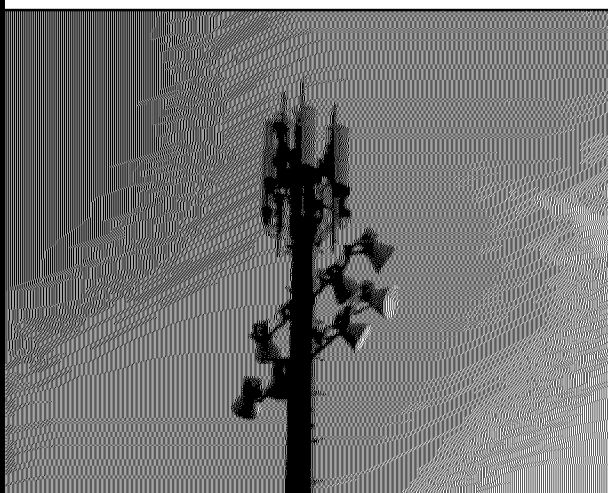


SITE PHOTO



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# AT&T MOBILITY

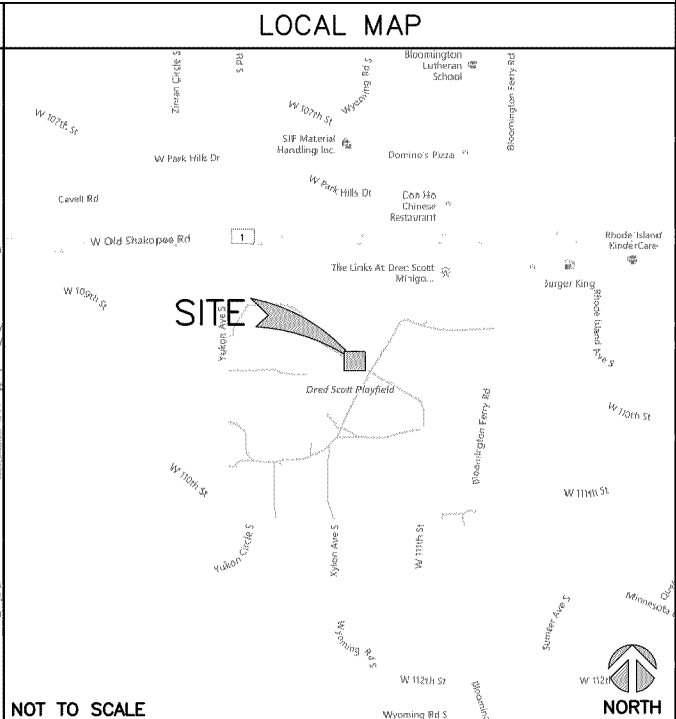
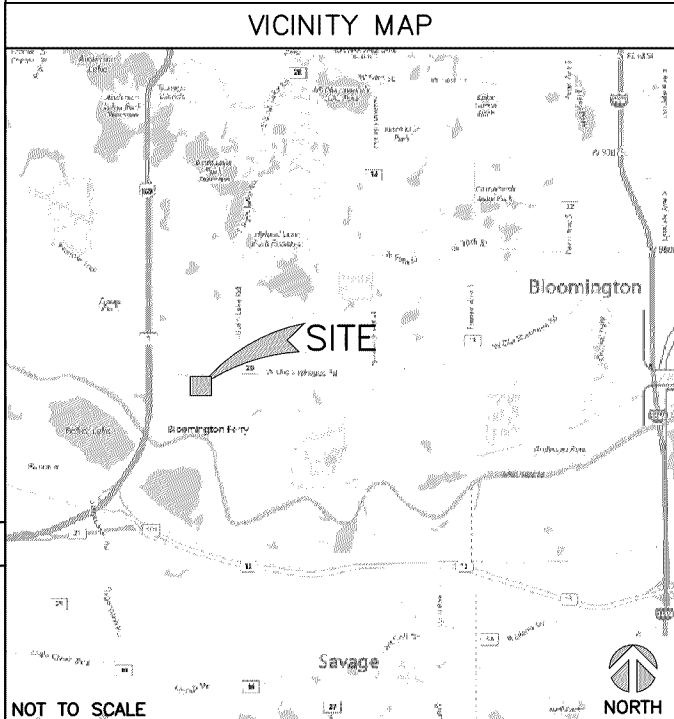
**PROJECT :** LTE 2C / 3C  
**SITE # :** MNL03189  
**FA # :** 10104049  
**PTN # :** 3511561620 / 3511796600  
**PACE # :** MRUMW008633 / MRUMW012759  
**CROWN BU#** 856948  
**CROWN APP ID #** 226671  
**SITE NAME :** HWY 169 AND 1  
**ADDRESS :** 10810 BLOOMINGTON FERRY RD  
**BLOOMINGTON, MN 55438**  
**JURISDICTION:** BLOOMINGTON

PROJECT INFORMATION

**SITE NAME:** HWY 169 AND 1  
**COUNTY:** HENNEPIN  
**ADDRESS:** 10810 BLOOMINGTON FERRY RD  
 BLOOMINGTON, MN 55438  
**JURISDICTION:** BLOOMINGTON  
**SITE NUMBER:** MNL03189  
**FA NUMBER:** 10104049  
**PTN:** 3511561620 / 3511796600  
**PACE:** MRUMW008633 / MRUMW012759  
**CROWN BU NUMBER:** 856948  
**USID:** 46066  
**LATITUDE:** 44° 48' 21.3984" N ( 44.8059)  
**LONGITUDE:** -93° 23' 18.0990" W (-93.3884)  
**TOWER OWNER:** CITY OF BLOOMINGTON  
 1800 WEST OLD SHAKOPEE RD  
 BLOOMINGTON, MN 55431  
**GROUND OWNER:** CITY OF BLOOMINGTON  
 1800 WEST OLD SHAKOPEE RD  
 BLOOMINGTON, MN 55431  
**LANDLORD CONTACT:** MLA (CROWN)  
**APPLICANT:** AT&T WIRELESS  
 901 S. MARQUETTE AVE.  
 MINNEAPOLIS, MN 55402  
**AT&T PROJECT MANAGER:** PETER MCENERY  
 PHONE: (952)-229-9667  
 EMAIL: PM753T@ATT.COM  
**AT&T CONSTRUCTION MANAGER:** EDWIN DE KOOKER  
 PHONE: (952)-229-9655  
 EMAIL: ED5853@ATT.COM

PROJECT CONSULTANTS

**PROJECT MANAGEMENT:** SAC WIRELESS  
 540 W. MADISON ST. 17TH FLOOR  
 CHICAGO, ILLINOIS 60661  
 CONTACT: AMY HUTCHINGS  
 EMAIL: AMY.HUTCHINGS@SACW.COM  
**SITE ACQUISITION:** SAC WIRELESS  
 540 W. MADISON ST. 17TH FLOOR  
 CHICAGO, ILLINOIS 60661  
 CONTACT: BRET FORTUNA  
 EMAIL: BRET.FORTUNA@SACW.COM  
**ARCHITECT:** NESTOR POPOWYCH, A.I.A.  
 SAC WIRELESS ENGINEERING GROUP  
 540 W. MADISON ST. 16TH FLOOR  
 CHICAGO, ILLINOIS 60661  
 CONTACT: KEVIN ALLEN  
 PHONE: (312) 895-4977 EXT. 4362  
 EMAIL: KEVIN.ALLEN@SACW.COM  
**CONSTRUCTION:** SAC WIRELESS  
 540 W. MADISON ST. 16TH FLOOR  
 CHICAGO, ILLINOIS 60661  
 CONTACT: DIANA HUBBARD  
 EMAIL: DIANA.HUBBARD@SACW.COM



DRIVING DIRECTIONS

DIRECTIONS FROM: 901 SOUTH MARQUETTE AVENUE, MINNEAPOLIS, MN 55402

1. TURN RIGHT ONTO S 8TH ST
2. TURN RIGHT ONTO S 4TH AVE
3. TAKE RAMP AND FOLLOW SIGNS FOR MN-65 S
4. BEAR RIGHT ONTO I-35W S
5. AT EXIT 9B TAKE RAMP RIGHT AND FOLLOW SIGNS FOR MN-5 WEST / I-494 WEST
6. AT EXIT 10A TAKE RAMP RIGHT AND FOLLOW SIGNS FOR US-169 SOUTH
7. TAKE RAMP RIGHT AND FOLLOW SIGNS FOR CR-1 EAST
8. TURN LEFT ONTO W OLD SHAKOPEE RD / CR-1 E
9. TURN RIGHT ONTO BLOOMINGTON FERRY RD
10. ARRIVE AT 10810 BLOOMINGTON FERRY RD, BLOOMINGTON, MN 55438

DRAWING INDEX

T1	TITLE SHEET
SP1	NOTES & SPECIFICATIONS
A1	COMPOUND PLAN
A2	EQUIPMENT PLAN
A3	TOWER ELEVATION
A4	ANTENNA PLAN
A5	ANTENNA & CABLE CONFIGURATION
A6	ANTENNA, RRH AND MOUNTING DETAILS
A7	ANTENNA, RRH AND MOUNTING DETAILS
A8	CABLE NOTES & COLOR CODING
E1	GROUNDING DETAILS

SCOPE OF WORK

THIS IS NOT AN ALL INCLUSIVE LIST. CONTRACTOR SHALL UTILIZE SPECIFIED EQUIPMENT PART OR ENGINEER APPROVED EQUIVALENT. CONTRACTOR SHALL VERIFY ALL NEEDED EQUIPMENT TO PROVIDE A FUNCTIONAL SITE. THE PROJECT GENERALLY CONSISTS OF THE FOLLOWING:

- REMOVE (3) EXISTING AT&T LTE 1C/GSM ANTENNAS. (1) PER SECTOR IN POSITION 1. (TYP. OF 3 SECTORS)
- REMOVE (3) EXISTING AT&T UMTS ANTENNAS. (1) PER SECTOR IN POSITION 2. (TYP. OF 3 SECTORS)
- LOWER (3) EXISTING PIPE MOUNTS TO FACILITATE PROPOSED RRH INSTALLATION BELOW ANTENNAS. (1) PER SECTOR IN POSITION 1. (TYP. OF 3 SECTORS)
- INSTALL (3) PROPOSED AT&T LTE 1C/2C/3C ANTENNAS. (1) PER SECTOR IN POSITION 1. (TYP. OF 3 SECTORS)
- INSTALL (3) PROPOSED AT&T GSM/UMTS ANTENNAS. (1) PER SECTOR IN POSITION 2. (TYP. OF 3 SECTORS)
- INSTALL (3) PROPOSED AT&T LTE 2C RRHs. (1) PER SECTOR IN POSITION 1. (TYP. OF 3 SECTORS)
- INSTALL (3) PROPOSED AT&T LTE 3C RRHs. (1) PER SECTOR IN POSITION 1. (TYP. OF 3 SECTORS)
- INSTALL PROPOSED POWER PLANT TO REPLACE EXISTING POWER PLANT.
- INSTALL PROPOSED BATTERY TO REPLACE EXISTING.
- INSTALL (6) PROPOSED 15A BREAKERS INSTALLED IN PROPOSED POWER PLANT.
- INSTALL (2) PROPOSED 8 AWG 6 CONDUCTOR DC TRUNK LINES.
- INSTALL (1) PROPOSED FIBER TRUNK LINE.
- INSTALL PROPOSED DC/JUMPERS.
- INSTALL (1) PROPOSED RAYCAP DC6-48-60-18-8F (SQUID).
- INSTALL PROPOSED RAYCAP MODULES; TO BE INSTALLED IN THE PROPOSED POWER PLANT.
- INSTALL (1) PROPOSED RAYCAP DC12-48-60-0-25E ON EQUIPMENT PAD.

NOTE PER SCOPING DOCUMENT:  
 -ADJUST ALL EXISTING TECHNOLOGIES TO PROPOSED AZIMUTHS 90/210/330  
 -ALL PROPOSED ANTENNAS AND OTHER APPURTENANCES SUCH AS FEED LINES AND/OR JUMPERS, MOUNTING PIPES, BRACKETS, AND PLATFORMS SHALL BE PAINTED TO MATCH EXISTING CONDITIONS AND EXISTING AT&T TOWER (BROWN). DO NOT PAINT EXISTING & PROPOSED RRH's.

CODE COMPLIANCE

- 2015 MINNESOTA STATE BUILDING CODE
- 2014 NATIONAL ELECTRIC CODE
- TIA/EIA-222-G

REFERENCE MATERIALS

- THESE DRAWINGS ARE BASED AT&T SCOPING DOCUMENT DATED 01/15/16.
- CONTRACTOR TO USE LATEST 2C RFDS DATED 04/13/16 AND THE LATEST 3C RFDS DATED 04/13/16 WITH THE CD'S PER SCOPE OF WORK.

SPECIAL NOTES

- ALL WORK SHALL BE INSTALLED IN CONFORMANCE WITH CURRENT AT&T CONSTRUCTION INSTALLATION GUIDE.
- EXISTING CONDITIONS WILL BE CHANGED & VERIFIED IN FIELD. IF SIGNIFICANT DEVIATIONS OR DETERIORATION ARE ENCOUNTERED AT THE TIME OF CONSTRUCTION, A REPAIR PERMIT WILL BE OBTAINED & CONTRACTOR SHALL NOTIFY ENGINEER IMMEDIATELY.
- THESE DRAWINGS ARE FULL SIZE & SCALEABLE ON 11"x17" SHEET SIZE.
- STATEMENT THAT COMPLIANCE WITH THE ENERGY CODE IS NOT REQUIRED. -SCOPE OF WORK DOES NOT INVOLVE MODIFICATIONS TO EXTERIOR ENVELOPE OF BUILDING, HVAC SYSTEMS OR ELECTRICAL LIGHTING.

DO NOT SCALE DRAWINGS

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



REVISIONS

REV.	DATE	DESCRIPTION	INITIALS
A	04/11/16	ISSUED FOR REVIEW	GD
B	04/25/16	ISSUED FOR REVIEW	GD
0	05/13/16	FOR CONSTRUCTION	GD

NOT FOR CONSTRUCTION UNLESS LABELED AS CONSTRUCTION SET

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 PROFESSIONAL ARCHITECT UNDER THE LAWS OF THE STATE OF MINNESOTA.

PRINT NAME: NESTOR POPOWYCH  
 SIGNATURE:

DATE: 05/13/16 LICENSE # 47725  
 EXP. 06/30/18

LTE 2C / 3C  
 10104049  
 HWY 169 AND 1  
 10810 BLOOMINGTON FERRY RD  
 BLOOMINGTON, MN 55438

SHEET TITLE  
**TITLE SHEET**

SHEET NUMBER  
**T1**

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**APPROVED  
ZONING REVIEW ONLY  
NMJ 01/05/2017**



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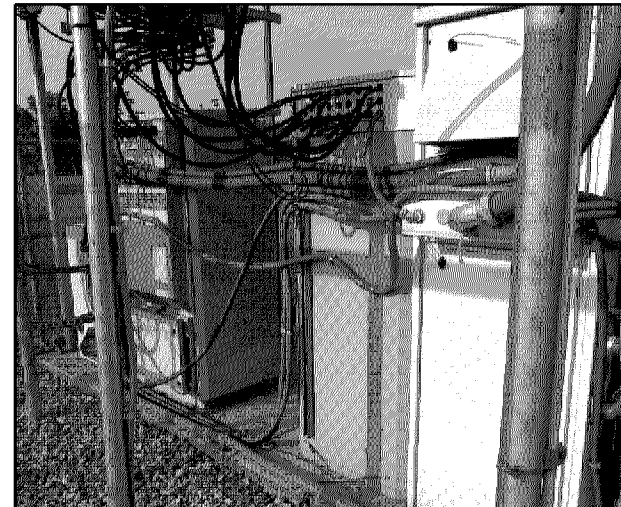
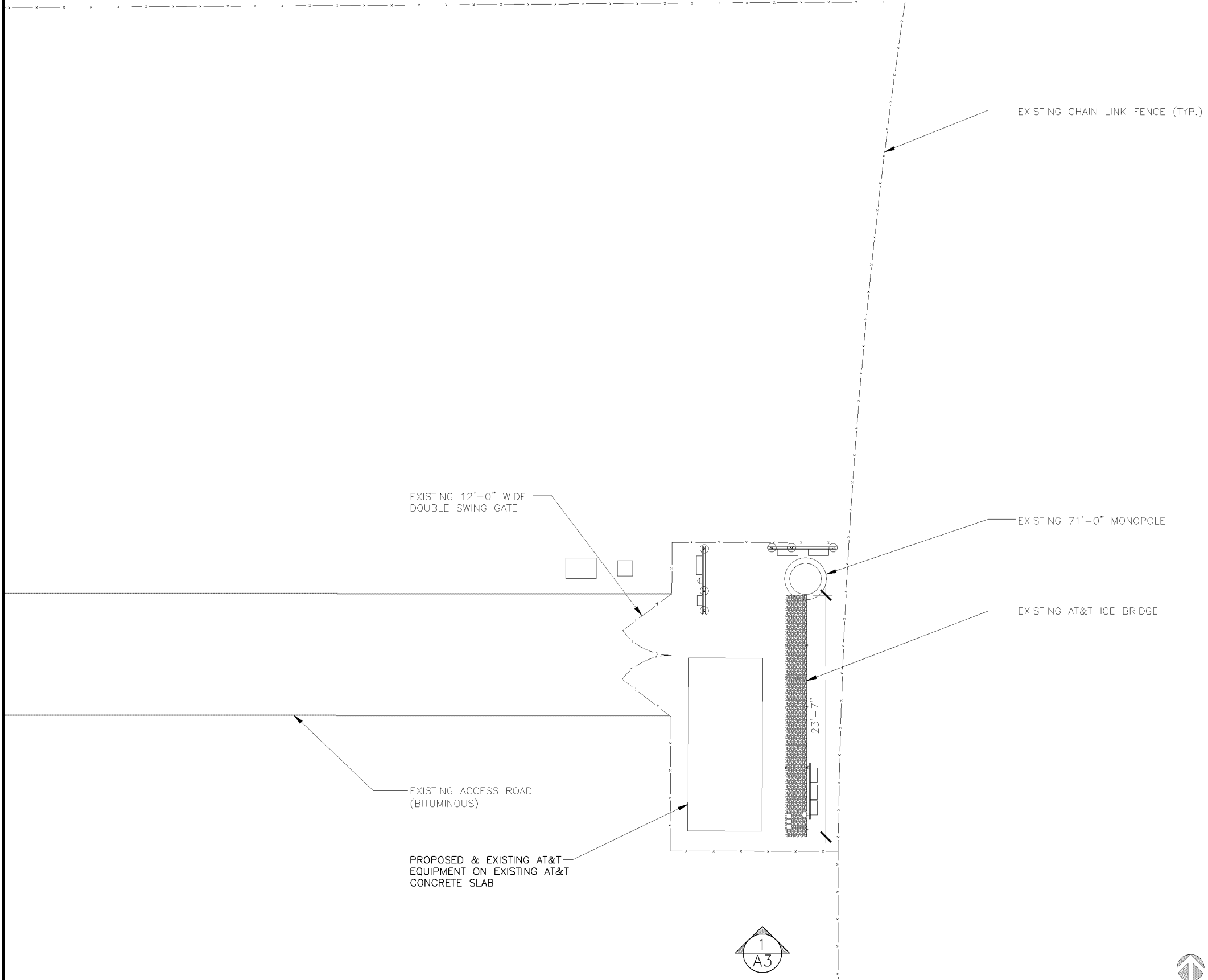
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STATE OF MINNESOTA.

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SITE PHOTO 2 2



SITE PHOTO 1 1

LTE 2C / 3C  
10104049  
HWY 169 AND 1  
10810 BLOOMINGTON FERRY RD  
BLOOMINGTON, MN 55438

SHEET TITLE  
**COMPOUND  
PLAN**

SHEET NUMBER  
**A1**

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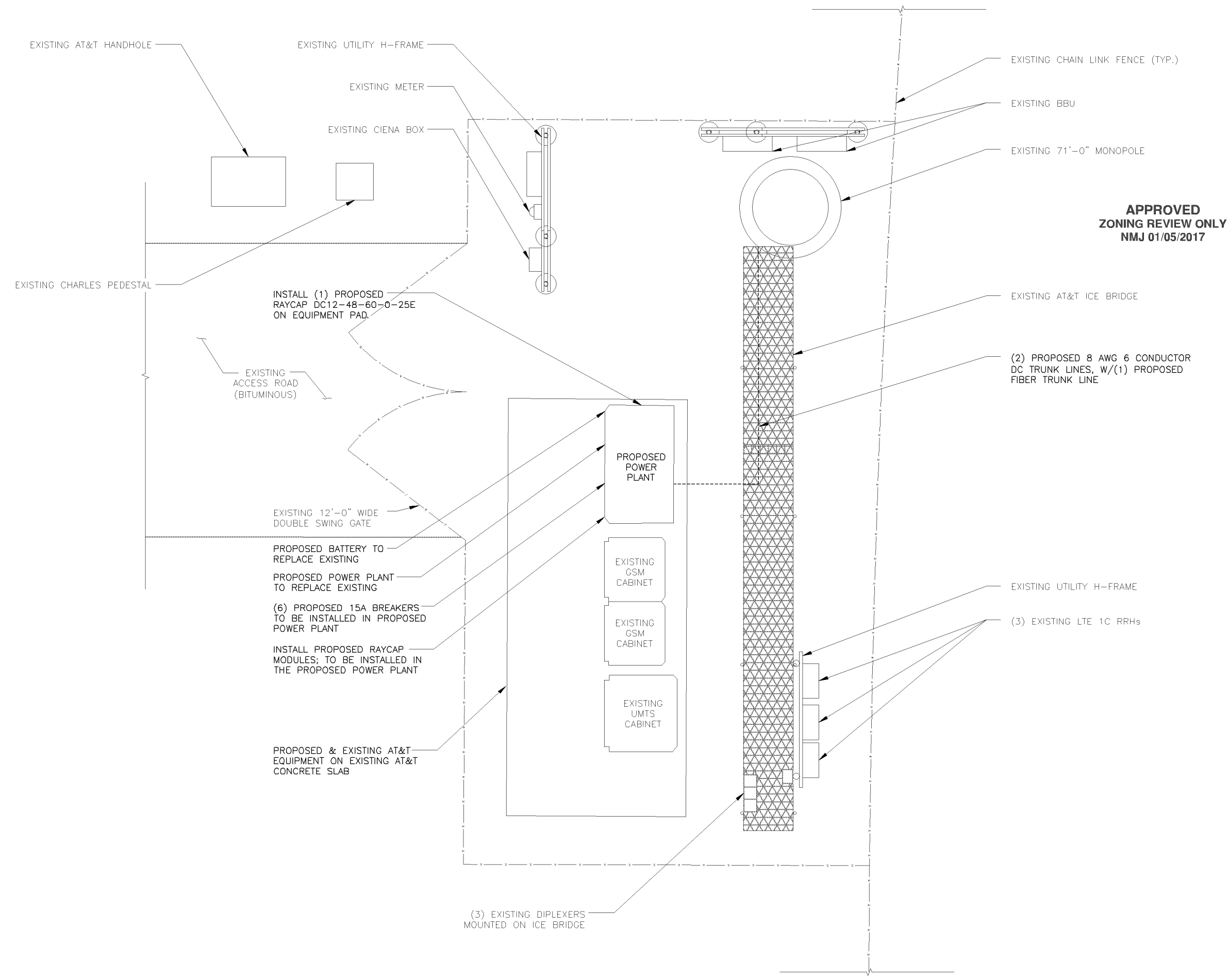
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EXP. 06/30/18

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10104049  
HWY 169 AND 1  
10810 BLOOMINGTON FERRY RD  
BLOOMINGTON, MN 55438

SHEET TITLE  
**EQUIPMENT PLAN**

SHEET NUMBER  
**A2**

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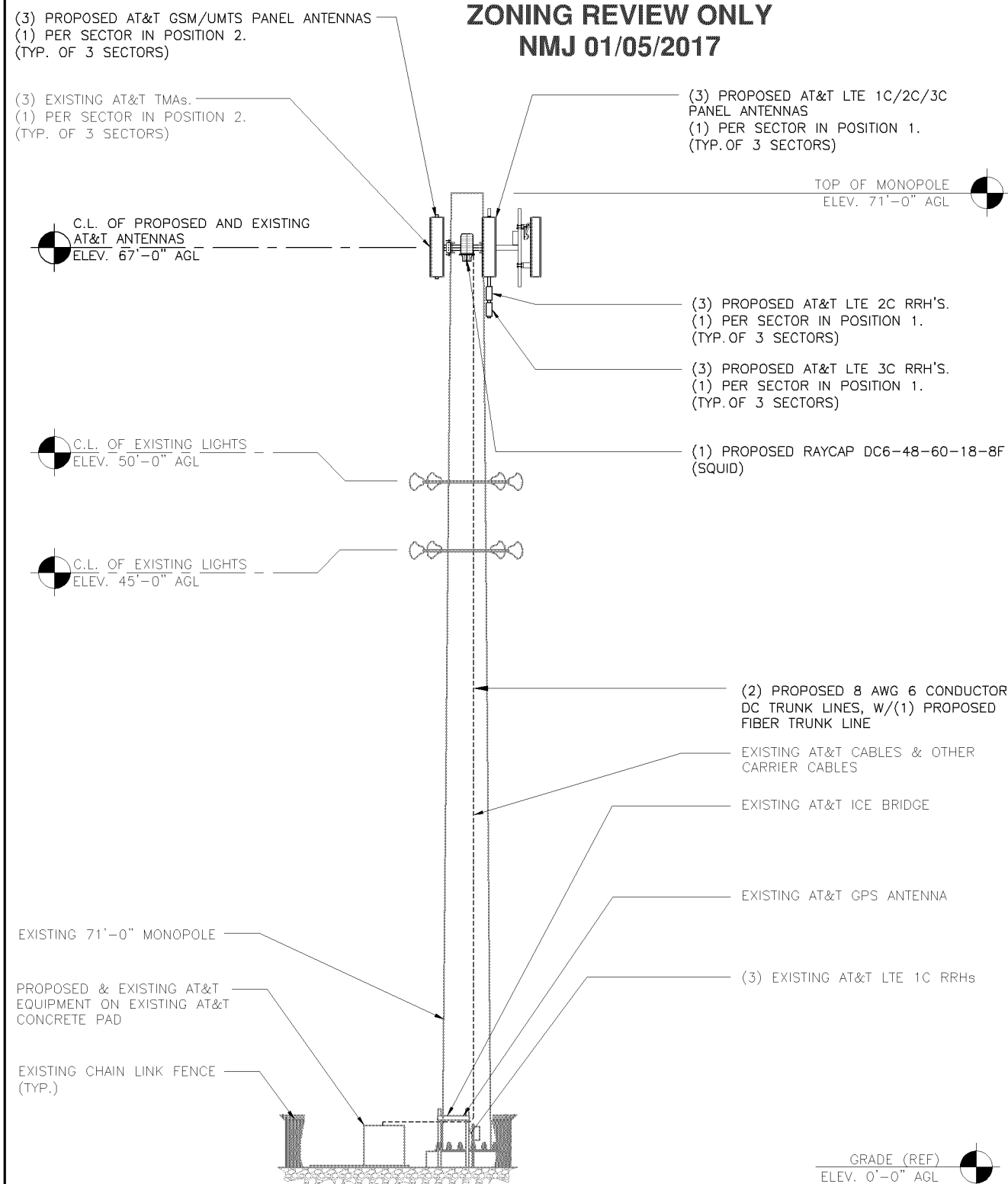
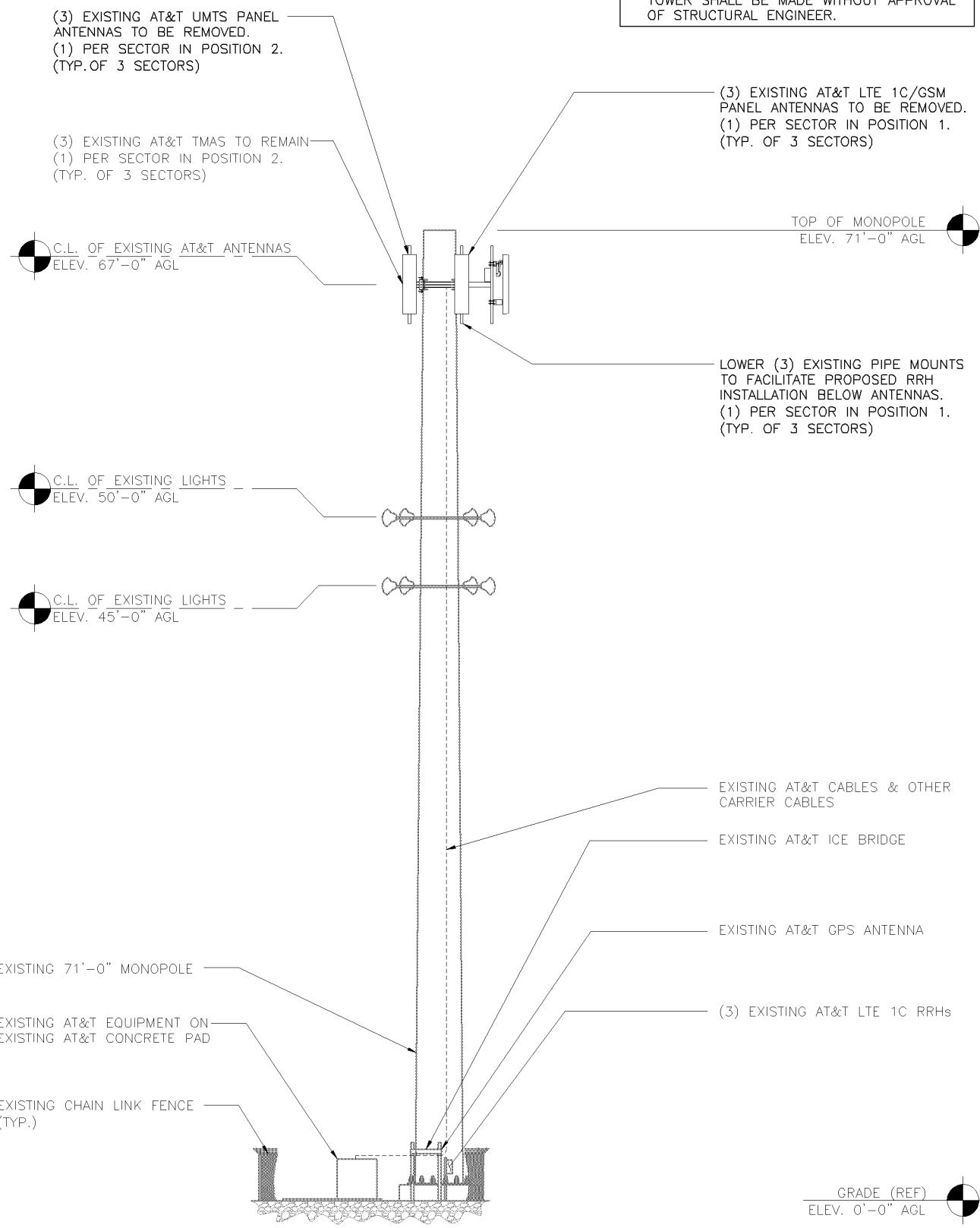


- TOWER STRUCTURAL CALCULATIONS PREPARED BY OTHERS. CONTRACTOR TO VERIFY WITH PROJECT MANAGER TO OBTAIN A COPY
- CONTRACTOR TO REFER TO TOWER STRUCTURAL CALCULATIONS FOR ADDITIONAL LOADS. NO ERECTION OR MODIFICATION OF TOWER SHALL BE MADE WITHOUT APPROVAL OF STRUCTURAL ENGINEER.

NOTE:  
GENERAL CONTRACTOR SHALL MAKE SURE SAFETY CLIMB IS 100% FREE OF COAX AND MOUNTS AFTER INSTALL IS COMPLETE.

ALL PROPOSED ANTENNAS AND OTHER APPURTENANCES SUCH AS FEED LINES AND/OR JUMPERS, MOUNTING PIPES, BRACKETS, AND PLATFORMS SHALL BE PAINTED TO MATCH EXISTING CONDITIONS AND EXISTING AT&T TOWER (BROWN). DO NOT PAINT EXISTING & PROPOSED RRH'S.

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10104049  
HWY 169 AND 1  
10810 BLOOMINGTON FERRY RD  
BLOOMINGTON, MN 55438

SHEET TITLE  
**TOWER ELEVATION**

SHEET NUMBER  
**A3**

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EXISTING TOWER ELEVATION

SCALE: 3/32" = 1'-0" 2

PROPOSED TOWER ELEVATION

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



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PROPOSED ANTENNA CONFIGURATION AND CABLE SCHEDULE										
SUPPLIED BY AT&T WIRELESS, FROM 2C RF CONFIG DATED 04/13/16 AND A 3C RF CONFIG DATED 04/13/16, BY KSHITIJ SURYAWANSHI										
SECTOR	POS	TECH	ANTENNA	ANTENNA ☉ HEIGHT	AZIMUTH	TMA/RRU MODEL#	DC SURGE AND DISTRIBUTION	CABLE TYPE	CABLE LENGTH (+20%)	DOWNTILTS
A	1	LTE 1C/2C/3C	QUINTEL (N) QS4658-3	67' AGL	90°	RRH2x40-AWS+RDEM (N) RRH4x25-WCS-4R (N)	(1) RAYCAP (N) DC6-48-60-18-8F	(2) DC TRUNK LINE (N) (1) DC TRUNK LINE (X) (1) FIBER (X) (1) FIBER (N)	99'	0
	2	GSM/UMTS	QUINTEL (N) QS4658-3		90°	TT19-08BP111-001 (X)		(4) LDF (X) 1-5/8" COAX		0
B	1	LTE 1C/2C/3C	QUINTEL (N) QS4658-3	67' AGL	210°	RRH2x40-AWS+RDEM (N) RRH4x25-WCS-4R (N)	(1) RAYCAP (N) DC6-48-60-18-8F	DC TRUNK (SHARED WITH A1) FIBER (SHARED WITH A1)	99'	0
	2	GSM/UMTS	QUINTEL (N) QS4658-3		210°	TT19-08BP111-001 (X)		(4) LDF (X) 1-5/8" COAX		0
C	1	LTE 1C/2C/3C	QUINTEL (N) QS4658-3	67' AGL	330°	RRH2x40-AWS+RDEM (N) RRH4x25-WCS-4R (N)	(1) RAYCAP (N) DC6-48-60-18-8F	DC TRUNK (SHARED WITH A1) FIBER (SHARED WITH A1)	99'	0
	2	GSM/UMTS	QUINTEL (N) QS4658-3		330°	TT19-08BP111-001 (X)		(4) LDF (X) 1-5/8" COAX		0

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LTE 2C / 3C  
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HWY 169 AND 1  
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BLOOMINGTON, MN 55438

SHEET TITLE  
**ANTENNA &  
CABLE  
CONFIGURATION**

SHEET NUMBER  
**A5**

\* INCLUDES SAFETY FACTOR OF 20' FT. (10 FT. AT BOTH ENDS OF CABLE RUN).  
CONTRACTOR TO VERIFY RF DATA WITH AT&T WIRELESS CONSTRUCTION MANAGER  
AND/OR RF ENGINEER PRIOR TO INSTALLATION

(N) = NEW  
(X) = EXISTING  
(XR) =  
EXISTING/RELOCATED  
(E) = ELECTRICAL  
(M) = MECHANICAL

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