVE EXISTING JUNCTION BOX AND CIRCUIT FOR CONTRACTOR PROVIDE AND INSTALLED WALL MOUNT FIXTURE. COORDINATE ELECTRICAL REQUIREMENTS WITH MANUFACTURER.
4. PROVIDE JUNCTION BOX FOR ELECTRICAL SERVICE TO OWNER PROVIDED CUSTOM LIGHT FIXTURE. COORDINATE EXACT LOCATION, MOUNTING AND ELECTRICAL REQUIREMENTS WITH ARECHITECT AND OWNER. CIRCUIT AS INDICATED.
5. PROVIDE ELECTRICAL AND COMMUNICATIONS CONCRETE POUR-IN FLOOR BOX SERVICE FITTING, HUBBELL MODEL #CFB2G30CR TWO-GANG STAMBED STEEL FLOOR BOX. FURNISH WITH CFBS1R6CVR ROUND CONVER AND ONE (1) MODEL #FBMPDUP INTERNAL DUPLEX RECEPTACLE BRACKET WITH RECEPTACLE DEVICE FOR POWER. VERIFY EXACT TYPE AND FINISH OF FLOOR BOX COVER PLATE WITH ARCHITECT PRIOR TO ORDERING. COLOR OF RECEPTACLE DEVICE SHALL BE BLACK COORDINATE EXACT LOCATION OF FLOOR BOX SERVICE FITTING WITH ARCHITECT/OWNER AND FINAL FURNITURE LOCATION. CONNECT TO EXISTING 120V PANEL FEEDING THIS AREA. PROVIDE ONE (1) 1" CONDUIT FROM FLOORBOX TO GROUND FLOOR DATA CLOSET. VERIFY LOCATION OF DATA CLOSET AND EXACT CONDUIT ROUTING WITH OWNER.
6. RECESSED TYPE DUPLEX RECEPTACLE, COMBINATION RECESSED TYPE DATA OUTLET WITH CATV OUTLET DEDICATED FOR WALL MOUNTED FLATSCREEN TELEVISION MONITOR. PROVIDE LEGRAND #TV2MW (ARLINGTON #TVBS505) OR OTHER ENGINEER APPROVED EQUAL RECESSED TYPE OUTLET BOX(ES) FOR POWER AND STRUCTURED WIRING. MOUNT DEVICES AT 78" A.F.F. UNLESS NOTED OTHERWISE, VERIFY EXACT MOUNTING REQUIREMENTS AND LOCATION WITH ARCHITECT, OWNER AND TV MOUNTING HARDWARE PRIOR TO INSTALLATION. IT SHALL BE ACCEPTABLE TO HAVE COMBINATION POWER AND COMMUNICATIONS RECESSED TYPE OUTLET BOX WITH SEPARATE COMPARTMENTS.
7. CONNECT EXHAUST FAN TO EXISTING SWITCHED LIGHTING CIRCUIT IN THIS AREA.
8. PROVIDE DISCONNECT FOR ELECTRICAL SERVICE TO NEW MINISPLIT UNIT MCU-1. VERIFY EXACT ELECTRICAL REQUIREMENTS WITH EQUIPMENT. PROVIDE ONE(1) 60A, 2-POLE CIRCUIT BREAKER INTO EXISTING PANEL FEEDING THIS AREA. BRANCH CIRCUIT SHALL BE 3#6, 1#10GND, 1"C.
9. PROVIDE DISCONNECT FOR ELECTRICAL SERVICE TO NEW CONDENSING UNIT. VERIFY EXACT ELECTRICAL REQUIREMENTS WITH EQUIPMENT. PROVIDE ONE(1) 35A, 3-POLE CIRCUIT BREAKER INTO EXISTING PANEL FEEDING THIS AREA. BRANCH CIRCUIT SHALL BE 4#8, 1#10GND, 1"C.
10. PROVIDE DISCONNECT FOR ELECTRICAL SERVICE TO NEW CONDENSING UNIT CU-6. VERIFY EXACT ELECTRICAL REQUIREMENTS WITH EQUIPMENT. PROVIDE ONE(1) 25A, 3-POLE CIRCUIT BREAKER INTO EXISTING PANEL FEEDING THIS AREA. BRANCH CIRCUIT SHALL BE 4#10, 1#10GND, 3/4"C.
11. PROVIDE DISCONNECT FOR ELECTRICAL SERVICE TO NEW CONDENSING UNIT CU-7. VERIFY EXACT ELECTRICAL REQUIREMENTS WITH EQUIPMENT. PROVIDE ONE(1) 20A, 3-POLE CIRCUIT BREAKER INTO EXISTING PANEL FEEDING THIS AREA. BRANCH CIRCUIT SHALL BE 4#10, 1#10GND, 3/4"C.
12. PROVIDE DISCONNECT FOR ELECTRICAL SERVICE TO NEW CONDENSING UNIT CU-8. VERIFY EXACT ELECTRICAL REQUIREMENTS WITH EQUIPMENT. PROVIDE ONE(1) 20A, 2-POLE CIRCUIT BREAKER INTO EXISTING PANEL FEEDING THIS AREA. BRANCH CIRCUIT SHALL BE 3#10, 1#10GND, 3/4"C.
13. PROVIDE NEW LIGHTING CONTROL RELAY PANEL WITH ASTRONOMIC TIME CLOCK FOR CONTROL OF EXTERIOR LIGHTING CIRCUITS. PROVIDE ONE (1) RELAY FOR CONTROL OF EACH EXTERIOR LIGHTING CIRCUIT.
14. PROVIDE STAINLESS STEEL DISCONNECT FOR DISHWASHER. CONTRACTOR IS RESPONSIBLE FOR ALL ELECTRICAL CONNECTIONS, INCLUDING BUT NOT LIMITED TO CORD CONNECTION TO EQUIPMENT AND CODE REQUIRED NEUTRAL/GROUND CONNECTIONS. BRANCH CIRCUIT SHALL BE 2 #10, 1 #10 GND., 1/2" C.
15. DUPLEX RECEPTACLE FOR REFRIGERATED DISPLAY CASE. COORDINATE EXACT LOCATION OF DEVICE WITH ARCHITECT AND EQUIPMENT SUPPLIER PRIOR TO INSTALLATION.
16. DUPLEX RECEPTACLE FOR UNDERCOUNTER REFRIGERATED. COORDINATE EXACT LOCATION OF DEVICE WITH ARCHITECT AND EQUIPMENT SUPPLIER PRIOR TO INSTALLATION
17. RECEPTACLE FOR COFFEE MAKER. COORDINATE NEMA CONFIGURATION AND LOCATION WITH EQUIPMENT SUPPLIER PRIOR TO INSTALLATION. BRANCH CIRCUIT SHALL BE 2 #10, 1 #10 GND., 1/2" C.
18. DUPLEX RECEPTACLE FOR ICE MAKER. COORDINATE EXACT LOCATION OF DEVICE WITH ARCHITECT AND EQUIPMENT SUPPLIER PRIOR TO INSTALLATION.
19. DUPLEX RECEPTACLE FOR GAS RANGE STARTER. COORDINATE EXACT LOCATION OF DEVICE WITH ARCHITECT AND EQUIPMENT SUPPLIER PRIOR TO INSTALLATION.
20. PROVIDE ONE (1) NEW DEDICATED DUPLEX RECEPTACLE AND ONE (1) DUAL DATA OUTLET MOUNTED IN COUNTER FOR P.O.S., COORDINATE EXACT LOCATION AND MOUNTING WITH ARCHITECT PRIOR TO INSTALLATION. ROUTE CONDUIT INSIDE COUNTER TO EXISTING BOX ON WEST WALL, SUPPORT ACCORDINLY. BRANCH CIRCUIT SHALL BE 2#12, 1#12GND., 1/2"C. PROVIDE SURFACE MOUNTED WIREWAY AND JUNCTION BOX ON WEST WALL TO ACCESSABLE CEILING FOR COMMUNICATIONS/DATA CABLES, SIZE ACCORDINLY.
21. PROVIDE DISCONNECT FOR ELECTRICAL SERVICE TO NEW MAKE UP AIR UNIT MAU-1 FAN. VERIFY EXACT ELECTRICAL REQUIREMENTS WITH EQUIPMENT. PROVIDE ONE(1) 20A, 2-POLE CIRCUIT BREAKER INTO EXISTING PANEL FEEDING THIS AREA. BRANCH CIRCUIT SHALL BE 3#10, 1#10GND, 3/4"C.
22. FURNISH AND INSTALL JUNCTION BOXES FOR EXHAUST HOOD SYSTEMS TO INCLUDE HOOD LIGHTS AND TEMPERATURE SENSOR. PRIOR TO INSTALLATION VERIFY LOCATION WITH KITCHEN EQUIPMENT DRAWINGS AND SUPPLIER. NOTE HOOD LIGHTS WILL BE ON SEPARATE CIRCUIT. PROVIDE OR RE-USE ONE(1) 20A, 1-POLE CIRCUIT BREAKER IN EXISTING PANEL FEEDING THIS AREA. BRANCH CIRCUIT SHALL BE 2#10, 1#10GND, 3/4"C.
23. PROVIE DISCONNECT FOR ELECTRICAL SERVICE TO NEW MAKE UP AIR UNIT MAU-1 CONDENDER. VERIFY EXACT ELECTRICAL REQUIREMENTS WITH EQUIPMENT. PROVIDE ONE(1) 20A, 2-POLE CIRCUIT BREAKER INTO EXISTING PANEL FEEDING THIS AREA. BRANCH CIRCUIT SHALL BE 3#10, 1#10GND, 3/4"C.
24. PROVIDE TWO JUNCTION BOXES FOR AUTOFLUSH SENSOR AND SOLENOID FOR EACH WATER CLOSET/URINAL/LAVATORY UNIT. COORDINATE EXACT MOUNTING LOCATION AND HEIGHT WITH EQUIPMENT SUPPLIER/MANUFACTURER PRIOR TO INSTALLATION
25. AUTOFLUSH TRANSFORMER FOR WATER CLOSET/URINAL/LAVATORY UNIT. CIRCUIT NUMBER INDICATED. COORDINATE LOCATION AND MOUNTING WITH EQUIPMENT SUPPLIER/MANUFACTURER PRIOR TO INSTALLATION.
26. PROVIDE DISCONNECT FOR NEW CONDENSING UNIT CU-9. VERIFY EXACT LOCATION AND ELECTRICAL REQUIREMENTS WITH EQUIPMENT. PROVIDE ONE(1) 20A, 3-POLE CIRCUIT BREAKER INTO EXISTING GENERAL PURPOSE PANEL FEEDING THIS AREA. BRANCH CIRCUIT SHALL BE 4#12, 1#12 GND, 1"C.
27. PROVIDE 1/2" C FROM LOW-VOLTAGE TRANSFORMER TO LANDSCAPE FIXTURE LOCATION. VERIFY EXACT LOCATION WITH ARCHITECT/LANDSCAPE CONSULTANT. REFER TO LANDSCAPE LIGHTING DRAWINGS FOR FIXTURE TYPE.
28. PROVIDE ONE (1) COOPER LUMIERE SERIES T250 WET LISTED LOW -VOLTAGE TRANSFORMER FOR ELECTRICAL SERVICE TO LANDSCAPE LIGHTING. PROVIDE OR RE-USE ONE (1) EXISTING 20A, 1-POLE CIRCUIT BREAKER IN EXISTING PANEL FEEDING THIS AREA. VERIFY EXACT LOCATION WITH ARCHITECT/LANDSCAPE CONSULTANT.
29. PROVIDE ELECTRICAL SERVICE TO 120V LANDSCAPE LIGHITNG FIXTURE. VERIFY EXACT LOCATION WITH ARCHITECT/LANDSCAPE CONSULTANT. CIRCUIT AS INDICATED.
30. PROVIDE JUNCTION BOX FOR ELECTRICAL SERVICE TO WATER FEATURE PUMP. VERIFY EXACT LOCATION AND ELECTRICAL REQUIREMENTS WITH EQUIPMENT. CIRCUIT AS INDICATED.
31. PROVIDE WEATHERPROOF/GFI RECEPTACLE AT WATER FEATURE. VERIFY EXACT LOCATION WITH ARCHITECT/LANDSCAPE CONSULTANT. CIRCUIT AS INDICATED.
32. PROVIDE ELECTRICAL SERVICE TO FURNACE. VERIFY EXACT ELECTRICAL REQUIREMENTS WITH EQUIPMENT. PROVIDE ONE(1) 15A, 1-POLE CIRCUIT BREAKER INTO EXISTING PANEL FEEDING THIS AREA. BRANCH CIRCUIT SHALL BE 2#12, 1#12GND, 1/2"C.
33. PROVIDE MOMENTARY MANUAL OVER-RIDE SWITCH INTERCONNECTED TO OCCUPANCY SENSOR SYSTEM TO CONTROL LIGHTING IN LOCAL ROOM/AREA. COORDINATE WITH INTERCONNECTION TO OCCUPANCY SENSOR CONTROL SYSTEM. CONTROLS TO INTEGRATE WITH CENTRALIZED LIGHTING CONTROL SYSTEM.
34. FURNISH AND INSTALL JUNCTION BOXES FOR EXHAUST HOOD SYSTEMS TO INCLUDE FIRE PROTECTION AND TEMPERATURE SENSOR. ALL ELECTRICAL CONNECTIONS BENEATH EXHAUST HOOD TO EXTEND TO SHUNT TRIP BREAKERS WITHIN ELECTRICAL PANEL BOX FOR SHUT-DOWN DURING FIRE MODE. INTERCONNECT FIRE PROTECTION SYSTEM TO ELECTRICAL PANEL BOX BRANCH BREAKERS SHUNT TRIPS AND BUILDING ALARM SYSTEM. PRIOR TO INSTALLATION VERIFY LOCATION WITH KITCHEN EQUIPMENT DRAWINGS AND SUPPLIER.
35. PROVIDE DISCONNECT FOR ELECTRICAL SERVICE TO NEW HUMIDIFIER. VERIFY EXACT ELECTRICAL REQUIREMENTS WITH EQUIPMENT. PROVIDE ONE(1) 35A, 3-POLE CIRCUIT BREAKER INTO EXISTING PANEL FEEDING THIS AREA. BRANCH CIRCUIT SHALL BE 3#8, 1#10GND, 3/4"C.

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PROJECT: CHEROKEE NATION, OKLAHOMA

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BRIAN D. HUNLEY 25504 — LICENSED PROFESSIONAL ENGINEER — OKLAHOMA

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Scale: AS NOTED

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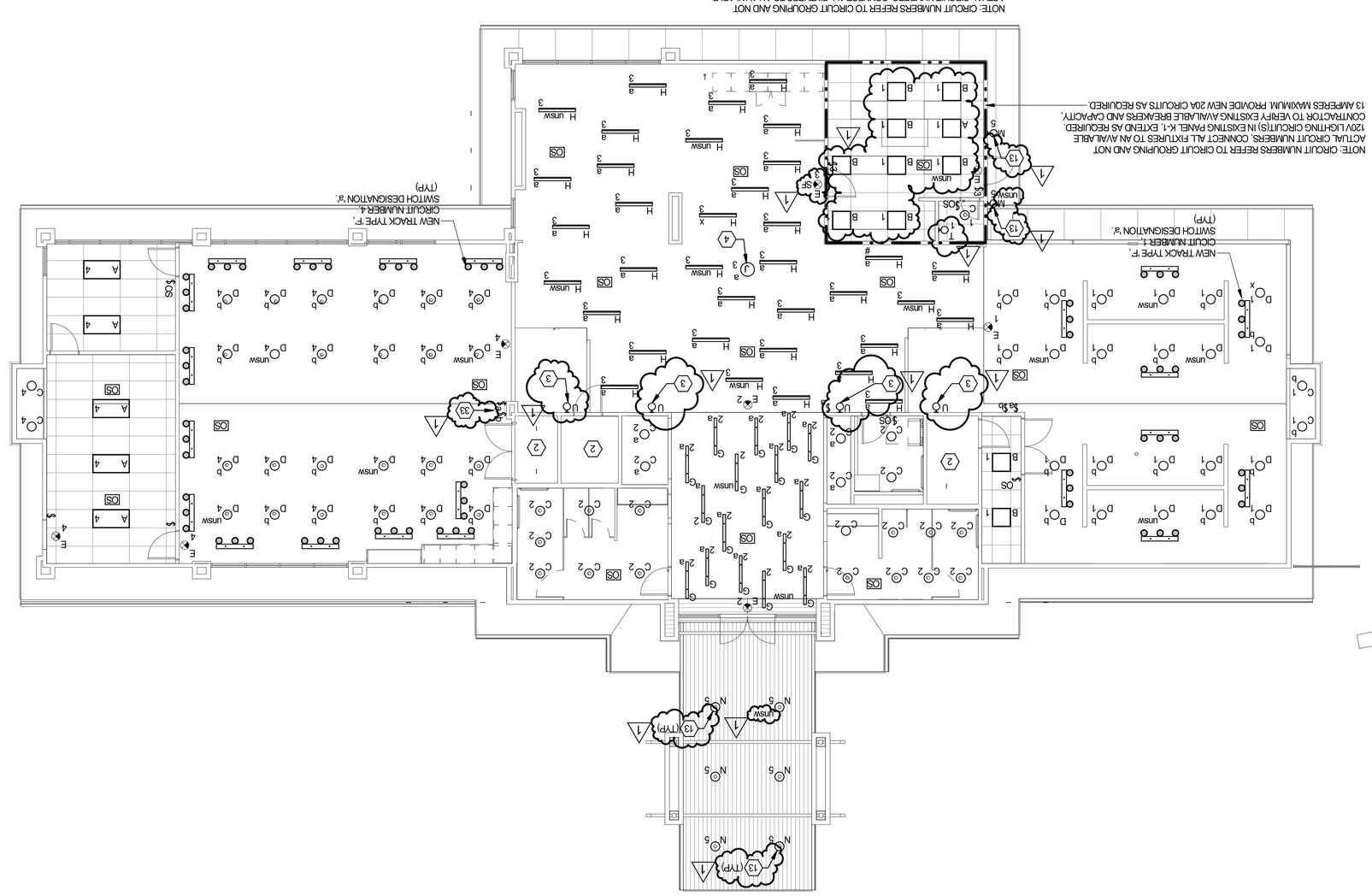
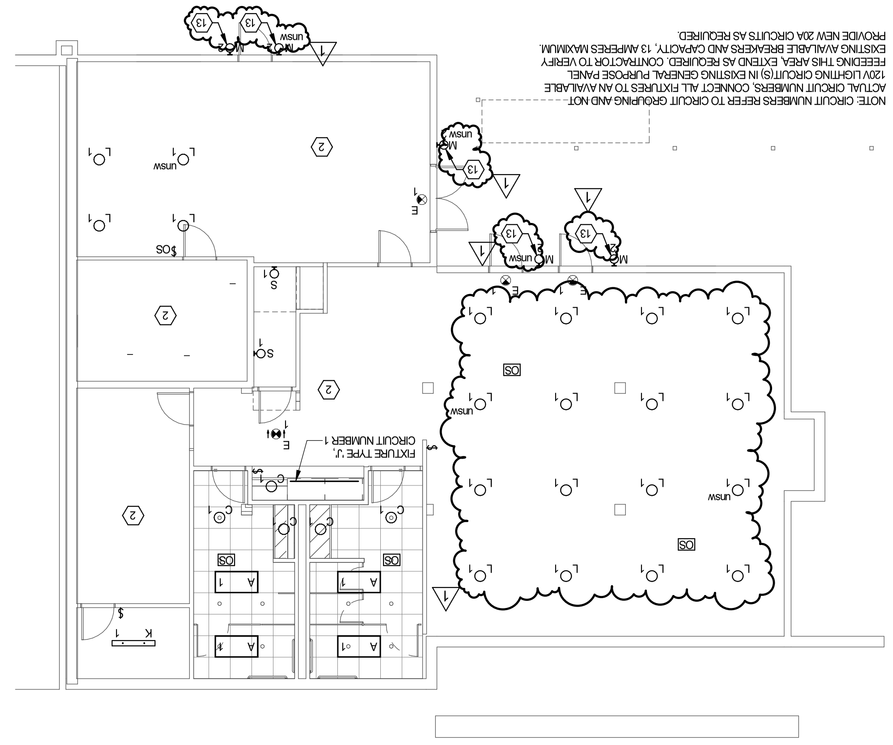


UPPER LEVEL LIGHTING PLAN - NEW
1/8" = 1'-0"
E101



LOWER LEVEL LIGHTING PLAN - NEW
1/8" = 1'-0"
E101

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BRIAN D. HUNLEY
05-19-21
25504
OKLAHOMA
LICENSED PROFESSIONAL ENGINEER

Scale 1/8" = 1'-0"

E101

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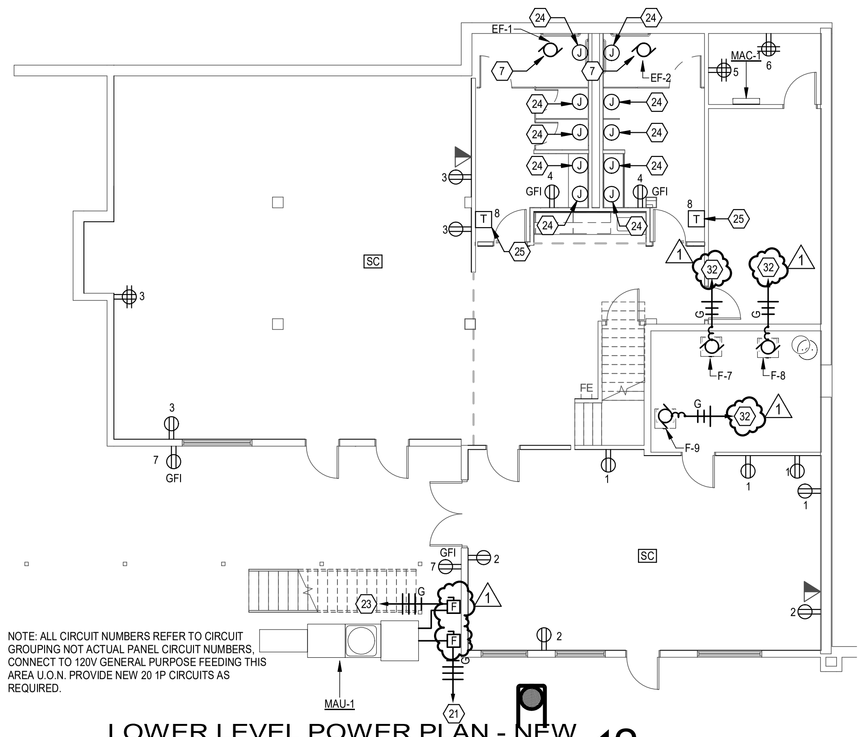
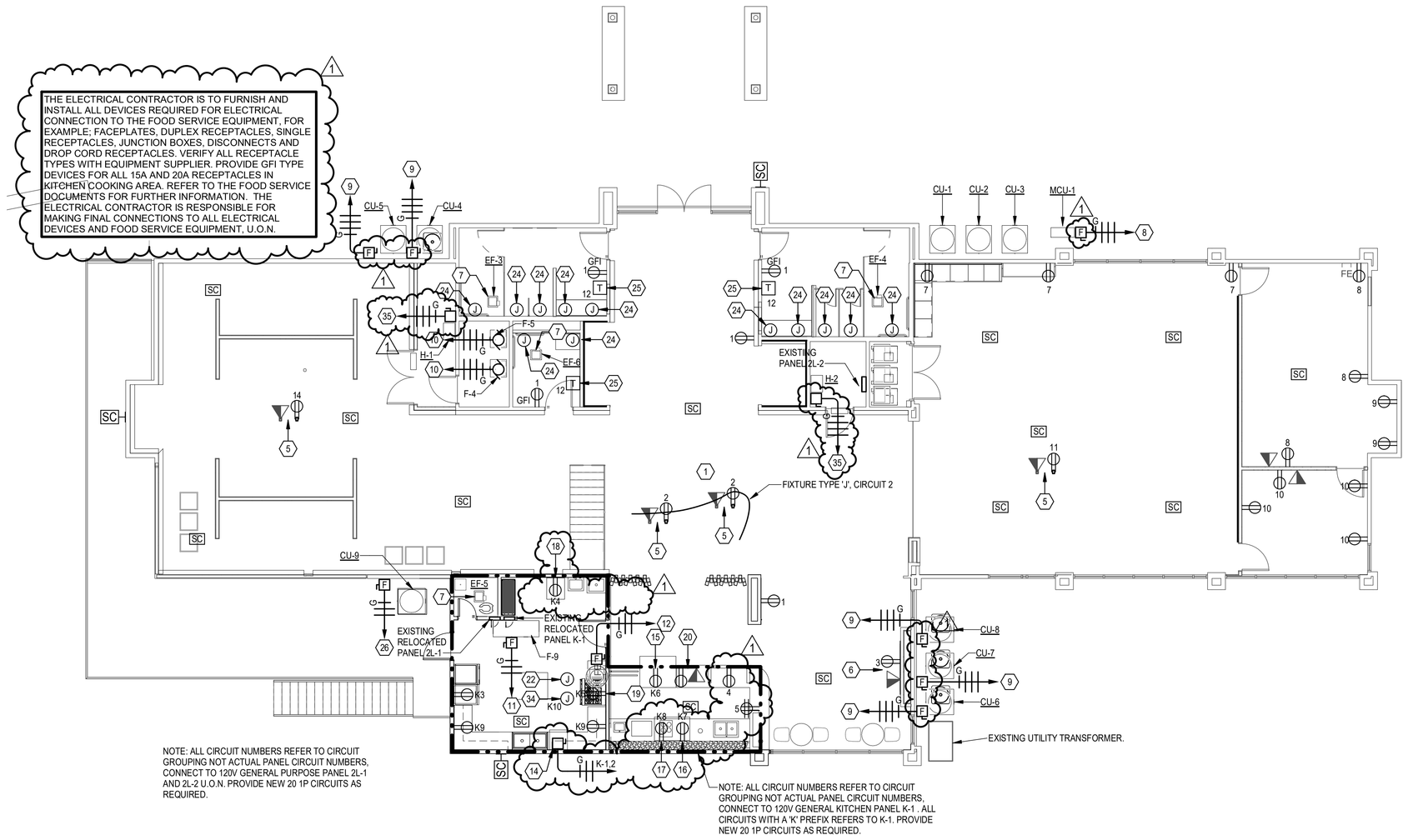
5/19/2021 3:03:17 PM



NOTE: ALL CIRCUIT NUMBERS REFER TO CIRCUIT GROUPING NOT ACTUAL PANEL CIRCUIT NUMBERS, CONNECT TO 120V GENERAL PURPOSE FEEDING THIS AREA U.O.N. PROVIDE NEW 20 1P CIRCUITS AS REQUIRED.

LOWER LEVEL POWER PLAN - NEW 2
1/8" = 1'-0" E201



NOTE: ALL CIRCUIT NUMBERS REFER TO CIRCUIT GROUPING NOT ACTUAL PANEL CIRCUIT NUMBERS, CONNECT TO 120V GENERAL PURPOSE PANEL 2L-1 AND 2L-2 U.O.N. PROVIDE NEW 20 1P CIRCUITS AS REQUIRED.

NOTE: ALL CIRCUIT NUMBERS REFER TO CIRCUIT GROUPING NOT ACTUAL PANEL CIRCUIT NUMBERS, CONNECT TO 120V GENERAL KITCHEN PANEL K-1 . ALL CIRCUITS WITH A 'K' PREFIX REFERS TO K-1. PROVIDE NEW 20 1P CIRCUITS AS REQUIRED.

UPPER LEVEL POWER PLAN - NEW 1
1/8" = 1'-0" E201

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PROJECT
VINITA CULTURAL DEVELOPMENT CENTER

PROJECT
CHEROKEE NATION, OKLAHOMA

KEY PLAN

No.	Description	Date
1	ASI-1	5/19/2021

SHEET TITLE
POWER PLANS

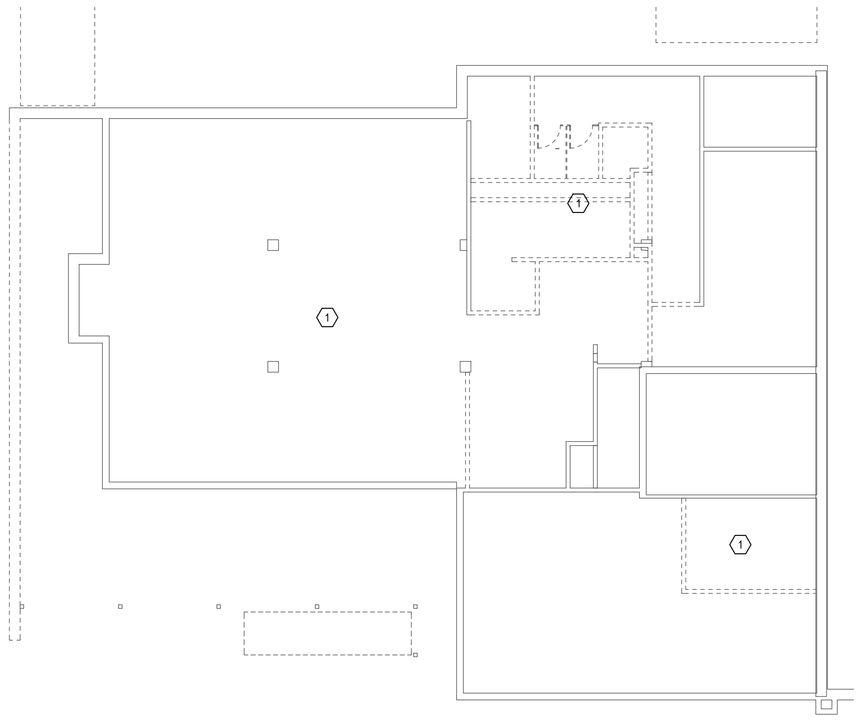
BID SET

PROJECT NO: 111-049.20
DRAWN BY: RGS
CHK'D BY: BDH
ISSUE DATE: 5/7/2021

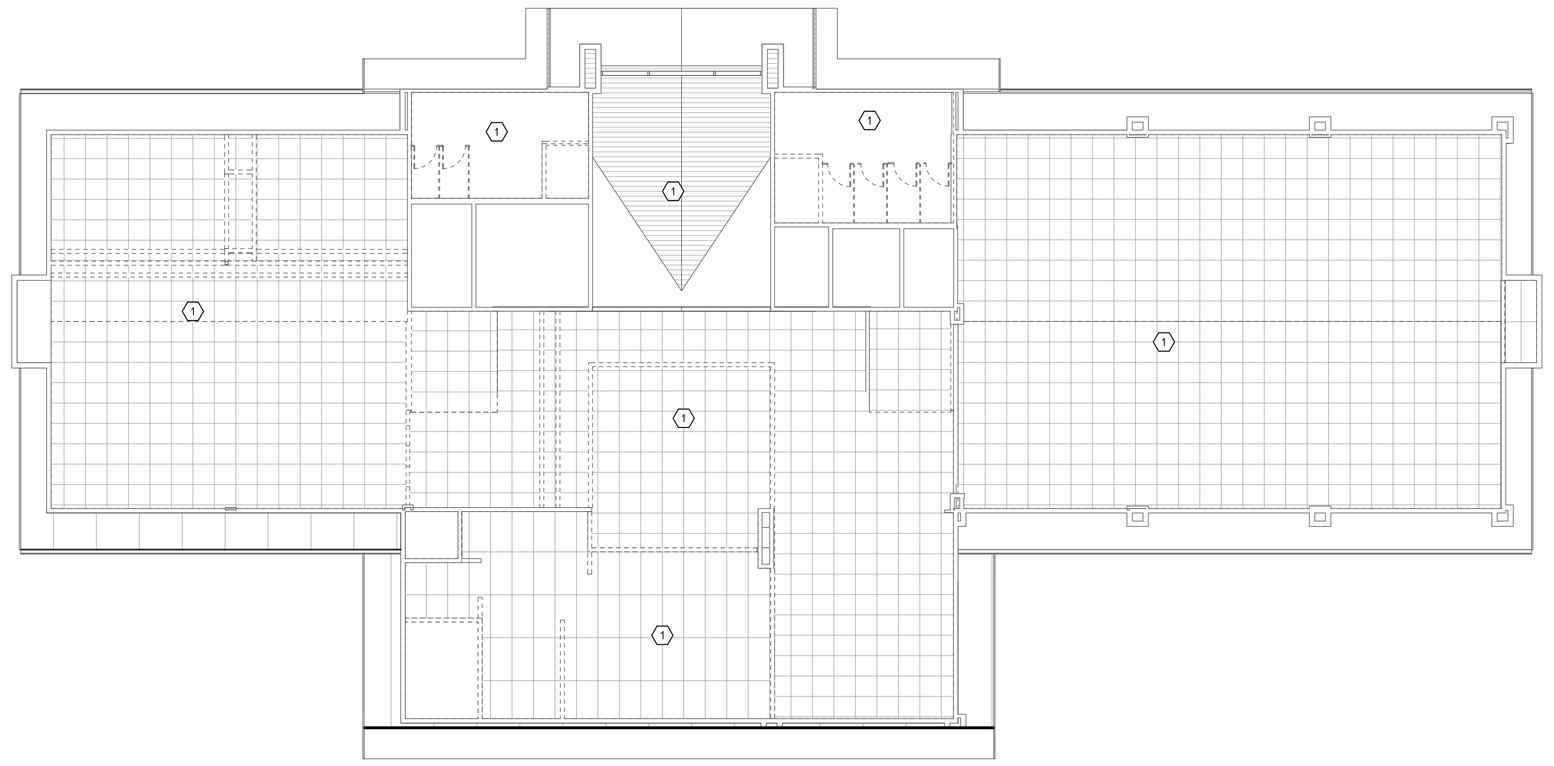
E201
Scale 1/8" = 1'-0"

LICENSED PROFESSIONAL ENGINEER
BRIAN D. HUNLEY
05-19-21
25504
OKLAHOMA

5/19/2021 2:19:51 PM



LOWER LEVEL ELECTRICAL PLAN 2
1/8" = 1'-0" ED101



UPPER LEVEL ELECTRICAL PLAN 1
1/8" = 1'-0" ED101

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PROJECT
VINITA CULTURAL DEVELOPMENT CENTER

PROJECT
CHEROKEE NATION, OKLAHOMA

KEY PLAN

No.	Description	Date

SHEET TITLE
DEMOLITION - ELECTRICAL PLANS

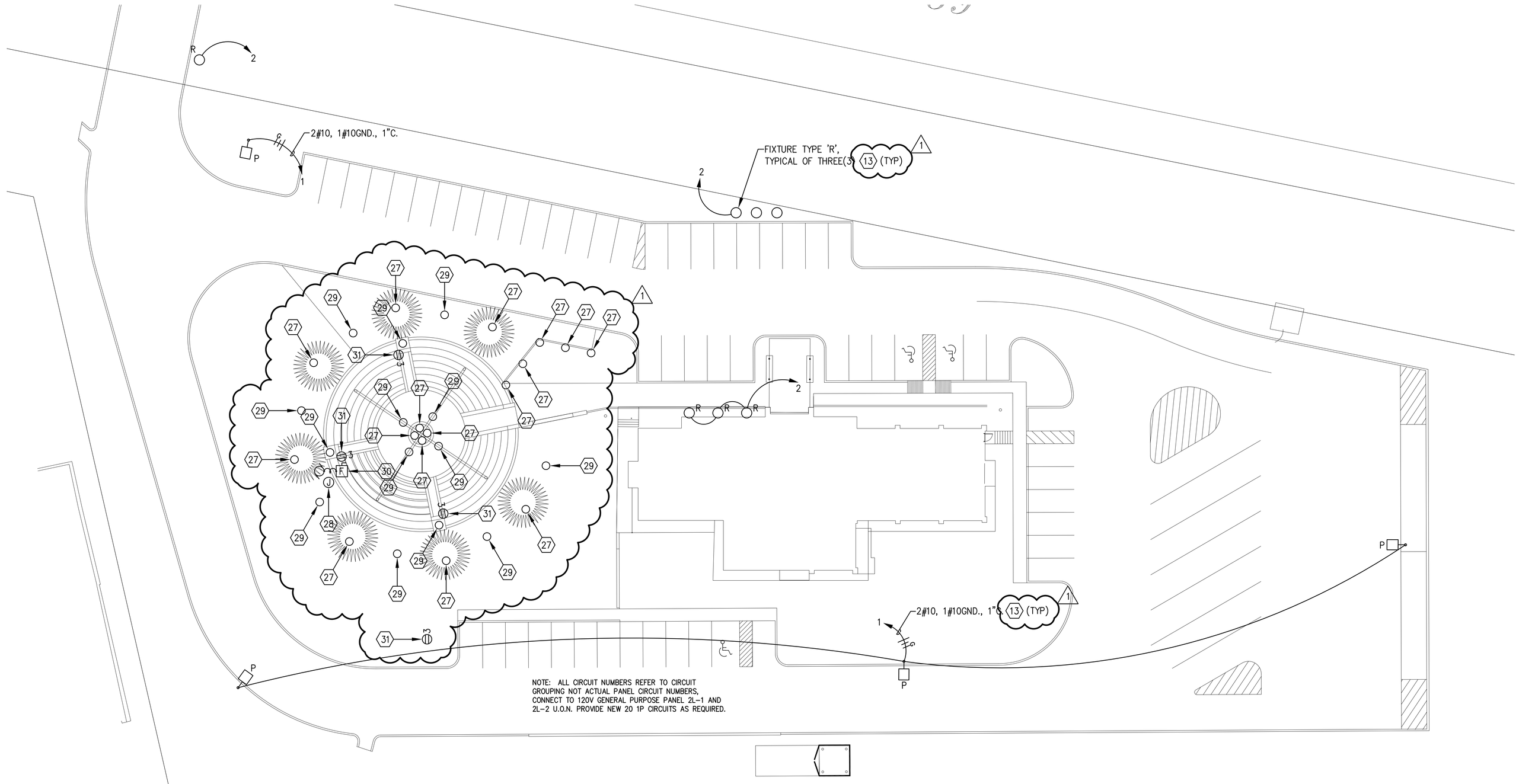
BID SET

PROJECT NO: 111-049.20
DRAWN BY: RGS
CHKD BY: BDH
ISSUE DATE: 5/7/2021

LICENSED PROFESSIONAL ENGINEER
BRIAN D. HUNLEY
25504
OKLAHOMA

ED101
Scale 1/8" = 1'-0"

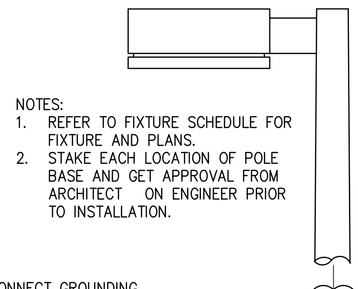
5/7/2021 12:33:08 PM



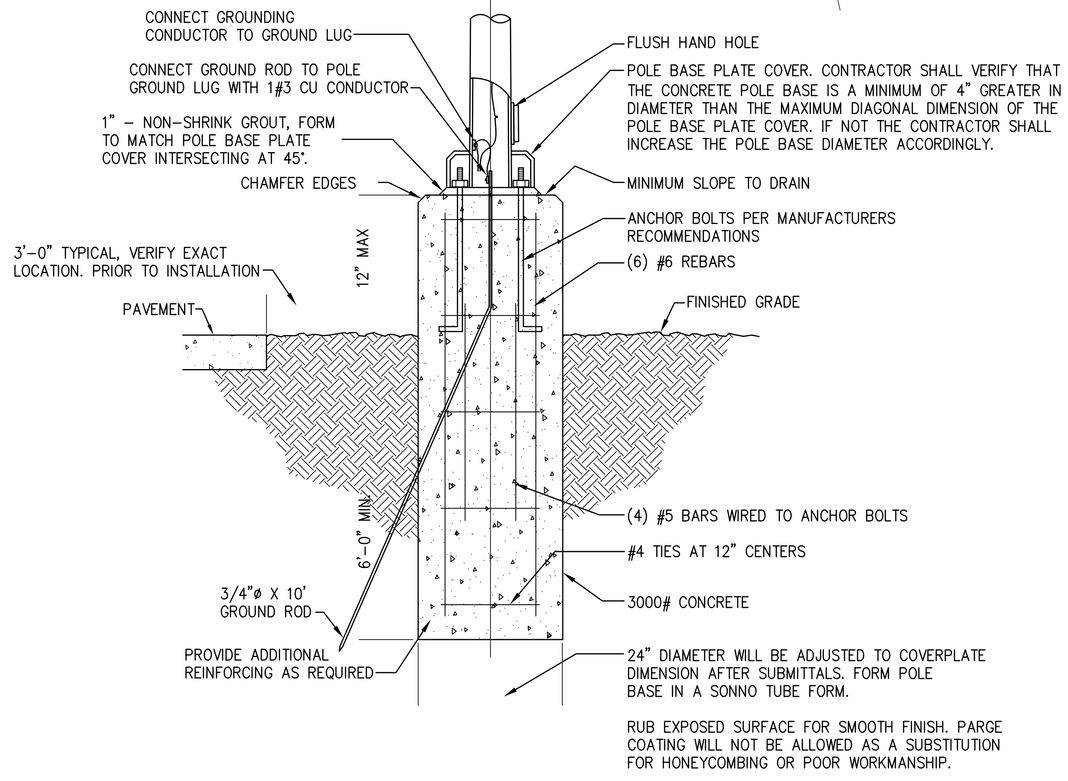
A ELECTRICAL SITE PLAN

SCALE: 1"=20'-0"

NORTH

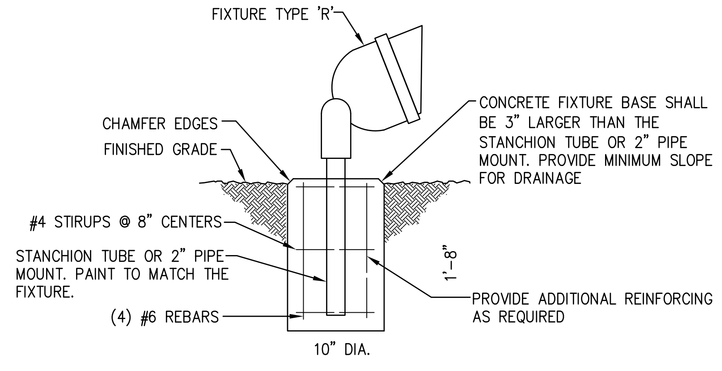


NOTES:
1. REFER TO FIXTURE SCHEDULE FOR FIXTURE AND PLANS.
2. STAKE EACH LOCATION OF POLE BASE AND GET APPROVAL FROM ARCHITECT ON ENGINEER PRIOR TO INSTALLATION.



C FIXTURE POLE MOUNTING DETAIL

SCALE: NONE



B FLOODLIGHT MOUNTING DETAIL

SCALE: NONE

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1	ASI-1	5/19/2021

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LICENSED PROFESSIONAL ENGINEER — BRIAN D. HUNLEY — 05-12-21 — 25504 — OKLAHOMA

E600

Scale AS NOTED

4/29/2021 6:15:14 PM