



**REVIEW BY FORT BEND COUNTY COMMISSIONERS COURT**

**Fort Bend County Engineering Department**  
301 Jackson Suite 401  
Richmond, Texas 77469  
281.633.7500  
[Permits@fortbendcountytexas.gov](mailto:Permits@fortbendcountytexas.gov)

- Right of Way Permit**
- Commercial Driveway Permit**

Permit No: 2016-10713

**Applicant:** Crown Caslte NG General LLC/Shift Companies

**Job Location Site:** 5302 1/2 S Fry Road, Katy, TX 77450

**Bond No.**                      **Date of Bond:** 5/12/2014 **Amount:** \$50,000.00

The above applicant came to make use of certain Fort Bend County property subject to, "The Order Regulating the Laying, Construction, Maintenance, and Repair of Buried Cables, Conduits, and Pole Lines, In, Under, Across or Along Roads, Streets, Highways, and Drainage Ditches in Fort Bend County, Texas, Under the Jurisdiction of the Commissioners Court of Fort Bend County, Texas," as passed by the Commissioners Court of Fort Bend County, Texas, of the Minutes of the Commissioners Court of Fort Bend County, Texas, to the extent that such order is not inconsistant with Chapter 181, Vernon's Texas Statutes and Codes Annotated.

**Notes:**

1. Evidence of review by the Commissioners Court must be kept on the job site and failure to do so constitutes grounds for job shutdown.
2. Written notices are required:
  - a. 48 hours in advance of construction start up, and
  - b. When construction is completed and ready for final inspection, submit notification to Permit Administrator thru [MyGovernmentOnline.org](http://MyGovernmentOnline.org) portal.
3. This permit expires one (1) year from date of permit if construction has not commenced.

On this 6th day of December, 2016, Upon Motion of Commissioner Meyers, seconded by Commissioner Prestage, duly put and carried, it is ORDERED, ADJUDGED AND DECREED that said notice of said above purpose is hereby acknowledged by the Commissioners Court of Fort Bend County, Texas, and that said notice be placed on record according to the regulation order thereof.

**Signature**  
By: Charles O. Ay  
for County Engineer

By: N/A  
Drainage District Engineer/Manager

Presented to Commissioners Court and approved.

Date Recorded 12-09-16 Comm. Court No. 1601

Clerk of Commissioners Court  
By: Janice Wilke  
Deputy



**PERMIT APPLICATION REVIEW FORM FOR  
CABLE, CONDUIT, AND POLE LINE ACTIVITY  
IN FORT BEND COUNTY**

**Fort Bend County  
Engineering Department**  
301 Jackson Suite 401  
Richmond, Texas 77469  
281.633.7500  
Permits@fortbendcountytx.gov

- Right of Way Permit**
- Commercial Driveway Permit**

Permit No: 2016-10713

The following "Notice of Proposed Cable, Conduit, and/or Pole Line activity in Fort Bend County" and accompanying attachments have been reviewed and the notice conforms to appropriate regulations set by Commissioner's Court of Fort Bend County, Texas.

**(1) COMPLETE APPLICATION FORM:**

- a. Name of road, street, and/or drainage ditch affected.
- b. Vicinity map showing course of directions
- c. Plans and specifications

**(2) BOND:**

- County Attorney, approval when applicable.
- Perpetual bond currently posted. Bond No: [REDACTED] Amount: \$50,000.00
- Performance bond submitted. Bond No: \_\_\_\_\_ Amount: \_\_\_\_\_
- Cashier's Check Check No: \_\_\_\_\_ Amount: \_\_\_\_\_

**(3) DRAINAGE DISTRICT APPROVAL (WHEN APPLICABLE):**

\_\_\_\_\_  
Drainage District Approval

\_\_\_\_\_  
Date

**We have reviewed this project and agree it meets minimum requirements.**

*Charles O. Ay*  
Permit Administrator

*11/29/16*  
Date



November 28, 2016

Carmen Escobar, CFM  
Permit Administrator  
Fort Bend County Engineering  
301 Jackson St, Richmond, TX 77469

**RE: Cinco Ranch Traffic Control Plan  
- Shift Project #160614**

Carmen,

Per our conversation on the phone, the work we are doing in the ROW will not require any road closures. There is no TCP required, the contractor will take adequate measure to ensure they are not impeding the public way.

Please let me know if you need anything else.

Thank you,

A handwritten signature in blue ink, appearing to read "Chris Myers".

Chris Myers  
Principal  
SHIFT Companies



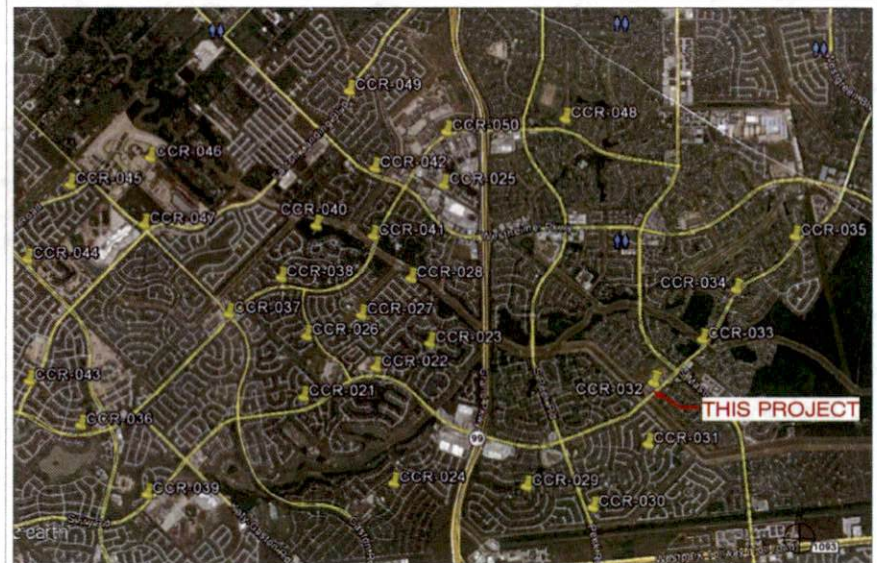
**PROJECT NAME:** CINCO RANCH EXPANSION  
**PROJECT ADDRESS:** FRY RD AND MASON RD

**PROJECT TYPE:** METAL SLIMLINE POLE  
**HUB AREA:** CINCO RANCH - HGCW  
**NODE #(s):** **CCR-32**  
**COORDINATES:** LAT: 29.718286, LONG: -95.754509

PROJECT TEAM	
<b>ARCHITECT</b>	<b>OWNER INFO</b>
Company: SHIFT CONSULTING Address: 7333 E. MONTE VISTA RD. SCOTTSDALE, AZ 85257 Phone Number: 480.264.0629 Fax Number: 480.264.0163 Contact: CHRIS MYERS	Company: CROWN CASTLE Address: 1220 AUGUSTA DR. HOUSTON, TX 77067 Phone #: 817.449.3113 Email: BARRY.CAMPAL@CROWNCASTLE.COM Contact: BARRY CAMPAL
<b>STRUCTURAL</b>	<b>RF ENGINEER</b>
Company: T.B.D. Address: Phone Number: Fax Number: Contact:	Company: CROWN CASTLE Address: 1220 AUGUSTA DR. HOUSTON, TX 77067 Phone Number: Fax Number: Contact:
<b>FIBER ENGINEERING</b>	
Company: TDC2 Address: 710 EAST PARK BLVD. SUITE 110 PLANO, TX 75074 Phone: 972.423.9080 Email: scott@tdc2.com Contact: SCOTT CRUM	

PROJECT SUMMARY	
<b>PROJECT NAME:</b> CINCO RANCH EXPANSION	<b>APPLICANT:</b> CROWN CASTLE 1220 AUGUSTA DR. HOUSTON, TX 77067 CONTACT: BARRY CAMPAL
<b>PROJECT AREA:</b> CINCO RANCH - HGCW	<b>CODES:</b> 2009 INTERNATIONAL BUILDING CODE (IBC) 2009 INTERNATIONAL ENERGY CONSERVATION CODE (IECC) 2008 NATIONAL ELECTRICAL CODE (NEC) 2008 NATIONAL ELECTRICAL SAFETY CODE (NEBC)
<b>JURISDICTION:</b> FORT BEND COUNTY ENGINEERING DEPT. 1124 BLUME RD ROSENBERG, TX 77471 PH: 281.633.7500 CONTACT: JOHNNY ORTEGA	<b>PLUMBING REQUIREMENTS:</b> FACILITY HAS NO PLUMBING
<b>HANDICAPPED REQUIREMENTS:</b> -FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION. -HANDICAPPED ACCESS REQUIREMENTS ARE NOT REQUIRED.	<b>POWER COMPANY:</b> CENTERPOINT ENERGY 5431 HIGHWAY BLVD. KATY, TX 77484 PH: 281.620.6275 CONTACT: KEN CORTEZ

NOTE: NOT ALL SITES ARE INCLUDED IN THIS SET. SEE NODE #S ABOVE FOR SITES THAT ARE IN THIS SET.



T1.1 - SHEET INDEX		
SHEET #	SHEET DESCRIPTION	PAGE
T1.1	TITLE SHEET	1
T1.2	GENERAL NOTES ABBREVIATIONS AND SYMBOLS	2
T1.3	EQUIPMENT SPECIFICATIONS	3
A1.0	AERIAL	4
A1.1	SITE PLAN, EQUIPMENT AND ANTENNA PLAN	5
A1.2	POLE ELEVATION, PROPOSED	6
D1.1	CONSTRUCTION DETAILS	7
D1.2	CONSTRUCTION DETAILS	8
E1.0	ELECTRICAL PLANS	9
E1.1	ELECTRICAL DETAILS	10
PRE-12A (1)	PEDESTRIAN FACILITIES CURB RAMPS	11
PRE-12A (2)	PEDESTRIAN FACILITIES CURB RAMPS	12
PRE-12A (3)	PEDESTRIAN FACILITIES CURB RAMPS	13
PRE-12A (4)	PEDESTRIAN FACILITIES CURB RAMPS	14

**FORT BEND COUNTY ENGINEER**  
 ENGINEER: *Rid J. Stagle, P.E.*  
 for Richard W. Seabro, P.E.  
 DATE: 11/1/16  
 THESE SIGNATURES ARE VOID IF CONSTRUCTION HAS NOT COMMENCED IN (1) YEAR FROM DATE OF APPROVAL  
 APPROVED: *[Signature]*  
 Development Coordinator  
 DATE: 11/1/16

TEAM MEMBER'S REVIEW	REVIEWED DATE
R.F. ENGINEERING	
PRODUCT MANAGEMENT	
NETWORK REAL ESTATE TEAM	
UTILITY TEAM	
IMPLEMENTATION	
OPERATIONS	



CROWN CASTLE  
 800 E. JOHN CARPENTER Pkwy  
 SUITE 300  
 IRVING, TX 75062

RECORD DRAWING ISSUE DATE: 11/16/16



THIS DRAWING IS COPYRIGHTED AND IS THE SOLE PROPERTY OF THE OWNER. IT IS PRODUCED SOLELY FOR USE BY THE OWNER AND ITS AFFILIATES. REPRODUCTION OR USE OF THIS DRAWING AND/OR THE INFORMATION CONTAINED IN IT IS FORBIDDEN WITHOUT THE WRITTEN PERMISSION OF THE OWNER.

RELEASE DATE	SUBMITTAL
5/20/16	1ST CITY SUBMITTAL
10/18/16	2ND CITY SUBMITTAL

REVISIONS	NO.	DATE	COMMENTS
	10/18/16		CITY COMMENTS

**PROJECT NAME**  
 CINCO RANCH EXPANSION

**NODE ADDRESS**  
 CINCO RANCH - HGCW  
**NODE #:** CCR-32  
 FRY RD AND MASON RD

**HUB AREA**  
 CINCO RANCH - HGCW

**SHIFT JOB NUMBER** 150602  
**IN HOUSE** DRAWN BY: RP  
 CHECKED BY: DM

**SHEET TITLE**  
 TITLE SHEET

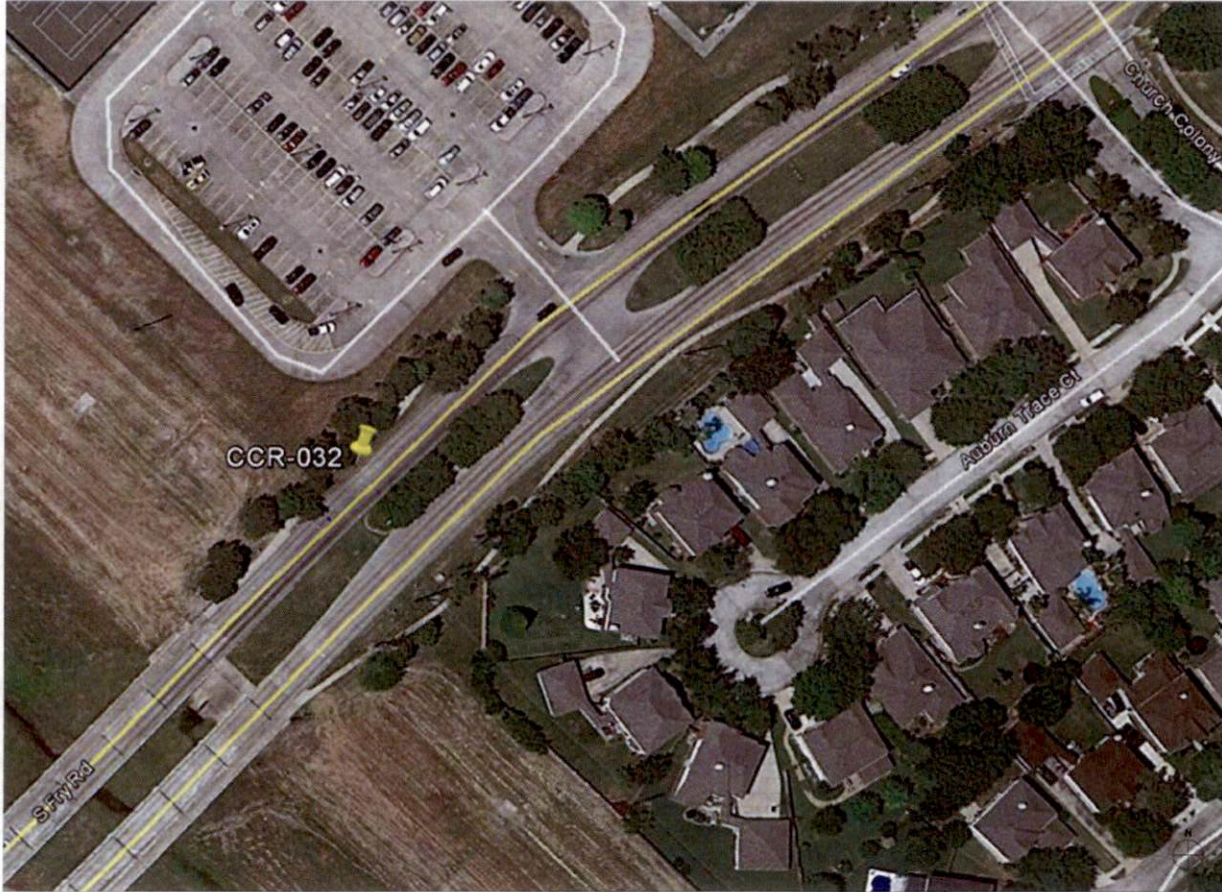
SHEET NUMBER	PAGE
T1.1	1 OF 14

PLOT SCALE: 1" = 24' x 30" 1.2" = 11' x 14"

**PROJECT DESCRIPTION**  
 CROWN CASTLE PROPOSES TO PROVIDE AN ENHANCED RESIDENTIAL WIRELESS COMMUNICATIONS SYSTEM FOR THE KATY, TEXAS AREA. THE SYSTEM WILL IMPROVE CELLULAR COMMUNICATIONS AND INCREASE CALL CAPACITY. THE NETWORK AND ASSOCIATED EQUIPMENT HAVE BEEN DESIGNED TO MINIMIZE VISUAL IMPACTS IN URBAN SETTINGS. THE PROPOSED SYSTEM WILL PROVIDE A CELLULAR NETWORK THAT CAN BE UTILIZED SIMULTANEOUSLY BY DIFFERENT LICENSED TELECOMMUNICATIONS COMPANIES.  
 A SUBJECT NODE WILL CONSIST OF NEW METAL SLIMLINE POLE. THEY WILL HAVE GROUND MOUNTED RADIO EQUIPMENT INSIDE A CABINET WITH A METER AND DISCONNECT ATTACHED. THERE WILL ALSO BE POLE-TOP ANTENNAS CONCEALED IN SHRUBS.







NODE AERIAL PLAN

**SUBJECT POLE:** CCR-32

**GPS COORDINATES:**

**LAT:** 29.71506

**LONG:** -95.75405

**POLE TYPE:** METAL SLIMLINE POLE

**POLE ID #**

**UPPER ANTENNA HAZ CENTER:** 32 - 0' A.F.G.

**LOWER ANTENNA HAZ CENTER:** 30 - 0' A.F.G.

**APPROVED:** *[Signature]*  
Development Coordinator

**DATE:** 11/16



**CROWN CASTLE**  
800 E. JOHN CARPENTER Pkwy  
SUITE 500  
IRVING, TX 75062

RECORD DRAWINGS (ISSUE DATE: 10/16/16)



**SHIFT Companies, LLC**  
11111 FIVE POINTS BLVD  
SCOTTSDALE, ARIZONA 85257  
PH: 480.248.8800  
HW: 480.248.0000

THIS DRAWING IS COPYRIGHTED AND IS THE SOLE PROPERTY OF THE OWNER. IT IS PRODUCED SOLELY FOR USE BY THE OWNER AND ITS AFFILIATES. REPRODUCTION OR USE OF THIS DRAWING AND/OR THE INFORMATION CONTAINED IN IT IS FORBIDDEN WITHOUT THE WRITTEN PERMISSION OF THE OWNER.

RELEASE	
DATE	SUBMITTAL
8/28/16	1ST CITY SUBMITTAL
10/18/16	2ND CITY SUBMITTAL

REVISIONS		
NO.	DATE	COMMENT
	10/18/16	CITY COMMENTS

**PROJECT NAME**  
CINCO RANCH EXPANSION

**NODE ADDRESS**  
NODE #:CCR-32  
FRY RD AND MASON RD

**HUB AREA**  
CINCO RANCH - HGCW

**SHIFT JOB NUMBER** 150602 **IN HOUSE**  
DRAWN BY: RA CHECKED BY: DM

**SHEET TITLE**  
AERIAL

**SHEET NUMBER** A1.0 **PAGE** 4 OF 14

**PLOT SCALE:** 1/3" @ 24'X36"; 1/2" @ 11'X17'



SITE PHOTO (EXISTING)

N.T.S.

PLAN CHECK #

CASE #

KEYNOTE	DESCRIPTION	DETAIL
A01	PROPOSED CROWN CASTLE OMNI ANTENNA	6/D: 1
A02	PROPOSED CROWN CASTLE 2 U.S. CONDUIT APPROXIMATE LOCATION (F.V.)	2/D: 1
A03	PROPOSED CROWN CASTLE REMOTE RADIO UNIT INSIDE EQUIPMENT CABINET	18/D: 1
A04	PROPOSED NEW METAL SLURINE POLE	20/D: 1
A05	PROPOSED CROWN CASTLE UNDERGROUND CONC. FIBER JUNCT.	5/D: 2
A06	PROPOSED CROWN CASTLE NODE IDENTIFICATION SIGNAGE	35/D: 2
A07	PROPOSED CROWN CASTLE EQUIPMENT CABINET	18/D: 1
A08	PROPOSED CROWN CASTLE TIER FOUNDATION	12/D: 1
A09	PROPOSED ELECTRICAL HAND HOLE	

KEYNOTE	DESCRIPTION	DETAIL
E01	PROPOSED POWER METER MOUNTED TO EQUIPMENT CABINET (DISTRIBUTED PANEL AND DISCONNECT)	18/D: 1
U01	PROPOSED 2" CROWN CASTLE U.S. POWER CONDUIT APPROXIMATE LOCATION (F.V.)	2/D: 1 & 6/D: 2
U02	PROPOSED CROWN CASTLE 2" U.S. FIBER CONDUIT BY OTHERS APPROXIMATE LOCATION (F.V.)	2/D: 1 & 6/D: 2



- NOTES:
1. ANY DAMAGE TO EXISTING GUTTER CURB, SIDEWALK AND ROADWAY DURING CONSTRUCTION TO BE REPAIRED OR REPLACED.
  2. EXISTING VEGETATION DAMAGED IN CONSTRUCTION TO BE REPLACED BY SAME SPECIES.

**GENERAL NOTES**

1. PAINT PROPOSED GROUND EQUIPMENT A NATURAL EARTH COLOR OR AS APPROVED BY CITY.
2. CONTRACTOR TO FIELD LOCATE EXIST UNDERGROUND UTILITIES PRIOR TO CONSTRUCTION.
3. EX. LANDSCAPE PLANTINGS AND DECORATIVE HARDSCAPES DISTURBED OR DESTROYED AS A RESULT OF CONSTRUCTION SHALL BE REPLACED WITH A LIKE SIZE AND SPECIE.
4. CONTRACTOR TO HAND LOCATE EX. IRRIGATION PRIOR TO EXCAVATION.
5. SITE PLAN IS A DIAGRAMMATIC REPRESENTATION ONLY. VERIFY ALL DIMENSIONS.
6. VERIFY ALL PROPERTY LINE INFORMATION WITH AVAILABLE U.S. DATA.
7. EXIST. UTILITY LOCATIONS SHOWN ON PLANS ARE APPROXIMATE; ONLY AS PROVIDED BY LOCAL UTILITIES.

**SUBJECT POLE:** CCR-32

**GPS COORDINATES:**

**LAT:** 28.74286

**LONG:** -95.78458

POLE TYPE: METAL SLURINE POLE

POLE ID #:

UPPER ANTENNA RAD CENTER: 32 - 0' A.P.G.

LOWER ANTENNA RAD CENTER: 20 - 0' A.P.G.

SUBJECT POLE IS LOCATED IN: FORT BEND COUNTY A.D.M.

APPROVED: *[Signature]*  
Development Coordinator

DATE: 11/1/16



CROWN CASTLE  
800 E. JOHN GARRETTEN Fwy  
SUITE 200  
IRVING, TX 75062

RECORD DRAWING ISSUE DATE: 10/18/16



Shift Companies, LLC  
7331 E. WYATT WILSON  
SCOTTSDALE, ARIZONA 85263  
PH: 480.344.8623  
WWW: 480.344.5323

THIS DRAWING IS COPYRIGHTED AND IS THE SOLE PROPERTY OF THE OWNER. IT IS PROVIDED SOLELY FOR USE BY THE OWNER AND ITS AFFILIATES. REPRODUCTION OR USE OF THIS DRAWING AND/OR THE INFORMATION CONTAINED IN IT IS FORBIDDEN WITHOUT THE WRITTEN PERMISSION OF THE OWNER.

RELEASE	
DATE	SUBMITTAL
6/28/16	1ST CITY SUBMITTAL
10/8/16	2ND CITY SUBMITTAL

REVISIONS		
NO.	DATE	COMMENT
1	10/18/16	CITY COMMENTS

**PROJECT NAME**  
CINCO RANCH EXPANSION

**NODE ADDRESS**  
NODE #:CCR-32  
FRY RD AND MASON RD

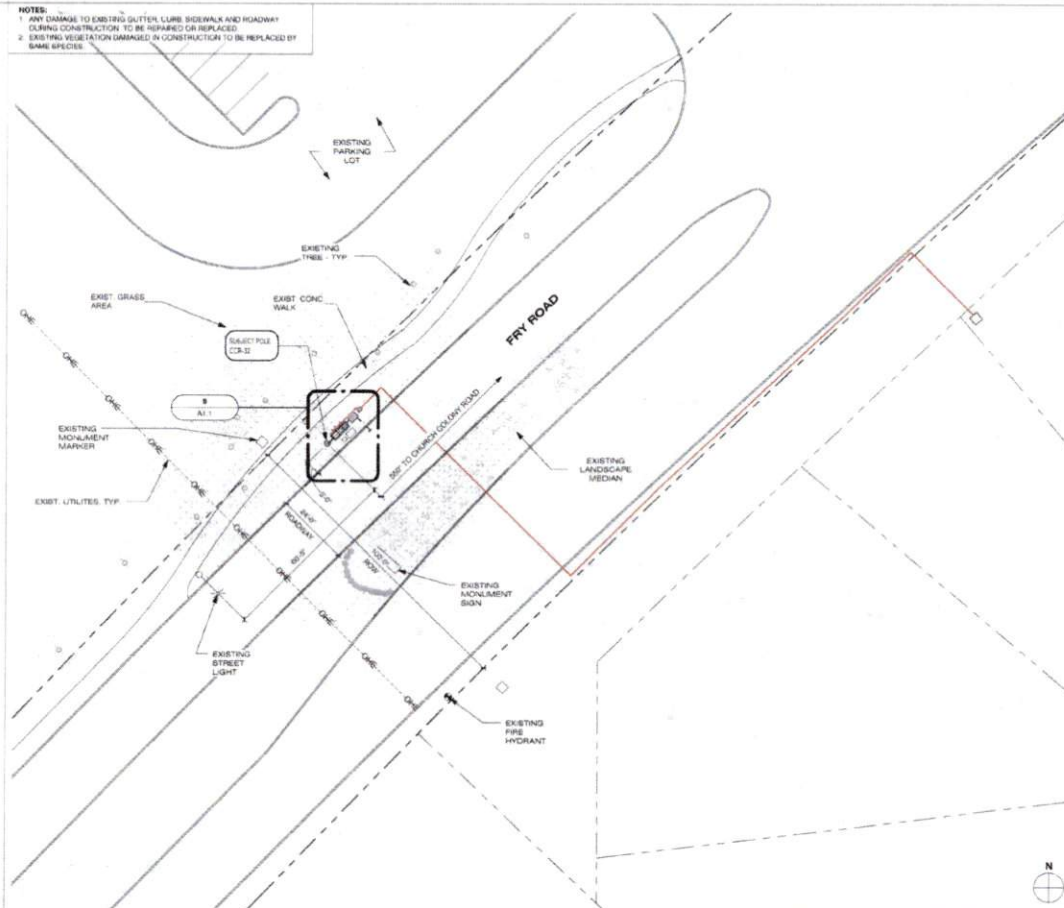
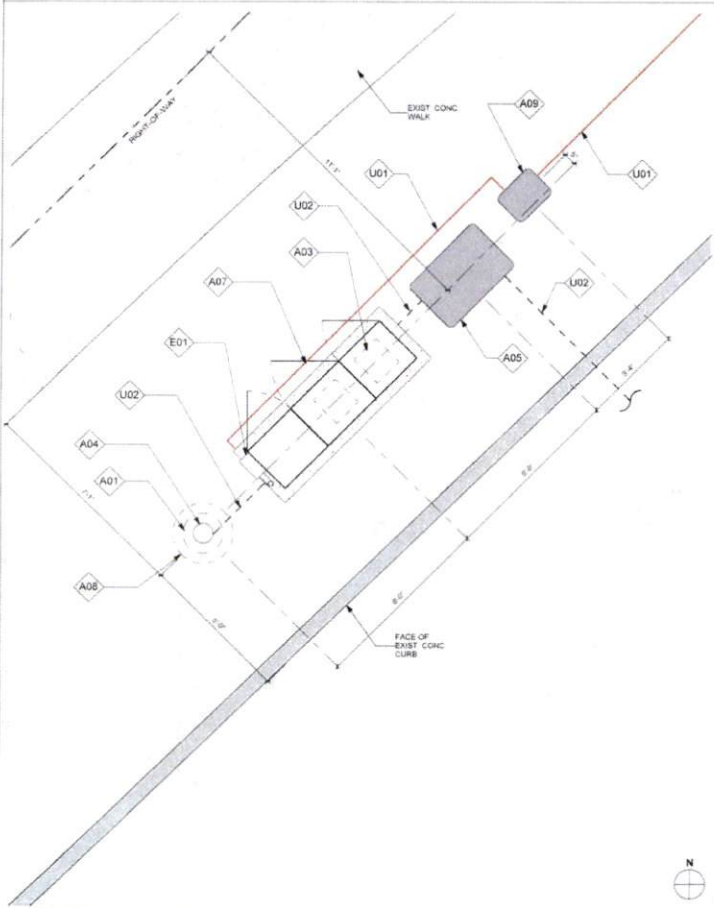
**HUB AREA**  
CINCO RANCH - HGCW

**SHIFT JOB NUMBER** 150602 **IN HOUSE**

**SHEET TITLE**  
SITE PLAN, EQUIPMENT AND ANTENNA PLAN

**SHEET NUMBER** A1.1 **PAGE** 5 OF 14

**PLOT SCALE:** 1:1 @ 24"x36" 1:2 @ 11"x17"



EQUIPMENT AND ANTENNA PLAN

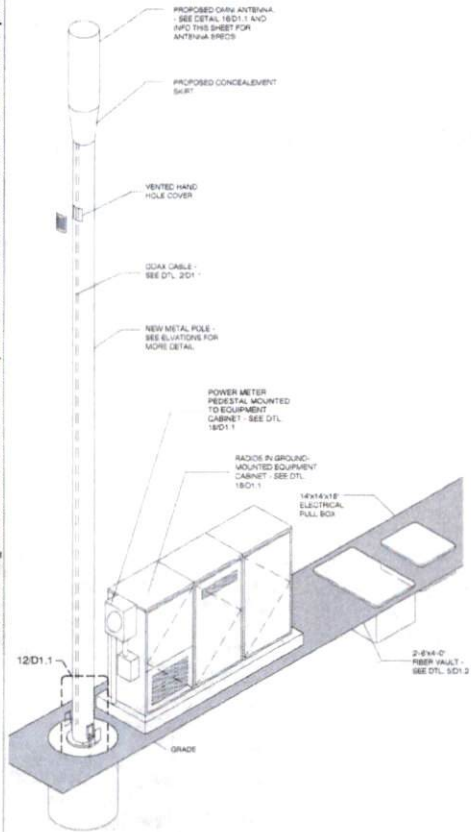
1/2" = 1'-0" 8 OVERALL SITE PLAN

1" = 20'-0" 20

PLAN CHECK #

CASE #

NOTE  
ISO IS SCHEMATIC IN NATURE. FIBER VAULT, POWER METER PEDESTAL  
AND GROUND-MOUNTED RADIO EQUIPMENT PEDESTAL CAN BE  
RECONFIGURED TO SUIT PROJECT LOCATION



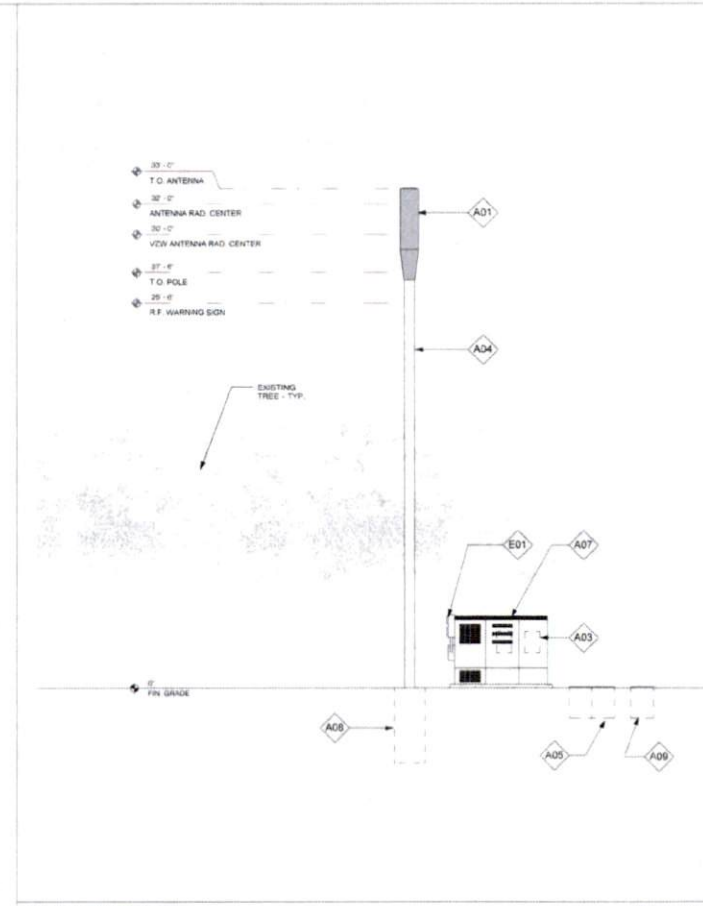
METAL POLE ISOMETRIC

SCALE: 3/4" = 1'-0" 4

KEYNOTE	DESCRIPTION	DETAIL NUMBER
A01	PROPOSED CROWN CASTLE OMN ANTENNA	16D1.1
A02	PROPOSED CROWN CASTLE 2" U/G CONDUIT (APPROXIMATE LOCATION, F.V.)	2D1.1
A03	PROPOSED CROWN CASTLE REMOTE RADIO UNITS INSIDE EQUIPMENT CABINET	18D1.1
A04	PROPOSED NEW METAL SLIMLINE POLE	25D1.1
A05	PROPOSED CROWN CASTLE UNDERGROUND COAX FIBER VAULT	5D1.2
A06	PROPOSED CROWN CASTLE NODE IDENTIFICATION SIGNAGE	20D1.2
A07	PROPOSED CROWN CASTLE EQUIPMENT CABINET	18D1.1
A08	PROPOSED CROWN CASTLE POLE FOUNDATION	12D1.1
A09	PROPOSED ELECTRICAL HAND HOLE	
E01	PROPOSED POWER METER MOUNTED TO EQUIPMENT CABINET (DISTRIBUTED PANEL AND DISCONNECT)	18D1.1

MODEL: AMPHENOL J2CUT30817P140	
LENGTH: 48"	
WIDTH: 14.6" DIA.	
DEPTH: NA	
WEIGHT: 38.1 LBS	
PROPOSED PANEL ANTENNA SPECS	
PROPOSED POLE WIDTH = 6" Ø	
PROPOSED POLE HEIGHT = 27' - 0"	
11.4'-0" ANTENNA AND 1'-0" ANTENNA MOUNT	
POLE INFO	

APPROVED: *[Signature]*  
Development Coordinator  
DATE: 11/16/16



POLE ELEVATION (PROPOSED)

SCALE: 1/4" = 1'-0" 20



CROWN CASTLE  
600 E. JOHN CARPENTER Fwy  
SUITE 300  
IRVING, TX 75062

RECORD DRAWINGS ISSUE DATE: 10/18/16



Shift Companies, LLC  
15111 N. WOODA ROAD  
SCOTTSDALE, ARIZONA 85257  
949-461-9400  
www.shiftco.com

THIS DRAWING IS COPYRIGHTED AND IS THE SOLE PROPERTY OF THE OWNER. IT IS PRODUCED SOLELY FOR USE BY THE OWNER AND ITS AFFILIATES. REPRODUCTION OR USE OF THIS DRAWING AND/OR THE INFORMATION CONTAINED IN IT IS FORBIDDEN WITHOUT THE WRITTEN PERMISSION OF THE OWNER.

DATE	SUBMITTAL
03/16	1ST CITY SUBMITTAL
10/18/16	2ND CITY SUBMITTAL

NO.	DATE	COMMENT
	10/18/16	CITY COMMENTS

PROJECT NAME  
**CINCO RANCH EXPANSION**

NODE ADDRESS  
**NODE #CCR-32**  
FRY RD AND MASON RD

HUB AREA  
**CINCO RANCH - HGCV**

SHIFT JOB NUMBER: 150602  
DRAWN BY: RB  
CHECKED BY: CB

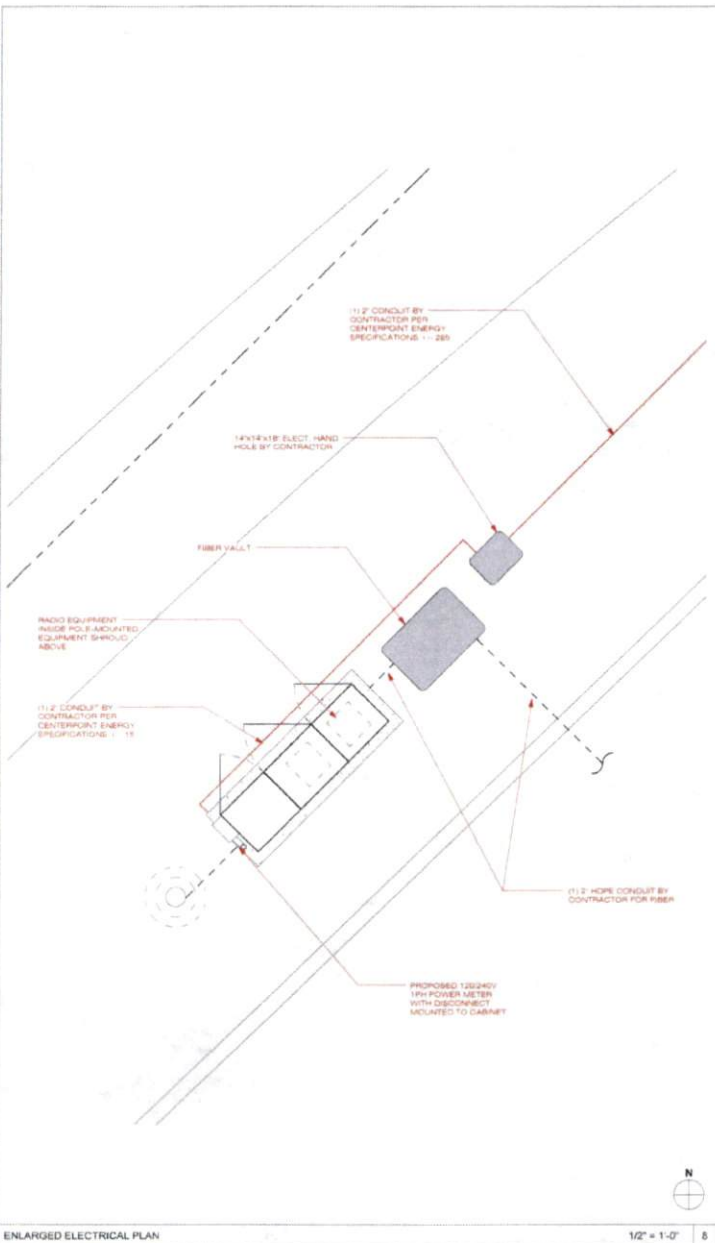
SHEET TITLE  
**POLE ELEVATION, PROPOSED**

SHEET NUMBER: A1.2  
PAGE: 6 OF 14

PLOT SCALE: 1/4" @ 24"X30"; 1/2" @ 11"X17"

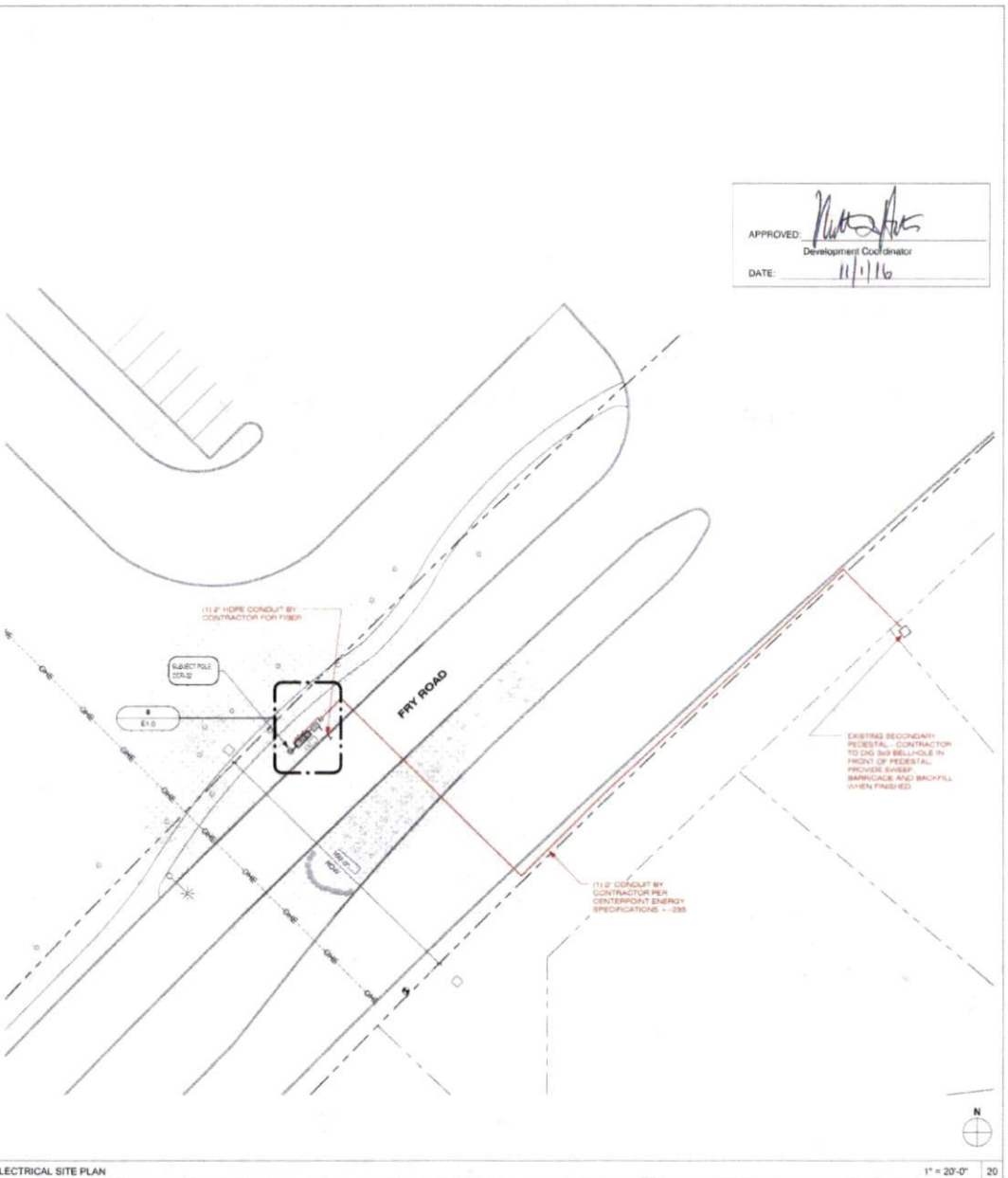






ENLARGED ELECTRICAL PLAN

1/2" = 1'-0" 8



ELECTRICAL SITE PLAN

1" = 20'-0" 20

APPROVED: *[Signature]*  
Development Coordinator  
DATE: 11/1/16



CROWN CASTLE  
800 E. JOHN CARPENTER Fwy.  
SUITE 500  
IRVING, TX 75062

RECORD DRAWINGS ISSUE DATE: 10.18.16



Shift Companies, LLC  
10111 HOPE DRIVE  
KOTISAL, INDIANAPOLIS  
IN 46240  
IN 46240

THIS DRAWING IS COPYRIGHTED AND IS THE SOLE PROPERTY OF THE OWNER. IT IS PRODUCED SOLELY FOR USE BY THE OWNER AND ITS AFFILIATES. REPRODUCTION OR USE OF THIS DRAWING AND/OR THE INFORMATION CONTAINED IN IT IS FORBIDDEN WITHOUT THE WRITTEN PERMISSION OF THE OWNER.

RELEASE	
DATE	SUBMITAL
8.23.16	1ST CITY SUBMITAL
10.18.16	2ND CITY SUBMITAL

REVISIONS		
NO.	DATE	COMMENT
	10.18.16	CITY COMMENTS

PROJECT NAME  
**CINCO RANCH EXPANSION**

NODE ADDRESS  
**NODE #CCR-32**

**FRY RD AND MASON RD**

HUB AREA  
**CINCO RANCH - HGCW**

SHIFT JOB NUMBER **150602** IN HOUSE  
DRAWN BY: RA  
CHECKED BY: CM

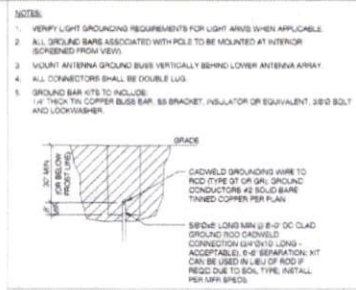
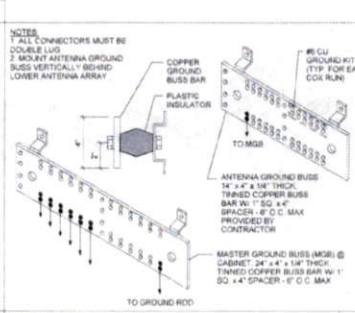
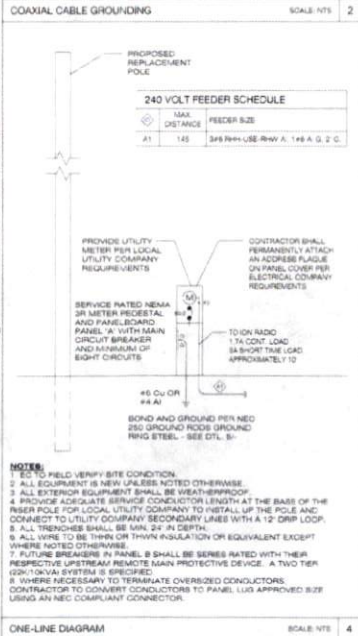
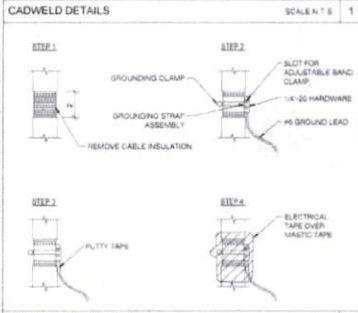
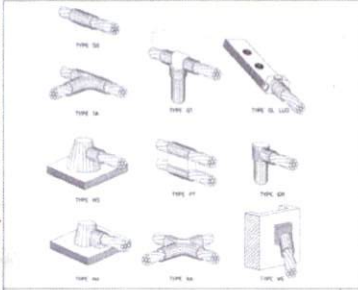
SHEET TITLE  
**ELECTRICAL PLANS**

SHEET NUMBER **E1.0** PAGE **9 OF 14**

PLOT SCALE: 1:1 @ 24x36"; 1:2 @ 11x17"

PLAN CHECK #

CASE #

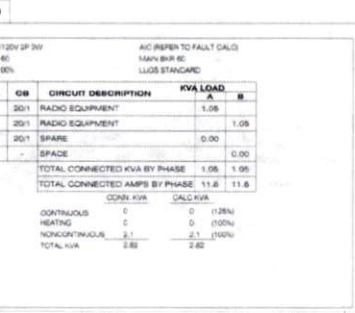
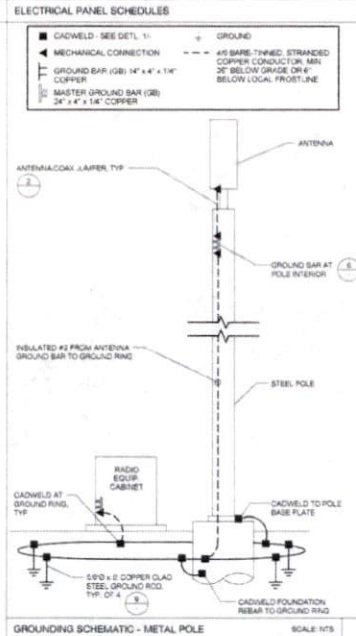


**PANEL A** RED FROM TRANSFORMER NEMA 3R VOLT. 240/120V 2P 2W BUS ALRMS 60 METRICAL 100% A/C REFER TO FAULT CALC MAIN BUS 6C LUGS STANGARD

NO.	CB	CIRCUIT DESCRIPTION	KVA LOAD	NO.	CB	CIRCUIT DESCRIPTION	KVA LOAD
1	-	SPACE	0.00	2	201	RADIO EQUIPMENT	1.08
3	-	SPACE	0.00	4	201	RADIO EQUIPMENT	1.08
6	-	SPACE	0.00	6	201	SHARE	0.00
7	-	SPACE	0.00	8	-	SPACE	0.00
			TOTAL CONNECTED KVA BY PHASE				1.08
			TOTAL CONNECTED AMPS BY PHASE				11.6

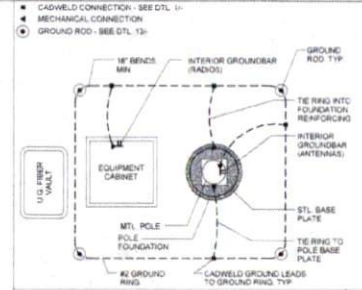
	CONN. KVA	CALC. KVA
LIGHTING	0	0 (128%)
LARGEST MOTOR	0	0 (100%)
OTHER MOTORS	0	0 (100%)
RECEPTACLES	0	0
TOTAL KVA		2.62

RESERVED LUGS PROVIDE COMMON TRIP HANDLES FOR ALL MULTI-CIRCUIT CONDUIT RUNS.



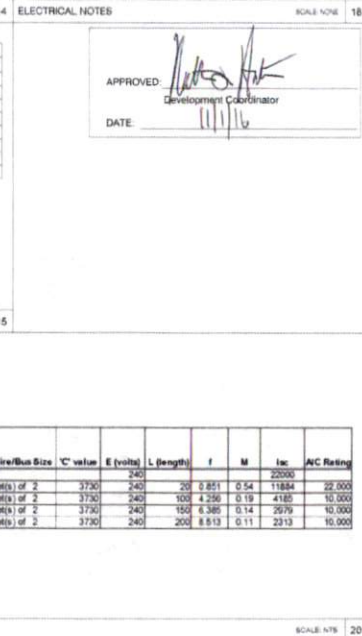
**FAULT CURRENT CALCULATION** SCALE: NTS 20

Feat Point	Panel Transformer	Source (Feat Point)	Source I (amps)	Conduit Type	Wire/Bus Size	C' value	E (volts)	L (length)	f	M	Isc	A/C Rating
1	UTILITY XEMAFFRY'S PEDESTAL	2400	22000	NM	1 Set(s) of 2	3730	240	200	0.851	0.54	11884	22,000
2	Panel-A @ 20'	1	22000	NM	1 Set(s) of 2	3730	240	1000	4.296	15.19	4185	10,000
3	Panel-A @ 150'	1	22000	NM	1 Set(s) of 2	3730	240	1500	6.365	13.14	2679	10,000
4	Panel-A @ 200'	1	22000	NM	1 Set(s) of 2	3730	240	2000	8.513	0.11	2313	10,000



**EQUIPMENT GROUNDING SCHEMATIC DTL** SCALE: NTS 17

- ALL ELECTRICAL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE NATIONAL ELECTRIC CODE AND ALL OTHER APPLICABLE LOCAL CODES.
- CONTRACTOR SHALL OBTAIN ALL PERMITS, PAY ALL PERMIT FEES, AND SCHEDULE ALL REQUIRED INSPECTIONS. CONTRACTOR SHALL OBTAIN JOB POWER COMPANY APPROVAL AND COORDINATE SERVICE ENTRANCE REQUIREMENTS.
- CONTRACTOR SHALL VERIFY SERVICE LOCATIONS AND CONTACT PROJECT MANAGER WITH DISCREPANCIES FROM PLAN.
- CONTRACTOR SHALL PROVIDE ALL LABOR AND MATERIAL DESCRIBED ON THIS DRAWING, AND ALL TESTS NECESSARY TO COMPLETING AND PRESERVING THE PROJECT AS FULLY OPERATIONAL. ALL ELECTRICAL TESTS SHALL BE LOG, APPROVED OF LISTED.
- CONDUCTORS SHALL BE INSTALLED IN SCHEDULE 40 PVC CONDUIT UNDERGROUND AND AIR CONDUIT ABOVE GROUND.
- PROVIDE 1/2" SCHEDULE 40 PVC UNDERGROUND CONDUIT WITH FULL WIRE BETWEEN ELECTRICAL UTILITY CONDUIT POINT AND MAIN JUNCTION BUS. CONTRACTOR SHALL DETERMINE REQUIRED NUMBER AND LOCATION OF JUNCTION BOXES PER LOCAL STANDARDS. USE 1/2" SCHEDULE 40 PVC CONDUIT AND APPROPRIATE FITTINGS TO ENTER MAIN JUNCTION BOX.
- CONTRACTOR TO NOTIFY ALL APPROPRIATE AGENCIES PRIOR TO CONSTRUCTION AND SHALL PROVIDE AND MAINTAIN A TRAFFIC CONTROL PLAN PER LOCAL REQUIREMENTS.
- CONTRACTOR TO LOCATE ALL UTILITIES IN PROJECT AREA PRIOR TO CONSTRUCTION THROUGH BLUE STAKE.
- VERIFY DEPTH OF EXISTING UTILITY CROSSING POINTS VIA APPROVED POT-HOLING METHOD AND NOTE ON PLAN ESTER FOR REBAR TO BE CUT OUT.
- NOTE DEPTH AND LOCATION OF ALL INSTALLED UTILITIES ON AS-BUILT REBAR DRAWINGS.
- IF EXISTING FOUNDATION LINES ARE ENCOUNTERED, CONTRACTOR SHALL NOTIFY OWNER PRIOR TO DETERMINING OR WORKING.
- CONTRACTOR SHALL NOT RELOCATE PROPOSED EQUIPMENT OR POLE LOCATION WITHOUT WRITTEN APPROVAL FROM CROWN CASTLE AND PROJECT ENGINEER.
- MATERIAL SUBSTITUTIONS ARE SUBJECT TO CROWN CASTLE AND ENGINEERING REVIEW PRIOR TO CONSTRUCTION.



**CROWN CASTLE**  
 CROWN CASTLE  
 800 E. JOHN CARPENTER Pkwy.  
 SUITE 300  
 IRVING, TX 75060

RECORD DRAWINGS ISSUE DATE: 10.16.16

**SHIFT**  
 Shift Companies, LLC  
 11011 WEST WINDYBARK  
 SUITE 1000  
 FORT WORTH, TEXAS 76137  
 (817) 461-2400  
 FAX: 461-2401

THIS DRAWING IS COPYRIGHTED AND IS THE SOLE PROPERTY OF THE DRAWER. IT IS PRODUCED SOLELY FOR USE BY THE OWNER AND ITS AFFILIATES. REPRODUCTION OR USE OF THIS DRAWING AND OF THE INFORMATION CONTAINED HEREIN IS FORBIDDEN WITHOUT THE WRITTEN PERMISSION OF THE OWNER.

**RELEASE**

DATE	SUBMITTAL
6.08.16	1ST CITY SUBMITTAL
10.16.16	2ND CITY SUBMITTAL

**REVISIONS**

NO.	DATE	COMMENT
1	10.16.16	CITY COMMENTS

**PROJECT NAME**  
 CINCO RANCH EXPANSION

**HUB AREA**  
 CINCO RANCH - HGCW

**SHIFT JOB NUMBER** IN HOUSE  
 150602 DRAWN BY: RA  
 CHECKED BY: CM

**SHEET TITLE**  
 ELECTRICAL DETAILS

**SHEET NUMBER** PAGE  
 E1.1 10 OF 14

**PLT SCALE:** 1:1 @ 24X36; 1:2 @ 11X17

PLAN CHECK #

CABLE #