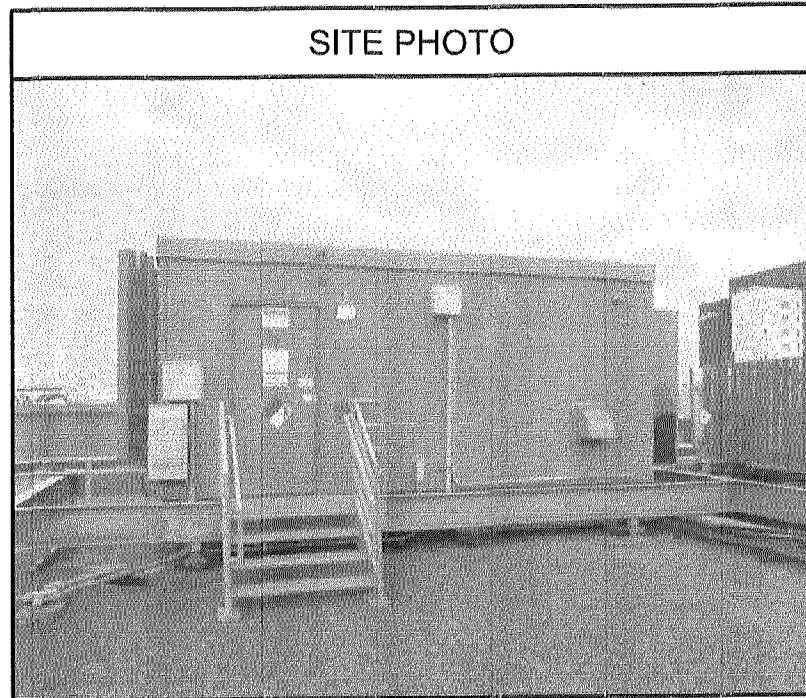




MIN KILLEBREW LTE ADD
PCS 850

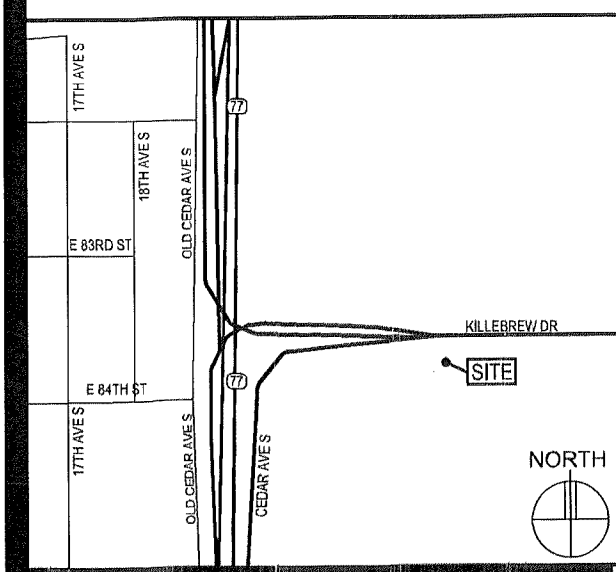


SITE PHOTO

GENERAL NOTES

- In the event that Special Inspections are not performed in compliance with the contract terms, bld specifications and/or specified form, the General Contractor will be liable for all damages, construction performance, failures, and corrective actions related to the same.
- The following general notes shall apply to drawings and govern unless otherwise noted or specified.
- The work delineated in these drawings and described in the specifications shall conform to codes, standards and regulations that have jurisdiction in the state of MINNESOTA, and the city of BLOOMINGTON.
- Requirements and regulations pertaining to R.F. safety codes and practices must be incorporated in the work even though they may not be listed individually and separately in either the drawings or the specifications.
- Compare field conditions with architectural and engineering drawings. Any discrepancies shall be directed to the Architect for clarification prior to fabrication and/or construction. Submit necessary shop drawings prior to fabrication for approval by the Architect. No information or details on these sheets may be used without the permission of the owner, or the architect.
- Do not scale drawings! 11" x 17" drawings to scale 24" x 36" drawings scale multiply by 2
- Unless otherwise shown or noted, typical details shall be used where applicable.
- Details shall be considered typical at similar conditions.
- Safety measures: The contractor shall be solely and completely responsible for the conditions of the job site, including safety of the persons and property and for independent engineering reviews of these conditions. The Architect's or Engineers' job site review is not intended to include review of the adequacy of the contractor's safety measures.
- Within these plans and specifications, "Owner" implies VERIZON WIRELESS.
- The work is the responsibility of the general contractor unless noted otherwise.
- The terms "contractor" and "g.c." refer to the owner's general contractor and the general contractor's sub-contractors. It is the general contractor's responsibility to determine the division of work among sub-contractors.
- The general contractor is responsible in obtaining necessary public and private underground utility locate services prior to start of excavating / construction.

VICINITY MAP



SITE DIRECTIONS

DIRECTIONS FROM BLOOMINGTON RNC:
TAKE US-169 NORTH TO HIGHWAY 77, TAKE HIGHWAY 77 SOUTH TO KILLEBREW DRIVE. TAKE KILLEBREW DRIVE EAST TO THE SITE ON THE SOUTH SIDE OF THE ROAD.

PROJECT INFORMATION

SITE NAME: MIN KILLEBREW
PROJECT NUMBER: 20161456568
SITE ADDRESS: 2051 KILLEBREW DRIVE BLOOMINGTON, MN 55425
COUNTY: HENNEPIN
LATITUDE / LONGITUDE: 'X' SECTOR: N44°51'06.08", W93°14'37.46" (NAD83)
'Y' SECTOR: N44°51'06.05", W93°14'35.02" (NAD83)
'Z' SECTOR: N44°51'04.83", W93°14'37.20" (NAD83)
GROUND ELEVATION: 816.2' AMSL
ANTENNA TIP HEIGHT: VARIES (SEE ANTENNA KEY)
ANTENNA CENTERLINE HEIGHT: VARIES (SEE ANTENNA KEY)
STRUCTURE HEIGHT: 91' AGL
OVERALL STRUCTURE HEIGHT: 91' AGL
GENERATOR ON SITE: YES (V2W)
TOWER BUILT: N/A
BASED ON SMCO DATED: UNKNOWN
COAX RUNS: "X" COAX RUN = (6) 7/8" LINES @ 40' EA
"Y" COAX RUN = (4) 1-5/8" LINES @ 210' EA (PROPOSED)
"R" COAX RUN = (2) 7/8" LINES @ 25' EA (EXISTING)
"Z" COAX RUN = (6) 1-5/8" LINES @ 180' EA
(2) 2RRU HYBRID CABLES (EXISTING)
(1) 2RRU HYBRID CABLE (PROPOSED)
PROJECT DESCRIPTION: REMOVE (12) EXISTING PANEL ANTENNAS, (3) RRUS12 B4 RADIOS, (4) 7/8" COAX AND (1) 2RRU CABLE AT 'Y' SECTOR. ADD (12) PROPOSED PANEL ANTENNAS, (4) 1-5/8" COAX AND (1) 2RRU CABLE AT 'Y' SECTOR, (3) RRUS32 B2 RADIOS, AND (3) RRUS32 B66A RADIOS. RELOCATE 3 'Y' SECTOR ANTENNAS AND ASSOCIATED EQUIPMENT TO PROPOSED MOUNT.

SHEET INDEX

SHEET	SHEET DESCRIPTION
T-1	PROJECT INFORMATION, MAPS, DIRECTIONS, AND SHEET INDEX
A-1	BUILDING ELEVATIONS
A-2	EXISTING ROOF PLAN
A-3	PROPOSED ROOF PLAN & COAX ENTRY DETAILS
A-4	EXISTING COAX, ANTENNA & TTA KEY AND MISC. PHOTOS
A-5	PROPOSED COAX, ANTENNA & TTA KEY, ONE-LINE DIAGRAM
A-6	EXISTING ELEVATIONS
A-7	PROPOSED ELEVATIONS
A-8	MOUNTING PLANS & SPECIFICATIONS
A-9	MISC. PHOTOS
S0-S5	STRUCTURAL DRAWINGS, DETAILS, AND NOTES
	SPECIAL INSPECTION FORM

ISSUE SUMMARY

REV.	DESCRIPTION	SHEET OR DETAIL
A	ISSUED FOR REVIEW 12-22-16	ALL
B	ISSUED FOR OWNER SIGNOFF 01-03-17	ALL
0	ISSUED FOR BID / CONSTRUCTION 02-22-17	ALL
1	PAINTING SPEC. REVISION & 'Z' SECTOR ANTENNA HEIGHT REVISION	A-7 & A-8

CONTACTS

LESSOR: BLN GROUP
LESSEE: VERIZON WIRELESS
10801 BUSH LAKE ROAD
BLOOMINGTON, MN 55438
STEVE EDWARDS (612) 720-6377
ARCHITECT: DESIGN 1 OF EDEN PRAIRIE, LLC,
9973 VALLEY VIEW ROAD
EDEN PRAIRIE, MN 55344
(952) 903-9299
STRUCTURAL ENGINEER: HERZOG ENGINEERING
530 NORTH 3RD STREET, SUITE 230
MINNEAPOLIS, MN 55401
(612) 844-1234 (JOSH HERZOG)

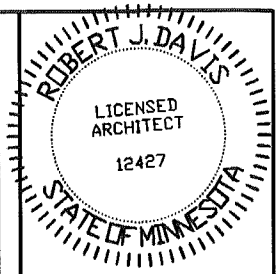
VERIZON WIRELESS
DEPARTMENTAL APPROVALS

JOB TITLE	NAME	DATE
RF ENGINEER	MIHAELA OXLEY	12-27-16
CONSTRUCTION ENGINEER	DOUG FREDERICK	12-27-16

LESSOR / LICENSOR APPROVAL

SIGNATURE	PRINTED NAME	DATE
	HEATHER LINDER	02/02/17

LESSOR / LICENSOR: PLEASE CHECK THE APPROPRIATE BOX BELOW
 NO CHANGES. CHANGES NEEDED. SEE COMMENTS ON PLANS.



I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Licensed Architect under the laws of the State of Minnesota.

Print Name: ROBERT J. DAVIS

Robert J. Davis
Signature: _____
Date: 03-03-17



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EDEN PRAIRIE, MN 55344
(952) 903-9299
WWW.DESIGN1EP.COM



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BLOOMINGTON, MN 55438
(612) 720-6377

PROJECT
20161456568
LOC. CODE # 140361

MIN
KILLEBREW
LTE ADD PCS
850

2051 KILLEBREW DR.
BLOOMINGTON, MN 55425

SHEET CONTENTS:
CONTACTS
ISSUE SUMMARY
SHEET INDEX
DEPARTMENTAL APPROVALS
LESSOR APPROVAL
PROJECT INFORMATION
VICINITY MAP
GENERAL NOTES

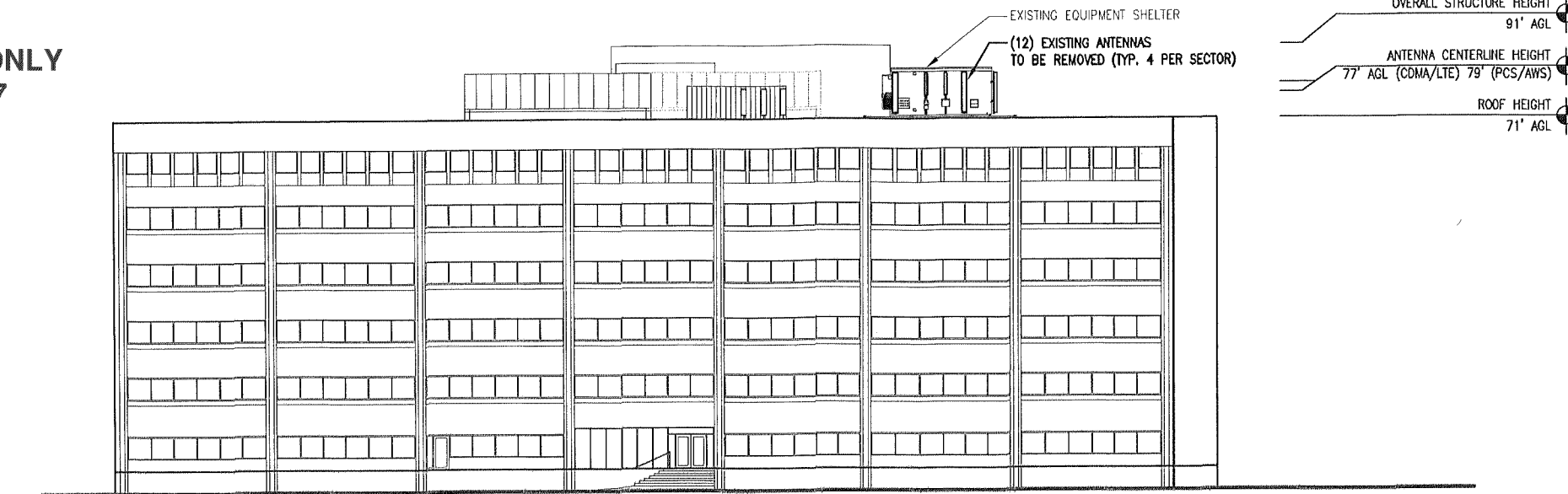
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DATE:	10-06-16
CHECKED BY:	TJR
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REV. B	01-03-17
REV. 0	02-22-17
REV. 1	03-03-17

T-1

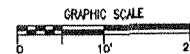
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MAR 10 2017

CASE FILE #PL201700012

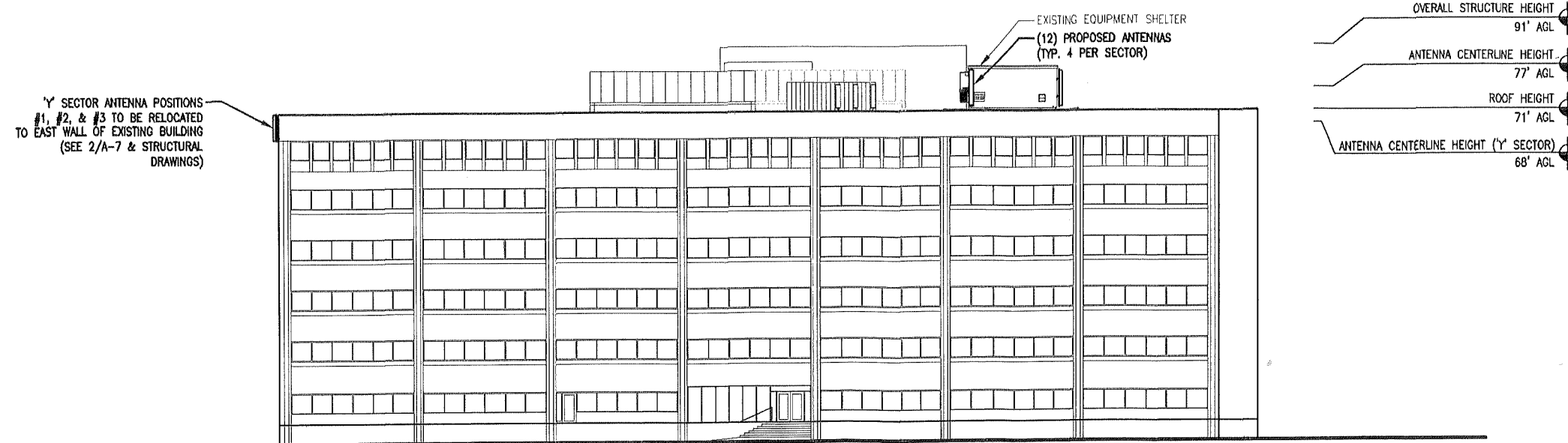
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NMJ 03/16/2017**



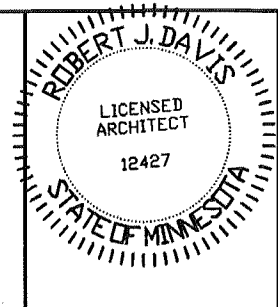
2 EXISTING TOWER ELEVATION
SCALE: 1" = 30'-0"



NOTE:
SEE A-8 FOR RRU AND RAYCAP
MOUNTING PLANS AT EACH SECTOR.



1 PROPOSED TOWER ELEVATION
SCALE: 1" = 30'-0"



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PROJECT

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**MIN
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LTE ADD PCS
850**

2051 KILLEBREW DR.
BLOOMINGTON, MN 55425

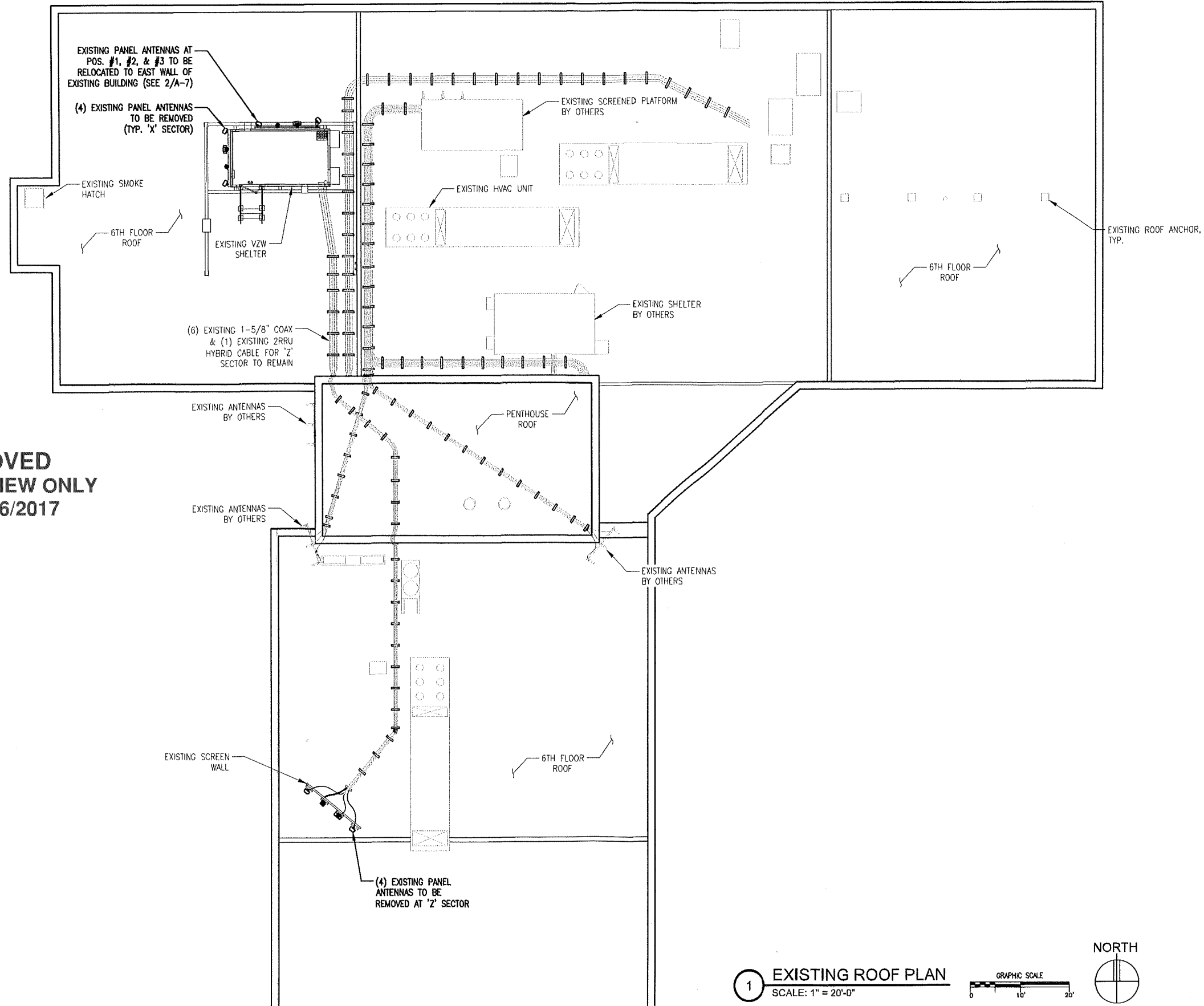
SHEET CONTENTS:
BUILDING ELEVATIONS

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DATE:	10-06-16
CHECKED BY:	TJR
REV. A	12-22-16
REV. B	01-03-17
REV. 0	02-22-17
REV. 1	03-03-17

A-1 RECEIVED
MAR 10 2017

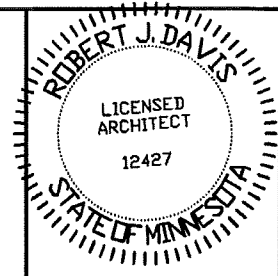
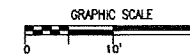
City of Bloomington
Inspection Division

CASE FILE #PL201700012



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NMJ 03/16/2017**

1 EXISTING ROOF PLAN
SCALE: 1" = 20'-0"



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Print Name: ROBERT J. DAVIS

Robert J. Davis
Signature: License # 12427

Date: 03-03-17



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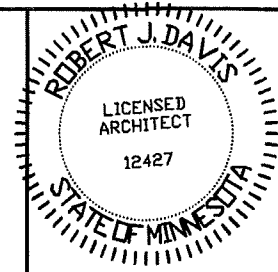
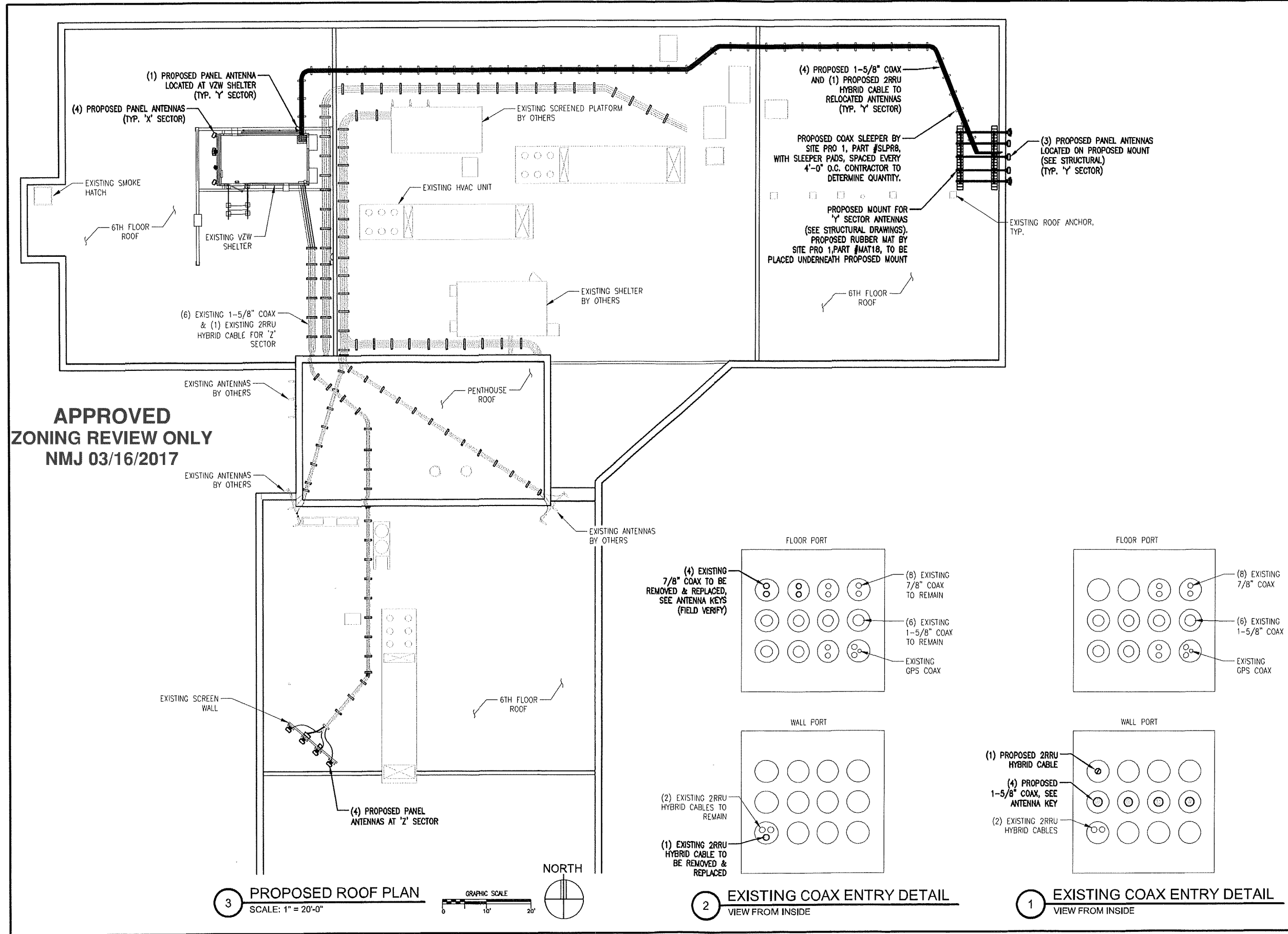
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BLOOMINGTON, MN 55425

SHEET CONTENTS:
ROOF PLAN

DRAWN BY:	KNW
DATE:	10-06-16
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REV. A	12-22-16
REV. B	01-03-17
REV. 0	02-22-17
REV. 1	03-03-17

A-2

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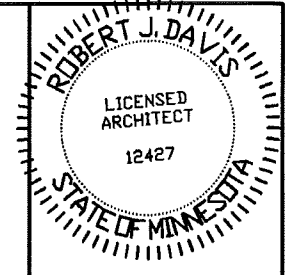
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SHEET CONTENTS:
ROOF PLAN
COAX ENTRY DETAILS

DRAWN BY:	KNW
DATE:	10-06-16
CHECKED BY:	TJR
REV. A	12-22-16
REV. B	01-03-17
REV. 0	02-22-17
REV. 1	03-03-17

CASE FILE #PL201700012

EXISTING ANTENNA KEY												EXISTING COAX KEY										
	AZIMUTH	POSITION	FUNCTION	QTY	MANUFACTURER	MODEL	MOD TYPE	ANTENNA LENGTH	ANTENNA TIP	ANTENNA CENTER	ELEC DOWNTILT	MECH DOWNTILT	STATUS	QTY.	COAX TYPE	MANUFACTURER	MODEL	DIELECTRIC	DIAMETER (INCH)	RUN (FEET)	STATUS	
X SECTOR	300°	1.1	TX/RX0	1	CSS	X7C-880-6D	CDMA +45	98"	81'	77'	-	0'	REMOVE	1	MAIN	ANDREW	AVA5-50	FOAM	7/8"	40'	REMAIN	
	300°	1.2	TX/RX0			2nd PORT	CDMA -45							1	MAIN	ANDREW	AVA5-50	FOAM	7/8"	40'	REMAIN	
	300°	2.1	TX/RX0	1	AMPHENOL	WBX065X17M050	PCS +45	54.7"	81'	79'	3'	2'	REMOVE	1	MAIN	ANDREW	AVA5-50	FOAM	7/8"	40'	REMAIN	
	300°	2.2	RX1			2nd PORT	PCS -45							1	MAIN	ANDREW	AVA5-50	FOAM	7/8"	40'	REMAIN	
	300°	3.1	TX/RX0	1	AMPHENOL	WBX065X17M050	AWS +45	54.7"	81'	79'	3'	2'	REMOVE	1	RRU	ERICSSON	RRUS-12	(1) COMMSCOPE RXX412-2S30-9 FIBER FEED TAL. SECT. BOX TO RRU				REMOVE
	300°	3.2	TX/RX1			2nd PORT	AWS -45															
Y SECTOR	30°	1.1	TX/RX0	1	CSS	X7C-865-6	CDMA +45	98"	81'	77'	-	0'	REMOVE	1	MAIN	ANDREW	AVA5-50	FOAM	7/8"	25'	REMAIN	
	30°	1.2	TX/RX0			2nd PORT	CDMA -45							1	MAIN	ANDREW	AVA5-50	FOAM	7/8"	25'	REMAIN	
	30°	2.1	TX/RX0	1	AMPHENOL	WBX065X17M050	PCS +45	54.7"	81'	79'	4'	3'	REMOVE	1	MAIN	ANDREW	AVA5-50	FOAM	7/8"	25'	REMOVE	
	30°	2.2	RX1			2nd PORT	PCS -45							1	MAIN	ANDREW	AVA5-50	FOAM	7/8"	25'	REMOVE	
	30°	3.1	TX/RX0	1	AMPHENOL	WBX065X17M050	AWS +45	54.7"	81'	79'	4'	3'	REMOVE	1	RRU	ERICSSON	RRUS-12	(1) COMMSCOPE RXX412-2S30-9 FIBER FEED TAL. SECT. BOX TO RRU				REMOVE
	30°	3.2	TX/RX1			2nd PORT	AWS -45															
Z SECTOR	220°	1.1	TX/RX0	1	CSS	X7C-880-4D	CDMA +45	98"	82'	78'	-	0'	REMOVE	1	MAIN	ANDREW	LDF7-50A	FOAM	1-5/8"	180'	REMAIN	
	220°	1.2	TX/RX0			2nd PORT	CDMA -45							1	MAIN	ANDREW	LDF7-50A	FOAM	1-5/8"	180'	REMAIN	
	220°	2.1	TX/RX0	1	AMPHENOL	WBX065X17M050	PCS +45	54.7"	82'	80'	2'	0'	REMOVE	1	MAIN	ANDREW	LDF7-50A	FOAM	1-5/8"	180'	REMAIN	
	220°	2.2	RX1			2nd PORT	PCS -45							1	MAIN	ANDREW	LDF7-50A	FOAM	1-5/8"	180'	REMAIN	
	220°	3.1	TX/RX0	1	AMPHENOL	WBX065X17M050	AWS +45	54.7"	82'	80'	2'	0'	REMOVE	1	RRU	ERICSSON	RRUS-12	(1) COMMSCOPE RXX412-2S30-9 FIBER FEED TAL. SECT. BOX TO RRU				REMOVE
	220°	3.2	TX/RX1			2nd PORT	AWS -45															
220°	4.1	TX/RX1	1	CSS	X7C-880-4D	LTE +45	98"	82'	78'	-	0'	REMOVE	1	MAIN	ANDREW	LDF7-50A	FOAM	1-5/8"	180'	REMAIN		
220°	4.2	TX/RX1			2nd PORT	LTE -45								1	MAIN	ANDREW	LDF7-50A	FOAM	1-5/8"	180'	REMAIN	
ADDITIONAL TO REMAIN												12	JUMPER	ANDREW	LDFA-50	FOAM	1/2"	10'	TOTAL			



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Robert J. Davis
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License No. 12427

Date: 03-03-17



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PROJECT
20161456568
LOC. CODE # 140361

MIN
KILLEBREW
LTE ADD PCS
850
2051 KILLEBREW DR.
BLOOMINGTON, MN 55425

SHEET CONTENTS:
COAX, ANTENNA, & TTA KEY
MISC. PHOTOS

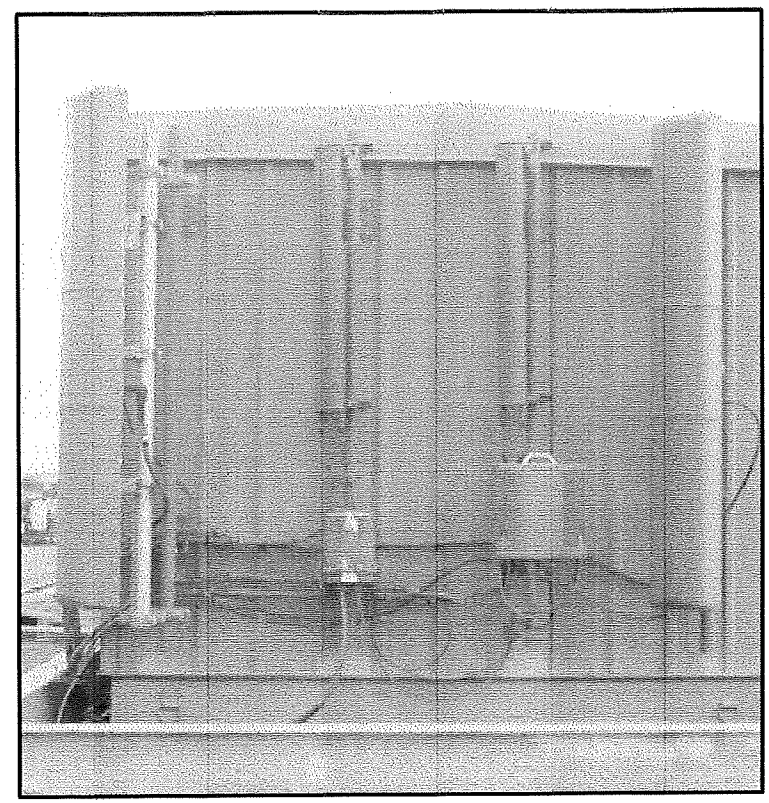
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REV. 1	03-03-17

A-4

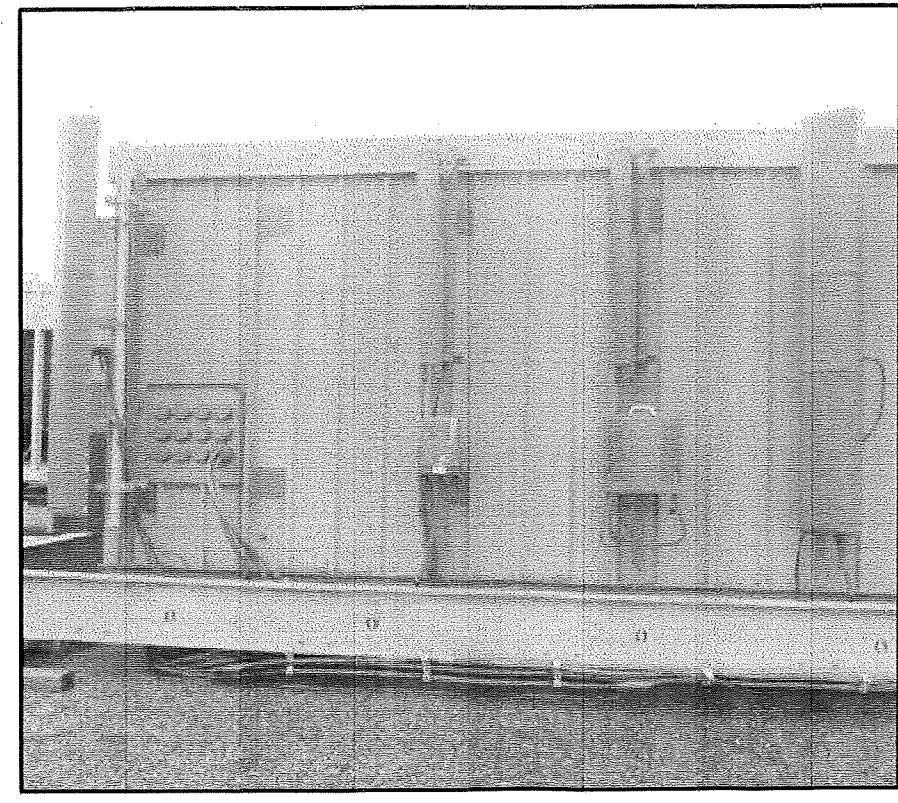
APPROVED
ZONING REVIEW ONLY
NMJ 03/16/2017

3 ANTENNA KEY
SCALE: NONE

2 COAX KEY
SCALE: NONE



4 'X' SECTOR ANTENNA MOUNT PHOTO
SCALE: NONE



5 'Y' SECTOR ANTENNA MOUNT PHOTO
SCALE: NONE



1 'Z' SECTOR ANTENNA MOUNT PHOTO
SCALE: NONE

CASE FILE #PL201700012

PROPOSED ANTENNA KEY													PROPOSED COAX KEY										
SECTOR	AZIMUTH	POSITION	FUNCTION	QTY	MANUFACTURER	MODEL	MOD TYPE	ANTENNA LENGTH	ANTENNA TIP	ANTENNA CENTER	ELEC DOWNTILT	MECH DOWNTILT	STATUS	QTY.	COAX TYPE	MANUFACTURER	MODEL	DIELECTRIC	DIAMETER (INCH)	RUN (FEET)	STATUS		
X SECTOR	300°	1.1	-	1	JMA	X7CQAP-FR0-845-V	FUTURE	96"	81'	77'	-	-	PROPOSED	TERMINATE WITH MATCHED LOADS									
		1.2	-	-	-	2ND PORT	FUTURE	-	-	-	-	-	-	-	TERMINATE WITH MATCHED LOADS								
		1.3	TX/RX0	-	-	-	3RD PORT	700 LTE	-	-	-	6'	0'	-	1	MAIN	ANDREW	AVA5-50	FOAM	7/8"	40'	EXISTING	
		1.4	TX/RX1	-	-	-	4TH PORT	700 LTE	-	-	-	-	-	-	1	MAIN	ANDREW	AVA5-50	FOAM	7/8"	40'	EXISTING	
		1.5	-	-	-	-	5TH PORT	FUTURE	-	-	-	-	-	-	TERMINATE WITH MATCHED LOADS								
		1.6	-	-	-	-	6TH PORT	FUTURE	-	-	-	-	-	-	TERMINATE WITH MATCHED LOADS								
	300°	2.1	TX/RX0	1	JMA	X7CQAP-FR0-845-V	PCS LTE	96"	81'	77'	4'	0'	PROPOSED	1	RRU	ERICSSON	RRUS32 B2	(1) COMMSCOPE Rxx412-4529-15 FIBER FEED TAIL SECT. BOX TO RRU	PROPOSED				
		2.2	TX/RX1	-	-	2ND PORT	PCS LTE	-	-	-	-	-	-	CONNECT TO REMAINING PORTS ON RRUS32 B2									
		2.3	TX/RX0	-	-	-	3RD PORT	850 LTE	-	-	-	6'	0'	-	1	MAIN	ANDREW	AVA5-50	FOAM	7/8"	40'	EXISTING	
		2.4	TX/RX1	-	-	-	4TH PORT	850 LTE	-	-	-	-	-	-	1	MAIN	ANDREW	AVA5-50	FOAM	7/8"	40'	EXISTING	
		2.5	TX/RX2	-	-	-	5TH PORT	PCS LTE	-	-	-	4'	0'	-	CONNECT TO REMAINING PORTS ON RRUS32 B2								
		2.6	TX/RX3	-	-	-	6TH PORT	PCS LTE	-	-	-	-	-	-	CONNECT TO REMAINING PORTS ON RRUS32 B2								
	300°	3.1	TX/RX0	1	JMA	X7CQAP-FR0-845-V	AWS LTE	96"	81'	77'	4'	0'	PROPOSED	1	RRU	ERICSSON	RRUS32 B66A	(1) COMMSCOPE Rxx412-4529-15 FIBER FEED TAIL SECT. BOX TO RRU	PROPOSED				
		3.2	TX/RX1	-	-	2ND PORT	AWS LTE	-	-	-	-	-	-	CONNECT TO REMAINING PORTS ON RRUS32 B66A									
		3.3	-	-	-	-	3RD PORT	FUTURE	-	-	-	-	-	-	TERMINATE WITH MATCHED LOADS								
		3.4	-	-	-	-	4TH PORT	FUTURE	-	-	-	-	-	-	TERMINATE WITH MATCHED LOADS								
		3.5	TX/RX2	-	-	-	5TH PORT	AWS LTE	-	-	-	4'	0'	-	CONNECT TO REMAINING PORTS ON RRUS32 B66A								
		3.6	TX/RX3	-	-	-	6TH PORT	AWS LTE	-	-	-	-	-	-	CONNECT TO REMAINING PORTS ON RRUS32 B66A								
300°	4.1	-	1	JMA	X7CQAP-B6-885-V	FUTURE	96"	81'	77'	-	-	-	PROPOSED	TERMINATE WITH MATCHED LOADS									
	4.2	-	-	-	2ND PORT	FUTURE	-	-	-	-	-	-	-	TERMINATE WITH MATCHED LOADS									
	4.3	TX/RX0	-	-	-	3RD PORT	CDMA	-	-	-	6'	0'	-	1	MAIN	ANDREW	AVA5-50	FOAM	7/8"	40'	EXISTING		
	4.4	TX/RX1	-	-	-	4TH PORT	CDMA	-	-	-	-	-	-	1	MAIN	ANDREW	AVA5-50	FOAM	7/8"	40'	EXISTING		
	4.5	-	-	-	-	5TH PORT	FUTURE	-	-	-	-	-	-	TERMINATE WITH MATCHED LOADS									
	4.6	-	-	-	-	6TH PORT	FUTURE	-	-	-	-	-	-	TERMINATE WITH MATCHED LOADS									
Y SECTOR	90°	1.1	-	1	JMA	X7CQAP-FR0-845-V	FUTURE	72"	71'	68'	-	-	PROPOSED	TERMINATE WITH MATCHED LOADS									
		1.2	-	-	-	2ND PORT	FUTURE	-	-	-	-	-	-	-	TERMINATE WITH MATCHED LOADS								
		1.3	TX/RX0	-	-	-	3RD PORT	700 LTE	-	-	-	6'	0'	-	1	MAIN	ANDREW	AVA7-50	FOAM	1-5/8"	210'	PROPOSED	
		1.4	TX/RX1	-	-	-	4TH PORT	700 LTE	-	-	-	-	-	-	1	MAIN	ANDREW	AVA7-50	FOAM	1-5/8"	210'	PROPOSED	
		1.5	-	-	-	-	5TH PORT	FUTURE	-	-	-	-	-	-	TERMINATE WITH MATCHED LOADS								
		1.6	-	-	-	-	6TH PORT	FUTURE	-	-	-	-	-	-	TERMINATE WITH MATCHED LOADS								
	90°	2.1	TX/RX0	1	JMA	X7CQAP-FR0-845-V	PCS LTE	72"	71'	68'	4'	0'	PROPOSED	1	RRU	ERICSSON	RRUS32 B2	(1) COMMSCOPE Rxx412-4529-30 FIBER FEED TAIL SECT. BOX TO RRU	PROPOSED				
		2.2	TX/RX1	-	-	2ND PORT	PCS LTE	-	-	-	-	-	-	CONNECT TO REMAINING PORTS ON RRUS32 B2									
		2.3	TX/RX0	-	-	-	3RD PORT	850 LTE	-	-	-	6'	0'	-	1	MAIN	ANDREW	AVA7-50	FOAM	1-5/8"	210'	PROPOSED	
		2.4	TX/RX1	-	-	-	4TH PORT	850 LTE	-	-	-	-	-	-	1	MAIN	ANDREW	AVA7-50	FOAM	1-5/8"	210'	PROPOSED	
		2.5	TX/RX2	-	-	-	5TH PORT	PCS LTE	-	-	-	4'	0'	-	CONNECT TO REMAINING PORTS ON RRUS32 B2								
		2.6	TX/RX3	-	-	-	6TH PORT	PCS LTE	-	-	-	-	-	-	CONNECT TO REMAINING PORTS ON RRUS32 B2								
	90°	3.1	TX/RX0	1	JMA	X7CQAP-FR0-845-V	AWS LTE	72"	71'	68'	4'	0'	PROPOSED	1	RRU	ERICSSON	RRUS32 B66A	(1) COMMSCOPE Rxx412-4529-15 FIBER FEED TAIL SECT. BOX TO RRU	PROPOSED				
		3.2	TX/RX1	-	-	2ND PORT	AWS LTE	-	-	-	-	-	-	CONNECT TO REMAINING PORTS ON RRUS32 B66A									
		3.3	-	-	-	-	3RD PORT	FUTURE	-	-	-	-	-	-	TERMINATE WITH MATCHED LOADS								
		3.4	-	-	-	-	4TH PORT	FUTURE	-	-	-	-	-	-	TERMINATE WITH MATCHED LOADS								
		3.5	TX/RX2	-	-	-	5TH PORT	AWS LTE	-	-	-	4'	0'	-	CONNECT TO REMAINING PORTS ON RRUS32 B66A								
		3.6	TX/RX3	-	-	-	6TH PORT	AWS LTE	-	-	-	-	-	-	CONNECT TO REMAINING PORTS ON RRUS32 B66A								
45°	4.1	-	1	JMA	X7CQAP-B6-885-V	FUTURE	96"	81'	77'	-	-	-	PROPOSED	TERMINATE WITH MATCHED LOADS									
	4.2	-	-	-	2ND PORT	FUTURE	-	-	-	-	-	-	-	TERMINATE WITH MATCHED LOADS									
	4.3	TX/RX0	-	-	-	3RD PORT	CDMA	-	-	-	6'	0'	-	1	MAIN	ANDREW	AVA5-50	FOAM	7/8"	25'	EXISTING		
	4.4	TX/RX1	-	-	-	4TH PORT	CDMA	-	-	-	-	-	-	1	MAIN	ANDREW	AVA5-50	FOAM	7/8"	25'	EXISTING		
	4.5	-	-	-	-	5TH PORT	FUTURE	-	-	-	-	-	-	TERMINATE WITH MATCHED LOADS									
	4.6	-	-	-	-	6TH PORT	FUTURE	-	-	-	-	-	-	TERMINATE WITH MATCHED LOADS									
Z SECTOR	220°	1.1	-	1	JMA	X7CQAP-B6-885-V	FUTURE	96"	81'	77'	-	-	PROPOSED	TERMINATE WITH MATCHED LOADS									
		1.2	-	-	-	2ND PORT	FUTURE	-	-	-	-	-	-	-	TERMINATE WITH MATCHED LOADS								
		1.3	TX/RX0	-	-	-	3RD PORT	700 LTE	-	-	-	4'	0'	-	1	MAIN	ANDREW	AVA5-50	FOAM	1-5/8"	180'	EXISTING	
		1.4	TX/RX1	-	-	-	4TH PORT	700 LTE	-	-	-	-	-	-	1	MAIN	ANDREW	AVA5-50	FOAM	1-5/8"	180'	EXISTING	
		1.5	-	-	-	-	5TH PORT	FUTURE	-	-	-	-	-	-	TERMINATE WITH MATCHED LOADS								
		1.6	-	-	-	-	6TH PORT	FUTURE	-	-	-	-	-	-	TERMINATE WITH MATCHED LOADS								
	220°	2.1	TX/RX0	1	JMA	X7CQAP-B6-885-V	PCS LTE	96"	81'	77'	4'	0'	PROPOSED	1	RRU	ERICSSON	RRUS32 B2	(1) COMMSCOPE Rxx412-4529-15 FIBER FEED TAIL SECT. BOX TO RRU	PROPOSED				
		2.2	TX/RX1	-	-	2ND PORT	PCS LTE	-	-	-	-	-	-	CONNECT TO REMAINING PORTS ON RRUS32 B2									
		2.3	TX/RX0	-	-	-	3RD PORT	850 LTE	-	-	-	4'	0'	-	1	MAIN	ANDREW	AVA5-50	FOAM	1-5/8"	180'	EXISTING	
		2.4	TX/RX1	-	-	-	4TH PORT	850 LTE	-	-	-	-	-	-	1	MAIN	ANDREW	AVA5-50	FOAM	1-5/8"	180'	EXISTING	
		2.5	TX/RX2	-	-	-	5TH PORT	PCS LTE	-	-	-	4'	0'	-	CONNECT TO REMAINING PORTS ON RRUS32 B2								
		2.6	TX/RX3	-	-	-	6TH PORT	PCS LTE	-	-	-	-	-	-	CONNECT TO REMAINING PORTS ON RRUS32 B2								
	220°	3.1	TX/RX0	1	JMA	X7CQAP-B6-885-V	AWS LTE	96"	81'	77'	4'	0'	PROPOSED	1	RRU	ERICSSON	RRUS32 B66A	(1) COMMSCOPE Rxx412-4529-15 FIBER FEED TAIL SECT. BOX TO RRU	PROPOSED				
		3.2	TX/RX1	-	-	2ND PORT	AWS LTE	-	-	-	-	-	-	CONNECT TO REMAINING PORTS ON RRUS32 B66A									
		3.3	-	-	-	-	3RD PORT	FUTURE	-	-	-	-	-	-	TERMINATE WITH MATCHED LOADS								
		3.4	-	-	-	-	4TH PORT	FUTURE	-	-	-	-	-	-	TERMINATE WITH MATCHED LOADS								
		3.5	TX/RX2	-	-	-	5TH PORT	AWS LTE	-	-	-	4'	0'	-	CONNECT TO REMAINING PORTS ON RRUS32 B66A								
		3.6	TX/RX3	-	-	-	6TH PORT	AWS LTE	-	-	-	-	-	-	CONNECT TO REMAINING PORTS ON RRUS32 B66A								
220°	4.1	-	1	JMA	X7CQAP-B6-885-V	FUTURE	96"	81'	77'	-	-	-	PROPOSED	TERMINATE WITH MATCHED LOADS									
	4.2	-	-	-	2ND PORT	FUTURE	-	-	-	-	-	-	-	TERMINATE WITH MATCHED LOADS									
	4.3	TX/RX0	-	-	-	3RD PORT	CDMA	-	-	-	4'	0'	-	1	MAIN	ANDREW	AVA5-50	FOAM	1-5/8"	180'	EXISTING		
	4.4	TX/RX1	-	-	-	4TH PORT	CDMA	-	-	-	-	-	-	1	MAIN	ANDREW	AVA5-50	FOAM	1-5/8"	180'	EXISTING		
	4.5	-	-	-	-	5TH PORT	FUTURE	-	-	-	-	-	-	TERMINATE WITH MATCHED LOADS									
	4.6	-	-	-	-	6TH PORT	FUTURE	-	-	-	-	-	-	TERMINATE WITH MATCHED LOADS									

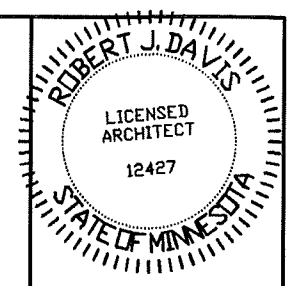
ADDITIONAL: (1) COMMSCOPE 2RRU TRUNK CABLE MODEL # HFT406-8SV2-260 (Y SECTOR)

3 ANTENNA KEY
SCALE: NONE

2 COAX KEY
SCALE: NONE

1 ONE-LINE DIAGRAM
SCALE: NONE

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NMJ 03/16/2017



I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Licensed Architect under the laws of the State of Minnesota.
Print Name: ROBERT J. DAVIS

Robert J. Davis
Signature: _____
Date: 03-03-17

DESIGN 1
8973 VALLEY VIEW RD.
EDEN PRAIRIE, MN 55344
(952) 903-9299
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verizon
10801 BUSH LAKE ROAD
BLOOMINGTON, MN 55438
(612) 720-6377

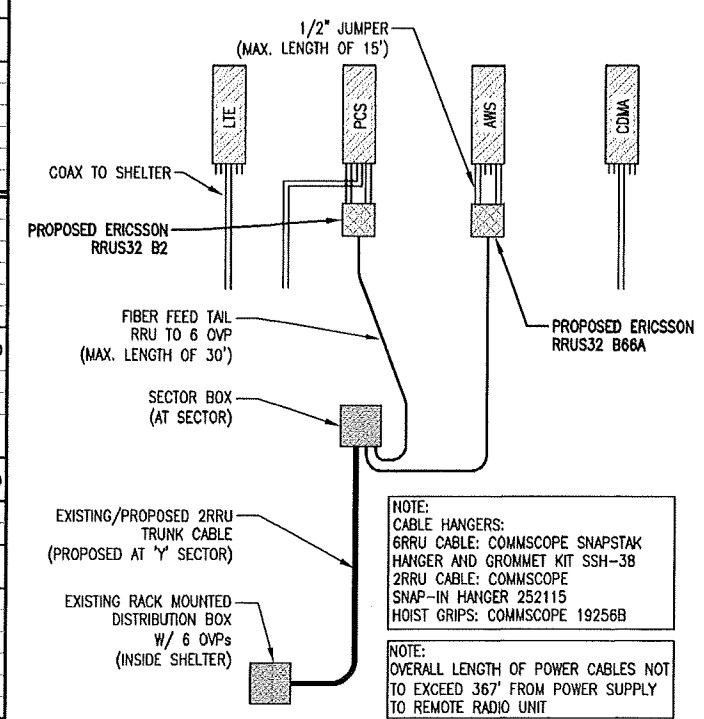
PROJECT
20161456568
LOC. CODE # 140361

MIN
KILLEBREW
LTE ADD PCS
850
2051 KILLEBREW DR.
BLOOMINGTON, MN 55425

SHEET CONTENTS:
COAX, ANTENNA, & TTA KEY

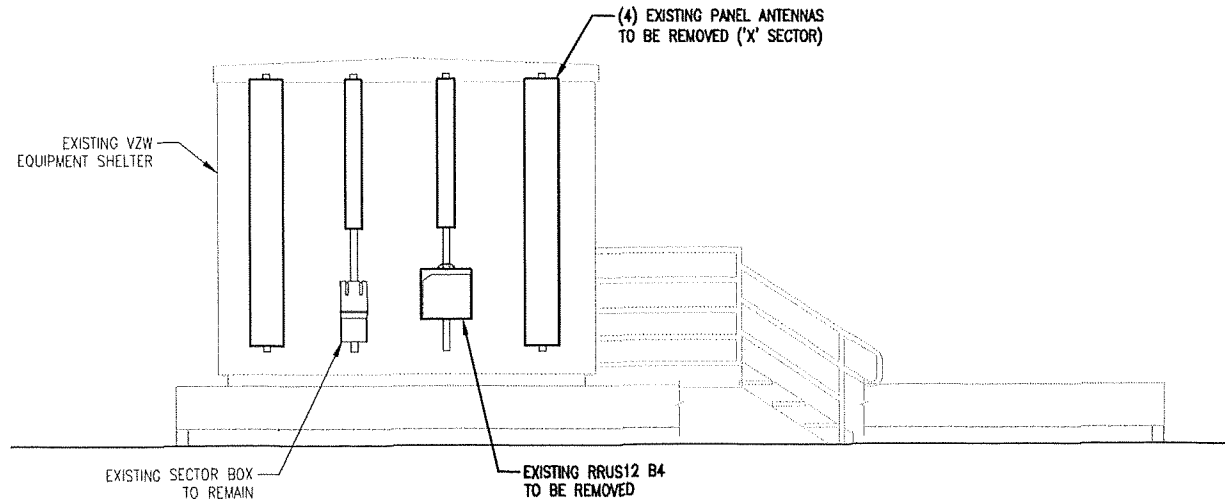
DRAWN BY: KNW
DATE: 10-06-16
CHECKED BY: TJR
REV. A 12-22-16
REV. B 01-03-17
REV. 0 02-22-17
REV. 1 03-03-17

2RRU CABLE CALCS.
EQUIPMENT SHELTER 30'
HORIZONTAL RUN ON ROOF 200'
TO DIST. BOX 10'
EXTRA 20'
TOTAL 260'

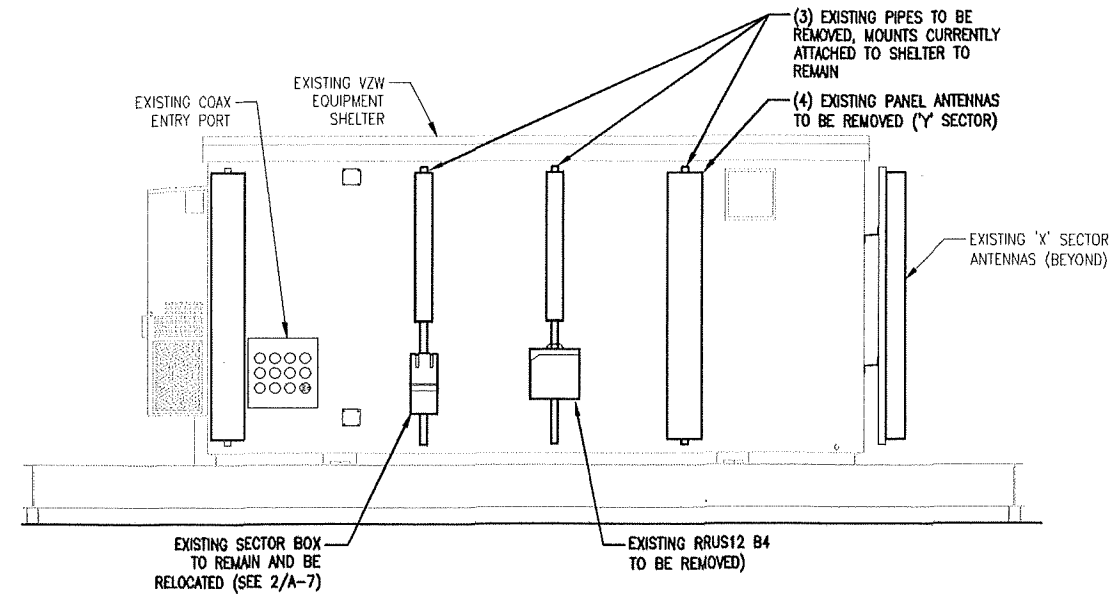


CASE FILE #PL201700012

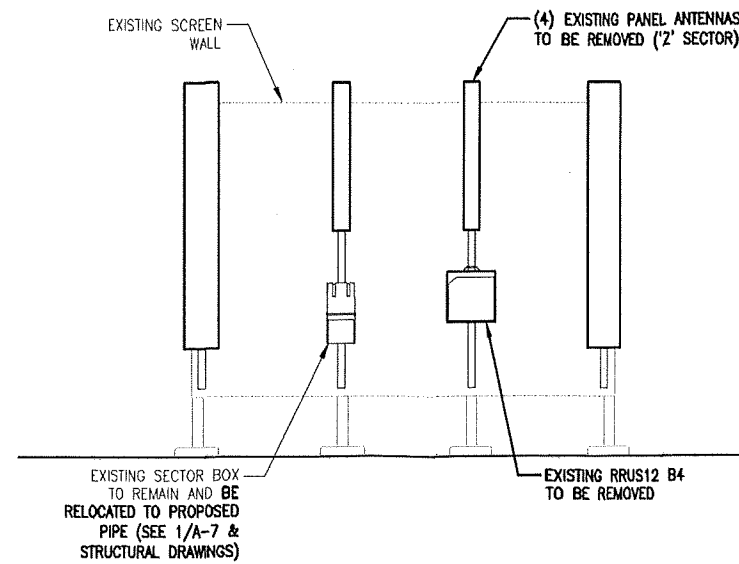
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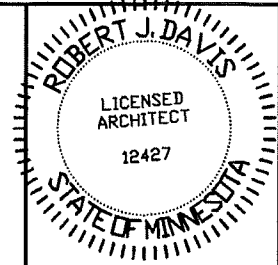
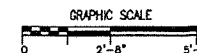
3 EXISTING 'X' SECTOR ELEVATION
SCALE: 3/16" = 1'-0"



2 EXISTING 'Y' SECTOR ELEVATION
SCALE: 3/16" = 1'-0"



1 EXISTING 'Z' SECTOR ELEVATION
SCALE: 3/16" = 1'-0"



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Print Name: ROBERT J. DAVIS

Signature: *Robert J. Davis*
License No. 12427

Date: 03-03-17



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PROJECT
20161456568
LOC. CODE # 140361

MIN
KILLEBREW
LTE ADD PCS
850
2051 KILLEBREW DR.
BLOOMINGTON, MN 55425

SHEET CONTENTS:
EXISTING ELEVATIONS

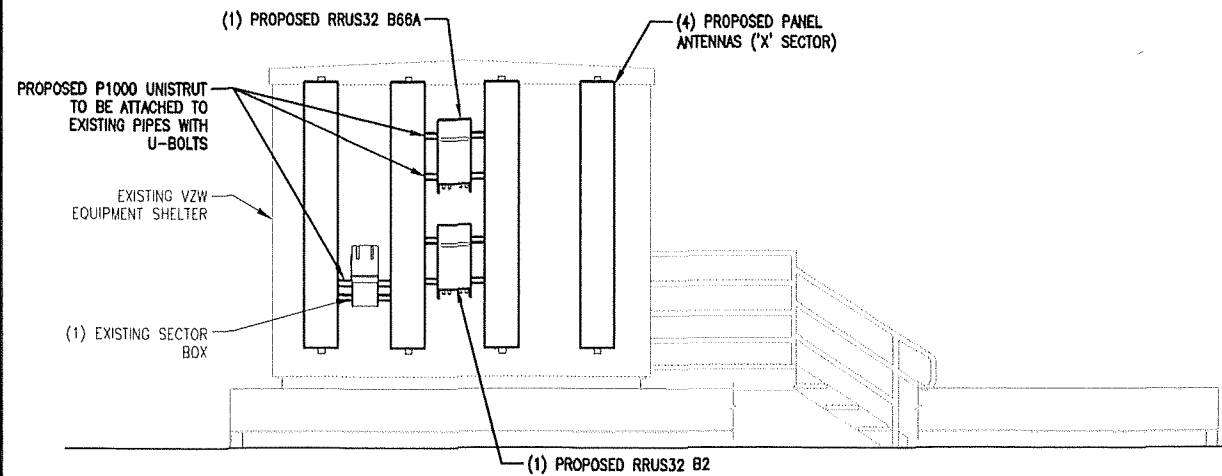
DRAWN BY:	KNW
DATE:	10-06-16
CHECKED BY:	TJR
REV. A	12-22-16
REV. B	01-03-17
REV. 0	02-22-17
REV. 1	03-03-17

A-6

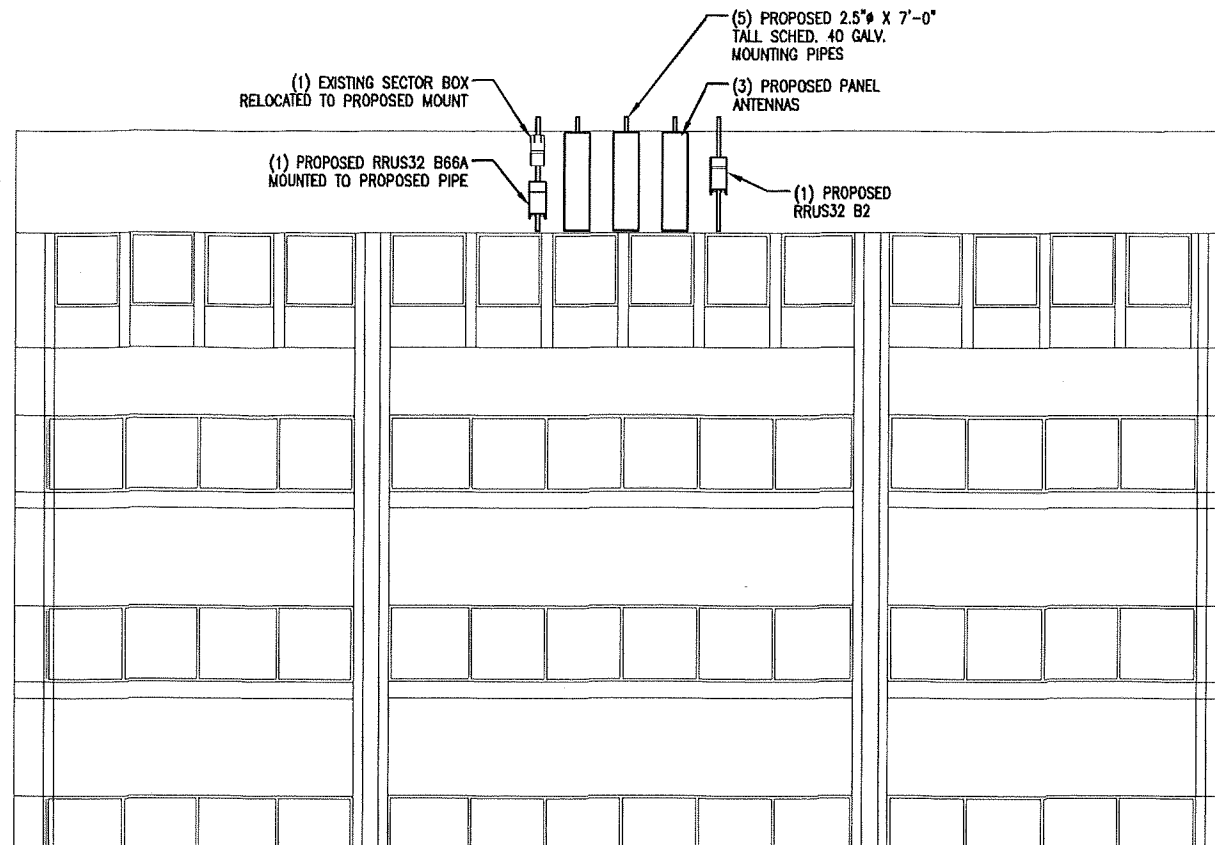
CASE FILE #PL201700012

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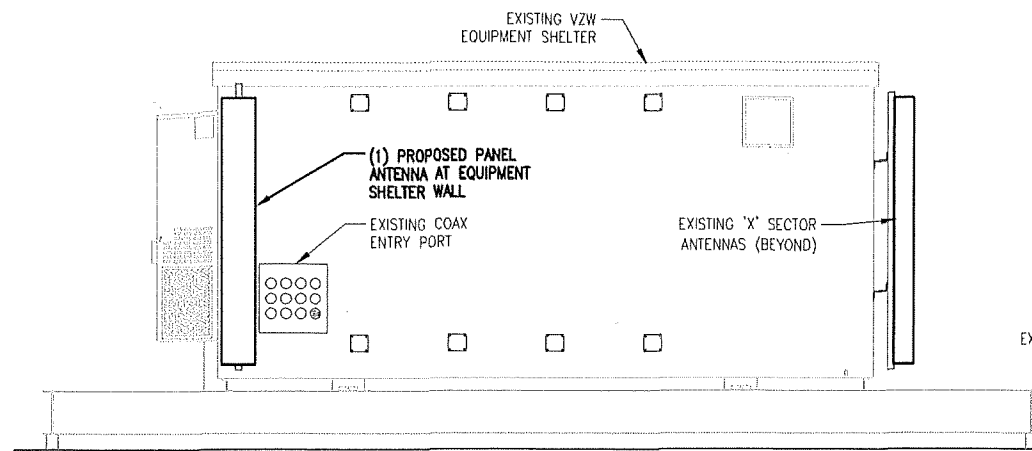
ANTENNA CENTERLINE HEIGHT
 68' AGL



3 PROPOSED 'X' SECTOR ELEVATION
 SCALE: 3/16" = 1'-0"

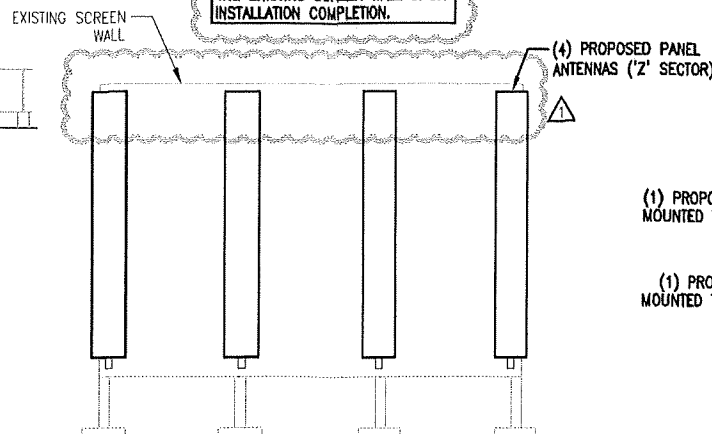


2 PROPOSED 'Y' SECTOR ELEVATION @ BUILDING
 SCALE: 3/32" = 1'-0"

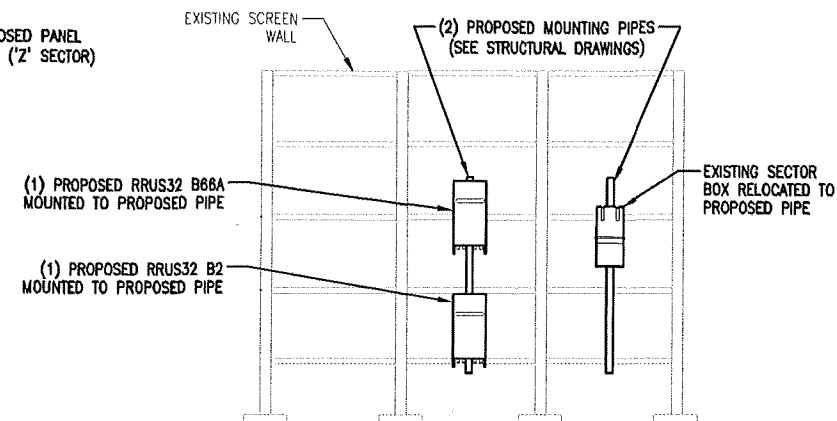


4 PROPOSED 'Y' SECTOR ELEVATION @ SHELTER
 SCALE: 3/16" = 1'-0"

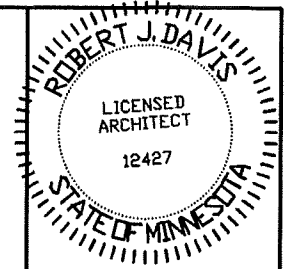
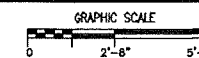
NOTE:
 CONTRACTOR TO ENSURE THE TIPS OF THE PROPOSED ANTENNAS DO NOT EXCEED THE TOP OF THE EXISTING SCREEN WALL UPON INSTALLATION COMPLETION.



5 PROPOSED 'Z' SECTOR ELEVATION (FRONT)
 SCALE: 3/16" = 1'-0"



1 PROPOSED 'Z' SECTOR ELEVATION (BACK)
 SCALE: 3/16" = 1'-0"



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PROJECT
 20161456568
 LOC. CODE # 140361

MIN
 KILLEBREW
 LTE ADD PCS
 850
 2051 KILLEBREW DR.
 BLOOMINGTON, MN 55425

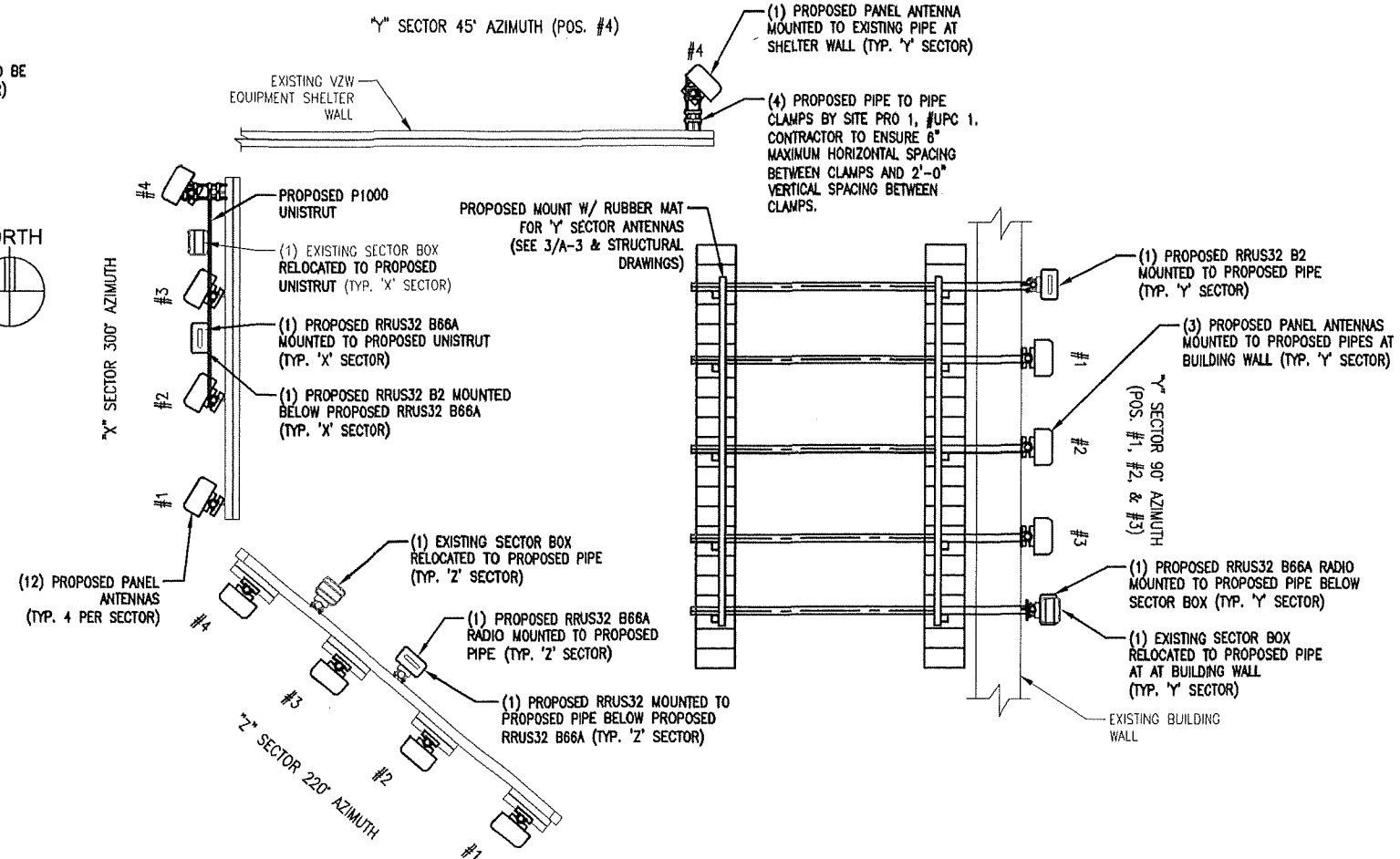
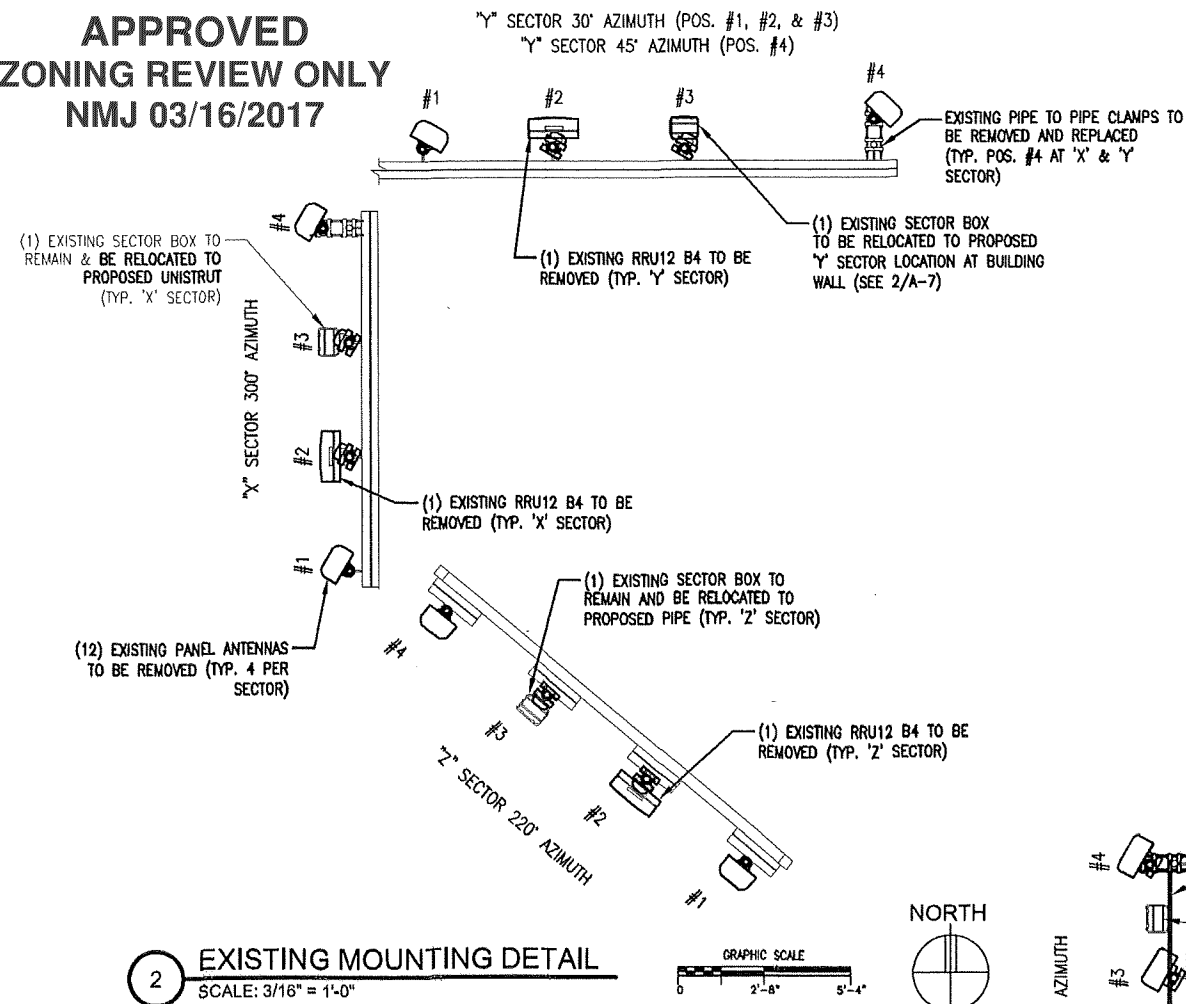
SHEET CONTENTS:
 PROPOSED ELEVATIONS

DRAWN BY:	KNW
DATE:	10-06-16
CHECKED BY:	TJR
REV. A	12-22-16
REV. B	01-03-17
REV. D	02-22-17
REV. 1	03-03-17

A-7

CASE FILE #PL201700012

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05 0000 METALS

Galvanized metals to be prepared to SSPC SP-7 Brush-off Blast Cleaning, shop primed with Tnemec Series 66 Hi-Build Epoxoline DFT 3.0 - 5.0 mils and finished with Tnemec Series 1075 Endura-Shield DFT 2.0 to 3.0 mils and Total DFT of 5.0 to 8.0 mils. Color to match the wall in which the metals are mounted on.

Black iron to be prepared to SSPC SP-6 Commercial Blast Cleaning, shop primed with Tnemec Series 66 Hi-Build Epoxoline DFT 4.0 - 6.0 mils and intermediate coat of Series 66 Hi-Build Epoxoline DFT 2.0 to 3.0 mils and finished with Tnemec Series 1075 Endura-Shield DFT 2.0 to 5.0 mils and Total DFT of 8.0 to 14.0 mils. Color to match existing.

No welding over coated steel surfaces. The contractor is responsible to adequately remove all coatings before welding. All areas that require welding are to be abrasive blasted before any welding is started.

The contractor shall supply the special inspector with the welding procedures qualification and welders certificate prior to the start of any welding.

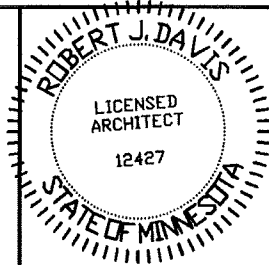
09 9000 PAINTING

Touchup paint construction related scrapes, scratches.

The proposed antennas, RRU's, and mounting pipes at the proposed 'Y' sector location shall be primed and painted to match the wall on which they are mounted. The proposed antennas, RRU's, and mounting pipes at the existing 'X', 'Y' & 'Z' sector locations shall be primed and painted to match existing. Contractor to verify painting specifications from the landlord prior to painting.

Welds and scorch marks shall be properly ground and/or cleaned before painting.

Antennas, antenna related equipment, and Non-Galvanized Metals (as referenced within the drawings), excluding identification tags/labels, are to be cleaned in accordance with SSPC SP-1 Solvent cleaning, scuff lightly with steel wool to break gloss. Do not paint latches and hinges. Mask off these items with painters tape or equivalent. Primer: (1) coat Sherwin Williams Pro-Cryl Primer. Finish: (1) coat Sherwin Williams Sher-Cryl HPA. Finish Coat color at the proposed 'Y' sector location shall match the wall on which the equipment is mounted. Finish Coat color at the existing 'X', 'Y' & 'Z' sector locations shall match existing.



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Robert J. Davis
Signature: ROBERT J. DAVIS, License No. 12427

Date: 03-03-17



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PROJECT
20161456568
LOC. CODE # 140361

**MIN
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LTE ADD PCS
850**
2051 KILLEBREW DR.
BLOOMINGTON, MN 55425

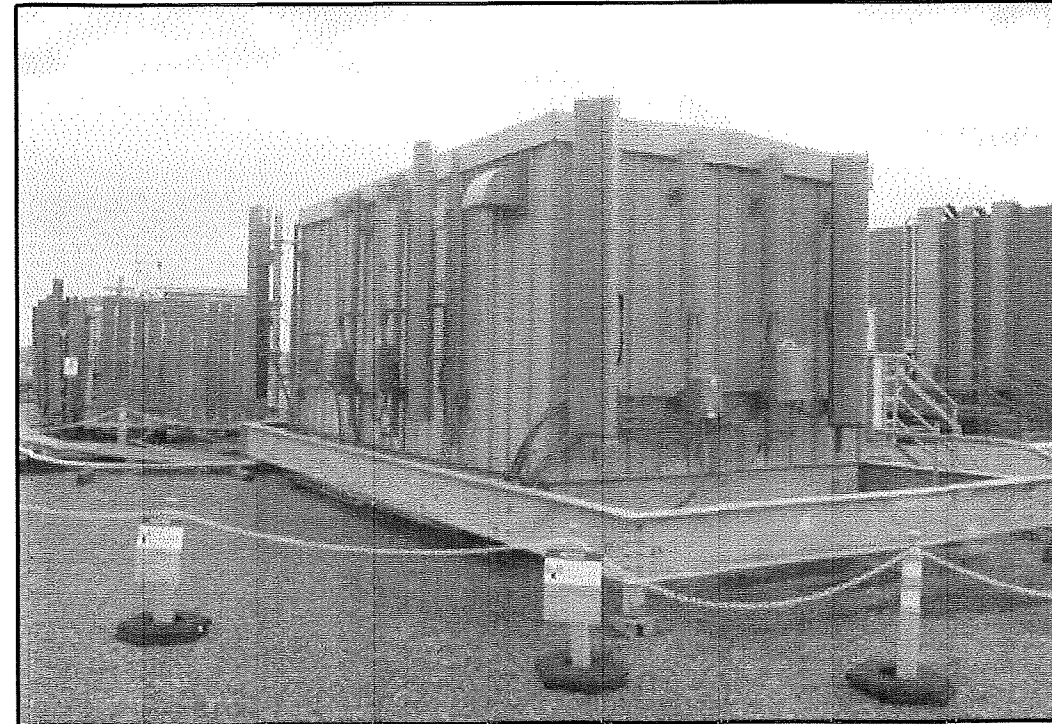
SHEET CONTENTS:
MOUNTING PLANS
SPECIFICATIONS

DRAWN BY:	KNW
DATE:	10-06-16
CHECKED BY:	TJR
REV. A	12-22-16
REV. B	01-03-17
REV. 0	02-22-17
REV. 1	03-03-17

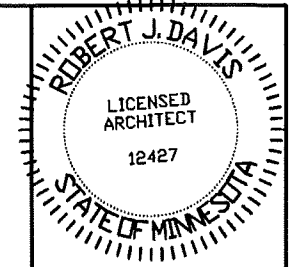
CASE FILE #PL201700012



3 SITE PHOTO
SCALE: NONE



2 SITE PHOTO
SCALE: NONE



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BLOOMINGTON, MN 55425

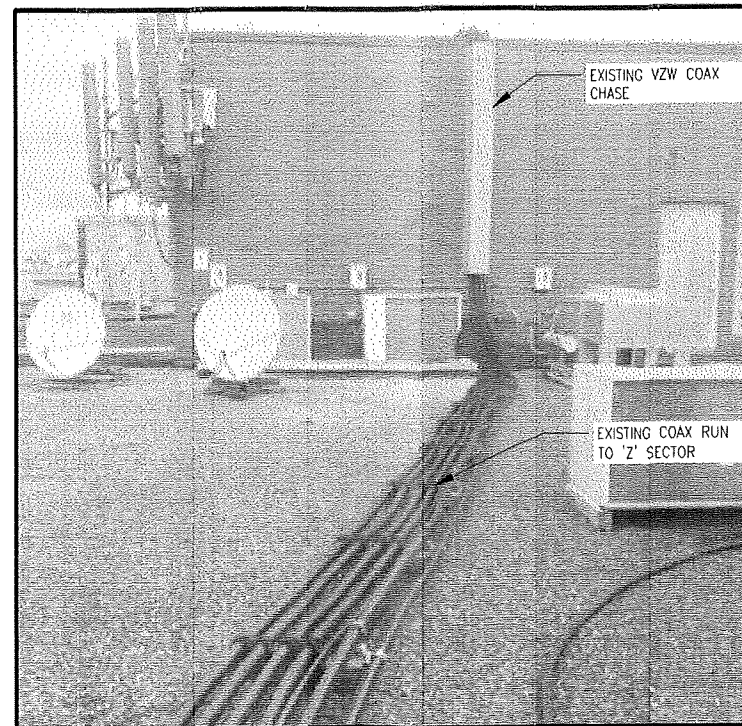
SHEET CONTENTS:
MISC. PHOTOS

DRAWN BY:	KNW
DATE:	10-06-16
CHECKED BY:	TJR
REV. A	12-22-16
REV. B	01-03-17
REV. D	02-22-17
REV. 1	03-03-17

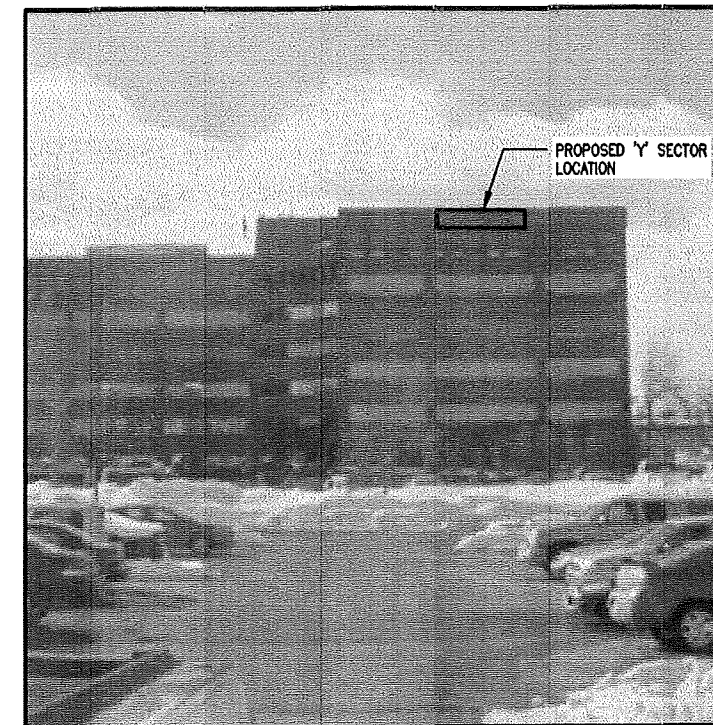
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NMJ 03/16/2017



4 OVERALL PHOTO
SCALE: NONE



5 COAX PHOTO
SCALE: NONE



1 PROPOSED 'Y' SECTOR LOCATION
SCALE: NONE