

**Memorandum
Department of Planning and Public Works****To: Planning and Public Works Committee****From: Kristian Corbin, Project Planner****Date: September 22, 2011****Re: T.S.P. 29-2011 AT&T (18031 Wild Horse Creek Road): A request to obtain approval to amend a Telecommunication Siting Permit for the purpose of upgrading existing facilities to accommodate and provide 4G LTE data service on an existing telecommunications tower on a 1.47 acre tract of land zoned "NU" Non-Urban District located at 18301 Wild Horse Creek Road (19W510095).****Summary**

AT&T has requested an amendment to a telecommunications siting permit to allow for the location of upgraded antennas to facilitate 4G LTE data service on an existing monopole tower located northeast of the intersection of Wild Horse creek Road and Eatherton Road.

City of Chesterfield Ordinance 2391, which governs telecommunications and facilities siting, permits applications for equipment upgrades to be submitted for sites that currently hold a telecommunications siting permit without the need for a public hearing. Staff has reviewed the request by AT&T and has determined that the proposed addition of the 4G LTE antennas are indeed an upgrade to an existing and permitted site and may amend said existing permit without the need for a public hearing.

Attached are copies of the site plan, elevations, boundary plat, and propagation study.

Respectfully Submitted,

Kristian Corbin
Project Planner

T.S.P 29-2011 AT&T (18031 Wild Horse Creek Road)
Planning and Public Works Committee
September 22, 2011

CC: Michael G. Herring, City Administrator
Rob Heggie, City Attorney
Michael O. Geisel, Director of Planning & Public Works
Aimee Nassif, Planning & Development Services Director

Attachments: AT&T 4G LTE Upgrade Packet



June 24, 2011

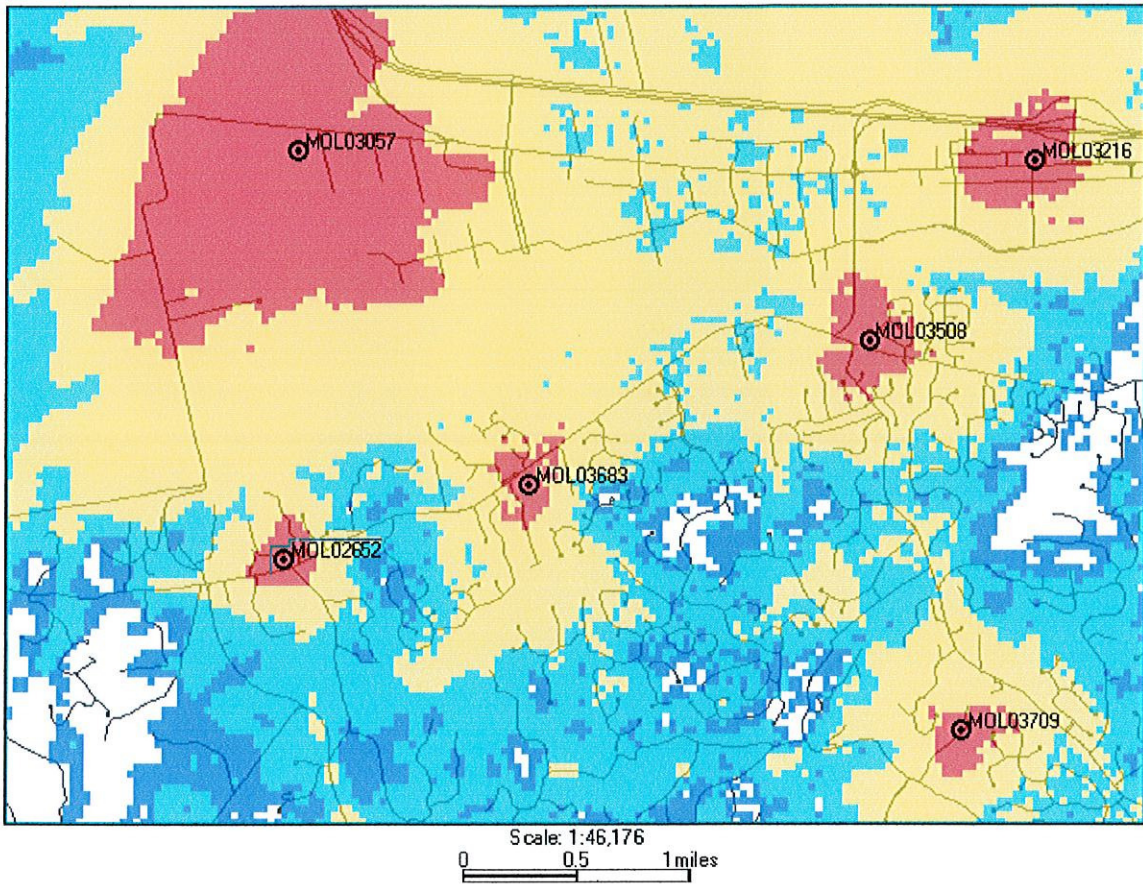
The following is a brief explanation of why AT&T Mobility is proposing to have the current wireless communication facility at 18303A Wildhorse Creek Road modified. This facility is labeled as MOL02652 on Map 1. Currently this facility is only capable of broadcasting our older technologies.

This facility currently is broadcasting our "2G" technology (called GSM) and our "3G" technology (called UMTS). Each technology uses its own antennas and equipment. The modification we are proposing is to add our "4G" technology (called LTE). Perhaps you have seen all the television commercials from various wireless carriers talking about their 4G systems. 4G, short for 4th generation of wireless technology, allows wireless carriers to provide much faster data speeds than our current networks. 4G is only for data at this point. All voice calls will still be served on older technologies. Currently AT&T still has the fastest data network. Although as other carriers implement and optimize their 4G networks we expect to lose that advantage and eventually fall behind other carriers unless we also launch our 4G network. The proposed modifications will allow us to implement our 4G technology by using additional antennas and equipment.

Because of national E911 requirements, this site needs to run all technologies. The 4G technology is not capable of handling voice calls at this time and all 911 calls made from a wireless device will be routed through our older technologies. These technologies require that we use a total of 3 antennas for each direction covered. This site, like most of our locations, serves three directions creating a need for 9 antennas. This requires us to add 3 additional antennas for this location.

This plan will have no effect on our coverage for current technologies. Map 1 below shows the proposed coverage for our 4G network in the area. AT&T Mobility has acceptable coverage in most of the surrounding area. Because 4G is a data only service the different signal levels don't indicate whether service exists or not. In general on 4G the stronger the signal (to a point) the faster the data rates will be. It is expected that red, yellow and light blue will have data speeds faster than our 3G technology. The dark blue will likely have data speeds nearly identical to the 3G technology.

Map 1 Proposed AT&T "4G" coverage



Ron Humphrey

Radio Frequency Design Engineer

AT&T Mobility Division

MO2652 CFPD2



LTE 80' - MONOPINE



13075 MANCHESTER RD, SUITE 100
ST LOUIS, MO 63131

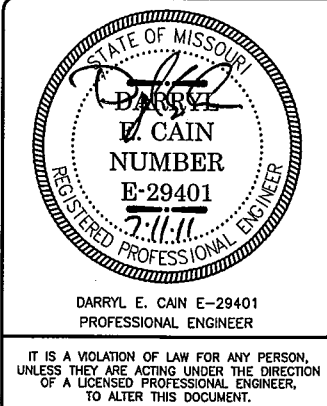


10950 GRANDVIEW DRIVE
OVERLAND PARK, KANSAS 66210
(913) 458-2000

BLACK & VEATCH PROFESSIONAL ENGINEERING CORPORATION
MISSOURI STATE CERTIFICATE OF AUTHORITY # 001646

PROJECT NO: 168986
DRAWN BY: AK
CHECKED BY: GPX

REV	DATE	DESCRIPTION
0	07/11/11	ISSUED FOR ZONING



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

MO2652
CFPD2
18301 WILDWOOD CREEK RD
CHESTERFIELD, MO 63005
LTE - MONOPINE

SHEET TITLE
TITLE SHEET
SHEET NUMBER
T-1

ENGINEERING

2009 INTERNATIONAL BUILDING CODE
2008 NATIONAL ELECTRIC CODE
TIA/EIA-222-F OR LATEST EDITION

GENERAL NOTES

THE FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION. A TECHNICIAN WILL VISIT THE SITE AS REQUIRED FOR ROUTINE MAINTENANCE. THE PROJECT WILL NOT RESULT IN ANY SIGNIFICANT DISTURBANCE OR EFFECT ON DRAINAGE; NO SANITARY SEWER SERVICE, POTABLE WATER, OR TRASH DISPOSAL IS REQUIRED AND NO COMMERCIAL SIGNAGE IS PROPOSED.

PROJECT DESCRIPTION

THE PROJECT CONSISTS OF THE INSTALLATION AND OPERATION OF ANTENNAS AND ASSOCIATED EQUIPMENT CABINETS FOR AT&T'S CONDUCTORLESS TELECOMMUNICATIONS NETWORK. INSTALLATION OF (3) RRHs, (1) FIBER CABLE, (2) DC POWER CABLES, (1) RAYCAP SURGE PROTECTOR, (3) PIPE MOUNTED LTE PANEL ANTENNAS INCLUDING (1) LTE GPS ANTENNA ARE PROPOSED.

SITE INFORMATION

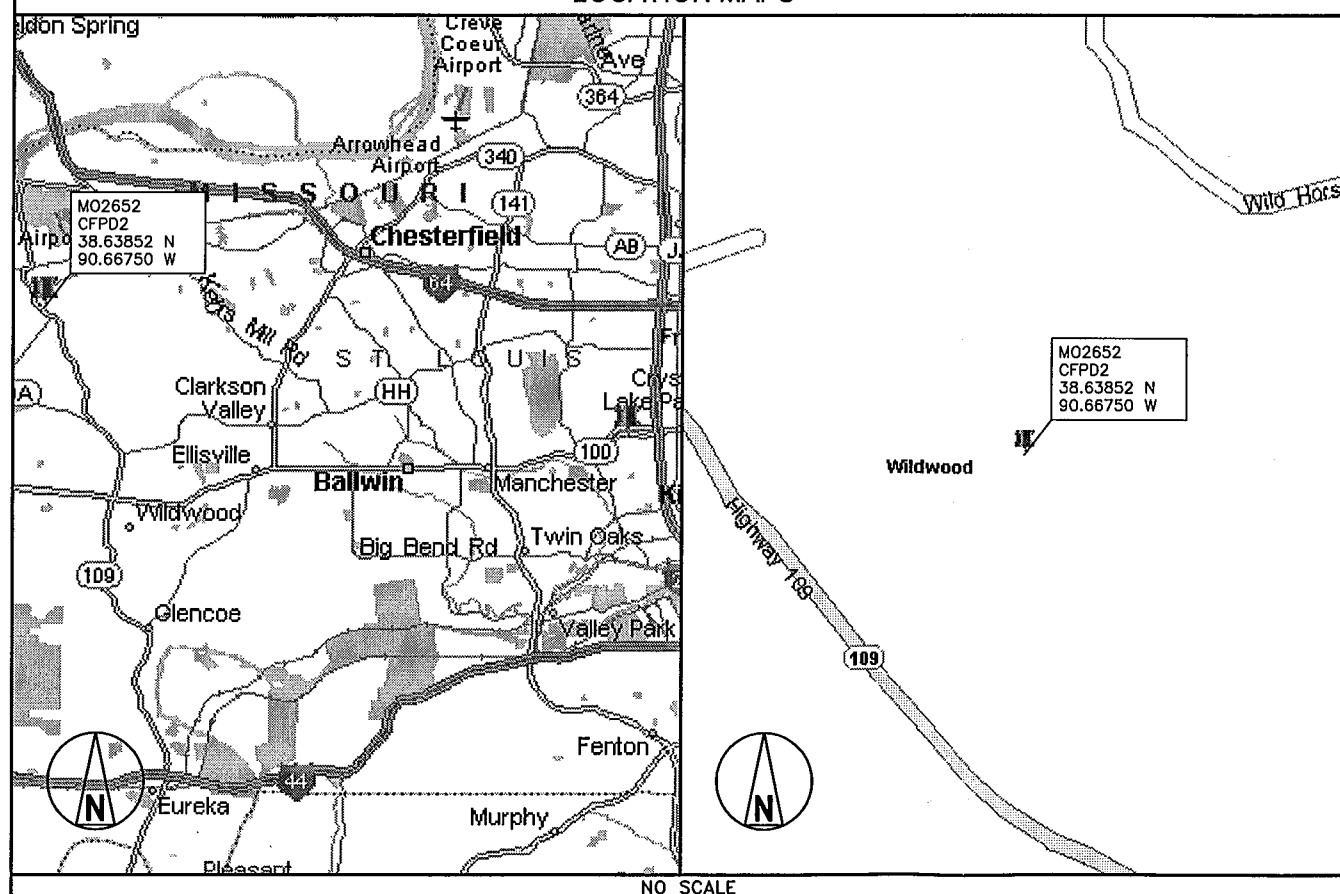
PROPERTY OWNER: ST. CHARLES TOWER
ADDRESS:
TOWER OWNER: ST. CHARLES TOWER
SITE NAME: WILD HORSE CREEK ROAD
SITE NUMBER: 2007-11
SITE CONTACT: NA
SITE ADDRESS: 18301 WILDHORSE CREEK ROAD
CHESTERFIELD, MO 63005
COUNTY: ST. LOUIS
LATITUDE (NAD 83): 38° 38' 18.67" N
38.63852
LONGITUDE (NAD 83): 90° 40' 3.00" W
-90.66750
GROUND ELEVATION: 644' AMSL
RAD CENTER: 69' AGL
ZONING JURISDICTION: CITY OF CHESTERFIELD
ZONING DISTRICT: NU-NON URBAN DISTRICT
PARCEL #: NA
OCCUPANCY GROUP: U
CONSTRUCTION TYPE: V-B
POWER COMPANY: AMEREN MO
TELEPHONE COMPANY: AT&T
SITE ACQUISITION CONTACT: DOUG KONRATH
(314) 605-7542
RF ENGINEER: RON HUMPHREY
CONSTRUCTION MANAGER: KEN SHAW
(314) 210-8629

IF USING 11"X17" PLOT, DRAWINGS
WILL BE HALF SCALE

CONTACT INFORMATION

ENGINEER: 15450 S OUTER FORTY DR, SUITE 200
CHESTERFIELD, MO 63017
CONTACT: GEORGE P. XENOS
PHONE: (913) 687-9233

LOCATION MAPS



DRIVING DIRECTIONS

DIRECTIONS FROM NEAREST AT&T OFFICE:

DEPART 13075 MANCHESTER RD ON I-270 FOR 2.4 MI, AT EXIT 12B-A TAKE RAMP FOR .1 MI, TAKE RAMP ONTO I-64 FOR 9.6 MI, AT EXIT 16 TURN RIGHT ONTO RAMP FOR .6 MI, KEEP STRAIGHT ONTO LONG RD FOR .8 MI, TURN RIGHT ONTO SR-CC FOR 3.1 MI, TURN LEFT ONTO SR-109 FOR .4 MI, TURN LEFT ONTO LOCAL ROAD FOR 174 YDS.

APPROVALS

THE FOLLOWING PARTIES HEREBY APPROVE AND ACCEPT THESE DOCUMENTS AND AUTHORIZE THE SUBCONTRACTOR TO PROCEED WITH THE CONSTRUCTION DESCRIBED HEREIN. ALL DOCUMENTS ARE SUBJECT TO REVIEW BY THE LOCAL BUILDING DEPARTMENT AND MAY IMPOSE CHANGES OR MODIFICATIONS.

AT&T RF: _____ DATE: _____
AT&T OPERATIONS: _____ DATE: _____
AT&T SITE AQ: _____ DATE: _____
OCI: _____ DATE: _____
PROPERTY OWNER: _____ DATE: _____
MUNICIPAL: _____ DATE: _____

DRAWING INDEX

SHEET NO:	SHEET TITLE
T-1	TITLE SHEET
Z-1	SURVEY SHEET
Z-2	OVERALL SITE PLAN
Z-3	SITE PLAN
Z-4	SITE ELEVATION
Z-5	SITE ELEVATION
Z-6	ANTENNA/RRH MOUNT DETAIL

DO NOT SCALE DRAWINGS

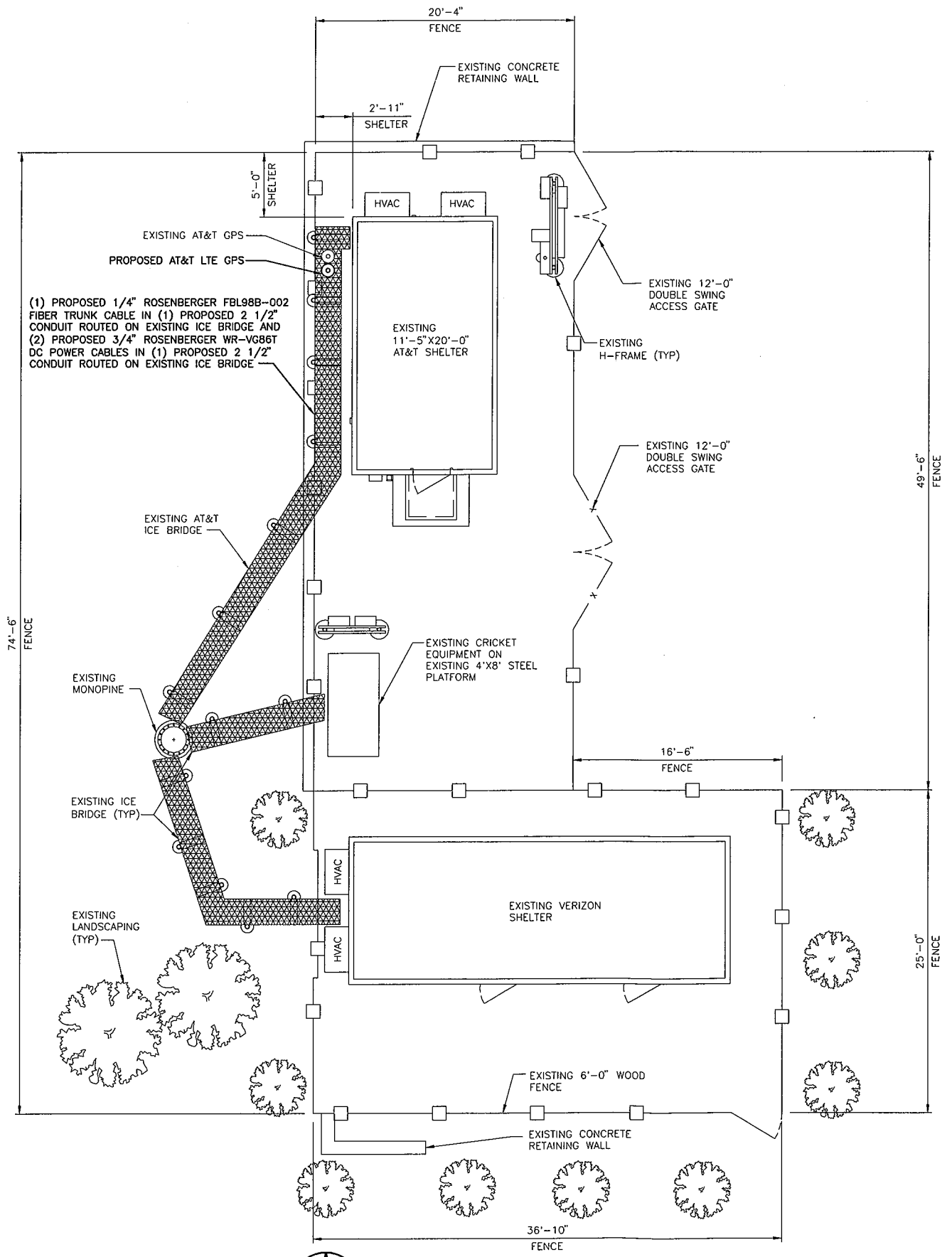
SUBCONTRACTOR SHALL VERIFY ALL PLANS & EXISTING DIMENSIONS & CONDITIONS ON THE JOB SITE & SHALL IMMEDIATELY NOTIFY THE ENGINEER IN WRITING OF ANY DISCREPANCIES BEFORE PROCEEDING WITH THE WORK OR BE RESPONSIBLE FOR SAME



TO OBTAIN LOCATION OF PARTICIPANTS UNDERGROUND FACILITIES BEFORE YOU DIG IN MISSOURI, CALL MISSOURI ONE CALL

TOLL FREE: 1-800-344-7483 OR
www.mo1call.com

MISSOURI STATUTE REQUIRES MIN OF 2 WORKING DAYS NOTICE BEFORE YOU EXCAVATE



(1) PROPOSED 1/4" ROSENBERGER FBL98B-002 FIBER TRUNK CABLE IN (1) PROPOSED 2 1/2" CONDUIT ROUTED ON EXISTING ICE BRIDGE AND (2) PROPOSED 3/4" ROSENBERGER WR-VG86T DC POWER CABLES IN (1) PROPOSED 2 1/2" CONDUIT ROUTED ON EXISTING ICE BRIDGE

SITE PLAN
SCALE: 1/4" = 1'-0"



13075 MANCHESTER RD, SUITE 100
ST LOUIS, MO 63131

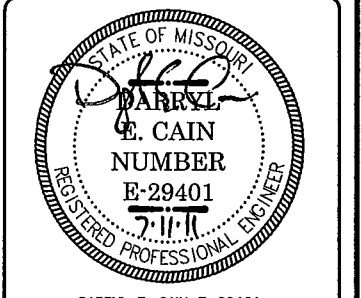


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(913) 458-2000

BLACK & VEATCH PROFESSIONAL ENGINEERING CORPORATION
MISSOURI STATE CERTIFICATE OF AUTHORITY # 001646

PROJECT NO:	168986
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CHECKED BY:	GPX

REV	DATE	DESCRIPTION
0	07/11/11	ISSUED FOR ZONING



DARRYL E. CAIN E-29401
PROFESSIONAL ENGINEER

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MO2652
CFPD2
18301 WILDWOOD CREEK RD
CHESTERFIELD, MO 63005
LTE - MONOPINE

SHEET TITLE
SITE ELEVATION

SHEET NUMBER
Z-3



13075 MANCHESTER RD, SUITE 100
ST LOUIS, MO 63131



BLACK & VEATCH

10950 GRANDVIEW DRIVE
OVERLAND PARK, KANSAS 66210
(913) 458-2000

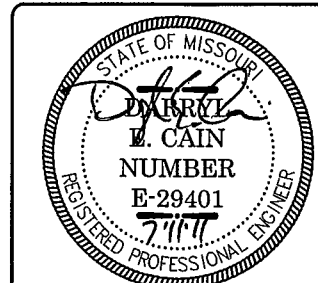
BLACK & VEATCH PROFESSIONAL ENGINEERING CORPORATION
MISSOURI STATE CERTIFICATE OF AUTHORITY # 001848

PROJECT NO: 168986

DRAWN BY: AK

CHECKED BY: GPX

REV	DATE	DESCRIPTION
0	07/11/11	ISSUED FOR ZONING



DARRYL E. CAIN E-29401
PROFESSIONAL ENGINEER

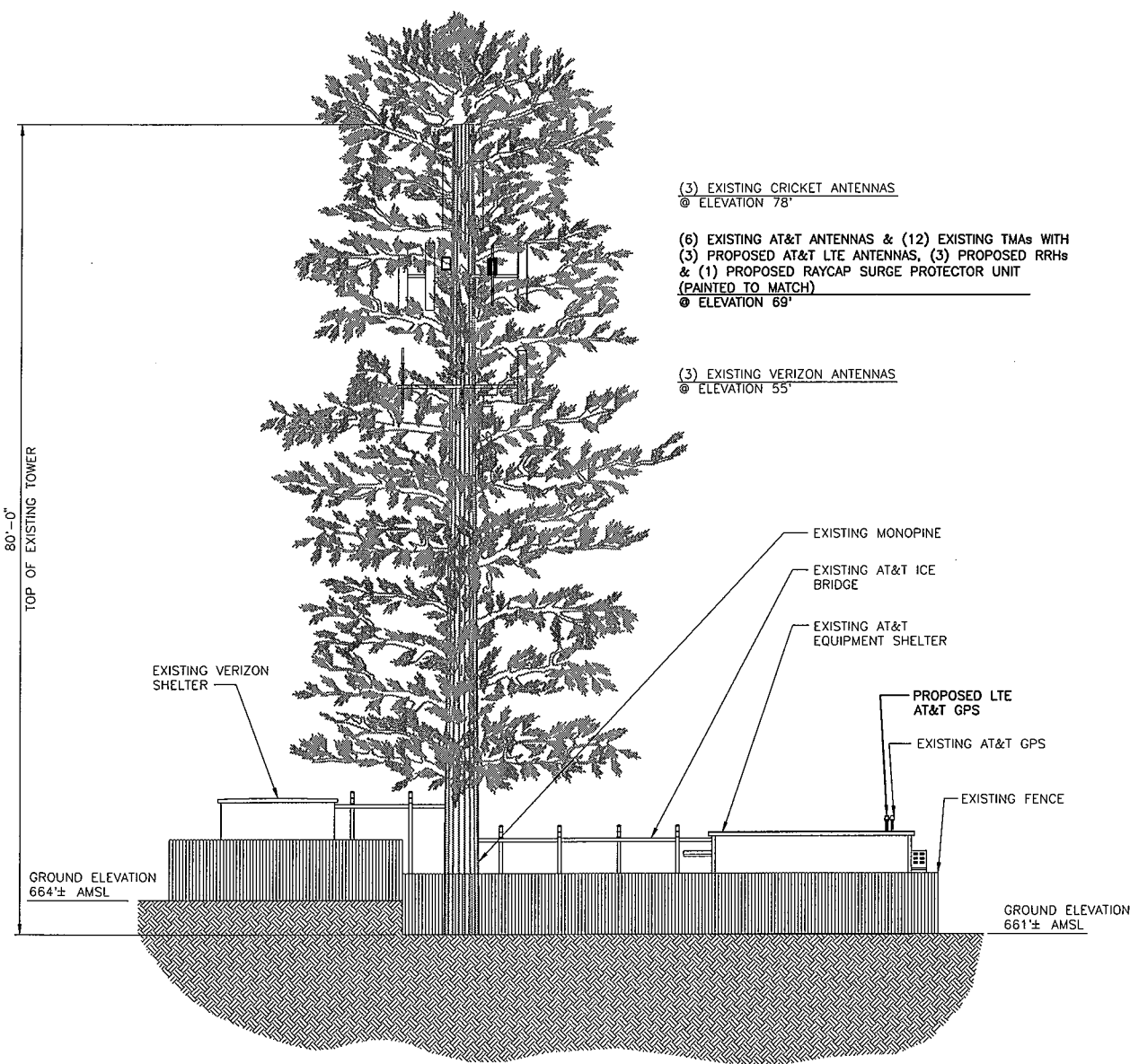
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M02652
CFPD2
18301 WILDWOOD CREEK RD
CHESTERFIELD, MO 63005
LTE - MONOPINE

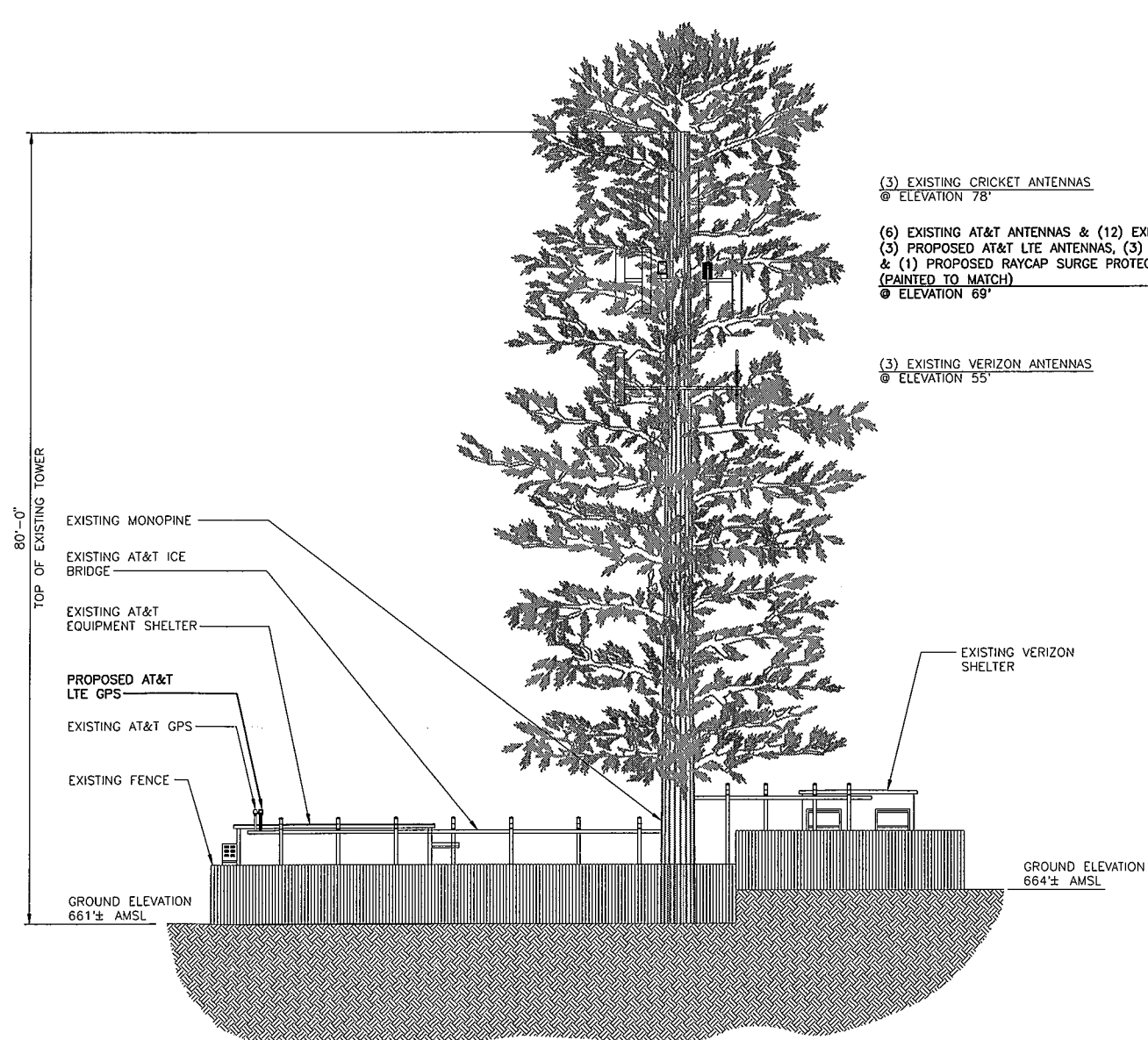
SHEET TITLE
SITE ELEVATION

SHEET NUMBER

Z-5



WEST ELEVATION
NO SCALE



EAST ELEVATION
NO SCALE

LEASE TRACT DESCRIPTION
 A TRACT OF LAND PARTLY IN U.S. SURVEY 163, AND PARTLY IN FRACTIONAL SECTION 15, TOWNSHIP 45 NORTH, RANGE 3 EAST, ST. LOUIS COUNTY, MISSOURI AND FURTHER DESCRIBED AS FOLLOWS:
 BEGINNING AT A POINT 74.81 FEET WEST AND 108.70 FEET NORTH OF THE SOUTHEAST CORNER OF AT TRACT DESCRIBED IN BOOK 17765 PAGE 1387;
 THENCE, N10°25'34"W, 25.00 FEET;
 THENCE, N79°34'26"E, 40.00 FEET;
 THENCE, S10°25'35"E, 29.00 FEET;
 THENCE, S79°34'26"W, 40.00 FEET, TO THE POINT OF BEGINNING.

CONTAINING 0.02 ACRES, MORE OR LESS.

15' ACCESS/UTILITY EASEMENT DESCRIPTION
 A TRACT OF LAND 15 FEET IN WIDTH BEING 7.5 FEET ON EACH SIDE OF THE FOLLOWING DESCRIBED CENTERLINE LOCATED PARTLY IN U.S. SURVEY 163, AND PARTLY IN FRACTIONAL SECTION 15, TOWNSHIP 45 NORTH, RANGE 3 EAST, ST. LOUIS COUNTY, MISSOURI AND FURTHER DESCRIBED AS FOLLOWS:
 COMMENCING AT THE SOUTHEAST CORNER OF THE ABOVE DESCRIBED LEASE TRACT;
 THENCE, S79°34'26"W, 20.00 FEET;
 THENCE, S10°25'35"E, 1.60 FEET, TO THE POINT OF BEGINNING;
 THENCE, N79°34'25"E, 29.71 FEET;
 THENCE, S08°45'00"E, 113.98 FEET, TO A POINT ON THE NORTH RIGHT-OF-WAY LINE OF WILD HORSE CREEK ROAD FOR A TERMINUS.

8' UTILITY EASEMENT DESCRIPTION
 A TRACT OF LAND 15 FEET IN WIDTH BEING 7.5 FEET ON EACH SIDE OF THE FOLLOWING DESCRIBED CENTERLINE LOCATED PARTLY IN U.S. SURVEY 163, AND PARTLY IN FRACTIONAL SECTION 15, TOWNSHIP 45 NORTH, RANGE 3 EAST, ST. LOUIS COUNTY, MISSOURI AND FURTHER DESCRIBED AS FOLLOWS:
 COMMENCING AT THE NORTHEAST CORNER OF THE ABOVE DESCRIBED LEASE TRACT;
 THENCE, S79°34'26"W, 4.27 FEET, TO THE POINT OF BEGINNING;
 THENCE, N30°46'58"W, 50.51 FEET, FOR A TERMINUS.

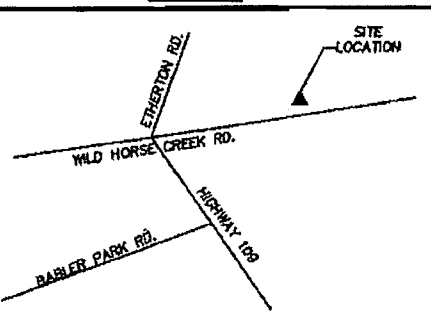
PARENT TRACT DESCRIPTION
 THE FOLLOWING DESCRIBED REAL ESTATE, SITUATED IN THE COUNTY OF ST. LOUIS AND STATE OF MISSOURI, TO WIT: A TRACT OF LAND PARTLY IN U.S. SURVEY 163, AND PARTLY IN FRACTIONAL SECTION 15, TOWNSHIP 45 NORTH, RANGE 3 EAST, ST. LOUIS COUNTY, MISSOURI AND FURTHER DESCRIBED AS FOLLOWS: BEGINNING AT AN OLD IRON ROD LOCATED IN THE NORTH RIGHT OF WAY OF WILD HORSE CREEK ROAD 80 FEET WIDE, SAID IRON ROD ALSO MARKING THE SOUTHEAST CORNER OF A TRACT OF LAND CONVEYED TO C.W. COMBS BY DEED RECORDED IN BOOK 6530 PAGE 2018 OF THE ST. LOUIS COUNTY RECORDS, THENCE LEAVING THE NORTH RIGHT OF WAY LINE OF WILD HORSE CREEK ROAD, AND ALONG THE EAST LINE OF THE AFORESAID COMBS PROPERTY, NORTH 06 DEGREES, 24 MINUTES WEST A DISTANCE OF 309.87 FEET TO A POINT; THENCE NORTH 08 DEGREES 55 MINUTES EAST 209.91 FEET TO AN OLD IRON ROD, SAID ROD ALSO MARKING THE NORTHWEST CORNER OF A TRACT OF LAND CONVEYED TO R. FARON AT BOOK 7216 PAGE 1335 OF THE ST. LOUIS COUNTY RECORDS; THENCE SOUTH 09 DEGREES 03 MINUTES EAST ALONG FARON'S WEST LINE A DISTANCE OF 274.48 FEET TO AN OLD IRON ROD IN THE NORTH RIGHT OF WAY OF WILD HORSE CREEK ROAD; THENCE IN A WESTERLY DIRECTION AND ALONG THE NORTH RIGHT OF WAY OF WILD HORSE CREEK ROAD ON A CURVE TO THE RIGHT (NORTH) WITH A RADIUS OF 1118.28 FEET AN ARC DISTANCE OF 192.99 FEET TO A POINT OF TANGENCY; THENCE CONTINUING ALONG SAID NORTH RIGHT OF WAY SOUTH 81 DEGREES 49 MINUTES WEST A DISTANCE OF 34.40 FEET TO THE POINT OF BEGINNING, ACCORDING TO A SURVEY BY JOHN C. BERGH AND ASSOCIATES DURING JUNE 1979.

TITLE COMMITMENT NOTES
 TITLE COMMITMENT PROVIDED BY LANDAMERICA COMMERCIAL SERVICES, COMMITMENT NUMBER 11278169, DATED NOVEMBER 12, 2008.

- (B0) EASEMENT FOR ROAD PURPOSES IN BOOK 928 PAGE 242 IS ILLEGIBLE.
- (B1) EASEMENT TO UNION ELECTRIC LIGHT AND POWER IN BOOK 1327 PAGE 194 IS ILLEGIBLE.
- (B2) EASEMENT TO UNION ELECTRIC LIGHT AND POWER IN BOOK 1341 PAGE 67 IS ILLEGIBLE.
- (B3) DRIVEWAY EASEMENT IN BOOK 5029 PAGE 513 DOES NOT AFFECT THE LEASE TRACT.
- (B4) DECREE INCORPORATING PUBLIC WATER SUPPLY DISTRICT IN BOOK 3859 PAGE 577 DOES AFFECT THE ENTIRE PARENT PARCEL.
- (B5) LEASE ACCORDING TO A MEMORANDUM OF LEASE IN BOOK 17706 PAGE 4283 AFFECTS A 5'X8' LEASE WITHIN THE EXISTING COMPOUND.
- (B6) LEASE ACCORDING TO A MEMORANDUM OF LEASE IN BOOK 17843 PAGE 3148 APPEARS TO BE A BLANKET LEASE OF THE ENTIRE PROPERTY.

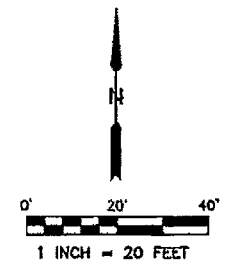
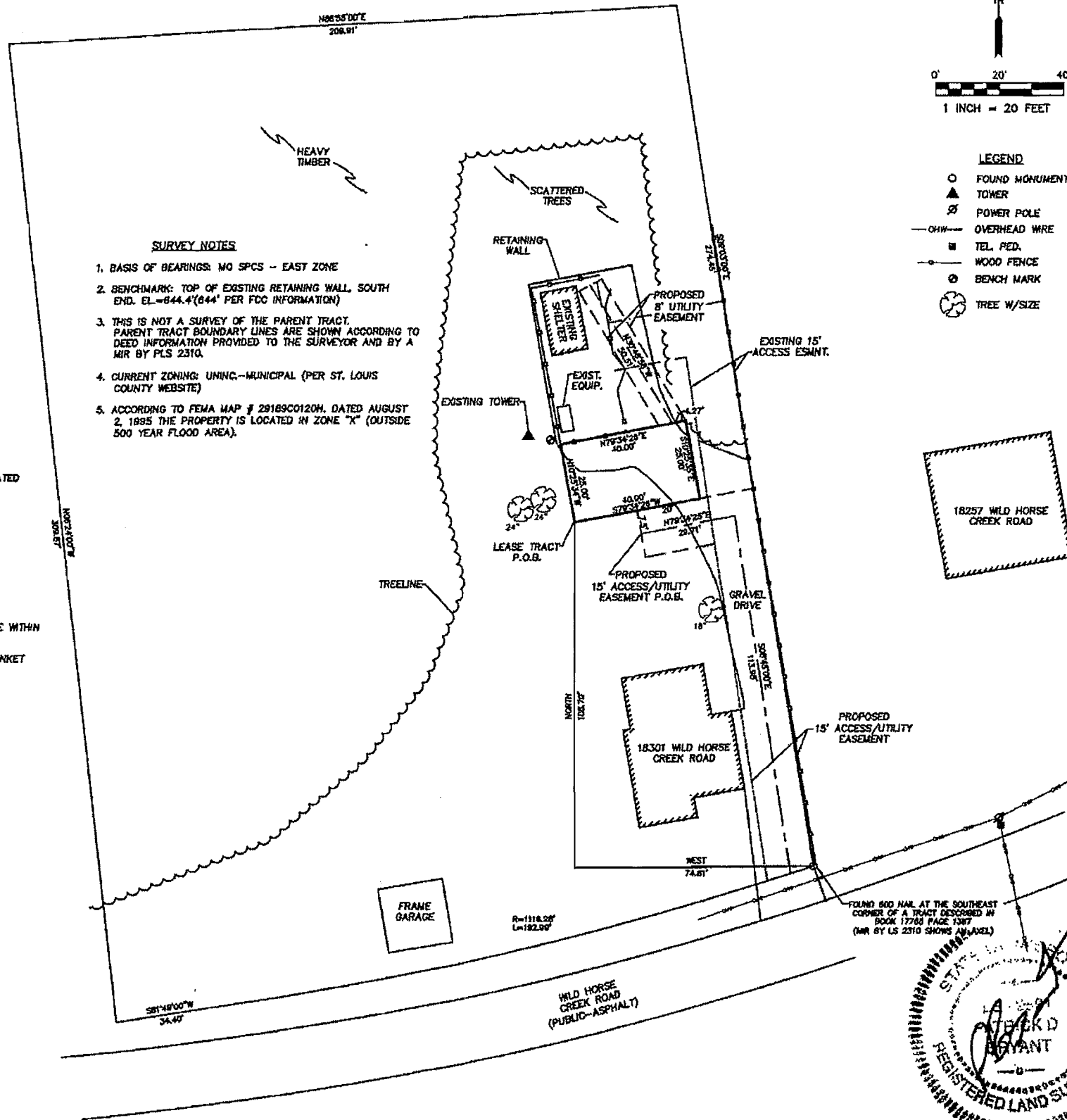


VICINITY MAP

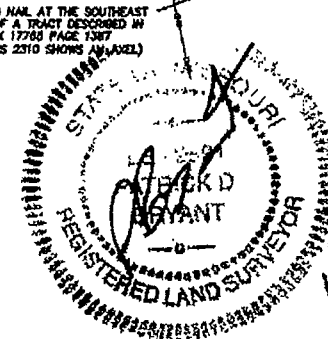


SURVEY NOTES

1. BASIS OF BEARINGS: MO SPCS - EAST ZONE
2. BENCHMARK: TOP OF EXISTING RETAINING WALL SOUTH END. EL.=844.4'(844' PER FCC INFORMATION)
3. THIS IS NOT A SURVEY OF THE PARENT TRACT. PARENT TRACT BOUNDARY LINES ARE SHOWN ACCORDING TO DEED INFORMATION PROVIDED TO THE SURVEYOR AND BY A M/R BY PLS 2310.
4. CURRENT ZONING: UNINC.-MUNICIPAL (PER ST. LOUIS COUNTY WEBSITE)
5. ACCORDING TO FEMA MAP # 29189C0120H, DATED AUGUST 2, 1995 THE PROPERTY IS LOCATED IN ZONE "X" (OUTSIDE 500 YEAR FLOOD AREA).



- LEGEND**
- FOUND MONUMENT
 - ▲ TOWER
 - ⊗ POWER POLE
 - OHW— OVERHEAD WIRE
 - TEL. PED.
 - WOOD FENCE
 - ⊙ BENCH MARK
 - ⊗ TREE W/SIZE



SURVEYOR'S DECLARATION
 I HEREBY DECLARE THAT THIS EXHIBIT WAS PREPARED UNDER MY DIRECT PERSONAL SUPERVISION AND TO THE BEST OF MY KNOWLEDGE THE CONDITIONS ARE AS SHOWN.

EXISTING SITE CONDITIONS

Fortune Industries, Inc.

ABRYANT
 SURVEYING & MAPPING, LLC
 500-C SOUTH WALL AVENUE
 JOPLIN, MO 64801
 TEL: 417.823.9041
 FAX: 417.823.1231
 contact-us@abryanturvey.com

THIS DRAWING IS CONSIDERED VALID AND CORRECT ONLY IF USED IN CONNECTION WITH THE ORIGINAL SURVEY DATA AND WITHOUT THE WRITTEN PERMISSION OF THE SURVEYOR. ANY REVISIONS TO THIS DRAWING MUST BE MADE IN ACCORDANCE WITH THE SURVEYOR'S STANDARDS AND PRACTICES.

ALL RIGHTS RESERVED. © 2008

Drawn By: DJA
 Approved By: POB

REVISIONS	DATE	BY	DESCRIPTION

Project No. 08146.000

STLC WILD HORSE CREEK

ST. LOUIS COUNTY, MISSOURI

EXISTING SITE CONDITIONS

LS-1.0
 SHEET 1 OF 1