AMENDED AGENDA
PLANNING COMMISSION
CITY OF LAKEWOOD
12650 DETROIT AVENUE

AUGUST 4, 2022
PRE-REVIEW MEETING
6:00 P.M.
AUDITORIUM

1. REVIEW DOCKET ITEMS

REVIEW MEETING
6:30 P.M.
AUDITORIUM

1. ROLL CALL

2. APPROVE THE MINUTES OF THE JUNE 29, 2022 MEETING

3. OPENING REMARKS

CORRECTION
PARKING PLAN
4. Docket No. 05-13-22
11801 Detroit Ave.
Studio West

On April 28, 2022, the applicant sent a communication stating the project was withdrawn. At the May 9, 2022 meeting, the item was placed on the agenda; it was heard and deferred instead of acknowledging the item was withdrawn. No further action is required for Docket 05-13-22. (Page 3)

OLD BUSINESS
CONDITIONAL USE
5. Docket No. 04-06-22
14615 Detroit Ave.
CHASE Bank

Terron Wright, The Architects Partnership, LTD, applicant, requests approval of conditional use permit for the use of a drive-thru ATM lane, pursuant to Section 1129.17 – Supplemental Regulations for Drive-through Facilities. The property is in a C1, Commercial - Office district. (Page 6)

PARKING PLAN
6. Docket No. 04-07-22
14615 Detroit Ave.
CHASE Bank

Terron Wright, The Architects Partnership, LTD, applicant, requests approval of a parking plan, pursuant to Section 1143.11 – Parking Plan Review: Planning Commission. The property is in a C1, Commercial - Office district. (Page 12)

NEW BUSINESS

CONDITIONAL USE

7. **Docket No. 08-19-22**
   14615 Detroit Ave.
   CHASE Bank

   Terron Wright, The Architects Partnership, LTD, applicant, requests approval of 24-hour use of ATMs, pursuant to 1129.14 – supplemental regulations for 24-hour operation. The property is in a C1, Commercial - Office district. (Page 21)

LOT CONSOLIDATION

8. **Docket No. 08-20-22**
   1070 Rosalie Ave.

   Eric Lowrey, applicant, property owner requests the review and approval of a lot consolidation for PPN 312-01-062 and 312-01-063, pursuant to section 1155.06 – procedures for lot consolidations and resubdivisions. Property is in a RIH – Residential, Single-Family, High-Density district. (Page 30)

CONDITIONAL USE

9. **Docket No. 08-21-22**
   15320 Detroit Ave.
   Tapster Cleveland

   Jordan Kay, Tapster Cleveland, applicant requests the review and approval for a conditional use permit to operate outdoor sidewalk dining, pursuant to section 1129.13 – supplemental regulations for outdoor/ seasonal dining facility. Property is in a C2 – Commercial, Retail district. (Page 33)

CONDITIONAL USE

10. **Docket No. 08-22-22**
    12400 Madison Ave.
    Fedor Manor

    Christy Stout, Black & Veatch, applicant requests the review and approval for a conditional use permit for modifications of an existing rooftop wireless facility, pursuant to section 1159.04(b) – use regulations. Property is in a C2 – Commercial, Retail district. (Page 38)

COMMUNICATION

CONDITIONAL USE

11. **Docket No. 08-24-22**
    16900 Detroit Ave.
    Lakewood Food Truck Park

    At its May 5, 2022 meeting, the Planning Commission directed administrative staff to provide a report to the Planning Commission regarding outdoor dining at Lakewood Food Truck, 16900 Detroit Ave at its August 4, 2022 meeting. (Page 119)

ADJOURN

PLANNING COMMISSION

12650 Detroit Avenue • 44107 • (216) 529-6630 • FAX (216) 529-5907
www.onelakewood.com

Application Cover Page

Docket No.: 05-13-22

Permit No.: PC22-000011

Applicant Name: Kenneth Esry, Larsen Architects

Project Address: 11801 Detroit Ave.

Project Name: Studio West 117

Proposal: Approval of a conditional use for accessory parking. Pursuant to Section 1161.03 (a) – Accessory Parking. The property is in a C3, Commercial – General Business.

*Request is withdrawn by the applicant.

Johanna Schwarz

From: Katelyn Milius
Sent: Thursday, April 28, 2022 8:12 AM
To: Johanna Schwarz
Subject: Fwd: NTB Parking Application Update

Sent from my iPhone

Begin forwarded message:

> **From:** James Ptacek <jptacek@larsenarchitects.com>
> **Date:** April 27, 2022 at 8:08:44 PM EDT
> **To:** Shawn Leininger <Shawn.Leininger@lakewoodoh.net>
> **Cc:** Katelyn Milius <Katelyn.Milius@lakewoodoh.net>
> **Subject: RE: NTB Parking Application Update**
>
> CAUTION: This email originated from outside your organization. Exercise caution when opening attachments or clicking links, especially from unknown senders.
>
> Yes – I heard from both Daniel & Betsy late this afternoon…
>
> We would respectfully like to request to withdraw our Planning Commission submittal for accessory parking.
>
> Thanks for your help and guidance in reviewing our submittal.
>
> Best wishes –
>
> JP
>
> **Jim "JP" Ptacek**
> AIA / LEED AP / Principal
>
> LARSEN ARCHITECTS
> 12506 Edgewater Drive - Suite 10
> Lakewood, Ohio 44107
> O. 216.221.2350
> F. 216.221.5670
> C. 216.544.3647

From: Shawn Leininger <Shawn.Leininger@lakewoodoh.net>
Sent: Wednesday, April 27, 2022 10:18 AM
To: James Ptacek <jptacek@larsenarchitects.com>

Cc: Katelyn Milius <Katelyn.Milius@lakewoodoh.net>
Subject: Application Update

JP,

Any confirmation on withdrawing the accessory parking application from the PC agenda?

Thanks,

Shawn Leininger, AICP
Director of Planning & Development

City of Lakewood
Department of Planning & Development
12650 Detroit Avenue
Lakewood, Ohio 44107

(216) 529-6630 main
(216) 529-6635 office

www.lakewoodoh.gov

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PLANNING COMMISSION

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Application Cover Page

Docket No.: 04-06-22

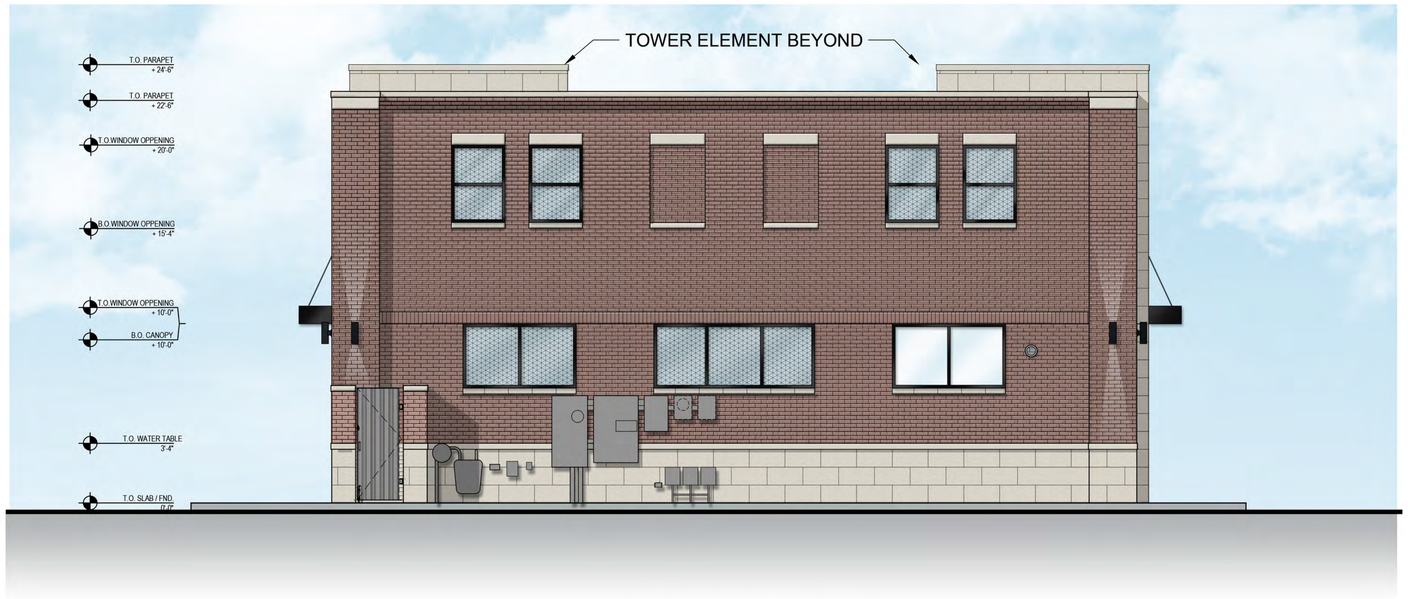
Permit No.: PC22-000005

Applicant Name: Terron Wright, The Architects Partnership, LTD

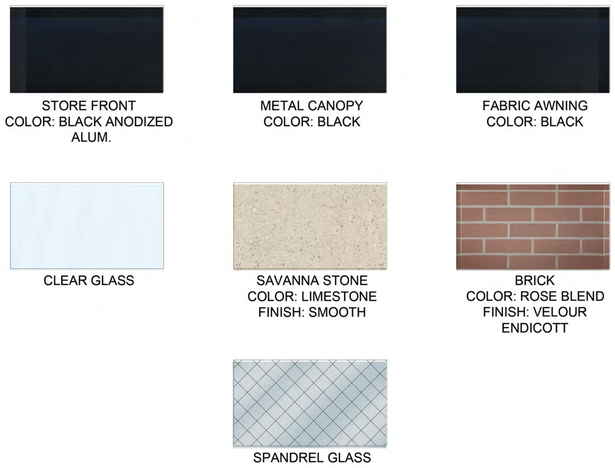
Project Address: 14615 Detroit Ave.

Project Name: CHASE Bank

Proposal: Conditional use permit for the use of a drive-thru ATM lane. Pursuant to Section 1129.17 – Supplemental Regulations for Drive-through Facilities. The property is located in a C1, Commercial - Office district.



EAST ELEVATION



STORE FRONT
COLOR: BLACK ANODIZED ALUM.

METAL CANOPY
COLOR: BLACK

FABRIC AWNING
COLOR: BLACK

CLEAR GLASS

SAVANNA STONE
COLOR: LIMESTONE
FINISH: SMOOTH

BRICK
COLOR: ROSE BLEND
FINISH: VELOUR
ENDICOTT

SPANDREL GLASS

NORTH ELEVATION

SCALE: $\frac{1}{4}$" = 1'

0 5' 10' 15'

CHASE

LAKEWOOD
14615 Detroit Ave.
Lakewood, OH 44107

ARCHITECTURAL ELEVATIONS

07.13.2022

Architect/Designer
The Architects Partnership, Ltd.
200 South Michigan Avenue
Chicago, IL 60604
t: 312.583.9800
f: 312.583.9890
TAP Project Number: 21032

tap

WEST ELEVATION

STORE FRONT
COLOR: BLACK ANODIZED ALUM.

METAL CANOPY
COLOR: BLACK

FABRIC AWNING
COLOR: BLACK

CLEAR GLASS

SAVANNA STONE
COLOR: LIMESTONE
FINISH: SMOOTH

BRICK
COLOR: ROSE BLEND
FINISH: VELOUR
ENDICOTT

SPANDREL GLASS

SOUTH ELEVATION - NEED UPDATE

SCALE: $\frac{1}{4}$" = 1'

0 5' 10' 15'

CHASE

LAKEWOOD
14615 Detroit Ave.
Lakewood, OH 44107

ARCHITECTURAL ELEVATIONS

07.13.2022

Architect/Designer
The Architects Partnership, Ltd.
200 South Michigan Avenue
Chicago, IL 60604
t: 312.583.9800
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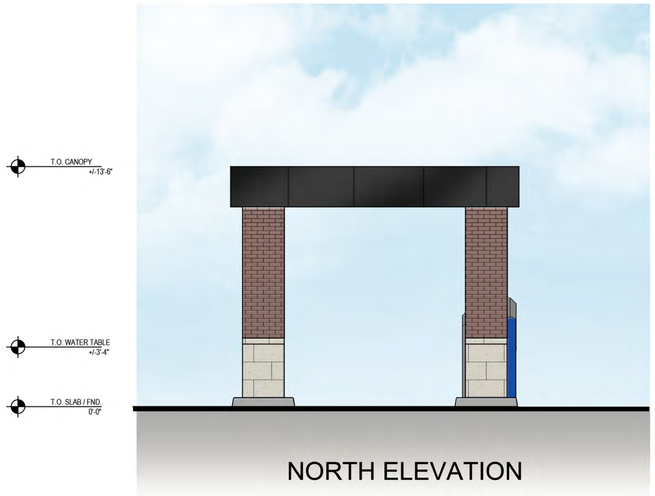
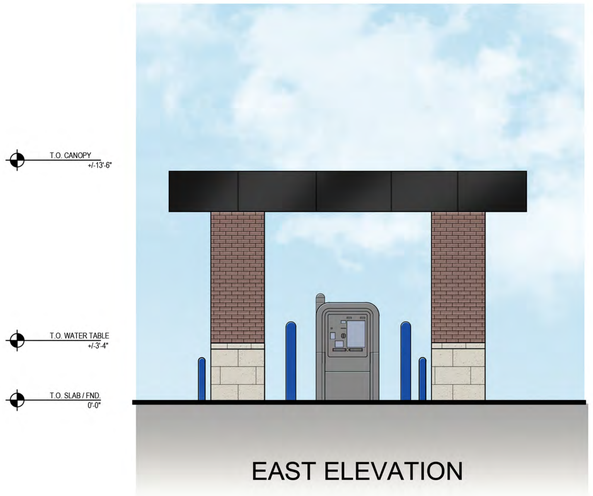
tap



NORTH ELEVATION

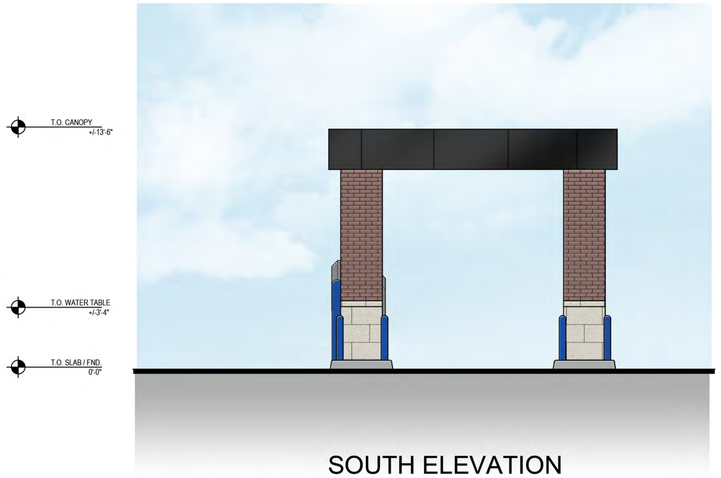


EAST ELEVATION

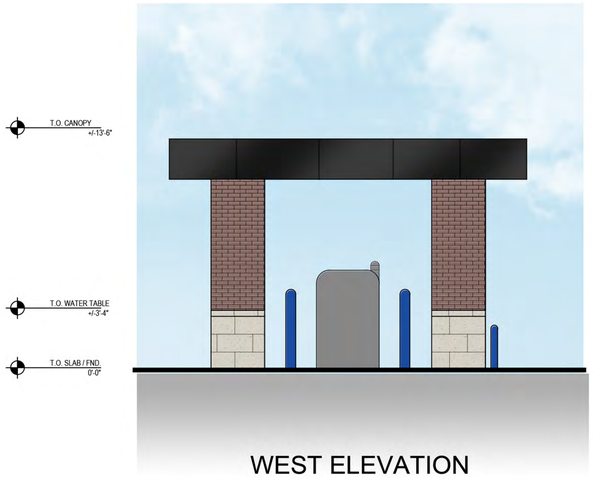
SAVANNA STONE
COLOR: LIMESTONE
FINISH: SMOOTH

METAL CANOPY
COLOR: BLACK

BRICK
COLOR: ROSE BLEND
FINISH: VELOUR
ENDICOTT



SOUTH ELEVATION



WEST ELEVATION

SCALE: $\frac{1}{4}$" = 1'

0 5' 10' 15'

CHASE

LAKEWOOD
14615 Detroit Ave.
Lakewood, OH 44107

ARCHITECTURAL ELEVATIONS

07.13.2022

Architect/Designer

The Architects Partnership, Ltd.
200 South Michigan Avenue
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t: 312.583.9800
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TAP Project Number: 21032

tap

DETROIT AVE

ST CHARLES AVE

BLUE COVE

ENSURE LEVEL LANDING & ADA ACCESS

WEATHER VESTIBULE

CONF./ PCS 7

PCS 6

PCS 8

PCS 9

LOUNGE

DRY ERASE BD

MAGNETIC STRIPS

BOOTH 5

BOOTH 4

BOOTH 3

6'-4" HOLD

57"x30"

LIVING ROOM

34X72 DRT

PRIVACY WALL, TYP.

LOBBY

FEC

RESTROOM

RESTROOM

ATM3

FUT. ATM

BULLETIN BD

BRG

MST 1

AST 2

M.T.

ELEC. PNL.

JAN.

F.D

MINI-SPLIT

PCS 2

PRINT

MFD'S

PCS 1

42" DIA.

24 HR. TRANSACTION VESTIBULE

ATM 2

AHD

MICR

AT 1

EQUIP./ CASH RM.

CASH CART

LAO

DATA

2AP

2AF

54X19

36x72

36x60

43'-4"

45'-0"

79'-0"

+/-6 ' TRASH ENCLOSURE.

ENSURE LEVEL LANDING & ADA ACCESS

SCALE: 1" = 1'-0"

0 5' 10' 15'

CHASE

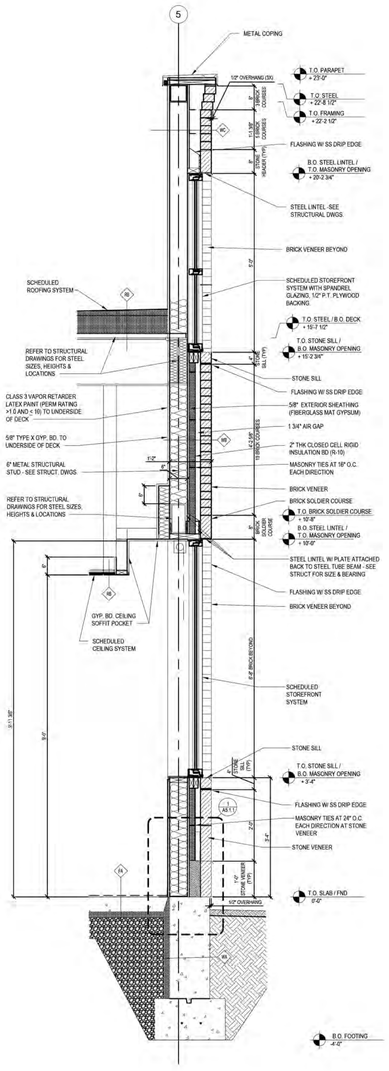
LAKEWOOD
14615 Detroit Ave.
Lakewood, OH 44107

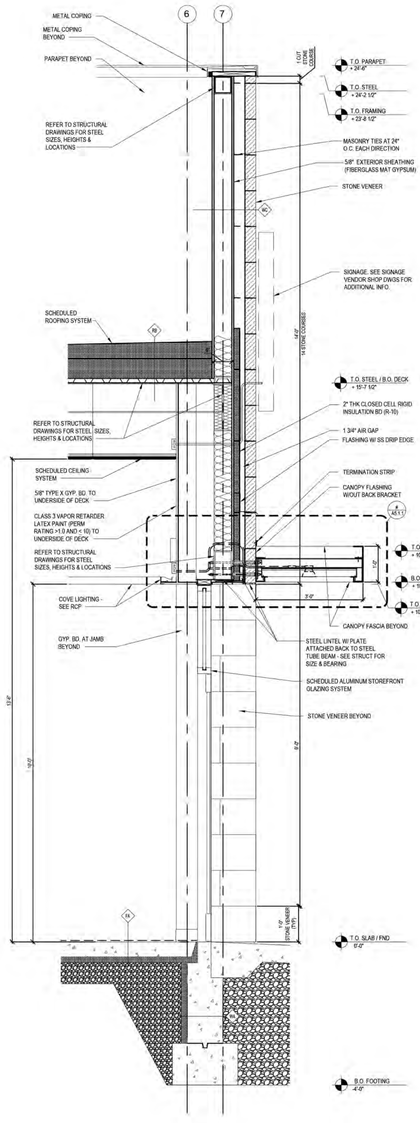
FLOOR PLAN

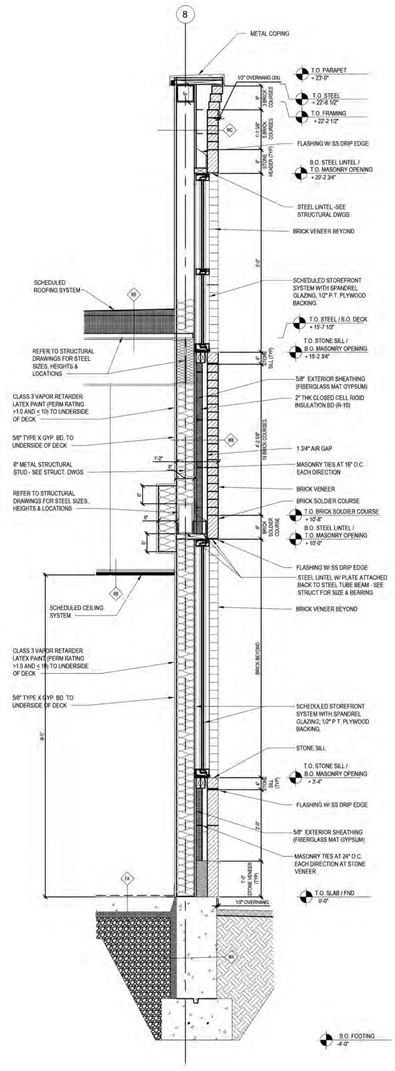
07.14.2022

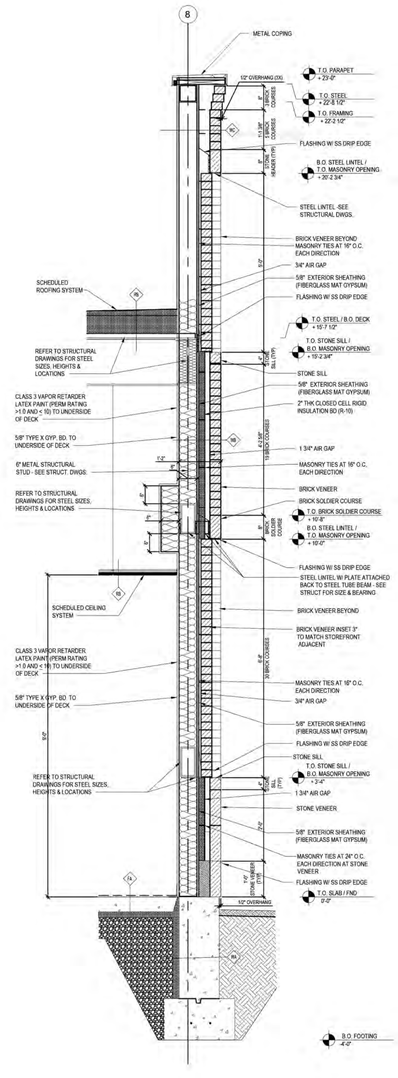
The Architects Partnership, LTD
200 South Michigan Avenue
Chicago, IL 60604
t: 312.583.9800
f: 312.583.9890
TAP Project Number: 21032

tap









CHASE

LAKEWOOD
14615 Detroit Ave.
Lakewood, OH 44107

WALL SECTIONS

06.22.2022

The Architects Partnership, LTD
200 South Michigan Avenue
Chicago, IL 60604
t: 312.583.9800
f: 312.583.9890
TAP Project Number: 21032

tap

PLANNING COMMISSION

12650 Detroit Avenue • 44107 • (216) 529-6630 • FAX (216) 529-5907
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Application Cover Page

Docket No.: 04-07-22

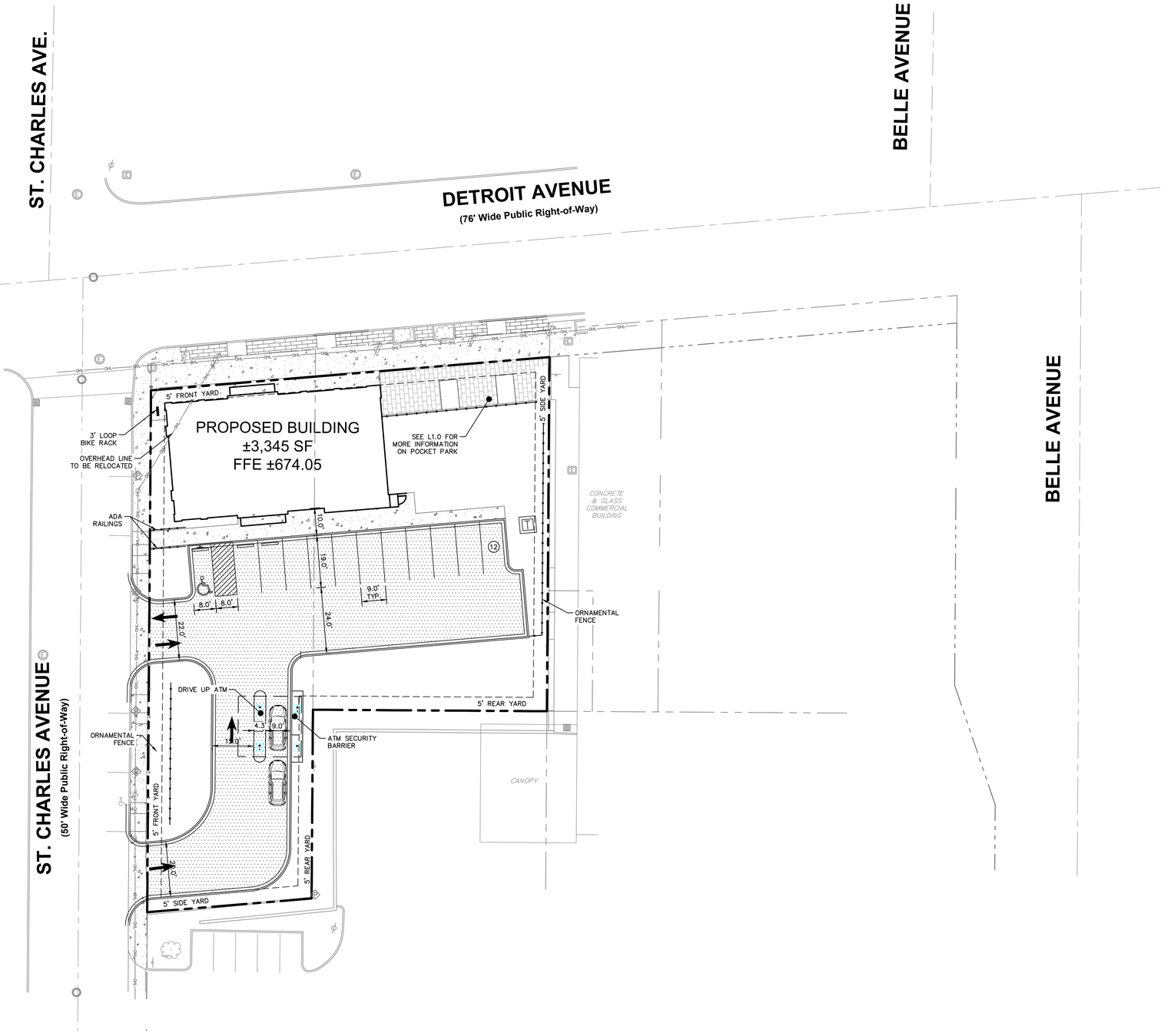
Permit No.: PC22-000006

Applicant Name: Terron Wright, The Architects Partnership, LTD

Project Address: 14615 Detroit Ave.

Project Name: CHASE Bank

Proposal: Approval of a parking plan. Pursuant to Section 1143.79 – Parking Plan Review: Planning Commission. The property is located in a C1, Commercial - Office district.



NORTH

GRAPHIC SCALE IN FEET
0 10 20 40

GENERAL NOTES

1. ALL DIMENSIONS REFER TO THE FACE OF CURB UNLESS OTHERWISE NOTED.
2. BUILDING DIMENSIONS ARE TO THE OUTSIDE FACE OF BUILDING UNLESS OTHERWISE NOTED.
3. REFER TO ARCHITECTURAL AND STRUCTURAL PLANS TO VERIFY ALL BUILDING DIMENSIONS.
4. RADII NOT DIMENSIONED ON THIS PLAN SHALL BE 2-FEET, TYPICAL.
5. REFER TO ARCHITECTURAL PLANS FOR MONUMENT SIGN DETAILS. SEE MEP PLANS FOR SITE ELECTRICAL DRAWINGS.
6. ALL PROPOSED ON-SITE STRIPING SHALL BE PAINTED UNLESS OTHERWISE NOTED.

SITE DATA TABLE

ZONING: COMMERCIAL, OFFICE (C1) - HISTORIC DESIGNATION, LOCAL

	REQUIRED	PROVIDED
BUILDING SETBACKS		
FRONT: (ST CHARLES AVE)	5 Ft	5 Ft
FRONT: (DETROIT AVE)	5 Ft MAX	5 Ft
SIDE: (EAST)	5 Ft	53 Ft
SIDE: (SOUTH)	5 Ft	137 Ft
SIDE: (SOUTH)	5 Ft	69 Ft
ADA SPACES	1	1
PARKING		
1 SPACE PER EMPLOYEE		
STANDARD SPACES (90°)	9 SPACES MAX	12

SITE LEGEND

- STANDARD DUTY ASPHALT PAVEMENT — SEE CONSTRUCTION DETAILS FOR PAVEMENT SECTION
- HEAVY DUTY CONCRETE PAVEMENT — SEE CONSTRUCTION DETAILS FOR PAVEMENT SECTION
- CONCRETE SIDEWALK — SEE CONSTRUCTION DETAILS FOR PAVEMENT SECTION
- 6" CONCRETE CURB AND GUTTER
- SETBACK
- PROPERTY LINE
- ACCESSIBLE PARKING MARKING

No.	REVISIONS	DATE	BY

Kimley»Horn

7965 N. HIGH STREET, SUITE 200
COLUMBUS, OH 43235
PHONE: 614-540-6937
WWW.KIMLEY-HORN.COM

SCALE: AS NOTED
DESIGNED BY: SRS
DRAWN BY: SRS
CHECKED BY: DDL

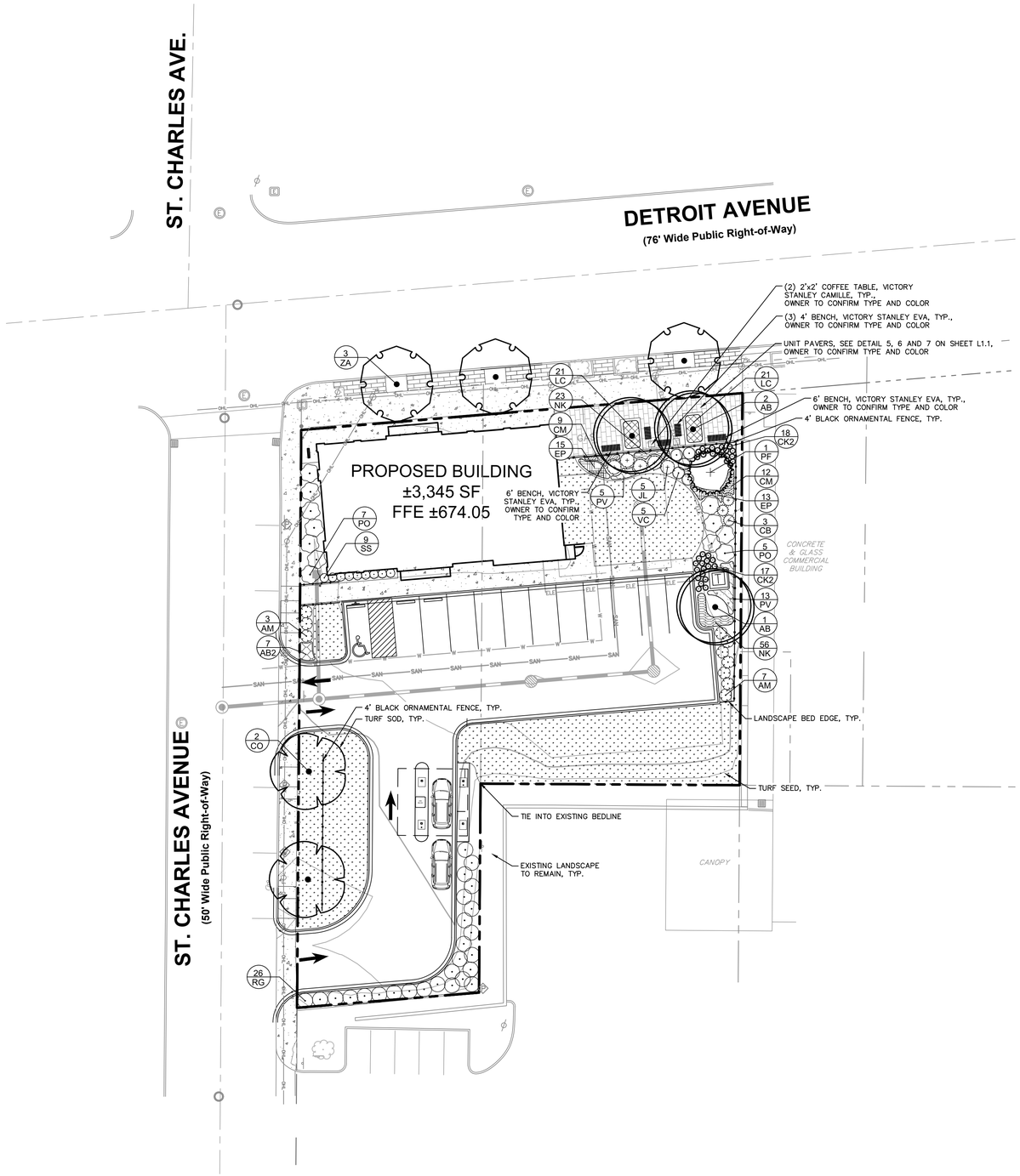
NOT FOR CONSTRUCTION

CHASE

SITE PLAN

CHASE BANK
LAKEWOOD, OH
CITY OF LAKEWOOD, CUYAHOGA COUNTY, OHIO

ORIGINAL ISSUE: 6/8/2022
KHA PROJECT NO. 190041017
SHEET NUMBER
C2.0



NORTH

GRAPHIC SCALE IN FEET
0 10 20 40

PLANT SCHEDULE

TREES	CODE	QTY	BOTANICAL / COMMON NAME	CONT	CAL	OTHER
	AB	3	ACER X FREEMANII 'BAILSTON' TM / MATADOR FREEMAN MAPLE	B & B	2" CAL. MIN	
	CO	2	CELTIS OCCIDENTALIS / COMMON HACKBERRY	B & B	3" CAL. MIN	
	ZA	3	ZELKOVA SERRATA 'AUTUMN GLOW' / AUTUMN GLOW JAPANESE ZELKOVA	B & B	3" CAL. MIN	
EVERGREEN TREES	**CODE**	**QTY**	**BOTANICAL / COMMON NAME**	**CONT**	**CAL**	**OTHER**
	PF	1	PINUS FLEXILIS `VANDERWOLF`S PYRAMID` / VANDERWOLF`S PYRAMID LIMBER PINE	B & B		5` HT MIN
SHRUBS	**CODE**	**QTY**	**BOTANICAL / COMMON NAME**	**CONT**	**SPACING**	**SIZE**
	AM	10	ARONIA MELANOCARPA 'MORTON' TM / IROQUOIS BEAUTY BLACK CHOKEBERRY	-	SEE PLAN	18" HT. MIN.
	PO	12	PHYSOCARPUS OPULIFOLIUS 'SMNPOBLR' TM / GINGER WINE NINEBARK	-	SEE PLAN	18" HT. MIN.
	RG	26	RHUS AROMATICA 'GRO-LOW' / GRO-LOW FRAGRANT SUMAC	-	SEE PLAN	18" HT. MIN.
	SS	9	SPIRAEA JAPONICA 'LITTLE PRINCESS' / LITTLE PRINCESS JAPANESE SPIREA	-	SEE PLAN	18" HT. MIN.
	VC	5	VIBURNUM CARLESII 'CAYUGA' / CAYUGA KOREANSPICE VIBURNUM	-	SEE PLAN	18" HT. MIN.
EVERGREEN SHRUBS	**CODE**	**QTY**	**BOTANICAL / COMMON NAME**	**CONT**	**SPACING**	**SIZE**
	CB	3	CHAMAECYPARIS PISIFERA 'BOULEVARD' / BOULEVARD SAWARA CYPRESS	-	SEE PLAN	36" HT. MIN.
	JL	5	JUNIPERUS CHINENSIS 'GOLD LACE' / GOLD LACE JUNIPER	-	SEE PLAN	18" HT. MIN.
GRASSES	**CODE**	**QTY**	**BOTANICAL / COMMON NAME**	**CONT**	**SPACING**	
	CK2	35	CALAMAGROSTIS X ACUTIFLORA `KARL FOERSTER` / FEATHER REED GRASS	1 GAL	SEE PLAN	
GRASSES AND PERENNIALS	**CODE**	**QTY**	**BOTANICAL / COMMON NAME**	**CONT**	**SPACING**	
	AB2	7	AMSONIA X 'BLUE ICE' / BLUE ICE BLUESTAR	1 GAL	24" OC	
	CM	21	COREOPSIS X 'MOONBEAM' / MOONBEAM TICKSEED	1 GAL	18" OC	
	EP	28	ECHINACEA PURPUREA 'POW WOW WHITE' / POW WOW WHITE CONEFLOWER	1 GAL	18" OC	
	LC	42	LIRIOPE SPICATA / CREEPING LILYTURF	1 GAL	18" OC	
	NK	79	NEPETA X FAASSENII 'KIT KAT' / KIT KAT CATMINT	1 GAL	12" OC	
	PV	18	PANICUM VIRGATUM / SWITCH GRASS	1 GAL	24" OC	
GROUND COVERS			**BOTANICAL / COMMON NAME**			
			TURF SOD			

NO.	REVISIONS	DATE	BY

Kimley»Horn
© 2022 KIMLEY-HORN AND ASSOCIATES, INC.
7965 N. HIGH STREET, SUITE 200
COLUMBUS, OH 43235
PHONE: 614-540-6937
WWW.KIMLEY-HORN.COM

SCALE: AS NOTED | DESIGNED BY: SRS | DRAWN BY: SRS | CHECKED BY: DDL

NOT FOR CONSTRUCTION

CHASE

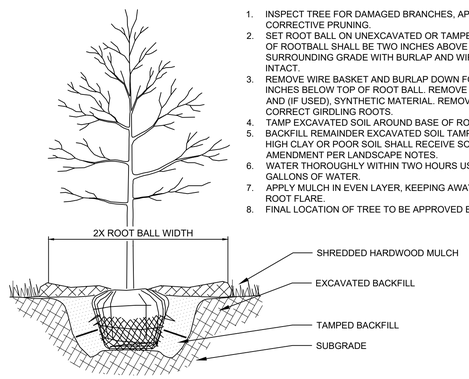
LANDSCAPE PLAN

CHASE BANK
LAKEWOOD, OH
CITY OF LAKEWOOD, CUYAHOGA COUNTY, OHIO

ORIGINAL ISSUE: 6/8/2022
KHA PROJECT NO. 190041017
SHEET NUMBER
L1.0

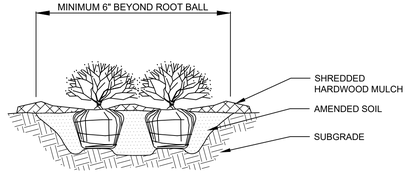
NOTES:

1. INSPECT TREE FOR DAMAGED BRANCHES, APPLY CORRECTIVE PRUNING.
2. SET ROOT BALL ON UNEXCAVATED OR TAMPED SOIL. TOP OF ROOTBALL SHALL BE TWO INCHES ABOVE SURROUNDING GRADE WITH BURLAP AND WIRE BASKET INTACT.
3. REMOVE WIRE BASKET AND BURLAP DOWN FOUR TO SIX INCHES BELOW TOP OF ROOT BALL. REMOVE ALL TWINE AND (IF USED), SYNTHETIC MATERIAL. REMOVE OR CORRECT GIRDLING ROOTS.
4. TAMP EXCAVATED SOIL AROUND BASE OF ROOTBALL.
5. BACKFILL REMAINDER EXCAVATED SOIL TAMPED LIGHTLY. HIGH CLAY OR POOR SOIL SHALL RECEIVE SOIL AMENDMENT PER LANDSCAPE NOTES.
6. WATER THOROUGHLY WITHIN TWO HOURS USING 10 TO 15 GALLONS OF WATER.
7. APPLY MULCH IN EVEN LAYER, KEEPING AWAY FROM ROOT FLARE.
8. FINAL LOCATION OF TREE TO BE APPROVED BY OWNER.



1 TREE PLANTING

NTS



NOTES:

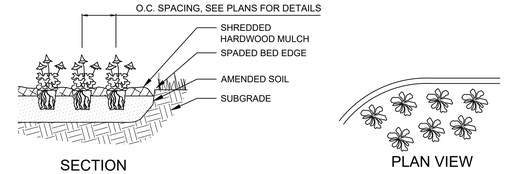
1. APPLY CORRECTIVE PRUNING.
2. SET ROOT BALL OR CONTAINER ON UNEXCAVATED OR TAMPED SOIL. TOP OF ROOTBALL (CONTAINER) SHALL BE ONE INCH ABOVE SURROUNDING GRADE. FOR LARGER SHRUBS WITHIN PLANTING BED DIG A DEEPER PIT ONLY FOR THOSE SHRUBS.
3. REMOVE BURLAP FROM TOP HALF THE LENGTH OF ROOTBALL. TWINE AND (IF USED) SYNTHETIC MATERIAL SHALL BE REMOVED FROM PLANTING BED. FOR CONTAINER GROWN SHRUBS, REMOVE CONTAINER AND LOOSEN ROOTS PRIOR TO INSTALLATION.
4. REMOVE OR CORRECT GIRDLING ROOTS.
5. PLUMB AND BACKFILL WITH AMENDED SOIL PER LANDSCAPE NOTES. WATER THOROUGHLY WITHIN TWO HOURS.
6. APPLY MULCH IN EVEN LAYER, KEEPING AWAY FROM ROOT FLARE. MULCH LIMITS FOR SHRUBS EXTEND TO ALL LIMITS OF PLANTING BED, SEE PLANS FOR BED LAYOUTS.

2 SHRUB PLANTING

NTS

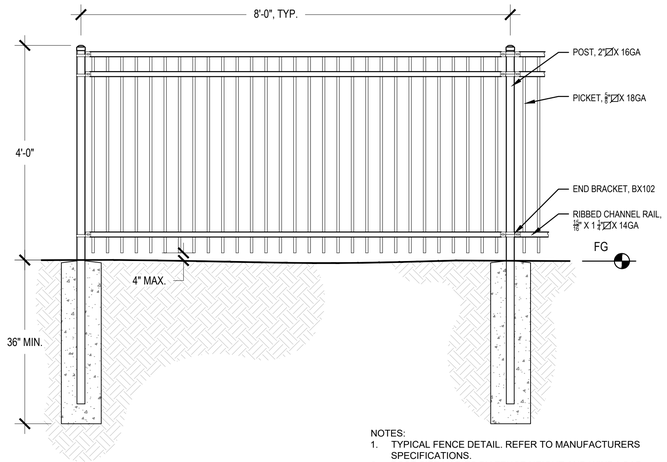
NOTES:

1. EXCAVATE PLANTING BED.
2. BED HEIGHT IS TO BE 2" ABOVE FINISH GRADE AND WELL DRAINED.
3. REMOVE CONTAINER, SCORE SOIL MASS TO REDIRECT AND PREVENT CIRCLING ROOTS. CORRECT GIRDLING ROOTS.
2. PLANT MATERIAL SHALL BE LAID OUT BY FOLLOWING THE BED EDGE, WORKING TOWARDS THE CENTER OF THE BED USING TRIANGULAR (STAGGERED) SPACING AS PLAUSIBLE.
3. PLUMB AND BACKFILL WITH PLANTING MIX AS SPECIFIED IN LANDSCAPE NOTES.
4. APPLY MULCH IN EVEN LAYER, KEEPING AWAY FROM ROOT FLARE. MULCH LIMITS FOR PERENNIALS/GROUNDCOVER EXTEND TO ALL LIMITS OF PLANTING BED, SEE PLANS FOR BED LAYOUTS.
5. SPACING TO BE AS SPECIFIED IN THE PLANT LIST. PERENNIALS SHALL BE PLACED WITH THEIR CENTER 24" FROM EDGE OF BED.



3 PERENNIAL PLANTING

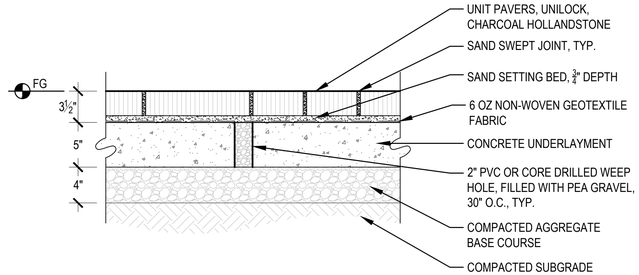
NTS



NOTES:
1. TYPICAL FENCE DETAIL. REFER TO MANUFACTURERS SPECIFICATIONS.
2. POST SIZE VARIES BY FENCE HEIGHT AND WIND LOAD.
3. CONCRETE FOOTING VARIES BASED ON LOCAL SOIL CONDITIONS.

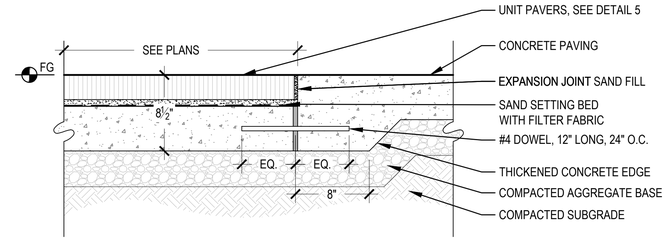
4 4' ORNAMENTAL FENCE

3/4" 1'-0"d



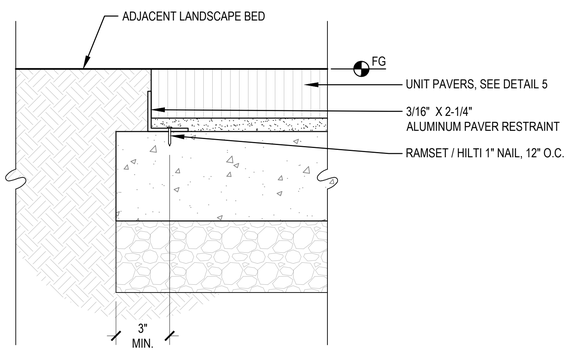
5 UNIT PAVING ON CONCRETE BASE

1 1/2" 1'-0"d



6 UNIT PAVING TO CONCRETE

1 1/2" 1'-0"d



7 PAVER EDGE AT LANDSCAPE

3" 1'-0"d

LANDSCAPE NOTES

1. THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING MATERIALS AND PLANTS SHOWN ON THE LANDSCAPE PLAN. THE CONTRACTOR IS RESPONSIBLE FOR THE COST TO REPAIR UTILITIES, ADJACENT LANDSCAPE, PUBLIC AND PRIVATE PROPERTY THAT IS DAMAGED BY THE CONTRACTOR OR THEIR SUBCONTRACTOR'S OPERATIONS DURING INSTALLATION OR DURING THE SPECIFIED MAINTENANCE PERIOD. CALL FOR UTILITY LOCATIONS PRIOR TO ANY EXCAVATION.
2. THE CONTRACTOR SHALL REPORT ANY DISCREPANCY IN PLAN VS. FIELD CONDITIONS IMMEDIATELY TO THE LANDSCAPE ARCHITECT, PRIOR TO CONTINUING WITH THAT PORTION OF WORK.
3. NO PLANTING WILL BE INSTALLED UNTIL ALL GRADING AND CONSTRUCTION HAS BEEN COMPLETED IN THE IMMEDIATE AREA.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REPAIR OF ANY OF THEIR TRENCHES OR EXCAVATIONS THAT SETTLE.
5. ALL PLANTS TO BE SPECIMEN GRADE, WELL BRANCHED, HEALTHY, FULL, PRE-INOCULATED AND FERTILIZED. PLANTS SHALL BE FREE FROM DISEASE, PESTS, WOUNDS, AND SCARS. PLANTS SHALL BE FREE FROM NOTICEABLE GAPS, HOLES, OR DEFORMITIES. PLANTS SHALL BE FREE FROM BROKEN OR DEAD BRANCHES. TRUNKS WILL BE WRAPPED IF NECESSARY TO PREVENT SUN SCALD AND INSECT DAMAGE. THE LANDSCAPE CONTRACTOR SHALL REMOVE THE WRAP AT THE PROPER TIME AS PART OF THIS CONTRACT.
6. THE OWNER'S REPRESENTATIVE MAY REJECT ANY PLANT MATERIALS THAT ARE DISEASED, DEFORMED, OR OTHERWISE NOT EXHIBITING SUPERIOR QUALITY.
7. ALL NURSERY STOCK SHALL BE GUARANTEED, BY THE CONTRACTOR, FOR ONE YEAR FROM DATE OF FINAL INSPECTION. THE GUARANTEE BEGINS ON THE DATE OF THE LANDSCAPE ARCHITECT'S OR OWNERS WRITTEN ACCEPTANCE OF THE INITIAL PLANTING. REPLACEMENT PLANT MATERIAL SHALL HAVE A ONE YEAR GUARANTEE COMMENCING UPON PLANTING.
8. PLANTS TO MEET AMERICAN STANDARD FOR NURSERY STOCK (ANSI Z60.1-2014 OR MOST CURRENT VERSION) REQUIREMENTS FOR SIZE AND TYPE SPECIFIED.
9. PRUNE PLANTS AS NECESSARY- PER STANDARD NURSERY PRACTICE AND TO CORRECT POOR BRANCHING OF EXISTING AND PROPOSED TREES.
10. TOPSOIL SHALL BE PROVIDED AND GRADED BY THE GENERAL CONTRACTOR UP TO 6 INCHES BELOW FINISHED GRADE IN TURF AREAS AND 18 INCHES IN PLANTING AREAS.
11. PLANTING AREA TOPSOIL SHALL BE AMENDED WITH 25% SPHAGNUM PEATMOSS, 5% HUMUS AND 70% PULVERIZED SOIL FOR ALL NON TURF SEED MIX AREAS, SHRUB, ORNAMENTAL GRASS, PERENNIAL AND ANNUAL BEDS.
12. SEED/SOD LIMIT LINES ARE APPROXIMATE. CONTRACTOR SHALL SEED/SOD ALL AREAS WHICH ARE DISTURBED BY GRADING WITH THE SPECIFIED SEED/SOD MIXES.
13. EDGING TO BE A SPADED EDGE UNLESS INDICATED OTHERWISE ON THE PLANS. SPADED EDGE TO PROVIDE V-SHAPED DEPTH AND WIDTH TO CREATE SEPARATION BETWEEN MULCH AND GRASS. A SPADED BED EDGE SHALL SEPARATE MULCH BEDS FROM TURF OR SEEDED AREAS. A SPADED EDGE IS NOT REQUIRED ALONG CURBED EDGES.
14. CONTRACTOR SHALL INSTALL SHREDDED HARDWOOD MULCH AT A 3" DEPTH TO ALL TREES, SHRUB, PERENNIAL, AND GROUNDCOVER AREAS. TREES PLACED IN AREA COVERED BY TURF SHALL RECEIVE A 4 FT WIDE MAXIMUM TREE RING WITH 3" DEPTH SHREDDED HARDWOOD MULCH.
15. INSTALLATION OF TREES WITHIN PARKWAYS SHALL BE COORDINATED IN THE FIELD WITH LOCATIONS OF UNDERGROUND UTILITIES. TREES SHALL NOT BE LOCATED CLOSER THAN 5' FROM UNDERGROUND UTILITY LINES AND NO CLOSER THAN 10' FROM UTILITY STRUCTURES.
16. DO NOT DISTURB THE EXISTING PAVING, LIGHTING, OR LANDSCAPING THAT EXISTS ADJACENT TO THE SITE UNLESS OTHERWISE NOTED ON PLAN.
17. ALL DISTURBED AREAS TO BE SODDED OR SEEDED, UNLESS OTHERWISE NOTED. SOD/SEED SHALL BE LOCAL HARDY TURF GRASS MIX UNLESS, OTHERWISE NOTED.
18. PLANT QUANTITIES SHOWN ARE FOR THE CONVENIENCE OF THE OWNER AND JURISDICTIONAL REVIEW AGENCIES. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL PLANT QUANTITIES AS DRAWN.

No.	REVISIONS	DATE	BY

Kimley»Horn

7965 N. HIGH STREET, SUITE 200
COLUMBUS, OH 43235
PHONE: 614-540-6937
WWW.KIMLEY-HORN.COM

SCALE: AS NOTED
DESIGNED BY: SRS
DRAWN BY: SRS
CHECKED BY: DDL

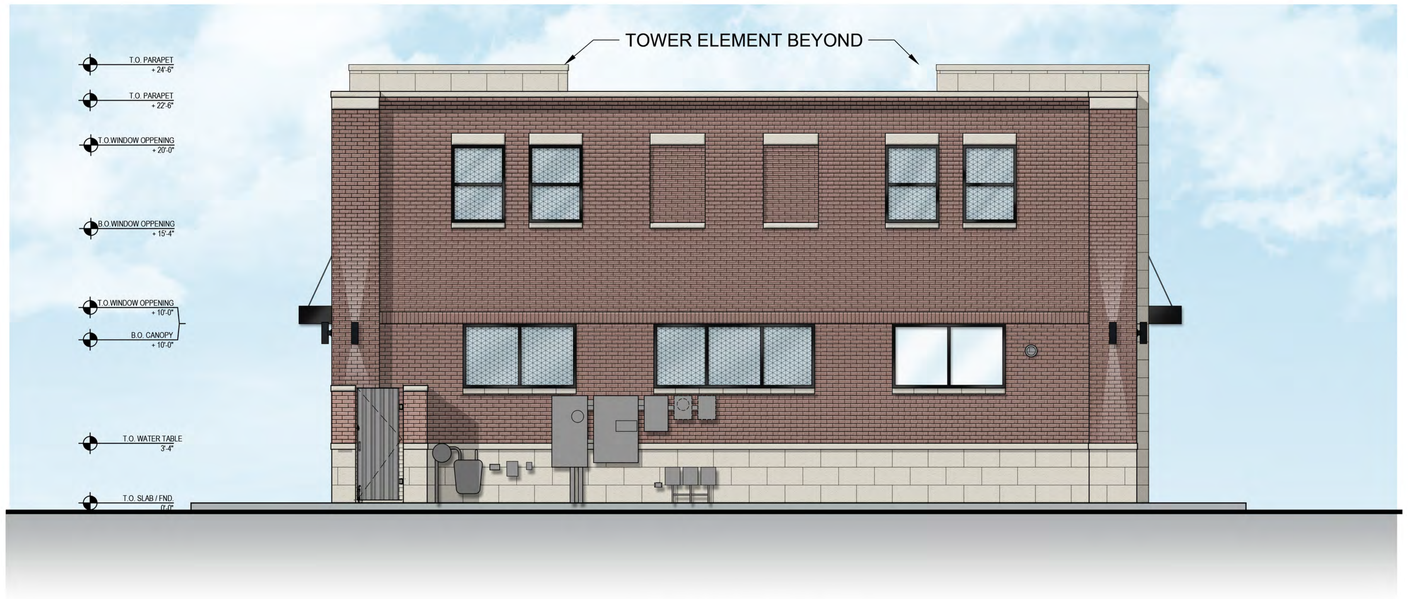
NOT FOR CONSTRUCTION

CHASE

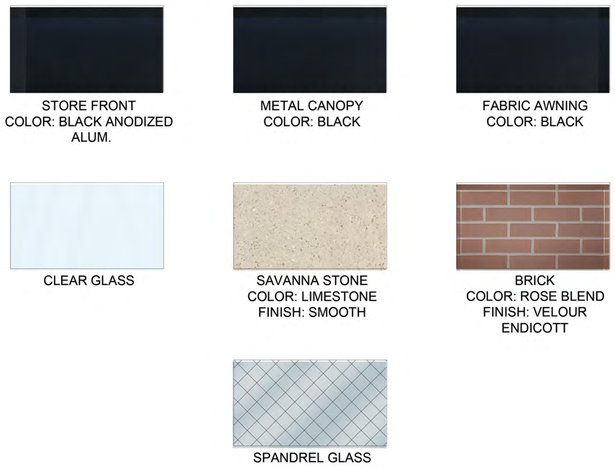
LANDSCAPE NOTES AND DETAILS

CHASE BANK
LAKEWOOD, OH
CITY OF LAKEWOOD, CUYAHOGA COUNTY, OHIO

ORIGINAL ISSUE: 6/8/2022
KHA PROJECT NO. 190041017
SHEET NUMBER
L1.1



EAST ELEVATION



STORE FRONT
COLOR: BLACK ANODIZED ALUM.

METAL CANOPY
COLOR: BLACK

FABRIC AWNING
COLOR: BLACK

CLEAR GLASS

SAVANNA STONE
COLOR: LIMESTONE
FINISH: SMOOTH

BRICK
COLOR: ROSE BLEND
FINISH: VELOUR
ENDICOTT

SPANDREL GLASS

NORTH ELEVATION

SCALE: $\frac{1}{4}$" = 1'

0 5' 10' 15'

CHASE

LAKEWOOD
14615 Detroit Ave.
Lakewood, OH 44107

ARCHITECTURAL ELEVATIONS

07.13.2022

Architect/Designer
The Architects Partnership, Ltd.
200 South Michigan Avenue
Chicago, IL 60604
t: 312.583.9800
f: 312.583.9890
TAP Project Number: 21032

tap

WEST ELEVATION

STORE FRONT
COLOR: BLACK ANODIZED ALUM.

METAL CANOPY
COLOR: BLACK

FABRIC AWNING
COLOR: BLACK

CLEAR GLASS

SAVANNA STONE
COLOR: LIMESTONE
FINISH: SMOOTH

BRICK
COLOR: ROSE BLEND
FINISH: VELOUR
ENDICOTT

SPANDREL GLASS

SOUTH ELEVATION - NEED UPDATE

SCALE: $\frac{1}{4}$" = 1'

0 5' 10' 15'

CHASE

LAKEWOOD
14615 Detroit Ave.
Lakewood, OH 44107

ARCHITECTURAL ELEVATIONS

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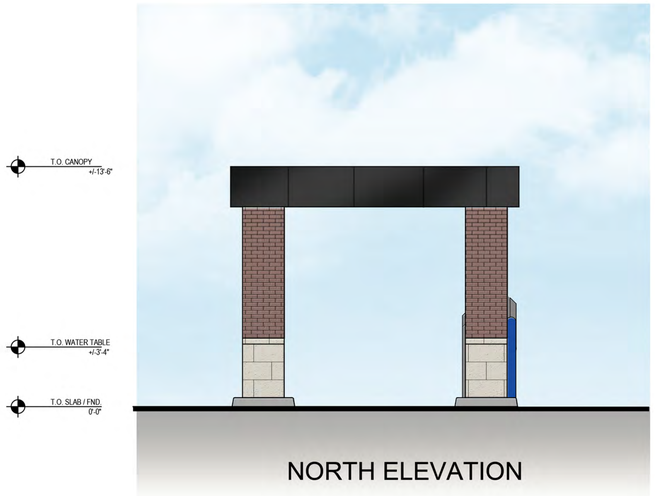
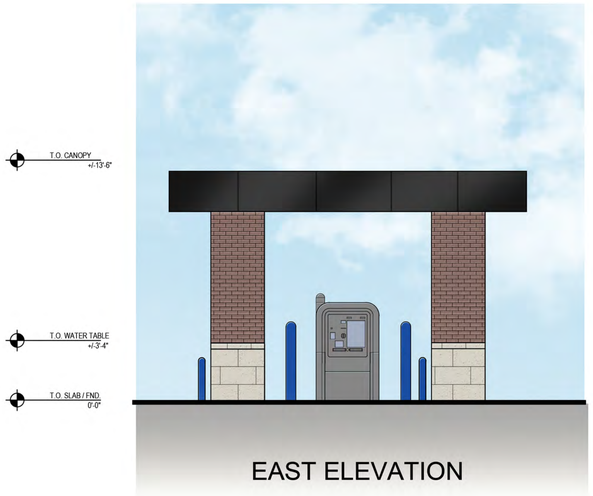


NORTH ELEVATION

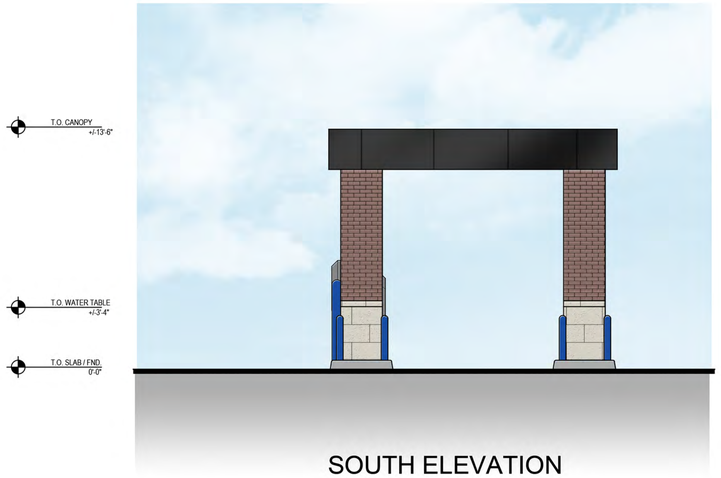


EAST ELEVATION

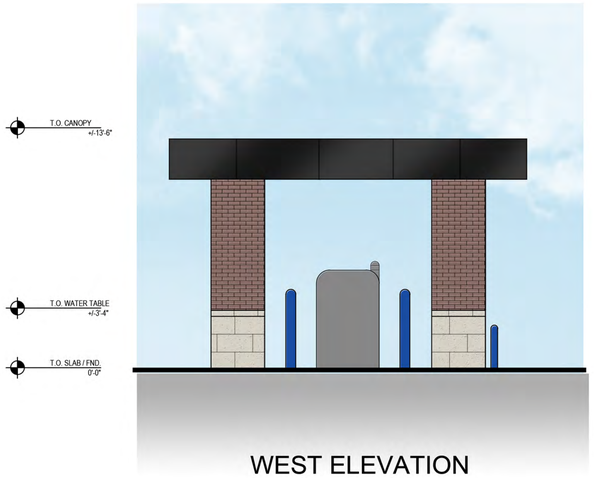
SAVANNA STONE
COLOR: LIMESTONE
FINISH: SMOOTH

METAL CANOPY
COLOR: BLACK

BRICK
COLOR: ROSE BLEND
FINISH: VELOUR
ENDICOTT



SOUTH ELEVATION



WEST ELEVATION

SCALE: $\frac{1}{4}$" = 1'

0 5' 10' 15'

CHASE

LAKEWOOD
14615 Detroit Ave.
Lakewood, OH 44107

ARCHITECTURAL ELEVATIONS

07.13.2022

Architect/Designer

The Architects Partnership, Ltd.
200 South Michigan Avenue
Chicago, IL 60604
t: 312.583.9800
f: 312.583.9890
TAP Project Number: 21032

tap

DETROIT AVE

ST CHARLES AVE

BLUE COVE

ENSURE LEVEL LANDING & ADA ACCESS

WEATHER VESTIBULE

CONF./ PCS 7

PCS 6

PCS 8

PCS 9

LOUNGE

DRY ERASE BD

MAGNETIC STRIPS

BOOTH 5

BOOTH 4

BOOTH 3

6'-4" HOLD

57"x30"

LIVING ROOM

34X72 DRT

PRIVACY WALL, TYP.

LOBBY

FEC

RESTROOM

RESTROOM

ATM3

FUT. ATM

BULLETIN BD

BRG

MST 1

AST 2

M.T.

ELEC. PNL.

JAN.

F.D

MINI-SPLIT

PCS 2

PRINT

MFD'S

PCS 1

42" DIA.

24 HR. TRANSACTION VESTIBULE

ATM 2

AHD

MICR

AT 1

EQUIP./ CASH RM.

CASH CART

LAO

DATA

2AP

2AF

54X19

36x72

36x60

43'-4"

45'-0"

79'-0"

+/-6 ' TRASH ENCLOSURE.

ENSURE LEVEL LANDING & ADA ACCESS

SCALE: 1" = 1'-0"

0 5' 10' 15'

CHASE

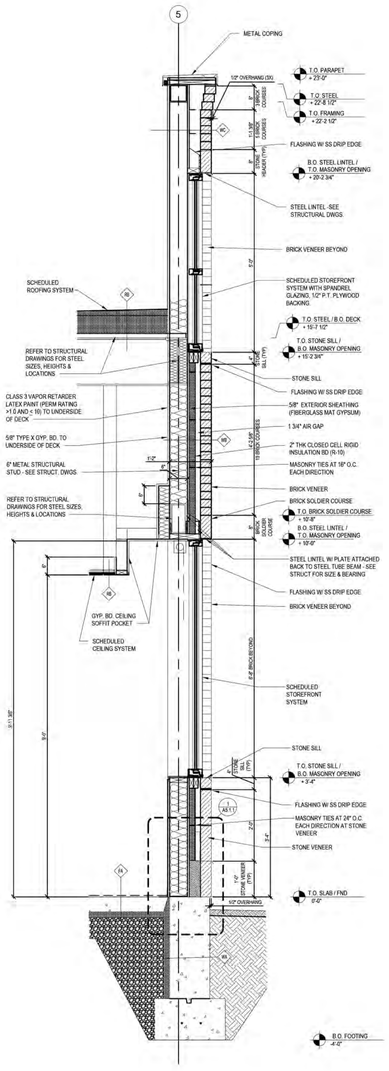
LAKEWOOD
14615 Detroit Ave.
Lakewood, OH 44107

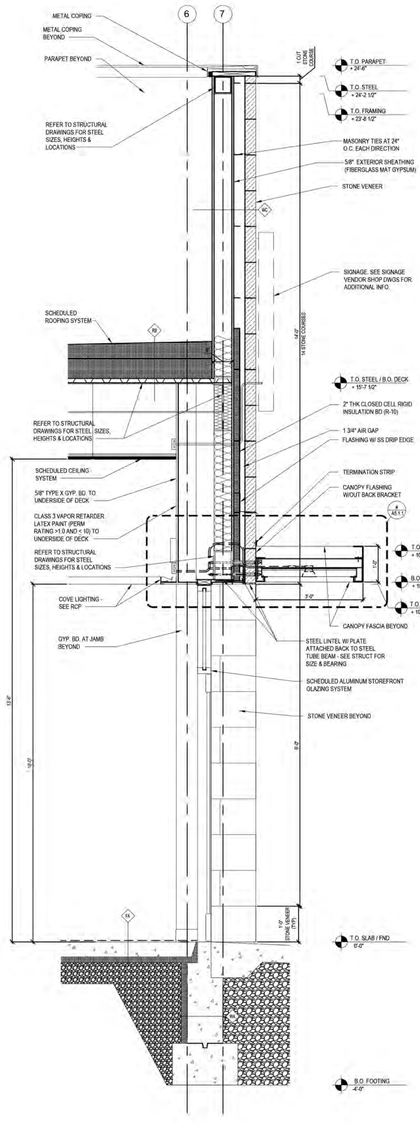
FLOOR PLAN

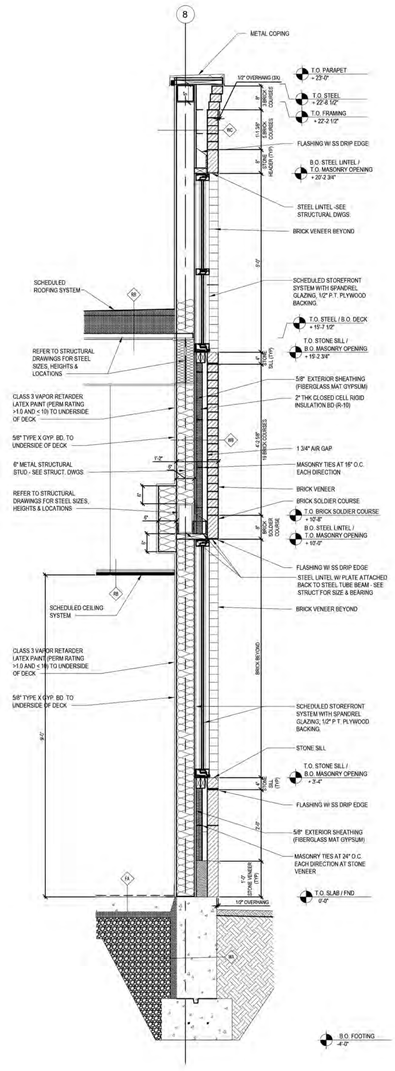
07.14.2022

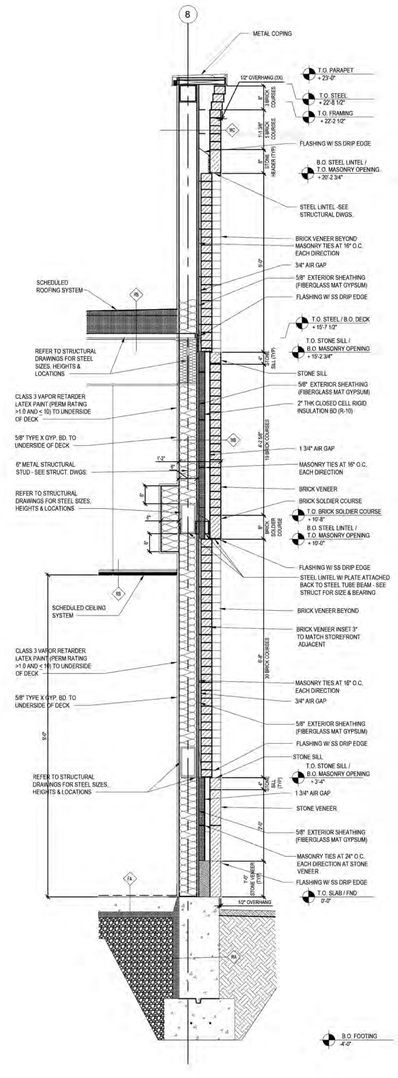
The Architects Partnership, LTD
200 South Michigan Avenue
Chicago, IL 60604
t: 312.583.9800
f: 312.583.9890
TAP Project Number: 21032

tap









CHASE

LAKEWOOD
14615 Detroit Ave.
Lakewood, OH 44107

WALL SECTIONS

06.22.2022

The Architects Partnership, LTD
200 South Michigan Avenue
Chicago, IL 60604
t: 312.583.9800
f: 312.583.9890
TAP Project Number: 21032

tap

PLANNING COMMISSION

12650 Detroit Avenue • 44107 • (216) 529-6630 • FAX (216) 529-5907
www.onelakewood.com

Application Cover Page

Docket No.: 08-19-22

Permit No.: PC22-000025

Applicant Name: Terron Wright, The Architects Partnership, LTD

Project Address: 14615 Detroit Ave.

Project Name: CHASE Bank

Proposal: Conditional use permit of 24-hour use of a drive-thru ATM, pursuant to 1129.16 – supplemental regulations for 24-hour operation. The property is in a C1, Commercial - Office district.

The Architects Partnership, Ltd. 200 South Michigan Avenue, Suite 1020, Chicago, IL 60604

Attn: Shawn Leininger
Community Development Department
12650 Detroit Avenue
Lakewood, OH 44107

May 18th, 2022

Re: Narrative for the proposal of a bank drive through with 24 hrs. service at:
14615 Detroit Avenue, Lakewood, OH 44107.

Dear Mr. Leininger,

This letter is to provide detail on our application for extended service hours (proposed 24 hr.) associated with our drive-through use, which also requires a special use permit. The proposed drive-through use is located at 14615 Detroit Ave. The redevelopment includes a JP Morgan Chase Bank with one detached single lane drive-up ATM at the south of the property. The proposed development will rework the vehicular and pedestrian circulation on site and proposing a second curb cut on to St. Charles Ave.

The need for the 24 hr. use is to provide service to customers any time of day. In addition, the 24 hr. use adds a safety element for banking customers as they do not need to leave their vehicle to conduct a transaction during the restricted ATM hours.

Lastly, the 24 hr. use will not have a negative impact to the surrounding businesses due to the decrease in pedestrian activity during the hours of 12 AM to 6 AM. As stated above, the 24 hr. use will maintain and enhance customer safety and interaction with the local businesses in the area.

If a conditional use permit is granted, the 24 hr. nature of the drive up will commence the first day the branch opens to the public. As of today, the proposed schedule has the construction commencing late fall of 2022 (pending regulatory approvals) and an anticipated occupancy date of May/June 2023.

Parties Involved:

Architect of Record
John Halleran
The Architects Partnership, LTD (TAP)

Applicant
Terron Wright
The Architects Partnership, LTD (TAP)

Currently Property Owner
Victoria Land Partners, L.P.

Contract Buyer of Record
Jared King
obo JPMorgan Chase Bank, N.A.

Landscape Architect and Civil Engineer
Derik Leary
Kimley-Horn

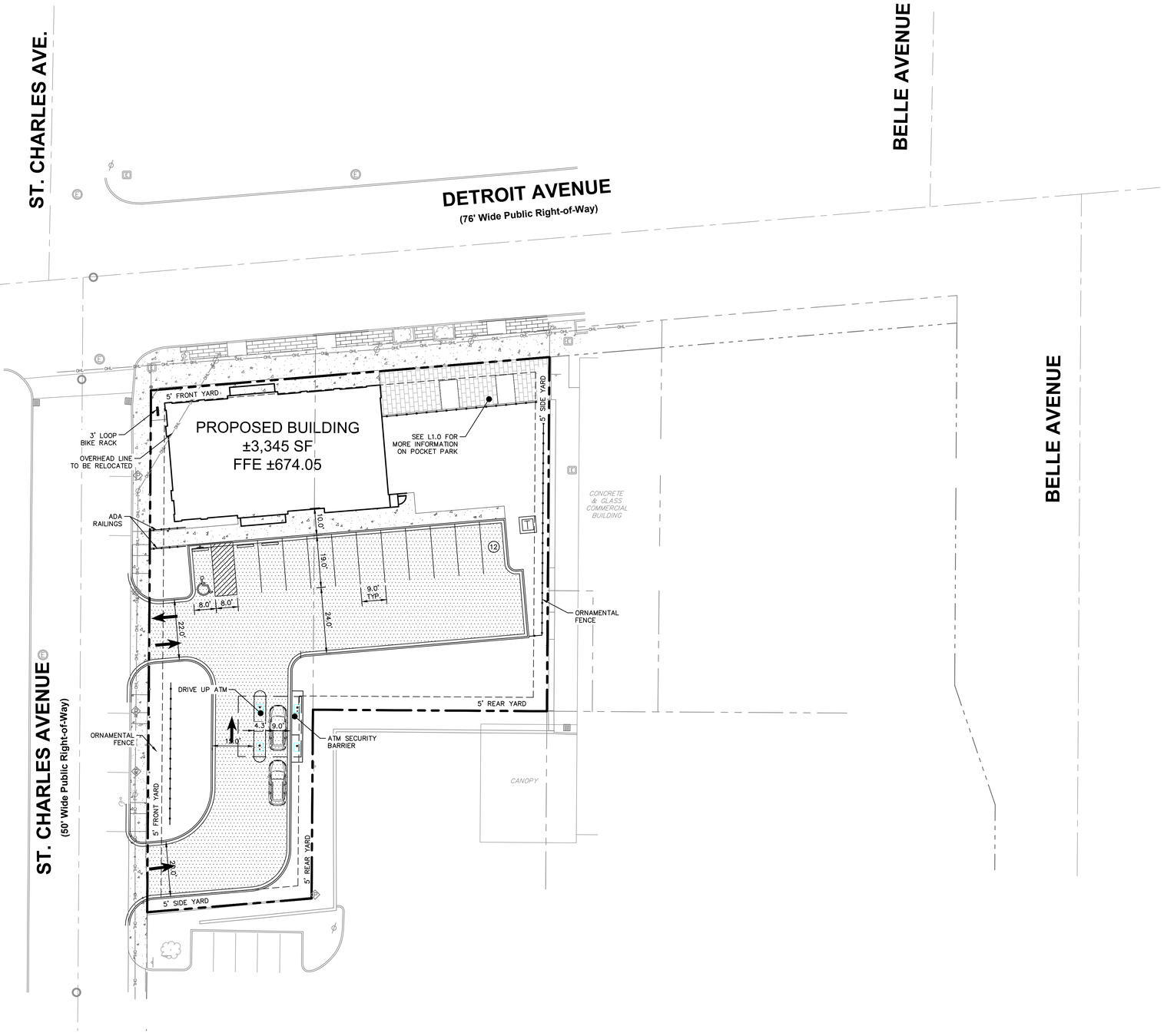
The Architects Partnership, Ltd. 200 South Michigan Avenue, Suite 1020, Chicago, IL 60604

Zoning Classification:

The existing land use is zoned C-1 Commercial Office with an overlay of National Historic Designation. The land use of main retail banking center falls under the Commercial category and is most consistent with a Financial Services and Office use types, which is labeled as permitted by right in the zoning district. A Conditional Use Permit will be required for the drive through ATM due to the pedestrian nature of the historic district. Furthermore, the property is made up of two (2) separate parcels owned by the same owner. The bank intends to acquire the property and will look to consolidate the two existing lots into one.

Sincerely,

Terron Wright
The Architects Partnership, LTD



NORTH

GRAPHIC SCALE IN FEET
0 10 20 40

GENERAL NOTES

1. ALL DIMENSIONS REFER TO THE FACE OF CURB UNLESS OTHERWISE NOTED.
2. BUILDING DIMENSIONS ARE TO THE OUTSIDE FACE OF BUILDING UNLESS OTHERWISE NOTED.
3. REFER TO ARCHITECTURAL AND STRUCTURAL PLANS TO VERIFY ALL BUILDING DIMENSIONS.
4. RADII NOT DIMENSIONED ON THIS PLAN SHALL BE 2-FEET, TYPICAL.
5. REFER TO ARCHITECTURAL PLANS FOR MONUMENT SIGN DETAILS. SEE MEP PLANS FOR SITE ELECTRICAL DRAWINGS.
6. ALL PROPOSED ON-SITE STRIPING SHALL BE PAINTED UNLESS OTHERWISE NOTED.

SITE DATA TABLE

ZONING: COMMERCIAL, OFFICE (C1) - HISTORIC DESIGNATION, LOCAL

	REQUIRED	PROVIDED
BUILDING SETBACKS		
FRONT: (ST CHARLES AVE)	5 Ft	5 Ft
FRONT: (DETROIT AVE)	5 Ft MAX	5 Ft
SIDE: (EAST)	5 Ft	53 Ft
SIDE: (SOUTH)	5 Ft	137 Ft
SIDE: (SOUTH)	5 Ft	69 Ft
ADA SPACES	1	1
PARKING		
1 SPACE PER EMPLOYEE		
STANDARD SPACES (90°)	9 SPACES MAX	12

SITE LEGEND

- STANDARD DUTY ASPHALT PAVEMENT — SEE CONSTRUCTION DETAILS FOR PAVEMENT SECTION
- HEAVY DUTY CONCRETE PAVEMENT — SEE CONSTRUCTION DETAILS FOR PAVEMENT SECTION
- CONCRETE SIDEWALK — SEE CONSTRUCTION DETAILS FOR PAVEMENT SECTION
- 6" CONCRETE CURB AND GUTTER
- SETBACK
- PROPERTY LINE
- ACCESSIBLE PARKING MARKING

No.	REVISIONS	DATE	BY

Kimley»Horn

7965 N. HIGH STREET, SUITE 200
COLUMBUS, OH 43235
PHONE: 614-540-6937
WWW.KIMLEY-HORN.COM

SCALE: AS NOTED
DESIGNED BY: SRS
DRAWN BY: SRS
CHECKED BY: DDL

NOT FOR CONSTRUCTION

CHASE

SITE PLAN

CHASE BANK
LAKEWOOD, OH
CITY OF LAKEWOOD, CUYAHOGA COUNTY, OHIO

ORIGINAL ISSUE: 6/8/2022
KHA PROJECT NO. 190041017
SHEET NUMBER
C2.0


EINSTEIN BROS BAGELS


St Charles


St Charles Ave
FedEx
FedEx
Express


Google

PLANNING COMMISSION

12650 Detroit Avenue • 44107 • (216) 529-6630 • FAX (216) 529-5907
www.onelakewood.com

Application Cover Page

Docket No.: 08-20-22

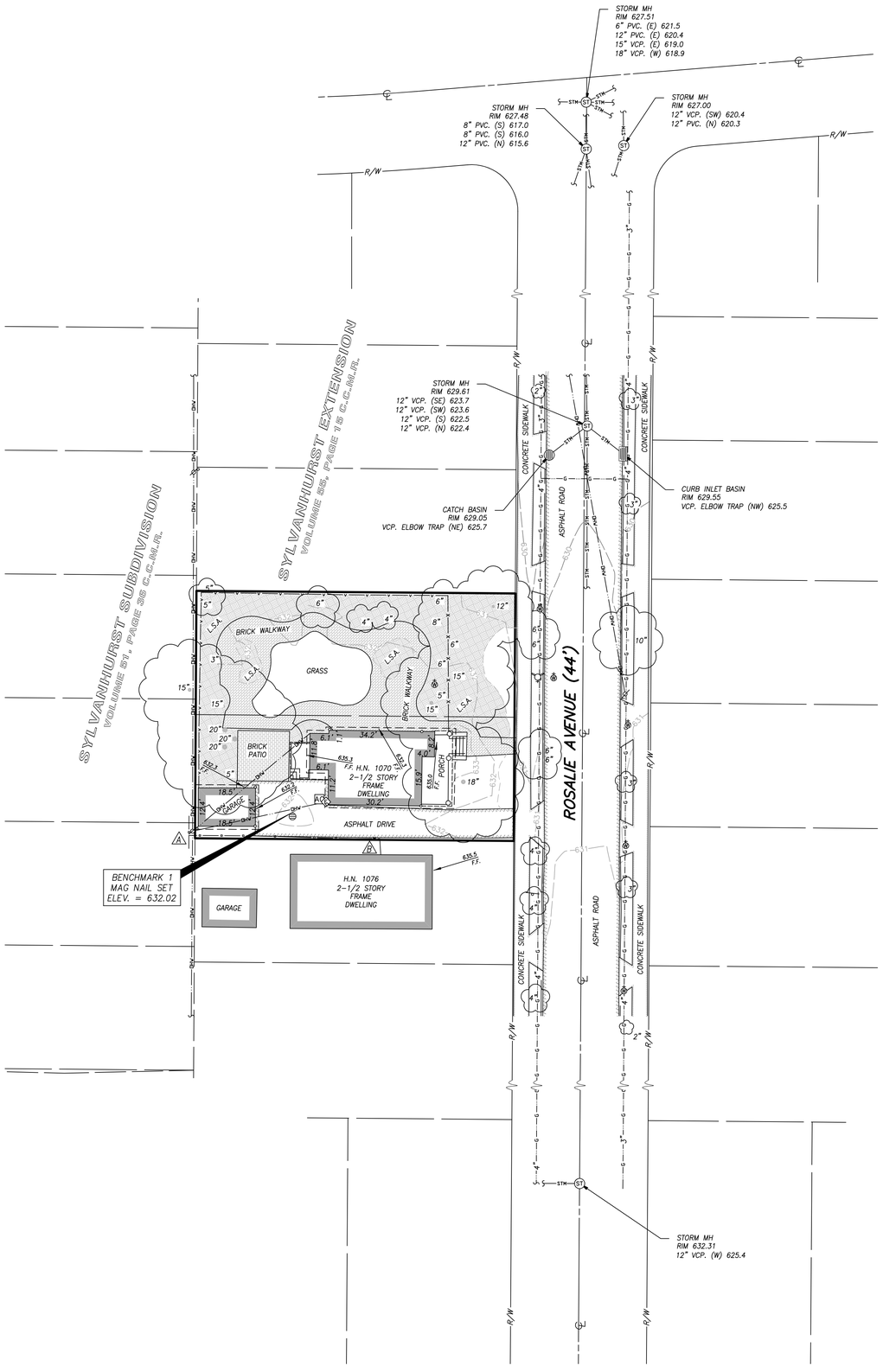
Permit No.: PC22-000022

Applicant Name: Eric Lowrey, property owner

Project Address: 1070 Rosalie Ave.

Project Name:

Proposal: Lot consolidation for PPN 312-01-062 and 312-01-063, pursuant to section 1155.06 – procedures for lot consolidations and resubdivisions.



LEGEND

- AIR CONDITIONING UNIT
- CATCH BASIN
- CURB INLET BASIN
- DOWN SPOUT
- ELECTRIC METER
- HYDRANT
- LIGHT POLE
- STORM MANHOLE
- SIGN
- TREE
- UTILITY POLE
- WATER VALVE
- YARD DRAIN
- MAG NAIL SET
- CENTERLINE
- R/W RIGHT-OF-WAY
- L.S.A. LANDSCAPED AREA
- CHAIN LINK FENCE
- METAL FENCE
- WOOD FENCE
- VINYL FENCE
- OVERHEAD UTILITY WIRES
- GAS LINES
- STORM LINES
- MAJOR CONTOURS
- MINOR CONTOURS

CONCRETE | ASPHALT | LANDSCAPE AREA | BRICK

GRAPHIC SCALE
20 0 10 20
1 INCH = 20 FEET

N

UTILITY NOTE

INFORMATION FROM THE SOURCES PROVIDED, WAS COMBINED WITH OBSERVED EVIDENCE OF UTILITIES TO DEVELOP A VIEW OF THE UNDERGROUND UTILITIES. LACKING EXCAVATION, THE EXACT LOCATION OF UNDERGROUND FEATURES CANNOT BE ACCURATELY, COMPLETELY, AND RELIABLY DEPICTED. IN ADDITION, IN SOME JURISDICTIONS, 811 OR OTHER SIMILAR UTILITY LOCATE REQUESTS FROM SURVEYORS MAY BE IGNORED OR RESULT IN AN INCOMPLETE RESPONSE, IN WHICH CASE THE SURVEYOR SHALL NOTE ON THE PLAT OR MAP HOW THIS AFFECTED THE SURVEYORS ASSESSMENT OF THE LOCATION OF THE UTILITIES. WHERE ADDITIONAL OR MORE DETAILED INFORMATION IS REQUIRED, THE CLIENT IS ADVISED THAT EXCAVATION MAY BE NECESSARY.

ITEMS SHOWN HEREON ARE BASED ON THE FOLLOWING INFORMATION
A. PLANS SUPPLIED TO THE SURVEYOR FROM O.U.P.S TICKET NUMBERS A213601446-00A & B212301393-00B.

MCSTEEN ATTEMPTED TO CONTACT ALL NON-RESPONSIVE UTILITY COMPANIES FROM THE O.U.P.S. TICKET LISTED ABOVE. THE FOLLOWING COMPANIES FAILED TO RESPOND;
A. AT&T OHIO
B. CITY OF LAKEWOOD

UPON REQUEST, SURVEYOR SHALL SUPPLY COPIES OF THE OBTAINED RECORDS.

EXISTING CONDITIONS SURVEY

FOR

1070 ROSALIE AVENUE

KNOWN AS BEING PART OF ORIGINAL ROCKPORT TOWNSHIP SECTION NO. 22 OF THE CONNECTICUT WESTERN RESERVE SURVEY, AND BEING ALL OF SUBLOT NOS. 42 & 43 IN SYLVANHURST EXTENSION AS RECORDED IN PLAT VOLUME 55, PAGE 15 OF CUYAHOGA COUNTY MAP RECORDS, NOW SITUATED IN THE

CITY OF LAKEWOOD
COUNTY OF CUYAHOGA – STATE OF OHIO

McSteen
LAND SURVEYORS
1415 East 286th Street Wickliffe, OH 44092
Phone: 440.585.9800 www.mcsteen.com

MATTHEW A. HILDEBRANDT REG. PROF. SURV. No. 8817

JOB NO.: 22-101
FIELD DATE: MAY 17, 2022
SURVEY DATE: MAY 27, 2022
DRAWN BY: HKS

STATE OF OHIO
MATTHEW A. HILDEBRANDT
S-8817
REGISTERED
PROFESSIONAL SURVEYOR

BASIS OF BEARING

BEARINGS ARE BASED ON THE OHIO STATE PLANE COORDINATES SYSTEM, NORTH ZONE (3401), NAD83 (2011), 2010.0 EPOCH, AS DERIVED FROM GNSS OBSERVATIONS PER THE O.D.O.T. RTN (REAL-TIME-NETWORK).

MISCELLANEOUS NOTES

1. *VERTICAL DATUM – NAVD 88, DERIVED FROM GNSS OBSERVATIONS THROUGH THE O.D.O.T. REAL TIME NETWORK.*

OHIO811 Before You Dig

SIGNIFICANT OBSERVATIONS

A *A WOOD FENCE CROSSES OVER THE WESTERLY LINE OF SURVEYED PROPERTY.*

B *A METAL FENCE CROSSES OVER THE SOUTHERLY LINE OF SURVEYED PROPERTY.*

APPROVALS

CITY ENGINEER
THIS LOT CONSOLIDATION HAS BEEN APPROVED BY THE CITY ENGINEER OF THE CITY OF LAKEWOOD ON THIS _____ DAY OF _____, 2022.

_____
CITY ENGINEER

PLANNING COMMISSION
THIS LOT CONSOLIDATION HAS BEEN APPROVED BY THE PLANNING COMMISSION OF THE CITY OF LAKEWOOD ON THIS _____ DAY OF _____, 2022.

_____
CHAIRMAN OF PLANNING COMMISSION

_____
SECRETARY OF PLANNING COMMISSION

CLERK OF COUNCIL
THIS LOT CONSOLIDATION HAS BEEN APPROVED BY THE COUNCIL OF THE CITY OF LAKEWOOD ON THIS _____ DAY OF _____, 2022.

_____
CLERK OF COUNCIL

OWNERS ACCEPTANCE

I, BILL S. ASHLEY, OWNER OF THE LANDS SHOWN HEREON, DO HEREBY ACCEPT THIS LOT CONSOLIDATION AS SHOWN HEREON.

_____
SIGNATURE

NOTARY PUBLIC

COUNTY OF CUYAHOGA
STATE OF OHIO
BEFORE ME, A NOTARY PUBLIC IN AND FOR SAID COUNTY AND STATE, PERSONALLY APPEARED THE ABOVE MEGHAN GEORGE, MAYOR OF THE CITY OF LAKEWOOD, WHO ACKNOWLEDGED THE SIGNING OF THE FOREGOING INSTRUMENT, AND THAT IT WAS OF _____ FREE ACT AND DEED PERSONALLY. IN WITNESS WHEREOF, I HAVE HEREUNTO SET MY HAND AND OFFICIAL SEAL AT _____, OHIO, THIS _____ DAY OF _____, 2022.

_____ _____
NOTARY PUBLIC MY COMMISSION EXPIRES

LOT CONSOLIDATION SURVEY

FOR

1070 ROSALIE AVENUE

KNOWN AS BEING PART OF ORIGINAL ROCKPORT TOWNSHIP SECTION NO. 22 OF THE CONNECTICUT WESTERN RESERVE SURVEY, AND BEING ALL OF SUBLOT NOS. 42 & 43 IN SYLVANHURST EXTENSION AS RECORDED IN PLAT VOLUME 55, PAGE 15 OF CUYAHOGA COUNTY MAP RECORDS, NOW SITUATED IN THE

CITY OF LAKEWOOD
COUNTY OF CUYAHOGA – STATE OF OHIO

McSteen
LAND SURVEYORS
1415 East 286th Street Wickliffe, OH 44092
Phone: 440.585.9800 www.mcsteen.com

THIS SURVEY IS A BOUNDARY SURVEY PREPARED IN ACCORDANCE WITH CHAPTER 4733-37, OHIO ADMINISTRATIVE CODE. DISTANCES ARE GIVEN IN FEET AND DECIMAL PARTS THEREOF. ALL IRON PINS SHOWN AS SET ARE 30" LONG 5/8" REBAR WITH AN IDENTIFICATION CAP STAMPED "MCSTEEN CA 02236".

MATTHEW A. HILDEBRANDT REG. PROF. SURV. No. 8817

JOB NO.: 22-101
FIELD DATE: MAY 17, 2022
SURVEY DATE: MAY 27, 2022
DRAWN BY: HKS

STATE OF OHIO
MATTHEW A. HILDEBRANDT
S-8817
REGISTERED
PROFESSIONAL SURVEYOR

N

GRAPHIC SCALE
30 0 15 30
1 INCH = 30 FEET

BASIS OF BEARING

BEARINGS ARE BASED ON THE OHIO STATE PLANE COORDINATES SYSTEM, NORTH ZONE (3401), NAD83 (2011), 2010.0 EPOCH, AS DERIVED FROM GNSS OBSERVATIONS PER THE O.D.O.T. RTN (REAL-TIME-NETWORK).

SURVEY REFERENCES

- PLAT VOLUME 55, PAGE 15 C.C.M.R.
- PLAT VOLUME 51, PAGE 36 C.C.M.R.
- CUYAHOGA COUNTY DEEDS OF RECORD.
- CUYAHOGA COUNTY TAX MAP RECORDS.

AREA OF SURVEYED PREMISES

PPN 312-01-062 ..... 0.0946 ACRE
PPN 312-01-063 ..... 0.0946 ACRE

TOTAL AREA ..... 0.1892 ACRE

LEGEND

- ● REBAR FOUND AS NOTED
- ◉ 5/8" DIAMETER X 30" LONG REBAR WITH "McSTEEN CA 02236" ID CAP SET
- ⧗ MONUMENT BOX FOUND AS NOTED
- ○ PIPE FOUND AS NOTED
- ℄ CENTERLINE
- R/W RIGHT-OF-WAY
- CALC. CALCULATED DISTANCE OR ANGLE
- REC. RECORD DISTANCE OR ANGLE
- FD. FOUND
- MON. MONUMENT
- C.C.M.R. CUYAHOGA COUNTY MAP RECORDS
- C.C.D.R. CUYAHOGA COUNTY DEED RECORDS
- O.D.O.T. OHIO DEPARTMENT OF TRANSPORTATION

LINE DATA

LINE	BEARING	DISTANCE
L1	S 0°22'42" W	80.00' PLAT & USED
L2	N 0°20'20" E	80.00' PLAT & USED
L3	S 89°31'21" E	8.64' CALC. & USED (8.817' PLAT)
L4	N 85°21'02" E	14.39' CALC. & USED (13.50' REC.)
L5	S 89°09'42" E	8.70' CALC. & USED (8.874' PLAT)
L6	S 85°21'02" W	55.06' CALC. & USED (54.204' PLAT)
L7	S 89°31'35" E	103.05' CALC. & USED (103.00' PLAT)

CURVE DATA

CURVE	DELTA	RADIUS	ARC LENGTH	TANGENT	CHORD DISTANCE	CHORD BEARING
C1	90°05'56" CALC. & USED	15.00' PLAT & USED	23.59' CALC. & USED (23.60' PLAT)	15.03' PLAT & USED	21.23' REC. & USED	N 45°25'41" E
C2	95°01'40" CALC. & USED	15.00' PLAT & USED	24.88' PLAT & USED	16.38' PLAT & USED	22.12' CALC. & USED	N 47°08'08" W
C3	5°07'36" CALC. & USED	715.64' PLAT & USED	64.03' CALC. & USED (64.56' PLAT)	32.04' CALC. & USED	64.01' CALC. & USED	N 87°54'51" E
C4	5°07'36" CALC. & USED	690.64' PLAT & USED	61.80' CALC. & USED (31.126' PLAT)	30.92' CALC. & USED	61.78' CALC. & USED	N 87°54'51" E

Job No.: 22-101

PLANNING COMMISSION

12650 Detroit Avenue • 44107 • (216) 529-6630 • FAX (216) 529-5907
www.onelakewood.com

Application Cover Page

Docket No.: 08-21-22

Permit No.: PC22-000023

Applicant Name: Jordan Kay, Tapster Cleveland

Project Address: 15320 Detroit Ave.

Project Name: Tapster Cleveland

Proposal: Conditional use permit to operate outdoor sidewalk dining, pursuant to section 1129.13 – supplemental regulations for outdoor/ seasonal dining facility.

LRC-G LAKEWOOD LLC
1585 FREDERICK BOULEVARD
AKRON, OHIO 44320
330.253.6958

June 22, 2022

VIA E-MAIL: Jordan Kay
jordan@tapstercleveland.com

RE: OWNER CONSENT – KAY FAMILY VENTURES, LLC DBA TAPSTER – 15320 DETROIT AVENUE, LAKEWOOD OHIO 44107

To Whom It May Concern:

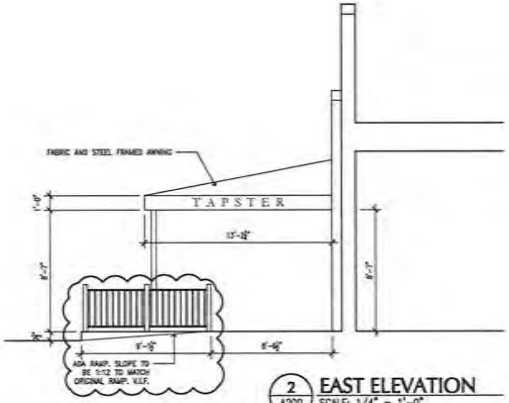
LRC-G Lakewood LLC hereby authorizes members of the City's Building Department and Planning and Development Department access to the property located at 15320 Detroit Avenue, Lakewood, Ohio 44107 for limited purposes of photographing and verifying location and dimension of the area affected by the Architectural Board of Zoning Appeals applications and requests.

Should you have any questions, please contact our office at 330-253-6958.

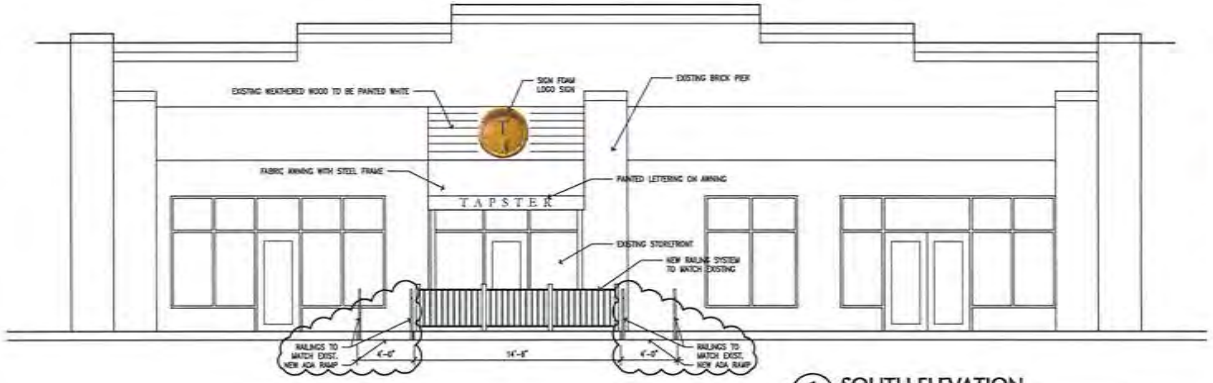
Sincerely,
LRC-G Lakewood LLC

Dennis Ferguson
Director of Operations

3 A200 **RENDERED ELEVATION**
NO SCALE



2 A200 **EAST ELEVATION**
SCALE: 1/4" = 1'-0"



1 A200 **SOUTH ELEVATION**
SCALE: 1/4" = 1'-0"

ISSUE DATE: 06.13.22
ADDENDUM #1 07.06.22

PRINTS FULL SCALE ON 24"X36" SHEET

STATE OF OHIO
JEFFERY D. FOSTER 13339
REGISTERED ARCHITECT

JEFFERY FOSTER, LICENSE 13339
EXPIRATION DATE: 12/31/23

TAPSTER - LAKEWOOD

BAR & LOUNGE TENANT IMPROVEMENTS
15320 DETROIT AVENUE
LAKEWOOD, OH 44107

PAYTO Architects
406 BRADLEY BUILDING 1220 WEST SIXTH STREET CLEVELAND, OHIO 44113 PHONE: (216) 241-4800 WWW.PAYTOARCHITECTS.COM

EXTERIOR ELEVATION & RENDERED VIEW

IN PROJECT NO.: 2022-12
CURRENT DATE: 06.13.22

A200

PERMIT & CONSTRUCTION DOCUMENTS

3 / D101 **IMAGE OF EXISTING**
NO SCALE

GENERAL DEMOLITION NOTES

A. ABANDONED, UNUSED OR FUNCTION LESS MECHANICAL, ELECTRICAL AND PLUMBING EQUIPMENT, PIPING, CONDUIT, FIXTURES, ETC., SHALL BE REMOVED. IN NO CASE WILL ANY ABANDONED ITEMS REMAIN UNLESS OTHERWISE NOTED. THIS INCLUDES CABLING, WIRING, ETC. LOCATED ABOVE EXISTING CEILINGS.

B. REFER TO THE DRAWING KEYNOTES FOR SPECIFIC DEMOLITION SHEET SPECIFIC INFORMATION.

C. WHERE PIPING OR OTHER ITEMS TO BE REMOVED RUN THROUGH A WALL WHICH IS TO REMAIN, THESE ITEMS SHALL BE REMOVED CLEAR TO THE FACE OF THE WALL AND THE EXISTING WALL SHALL BE PATCHED AND REPAIRED TO MATCH THE ADJACENT WALL OR PROPOSED WALL SURFACE.

D. IF, AT ANY TIME, THE CONTRACTOR BECOMES AWARE OF AN ALTERATION THAT WILL OR HAS CREATED AN UNSAFE OR UNANTICIPATED STRUCTURAL CONDITION, THEY ARE TO IMMEDIATELY NOTIFY THE ARCHITECT.

E. PRIOR TO SUBMITTING A BID, ALL CONTRACTORS MUST VISIT AND BECOME FAMILIAR WITH THE PROJECT SITE.

F. ALL WORK SHALL BE IN ACCORDANCE WITH ALL APPLICABLE LAWS, CODES, STANDARDS AND REGULATIONS. THE CONTRACTORS MUST COMPLY WITH ALL EPA AND OSHA REGULATIONS.

G. ALL WORK TO BE CONTAINED IN SCOPE OF WORK AREA UNLESS PERMITTED BY THE OWNER. DEMOLITION AND OTHER MATERIALS SHALL BE KEPT WITHIN THE SCOPE OF WORK AREAS.

H. IN DEMOLITION NOTES, "AS REQUIRED" IS TO INCLUDE MATCHING EITHER EXISTING EXPOSED FINISHES OR NEW FINISHES WITH SIMILAR AND COMPATIBLE MATERIALS, WHICHEVER APPLIES.

J. PROTECT REMAINING SURFACES, EQUIPMENT AND PROPERTY. CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIR OF ANY DAMAGE OCCURRING DURING CONSTRUCTION. PROVIDE PROTECTIVE MEASURES AS REQUIRED TO PROTECT THE OWNER'S PERSONNEL & THE GENERAL PUBLIC FROM INJURY DUE TO THE DEMOLITION.

K. THE OWNER ASSUMES NO RESPONSIBILITY FOR ACTUAL CONDITION OF ITEMS OR STRUCTURES TO BE DEMOLISHED OR MODIFIED.

L. COORDINATE THIS DEMOLITION SHEET AND NOTES WITH MECHANICAL/ELECTRICAL DEMOLITION SHEETS & NOTES.

M. ALL ASBESTOS CONTAINING MATERIALS ARE TO BE REMOVED AND ABATED BY A LICENSED ASBESTOS ABATEMENT CONTRACTOR AND PROPERLY DISPOSED OF PER EPA REGULATIONS AND REQUIREMENTS. ANY SUSPECT MATERIALS SHALL BE TESTED TO CONFIRM.

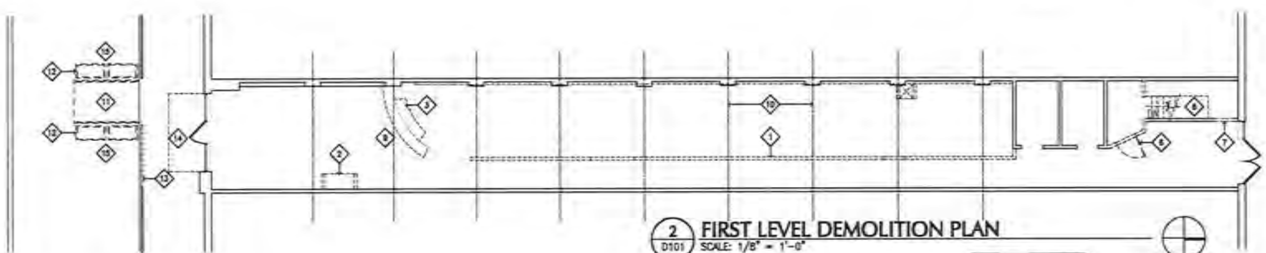
N. BASED ON THE AGE OF THE EXIST. BUILDING, THE OWNER MAKES KNOWN TO ALL CONTRACTORS THAT LEAD PAINT IS SUSPECTED TO BE PRESENT IN THE FACILITY. RENOVATION AND DEMOLITION ACTIVITIES MUST BE PERFORMED IN ACCORDANCE WITH 29CFR1926.62 AND ALL OTHER APPLICABLE OSHA REGULATIONS.

DEMOLITION KEY NOTES

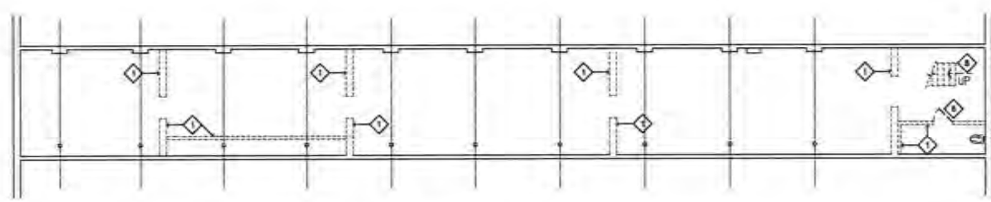
1. REMOVE WALL & RELATED.
2. REMOVE TRASH AREA & RELATED.
3. REMOVE CASEWORK & SOFFIT OVERHEAD.
4. ALL EXIST. WOOD PANELING TO BE REMOVED & SALVAGED BY OWNER. GC TO RE-USE IN NEW WORK.
5. REMOVE ALL LIGHTING & SALVAGE ELECTRICAL WIRING FOR NEW LIGHTING.
6. REMOVE DOOR & FRAME.
7. NEW OPENING IN EXIST. WALL SALVAGE WALL TILE FOR PATCHING & REPAIRING.
8. REMOVE STAIR FOR REPLACEMENT.
9. REMOVE SOFFIT OVERHEAD.
10. REMOVE ANY REMAINING KITCHEN EQUIPMENT OR PLUMBING FIXTURES THAT REMAIN.
11. REMOVE CONCRETE RAMP & RAILINGS.
12. REMOVE PLANTERS.
13. REMOVE METAL RAILING SYSTEM.
14. REMOVE PROJECTION SIGN. PREP FOR NEW INSTALLATION REMOVE AWNING.
15. REMOVE & RELOCATE EXISTING BENCH.

(#) ← KEYNOTE REFERENCE
- - - - ITEMS TO BE DEMO'D OR REMOVED
——— EXISTING TO REMAIN

TYPICAL AT ENTIRE WORK AREA (UNO):
4 5



2 / D101 **FIRST LEVEL DEMOLITION PLAN**
SCALE: 1/8" = 1'-0"



1 / D101 **BASEMENT LEVEL DEMOLITION PLAN**
SCALE: 1/8" = 1'-0"

ISSUE DATE: 06.06.22

PRINTS FULL SCALE ON 24"X36" SHEET

STATE OF OHIO
JEFFERY D. FOSTER 13339
REGISTERED ARCHITECT
JEFFERY FOSTER, LICENSE 13339
EXPIRATION DATE: 12/31/21

TAPSTER - LAKEWOOD
BAR & LOUNGE TENANT IMPROVEMENTS
15320 DETROIT AVENUE
LAKEWOOD, OH 44107

PAYTO Architects
403 BRADLEY BUILDING 1220 WEST SIXTH STREET CLEVELAND, OHIO 44113 PHONE: (216) 241-5800 WWW.PAYTOARCHITECTS.COM

DEMOLITION PLANS

PA PROJECT NO. 2022-13
CURRENT DATE 06.06.22

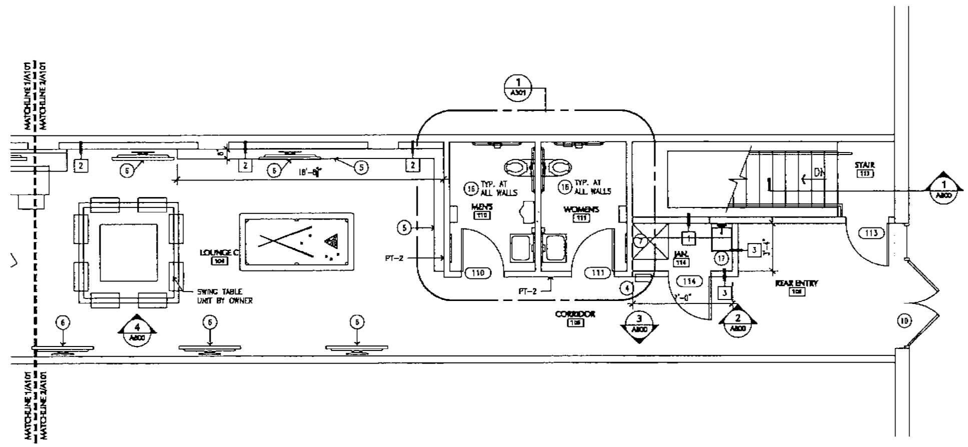
D101

PERMIT & CONSTRUCTION DOCUMENTS

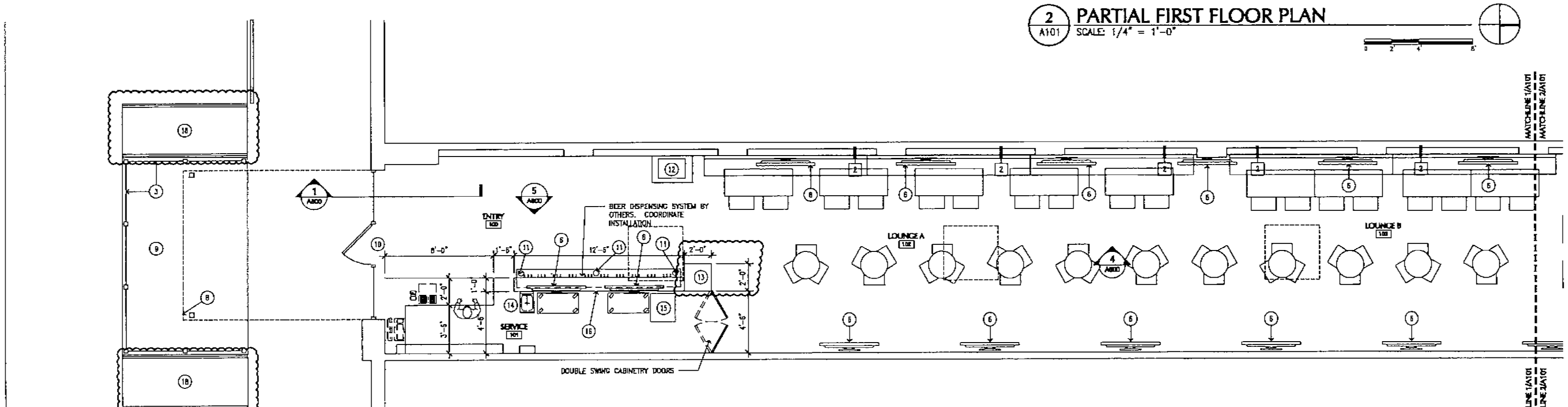
KEYNOTE LEGEND - FLOOR PLAN

1. WALK IN COOLER UNIT. CONDENSER TO BE LOCATED ON ROOF. PROVIDE SLEEVES AND ROUTE FOR REFRIGERATOR LINES THRU FIRST FLOOR.
2. 4X4 PT WOOD POSTS TO SUPPORT LANDING ABOVE. ANCHOR TO FLOOR WITH SIMPSON POST BASE.
3. METAL RAILING SYSTEM AT PATIO TO MATCH EXIST.
4. SURFACE MOUNTED FIRE EXTINGUISHER EQUAL TO JL INDUSTRIES SATURN SERIES CLASS K HANDHELD EXTINGUISHER.
5. BUTCHER BLOCK WOOD COUNTER IN DIMENSIONS SHOWS. PROVIDE METAL BRACKETS AT 4'-0" O/C MAX AT ENTIRE LENGTH.
6. WALL MTD. TV MONITORS, PROVIDE POWER & DATA . MONITORS & MOUNTS TO BE PROVIDED BY OWNER, INSTALLED BY CONTRACTOR.
7. MOP SINK WITH FRP BACK & SIDE SPLASHES.
8. METAL FRAMED AWNING SYSTEM. FRAMING BY AWING SUPPLIER.
9. CONCRETE PATIO. POUR FINISH TO EXIST. SIDEWALK.
10. RUBBER EDGE NOSINGS AT ALL FLOORING EDGES.
11. GLASS RINSERS MOUNTED IN DRIP TRAY. TYPICAL OF (3). PROVIDE WATER AND DRAIN CONNECTIONS.
12. PLASTIC LAMINATE BASE CABINET WITH DOORS AND SOLID WOOD TOP TO SUPPORT ICE AND WATER MACHINE.
13. BUSSING STATION: PLASTIC LAMINATE BASE CABINET WITH DOORS AND SOLID WOOD TOP.
14. HANDWASH SINK WITH WATER SUPPLY AND SANITARY CONNECTION.
15. GLASSWASHING UNIT. PROVIDE POWER, WATER AND SANITARY CONNECTIONS.
16. PROVIDE FIRE RATED FRP PANELS OVER DRYWALL.
17. SPACE SAVER UTILITY SINK.
18. CONCRETE ADA RAMP. SLOPE TO BE 1:12. VERIFY IN FIELD.

[1] = PARTITION TYPES SEE SHEET A900 FOR DETAIL



2 A101 PARTIAL FIRST FLOOR PLAN
SCALE: 1/4" = 1'-0"



1 A101 PARTIAL FIRST FLOOR PLAN
SCALE: 1/4" = 1'-0"

ISSUE DATE: 06.13.22
1 ADDENDUM #1 07.08.22

PRINTS FULL SCALE ON 24"X36" SHEET

STATE OF OHIO
JEFFERY D. FOSTER 13339
REGISTERED ARCHITECT

JEFFERY FOSTER, LICENSE 13339
EXPIRATION DATE: 12/31/23

TAPSTER - LAKEWOOD

BAR & LOUNGE TENANT IMPROVEMENTS
15320 DETROIT AVENUE
LAKEWOOD, OH 44107

PAYTO Architects
405 BRADLEY BUILDING 1220 WEST SIXTH STREET CLEVELAND, OHIO 44113
PHONE: (216) 241-6800
WWW.PAYTOARCHITECTS.COM

FIRST FLOOR PLAN

PA PROJECT NO. 2022-12
CURRENT DATE 06.13.22

A101

PERMIT & CONSTRUCTION DOCUMENTS

PLANNING COMMISSION

12650 Detroit Avenue • 44107 • (216) 529-6630 • FAX (216) 529-5907
www.onelakewood.com

Application Cover Page

Docket No.: 08-22-22

Permit No.: PC22-000024

Applicant Name: Christy Stout, Black & Veatch

Project Address: 12400 Madison Ave.

Project Name: Fedor Manor

Proposal: Conditional use permit for modifications of an existing rooftop wireless facility, pursuant to section 1159.04(b) – use regulations. Property is in a C2 – Commercial, Retail district.

SITE PHOTO

PROJECT INFORMATION

SITE ADDRESS:	12400 MADISON AVENUE LAKEWOOD, OH 44107
COUNTY:	CUYAHOGA
SITE NAME:	C&M HAVEN INC.
SITE NUMBER:	OH5031
FA NUMBER:	10077213
USID NUMBER:	975
LATITUDE (NAD 83):	41° 28' 38.41" N
LONGITUDE (NAD 83):	81° 46' 31.78" W
GROUND ELEVATION:	731' AMSL
BUILDING OWNER:	SS. C & HAVEN INC. – –
SITE ACQUISITION MANAGER:	DAVID FRIESEN 952–896–0757
CONSTRUCTION MANAGER:	ROBERT GOODY 412–298–2120
LEAD ENGINEER:	JOSHUA TURNER 913–458–3666

PROJECT MANAGER:	–
PHONE:	–
APPLICANT:	AT&T MOBILITY
CONTACT:	–
PHONE:	–

AT&T MOBILITY

PROJECT: 5G NR 1SR CBAND
AT&T SITE ID: OH5031
AT&T FA#: 10077213

C&M HAVEN INC.
LAKEWOOD, OH 44107

AREA MAP

NO SCALE

ENGINEERING

2017 OHIO BUILDING CODE
2017 NATIONAL ELECTRIC CODE
TIA–222–G OR LATEST EDITION

DRAWING INDEX

SHEET NO:	SHEET TITLE
TITLE PAGE	TITLE PAGE
C–1	EXISTING ROOFTOP PLAN
C–1.1	FINAL ROOFTOP PLAN
C–2	EQUIPMENT ROOM PLAN & DC CIRCUIT SCHEDULE
C–3	EQUIPMENT DETAILS
–	–
T–1	EXISTING ELEVATION
T–1.1	FINAL ELEVATION
T–2	EXISTING ANTENNA LAYOUT
T–3	FINAL ANTENNA CONFIGURATION & LAYOUTS
T–4	EQUIPMENT DETAILS
T–5	STRUCTURAL NOTES
T–6	EQUIPMENT NOTES
–	–
E–1	ELECTRICAL SECTION NOTES
–	–
N–1	GENERAL NOTES
N–2	GENERAL NOTES
–	–
T–01	TITLE SHEET
MI–01	MODIFICATION INSPECTION CHECKLIST
N–01	PROJECT NOTES
S–01	ROOFTOP PLAN & MODIFICATION SCHEDULE
S–02	MODIFICATION DETAILS
S–03	ADDITIONAL DETAILS & SECTIONS
S–04	BEARING WALL PLAN
–	–
–	AT&T RF PLUMBING DIAGRAMS ATTACHED
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11"x17" PLOT WILL BE HALF SCALE UNLESS OTHERWISE NOTED

CONTRACTOR SHALL VERIFY ALL PLANS & EXISTING DIMENSIONS & CONDITIONS ON THE JOB SITE & SHALL IMMEDIATELY NOTIFY THE ENGINEER IN WRITING OF ANY DISCREPANCIES BEFORE PROCEEDING WITH THE WORK OR BE RESPONSIBLE FOR SAME

UNDERGROUND SERVICE ALERT
OHIO UTILITY PROTECTION SERVICE
1.800.362.2764
811

3 WORKING DAYS UTILITY NOTIFICATION PRIOR TO CONSTRUCTION

–THESE PLANS ADHERE TO ALL OF THE REQUIREMENTS CALLED OUT IN THE JURISDICTION PLANNING AND ZONING FOR ANTENNAS AND SUPPORT STRUCTURES WHERE SITE IS LOCATED.
–SUBCONTRACTOR SHALL VERIFY ALL PLANS AND EXISTING CONDITIONS ON SITE. IMMEDIATELY NOTIFY ENGINEER OF ANY DISCREPANCIES PRIOR TO PERFORMING ANY WORK OR BE RESPONSIBLE FOR THE SAME

APPLICANT/OWNER:

AT&T MOBILITY

700 BELL STREET
AKRON, OH 44307

PREPARED BY:

BLACK & VEATCH

6800 W. 115TH ST, SUITE 2292
OVERLAND PARK, KANSAS 66211
(913) 458–2000

PROJECT NUMBER: 129321

STATE OF OHIO
JOSHUA TURNER
PE.85331
REGISTERED PROFESSIONAL ENGINEER
06/30/2022

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT.

LANDLORD/PROPERTY OWNER SIGNATURE

REV	DATE	DESCRIPTION
0	06.29.22	ISSUED FOR CONSTRUCTION

PROJECT LOCATION: USID (975)

C&M HAVEN INC.

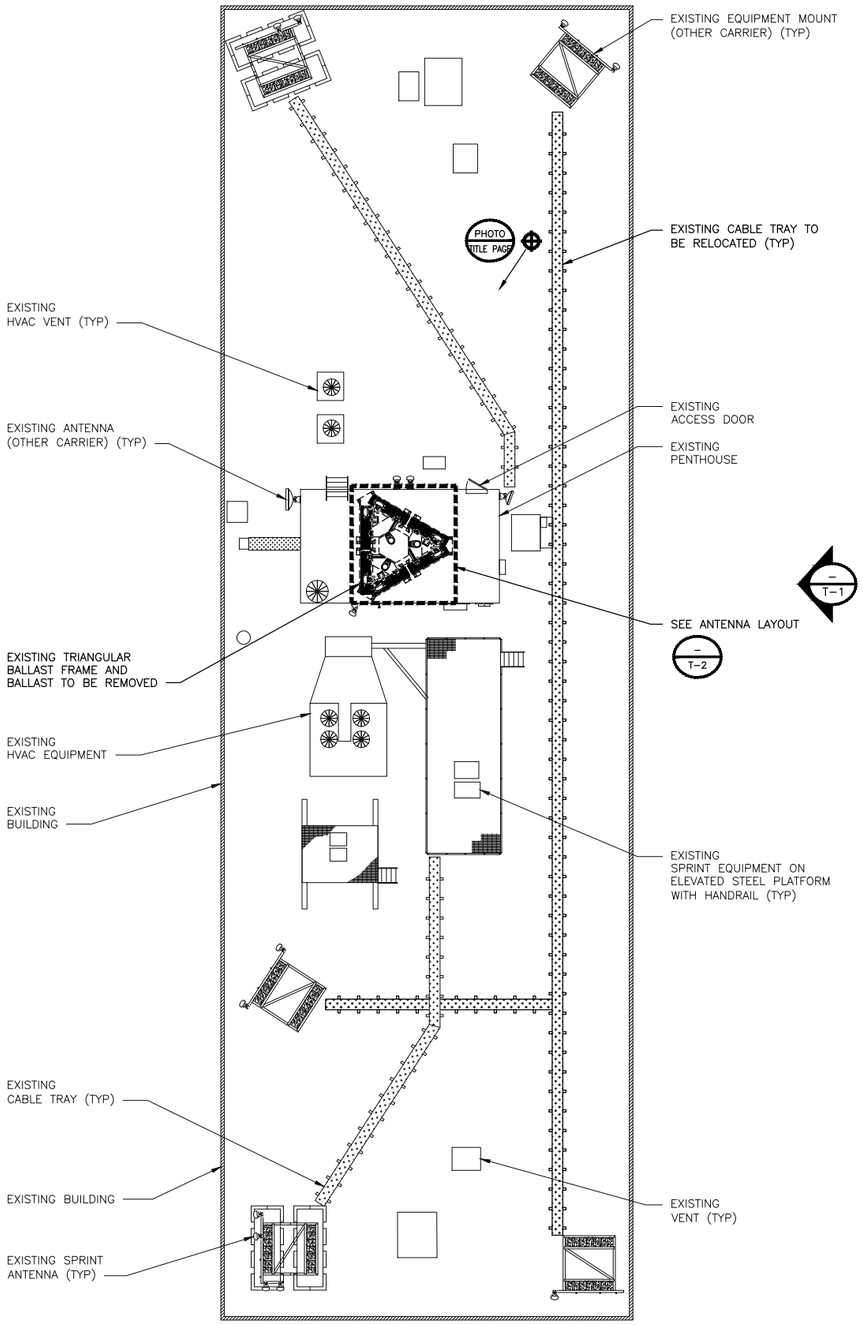
12400 MADISON AVENUE
LAKEWOOD, OH 44107

DRAWING DESCRIPTION:

TITLE PAGE

DRAWING NUMBER:

TITLE PAGE



1. CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS.
2. CONTRACTOR SHALL MAINTAIN A 10'-0" MINIMUM SEPARATION BETWEEN THE EXISTING/PROPOSED LTE GPS ANTENNA AND TRANSMITTING ANTENNAS.

NOTES

FENCE — x — x —

LEASE AREA — · — · — · —

EXISTING CABLE TRAY

LEGEND

N

EXISTING ROOFTOP PLAN

12' 8' 4' 0 10' 20'
3/32"=1'-0"

1

NOT USED

APPLICANT/OWNER:

AT&T MOBILITY

700 BELL STREET
AKRON, OH 44307

PREPARED BY:

BLACK & VEATCH
6800 W. 115TH ST, SUITE 2292
OVERLAND PARK, KANSAS 66211
(913) 458-2000

PROJECT NUMBER: 129321

STATE OF OHIO
JOSHUA TURNER
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REGISTERED PROFESSIONAL ENGINEER
06/30/2022

LANDLORD/PROPERTY OWNER SIGNATURE

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0	06.29.22	ISSUED FOR CONSTRUCTION

PROJECT LOCATION: USID (975)

C&M HAVEN INC.

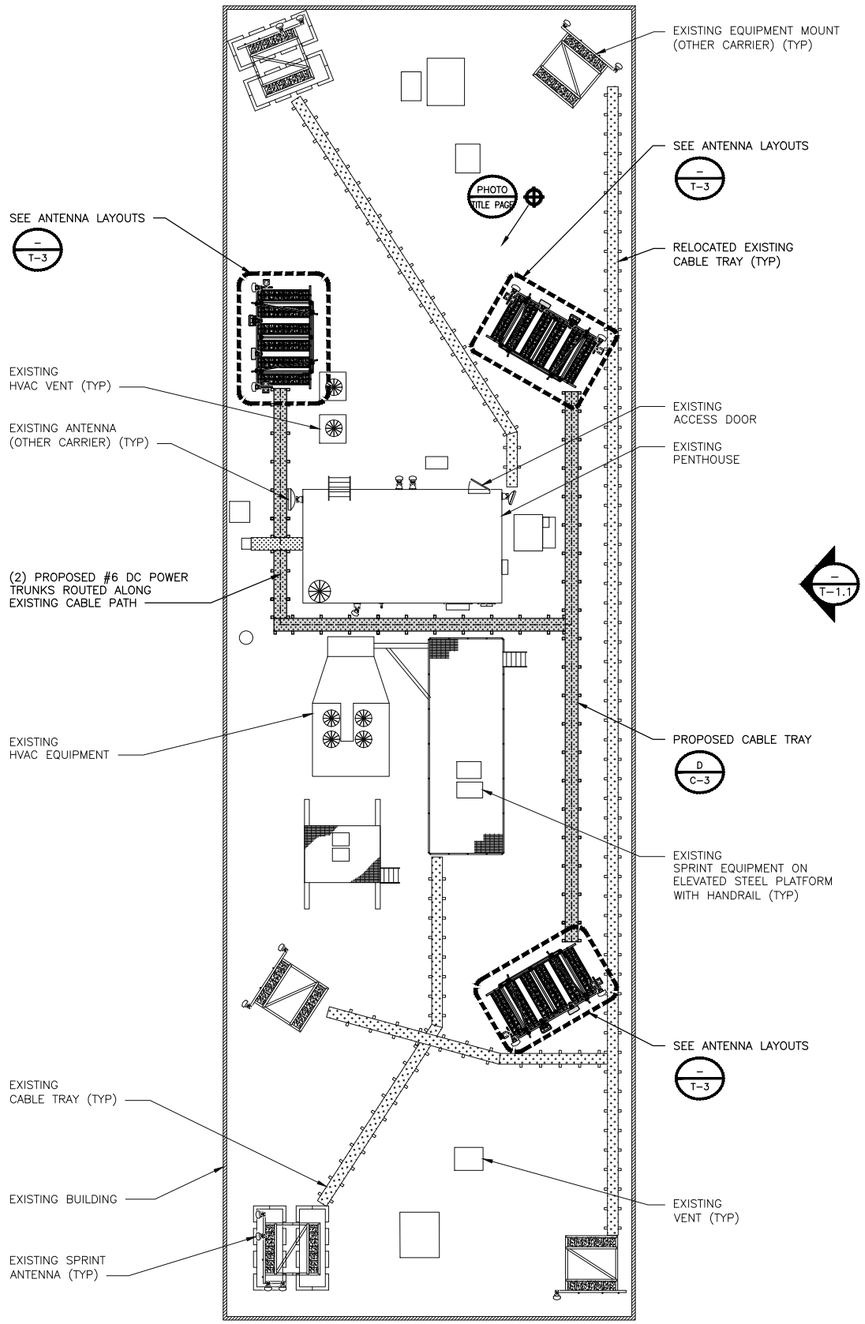
12400 MADISON AVENUE
LAKEWOOD, OH 44107

DRAWING DESCRIPTION:

EXISTING ROOFTOP PLAN

DRAWING NUMBER:

C-1



1. CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS.
2. CONTRACTOR SHALL MAINTAIN A 10'–0" MINIMUM SEPARATION BETWEEN THE EXISTING/PROPOSED LTE GPS ANTENNA AND TRANSMITTING ANTENNAS.

NOTES

FENCE — x — x —

LEASE AREA — · — · — · —

EXISTING CABLE TRAY

PROPOSED CABLE TRAY

LEGEND

N

FINAL ROOFTOP PLAN

12' 8' 4' 0 10' 20'

3/32"=1'-0"

1

NOT USED

APPLICANT/OWNER:

AT&T MOBILITY

700 BELL STREET
AKRON, OH 44307

PREPARED BY:

BLACK & VEATCH

6800 W. 115TH ST, SUITE 2292
OVERLAND PARK, KANSAS 66211
(913) 458–2000

PROJECT NUMBER: 129321

STATE OF OHIO
JOSHUA TURNER
PE.85331
Joshua R. Turner
REGISTERED PROFESSIONAL ENGINEER
06/30/2022

LANDLORD/PROPERTY OWNER SIGNATURE

REV	DATE	DESCRIPTION
0	06.29.22	ISSUED FOR CONSTRUCTION

PROJECT LOCATION: USID (975)

C&M HAVEN INC.

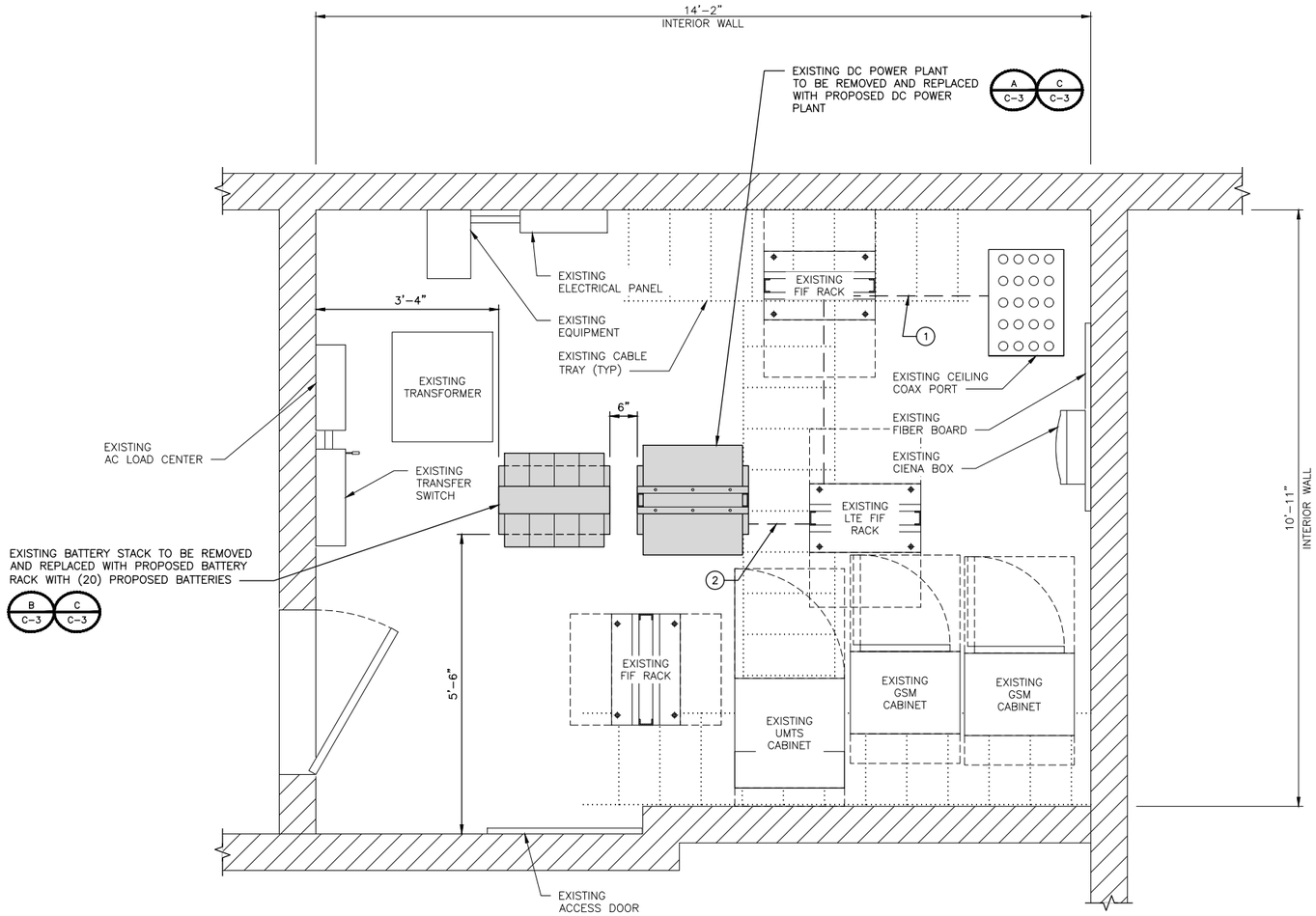
12400 MADISON AVENUE
LAKEWOOD, OH 44107

DRAWING DESCRIPTION:

FINAL ROOFTOP PLAN

DRAWING NUMBER:

C-1.1



1. CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS.
2. CONTRACTOR SHALL MAINTAIN A 10'-0" MINIMUM SEPARATION BETWEEN THE EXISTING/PROPOSED LTE GPS ANTENNA AND TRANSMITTING ANTENNAS.
3. DC POWER WIRING SHALL BE COLOR CODED AT EACH END FOR IDENTIFYING +24V AND -48V CONDUCTORS. RED MARKINGS SHALL IDENTIFY +24V AND BLUE MARKINGS SHALL IDENTIFY -48V. REFER TO ATT-002-290-701.
4. NON-LTE DC POWER WIRING SIZE 14 AWG TO 10 AWG SHALL BE TELCOFLEX III. DC POWER WIRING 8 AWG AND LARGER SHALL BE TELCOFLEX IV.
5. LTE POWER WIRING SHALL BE IN ACCORDANCE WITH ATT-002-290-531.
6. THE PROPOSED ELECTRICAL WORK FOR THE SCOPE OF THIS PROJECT IS LOW VOLTAGE DC POWER ONLY.
7. PROPOSED LTE BBU TO BE INSTALLED AND GROUNDED BY OTHERS, PER AT&T INSTALLATION STANDARDS.
8. EXISTING RACK MOUNTED DC SURGE PROTECTION UNIT SHALL BE SWAPPED OUT WITH PROPOSED RACK MOUNTED DC SURGE PROTECTION UNIT, WHEN REQUIRED FOR UPGRADE.

NOTES

NO	FROM	TO	CONFIGURATION
1	24VDC/48VDC DISTRIBUTION PANEL	RAYCAP SURGE PROTECTION DC12 (RACK MOUNTED)	2-#10 THHN/THWN/VW-1 TYPE TC-ER DC CABLE
2	RAYCAP SURGE PROTECTION DC12 (RACK MOUNTED)	RAYCAP SURGE PROTECTION DC6 (ROOFTOP)	6-#6 THHN/THWN/VW-1 TYPE TC-ER DC CABLE

DC CIRCUIT SCHEDULE

INSTALL:
(1) PROPOSED DC POWER PLANT
(1) PROPOSED BATTERY RACK WITH (20) PROPOSED BATTERIES
(2) PROPOSED #6 DC POWER TRUNKS

REMOVE:
(1) EXISTING DC POWER PLANT
(1) EXISTING BATTERY STACK

FINAL EQUIPMENT ROOM PLAN

12" 6" 0 1' 2' 3'
3/4"=1'-0"

1

SCOPE OF WORK

APPLICANT/OWNER:

AT&T MOBILITY

700 BELL STREET
AKRON, OH 44307

PREPARED BY:

BLACK & VEATCH

6800 W. 115TH ST, SUITE 2292
OVERLAND PARK, KANSAS 66211
(913) 458-2000

PROJECT NUMBER: 129321

STATE OF OHIO
JOSHUA TURNER
PE.85331
REGISTERED PROFESSIONAL ENGINEER
06/30/2022

LANDLORD/PROPERTY OWNER SIGNATURE

REV	DATE	DESCRIPTION
0	06.29.22	ISSUED FOR CONSTRUCTION

PROJECT LOCATION: USID (975)

C&M HAVEN INC.

12400 MADISON AVENUE
LAKEWOOD, OH 44107

DRAWING DESCRIPTION:

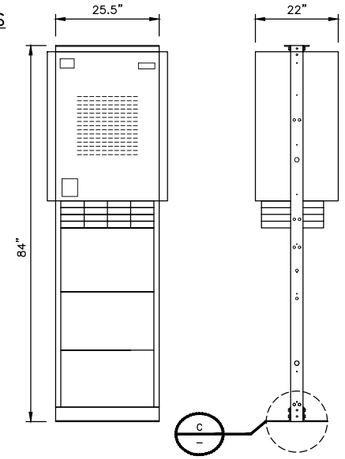
EQUIPMENT ROOM PLAN & DC CIRCUIT SCHEDULE

DRAWING NUMBER:

C-2

EMERSON NETSURE 7100 SERIES

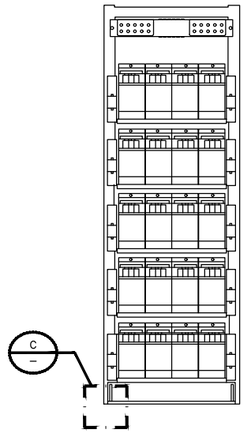
DIMENSIONS, HxWxD:	84"x25.5"x22"
LOAD RATING:	1200 lbs
COLOR:	GRAY
FINISH:	POWDER COAT



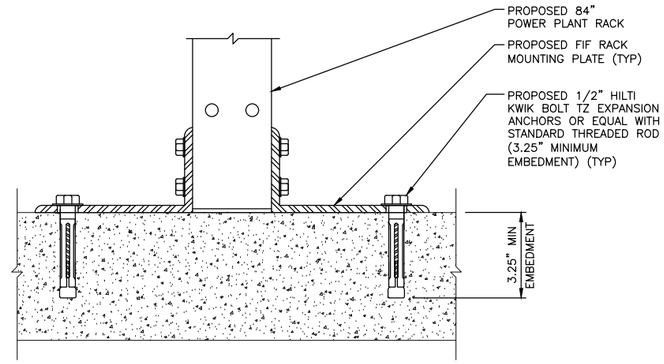
DC POWER PLANT SPECIFICATIONS | NO SCALE | A

EMERSON–NETSURE VRLA BATTERY RACK

DIMENSIONS HxWxD:	84"x25.5"x25"
WEIGHT (WITHOUT BATTERIES):	600 LBS MAX.
OUTPUT:	+24VDC OR –48VDC
CAPACITY:	1200 AMPS PER BAY
OPERATING TEMPERATURE:	–40°C TO +40°C (–40°F TO +104°F)
STORAGE RANGE:	–40°C TO +85°C (–40°F TO +185°F)



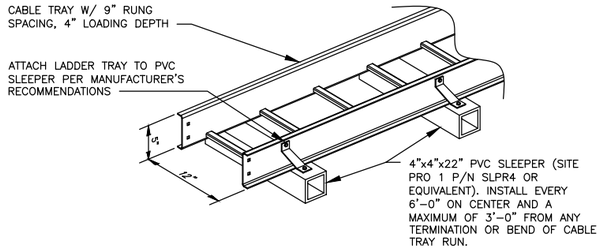
INDOOR BATTERY RACK DETAIL | NO SCALE | B



CONCRETE ANCHOR DETAIL | NO SCALE | C

NOTES

1. CABLE LADDER TRAY (SITE PRO 1 P/N LT–12–4D) AND COVERS (SITE PRO 1 LT–VSS–12–A) SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S INSTALLATION PROCEDURES AND INSTRUCTIONS INCLUDING CONNECTER TYPE AND SPACING.
2. SUPPORT COAXIAL CABLES WITH TIE WRAPS EVERY 6 FEET
3. PVC SLEEPERS TO BE BONDED TO ROOFING TAR BY REMOVING ALL GRAVEL, LAITANCE, DEBRIS, AND WEATHERED TAR AND APPLYING HEAT AS REQUIRED. ALTERNATIVELY, GRAVEL AND DEBRIS UNDER EACH SLEEPER MAY BE REMOVED AND A NEW LAYER OF TAR APPLIED. IN BOTH CASES, THE PVC SLEEPER SHALL THEN BE PRESSED INTO THE TAR WITH THE FULL WEIGHT OF A WORKMAN.



CABLE TRAY DETAIL | NO SCALE | D

NOT USED | NO SCALE | E

NOT USED | NO SCALE | F

NOT USED | NO SCALE | G

NOT USED | NO SCALE | H

NOT USED | NO SCALE | J

APPLICANT/OWNER:

AT&T MOBILITY

700 BELL STREET
AKRON, OH 44307

PREPARED BY:

BLACK & VEATCH

6800 W. 115TH ST, SUITE 2292
OVERLAND PARK, KANSAS 66211
(913) 458–2000

PROJECT NUMBER: 129321

STATE OF OHIO
JOSHUA TURNER
PE.85331
REGISTERED PROFESSIONAL ENGINEER
06/30/2022

LANDLORD/PROPERTY OWNER SIGNATURE

REV	DATE	DESCRIPTION
0	06.29.22	ISSUED FOR CONSTRUCTION

PROJECT LOCATION: USID (975)

C&M HAVEN INC.

12400 MADISON AVENUE
LAKEWOOD, OH 44107

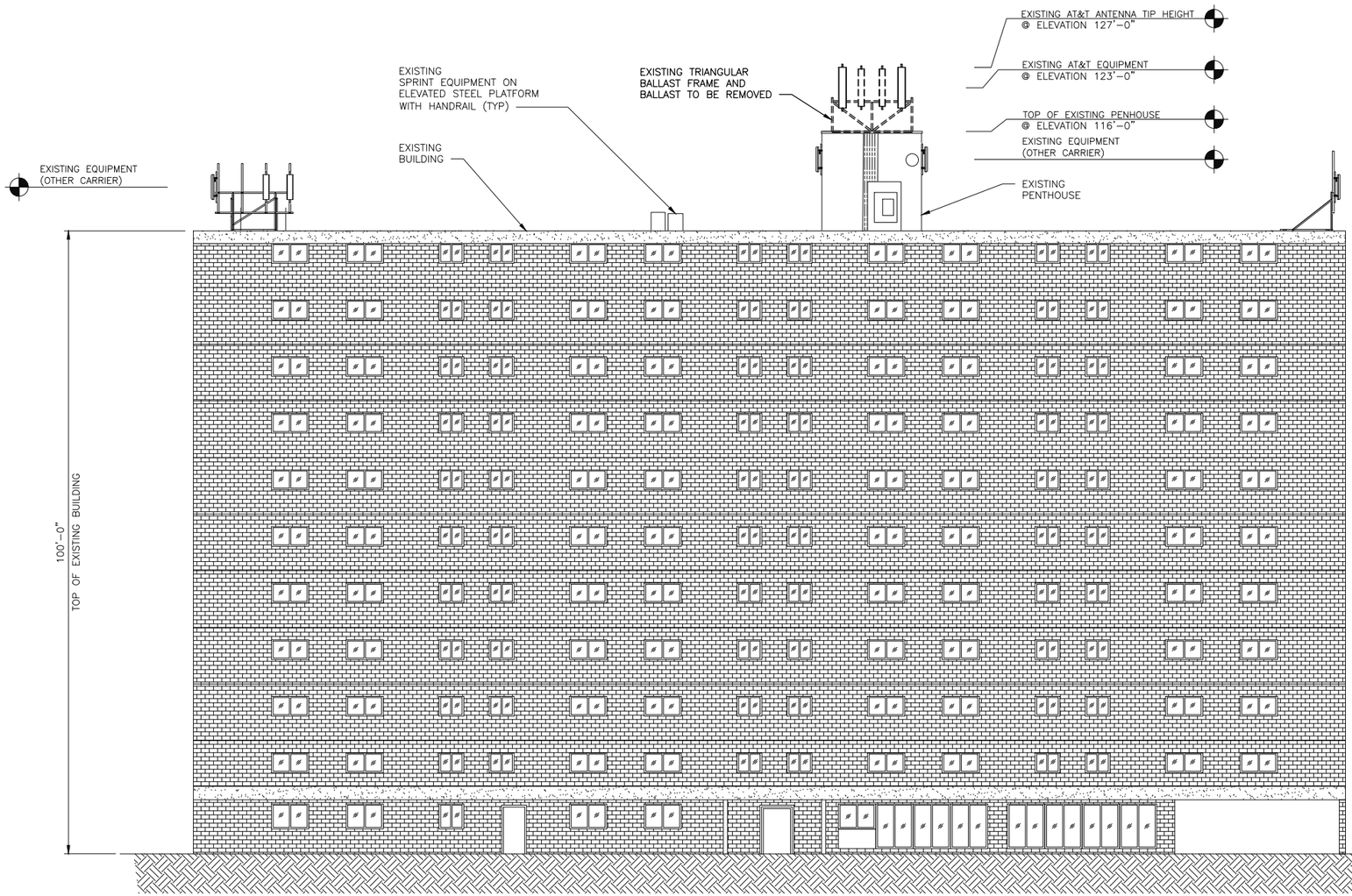
DRAWING DESCRIPTION:

EQUIPMENT DETAILS

DRAWING NUMBER:

C-3

NOTES:
1. GROUND EQUIPMENT AND/OR EQUIPMENT SHELTERS OMITTED FOR CLARITY.
2. STRUCTURAL RAD CENTER IS 123'.



EXISTING BUILDING ELEVATION

12' 8' 4' 0 10' 20'
3/32"=1'-0"

1

MOUNT MODIFICATIONS REQUIRED; SEE GPD GROUP DESIGN DATED JUNE 23, 2022. PLEASE REFERENCE SHEETS T-01 THROUGH S-04. NO PROPOSED LTE WORK SHALL COMMENCE ON THIS BUILDING UNTIL AFTER THE MOUNT MODIFICATIONS HAVE BEEN COMPLETED AND PROPERLY INSPECTED.

STRUCTURAL AND MOUNT ANALYSIS NOTE | 2

NOT USED | 3

REMOVE:
(6) EXISTING ANTENNAS
(12) EXISTING RRHs
(6) EXISTING TMAs

SCOPE OF WORK | 4

1. WHEN STACKING CABLES 3 OR MORE DEEP, USE STACKABLE SNAP-INS, TALLEY PART NUMBER SSH-158-3 (OR ENGINEER APPROVED EQUAL).
2. CONTRACTOR SHALL CONFIRM THE FINAL CABLE ROUTING PLAN WITH THE STRUCTURAL ANALYSIS.
3. CONTRACTOR SHALL ENSURE 3'-0" MINIMUM SPACING BETWEEN CBAND ANTENNAS AND ALL OTHER ANTENNAS. ANY VARIATION FROM THIS DIRECTIVE SHALL REQUIRE APPROVAL FROM THE AT&T PROJECT MANAGER PRIOR TO CLOSEOUT.

NOTES | 5

APPLICANT/OWNER:

AT&T MOBILITY

700 BELL STREET
AKRON, OH 44307

PREPARED BY:

BLACK & VEATCH

6800 W. 115TH ST, SUITE 2292
OVERLAND PARK, KANSAS 66211
(913) 458-2000

PROJECT NUMBER: 129321

STATE OF OHIO
JOSHUA TURNER
PE.85331
REGISTERED PROFESSIONAL ENGINEER
06/30/2022

LANDLORD/PROPERTY OWNER SIGNATURE

REV	DATE	DESCRIPTION
0	06.29.22	ISSUED FOR CONSTRUCTION

PROJECT LOCATION: USID (975)

C&M HAVEN INC.

12400 MADISON AVENUE
LAKEWOOD, OH 44107

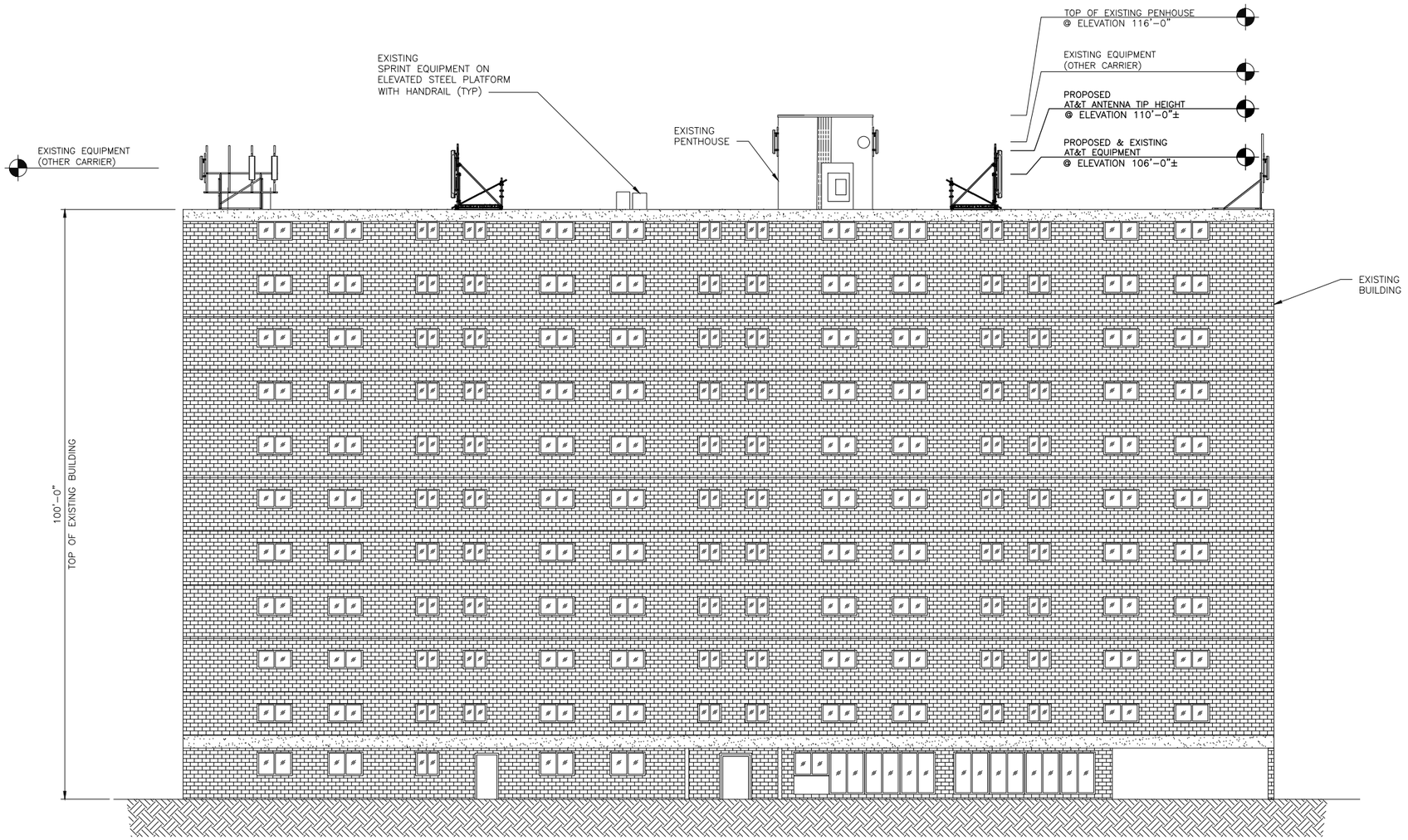
DRAWING DESCRIPTION:

ELEVATION

DRAWING NUMBER:

T-1

NOTES:
1. GROUND EQUIPMENT AND/OR EQUIPMENT SHELTERS OMITTED FOR CLARITY.
2. STRUCTURAL RAD CENTER IS 123'.



FINAL BUILDING ELEVATION | 12' 8' 4' 0 10' 20' 3/32"=1'-0" | 1

MOUNT MODIFICATIONS REQUIRED; SEE GPD GROUP DESIGN DATED JUNE 23, 2022. PLEASE REFERENCE SHEETS T-01 THROUGH S-04. NO PROPOSED LTE WORK SHALL COMMENCE ON THIS BUILDING UNTIL AFTER THE MOUNT MODIFICATIONS HAVE BEEN COMPLETED AND PROPERLY INSPECTED.

STRUCTURAL AND MOUNT ANALYSIS NOTE | 2

NOT USED | 3

INSTALL:
(9) PROPOSED ANTENNAS
(6) PROPOSED RRHs
(2) PROPOSED #6 DC POWER TRUNKS

SCOPE OF WORK | 4

1. WHEN STACKING CABLES 3 OR MORE DEEP, USE STACKABLE SNAP-INS, TALLEY PART NUMBER SSH-158-3 (OR ENGINEER APPROVED EQUAL).
2. CONTRACTOR SHALL CONFIRM THE FINAL CABLE ROUTING PLAN WITH THE STRUCTURAL ANALYSIS.
3. CONTRACTOR SHALL ENSURE 3'-0" MINIMUM SPACING BETWEEN CBAND ANTENNAS AND ALL OTHER ANTENNAS. ANY VARIATION FROM THIS DIRECTIVE SHALL REQUIRE APPROVAL FROM THE AT&T PROJECT MANAGER PRIOR TO CLOSEOUT.

NOTES | 5

APPLICANT/OWNER:

AT&T MOBILITY

700 BELL STREET
AKRON, OH 44307

PREPARED BY:

BLACK & VEATCH
6800 W. 115TH ST, SUITE 2292
OVERLAND PARK, KANSAS 66211
(913) 458-2000

PROJECT NUMBER: 129321

STATE OF OHIO
JOSHUA TURNER
PE.85331
REGISTERED PROFESSIONAL ENGINEER
06/30/2022

LANDLORD/PROPERTY OWNER SIGNATURE

REV	DATE	DESCRIPTION
0	06.29.22	ISSUED FOR CONSTRUCTION

PROJECT LOCATION: USID (975)

C&M HAVEN INC.

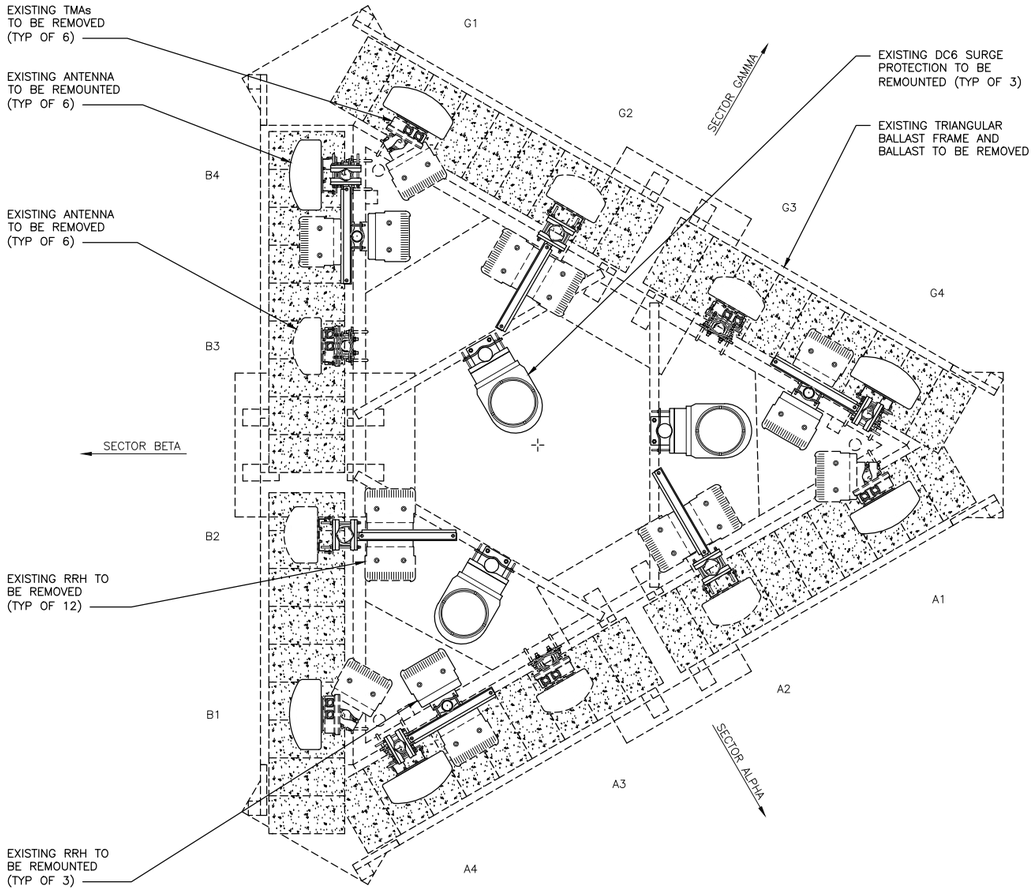
12400 MADISON AVENUE
LAKEWOOD, OH 44107

DRAWING DESCRIPTION:

ELEVATION

DRAWING NUMBER:

T-1.1



EXISTING ANTENNA PLAN

12" 6" 0 1' 2' 3'
3/4"=1'-0"

1

N

APPLICANT/OWNER:

AT&T MOBILITY

700 BELL STREET
AKRON, OH 44307

PREPARED BY:

BLACK & VEATCH

6800 W. 115TH ST, SUITE 2292
OVERLAND PARK, KANSAS 66211
(913) 458-2000

PROJECT NUMBER: 129321

STATE OF OHIO
JOSHUA
TURNER
PE.85331
REGISTERED
PROFESSIONAL ENGINEER
06/30/2022

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT.

LANDLORD/PROPERTY OWNER SIGNATURE

REV	DATE	DESCRIPTION
0	06.29.22	ISSUED FOR CONSTRUCTION

PROJECT LOCATION: USID (975)

C&M HAVEN INC.

12400 MADISON AVENUE
LAKEWOOD, OH 44107

DRAWING DESCRIPTION:

EXISTING ANTENNA LAYOUT

DRAWING NUMBER:

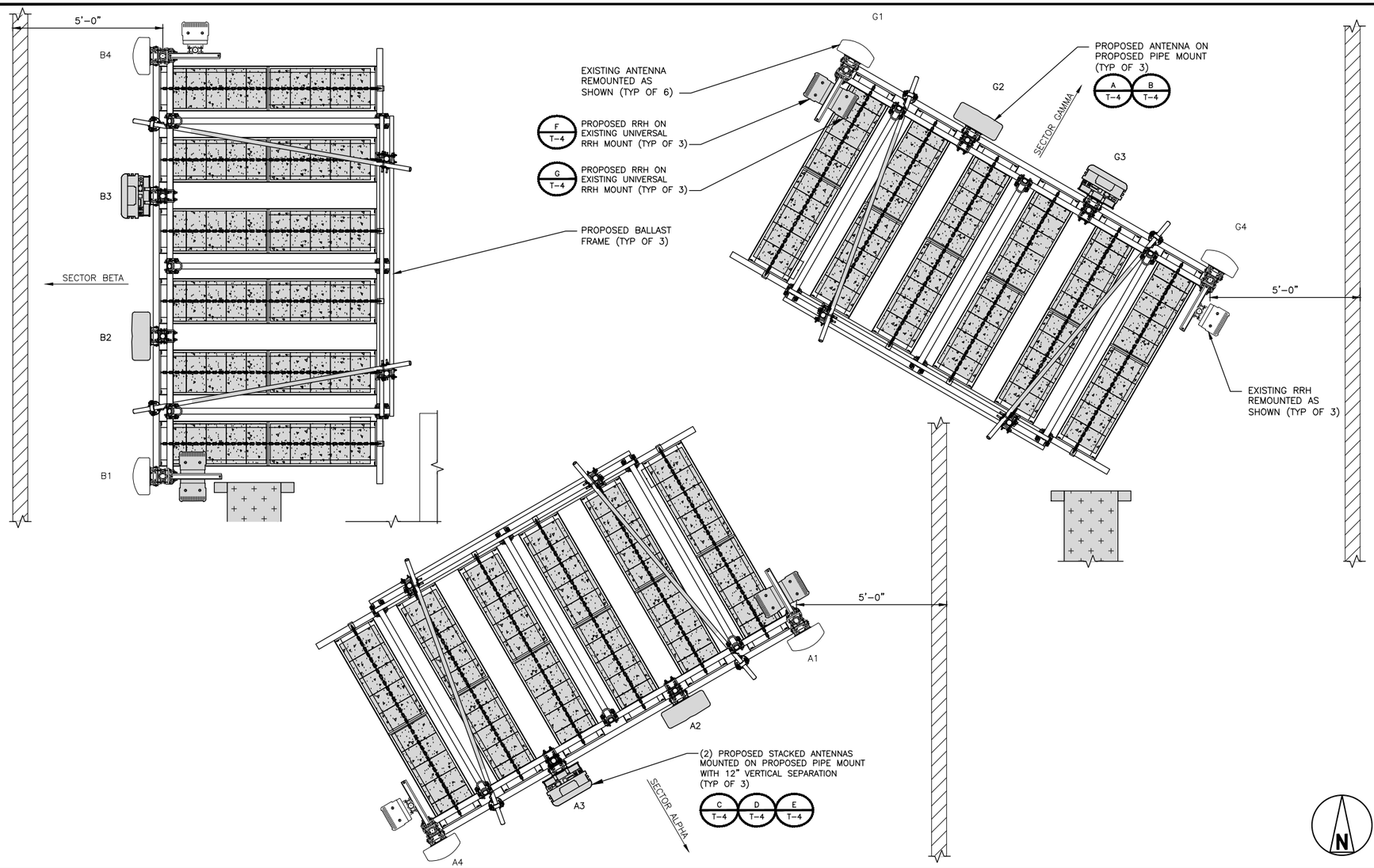
T-2

Antenna Requirements (verify with current RFDS)

Sector	Final Antenna Configuration		Antenna	Antenna Azimuth	Number of TMA's		Number of RRH's		RRH Model #	RRH Model #	Number of Surge Protection		Surge Protection Model #
	Technology	Model #	Final	Final	Exist.	Final	Exist.	Final	Final	Final	Exist.	Final	Final
A1	SPARE	Kathrein 80010891	Existing	-	1	0	1	0	-	-	3	3	Raycap DC6
A2	LTE	Commscope NNH4-65C-R6	Proposed	Match Existing	-	-	2	2	AirScale TRI RRH 4T4R B12/14/29 370W AHLBBA	AirScale DUAL RRH 4T4R B25/66 320W AHFIB	-	-	-
A3	CBAND	Nokia AEQU+AEQK	Proposed	Match Existing	1	0	-	-	-	-	-	-	-
A4	LTE	Kathrein 80010891	Existing	-	-	-	2	1	Alcatel-Lucent RRH4X25-WCS-4R	-	-	-	-
B1	SPARE	Kathrein 80010891	Existing	-	1	0	1	0	-	-	-	-	-
B2	LTE	Commscope NNH4-65C-R6	Proposed	Match Existing	-	-	2	2	AirScale TRI RRH 4T4R B12/14/29 370W AHLBBA	AirScale DUAL RRH 4T4R B25/66 320W AHFIB	-	-	-
B3	CBAND	Nokia AEQU+AEQK	Proposed	Match Existing	1	0	-	-	-	-	-	-	-
B4	LTE	Kathrein 80010891	Existing	-	-	-	2	1	Alcatel-Lucent RRH4X25-WCS-4R	-	-	-	-
G1	SPARE	Kathrein 80010891	Existing	-	1	0	1	0	-	-	-	-	-
G2	LTE	Commscope NNH4-65C-R6	Proposed	Match Existing	-	-	2	2	AirScale TRI RRH 4T4R B12/14/29 370W AHLBBA	AirScale DUAL RRH 4T4R B25/66 320W AHFIB	-	-	-
G3	CBAND	Nokia AEQU+AEQK	Proposed	Match Existing	1	0	-	-	-	-	-	-	-
G4	LTE	Kathrein 80010891	Existing	-	-	-	2	1	Alcatel-Lucent RRH4X25-WCS-4R	-	-	-	-

FINAL ANTENNA PLAN CONFIGURATION

1



FINAL ANTENNA PLAN

12" 6" 0 1' 2' 3' 4' 5'
1/2"=1'-0"

2

MOUNT MODIFICATIONS REQUIRED; SEE GPD GROUP DESIGN DATED JUNE 23, 2022. PLEASE REFERENCE SHEETS T-01 THROUGH S-04. NO PROPOSED LTE WORK SHALL COMMENCE ON THIS BUILDING UNTIL AFTER THE MOUNT MODIFICATIONS HAVE BEEN COMPLETED AND PROPERLY INSPECTED.

STRUCTURAL AND MOUNT ANALYSIS NOTE

3

1. CONTRACTOR SHALL REFER TO THE LATEST RFDS PRIOR TO THE CONSTRUCTION COMMENCING.
2. BLACK AND VEATCH RECOMMENDS EQUAL HORIZONTAL SPACING OF ANTENNAS TO ENSURE ADEQUATE WEIGHT DISTRIBUTION.
3. CONTRACTOR SHALL ENSURE 3'-0" MINIMUM SPACING BETWEEN LTE 700 B17 AND LTE 700 B14 (FIRSTNET) ANTENNAS. ANY VARIATION FROM THIS DIRECTIVE SHALL REQUIRE APPROVAL FROM THE AT&T PROJECT MANAGER PRIOR TO CLOSEOUT.
4. CONTRACTOR SHALL ENSURE 3'-0" MINIMUM SPACING BETWEEN CBAND ANTENNAS AND ALL OTHER ANTENNAS. ANY VARIATION FROM THIS DIRECTIVE SHALL REQUIRE APPROVAL FROM THE AT&T PROJECT MANAGER PRIOR TO CLOSEOUT.

NOTES

4

1. GROUNDING SHALL BE IN ACCORDANCE WITH ATT-TP-76416.
2. CONTRACTOR SHALL HAVE A COMPLETE UNDERSTANDING OF THE CONTENTS OF AT&T STANDARD TP-76416.
3. ALL INSTALLATIONS SHALL BE FIELD VERIFIED.
4. ALL GROUNDING CONDUCTORS SHALL BE #2 AWG SUNLIGHT RESISTANT-TINNED STRANDED COPPER UNLESS NOTED OTHERWISE.
5. ALL 2X60W 850 & 1900 RRHS MODELS WILL REQUIRE A TOP AND BOTTOM CONNECTION.

GROUNDING NOTES

5

APPLICANT/OWNER:

AT&T MOBILITY

700 BELL STREET
AKRON, OH 44307

PREPARED BY:

BLACK & VEATCH

6800 W. 115TH ST, SUITE 2292
OVERLAND PARK, KANSAS 66211
(913) 458-2000

PROJECT NUMBER: 129321

STATE OF OHIO
JOSHUA TURNER
PE.85331
REGISTERED PROFESSIONAL ENGINEER
06/30/2022

LANDLORD/PROPERTY OWNER SIGNATURE

REV	DATE	DESCRIPTION
0	06.29.22	ISSUED FOR CONSTRUCTION

PROJECT LOCATION: USID (975)

C&M HAVEN INC.

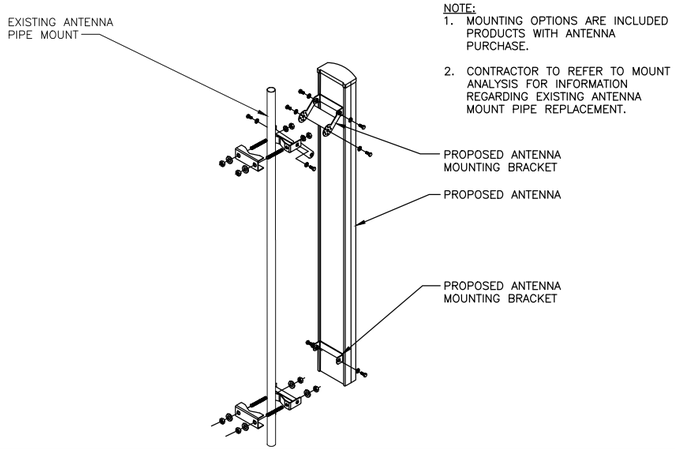
12400 MADISON AVENUE
LAKEWOOD, OH 44107

DRAWING DESCRIPTION:

FINAL ANTENNA CONFIGURATION & LAYOUT

DRAWING NUMBER:

T-3

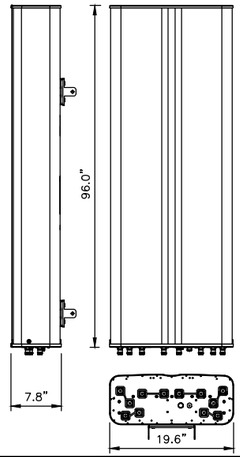


NOTE:
1. MOUNTING OPTIONS ARE INCLUDED PRODUCTS WITH ANTENNA PURCHASE.
2. CONTRACTOR TO REFER TO MOUNT ANALYSIS FOR INFORMATION REGARDING EXISTING ANTENNA MOUNT PIPE REPLACEMENT.

ANTENNA MOUNTING DETAIL | NO SCALE | A

COMMSCOPE ANTENNA NNH4-65C-R6-V3

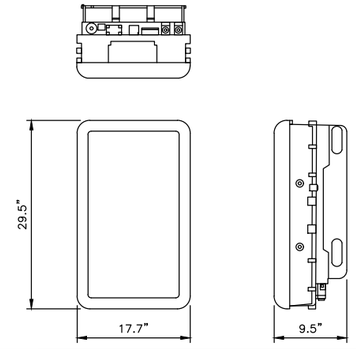
RADOME MATERIAL:	FIBERGLASS, UV RESISTANT
RADOME COLOR:	LIGHT GRAY
DIMENSIONS, HxWxD:	2438x498x197mm (96.0"x19.6"x7.8")
WEIGHT:	102.1 lbs
WIND LOAD: (FRONTAL)	1235 N @ 150km/h 277.6 lbf @ 150km/h
CONNECTOR:	4.3-10 FEMALE



ANTENNA SPECIFICATIONS | NO SCALE | B

AEQK AIRSCALE MAA 64T64R 192AE N77 200W

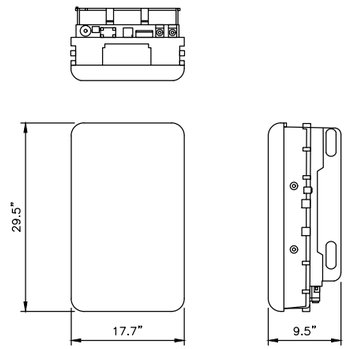
DIMENSIONS, HxWxD:	29.5"x17.7"x9.5" (749x450x241mm)
WEIGHT:	99.2 lbs (45kg)



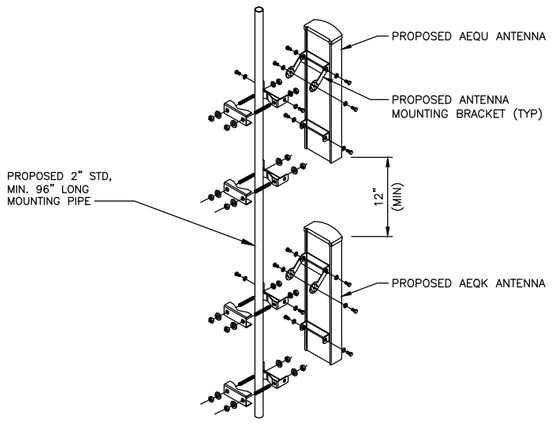
ANTENNA SPECIFICATION | NO SCALE | C

AEQU AIRSCALE MAA 64T64R 192AE N77 200W

DIMENSIONS, HxWxD:	29.5"x17.7"x9.5" (750x450x240mm)
WEIGHT:	99.2 lbs (45kg)



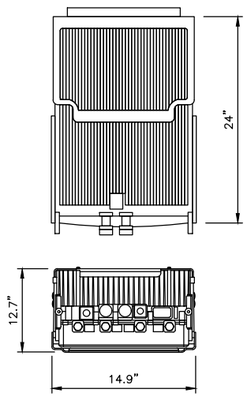
ANTENNA SPECIFICATION | NO SCALE | D



ANTENNA PIPE MOUNTING DETAIL | NO SCALE | E

NOKIA RRH B12/14/29 AHLBBA

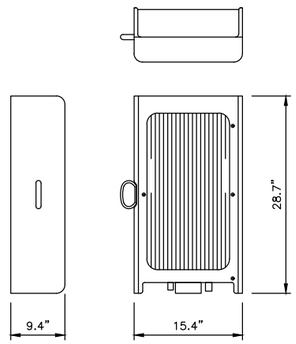
DIMENSIONS, HxWxD:	24"x14.9"x12.7" (610x358x189mm)
WEIGHT:	101.4 lbs (46kg)



RRH SPECIFICATIONS | NO SCALE | F

AIRSCALE DUAL RRH 4T4R B25/66 320W AHFIB

DIMENSIONS, HxWxD:	28.7"x15.4"x9.4" (730x390x240mm)
WEIGHT:	88.2 lbs (40kg)



RRH SPECIFICATIONS | NO SCALE | G

NOT USED | NO SCALE | H

NOT USED | NO SCALE | J

APPLICANT/OWNER:

AT&T MOBILITY

700 BELL STREET
AKRON, OH 44307

PREPARED BY:

BLACK & VEATCH

6800 W. 115TH ST, SUITE 2292
OVERLAND PARK, KANSAS 66211
(913) 458-2000

PROJECT NUMBER: 129321

STATE OF OHIO
JOSHUA TURNER
PE.85331
REGISTERED PROFESSIONAL ENGINEER
06/30/2022

LANDLORD/PROPERTY OWNER SIGNATURE

REV	DATE	DESCRIPTION
0	06.29.22	ISSUED FOR CONSTRUCTION

PROJECT LOCATION: USID (975)

C&M HAVEN INC.

12400 MADISON AVENUE
LAKEWOOD, OH 44107

DRAWING DESCRIPTION:

EQUIPMENT DETAILS

DRAWING NUMBER:

T-4

PART 1 – GENERAL

1.1 SCOPE:

A. PROVIDE FABRICATION AND ERECTION OF STRUCTURAL STEEL AND OTHER ITEMS AS SHOWN ON THE DRAWINGS OR REQUIRED BY OTHER SECTIONS OF THESE SPECIFICATIONS.

1.2 REFERENCES:

A. AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC). MANUAL OF STEEL CONSTRUCTION (13TH EDITION), ALLOWABLE STRESS DESIGN (ASD).

B. AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM).
ASTM A36: STRUCTURAL STEEL
ASTM A53: PIPE, STEEL BLACK AND HOT DIPPED, ZINC–COATED WELDED AND SEAMLESS.
ASTM A108: STEEL BARS, CARBON, COLD FINISHED, STANDARD QUALITY.
ASTM A123: ZINC (HOT–DIPPED GALVANIZED) COATING ON IRON AND STEEL PRODUCTS.
ASTM A307: CARBON STEEL BOLTS AND STUDS, 60,000 PSI TENSILE STRENGTH.
ASTM A325: HIGH–STRENGTH BOLT FOR STRUCTURAL STEEL JOINTS.
ASTM A490: HEAT–TREATED, STRUCTURAL STEEL BOLTS, 150 (KSI) (1035MPA) TENSILE STRENGTH.
ASTM A500: COLD–FORMED WELDED AND SEAMLESS CARBON STEEL STRUCTURAL TUBING IN ROUNDS AND SHAPES.
ASTM A563: ARCBON AND ALLOY STEEL NUTS.
ASTM B695: COATINGS OF ZINC MECHANICALLY DEPOSITED ON IRON AND STEEL.
ASTM F436: HARDENED STEEL WASHERS.
ASTM F959: COMPRESSIBLE–WASHER–TYPE DIRECT TENSION INDICATOR FOR USE WITH STRUCTURAL FASTENERS.

C. AMERICAN WELDING SOCIETY (AWS):
AWS A5.1: COVERED CARBON STEEL ARC WELDING ELECTRODES.
AWS A5.5: LOW ALLOY STEEL COVERED ARC WELDING ELECTRODES.
AWS D1.1: STRUCTURAL WELDING CODE – STEEL.

D. RESEARCH COUNCIL ON STRUCTURAL CONNECTIONS (RCSC): "SPECIFICATIONS FOR STRUCTURAL JOINTS USING ASTM A325 BOLTS OR ASTM A490 BOLTS" AS ENDORSED BY AISC.

E. STEEL STRUCTURES PAINTING COUNCIL (SSPC):
SSPC–SP3: POWER TOOL CLEANING.
SSPC–PAINT 11: RED IRON OXIDE, ZINC CHROME, RAW LINSEED OIL OR ALKYD PAINT.

1.3 SUBMITTALS:

A. SUBMIT THE FOLLOWING FOR APPROVAL:

1. FABRICATION AND ERECTION DRAWINGS SHOWING ALL DETAILS, CONNECTIONS, MATERIAL DESIGNATIONS, AND ALL TOP STEEL ELEVATIONS.

B. WELDERS SHALL BE QUALIFIED AS PRESCRIBED IN AWS D1.1.

PART 2 – PRODUCTS

2.1 STRUCTURAL STEEL:

A. SHAPES, PLATES AND BARS SHALL CONFORM TO ASTM A36 AND ASTM A992.

B. STRUCTURAL TUBING SHALL CONFORM TO ASTM A500, GRADE B. STEEL PIPE SHALL CONFORM TO ASTM A53, TYPE E OR S, GRADE B.

2.2 ANCHOR BOLTS:

A. ANCHOR BOLTS SHALL CONFORM TO ASTM A307 WITH HEAVY HEXAGONAL NUTS.

2.3 BOLTS:

A. COMMON (MACHINE) BOLTS SHALL CONFORM TO ASTM A307 GRADE A AND NUTS TO ASTM A563. ONE COMMON BOLT ASSEMBLY SHALL CONSIST OF A BOLT, A HEAVY HEX NUT, AND A HARDENED WASHER.

B. HIGH STRENGTH BOLT SHALL CONFORM TO ASTM A325, ONE HIGH STRENGTH BOLT ASSEMBLY SHALL CONSIST OF A HEAVY HEX STRUCTURAL BOLT, A HEAVY HEX NUT, A HARDENED WASHER CONFIRMING WITH ASTM F436 AND A DIRECT TENSION INDICATOR CONFORMING WITH STM F959. THE HARDENED WASHER SHALL BE INSTALLED AGAINST THE ELEMENT TURNED IN TIGHTENING.UNLESS NOTED OTHERWISE ON THE DRAWINGS, ALL CONNECTIONS SHALL BE BEARING TYPE CONNECTIONS.

2.4 WELDING ELECTRODES:

A. WELDING ELECTRODES SHALL COMPLY WITH AWS D1.1 USING A5.1 OR A5.5 E70XX AND SHALL BE COMPATIBLE WITH THE WELDING PROCESS SELECTED.

2.5 PRIMER:

A. PRIMER SHALL BE RED OXIDE–CHROMATE PRIMER COMPLYING WITH SSPC PAINT SPECIFICATION NO. 11.

PART 3 – EXECUTION

3.1 FABRICATION:

A. SHOP FABRICATE AND ASSEMBLY MATERIALS AS SPECIFIED HEREIN.

1. FABRICATE ITEMS OF STRUCTURAL STEEL IN ACCORDANCE WITH THE AISC–ASD SPECIFICATION, AND AS INDICATED ON THE APPROVED SHOP DRAWINGS.

2. ALL EXPOSED STRUCTURAL STEEL SHALL BE HOT DIP GALVANIZED PER ASTM.

3. PROPERLY MARK AND MATCH–MARK MATERIALS FOR FIELD ASSEMBLY AND FOR IDENTIFICATION AS TO LOCATION FOR WHICH INTENDED.

4. FABRICATE AND DELIVER IN A SEQUENCE WHICH WILL EXPEDITE ERECTION AND MINIMIZE FIELD HANDLING OF MATERIALS.

5. WHERE FINISHING IS REQUIRED, COMPLETE THE ASSEMBLY, INCLUDING THE WELDING OF UNITS, BEFORE START OF FINISHING OPERATIONS.

6. PROVIDE FINISH SURFACE OF MEMBERS EXPOSED IN THE FINAL STRUCTURE FREE FROM MARKINGS, BURNS, AND OTHER DEFECTS.

B. PROVIDE CONNECTIONS AS SPECIFIED HEREIN:

1. PROVIDE BOLTS AND WASHERS OF TYPES AND SIZE REQUIRED FOR COMPLETION OF FIELD ERECTION. USE 3/4 INCH DIAMETER A325 BOLTS UNLESS NOTED OTHERWISE.

2. INSTALL HIGH STRENGTH THREADED FASTENERS IN ACCORDANCE WITH RCSC "SPECIFICATION FOR STRUCTURAL JOINTS USING ASTM A325 OR ASTM A490 BOLTS."

3. WELDED CONSTRUCTION SHALL COMPLY WITH AWS D1.1 FOR PROCEDURES, APPEARANCE, QUALITY OF WELD, AND METHODS USED IN CORRECTING WELDED WORK.

4. THE FABRICATOR SHALL FURNISH AND INSTALL ERECTION CLIPS FOR FIT–UP OF WELDED CONNECTIONS.

5. DOUBLE ANGLE MEMBERS SHALL HAVE WELDED FILLERS SPACED IN ACCORDANCE WITH CHAPTER E4 OF THE AISC–ASD SPECIFICATION.

6. GUSSET AND STIFFENER PLATES SHALL BE 3/8 INCH THICK MINIMUM.

3.2 PRIMING:

A. STRUCTURAL STEEL SHALL BE PRIMED AS SPECIFIED HEREIN, UNLESS SHOWN OTHERWISE ON THE DRAWINGS.

B. STRUCTURAL STEEL SURFACE PREPARATION SHALL CONFORM TO SSPC–SP3, "POWER TOOL CLEANING."

C. SURFACE PREPARATION AND PRIMER SHALL BE IN ACCORDANCE WITH AISC CODE OF STANDARD PRACTICE AS INCLUDED IN THE ASD MANUAL OF STEEL CONSTRUCTION.

D. MATERIALS SHALL REMAIN CLOSED UNTIL REQUIRED FOR USE, MANUFACTURER'S POT–LIFE REQUIREMENTS SHALL BE STRICTLY ADHERED TO.

E. PRIMER SHALL BE APPLIED TO DRY, CLEAN, PREPARED SURFACE AND UNDER FAVORABLE CONDITIONS IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS. UNLESS OTHERWISE RECOMMENDED BY THE MANUFACTURER PRIMING SHALL NOT BE DONE WHEN AMBIENT TEMPERATURE IS LESS THAN 50 DEGREE F, THE RELATIVE HUMIDITY IS MORE THAN 90 PERCENT, OR THE SURFACE TEMPERATURE IS LESS THAN 5 DEGREE F ABOVE THE DEW POINT.

F. GENERALLY ALL PRIMER SHALL BE SPRAY APPLIED. BRUSH OR ROLLER APPLICATION SHALL BE RESTRICTED TO TOUCHUP AND TO AREAS NOT ACCESSIBLE BY SPRAY GUN.

G. PRIMER SHALL BE UNIFORMLY APPLIED WITHOUT RUNS, SAGS, SOLVENT BLISTERS, DRY SPRAY OR OTHER BLEMISHES. ALL BLEMISHES AND OTHER IRREGULARITIES SHALL BE REPAIRED OR REMOVED AND THE AREA RE–COATED. SPECIAL ATTENTION SHALL BE PAID TO CREVICES, WELD LINES, BOLT HEADS, CORNERS, EDGES, ETC., TO OBTAIN THE REQUIRED NOMINAL FILM THICKNESS.

H. THE DRY FILM THICKNESS OF THE PRIMER SHALL BE 2.0 MILS.

I. IF THE PRIMER IS DAMAGED BY WELDING OR PHYSICAL ABUSE, THE AREA SHALL BE TOUCHED–UP AND REPAIRED. THE TOUCHUP PAINT SHALL BE COMPATIBLE WITH THE APPLIED PRIMER WITH MINIMUM DRY FILM THICKNESS OF 1.5 MILS.

3.3 INSTALLATION:

A. INSTALLATION OF STRUCTURAL STEEL SHALL COMPLY WITH AISC "CODE OF STANDARD PRACTICE."

B. STRUCTURAL FIELD WELDING SHALL BE DONE BY THE ELECTRIC SUBMERGED OR SHIELDED METAL ARC PROCESS. WELDED CONSTRUCTION SHALL COMPLY WITH AWS D1.1.

C. PROVIDE ANCHOR BOLTS AND OTHER CONNECTORS REQUIRED FOR SECURING STRUCTURAL STEEL TO ELEVATOR SHAFT WALLS AND OTHER IN–PLACE WORK. PROVIDE TEMPLATES AND OTHER DEVICES NECESSARY FOR PRESETTING BOLTS AND ANCHORS TO ACCURATE LOCATIONS.

D. SPLICE MEMBERS ONLY WHERE INDICATED ON THE DRAWINGS.

E. ANY GAS CUTTING TORCHES HAVE TO BE APPROVED IN WRITING BY THE PROJECT STRUCTURAL ENGINEER.

F. PROVIDE TEMPORARY SHORING BRACING WITH CONNECTIONS OF SUFFICIENT STRENGTH TO BEAR IMPOSED LOADS. REMOVE TEMPORARY CONNECTIONS AND MEMBERS WHEN PERMANENT MEMBERS ARE IN PLACE AND THE FINAL CONNECTIONS HAVE BEEN MADE.

G. ALIGN AND ADJUST MEMBERS, AND OTHER SURFACES WHICH WILL BE IN PERMANENT CONTACT, BEFORE ASSEMBLY.

H. HIGH–STRENGTH BOLTS, AT A MINIMUM, SHALL BE TIGHTENED TO A "SNUG TIGHT" CONDITION AS DEFINED IN THE LATEST AISC SPECIFICATION. ALL HIGH–STRENGTH BOLTS SPECIFIED ON THE DESIGN DRAWINGS TO BE USED IN PRETENSIONED OR SLIP–CRITICAL JOINTS SHALL BE TIGHTENED TO A BOLT TENSION NOT LESS THAN THAT GIVEN IN AISC TABLE J3.1. INSTALLATION SHALL BE BY ANY OF THE FOLLOWING METHODS: TURN–OF NUT METHOD, A DIRECT–TENSION–INDICATOR, TWIST–OFF–TYPE TENSION–CONTROL BOLT, CALIBRATED WRENCH, OR ALTERNATIVE DESIGN BOLT.

APPLICANT/OWNER:

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PREPARED BY:

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PROJECT NUMBER: 129321

STATE OF OHIO
JOSHUA TURNER
PE.85331
REGISTERED PROFESSIONAL ENGINEER
06/30/2022

LANDLORD/PROPERTY OWNER SIGNATURE

REV	DATE	DESCRIPTION
0	06.29.22	ISSUED FOR CONSTRUCTION

PROJECT LOCATION: USID (975)

C&M HAVEN INC.

12400 MADISON AVENUE
LAKEWOOD, OH 44107

DRAWING DESCRIPTION:

STRUCTURAL NOTES

DRAWING NUMBER:

T-5

ANTENNA MOUNTING

1. DESIGN AND CONSTRUCTION OF ANTENNA SUPPORTS SHALL CONFORM TO CURRENT ANSI/TIA-222 OR APPLICABLE LOCAL CODES.
2. ALL STEEL MATERIALS SHALL BE GALVANIZED AFTER FABRICATION IN ACCORDANCE WITH ASTM A123 "ZINC (HOT-DIP GALVANIZED) COATINGS ON IRON AND STEEL PRODUCTS", UNLESS NOTED OTHERWISE.
3. ALL BOLTS, ANCHORS AND MISCELLANEOUS HARDWARE SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A153 "ZINC-COATING (HOT-DIP) ON IRON AND STEEL HARDWARE", UNLESS NOTED OTHERWISE.
4. DAMAGED GALVANIZED SURFACES SHALL BE REPAIRED BY COLD GALVANIZING IN ACCORDANCE WITH ASTM A780.
5. ALL ANTENNA MOUNTS SHALL BE INSTALLED WITH LOCK NUTS, LOCK WASHERS, OR DOUBLE NUTS AND SHALL BE TORQUED TO MANUFACTURER'S RECOMMENDATIONS.
6. CONTRACTOR SHALL INSTALL ANTENNA PER MANUFACTURER'S RECOMMENDATION FOR INSTALLATION AND GROUNDING.
7. ALL UNUSED PORTS ON ANY ANTENNAS SHALL BE TERMINATED WITH A 50-OHM LOAD TO ENSURE ANTENNAS PERFORM AS DESIGNED.
8. PRIOR TO SETTING ANTENNA AZIMUTHS AND DOWNTILTS, ANTENNA CONTRACTOR SHALL CHECK THE ANTENNA MOUNT FOR TIGHTNESS AND ENSURE THAT THEY ARE PLUMB. ANTENNA AZIMUTHS SHALL BE SET FROM TRUE NORTH AND BE ORIENTED WITHIN +/- 5% AS DEFINED BY THE RFDS. ANTENNA DOWNTILTS SHALL BE WITHIN +/- 0.5% AS DEFINED BY THE RFDS. REFER TO ND-00246.
9. JUMPERS FROM THE TMA'S MUST TERMINATE TO OPPOSITE POLARIZATIONS IN EACH SECTOR.
10. CONTRACTOR SHALL RECORD THE SERIAL #, SECTOR, AND POSITION OF EACH ACTUATOR INSTALLED AT THE ANTENNAS AND PROVIDE THE INFORMATION TO AT&T.
11. TMA'S SHALL BE MOUNTED ON PIPE DIRECTLY BEHIND ANTENNAS AS CLOSE TO ANTENNA AS FEASIBLE IN A VERTICAL POSITION.

TORQUE REQUIREMENTS

12. ALL RF CONNECTIONS SHALL BE TIGHTENED BY A TORQUE WRENCH.
13. ALL 8M ANTENNA HARDWARE SHALL BE TIGHTENED TO 9 LB-FT (12 NM).
14. ALL 12M ANTENNA HARDWARE SHALL BE TIGHTENED TO 43 LB-FT (58 NM).
15. ALL GROUNDING HARDWARE SHALL BE TIGHTENED UNTIL THE LOCK WASHER COLLAPSES AND THE GROUNDING HARDWARE IS NO LONGER LOOSE.
16. ALL DIN TYPE CONNECTIONS SHALL BE TIGHTENED TO 18-22 LB-FT (24.4 - 29.8 NM).
17. ALL N TYPE CONNECTIONS SHALL BE TIGHTENED TO 15-20 LB-IN (1.7 - 2.3 NM).

FIBER & POWER CABLE MOUNTING

18. THE FIBER OPTIC TRUNK CABLES SHALL BE INSTALLED INTO CONDUITS, CHANNEL CABLE TRAYS, OR CABLE TRAY. WHEN INSTALLING FIBER OPTIC TRUNK CABLES INTO A CABLE TRAY SYSTEM, THEY SHALL BE INSTALLED INTO AN INTER DUCT AND A PARTITION BARRIER SHALL BE INSTALLED BETWEEN THE 600 VOLT CABLES AND THE INTER DUCT IN ORDER TO SEGREGATE CABLE TYPES. OPTIC FIBER TRUNK CABLES SHALL HAVE APPROVED CABLE RESTRAINTS EVERY (60) SIXTY FEET AND SECURELY FASTENED TO THE CABLE TRAY SYSTEM. NFPA 70 (NEC) ARTICLE 770 RULES SHALL APPLY.
19. THE TYPE TC-ER CABLES SHALL BE INSTALLED INTO CONDUITS, CHANNEL CABLE TRAYS, OR CABLE TRAY AND SHALL BE SECURED AT INTERVALS NOT EXCEEDING (6) SIX FEET. AN EXCEPTION; WHERE TYPE TC-ER CABLES ARE NOT SUBJECT TO PHYSICAL DAMAGE, CABLES SHALL BE PERMITTED TO MAKE A TRANSITION BETWEEN CONDUITS, CHANNEL CABLE TRAYS, OR CABLE TRAY WHICH ARE SERVING UTILIZATION EQUIPMENT OR DEVICES, A DISTANCE (6) SIX FEET SHALL NOT BE EXCEEDED WITHOUT CONTINUOUS SUPPORTING. NFPA 70 (NEC) ARTICLES 336 AND 392 RULES SHALL APPLY.
20. WHEN INSTALLING OPTIC FIBER TRUNK CABLES OR TYPE TC-ER CABLES INTO CONDUITS, NFPA 70 (NEC) ARTICLE 300 RULES SHALL APPLY.

COAXIAL CABLE NOTES

21. TYPES AND SIZES OF THE ANTENNA CABLE ARE BASED ON ESTIMATED LENGTHS. PRIOR TO ORDERING CABLE, CONTRACTOR SHALL VERIFY ACTUAL LENGTH BASED ON CONSTRUCTION LAYOUT AND NOTIFY THE PROJECT MANAGER IF ACTUAL LENGTHS EXCEED ESTIMATED LENGTHS.
22. CONTRACTOR SHALL VERIFY THE DOWN-TILT OF EACH ANTENNA WITH A DIGITAL LEVEL.
23. CONTRACTOR SHALL CONFIRM COAX COLOR CODING PRIOR TO CONSTRUCTION. REFER TO "ANTENNA SYSTEM LABELING STANDARD" ND-00027 LATEST VERSION.
24. ALL JUMPERS TO THE ANTENNAS FROM THE MAIN TRANSMISSION LINE SHALL BE 1/2" DIA. LDF AND SHALL NOT EXCEED 6'-0".
25. ALL COAXIAL CABLE SHALL BE SECURED TO THE DESIGNED SUPPORT STRUCTURE, IN AN APPROVED MANNER, AT DISTANCES NOT TO EXCEED 4'-0" OC.
26. CONTRACTOR SHALL FOLLOW ALL MANUFACTURER'S RECOMMENDATIONS REGARDING BOTH THE INSTALLATION AND GROUNDING OF ALL COAXIAL CABLES, CONNECTORS, ANTENNAS, AND ALL OTHER EQUIPMENT.
27. CONTRACTOR SHALL WEATHERPROOF ALL ANTENNA CONNECTORS WITH SELF AMALGAMATING TAPE. WEATHERPROOFING SHALL BE COMPLETED IN STRICT ACCORDANCE WITH AT&T STANDARDS.
28. CONTRACTOR SHALL GROUND ALL EQUIPMENT. INCLUDING ANTENNAS, RET MOTORS, TMA'S, COAX CABLES, AND RET CONTROL CABLES AS A COMPLETE SYSTEM. GROUNDING SHALL BE EXECUTED BY QUALIFIED WIREMEN IN COMPLIANCE WITH MANUFACTURER'S SPECIFICATION AND RECOMMENDATION.
29. CONTRACTOR SHALL PROVIDE STRAIN-RELIEF AND CABLE SUPPORTS FOR ALL CABLE ASSEMBLIES, COAX CABLES, AND RET CONTROL CABLES. CABLE STRAIN-RELIEFS AND CABLE SUPPORTS SHALL BE APPROVED FOR THE PURPOSE. INSTALLATION SHALL BE IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS AND RECOMMENDATIONS.
30. CONTRACTOR TO VERIFY THAT EXISTING COAX HANGERS ARE STACKABLE SNAP IN HANGERS. IF EXISTING HANGERS ARE NOT STACKABLE SNAP IN HANGERS THE CONTRACTOR SHALL REPLACE EXISTING HANGERS WITH NEW SNAP IN HANGERS IF APPLICABLE.

GENERAL CABLE AND EQUIPMENT NOTES

31. CONTRACTOR SHALL BE RESPONSIBLE TO VERIFY ANTENNA, TMAS, DIPLEXERS, AND COAX CONFIGURATION, MAKE AND MODELS PRIOR TO INSTALLATION.
32. ALL CONNECTIONS FOR HANGERS, SUPPORTS, BRACING, ETC. SHALL BE INSTALLED PER TOWER MANUFACTURER'S RECOMMENDATIONS.
33. CONTRACTOR SHALL REFERENCE THE TOWER STRUCTURAL ANALYSIS/DESIGN DRAWINGS FOR DIRECTIONS ON CABLE DISTRIBUTION/ROUTING.
34. ALL OUTDOOR RF CONNECTORS/CONNECTIONS SHALL BE WEATHERPROOFED, EXCEPT THE RET CONNECTORS, USING BUTYL TAPE AFTER INSTALLATION AND FINAL CONNECTIONS ARE MADE. BUTYL TAPE SHALL HAVE A MINIMUM OF ONE-HALF TAPE WIDTH OVERLAP ON EACH TURN AND EACH LAYER SHALL BE WRAPPED THREE TIMES. WEATHERPROOFING SHALL BE SMOOTH WITHOUT BUCKLING. BUTYL BLEEDING IS NOT ALLOWED.
35. IF REQUIRED TO PAINT ANTENNAS AND/OR COAX:
    A. TEMPERATURE SHALL BE ABOVE 50° F.
    B. PAINT COLOR MUST BE APPROVED BY BUILDING OWNER/LANDLORD.
    C. FOR REGULATED TOWERS, FAA/FCC APPROVED PAINT IS REQUIRED.
    D. DO NOT PAINT OVER COLOR CODING OR ON EQUIPMENT MODEL NUMBERS.
36. ALL CABLES SHALL BE GROUNDED WITH COAXIAL CABLE GROUND KITS. FOLLOW THE MANUFACTURER'S RECOMMENDATIONS.
    A. GROUNDING AT THE ANTENNA LEVEL.
    B. GROUNDING AT MID LEVEL, TOWERS WHICH ARE OVER 200'-0", ADDITIONAL CABLE GROUNDING REQUIRED.
    C. GROUNDING AT BASE OF TOWER PRIOR TO TURNING HORIZONTAL.
    D. GROUNDING OUTSIDE THE EQUIPMENT SHELTER AT ENTRY PORT.
    E. GROUNDING INSIDE THE EQUIPMENT SHELTER AT THE ENTRY PORT.
37. ALL PROPOSED GROUND BAR DOWNLEADS ARE TO BE TERMINATED TO THE EXISTING ADJACENT GROUND
38. BAR DOWNLEADS A MINIMUM DISTANCE OF 4'-0" BELOW GROUND BAR. TERMINATIONS MAY BE EXOTHERMIC OR COMPRESSION.
39. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE ANTENNA AND THE COAX CONFIGURATION IS THE CORRECT MAKE AND MODELS, PRIOR TO INSTALLATION.
40. ALL CONNECTIONS FOR HANGERS, SUPPORTS, BRACING, ETC. SHALL BE INSTALLED PER TOWER MANUFACTURER'S SPECIFICATION & RECOMMENDATIONS.

GROUNDING NOTES

41. GROUNDING IS SHOWN DIAGRAMMATICALLY ONLY.
42. CONTRACTOR SHALL GROUND ALL EQUIPMENT AS A COMPLETE SYSTEM. GROUNDING SHALL BE IN COMPLIANCE WITH NEC SECTION 250 AND AT&T GROUNDING AND BONDING REQUIREMENTS (ATT-TP-76416) AND MANUFACTURER'S SPECIFICATIONS.
43. ALL GROUND CONDUCTORS SHALL BE COPPER; NO ALUMINUM CONDUCTORS SHALL BE USED.
44. ALL CABLES SHALL BE GROUNDED WITH COAXIAL CABLE GROUNDING KITS. FOLLOW THE MANUFACTURER'S RECOMMENDATIONS.
    A. GROUNDING AT THE ANTENNA LEVEL.
    B. GROUNDING AT MID LEVEL, TOWERS WHICH ARE OVER 200', ADDITIONAL CABLE GROUNDING REQUIRED.
    C. GROUNDING AT BASE OF TOWER PRIOR TO TURNING HORIZONTAL.
    D. GROUNDING OUTSIDE THE EQUIPMENT SHELTER AT ENTRY PORT.
    E. GROUNDING INSIDE THE EQUIPMENT SHELTER AT THE ENTRY PORT.
45. ALL PROPOSED GROUNDING BAR DOWNLEADS ARE TO BE TERMINATED TO THE EXISTING ADJACENT GROUNDING BAR DOWNLEADS A MINIMUM DISTANCE OF 4'-0" BELOW GROUNDING BAR. TERMINATIONS MAY BE EXOTHERMIC OR COMPRESSION.

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PROJECT NUMBER: 129321

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LANDLORD/PROPERTY OWNER SIGNATURE

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PROJECT LOCATION: USID (975)

C&M HAVEN INC.

12400 MADISON AVENUE
LAKEWOOD, OH 44107

DRAWING DESCRIPTION:

EQUIPMENT NOTES

DRAWING NUMBER:

T-6

PART 1 – GENERAL

1.1 GENERAL CONDITIONS:

A. CONTRACTOR SHALL INSPECT THE EXISTING SITE CONDITIONS PRIOR TO SUBMITTING BID. ANY QUESTIONS ARISING DURING THE BID PERIOD IN REGARDS TO THE CONTRACTORS FUNCTIONS, THE SCOPE OF WORK, OR ANY OTHER ISSUE RELATED TO THIS PROJECT SHALL BE BROUGHT UP DURING THE BID PERIOD WITH THE PROJECT MANAGER FOR CLARIFICATION, NOT AFTER THE CONTRACT HAS BEEN AWARDED.

B. THE CONTRACTOR SHALL OBTAIN PERMITS, LICENSES, MAKE ALL DEPOSITS, AND PAY ALL FEES REQUIRED FOR THE CONSTRUCTION PERFORMANCE FOR THE WORK UNDER THIS SECTION.

C. DRAWINGS SHOW THE GENERAL ARRANGEMENT OF ALL SYSTEMS AND COMPONENTS COVERED UNDER THIS SECTION. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS. DRAWING SHALL NOT BE SCALED TO DETERMINE DIMENSIONS.

1.2 LAWS, REGULATIONS, ORDINANCES, STATUTES AND CODES.

A. ALL WORK SHALL BE INSTALLED IN ACCORDANCE WITH THE LATEST EDITION OF THE NATIONAL ELECTRICAL CODE, AND ALL APPLICABLE LOCAL LAWS, REGULATIONS, ORDINANCES, STATUTES AND CODES. CONDUIT BENDS SHALL BE THE RADIUS BEND FOR THE TRADE SIZE OF CONDUIT IN COMPLIANCE WITH THE LATEST EDITIONS OF NEC.

1.3 REFERENCES:

A. THE PUBLICATIONS LISTED BELOW ARE PART OF THIS SPECIFICATION. EACH PUBLICATION SHALL BE THE LATEST REVISION AND ADDENDUM IN EFFECT ON THE DATE. THIS SPECIFICATION IS ISSUED FOR CONSTRUCTION UNLESS OTHERWISE NOTED. EXCEPT AS MODIFIED BY THE REQUIREMENT SPECIFIED HEREIN OR THE DETAILS OF THE DRAWINGS, WORK INCLUDED IN THIS SPECIFICATION SHALL CONFORM TO THE APPLICABLE PROVISION OF THESE PUBLICATIONS.

1. ANSI/IEEE (AMERICAN NATIONAL STANDARDS INSTITUTE)
2. ASTM (AMERICAN SOCIETY FOR TESTING AND MATERIALS)
3. ICEA (INSULATED CABLE ENGINEERS ASSOCIATION)
4. NEMA (NATIONAL ELECTRICAL MANUFACTURER'S ASSOCIATION)
5. NFPA (NATIONAL FIRE PROTECTION ASSOCIATION)
6. OSHA (OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION)
7. UL (UNDERWRITERS LABORATORIES INC.)
8. AT&T GROUNDING AND BONDING STANDARDS TP-76416

1.4 SCOPE OF WORK

A. WORK UNDER THIS SECTION SHALL CONSIST OF FURNISHING ALL LABOR, MATERIAL, AND ASSOCIATED SERVICES REQUIRED TO COMPLETE REQUIRED CONSTRUCTION AND BE OPERATIONAL.

B. ALL ELECTRICAL EQUIPMENT UNDER THIS CONTRACT SHALL BE PROPERLY TESTED, ADJUSTED, AND ALIGNED BY THE CONTRACTOR.

C. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL EXCAVATING, DRAINING, TRENCHES, BACKFILLING, AND REMOVAL OF EXCESS DIRT.

D. THE CONTRACTOR SHALL FURNISH TO THE OWNER WITH CERTIFICATES OF A FINAL INSPECTION AND APPROVAL FROM THE INSPECTION AUTHORITIES HAVING JURISDICTION.

E. THE CONTRACTOR SHALL PREPARE A COMPLETE SET OF AS-BUILT DRAWINGS, DOCUMENT ALL WIRING EQUIPMENT CONDITIONS, AND CHANGES WHILE COMPLETING THIS CONTRACT. THE AS-BUILT DRAWINGS SHALL BE SUBMITTED AT COMPLETION OF THE PROJECT.

PART 2 – PRODUCTS

2.1 GENERAL:

A. ALL MATERIALS AND EQUIPMENT SHALL BE UL LISTED, NEW, AND FREE FROM DEFECTS.

B. ALL ITEMS OF MATERIALS AND EQUIPMENT SHALL BE ACCEPTABLE TO THE AUTHORITY HAVING JURISDICTION AS SUITABLE FOR THE USE INTENDED.

C. ALL EQUIPMENT SHALL BEAR THE UNDERWRITERS LABORATORIES LABEL OF APPROVAL, AND SHALL CONFORM TO REQUIREMENT OF THE NATIONAL ELECTRICAL CODE.

D. ALL OVERCURRENT DEVICES SHALL HAVE AN INTERRUPTING CURRENT RATING THAT SHALL BE GREATER THAN THE SHORT CIRCUIT CURRENT TO WHICH THEY ARE SUBJECTED, 10,000 AIC MINIMUM. VERIFY AVAILABLE SHORT CIRCUIT CURRENT DOES NOT EXCEED THE RATING OF ELECTRICAL EQUIPMENT IN ACCORDANCE WITH ARTICLE 110.24 NEC OR THE MOST CURRENT ADOPTED CODE PER THE GOVERNING JURISDICTION.

2.2 MATERIALS AND EQUIPMENT:

A. CONDUIT:

1. RIGID METAL CONDUIT (RMC) SHALL BE HOT-DIPPED GALVANIZED INSIDE AND OUTSIDE INCLUDING ENDS AND THREADS AND ENAMELED OR LACQUERED INSIDE IN ADDITION TO GALVANIZING.
2. LIQUIDTIGHT FLEXIBLE METAL CONDUIT SHALL BE UL LISTED.
3. CONDUIT CLAMPS, STRAPS AND SUPPORTS SHALL BE STEEL OR MALLEABLE IRON. ALL FITTINGS SHALL BE COMPRESSION AND CONCRETE TIGHT TYPE. GROUNDING BUSHINGS WITH INSULATED THROATS SHALL BE INSTALLED ON ALL CONDUIT TERMINATIONS.
4. NONMETALLIC CONDUIT AND FITTINGS SHALL BE SCHEDULE 40 PVC. INSTALL USING SOLVENT-CEMENT-TYPE JOINTS AS RECOMMENDED BY THE MANUFACTURER.

B. CONDUCTORS AND CABLE:

1. CONDUCTORS AND CABLE SHALL BE FLAME-RETARDANT, MOISTURE AND HEAT RESISTANT THERMOPLASTIC, SINGLE CONDUCTOR, COPPER, TYPE THHN/THWN-2, 600 VOLT, SIZE AS INDICATED, #12 AWG SHALL BE THE MINIMUM SIZE CONDUCTOR USED.
2. #10 AWG AND SMALLER CONDUCTOR SHALL BE SOLID OR STRANDED AND #8 AWG AND LARGER CONDUCTORS SHALL BE STRANDED.
3. SOLDERLESS, COMPRESSION-TYPE CONNECTORS SHALL BE USED FOR TERMINATION OF ALL STRANDED CONDUCTORS.
4. STRAIN-RELIEF SUPPORTS GRIPS SHALL BE HUBBELL KELLEMS OR APPROVED EQUAL. CABLES SHALL BE SUPPORTED IN ACCORDANCE WITH THE NEC AND CABLE MANUFACTURER'S RECOMMENDATIONS.
5. ALL CONDUCTORS SHALL BE TAGGED AT BOTH ENDS OF THE CONDUCTOR, AT ALL PULL BOXES, J-BOXES, EQUIPMENT AND CABINETS AND SHALL BE IDENTIFIED WITH APPROVED PLASTIC TAGS (ACTION CRAFT, BRADY, OR APPROVED EQUAL).

C. DISCONNECT SWITCHES:

1. DISCONNECT SWITCHES SHALL BE HEAVY DUTY, DEAD-FRONT, QUICK-MAKE, QUICK-BREAK, EXTERNALLY OPERABLE, HANDLE LOCKABLE AND INTERLOCK WITH COVER IN CLOSED POSITION, RATING AS INDICATED, UL LABELED FURNISHED IN NEMA 3R ENCLOSURE, SQUARE-D OR ENGINEER APPROVED EQUAL.

D. CHEMICAL ELECTROLYTIC GROUNDING SYSTEM:

1. INSTALL CHEMICAL GROUNDING AS REQUIRED. THE SYSTEM SHALL BE ELECTROLYTIC MAINTENANCE FREE ELECTRODE CONSISTING OF RODS WITH A MINIMUM #2 AWG CU EXOTHERMICALLY WELDED PIGTAIL, PROTECTIVE BOXES, AND BACKFILL MATERIAL. MANUFACTURER SHALL BE LYNCOLE XIT GROUNDING ROD TYPES K2-(*)CS OR K2L-(*)CS (*) LENGTH AS REQUIRED.
2. GROUND ACCESS BOX SHALL BE A POLYPLASTIC BOX FOR NON-TRAFFIC APPLICATIONS, INCLUDING BOLT DOWN FLUSH COVER WITH "BREATHER" HOLES, XIT MODEL #XB-22. ALL DISCONNECT SWITCHES AND CONTROLLING DEVICES SHALL BE PROVIDED WITH ENGRAVED LAMICOID NAMEPLATES INDICATING EQUIPMENT CONTROLLED, BRANCH CIRCUITS ID NUMBERING, AND THE ELECTRICAL POWER SOURCE.
3. BACKFILL MATERIAL SHALL BE LYNCONITE AND LYNCOLE GROUNDING GRAVEL.

E. SYSTEM GROUNDING:

1. ALL GROUNDING COMPONENTS SHALL BE TINNED AND GROUNDING CONDUCTOR SHALL BE #2 AWG BARE, SOLID, TINNED, COPPER. ABOVE GRADE GROUNDING CONDUCTORS SHALL BE INSULATED WHERE NOTED.
2. GROUNDING BUSES SHALL BE BARE, TINNED, ANNEALED COPPER BARS OF RECTANGULAR CROSS SECTION. STANDARD BUS BARS MGB, SHALL BE FURNISHED AND INSTALLED BY THE CONTRACTOR. THEY SHALL NOT BE FABRICATED OR MODIFIED IN THE FIELD. ALL GROUNDING BUSES SHALL BE IDENTIFIED WITH MINIMUM 3/4" LETTERS BY WAY OF STENCILING OR DESIGNATION PLATE.
3. CONNECTORS SHALL BE HIGH-CONDUCTIVITY, HEAVY DUTY, LISTED AND LABELED AS GROUNDING CONNECTORS FOR THE MATERIALS USED. USE TWO-HOLE COMPRESSION LUGS WITH HEAT SHRINK FOR MECHANICAL CONNECTIONS. INTERIOR CONNECTIONS USE TWO-HOLE COMPRESSION LUGS WITH INSPECTION WINDOW AND CLEAR HEAT SHRINK.
4. EXOTHERMIC WELDED CONNECTIONS SHALL BE PROVIDED IN KIT FORM AND SELECTED FOR THE SPECIFIC TYPES, SIZES, AND COMBINATIONS OF CONDUCTORS AND OTHER ITEMS TO BE CONNECTED.
5. GROUND RODS SHALL BE COPPER-CLAD STEEL WITH HIGH-STRENGTH STEEL CORE AND ELECTROLYTIC-GRADE COPPER OUTER SHEATH, MOLTEN WELDED TO CORE, 5/8"x10'-0". ALL GROUNDING RODS SHALL BE INSTALLED WITH INSPECTION SLEEVES.
6. INSTALL AN EQUIPMENT GROUNDING CONDUCTOR IN ALL CONDUITS IN COMPLIANCE WITH THE AT&T SPECIFICATIONS AND NEC. THE EQUIPMENT GROUNDING CONDUCTORS SHALL BE BONDED AT ALL JUNCTION BOXES, PULLBOXES, DISCONNECT SWITCHES, STARTERS, AND EQUIPMENT CABINETS.

F. OTHER MATERIALS:

1. THE CONTRACTOR SHALL PROVIDE OTHER MATERIALS, THOUGH NOT SPECIFICALLY DESCRIBED, WHICH ARE REQUIRED FOR A COMPLETELY OPERATIONAL SYSTEM AND PROPER INSTALLATION OF THE WORK.
2. PROVIDE PULL BOXES AND JUNCTION BOXES WHERE SHOWN OR REQUIRED BY NEC.

G. PANELS AND LOAD CENTERS:

1. ALL PANEL DIRECTORIES SHALL BE TYPEWRITTEN.

PART 3 – EXECUTION

3.1 GENERAL:

A. ALL MATERIAL AND EQUIPMENT SHALL BE INSTALLED IN STRICT ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.

B. EQUIPMENT SHALL BE TIGHTLY COVERED AND PROTECTED AGAINST DIRT OR WATER, AND AGAINST CHEMICAL OR MECHANICAL INJURY DURING INSTALLATION AND CONSTRUCTION PERIODS.

3.2 LABOR AND WORKMANSHIP:

A. ALL LABOR FOR THE INSTALLATION OF MATERIALS AND EQUIPMENT FURNISHED FOR THE ELECTRICAL SYSTEM SHALL BE INSTALLED BY EXPERIENCED WIREMEN, IN A NEAT AND WORKMAN-LIKE MANNER.

B. ALL ELECTRICAL EQUIPMENT SHALL BE ADJUSTED, ALIGNED AND TESTED BY THE CONTRACTOR AS REQUIRED TO PRODUCE THE INTENDED PERFORMANCE.

C. UPON COMPLETION OF WORK, THE CONTRACTOR SHALL THOROUGHLY CLEAN ALL EXPOSED EQUIPMENT, REMOVE ALL LABELS AND ANY DEBRIS, CRATING OR CARTONS AND LEAVE THE INSTALLATION FINISHED AND READY FOR OPERATION.

3.3 COORDINATION:

A. THE CONTRACTOR SHALL COORDINATE THE INSTALLATION OF ELECTRICAL ITEMS WITH THE OWNER-FURNISHED EQUIPMENT DELIVERY SCHEDULE TO PREVENT UNNECESSARY DELAYS IN THE TOTAL WORK.

3.4 INSTALLATION:

A. CONDUIT:

1. ALL ELECTRICAL WIRING SHALL BE INSTALLED IN CONDUIT AS SPECIFIED. NO CONDUIT OR TUBING OF LESS THAN 3/4 INCH TRADE SIZE.
2. PROVIDE RIGID PVC SCHEDULE 80 CONDUITS FOR ALL RISERS, RMC OTHERWISE NOTED. EMT MAY BE INSTALLED FOR EXTERIOR CONDUITS WHERE NOT SUBJECT TO PHYSICAL DAMAGE.
3. INSTALL SCHEDULE 40 PVC CONDUIT WITH A MINIMUM COVER OF 24" UNDER ROADWAYS, PARKING LOTS, STREETS, AND ALLEYS. CONDUIT SHALL HAVE A MINIMUM COVER OF 18" IN ALL OTHER NON-TRAFFIC APPLICATIONS (REFER TO LATEST NEC, TABLE 300.5).
4. USE GALVANIZED FLEXIBLE STEEL CONDUIT WHERE DIRECT CONNECTION TO EQUIPMENT WITH MOVEMENT, VIBRATION, OR FOR EASE OF MAINTENANCE. USE LIQUID TIGHT, FLEXIBLE METAL CONDUIT FOR OUTDOOR APPLICATIONS. INSTALL GALVANIZED FLEXIBLE STEEL CONDUIT AT ALL POINTS OF CONNECTION TO EQUIPMENT MOUNTED ON SUPPORT TO ALLOW FOR EXPANSION AND CONTRACTION.
5. A RUN OF CONDUIT BETWEEN BOXES OR EQUIPMENT SHALL NOT CONTAIN MORE THAN THE EQUIVALENT OF THREE QUARTER-BENDS. CONDUIT BEND SHALL BE MADE WITH THE UL LISTED BENDER OR FACTORY 90 DEGREE ELBOWS MAY BE USED.
6. FIELD FABRICATED CONDUITS SHALL BE CUT SQUARE WITH A CONDUIT CUTTING TOOL AND REAMED TO PROVIDE A SMOOTH INSIDE SURFACE.
7. PROVIDE INSULATED GROUNDING BUSHING FOR ALL CONDUITS.
8. CONTRACTOR IS RESPONSIBLE FOR PROTECTING ALL CONDUITS DURING CONSTRUCTION. TEMPORARY OPENINGS IN THE CONDUIT SYSTEM SHALL BE PLUGGED OR CAPPED TO PREVENT ENTRANCE OF MOISTURE OR FOREIGN MATTER. CONTRACTOR SHALL REPLACE ANY CONDUITS CONTAINING FOREIGN MATERIALS THAT CANNOT BE REMOVED.
9. ALL CONDUITS SHALL BE SWABBED CLEAN BY PULLING AN APPROPRIATE SIZE MANDREL THROUGH THE CONDUIT BEFORE INSTALLATION OF CONDUCTORS OR CABLES. CONDUIT SHALL BE FREE OF DIRT AND DEBRIS.
10. INSTALL PULL STRINGS IN ALL CLEAN EMPTY CONDUITS. IDENTIFY PULL STRINGS AT EACH END.
11. INSTALL 2" HIGHLY VISIBLE AND DETECTABLE TAPE 12" ABOVE ALL UNDERGROUND CONDUITS AND CONDUCTORS.
12. CONDUITS SHALL BE INSTALLED IN SUCH A MANNER AS TO ENSURE AGAINST COLLECTION OF TRAPPED CONDENSATION.
13. PROVIDE CORE DRILLING AS NECESSARY FOR PENETRATIONS TO ALLOW FOR RACEWAYS AND CABLES TO BE ROUTED THROUGH THE BUILDING. DO NOT PENETRATE STRUCTURAL MEMBERS. SLEEVES AND/OR PENETRATIONS IN FIRE RATED CONSTRUCTION SHALL BE EFFECTIVELY SEALED WITH FIRE RATED MATERIAL WHICH SHALL MAINTAIN THE FIRE RATING OF THE WALL OR STRUCTURE. FIRE STOPS AT FLOOR PENETRATIONS SHALL PREVENT PASSAGE OF WATER, SMOKE, FIRE, AND FUMES. ALL MATERIAL SHALL BE UL APPROVED FOR THIS PURPOSE.

B. CONDUCTORS AND CABLE:

1. ALL POWER WIRING SHALL BE COLOR CODED AS FOLLOWS:

DESCRIPTION	208/240/120 VOLT SYSTEMS
PHASE A	BLACK
PHASE B	RED
PHASE C	BLUE
NEUTRAL	WHITE
GROUNDING	GREEN

2. SPLICES SHALL BE MADE ONLY AT OUTLETS, JUNCTION BOXES, OR ACCESSIBLE RACEWAY CONDUITS APPROVED FOR THIS PURPOSE.
3. PULLING LUBRICANTS SHALL BE UL APPROVED. CONTRACTOR SHALL USE NYLON OR HEMP ROPE FOR PULLING CONDUCTOR OR CABLES INTO THE CONDUIT.
4. CABLES SHALL BE NEATLY TRAINED, WITHOUT INTERLACING, AND BE OF SUFFICIENT LENGTH IN ALL BOXES & EQUIPMENT TO PERMIT MAKING A NEAT ARRANGEMENT. CABLES SHALL BE SECURED IN A MANNER TO AVOID TENSION ON CONDUCTORS OR TERMINALS. CONDUCTORS SHALL BE PROTECTED FROM MECHANICAL INJURY AND MOISTURE. SHARP BENDS OVER CONDUIT BUSHINGS IS PROHIBITED. DAMAGED CABLES SHALL BE REMOVED AND REPLACED AT THE CONTRACTOR'S EXPENSE.

C. DISCONNECT SWITCHES:

1. INSTALL DISCONNECT SWITCHES LEVEL AND PLUMB. CONNECT TO WIRING SYSTEM AND GROUNDING SYSTEM AS INDICATED.

D. GROUNDING:

1. ALL METALLIC PARTS OF ELECTRICAL EQUIPMENT WHICH DO NOT CARRY CURRENT SHALL BE GROUNDED IN ACCORDANCE WITH THE REQUIREMENTS OF THE BUILDING MANUFACTURER, AT&T GROUNDING AND BONDING STANDARDS TP-76416, ND-00135, AND THE NATIONAL ELECTRICAL CODE.
2. PROVIDE ELECTRICAL GROUNDING AND BONDING SYSTEM INDICATED WITH ASSEMBLY OF MATERIALS, INCLUDING GROUNDING ELECTRODES, BONDING JUMPERS AND ADDITIONAL ACCESSORIES AS REQUIRED FOR A COMPLETE INSTALLATION.
3. ALL GROUNDING CONDUCTORS SHALL PROVIDE A STRAIGHT DOWNWARD PATH TO GROUND WITH GRADUAL BEND AS REQUIRED. GROUNDING CONDUCTORS SHALL NOT BE LOOPED OR SHARPLY BENT. ROUTE GROUNDING CONNECTIONS AND CONDUCTORS TO GROUND IN THE SHORTEST AND STRAIGHTEST PATHS POSSIBLE TO MINIMIZE TRANSIENT VOLTAGE RISES.
4. BUILDINGS AND/OR NEW TOWERS GREATER THAN 75 FEET IN HEIGHT AND WHERE THE MAIN GROUNDING CONDUCTORS ARE REQUIRED TO BE ROUTED TO GRADE, THE CONTRACTOR SHALL ROUTE TWO GROUNDING CONDUCTORS FROM THE ROOFTOP, TOWERS, AND WATER TOWERS GROUNDING RING, TO THE EXISTING GROUNDING SYSTEM, THE GROUNDING CONDUCTORS SHALL NOT BE SMALLER THAN 2/0 AWG COPPER. ROOFTOP GROUNDING RING SHALL BE BONDED TO THE EXISTING GROUNDING SYSTEM, THE BUILDING STEEL COLUMNS, LIGHTNING PROTECTION SYSTEM, AND BUILDING MAIN WATER LINE (FERROUS OR NONFERROUS METAL PIPING ONLY). SEE STANDARD 6.3.2.2.
5. TIGHTEN GROUNDING AND BONDING CONNECTORS, INCLUDING SCREWS AND BOLTS, IN ACCORDANCE WITH MANUFACTURER'S PUBLISHED TORQUE TIGHTENING VALUES FOR CONNECTORS AND BOLTS. WHERE MANUFACTURER'S TORQUING REQUIREMENTS ARE NOT AVAILABLE, TIGHTEN CONNECTIONS TO COMPLY WITH TIGHTENING TORQUE VALUES SPECIFIED IN UL TO ASSURE PERMANENT AND EFFECTIVE GROUNDING.
6. CONTRACTOR SHALL VERIFY THE LOCATIONS OF GROUNDING TIE-IN-POINTS TO THE EXISTING GROUNDING SYSTEM. ALL UNDERGROUND GROUNDING CONNECTIONS SHALL BE MADE BY THE EXOTHERMIC WELD PROCESS AND INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS.
7. ALL GROUNDING CONNECTIONS SHALL BE INSPECTED FOR TIGHTNESS. EXOTHERMIC WELDED CONNECTIONS SHALL BE APPROVED BY THE INSPECTOR HAVING JURISDICTION BEFORE BEING PERMANENTLY CONCEALED.
8. APPLY CORROSION-RESISTANT FINISH TO FIELD CONNECTIONS AND PLACES WHERE FACTORY APPLIED PROTECTIVE COATINGS HAVE BEEN DESTROYED. USE KOPR-SHIELD ANTI-OXIDATION COMPOUND ON ALL COMPRESSION GROUNDING CONNECTIONS.
9. A SEPARATE, CONTINUOUS, INSULATED EQUIPMENT GROUNDING CONDUCTOR SHALL BE INSTALLED IN ALL FEEDER AND BRANCH CIRCUITS.
10. BOND ALL INSULATED GROUNDING BUSHINGS WITH A BARE #6 AWG GROUNDING CONDUCTOR TO A GROUND BUS.
11. DIRECT BURIED GROUNDING CONDUCTORS SHALL BE INSTALLED AT A NOMINAL DEPTH OF 36" MINIMUM BELOW GRADE, OR 6" BELOW THE FROST LINE, USE THE GREATER OF THE TWO DISTANCES.
12. ALL GROUNDING CONDUCTORS EMBEDDED IN OR PENETRATING CONCRETE SHALL BE INSTALLED IN SCHEDULE 40 PVC CONDUIT.
13. THE INSTALLATION OF CHEMICAL ELECTROLYTIC GROUNDING SYSTEM SHALL BE IN STRICT ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS. REMOVE SEALING TAPE FROM LEACHING AND BREATHER HOLES. INSTALL PROTECTIVE BOX FLUSH WITH GRADE.
14. DRIVE GROUND RODS UNTIL TOPS ARE A MINIMUM DISTANCE OF 36" DEPTH OR 6" BELOW FROST LINE, USING THE GREATER OF THE TWO DISTANCES.
15. IF COAX ON THE ICE BRIDGE IS MORE THAN 6 FT. FROM THE GROUNDING BAR AT THE BASE OF THE TOWER, A SECOND GROUNDING BAR WILL BE NEEDED AT THE END OF THE ICE BRIDGE, TO GROUND THE COAX CABLE GROUNDING KITS AND IN-LINE ARRESTORS.
16. CONTRACTOR SHALL REPAIR, AND/OR REPLACE, EXISTING GROUNDING SYSTEM COMPONENTS DAMAGED DURING CONSTRUCTION AT THE CONTRACTOR'S EXPENSE.

3.5 ACCEPTANCE TESTING:

A. CERTIFIED PERSONNEL USING CERTIFIED EQUIPMENT SHALL PERFORM REQUIRED TESTS AND SUBMIT WRITTEN TEST REPORTS UPON COMPLETION.

B. WHEN MATERIAL AND/OR WORKMANSHIP IS FOUND NOT TO COMPLY WITH THE SPECIFIED REQUIREMENTS, THE NON-COMPLYING ITEMS SHALL BE REMOVED FROM THE PROJECT SITE AND REPLACED WITH ITEMS COMPLYING WITH THE SPECIFIED REQUIREMENTS PROMPTLY AFTER RECEIPT OF NOTICE FOR NON-COMPLIANCE.

C. TEST PROCEDURES:

1. ALL FEEDERS SHALL HAVE INSULATION TESTED AFTER INSTALLATION, BEFORE CONNECTION TO DEVICES. THE CONDUCTORS SHALL TEST FREE FROM SHORT CIRCUITS AND GROUNDS. TESTING SHALL BE FOR ONE MINUTE USING 1000V DC. PROVIDE WRITTEN DOCUMENTATION FOR ALL TEST RESULTS.
2. PRIOR TO ENERGIZING CIRCUITRY, TEST WIRING DEVICES FOR ELECTRICAL CONTINUITY AND PROPER POLARITY CONNECTIONS.
3. MEASURE AND RECORD VOLTAGES BETWEEN PHASES AND BETWEEN PHASE CONDUCTORS AND NEUTRALS. SUBMIT A REPORT OF MAXIMUM AND MINIMUM VOLTAGES.
4. PERFORM GROUNDING TEST TO MEASURE GROUNDING RESISTANCE OF GROUNDING SYSTEM USING THE IEEE STANDARD 3-POINT "FALL-OF-POTENTIAL" METHOD. PROVIDE PLOTTED TEST VALUES AND LOCATION SKETCH. NOTIFY THE ENGINEER IMMEDIATELY IF MEASURED VALUE IS OVER 5 OHMS.

APPLICANT/OWNER:

AT&T MOBILITY

700 BELL STREET
AKRON, OH 44307

PREPARED BY:

BLACK & VEATCH

6800 W. 115TH ST, SUITE 2292
OVERLAND PARK, KANSAS 66211
(913) 458-2000

PROJECT NUMBER: 129321

STATE OF OHIO
JOSHUA TURNER
PE.85331
REGISTERED PROFESSIONAL ENGINEER
06/30/2022

LANDLORD/PROPERTY OWNER SIGNATURE

REV	DATE	DESCRIPTION
0	06.29.22	ISSUED FOR CONSTRUCTION

PROJECT LOCATION: USID (975)

C&M HAVEN INC.

12400 MADISON AVENUE
LAKEWOOD, OH 44107

DRAWING DESCRIPTION:

ELECTRICAL SECTION NOTES

DRAWING NUMBER:

E-1

EXOTHERMIC CONNECTION

MECHANICAL CONNECTION

CHEMICAL ELECTROLYTIC GROUNDING SYSTEM

TEST CHEMICAL ELECTROLYTIC GROUNDING SYSTEM

EXOTHERMIC WITH INSPECTION SLEEVE

GROUNDING BAR

GROUND ROD

TEST GROUND ROD WITH INSPECTION SLEEVE

SINGLE POLE SWITCH

DUPLEX RECEPTACLE

DUPLEX GFCI RECEPTACLE

FLUORESCENT LIGHTING FIXTURE
(2) TWO LAMPS 48–T8

SMOKE DETECTION (DC)

EMERGENCY LIGHTING (DC)

SECURITY LIGHT W/PHOTOCELL LITHONIA ALXW
LED–1–25A400/51K–SR4–120–PE–DDBTXD

CHAINLINK FENCE

WOOD/WROUGHT IRON FENCE

WALL STRUCTURE

LEASE AREA

PROPERTY LINE (PL)

SETBACKS

PROPOSED ICE BRIDGE

EXISTING ICE BRIDGE

EXISTING CABLE TRAY

WATER LINE

UNDERGROUND POWER

UNDERGROUND TELCO

OVERHEAD POWER

OVERHEAD TELCO

UNDERGROUND TELCO/POWER

ABOVE GROUND POWER

ABOVE GROUND TELCO

ABOVE GROUND TELCO/POWER

WORKPOINT

SECTION REFERENCE

DETAIL REFERENCE

PHOTO REFERENCE

AB	ANCHOR BOLT
ABV	ABOVE
AC	ALTERNATING CURRENT
ADDL	ADDITIONAL
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AIC	AMPERAGE INTERRUPTION CAPACITY
ALUM	ALUMINUM
ALT	ALTERNATE
ANT	ANTENNA
APPROX	APPROXIMATE
ARCH	ARCHITECTURAL
ATS	AUTOMATIC TRANSFER SWITCH
AWG	AMERICAN WIRE GAUGE
BATT	BATTERY
BLDG	BUILDING
BLK	BLOCK
BLKG	BLOCKING
BM	BEAM
BTC	BARE TINNED COPPER CONDUCTOR
BOF	BOTTOM OF FOOTING
CAB	CABINET
CANT	CANTILEVERED
CEC	CALIFORNIA ELECTRIC CODE
CHG	CHARGING
CLG	CEILING
CLR	CLEAR
COL	COLUMN
COMM	COMMON
CONC	CONCRETE
CONSTR	CONSTRUCTION
DBL	DOUBLE
DC	DIRECT CURRENT
DEPT	DEPARTMENT
DF	DOUGLAS FIR
DIA	DIAMETER
DIAG	DIAGONAL
DIM	DIMENSION
DWG	DRAWING
DWL	DOWEL
(E)	EXISTING
EA	EACH
EC	ELECTRICAL CONDUCTOR
EL	ELEVATION
ELEC	ELECTRICAL
EMT	ELECTRICAL METALLIC TUBING
ENG	ENGINEER
EQ	EQUAL
EXP	EXPANSION
EXT	EXTERIOR
FAB	FABRICATION
FF	FINISH FLOOR
FG	FINISH GRADE
FIF	FACILITY INTERFACE FRAME
FIN	FINISH(ED)
FLR	FLOOR
FDN	FOUNDATION
FOC	FACE OF CONCRETE
FOM	FACE OF MASONRY
FOS	FACE OF STUD
FOW	FACE OF WALL
FS	FINISH SURFACE
FT	FOOT
FTG	FOOTING
GA	GAUGE
GEN	GENERATOR
GFCI	GROUND FAULT CIRCUIT INTERRUPTER
GLB	GLUE LAMINATED BEAM
GLV	GALVANIZED
GPS	GLOBAL POSITIONING SYSTEM
GND	GROUND
GSM	GLOBAL SYSTEM FOR MOBILE
HDR	HEADER
HGR	HANGER
HVAC	HEAT/VENTILATION/AIR CONDITIONING
HT	HEIGHT
IGR	INTERIOR GROUND RING
IN	INCH
INT	INTERIOR
LB(S)	POUND(S)
LF	LINEAR FEET
LTE	LONG TERM EVOLUTION
MAS	MASONRY
MAX	MAXIMUM
MB	MACHINE BOLT
MECH	MECHANICAL
MFR	MANUFACTURER
MGB	MASTER GROUND BAR
MIN	MINIMUM
MISC	MISCELLANEOUS
MTL	METAL
MTS	MANUAL TRANSFER SWITCH
MW	MICROWAVE
(N)	NEW
NEC	NATIONAL ELECTRIC CODE
NO.(#)	NUMBER
NTS	NOT TO SCALE
OC	ON CENTER
OPNG	OPENING
(P)	PROPOSED
P/C	PRECAST CONCRETE
PCS	PERSONAL COMMUNICATION SERVICES
PCU	PRIMARY CONTROL UNIT
PRC	PRIMARY RADIO CABINET
PP	POLARIZING PRESERVING
PSF	POUNDS PER SQUARE FOOT
PSI	POUNDS PER SQUARE INCH
PT	PRESSURE TREATED
PWR	POWER CABINET
QTY	QUANTITY
RAD	RADIUS
RECT	RECTIFIER
REF	REFERENCE
REINF	REINFORCEMENT
REQ'D	REQUIRED
RET	REMOTE ELECTRIC TILT
RMC	RIGID METALLIC CONDUIT
RRH	REMOTE RADIO HEAD
RRU	REMOTE RADIO UNIT
RWY	RACEWAY
SCH	SCHEDULE
SHT	SHEET
SIAD	SMART INTEGRATED DEVICE
SIM	SIMILAR
SPEC	SPECIFICATION
SQ	SQUARE
SS	STAINLESS STEEL
STD	STANDARD
STL	STEEL
STRUCT	STRUCTURAL
TEMP	TEMPORARY
THK	THICKNESS
TMA	TOWER MOUNTED AMPLIFIER
TN	TOE NAIL
TOA	TOP OF ANTENNA
TOC	TOP OF CURB
TOF	TOP OF FOUNDATION
TOP	TOP OF PLATE (PARAPET)
TOS	TOP OF STEEL
TOW	TOP OF WALL
TVSS	TRANSIENT VOLTAGE SUPPRESSION SYSTEM
TYP	TYPICAL
UG	UNDERGROUND
UL	UNDERWRITERS LABORATORY
UNO	UNLESS NOTED OTHERWISE
UMTS	UNIVERSAL MOBILE TELECOMMUNICATIONS SYSTEM
UPS	UNINTERRUPTIBLE POWER SYSTEM (DC POWER PLANT)
VIF	VERIFIED IN FIELD
W	WIDE
W/	WITH
WD	WOOD
W.P.	WORK POINT
WP	WEATHERPROOF
WT	WEIGHT

LEGEND & ABBREVIATIONS | 1

NOT USED | 2

APPLICANT/OWNER:

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REV	DATE	DESCRIPTION
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PROJECT LOCATION: USID (975)

C&M HAVEN INC.

12400 MADISON AVENUE
LAKEWOOD, OH 44107

DRAWING DESCRIPTION:

GENERAL NOTES

DRAWING NUMBER:

N-1

GENERAL CONSTRUCTION

1. FOR THE PURPOSE OF CONSTRUCTION DRAWINGS, THE FOLLOWING DEFINITIONS SHALL APPLY:
   GENERAL CONTRACTOR – OVERLAND CONTRACTING INC. (B&V)
   CONTRACTOR: (CONSTRUCTION)
   OWNER – AT&T
2. ALL SITE WORK SHALL BE COMPLETED AS INDICATED ON THE DRAWINGS AND AT&T PROJECT SPECIFICATIONS.
3. GENERAL CONTRACTOR SHALL VISIT THE SITE AND SHALL FAMILIARIZE HIMSELF WITH ALL CONDITIONS AFFECTING THE PROPOSED WORK AND SHALL MAKE PROVISIONS. GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR FAMILIARIZING HIMSELF WITH ALL CONTRACT DOCUMENTS, FIELD CONDITIONS, DIMENSIONS, AND CONFIRMING THAT THE WORK MAY BE ACCOMPLISHED AS SHOWN PRIOR TO PROCEEDING WITH CONSTRUCTION. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO THE COMMENCEMENT OF WORK.
4. ALL MATERIALS FURNISHED AND INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS, AND ORDINANCES. GENERAL CONTRACTOR SHALL ISSUE ALL APPROPRIATE NOTICES AND COMPLY WITH ALL LAWS, ORDINANCES, RULES, REGULATIONS, AND LAWFUL ORDERS OF ANY PUBLIC AUTHORITY REGARDING THE PERFORMANCE OF WORK.
5. ALL WORK CARRIED OUT SHALL COMPLY WITH ALL APPLICABLE MUNICIPAL AND UTILITY COMPANY SPECIFICATIONS AND LOCAL JURISDICTIONAL CODES, ORDINANCES, AND APPLICABLE REGULATIONS.
6. UNLESS NOTED OTHERWISE, THE WORK SHALL INCLUDE FURNISHING MATERIALS, EQUIPMENT, APPURTENANCES, AND LABOR NECESSARY TO COMPLETE ALL INSTALLATIONS AS INDICATED ON THE DRAWINGS.
7. PLANS ARE NOT TO BE SCALED. THESE PLANS ARE INTENDED TO BE A DIAGRAMMATIC OUTLINE ONLY UNLESS OTHERWISE NOTED. DIMENSIONS SHOWN ARE TO FINISH SURFACES UNLESS OTHERWISE NOTED. SPACING BETWEEN EQUIPMENT IS THE MINIMUM REQUIRED CLEARANCE. THEREFORE, IT IS CRITICAL TO FIELD VERIFY DIMENSIONS, SHOULD THERE BE ANY QUESTIONS REGARDING THE CONTRACT DOCUMENTS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING A CLARIFICATION FROM THE ENGINEER PRIOR TO PROCEEDING WITH THE WORK. DETAILS ARE INTENDED TO SHOW DESIGN INTENT. MODIFICATIONS MAY BE REQUIRED TO SUIT JOB DIMENSIONS OR CONDITIONS AND SUCH MODIFICATIONS SHALL BE INCLUDED AS PART OF WORK AND PREPARED BY THE ENGINEER PRIOR TO PROCEEDING WITH WORK.
8. THE CONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS UNLESS SPECIFICALLY STATED OTHERWISE.
9. IF THE SPECIFIED EQUIPMENT CANNOT BE INSTALLED AS SHOWN ON THESE DRAWINGS, THE CONTRACTOR SHALL PROPOSE AN ALTERNATIVE INSTALLATION SPACE FOR APPROVAL BY THE ENGINEER PRIOR TO PROCEEDING.
10. GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR THE SAFETY OF WORK AREA, ADJACENT AREAS AND BUILDING OCCUPANTS THAT ARE LIKELY TO BE AFFECTED BY THE WORK UNDER THIS CONTRACT. WORK SHALL CONFIRM TO ALL OSHA REQUIREMENTS AND THE LOCAL JURISDICTION.
11. GENERAL CONTRACTOR SHALL COORDINATE WORK AND SCHEDULE WORK ACTIVITIES WITH OTHER DISCIPLINES.
12. ERECTION SHALL BE DONE IN A WORKMANLIKE MANNER BY COMPETENT EXPERIENCED WORKMAN IN ACCORDANCE WITH APPLICABLE CODES AND THE BEST ACCEPTED PRACTICE. ALL MEMBERS SHALL BE LAID PLUMB AND TRUE AS INDICATED ON THE DRAWINGS.
13. SEAL PENETRATIONS THROUGH FIRE RATED AREAS WITH UL LISTED MATERIALS APPROVED BY LOCAL JURISDICTION. CONTRACTOR SHALL KEEP AREA CLEAN, HAZARD FREE, AND DISPOSE OF ALL DEBRIS.
14. WORK PREVIOUSLY COMPLETED IS REPRESENTED BY LIGHT SHADED LINES AND NOTES. THE SCOPE OF WORK FOR THIS PROJECT IS REPRESENTED BY DARK SHADED LINES AND NOTES. CONTRACTOR SHALL NOTIFY THE GENERAL CONTRACTOR OF ANY EXISTING CONDITIONS THAT DEVIATE FROM THE DRAWINGS PRIOR TO BEGINNING CONSTRUCTION.
15. CONTRACTOR SHALL PROVIDE WRITTEN NOTICE TO THE CONSTRUCTION MANAGER 48 HOURS PRIOR TO COMMENCEMENT OF WORK.
16. THE CONTRACTOR SHALL PROTECT EXISTING IMPROVEMENTS, PAVEMENTS, CURBS, LANDSCAPING AND STRUCTURES. ANY DAMAGED PART SHALL BE REPAIRED AT CONTRACTOR'S EXPENSE TO THE SATISFACTION OF THE OWNER.
17. THE CONTRACTOR SHALL CONTACT UTILITY LOCATING SERVICES PRIOR TO THE START OF CONSTRUCTION.
18. GENERAL CONTRACTOR SHALL COORDINATE AND MAINTAIN ACCESS FOR ALL TRADES AND CONTRACTORS TO THE SITE AND/OR BUILDING.
19. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR SECURITY OF THE SITE FOR THE DURATION OF CONSTRUCTION UNTIL JOB COMPLETION.
20. THE GENERAL CONTRACTOR SHALL MAINTAIN IN GOOD CONDITION ONE COMPLETE SET OF PLANS WITH ALL REVISIONS, ADDENDA, AND CHANGE ORDERS ON THE PREMISES AT ALL TIMES.
21. THE GENERAL CONTRACTOR SHALL PROVIDE PORTABLE FIRE EXTINGUISHERS WITH A RATING OF NOT LESS THAN 2-A OT 2-A:10-B:C AND SHALL BE WITHIN 25 FEET OF TRAVEL DISTANCE TO ALL PORTIONS OF WHERE THE WORK IS BEING COMPLETED DURING CONSTRUCTION.
22. ALL EXISTING ACTIVE SEWER, WATER, GAS, ELECTRIC, AND OTHER UTILITIES SHALL BE PROTECTED AT ALL TIMES, AND WHERE REQUIRED FOR THE PROPER EXECUTION OF THE WORK, SHALL BE RELOCATED AS DIRECTED BY THE ENGINEER. EXTREME CAUTION SHOULD BE USED BY THE CONTRACTOR WHEN EXCAVATING OR DRILLING PIERS AROUND OR NEAR UTILITIES. CONTRACTOR SHALL PROVIDE SAFETY TRAINING FOR THE WORKING CREW. THIS SHALL INCLUDE BUT NOT BE LIMITED TO A) FALL PROTECTION, B) CONFINED SPACE, C) ELECTRICAL SAFETY, AND D) TRENCHING & EXCAVATION.
23. ALL EXISTING INACTIVE SEWER, WATER, GAS, ELECTRIC, AND OTHER UTILITIES, WHICH INTERFERE WITH THE EXECUTION OF THE WORK, SHALL BE REMOVED, CAPPED, PLUGGED OR OTHERWISE DISCONNECTED AT POINTS WHICH WILL NOT INTERFERE WITH THE EXECUTION OF THE WORK, AS DIRECTED BY THE RESPONSIBLE ENGINEER, AND SUBJECT TO THE APPROVAL OF THE OWNER AND/OR LOCAL UTILITIES.
24. THE AREAS OF THE OWNER'S PROPERTY DISTURBED BY THE WORK AND NOT COVERED BY THE TOWER, EQUIPMENT OR DRIVEWAY, SHALL BE GRADED TO A UNIFORM SLOPE, AND STABILIZED TO PREVENT EROSION.
25. CONTRACTOR SHALL MINIMIZE DISTURBANCE TO THE EXISTING SITE DURING CONSTRUCTION. EROSION CONTROL MEASURES, IF REQUIRED DURING CONSTRUCTION, SHALL BE IN CONFORMANCE WITH THE FEDERAL AND LOCAL JURISDICTION FOR EROSION AND SEDIMENT CONTROL.
26. NO FILL OR EMBANKMENT MATERIAL SHALL BE PLACED ON FROZEN GROUNDING. FROZEN MATERIALS, SNOW OR ICE SHALL NOT BE PLACED IN ANY FILL OR EMBANKMENT.
27. THE SUBGRADE SHALL BE BROUGHT TO A SMOOTH UNIFORM GRADE AND COMPACTED TO 95 PERCENT STANDARD PROCTOR DENSITY UNDER PAVEMENT AND STRUCTURES AND 80 PERCENT STANDARD PROCTOR DENSITY IN OPEN SPACE. ALL TRENCHES IN PUBLIC RIGHT OF WAY SHALL BE BACKFILLED WITH FLOWABLE FILL OR OTHER MATERIAL PRE-APPROVED BY THE LOCAL JURISDICTION.
28. ALL NECESSARY RUBBISH, STUMPS, DEBRIS, STICKS, STONES, AND OTHER REFUSE SHALL BE REMOVED FROM THE SITE AND DISPOSED OF IN A LAWFUL MANNER.
29. ALL BROCHURES, OPERATING AND MAINTENANCE MANUALS, CATALOGS, SHOP DRAWINGS, AND OTHER DOCUMENTS SHALL BE TURNED OVER TO THE GENERAL CONTRACTOR AT COMPLETION OF CONSTRUCTION AND PRIOR TO PAYMENT.
30. CONTRACTOR SHALL SUBMIT A COMPLETE SET OF AS-BUILT REDLINES TO THE GENERAL CONTRACTOR UPON COMPLETION OF PROJECT AND PRIOR TO FINAL PAYMENT.
31. CONTRACTOR SHALL LEAVE PREMISES IN A CLEAN CONDITION.
32. THE PROPOSED FACILITY WILL BE UNMANNED AND DOES NOT REQUIRE POTABLE WATER OR SEWER SERVICE, AND IS NOT FOR HUMAN HABITAT (NO HANDICAP ACCESS REQUIRED).
33. OCCUPANCY IS LIMITED TO PERIODIC MAINTENANCE AND INSPECTION, APPROXIMATELY 2 TIMES PER MONTH, BY AT&T TECHNICIANS.
34. NO OUTDOOR STORAGE OR SOLID WASTE CONTAINERS ARE PROPOSED.
35. ALL MATERIAL SHALL BE FURNISHED AND WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE LATEST REVISION AT&T MOBILITY GROUNDING STANDARD "TECHNICAL SPECIFICATION FOR CONSTRUCTION OF GSM/GPRS WIRELESS SITES" AND "TECHNICAL SPECIFICATION FOR FACILITY GROUNDING". IN CASE OF A CONFLICT BETWEEN THE CONSTRUCTION SPECIFICATION AND THE DRAWINGS, THE DRAWINGS SHALL GOVERN.
36. CONTRACTORS SHALL BE RESPONSIBLE FOR OBTAINING ALL PERMITS AND INSPECTIONS REQUIRED FOR CONSTRUCTION. IF CONTRACTOR CANNOT OBTAIN A PERMIT, THEY MUST NOTIFY THE GENERAL CONTRACTOR IMMEDIATELY.
37. CONTRACTOR SHALL REMOVE ALL TRASH AND DEBRIS FROM THE SITE ON A DAILY BASIS.
38. INFORMATION SHOWN ON THESE DRAWINGS WAS OBTAINED FROM SITE VISITS AND/OR DRAWINGS PROVIDED BY THE SITE OWNER. CONTRACTORS SHALL NOTIFY THE ENGINEER OF ANY DISCREPANCIES PRIOR TO ORDERING MATERIAL OR PROCEEDING WITH CONSTRUCTION.
39. NO WHITE STROBE LIGHTS ARE PERMITTED. LIGHTING IF REQUIRED, WILL MEET FAA STANDARDS AND REQUIREMENTS.
40. ALL COAXIAL CABLE INSTALLATIONS TO FOLLOW MANUFACTURER'S INSTRUCTIONS AND RECOMMENDATIONS.
41. CONTRACTOR WILL REFER TO LATEST RFDS SHEET PRIOR TO CONSTRUCTION COMMENCING.

APPLICANT/OWNER:

AT&T MOBILITY

700 BELL STREET
AKRON, OH 44307

PREPARED BY:

BLACK & VEATCH

6800 W. 115TH ST, SUITE 2292
OVERLAND PARK, KANSAS 66211
(913) 458-2000

PROJECT NUMBER: 129321

STATE OF OHIO
JOSHUA TURNER
PE.85331
REGISTERED PROFESSIONAL ENGINEER
06/30/2022

LANDLORD/PROPERTY OWNER SIGNATURE

REV	DATE	DESCRIPTION
0	06.29.22	ISSUED FOR CONSTRUCTION

PROJECT LOCATION: USID (975)

C&M HAVEN INC.

12400 MADISON AVENUE
LAKEWOOD, OH 44107

DRAWING DESCRIPTION:

GENERAL NOTES

DRAWING NUMBER:

N-2

C&M HAVEN INC.

FA #: 10077213

CLIENT #: OH5031

USID #: 975

AT&T

STRUCTURE INFORMATION:

STRUCTURE DRAWINGS:	LIPAJ•TOMSIK ARCHITECTS & PLANNERS/JOB #: 7907
STRUCTURE HEIGHT:	100'-0" ROOFTOP
MOUNT TYPE:	(3) NEW BALLAST FRAMES
STRUCTURE LOCATION:	
LAT.:	41° 28' 38.41"
LONG.:	-81° 46' 31.78"
STREET ADDRESS:	12400 MADISON AVE.
CITY, STATE ZIP:	LAKEWOOD, OH 44107
COUNTY:	CUYAHOGA
REFERENCED ANALYSIS:	GPD/PROJ. #: 2021723.05.975.02
ANALYSIS DATE:	11/12/2021

CODE COMPLIANCE:

GOVERNING CODES:	TIA-222-G & 2017 OHIO BUILDING CODE
WIND SPEEDS:	115 MPH 3 SECOND GUST (ULTIMATE) 89 MPH 3 SECOND GUST (NOMINAL) 40 MPH 3 SECOND GUST (W/ ICE)
ICE THICKNESS:	3/4"
STRUCTURE CLASS:	II
EXPOSURE CATEGORY:	C
TOPO CATEGORY:	1

PROJECT CONTACTS:

CLIENT CONTACT:

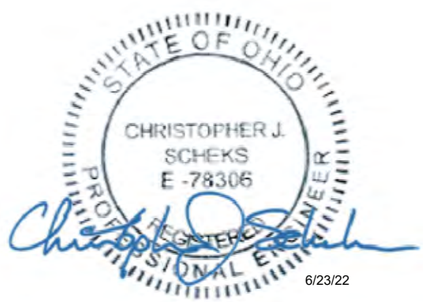
CHRISTOPHER NICHOLS
6800 WEST 115TH STREET, SUITE 2292
OVERLAND PARK, KS 66211
(913) 458-6273

ENGINEER CONTACT:

GPD GROUP - GLAUS, PYLE, SCHOMER, BURNS & DEHAVEN, INC.
520 SOUTH MAIN STREET, SUITE 2531
AKRON, OH 44311
(330) 572-2100
FOR QUESTIONS PLEASE EMAIL:
GPDMODS@GPDGROUP.COM

QUALIFIED ENGINEERING SERVICES ARE AVAILABLE FROM GPD TO ASSIST CONTRACTORS IN CLASS IV RIGGING PLAN REVIEWS. FOR REQUESTING QUALIFIED ENGINEERING SERVICES PLEASE CONTACT GPD AT GPDMODS@GPDGROUP.COM.

SHEET INDEX:



6/23/22

GPD GROUP
Glaus, Pyle, Schomer, Burns & DeHaven, Inc.
520 South Main Street, Suite 2531
Akron, OH 44311
330.572.2100 Fax 330.572.2102

AT&T

C&M HAVEN INC.
FA #: 10077213

DESIGN DRAWINGS PREPARED FOR:

CLIENT #: OH5031

REV	DATE	DESCRIPTION
0	6/23/22	INITIAL RELEASE

C&M HAVEN INC.
12400 MADISON AVE.
LAKEWOOD, OH 44107

TITLE SHEET

ISSUED FOR:	
PERMIT	6/23/2022
BID	-
CONSTRUCTION	-
RECORD	-

ENGINEER	DESIGNER
KM	JMJ
PROJECT MANAGER	APPROVED BY
BL	CJS

JOB NO.
2022723.05.975.03

T-01

MODIFICATION INSPECTION CHECKLIST

REQUIRED	REPORT ITEM	BRIEF DESCRIPTION
	PRE-CONSTRUCTION	
X	MI CHECKLIST DRAWING	THIS CHECKLIST SERVES AS A GUIDELINE FOR THE REQUIRED CONSTRUCTION DOCUMENTS AND INSPECTIONS FOR THIS MODIFICATION
NA	EOR APPROVED SHOP DRAWINGS	PRIOR TO FABRICATION, THE CONTRACTOR SHALL PROVIDE DETAILED ASSEMBLY DRAWINGS AND/OR SHOP DRAWINGS TO THE EOR FOR APPROVAL.
X	FABRICATION INSPECTION	A LETTER FROM THE FABRICATOR STATING THAT ALL FABRICATION (I.E. DRILLING, CUTTING, WELDING, SHEARING, MILLING, GALVANIZING, ETC) HAS BEEN DONE ACCORDING TO INDUSTRY STANDARDS AND ALL APPLICABLE ANSI/ASTM STANDARDS.
NA	FABRICATOR CERTIFIED WELD INSPECTION	A CWI SHALL INSPECT ALL FABRICATION WELDS IN ACCORDANCE WITH AWS D1.1 AND A REPORT DETAILING THE RESULTS SHALL BE PROVIDED TO THE MI INSPECTOR FOR INCLUSION IN THE MI REPORT.
X	MATERIAL TEST REPORTS (MTR)	MATERIAL TEST REPORTS SHALL BE PROVIDED FOR ALL MATERIAL USED. MTR'S SHALL BE PROVIDED TO THE MI INSPECTOR FOR INCLUSION IN THE MI REPORT.
NA	FABRICATOR NDE INSPECTION REPORT	CRITICAL SHOP WELDS THAT REQUIRE ADDITIONAL TESTING ARE NOTED WITHIN THE MODIFICATION DRAWINGS. A CERTIFIED NDT INSPECTOR SHALL PERFORM NON-DESTRUCTIVE EXAMINATION ON ALL PJP, CJP, AND FILLET WELDS >5/16" IN ACCORDANCE WITH AWS D1.1 AND A REPORT DETAILING THE RESULTS SHALL BE PROVIDED TO THE MI INSPECTOR FOR INCLUSION IN THE MI REPORT.
NA	NDE OF MONOPOLE BASE PLATE	A NDE OF THE POLE TO BASE PLATE CONNECTION IS REQUIRED AND A WRITTEN REPORT SHALL BE PROVIDED TO THE MI INSPECTOR FOR INCLUSION IN THE MI REPORT.
X	PACKING SLIPS	PACKING/SHIPPING LIST FOR ALL MATERIAL USED DURING CONSTRUCTION OF THE MODIFICATION SHALL BE PROVIDED.
	DURING CONSTRUCTION	
NA	PRE-POUR REBAR INSPECTIONS	A 3RD PARTY VISUAL OBSERVATION OF THE EXCAVATION AND REBAR SHALL BE PERFORMED **BEFORE** PLACING THE CONCRETE. A WRITTEN REPORT SHALL BE PROVIDED TO THE MI INSPECTOR FOR INCLUSION IN THE MI REPORT.
NA	POST-INSTALLED REBAR AND/OR DOWEL INSPECTIONS	PHOTOGRAPHIC DOCUMENTATION OF DRILL HOLE SIZES AND DEPTHS SHALL BE RECORDED **BEFORE** SETTING THE POST INSTALLED REBAR AND DOWELS WITH EPOXY/GROUT.
NA	CONCRETE COMP. STRENGTH & SLUMP TEST	THE CONCRETE MIX DESIGN, SLUMP TEST, AND COMPRESSIVE STRENGTH TESTS SHALL BE PROVIDED AS PART OF THE MI REPORT.
NA	EARTHWORK: LIFT & DENSITY REPORT	REPORT DETAILING SOIL COMPACTION TEST RESULTS TO BE INCLUDED IN THE MI REPORT.
NA	MICROPILE/ROCK ANCHOR	MICROPILES AND ROCK ANCHORS SHALL BE INSPECTED BY A 3RD PARTY. INSPECTION SHALL VERIFY ANCHOR SIZE, STEEL GRADE, AND HOLE DEPTHS. PHOTOGRAPHIC DOCUMENTATION OF ALL MEASUREMENTS ALONG WITH THE PULL TEST RESULTS SHALL BE INCLUDED IN THE MI REPORT.
NA	HELICAL ANCHOR	HELICAL INSTALLER SHALL SUBMIT FINAL SEALED HELICALS DESIGN, TORQUE LOGS, AND FINAL LOAD TEST RESULTS TO BE INCLUDED IN THE MODIFICATION INSPECTION REPORT.
NA	POST-INSTALLED ANCHOR ROD VERIFICATION	POST INSTALLED ANCHOR ROD VERIFICATION SHALL BE PERFORMED AND SHALL INCLUDE PHOTO VERIFICATION OF HOLE DEPTH, HOLE CLEANOUT AND ROUGHENING, AND EPOXY LABELING. REPORT SHALL BE PROVIDED TO THE MI INSPECTOR FOR INCLUSION IN THE MI REPORT.
NA	3RD PARTY FIELD CERTIFIED WELD INSPECTION	A CWI SHALL CONDUCT A VISUAL INSPECTION OF ALL FIELD WELDS IN ACCORDANCE WITH AWS D1.1. CRITICAL WELDS THAT REQUIRE ADDITIONAL TESTING ARE NOTED IN THE MODIFICATION DRAWINGS.
X	ON-SITE COLD GALVANIZING VERIFICATION	THE GENERAL CONTRACTOR SHALL PROVIDE WRITTEN AND PHOTOGRAPHIC DOCUMENTATION TO THE MI INSPECTOR VERIFYING THAT ANY ON-SITE COLD GALVANIZING WAS APPLIED PER MANUFACTURER SPECIFICATIONS.
NA	TENSION TWIST & PLUMB DELIVERABLES	THE GENERAL CONTRACTOR SHALL PROVIDE WRITTEN AND PHOTOGRAPHIC DOCUMENTATION TO THE MI INSPECTOR VERIFYING THE STRUCTURE TWIST AND PLUMB CONDITION AS WELL AS THE WIRE TENSIONS (AS REQUIRED). REPORT SHALL INCLUDE PRE-TENSION, PLUMB & TWIST RESULTS, POST-TENSION REPORT, POST PLUMB AND TWIST REPORT, AND PHOTOS OF THE TENSION GAUGES FOR ALL GUY WIRES.
X	GC AS-BUILT DRAWINGS	THE GENERAL CONTRACTOR SHALL SUBMIT A LEGIBLE COPY OF THE ORIGINAL DESIGN DRAWINGS EITHER STATING "INSTALLED AS DESIGNED" OR NOTING ANY CHANGES THAT WERE REQUIRED AND APPROVED BY THE ENGINEER OF RECORD. EOR/RFI FORMS APPROVING ALL CHANGES SHALL BE SUBMITTED.
NA	BOLT PRE-TENSION VERIFICATION	TURN-OF-THE NUT METHOD IS THE DEFAULT METHOD FOR PRE-TENSIONING BOLTS. MATCH-MARKINGS SHALL BE PRESENT ON EACH FASTENER FOR INSPECTION PURPOSES AND SHALL BE APPLIED IN ACCORDANCE WITH THE REQUIREMENTS OF THE RCSC SPECIFICATION. ALTERNATIVE PRE-TENSIONING METHODS ARE NOT ALLOWED WITHOUT PRIOR EOR CONSENT.
	POST-CONSTRUCTION	
X	CONSTRUCTION COMPLIANCE LETTER	A LETTER FROM THE GENERAL CONTRACTOR STATING THAT THE WORKMANSHIP WAS PERFORMED IN ACCORDANCE WITH INDUSTRY STANDARDS AND THESE MODIFICATION DRAWINGS, INCLUDING LISTING ADDITIONAL PARTIES TO THE MODIFICATION PROCESS.
NA	POST-INSTALLED ANCHOR ROD PULL TESTS	POST-INSTALLED ANCHOR RODS SHALL BE TESTED BY A PULL TEST INSPECTOR AND A REPORT SHALL BE PROVIDED INDICATING TESTING RESULTS.
X	PHOTOGRAPHS	PHOTOGRAPHS SHALL BE SUBMITTED TO THE MI INSPECTOR. PHOTOS SHALL DOCUMENT ALL PHASES OF THE CONSTRUCTION. THE PHOTOS SHALL BE ORGANIZED IN A MANNER THAT EASILY IDENTIFIES THE EXACT LOCATION OF THE PHOTO.
NA	FOUNDATION SEALER	PHOTOGRAPHIC DOCUMENTATION OF THE FOUNDATION SEALING SHALL BE INCLUDED IN THE MI REPORT.
NA	BOLT HOLE INSTALLATION VERIFICATION REPORT	THE MI INSPECTOR SHALL VERIFY THE INSTALLATION AND TIGHTNESS OF 10% OF ALL NON PRE-TENSIONED BOLTS INSTALLED AS PART OF THE MODIFICATION. THE MI INSPECTOR SHALL LOOSEN THE NUT AND VERIFY THE BOLT HOLE SIZE AND CONDITION. THE MI REPORT SHALL CONTAIN THE COMPLETED BOLT INSTALLATION VERIFICATION REPORT, INCLUDING THE SUPPORTING PHOTOGRAPHS.
X	MI INSPECTOR REDLINE OR RECORD DRAWING(S)	THE MI INSPECTOR SHALL OBSERVE AND REPORT ANY DISCREPANCIES BETWEEN THE CONTRACTOR'S REDLINE DRAWING AND THE ACTUAL COMPLETED INSTALLATION.

*THE MI CHECKLIST SHALL BE REVIEWED PRIOR TO THE START OF CONSTRUCTION. ALL PARTIES TO THE MODIFICATION SHALL UNDERSTAND ALL REQUIREMENTS AND INSPECTION/DOCUMENTATION THAT IS APPLICABLE TO THE SCOPE OF WORK THEY ARE PERFORMING. ERRORS ON THE MI CHECKLIST SHALL BE BROUGHT TO THE ATTENTION OF THE STRUCTURE/STRUCTURE OWNER AND EOR AS SOON AS POSSIBLE.

MODIFICATION INSPECTION NOTES

GENERAL

1. THE MI IS AN ON-SITE VISUAL AND HANDS-ON INSPECTION OF STRUCTURE MODIFICATIONS INCLUDING A REVIEW OF CONSTRUCTION REPORTS AND ADDITIONAL PERTINENT DOCUMENTATION PROVIDED BY THE GENERAL CONTRACTOR (GC), AS WELL AS ANY INSPECTION DOCUMENTS PROVIDED BY 3RD PARTY INSPECTORS. THE MI IS TO ENSURE THE INSTALLATION WAS CONSTRUCTED IN ACCORDANCE WITH THE MODIFICATION DRAWINGS; IN ACCORDANCE WITH APPLICABLE INDUSTRY STANDARDS; AND AS DESIGNED BY THE ENGINEER OF RECORD (EOR).
2. NO DOCUMENT, CODE OR POLICY CAN ANTICIPATE EVERY SITUATION THAT MAY ARISE. ACCORDINGLY, THIS CHECKLIST IS INTENDED TO SERVE AS A SOURCE OF GUIDING PRINCIPLES IN ESTABLISHING GUIDELINES FOR MODIFICATION INSPECTION.
3. THE MI IS TO CONFIRM INSTALLATION CONFIGURATION AND WORKMANSHIP ONLY AND IS NOT A REVIEW OF THE MODIFICATION DESIGN ITSELF, AND THE MI INSPECTOR DOES NOT TAKE OWNERSHIP OF THE MODIFICATION DESIGN. THE MI INSPECTOR SHALL INSPECT AND NOTE CONFORMANCE/NONCONFORMANCE AND PROVIDE TO THE STRUCTURE/STRUCTURE OWNER AND EOR FOR EVALUATION.
4. TO ENSURE THAT THE REQUIREMENTS OF THE MODIFICATION INSPECTION ARE MET, IT IS VITAL THAT THE GENERAL CONTRACTOR (GC) AND THE MI INSPECTOR BEGIN COMMUNICATING AND COORDINATING AS SOON AS A PO OR PAYMENT IS RECEIVED. IT IS EXPECTED THAT EACH PARTY WILL BE PROACTIVE IN REACHING OUT TO THE OTHER PARTY. CONTACT LISTED ON THE TITLE SHEET SHALL BE CONTACTED IF SPECIFIC INSPECTOR CONTACT INFORMATION IS NOT KNOWN.

FAILING INSPECTION CORRECTIONS

1. IF THE MODIFICATION INSTALLATION WOULD FAIL THE MODIFICATION INSPECTION ("FAILED MODIFICATION INSPECTION"), THE GC SHALL WORK WITH MI INSPECTOR TO COORDINATE A REMEDIATION PLAN IN ONE OF TWO WAYS:
   - CORRECT FAILING ISSUES TO COMPLY WITH THE SPECIFICATIONS CONTAINED IN THE ORIGINAL MODIFICATION DRAWINGS AND COORDINATE A SUPPLEMENT MODIFICATION INSPECTION.
   - OR, WITH STRUCTURE OWNER'S APPROVAL, THE GC MAY WORK WITH THE ENGINEER OF RECORD TO RE-ANALYZE THE MODIFICATION/REINFORCEMENT USING THE AS-BUILT CONDITION.

SERVICE LEVEL COMMITMENT

1. THE FOLLOWING RECOMMENDATIONS AND SUGGESTIONS ARE OFFERED TO ENHANCE THE EFFICIENCY AND EFFECTIVENESS OF DELIVERING AN MI REPORT:
   - THE GC SHALL PROVIDE A MINIMUM OF 5 BUSINESS DAYS NOTICE, PREFERABLY 10, TO THE MI INSPECTOR AS TO WHEN THE SITE WILL BE READY FOR THE MI TO BE CONDUCTED.
   - THE GC AND MI INSPECTOR COORDINATE CLOSELY THROUGHOUT THE ENTIRE PROJECT.
   - WHEN POSSIBLE, IT IS PREFERRED TO HAVE THE GC AND MI INSPECTOR ON-SITE SIMULTANEOUSLY FOR ANY GUY WIRE TENSIONING OR RE-TENSIONING OPERATIONS.
   - WHEN POSSIBLE, IT IS PREFERRED TO HAVE THE GC AND MI INSPECTOR ON-SITE DURING THE MI TO HAVE ANY MINOR DEFICIENCIES CORRECTED DURING THE INITIAL MI. THEREFORE, THE GC MAY CHOOSE TO COORDINATE THE MI CAREFULLY TO ENSURE ALL CONSTRUCTION FACILITIES ARE AT THEIR DISPOSAL WHEN THE MI INSPECTOR IS ON SITE.
   - IT MAY BE BENEFICIAL TO INSTALL ALL STRUCTURE MODIFICATIONS PRIOR TO CONDUCTING THE FOUNDATION INSPECTIONS TO ALLOW THE FOUNDATION AND MODIFICATION INSPECTION(S) TO COMMENCE WITH ONE SITE VISIT.

REQUIRED PHOTOS

1. BETWEEN THE GC AND THE MI INSPECTOR THE FOLLOWING PHOTOGRAPHS, AT A MINIMUM, ARE TO BE TAKEN AND INCLUDED IN THE MI REPORT:
   - PRE-CONSTRUCTION GENERAL SITE CONDITION
   - PHOTOGRAPHS DURING THE REINFORCEMENT MODIFICATION CONSTRUCTION/ERECTION AND INSPECTION
     - RAW MATERIALS
     - PHOTOS OF ALL CRITICAL DETAILS
     - FOUNDATION MODIFICATIONS
     - WELD PREPARATION
     - BOLT INSTALLATION
     - FINAL INSTALLED CONDITION
     - SURFACE COATING REPAIR
   - POST CONSTRUCTION PHOTOGRAPHS
     - FINAL INFIELD CONDITION
   - ANY OTHER PHOTOS DEEMED RELEVANT TO SHOW COMPLETE DETAILS OF THE MODIFICATIONS.
2. PHOTOS OF ELEVATED MODIFICATIONS TAKEN ONLY FROM THE GROUND SHALL BE CONSIDERED INADEQUATE.

STATE OF OHIO
CHRISTOPHER J. SCHEKS
E-78305
REGISTERED PROFESSIONAL ENGINEER
6/23/22

GPD GROUP
Glaus, Pyle, Schomer, Burns & DeHaven, Inc.
520 South Main Street, Suite 2531
Akron, OH 44311
330.572.2100 Fax 330.572.2102

AT&T

C&M HAVEN INC.
FA #: 10077213

DESIGN DRAWINGS PREPARED FOR:

CLIENT #: OH5031

REV	DATE	DESCRIPTION
0	6/23/22	INITIAL RELEASE

C&M HAVEN INC.
12400 MADISON AVE.
LAKEWOOD, OH 44107

MODIFICATION INSPECTION CHECKLIST

ISSUED FOR:	
PERMIT	6/23/2022
BID	-
CONSTRUCTION	-
RECORD	-

ENGINEER	DESIGNER
KM	JMJ
PROJECT MANAGER	APPROVED BY
BL	CJS

JOB NO.
2022723.05.975.03

MI-01

GENERAL NOTES

1. THIS DESIGN IS IN ACCORDANCE WITH THE GOVERNING PROVISIONS OF ALL LOCALLY ADOPTED BUILDING CODES. MATERIALS, FABRICATION, INSTALLATION, AND ALL OTHER SERVICES PROVIDED BY THE CONTRACTOR SHALL CONFORM TO THE ABOVE MENTIONED CODES AND THE CONTRACT SPECIFICATIONS.

2. THIS DESIGN ASSUMES THE EXISTING STRUCTURE HAS BEEN WELL MAINTAINED, IS IN GOOD CONDITION, AND IS WITHOUT DEFECT. BENT MEMBERS, CORRODED MEMBERS, LOOSE BOLTS, CRACKED WELDS AND OTHER MEMBER DEFECTS HAVE NOT BEEN CONSIDERED. THIS DESIGN IS BEING PROVIDED WITHOUT THE BENEFIT OF A CONDITION ASSESSMENT BY GPD.

3. THE CONTRACTOR SHALL VISIT THE SITE PRIOR TO BIDDING; ANY PROBLEMS WITH ACCESS, INTERFERENCE, ETC. SHALL BE RESOLVED PRIOR TO MOBILIZATION. CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS AND NOTE ANY EXISTING CONDITIONS THAT ARE NOT REPRESENTED ON THESE DRAWINGS OR THAT INTERFERE WITH THE CONTINUOUS INSTALLATION OF THE MODIFICATIONS. CONTRACTOR SHALL NOTE ALL ATTACHMENT POINTS, ANTENNAS, MOUNTS, COAX, LIGHTING, CLIMBING SUPPORTS, STEP BOLTS, PORT HOLES, AND ANY OTHER APPURTENANCES IN THE REGION OF THE MODIFICATIONS. GPD SHALL BE CONTACTED IMMEDIATELY TO EVALUATE THE SIGNIFICANCE OF ANY DEVIATION PRIOR TO ORDERING MATERIAL.

4. ALL MATERIAL SPECIFIED FOR THIS PROJECT MUST BE NEW AND FREE OF ANY DEFECTS. ANY MATERIAL SUBSTITUTIONS, INCLUDING BUT NOT LIMITED TO ALTERED SIZES AND/OR STRENGTHS, MUST BE REVIEWED BY THE OWNER AND ENGINEER. CONTRACTOR SHALL PROVIDE DOCUMENTATION TO ENGINEER FOR DETERMINING IF SUBSTITUTE IS SUITABLE FOR USE AND MEETS THE ORIGINAL DESIGN CRITERIA. DIFFERENCES FROM THE ORIGINAL DESIGN, INCLUDING MAINTENANCE, REPAIR AND REPLACEMENT, SHALL BE NOTED. ESTIMATES OF COSTS/CREDITS ASSOCIATED WITH THE SUBSTITUTION (INCLUDING RE-DESIGN COSTS AND COSTS TO SUB-CONTRACTORS) SHALL BE PROVIDED TO THE ENGINEER.

5. CONTRACTOR IS RESPONSIBLE FOR ENGAGING A MODIFICATION INSPECTOR AT THE TIME OF AWARD TO COORDINATE AN INSPECTION SCHEDULE AND ENSURE PROPER DOCUMENTATION IS RETAINED THROUGHOUT THE PROJECT. REFER TO SHEET MI-01 FOR MODIFICATION INSPECTION CHECKLIST.

6. SPECIAL INSPECTIONS: UNLESS OTHERWISE SPECIFIED WITHIN THE PLANS OR REQUIRED BY THE BUILDING OFFICIAL, SPECIAL INSPECTIONS AND TESTS ARE NOT REQUIRED FOR GROUP U OCCUPANCIES, BUT NOT LIMITED TO, THOSE LISTED IN SECTION 312.1 (IBC SECTION 1704.2, EXCEPTION 2). CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING IF ANY SPECIAL INSPECTIONS ARE REQUIRED BY THE JURISDICTION HAVING AUTHORITY. IF REQUIRED BY THE JURISDICTION, THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE COORDINATION AND SCHEDULING OF THE SPECIAL INSPECTIONS WITH THE ENGINEER OF RECORD. IN THOSE CASES, SPECIAL INSPECTIONS MUST BE COMPLETED PRIOR TO FINAL INSPECTION APPROVAL.

7. INSTALLATION OF THE PROPOSED LOADING IS BY OTHERS AND IS BEYOND THE SCOPE OF THESE DRAWINGS.

8. ALL CONTRACTORS AND LOWER TIER CONTRACTORS MUST ACKNOWLEDGE IN WRITING TO THE OWNER AND GPD THAT THEY HAVE OBTAINED, UNDERSTAND, AND WILL FOLLOW THE OWNER STANDARDS OF PRACTICE, CONSTRUCTION GUIDELINES, ALL SITE AND TOWER SAFETY PROCEDURES, ALL PRODUCT LIMITATIONS AND INSTALLATION PROCEDURES USED ON SITE, AND PROPOSED MODIFICATIONS DESCRIBED. RECEIPT OF ACKNOWLEDGMENT MUST OCCUR PRIOR TO BEGINNING CONSTRUCTION. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO PROVIDE THIS DOCUMENTATION FOR THE OWNER AND GPD ON COMPANY LETTERHEAD AND IS THE RESPONSIBILITY OF THE GENERAL CONTRACTOR TO OBTAIN THIS DOCUMENTATION FROM LOWER TIER SUBCONTRACTORS (ON SUBCONTRACTOR LETTERHEAD) AND DELIVER IT TO THE OWNER AND GPD.

9. STRUCTURAL MODIFICATION WORK SPECIFIED ON THESE PLANS SHALL BE ACCOMPLISHED BY KNOWLEDGEABLE WORKMEN WITH CONSTRUCTION EXPERIENCE. THE CONTRACTOR SHALL SUBMIT CERTIFICATIONS TO THE OWNER AND ENGINEER.

10. CONTRACTOR SHALL PERFORM ALL WORK IN SUCH A MANNER AS TO PROTECT THE EXISTING AND ADJACENT STRUCTURES AND SHALL BE RESPONSIBLE TO PROPERLY REPAIR ANY DAMAGE THAT OCCURS AS A RESULT OF THE WORK.

11. CEASE OPERATIONS AND NOTIFY OWNER AND ENGINEER IMMEDIATELY IF THE SAFETY OR INTEGRITY OF THE STRUCTURE APPEARS TO BE ENDANGERED. PROPERLY BRACE AND SUPPORT STRUCTURE BEFORE RESUMING OPERATIONS.

12. DO NOT CUT OR ALTER ANY STRUCTURAL MEMBERS WITHOUT WRITTEN AUTHORIZATION OF THE ENGINEER UNLESS INDICATED ON THE STRUCTURAL DRAWINGS.

13. THESE DRAWINGS DO NOT INDICATE THE METHOD OF CONSTRUCTION. ANY TECHNIQUES OR PROCEDURES IMPLIED BY THESE DRAWINGS ARE SCHEMATIC IN NATURE AND ARE SUGGESTIONS ONLY. THE CONTRACTOR SHALL SUPERVISE AND DIRECT THE WORK AND SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION METHODS, MEANS, TECHNIQUES, SEQUENCES, AND PROCEDURES.

14. THE CONTRACTOR AND ALL SUB-CONTRACTORS SHALL BE RESPONSIBLE FOR THE SAFETY OF THEIR WORK FORCE, THE WORK AREA, ADJACENT AREA, AND ANY PROPERTY OCCUPANTS WHO MAY BE AFFECTED BY THE WORK UNDER CONTRACT. THE CONTRACTOR SHALL REVIEW AND ABIDE BY ALL OWNER, PRIME CONTRACTOR, CARRIER, OSHA, AND LOCAL SAFETY GUIDELINES. ALL WORKERS SHALL UTILIZE APPROPRIATE FALL PROTECTION AND SAFETY EQUIPMENT THAT IS UP-TO-DATE AND INSPECTED PER OSHA AND INDUSTRY GUIDELINES. ALL WORKERS SHALL BE TRAINED AND MONITORED TO ENSURE SAFE WORKING PRACTICES ARE MAINTAINED.

15. CONTRACTOR IS RESPONSIBLE FOR TEMPORARILY REMOVING ALL COAX, T-BRACKETS, ANTENNA MOUNTS, AND ANY OTHER APPURTENANCE THAT MAY INTERFERE WITH THE MODIFICATIONS. ALL APPURTENANCES MUST BE REPLACED AND/OR RESTORED TO ITS ORIGINAL LOCATION. SOME ATTACHMENTS MAY REQUIRE CUSTOM MODIFICATIONS TO PROPERLY FIT THE MODIFIED REGION OF THE STRUCTURE. THESE CUSTOMIZATIONS ARE DESIGNED BY OTHERS AND MUST BE APPROVED BY THE ENGINEER PRIOR TO REMOVING SUCH ATTACHMENTS. ANY CARRIER DOWNTIME MUST BE COORDINATED WITH THE OWNER IN WRITING.

16. CONTRACTOR SHALL ONLY WORK WITHIN THE LIMITS OF THE OWNER'S PROPERTY OR LEASE AREA AND APPROVED EASEMENTS. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY WORK IS WITHIN THESE BOUNDARIES. CONTRACTOR SHALL EMPLOY A SURVEYOR AS REQUIRED. ANY WORK OUTSIDE THESE BOUNDARIES SHALL BE APPROVED IN WRITING BY THE LAND OWNER PRIOR TO MOBILIZATION. CONSTRUCTION STAKING AND BOUNDARY MARKING IS THE RESPONSIBILITY OF THE CONTRACTOR.

17. THE STRUCTURAL INTEGRITY OF THIS DESIGN EXTENDS TO THE COMPLETE CONDITION ONLY. THE CONTRACTOR MUST BE COGNIZANT THAT THE REMOVAL OF ANY STRUCTURAL COMPONENT HAS THE POTENTIAL TO CAUSE THE PARTIAL OR COMPLETE COLLAPSE OF THE STRUCTURE. ALL NECESSARY PRECAUTIONS MUST BE TAKEN TO ENSURE THE STRUCTURAL INTEGRITY, INCLUDING, BUT NOT LIMITED TO, ENGINEERING ASSESSMENT OF CONSTRUCTION STRESSES WITH INSTALLATION MAXIMUM WIND SPEED AND/OR TEMPORARY BRACING AND SHORING.

18. CONTRACTOR IS RESPONSIBLE FOR ALL TEMPORARY LOCAL SHORING, TEMPORARY GLOBAL SHORING, AND ALL SHORING OF SURROUNDING BUILDINGS, PADS, AND OTHER OUTDOOR SITE OBSTRUCTIONS. ALL SHORING, TEMPORARY BRACING, AND TEMPORARY SUPPORTS ARE THE RESPONSIBILITY OF THE CONTRACTOR.

19. FAA/FCC FILING AND LIGHTING MAY BE REQUIRED. ALL GOVERNMENTAL REGULATORY DETERMINATIONS AND FILINGS BY OTHERS, NOT GPD.

20. CONTRACTOR SHALL TAKE NECESSARY ACTIONS TO PROVIDE SAFE WORKING CONDITIONS INCLUDING, BUT NOT LIMITED TO, HAVING ANY FM SIGNALS TURNED OFF. CONTRACTOR SHALL HAVE PROPER RADMAN FOR NOTIFICATION OF EXCESSIVE RF EXPOSURE FOR ALL INDIVIDUALS WORKING ON SITE IF FM ANTENNAS ARE PRESENT. CONTRACTOR SHALL BE AWARE OF RF WARNING SIGNS AND TAKE PROPER PRECAUTIONS.

21. ALL MANUFACTURERS HARDWARE AND ASSEMBLY INSTRUCTIONS SHALL BE FOLLOWED EXACTLY. DEVIATION FROM THE INSTRUCTIONS IS UNACCEPTABLE AND REQUIRES WRITTEN APPROVAL FROM ENGINEER.

22. DO NOT SCALE DRAWINGS.

23. ROOFTOP ACCESS, CLIMBING FACILITIES, SAFETY CLIMB AND ALL ASSOCIATED HARDWARE SHALL NOT BE IMPEDED OR MODIFIED WITHOUT THE WRITTEN CONSENT OF GPD.

24. ANY WORK PERFORMED WITHOUT A PREFABRICATION MAPPING IS DONE AT THE RISK OF THE GC AND/OR FABRICATOR.

25. IMPROPER FIT-UP OF NEW BOLTED HARDWARE DUE TO OVERSIZED , DOUBLE-PUNCHED, OR SLOTTED HOLES FOUND ON THE EXISTING STRUCTURE SHALL BE REPORTED TO GPD AND THE TOWER OWNER IMMEDIATELY. INSTALLATION OF SUCH HARDWARE WILL NOT BE ACCEPTABLE AND ALL COSTS ASSOCIATED WITH REMEDYING THE INSTALLATION WILL BE THE RESPONSIBILITY OF THE GC.

STRUCTURAL STEEL NOTES

1. ALL NEW STEEL SHALL BE HOT-DIPPED GALVANIZED PER ASTM A123, ASTM A153/A153M, OR ASTM A653 G90, AS APPLICABLE FOR FULL WEATHER PROTECTION. FOR HIGH STRENGTH STEEL FASTENERS WHERE HOT-DIPPED GALVANIZING IS NOT PERMITTED MAGNI 565 COATING (OR ENGINEER APPROVED EQUIVALENT) SHALL BE USED. IN ADDITION ALL NEW STEEL SHALL BE PAINTED TO MATCH EXISTING STEEL AND/OR BUILDING MATERIAL. CONTRACTOR SHALL OBTAIN WRITTEN PERMISSION TO PROTECT STEEL BY ANY OTHER MEANS.

2. ALL EXPOSED STRUCTURAL STEEL AS THE RESULT OF THIS SCOPE OF WORK INCLUDING, BUT NOT LIMITED TO, DAMAGED MEMBERS, FIELD WELDS, FIELD CUT MEMBERS, FIELD DRILLED HOLES, AND SHAFT INTERIORS (WHERE APPLICABLE), SHALL BE SOLVENT CLEANED AND HAVE TWO (2) COATS OF BRUSHED ON ZRC ZINC RICH COLD GALVANIZING PAINT APPLIED AND SHALL BE PAINTED TO MATCH THE TOWER FINISH (WHERE APPLICABLE). PHOTO DOCUMENTATION IS REQUIRED TO BE SUBMITTED TO THE MODIFICATION INSPECTOR.

3. ALL STRUCTURAL STEEL SHALL CONFORM TO THE LISTED REQUIREMENTS U.N.O. IN THESE DRAWINGS:

• STEEL ANGLE:	ASTM A36 (Fy=36 KSI)
• SOLID ROUND:	ASTM A36 (FY=36 KSI)
• PIPE (ROUND):	ASTM A53 GRADE B (Fy=35 KSI)
• HSS TUBE (ROUND):	ASTM A500 GRADE C (Fy=46 KSI)
• HSS TUBE (SQUARE):	ASTM A500 GRADE C (Fy=50 KSI)
• W-SHAPES:	ASTM A992 (Fy=50 KSI)
• CHANNELS:	ASTM A36 (Fy=36 KSI)
• PLATE:	ASTM A572 GRADE 50 (Fy=50KSI)
• ANCHOR RODS:	ASTM A193 GRADE B7
• BOLTS:	ASTM A325 TYPE 1
• U-BOLTS:	ASTM A307 GRADE A
• NUTS:	ASTM A563 GRADE DH
• NUTS (ANCHOR RODS):	ASTM A194 GRADE 2H
• WASHERS (AS REQUIRED):	ASTM F436 TYPE 1
• LOCKING DEVICES:	PAL-NUT OR SPLIT WASHER
• WELDING ELECTRODES, SMAW:	E70XX
• WELDING ELECTRODES, FCAW:	E7XT-XX

4. ALL BOLT ASSEMBLIES FOR STRUCTURAL MEMBERS REPRESENTED IN THIS DRAWING REQUIRE LOCKING DEVICES TO BE INSTALLED.

5. ALL BOLTS, INCLUDING U-BOLTS, SHALL BE TIGHTENED IN ACCORDANCE WITH AISC "SNUG TIGHT" REQUIREMENTS, U.N.O.

6. ALL U-BOLTS SPECIFIED SHALL MEET THE REQUIREMENTS OF ASME B18.31.5-2011 BENT BOLTS.

7. ALL NEW BOLT ASSEMBLIES SHALL BE OF SUFFICIENT LENGTH TO ENSURE THE END OF THE BOLT IS FLUSH WITH, OR PROTRUDES BEYOND, THE FACE OF THE NUT AFTER TIGHTENING IS COMPLETE.

8. STRUCTURAL STEEL SHOP DRAWINGS SHALL BE PROVIDED TO ENGINEER FOR REVIEW PRIOR TO FABRICATION.

9. UNLESS NOTED OTHERWISE, ALL NEW MEMBERS SHALL MAINTAIN THE EXISTING MEMBER WORK LINES AND NOT INTRODUCE ECCENTRICITIES INTO THE STRUCTURE.

10. WELDING OF ANY KIND IS NOT PERMITTED ON SITE UNLESS SPECIFIED WITHIN THESE DRAWINGS. OXY FUEL GAS WELDING OR BRAZING IS STRICTLY PROHIBITED. SPECIFICALLY, NO TORCH CUTTING OR OPEN FLAME IS PERMITTED ON SITE. ALL HOLES SHALL BE CUT WITH A GRINDER.

ROOFING NOTES

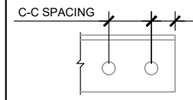
1. THE SUBCONTRACTOR SHALL REPAIR ALL EXISTING FLOOR, ROOF, CEILING, AND WALL SURFACES AND FINISHING DISTURBED DURING CONSTRUCTION. **ALL EXTERIOR FINISHES ARE REQUIRED** TO RESULT IN A SMOOTH FINISH TO MATCH THE EXISTING CONDITIONS TO THE SATISFACTION OF THE OWNER.

2. PENETRATION OF THE ROOF MEMBRANE IS PROHIBITED EXCEPT WHERE DESIGNED AND WITH THE APPROVAL OF THE BUILDING OWNER OR MANAGEMENT. COORDINATE MEMBRANE REPLACEMENT AND/OR REPAIR WITH THE OWNER'S ROOFING CONSULTANT TO MAINTAIN EXISTING WARRANTY.

3. ROOFTOP HAS A SLIGHT SLOPE TOWARDS EXISTING ROOF DRAINS. ALL EXISTING ROOF DRAINS & ROOF DRAINING PATTERNS SHALL NOT BE OBSTRUCTED OR DISTURBED (VERIFY IN FIELD). ANTENNA FRAMES AND STRUCTURE SHALL BE PLUMB & LEVEL (SHIM AS REQUIRED).

BOLT SCHEDULE

BOLT DIAMETER	STANDARD HOLE	SHORT SLOT	MIN. EDGE DISTANCE	C-C SPACING
1/2	9/16	9/16x11/16	7/8	1-1/2
5/8	11/16	11/16x7/8	1-1/8	1-7/8
3/4	13/16	13/16x1	1-1/4	2-1/4
7/8	15/16	15/16x1-1/8	1-1/2	2-5/8
1	1-1/8	1-1/8x1-5/16	1-3/4	3

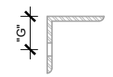


-DIMENSIONS GIVEN IN INCHES

-SHORT SLOT HOLES SHALL ONLY BE USED WHEN DEPICTED ON THE PLANS

WORKABLE GAGES

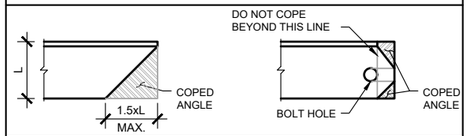
LEG	6	5	4	3-1/2	3	2-1/2	2	1-3/4
G	3-1/2	3	2-1/2	2	1-3/4	1-3/8	1-1/8	1



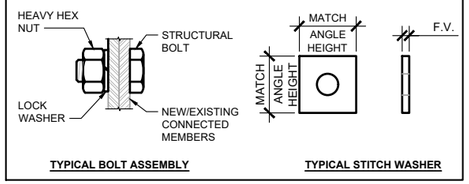
-DIMENSIONS GIVEN IN INCHES

-MATCH EXISTING WHEN APPLICABLE

ALLOWABLE ANGLE COPE



BOLTING DETAILS



TYPICAL BOLT ASSEMBLY **TYPICAL STITCH WASHER**

1. ALL DIMENSIONS REPRESENTED IN THESE TABLES ARE AISC MINIMUM REQUIREMENTS. CONTRACTOR SHALL VERIFY EXISTING CONDITIONS IN FIELD AND NOTIFY ENGINEER IF DISTANCES ARE LESS THAN THOSE PROVIDED.
2. THE DIMENSIONS PROVIDED ARE MINIMUM REQUIREMENTS. ACTUAL DIMENSIONS OF PROPOSED MEMBERS WITHIN THESE DRAWINGS MAY VARY FROM THE AISC MINIMUM REQUIREMENTS.
3. AS AN ALTERNATIVE TO USING A LOCK WASHER PAL-NUTS CAN BE INSTALLED ABOVE THE HEX NUT. ALL BOLTS MUST HAVE LOCKING DEVICES INSTALLED AS PART OF THE ASSEMBLY.
4. ADDITIONAL HARDENED FLAT WASHERS MAY BE REQUIRED IN CASES WHERE OVERSIZED OR SLOTTED HOLES ARE PRESENT. EXISTING CONDITIONS SHALL BE APPROVED BY THE EOR.

6/23/22

GPD GROUP
Glaus, Pyle, Schomer, Burns & DeHaven, Inc.
520 South Main Street, Suite 2531
Akron, OH 44311
330.572.2100 Fax 330.572.2102

AT&T

C&M HAVEN INC.
FA #: 10077213

DESIGN DRAWINGS PREPARED FOR:

CLIENT #: OH5031

REV.	DATE	DESCRIPTION
0	6/23/22	INITIAL RELEASE

C&M HAVEN INC.
12400 MADISON AVE.
LAKEWOOD, OH 44107

PROJECT NOTES

ISSUED FOR:	
PERMIT	6/23/2022
BID	-
CONSTRUCTION	-
RECORD	-

ENGINEER	DESIGNER
KM	JMJ
PROJECT MANAGER	APPROVED BY
BL	CJS

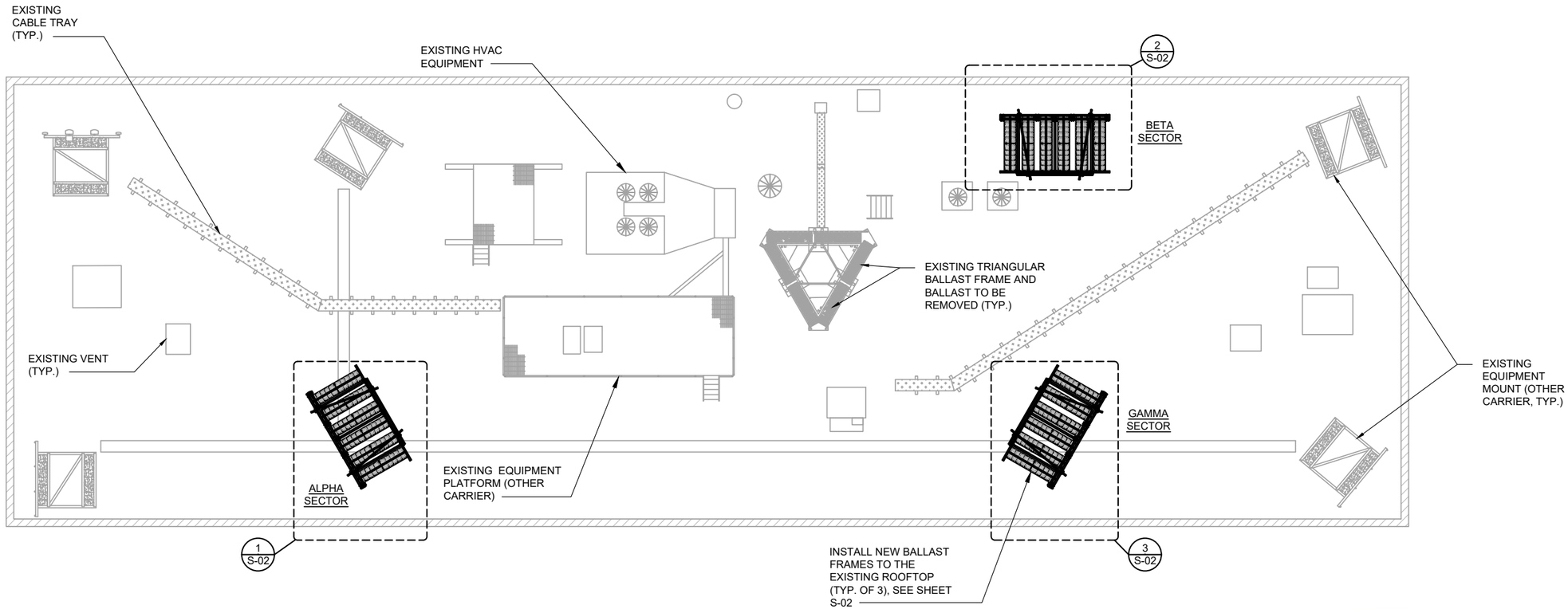
JOB NO.
2022723.05.975.03

N-01

MODIFICATION SCHEDULE

MEMBER TYPE	ELEVATION	EXISTING MEMBER	NEW MEMBER	REFERENCE DETAIL/SHEET	NOTES
BALLAST FRAMES	100'-0"±	-	(3) BALLAST FRAMES	1/S-02, 2/S-02, 3/S-02, & 4/S-03	INSTALL NEW BALLAST FRAMES ON THE EXISTING ROOFTOP.
BALLAST		-	BALLAST		INSTALL NEW CMU BALLAST TO THE NEW BALLAST FRAMES.
BALLAST FRAME PIPE MOUNTS		-	(4) P2 STD PIPE MOUNTS (PER FRAME)		TRIM PROVIDED PIPE MOUNTS FROM 14'-6" TO 11'-0".
ANTENNA EQUIPMENT AND MOUNTS		-	-	-	REMOVE ALL EXISTING ANTENNA EQUIPMENT, MOUNTS, AND ALL ASSOCIATED ASSEMBLY HARDWARE FROM THE PENTHOUSE.

NOTES:
1. ALL MATERIAL REMOVED FROM THE STRUCTURE SHALL BE DISPOSED OF BY THE CONTRACTOR OFF SITE.
2. CONTRACTOR SHALL CONFIRM BALLAST BLOCK WEIGHT WITH MATERIAL SUPPLIER. ADJUST BLOCK QUANTITIES AS NEEDED TO PROVIDE AN EQUIVALENT BALLAST WEIGHT.
3. ANY SUBSTITUTION OF PARTS SPECIFIED IN THIS DESIGN PACKAGE SHALL REQUIRE ENGINEER APPROVAL PRIOR TO FABRICATION.



NORTH

ROOFTOP PLAN

SCALE: N.T.S.

6/23/22

GPD GROUP
Glaus, Pyle, Schomer, Burns & DeHaven, Inc.
520 South Main Street, Suite 2531
Akron, OH 44311
330.572.2100 Fax 330.572.2102

AT&T

C&M HAVEN INC.
FA #: 10077213

DESIGN DRAWINGS PREPARED FOR:

CLIENT #: OH5031

REV.	DATE	DESCRIPTION
0	6/23/22	INITIAL RELEASE

C&M HAVEN INC.
12400 MADISON AVE.
LAKEWOOD, OH 44107

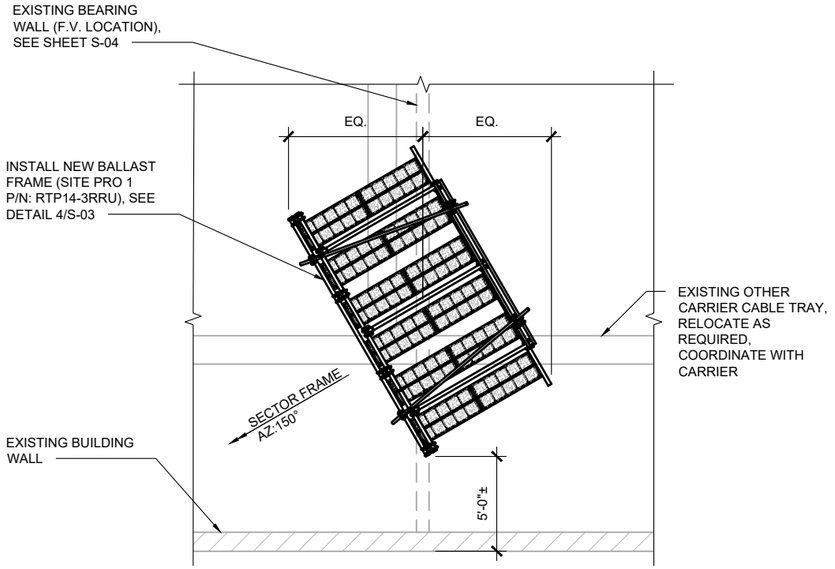
ROOFTOP PLAN & MODIFICATION SCHEDULE

ISSUED FOR:	
PERMIT	6/23/2022
BID	-
CONSTRUCTION	-
RECORD	-

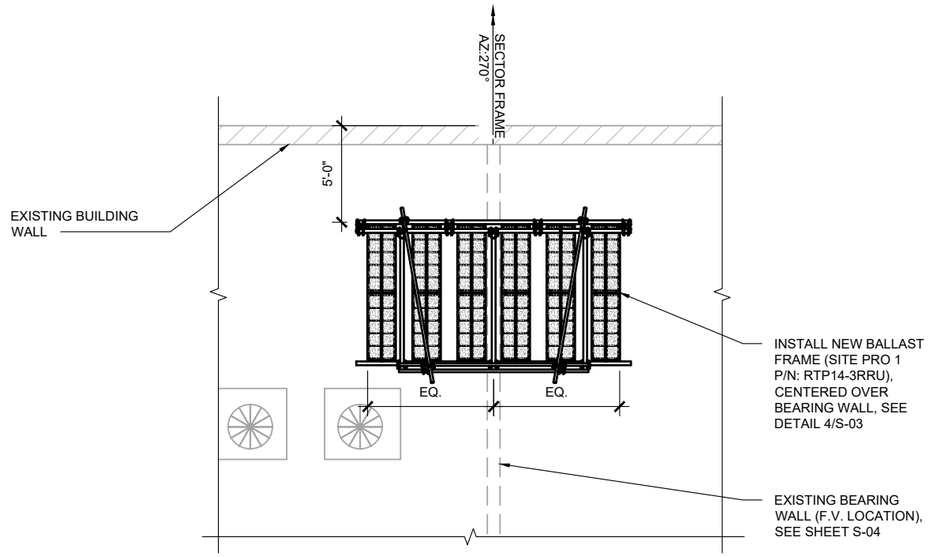
ENGINEER	DESIGNER
KM	JMJ
PROJECT MANAGER	APPROVED BY
BL	CJS

JOB NO.
2022723.05.975.03

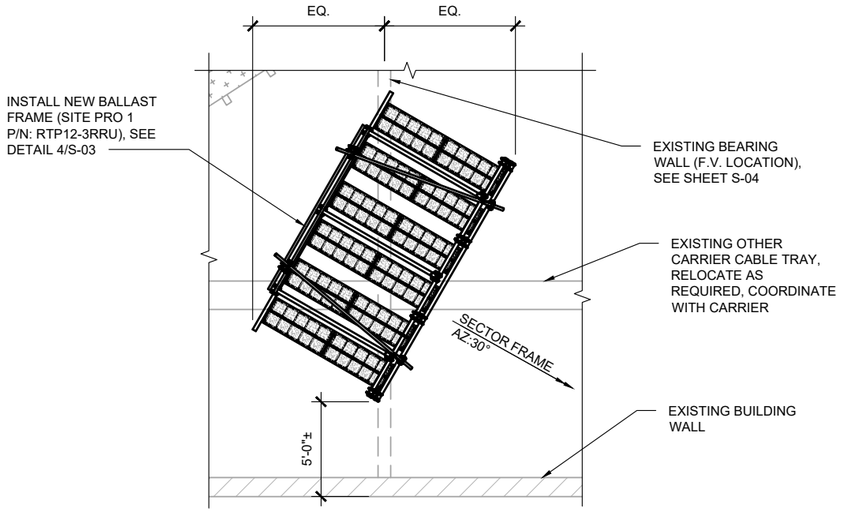
S-01



1 S-02 ALPHA SECTOR
SCALE: 1/8" = 1'-0"



2 S-02 BETA SECTOR
SCALE: 1/8" = 1'-0"



3 S-02 GAMMA SECTOR
SCALE: 1/8" = 1'-0"

STATE OF OHIO
CHRISTOPHER J. SCHEKS
E-78305
REGISTERED PROFESSIONAL ENGINEER
6/23/22

GPD GROUP
Glaus, Pyle, Schomer, Burns & DeHaven, Inc.
520 South Main Street, Suite 2531
Akron, OH 44311
330.572.2100 Fax 330.572.2102

AT&T

C&M HAVEN INC.
FA #: 10077213

DESIGN DRAWINGS PREPARED FOR:

CLIENT #: OH5031

REV.	DATE	DESCRIPTION
0	6/23/22	INITIAL RELEASE

C&M HAVEN INC.
12400 MADISON AVE.
LAKEWOOD, OH 44107

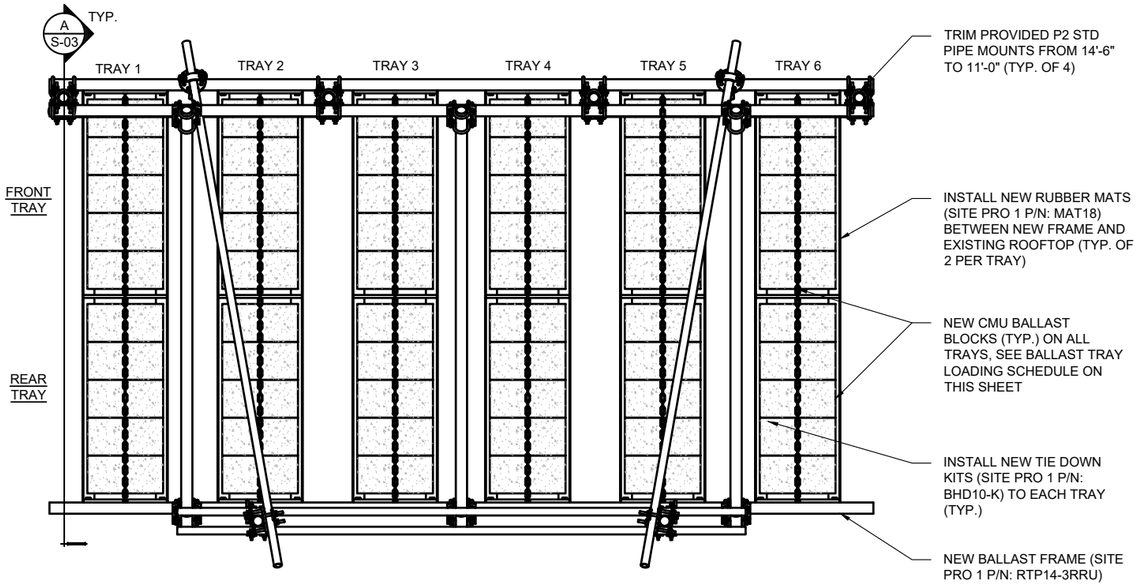
MODIFICATION DETAILS

ISSUED FOR:	
PERMIT	6/23/2022
BID	-
CONSTRUCTION	-
RECORD	-

ENGINEER	DESIGNER
KM	JMJ
PROJECT MANAGER	APPROVED BY
BL	CJS

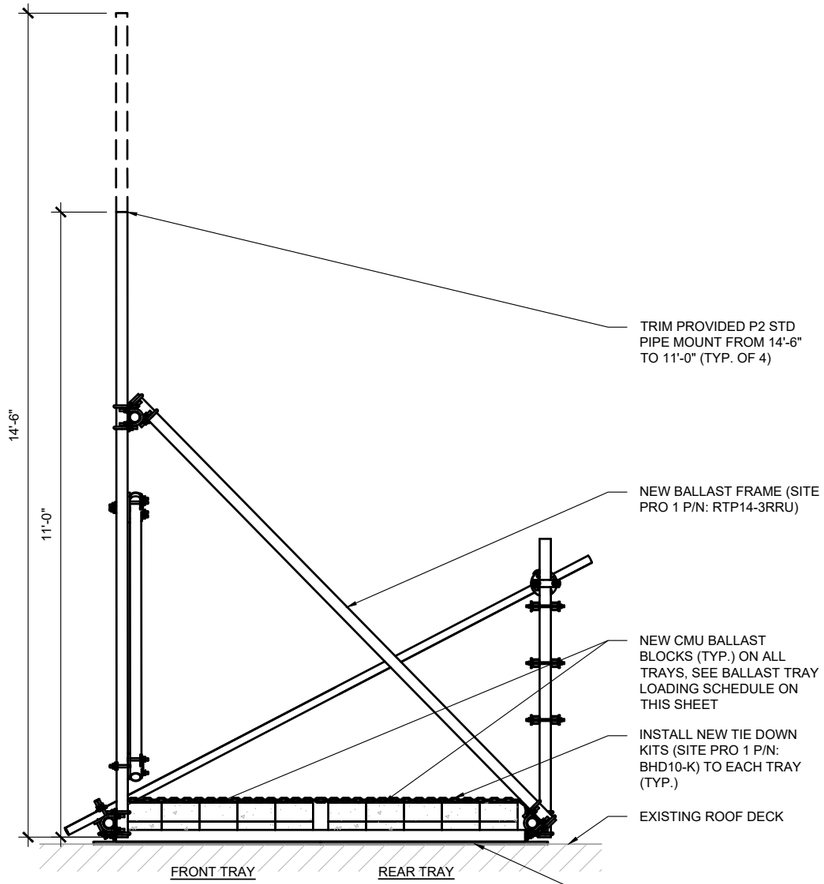
JOB NO.
2022723.05.975.03

S-02



4 S-03 BALLAST FRAME PLAN
SCALE: 3/8" = 1'-0"

NOTE:
1. ALL EXPOSED STEEL SHALL BE SOLVENT CLEANED AND TOUCHED UP WITH TWO COATS OF BRUSH APPLIED ZRC ZINC RICH COLD GALVANIZING PAINT.



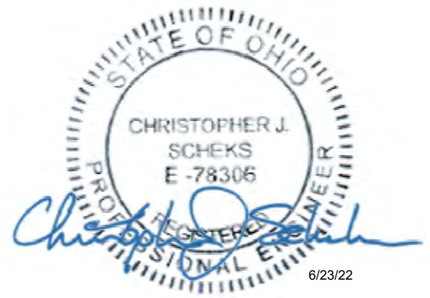
A S-03 SECTION
SCALE: 3/8" = 1'-0"

NOTE:
1. ALL EXPOSED STEEL SHALL BE SOLVENT CLEANED AND TOUCHED UP WITH TWO COATS OF BRUSH APPLIED ZRC ZINC RICH COLD GALVANIZING PAINT.

BALLAST LOADING SCHEDULE

TRAY LOCATION	BALLAST SIZE	WEIGHT (LBS EA.)	TOTAL BLOCKS	TOTAL WEIGHT (LBS)
TRAY 1	4x8x16 SOLID CMU	35	20	700
TRAY 2	4x8x16 SOLID CMU	35	20	700
TRAY 3	4x8x16 SOLID CMU	35	20	700
TRAY 4	4x8x16 SOLID CMU	35	20	700
TRAY 5	4x8x16 SOLID CMU	35	20	700
TRAY 6	4x8x16 SOLID CMU	35	20	700
		TOTALS:	80	4200

NOTE:
1. ALL BALLAST SHALL BE EQUALLY DISTRIBUTED AS SHOWN IN SECTION A/S-03.



6/23/22

GPD GROUP
Glaus, Pyle, Schomer, Burns & DeHaven, Inc.
520 South Main Street, Suite 2531
Akron, OH 44311
330.572.2100 Fax 330.572.2102

AT&T

C&M HAVEN INC.
FA #: 10077213

DESIGN DRAWINGS PREPARED FOR:

CLIENT #: OH5031

REV	DATE	DESCRIPTION
0	6/23/22	INITIAL RELEASE

C&M HAVEN INC.
12400 MADISON AVE.
LAKEWOOD, OH 44107

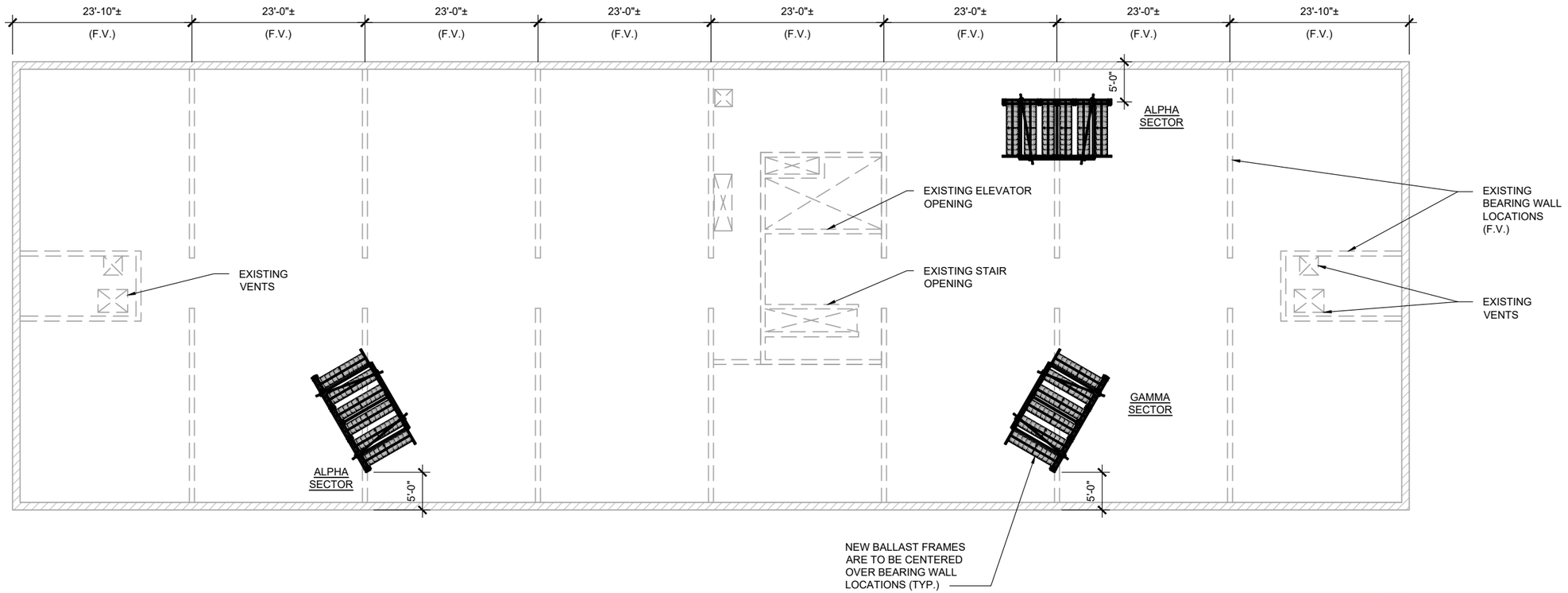
ADDITIONAL DETAILS & SECTIONS

ISSUED FOR:	
PERMIT	6/23/2022
BID	-
CONSTRUCTION	-
RECORD	-

ENGINEER	DESIGNER
KM	JMJ
PROJECT MANAGER	APPROVED BY
BL	CJS

JOB NO.
2022723.05.975.03

S-03



NORTH

BEARING WALL PLAN

SCALE: N.T.S.

STATE OF OHIO
CHRISTOPHER J. SCHEKS
E-78306
REGISTERED PROFESSIONAL ENGINEER

6/23/22

GPD GROUP
Glaus, Pyle, Schomer, Burns & DeHaven, Inc.
520 South Main Street, Suite 2531
Akron, OH 44311
330.572.2100 Fax 330.572.2102

AT&T

C&M HAVEN INC.
FA #: 10077213

DESIGN DRAWINGS
PREPARED FOR:

CLIENT #: OH5031

REV.	DATE	DESCRIPTION
0	6/23/22	INITIAL RELEASE

C&M HAVEN INC.
12400 MADISON AVE.
LAKEWOOD, OH 44107

BEARING WALL PLAN

ISSUED FOR:	
PERMIT	6/23/2022
BID	-
CONSTRUCTION	-
RECORD	-

ENGINEER	DESIGNER
KM	JMJ
PROJECT MANAGER	APPROVED BY
BL	CJS

JOB NO.
2022723.05.975.03

S-04

Diagram - Sector	A	Diagram File Name - OHL05031_ABC_CBand_DoD_v2.vsd					
Atoll Site Name -	OH5031	Location Name -	$SS C&M HAVEN INC.	Market -	NORTHERN OH	Market Cluster -	OHIO/WESTERN PENNSYLVANIA
Comments:							

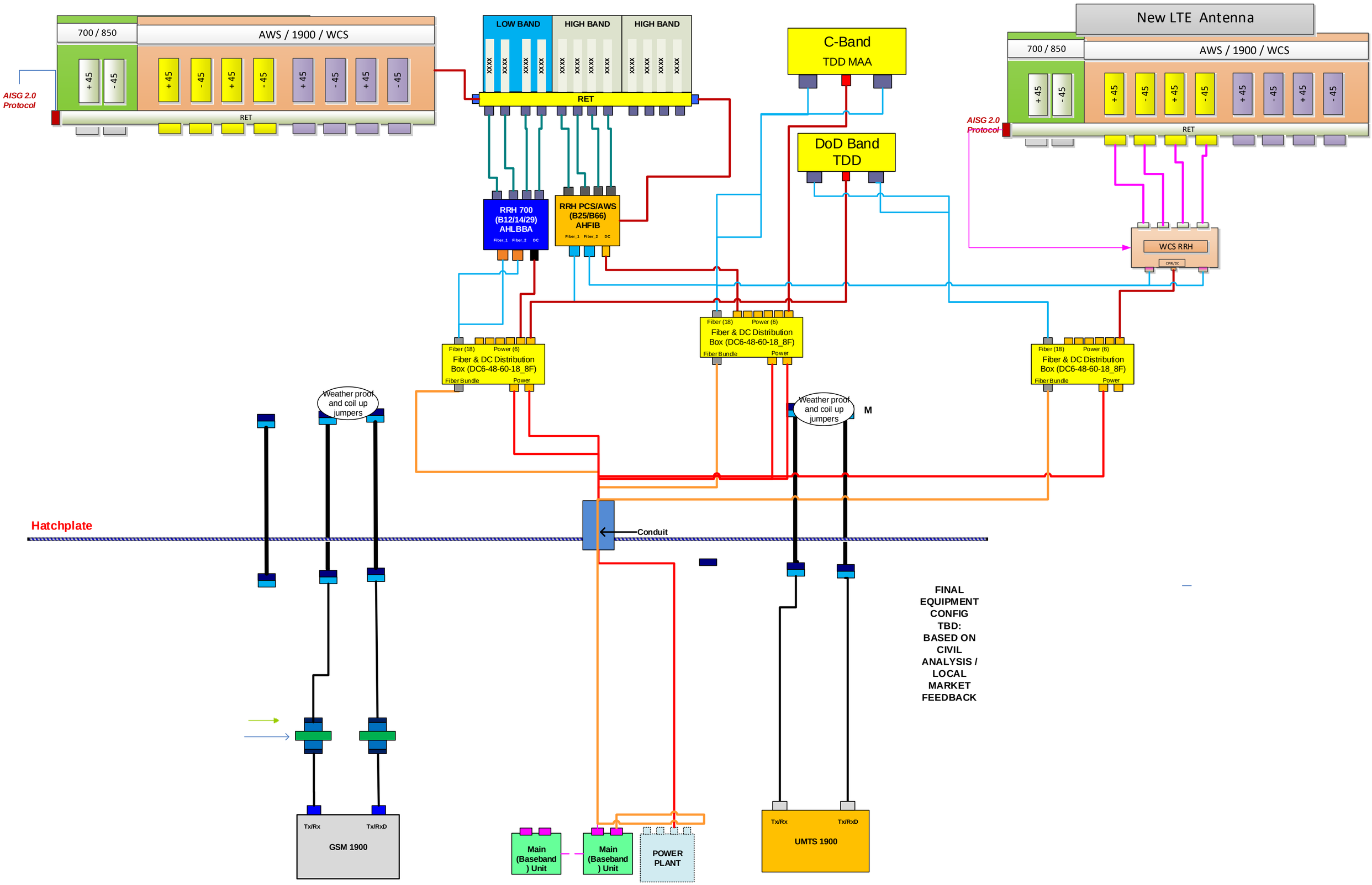


Diagram - Sector	B	Diagram File Name - OHL05031_ABC_CBand_DoD_v2.vsd					
Atoll Site Name -	OH5031	Location Name -	$SS C&M HAVEN INC.	Market -	NORTHERN OH	Market Cluster -	OHIO/WESTERN PENNSYLVANIA
Comments:							

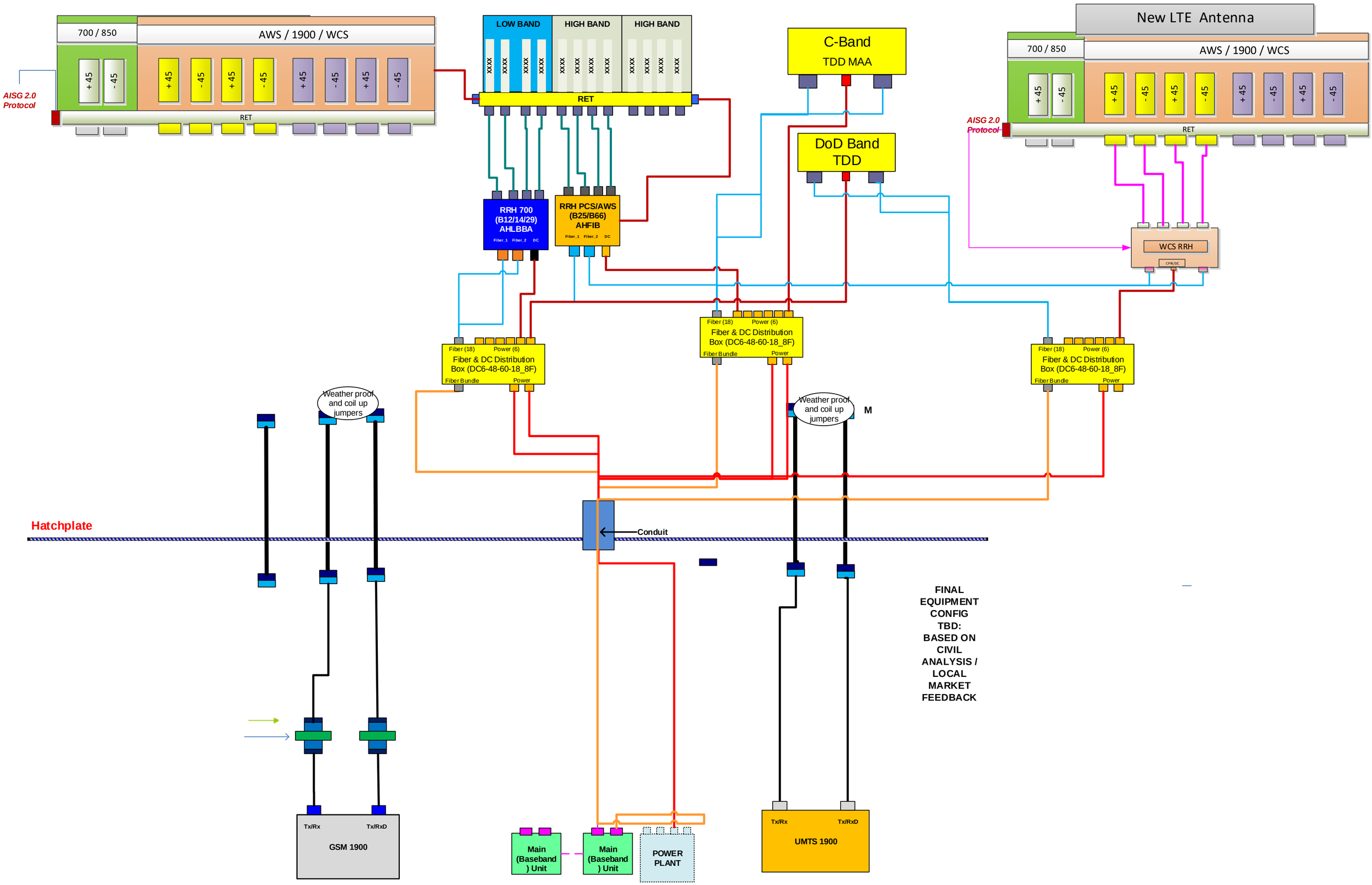


Diagram - Sector	C	Diagram File Name - OHL05031_ABC_CBand_DoD_v2.vsd					
Atoll Site Name -	OH5031	Location Name -	$SS C&M HAVEN INC.	Market -	NORTHERN OH	Market Cluster -	OHIO/WESTERN PENNSYLVANIA
Comments:							

700 / 850
AWS / 1900 / WCS
+ 45
- 45
RET
AISG 2.0 Protocol
LOW BAND
HIGH BAND
HIGH BAND
XXXX
RET
C-Band
TDD MAA
DoD Band
TDD
New LTE Antenna
RRH 700 (B12/14/29) AHLBBA
Fiber_1 Fiber_2 DC
RRH PCS/AWS (B25/B66) AHFIB
WCS RRH
CPR/DC
Fiber (18) Power (6)
Fiber & DC Distribution Box (DC6-48-60-18_8F)
Fiber Bundle
Power
Weather proof and coil up jumpers
M
Hatchplate
Conduit
FINAL EQUIPMENT CONFIG TBD: BASED ON CIVIL ANALYSIS / LOCAL MARKET FEEDBACK
Tx/Rx
Tx/RxD
GSM 1900
Main (Baseband) Unit
POWER PLANT
UMTS 1900

BLACK & VEATCH
Building a world of difference.

BLACK & VEATCH CORPORATION
1333 BURR RIDGE PKWY, STE 200
BURR RIDGE, IL 60527
PH-(630) 590-0933

December 13, 2021

Via FEDEX: 775485093472

SS.C&M Haven, Inc.
12400 Madison Avenue
Lakewood, OH 44107

RE: **Notification of Pending Modifications**
Site ID: NOH5031 - SS C&M Haven Inc.- 10077213 - MROWP055872 -5G NR Radio
Site Address: 12400 MADISON AVENUE, ROOM 11T, LAKEWOOD, OH 44107

To Whom It May Concern:

I am writing to you on behalf of New Cingular Wireless, LLC, (aka AT&T Mobility) regarding the approaching modification work taking place at the wireless communication facility located at the above-mentioned address. As a result of technological improvements, Cingular/AT&T will be upgrading its communication equipment to ensure the successful, secure and ongoing operation of its communication facilities.

The upgrades will consist of replacing and modifying antennas and installing related cable lines and accessory equipment. All the upgrades will be completed in the existing leased space.

We very much appreciate your assistance in the continuing operation of this wireless communications location. Thank you for your attention to this matter, and if you require further information or have questions, please feel free to contact me at (630) 590-0551 or email me at robinsonk@bv.com.

Sincerely,

Kim Bryja

Kim Bryja
Black & Veatch Corporation

Bryja, Kimberly

From: TrackingUpdates@fedex.com
Sent: Thursday, December 16, 2021 9:50 AM
To: Bryja, Kimberly
Subject: FedEx Shipment 775485093472: Your package has been delivered

Hi. Your package was delivered Thu, 12/16/2021 at 10:49am.

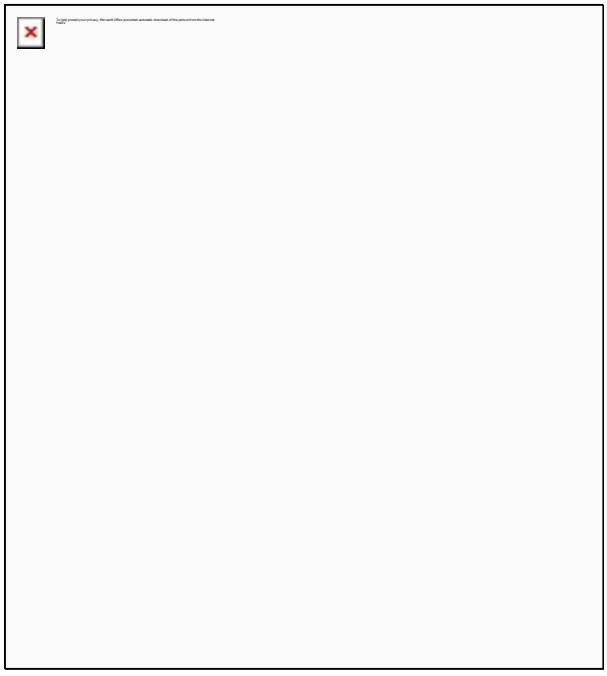
Delivered to 12400 MADISON AVE, LAKEWOOD, OH 44107

OBTAIN PROOF OF DELIVERY

TRACKING NUMBER 775485093472

FROM Black & Veatch
1333 BURR RIDGE PKWY
STE 200
BURR RIDGE, IL, US, 60527

TO	SS C&M Haven, Inc. 12400 Madison Avenue LAKEWOOD, OH, US, 44107
PURCHASE ORDER NUMBER	NOH5031
REFERENCE	1293218486
SHIPPER REFERENCE	1293218486
SHIP DATE	Tue 12/14/2021 05:32 PM
DELIVERED TO	Residence
PACKAGING TYPE	FedEx Envelope
ORIGIN	BURR RIDGE, IL, US, 60527
DESTINATION	LAKEWOOD, OH, US, 44107
SPECIAL HANDLING	Deliver Weekday Residential Delivery
NUMBER OF PIECES	1
TOTAL SHIPMENT WEIGHT	0.50 LB
SERVICE TYPE	FedEx 2Day



FOLLOW FEDEX

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Thank you for your business.

OVERALL PHOTO:

SITE NAME: C&M HAVEN INC.

SITE NUMBER: 975 (OH5031)

STRUCTURE TYPE: BLDG.

STRUCTURE HEIGHT: 116'-0"

PROJECT SUMMARY:

STRUCTURE OWNER:
STREET ADDRESS: 12400 MADISON AVENUE
CITY, STATE ZIP: LAKEWOOD, OH 44107

STRUCTURE AUDIT CREW:
AUDIT CREW: GPD
STREET ADDRESS: 520 SOUTH MAIN ST., SUITE 2531
CITY, STATE ZIP: AKRON, OH 44311
PHONE: (330) 572-2100

STRUCTURE LOCATION:
LAT.: 41° 28' 38.41"
LONG.: -81° 46' 31.79"
STREET ADDRESS: 12400 MADISON AVENUE
CITY, STATE ZIP: LAKEWOOD, OH 44107
COUNTY: CUYAHOGA

SHEET INDEX:

GPD GROUP
Glaus, Pyle, Schomer, Burns & DeHaven, Inc.
520 South Main Street, Suite 2531
Akron, OH 44311
330.572.2100 Fax 330.572.2102

C&M HAVEN INC.
975 (OH5031)

REV	DATE	DESCRIPTION
0	3/11/22	INITIAL RELEASE

C&M HAVEN INC.
12400 MADISON AVENUE
LAKEWOOD, OH 44107

TITLE SHEET

PROJECT DATES	
SITE VISIT:	3/11/2022
REPORT DATE:	-
CONSTRUCTION	-
RECORD	-

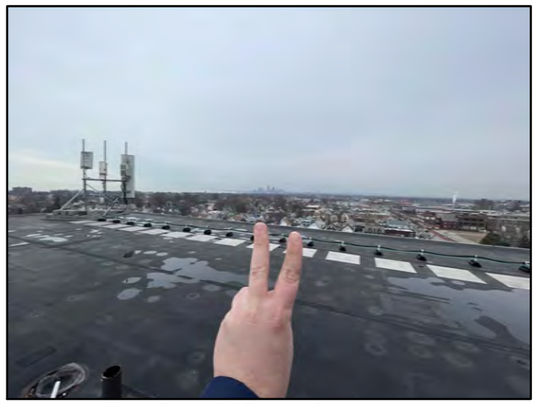
DOCUMENT TYPE
STRUCTURE MAPPING
DESIGNER
KM

JOB NO.
2022723.05.975.03

T-01

Potential Alpha Sector

Potential Beta Sector

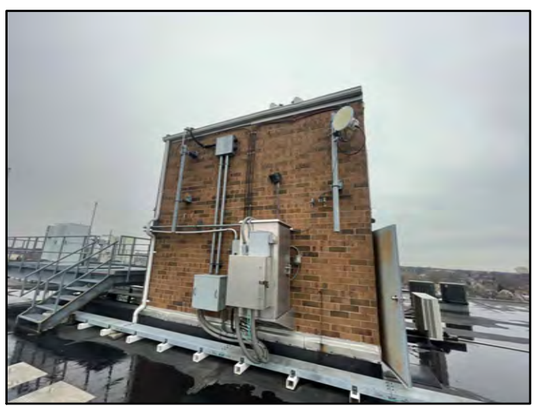


Potential Gamma Sector

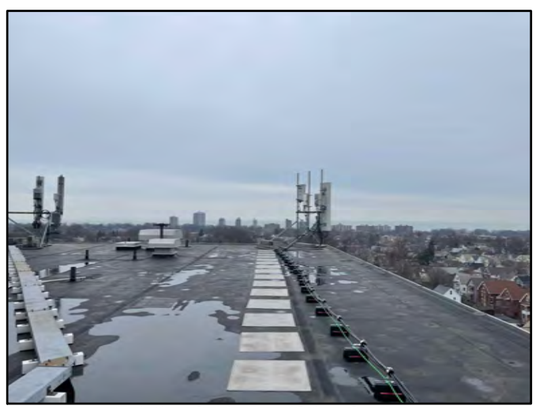
Southern Penthouse Wall

Western Penthouse Wall

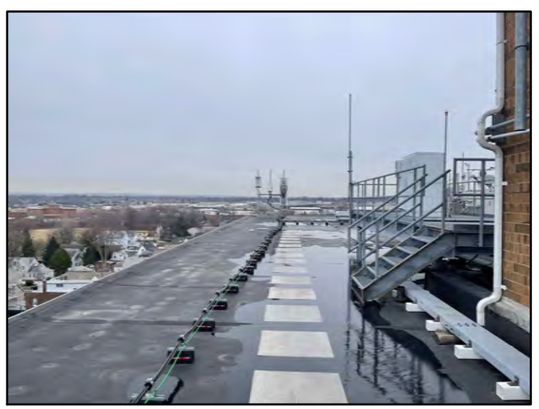
Northern Penthouse Wall



Eastern Penthouse Wall



Existing Cable Run (Other Carrier)



Existing Cable Run (Other Carrier)

SITE PHOTOS

GPD GROUP
Glaus, Pyle, Schomer, Burns & DeHaven, Inc.
520 South Main Street, Suite 2531
Akron, OH 44311
330.572.2100 Fax 330.572.2102

C&M HAVEN INC.
975 (OH5031)

REV	DATE	DESCRIPTION
0	3/11/22	INITIAL RELEASE

C&M HAVEN INC.
12400 MADISON AVENUE
LAKEWOOD, OH 44107

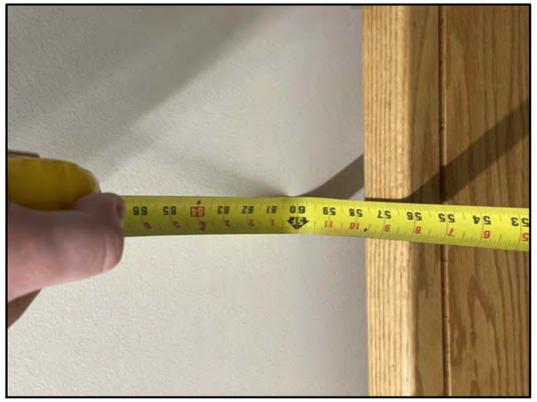
SITE PHOTOS

PROJECT DATES	
SITE VISIT:	3/11/2022
REPORT DATE:	-
CONSTRUCTION	-
RECORD	-

DOCUMENT TYPE
STRUCTURE MAPPING
DESIGNER
KM

JOB NO.
2022723.05.975.03

P-01



Hallway Width

CMU Block Height (Bearing Wall)

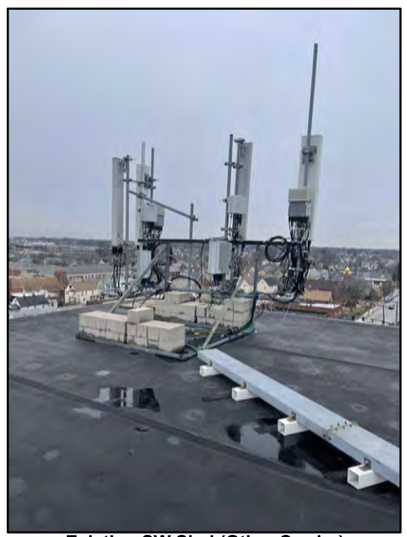
CMU Block Length (Bearing Wall)

Ceiling to Floor Distance

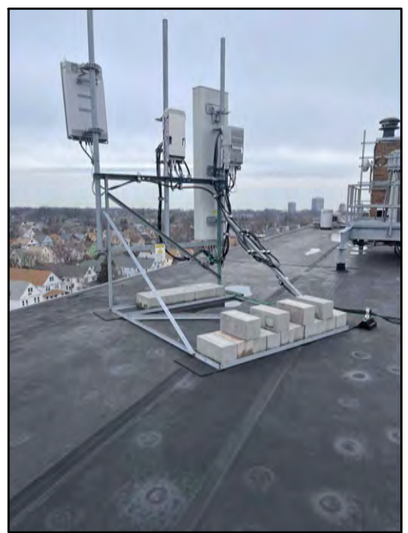
Existing SE Sled (Other Carrier)

Existing NE Sled (Other Carrier)

Existing NW Sled (Other Carrier)



Existing SW Sled (Other Carrier)



Existing W Sled (Other Carrier)

SITE PHOTOS

GPD GROUP
Glaus, Pyle, Schomer, Burns & DeHaven, Inc.
520 South Main Street, Suite 2531
Akron, OH 44311
330.572.2100 Fax 330.572.2102

C&M HAVEN INC.
975 (OH5031)

REV.	DATE	DESCRIPTION
0	3/11/22	INITIAL RELEASE

C&M HAVEN INC.
12400 MADISON AVENUE
LAKEWOOD, OH 44107

SITE PHOTOS

PROJECT DATES	
SITE VISIT:	3/11/2022
REPORT DATE:	-
CONSTRUCTION	-
RECORD	-

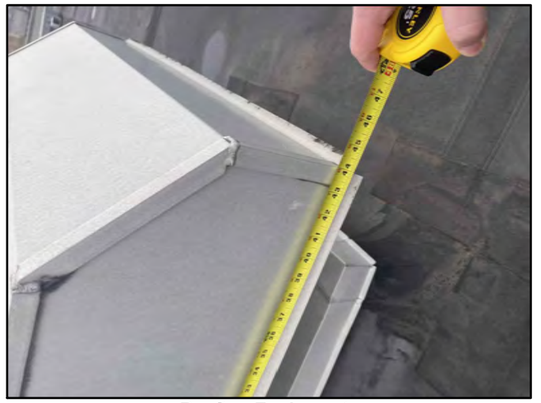
DOCUMENT TYPE
STRUCTURE MAPPING
DESIGNER
KM

JOB NO.
2022723.05.975.03

P-02

Existing Equipment Platform (Other Carrier)

Existing Equipment Platform (Other Carrier)

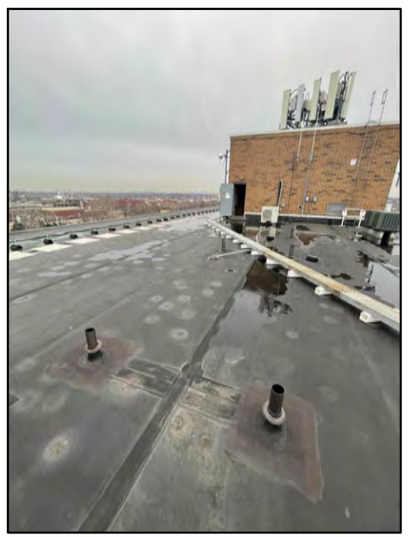


Rooftop Equipment

Rooftop Vents

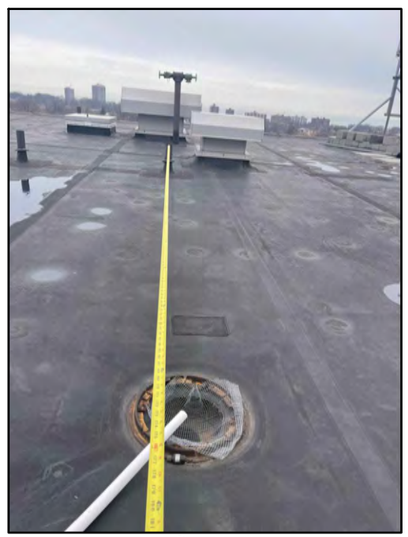
Rooftop Equipment

Rooftop Drain



Rooftop Vents

Edge Distance to Cable Run



Rooftop Drain

SITE PHOTOS

GPD GROUP
Glaus, Pyle, Schomer, Burns & DeHaven, Inc.
520 South Main Street, Suite 2531
Akron, OH 44311
330.572.2100 Fax 330.572.2102

C&M HAVEN INC.
975 (OH5031)

REV.	DATE	DESCRIPTION
0	3/11/22	INITIAL RELEASE

C&M HAVEN INC.
12400 MADISON AVENUE
LAKEWOOD, OH 44107

SITE PHOTOS

PROJECT DATES	
SITE VISIT:	3/11/2022
REPORT DATE:	-
CONSTRUCTION	-
RECORD	-

DOCUMENT TYPE
STRUCTURE MAPPING
DESIGNER
KM

JOB NO.
2022723.05.975.03

P-03

Black & Veatch
6800 West 115th Street, Suite 2292
Overland Park, KS 66211

Brad Laucher
520 South Main St, Suite 2531
Akron, Ohio 44311
(614) 859-1626
blaucher@gpdgroup.com

GPD# 2022723.05.975.03
June 23, 2022

STRUCTURAL ANALYSIS REPORT WITH MODIFICATION DESIGN

AT&T DESIGNATION:	**Site USID:**	**975**
	Site FA:	**10077213**
	Client Number:	**OH5031**
	Site Name:	**C&M HAVEN INC.**
ANALYSIS CRITERIA:	**Codes:**	**TIA-222-G & 2017 Ohio Building Code**
		115-MPH (Ultimate) 3-Second Gust with 0" ice
		89-MPH (Nominal) 3-Second Gust with 0" ice
		40-MPH (Basic) 3-Second Gust with 3/4" ice
SITE DATA:		**12400 Madison Ave, Lakewood, OH 44107, Cuyahoga County**
		Latitude 41° 28' 38.41" N, Longitude 81° 46' 31.78" W
		Market: OHIO/WESTERN PENNSYLVANIA
		(3) Proposed Ballast Frames on 100'-0" Rooftop

To whom it may concern,

GPD is pleased to submit this Structural Analysis Report to determine the structural integrity of the aforementioned structures. The purpose of the analysis is to determine the suitability of the structures with the proposed loading configuration detailed in the analysis summary form.

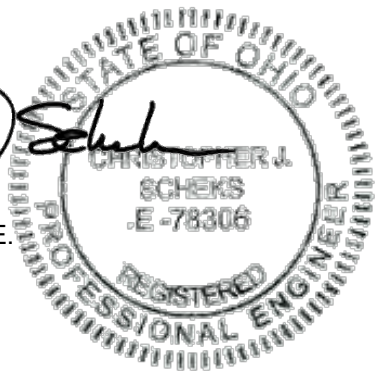
Analysis Results

Mount Stress Level with Proposed Equipment:	101.6%	Pass
Rooftop Stress Level with Proposed Equipment:	Adequate	Pass

In order for the analysis results to be valid for the final loading configuration in Appendix A, the modifications listed in the design drawings by GPD (Project #: 2022723.05.975.03, dated 6/23/2022) must be properly installed.

We at GPD appreciate the opportunity of providing our continuing professional services to you and Black & Veatch. If you have any questions or need further assistance on this or any other projects please do not hesitate to call.

Respectfully submitted,



Christopher J. Scheks, P.E.
Ohio #: E-78306

6/23/2022

SUMMARY & RESULTS

The purpose of this analysis was to verify whether the existing structure and proposed mounts are capable of carrying the proposed loading configuration as specified by AT&T Mobility and commissioned by B&V.

The analysis has been performed in accordance with Section 3108 of the 2017 Ohio Building Code based upon an ultimate 3-second gust wind speed of 115 mph converted to a nominal 3-second gust wind speed of 89 mph per section 1609.3.1 as required for use in the TIA-222-G-2014 Standard per Exception #5 of Section 1609.1.1. Exposure Category C with a maximum topographic factor, Kzt, of 1.0 and Risk Category II were used in this analysis. Applicable Standard references and design criteria are listed in the Appendices.

Note: In order for the analysis results to be valid for the final loading configuration in Appendix A, the modifications listed in the design drawings by GPD (Project #: 2022723.05.975.03, dated 6/23/2022) must be properly installed.

SUMMARY AND RESULTS

Member	Capacity	Results
Ballast Frame (Structural)	64.1%	Pass
Ballast Frame (Stability)	101.6%	Pass*
Rooftop	Adequate	Pass

*Stress ratios up to 105% are within customary engineering tolerances and considered acceptable.

RECOMMENDATIONS

The proposed mounts and existing supporting structure will be satisfactory for the final loading configuration once the proposed modifications designed by GPD (Project #: 2022723.05.975.03, dated 6/23/2022) are installed.

ANALYSIS METHOD

RISA-3D (Version 17.0.4), a commercially available software programs, were used to calculate primary member stresses for various load cases. Selected output from the analysis is included in the Appendices. The following table details the information provided to complete this structural analysis. This analysis is solely based on this information.

DOCUMENTS PROVIDED

Document	Remarks	Source
RF Design Form	Not Provided	N/A
Proposed Loading	Black & Veatch Email Correspondence, dated 10/5/2021	B&V
Construction Drawings	Black & Veatch Project #: 129321 Rev. A, dated 10/1/2021	B&V
Building Drawings	Lipaj • Tomsik Architects / Planners Job No. 7907, dated 9/8/1981	AT&T
Rooftop Mapping	GPD Project #: 2015748.43, dated 10/13/2015	GPD
Modification Drawings	GPD Project #: 2017749.42, dated 11/3/2017	GPD
Modification Design Drawings	GPD Project #: 2022723.05.975.03, dated 6/23/2022	GPD
Previous Structural Analysis	GPD Project #: 2021723.05.975.02, dated 11/12/2021	GPD

ASSUMPTIONS

This structural analysis is based on the theoretical capacity of the members and is not a condition assessment of the structure. This analysis is from information supplied, and therefore, its results are based on and are as accurate as that supplied data. GPD has made no independent determination, nor is it required to, of its accuracy. The following assumptions were made for this structural analysis.

1. The structure member sizes and shapes are considered accurate as supplied. The material grade is as per data supplied and/or as assumed and as stated in the materials section.
2. The appurtenance configuration is as supplied, determined from available photos, and/or as modeled in the analysis. It is assumed to be complete and accurate. All antennas, mounts, coax and waveguides are assumed to be properly installed and supported as per manufacturer requirements.
3. The structures have been properly maintained in accordance with TIA Standards and/or with manufacturer's specifications.
4. All welds and connections are assumed to develop at least the member capacity unless determined otherwise and explicitly stated in this report.
5. All prior structural modifications, if applicable, are assumed to be as per data supplied/available and to have been properly installed.
6. Loading interpreted from photos is accurate to ±5' AGL, antenna size accurate to ±3.3 sf, and coax equal to the number of existing antennas without reserve.
7. All existing and proposed loading has been taken from the available site photos as well as documents supplied to GPD at the time of generating this report. All such documents are listed in the Documents Provided Table and are assumed to be accurate. GPD is not responsible for loading scenarios outside those conveyed in the supplied documentation.
8. In order for the analysis results to be valid for the final loading configuration in Appendix A, the modifications listed in the design drawings by GPD (Project #: 2022723.05.975.03, dated 6/23/2022) must be properly installed.
9. The hollow-core precast planks have been assumed as 4HC8 No Topping (30-S) with a safe superimposed load of 77 psf.

If any of these assumptions are not valid or have been made in error, this analysis may be affected, and GPD should be allowed to review any new information to determine its effect on the structural integrity of the structure.

DISCLAIMER OF WARRANTIES

GPD has performed a recent site visit to the structure to verify the member sizes or antenna/coax loading. If the existing conditions are not as represented on the structure elevation contained in this report, we should be contacted immediately to evaluate the significance of the discrepancy. This is not a condition assessment of the structure or foundation. This report does not replace a full structure inspection. The structure and foundations are assumed to have been properly fabricated, erected, maintained, in good condition, twist free, and plumb.

The engineering services rendered by GPD in connection with this Structural Analysis are limited to a computer analysis of the structure and theoretical capacity of its main structural members. No allowance was made for any damaged, bent, missing, loose, or rusted members (above and below ground). No allowance was made for loose bolts or cracked welds.

This analysis is limited to the designated maximum wind and seismic conditions per the governing structure standards and code. Wind forces resulting in structure vibrations near the structure's resonant frequencies were not considered in this analysis and are outside the scope of this analysis. Lateral loading from any dynamic response was not evaluated under a time-domain based fatigue analysis.

GPD does not analyze the fabrication of the structure (including welding). It is not possible to have all the very detailed information needed to perform a thorough analysis of every structural sub-component and connection of an existing structure. GPD provides a limited scope of service in that we cannot verify the adequacy of every weld, plate connection detail, etc. The purpose of this report is to assess the capability of adding appurtenances usually accompanied by transmission lines to the structure.

It is the owner's responsibility to determine the amount of ice accumulation in excess of the code specified amount, if any, that should be considered in the structure analysis.

The attached sketches are a schematic representation of the analyzed structure. If any material is fabricated from these sketches, the contractor shall be responsible for field verifying the existing conditions, proper fit, and clearance in the field. Any mentions of structural modifications are reasonable estimates and should not be used as a precise construction document. Precise modification drawings are obtainable from GPD, but are beyond the scope of this report.

Structures are designed to carry gravity, wind, and ice loads. All members, legs, diagonals, struts, and redundant members provide structural stability to the structure with little redundancy. Absence or removal of a member can trigger catastrophic failure unless a substitute is provided before any removal. Legs carry axial loads and derive their strength from shorter unbraced lengths by the presence of redundant members and their connection to the diagonals with bolts or welds. If the bolts or welds are removed without providing any substitute to the frame, the leg is subjected to a higher unbraced length that immediately reduces its load carrying capacity. If a diagonal is also removed in addition to the connection, the unbraced length of the leg is greatly increased, jeopardizing its load carrying capacity. Failure of one leg can result in a structure collapse because there is no redundancy. Redundant members and diagonals are critical to the stability of the structure.

GPD makes no warranties, expressed and/or implied, in connection with this report and disclaims any liability arising from material, fabrication, and erection of this structure. GPD will not be responsible whatsoever for, or on account of, consequential or incidental damages sustained by any person, firm, or organization as a result of any data or conclusions contained in this report. The maximum liability of GPD pursuant to this report will be limited to the total fee received for preparation of this report.

APPENDIX A

Structural Analysis Summary Form

Structural Analysis Summary Form

General Info

Site Name	C&M HAVEN INC.
Site Number	975 (OH5031)
FA Number	10077213
Date of Analysis	6/23/2022
Company Performing Analysis	GPD

The information contained in this summary report is not to be used independently from the PE stamped structural analysis.

Structure Info	Description	Date
Structure Type	Rooftop	
Structure Height (AGL)	100'-0"	
Structure Manufacturer	N/A	
Building Drawings	Not Provided	
Mount Model	RTP14-3RRU	
Mount Manufacturer	Site Pro 1	
Rooftop Mapping	GPD Project #: 2015748.43	10/13/2015
Modification Drawings	GPD Project #: 2017749.42	11/3/2017
Previous Structural Analysis	GPD Project #: 2021723.05.975.02	11/12/2021
Construction Drawings	Black & Veatch Project #: 129321 Rev. A	10/1/2021
Modification Design Drawings	GPD Project #: 2022723.05.975.03	6/23/2022

Design Parameters

Design Code Used	TIA-222-G & 2017 Ohio Building Code
Location of Tower (County, State)	Cuyahoga County, OH
Nominal Wind Speed* (mph)	89
Ice Thickness (in)	3/4"
Structure Classification (I, II, III)	II
Exposure Category (B, C, D)	C
Topographic Category (1 to 5)	1

*Converted from a 115 mph Ultimate 3-second gust

Analysis Results (% Maximum Usage)

Existing/Reserved + Future + Proposed Condition	
Ballast Frame (Structural)	64.1%
Ballast Frame (Stability)	101.6%
Rooftop	Adequate
Structure Adequate?	Yes

Existing / Reserved Loading

Antenna								Mount			Transmission Line			
Antenna Owner	Mount Height (ft)	Antenna CL (ft)	Quantity	Type	Manufacturer	Model	Azimuth	Quantity	Manufacturer	Type	Quantity	Model	Size	Attachment Internal/External
AT&T Mobility	121	123	3*	Panel	Powerwave	P65-16-XLH-RR	30/150/270	1	Unknown	Tri-Sector Mount	15	Coax	7/8"	Rooftop
AT&T Mobility	121	123	3*	Panel	Andrew	SBNHH-1D65B	30/150/270			On the Same Mount	1	RET	3/8"	Rooftop
AT&T Mobility	121	123	6	Panel	Kathrein	80010891	30/150/270			On the Same Mount	5	DC Power	#8 AWG	Rooftop
AT&T Mobility	121	123	6*	TMA	Powerwave	LGP 18601				On the Same Mount	1	Fiber	12-Pair	Rooftop
AT&T Mobility	121	123	3*	RRH	Alcatel Lucent	RRH2x40W-07L				On the Same Mount	1	Fiber	18-Pair	Rooftop
AT&T Mobility	121	123	3*	RRH	Alcatel Lucent	B66A-RRH4x45				On the Same Mount	3	Conduit	2"	Rooftop
AT&T Mobility	121	123	3	RRH	Alcatel Lucent	RRH4x25-WCS-4R				On the Same Mount				
AT&T Mobility	121	123	3*	RRH	Alcatel Lucent	B25 RRH4X30-4R				On the Same Mount				
AT&T Mobility	121	123	3*	RRH	Nokia	Flexi RRH 4T4R B14 160W FRBI				On the Same Mount				
AT&T Mobility	121	123	3	OVP	Raycap	DC6-48-60-18-8F				On the Same Mount				

***Indicates equipment/feedline quantity to be removed.**

All remaining existing equipment shall be relocated to the proposed mounts with an Antenna CL of 107'.

Proposed / Final Loading

Antenna								Mount			Transmission Line			
Antenna Owner	Mount Height (ft)	Antenna CL (ft)	Quantity	Type	Manufacturer	Model	Azimuth	Quantity	Manufacturer	Type	Quantity	Model	Size	Attachment Internal/External
AT&T Mobility	107	107	3	Panel	Commscope	NNH4-65C-R6	30/150/270	3	Site Pro 1	Proposed RTP14-3RRH	2	DC Power	#6 AWG	Rooftop
AT&T Mobility	107	107	3	Panel	Nokia	AEQU	30/150/270			proposed mounts				
AT&T Mobility	107	107	3	Panel	Nokia	AEQK	30/150/270			proposed mounts				
AT&T Mobility	107	107	3	RRH	Nokia	AirScale B12/14/29 Triband RRH AHLBBA				proposed mounts				
AT&T Mobility	107	107	3	RRH	Nokia	AirScale Dual RRH 4T4R B25/66 320W AHFIB				proposed mounts				

Note: The proposed equipment shall be installed in addition to the remaining existing/reserved loading at the same elevation.

APPENDIX B

Mount Analysis Output

TIA-222-G: Mount Analysis Wind Loading
USID #: 975 (OH5031) / C&M HAVEN INC.
GPD #: 2022723.05.975.03
Proposed RTP14-3RRU Ballast Frame

Structure Information		
Structure Type:	Building	
Structure Height, h =	100	ft
Mount Centerline, z =	107	ft
Mount Gust Effect Factor, Gh=	1.00	
Risk Category:	II	

Code Specifications		
Governing Building Code:	2015 IBC	
Governing Design Load Code:	ASCE7-10	
TIA/EIA Code:	G	
Nominal Wind Speed (No Ice) =	89	mph (3-s gust)
Nominal Wind Speed (w/ Ice) =	40	mph (3-s gust)
Ice Thickness =	0.75	in
Exposure Category:	C	

Topographic Inputs	
Topographic Feature:	N/A

Number of Mount Components	10

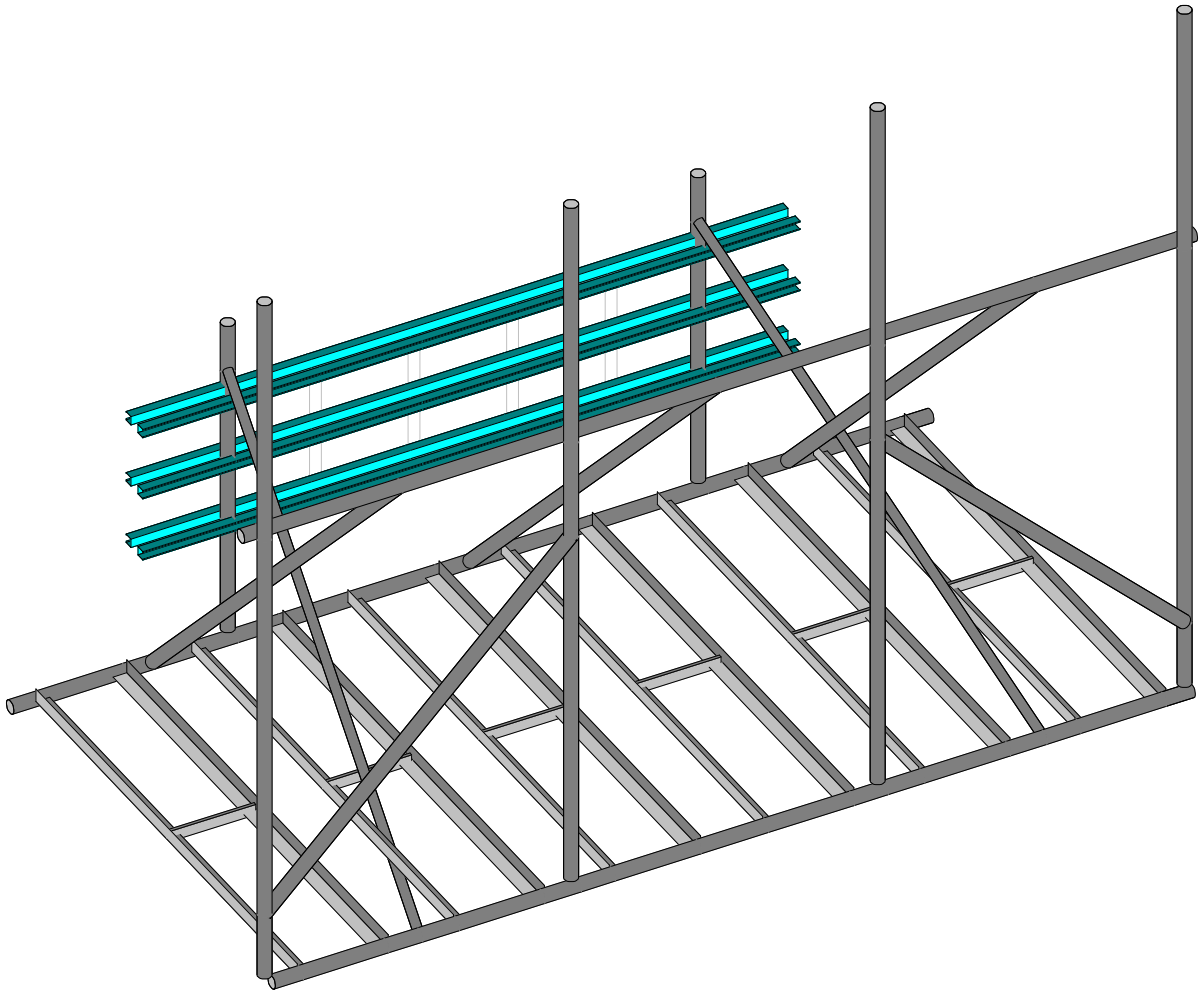
Section Sets										No Ice	Ice Output	
Mount Components	Member Type	Length (in)	Side (Longest seeing wind) (in)	Other Side (in)	Calculated Dc, for ice weight (in)	Dc, for ice weight (in)	Area Type (Round or Flat)	K_a	User's Wind Multiplier	Unshielded Normal Wind Force (lb/ft)*	Unshielded Normal Wind Force w/ Ice (lb/ft)*	Ice Weight (lb/ft)*
Ballast Tray	Angle	87	2.5	2.5		3.54	Flat	1.00	0.00	0.00	0.00	10.77
Ballast Brace	Square/Rect.	15.625	2	0.625		2.10	Flat	1.00	0.00	0.00	0.00	7.80
Base Horizontal Pipe	Pipe	174	2.375	2.375		2.38	Round	1.00	1.00	5.87	2.87	8.37
Face Horizontal Pipe	Pipe	174	2.375	2.375		2.38	Round	1.00	1.00	5.87	2.87	8.37
Vertical Mount Pipe	Pipe	132	2.375	2.375		2.38	Round	1.00	1.00	5.87	2.76	8.37
Vertical RRH Pipe	Pipe	60	2.375	2.375		2.38	Round	1.00	1.00	5.87	2.10	8.37
Diagonal Bracing	Pipe	78.5	2.375	2.375		2.38	Round	1.00	1.00	5.87	2.27	8.37
Face Kicker	Pipe	119	2.375	2.375		2.38	Round	1.00	1.00	5.87	2.64	8.37
RRH Kicker	Pipe	104	1.66	1.66		1.66	Round	1.00	1.00	4.11	2.31	6.90
RRH Unistrut	Square/Rect.	120	1.625	1.625		2.30	Flat	1.00	1.00	6.70	2.98	8.22

*All forces are unfactored

Number of Appurtenances	8

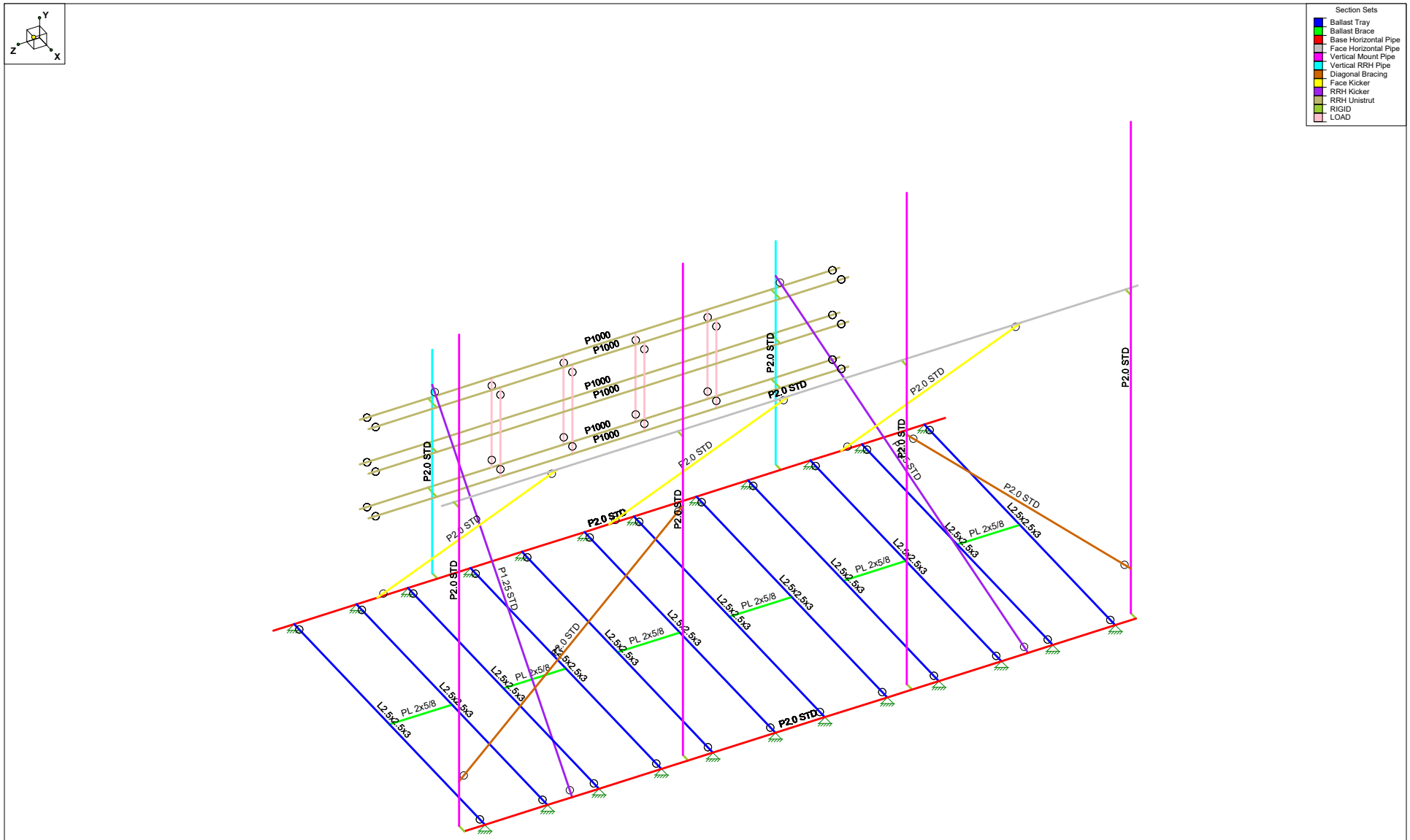
Appurtenances								Shielding			No Ice		Ice Output	
Appurtenance Model	Loading Elevation (ft)	Height (in)	Front Width (in)	Side Depth (in)	Wt (lbs)	Type for Area	Front Shielding (%)	Side Shielding (%)	K_a and/or block shielding	Normal Wind Force (lbs)*	Wt (lbs) (no ice)*	Normal Wind Force (lbs) (w/ ice)*	Wt (lbs) (only ice)*
(2) 80010891	107.0	78.5	14.8	6.7	79.7	Flat	0%	0%	1.00	264.30	79.70	60.38	233.56
(1) NNH4-65C-R6	**107.0**	**96**	**19.6**	**7.8**	**102.1**	**Flat**	**0%**	**0%**	**1.00**	**422.21**	**102.10**	**93.94**	**351.16**
(1) AEQU	**107.0**	**29.5**	**17.7**	**9.5**	**99.2**	**Flat**	**0%**	**0%**	**1.00**	**107.61**	**99.20**	**28.84**	**128.31**
(1) AEQK	**107.0**	**29.5**	**17.7**	**9.5**	**99.2**	**Flat**	**0%**	**0%**	**1.00**	**107.61**	**99.20**	**28.84**	**128.31**
(1) RRH4x25-WCS-4R	107.0	31.5	12	8.7	70	Flat	0%	0%	1.00	78.26	70.00	22.32	103.23
(1) AirScale B12/14/29 Triband RRH AHLBBA	**107.0**	**24**	**12.7**	**14.9**	**101.4**	**Flat**	**0%**	**0%**	**1.00**	**62.82**	**101.40**	**18.32**	**113.42**
(1) AirScale Dual RRH 4T4R B25/66 320W AHFIB	**107.0**	**28.7**	**9.4**	**15.4**	**88.2**	**Flat**	**0%**	**0%**	**1.00**	**56.74**	**88.20**	**14.63**	**114.66**
(1) DC6-48-60-18-8F	107.0	24	11	11	18.9	Round	0%	0%	1.00	54.41	18.90	16.38	89.19

*All forces are unfactored



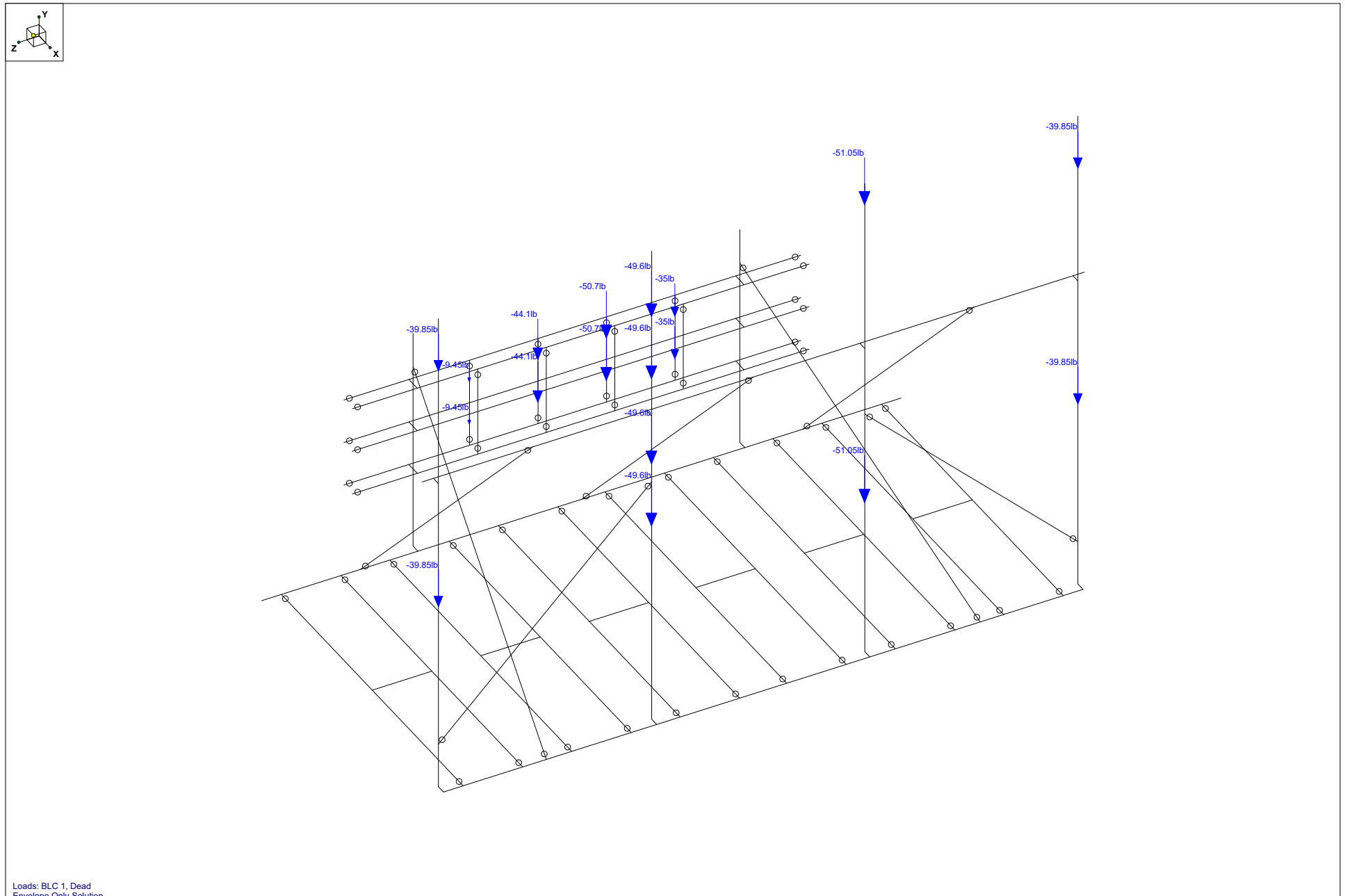
Envelope Only Solution

GPD		SK - 1
Mocka, Krisli	USID #: 975 (OH5031) / C&M HAVEN INC.	
GPD #: 2022723.05.975.03	Proposed Ballast Frame (RTP14-3RRU)	975 RTP14-3RRU.Loaded.r3d



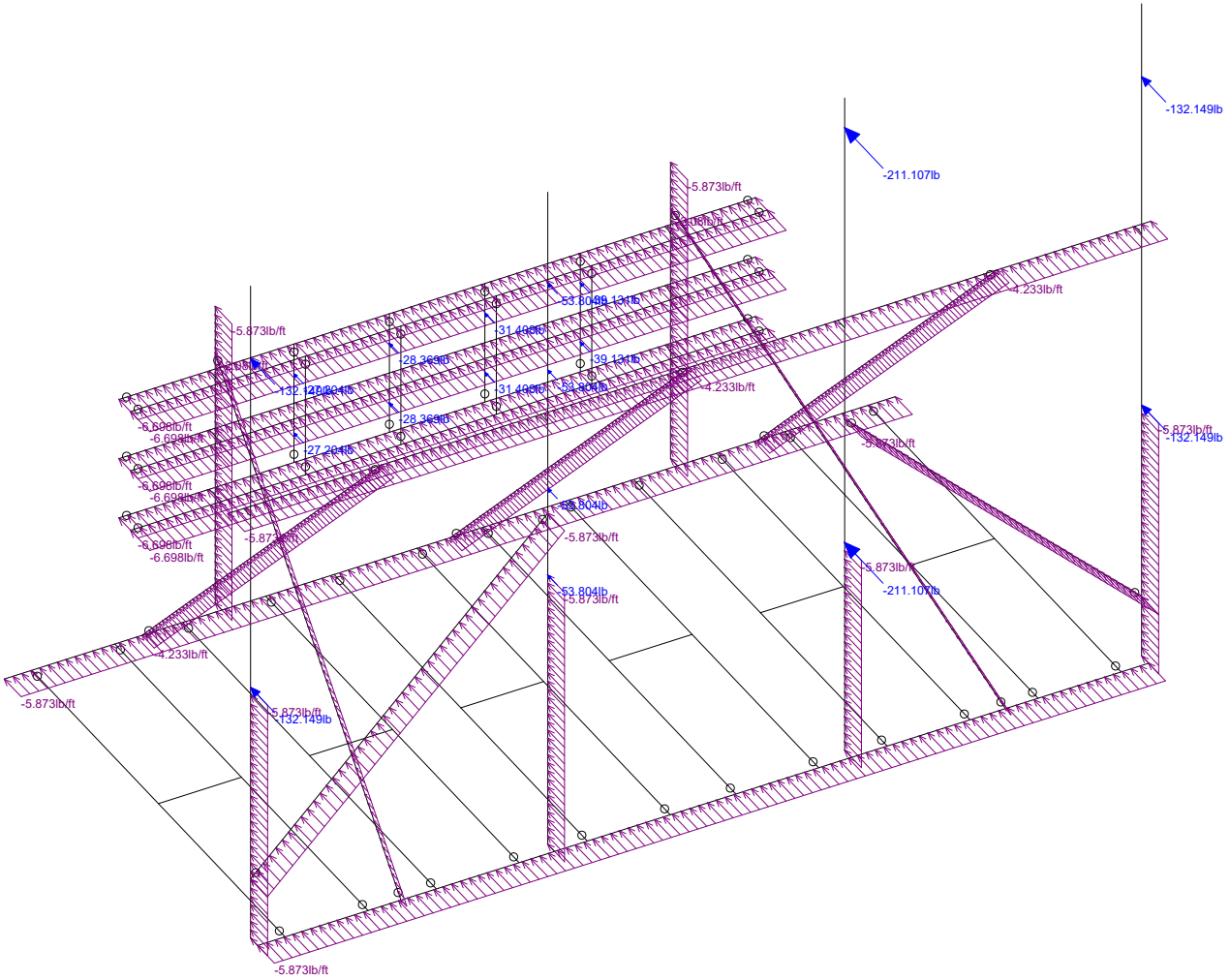
Envelope Only Solution

GPD	USID #: 975 (OH5031) / C&M HAVEN INC.	SK - 2
Mocka, Krisli		
GPD #: 2022723.05.975.03	Mount Members	975 RTP14-3RRU.Loaded.r3d



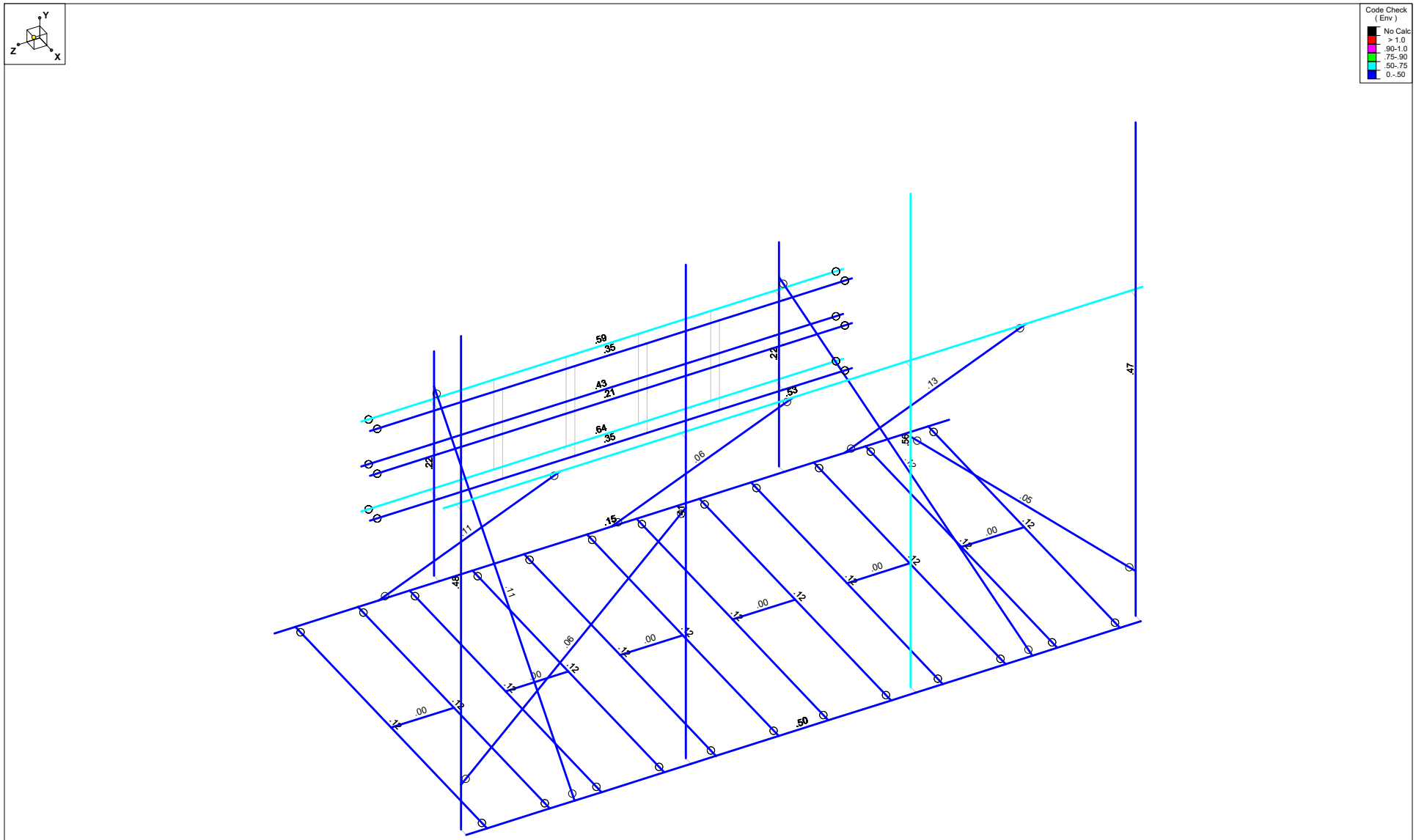
Loads: BLC 1, Dead
Envelope Only Solution

GPD		SK - 3
Mocka, Krisli	USID #: 975 (OH5031) / C&M HAVEN INC.	
GPD #: 2022723.05.975.03	Equipment Dead Loads	975 RTP14-3RRU.Loaded.r3d



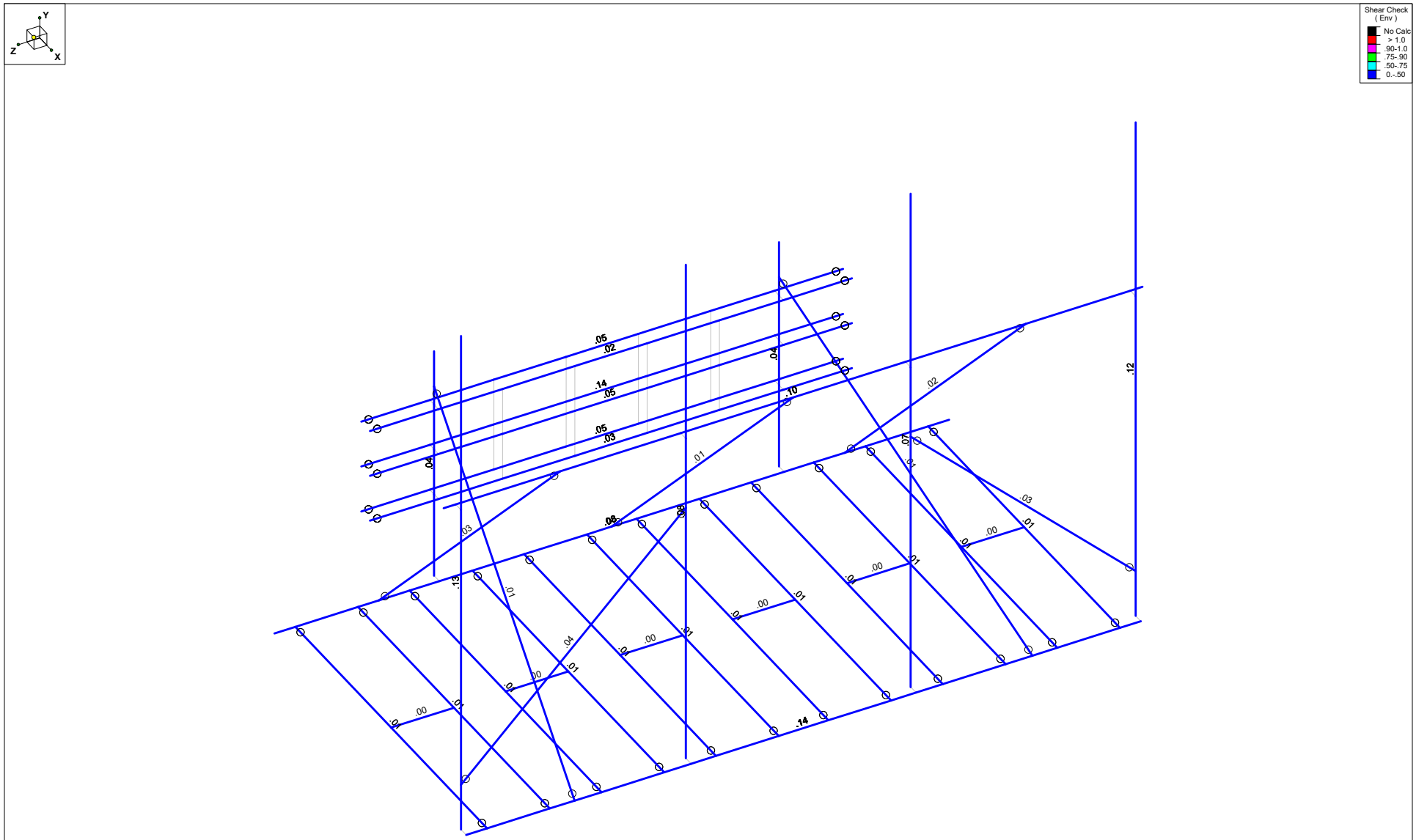
Loads: BLC 2, No Ice Wind 0 deg
Envelope Only Solution

GPD		SK - 4
Mocka, Krisli	USID #: 975 (OH5031) / C&M HAVEN INC.	
GPD #: 2022723.05.975.03	Example Wind Loading	975 RTP14-3RRU.Loaded.r3d



Member Code Checks Displayed (Enveloped)
Envelope Only Solution

GPD		SK - 5
Mocka, Krisli	USID #: 975 (OH5031) / C&M HAVEN INC.	
GPD #: 2022723.05.975.03	Bending Checks	975 RTP14-3RRU.Loaded.r3d



Member Shear Checks Displayed (Enveloped)
Envelope Only Solution

GPD		SK - 6
Mocka, Krisli	USID #: 975 (OH5031) / C&M HAVEN INC.	
GPD #: 2022723.05.975.03	Shear Checks	975 RTP14-3RRU.Loaded.r3d

(Global) Model Settings

Display Sections for Member Calcs	5
Max Internal Sections for Member Calcs	97
Include Shear Deformation?	Yes
Increase Nailing Capacity for Wind?	Yes
Include Warping?	Yes
Trans Load Btwn Intersecting Wood Wall?	Yes
Area Load Mesh (in^2)	144
Merge Tolerance (in)	.12
P-Delta Analysis Tolerance	0.50%
Include P-Delta for Walls?	Yes
Automatically Iterate Stiffness for Walls?	No
Max Iterations for Wall Stiffness	3
Gravity Acceleration (in/sec^2)	386.4
Wall Mesh Size (in)	12
Eigensolution Convergence Tol. (1.E-)	4
Vertical Axis	Y
Global Member Orientation Plane	XZ
Static Solver	Sparse Accelerated
Dynamic Solver	Accelerated Solver

Hot Rolled Steel Code	AISC 15th(360-16): LRFD
Adjust Stiffness?	No
RISAConnection Code	None
Cold Formed Steel Code	AISI S100-16: LRFD
Wood Code	None
Wood Temperature	< 100F
Concrete Code	None
Masonry Code	None
Aluminum Code	None - Building
Stainless Steel Code	None

Number of Shear Regions	4
Region Spacing Increment (in)	4
Biaxial Column Method	Exact Integration
Parme Beta Factor (PCA)	.65
Concrete Stress Block	Rectangular
Use Cracked Sections?	Yes
Use Cracked Sections Slab?	No
Bad Framing Warnings?	No
Unused Force Warnings?	Yes
Min 1 Bar Diam. Spacing?	No
Concrete Rebar Set	REBAR_SET_ASTMA615
Min % Steel for Column	1
Max % Steel for Column	8

(Global) Model Settings, Continued

Seismic Code	None
Seismic Base Elevation (in)	Not Entered
Add Base Weight?	Yes
Ct X	.02
Ct Z	.02
T X (sec)	Not Entered
T Z (sec)	Not Entered
R X	3
R Z	3

Hot Rolled Steel Properties

	Label	E [ksi]	G [ksi]	Nu	Therm (/...	Density[k/ft^3]	Yield[ksi]	Ry	Fu[ksi]	Rt
1	A36 Gr.36	29000	11154	.3	.65	.49	36	1.5	58	1.2
2	A53 Gr.B	29000	11154	.3	.65	.49	35	1.6	60	1.2

Cold Formed Steel Properties

	Label	E [ksi]	G [ksi]	Nu	Therm (/1E5 F)	Density[k/ft^3]	Yield[ksi]	Fu[ksi]
1	A653 SS Gr33	29500	11346	.3	.65	.49	33	45

Hot Rolled Steel Section Sets

	Label	Shape	Type	Design List	Material	Design...	A [in2]	Iyy [in...	Izz [in...	J [in4]
1	Ballast Tray	L2.5x2.5x3	None	None	A36 Gr.36	Typical	.901	.535	.535	.011
2	Ballast Brace	PL 2x5/8	None	None	A36 Gr.36	Typical	1.25	.041	.417	.131
3	Base Horizontal Pipe	P2.0 STD	None	None	A53 Gr.B	Typical	1.075	.666	.666	1.331
4	Face Horizontal Pipe	P2.0 STD	None	None	A53 Gr.B	Typical	1.075	.666	.666	1.331
5	Vertical Mount Pipe	P2.0 STD	None	None	A53 Gr.B	Typical	1.075	.666	.666	1.331
6	Vertical RRH Pipe	P2.0 STD	None	None	A53 Gr.B	Typical	1.075	.666	.666	1.331
7	Diagonal Bracing	P2.0 STD	None	None	A53 Gr.B	Typical	1.075	.666	.666	1.331
8	Face Kicker	P2.0 STD	None	None	A53 Gr.B	Typical	1.075	.666	.666	1.331
9	RRH Kicker	P1.25 STD	None	None	A53 Gr.B	Typical	.669	.195	.195	.389

Cold Formed Steel Section Sets

	Label	Shape	Type	Design List	Material	Design Rul...	A [in2]	Iyy [in4]	Izz [in4]	J [in4]
1	RRH Unistrut	P1000	None	None	A653 SS Gr33	Typical	.513	.162	.219	.002

Joint Boundary Conditions

	Joint Label	X [k/in]	Y [k/in]	Z [k/in]	X Rot.[k-ft/rad]	Y Rot.[k-ft/rad]	Z Rot.[k-ft/rad]
1	F12	Reaction	Reaction	Reaction			
2	F11	Reaction	Reaction	Reaction			
3	F10	Reaction	Reaction	Reaction			
4	F9	Reaction	Reaction	Reaction			
5	F8	Reaction	Reaction	Reaction			
6	F7	Reaction	Reaction	Reaction			
7	F6	Reaction	Reaction	Reaction			
8	F5	Reaction	Reaction	Reaction			

Joint Boundary Conditions (Continued)

	Joint Label	X [k/in]	Y [k/in]	Z [k/in]	X Rot.[k-ft/rad]	Y Rot.[k-ft/rad]	Z Rot.[k-ft/rad]
9	F4	Reaction	Reaction	Reaction			
10	F3	Reaction	Reaction	Reaction			
11	F2	Reaction	Reaction	Reaction			
12	F1	Reaction	Reaction	Reaction			
13	B1	Reaction	Reaction	Reaction			
14	B2	Reaction	Reaction	Reaction			
15	B3	Reaction	Reaction	Reaction			
16	B4	Reaction	Reaction	Reaction			
17	B5	Reaction	Reaction	Reaction			
18	B6	Reaction	Reaction	Reaction			
19	B7	Reaction	Reaction	Reaction			
20	B8	Reaction	Reaction	Reaction			
21	B9	Reaction	Reaction	Reaction			
22	B10	Reaction	Reaction	Reaction			
23	B11	Reaction	Reaction	Reaction			
24	B12	Reaction	Reaction	Reaction			

Member Primary Data

	Label	I Joint	J Joint	K Joint	Rotate(d...	Section/Shape	Type	Design Li...	Material	Design ...
1	M61	N127A	N128A			Ballast Brace	None	None	A36 Gr.36	Typical
2	M62	N129A	N130A			Ballast Brace	None	None	A36 Gr.36	Typical
3	M63	N131A	N132A			Ballast Brace	None	None	A36 Gr.36	Typical
4	M64	N133A	N134A			Ballast Brace	None	None	A36 Gr.36	Typical
5	M65	N135A	N136A			Ballast Brace	None	None	A36 Gr.36	Typical
6	M66	N137	N138			Ballast Brace	None	None	A36 Gr.36	Typical
7	M49	F1	B1			Ballast Tray	None	None	A36 Gr.36	Typical
8	M50	F2	B2		270	Ballast Tray	None	None	A36 Gr.36	Typical
9	M51	F3	B3			Ballast Tray	None	None	A36 Gr.36	Typical
10	M52	F4	B4		270	Ballast Tray	None	None	A36 Gr.36	Typical
11	M53	F5	B5			Ballast Tray	None	None	A36 Gr.36	Typical
12	M54	F6	B6		270	Ballast Tray	None	None	A36 Gr.36	Typical
13	M55	F7	B7			Ballast Tray	None	None	A36 Gr.36	Typical
14	M56	F8	B8		270	Ballast Tray	None	None	A36 Gr.36	Typical
15	M57	F9	B9			Ballast Tray	None	None	A36 Gr.36	Typical
16	M58	F10	B10		270	Ballast Tray	None	None	A36 Gr.36	Typical
17	M59	F11	B11			Ballast Tray	None	None	A36 Gr.36	Typical
18	M60	F12	B12		270	Ballast Tray	None	None	A36 Gr.36	Typical
19	M26	N88	N16			Base Horizontal Pipe	None	None	A53 Gr.B	Typical
20	M27	N71	N72			Base Horizontal Pipe	None	None	A53 Gr.B	Typical
21	M29	N73	N74			Face Horizontal Pipe	None	None	A53 Gr.B	Typical
22	M47	N110	N113			Face Kicker	None	None	A53 Gr.B	Typical
23	M48	N111	N114			Face Kicker	None	None	A53 Gr.B	Typical
24	M64A	N134B	N112			Face Kicker	None	None	A53 Gr.B	Typical
25	P1-RRU1	N131	N132			LOAD	None	None	RIGID	DR1_1
26	P1-RRU2	N119	N120			LOAD	None	None	RIGID	DR1_1
27	P2-RRU1	N128	N129			LOAD	None	None	RIGID	DR1_1
28	P2-RRU2	N116	N117			LOAD	None	None	RIGID	DR1_1
29	P3-RRU1	N125	N126			LOAD	None	None	RIGID	DR1_1
30	P3-RRU2	N42	N43			LOAD	None	None	RIGID	DR1_1
31	P4-RRU1	N134	N135			LOAD	None	None	RIGID	DR1_1

Member Primary Data (Continued)

	Label	I Joint	J Joint	K Joint	Rotate(d...	Section/Shape	Type	Design Li...	Material	Design ...
32	P4-RRU2	N122	N123			LOAD	None	None	RIGID	DR1_1
33	M10	N16	N1			RIGID	None	None	RIGID	Typical
34	M14	N14	N17			RIGID	None	None	RIGID	Typical
35	M17	N18	N19			RIGID	None	None	RIGID	Typical
36	M24	N23	N22			RIGID	None	None	RIGID	Typical
37	M30	N78	N75			RIGID	None	None	RIGID	Typical
38	M31	N30	N29			RIGID	None	None	RIGID	Typical
39	M32	N76	N79			RIGID	None	None	RIGID	Typical
40	M33	N83	N80			RIGID	None	None	RIGID	Typical
41	M34	N81	N84			RIGID	None	None	RIGID	Typical
42	M35	N37	N36			RIGID	None	None	RIGID	Typical
43	M36	N88	N85			RIGID	None	None	RIGID	Typical
44	M37	N86	N89			RIGID	None	None	RIGID	Typical
45	M38	N90	N91			RIGID	None	None	RIGID	Typical
46	M40	N95	N94			RIGID	None	None	RIGID	Typical
47	M42	N98	N97			RIGID	None	None	RIGID	Typical
48	M44	N101	N100			RIGID	None	None	RIGID	Typical
49	M45	N106	N108			RRH Kicker	None	None	A53 Gr.B	Typical
50	M46	N107	N109			RRH Kicker	None	None	A53 Gr.B	Typical
51	INNER BOT	N24	N26			RRH Unistrut	None	None	A653 SS Gr33	Typical
52	INNER MID	N31	N33			RRH Unistrut	None	None	A653 SS Gr33	Typical
53	INNER TOP	N38	N40			RRH Unistrut	None	None	A653 SS Gr33	Typical
54	OUTER BOT	N25	N27		180	RRH Unistrut	None	None	A653 SS Gr33	Typical
55	OUTER MID	N32	N34		180	RRH Unistrut	None	None	A653 SS Gr33	Typical
56	OUTER TOP	N39	N41		180	RRH Unistrut	None	None	A653 SS Gr33	Typical
57	M41	N105	N103			Diagonal Bracing	None	None	A53 Gr.B	Typical
58	M43	N104	N102			Diagonal Bracing	None	None	A53 Gr.B	Typical
59	P1	N15	N1			Vertical Mount Pipe	None	None	A53 Gr.B	Typical
60	P2	N77	N75			Vertical Mount Pipe	None	None	A53 Gr.B	Typical
61	P3	N82	N80			Vertical Mount Pipe	None	None	A53 Gr.B	Typical
62	P4	N87	N85			Vertical Mount Pipe	None	None	A53 Gr.B	Typical
63	M20	N20	N19			Vertical RRH Pipe	None	None	A53 Gr.B	Typical
64	M39	N92	N91			Vertical RRH Pipe	None	None	A53 Gr.B	Typical

Hot Rolled Steel Design Parameters

	Label	Shape	Length[in]	Lbyy[in]	Lbzz[in]	Lcomp top[i...	Lcomp bot[i...	L-torqu...	Kyy	Kzz	Cb	Fun...
1	M61	Ballast Brace	15.625									Late...
2	M62	Ballast Brace	15.625									Late...
3	M63	Ballast Brace	15.625									Late...
4	M64	Ballast Brace	15.625									Late...
5	M65	Ballast Brace	15.625									Late...
6	M66	Ballast Brace	15.625									Late...
7	M49	Ballast Tray	87	43.5					1	1		Late...
8	M50	Ballast Tray	87		43.5				1	1		Late...
9	M51	Ballast Tray	87	43.5					1	1		Late...
10	M52	Ballast Tray	87		43.5				1	1		Late...
11	M53	Ballast Tray	87	43.5					1	1		Late...
12	M54	Ballast Tray	87		43.5				1	1		Late...
13	M55	Ballast Tray	87	43					1	1		Late...
14	M56	Ballast Tray	87		43.5				1	1		Late...

Hot Rolled Steel Design Parameters (Continued)

	Label	Shape	Length[in]	Lbyy[in]	Lbzz[in]	Lcomp top[i...	Lcomp bot[i...	L-torqu...	Kyy	Kzz	Cb	Fun...
15	M57	Ballast Tray	87	43.5					1	1		Late...
16	M58	Ballast Tray	87		43.5				1	1		Late...
17	M59	Ballast Tray	87	43.5					1	1		Late...
18	M60	Ballast Tray	87		43.5				1	1		Late...
19	M26	Base Horizontal Pipe	168	15.625					1	1		Late...
20	M27	Base Horizontal Pipe	168	15.625					1	1		Late...
21	M29	Face Horizontal Pipe	174	58	56				1	1		Late...
22	M47	Face Kicker	118.639						1	1		Late...
23	M48	Face Kicker	118.639						1	1		Late...
24	M64A	Face Kicker	118.639						1	1		Late...
25	M45	RRH Kicker	103.663						1	1		Late...
26	M46	RRH Kicker	103.663						1	1		Late...
27	M41	Diagonal Bracing	78.492						1	1		Late...
28	M43	Diagonal Bracing	78.492						1	1		Late...
29	P1	Vertical Mount Pipe	132	85.5	85.5				2.1	2.1		Late...
30	P2	Vertical Mount Pipe	132	85.5	85.5				2.1	2.1		Late...
31	P3	Vertical Mount Pipe	132	85.5	85.5				2.1	2.1		Late...
32	P4	Vertical Mount Pipe	132	85.5	85.5				2.1	2.1		Late...
33	M20	Vertical RRH Pipe	60						2.1	2.1		Late...
34	M39	Vertical RRH Pipe	60						2.1	2.1		Late...

Cold Formed Steel Design Parameters

	Label	Shape	Lengt...	Lbyy[in]	Lbzz[in]	Lcomp t...	Lcomp b...	L-torque...	Kyy	Kzz	Cb	R	a[in]	Fun...
1	INNER ...	RRH Unistrut	120	85.875	85.875									Late...
2	INNER ...	RRH Unistrut	120	85.875	85.875									Late...
3	INNER ...	RRH Unistrut	120	85.875	85.875									Late...
4	OUTER ...	RRH Unistrut	120	85.875	85.875									Late...
5	OUTER ...	RRH Unistrut	120	85.875	85.875									Late...
6	OUTER ...	RRH Unistrut	120	85.875	85.875									Late...

Basic Load Cases

	BLC Description	Category	X Gravi...	Y Gravi...	Z Gravity	Joint	Point	Distrib...	Area(M...	Surface(Plate/Wa...
1	Dead	DL		-1			18			
2	No Ice Wind 0 deg	None					18	22		
3	No Ice Wind 30 deg	None					36	44		
4	No Ice Wind 60 deg	None					36	44		
5	No Ice Wind 90 deg	None					18	13		
6	No Ice Wind 120 deg	None					36	44		
7	No Ice Wind 150 deg	None					36	44		
8	No Ice Wind 180 deg	None					18	22		
9	No Ice Wind 210 deg	None					36	44		
10	No Ice Wind 240 deg	None					36	44		
11	No Ice Wind 270 deg	None					18	13		
12	No Ice Wind 300 deg	None					36	44		
13	No Ice Wind 330 deg	None					36	44		
14	Ice Weight	None					18	40		
15	Ice Wind 0 deg	None					18	22		
16	Ice Wind 30 deg	None					36	44		
17	Ice Wind 60 deg	None					36	44		

Basic Load Cases (Continued)

	BLC Description	Category	X Gravi...	Y Gravi...	Z Gravity	Joint	Point	Distrib...	Area(M...	Surface(Plate/Wa...
18	Ice Wind 90 deg	None					18	13		
19	Ice Wind 120 deg	None					36	44		
20	Ice Wind 150 deg	None					36	44		
21	Ice Wind 180 deg	None					18	22		
22	Ice Wind 210 deg	None					36	44		
23	Ice Wind 240 deg	None					36	44		
24	Ice Wind 270 deg	None					18	13		
25	Ice Wind 300 deg	None					36	44		
26	Ice Wind 330 deg	None					36	44		

Load Combinations

	Description	S...	P...	S...	BLC	Fa...	BLC	Fa...	BLC	Fac...	BLC	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...
1	1.4 Dead	Y...	Y		1	1.4																		
2	1.2 Dead + 1.6 Wind @ 0Á- No Ice	Y...	Y		1	1.2	2	1.6																
3	0.9 Dead + 1.6 Wind @ 0Á- No Ice	Y...	Y		1	.9	2	1.6																
4	1.2 Dead + 1.6 Wind @ 30Á- No Ice	Y...	Y		1	1.2	3	1.6																
5	0.9 Dead + 1.6 Wind @ 30Á- No Ice	Y...	Y		1	.9	3	1.6																
6	1.2 Dead + 1.6 Wind @ 60Á- No Ice	Y...	Y		1	1.2	4	1.6																
7	0.9 Dead + 1.6 Wind @ 60Á- No Ice	Y...	Y		1	.9	4	1.6																
8	1.2 Dead + 1.6 Wind @ 90Á- No Ice	Y...	Y		1	1.2	5	1.6																
9	0.9 Dead + 1.6 Wind @ 90Á- No Ice	Y...	Y		1	.9	5	1.6																
10	1.2 Dead + 1.6 Wind @ 120Á- No Ice	Y...	Y		1	1.2	6	1.6																
11	0.9 Dead + 1.6 Wind @ 120Á- No Ice	Y...	Y		1	.9	6	1.6																
12	1.2 Dead + 1.6 Wind @ 150Á- No Ice	Y...	Y		1	1.2	7	1.6																
13	0.9 Dead + 1.6 Wind @ 150Á- No Ice	Y...	Y		1	.9	7	1.6																
14	1.2 Dead + 1.6 Wind @ 180Á- No Ice	Y...	Y		1	1.2	8	1.6																
15	0.9 Dead + 1.6 Wind @ 180Á- No Ice	Y...	Y		1	.9	8	1.6																
16	1.2 Dead + 1.6 Wind @ 210Á- No Ice	Y...	Y		1	1.2	9	1.6																
17	0.9 Dead + 1.6 Wind @ 210Á- No Ice	Y...	Y		1	.9	9	1.6																
18	1.2 Dead + 1.6 Wind @ 240Á- No Ice	Y...	Y		1	1.2	10	1.6																
19	0.9 Dead + 1.6 Wind @ 240Á- No Ice	Y...	Y		1	.9	10	1.6																
20	1.2 Dead + 1.6 Wind @ 270Á- No Ice	Y...	Y		1	1.2	11	1.6																
21	0.9 Dead + 1.6 Wind @ 270Á- No Ice	Y...	Y		1	.9	11	1.6																
22	1.2 Dead + 1.6 Wind @ 300Á- No Ice	Y...	Y		1	1.2	12	1.6																
23	0.9 Dead + 1.6 Wind @ 300Á- No Ice	Y...	Y		1	.9	12	1.6																
24	1.2 Dead + 1.6 Wind @ 330Á- No Ice	Y...	Y		1	1.2	13	1.6																
25	0.9 Dead + 1.6 Wind @ 330Á- No Ice	Y...	Y		1	.9	13	1.6																
26	1.2 Dead + 1.0 Ice Wind @ 0Á+ 1.0 I...	Y...	Y		1	1.2	15	1	14	1														
27	1.2 Dead + 1.0 Ice Wind @ 30Á+ 1.0...	Y...	Y		1	1.2	16	1	14	1														
28	1.2 Dead + 1.0 Ice Wind @ 60Á+ 1.0...	Y...	Y		1	1.2	17	1	14	1														
29	1.2 Dead + 1.0 Ice Wind @ 90Á+ 1.0...	Y...	Y		1	1.2	18	1	14	1														
30	1.2 Dead + 1.0 Ice Wind @ 120Á+ 1...	Y...	Y		1	1.2	19	1	14	1														
31	1.2 Dead + 1.0 Ice Wind @ 150Á+ 1...	Y...	Y		1	1.2	20	1	14	1														
32	1.2 Dead + 1.0 Ice Wind @ 180Á+ 1...	Y...	Y		1	1.2	21	1	14	1														
33	1.2 Dead + 1.0 Ice Wind @ 210Á+ 1...	Y...	Y		1	1.2	22	1	14	1														
34	1.2 Dead + 1.0 Ice Wind @ 240Á+ 1...	Y...	Y		1	1.2	23	1	14	1														
35	1.2 Dead + 1.0 Ice Wind @ 270Á+ 1...	Y...	Y		1	1.2	24	1	14	1														
36	1.2 Dead + 1.0 Ice Wind @ 300Á+ 1...	Y...	Y		1	1.2	25	1	14	1														
37	1.2 Dead + 1.0 Ice Wind @ 330Á+ 1...	Y...	Y		1	1.2	26	1	14	1														

Envelope Joint Reactions

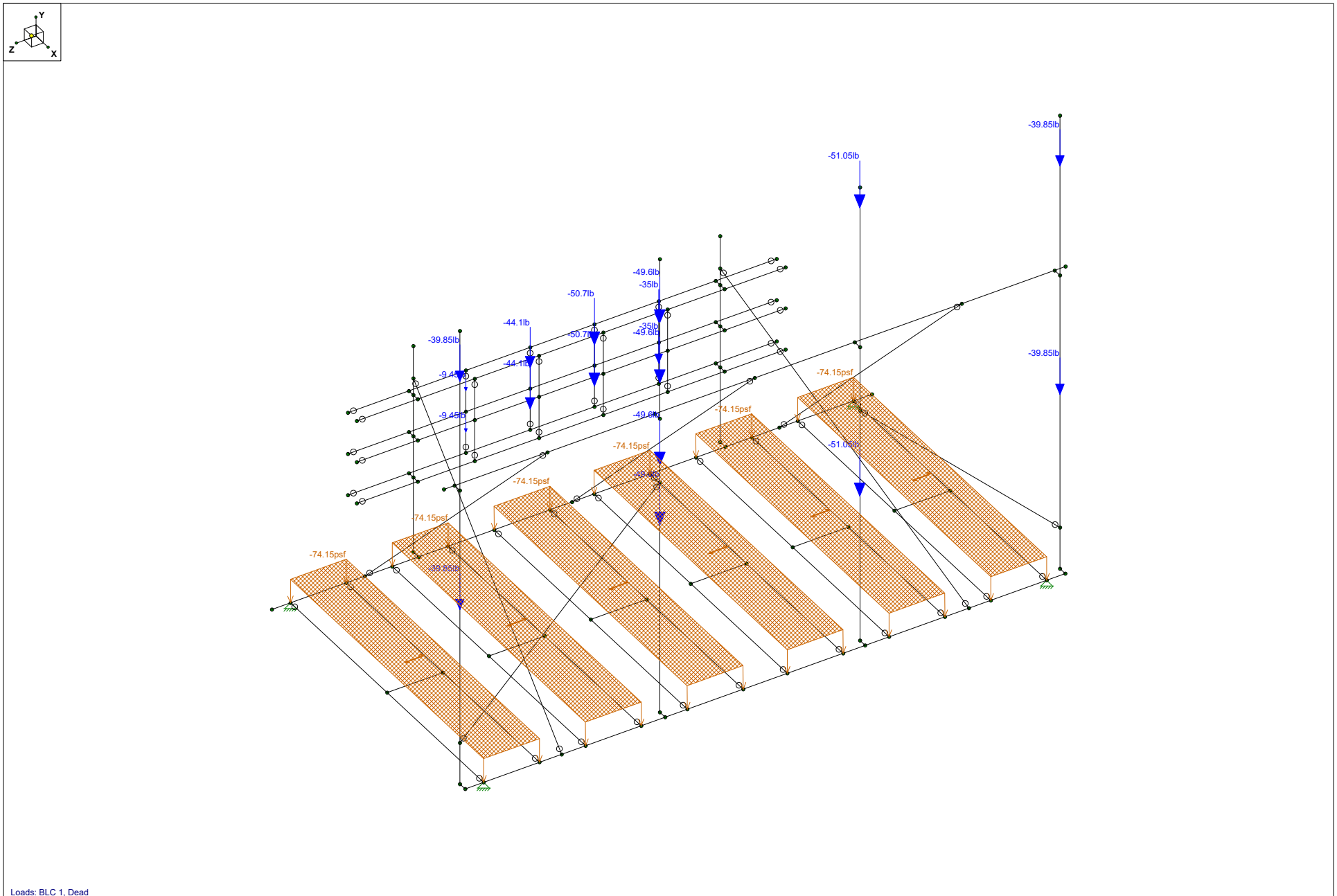
	Joint		X [lb]	LC	Y [lb]	LC	Z [lb]	LC	MX [lb-ft]	LC	MY [lb-ft]	LC	MZ [lb-ft]	LC
1	F12	max	257.359	25	1999.337	10	767.332	7	0	37	0	37	0	37
2		min	-265.536	12	-1608.169	23	-804.333	18	0	1	0	1	0	1
3	F11	max	197.528	6	1099.774	21	37.986	14	0	37	0	37	0	37
4		min	-174.169	19	-1162.972	8	-30.432	3	0	1	0	1	0	1
5	F10	max	295.658	2	372.231	10	25.39	15	0	37	0	37	0	37
6		min	-273.858	15	-347.055	23	-38.839	2	0	1	0	1	0	1
7	F9	max	25.226	25	692.49	16	31.895	6	0	37	0	37	0	37
8		min	-34.547	12	-424.547	5	-18.734	23	0	1	0	1	0	1
9	F8	max	66.111	3	905.6	16	22.809	7	0	37	0	37	0	37
10		min	-74.849	14	-632.783	5	-30.553	22	0	1	0	1	0	1
11	F7	max	3.255	26	111.462	4	23.652	30	0	37	0	37	0	37
12		min	-1.627	7	-100.626	17	.435	19	0	1	0	1	0	1
13	F6	max	9.7	2	85.466	25	-.435	11	0	37	0	37	0	37
14		min	-8.359	15	-99.563	12	-23.652	34	0	1	0	1	0	1
15	F5	max	24.537	3	851.352	12	19.509	28	0	37	0	37	0	37
16		min	-35.999	14	-457.341	25	-4.199	13	0	1	0	1	0	1
17	F4	max	7.688	17	784.426	12	1.48	17	0	37	0	37	0	37
18		min	-18.45	4	-411.727	25	-26.395	34	0	1	0	1	0	1
19	F3	max	292.902	2	382.321	18	37.074	2	0	37	0	37	0	37
20		min	-274.979	15	-373.016	7	-24.134	15	0	1	0	1	0	1
21	F2	max	192.823	22	1145.893	11	28.605	3	0	37	0	37	0	37
22		min	-171.593	11	-1202.2	22	-36.707	14	0	1	0	1	0	1
23	F1	max	279.503	5	2034.338	18	850.164	10	0	37	0	37	0	37
24		min	-289.357	16	-1642.742	7	-813.38	23	0	1	0	1	0	1
25	B1	max	31.838	15	84.017	33	23.563	30	0	37	0	37	0	37
26		min	-33.388	2	-25.95	3	.729	19	0	1	0	1	0	1
27	B2	max	546.925	2	462.209	2	23.192	9	0	37	0	37	0	37
28		min	-530.923	15	-449.653	15	-33.764	20	0	1	0	1	0	1
29	B3	max	415.415	3	902.379	24	207.905	11	0	37	0	37	0	37
30		min	-434.224	14	-535.847	13	-210.839	18	0	1	0	1	0	1
31	B4	max	91.053	25	553.316	28	165.682	11	0	37	0	37	0	37
32		min	-103.417	12	-140.736	19	-188.45	22	0	1	0	1	0	1
33	B5	max	41.121	14	39.585	15	23.675	30	0	37	0	37	0	37
34		min	-38.448	3	-64.776	2	.362	19	0	1	0	1	0	1
35	B6	max	264.899	2	291.523	2	18.694	9	0	37	0	37	0	37
36		min	-258.804	15	-220.089	15	-29.261	20	0	1	0	1	0	1
37	B7	max	274.55	2	282.722	2	29.302	8	0	37	0	37	0	37
38		min	-268.41	15	-208.841	15	-18.652	21	0	1	0	1	0	1
39	B8	max	40.074	14	32.615	15	-.362	11	0	37	0	37	0	37
40		min	-36.449	3	-68.771	2	-23.675	34	0	1	0	1	0	1
41	B9	max	82.707	5	585.599	36	188.891	6	0	37	0	37	0	37
42		min	-99.583	16	-119.996	11	-165.63	19	0	1	0	1	0	1
43	B10	max	490.947	3	992.617	4	211.03	10	0	37	0	37	0	37
44		min	-515.125	14	-576.4	17	-207.905	19	0	1	0	1	0	1
45	B11	max	636.56	2	563.465	2	33.741	8	0	37	0	37	0	37
46		min	-621.562	15	-563.308	14	-23.218	21	0	1	0	1	0	1
47	B12	max	40.618	15	85.611	31	-.729	11	0	37	0	37	0	37
48		min	-42.103	2	-34.039	3	-23.563	34	0	1	0	1	0	1
49	Totals:	max	3941.903	3	6300.911	26	2522.182	11						
50		min	-3941.906	14	1522.373	15	-2522.182	22						

Envelope AISC 15th(360-16): LRFD Steel Code Checks

	Member	Shape	Code Check	Loc[in]	LC	Shear ...	Loc[i...		LC	phi*Pnc ...	phi*Pnt...	phi*...	phi*M...	Cb	Eqn
1	M61	PL 2x5/8	.002	7.813	29	.001	0	y	35	27288.5...	40500	527....	1687.5	1....	H1-1b
2	M62	PL 2x5/8	.002	7.813	26	.001	15.6...	y	31	27288.5...	40500	527....	1687.5	1....	H1-1b
3	M63	PL 2x5/8	.002	7.813	37	.001	0	y	31	27288.5...	40500	527....	1687.5	1....	H1-1b
4	M64	PL 2x5/8	.002	7.813	27	.001	15.6...	y	33	27288.5...	40500	527....	1687.5	1....	H1-1b
5	M65	PL 2x5/8	.002	7.813	26	.001	0	y	33	27288.5...	40500	527....	1687.5	1....	H1-1b
6	M66	PL 2x5/8	.002	7.813	35	.001	15.6...	y	29	27288.5...	40500	527....	1687.5	1....	H1-1b
7	M49	L2.5x2.5x3	.116	42.594	35	.008	0	y	35	19013.0...	29192.4	872....	1470....	1....	H2-1
8	M50	L2.5x2.5x3	.116	42.594	29	.007	0	z	35	6247.701	29192.4	872....	1470....	1....	H2-1
9	M51	L2.5x2.5x3	.116	42.594	37	.007	87	y	34	19013.0...	29192.4	872....	1470....	1....	H2-1
10	M52	L2.5x2.5x3	.116	42.594	31	.007	0	z	31	6247.701	29192.4	872....	1470....	1....	H2-1
11	M53	L2.5x2.5x3	.116	42.594	31	.007	0	y	31	19013.0...	29192.4	872....	1470....	1....	H2-1
12	M54	L2.5x2.5x3	.116	42.594	37	.006	0	z	31	6247.701	29192.4	872....	1470....	1....	H2-1
13	M55	L2.5x2.5x3	.116	42.594	27	.006	0	y	33	19200.3...	29192.4	872....	1470....	1....	H2-1
14	M56	L2.5x2.5x3	.116	42.594	33	.007	0	z	33	6247.701	29192.4	872....	1470....	1....	H2-1
15	M57	L2.5x2.5x3	.116	42.594	33	.007	0	y	33	19013.0...	29192.4	872....	1470....	1....	H2-1
16	M58	L2.5x2.5x3	.116	42.594	27	.007	87	z	30	6247.701	29192.4	872....	1470....	1....	H2-1
17	M59	L2.5x2.5x3	.116	42.594	35	.007	0	y	30	19013.0...	29192.4	872....	1470....	1....	H2-1
18	M60	L2.5x2.5x3	.116	42.594	29	.008	0	z	29	6247.701	29192.4	872....	1470....	1....	H2-1
19	M26	P2.0 STD	.499	5.25	18	.139	56		12	5328.813	33847....	199....	1997....	4....	H1-1b
20	M27	P2.0 STD	.145	127.75	6	.076	147		14	5328.813	33847....	199....	1997....	2....	H1-1b
21	M29	P2.0 STD	.526	145	14	.103	87		2	25635.4...	33847....	199....	1997....	2....	H1-1b
22	M47	P2.0 STD	.126	118.639	2	.022	118....		14	10685.4...	33847....	199....	1997....	1....	H1-1b*
23	M48	P2.0 STD	.064	59.32	32	.009	0		16	10685.4...	33847....	199....	1997....	1....	H1-1b
24	M64A	P2.0 STD	.106	0	2	.029	0		14	10685.4...	33847....	199....	1997....	1....	H1-1b*
25	M45	P1.25 STD	.112	103.663	15	.009	103....		26	4093.371	21058....	851....	851.4...	1....	H1-1b*
26	M46	P1.25 STD	.116	103.663	15	.009	103....		26	4093.371	21058....	851....	851.4...	1....	H1-1b*
27	M41	P2.0 STD	.056	78.492	23	.037	0		2	20346.6...	33847....	199....	1997....	1....	H1-1b*
28	M43	P2.0 STD	.053	78.492	7	.027	0		2	20346.6...	33847....	199....	1997....	1....	H1-1b*
29	P1	P2.0 STD	.466	132	10	.122	132		16	4665.286	33847....	199....	1997....	1....	H1-1a
30	P2	P2.0 STD	.565	45.375	14	.070	64.6...		6	4665.286	33847....	199....	1997....	2....	H1-1b
31	P3	P2.0 STD	.407	46.75	12	.081	64.6...		22	4665.286	33847....	199....	1997....	2....	H1-1b
32	P4	P2.0 STD	.477	132	18	.132	132		12	4665.286	33847....	199....	1997....	1....	H1-1a
33	M20	P2.0 STD	.220	60	22	.045	60		22	9473.446	33847....	199....	1997....	1....	H1-1b
34	M39	P2.0 STD	.223	60	6	.045	60		6	9473.446	33847....	199....	1997....	1....	H1-1b

Envelope AISI S100-16: LRFD Cold Formed Steel Code Checks

	Member	Shape	Code Check	Loc[in]	LC	She...	Loc.....	L...		phi*P...	phi*T...	phi*M...	phi*M...	phi*...	phi*...	Cb	Eqn
1	INNER...	P1000	.349	17.5	2	.031	17.5	y	22	3515....	15236...	413.2...	666.4...	225...	451...	2.952	H1.2-1
2	INNER...	P1000	.211	32.5	2	.046	33.75	y	22	3515....	15236...	413.2...	662.4...	225...	451...	2.59	H1.2-1
3	INNER...	P1000	.348	102.5	2	.019	102.5	z	2	3515....	15236...	413.2...	650.4...	225...	451...	2.245	H1.2-1
4	OUTE...	P1000	.641	102.5	14	.053	102.5	y	30	3515....	15236...	413.2...	666.4...	225...	451...	3.568	H1.2-1
5	OUTE...	P1000	.428	70	14	.136	102.5	y	28	3515....	15236...	352.1...	639.2...	225...	451...	1.997	H1.2-1
6	OUTE...	P1000	.591	102.5	14	.052	102.5	y	26	3515....	15236...	413.2...	584.2...	225...	451...	1.294	H1.2-1



Loads: BLC 1, Dead

GPD		SK - 7
Mocka, Krisli	USID #: 975 (OH5031) / C&M HAVEN INC.	
GPD #: 2022723.05.975.03	Overturning/Sliding Model & Ballast Loads	975 RTP14-3RRU.Loaded - OT.r3d

Ballast Overturning Calculations
USID #: 975 (OH5031) / C&M HAVEN INC.
GPD #: 2022723.05.975.03

Front Ballast (Back Overturning)		
Max Overturning (RISA-3D) =	18.69	kip-ft
Front Block Weight =	2100	lbs.
Uplift Resistance (0.9 x Wt.) =	1890	lbs.
Overturning Resistance =	19.88	kip-ft
Capacity =	**94.0%**	

Back Ballast (Front Overturning)		
Max Overturning (RISA-3D) =	18.86	kip-ft
Back Block Weight =	2100	lbs.
Uplift Resistance (0.9 x Wt.) =	1890	lbs.
Overturning Resistance =	18.56	kip-ft
Capacity =	**101.6%**	

Side Overturning		
Max Overturning (RISA-3D) =	12.02	kip-ft
Total Block Weight =	4200	ft.
Uplift Resistance (0.9 x Wt.) =	3780	lbs.
Overturning Resistance =	34.74	kip-ft
Capacity =	**34.6%**	

Sliding Check		
Sliding Force (RISA-3D) =	3.94	kips
Friction Coefficient =	0.80	
Sliding Resistance =	4.24	kips
Capacity =	**92.9%**	

Frame Info		
Depth	7.25	ft
Width	13.14	ft
Frame Footprint	95.23	ft^2
Footprint Pressure (Unfactored)	61.86	psf

Sliding Check?	Yes
Shear Anchors?	No

APPENDIX C

Rooftop Analysis Output

Design Gravity Loading (Dead & Live)
USID #: 975 (OH5031) / C&M HAVEN INC.
GPD #: 2022723.05.975.03

Loading Criteria	
Governing Code	ASCE 7-10

Dead Loads			
Hollow-Core Self-Weight	224	plf	
Misc. Dead Load	10	psf	*(Assumed)*
Ballast Frame Load	61.86	psf	

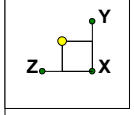
Live Loads			
Design Live Load	30	psf	*(per Design Drawings)*

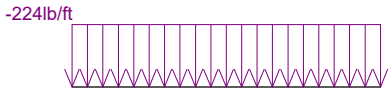
Design Gravity Loading (Snow)
USID #: 975 (OH5031) / C&M HAVEN INC.
GPD #: 2022723.05.975.03

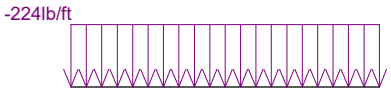
Loading Criteria	
Governing Code	ASCE 7-10

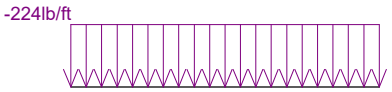
Flat Roof Snow Loads			
Ground Snow Load, p_g	20	psf	(ASCE Hazard Tool)
Snow Importance Factor, I_s	1.0		(Table 1.5-2)
Exposure Factor, C_e	0.9		(Table 7-2)
Thermal Factor, C_t	1.0		(Table 7-3)
Flat Roof Snow Load, p_f	12.6	psf	(Eqn. 7.3-1)
Minimum Snow Load, p_m	20	psf	(Section 7.3.4)
Controlling Snow Load	20	psf	

(Section 7.3)



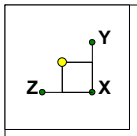


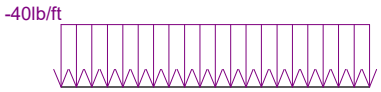


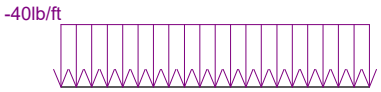


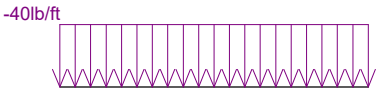
Loads: BLC 1, Dead Load (Self Weight)

GPD	USID #: 975 (OH5031) / C&M HAVEN INC.	SK - 1
Mocka, Krisl		
GPD #: 2022723.05.975.03	Self-Weight	975 Strip Comparison (4 FT.).r3d



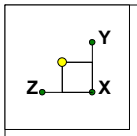


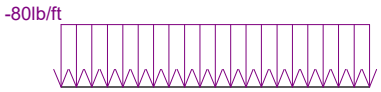


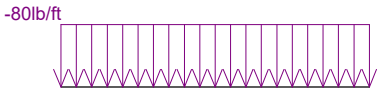


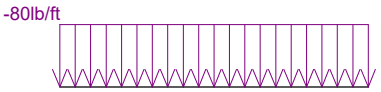
Loads: BLC 2, Dead Load (Roof Misc.)

GPD		SK - 2
Mocka, Krisl	USID #: 975 (OH5031) / C&M HAVEN INC.	
GPD #: 2022723.05.975.03	Misc. Dead Load	975 Strip Comparison (4 FT.).r3d



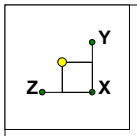


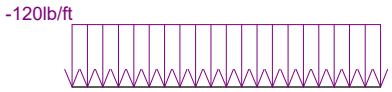


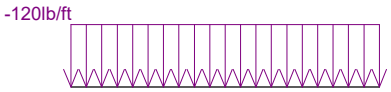


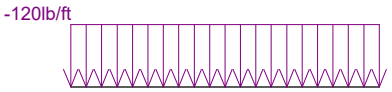
Loads: BLC 3, Snow

GPD	USID #: 975 (OH5031) / C&M HAVEN INC.	SK - 3
Mocka, Krisl		
GPD #: 2022723.05.975.03	Snow Load	975 Strip Comparison (4 FT.).r3d



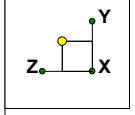


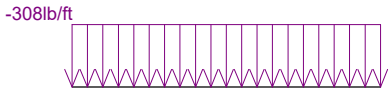


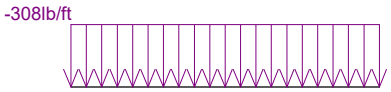


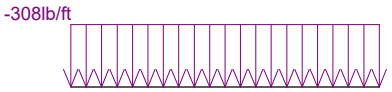
Loads: BLC 4, Live Roof

GPD	USID #: 975 (OH5031) / C&M HAVEN INC.	SK - 4
Mocka, Krisl		
GPD #: 2022723.05.975.03	Snow Load	975 Strip Comparison (4 FT.).r3d



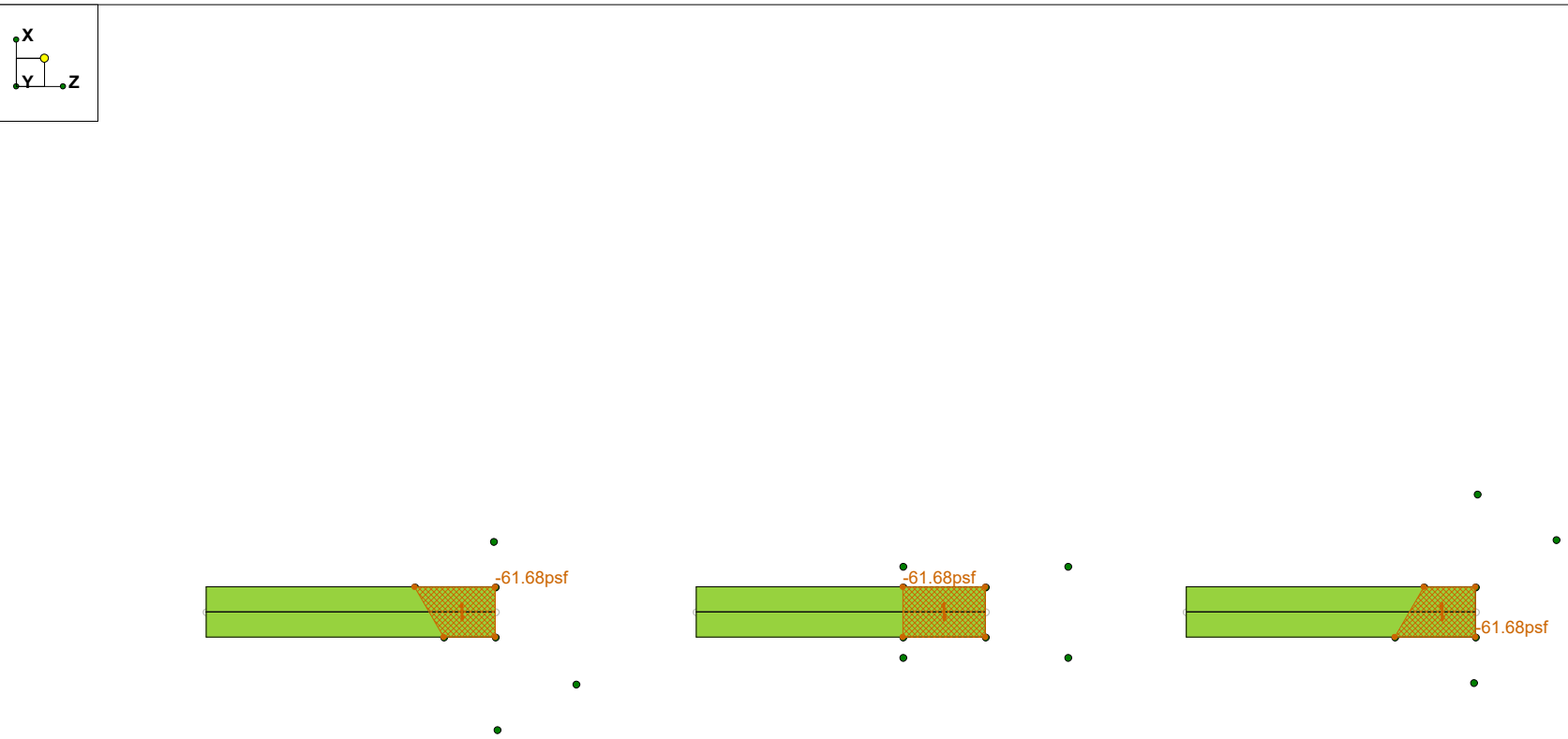






Loads: BLC 6, Allowable Superimposed Load

GPD		SK - 5
Mocka, Krisl	USID #: 975 (OH5031) / C&M HAVEN INC.	
GPD #: 2022723.05.975.03	Allowable Superimposed Load	975 Strip Comparison (4 FT.).r3d



Loads: BLC 5, Dead Ballast Sled

GPD	USID #: 975 (OH5031) / C&M HAVEN INC.	SK - 6
Mocka, Krisl		
GPD #: 2022723.05.975.03	Ballast Frame Dead Load (4 ft. Trib. Width)	975 Strip Comparison (4 FT.).r3d

General Material Properties

	Label	E [ksi]	G [ksi]	Nu	Therm (/1E5...	Density[k/ft^3]
1	gen_Conc5NW (0 weight)	4030	1752	.15	.6	0

General Section Sets

	Label	Shape	Type	Material	A [in2]	Iyy [in4]	Izz [in4]	J [in4]
1	Hollow-Core Plank	4HC8 Hollow-Core	None	gen_Conc5NW (0 wei...	215	1666	1666	.001

Member Primary Data

	Label	I Joint	J Joint	K Joint	Rotate(d...	Section/Shape	Type	Design Li...	Material	Design ...
1	ALPHA	A1	A2			Hollow-Core Plank	None	None	gen_Conc5NW (0 ...	Typical
2	BETA	B1	B2			Hollow-Core Plank	None	None	gen_Conc5NW (0 ...	Typical
3	GAMMA	G1	G2			Hollow-Core Plank	None	None	gen_Conc5NW (0 ...	Typical

Member Distributed Loads (BLC 1 : Dead Load (Self Weight))

	Member Label	Direction	Start Magnitude[lb/ft,F,psf]	End Magnitude[lb/ft,F,psf]	Start Location[in,..	End Location[in,%]
1	ALPHA	Y	-224	-224	0	%100
2	BETA	Y	-224	-224	0	%100
3	GAMMA	Y	-224	-224	0	%100

Member Distributed Loads (BLC 2 : Dead Load (Roof Misc.))

	Member Label	Direction	Start Magnitude[lb/ft,F,psf]	End Magnitude[lb/ft,F,psf]	Start Location[in,..	End Location[in,%]
1	ALPHA	Y	-40	-40	0	%100
2	BETA	Y	-40	-40	0	%100
3	GAMMA	Y	-40	-40	0	%100

Member Distributed Loads (BLC 3 : Snow)

	Member Label	Direction	Start Magnitude[lb/ft,F,psf]	End Magnitude[lb/ft,F,psf]	Start Location[in,..	End Location[in,%]
1	ALPHA	Y	-80	-80	0	%100
2	BETA	Y	-80	-80	0	%100
3	GAMMA	Y	-80	-80	0	%100

Member Distributed Loads (BLC 4 : Live Roof)

	Member Label	Direction	Start Magnitude[lb/ft,F,psf]	End Magnitude[lb/ft,F,psf]	Start Location[in,..	End Location[in,%]
1	ALPHA	Y	-120	-120	0	%100
2	BETA	Y	-120	-120	0	%100
3	GAMMA	Y	-120	-120	0	%100

Member Distributed Loads (BLC 6 : Allowable Superimposed Load)

	Member Label	Direction	Start Magnitude[lb/ft,F,psf]	End Magnitude[lb/ft,F,psf]	Start Location[in,..	End Location[in,%]
1	ALPHA	Y	-308	-308	0	%100
2	BETA	Y	-308	-308	0	%100
3	GAMMA	Y	-308	-308	0	%100

Member Distributed Loads (BLC 7 : BLC 5 Transient Area Loads)

	Member Label	Direction	Start Magnitude[lb/ft,F,psf]	End Magnitude[lb/ft,F,psf]	Start Location[in,..	End Location[in,%]

Member Distributed Loads (BLC 7 : BLC 5 Transient Area Loads) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,F,psf]	End Magnitude[lb/ft,F,psf]	Start Location[in,..	End Location[in,%]
1	BETA	Y	-246.72	-246.72	6.075e-7	78.812
2	ALPHA	Y	-176.353	-266.756	0	16.56
3	ALPHA	Y	-266.756	-268.775	16.56	33.12
4	ALPHA	Y	-268.775	-199.533	33.12	49.68
5	ALPHA	Y	-199.533	-114.13	49.68	66.24
6	ALPHA	Y	-114.13	-9.09	66.24	82.8
7	GAMMA	Y	-176.353	-266.756	0	16.56
8	GAMMA	Y	-266.756	-268.775	16.56	33.12
9	GAMMA	Y	-268.775	-199.533	33.12	49.68
10	GAMMA	Y	-199.533	-114.13	49.68	66.24
11	GAMMA	Y	-114.13	-9.09	66.24	82.8

Member Area Loads (BLC 5 : Dead Ballast Sled)

	Joint A	Joint B	Joint C	Joint D	Direction	Distribution	Magnitude[psf]
1	N21	N23	N24	N22	Y	A-B	-61.68
2	N23A	N25	N28	N15A	Y	A-B	-61.68
3	N26	N27	N35	N29	Y	A-B	-61.68

Joint Boundary Conditions

	Joint Label	X [k/in]	Y [k/in]	Z [k/in]	X Rot.[k-ft/rad]	Y Rot.[k-ft/rad]	Z Rot.[k-ft/rad]
1	B1	Reaction	Reaction	Reaction			Reaction
2	B2	Reaction	Reaction	Reaction			Reaction
3	G1	Reaction	Reaction	Reaction			Reaction
4	G2	Reaction	Reaction	Reaction			Reaction
5	A1	Reaction	Reaction	Reaction			Reaction
6	A2	Reaction	Reaction	Reaction			Reaction

Basic Load Cases

	BLC Description	Category	X Gravi..	Y Gravi..	Z Gravity	Joint	Point	Distrib...	Area(M...	Surface(Plate/Wa...
1	Dead Load (Self Weight)	None						3		
2	Dead Load (Roof Misc.)	DL						3		
3	Snow	SL						3		
4	Live Roof	RLL						3		
5	Dead Ballast Sled	None							3	
6	Allowable Superimposed Load	None						3		
7	BLC 5 Transient Area Loads	None						11		

Load Combinations

	Description	S...	P...	S...	BLC	Fa...	BLC	Fa...	BLC	Fac...	BLC	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...
1	Original Design	Y...			1	1	6	1																
2																								
3	ASCE ASD 1 - Proposed	Y...			DL	1	1	1			5	1												
4	ASCE ASD 3 (a) - Proposed	Y...			DL	1	1	1	RLL	1	5	1												
5	ASCE ASD 3 (b) - Proposed	Y...			DL	1	1	1	SL	1	5	1												
6	ASCE ASD 4 (a) - Proposed	Y...			DL	1	1	1	RLL	.75	5	1												
7	ASCE ASD 4 (b) - Proposed	Y...			DL	1	1	1	SL	.75	5	1												

Maximum Member Section Forces (By Combination)

	LC	Member Label		Axial[lb]	Loc[in]	y Shear[lb]	Loc[in]	z Shear[lb]	Loc[in]	Torque[lb...	Loc[in]	y-y Moment[...	Loc[in]	z-z Moment[...	Loc[in]
1	1	ALPHA	max	0	0	6118	0	0	0	0	0	0	0	0	0
2			min	0	0	-6118	276	0	0	0	0	0	0	-35178.5	138
3	1	BETA	max	0	0	6118	0	0	0	0	0	0	0	0	0
4			min	0	0	-6118	276	0	0	0	0	0	0	-35178.5	138
5	1	GAMMA	max	0	0	6118	0	0	0	0	0	0	0	0	0
6			min	0	0	-6118	276	0	0	0	0	0	0	-35178.5	138
7	3	ALPHA	max	0	0	4177.693	0	0	0	0	0	0	0	0	0
8			min	0	0	-3194.15	276	0	0	0	0	0	0	-19321.207	129....
9	3	BETA	max	0	0	4425.032	0	0	0	0	0	0	0	0	0
10			min	0	0	-3267.353	276	0	0	0	0	0	0	-20218.038	126.5
11	3	GAMMA	max	0	0	4177.693	0	0	0	0	0	0	0	0	0
12			min	0	0	-3194.15	276	0	0	0	0	0	0	-19321.207	129....
13	4	ALPHA	max	0	0	5557.693	0	0	0	0	0	0	0	0	0
14			min	0	0	-4574.15	276	0	0	0	0	0	0	-27242.425	132.25
15	4	BETA	max	0	0	5805.032	0	0	0	0	0	0	0	0	0
16			min	0	0	-4647.353	276	0	0	0	0	0	0	-28119.651	129....
17	4	GAMMA	max	0	0	5557.693	0	0	0	0	0	0	0	0	0
18			min	0	0	-4574.15	276	0	0	0	0	0	0	-27242.425	132.25
19	5	ALPHA	max	0	0	5097.693	0	0	0	0	0	0	0	0	0
20			min	0	0	-4114.15	276	0	0	0	0	0	0	-24602.017	132.25
21	5	BETA	max	0	0	5345.032	0	0	0	0	0	0	0	0	0
22			min	0	0	-4187.353	276	0	0	0	0	0	0	-25484.983	129....
23	5	GAMMA	max	0	0	5097.693	0	0	0	0	0	0	0	0	0
24			min	0	0	-4114.15	276	0	0	0	0	0	0	-24602.017	132.25
25	6	ALPHA	max	0	0	5212.693	0	0	0	0	0	0	0	0	0
26			min	0	0	-4229.15	276	0	0	0	0	0	0	-25262.119	132.25
27	6	BETA	max	0	0	5460.032	0	0	0	0	0	0	0	0	0
28			min	0	0	-4302.353	276	0	0	0	0	0	0	-26143.65	129....
29	6	GAMMA	max	0	0	5212.693	0	0	0	0	0	0	0	0	0
30			min	0	0	-4229.15	276	0	0	0	0	0	0	-25262.119	132.25
31	7	ALPHA	max	0	0	4867.693	0	0	0	0	0	0	0	0	0
32			min	0	0	-3884.15	276	0	0	0	0	0	0	-23281.813	132.25
33	7	BETA	max	0	0	5115.032	0	0	0	0	0	0	0	0	0
34			min	0	0	-3957.353	276	0	0	0	0	0	0	-24167.649	129....
35	7	GAMMA	max	0	0	4867.693	0	0	0	0	0	0	0	0	0
36			min	0	0	-3884.15	276	0	0	0	0	0	0	-23281.813	132.25

Joint Reactions (By Combination)

	LC	Joint Label	X [lb]	Y [lb]	Z [lb]	MX [lb-ft]	MY [lb-ft]	MZ [lb-ft]
1	1	B1	0	6118	0	0	0	0
2	1	B2	0	6118	0	0	0	0
3	1	G1	0	6118	0	0	0	0
4	1	G2	0	6118	0	0	0	0
5	1	A1	0	6118	0	0	0	0
6	1	A2	0	6118	0	0	0	0
7	1	Totals:	0	36708	0			
8	1	COG (in):	X: 0	Y: 0	Z: -70			
9	3	B1	0	4425.032	0	0	0	0
10	3	B2	0	3267.353	0	0	0	0

Joint Reactions (By Combination) (Continued)

	LC	Joint Label	X [lb]	Y [lb]	Z [lb]	MX [lb-ft]	MY [lb-ft]	MZ [lb-ft]
11	3	G1	0	4177.693	0	0	0	0
12	3	G2	0	3194.15	0	0	0	0
13	3	A1	0	4177.693	0	0	0	0
14	3	A2	0	3194.15	0	0	0	0
15	3	Totals:	0	22436.072	0			
16	3	COG (in):	X: 0	Y: 0	Z: -50.78			
17	4	B1	0	5805.032	0	0	0	0
18	4	B2	0	4647.353	0	0	0	0
19	4	G1	0	5557.693	0	0	0	0
20	4	G2	0	4574.15	0	0	0	0
21	4	A1	0	5557.693	0	0	0	0
22	4	A2	0	4574.15	0	0	0	0
23	4	Totals:	0	30716.072	0			
24	4	COG (in):	X: 0	Y: 0	Z: -55.961			
25	5	B1	0	5345.032	0	0	0	0
26	5	B2	0	4187.353	0	0	0	0
27	5	G1	0	5097.693	0	0	0	0
28	5	G2	0	4114.15	0	0	0	0
29	5	A1	0	5097.693	0	0	0	0
30	5	A2	0	4114.15	0	0	0	0
31	5	Totals:	0	27956.072	0			
32	5	COG (in):	X: 0	Y: 0	Z: -54.575			
33	6	B1	0	5460.032	0	0	0	0
34	6	B2	0	4302.353	0	0	0	0
35	6	G1	0	5212.693	0	0	0	0
36	6	G2	0	4229.15	0	0	0	0
37	6	A1	0	5212.693	0	0	0	0
38	6	A2	0	4229.15	0	0	0	0
39	6	Totals:	0	28646.072	0			
40	6	COG (in):	X: 0	Y: 0	Z: -54.947			
41	7	B1	0	5115.032	0	0	0	0
42	7	B2	0	3957.353	0	0	0	0
43	7	G1	0	4867.693	0	0	0	0
44	7	G2	0	3884.15	0	0	0	0
45	7	A1	0	4867.693	0	0	0	0
46	7	A2	0	3884.15	0	0	0	0
47	7	Totals:	0	26576.072	0			
48	7	COG (in):	X: 0	Y: 0	Z: -53.774			

Rooftop Comparison
USID #: 975 (OH5031) / C&M HAVEN INC.
GPD #: 2022723.05.975.03

Precast Slab	Alpha Shear (lb)	Alpha Moment (lb-ft)	Beta Shear (lb)	Beta Moment (lb-ft)	Gamma Shear (lb)	Gamma Moment (lb-ft)
Original Design Reactions	6118.00	35178.50	6118.00	35178.50	6118.00	35178.50
Proposed Reactions	5557.69	27242.43	5805.03	28119.65	5557.69	27242.43
Force Increase =	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**
	OK	**OK**	**OK**	**OK**	**OK**	**OK**

**Note: The hollow-core precast planks have been assumed as 4HC8 No Topping (30-S) with a safe superimposed load of 77 psf.*

HOLLOW-CORE (1978 EDITION)

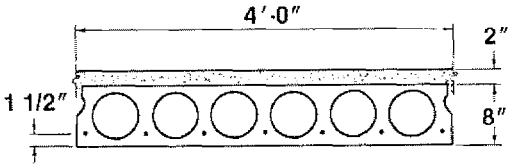
Strand Patterns

Producer may vary size and strength of strands. See "explanation of load tables"

Safe loads shown include dead load of 10 psf for untopped members and 15 psf for topped members. Remainder is live load. Long-time cambers include superimposed dead load but do not include live load.

Capacity of sections of other configurations are similar. For precise values, see local hollow-core manufacturer.

4′-0″ x 8″
Normal Weight Concrete



f'_c = 5000 psi
f'_{ci} = 3500 psi

Section Properties

		Untopped	Topped
A	=	215 in.²	—
I	=	1666 in.⁴	3071 in.⁴
Y_b	=	4.00 in.	5.29 in.
Y_t	=	4.00 in.	4.71 in.
Z_b	=	416 in.³	580 in.³
Z_t	=	416 in.³	652 in.³
b_w	=	12.00 in.	12.00 in.
wt	=	224 plf	323 plf
		56 psf	81 psf
V/S	=	1.92 in.	

Key
284 — Safe superimposed service load, psf
0.1 — Estimated camber at erection, in.
0.2 — Estimated long-time camber, in.

4HC8

Table of safe superimposed service load (psf) and cambers — No Topping

Strand Designation Code	Span, ft.																		
	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33
30-S	284 0.1 0.2	242 0.2 0.2	207 0.2 0.2	178 0.2 0.2	154 0.2 0.2	134 0.2 0.2	117 0.2 0.1	102 0.1 0.1	89 0.1 0.1	77 0.1 0.0	67 0.1 −0.1	59 0.0 −0.1	51 0.0 −0.3							
40-S			285 0.2 0.3	247 0.3 0.3	216 0.3 0.3	189 0.3 0.3	166 0.3 0.3	147 0.3 0.3	130 0.3 0.3	115 0.3 0.3	102 0.3 0.2	90 0.2 0.1	80 0.2 0.1	71 0.2 0.0	63 0.1 −0.1	56 0.0 −0.3	49 0.0 −0.4			
50-S				287 0.4 0.5	269 0.4 0.5	241 0.4 0.5	213 0.4 0.5	189 0.5 0.5	169 0.5 0.5	150 0.5 0.5	135 0.5 0.5	120 0.5 0.4	107 0.4 0.4	95 0.4 0.3	85 0.4 0.2	75 0.3 0.1	66 0.3 0.0	59 0.2 −0.2	52 0.1 −0.4	45 0.0 −0.6
60-S				296 0.5 0.6	275 0.5 0.6	260 0.5 0.7	244 0.6 0.7	224 0.6 0.7	205 0.6 0.8	183 0.6 0.8	163 0.7 0.8	146 0.7 0.7	131 0.7 0.7	117 0.7 0.7	105 0.6 0.6	94 0.6 0.5	84 0.6 0.4	76 0.5 0.3	67 0.5 0.1	60 0.4 0.0
70-S					284 0.6 0.8	266 0.7 0.9	250 0.7 0.9	236 0.8 0.9	223 0.8 1.0	209 0.8 1.0	190 0.9 1.0	172 0.9 1.0	155 0.9 1.0	139 0.9 1.0	126 0.9 1.0	113 0.9 0.9	102 0.9 0.8	92 0.9 0.7	83 0.8 0.6	75 0.8 0.5

4HC8 + 2

Table of safe superimposed service load (psf) and cambers — 2″ Normal Weight Topping

Strand Designation Code	Span, ft.																	
	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33
30-S	260 0.2 0.1	223 0.2 0.1	192 0.2 0.1	166 0.2 0.1	143 0.2 0.0	124 0.1 0.0	107 0.1 −0.1	93 0.1 −0.2	76 0.1 −0.3	61 0.0 −0.4	48 0.0 −0.5							
40-S			269 0.3 0.2	235 0.3 0.2	206 0.3 0.2	181 0.3 0.1	158 0.3 0.1	135 0.3 0.0	115 0.3 0.0	97 0.2 −0.1	82 0.2 −0.3	67 0.2 −0.4	55 0.1 −0.6	43 0.0 −0.8				
50-S				299 0.4 0.4	264 0.4 0.3	234 0.5 0.3	205 0.5 0.3	178 0.5 0.3	154 0.5 0.2	133 0.5 0.1	115 0.4 0.0	98 0.4 −0.1	83 0.4 −0.2	70 0.3 −0.4	58 0.3 −0.6	47 0.2 −0.8		
60-S						284 0.6 0.5	251 0.6 0.5	220 0.6 0.5	193 0.7 0.4	169 0.7 0.4	148 0.7 0.3	129 0.7 0.2	112 0.6 0.1	97 0.6 0.0	83 0.6 −0.2	71 0.5 −0.4	59 0.5 −0.6	49 0.4 −0.9
70-S						297 0.8 0.7	280 0.8 0.7	263 0.8 0.7	232 0.9 0.7	205 0.9 0.6	181 0.9 0.6	160 0.9 0.5	141 0.9 0.4	124 0.9 0.3	108 0.9 0.2	94 0.9 0.0	81 0.8 −0.2	70 0.8 −0.4

Bold type — *Capacity governed by stresses, others governed by flexural or shear strength*

APPENDIX D

Modification Design Drawings

C&M HAVEN INC.

FA #: 10077213

CLIENT #: OH5031

USID #: 975

AT&T

STRUCTURE INFORMATION:

STRUCTURE DRAWINGS:	LIPAJ•TOMSIK ARCHITECTS & PLANNERS/JOB #: 7907
STRUCTURE HEIGHT:	100'-0" ROOFTOP
MOUNT TYPE:	(3) NEW BALLAST FRAMES
STRUCTURE LOCATION:	
LAT.:	41° 28' 38.41"
LONG.:	-81° 46' 31.78"
STREET ADDRESS:	12400 MADISON AVE.
CITY, STATE ZIP:	LAKEWOOD, OH 44107
COUNTY:	CUYAHOGA
REFERENCED ANALYSIS:	GPD/PROJ. #: 2021723.05.975.02
ANALYSIS DATE:	11/12/2021

CODE COMPLIANCE:

GOVERNING CODES:	TIA-222-G & 2017 OHIO BUILDING CODE
WIND SPEEDS:	115 MPH 3 SECOND GUST (ULTIMATE) 89 MPH 3 SECOND GUST (NOMINAL) 40 MPH 3 SECOND GUST (W/ ICE)
ICE THICKNESS:	3/4"
STRUCTURE CLASS:	II
EXPOSURE CATEGORY:	C
TOPO CATEGORY:	1

PROJECT CONTACTS:

CLIENT CONTACT:

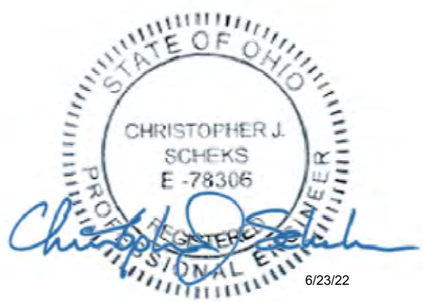
CHRISTOPHER NICHOLS
6800 WEST 115TH STREET, SUITE 2292
OVERLAND PARK, KS 66211
(913) 458-6273

ENGINEER CONTACT:

GPD GROUP - GLAUS, PYLE, SCHOMER, BURNS & DEHAVEN, INC.
520 SOUTH MAIN STREET, SUITE 2531
AKRON, OH 44311
(330) 572-2100
FOR QUESTIONS PLEASE EMAIL:
GPDMODS@GPDGROUP.COM

QUALIFIED ENGINEERING SERVICES ARE AVAILABLE FROM GPD TO ASSIST CONTRACTORS IN CLASS IV RIGGING PLAN REVIEWS. FOR REQUESTING QUALIFIED ENGINEERING SERVICES PLEASE CONTACT GPD AT GPDMODS@GPDGROUP.COM.

SHEET INDEX:



6/23/22

GPD GROUP
Glaus, Pyle, Schomer, Burns & DeHaven, Inc.
520 South Main Street, Suite 2531
Akron, OH 44311
330.572.2100 Fax 330.572.2102

AT&T

C&M HAVEN INC.
FA #: 10077213

DESIGN DRAWINGS PREPARED FOR:

CLIENT #: OH5031

REV	DATE	DESCRIPTION
0	6/23/22	INITIAL RELEASE

C&M HAVEN INC.
12400 MADISON AVE.
LAKEWOOD, OH 44107

TITLE SHEET

ISSUED FOR:	
PERMIT	6/23/2022
BID	-
CONSTRUCTION	-
RECORD	-

ENGINEER	DESIGNER
KM	JMJ
PROJECT MANAGER	APPROVED BY
BL	CJS

JOB NO.
2022723.05.975.03

T-01

MODIFICATION INSPECTION CHECKLIST

REQUIRED	REPORT ITEM	BRIEF DESCRIPTION
	PRE-CONSTRUCTION	
X	MI CHECKLIST DRAWING	THIS CHECKLIST SERVES AS A GUIDELINE FOR THE REQUIRED CONSTRUCTION DOCUMENTS AND INSPECTIONS FOR THIS MODIFICATION
NA	EOR APPROVED SHOP DRAWINGS	PRIOR TO FABRICATION, THE CONTRACTOR SHALL PROVIDE DETAILED ASSEMBLY DRAWINGS AND/OR SHOP DRAWINGS TO THE EOR FOR APPROVAL.
X	FABRICATION INSPECTION	A LETTER FROM THE FABRICATOR STATING THAT ALL FABRICATION (I.E. DRILLING, CUTTING, WELDING, SHEARING, MILLING, GALVANIZING, ETC) HAS BEEN DONE ACCORDING TO INDUSTRY STANDARDS AND ALL APPLICABLE ANSI/ASTM STANDARDS.
NA	FABRICATOR CERTIFIED WELD INSPECTION	A CWI SHALL INSPECT ALL FABRICATION WELDS IN ACCORDANCE WITH AWS D1.1 AND A REPORT DETAILING THE RESULTS SHALL BE PROVIDED TO THE MI INSPECTOR FOR INCLUSION IN THE MI REPORT.
X	MATERIAL TEST REPORTS (MTR)	MATERIAL TEST REPORTS SHALL BE PROVIDED FOR ALL MATERIAL USED. MTR'S SHALL BE PROVIDED TO THE MI INSPECTOR FOR INCLUSION IN THE MI REPORT.
NA	FABRICATOR NDE INSPECTION REPORT	CRITICAL SHOP WELDS THAT REQUIRE ADDITIONAL TESTING ARE NOTED WITHIN THE MODIFICATION DRAWINGS. A CERTIFIED NDT INSPECTOR SHALL PERFORM NON-DESTRUCTIVE EXAMINATION ON ALL PJP, CJP, AND FILLET WELDS >5/16" IN ACCORDANCE WITH AWS D1.1 AND A REPORT DETAILING THE RESULTS SHALL BE PROVIDED TO THE MI INSPECTOR FOR INCLUSION IN THE MI REPORT.
NA	NDE OF MONOPOLE BASE PLATE	A NDE OF THE POLE TO BASE PLATE CONNECTION IS REQUIRED AND A WRITTEN REPORT SHALL BE PROVIDED TO THE MI INSPECTOR FOR INCLUSION IN THE MI REPORT.
X	PACKING SLIPS	PACKING/SHIPPING LIST FOR ALL MATERIAL USED DURING CONSTRUCTION OF THE MODIFICATION SHALL BE PROVIDED.
	DURING CONSTRUCTION	
NA	PRE-POUR REBAR INSPECTIONS	A 3RD PARTY VISUAL OBSERVATION OF THE EXCAVATION AND REBAR SHALL BE PERFORMED **BEFORE** PLACING THE CONCRETE. A WRITTEN REPORT SHALL BE PROVIDED TO THE MI INSPECTOR FOR INCLUSION IN THE MI REPORT.
NA	POST-INSTALLED REBAR AND/OR DOWEL INSPECTIONS	PHOTOGRAPHIC DOCUMENTATION OF DRILL HOLE SIZES AND DEPTHS SHALL BE RECORDED **BEFORE** SETTING THE POST INSTALLED REBAR AND DOWELS WITH EPOXY/GROUT.
NA	CONCRETE COMP. STRENGTH & SLUMP TEST	THE CONCRETE MIX DESIGN, SLUMP TEST, AND COMPRESSIVE STRENGTH TESTS SHALL BE PROVIDED AS PART OF THE MI REPORT.
NA	EARTHWORK: LIFT & DENSITY REPORT	REPORT DETAILING SOIL COMPACTION TEST RESULTS TO BE INCLUDED IN THE MI REPORT.
NA	MICROPILE/ROCK ANCHOR	MICROPILES AND ROCK ANCHORS SHALL BE INSPECTED BY A 3RD PARTY. INSPECTION SHALL VERIFY ANCHOR SIZE, STEEL GRADE, AND HOLE DEPTHS. PHOTOGRAPHIC DOCUMENTATION OF ALL MEASUREMENTS ALONG WITH THE PULL TEST RESULTS SHALL BE INCLUDED IN THE MI REPORT.
NA	HELICAL ANCHOR	HELICAL INSTALLER SHALL SUBMIT FINAL SEALED HELICALS DESIGN, TORQUE LOGS, AND FINAL LOAD TEST RESULTS TO BE INCLUDED IN THE MODIFICATION INSPECTION REPORT.
NA	POST-INSTALLED ANCHOR ROD VERIFICATION	POST INSTALLED ANCHOR ROD VERIFICATION SHALL BE PERFORMED AND SHALL INCLUDE PHOTO VERIFICATION OF HOLE DEPTH, HOLE CLEANOUT AND ROUGHENING, AND EPOXY LABELING. REPORT SHALL BE PROVIDED TO THE MI INSPECTOR FOR INCLUSION IN THE MI REPORT.
NA	3RD PARTY FIELD CERTIFIED WELD INSPECTION	A CWI SHALL CONDUCT A VISUAL INSPECTION OF ALL FIELD WELDS IN ACCORDANCE WITH AWS D1.1. CRITICAL WELDS THAT REQUIRE ADDITIONAL TESTING ARE NOTED IN THE MODIFICATION DRAWINGS.
X	ON-SITE COLD GALVANIZING VERIFICATION	THE GENERAL CONTRACTOR SHALL PROVIDE WRITTEN AND PHOTOGRAPHIC DOCUMENTATION TO THE MI INSPECTOR VERIFYING THAT ANY ON-SITE COLD GALVANIZING WAS APPLIED PER MANUFACTURER SPECIFICATIONS.
NA	TENSION TWIST & PLUMB DELIVERABLES	THE GENERAL CONTRACTOR SHALL PROVIDE WRITTEN AND PHOTOGRAPHIC DOCUMENTATION TO THE MI INSPECTOR VERIFYING THE STRUCTURE TWIST AND PLUMB CONDITION AS WELL AS THE WIRE TENSIONS (AS REQUIRED). REPORT SHALL INCLUDE PRE-TENSION, PLUMB & TWIST RESULTS, POST-TENSION REPORT, POST PLUMB AND TWIST REPORT, AND PHOTOS OF THE TENSION GAUGES FOR ALL GUY WIRES.
X	GC AS-BUILT DRAWINGS	THE GENERAL CONTRACTOR SHALL SUBMIT A LEGIBLE COPY OF THE ORIGINAL DESIGN DRAWINGS EITHER STATING "INSTALLED AS DESIGNED" OR NOTING ANY CHANGES THAT WERE REQUIRED AND APPROVED BY THE ENGINEER OF RECORD. EOR/RFI FORMS APPROVING ALL CHANGES SHALL BE SUBMITTED.
NA	BOLT PRE-TENSION VERIFICATION	TURN-OF-THE NUT METHOD IS THE DEFAULT METHOD FOR PRE-TENSIONING BOLTS. MATCH-MARKINGS SHALL BE PRESENT ON EACH FASTENER FOR INSPECTION PURPOSES AND SHALL BE APPLIED IN ACCORDANCE WITH THE REQUIREMENTS OF THE RCSC SPECIFICATION. ALTERNATIVE PRE-TENSIONING METHODS ARE NOT ALLOWED WITHOUT PRIOR EOR CONSENT.
	POST-CONSTRUCTION	
X	CONSTRUCTION COMPLIANCE LETTER	A LETTER FROM THE GENERAL CONTRACTOR STATING THAT THE WORKMANSHIP WAS PERFORMED IN ACCORDANCE WITH INDUSTRY STANDARDS AND THESE MODIFICATION DRAWINGS, INCLUDING LISTING ADDITIONAL PARTIES TO THE MODIFICATION PROCESS.
NA	POST-INSTALLED ANCHOR ROD PULL TESTS	POST-INSTALLED ANCHOR RODS SHALL BE TESTED BY A PULL TEST INSPECTOR AND A REPORT SHALL BE PROVIDED INDICATING TESTING RESULTS.
X	PHOTOGRAPHS	PHOTOGRAPHS SHALL BE SUBMITTED TO THE MI INSPECTOR. PHOTOS SHALL DOCUMENT ALL PHASES OF THE CONSTRUCTION. THE PHOTOS SHALL BE ORGANIZED IN A MANNER THAT EASILY IDENTIFIES THE EXACT LOCATION OF THE PHOTO.
NA	FOUNDATION SEALER	PHOTOGRAPHIC DOCUMENTATION OF THE FOUNDATION SEALING SHALL BE INCLUDED IN THE MI REPORT.
NA	BOLT HOLE INSTALLATION VERIFICATION REPORT	THE MI INSPECTOR SHALL VERIFY THE INSTALLATION AND TIGHTNESS OF 10% OF ALL NON PRE-TENSIONED BOLTS INSTALLED AS PART OF THE MODIFICATION. THE MI INSPECTOR SHALL LOOSEN THE NUT AND VERIFY THE BOLT HOLE SIZE AND CONDITION. THE MI REPORT SHALL CONTAIN THE COMPLETED BOLT INSTALLATION VERIFICATION REPORT, INCLUDING THE SUPPORTING PHOTOGRAPHS.
X	MI INSPECTOR REDLINE OR RECORD DRAWING(S)	THE MI INSPECTOR SHALL OBSERVE AND REPORT ANY DISCREPANCIES BETWEEN THE CONTRACTOR'S REDLINE DRAWING AND THE ACTUAL COMPLETED INSTALLATION.

*THE MI CHECKLIST SHALL BE REVIEWED PRIOR TO THE START OF CONSTRUCTION. ALL PARTIES TO THE MODIFICATION SHALL UNDERSTAND ALL REQUIREMENTS AND INSPECTION/DOCUMENTATION THAT IS APPLICABLE TO THE SCOPE OF WORK THEY ARE PERFORMING. ERRORS ON THE MI CHECKLIST SHALL BE BROUGHT TO THE ATTENTION OF THE STRUCTURE/STRUCTURE OWNER AND EOR AS SOON AS POSSIBLE.

MODIFICATION INSPECTION NOTES

GENERAL

1. THE MI IS AN ON-SITE VISUAL AND HANDS-ON INSPECTION OF STRUCTURE MODIFICATIONS INCLUDING A REVIEW OF CONSTRUCTION REPORTS AND ADDITIONAL PERTINENT DOCUMENTATION PROVIDED BY THE GENERAL CONTRACTOR (GC), AS WELL AS ANY INSPECTION DOCUMENTS PROVIDED BY 3RD PARTY INSPECTORS. THE MI IS TO ENSURE THE INSTALLATION WAS CONSTRUCTED IN ACCORDANCE WITH THE MODIFICATION DRAWINGS; IN ACCORDANCE WITH APPLICABLE INDUSTRY STANDARDS; AND AS DESIGNED BY THE ENGINEER OF RECORD (EOR).
2. NO DOCUMENT, CODE OR POLICY CAN ANTICIPATE EVERY SITUATION THAT MAY ARISE. ACCORDINGLY, THIS CHECKLIST IS INTENDED TO SERVE AS A SOURCE OF GUIDING PRINCIPLES IN ESTABLISHING GUIDELINES FOR MODIFICATION INSPECTION.
3. THE MI IS TO CONFIRM INSTALLATION CONFIGURATION AND WORKMANSHIP ONLY AND IS NOT A REVIEW OF THE MODIFICATION DESIGN ITSELF, AND THE MI INSPECTOR DOES NOT TAKE OWNERSHIP OF THE MODIFICATION DESIGN. THE MI INSPECTOR SHALL INSPECT AND NOTE CONFORMANCE/NONCONFORMANCE AND PROVIDE TO THE STRUCTURE/STRUCTURE OWNER AND EOR FOR EVALUATION.
4. TO ENSURE THAT THE REQUIREMENTS OF THE MODIFICATION INSPECTION ARE MET, IT IS VITAL THAT THE GENERAL CONTRACTOR (GC) AND THE MI INSPECTOR BEGIN COMMUNICATING AND COORDINATING AS SOON AS A PO OR PAYMENT IS RECEIVED. IT IS EXPECTED THAT EACH PARTY WILL BE PROACTIVE IN REACHING OUT TO THE OTHER PARTY. CONTACT LISTED ON THE TITLE SHEET SHALL BE CONTACTED IF SPECIFIC INSPECTOR CONTACT INFORMATION IS NOT KNOWN.

FAILING INSPECTION CORRECTIONS

1. IF THE MODIFICATION INSTALLATION WOULD FAIL THE MODIFICATION INSPECTION ("FAILED MODIFICATION INSPECTION"), THE GC SHALL WORK WITH MI INSPECTOR TO COORDINATE A REMEDIATION PLAN IN ONE OF TWO WAYS:
   - CORRECT FAILING ISSUES TO COMPLY WITH THE SPECIFICATIONS CONTAINED IN THE ORIGINAL MODIFICATION DRAWINGS AND COORDINATE A SUPPLEMENT MODIFICATION INSPECTION.
   - OR, WITH STRUCTURE OWNER'S APPROVAL, THE GC MAY WORK WITH THE ENGINEER OF RECORD TO RE-ANALYZE THE MODIFICATION/REINFORCEMENT USING THE AS-BUILT CONDITION.

SERVICE LEVEL COMMITMENT

1. THE FOLLOWING RECOMMENDATIONS AND SUGGESTIONS ARE OFFERED TO ENHANCE THE EFFICIENCY AND EFFECTIVENESS OF DELIVERING AN MI REPORT:
   - THE GC SHALL PROVIDE A MINIMUM OF 5 BUSINESS DAYS NOTICE, PREFERABLY 10, TO THE MI INSPECTOR AS TO WHEN THE SITE WILL BE READY FOR THE MI TO BE CONDUCTED.
   - THE GC AND MI INSPECTOR COORDINATE CLOSELY THROUGHOUT THE ENTIRE PROJECT.
   - WHEN POSSIBLE, IT IS PREFERRED TO HAVE THE GC AND MI INSPECTOR ON-SITE SIMULTANEOUSLY FOR ANY GUY WIRE TENSIONING OR RE-TENSIONING OPERATIONS.
   - WHEN POSSIBLE, IT IS PREFERRED TO HAVE THE GC AND MI INSPECTOR ON-SITE DURING THE MI TO HAVE ANY MINOR DEFICIENCIES CORRECTED DURING THE INITIAL MI. THEREFORE, THE GC MAY CHOOSE TO COORDINATE THE MI CAREFULLY TO ENSURE ALL CONSTRUCTION FACILITIES ARE AT THEIR DISPOSAL WHEN THE MI INSPECTOR IS ON SITE.
   - IT MAY BE BENEFICIAL TO INSTALL ALL STRUCTURE MODIFICATIONS PRIOR TO CONDUCTING THE FOUNDATION INSPECTIONS TO ALLOW THE FOUNDATION AND MODIFICATION INSPECTION(S) TO COMMENCE WITH ONE SITE VISIT.

REQUIRED PHOTOS

1. BETWEEN THE GC AND THE MI INSPECTOR THE FOLLOWING PHOTOGRAPHS, AT A MINIMUM, ARE TO BE TAKEN AND INCLUDED IN THE MI REPORT:
   - PRE-CONSTRUCTION GENERAL SITE CONDITION
   - PHOTOGRAPHS DURING THE REINFORCEMENT MODIFICATION CONSTRUCTION/ERECTION AND INSPECTION
     - RAW MATERIALS
     - PHOTOS OF ALL CRITICAL DETAILS
     - FOUNDATION MODIFICATIONS
     - WELD PREPARATION
     - BOLT INSTALLATION
     - FINAL INSTALLED CONDITION
     - SURFACE COATING REPAIR
   - POST CONSTRUCTION PHOTOGRAPHS
     - FINAL INFIELD CONDITION
   - ANY OTHER PHOTOS DEEMED RELEVANT TO SHOW COMPLETE DETAILS OF THE MODIFICATIONS.
2. PHOTOS OF ELEVATED MODIFICATIONS TAKEN ONLY FROM THE GROUND SHALL BE CONSIDERED INADEQUATE.

STATE OF OHIO
CHRISTOPHER J. SCHEKS
E-78305
REGISTERED PROFESSIONAL ENGINEER
6/23/22

GPD GROUP
Glaus, Pyle, Schomer, Burns & DeHaven, Inc.
520 South Main Street, Suite 2531
Akron, OH 44311
330.572.2100 Fax 330.572.2102

AT&T

C&M HAVEN INC.
FA #: 10077213

DESIGN DRAWINGS PREPARED FOR:

CLIENT #: OH5031

REV	DATE	DESCRIPTION
0	6/23/22	INITIAL RELEASE

C&M HAVEN INC.
12400 MADISON AVE.
LAKEWOOD, OH 44107

MODIFICATION INSPECTION CHECKLIST

ISSUED FOR:	
PERMIT	6/23/2022
BID	-
CONSTRUCTION	-
RECORD	-

ENGINEER	DESIGNER
KM	JMJ
PROJECT MANAGER	APPROVED BY
BL	CJS

JOB NO.
2022723.05.975.03

MI-01

GENERAL NOTES

1. THIS DESIGN IS IN ACCORDANCE WITH THE GOVERNING PROVISIONS OF ALL LOCALLY ADOPTED BUILDING CODES. MATERIALS, FABRICATION, INSTALLATION, AND ALL OTHER SERVICES PROVIDED BY THE CONTRACTOR SHALL CONFORM TO THE ABOVE MENTIONED CODES AND THE CONTRACT SPECIFICATIONS.

2. THIS DESIGN ASSUMES THE EXISTING STRUCTURE HAS BEEN WELL MAINTAINED, IS IN GOOD CONDITION, AND IS WITHOUT DEFECT. BENT MEMBERS, CORRODED MEMBERS, LOOSE BOLTS, CRACKED WELDS AND OTHER MEMBER DEFECTS HAVE NOT BEEN CONSIDERED. THIS DESIGN IS BEING PROVIDED WITHOUT THE BENEFIT OF A CONDITION ASSESSMENT BY GPD.

3. THE CONTRACTOR SHALL VISIT THE SITE PRIOR TO BIDDING; ANY PROBLEMS WITH ACCESS, INTERFERENCE, ETC. SHALL BE RESOLVED PRIOR TO MOBILIZATION. CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS AND NOTE ANY EXISTING CONDITIONS THAT ARE NOT REPRESENTED ON THESE DRAWINGS OR THAT INTERFERE WITH THE CONTINUOUS INSTALLATION OF THE MODIFICATIONS. CONTRACTOR SHALL NOTE ALL ATTACHMENT POINTS, ANTENNAS, MOUNTS, COAX, LIGHTING, CLIMBING SUPPORTS, STEP BOLTS, PORT HOLES, AND ANY OTHER APPURTENANCES IN THE REGION OF THE MODIFICATIONS. GPD SHALL BE CONTACTED IMMEDIATELY TO EVALUATE THE SIGNIFICANCE OF ANY DEVIATION PRIOR TO ORDERING MATERIAL.

4. ALL MATERIAL SPECIFIED FOR THIS PROJECT MUST BE NEW AND FREE OF ANY DEFECTS. ANY MATERIAL SUBSTITUTIONS, INCLUDING BUT NOT LIMITED TO ALTERED SIZES AND/OR STRENGTHS, MUST BE REVIEWED BY THE OWNER AND ENGINEER. CONTRACTOR SHALL PROVIDE DOCUMENTATION TO ENGINEER FOR DETERMINING IF SUBSTITUTE IS SUITABLE FOR USE AND MEETS THE ORIGINAL DESIGN CRITERIA. DIFFERENCES FROM THE ORIGINAL DESIGN, INCLUDING MAINTENANCE, REPAIR AND REPLACEMENT, SHALL BE NOTED. ESTIMATES OF COSTS/CREDITS ASSOCIATED WITH THE SUBSTITUTION (INCLUDING RE-DESIGN COSTS AND COSTS TO SUB-CONTRACTORS) SHALL BE PROVIDED TO THE ENGINEER.

5. CONTRACTOR IS RESPONSIBLE FOR ENGAGING A MODIFICATION INSPECTOR AT THE TIME OF AWARD TO COORDINATE AN INSPECTION SCHEDULE AND ENSURE PROPER DOCUMENTATION IS RETAINED THROUGHOUT THE PROJECT. REFER TO SHEET MI-01 FOR MODIFICATION INSPECTION CHECKLIST.

6. SPECIAL INSPECTIONS: UNLESS OTHERWISE SPECIFIED WITHIN THE PLANS OR REQUIRED BY THE BUILDING OFFICIAL, SPECIAL INSPECTIONS AND TESTS ARE NOT REQUIRED FOR GROUP U OCCUPANCIES, BUT NOT LIMITED TO, THOSE LISTED IN SECTION 312.1 (IBC SECTION 1704.2, EXCEPTION 2). CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING IF ANY SPECIAL INSPECTIONS ARE REQUIRED BY THE JURISDICTION HAVING AUTHORITY. IF REQUIRED BY THE JURISDICTION, THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE COORDINATION AND SCHEDULING OF THE SPECIAL INSPECTIONS WITH THE ENGINEER OF RECORD. IN THOSE CASES, SPECIAL INSPECTIONS MUST BE COMPLETED PRIOR TO FINAL INSPECTION APPROVAL.

7. INSTALLATION OF THE PROPOSED LOADING IS BY OTHERS AND IS BEYOND THE SCOPE OF THESE DRAWINGS.

8. ALL CONTRACTORS AND LOWER TIER CONTRACTORS MUST ACKNOWLEDGE IN WRITING TO THE OWNER AND GPD THAT THEY HAVE OBTAINED, UNDERSTAND, AND WILL FOLLOW THE OWNER STANDARDS OF PRACTICE, CONSTRUCTION GUIDELINES, ALL SITE AND TOWER SAFETY PROCEDURES, ALL PRODUCT LIMITATIONS AND INSTALLATION PROCEDURES USED ON SITE, AND PROPOSED MODIFICATIONS DESCRIBED. RECEIPT OF ACKNOWLEDGMENT MUST OCCUR PRIOR TO BEGINNING CONSTRUCTION. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO PROVIDE THIS DOCUMENTATION FOR THE OWNER AND GPD ON COMPANY LETTERHEAD AND IS THE RESPONSIBILITY OF THE GENERAL CONTRACTOR TO OBTAIN THIS DOCUMENTATION FROM LOWER TIER SUBCONTRACTORS (ON SUBCONTRACTOR LETTERHEAD) AND DELIVER IT TO THE OWNER AND GPD.

9. STRUCTURAL MODIFICATION WORK SPECIFIED ON THESE PLANS SHALL BE ACCOMPLISHED BY KNOWLEDGEABLE WORKMEN WITH CONSTRUCTION EXPERIENCE. THE CONTRACTOR SHALL SUBMIT CERTIFICATIONS TO THE OWNER AND ENGINEER.

10. CONTRACTOR SHALL PERFORM ALL WORK IN SUCH A MANNER AS TO PROTECT THE EXISTING AND ADJACENT STRUCTURES AND SHALL BE RESPONSIBLE TO PROPERLY REPAIR ANY DAMAGE THAT OCCURS AS A RESULT OF THE WORK.

11. CEASE OPERATIONS AND NOTIFY OWNER AND ENGINEER IMMEDIATELY IF THE SAFETY OR INTEGRITY OF THE STRUCTURE APPEARS TO BE ENDANGERED. PROPERLY BRACE AND SUPPORT STRUCTURE BEFORE RESUMING OPERATIONS.

12. DO NOT CUT OR ALTER ANY STRUCTURAL MEMBERS WITHOUT WRITTEN AUTHORIZATION OF THE ENGINEER UNLESS INDICATED ON THE STRUCTURAL DRAWINGS.

13. THESE DRAWINGS DO NOT INDICATE THE METHOD OF CONSTRUCTION. ANY TECHNIQUES OR PROCEDURES IMPLIED BY THESE DRAWINGS ARE SCHEMATIC IN NATURE AND ARE SUGGESTIONS ONLY. THE CONTRACTOR SHALL SUPERVISE AND DIRECT THE WORK AND SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION METHODS, MEANS, TECHNIQUES, SEQUENCES, AND PROCEDURES.

14. THE CONTRACTOR AND ALL SUB-CONTRACTORS SHALL BE RESPONSIBLE FOR THE SAFETY OF THEIR WORK FORCE, THE WORK AREA, ADJACENT AREA, AND ANY PROPERTY OCCUPANTS WHO MAY BE AFFECTED BY THE WORK UNDER CONTRACT. THE CONTRACTOR SHALL REVIEW AND ABIDE BY ALL OWNER, PRIME CONTRACTOR, CARRIER, OSHA, AND LOCAL SAFETY GUIDELINES. ALL WORKERS SHALL UTILIZE APPROPRIATE FALL PROTECTION AND SAFETY EQUIPMENT THAT IS UP-TO-DATE AND INSPECTED PER OSHA AND INDUSTRY GUIDELINES. ALL WORKERS SHALL BE TRAINED AND MONITORED TO ENSURE SAFE WORKING PRACTICES ARE MAINTAINED.

15. CONTRACTOR IS RESPONSIBLE FOR TEMPORARILY REMOVING ALL COAX, T-BRACKETS, ANTENNA MOUNTS, AND ANY OTHER APPURTENANCE THAT MAY INTERFERE WITH THE MODIFICATIONS. ALL APPURTENANCES MUST BE REPLACED AND/OR RESTORED TO ITS ORIGINAL LOCATION. SOME ATTACHMENTS MAY REQUIRE CUSTOM MODIFICATIONS TO PROPERLY FIT THE MODIFIED REGION OF THE STRUCTURE. THESE CUSTOMIZATIONS ARE DESIGNED BY OTHERS AND MUST BE APPROVED BY THE ENGINEER PRIOR TO REMOVING SUCH ATTACHMENTS. ANY CARRIER DOWNTIME MUST BE COORDINATED WITH THE OWNER IN WRITING.

16. CONTRACTOR SHALL ONLY WORK WITHIN THE LIMITS OF THE OWNER'S PROPERTY OR LEASE AREA AND APPROVED EASEMENTS. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY WORK IS WITHIN THESE BOUNDARIES. CONTRACTOR SHALL EMPLOY A SURVEYOR AS REQUIRED. ANY WORK OUTSIDE THESE BOUNDARIES SHALL BE APPROVED IN WRITING BY THE LAND OWNER PRIOR TO MOBILIZATION. CONSTRUCTION STAKING AND BOUNDARY MARKING IS THE RESPONSIBILITY OF THE CONTRACTOR.

17. THE STRUCTURAL INTEGRITY OF THIS DESIGN EXTENDS TO THE COMPLETE CONDITION ONLY. THE CONTRACTOR MUST BE COGNIZANT THAT THE REMOVAL OF ANY STRUCTURAL COMPONENT HAS THE POTENTIAL TO CAUSE THE PARTIAL OR COMPLETE COLLAPSE OF THE STRUCTURE. ALL NECESSARY PRECAUTIONS MUST BE TAKEN TO ENSURE THE STRUCTURAL INTEGRITY, INCLUDING, BUT NOT LIMITED TO, ENGINEERING ASSESSMENT OF CONSTRUCTION STRESSES WITH INSTALLATION MAXIMUM WIND SPEED AND/OR TEMPORARY BRACING AND SHORING.

18. CONTRACTOR IS RESPONSIBLE FOR ALL TEMPORARY LOCAL SHORING, TEMPORARY GLOBAL SHORING, AND ALL SHORING OF SURROUNDING BUILDINGS, PADS, AND OTHER OUTDOOR SITE OBSTRUCTIONS. ALL SHORING, TEMPORARY BRACING, AND TEMPORARY SUPPORTS ARE THE RESPONSIBILITY OF THE CONTRACTOR.

19. FAA/FCC FILING AND LIGHTING MAY BE REQUIRED. ALL GOVERNMENTAL REGULATORY DETERMINATIONS AND FILINGS BY OTHERS, NOT GPD.

20. CONTRACTOR SHALL TAKE NECESSARY ACTIONS TO PROVIDE SAFE WORKING CONDITIONS INCLUDING, BUT NOT LIMITED TO, HAVING ANY FM SIGNALS TURNED OFF. CONTRACTOR SHALL HAVE PROPER RADMAN FOR NOTIFICATION OF EXCESSIVE RF EXPOSURE FOR ALL INDIVIDUALS WORKING ON SITE IF FM ANTENNAS ARE PRESENT. CONTRACTOR SHALL BE AWARE OF RF WARNING SIGNS AND TAKE PROPER PRECAUTIONS.

21. ALL MANUFACTURERS HARDWARE AND ASSEMBLY INSTRUCTIONS SHALL BE FOLLOWED EXACTLY. DEVIATION FROM THE INSTRUCTIONS IS UNACCEPTABLE AND REQUIRES WRITTEN APPROVAL FROM ENGINEER.

22. DO NOT SCALE DRAWINGS.

23. ROOFTOP ACCESS, CLIMBING FACILITIES, SAFETY CLIMB AND ALL ASSOCIATED HARDWARE SHALL NOT BE IMPEDED OR MODIFIED WITHOUT THE WRITTEN CONSENT OF GPD.

24. ANY WORK PERFORMED WITHOUT A PREFABRICATION MAPPING IS DONE AT THE RISK OF THE GC AND/OR FABRICATOR.

25. IMPROPER FIT-UP OF NEW BOLTED HARDWARE DUE TO OVERSIZED , DOUBLE-PUNCHED, OR SLOTTED HOLES FOUND ON THE EXISTING STRUCTURE SHALL BE REPORTED TO GPD AND THE TOWER OWNER IMMEDIATELY. INSTALLATION OF SUCH HARDWARE WILL NOT BE ACCEPTABLE AND ALL COSTS ASSOCIATED WITH REMEDYING THE INSTALLATION WILL BE THE RESPONSIBILITY OF THE GC.

STRUCTURAL STEEL NOTES

1. ALL NEW STEEL SHALL BE HOT-DIPPED GALVANIZED PER ASTM A123, ASTM A153/A153M, OR ASTM A653 G90, AS APPLICABLE FOR FULL WEATHER PROTECTION. FOR HIGH STRENGTH STEEL FASTENERS WHERE HOT-DIPPED GALVANIZING IS NOT PERMITTED MAGNI 565 COATING (OR ENGINEER APPROVED EQUIVALENT) SHALL BE USED. IN ADDITION ALL NEW STEEL SHALL BE PAINTED TO MATCH EXISTING STEEL AND/OR BUILDING MATERIAL. CONTRACTOR SHALL OBTAIN WRITTEN PERMISSION TO PROTECT STEEL BY ANY OTHER MEANS.

2. ALL EXPOSED STRUCTURAL STEEL AS THE RESULT OF THIS SCOPE OF WORK INCLUDING, BUT NOT LIMITED TO, DAMAGED MEMBERS, FIELD WELDS, FIELD CUT MEMBERS, FIELD DRILLED HOLES, AND SHAFT INTERIORS (WHERE APPLICABLE), SHALL BE SOLVENT CLEANED AND HAVE TWO (2) COATS OF BRUSHED ON ZRC ZINC RICH COLD GALVANIZING PAINT APPLIED AND SHALL BE PAINTED TO MATCH THE TOWER FINISH (WHERE APPLICABLE). PHOTO DOCUMENTATION IS REQUIRED TO BE SUBMITTED TO THE MODIFICATION INSPECTOR.

3. ALL STRUCTURAL STEEL SHALL CONFORM TO THE LISTED REQUIREMENTS U.N.O. IN THESE DRAWINGS:

• STEEL ANGLE:	ASTM A36 (Fy=36 KSI)
• SOLID ROUND:	ASTM A36 (FY=36 KSI)
• PIPE (ROUND):	ASTM A53 GRADE B (Fy=35 KSI)
• HSS TUBE (ROUND):	ASTM A500 GRADE C (Fy=46 KSI)
• HSS TUBE (SQUARE):	ASTM A500 GRADE C (Fy=50 KSI)
• W-SHAPES:	ASTM A992 (Fy=50 KSI)
• CHANNELS:	ASTM A36 (Fy=36 KSI)
• PLATE:	ASTM A572 GRADE 50 (Fy=50KSI)
• ANCHOR RODS:	ASTM A193 GRADE B7
• BOLTS:	ASTM A325 TYPE 1
• U-BOLTS:	ASTM A307 GRADE A
• NUTS:	ASTM A563 GRADE DH
• NUTS (ANCHOR RODS):	ASTM A194 GRADE 2H
• WASHERS (AS REQUIRED):	ASTM F436 TYPE 1
• LOCKING DEVICES:	PAL-NUT OR SPLIT WASHER
• WELDING ELECTRODES, SMAW:	E70XX
• WELDING ELECTRODES, FCAW:	E7XT-XX

4. ALL BOLT ASSEMBLIES FOR STRUCTURAL MEMBERS REPRESENTED IN THIS DRAWING REQUIRE LOCKING DEVICES TO BE INSTALLED.

5. ALL BOLTS, INCLUDING U-BOLTS, SHALL BE TIGHTENED IN ACCORDANCE WITH AISC "SNUG TIGHT" REQUIREMENTS, U.N.O.

6. ALL U-BOLTS SPECIFIED SHALL MEET THE REQUIREMENTS OF ASME B18.31.5-2011 BENT BOLTS.

7. ALL NEW BOLT ASSEMBLIES SHALL BE OF SUFFICIENT LENGTH TO ENSURE THE END OF THE BOLT IS FLUSH WITH, OR PROTRUDES BEYOND, THE FACE OF THE NUT AFTER TIGHTENING IS COMPLETE.

8. STRUCTURAL STEEL SHOP DRAWINGS SHALL BE PROVIDED TO ENGINEER FOR REVIEW PRIOR TO FABRICATION.

9. UNLESS NOTED OTHERWISE, ALL NEW MEMBERS SHALL MAINTAIN THE EXISTING MEMBER WORK LINES AND NOT INTRODUCE ECCENTRICITIES INTO THE STRUCTURE.

10. WELDING OF ANY KIND IS NOT PERMITTED ON SITE UNLESS SPECIFIED WITHIN THESE DRAWINGS. OXY FUEL GAS WELDING OR BRAZING IS STRICTLY PROHIBITED. SPECIFICALLY, NO TORCH CUTTING OR OPEN FLAME IS PERMITTED ON SITE. ALL HOLES SHALL BE CUT WITH A GRINDER.

ROOFING NOTES

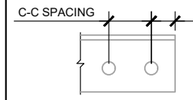
1. THE SUBCONTRACTOR SHALL REPAIR ALL EXISTING FLOOR, ROOF, CEILING, AND WALL SURFACES AND FINISHING DISTURBED DURING CONSTRUCTION. **ALL EXTERIOR FINISHES ARE REQUIRED** TO RESULT IN A SMOOTH FINISH TO MATCH THE EXISTING CONDITIONS TO THE SATISFACTION OF THE OWNER.

2. PENETRATION OF THE ROOF MEMBRANE IS PROHIBITED EXCEPT WHERE DESIGNED AND WITH THE APPROVAL OF THE BUILDING OWNER OR MANAGEMENT. COORDINATE MEMBRANE REPLACEMENT AND/OR REPAIR WITH THE OWNER'S ROOFING CONSULTANT TO MAINTAIN EXISTING WARRANTY.

3. ROOFTOP HAS A SLIGHT SLOPE TOWARDS EXISTING ROOF DRAINS. ALL EXISTING ROOF DRAINS & ROOF DRAINING PATTERNS SHALL NOT BE OBSTRUCTED OR DISTURBED (VERIFY IN FIELD). ANTENNA FRAMES AND STRUCTURE SHALL BE PLUMB & LEVEL (SHIM AS REQUIRED).

BOLT SCHEDULE

BOLT DIAMETER	STANDARD HOLE	SHORT SLOT	MIN. EDGE DISTANCE	C-C SPACING
1/2	9/16	9/16x11/16	7/8	1-1/2
5/8	11/16	11/16x7/8	1-1/8	1-7/8
3/4	13/16	13/16x1	1-1/4	2-1/4
7/8	15/16	15/16x1-1/8	1-1/2	2-5/8
1	1-1/8	1-1/8x1-5/16	1-3/4	3

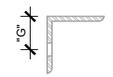


-DIMENSIONS GIVEN IN INCHES

-SHORT SLOT HOLES SHALL ONLY BE USED WHEN DEPICTED ON THE PLANS

WORKABLE GAGES

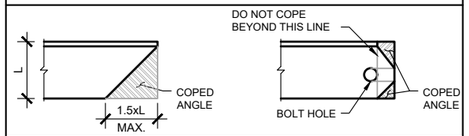
LEG	6	5	4	3-1/2	3	2-1/2	2	1-3/4
G	3-1/2	3	2-1/2	2	1-3/4	1-3/8	1-1/8	1



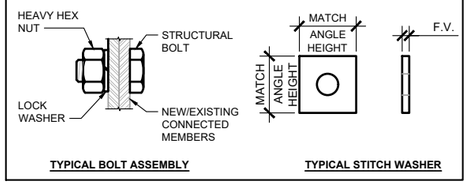
-DIMENSIONS GIVEN IN INCHES

-MATCH EXISTING WHEN APPLICABLE

ALLOWABLE ANGLE COPE



BOLTING DETAILS



TYPICAL BOLT ASSEMBLY **TYPICAL STITCH WASHER**

1. ALL DIMENSIONS REPRESENTED IN THESE TABLES ARE AISC MINIMUM REQUIREMENTS. CONTRACTOR SHALL VERIFY EXISTING CONDITIONS IN FIELD AND NOTIFY ENGINEER IF DISTANCES ARE LESS THAN THOSE PROVIDED.
2. THE DIMENSIONS PROVIDED ARE MINIMUM REQUIREMENTS. ACTUAL DIMENSIONS OF PROPOSED MEMBERS WITHIN THESE DRAWINGS MAY VARY FROM THE AISC MINIMUM REQUIREMENTS.
3. AS AN ALTERNATIVE TO USING A LOCK WASHER PAL-NUTS CAN BE INSTALLED ABOVE THE HEX NUT. ALL BOLTS MUST HAVE LOCKING DEVICES INSTALLED AS PART OF THE ASSEMBLY.
4. ADDITIONAL HARDENED FLAT WASHERS MAY BE REQUIRED IN CASES WHERE OVERSIZED OR SLOTTED HOLES ARE PRESENT. EXISTING CONDITIONS SHALL BE APPROVED BY THE EOR.

6/23/22

GPD GROUP
Glaus, Pyle, Schomer, Burns & DeHaven, Inc.
520 South Main Street, Suite 2531
Akron, OH 44311
330.572.2100 Fax 330.572.2102

AT&T

C&M HAVEN INC.
FA #: 10077213

DESIGN DRAWINGS PREPARED FOR:

CLIENT #: OH5031

REV.	DATE	DESCRIPTION
0	6/23/22	INITIAL RELEASE

C&M HAVEN INC.
12400 MADISON AVE.
LAKEWOOD, OH 44107

PROJECT NOTES

ISSUED FOR:	
PERMIT	6/23/2022
BID	-
CONSTRUCTION	-
RECORD	-

ENGINEER	DESIGNER
KM	JMJ
PROJECT MANAGER	APPROVED BY
BL	CJS

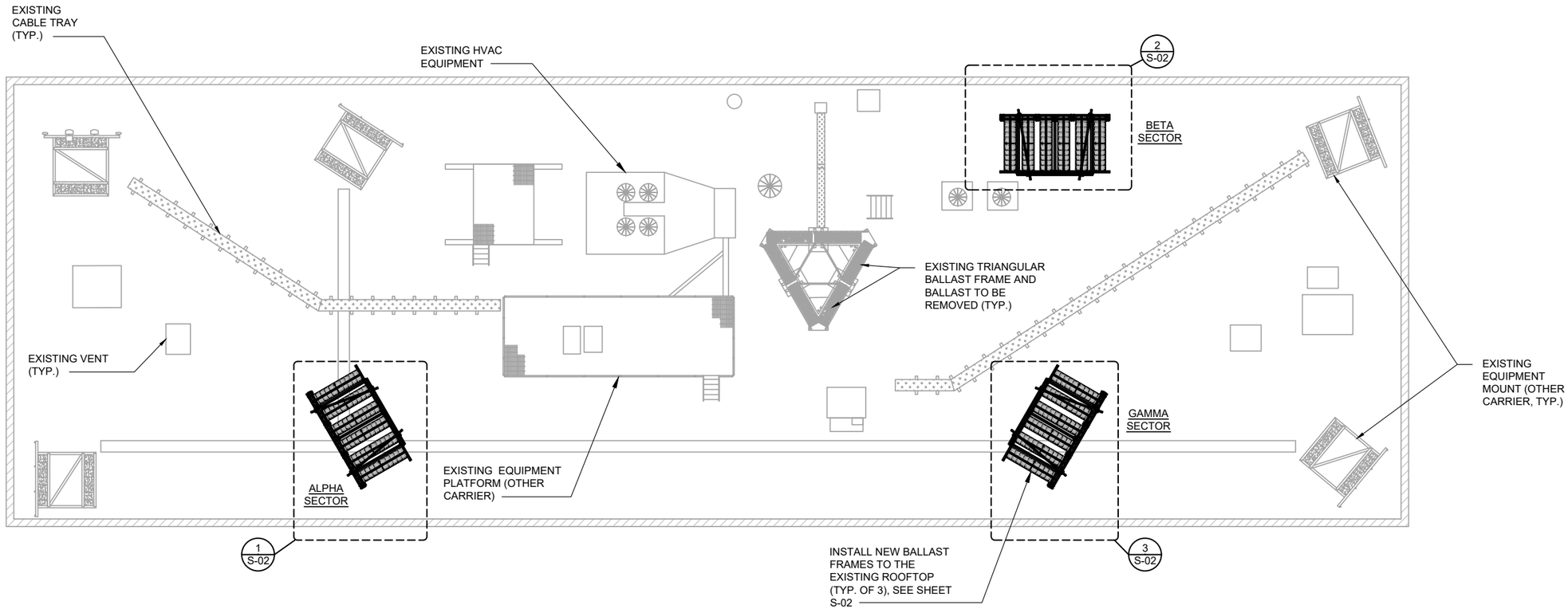
JOB NO.
2022723.05.975.03

N-01

MODIFICATION SCHEDULE

MEMBER TYPE	ELEVATION	EXISTING MEMBER	NEW MEMBER	REFERENCE DETAIL/SHEET	NOTES
BALLAST FRAMES	100'-0"±	-	(3) BALLAST FRAMES	1/S-02, 2/S-02, 3/S-02, & 4/S-03	INSTALL NEW BALLAST FRAMES ON THE EXISTING ROOFTOP.
BALLAST		-	BALLAST		INSTALL NEW CMU BALLAST TO THE NEW BALLAST FRAMES.
BALLAST FRAME PIPE MOUNTS		-	(4) P2 STD PIPE MOUNTS (PER FRAME)		TRIM PROVIDED PIPE MOUNTS FROM 14'-6" TO 11'-0".
ANTENNA EQUIPMENT AND MOUNTS		-	-	-	REMOVE ALL EXISTING ANTENNA EQUIPMENT, MOUNTS, AND ALL ASSOCIATED ASSEMBLY HARDWARE FROM THE PENTHOUSE.

NOTES:
1. ALL MATERIAL REMOVED FROM THE STRUCTURE SHALL BE DISPOSED OF BY THE CONTRACTOR OFF SITE.
2. CONTRACTOR SHALL CONFIRM BALLAST BLOCK WEIGHT WITH MATERIAL SUPPLIER. ADJUST BLOCK QUANTITIES AS NEEDED TO PROVIDE AN EQUIVALENT BALLAST WEIGHT.
3. ANY SUBSTITUTION OF PARTS SPECIFIED IN THIS DESIGN PACKAGE SHALL REQUIRE ENGINEER APPROVAL PRIOR TO FABRICATION.



NORTH

ROOFTOP PLAN

SCALE: N.T.S.

6/23/22

GPD GROUP
Glaus, Pyle, Schomer, Burns & DeHaven, Inc.
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AT&T

C&M HAVEN INC.
FA #: 10077213

DESIGN DRAWINGS PREPARED FOR:

CLIENT #: OH5031

REV.	DATE	DESCRIPTION
0	6/23/22	INITIAL RELEASE

C&M HAVEN INC.
12400 MADISON AVE.
LAKEWOOD, OH 44107

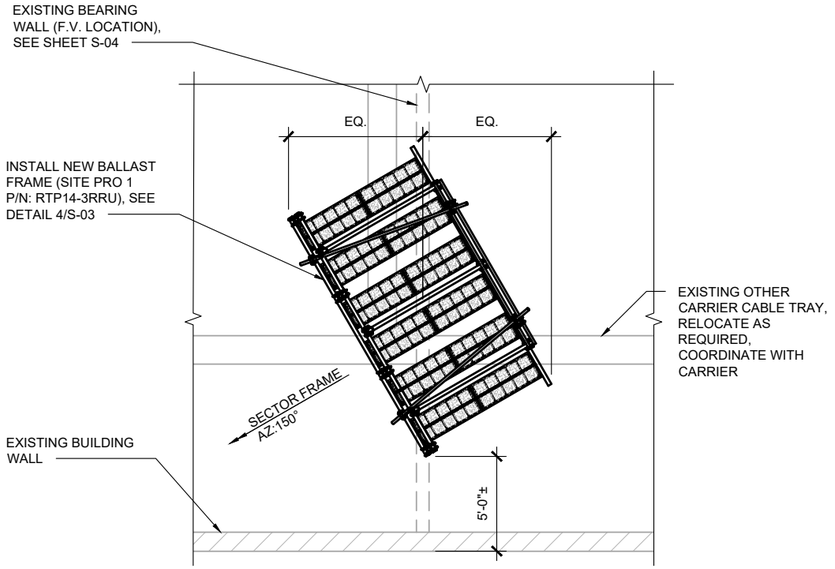
ROOFTOP PLAN & MODIFICATION SCHEDULE

ISSUED FOR:	
PERMIT	6/23/2022
BID	-
CONSTRUCTION	-
RECORD	-

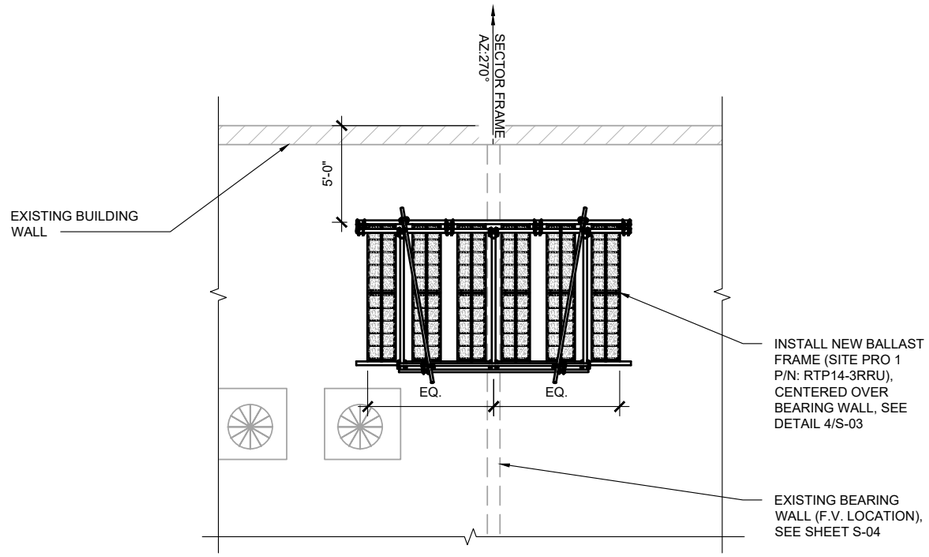
ENGINEER	DESIGNER
KM	JMJ
PROJECT MANAGER	APPROVED BY
BL	CJS

JOB NO.
2022723.05.975.03

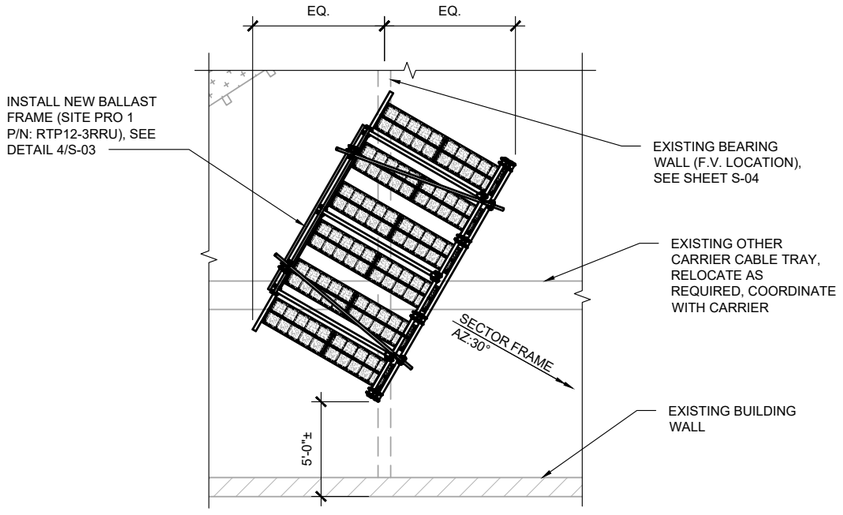
S-01



1 S-02 ALPHA SECTOR
SCALE: 1/8" = 1'-0"



2 S-02 BETA SECTOR
SCALE: 1/8" = 1'-0"



3 S-02 GAMMA SECTOR
SCALE: 1/8" = 1'-0"

STATE OF OHIO
CHRISTOPHER J. SCHEKS
E-78305
REGISTERED PROFESSIONAL ENGINEER
6/23/22

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C&M HAVEN INC.
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LAKEWOOD, OH 44107

MODIFICATION DETAILS

ISSUED FOR:	
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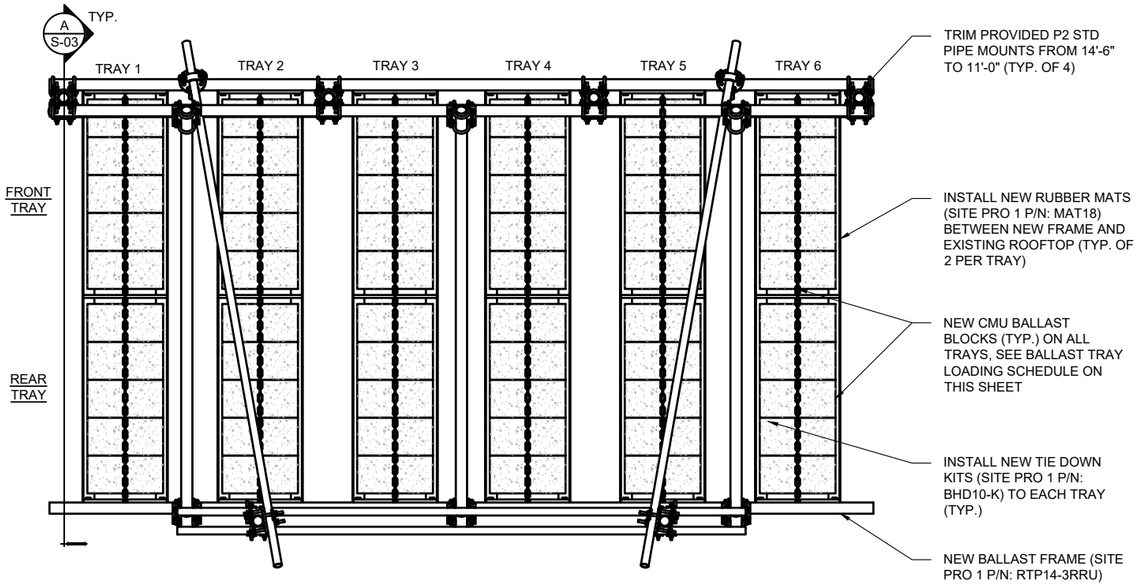
CONSTRUCTION	-
RECORD	-

ENGINEER	DESIGNER
KM	JMJ
PROJECT MANAGER	APPROVED BY
BL	CJS

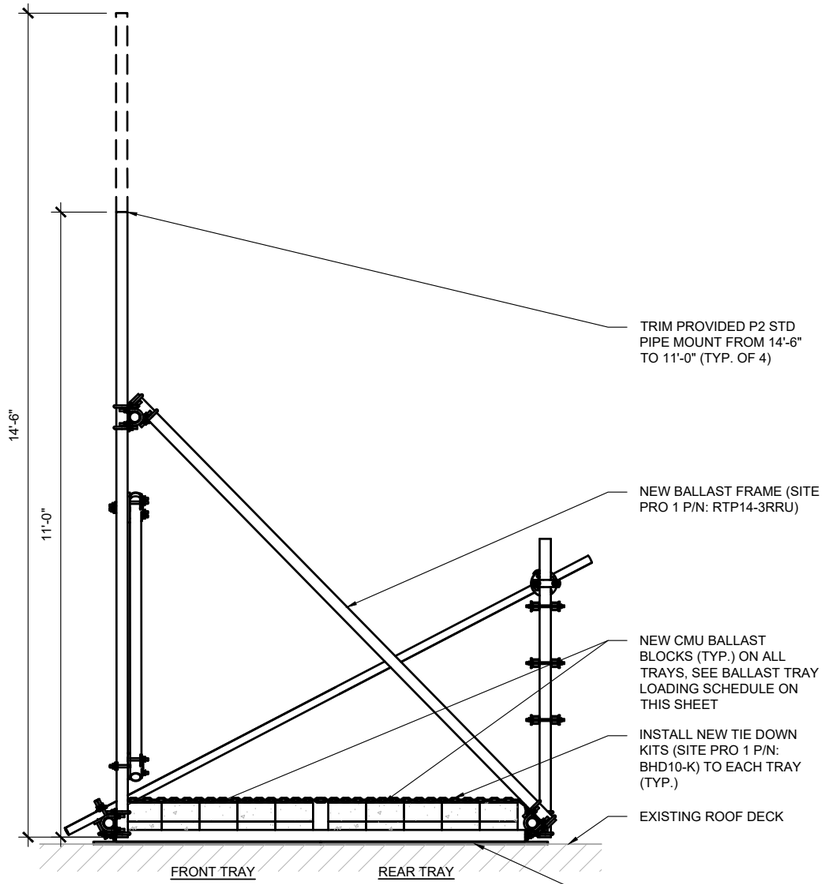
JOB NO.
2022723.05.975.03

S-02



4 S-03 BALLAST FRAME PLAN
SCALE: 3/8" = 1'-0"

NOTE:
1. ALL EXPOSED STEEL SHALL BE SOLVENT CLEANED AND TOUCHED UP WITH TWO COATS OF BRUSH APPLIED ZRC ZINC RICH COLD GALVANIZING PAINT.



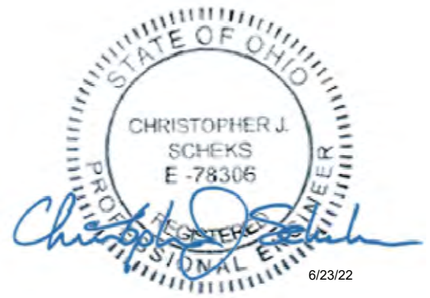
A S-03 SECTION
SCALE: 3/8" = 1'-0"

NOTE:
1. ALL EXPOSED STEEL SHALL BE SOLVENT CLEANED AND TOUCHED UP WITH TWO COATS OF BRUSH APPLIED ZRC ZINC RICH COLD GALVANIZING PAINT.

BALLAST LOADING SCHEDULE

TRAY LOCATION	BALLAST SIZE	WEIGHT (LBS EA.)	TOTAL BLOCKS	TOTAL WEIGHT (LBS)
TRAY 1	4x8x16 SOLID CMU	35	20	700
TRAY 2	4x8x16 SOLID CMU	35	20	700
TRAY 3	4x8x16 SOLID CMU	35	20	700
TRAY 4	4x8x16 SOLID CMU	35	20	700
TRAY 5	4x8x16 SOLID CMU	35	20	700
TRAY 6	4x8x16 SOLID CMU	35	20	700
		TOTALS:	80	4200

NOTE:
1. ALL BALLAST SHALL BE EQUALLY DISTRIBUTED AS SHOWN IN SECTION A/S-03.



6/23/22

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FA #: 10077213

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CLIENT #: OH5031

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C&M HAVEN INC.
12400 MADISON AVE.
LAKEWOOD, OH 44107

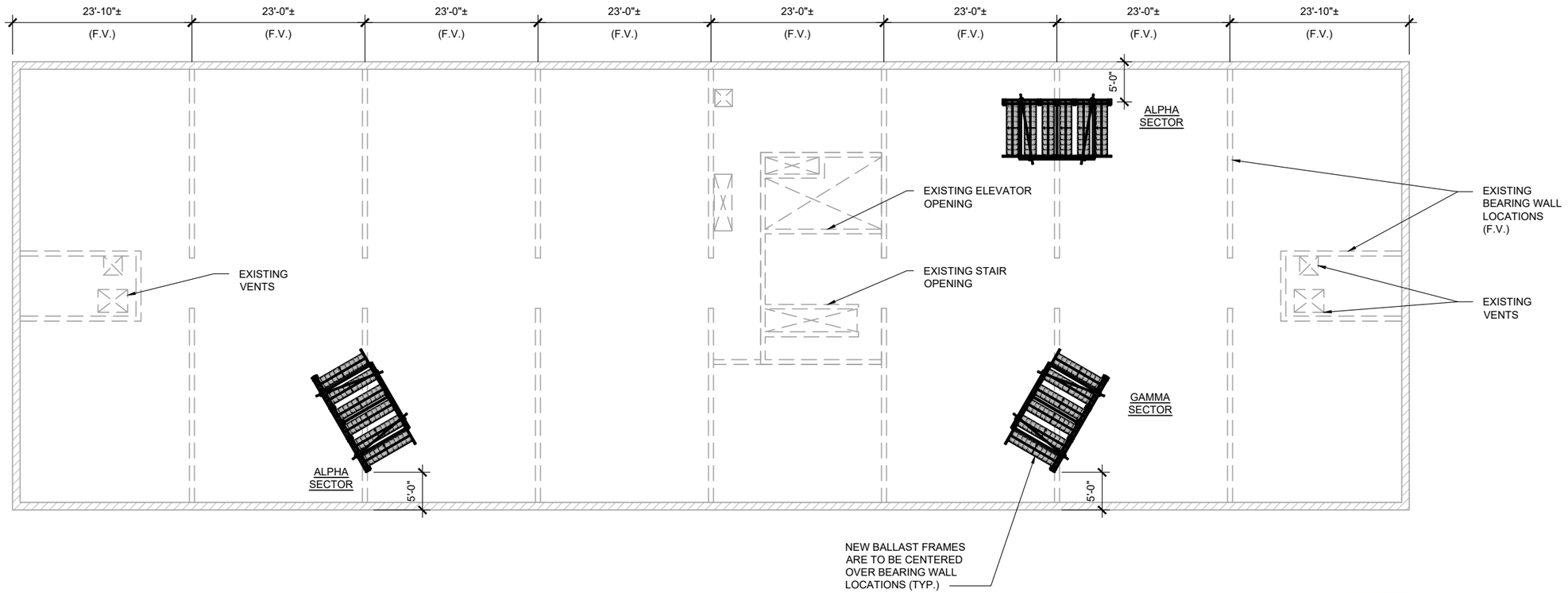
ADDITIONAL DETAILS & SECTIONS

ISSUED FOR:	
PERMIT	6/23/2022
BID	-
CONSTRUCTION	-
RECORD	-

ENGINEER	DESIGNER
KM	JMJ
PROJECT MANAGER	APPROVED BY
BL	CJS

JOB NO.
2022723.05.975.03

S-03



NORTH

BEARING WALL PLAN

SCALE: N.T.S.

STATE OF OHIO
CHRISTOPHER J. SCHEKS
E-78306
REGISTERED PROFESSIONAL ENGINEER

6/23/22

GPD GROUP
Glaus, Pyle, Schomer, Burns & DeHaven, Inc.
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AT&T

C&M HAVEN INC.
FA #: 10077213

DESIGN DRAWINGS
PREPARED FOR:

CLIENT #: OH5031

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C&M HAVEN INC.
12400 MADISON AVE.
LAKEWOOD, OH 44107

BEARING WALL PLAN

ISSUED FOR:	
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CONSTRUCTION	-
RECORD	-

ENGINEER	DESIGNER
KM	JMJ
PROJECT MANAGER	APPROVED BY
BL	CJS

JOB NO.
2022723.05.975.03

S-04

PLANNING COMMISSION

12650 Detroit Avenue • 44107 • (216) 529-6630 • FAX (216) 529-5907
www.lakewoodoh.gov

Communication Cover Page

Docket No.: 08-24-22

Permit No.: PC22-000027

Project: Communication from Planning and Development regarding 16900 Detroit Ave., Lakewood Food Truck Park

PLANNING COMMISSION

12650 Detroit Avenue • 44107 • (216) 529-6630 • FAX (216) 529-5907
www.lakewoodOH.net

August 4, 2022

Planning Commission
Lakewood City Hall
12650 Detroit Avenue
Lakewood, Ohio 44107

Re: Docket No. 08-24-22
Communication
16900 Detroit Ave., Lakewood Food Truck Park

Dear Members of the Planning Commission:

At its May 5, 2022 meeting, the Planning Commission directed administrative staff to provide a report to the Planning Commission regarding outdoor dining at Lakewood Food Truck, 16900 Detroit Ave. at its August 4, 2022 meeting.

Sincerely,

Katelyn Z. Milius

Shawn Leininger, Commission Secretary
Director, Planning and Development