

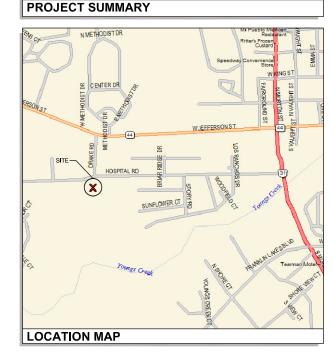
EXISTING 250' SELF SUPPORT TOWER w/ 14' APPURTENANCE **TOTAL TOWER HEIGHT 264'**

BENCHMARK SERVICES, INC. 318 NORTH MAIN STREET HUNTINGBURG, INDIANA 47542 PHONE: 812–683–3049 DUKE ENERGY ADDRESS: TBD CONTACT: JERRY TROXEL PHONE: 317-910-2010 EMAIL: jerry.troxel@duke-energy.com TELEPHONE CENTURY LINK ADDRESS: TBD CONTACT: MEMBER OF SERVICE DEPARTMENT PHONE: 877-290-5458 ARCHITECTURAL GPD GROUP 8275 ALLISON POINTE TRAIL, SUITE 220 INDIANAPOLIS, INDIANA 46250 CONTACT: TRACI PREBLE 317-299-2996



FRANKLIN WEST CELL SITE FRANKLIN FIRE DEPARTMENT 1701 N MAIN STREET FRANKLIN, IN 46131 PHONE: 317-736-3650 SITE ADDRESS 1071 HOSPITAL ROAD FRANKLIN, INDIANA 46131 JOHNSON COUNTY POLICE FRANKLIN POLICE DEPARTMENT 2801 N MORTON FRANKLIN, IN 46131 PHONE: 317-736-3670 PROJECT CONTACTS TOWER CO LLC 500 VALLEYSTONE DRIVE CARY, NC 27519 CONTACT: MARTHA PROVINCE OFFICE PHONE: 919-653-5704 CELL PHONE: 919-601-2272 GENERAL INFORMATION LATITUDE - 39° 28' 39.58" N LONGITUDE - 86° 04' 27.94" W VERIZON WIRELESS 4000 S. INVERNESS FARM ROAD BLOOMINGTON, IN 47401 CONTACT: WESTERN ACQUISITION, INC. PHONE: 812-345-1558 OR: 812-345-1557 1983 (NAD) ELEVATION - ±737' AMSL

SITE NAME



GTE MOBILNET OF INDIANA LIMITED PARTNERSHIP d/b/a VERIZON WIRELESS

FRANKLIN WEST

1071 HOSPITAL ROAD FRANKLIN, INDIANA 46131 **JOHNSON COUNTY**

DIRECTIONS: FROM 250 E. 96TH STREET, INDIANAPOLIS, IN: START OUT GOING WEST ON E 96TH ST. TURN RIGHT ONTO N MERIDIAN ST. MERGE ONTO I-465 E (22.5 MILES) MERGE ONTO I-65 S VIA EXIT 53B (16.5 MILES) TAKE THE IN-44 EXIT 90. TAKE THE RAMP TOWARD FRANKLIN. TURN SLIGHT RIGHT ONTO E KING ST/IN-44 W (1.5 MILES) TURN LEFT ONTO IN-44/N FORSYTH ST. TAKE THE 1ST RIGHT ONTO IN-44/E JEFFERSON ST (1.6 MILES) TURN LEFT ONTO DRAKE RD. TURN RIGHT ONTO HOSPITAL RD. 1071 HOSPITAL ROAD WILL BE ON THE LEFT.

THE PROJECT INCLUDES: A NEW TELEPHONE SERVICE RUN TO SITE A NEW ELECTRICAL SERVICE RUN TO SITE NO WATER SUPPLY OR SEWAGE RUN TO SITE INSTALLATION OF A CONCRETE PAD FOR A 11'-6" x 26'-0" PREFABRICATED SHELTER	
PROJECT DESCRIPTION	
PROJECT MANAGER:	
CONSTRUCTION MANAGER:	
NETWORK OPERATIONS MANAGER:	
NATIONAL DIRECTOR MANAGER:	

PROJECT DESCRIPTION

APPROVED BY

THE PROJECT INCLUDES:



SHEET NUMBER	DESCRIPTION
T-1	PROJECT INFORMATION, VICINITY MAP, SHEET INDEX
	SURVEY PLAN
ARCHITECTURAL	
A-1	TOWER ELEVATION
CIVIL	
C-1	OVERALL SITE PLAN
C-2	DETAILED SITE PLAN
C-3	GENERAL NOTES
DETAILS	
D-1	FENCE & SITE DETAILS
STRUCTURAL	
S-1	FOUNDATION DETAILS & NOTES
S-2	ICE BRIDGE DETAILS
S-3	PREFABRICATED RADIO EQUIPMENT LIFTING PROCEDURES
ELECTRICAL	
E-1	ELECTRICAL SITE PLAN
E-1a	ELECTRICAL AND GROUNDING NOTES
E-2	ELECTRICAL DETAILS
E-3	ELECTRICAL DETAILS

SHEET INDEX

THIS IS A REDUCED SIZE COPY, THESE PLANS WERE PRODUCED USING A 22"X34" FORMAT. DO NOT SCALE FROM THESE PRINTS.





PROJECT NUMBER 2011036.04 ALL DRAWINGS AND WRITTEN MATERIAL CONTAINED HEREIN ARE THE PROPERTY OF ENGINEER AND MAY NOT BE DUPLICATED, USED OR DISCLOSED WITHOUT THE WRITTEN CONSENT OF ENGINEER



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DRAWN BY: CMR CHECKED BY: LJB

SITE NAME

FRANKLIN WEST **CELL SITE**

SITE #

PROJECT # 2010550142 MARKET # 100028 **LOCATION # 249815**

SITE ADDRESS

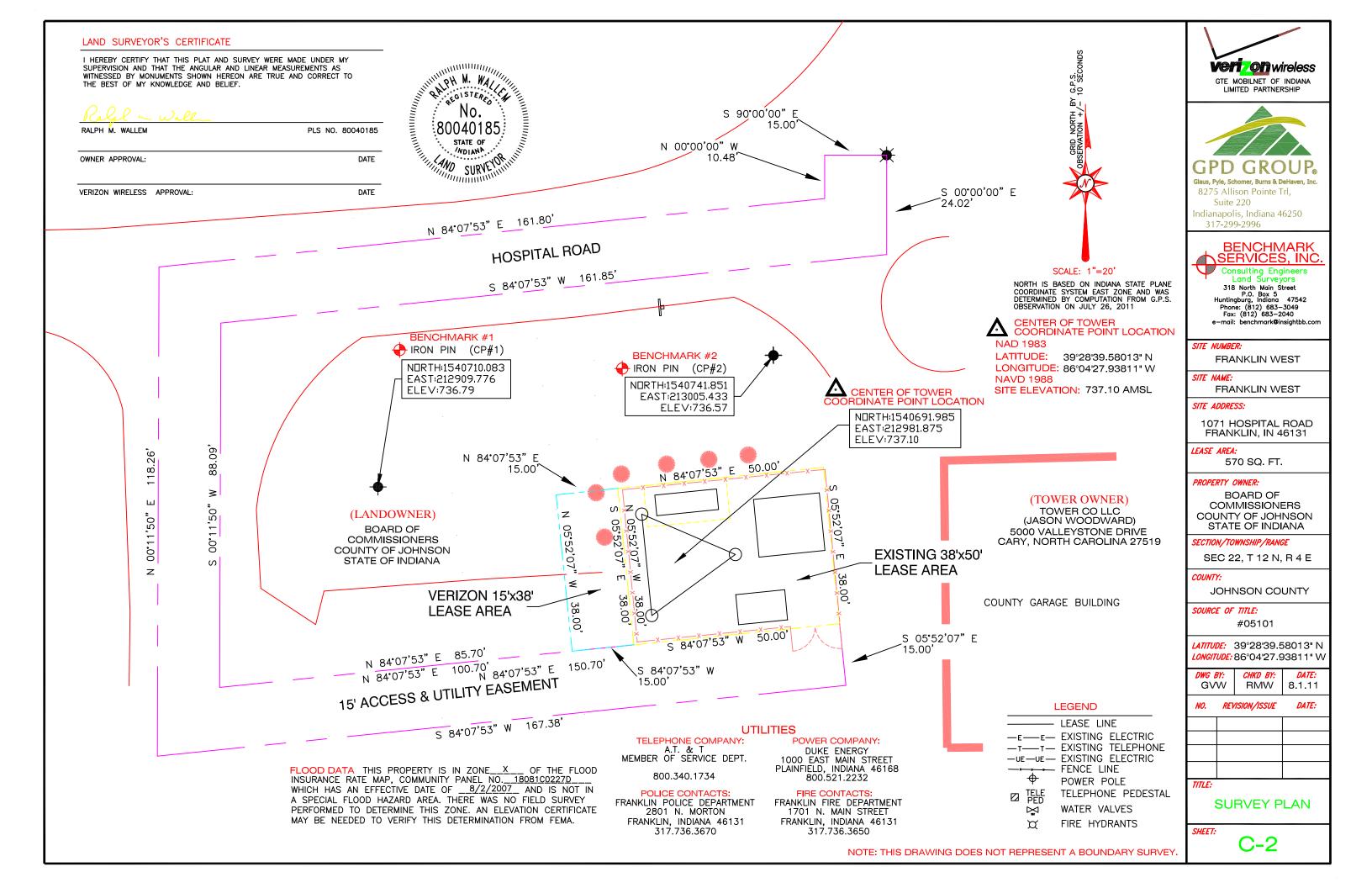
1071 HOSPITAL ROAD FRANKLIN, INDIANA 46131 JOHNSON COUNTY

SHEET TITLE

PROJECT INFORMATION. SITE MAPS AND SHEET INDEX

SHEET NUMBER

T-1



VERIZON LEASE AREA DESCRIPTION

A PART OF THE NORTHWEST QUARTER OF SECTION 22, TOWNSHIP 12 NORTH, RANGE 4 EAST, JOHNSON COUNTY, INDIANA AND MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCING AT THE NORTHEAST CORNER OF SAID NORTHWEST QUARTER; THENCE SOUTH 00 DEGREES 00 MINUTES 00 SECONDS EAST 24.02 FEET; THENCE SOUTH 84 DEGREES 07 MINUTES 53 SECONDS WEST 161.85 FEET; THENCE SOUTH 00 DEGREES 11 MINUTES 50 SECONDS WEST 88.09 FEET; THENCE THENCE NORTH 84 DEGREES 07 MINUTES 53 SECONDS EAST 85.70 FEET TO THE TRUE PLACE OF BEGINNING OF THIS DESCRIPTION; NORTH 05 DEGREES 52 MINUTES 07 SECONDS WEST 38.00 FEET; THENCE NORTH 84 DEGREES 07 MINUTES 53 SECONDS EAST 15.00 FEET TO THE EXISTING TOWER CO LLC., NORTHWEST LEASE AREA CORNER; THENCE ALONG THE WESTERLY LINE OF SAID LEASE AREA SOUTH 05 DEGREES 52 MINUTES 07 SECONDS WEST 38.00 FEET TO THE SOUTHWEST LEASE AREA CORNER; THENCE SOUTH 84 DEGREES 07 MINUTES 53 SECONDS WEST 15.00 FEET TO THE TRUE PLACE OF BEGINNING AND CONTAINING 570 SQUARE FEET, MORE OR LESS.

THE ABOVE DESCRIBED PARCEL IS SUBJECT TO ALL LEGAL RIGHTS OF WAYS AND EASEMENTS OF RECORD.

EXISTING LEASE AREA DESCRIPTION

A PART OF THE NORTHWEST QUARTER OF SECTION 22, TOWNSHIP 12 NORTH, RANGE 4 EAST, JOHNSON COUNTY, INDIANA AND MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCING AT THE NORTHEAST CORNER OF SAID NORTHWEST QUARTER; THENCE SOUTH 00 DEGREES 00 MINUTES 00 SECONDS EAST 24.02 FEET; THENCE SOUTH 84 DEGREES 07 MINUTES 53 SECONDS WEST 161.85 FEET; THENCE SOUTH 00 DEGREES 11 MINUTES 50 SECONDS WEST 88.09 FEET; THENCE THENCE NORTH 84 DEGREES 07 MINUTES 53 SECONDS EAST 100.70 FEET TO THE TRUE PLACE OF BEGINNING OF THIS DESCRIPTION; THENCE NORTH 05 DEGREES 52 MINUTES 07 SECONDS WEST 38.00 FEET; THENCE NORTH 84 DEGREES 07 MINUTES 53 SECONDS EAST 50.00 FEET; THENCE SOUTH 05 DEGREES 52 MINUTES 07 SECONDS EAST 38.00 FEET; THENCE SOUTH 84 DEGREES 07 MINUTES 53 SECONDS WEST 50.00 FEET TO THE TRUE PLACE OF BEGINNING AND CONTAINING 1,900 SQUARE FEET, MORE OR LESS.

SUBJECT TO ALL RIGHTS OF WAY, EASEMENTS, AND RESTRICTIONS OF RECORD.

EXISTING 15' ACCESS & UTILITY EASEMENT DESCRIPTION

A PART OF THE NORTHWEST QUARTER OF SECTION 22, TOWNSHIP 12 NORTH, RANGE 4 EAST, JOHNSON COUNTY, INDIANA AND MORE PARTICULARLY DESCRIBED AS FOLLOWS:

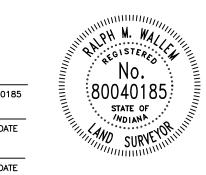
BEGINNING AT THE NORTHEAST CORNER OF SAID NORTHWEST QUARTER; THENCE SOUTH 00 DEGREES 00 MINUTES 00 SECONDS EAST 24.02 FEET; THENCE SOUTH 84 DEGREES 07 MINUTES 53 SECONDS WEST 161.85 FEET; THENCE SOUTH 00 DEGREES 11 MINUTES 50 SECONDS WEST 88.09 FEET; THENCE THENCE NORTH 84 DEGREES 07 MINUTES 53 SECONDS EAST 150.70 FEET; THENCE SOUTH 05 DEGREES 52 MINUTES 07 SECONDS EAST 15.00 FEET; THENCE SOUTH 84 DEGREES 07 MINUTES 53 SECONDS WEST 167.38 FEET; THENCE NORTH 00 DEGREES 11 MINUTES 50 SECONDS EAST 118.26 FEET; THENCE NORTH 84 DEGREES 07 MINUTES 53 SECONDS EAST 161.80 FEET; THENCE NORTH 00 DEGREES 00 MINUTES 00 SECONDS WEST 10.48 FEET; THENCE SOUTH 90 DEGREES 00 MINUTES 00 SECONDS EAST 15.00 FEET TO THE TRUE PLACE OF BEGINNING AND CONTAINING 6,620 SQUARE FEET, MORE OR LESS.

SUBJECT TO ALL RIGHTS OF WAY, EASEMENTS, AND RESTRICTIONS OF RECORD.

LAND SURVEYOR'S CERTIFICATE

I HEREBY CERTIFY THAT THIS PLAT AND SURVEY WERE MADE UNDER MY SUPERVISION AND THAT THE ANGULAR AND LINEAR MEASUREMENTS AS WITNESSED BY MONUMENTS SHOWN HEREON ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

Ralal - Wall	
RALPH M. WALLEM	PLS NO. 80040185
OWNER APPROVAL:	DATE
VERIZON WIRELESS APPROVAL:	DATE





GPD GROUP®
Glaus, Pyle, Schomer, Burns & DeHaven, Inc.
8275 Allison Pointe Trl,

Indianapolis, Indiana 46250 317-299-2996

Suite 220

BENCHMARK SERVICES, INC. Consulting Engineers Land Surveyors

318 North Main Street
P.O. Box 5
Huntingburg, Indiana 47542
Phone: (812) 683-3049
Fax: (812) 683-2040
e-mail: benchmark@insightbb.cc

SITE NUMBER:

FRANKLIN WEST

SITE NAME:

FRANKLIN WEST

SITE ADDRESS:

1071 HOSPITAL ROAD FRANKLIN, IN 46131

LEASE AREA:

570 SQ. FT.

PROPERTY OWNER:

BOARD OF COMMISSIONERS COUNTY OF JOHNSON STATE OF INDIANA

SECTION/TOWNSHIP/RANGE

SEC 22, T 12 N, R 4 E

COUNTY:

JOHNSON COUNTY

SOURCE OF TITLE: #05101

LATITUDE: 39°28'39.58013" N *LONGITUDE:* 86°04'27.93811" W

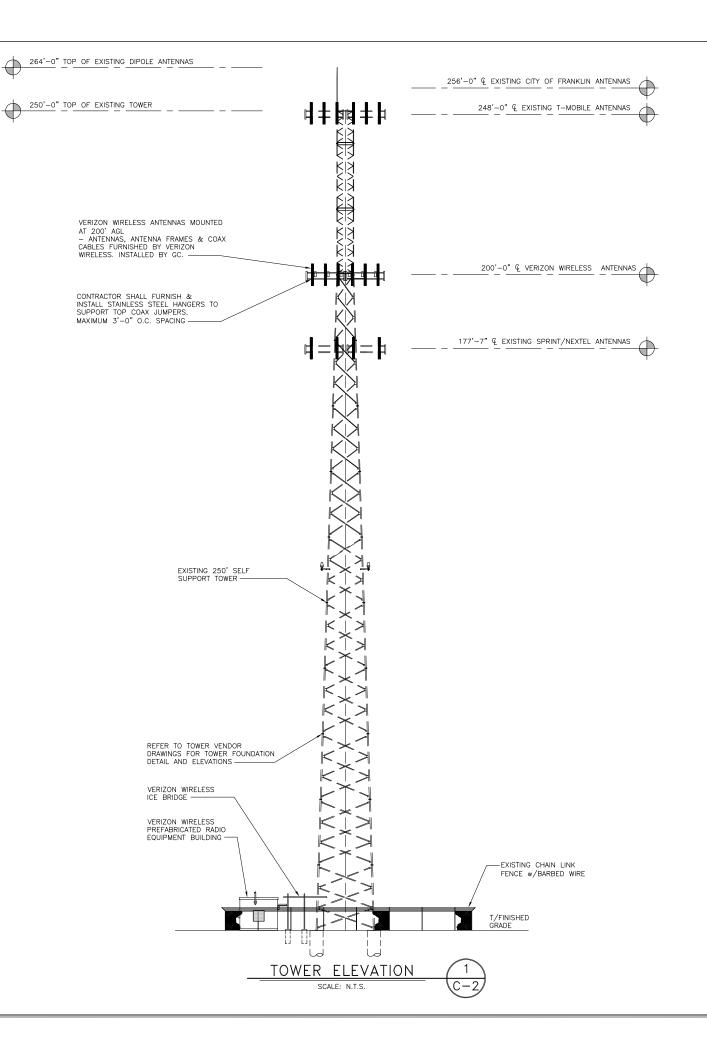
GV		RMW	8.1.11
NO.	RE	ISION/ISSUE	DATE:

TITLE:

SURVEY PLAN

SHEET:

C-2a



NOTE:

1. IT IS THE INSTALLING CONTRACTORS RESPONSIBILITY TO VERIFY ALL ANTENNA INFORMATION AGAINST FINAL RADIO ENGINEERING PLAN PROVIDED BY GTE MOBILNET OF INDIANA LIMITED PARTNERSHIP $\rm d/b/d$ VERIZON WIRELESS

NOTE:
CONTRACTOR SHALL INSURE THAT ALL NEW ANTENNAS,
MOUNTS, EQUIPMENT, COAXIAL CABLES AND HARDWARE ARE
INSTALLED IN SUCH A MANNER AS TO NOT INTERFERE WITH
ANY EXISTING TOWER SUPPORTS, GUY WIRES, ANCHORS AND
APPURTENNACES. REPORT ANY CONFLICT WITH THE VERIZON
WIRELESS CONSTRUCTION MANAGER IMMEDIATELY





PROJECT NUMBER 2011036,04

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317-299-2996 Fax 317-293-1331

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DRAWN BY: CMB
CHECKED BY: LJB

SITE NAME

FRANKLIN WEST CELL SITE

SITE #

PROJECT # 2010550142 MARKET # 100028 LOCATION # 249815

SITE ADDRESS

1071 HOSPITAL ROAD FRANKLIN, INDIANA 46131 JOHNSON COUNTY

SHEET TITLE

TOWER ELEVATION

SHEET NUMBER

A-1













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DRAWN BY: CMB
CHECKED BY: LJB

SITE NAME

FRANKLIN WEST CELL SITE

SITE #

PROJECT # 2010550142 MARKET # 100028 LOCATION # 249815

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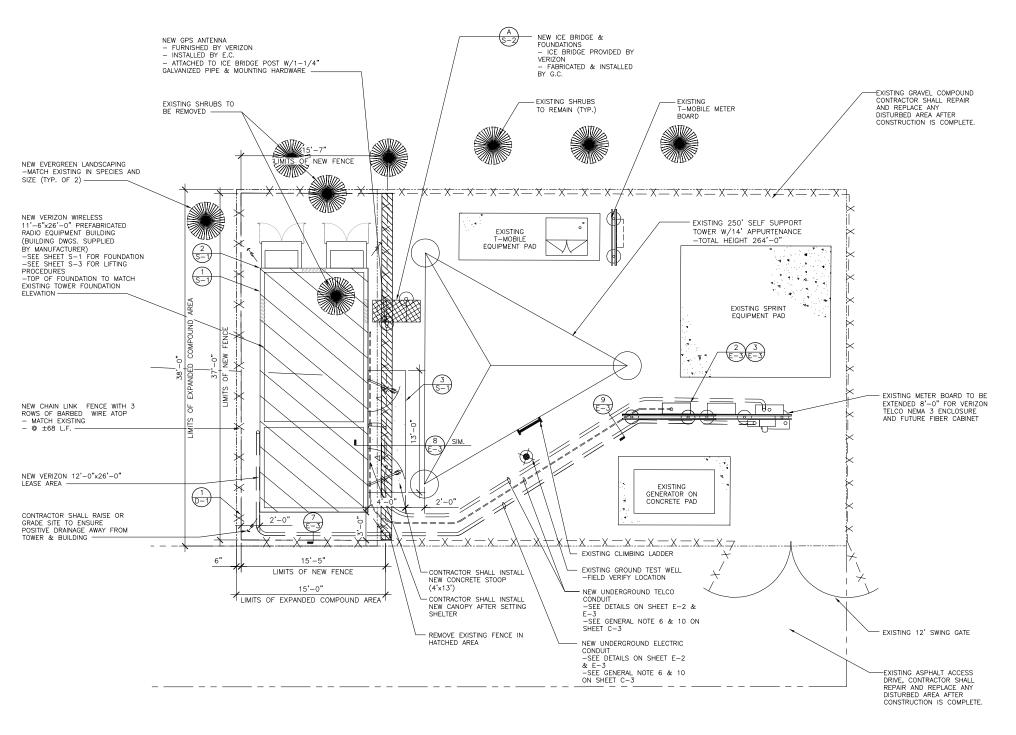
1071 HOSPITAL ROAD FRANKLIN, INDIANA 46131 JOHNSON COUNTY

SHEET TITLE

OVERALL SITE PLAN

SHEET NUMBER

C-1



1 A-1

RNUIE:
GENERAL CONTRACTOR IS TO INSURE
THERE IS NO DISTURBANCE OF
PROPERTY, SOIL, ETC. OUTSIDE OF
THE STAKED LEASE AREA.

NOTICE TO CONTRACTOR



NOTICE TO CONTRACTOR PER INDIANA STATE LAW IC-8-1-26-18, IT IS AGAINST THE LAW TO EXCAVATE WITHOUT NOTIFYING THE UNDERGROUND LOCATION SERVICE TWO (2) WORKING DAYS BEFORE COMMENCING WORK DETAILED SITE PLAN







- EDGE OF NEW DRIVE — UNDERGROUND ELECTRICAL CONDUIT

--- FXISTING CONTOURS PROPOSED CONTOURS FENCED COMPOUND

LEGEND

IRON PIN



NEW PREFABRICATED RADIO EQUIPMENT BUILDING

CONCRETE

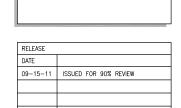
ACCESS DRIVE

GTE MOBILNET OF INDIANA LIMITED PARTNERSHIP d/b/a VERIZON WIRELESS **Verizon** wireless 250 E. 96TH STREET



PROJECT NUMBER 2011036.04

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DRAWN BY: CMB CHECKED BY: LJB

SITE NAME

FRANKLIN WEST **CELL SITE**

SITE #

PROJECT # 2010550142 MARKET # 100028 LOCATION # 249815

SITE ADDRESS

1071 HOSPITAL ROAD FRANKLIN, INDIANA 46131 JOHNSON COUNTY

SHEET TITLE

DETAILED SITE PLAN

SHEET NUMBER

C-2

GENERAL NOTES

1 SCHEDULE:

THE CONSTRUCTION OF THE SITE REQUIRES A CERTAIN SEQUENCE OF EVENTS TO MINIMIZE CONSTRUCTION TIME REQUIRED UNTIL AVAILABILITY OF CELLULAR TELEPHONE SERVICE. VERIFY SCHEDULE DURING BID WALK.

2. THE PRIMARY CONTACT IS:

GRANT CHILDERS 3077 EAST 98th STREET, SUITE 230 INDIANAPOLIS, IN 46280 PHONE: 317-249-2055

3. ANTENNA INSTALLATION:

THE CONTRACTOR INSTALLING THE PLATFORM SHALL ENSURE THAT THE PLATFORM IS ALIGNED BASED ON THE VERIZON WIRELESS RF PLAN. DURING THIS WORK, THE GENERAL CONTRACTOR SHALL BE LIMITED TO THE WORK WHICH CAN BE PERFORMED IN THE VICINITY OF THE TOWER.

4. ACCESS DRIVEWAY:

THE GENERAL CONTRACTOR SHALL REPAIR/REPLACE THE EXISTING ACCESS DRIVE PER THE ALIGNMENT AS SHOWN ON THESE DRAWINGS. IF ANY AREA OF CONSTRUCTION REQUIRES ADDITIONAL FILL OF AGGREGATE STONE THAN THAT NEEDED TO MATCH THE DEPTH OF THE EXISTING AGGREGATE, THE GENERAL CONTRACTOR SHALL NOTIFY THE ENGINEER FOR APPROVAL OF THE SIZE, TYPE AND QUANTITY OF STONE/FILL NECESSARY AND SHALL NOT BE USED UNTIL APPROVAL BY THE ENGINEER.

5. PREFABRICATED RADIO EQUIPMENT BUILDING:

THIS CONTRACTOR SHALL PROVIDE ALL LABOR, EQUIPMENT AND MATERIALS FOR THE PROPER LIFTING AND TRANSPORTING OF THE PREFABRICATED RADIO EQUIPMENT
BUILDING FROM THE TRANSPORT TRUCK BED TO THE FINAL POSITION ON THE CONCRETE
FOUNDATION. THE BUILDING SHALL BE LIFTED INTO PLACE BY USING TWO SPREADER BAR ASSEMBLIES. EACH SPREADER BAR SHALL BE A MINIMUM 13' WIDE (RATED TO CARRY 15 TONS). THE BUILDING WEIGHT IS 75,000# WITH TELEPHONE EQUIPMENT. CONTRACTOR SHALL ANCHOR THE BUILDING TO THE CONCRETE SLAB USING STEEL PLATES AND ANCHOR BOLTS PROVIDED BY THE PREFABRICATED RADIO EQUIPMENT BUILDING MANUFACTURER. EXTREME CAUTION SHALL BE TAKEN IN THE INSTALLATION OF THE BUILDING TO AVOID CONTACT WITH EXISTING OVERHEAD UTILITY LINES.

THE CONTRACTOR IS RESPONSIBLE FOR ATTACHING OR SECURING ANY ACCESSORY OR LOOSE ITEMS THAT ARE SHIPPED WITH THE PREFABRICATED RADIO EQUIPMENT BUILDING, I.E. TIE DOWN PLATES, HVAC DRIP HOSES TO BLDG., AND SHALL INCLUDE THIS WORK IN THE BUILDING INSTALLATION PORTION OF THE BID.

6. UTILITIES

THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE EXCAVATION AND PROPER BACKFILLING OF TRENCHES AND SUPPLY CONDUIT REQUIRED FOR UNDERGROUND TELEPHONE & ELECTRICAL UTILITIES. ALL TRENCHING SHALL BE COMPACTED TO 95% MAXIMUM DRY DENSITY IN ACCORDANCE W/ASTM D-1557.

THE CONTRACTOR SHALL RUN AN ELECTRICAL TRENCH WITH 4" CONDUIT AND DETECTABLE PULL TAPE FROM THE NEW PREFABRICATED RADIO EQUIPMENT BUILDING AND END AT THE EXISTING METER BOARD STRUCTURE. CONTACT JERRY TROXEL @ DUKE ENERGY BEFORE BEGINNING CONSTRUCTION TO VERIFY LOCATION OF CONDUIT. DUKE ENERGY WILL USE EXISTING VACANT METER BOARD SLOT FOR VERIZON WIRELESS SERVICE THE CONTRACTOR SHALL PROPERLY BACKELL THE TRENCHES AFTER INSPECTION AND SETTLEMENT. CONTACT ELECTRIC PROVIDER (JERRY TROXEL 317-910-2010 @ DUKE ENERGY) FOUR TO SIX WEEKS PRIOR TO CONSTRUCTION FOR NEW SERVICE AND COORDINATION OF ACCESS TO SITE

THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE ORDERING AND COORDINATING THE DELIVERY OF A B1 OR POTS TELEPHONE SERVICE LINE TO THE PREFABRICATED RADIO EQUIPMENT BUILDING. THE CONTRACTOR SHALL ALSO COORDINATE DELIVERY OF A T1 CIRCUIT WITH THE TELCO PROVIDER AND THE VERIZON WIRELESS FACILITY

THE CONTRACTOR SHALL RUN IN THE TELEPHONE TRENCH WITH 4" CONDUIT WITH 1 1/4" THE CONTRACTOR SHALL RON IN THE TELEPHONE TRENCH WITH 4 CONDUIT WHILE 17/4" FIBER AC POWER CONDUIT, BOTH W/OETECTABLE PULL TAPE FROM THE NEW PREFABRICATED RADIO EQUIPMENT BUILDING TO THE EXISTING METER BOARD STRUCTURE. CONTACT CENTURY LINK TO VERIFY EXACT LOCATION OF CONDUIT BEFORE CONSTRUCTION STARTS. THE TELCO PROVIDER WILL PROVIDE SERVICE TO THE EXISTING METER BOARD STRUCTURE. THE CONTRACTOR SHALL PROPERLY BACKFILL THE TRENCHES AFTER SETTLEMENT. CONTACT CENTURY LINK FOR APPOINTMENT TO VISIT THE SITE, FOUR TO SIX WEEKS PRIOR TO CONSTRUCTION FOR NEW SERVICE.

ELECTRIC SERVICE PROVIDED BY:

CONTACT: JERRY TROXEL PHONE: 317-910-2010 EMAIL: jerry.troxel@duke-energy.com

TELEPHONE SERVICE PROVIDED BY:

CONTACT: MEMBER OF SERVICE DEPT PHONE: 877-290-5458

GEOTEXTILE FABRIC:

AFTER PLACEMENT AND COMPACTION OF FILL WITHIN THE WORK AREA AND BEFORE THE PLACEMENT OF LIMESTONE AGGREGATE, (SEE SITE AREA SURFACING DETAIL ON D-1), THE ENTIRE DISTURBED WORK AREA SHALL BE COVERED WITH A GEOTEXTILE FABRIC. THIS FABRIC SHALL BE "TREVIRA SPUNBOUND SII25 ENGINEERING FABRIC" INSTALLED ACCORDING TO THE MANUFACTURERS RECOMMENDATIONS.

8. TRASH REMOVAL & SANITATION:

THE GENERAL CONTRACTOR SHALL REMOVE ALL TRASH AS CREATED BY HIMSELF AND HIS SUBCONTRACTORS. TRASH SHALL BE REMOVED FROM THE SITE IN A TIMELY FASHION TO A LEGAL DISPOSAL AREA. THE GENERAL CONTRACTOR SHALL ALSO REMOVE ALL TRASH CREATED BY OTHER CONTRACTORS INCLUDING CABLE REELS, CARDBOARD BOXES AND PACKING. NO BURNING OF TRASH IS PERMITTED.

THE GENERAL CONTRACTOR SHALL PROVIDE AND MAINTAIN A PORTABLE TOILET FOR THE DURATION OF THE CONSTRUCTION PROJECT.

A. THE GENERAL CONTRACTOR SHALL VERIFY THE EQUIPMENT BUILDING FOUNDATION IS LOCATED CORRECTLY WITH RESPECT TO THE TOWER FOUNDATION. THE CONTRACTOR MUST NOTIFY THE ARCHITECT/ENGINEER OF ANY DISCREPANCIES PRIOR TO POURING CONCRETE.

 $\underline{\mathsf{B}}.$ THE GENERAL CONTRACTOR SHALL VERIFY THE TOP OF FOUNDATION MATCHES THE FAA APPROVAL LETTER.

10. EXCAVATION OF UTILITIES:

A. FIELD VERIFY THE LOCATION OF ANY EXISTING UNDERGROUND UTILITIES PRIOR TO EXCAVATING IN THE VICINITY OF THE SITE. ALL EXCAVATIONS SHALL BE MADE BY HAND OVER OR UNDER OR IMMEDIATELY ADJACENT TO ANY EXISTING UTILITIES &

B. ALL UTILITY COMPANIES SHALL BE NOTIFIED AT LEAST 48 HOURS PRIOR TO ANY CONSTRUCTION ON THIS PROJECT. CONTACT UNDERGROUND UTILITY PROTECTION SERVICE BEFORE YOU DIG AT 1-800-382-5544.

C. EXISTING UTILITIES ARE SHOWN FROM THE SURVEY AND ARE NOT NECESSARILY COMPLETE AND ACCURATE. THE CONTRACTOR SHALL BE RESPONSIBLE TO LOCATE, EXPOSE AND DETERMINE IF CONFLICTS EXIST WITH THE NEW IMPROVEMENTS. THE CONTRACTOR SHALL NOTIFY THE ENGINEER (GPD GROUP) IN ORDER TO RESOLVE

11. CONTRACTOR'S LICENSE:

THE GENERAL CONTRACTOR AND ALL OF HIS SUBCONTRACTORS THAT DO ANY WORK ON THIS PROJECT SHALL BE CURRENTLY LICENSED TO PERFORM WORK IN THE LOCATION OF THIS SITE. PROOF OF LICENSES SHALL BE SUPPLIED TO VERIZON WIRELESS PRIOR TO THE COMMENCEMENT OF ANY WORK.

ALL DISTURBED AREAS SHALL BE REPAIRED AND SEEDED BY THE GENERAL CONTRACTOR, UNLESS OTHERWISE NOTED. SEED DISTURBED AREAS W/4 POUNDS/1000 SQ. FT. - 60% KENTUCKY BLUEGRASS, 18% CREEPING RED FESCUE,

13. FINAL CLEAN-UP:

UPON COMPLETION OF ALL WORK BY THE GENERAL CONTRACTOR AND ALL OF HIS SUBCONTRACTORS ON THIS PROJECT, THE GENERAL CONTRACTOR SHALL STRIP AND CLEAN THE FLOOR OF THE PREFAB BUILDINGS, USING AN INDUSTRIAL STRIPPING MACHINE. THE FINISHED FLOOR SHALL BE CLEAN AND DUST FREE. NO SURFACE FINISHES SHALL BE APPLIED. THE SENERAL CONTRACTOR IS ALSO RESPONSIBLE FOR THE REMOVAL OF ALL EXCESS MATERIAL FROM INSIDE THE SHELTER ALONG WITH SHIPMENT OF NOTED MATERIALS BACK TO THE OWNER.

14. TRAFFIC CONTROL:

THE CONTRACTOR SHALL FURNISH INSTALL AND MAINTAIN ALL REQUIRED. TRAFFIC CONTROL DEVICES IN ACCORDANCE WITH THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES OR GOVERNING LOCAL AGENCIES.

15. CONSTRUCTION STAKING:

THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CONSTRUCTION STAKING NEEDED TO COMPLETE ALL THE CONSTRUCTION SHOWN HEREON.

16. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO EXISTING PROPERTY RESULTING FROM THE CONSTRUCTION ACTIVITIES, INCLUDING BUT NOT LIMITED TO PAVEMENT, FINISHED GRADES, LANDSCAPING, BUILDINGS, SURVEY MARKERS,

- 17. IN THE EVENT ANY DISCREPANCIES OR ERRORS ARE FOUND ON THESE PLANS OR ANY CONFLICT OR PROBLEMS ARE ENCOUNTERED DURING CONSTRUCTION, THE CONTRACTOR SHALL NOTIFY THE ENGINEER BEFORE PROCEEDING WITH THE WORK. NO ADDITIONAL COMPENSATION WILL BE PAID TO THE CONTRACTOR FOR WORK HAVING TO BE REDONE FOR GRADE OR GEOMETRIC DISCREPANCIES IF NOTICE TO THE ENGINEER HAS NOT BEEN PROVIDED. THE ENGINEER RESERVES THE RIGHT TO MAKE MINOR ADJUSTMENTS AS NECESSARY TO ACCOMPLISH THE INTENT OF THESE PLANS.
- 18. ALL SITE WORK AND CONSTRUCTION SHALL CONFORM TO ANY AND ALL APPLICABLE CODES AND VERIZON WIRELESS STANDARDS AND SPECIFICATIONS.
- 19. ALL ELEVATIONS AND TOPOGRAPHIC INFORMATION WAS TAKEN FROM A SOUNCE. SUPPLIED TO GPD GROUP BY BENCHMARK SERVICES, INC., GPD HAS NOT VERIFIED THIS INFORMATION AND DOES NOT WARRANT ANY INFORMATION SUPPLIED BY OTHERS.
- 20. THE CONTRACTOR SHALL MAINTAIN A COMPLETE AS—BUILT SET OF PLANS AND CONDITIONS, AND SUBMIT SAME TO THE ENGINEER WITHIN 7 DAYS OF COMPLETION OF CONSTRUCTION. AS—BUILT PLANS SUBMITTED TO THE ENGINEER SHALL INCLUDE A DRAWING WITH DIMENSIONS SHOWING THE LOCATION OF THE UNDERGROUND UTILITIES, GROUNDING GRID, BUILDING, TOWER FOUNDATION, TOWER PLATFORM ORIENTATION, AND FENCE WITHIN THE LEASE AREA OR PROPERTY AND BE CERTIFIED BY A LICENSED PROFESSIONAL SURVEYOR.
- 21. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFICATION OF ALL GOVERNING AGENCIES THAT REQUIRE SITE INSPECTION OF THE WORK AND/OR SIMPLY NOTIFICATION.





PROJECT NUMBER 2011036.04

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DRAWN BY: CMR CHECKED BY: LJB

SITE NAME

FRANKLIN WEST **CELL SITE**

SITE #

PROJECT # 2010550142 MARKET # 100028 **LOCATION # 249815**

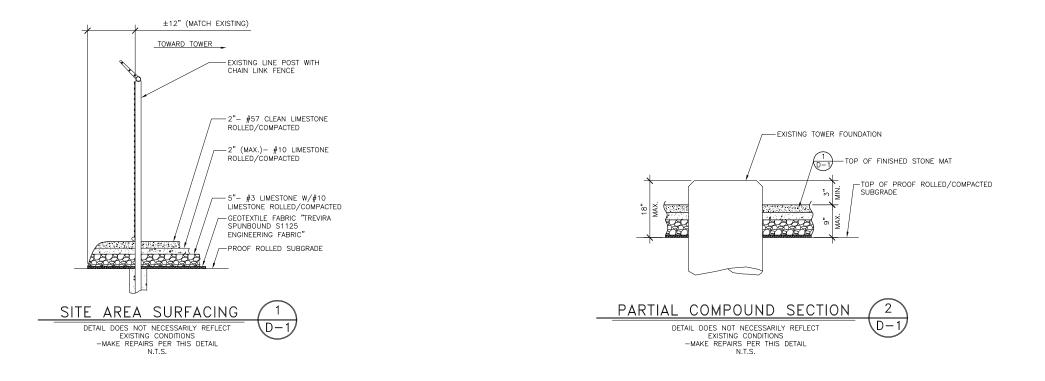
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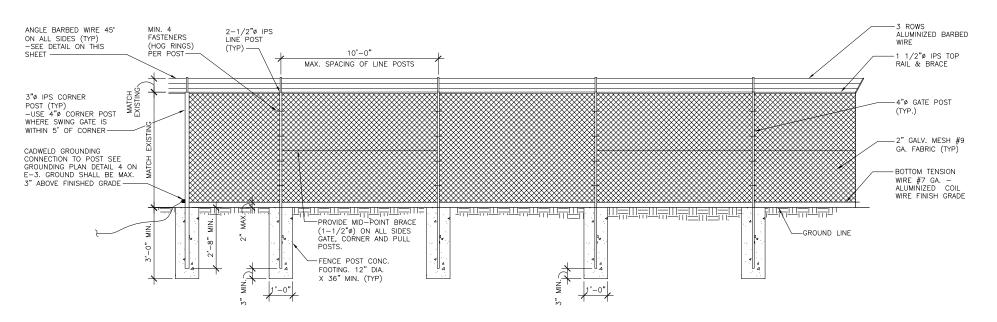
1071 HOSPITAL ROAD FRANKLIN, INDIANA 46131 JOHNSON COUNTY

SHEET TITLE

GENERAL NOTES

SHEET NUMBER

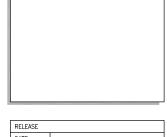












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CHECKED BY: LJB

SITE NAME

FRANKLIN WEST CELL SITE

SITE #

PROJECT # 2010550142 MARKET # 100028 LOCATION # 249815

SITE ADDRESS

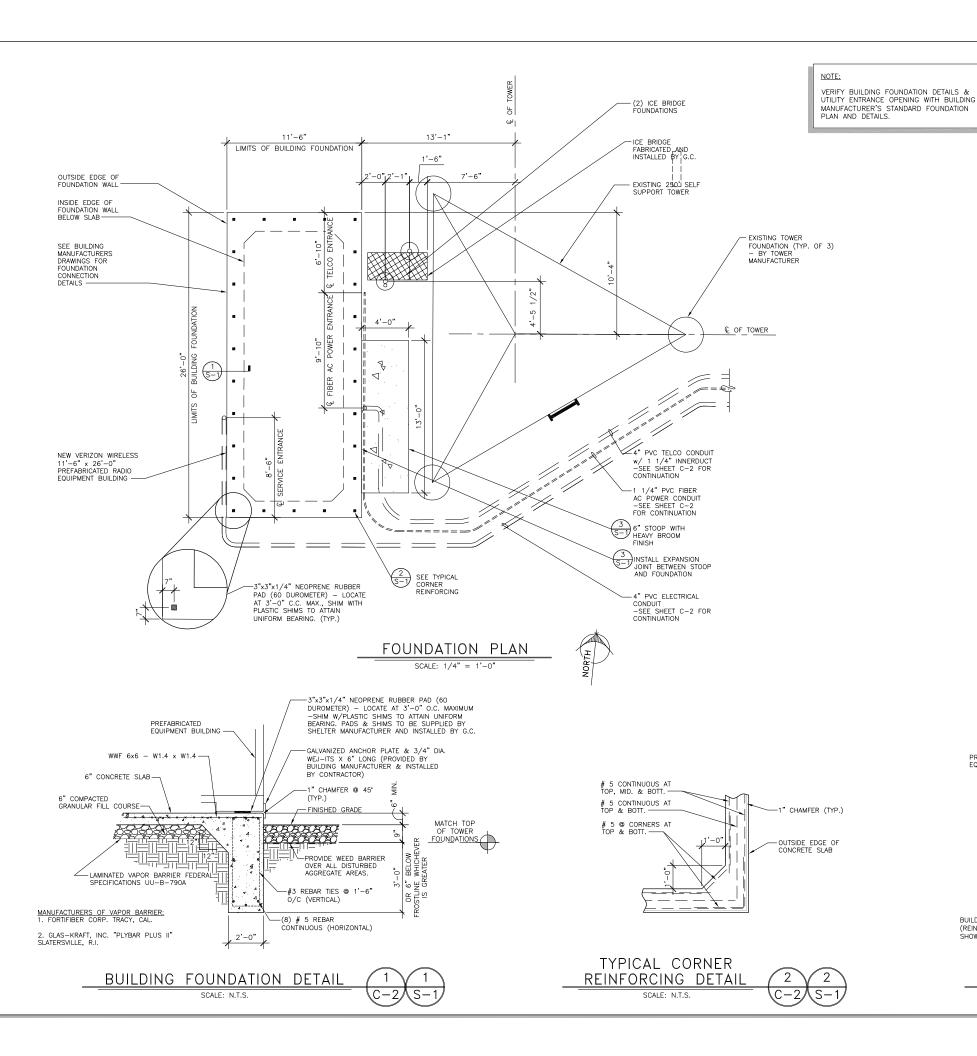
1071 HOSPITAL ROAD FRANKLIN, INDIANA 46131 JOHNSON COUNTY

SHEET TITLE

SITE DETAILS

SHEET NUMBER

D-1



STRUCTURAL NOTES

1. LOADINGS:

FLOOR LIVE LOAD ROOF SNOW LOAD DEAD LOADS BASIC WIND SPEED

100 PSF

20 PSF

ACTUAL MATERIAL WEIGHTS

90 MPH

ASTM A307

2. STRUCTURAL STEEL:

PIPE - ASTM A53 TYPE F OR S GRADE B OR ASTM A501 STRUCTURE FINISH - AFTER FABRICATION ACCORDING TO ASTM A123.

3. BUILDING FOUNDATION SYSTEM:

THE SUBSURFACE REPORT PROVIDED BY G2 CONSULTING GROUP DATED JULY 30, 2004 WAS USED IN THE PREPARATION OF THESE DRAWINGS.

ALLOWABLE BEARING CAPACITY BLDG, FOOTINGS 6.000 PSF REQUIRED BEARING CAPACITY TOWER FOUNDATION - SEE GEOTECHINCAL REPORT

THE CONTRACTOR SHALL EXERCISE GREAT CARE DURING EXCAVATION, THE CONTRACTOR SHALL PREDETERMINE UTILITY LOCATIONS AND NOTIFY THE ENGINEER IMMEDIATELY IF DEVIATION FROM PLANS EXIST.

THE SUBSURFACE REPORT IS NOT TO BE CONSIDERED AS A COMPLETE RECORD OF THE EXISTING CONDITIONS AT THE SITE. THE CONTRACTOR SHALL VERIFY ALL EXISTING SITE CONDITIONS, INCLUDING SUBSURFACE CONDITIONS. THE CONTRACTOR SHALL OBTAIN PERMISSION FROM THE OWNER PRIOR TO SITE ENTRY FOR THE PURPOSE OF VERIFICATION OF EXISTING CONDITIONS.

FOUNDATION SUBGRADES SHALL BE HAND TRIMMED AND COMPACTED. ALL BACKFILL TO BE COMPACTED TO 95% MAXIMUM DRY DENSITY IN ACCORDANCE WITH ASTM D-1557.

4. CONCRETE WORK:

CONCRETE CYLINDERS SHALL BE TAKEN AND TESTED BY A QUALIFIED CONCRETE TESTING COMPANY, THE GENERAL CONTRACTOR SHALL PROVIDE THREE (3) CYLINDER SAMPLES TAKEN PER TRUCK AND THE CONCRETE MUST MEET A 4" SLUMP. THE SAMPLES TAKEN PER TRUCK AND THE CONCRETE MUST MEET A 4 SUMP. THE
GENERAL CONTRACTOR SHALL PROVIDE THREE (3) COPIES OF TESTING RESULTS TO
VERIZON WIRELESS CONSTRUCTION MANAGER. FAILURE TO PROVIDE WRITTEN
DOCUMENTATION WILL RESULT IN A DEDUCTION FROM THE CONTRACT. THE CONTRACTOR
WILL BE HELD RESPONSIBLE FOR ANY ADDITIONAL COSTS IN TESTING DUE TO DELAYS
BY THE GENERAL CONTRACTOR OR HIS SUBCONTRACTORS. USE AIR ENTRAINMENT IN

 BLDG. FOUNDATION
 F'c = 4000 PSI SPECIFICATIONS - LATEST EDITION OF ACI-318 4" SLUMP MATERIALS. - REINFORCING ASTM A615, GRADE 60

REINFORCING COVERS FOOTINGS TOP ROTTOM/SIDES

REINFORCING EMBEDMENT AND LAP SPLICES (INCHES)

REGULAR

- ANCHOR BOLTS

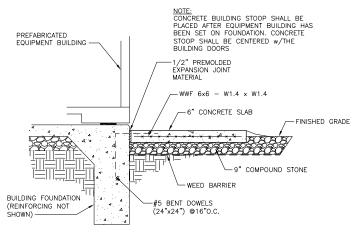
BAR SIZE	LD	SPLICE
#4	12	20
#5	15	26
#6	18	31
#7	23	39

CHAMFER TOP CORNERS OF ALL FOUNDATIONS (1")

5. BURIED CABLE LOCATIONS INFORMATION

STOOP DETAIL

CONTACT 48 HR. PRIOR TO DIGGING, GRADING, OR DRILLING 1-800-428-5200

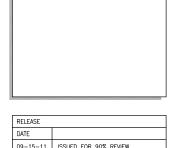


GTE MOBILNET OF INDIANA LIMITED **Verizon** wireless 250 E. 96TH STREET



PROJECT NUMBER 2011036.04

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SITE NAME

FRANKLIN WEST **CELL SITE**

SITE #

PROJECT # 2010550142 MARKET # 100028 LOCATION # 249815

SITE ADDRESS

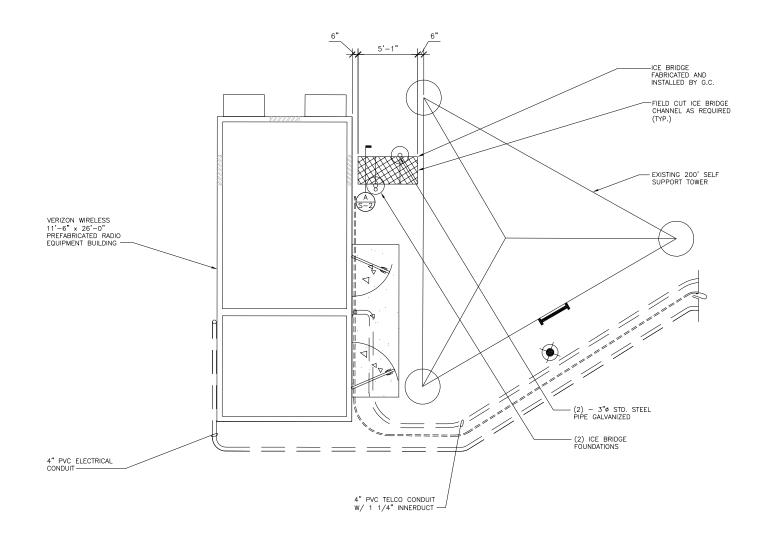
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SHEET TITLE

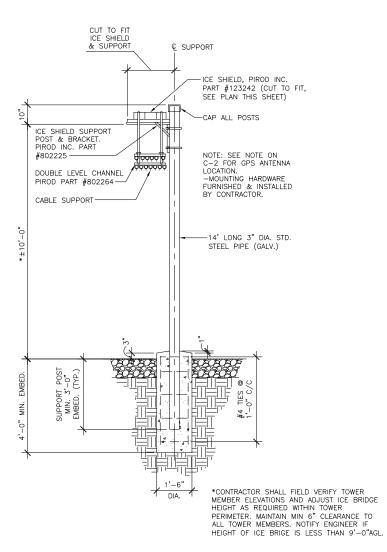
FOUNDATION DETAILS & NOTES

SHEET NUMBER

S-1



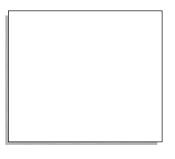












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SITE NAME

FRANKLIN WEST CELL SITE

SITE #

PROJECT # 2010550142 MARKET # 100028 LOCATION # 249815

SITE ADDRESS

1071 HOSPITAL ROAD FRANKLIN, INDIANA 46131 JOHNSON COUNTY

SHEET TITLE

ICE BRIDGE DETAILS

SHEET NUMBER

S-2

PREFABRICATED RADIO EQUIPMENT BUILDING LIFTING PROCEDURES FOR SHELTERS 24' OR LONGER

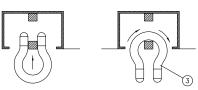
NOTE: ANY RIGGING OTHER THAN LISTED AND SHOWN BELOW MUST BE APPROVED BY BUILDING ENGINEERING DEPARTMENT PRIOR TO LIFTING OF SHELTER.

YOU WILL NEED

- 1 4 EACH-15' MINIMUM WIRE ROPE SLINGS, EACH WITH MINIMUM 15 TON SAFE WORKING LOAD.
- 2 4 EACH-30' MINIMUM WIRE ROPE SLINGS, EACH WITH MINIMUM 15 TON SAFE WORKING LOAD.
- 3 4 EACH-SNATCH BLOCKS TO LEVEL THE WEIGHT ON EACH WIRE
- 4 2 EACH-SPEADER BEAMS WITH A MINIMUM 13' WIDE (RATED TO CARRY 15 TONS).
- (5) 8 EACH-SHACKLES (HORSESHOE TYPE) WITH A MINIMUM 7.5 TON SAFE WORKING LOAD.
- (!) CAUTION! FOR PERSONAL SAFETY, USE ONLY OSHA RATED RIGGING AND HARDWARE.
- 1 SHACKLE ATTACHMENT
- A. LOCATE THE EIGHT (8) LIFTING CAVITIES IN THE SHELTER BASE FRAME; FOUR UNDER EACH LONGWALL.
- B. LOOP SHACKLE AROUND VERTICAL POST INSIDE THE LIFTING CAVITY.
- CAUTION! THE FOLLOWING INSTRUCTIONS ARE FOR EXPERIENCED RIGGERS ONLY; ALL OTHERS STAND
 CLEAR OF CRANE OPERATIONS TO AVOID INJURY OR

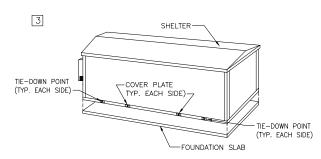


A 9 1/2 TON SHACKLE IS THE MAXIMUM SIZE TO FIT INTO THE LIFTING CAVITY.



IN PACKING (INSIDE SHELTER) FIND ..

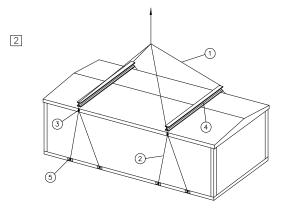
- (1) BEARING PADS (SHIMS)-1/4 X 3 X 3.
- 2 TIE-DOWN BRACKETS (4 EACH).
- 3 3/4-10 X 6-1/4 ANCHOR BOLTS (4 EACH)
- ④ .060 X 4 1/2 X 11 1/2 ALUMINUM COVER PLATES (4 EACH)
- 3 SETTING OF SHELTER
- MEASURE SHELTER WIDTH AND FOUNDATION WIDTH. THE SHELTER SHOULD BE FLUSH WITH THE OUTSIDE CHAMFER OF THE CONCRETE FOUNDATION ONCE IT IS PLACED ON THE SLAB.
- B. LIFT SHELTER FROM TRAILER AND POSITION OVER THE SLAB.
- C. CAREFULLY LOWER ONTO SLAB, ENSURING THAT ALL FOUR CORNERS ARE LEVEL AND SHELTER SETS SQUARELY ON SLAB.
- D. BEFORE DISCONNECTING THE RIGGING CHECK TO MAKE SURE THE SHELTER IS SETTING FLUSH TO THE SLAB.
- E. IF GAPS, 1/4" OR MORE, ARE SHOWING IN AN AREA 2 FEET WIDE AND LONGER. THEN MARK THE AREA, PICK THE SHELTER UP A FEW INCHES AND PLACE SHIMS AT 12" O.C.
- F. IF THE SHELTER SITS FLUSH OR AFTER SHIMMING THE GAPS IS DONE, DISCONNECT THE RIGGING AND REMOVE THE SHACKLES.



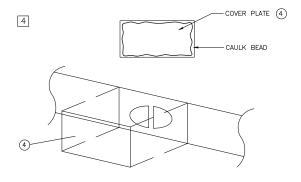
RIGGING

- CONFIGURE RIGGING VERTICALLY TO LATERAL SPREADER BARS AS SHOWN IN THE FIGURE AT RIGHT. SPREADER BEAMS SHOULD BE WIDDER THAN ROOF. IF NOT, PLACE WOOD OR RUBBER BLOCKING AT ROOF OVERHANG AND BEHIND SHACKLES AT BASE FRAME TO PREVENT DAMAGE TO SHELTER.
- CAUTION! VERIFY SHELTER WEIGHT AND SAFE WORKING LOADS OF HARDWARE AND RIGGING BEFORE PROCEEDING.
- B. LIFT SHELTER A FEW INCHES AND MAKE SURE IT IS PICKING LEVEL. IF NOT, LOWER AND ADJUST RIGGING AS NEEDED TO PICK SHELTER AS LEVEL AS POSSIBLE.
- C. SEE TECHNICAL BULLETIN ON SHELTER PLACEMENT/TIE-DOWN OR SHELTER LOADING ON TRAILER. FOR PROPER SITTING OF

NOTE: ANY RIGGING OTHER THAN THAT LISTED AND SHOWN ABOVE MUST BE APPROVED BY BUILDING ENGINEERING DEPARTMENT PRIOR TO



- COVER PLATE INSTALLATION
- A. APPLY A 1/4" BEAD OF CAULK ON UNFINISHED SIDE OF THE COVER PLATE APPROXIMATELY 1/4" FROM THE EDGE.
- B. PLACE COVER OVER THE LIFTING CAVITY. APPLY PRESSURE TO PLATE UNTIL SET.







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SITE NAME

FRANKLIN WEST CELL SITE

SITE #

PROJECT # 2010550142 MARKET # 100028 LOCATION # 249815

SITE ADDRESS

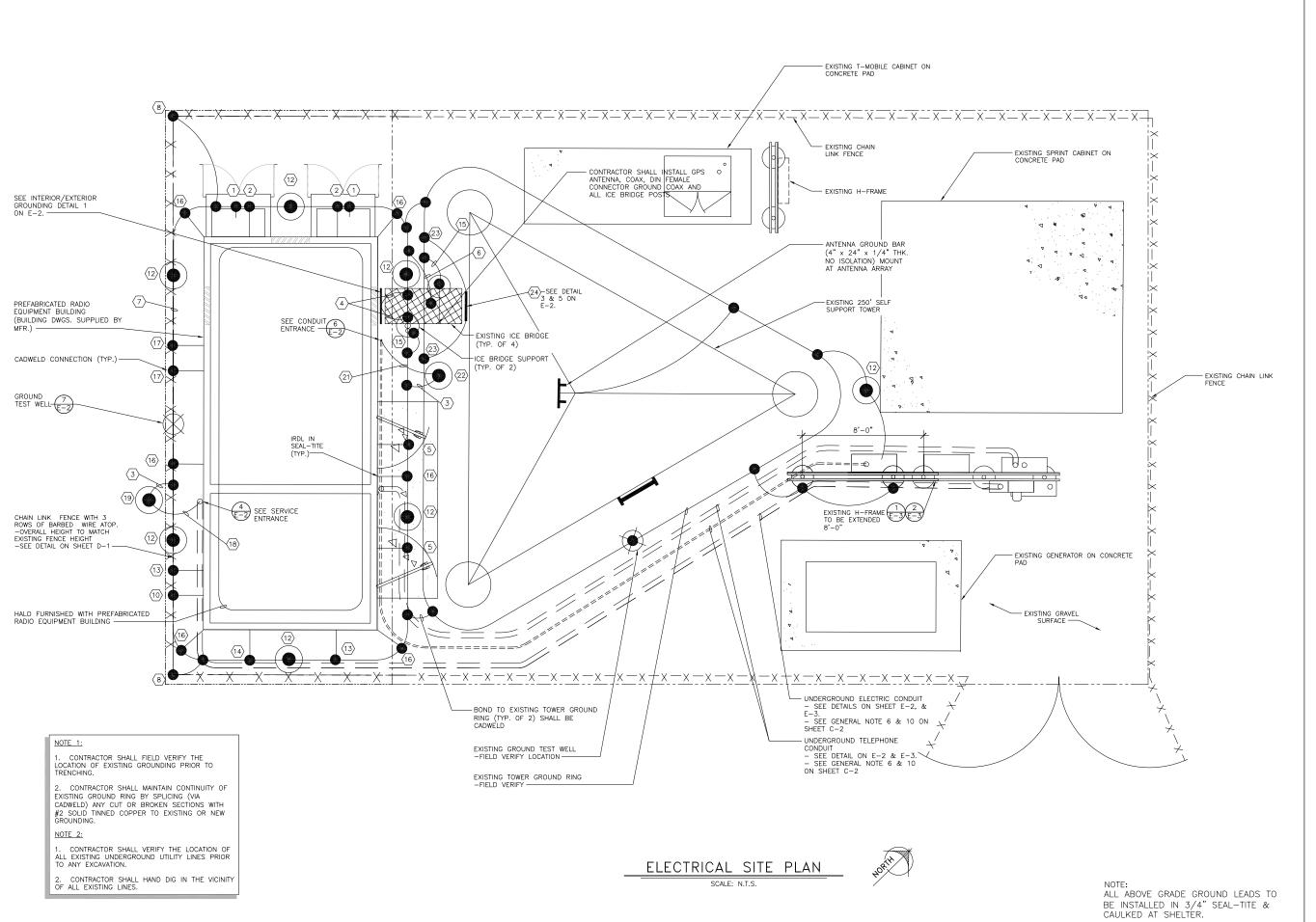
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SHEET TITLE

PREFABRICATED RADIO **EQUIPMENT BUILDING** LIFTING PROCEDURES

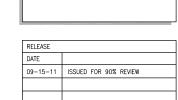
SHEET NUMBER

S-3









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SITE ADDRESS

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SHEET TITLE

ELECTRICAL SITE PLAN

SHEET NUMBER

E-1

GROUNDING KEYED NOTES

- (1) ACCG E.C. SHALL FURN. & INST. 1 #2 AWG BARE SOLID TINNED COPPER GND. WIRE FROM THE TWO HVAC UNITS CAGES TO (EER). CONNECTION TO HVAC UNITS CAGES SHALL BE MECHANICAL AND CADWELD TO (EER).
- 2 ACH: E.C. SHALL FURN. & INST. 1 #2 AWG BARE SOLID TINNED COPPER GND. WIRE FROM THE TWO HVAC UNITS TO (EER). CONNECTION TO HVAC UNITS SHALL BE MECHANICAL AND CANNEL D. TO (FER).
- (3) BBO: E.C. SHALL FURN. & INST. #2 AWG BARE SOLID TINNED COPPER GND. WIRE, ONE FROM POWER CO. GROUND ELECTRODE (PGE) & ONE TELEPHONE ENTRANCE GROUND (TEG) BOTH TO (EER). CONNECTIONS TO (PGE), (TEG) & (EER) SHALL BE CADWELD.
- (4) CEPSG: E.C. SHALL ATTACH THE GROUND BAR FOR THE COAX ENTRY PROTECTION SYSTEM (AS MFG'D. BY "POLYPHASER CORP., AND SUPPLIED WITH THE BUILDING) TO THE EXTERIOR ELECTRODE GROUND RING (EER) USING CADWELD. REFER TO THE GENERAL INSTALLATION GUIDE AS SUPPLIED WITH SAID POLYPHASER ENTRY ASSEMBLY.
- (5) CG: E.C. SHALL FURN. & INST. 2 #2 AWG BARE SOLID TINNED COPPER GND. WIRE FROM THE 2 EXISTING DOOR CANOPIES TO (EER). CONNECTION TO DOOR CANOPIES SHALL BE MECHANICAL AND CADWELD TO (EER).
- (6) CSG: E.C. SHALL FURN. & INST. 1 #2 AWG BARE SOLID TINNED COPPER GND WIRE FROM ICE BRIDGE CHANNEL TO (EER). CONNECTION TO ICE BRIDGE CHANNEL AND (EER) SHALL BE CADWELD.
- (7) EER: E.C. SHALL FURN. & INST. #2 AWG BARE SOLID TINNED COPPER BURIED EXTERIOR ELECTRODE GROUND RING (EER) BURIED AT 36"
 - FG: E.C. SHALL FURN. & INST. 1 #2 AWG BARE SOLID TINNED COPPER GND WIRE FROM NEW FENCING TO GROUND RING (EER). CONNECTION TO FENCING SHALL BE AT THE BASE OF FENCE POST USING CADWELD AND WEAVE GND. WIRE THRU FABRIC AND ATTACH TO TOP RAIL WITH CADWELD. CONNECTION TO (EER) SHALL BE CADWELD.
- 9 NOT USED
- (10) GEG: E.C. SHALL FURN. & INST. 1 #2 AWG BARE SOLID TINNED COPPER GND. WIRE FROM THE EXISTING GENERATOR EXHAUST TO (EER). CONNECTION TO GENERATOR EXHAUST SHALL BE MECHANICAL AND CADWELD TO (EER).
- (11) NOT USED
- (12) GRE: E.C. SHALL FURN. & INST. GROUND RODS TO 36" BELOW FINISH GRADE AT A MINIMUM SPACING OF 10'-0". CONNECTION TO (EER) SHALL BE CADWELD.
- (13) GVLG: E.C. SHALL FURN. & INST. 2 #2 AWG BARE SOLID TINNED COPPER GND. WIRE FROM THE 2 EXISTING GENERATOR VENT LOUVERS TO (EER). CONNECTION TO GENERATOR VENT LOUVERS SHALL BE MECHANICAL AND CADWELD TO (EER).
- (14) GVPG: E.C. SHALL FURN. & INST. 1 #2 AWG BARE SOLID TINNED COPPER GND. WIRE FROM THE EXISTING GENERATOR VENT PIPE TO (EER). CONNECTION TO GENERATOR VENT PIPE SHALL BE MECHANICAL AND CADWELD TO (EER).
- (15) IBSG: E.C. SHALL FURN. & INST. 1 #2 AWG BARE SOLID TINNED COPPER GND. WIRE FROM ICE BRIDGE SUPPORT POST TO (EER). CONNECTION TO ICE BRIDGE SUPPORT POST & (EER) SHALL BE CADWEID.
- (16) IRDL: E.C. SHALL CONNECT EXISTING (SUPPLIED WITH BLDG.) #2 AWG BARE SOLID TINNED COPPER GND WIRE DOWN LEAD FROM EXISTING BLDG. INTERIOR GND. HALO TO (EER). CONNECTION TO (EER) SHALL BE CADWELD. ALSO EC SHALL SEAL ALL EXISTING WALL PENETRATIONS WITH WATERPROOF SILICONE SEALANT.
- MGB: MASTER GROUND BAR 2 LEADS (MGB) IS TO BE TIED TO EER DIRECTLY USING COMPRESSION LUCS AND GREEN STRANDED CABLE THAT IS CALDWELD TO #2 AWG BARE SOLID TINNED COPPER GROUND WIRE BEFORE EXITING THE BUILDING. THE ELECTRIC CONTRACTOR WILL NOT MAKE CONNECTION TO THE MGB, BUT WILL PROVIDE SUFFICIENT CABLE LENGTH TO CONNECT TO THE MGB.
- (18) MGN: E.C. SHALL FURN. & INST. #2 BARE SOLID TINNED COPPER CONDUCTOR FROM MAIN A/C SERVICE DISCONNECT SWITCH NEUTRAL BUS BAR TO (PGE). CONNECTION TO (PGE) SHALL BE CADWELD AND TO A/C SERVICE DISCONNECT SWITCH NEUTRAL BUS BAR SHALL BE MECHANICAL.
- (9) PGE: E.C. SHALL FURN. & INST. GROUND ROD (POWER GROUND ELECTRODE) AT 36" BELOW FIN. GRADE.
- (21) TEG: E.C. SHALL FURN. & INST. #2 AWG BARE SOLID TINNED COPPER GND. WIRE (TELEPHONE ENTRANCE GROUND) FROM (TGE) TO PLYWOOD TELEPHONE MOUNTING BOARD LOCATED ON BLDG. INTERIOR WALL. CONNECTION TO (TGE) SHALL BE CADWELD AND LOOP AND ATTACH TO PLYWOOD PROAPD.
- (22) TGE: E.C. SHALL FURN. & INST. GROUND ROD (TELCO GROUND ELECTRODE) AT 36" BELOW FIN. GRADE.

 (23) TWG: E.C. SHALL FURN. & INST. 2 #2 AWG BARE SOLID TINNED COPPER GND. WIRES FROM TOWER WAVEGUIDE GROUND BAR (TWGG) TO (EER). CONNECTION TO (TWGG) SHALL BE CADWELD AND TO (EER) SHALL BE CADWELD. SEE DETAIL DWG. E-2.
- 24) TWGG: TOWER WAVEGUIDE GROUND BAR. SEE DETAIL DWG E-2.

GROUNDING NOTES

- 1. ALL UNDERGROUND CONNECTIONS ON THE LIGHTNING PROTECTION SYSTEM SHALL BE EXOTHERMIC WELDED USING THE CADWELD PROCESS. THE E.C. SHALL FURN. & INST. ALL THESE CONNECTIONS, INCLUDING WELD METALS, MOLDS AND TOOLS. THE E.C. SHALL FURN. & INST. 5/8" x 10' COPPER CLAD STEEL (COPPER JACKET 0.0012" MIN.) GROUND RODS, DRIVEN VERTICAL TO 36" BELOW FIN. GRADE (OR 6" BELOW FROSTLINE, WHICHEVER IS GREATER) © 10'-0" O.C. MINIMUM.
- 2. THE E.C. SHALL FURN. & INST. No.2 AWG BARE SOLID TINNED COPPER GND. WIRE AT A DEPTH OF 36'' BELOW FIN. GRADE FOR THE BUILDING (EER) AND ICE BRIDGE (CSG).
- 3. ALL EXTERIOR GND. CONNECTIONS SHALL BE EXOTHERMIC CADWELD.
- 4. ALL CRIMP LUG CONNECTIONS TO ALL GROUND BARS SHALL BE LUBRICATED WITH A CORROSION INHIBITER ("OXY-GREASE") OR APPROVED EQUAL.
- 5- UPON COMPLETION OF THE GROUNDING RING AND BEFORE BONDING TO THE EXISTING RING, THE CONTRACTOR SHALL MEGGER TEST THIS GROUNDING FIELD. THE REQUIRED RESISTANCE LEVEL IS 5 OHMS OR LESS. THE E.C. SHALL NOTIFY THE ENGINEER IF THESE REQUIREDREMENTS ARE NOT ACHIEVED. THE CONTRACTOR SHALL SUBMIT PRICING TO VERIZON WIRELESS FOR THE INSTALLATION OF ADDITIONAL GROUND RODS REQUIRED FOR PROPER RESISTANCE. UPON APPROVAL FROM VERIZON WIRELESS, THE CONTRACTOR SHALL INSTALL ADDITIONAL GROUND RODS AS REQUIRED. AFTER PASSING TEST, THEN THE CONTRACTOR SHALL BOND THE NEW RING TO THE EXISTING RING. THE CONTRACTOR SHALL NOTIFY VERIZON WIRELESS 48 HOURS PRIOR TO BACKFILLING TRENCHES, POURING CONCRETE FOR FOUNDATIONS AND GUY WIRES, TO INSPECT BONDS AND INSPECT ANY/ALL BREAKS AND REPAIRS TO THE GROUND RING
- 6. GROUND SYSTEM SHALL BE VISUALLY INSPECTED BY A VERIZON WIRELESS CONSTRUCTION ENGINEER BEFORE BACKFILLING IF REQUESTED.
- $^{7-}$ GROUND BARS (TWGG & CEPSG) SHALL BE 1/4" x 4" x 24" SOLID COPPER. PROVIDE TWO (2) LUG HOLES PER VERIZON STANDARDS.
- 8. BARE COPPER CONDUCTORS SHALL NOT BE INSTALLED WHERE THEY MAY BE IN CONTACT WITH GALVANIZED METALS. THE CONDUCTORS SHALL BE INSULATED OR ENCLOSED IN PVC CONDUIT, PLASTIC SEALTIGHT OR INSTALLED WITH STANDOFF SUCH THAT NO CONTACT BETWEEN DISSIMILAR METALS MAY TAKE PLACE.
- 9. CONNECTION OF COPPER CONDUCTORS TO GALVANIZED METAL OR ALUMINUM SHALL BE AVOIDED. BRASS OR STAINLESS STEEL LUGS OR BARS SHALL BE USED FOR THESE CONNECTIONS.
- 10. NO SHARP 90° BENDS SHALL BE USED. A LONG SWINGING RADIUS BEND REQUIRED.
- 11. ALL GROUNDING SHALL BE IN ACCORDANCE WITH VERIZON WIRELESS SPECIFICATIONS.

GENERAL ELECTRICAL NOTES

- UNLESS NOTED OTHERWISE, ALL WORK ITEMS ON SHEETS E-1, E-2 & E-3 SHALL BE PERFORMED BY THE ELECTRICAL CONTRACTOR. ALL WORK SHOWN AS NEW UNLESS NOTED EXISTING.
- 2. THE ELECTRICAL CONTRACTOR SHALL BE LICENSED TO PERFORM WORK IN THE COUNTY OF THIS PROJECT AND SHALL BE RESPONSIBLE FOR OBTAINING AN ELECTRICAL PERMIT FROM THE COUNTY.
- 3. UNDERGROUND CONDUIT SHALL BE SCH. 40 PVC PLASTIC DUCT WITH ALL BENDS SHALL BE 2' RADIUS 90' SWEEP UNLESS OTHERWISE NOTED ON DRAWINGS
- ALL WORK SHALL BE IN ACCORDANCE WITH N.F.P.A. AND N.E.C. CODES. NEMA STANDARDS AND ALL LOCAL CODES.
- PRIOR TO TRENCHING AND FOR COORDINATING OF THE TELEPHONE AND ELECTRICAL SERVICES, SEE SHEET C-3 GENERAL NOTE #2 FOR UTILITY CONTACT NAMES & PHONE NUMBERS.
- 6. ABOVE GRADE RISER CONDUIT SHALL BE RIGID SCH. 40 PVC WITH
- ALL WIRE SHALL BE COPPER, 600V THHN/THWN 90°C UNLESS NOTED OTHERWISE.
- 8. THE CONTRACTOR SHALL ABIDE BY ALL GUIDELINES REQUIRED BY VERIZON WIRELESS, INCLUDING BUT NOT LIMITED TO, a) STAGE CONSTRUCTION AND REPORT WHEN ON AND OFF THE SITE. b) PROVIDE LOG BOOK RECORDS OF PERSONNEL ON TOWER. c) PROVIDE R.F. MONITORING DEVICES TO TOWER PERSONNEL. d) VERIZON WIRELESS TO INSPECT ALL TRENCHING BEFORE BACKFILLING.
- THE ELECTRICAL CONTRACTOR SHALL PERFORM ALL WORK SHOWN ON THE CABINET DRAWINGS NOTED "FIELDWORK" OR OTHERWISE NOTED AS WIRING TO BE COMPLETED IN THE FIELD.
- 10. THE ELECTRICAL CONTRACTOR SHALL VERIFY ELECTRICAL SERVICE REQUIRED 120/240V, SINGLE PHASE, 200 AMP BEFORE ROUGH IN.
- 11. THE COPPER WAVEGUIDE ENTRANCE PANEL AT THE WAVEGUIDE ENTRANCE PORT SHALL BE ASSEMBLED USING COPPER JOINT COMPOUND AND BOLTED COMPRESSION CONNECTIONS. THE LOW INDUCTANCE COPPER GROUNDING STRAPS ARE ATTACHED TO THE EXTERIOR OF THE PANEL USING JOINT COMPOUND AND BOLTED TO THE PANEL. THE CONNECTIONS OF THE GROUNDING STRAPS TO THE EARTH ELECTRODE RING ARE VAA A SANDWICH BAR THAT IS COATED W/COPPER COMPOUND (SEE GROUND STRAPS DETAIL ON THIS SHEET) AND BOLTED TO THE STRAPS. THE SANDWICH BAR IS THEN EXOTHERMICALLY WELDED TO THE #2 SOLID BARE TINNED COPPER EARTH ELECTRODE GROUND RING. THE SANDWICH BAR SHALL BE SOLDERED TO PREVENT CORROSION OF THE CONNECTION WHEN IT IS BURIED IN THE GROUND. ALSO IF SOIL CONDITIONS ARE HIGHLY CORROSIVE (SEE SOIL REPORT), SPECIAL TINNED COPPER GROUNDING STRAPS SHALL BE USED AND ARE AVAILABLE THROUGH CLIENT RECOMMENDED MANUFACTURERS.
- 12. CONTRACTOR SHALL PROVIDE FIRE WATCH DURING ALL WELDING OPERATIONS. TWO (2) HAND HELD 30 LB. FIRE EXTINGUISHER & ADEQUATE WATER SUPPLY SHALL BE APPROVED BY THE CLIENT AND THE TOWNSHIP WATER AUTHORITY.
- 13. SEAL ALL PENETRATIONS WITH SILICONE SEALANT.

ACCG AIR CONDITIONER CAGE GROUND ACH AIR CONDITIONER GROUND BBO BOND TO BURIED OBJECTS CEPSC COAX ENTRY PROTECTION SYSTEM GROUND CCG DOOR CANOPY GROUND CSG CABLE SUPPORT GROUND EER BURIED EXTERIOR ELECTRODE GROUND RING FG FENCE GROUND GEG GENERATOR EXHAUST GROUND GEG GENERATOR EXHAUST GROUND GEG GENERATOR VENT LOUVER GROUND GOVPG GENERATOR VENT LOUVER GROUND GENERATOR VENT PIPE GROUND IBSG ICE BRIDGE SUPPORT GROUND IRDL INTERIOR RING GROUND DOWN LEAD MGB MASTER GROUND BAR MGN MULTI-GROUND NEUTRAL PGE POWER GROUND ELECTRODE TEG TELCO ENTRANCE GROUND TEG TELCO GROUND ELECTRODE TEG TELCO GROUND ELECTRODE TIGG TOWER WAVEGUIDE GROUND BAR TWGG TOWER WAVEGUIDE GROUND BAR TWGG TOWER WAVEGUIDE GROUND BAR ORD STANDER TOWER TOW

CABLE TO GND. ROD CADWELD CONNECTION





PROJECT NUMBER 2011036.04

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DRAWN BY: CMB
CHECKED BY: LJB

SITE NAME

FRANKLIN WEST CELL SITE

SITE #

PROJECT # 2010550142 MARKET # 100028 LOCATION # 249815

SITE ADDRESS

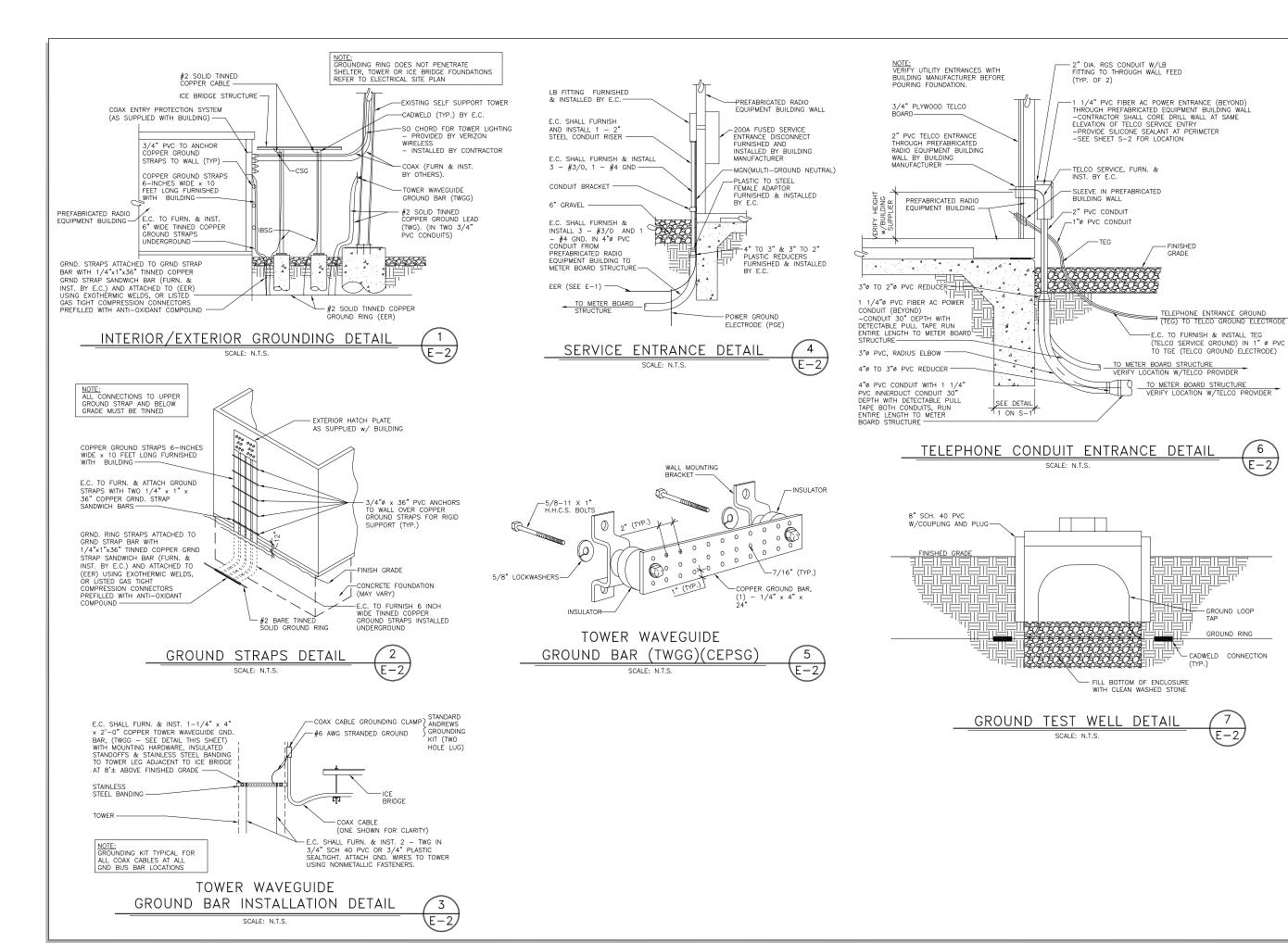
1071 HOSPITAL ROAD FRANKLIN, INDIANA 46131 JOHNSON COUNTY

SHEET TITLE

ELECTRICAL AND GROUNDING NOTES

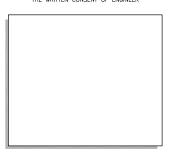
SHEET NUMBER

E-1a









RELEASE		
DATE		
09-15-11	ISSUED FOR 90% REVIEW	

REVISIONS				
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DRAWN BY: CMR CHECKED BY: LJB

SITE NAME

FRANKLIN WEST **CELL SITE**

SITE #

GROUND LOOP

GROUND RING

PROJECT # 2010550142 MARKET # 100028 LOCATION # 249815

SITE ADDRESS

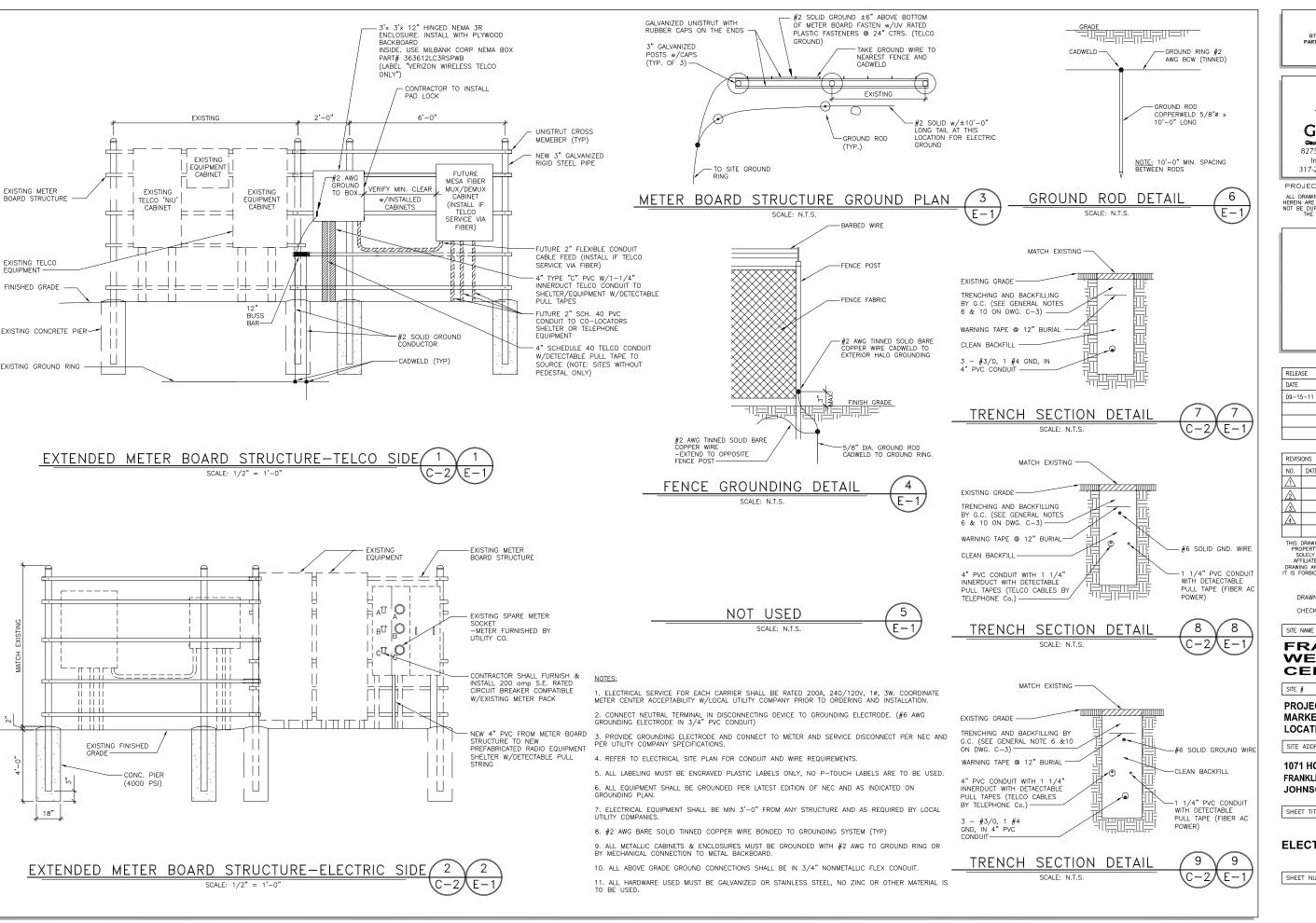
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SHEET TITLE

ELECTRICAL DETAILS

SHEET NUMBER

E-2







PROJECT NUMBER 2011036.04

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RELEASE	
DATE	
09-15-11	ISSUED FOR 90% REVIEW

REVISIONS				
NO. DATE				
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DRAWN BY: CMB CHECKED BY: LJB

FRANKLIN WEST **CELL SITE**

PROJECT # 2010550142 MARKET # 100028 **LOCATION # 249815**

SITE ADDRESS

1071 HOSPITAL ROAD FRANKLIN, INDIANA 46131 JOHNSON COUNTY

SHEET TITLE

ELECTRICAL DETAILS

SHEET NUMBER

E-3