CITY OF CEDAR RAPIDS
ImOn ICE ARENA REPAIR PROJECT - PHASE II
CEDAR RAPIDS, IOWA
PROJECT # #PUR0920-071

Utility & Emergency Numbers

Parks & Recreation Department	319–286–5750
Police Department	319–286–5491
Fire Department	319–286–5200
Emergency	911
Alliant Energy	319–786–1912
Mid American Energy	319–298–5155
Water Department	319–286–5910
Qwest Communications	319–399–7600

PROJECT LOCATION MAP

Mayor: Bradley Hart
City Council

Tyler Olson	Ann Poe
Susie Weinacht	Martin Hoeger
Scott Overland	Dale Todd
Scott Olson	Ashley Vanorny

CEDAR RAPIDS
City Of Five Seasons

DRAWING INDEX

SHEET	REV	TITLE
		GENERAL
G00	0	COVER SHEET AND DRAWING INDEX
		ARCHITECTURAL
A101	0	FIRST FLOOR PLAN
A102	0	OLYMPIC ICE RINK FLOOR PLAN
A103	0	LOCKER ROOM FLOOR PLAN
A140	0	ROOF PLAN
A201	0	EXTERIOR ELEVATIONS
A401	0	INTERIOR ELEVATIONS
A501	0	DETAILS
A502	0	DETAILS
		STRUCTURAL
S-001	0	STRUCTURAL NOTES AND GENERAL INFORMATION
S-101	0	OVERALL ROOF PLAN - ROOF SHEETING
H00	0	MECHANICAL
		HVAC SYMBOLS & ABBREVIATIONS SCHEDULES & DETAILS
HD01	0	OLYMPIC ICE RINK - HVAC DEMO PLAN
HD02	0	HIGH ROOF HVAC DEMO PLAN
H01	0	ICE AND ENTRY LEVELMECHANICAL PLAN-SOUTH
H02	0	HIGH ROOF - HVAC PLAN
M00	0	PIPING GENERAL NOTES
MD01	0	OLYMPIC ICE RINKDEMOLITION PLAN
M01	0	BASE BID - PERMANENT SAND BASE RINK
M02	0	BASE BID - PERMANENT SAND BASE FLOOR ISOMETRIC
M03	0	BASE BID - PERMANENT SAND BASE FLOOR DETAILS
M04	0	BID ALTERNATE 1 - CONCRETE FLOOR
M05	0	CONCRETE RINK FLOOR ISOMETRIC
M06	0	BID ALTERNATE 1- CONCRETE FLOOR DETAILS
M07	0	BID ALTERNATE 2- SUBSOIL HEAT SYSTEM
		ELECTRICAL
E00	0	ELECTRICAL SYMBOLS & NOTES
E01	0	ICE AND ENTRY LEVEL- LIGHTING PLAN
E02	0	CONCOURSE LEVEL - LIGHTING PLAN
E03	0	ICE AND ENTRY LEVEL - PARTIAL POWER PLAN
E04	0	ICE AND ENTRY LEVEL - PARTIAL POWER PLAN
E05	0	ROOF - POWER PLAN
E06	0	SITE LIGHTING PLAN - BID ALTERNATE 4
		FIRE ALARM
FA11	0	ICE AND ENTRY LEVEL- FIRE ALARM PLAN
FA12	0	ICE AND ENTRY LEVEL- FIRE ALARM PLAN
FA13	0	ICE AND ENTRY LEVEL- FIRE ALARM PLAN
FA14	0	ICE AND ENTRY LEVEL- FIRE ALARM PLAN
FA21	0	CONCOURSE LEVEL - FIRE ALARM PLAN
FA22	0	CONCOURSE LEVEL - FIRE ALARM PLAN
FA23	0	CONCOURSE LEVEL - FIRE ALARM PLAN
FA24	0	CONCOURSE LEVEL - FIRE ALARM PLAN
FA31	0	SKYBOX LEVEL- FIRE ALARM PLAN
FA32	0	SKYBOX LEVEL- FIRE ALARM PLAN

1

COORDINATE PHASING/SEQUENCING WITH OWNER REPRESENTATIVE TO MINIMIZE SHUTDOWN TIME .

I hereby certify that the portion of this technical submission described below was prepared by me or under my direct supervision and responsible charge. I am a duly licensed architect under the laws of the state of Iowa.

THOMAS A. MCINERNEY 05242 IOWA LICENSED ARCHITECT

THOMAS MCINERNEY 1/15/2021
Signature Date

Printed or typed name : Thomas A. McInerney
Licensed Number : 05242
My license renewal date is June 30, 2021

Pages or sheets covered by this seal : ARCHITECTURAL SHEETS

LICENSED PROFESSIONAL ENGINEER DAVID L. RASMUSSEN NO. 14227 IOWA
EXPIRES DEC. 31, 2021

I HEREBY CERTIFY THAT THE PORTION OF THIS TECHNICAL SUBMISSION DESCRIBED BELOW WAS PREPARED BY ME OR UNDER MY DIRECT PERSONAL SUPERVISION. I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF IOWA.

SIGNATURE:
NAME: DAVID L. RASMUSSEN
DATE: 1/15/2021
LICENSE RENEWAL DATE: DEC. 31, 2021
PAGES OR DIVISIONS COVERED BY THIS CERTIFICATION: STRUCTURAL SHEETS

LICENSED PROFESSIONAL ENGINEER MOHAMMED N. ABUHASAN NO. 20081 IOWA
EXPIRES DEC. 31, 2021

I HEREBY CERTIFY THAT THE PORTION OF THIS TECHNICAL SUBMISSION DESCRIBED BELOW WAS PREPARED BY ME OR UNDER MY DIRECT PERSONAL SUPERVISION. I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF IOWA.

SIGNATURE:
NAME: MOHAMMED N. ABU-HASAN
DATE: 1/15/2021
LICENSE RENEWAL DATE: DEC. 31, 2021
PAGES OR DIVISIONS COVERED BY THIS CERTIFICATION: MECHANICAL & ELECTRICAL SHEETS

2

CEDAR RAPIDS
City of Five Seasons®

OWNER:
CITY OF CEDAR RAPIDS
Facilities Maintenance Services
City of Cedar Rapids 500 15th Ave SW, Cedar Rapids, Iowa 52404

ENGINEER OF RECORD:
INNOVATIVE ENGINEERS, INC.
2871 Heinz Rd. Suite B, Iowa City, IA 52240
T 319.855.4115 I F 319.351.0070
www.InnovativeEngineersInc.com

CITY OF CEDAR RAPIDS
ImOn ICE ARENA REPAIR PROJECT - PHASE 2
CEDAR RAPIDS, IOWA
PROJECT # #PUR0920-071

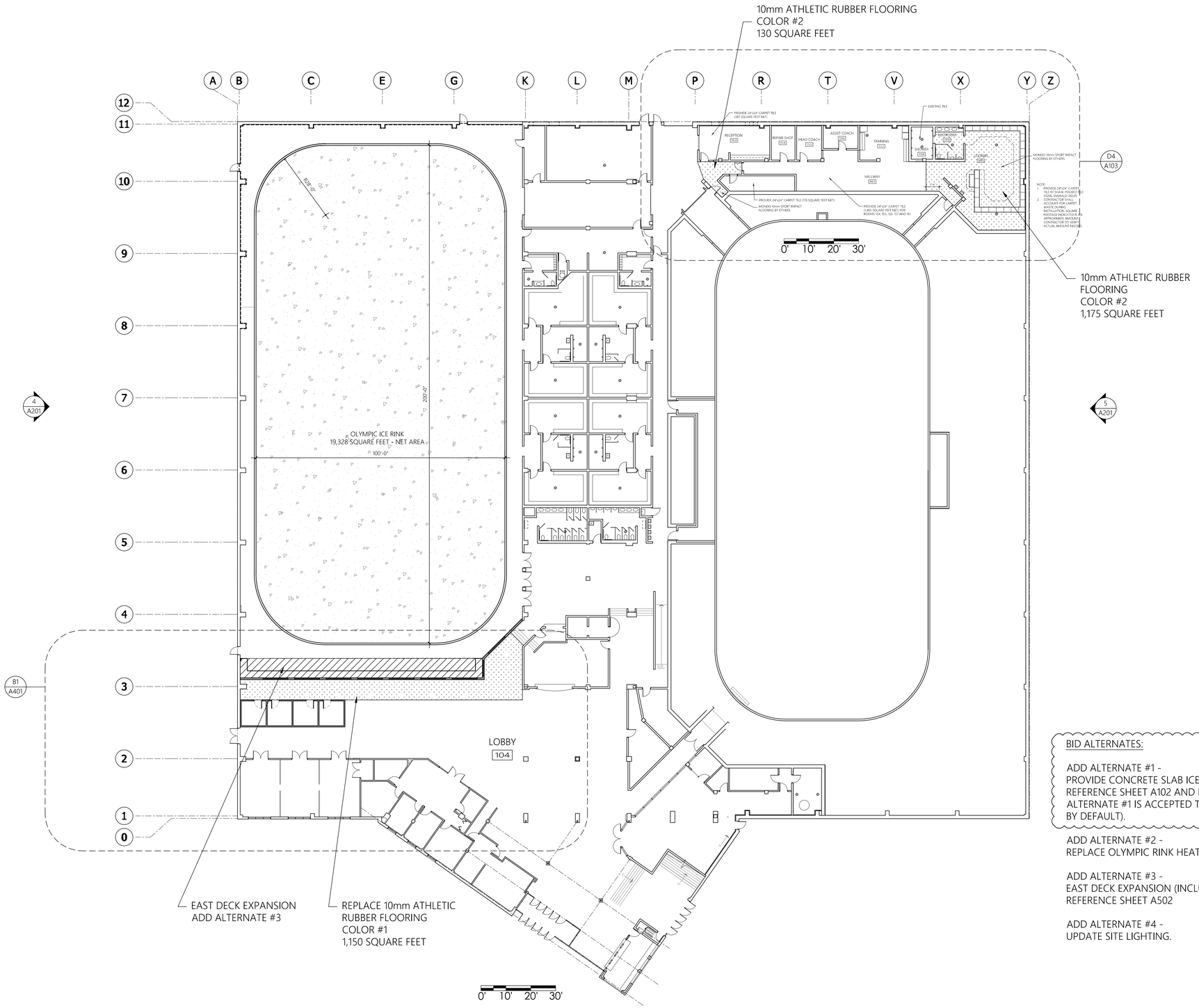
DESIGNED BY:	MNA
DRAWN BY:	JJ
CHECKED BY:	MNA
DOCUMENT DATE:	11/2/2020
PROJECT NO.:	20-101254
CLIENT NO.:	

REVISIONS

NO.	DATE	DESCRIPTION	BY	DWN
0	1-15-2021	OUT FOR BID DRAWINGS	MNA	JJH
1	2-1-2021	ADDENDUM #1	MNA	JJH
2	2-3-2021	ADDENDUM #2	MNA	JJH

COVER SHEET AND DRAWING INDEX

SHEET: G00
REV: 0



FIRST FLOOR PLAN
SCALE: 1"=20'-0"

BID ALTERNATES:

ADD ALTERNATE #1 -
PROVIDE CONCRETE SLAB ICE RINK SYSTEM FOR THE OLYMPIC ICE RINK. REFERENCE SHEET A102 AND DETAIL B3 AND B2 ON SHEET A501. (IF ADD ALTERNATE #1 IS ACCEPTED THEN ADD ALTERNATE #2 WILL BE REJECTED BY DEFAULT).

1

ADD ALTERNATE #2 -
REPLACE OLYMPIC RINK HEATING SYSTEM.

ADD ALTERNATE #3 -
EAST DECK EXPANSION (INCLUDES REMOVAL OF CONCRETE). REFERENCE SHEET A502

ADD ALTERNATE #4 -
UPDATE SITE LIGHTING.

C:\Users\jj.hanson\Documents\20_CR_Ice_Arena\20-101254_ADDENDUM 2_Phase 2 ADD 2_ADDENDUM 2_Phase 2 ADD 2_2021-1-15.rvt1.rvt
Copyright 2020 Thomas Mckenney Architect

CEDAR RAPIDS

OWNER:
CITY OF CEDAR RAPIDS
Facilities Maintenance Services
City of Cedar Rapids 500 15th Ave SW, Cedar Rapids, Iowa 52404

ENGINEER OF RECORD:
INNOVATIVE ENGINEERS, INC.
2871 Heinz Rd. Suite B, Iowa City, IA 52240
T 319.855.4115 I F 319.351.0070
www.InnovativeEngineersInc.com

CITY OF CEDAR RAPIDS
ImOn ICE ARENA REPAIR PROJECT - PHASE 2
CEDAR RAPIDS, IOWA
PROJECT # #PUR0920-071

DESIGNED BY:	MNA
DRAWN BY:	JJ
CHECKED BY:	MNA
DOCUMENT DATE:	01/15/2021
PROJECT NO.:	20-101254
CLIENT NO.:	

REVISIONS

NO.	DATE	DESCRIPTION	BY	DWN
0	1-15-2021	OUT FOR BID DRAWINGS	TMA	TAM
1	2/3/2021	ADDENDUM 2	TMA	TAM

FIRST FLOOR PLAN

SHEET: A101
REV: 1

FLOOR SYSTEMS

CONCRETE FLOOR ICE SYSTEM	1" ICE 5" CONCRETE SLAB AND COOLING PIPES 4" INSULATION 5" REHEAT SAND AND PIPES	TSE 100.00	TOP OF ICE EL = 100.08
		BOTTOM ICE SYSTEM EL 98.83	
SAND FLOOR ICE SYSTEM	1" ICE 2" SAND AND COOLING PIPES 4" INSULATION 5" REHEAT SAND AND PIPING	TSE 100.00	TOP OF ICE EL = 100.08
		BOTTOM ICE SYSTEM EL 99.08	
SLAB ON GRADE:	SLAB ON GRADE		

1 2/3/2021

NOTES:

ICE RINK REFRIGERATED SLAB

1. Work shall be performed by a company regularly engaged in the installation of refrigerated concrete floor and the application of concrete materials. Provide proof that the contractor has successfully completed at least three (3) projects of similar size and complexity in the past.
2. Concrete slab work shall be performed by an established concrete floor finishing contractor with a proven track record of satisfactory, consistent quality workmanship for a period of a minimum five years related to refrigerated floor slab and other stringent floor tolerance specified concrete floor slabs. Floor finishing contractor must have successfully performed refrigerated slabs utilizing specialized mechanical laser-guided power screed equipment. Approved contractor must show proof of this requirement to the consultant in advance of issuing contract.

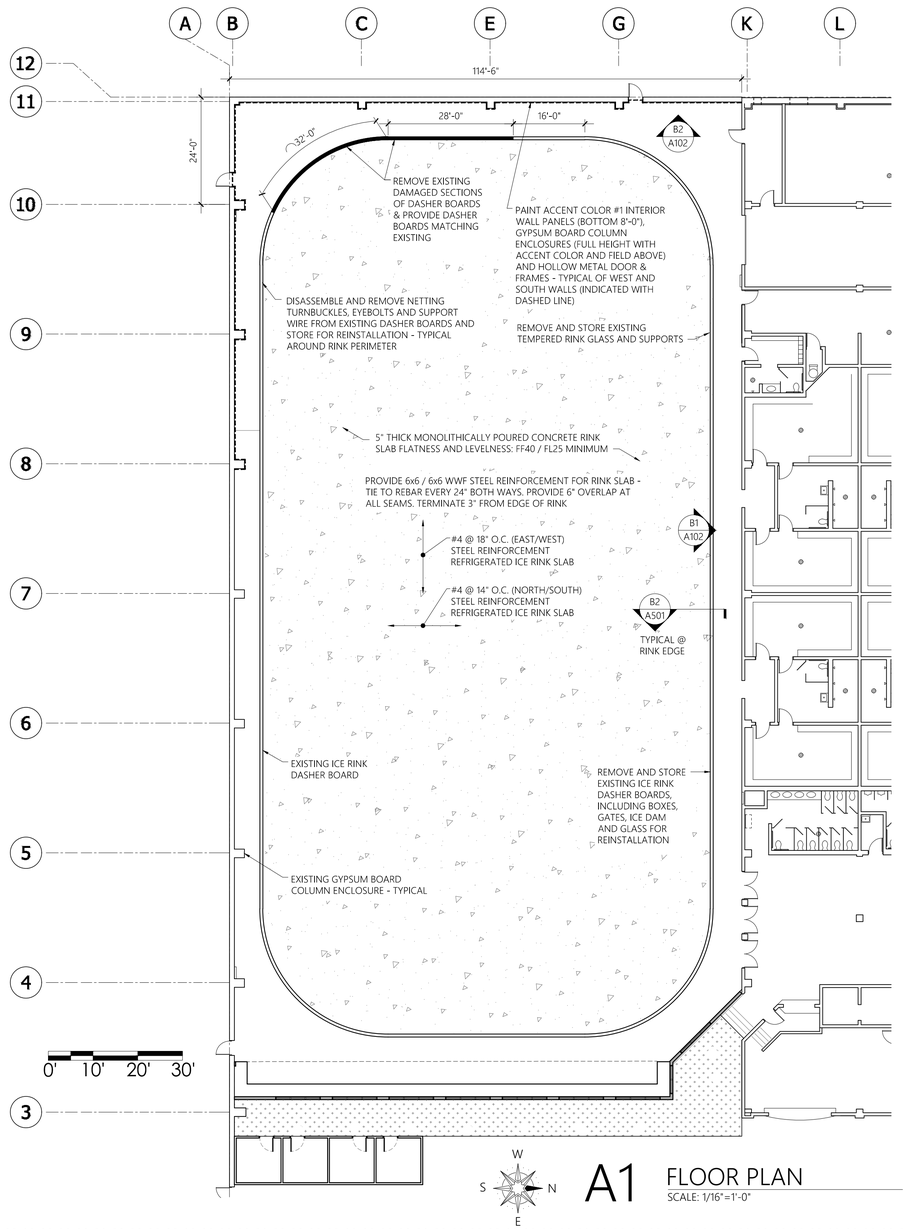
PAINT NOTES

1. PAINT EXISTING GYPSUM BOARD AND CMU WALLS IN ROOM WITH OLYMPIC RINK. PAINT COLOR "P7" SCHEME ON NORTH, SOUTH, EAST AND WEST WALLS AND COLUMN ENCLOSURES.
2. PAINT ALL EXPOSED, NON-PAINTED OR UNFINISHED METAL (INCLUDING STRUCTURAL TRUSSES, PURLINS, SECONDARY BRACING, EXPOSED MECHANICAL DUCTWORK AND NON-PAINTED SURFACES) IN ROOM WITH OLYMPIC RINK. PAINT COLOR "P6" FOR SURFACES ABOVE +8'-0" ABOVE FINISH FLOOR AND PAINT COLOR SW6250 "GRANITE PEAK", EGGSHELL FOR SURFACES FROM FLOOR TO +8'-0" ABOVE FLOOR LEVEL.
3. DO NOT PAINT EXISTING METAL LINER PANELS (PRE-FINISHED WHITE) ABOVE THE +8'-0" HIGH ACCENT COLOR ("GRANITE PEAK").

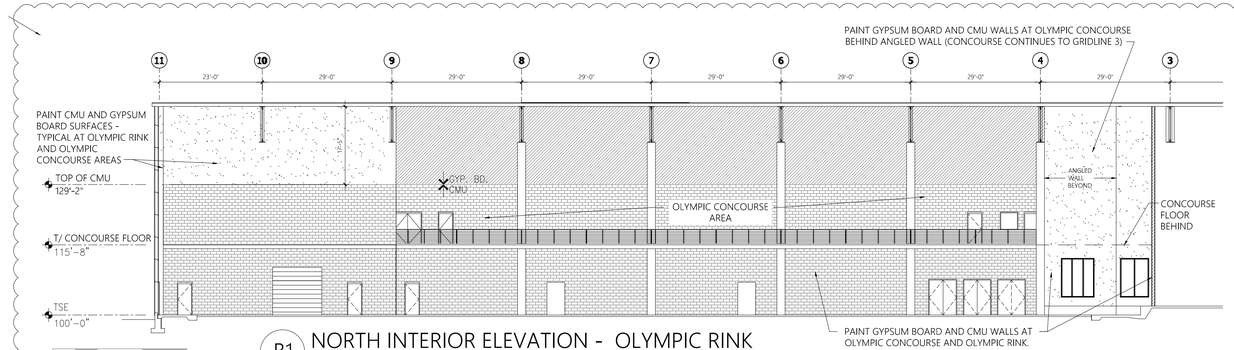
PAINT COLORS

P3	CHOCOLATE BROWN (PROVIDE CUSTOM COLOR MATCH)
P5	ROUGHRIDER BLACK (PROVIDE CUSTOM COLOR MATCH)
P6	SW7004 "SNOWBOUND", EGGSHELL
P7	SW6250 "GRANITE PEAK", EGGSHELL (FLOOR TO +8'-0" ABOVE FLOOR) SW7004 "SNOWBOUND", EGGSHELL (+8'-0" TO TOP OF WALL)

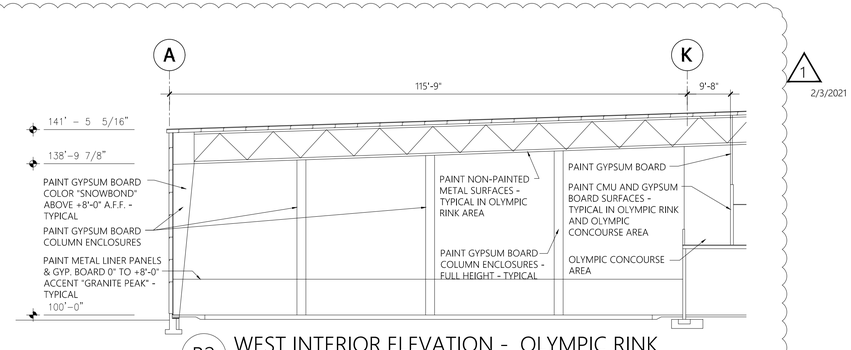
1 2/3/2021



A1 FLOOR PLAN
SCALE: 1/16"=1'-0"



B1 NORTH INTERIOR ELEVATION - OLYMPIC RINK
SCALE: 1/16"=1'-0"



B2 WEST INTERIOR ELEVATION - OLYMPIC RINK
SCALE: 1/16"=1'-0"

1 2/3/2021

C:\Users\tmann\Documents\20-101254_ImOn Arena\20-101254_ARENA_2020_2020NOVA2.rvt, Aug 4 2020, 10:51:11 PM,
Copyright 2020 Thomas Mcinerney Architect

CEDAR RAPIDS

OWNER:
CITY OF CEDAR RAPIDS
Facilities Maintenance Services
City of Cedar Rapids 500 15th Ave SW, Cedar Rapids, Iowa 52404

ENGINEER OF RECORD:
INNOVATIVE ENGINEERS, INC.
2871 Heinz Rd. Suite B, Iowa City, IA 52240
T 319.855.4115 I F 319.351.0070
www.InnovativeEngineersInc.com

CITY OF CEDAR RAPIDS
ImOn ICE ARENA REPAIR PROJECT - PHASE 2
CEDAR RAPIDS, IOWA
PROJECT # #PUR0920-071

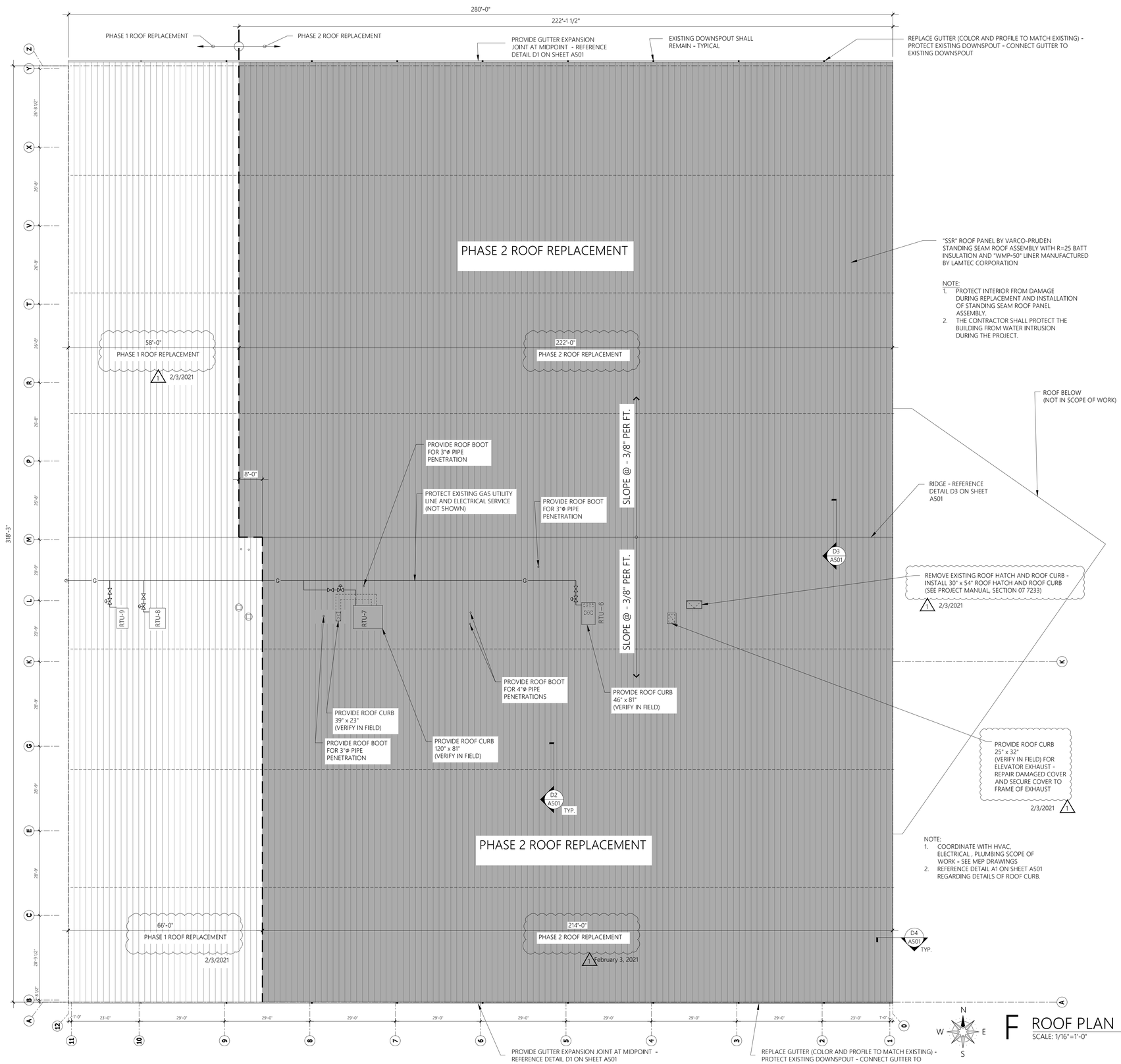
DESIGNED BY:	MNA
DRAWN BY:	JJ
CHECKED BY:	MNA
DOCUMENT DATE:	01/15/2021
PROJECT NO.:	20-101254
CLIENT NO.:	

REVISIONS

NO.	DATE	DESCRIPTION	BY	DWN
0	1-15-2021	OUT FOR BID DRAWINGS	TMA	TAM
1	2/3/2021	ADDENDUM 2	TMA	TAM

OLYMPIC ICE RINK FLOOR PLAN

SHEET: A102
REV: 1



F ROOF PLAN
SCALE: 1/16"=1'-0"

CEDAR RAPIDS

OWNER:

CITY OF CEDAR RAPIDS
Facilities Maintenance Services
City of Cedar Rapids 500 15th Ave SW, Cedar Rapids, Iowa 52404

ENGINEER OF RECORD:

IEI INNOVATIVE ENGINEERS, INC.
2871 Heinz Rd. Suite B, Iowa City, IA 52240
T 319.855.4115 I F 319.351.0070
www.InnovativeEngineersInc.com

CITY OF CEDAR RAPIDS
ImOn ICE ARENA REPAIR PROJECT - PHASE 2
CEDAR RAPIDS, IOWA
PROJECT # #PUR0920-071

DESIGNED BY:	MNA
DRAWN BY:	JJ
CHECKED BY:	MNA
DOCUMENT DATE:	01/15/2021
PROJECT NO.:	20-101254
CLIENT NO.:	

REVISIONS

NO.	DATE	DESCRIPTION	BY	DWN
0	1-15-2021	OUT FOR BID DRAWINGS	TMA	TAM
1	2/3/2021	ADDENDUM 2	TMA	TAM

ROOF PLAN

SHEET: A140

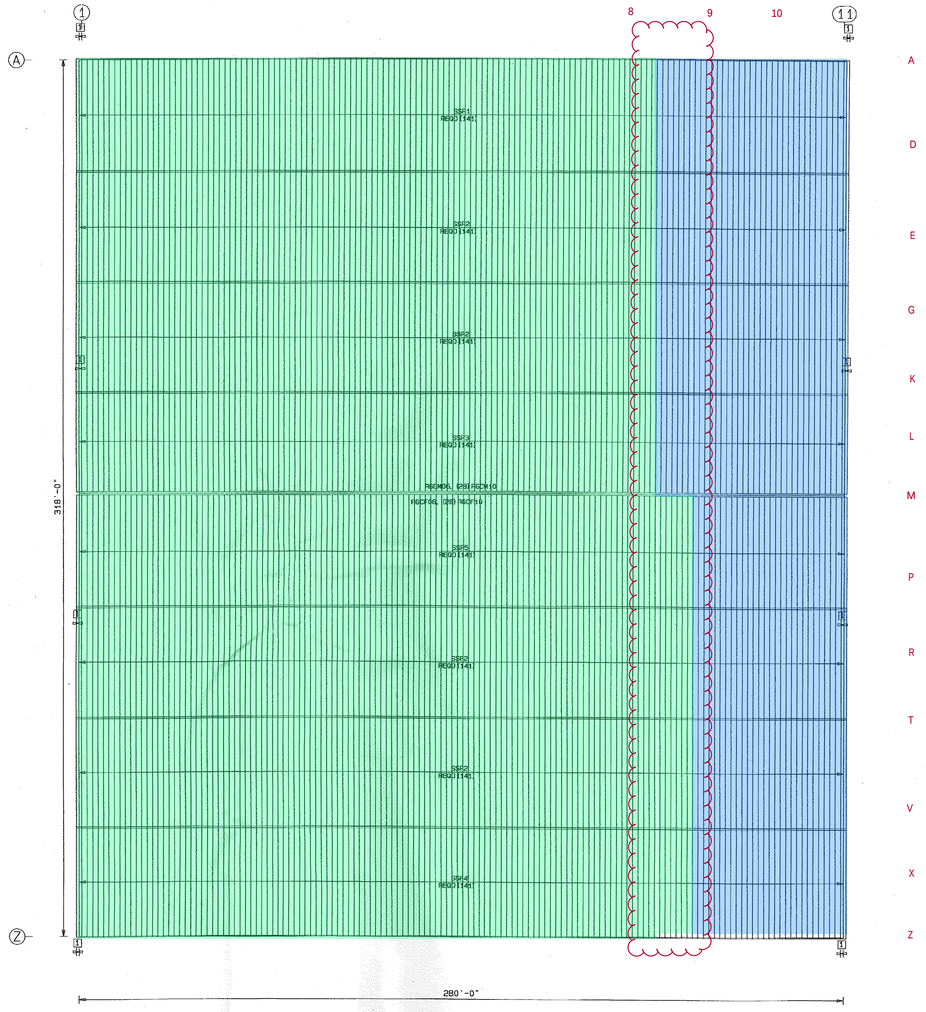
REV: 1

SHEETING

MARK	LENGTH	THK	COLOR (FINISH)
SSR1	41'-6 7/16"	24	Standard Color (GALVM)
SSR2	40'-7"	24	Standard Color (GALVM)
SSR3	36'-2"	24	Standard Color (GALVM)
SSR4	40'-0 7/16"	24	Standard Color (GALVM)
SSR5	41'-2"	24	Standard Color (GALVM)

SECONDARY

MARK	LENGTH		THK	DEPTH
7BBW320	23'-11 1/2"		.120	8.5
7ZP1057	37'-2 1/2"		.105	8.5
7ZP1058	25'-7"		.092	8.5
BBW1050	28'-11 1/2"		.120	8.5
ZP1006	25'-7"		.092	8.5
ZP1007	34'-2 1/2"	12	.092	8.5
ZP1053	33'-1"		.120	8.5
7ZP1017	26'-7"	11	.105	8.5
7ZP1038	26'-7"		.092	8.5
7ZP799	26'-7"		.120	8.5
BBW1040	28'-11 1/2"		.120	8.5
BBW20000	27'-4"		.120	8.5
BBW20003	21'-4"		.120	8.5
BBW377	23'-11 1/2"		.120	8.5
EZW658	23'-11 1/2"	11	.082	8.5
EZW662	28'-11 1/2"		.120	8.5
FFW20014	27'-5 1/2"		.120	8.5
ZP1021	34'-2 1/2"	12	.092	8.5
ZP1022	34'-2 1/2"		.105	8.5
ZP1043	33'-1"		.120	8.5
ZP1047	37'-2 1/2"		.105	8.5
ZP1048	25'-7"		.092	8.5
ZP270	26'-7"	12	.092	8.5
ZP271	34'-2 1/2"		.082	8.5
ZP281	34'-2 1/2"	12	.092	8.5
ZP321	26'-7"	11	.105	8.5
ZP322	23'-5 1/2"	11	.105	8.5
ZP332	34'-2 1/2"		.105	8.5
ZP333	29'-5 1/2"		.105	8.5
ZP584	23'-5 1/2"		.120	8.5
ZP588	34'-2 1/2"		.120	8.5
ZP589	29'-5 1/2"		.120	8.5
ZP659	23'-5 1/2"	13	.082	8.5



[1] Start Panel Dim. 1'-0" (Cut Dim.= 1'-1")

I hereby certify that this plan, specification, or report was prepared by me or under my direct personal supervision, and that I am a duly Registered Professional Engineer under the laws of the State of Iowa.

Date 7-26-99 Registration No. [redacted]

7/22/99 ECH

On: filescy Proj(y: 5710 Bldg: 12 Plane: 6 2

This Drawing is sealed only as to the Components furnished by VP Buildings

1. Install Sheeting From Left to Right
2. PRE-DRILLING 1/8" DIAMETER HOLES FOR ROOF STRUCTURAL FASTENERS MAY BE REQUIRED AT 11 GAGE PURLINS, NESTED PURLINS, PURLIN LAP LOCATIONS, AND/OR SECONDARY STRUCTURAL BEAMS
3. ROOF SHEETS ARE AN INTEGRAL PART OF THE STRUCTURAL SYSTEM, REMOVAL OR ALTERATION WITHOUT PRIOR AUTHORIZATION IS PROHIBITED.
4. SEE JOB DETAILS FOR SHEETING AND TRIM FASTENER SPECIFICATION.

Building Code:	97UBC
Live Ld(W/O Trib Red):	20.0 psf
Coll. Ld (gravity):	10.0 psf
Coll. Ld (uplift):	0.0 psf
Wind Speed:	81.0 mph
Wind Exp. Cat.:	B
Ground Snow:	37.3 psf
Roof Snow:	30.0 psf
Snow Exp. Cat.:	3
Seismic Zone:	1
Building Use Cat.:	3
Auxiliary Loads	NONE

This Drawing, including the information hereon, remains the property of VP Buildings.

It is provided for erecting the Building described in the applicable Purchase Order and shall not be modified, reproduced or used for any other purpose without prior written approval of VP Buildings.

The General Contractor and/or Erector is solely responsible for accurate, good Quality Workmanship in erecting this Building in accordance with this Drawing. Details referenced in this Drawing, all applicable VP Buildings Erection Details and all Industry Standards pertaining to proper erection, including the correct use of Temporary Bracing.

Roof Sheeting

REV.	DATE	BY	DESC.

BUILDER: Point Builders, Inc. #1
CUSTOMER: N/A
LOCATION: CEDAR RAPIDS, IA
PROJECT: CR ICE ARENA 2 - ORDER
BUILDING: 318X280X40 FL-1 Sheet. & Trim
SCALE: NTS

QUOTE # OH99041643-020

VP BUILDINGS VARCO-PRUDEN

JOB # H99934083-01
DATE 07/17/99
TIME 07:02
DRAW/CHECK GJS
PAGE 26 of 53

NORTH

TO BE COMPLETED WITH THIS PROJECT (PHASE 2)

CURRENTLY UNDER CONSTRUCTION FOR PHASE 1

CEDAR RAPIDS
City of Five Seasons®

OWNER:
CITY OF CEDAR RAPIDS
Facilities Maintenance Services
City of Cedar Rapids 500 15th Ave SW, Cedar Rapids, Iowa 52404

ENGINEER OF RECORD:
INNOVATIVE ENGINEERS, INC.
2871 Heinz Rd. Suite B, Iowa City, IA 52240
T 319.855.4115 I F 319.351.0070
www.InnovativeEngineersInc.com

Structural Design Group
350 3RD AVENUE SW, SUITE 101
CEDAR RAPIDS, IOWA 52404
(319) 449-1368
StructuralDesignGroupLLC.com

CITY OF CEDAR RAPIDS ImOn ICE ARENA REPAIR PROJECT - PHASE 2

CEDAR RAPIDS, IOWA
PROJECT # #PUR0920-071

DESIGNED BY:
DRAWN BY:
CHECKED BY:
DOCUMENT DATE:
PROJECT NO.:
CLIENT NO.:

REVISIONS

NO.	DATE	DESCRIPTION	BY	DWN
0	01-15-2021	ISSUED FOR BID DRAWINGS	DR/GF	
1	01-27-2021	REVISED FOR ADDENDUM 1	DR/GF	

OVERALL ROOF PLAN - ROOF SHEETING

SHEET: S-101

REV:

ATTENTION:ALL Purlin Bracing Channels (CPBC's) Must Still be installed for the SSR Roof.

MARK	LENGTH	THK	DEPTH
7BBW320	23'-11 1/2"	.120	8.5
7ZP1057	37'-2 1/2"	.105	8.5
7ZP1058	25'-7"	.092	8.5
BBW1050	28'-11 1/2"	.120	8.5
ZP1006	25'-7"	.092	8.5
ZP1007	34'-2 1/2"	.092	8.5
ZP1053	33'-1"	.120	8.5
7ZP1017	25'-7"	.105	8.5
7ZP1038	25'-7"	.092	8.5
7ZP799	25'-7"	.120	8.5
BBW1040	28'-11 1/2"	.120	8.5
BBW20000	27'-4"	.120	8.5
BBW20003	21'-4"	.120	8.5
BBW337	23'-11 1/2"	.120	8.5
EZW658	23'-11 1/2"	.082	8.5
EZW662	28'-11 1/2"	.120	8.5
FFW20014	27'-5 1/2"	.120	8.5
ZP1021	34'-2 1/2"	.092	8.5
ZP1022	34'-2 1/2"	.105	8.5
ZP1043	33'-1"	.120	8.5
ZP1047	37'-2 1/2"	.105	8.5
ZP1048	25'-7"	.092	8.5
ZP270	25'-7"	.092	8.5
ZP271	34'-2 1/2"	.092	8.5
ZP281	34'-2 1/2"	.092	8.5
ZP321	28'-7"	.105	8.5
ZP322	23'-5 1/2"	.105	8.5
ZP332	34'-2 1/2"	.105	8.5
ZP333	29'-5 1/2"	.105	8.5
ZP584	23'-5 1/2"	.120	8.5
ZP588	34'-2 1/2"	.120	8.5
ZP589	29'-5 1/2"	.120	8.5
ZP659	23'-5 1/2"	.082	8.5

ATTACH ALL STRUT PURLINS ZP659 AND ZP589 AT BAYES TO FRAMES WITH 1/2" X 1 1/2" A-325 BOLTS.

ATTACH ALL STRUT PURLINS ZP333 ZP322, ZP589 AND ZP584 TO FRAMES WITH 1/2" X 1 1/2" A-325 BOLTS.

USE SBR08 AT ALL STRUT PURLINS (2) PER BAY, ATTACH TO PURLINS WITH 1/2" x 1 1/2" A-307 BOLTS.

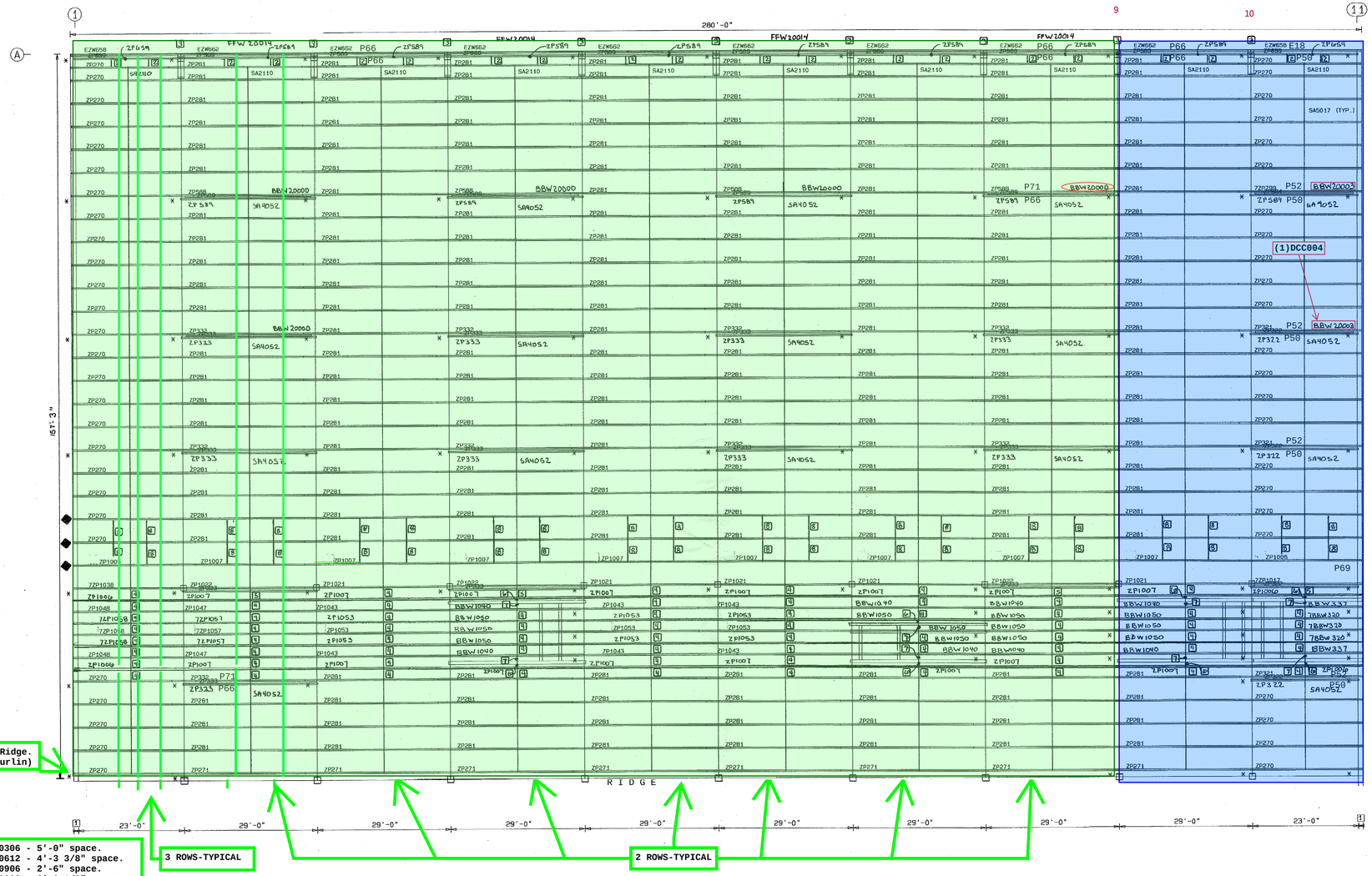
SBR08's ARE NOT REQURIED IN BAYS WITH STRUT MEMBERS BBW_____.

ATTACH ALL STRUTS (BBW_____) TO TRUSSES WITH (2) 3/4" X 1 3/4" A-325 BOLTS EACH END ATTACH TO PURLIN AND STRUT PURLIN WITH 1/4-14 x 1 1/4" STRUCTURAL FASTENERS 3'-6" O.C. MAX.

ATTACH ALL STRUTS (BBW20003)TO FRAME AT LINE 11 TO XP102 WITH (2) 3/4" X 1 3/4" A-325 BOLTS. ATTACH XP102 TO FRAME WITH (4) 3/4" X 1 1/2" A-325 BOLTS.

BUILDER PLEASE NOTE:

ALL FIXED CLIPS ARE MARKED WITH PAINTED TABS, AND ARE ONLY TO BE USED AT THE LOCATIONS DESIGNATED BY A ◆. THEY ARE NOT TO BE SUBSTITUTED FOR ANY OTHER CLIPS.



534 - CPBC050306 - 5'-0" space.
38 - CPBC040612 - 4'-3 3/8" space.
167 - CPBC020906 - 2'-6" space.
22 - CPBC030008 - 2'-9 1/8" space.
22 - CPBC020314 - 2'-0 1/2" space.
9 - CPBC020012 - 1'-9 3/8" space. Use SED:BR09JG
44 - CSB08 - 8 5/8" space 4 per space,(6)55307 fsnrs. SED:BR18F2-SIMILAR

R PSM04107 ← CPBC050306
T SA1017
W SA1017
P SA1112 ← CPBC020012
N SA2077 ← CPBC020906
A ALP052056
B PSM01113 ← CPBC030008
1 1'-0"

* Denotes A325 Secondary to Frame Connection

On: filency Proj#y: 5710 Bldg: 8 Plane: 7

1. UNLESS NOTED, USE 1/2" DIAMETER A-307 BOLTS FOR PURLIN LAP, PURLIN TO FRAME, FLANGE BRACE TO FRAME, AND FLANGE BRACE TO PURLIN CONNECTIONS. SEE JOB DETAILS FOR BOLT LENGTHS.
2. WIND, FLANGE, AND PURLIN BRACING ARE AN INTEGRAL PART OF THE ROOF STRUCTURAL SYSTEM AND SHOULD BE PROPERLY INSTALLED PRIOR TO ERECTION OF WALL AND ROOF SHEETS. REMOVAL OR ALTERATION OF ROOF BRACING WITHOUT PRIOR AUTHORIZATION IS PROHIBITED
3. WHEN SAG ANGLE SLOTS IN ADJACENT PURLINS DO NOT ALIGN OR ARE OMITTED, FIELD-BEND A SAG ANGLE TAB AND ATTACH TO PURLIN WITH A SELF-DRILLING STRUCTURAL FASTENER.
4. SAG ANGLES ARE NOT REQUIRED IN BAYS THAT ARE 16' OR LESS.

I hereby certify that this plan, specification, or report was prepared by me or under my direct personal supervision, and that I am a duly Registered Professional Engineer under the laws of the State of Iowa

Date 7-26-99 Registration No. 15123

This Drawing is sealed only as to the Components Furnished by VP Buildings

Building Code:	97UBC
Live Ld (K/D Trib Red)	20.0 psf
Coll. Ld (gravity):	10.0 psf
Coll. Ld (uplift):	0.0 psf
Wind Speed:	81.0 mph
Wind Exp. Cat.:	B
Ground Snow:	37.3 psf
Roof Snow:	30.0 psf
Snow Exp. Cat.:	3
Seismic Zone:	1
Building Use Cat.:	3
Auxiliary Loads	NONE

This Drawing, including the information hereon, remains the property of VP Buildings.

It is provided for erecting the Building described in the applicable Purchase Order and shall not be modified, reproduced or used for any other purpose without prior written Approval of VP Buildings.

The General Contractor and/or Erector is solely responsible for accurate, good Quality Workmanship in erecting this Building. Details referenced in this Drawing, all applicable VP Buildings Erection Details and all Industry Standards pertaining to proper erection, including the correct use of Temporary Bracing.

Roof Secondary

REV.	DATE	BY	DESC.

BUILDER Paint Builders, Inc. #1
CUSTOMER N/A
LOCATION CEDAR RAPIDS, IA
PROJECT CR ICE ARENA 2 - ORDER
BUILDING 318X280X40 roof eq. col. 2-6
SCALE NTS

QUOTE # OH99041643-012
JOB # 409934083-01
DATE 07/19/99
TIME 16:41
DRAW/CHECK GJS
PAGE 18 of 53

VP BUILDINGS VARCO-PRUDEN

7/22/99 2014

TO BE COMPLETED WITH THIS PROJECT (PHASE 2)

INSTALLATION ONLY, MATERIAL IS PROVIDED BY OWNER AND LOCATED ON THE SITE

NORTH

CURRENTLY UNDER CONSTRUCTION FOR PHASE 1

INCLUDES ENTIRE ROOF AREA NORTH OF GRID M

CEDAR RAPIDS
City of Five Seasons®

OWNER:
CITY OF CEDAR RAPIDS
Facilities Maintenance Services
City of Cedar Rapids 500 15th Ave SW, Cedar Rapids, Iowa 52404

ENGINEER OF RECORD:
INNOVATIVE ENGINEERS, INC.
2871 Heinz Rd. Suite B, Iowa City, IA 52240
T 319.855.4115 I F 319.351.0070
www.InnovativeEngineersInc.com

Structural Design Group
350 3RD AVENUE SW, SUITE 101
CEDAR RAPIDS, IOWA 52404
(319) 449-1368
StructuralDesignGroupLLC.com

CITY OF CEDAR RAPIDS ImOn ICE ARENA REPAIR PROJECT - PHASE 2

CEDAR RAPIDS, IOWA
PROJECT # #PUR0920-071

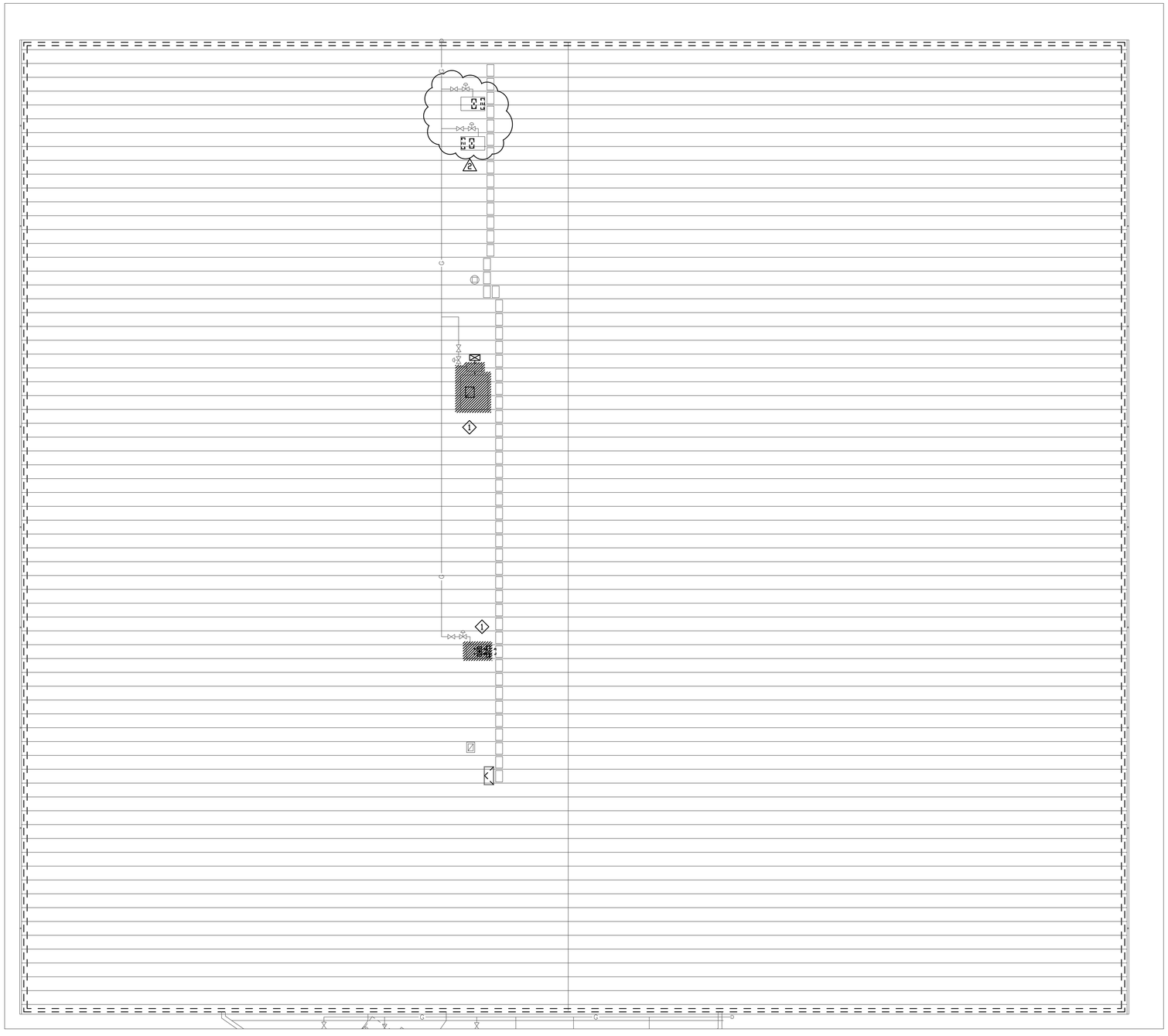
DESIGNED BY:
DRAWN BY:
CHECKED BY:
DOCUMENT DATE:
PROJECT NO.:
CLIENT NO.:

REVISIONS

NO.	DATE	DESCRIPTION	BY	DWN
0	01-21-2021	ISSUED FOR ADDENDUM 1	DR/GF	

SOUTH ROOF PLAN - SECONDARY FRAMING

SHEET: S-102
REV:



KEYED NOTES:

1. ~~REMOVE NEW ROOFTOP UNITS AND MOUNTING CURBS. COORDINATE WITH ROOFING CONTRACTOR PRIOR TO FACILITY RE-ROOFING. COORDINATE WITH MECHANICAL CONTRACTOR FOR INFRASTRUCTURE IMPROVEMENT PROJECT. ROOFTOP UNITS, CURBS, AND CONNECTED DUCTWORK TO BE PROTECTED DURING REMOVAL AND PREPARED FOR REINSTALLATION FOLLOWING RE-ROOFING.~~

West two units are in Phase 1 scope. Protect from damage during Phase 2 construction.
Sub-contract with Infrastructure Improvement project mechanical contractor to remove remaining rooftop units to allow re-roofing

A HD02 **HIGH ROOF - HVAC DEMO PLAN**

SCALE 3/32 = 1' - 0"

N

CEDAR RAPIDS
City of Five Seasons®

OWNER:
CITY OF CEDAR RAPIDS
Facilities Maintenance Services
City of Cedar Rapids 500 15th Ave SW, Cedar Rapids, Iowa 52404

ENGINEER OF RECORD:
INNOVATIVE ENGINEERS, INC.
2871 Heinz Rd, Suite B, Iowa City, IA 52240
T 319.855.4115 I F 319.351.0070
www.InnovativeEngineersInc.com

CITY OF CEDAR RAPIDS
ImOn ICE ARENA REPAIR PROJECT - PHASE 2
CEDAR RAPIDS, IOWA
PROJECT # #PUR0920-071

DESIGNED BY:	MNA
DRAWN BY:	JJ
CHECKED BY:	MNA
DOCUMENT DATE:	11/2/2020
PROJECT NO.:	20-101254
CLIENT NO.:	

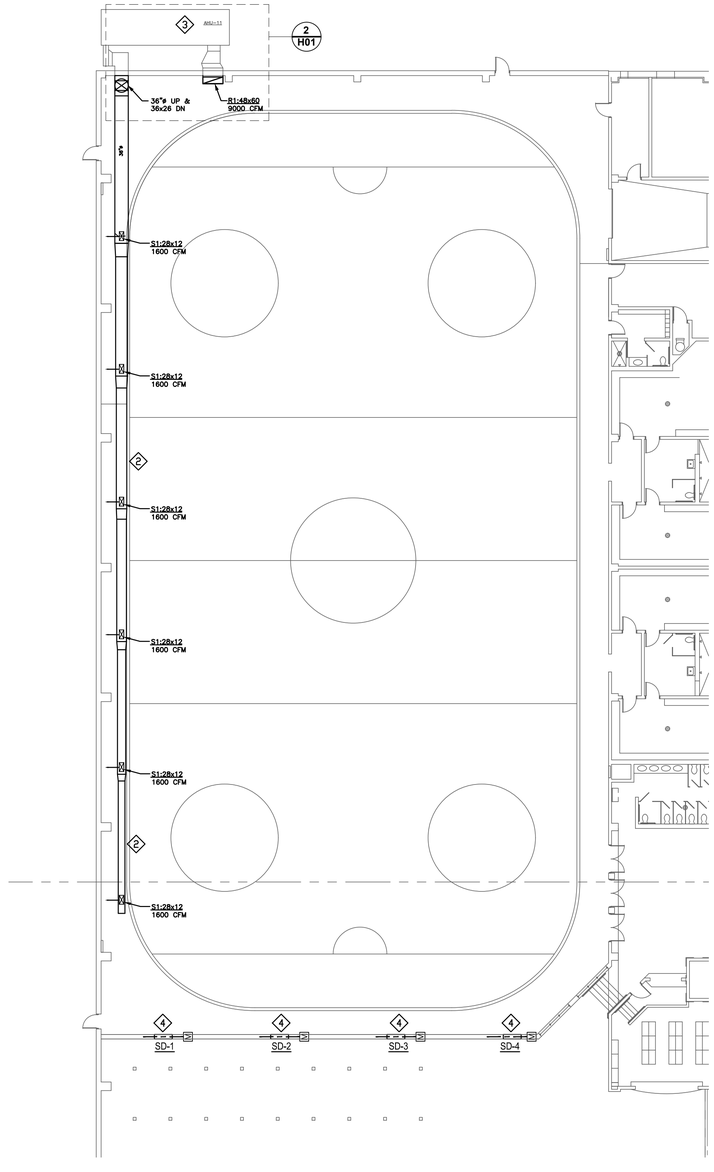
REVISIONS

NO.	DATE	DESCRIPTION	BY	DWN
0	1-15-2021	OUT FOR BID DRAWINGS	MNA	JJH
1	2-1-2021	ADDENDUM #1	MNA	JJH
2	2-3-2021	ADDENDUM #2	MNA	JJH

HIGH ROOF HVAC DEMO PLAN

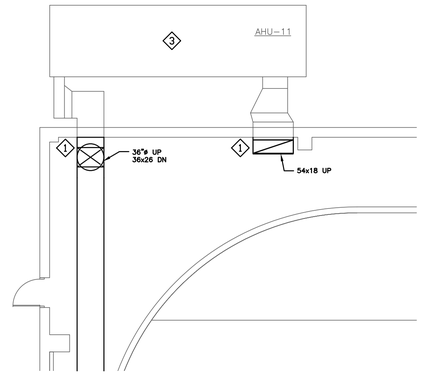
SHEET: **HD02**

REV:



1 H01 **ICE AND ENTRY LEVEL - MECHANICAL PLAN - SOUTH**

SCALE 1/16" = 1'-0"



2 H01 **ENLARGED HVAC PLAN**

SCALE 1/8" = 1'-0"

N

N

GENERAL NOTES:
MECHANICAL CONTRACTOR TO INSPECT ALL EXISTING DUCTWORK ABOVE CEILING. ALL DAMAGED DUCTWORK, DRIVES, DAMPERS, OR OTHER ACCESSORIES ARE TO BE CATALOGED AND REPAIRED OR REPLACED AS REQUIRED.

KEYED NOTES:

1. CONNECT NEW DUCTWORK TO SUPPLY AND RETURN PENETRATIONS AT WALL. COORDINATE DUCT CONNECTIONS WITH MECHANICAL CONTRACTOR ON INFRASTRUCTURE IMPROVEMENTS PROJECT.
2. MOUNT NEW DOUBLE WALL SPIRAL DUCT AT PREVIOUS ELEVATIONS. SEE DETAIL FOR DUCT HANGERS, DETAIL 2/H00. PROVIDE PAINTED DUCT.
3. AIR HANDLER AHU-11 INSTALLED ON SEPARATE PROJECT CONTRACT. COORDINATE DUCTWORK CONNECTIONS INSIDE BUILDING WITH M.C. FOR INFRASTRUCTURE IMPROVEMENT PROJECT. SEE ENLARGED DETAIL ON THIS SHEET 2/H01.
4. MOUNT SMOKE DAMPERS IN DEMISING WALL OPENINGS. SEE ARCHITECTURAL DRAWINGS.

CEDAR RAPIDS
City of Five Seasons®

OWNER:
CITY OF CEDAR RAPIDS
Facilities Maintenance Services
City of Cedar Rapids 500 15th Ave SW, Cedar Rapids, Iowa 52404

ENGINEER OF RECORD:
INNOVATIVE ENGINEERS, INC.
2871 Heinz Rd. Suite B, Iowa City, IA 52240
T 319.855.4115 I F 319.351.0070
www.InnovativeEngineersInc.com

CITY OF CEDAR RAPIDS
ImOn ICE ARENA REPAIR PROJECT - PHASE 2
CEDAR RAPIDS, IOWA
PROJECT # #PUR0920-071

DESIGNED BY:	MNA
DRAWN BY:	JJ
CHECKED BY:	MNA
DOCUMENT DATE:	11/2/2020
PROJECT NO.:	20-101254
CLIENT NO.:	

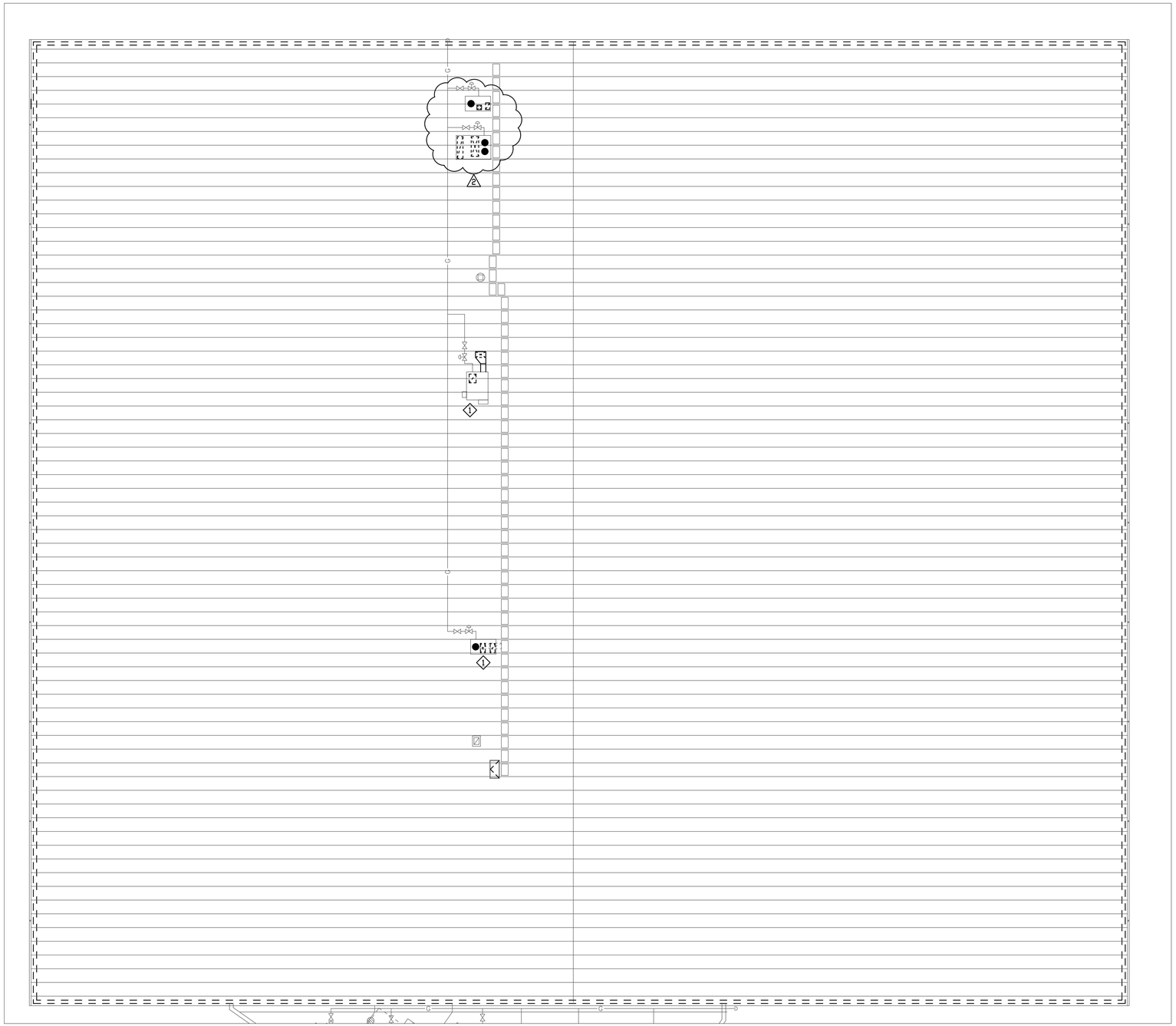
REVISIONS

NO.	DATE	DESCRIPTION	BY	DWN
0	1-15-2021	OUT FOR BID DRAWINGS	MNA	JJH
1	2-1-2021	ADDENDUM #1	MNA	JJH
2	2-3-2021	ADDENDUM #2	MNA	JJH

ICE AND ENTRY LEVEL- MECHANICAL PLAN-SOUTH

SHEET: **H01**

REV:



KEYED NOTES:

1. COORDINATE REINSTALLATION OF ROOF CURBS AND RTU'S WITH M.C. FOR INFRASTRUCTURE IMPROVEMENT PROJECT AND ROOFING CONTRACTOR. REINSTALLATION TO COINCIDE WITH INSTALLATIONS OF NEW ROOF.
2. Rooftop unit replaced during Phase I construction. Protect from damage during Phase 2 construction work.

1 H02 HIGH ROOF - HVAC PLAN

SCALE 1/8" = 1' - 0"

N

CEDAR RAPIDS
City of Five Seasons®

OWNER:
CITY OF CEDAR RAPIDS
Facilities Maintenance Services
City of Cedar Rapids 500 15th Ave SW, Cedar Rapids, Iowa 52404

ENGINEER OF RECORD:
INNOVATIVE ENGINEERS, INC.
2871 Heinz Rd. Suite B, Iowa City, IA 52240
T 319.855.4115 I F 319.351.0070
www.InnovativeEngineersInc.com

CITY OF CEDAR RAPIDS
ImOn ICE ARENA REPAIR PROJECT - PHASE 2
CEDAR RAPIDS, IOWA
PROJECT # #PUR0920-071

DESIGNED BY:	MNA
DRAWN BY:	JJ
CHECKED BY:	MNA
DOCUMENT DATE:	11/2/2020
PROJECT NO.:	20-101254
CLIENT NO.:	

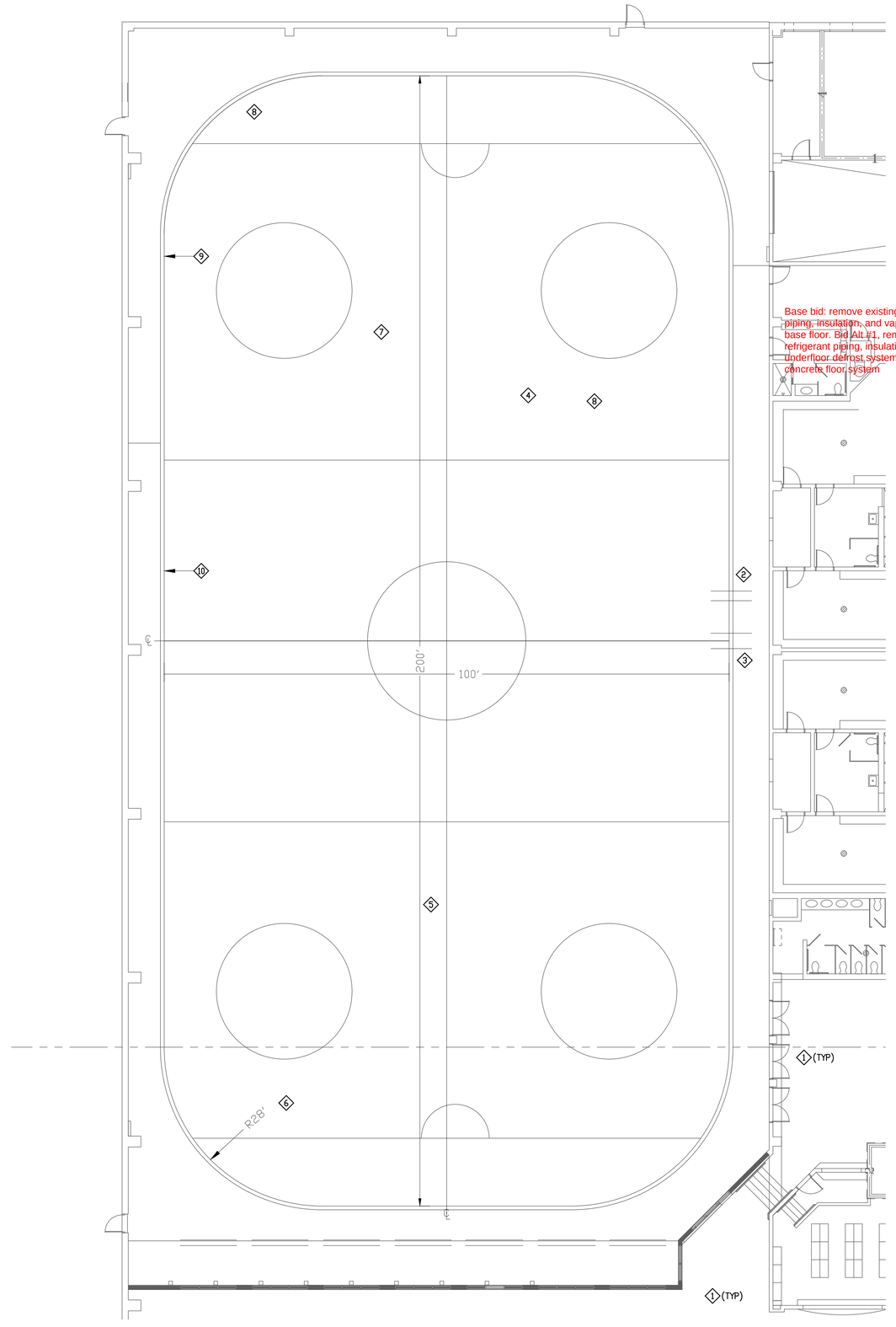
REVISIONS

NO.	DATE	DESCRIPTION	BY	DWN
0	1-15-2021	OUT FOR BID DRAWINGS	MNA	JJH
1	2-1-2021	ADDENDUM #1	MNA	JJH
2	2-3-2021	ADDENDUM #2	MNA	JJH

HIGH ROOF - HVAC PLAN

SHEET: H02

REV:



Base bid: remove existing sand floor base, brine refrigerant piping, insulation, and vapor barrier for replacement with sand base floor. Bid Alt #1, remove existing sand floor base, brine refrigerant piping, insulation, vapor barrier, and existing underfloor defrost system for replacement with complete concrete floor system

KEYED NOTES:

1. PROVIDE VISQUINE DUST BARRIER BETWEEN PHASE 11 CONSTRUCTION AREA AND COMPLETED PHASE I AREA.
2. FIELD VERIFY EXACT LOCATION OF SUBFLOOR HEATING MAIN SUPPLY AND RETURN PIPING (BID ALT. 2 ONLY). REMOVE EXISTING SUBFLOOR PIPING BACK TO MAINS.
3. FIELD VERIFY EXACT LOCATION OF EXISTING REFRIGERANT BRINE MAIN SUPPLY AND RETURN MAINS. (BASE BID AND BID ALT. 1.) REMOVE EXISTING BRINE LOOP PIPING BACK TO MAINS.
4. ~~MAIN BID AND BID ALT 1, REMOVE EXISTING SAND FLOOR BASE BRINE REFRIGERANT PIPING, INSULATION, AND VAPOR BARRIER.~~
5. BID ALT 2, REMOVE AND REPLACE EXISTING SUBGRADE HEATING LOOP.
6. APPROXIMATE RINK DIMENSIONS 200' X 100' X 28' RADIUS FACE TO FACE OF PERIMETER CONCRETE. APPROXIMATELY 19,327 SQ FT.
7. CONTRACTOR TO CORDINATE ANY REQUIRED DRAINAGE OF SUBGRADE HEATING LOOPS WITH MECHANICAL CONTRACTOR FOR INFRASTRUCTURE UPGRADE PROJECT.
8. PROVIDE VENTILATION FOR DUST CONTROL DURING CONSTRUCTION. DO NOT USE AHU-11 FOR CONSTRUCTION VENTILATION.
9. REMOVE AND STORE EXISTING TEMPERED GLASS AND SUPPORTS
10. REMOVE AND STORE EXISTING ICE RINK DASHERBOARDS, INCLUDING BOXES, GATES, ICE DAM AND GLASS.

1 MD01 OLYMPIC ICE RINK - DEMOLITION PLAN

SCALE 3/32" = 1'-0"

N

CEDAR RAPIDS
City of Five Seasons®

OWNER:
CITY OF CEDAR RAPIDS
Facilities Maintenance Services
City of Cedar Rapids 500 15th Ave SW, Cedar Rapids, Iowa 52404

ENGINEER OF RECORD:
INNOVATIVE ENGINEERS, INC.
2871 Heinz Rd. Suite B, Iowa City, IA 52240
T 319.855.4115 I F 319.351.0070
www.InnovativeEngineersInc.com

CITY OF CEDAR RAPIDS
ImOn ICE ARENA REPAIR PROJECT - PHASE 2
CEDAR RAPIDS, IOWA
PROJECT # #PUR0920-071

DESIGNED BY:	MNA
DRAWN BY:	JJ
CHECKED BY:	MNA
DOCUMENT DATE:	11/2/2020
PROJECT NO.:	20-101254
CLIENT NO.:	

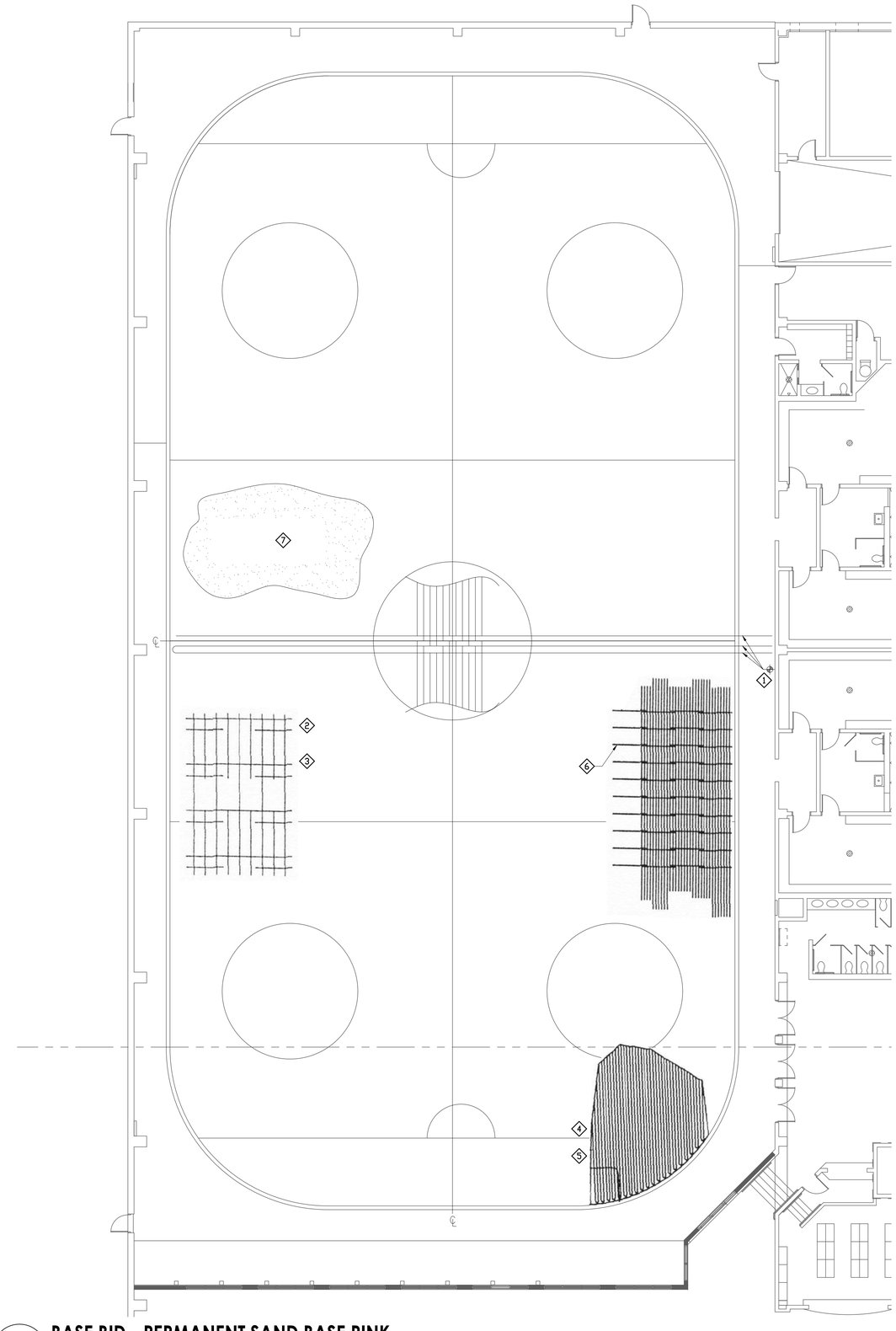
REVISIONS

NO.	DATE	DESCRIPTION	BY	DWN
0	1-15-2021	OUT FOR BID DRAWINGS	MNA	JJH
1	2-1-2021	ADDENDUM #1	MNA	JJH
2	2-3-2021	ADDENDUM #2	MNA	JJH

OLYMPIC ICE RINK- DEMOLITION PLAN

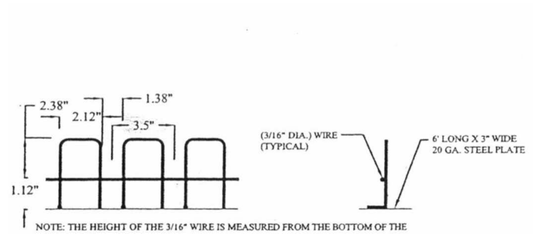
SHEET: **MD01**

REV:



1 M01 BASE BID - PERMANENT SAND BASE RINK

SCALE 1/8" = 1'-0"



NOTE: FOR USE WITH 1" SDR-11 (1.315" O.D.) POLY TUBE IN A 5" CONCRETE FLOOR WITH #4 (1/2") REBAR AND 6x6/6x6 WWF.

2 M04 TUBING SPACER

SCALE : NONE

3 M04 SADDLE AND 90° ELBOW

SCALE : NONE

4 M04 180° RETURN BEND DETAIL

SCALE : NONE

GENERAL NOTES:
MECHANICAL CONTRACTOR TO INSPECT ALL EXISTING DUCTWORK ABOVE CEILING. ALL DAMAGED DUCTWORK, DRIVES, DAMPERS, OR OTHER ACCESSORIES ARE TO BE CATALOGED AND REPAIRED OR REPLACED AS REQUIRED.

KEYED NOTES:

1. CONNECT NEW REFRIGERANT SUPPLY AND RETURN HEADERS TO EXISTING SUPPLY AND RETURN MAINS.
2. INSULATION: (2) LAYERS OF 4'x8'x2" OWENS CORNING FOAMULAR 250, WITH 6" MINIMUM OVERLAP BOTH WAYS. (2A)
3. VAPOR BARRIER: 6 MIL POLY SHEETS OVER INSULATION. TAPE ALL JOINTS.
4. RINK FLOOR TUBING SDR-11 ON 3-1/2" CENTERS
5. SEE HEADER/RETURN BEND DETAIL 4 ON THIS SHEET
6. TUBING SPACERS – 3'-0" ON CENTER CONTINUOUS ACROSS WIDTH OF RINK OVERLAPPING (2) TUBES. SEE DETAIL 2 ON THIS SHEET.
7. PERMANENT SAND BASE: 2" LAYER OF WASHED SAND MATERIAL COVERING NEW 1" REFRIGERANT LOOPS.

N

CEDAR RAPIDS
City of Five Seasons®

OWNER:
CITY OF CEDAR RAPIDS
Facilities Maintenance Services
City of Cedar Rapids 500 15th Ave SW, Cedar Rapids, Iowa 52404

ENGINEER OF RECORD:
INNOVATIVE ENGINEERS, INC.
2871 Heinz Rd. Suite B, Iowa City, IA 52240
T 319.855.4115 I F 319.351.0070
www.InnovativeEngineersInc.com

CITY OF CEDAR RAPIDS ImOn ICE ARENA REPAIR PROJECT - PHASE 2

CEDAR RAPIDS, IOWA
PROJECT # #PUR0920-071

DESIGNED BY:	MNA
DRAWN BY:	JJ
CHECKED BY:	MNA
DOCUMENT DATE:	11/2/2020
PROJECT NO.:	20-101254
CLIENT NO.:	

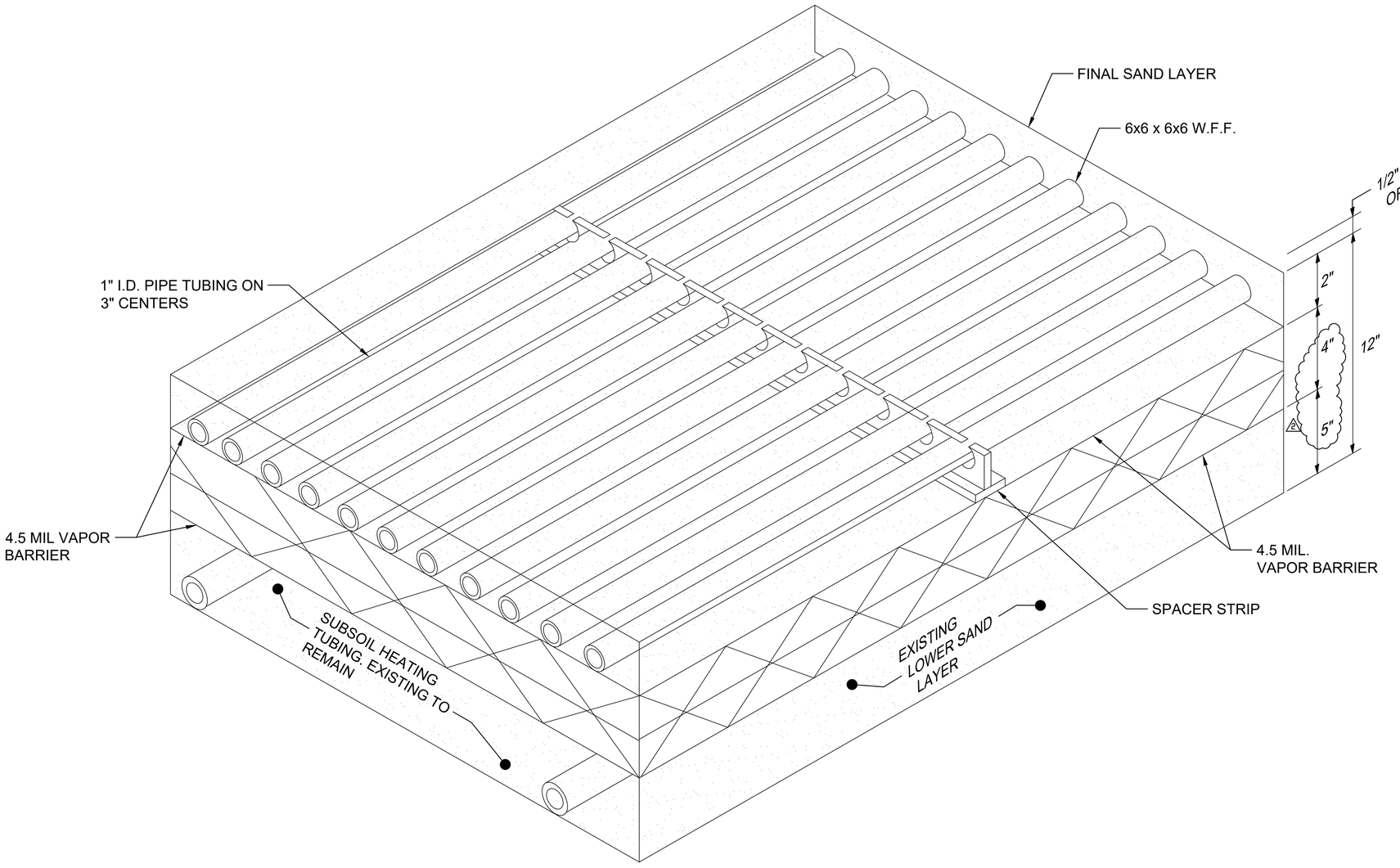
REVISIONS

NO.	DATE	DESCRIPTION	BY	DWN
0	1-15-2021	OUT FOR BID DRAWINGS	MNA	JJH
1	2-1-2021	ADDENDUM #1	MNA	JJH
2	2-3-2021	ADDENDUM #2	MNA	JJH

BASE BID - PERMANENT SAND BASE RINK

SHEET: M01

REV:



1 M02 **BASE BID - PERMANENT SAND BASE FLOOR ISOMETRIC**

SCALE 1/8" = 1'-0"

N

CEDAR RAPIDS
City of Five Seasons®

OWNER:

CITY OF CEDAR RAPIDS
Facilities Maintenance Services
City of Cedar Rapids 500 15th Ave SW, Cedar Rapids, Iowa 52404

ENGINEER OF RECORD:

INNOVATIVE ENGINEERS, INC.
2871 Heinz Rd. Suite B, Iowa City, IA 52240
T 319.855.4115 I F 319.351.0070
www.InnovativeEngineersInc.com

CITY OF CEDAR RAPIDS
ImOn ICE ARENA REPAIR PROJECT - PHASE 2
CEDAR RAPIDS, IOWA
PROJECT # #PUR0920-071

DESIGNED BY:	MNA
DRAWN BY:	JJ
CHECKED BY:	MNA
DOCUMENT DATE:	11/2/2020
PROJECT NO.:	20-101254
CLIENT NO.:	

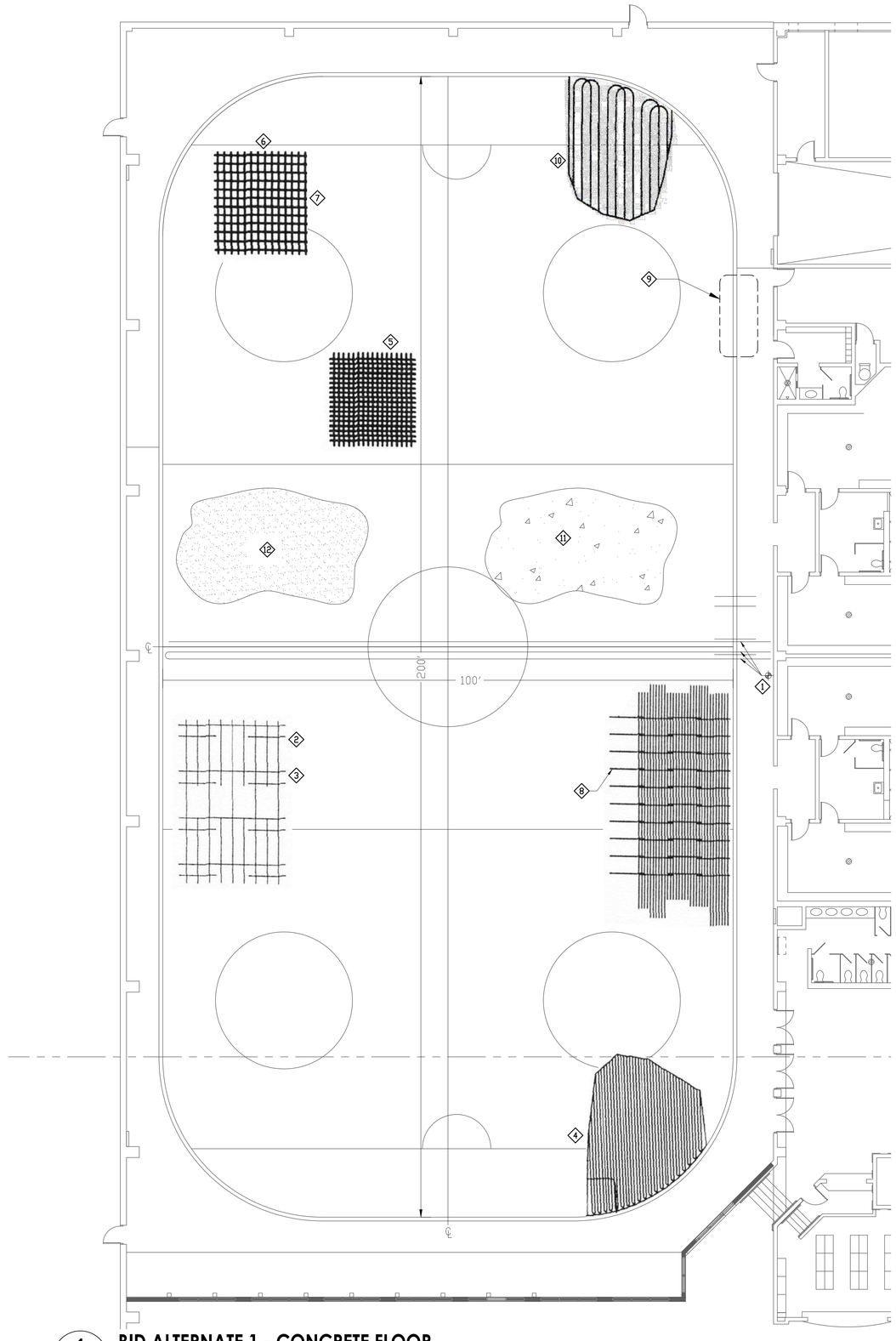
REVISIONS

NO.	DATE	DESCRIPTION	BY	DWN
0	1-15-2021	OUT FOR BID DRAWINGS	MNA	JJH
1	2-1-2021	ADDENDUM #1	MNA	JJH
2	2-3-2021	ADDENDUM #2	MNA	JJH

BASE BID - PERMANENT BASE SAND FLOOR ISO

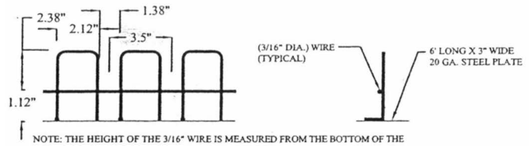
SHEET: **M02**

REV:



1 M04 BID ALTERNATE 1 - CONCRETE FLOOR

SCALE 3/32" = 1' - 0"



NOTE: THE HEIGHT OF THE 3/16" WIRE IS MEASURED FROM THE BOTTOM OF THE PLATE TO THE TOP OF THE WIRE

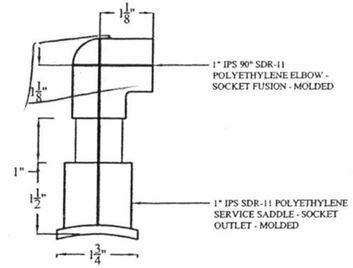
TUBING SPACER ELEVATION VIEW
SCALE: 3" = 1'-0"

TUBING SPACER END VIEW
SCALE: 3" = 1'-0"

NOTE: FOR USE WITH 1" SDR-11 (1.315" O.D.) POLY TUBE IN A 5" CONCRETE FLOOR WITH #4 (1/2") REBAR AND 6x6/6x6 WWF.

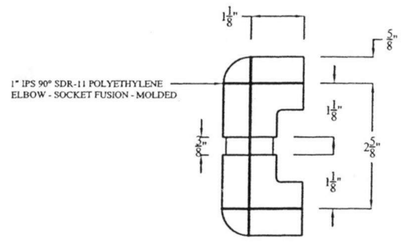
2 M04 TUBING SPACER

SCALE : NONE



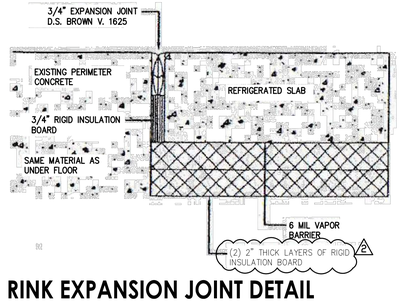
3 M04 SADDLE AND 90° ELBOW

SCALE : NONE



4 M04 180° RETURN BEND DETAIL

SCALE : NONE



5 M04 RINK EXPANSION JOINT DETAIL

SCALE : NONE

KEYED NOTES:

1. TIE NEW REFRIGERANT LOOP HEADER PIPING INTO EXISTING REFRIGERANT SUPPLY AND RETURN MAINS.
2. INSULATION: (2) LAYERS OF 4'x8'x2" OWENS CORNING FOAMULAR 250. WITH 6" MINIMUM OVERLAP BOTH WAYS. (2)
3. VAPOR BARRIER: 6 MIL POLY SHEETS OVER INSULATION. TAPE ALL JOINTS.
4. RINK FLOOR TUBING SDR-11 ON 3-1/2" CENTERS
5. 6x6 / 6x6 WWF – TIE TO REBAR EVERY 24" BOTH WAYS. PROVIDE 6" OVERLAP AT ALL SEAMS. TERMINATE 3" FROM EDGE OF RINK.
6. #4 REBAR @ 14" ON CENTER
7. #4 REBAR @ 14" ON CENTER
8. TUBING SPACERS – 3'-0" ON CENTER CONTINUOUS ACROSS WIDTH OF RINK OVERLAPPING (2) TUBES. SEE DETAIL 2 ON THIS SHEET.
9. RINK EXPANSION JOINT. SEE DETAIL 5 ON THIS SHEET
10. UNDERFLOOR HEAT TUBING SDR-11 FUSION WELDED ON 18" CENTERS
11. CONCRETE FLOOR: 5" 3" OF MONOLITHICALLY POURED CONCRETE MINIMUM FF40/FL2.5
12. PERMANENT SAND BASE – 2" LAYER OF WASHED SAND MATERIAL COVERING NEW 1" REFRIGERANT LOOPS.

CEDAR RAPIDS
City of Five Seasons®

OWNER:
CITY OF CEDAR RAPIDS
Facilities Maintenance Services
City of Cedar Rapids 500 15th Ave SW, Cedar Rapids, Iowa 52404

ENGINEER OF RECORD:
INNOVATIVE ENGINEERS, INC.
2871 Heinz Rd. Suite B, Iowa City, IA 52240
T 319.855.4115 I F 319.351.0070
www.InnovativeEngineersInc.com

CITY OF CEDAR RAPIDS ImOn ICE ARENA REPAIR PROJECT - PHASE 2

CEDAR RAPIDS, IOWA
PROJECT # #PUR0920-071

DESIGNED BY:	MNA
DRAWN BY:	JJ
CHECKED BY:	MNA
DOCUMENT DATE:	11/2/2020
PROJECT NO.:	20-101254
CLIENT NO.:	

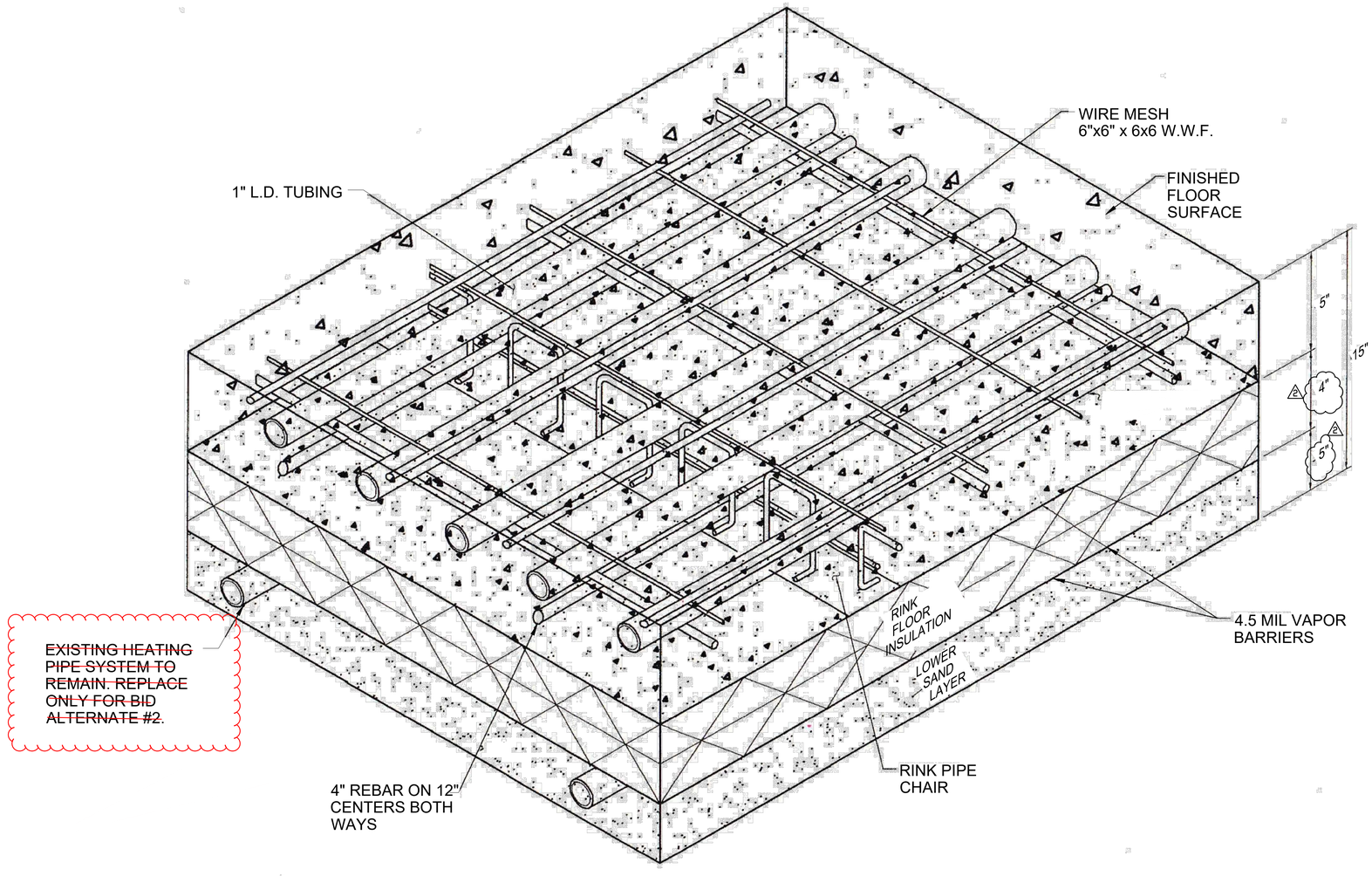
REVISIONS

NO.	DATE	DESCRIPTION	BY	DWN
0	1-15-2021	OUT FOR BID DRAWINGS	MNA	JJH
1	2-1-2021	ADDENDUM #1	MNA	JJH
2	2-3-2021	ADDENDUM #2	MNA	JJH

BID ALTERNATE 1 - CONCRETE FLOOR

SHEET: M04

REV:



1 / M05 CONCRETE RINK FLOOR ISOMETRIC - BID ALTERNATE #1

SCALE 1/16" = 1' - 0"

CEDAR RAPIDS
City of Five Seasons®

OWNER:

CITY OF CEDAR RAPIDS
Facilities Maintenance Services
City of Cedar Rapids 500 15th Ave SW, Cedar Rapids, Iowa 52404

ENGINEER OF RECORD:

INNOVATIVE ENGINEERS, INC.
2871 Heinz Rd. Suite B, Iowa City, IA 52240
T 319.855.4115 I F 319.351.0070
www.InnovativeEngineersInc.com

CITY OF CEDAR RAPIDS
ImOn ICE ARENA REPAIR PROJECT -
PHASE 2
CEDAR RAPIDS, IOWA
PROJECT # #PUR0920-071

DESIGNED BY:	MNA
DRAWN BY:	JJ
CHECKED BY:	MNA
DOCUMENT DATE:	11/2/2020
PROJECT NO.:	20-101254
CLIENT NO.:	

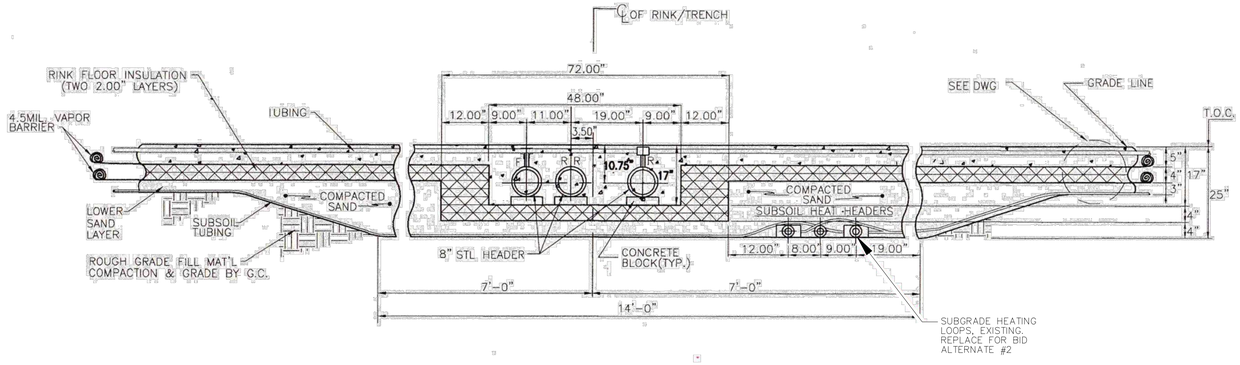
REVISIONS

NO.	DATE	DESCRIPTION	BY	DWN
0	1-15-2021	OUT FOR BID DRAWINGS	MNA	JJH
1	2-1-2021	ADDENDUM #1	MNA	JJH
2	2-3-2021	ADDENDUM #2	MNA	JJH

CONCRETE RINK FLOOR ISOMETRIC BID ALT #1

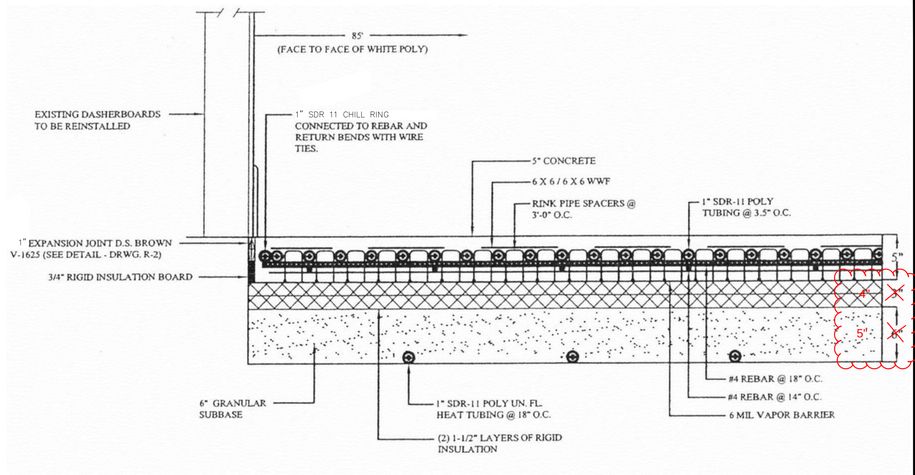
SHEET: **M05**

REV:



1 / M03 HEADER TRENCH FLOOR CROSS SECTION

SCALE: NONE



2 / M03 SECTION AT RINK SIDE

SCALE: NONE

3 / M03 SECTION AT RINK END

SCALE: NONE

4 / M03 RETURN BEND EDGE DETAIL

SCALE: NONE

CEDAR RAPIDS
City of Five Seasons®

OWNER:
CITY OF CEDAR RAPIDS
Facilities Maintenance Services
City of Cedar Rapids 500 15th Ave SW, Cedar Rapids, Iowa 52404

ENGINEER OF RECORD:
INNOVATIVE ENGINEERS, INC.
2871 Heinz Rd. Suite B, Iowa City, IA 52240
T 319.855.4115 I F 319.351.0070
www.InnovativeEngineersInc.com

CITY OF CEDAR RAPIDS ImOn ICE ARENA REPAIR PROJECT - PHASE 2

CEDAR RAPIDS, IOWA
PROJECT # #PUR0920-071

DESIGNED BY:	MNA
DRAWN BY:	JJ
CHECKED BY:	MNA
DOCUMENT DATE:	11/2/2020
PROJECT NO.:	20-101254
CLIENT NO.:	

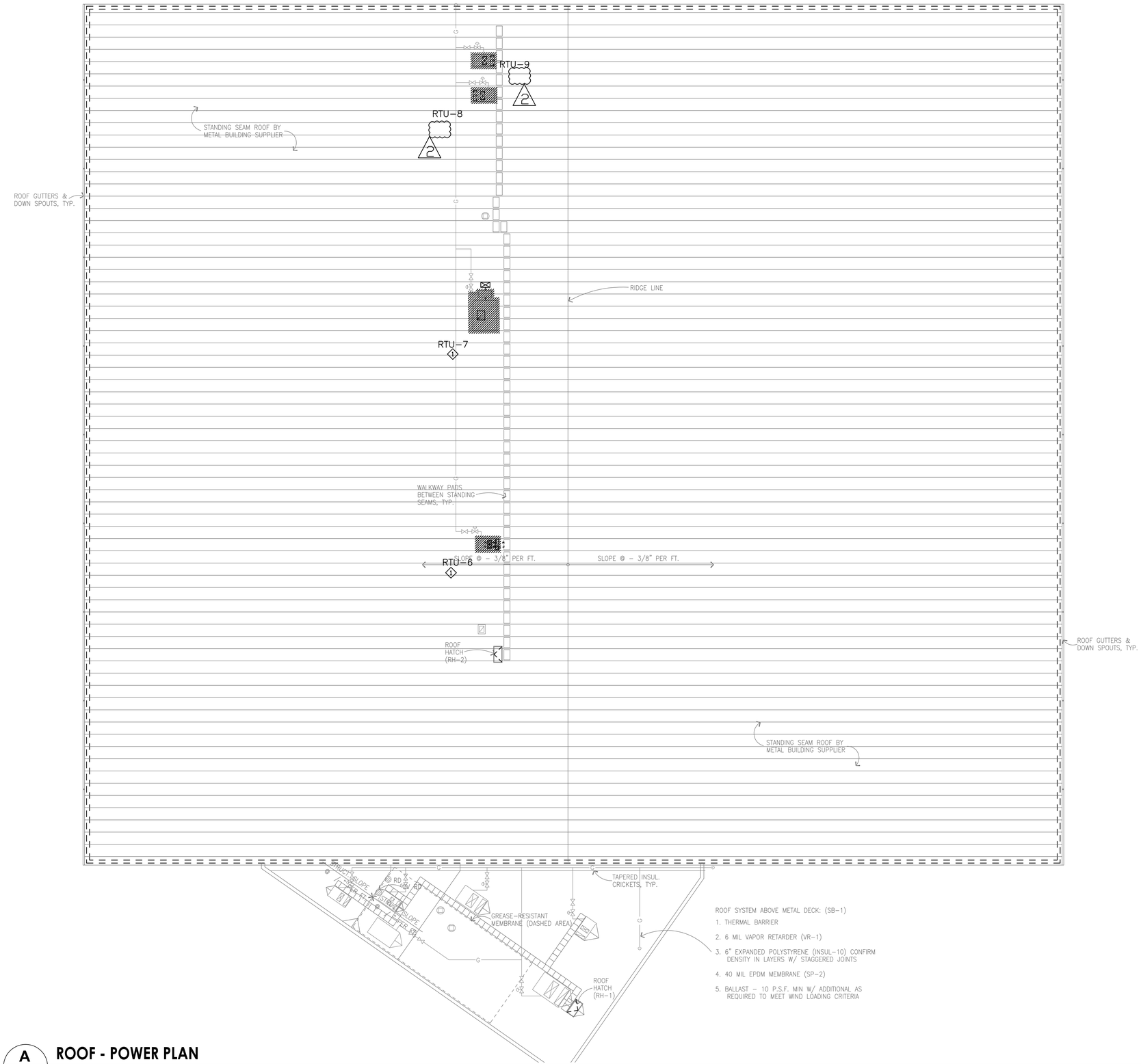
REVISIONS

NO.	DATE	DESCRIPTION	BY	DWN
0	1-15-2021	OUT FOR BID DRAWINGS	MNA	JJH

BID ALTERNATE 1 - CONCRETE FLOOR DETAILS

SHEET: **M06**

REV:



SPECIFIC KEY NOTES:

1. EXISTING ROOF TOP UNIT (RTU) TO BE REMOVED AND RE-INSTALLED AFTER THE INSTALLATION OF NEW ROOF AND ROOF CURB. MAINTAIN EXISTING CIRCUITRY TO FEED RTU AFTER THE INSTALLATION OF THE NEW ROOF. INTERCEPT AND EXTEND FEEDER AS REQUIRED.PROVIDE FINAL CONNECTIONS.

ROOF SYSTEM ABOVE METAL DECK: (SB-1)

1. THERMAL BARRIER
2. 6 MIL VAPOR RETARDER (VR-1)
3. 6" EXPANDED POLYSTYRENE (INSUL-10) CONFIRM DENSITY IN LAYERS W/ STAGGERED JOINTS
4. 40 MIL EPDM MEMBRANE (SP-2)
5. BALLAST - 10 P.S.F. MIN W/ ADDITIONAL AS REQUIRED TO MEET WIND LOADING CRITERIA

A / E05 ROOF - POWER PLAN

SCALE 1/16" = 1'-0"

N

CEDAR RAPIDS
City of Five Seasons®

OWNER:

CITY OF CEDAR RAPIDS
Facilities Maintenance Services
City of Cedar Rapids 500 15th Ave SW, Cedar Rapids, Iowa 52404

ENGINEER OF RECORD:

INNOVATIVE ENGINEERS, INC.
2871 Heinz Rd. Suite B, Iowa City, IA 52240
T 319.855.4115 I F 319.351.0070
www.InnovativeEngineersInc.com

CITY OF CEDAR RAPIDS
ImOn ICE ARENA REPAIR PROJECT - PHASE 2
CEDAR RAPIDS, IOWA
PROJECT # #PUR0920-071

DESIGNED BY:	MNA
DRAWN BY:	JJ
CHECKED BY:	MNA
DOCUMENT DATE:	11/2/2020
PROJECT NO.:	20-101254
CLIENT NO.:	

REVISIONS

NO.	DATE	DESCRIPTION	BY	DWN
0	1-15-2021	OUT FOR BID DRAWINGS	MNA	JJH
1	2-1-2021	ADDENDUM #1	MNA	JJH
2	2-3-2021	ADDENDUM #2	MNA	JJH

ROOF - POWER PLAN

SHEET: 2 E05

REV:

SPECIFIC POWER NOTES – DETAIL A:

1. BID ALTERNATE 4: 1-FOR-1 REPLACEMENT OF EXISTING FIXTURES. PROVIDE NEW LED FIXTURES PER LIGHT FIXTURE SCHEDULE. RE-USE EXISTING CIRCUITRY. TYPICAL OF ALL 13 SITE LIGHTING FIXTURES.

A E06 SITE LIGHTING PLAN - ALTERNATE #4 (SITE LIGHTING UPGRADE)

SCALE 1/32" = 1'-0"

N

2

LIGHTING FIXTURE SCHEDULE

MARK	FIXTURE		VOLT.	LAMP		MOUNTING		MANUFACTURER		REMARKS
	TYPE	DIFFUSER		# & WATTS	TYPE	TYPE	HT.	NAME	SERIES NO.	
J	2 X 2 PENDANT	SATINE LENS	277V	77W 7440 LM	LED 40K	PENDANT	20' AFF. 256" STEM	LUMINIS VOIGT PRESCOLITE	SQ805 221 LTC	FINISH - SNOW WHITE 0-10V DIMMING STEM LENGTH 256" WITH SST STABILIZER CABLES
H1	PARKING LOT FIXTURE		UNIV	133W	LED 40K	POLE	25'	LITHONIA SLG BEACON CREE	RSX1 ALS130 VPS	TYPE 4 WIDE DISTRIBUTION 0-10V DIMMING FINISH - DARK BRONZE,WITH PHOTO SENSOR
DD1	WALL PACK		UNIV	12,900 LM	LED 40K	WALL	MATCH EXISTING	LITHONIA SLG BEACON C-LITE	TWX3 LED WL	WITH PHOTO SENSOR 0-10V DIMMING FINISH: BLACK
E1	EMERGENCY LIGHT	N/A	UNIV	2-5W	LED	SURFACE	WALL	MULE LIGHT ALARMS DUAL LITE	EQUAL LCA-2LEDR EV2D	
X1	SINGLE FACE EXIT SIGN	N/A	UNIV	N/A	LED	SURFACE	WALL	MULE LIGHT ALARMS DUAL LITE	EQUAL QLX500 EVEURWE	RED PANEL COLOR, SINGLE FACE EMERGENCY (NICad Battery)

ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR TRIM TYPES, COORDINATE WITH REFLECTED CEILING PLANS

CEDAR RAPIDS
City of Five Seasons®

OWNER:
CITY OF CEDAR RAPIDS
Facilities Maintenance Services
City of Cedar Rapids 500 15th Ave SW, Cedar Rapids, Iowa 52404

ENGINEER OF RECORD:
INNOVATIVE ENGINEERS, INC.
2871 Heinz Rd. Suite B, Iowa City, IA 52240
T 319.855.4115 I F 319.351.0070
www.InnovativeEngineersInc.com

CITY OF CEDAR RAPIDS ImOn ICE ARENA REPAIR PROJECT - PHASE 2

CEDAR RAPIDS, IOWA
PROJECT # #PUR0920-071

DESIGNED BY:	MNA
DRAWN BY:	JJ
CHECKED BY:	MNA
DOCUMENT DATE:	11/2/2020
PROJECT NO.:	20-101254
CLIENT NO.:	

REVISIONS

NO.	DATE	DESCRIPTION	BY	DWN
0	1-15-2021	OUT FOR BID DRAWINGS	MNA	JJH
1	2-1-2021	ADDENDUM #1	MNA	JJH
2	2-3-2021	ADDENDUM #2	MNA	JJH

SITE LIGHTING PLAN- ALTERNATE #4

SHEET: 2 E06

REV: