

Memorandum Department of Planning and Public Works



To: Planning and Public Works Committee

From: Kristian Corbin, Project Planner

Date: October 6, 2011

Re: T.S.P. 31-2011 AT&T (1 McBride and Son Center Drive): A request to obtain approval for a Telecommunication Facility Siting Permit for a collocation of additional antennas and equipment on an existing high structure in a "C8" Planned Commercial District – zoned property located at 1 McBride and Son Center Drive on the northwest corner of the intersection of Chesterfield Airport Road and McBride and Son Center Drive (17U330167).

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 a high structure located on the northwest corner of the intersection of Chesterfield Airport Road and McBride and Son Center Drive.

City of Chesterfield Ordinance 2391, which governs telecommunications and facilities siting, requires that the Planning Commission provide a venue for public hearing for Telecommunications Siting Permits. Please note, the Planning Commission does not provide a recommendation to the City Council, but rather generates a list of issues during the hearing. At the public hearing on September 26, 2011, there were no issues identified with this request.

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



June 24, 2011

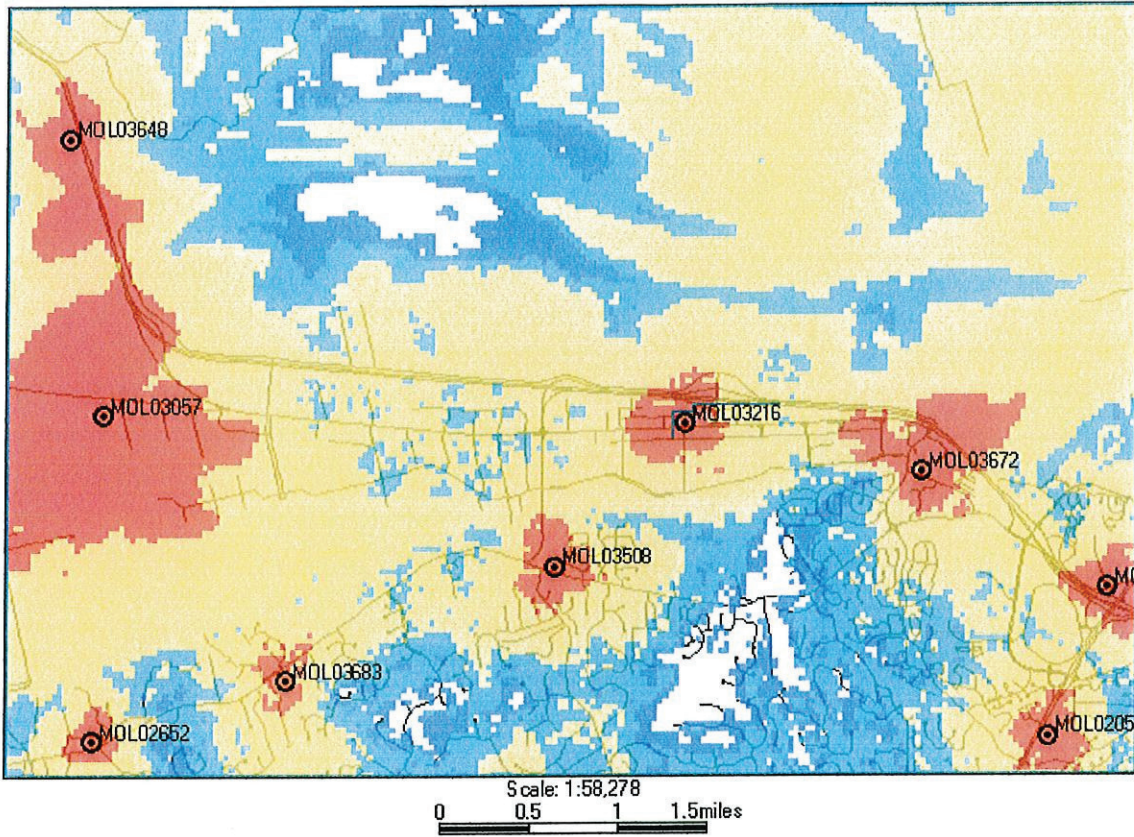
The following is a brief explanation of why AT&T Mobility is proposing to have the current wireless communication facility at 11 McBride and Son Corporate Center Drive modified. This facility is labeled as MOL03216 on Map 1. Currently this facility is only capable of broadcasting our older technologies.

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

MO3216 ANNIE GUNN



LTE ROOFTOP



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 CABINETS, (3) RAYCAP SURGE PROTECTOR, (3) LTE ANTENNAS INCLUDING (1) LTE GPS ANTENNA ARE PROPOSED.

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:
OC:	DATE:
PROPERTY OWNER:	DATE:
MUNICIPAL:	DATE:



PROJECT NO: 169898
DRAWN BY: AK
CHECKED BY: GPK

SITE INFORMATION

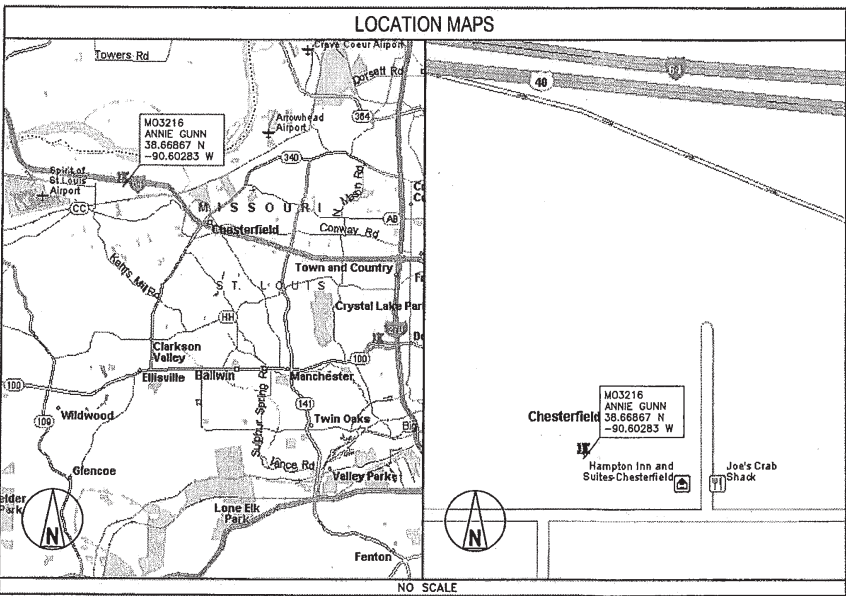
PROPERTY OWNER: TRIDENT GROUP LLC
ADDRESS: 17928 CHESTERFIELD AIRPORT RD, STE 200 CHESTERFIELD, MO 63005

TOWER OWNER: NA
SITE NAME: ANNIE GUNN
SITE NUMBER: MO3216
SITE CONTACT: NA

SITE ADDRESS: 1 MCBRIDE & SON CORPORATE CENTER DR CHESTERFIELD, MO 63005

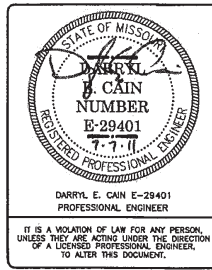
COUNTY: ST. LOUIS COUNTY
LATITUDE (NAD 83): 38° 40' 7.21" N 38.66867
LONGITUDE (NAD 83): 90° 36' 10.19" W -90.60283
GROUND ELEVATION: 462' AMSL
RAD CENTER: 40' AGL
ZONING JURISDICTION: CITY OF CHESTERFIELD, MO
ZONING DISTRICT: C-8
PARCEL #: 17U330167
OCCUPANCY GROUP: U
CONSTRUCTION TYPE: V-B
POWER COMPANY: 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



DRAWING INDEX

SHEET NO:	SHEET TITLE
T-1	TITLE SHEET
LS-2	SITE SURVEY (BY OTHERS)
Z-1	OVERALL SITE PLAN
Z-2	SITE PLAN
Z-3	ANTENNA LAYOUT & SHELTER ELEVATION
Z-4	SHELTER ELEVATIONS
Z-5	SITE ELEVATIONS



MO3216
ANNIE GUNN
1 MCBRIDE & SON CORPORATE CENTER DRIVE
CHESTERFIELD, MO 63005
ROOFTOP

CONTACT INFORMATION

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

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

DRIVING DIRECTIONS

DIRECTIONS FROM NEAREST AT&T OFFICE:
DEPART 13075 MANCHESTER RD ON I-270 FOR 2.4 MI, AT EXIT 12B-A TURN RIGHT ONTO RAMP, TAKE RAMP ONTO I-64 FOR 8.7 MI, AT EXIT 17 TURN RIGHT ONTO RAMP FOR .3 MI, TURN LEFT ONTO BOONE'S CROSSING ST FOR .2 MI, TURN RIGHT ONTO CHESTERFIELD AIRPORT RD FOR .2 MI, TURN RIGHT ON LOCAL ROAD FOR 43 YDS.

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

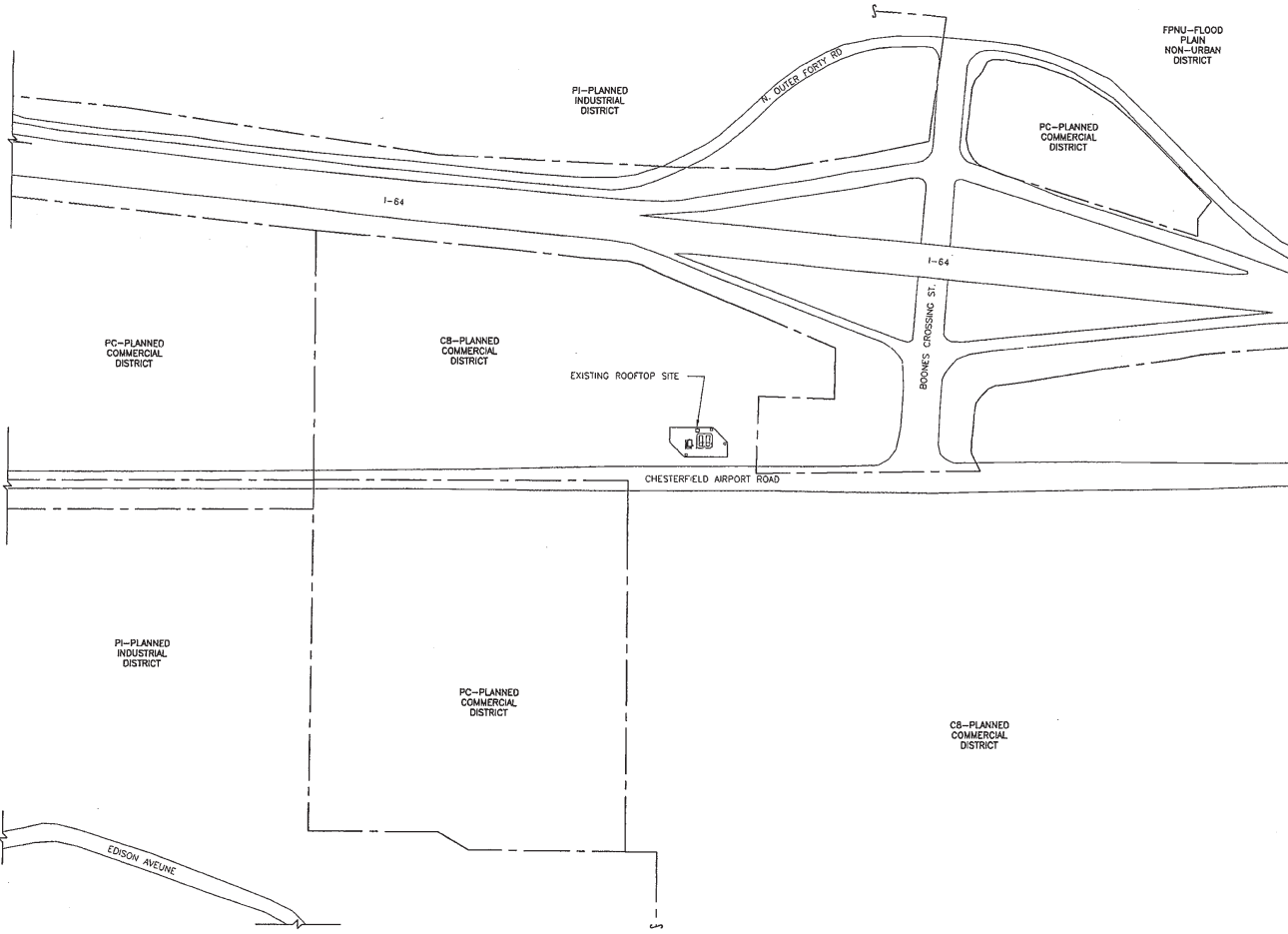
TO OBTAIN LOCATION OF PARTICIPANTS UNDERGROUND FACILITIES BEFORE YOU DIG IN MISSOURI, CALL MISSOURI ONE CALL
TOLL FREE: 1-800-344-7483 OR www.mocall.com
MISSOURI STATUTE REQUIRES MIN OF 2 WORKING DAYS NOTICE BEFORE YOU EXCAVATE

SHEET TITLE
TITLE SHEET

SHEET NUMBER
T-1

NOTES

1. NO RESIDENTIAL STRUCTURES WITHIN 1/2 MILE OF SITE.



OVERALL SITE PLAN
SCALE: 1" = 200'



LEGEND

- FENCE ——— X ——— X ——— X ———
- LEASE AREA ——— ——— ———
- ICE BRIDGE [cross-hatched pattern]
- 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

10850 GRANDVIEW DRIVE
OVERLAND PARK, KANSAS 66210
(913) 458-2000
BLACK & VEATCH PROFESSIONAL ENGINEERING CORPORATION
MISSOURI STATE CERTIFICATE OF AUTHORITY # 001848

PROJECT NO: 168985
DRAWN BY: AK
CHECKED BY: GPK

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

DARRYL E. CAIN E-29401
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.

MO3216
ANNIE GUNN
1 MCBRIDE & SON CORPORATE CENTER DRIVE
CHESTERFIELD, MO 63005
ROOFTOP

SHEET TITLE
OVERALL
SITE PLAN

SHEET NUMBER
Z-1



13075 MANCHESTER RD, SUITE 100
ST LOUIS, MO 63131



BLACK & VEATCH

10850 GRANDVIEW DRIVE
OVERLAND PARK, KANSAS 66210
(913) 458-2000

BLACK & VEATCH PROFESSIONAL ENGINEERING CORPORATION
MISSOURI STATE CERTIFICATE OF AUTHORITY # 001844

PROJECT NO: 168988

DRAWN BY: AK

CHECKED BY: GPX

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



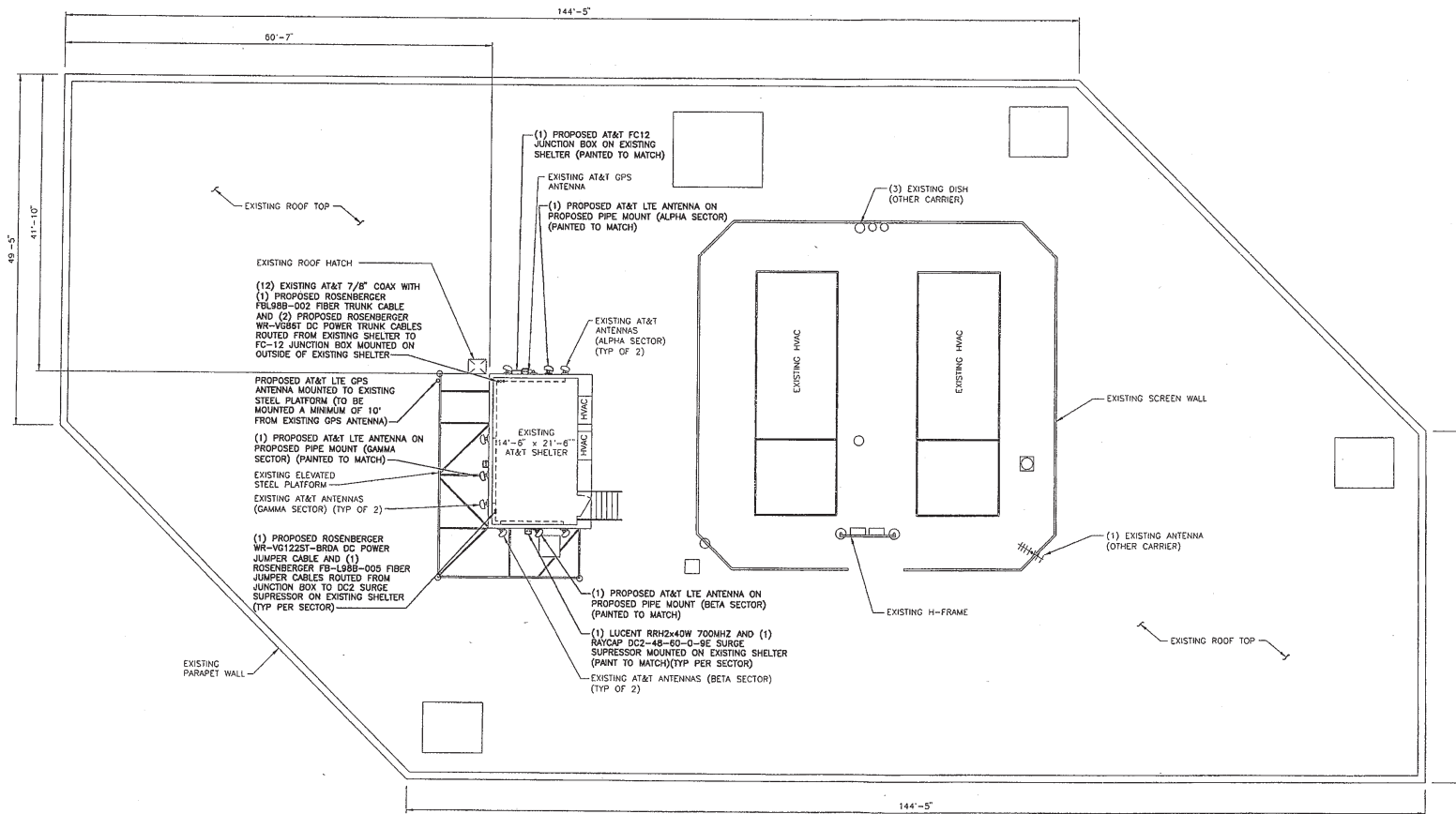
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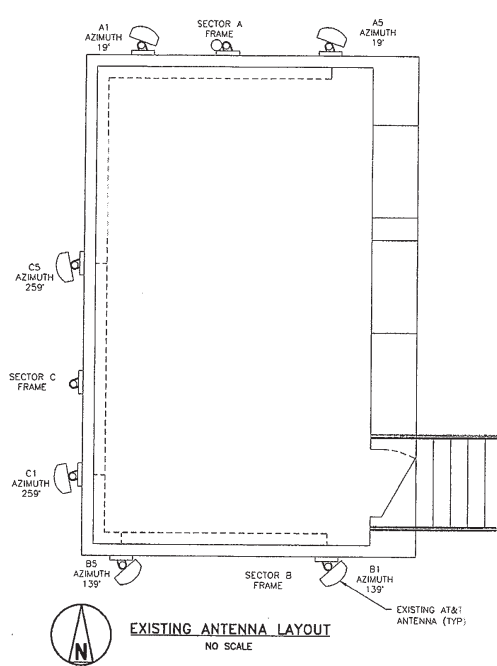
MO3216
ANNIE GUNN
1 WCBRIDE & SON CORPORATE CENTER DRIVE
CHESTERFIELD, MO 63005
ROOFTOP

SHEET TITLE
SITE PLAN

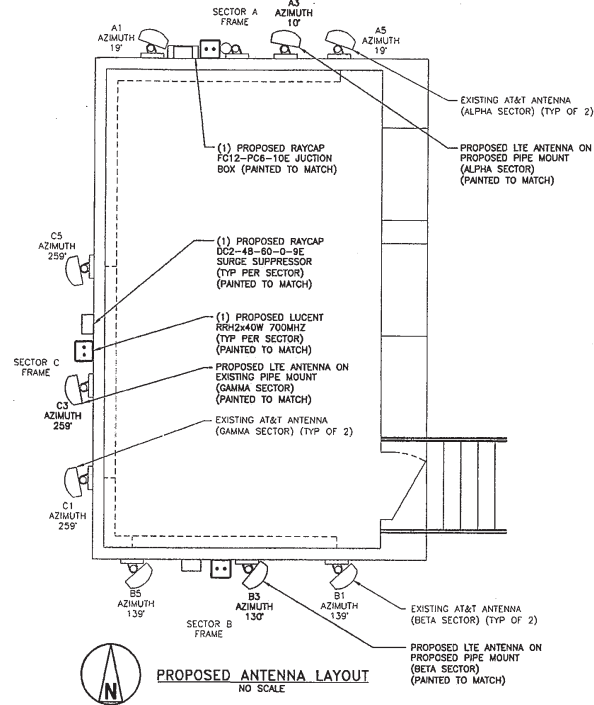
SHEET NUMBER
Z-2



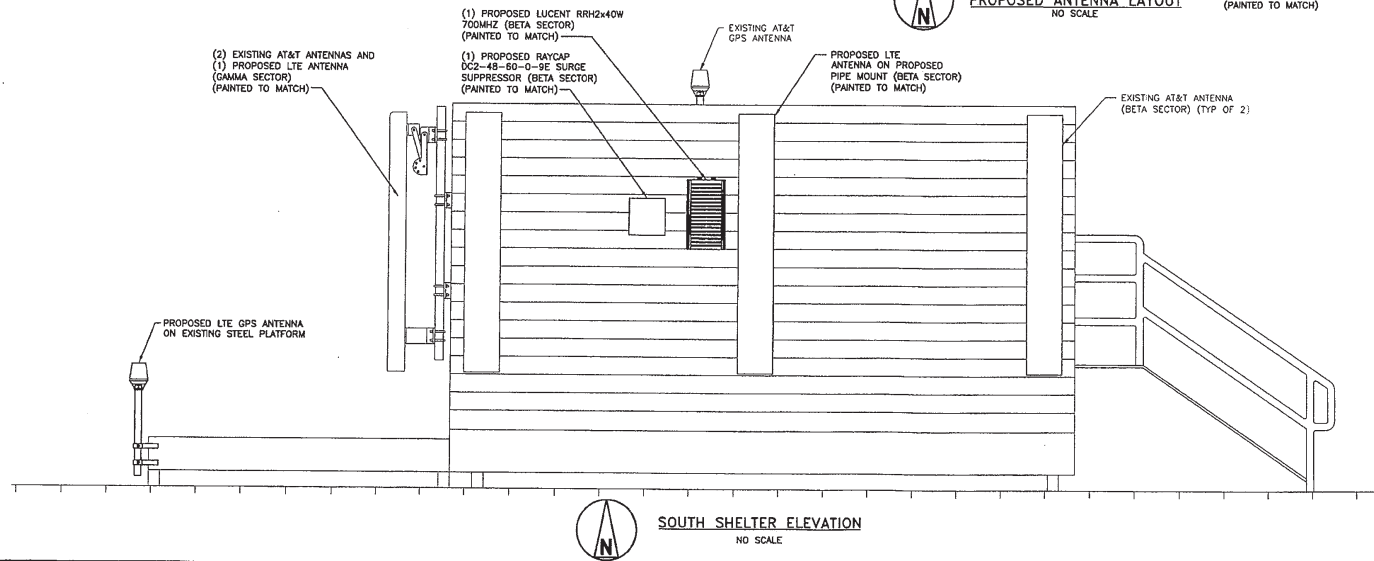
SITE PLAN
SCALE: 1/8" = 1'-0"



EXISTING ANTENNA LAYOUT
NO SCALE



PROPOSED ANTENNA LAYOUT
NO SCALE



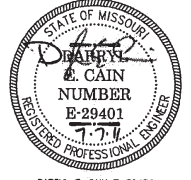
SOUTH SHELTER ELEVATION
NO SCALE


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 # 021848

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

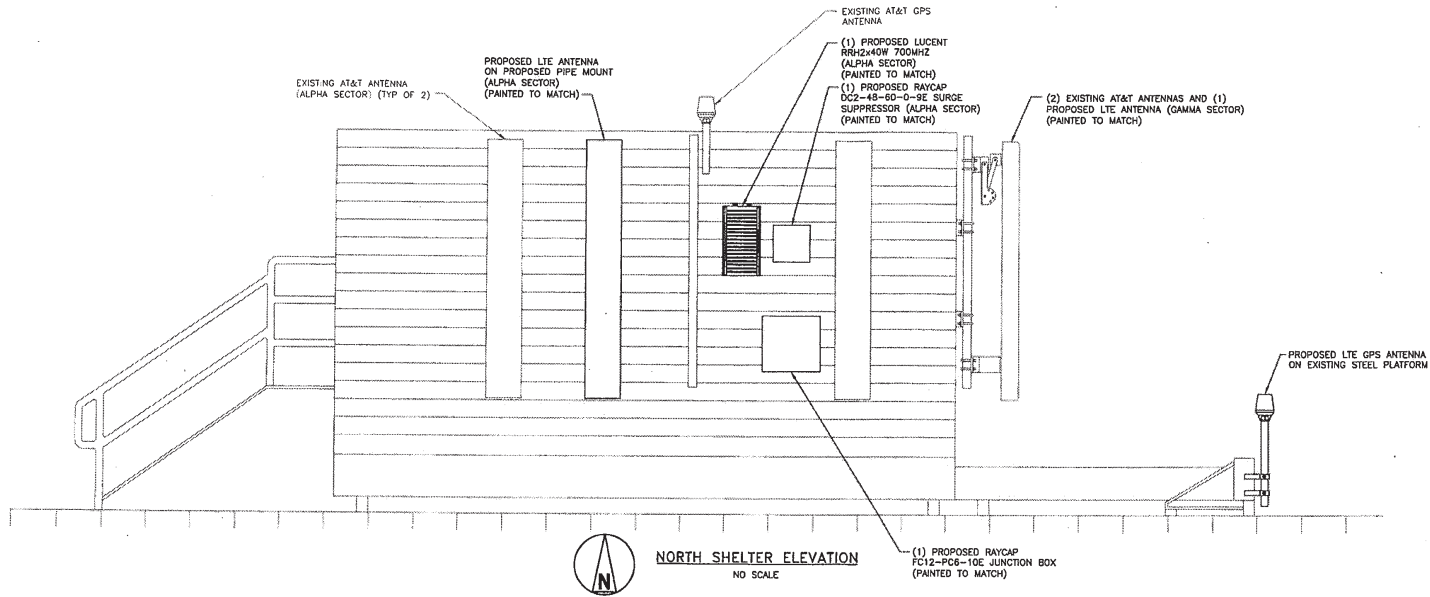
REV	DATE	DESCRIPTION
0	07/07/11	ISSUED FOR ZONING


DARRYL E. CAIN E-29401
PROFESSIONAL ENGINEER
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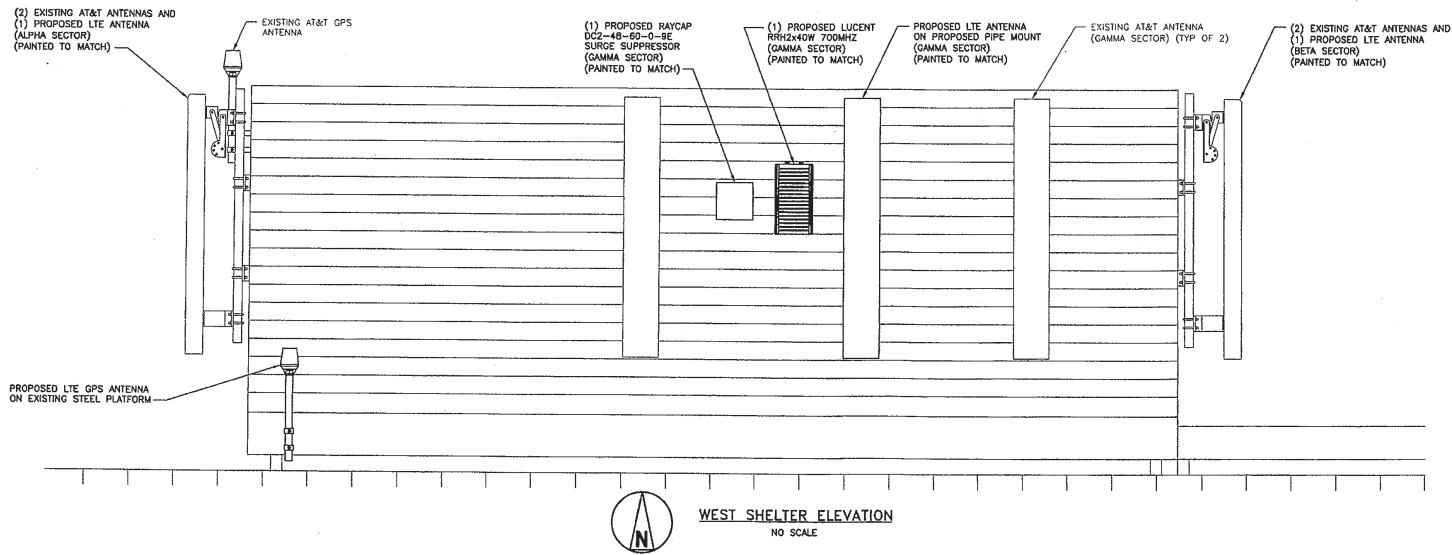
MO3216
ANNIE GUNN
1 MCBRIDE & SON CORPORATE CENTER DRIVE
CHESTERFIELD, MO 63005
ROOFTOP

SHEET TITLE
ANTENNA LAYOUT & SHELTER ELEVATION

SHEET NUMBER
Z-3



NORTH SHELTER ELEVATION
NO SCALE



WEST SHELTER ELEVATION
NO SCALE



13075 MANCHESTER RD, SUITE 100
ST LOUIS, MO 63131

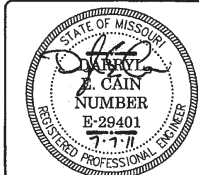


10950 GRANDVIEW DRIVE
OVERLAND PARK, KANSAS 66210
(913) 458-2000

BLACK & VEATCH PROFESSIONAL ENGINEERING CORPORATION
MISSOURI STATE CERTIFICATE OF AUTHORITY # 001616

PROJECT NO:	169988
DRAWN BY:	AK
CHECKED BY:	GPX

REV	DATE	DESCRIPTION
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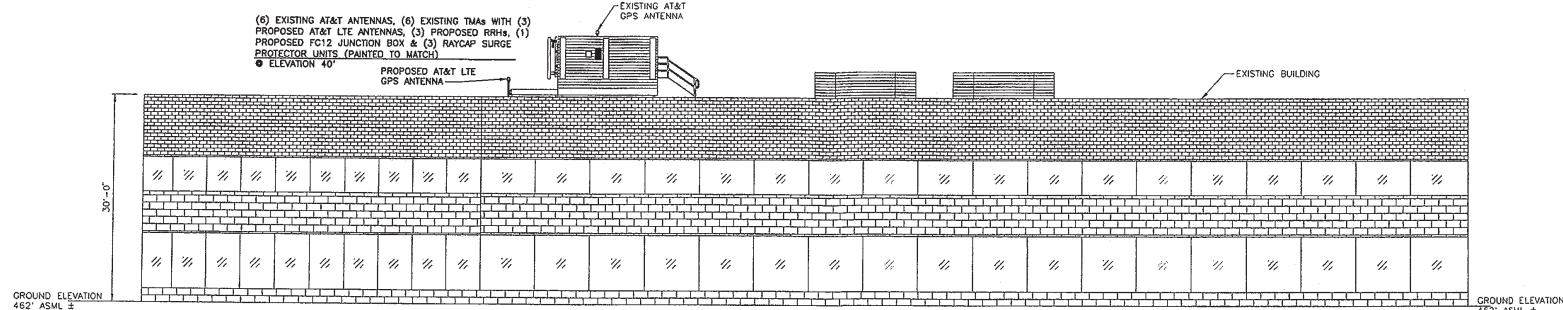
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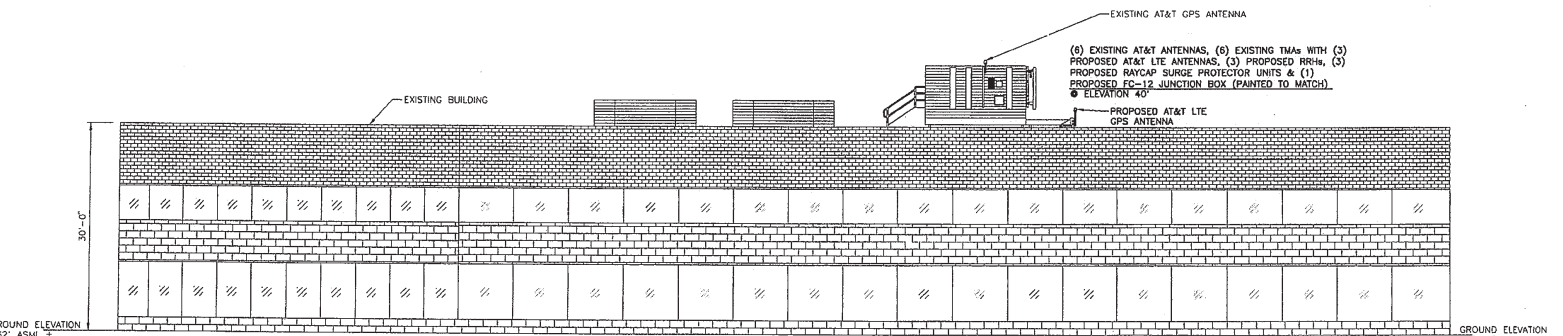
MO3216
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1 MCBRIDE & SON CORPORATE CENTER DRIVE
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SHEET TITLE
SHELTER ELEVATIONS

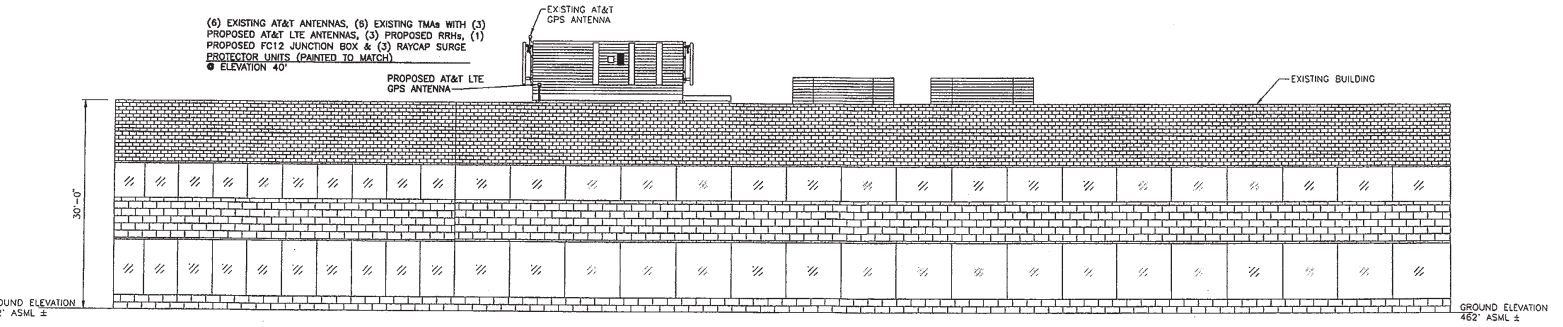
SHEET NUMBER
Z-4



SOUTH ELEVATION
SCALE: NONE



NORTH ELEVATION
SCALE: NONE



WEST ELEVATION
SCALE: NONE

13075 MANCHESTER RD, SUITE 100
ST LOUIS, MO 63131

10850 GRANDVIEW DRIVE
OVERLAND PARK, KANSAS 66210
(913) 458-2000

BLACK & VEATCH PROFESSIONAL ENGINEERING CORPORATION
ISSUES THIS CERTIFICATE OF APPROVAL # 00144

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

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

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PROFESSIONAL ENGINEER

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SHEET TITLE
SITE ELEVATIONS

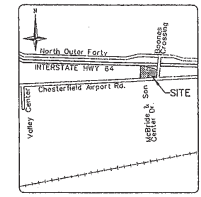
SHEET NUMBER
Z-5

A BOUNDARY ADJUSTMENT AND EASEMENT PLAT
 OF LOTS 1 AND 4 OF "McBRIDE & SON CENTER" AND PART OF LOTS 3 AND 4
 OF THE HERMAN FICKE ESTATE SUBDIVISION
 IN U.S. SURVEY 125, TOWNSHIP 45 NORTH - RANGE 4 EAST
 CITY OF CHESTERFIELD
 ST. LOUIS COUNTY, MISSOURI

332



THIS PLAT CONTAINS 5.342 ACRES



M.S.E. BENCH MARK
 21 02 445.4 - "Standard meridian" bench station
 21 18 192.0 - Set in soil at the northeast corner of
 Chesterfield Airport Road and Cityline Drive

SITE BENCH MARK
 Details: 488.81 826.5 841.0
 Bench mark is located 4.5' west of east
 entrance to MC BRIDE & SON office building

SUBDIVIDER:
 McBRIDE & SON INVESTMENT CO. INC.
 111 McBRIDE & SON CORPORATE CENTER DRIVE
 ST. LOUIS, MISSOURI 63005

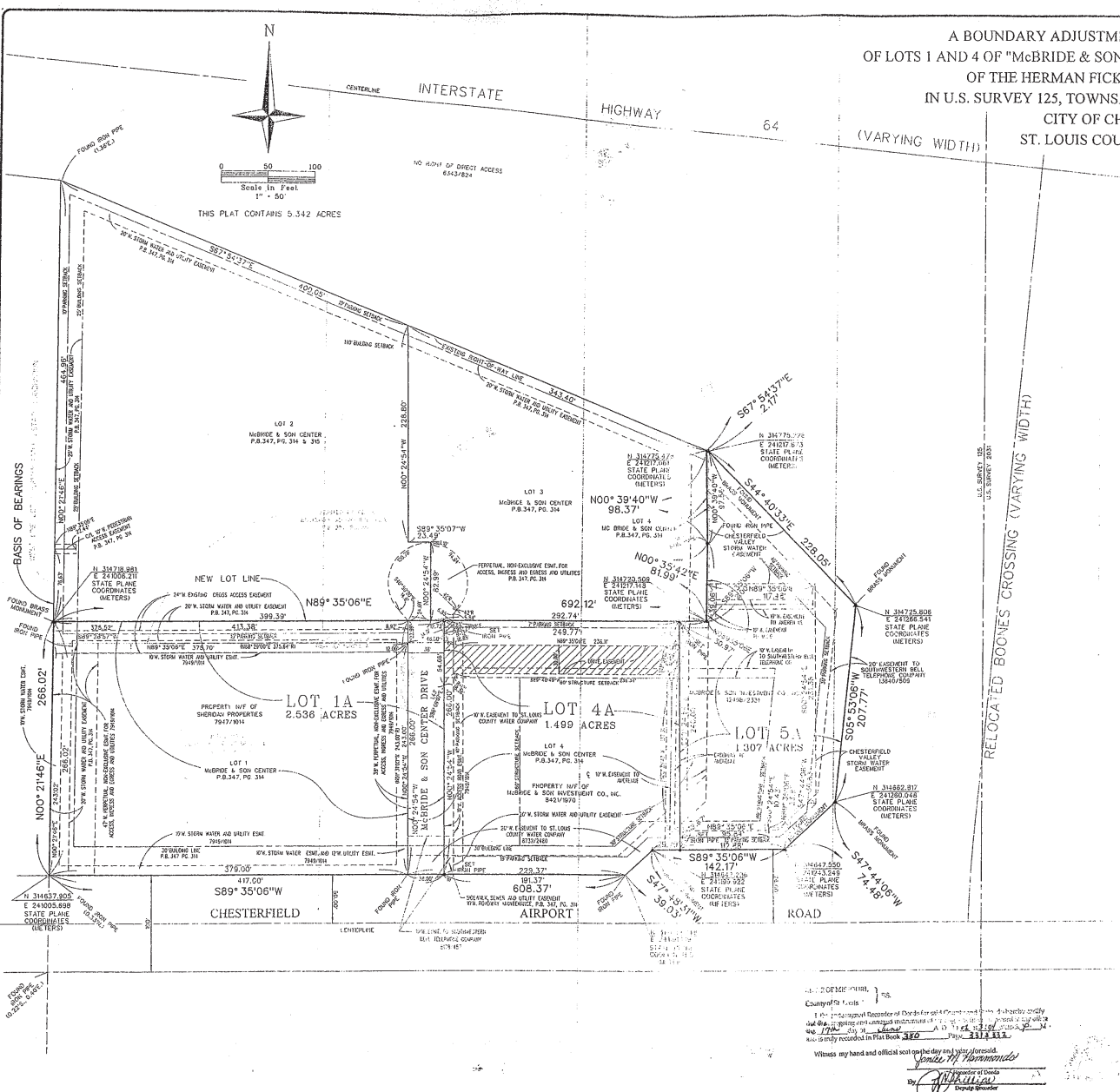
NOTES:

1. BASIS FOR BEARINGS: MISSOURI STATE PLANE COORDINATE SYSTEM, EAST ZONE
 GRID AZIMUTH 266 DEGREES 49 MINUTES 04 SECONDS
 GRID BEARING SOUTH 88 DEGREES 49 MINUTES 04 SECONDS WEST
 STATION WANG. SL 38, 1900 NORTH 34428.256 (METERS)
 EAST: 239883.018 (METERS) GRID FACTOR = .999975
 (NOTE: 1 METER = 3.28083333 FEET)
2. AZIMUTH MARK: SL 38A, 1900
 STATE PLANE COORDINATES ESTABLISHED USING G.P.S.
 COORDINATE RELATIVE POSITIONAL TOLERANCE IS ± CENTIMETERS.
 ADJUSTED BY THE NATIONAL GEODETIC SURVEY IN 2000

LOT 1 AND LOT 4 OF
 McBRIDE & SON CENTER
 PLAT BOOK 347, PAGES 314 & 316

A tract of land being part of Boone's Crossing, varying width, as described in deed recorded in
 Book 6342 page 824 of the St. Louis County Records, being part of Lots 3 and 4 of the Herman
 Ficke Estate Subdivision, in U.S. Survey 125, Township 45 North - Range 4 East, St. Louis
 County, Missouri and being more particularly described as:

Beginning at a point on the West right-of-way line of said Boone's Crossing, varying width, said
 point being distant South 00 degrees 39 minutes 49 seconds East 209.45 feet from the intersection
 of the South right-of-way line of Interstate Highway 64, varying width, as described in deed
 recorded in Book 6342 page 824 of the St. Louis County Records, with said West right-of-way
 line of Boone's Crossing, varying width, said intersection being the Northeast corner of Adjusted
 Parcel B of the "Boundary Adjustment Plat" recorded in Plat Book 349 page 39 of the St. Louis
 County Records; thence South 44 degrees 44 minutes 33 seconds East 228.05 feet to a point,
 thence South 05 degrees 55 minutes 16 seconds West 207.77 feet to a point; thence South 47
 degrees 44 minutes 16 seconds West 74.48 feet to a point; thence South 09 degrees 35 minutes 06
 seconds West 142.17 feet to said West right-of-way line of Boone's Crossing, varying width,
 being also the East line of said Adjusted Parcel B; thence Northwesterly along said West right-of-
 way line of Boone's Crossing, varying width, being also the East line of said Adjusted Parcel B,
 the following courses and distances: North 07 degrees 48 minutes 31 seconds East 115.36 feet,
 North 09 degrees 35 minutes 43 seconds East 271.16 feet and North 00 degrees 39 minutes 49
 seconds West 97.56 feet to the point of beginning and containing 1.173 acres.



RELOCATED BOONE'S CROSSING (VARYING WIDTH)

Thomas E. Smith
 Thomas E. Smith
 Mo. P.L.S. #1462

5-14-02

- Legend:
- - Brass Monument
 - - Iron Pipe
 - ▭ - Urban Class Property

VOLZ INCORPORATED
 LAND SURVEYORS - ENGINEERS - LAND PLANNERS
 1640 PINEHURST DRIVE, SUITE 200
 ST. LOUIS, MISSOURI 63112
 PHONE 314-436-6112

Witness my hand and official seal on the day and year first above written.
 County of St. Louis
 State of Missouri
 Notary Public
 My Comm. Expires 12/31/03