City of TIFFIN

AGENDA INFORMATION
TIFFIN CITY COUNCIL COMMUNICATION

DATE:	August 27, 2026
AGENDA ITEM:	Approval of Change Order #3 – Tricon Construction Group – Water Treatment Facility Upgrade
ACTION:	Motion

Background

The City of Tiffin entered into a construction contract with Tricon Construction Group for the Tiffin Water Treatment Facility Upgrade. The original contract amount was $12,182,553.00. Previously approved Change Orders No. 1 and No. 2 increased the contract by a combined $20,148.91, bringing the contract amount to $12,202,701.91 prior to Change Order No. 3.

Change Order No. 3 incorporates several modifications identified during the construction and review process. The changes are intended to address material selections, building and fire-rating requirements, lighting, mechanical equipment location, and structural requirements associated with the project. The Change Order was issued August 19, 2026, with an effective date of September 1, 2026.

The supporting documentation includes contractor change order requests, material information, revised plans, and related documentation. The building modifications included under this Change Order are associated with building inspection and code-related requirements. The project plans identify the applicable building and fire codes, including the 2018 International Building Code (IBC) and 2024 International Fire Code (IFC).

The project documentation also indicates that the design was revised to provide 1-hour rated fire wall assemblies for the three required control areas within the Main RO Building.

There is no change to the project schedule associated with Change Order No. 3. Substantial completion remains September 30, 2026, and the date for readiness for final payment remains November 30, 2026.

Recommendation

Staff recommends approval of Change Order No. 3 with Tricon Construction Group for the Tiffin Water Treatment Facility Upgrade in the amount of $37,650.40, resulting in a revised contract amount of $12,240,352.31. There is no change to the contract completion dates.

ATTACHMENTS: Change Order

CHANGE ORDER NO.: 3

Owner:	City of Tiffin	Owner's Project No.:	
Engineer:	MSA Professional Services	Engineer's Project No.:	13603021
Contractor:	Tricon Construction Group	Contractor's Project No.:	25-012-IA
Project:	Tiffin WTF Upgrade		
Contract Name:	13603021 – Tiffin WTF Upgrade		
Date Issued:	August 19, 2026	Effective Date of Change Order:	September 1, 2026

The Contract is modified as follows upon execution of this Change Order:

Description: This change order shall incorporate the following changes:

- Increase to switch door and frame for fluoride to room from hollow metal to FRP = $3,925.55
- Increase to switch door hardware items to stainless steel for chemical room doors = $9,407.74
- Increase for building modifications related to fire ratings = $15,493.29
- Increase to install (2) light fixtures in the FD Aerator vault = $2,685.84
- Increase to locate the split AC unit for the MCC Room to the south wall instead of the north wall = $812.91
- Increase for truss modifications to comply with IBC 2018 = $5,325.07

Attachments: Change order request documents.

Change in Contract Price	Change in Contract Times
Original Contract Price: $ 12,182,553.00	Original Contract Times: Substantial Completion: 9/30/26 Ready for final payment: 11/30/26
Increase from previously approved Change Orders No. 1 to No. 2 $ 20,148.91	[Increase] [Decrease] from previously approved Change Orders No.1 to No. [Number of previous Change Order]: Substantial Completion: N/A Ready for final payment: N/A
Contract Price prior to this Change Order: $ 12,202,701.91	Contract Times prior to this Change Order: Substantial Completion: 9/30/26 Ready for final payment: 11/30/26
Increase this Change Order: $ 37,650.40	[Increase] [Decrease] this Change Order: $0.00 Substantial Completion: 0 Ready for final payment: 0
Contract Price incorporating this Change Order: $ 12,240,352.31	Contract Times with all approved Change Orders: Substantial Completion: 9/30/26 Ready for final payment: 11/30/26

Copyright© 2018 National Society of Professional Engineers, American Council of Engineering Companies and American Society of Civil Engineers. All rights reserved.

	Recommended by Engineer	Accepted by Contractor
By:	Clint Wiener	
Title:	Senior Project Engineer	Owner
Date:	8/26/2026	08.19.26
	Authorized by Owner	Approved by Funding Agency (if applicable)
By:		
Title:		
Date:		

EJCDC® C-941, Change Order EJCDC® C-941, Change Order, Rev.1.
Copyright© 2018 National Society of Professional Engineers, American Council of Engineering Companies and American Society of Civil Engineers. All rights reserved.

www.triconcg.com

746 58th Ave Ct SW
Cedar Rapids, IA 52404

Corporate Office
1230 East 12th Street
Dubuque, IA 52001
P 563.588.9516
F 563.588.9519

July 14, 2026

Clint Wienen
MSA Professional Services Inc
400 Ice Harbor Dr
Dubuque IA 52001

Project: Tiffin Water Treatment Facility Upgrade
Re: COR # 14R3

Owner requested Chemical Room Door Material Changes per attached.

Kurtz Hardware Co	3,304.84
OHP	495.73
General Liability Insurance	68.11
Bond	56.87
Total	**$ 3,925.55**

Approved By:

Tom Shedek — 7/14/2026
Project Manager – Tricon Construction — Date

Clint Wienen – MSA Professional Services Inc — Date

City of Tiffin — Date

KURTZ HARDWARE CO.
Architectural Doors & Hardware
1473 Keo Way • Des Moines, IA 50314

Change Order #2R3

Fiberglass Upgrade for Flouride Room, Mk #10-7
Non Rated, Half Glass 24x36 3070 Dr x 3070 Fr
Mk # 10-7

Project: Tiffin WTP
Contractor: Tricon Construction Group
Contact: Tom Shedek
Email: tomshedek@tricong.com

Balance of doors previously priced in CO#2r1 to remain HM

Date: 6/2/2026
Job: RK1821

Set	Qty	Description	Amount
1	-1	Credit for Galvanized HMFs 3070-2HD 5-3/4" Jamb Depth A-60 Mk # 10-7	<$285.32>
	1	Add for FRP frame knockdown installation, ES Series, 2" Head, Non Rated, hinge locations for 7'0" door - 5-3/4" Jamb Depth, Pierce & Dimpled w Masonry	$1,598.40
	-1	Credit for Galvanized HMDs, 3070 Nonrated Half Glass x Filled Edges - Mk #10-7	<$553.43>
	1	Add for FRP door, ES Series, Half Lite Factory Furnished Kit 24" x 36", Non Rated, 3070 x 1-3/4" Glass By Others	$1,598.40
	-3	Credit for [3] hinges, standard weight 4.5" US32D	<$86.81>
	1	CLEAR CONCEALED LEAF CONT HINGE	$217.60
	-1	Credit for stainlesss steel neoprene weather strip seal	<$252.76>
	1	Add for stainless steel silicone weather strip seal per RAN submittal comment 4.d	$353.76

Thank you for requesting a quote from us.
This quotation subject to selection and correction.

Note: Your company's signed change order paperwork MUST be received before any material will be ordered.

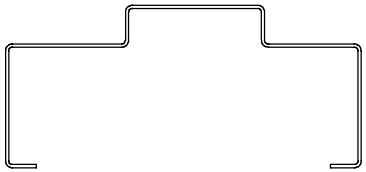
Prices shown expire after 20 days from date above.

Subtotal	$2,589.84
Tax (0.00%)	$0.00
Freight Out	$715.00
Total	**$3,304.84**

Accepted by:

Signature *Printed Name & Title* *Date*

F SERIES



Frame Construction

12, 14, or 16 gauge, cold-rolled, galvannealed, or galvanized G90 steel to be break-formed to the design specifications required. (See pages F-3 TO F-9 for sizes and profiles available). Frames shall be furnished knocked-down or welded, ground smooth upon request. Mitered corners shall have a strong, secure, four tab interlocking system to maintain neat mitered joints and corners. Standard frame to have 1/2" returns; standard stop heights to be 5/8" high. Soffit dimensions can vary. Frames can be single or double rabbeted. Frames will be supplied with welded on sill anchors.
(Note: Bending tabs in on the jamb rabbets will increase door opening dimension).

Installation & Applications

Frames to be installed in accordance with ANSI A250.11-2001. Standard series frames to be used in a number of applications including masonry, wood stud and steel stud construction.

Hardware Reinforcements

Frames to be furnished with 4-1/2" or 5" standard or heavy weight 7 gauge steel hinge reinforcements and shall be adequately reinforced for all hardware. Standard arm or parallel closer reinforcements available upon request.
Strike and hinge reinforcements shall be protected by mortar guards. Single frames shall be prepared to receive (3) rubber mutes.

Finish

Exposed frame surfaces to be cleaned and treated then coated with rust inhibitive primer. Color painted frames to receive a durable, flow coated, baked on finish. Water-based primer and color paint finishes to be free of Hazardous Air Pollutants (HAPS) and Volatile Organic Compounds (VOCS).

Compliance

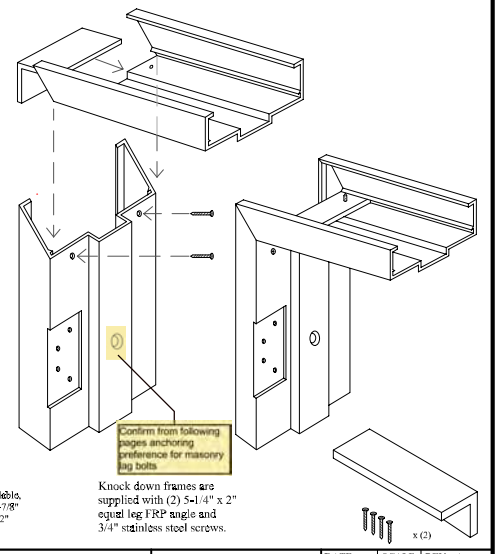
All Mesker frame components comply with ANSI A250.8(R2008). Fire labeling in accordance NFPA and available in FM (standard), WHI (Intertek) and Underwriters Laboratories. For a complete list of product compliance per ANSI/ASTM test methods, consult the labeling section.

MESKER
The newest innovations in hollow metal from the oldest hollow metal door company in America

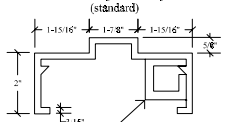
Non-Rated KD Frame

Specifications

Frames for ES (standard) and EP (premier) series fiberglass doors to be manufactured from 0.1875 inch (4.8mm) thick fiberglass pultrusions by Edgewater Door, Neenah, Wisconsin. Profile shall be of standard hollow type to permit installation into new concrete or block walls, as well as slip-on for drywall applications. Frames fabricated with mitered corners, drilled and countersunk for #12 wood screws. Supplied with FRP corner brackets to be installed in frame rabbets and secured with 3/4" stainless wood screws. Reinforcements may vary to work with wall applications. Frames supplied with plaster guards or mortar boxes at back of hardware cutouts where mortar or other materials might obstruct hardware operation.



5-3/4" x 2" equal rabbet profile (standard)



1-1/2" x 1-1/2" x 1/4" Hinge & strike reinforcement

*Custom profiles are available, minimum jamb depth = 3-7/8" maximum jamb depth = 12"

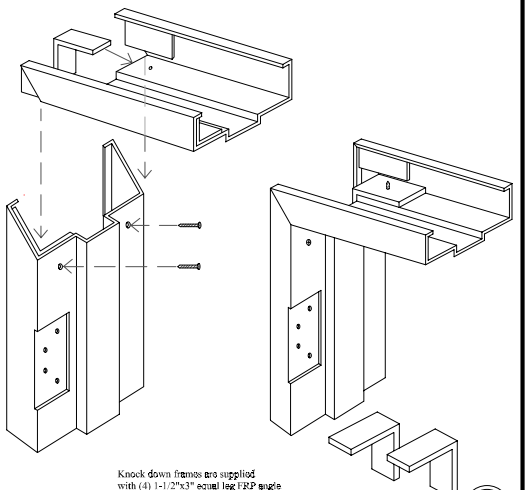
Knock down frames are supplied with (2) 5-1/4" x 2" equal leg FRP angle and 3/4" stainless steel screws.

EDGEWATER DOOR	DRAWING NAME: ES SERIES KNOCK DOWN FRAME	FOR MORE INFORMATION CALL 920-886-1995 OR VISIT US AT edgewaterdoor.com	DATE: 12/2003 SCALE: NONE REV: 1 DATE: 5/2018 DRAWN BY: Chris Martin PAGE: 1 of 1

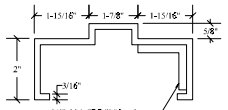
90 Minute Fire-rated Frame

Specifications

Frames for EF (fire) series fiberglass frames to be manufactured from 0.1875 inch (4.8mm) thick fiberglass pultrusions by Edgewater Door Neenah, Wisconsin. Profile shall be of standard hollow metal type, for installation into masonry poured/block walls only. Frames fabricated with mitered corners, drilled and countersunk for #12 wood screws. Supplied with (4) FRP corner brackets to be installed in frame rabbets and secured with 3/4" stainless wood screws. 45, 60 and 90 minute doors are supplied with 90 minute FRP frames. Labeled frames meet NAMI listings and approvals. It is the End User's responsibility to ensure all components used in the openings meet or exceed the fire ratings required.



5-3/4" x 2" equal rabbet profile (standard)



1/4" thick FRP "L" bracket full height of frame behind hinge & strike rabbet.

*Custom profiles are available, minimum jamb depth = 3-7/8" maximum jamb depth = 8-3/4"

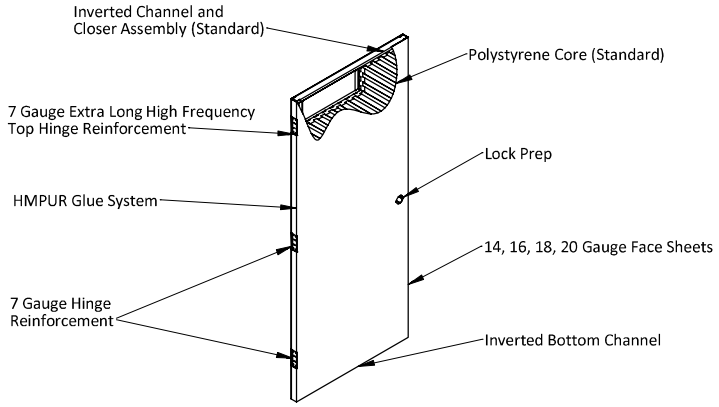
Knock down frames are supplied with (4) 1-1/2"x3" equal leg FRP angle and 3/4" stainless steel screws

Certified to: NFPA 252, UL10C Intertek

EDGEWATER DOOR	DRAWING NAME: EF SERIES KNOCK DOWN FRAME	FOR MORE INFORMATION CALL 920-886-1995 OR VISIT US AT edgewaterdoor.com	DATE: 9/2021 SCALE: NONE REV: 0 DATE: DRAWN BY: Chris Martin PAGE: 1 of 1

D-2 **MAR 2014**

NP - STANDARD SERIES FLUSH DOOR



DOOR CONSTRUCTION

14, 16, 18, 20 gauge, cold-rolled, gavannealed, or galvanized G90 steel face sheets to be securely bonded to the core. Doors shall have hemmed vertical edge seams, mechanically interlocked for maximum structural integrity. Optional seamless (NVS) (Patented Technology) edge available upon request. Top and bottom of doors shall be closed and reinforced with an inverted continuous channel and welded to both faces. Optional flush top available upon request. Square edge standard. Optional beveled lock edge (BV-1) or beveled hinge and lock edge (BV-2). See beveled detail pages D-27 and D-28.

CORE CONSTRUCTION

Standard core material to be expanded polystyrene core. Optional cores: Honeycomb, Polyurethane, Fiberboard.

HARDWARE

All doors are furnished with 7 gauge steel hinge reinforcements with three projection welds on each end. Extra long high frequency top hinge reinforcement provides additional welds for added strength and extra protection against sagging. Doors have a factory installed 14 gauge box type closer reinforcement securely welded to top channel. Doors shall be mortised and adequately reinforced for all hardware. Required mortise hardware reinforcements shall be drilled and tapped at the factory. Surface applied hardware shall be field drilled by others. Lockset preparation shall provide for field installation of locksets manufactured in accordance with ANSI A156.115 mortise or cylindrical (bored) locks. Additional hardware preparations available.

FINISH

Exposed door surfaces to be cleaned, treated, and coated with rust inhibitive primer. Color painted doors receive a durable, electrostatic, baked on finish. Water- based primer and color paint finishes are free of Hazardous Air Pollutants (HAPS) and Volatile Organic Compounds (VOCS).

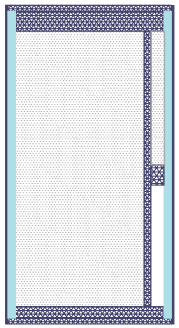
COMPLIANCE

As the oldest member of the Steel Door Institute, all Mesker Door units comply with ANSI A 250.8 (R2008). Hardware preparations comply with ANSI A 250.6. Primer and color compliant with ANSI A250.10 and ANSI A250.3. Fire labeling in accordance with NFPA-8015 FM (standard), WHI (Intertek), Underwriters Laboratories, and FM Global. For a complete list of product compliance per ANSI/ASTM test methods, please consult pages G-11 through G-14.

MESKER

EDGEWATER DOOR

ES
Polystyrene Core



Edgewater Standard Polystyrene	
Thickness	1-3/4" Standard
Maximum Sizes	Single 4-0 x 8-0, Pairs 8-0 x 8-0
Weight	Avg. for flush doors 4.2 lbs. per sq. ft.
Screw Withdrawal	Avg. per screw: Stiles 1021 ft. lbs., Blocking & Rails 602 ft. lbs.
Core	3 lb. density Polystyrene
Stiles	FRP tubes with 1/4" thick walls and HDU outer edge. HDU can be planed up to 1/8" to fit irregular openings.
Rails	Polymer composite with fiberglass strand reinforcing. 6 1/2" top rail. Full width for closer reinforcement. 4 1/2" bottom rail. Allows field trimming up to 1".
Internal Stiffener	Polymer composite with fiberglass strand reinforcing.
Blocking	Polymer composite with fiberglass strand reinforcing. Located where needed for hardware attachment without the need for through bolts.
Core Assembly	All internal components are securely bonded together.
Face Sheets	.090 and .120 thick FRP in smooth or .120 in pebble design.
Machining	Complete machining for templated hardware, including electrified.
Available Options	Lights, louvers, dutch doors, transom panels, recessed panels, etc.
Cutouts	Minimum dimensions from door edge to cutout: stiles and top rail 5", bottom rail 10", between cutouts 5".
Finish Options	Primed, stock paint colors, custom matched paint
Warranty	Life of the product against corrosion induced failure and 10 years after the date of the purchase on workmanship. Factory finishes are warranted for one year from date of purchase. * See complete **warranty** for details.
R-Value	R-9.5

Edgewater Door Company reserves the right to change design and/or details of its products without notice.

Neenah, Wisconsin | t: 920-886-1995 | info@edgewaterdoor.com | edgewaterdoor.com

G-29 MAR 2014

GENERAL INFORMATION

Standard Warranty

Mesker Door™ Inc. warrants for a period of one (1) year from date of shipment, all material manufactured by us to be free from defects in material and workmanship under normal use and service. All such material is supplied subject to this warranty. The company's obligation there under is limited to repairing or replacing at its option any such material which, upon examination is found to have been defective. This warranty is expressly in lieu of all other warranties expressed or implied, and of all obligations or liabilities on its part for damages, including but not limited to consequential damages. No agent is authorized to assume for it any liability except as set forth above. Nor does Mesker Door™ Company assume any liability for modifications performed on materials after said materials leave Mesker's factory.

MESKER

EDGEWATER DOOR

LIMITED DOOR AND FRAME WARRANTY

EDGEWATER DOOR warrants all its doors and frames set forth herein to be of good material and workmanship and to be free of defects which would render said doors or frames unserviceable or unfit for their ordinary, recommended use for the designated time, except as otherwise set forth in this warranty.

EDGEWATER DOOR shall have no liability under this warranty or under any implied warranties unless such doors and frames have been handled, stored, finished, installed, and maintained in accordance with "HANDLING, JOB FINISHING AND INSTALLATION INSTRUCTIONS."

Any claims in connection with our warranty must be submitted in writing upon discovery. All doors and frames must be inspected prior to installation, and installation of factory finished doors and frames shall constitute acceptance of the factory finish.

Any **EDGEWATER DOOR** produced doors or frames claimed to be defective within the meaning of this warranty, MUST BE CHECKED BY AN AUTHORIZED REPRESENTATIVE OF THE COMPANY.
If a claim for defective merchandise is found to be valid within the meaning of this warranty, **EDGEWATER DOOR** will either (1) repair it or (2) replace with an identical unit, or (3) refund the purchase price, at the option of **EDGEWATER DOOR**. No liability whatsoever shall be attached until the product involved has been paid for in full.

WARRANTY PERIOD

Doors and frames are guaranteed for the life of the product against corrosion induced failure and for a period of ten (10) calendar years after the date of purchase against defects. Factory finishes are only warranted for a period of (1) one year.

All time periods commence as of factory ship date.

CONDITIONS AND EXCEPTIONS

Under no circumstances will **EDGEWATER DOOR** be liable for the following: (a) Failures not reported within the applicable warranty period; (b) Failures or damage due to accidents, abnormal conditions, negligence, abuse or improper installation; (c) Losses, costs, expenses, liabilities, and damages, including but without limitation to, loss of use or profits, damage to persons or property, and all other special or consequential damages, whether direct or indirect.

TOLERANCES

1. Size tolerance: thickness ± 1/16": length ± 1/8": widths ± 1/16".
2. Squareness tolerance: diagonal measurement difference shall not exceed 1/8"
3. Factory hardware preparation tolerance: ± 1/16" tolerance will be allowed on all hardware preps.
4. Stile, rail, and core show-through (telegraphing) on doors and frames shall not be considered a defect unless the faces vary from a true plane more than .010's of an inch in any 3" span.
5. Warp shall not be considered a defect unless it exceeds 1/4" in the plane of the door itself when measured in a section not exceeding 3-6 x 7-0. "Warp" is any distortion in the door itself and does not refer to the relationship of the door to the frame or jamb in which it is hung. The term "warp" shall include bow, cup, and twist. In measuring the amount of warp present in a door, the following method shall be used; bow, cup and twist shall be measured by placing a straight edge, taut wire, or string on the suspected concave face of the door at any angle (i.e., horizontally, vertically, diagonally) with the door in its installed position. The measurement of the bow, cup and twist shall be made at the point of maximum distance between the bottom of the straight edge, taut wire or string and the face of the door.
6. Thermal bow and expansion may occur when opposing sides of a door are exposed to extreme variations in climate conditions. Typical examples are:
   A. Doors with direct exposure to the sun. Light colored finishes are recommended as opposed to dark finishes which increase the risk of thermal bow or expansion.
   B. Exterior doors opening to or from heated spaces in northern climates.

   Thermal bow and/or expansion is a temporary condition and not a defect therefore not subject to the measurement for warp.

ADDITIONAL EXCLUSIONS:

1. There is no warranty for the appearance of field finished doors and frames.

Edgewater Door Company reserves the right to change design and or details of its products without notice.
175 N western Ave, Neenah, Wisconsin t: 920-886-1995 f: 920-886-1998 Edgewaterdoor.com 7/29/2024

LIMITED DOOR AND FRAME WARRANTY

2. This warranty does not cover:
   A. Doors with cutouts for vision lights and/or louvers, with less than 5" to any edge of the door.
   B. Doors having less than 5" between cutouts for vision lights, louvers, unit locks, closers and/or other hardware cutouts.
   C. Any FRP deterioration due to ultra-violet exposure caused by failure to protect and seal all exposed surfaces of the door and the continued proper maintenance of these surfaces.
   D. The appearance of high gloss paint.
   E. Doors 7'-6" and under with less than 3 hinges or pivots and doors over 7'-6" with less than 4 hinges or pivots.
   F. Repairs or replacements made without prior written consent from manufacturer.
   G. Normal wear and tear including wear through the finish, or doors deteriorating for reasons other than material and workmanship of the door itself.
   H. Hairline splits in the resin welded frame face seams are not considered a defect.
   I. Doors with dissimilar faces.

Not applicable, 24x36" windows have stiles of 5 7/8"

Frames provided as knockdown component install

HANDLING, STORING, JOB FINISHING AND INSTALLATION INSTRUCTIONS.

1. Handle with clean gloves and do not drag doors and frames across one another or across other surfaces.

2. Store per ANSI standard HMMA-840 which states:
   1) Store all materials in dry area, under cover.
   2) Do not use non-vented plastic or canvas.
   3) Store doors and frames in an upright position.
   4) Place no more than 5 doors or welded frames in a group.
   5) Place all material on planking or blocking at least 4" off ground, 2" off paved area or floor slab.
   6) Provide at least ¼" between all units for circulation of air.

3. The utility or structural strength of the door must not be impaired in fitting of the door, the application of hardware, or cutting or altering the door for lights, louvers, panels, or any other special details.

4. Doors should be installed with 1/8" clearance at head and each side.

5. When vision lights, louvers, hardware etc. are installed in exterior doors, an appropriate sealant should be used to ensure no moisture penetration to the core.

20-3, -5, and -6 scheduled for half glass and are exterior doors

Sealant predisposed to slab @ factory when ordered with window

6. If doors and frames are furnished factory primed only, they are primed with a water base primer. This is a prime coat only and still needs a field applied topcoat. The primer may be top coated with a water base, enamel, or polyurethane paint. Consult with your local paint supplier regarding the best topcoat to use given your application. Epoxy paints are not recommended. Follow paint manufacturer's instructions.

7. Before finishing, remove handling marks, and any foreign substances, which may have accumulated on the material during shipping and installation. All doors and frames must be thoroughly sanded completely, using an automotive grade wet/dry sandpaper. Wipe surfaces clean before applying finish. Failure to perform these steps may result in a blotchy appearance to the finish or poor paint adhesion. Sanding and finishing should be done in a horizontal position.

8. Installer shall use all means necessary to protect doors from damage prior to, during and after installation. All damaged doors shall be repaired or replaced by Contractor at no cost to Owner.

Installation of factory finished doors shall constitute acceptance of finish color and appearance.

Edgewater Door will have no liability under this warranty unless the doors and frames have been handled, stored, finished, installed, and maintained in accordance with the manufacturer's recommendations. This warranty does not extend to failure caused by physical abuse, issue, or improper installation.

WARRANTY PROVISIONS ARE EXCLUSIVE AND IN LIEU OF ALL OTHER WARRANTIES EXPRESSED OR IMPLIED, INCLUDING BUT NOT LIMITED TO ANY WARRANTY OF MERCHANTABILITY OR OF FITNESS FOR A PURPOSE OR ANY OTHER WARRANTY OF MERCHANTABILITY.

Purchaser: Kurtz Hardware Company

Name of Installation: Tiffen Water Treatment Facility Upgrade

Address: 109 S Brown St

City: Tiffen, IA

Zip: 52043

Order No.: TO BE RELEASED VIA CO#2 Date Shipped: 10-12 Week Lead Time from order release

Date Installed: _____ No. of Doors: 6

By: _____

EDGEWATER DOOR COMPANY
Limited warranty for FRP doors and frames

- 19 doors total
- Hardware for 20 doors needed
- Door 10-4 should be listed with hardware (HS#7) only supplied unless hardware will be a separate submittal

Review and approve all opening sizes, handings, wall types, jamb depths, and door architectural types

DOOR and FRAME SCHEDULE

OPENING INFORMATION								FRAME INFORMATION										DOOR INFORMATION										
Mark #	Qty	Width	Height	Thk	Opg	Hand	Label	Elev	Mfg	Series	Depth	Ga	Matl	Const	Anchor	Wall Type	Wall Thk	Arch Type	Mfg	Series	Style	Ga	Matl	Core	U/Cut	Fin	Hdg	Mark #
10-2	1				SGL	LHR			EXT																		EXST	10-2
Location	EXTERIOR FROM 10-104 MCC ROOM							Note										Note										
10-1	1	3-0 3'-4 1/2"	7-0 7'-4 1/2"	1 3/4	SGL	LHR		F-2	MES	F	9	16	A	WELD	RMTAP&I RMTAP&I	W8	8	A (INT - FLXHM	MES	L	F	18	A	P	3/4	PRI	HW05	10-1
Location	20-107 MCC/ELECTRICAL ROOM FROM 10-105 LAB							Note	CONFIRM STEEL STUD WIDTH IS 8", FOR JAMB DEPTH TO WRAP WALL @ 9".									Note										
10-5	1	3-0 3'-4 1/2"	7-0 7'-2 1/2"	1 3/4	SGL	LHR		F-1	MES	F				WELD	RMTAP&I RMTAP&I	W8	8	B (EXT A (Int)	MES	NP	G	16 18	A	P	3/4	PRI	HW05	10-5
Location	10-106 FILTER & SOFTENER ROOM FROM 10-109 AERATOR ROOM							Note	CONFIRM STE... IB DEPTH TO WRAP WALL @ 9".									Note										
10-6	1	3-0 3'-4 1/2"	7-0 7'-2 1/2"	1 3/4	SGL	LHR		F-1	MES	F	5 3/4	16	A60	WELD	UNA534 UNA534	PC12	12	B (EXT -	MES	NP	G	16	A	P	3/4	PRI	HW02.1 HW 2	10-6
Location	EXTERIOR FROM 10-107 CHLORINE ROOM							Note										Note										
10-7	1	3-0 3'-4 1/2"	7-0 7'-2 1/2"	1 3/4	SGL	LHR		F-1	MES	F	5 3/4	16	A60	WELD	UNA534 UNA534	PC12	12	B (EXT A (Int)	MES	NP	G	16 18	A	P	3/4	PRI	HW03	10-7
Location	10-101 STORAGE FROM 10-110 FLOURIDE							Note										Note										
10-8	1				SGL	RHR			EXT																		ST	10-8
Location	10-104 MCC ROOM FROM 10-102 MECHANICAL ROOM							Note										Note										
10-9	1				SGL	LH			EXT																		EXST	10-9
Location	10-104 MCC ROOM TO 10-103 TOILET							Note										Note										

Tricon check walls

16 is fine, but can be 18 also

What is this thickness referencing? Doors? Typ all pages.

KURTZ HARDWARE CO.
Architectural Doors & Hardware
1473 Keo Way, Des Moines, IA 50314

KURTZ
1473 KI
DES MO
Tel: 51

TS Tom Shedek<tomshedek@triconcg.com>
To: Zane
Cc: Bob Kurtz; Andy Knapp <andyknapp@triconcg.com>; +3 others
Mon 4/13/2026 2:26 PM

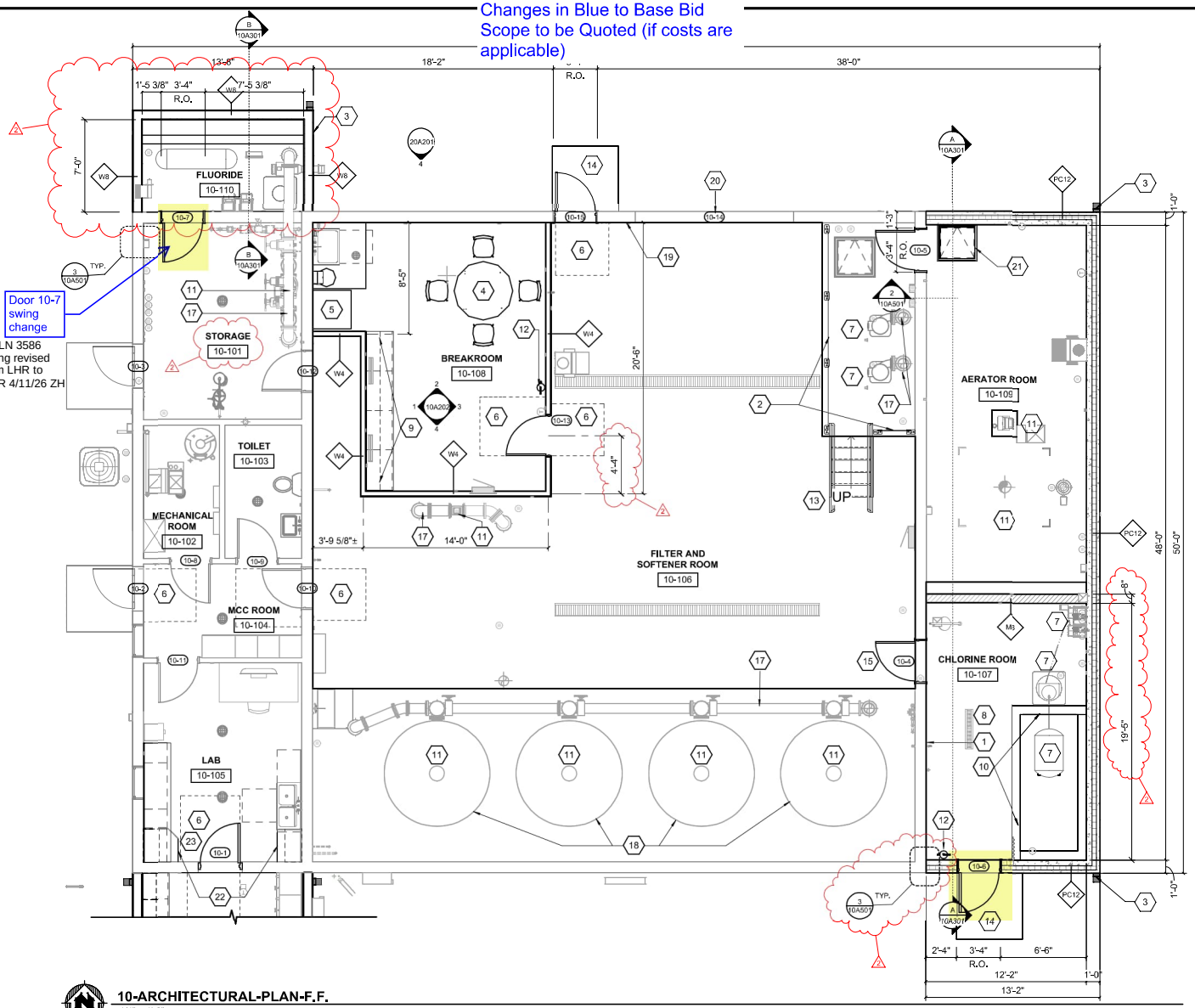
Zane,

Please include doors 10-6 and 10-7 as well in the FRP scope for CO#2. All doors that we would possibly sub the SS hardware in CO#3 needs to have an FRP door/ frame in CO#2, with the exception of 10-4 which is only changing hardware.

Tom

TIFFEN WATER TREATMENT FACILITY-NEW
VALUE ENGINEERED 10-29-25
Control No.3544
3544
Submitted By: ZANE HEHNKE

Changes in Blue to Base Bid
Scope to be Quoted (if costs are applicable)

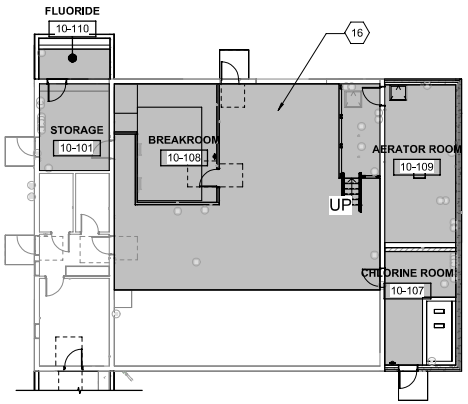


KEY NOTES

1. REMOVE EXISTING STEEL FACE AND REPLACE WITH GYPSUM BOARD & FRP SURFACE LAMINATED TO PLYWOOD.
2. ALUMINUM GUARD RAIL - SEE DETAIL 8/99A504
3. DOWNSPOUT LOCATION, CONNECT INTO STORM DRAIN - SEE YARD PIPING PLAN
4. TABLE AND CHAIRS BY OWNER (NIC)
5. DEDICATED SPACE FOR REFRIGERATOR (NIC)
6. DASHED LINE INDICATES ADA REQUIRED CLEAR AREA, FOR GRAPHIC PURPOSES ONLY - TYP.
7. PROCESS MECHANICAL EQUIPMENT OR PIPE, TYP - SEE PROCESS
8. TRENCH DRAIN - SEE PLUMBING
9. COUNTER W/ CABINETS BELOW AND WALL HUNG CABINETS - SEE INTERIOR ELEVATIONS
10. SECONDARY CONTAINMENT AREA FOR CHEMICAL
11. EXISTING PROCESS MECHANICAL EQUIPMENT OR PIPE, TYP - SEE PROCESS
12. FIRE EXTINGUISHER w/ WALL BRACKET. MOUNT TOP AT MAX 48" AFF.
13. ALUMINUM STAIRS AND GUARDRAIL - SEE DETAIL 4/99A502
14. CONCRETE STOOP - SEE FOUNDATION PLAN
15. REUSE EXISTING DOOR. TAKE DOOR OUT OF OPENING AND ROTATE 180-DEGREES. REMOVE LOCKSET AND ADD PANIC DEVICE. CHANGE OUT THRESHOLD AND REPLACE WEATHERSTRIPPING. REPLACE DOOR CLOSER.
16. APPLY EPOXY COATING TO SHADED AREAS AS INDICATED
17. EPOXY COAT ALL EXISTING PIPING, VALVES, AND FITTINGS THAT ARE TO REMAIN
18. EPOXY COAT EXISTING FILTERS
19. EPOXY FLOOR LIMITS (GRAPHICAL - TYP.)
20. SECTIONAL OVERHEAD DOOR TO BE REPLACED. OPERATOR AND TRACK SYSTEM TO REMAIN AS-IS
21. 2'-3" x 2'-6" STAINLESS STEEL ACCESS HATCH WITH BOLT IN FRAME
22. SALVAGE AND RE-USE EPOXY COUNTERTOP AS END PANELS FOR MILLWORK CLOSURE PANELS
23. PROVIDE MINIMUM 18" CLEAR FROM FINISHED CASEWORK TO DOOR OPENING.

10-ARCHITECTURAL-PLAN-F.F.

1/4" = 1'-0" (22" x 34") 0 2 4 8
1/8" = 1'-0" (11" x 17")



EPOXY FLOORING PLAN

NONE

PROJECT DATE:	AUG 5, 2024	DRAWN BY:	JBR
		DESIGNED BY:	JBR
		CHECKED BY:	CWW

No	DATE	REVISIONS	BY
1	3/27/25	ADDENDUM #1	EC
2	8/19/2025	PLAN REVIEW COMMENTS	CWW

MSA
ENGINEERING | ARCHITECTURE | SURVEYING
FUNDING | PLANNING | ENVIRONMENTAL
400 ICE HARBOR DR, STE 110, DUBUQUE IA 52001
(563) 582-3973 www.msa-ps.com
© MSA Professional Services, Inc.

WATER TREATMENT FACILITY UPGRADE
CITY OF TIFFIN
JOHNSON COUNTY, IA

EXISTING WTP
PROPOSED FLOOR PLAN

PROJECT NO. 13603016
SHEET 10A102

PLOT DATE: 8/20/2025 9:15:43 AM By: Barbara Dean C:\13603016 - TIFFIN\A WTF - ACC\13603016_TIFFIN WTF_ARCH.rvt

www.triconcg.com

746 58th Ave Ct SW
Cedar Rapids, IA 52404

Corporate Office
1230 East 12th Street
Dubuque, IA 52001
P 563.588.9516
F 563.588.9519

July 14, 2026

Clint Wienen
MSA Professional Services Inc
400 Ice Harbor Dr
Dubuque IA 52001

Project: Tiffin Water Treatment Facility Upgrade
Re: COR # 15R3

Owner requested Chemical Room Door Hardware Changes per attached.

Kurtz Hardware Co	7,920.20
OHP	1,188.03
General Liability Insurance	163.22
Bond	136.29
Total	**$ 9,407.74**

Approved By:

Tom Shedek — 7/14/2026
Project Manager – Tricon Construction — Date

Clint Wienen – MSA Professional Services Inc — Date

City of Tiffin — Date

KURTZ HARDWARE CO.
Architectural Doors & Hardware
1473 Keo Way • Des Moines, IA 50314

Change Order #3R4

Chemical Room HW Revisions - to Stainless Steel products for rust resistant longevity

Project: Tiffin WTP
Contractor: Tricon Construction Group
Contact: Tom Shedek
Email: tomshedek@tricong.com

Date: 6/2/2026
Job: RK1821

Set	Qty	Description	Amount
1	1	Substitution of Perimeter Weather Stripping, from Milled Aluminum to Stainless Steel, Mk #10-4, 10-6, 20-3 20-5, 20-6, 20-8, 20-9, 20-10	$0.00
	-8	HAG 881SN x 36 x 84 MIL AL / Credit for Perimeter Weather Stripping, Aluminum	<$457.52>
	8	NGP 130SSS x 36 x 84 SS / Add of Perimeter Seal Stainless Steel	$3,691.38
2	1	CO#3 set #2 previously priced substitution of Door Sweep, from Milled Aluminum to Stainless Steel, Mk #10-4, 10-6,10-7, 20-2, 20-3, 20-5, 20-6, 20-8,	$0.00
	-8	HAG 789S x 36 MIL AL / Former door bottom wrapping both sides, with neoprene underside insert and drip cover	<$121.91>
	-5	NGP 200SSS x 36 / Former door bottom, surface mount silicone sweep style	<$282.42>
	-1	HAG 789S x 42 MIL AL / Former door bottom wrapping both sides, with neoprene underside insert and drip cover	$0.00
	13	NGP 95WH36 / Add for Door bottom wrapping both sides, with brush sweep & drip cover - no charge	$428.06
	1	NGP 95WH42 / Add for Door bottom wrapping both sides, with brush sweep & drip cover - no charge	$0.00
3	1	Substitution of Threshold, from Milled Aluminum to Stainless Steel, Mk #10-4, 10-6, 10-7, 20-2, 20-5, 20-6, 20-8, 20-9, 20-10	$0.00
	-8	HAG 417S x 36 MIL AL / Credit for Threshold, 6" Wide x 1/2" tall, Aluminum	<$184.77>
	8	NGP 613SS x 36 SS / Add of Threshold, 5" Wide x 1/4" tall, Stainless Steel	$4,620.29
	1	NGP 613SS x 42 MIL AL / Add for Threshold, 6 Wide 1/4" tall + weatherstrip built in (Mk #20-2)	$45.47
	4	NGP 896V36 (former pt #, included to earn HW sale item, but not representative of furnished weatherstrip @ threshold) / Add for Threshold	$181.89

Note: Your company's signed change order paperwork MUST be received before any material will be ordered.

Prices shown expire after 20 days from date above.

Subtotal	$7,920.48
Tax (0.00%)	$0.00
Freight Out	
Total	**$7,920.48**

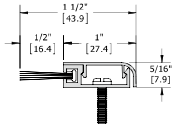
Accepted by:

Signature *Printed Name & Title* *Date*

HAGER COMPANIES

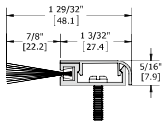
Weatherstripping - Jamb Weatherstripping

882S



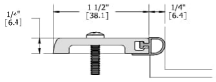
Finishes: DBA, BLA, CLR
Inserts: B
Category: H, J
Certifications:

883S



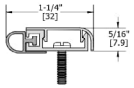
Finishes: DBA, BLA, CLR
Inserts: B
Category: H, J
Certifications:

881S



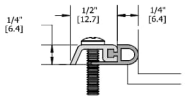
Finishes: MIL, BLA, DBA
Inserts: V, N, S, W
Category: H, J
Certifications:

885S



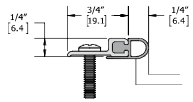
Finishes: DBA, BLA, CLR
Inserts: V, N, S, W
Category: H, J
Certifications:

890S



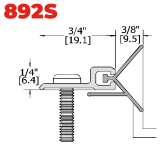
Finishes: MIL, DBA, BLA
Inserts: V, N, S
Category: H, J
Certifications:

891S



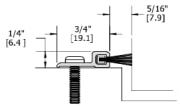
Finishes: MIL, DBA, BLA
Inserts: V, N, S
Category: H, J
Certifications:

892S



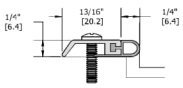
Finishes: MIL, DBA, BLA
Inserts: N
Category: H, J
Certifications:

893S



Finishes: MIL, DBA, BLA
Inserts: W
Category: J
Certifications:

896S



Finishes: MIL, DBA, BLA
Inserts: V, N, S
Category: H, J
Certifications:

STAINLESS STEEL

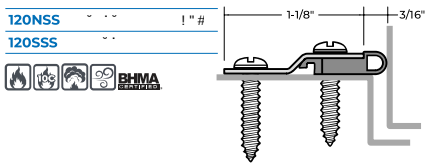
- (US32D, 630)
- x ¾" Stainless Steel SMS Furnished
- ! " # $ $ % &



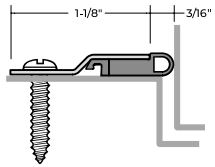
127NSS
Stainless Steel Microcellular
EPDM Perimeter Seal

PERIMETER SEALS

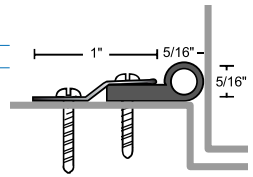
120NSS ! " #
120SSS



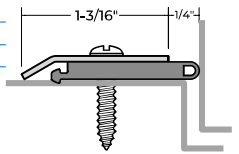
127NSS ! " #
127SSS



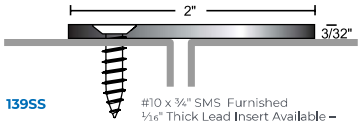
129NSS %



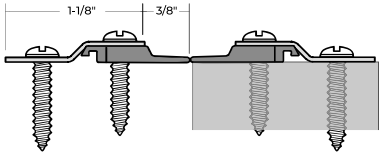
122NSS ! " #
130NSS ! " #
130SSS



ASTRAGAL SEALS



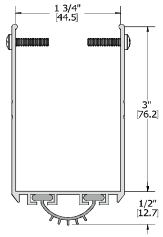
139SS #10 x ¾" SMS Furnished
⅛" Thick Lead Insert Available –



125NSS ! " #
9125SS

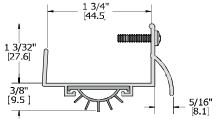
" +) "

782S



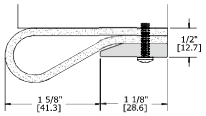
Finishes: MIL, DBA, BLA
Inserts: V, N
Category: H, J
Certifications:

783S



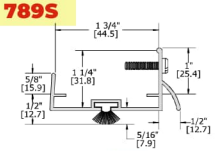
Finishes: MIL, DBA, BLA
Inserts: V
Category: J
Certifications:

787S



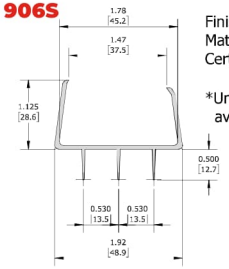
Finishes: MIL, BLA
Inserts: V
Category: H, J
Certifications:

789S



Finishes: MIL, DBA, BLA
Inserts: W
Category: H, J
Certifications:

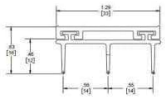
906S



Finishes: Brown
Material: PVC
Certifications:

*Unnotched & Notched profiles available

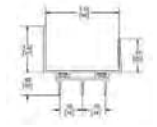
907S



Finishes: MIL, DBA, BLA
Inserts: V
Certifications:

*Unnotched & Notched profiles available

909S



Finishes: MIL, DBA, BLA, CLR
Inserts: V
Certifications:

*Unnotched & Notched profiles available

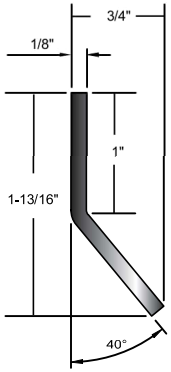
STAINLESS STEEL

- [redacted]
  (US32D, 630)
- [redacted]
- $ x ¾" Stainless Steel SMS Furnished
- % &

RAIN DRIP GUARD



17SS

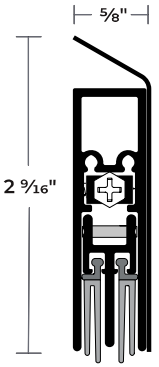


AUTOMATIC DOOR BOTTOM

229NSS
229SSS
229WHSS

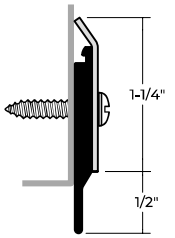


Brush - Suffix "WH"



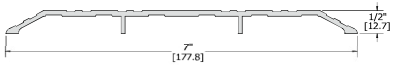
DOOR SWEEP

200NSS
200SSS



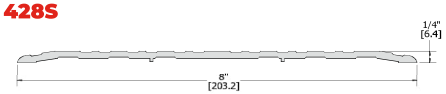
1. Door Bottom is Handed. Right Hand Supplied Unless Specified. Units Under 36" NOT Field Reversible. Please Specify Handing.
2. **BHMA Certified to ANSI/BHMA A156.22, 1,000,000 Cycle Test-Grade 1.**

416S



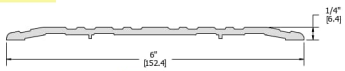
Finishes: MIL, DBA, BLA
Certifications:

428S



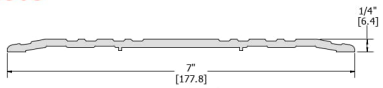
Finishes: MIL, DBA, BLA
Certifications:

417S



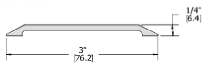
Finishes: MIL, DBA, BLA
Certifications:

430S



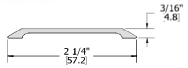
Finishes: MIL, DBA, BLA
Certifications:

418S



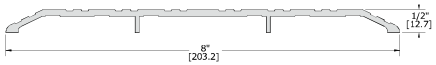
Finishes: MIL, DBA, BLA
Certifications:

436S



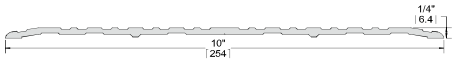
Finishes: MIL, DBA, BLA
Certifications:

426S



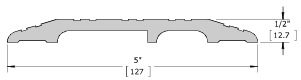
Finishes: MIL, DBA, BLA
Certifications:

448S



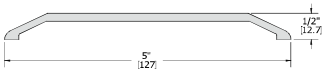
Finishes: MIL, DBA, BLA
Certifications:

427S



Finishes: MIL, DBA, BLA
Certifications:

492S



Finishes: MIL, DBA, BLA
Certifications:

STAINLESS STEEL

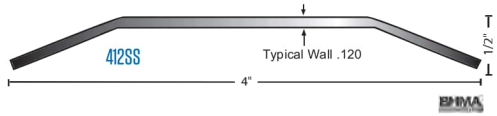
1/2" SADDLE THRESHOLDS

All Products On This Page

- [illegible]
- [illegible]
- [illegible]



412SS
Stainless Steel



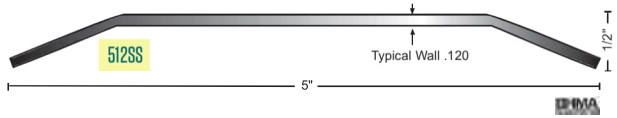
MATERIALS & FINISHES

- POL - [illegible] #2&
- BRUSHED -) [illegible] #25& :

OPTIONAL

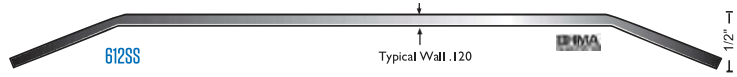
SIA SLIP-RESISTANT FINISH

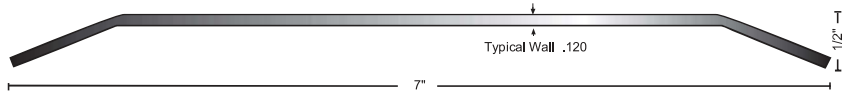
([illegible] + ! , [illegible]



FASTENERS

- ".$ / ½ 0 (1





712SS

812SS

912SS

1012SS

L-FRA100

LOW PROFILE LITE KIT

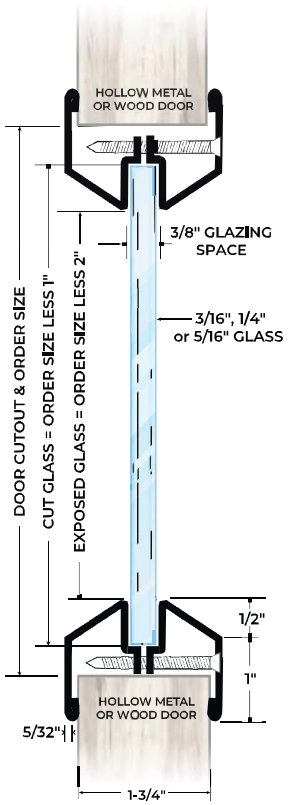
FOR 1 ¾" THICK DOORS AND ³⁄₁₆", ¼" OR ⁵⁄₁₆" GLASS

- 18 Ga. Cold Rolled Steel
- Mitered and Welded Corners
- Welded Reinforcing Clips at Corners
- Countersunk Mounting Screw-Holes
- #8 X 1¾" Phillips Head SMS
- Available in Uneven and Fractional Sizes
- Gray Primer (GPZ) Powder Coat Finish

Available Options

- Powder Coat Color Options - See Page L3
- Torx Security Screws
- Galvanneal - A40 Steel
- Zinc Electroplating
- Glass & Glazing Tape - See Glass Section
- Lead Lining - ¹⁄₁₆" Thick





Not To Scale

Designed for Use on 1¾" Thick Doors Manufactured Within Door Industry Tolerance of +/- ¹⁄₁₆".

L-CVFM-SS

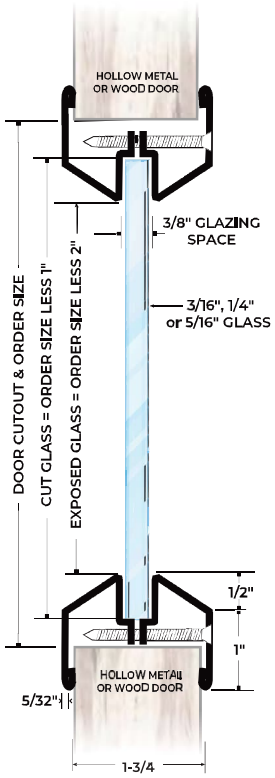
STAINLESS STEEL LITE KIT

FOR 1 ¾" THICK DOORS AND ³⁄₁₆", ¼", OR ⁵⁄₁₆" GLASS

-
- ˜ ˇ ˇ ^ ˇ ˇ .#˜ ˜
- ´ ˝ ˜ ˚ ˝ ˜ ˇ ! " # ˝
- $ % & ' % ˇ (˜ ˝)
- #8 X 1¾" Phillips Head SMS
- * (+

- , -
. " ` / (" ,
- ˝ ˜ 0 ˛ ˜ ˇ !
- 1) ~ " ˝
- Lead Lining - ¹⁄₁₆" Thick





Not To Scale

Designed for Use on 1¾" Thick Doors Manufactured Within Door Industry Tolerance of +/- ¹⁄₁₆".

www.triconcg.com

746 58th Ave Ct SW
Cedar Rapids, IA 52404

Corporate Office
1230 East 12th Street
Dubuque, IA 52001
P 563.588.9516
F 563.588.9519

April 30, 2026

Clint Wienen
MSA Professional Services Inc
400 Ice Harbor Dr
Dubuque IA 52001

Project: Tiffin Water Treatment Facility Upgrade
Re: COR # 16R

Building Inspector Changes via 9/24/25 email per attached.

Seehase Masonry	6,401.00
Southside Concrete	1,380.00
Foster Kraus	880.00
Mt Vernon Construction	1,936.00
Beisser Lumber Co.	1,055.24
Tricon Labor	2,480.96
Sub-Total	14,133.20
OHP (Subcontracted)	529.85
OHP (Self-Performed)	530.43
General Liability Insurance	75.36
Bond	224.45
Total	**$ 15,493.29**

Approved By:

Tom Shedek — 4/30/2026
Project Manager – Tricon Construction — Date

Clint Wienen – MSA Professional Services Inc — Date

City of Tiffin — Date

ITEM ANALYSIS

Project	Tiffin WTP Upgrades - Building Inspector Changes	Location	Tiffin, IA
Description	Building Inspector Changes per email on 9/24/25	Estimator	Tom Shedek
Contractor	Tricon Construction Group	Date	4/29/2026

	Description	QTY	Units	Unit Rate	Man-hours	Labor Expense Wages U.P.	Labor Expense Wages Total	Permanent Materials Engineered Equipment U.P.	Permanent Materials Engineered Equipment Total	Sub Contracts/ OHP U.P.	Sub Contracts/ OHP Total	Total Direct Cost
Item #	**Base Bid Costs (Deducts)**											
1-1	Masonry Changes - Removal of 1 course of 8" block at chemical rooms - Seehase	1	LS				$ -		$ -	$ 2,044.00	$ 2,044.00	$ 2,044.00
1-2	Lumber Changes, Mezzanines - Beisser Lumber	1	LS				$ -	$ 1,068.06	$ 1,068.06		$ -	$ 1,068.06
1-3							$ -		$ -		$ -	$ -
1-4							$ -		$ -		$ -	$ -
1-5							$ -		$ -		$ -	$ -
1-6							$ -		$ -		$ -	$ -
	Totals				-		**$ -**		**$ 1,068.06**		**$ 2,044.00**	**$ 3,112.06**
Item #	**Base Bid Changes per Request (Additions)**											
2-1	Masonry Changes - Addition of 4" block at chemical rooms - Seehase	1	LS				$ -		$ -	$ 8,445.00	$ 8,445.00	$ 8,445.00
2-2	Lumber Changes, Mezzanines - Beisser Lumber	1	LS				$ -	$ 2,123.30	$ 2,123.30		$ -	$ 2,123.30
2-3	Wood Install Labor - 3 guys 8 hrs - Carpenters - Tricon	1	LS		24.00	$ 78.77	$ 1,890.48		$ -		$ -	$ 1,890.48
2-4	Concrete Changes to Bldg 10, Room 10-110 (Fluoride Rm) - Ftg extended from 5'-10" to 7'-0" North- Southside Concrete	1	LS		5.00	$ 80.00	$ 400.00	$ 800.00	$ 800.00	$ 180.00	$ 180.00	$ 1,380.00
2-5	Door Changes - No cost for 1hr fire rated door changes - Kurtz Hardware	1	LS				$ -		$ -	$ -	$ -	$ -
2-6	Paint - No cost changes for coatings - DA Bunch	1	LS				$ -		$ -	$ -	$ -	$ -
2-7	HVAC Changes - Fire Damper addition in Anti-Scalant Room 20-102 - Fosters Kraus	1	LS		5.00	$ 120.00	$ 600.00	$ 200.00	$ 200.00	$ 80.00	$ 80.00	$ 880.00
2-8	Fire rated caulking & mineral wool for precast vertical joints - Material, labor and install - Mt. Vernon Construction	1	LS				$ -		$ -	$ 1,936.00	$ 1,936.00	$ 1,936.00
2-9	Fire rated penetrations in masonry walls for plumbing and conduit - No cost changes	1	LS				$ -		$ -	$ -	$ -	$ -
2-10	Fire rated caulking labor for chem room ceiling joints - 1 guy for 8 hrs - Tricon	1	LS		8.00	$ 73.81	$ 590.48		$ -		$ -	$ 590.48
2-11							$ -		$ -		$ -	$ -
2-12							$ -		$ -		$ -	$ -
2-13							$ -		$ -		$ -	$ -
2-14							$ -		$ -		$ -	$ -
2-15							$ -		$ -		$ -	$ -
2-16							$ -		$ -		$ -	$ -
	Totals				**42.00**		**$ 3,480.96**		**$ 3,123.30**		**$ 10,641.00**	**$ 17,245.26**
Delta = Orange - Blue **(pos # is total add, neg # is total deduct)**					42.0		$ 3,480.96		$ 2,055.24		$ 8,597.00	**$ 14,133.20**

NOTES: Delta = (Addition total - Base Bid total)

The above costs do not include any contractual markups.

Project Manager or Authorized Designee Signature

X

Date:

ESTIMATE

Seehase Masonry, Inc.
1018 W 1st St
Sumner, IA 50674

nate@seehasemasonry.com
+1 (563) 578-3284

Tricon Construction, Inc.:Tiffin WTF Upgrades 25-23

Bill to
Tricon Construction, Inc.

Estimate details
Estimate no.: 2883
Estimate date: 01/27/2026
Expiration date: 02/27/2026

P.O. Number: CO #3, #4, #5 1-14-26 Email
Sales Rep: Nate Schmidt

#	Description	Qty	Rate	Amount
1.	Material and labor to complete masonry related changes per request by Tricon Construction and MSA. Revised request per email and attached documents by MSA, dated 1-21-26 from Tom Shedek to Nate Schmidt.			
2.	CO #3 - 4" CMU courses added at Chlorine Room, Caustic Soda Room and Anti Scalant Room. Rebar, epoxy and grout 48" o.c. Add to Base Bid:		$8,445.00	$8,445.00
3.	CO #4 - 4" CMU courses added at Chlorine Room, Caustic Soda Room and Anti Scalant Room. No rebar, epoxy and grout. Add to Base Bid:		$7,472.00	$7,472.00
4.	CO #5 - Remove 1 8" CMU course from base bid heights at all RO building walls.		–$2,044.00	–$2,044.00

Total ~~**$13,873.00**~~

Expiry date 02/27/2026

Accepted date

Accepted by

CO Total: $6,401.00

BEISSER LUMBER COMPANY

Beisser Lumber
415 Westcor Drive
Coralville, IA 52241
Phone: (319)-545-7120

QUOTE

0001412262

Account: TRIC1000 0001
Branch: 40CV
Phone: (563)-588-9516
Fax:

Item 2-2

Bill To: Tricon General Construction
2245 Kerper Blvd
Suite # 2
Dubuque, IA 52001

Ship To: Tricon General Construction
General Purchases
Tiffin, IA 52340

PO:	**Ref:** Tiffin WTP	**Job:**

Activation Date:	10/08/25	**Sales**	larrym	**Type:** Delivery	**Ship Via:**
Close Date:	10/23/25	**Agents**	jasonr	**Quoted For:**	
				Quoted By: jasonr	

QUANTITY	UOM	ITEM/DESCRIPTION		PRICE/UOM	AMOUNT
		** RO Mezzanine Group **			
46	Each	2x12-12' #2 & Better Fir/Larch Dry		22.4027/Each	
43	Each	2x12-14' #2 & Better Fir/Larch Dry		27.2524/Each	
7	Each	2x12-16' #2 & Better Fir/Larch Dry	Deduct 2x12x16 from base bid: 7ea @ $28.56 = $199.92	28.5575/Each	
48	LF (PC)	11-7/8" LVL Beam R/L 2.0E 4/12'		7.10/LF	
32	LF (PC)	11-7/8" LVL Beam R/L 2.0E 2/16'		7.10/LF	

Orange = Changes due to building inspection modification

Printed: 10/10/25 08:58:55

BEISSER LUMBER COMPANY

QUOTE

0001412262

QUANTITY	UOM	ITEM/DESCRIPTION		PRICE/UOM	AMOUNT
60	LF	11-7/8" LVL Beam R/L 2.0E			
	(PC)	2/30'			
80	LF	11-7/8" LVL Beam R/L 2.0E			
	(PC)	2/40'			
2	Each	#1 MCA Critical Struct 6x6-10' SYP S4S Treated-In Ground			
7	Each	2x4-12' #2 SYP Treated-Ground Contact		6.4168/Each	44.92
6	Each	2x4-14' #2 SYP Treated-Ground Contact		8.0447/Each	48.27
7	Each	2x4-16' #2 SYP Treated-Ground Contact		9.9466/Each	69.63
1	Each	2x8-12' #2 SYP Treated-Ground Contact		12.9363/Each	12.94
1	Each	2x8-14' #2 SYP Treated-Ground Contact		15.3620/Each	15.36
3	Each	2x12-12' #2 SYP Treated-Ground Contact			
1	Each	2x12-14' #2 SYP Treated-Ground Contact			
7	Each	2x12-16' #2 SYP Treated-Ground Contact		28.9361/Each	57.87
2	Each	Sill Sealer Foam 3-1/2"x1/4"x50'		0.20/LF	20.00
106	Each	LUS28Z Single Joist Hanger			
2	Each	LUC210Z Concealed Flange Hanger			
4	Each	HGUS412 HD Dbl LVL Face Mount Hanger			
2	Each	LGUM410-SDS			
2	Each	LPC6Z 6x6 Adjustable Lateral Post Cap			
2	Each	CBSQ66 Post Base			
39	Each	4x8-1/2" (15/32") SYP CDX Plywood	Deduct OSB from base bid: 39ea @ $22.26 = $868.14	22.3872/Each	873.10
39	Each	4x8-5/8" (19/32) SYP CDX Plywood		24.7104/Each	963.71
24	EACH	ProGrip Qt. Size Subfloor Adhesive (28 oz. Tube)			
1	Each	Sill Sealer Foam 7-1/2"x1/4"x50'		0.35/LF	17.50
140	Each	Trubolt Anchor 1/2"x4-1/4"		0.95/Each	
		** Group Total **			

Total Deduct for building inspector changes
$1,068.06

Total Add for building inspector changes
$2,123.30

Total CO: $1,055.24

Southside Concrete PROPOSAL

Scott McAtee / 4195 Saint Catherine Road / Bellevue IA 52031
563.543.0464 / Southsideconcrete@yahoo.com

Submission Date:	9/24/2025
Project:	Tiffin WTP BLDG 10 Quote
Project Address:	
Date of Plans:	
Submitted to:	

Item 2-4

I hereby submit specifications and estimates for:

BLDG 10 Fluoride Room Add-on from Building Inspector Changes

Concrete 1 CY @ 185.00	$ 185.00
Rebar	$ 600.00
Misc Materials	$ 15.00
Labor 5 MH @ 80.00	$ 400.00
15% O/P	$ 180.00
TOTAL	$ 1,380.00

NOT INCLUDED:

I propose to furnish material and labor - complete in accordance with the above specifications per bid documents.

Respectfully submitted: Scott L. McAtee

This proposal may be withdrawn by Southside Concrete if not accepted within 30 days from submission date above. Any alterations/deviations from above specifications involving extra costs will be executed only upon written order and will become an extra charge over and above this estimate. All agreements contingent upon strikes, accidents, or delays beyond my control.

Acceptance of Proposal

The above prices, specifications and conditions are satisfactory and are hereby accepted. Southside is authorized to perform work as quoted. Payments will be made per bid documents.

Signature: **Date:**

FOSTERS KRAUS
Plumbing - Heating - Air Conditioning
FostersKraus.com
999 Enterprise Drive Suite 100
Marion, IA 52302
319-377-6325

CONTRACTOR CHANGE ORDER REQUEST SUMMARY

Project Name: TIFFIN WWT
Date: 11/24/2025
Project Number:
Prime Contractor Direct Costs TRICON
Description of Change: FIRESTOPPING THROUGH FIRE RATED WALLS & FIRE DAMPER.

Prime Contractor Direct Costs								
Additive Costs								
HVAC Materials							$ 40.00	
Plumbing Materials							$ 160.00	
HVAC Labor	2.00	Hours	@	Rate	$	120.00	$ 240.00	
Plumbing Labor	3.00	Hours	@	Rate	$	120.00	$ 360.00	
Hydronic							$ -	
Insulation								
Core-Drilling							$ -	
Test & Balance								
Permits							$ -	
Equipment Rental							$ -	
Travel/Per Diems							$ -	
Subtotal of Additive								$ 800.00
Deductive Costs								
HVAC Materials							$ -	
Plumbing Materials							$ -	
HVAC Labor	0.00	Hours	@	Rate	$	120.00	$ -	
Plumbing Labor	0.00	Hours	@	Rate	$	120.00	$ -	
Hydronic							$ -	
Insulation							$ -	
Core-Drilling							$ -	
Controls Contractor							$ -	
Permits							$ -	
Equipment Rental							$ -	
Travel/Per Diems							$ -	
Subtotal of Deductive Costs								$ -
Subtotal								$ 800.00
Total OH&P				Rate		10%	$ 80.00	
								$ 80.00
Total Change Order Request								$ 880.00

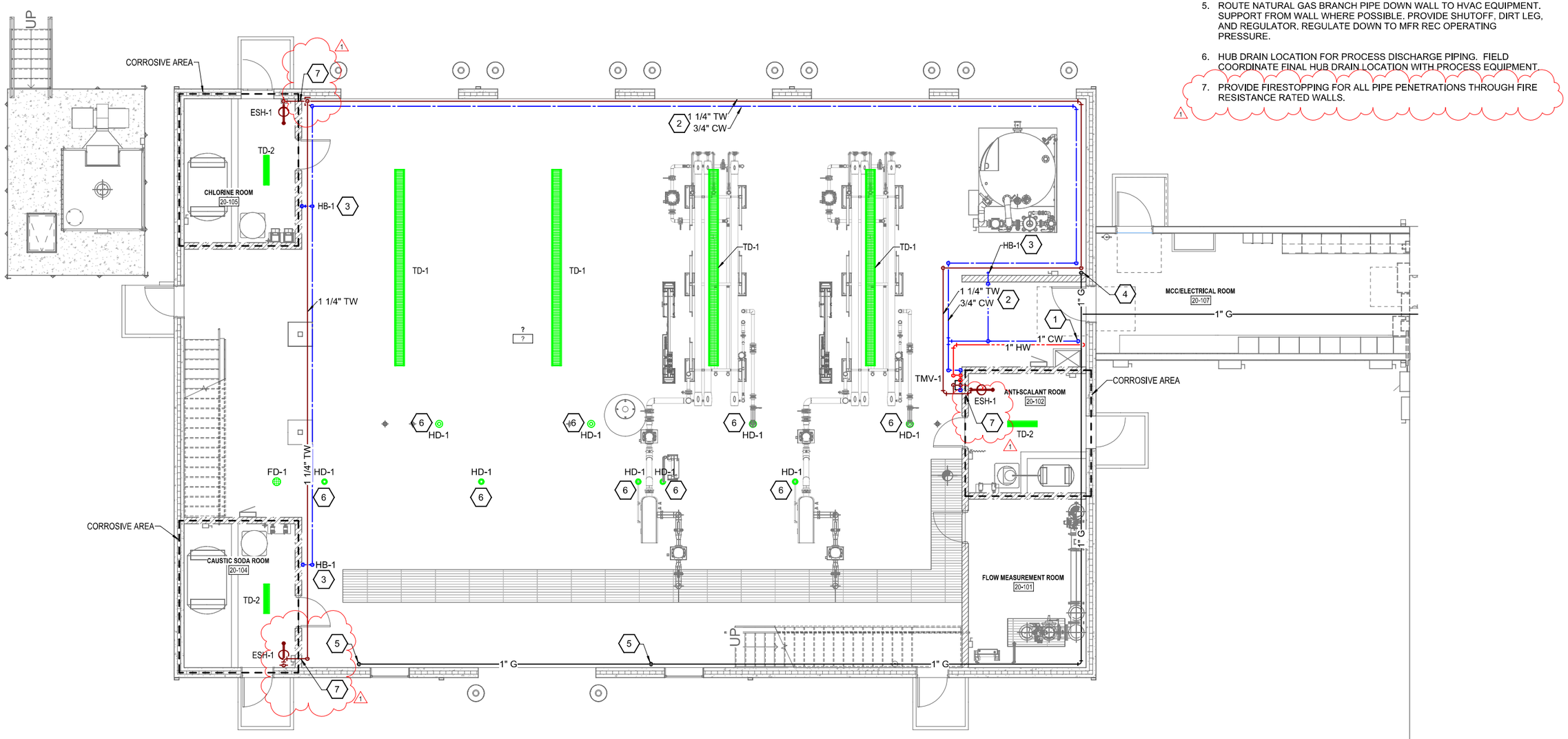
Approvals

Brian Kraus, Vice President
Fosters Kraus Mechanical Group INC
Date

Name:
General Contractor:
Date:

KEY NOTES

1. NEW HOT AND COLD WATER PIPING UP THROUGH FLOOR. ROUTE UP INSIDE WALL AND HIGH AS POSSIBLE. SUPPORT FROM WALL.
2. PIPING SHOWN IN APPROXIMATE LOCATION. OFFSET PIPING AS NECESSARY TO NEW FIXTURES. SUPPORT PIPING FROM WALL WHERE POSSIBLE.
3. ROUTE 3/4" DOWN TO CONNECTION ON HOSE BIBB. PROVIDE LINE SIZED SHUTOFF VALVE IN VERTICAL.
4. ROUTE PIPING UP UP WALL TO CEILING. SUPPORT VERTICAL PIPING FROM WALL.
5. ROUTE NATURAL GAS BRANCH PIPE DOWN WALL TO HVAC EQUIPMENT. SUPPORT FROM WALL WHERE POSSIBLE. PROVIDE SHUTOFF, DIRT LEG, AND REGULATOR. REGULATE DOWN TO MFR REC OPERATING PRESSURE.
6. HUB DRAIN LOCATION FOR PROCESS DISCHARGE PIPING. FIELD COORDINATE FINAL HUB DRAIN LOCATION WITH PROCESS EQUIPMENT.
7. PROVIDE FIRESTOPPING FOR ALL PIPE PENETRATIONS THROUGH FIRE RESISTANCE RATED WALLS.



20-PLUMBING PROPOSED FLOOR PLAN

3/16" = 1'-0" (22" x 34")
3/32" = 1'-0" (11" x 17")
0 2 4 8 12

No	DATE	REVISIONS	BY
1	08/19/2025	PLAN REVIEW COMMENTS	CWW

PROJECT DATE: 11/19/2024
DRAWN BY: RJS
DESIGNED BY: AVE
CHECKED BY: AVE

MSA
ENGINEERING | ARCHITECTURE | SURVEYING
FUNDING | PLANNING | ENVIRONMENTAL
400 ICE HARBOR DR, STE 110, DUBUQUE IA 52001
(563) 582-3973 www.msa-ps.com

© MSA Professional Services, Inc.

WATER TREATMENT FACILITY UPGRADE
CITY OF TIFFIN
JOHNSON COUNTY, IA

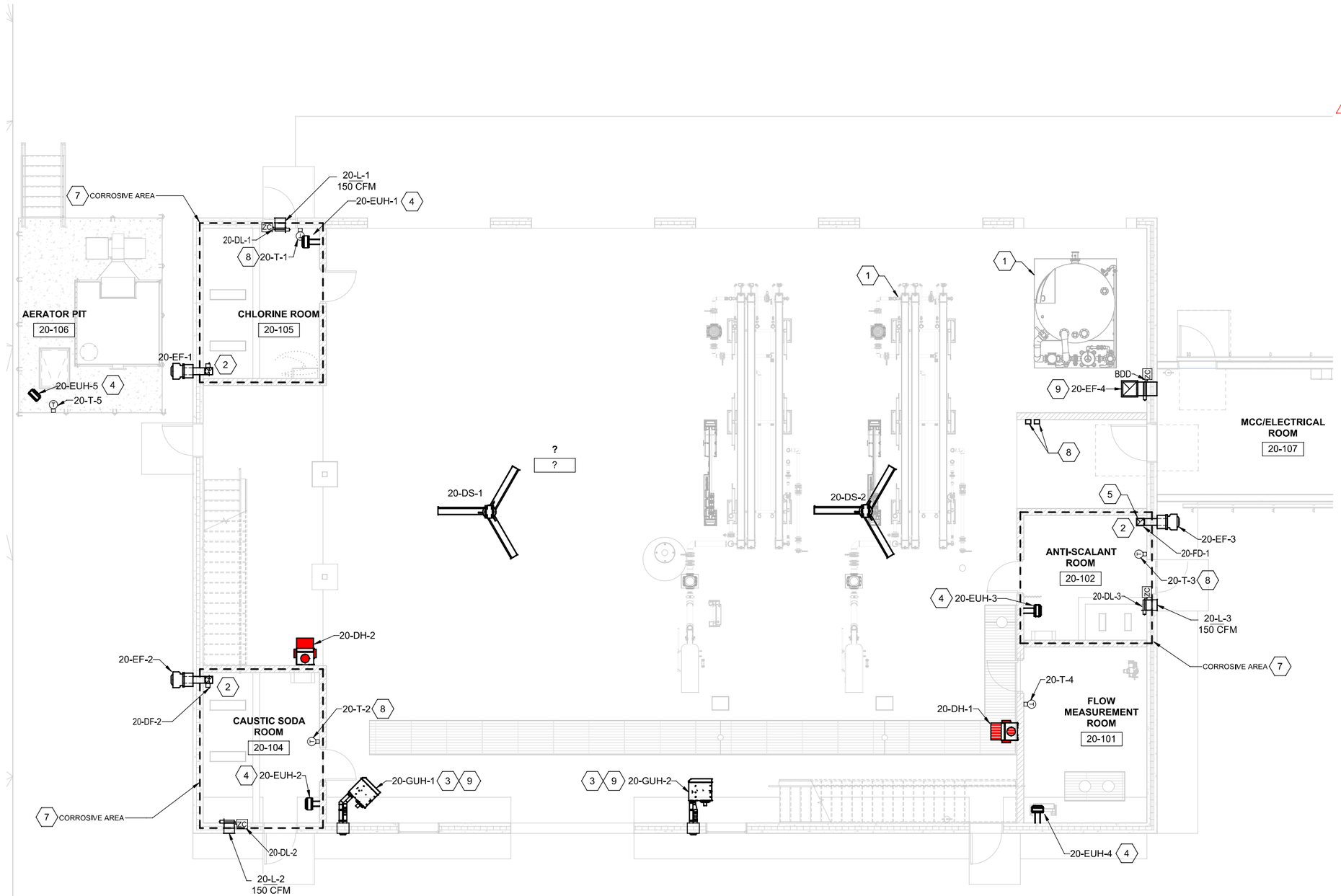
RO BUILDING
PROPOSED PLUMBING ABOVE GRADE FLOOR PLAN

PROJECT NO. 13603016
SHEET 20P102

PLOT DATE: 8/20/2025 3:45:12 PM Autodesk Docs://13603016 - TIFFIN WTP - ACC/13603016_TIFFIN WTP_PLUMB.rvt

KEY NOTES (#)

1. PROCESS EQUIPMENT/PIPING, TYP - SEE PROCESS MECHANICAL.
2. ROUTE DUCT DOWN TO 12-INCHES AFF. TERMINATE WITH ALUMINUM SCREEN. RUN DUCT TIGHT ALONG WALL AND CEILING.
3. RUN COMBUSTION AIR AND FLUE VENT PIPING AS SHOWN. PROVIDE CONCENTRIC VENT KIT AS CLOSE TO EXTERIOR WALL AS POSSIBLE. RUN SINGLE VENT THROUGH WALL AND TERMINATE PER MFR INSTRUCTIONS. PROVIDE WEATHER AND VAPOR TIGHT SEAL AT WALL PENETRATION. ROUTE AS HIGH AS POSSIBLE.
4. BOTTOM OF ELECTRIC UNIT HEATER SHALL BE MOUNTED 8'-0" A.F.F.
5. PROVIDE FIRE DAMPER AND FIRESTOPPING AT CEILING PENETRATION.
6. CONNECT GAS TO NEW HVAC EQUIPMENT. PROVIDE DIRT LEG, SHUTOFF VALVE, AND REGULATOR. REGULATE DOWN TO MANUFACTURER RECOMMENDED OPERATING PRESSURE.
7. ALL EQUIPMENT, ACCESSORIES, AND WORK IN THIS AREA SHALL BE SUITABLE FOR A CORROSIVE (NEMA 4X) ENVIRONMENT.
8. INSTALL CONTROL DEVICE AT 3'-6" AFF.
9. ROUTE EXHAUST DUCTWORK FROM MCC/ELECTRICAL ROOM WITH SCREEN INTO RO SKID ROOM. ELBOW UP AND CONNECT TO FAN. SUPPORT FAN FROM WALL. TERMINATE FAN WITH 6-INCHES OF DUCTWORK AND SCREEN.



20-HVAC PLAN

3/16" = 1'-0"(22" x 34")
3/32" = 1'-0" (11" x 17")
0 2 4 8 12

PROJECT DATE:	AUG 5, 2024	DRAWN BY:	RJS	No	DATE	REVISIONS / BY
		DESIGNED BY:	AVE	2	8/19/2025	PLAN REVIEW COMMENTS / CWW
		CHECKED BY:	AVE			

PLOT DATE: 8/20/2025 1:46:17 PM J:\Projects\Docs\13603016 - TIFFIN IA WTP - ACC\13603016_TIFFIN WTP_HVAC.rvt

MSA
ENGINEERING | ARCHITECTURE | SURVEYING
FUNDING | PLANNING | ENVIRONMENTAL
400 ICE HARBOR DR, STE 110, DUBUQUE IA 52001
(563) 582-3973 www.msa-ps.com

© MSA Professional Services, Inc.

WATER TREATMENT FACILITY UPGRADE
CITY OF TIFFIN
JOHNSON COUNTY, IA

RO BUILDING HVAC PLAN

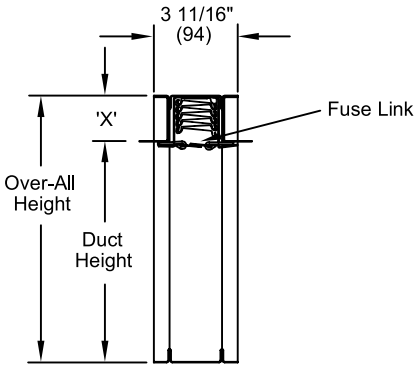
PROJECT NO. 13603016
SHEET 20H101

UnitedEnertech

FD-B Static Curtain Fire Damper
UL555 Classified 1 ½ and 3 Hour
For Use in Static Systems

APPLICATION

Model FD-B Style B (Blades out of the airstream) 1 ½ or 3 hour UL classified static (fans off) curtain style fire damper for use in HVAC systems that turn off during a fire. Fire dampers are used for the protection of openings in walls, partitions, or masonry floors with fire resistance ratings of less than 3 hours for 1 ½ hour protective rating and 3 hour or more for 3 hour protective rating. The FD-B can be installed vertically in walls or horizontally in masonry floors and is rated for airflow in either direction.



Over-All Height = Damper Height + 'X' Dim.
See Page 2

Standard Construction

Frame: Roll-formed galvanized steel in gauges required by UL listing R-25410.
Blades: Roll-formed galvanized steel in gauges required by UL listing R-25410.
Closure Springs: 301 stainless steel
Fuse Link: 165° F (74°C) is standard. 212° F (100°C) available option.

SIZE

Selection is based on 8" x 8" duct size.
Damper measurements would be 8" x 10"

Minimum: 4" (102) wide x 3" (76) high
Maximum:

Single Section 1 ½ Hour.
Vertical - 48" (1219) wide x 443" (1092) high.
Horizontal - 40" (1016) wide x 35" (889) high

Multi-Section 1 ½ Hour
Vertical - 120" (3048) wide x 115" (2921) high
Horizontal - 120" (3048) wide x 35" (889) high or 96" (2438) wide x 43" (1092) high.

Single Section 3 Hour
Vertical or Horizontal - 40" (1016) wide x 35" (889) high.

Multi-Section 3 Hour
Vertical or Horizontal - 80" (2032) wide x 35" (889) high

OPTIONS

Sleeves - of various lengths and gauges
One Side Mounting Angles - 1 ½ Hour Standard
Two Sides Mounting Angles - Option 1 ½ Hour and 3 Hour Standard

Ratings - EMME R25410
UL 555 Fire Resistance Rating
Fire Rating: 1 ½ Hour (Less than 3 hours wall rating)
3 Hour (3 hours and More rating)

National Fire Protection Association
NFPA Standards 80, 90A, 92A, 101 and 5000
ICC International Building Codes
CSFM California State Fire Marshal
Listing 3225-1722:0100
Canada ULC-S112 Fire Damper

Notes:
1. Refer to the installation instructions for additional details.
2. Damper are furnished approx. ¼" (6) undersized, unless otherwise noted.
3. Dimensions shown in parentheses () indicate millimeters.

United Enertech
3005 South Hickory Street
Chattanooga, Tennessee 37407
Tel: (423) 689-7715
www.unitedenertech.com

FD-B Static Fire Damper Style B

DRAWN BY:	DATE:	REV. DATE:	REV. NO.	DWG. NO.
KSM	March, 2025			PD-015

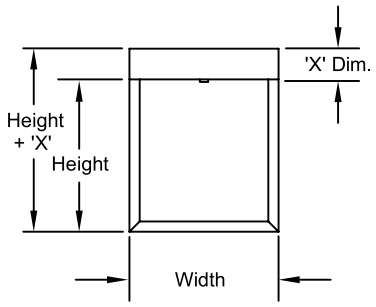
UE reserves the right to change specifications without notice.

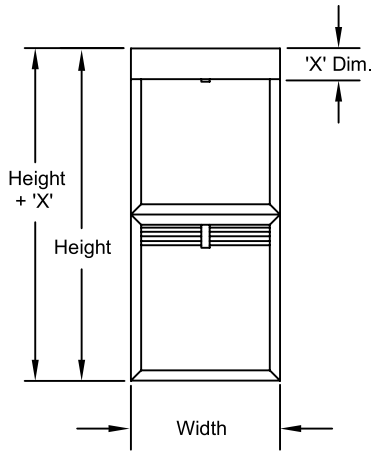
FD-B Dimensional Data

Vertical Mount

Single Section Vertical 'B' Hood	
Damper Height	**'X' Dim.**
4" (102) Thru 20" (508)	2" (51)
21" (533) Thru 34" (864)	3" (76)
35" (889) Thru 41" (1041)	4" (102)
42" (1067) Thru 54" (1372)	5" (127)

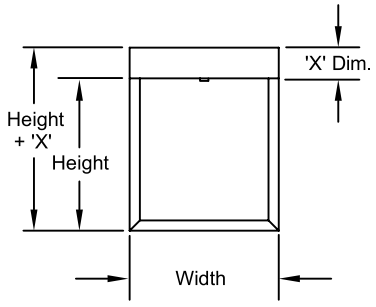
Two Section Height Vertical 'B' Hood	
Damper Height	**'X' Dim.**
55" (1397) Thru 64" (1626)	3" (89)
65" (1651) Thru 82" (2083)	4" (102)
83" (2108) Thru 104" (2642)	5" (127)
105" (2667) Thru 114" (2896)	6" (127)





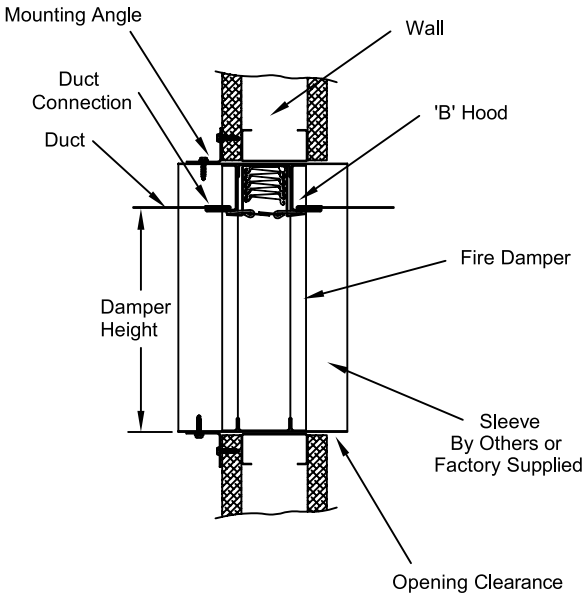
Horizontal Mount

Single Section Horizontal 'B' Hood	
Damper Height	**'X' Dim.**
4" (102) Thru 20" (508)	2" (51)
21" (533) Thru 34" (864)	3" (76)
35" (889) Thru 43" (1092)	4" (102)

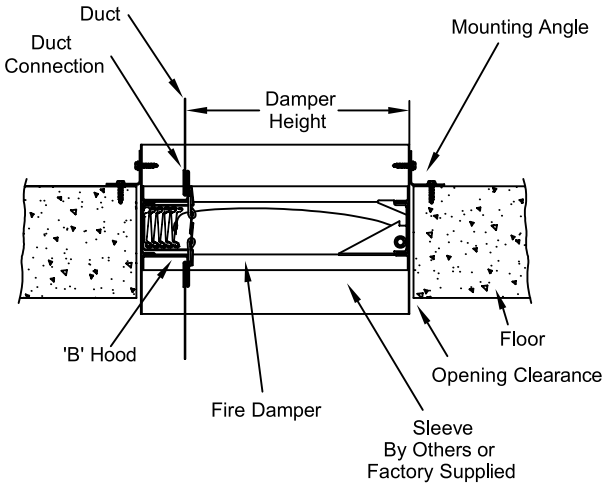


UE reserves the right to change specifications without notice.

Typical Fire Damper Installation



Vertical Mount



Horizontal Mount

See UL Listed Installation instructions for complete installation details

SUGGESTED SPECIFICATION

Furnish and install at locations shown on the plans, or as described in schedules for curtain type fire dampers suitable for vertical wall or horizontal masonry floor or ceiling. Static fire dampers tested, constructed and labeled in accordance with the latest edition of UL Standard 555. Dampers shall have a fire rating of 1 1/2 hours or 3 hours and shall meet the requirements of the latest edition of NFPA90A.

Damper frame and blades shall be galvanized steel in gauges required by UL listing R-25410 installed in a factory mounted sleeve and shipped loose mounting angle. Damper blades shall be steel interlock to provide fire shield in gauges required by UL listing R-25410. Horizontal Mount units closure spring dampers shall be of 301 stainless steel and shall be constant force type.

Each static fire damper shall include a steel sleeve and mounting angles furnished by the damper manufacturer to ensure appropriate installation. Submittal information shall include the manufacturer's UL installation instructions. The dampers shall be installed in accordance with the manufacturer's UL installation instructions. Static fire dampers shall be in all respects equivalent to United Enertech FD-B.

Each damper shall include a 165°F (74°C), or 212°F (100°C) fusible link and shall be labeled for use in static systems.

Static fire dampers shall be United Enertech model FD-B.
(Consult United Enertech for detailed CSI MasterFormat Specifications).

United Enertech
3005 South Hickory Street
Chattanooga, Tennessee 37407
www.unitedenertech.com

UE reserves the right to change specifications without notice.

MOUNT VERNON CONSTRUCTION
Mount Vernon, IA

PROPOSAL

510 1st Ave N; Mount Vernon, IA 52314
Phone: (319) 895-8147 Fax: (319) 895-6797
Email: dsimmons@mvconstr.com
Date:

Proposal Submitted To:	*Tom Shedek*		
Phone:	*913-238-6689*	Email:	tomshedek@triconcg.com
Job Location:	*109 S Brown St Tiffin, WWTP*		

Description	Quanity	LnFt/SqFt/Hr	Unit Price	Total
79200 Joint Sealants			$ -	$ -
Building 20			$ -	$ -
Vertical precast control joints	818	LnFt	$ 6.00	$
Soudal foam vertical precast control joints	818	LnFt		
Firecalk vetical precast control joints 1 side	176	LnFt	$ 17.00	$
Building 10			$ -	$ -
Vertical precast control joints	168	LnFt		
Soudal foam vertical precast control joints	168	LnFt		
Building 30				
Vertical precast control joints	80	LnFt		
Soudal foam vertical precast control joints	80	LnFt		
Lift rental				

$11.00 delta
$11.00 x 176LF =

$1,936.00 cost for fire caulking addition on precast exterior vertical joints

Quote is for items listed above only. Would use Tremco Dymonic 100 for caulking interior and exterior vertical joints. Foam would be Soudal Soudafoam and Hilti CP606 for firecaulking one side only in required area on Building 20.

All material is guaranteed to be as specified. All work to be completed in workmanlike manner according to standard practices. Any alteration or deviation from above specifications involving extra cost will be executed only upon written orders, and will become an extra charge over and above the estimate. All agreements contingent upon strikes, accidents or delays beyond our control. Owner to carry fire, tornado and other necessary insurance. Our workers are fully covered by Workman's Compensation Insurance.

Authorized Signature	Jamie Lytle	Date: 3-23-20
Acceptance of Proposal		Date:

CITY OF TIFFIN
BUILDING CODES DEPARTMENT
300 RAILROAD ST, PO BOX 259
TIFFIN, IA 52340
Tel: 319-545-2572 Fax: 319-545-4147

PLAN REVIEW RECORD

Building Address: 119 Brown St
Project: Water Treatment Facility Upgrade and Addition
Permit #: 4748
Reviewed By: Nick Sitzman
Date(s): 7/22/2025
Construction Type: V-B? Occupancy Type: B, S-1? H-3/4? F-1?

DISCIPLINE	APPROVED	NEEDS CLARIFICATION	NO REVIEW REQ'D	DEFFERED SUBMITTAL
NON-STRUCTURAL		X		
STRUCTURAL		X		
MECHANICAL		X		
ELECTRICAL		X		
PLUMBING		X		
FLOOD PLAIN	X			
STREET/SIDEWALK	X			
ZONING	X			
FIRE PROTECTION		X		

CODES: 2018 IRC w/ appx F & J, 2018 IBC w/ appx K, 2024 IFC, Iowa State Electrical Code (2023 NEC), Iowa State Plumbing Code (including Fuel Gas Code) (2024 UPC), and Iowa State Mechanical Code (2024 IMC), 2012 IECC, 2010 ADA.

Comments:

Please note that this is an on-going review. Additional comments may be generated upon review of responses and/or shop drawings. <7/22/2025 NS>

Non-Structural:

1) Provide a complete Code Summary for this project. Identify proposed construction Type (VB?). Identify applicable codes and standards adopted by City of Tiffin, including “2018 IBC” and “2024 IFC” as well as “2023 NEC” “2024 IMC” and “2024 UPC” which are current State of Iowa Codes adopted by Tiffin. This should also include a building summary, determined allowable heights and areas, fire ratings, gross/net area data, etc. <7/21/2025 NS>

   The Code Summary Used for this project is summarized below:

   - Buildings/Structures - 2018 IBC & 2024 IFC
   - Electrical - 2023 NEC
   - Mechanical - 2024 IMC
   - Plumbing – 2024 UPC

2) Provide a Life Safety Plan for this project including area Uses and Occupancy Classifications, Occupant Loads, Egress Travel distances, Common Path of Travel distances where applicable, Accessible routes, Exit locations and sizing, Fire Extinguisher and fire protection elements, etc. <7/21/25 NS>

   Life safety plans have been included for your review. (MSA)

3) Provide listed assembly and appropriate details for 3-hour fire-resistance rated Fire Wall. <7/21/2025 NS>

   We have determined that the 3-hour rated fire wall shown on the contract drawings is not required. The chemicals proposed to be in the building were reviewed and assigned a code hazard classification. The quantity for each chemical in each room was reviewed. It was determined that (3) rated control areas were required for (3) of the chemical rooms as the proposed quantity was at or lower than the tabular allowed quantity. As only 4 control areas are permitted for a single story building, the other (2) chemical rooms were designed without rated control room construction and the remainder of the building will act as the 4th code permitted control area so that the (2) chemical rooms and the remainder of the building space is permitted to have up to the tabular listed quantity for each classification of chemical. The 4th control area (the remainder of the building) is bounded on its exterior with exterior walls – which are not required to be rated. As chemicals will be present in limited quantities outside the (3) defined control areas, this design methodology keeps the building design within the bounds of the building code and does not require that we create (2) separate buildings divided by a firewall to permit the construction of (1) or (2) additional control areas – which would therefore not comply with the building code. (MSA)

4) Verify vertical and horizontal continuity of Fire Wall per 2018 IBC 706.5 and 706.6. Provide details as needed. <7/21/2025 NS>

1-hr rated fire wall assemblies will only be required for the (3) control areas in the Main RO Building. Assembly drawings have been revised and provided for your review. (MSA)

5) NOTE: Multiple locations in the proposed plans refer to “Existing” and “New” buildings. For clarification, all codes and standards shall be applied to this project such that the “new” areas added on to the water treatment plant are appropriately treated as “ADDITIONS” to an existing building, NOT “new” buildings. The 3-hour rated Fire Wall will provide for structural independence and separate Fire Areas, but it is still one building. (The clear well IS a separate building and structure.) <7/22/25 NS>

Structural:

1) Submit all technical (shop) drawings for project including Rebar, Pre-Cast package, Fire Suppression, Fire Alarm, Wall Panels, Trusses (Include Fire Wall parapet design if part of trusses). Truss layout shall call out all point loads >/= 5klb and uplift values that exceed the typical hold-downs specified), Please note that per IAC 542B.16, technical drawings shall be sealed by the qualified design professional that is responsible for each submittal. <7/21/2025 NS>
   MSA will provide approved shop drawings for the rebar, precast building, and trusses for your review. (MSA)
2) Verify structural independence of structures on both sides of Fire Wall per 2018 IBC 706.2 and 1604.5.1. Provide details as needed to demonstrate integrity of Fire Wall with collapse of structure on either side. <7/21/2025 NS>
   3-hr rated firewall is no longer included in the design. (MSA)
3) Sheet 99S601 references 2015 IBC and ASCE 7-10. Please update all structural analysis and data throughout the proposed plans to be per 2018 IBC and ASCE 7-16. <7/21/2025 NS>
   Plan sheet has been revised to read “2018 IBC”. The structural requirements are not affected by this change. (MSA)
4) Submit Statement of Special Inspections (SSI) for all special inspections required per Chapter 17 of the IBC. This includes but is not limited to concrete, anchors, epoxy, masonry, bolting, welding, and erection of pre-cast. <7/21/2025 NS>
   SSI document has been included. (MSA)
5) Provide confirmation letter from Special Inspection agency confirming contract for SSI requirements. <7/21/2025 NS>
   N/A per our phone conversation. (MSA)
6) Submit Geotechnical Soil Report to verify design Soil Bearing Capacity is met on site. <7/21/2025 NS>
   The geotechnical report was provided in the contract specifications. Refer to the “Available Project Information” section 00 31 32. (MSA)

Mechanical:

1) Please verify ventilation system calculations and design per 2024 IMC Sections 403 & 404 for outside air and exhaust/relief requirements. Include both continuous and intermittent ventilation calculations. <7/21/2025 NS>
   Ventilation system calculations have been provided for your review. (MSA)
2) Provide firestop and damper submittal(s) for all rated penetrations. <7/21/2025 NS>
   A 1-hr rated damper will be required for exhaust fan 20-EF-3 (20-DF-3) because the duct penetrates through the mezzanine. Fire rated caulk will also be required at the perimeter of the penetrations. The rest of the exhaust fans are not located in control areas or are located on the exterior wall and do not penetrate through the mezzanine floor. (MSA)

Electrical:

1) Add the required concrete encased electrode (Ufer) to the electrical plans and one-line drawing. Indicate the location of the connection to the footing reinforcing steel. <7/21/2025 NS>
   We typically leave the location of the Ufer up to the electrician and verify it is completed during our inspections. If you prefer an exact location is identified, we can contact the electrician to confirm the location they are proposing. (MSA)
2) Provide firestop submittal for all rated penetrations. <7/21/2025 NS>
   We would anticipate that most of the penetrations in the 1-hour fire rated control areas will be through the concrete floor slab. Wall/ceiling penetrations through 1-hour rated assemblies are covered by specification 26 05 00, Paragraphs 2.02 and 3.03, I. (MSA)

Plumbing:

1) Provide firestop submittal for all rated penetrations. <7/21/2025 NS>
   Piping that penetrates through the 1-hour control areas have been identified on the drawings provided. (MSA)

Fire Protection:

1) Identify all Hazardous Materials and Chemicals to be on site and provide SDS to Fire Marshal. Verify all Maximum Allowable Quantities are compliant with 2024 IFC and approved by Tiffin Fire Marshal. Building Codes and Fire Marshal's Office will coordinate a response for this once information has been provided. <7/22/2025 NS>
   Refer to the life safety plan provided. (MSA)
2) See Fire Marshal's plan review report for additional comments.
   No comments were received. (MSA)

KEY NOTES

1. CODE REQUIRED ACCESSIBLE EXIT - (2) REQUIRED FOR THIS AREA (THEY ARE SEPARATED BY MORE THAN 1/2 THE DIAGONAL DISTANCE OF THE SPACE). PROVIDE ILLUMINATED EXIT SIGN ABOVE DOOR AND TACTILE SIGN ON WALL ADJACENT TO LATCH.
2. NOT A CODE REQUIRED EXIT
3. CODE REQUIRED SINGLE EXIT FOR THIS SPACE, NON-ACCESSIBLE EXIT (SPACE IS "MECHANICAL" EQUIPMENT AND IS NOT REQUIRED TO BE ACCESSIBLE)
4. CODE REQUIRED ACCESSIBLE EXIT - A SINGLE EXIT IS REQUIRED FOR EXISTING BUILDING (EXCEPT LAB AND CHLORINE ROOM). COMMON PATH OF TRAVEL < 75' AND OCCUPANT LOAD IS ≤ 30.
5. CODE REQUIRED SINGLE EXIT FOR MCC, MECHANICAL, AND TOILET ROOMS
6. SAFETY STATION - DRENCH SHOWER/EYEWASH
7. CONTROL ROOM - 1-HOUR RATED WALLS (WHERE INDICATED), AND CEILING
8. EQUIPMENT PLATFORM ONLY - WITH PROCESS TANK BELOW
9. EXTERIOR DOOR DOES NOT NEED TO BE 1-HOUR RATED
10. EXTERIOR WALL SHALL BE 1-HOUR RATED IN THIS AREA - SUPPORTS 1-HOUR RATED MEZZANINE CEILING FRAMING

KEY NOTES

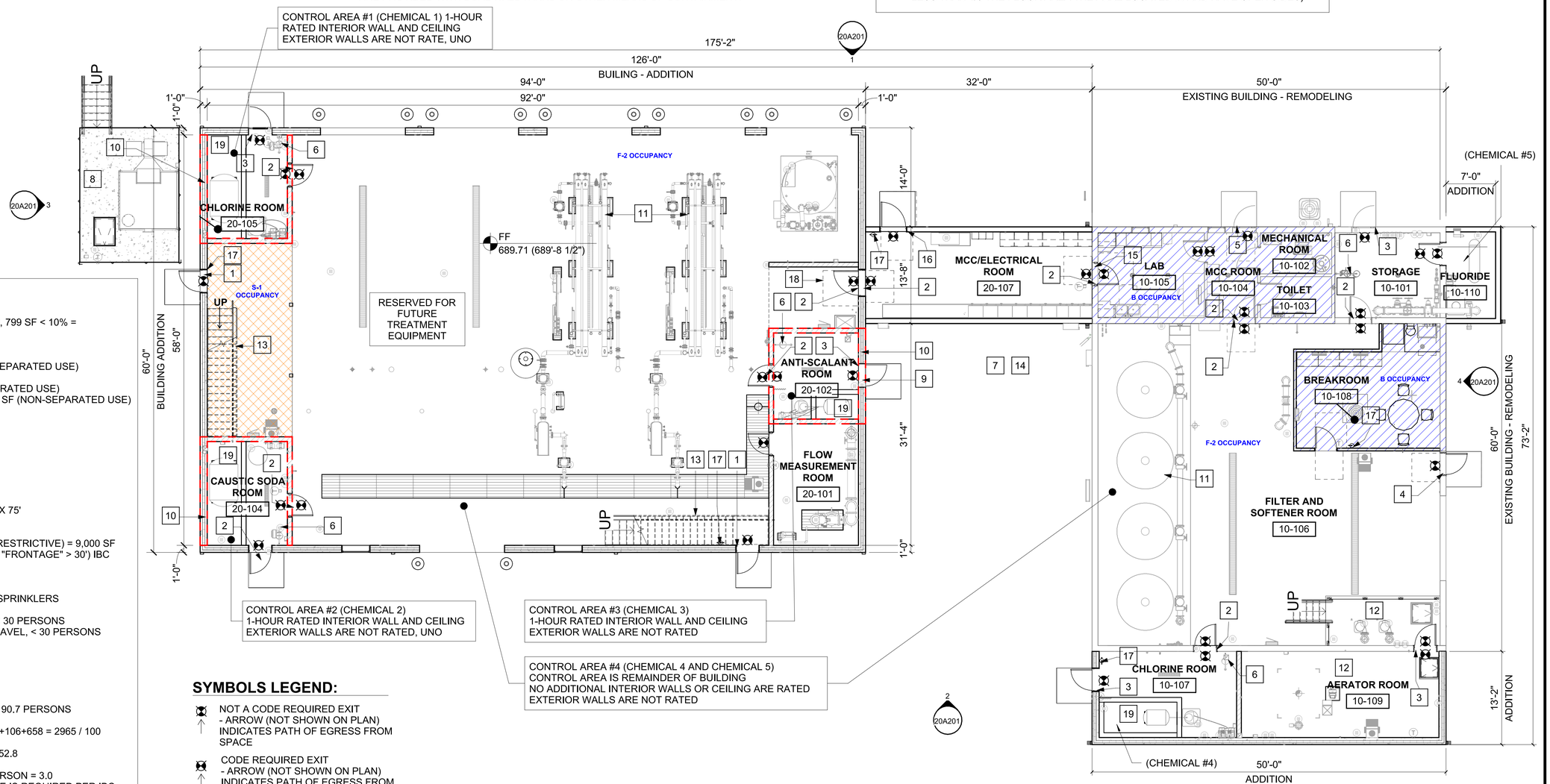
11. PROCESS EQUIPMENT, TYP
12. PROCESS TANK BELOW - LIMITED ACCESS REQUIRED. CONFINED ENTRY SPACE - ACCESS THROUGH FLOOR DOOR.
13. STAIR IS EXIT FOR MEZZANINE - SEE SHEET 10A101. STAIR SHALL PROVIDE MINIMUM 36" CLEARANCE BETWEEN HANDRAILS.
14. EXISTING LAB IS NON-ACCESSIBLE (EGRESS, SINK, ETC). CASEWORK TO BE INSTALLED SHALL COMPLY WITH ACCESSIBILITY REQUIREMENTS. DOOR INSTALLED IN WEST WALL SHALL BE ACCESSIBLE FROM BOTH SIDES.
15. CODE REQUIRED SINGLE, ACCESSIBLE EXIT FOR THIS SPACE. EXISTING DOOR IN EAST WALL IS NOT ACCESSIBLE (FROM INSIDE ROOM).
16. CODE REQUIRED SINGLE, ACCESSIBLE EXIT FOR ELECTRICAL AND LAB ROOMS
17. PORTABLE FIRE EXTINGUISHER ON WALL BRACKET
18. ACCESSIBLE CLEAR FLOOR SPACE OR TURNING SPACE INDICATED BY DASHED RECTANGLE/CIRCLE (FOR GRAPHIC PURPOSES ONLY) - TYP
19. CHEMICAL SECONDARY CONTAINMENT AREA. CHEMICAL TANKS NOT IN CONTAINMENT AREA ARE PROVIDED WITH DUAL WALL TANKS OR OTHER MEANS OF CONTAINMENT.

CODE NOTES:

A SINGLE BUILDING w/ REMODELING AND ADDITIONS

CODES:
- EXISTING REMODELING AND ADDITIONS: 2018 IEBC
  - ALTERATION LEVEL 2
  - 2018 IBC FOR ALL ADDITION AREAS AS REFERENCED FROM THE IEBC
- OTHER: 2024 IFC, 2012 IECC, 2010 ADA, 2024 IMC, 2023 NEC, 2024 UPC

TOTAL BUILDING GROUND FLOOR AREA: 9751 SF
(ACCESSORY USES MAY BE UP TO 975 SF AGGREGATE)
- EXISTING BUILDING SIZE: 3000 SF
- BUILDING ADDITIONS TOTAL SIZE: 6751 SF
  - EAST: 106 SF
  - SOUTH: 658 SF
  - CENTER: 347 SF
  - WEST: 5640 SF
    - MEZZANINES (DO NOT ADD TO TOTAL BUILDING AREA PER IBC 505, AS THEY ARE LESS THAN 1/3 THE FLOOR AREA THEY ARE LOCATED IN AND HAVE OPEN SIDES)



CODE NOTES CONTINUED:

OCCUPANCIES WITH AREAS
- EXISTING BUILDING: F-2 WATER TREATMENT (w/ B, 799 SF < 10% = ACCESSORY), 3000 SF
- EAST ADDITION: F-2 WATER TREATMENT, 106 SF
- SOUTH ADDITION: F-2 WATER TREATMENT, 658 SF
- "CENTER" ADDITION: S-1 STORAGE, 347 SF (NON-SEPARATED USE)
- WEST ADDITION: F-2 WATER TREATMENT, 5284 SF
- WEST ADDITION: S-1 STORAGE, 356 SF (NON-SEPARATED USE)
- WEST ADDITION MEZZANINES: S-1 STORAGE, 1143 SF (NON-SEPARATED USE)
  - EAST: 508 SF
  - WEST: 635 SF

PRIMARY OCCUPANCY: F-2 WATER TREATMENT

CONSTRUCTION TYPE: VB

FIRE PROTECTION SYSTEMS
- SPRINKLER SYSTEM: NONE REQUIRED
- PORTABLE FIRE EXTINGUISHERS: PROVIDE AT MAX 75'

ALLOWED BUILDING AREA = 15,750 SF
- TABULAR ALLOWED FOR S-1 OCCUPANCY (MOST RESTRICTIVE) = 9,000 SF
- FRONTAGE INCREASE (100% OF PERIMETER WITH "FRONTAGE" > 30') IBC 506.3 = 6750 SF

EXIT DISTANCE:
- SPACES w/ (1) EXIT (PER IBC TABLE 1006.2.1), NO SPRINKLERS
  - COMMON PATH OF TRAVEL
    - B AND S: 100' COMMON PATH OF TRAVEL, < 30 PERSONS
    - F OCCUPANCIES: 75' COMMON PATH OF TRAVEL, < 30 PERSONS
  - MAXIMUM OCCUPANT LOAD:
    - B AND F: 49 PERSONS
    - S: 29 PERSONS
- F-2 AND S-1: 200'

OCCUPANT LOAD
- CALCULATED PER CODE (PER IBC TABLE 1004.5) = 90.7 PERSONS
  - INDUSTRIAL (F-2):
    - EAST EXISTING AND ADDITIONS: (3000-799)+106+658 = 2965 / 100 SF/PERSON = 29.6
    - WEST ADDITIONS: 5284 / 100 SF/PERSON = 52.8
  - BUSINESS (B): 799 / 150 SF/PERSON = 5.3
  - WAREHOUSE (S-1): 356+1143 = 1499 / 500 SF/PERSON = 3.0
- ACTUAL: < 15 PERSONS (A SINGLE TOILET FIXTURE IS REQUIRED PER IBC CHAPTER 29)

EGRESS WIDTH (IBC 1005):
- STAIRWAYS: 0.3"/PERSON.
  - PROVIDE 4'-4" WIDE (OUTSIDE OF STRINGER) STAIRS, MINIMUM 36" CLEARANCE.
- OTHER COMPONENTS: 0.2"/PERSON.
  - WEST ADDITION: 55.8 PERSONS X 0.2" / (2) DOORS = 14" CLEAR/DOOR

SYMBOLS LEGEND:

NOT A CODE REQUIRED EXIT
- ARROW (NOT SHOWN ON PLAN) INDICATES PATH OF EGRESS FROM SPACE

CODE REQUIRED EXIT
- ARROW (NOT SHOWN ON PLAN) INDICATES PATH OF EGRESS FROM SPACE

OVERALL FLOOR PLAN (STRUCTURES 10 AND 20) AND LIFE SAFETY PLAN

1/8" = 1'-0" (22" x 34")
1/16" = 1'-0" (11" x 17")
0 4 8 16

PLOT DATE: 8/20/2025 5:15:34 AM Autodesk Docs://13603016 - TIFFIN IA WTP - ACC/13603016_TIFFIN WTP_BAP.rvt

PROJECT DATE: AUG 5, 2024	DRAWN BY: JBR	DESIGNED BY: JBR	CHECKED BY: CWW

No	DATE	REVISIONS	BY
1	8/19/2025	PLAN REVIEW COMMENTS	CWW

MSA
ENGINEERING | ARCHITECTURE | SURVEYING
FUNDING | PLANNING | ENVIRONMENTAL
400 ICE HARBOR DR, STE 110, DUBUQUE IA 52001
(563) 582-3973 www.msa-ps.com

© MSA Professional Services, Inc.

WATER TREATMENT FACILITY UPGRADE
CITY OF TIFFIN
JOHNSON COUNTY, IA

OVERALL FACILITY - STR 10 AND STR 20 GROUND FLOOR LIFE SAFETY PLAN

PROJECT NO. 13603016
SHEET 10A100

HAZARDOUS MATERIALS

CLASSIFICATION DEFINITIONS (IBC CHAPTER 2):

TOXIC:
- 50 mg/kg < LD50 (ORAL, RAT) < 500 mg/kg
- 200 mg/kg < LD50 (DERMAL, RABBIT) < 1000 mg/kg
- 200 PPM < LC50 (INHALE, RAT) < 2000 PPM

HIGHLY TOXIC:
- LD50 (ORAL, RAT) < 50 mg/kg
- LD50 (DERMAL, RABBIT) < 200 mg/kg
- LC50 (INHALE, RAT) < 200 PPM

CORROSIVE:
- REQUIRES PERMANENT AND IRREVERSIBLE DAMAGE TO OCCUR PER TEST METHOD DOT 49 CFR, PART 173.137;
- DOT "ACUTE DERMAL TOXICITY": LD50 < 1000 mg/kg

* LIMIT QUANTITY LISTED ARE AGGREGATE TOTAL FOR ALL MATERIALS WITH THE SAME CLASSIFICATION FOR EACH CONTROL AREA

CHEMICAL 1 - CHLORINE (BLEACH)
- NAME: SODIUM HYPOCHLORITE SOLUTION 12.5%
- STATUS: IN USE - CLOSED SYSTEM
- MATERIAL STATE: LIQUID
- AMOUNT IN USE: 500 GALLONS
- TOXICOLOGICAL INFORMATION:
  - COMPONENTS (FROM MSDS):
    - CHLORIDE (12.5%)
    - SODIUM CHLORIDE (5–20%): LD50 (ORAL, RAT) = 3,000 mg/kg
    - SODIUM HYDROXIDE (5–20%):
      - LD50 (DERMAL, RABBIT): 1,350 mg/kg
      - LD50 (ORAL, RABBIT): 500 mg/kg
    - SODIUM HYPOCHLORITE (1–5%): LD50(ORAL, RAT)= 8,910 mg/kg
    - WATER (77.5%): LD50 (ORAL, RAT) = >90,000 mg/kg
  - SOLUTION: LD50 (ORAL, RABBIT) ≈ 70,190 mg/kg
- CLASSIFICATION: CORROSIVE
- LIMIT (PER IBC TABLE 307.1(2)): 500 GALLONS*

CHEMICAL 2 – CAUSTIC SODA
- NAME: CAUSTIC SODA 30–32%
- STATUS: IN USE – CLOSED SYSTEM
- MATERIAL STATE: LIQUID
- AMOUNT IN USE: 500 GALLONS
- TOXICOLOGICAL INFORMATION (FROM SDS):
  - NO DATA PROVIDED. MFR STATES THAT SOLUTION IS NOT HIGHLY TOXIC AND IS NOT TOXIC.
- MFR DATA STATES: SKIN SEVERE BURNS/EYE CORROSION
  - (DOT CATEGORY: 1A/1) HAZARDOUS MATERIAL
- CLASSIFICATION: CORROSIVE
- LIMIT (PER IBC TABLE 307.1(2)): 500 GALLONS*

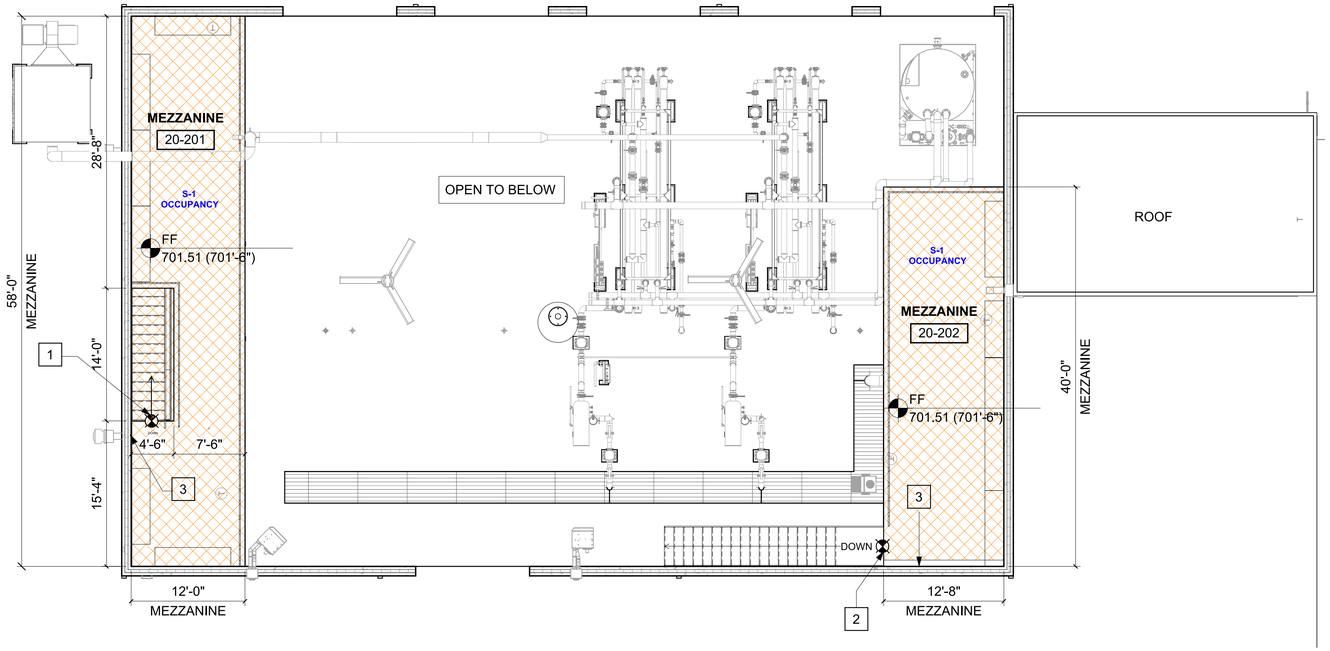
CHEMICAL 3 – ANTI-SCALANT
- NAME: AVISTA 204 (ATMP PHOSPHONATE SOLUTION)
- STATUS: IN USE – CLOSED SYSTEM
- MATERIAL STATE: LIQUID
- AMOUNT IN USE: 500 GALLONS
- SPECIFIC GRAVITY: 1.349 (11.25 POUNDS/GALLON)
- TOXICOLOGICAL INFORMATION (FROM SDS):
  - COMPONENTS:
    - CHELATE AGENT (10–20%)
      - LD50 (ORAL, RAT) = 2,100 mg/kg
      - LD50 (DERMAL, RABBIT) = 6,310 mg/kg
    - WATER (70–85%)
      - LD50 (Oral, Rat) = >90,000 mg/kg
    - SOLUTION/MIX:
      - LD50 (ORAL, RAT) = 63,420 mg/kg
      - LD50 (DERMAL, RAT) = 31,550 mg/kg
- CLASSIFICATION: CORROSIVE
- LIMIT (PER IBC TABLE 307.1(2)): 500 GALLONS*

CHEMICAL 4 – CHLORINE (BLEACH)
- NAME: SODIUM HYPOCHLORITE SOLUTION 12.5%
- STATUS: IN USE – CLOSED SYSTEM
- MATERIAL STATE: LIQUID
- AMOUNT IN USE: 100 GALLONS
- TOXICOLOGICAL INFORMATION:
  - COMPONENTS (FROM MSDS):
    - CHLORIDE (12.5%)
    - SODIUM CHLORIDE (5–20%): LD50 (ORAL, RAT) = 3,000 mg/kg
    - SODIUM HYDROXIDE (5–20%):
      - LD50 (DERMAL, RABBIT) = 1,350 mg/kg
      - LD50 (ORAL, RABBIT) = 500 mg/kg
    - SODIUM HYPOCHLORITE (1–5%): LD50 (ORAL, RAT) = 8,910 mg/kg
    - WATER (77.5%): LD50 (ORAL, RAT) = >90,000 mg/kg
  - SOLUTION: LD50 (ORAL, RAT)= 70,190 mg/kg
- CLASSIFICATION: CORROSIVE
- LIMIT (PER IBC TABLE 307.1(2)): 500 GALLONS*

CHEMICAL 5 - FLUORIDE
- NAME: HYDROFLUOSILICIC ACID, 23% SOLUTION
- STATUS: IN USE - CLOSED SYSTEM
- MATERIAL STATE: LIQUID
- AMOUNT IN USE: 15 GALLONS
- SPECIFIC GRAVITY: 1.225
- TOXICOLOGICAL INFORMATION:
  - (CALCULATED MIX VALUES FROM MSDS):
    - LD50 (ORAL, RAT): 388 mg/kg
    - LD50 (DERMAL, RAT): 375 mg/kg
    - LC50 (INHALE, RAT): 3.76 mg/L = 585 ppm
- CLASSIFICATION: TOXIC
- LIMIT (PER IBC TABLE 307.1(2)): 500 POUNDS = 48.9 GALLONS*

KEY NOTES

1. SINGLE EXIT REQUIRED FOR MEZZANINE. EGRESS DISTANCE FROM FURTHEST CORNER TO BOTTOM OF STAIRS IS 76' (<100' CODE LIMIT, 1.3 CODE OCCUPANT LOAD)
2. SINGLE EXIT REQUIRED FOR MEZZANINE. EGRESS DISTANCE FROM FURTHEST CORNER TO BOTTOM OF STAIRS IS 74' (<100' CODE LIMIT, 1.0 CODE OCCUPANT LOAD)
3. MEZZANINE LOAD CAPACITY (PSF - SEE STRUCTURAL) SIGNAGE



OVERALL MEZZANINE PLAN (STRUCTURE 20) AND LIFE SAFETY PLAN

1/8" = 1'-0" (22" x 34")
1/16" = 1'-0" (11" x 17")
0 4 8 16

No	DATE	REVISIONS	BY
1	8/19/2025	PLAN REVIEW COMMENTS	CWW

PROJECT DATE: AUG 5, 2024
DRAWN BY: JBR
DESIGNED BY: JBR
CHECKED BY: CWW

MSA
ENGINEERING | ARCHITECTURE | SURVEYING
FUNDING | PLANNING | ENVIRONMENTAL
400 ICE HARBOR DR, STE 110, DUBUQUE IA 52001
(563) 582-3973 www.msa-ps.com

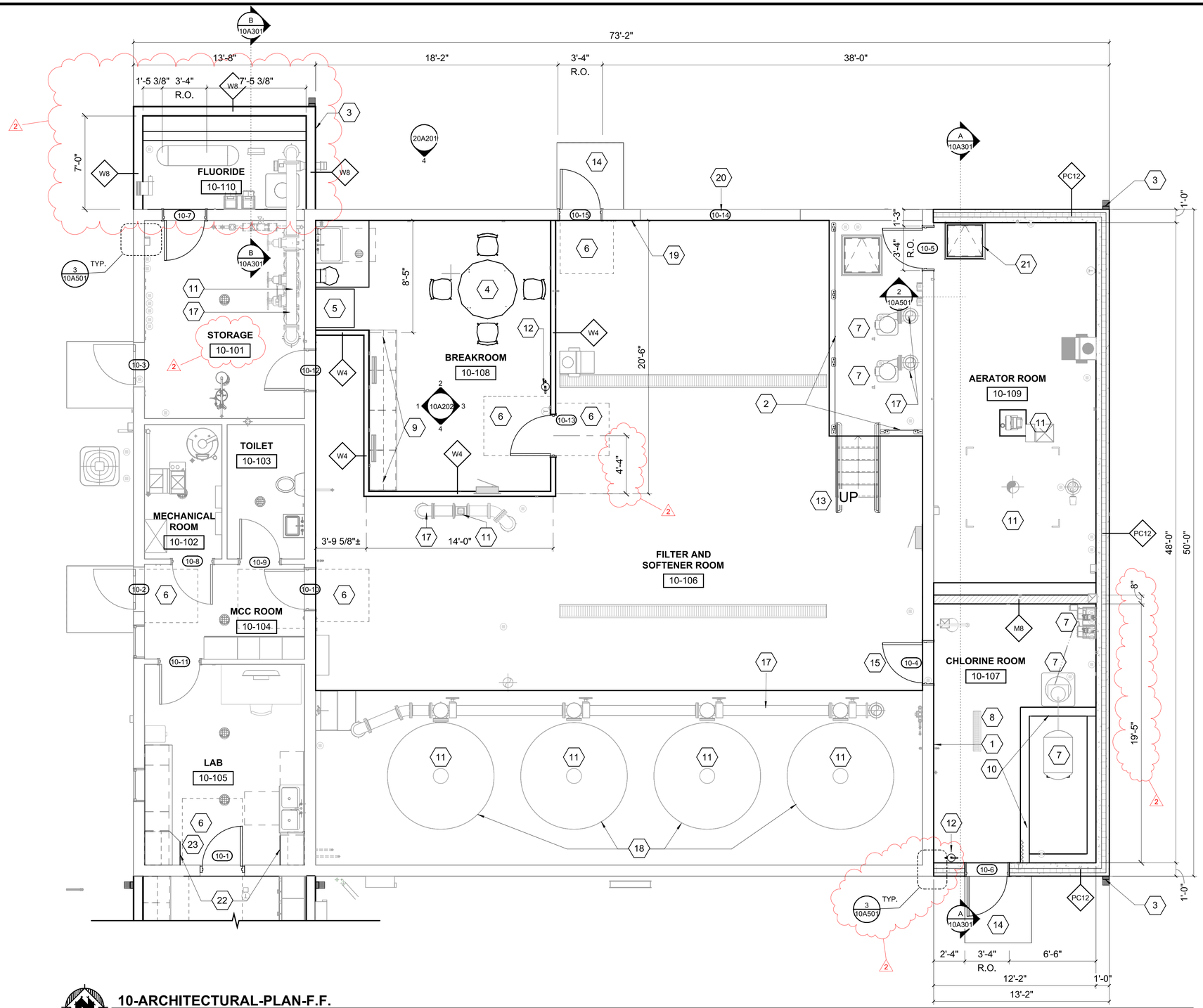
© MSA Professional Services, Inc.

WATER TREATMENT FACILITY UPGRADE
CITY OF TIFFIN
JOHNSON COUNTY, IA

OVERALL FACILITY - STR 10 AND STR 20 MEZZANINE LIFE SAFETY PLAN / CODE INFORMATION

PROJECT NO. 13603016
SHEET 10A101

PLOT DATE: 8/20/2025 9:15:49 AM Autodesk Docs://13603016 - TIFFIN IA WTP - ACC/13603016_ TIFFIN WTP_SAP.rvt

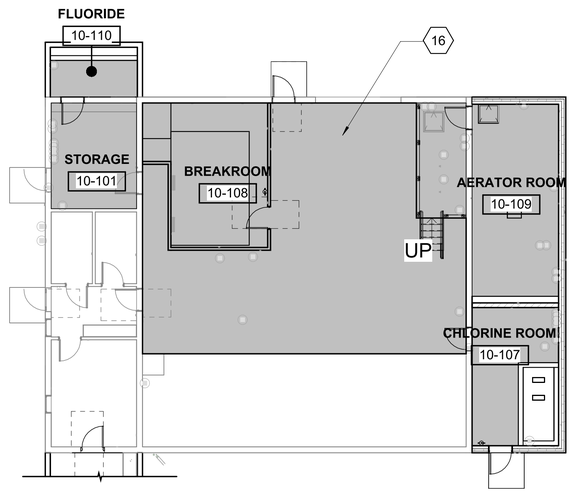


KEY NOTES

1. REMOVE EXISTING STEEL FACE AND REPLACE WITH GYPSUM BOARD & FRP SURFACE LAMINATED TO PLYWOOD.
2. ALUMINUM GUARD RAIL - SEE DETAIL 8/99A504
3. DOWNSPOUT LOCATION, CONNECT INTO STORM DRAIN - SEE YARD PIPING PLAN
4. TABLE AND CHAIRS BY OWNER (NIC)
5. DEDICATED SPACE FOR REFRIGERATOR (NIC)
6. DASHED LINE INDICATES ADA REQUIRED CLEAR AREA, FOR GRAPHIC PURPOSES ONLY - TYP.
7. PROCESS MECHANICAL EQUIPMENT OR PIPE, TYP - SEE PROCESS
8. TRENCH DRAIN - SEE PLUMBING
9. COUNTER W/ CABINETS BELOW AND WALL HUNG CABINETS - SEE INTERIOR ELEVATIONS
10. SECONDARY CONTAINMENT AREA FOR CHEMICAL
11. EXISTING PROCESS MECHANICAL EQUIPMENT OR PIPE, TYP - SEE PROCESS
12. FIRE EXTINGUISHER w/ WALL BRACKET. MOUNT TOP AT MAX 48" AFF.
13. ALUMINUM STAIRS AND GUARDRAIL - SEE DETAIL 4/99A502
14. CONCRETE STOOP - SEE FOUNDATION PLAN
15. REUSE EXISTING DOOR. TAKE DOOR OUT OF OPENING AND ROTATE 180-DEGREES. REMOVE LOCKSET AND ADD PANIC DEVICE. CHANGE OUT THRESHOLD AND REPLACE WEATHERSTRIPPING. REPLACE DOOR CLOSER.
16. APPLY EPOXY COATING TO SHADED AREAS AS INDICATED
17. EPOXY COAT ALL EXISTING PIPING, VALVES, AND FITTINGS THAT ARE TO REMAIN
18. EPOXY COAT EXISTING FILTERS
19. EPOXY FLOOR LIMITS (GRAPHICAL - TYP.)
20. SECTIONAL OVERHEAD DOOR TO BE REPLACED. OPERATOR AND TRACK SYSTEM TO REMAIN AS-IS
21. 2'-3" x 2'-6" STAINLESS STEEL ACCESS HATCH WITH BOLT IN FRAME
22. SALVAGE AND RE-USE EPOXY COUNTERTOP AS END PANELS FOR MILLWORK CLOSURE PANELS
23. PROVIDE MINIMUM 18" CLEAR FROM FINISHED CASEWORK TO DOOR OPENING.

10-ARCHITECTURAL-PLAN-F.F.

1/4" = 1'-0" (22" x 34") 0 2 4 8
1/8" = 1'-0" (11" x 17")



EPOXY FLOORING PLAN

NONE

PROJECT DATE:	AUG 5, 2024	DRAWN BY:	JBR
		DESIGNED BY:	JBR
		CHECKED BY:	CWW

No	DATE	REVISIONS	BY
1	3/27/25	ADDENDUM #1	EC
2	8/19/2025	PLAN REVIEW COMMENTS	CWW

MSA
ENGINEERING | ARCHITECTURE | SURVEYING
FUNDING | PLANNING | ENVIRONMENTAL
400 ICE HARBOR DR, STE 110, DUBUQUE IA 52001
(563) 582-3973 www.msa-ps.com
© MSA Professional Services, Inc.

WATER TREATMENT FACILITY UPGRADE
CITY OF TIFFIN
JOHNSON COUNTY, IA

EXISTING WTP
PROPOSED FLOOR PLAN

PROJECT NO. 13603016
SHEET 10A102

PLOT DATE: 8/20/2025 9:16:43 AM Autodesk Docs://13603016 - TIFFIN IA WTP - ACC/13603016_TIFFIN_WTP_SAP.rvt

KEY NOTES

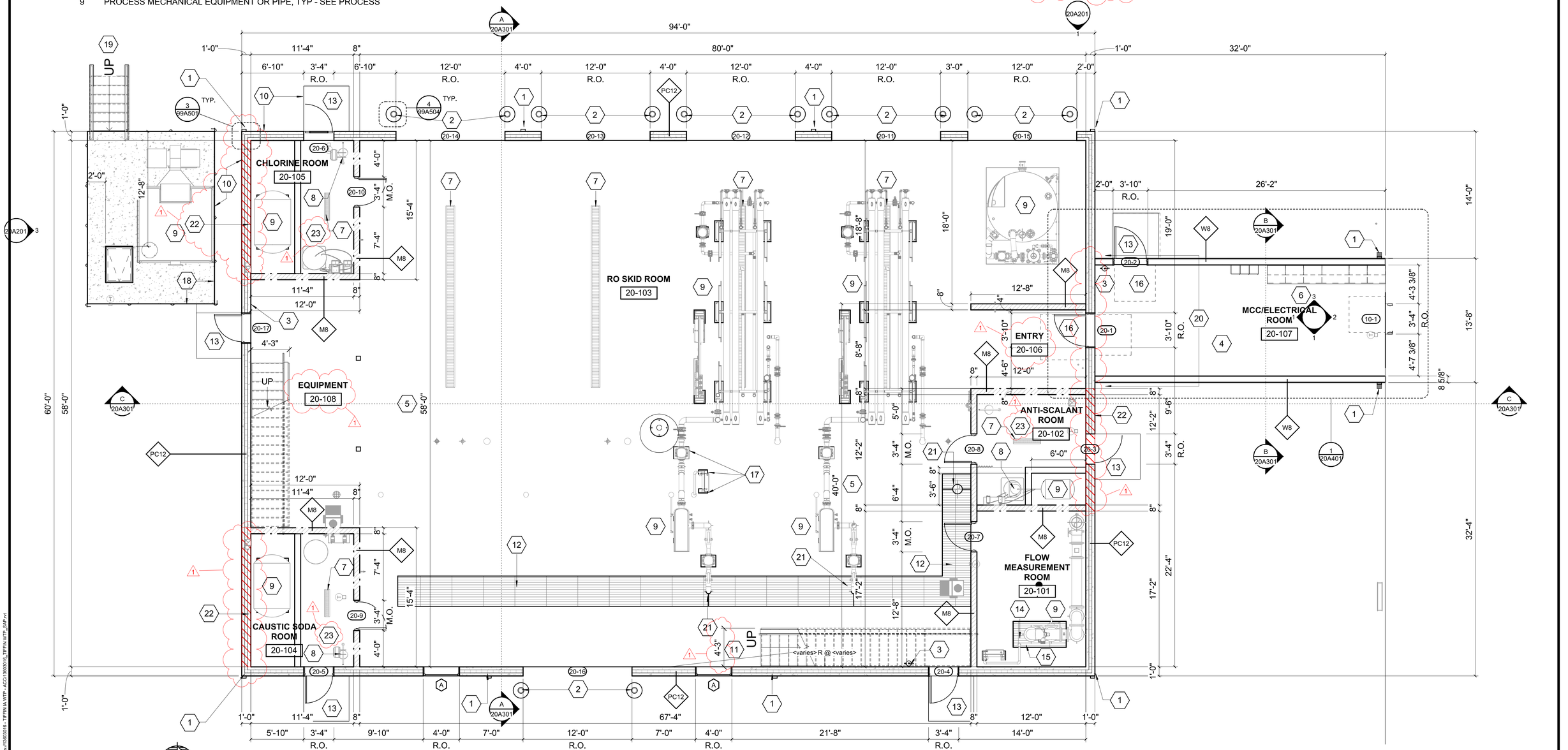
1 DOWNSPOUT LOCATION, CONNECT INTO STORM DRAIN - SEE YARD PIPING PLAN
2 PAINTED PIPE BOLLARD - DETAIL 5/99S504
3 FIRE EXTINGUISHER w/ WALL BRACKET. MOUNT TOP AT MAX 48" AFF.
4 MOTOR CONTROL CENTER - SEE ELECTRICAL
5 MEZZANINE ABOVE THIS AREA
6 COUNTER W/ CABINETS BELOW AND WALL HUNG CABINETS - SEE INTERIOR ELEVATIONS
7 TRENCH DRAIN - SEE PLUMBING
8 EMERGENCY SAFETY STATION (EYE/FACE WASH AND DRENCH SHOWER) -SEE PLUMBING
9 PROCESS MECHANICAL EQUIPMENT OR PIPE, TYP - SEE PROCESS

KEY NOTES

10 1/2" EXPANSION JOINT MATERIALS w/ REMOVABLE CAP AND SELF-LEVELING SEALANT BETWEEN SIDEWALK, BUILDING AND STOOP FOUNDATION, TYP
11 WOOD FRAMED STAIRS W/ GUARDRAIL AND HANDRAIL. SEE DETAIL 1/99A501
12 HD PULTRUDED FIBERGLASS GRATING OVER PIPE GALLERY
13 CONCRETE STOOP - SEE FOUNDATION PLAN
14 SUMP LOCATION - SEE STRUCTURAL
15 FIBERGLASS GRATING OVER PIPE GALLERY

KEY NOTES

16 DASHED LINE INDICATES ADA REQUIRED CLEAR AREA, FOR GRAPHIC PURPOSES ONLY - TYP.
17 PROCESS EQUIPMENT PAD, TYP. - SEE STRUCTURAL
18 ALUMINUM GUARD RAIL - SEE DETAIL
19 ALUMINUM STAIRS AND GUARDRAIL - SEE DETAIL
20 PRECAST EXTERIOR FACE TO HAVE SMOOTH FINISH 6" PAST EXTERIOR WALLS AND 3" ABOVE REGLET FLASHING ABOVE ROOFLINE IN THIS AREA
21 PROVIDE SPLIT GRATING AT PIPE PENETRATIONS FOR REMOVAL PURPOSES
22 SHADED AREA OF PRECAST TO HAVE 1-HOUR FIRE RATING
23 1-HOUR RATED ROOM



20-ARCHITECTURAL-PLAN-F.F.

3/16" = 1'-0" (22" x 34")
3/32" = 1'-0" (11" x 17")
0 2 4 8 12

PROJECT DATE:	AUG 5, 2024	DRAWN BY:	JBR
		DESIGNED BY:	JBR
		CHECKED BY:	CWW

No	DATE	REVISIONS	BY
1	8/19/2025	PLAN REVIEW COMMENTS	CWW

MSA
ENGINEERING | ARCHITECTURE | SURVEYING
FUNDING | PLANNING | ENVIRONMENTAL
400 ICE HARBOR DR, STE 110, DUBUQUE IA 52001
(563) 582-3973 www.msa-ps.com

© MSA Professional Services, Inc.

WATER TREATMENT FACILITY UPGRADE
CITY OF TIFFIN
JOHNSON COUNTY, IA

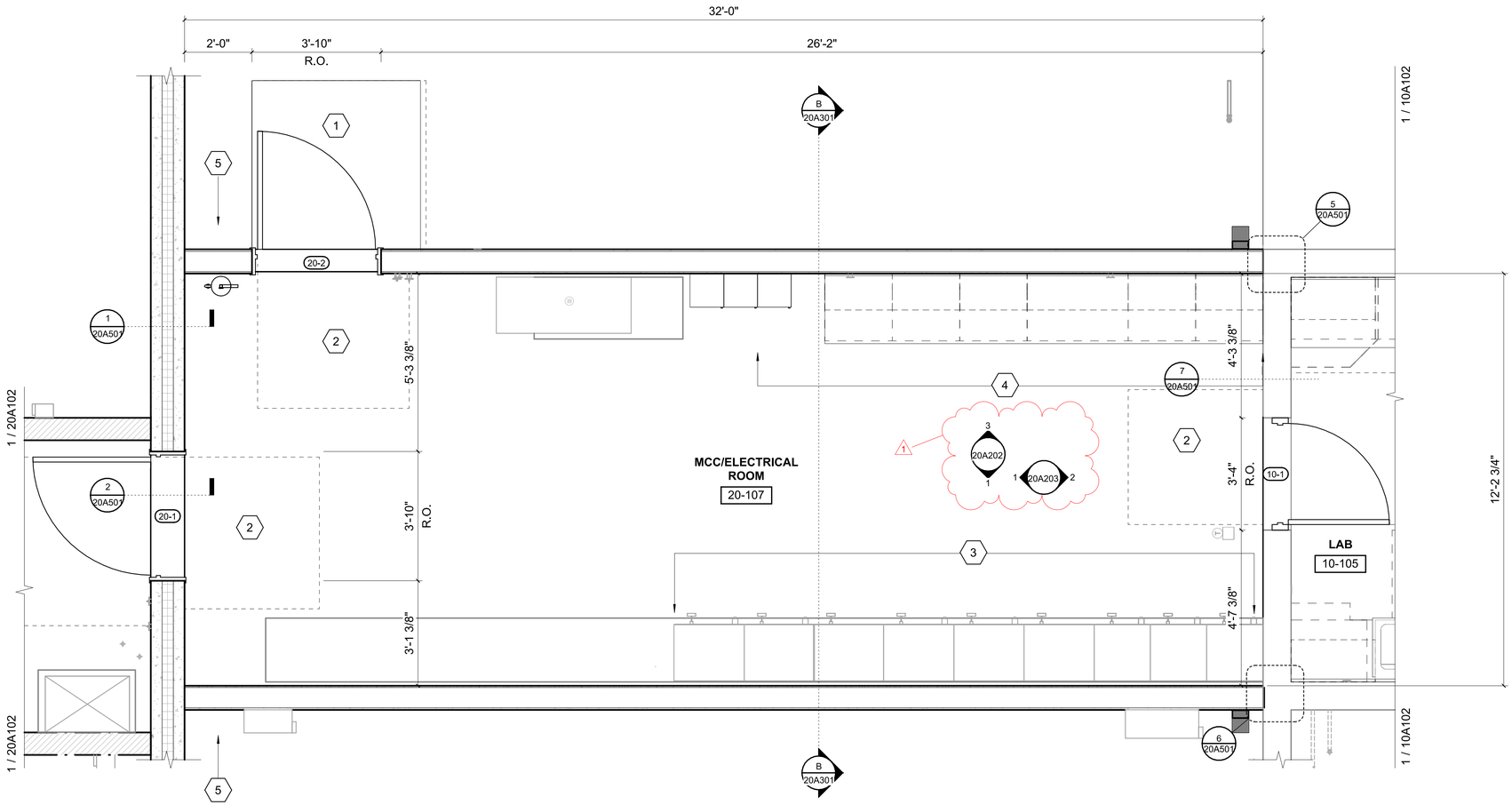
RO BUILDING ARCHITECTURAL FLOOR PLAN

PROJECT NO. 13603016
SHEET 20A101

PLOT DATE: 8/20/2025 9:15:51 AM Autodesk Docs://13603016 - TIFFIN IA WTP - ACC/13603016_TIFFIN WTP_SAP.rvt

KEY NOTES - PROPOSED

1. CODE REQUIRED ACCESSIBLE EXIT - (2) REQUIRED FOR THIS AREA (THEY ARE SEPARATED BY MORE THAN 1/2 THE DIAGONAL DISTANCE OF THE SPACE). PROVIDE ILLUMINATED EXIT SIGN ABOVE DOOR AND TACTILE SIGN ON WALL ADJACENT TO LATCH.
2. NOT A CODE REQUIRED EXIT
3. CODE REQUIRED SINGLE EXIT FOR THIS SPACE, NON-ACCESSIBLE EXIT (SPACE IS "MECHANICAL" EQUIPMENT AND IS NOT REQUIRED TO BE ACCESSIBLE)
4. CODE REQUIRED ACCESSIBLE EXIT - A SINGLE EXIT IS REQUIRED FOR EXISTING BUILDING (EXCEPT LAB AND CHLORINE ROOM). COMMON PATH OF TRAVEL < 75' AND OCCUPANT LOAD IS < 30.
5. CODE REQUIRED SINGLE EXIT FOR MCC, MECHANICAL, AND TOILET ROOMS



20-ARCHITECTURAL-ENLARGED VIEW-MCC/ELECTRICAL ROOM

1/2" = 1'-0" (22" x 34")
1/4" = 1'-0" (11" x 17")
0 1 2 4

PROJECT DATE:	AUG 5, 2024	DRAWN BY:	JBR	No	DATE	REVISIONS	BY
		DESIGNED BY:	JBR	1	8/19/2025	PLAN REVIEW COMMENTS	CWW
		CHECKED BY:	CWW				

MSA
ENGINEERING | ARCHITECTURE | SURVEYING
FUNDING | PLANNING | ENVIRONMENTAL
400 ICE HARBOR DR, STE 110, DUBUQUE IA 52001
(563) 582-3973 www.msa-ps.com

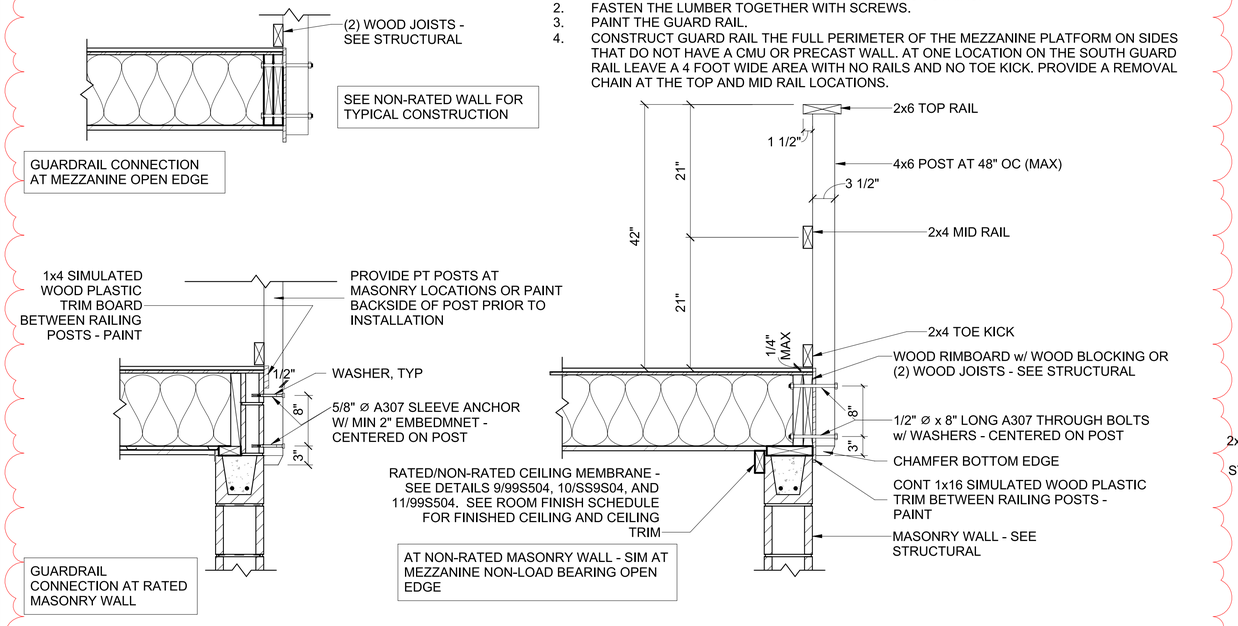
© MSA Professional Services, Inc.

WATER TREATMENT FACILITY UPGRADE
CITY OF TIFFIN
JOHNSON COUNTY, IA

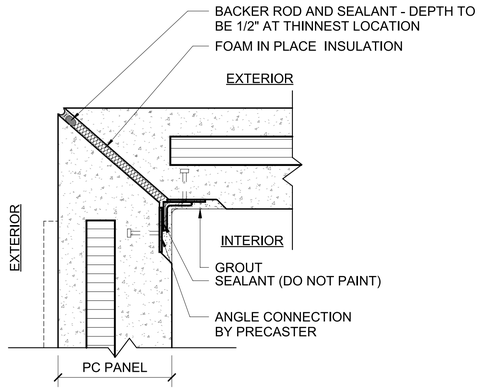
RO BUILDING
ARCHITECTURAL ENLARGED VIEWS

PROJECT NO. 13603016
SHEET 20A401

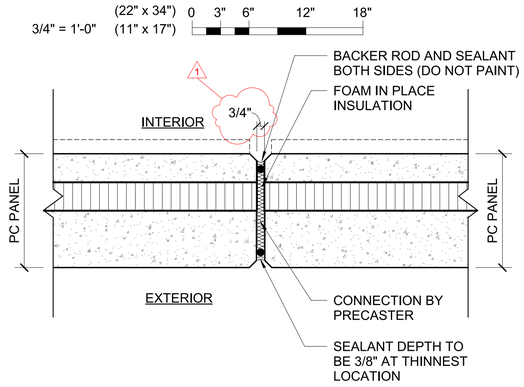
PLOT DATE: 8/20/2025 9:15:52 AM Autodesk Docs://13603016 - TIFFIN IA WTP - ACC/13603016_TIFFIN WTP_SAP.rvt



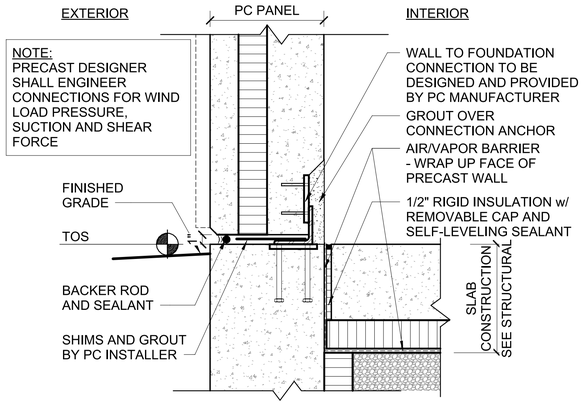
1 99A501 **MEZZANINE GUARDRAIL AND STAIR DETAILS**
NOT TO SCALE



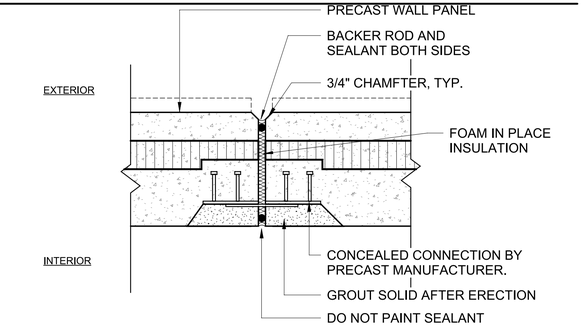
3 99A501 **TYPICAL PC WALL PANEL CORNER JOINT DETAIL**
1 1/2" = 1'-0" (22" x 34") 0 3" 6" 12" 18"
3/4" = 1'-0" (11" x 17")



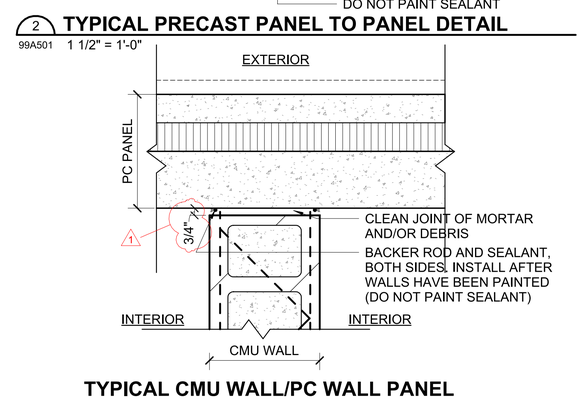
4 99A501 **TYPICAL PC WALL PANEL JOINT DETAIL**
1 1/2" = 1'-0" (22" x 34") 0 3" 6" 12" 18"
3/4" = 1'-0" (11" x 17")



5 99A501 **TYPICAL BASE OF EXTERIOR PC WALL DETAIL**
1 1/2" = 1'-0" (22" x 34") 0 3" 6" 12" 18"
3/4" = 1'-0" (11" x 17")



2 99A501 **TYPICAL PRECAST PANEL TO PANEL DETAIL**
1 1/2" = 1'-0"



6 99A501 **TYPICAL CMU WALL/PC WALL PANEL INTERSECTION CONTROL JOINT (CJ) DETAIL**
1 1/2" = 1'-0" (22" x 34") 0 3" 6" 12" 18"
3/4" = 1'-0" (11" x 17")

PLOT DATE: 8/20/2025 9:15:02 AM J:\Architect Docs\13603016 - TIFFIN IA WTP - ACC\13603016_TIFFIN WTP_SAP.rvt

PROJECT DATE:	AUG 5, 2024
DRAWN BY:	JBR
DESIGNED BY:	ECA
CHECKED BY:	CWW

No	DATE	REVISIONS	BY
1	8/19/2025	PLAN REVIEW COMMENTS	CWW

MSA
ENGINEERING | ARCHITECTURE | SURVEYING
FUNDING | PLANNING | ENVIRONMENTAL
400 ICE HARBOR DR, STE 110, DUBUQUE IA 52001
(563) 582-3973 www.msa-ps.com
© MSA Professional Services, Inc.

WATER TREATMENT FACILITY UPGRADE
CITY OF TIFFIN
JOHNSON COUNTY, IA

TYPICAL DETAILS AND SCHEDULE
TYPICAL ARCHITECTURAL DETAILS

PROJECT NO. 13603016
SHEET 99A501

DOOR SCHEDULE

REMARKS

1. UNDERCUT DOOR 3/4 INCH
2. SET THRESHOLD IN A BEAD OF SEALANT.
3. TRACK AND HARDWARE SUPPLIED BY DOOR MANUFACTURER.
4. OH DOOR SIZE SCHEDULED IS OPENING SIZE. ACTUAL OH DOOR SIZE SHALL BE 2" WIDER AND 1" TALLER.
5. HS: POWDER COAT NOT REQUIRED ON PANIC DEVICE.
6. INSTALL WARNING SIGN TO EXTERIOR OF DOOR (OUTSIDE OF ROOM) AFTER PAINTING IS COMPLETE
7. HS FURNISH CLOSER w/ SRI PRIMER AND POWDER COAT FINISH.

OPENING No	DOOR TYPE	DOOR MAT'L	NOMINAL SIZE WIDTH	NOMINAL SIZE HEIGHT	NOMINAL SIZE THICKNESS	FRAME TYPE	FRAME MAT'L	DETAILS HEAD	DETAILS JAMB	DETAILS SILL	HW SET	GLASS TYPE	FIRE RATING	REMARKS	FROM ROOM	TO ROOM
10 EXISTING WTP																
10-1	A	H.M.	3' - 0"	7' - 0"	1 3/4"	F-2	H.M.				HS#5	-	-		10-105-LAB	20-107 ELECTRICAL ROOM
10-4	B	H.M.	3' - 0"	7' - 0"	1 3/4"	F-1	H.M.				HS#7	A	-	6.	10-107 CHLORINE ROOM	10-107-CHLORINE ROOM
10-5	B	H.M.	3' - 0"	7' - 0"	1 3/4"	F-1	H.M.				HS#5	A	-		10-109-AERATOR ROOM	10-106 FILTER/SOFTENER
10-6	B	H.M.	3' - 0"	7' - 0"	1 3/4"	F-1	H.M.	1/99A503	5/99A503	8/99S501	HS#2	A	-	1.6.7	10-107-CHLORINE ROOM	EXTERIOR
10-7	B	H.M.	3' - 0"	7' - 0"	1 3/4"	F-1	H.M.				HS#3	A	-	6.	10-101-STORAGE	10-110-FLUORIDE
10-13	A	H.M.	3' - 0"	7' - 0"	1 3/4"	F-1	H.M.				HS#6	2	-		10-108-BREAKROOM	10-106 FILTER/SOFTENER
10-14	D	STEEL	12' - 0"	10' - 0"			STEEL					-	-	3.4	10-106 FILTER/SOFTENER	EXTERIOR
10-15	B	H.M.	3' - 0"	7' - 0"	1 3/4"	F-1	H.M.				HS#1	A	-		10-106 FILTER/SOFTENER	EXTERIOR
20 RO BUILDING																
20-1	A	H.M.	3' - 6"	7' - 0"	1 3/4"	F-1	H.M.	1/99A503	5/99A503	8/99S501	HS#5	-			20-107 ELECTRIC ROOM	20-106-ENTRY
20-2	B	H.M.	3' - 6"	7' - 0"	1 3/4"	F-1	H.M.				HS#2	A	-	1.5	20-107 ELECTRIC ROOM	EXTERIOR
20-3	B	H.M.	3' - 0"	7' - 0"	1 3/4"	F-1	H.M.	1/99A503	5/99A503	8/99S501	HS#2	A	-	1. 6. 7.	20-102-ANTI-SCALANT ROOM	EXTERIOR
20-4	B	H.M.	3' - 0"	7' - 0"	1 3/4"	F-1	H.M.				HS#1	A	-	1	20-103-RO SKID ROOM	EXTERIOR
20-5	B	H.M.	3' - 0"	7' - 0"	1 3/4"	F-1	H.M.	1/99A503	5/99A503	8/99S501	HS#2	A	-	1. 6. 7.	20-104-CAUSTIC SODA ROOM	EXTERIOR
20-6	B	H.M.	3' - 0"	7' - 0"	1 3/4"	F-1	H.M.	1/99A503	5/99A503	8/99S501	HS#2	A	-	1. 7.	20-105 CHLORINE ROOM	20-105-CHLORINE ROOM
20-7	A	H.M.	3' - 0"	7' - 0"	1 3/4"	F-1	H.M.	3/99A503	7/99A503		HS#5	-	-		20-103-RO SKID ROOM	20-101-FLOW MEASUREMENT ROOM
20-8	A	H.M.	3' - 0"	7' - 0"	1 3/4"	F-1	H.M.	3/99A503	7/99A503		HS#4	-	1-HOUR	6. 7.	20-103-RO SKID ROOM	20-102-ANTI-SCALANT ROOM
20-9	A	H.M.	3' - 0"	7' - 0"	1 3/4"	F-1	H.M.	3/99A503	7/99A503		HS#4	-	1-HOUR	6. 7.	20-104-CAUSTIC SODA ROOM	20-103-RO SKID ROOM
20-10	A	H.M.	3' - 0"	7' - 0"	1 3/4"	F-1	H.M.	2/99A503	7/99A503		HS#4	-	1-HOUR	6. 7.	20-105-CHLORINE ROOM	20-103-RO SKID ROOM
20-11	D	STEEL	12' - 0"	12' - 0"		-	STEEL	2/99A503	6/99A503	7/99S501		-	-	3. 4.	20-103 RO SKID ROOM	EXTERIOR
20-12	D	STEEL	12' - 0"	12' - 0"		-	STEEL	2/99A503	6/99A503	7/99S501		-	-	3. 4.	20-103 RO SKID ROOM	EXTERIOR
20-13	D	STEEL	12' - 0"	12' - 0"		-	STEEL	2/99A503	6/99A503	7/99S501		-	-	3. 4.	20-103 RO SKID ROOM	EXTERIOR
20-14	D	STEEL	12' - 0"	12' - 0"		-	STEEL	2/99A503	6/99A503	7/99S501		-	-	3. 4.	20-103 RO SKID ROOM	EXTERIOR
20-15	D	STEEL	12' - 0"	12' - 0"		-	STEEL	2/99A503	6/99A503	7/99S501		-	-	3. 4.	20-103 RO SKID ROOM	EXTERIOR
20-16	D	STEEL	12' - 0"	12' - 0"		-	STEEL	2/99A503	6/99A503	7/99S501		-	-	3. 4.	20-103 RO SKID ROOM	EXTERIOR
20-17	B	H.M.	3' - 0"	7' - 0"	1 3/4"	F-1	H.M.	1/99A503	5/99A503	8/99S501	HS#1	A	-		20-108-EQUIPMENT	EXTERIOR
30 HIGH SERVICE PUMPS & CLEARWELL																
30-1	B	H.M.	3' - 0"	7' - 0"	1 3/4"	F-1	H.M.	1/99A503	5/99A503	8/99S501	HS#1	A	-		30-101-PUMP ROOM	EXTERIOR
30-2	B	H.M.	3' - 0"	7' - 0"	1 3/4"	F-1	H.M.	1/99A503	5/99A503	8/99S501	HS#1	A	-		30-101-PUMP ROOM	30-101-PUMP ROOM

ROOM FINISH SCHEDULE

GENERAL NOTES
A. PAINT ALL EXPOSED PIPES, CONDUIT, DUCTWORK, ETC.

REMARKS

1. EXISTING ROOM. ONLY CHANGES ARE AS NOTED IN SCHEDULE.
2. 1-HOUR RATED INTERIOR CONSTRUCTION
3. 1-HOUR RATED CEILING CONSTRUCTION - SEE DETAILS 9/99S504 AND 9910/S504
4. 1-HOUR RATED EXTERIOR WALL CONSTRUCTION
5. PROVIDE 1X2 SIMULATED WOOD TRIM AT CEILING PERIMETER - PAINT.

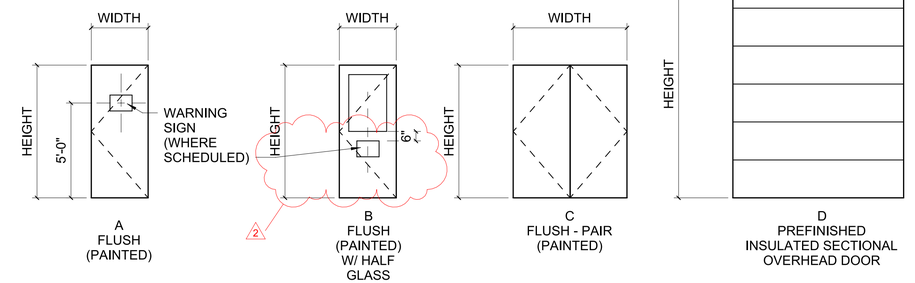
LEGEND

-FLOOR-
CS: CONCRETE - STEEL TROWELED SMOOTH FINISH - CURE AND SEAL
EF: CONCRETE - STEEL TROWELED SMOOTH FINISH AT NEW FLOORS - EPOXY FLOORING
G: ALUMINUM GRATING
FG: FIBERGLASS GRATING
PLY: PLYWOOD - PAINT
-BASE-
-: NONE
VB: 4" HIGH VINYL

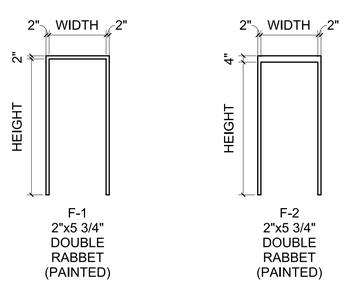
-WALLS-
PT: PRECAST CONCRETE OR CMU - PAINT (PROVIDE BLOCK FILLER)
GB: 5/8" GYPSUM BOARD PAINTED WITH ORANGE PEEL TEXTURE
CMU: CONCRETE MASONRY UNIT - PAINT (PROVIDE BLOCK FILLER)
GB/FRP: SURFACE LAMINATED TO PLYWOOD OVER 5/8" GYPSUM BOARD
-CEILINGS-
PT: PRECAST CONCRETE - EPOXY PAINT (PROVIDE BLOCK FILLER)
GB: 5/8" GYPSUM BOARD PAINTED WITH ORANGE PEEL TEXTURE
GB/FRP: FRP LAMINATED TO PLYWOOD AND PLASTIC TRIM OVER 5/8" GYPSUM BOARD
FRP: FRP LAMINATED TO PLYWOOD AND PLASTIC TRIM

ROOM No.	ROOM NAME	FLOOR	BASE	WALL NORTH	WALL EAST	WALL SOUTH	WALL WEST	CEILING MAT'L	CEILING HEIGHT	REMARKS
10 EXISTING WTP										
10-101	STORAGE	EF								1.
10-102	MECHANICAL ROOM									
10-103	TOILET									
10-104	MCC ROOM									
10-105	LAB									
10-106	FILTER & SOFTENER ROOM	EF								1.
10-107	CHLORINE ROOM	EF	NONE	CMU				GB/FRP	VARIES	
10-108	BREAKROOM	EF	VB	GB	GB	GB	GB	GB	SEE PLAN	
10-109	AERATOR ROOM	EF	NONE	PT	GB/FRP	GB/FRP	GB/FRP	GB/FRP	VARIES	
10-110	FLUORIDE	EF	NONE	GB/FRP	GB/FRP	GB/FRP	GB/FRP	GB/FRP	SEE PLAN	
20 RO BUILDING										
20-101	FLOW MEASUREMENT ROOM	EF	NONE	PT	PT	CMU	CMU	FRP	SEE PLAN	5.
20-102	ANTI-SCALANT ROOM	EF	NONE	PT	CMU	CMU	CMU	GB/FRP	SEE PLAN	2.3.4
20-103	RO SKID ROOM	EF	NONE	PT/CMU	PT	PT/CMU	PT	PT	SEE PLAN	
20-103	RO SKID ROOM	EF	NONE	CMU	PT	PT/CMU	PT	PT	SEE PLAN	
20-104	CAUSTIC SODA ROOM	EF	NONE	CMU	CMU	PT	PT	GB/FRP	SEE PLAN	2.3.4
20-105	CHLORINE ROOM	EF	NONE	CMU	PT	PT	CMU	GB/FRP	SEE PLAN	2.3.4
20-106	ENTRY	EF	NONE		CMU	PT	CMU	GB	SEE PLAN	5
20-107	MCC/ELECTRICAL ROOM	EF	NONE	GB	GB	GB	GB	GB	SEE PLAN	
20-108	EQUIPMENT	EF	NONE	PT	CMU		CMU	GB	SEE PLAN	5
20-201	MEZZANINE	PLY	NONE		PT	PT	PT	PT	SEE PLAN	
20-202	MEZZANINE	PLY	NONE	PT	PT			PT	SEE PLAN	
30 HIGH SERVICE PUMPS & CLEARWELL										
30-101	PUMP ROOM	EF	NONE	PT	PT	PT	PT	FRP	SEE PLAN	

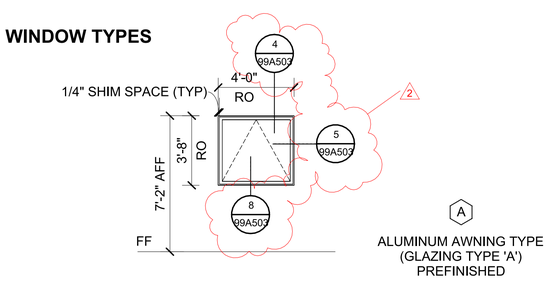
DOOR TYPES



FRAME TYPES



WINDOW TYPES



PROJECT DATE:	AUG 5, 2024
DRAWN BY:	JBR
DESIGNED BY:	JBR
CHECKED BY:	CWW

No	DATE	REVISIONS	BY
1	3/27/25	ADDENDUM #1	EC
2	8/19/2025	PLAN REVIEW COMMENTS	CWW

MSA
ENGINEERING | ARCHITECTURE | SURVEYING
FUNDING | PLANNING | ENVIRONMENTAL
400 ICE HARBOR DR, STE 110, DUBUQUE IA 52001
(563) 582-3973 www.msa-ps.com

© MSA Professional Services, Inc.

WATER TREATMENT FACILITY UPGRADE
CITY OF TIFFIN
JOHNSON COUNTY, IA

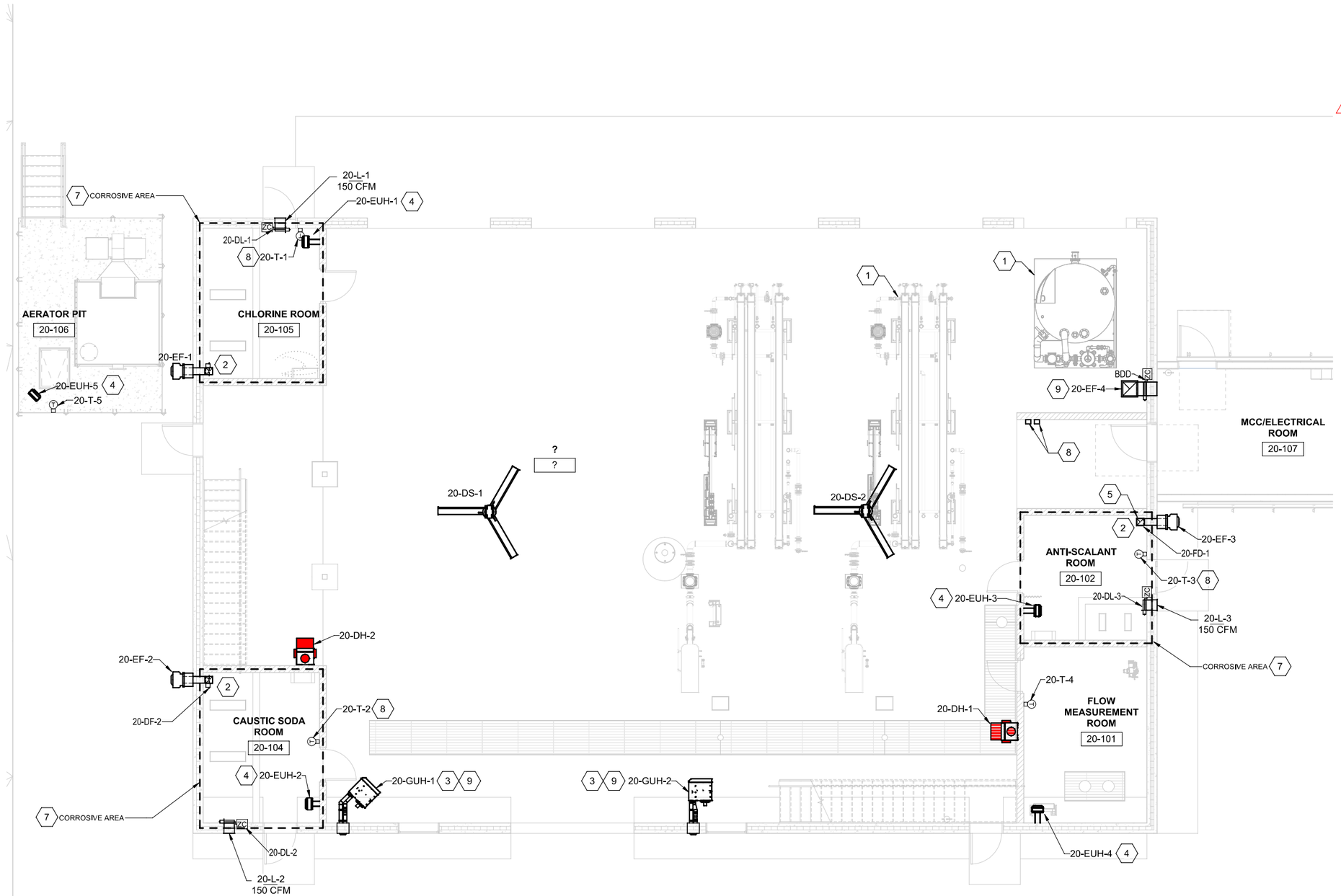
TYPICAL DETAILS AND SCHEDULE
ARCHITECTURAL SCHEDULES

PROJECT NO. 13603016
SHEET 99A601

PLOT DATE: 8/20/2025 9:15:53 AM Autodesk Docs://13603016 - TIFFIN IA WTP - ACC/13603016_TIFFIN WTP_SAP.rvt

KEY NOTES (#)

1. PROCESS EQUIPMENT/PIPING, TYP - SEE PROCESS MECHANICAL.
2. ROUTE DUCT DOWN TO 12-INCHES AFF. TERMINATE WITH ALUMINUM SCREEN. RUN DUCT TIGHT ALONG WALL AND CEILING.
3. RUN COMBUSTION AIR AND FLUE VENT PIPING AS SHOWN. PROVIDE CONCENTRIC VENT KIT AS CLOSE TO EXTERIOR WALL AS POSSIBLE. RUN SINGLE VENT THROUGH WALL AND TERMINATE PER MFR INSTRUCTIONS. PROVIDE WEATHER AND VAPOR TIGHT SEAL AT WALL PENETRATION. ROUTE AS HIGH AS POSSIBLE.
4. BOTTOM OF ELECTRIC UNIT HEATER SHALL BE MOUNTED 8'-0" A.F.F.
5. PROVIDE FIRE DAMPER AND FIRESTOPPING AT CEILING PENETRATION.
6. CONNECT GAS TO NEW HVAC EQUIPMENT. PROVIDE DIRT LEG, SHUTOFF VALVE, AND REGULATOR. REGULATE DOWN TO MANUFACTURER RECOMMENDED OPERATING PRESSURE.
7. ALL EQUIPMENT, ACCESSORIES, AND WORK IN THIS AREA SHALL BE SUITABLE FOR A CORROSIVE (NEMA 4X) ENVIRONMENT.
8. INSTALL CONTROL DEVICE AT 3'-6" AFF.
9. ROUTE EXHAUST DUCTWORK FROM MCC/ELECTRICAL ROOM WITH SCREEN INTO RO SKID ROOM. ELBOW UP AND CONNECT TO FAN. SUPPORT FAN FROM WALL. TERMINATE FAN WITH 6-INCHES OF DUCTWORK AND SCREEN.



20-HVAC PLAN

3/16" = 1'-0"(22" x 34")
3/32" = 1'-0" (11" x 17")
0 2 4 8 12

PROJECT DATE:	AUG 5, 2024	DRAWN BY:	RJS	No	DATE	REVISIONS / BY
		DESIGNED BY:	AVE	2	8/19/2025	PLAN REVIEW COMMENTS / CWW
		CHECKED BY:	AVE			

PLOT DATE: 8/20/2025 1:46:17 PM J:\Projects\Docs\13603016 - TIFFIN IA WTP - ACC\13603016_TIFFIN WTP_HVAC.rvt

MSA
ENGINEERING | ARCHITECTURE | SURVEYING
FUNDING | PLANNING | ENVIRONMENTAL
400 ICE HARBOR DR, STE 110, DUBUQUE IA 52001
(563) 582-3973 www.msa-ps.com

© MSA Professional Services, Inc.

WATER TREATMENT FACILITY UPGRADE
CITY OF TIFFIN
JOHNSON COUNTY, IA

RO BUILDING HVAC PLAN

PROJECT NO. 13603016
SHEET 20H101

EXHAUST FANS - INLINE (EF)

TAG	SERVICE	VOLUME (CFM)	EXT. S.P. (IN W.G.)	MOTOR			MANUF. MODEL	DUCT CONNECTION SIZE	WEIGHT (LBS)	COMMENTS
				HP	DRIVE	MOUNTING				
10-EF-3	CHEMICAL STORAGE 10-101	60	0.31 in-wg	0.025	DIRECT	SUSPENDED	GREENHECK SQ-60	9"x9"	28	1, 2, 4, 10
20-EF-4	MCC/ELECTRICAL ROOM 20-107	1,000	0.28 in-wg	0.17	DIRECT	SUSPENDED	GREENHECK SQ-120	16"x16"	58	1, 2, 4

SIDEWALL FANS - (EF)

UNIT NO.	SERVICE	CFM OF STD. AIR	EXT. S.P. IN IN. WATER	MOTOR HP	DRIVE	FAN DIA	MOTOR TYPE	MANUF. MODEL
10-EF-1	STILLING WELL ROOM 10-109	335	0.25 in-wg	0.1	DIRECT	0' - 10 7/8"	ECPM	GREENHECK CUE-090-VG
10-EF-2	CHLORINE ROOM 10-107	300	0.25 in-wg	0.07	DIRECT	0' - 8 1/8"	ECPM	GREENHECK CUE-070-VG
20-EF-1	CHLORINE ROOM 20-105	150	0.25 in-wg	0.07	DIRECT	0' - 8 1/8"	ECPM	GREENHECK CUE-070-VG
20-EF-2	CAUSTIC SODA ROOM 20-104	150	0.25 in-wg	0.07	DIRECT	0' - 8 1/8"	ECPM	GREENHECK CUE-070-VG
20-EF-3	ANTI-SCALANT ROOM 20-102	150	0.25 in-wg	0.07	DIRECT	0' - 8 1/8"	ECPM	GREENHECK CUE-070-VG

SPLIT SYSTEM HEAT PUMP UNITS (SS)

TAG	INDOOR UNITS				OUTDOOR UNITS NOM. CAP. TONS	WEIGHT (LBS)	MIN. SEER	OPERATING TEMP.	MANUF. MODEL	COMMENTS
	SERVICE	TYPE	VOLUME (CFM)	COOLING CAP. (BTU)						
20-SS-1	MCC/ELECTRICAL ROOM 20-107	WALL	300	33,000	3	133	15	0-115	CARRIER 37MAHA	1, 2, 4, 5
30-SS-1	PUMP ROOM 30-101	WALL	300	33,000	3	133	15	0-115	CARRIER 37MAHA	1, 2, 4, 5

ELECTRIC UNIT HEATERS (EUH)

UNIT NO.	SERVICE	TYPE	CAP. KW	CAP. MBH	CFM OF STD. AIR	MOTOR HP	MOTOR RPM	SPEED	DIFFUSER	ELEV. ABOVE FIN. FL.	MANUF. MODEL	COMMENTS
10-EUH-1	STILLING WELL ROOM	HORIZ.	8 W	25.6	650 CFM	0.03	1600	1	HORIZ.	8' - 0"	QMARK MUH	1, 2, 9
10-EUH-2	CHLORINE ROOM 10-107	HORIZ.	8 W	25.6	650 CFM	0.03	1600	1	HORIZ.	8' - 0"	QMARK MUH	1, 2, 9
20-EUH-1	CHLORINE ROOM 20-105	HORIZ.	5 W	17	350 CFM	0.01	1600	1	HORIZ.	8' - 0"	QMARK MUH	1, 2, 9
20-EUH-2	CAUSTIC SODA ROOM 20-104	HORIZ.	5 W	17	350 CFM	0.01	1600	1	HORIZ.	8' - 0"	QMARK MUH	1, 2, 9
20-EUH-3	ANTI-SCALANT ROOM 20-102	HORIZ.	5 W	17	350 CFM	0.01	1600	1	HORIZ.	8' - 0"	QMARK MUH	1, 2, 9
20-EUH-4	FLOW MEASUREMENT ROOM 20-101	HORIZ.	3 W	10.2	350 CFM	0.01	1600	1	HORIZ.	8' - 0"	QMARK MUH	1, 2, 9
20-EUH-5	AERATOR PIT 20-106	HORIZ.	3 W	10.2	350 CFM	0.01	1600	1	HORIZ.	8' - 0"	QMARK MUH	1, 2, 9

GRILLE SCHEDULE

TAG	SERVICE	CONNECTION SIZE	AIR PATTERN	MANUF. MODEL	COMMENTS
10-RG-1	RETURN GRILLE	12x12	EGGCRATE	PRICE 80	
10-SG-1	PLAQUE DIFFUSER	12x12	4-WAY	PRICE SPD	

EQUIPMENT ELECTRICAL INFORMATION

DESCRIPTION	MCA	MOTOR HP	VOLTAGE	PHASE	FLA	KW	REMARKS
10-CU-1			208	1			
10-DS-1		0.75	120	1			
10-EF-1		0.10	0	1			
10-EF-2		0.07	120	1			
10-EF-3		0.03	120	1			
10-EUH-1		0.03	480	3		7.5	1, 2, 9
10-EUH-2		0.03	480	3		7.5	1, 2, 9
10-EWH-1			120	1		1.5	
10-F-1		0.50	120	1			
10-IR-1			120	1			EXISTING
10-IR-2			120	1			EXISTING
20-DS-1		0.75	120	1			
20-DS-2		0.75	120	1			
20-EF-1		0.07	120	1			
20-EF-2		0.07	120	1			
20-EF-3		0.07	120	1			
20-EF-4		0.17	120	1			
20-EUH-1		0.01	480	3		5	1, 2, 9
20-EUH-2		0.01	480	3		5	1, 2, 9
20-EUH-3		0.01	480	3		5	1, 2, 9
20-EUH-4		0.01	480	3		3	1, 2, 9
20-EUH-5		0.01	480	3		3	1, 2, 9
20-GUH-1		0.02	120	1			
20-GUH-2		0.02	120	1			
20-SS-1			208	1			
30-SS-1			208	1			
EX FAN		0.00	0	1			

AIR COOLED COMPRESSOR-CONDENSING UNITS

UNIT NO.	COMPRESSOR							CONDENSER						VIBRATION ISOLATORS		DESIGN DIMENSIONS				MANUF. MODEL
	SERVICE	NO. OF COMP.	NOM. CAP. TONS	REF. TYPE	% CAP. STEPS OF REDUCTION	EER	SEER	CFM OF STD. AIR	ENT. AIR TEMP.	NO. OF FANS	FAN TYPE	DRIVE	SUPPORT	TYPE	MIN. STATIC DEFLECT.	LENGTH	WIDTH	HEIGHT	WEIGHT LBS.	
10-CU-1	10-F-1	1	3	R410A	MODULATING	12.5	18	4269 CFM	95 °F	1	PROP.	DIRECT	POLYPAD	SPRING	0' - 1"	2' - 11"	3' - 0"	3' - 8"	350	CARRIER 24VNA-036

DAMPER SCHEDULE (D)

TAG	SERVICE	HEIGHT	WIDTH	MFR. MODEL	ACTUATOR		RUN TIME	BLADE TYPE	FAIL POSITION	END SWITCH	COMMENTS
					ELECTRIC	POWER					
10-DF-1	10-DF-1	8"	8"	TAMCO 9000	BELIMO NFBUP	120	NORMAL	PARALLEL	CLOSED	NO	3, 10
10-DF-2	10-DF-2	8"	8"	TAMCO 9000	BELIMO NFBUP	120	NORMAL	PARALLEL	CLOSED	NO	3, 10
10-DL-1	10-DL-1	18"	18"	TAMCO 9000	BELIMO NFBUP	120	NORMAL	PARALLEL	CLOSED	NO	3, 10
10-DL-2	10-DL-2	16"	16"	TAMCO 9000	BELIMO NFBUP	120	NORMAL	PARALLEL	OPEN	NO	3, 10
20-DF-1	20-DF-1	8"	8"	TAMCO 9000	BELIMO NFBUP	120	NORMAL	PARALLEL	OPEN	NO	3, 10
20-DF-2	20-DF-2	8"	8"	TAMCO 9000	BELIMO NFBUP	120	NORMAL	PARALLEL	OPEN	NO	3, 10
20-DL-1	20-DL-1	12"	12"	TAMCO 9000	BELIMO NFBUP	120	NORMAL	PARALLEL	OPEN	NO	3, 10
20-DL-2	20-DL-2	12"	12"	TAMCO 9000	BELIMO NFBUP	120	NORMAL	PARALLEL	OPEN	NO	3, 10
20-DL-3	20-DL-3	12"	12"	TAMCO 9000	BELIMO NFBUP	120	NORMAL	PARALLEL	OPEN	NO	3, 10
20-FD-1	20-FD-1			GREENHECK FD-150	NONE	NONE	NONE	N/A	CLOSED	NO	
20-FD-2	BDD	16"	16"	TAMCO 9000	BELIMO NFBUP	120					

FURNACES (F)

UNIT NO.	SERVICE	CFM OF STD. AIR	MOTOR HP	EXT. S.P. IN IN. WATER	GAS TYPE	GAS PRESS. IN SPIG	GAS INPUT BTU	GAS OUTPUT BTU	COOLING CAP. BTU	SUPPORT	MANUF. MODEL
10-F-1	STR 10	1250 CFM	0.5	0.00 in-wg	NAT. GAS	2.00 psi	60000.0 Btu/h	58000.0 Btu/h	3.0 ton		CARRIER 59TP5

LOUVER SCHEDULE (L)

TAG	SERVICE	NOM. WIDTH (IN.)	NOM. HEIGHT (IN.)	CFM	FREE AREA (FT2)	DESIGN VELOCITY (FPM)	STATIC PRESSURE (IN W.C.)	MANUF. MODEL	COMMENTS
10-L-1	CHLORINE ROOM 10-107	18"	18"	335 CFM	0.8	1000 FPM	0.03	RUSKIN ELF6375DX	
10-L-2	STILLING WELL ROOM 10-109	16"	16"	300 CFM	0.6	1000 FPM	0.04	RUSKIN ELF6375DX	
20-L-1	CHLORINE ROOM 20-105	12"	12"	150 CFM	0.2	1000 FPM	0.08	RUSKIN ELF6375DX	
20-L-2	CAUSTIC SODA ROOM 20-104	12"	12"	150 CFM	0.2	1000 FPM	0.08	RUSKIN ELF6375DX	
20-L-3	ANTI-SCALANT ROOM 20-102	12"	12"	150 CFM	0.2	1000 FPM	0.08	RUSKIN ELF6375DX	

ELECTRIC WALL HEATERS (EWH)

UNIT NO.	SERVICE	CABINET			CAP. WATTS	CAP. BTU	RECESS	INTEGRAL STAT	MANUF. MODEL	COMMENTS
		W	H	D						
10-EWH-1	CHEMICAL STORAGE 10-101	16"	20"	4"	1,500	5,120	4"		QMARK AWH	

DESTRATIFICATION FANS - HVLS

UNIT NO.	SERVICE	FAN DIA	MOTOR HP	CONTROLLER	MANUF. MODEL
10-DS-1	FILTER AND SOFTENER ROOM 10-106	8' - 0"	0.75	YES	GREENHECK DS-3
20-DS-1	RO SKID ROOM 20-103	10' - 0"	0.75	YES	GREENHECK DS-3
20-DS-2	RO SKID ROOM 20-103	10' - 0"	0.75	YES	GREENHECK DS-3

GAS FIRED UNIT HEATERS (GUH)

UNIT NO.	SERVICE	GAS INPUT MBH	GAS OUTPUT MBH	CFM OF STD. AIR	GAS TYPE	GAS PRESS. IN PSIG	MOTOR HP	FAN TYPE	COMB. AIR VENT DIA.	FUEL VENT DIA.	DIFFUSER	ELEV. ABOVE FIN. FL.	MANUF. MODEL
20-GUH-1	RO SKID ROOM 20-103	30000.0 Btu/h	24600.0 Btu/h	456 CFM	NAT. GAS	0.00 psi	0.02	PROP.	4"	4"	HORIZ.	12' - 0"	REZNOR UDZ
20-GUH-2	RO SKID ROOM 20-103	30000.0 Btu/h	24600.0 Btu/h	456 CFM	NAT. GAS	0.00 psi	0.02	PROP.	4"	4"	HORIZ.	12' - 0"	REZNOR UDZ

SCHEDULE REMARKS

1. SEE PROJECT MANUAL (HVAC SPECIFICATION) FOR SEQUENCE OF OPERATION.
2. MOUNTING BRACKET BY UNIT MANUFACTURER.
3. DAMPER TO BE FLANGED TO DUCT, SIZE LISTED IS OUTSIDE OF DAMPER SIZE.
4. FURNISH DISCONNECT. INSTALLATION BY ELECTRICAL.
5. MOUNT EXTERIOR UNIT TO MAINTAIN CLEARANCES REQUIRED BY MANUFACTURER.
6. KYNAR COATING. COLOR TO BE SELECTED BY ARCHITECT.
7. PROVIDE MANUFACTURER'S OPTIONAL (SS) CORROSION RESISTANT CONSTRUCTION.
8. PERMATECTOR COATING. COLOR TO BE SELECTED BY ARCHITECT.
9. REMOTE WIRED THERMOSTAT BY UNIT MFR.
10. EQUIPMENT, WORK AND ACCESSORIES SHALL BE SUITABLE FOR CORROSIVE (NEMA 4X) ENVIRONMENTS. SEE SPECIFICATION FOR ADDITIONAL DETAIL.

No	DATE	REVISIONS	BY
1	04/07/2025	Addendum #2	AVE
2	8/19/2025	PLAN REVIEW COMMENTS	CWW

PROJECT DATE: AUG 5, 2024 | DRAWN BY: RJS | DESIGNED BY: AVE | CHECKED BY: AVE

ENGINEERING | ARCHITECTURE | SURVEYING
FUNDING | PLANNING | ENVIRONMENTAL
400 ICE HARBOR DR, STE 110, DUBUQUE IA 52001
(563) 582-3973 www.msa-ps.com
© MSA Professional Services, Inc.

WATER TREATMENT FACILITY UPGRADE
CITY OF TIFFIN
JOHNSON COUNTY, IA

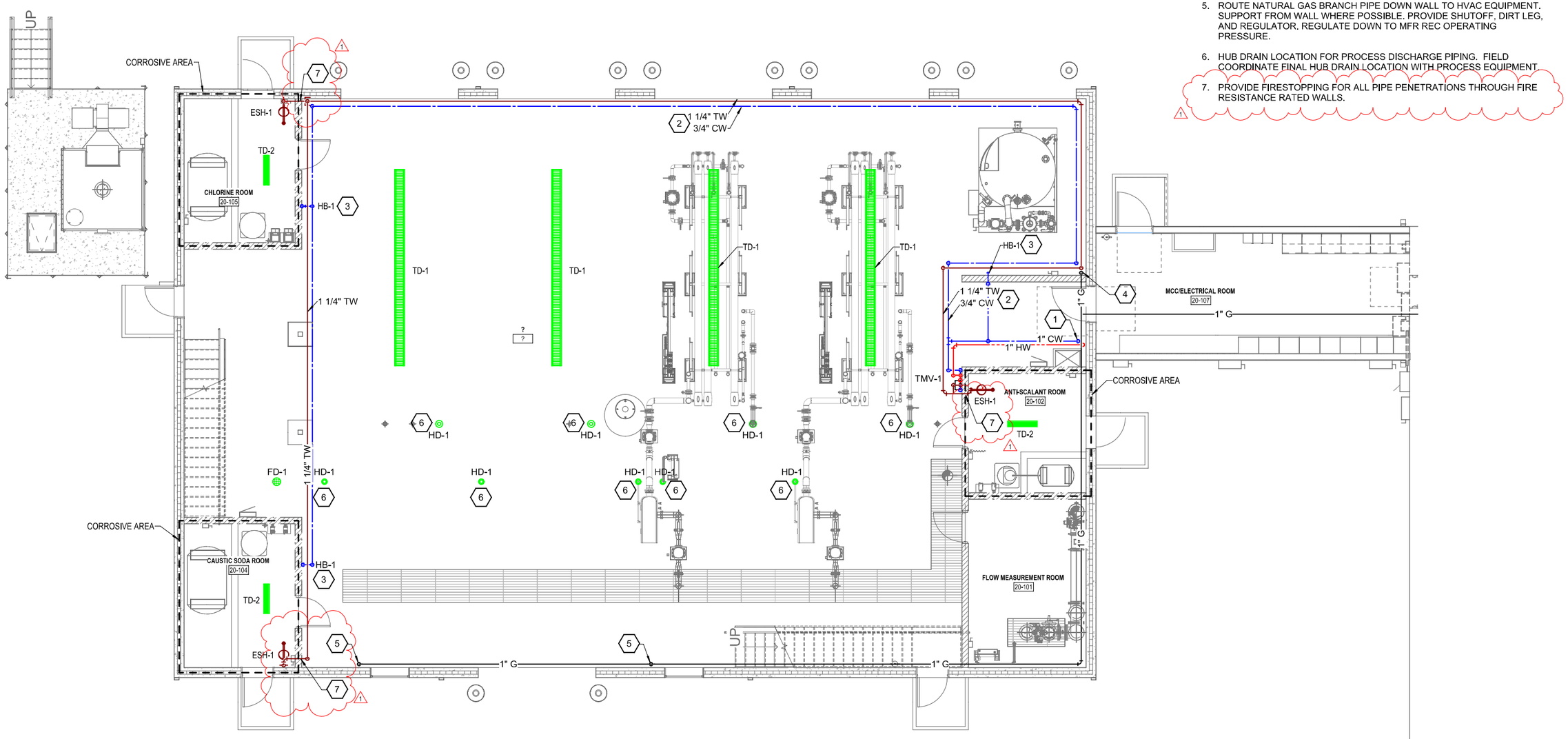
TYPICAL DETAILS AND SCHEDULE
HVAC SCHEDULES

PROJECT NO. 13603016
SHEET 99H601

PLOT DATE: 8/20/2025 1:46:48 PM Autodesk Docs://13603016 - TIFFIN WTP - ACC/13603016_TIFFIN WTP_HVAC.rvt

KEY NOTES

1. NEW HOT AND COLD WATER PIPING UP THROUGH FLOOR. ROUTE UP INSIDE WALL AND HIGH AS POSSIBLE. SUPPORT FROM WALL.
2. PIPING SHOWN IN APPROXIMATE LOCATION. OFFSET PIPING AS NECESSARY TO NEW FIXTURES. SUPPORT PIPING FROM WALL WHERE POSSIBLE.
3. ROUTE 3/4" DOWN TO CONNECTION ON HOSE BIBB. PROVIDE LINE SIZED SHUTOFF VALVE IN VERTICAL.
4. ROUTE PIPING UP UP WALL TO CEILING. SUPPORT VERTICAL PIPING FROM WALL.
5. ROUTE NATURAL GAS BRANCH PIPE DOWN WALL TO HVAC EQUIPMENT. SUPPORT FROM WALL WHERE POSSIBLE. PROVIDE SHUTOFF, DIRT LEG, AND REGULATOR. REGULATE DOWN TO MFR REC OPERATING PRESSURE.
6. HUB DRAIN LOCATION FOR PROCESS DISCHARGE PIPING. FIELD COORDINATE FINAL HUB DRAIN LOCATION WITH PROCESS EQUIPMENT.
7. PROVIDE FIRESTOPPING FOR ALL PIPE PENETRATIONS THROUGH FIRE RESISTANCE RATED WALLS.



20-PLUMBING PROPOSED FLOOR PLAN

3/16" = 1'-0" (22" x 34")
3/32" = 1'-0" (11" x 17")
0 2 4 8 12

No	DATE	REVISIONS	BY
1	08/19/2025	PLAN REVIEW COMMENTS	CWW

PROJECT DATE: 11/19/2024
DRAWN BY: RJS
DESIGNED BY: AVE
CHECKED BY: AVE

MSA
ENGINEERING | ARCHITECTURE | SURVEYING
FUNDING | PLANNING | ENVIRONMENTAL
400 ICE HARBOR DR, STE 110, DUBUQUE IA 52001
(563) 582-3973 www.msa-ps.com

© MSA Professional Services, Inc.

WATER TREATMENT FACILITY UPGRADE
CITY OF TIFFIN
JOHNSON COUNTY, IA

RO BUILDING
PROPOSED PLUMBING ABOVE GRADE FLOOR PLAN

PROJECT NO. 13603016
SHEET 20P102

PLOT DATE: 8/20/2025 3:45:12 PM Autodesk Docs://13603016 - TIFFIN WTP - ACC/13603016_TIFFIN WTP_PLUMB.rvt

KEY NOTES

1 CONCRETE STOOP WITH FOUNDATION WALLS, SEE DETAIL 8/99S501

3 3 1/2" RIGID INSULATION JOINT w/ REMOVABLE CAP AND SELF-LEVELING SEALANT AT PERIMETER SLAB-FOUNDATION WALL, TYP.

4 CHEMICAL CONTAINMENT AREA: PROVIDE WATERSTOPS IN ALL JOINTS. PROVIDE #5 BARS AT 5" O.C. HORIZ. & #5 VERT DOWELS AT 12" O.C. - SEE DETAIL 2/99S502. ARCHITECTURAL FOR WATER-PROOFING AND INSULATION REQUIREMENTS.

5 DASHED LINE INDICATES NON-BEARING CMU WALL LOCATED ON TOP OF SLAB-ON-GRADE, TYP.

6 PROVIDE (1) #5 DIAGONAL BAR x 18" IN CENTER OF FLOOR SLAB AT EACH CORNER OF DOOR OPENING, TYP - SEE DETAIL 3/99S501 (SIM). DO NOT CROSS CJ

KEY NOTES

8 THICKENED SLAB UNDER CMU WALL -LONGITUDINAL (2) #5 BARS (EQUALLY SPACED) - SEE DETAIL 6/99S501 TRANSVERSE #5 BARS @ 16" OC

9 TRENCH DRAIN LOCATION - SEE PLUMBING. SLOPE SLAB IN AREA SHOWN TOWARD DRAIN. TOP OF GRATE ELEV. = 689'-10 1/2" (1 1/2" BELOW F.F. ELEV.) SEE DETAIL 1 / 99S501

STRUCTURAL GENERAL NOTES

A. EXCAVATION AND SUBGRADE PREPARATION SHALL BE IN ACCORDANCE WITH THE SPECIFICATIONS AND WITH THE RECOMMENDATIONS CONTAINED IN THE GEOTECHNICAL REPORT (SEE PROJECT MANUAL APPENDIX FOR GEOTECHNICAL REPORT.)

B. SEE ARCHITECTURAL, MECHANICAL, AND ELECTRICAL PLANS FOR SIZE & LOCATION OF FLOOR/WALL OPENINGS AND PIPE PENETRATIONS NOT SHOWN. PROVIDE PIPE SLEEVES CAST INTO CONCRETE.

C. SEE SHEET 99S601 FOR DESIGN LOADS AND CRITERIA, DESIGN STRESSES, AND STEEL REINFORCING TABLES.

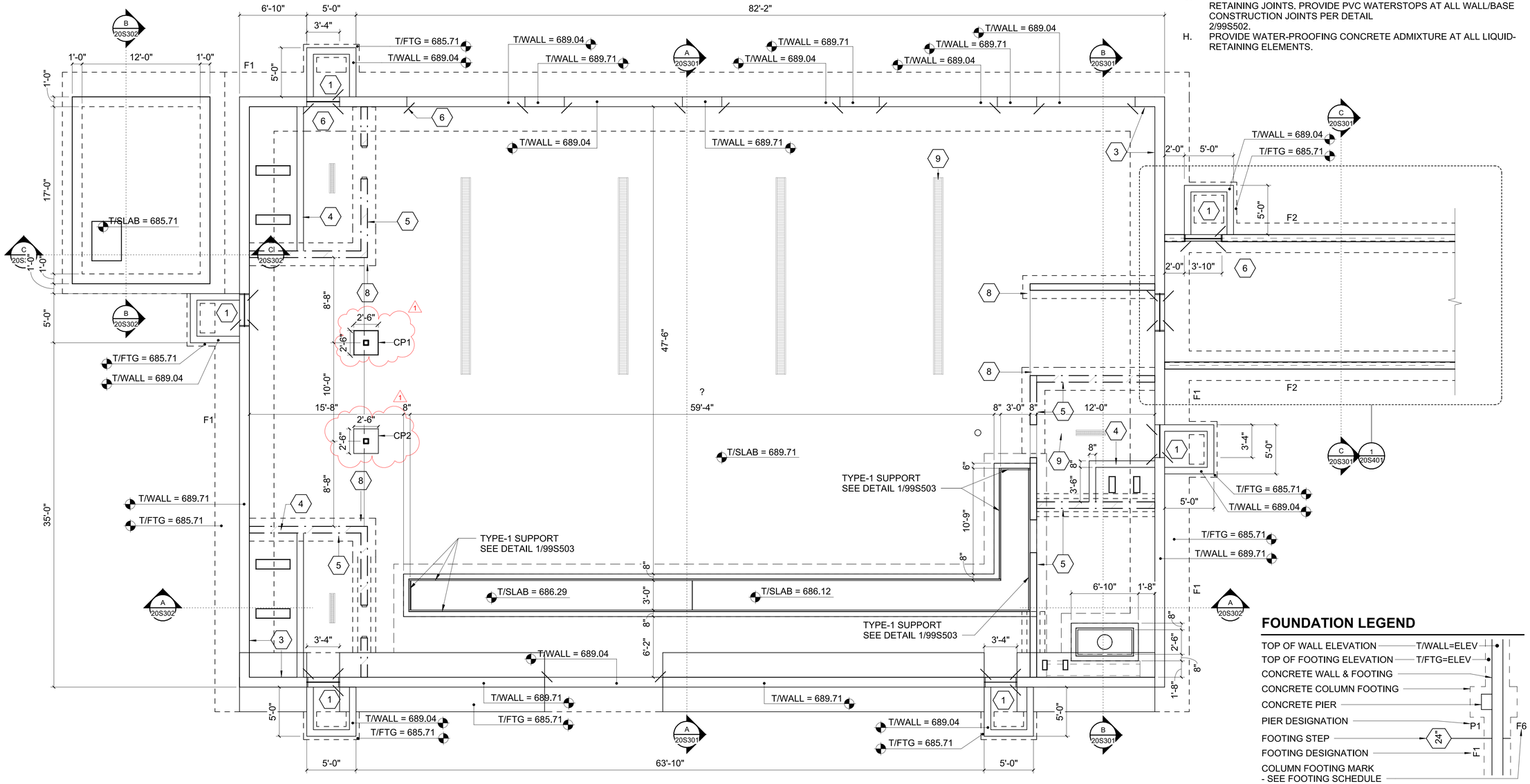
D. SEE SHEET 99S001 FOR GENERAL STRUCTURAL NOTES, CONCRETE & REINFORCING NOTES, AND SCHEDULES.

E. SEE ARCHITECTURAL SHEETS FOR ADDITIONAL DIMENSIONING.

F. SEE 99S602 FOR ADDITIONAL STRUCTURAL SCHEDULES (FOOTING, FOUNDATION WALLS, ETC.)

G. PROVIDE WATERSTOPS AT ALL VERTICAL & HORIZONTAL LIQUID-RETAINING JOINTS. PROVIDE PVC WATERSTOPS AT ALL WALL/BASE CONSTRUCTION JOINTS PER DETAIL 2/99S502.

H. PROVIDE WATER-PROOFING CONCRETE ADMIXTURE AT ALL LIQUID-RETAINING ELEMENTS.



FOUNDATION LEGEND

20-STRUCTURAL-PLAN

3/16" = 1'-0" (22" x 34")
3/32" = 1'-0" (11" x 17")
0 2 4 8 12

PROJECT DATE:	AUG 5, 2024
DRAWN BY:	JBR
DESIGNED BY:	KB
CHECKED BY:	CWW

No	DATE	REVISIONS	BY
1	8/19/2025	PLAN REVIEW COMMENTS	CWW

MSA
ENGINEERING | ARCHITECTURE | SURVEYING
FUNDING | PLANNING | ENVIRONMENTAL
400 ICE HARBOR DR, STE 110, DUBUQUE IA 52001
(563) 582-3973 www.msa-ps.com

© MSA Professional Services, Inc.

WATER TREATMENT FACILITY UPGRADE
CITY OF TIFFIN
JOHNSON COUNTY, IA

RO BUILDING FOUNDATION PLAN

PROJECT NO. 13603016
SHEET 20S101

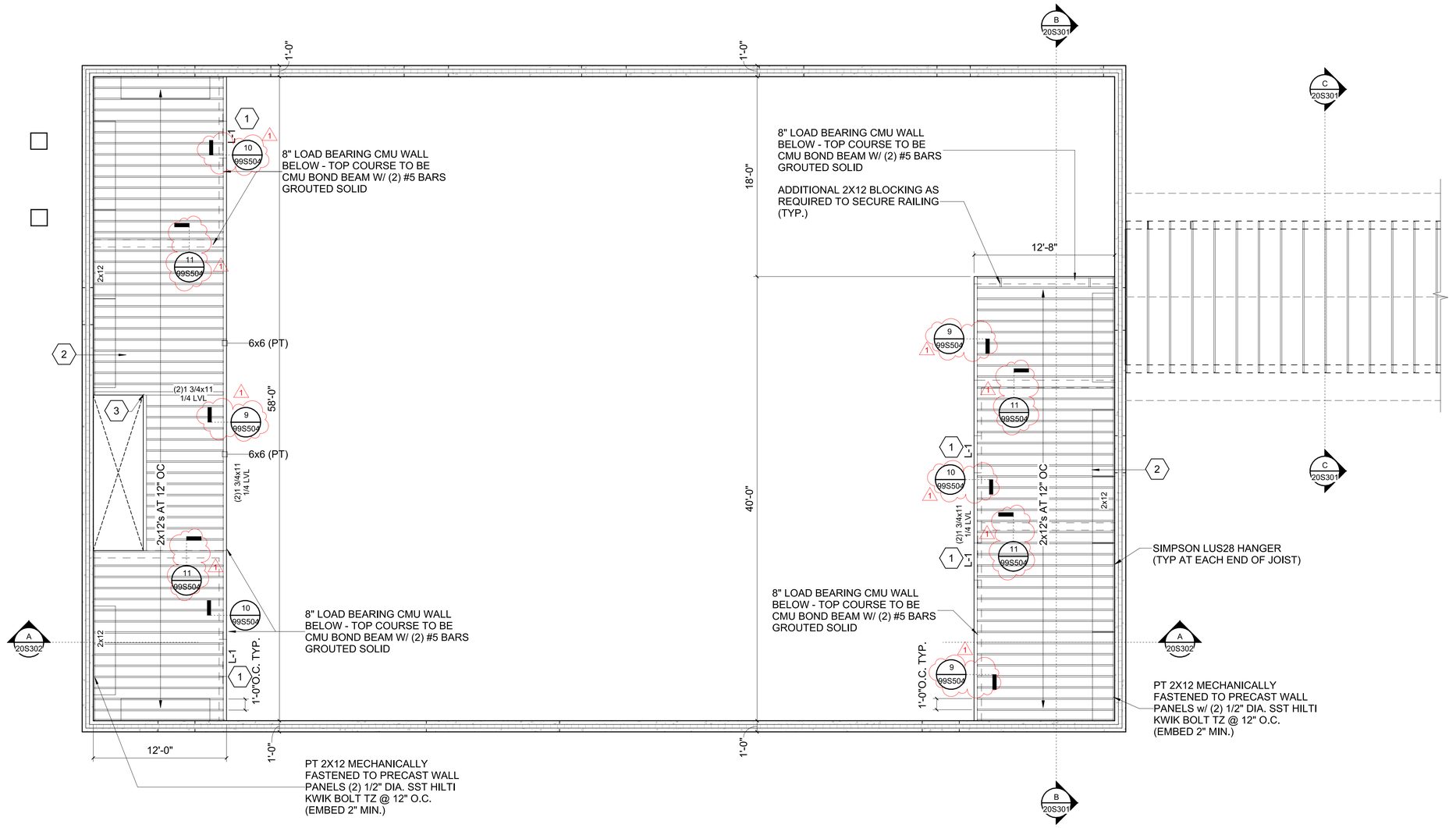
PLOT DATE: 8/19/2025 4:44:17 PM Autodesk Docs://13603016 - TIFFIN IA WTP - ACC/13603016_TIFFIN WTP_SAP.rvt

GENERAL NOTES - MEZZANINE FRAMING

A. DIMENSIONAL LUMBER IN DIRECT CONTACT WITH CONCRETE OR MASONRY SHALL BE PRESSURE TREATED.
B. DIMENSIONAL LUMBER SHALL BE SOUTHERN PINE NO. 1 OR BETTER.
C. TIMBER 6x6 POST BASES SHALL BE SIMPSON STRONG TIE CBSQ GALVANIZED STANDOFF COLUMN BASE, INSTALLED PER MANUFACTURER'S INSTRUCTIONS.
D. TIMBER 6x6 POST CAPS SHALL BE SIMPSON STRONG TIE LPC Z MAX GALVANIZED ADJUSTABLE POST CAP PER MANUFACTURERS INSTRUCTIONS.
E. ALL 2x12 JOISTS SHALL BE BLOCKED AT 1/3 POINTS ALONG THE SPAN. USE SIMPSON LUS28 HANGER AT END OF EACH JOIST, TYPICAL.
F. MEZZANINE FLOOR SHALL BE 19/32" APA RATED SHEATHING GRADE A. 8d RINGSHANK NAILS @ 12" O.C. EACH JOIST.

KEY NOTES - PROPOSED

1 CODE REQUIRED ACCESSIBLE EXIT - (2) REQUIRED FOR THIS AREA (THEY ARE SEPARATED BY MORE THAN 1/2 THE DIAGONAL DISTANCE OF THE SPACE). PROVIDE ILLUMINATED EXIT SIGN ABOVE DOOR AND TACTILE SIGN ON WALL ADJACENT TO LATCH.
2 NOT A CODE REQUIRED EXIT
3 CODE REQUIRED SINGLE EXIT FOR THIS SPACE, NON-ACCESSIBLE EXIT (SPACE IS "MECHANICAL" EQUIPMENT AND IS NOT REQUIRED TO BE ACCESSIBLE)



20-STRUCTURAL-MEZZANINE FRAMING PLAN

3/16" = 1'-0" (22" x 34")
3/32" = 1'-0" (11" x 17")
0 2 4 8 12

LINTEL SCHEDULE

MARK	SYMBOL	DESCRIPTION
L-1	2 1/2" MIN / 8" MAX	8" WIDE x 8" TALL CMU LINTEL w/ (2) #5 BARS CONT.

GENERAL NOTES

1. PROVIDE 8" MIN BEARING ON WALL. GROUT SOLID LINTEL BEARING AREA FROM FOUNDATION WALL TO UNDERSIDE OF LINTEL.
2. FOR MISC OPENINGS NOT SHOWN ON PLAN, UP TO 32" WIDE:
   A. 8" WALLS: L-1
3. GROUT MASONRY SOLID AT TIES AND STUDS.

PLOT DATE: 8/19/2025 4:44:18 PM Autodesk Docs://13603016 - TIFFIN IA WTP - ACC/13603016_TIFFIN WTP_SAP.rvt

PROJECT DATE: AUG 5, 2024
DRAWN BY: JBR
DESIGNED BY: KB
CHECKED BY: CWW

No	DATE	REVISIONS	BY
1	8/19/2025	PLAN REVIEW COMMENTS	CWW

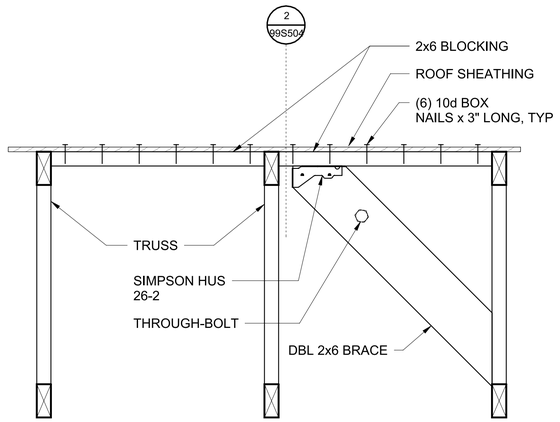
MSA
ENGINEERING | ARCHITECTURE | SURVEYING
FUNDING | PLANNING | ENVIRONMENTAL
400 ICE HARBOR DR, STE 110, DUBUQUE IA 52001
(563) 582-3973 www.msa-ps.com

© MSA Professional Services, Inc.

WATER TREATMENT FACILITY UPGRADE
CITY OF TIFFIN
JOHNSON COUNTY, IA

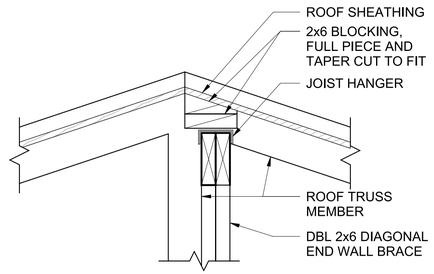
RO BUILDING
MEZZANINE FRAMING PLAN

PROJECT NO. 13603016
SHEET 20S105



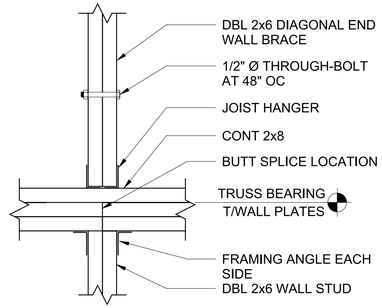
1 ENDWALL BRACE DETAIL (AT ROOF)

99S504 NOT TO SCALE



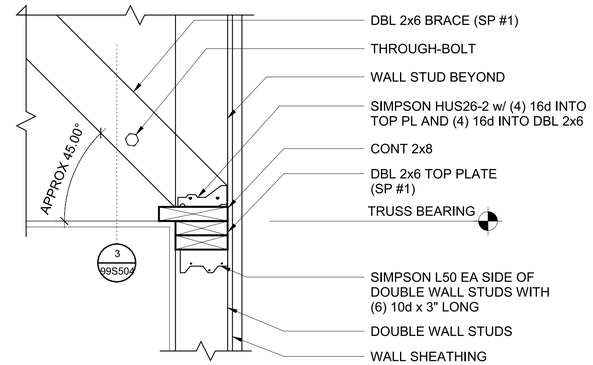
2 ENDWALL BRACE ELEVATION (AT ROOF)

99S504 NOT TO SCALE



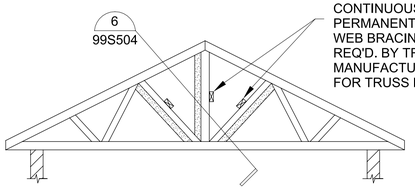
3 ENDWALL BRACE ELEVATION (AT WALL)

99S504 NOT TO SCALE

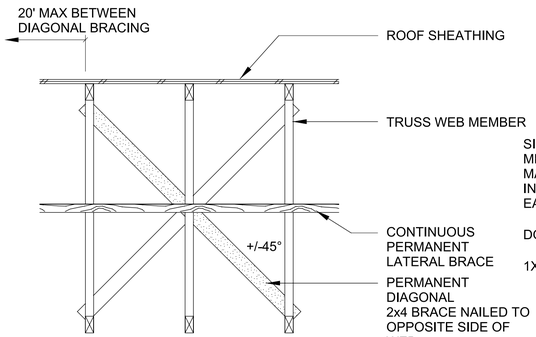


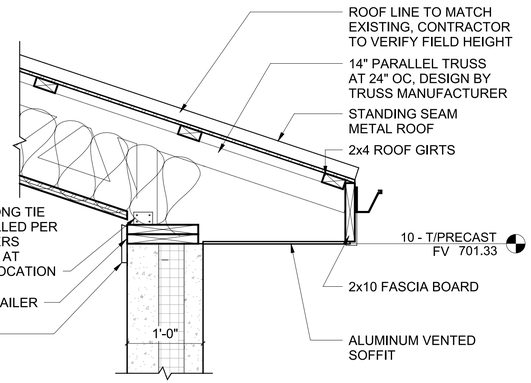
4 ENDWALL BRACE DETAIL (AT WALL)

99S504 NOT TO SCALE



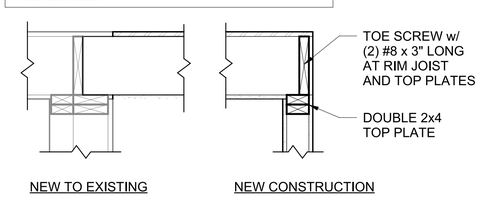
2 x 4 DIAGONAL BRACE AT EACH WEB MEMBER REQUIRING CONTINUOUS LATERAL BRACING. IF NO LATERAL BRACING IS REQUIRED, PLACE DIAGONAL BRACE NO GREATER THAN 16 FEET INTERVALS ALONG THE TRUSS LENGTH. ALWAYS LOCATE A DIAGONAL BRACE AS CLOSE AS POSSIBLE TO THE HIGH POINT OF THE TRUSS. THE SPACING BETWEEN SETS OF DIAGONAL BRACING SHALL BE TWICE THE HORIZONTAL RUN OF THE DIAGONAL BRACING OR 20 FEET MAXIMUM. A MINIMUM OF TWO SETS REQUIRED. INSTALL THE DIAGONAL BRACE AT A 45 DEGREE ANGLE TO THE LATERAL BRACE. ATTACH THE DIAGONAL BRACE TO THE OPPOSITE SIDE OF THE WEB MEMBER REQUIRING THE LATERAL BRACE. FASTEN THE DIAGONAL BRACE WITH (2) 16 d NAILS AT EVERY TRUSS WEB MEMBER IT CROSSES.





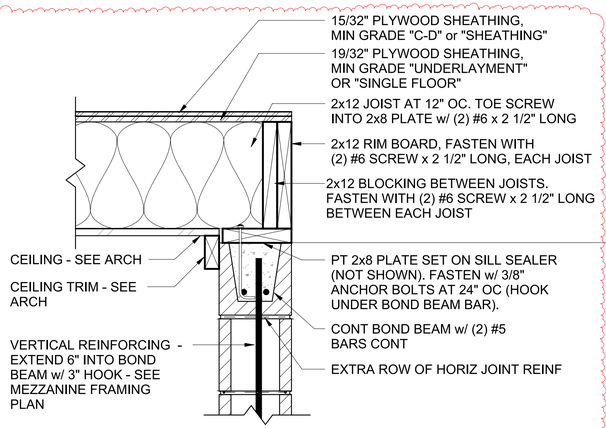
NEW 2x10 MEMBERS TO BEAR ON EXISTING. TOE SCREW INTO TOP PLATES AND EXISTING RIM JOIST WITH (2) #8 x 3" LONG SCREWS EACH.

IF EXISTING RIM JOIST PREVENTS NEW JOISTS FROM HAVING A MINIMUM 2" OF BEARING CONTRACTOR SHALL USE SIMPSON LUS210 HANGERS OR EQUIVALENT SCREWD TO THE RIM JOIST



5 PERMANENT TRUSS BRACING

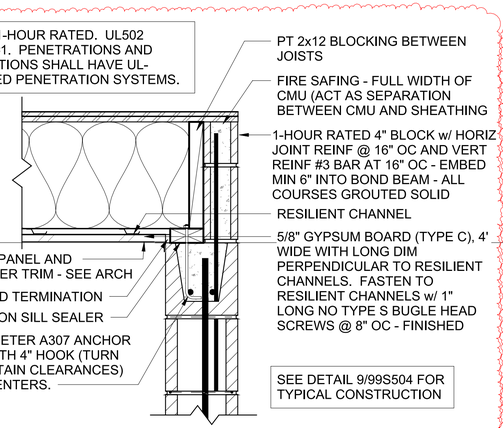
99S504 NOT TO SCALE



6 PERMANENT WEB BRACING

99S504 NOT TO SCALE

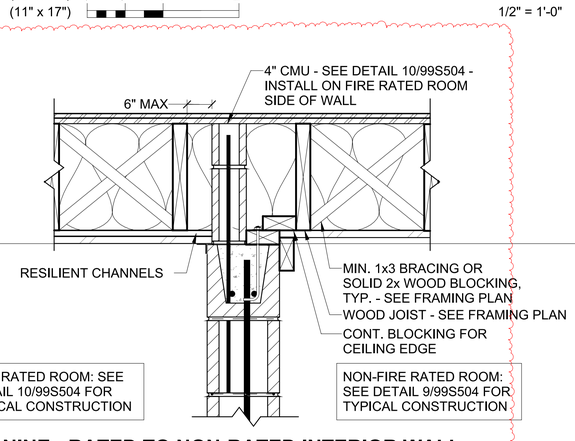
FLOOR: 1-HOUR RATED. UL502 OPTION #1. PENETRATIONS AND TERMINATIONS SHALL HAVE UL-APPROVED PENETRATION SYSTEMS.



SEE DETAIL 9/99S504 FOR TYPICAL CONSTRUCTION

7 PARALLEL TRUSS BEARING CONNECTION

99S504 1" = 1'-0" (22" x 34") 0 6" 1' 2'
1/2" = 1'-0" (11" x 17")



FIRE RATED ROOM: SEE DETAIL 10/99S504 FOR TYPICAL CONSTRUCTION

NON-FIRE RATED ROOM: SEE DETAIL 9/99S504 FOR TYPICAL CONSTRUCTION

8 NEW CEILING CONNECTION TO EXIST

99S504 1" = 1'-0" (22" x 34") 0 6" 1' 2'
1/2" = 1'-0" (11" x 17")

9 MEZZANINE OUTSIDE EDGE - NON-RATED INTERIOR WALL

99S504 1 1/2" = 1'-0" (22" x 34") 0 3" 6" 12" 18"
1 3/4" = 1'-0" (11" x 17")

10 MEZZANINE OUTSIDE EDGE - 1-HOUR INTERIOR WALL

99S504 1 1/2" = 1'-0" (22" x 34") 0 3" 6" 12" 18"
1 3/4" = 1'-0" (11" x 17")

11 MEZZANINE - RATED TO NON-RATED INTERIOR WALL

99S504 1 1/2" = 1'-0" (22" x 34") 0 3" 6" 12" 18"
1 3/4" = 1'-0" (11" x 17")

PLOT DATE: 8/19/2025 4:44:19 PM Autodesk Docs://13603016_TIFFIN IA WTP - ACC/13603016_TIFFIN WTP_SAP.rvt

PROJECT DATE:	AUG 5, 2024	DRAWN BY:	JBR
		DESIGNED BY:	KB
		CHECKED BY:	CWW

No	DATE	REVISIONS	BY
1	8/19/2025	PLAN REVIEW COMMENTS	CWW

MSA
ENGINEERING | ARCHITECTURE | SURVEYING
FUNDING | PLANNING | ENVIRONMENTAL
400 ICE HARBOR DR, STE 110, DUBUQUE IA 52001
(563) 582-3973 www.msa-ps.com
© MSA Professional Services, Inc.

WATER TREATMENT FACILITY UPGRADE
CITY OF TIFFIN
JOHNSON COUNTY, IA

TYPICAL DETAILS AND SCHEDULE
TYPICAL STRUCTURAL DETAILS

PROJECT NO. 13603016
SHEET 99S504

FOOTING SCHEDULE - OVERALL

REMARKS
1. PROVIDE 2 ROWS OF FOOTING REINFORCING.
2. PROVIDE TRANSVERSE BAR AT EACH LAYER OF REINFOCRING.

GENERAL NOTES
A. PREPARE BEARING SOILS PER GEOTECH REPORT RECOMMENDATIONS.
B. PROVIDE (1) 36" x 36" BENT BAR (SAME SIZE AS REINF.) FOR EACH HORIZONTAL BAR, TYP. AT INTERSECTIONS AND AT CORNERS.
C. SEE REINFORCING AND FOUNDATION NOTES.

TYPE MARK	SIZE		LONGITUDINAL REINF.		TRANSVERSE REINF.		DOWEL				REFERENCE DETAIL	REMARKS
	THICKNESS, T	WIDTH, W	QTY.	SIZE	SIZE	SPACING	SIZE	LENGTH, L	HOOK	SPACING		
F1	12"	72"	3	#5	#5	12"	(2) #5	48"	10"	12"		
F2	12"	36"	3	#5	#5	12"	(2) #5	48"	10"	12"		
F3	8"	16"	2	#5			#5	48"	10"	24"		
F4	12"	24"	<varies>	<varies>	<varies>	<varies>	<varies>	<varies>	<varies>	<varies>		

STEEL REINFORCING

MIN CLEAR COVER, UNO

FOUNDATION WALLS
- #5 BARS & SMALLER....1 1/2"
- #6 BARS & LARGER....2"

NON-STRUCTURAL SLABS-ON-GRADE
- BOTTOM & SIDES....1 1/2"
- TOP....3/4"

FOOTINGS AND STRUCTURAL SLABS-ON-GRADE
- BOTTOM & SIDES....3"
- TOP....2"

LIQUID RETAINING STRUCTURES
- WALLS....2"
- FOOTINGS AND SLABS
  - BOTTOM AND SIDES....3"
  - TOP....2"

GENERAL NOTES

1. IN NON-LIQUID RETAINING STRUCTURES, LAP BARS: #5 BARS = 31"; #6 BARS = 37"
2. STANDARD HOOKS: #5 = 10"; #6 = 12"
3. LAP BARS CLASS 'B' LAP IN LIQUID RETAINING STRUCTURES, UNO -SEE DETAIL 5/99S502
4. STAGGER LAPS IN LIQUID RETAINING STRUCTURES, UNO - SEE DETAIL 5/99S502

DESIGN STRESSES

CAST-IN-PLACE CONCRETE

NON-LIQUID RETAINING STRUCTURES
- FOOTINGS....f'c = 4000 PSI
- WALLS....f'c = 4000 PSI
- SLAB-ON-GRADE....f'c = 4000 PSI
- OTHER....f'c = 3500 PSI

LIQUID RETAINING STRUCTURES
- FOOTINGS & STRUCTURAL SLABS....f'c = 5000 PSI
- WALLS....f'c = 5000 PSI
- SLAB-ON-GRADE....f'c = 5000 PSI

STEEL
- REINFORCING....fy = 60 KSI

ANCHORS
- ANCHOR BOLTS....F1554, GRADE 36
- EXPANSION ANCHORS....WEDGE TYPE

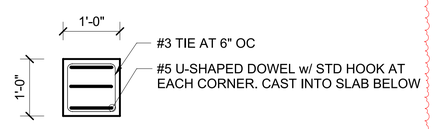
GEOTECHNICAL INFORMATION

ALLOWABLE SOIL BEARING PRESSURE....q = 1500 PSF
ALLOWABLE BEARING PRESSURE ASSUMES SITE PREPARATION PER OPTIONS OUTLINED IN THE GEOTECHNICAL REPORT:
- REPORT No. 06235179.01
- PREPARED BY: TERRACON
- DATED: MARCH 20, 2024

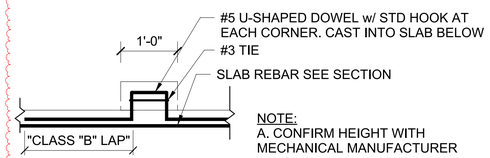
CONCRETE EQUIPMENT PADS - OVERALL

NOTE:
1. DIMENSIONS ARE APPROXIMATE - VERIFY CONCRETE BASE DIMENSIONS, ELEVATIONS, AND LOCATION(S) BASED ON APPROVED EQUIPMENT SHOP DRAWINGS AND REQUIRED PROCESS EQUIPMENT ELEVATIONS PRIOR TO BASE CONSTRUCTION. ANCHOR BOLTS SHALL BE CAST-IN-PLACE "J" TYPE AS RECOMMENDED BY EQUIPMENT SUPPLIER, OR EPOXY CAPSULE ANCHORS AS APPROVED BY THE ENGINEER.

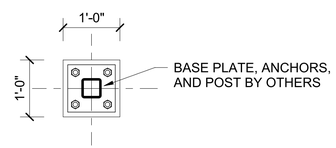
MARK	CONCRETE BASE, L	CONCRETE BASE, W	CONCRETE BASE, D	CONCRETE BASE, H	CONCRETE BASE, A BARS	CONCRETE BASE, B BARS	CONCRETE BASE, C BARS	REFERENCE DETAIL	QTY ROWS
CP1	30"	30"	0"	12"					
EP-10-1	24"	24"	0"	24"	(3) #4 STIRRUPS		(4) #5 HOOK DOWELS		
EP-20-1	20"	16"	0"	12"	(2) #3 TIE		(4) #5 HOOK DOWELS	2/99S602	
EP-20-2	20"	16"	0"	12"	(2) #3 TIE		(4) #5 HOOK DOWELS	2/99S602	
EP-20-3	20"	16"	0"	6"	(1) #3 TIE		(3) #3 U-SHAPED DOWELS	1/99S602	
EP-20-4	16"	14"	0"	6"	(1) #3 TIE		(3) #3 U-SHAPED DOWELS	1/99S602	
EP-20-5	20"	16"	0"	6"	(1) #3 TIE		(3) #3 U-SHAPED DOWELS	1/99S602	
EP-20-6	16"	14"	0"	6"	(1) #3 TIE		(3) #3 U-SHAPED DOWELS	1/99S602	
EP-20-7	12"	6"	0"	4"	(1) #3 TIE		(3) #3 U-SHAPED DOWELS	1/99S602	
EP-20-8	12"	6"	0"	4"	(1) #3 TIE		(3) #3 U-SHAPED DOWELS	1/99S602	
EP-20-9	20"	6"	0"	8"	(2) #3 TIE		(4) #5 HOOK DOWELS	2/99S602	
EP-20-10	20"	6"	0"	8"	(2) #3 TIE		(4) #5 HOOK DOWELS	2/99S602	
EP-20-11	15"	18"	0"	3"	(1) #3 TIE		(3) #3 U-SHAPED DOWELS	1/99S602	
EP-20-12	12"	6"	0"	4"	(1) #3 TIE		(3) #3 U-SHAPED DOWELS	1/99S602	
EP-20-13	12"	6"	0"	4"	(1) #3 TIE		(3) #3 U-SHAPED DOWELS	1/99S602	
EP-20-14	20"	6"	0"	8"	(2) #3 TIE		(4) #5 HOOK DOWELS	2/99S602	
EP-20-15	20"	6"	0"	8"	(2) #3 TIE		(4) #5 HOOK DOWELS	2/99S602	
EP-20-16	12"	28"	0"	4"	(1) #3 TIE		(3) #3 U-SHAPED DOWELS	1/99S602	
EP-20-17	15"	18"	0"	3"	(1) #3 TIE		(3) #3 U-SHAPED DOWELS	1/99S602	
EP-20-18	12"	28"	0"	4"	(1) #3 TIE		(3) #3 U-SHAPED DOWELS	1/99S602	
EP-20-19	12"	28"	0"	4"	(1) #3 TIE		(3) #3 U-SHAPED DOWELS	1/99S602	
EP-20-20	12"	28"	0"	4"	(1) #3 TIE		(3) #3 U-SHAPED DOWELS	1/99S602	
EP-20-21	12"	28"	0"	4"	(1) #3 TIE		(3) #3 U-SHAPED DOWELS	1/99S602	
EP-20-22	12"	28"	0"	4"	(1) #3 TIE		(3) #3 U-SHAPED DOWELS	1/99S602	
EP-20-23	15"	18"	0"	3"	(1) #3 TIE		(3) #3 U-SHAPED DOWELS	1/99S602	
EP-20-24	12"	28"	0"	4"	(1) #3 TIE		(3) #3 U-SHAPED DOWELS	1/99S602	
EP-20-25	15"	18"	0"	3"	(1) #3 TIE		(3) #3 U-SHAPED DOWELS	1/99S602	
EP-20-26	12"	28"	0"	4"	(1) #3 TIE		(3) #3 U-SHAPED DOWELS	1/99S602	
EP-20-27	12"	28"	0"	4"	(1) #3 TIE		(3) #3 U-SHAPED DOWELS	1/99S602	
EP-20-28	12"	28"	0"	4"	(1) #3 TIE		(3) #3 U-SHAPED DOWELS	1/99S602	
EP-20-29	12"	28"	0"	4"	(1) #3 TIE		(3) #3 U-SHAPED DOWELS	1/99S602	
EP-20-30	12"	28"	0"	4"	(1) #3 TIE		(3) #3 U-SHAPED DOWELS	1/99S602	
EP-20-31	18"	18"	6"	24"	(3) #4 STIRRUPS		(4) #5 HOOK DOWELS		
EP-20-32	18"	18"	6"	24"	(3) #4 STIRRUPS		(4) #5 HOOK DOWELS		
EP-20-33	18"	18"	6"	24"	(3) #4 STIRRUPS		(4) #5 HOOK DOWELS		
EP-20-34	18"	18"	6"	24"	(3) #4 STIRRUPS		(4) #5 HOOK DOWELS		
EP-20-35	8"	20"	0"	30"	(3) #4 STIRRUPS		(4) #5 HOOK DOWELS		
EP-20-36	8"	20"	0"	30"	(3) #4 STIRRUPS		(4) #5 HOOK DOWELS		
EP-20-37	12"	42"	0"	24"	(3) #4 STIRRUPS		(4) #5 HOOK DOWELS		
EP-20-38	12"	42"	0"	24"	(3) #4 STIRRUPS		(4) #5 HOOK DOWELS		
EP-20-39	12"	42"	0"	24"	(3) #4 STIRRUPS		(4) #5 HOOK DOWELS		
EP-20-40	12"	42"	0"	24"	(3) #4 STIRRUPS		(4) #5 HOOK DOWELS		
EP-30-1	30"	30"	0"	4"	(1) #3 TIE		(3) #3 U-SHAPED DOWELS	1/99S602	
EP-30-2	30"	30"	0"	4"	(1) #3 TIE		(3) #3 U-SHAPED DOWELS	1/99S602	
EP-30-3	30"	30"	0"	4"	(1) #3 TIE		(3) #3 U-SHAPED DOWELS	1/99S602	
EP-GENERATOR PAD	360"	228"	0"	12"	#5	#5	(4) #5 HOOK DOWELS		
CP1-COLUMN PAD	30"	30"	0"	12"	#5	#5			
CP1-COLUMN PAD	30"	30"	0"	12"	#5	#5			



PIER REINFORCING PLAN

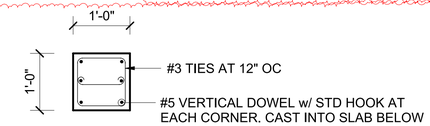


PIER REINFORCING SECTION

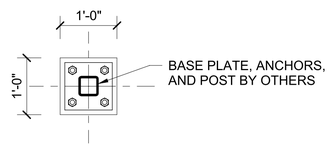


POST BASE PLAN

1 PROCESS SUPPORT PIER - SHORT
99S602 3/4" = 1'-0" (22"x34")



PIER REINFORCING PLAN



POST BASE PLAN

2 PROCESS SUPPORT PIER - TALL
99S602 3/4" = 1'-0" (22"x34")

STRUCTURAL WOOD SHEATHING

ROOF SHEATHING:
APA-RATED SHEATHING, EXP 1, 19/32", 40/20
SPAN RATING, 8d COMMON NAILS AT 6" O.C. AT PANEL EDGES, 12" O.C. AT INTERMEDIATE SUPPORTS, UNBLOCKED AT PANEL EDGES.

WALL SHEATHING:
APA-RATED SHEATHING, EXP 1, 15/32", 32/16
SPAN RATING, 8d COMMON NAILS AT 6" O.C. AT PANEL EDGES, 12" O.C. AT INTERMEDIATE SUPPORTS, BLOCKED AT PANEL EDGES.

STRUCTURAL COMPOSITE LUMBER

LAMINATED VENEER LUMBER (LVL)

Fb = 2250 PSI
E = 1.3 x 10e6 PSI
Fv = 200 PSI
Ft = 1500 PSI
Fc (PAR) = 1950 PSI
Fc (PERP) = 560 PSI

PROJECT DATE:	AUG 5, 2024	DRAWN BY:	JBR
		DESIGNED BY:	KB
		CHECKED BY:	CWW

No	DATE	REVISIONS	BY
1	8/19/2025	PLAN REVIEW COMMENTS	CWW

MSA
ENGINEERING | ARCHITECTURE | SURVEYING
FUNDING | PLANNING | ENVIRONMENTAL
400 ICE HARBOR DR, STE 110, DUBUQUE IA 52001
(563) 582-3973 www.msa-ps.com
© MSA Professional Services, Inc.

WATER TREATMENT FACILITY UPGRADE
CITY OF TIFFIN
JOHNSON COUNTY, IA

TYPICAL DETAILS AND SCHEDULE
STRUCTURAL SCHEDULES

PROJECT NO. 13603016
SHEET 99S602

PLOT DATE: 8/19/2025 4:44:21 PM Autodesk Docs://13603016 - TIFFIN IA WTP - ACCI/13603016_TIFFIN WTP_SAP.rvt

www.triconcg.com

746 58th Ave Ct SW
Cedar Rapids, IA 52404

Corporate Office
1230 East 12th Street
Dubuque, IA 52001
P 563.588.9516
F 563.588.9519

June 29, 2026

Tim Kasparek
City of Tiffin
300 Railroad Street
Tiffin, IA 52340

Project: Tiffin Water Treatment Facility Upgrade
Re: COR # 19

Vault Lighting per attached.

Neumiller Electric	2,476.50
OHP	123.83
General Liability Insurance	46.60
Bond	38.91
Total	**$ 2,685.84**

Approved By:

Tom Shedek — 6/29/2026
Project Manager – Tricon Construction — Date

Clint Wienen – MSA Professional Services Inc — Date

City of Tiffin — Date

Neumiller Electric Change Order Request

Neumiller Electric Inc.
(319) 665-9036
FULL SERVICE ELECTRICAL CONTRACTOR

Project Name :	**Tiffin WTP**
Project Number :	**25-098-C**
General Contractor:	**Tricon Construction**
COR #:	**#002**
COR Reference:	
COR Description:	**Vault Lighting**
Date:	**6/25/2026**
Approved by:	Nathan Phillips
Accepted by:	

Material

			Total
Quoted Material	Documentation attached		$ 924.12
Itemized Material	Documentation attached		$ 150.97
Shipping	Documentation attached		$ -
Handling	Documentation attached		$ -
Expedition of material	Documentation attached		$ -
Total			$ 1,075.09

Labor

	Hours	X	$ per Hour	Total
Foreman	4.33		$ 90.00	$ 389.36
Journeyman	4.20		$ 85.00	$ 356.92
Apprentice	4.20		$ 70.00	$ 293.93
Project Management	0.38		$ 100.00	$ 38.17
Total				$ 1,078.39

Labor Overtime

	Hours	X	$ per Hour	Total
Foreman	0.00		$ 135.00	$ -
Journeyman	0.00		$ 127.50	$ -
apprentice	0.00		$ 105.00	$ -
Project Management	0.00		$ 150.00	$ -
Total				$ -

Subcontractor

		Total
		$ -
		$ -
Markup	5%	$ -
Total		$ -

COR Cost		$ 2,153.47
COR Overhead	10%	$ 215.35
COR Profit	5%	$ 107.67
Tax	0%	$ -
COR Total Price		**$ 2,476.50**

Material/Equipment

Description	QTY	Unit price	Price Unit	New Unit Price	Total Price	Unit Labor	Labor Unit	New Labor Unit	Total Labor
3/4" CONDUIT - PVC40	40	$ 36.36	C	0.3636	$ 14.54	4.5	C	0.045	1.8
3/4" ELBOW 90 DEG - PVC40	6	$ 173.25	C	1.7325	$ 10.40	23.75	C	0.2375	1.425
3/4" COUPLING - PVC	12	$ 30.87	C	0.3087	$ 3.70	15	C	0.15	1.8
3/4" 2-H STRAP - PVC	8	$ 63.27	C	0.6327	$ 5.06	7.5	C	0.075	0.6
#12 THHN BLACK	132	$ 252.10	M	0.2521	$ 33.28	6.44	M	0.00644	0.85008
#14 THHN GREEN	44	$ 170.60	M	0.1706	$ 7.51	5.38	M	0.00538	0.23672
WIRE CONN RED	4	$ 28.55	C	0.2855	$ 1.14	7.5	C	0.075	0.3
FS 1G BOX 1x 3/4" HUB - TOP	1	$ 48.97	E	48.9700	$ 48.97	0.56	E	0.56	0.56
GROUND SCREW W/ INSUL #12 LEAD	1	$ 88.68	C	0.8868	$ 0.89	3.75	C	0.0375	0.0375
1/4-20x 1 3/4 WEDGE ANCHOR - 1 1/8" MIN DEPTH	6	$ 74.96	C	0.7496	$ 4.50	10	C	0.1	0.6
#8 TO #10x 7/8 PLAS ANCHOR (3/16)	8	$ 5.87	C	0.0587	$ 0.47	7.5	C	0.075	0.6
1/4-20 HEX NUT - PLTD STL	4	$ 6.08	C	0.0608	$ 0.24	2.5	C	0.025	0.1
1/4x 1 1/4 FENDER WASHER - PLTD STL	4	$ 15.14	C	0.1514	$ 0.61	1.25	C	0.0125	0.05
#10x 1 P/H SELF-TAP SCREW	8	$ 11.90	C	0.1190	$ 0.95	3.75	C	0.0375	0.3
1G SWITCH COVER - FS/FD	1	$ 1,142.11	C	11.4211	$ 11.42	8.75	C	0.0875	0.0875
20A 120-277V S/P SW - TOGGLE IVY (SG)	1	$ 729.00	C	7.2900	$ 7.29	17.5	C	0.175	0.175
4' WEATHERPROOF	2	$ -	E	0.0000	$ -	1.13	E	1.13	2.26
Total					$ 150.97				11.7818

Productivity Factors

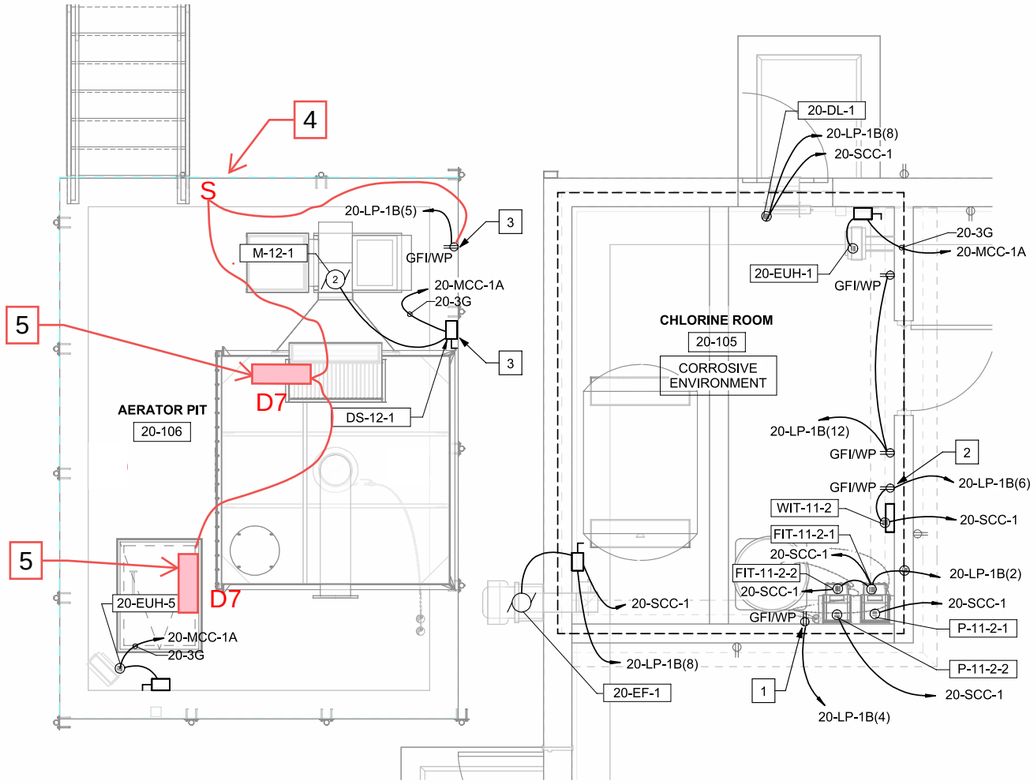
	Percentage of Loss		Additional Labor

Stacking of trades		0%		0
Morale and Attitude		0%		0
Reassignment of Manpower		5%		0.58909
Crew Size Inefficiency		0%		0
Concurrent Operations		0%		0
Dilution of Supervision		0%		0
Learning Curve		0%		0
Joint Occupancy		0%		0
Site Access		0%		0
Logistics		3%		0.353454
Fatigue		0%		0
Season and Weather		0%		0
		0%		0
Total				0.94

Supporting Documentation

Terms

: This COR is good for 15 days from date Approved above
: COR must be signed and returned to be considered valid
: Normal working hours will be 7am to 3:30 pm
: Any time outside "Normal working hours" will be billed at Over Time rates
: Labor units and Productivity Factors are based upon NECA change order guidelines



POWER PLAN - AERATOR PIT AND CHLORINE RM
3/8" = 1'-0" (22" X 34")
3/16" = 1'-0" (11" X 17")
0 1 2 4 6

FIXTURE SCHEDULE								
ID	QTY	DESCRIPTION	LAMP	MANUFACTURER	WATTS	GENERAL PART NUMBER	LUMINAIRE WARRANTY	NOTES
D7	2	INDUSTRIAL WET LABEL LED	LED	LITHONIA	40	DMW2 L24 4000LM PFL MD MVOLT 40K 80CRI (OR EQUAL)	1-YEAR	1,4

GENERAL NOTES:

A. ALL FIXTURES TO BE 120V UNLESS OTHERWISE NOTED.
B. ALL FIXTURES SHALL BE SUPPLIED WITH STANDARD COLORS AND FINISH OPTIONS, COLOR TO BE SELECTED BY ARCHITECT.
C. ALL BALLASTS SHALL BE LOW HARMONIC.

NOTES:

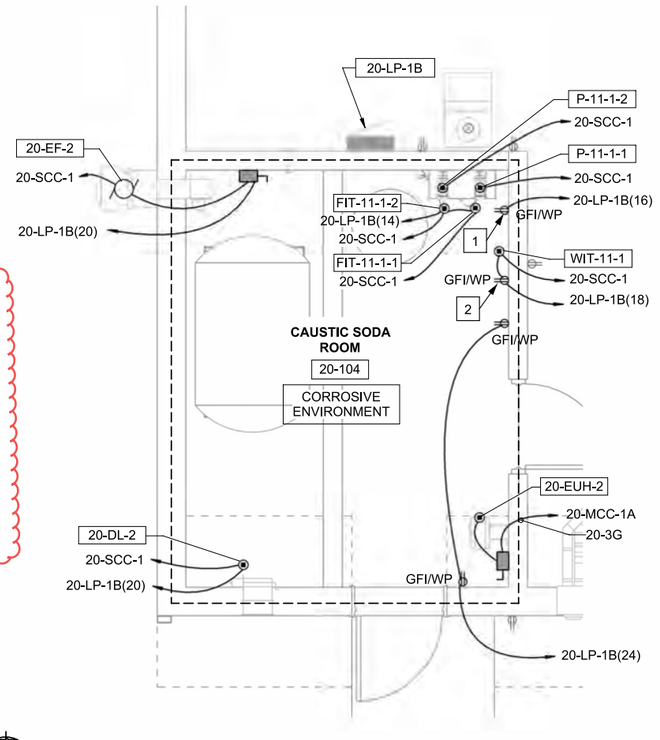
1. SHALL COMPLY TO FOCUS ON ENERGY STANDARDS.
2. PROVIDE EXTERIOR FIXTURES WITH PHOTOS CELLS.
3. SHALL INCLUDE ALL ACCESSORIES INCLUDING BATTERY AND TEST BUTTON FOR EM OPERATION.
4. SHALL BE WP AND EXTERIOR RATED.

GENERAL NOTES:

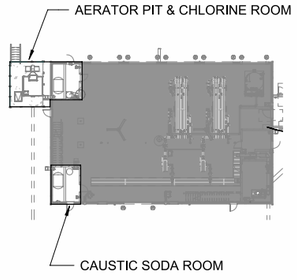
A. PROVIDE NEC WORKING SPACE FOR ELECTRICAL EQUIPMENT.
B. DISCONNECTS RELATED TO HVAC CONNECTIONS SHALL BE PROVIDED BY THE EQUIPMENT SUPPLIER AND INSTALLED BY THE ELECTRICAL CONTRACTOR.
C. ALL INTERIOR RECEPTACLES AND SWITCHES TO BE MOUNTED AT 46" AFF, UNLESS OTHERWISE NOTED.
D. ALL EXTERIOR RECEPTACLES TO BE MOUNTED AT 30" AFG, UNLESS OTHERWISE NOTED.
E. REFER TO ONE-LINES, P&IDs, AND WIRING SCHEDULES.

KEY NOTES:

1. PROVIDE CHEMICAL PUMP REC. MOUNT HIGHER THAN PUMPS.
2. PROVIDE CHEMICAL SCALE REC.
3. PROVIDE RAILING MOUNTED DEVICE.
4. PROVIDE RAILING MOUNTED WP LIGHT SWITCH FOR VAULT LIGHTING. RUN FROM RECEPTACLE CIRCUIT AS SHOWN.
5. PROVIDE NEW LIGHT FIXTURES AND CEILING MOUNT IN VAULT AS SCHEDULED.



POWER PLAN - CAUSTIC SODA ROOM
3/8" = 1'-0" (22" X 34")
3/16" = 1'-0" (11" X 17")
0 1 2 4 6



PLOT DATE: 3/4/2025 2:13:44 PM Autodesk Docs://13603016 - TIFFIN WTP - AECOM/13603016_TIFFIN WTP_ELEC.rvt

PROJECT DATE: 7/31/2024	DRAWN BY: ARL	No	DATE	REVISIONS	BY
	DESIGNED BY: SRC				
	CHECKED BY: SRC				

MSA
ENGINEERING | ARCHITECTURE | SURVEYING
FUNDING | PLANNING | ENVIRONMENTAL
400 ICE HARBOR DR, STE 110, DUBUQUE IA 52001
(563) 582-3973 www.msa-ps.com
© MSA Professional Services, Inc.

WATER TREATMENT FACILITY UPGRADE
CITY OF TIFFIN
JOHNSON COUNTY, IA

RO BUILDING
POWER PLAN - SOUTH ROOMS

PROJECT NO. 13603016
SHEET 20E102

LITHONIA LIGHTING®

Catalog Number	
Notes	
Type	

LED Enclosed and Gasketed

DMW2



FEATURES & SPECIFICATIONS

INTENDED USE —For areas that require good vertical illumination and excellent glare control at low mounting heights. Ideal for open areas, retail spaces and aisles. Not for use or installation in direct outdoor sunlight. Must be installed under canopy or covered ceiling. For direct sunlight installations, please refer to the FEX product family. **Certain airborne contaminants can diminish the integrity of acrylic and/or polycarbonate. Click here for Acrylic-Polycarbonate Compatibility table for suitable uses.**

Certain airborne contaminants may adversely affect the functioning of LEDs and other electronic components, depending on various factors such as concentrations of the contaminants, ventilation, and temperature at the end-user location. Click here for a list of substances that may not be suitable for interaction with LEDs and other electronic components.

CONSTRUCTION — One-piece 5VA rated fiberglass housing with integral perimeter channel utilizes continuous poured-in-place NEMA 4X gasket. Simple two-piece design consists of housing and optical assembly to streamline installation process. Polymeric latches positively attach to housing and keep from becoming a hindrance during install.

OPTICS — Injection-molded, acrylic lens (.080" thick), provides high impact-resistance comparable to 100% DR. F1 rated for outdoor use, lenses resist breaking, yellowing or becoming brittle over time. UV stabilized polycarbonate diffuser available (.080" thick) in clear or frosted for additional impact strength. Polycarbonate lens is recommend for lower mounting heights where vandal protection is desired.

ELECTRICAL — Tool-less one piece optical assembly combines LEDs and lens into one component. Optical assembly easily connects to housing with plug and play harness, eliminating time consuming wiring connections. High-efficiency drivers operate 120-480V offered with 0-10V dimming, allowing granular control when coupled with wireless networking controls. Luminaire Surge Protection Level: Designed to withstand up to 2.5kV/0.75kA per ANSI C82.77-5-2015.

L85 at 60,000 hours.

INSTALLATION — Two-piece design makes installations faster than ever by simplifying wiring connections. Power connection is easily accommodated through pre-drilled holes at each end, optional wet location fittings available for maximum flexibility.

Stainless steel (#316) surface spring-mounting brackets with bail wires standard (2 included) allow for ceiling, wall or suspended mount.

Swivel stem(provided by others) when pendant mounting. Factory installed junction box option accommodates up to 4X4 sized boxes and includes integrated gasket to maintain wet location listings.

Quick Mount Bracket (QMB) ships installed on fixture and is recommended for fastest surface mount installs, ideal for end to end installations or larger jobs.

LISTINGS — CSA Certified to UL and C-UL standards. NEMA 4X rated. IP ratings: IP65 and IP66 rated. See page 3 for ambients.

NSF listed for Splash Zone II.

GOVERNMENT PROCUREMENT — BAA – Product with the BAA option qualifies as a domestic end product under the Buy American Act as implemented in the FAR and DFARS. Product with the BAA option also qualifies as manufactured in the United States under DOT Buy America regulations.
BABA – Build America Buy America: Product with the BAA option also qualifies as produced in the United States under the definitions of the Build America, Buy America Act.
Please refer to www.acuitybrands.com/buy-american for additional information.

WARRANTY — 5-year limited warranty. This is the only warranty provided and no other statements in this specification sheet create any warranty of any kind. All other express and implied warranties are disclaimed. Complete warranty terms located at:
www.acuitybrands.com/support/warranty/terms-and-conditions

Note: Actual performance may differ as a result of end-user environment and application.
All values are design or typical values, measured under laboratory conditions at 25 °C.
Specifications subject to change without notice.

A+ Capable Luminaire

This item is an A+ capable luminaire, which has been designed and tested to provide consistent color appearance and out-of-the-box control compatibility with simple commissioning.

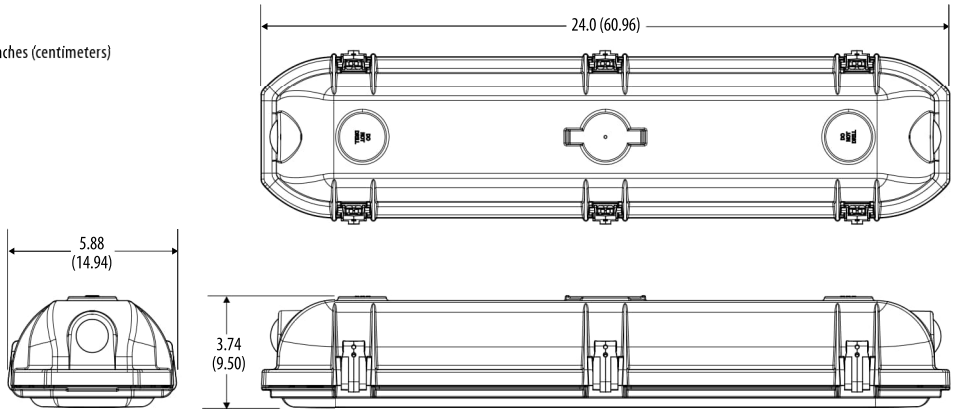
- All configurations of this luminaire meet the Acuity Brands' specification for chromatic consistency
- This luminaire is part of an A+ Certified solution for nLight® control networks marked by a shaded background*

To learn more about A+, visit www.acuitybrands.com/aplus.

*See ordering tree for details

DIMENSIONS

All dimensions are shown in inches (centimeters) unless otherwise noted.



PHOTOMETRICS

Please see www.lithonia.com.

DMW2 LED Wet Location

A+ Capable options indicated by this color background.

ORDERING INFORMATION Lead times will vary depending on options selected. Consult with your sales representative. **Example:** DMW2 L24 4000LM PCL MD MVOLT GZ10 40K 80CRI

Series ‡	Length	Nominal lumens	Diffuser	Distribution	Voltage	Driver	Color temperature	Color rendering index
DMW2 LED wet location	L24 24"	2000LM 2,000 lumens 3000LM 3,000 lumens 4000LM 4,000 lumens	ACL Acrylic AFL Frosted acrylic PCL Polycarbonate PFL Frosted Polycarbonate	MD Medium distribution WD Wide distribution	MVOLT 120-277V 120 120V 208 208V 240 240V 277 277V 347 347V 480 480V	GZ10 0-10V Dimming	30K 3000 K 35K 3500 K 40K 4000 K 50K 5000 K	80CRI 80 CRI 90CRI 90 CRI

Options

E10W	IOTA 10W emergency battery pack, Constant Power, Certified in CA Title 20 MAEDBS, Self-diagnostics (LINK) ‡
PMP4X	Pendant monopoint with NEMA4X fitting (not available with JSB option) ‡
WLFEND	Wet location fitting (one fitting out end) ‡
WLFEND2	Wet location fitting (fittings out both ends) ‡
JSB	Junction box snap-bracket ‡
QMB	Quick-mount ceiling bracket ‡
CS89	6' white cord, 16/3, no plug, wet location ‡
CS89L12	12' white cord, 16/3, no plug, wet location ‡
CS88	6' Brad Harrison 16/3 cord and straight blade plug set, NEMA 4X rated ‡
CS88L12	12' Brad Harrison 16/3 cord and straight blade plug set, NEMA 4X rated ‡
CS88R	Brad Harrison receptacle, NEMA 4X rated ‡
NOM	Nom certified
TPS	TorxT10 tamper-resistant screws
STSL	Stainless steel latches
SPD	10KV surge protection device ‡
BAA	Buy America(n) Act and/or Build America Buy America Qualified
MSI10NWL	Low mount 360 integral motion sensor, wet location, On/Off operation ‡
MSI102L3VWL	Low mount 360 integral motion sensor, wet location, High/Low operation (3 level) ‡
MSI10NWL DSCNWL	low mount 360 integral motion sensor, wet location , On/Off operation for motion sensing, override Off due to daylight ‡
NLTAIR2 RSBOR10	nLight AIR Generation 2 enabled 360° low mount motion sensor ‡

NOTE: ‡ indicates option chosen has ordering restrictions. Please reference ordering restrictions chart. Options are sorted alphanumerically.

Accessories: *Order as separate catalog number.*

RK1 T10BIT W/PIN U	Hex-base driver bit, Torx TX10, for tamper-resistant screws with center reject pin
DMW2WLF	Wet location fitting
DMW2QMB	Quick-mount ceiling bracket

‡ Option Value Ordering Restrictions

Option value	Restriction
CS88, CS88L12	Receptacle only. Not available with E10W option.
CS88R	Receptacle only. Not available with E10W option.
CS89, CS89L12	Not available with other cord sets. Not available with E10W option.
E10W	Not available with JSB, PMP4X mounting options. Not available with CS88 cord sets or CS88R receptacle. Must specify voltage. Not available with 347, 480V. Maximum ambient temperature 25°C.
JSB	Not available with other mounting options.
MSI102L3VWL, MSI10WL DSCNWL	Not available with other external MSI sensors or WLFEND2. Must specify voltage.
MSI10WL	Not available with other external MSI sensors or WLFEND2. Must specify voltage.
NLTAIR2 RSBOR10	Not available with other external MSI sensors or WLFEND2. Normal luminaires (non-emergency) can be used as a normal power sensing device for nearby nLight AIR devices and luminaires with EM emergency options.
PMP4X	Not for field install. Not available with PS1050 option. Not available with QMB, JSB mounting options.
QMB	Not available with other mounting options.
Series	Plastic latches supplied as standard. Provided with 2X KO plugs at both ends.
SPD	Not available with MSI10NWL, MSI102L3VWL, MSI10NWL DSCNWL, NLTAIR2 RSBOR10.
WLFEND	Not available with WLFEND2. Not available with cordsets or sensors.
WLFEND2	Not available with WLFEND, cord sets, or MSI sensors.

© 2015-2026 Acuity Brands Lighting, Inc. All rights reserved.

OPERATIONAL DATA (80 CRI*)					
Package	Input Wattage	CCT	AFL	ACL	Comparable Light Source
			Lumens (LPW)	Lumens (LPW)	
2000LM	18	30K	2419 (134)	2419 (134)	1-32T8 lamp
		35K	2481 (138)	2556 (142)	
		40K	2536 (141)	2612 (145)	
		50K	2661 (148)	2740 (152)	
3000LM	27	30K	3483 (129)	3587 (133)	2-32T8 lamps
		35K	3572 (132)	3680 (136)	
		40K	3651 (135)	3761 (139)	
		50K	3831 (142)	3946 (146)	
4000LM	40	30K	4631 (116)	4770 (119)	3-32T8 Lamps, 2-54T5HO lamps
		35K	4751 (119)	4893 (122)	
		40K	4855 (121)	5001 (125)	
		50K	5094 (127)	5247 (131)	

CSA LISTED AMBIENT RATING*			
Package	Bare Fixture	Sensor	Emergency
2000LM	40°C	35°C	0 to 25°C
3000LM	40°C	35°C	0 to 25°C
4000LM	-40 to 40°C	35°C	0 to 25°C

*Minimum Ambient is -20°C unless noted.
** Suspended 18" from ceiling.

OPTIONS AND ACCESSORIES

The DMW2 Series fixture offers numerous options for almost every electrical and optical component, including a long list of field-installable accessories.



SMB
Surface mounting bracket
(ships standard with fixture)



QMB
Quick mounting bracket
field installable option order as DMW2QMB



JSB
Junction mounting bracket
(factory installed only)
(Not intended for wall mounting.
Voids IP65 rating.)



PMP4X
Pendant monopoint
(factory installed only)

© 2015-2026 Acuity Brands Lighting, Inc. All rights reserved.

OPTIONS AND ACCESSORIES

The DMW2 Series fixture offers numerous options for almost every electrical and optical component, including a long list of field-installable accessories.

rSBOR/SBOR – Fixture Mount Sensor (see www.sensorswitch.com for additional information)

- 360° coverage
- On/Off dim
- Photocell optional
- IP66 rated
- Photocell and 0-10VDC dimming options.



Fixture sensor nomenclature	RSBOR/SBOR sensor nomenclature
For shortest lead times use one of the following SBOR configurations	
NLTAIR2 RSBOR10	RSBOR 10 EB4 WH G2
MSI10NWL	SBOR 10 OEX EB4 WH
MSI102L3VWL	SBOR 10 OEX D EB4 WH 3V
MSI10NWL DSCNWL	SBOR 10 OEX P EB4 WH

INDUSTRIAL: 1 Acuity Way, Decatur, GA 30035 Phone: 1-800-705-SERV (7378) www.lithonia.com

© 2015-2026 Acuity Brands Lighting, Inc. All rights reserved.

www.triconcg.com

746 58th Ave Ct SW
Cedar Rapids, IA 52404

Corporate Office
1230 East 12th Street
Dubuque, IA 52001
P 563.588.9516
F 563.588.9519

July 20, 2026

Tim Kasparek
City of Tiffin
300 Railroad Street
Tiffin, IA 52340

Project: Tiffin Water Treatment Facility Upgrade
Re: COR # 21 – Field Order 3

Mini Split per attached.

Neumiller Electric	749.55
OHP	37.48
General Liability Insurance	14.10
Bond	11.78
Total	**$ 812.91**

Approved By:

Tom Shedek — 7/20/2026
Project Manager – Tricon Construction — Date

Clint Wienen – MSA Professional Services Inc — Date

City of Tiffin — Date

Neumiller Electric Change Order Request

Project Name :	**Tiffin WTP**
Project Number :	**25-098-C**
General Contractor:	**Tricon Construction**
COR #:	**#003**
COR Reference:	
COR Description:	**Mini Split**
Date:	**7/2/2026**
Approved by:	Nathan Phillips
Accepted by:	

Neumiller Electric Inc.
(319) 665-9036
FULL SERVICE ELECTRICAL CONTRACTOR

Material

			Total
Quoted Material	Documentation attached		$ -
Itemized Material	Documentation attached		$ 82.23
Shipping	Documentation attached		$ -
Handling	Documentation attached		$ -
Expedition of material	Documentation attached		$ -
Total			$ 82.23

Labor

	Hours	X	$ per Hour	Total
Foreman	2.28		$ 90.00	$ 205.65
Journeyman	2.22		$ 85.00	$ 188.51
Apprentice	2.22		$ 70.00	$ 155.24
Project Management	0.20		$ 100.00	$ 20.16
Total				$ 569.56

Labor Overtime

	Hours	X	$ per Hour	Total
Foreman	0.00		$ 135.00	$ -
Journeyman	0.00		$ 127.50	$ -
apprentice	0.00		$ 105.00	$ -
Project Management	0.00		$ 150.00	$ -
Total				$ -

Subcontractor

		Total
		$ -
		$ -
Markup	5%	$ -
Total		$ -

COR Cost		$ 651.78
COR Overhead	10%	$ 65.18
COR Profit	5%	$ 32.59
Tax	0%	$ -
COR Total Price		**$ 749.55**

Material/Equipment

Description	QTY	Unit price	Price Unit	New Unit Price	Total Price	Unit Labor	Labor Unit	New Labor Unit	Total Labor
3/4" CONDUIT - PVC80	30	$ 64.13	C	0.6413	$ 19.24	5.25	C	0.0525	1.575
3/4" ELBOW 90 DEG - PVC80	2	$ 621.12	C	6.2112	$ 12.42	27.25	C	0.2725	0.545
3/4" COUPLING - PVC	8	$ 33.16	C	0.3316	$ 2.65	15	C	0.15	1.2
3/4" 2-H STRAP - PVC	6	$ 83.02	C	0.8302	$ 4.98	7.5	C	0.075	0.45
#12 THHN BLACK	132	$ 273.10	M	0.2731	$ 36.05	6.44	M	0.00644	0.85008
#14 THHN GREEN	33	$ 170.60	M	0.1706	$ 5.63	5.38	M	0.00538	0.17754
#8 TO #10x 7/8 PLAS ANCHOR (3/16)	6	$ 8.98	C	0.0898	$ 0.54	7.5	C	0.075	0.45
#10x 1 P/H SELF-TAP SCREW	6	$ 11.88	C	0.1188	$ 0.71	3.75	C	0.0375	0.225
2" DIAM CORE 5" THICK FLOOR	1	$ -	E	0.0000	$ -	0.75	E	0.75	0.75
		$ -		FALSE	$ -			FALSE	0
		$ -		FALSE	$ -			FALSE	0
		$ -		FALSE	$ -			FALSE	0
		$ -		FALSE	$ -			FALSE	0
		$ -		FALSE	$ -			FALSE	0
		$ -		FALSE	$ -			FALSE	0
		$ -		FALSE	$ -			FALSE	0
		$ -		FALSE	$ -			FALSE	0
Total					$ 82.23				6.22262

Productivity Factors

	Percentage of Loss		Additional Labor

Stacking of trades		0%		0
Morale and Attitude		0%		0
Reassignment of Manpower		5%		0.311131
Crew Size Inefficiency		0%		0
Concurrent Operations		0%		0
Dilution of Supervision		0%		0
Learning Curve		0%		0
Joint Occupancy		0%		0
Site Access		0%		0
Logistics		3%		0.186679
Fatigue		0%		0
Season and Weather		0%		0
		0%		0
Total				0.50

Supporting Documentation

Terms

: This COR is good for 15 days from date Approved above
: COR must be signed and returned to be considered valid
: Normal working hours will be 7am to 3:30 pm
: Any time outside "Normal working hours" will be billed at Over Time rates
: Labor units and Productivity Factors are based upon NECA change order guidelines

www.triconcg.com

746 58th Ave Ct SW
Cedar Rapids, IA 52404

Corporate Office
1230 East 12th Street
Dubuque, IA 52001
P 563.588.9516
F 563.588.9519

June 9, 2026

Tim Kasparek
City of Tiffin
300 Railroad Street
Tiffin, IA 52340

Project: Tiffin Water Treatment Facility Upgrade
Re: COR # 18

Truss Design Code Changes to IBC 2018/ASCE 7-16, per attached.

ReVosWel Code Changes – Calculation/Drawing Updates	1,200.00
Tricon – Carpenter (16hrs @ 78.77/hr) - MCC Room Truss Changes	1,260.32
Tricon – Carpenter (20hrs @ 78.77/hr) - RO Bldg Truss Changes	1,575.40
Tricon – Carpenter (1hr @ 78.77/hr) - Final Building Inspector Re-Review	78.77
Tricon – Material	472.94
Sub-Total	4,587.43
OHP (Subcontracted)	60.00
OHP (Self-Performed)	508.11
General Liability Insurance	92.39
Bond	77.14
Total	**$ 5,325.07**

Approved By:

Tom Shedek — 6/9/2026
Project Manager – Tricon Construction — Date

Clint Wienen – MSA Professional Services Inc — Date

City of Tiffin — Date

ITEM ANALYSIS

Project	Tiffin Water Treatment Facilicy Upgrade	Location	Tiffin, IA
Description	Truss Design Code Changes to IBC 2018/ ASCE 7-16	Estimator	Tom Shedek
Contractor	Tricon Construction Group	Date	6/9/2026

	Description	QTY	Units	Unit Rate	Man-hours	Labor Expense Wages U.P.	Labor Expense Wages Total	Permanent Materials Engineered Equipment U.P.	Permanent Materials Engineered Equipment Total	Sub Contracts U.P.	Sub Contracts Total	Total Direct Cost
Item #	**Base Bid Costs (Deducts)**											
1-1							$ -		$ -		$ -	$ -
1-2							$ -		$ -		$ -	$ -
1-3							$ -		$ -		$ -	$ -
1-4							$ -		$ -		$ -	$ -
1-5							$ -		$ -		$ -	$ -
1-6							$ -		$ -		$ -	$ -
	Totals				**-**		**$ -**		**$ -**		**$ -**	**$ -**
Item #	**Base Bid Changes per Team/City Request**											
2-1	ReVosWel Code Changes - Calculation/ Drawing Updates	1	LS				$ -		$ -	$ 1,200.00	$ 1,200.00	$ 1,200.00
2-2	MCC Room Truss Changes - Tricon/ Beisser Lumber	1	LS		16.00	$ 78.77	$ 1,260.32		$ -		$ -	$ 1,260.32
2-3	RO Bldg Truss Changes - Tricon/ Bessier Lumber	1	LS		20.00	$ 78.77	$ 1,575.40		$ -		$ -	$ 1,575.40
2-4	Final Building Inspector Re-Review - Tricon	1	LS		1.00	$ 78.77	$ 78.77		$ -		$ -	$ 78.77
2-5	3 sheets of 3/4", 13 sheets of 1/2" - Beisser Lumber	1	LS				$ -	$ 218.02	$ 218.02		$ -	$ 218.02
2-6	Nails - Lowes - Tricon	1	LS				$ -	$ 254.92	$ 254.92		$ -	$ 254.92
	Totals				**37.00**		**$ 2,914.49**		**$ 472.94**		**$ 1,200.00**	**$ 4,587.43**
Delta = Orange - Blue **(pos # is total add, neg # is total deduct)**					37.0		$ 2,914.49		$ 472.94		$ 1,200.00	**$ 4,587.43**

NOTES: Delta = (Addition total **-** Base Bid total)

The above costs do not include any contractual markups.

Project Manager or Authorized Designee Signature

X

Date:

Tom Shedek

From: Pat Hendricks <path@revoswel.com>
Sent: Tuesday, June 9, 2026 10:17 AM
To: Tom Shedek
Subject: FW: Repair charges
Attachments: I82348414.25157A-MCC.pdf; I82462233.26045-RO.pdf

---

From: Darren Burrichter <darren@revoswel.com>
Sent: Tuesday, June 9, 2026 9:12 AM
To: Andy R. <andyr@revoswel.com>
Cc: Pat Hendricks <path@revoswel.com>
Subject: RE: Repair charges

Here are the repairs as of right now.

Darren

From: Andy R. <andyr@revoswel.com>
Sent: Tuesday, June 9, 2026 9:04 AM
To: Pat Hendricks <path@revoswel.com>
Cc: Darren Burrichter <darren@revoswel.com>
Subject: FW: Repair charges

We will be charged $1200 for the repairs done so far. Plus, whatever material is needed to do the repair.

Darren, can you send me the pdfs of the repairs please. I will go through it with Pat and we can come up with a number to give to Tom.

Thank you!

Andy Ries
Truss Department Manager
Office : 319-377-9868
Cell : 319-361-0936

ReVosWel
TRUSSES • WALLS • FLOORS

From: Michal Mazurek <Michal.Mazurek@mii.com>
Sent: Tuesday, June 9, 2026 9:01 AM
To: Andy R. <andyr@revoswel.com>
Subject: RE: Repair charges

So the charges should be for the one $50 job for the MMC building and the other should be for the first RO building being the $1150 repair. I will zero the second the repair for the RO building since that was a modify of the first repair I did.
Thanks,

MICHAL C. MAZUREK, E.I.T
Design Engineer

MiTek
16023 Swingley Ridge Road | Chesterfield, MO 63017
O: 314-851-7671
michal.mazurek@mii.com | www.mii.com

From: Andy R. <andyr@revoswel.com>
Sent: Tuesday, June 9, 2026 8:56 AM
To: Michal Mazurek <Michal.Mazurek@mii.com>
Subject: Repair charges

Hi Michal,
I was asked to verify the repair charges for the following jobs. It was the job that the building codes changed.

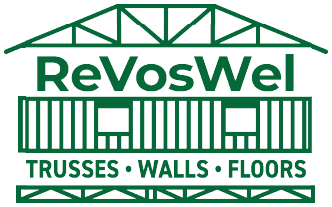
Can you verify what we are going to be charged? The customer is asking.

MMC building – I82348414 -- $50
RO building – I82347416 – $1150.00
RO building – I82462233 - $11.50.

Please let me know.

Thank you!

Andy Ries
Truss Department Manager
Office : 319-377-9868
Cell : 319-361-0936



CONFIDENTIAL NOTICE: If you have received this email in error, please immediately notify the sender by email at the above address. This email may contain personal or legally privileged information intended only for the use of the individual or entity named in this email.
MiTek Inc. and its subsidiaries are a global operating company that serves its residential and commercial customers in North America, Europe, Middle East, Africa, and Asia Pacific. Additional information about our corporate organization is available at www.mii.com/corporate-structure/. MiTek Holdings, Inc.. All Rights Reserved ---- This communication (including any attachments) contains information which is confidential and may also be privileged. It is for the exclusive use of the intended recipient(s). If you are not the intended recipient(s), please note that any distribution, copying, or use of this communication or the information in it is strictly prohibited. If you have received this communication in error, please notify the sender immediately and then destroy any copies of it. If the disclaimer can't be applied, take no action.
CONFIDENTIAL NOTICE: If you have received this email in error, please immediately notify the sender by email at the above address. This email may contain personal or legally privileged information intended only for the use of the individual or entity named in this email.

BEISSER LUMBER COMPANY

Beisser Lumber
415 Westcor Drive
Coralville, IA 52241
Phone: (319)-545-7120

ORDER ACKNOWLEDGMENT

0001497479

Account: TRIC1000 0017
Branch: 40CV
Phone: (563)-588-9516
Fax:

Bill To: Tricon General Construction
2245 Kerper Blvd
Suite # 2
Dubuque, IA 52001

Ship To: Tricon General Construction
109 South Brown Street
Tiffin WTP
Tifffin, IA 52340

PO: **Ref:** Sheathing **Job:**

Order Date: 06/09/26 **Sales** steves **Type:** WillCall **Ship Via:** Will Call
Exp Delv Date: 06/09/26 **Agents** steves **Ordered By:** Andy

QUANTITY	UOM	ITEM/DESCRIPTION	PRICE/UOM	AMOUNT
13	Each	osbtolko4850 4x8-1/2" OSB - Tolko (blue) 13/Each Loc:WHCenter	12.40/Each	161.20
3	Each	osbtolko4875tg 4x8-3/4" T&G Tolko OSB Blue Edge 3/Each Loc:WHCenter	18.94/Each	56.82
		Subtotal		218.02
		IA,Johnson,Coralville		13.08

Return Policy:
- Stock material can be returned up to 180 days after invoicing.
- All returns must be clean, uncut, no visible defects, and suitable for resale. Non-Sellable material will be disposed of.
- Beisser Lumber reserves the right to inspect material before issuing credit.
- Product sold in bundle, package, carton, pair, or set quantities must be returned in same quantities & unopen.
- Non-stock items, IF accepted for credit, a minimum 25% return charge will be assessed. NOTE: Substantial time delay when processing these credits, since we must first return the items to our supplier. Supplier will also inspect items before a credit can be processed. Delay times of three or more weeks are not unusual.
- Windows, Doors, & Prefinished Trim cannot be returned.
- Our return policy is subject to change without notice.

Payment Terms:
Due 10th of Following Month

Balance **$231.10**

Printed: 06/09/26 07:51:12 **Weight:** 16.00 **Load:** 16.00



LOWE'S®

LEARN MORE AT LOWES.COM/MYLOWESREWARDS

LOWE'S HOME CENTERS, LLC
2701 2ND STREET
CORALVILLE, IA 52241 (319) 545-8300

- SALE -

SALES#: S1688NA1 940651 TRANS#: 80794112 06-09-26

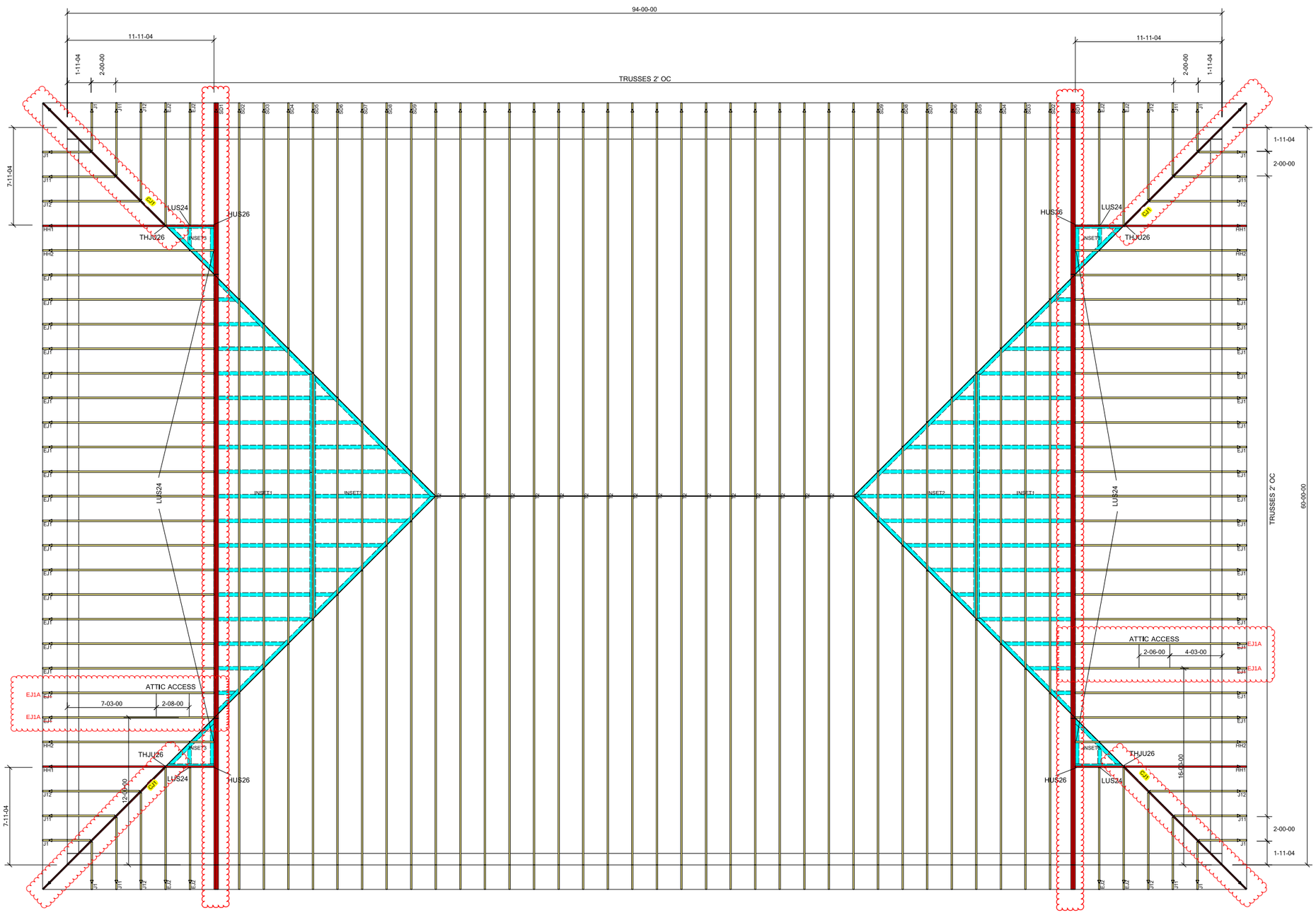
688887 MET 3X.131 30D S B FR NAI 254.92
74.98 DISCOUNT EACH -11.25
4 @ 63.73

SUBTOTAL:	254.92
TOTAL TAX:	0.00
INVOICE 99919 TOTAL:	254.92
VISA:	254.92

TOTAL SAVINGS THIS TRIP: $45.00

VISA: XXXXXXXXXXXX2318 AMOUNT: 254.92 AUTHCD: 04023G
TAP REFID:168802919396 06/09/26 07:27:59

Required truss modifications due to code changes indicated here



RO BUILDING

SIMPSON Strong-Tie Hangers				
HANGER TYPE	FASTENERS			
	CARRYING MEMBER		CARRIED MEMBER	
	TOP	FACE	STRAIGHT	SLANT
FACE MOUNT INSTALLATION				
TJC37	NONE	4-N8	4-N8	NONE
LUS24Z	NONE	4-N10	NONE	2-10dx3"
LUS24Z (1-PLY)	NONE	4-N10	NONE	2-10dx3"
HUS26	NONE	14-16dx3-1/2"	NONE	6-16dx3-1/2"
HUS26 (1-PLY)	NONE	14-N10	NONE	6-16dx3-1/2"
HHUS28-2	NONE	22-16dx3-1/2"	NONE	8-16dx3-1/2"
HGUS28-2	NONE	35-16dx3-1/2"	NONE	12-16dx3-1/2"
HUS1.81/10	NONE	30-16dX3-1/2"	NONE	10-16dX3-1/2"
CORNER JACK HANGER				
	CARRYING MEMBER		CARRIED MEMBER	
	TOP	FACE	HIP (CJ1)	JACK (EJ1)
THJU26(W) - 1 PLY GIRDER	NONE	16-N10	4-N10	4-10dx3"
TRUSS BEARING ENHANCER				
		TRUSS		WALL PLATE
TBE4 - PER EACH TBE4		10-10dx3"		10-10dx3"
TBE6 - PEREACH TBE6		10-10dx3"		10-10dx3"

BUILDING CODE: IBC2015
SNOW LOAD APPLIED: YES
GROUND SNOW: 25 PSF
ROOF SNOW: 18 PSF

LOADING:
TCLL = 20 PSF
TCDL = 10 PSF
BCLL = 0 PSF
BCDL = 10 PSF

WIND LOADING
120 MPH EXP "B"

Client: TRICON
Address:
Contact:
Sales: PAT HENDRICKS
Sheet Desc.: ROOF TRUSS LAYOUT
Site Information: TRICON - TIFFIN WATER TREATMENT
Drawn By: DARREN BURRICHTER
Job # 25157A-RO
Scale: 1/4"=1'-0"
Date: 12/10/2025

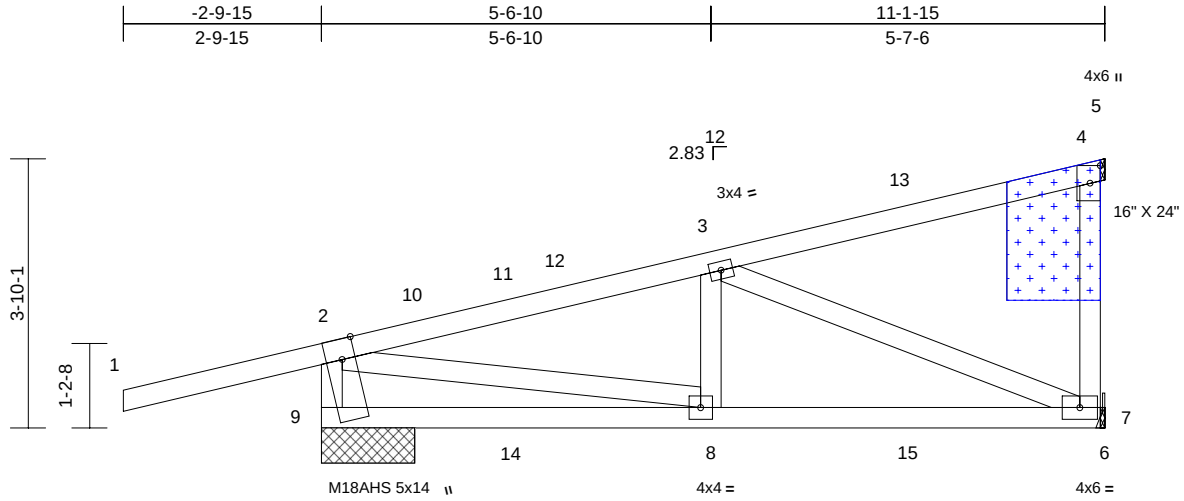
320 35th STREET
MARION, IOWA
52302
TEL 319-377-4868
FAX 319-377-4961
ReVosNel TRUSS & LUMBER

Job	Truss	Truss Type	Qty	Ply	TIFFIN WATER TREATMENT PLANT / STRUCTURE 20
26045-RO	CJ1	Diagonal Hip Girder	4	1	I82462233 Job Reference (optional)

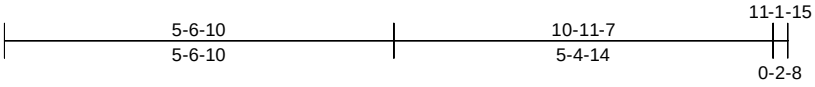
Revoswel Truss & Lumber, LLC, Marion, IA - 52302, Run: 25.40 E Dec 15 2025 Print: 25.4.0 E Dec 15 2025 MiTek Industries, Inc. Thu Jun 04 14:17:11 Page: 1

ID:7BQ0ck6_JHZdvKPoRVBB40ygiRV-yin4VumAvs9LqLR4YwAHmsHC2017cNiIjHmtNvz9eD7

REPAIR:
BUILDING CODE CHANGED FROM 2015 TO 2018



ATTACH 1/2" PLYWOOD OR OSB GUSSET (15/32" RATED SHEATHING 32/16 EXP 1) TO EACH FACE OF TRUSS WITH (0.131" X 2.5" MIN.) NAILS PER THE FOLLOWING NAIL SCHEDULE: 2 X 4'S - 3 ROWS: SPACED @ 4" O.C. NAILS TO BE DRIVEN FROM BOTH FACES. STAGGER SPACING FROM FRONT TO BACK FACE FOR A NET 2" O.C. SPACING IN EACH COVERED TRUSS MEMBER. USE 2" MEMBER END DISTANCE.



Scale = 1:32.8

Plate Offsets (X, Y): [9:0-3-8,Edge]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.66	Vert(LL)	-0.02	8-9	>999	360	MT20	197/144
Snow (Pf/Pg)	19.3/25.0	Lumber DOL	1.15	BC	0.24	Vert(CT)	-0.04	7-8	>999	240	M18AHS	142/136
TCDL	10.0	Rep Stress Incr	NO	WB	0.50	Horz(CT)	0.01	7	n/a	n/a		
BCLL	0.0	Code	IBC2018/TPI2014	Matrix-R								
BCDL	10.0										Weight: 48 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SPF 2100F 1.8E
BOT CHORD 2x4 SPF 2100F 1.8E
WEBS 2x4 SPF No.2

BRACING
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS (lb/size) 7=691/ Mechanical, 9=683/1-3-15
Max Horiz 9=232 (LC 8)
Max Uplift 7=-196 (LC 8), 9=-296 (LC 7)
Max Grav 7=734 (LC 12), 9=720 (LC 19)

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-9=-663/299, 2-10=-919/229, 10-11=-904/234, 11-12=-893/226, 3-12=-875/234, 4-7=-327/126
BOT CHORD 9-14=-326/165, 8-14=-326/165, 8-15=-326/918, 7-15=-326/918
WEBS 2-8=-223/953, 3-7=-852/301

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. III; Exp B; Enclosed; C-C Corner (3) -2-9-15 to 1-5-0, Exterior(2R) 1-5-0 to 11-1-15; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33
3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=25.0 psf; Pf=19.2 psf (Lum DOL = 1.15 Plate DOL = 1.15); Is=1.1; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.00; Min. flat roof snow load governs.
4) Unbalanced snow loads have been considered for this design.
5) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 19.2 psf on overhangs non-concurrent with other live loads.
6) All plates are MT20 plates unless otherwise indicated.
7) Refer to girder(s) for truss to truss connections.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 296 lb uplift at joint 9 and 196 lb uplift at joint 7.
9) This truss is designed in accordance with the 2018 International Building Code section 2306.1 and referenced standard ANSI/TPI 1.
10) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 54 lb up at 2-8-7, 54 lb up at 2-8-7, 65 lb down and 83 lb up at 5-6-6, 65 lb down and 83 lb up at 5-6-6, and 177 lb down and 111 lb up at 8-4-5, and 177 lb down and 111 lb up at 8-4-5 on top chord, and 4 lb down and 18 lb up at 2-8-7, 4 lb down and 18 lb up at 2-8-7, 14 lb down and 13 lb up at 5-6-6, 14 lb down and 13 lb up at 5-6-6, and 34 lb down at 8-4-5, and 34 lb down at 8-4-5 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
11) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard
1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (lb/ft)
Vert: 1-2=-59, 2-4=-59, 4-5=-59, 6-9=-20
Concentrated Loads (lb)
Vert: 8=-19 (F=-9, B=-9), 3=-55 (F=-27, B=-27), 11=74 (F=37, B=37), 13=-277 (F=-139, B=-139), 15=-59 (F=-29, B=-29)

Material:
- 4 trusses x 2 gussets/ truss = 8 gussets
- 1 sheets of 1/2" plywood
- Nails 0.131 x 2.5

Labor:
2 Carpenters for 1 hrs each to layout, cut
2 Carpenters for 2 hrs each to attach new gussets in existing attic space



June 5,2026

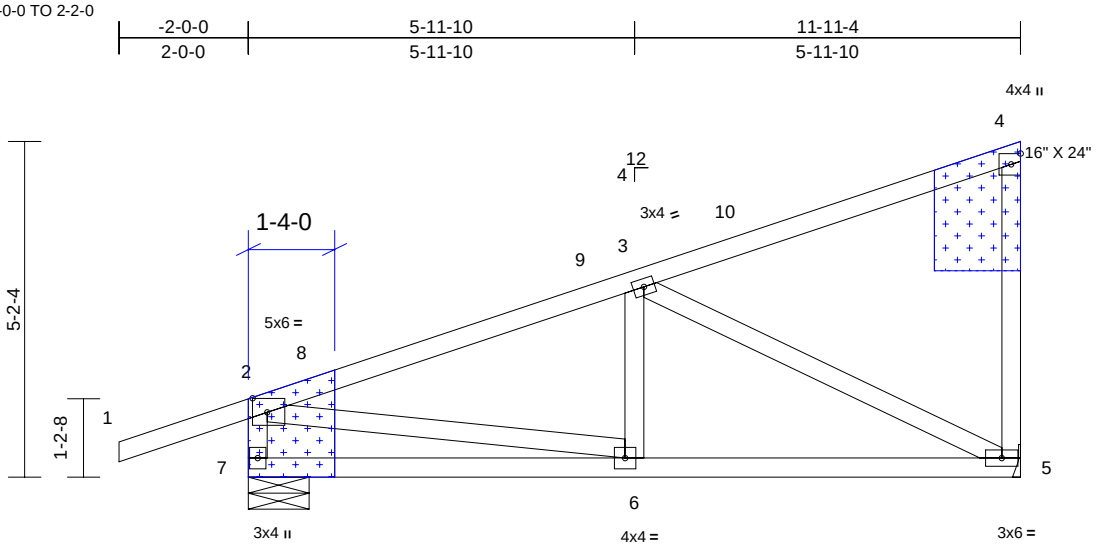
WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcscomponents.com)

MiTek®
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

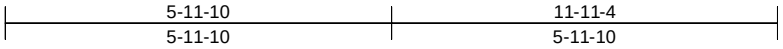
Job	Truss	Truss Type	Qty	Ply	TIFFIN WATER TREATMENT PLANT / STRUCTURE 20
26045-RO	EJ1A	Jack-Closed	4	1	I82462235 Job Reference (optional)

Revoswel Truss & Lumber, LLC, Marion, IA - 52302, Run: 25.40 E Dec 15 2025 Print: 25.4.0 E Dec 15 2025 MiTek Industries, Inc. Thu Jun 04 14:19:08 Page: 1
ID:7vua1wvKJ3Q1MjcXxROCuRygiRm-VPwhGEBB761b_UTlSilyYkARGaJuFjhfseM7W4z9eBH

REPAIR:
BUILDING CODE CHANGED FROM 2015 TO 2018
SPACING CHANGED FROM 2-0-0 TO 2-2-0



ATTACH 1/2" PLYWOOD OR OSB GUSSET (15/32" RATED SHEATHING 32/16 EXP 1) TO EACH FACE OF TRUSS WITH (0.131" X 2.5" MIN.) NAILS PER THE FOLLOWING NAIL SCHEDULE: 2 X 4'S - 3 ROWS: SPACED @ 4" O.C. NAILS TO BE DRIVEN FROM BOTH FACES. STAGGER SPACING FROM FRONT TO BACK FACE FOR A NET 2" O.C. SPACING IN EACH COVERED TRUSS MEMBER. USE 2" MEMBER END DISTANCE.



Scale = 1:35.6

Plate Offsets (X, Y): [2:0-2-11,0-2-10]

Loading	(psf)	Spacing	2-2-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.40	Vert(LL)	-0.02	6-7	>999	360	MT20	197/144
Snow (Pf/Pg)	19.3/25.0	Lumber DOL	1.15	BC	0.17	Vert(CT)	-0.03	5-6	>999	240		
TCDL	10.0	Rep Stress Incr	NO	WB	0.51	Horz(CT)	0.01	5	n/a	n/a		
BCLL	0.0	Code	IBC2018/TPI2014	Matrix-R								
BCDL	10.0										Weight: 53 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SPF 2100F 1.8E
BOT CHORD 2x4 SPF 2100F 1.8E
WEBS 2x4 SPF No.2

BRACING
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS (lb/size) 5=483/ Mechanical, 7=644/0-11-4
Max Horiz 7=283 (LC 8)
Max Uplift 5=-141 (LC 8), 7=-123 (LC 7)
Max Grav 5=624 (LC 12), 7=698 (LC 12)

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-7=-630/160, 2-8=-770/27, 8-9=-666/37, 3-9=-664/48
BOT CHORD 6-7=-230/295, 5-6=-170/678
WEBS 3-5=-703/126, 2-6=-41/588

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. III; Exp B; Enclosed; C-C Exterior(2E) -2-0-0 to 1-0-0, Interior (1) 1-0-0 to 11-9-8; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33
3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=25.0 psf; Pf=19.2 psf (Lum DOL = 1.15 Plate DOL = 1.15); Is=1.1; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.00
4) Unbalanced snow loads have been considered for this design.
5) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 19.2 psf on overhangs non-concurrent with other live loads.
6) Refer to girder(s) for truss to truss connections.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 123 lb uplift at joint 7 and 141 lb uplift at joint 5.
8) This truss is designed in accordance with the 2018 International Building Code section 2306.1 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

Material:
- 4 trusses x 4 gussets/ truss = 16 gussets
- 3 sheets of 1/2" plywood
- Nails 0.131 x 2.5

Labor:
2 Carpenters for 2 hrs each to layout, cut
2 Carpenters for 2 hrs each to attach new gussets in existing attic space



June 5,2026

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcscomponents.com)

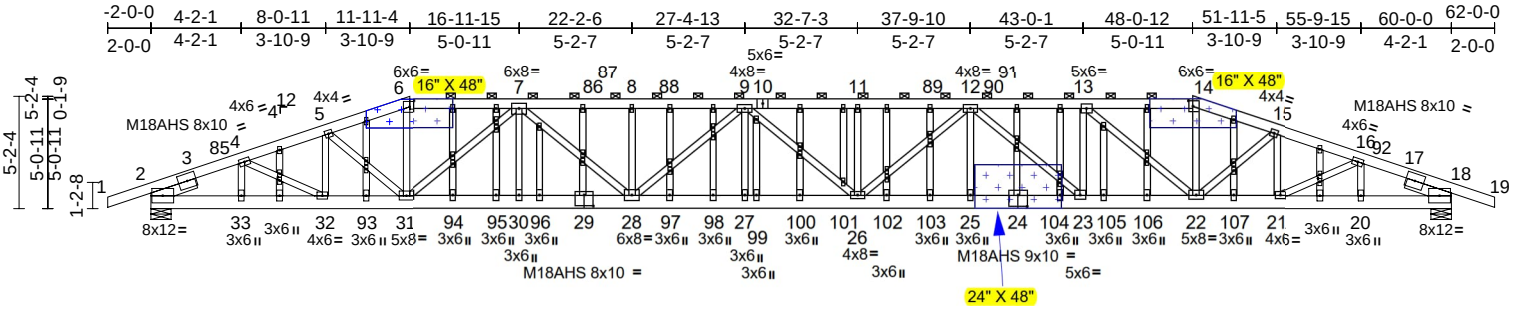
MiTek®
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	TIFFIN WATER TREATMENT PLANT / STRUCTURE 20
26045-RO	SD1	Hip Girder	2	3	I82462245 Job Reference (optional)

Revoswel Truss & Lumber, LLC, Marion, IA - 52302, Run: 25.40 S Dec 15 2025 Print: 25.4.0 S Dec 15 2025 MiTek Industries, Inc. Thu Jun 04 14:23:28 Page: 1

ID:gmKcQHVBzW4iFTmHNOf?TMygiJF-uQd_q8LHu?niARLjhJyw4Zxn4NywAI?xe5Lse?z9e7D

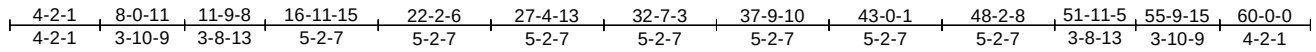
REPAIR:
BUILDING CODE CHANGED FROM 2015 TO 2018



ATTACH 3/4" PLYWOOD OR OSB GUSSET (23/32" RATED SHEATHING 48/24 EXP 1) TO EACH FACE OF TRUSS WITH (0.131" X 2.5" MIN.) NAILS PER THE FOLLOWING NAIL SCHEDULE: 2 X 4'S - 3 ROWS, 2 X 6'S AND LARGER - 4 ROWS: SPACED @ 4" O.C. NAILS TO BE DRIVEN FROM BOTH FACES. STAGGER SPACING FROM FRONT TO BACK FACE FOR A NET 2" O.C. SPACING IN EACH COVERED TRUSS MEMBER. USE 2" MEMBER END DISTANCE.

Material:
- 2 trusses x 6 gussets/ truss = 12 gussets
- 4 gussets/plywood sheet
- 3 sheets of 3/4" plywood
- Nails 0.131 x 2.5

Labor:
2 Carpenters for 1 hrs each to layout, cut
2 Carpenters for 2 hrs each to attach new gussets in existing attic space



Scale = 1:106.3

Plate Offsets (X, Y): [2:0-0-8,0-5-7], [6:0-2-8,0-3-0], [14:0-2-8,0-3-0], [18:0-0-8,0-5-7], [24:0-5-0,0-6-4], [29:0-5-0,0-6-0], [37:0-1-13,0-1-0], [84:0-1-13,0-1-0]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.76	Vert(LL)	-0.95	26-27	>758	360	MT20	197/144
Snow (Pf/Pg)	19.3/25.0	Lumber DOL	1.15	BC	0.60	Vert(CT)	-1.58	26-27	>455	240	M18AHS	142/136
TCDL	10.0	Rep Stress Incr	NO	WB	0.58	Horz(CT)	0.30	18	n/a	n/a		
BCLL	0.0	Code	IBC2018/TPI2014	Matrix-R								
BCDL	10.0										Weight: 1464 lb	FT = 20%

LUMBER
TOP CHORD 2x6 SP 2400F 2.0E
BOT CHORD 2x8 SP 2400F 2.0E
WEBS 2x4 SPF No.2
OTHERS 2x4 SPF No.2
SLIDER Left 2x6 SPF No.2 -- 2-1-15, Right 2x6 SPF No.2 -- 2-1-15

BRACING
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except 2-0-0 oc purlins (5-11-7 max.): 6-14.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size) 2=9724/0-11-4, 18=9764/0-11-4
Max Horiz 2=-14 (LC 7)
Max Uplift 2=-1080 (LC 7), 18=-1085 (LC 8)
Max Grav 2=9743 (LC 12), 18=9783 (LC 13)

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-19137/2046, 3-85=-19170/2053, 4-85=-19152/2062, 4-5=-23465/2537, 5-6=-24056/2526, 6-7=-22726/2398, 7-86=-33893/3413, 86-87=-33893/3413, 8-87=-33893/3413, 8-88=-33893/3413, 9-88=-33893/3413, 9-10=-36072/3604, 10-11=-36072/3604, 11-89=-36072/3604, 12-89=-36072/3604, 12-90=-29522/3029, 90-91=-29522/3029, 13-91=-29522/3029, 13-14=-22868/2414, 14-15=-24206/2542, 15-16=-23555/2547, 16-92=-19237/2071, 17-92=-19254/2063, 17-18=-19222/2056
BOT CHORD 2-33=-1847/17433, 32-33=-1847/17433, 32-93=-2355/22375, 31-93=-2355/22375, 31-94=-2888/29443, 94-95=-2888/29443, 30-95=-2888/29443, 30-96=-2888/29443, 29-96=-2888/29443, 28-29=-2888/29443, 28-97=-3484/36110, 97-98=-3484/36110, 27-98=-3484/36110, 27-99=-3484/36110, 99-100=-3484/36110, 100-101=-3484/36110, 26-101=-3484/36110, 26-102=-3313/34039, 102-103=-3313/34039, 25-103=-3313/34039, 24-25=-3313/34039, 24-104=-3313/34039, 23-104=-3313/34039, 23-105=-2909/29522, 105-106=-2909/29522, 22-106=-2909/29522, 22-107=-2351/22461, 21-107=-2351/22461, 20-21=-1842/17510, 18-20=-1842/17510
WEBS 4-33=-1446/209, 4-32=-597/5592, 5-32=-775/32, 5-31=0/770, 6-31=-695/7035, 7-31=-8904/829, 7-30=-85/1410, 7-28=-530/5898, 8-28=-404/74, 9-28=-3007/283, 9-27=-108/1603, 11-26=-262/92, 12-26=-248/2772, 12-25=-117/1687, 12-23=-5986/545, 13-23=-429/5237, 13-22=-8821/817, 14-22=-699/7080, 15-22=0/846, 15-21=-847/39, 16-21=-598/5602, 16-20=-1440/209

NOTES
1) 3-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.
Bottom chords connected as follows: 2x8 - 2 rows staggered at 0-6-0 oc.
Web connected as follows: 2x4 - 1 row at 0-9-0 oc.
2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
3) Unbalanced roof live loads have been considered for this design.
4) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. III; Exp B; Enclosed; C-C Exterior(2E) -2-0-0 to 4-2-1, Interior (1) 4-2-1 to 11-11-4, Exterior(2R) 11-11-4 to 20-5-1, Interior (1) 20-5-1 to 48-0-12, Exterior(2R) 48-0-12 to 56-6-9, Interior (1) 56-6-9 to 62-0-0; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33
5) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.



June 5,2026

Continued on page 2

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcscomponents.com)

MiTek®
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

6) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=25.0 psf; Pf=19.2 psf (Lum DOL = 1.15 Plate DOL = 1.15); Is=1.1; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.00, Lu=30-0-0
7) Unbalanced snow loads have been considered for this design.
8) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 19.2 psf on overhangs non-concurrent with other live loads.
9) WARNING: This long span truss requires extreme care and experience for proper and safe handling and erection. For general handling and erection guidance, see Guide to Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses ("BCSI"), jointly produced by SBCA and TPI. The building owner or the owner's authorized agent shall contract with a qualified registered design professional for the design and inspection of the temporary installation restraint/ bracing and the permanent individual truss member restraint/bracing. MiTek assumes no responsibility for truss manufacture, handling, erection, or bracing.
10) Provide adequate drainage to prevent water ponding.
11) All plates are MT20 plates unless otherwise indicated.
12) All plates are 2x4 (||) MT20 unless otherwise indicated.
13) Gable studs spaced at 2-0-0 oc.
14) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 1080 lb uplift at joint 2 and 1085 lb uplift at joint 18.
15) This truss is designed in accordance with the 2018 International Building Code section 2306.1 and referenced standard ANSI/TPI 1.
16) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
17) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 1475 lb down and 258 lb up at 8-0-0, 488 lb down and 62 lb up at 10-0-0, 556 lb down and 62 lb up at 12-0-0, 556 lb down and 62 lb up at 14-0-0, 556 lb down and 62 lb up at 16-0-0, 556 lb down and 62 lb up at 18-0-0, 556 lb down and 62 lb up at 20-0-0, 556 lb down and 62 lb up at 22-0-0, 556 lb down and 62 lb up at 24-0-0, 556 lb down and 62 lb up at 26-0-0, 556 lb down and 62 lb up at 28-0-0, 556 lb down and 62 lb up at 30-0-0, 556 lb down and 62 lb up at 32-0-0, 556 lb down and 62 lb up at 34-0-0, 556 lb down and 62 lb up at 36-0-0, 556 lb down and 62 lb up at 38-0-0, 556 lb down and 62 lb up at 40-0-0, 603 lb down and 67 lb up at 41-8-4, 603 lb down and 67 lb up at 44-3-12, 556 lb down and 62 lb up at 46-0-0, 556 lb down and 62 lb up at 48-0-0, and 488 lb down and 62 lb up at 50-0-0, and 1475 lb down and 258 lb up at 52-0-0 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

18) Studding applied to ply: 3(Back)

LOAD CASE(S) Standard

1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15
   Uniform Loads (lb/ft)
   Vert: 1-6=-59, 6-14=-59, 14-19=-59, 2-18=-20
   Concentrated Loads (lb)
   Vert: 32=-1458 (F), 31=-556 (F), 28=-556 (F), 25=-556 (F), 22=-556 (F), 21=-1458 (F), 29=-556 (F), 24=-556 (F), 93=-481 (F), 94=-556 (F), 95=-556 (F), 96=-556 (F), 97=-556 (F), 98=-556 (F), 99=-556 (F), 100=-556 (F), 101=-556 (F), 102=-556 (F), 103=-556 (F), 104=-603 (F), 105=-603 (F), 106=-556 (F), 107=-481 (F)

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcscomponents.com)

MiTek®
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

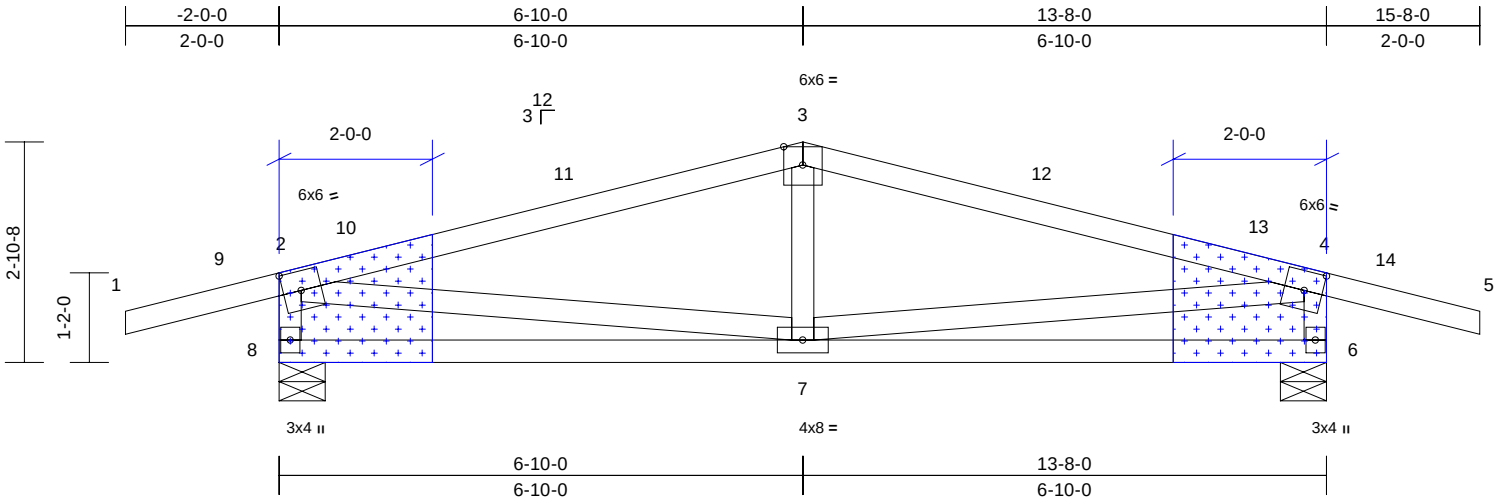
Job	Truss	Truss Type	Qty	Ply	TRICON - TIFFIN WATER TREATMENT
25157A-MCC	T3	Common	17	1	I82348414
					Job Reference (optional)

Revoswel Truss & Lumber, LLC, Marion, IA - 52302,

Run: 25.40 E Dec 15 2025 Print: 25.4.0 E Dec 15 2025 MiTek Industries, Inc. Tue Jun 02 09:44:06 Page: 1
ID:RQVViIRwruYqiUc4FXgBVqyzWle-kd_LizF3FmrUcgAEMBZijZJuNOUGk?GwiKUXpszAMP8

REPAIR:
BUILDING CODE CHANGED FROM 2015 TO 2018

MCC Room Trusses



ATTACH 1/2" PLYWOOD OR OSB GUSSET (15/32" RATED SHEATHING 32/16 EXP 1) TO EACH FACE OF TRUSS WITH (0.131" X 2.5" MIN.) NAILS PER THE FOLLOWING NAIL SCHEDULE: 2 X 4'S - 3 ROWS: SPACED @ 4" O.C. NAILS TO BE DRIVEN FROM BOTH FACES. STAGGER SPACING FROM FRONT TO BACK FACE FOR A NET 2" O.C. SPACING IN EACH COVERED TRUSS MEMBER. USE 2" MEMBER END DISTANCE.

Scale = 1:30.1

Plate Offsets (X, Y): [2:0-2-14,0-3-0], [4:0-2-14,0-3-0]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.41	Vert(LL)	-0.02	7	>999	360	MT20	197/144
Snow (Pf/Pg)	23.1/25.0	Lumber DOL	1.15	BC	0.14	Vert(CT)	-0.04	6-7	>999	240		
TCDL	10.0	Rep Stress Incr	YES	WB	0.16	Horz(CT)	0.00	6	n/a	n/a		
BCLL	0.0	Code	IBC2018/TPI2014	Matrix-R								
BCDL	10.0										Weight: 55 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SPF 2100F 1.8E
BOT CHORD 2x4 SPF 2100F 1.8E
WEBS 2x4 SPF No.2

BRACING
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS (lb/size) 6=719/0-7-4, 8=719/0-7-4
Max Horiz 8=-40 (LC 7)
Max Uplift 6=-129 (LC 8), 8=-129 (LC 7)
Max Grav 6=812 (LC 13), 8=812 (LC 12)

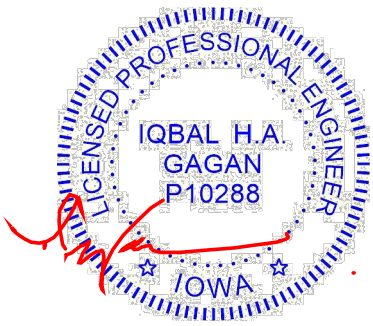
FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-10=-876/85, 10-11=-822/92, 3-11=-817/102, 3-12=-817/103, 12-13=-822/92, 4-13=-876/85, 2-8=-739/166, 4-6=-739/167
BOT CHORD 7-8=-68/338, 6-7=-68/338
WEBS 2-7=-112/653, 4-7=-114/653

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. III; Exp B; Enclosed; C-C Exterior(2E) -2-0-0 to 1-0-0, Interior (1) 1-0-0 to 6-10-0, Exterior(2R) 6-10-0 to 9-10-0, Interior (1) 9-10-0 to 15-8-0; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33
3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=25.0 psf; Pf=23.1 psf (Lum DOL = 1.15 Plate DOL = 1.15); Is=1.1; Rough Cat B; Sheltered; Ce=1.2; Cs=1.00; Ct=1.00
4) Unbalanced snow loads have been considered for this design.
5) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 23.1 psf on overhangs non-concurrent with other live loads.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 129 lb uplift at joint 8 and 129 lb uplift at joint 6.
7) This truss is designed in accordance with the 2018 International Building Code section 2306.1 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

Material:
-17 trusses x 4 gussets/ truss = 68 gussets
- 8 gussets/plywood sheet
- 9 sheets of plywood

Labor:
2 Carpenters for 8 hrs each to layout, cut, and attach new gussets, handle/shake out all trusses for access - 16 Hrs



June 2,2026

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcscomponents.com)

MiTek®
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com