

Memorandum Department of Planning and Public Works



To: Planning and Public Works Committee

From: Kristian Corbin, Project Planner

Date: December 8, 2011

Re: **T.S.P. 37-2011 AT&T (14804 Clayton Road)**: A request to obtain approval for a Telecommunication Facility Siting Permit for a collocation of additional antennas and equipment on an existing stealth tower in a “PC” Planned Commercial District – zoned property located at 14804 Clayton Road on the south side of Clayton Road west of Wildwood Parkway (21R420714).

Summary

AT&T has requested an amendment to a telecommunication siting permit to allow for the location of upgraded antennas to facilitate 4G LTE data service on a stealth tower located on the south side of Clayton Road west of Wildwood Parkway.

At the previous Planning & Public Works Committee meeting this application for amendment as well as T.S.P. 38-2011 were tabled due to the following issues. T.S.P. 37-2011 (14804 Clayton Road), was found to have site maintenance issues. The Planning & Public Works Committee requested a schedule for AT&T’s site upgrades and eventual system “operational” date.

With regards to T.S.P. 37-2011 (14804 Clayton Road), staff has inspected the site and the damaged fencing around the perimeter of the site has been repaired.

AT&T has provided the following schedule for start dates of upgrades to their sites in the City of Chesterfield.

Start Date 11/14/2011	TSP 28-2011 (471 N. Woodsmill Rd)
Start Date 12/05/2011	TSP 29-2011 (18301 Wild Horse Creek Rd)
	TSP 31-2011 (1 McBride & Sons Corp Ctr)
	TSP 32-2011 (18614 Olive Blvd)

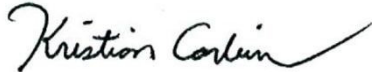
TSP 37-2011 AT&T (14804 Clayton Road)
Planning and Public Works Committee
December 8, 2011

Start Date 12/12/2011	TSP 30-2011 (16641 Old Chesterfield Rd) TSP 34-2011 (16141 Swingley Ridge Rd) TSP 39-2011 (1662 Clarkson Rd)
Under Review	TSP 33-2011 (14847 Olive Blvd) TSP 35-2011 (14759 Deer Horn Dr) TSP 36-2011 (1972 Baxter Rd) TSP 37-2011 (14804 Clayton Rd) TSP 38-2011 (17259 Wild Horse Creek Rd) TSP 40-2011 (17850 Wild Horse Creek Rd)

AT&T will provide a system operational date at a later time as it is too soon for them to accurately provide that information.

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

Respectfully Submitted,



Kristian Corbin
Project Planner

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

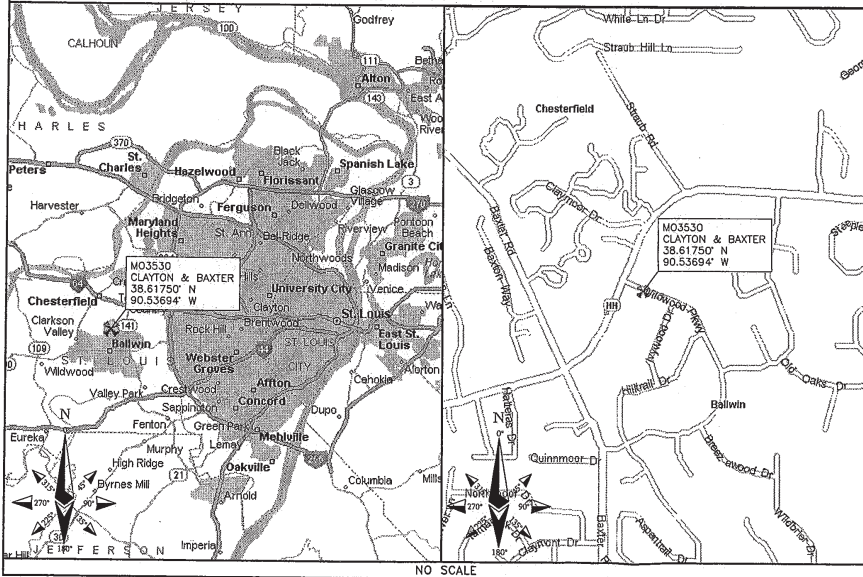
Attachments: AT&T 4G LTE Upgrade Packet

MO3530 CLAYTON & BAXTER



LTE 80'-REPLACEMENT FLAGPOLE

LOCATION MAPS



DRIVING DIRECTIONS

DIRECTIONS FROM NEAREST INTERSTATE:
FROM I-64, TAKE EXIT 24, GO STRAIGHT ON S MASON ROAD RAMP, TURN LEFT ONTO S MASON ROAD, TURN RIGHT ONTO MASONRIDGE ROAD, TURN RIGHT ONTO CLAYTON ROAD, TURN LEFT ONTO WILDWOOD PKY, SITE IS ON THE RIGHT.

ENGINEERING

2009 INTERNATIONAL BUILDING CODE
2008 NATIONAL ELECTRIC CODE
ANSI/TIA-222-G 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, (1) LTE RACK, (9) PIPE MOUNTED PANEL ANTENNAS INCLUDING (18) COAX, (9) TMA'S, (1) GPS ANTENNA ARE PROPOSED.

SITE INFORMATION

PROPERTY OWNER: SHELL OIL COMPANY
ADDRESS: NA

TOWER OWNER: AT&T
SITE NAME: CLAYTON & BAXTER
SITE NUMBER: MO3530
SITE CONTACT: NA

SITE ADDRESS: 14800 CLAYTON ROAD
AKA 14804 CLAYTON ROAD
CHESTERFIELD, MO 63017
ST. LOUIS COUNTY

COUNTY: ST. LOUIS COUNTY

LATITUDE (NAD 83): 38° 37' 3.00" N
38.61750

LONGITUDE (NAD 83): 90° 32' 12.98" W
-90.53694

GROUND ELEVATION: 646' AMSL
RAD CENTER: 88', 76', 66' AGL

ZONING JURISDICTION: CITY OF CHESTERFIELD, MO

ZONING DISTRICT: PC-PLANNED COMMERCIAL DISTRICT

PARCEL #: Z1R420714

OCCUPANCY GROUP: U

CONSTRUCTION TYPE: V-B

POWER COMPANY: AMEREN MO

TELEPHONE COMPANY: AT&T

SITE ACQUISITION CONTACT: MARY KREPS
(636) 532-1051 EXT. 113

RF ENGINEER: RON HUMPHREY

CONSTRUCTION MANAGER: MATT DEAN
(913) 458-4531

CONTACT INFORMATION

ENGINEER: 15450 S OUTER FORTY DR, SUITE 200
CHESTERFIELD, MO 63017

CONTACT: GEORGE P. XENOS
PHONE: (913) 687-9233

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	SITE SURVEY
Z-2	OVERALL SITE PLAN
Z-3	EXISTING SITE PLAN
Z-4	PROPOSED SITE PLAN
Z-5	SITE ELEVATION
Z-6	ANTENNA 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.mocall.com

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



13075 MANCHESTER RD, SUITE 100
ST LOUIS, MO 63131



BLACK & VEATCH

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

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

REV	DATE	DESCRIPTION
0	09/16/11	ISSUED FOR ZONING



P. H. DOYLE E-28899
PROFESSIONAL ENGINEER

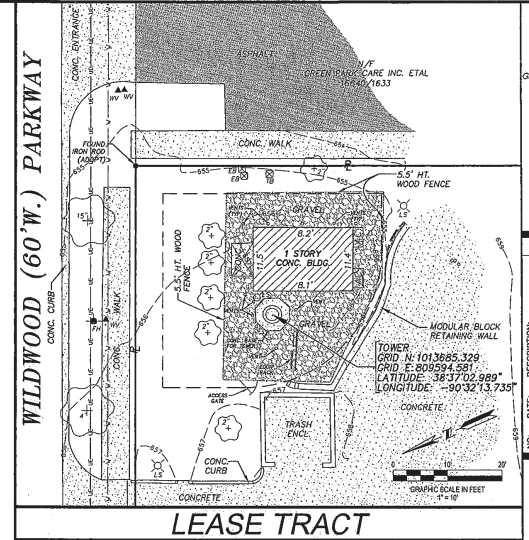
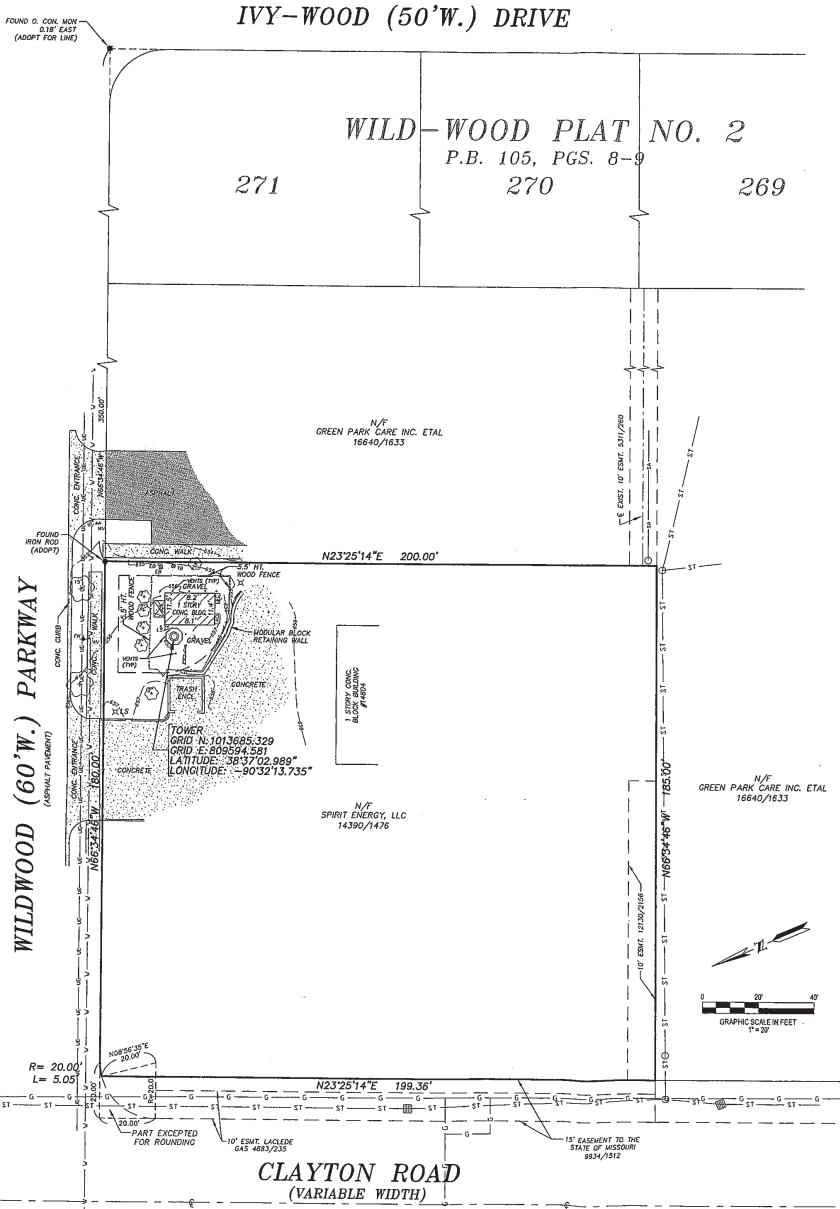
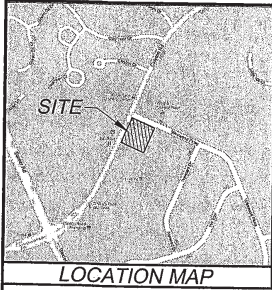
IT IS A VIOLATION OF LAW FOR ANY PERSON UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER TO ALTER THIS DOCUMENT.

MO3530
CLAYTON & BAXTER
14800 CLAYTON ROAD
CHESTERFIELD, MO 63017
LTE

SHEET TITLE
TITLE SHEET

SHEET NUMBER

T-1



Gateway Land Services, Inc.
4 West Drive, Suite 110
Chesterfield, MO 63017
914.851.9509
636.530.9826
www.glsai.com

STATE OF MISSOURI
PUBLIC LAND SURVEY
LEE C. FERRENBACH III
NUMBER
PLS-2310

PROJECT REVISION:

NO.	DATE	DESCRIPTION

PROPERTY BOUNDARY SURVEY
SECTION 26, TOWNSHIP 45 NORTH, RANGE 4 EAST
ST. LOUIS COUNTY, MISSOURI
CITY OF CHESTERFIELD

- SURVEYOR'S NOTES:**
- A current Title Commitment has not been made available for our use. It is possible there are easements and other instruments of record that affect the subject tract that would be reported in the Title Commitment Report and are unknown to this office at the time this Survey was executed and therefore not plotted hereon. This Survey does not constitute a Title Search by the Surveyor.
 - FLOODPLAIN INFORMATION: The tract of land described hereon is within the limits of Zone "X", areas determined to be outside the 500 year floodplain, as shown on FEMA Flood Insurance Rate Map Number _____ dated _____.
 - We have not performed a Property Boundary Survey on the Parent tract shown and described hereon.
 - The bearing system used is Geocentric and has been adopted from GPS Observation using the Missouri Department of Transportation GNSS GRS network.

This is to certify that at the request of Buck & Yeatch, we have during the month of June, 2011 executed a Property Boundary Survey in accordance with the current Standards for Property Boundary Surveys as established by the Missouri State Bar, Architects, Professional Engineers, and the Missouri Department of Natural Resources, Division of Geology and Land Survey and in a manner consistent with the degree of care and skill ordinarily exercised by members of the land surveying profession, currently practicing and in similar circumstances, on a parcel of ground in Section 26, Township 45 North, Range 4 East in St. Louis County, Missouri as shown hereon and that the results of said survey are represented upon this plat. This survey meets the accuracy standards for an URBAN property boundary as defined in said Standards.

Surveyed and Boundaries: JCF (owner)

By: *[Signature]*
(Seal) Lee C. Ferrenbach III PLS - 2310
Vice President

Missouri One Call System, Inc.
Call Before You Dig!
1-800-DIG-RITE
(1-800-344-7483)

All the improvements & facilities and utilities, above ground and underground shown herein were plotted from available information and do not necessarily reflect the actual existence, nonexistence, elevation, size, type, number or location of these or other improvements, facilities, or utilities. The General Contractor and/or owner shall be responsible for verifying the actual location & elevation of all improvements, facilities, & utilities, shown or not shown, and said improvements, facilities, & utilities shall be located in the field prior to any grading, excavation or construction of any improvements. These provisions shall in no way abrogate any part from complying with the Underground Facility Safety & Damage Prevention Act, Chapter 319, RSMo.

CALL MISSOURI ONE-CALL, 1-800-DIG-RITE.

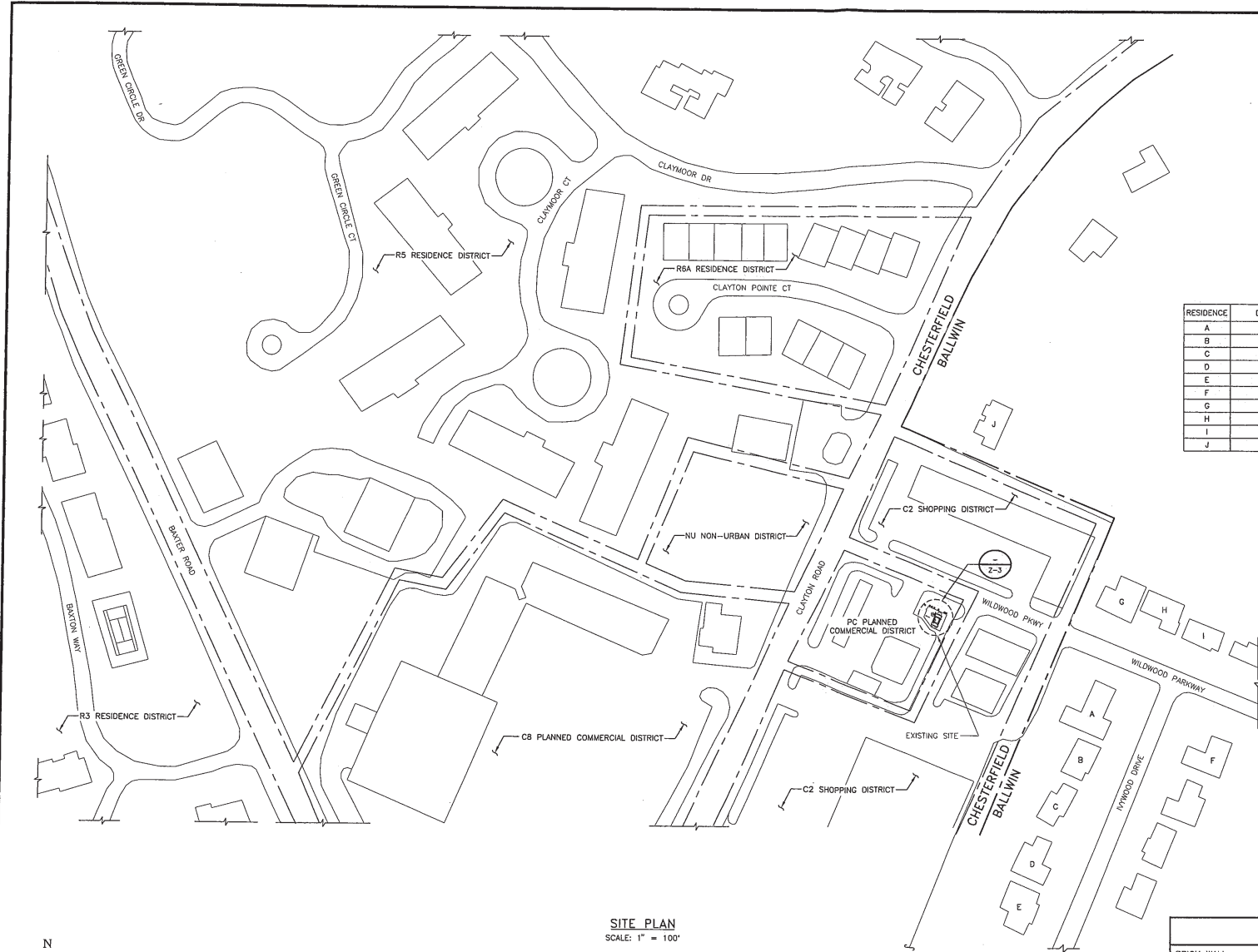
MO3530
CLAYTON & BAXTER
14804 CLAYTON ROAD
CHESTERFIELD, MO 63017

DATE: 6/30/11
BOOK NO.:
DRAFTED BY: JNW
APPRVD. BY: LCF
FILE NAME: 11-100

SHEET TITLE:
PROPERTY
BOUNDARY SURVEY

SHEET NUMBER:
SUV-1

SHEET NO: 1 OF 1
PROJECT NO: 11-100



RESIDENCE	DISTANCE FROM CL OF TOWER
A	261'-0"±
B	313'-0"±
C	339'-0"±
D	391'-0"±
E	442'-0"±
F	460'-0"±
G	260'-0"±
H	332'-0"±
I	401'-0"±
J	282'-0"±

SITE PLAN
SCALE: 1" = 100'



LEGEND	
BRICK WALL	=====
LEASE AREA	-----
ICE BRIDGE	XXXXXXXXXXXXXXXXXXXX
OVERHEAD POWER	— OHP — OHP — OHP —
UNDERGROUND POWER	— UGP — UGP — UGP —
OVERHEAD UTILITIES	— OHU — OHU — OHU —
UNDERGROUND TELCO	— UGT — UGT — UGT —




13075 MANCHESTER RD, SUITE 100
ST LOUIS, MO 63131



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

PROJECT NO:	168886
DRAWN BY:	AK
CHECKED BY:	GPX

REV	DATE	DESCRIPTION
0	09/16/11	ISSUED FOR ZONING



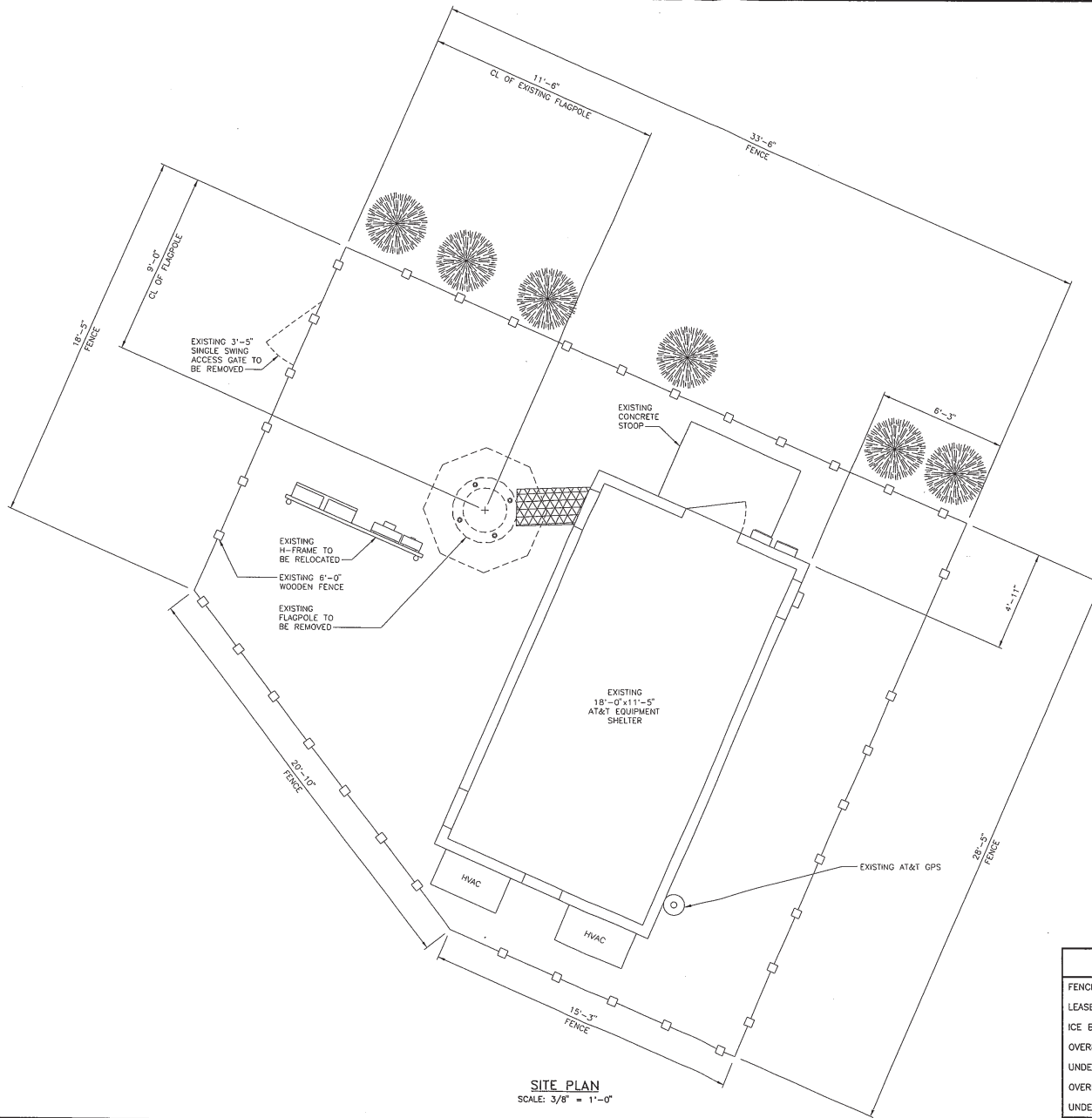
P. H. DOYLE E-28899
PROFESSIONAL ENGINEER

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MO3530
CLAYTON & BAXTER
14800 CLAYTON ROAD
CHESTERFIELD, MO 63017
LTE

SHEET TITLE
**OVERALL
SITE PLAN**

SHEET NUMBER
Z-2



SITE PLAN
SCALE: 3/8" = 1'-0"



LEGEND	
FENCE	
LEASE AREA	
ICE BRIDGE	
OVERHEAD POWER	
UNDERGROUND POWER	
OVERHEAD UTILITIES	
UNDERGROUND TELCO	



13075 MANCHESTER RD, SUITE 100
ST LOUIS, MO 63131



BLACK & VEATCH

10950 GRANDVIEW DRIVE
OVERLAND PARK, KANSAS 66210
(913) 456-2000

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

REV	DATE	DESCRIPTION
0	09/16/11	ISSUED FOR ZONING



P. H. DOYLE E-28899
PROFESSIONAL ENGINEER

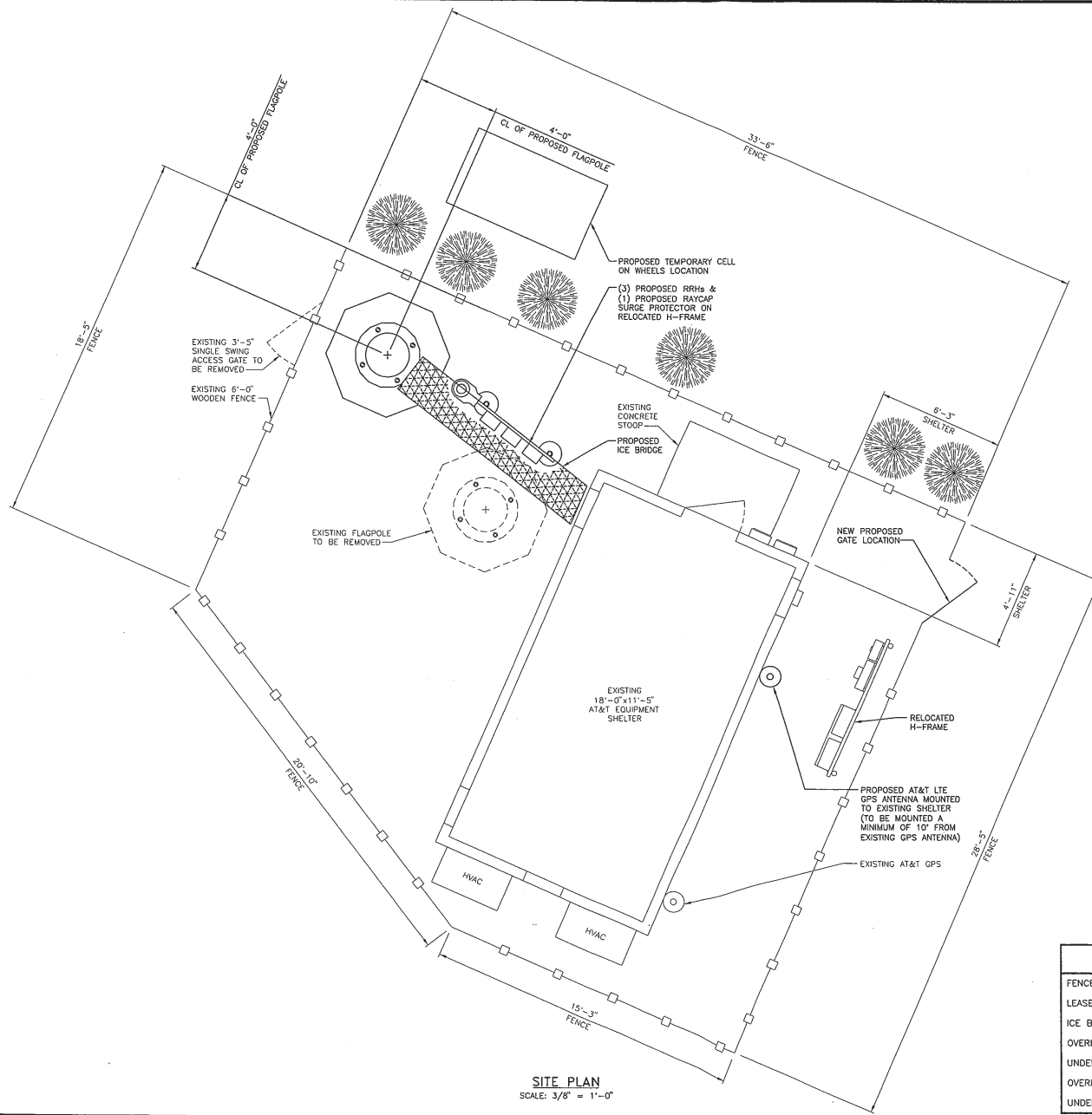
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MO3530
CLAYTON & BAXTER
14800 CLAYTON ROAD
CHESTERFIELD, MO 63017
LTE

SHEET TITLE
EXISTING SITE PLAN

SHEET NUMBER

Z-3



SITE PLAN
SCALE: 3/8" = 1'-0"

LEGEND	
FENCE	—□—□—□—□—
LEASE AREA	- - - - -
ICE BRIDGE	XXXXXXXXXX
OVERHEAD POWER	—OHP— OHP— OHP—
UNDERGROUND POWER	—UGP— UGP— UGP—
OVERHEAD UTILITIES	—OHU— OHU— OHU—
UNDERGROUND TELCO	—UGT— UGT— UGT—



PROJECT NO:	188986
DRAWN BY:	AK
CHECKED BY:	GPX

REV	DATE	DESCRIPTION
0	09/18/11	ISSUED FOR ZONING

STATE OF MISSOURI
P.H. DOYLE
NUMBER
E-28899
REGISTERED PROFESSIONAL ENGINEER

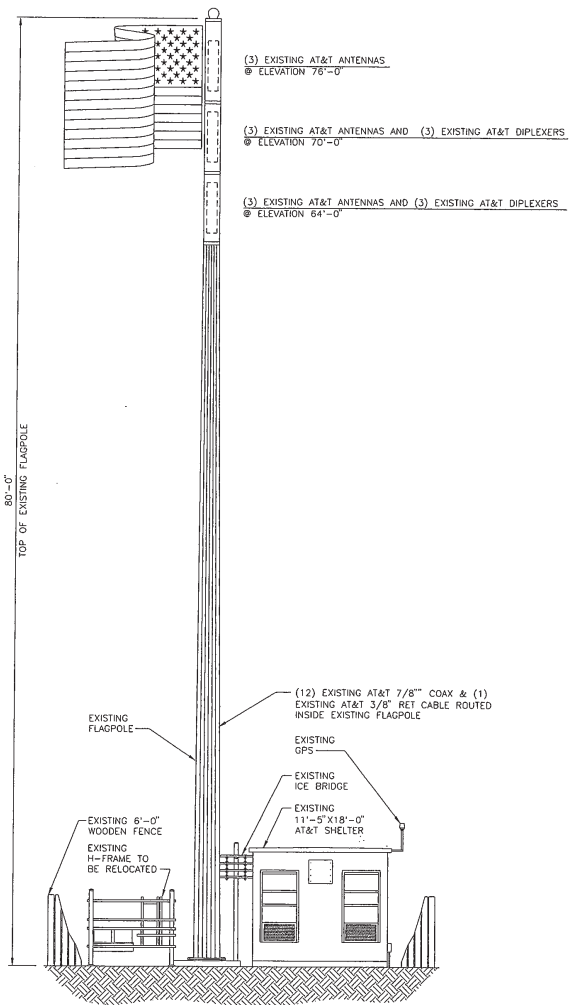
P. H. DOYLE E-28899
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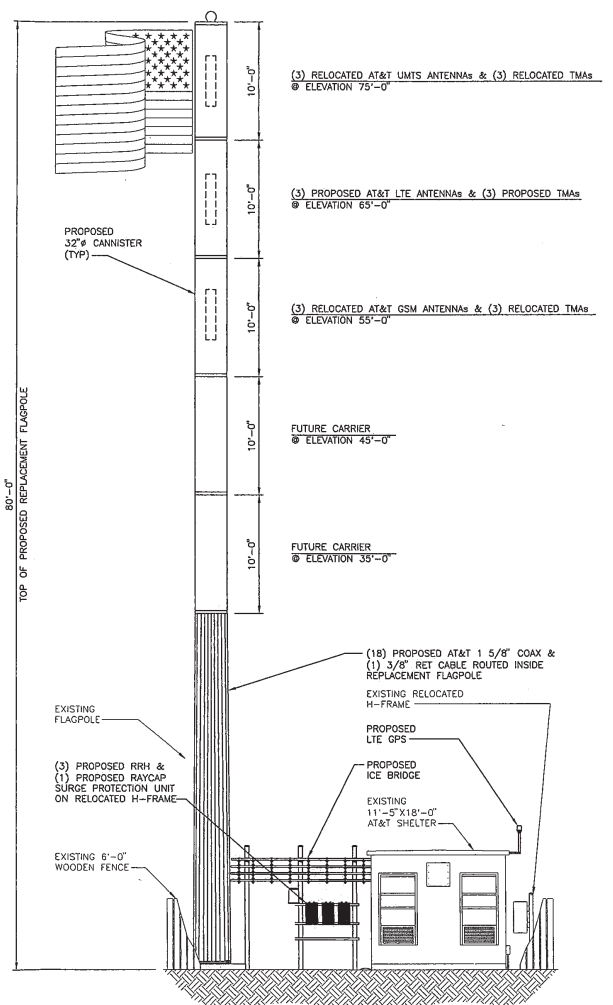
MO3530
CLAYTON & BAXTER
14800 CLAYTON ROAD
CHESTERFIELD, MO 63017
LTE

SHEET TITLE
PROPOSED SITE PLAN

SHEET NUMBER
Z-4



EXISTING SITE ELEVATION
NO SCALE

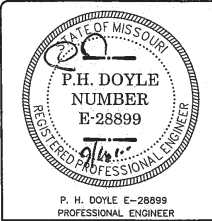


PROPOSED SITE ELEVATION
NO SCALE



PROJECT NO:	168966
DRAWN BY:	AK
CHECKED BY:	GPX

REV	DATE	DESCRIPTION
0	09/16/11	ISSUED FOR ZONING

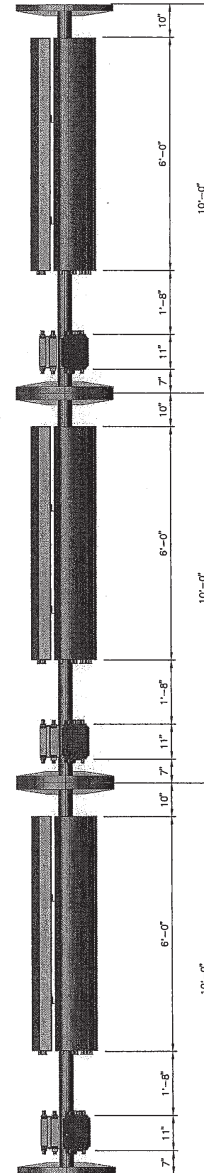
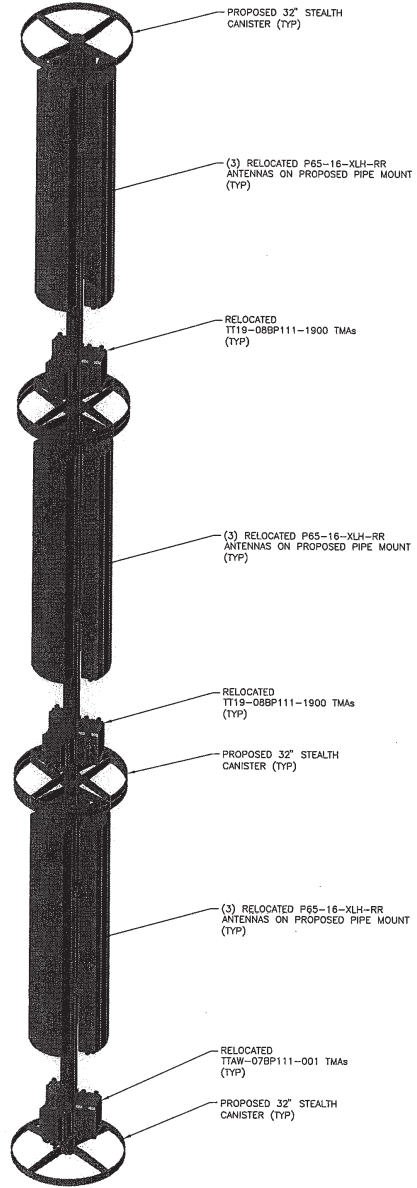


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M03530
CLAYTON & BAXTER
14800 CLAYTON ROAD
CHESTERFIELD, MO 63017
LTE

SHEET TITLE
SITE ELEVATION

SHEET NUMBER
Z-5



ANTENNA MOUNT DETAILS
NO SCALE



13075 MANCHESTER RD, SUITE 100
ST LOUIS, MO 63131



BLACK & VEATCH

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

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

REV	DATE	DESCRIPTION
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PROFESSIONAL ENGINEER
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M03530
CLAYTON & BAXTER
14800 CLAYTON ROAD
CHESTERFIELD, MO 63017
LTE

SHEET TITLE
ANTENNA MOUNT
DETAIL

SHEET NUMBER
Z-6



September 7, 2011

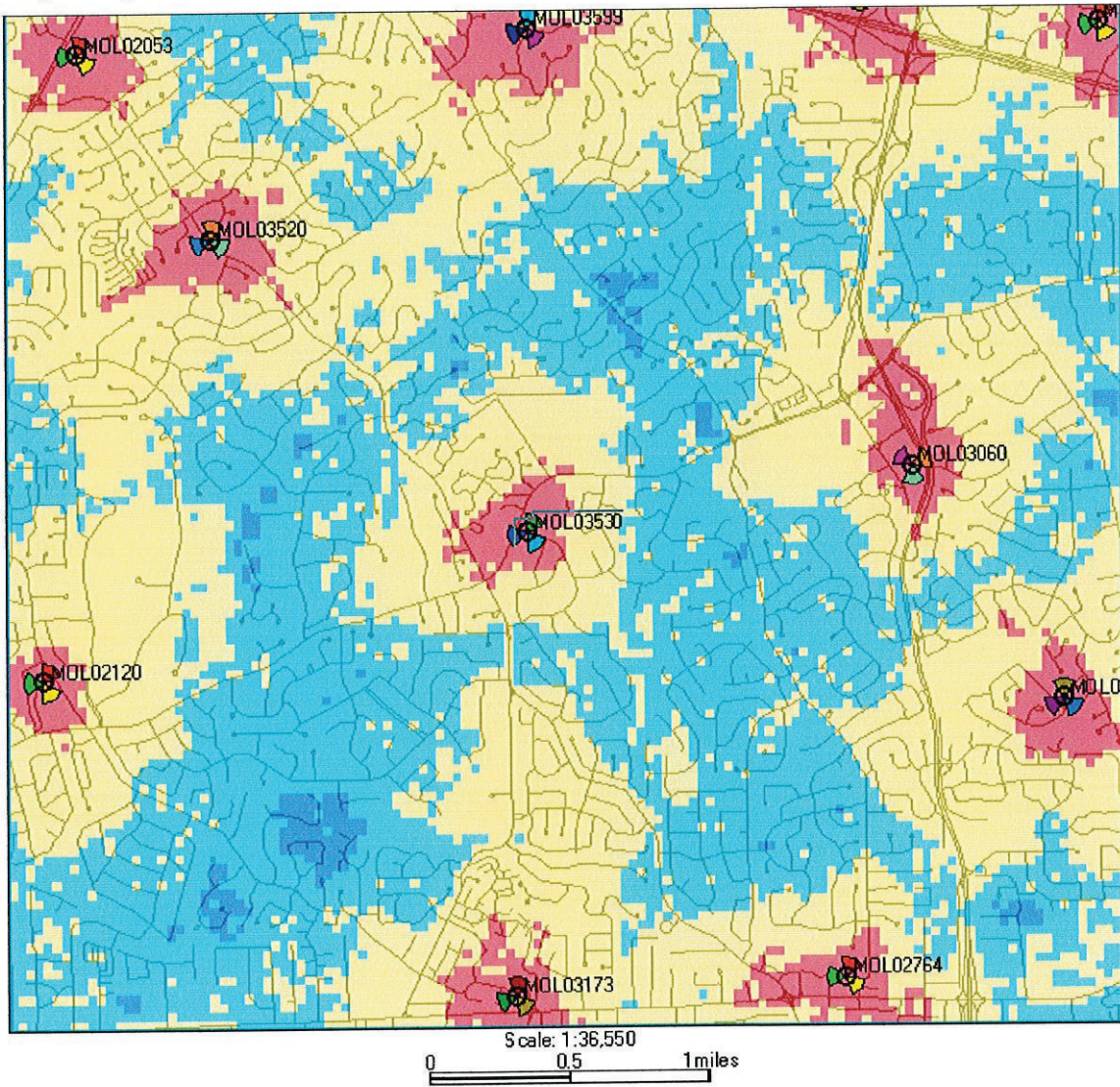
The following is a brief explanation of why AT&T Mobility is proposing to have the current wireless communication facility at 14800 Clayton Road modified. This facility is labeled as MOL03530 on Map 1. Currently this facility is only capable of broadcasting our older technologies.

This facility currently is broadcasting our "2G" technology (called GSM) and our "3G" technology (called UMTS). Normally 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 other 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. Normally each technology uses its own antennas and equipment. The new 4G technology is on lower frequencies and therefore require slightly larger antennas than what we currently use. Because of this there is no way to fit these antennas in the existing enclosures. The best way to get these antennas concealed from view is to replace the current pole with another pole.

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

PHOTO SIMULATION

PROPOSED WIRELESS COMMUNICATIONS FACILITY

SITE LOCATION MAP

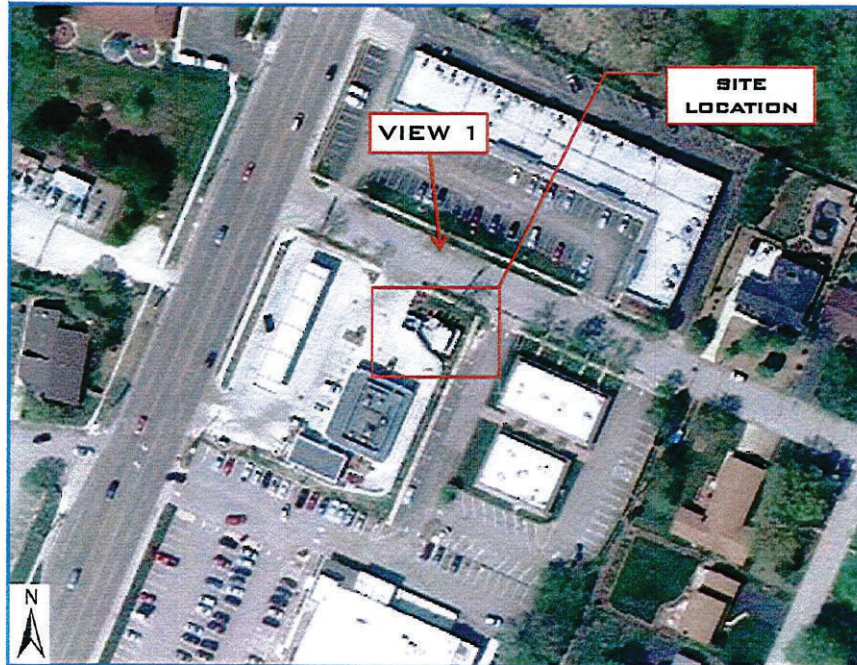


Image from GoogleMaps 2011©

SITE NUMBER: M03530 (8759)
SITE NAME: CLAYTON & BAXTER
SITE ADDRESS: 14800 CLAYTON ROAD
CHESTERFIELD, MO 63017
DATE: 09/15/11
APPLICANT: AT&T WIRELESS
CONTACT: GEORGE P. XENOS
BLACK & VEATCH
(913) 687 - 9233



**EXISTING
FLAGPOLE AND
CANISTERS**

**EXISTING VIEW -
LOOKING SOUTH**

**PHOTO SIMULATION -
LOOKING SOUTH**



**PROPOSED 80'-0"
FLAGPOLE AND 32"
DIAMETER
CANISTERS**