

LUCENT TECHNOLOGIES

PCS INSTALLATION PROJECT



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PCS INSTALLATION PROJECT



7615 North Harker Drive
Peoria, Illinois 61615
PH: (309) 693-7615
FAX: (309) 693-7616

PROJECT NO.: 232-98004

DRAWN BY: BSB

CHECKED BY: ADC

REVISIONS

NO.	DATE	ISSUE	BY
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△	2/27/98	FOR BID	

SITE INFORMATION

SITE NAME:
ELKS LODGE

SITE NUMBER:
DEC-033.01

SITE ADDRESS:
**2701 PARKWAY DRIVE
DECATUR, ILLINOIS 62526**

SHEET TITLE

COVER SHEET

SHEET NUMBER REV.

T1 A

EXHIBIT A

SITE NAME:

ELKS LODGE

SITE NUMBER:

DEC-033.01

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ELKS LODGE

SITE NUMBER:
DEC-033.01

SITE ADDRESS:
2701 PARKWAY DRIVE
DECATUR, ILLINOIS 62526

LEGAL DESCRIPTION:
PT W 1/2 SEC 6-16-3

ASSESSOR'S PARCEL NUMBER:
13-06-152-001

ZONING CLASSIFICATION:
M-1

PROJECT DESCRIPTION:
AN UNMANNED RADIO TELECOMMUNICATION FACILITY
CONSISTING OF:

- * 9 PANEL ANTENNAS TOTAL, ARRAYED IN 3 SECTORS OF 3 ANTENNAS EACH
- * 190' SELF-SUPPORTING TOWER
- * 1 GPS ANTENNA
- * RADIO EQUIPMENT CABINETS (APPROX. 30"x30"x60"H.)

PROJECT DIRECTORY

APPLICANT:
AMICA WIRELESS
327 EAST COLLEGE STREET, SUITE 381
IOWA CITY, IOWA 52240
(319) 339-1591

SURVEYOR/ENGINEER:
MAURER-STUTZ, INC.
7615 N. HARKER DRIVE
PEORIA, ILLINOIS 61615
(309) 693-7615

AGENT:
KOLL TELECOMMUNICATION SERVICES
6 ROSS DRIVE, SUITE 12
BLOOMINGTON, ILLINOIS 61601
(309) 661-8108

LANDOWNER:
DECATUR ELKS LODGE #401
2701 PARKWAY DRIVE
DECATUR, ILLINOIS 62526
(217) 428-7735

ELECTRIC COMPANY:
ILLINOIS POWER
(800) 755-5000

TELEPHONE COMPANY:
AMERITECH
(800) 660-3000

PROJECT NOTES

1. ADA COMPLIANCE - FACILITY IS NOT STAFFED AND NOT NORMALLY OCCUPIED
2. FOR ADDITIONAL GENERAL NOTES AND DETAILS, SEE ADDITIONAL SHEETS.
3. NOTIFY J.U.L.I.E. (1-800-892-0123) PRIOR TO ANY EXCAVATION.
4. FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING AND ARCHITECTURAL SCALES. REDUCED SIZE PLANS WILL NOT CONFORM TO STANDARD SCALES.

GENERAL DRAWING INDEX

SHEET	DESCRIPTION
T1	COVER SHEET
C1	SITE SURVEY
A1	SITE PLAN / SITE DETAIL
A2	ELEVATIONS
A3	DETAILS
E1	ELECTRICAL
E2	GROUNDING

SITE DATA

LATITUDE: 39°-52'-17" N LONGITUDE: 88°-55'-01" W

GROUND ELEVATION: 676 FT AMSL

BASIS OF ELEVATION: USGS

PROFESSIONAL ENGINEER

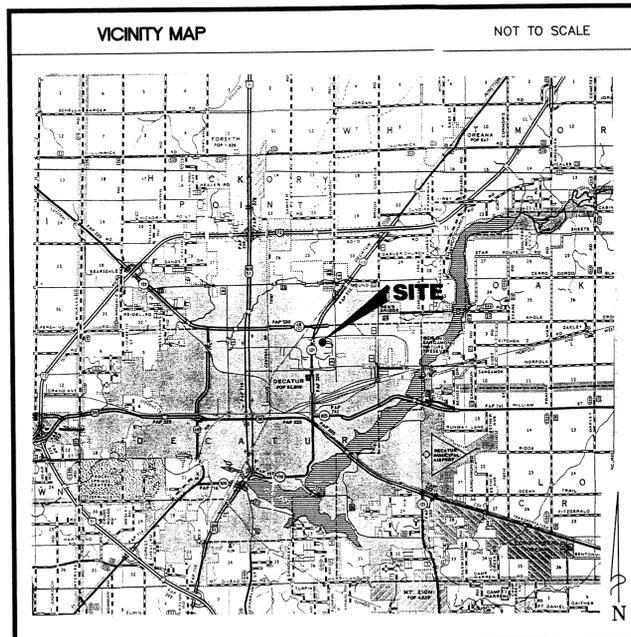
MAURER & STUTZ, INC.
ENGINEERS SURVEYORS

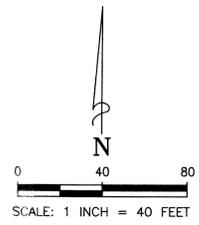
JOSEPH D. STUTZ
28194
LICENSED PROFESSIONAL ENGINEER
OF ILLINOIS

LICENSED PROFESSIONAL ENGINEER - STATE OF ILLINOIS

JOSEPH D. STUTZ

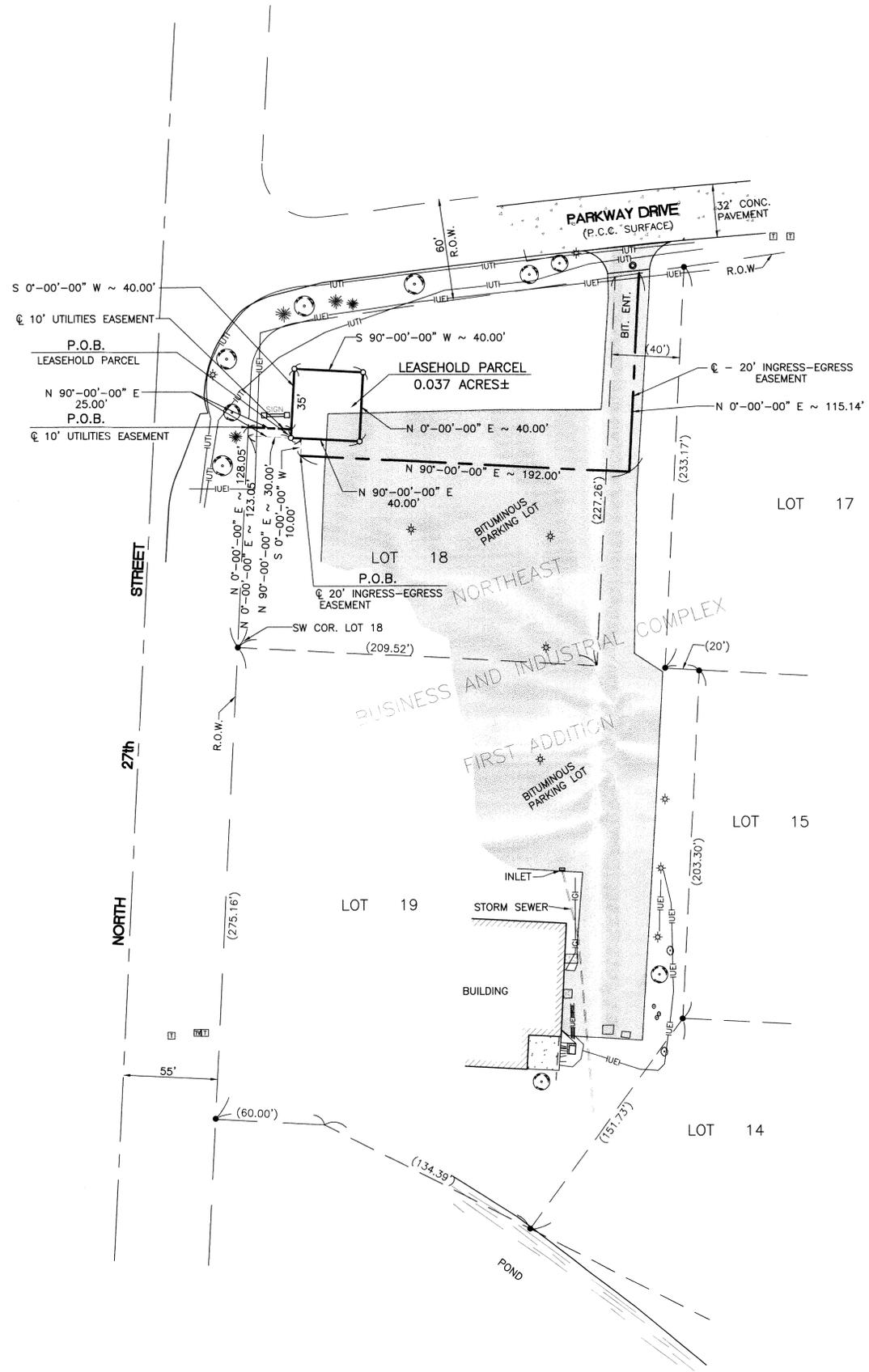
EXPIRES: 11/99 SIGNED: 2-27-98





LEGEND

- IRON MONUMENT FOUND
- IRON PIPE SET
- ◇ RAILROAD SPIKE SET
- EXISTING TELEPHONE SPLICE BOX
- ⊙ EXISTING DECIDUOUS TREE
- ⊙ EXISTING CONIFEROUS TREE
- ⊙ EXISTING BUSH
- ⊙ EXISTING LIGHT STANDARD
- U/E — EXISTING UNDERGROUND ELECTRIC AS LOCATED BY J.U.L.I.E.
- U/T — EXISTING UNDERGROUND TELEPHONE AS LOCATED BY J.U.L.I.E.
- G — EXISTING UNDERGROUND GAS LINE AS LOCATED BY J.U.L.I.E.
- () SURVEYED PROPERTY
- () RECORD OR PRIOR SURVEY DATA
- P.O.B. POINT OF BEGINNING
- EXISTING INLET
- EXISTING STORM SEWER



LEGAL DESCRIPTION - LEASEHOLD PARCEL

Part of Lot 18 of Northeast Business and Industrial Complex, First Addition (recorded in Book 1575 at Page 228), a subdivision of part of the South Half of the Northwest Quarter of Section 6, Township 16 North, Range 3 East of the Third Principal Meridian, Macon County, Illinois, more particularly described as follows:

Commencing at an iron rod found at the Southwest corner of said Lot 18, thence North 0'-00'-00" East (bearings refer to plat of subdivision of said Northwest Business and Industrial Complex, First Addition), along the west line of said Lot 19 a distance of 123.05 feet; thence North 90'-00'-00" East 25.00 feet to the Point of Beginning of the Leasehold Parcel to be described;

From the Point of Beginning, thence continuing North 90'-00'-00" East 40.00 feet; thence North 0'-00'-00" East 40.00 feet; thence South 90'-00'-00" West 40.00 feet; thence South 0'-00'-00" West 40.00 feet to the Point of Beginning.

Said Leasehold Parcel contains 0.037 acres, more or less.

LEGAL DESCRIPTION - INGRESS - EGRESS EASEMENT

Part of Lot 18 of Northeast Business and Industrial Complex, First Addition (recorded in Book 1575 at Page 228), a subdivision of part of the South Half of the Northwest Quarter of Section 6, Township 16 North, Range 3 East of the Third Principal Meridian, Macon County, Illinois, more particularly described as follows:

A twenty (20) feet wide strip of ground of even width being ten (10) feet on each side of the following described centerline:

Commencing at an iron rod found at the Southwest corner of said Lot 18, thence North 0'-00'-00" East (bearings refer to plat of subdivision of said Northwest Business and Industrial Complex, First Addition), along the west line of said Lot 18 a distance of 123.05 feet; thence North 90'-00'-00" East 30.00 feet; thence South 0'-00'-00" West 10.00 feet to the Point of Beginning of the easement to be described;

From the Point of Beginning, thence North 90'-00'-00" East 192.00 feet; thence North 0'-00'-00" East 115.14 feet to a point on the southerly right of way line of Parkway Drive, said point to be the termination of said centerline of easement.

LEGAL DESCRIPTION - UTILITIES EASEMENT

Part of Lot 18 of Northeast Business and Industrial Complex, First Addition (recorded in Book 1575 at Page 228), a subdivision of part of the South Half of the Northwest Quarter of Section 6, Township 16 North, Range 3 East of the Third Principal Meridian, Macon County, Illinois, more particularly described as follows:

A ten (10) feet wide strip of ground of even width being five (5) feet on each side of the following described centerline:

Commencing at an iron rod found at the Southwest corner of said Lot 18, thence North 0'-00'-00" East (bearings refer to plat of subdivision of said Northwest Business and Industrial Complex, First Addition), along the west line of said Lot 18 a distance of 128.05 feet to the Point of Beginning of the centerline of the easement to be described;

From the Point of Beginning, thence North 90'-00'-00" East 25.00 feet to the termination of said centerline of easement.

NOTE:
Underground utilities as located by respective utility companies under J.U.L.I.E. Dig Order No. 0091396.

STATE OF ILLINOIS)
COUNTY OF PEORIA) SS

We, Maurer-Stutz, Inc., do hereby certify that we have surveyed part of Lot 18 of the Northeast Business and Industrial Complex, First Addition (recorded in Book 1575 at Page 228), a subdivision of part of the South Half of the Northwest Quarter of Section 6, Township 16 North, Range 3 East of the Third Principal Meridian, Macon County, Illinois, and that the attached plat is a true and correct representation of said survey.

Dated at Peoria, Illinois, this 07th day of February, 1998.

Maurer-Stutz, Inc.

By: Joseph D. Stutz
Joseph D. Stutz
Illinois Professional Land Surveyor #2187



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MAURER-STUTZ, INC.
ENGINEERS SURVEYORS

7615 North Harker Drive
Peoria, Illinois 61615

PH: (309) 693-7615
FAX: (309) 693-7616

PROJECT NO.: 232-98004

DRAWN BY: CDS

CHECKED BY: JDS

REVISIONS			
NO.	DATE	ISSUE	BY
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SITE INFORMATION

SITE NAME:
ELKS LODGE

SITE NUMBER:
DEC-033.01

SITE ADDRESS:
**2701 PARKWAY DRIVE
DECATUR, ILLINOIS 62526**

SHEET TITLE

SITE SURVEY

SHEET NUMBER	REV.
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STANDARD CIVIL NOTES

- ALL SITE WORK SHALL BE AS INDICATED ON THE DRAWINGS.
- THE GENERAL CONTRACTOR AND OR HIS SUBCONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL PERMITS AND INSPECTIONS WHICH MAY BE REQUIRED FOR THE WORK BY THE ARCHITECT/ENGINEER, THE STATE, COUNTY OR LOCAL GOVERNMENT AUTHORITY.
- DESIGN REQUIREMENTS FOR THE ANTENNA SUPPORTING STRUCTURE SHALL BE PER BOCA NATIONAL BUILDING CODE/1996, LOCAL BUILDING CODES, AND THE ANSI/TIA-222-E STRUCTURAL STANDARDS FOR STEEL ANTENNA SUPPORTING STRUCTURES. THE BASIC WIND SPEED UTILIZED FOR DESIGN IS 80 MPH PLUS 1/2" ICE.
- IN THOSE AREAS REQUIRING SURFACE PREPARATION, SITE AREA SHALL BE CLEARED AND GRUBBED. REMOVE UNSUITABLE SOFT OR LOOSE SOILS, ORGANIC MATERIAL AND OR RUBBLE TO FIRM SUBGRADE AS RECOMMENDED BY GEOTECHNICAL REPORT AND DISPOSE OF LEGALLY. THE SUBGRADE SHALL BE COMPACTED AND BROUGHT TO A SMOOTH UNIFORM GRADE PRIOR TO THE CRUSHED STONE APPLICATION. PLACE MIRAFI 500X WEED CONTROL FABRIC ON SUBGRADE AND FILL WITH A MINIMUM OF 6 INCHES OF GRADE 9 (CA-6) STONE TO FINISH GRADE. IF UNANTICIPATED UNSUITABLE SOIL CONDITIONS ARE ENCOUNTERED DURING EXCAVATION, GENERAL CONTRACTOR SHALL NOTIFY GEOTECHNICAL ENGINEER.
- NO FILL OR EMBANKMENT MATERIAL SHALL BE PLACED ON FROZEN GROUND. FROZEN MATERIALS, SNOW OR ICE SHALL NOT BE PLACED IN ANY FILL OR EMBANKMENT.
- ANY AREAS ADJACENT TO THE SITE DISTURBED BY THE WORK SHALL BE RETURNED SUBSTANTIALLY TO ORIGINAL CONDITION USING LIKE MATERIAL FOR SURFACE COVERAGE.
- CONTRACTOR SHALL VERIFY TRUE NORTH AND INFORM CONSTRUCTION MANAGER OF ANY DISCREPANCIES BEFORE STARTING CONSTRUCTION.
- BUILDING / SHELTER FOUNDATION DESIGN IS UNDER SEPARATE CONTRACT BY OTHERS AND IS EXCLUDED FROM THESE DESIGN DRAWINGS. REFER TO OWNER PROVIDED DRAWINGS FOR SPECIFIC DETAILS REGARDING FOUNDATION SYSTEM.
- TOWER STRUCTURE AND FOUNDATION DESIGN IS UNDER SEPARATE CONTRACT BY OTHERS AND IS EXCLUDED FROM THESE DESIGN DRAWINGS. REFER TO OWNER PROVIDED DRAWINGS FOR SPECIFIC DETAILS REGARDING FOUNDATION SYSTEM.
- ACCESS ROAD SHALL BE CONSTRUCTED IN ACCORDANCE WITH APPROPRIATE HIGHWAY AUTHORITY.

LEGEND

- | | | | |
|-----|--|---------|---|
| ○ | IRON PIPE SET | ⊕ | EXISTING FIRE HYDRANT |
| ● | IRON MONUMENT FOUND | ⊙ | EXISTING GAS METER |
| ◆ | RAILROAD SPIKE FOUND | ⊗ | EXISTING DECIDUOUS TREE |
| ▲ | STONE FOUND | ⊛ | EXISTING CONIFEROUS TREE |
| ⊠ | R.O.W. MONUMENT FOUND | —x—x—x— | EXISTING WIRE FENCE |
| —□— | EXISTING UTILITY POLE | —○—○— | EXISTING CHAINLINK FENCE |
| —□— | EXISTING UTILITY POLE W/ TRANSFORMER | —AE— | EXISTING AERIAL ELECTRIC |
| —□— | EXISTING UTILITY POLE W/ LIGHT | —AE&T— | EXISTING AERIAL ELECTRIC AND TELEPHONE |
| —□— | EXISTING UTILITY POLE W/ LIGHT AND TRANSFORMER | —AT— | EXISTING AERIAL TELEPHONE |
| —□— | EXISTING UTILITY POLE W/ LIGHT AND TRANSFORMER | —UT— | EXISTING UNDERGROUND TELEPHONE AS LOCATED BY J.U.L.I.E. |
| —□— | EXISTING GUY WIRE | —G— | EXISTING UNDERGROUND GAS LINE AS LOCATED BY J.U.L.I.E. |
| —□— | EXISTING TELEPHONE SPLICE BOX | —680— | EXISTING SURFACE CONTOUR LINE |
| —□— | EXISTING ELECTRIC SPLICE BOX | —R— | DEED LINE |
| —□— | EXISTING ROAD SIGN | | |

ABBREVIATIONS

- | | |
|--------|----------------------------------|
| A.F.G. | ABOVE FINISHED GRADE |
| AWG | AMERICAN WIRE GAUGE |
| BCW | BARE COPPER WIRE |
| GPS | GEOSTATIONARY POSITIONING SYSTEM |
| PCS | PERSONAL COMMUNICATION SERVICE |
| PPC | POWER PROTECTION CABINET |
| PRC | PRIMARY RADIO CABINET |
| RWY | RACEWAY |
| TYP. | TYPICAL |
| RGS | RIGID GALVANIZED STEEL |
| EMT | ELECTRICAL METALLIC TUBING |
| DWG | DRAWING |
| IGR | INTERIOR GROUND RING (HALO) |
| ACCA | ANTENNA CABLE COVER ASSEMBLY |
| BTS | BASE TRANSMISSION SYSTEM |
| GEN | GENERATOR |
| GRO | GROWTH CABINET |
| REC | RECTIFIER CABINET |
| BAT | BATTERY CABINET |



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SITE INFORMATION

SITE NAME:
ELKS LODGE

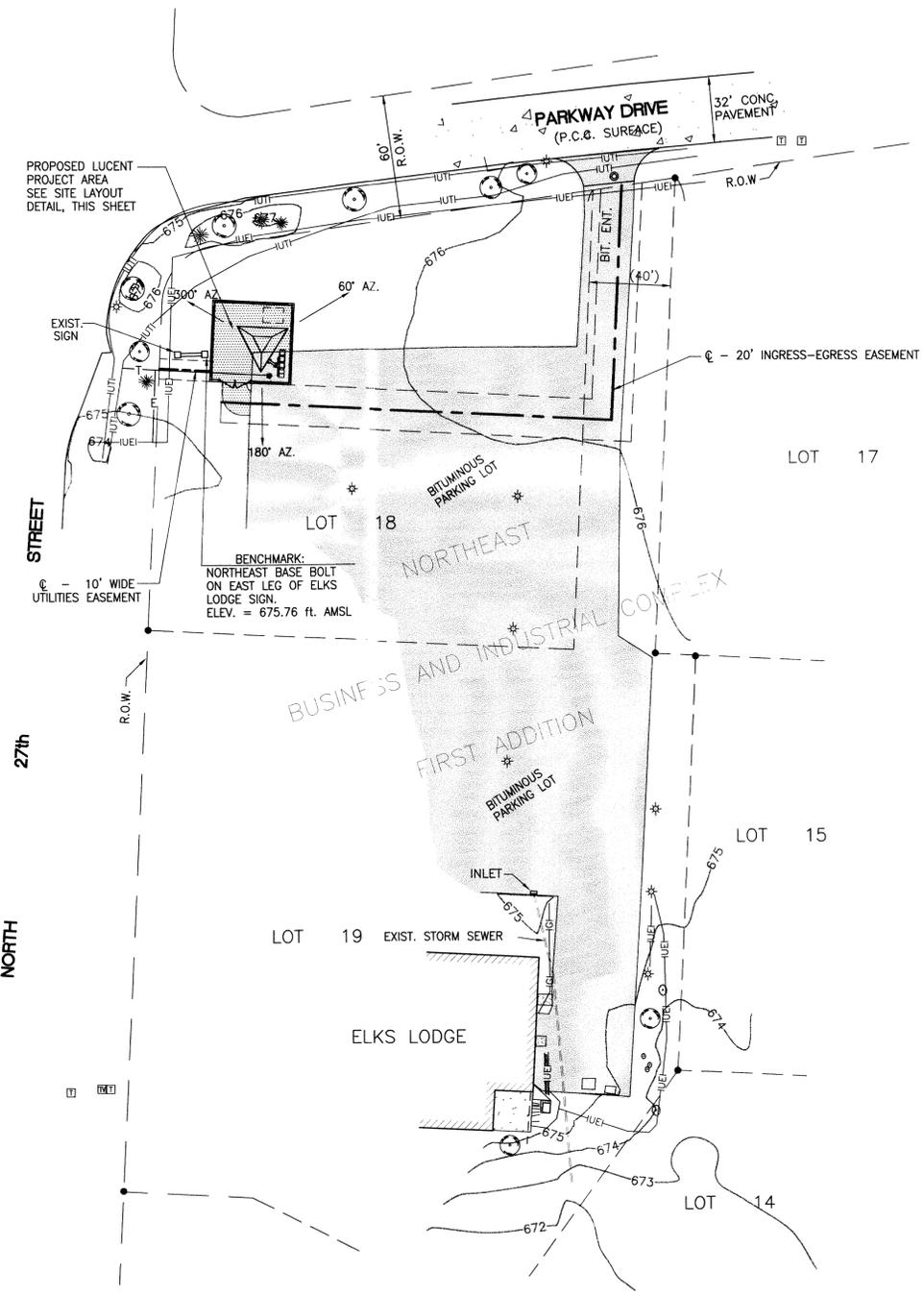
SITE NUMBER:
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SITE ADDRESS:
**2701 PARKWAY DRIVE
DECATUR, ILLINOIS 62526**

SHEET TITLE

SITE PLAN / SITE DETAIL

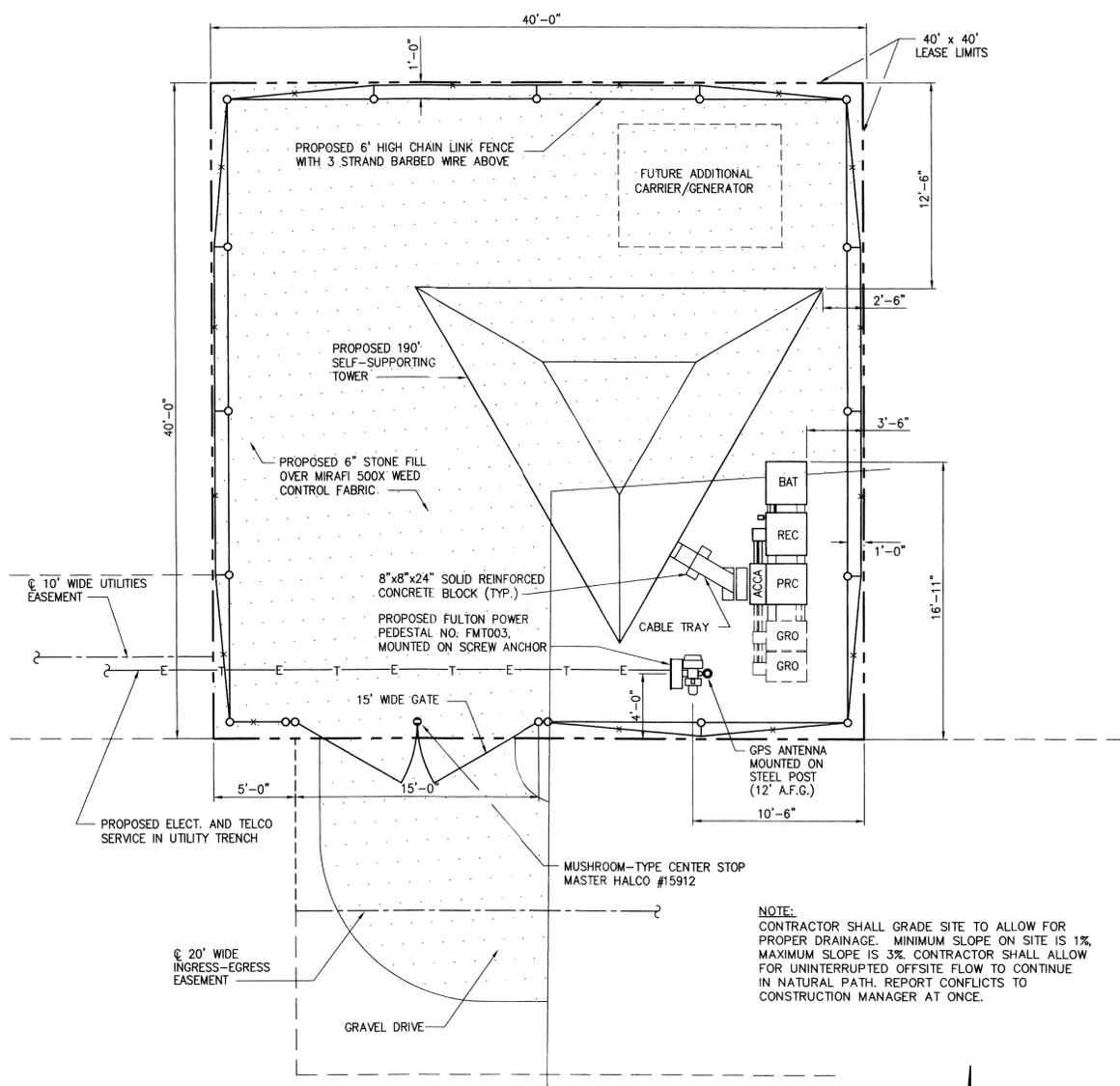
SHEET NUMBER	REV.
A1	A



1
A1

SITE PLAN

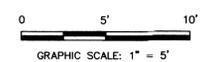
SCALE: 1" = 40'

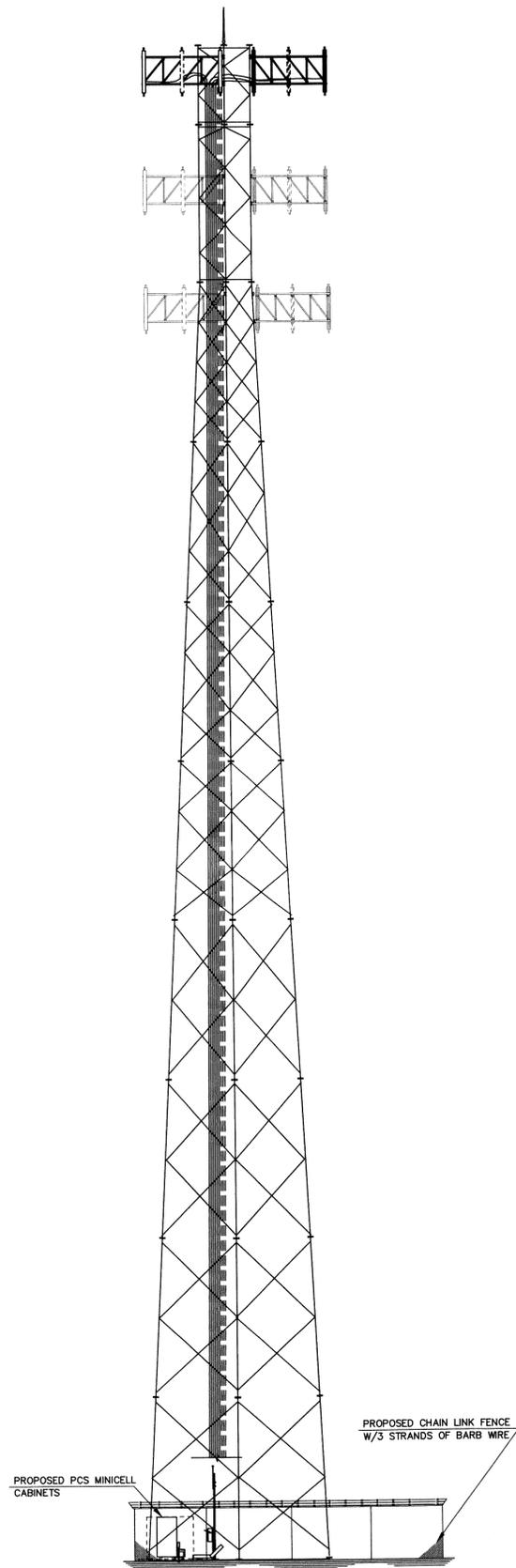


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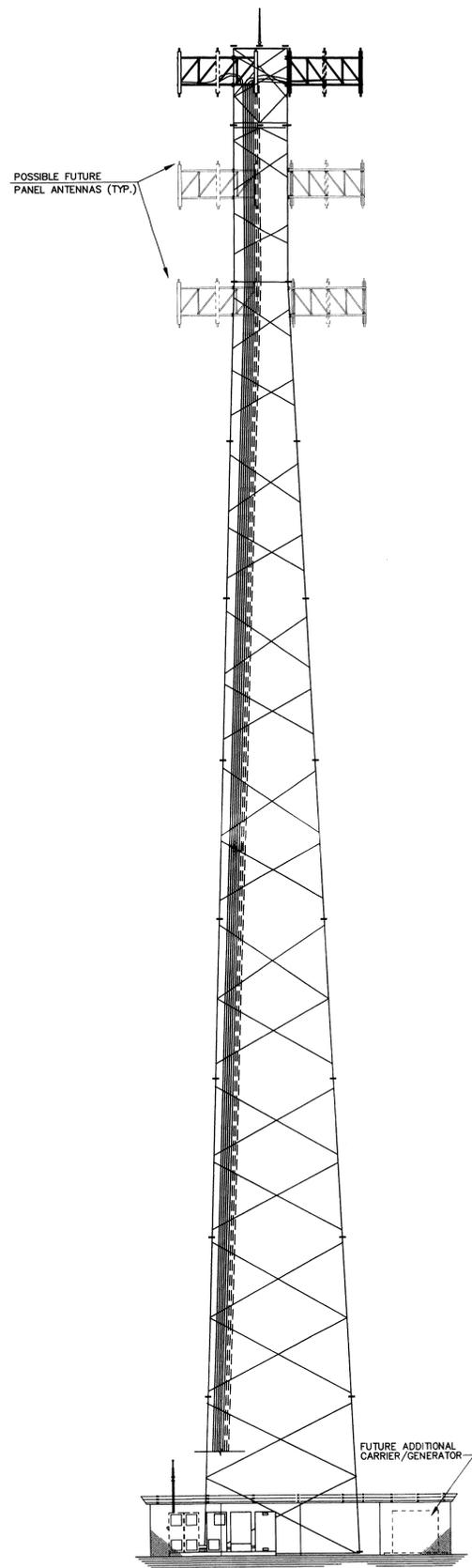
SITE LAYOUT DETAIL

SCALE: 1" = 5'

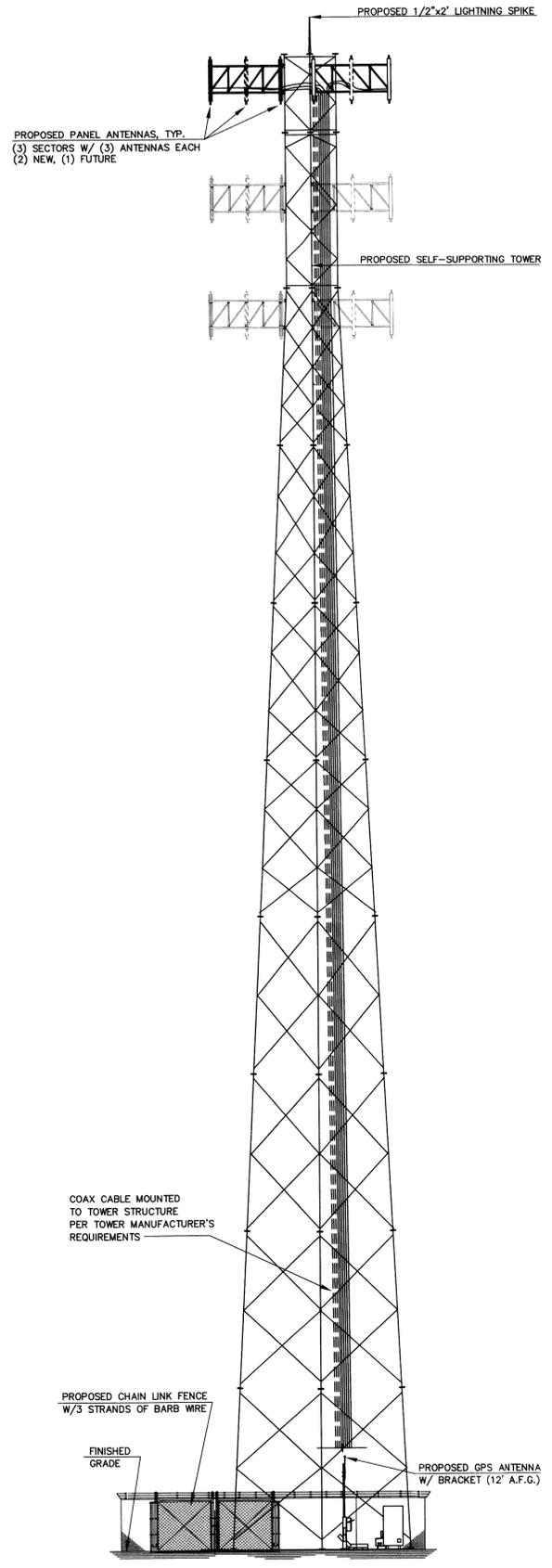




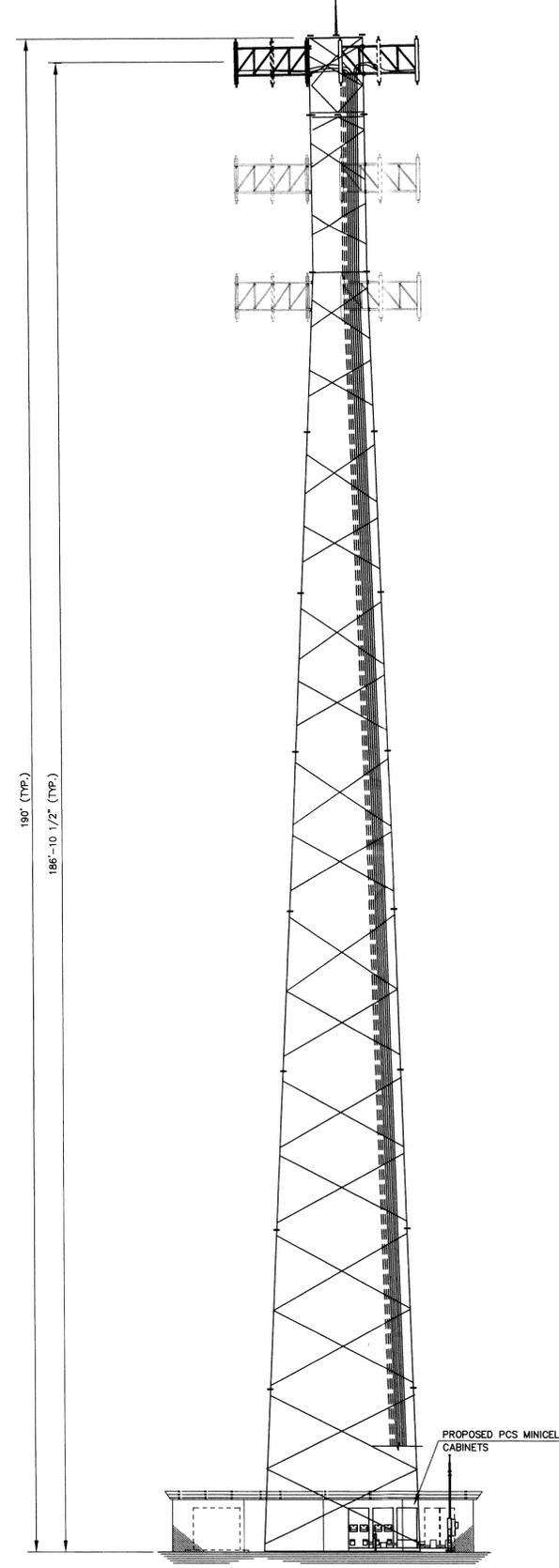
1 NORTH ELEVATION
A2



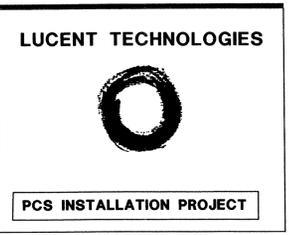
2 EAST ELEVATION
A2



3 SOUTH ELEVATION
A2



4 WEST ELEVATION
A2



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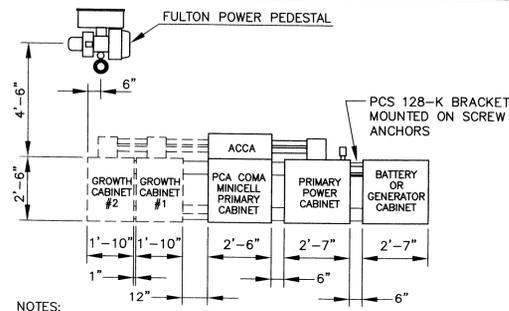
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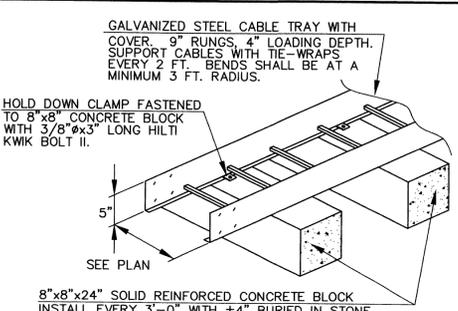
SHEET TITLE
ELEVATIONS

SHEET NUMBER	REV.
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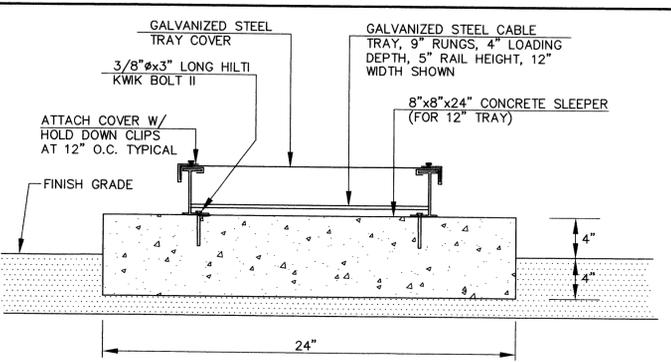
NOTES:
 1. EXACT FOUNDATION SPECIFICATION AND ANCHOR BOLT LAYOUT SHALL BE COORDINATED WITH MANUFACTURER.
 2. SCREW ANCHORS SHALL BE DETERMINED BY VENDOR.

1 CABINET LAYOUT
 A3 NOT TO SCALE

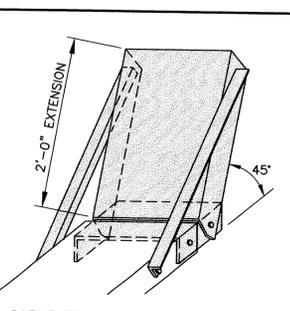


8"x8"x24" SOLID REINFORCED CONCRETE BLOCK
 INSTALL EVERY 3'-0" WITH ±4" BURIED IN STONE. COMPACT AROUND AND LEVEL ALL BLOCKS BEFORE PLACING CABLE TRAY.

2 CABLE TRAY
 A3 NOT TO SCALE



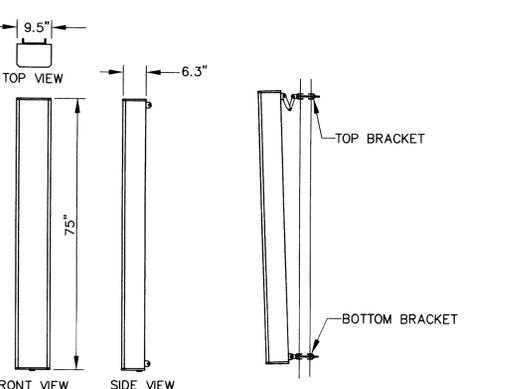
2 CABLE TRAY
 A3 NOT TO SCALE



CABLE TRAY EXTENSION

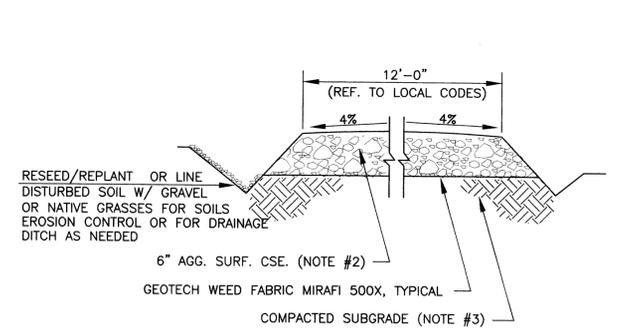
- NOTES:
1. RUN #2 AWG BCW GROUND CONDUCTOR ALONG CABLE TRAY AND GROUND TO GROUND RING AT BOTH ENDS.
 2. SEE (2/A1) FOR CONCRETE SLEEPER LAYOUT.
 3. CABLE TRAY SHALL HAVE EXTENSION KIT AT TOWER END WHICH PERMITS A 45° EXTENSION TO ACCOMMODATE THE BENDING RADIUS OF A TRANSMISSION LINE RUN.
 4. FIELD CUT CABLE TRAY EXTENSION KIT FLUSH WITH TOWER.

CABLE TRAYS SHALL BE FREE OF SHARP OBJECTS AND BURRS WHICH COULD INJURE CABLES. COVERS SHALL BE FASTENED USING HOLD DOWN CLIPS. SHEET METAL SCREWS ARE NOT ACCEPTABLE.



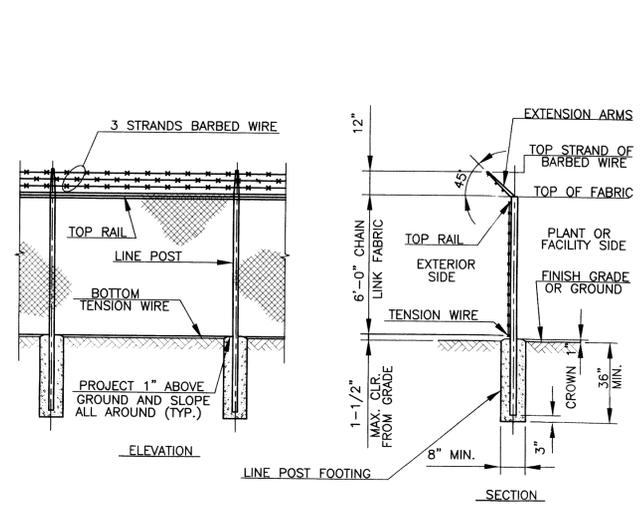
NOTE: COMSAT RSI PCSA090-19 ANTENNA SHOWN. SEE ANTENNA SCHEDULE AND NOTES THIS SHEET.

3 PANEL ANTENNAS
 A3 NOT TO SCALE



NOTE #1- I.D.O.T. STANDARD SPECIFICATIONS REFER TO ILLINOIS DEPARTMENT OF TRANSPORTATION, "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION" ADOPTED JANUARY 1, 1997, INCLUDING ALL SUPPLEMENTS.
 NOTE #2- AGGREGATE SURFACE COURSE TYPE B (6") CONFORMING TO ALL THE REQUIREMENTS OF SECTION 402 OF THE I.D.O.T. STANDARD SPECIFICATIONS.
 NOTE #3- SUBGRADE PREPARATION SHALL CONFORM TO ALL THE REQUIREMENTS OF SECTION 301 OF THE I.D.O.T. STANDARD SPECIFICATIONS. COMPACTION TO BE NOT LESS THAN 93% OF THE STANDARD LABORATORY DENSITY.

4 ACCESS ROAD
 A3 NOT TO SCALE



5 CHAIN LINK FENCE
 A3 NOT TO SCALE

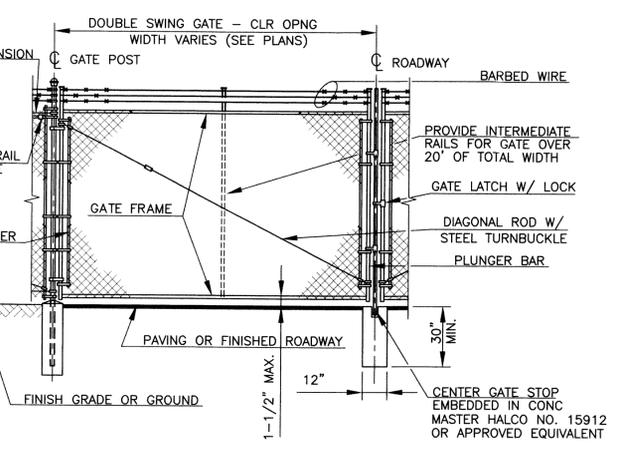
- NOTES
1. ALL COAXIAL CABLE CONNECTORS AND TRANSMITTER EQUIPMENT SHALL BE AS SPECIFIED BY THE OWNER. THE CONTRACTOR SHALL FURNISH ALL CONNECTION HARDWARE REQUIRED TO SECURE THE CABLES.
 2. STRUCTURAL STEEL SHALL CONFORM TO LATEST EDITION OF THE AISC SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS - ALLOWABLE STRESS DESIGN AND PLASTIC DESIGN INCLUDING THE COMMENTARY AND THE CODE OF STANDARD PRACTICE.
 3. STRUCTURAL STEEL PLATES AND SHAPES SHALL CONFORM TO ASTM A36. ALL STRUCTURAL STEEL PIPES SHALL CONFORM TO ASTM A53 GRADE B. ALL STRUCTURAL STEEL COMPONENTS AND FABRICATED ASSEMBLIES SHALL BE HOT-DIPPED GALVANIZED AFTER FABRICATION.
 4. WELDING SHALL BE IN ACCORDANCE WITH THE AMERICAN WELDING SOCIETY (AWS) D.1.1-92 STRUCTURAL WELDING CODE OR LATEST ISSUE - STEEL WELD ELECTRONICS SHALL BE E70XX.
 5. ALL THREADED STRUCTURAL FASTENERS FOR ANTENNA SUPPORT ASSEMBLIES SHALL CONFORM TO ASTM A325. FASTENERS SHALL BE 5/8" MINIMUM DIAMETER BEARING TYPE CONNECTIONS WITH THREADS INCLUDED IN THE SHEAR PLANE. ALL EXPOSED FASTENERS, NUTS AND WASHERS SHALL BE GALVANIZED UNLESS OTHERWISE NOTED. CONCRETE EXPANSION ANCHORS SHALL BE HILTI KWIK BOLTS UNLESS OTHERWISE NOTED.
 6. TOWER PLATFORM AND ANTENNA INSTALLATION SHALL BE CONDUCTED BY FIELD CREWS EXPERIENCED IN THE ASSEMBLY AND ERECTION OF RADIO ANTENNAS, TRANSMISSION LINES, AND SUPPORT STRUCTURES.
 7. CONTRACTOR SHALL VERIFY ANTENNA AZIMUTHS WITH RF ENGINEER PRIOR TO COMMENCEMENT OF CONSTRUCTION.

STANDARD FENCE NOTES

1. STEEL FENCE SYSTEM SHALL INCLUDE THE FENCE POSTS, FABRIC, GATE SYSTEM AND ALL NECESSARY ERECTION ACCESSORIES, FITTINGS, AND FASTENINGS. ALL FENCE SYSTEM COMPONENTS SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A153. GATES SHALL BE SWING GATES WITH 5'-0" LEAF. REFER TO TYPICAL FENCE DETAILS AND SPECIFICATIONS FOR ADDITIONAL INFORMATION. INSTALL FENCE AFTER CONCRETE HAS ATTAINED 75% OF 28 DAY DESIGN STRENGTH.
2. INSTALL FENCING PER ASTM F-567, SWING GATES PER ASTM F-900.
3. GATE POST, CORNER, END OR PULL POST 2.5" NOMINAL (2.875" O.D.) SCHEDULE 40 PIPE 5.79 LBS/LIN FOOT FOR GATE WIDTHS UP THRU 6 FEET OR 12 FEET FOR DOUBLE SWING GATE PER ASTM-F1083.
4. LINE POST: 2" (2.375" OD) SCHEDULE 40 PIPE, 3.65 LBS/LIN FOOT PER ASTM-F1083.
5. GATE FRAME: 1.875" OD PIPE, 2.72 LBS/LIN FOOT PER ASTM-F1083.
6. TOP RAIL & BRACE RAIL: 1.875" OD PIPE, 2.72 LBS/LIN FOOT PER ASTM-F1083.
7. FABRIC: 12 GA CORE WIRE SIZE 2" MESH, CONFORMING TO ASTM-A392.
8. TIE WIRE: MINIMUM 11 GA GALVANIZED STEEL AT POSTS AND RAILS A SINGLE WRAP OF FABRIC TIE AND AT TENSION WIRE BY HOG RINGS SPACED MAX 24" INTERVALS.
9. TENSION WIRE: 7 GA. GALVANIZED STEEL.
10. BARBED WIRE: DOUBLE STRAND 12-1/2" O.D. TWISTED WIRE TO MATCH WITH FABRIC 14 GA, 4 PT. BARBS SPACED ON APPROXIMATELY 5" CENTERS.
11. GATE LATCH: 1/2" O.D. PLUNGER ROD W/ MUSHROOM TYPE CATCH AND LOCK, KEYED ALIKE FOR ALL SITES IN A GIVEN MTA.
12. LOCAL ORDINANCE OF BARBED WIRE PERMIT REQUIREMENT SHALL BE COMPLIED WITH WHERE APPLICABLE.
13. HEIGHT = 6' VERTICAL + 1' BARBED WIRE VERTICAL DIMENSION.

CONCRETE AND RE-BAR NOTES

1. ALL CONCRETE WORK SHALL BE IN ACCORDANCE WITH THE ACI 301-89, ACI 318-95 AND THE SPECIFICATION CAST-IN-PLACE CONCRETE.
2. ALL CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 2500 PSI AT 28 DAYS UNLESS NOTED OTHERWISE.
3. REINFORCING STEEL SHALL CONFORM TO ASTM A 615, GRADE 60, DEFORMED UNLESS NOTED OTHERWISE. WELDED WIRE FABRIC SHALL CONFORM TO ASTM A 185 WELDED STEEL WIRE FABRIC UNLESS NOTED OTHERWISE. SPLICES CLASS "B" AND ALL HOOKS SHALL BE STANDARD UNO.
4. THE MINIMUM CONCRETE COVER SHALL CONFORM TO THE CURRENT U.B.C.
5. A CHAMFER 3/4" SHALL BE PROVIDED AT ALL EXPOSED EDGES OF CONCRETE UNO IN ACCORDANCE WITH ACI 301 SECTION 4.2.4.
6. HOLES TO RECEIVE EXPANSION/WEDGE ANCHORS SHALL BE 1/8" LARGER IN DIAMETER THAN THE ANCHOR BOLT, DOWEL OR ROD AND SHALL CONFORM TO MFR RECOMMENDATION FOR EMBEDMENT DEPTH OR AS SHOWN ON THE DRAWINGS. AVOID CUTTING EXISTING REBAR WHEN DRILLING HOLES.
7. INSTALLATION OF CONCRETE EXPANSION/WEDGE ANCHOR, SHALL BE PER MANUFACTURER'S WRITTEN RECOMMENDED PROCEDURES.



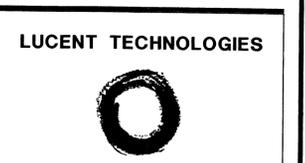
6 DOUBLE SWING GATE
 A3 NOT TO SCALE

ANTENNA SCHEDULE					
ANTENNA	SECTOR	ANTENNA	DOWNTILT BRACKET	AZIMUTH	CABLE
A-1	1	COMSAT RSI PCSA090-19 75"x9.5"x6.3"	COMSAT RSI XSL 50095	60°	SEE COAX CHART
A-2	1	-FUTURE-		60°	SEE COAX CHART
A-3	1	COMSAT RSI PCSA090-19 75"x9.5"x6.3"	COMSAT RSI XSL 50095	60°	SEE COAX CHART
A-4	2	COMSAT RSI PCSA090-19 75"x9.5"x6.3"	COMSAT RSI XSL 50095	180°	SEE COAX CHART
A-5	2	-FUTURE-		180°	SEE COAX CHART
A-6	2	COMSAT RSI PCSA090-19 75"x9.5"x6.3"	COMSAT RSI XSL 50095	180°	SEE COAX CHART
A-7	3	COMSAT RSI PCSA090-19 75"x9.5"x6.3"	COMSAT RSI XSL 50095	300°	SEE COAX CHART
A-8	3	-FUTURE-		300°	SEE COAX CHART
A-9	3	COMSAT RSI PCSA090-19 75"x9.5"x6.3"	COMSAT RSI XSL 50095	300°	SEE COAX CHART

COAX CABLE CHART	
COAX CABLE LENGTH	CABLE TYPE AND DIAMETER
1. 0' - 100'	FLEXWELL 7/8" FLC78-50J
2. 100' - 150'	FLEXWELL 1 1/4" FLC114-50J
3. MORE THAN 150'	FLEXWELL 1 5/8" FLC158-50J

ANTENNA NOTES

1. ALL ANTENNAS TO BE FURNISHED WITH MOUNTING AND DOWNTILT BRACKETS. CONTRACTOR TO COORDINATE REQUIRED MECHANICAL DOWNTILT FOR EACH ANTENNA WITH RF ENGINEER.
2. SEE SHEET A2 (ELEVATIONS) FOR ANTENNA CENTERLINE OF RADIATION ELEVATIONS.
3. SEE SHEET A1 (SITE PLAN) FOR ANTENNA AZIMUTHS.
4. SEE COAX CABLE CHART FOR CABLE DIAMETERS.
5. CONTRACTOR SHALL VERIFY PCS ANTENNA MANUFACTURER, MODEL AND AZIMUTH AND COAX CABLE TYPE AND DIAMETER WITH RF ENGINEER AND CONSTRUCTION MANAGER PRIOR TO COMMENCEMENT OF CONSTRUCTION.



PCS INSTALLATION PROJECT

MAURER & STUTZ, INC.
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PROJECT NO.: 232-98004

DRAWN BY: CAD

CHECKED BY: ADC

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ELKS LODGE

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DEC-033.01

SITE ADDRESS:
**2701 PARKWAY DRIVE
 DECATUR, ILLINOIS 62526**

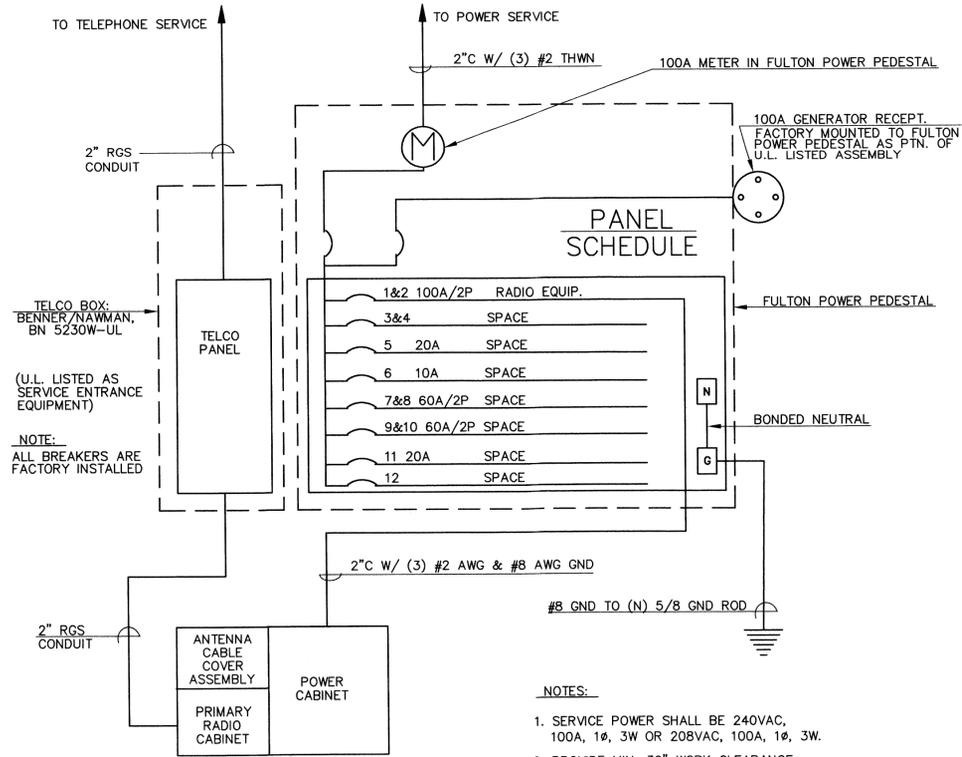
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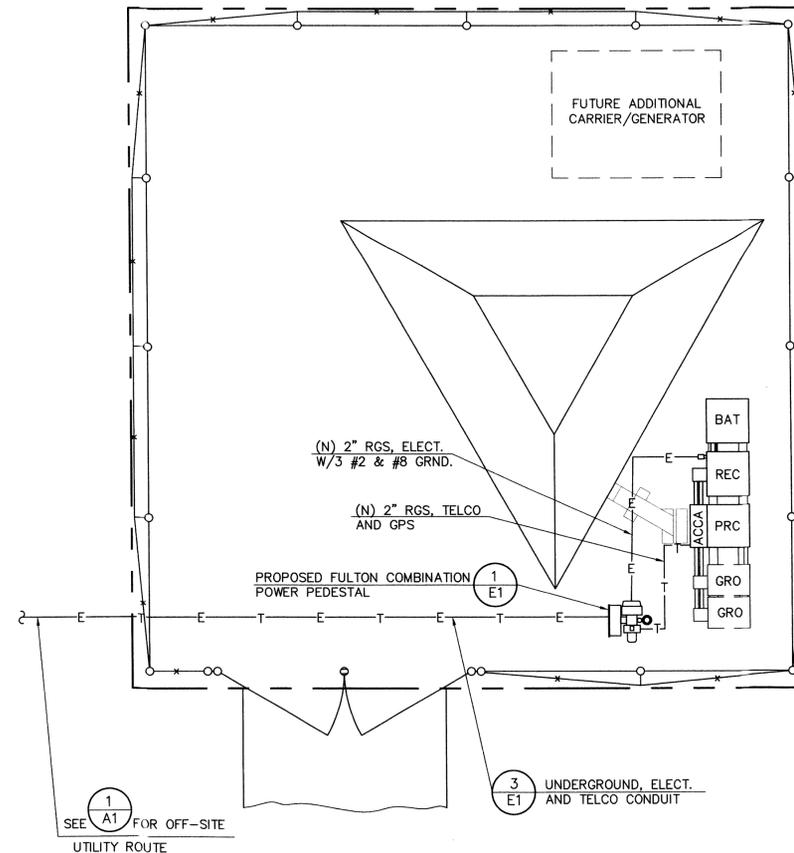
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GENERAL ELECTRICAL NOTES

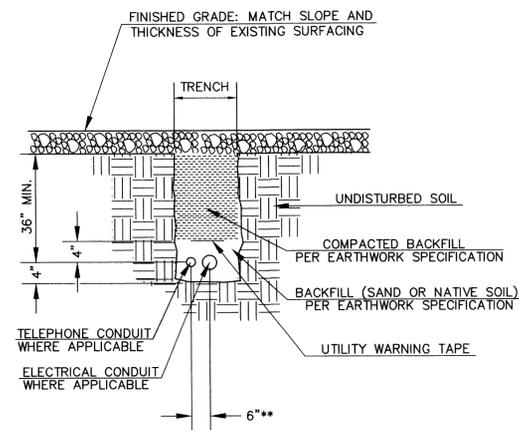
- SUBMITTAL OF BID INDICATES CONTRACTOR IS COGNIZANT OF ALL JOB SITE CONDITIONS AND WORK TO BE PERFORMED UNDER THIS CONTRACT.
- CONTRACTOR SHALL PERFORM ALL VERIFICATION OBSERVATION TESTS, AND EXAMINATION WORK PRIOR TO THE ORDERING OF THE ELECTRICAL EQUIPMENT AND THE ACTUAL CONSTRUCTION. CONTRACTOR SHALL ISSUE A WRITTEN NOTICE OF ALL FINDINGS TO THE CONSTRUCTION MANAGER LISTING ALL MALFUNCTIONS, FAULTY EQUIPMENT AND DISCREPANCIES.
- THESE PLANS ARE DIAGRAMMATIC ONLY, FOLLOW AS CLOSELY AS POSSIBLE.
- EACH CONDUCTOR OF EVERY SYSTEM SHALL BE PERMANENTLY TAGGED IN EACH PANELBOARD, PULLBOX, J-BOX, SWITCH BOX, ETC., IN COMPLIANCE WITH OCCUPATIONAL SAFETY AND HEALTH ACT (O.S.H.A.)
- CONTRACTOR SHALL PROVIDE ALL LABOR, MATERIALS, INSURANCE, EQUIPMENT, INSTALLATION, CONSTRUCTION TOOLS, TRANSPORTATION, ETC., FOR A COMPLETE AND PROPERLY OPERATIVE SYSTEM ENERGIZED THROUGHOUT AND AS INDICATED ON DRAWINGS, AS SPECIFIED HEREIN AND/OR AS OTHERWISE REQUIRED.
- ALL MATERIALS AND EQUIPMENT SHALL BE NEW AND IN PERFECT CONDITION WHEN INSTALLED AND SHALL BE OF THE BEST GRADE AND OF THE SAME MANUFACTURER THROUGHOUT FOR EACH CLASS OR GROUP OF EQUIPMENT. MATERIALS SHALL BE LISTED AND APPROVED BY UNDERWRITER'S LABORATORY AND SHALL BEAR THE INSPECTION LABEL "UL" WHERE SUBJECT TO SUCH APPROVAL. MATERIALS SHALL MEET WITH APPROVAL OF THE DIVISION OF INDUSTRIAL SAFETY AND ALL GOVERNING BODIES HAVING JURISDICTION. MATERIALS SHALL BE MANUFACTURED IN ACCORDANCE WITH APPLICABLE STANDARDS ESTABLISHED BY ANSI, NEMA AND NBFU.
- CONTRACTOR SHALL CARRY OUT HIS WORK IN ACCORDANCE WITH ALL GOVERNING STATE, COUNTY AND LOCAL CODES AND O.S.H.A. AND O.S.H.P.D.
- CONTRACTOR SHALL SECURE ALL NECESSARY BUILDING PERMITS AND PAY ALL REQUIRED FEES.
- COMPLETE JOB SHALL BE GUARANTEED FOR A PERIOD OF ONE (1) YEAR AFTER THE DATE OF JOB ACCEPTANCE BY OWNER. ANY WORK, MATERIAL OR EQUIPMENT FOUND TO BE FAULTY DURING THAT PERIOD SHALL BE CORRECTED AT ONCE, UPON WRITTEN NOTIFICATION, AT THE EXPENSE OF THE CONTRACTOR.
- ALL CONDUIT ONLY (C.O.) SHALL HAVE A PULL WIRE OR ROPE.
- PROVIDE PROJECT MANAGER WITH ONE SET OF COMPLETE ELECTRICAL "AS INSTALLED" DRAWINGS AT THE COMPLETION OF THE JOB, SHOWING ACTUAL DIMENSIONS, ROUTINGS, AND CIRCUITS.
- ALL BROCHURES, OPERATING MANUALS, CATALOGS, SHOP DRAWINGS, ETC. SHALL BE TURNED OVER TO OWNER AT JOB COMPLETION.
- USE T-TAP CONNECTIONS ON ALL MULTI-CIRCUITS WITH COMMON NEUTRAL CONDUCTOR FOR LIGHTING FIXTURE.
- ALL CONDUCTORS SHALL BE COPPER.
- ALL CIRCUIT BREAKERS, FUSES AND ELECTRICAL EQUIPMENT SHALL HAVE AN INTERRUPTING RATING NOT LESS THE MAXIMUM SHORT CIRCUIT CURRENT TO WHICH THEY MAY BE SUBJECTED, AND A MINIMUM OF 10,000 A.I.C.
- THE ENTIRE ELECTRICAL INSTALLATION SHALL BE GROUNDED AS REQUIRED BY ALL APPLICABLE CODES.
- PATCH, REPAIR AND PAINT ANY AREA THAT HAS BEEN DAMAGED IN THE COURSE OF THE ELECTRICAL WORK.
- IN DRILLING HOLES INTO CONCRETE WHETHER FOR FASTENING OR ANCHORING PURPOSES, OR PENETRATIONS THROUGH THE FLOOR FOR CONDUIT RUNS, PIPE RUNS, ETC., IT MUST BE CLEARLY UNDERSTOOD THAT TENDONS AND/OR REINFORCING STEEL WILL NOT BE DRILLED INTO, CUT OR DAMAGED UNDER ANY CIRCUMSTANCES.
- LOCATION OF TENDONS AND/OR REINFORCING STEEL ARE NOT DEFINITELY KNOWN AND THEREFORE MUST BE SEARCHED FOR BY APPROPRIATE METHODS AND EQUIPMENT VIA X-RAY, OR OTHER DEVICES THAT CAN ACCURATELY LOCATE THE REINFORCING AND/OR STEEL TENDONS.
- PENETRATIONS IN FIRE RATED WALLS SHALL BE FIRE STOPPED IN ACCORDANCE WITH SECTION NO. 4305 AND NO. 4304 OF THE U.B.C.
- RECEPTACLES SHALL BE 20 AMPERE, 125 VOLT A.C., HUBBELL #5362, IVORY AS REQUIRED BY THE CONSTRUCTION MANAGER, OR APPROVED EQUAL.
- WALL SWITCHES SHALL BE SINGLE-POLE, HUBBELL #1221, IVORY AS REQUIRED BY THE CONSTRUCTION MANAGER.
- PLASTIC PLATES FOR ALL SWITCHES, RECEPTACLES, TELEPHONE AND BLANKED OUTLETS, SHALL HAVE ENGRAVED LETTERING WHERE INDICATED ON THE DRAWINGS. WEATHERPROOF RECEPTACLES SHALL HAVE SIERRA #WPD-8 LIFT COVERPLATES.
- WIRE AND CABLE CONDUCTORS SHALL BE COPPER #12 AWG MINIMUM UNLESS SPECIFICALLY NOTED OTHERWISE ON DRAWINGS.
- GROUNDED CONDUCTORS SHALL BE SOLID TINNED COPPER AND ANNEALED #2.
- METER SOCKET AMPERES, VOLTAGE, NUMBER OF PHASES SHALL BE AS NOTED ON THE DRAWINGS. MANUFACTURED BY SQUARED COMPANY OR APPROVED EQUAL.
- CONDUIT:
 - RIGID CONDUIT SHALL BE U.L. LABEL GALVANIZED ZINC COATED WITH ZINC INTERIOR AND SHALL BE USED WHEN INSTALLED IN OR UNDER CONCRETE SLABS, IN CONTACT WITH THE EARTH, UNDER PUBLIC ROADWAYS, IN MASONRY WALLS OR EXPOSED ON BUILDING EXTERIOR. RIGID CONDUIT IN CONTACT WITH EARTH SHALL BE 1/2 LAPPED WRAPPED WITH HUNTS WRAP PROCESS NO. 3.
 - ELECTRICAL METALLIC TUBING SHALL HAVE U.L. LABEL, FITTINGS SHALL BE GLAND RING COMPRESSION TYPE. EMT SHALL BE USED ONLY FOR INTERIOR RUNS.
 - FLEXIBLE METALLIC CONDUIT SHALL HAVE U.L. LISTED LABEL AND MAY BE USED WHERE PERMITTED BY CODE. FITTINGS SHALL BE "JAKE" OR "SQUEEZE" TYPE, SEAL TIGHT FLEXIBLE CONDUIT. ALL CONDUIT IN EXCESS OF SIX FEET IN LENGTH SHALL HAVE FULL SIZE GROUND WIRE.
 - CONDUIT RUNS MAY BE SURFACE MOUNTED IN CEILINGS OR WALLS UNLESS INDICATED OTHERWISE. CONDUIT INDICATED SHALL RUN PARALLEL OR AT RIGHT ANGLES TO CEILING, FLOOR OR BEAMS. VERIFY EXACT ROUTING OF ALL EXPOSED CONDUIT WITH CONSTRUCTION MANAGER PRIOR TO INSTALLING.
- ALL ELECTRICAL EQUIPMENT SHALL BE LABELED WITH PERMANENT ENGRAVED PLASTIC LABELS.
- GROUNDED SYSTEM RESISTANCE SHALL NOT EXCEED 5 OHMS. IF THE RESISTANCE VALUE IS EXCEEDED, NOTIFY THE OWNER FOR FURTHER INSTRUCTION ON METHODS FOR REDUCING THE RESISTANCE VALUE. SUBMIT TEST REPORTS TO PROJECT MANAGER. CLEAN PREMISES OF ALL DEBRIS RESULTING FROM WORK AND LEAVE WORK IN A COMPLETE AND UNDAMAGED CONDITION.
- UPON COMPLETION OF WORK, CONDUCT CONTINUITY, SHORT CIRCUIT, AND FALL POTENTIAL GROUNDING TESTS FOR APPROVAL. SUBMIT TEST REPORTS TO PROJECT MANAGER. CLEAN PREMISES OF ALL DEBRIS RESULTING FROM WORK AND LEAVE WORK IN A COMPLETE AND UNDAMAGED CONDITION.
- CONTRACTOR TO COORDINATE WITH BUILDING ENGINEER FOR CONNECTION OF TEMPORARY AND PERMANENT POWER TO THE SITE. THE TEMPORARY POWER AND ALL HOOKUP COSTS TO BE PAID BY CONTRACTOR.
- CONTRACTOR SHALL COORDINATE POWER AND TELCO INSTALLATION.



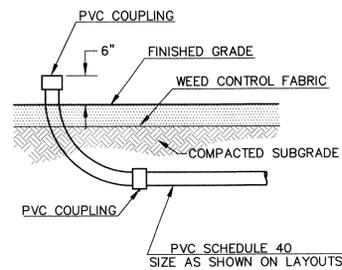
1 ONE LINE DIAGRAM
NOT TO SCALE



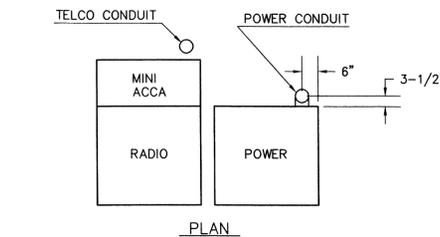
2 ELECTRICAL LAYOUT DETAIL
SCALE: 1" = 5'
GRAPHIC SCALE: 1" = 5'



3 JOINT TRENCH
NOT TO SCALE



4 CONDUIT STUB UP
NOT TO SCALE



NOTE:
REFER TO EQUIPMENT PLANS FOR POWER AND TELCO LOCATIONS AND LOCATE CONDUIT STUB UPS ACCORDINGLY. VERIFY WITH CONSTRUCTION MANAGER PRIOR TO COMMENCING.

5 CONDUIT STUB LOCATION
NOT TO SCALE

ELECTRICAL SYMBOLS

- ☒ GROUND ROD WITH ACCESS
- ⊗ GROUND ROD
- CADWELD TYPE CONNECTION
- COMPRESSION TYPE CONNECTION
- GROUNDING WIRE
- ⊕ SCREW ANCHOR

ABBREVIATIONS

- AWG AMERICAN WIRE GAUGE
- BCW BARE COPPER WIRE
- GPS GEOSTATIONARY POSITIONING SYSTEM
- PCS PERSONAL COMMUNICATION SERVICE
- PPC POWER PROTECTION CABINET
- PRC PRIMARY RADIO CABINET
- RWY RACEWAY
- TYP. TYPICAL
- RGS RIGID GALVANIZED STEEL
- EMT ELECTRICAL METALLIC TUBING
- DWG DRAWING
- IGR INTERIOR GROUND RING (HALO)
- ACCA ANTENNA CABLE COVER ASSEMBLY
- BTS BASE TRANSMISSION SYSTEM
- GEN GENERATOR
- GRO GROWTH CABINET
- BAT BATTERY
- REC RECTIFIER CABINET

LUC-2-E1

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PCS INSTALLATION PROJECT

MAURER & STUTZ, INC.
ENGINEERS SURVEYORS

7615 North Harker Drive
Peoria, Illinois 61615
PH: (309) 693-7615
FAX: (309) 693-7616

PROJECT NO.: 232-98004

DRAWN BY: CAD

CHECKED BY: DED

REVISIONS

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SITE INFORMATION

SITE NAME:
ELKS LODGE

SITE NUMBER:
DEC-033.01

SITE ADDRESS:
**2701 PARKWAY DRIVE
DECATUR, ILLINOIS 62526**

SHEET TITLE

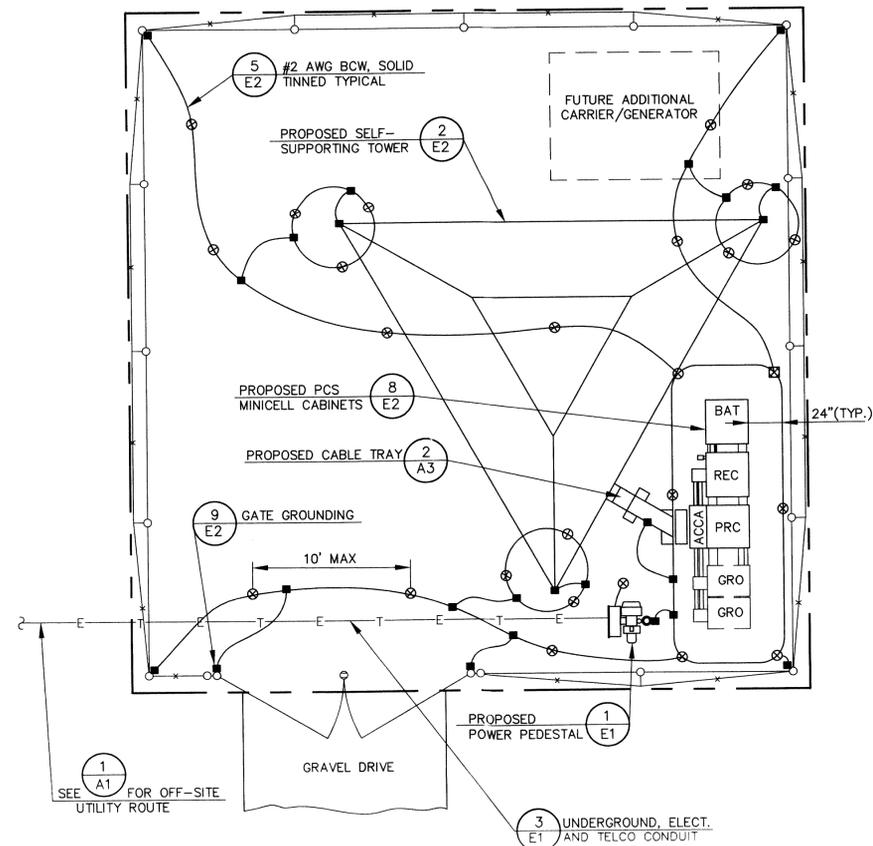
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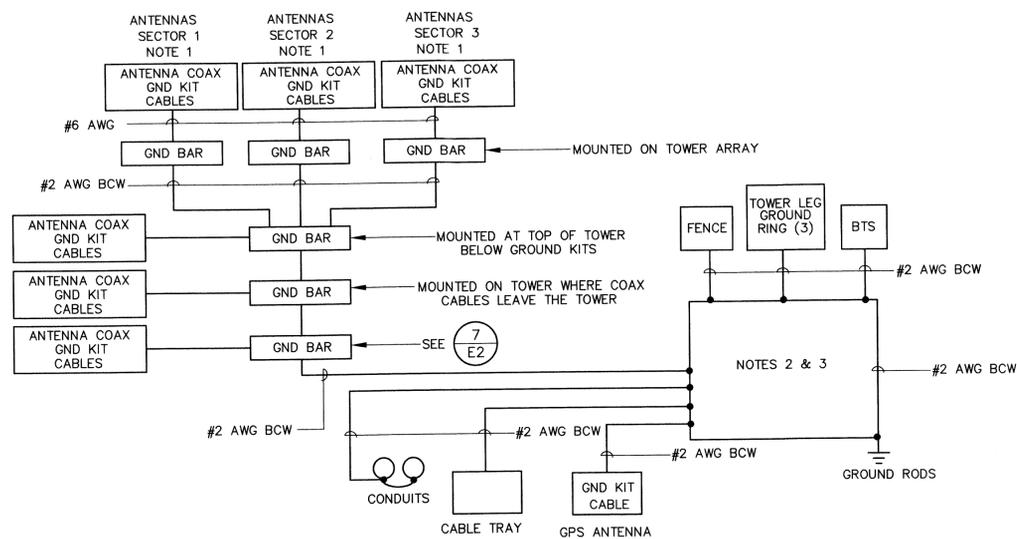
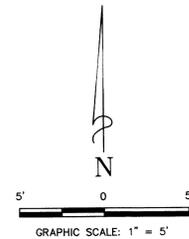
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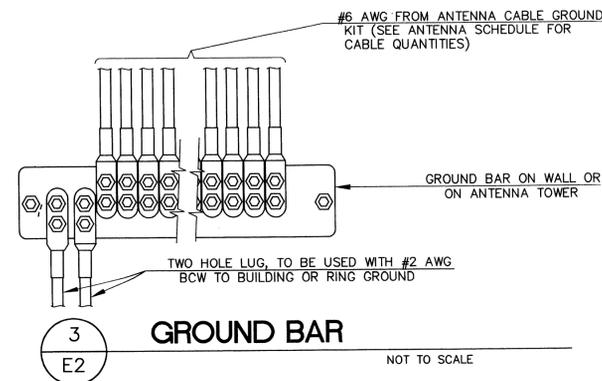
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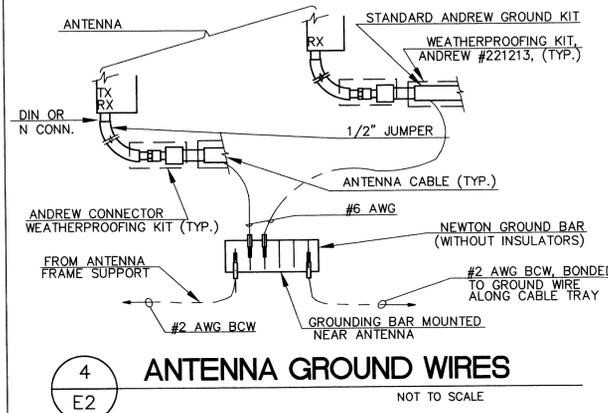
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E2
GROUNDING LAYOUT DETAIL
SCALE: 1" = 5'



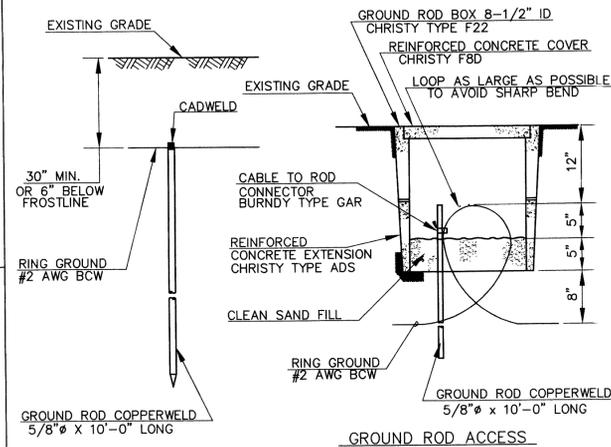
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GROUNDING SCHEMATIC
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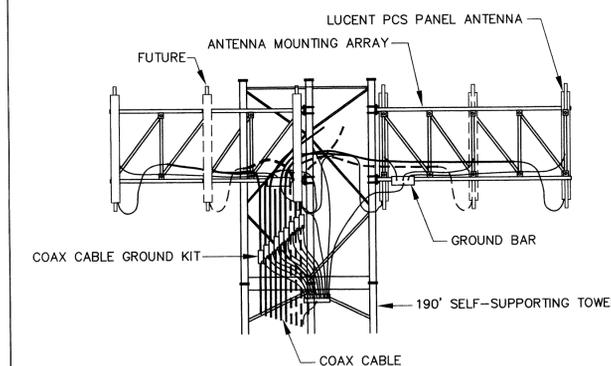
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GROUND BAR
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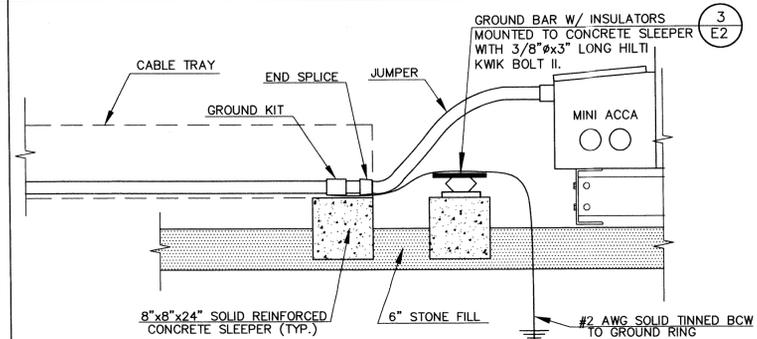
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ANTENNA GROUND WIRES
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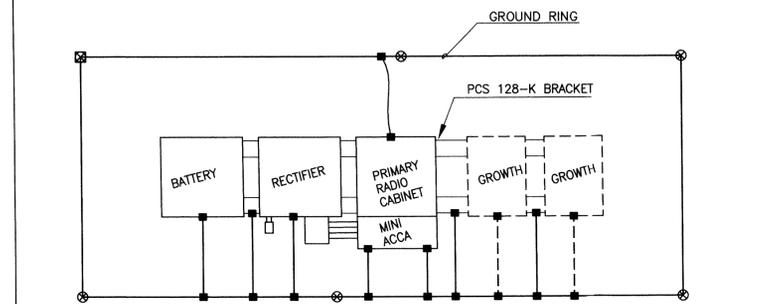
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GROUND ROD
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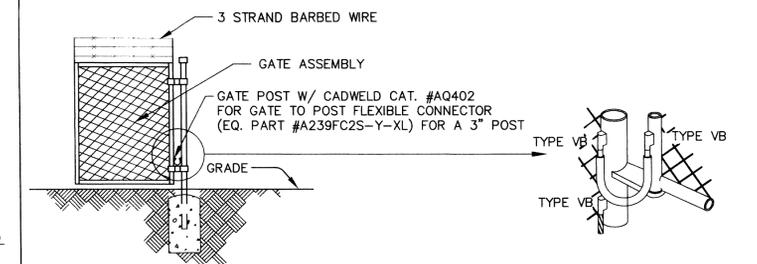
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ANTENNA GROUNDING
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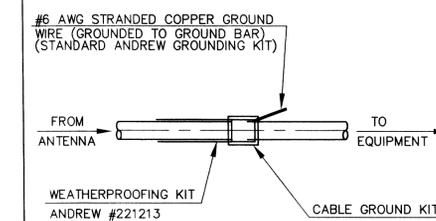
7
E2
COAX GROUNDING
NOT TO SCALE



8
E2
EQUIPMENT GROUNDING
NOT TO SCALE



9
E2
GATE GROUNDING
NOT TO SCALE



10
E2
CABLE GROUNDING
NOT TO SCALE

NOTES

1. BOND ANTENNA GROUNDING KIT CABLE TO GROUND BAR.
2. RING GROUND FOR EQUIPMENT.
3. FOR GROUNDING CONNECTION & DETAILS, SEE LAYOUT DRAWINGS.
4. FOR ELECTRICAL ABBREVIATIONS AND SYMBOLS SEE E-1 SHEET.
5. CAUTION: AT ALL SITES THE CONTRACTOR MUST VERIFY THAT THE SYSTEM IS EFFECTIVELY GROUNDED AND MEETS THE NEC ARTICLE 250 REQUIREMENTS AND ACCEPTABLE TO THE LOCAL INSPECTOR/AUTHORITY. NEC ARTICLE 250-84 SPECIFIES GROUNDING RESISTANCE OF 25 OHMS OR LESS FOR THE GROUNDING SYSTEM. THE PROJECT REQUIREMENT IS FIVE (5) OHMS.
6. CADWELD SCREW ANCHORS (AT 18\"/>

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