

CONSULTANT TEAM

PROJECT CONSULTANT: TERRA CONSULTING GROUP, LTD.
600 BUSSE HIGHWAY
PARK RIDGE, IL 60068
(847) 698-6400

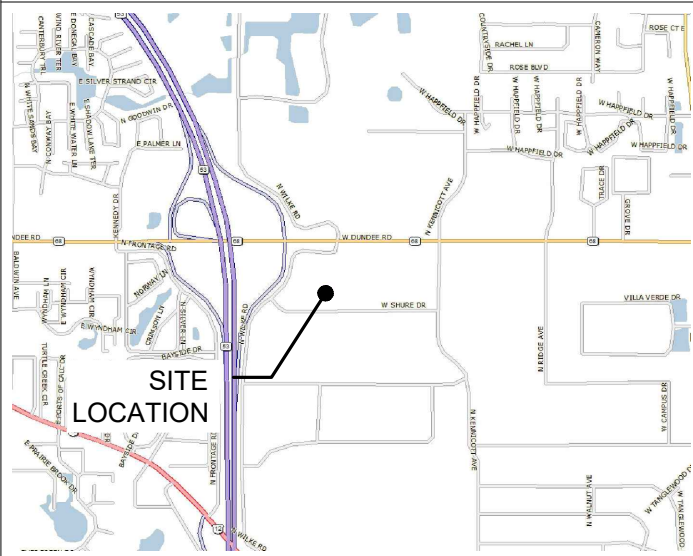
SURVEYOR: WILLIAMS AND WORKS
549 OTTAWA AVE NW
GRAND RAPIDS, MI 49503
(616) 224-1500

STRUCTURAL: (TOWER ANALYSIS) HUTTER FRANKINA ENGINEERING
32 W 273 ARMY TRAIL RD, SUITE #100
WAYNE, IL 60184
(630) 513-6711

STRUCTURAL ANALYSIS DATE:

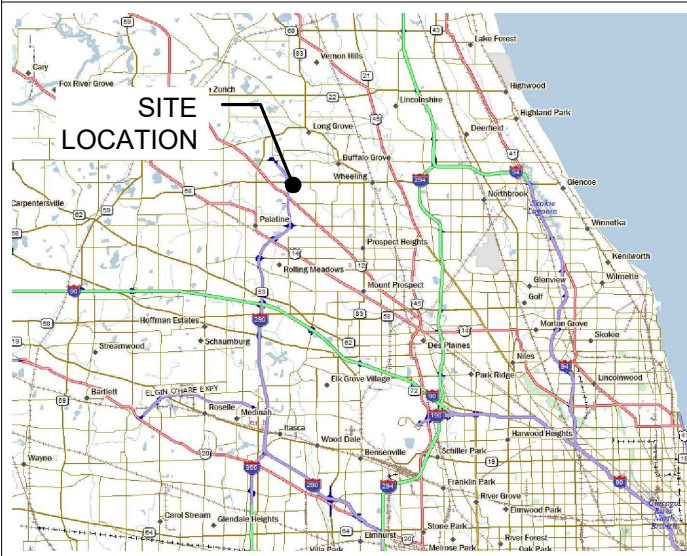
VICINITY MAP

N.T.S.



REGIONAL MAP

N.T.S.



PROJECT TYPE

PROPOSED ANTENNAS AND EQUIPMENT PLATFORM INSTALLATION ON EXISTING BUILDING.

PROJECT INFORMATION

SITE COORDINATES: LATITUDE: 42° 08' 15.09" N (FROM 1A)
LONGITUDE: 88° 00' 02.62" W (FROM 1A)
ELEVATION: ±735' (FROM 1A)

P.I.N. #: 03-07-102-008-0000, 03-07-102-013-0000

ADDRESS: 1500 W SHURE DR
ARLINGTON HEIGHTS, IL 60004

UTILITIES: POWER: HOUSE POWER FIBER: TRANSPORT BY OTHERS

JURISDICTION: VILLAGE OF ARLINGTON HEIGHTS

OCCUPANCY: UNINHABITED

ZONING: M-1 LIGHT MANUFACTURING DISTRICT

CONSTRUCTION TYPE: CO LO

LANDLORD: ERS WIRELESS

CONTACT PERSON: KEN HARTSOUGH
PHONE: (260) 894-4145 EX. 2235
CELLPHONE: (260) 318-0900
EMAIL: KHARTSOUGH@ERSWIRELESS.COM

APPLICANT: VERIZON WIRELESS
1515 WOODFIELD ROAD
SCHAUMBURG, IL 60173

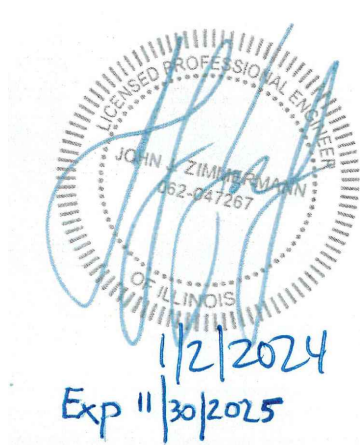
CONSTRUCTION MANAGER: JEREMIAH SAURIOL (847) 706-7721

REAL ESTATE MANAGER: DANNY PEREZ (847) 706-1765

GENERATOR TYPE: N/A



1701 GOLF ROAD, TOWER 2, SUITE 400
ROLLING MEADOWS, ILLINOIS 60008
PHONE: (847) 619-5397 FAX: (847) 706-7415



MDG LOCATION NUMBER: 5000916957

LOCATION NUMBER: 766005

SITE NAME: RAND & 53_RELO

**1500 W SHURE DR
ARLINGTON HEIGHTS, IL 60004**

SHEET	DRAWING INDEX	REVISION
T-1	TITLE SHEET	1,3,4
LP	LOCATION PLAN	1
A-1	ROOF PLAN	1,3
A-2	ENLARGED ROOF PLAN	1
A-3	PROPOSED CABLE ROUTE	3
A-4	SITE DETAILS	-
EQ-1	EQUIPMENT DETAILS	-
EQ-2	EQUIPMENT DETAILS	-
ANT-1	SITE ELEVATION	1
ANT-1A	SITE ELEVATION	1
ANT-1B	SITE ELEVATION	1,3
ANT-1C	SITE ELEVATION	5
ANT-2	ANTENNA INFORMATION	1,4
ANT-2A	EQUIPMENT INFORMATION	1,4
ANT-2B	ANTENNA INFORMATION	1,4
ANT-3	ANTENNA LAYOUT PLAN	1
ANT-4	SITE DETAILS	-
S-1	STRUCTURAL PLAN AND DETAILS	-
S-2	ANTENNA & EQUIPMENT MOUNTING DETAILS	-
E-1	OVERALL UTILITY ROUTING PLAN (AT ROOF LEVEL)	1,3
E-1A	PARTIAL UTILITY ROUTING PLAN	3
E-2	GROUNDING PLAN	1,3
E-3	ELECTRICAL AND GROUNDING DETAILS	3
E-4	PLATFORM LIGHTING PLAN	-
E-5	SINGLE LINE DIAGRAM & PANEL SCHEDULE	3
SP-1	SPECIFICATIONS	-
SP-2	SPECIFICATIONS	-
P-1	BUILDING PHOTOS	-

22" x 34" IS FULL SCALE.
11" x 17" IS HALF SCALE.

ATTACHMENTS		
PS-1	SITE SURVEY RFDS (BY OTHERS)	-



REVISIONS	
NO.	DESCRIPTION
0	ISSUED FOR REVIEW
1	ISSUED FOR FINAL
2	REVISED PER RF COMMENTS
3	ISSUED FOR REVIEW
4	REVISED PER LANDLORDS COMMENTS
5	REVISED PER NEW RFDS
5	ADDITION OF NORTHEAST ELEVATION

LOC. #766005

**RAND &
53_RELO**

**MDG LOC. #
5000916957**

1500 W SHURE DR
ARLINGTON HEIGHTS, IL
60004

DRAWN BY: TJS

CHECKED BY: DSS

DATE: 05/15/23

PROJECT #: 33-3608

SHEET TITLE
TITLE SHEET

SHEET NUMBER

T-1

OPERATES 24 HOURS
A DAY 365 DAYS A YEAR



CALL JULIE TOLL FREE
1(800) 892-0123
48 HOURS BEFORE
YOU DIG

LEGEND

- ▲ - TRAVERSE POINT
- ▲ - WELL
- - MONUMENT
- - MONUMENT BOX
- - SIGN
- - GUY ANCHOR
- - UTILITY POLE
- ✱ - LIGHT POLE
- - POST
- † - U.G. UTILITY MARKER
- ⌋ - SATELLITE DISH
- - HAND HOLE
- - U.G. UTILITY MARKER
- ⊕ - FIRE HYDRANT
- ⊞ - WATER METER
- ⊞ - TELEPHONE RISER
- ⊞ - ELECTRIC METER
- ⊞ - ELECTRIC TRANSFORMER
- ⊞ - ROUND CATCH BASIN
- ⊞ - STORM MANHOLE
- ⊞ - SANITARY MANHOLE
- ⊞ - ELECTRIC MANHOLE
- ⊞ - TELEPHONE MANHOLE
- ⊞ - WATER MANHOLE
- UGT — TELEPHONE UTILITY LINE
- UGE — ELECTRIC UTILITY LINE
- US — STORM UTILITY LINE
- US — SANITARY UTILITY LINE
- UGF — FIBER OPTIC UTILITY LINE
- OHE — OVERHEAD UTILITY LINE

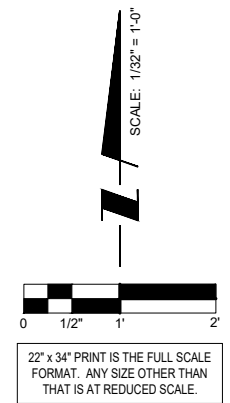
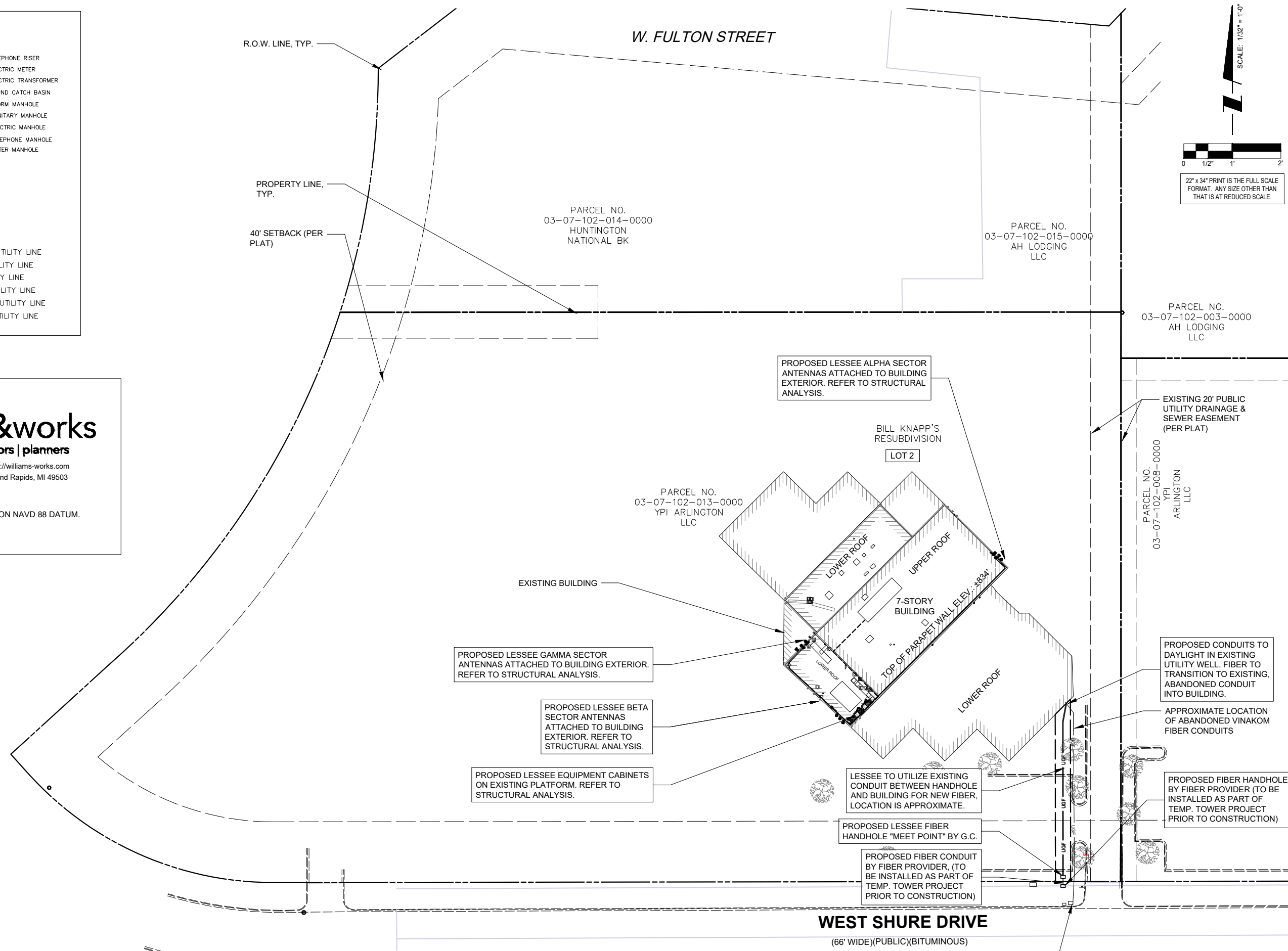
SURVEY PERFORMED BY:

williams&works
engineers | surveyors | planners

616.224.1500 phone | http://williams-works.com
549 Ottawa Ave NW | Grand Rapids, MI 49503

ALL ELEVATIONS ARE BASED ON NAVD 88 DATUM.

OPERATES 24 HOURS
A DAY 365 DAYS A YEAR



verizon
1701 GOLF ROAD,
TOWER 2, SUITE 400
ROLLING MEADOWS, IL 60008
PHONE: (847) 619-5397
FAX: (847) 706-7415

TERRA
CONSTRUCTION SERVICES, LLC
600 BUSSE HIGHWAY
PARK RIDGE, IL 60068
PH: 847-698-6400
FAX: 847-698-6401

REVISIONS	
NO.	DESCRIPTION
0	ISSUED FOR REVIEW
1	ISSUED FOR FINAL
2	REVISED PER RF COMMENTS
3	ISSUED FOR REVIEW
4	REVISED PER LANDLORDS COMMENTS
5	REVISED PER NEW RFDS

LOC. #766005
RAND & 53_RELO
MDG LOC. # 5000916957

1500 W SHURE DR
ARLINGTON HEIGHTS, IL
60004

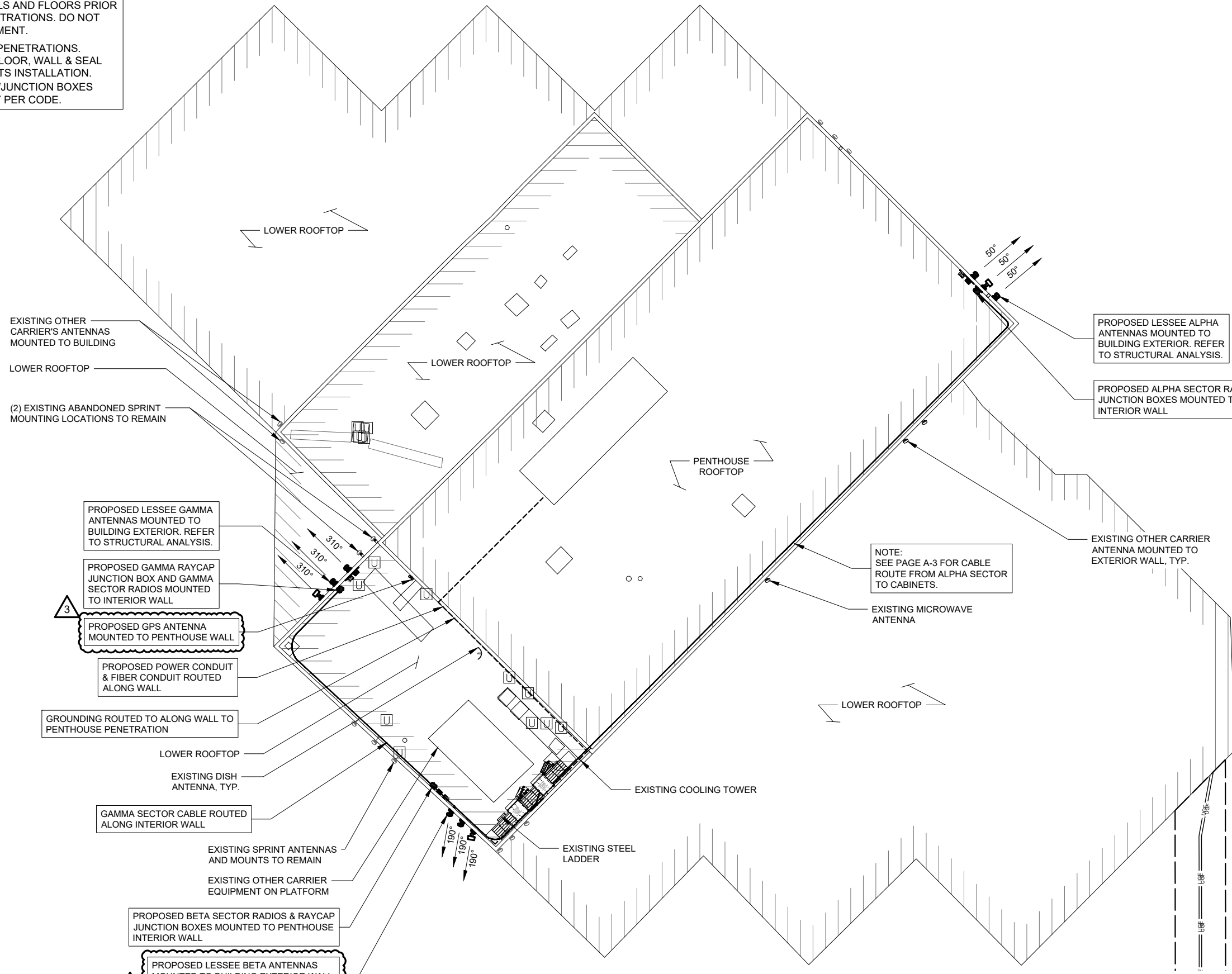
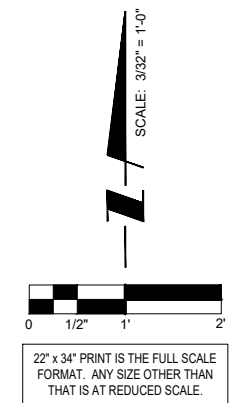
DRAWN BY:	TJS
CHECKED BY:	DSS
DATE:	05/15/23
PROJECT #:	33-3608

SHEET TITLE
LOCATION PLAN

SHEET NUMBER
LP

1 LOCATION PLAN
SCALE: 1/32" = 1'-0"

NOTE:
 * CONTRACTOR TO UTILIZE NON-DESTRUCTIVE INVESTIGATION METHODS TO DETECT AND LOCATE EXISTING REINFORCEMENT AND/OR UTILITIES IN WALLS AND FLOORS PRIOR TO MAKING PENETRATIONS. DO NOT CUT REINFORCEMENT.
 * FIRE STOP ALL PENETRATIONS.
 * CORE DRILL FLOOR, WALL & SEAL AFTER CONDUITS INSTALLATION.
 * INSTALL PULL/JUNCTION BOXES AS NECESSARY PER CODE.



PROPOSED LESSEE ALPHA ANTENNAS MOUNTED TO BUILDING EXTERIOR. REFER TO STRUCTURAL ANALYSIS.

PROPOSED ALPHA SECTOR RADIOS & RAYCAP JUNCTION BOXES MOUNTED TO PENTHOUSE INTERIOR WALL

PROPOSED LESSEE GAMMA ANTENNAS MOUNTED TO BUILDING EXTERIOR. REFER TO STRUCTURAL ANALYSIS.

PROPOSED GAMMA RAYCAP JUNCTION BOX AND GAMMA SECTOR RADIOS MOUNTED TO INTERIOR WALL

PROPOSED GPS ANTENNA MOUNTED TO PENTHOUSE WALL

PROPOSED POWER CONDUIT & FIBER CONDUIT ROUTED ALONG WALL

GROUNDING ROUTED TO ALONG WALL TO PENTHOUSE PENETRATION

GAMMA SECTOR CABLE ROUTED ALONG INTERIOR WALL

PROPOSED BETA SECTOR RADIOS & RAYCAP JUNCTION BOXES MOUNTED TO PENTHOUSE INTERIOR WALL

PROPOSED LESSEE BETA ANTENNAS MOUNTED TO BUILDING EXTERIOR WALL. REFER TO STRUCTURAL ANALYSIS.

NOTE: SEE PAGE A-3 FOR CABLE ROUTE FROM ALPHA SECTOR TO CABINETS.

1 ROOF PLAN
 SCALE: 3/32" = 1'-0"

verizon
 1701 GOLF ROAD,
 TOWER 2, SUITE 400
 ROLLING MEADOWS, IL 60008
 PHONE: (847) 619-5397
 FAX: (847) 706-7415

TERRA
 COMMERCIAL DESIGN GROUP, LLC
 600 BUSSE HIGHWAY
 PARK RIDGE, IL 60068
 PH: 847-698-6400
 FAX: 847-698-6401

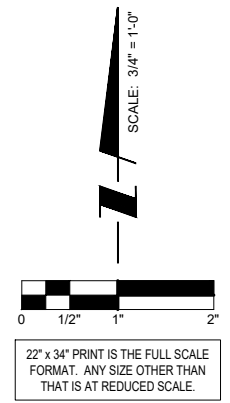
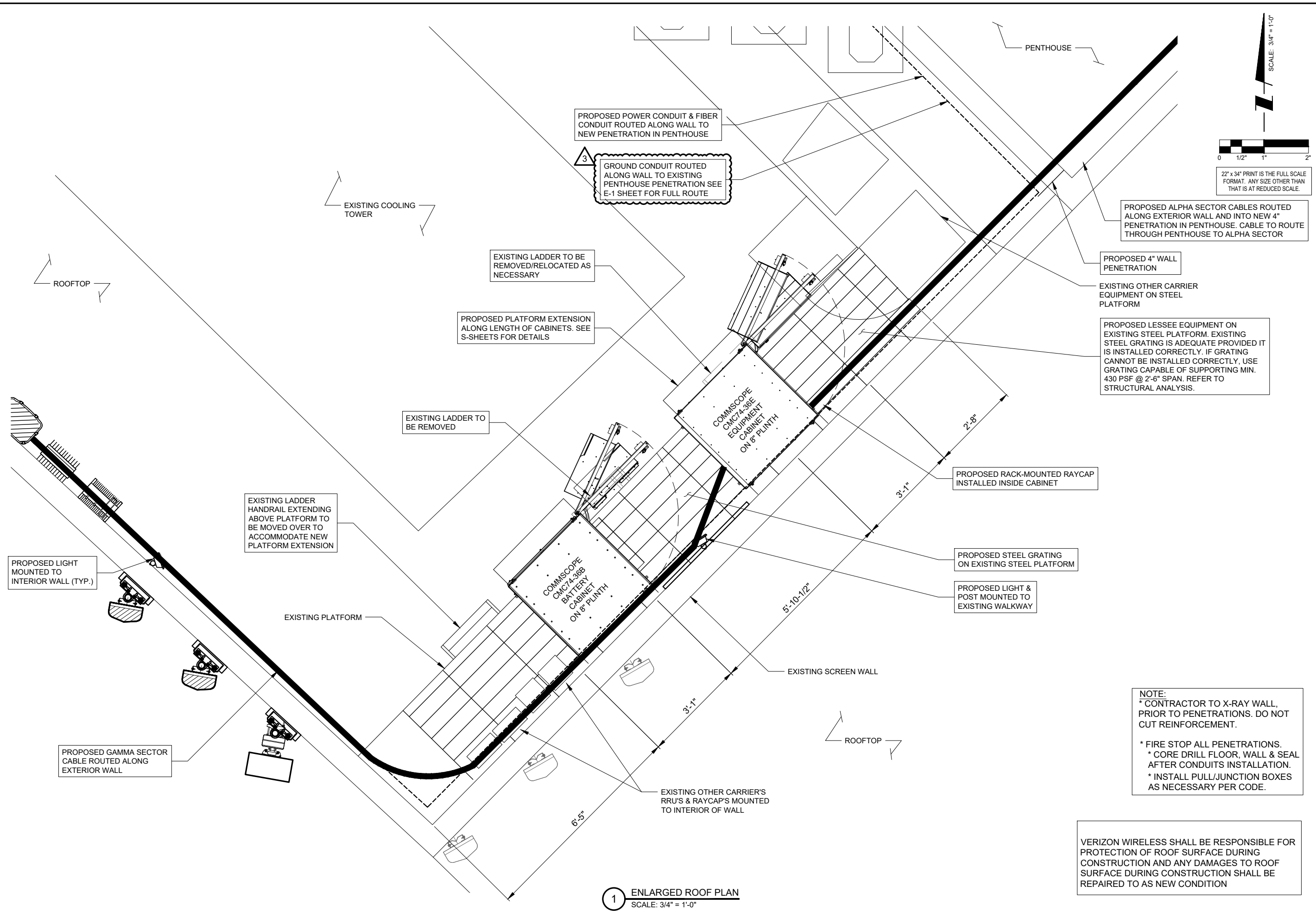
REVISIONS		NO.	DESCRIPTION	BY	DATE
	ISSUED FOR REVIEW	0		TJS	05/16/23
	ISSUED FOR FINAL	0		APD	06/16/23
	REVISED PER RF COMMENTS	1		TJS	07/05/23
	ISSUED FOR REVIEW	2		JJR	08/15/23
	REVISED PER LANDLORDS COMMENTS	3		JJR	10/25/23
	REVISED PER NEW RFDS	4		JJR	11/17/23
	ADDITION OF NORTHEAST ELEVATION	5		JJR	01/02/24

LOC. #766005
RAND & 53_RELO
MDG LOC. # 5000916957
 1500 W SHURE DR
 ARLINGTON HEIGHTS, IL
 60004

DRAWN BY: TJS
 CHECKED BY: DSS
 DATE: 05/15/23
 PROJECT #: 33-3608

SHEET TITLE
ROOF PLAN

SHEET NUMBER
A-1



1 ENLARGED ROOF PLAN
SCALE: 3/4" = 1'-0"

VERIZON WIRELESS SHALL BE RESPONSIBLE FOR PROTECTION OF ROOF SURFACE DURING CONSTRUCTION AND ANY DAMAGES TO ROOF SURFACE DURING CONSTRUCTION SHALL BE REPAIRED TO AS NEW CONDITION

NOTE:
 * CONTRACTOR TO X-RAY WALL, PRIOR TO PENETRATIONS. DO NOT CUT REINFORCEMENT.
 * FIRE STOP ALL PENETRATIONS.
 * CORE DRILL FLOOR, WALL & SEAL AFTER CONDUITS INSTALLATION.
 * INSTALL PULL/JUNCTION BOXES AS NECESSARY PER CODE.

verizon
 1701 GOLF ROAD,
 TOWER 2, SUITE 400
 ROLLING MEADOWS, IL 60008
 PHONE: (847) 619-5397
 FAX: (847) 706-7415

TERRA
 CONSULTING ENGINEERS, ARCHITECTS, & PLANNERS, LTD.
 600 BUSSE HIGHWAY
 PARK RIDGE, IL 60068
 PH: 847-698-6400
 FAX: 847-698-6401

REVISIONS			
NO.	DESCRIPTION	DATE	BY
0	ISSUED FOR REVIEW	05/16/23	TJS
1	ISSUED FOR FINAL	06/16/23	APD
2	REVISED PER RF COMMENTS	07/05/23	TJS
3	ISSUED FOR REVIEW	08/15/23	JJR
4	REVISED PER LANDLORDS COMMENTS	10/25/23	JJR
5	REVISED PER NEW RFDS	11/17/23	JJR
	ADDITION OF NORTHEAST ELEVATION	01/02/24	JJR

LOC. #766005
RAND & 53_RELO
MDG LOC. # 5000916957

1500 W SHURE DR
 ARLINGTON HEIGHTS, IL
 60004

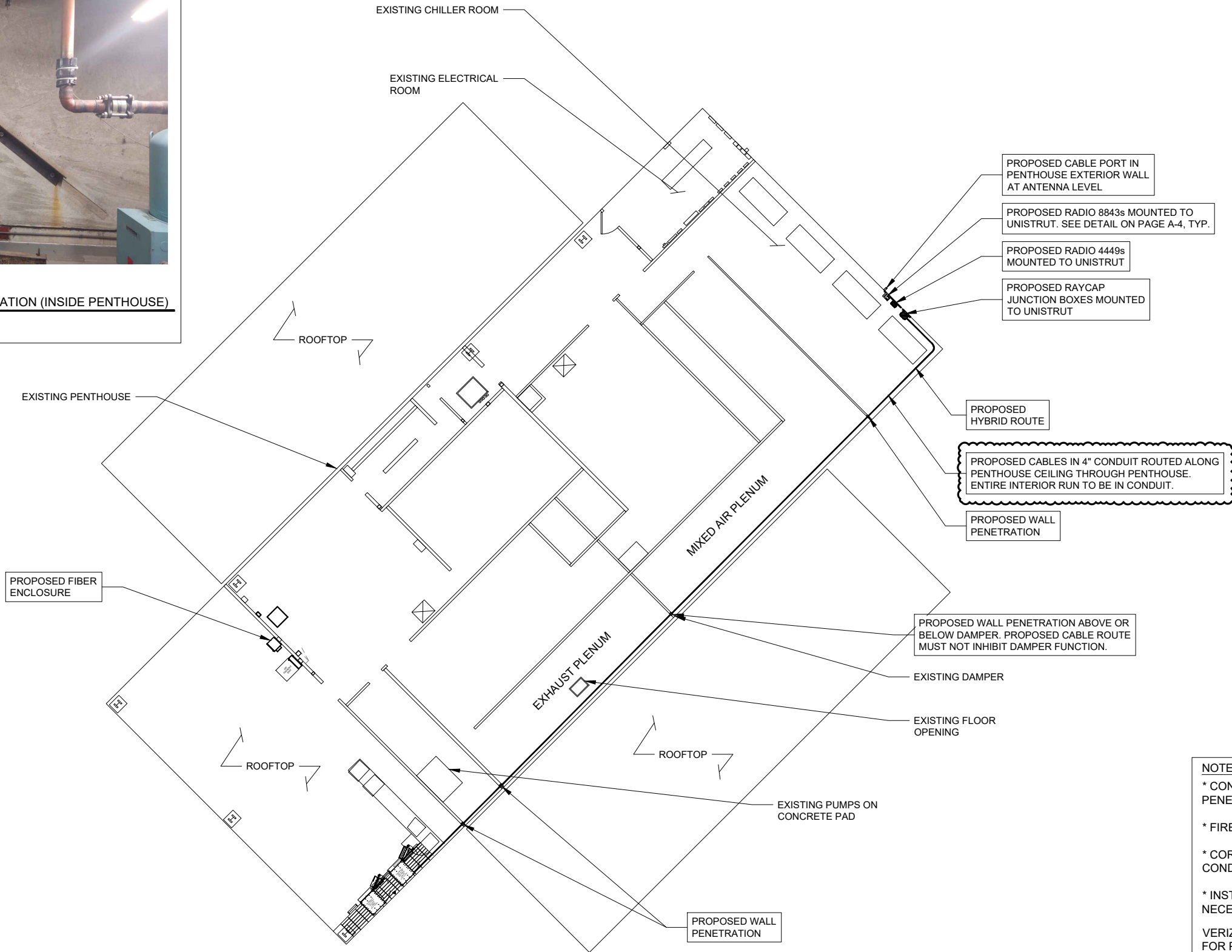
DRAWN BY: TJS
 CHECKED BY: DSS
 DATE: 05/15/23
 PROJECT #: 33-3608

SHEET TITLE
ENLARGED ROOF PLAN

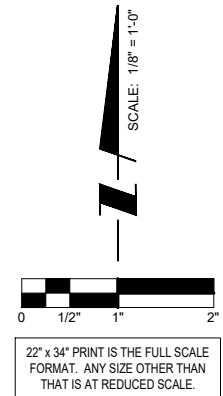
SHEET NUMBER
A-2



2 PROPOSED EQUIPMENT LOCATION (INSIDE PENTHOUSE)
SCALE: N.T.S.



1 PROPOSED CABLE ROUTE (PENTHOUSE)
SCALE: 1/8" = 1'-0"



PROPOSED CABLES IN 4" CONDUIT ROUTED ALONG PENTHOUSE CEILING THROUGH PENTHOUSE. ENTIRE INTERIOR RUN TO BE IN CONDUIT.

NOTES:
 * CONTRACTOR TO X-RAY WALL, PRIOR TO PENETRATIONS. DO NOT CUT REINFORCEMENT.
 * FIRE STOP ALL PENETRATIONS.
 * CORE DRILL FLOOR, WALL & SEAL AFTER CONDUITS INSTALLATION.
 * INSTALL PULL/JUNCTION BOXES AS NECESSARY PER CODE.
 VERIZON WIRELESS SHALL BE RESPONSIBLE FOR PROTECTION OF ROOF SURFACE DURING CONSTRUCTION AND ANY DAMAGES TO ROOF SURFACE DURING CONSTRUCTION SHALL BE REPAIRED TO AS NEW CONDITION.
 ALL PENETRATIONS THROUGH EXTERIOR WALLS TO BE PLACED DIRECTLY BEHIND ANTENNA MOUNTS.
 EXTERIOR CABLE PENETRATIONS TO BE SLOPED 10 DEGREES DOWNWARD TO THE OUTSIDE.

verizon
 1701 GOLF ROAD,
 TOWER 2, SUITE 400
 ROLLING MEADOWS, IL 60008
 PHONE: (847) 619-5397
 FAX: (847) 706-7415

TERRA
 CONSULTING ENGINEERS, ARCHITECTS, INTERIORS
 600 BUSSE HIGHWAY
 PARK RIDGE, IL 60068
 PH: 847-698-6400
 FAX: 847-698-6401

REVISIONS		NO.	DESCRIPTION	BY	DATE
	ISSUED FOR REVIEW	0		TJS	05/16/23
	ISSUED FOR FINAL	0		APD	06/16/23
	REVISED PER RF COMMENTS	1		TJS	07/05/23
	ISSUED FOR REVIEW	2		JJR	08/15/23
	REVISED PER LANDLORDS COMMENTS	3		JJR	10/25/23
	REVISED PER NEW RFDS	4		JJR	11/17/23
	ADDITION OF NORTHEAST ELEVATION	5		JJR	01/02/24

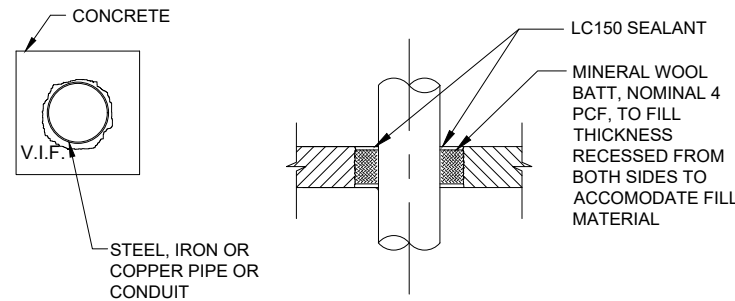
LOC. #766005
RAND & 53_RELO
MDG LOC. # 5000916957

1500 W SHURE DR
 ARLINGTON HEIGHTS, IL
 60004

DRAWN BY: TJS
 CHECKED BY: DSS
 DATE: 05/15/23
 PROJECT #: 33-3608

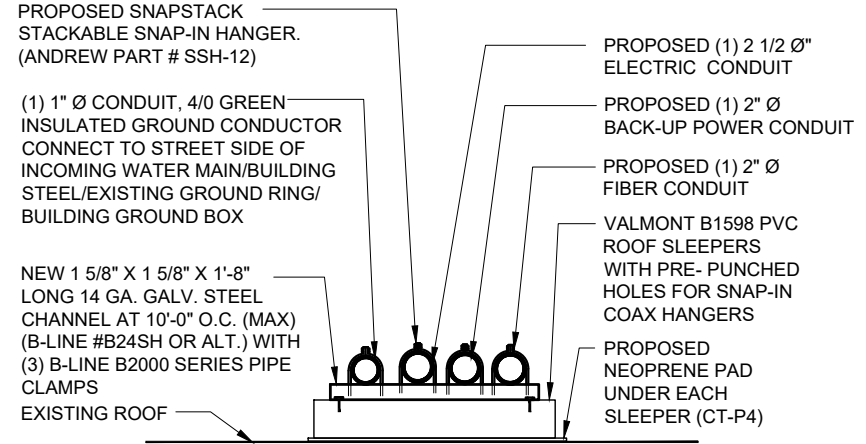
SHEET TITLE
PROPOSED CABLE ROUTE

SHEET NUMBER
A-3

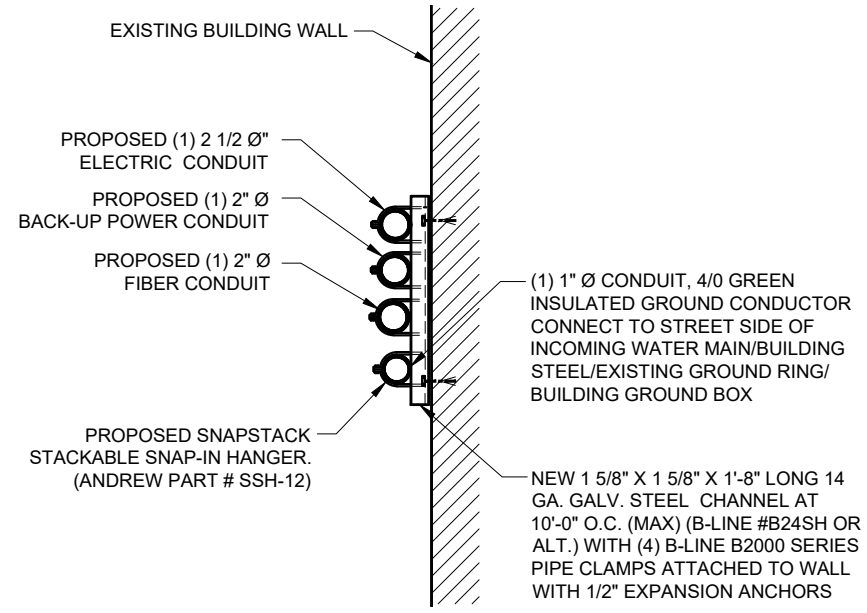


PENETRANT	MAXIMUM TRADE SIZE (IN.)	SEALANT DEPTH (IN.)	MINERAL WOOL (IN.)	ANNULUS (IN.)	
				MINIMUM	MAXIMUM
STEEL OR IRON	24	1/2	3	POINT CONTACT	2
STEEL OR IRON	4	1	NONE REQ'D.	POINT CONTACT	1-1/2
COPPER	4	1/2	3	POINT CONTACT	2

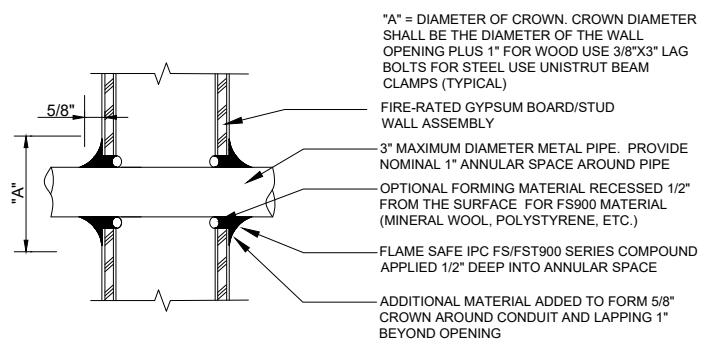
3 UL C-AJ-1213 FIRE STOP DETAIL (FOR ALL PENETRATIONS)
N.T.S.



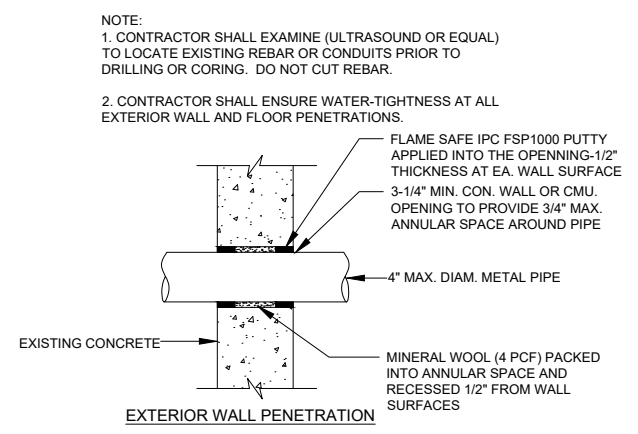
4 ROOF MOUNTED CONDUIT SUPPORT
SCALE: N.T.S.



5 WALL MOUNTED CONDUIT SUPPORT
N.T.S.



1 CONDUIT WALL PENETRATION
N.T.S.



FIRESTOPPING SPECIFICATIONS

- 1.1 DESCRIPTION
 - A. CLOSURES OF OPENINGS IN WALLS, FLOORS, AND ROOF DECKS AGAINST PENETRATION OF FLAME, HEAT, AND SMOKE OR GASES IN FIRE RESISTANT RATED CONSTRUCTION.
 - B. CLOSURE OF OPENINGS IN WALLS AGAINST PENETRATION OF GASES OR SMOKE IN SMOKE PARTITIONS.
- 1.2 GUARANTEE

FIRESTOPPING WORK SUBJECT TO THE TERMS OF THE ARTICLE GUARANTY OF SECTION GENERAL CONDITIONS, EXCEPT EXTEND THE GUARANTY PERIOD TO FIVE YEARS.
- 1.3 QUALITY ASSURANCE

FM, UL, OR WH OR OTHER APPROVED LABORATORY TESTED PRODUCTS WILL BE ACCEPTABLE.
- 1.4 APPLICABLE PUBLICATIONS

PUBLICATIONS LISTED BELOW FORM A PART OF THIS SPECIFICATION TO THE EXTENT REFERENCED. PUBLICATIONS ARE REFERENCED IN THE TEXT BY THE BASIC DESIGNATION ONLY.

 - A. AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM): E84-99 SURFACE BURNING CHARACTERISTICS OF BUILDING MATERIALS E814-97 FIRE TESTS OF THROUGH-PENETRATION FIRE STOPS.
 - B. FACTORY MUTUAL ENGINEERING AND RESEARCH CORPORATION (FM): ANNUAL ISSUE APPROVAL GUIDE BUILDING MATERIALS.
 - C. UNDERWRITERS LABORATORIES, INC. (UL): ANNUAL ISSUE BUILDING MATERIALS DIRECTORY ANNUAL ISSUE FIRE RESISTANCE DIRECTORY 1479-98 FIRE TESTS OF THROUGH-PENETRATION FIRE STOPS.
 - D. WARNOCK HERSEY (WH): ANNUAL ISSUE CERTIFICATION LISTINGS.

PART 2 - PRODUCTS

- 2.1 FIRESTOP SYSTEMS
 - A. USE EITHER FACTORY BUILT (FIRESTOP DEVICES) OR FIELD ERRECTED (THROUGH-PENETRATION FIRESTOP SYSTEMS) TO FORM A SPECIFIC BUILDING SYSTEM MAINTAINING REQUIRED INTEGRITY OF THE FIRE BARRIER AND STOP THE PASSAGE OF GASES OR SMOKE.
 - B. THROUGH-PENETRATION FIRESTOP SYSTEMS AND FIRESTOP DEVICES TESTED IN ACCORDANCE WITH ASTM E814 OR UL 1479 USING THE "F" OR "T" RATING TO MAINTAIN THE SAME RATING AND INTEGRITY AS THE FIRE BARRIER BEING SEALED. "T" RATINGS ARE NOT REQUIRED FOR PENETRATIONS SMALLER THAN OR EQUAL TO 100 MM (4 IN) NOMINAL PIPE OR 0.01 M2 (16 SQ. IN.) IN OVERALL CROSS SECTIONAL AREA.

2 FIRE STOP NOTES
N.T.S.

- C. PRODUCTS REQUIRING HEAT ACTIVATION TO SEAL AN OPENING BY ITS INTUMESCENCE SHALL EXHIBIT A DEMONSTRATED ABILITY TO FUNCTION AS DESIGNED TO MAINTAIN THE FIRE BARRIER.
- D. FIRESTOP SEALANTS USED FOR FIRESTOPPING OR SMOKE SEALING SHALL HAVE FOLLOWING PROPERTIES:
 - 1. CONTAIN NO FLAMMABLE OR TOXIC SOLVENTS.
 - 2. HAVE NO DANGEROUS OR FLAMMABLE OUTGASSING DURING THE DRYING OR CURING OF PRODUCTS.
 - 3. WATER-RESISTANT AFTER DRYING OR CURING AND UNAFFECTED BY HIGH HUMIDITY, CONDENSATION OR TRANSIENT WATER EXPOSURE.
 - 4. WHEN USED IN EXPOSED AREAS, SHALL BE CAPABLE OF BEING SANDED AND FINISHED WITH SIMILAR SURFACE TREATMENTS AS USED ON THE SURROUNDING WALL OR FLOOR SURFACE.
- E. FIRESTOPPING SYSTEM OR DEVICES USED FOR PENETRATIONS BY GLASS PIPE, PLASTIC PIPE OR CONDUITS, UNENCLOSED CABLES, OR OTHER NON-METALLIC MATERIALS SHALL HAVE FOLLOWING PROPERTIES:
 - 1. CLASSIFIED FOR USE WITH THE PARTICULAR TYPE OF PENETRATING MATERIAL USED.
 - 2. PENETRATIONS CONTAINING LOOSE ELECTRICAL CABLES, COMPUTER DATA CABLES, AND COMMUNICATIONS CABLES PROTECTED USING FIRESTOPPING SYSTEMS THAT ALLOW UNRESTRICTED CABLE CHANGES WITHOUT DAMAGE TO THE SEAL.
 - 3. INTUMESCENT PRODUCTS WHICH WOULD EXPAND TO SEAL THE OPENING AND ACT AS FIRE, SMOKE, TOXIC FUMES, AND, WATER SEALANT.
 - F. MAXIMUM FLAME SPREAD OF 25 AND SMOKE DEVELOPMENT OF 50 WHEN TESTED IN ACCORDANCE WITH ASTM E84.
 - G. FM, UL, OR WH RATED OR TESTED BY AN APPROVED LABORATORY IN ACCORDANCE WITH ASTM E814.
 - H. MATERIALS TO BE ASBESTOS FREE.

PART 3 - EXECUTION

- 3.1 PREPARATION
 - A. REMOVE DIRT, GREASE, OIL, LOOSE MATERIALS, OR OTHER SUBSTANCES THAT PREVENT ADHERENCE AND BONDING OR APPLICATION OF THE FIRESTOPPING OR SMOKE STOPPING MATERIALS.
 - B. REMOVE INSULATION ON INSULATED PIPE FOR A DISTANCE OF 150 MM (SIX INCHES) ON EITHER SIDE OF THE FIRE RATED ASSEMBLY PRIOR TO APPLYING THE FIRESTOPPING MATERIALS UNLESS THE FIRESTOPPING MATERIALS ARE TESTED AND APPROVED FOR USE ON INSULATED PIPES.
- 3.2 INSTALLATION
 - A. DO NOT BEGIN WORK UNTIL THE SPECIFIED MATERIAL DATA AND INSTALLATION INSTRUCTIONS OF THE PROPOSED FIRESTOPPING SYSTEMS HAVE BEEN SUBMITTED AND APPROVED.
 - B. INSTALL FIRESTOPPING SYSTEMS WITH SMOKE STOPPING IN ACCORDANCE WITH FM, UL, WH, OR OTHER APPROVED SYSTEM DETAILS AND INSTALLATION INSTRUCTIONS.
 - C. INSTALL SMOKE STOPPING SEALS IN SMOKE PARTITIONS.

verizon
1701 GOLF ROAD,
TOWER 2, SUITE 400
ROLLING MEADOWS, IL 60008
PHONE: (847) 619-5397
FAX: (847) 706-7415

TERRA
CONSTRUCTION SERVICES, LLC
600 BUSSE HIGHWAY
PARK RIDGE, IL 60068
PH: 847-698-6400
FAX: 847-698-6401

NO	DESCRIPTION	BY	DATE				
			TJS	APD	TJS	JJR	JJR
1	ISSUED FOR REVIEW	TJS	05/16/23				
0	ISSUED FOR FINAL	APD	06/16/23				
1	REVISED PER RF COMMENTS	TJS	07/05/23				
2	ISSUED FOR REVIEW	JJR	08/15/23				
3	REVISED PER LANDLORDS COMMENTS	JJR	10/25/23				
4	REVISED PER NEW RFDS	JJR	11/17/23				
5	ADDITION OF NORTHEAST ELEVATION	JJR	01/02/24				

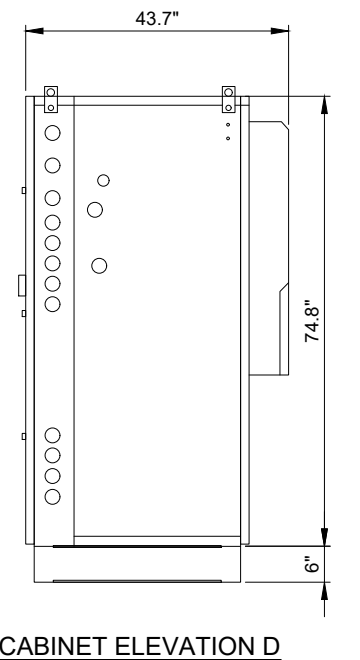
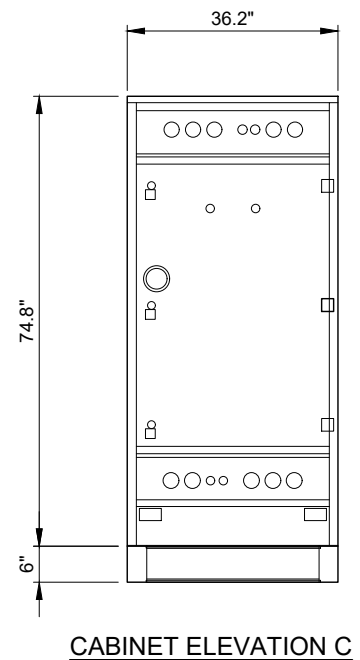
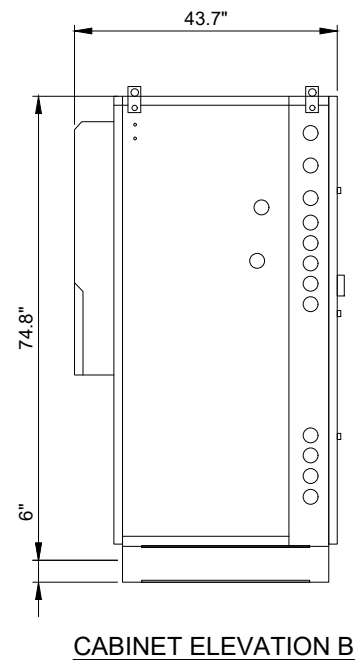
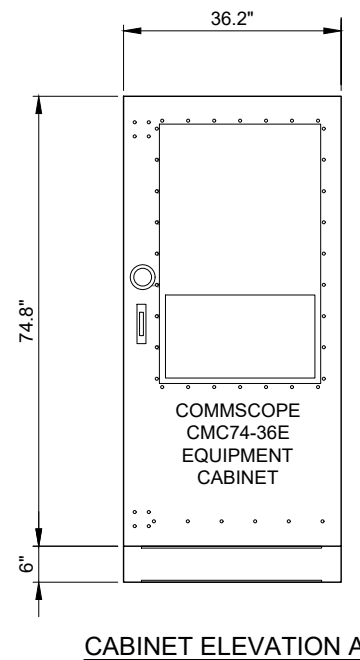
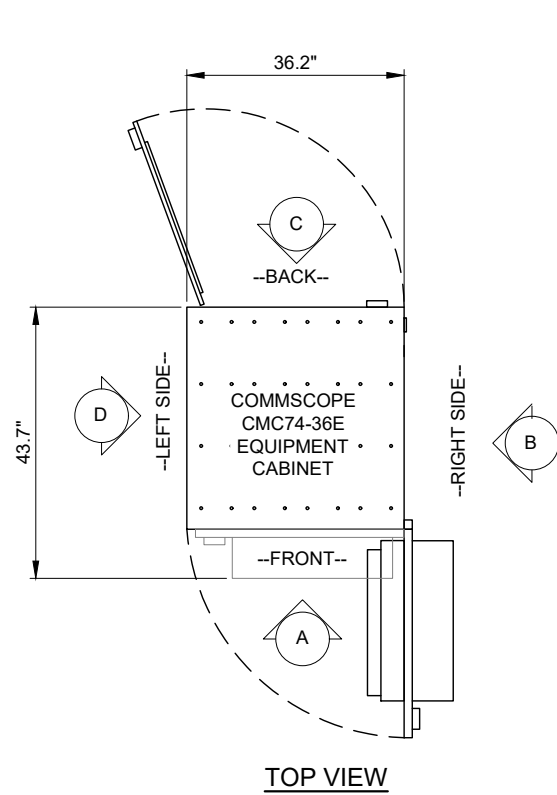
LOC. #766005
RAND & 53_RELO
MDG LOC. # 5000916957

1500 W SHURE DR
ARLINGTON HEIGHTS, IL
60004

DRAWN BY:	TJS
CHECKED BY:	DSS
DATE:	05/15/23
PROJECT #:	33-3608

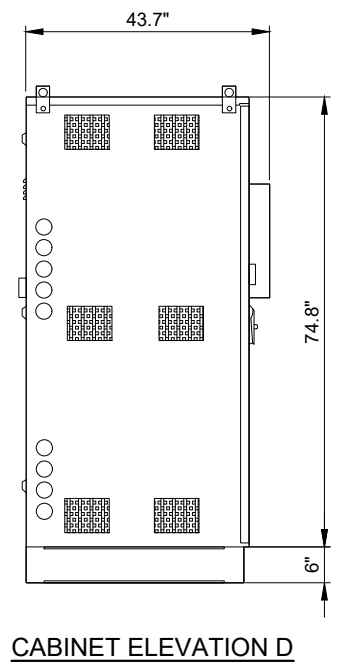
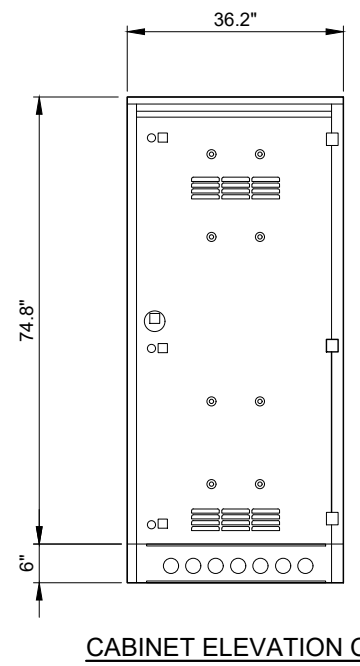
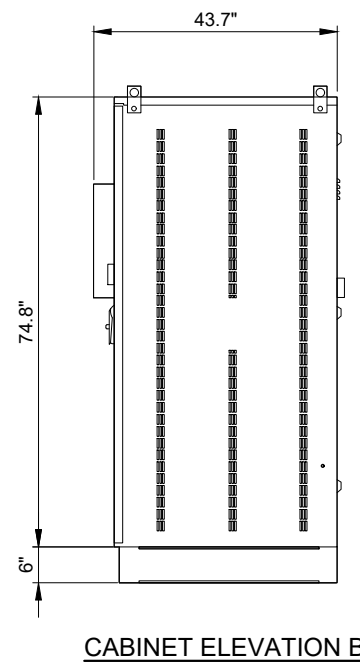
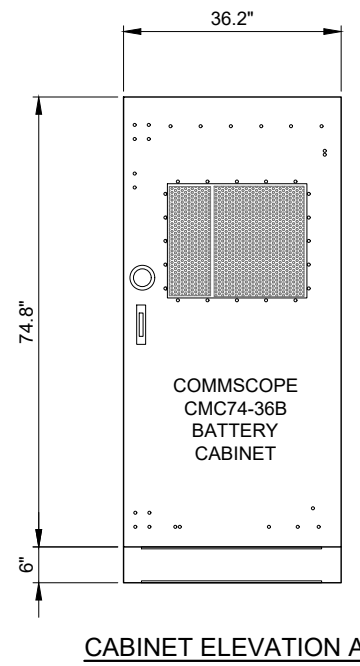
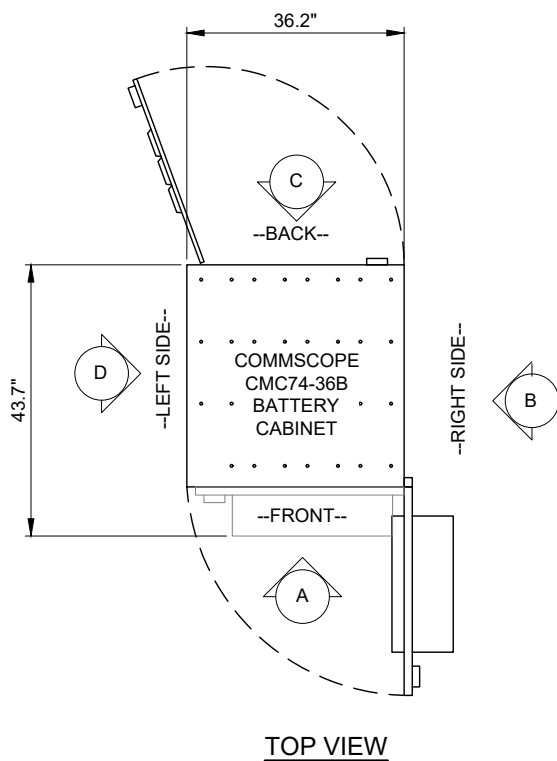
SHEET TITLE
SITE DETAILS

SHEET NUMBER
A-4



COMMSCOPE CMC74-36E EQUIPMENT CABINET	
DIMENSIONS	36.2"W x 43.7"D x 6'-9"H
WEIGHT	385LBS (EMPTY CABINET WITHOUT PLINTH, UNPACKAGED)
WEIGHT W/EQUIP	_____ LBS (TYP.)
19" RACK SPACE	40RU 70" Horizontal (Extra 19" 9RU vertical RHS)
Or 23" RACK SPACE	40RU 70" horizontal (Extra 19" 3RU vertical RHS)

1 COMMSCOPE CMC74-36E EQUIPMENT CABINET INFORMATION
N.T.S.



COMMSCOPE CMC74-36B BATTERY CABINET	
DIMENSIONS	36.2"W x 43.7"D x 6'-9"H
WEIGHT	1237.5 LBS (EMPTY)
WEIGHT W/BATT	_____ LBS (TYP.)

2 COMMSCOPE CMC74-36B BATTERY CABINET INFORMATION
N.T.S.

verizon
1701 GOLF ROAD,
TOWER 2, SUITE 400
ROLLING MEADOWS, IL 60008
PHONE: (847) 619-5397
FAX: (847) 706-7415

TERRA
COMMERCIAL DESIGN GROUP, LLC
600 BUSSE HIGHWAY
PARK RIDGE, IL 60068
PH: 847-698-6400
FAX: 847-698-6401

NO.	DESCRIPTION	DATE	BY	REVISIONS					
				TJS	APD	TJS	JJR	JJR	JJR
0	ISSUED FOR REVIEW	05/16/23	TJS						
1	ISSUED FOR FINAL	06/16/23	APD						
2	REVISED PER RF COMMENTS	07/05/23	TJS						
3	ISSUED FOR REVIEW	08/15/23	JJR						
4	REVISED PER LANDLORDS COMMENTS	10/25/23	JJR						
5	REVISED PER NEW RFDS	11/17/23	JJR						
	ADDITION OF NORTHEAST ELEVATION	01/02/24	JJR						

LOC. #766005
RAND & 53_RELO
MDG LOC. # 5000916957

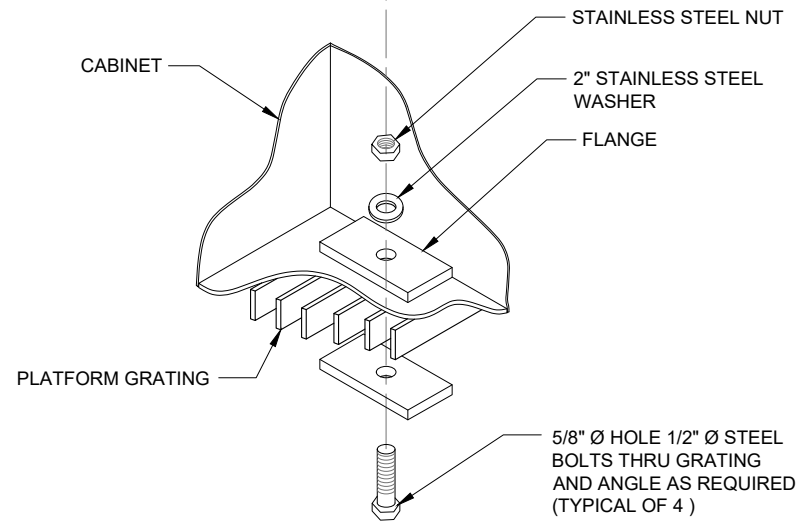
1500 W SHURE DR
ARLINGTON HEIGHTS, IL
60004

DRAWN BY: TJS
CHECKED BY: DSS
DATE: 05/15/23
PROJECT #: 33-3608

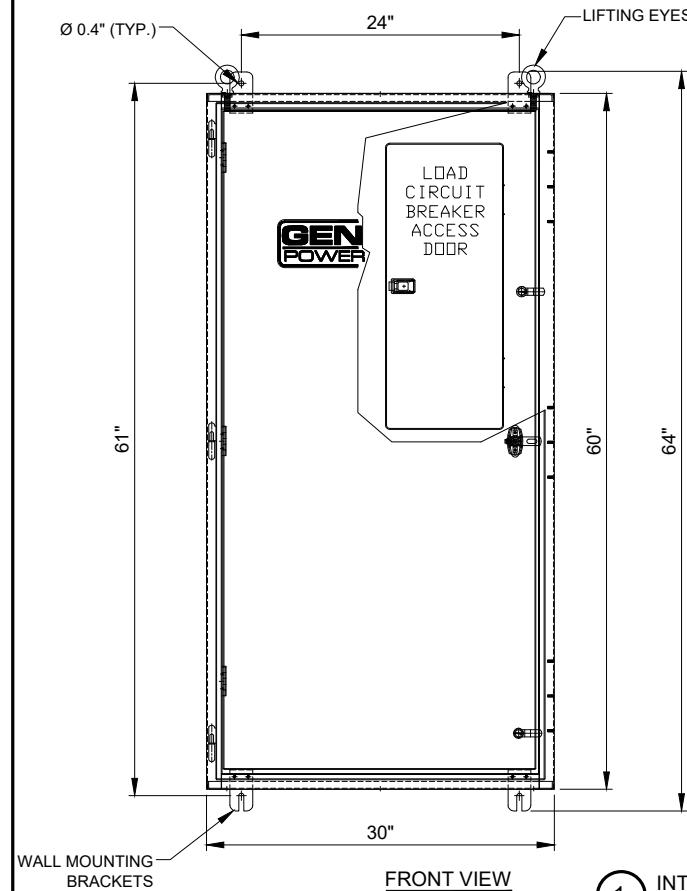
SHEET TITLE
EQUIPMENT CABINET DETAILS

SHEET NUMBER
EQ-1

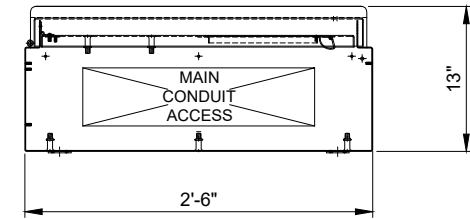
VERIFY LOCATION AND QUANTITY OF ANCHORS WITH EQUIPMENT CABINET INSTALLATION MANUAL



1 TYPICAL CABINET ANCHORING DETAIL
SCALE: N.T.S.



ILC RATED AMPS	Voltage	Phase	Enclosure Height	Enclosure Width	Enclosure Depth	Weight (lbs.)
200	120/240	1	60"	30"	10"	350
200	120/208	3	60"	30"	10"	350

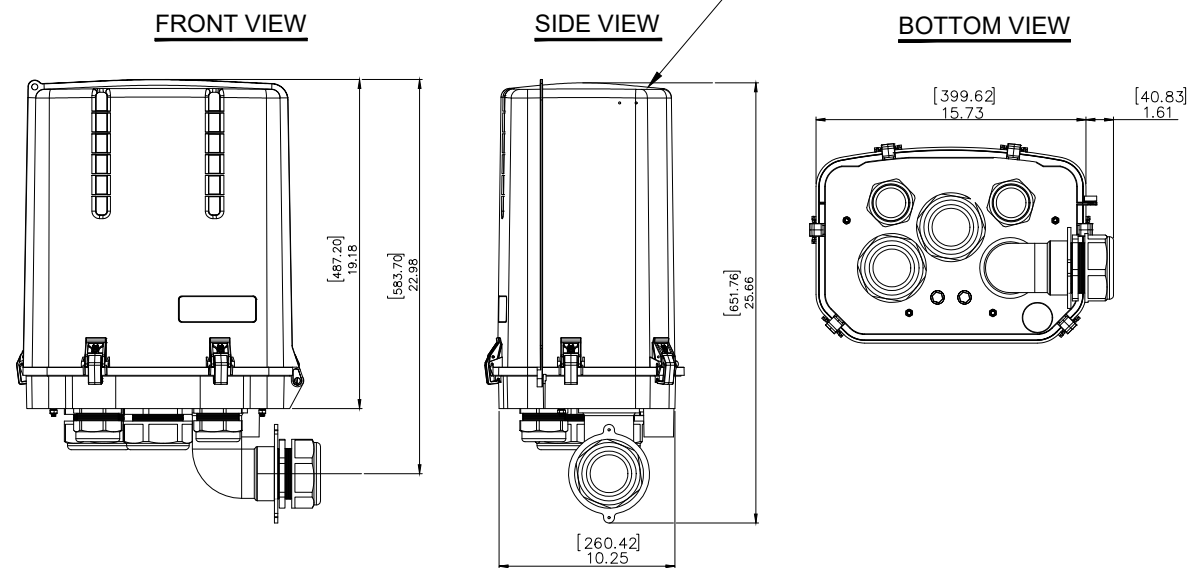


1 INTEGRATED LOAD CENTER
SCALE: N.T.S.

SPECIFICATIONS DC SURGE PROTECTION FOR RRU/INTEGRATED ANTENNA RADIO HEAD
APPLICATION: TOWER / BASE / ROOFTOP / ROOFTOP DISTRIBUTION MODELS
WEIGHT: 32LBS (14.51 KG)

[mm]
INCHES

PROPOSED RAYCAP JUNCTION BOX
MODEL# RCMDC-3315-PF-48



2 RAYCAP JUNCTION BOX DETAIL
SCALE: N.T.S.

verizon
1701 GOLF ROAD,
TOWER 2, SUITE 400
ROLLING MEADOWS, IL 60008
PHONE: (847) 619-5397
FAX: (847) 706-7415

TERRA
COMMUNICATIONS CONSULTANTS, LTD.
600 BUSSE HIGHWAY
PARK RIDGE, IL 60068
PH: 847-698-6400
FAX: 847-698-6401

NO.	DESCRIPTION	BY	DATE
0	ISSUED FOR REVIEW	TJS	05/16/23
0	ISSUED FOR FINAL	APD	06/16/23
1	REVISED PER RF COMMENTS	TJS	07/05/23
2	ISSUED FOR REVIEW	JJR	08/15/23
3	REVISED PER LANDLORDS COMMENTS	JJR	10/25/23
4	REVISED PER NEW RFDS	JJR	11/17/23
5	ADDITION OF NORTHEAST ELEVATION	JJR	01/02/24

LOC. #766005
RAND &
53_RELO
MDG LOC. #
5000916957

1500 W SHURE DR
ARLINGTON HEIGHTS, IL
60004

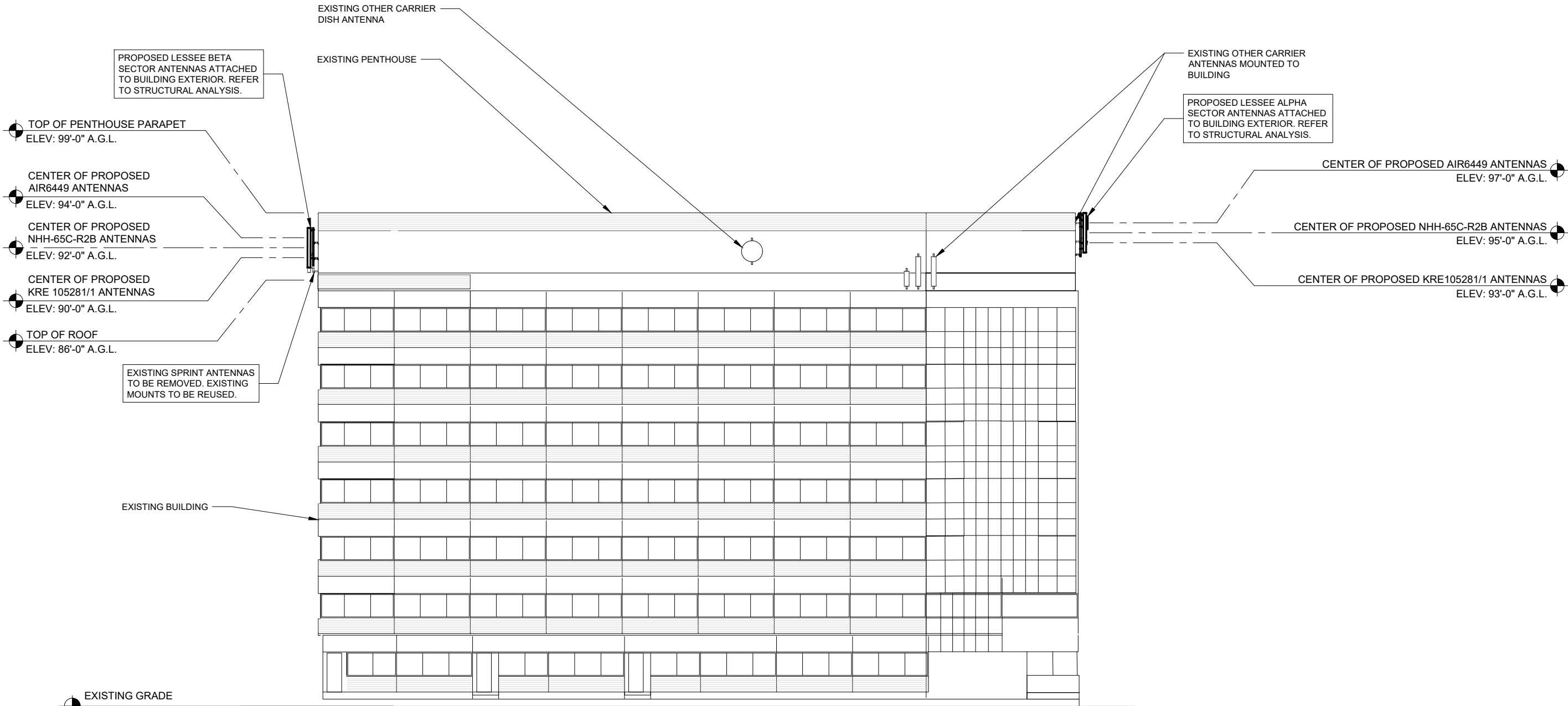
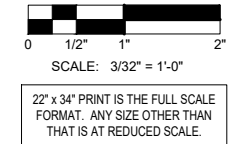
DRAWN BY: TJS
CHECKED BY: DSS
DATE: 05/15/23
PROJECT #: 33-3608

SHEET TITLE
EQUIPMENT
DETAILS

SHEET NUMBER

EQ-2

NOTE:
 * ANTENNAS TO BE PAINTED TO MATCH PENTHOUSE EXTERIOR. COLOR TO BE FIELD VERIFIED.
 * VERIZON WIRELESS SHALL BE RESPONSIBLE FOR PROTECTION OF ROOF SURFACE DURING CONSTRUCTION AND ANY DAMAGES TO ROOF SURFACE DURING CONSTRUCTION SHALL BE REPAIRED TO AS NEW CONDITION.
 * SEE SHEET ANT-3 FOR ENLARGED ANTENNA PLANS.



1 SOUTHEAST ELEVATION
 SCALE: 3/32" = 1'-0"

verizon
 1701 GOLF ROAD,
 TOWER 2, SUITE 400
 ROLLING MEADOWS, IL 60008
 PHONE: (847) 619-5397
 FAX: (847) 706-7415

TERRA
 CONSULTING AND DESIGN, LLC
 600 BUSSE HIGHWAY
 PARK RIDGE, IL 60068
 PH: 847-698-6400
 FAX: 847-698-6401

REVISIONS		NO.	DESCRIPTION	BY	DATE
0	ISSUED FOR REVIEW	TJS	05/16/23		
1	ISSUED FOR FINAL	APD	06/16/23		
2	REVISED PER RF COMMENTS	TJS	07/05/23		
3	ISSUED FOR REVIEW	JJR	08/15/23		
4	REVISED PER LANDLORDS COMMENTS	JJR	10/25/23		
5	REVISED PER NEW RFDS	JJR	11/17/23		
	ADDITION OF NORTHEAST ELEVATION	JJR	01/02/24		

LOC. #766005
 RAND &
 53_RELO
 MDG LOC. #
 5000916957

1500 W SHURE DR
 ARLINGTON HEIGHTS, IL
 60004

DRAWN BY: TJS
 CHECKED BY: DSS
 DATE: 05/15/23
 PROJECT #: 33-3608

SHEET TITLE
 SITE ELEVATION

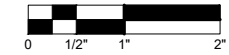
SHEET NUMBER
ANT-1

NOTE:

* ANTENNAS TO BE PAINTED TO MATCH PENTHOUSE EXTERIOR. COLOR TO BE FIELD VERIFIED.

* VERIZON WIRELESS SHALL BE RESPONSIBLE FOR PROTECTION OF ROOF SURFACE DURING CONSTRUCTION AND ANY DAMAGES TO ROOF SURFACE DURING CONSTRUCTION SHALL BE REPAIRED TO AS NEW CONDITION.

* SEE SHEET ANT-3 FOR ENLARGED ANTENNA PLANS.

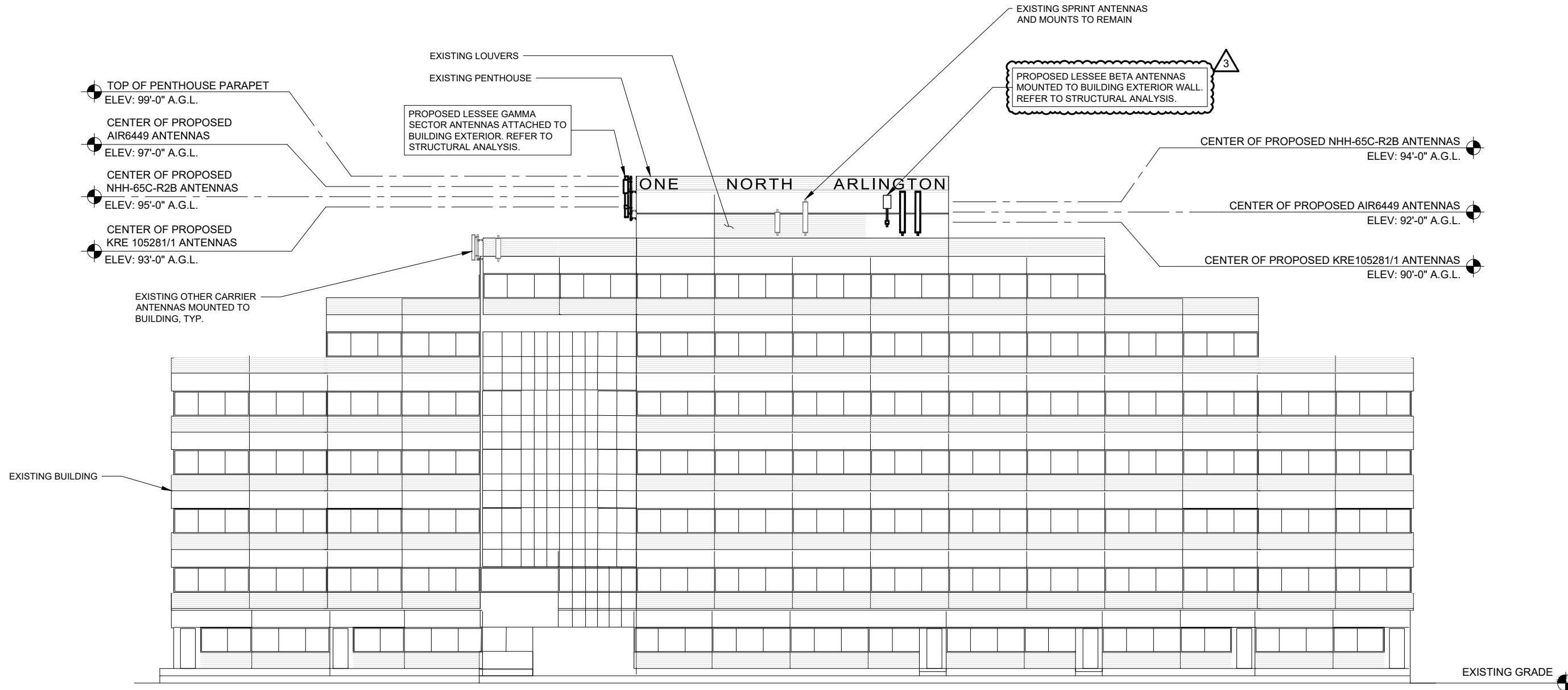


SCALE: 3/32" = 1'-0"

22" x 34" PRINT IS THE FULL SCALE FORMAT. ANY SIZE OTHER THAN THAT IS AT REDUCED SCALE.

verizon
 1701 GOLF ROAD,
 TOWER 2, SUITE 400
 ROLLING MEADOWS, IL 60008
 PHONE: (847) 619-5397
 FAX: (847) 706-7415

TERRA
 CONSULTING ENGINEERS, P.C.
 600 BUSSE HIGHWAY
 PARK RIDGE, IL 60068
 PH: 847-698-6400
 FAX: 847-698-6401



NO.	DESCRIPTION	DATE	BY				
			TJS	APD	TJS	JJR	JJR
0	ISSUED FOR REVIEW	05/16/23	TJS				
1	ISSUED FOR FINAL	06/16/23	APD				
2	REVISED PER RF COMMENTS	07/05/23	TJS				
3	ISSUED FOR REVIEW	08/15/23	JJR				
4	REVISED PER LANDLORDS COMMENTS	10/23/23	JJR				
5	REVISED PER NEW RFDS	11/17/23	JJR				
	ADDITION OF NORTHEAST ELEVATION	01/02/24	JJR				

LOC. #766005
RAND & 53_RELO
MDG LOC. # 5000916957
 1500 W SHURE DR
 ARLINGTON HEIGHTS, IL
 60004

DRAWN BY: TJS
 CHECKED BY: DSS
 DATE: 05/15/23
 PROJECT #: 33-3608

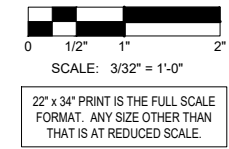
SHEET TITLE
SITE ELEVATION

SHEET NUMBER
ANT-1A

1 **SOUTHWEST ELEVATION**
 SCALE: 3/32" = 1'-0"

NOTE:

- * ANTENNAS TO BE PAINTED TO MATCH PENTHOUSE EXTERIOR. COLOR TO BE FIELD VERIFIED.
- * VERIZON WIRELESS SHALL BE RESPONSIBLE FOR PROTECTION OF ROOF SURFACE DURING CONSTRUCTION AND ANY DAMAGES TO ROOF SURFACE DURING CONSTRUCTION SHALL BE REPAIRED TO AS NEW CONDITION.
- * SEE SHEET ANT-3 FOR ENLARGED ANTENNA PLANS.



verizon
 1701 GOLF ROAD,
 TOWER 2, SUITE 400
 ROLLING MEADOWS, IL 60008
 PHONE: (847) 619-5397
 FAX: (847) 706-7415

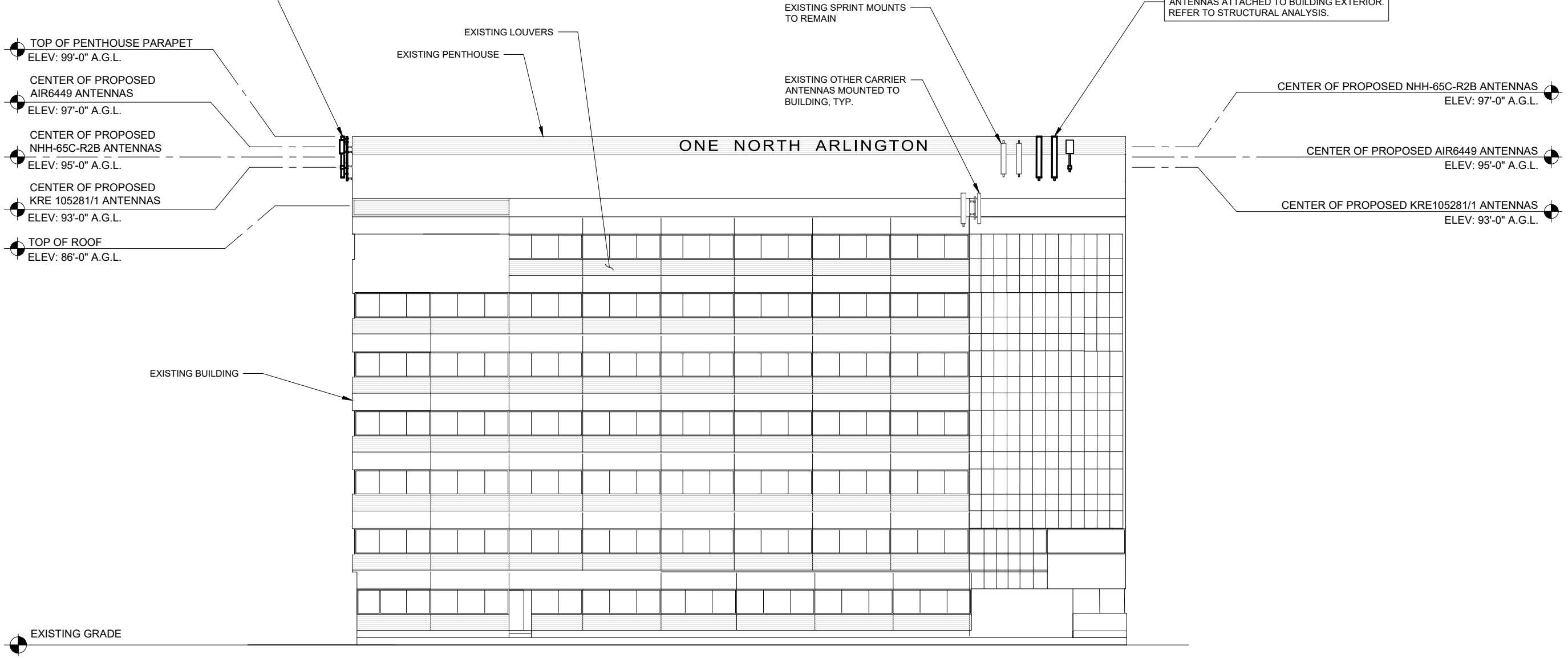
TERRA
 CONSULTING ENGINEERS, P.C.
 600 BUSSE HIGHWAY
 PARK RIDGE, IL 60068
 PH: 847-698-6400
 FAX: 847-698-6401

PROPOSED LESSEE ALPHA SECTOR ANTENNAS ATTACHED TO BUILDING EXTERIOR. REFER TO STRUCTURAL ANALYSIS.

PROPOSED LESSEE GAMMA SECTOR ANTENNAS ATTACHED TO BUILDING EXTERIOR. REFER TO STRUCTURAL ANALYSIS.

- TOP OF PENTHOUSE PARAPET
ELEV: 99'-0" A.G.L.
- CENTER OF PROPOSED AIR6449 ANTENNAS
ELEV: 97'-0" A.G.L.
- CENTER OF PROPOSED NHH-65C-R2B ANTENNAS
ELEV: 95'-0" A.G.L.
- CENTER OF PROPOSED KRE 105281/1 ANTENNAS
ELEV: 93'-0" A.G.L.
- TOP OF ROOF
ELEV: 86'-0" A.G.L.

- CENTER OF PROPOSED NHH-65C-R2B ANTENNAS
ELEV: 97'-0" A.G.L.
- CENTER OF PROPOSED AIR6449 ANTENNAS
ELEV: 95'-0" A.G.L.
- CENTER OF PROPOSED KRE105281/1 ANTENNAS
ELEV: 93'-0" A.G.L.



REVISIONS		NO.	DESCRIPTION	BY	DATE
0	ISSUED FOR REVIEW	TJS	05/16/23		
1	ISSUED FOR FINAL	APD	06/16/23		
2	REVISED PER RF COMMENTS	TJS	07/05/23		
3	ISSUED FOR REVIEW	JJR	08/15/23		
4	REVISED PER LANDLORDS COMMENTS	JJR	10/23/23		
5	REVISED PER NEW RFDS	JJR	11/17/23		
	ADDITION OF NORTHEAST ELEVATION	JJR	01/02/24		

LOC. #766005
 RAND &
 53_RELO
 MDG LOC. #
 5000916957
 1500 W SHURE DR
 ARLINGTON HEIGHTS, IL
 60004

DRAWN BY: TJS
 CHECKED BY: DSS
 DATE: 05/15/23
 PROJECT #: 33-3608

SHEET TITLE
 SITE ELEVATION

SHEET NUMBER
ANT-1B

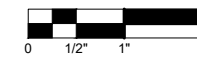
1 NORTHWEST ELEVATION
 SCALE: 3/32" = 1'-0"

NOTE:

* ANTENNAS TO BE PAINTED TO MATCH PENTHOUSE EXTERIOR. COLOR TO BE FIELD VERIFIED.

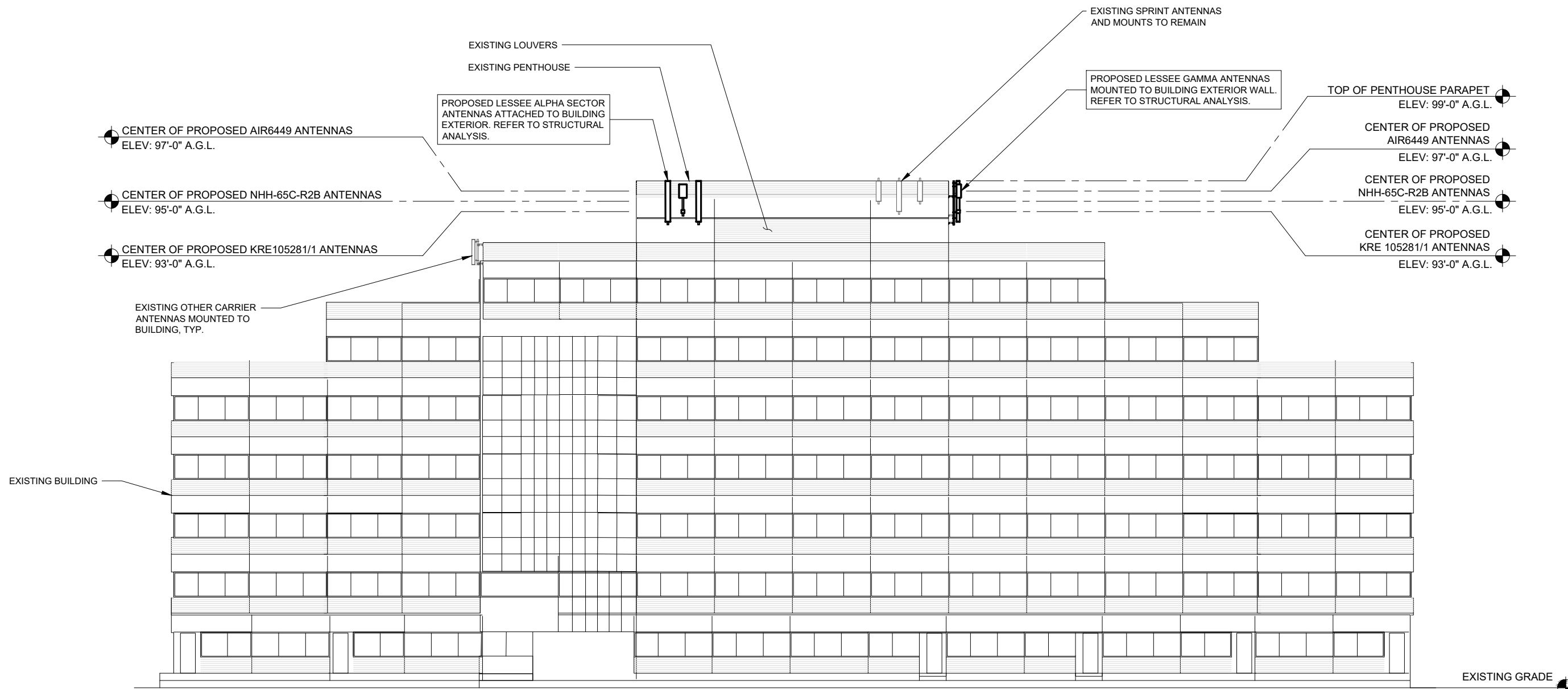
* VERIZON WIRELESS SHALL BE RESPONSIBLE FOR PROTECTION OF ROOF SURFACE DURING CONSTRUCTION AND ANY DAMAGES TO ROOF SURFACE DURING CONSTRUCTION SHALL BE REPAIRED TO AS NEW CONDITION.

* SEE SHEET ANT-3 FOR ENLARGED ANTENNA PLANS.



SCALE: 3/32" = 1'-0"

22" x 34" PRINT IS THE FULL SCALE FORMAT. ANY SIZE OTHER THAN THAT IS AT REDUCED SCALE.



1 **NORTHEAST ELEVATION**
SCALE: 3/32" = 1'-0"

verizon
1701 GOLF ROAD,
TOWER 2, SUITE 400
ROLLING MEADOWS, IL 60008
PHONE: (847) 619-5397
FAX: (847) 706-7415

TERRA
CONSULTING ENGINEERS, P.C.
600 BUSSE HIGHWAY
PARK RIDGE, IL 60068
PH: 847-698-6400
FAX: 847-698-6401

REVISIONS		BY	DATE
NO.	DESCRIPTION	TJS	05/16/23
0	ISSUED FOR REVIEW	APD	06/16/23
1	ISSUED FOR FINAL	TJS	07/05/23
2	REVISED PER RF COMMENTS	JJR	08/15/23
3	REVISED PER LANDLORDS COMMENTS	JJR	10/25/23
4	REVISED PER NEW RFDS	JJR	11/17/23
5	ADDITION OF NORTHEAST ELEVATION	JJR	01/02/24

LOC. #766005
RAND & 53_RELO
MDG LOC. # 5000916957

1500 W SHURE DR
ARLINGTON HEIGHTS, IL
60004

DRAWN BY:	TJS
CHECKED BY:	DSS
DATE:	05/15/23
PROJECT #:	33-3608

SHEET TITLE
SITE ELEVATION

SHEET NUMBER
ANT-1C

Antenna Summary

Added															
700	850	1900	AWS	CBRS	L-Sub6	Make	Model	Centerline	Tip Height	Azimuth	RET	4xRx	Inst. Type	Quantity	Item ID
LTE	LTE 5G	LTE	LTE			COMMSCOPE	NHH-65C-R2B	95	99	50(0001) 50(01)		false	PHYSICAL	2	000000001900056293
LTE	LTE 5G	LTE	LTE			COMMSCOPE	NHH-65C-R2B	96	100	190(0002) 190(02) 310(0003) 310(03)		false	PHYSICAL	4	000000001900056293
				LTE		ERICSSON INC	KRE105281/1	93	93.3	50(19)		false	PHYSICAL	1	1900055217
				LTE		ERICSSON INC	KRE105281/1	94	94.3	190(20) 310(21)		false	PHYSICAL	2	1900055217
				5G		ERICSSON INC	KRD901206/11	97	98.3	50(0001)		false	PHYSICAL	1	1900068484
				5G		ERICSSON INC	KRD901206/11	98	99.3	190(0002) 310(0003)		false	PHYSICAL	2	1900068484
Removed															
700	850	1900	AWS	CBRS	L-Sub6	Make	Model	Centerline	Tip Height	Azimuth	RET	4xRx	Inst. Type	Quantity	Item ID
No data available.															
Retained															
700	850	1900	AWS	CBRS	L-Sub6	Make	Model	Centerline	Tip Height	Azimuth	RET	4xRx	Inst. Type	Quantity	Item ID
No data available.															

Added: 12
Removed: 0
Retained: 0

Proprietary and Confidential. Not for disclosure outside of Verizon. Page 2 of 13

REVISIONS						
NO.	DESCRIPTION	DATE	BY	DATE	BY	DATE
0	ISSUED FOR REVIEW	05/16/23	TJS			
1	ISSUED FOR FINAL	06/19/23	APD			
2	REVISED PER RF COMMENTS	07/05/23	TJS			
3	ISSUED FOR REVIEW	08/15/23	JJR			
4	REVISED PER LANDLORDS COMMENTS	10/23/23	JJR			
5	REVISED PER NEW RFDS	11/17/23	JJR			
	ADDITION OF NORTHEAST ELEVATION	01/02/24	JJR			

LOC. #766005
RAND & 53_RELO
MDG LOC. # 5000916957

1500 W SHURE DR
 ARLINGTON HEIGHTS, IL
 60004

DRAWN BY: TJS
 CHECKED BY: DSS
 DATE: 05/15/23
 PROJECT #: 33-3608

SHEET TITLE
ANTENNA INFORMATION

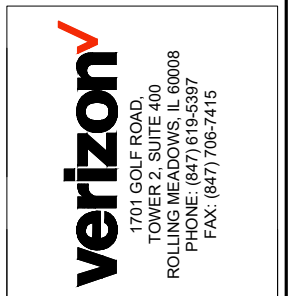
SHEET NUMBER
ANT-2

Equipment Summary

Added														
Equipment Type	Location	700	850	1900	AWS	CBRS	L-Sub6	Make	Model	Cable Length	Cable Size	Install Type	Quantity	Item ID
RRU	Tower	LTE	LTE 5G					ERICSSON INC	KRC161749/1			PHYSICAL	3	1900068756
RRU	Tower						5G	ERICSSON INC	KRD901206/11			PHYSICAL	3	1900068484
RRU	Tower							ERICSSON INC	KRC161746/1			PHYSICAL	3	1900068745
RRU	Tower			LTE	LTE			ERICSSON INC	KRC161707/2			PHYSICAL	3	1900068904
Power Plants	Ground (Outdoor)							ABB	109163473			PHYSICAL	6	000000001900438
Power Plants	Ground (Outdoor)							COMMSCOPE	760237263			PHYSICAL	2	000000001900063
Shelter/Cabinets	Ground (Outdoor)							CHARLES INDUSTRIES LTD	760250058			PHYSICAL	1	1900393048
Shelter/Cabinets	Ground (Outdoor)							COMMSCOPE	760250933			PHYSICAL	2	000000001900063
Power Plants	Ground (Outdoor)							ABB POWER ELECTRONICS INCDBA GE ENERGY	760242451			PHYSICAL	1	1900452342
Power Plants	Ground (Outdoor)							ABB POWER ELECTRONICS INCDBA GE ENERGY	760242451			PHYSICAL	1	1900073751
Power Plants	Ground (Outdoor)							ABB POWER ELECTRONICS INCDBA GE ENERGY	760242451			PHYSICAL	2	1900153743
Power Plants	Ground (Outdoor)							ABB POWER ELECTRONICS INCDBA GE ENERGY	760242451			PHYSICAL	1	1900153449
Power Plants	Ground (Outdoor)							ABB POWER ELECTRONICS INCDBA GE ENERGY	760242451			PHYSICAL	1	1900153751
Alarm	Ground (Outdoor)							ASENTRIA	1900070746			PHYSICAL	1	1900070746
Alarm	Ground (Outdoor)							ASENTRIA	1900076600			PHYSICAL	1	1900076600
Alarm	Ground (Outdoor)							ASENTRIA	1900076812			PHYSICAL	1	1900076812
Alarm	Tower							RAYCAPINC-001	3315-ALM-RS485			PHYSICAL	3	000000001900070
Alarm	Ground (Outdoor)							ASENTRIA	S3406CRANCAB1			PHYSICAL	1	000000001900077
BBU	Ground (Outdoor)							Ericsson	KDU1370015/11			PHYSICAL	1	000000001900081
BBU	Ground (Outdoor)							Ericsson	KDU137848/11			PHYSICAL	1	000000001900185
Battery	Ground (Outdoor)							COMMSCOPE	760250540			PHYSICAL	1	000000001900064
Cell Site Routers	Ground (Outdoor)							NOKIAOFAME-001	3HE15386AA			PHYSICAL	1	000000001900182
Hybrid Cable	Tower							COMMSCOPE-001	HFT1206-24SV4-xxxG			PHYSICAL	3	
OVP Box	Ground (Outdoor)							RAYCAP	1900410978			PHYSICAL	2	1900410978
OVP Box	Shelter							RAYCAP	3315-ALM-RS485			PHYSICAL	3	000000001900070
OVP Box	Tower							RAYCAPINC-001	RVZDC-3315-PF-48		1-5/8 inch	PHYSICAL	3	000000001900422
OVP Box	Ground (Outdoor)							RAYCAP	RVZDC-4520-RM-48			PHYSICAL	2	000000001900410
Other	Ground (Outdoor)							COMMSCOPE	760246443			PHYSICAL	1	000000001900005
Upconverter	Ground (Outdoor)							JOHNMEZZAL-002	PB-PSU-COV-BB			PHYSICAL	2	000000001900400
Shelter/Cabinets	Ground (Outdoor)							COMMSCOPE	SK-BSP-STDV-FIU			PHYSICAL	4	000000001900078
Upconverter	Ground (Outdoor)							JOHNMEZZAL-002	PB-19-SYS-16-BB			PHYSICAL	1	000000001900400
Upconverter	Ground (Outdoor)							JOHNMEZZAL-002	PB-PSU-162-BB			PHYSICAL	6	000000001900400

Removed														
Equipment Type	Location	700	850	1900	AWS	CBRS	L-Sub6	Make	Model	Cable Length	Cable Size	Install Type	Quantity	Item ID
No data available.														

Retained														
Equipment Type	Location	700	850	1900	AWS	CBRS	L-Sub6	Make	Model	Cable Length	Cable Size	Install Type	Quantity	Item ID
No data available.														



REVISIONS		NO.	DESCRIPTION	DATE	BY
0	ISSUED FOR REVIEW	05/16/23	TJS		
1	ISSUED FOR FINAL	06/16/23	APD		
2	REVISED PER RF COMMENTS	07/05/23	TJS		
3	ISSUED FOR REVIEW	08/15/23	JJR		
4	REVISED PER LANDLORDS COMMENTS	10/23/23	JJR		
5	REVISED PER NEW RFDS	11/17/23	JJR		
	ADDITION OF NORTHEAST ELEVATION	01/02/24	JJR		

LOC. #766005
RAND & 53_RELO
MDG LOC. # 5000916957
 1500 W SHURE DR
 ARLINGTON HEIGHTS, IL
 60004

DRAWN BY:	TJS
CHECKED BY:	DSS
DATE:	05/15/23
PROJECT #:	33-3608

SHEET TITLE
EQUIPMENT INFORMATION

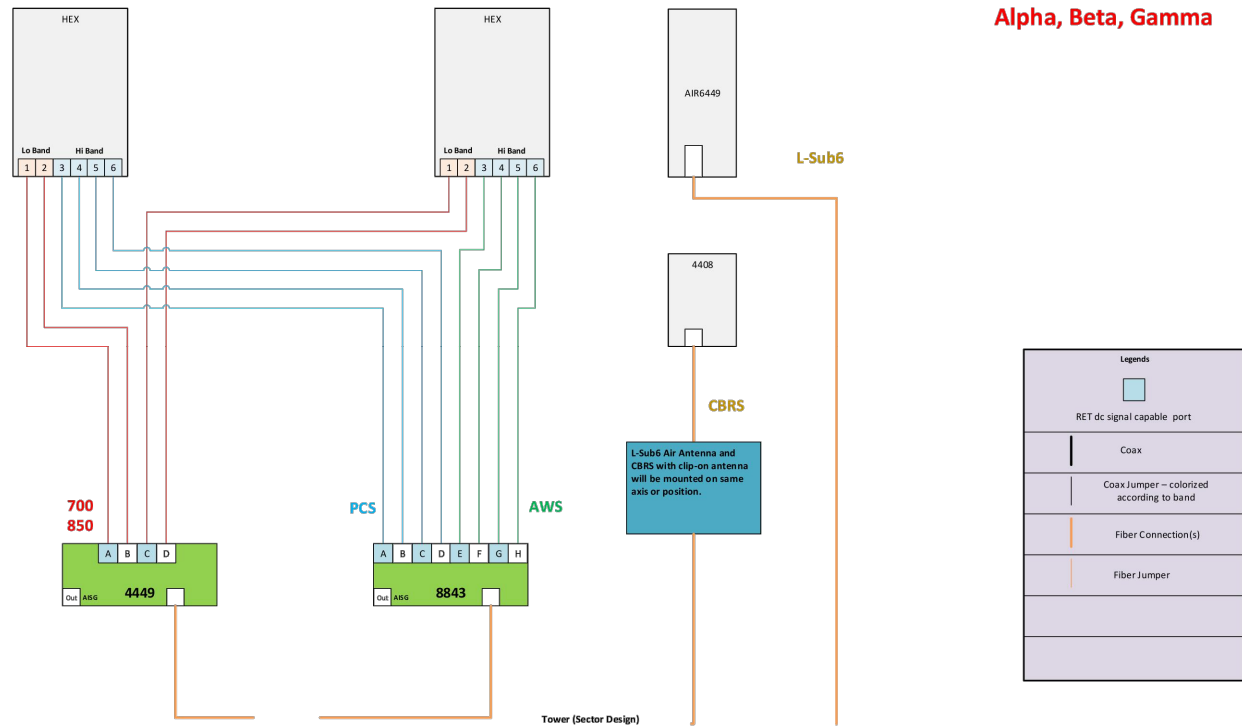
SHEET NUMBER
ANT-2A

RF EMISSIONS REPORT REQUIRED

YES NO

DATE OF REPORT: _____

Alpha, Beta, Gamma



Notes:
 - Antenna view is from the back of the antennas
 - Colors of connection are just for clarification
 - Follow RET cabling standard for non-Smart Bias-T Ants
 - Non-RF path elements like OVP/MTA Box and Hybrid cables not shown
 - Size of objects in drawing doesn't reflect equipment true dimension

1 CABLE DIAGRAM
N.T.S.

SECTOR	HYBRID LENGTH		TOTAL (±)
	HOR (±)	VER (±)	
ALPHA	141'	9'	150'
BETA	84'	9'	93'
GAMMA	43'	9'	52'

NOTE TO RF, G.C. & IMPLEMENTATION:
 RAYCAP CHART IS CURRENTLY BEING UPDATED BY VERIZON WIRELESS. PRIOR TO FINAL AND CONSTRUCTION, CHART TO BE INSERTED. G.C. TO NOTIFY VERIZON WIRELESS IF THIS NOTE IS STILL ON THE DRAWINGS PRIOR TO CONSTRUCTION.

Raycap Layout - Raycap Per Sector					
POWER					
3	700 RRU	6	700 RRU2/A2		
2	PCSLT RRU	5	PCSLT RRU2/A2		
1	AWS RRU	4	AWS RRU2/A2		
FIBER					
1	2	3	4	5	6
AWS RRU	AWS RRU2/A2	PCSLTE RRU	PCSLTE RRU/A2	700 RRU	700 RRU/A2
7	8	9	10	11	12

2 RAYCAP TABLE
N.T.S.

verizon
 1701 GOLF ROAD,
 TOWER 2, SUITE 400
 ROLLING MEADOWS, IL 60008
 PHONE: (847) 619-5397
 FAX: (847) 706-7415

TERRA
 COMMUNICATIONS CORPORATION
 600 BUSSE HIGHWAY
 PARK RIDGE, IL 60068
 PH: 847-698-6400
 FAX: 847-698-6401

NO.	DESCRIPTION	DATE	BY	REVISIONS				
				TJS	APD	TJS	JJR	JJR
0	ISSUED FOR REVIEW	05/16/23	TJS					
1	ISSUED FOR FINAL	06/19/23	APD					
2	REVISED PER RF COMMENTS	07/05/23	TJS					
3	REVISED PER LANDLORDS COMMENTS	08/15/23	JJR					
4	REVISED PER NEW RFDS	10/25/23	JJR					
5	ADDITION OF NORTHEAST ELEVATION	11/17/23	JJR					

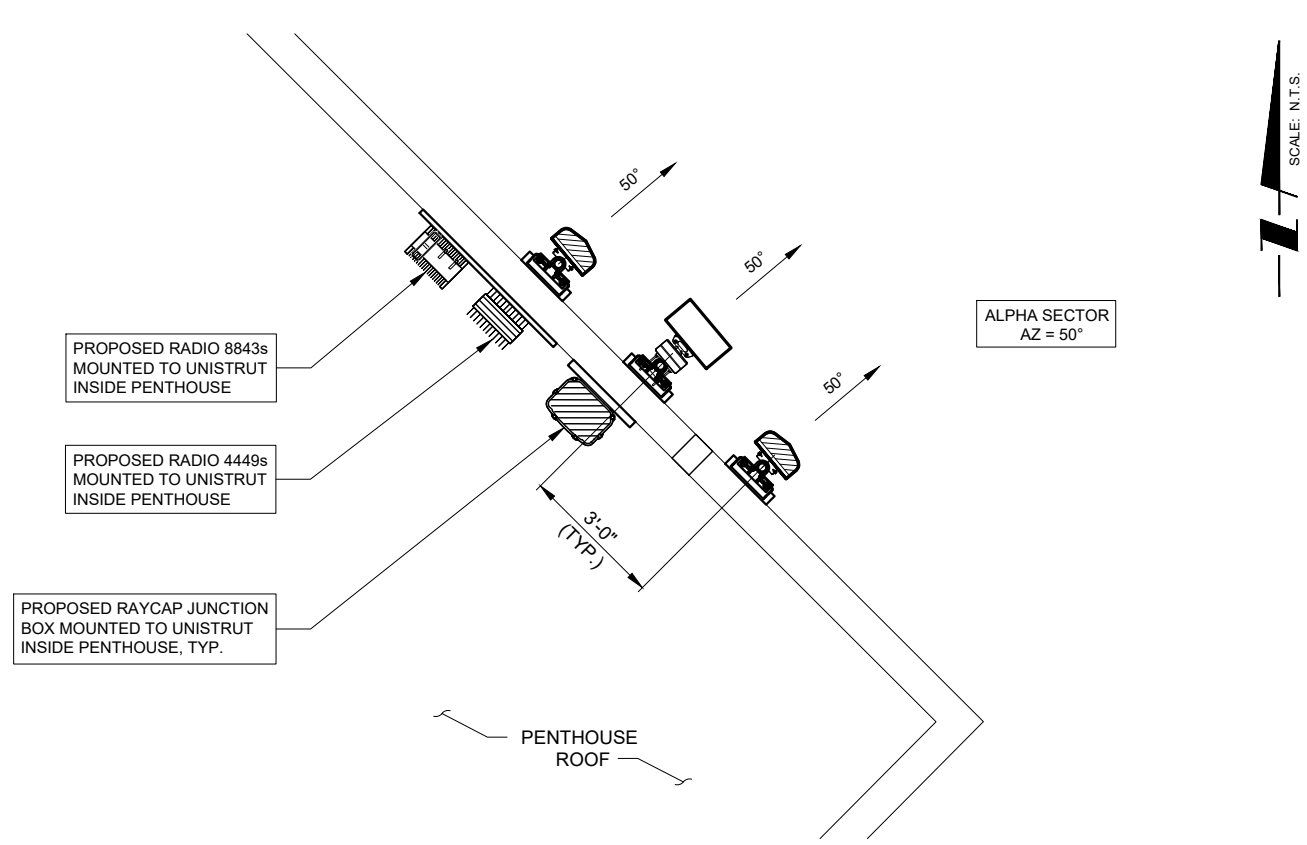
LOC. #766005
 RAND &
 53_RELO
 MDG LOC. #
 5000916957

1500 W SHURE DR
 ARLINGTON HEIGHTS, IL
 60004

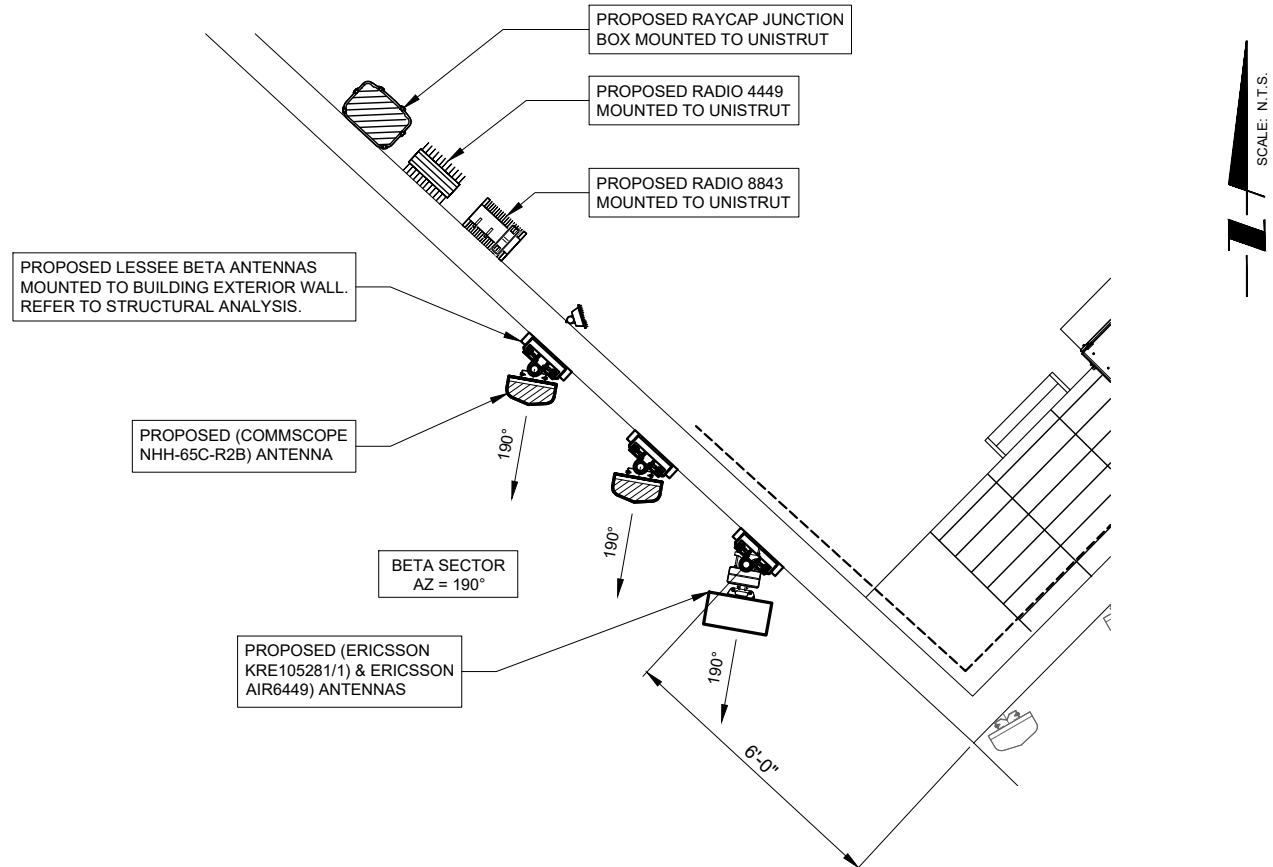
DRAWN BY: TJS
 CHECKED BY: DSS
 DATE: 05/15/23
 PROJECT #: 33-3608

SHEET TITLE
 ANTENNA INFORMATION

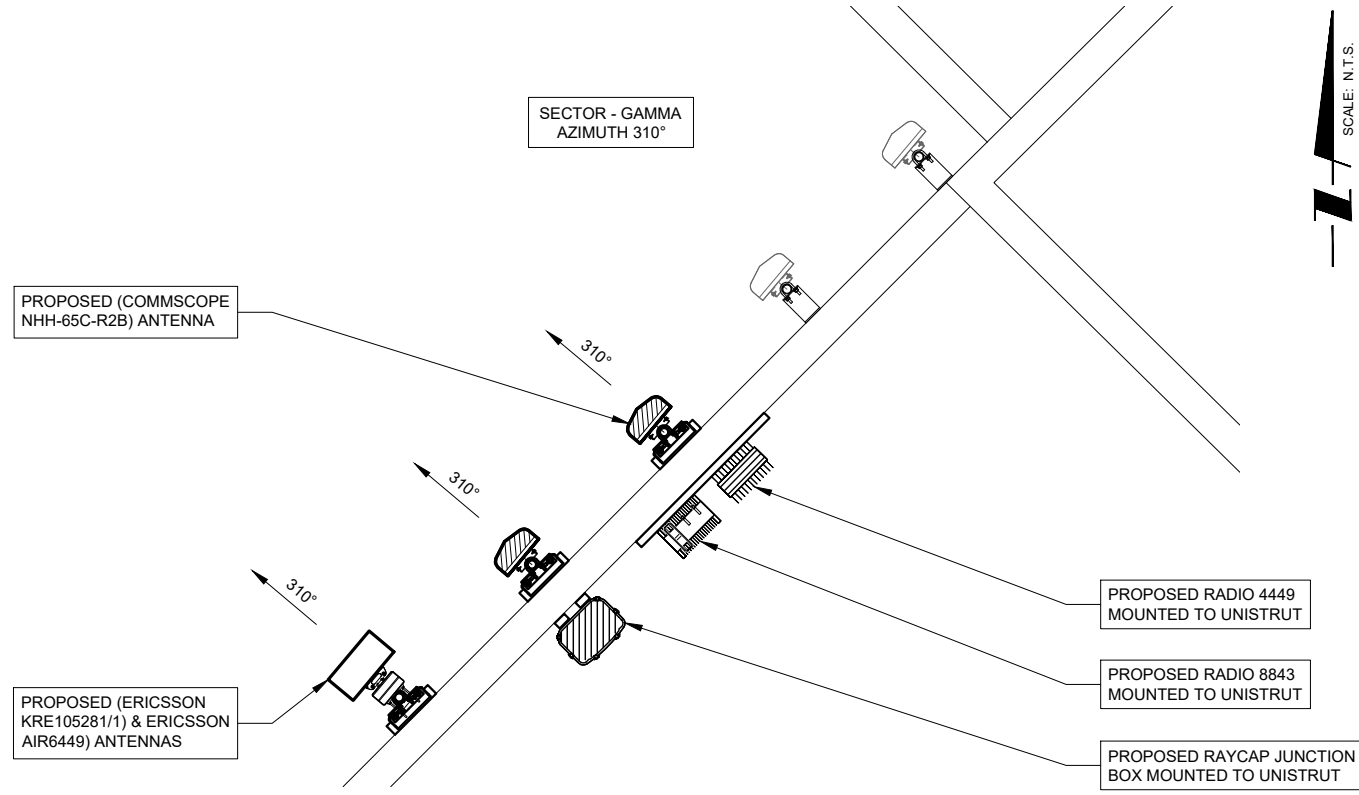
SHEET NUMBER
ANT-2B



1 PROPOSED ANTENNA LAYOUT @ ALPHA SECTOR
N.T.S.



2 PROPOSED ANTENNA LAYOUT @ BETA SECTOR
N.T.S.



3 PROPOSED ANTENNA LAYOUT @ GAMMA SECTOR
N.T.S.

verizon
1701 GOLF ROAD,
TOWER 2, SUITE 400
ROLLING MEADOWS, IL 60008
PHONE: (847) 619-5397
FAX: (847) 706-7415

TERRA
CONSULTING ENGINEERS, P.C.
600 BUSSE HIGHWAY
PARK RIDGE, IL 60068
PH: 847-698-6400
FAX: 847-698-6401

REVISIONS		NO.	DESCRIPTION	BY	DATE
	ISSUED FOR REVIEW	0		TJS	05/16/23
	ISSUED FOR FINAL	0		APD	06/16/23
	REVISED PER RF COMMENTS	1		TJS	07/05/23
	ISSUED FOR REVIEW	2		JJR	08/15/23
	REVISED PER LANDLORDS COMMENTS	3		JJR	10/25/23
	REVISED PER NEW RFDS	4		JJR	11/17/23
	ADDITION OF NORTHEAST ELEVATION	5		JJR	01/02/24

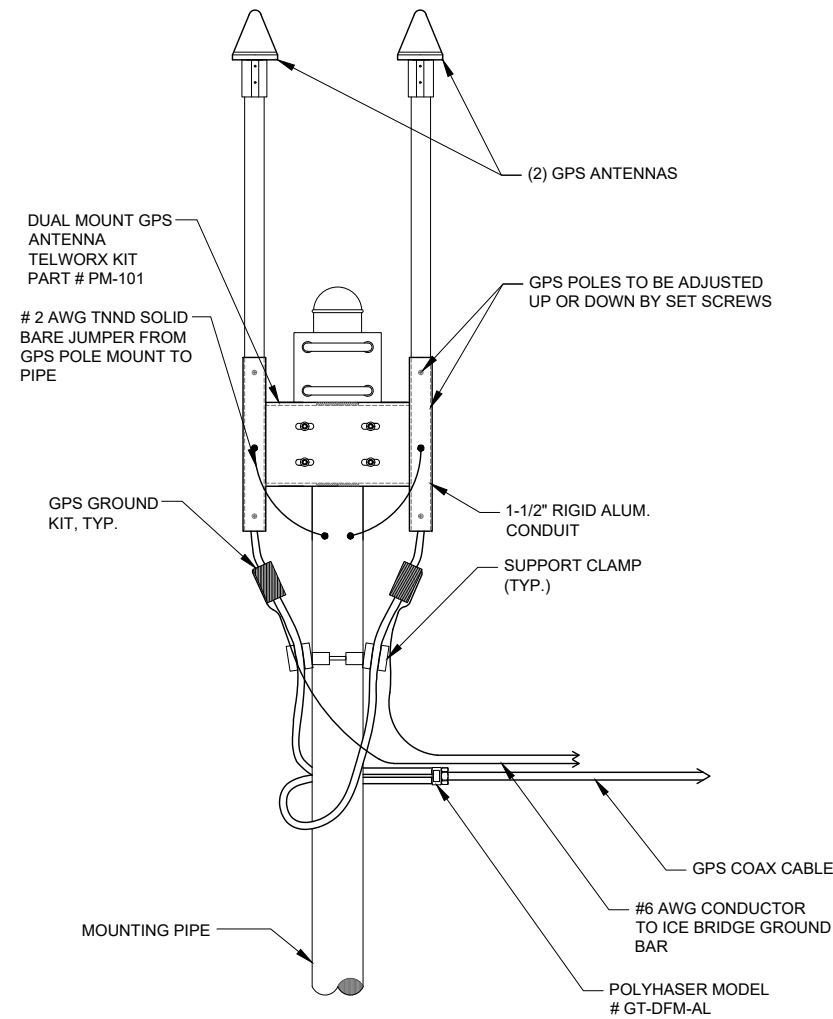
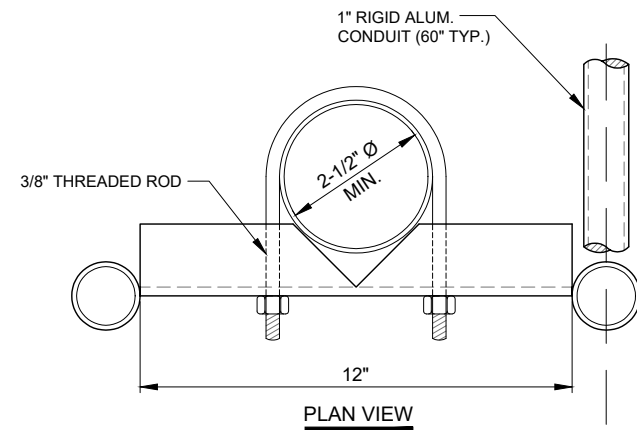
LOC. #766005
RAND &
53_RELO
MDG LOC. #
5000916957

1500 W SHURE DR
ARLINGTON HEIGHTS, IL
60004

DRAWN BY: TJS
CHECKED BY: DSS
DATE: 05/15/23
PROJECT #: 33-3608

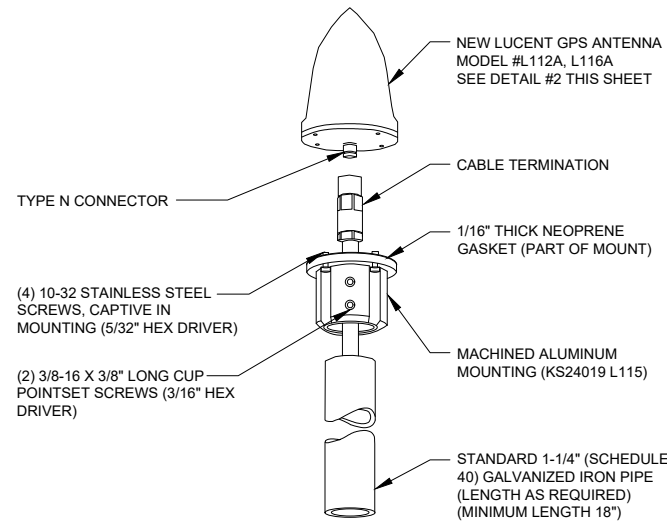
SHEET TITLE
ANTENNA LAYOUT
PLAN

SHEET NUMBER
3
ANT-3



1 GPS MOUNTING DETAIL
N.T.S.

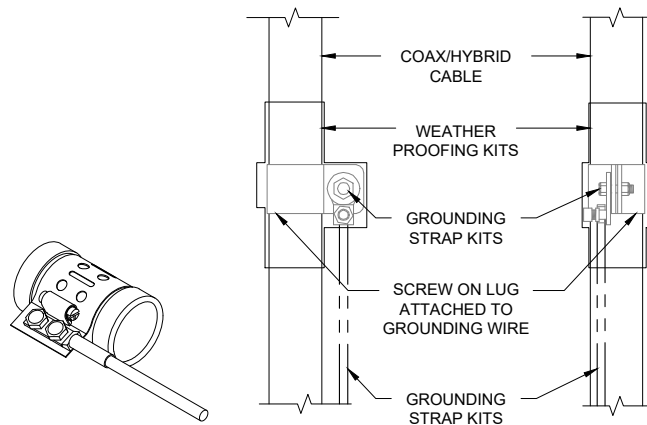
NOTE:
INSTALL EACH GPS ON THE
CLOSEST ICE BRIDGE POSTS TO
SHELTER (TYP. AT 2 LOCATIONS).



2 TYPICAL GPS DETAIL
N.T.S.

NOTES:

- DO NOT INSTALL CABLE GROUND KIT AT A BEND AND ALWAYS DIRECT GROUND WIRE DOWN TO GROUND BAR.
- THIS DETAIL IS TYPICAL FOR EACH CABLE WHERE IT IS SPECIFIED TO BE GROUNDED
- CABLE TO BE GROUNDED AT ANTENNA LEVEL AND PRIOR TO ENTERING EQUIPMENT ROOM/ PLATFORM ENTRY PANEL.
- CABLE ALSO TO BE GROUNDED TO GROUND BAR AT TOWER BASE IF APPLICABLE.
- USE ONLY TIN PLATED GROUNDING KITS.



4 COAX / HYBRID CABLE GROUND KIT DETAIL
SCALE: N.T.S.

verizon
1701 GOLF ROAD,
TOWER 2, SUITE 400
ROLLING MEADOWS, IL 60008
PHONE: (847) 619-5397
FAX: (847) 706-7415

TERRA
CONSTRUCTION SERVICES, LLC
600 BUSSE HIGHWAY
PARK RIDGE, IL 60068
PH: 847-698-6400
FAX: 847-698-6401

NO.	DESCRIPTION	DATE	BY				
			TJS	APD	TJS	JJR	JJR
0	ISSUED FOR REVIEW	05/15/23					
1	ISSUED FOR FINAL	06/19/23					
2	REVISED PER RF COMMENTS	07/05/23					
3	ISSUED FOR REVIEW	08/15/23					
4	REVISED PER LANDLORDS COMMENTS	10/25/23					
5	REVISED PER NEW RFDS	11/17/23					
	ADDITION OF NORTHEAST ELEVATION	01/02/24					

LOC. #766005
RAND & 53_RELO
MDG LOC. # 5000916957

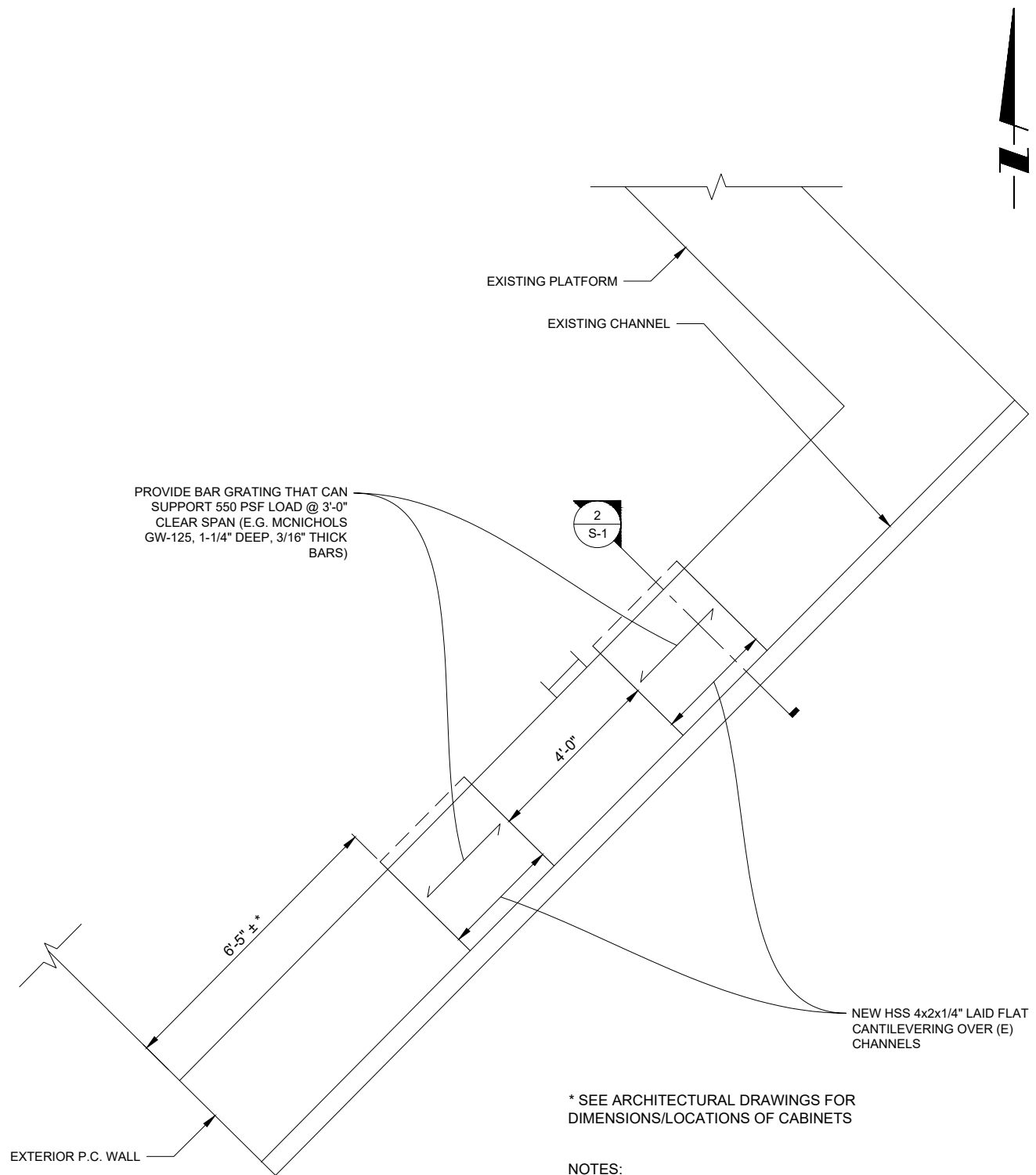
1500 W SHURE DR
ARLINGTON HEIGHTS, IL
60004

DRAWN BY:	TJS
CHECKED BY:	DSS
DATE:	05/15/23
PROJECT #:	33-3608

SHEET TITLE
SITE DETAILS

SHEET NUMBER

ANT-4



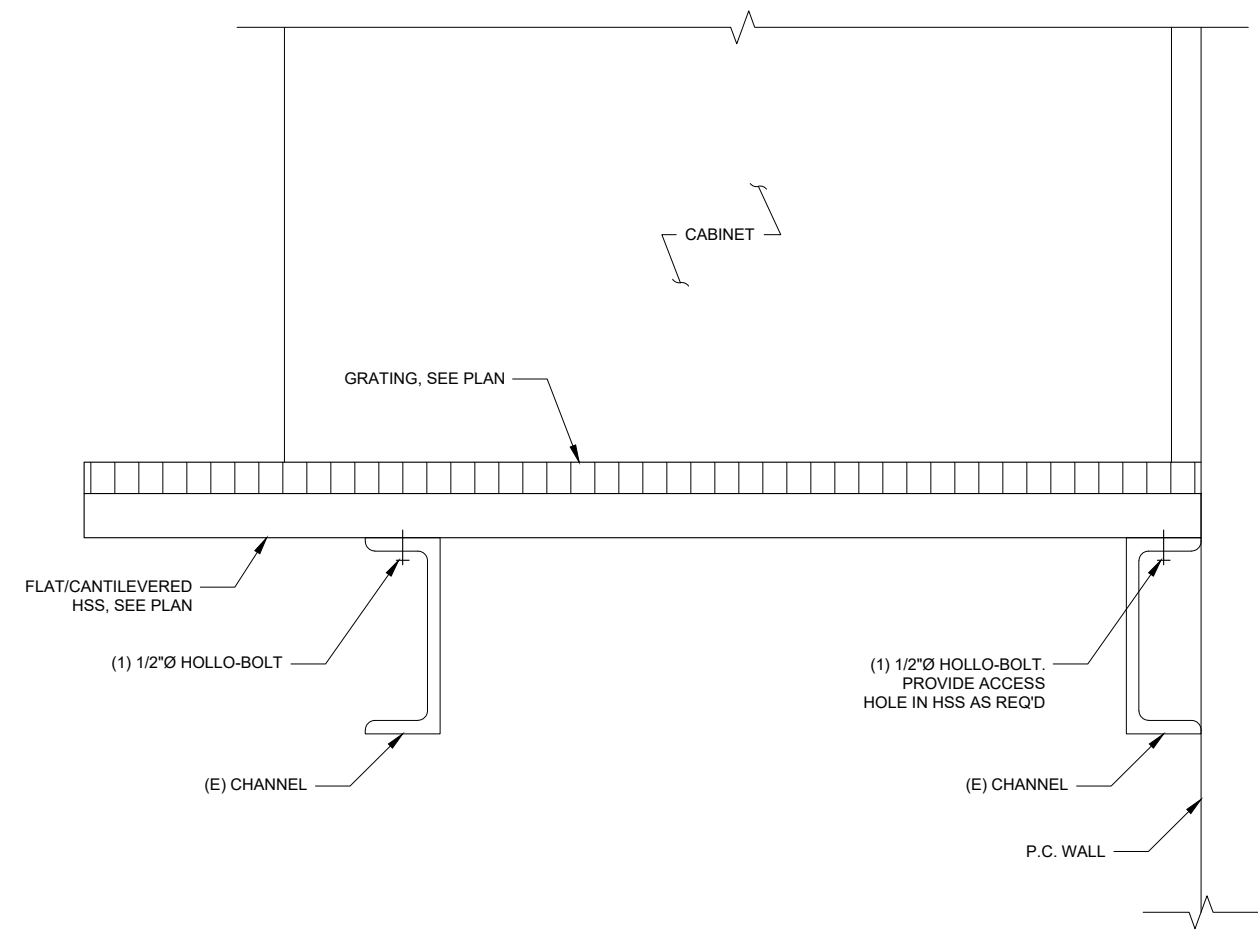
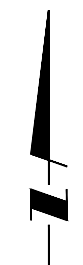
PROVIDE BAR GRATING THAT CAN SUPPORT 550 PSF LOAD @ 3'-0" CLEAR SPAN (E.G. MCNICHOLS GW-125, 1-1/4" DEEP, 3/16" THICK BARS)

NEW HSS 4x2x1/4" LAID FLAT CANTILEVERING OVER (E) CHANNELS

* SEE ARCHITECTURAL DRAWINGS FOR DIMENSIONS/LOCATIONS OF CABINETS

NOTES:
ALL NEW STEEL SHALL BE GALVANIZED 4,796# & 1,596# CABINET LOCATIONS ARE INTERCHANGEABLE

1 STRUCTURAL PLAN
SCALE: N.T.S.



1 SECTION
SCALE: N.T.S.

verizon
1701 GOLF ROAD,
TOWER 2, SUITE 400
ROLLING MEADOWS, IL 60008
PHONE: (847) 619-5397
FAX: (847) 706-7415

TERRA
STRUCTURAL ENGINEERS, P.C.
600 BUSSE HIGHWAY
PARK RIDGE, IL 60068
PH: 847-698-6400
FAX: 847-698-6401

REVISIONS		NO.	DESCRIPTION	DATE	BY
0	ISSUED FOR REVIEW	05/16/23	TJS		
1	ISSUED FOR FINAL	06/16/23	APD		
2	REVISED PER RF COMMENTS	07/05/23	TJS		
3	REVISED PER LANDLORDS COMMENTS	08/15/23	JJR		
4	REVISED PER NEW RFDS	10/23/23	JJR		
5	ADDITION OF NORTHEAST ELEVATION	11/17/23	JJR		

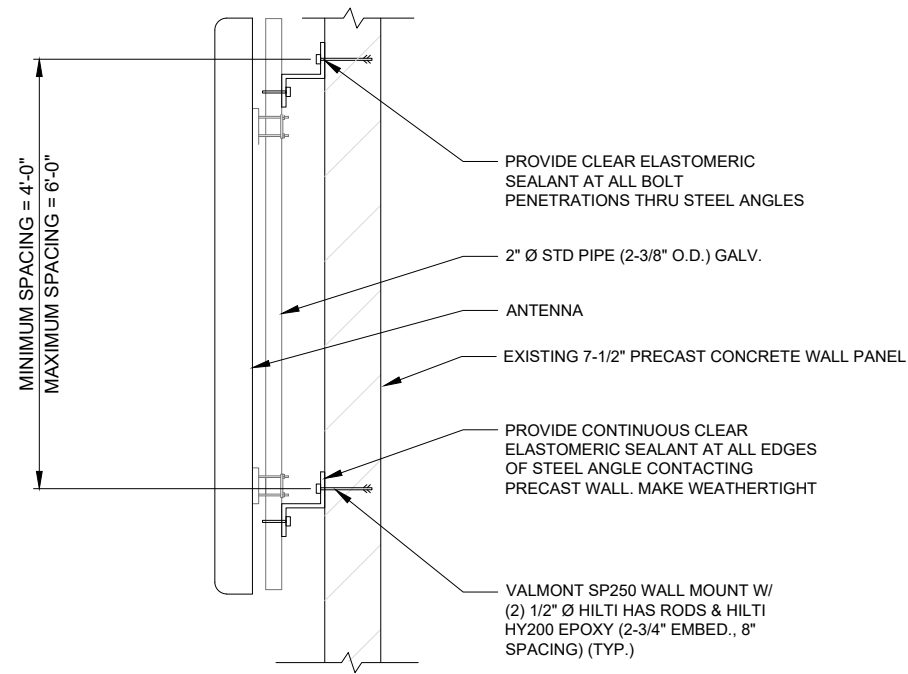
LOC. #766005
RAND & 53_RELO
MDG LOC. # 5000916957

1500 W SHURE DR
ARLINGTON HEIGHTS, IL
60004

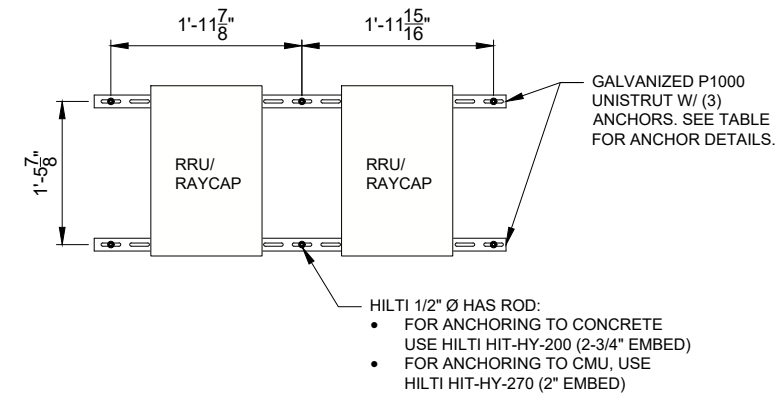
DRAWN BY: TJS
CHECKED BY: DSS
DATE: 05/15/23
PROJECT #: 33-3608

SHEET TITLE
STRUCTURAL PLAN AND DETAILS

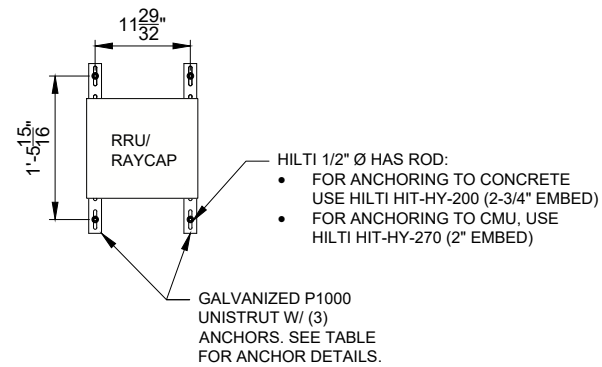
SHEET NUMBER
S-1



1 ANTENNA MOUNT DETAIL AT SECTOR
SCALE: N.T.S.



2 DOUBLE RAYCAP/RRU EQUIPMENT MOUNT DETAIL AT SECTOR
SCALE: N.T.S.



3 SINGLE RAYCAP/RRU EQUIPMENT MOUNT DETAIL AT SECTOR
SCALE: N.T.S.

REVISIONS		NO.	DESCRIPTION	DATE	BY
0	ISSUED FOR REVIEW	05/16/23	TJS		
1	ISSUED FOR FINAL	06/16/23	APD		
2	REVISED PER RF COMMENTS	07/05/23	TJS		
3	ISSUED FOR REVIEW	08/15/23	JJR		
4	REVISED PER LANDLORDS COMMENTS	10/23/23	JJR		
5	REVISED PER NEW RFDS	11/17/23	JJR		
	ADDITION OF NORTHEAST ELEVATION	01/02/24	JJR		

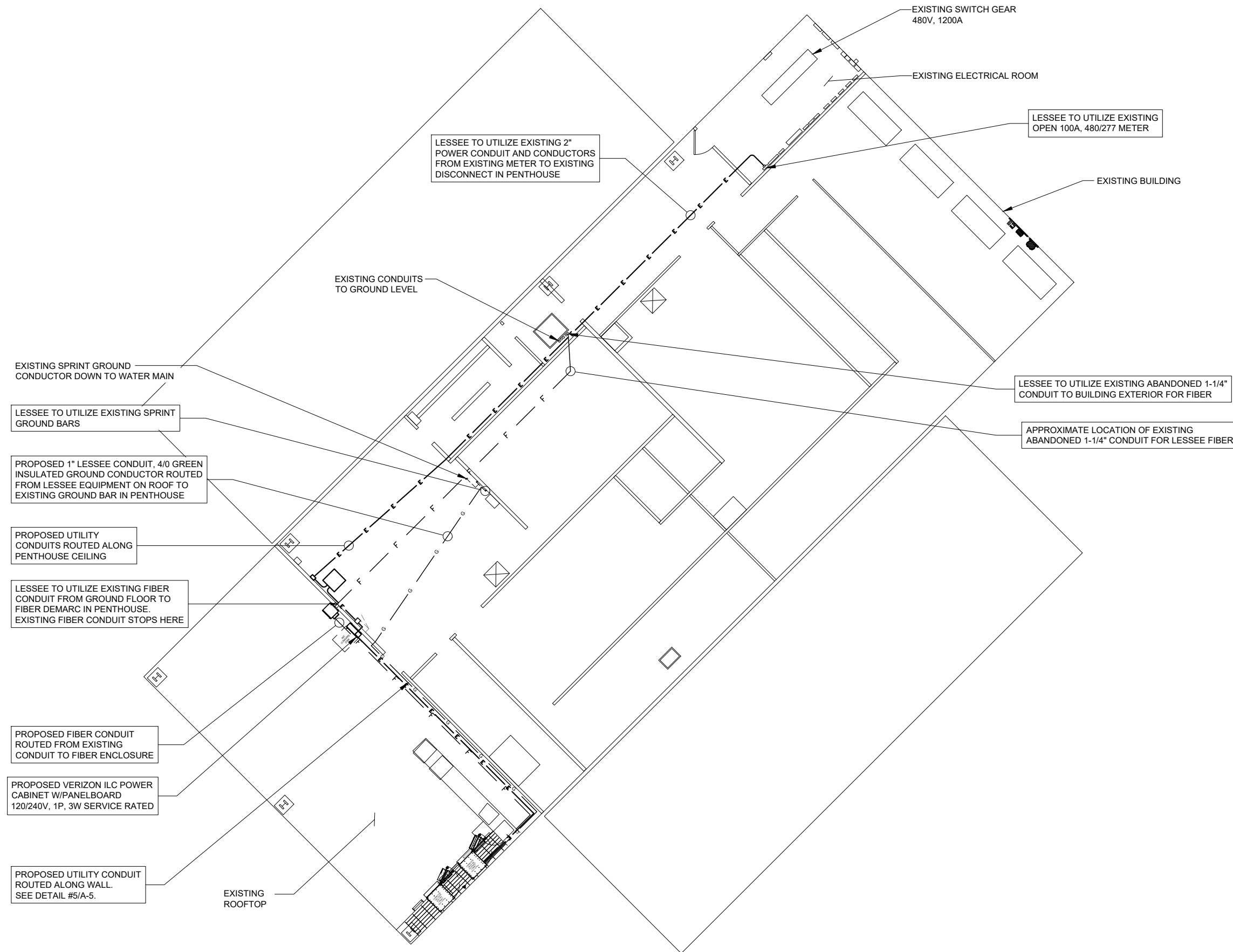
LOC. #766005
RAND & 53_RELO
MDG LOC. # 5000916957

1500 W SHURE DR
ARLINGTON HEIGHTS, IL
60004

DRAWN BY:	TJS
CHECKED BY:	DSS
DATE:	05/15/23
PROJECT #:	33-3608

SHEET TITLE
ANTENNA & EQUIPMENT MOUNTING DETAILS

SHEET NUMBER
S-2



verizon
 1701 GOLF ROAD,
 TOWER 2, SUITE 400
 ROLLING MEADOWS, IL 60008
 PHONE: (847) 619-5397
 FAX: (847) 706-7415

TERRA
 CONSULTING ENGINEERS, P.C.
 600 BUSSE HIGHWAY
 PARK RIDGE, IL 60068
 PH: 847-698-6400
 FAX: 847-698-6401

REVISIONS		NO.	DESCRIPTION	DATE	BY
0	ISSUED FOR REVIEW	05/16/23	TJS		
1	ISSUED FOR FINAL	06/16/23	APD		
2	REVISED PER RF COMMENTS	07/05/23	TJS		
3	ISSUED FOR REVIEW	08/15/23	JJR		
4	REVISED PER LANDLORDS COMMENTS	10/25/23	JJR		
5	REVISED PER NEW RFDS	11/17/23	JJR		
	ADDITION OF NORTHEAST ELEVATION	01/02/24	JJR		

LOC. #766005
RAND & 53_RELO
MDG LOC. # 5000916957
 1500 W SHURE DR
 ARLINGTON HEIGHTS, IL
 60004

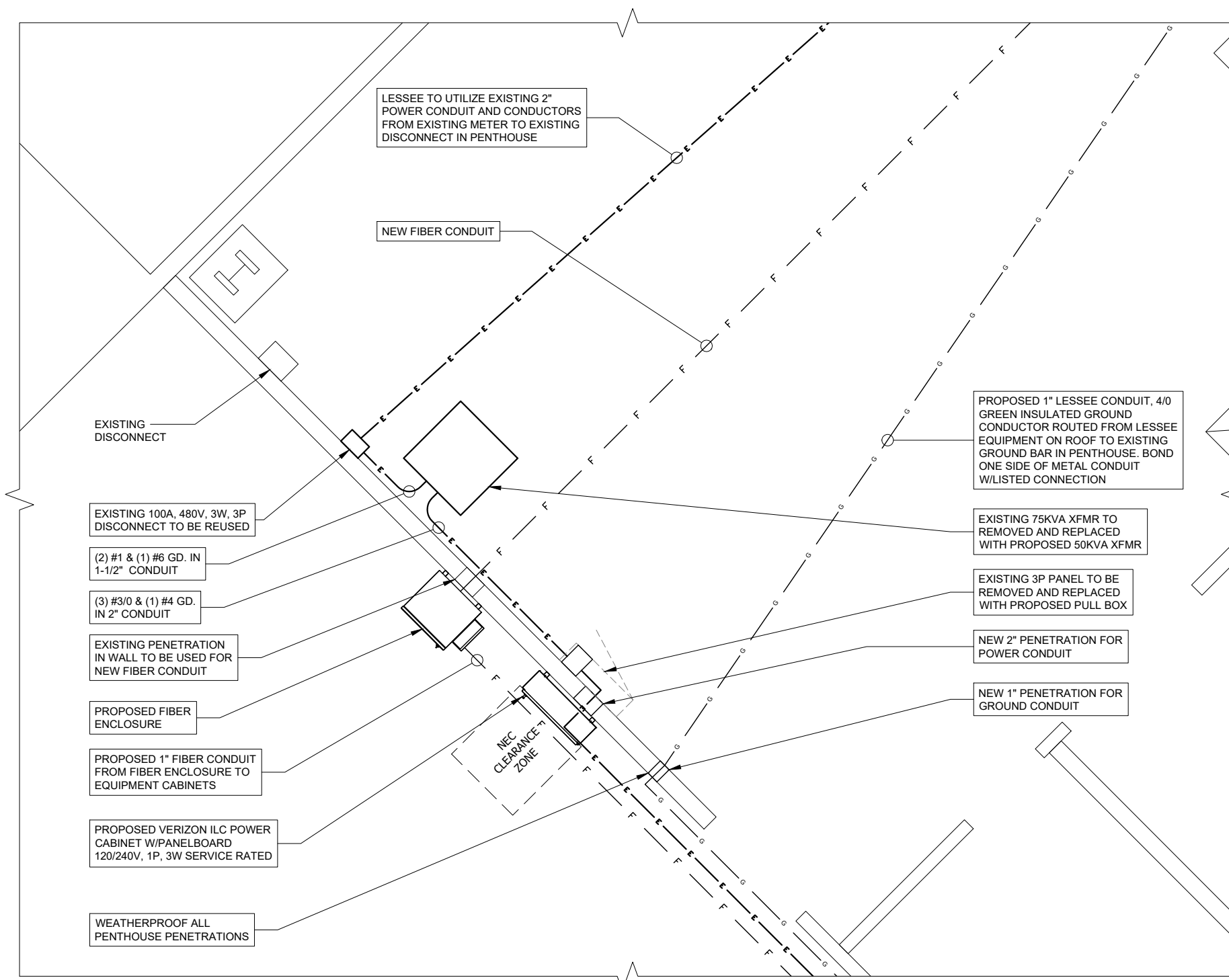
DRAWN BY: TJS
 CHECKED BY: DSS
 DATE: 05/15/23
 PROJECT #: 33-3608

SHEET TITLE
OVERALL UTILITY ROUTING PLAN

SHEET NUMBER
E-1

NOTE:
 CONTRACTOR TO FIREPROOF ALL PENETRATIONS. SEE DETAILS ON SHEET A-5

1 OVERALL UTILITY ROUTING PLAN AT PENTHOUSE LEVEL
 SCALE: 1/8" = 1'-0"



verizon
 1701 GOLF ROAD,
 TOWER 2, SUITE 400
 ROLLING MEADOWS, IL 60008
 PHONE: (847) 619-5397
 FAX: (847) 706-7415

TERRA
 CONSULTING ENGINEERS, P.C.
 600 BUSSE HIGHWAY
 PARK RIDGE, IL 60068
 PH: 847-698-6400
 FAX: 847-698-6401

REVISIONS		NO.	DESCRIPTION	DATE	BY
0	ISSUED FOR REVIEW	05/16/23	TJS		
1	ISSUED FOR FINAL	06/16/23	APD		
2	REVISED PER RF COMMENTS	07/05/23	TJS		
3	ISSUED FOR REVIEW	08/15/23	JJR		
4	REVISED PER LANDLORDS COMMENTS	10/25/23	JJR		
5	REVISED PER NEW RFDS	11/17/23	JJR		
	ADDITION OF NORTHEAST ELEVATION	01/02/24	JJR		

LOC. #766005
RAND & 53_RELO
MDG LOC. # 5000916957
 1500 W SHURE DR
 ARLINGTON HEIGHTS, IL
 60004

DRAWN BY: TJS
 CHECKED BY: DSS
 DATE: 05/15/23
 PROJECT #: 33-3608

SHEET TITLE
PARTIAL UTILITY ROUTING PLAN

SHEET NUMBER
E-1A

1 PARTIAL UTILITY ROUTING PLAN AT PENTHOUSE LEVEL
 SCALE: 1/2" = 1'-0"

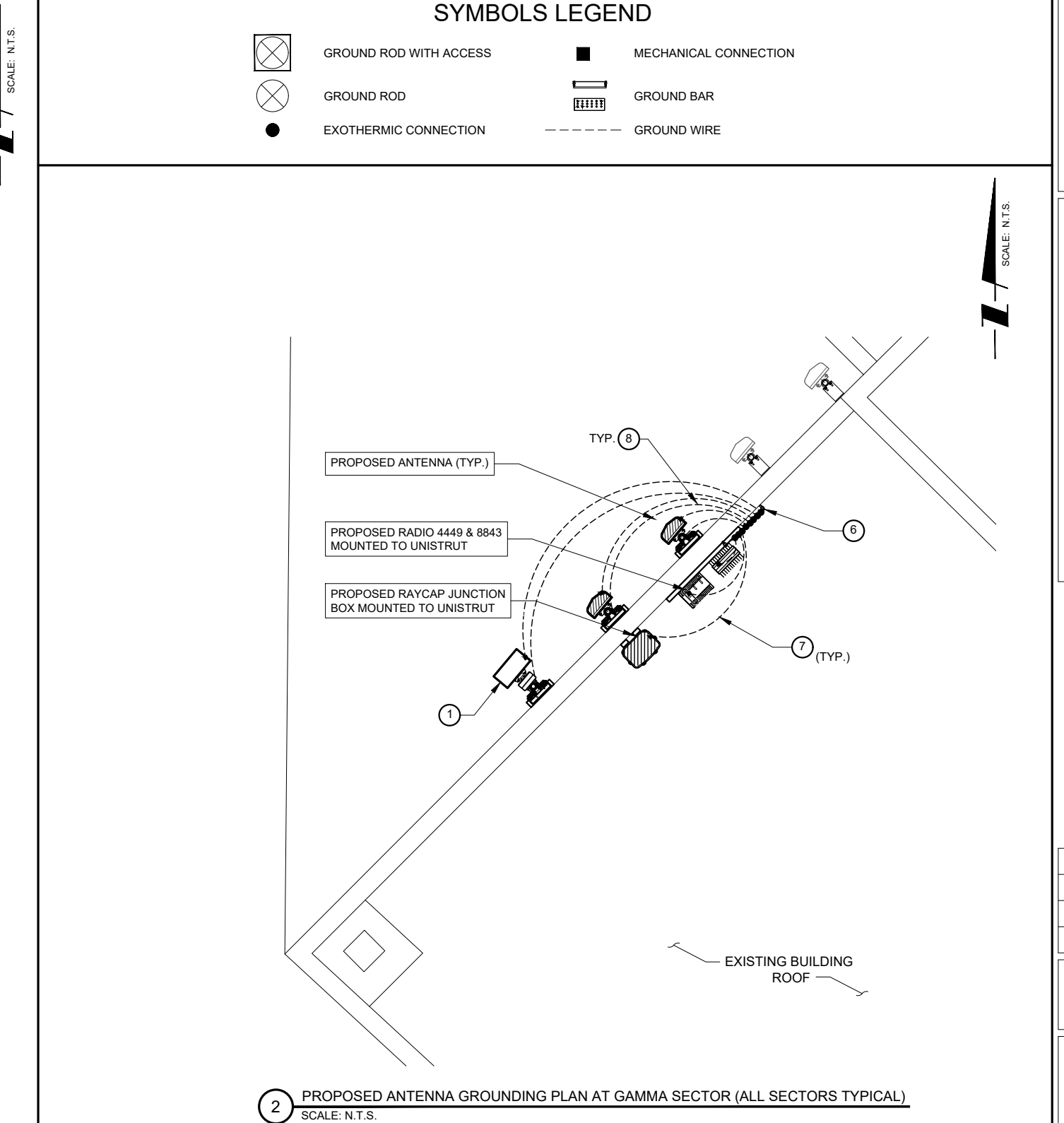
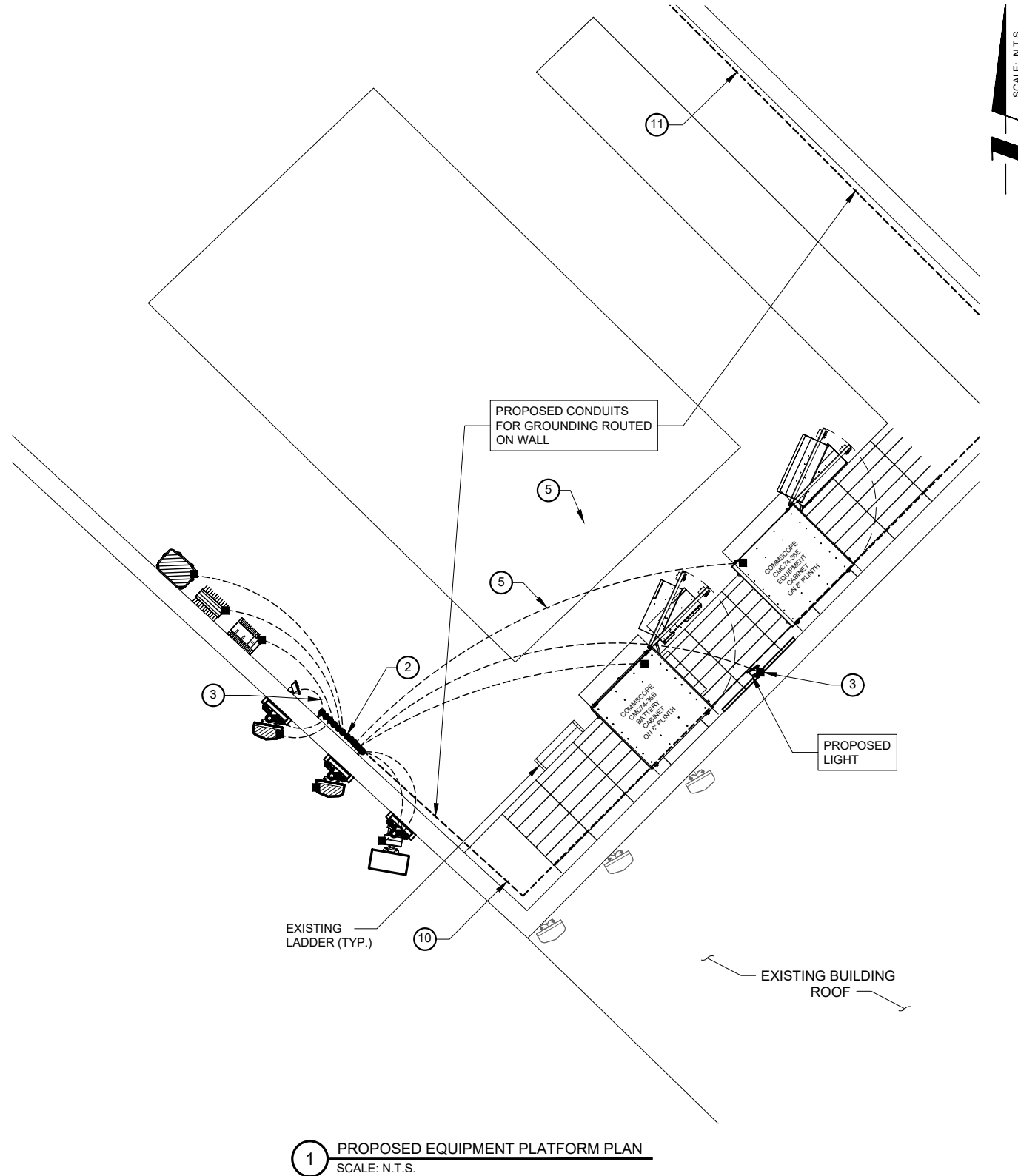
NOTE:
 CONTRACTOR TO FIREPROOF ALL PENETRATIONS. SEE DETAILS ON SHEET A-5

GROUNDING REFERENCE NOTES

- ① REFER TO STRUCTURAL AND ARCHITECTURAL DRAWINGS FOR EXACT LOCATION OF ANTENNA(S), PLATFORM AND ANTENNA SUPPORT FRAMES.
- ② PROVIDE MASTER GROUND BAR (HARGER 1/4"x4"x24") AT STEEL PLATFORM.
- ③ #2 AWG INSULATED GROUND WIRE FROM MASTER GROUND BAR TO LIGHT
- ④ #2 AWG INSULATED GROUND WIRE FROM MASTER GROUND BAR TO GPS ANTENNA
- ⑤ (2) #2 AWG INSULATED GROUND WIRES TO EQUIPMENT CABINET FROM MASTER GROUND BAR.

- ⑥ PROVIDE SECTOR GROUND BAR (HARGER 1/4"x4x12). BOND ANTENNA CABLE GROUNDING KITS TO SECTOR GROUND BAR. CONNECTION SHALL BE RESPONSIBILITY OF THE ANTENNA CABLE INSTALLER. BOND SECTOR GROUND BAR TO MASTER GROUND BAR AT EQUIPMENT PLATFORM USING #2 AWG INSULATED HOME RUN GROUND WIRE.
- ⑦ #2 AWG INSULATED GROUND WIRE CONNECTION TO RAYCAP OR RRU MODULE
- ⑧ #2 AWG INSULATED GROUND WIRE FROM SECTOR GROUND BAR TO ANTENNA PIPE AND ANTENNA MOUNTING BRACKET.
- ⑨ EXOTHERMIC WELD AT ANTENNA SUPPORT FRAME. SUPPORT CONDUCTOR AS REQUIRED EVERY TWO (2) FEET MINIMUM.

- ⑩ 1" CONDUIT, 4/0 GREEN INSULATED GROUND CONDUCTOR ROUTED ALONG BUILDING WALL
- ⑪ 1" CONDUIT, 4/0 GREEN INSULATED GROUND CONDUCTOR ROUTED ALONG EXTERIOR/INTERIOR BUILDING WALL TO EXISTING GROUND SYSTEM
- ⑫ #2 AWG INSULATED GROUND WIRE CONNECTION TO PROPOSED LLC
- ⑬ #2 AWG INSULATED GROUND WIRE CONNECTION TO UTILITY RACK
- ⑭ #2 AWG INSULATED GROUND WIRE CONNECTION TO PROPOSED FIBER BOX



SYMBOLS LEGEND

- ⊗ GROUND ROD WITH ACCESS
- ⊙ GROUND ROD
- EXOTHERMIC CONNECTION
- MECHANICAL CONNECTION
- ▬ GROUND BAR
- ⎓ GROUND WIRE

verizon
1701 GOLF ROAD,
TOWER 2, SUITE 400
ROLLING MEADOWS, IL 60008
PHONE: (847) 619-5397
FAX: (847) 706-7415

TERRA
CONSULTING ENGINEERS, P.C.
600 BUSSE HIGHWAY
PARK RIDGE, IL 60068
PH: 847-698-6400
FAX: 847-698-6401

REVISIONS		NO.	DESCRIPTION	DATE	BY
0	ISSUED FOR REVIEW	05/16/23	TJS		
1	ISSUED FOR FINAL	06/16/23	APD		
2	REVISED PER RF COMMENTS	07/05/23	TJS		
3	ISSUED FOR REVIEW	08/15/23	JJR		
4	REVISED PER LANDLORDS COMMENTS	10/25/23	JJR		
5	REVISED PER NEW RFDS	11/17/23	JJR		
	ADDITION OF NORTHEAST ELEVATION	01/02/24	JJR		

LOC. #766005
RAND & 53_RELO
MDG LOC. # 5000916957

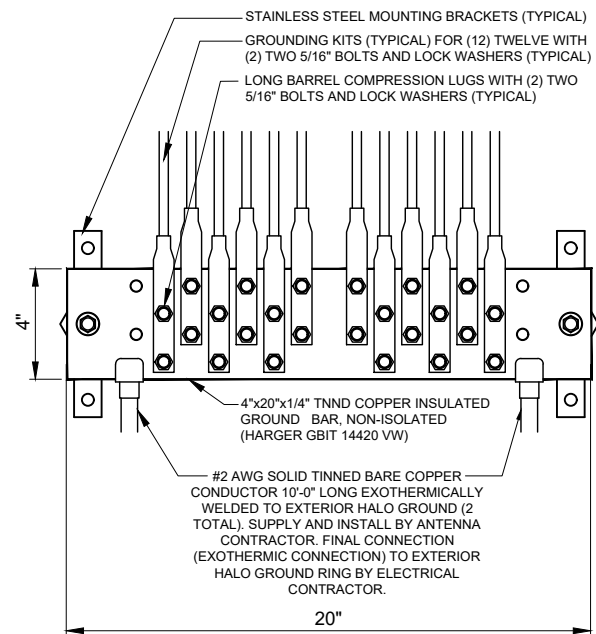
1500 W SHURE DR
ARLINGTON HEIGHTS, IL
60004

DRAWN BY: TJS
CHECKED BY: DSS
DATE: 05/15/23
PROJECT #: 33-3608

SHEET TITLE
GROUNDING PLAN

SHEET NUMBER

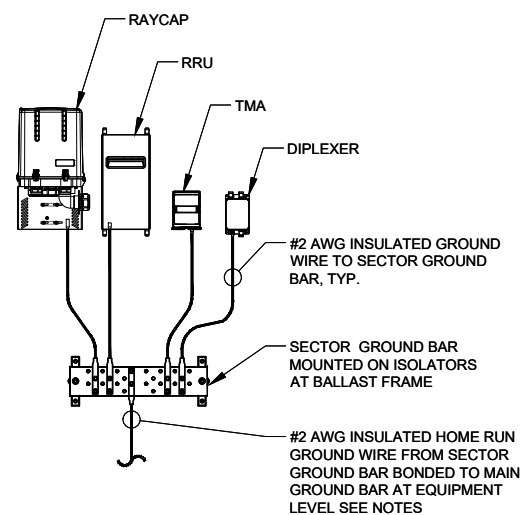
E-2



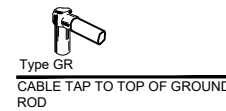
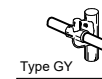
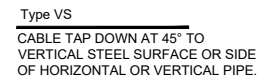
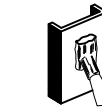
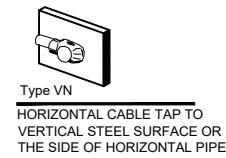
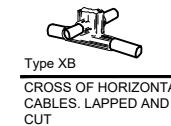
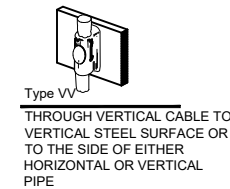
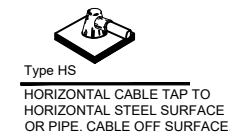
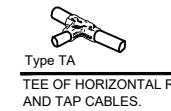
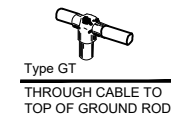
1 EXTERIOR GROUND BAR DETAIL
 N.T.S.

THIS DETAIL IS CONCEPTUAL TO DEMONSTRATE GROUNDING AT THE ANTENNA LEVEL. VERIFY EQUIPMENT, MOUNTING, AND AZIMUTH WITH ANT-1 SHEET & ECR.

NOTES:
 1. GROUND CONNECTIONS MUST BE DOUBLE HOLE CONNECTION. SPECIAL EXCEPTION ONLY TO EQUIPMENT THAT WILL NOT ALLOW FOR A DOUBLE HOLE CONNECTION.



3 TYPICAL APPURTENANCE GROUNDING AT ANTENNA LEVEL
 N.T.S.



2 EXOTHERMIC WELD DETAILS
 EXOTHERMIC AND HARGER ULTRAWELD OR APPROVED EQUAL

4 NOT USED
 SCALE: N.T.S.

verizon
 1701 GOLF ROAD,
 TOWER 2, SUITE 400
 ROLLING MEADOWS, IL 60008
 PHONE: (847) 619-5397
 FAX: (847) 706-7415

TERRA
 COMMUNICATIONS CORPORATION, LLC
 600 BUSSE HIGHWAY
 PARK RIDGE, IL 60068
 PH: 847-698-6400
 FAX: 847-698-6401

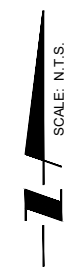
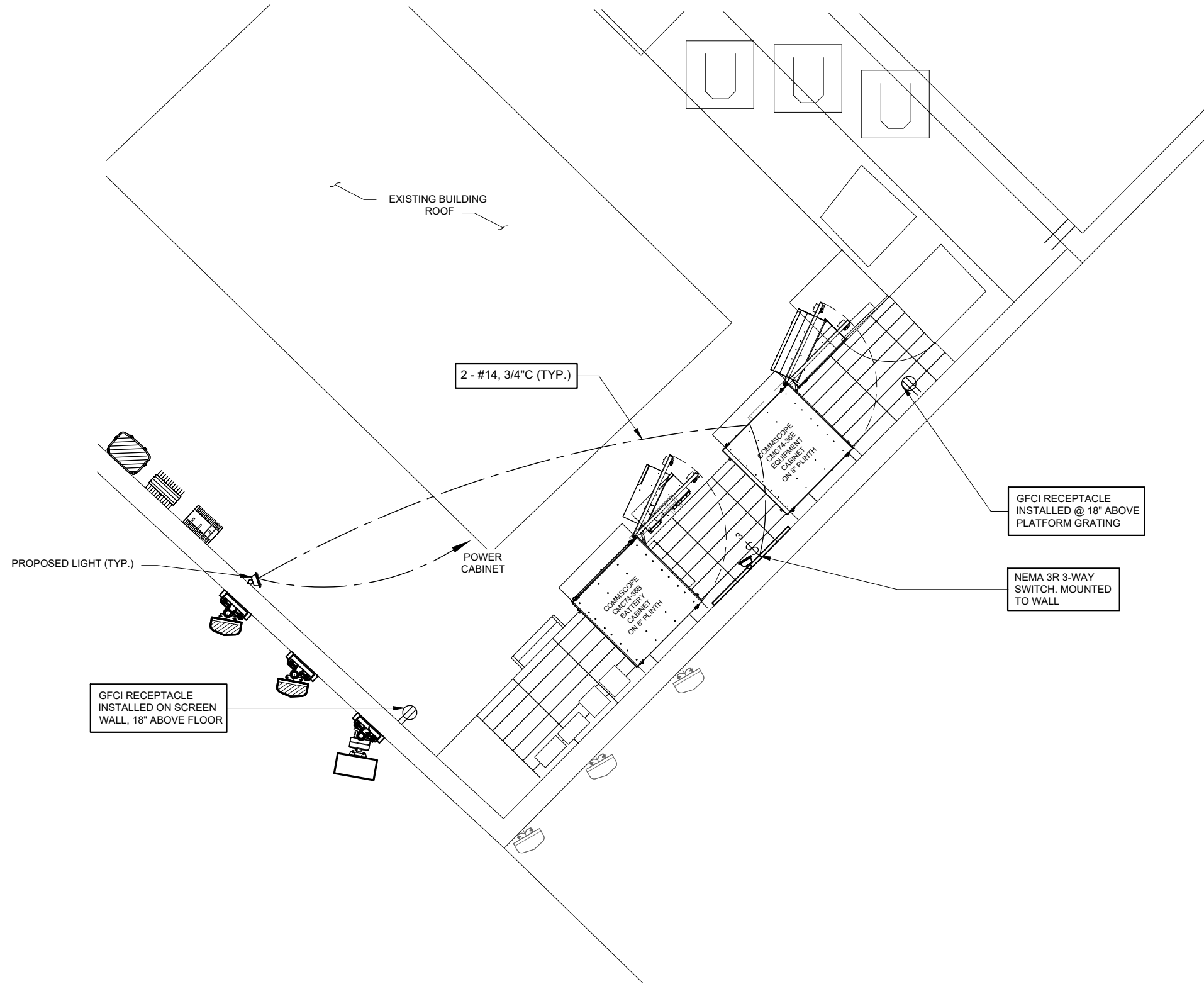
REVISIONS		BY	DATE
NO.	DESCRIPTION	TJS	05/15/23
0	ISSUED FOR REVIEW	APD	06/19/23
1	ISSUED FOR FINAL	TJS	07/05/23
2	REVISED PER RF COMMENTS	JJR	08/15/23
3	ISSUED FOR REVIEW	JJR	10/25/23
4	REVISED PER LANDLORDS COMMENTS	JJR	11/17/23
5	REVISED PER NEW RFDS	JJR	01/02/24
	ADDITION OF NORTHEAST ELEVATION		

LOC. #766005
 RAND & 53_RELO
 MDG LOC. # 5000916957
 1500 W SHURE DR
 ARLINGTON HEIGHTS, IL 60004

DRAWN BY: TJS
 CHECKED BY: DSS
 DATE: 05/15/23
 PROJECT #: 33-3608

SHEET TITLE
 ELECTRICAL & GROUNDING DETAILS

SHEET NUMBER
E-3



verizon
 1701 GOLF ROAD,
 TOWER 2, SUITE 400
 ROLLING MEADOWS, IL 60008
 PHONE: (847) 619-5397
 FAX: (847) 706-7415

TERRA
 CONSULTING ENGINEERS, P.C.
 600 BUSSE HIGHWAY
 PARK RIDGE, IL 60068
 PH: 847-698-6400
 FAX: 847-698-6401

REVISIONS		NO.	DESCRIPTION	DATE	BY
	ISSUED FOR REVIEW	0	ISSUED FOR REVIEW	05/16/23	TJS
	ISSUED FOR FINAL	1	ISSUED FOR FINAL	06/16/23	APD
	REVISED PER RF COMMENTS	2	REVISED PER RF COMMENTS	07/05/23	TJS
	REVISED PER LANDLORDS COMMENTS	3	REVISED PER LANDLORDS COMMENTS	08/15/23	JJR
	REVISED PER NEW RFDS	4	REVISED PER NEW RFDS	10/23/23	JJR
	ADDITION OF NORTHEAST ELEVATION	5	ADDITION OF NORTHEAST ELEVATION	11/17/23	JJR

LOC. #766005
RAND & 53_RELO
MDG LOC. # 5000916957

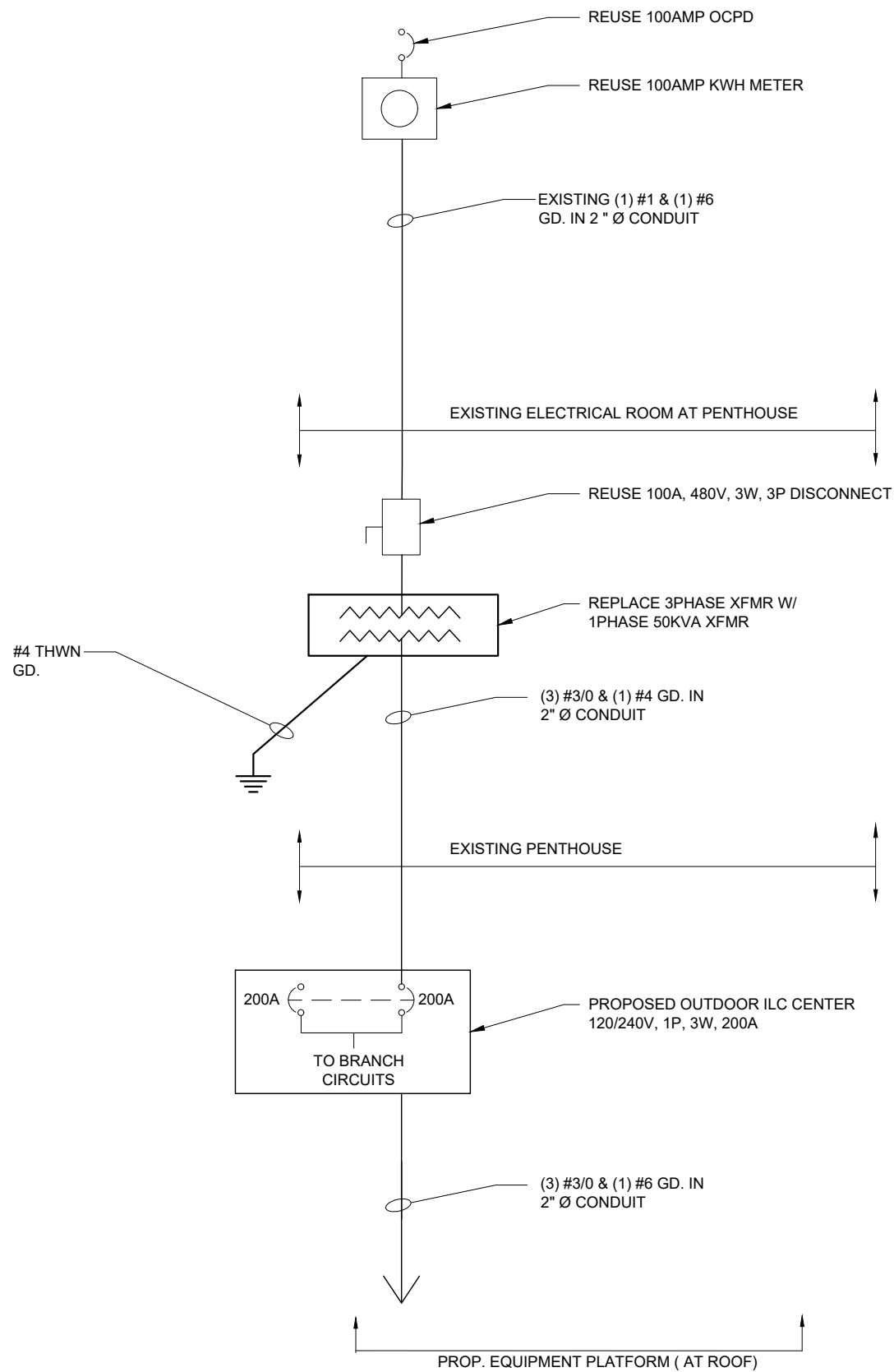
1500 W SHURE DR
 ARLINGTON HEIGHTS, IL
 60004

DRAWN BY: TJS
 CHECKED BY: DSS
 DATE: 05/15/23
 PROJECT #: 33-3608

SHEET TITLE
PLATFORM LIGHTING PLAN

SHEET NUMBER
E-4

1 PLATFORM LIGHTING PLAN
 SCALE: N.T.S.

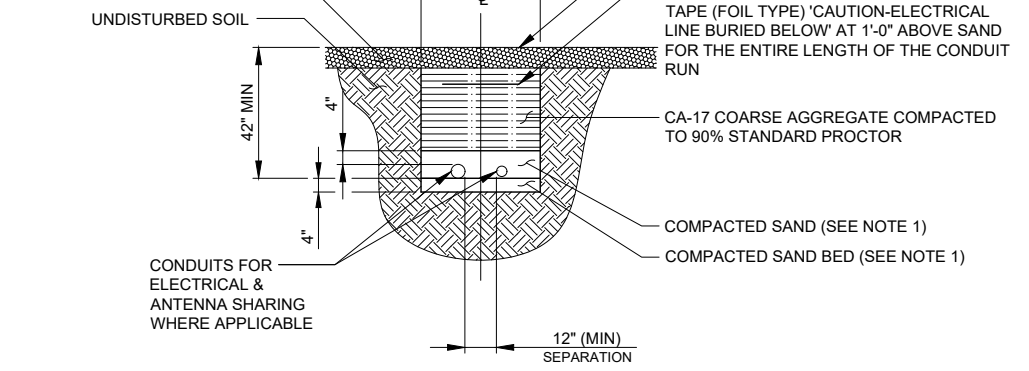


1 ONE LINE DIAGRAM
SCALE: N.T.S.



CHICAGO UTILITY ALERT NETWORK
312-774-7000
www.cityofchicago.org/transportation

RETURN ORIGINAL MATERIAL TO TRENCH, COMPACT TO MAXIMUM DENSITY IN ACCORDANCE WITH ASTM D1557



3 UTILITY TRENCH DETAIL
SCALE: N.T.S.

- NOTES:
- LEAN CONCRETE, RED-COLORED TOP, MAY BE USED IN PLACE OF COMPACTED SAND.
 - BURY CONDUITS 42" BELOW GRADE OR 6" BELOW FROST LINE, WHICHEVER IS GREATER
 - CONDUIT SIZE, TYPE, QUANTITY AND SEPARATION DIMENSION TO BE VERIFIED WITH LOCAL UTILITY COMPANY REQUIREMENTS

VERIZON WIRELESS PANEL "A" SCHEDULE									
MAIN: 200A		VOLTAGE: 120/240			PHASE: 1		WIRE: 3		
TO AUTOMATIC TRANSFER SWITCH									
DESCRIPTION	BRKR.	WATTS	SIG	A	B	S/N	WATTS	BRKR.	DESCRIPTION
RECTIFIER 1	40/2	1250	1			2	1250	40/2	RECTIFIER 5
RECTIFIER 2	40/2	1250	3			4	1250	40/2	RECTIFIER 6
RECTIFIER 3	40/2	1250	5			6	1250	40/2	RECTIFIER 7
RECTIFIER 4	40/2	1250	7			8	1250	40/2	RECTIFIER 8
SPACE			9			10			
SPACE			11			12			
SPACE			13			14			
SPACE			15			16			
SPACE			17			18		20/1	SPARE
SPACE			19			20		20/1	SPARE
SPACE			21			22			SPACE
SPACE			23			24			SPACE
SPACE			25			26			SPACE
SPACE			27			28			SPACE
SPACE			29			30			SPACE
SPACE			31			32			SPACE
SPACE			33			34			SPACE
SPACE			35			36			SPACE
SPACE			37			38	360	20/1	GFCI RECEPTACLE *
SPACE			39			40	1200	20/1	EQUIPMENT
GEN BATTERY CHARGER *	20/1	1000	41			42	1000	20/1	GEN. GFCI RECEPTACLE *
SUBTOTALS:									
		6000	5000			6360		6200	
TOTAL:						23.56kW (98.2A)			

SURFACE MOUNTED NEMA 3R w/ DOOR
22K AIC BREAKERS
(CONTRACTOR SHALL VERIFY AIC RATINGS W/ LOCAL POWER CO.)

2 PANEL BOARD SCHEDULE
N.T.S.

- NOTE:
- VERIZON WIRELESS EQUIPMENT ENGINEERING TO SUPPLY BREAKER FOR RADIO AND POWER CABINETS
 - GENERAL CONTRACTOR TO SUPPLY BREAKERS NOTED WITH ***

verizon
1701 GOLF ROAD,
TOWER 2, SUITE 400
ROLLING MEADOWS, IL 60008
PHONE: (847) 619-5397
FAX: (847) 706-7415

TERRA
CONSTRUCTION SERVICES, LLC
600 BUSSE HIGHWAY
PARK RIDGE, IL 60068
PH: 847-698-6400
FAX: 847-698-6401

NO.	DESCRIPTION	BY	DATE
0	ISSUED FOR REVIEW	TJS	05/15/23
1	ISSUED FOR FINAL	APD	06/19/23
2	REVISED PER RF COMMENTS	TJS	07/05/23
3	ISSUED FOR REVIEW	JJR	08/15/23
4	REVISED PER LANDLORDS COMMENTS	JJR	10/25/23
5	REVISED PER NEW RFDS	JJR	11/17/23
	ADDITION OF NORTHEAST ELEVATION	JJR	01/02/24

LOC. #766005
RAND & 53_RELO
MDG LOC. # 5000916957
1500 W SHURE DR
ARLINGTON HEIGHTS, IL 60004

DRAWN BY: TJS
CHECKED BY: DSS
DATE: 05/15/23
PROJECT #: 33-3608

SHEET TITLE
SINGLE LINE DIAGRAM & PANEL SCHEDULE

SHEET NUMBER
E-5

GENERAL

THE CONSTRUCTION DOCUMENT DRAWINGS ARE INTERRELATED. WHEN PERFORMING THE WORK, EACH CONTRACTOR MUST REFER TO ALL DRAWINGS. COORDINATION IS THE RESPONSIBILITY OF THE GENERAL CONTRACTOR.

**DIVISION 1: GENERAL REQUIREMENTS
SECTION 01700 - PROJECT CLOSEOUT**

PART 1 - GENERAL

- A. OBTAIN AND SUBMIT RELEASES ENABLING THE OWNER UNRESTRICTED USE OF THE WORK AND ACCESS TO SERVICES AND UTILITIES; INCLUDE OCCUPANCY PERMITS, OPERATING CERTIFICATES AND SIMILAR RELEASES.
- B. SUBMIT RECORD DRAWINGS, DAMAGE OR SETTLEMENT SURVEY, PROPERTY SURVEY, AND SIMILAR FINAL RECORD INFORMATION.
- C. COMPLETE FINAL CLEAN UP REQUIREMENTS. TOUCH UP AND OTHERWISE REPAIR AND RESTORE MARRED EXPOSED FINISHES.

PART 2 - FINAL CLEANING

1. COMPLETE THE FOLLOWING CLEANING OPERATIONS BEFORE REQUESTING INSPECTION FOR CERTIFICATION OF COMPLETION.
 - a. CLEAN THE PROJECT SITE, YARD AND GROUNDS, IN AREAS DISTURBED BY CONSTRUCTION ACTIVITIES, INCLUDING LANDSCAPE DEVELOPMENT AREAS, OF RUBBISH, WASTE MATERIALS, LITTER AND FOREIGN SUBSTANCES. SWEEP PAVED AREAS BROOM CLEAN. REMOVE PETRO-CHEMICAL SPILLS, STAINS AND OTHER FOREIGN DEPOSITS, RAKE GROUNDS THAT ARE NEITHER PLANTED NOR PAVED, TO A SMOOTH EVEN-TEXTURED SURFACE.
 - b. REMOVE TOOLS, CONSTRUCTION EQUIPMENT, MACHINERY AND SURPLUS MATERIAL FROM THE SITE
 - c. REMOVE SNOW AND ICE TO PROVIDE SAFE ACCESS TO THE SITE AND EQUIPMENT ENCLOSURE.
 - d. CLEAN EXPOSED EXTERIOR AND INTERIOR HARD-SURFACED FINISHES TO A DIRT-FREE CONDITION, FREE OF STAINS, FILMS AND SIMILAR FOREIGN SUBSTANCES. AVOID DISTURBING NATURAL WEATHERING OF EXTERIOR SURFACES.
 - e. REMOVE DEBRIS FROM LIMITED ACCESS SPACES, INCLUDING ROOFS, EQUIPMENT ENCLOSURE, MANHOLES, AND SIMILAR SPACES.
 - f. TOUCH-UP AND OTHERWISE REPAIR AND RESTORE MARRED EXPOSED FINISHES AND SURFACES. REPLACE FINISHES AND SURFACES THAT CAN NOT BE SATISFACTORILY REPAIRED OR RESTORED, OR THAT SHOW EVIDENCE OF REPAIR OR RESTORATION. DO NOT PAINT OVER "UL" AND SIMILAR LABELS, INCLUDING ELECTRICAL NAME PLATES.
 - g. LEAVE THE PROJECT CLEAN AND READY FOR OCCUPANCY
2. REMOVAL OF PROTECTION: REMOVE TEMPORARY PROTECTION AND FACILITIES INSTALLED DURING CONSTRUCTION TO PROTECT PREVIOUSLY COMPLETED INSTALLATIONS DURING THE REMAINDER OF THE CONSTRUCTION PERIOD.

DIVISION 2: SITE WORK

SECTION 02200 - EARTHWORK AND DRAINAGE

PART 1 - GENERAL

1. WORK INCLUDED: SEE SITE PLAN.
2. SEQUENCING
 - a. CONSTRUCT TEMPORARY CONSTRUCTION AREA ALONG EAST FENCE LINE.
 - b. GRADE, SEED, FERTILIZE, AND MULCH ALL AREAS DISTURBED BY CONSTRUCTION (INCLUDING UNDERGROUND UTILITY EASEMENTS) IMMEDIATELY AFTER BRINGING LEASE AREA AND ACCESS DRIVE W/ TURNAROUND TO BASE COURSE ELEVATION, WATER TO ENSURE GROWTH

PART 2 - EXECUTION

1. INSPECTIONS: LOCAL BUILDING INSPECTORS SHALL BE NOTIFIED NO LESS THAN 48 HOURS IN ADVANCE OF CONCRETE POURS, UNLESS OTHERWISE SPECIFIED BY JURISDICTION.
2. PREPARATION
 - a. CLEAR TREES, BRUSH AND DEBRIS FROM SITE AS REQUIRED.
 - b. PRIOR TO OTHER EXCAVATION AND CONSTRUCTION, GRUB ORGANIC MATERIAL TO A MINIMUM OF SIX INCHES (6") BELOW GRADE.
 - c. UNLESS OTHERWISE INSTRUCTED BY OWNER, TRANSPORT ALL REMOVED TREES, BRUSH AND DEBRIS FROM THE PROPERTY TO AN AUTHORIZED LANDFILL.
 - d. PRIOR TO PLACEMENT OF FILL OR BASE MATERIALS, ROLL THE SOIL.
 - e. WHERE UNSTABLE SOIL CONDITIONS ARE ENCOUNTERED, LINE THE AREAS WITH STABILIZER MAT PRIOR TO PLACEMENT OF FILL OR BASE MATERIAL.
3. INSTALLATION
 - a. GRADE OR FILL THE SITE AS REQUIRED IN ORDER THAT UPON DISTRIBUTION OF SOILS, RESULTING FROM EXCAVATIONS, THE RESULTING GRADE WILL CORRESPOND WITH SAID SUB-BASE COURSE. ELEVATIONS ARE TO BE CALCULATED FROM BENCHMARK, FINISHED GRADES, OR INDICATED SLOPES.
 - b. CLEAR EXCESS SPOILS, IF ANY, FROM JOB SITE AND DO NOT SPREAD BEYOND THE LIMITS OF PROJECT AREA UNLESS AUTHORIZED BY PROJECT MANAGER AND AGREED TO BY LANDOWNER.
 - c. AVOID CREATING DEPRESSIONS WHERE WATER MAY POND.
 - d. THE CONTRACT SHALL INCLUDE GRADING, BANKING, AND DITCHING, UNLESS OTHERWISE INDICATED.
 - e. PLACE FILL OR STONE IN SIX INCH (6") MAXIMUM LIFTS, AND COMPACT BEFORE PLACING NEXT LIFT.
 - f. THE TOP SURFACE COURSE, SHALL EXTEND A MINIMUM OF ONE FOOT (1') BEYOND THE SITE FENCE (UNLESS OTHERWISE NOTED) AND SHALL COVER THE AREA AS INDICATED.
 - g. APPLY SEED, FERTILIZER, AND STRAW COVER TO ALL OTHER DISTURBED AREAS, DITCHES, AND DRAINAGE SWALES, NOT OTHERWISE RIPRAP.

- h. UNDER NO CIRCUMSTANCES WILL DITCHES, SWALES, OR CULVERTS BE PLACED SO THAT THEY DIRECT WATER TOWARDS, OR PERMIT STANDING WATER IMMEDIATELY ADJACENT TO SHELTER OR EQUIPMENT. IF DESIGNS OR ELEVATIONS ARE IN CONFLICT WITH THIS, ADVISE CONSTRUCTION MANAGER IMMEDIATELY.
- i. APPLY SEED, FERTILIZER, AND STRAW COVER TO ALL OTHER DISTURBED AREAS, DITCHES, AND DRAINAGE SWALES, NOT OTHERWISE RIPRAP.
- j.
- k. IN DITCHES WITH SLOPES GREATER THAN 10% MOUND DIVERSIONARY HEADWALLS IN THE DITCH AT CULVERT ENTRANCES. POSITION THE HEADWALL AT AN ANGLE NO GREATER THAN THAT 60° OFF THE DITCH LINE. RIPRAP THE UPSTREAM SIDE OF THE HEADWALL AS WELL AS THE DITCH FOR SIX FEET (6') ABOVE THE CULVERT ENTRANCE.
- l. APPLY SEED AND FERTILIZER TO SURFACE CONDITIONS WHICH WILL ENCOURAGE ROOTING. RAKE AREAS TO BE SEEDED TO EVEN THE SURFACE AND LOOSEN THE SOIL.
- m. SOW SEED IN TWO DIRECTIONS IN TWICE THE QUANTITY RECOMMENDED BY THE SEED PRODUCER.
- n. ENSURE GROWTH OF SEEDED AND LANDSCAPED AREAS, BY WATERING, UP TO THE POINT OF RELEASE FROM THE CONTRACT. CONTINUE TO REWORK THE BARE AREAS UNTIL COMPLETE COVERAGE IS OBTAINED.

4. FIELD QUALITY CONTROL: COMPACT SOILS TO MAXIMUM DENSITY IN ACCORDANCE WITH ASTM D-1557. AREAS OF SETTLEMENT WILL BE EXCAVATED AND REFILLED AT CONTRACTOR'S EXPENSE. INDICATE PERCENTAGE OF COMPACTION ACHIEVED ON AS-BUILT DRAWINGS.

5. PROTECTION

- a. PROTECT SEEDED AREAS FROM EROSION BY SPREADING STRAW TO A UNIFORM LOOSE DEPTH OF 1-2 INCHES, STAKE AND TIE DOWN AS REQUIRED. USE OF EROSION CONTROL MESH OR MULCH NET WILL BE AN ACCEPTABLE ALTERNATIVE.
- b. PROTECT ALL EXPOSED AREAS AGAINST WASHOUTS AND SOIL EROSION. PLACE STRAW BALES AT THE INLET APPROACH TO ALL NEW OR EXISTING CULVERTS. WHERE THE SITE OR ROAD AREAS HAVE BEEN ELEVATED IMMEDIATELY ADJACENT TO THE RAIL LINE, STAKE EROSION CONTROL FABRIC FULL LENGTH IN THE SWALE TO PREVENT CONTAMINATION OF THE RAIL BALLAST. ALL EROSION CONTROL METHODS SHALL CONFORM TO APPLICABLE BUILDING CODE REQUIREMENTS.

SECTION 02830 - FENCING AND GATE(S)

PART 1 - GENERAL

1. WORK INCLUDED - SEE PLAN FOR SITE AND LOCATION OF FENCE
2. QUALITY ASSURANCE
 - a. ALL STEEL MATERIALS UTILIZED IN CONJUNCTION WITH THIS SPECIFICATION WILL BE GALVANIZED OR STAINLESS STEEL. WEIGHT OF ZINC COATING ON THE FABRIC SHALL NOT BE LESS THAN 12 OUNCES PER SQUARE FOOT OF MATERIAL COVERED. POSTS SHALL BE HOT-DIPPED IN GRADE "E" ZINC, 18 OUNCES PER SQUARE FOOT.
3. SEQUENCING
 - a. IF THE SITE AREA HAS BEEN BROUGHT UP TO SURFACE COURSE ELEVATION (PRIOR TO THE FENCE CONSTRUCTION), FENCE POST EXCAVATION SPOILS MUST BE CONTROLLED TO PRECLUDE CONTAMINATION OF SAID SURFACE COURSE.
4. SUBMITTALS
 - a. MANUFACTURER'S DESCRIPTIVE LITERATURE.
 - b. CERTIFICATE OR STATEMENT OF COMPLIANCE WITH THE SPECIFICATIONS.

PART 2 - PRODUCTS

1. FENCE MATERIAL
 - a. ALL FABRIC WIRE, RAILS, HARDWARE, AND OTHER STEEL MATERIALS SHALL BE HOT-DIPPED GALVANIZED.
 - b. FABRIC SHALL BE SEVEN-FOOT (7') HIGH OR TO MATCH EXISTING FENCE TWO-INCH CHAIN LINK MESH OF NO. 9 GAUGE (0.148") WIRE. THE FABRIC SHALL HAVE A KNUCKLED FINISH FOR THE TOP SELVAGES. FABRIC SHALL CONFORM TO THE SPECIFICATIONS OF ASTM A-392 CLASS 1.
 - c. ALL POSTS SHALL BE SCHEDULE - 40 MECHANICAL SERVICE PIPE AND SHALL BE TYPE 1 ASTM A-128 AND OF THE FOLLOWING DIAMETER
 - i. LINE 2" SCHEDULE 40 (2 3/8" O.D.)
 - ii. CORNER 3" SCHEDULE 40 (3 1/2" O.D.)
 - iii. GATE 3" SCHEDULE 40 (3 1/2" O.D.)
 - d. ALL TOP AND BRACE RAILS SHALL BE 1" DIAMETER SCHEDULE - 40 MECHANICAL - SERVICE PIPE.
 - e. GATE FRAMES AND BRACES SHALL BE 1.90 INCH DIAMETER SCHEDULE 40 MECHANICAL - SERVICE PIPE. FRAMES SHALL HAVE WELDED CORNERS.
 - f. GATE FRAMES SHALL HAVE A FULL-HEIGHT VERTICAL BRACE, AND A FULL-WIDTH HORIZONTAL BRACE, SECURED IN PLACE BY USE OF GATE BRACE CLAMPS.
 - g. GATE HINGES SHALL BE MERCHANTS METAL MODEL 64386 HINGE ADAPTER WITH MODEL 6409, 188-DEGREE ATTACHMENT.
 - h. A NO. 7 GAUGE ZINC COATED TENSION WIRE SHALL BE USED AT THE BOTTOM OF THE FABRIC, TERMINATED WITH BAND CLIPS AT CORNER AND GATE POSTS.
 - i. A SIX-INCH BY 1/2-INCH DIAMETER EYEBOLT TO HOLD TENSION WIRE SHALL BE PLACED AT LINE POSTS.
 - j. STRETCHER BARS SHALL BE 3/16-INCH BY 3/4-INCH OR HAVE EQUIVALENT CROSS-SECTIONAL AREA.
 - k. ALL CORNER GATE AND PANELS SHALL HAVE A 3/8-INCH TRUSS ROD WITH TURNBUCKLES.
 - l. ALL POST EXCEPT GATE POSTS SHALL HAVE A COMBINATION CAP AND BARBED WIRE SUPPORTING ARM. GATE POSTS SHALL HAVE A DOME CAP.

- m. OTHER HARDWARE INCLUDES BUT MAY NOT BE LIMITED TO TIE CLIPS, BAND CLIPS, AND TENSION BAND CLIPS.
- n. ALL CAPS SHALL BE MALLEABLE IRON, DOME OR ACORN SHAPED AS REQUIRED BY PIPE SIZE.

PART 3 - EXECUTION

1. INSPECTION: TO CONFIRM PROPER DEPTH AND DIAMETER OF POST HOLE EXCAVATIONS. ALL POST HOLES WILL BE EXCAVATED AS PER CONSTRUCTION DOCUMENTS,
2. INSTALLATION
 - a. FOUNDATIONS SHALL HAVE A MINIMUM SIX INCH (6") CONCRETE COVER UNDER POST.
 - b. ALL FENCE POSTS SHALL BE VERTICALLY PLUMB; ON QUARTER INCH (1/4")
 - c. AT CORNER POSTS, GATE POSTS, AND SIDES OF GATE FRAME, FABRIC SHALL BE ATTACHED WITH STRETCHER AND TENSION BAND-CLIPS AT FIFTEEN (15) INCH INTERVALS.
 - d. AT LINE POSTS, FABRIC SHALL BE ATTACHED WITH BAND-CLIPS AT FIFTEEN (15) INCH INTERVALS.
 - e. FABRIC SHALL BE ATTACHED TO BRACE RAILS, TENSION WIRE AND TRUSS RODS WITH TIE-CLIPS AT TWO FOOT (2') INTERVALS.
 - f. A MAXIMUM GAP OF ONE INCH WILL BE PERMITTED BETWEEN TIE CHAIN LINE FABRIC AND THE FINAL GRADE.
 - g. GATE SHALL BE INSTALLED SO LOCKS ARE ACCESSIBLE FROM BOTH SIDES.
 - h. GATE HINGE BOLTS SHALL HAVE THEIR THREADS PEENED OR WELDED TO PREVENT UNAUTHORIZED REMOVAL.
 - i. CONCRETE TO BE A MINIMUM OF 4,000 PSI AT 7 DAYS. CEMENT SHALL EXCEED ASTM C150, TYPE IIIA.
3. PROTECTION: UPON COMPLETION OF ERECTION, INSPECT FENCE MATERIAL AND PAINT FIELD CUTS OR GALVANIZING BREAKS WITH ZINC-BASED PAINT, COLOR TO MATCH THE GALVANIZED METAL. APPLICABLE STANDARDS:
 - ASTM-A120 SPECIFICATION FOR PIPE, STEEL, BLACK AND HOT-DIPPED ZINC COATED (GALVANIZED) WELDED AND SEAMLESS, FOR ORDINARY USES.
 - ASTM-A123 ZINC (HOT-DIP GALVANIZED) COATING ON IRON AND STEEL PRODUCTS.
 - ASTM-A153 STANDARD SPECIFICATION FOR ZINC COATING (HOT-DIP) ON IRON AND STEEL HARDWARE.
 - ASTM-A392 SPECIFICATION FOR ZINC-COATED STEEL CHAIN LINK FENCE FABRIC.
 - ASTM-A491 SPECIFICATION FOR ALUMINUM-COATED STEEL CHAIN LINK FENCE FABRIC
 - ASTM-A525 STANDARD SPECIFICATION FOR STEEL SHEET ZINC COATED (GALVANIZED) BY THE HOT-DIPPED PROCESS.
 - ASTM-A570 SPECIFICATION FOR HOT-ROLLED CARBON STEEL SHEET AND STRIP. STRUCTURAL QUALITY.

A. FEDERAL SPECIFICATION RR-F-191-FENCING, WIRE AND POST METAL (AND GATES, CHAIN LINK FENCE FABRIC, AND ACCESSORIES)

DIVISION 3: CONCRETE

SECTION 03000 - BASIC CONCRETE MATERIALS AND METHODS

PART 1 - GENERAL

1. WORK INCLUDED: FORMWORK, REINFORCEMENT, ACCESSORIES, CAST-IN-PLACE CONCRETE, FINISHING, AND CURING.
2. INSPECTIONS
 - a. CONTRACTOR IS RESPONSIBLE FOR SCHEDULING BUILDING DEPARTMENT INSPECTIONS REQUIRED FOR HIS SCOPE OF WORK.
 - b. ALL REINFORCING STEEL SHALL BE INSPECTED AND APPROVED BY THE LESSEE'S CONSTRUCTION MANAGER PRIOR TO PLACEMENT OF CONCRETE.
 - c. THE LESSEE'S CONSTRUCTION MANAGER SHALL BE NOTIFIED NO LESS THAN 48 HOURS IN ADVANCE OF CONCRETE POURS.
3. QUALITY ASSURANCE
 - a. CONSTRUCT AND ERECT CONCRETE FORMWORK IN ACCORDANCE WITH ACI 301 AND ASTM 318.
 - b. PERFORM CONCRETE REINFORCING WORK IN ACCORDANCE WITH ACI 301, ACI 318, AND ASTM A184.
 - c. PERFORM CAST-IN-PLACE CONCRETE WORK IN ACCORDANCE WITH ACI 301, ACI 318, AND ACI 117-90.
 - d. OPEN FOUNDATION TRENCHES SHALL BE INSPECTED BY MES PRIOR TO CONCRETE INSTALLATION.
4. SUBMITTALS: SUBMIT CONCRETE MIX AND REINFORCING STEEL SHOP DRAWINGS FOR APPROVAL BY LESSEE CONSTRUCTION MANAGER/ENGINEER. THE SHOP DRAWING SHALL BE SUBMITTED IN THE FORM OF TWO (2) CONCRETE MIX DESIGN INFORMATION SHEETS AND TWO (2) BLUELINE DRAWINGS FOR REINFORCING STEEL.

PART 2 - PRODUCTS

1. REINFORCEMENT MATERIALS
 - a. REINFORCEMENT STEEL, ASTM A615, 60 ksi YIELD GRADE, DEFORMED BILLET STEEL BARS, PLAIN FINISH.
 - b. WELDED STEEL WIRE FABRIC ASTM A185 PLAIN TYPE IN FLAT SHEETS, PLAIN FINISH.
 - c. CHAIRS, BOLSTERS, BAR SUPPORTS, SPACERS. SIZED AND SHAPED FOR SUPPORTS OR REINFORCING.
 - d. FABRICATE CONCRETE REINFORCING IN ACCORDANCE WITH ACI 315, ACI 318, ASTM A184.
2. CONCRETE MATERIALS
 - a. CEMENT: ASTM C150, PORTLAND TYPE

- b. FINE AND COURSE AGGREGATES: ASTM C33 - MAXIMUM SIZE OF CONCRETE AGGREGATE SHALL NOT EXCEED; ONE INCH (1") SIZE SUITABLE FOR INSTALLATION METHOD UTILIZED OR ONE-THIRD (1/3) CLEAR DISTANCE BEHIND OR BETWEEN REINFORCING.
- c. WATER: CLEAN AND NOT DETRIMENTAL TO CONCRETE
- d. AIR ENTRAINING ADMIXTURE: ASTM C260
- e. BONDING AGENT: LATEX EMULSION FOR BONDING NEW TO OLD CONCRETE AS MANUFACTURED BY DAYTON SUPERIOR.
- f. NON-SHRINK GROUT: PREMIXED COMPOUND CONSISTING OF NONMETALLIC AGGREGATE. CEMENT, WATER REDUCING AND PLASTICISING AGENTS.

3. CONCRETE MIX

- a. CONCRETE MATERIALS SHALL CONFORM TO THE APPROPRIATE A.C.I. REQUIREMENTS FOR EXPOSED STRUCTURAL CONCRETE.
- b. MIX AND DELIVER CONCRETE IN ACCORDANCE WITH ASTM C94, ALT. 3.
- c. PROPORTIONS OF CONCRETE MATERIALS SHALL BE SUITABLE FOR THE INSTALLATION METHOD UTILIZED AND SHALL RESULT IN DURABLE CONCRETE FOR LOCAL ANTICIPATED AGGRESSIVE ACTIONS. THE DURABILITY REQUIREMENTS OF ACI 318 CHAPTER 4 SHALL BE SATISFIED BASED ON THE CONDITIONS EXPECTED AT THE SITE. PROVIDE CONCRETE AS FOLLOWS:
 - i. COMPRESSIVE STRENGTH: 4000 psi AT 7 DAYS. SEE SHEET 2-1 FOR CAISSON CONCRETE COMPRESSIVE STRENGTH.
 - ii. SLUMP: 3 INCHES

PART 3 - EXECUTION

1. INSERTS, EMBEDDED COMPONENTS AND OPENINGS

- a. THE CONSTRUCTOR SHALL COORDINATE AND CROSS-CHECK ARCHITECTURAL, BUILDING & ELECTRICAL DRAWINGS FOR OPENINGS, SLEEVES, ANCHORS, HANGERS, AND OTHER ITEMS RELATED TO CONCRETE WORK AND SHALL ASSUME FULL RESPONSIBILITY FOR THE PROPER LOCATION BEFORE PLACING CONCRETE.
- b. PROVIDE FORMED OPENINGS WHERE REQUIRED FOR WORK TO BE EMBEDDED IN AND PASSING THROUGH CONCRETE MEMBERS.
- c. COORDINATE WORK OF OTHER SECTIONS IN FORMING AND SETTING OPENING, SLOTS, RECESSES, CHASES, SLEEVES, BOLTS, ANCHORS, AND OTHER INSERTS.
- d. INSTALL CONCRETE ACCESSORIES STRAIGHT, LEVEL AND PLUMB.

2. REINFORCEMENT PLACEMENT

- a. PLACEMENT REINFORCEMENT, SUPPORTED AND SECURED AGAINST DISPLACEMENT.
- b. ENSURE REINFORCING IS CLEAN, FREE OF LOOSE SCALE, DIRT, OR OTHER FOREIGN COATINGS.
- c. WELDING IS PROHIBITED ON REINFORCING STEEL AND EMBEDMENTS.
- d. MINIMUM CONCRETE COVER FOR REINFORCING SHALL BE THREE INCHES (3") UNLESS OTHERWISE NOTED.
- e. CONCRETE COVER FROM TOP OF FOUNDATION TO ENDS OF VERTICAL REINFORCEMENT SHALL NOT EXCEED THREE INCHES (3") NOR BE LESS THAN TWO INCHES (2").

3. PLACING CONCRETE

- a. VIBRATE ALL CONCRETE.
- b. ALL CONCRETE WORK SHALL ADHERE TO THE LATEST A.C.I. STANDARDS FOR WINTER POURING AND CURING PROCESURES IF SEASONAL CONDITIONS APPLY.

4. CURING

- a. AFTER PLACEMENT, PROTECT CONCRETE FROM PREMATURE DRYING.
- b. MAINTAIN CONCRETE WITH MINIMAL MOISTURE LOSS AT RELATIVELY CONSTANT TEMPERATURE FOR A PERIOD NECESSARY FOR HYDRATION OF CEMENT AND HARDENING OF CONCRETE.
- 5. PROVIDE HAND RUBBED SMOOTH FINISH TO ALL EXPOSED VERTICAL FORMED CONCRETE SURFACES.
- 6. FIELD QUALITY CONTROL
 - a. SUBMIT THREE (3) CONCRETE TEST CYLINDERS - TAKEN FOR EVERY 15 CUBIC YARD OR LESS. SUBMIT CONCRETE TESTS TO THE PROJECT MANAGER IN ACCORDANCE WITH ASTM, C-31 AND C-39.
 - b. SUBMIT ONE (1) ADDITIONAL TEST CYLINDER - TAKEN DURING COLD WEATHER POURS, AND CURED ON JOB SITE UNDER SAME CONDITIONS AS CONCRETE IT REPRESENTS.
 - c. SUBMIT ONE (1) SLUMP TEST - TAKEN FOR EACH SET OF TEST CYLINDERS TAKEN.

- 7. DEFECTIVE CONCRETE: MODIFY OR REPLACE CONCRETE NOT CONFORMING TO REQUIRED LINES, DETAILS OR ELEVATIONS AT COST OF GC, AS DIRECTED BY ARCHITECT/ENGINEER.



NO	DESCRIPTION	DATE	BY	REVISIONS					
				TJS	APD	TJS	JJR	JJR	JJR
0	ISSUED FOR REVIEW	05/16/23	TJS						
1	ISSUED FOR FINAL	06/16/23	APD						
2	REVISED PER RF COMMENTS	07/05/23	TJS						
3	ISSUED FOR REVIEW	08/15/23	JJR						
4	REVISED PER LANDLORDS COMMENTS	10/25/23	JJR						
5	REVISED PER NEW RFDS	11/17/23	JJR						
	ADDITION OF NORTHEAST ELEVATION	01/02/24	JJR						

LOC. #766005

RAND & 53_RELO

MDG LOC. # 5000916957

1500 W SHURE DR
ARLINGTON HEIGHTS, IL
60004

DRAWN BY:	TJS
CHECKED BY:	DSS
DATE:	05/15/23
PROJECT #:	33-3608

SHEET TITLE
SPECIFICATIONS

SHEET NUMBER
SP-1

DIVISION 5: METALS

SECTION 16400 – SERVICE AND DISTRIBUTION

SECTION 05000 – METALS

PART 1 – GENERAL

- SECTION INCLUDES: STRUCTURAL STEEL FRAMING MEMBERS, BASE PLATES, PLATES, BARS AND GROUTING UNDER BASE PLATES.
- SUBMITTALS: SHOP DRAWINGS: INDICATE SIZES, SPACING, AND LOCATIONS OF STRUCTURAL MEMBERS, OPENINGS, CONNECTIONS, CAMBERS, LOADS, AND WELDED SECTIONS.
- QUALITY ASSURANCE
 - FABRICATE STRUCTURAL STEEL MEMBERS IN ACCORDANCE WITH AISC SPECIFICATIONS FOR THE DESIGN, FABRICATION AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS.
 - PERFORM DESIGN UNDER DIRECT SUPERVISION OF A PROFESSIONAL STRUCTURAL ENGINEER LICENSED IN THE STATE.

PART 2 – PRODUCTS

- MATERIALS:
 - STRUCTURAL STEEL MEMBERS: ASTM A572, GRADE 50
 - STRUCTURAL TUBING: ASTM A500, GRADE B
 - PIPE: ASTM A53, TYPE E OR S, GRADE B
 - BOLTS, NUTS, AND WASHERS: ASTM A325
 - ANCHOR BOLTS: ASTM A307
 - WELDING MATERIALS: AWS D1.1, TYPE REQUIRED FOR MATERIALS BEING WELDED
 - GROUT: NON-SHRINK TYPE, PREMIXED COMPOUND CONSISTING OF NONMETALLIC AGGREGATE, CEMENT, WATER REDUCING AND PLASTICIZING ADDITIVES, CAPABLE OF DEVELOPING A MINIMUM COMPRESSIVE STRENGTH OF 7000 psi AT 28 DAYS.
 - SHOP AND TOUCH-UP PRIMER: SSPC 15, TYPE 1, RED OXIDE
 - TOUCH-UP PRIMER FOR GALV. SURFACES: ZINC RICH TYPE
- FABRICATION: CONTINUOUSLY SEAL JOINTED MEMBERS BY CONTINUOUS WELDS. GRIND EXPOSED WELDS SMOOTH.
- FINISH:
 - PREPARE STRUCTURAL COMPONENT SURFACES IN ACCORDANCE WITH SSPC SP-1 TO SP-10 PROCEDURES.
 - STRUCTURAL STEEL MEMBERS SHALL BE HOT DIPPED GALVANIZED.

PART 3 – EXECUTION

- EXAMINATION AND PREPARATION: VERIFY THAT THE FIELD CONDITIONS ARE ACCEPTABLE.
- ERECTION:
 - ALLOW FOR ERECTION LOADS. PROVIDE TEMPORARY BRACING TO MAINTAIN FRAMING IN ALIGNMENT UNTIL COMPLETION OF ERECTION AND INSTALLATION OF PERMANENT BRIDGING AND BRACING.
 - FIELD WELD COMPONENTS INDICATED ON SHOP DRAWINGS.
 - DO NOT FIELD CUT OR ALTER STRUCTURAL MEMBERS WITHOUT APPROVAL OF THE ARCHITECT/ENGINEER.
 - AFTER ERECTION, TOUCH-UP WELDS, ABRASIONS, AND SURFACES NOT SHOP PRIMED OR GALVANIZED WITH TOUCH-UP PRIMERS AS SPECIFIED UNDER SECTION 05000, -METALS, PART 2 – PRODUCTS, H & I. SURFACES TO BE IN CONTACT WITH CONCRETE NOT INCLUDED.
- FIELD QUALITY CONTROL: FIELD INSPECTION OF MEMBERS, CONNECTIONS, WELDS AND TORQUING.

DIVISION 16: ELECTRICAL

SECTION 16050 – BASIC ELECTRICAL MATERIALS AND METHODS

- CONTRACTOR SHALL REVIEW THE CONTRACT DOCUMENTS PRIOR TO ORDERING THE ELECTRICAL EQUIPMENT AND STARTING THE ACTUAL CONSTRUCTION. CONTRACTOR SHALL ISSUE A WRITTEN NOTICE OF ALL FINDINGS TO THE ARCHITECT LISTING ANY DISCREPANCIES OR CONFLICTING INFORMATION.
- ELECTRICAL PLANS, DETAILS AND DIAGRAMS ARE DIAGRAMMATIC ONLY. VERIFY EXACT LOCATIONS AND MOUNTING HEIGHTS OF ELECTRICAL EQUIPMENT WITH OWNER PRIOR TO INSTALLATION.
- EACH CONDUCTOR OF EVERY SYSTEM SHALL BE PERMANENTLY TAGGED IN EACH PANELBOARD, PULLBOX, JUNCTION BOX, SWITCH BOX, ETC. THE TYPE OF TAGGING METHODS SHALL BE IN COMPLIANCE WITH OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (O.S.H.A.).
- ALL MATERIALS AND EQUIPMENT SHALL BE NEW AND IN GOOD WORKING CONDITION WHEN INSTALLED AND SHALL BE OF THE BEST GRADE AND OF THE SAME MANUFACTURER THROUGHOUT FOR EACH CLASS OR GROUP OF EQUIPMENT. MATERIALS SHALL BE LISTED "J" WHERE APPLICABLE. MATERIALS SHALL MEET WITH APPROVAL OF ALL GOVERNING BODIES HAVING JURISDICTION. MATERIALS SHALL BE MANUFACTURED IN ACCORDANCE WITH APPLICABLE STANDARDS ESTABLISHED BY ANSI, NEMA, NBFU AND "UL" LISTED.
- ALL CONDUIT SHALL HAVE A PULL CORD.
- PROVIDE PROJECT MANAGER WITH ONE SET OF COMPLETE ELECTRICAL "AS INSTALLED" DRAWINGS AT THE COMPLETION OF THE JOB, SHOWING ACTUAL DIMENSIONS, ROUTINGS, AND CIRCUITS.
- ALL CIRCUIT BREAKERS, FUSES AND ELECTRICAL EQUIPMENT SHALL HAVE AN INTERRUPTING SHORT CIRCUIT CURRENT TO WHICH THEY MAY BE SUBJECTED, AND A MINIMUM OF 10,000 A.I.C.
- THE ENTIRE ELECTRICAL INSTALLATION SHALL BE GROUNDED AS REQUIRED BY UBC, NEC AND ALL APPLICABLE CODES.
- PATCH, REPAIR AND PAINT ANY AREA THAT HAS BEEN DAMAGED IN THE COURSE OF THE ELECTRICAL WORK.
- PLASTIC PLATES FOR ALL SWITCHES, RECEPTACLES, TELEPHONE AND BLANKED OUTLETS SHALL HAVE ENGRAVED LETTERING WHERE INDICATED ON THE DRAWINGS. WEATHERPROOF RECEPTACLES SHALL HAVE SIERRA #WPD-8 LIFT COVERPLATES.

- WIRE AND CABLE CONDUCTORS SHALL BE COPPER, 600V, TYPE THHN OR THWN, WITH A MIN. SIZE OF #12 AWG, COLOR CODED. ALL RECTIFIER DROPS SHALL BE STRANDED TO ACCEPT CRIMP CONNECTORS.
- ALL CHEMICAL GROUND RODS SHALL BE "UL" APPROVED.
- METER SOCKET AMPERES, VOLTAGE, NUMBER OF PHASES SHALL BE AS NOTED ON THE DRAWINGS. MANUFACTURED BY MILBANK OR APPROVED EQUAL, AND SHALL BE UTILITY COMPANY APPROVED.
- CONDUIT:
 - RIGID CONDUIT SHALL BE U.L. LABEL GALVANIZED ZINC COATED WITH GALVANIZED ZINC INTERIOR AND SHALL BE USED WHEN INSTALLED IN OR UNDER CONCRETE SLABS, IN CONTACT WITH THE EARTH, UNDER PUBLIC ROADWAYS, IN MASONRY WALLS OR EXPOSED ON BUILDING EXTERIOR. RIGID CONDUIT IN CONTACT WITH EARTH SHALL BE 1/2 LAPPED WRAPPED WITH HUNTS WRAP PROCESS NO. 3.
 - ELECTRICAL METALLIC TUBING SHALL HAVE U.L. LABEL, FITTING SHALL BE GLAND RING COMPRESSION TYPE.
 - FLEXIBLE METALLIC CONDUIT SHALL HAVE U.L. LISTED LABEL AND MAY BE USED WHERE PERMITTED BY CODE. FITTINGS SHALL BE "JAKE" OR "SQUEEZE" TYPE. ALL FLEXIBLE CONDUITS SHALL HAVE FULL LENGTH GROUND WIRE.
 - ALL UNDERGROUND CONDUIT SHALL BE AS NOTED ON THE DRAWINGS AT A MINIMUM DEPTH OF 42" BELOW GRADE. IT IS REQUIRED AND WILL BE THE RESPONSIBILITY OF THE ELECTRICAL CONTRACTOR TO NOTIFY J.U.L.I.E. AT 1-800-892-0123 OR OTHER SUCH NOTIFYING AGENCY FORTY-EIGHT (48) HOURS PRIOR TO DIGGING.
- CONTRACTOR TO COORDINATE WITH UTILITY COMPANY FOR CONNECTION OF TEMPORARY AND PERMANENT POWER TO THE SITE. THE TEMPORARY POWER AND ALL HOOKUP COSTS ARE TO BE PAID BY THE CONTRACTOR.
- ALL ELECTRICAL EQUIPMENT SHALL BE LABELED WITH PERMANENT ENGRAVED PLASTIC LABELS WITH WHITE ON BLUE BACKGROUND LETTERING (MINIMUM LETTER HEIGHT SHALL BE ONE FORTH INCH (1/4"). NAMEPLATES SHALL BE FASTENED WITH STAINLESS STEEL SCREWS, NOT ADHESIVE.
- UPON COMPLETION OF WORK, CONDUCT CONTINUITY, SHORT CIRCUIT, AND FALL POTENTIAL GROUNDING TESTS BY AN INDEPENDENT TESTING SERVICE ENGAGED BY THE CONTRACTOR SHALL BE SUBMITTED FOR APPROVAL. SUBMIT TEST REPORTS TO PROJECT MANAGER. CLEAN PREMISES OF ALL DEBRIS RESULTING FROM WORK AND LEAVE WORK IN A COMPLETE AND UNDAMAGED CONDITION.
- GROUNTING ELECTRODE SYSTEM
 - PREPARATION
 - SURFACE PREPARATION: ALL CONNECTIONS SHALL BE MADE TO BARE METAL. ALL PAINTED SURFACES SHALL BE FIELD INSPECTED AND MODIFIED TO ENSURE PROPER CONTACT. NO WASHERS ARE ALLOWED BETWEEN THE ITEMS BEING GROUNDED. ALL CONNECTIONS ARE TO HAVE A NON-OXIDIZING AGENT APPLIED PRIOR TO INSTALLATION.
 - GROUND BAR PREPARATION: ALL COPPER GROUND BARS SHALL BE CLEANED, POLISHED AND A NON-OXIDIZING AGENT APPLIED. NO FINGERPRINTS OR DISCOLORED COPPER WILL BE PERMITTED.
 - SLEEVES: ALL GROUNTING CONDUCTORS SHALL RUN THROUGH PVC SLEEVES WHEREVER CONDUCTORS RUN THROUGH WALLS, FLOORS OR CEILINGS. IF CONDUCTORS MUST RUN THROUGH EMT, BOTH ENDS OF CONDUIT SHALL BE GROUNDED. SEAL BOTH ENDS OF CONDUIT WITH SILICONE CAULK.
 - GROUND BARS
 - ALL GROUND BARS SHALL BE ONE FORTH INCH (1/4") THICK TINNED COPPER PLATE AND OF SIZE INDICATED ON DRAWINGS.
 - ALL CONNECTIONS TO THE GROUND BAR SHALL OBSERVE THE FOLLOWING SEQUENCE:
 - BOLT-HEAD
 - 2-HOLE LUG
 - TINNED COPPER BUSS BAR
 - STAR WASHER
 - NUT
 - EXTERNAL CONNECTIONS
 - ALL BURIED GROUNTING CONNECTIONS SHALL BE MADE BY THE EXOTHERMIC WELD PROCESS. CONNECTIONS SHALL INCLUDE ALL CABLE TO CABLE, SPLICES, TEE'S, CROSSES, ETC. ALL CABLE TO GROUND RODS, GROUND ROD SPLICES AND LIGHTNING PROTECTION SYSTEMS ARE TO BE AS INDICATED. ALL MATERIALS USED (MOLDS, WELDING METAL, TOOLS, ETC.) SHALL BE BY "CADWELD" AND INSTALLED PER MANUFACTURER'S RECOMMENDED PROCEDURES.
 - ALL ABOVE GRADE GROUNTING AND BONDING CONDUCTORS SHALL BE CONNECTED BY TWO HOLE CRIMP TYPE (COMPRESSION) CONNECTIONS (EXCEPT FOR THE ACEG AND GROUND ROD) MECHANICAL CONNECTIONS, FITTINGS OR CONNECTIONS THAT DEPEND SOLELY ON SOLDER SHALL NOT BE USED. ALL CABLE TO CABLE CONNECTIONS SHALL BE HIGH PRESSURE DOUBLE CRIMP TYPE CONNECTIONS. CONNECTIONS TO STRUCTURAL STEEL SHALL BE EXOTHERMIC WELDS.
 - GROUND RODS
 - ALL GROUND RODS SHALL BE 5/8-INCH DIAMETER X 10'-0" LONG "COPPERWELD" OR APPROVED EQUAL, OF THE NUMBER AND LOCATIONS INDICATED. GROUND RODS SHALL BE DRIVEN FULL LENGTH VERTICAL IN UNDISTURBED EARTH.
 - GROUND CONDUCTORS
 - ALL GROUND CONDUCTORS SHALL BE STANDARD TINNED SOLID BARE COPPER ANNEALED, AND OF SIZE INDICATED ON DRAWINGS UNLESS NOTED OTHERWISE.
 - LUGS
 - LUGS SHALL BE 2-HOLE, LONG BARREL, STRAND COPPER UNLESS OTHERWISE SPECIFIED IN THE CONTRACT DOCUMENTS. LUGS SHALL BE THOMAS AND BETTS SERIES #548E OR EQUIVALENT

A.	535 MCM DLO	54880BE
B.	262 MCM DLO	54872BE
C.	#1/0 DLO	54862BE
D.	#4/0 THWN AND BARE	54866BE
E.	#2/0 THWN	54862BE
F.	#2 THHN	54207BE
G.	#6 DLO	54205BE

- WHEN THE DIRECTION OF THE CONDUCTOR MUST CHANGE, IT SHALL BE DONE GRADUALLY. THE CURVATURE OF THE TURN SHALL BE DONE IN ACCORDANCE WITH THE FOLLOWING CHART:

<u>GROUNTING CONDUCTOR SIZE</u>		<u>MINIMUM BENDING RADIUS TO INSIDE EDGE</u>
NO. 6 AWG TO NO. 4 AWG		6 INCHES
NO. 2 AWG TO NO. 1/0 AWG		8 INCHES
NO. 2/0 AWG TO 4/0 MCM		12 INCHES
250 MCM TO 750 MCM		24 INCHES
- GROUND RING
 - THE EXTERNAL GROUND RING ENCIrcLING THE TOWER (IF APPLICABLE) AND BETWEEN THE EQUIPMENT SHELTER PLATFORM ANCHORS SHALL BE MINIMUM NO. 2 A.W.G. SOLID TINNED BARE COPPER CONDUCTOR IN DIRECT CONTACT WITH THE EARTH AT THE DEPTH INDICATED ON THE DRAWINGS. CONDUCTOR BENDS SHALL HAVE A MINIMUM BENDING RADIUS OF EIGHT INCHES (8").
 - ALL EXTERNAL GROUND RINGS ARE TO BE JOINED TOGETHER AND ALL CONNECTIONS MUST BE CADWELDED. NO LUGS OR CLAMPS WILL BE ACCEPTED.
- FENCE/GATE
 - GROUND EACH GATE POST, CORNER POST AND GATE AS INDICATED ON DRAWING GROUND CONNECTIONS TO FENCE POSTS AND ALL OTHER CONNECTIONS FOR THE GROUND GRID SYSTEM SHALL BE MADE BY EXOTHERMIC WELD PROCESS, AND INSTALLED PER MANUFACTURER'S RECOMMENDATIONS AND PROCEDURES, AND SPRAYED WITH COLD-GALVANIZED PAINT.
- I.E.E.E. FALL POTENTIAL TESTS
 - FOR RAW LAND SITE
 - GROUND TESTS SHALL BE PERFORMED AS INDICATED ON DRAWINGS. A BIDDLE GROUND OHMER OR THE METHOD OF USING TWO AUXILIARY GROUND RODS (AS DESCRIBED IN I.E.E.E. STANDARDS NO. 81-1983, PART 1) MAY BE USED. THE I.E.E.E. METHOD REQUIRES THE USE OF AN A.C. TEST CURRENT. THE AUXILIARY TEST RODS MUST BE SUFFICIENTLY FAR AWAY FROM THE ROD UNDER TEST SO THAT THE REGIONS IN WHICH THEIR RESISTANCE IS LOCALIZED DO NOT OVERLAP. THE TEST POINT WILL BE THE GROUND ROD AND WILL CONSIST OF THE THREE POINT FALL OF POTENTIAL MEGGER TEST METHOD, USING THE BIDDLE NULL-BALANCE EARTH TESTER (MEGGER #250220-2 OR EQUIVALENT)
 - CONTRACTOR TO CONDUCT GROUND RESISTANCE TEST IN THE FORMAT AS FOLLOWS:
 - FIRST TEST – SHALL BE WITH FOUR GROUND RODS INSTALLED, ONE AT EACH CORNER OF THE PAD BUT NOT CONNECTED TO THE MAIN GROUNTING BUS. FURNISH WIRE TO CONNECT (TEMPORARY CLAMP) ALL FOUR GROUND RODS TOGETHER TO MAKE A SYSTEM TEST AFTER EACH ROD IS INDIVIDUALLY TESTED. IF ANY INDIVIDUAL ROD TESTS 25 OHMS OR MORE, THE ELECTRICAL CONTRACTOR AND OWNER'S REPRESENTATIVE SHOULD BE NOTIFIED SO THAT THE ROD CAN BE DRIVEN DEEPER UNTIL ALL FOUR RODS HAVE A RESISTANCE OF 10 OHMS OR LESS ON A DRY DAY.
 - SECOND TEST – SHALL BE WITH THE GROUND RODS CONNECTED, WITH DRY SOIL AND WHEN NO STANDING WATER HAS BEEN PRESENT FOR THE PAST TEN (10) DAYS. THE MAXIMUM ALLOWABLE READING IS 5 OHMS TO GROUND. IF THE RESISTANCE OF THE ENTIRE SYSTEM EXCEEDS 5 OHMS, NOTIFY THE CONTRACTOR AND OWNER'S REPRESENTATIVE SO THAT ADDITIONAL AND/OR DEEPER RODS CAN BE INSTALLED.
 - TOWER
 - FIRST TEST – SHALL BE WITH THREE GROUND RODS INSTALLED (MINIMUM), EQUALLY SPACED AROUND THE TOWER FOUNDATION, BUT NOT CONNECTED TO THE SHELTER PAD EXTERNAL GROUND RING. FURNISH WIRE TO CONNECT (TEMPORARY CLAMP) ALL THREE GROUND RODS TOGETHER TO MAKE A SYSTEM TEST AFTER EACH ROD IS INDIVIDUALLY TESTED. IF ANY INDIVIDUAL ROD TESTS 25 OHMS OR MORE, NOTIFY THE CONTRACTOR AND OWNER'S REPRESENTATIVE SO THAT THE ROD CAN BE DRIVEN DEEPER UNTIL ALL THREE (3) RODS HAVE A RESISTANCE OF 10 OHMS OR LESS ON A DRY DAY.
 - SECOND TEST – SHALL BE WITH THE GROUND RODS CONNECTED, WITH DRY SOIL AND WHEN NO STANDING WATER HAS BEEN PRESENT FOR THE PAST TEN (10) DAYS, THE MAXIMUM ALLOWABLE READING IS 5 OHMS TO GROUND. IF THE RESISTANCE OF THE ENTIRE SYSTEM EXCEEDS 5 OHMS THE ELECTRICAL CONTRACTOR AND OWNER'S REPRESENTATIVE SHOULD BE NOTIFIED SO THAT EITHER ADDITIONAL AND/OR DEEPER RODS CAN BE INSTALLED.
- EQUIPMENT PAD AND TOWER
 - AFTER THE EQUIPMENT PAD AND TOWER GROUND RESISTANCE TEST IS COMPLETED, CONTRACTOR SHALL TIE EQUIPMENT PAD EXTERNAL GROUND RING AND TOWER EXTERNAL GROUND RING TOGETHER. AFTER FIRST AND SECOND TEST ALL CONNECTIONS MUST BE MADE USING EXOTHERMIC WELD. NO LUGS OR CLAMPS WILL BE ACCEPTED.
 - AFTER ALL THE EXTERNAL GROUND RINGS ARE TIED TOGETHER, COMPLETE A MEGGER CHECK OF THE GROUND SYSTEM SHOULD BE DONE. THE MAXIMUM ALLOWABLE LEADING IS 5 OHMS TO GROUND.
- GROUNTING RESISTANCE TEST REPORT
 - UPON COMPLETION OF THE TESTING FOR EACH SITE, A TEST REPORT SHOWING RESISTANCE IN OHMS WITH AUXILIARY POTENTIAL ELECTRODES AT 5 FEET AND 10 FEET INTERVALS UNTIL THE AVERAGE RESISTANCE STARTS INCREASING AND ALSO NOTE THAT 10-15 PHOTOS MUST BE TAKEN TO PROOF ENTIRE EXTERNAL GROUND RING SYSTEM BEFORE BACKFILL. TWO (2) SETS OF TEST DOCUMENTS ARE OF THE INDEPENDENT TESTING SERVICE TO BE BOUND AND SUBMITTED WITHIN ONE (1) WEEK OF WORK COMPLETION.

SECTION 16503 – POLES, POSTS, AND STANDARDS (SINGLE MAST AND SELF SUPPORTING TOWERS)

GENERAL

- LIGHTNING ROD AND EXTENSION PIPE INCLUDING ALL APPURTENANCES, TO BE FURNISHED BY OWNER, IF REQUIRED.
- PROVIDE TEMPORARY LIGHTING FOR TOWER AS PER FAA REGULATIONS DURING CONSTRUCTION, IF REQUIRED.
- GROUNTING:
 - GROUND TOWER WITH A MINIMUM OF #2 AWG TINNED SOLID BARE COPPER CONDUCTOR CADWELDED TO TOWER BASE PLATE. TWO (2) GROUNTING LEADS PER TOWER BASE PLATE.
 - NO EXOTHERMIC WELDS SHALL BE ATTACHED DIRECTLY TO THE MONOPOLE TOWER SHAFT.

SECTION 16745 – TELECOMMUNICATIONS WIRING COMPONENTS (COAXIAL ANTENNA CABLE)

GENERAL

- ALL MATERIALS, PRODUCTS OR PROCEDURES INCORPORATED INTO WORK SHALL BE NEW AND OF STANDARD COMMERCIAL QUALITY.
- CERTAIN MATERIALS AND PRODUCTS WILL BE SUPPLIED BY THE OWNER (REFER TO GENERAL CONDITIONS FOR THE LIST OF OWNER FURNISHED EQUIPMENT, MATERIALS AND SUPPLIES FOR THESE ITEMS). THE CONTRACTOR IS RESPONSIBLE FOR PICKUP AND DELIVERY OF ALL SUCH MATERIALS
- ALL OTHER MATERIALS AND PRODUCTS SPECIFIED IN THE CONTRACT DOCUMENTS SHALL BE SUPPLIED BY THE CONTRACTOR.

MATERIALS:

- COAXIAL CABLE:
 - INSTALL COAXIAL CABLE AND TERMINATIONS BETWEEN ANTENNAS AND EQUIPMENT PER MANUFACTURER'S RECOMMENDATIONS WITH COAXIAL CABLES SUPPORTED AT NO MORE THAN 3'-0" O.C. WEATHERPROOF ALL CONNECTORS BETWEEN THE ANTENNA AND EQUIPMENT PER MANUFACTURERS' REQUIREMENTS. TERMINATE ALL COAXIAL CABLE THREE FEET (3') IN EXCESS OF EQUIPMENT LOCATION UNLESS OTHERWISE STATED.
 - ALL COAX RUN LENGTHS GREATER THAN 175 FEET SHALL BE 1-5/8", ALL COAX. RUN LENGTH BETWEEN 101 FEET AND 174 FEET SHALL BE 1-1/4", AND IN LENGTH LESS THAN OR EQUAL TO 100 FEET SHALL BE 7/8".

ANTENNA AND COAXIAL CABLE GROUNTING

- ALL COAXIAL CABLE GROUNTING KITS ARE TO BE INSTALLED ON STRAIGHT RUNS OF COAXIAL CABLE (NOT WITHIN BENDS)

COAXIAL CABLE IDENTIFICATION

- TO PROVIDE EASY IDENTIFICATION AND UNIFORM MARKING OF ANTENNA CABLING, PLASTIC TAGS SHALL BE USED AT THE FOLLOWING LOCATIONS:
 - FIRST LOCATION IS AT THE END OF THE COAX NEAREST THE ANTENNA (WHERE THE COAXIAL CABLE AND JUMPER ARE CONNECTED).
 - SECOND LOCATION IS INSIDE THE EQUIPMENT SHELTER NEAR THE WAVEGUIDE ENTRY PORT.

USE ANDREW CABLE TIES (PT.# 27290) TO SECURE IDENTIFICATION TAGS.

TESTING

- LESSEE SHALL PROVIDE AN INDEPENDENT TESTING AGENCY TO PERFORM THE COAXIAL SWEEP TEST & REPORT. THE CONTRACTOR IS TO PROVIDE ONE CLIMBER / QUALIFIED PERSONNEL TO ASSIST IN ANY REPAIRS AND WEATHERPROOFING ONCE THE TEST IS COMPLETE. THE CONTRACTOR IS TO PROVIDE LESSEE WITH A MINIMUM OF 48 HOURS NOTICE PRIOR TO THE TIME OF THE SWEEP TEST.



NO	DESCRIPTION	DATE	REVISIONS				
			BY	TJS	APD	JUR	JUR
1	ISSUED FOR REVIEW	05/16/23					
0	ISSUED FOR FINAL	06/16/23					
1	REVISED PER RF COMMENTS	07/05/23					
2	ISSUED FOR REVIEW	08/15/23					
3	REVISED PER LANDLORDS COMMENTS	10/25/23					
4	REVISED PER NEW RFDS	11/17/23					
5	ADDITION OF NORTHEAST ELEVATION	01/02/24					

LOC. #766005
RAND & 53_RELO
 MDG LOC. # 5000916957

1500 W SHURE DR
 ARLINGTON HEIGHTS, IL 60004

DRAWN BY:	TJS
CHECKED BY:	DSS
DATE:	05/15/23
PROJECT #:	33-3608

SHEET TITLE
SPECIFICATIONS

SHEET NUMBER
SP-2



1 EXISTING BUILDING
SCALE: N.T.S.



2 EXISTING METER
SCALE: N.T.S.



3 EXISTING WATER MAIN
SCALE: N.T.S.



4 EXISTING STEEL PLATFORM
SCALE: N.T.S.



5 PROPOSED CABLE ROUTE
SCALE: N.T.S.



6 EXISTING DISCONNECT
SCALE: N.T.S.



7 EXISTING GROUND BAR
SCALE: N.T.S.



8 EXISTING FIBER CONDUIT DAYLIGHT OUTSIDE
SCALE: N.T.S.

verizon
1701 GOLF ROAD,
TOWER 2, SUITE 400
ROLLING MEADOWS, IL 60008
PHONE: (847) 619-5397
FAX: (847) 706-7415

TERRA
COMMUNICATIONS CONSULTANTS, LLC
600 BUSSE HIGHWAY
PARK RIDGE, IL 60068
PH: 847-698-6400
FAX: 847-698-6401

REVISIONS		NO.	DESCRIPTION	DATE	BY
0	ISSUED FOR REVIEW	05/16/23	TJS		
1	ISSUED FOR FINAL	06/16/23	APD		
2	REVISED PER RF COMMENTS	07/05/23	TJS		
3	ISSUED FOR REVIEW	08/15/23	JJR		
4	REVISED PER LANDLORDS COMMENTS	10/25/23	JJR		
5	REVISED PER NEW RFDS	11/17/23	JJR		
	ADDITION OF NORTHEAST ELEVATION	01/02/24	JJR		

LOC. #766005
RAND &
53_RELO
MDG LOC. #
5000916957
1500 W SHURE DR
ARLINGTON HEIGHTS, IL
60004

DRAWN BY: TJS
CHECKED BY: DSS
DATE: 05/15/23
PROJECT #: 33-3608

SHEET TITLE
BUILDING
PHOTOS

SHEET NUMBER
P-1

SURVEYOR'S NOTE

THE PARENT PARCEL BOUNDARY OF THIS DRAWING IS ILLUSTRATED FROM RECORD INFORMATION AND IS APPROXIMATE.

THE TOPOGRAPHICAL SURVEY FOR THIS MAP WAS PERFORMED ON OCTOBER 29, 2019.

NOT TO BE USED AS CONSTRUCTION DRAWINGS.

ELEVATION DATUM

ALL ELEVATIONS ARE BASED ON NAVD 88 DATUM.

CONTOURS ARE ILLUSTRATED AT 1.0' INTERVALS.

BASIS OF BEARINGS

LATITUDE AND LONGITUDE OF SITE REFERENCE POINT ARE BASED ON THE HARN (HIGH ACCURACY REFERENCE NETWORK) NAD83 (CORS 96) BEARINGS ARE BASED ON ILLINOIS STATE PLANE, IL EAST 1201 TO ORIENT DRAWING TO TRUE NORTH, ROTATE CLOCKWISE 00°13'19.53".

EASEMENTS, COVENANTS, CONDITIONS, AND RESTRICTIONS

THE TITLE COMMITMENT ISSUED BY NEAR NORTH NATIONAL TITLE LLC, ISSUING AGENT FOR CHICAGO TITLE INSURANCE COMPANY, AS COMMITMENT NO. IL1909132, DATED SEPTEMBER 17, 2019 LISTS THE FOLLOWING EASEMENTS, COVENANTS, CONDITIONS, AND RESTRICTIONS, THAT ARE MATTERS OF SURVEY, AFFECTING THE PARENT PARCEL UNDER "SCHEDULE B":

SEE SHEET 2

ZONING DATA

ACCORDING TO THE SITE CANDIDATE INFORMATION PACKAGE THIS SITE IS ZONED: M-1 (LIGHT MANUFACTURING DISTRICT) SETBACKS: FRONT: N/A REAR: N/A SIDE: N/A

PROPRIETOR

YPI ARLINGTON LLC
12377 MERIT DR. #250
DALLAS, TX 75251-3201

FLOOD PLAIN INFORMATION

WE HAVE CONSULTED THE FEDERAL EMERGENCY MANAGEMENT AGENCY NATIONAL FLOOD INSURANCE MAP AS PREPARED FOR THE VILLAGE OF ARLINGTON HEIGHTS, COOK COUNTY, ILLINOIS, COMMUNITY PANEL NUMBER 17031C0044J DATED AUGUST 19, 2008, AND FIND THAT THE PROJECT SITE IS IN ZONE X (UNSHADED).

LEGAL DESCRIPTION

PARENT PARCEL

PARCEL 1: LOT 2 IN BILL KNAPP'S RESUBDIVISION ACCORDING TO THE PLAT THEREOF RECORDED JULY 12, 1983 AS DOCUMENT 26683318, BEING A RESUBDIVISION OF LOT 4 IN ARLINGTON INDUSTRIAL AND RESEARCH CENTER UNIT 12, BEING A SUBDIVISION IN PART OF THE NORTHWEST 1/4 OF SECTION 7, TOWNSHIP 42 NORTH, RANGE 11, EAST OF THE THIRD PRINCIPAL MERIDIAN, IN COOK COUNTY, ILLINOIS.
PARCEL 2: EASEMENT FOR THE BENEFIT OF PARCEL 1 AS CREATED BY EASEMENT AGREEMENT RECORDED JULY 12, 1983 AS DOCUMENT 26684378 FOR THE PURPOSE OF ACCESS OVER THE SOUTH 17.5 FEET OF THE WEST 170 FEET OF LOT 1 (AS MEASURED ALONG THE SOUTH LINE OF SAID LOT 1) IN BILL KNAPP'S RESUBDIVISION ACCORDING TO THE PLAT THEREOF RECORDED JULY 12, 1983 AS DOCUMENT 26683318, IN THE NORTHWEST 1/4 OF SECTION 7, TOWNSHIP 42 NORTH, RANGE 11, EAST OF THE THIRD PRINCIPAL MERIDIAN, IN COOK COUNTY, ILLINOIS.
PARCEL 3: LOT 3 IN ARLINGTON INDUSTRIAL AND RESEARCH CENTER UNIT 12, BEING A SUBDIVISION IN PART OF THE NORTHWEST 1/4 OF SECTION 7, TOWNSHIP 42 NORTH, RANGE 11, EAST OF THE THIRD PRINCIPAL MERIDIAN, ACCORDING TO THE PLAT THEREOF RECORDED JULY 13, 1978 AS DOCUMENT NO. 24533497, IN COOK COUNTY, ILLINOIS

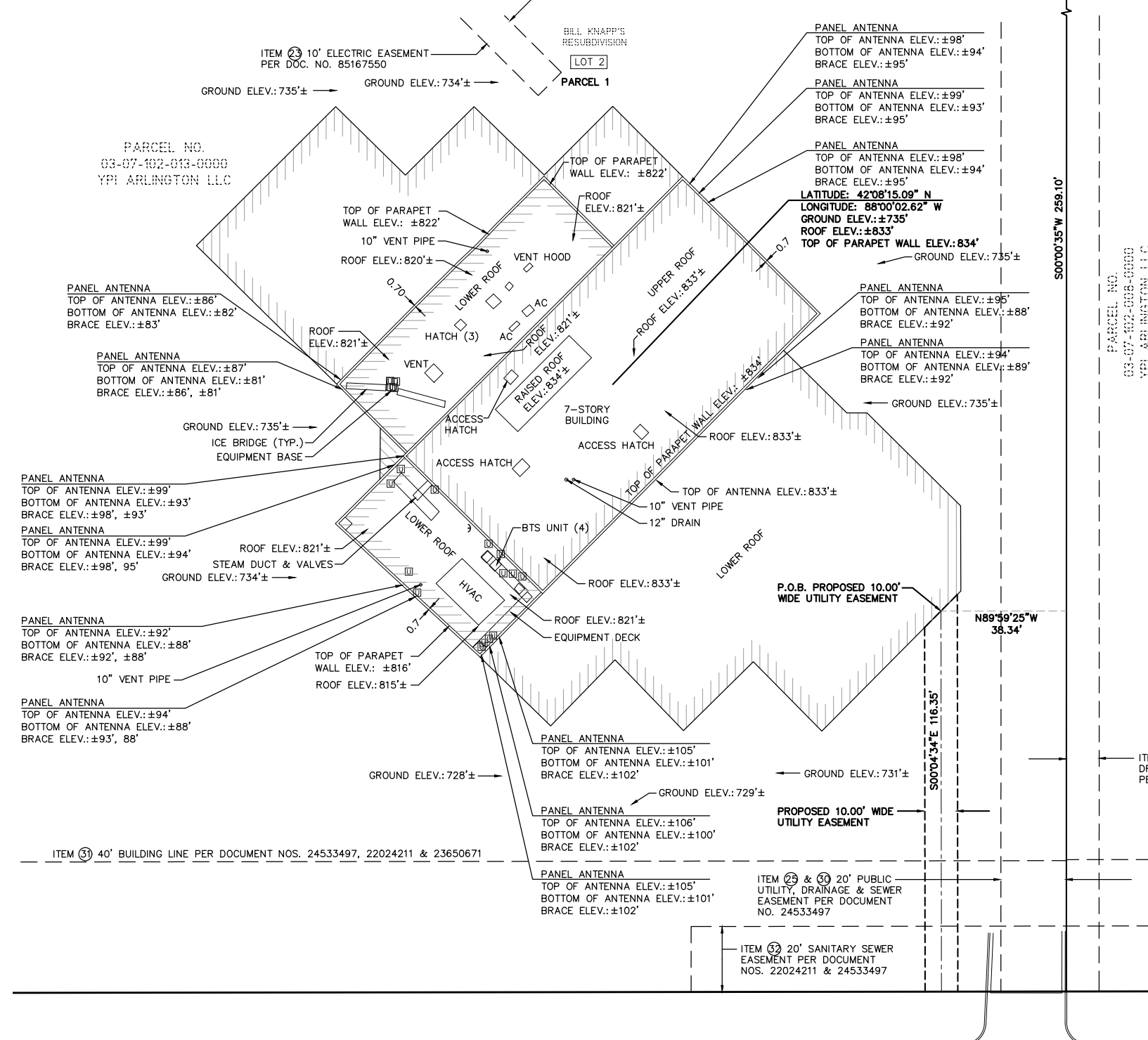
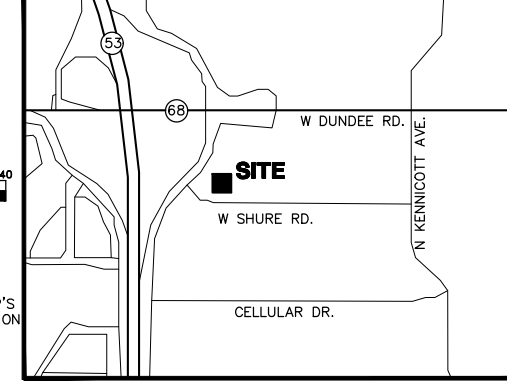
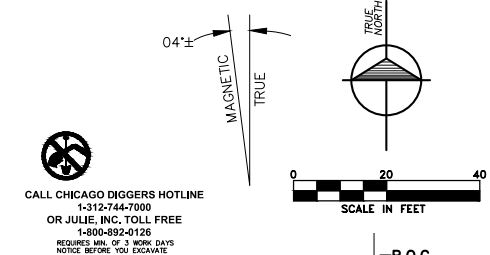
This map was made from the above legal description which was given to us as a complete description of the property. Both map and description should be compared with the Abstract of Title or Title Policy for any exceptions, easements or differences in description.

LEGAL DESCRIPTION

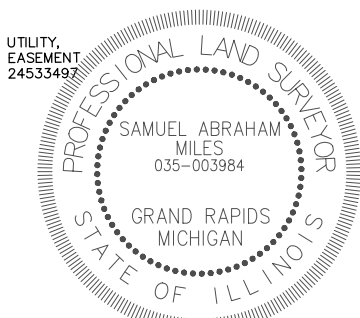
PROPOSED 10.00' WIDE UTILITY EASEMENT

A 20.00 foot wide easement in that part of Lot 2 of Bill Knapp's Resubdivision, being a part of Arlington Industrial & Research Center Unit 12, Lot 4, being a part of the Northwest 1/4 of Section 7, Town 49, Range 9, Cook County, Illinois, the centerline of which is described as: Commencing at a found iron at the northeast corner of said Lot 2; thence South 00°00'35" West 259.10 feet along the easterly line of said Lot 2 thence; thence North 89°59'25" West 38.34 feet to a point on the southeasterly face of a 7-story building for THE PLACE OF BEGINNING OF THIS CENTERLINE DESCRIPTION; thence South 00°04'34" East 116.35 feet to the northerly right of way of West Shure Drive (66 feet wide) for the place of ending of this centerline description. The sidelines are to be lengthened and/or shortened to terminate at aforesaid 7-story building and at said northerly right of way.

**BUFFALO GROVE NORTH
LOC. #269303**



- VICINITY MAP**
N.T.S.
- LEGEND**
- ▲ - TRAVERSE POINT
 - △ - WELL
 - ⊙ - HIGHWAY
 - ⊙ - MONUMENT
 - ⊙ - MONUMENT BOX
 - ⊙ - RIGHT OF WAY MARKER
 - ⊙ - SET WOODSTAKE
 - ⊙ - XCUT
 - ⊙ - PK - PK NAIL
 - ⊙ - FOUND IRON STAKE
 - ⊙ - SET IRON STAKE
 - ⊙ - SIGN
 - ⊙ - RR SIGN
 - ⊙ - GUY POLE
 - ⊙ - GUY ANCHOR
 - ⊙ - UTILITY POLE
 - ⊙ - LIGHT POLE
 - ⊙ - ORNAMENTAL LIGHT POLE
 - ⊙ - POST
 - ⊙ - U.G. UTILITY MARKER
 - ⊙ - GROUND ROD
 - ⊙ - SOIL BORING
 - ⊙ - MAILBOX
 - ⊙ - SATELLITE DISH
 - ⊙ - HAND HOLE
 - ⊙ - AC UNIT
 - ⊙ - U.G. UTILITY MARKER
 - ⊙ - FIRE HYDRANT
 - ⊙ - POST INDICATOR VALVE
 - ⊙ - WATER VALVE
 - ⊙ - GAS VALVE
 - ⊙ - UST FILL PORT
 - ⊙ - GAS PUMP
 - ⊙ - GAS METER
 - ⊙ - WATER METER
 - ⊙ - TELEPHONE RISER
 - ⊙ - ELECTRIC METER
 - ⊙ - ELECTRIC TRANSFORMER
 - ⊙ - CABLE TV RISER
 - ⊙ - CATCH BASIN
 - ⊙ - ROUND CATCH BASIN
 - ⊙ - UTILITY MANHOLE
 - ⊙ - GAS UTILITY LINE
 - ⊙ - STORM MANHOLE
 - ⊙ - SANITARY MANHOLE
 - ⊙ - ELECTRIC MANHOLE
 - ⊙ - TELEPHONE MANHOLE
 - ⊙ - WATER MANHOLE
 - ⊙ - HANDICAP PARKING SPACE
 - ⊙ - SHRUB
 - ⊙ - TREE
 - ⊙ - PINE TREE
- (ELEV) --- EXISTING CONTOURS
--- TELEPHONE UTILITY LINE
--- ELECTRIC UTILITY LINE
--- WATER UTILITY LINE
--- GAS UTILITY LINE
--- STEAM UTILITY LINE
--- STORM UTILITY LINE
--- SANITARY UTILITY LINE
--- FIBER OPTIC UTILITY LINE
--- OVERHEAD UTILITY LINE
--- FENCE LINE
--- GUARD RAIL
- All utilities as shown are approximate locations derived from actual measurements and available records. They should not be interpreted to be in exact location nor should it be assumed that they are the only utilities in the area.



I, Samuel A. Miles, do hereby certify that the drawing shown hereon is a correct representation of a survey performed at and under my direction.

All dimensions shown are in feet and decimal parts thereof.

Given under my hand and seal this 11th day of June, 2020.

Samuel A. Miles
Samuel A. Miles
Illinois Professional Land Surveyor No. 035.003984
Expires November 30, 2020

Note: This certification only applies to improvements within the lease site and easements as shown hereon.
ILLINOIS REGISTERED DESIGN FIRM
LICENSE NUMBER 184.007034
LICENSE EXPIRES: APRIL 30, 2021

CHICAGO SMSA
limited partnership
d/b/a VERIZON WIRELESS

**BUFFALO GROVE NORTH
LOC. #269303**

Survey Prepared for:

TERRA
COMMERCIAL REAL ESTATE, LTD.
800 Busse Highway
Park Ridge, IL 60068
Ph: 847/698-8400 Fax: 847/698-8401

Project Manager: Tom Zimmermann

REVISIONS

NO.	DESCRIPTION	DATE
1	FINALIZE	05/19/20
2	ADDED TITELWORK	06/11/20

williams&works
engineers | surveyors | planners
616.224.1500 phone
549 Ottawa Ave NW | http://williams-works.com
Grand Rapids, MI 49503

NW	NE
SW	SE
7-42-9	

DATE: 10/29/19 DWG. BY: E.C.V.
SCALE: 1"=20' SURVEYED: R.P./B.P.
UPDATE: ECV061120 CHKD BY: S.A.M.
PROJECT NO.: 211005.852

SITE NAME

BUFFALO GROVE NORTH

LOCATION NUMBER

LOC. #269303

SITE ADDRESS

**1500 W SHURE DR.
ARLINGTON HEIGHT, IL
60004**

SHEET TITLE

PS-1

SHEET 1 OF 2

WEST SHURE DRIVE
(66' WIDE)(PUBLIC)(BITUMINOUS)

SURVEYOR'S NOTE

THE PARENT PARCEL BOUNDARY OF THIS DRAWING IS ILLUSTRATED FROM RECORD INFORMATION AND IS APPROXIMATE.

THE TOPOGRAPHICAL SURVEY FOR THIS MAP WAS PERFORMED ON OCTOBER 29, 2019.

NOT TO BE USED AS CONSTRUCTION DRAWINGS.

EASEMENTS, COVENANTS, CONDITIONS, AND RESTRICTIONS

THE TITLE COMMITMENT ISSUED BY NEAR NORTH NATIONAL TITLE LLC, ISSUING AGENT FOR CHICAGO TITLE INSURANCE COMPANY, AS COMMITMENT NO. 1L1909132, DATED SEPTEMBER 17, 2019 LISTS THE FOLLOWING EASEMENTS, COVENANTS, CONDITIONS, AND RESTRICTIONS, THAT ARE MATTERS OF SURVEY, AFFECTING THE PARENT PARCEL UNDER "SCHEDULE B":

12. Memorandum of First Amendment to Site Lease Agreement recorded February 1, 2010 as document 1003203004 made by and between Emergency Service, Inc. and SprintCom, Inc.
 Note: No Original Memorandum instrument was previously recorded with the County of Cook to memorialize the Agreement. **AFFECTS THE SUBJECT PROPERTY. LOCATION CANNOT BE DETERMINED FROM RECORD DOCUMENT.**

13. Subordination Agreement - Lease dated July 27, 2017 and recorded October 6, 2017 as document 1727913077 made and executed among Emergency Service, Inc to Sprintcom, Inc; YPI Arlington, LLC and Royal Business Bank.
 Note: This document refers to 1003203004 the First Amendment to Site Lease Agreement. **AFFECTS THE SUBJECT PROPERTY BLANKET IN NATURE.**

14. Memorandum of Amendment No 3 to Site Lease Acknowledgement recorded June 15, 2018 as document number 1816649022 made by and between Emergency Radio and SprintCom, Inc. **AFFECTS THE SUBJECT PROPERTY BLANKET IN NATURE.**

16. Unrecorded lease made by One North Arlington, LLC in favor of Amcol International Corporation, fka American Colloid Company, dated September 29, 1986, demising a portion of the land, and all rights thereunder of the lessee and of any person or party claiming by, through or under said lessee. **DOCUMENT NOT PROVIDED.**

17. Unrecorded lease made by One North Arlington, LLC, in favor of State Farm Automobile insurance company, dated December 31, 2003. **DOCUMENT NOT PROVIDED.**

18. Lease made by Emergency Service, Inc., an Indiana corporation to Sprintcom, Inc., A Kansas corporation, dated October 21, 1998, a Memorandum of First Amendment to site lease acknowledgement which was recorded February 1, 2010 as document No. 1003203004, demising a portion of the land, which amendment extends the terms of the agreement for five years commencing November 1, 2008, with one additional 5 year renewal option, and all rights thereunder of, and all acts done or suffered thereunder by, said lessee or by any party claiming by, through, or under said lessee. **AFFECTS THE SUBJECT PROPERTY. LOCATION CANNOT BE DETERMINED FROM RECORD DOCUMENT.**

19. Right, title and interest of Emergency Service, Inc., an Indiana corporation, in and to the land, as disclosed by their execution of the Memorandum of First Amendment to site lease acknowledgement recorded as document 1003203004, noted above, and of all parties claiming thereunder. **AFFECTS THE SUBJECT PROPERTY. LOCATION CANNOT BE DETERMINED FROM RECORD DOCUMENT.**

20. Note: the following item, while appearing on this commitment, is provided solely for your information. Assignment of parking agreement recorded June 22, 1988 as document 88272894 made by and between American National Bank and Trust Company, as trustee under trust number 62164 and North Arlington Towers Partnership relating to 17 parking spaces referred in in the parking agreement letter dated April 27, 1987 from Bill Knapp to Richard H. Levy for the use of Ronald J. Benach, as agent. **BENEFITS THE SUBJECT PROPERTY WITH 17 PARKING SPACES ON LOT 1; LOCATION CANNOT BE DETERMINED FROM THE RECORD DOCUMENT.**

21. Reciprocal easement for an access road as set forth in the easement Agreement executed by and between LaSalle National Bank, as trustee under trust agreement dated August 24, 1977 known as trust number 53022 and Dundee Wilke Venture, an Illinois general partnership (beneficiary) and Bill Knapp's Properties, Inc., a Michigan corporation, recorded July 12, 1983 as document 26684378, and the terms and provisions relating thereto. Rights of the adjoining owner of owners to the concurrent use of said easement. (Easement is 35 feet in even width, the centerline of which is described as follows: beginning at the intersection of the a line common to lots 1 and 2 in Bill Knapp's Resubdivision, with the west line of said subdivision and running thence easterly along said common line, a distance of 170 feet to a point of termination. Said easement to intersect the west line of said subdivision) **AFFECTS THE SUBJECT PROPERTY AS SHOWN; SAME AS PARCEL 2.**

22. Note: the following item, while appearing on this commitment/policy, is provided solely for your information. the following environmental disclosure document(s) for transfer of real property appear of record which include a description of the land insured or a part thereof:
 Document number: 90344744 date of recording: July 18, 1990
 Document number: 90344745 recorded on July 18, 1990
 Document number: 0010341579 recorded on April 26, 2001
AFFECTS THE SUBJECT PROPERTY BLANKET IN NATURE.

23. Easement in favor of the Illinois Bell Telephone Company and the Commonwealth Edison Company, and their respective successors and assigns, to install, operate and maintain and necessary for the purpose of serving the land and other property, together with the right of access to said equipment, and the provisions relating thereto contained in the grant recorded/ filed as document no.85167550, affecting the north line of lot 2 as shown on Exhibit A attached. **AFFECTS THE SUBJECT PROPERTY AS SHOWN.**

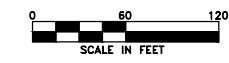
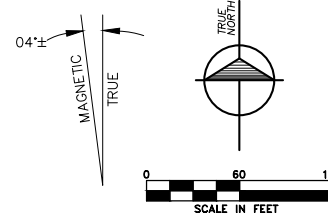
24. Order establishing freeway and route location decision, both recorded August 29, 1962 as documents 18576703 and 18576704, respectively, purporting to give notice by the Department of Public Works and Buildings, Division of Highways, State of Illinois, of the intent of said body to establish a freeway on, over, across or contiguous to the land in a manner which will permit access between said freeway and abutting lands only at entrances provided for said purposes. (Affects underlying) **AFFECTS THE SUBJECT PROPERTY.**

25. We have examined the plat of Bill Knapp's Resubdivision, being a Resubdivision of Lot 4 in Arlington Industrial and Research Center Unit 12, being a subdivision in part of the northwest 1/4 of Section 7, Township 42 North, Range 11 East of the Third Principal Meridian, according to the plat therefore recorded July 13, 1978 as document 24533497, relative thereto, we note the following:

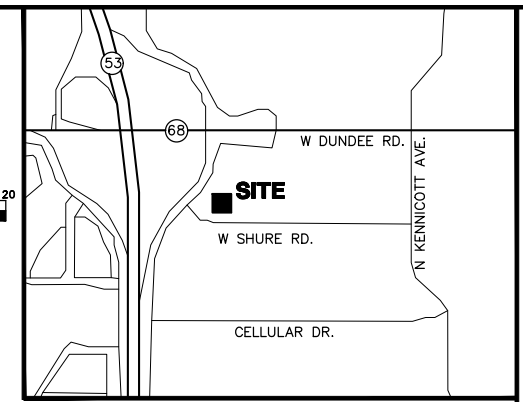
(A) Easement over the land in favor of Northern Illinois Gas Company, its successors and assigns, for the installation, maintenance, relocation, renewal and removal of gas mains and appurtenances thereto, as shown on the plat of resubdivision aforesaid recorded July 12, 1983 as document 26683318.

(B) Easement over the land for the purpose of installing and maintaining all equipment necessary for the purpose of serving the subdivision and other land with telephone and electric service, together with right to overhang aerial service wires and also with right of access thereto, as granted to the the Illinois Bell Telephone Company, the Commonwealth Edison Company and Cablenet and as shown on the plat of resubdivision recorded July 12, 1983 as document 26683318.

**BUFFALO GROVE NORTH
 LOC. #269303**



CALL CHICAGO DIGGERS HOTLINE
 1-312-744-7000
 OR JULIE, INC. TOLL FREE
 1-800-892-0126
 REQUIRES MIN. OF 3 WORK DAYS
 NOTICE BEFORE YOU EXCAVATE



VICINITY MAP
 N.T.S.

LEGEND

- ▲ - TRAVERSE POINT
- △ - WELL
- - HIGHWAY
- ⊙ - MONUMENT
- ⊠ - MONUMENT BOX
- ⊔ - RIGHT OF WAY MARKER
- ⊕ - SET WOODSTAKE
- ⊖ - XCUT
- ⊗ - PK NAIL
- - FOUND IRON STAKE
- - SET IRON STAKE
- - SIGN
- RR - RR SIGN
- - GUY POLE
- - GUY ANCHOR
- - UTILITY POLE
- ★ - LIGHT POLE
- - ORNAMENTAL LIGHT POLE
- - POST
- † - U.G. UTILITY MARKER
- ⊕ - GROUND ROD
- XX - SOIL BORING
- MB - MAILBOX
- ⤴ - SATELLITE DISH
- - HAND HOLE
- AC - AC UNIT
- - U.G. UTILITY MARKER
- ⊕ - FIRE HYDRANT
- ⊙ - POST INDICATOR VALVE
- ◇ - WATER VALVE
- ⊗ - GAS VALVE
- ⊖ - UST FILL PORT
- ⊕ - GAS PUMP
- ⊖ - GAS METER
- W - WATER METER
- TT - TELEPHONE RISER
- ⊖ - ELECTRIC METER
- ⊠ - ELECTRIC TRANSFORMER
- TV - CABLE TV RISER
- ⊖ - CATCH BASIN
- ⊕ - ROUND CATCH BASIN
- - UTILITY MANHOLE
- ⊖ - STORM MANHOLE
- ⊕ - SANITARY MANHOLE
- ⊖ - ELECTRIC MANHOLE
- ⊕ - TELEPHONE MANHOLE
- ⊖ - WATER MANHOLE
- ⊕ - HANDICAP PARKING SPACE
- ⊖ - SHRUB
- - TREE
- ★ - PINE TREE
- - EXISTING CONTOURS
- - TELEPHONE UTILITY LINE
- - ELECTRIC UTILITY LINE
- - WATER UTILITY LINE
- - GAS UTILITY LINE
- - STEAM UTILITY LINE
- - STORM UTILITY LINE
- - SANITARY UTILITY LINE
- - FIBER OPTIC UTILITY LINE
- - OVERHEAD UTILITY LINE
- - FENCE LINE
- - GUARD RAIL

All utilities as shown are approximate locations derived from actual measurements and available records. They should not be interpreted to be in exact location nor should it be assumed that they are the only utilities in the area.



I, Samuel A. Miles, do hereby certify that the drawing shown hereon is a correct representation of a survey performed at and under my direction.

All dimensions shown are in feet and decimal parts thereof.
 Given under my hand and seal this 11th day of June, 2020.

Samuel A. Miles
 Samuel A. Miles
 Illinois Professional Land Surveyor No. 035.003984
 Expires November 30, 2020

Note: This certification only applies to improvements within the lease site and easements as shown hereon.
 ILLINOIS REGISTERED DESIGN FIRM
 LICENSE NUMBER 184.007034
 LICENSE EXPIRES: APRIL 30, 2021

CONTINUED

28. Easement to enter upon the land reserved and granted to the Commonwealth Edison Company, the Illinois Bell Telephone Company, Northern Illinois Gas Company, their respective successors and assigns, together with right to cut, trim or remove trees, bushes and roots as may be reasonably required as shown on the Plat of Arlington Industrial and Research Center Unit No. 6 recorded August 22, 1972 as document 22024211. (Affects land underlying Parcel 3) **PROVIDED DOCUMENT NOT LEGIBLE.**

29. Notice requirements for storm water detention recorded March 9, 1977 as document 23844485. **AFFECTS THE SUBJECT PROPERTY, BLANKET IN NATURE.**

30. 20 foot public utilities, sewer and drainage easement as shown on plat of resubdivision recorded as document 24533497 over the east line of lot 2. (Affects Parcel 1) **AFFECTS THE SUBJECT PROPERTY AS SHOWN.**

31. A 40 foot building line over the south and westerly lines of lot 2 aforesaid and over the south line of lot 3 aforesaid as shown on plats of subdivision recorded as documents 24533497, 22024211 and 23650671 (Affects Parcels 1 and 3) **AFFECTS THE SUBJECT PROPERTY AS SHOWN.**

32. A 20 foot sanitary sewer easement over part of the south line of lot 2 aforesaid and all of the south line of lot 3 aforesaid as shown on plats of subdivision recorded as documents 22024211 and 24533497. (Affects Parcels 1 and 3) **AFFECTS THE SUBJECT PROPERTY AS SHOWN.**

33. A 15 foot sanitary sewer easement over the north 15 feet of lot 3 aforesaid as shown on plats of subdivision recorded as documents 23650671 and 24533497 (Affects Parcel 3) **AFFECTS THE SUBJECT PROPERTY AS SHOWN.**

34. Covenants, restrictions and agreements contained in unrecorded cross easement agreement and grant of license between Kohl-Fredericks Development Corp, as agent for the owner of property known as 1500 West Shure Drive, Dunhill Partners, owner of property known as 1530 West Shure Drive, and American Colloid Company as licensee. Licensee being a tenant of both properties. Either Kohl or Dunhill may revoke license at any time following 30 days notice. The license will automatically cease and be of no further force or effect upon the expiration of licensee's lease with either Kohl or Dunhill. **DOCUMENT NOT PROVIDED.**

35. Memorandum of License dated September 14, 2017 and recorded February 22, 2018 as document number 1805346069 entered into between YPI Arlington LLC and T-Mobile central LLC. **AFFECTS THE SUBJECT PROPERTY BLANKET IN NATURE.**

CONTINUED

(C) Reservation and grant of a non-exclusive access right to the Village of Arlington Heights and their respective successors and assigns for the installation, maintenance, relocation, renewal and removal of manholes, inlets, catch basins, sanitary lines and appurtenances, storm sewer lines and appurtenances, watermains and appurtenances, and all other equipment and appurtenances necessary for the purpose of providing the subdivision and adjoining property with sanitary, storm and water services, over, under and upon the land as shown on the plat of resubdivision aforesaid

(D) Easement over the north 17.5 feet of the west 170 feet, said 170 feet as measured on the north line of lot 2 for ingress and egress, construction, maintenance and upkeep as shown on plat of resubdivision aforesaid and as created by agreement recorded July 12, 1983 as document 26684378.

(E) Private sanitary sewer easement over the north 50 feet of the east 20 feet as shown on plat of resubdivision aforesaid.

(F) Drainage easement over the land as shown on plat of resubdivision aforesaid. (Affects that part of lot 2 described as follows: beginning at the point of intersection of southeasterly line of Illinois Route 53 and the northerly line of southeasterly line of Illinois route 53 and the northerly line of Shure Drive being the point of beginning of this description; thence northeasterly along the southeasterly line of Illinois route 53, 35 feet; thence south to a point on the northerly line of Shure Drive 18.73 feet as measured on the northerly line of Shure Drive, southeasterly of the intersection of the southeasterly line of Illinois Route 53 and the north line of Shure Drive; thence northwesterly along the northerly line of Shure Drive to the point of beginning.

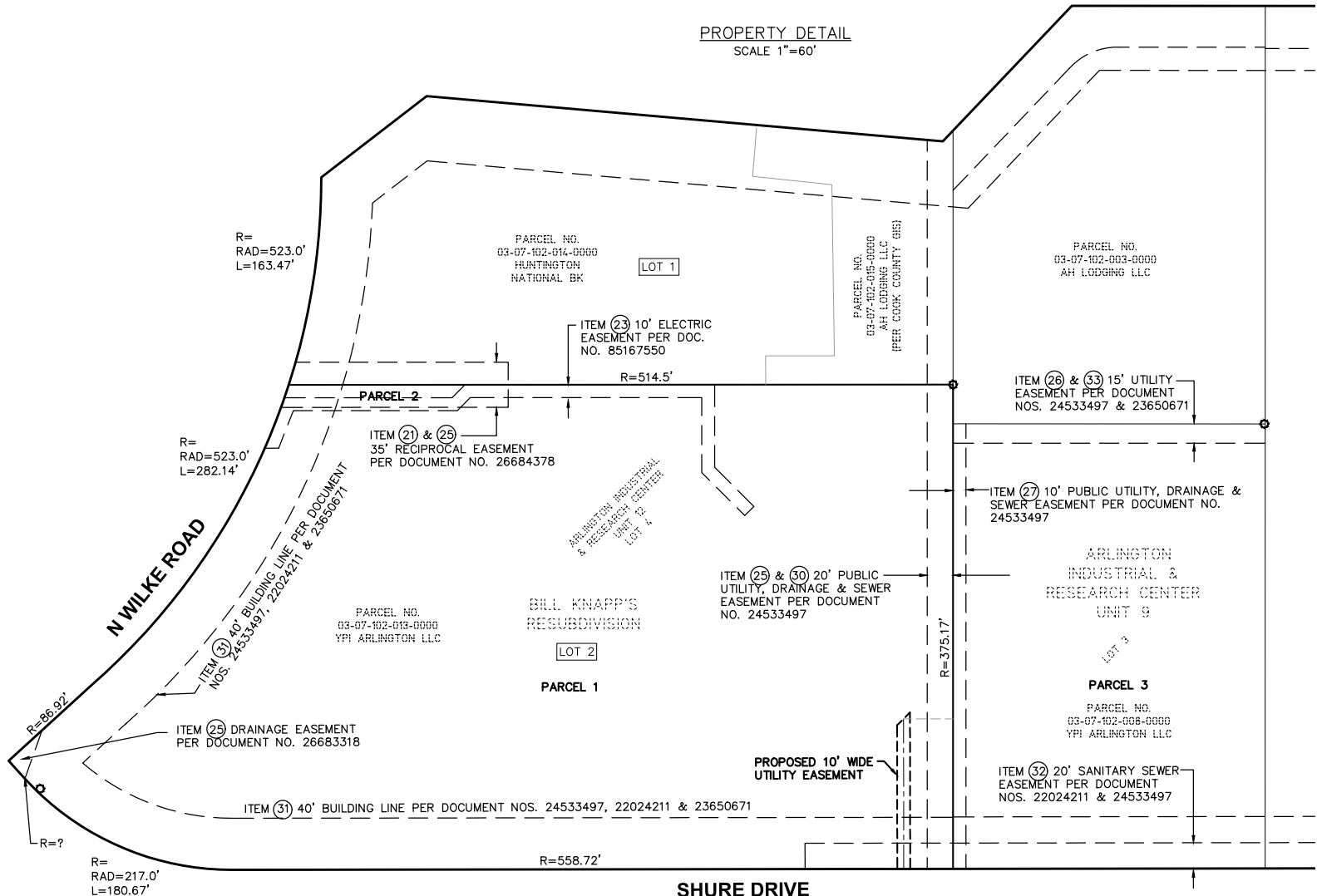
(G) Easement to enter upon the land and other property reserved and granted to the Commonwealth Edison Company, the Illinois Bell Telephone Company and Cable Net, Inc, their successors and assigns, with right to cut, trim or remove trees and bushes and roots as may be reasonable required as shown on plat of subdivision

(H) A 20 foot public utilities, sewer and drainage easement as shown on the Plat of resubdivision aforesaid over the east line of lot 2 (Affects Parcel 1) **AFFECTS THE SUBJECT PROPERTY AS SHOWN.**

26. Easement over the land for the purpose of installing and maintaining all equipment necessary to serve the subdivision and other property with telephone and electric service, together with the right to overhang aerial service wires and the right of access to such wires, as created by grant to the Illinois Bell Telephone Company and the Commonwealth Edison Company and their respective successors and assigns and as shown on plat of Arlington Industrial and Research Center Unit 12 recorded July 13, 1978 as document 24533497 (Affects Parcel 3) **AFFECTS THE SUBJECT PROPERTY AS SHOWN.**

27. 10 foot public utilities and drainage easement as shown on plat of resubdivision recorded as document 24533497 over west line of lot 3. (Affects Parcel 3) **AFFECTS THE SUBJECT PROPERTY AS SHOWN.**

PROPERTY DETAIL
 SCALE 1"=60'



CHICAGO SMSA
 limited partnership
 d/b/a VERIZON WIRELESS

**BUFFALO GROVE NORTH
 LOC. #269303**
 Survey Prepared for:
TERRA
 900 Busse Highway
 Park Ridge, IL 60068
 Pk 847/698-8400
 Fax: 847/698-8401
 Project Manager: Tom Zimmermann

REVISIONS		
NO.	DESCRIPTION	DATE
1	FINALIZE	05/19/20
2	ADDED TITELWORK	06/11/20

williams&works
 engineers | surveyors | planners
 616.224.1500 phone
 549 Ottawa Ave NW
 Grand Rapids, MI 49503

NW	NE
SW	SE
7-42-9	
DATE: 10/29/19	DWG. BY: E.C.V.
SCALE: 1"=60'	SURVEYED: R.P./B.P.
UPDATE: ECV061120	CHKD BY: S.A.M.
PROJECT NO.: 211005.852	

BUFFALO GROVE NORTH

LOCATION NUMBER

LOC. #269303

SITE ADDRESS

**1500 W SHURE DR.
 ARLINGTON HEIGHT, IL
 60004**

SHEET TITLE

PS-2

SHEET 2 OF 2



MIDWEST > Upper Midwest > Illinois/Wisconsin > Northern IL > RAND&S_RELO
 RF Submit by: Mcdaniel, jessie - jessie.mcdaniel@verizonwireless.com - 11/8/2023, 7:58:56 AM
 EE Submit by: Tutt, Bradley - bradley.tutt@verizonwireless.com - 4/14/2023, 11:36:17 AM

Project Details		Location Information	
FUZE Project ID: 17073197		Site ID: 617344184	
Project Name: TRADITIONAL RELO		E-NodeB ID:	
Project Alt Name: RAND&S3_RELO LSub6 New Build		MDG Location ID: 5000916957	
Project Type: Initial Build		PSLG: 766005	
Modification Type:		Switch Name:	
Designed Sector Carrier 4G: 26		Tower Owner:	
Designed Sector Carrier 5G: 3		Tower Type: Rooftop	
Additional Sector Carrier 4G: N/A		Site Type: MACRO	
Additional Sector Carrier 5G: N/A		Site Sub Type: TRADITIONAL	
FP Solution Type & Tech Type: MCR;4G_700,4G_850,4G_AWS,4G_CBR5,4G_PC5,5G_850,5G_L-Sub6		Street Address: 1500 W Shure Drive	
Carrier Aggregation: false		City: Arlington Heights	
MPT Id:		State: IL	
eCIP-0: false		Zip Code: 60004	
Suffix:		County: Cook	
		Latitude: 42.137539 / 42° 8' 15.1404" N	
		Longitude: -88.000764 / 88° 0' 2.7504" W	

RFDS Project Scope:

Antenna Summary

Added																																									
700	850	1900	AWS	CBRS	L-Sub6	Make	Model	Centerline	Tip Height	Azimuth	RET	4xRx	Inst. Type	Quantity	Item ID																										
LTE	LTE	LTE				COMMSCOPE	NHH-65C-R2B	95	99	50(0001) 50(01)		false	PHYSICAL	2	000000001900056293																										
LTE	LTE	LTE				COMMSCOPE	NHH-65C-R2B	95	100	190(0002) 190(02) 310(0003) 310(03)		false	PHYSICAL	4	000000001900056293																										
					LTE	ERICSSON INC	KRE105281/1	93	93.3	50(19)		false	PHYSICAL	1	1900055217																										
					LTE	ERICSSON INC	KRE105281/1	94	94.3	190(20) 310(21)		false	PHYSICAL	2	1900055217																										
					5G	ERICSSON INC	KRD901206/11	97	98.3	50(0001)		false	PHYSICAL	1	1900068484																										
					5G	ERICSSON INC	KRD901206/11	98	99.3	190(0002) 310(0003)		false	PHYSICAL	2	1900068484																										
Removed																																									
700	850	1900	AWS	CBRS	L-Sub6	Make	Model	Centerline	Tip Height	Azimuth	RET	4xRx	Inst. Type	Quantity	Item ID																										
No data available.																																									
Retained																																									
700	850	1900	AWS	CBRS	L-Sub6	Make	Model	Centerline	Tip Height	Azimuth	RET	4xRx	Inst. Type	Quantity	Item ID																										
No data available.																																									
Added: 12														Removed: 0														Retained: 0													

Equipment Summary

Added															
Equipment Type	Location	700	850	1900	AWS	CBRS	L-Sub6	Make	Model	Cable Length	Cable Size	Install Type	Quantity	Item ID	
RRU	Tower	LTE	LTE					ERICSSON INC	KRC161749/1			PHYSICAL	3	1900068756	
RRU	Tower						5G	ERICSSON INC	KRD901206/11			PHYSICAL	3	1900068484	
RRU	Tower					LTE		ERICSSON INC	KRC161746/1			PHYSICAL	3	1900068745	
RRU	Tower			LTE	LTE			ERICSSON INC	KRC161707/2			PHYSICAL	3	1900068904	
Power Plants	Ground (Outdoor)							ABB	109163473			PHYSICAL	6	0000000019000436	
Power Plants	Ground (Outdoor)							COMMSCOPE	760237263			PHYSICAL	2	0000000019000063	
Shelter/Cabinets	Ground (Outdoor)							CHARLES INDUSTRIES LTD	760250058			PHYSICAL	1	1900393048	
Shelter/Cabinets	Ground (Outdoor)							COMMSCOPE	760250933			PHYSICAL	2	0000000019000063	
Power Plants	Ground (Outdoor)							ABB POWER ELECTRONICS INCDBA GE ENERGY	760242451			PHYSICAL	1	1900452342	
Power Plants	Ground (Outdoor)							ABB POWER ELECTRONICS INCDBA GE ENERGY	760242451			PHYSICAL	1	1900073751	
Power Plants	Ground (Outdoor)							ABB POWER ELECTRONICS INCDBA GE ENERGY	760242451			PHYSICAL	2	1900153743	
Power Plants	Ground (Outdoor)							ABB POWER ELECTRONICS INCDBA GE ENERGY	760242451			PHYSICAL	1	1900153449	
Power Plants	Ground (Outdoor)							ABB POWER ELECTRONICS INCDBA GE ENERGY	760242451			PHYSICAL	1	1900153751	
Alarm	Ground (Outdoor)							ASENTRIA	1900070746			PHYSICAL	1	1900070746	
Alarm	Ground (Outdoor)							ASENTRIA	1900076600			PHYSICAL	1	1900076600	
Alarm	Ground (Outdoor)							ASENTRIA	1900076812			PHYSICAL	1	1900076812	
Alarm	Tower							RAYCAPINC-001	3315-ALM-RS-485			PHYSICAL	3	0000000019000070	
Alarm	Ground (Outdoor)							ASENTRIA	53406CRANCAB1			PHYSICAL	1	0000000019000077	
BBU	Ground (Outdoor)							Ericsson	KDUJ370016/11			PHYSICAL	1	0000000019000081	

Added															
Equipment Type	Location	700	850	1900	AWS	CBRS	L-Sub6	Make	Model	Cable Length	Cable Size	Install Type	Quantity	Item ID	
BBU	Ground (Outdoor)							Ericsson	KDUJ37848/11			PHYSICAL	1	0000000019000885	
Battery	Ground (Outdoor)							COMMSCOPE	760250540			PHYSICAL	1	0000000019000064	
Call Site Routers	Ground (Outdoor)							NOKIAOFAME-001	3HE15386AA			PHYSICAL	1	0000000019000882	
Hybrid Cable	Tower							COMMSCOPE-001	HFT1206-245V4-xxxG			PHYSICAL	3		
OVP Box	Ground (Outdoor)							RAYCAP	1900410978			PHYSICAL	2	1900410978	
OVP Box	Shelter							RAYCAP	3315-ALM-RS-485			PHYSICAL	3	0000000019000070	
OVP Box	Tower							RAYCAPINC-001	RVZDC-3315-PF-48		1.5/8 inch	PHYSICAL	3	0000000019000422	
OVP Box	Ground (Outdoor)							RAYCAP	RVZDC-4520-RM-48			PHYSICAL	2	0000000019000410	
Other	Ground (Outdoor)							COMMSCOPE	760246443			PHYSICAL	1	0000000019000065	
Upconverter	Ground (Outdoor)							JOHNMEZZAL-002	PB-PSU-COV-BB			PHYSICAL	2	0000000019000400	
Shelter/Cabinets	Ground (Outdoor)							COMMSCOPE	SK-BSP-STDV-FUJ			PHYSICAL	4	0000000019000078	
Upconverter	Ground (Outdoor)							JOHNMEZZAL-002	PB-19-SYS-16-BB			PHYSICAL	1	0000000019000400	
Upconverter	Ground (Outdoor)							JOHNMEZZAL-002	PB-PSU-162-BB			PHYSICAL	6	0000000019000400	
Removed															
Equipment Type	Location	700	850	1900	AWS	CBRS	L-Sub6	Make	Model	Cable Length	Cable Size	Install Type	Quantity	Item ID	
No data available.															
Retained															
Equipment Type	Location	700	850	1900	AWS	CBRS	L-Sub6	Make	Model	Cable Length	Cable Size	Install Type	Quantity	Item ID	
No data available.															

Service Info

CRS 3.5 GHz

	19	19	19
	CMD	CMD	CMD
Sector	50	50	50
Adimult	203390	203390	203390
Cell / ENode B ID	KRE1052811	KRE1052811	KRE1052811
Antenna Model	ERICSSON	ERICSSON	ERICSSON
Antenna Make	93	93	93
Antenna Centerline(F)	0	0	0
Mechanical Down-Tilt(Deg.)	93.3	93.3	93.3
Electrical Down-Tilt	8	8	8
Tip Height	28.03	28.03	28.03
Regulatory Power	55790	55790	55790
OLEARPCN	10	10	10
Channel Bandwidth(MHz)	38.44	38.44	38.44
Total ERP (W)	Ericsson	Ericsson	Ericsson
TMA Make	4408 B48 DC	4408 B48 DC	4408 B48 DC
TMA Model	4.4	4.4	4.4
RRU Model	15259281	15259290	15259287
Number of Tx, Rx Lines	ATOLL_API	ATOLL_API	ATOLL_API
Position	19	20	20
Transmitter Id	203390	203390	203390
Source	KRE1052811	KRE1052811	KRE1052811
	ERICSSON	ERICSSON	ERICSSON
	93	93	93
	0	0	0
	8	8	8
	93.3	94.3	94.3
	28.03	28.03	28.03
	55890	55790	56090
	10	10	10
	38.44	38.44	38.44
	Ericsson	Ericsson	Ericsson
	4408 B48 DC	4408 B48 DC	4408 B48 DC
	4.4	4.4	4.4
	15259284	15259282	15259291
	ATOLL_API	ATOLL_API	ATOLL_API
	19	20	21
	203390	203390	203390
	KRE1052811	KRE1052811	KRE1052811
	ERICSSON	ERICSSON	ERICSSON
	94	94	94
	0	0	0
	8	8	8
	94.3	94.3	94.3
	28.03	28.03	28.03
	55890	55790	55790
	10	10	10
	38.44	38.44	38.44
	Ericsson	Ericsson	Ericsson
	4408 B48 DC	4408 B48 DC	4408 B48 DC
	4.4	4.4	4.4
	15259288	15259288	15259283
	ATOLL_API	ATOLL_API	ATOLL_API
	21		
	310		

	21	21
	CMD	CMD
Sector	310	310
Adimult	203390	203390
Cell / ENode B ID	KRE1052811	KRE1052811
Antenna Model	ERICSSON	ERICSSON
Antenna Make	94	94
Antenna Centerline(F)	0	0
Mechanical Down-Tilt(Deg.)	94.3	94.3
Electrical Down-Tilt	8	8
Tip Height	28.03	28.03
Regulatory Power	55990	55990
OLEARPCN	10	10
Channel Bandwidth(MHz)	38.44	38.44
Total ERP (W)	Ericsson	Ericsson
TMA Make	4408 B48 DC	4408 B48 DC
TMA Model	4.4	4.4
RRU Model	15259292	15259289
Number of Tx, Rx Lines	ATOLL_API	15259296
Position		ATOLL_API
Transmitter Id		
Source		

700 MHz LTE

	01	02	03
	CMD	CMD	CMD
Sector	50	190	310
Adimult	203390	203390	203390
Cell / ENode B ID	NHH-65C-R2B	NHH-65C-R2B	NHH-65C-R2B
Antenna Model	COMMSCOPE	COMMSCOPE	COMMSCOPE
Antenna Make	95	96	96
Antenna Centerline(F)	0	0	0
Mechanical Down-Tilt(Deg.)	4	2	2
Electrical Down-Tilt	99	100	100
Tip Height	147.76	147.81	147.81
Regulatory Power	5230	5230	5230
OLEARPCN	10	10	10
Channel Bandwidth(MHz)	129.84	129.45	129.45
Total ERP (W)	Ericsson	Ericsson	Ericsson
TMA Make	4449	4449	4449
TMA Model	4.4	4.4	4.4
RRU Model	15258617	15258620	15258623
Number of Tx, Rx Lines	ATOLL_API	ATOLL_API	ATOLL_API
Position			
Transmitter Id			
Source			

850 MHz LTE

	01	02	03
	CMD	CMD	CMD
Sector	50	190	310
Adimult	203390	203390	203390
Cell / ENode B ID	NHH-65C-R2B	NHH-65C-R2B	NHH-65C-R2B
Antenna Model	COMMSCOPE	COMMSCOPE	COMMSCOPE
Antenna Make	95	96	96
Antenna Centerline(F)	0	0	0
Mechanical Down-Tilt(Deg.)	4	2	2
Electrical Down-Tilt	99	100	100
Tip Height	382.66	382.66	382.66
Regulatory Power	2561	2561	2561
OLEARPCN	10	10	10
Channel Bandwidth(MHz)	860.99	860.99	860.99
Total ERP (W)	Ericsson	Ericsson	Ericsson
TMA Make	4449	4449	4449
TMA Model	4.4	4.4	4.4
RRU Model	15258614	15258615	15258616
Number of Tx, Rx Lines	ATOLL_API	ATOLL_API	ATOLL_API
Position			
Transmitter Id			
Source			

850 MHz 5GNR

	0001	0002	0003
	CMD	CMD	CMD
Sector	50	190	310
Adimult	2039200	2039200	2039200
Cell / ENode B ID	NHH-65C-R2B	NHH-65C-R2B	NHH-65C-R2B
Antenna Model	COMMSCOPE	COMMSCOPE	COMMSCOPE
Antenna Make	95	96	96
Antenna Centerline(F)	0	0	0
Mechanical Down-Tilt(Deg.)	4	2	2
Electrical Down-Tilt	99	100	100
Tip Height	382.66	382.66	382.66
Regulatory Power	2561	2561	2561
OLEARPCN	10	10	10
Channel Bandwidth(MHz)	860.99	860.99	860.99
Total ERP (W)	Ericsson	Ericsson	Ericsson
TMA Make	4449	4449	4449
TMA Model	4.4	4.4	4.4
RRU Model	15258614	15258615	15258616
Number of Tx, Rx Lines	ATOLL_API	ATOLL_API	ATOLL_API
Position			
Transmitter Id			
Source			

Table with columns for Sector, Antenna Make, Antenna Model, Azimuth, Elevation, Mechanical Down-Tilt, Electrical Down-Tilt, Tip Height, Regulatory Power, Channel Bandwidth, TMA, TMA Make, RRU Model, Number of Tx/Rx Lines, Position, and Source. It lists technical specifications for a 1900 MHz LTE antenna.

Table with columns for Sector, Antenna Make, Antenna Model, Azimuth, Elevation, Mechanical Down-Tilt, Electrical Down-Tilt, Tip Height, Regulatory Power, Channel Bandwidth, TMA, TMA Make, RRU Model, Number of Tx/Rx Lines, Position, and Source. It lists technical specifications for a 1900 MHz LTE antenna.

Service Comments

Callsigns Per Antenna

Table with columns for Sector, Antenna Make, Antenna Model, Ant CL Height AGL, Tip Height, Azimuth (TM), Elec Tilt, Mech Tilt, Gain, Beam Width, Regulatory Power, and Callsigns (700, 850, 1900, 2100, 28 GHz, 31 GHz, 39 GHz). It lists antenna configurations and associated call signs.

Callsigns

Table with columns for Callsign, Market, Radio Code, Market Number, Block, State, County, Licensee Name, Wholly Owned, Total MHz, Freq Range 1, Freq Range 2, Freq Range 3, Freq Range 4, Regulatory Power, Threshold (W), POPs /Sq M, Status, Action, and Approved for Issue. It lists various call sign entries and their details.

WQGA952	Chicago-Gary-Kenosha, IL-IN-WI	AW	BEA064	B	17031	Cook	Calico Partnership	Yes	20,000	1720,000-1730,000	2120,000-2130,000	.000-.000	.000-.000	.000-.000	228.31	1640	5580.63	Active	added	Yes
WRHD631	Chicago, IL	UU	PEA003	M1	17031	Cook	Calico Partnership	Yes	100,000	37600,000-37700,000	.000-.000	.000-.000	.000-.000		0	5580.63	Active		Yes	
WRBA756	Chicago, IL	UU	ETA078	L1	17031	Cook	Calico Partnership	Yes	75,000	27850,000-27925,000	.000-.000	.000-.000	.000-.000		0	5580.63	Active		Yes	
KNKA200	Chicago, IL	CL	CMA003	B	17031	Cook	Chicago SMSA LP	No	25,000	835,000-845,000	880,000-890,000	846,500-849,000	891,500-894,000	382.66 - PSD	400	5580.63	Active	added	Yes	
WRBA757	Chicago, IL	UU	ETA078	L2	17031	Cook	Calico Partnership	Yes	125,000	27925,000-28050,000	.000-.000	.000-.000	.000-.000		0	5580.63	Active		Yes	
WRHD632	Chicago, IL	UU	PEA003	M10	17031	Cook	Calico Partnership	Yes	100,000	38500,000-38600,000	.000-.000	.000-.000	.000-.000		0	5580.63	Active		Yes	
WRHD640	Chicago, IL	UU	PEA003	M9	17031	Cook	Calico Partnership	Yes	100,000	38400,000-38500,000	.000-.000	.000-.000	.000-.000		0	5580.63	Active		Yes	
WRHD635	Chicago, IL	UU	PEA003	M4	17031	Cook	Calico Partnership	Yes	100,000	37900,000-38000,000	.000-.000	.000-.000	.000-.000		0	5580.63	Active		Yes	
WRNE599	Chicago, IL	PM	PEA003	A4	17031	Cook	Calico Partnership	Yes	20,000	3760,000-3780,000	.000-.000	.000-.000	.000-.000	868.59	1640	5580.63	Active	added	Yes	
WRNE601	Chicago, IL	PM	PEA003	B1	17031	Cook	Calico Partnership	Yes	20,000	3800,000-3820,000	.000-.000	.000-.000	.000-.000	369.01	1640	5580.63	Active	added	Yes	

