

Department of Planning & Public Works
City of Chesterfield
Public Hearing Summary Report

T.S.P. 26-2010 Clearwire US LLC. (1850 Baxter Road): A request to obtain approval for a Telecommunication Facility Siting Permit for location of antennas and equipment on an existing AmerenUE tower on a 4.71 acre "NU" Non-Urban District-zoned tract of land located northeast of Baxter Road (19S220028).

Summary

The above-referenced project is a request for a Telecommunications Siting Permit (T.S.P.). If the request is approved, the Permit will allow placement of antennas from Clearwire US LLC, on an existing AmerenUE transmission line tower located northeast of Baxter Road, south of the Baxter Lakes subdivision. Additional equipment to support the new antennas is proposed to be placed at ground level.

City of Chesterfield Ordinance 2391, which now governs telecommunications and facilities siting, requires a public hearing before the City of Chesterfield Planning Commission for the addition of telecommunications equipment on exiting high structures. Note, the Commission does not provide a recommendation to the City Council, but rather a list of issues generated during the hearing. City Council is the decision-making body for all requests for Telecommunications Siting Permits. A public hearing further addressing the request will be held at the September 13, 2010 City of Chesterfield Planning Commission meeting. Attached please find a copy of the Public Hearing Notice and an application packet detailing the Petitioner's request.

Respectfully submitted,



Shawn Seymour, AICP
Senior Planner

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



Existing tower

**NOTICE OF PUBLIC HEARING
CITY OF CHESTERFIELD
PLANNING COMMISSION**

NOTICE IS HEREBY GIVEN that the Planning Commission of the City of Chesterfield will hold a Public Hearing on Monday, September 13, 2010, at 7:00 PM, in the Council Chambers at the City Hall, 690 Chesterfield Parkway West, Chesterfield, Missouri 63017.

Said hearing will be as follows:

T.S.P. 26-2010 Clearwire US LLC. (1850 Baxter Road): A request to obtain approval for a Telecommunication Facility Siting Permit for location of antennas and equipment on an existing AmerenUE tower on a 4.71 acre "NU" Non-Urban District-zoned tract of land located northeast of Baxter Road (19S220028).



Anyone interested in the proceedings will be given an opportunity to be heard. Copies of the request are available for review in the Department of Planning and Public Works at the Chesterfield City Hall, 690 Chesterfield Parkway West during weekdays between the hours of 8:30 a.m. and 4:30 p.m. If you should need additional information about this project, please contact Mr. Shawn P. Seymour, Senior Planner, by telephone at 636-537-4741 or by email at sseymour@chesterfield.mo.us

CITY OF CHESTERFIELD
G. Elliot Grissom, Chair
Chesterfield Planning Commission

Description of Area

A tract of land in Lot 6 of Henry Eberwein's subdivision in U.S. Survey 1978, Township 45 North, Range 4 East, and being more particularly described as follows:

Beginning at the intersection of the South line of U.S. Survey with the line of prolongation southwardly of the west line of said Lot 6; thence extending east along said survey line, 1525 feet to a point; thence north at a right angle to said survey line, 575 feet to a point; thence west parallel with said survey line, 315 feet to a point; thence south at a right angle to said last mentioned line, 555 feet to a point; thence west parallel with said survey line, 1210 feet more or less to a point in the west line of said Lot 6 or its prolongation southwardly; and thence south along the west line of said Lot 6; prolonged southwardly, 20 feet more or less to the point of the beginning.

MO-STL5433

Coverage Analysis



Indoor Coverage without MO-STL5433





Indoor Coverage with MO-ST5433



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CLEARWIRE PROJECT MANAGEMENT	DATE
CLEARWIRE CONSTRUCTION MANAGEMENT	DATE
CLEARWIRE ENGINEERING	DATE
BACKHAUL ENGINEERING	DATE
LANDLORD	DATE

clearwire®

TECHNOLOGIES, INC.

SITE ID: MO-STL5433

MASON-LABADIE #31



DRAWING INDEX		DESIGNER	SURVEYOR	PROJECT INFORMATION																																											
T-1	TITLE SHEET	LANDTECH PROFESSIONAL SURVEYING AND ENGINEERING 1275 MCGREGOR WAY GRAWN, MI 49637 P.O. BOX 193 PHONE: (231) 943-0050	LANDTECH PROFESSIONAL SURVEYING AND ENGINEERING 1275 MCGREGOR WAY GRAWN, MI 49637 P.O. BOX 193 PHONE: (231) 943-0050	SCOPE OF WORK: THIS FACILITY IS AN UNOCCUPIED TELECOMMUNICATIONS FACILITY CONSISTING OF CO-LOCATING ON AN EXISTING STRUCTURE WITH MICROWAVE ANTENNAS AND THE INSTALLATION OF NEW OUTDOOR EQUIPMENT ON GRADE. SITE ADDRESS: 1850 BAXTER ROAD CHESTERFIELD, MO 63017 TOWER OWNER: AMEREN P.O. BOX 66529 ST. LOUIS, MO 63166 LAND OWNER: ST LOUIS COUNTY WATER COMPANY 727 CRAIG ROAD ST. LOUIS, MO 63141 TOWER OWNER SITE: MASON-LABADIE #31 APPLICANT: CLEARWIRE 4400 CARRILLION POINT KIRKLAND, WA 98033 (425) 216-7600 PH (425) 216-7900 FAX CONTACT: AMY ISENBURG																																											
S-1	PARCEL PLAN	DIRECTIONS TO SITE: FROM THE INTERSECTION OF I-44 AND I-270, US401 WEST TO SR 340, SR 345 SOUTH TO BAXTER RD, BAXTER RD SOUTH-EAST TO SUMMER RIDGE DR, CONTINUE PAST SUMMER RIDGE DR APPROXIMATELY 0.19 MILES TO ACCESS ROAD ON THE EAST SIDE OF BAXTER RD, CONTINUE EAST ON ACCESS ROAD APPROXIMATELY 0.25 MILES TO TRANSMISSION TOWER.		OWNER INFORMATION: LATITUDE & LONGITUDE BASED ON NAD83 LATITUDE: 38° 38' 06.5" N LONGITUDE: 90° 33' 10.0" W PROPOSED RAD CENTER HEIGHT: 114' AGL PARCEL NUMBER (TAX ID): 19S220029 CURRENT ZONING: MU TYPE OF CONSTRUCTION: PROJECT TYPE: EXISTING AMEREN POWER TOWER WITH NEW POWER MOUNT																																											
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A-4	EQUIPMENT DETAILS																																														
A-5	RF/MW CONFIG																																														
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 (425) 216-7900 FAX

SITE ID: MO-STL5433
 MASON-LABADIE #31
 1850 BAXTER ROAD
 CHESTERFIELD, MO 63017

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SHEET T-1
 TITLE SHEET
 DRAWING NUMBER
 1038509

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SITE ADDRESS:

1850 BAXTER ROAD
CHESTERFIELD, MO 63017

LAND OWNER:

ST. LOUIS COUNTY WATER COMPANY
P.O. BOX 08034
CHERRY HILL, NJ 08034

ZONING:

SUBJECT SITE: NU
NORTH OF SITE: R3
SOUTH OF SITE: R2
EAST OF SITE: R3
WEST OF SITE: R3

TOWER SETBACKS:

FRONT SETBACKS: N/A EXIST
SIDE SETBACKS: N/A EXIST
REAR SETBACKS: N/A EXIST

AREA DATA:

PARENT PARCEL AREA: 4.71 ACRES
CLEARWIRE LEASE AREA: 49 SQ.FT.
AREA OF CONSTRUCTION: 16 SQ.FT.

PARCEL DESCRIPTION

LOT 6 PT HENRY EBERWEIN ESTATE AS
RECORDED IN BOOK 228, PAGE 028 OF ST. LOUIS
COUNTY RECORDS.

PARCEL ID #:

19S220028

FLOOD NOTE:

By graphic plotting only, this property is in Zone(s) "X" of the Flood Insurance Rate Map, Community Panel No. 29189C0145H, which bears an effective date of 08/02/95 and is NOT in a Special Flood Hazard Area.

GENERAL NOTES

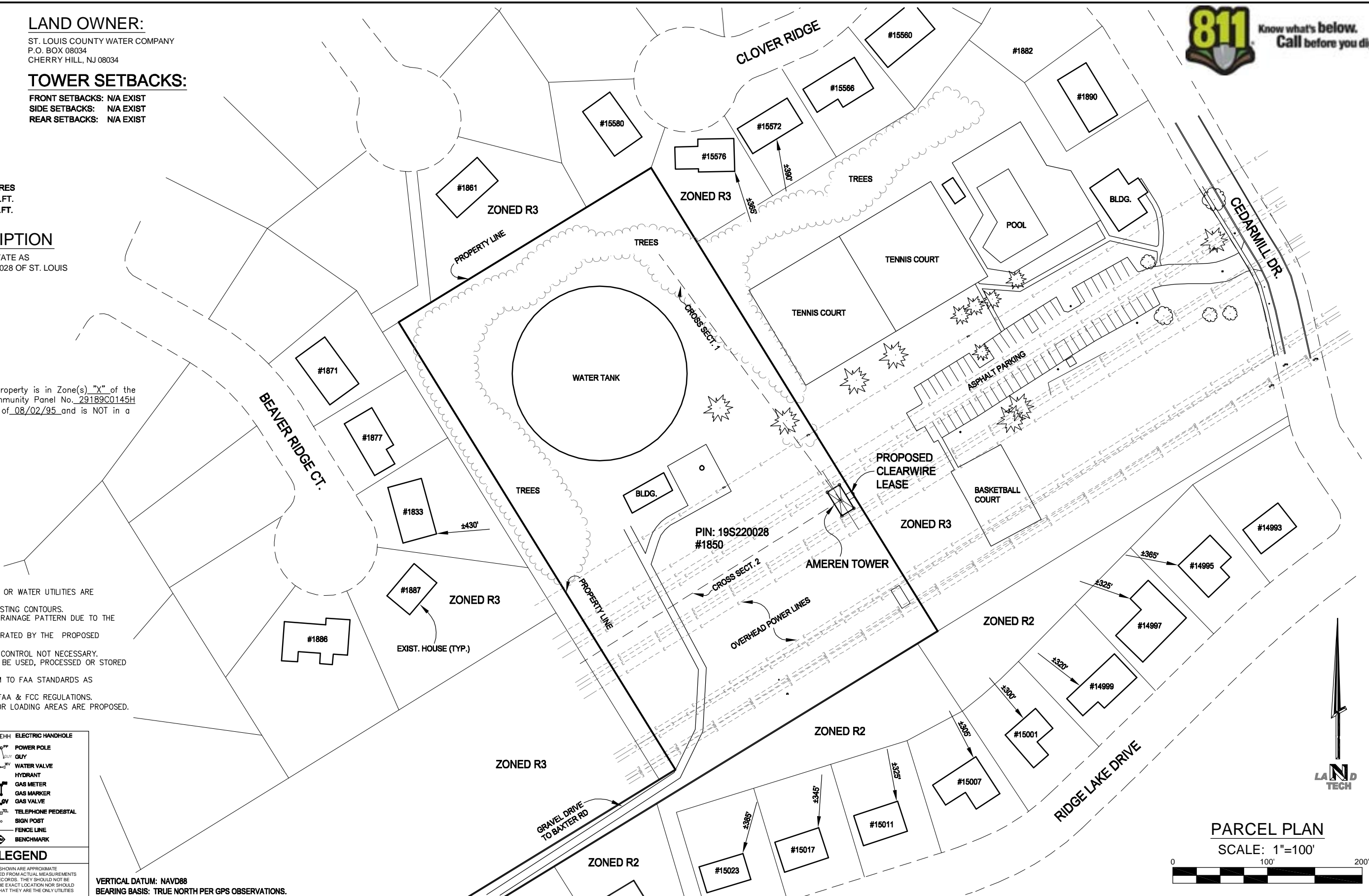
1. NO PROPOSED MUNICIPAL SEWER OR WATER UTILITIES ARE REQUIRED FOR THIS SITE.
2. FINISHED GRADE WILL MATCH EXISTING CONTOURS.
3. THERE WILL BE NO CHANGE IN DRAINAGE PATTERN DUE TO THE PROPOSED INSTALLATION.
4. NO SIGNIFICANT RUNOFF IS GENERATED BY THE PROPOSED INSTALLATION.
5. SOIL EROSION / SEDIMENTATION CONTROL NOT NECESSARY.
6. NO HAZARDOUS MATERIALS WILL BE USED, PROCESSED OR STORED AT THE SITE.
7. TOWER LIGHTING SHALL CONFORM TO FAA STANDARDS AS REQUIRED.
8. ALL WORK SHALL CONFORM TO FAA & FCC REGULATIONS.
9. NO OFF-STREET PARKING AND/OR LOADING AREAS ARE PROPOSED.
10. NO WETLANDS EXIST ON SITE.

• IRON FOUND	EHH ELECTRIC HANDHOLE
• IRON SET	PP POWER POLE
• P.K. NAIL FOUND	GUY
• P.K. NAIL SET	WATER VALVE
• GPS MONUMENT	HYDRANT
• MONUMENT BOX FOUND	GAS METER
• MONUMENT FOUND	GAS MARKER
• MONUMENT SET	GAS VALVE
(M) RECORD MEASURED	TEL TELEPHONE PEDESTAL
• STORM MANHOLE	SP SIGN POST
• CATCH BASIN	FL FENCE LINE
• SQUARE CATCH BASIN	BENCHMARK
• SANITARY MANHOLE	
• SANITARY CLEAN-OUT	
• MONITOR WELL	
• TELCO. MANHOLE	
• LIGHT POLE	
• ELECTRIC TRANSFORMER	
• ELECTRIC METER	

LEGEND

ALL UTILITIES AS SHOWN ARE APPROXIMATE LOCATIONS DERIVED FROM ACTUAL MEASUREMENTS AND AVAILABLE RECORDS. THEY SHOULD NOT BE INTERPRETED TO BE EXACT LOCATION NOR SHOULD IT BE ASSUMED THAT THEY ARE THE ONLY UTILITIES IN THE AREA.

VERTICAL DATUM: NAVD88
BEARING BASIS: TRUE NORTH PER GPS OBSERVATIONS.



PARCEL PLAN

SCALE: 1"=100'



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MASON-LABADIE #31

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CHESTERFIELD, MO 63017

NO.	DATE	REVISIONS	BY	CHK	APP'D
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2	07/15/10	HEIGHTS PER STRUCTURAL & ADD SDR	MRM	MM	MM
1	07/14/10	CHANGE TO POWER MOUNT & ADD PARCEL PLAN	MRM	MM	MM
0	03/12/10	PRELIMINARY DRAWINGS	MRM	MM	MM

SHEET S-1

PARCEL PLAN

DRAWING NUMBER

1038509

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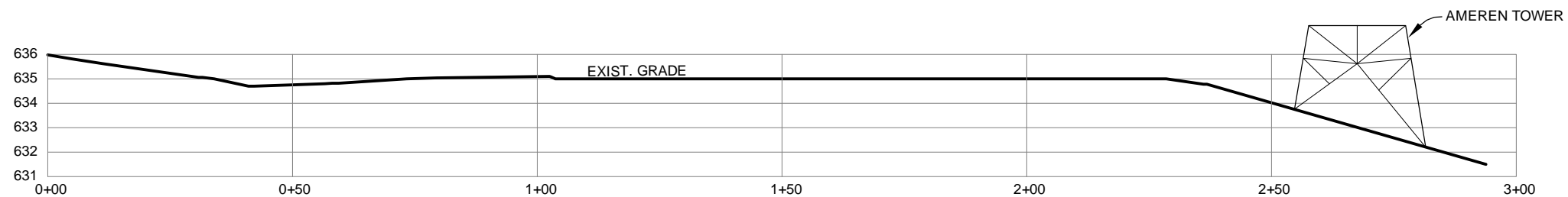
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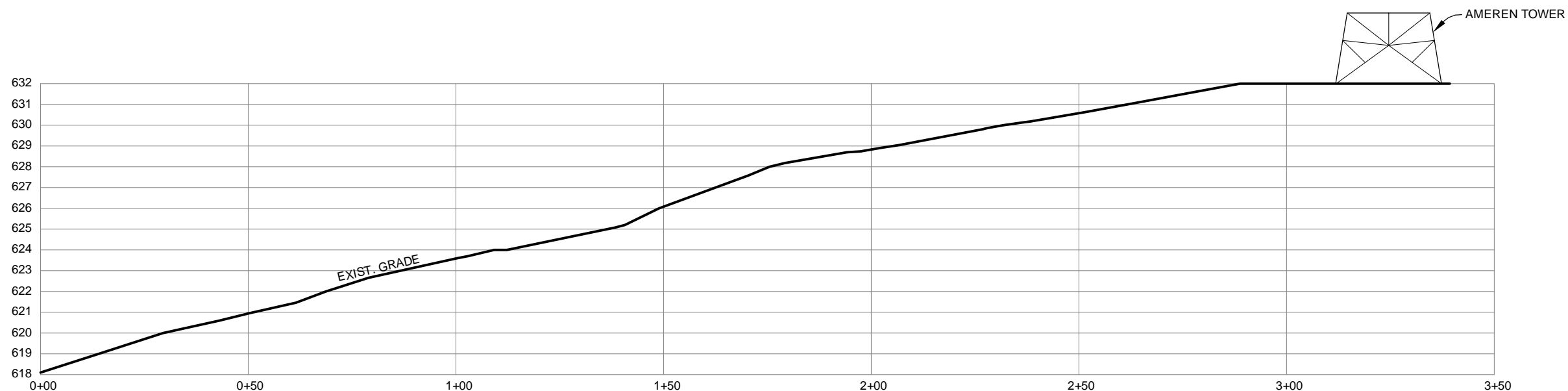
FRONT SETBACKS: N/A EXIST
SIDE SETBACKS: N/A EXIST
REAR SETBACKS: N/A EXIST

PARCEL ID #:

19S220028



CROSS SECTION 1
HORIZONTAL SCALE: 1"=30'
VERTICAL SCALE: 1"=6'



CROSS SECTION 2
HORIZONTAL SCALE: 1"=30'
VERTICAL SCALE: 1"=6'

VERTICAL DATUM: NAVD88
BEARING BASIS: TRUE NORTH PER GPS OBSERVATIONS.

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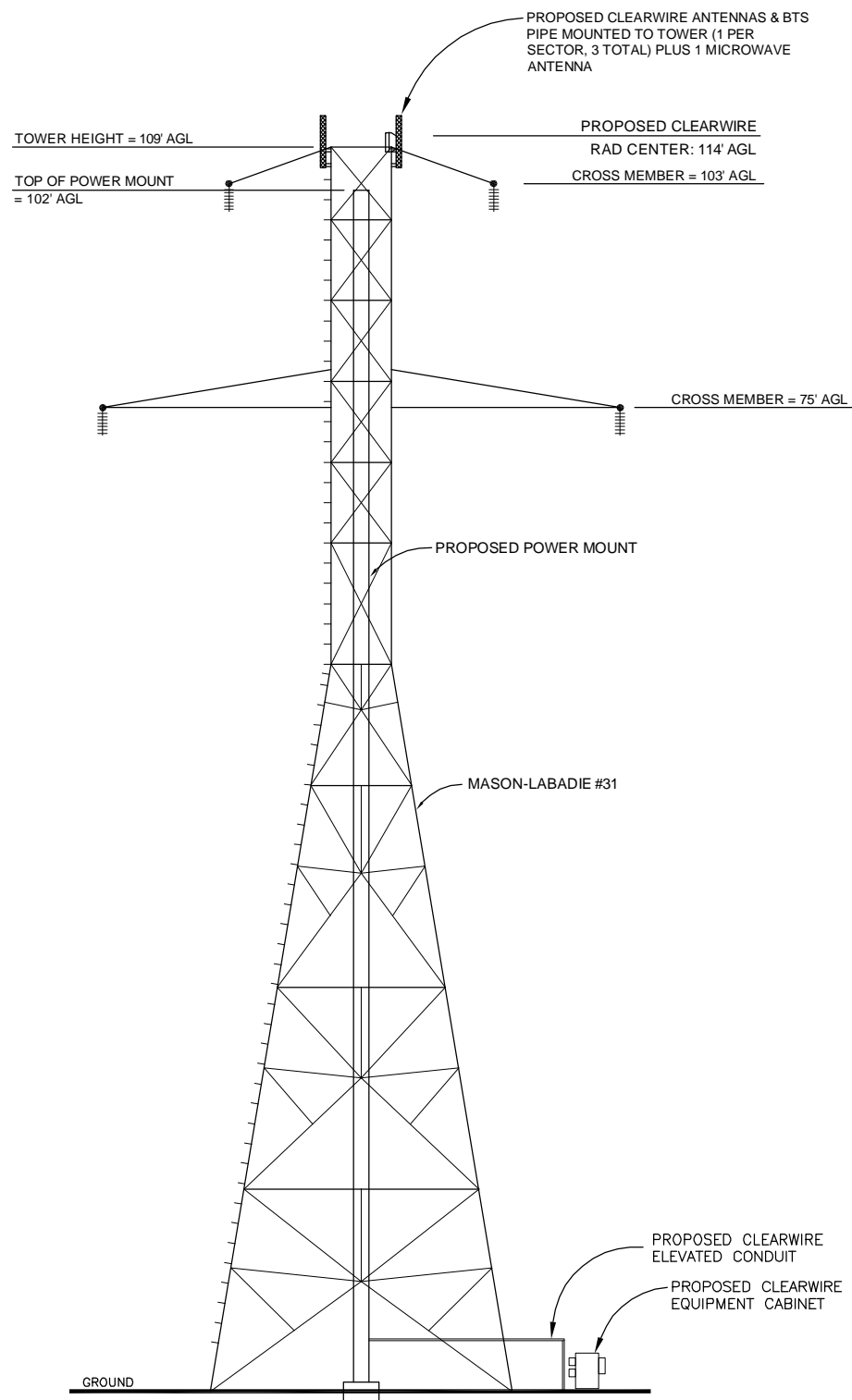
SHEET S-2

CROSS SECTIONS

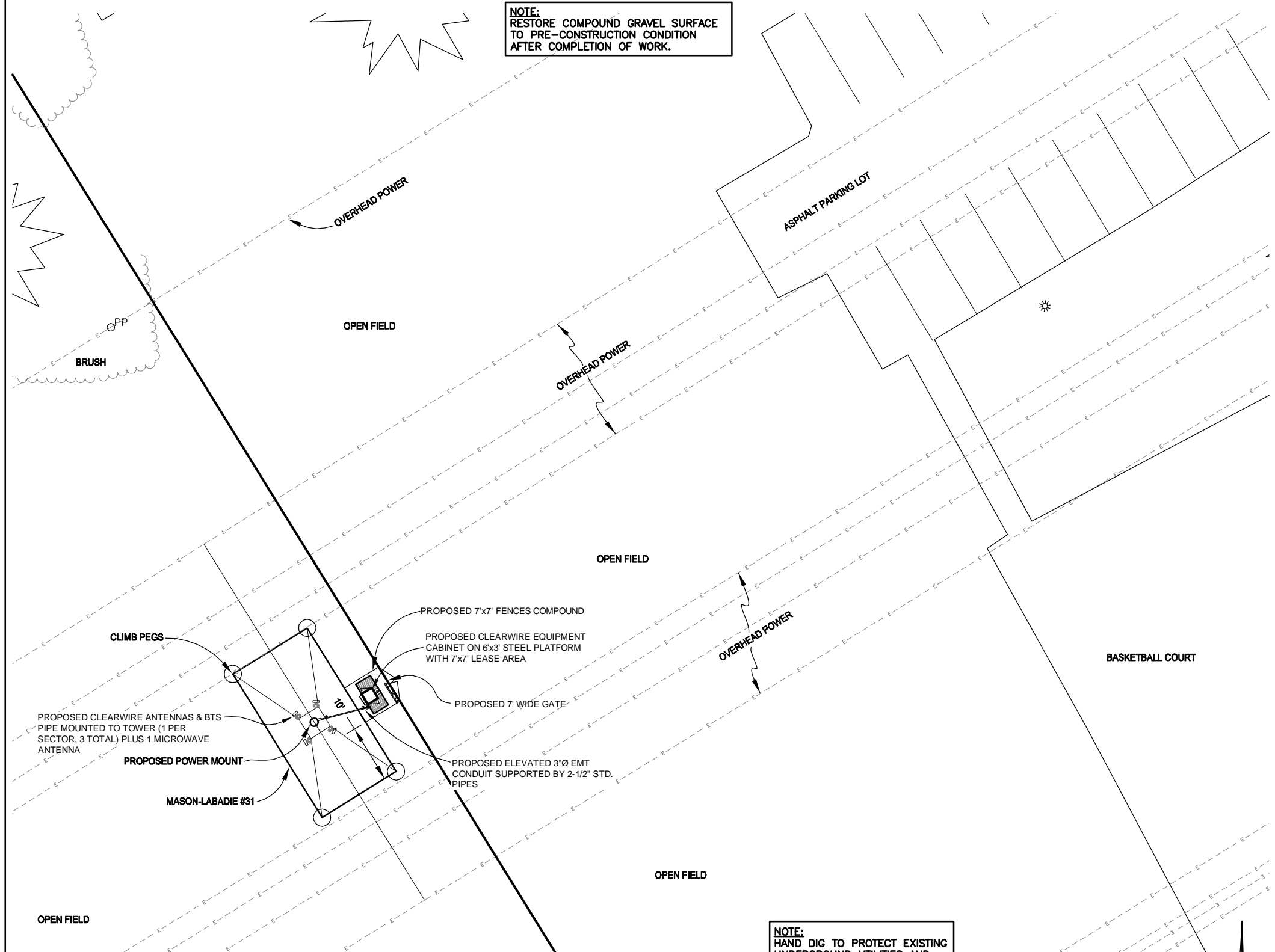
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Ameren Tower Elevation
NO SCALE



STORM WATER DRAINAGE NOTES:

- 1) THERE IS NO CHANGE IN THE EXISTING DRAINAGE PATTERN DUE TO THE PROPOSED INSTALLATION.
- 2) NO SIGNIFICANT RUNOFF IS GENERATED BY THE PROPOSED INSTALLATION.
- 3) NO GRADING IS PROPOSED FOR THIS INSTALLATION.
- 4) NO STORM WATER DRAINAGE PLAN IS CONSIDERED NECESSARY.

FENCING / SCREENING / LANDSCAPING NOTE:

- 1) NO FENCING, SCREENING OR LANDSCAPING IS PROPOSED FOR THIS PROJECT.

WETLANDS / FLOODPLAIN / TREE PRESERVATION NOTES:

- 1) NO WETLANDS OR FLOODPLAIN EXIST ON SITE.
- 2) NO TREE REMOVAL IS PLANNED FOR THIS PROJECT.

MISCELLANEOUS NOTES:

- 1) NO CURB CUTS ARE PLANNED FOR THIS PROJECT.
- 2) NO SANITARY SEWER IS PLANNED FOR THIS PROJECT.
- 3) THIS SITE WILL BE UNMANNED AND NOT OCCUPIED.

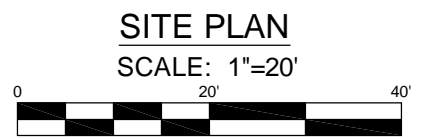
SOIL EROSION AND SEDIMENT CONTROL MEASURES

- 1) THERE IS NO CHANGE IN THE EXISTING DRAINAGE PATTERN DUE TO THE PROPOSED INSTALLATION.
- 2) NO SIGNIFICANT RUNOFF IS GENERATED BY THE PROPOSED INSTALLATION.
- 3) NO GRADING IS PROPOSED FOR THIS INSTALLATION.
- 4) NO SOIL EROSION AND SEDIMENTATION CONTROL MEASURES ARE CONSIDERED NECESSARY.

HAZARDOUS SUBSTANCES NOTE:

- 1) THERE SHALL BE NO STORAGE OF HAZARDOUS SUBSTANCES OR POLLUTING MATERIALS.

NOTE: HAND DIG TO PROTECT EXISTING UNDERGROUND UTILITIES AND GROUNDING AS REQUIRED.



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SHEET A-1
ENLARGED SITE PLAN & TOWER ELEVATION
DRAWING NUMBER
1038509

SEE BLACK & VEATCH STRUCTURAL DRAWINGS FOR ANTENNA MOUNTING DETAILS.



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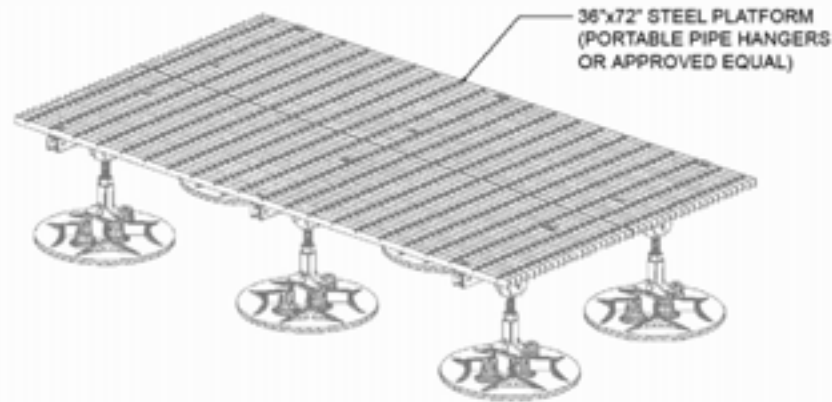
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SITE ID: MO-STL5433
MASON-LABADIE #31
1850 BAXTER ROAD
CHESTERFIELD, MO 63017

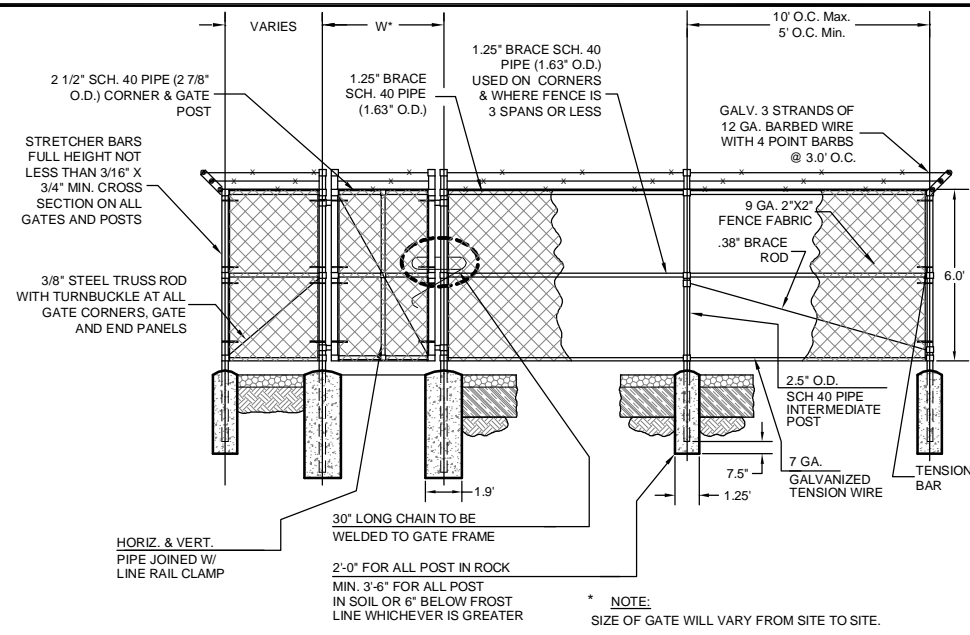
NO.	DATE	REVISIONS	BY	CHK	APP'D
5	08/05/10	ANTENNAS MOUNTED TO TOWER	DAM	MM	MM
4	08/04/10	ADDED OUT BOUNDARY SURVEY	DAM	MM	MM
3	07/27/10	FENCE ADD'N	CJL	MM	MM
2	07/15/10	HEIGHTS PER STRUCTURAL & ADD SDR	MRM	MM	MM
1	07/14/10	CHANGE TO POWER MOUNT & ADD PARCEL PLAN	MRM	MM	MM
0	03/12/10	PRELIMINARY DRAWINGS	MRM	MM	MM

SHEET A-2
ANTENNA MOUNTING DETAILS & NOTES
DRAWING NUMBER
1038509

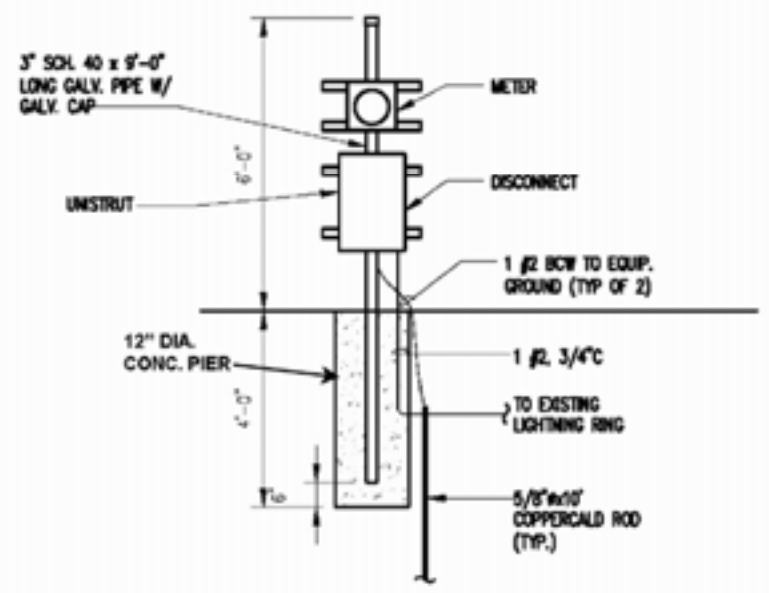
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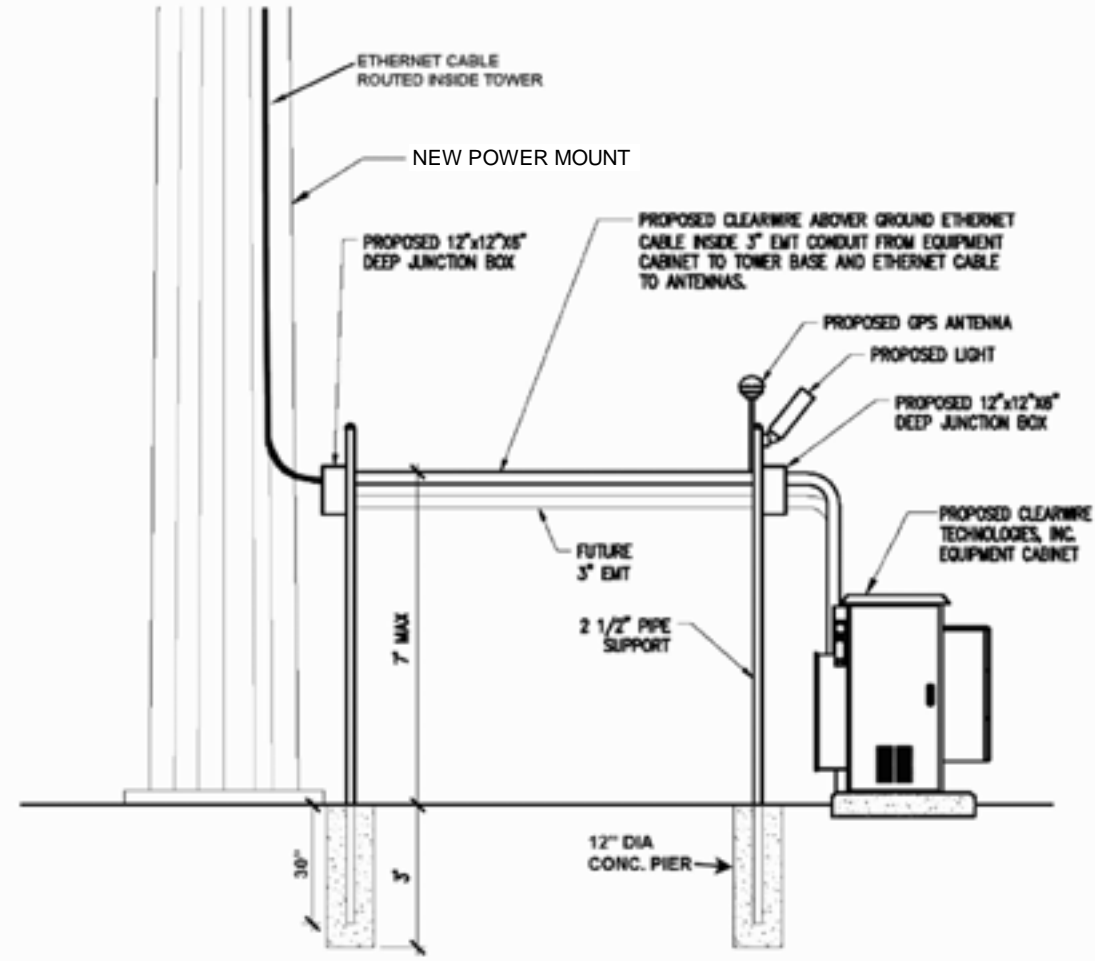
36"x72" PLATFORM DETAIL
SCALE: N.T.S. 1
A-3



TYPICAL FENCE ELEVATION
NOT TO SCALE



H-FRAME (IF APPLICABLE)
SCALE: N.T.S. 4
A-3



ELEVATION 5
SCALE: N.T.S. 5
A-3

GENERAL NOTES:

1. THE BASIC WIND SPEED UTILIZED FOR OUTDOOR EQUIPMENT CABINETS IS 90 MPH PER IBC (LATEST EDITION)
2. INFORMATION SHOWN ON THESE DRAWINGS WAS OBTAINED BY FIELD MEASUREMENTS. THE GENERAL CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS AND NOTIFY THE ENGINEER OF ANY DISCREPANCIES PRIOR TO ORDERING MATERIALS OR PROCEEDING WITH CONSTRUCTION.
3. THE GENERAL CONTRACTOR AND HIS SUBCONSULTANTS SHALL BE RESPONSIBLE FOR OBTAINING ALL PERMITS AND INSPECTIONS WHICH MAY BE REQUIRED FOR THE WORK.
4. STRUCTURAL STEEL SHALL CONFORM TO THE LATEST EDITION OF THE AISC SPECIFICATIONS FOR STRUCTURAL STEEL BUILDINGS. ALLOWABLE STRESS DESIGN AND PLASTIC DESIGN INCLUDING THE COMMENTARY AND THE AISC CODE OF STANDARD PRACTICE.
5. STRUCTURAL STEEL PLATES AND SHAPES SHALL CONFORM TO ASTM A36. ALL STRUCTURAL STEEL PIPES SHALL CONFORM TO ASTM A53 GRADE B. ALL STRUCTURAL STEEL TUBING SHALL CONFORM TO ASTM A500 GRADE B. ALL STRUCTURAL STEEL COMPONENTS AND FABRICATED ASSEMBLIES SHALL BE HOT DIP GALVANIZED AFTER FABRICATION.
6. WELDING SHALL BE IN ACCORDANCE WITH THE AMERICAN WELDING SOCIETY (AWS) D.1.1.98. STRUCTURAL WELDING CODE-STEEL. WELD ELECTRODES SHALL BE E70XX. FIELD TOUCH-UP WITH ZINC RICH PAINT (ALL EXISTING AND NEW AREAS) AFTER WELDING IS COMPLETE.
7. ALL THREADED STRUCTURAL FASTENERS FOR ANTENNA SUPPORT ASSEMBLIES SHALL CONFORM TO ASTM A307 OR ASTM A308. ALL STRUCTURAL FASTENERS FOR STRUCTURAL STEEL FRAMING SHALL CONFORM TO ASTM A325. FASTENERS SHALL BE 5/8" MIN. DIAMETER BEARING TYPE CONNECTIONS WITH THREADS EXCLUDED IN THE SHEAR PLANE. ALL EXPOSED FASTENERS, NUTS, AND WASHERS SHALL BE GALVANIZED UNLESS NOTED OTHERWISE. CONCRETE EXPANSION ANCHORS SHALL BE HILTI KWIK BOLTS UNLESS NOTED OTHERWISE. ALL ANCHORS INTO CONCRETE SHALL BE STAINLESS STEEL.
8. ALL COAXIAL CABLE CONNECTORS AND TRANSMITTER EQUIPMENT SHALL BE AS SPECIFIED BY THE OWNER AND IS NOT INCLUDED IN THESE CONSTRUCTION DOCUMENTS. THE CONTRACTOR SHALL FURNISH ALL CONNECTION HARDWARE REQUIRED TO SECURE THE CABLES. ETHERNET CABLES SHALL BE ATTACHED TO THE TOWER WAVEGUIDE LADDER USING UV-RESISTANT TIE WRAPS OR STAINLESS STEEL HARDWARE.
9. NORTH ARROW SHOWN ON PLANS REFERS TO TRUE NORTH. CONTRACTOR SHALL VERIFY NORTH AND INFORM ENGINEER ANY DISCREPANCY BEFORE STARTING CONSTRUCTION.
10. ALL REINFORCING STEEL SHALL CONFORM TO ASTM 615 GRADE 60, DEFORMED BILLET STEEL BARS.
11. CONCRETE FOR THE EQUIPMENT PAD SHALL BE 4000 PSI NORMAL WEIGHT CONCRETE WITH FIBERMESH ADMIXTURE. CONTRACTOR MAY USE APPROVED PRECAST EQUIVALENT.
12. LUMBER SHALL COMPLY WITH THE REQUIREMENTS OF AMERICAN INSTITUTE OF TIMBER CONSTRUCTION AND THE NATIONAL FOREST PRODUCTS ASSOCIATION'S NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION. ALL LUMBER SHALL BE PRESSURE TREATED AND SHALL BE STRUCTURAL GRADE NO. 2 OR BETTER.
13. IT IS THE OWNERS RESPONSIBILITY TO VERIFY THE STRUCTURAL CAPACITY OF THE EXISTING TOWER AND ITS FOUNDATION TO RESIST THE WIND/GRAVITY LOADS FROM THE PROPOSED ANTENNAS.
14. ALL FIELD CUT METAL WILL BE SCRAPED OF ANY RUST AND COLD GALVANIZED.
15. RUBBER CAPS WILL BE PLACED ON ALL EXPOSED UNISTRUT ENDS.

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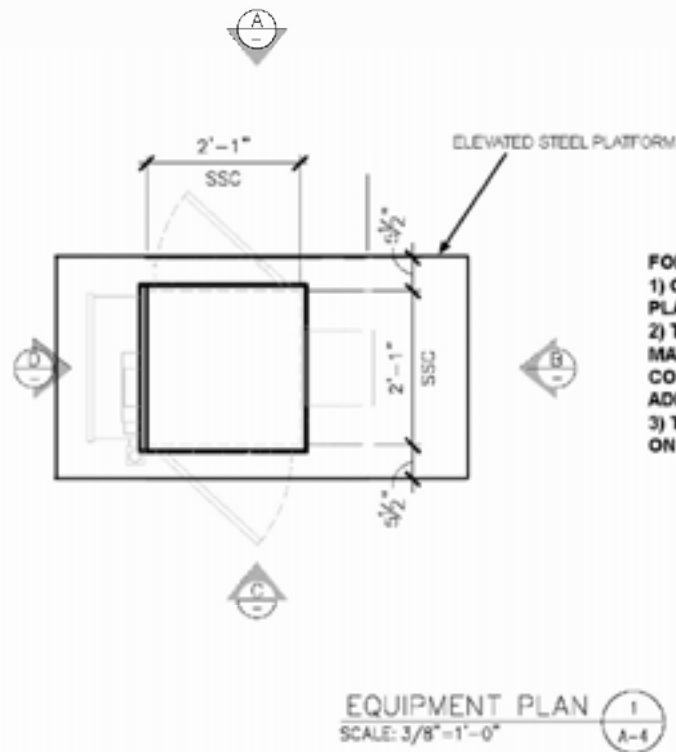
clearwire
TECHNOLOGIES, INC.
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SHEET A-3	
STRUCTURAL NOTES, SECTIONS & DETAILS	
DRAWING NUMBER	
1038509	

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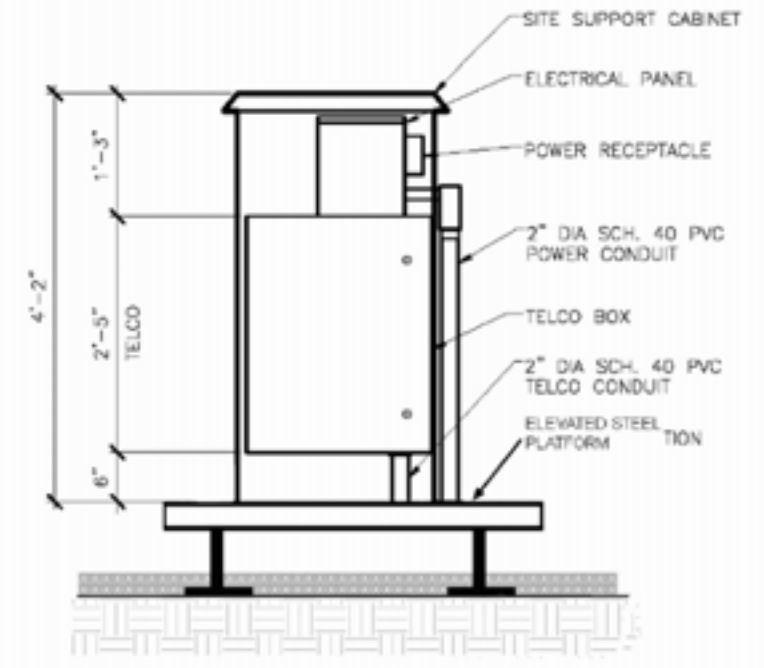
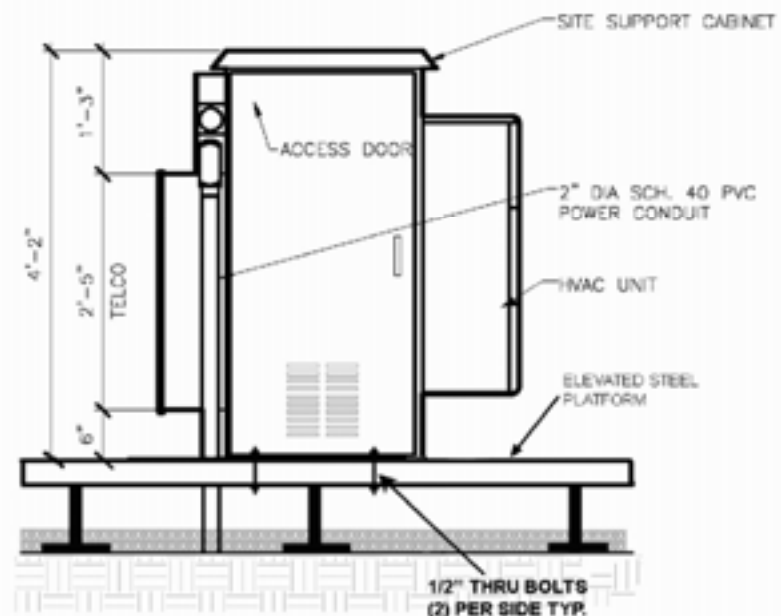
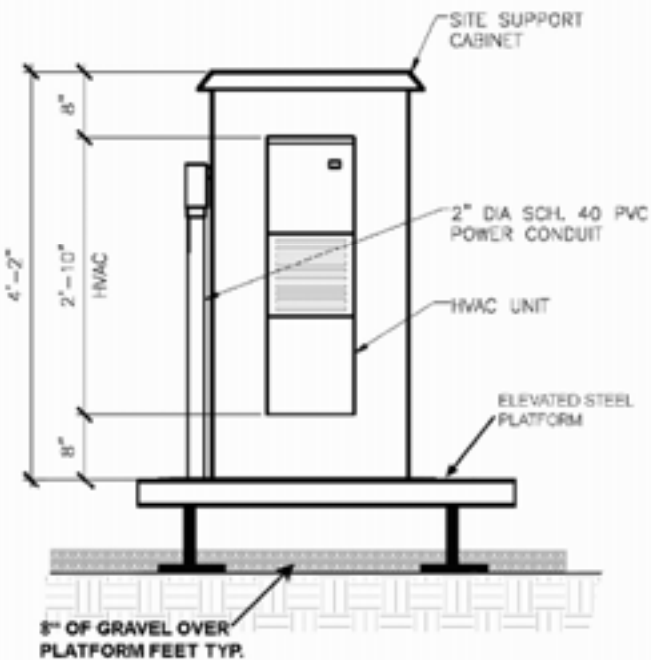
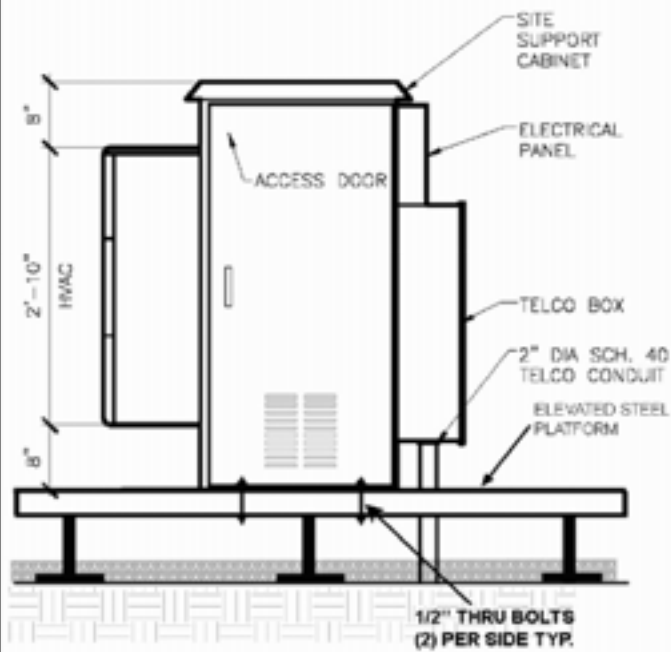


FOR CRUSHED STONE/GRAVEL INSTALLATION:
 1) GRAVEL MUST BE PUSHED BACK IN ALL AREAS WHERE THE PLATFORM WILL BE INSTALLED. PUSH BACK TO WEED BARRIER.
 2) THE GRAVEL MAY BE REUSED AND/OR ADDITIONAL GRAVEL MAY NEED TO BE ADDED TO ENSURE THE DEPTH IS AT THE PRE-CONSTRUCTION LEVEL. THE CONTRACTOR IS TO ENSURE THAT ADDITIONAL GRAVEL MATCHES EXISTING GRAVEL.
 3) THE PLATFORM'S FEET MUST BE PLACED AT GRADE LEVEL ON TOP OF THE WEED BARRIER AND COVERED GRAVEL 8" DEEP.

NOTE:
 SPECIFIC EQUIPMENT CABINET MODEL TO BE DETERMINED.



CABINET PHOTOS



CABINET MOUNTING DETAIL 4
 SCALE: 1/2"=1'-0"

CABINET MOUNTING DETAIL 5
 SCALE: 1/2"=1'-0"

CABINET MOUNTING DETAIL 6
 SCALE: 1/2"=1'-0"

CABINET MOUNTING DETAIL 7
 SCALE: 1/2"=1'-0"

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0	03/12/10	PRELIMINARY DRAWINGS	MRM	MM	MM

SHEET A-4		
EQUIPMENT DETAILS		
DRAWING NUMBER		
1038509		

(S: Site ID) **MO-STL5433** (S: Site Name) **Mason-Labadie #31**

Identification		Location	
C: Candidate ID	c	Mkt: Market Name	St Louis, MO
C: Candidate Rank	Primary	Clus: Cluster	St Louis
C: Candidate Status	Active	Clus: Cluster CMA	11
Access		C: Address	1850 Baxter Road
C: Directions		C: City	Chesterfield
		C: ZIP	63017
		C: Jurisdiction	Chesterfield, MO
		C: County	
		C: State	MO
		C: Latitude	38.63513889
		C: Longitude	-90.55277778
C: Special Access		None	
C: After Hours Access			
C: Gate Combination		C: Cabinet Combination	
		C: Generator Access	

Project Information	
Prj: Project ID	MO-STL_Phase2
Prj: Project Status	AZP
Workplan Template	S: WPT: New Site Build Large Market

Key Tasks (Forecast, Actual)	
T: (F) Structure Lease Complete (050) Finish	04.09.2010
T: (F) Zoning Submitted (060) Finish	04.09.2010
T: (F) Zoning Approval Confirmed (M5) Finish	04.29.2010
T: (F) Pull Building Permit (090) Finish	05.07.2010
T: (F) Construction Start (100) Finish	08.30.2010
T: (F) Construction Complete (130) Finish	09.13.2010
T: (F) Site Commissioning (140) Finish	12.06.2010
T: (F) On-Air (150) Finish	12.10.2010

(For initial site builds only)

Site Details	
S: Site Status	AZP
S: Site Designation	New Site Build
S: Current Technology	WiMax
S: RF Site Type	RF Site
S: BH Site Type	Spur Site
S: POP Site Type	No POP
C: Structure Type	UT-Transmission Tower
C: Structure Height (ft)	120
S: Equipment Manufacture	
S: Equipment Type	DAP
S: Equipment Location	
C: Power Meter Number	
C: Comm DNS Name	
C: Digi Phone #	
C: Digi Request Activation?	
C: Digi SIM #	
C: Digi Status	
C: LAN IP	
C: WAN IP	
C: Working POTs or Circuit ID at site	
Contact Information	
C: Access Contact Name	
C: Access Contact Number	
LA: Landlord Contact Name	
LA: Landlord Contact Number	
C: MLA Owner (1st lease)	Other MLA
C: MLA Site ID	N/A
C: MLA Contact Name	Tim Webers (Ameren UE)
C: MLA Contact Phone	314-564-2993
C: Property Owner	
C: Property Contact Name	
C: Property Contact Phone	
IC: Outage Contact 1	
IC: Outage Contact 2	
IC: Outage Contact 3	
C: Power Company	Ameren UE
C: Power Company Contact #	800-562-7683
A: C: Access/NOC Number	
C: Telco carrier	AT&T
C: Telco Company Contact #	800-499-7928
C: Fiber carrier	
C: Fiber Company Contact #	
S: Leasing Specialist	Steve Ward
S: Leasing Specialist Phone	
S: Field Tech	
S: Field Tech Phone	
S: Ops Manager	
S: Ops Manager Phone	
S: Project Manager	Michael D Moore
S: Project Manager Phone	
S: Construction Specialist	C Huffman
S: Construction Specialist Phone	
S: RF Engineer	Jason Gibbs
S: RF Engineer Phone	
S: BF Engineer	
S: BF Engineer Phone	
S: BH Project Manager	Michael D Moore
S: BHPM Phone	
C: Facility Engineer	
C: Fac Eng: Phone	

RF: ID	RF: Sector ID	RF: Sector Status	RF: RAD Ctr A GL (ft)	RF: Sector Azimuth	RF: Elec. Tilt	RF: Mech. Tilt	RF: Antenna Make/Model	Chan: Channel ID	Chan: Channel Number	Chan: Frequency	RF: Ret Installed	RF: Ret Quantity	RF: Available Channels	RF: Sector Width	RF: Technology	RF: Polarization	RF: Antenna Gain (dBi)
MO-STL5433c-2427	A1	Build	125	0	-4	0	LLPX310R 65deg XX-pol Argus						1-3	65	WIMAX_Motorola	Quad	17.7
MO-STL5433c-2443	B1	Build	125	105	-4	0	LLPX310R 65deg XX-pol Argus						1-3	65	WIMAX_Motorola	Quad	17.7
MO-STL5433c-2459	C1	Build	125	240	-2	0	LLPX310R 65deg XX-pol Argus						1-3	65	WIMAX_Motorola	Quad	17.7

MW Interconnect Information																									
Site ID	Cand ID	Backhaul Site Type	Link ID	Link Status	Link Type	Distance	Designed to Capacity	Configured Capacity	MW Vendor	Radio Model	Modem Type	Freq Band	AGL	Azimuth	Antenna Model	Antenna Size	Equip Config	Sub Band	TX Type	TX Power (dBm)	Polarization	Target RSL	EIRP	TX Freq 1	TX Freq 2
MO-STL053	b	Access Ring	0000063019	Build	MW-Licensed	1.647	430	430	Dragonwave	HD	Duo	18	125	245.5761	Andrew VHLP2-18	24" (0.6096m)	ODU RF/IDU Modem	B	TX-High	8.5	Vertical	-41.86	45.2	19375	19475

Clearvision Site Data Report
Report Date: 2010-2-25

MO-STL5433 (S: Site ID) **Mason-Labadie #31** (S: Site Name)



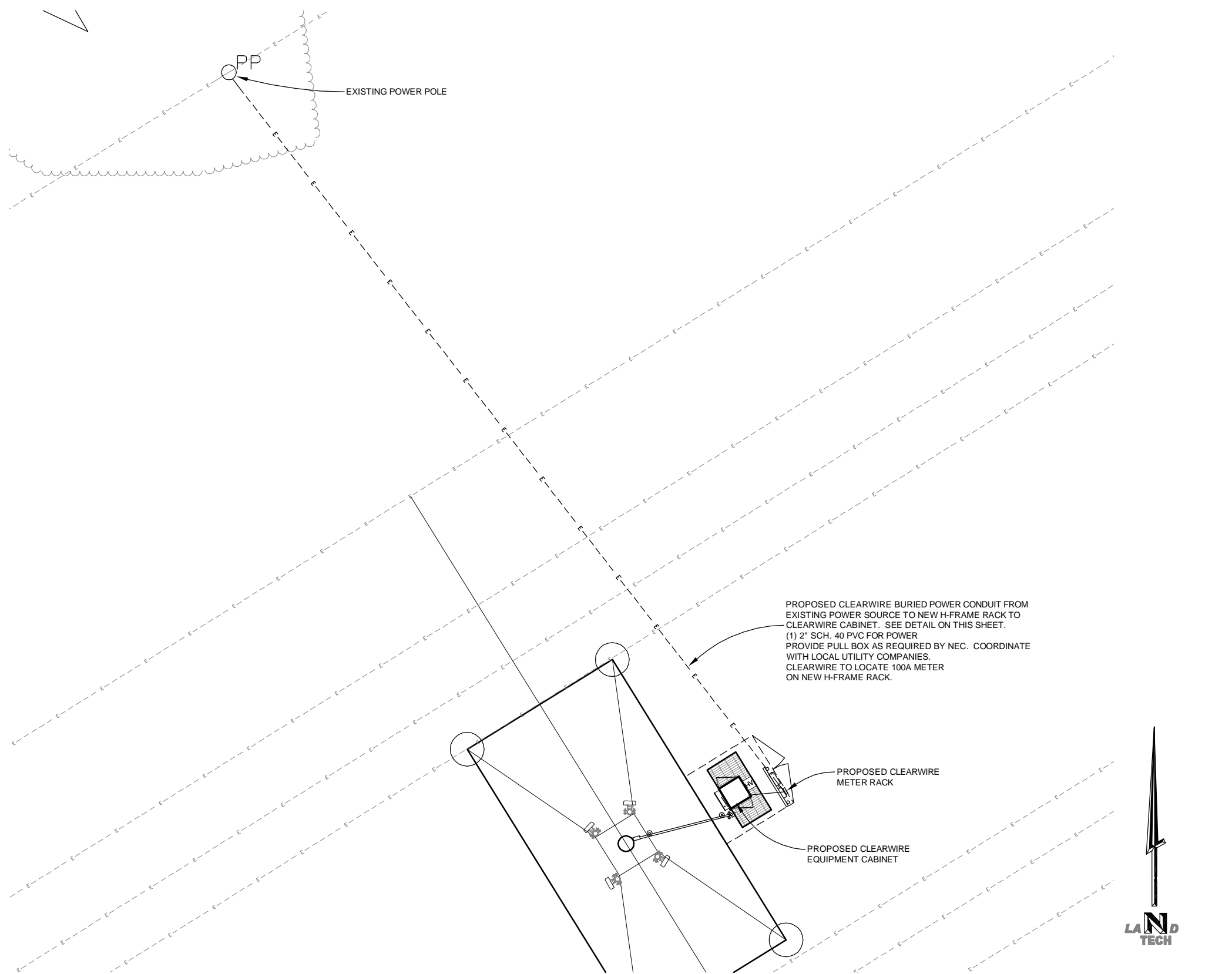
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SHEET A-5
RF/MW CONFIG
DRAWING NUMBER
1038509

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PROPOSED CLEARWIRE BURIED POWER CONDUIT FROM EXISTING POWER SOURCE TO NEW H-FRAME RACK TO CLEARWIRE CABINET. SEE DETAIL ON THIS SHEET.
 (1) 2" SCH. 40 PVC FOR POWER
 PROVIDE PULL BOX AS REQUIRED BY NEC. COORDINATE WITH LOCAL UTILITY COMPANIES.
 CLEARWIRE TO LOCATE 100A METER ON NEW H-FRAME RACK.

PROPOSED CLEARWIRE METER RACK

PROPOSED CLEARWIRE EQUIPMENT CABINET

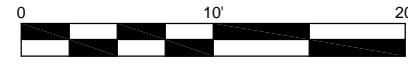
GENERAL SPECIFICATIONS:

1. WIRING SHALL BE AWG STRANDED COPPER WITH THHN OR EQUIVALENT INSULATION. #12 MINIMUM INSTALLED IN 1/2" MINIMUM CONDUIT. SIGNAL WIRING SHALL BE INSULATED #22 AWG. NO BX OR ROMEX CABLE IS PERMITTED. CONDUITS SHALL BE SURFACE MOUNTED.
2. WIRING DEVICES AND EQUIPMENT SHALL BE UL LISTED SPECIFICATIONS GRADE.
3. MATERIALS SHALL BE NEW AND CONFORM TO THE APPLICABLE STANDARDS ESTABLISHED FOR EACH ITEM BY THE ORGANIZATIONS LISTED BELOW.
 - AMERICAN SOCIETY FOR TESTING MATERIALS (ASTM)
 - UNDERWRITER'S LABORATORY (UL)
 - NATIONAL ELECTRICAL MANUFACTURING ASSOCIATION (NEMA)
 - AMERICAN STANDARDS ASSOCIATION (ASA)
 - NATIONAL FIRE PROTECTION ASSOCIATION (NFPA)
4. INSTALLATION OF MATERIALS SHALL COMPLY WITH REGULATIONS OF:
 - THE NATIONAL ELECTRICAL CODE (NFPA 70)
 - THE NATIONAL ELECTRICAL SAFETY CODE (ANSI C-2)
 - THE LIFE SAFETY CODE (NFPA 101)
 - LOCAL BUILDING CODES
5. THE ENTIRE SYSTEM SHALL BE SOLIDLY GROUNDED USING LOCKNUTS AND BONDING NUTS ON CONDUITS AND PROPERLY BONDED GROUND CONDUCTOR. RECEPTACLES AND EQUIPMENT BRANCH CIRCUITS SHALL BE GROUNDED WITH A FULL-SIZED EQUIPMENT GROUNDING CONDUCTOR RUN IN THE CIRCUIT'S CONDUIT
6. OUTLET AND JUNCTION BOXES SHALL BE ZINC-COATED OR CADMIUM PLATED STEEL, NOT LESS THAN 4" SQUARE AND SUITABLE FOR THE TYPE SERVICE AND OUTLET. OUTLET AND JUNCTION BOXES SHALL BE SURFACE MOUNTED AND LABELED WITH BRANCH CIRCUIT BREAKER NUMBER.
7. LABEL ALL EQUIPMENT SERVED FROM CLEAR WIRE TECHNOLOGIES, INC. PANEL BOARD WITH PHONEMIC LABELS SIZED IN RELATION TO USAGE.
8. INDOOR CONDUCTORS SHALL BE INSTALLED IN EMT UNLESS NOTED OTHERWISE. OUTDOOR CONDUCTORS SHALL BE INSTALLED IN RIGID GALVANIZED STEEL UNLESS NOTED OTHERWISE. WHERE EMT IS USED, IT SHALL BE WITH ONLY LISTED COMPRESSION FITTINGS. NO SET SCREW FITTINGS SHALL BE ALLOWED.
9. CONTRACTOR TO PROVIDE AND INSTALL ENGRAVED LABEL ON THE CLEARWIRE TECHNOLOGIES, INC. METER SOCKET ENCLOSURE.



ELECTRICAL SITE PLAN

SCALE: 1"=10'



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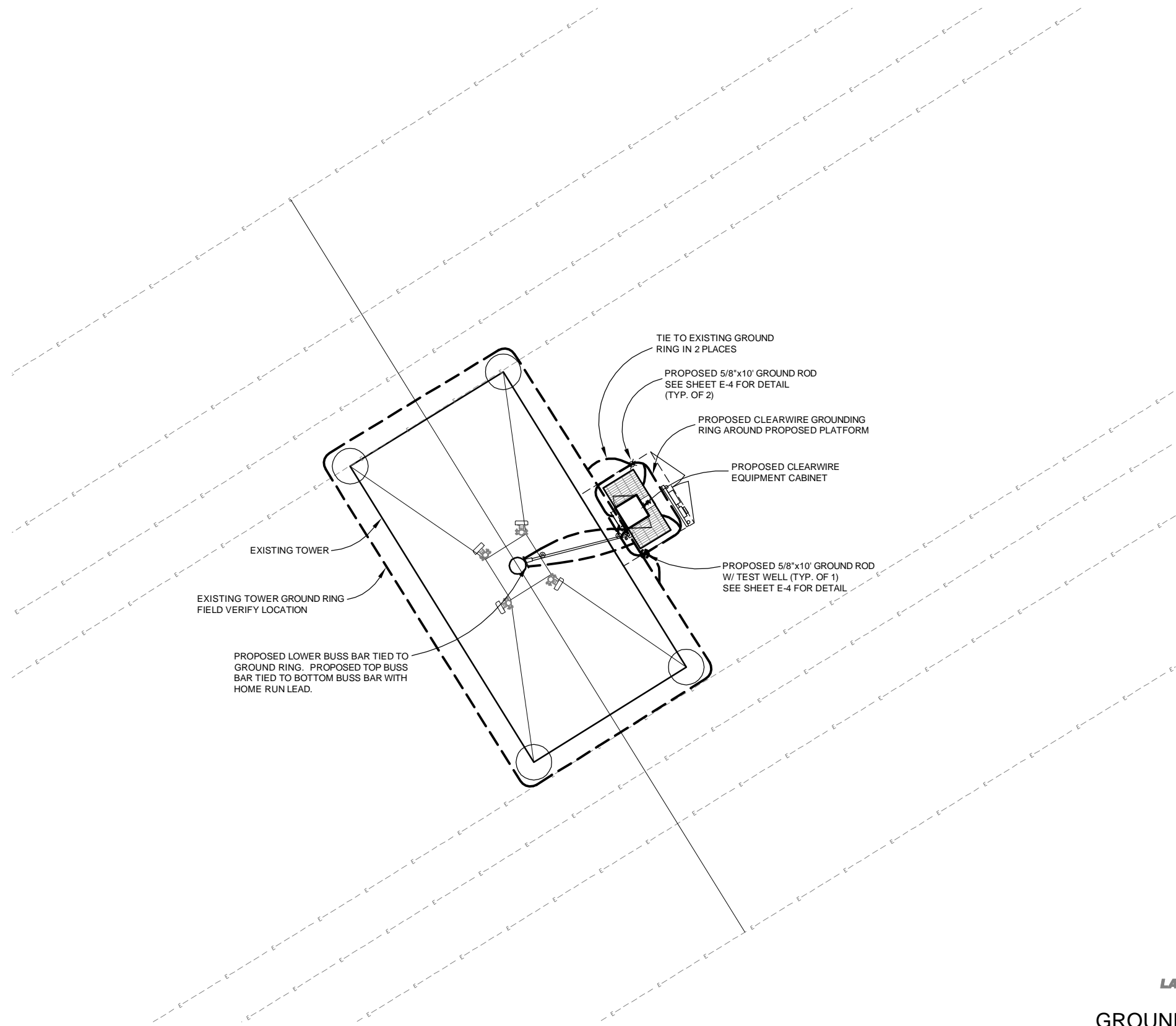
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SHEET E-1	
ELECTRICAL SITE PLAN	
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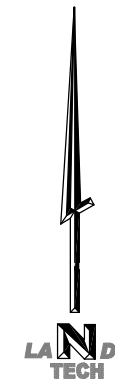


GROUNDING SPECIFICATIONS:

1. GROUNDING SHALL COMPLY WITH ARTICLE 250 OF THE NATIONAL ELECTRICAL CODE.
2. ALL GROUNDING DEVICES SHALL BE U.L. APPROVED OR LISTED FOR THEIR INTENDED USE.
3. GROUND WIRES SHALL BE TINNED #2 AWG BARE SOLID Cu UNLESS NOTED OTHERWISE.
4. GROUNDING CONNECTIONS SHALL BE EXOTHERMIC (GAWELDED) UNLESS NOTED OTHERWISE. CLEAN SURFACES TO SHINY METAL. WHERE GROUND WIRES ARE GAWELDED TO GALVANIZED SURFACES, SPRAY GAWELDED WITH GALVANIZING PAINT.
5. ROUTE GROUNDING CONDUCTORS ALONG THE SHORTEST AND STRAIGHTEST PATH POSSIBLE. BOND GROUNDING LEADS WITH A MINIMUM 8" RADIUS.
6. PRIOR TO INSTALLING LUGS ON GROUND WIRES, APPLY THOMAS & BETTS KOPR-SHIELD (TM OF JET LUB INC.) PRIOR TO BOLTING GROUND WIRE LUGS TO GROUND BARS, APPLY KOPR-SHIELD OR EQUAL.
7. WHERE BARE COPPER GROUND WIRES ARE ROUTED FROM ANY CONNECTION ABOVE GRADE TO GROUND RING, INSTALL WIRE IN 3/4" PVC SLEEVE, FROM 1'-0" ABOVE GRADE AND SEAL TOP WITH SILICONE MATERIAL.
8. PREPARE ALL BONDING SURFACES FOR GROUNDING CONNECTIONS BY REMOVING ALL PAINT AND CORROSION DOWN TO SHINY METAL. FOLLOWING CONNECTION, APPLY APPROPRIATE ANTI-OXIDIZING PAINT.
9. GROUNDING WIRE CONNECTIONS SHALL BE 3-CRIMP C-TAP COMPRESSION TYPE. SPLIT BOLTS ARE NOT ACCEPTABLE.
10. GROUND RODS SHALL BE COPPER CLAD STEEL 5/8"x10' SPACED NOT LESS THAN 10' O.C.
11. CONNECTORS SHALL BE CRIMPED USING HYDRAULIC CRIMPING TOOLS.
12. SURFACE CONNECTIONS SHALL BE MADE TO BARE METAL. PAINTED SURFACES SHALL BE FILED TO ENSURE PROPER CONTACT. APPLY NON-OXIDIZING AGENT TO CONNECTIONS.
13. COPPER BUSES SHALL BE CLEANED, POLISHED AND A NON-OXIDIZING AGENT APPLIED. NO FINGERPRINTS OR DISCOLORED COPPER WILL BE PERMITTED.
14. GROUNDING CONDUCTORS SHALL BE RUN THROUGH PVC SLEEVE WHERE ROUTED THROUGH WALLS, FLOORS, AND CEILING. ENDS OF CONDUIT SHALL BE GROUNDED. SEAL BOTH ENDS OF CONDUIT WITH SILICONE CAULK.
15. HARDWARE (I.E. NUTS, BOLTS, WASHERS, ETC.) IS TO BE STAINLESS STEEL.
16. EXOTHERMIC WELDS SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS
17. THE ENTIRE SYSTEM SHALL BE SOLIDLY GROUNDED USING LOCKNUTS, AND BONDING NUTS ON CONDUITS AND PROPERLY BONDED GROUND CONDUCTORS. RECEPTACLES AND EQUIPMENT BRANCH CIRCUITS SHALL BE GROUNDED WITH A FULL SIZED EQUIPMENT GROUNDING CONDUCTOR RUN IN THE CIRCUIT'S CONDUIT.
18. INSTALL GROUND BUSHINGS ON ALL METALLIC CONDUITS AND BOND TO THE EQUIPMENT GROUND BUS IN THE PANEL BOARD.
19. GROUND BARS (SECTOR, COLLECTOR, MASTER) SHALL BE BARE 1/4"x4" COPPER, LARGE ENOUGH TO ACCOMMODATE THE REQUIRED NUMBER OF GROUND CONNECTIONS. THE HARDWARE SECURING THE MGB SHALL ELECTRICALLY INSULATE THE MGB FROM ANY STRUCTURE TO WHICH IT IS FASTENED.
20. APPLY TMS KOPR-SHIELD OR APPROVED EQUAL PRIOR TO MAKING MECHANICAL CONNECTIONS. CONNECTIONS SHALL BE MADE WITH STAINLESS STEEL BOLTS, NUTS AND LOCK WASHERS 3/8" DIAMETER MIN. WHERE GALVANIZING IS REMOVED FROM METAL, IT SHALL BE PAINTED OR TOUCHED UP WITH 'GALVONOX' OR EQUAL.
21. ALL TERMINATIONS AT EQUIPMENT ENCLOSURES, PANELS, FRAMES OF EQUIPMENT AND WHERE EXPOSED FOR GROUNDING CONDUCTOR TERMINATION SHALL BE PERFORMED UTILIZING TWO HOLE BOLTED TONGUE COMPRESSION TYPE WITH STAINLESS STEEL SELF-TAPPING SCREWS.
22. ALL CLAMPS AND SUPPORTS USED TO SUPPORT THE GROUNDING SYSTEM CONDUCTORS AND PVC CONDUITS SHALL BE PVC TYPE (NON-CONDUCTIVE). DO NOT USE METAL BRACKETS OR SUPPORTS WHICH WOULD FORM A COMPLETE RING AROUND ANY GROUNDING CONDUCTOR.
23. ALL BOLTS, WASHERS AND NUTS USED ON GROUNDING CONNECTIONS SHALL BE STAINLESS STEEL.
24. THE CONTRACTOR SHALL ENGAGE AN INDEPENDENT ELECTRICAL TESTING FIRM TO TEST AND VERIFY THAT RESISTANCE TO EARTH DOES NOT EXCEED 5.0 OHMS. PROVIDE A COPY OF TESTING REPORT, INCLUDING THE METHOD AND INSTRUMENTS USED TO VERIFY RESISTANCE TO CLEARWIRE REPRESENTATIVE.
25. BOND CABINET THROUGH THE MAIN GROUND BAR.

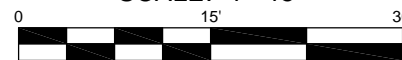
GROUNDING LEGEND

- INSPECTION WELL
VERIFY LOCATION W/CONSTR. MGR.
- 5/8"x10' COPPER CLAD, STEEL GROUND ROD. USE EXOTHERMIC CONNECTION TO GROUND CABLE.
- #2 SOLID COPPER TINNED BURIED
- BURIED GROUNDING CABLE TO CABLE CONNECTION USING EXOTHERMIC PROCESS.



GROUNDING PLAN

SCALE: 1"=15'



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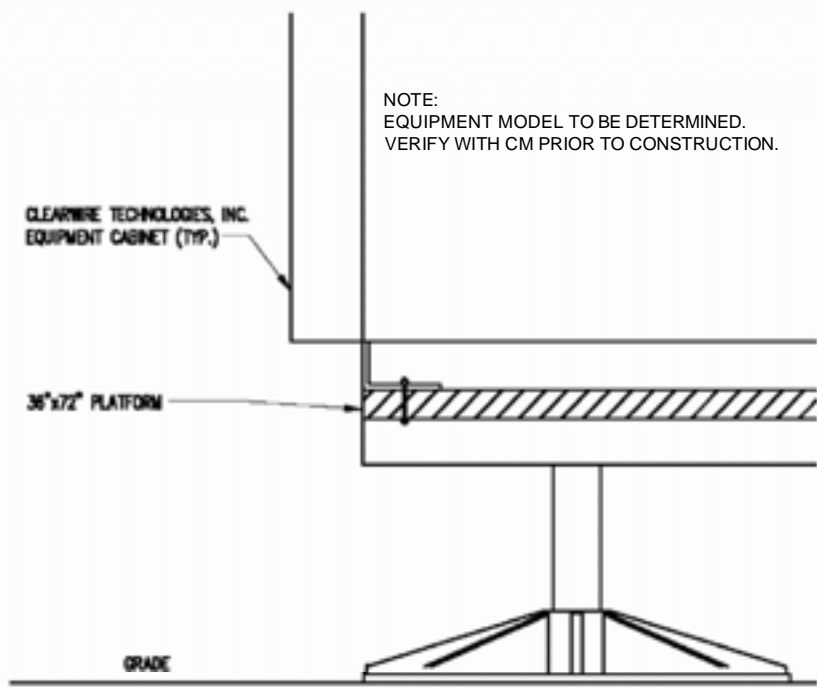
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(425) 216-7900 FAX

SITE ID: MO-STL5433
MASON-LABADIE #31
1850 BAXTER ROAD
CHESTERFIELD, MO 63017

NO.	DATE	REVISIONS	BY	CHK	APP'D
5	08/05/10	ANTENNAS MOUNTED TO TOWER	DAM	MM	MM
4	08/04/10	ADDED OUT BOUNDARY SURVEY	DAM	MM	MM
3	07/27/10	FENCE ADD'N	CJL	MM	MM
2	07/15/10	HEIGHTS PER STRUCTURAL & ADD SDR	MRM	MM	MM
1	07/14/10	CHANGE TO POWER MOUNT & ADD PARCEL PLAN	MRM	MM	MM
0	03/12/10	PRELIMINARY DRAWINGS	MRM	MM	MM

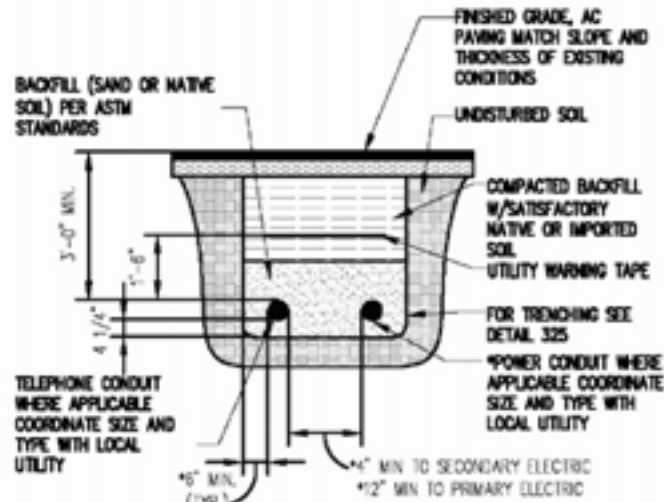
SHEET E-2
GROUNDING PLAN
DRAWING NUMBER
1038509

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NOTE:
EQUIPMENT MODEL TO BE DETERMINED.
VERIFY WITH CM PRIOR TO CONSTRUCTION.

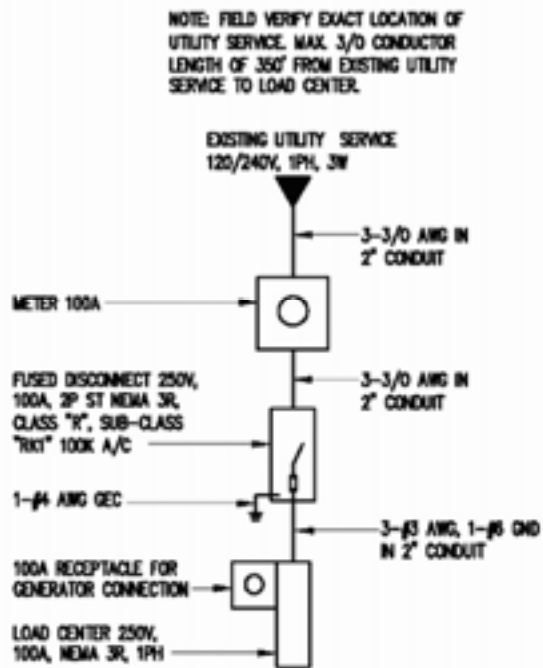
PLATFORM MOUNTING DETAIL 1
SCALE: N.T.S. E-3



TYPICAL TRENCH SECTION 2
SCALE: N.T.S. E-3

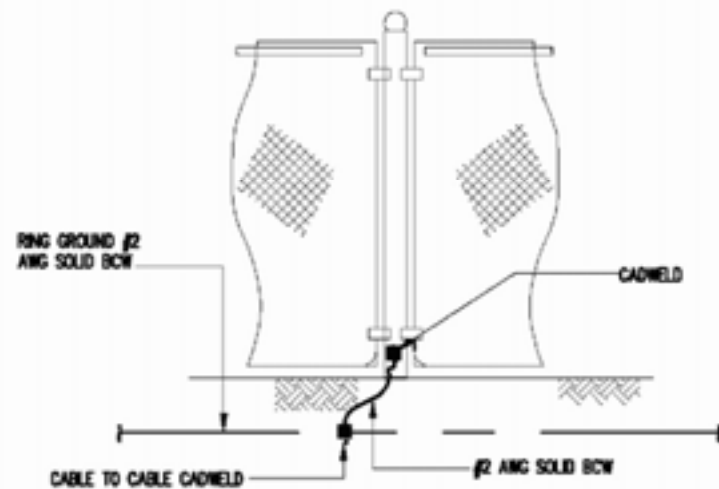
GENERAL NOTES:

- OBTAIN PERMITS AND PAY FEES RELATED TO ELECTRICAL WORK PERFORMED ON THIS PROJECT. DELIVER COPIES OF ALL PERMITS TO CLEARWIRE TECHNOLOGIES, INC.
- SCHEDULE AND ATTEND INSPECTIONS RELATED TO ELECTRICAL WORK REQUIRED BY JURISDICTION HAVING AUTHORITY. CORRECT AND PAY FOR ANY WORK REQUIRED TO PASS ANY FAILED INSPECTION.
- REDLINED AS-BUILTS ARE TO BE DELIVERED TO CLEARWIRE TECHNOLOGIES, INC. REPRESENTATIVE.
- PROVIDE TWO COPIES OF OPERATION AND MAINTENANCE MANUALS IN THREE-RING BINDER.
- FURNISH AND INSTALL THE COMPLETE ELECTRICAL SYSTEM, TELCO SYSTEM, AND THE GROUNDING SYSTEM AS SHOWN ON THESE DRAWINGS.
- ALL WORK SHALL BE PERFORMED IN STRICT ACCORDANCE WITH ALL APPLICABLE BUILDING CODES AND LOCAL ORDINANCES, INSTALLED IN A NEAT MANNER AND SHALL BE SUBJECT TO APPROVAL BY CLEARWIRE TECHNOLOGIES, INC. REPRESENTATIVE.
- CONDUCT A PRE-CONSTRUCTION SITE VISIT AND VERIFY EXISTING SITE CONDITIONS AFFECTING THIS WORK. REPORT ANY OMISSIONS OR DISCREPANCIES FOR CLARIFICATION PRIOR TO THE START OF CONSTRUCTION.
- PROTECT ADJACENT STRUCTURES AND FINISHES FROM DAMAGE. REPAIR TO ORIGINAL CONDITION ANY DAMAGED AREA.
- REMOVE DEBRIS ON A DAILY BASIS. DEBRIS NOT REMOVED IN A TIMELY FASHION WILL BE REMOVED BY OTHERS AND THE RESPONSIBLE SUBCONTRACTOR SHALL BE CHARGED ACCORDINGLY. REMOVAL OF DEBRIS SHALL BE COORDINATED WITH THE SITE OWNERS REPRESENTATIVE. DEBRIS SHALL BE REMOVED FROM THE PROPERTY AND DISPOSED OF LEGALLY. USE OF THE PROPERTY'S DUMPSTER IS PROHIBITED.
- CONTRACTOR TO CONFIRM AVAILABLE CAPACITY AT EXISTING UTILITY PEDESTAL AND ADVISE ENGINEER OF SERVICE SIZE AND FAULT CURRENT LEVEL.
- IF PEDESTAL DOES NOT HAVE ADEQUATE CAPACITY, CONTRACTOR TO SUBMIT COST QUOTATION TO UPGRADE. UPON APPROVAL OF SUBMITTED COST QUOTATION, THE CONTRACTOR SHALL PROVIDE NEW SERVICE AND/OR UPGRADE SERVICE FEEDERS AND EQUIPMENT/ELECTRODE GROUNDING CONDUCTORS SIZE ACCORDINGLY.
- CONTRACTOR SHALL VERIFY SEPERATION DIMENSION BETWEEN POWER COMPANY ELECTRICAL CONDUITS AND LP GAS PIPES AS PER UTILITY COMPANY, LOCAL CODES, NEC, NFPA, AND GAS TANK MANUFACTURER'S SPECIFICATION.
- CONTRACTOR SHALL VERIFY THAT THE TOTAL NUMBER OF SERVICE ENTRANCE DISCONNECTS IN THE EXISTING UTILITY COMPANY PEDESTAL MUST NOT EXCEED SIX. IF THE NEW SERVICE ADDED EXCEEDS THIS VALUE, CONTRACTOR MUST COORDINATE WITH THE UTILITY COMPANY AND AUTHORITY HAVING JURISDICTION. THE RUNNING OF AN ADDITIONAL EXCLUSIVE AND DEDICATED SERVICE LATERAL SET FOR THE NEW LOAD ADDED TO THE COMPOUND AS PER NEC ARTICLE 230-2(B).
- THE EQUIPMENT/PROTECTIONS MUST BE RATED FOR STANDARD AIC RATE HIGHER THAN INCOMING EQUIPMENT AND/OR UTILITY COMPANY AIC RATE.

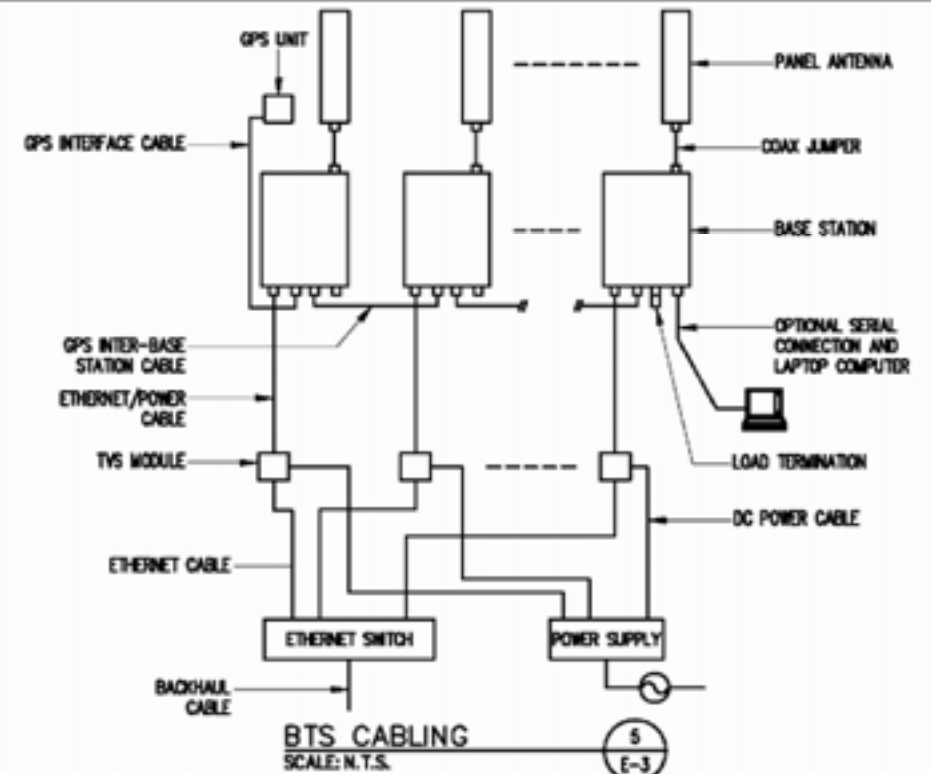


NOTE: FIELD VERIFY EXACT LOCATION OF UTILITY SERVICE. MAX. 3/0 CONDUCTOR LENGTH OF 360' FROM EXISTING UTILITY SERVICE TO LOAD CENTER.

ONE LINE DIAGRAM 3
SCALE: N.T.S. E-3



TYPICAL FENCE BONDING DETAIL 4
SCALE: N.T.S. E-3



BTS CABLING 5
SCALE: N.T.S. E-3



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1	07/14/10	CHANGE TO POWER MOUNT & ADD PARCEL PLAN	MRM	MM	MM
0	03/12/10	PRELIMINARY DRAWINGS	MRM	MM	MM

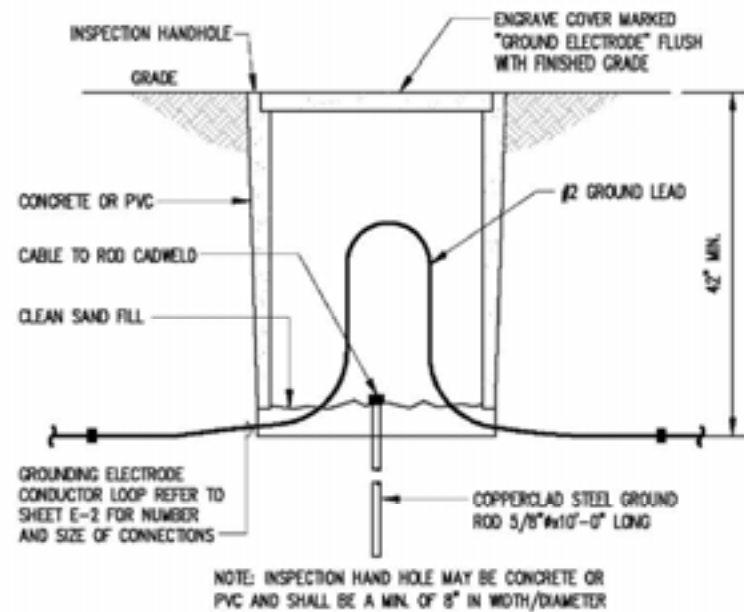
SHEET E-3

ELECTRICAL DETAILS

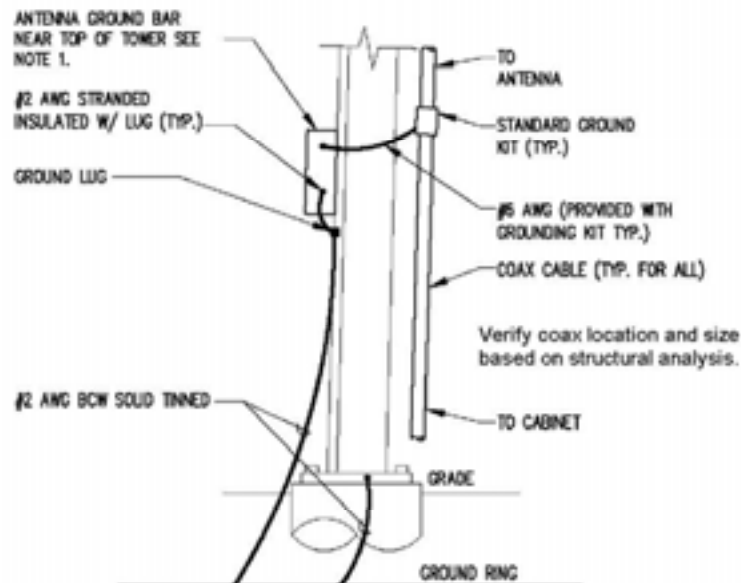
DRAWING NUMBER

1038509

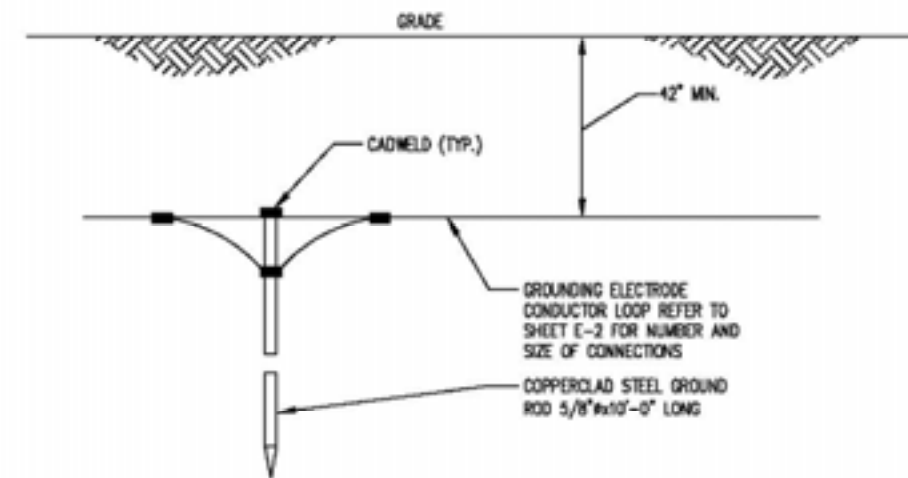
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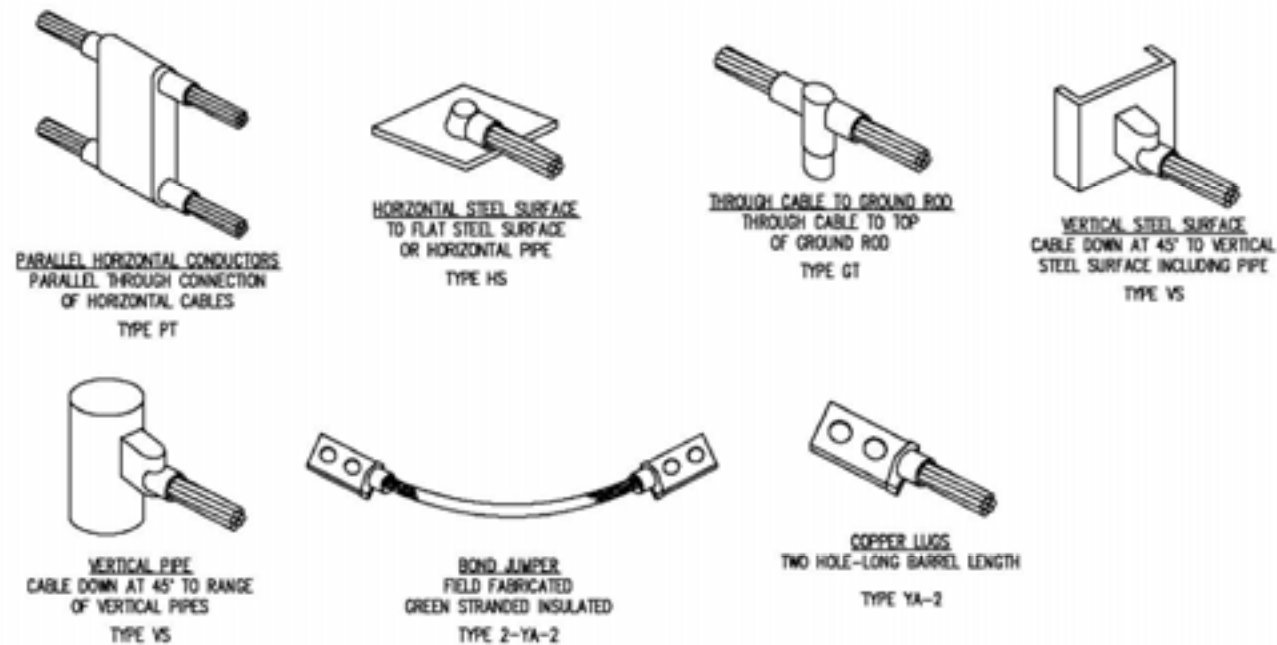
TYPICAL TEST WELL DETAIL (1)
SCALE: N.T.S. (E-4)



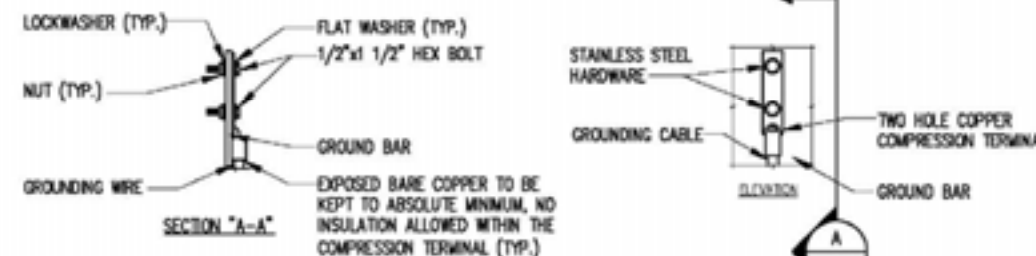
ANTENNA CABLE GROUNDING DETAIL (2)
SCALE: N.T.S. (E-4)



TYPICAL GROUND ROD DETAIL (3)
SCALE: N.T.S. (E-4)



TYP. CADWELD TYPES (4)
SCALE: N.T.S. (E-4)

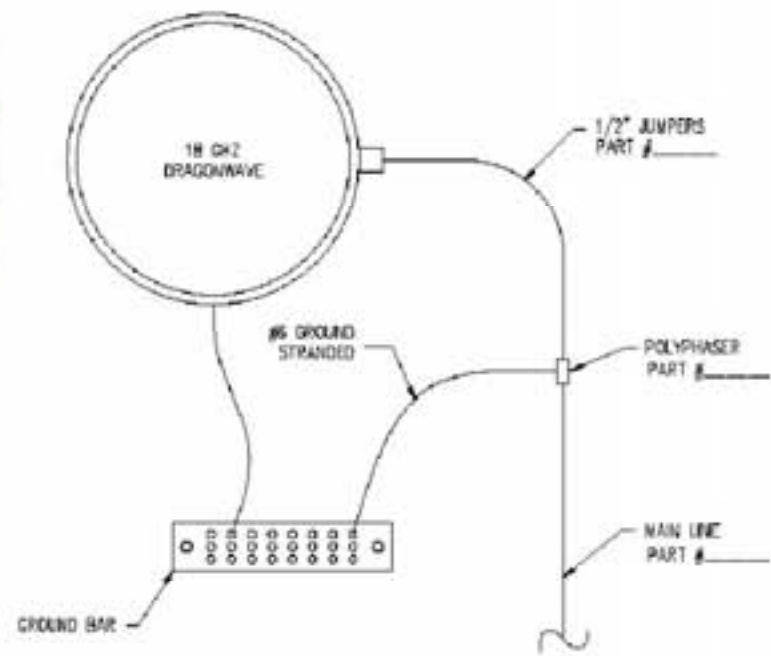


NOTE:
1. "DOUBLING UP" OR "STACKING" OF CONNECTIONS IS NOT PERMITTED.
2. OXIDE INHIBITING COMPOUND TO BE USED AT ALL LOCATIONS AND TO BE APPLIED PRIOR TO ADDING HARDWARE.

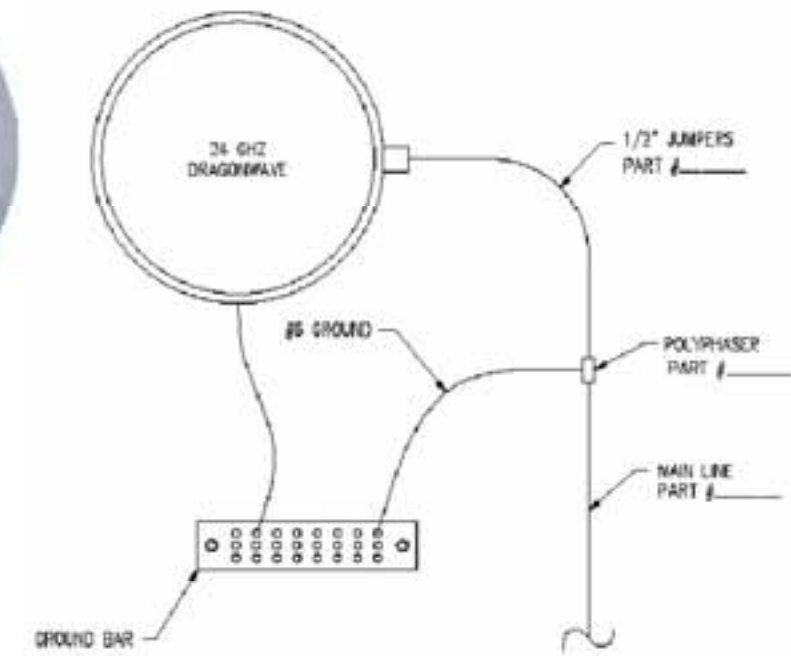
TYPICAL GROUND BAR CONNECTION DETAILS (5)
SCALE: N.T.S. (E-4)

5	08/05/10	ANTENNAS MOUNTED TO TOWER	DAM	MM	MM
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0	03/12/10	PRELIMINARY DRAWINGS	MRM	MM	MM
NO.	DATE	REVISIONS	BY	CHK	APP'D

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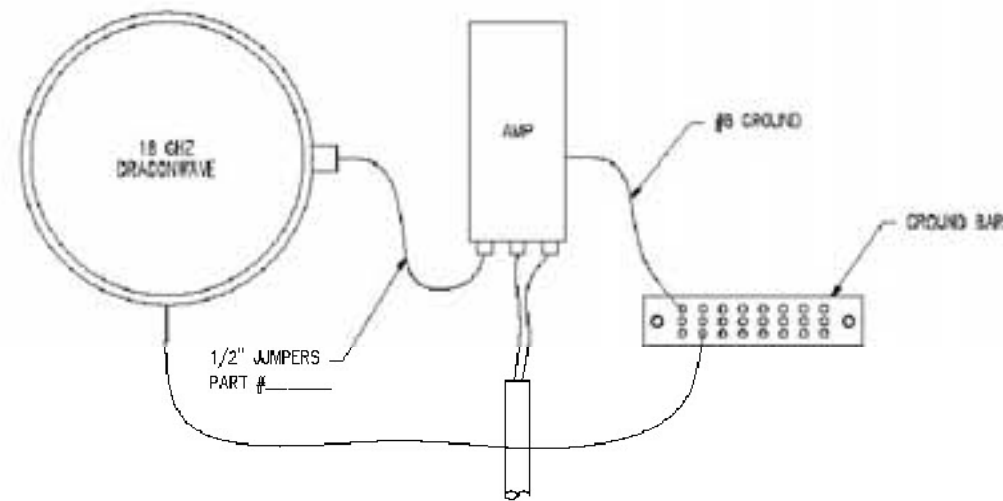


18 GHZ DRAGONWAVE GROUNDING
SCALE: N.T.S. 1
E-5

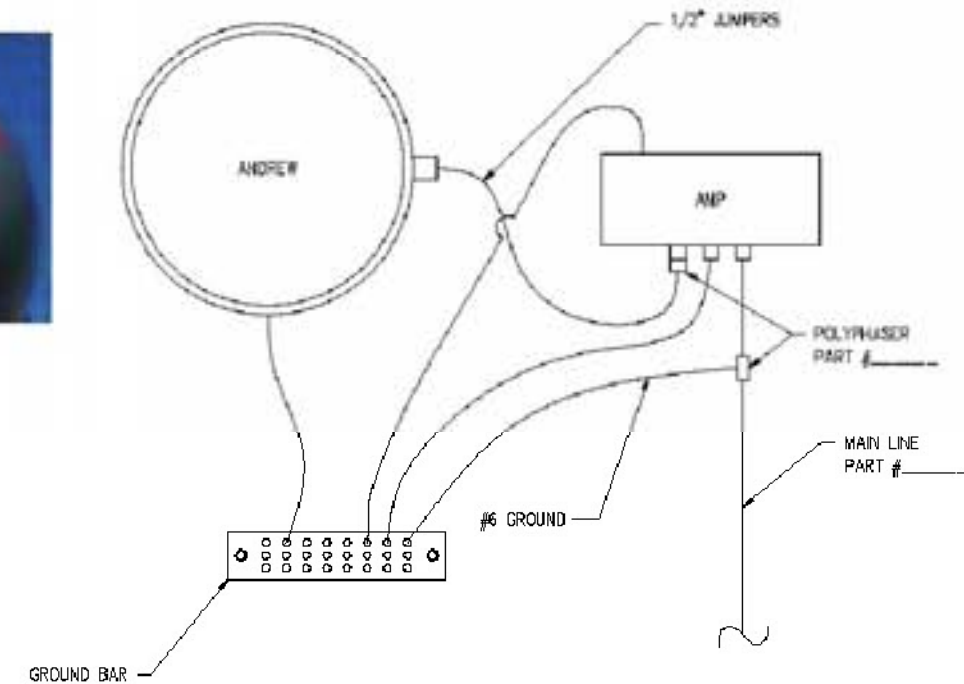
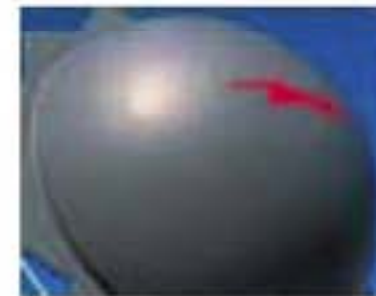


24 GHZ DRAGONWAVE GROUNDING
SCALE: N.T.S. 2
E-5

NOTE:
ANTENNA MODEL AND AZIMUTH(S)
TO BE DETERMINED.



18 GHZ DRAGONWAVE/AMP GROUNDING
SCALE: N.T.S. 3
E-5



ANDREW GROUNDING
SCALE: N.T.S. 4
E-5

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SHEET E-5	
GROUNDING ANTENNA DETAILS	
DRAWING NUMBER	
1038509	