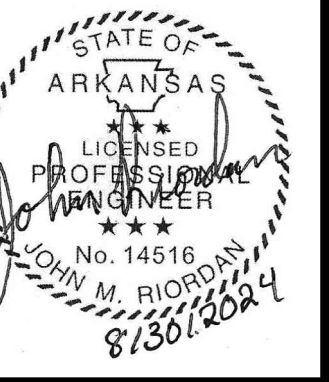


REVISION	DATE



**HAWKINS WEIR ENGINEERS, INC.**  
**CSE CORNERSTONE STRUCTURAL ENGINEERING, INC.**

Rogers, Arkansas  
 ROGERS POLLUTION CONTROL FACILITY (PCF)  
 SOLIDS HANDLING IMPROVEMENTS, PHASE II  
**DRYER BUILDING BUILDING ROOF FRAMING PLAN**  
 ROGERS WATER UTILITIES

DATE:	AUGUST 2024
SCALE:	As indicated
DESIGNED BY:	JMR
DRAWN BY:	TPL
HWEI NO.:	2020043
FILENAME:	SA-11

CL - DENOTES STRUCTURAL LINE  
 FC - DENOTES FACE OF COLUMN  
 BL - DENOTES BLOCK LINE  
 CL - DENOTES CENTER LINE  
 METAL BUILDING LEGEND  
 1" = 1'-0"

- PRE-ENGINEERED METAL BUILDING NOTES**
- DETAILING, FABRICATION, AND ERECTION, SHALL CONFORM TO THE AISC STEEL CONSTRUCTION MANUAL, LATEST EDITION.
  - ALL WELDS TO BE MADE BY CERTIFIED WELDERS TO AWS STANDARDS WITH E70 ELECTRODES AND MEET THE REQUIREMENTS OF THE IBC 2012 SECTION 2204.1.
  - UNLESS NOTED OTHERWISE, ANCHOR BOLTS SHALL CONFORM TO ASTM F1554 GRADE 55 SUPPLEMENT 1.
  - DO NOT USE CABLES FOR X-BRACING. PROVIDE RODS FOR ENDWALL AND ROOF X-BRACING. PROVIDE HEAVY COMPRESSION BRACING FOR THE EAST AND WEST WALL X-BRACING TO ENSURE GOOD BRACING FOR THE OVERHEAD BRIDGE CRANE.
  - ROOF AND WALL OPENING FRAMES TO BE PROVIDED BY THE METAL BUILDING SYSTEM PROVIDER. ROOF PURLINS SHOWN AT TYPICAL SPACING. METAL BUILDING MANUFACTURER SHALL MODIFY NUMBER, SPACING, AND LAYOUT, AS REQUIRED TO ACCOMMODATE FOR ROOF PENETRATIONS.
  - ALL STEEL SHALL BE HOT DIPPED GALVANIZED WITH FINISH OF 3.9 MILL MINIMUM THICKNESS. GALVANIZING SHALL BE DONE IN ACCORDANCE WITH ASTM A123/A. ALL BOLTS SHALL BE HOT DIPPED GALVANIZED OR 304 STAINLESS STEEL WHERE ONE OR MORE MEMBERS ARE GALVANIZED.
  - BRIDGE CRANE HANGER COLUMNS, BRACING, AND BRIDGE HOIST RUNWAY BEAMS FOR 3 TON BY 60FT SPAN UNDERHUNG BRIDGE CRANE TO BE PROVIDED BY THE METAL BUILDING SYSTEM PROVIDER, CONFORMING TO THE REQUIREMENTS OF CMAA 77-2020, SPECIFICATIONS FOR TOP RUNNING & UNDER RUNNING SINGLE GIRDER ELECTRIC OVERHEAD CRANES UTILIZING UNDER RUNNING TROLLEY HOIST.
  - PRE-ENGINEERED BUILDING SHALL BE DESIGNED TO RESIST THE DESIGN LOADS AS REQUIRED BY THE 2021 ARKANSAS FIRE PREVENTION CODE (IBC, 2021) AND AS SHOWN UNDER THE STRUCTURAL DESIGN CRITERIA ON 50.1 SHEET.
  - PRE-ENGINEERED METAL BUILDING MANUFACTURER SHALL PROVIDE ALL THERMAL EXPANSION JOINTS REQUIRED IN THE BUILDING AND CRANE RUNWAY STRUCTURE TO ACCOMMODATE A TEMPERATURE DIFFERENTIAL OF 100°F.
  - PRE-ENGINEERED METAL BUILDING MANUFACTURER SHALL SUBMIT CALCULATIONS, INCLUDING COLUMN REACTIONS AND DEFLECTIONS, TO THE FOUNDATION ENGINEER FOR APPROVAL. CALCULATIONS SHALL BE STAMPED BY AN PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF ARKANSAS.
  - SCREW CONVEYOR SUPPORT BEAM TO BE SUPPLIED BY BUILDING MANUFACTURER
    - SCREW CONVEYOR DEAD LOAD = 75/LBS/FT, LIVE LOAD = 275 LBS/FT
    - SCREW CONVEYOR MOTOR LOAD = 1,300 LBS
  - DESIGN BRIDGE CRANE LOADS (TO BE VERIFIED WITH FINAL SELECTION OF BRIDGE CRANE)
    - SPAN = 60'
    - LIFTING LOAD = 3 TON
    - WEIGHT OF BRIDGE = 14,500 LBS
    - WEIGHT OF TROLLEY & HOIST = 1,500 LBS
    - CRANE DRIVE GROUP = CMAA C
    - CRANE ENDTRUCK WEIGHT = 1,000 LBS W/ MIN. 8'-0" WHEEL SPACING
    - VERTICAL IMPACT = 25% PER ASCE 7-16
    - HORIZONTAL LOAD = 20% PER ASCE 7-16
    - LONGITUDINAL LOAD = 10% PER ASCE 7-16
    - MAXIMUM BUMPER FORCE OF 6,000 LBS FOR EACH RAIL
  - ALLOWABLE DEFLECTION IS AS FOLLOWS: (SEE SPECIFICATION)
    - PRIMARY FRAMING MEMBERS: TOTAL LOAD - L/360
    - SECONDARY FRAMING MEMBERS: TOTAL LOAD - L/240
    - METAL PANELS, TOTAL LOAD - L/240
    - ALLOWABLE STORY DRIFT - H/200 AT EAVE HEIGHT OF 34 FEET WITH MAXIMUM OF 2" USING DESIGN WIND LOAD OR CRANE LATERAL LOAD
  - ALLOWABLE DEFLECTION FOR THE BRIDGE CRANE RUNWAY BEAMS
    - VERTICAL - L/600 FOR UNDERHUNG CMAA CLASS C.
    - HORIZONTAL - L/400 FOR ALL CMAA CLASSES

**1 ROOF FRAMING PLAN**  
 1/8" = 1'-0"

