

CITY OF DEER PARK

Specific Use Permit



LN- 002330 -2018

PERMIT #: LN- 002330 -2018

PROJECT:

ISSUED DATE:

EXPIRATION DATE :

PROJECT ADDRESS:

6911 1/2 SH 225 W

OWNER NAME: Aqua Solutions

CONTRACTOR: AT&T

ADDRESS: 6915 Highway 225

ADDRESS: 6911 1/2 Hwy 225

CITY: Deer Park

CITY: DEER PARK

STATE : TX

STATE : TX

ZIP: 77536

ZIP: 77536

PHONE:

PROJECT DETAILS

PROPOSED USE:

SQ FT: 0

DESCRIPTION: Specific Use Permit For A Cell Tower

VALUATION : \$ 0.00

PERMIT FEES

TOTAL FEES : \$ 1,000.00

PAID: \$ 1,000.00

BALANCE: \$ 0.00

ALL PERMITS MUST BE POSTED ON THE JOBSITE AND VISIBLE FROM THE STREET

NOTICE

THIS PERMIT BECOMES NULL AND VOID IF WORK OR CONSTRUCTION AUTHORIZED IS NOT COMMENCED WITHIN 6 MONTHS, OR IF CONSTRUCTION OR WORK IS SUSPENDED OR ABANDONED FOR A PERIOD OF 1 YEAR AT ANY TIME AFTER WORK IS STARTED. ALL PERMITS ARE SUBJECT TO THE FOLLOWING :

- ALL WORK MUST COMPLY WITH THE BUILDING , ELECTRICAL, PLUMBING, AND MECHANICAL CODES ADOPTED BY THE CITY OF DEER PARK AT THE TIME THE PERMIT IS ISSUED .
- IT IS THE RESPONSIBILITY OF THE OWNER/CONTRACTOR TO COMPLY WITH ALL STATE & FEDERAL DISABILITY REQUIREMENTS.
- ENCROACHMENTS OF EASEMENTS AND RIGHT-OF-WAYS ARE NOT ALLOWED .

I HEREBY CERTIFY THAT I HAVE READ AND EXAMINED THIS DOCUMENT AND KNOW THE SAME TO BE TRUE AND CORRECT . ALL PROVISIONS OF LAWS AND ORDINANCES GOVERNING THIS TYPE OF WORK WILL BE COMPLIED WITH WHETHER SPECIFIED HEREIN OR NOT . GRANTING OF A PERMIT DOES NOT PRESUME TO GIVE AUTHORITY TO VIOLATE OR CANCEL THE PROVISION OF ANY OTHER STATE OR LOCAL LAW REGULATING CONSTRUCTION OR THE PERFORMANCE OF CONSTRUCTION .

BY MAIL
SIGNATURE OF CONTRACTOR OR AUTHORIZED AGENT

DATE

APPROVED BY

DATE

TO SCHEDULE NEXT DAY INSPECTIONS CALL BY 4PM 281-478-7270
ALL REINSPECTIONS ARE SUBJECT TO A \$45.00 REINSPECTION FEE

You can request a morning or afternoon inspection and we will do our best to accommodate you but there are no guarantees, it will depend on the volume of inspections scheduled that day.

710 E San Augustine Deer Park, TX 77536 Fax 281-478-0394
www.deerparktx.gov/publicworks



AT&T Mobility
11930 Airline Dr.
Room 210
Houston, TX 77037

November 5, 2018

Deer Park City Council
Larry Brotherton/Chief Building Official
710 E. San Augustine
Deer Park, Texas 77536

RE: Specific Use Permit

Dear Deer Park City Council,

AT&T is proposing a new constructed 180' Self Support telecommunications tower located at 6911 HWY 225 in Deer Park, Texas. The legal description is Tract 10C-2, Abstract 646, George Ross Survey in Harris County. This site would replace the existing cell site that we are collocated on .26 miles to the south east. The fees, costs, and contractual provisions required by the tower owner for us to remain collocated on the existing structure are unreasonable. AT&T needs to reduce our monthly rent expenditures at this location, thus a relocation is the most appropriate cost-effective move.

In compliance with the city's zoning use of the proposed location AT&T is in the area that is zoned for light industrial and refinery. AT&T has been granted a letter from the landlord for permission to build a tower on the land. AT&T has also obtained an executed Option and Land Lease, that grants AT&T (tenant) approximately 3,600 sq. ft of the leased site.

For AT&T to continue to provide continued coverage to our subscribers and constituents in this area AT&T has provided this information with the full intent of meeting the spirit and letter of the code for which this application is being submitted. AT&T is supplying all relevant information for this project to be reviewed by the City of Deer Park.

Thank you,

A handwritten signature in cursive script that reads "JoyLee Owings".

JoyLee Owings
Sr Real Estate & Construction Mgr

AT&T Site Number HX0713, FA 14520886



AQUA SOLUTIONS, INC.

P.O. Box 70, Deer Park, TX 77536. Ph(800)256-2586 Fax(281)479-2790

Visit our website at www.aquasolutions.org

DATE 10/08/18

TOTAL PAGES: 1

TO: City of Deer Park-City Council

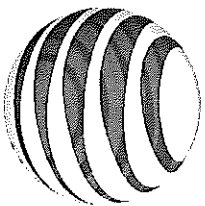
FROM: Chris Bedford
Aqua Solutions, Inc.
PH: 281-479-2569

RE: Specific Use Permit

Mastec and New Cingular Wireless have my permission to request a Specific Use Permit for 3,600 square feet on George Ross Survey, A-646 of Harris County, Texas

Thanks,

Chris Bedford



at&t

SITE NAME: ATC GS ICE HOUSE RELO
SITE NUMBER: HX0713 (HX0549)
STRUCTURE TYPE: SELF SUPPORT TOWER
FA CODE: 14520886

2018 NSB PTN: 3063A0G201

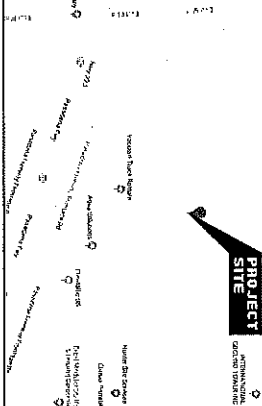
PROJECT INFORMATION

SITE NAME: ATC GS ICE HOUSE RELO
SITE NUMBER: HX0713 (HX0549)
911 ADDRESS: 6911 HWY 225
DEER PARK, TX 77536
LATITUDE: 28.708889 (28° 42' 31.88")
LONGITUDE: -95.099487 (95° 05' 54.54")
GROUND ELEVATION: 28' AMSL
JURISDICTION: CITY OF DEER PARK
STRUCTURE TYPE: SELF SUPPORT TOWER

DRIVING DIRECTIONS

DEPART GRIND TAMPICO INTERNATIONAL:
GET ON I-45 N FROM AIRPORT BLVD AND MONROE
BLVD. TAKE I-45 N TO I-225 E. TO PASADENA
BLVD. TURN RIGHT ON PASADENA BLVD. TRAVEL
TOWARD INDEPENDENCE PARKWAY FROM TX-225 E
14MI (1.5MI), CONTINUE ON PASADENA FREEWAY
PROVIDE RD TO YOUR DESTINATION 3MI (0.5MI).
ARRIVE ON SITE.

VICINITY MAP



SHEET INDEX

SITE GENERAL ARRANGEMENT PLANS
T1.0 COVER SHEET
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E3.0 GROUNDING DETAILS
E3.1 GROUNDING DETAILS
E4.0 ELECTRICAL SPECIFICATIONS
NOTE: DRAWING SCALES ARE FOR 22 X34 SHEETS UNLESS OTHERWISE NOTED.

SCOPE OF WORK

1. THE WIRELESS COMMUNICATIONS SYSTEM IS NOT INSTALLED FOR TILMAN COMPANY.
2. INSULATION OF (2) PANEL ANTENNAS
3. INSULATION OF (2) REB-11 (1 PER SECTOR)
4. INSULATION OF (2) REB-415 BBS (1 PER SECTOR)
5. INSULATION OF (2) REB-415 BBS (1 PER SECTOR)
6. INSULATION OF (2) REB-415 BBS (1 PER SECTOR)
7. INSULATION OF (2) REB-415 BBS (1 PER SECTOR)
8. INSULATION OF (2) REB-415 BBS (1 PER SECTOR)
9. INSULATION OF (2) REB-415 BBS (1 PER SECTOR)
10. INSULATION OF (2) REB-415 BBS (1 PER SECTOR)
11. INSULATION OF (2) REB-415 BBS (1 PER SECTOR)
12. INSULATION OF (2) REB-415 BBS (1 PER SECTOR)
13. INSULATION OF (2) REB-415 BBS (1 PER SECTOR)
14. INSULATION OF (2) REB-415 BBS (1 PER SECTOR)

CONTACTS

APPLICANT:
TILMAN MOBILITY
1801 VALLEY VIEW LANE
FRAMERS BRANCH, TX 75234

PROPERTY OWNER:
THOMAS CHRIS BECKFORD
6913 HIGHWAY 225
DEER PARK, TX 77536

TOWER OWNER:
TILMAN INFRASTRUCTURE
152 W 57TH ST, 8TH FL
NEW YORK, NY 10019

CONSULTANT:
AT&T YOUNG
SW REGION-CONSTRUCTION PROJECT MANAGER
PHONE: 817-680-7742
EMAIL: oyen@att.com

APPLICABLE CODES & STANDARDS

- INTERNATIONAL BUILDING CODE, 2012 EDITION AS ADOPTED BY LOCAL JURISDICTION.
- NATIONAL ELECTRICAL CODE, 2017 EDITION AS ADOPTED BY LOCAL JURISDICTION.
- NATIONAL MECHANICAL CODE, 2012 EDITION AS ADOPTED BY LOCAL JURISDICTION.
- INTERNATIONAL ENERGY CONSERVATION CODE, 2012 EDITION AS ADOPTED BY LOCAL JURISDICTION.



POWER COMPANY:
AT&T
PHONE: 1-800-288-2220

TELEPHONE COMPANY:
AT&T
PHONE: 1-800-288-2220

SITE ACCESS PROCEDURES

CONTRACTOR: DATE: _____

THE ABOVE PARTIES HEREBY APPROVE AND ACCEPT THESE DOCUMENTS AND AUTHORIZE CONTRACTOR TO PROCEED WITH THE CONSTRUCTION AND INSTALLATION OF THE TOWER AND ANTENNAS ON THE PROPERTY OF THE LOCAL BUILDING DEPARTMENT AND MAY MAKE CHANGES OR MODIFICATIONS.

AT&T MOBILITY
1801 VALLEY VIEW LANE
FRAMERS BRANCH, TX 75234

TILMAN
INFRASTRUCTURE

SITE NAME:
ATC GS ICE
HOUSE RELO

SITE NUMBER:
HX0713 (HX0549)

SITE ADDRESS:
6911 HWY 225
DEER PARK, TX 77536
HARRIS COUNTY

Know what's below.
Call before you dig.

SHEET NUMBER:
T1.0

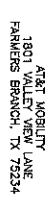
COVER SHEET

[illegible]

_____X_____	OVER-LINK FIBRIC BOUNDARY
_____O_____	WOOD FIBRE BOUNDARY
_____.	UNDERGROUND ELECTRICAL CONDUIT
_____.	NEW FIBRE
_____.	CONDUIT TO THE FIBRIC COMPANY
_____.	CONDUIT TO THE FIBRIC COMPANY
_____H_____	FIBRIC DATE
_____C_____	MADE COAX FIBRIC
_____T_____	TALCO FIBRIC
_____G_____	POWER WINDING
_____F_____	GROUND WINDING
_____A	FIBRIC DATE
_____A	CONCRETE (CONCRETE OR EXISTING)
_____A	MADE COAX FIBRIC
_____A	GROUNDING BAR
_____A	GROUND POINT
_____A	WATER

- 1.1. PURPOSE AND INTENT:
THE DRAWINGS AND SPECIFICATIONS ARE INTENDED TO BE FULLY EXPLANATORY AND SUPPLEMENTARY TO THE CONTRACT. ANY DISCREPANCIES BETWEEN REQUIREMENTS SHOWN IN BOTH, SHOULD THERE BE ANY, SHALL BE DONE THE SAME AS IF SHOWN, INDICATED OR SPECIFIED IN BOTH, SHOULD THERE BE ANY DISCREPANCIES BETWEEN REQUIREMENTS SHOWN IN BOTH, THE MORE STRINGENT REQUIREMENTS SHALL APPLY.
- 1.2. PURPOSE OF THE DOCUMENTS IS TO INCLUDE ALL LABOR AND MATERIALS REASONABLY NECESSARY FOR THE PROPER EXECUTION AND COMPLETION OF THE WORK AS STIPULATED IN THE CONTRACT.
C. THE PURPOSE OF THE SITE WIRELESS CONSTRUCTION SPECIFICATIONS IS TO INTERPRET THE MEANT OF THE DRAWINGS AND TO RESOLVE THE METHOD OF THE PROCEDURE, TYPE AND QUALITY OF MATERIALS REQUIRED TO COMPLETE THE WORK.
- 1.3. CONDITIONS:
A. VARIETY ALL MEASUREMENTS AT THE SITE BEFORE ORDERING MATERIAL OR DOING ANY WORK, NO EXTRA CHARGE OR COMPENSATION WILL BE ALLOWED DUE TO DIFFERENCES BETWEEN ACTUAL DIMENSIONS OR QUANTITIES ORDERED AND THOSE SHOWN ON THE DRAWINGS. BIDDERS SHALL BE RESPONSIBLE FOR OBTAINING ALL INFORMATION FOR RESOLUTION BEFORE PROCEEDING WITH THE WORK.
B. NO IDEA OF IMPOSSIBILITY OR CONDITIONS THAT EXIST OR OF PARTICULARS OF CONDITIONS THAT MAY BE ENCOUNTERED BY THE CONTRACTOR SHALL BE A BASIS FOR REFUSAL TO ACCEPT OR FOR FAILURE OF OMISSION ON THE PART OF THE CONTRACTOR TO FULFILL EVERY DETAIL OF ALL THE REQUIREMENTS OF THE CONSTRUCTION DOCUMENTS GOVERNING THE WORK.
- 1.4. CODES:
CONTRACTOR SHALL BE RESPONSIBLE FOR FOLLOWING ALL LAWS, REGULATIONS AND RULES PROMULGATED BY FEDERAL, STATE AND LOCAL AUTHORITIES WITH JURISDICTION OVER THE SITE. THE RESPONSIBILITY IS IN EFFECT REGARDLESS OF WHETHER THE LAW, ORDINANCE, REGULATION OR RULE IS MENTIONED IN THESE SPECIFICATIONS.
1.5. LICENSING:
HAVE AND MAINTAIN A VALID CONTRACTORS LICENSE FOR THE LOCATION IN WHICH THE WORK IS TO BE PERFORMED. THOSE TYPES SHALL BE LICENSED, RESEARCH AND COMPLY WITH LICENSING LAWS, PAY LICENSE FEES, AND SELECT AND INFORM SUBCONTRACTORS REGARDING THESE LAWS.
1.6. OTHER:
FOLLOW ALL APPLICABLE RULES AND REGULATIONS OF THE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION, AND STATE LAWS BASED IN THE FEDERAL OCCUPATIONAL SAFETY AND HEALTH ACT AND SAFETY, EDUCATION AND TRAINING, AND WORK IN CONFINED SPACES. ENSURE THAT EMPLOYEES AND SUBCONTRACTORS WEAR HARD HATS AT ALL TIMES DURING CONSTRUCTION.
- 1.7. PROJECT:
PROVIDE PHOTOGRAPHIC EVIDENCE OF ALL SCOPE RELATED WORK, INCLUDING BUT NOT LIMITED TO GRADING AND RETENCHING AFTER PLACEMENT OF UTILITIES PRIOR TO BACKFILL
- 1.8. BUILDING PERMITS:
AT&T WIRELESS WILL SUBMIT CONSTRUCTION DOCUMENTS TO THE AIRSATIONAL AUTHORITY FOR PLAN REVIEW AND APPROVAL. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND SCHEDULE REQUIRED INSPECTIONS AND POST REQUIRED PERMITS AT THE JOB SITE. COMPLY WITH ALL SPECIFIC PRODUCT-RELATED REQUIREMENTS AND SUGGESTIONS MADE BY BUILDING INSPECTOR AND INFORM ALL SUBCONTRACTORS OF ALL CONSTRUCTION DOCUMENTS. AT&T WIRELESS WILL REIMBURSE THE CONTRACTOR FOR FEES FOR PLAN REVIEW, BUILDING PERMIT, CONNECTIONS AND INSPECTION.
- 1.9. ZONING REGULATIONS AND CONDITIONAL USE PERMITS:
AT&T WIRELESS WILL SUBMIT FOR AND OBTAIN ALL ZONING AND CONDITIONAL USE PERMITS. SOME USE PERMITS MAY HAVE SPECIFIC REQUIREMENTS RELATED TO THE CONSTRUCTION SUCH AS NOISE CONTROL, LIGHTS, TRAFFIC, AND ACCESS TO THE ROAD OR AS SHOWN IN CONSTRUCTION DOCUMENTS.
- 1.10. PA PERMIT AND TOWER LIGHTING:
REFER TO CONSTRUCTION DOCUMENTS AND CONSTRUCTION MANAGER FOR PA AND STATE LIGHTING REQUIREMENTS. CONTRACTOR SHALL PROVIDE TEMPORARY PA APPROVED LIGHTING UNTIL PERMANENT LIGHTING IS OPERATIONAL.
- 1.11. TOWER SECURITY:
TOWER MUST BE FENCED TEMPORARILY OR PERMANENTLY WITHIN 24 HOURS OF SECTION. DO NOT ALLOW THE GATE OPENING THE TOWER AREA TO REMAIN OPEN OR UNATTENDED AT ANY TIME FOR ANY REASON KEEP THE GATE CLOSED AND LOCKED WHEN NOT IN USE.

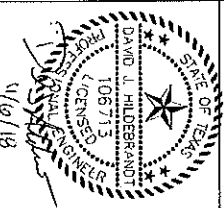
- A. THE CONTRACTOR IS COMPLETELY RESPONSIBLE FOR CONTAINMENT OF SEDIMENT AND CONTROL OF EROSION AT THE SITE. ANY DAMAGE TO ADJACENT OR DOWNSTREAM PROPERTIES WILL BE CORRECTED BY THE CONTRACTOR AT NO EXPENSE TO AECI WHEELERS.
- B. THE CONTRACTOR IS TO MAINTAIN ADEQUATE DRAINAGE AT ALL TIMES. DO NOT ALLOW WATER TO STAND OR FLOW, ANY DAMAGE TO STRUCTURES OR WORK ON THE SITE CAUSED BY INADEQUATE MAINTENANCE OF DRAINAGE PROVISIONS WILL BE THE RESPONSIBILITY OF THE CONTRACTOR AND ANY COST ASSOCIATED WITH REPAIRS FOR SUCH DAMAGE WILL BE AT THE CONTRACTOR'S EXPENSE.
- C. ALL WASTE MATERIAL SHALL BE PROPERLY DISPOSED OF OFF-SITE OR AS DIRECTED BY THE CONSTRUCTION MANAGER AND IN ACCORDANCE WITH JURISDICTIONAL AUTHORITIES.
- 2.0. SITE PREPARATION:
 - 2.1. SCOPE OF WORK INCLUDES:
 - A. PROTECTION OF EXISTING TREES, VEGETATION AND LANDSCAPING MATERIALS WHICH MIGHT BE DAMAGED BY CONSTRUCTION ACTIVITIES.
 - B. TRIMMING OF EXISTING TREES AND VEGETATION AS REQUIRED FOR PROTECTION DURING CONSTRUCTION ACTIVITIES.
 - C. CLEARING AND GRUBBING OF STUMPS, VEGETATION, DEBRIS, RUBBISH, DESIGNATED TREES, AND SITE IMPROVEMENTS.
 - D. TOPSOIL STRIPPING AND STOCKPILING.
 - E. TEMPORARY EROSION CONTROL, SILTATION CONTROL AND DUST CONTROL CONFORMING TO LOCAL REQUIREMENTS AS APPLICABLE.
 - F. TEMPORARY PROTECTION OF ADJACENT PROPERTY, STRUCTURES, BENCHMARKS AND MONUMENTS.
 - G. PROTECTION AND TEMPORARY RELOCATION, STORAGE AND RE-INSTALLATION OF EXISTING FENCING AND OTHER SITE IMPROVEMENTS SCHEDULED FOR REUSE.
 - H. REMOVAL AND LEGAL DISPOSAL OF CLEARED MATERIALS.
 - 2.2. PRODUCTS AND MATERIALS (AS APPROVED BY CONSTRUCTION MANAGER OR AS NOTED IN CONSTRUCTION DOCUMENTS):
 - A. MATERIALS USED FOR TREE PROTECTION, EROSION CONTROL, SILTATION CONTROL AND DUST CONTROL, AS SUITABLE FOR SPECIFIC SITE CONDITIONS.
 - 3.0. EARTH WORK:
 - 3.1. SCOPE OF WORK INCLUDES:
 - A. EXCAVATING, TRENCHING, FILLING, COMPACTION, AND GRADING FOR STRUCTURES, SITE IMPROVEMENTS AND UTILITIES.
 - B. MATERIALS FOR SUB-BASE DRAINAGE FILL, FILL, BACKFILL AND GRAVEL FOR SLABS, PAVEMENTS AND IMPROVEMENTS.
 - C. ROCK EXCAVATION WITHOUT BLASTING.
 - D. SUPPLY OF ADDITIONAL MATERIALS FROM OFFSITE AS REQUIRED.
 - E. REMOVAL AND LEGAL DISPOSAL OF EXCAVATED MATERIALS AS REQUIRED.
 - 3.2. QUALITY ASSURANCE:
 - A. COMPACTION:
 1. UNDER STRUCTURES, BUILDING SLABS, PAVEMENTS AND WALKWAYS WILL OBTAIN A 95 PERCENT COMPACTION. UNDER PAVEMENTS AND WALKWAYS SHALL BE DETERMINED BY ASTM G-1557 OR WITHIN PLUS OR MINUS 3 PERCENT OF OPTIMUM MOISTURE.
 - B. GRADING TOLERANCES OUTSIDE BUILDING CODES:
 1. LAWNS, UNPAVED AREAS AND WALKS PLUS OR MINUS 1 INCH.
 2. UNDER PAVEMENTS PLUS OR MINUS 1/2 INCH.
 - C. GRADING TOLERANCE FOR FILL UNDER ALL CONCRETE APPLICATIONS: PLUS OR MINUS 1/2 INCH MEASURED WITH 10 FOOT STRAP-HOEDE.
 - 3.3. PRODUCTS AND MATERIALS (AS APPROVED BY CONSTRUCTION MANAGER OR AS NOTED IN CONSTRUCTION DOCUMENTS):
 - A. SUBBASE MATERIAL, GRADED MIXTURE OF NATURAL OR CRUSHED GRAVEL, CRUSHED STONE OR SLUG, AND NATURAL SAND.
 - B. WASHED MATERIAL, ENVIPLY GRADED MIXTURE OF CRUSHED STONE OR GRAVEL WITH 95 PERCENT PASSING 1/2 INCH SIEVE.
 - C. GRADING MATERIAL WILL CONSIST OF SUBSTRATUM AND/OR IMPORTED SOIL MATERIALS FREE OF CLAY, SILT, AND OTHER UNDESIRABLE MATERIALS WILL NOT BE USED. CRUSHED GRAVEL, CRUSHED STONE, SAND, AND OTHER UNSUITABLE MATERIALS WILL NOT BE USED. IMPORTED MATERIALS SHALL HAVE A CLAY CONTENT NO MORE THAN 5 PERCENT.



SITE NAME:
ATC GS ICE

SITE NUMBER:
HX0713 (HX0549)

SITE ADDRESS:
6911 HWY 225
DEER PARK, TX 77536
HARRIS COUNTY



LEVEL 3
CONSULTING ENGINEERS, INC.

DATE DRAWN:	04/23/18	PH: (210) 564-1111
DRAWN BY:	TH	F
APPROVED BY:		
PROJECT:		

REVISION		BY	DATE
0	NO DESCRIPTION	IL	04/27
1	ISSUED FOR CONSTRUCTION	IL	03/27
2	NEW NOTES	WS	11/07

GENERAL NOTES

SHEET NUMBER: **N1.0**

1801 VALLEY VIEW LANE
FARMERS BRANCH, TX 75234

SITE NAME:
ATC GS ICE
HOUSE RELO

SITE NUMBER:
HX0713 (HX0549)

SITE ADDRESS:
6911 HWY 225
DEER PARK, TX 77536
HARRIS COUNTY

SITE ADDRESS:
6911 HWY 225
DEER PARK, TX 77536
HARRIS COUNTY

9315 FM 2252, STE. 301 CABDEN RIDGE, TX 78246	CONSULTING ENGINEERS, INC.	PH: (210) 5...
DRAWN BY:	IL	
APPROVED BY:	TH	

NO	DESCRIPTION	REVISION	BY	DATE
0	ISSUED FOR CONSTRUCTION		R. JO	
1	NEW ROHS		IL JO	
2	NEW ROHS		WS	11/1/01

SHEET TITLE:

GENERAL NOTES

SHEET NUMBER:

N1.1



1801 VALLEY VIEW LANE
FARMERS BRANCH, TX 75234



HILLMAN
INFRASTRUCTURE

SITE NAME:
ATC GS ICE
HOUSE RELO
SITE NUMBER:
HX0713 (HX0549)

SITE ADDRESS:
6911 HWY 225
DEER PARK, TX 77536
HARRIS COUNTY

DAVID J. HILDEBRANDT
106713
LICENSED PROFESSIONAL ENGINEER
4/6/18

LEVEL
CONSULTING ENGINEERS, INC.

NO	DESCRIPTION	BY	DATE
0	ISSUED FOR CONSTRUCTION	IL	04/23/18
1	NEW RDS	IL	03/1/18
2	NEW RDS	WJS	11/1/17

GENERAL NOTES

N1.2

ALL CONCRETE SHALL COMPLY WITH ASTM C94 UNLESS NOTED OTHERWISE.

B. MINIMUM COMPRESSIVE STRENGTH (F_C) AT 28 DAYS: 4000 PSI FOR TOWER FOUNDATION AND 3500 PSI FOR ALL OTHER CONCRETE UNLESS SPECIFIED IN CONSTRUCTION DOCUMENTS.

PROVIDE 4 TO 8% AIR ENTRAINMENT FOR ALL CONCRETE SUBJECT TO FREEZE-THAW CYCLE.

[illegible]

5. FINISHING EXPOSED CONCRETE SURFACES:

1. THESE PROVISIONS APPLY TO ALL EXPOSED AND ALL FORMED CONCRETE, EXTERIOR OR INTERIOR, UNLESS SPECIFICALLY DETAILED OTHERWISE. PERFORM PROCEDURES PRIOR TO APPLICATION OF ANY COATING COMPONENTS.
2. ALL SURFACES: THOROUGHLY CLEAN OFF ALL STAINS, SPATTER AND LOOSE MATERIAL.
3. FINS, RIDGES AND HIGH SPOTS: HONE SMOOTH WITH ABRASIVE POWER GRINDERS. FORME CONCRETE IS GREEN, IMMEDIATELY AFTER FORM REMOVAL.
4. FILL THE HOLES AND DEEPS, IMPREGNATE, FLUSH THOROUGHLY WITH CLEAN WATER AND TAMP TO OVERFILL, WITH DRYPACK, CURE 10 DAYS AND HONE, FLUSH AND SMOOTH.

5. ROOSTERCKES, HONEYCOMB, SAND STEWENS, DENNIS AND VOICE: CUT OUT AT LEAST 1 INCH DEEP WITH SIZES PERPENDICULAR TO SURFACE. FLUSH, WASTE AND TRIM TO 1/8 INCH. DRAIN, DRY, AND SEAL WITH AN OIL BASED GROUT. GRIND TO FLAT, SMOOTH, AND FLUSH. GRIND AT LEAST TWO LAYERS. CURE FOR 10 DAYS AND HONE, FLUSHED AND SMOOTH.
6. CONTRACTORS/SHALL VARY ALL SIZES AND LOCATIONS OF ALL ELECTRICAL, OPENINGS AND EQUIPMENT/ BUILDING PADS WITH THE ELECTRICAL DRAWINGS AND SHOP DRAWINGS. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO PROVIDE ALL DIMENSIONS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROVISION FOR EMBEDDED TIES AND RECESSES FOR OTHER TRADERS AND VENDOR DRAWINGS FOR FOUNDATION STEEL AND FOUNDATION SLAGGAGE. CONTRACTOR SHALL NUMBER ALL FOUNDATION STEEL AND FOUNDATION SLAGGAGE.

10.0. STRUCTURAL STEEL:

MEET OR EXCEED MANUFACTURER'S RECOMMENDATIONS.

A. UNLESS OTHERWISE NOTED, ALL DETAILING, FABRICATION AND PLACING OF REINFORCING STEEL SHALL CONFORM TO THE MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE STRUCTURES (ACI 315).

B. ALL REINFORCING STEEL SHALL BE NEW BILLET STEEL, CONFORMING TO ASTM A-615, GRADE 60, DEFORMED.

C. HEATING AND WELDING OF BARS IS PROHIBITED WITH THE EXCEPTION OF WRITTEN APPROVAL BY THE STRUCTURAL ENGINEER.

F. UNLESS OTHERWISE NOTED, ALL REINFORCEMENT SHALL HAVE A MINIMUM CONCRETE COVER OF 3 INCHES. THIS MAY REQUIRE SPACERS AND CHAIRS AS REQUIRED BY TESTING AGENCY OR CONSTRUCTION MANAGER.

F. SPLICES IN REINFORCEMENT STEEL ARE PROHIBITED, UNLESS APPROVED BY THE CONSTRUCTION MANAGER. ALL SPLICES MUST THEN MEET ALL APPLICABLE ASTM STANDARDS FOR SPLICING.

11.0. GROUNDING:

MEET ALL APPLICABLE CODES, REQUIREMENTS OF THE CONSTRUCTION DOCUMENTS AND AIAI WIRELESS CONSTRUCTION SPECIFICATIONS.

GENERATOR SPECIFICATIONS:

1. SWITCHES AND STANDARD FEATURES.

- A. CYCLO CRANKING.
- B. ALARM HORN WITH SILENCING SWITCH.
- C. VOLTAGE ADJUSTING RESISTOR.
- D. OVERVOLTAGE PROTECTION.
- E. REMOTE TWO-WIRE AUTO START SYSTEM.
- F. LAMP TEST SWITCH.
- G. FLAME-OFF-RESET/AUTO SWITCH (ENGINE START).
- H. ENGINE COOL DOWN THICKER (5 MINUTES).

2. ERROR-PROOF WIRING HARNESS FOR ELECTRICAL CONNECTIONS.
3. PANEL LAMPS.
4. DC CIRCUIT PROTECTION.

UNIT ACCESSORIES:

1. WEATHER HOUSING-STANDARD WITH ROOF MOUNTED SILENCER.
2. MOUNTED OPTICAL GRADE EXHAUST SILENCER.
3. TAIL PIPE AND RAIN CAP.

COOLING SYSTEM ACCESSORIES:

1. UNIT MOUNTED RADIATOR.
2. ENGINE BLOCK HEATER.
3. FUEL SYSTEM ACCESSORIES:
 1. FLEXIBLE FUEL LINES.
 2. ENGINE BLOCK HEATER.
 3. SUBBASE FUEL TANK--172 GALLONS.
4. DOUBLE WALL CONSTRUCTION WITH LEAK DETECTION MONITOR.
5. U.L. 142 LISTED.

6. FUEL LEVEL GAUGE.
7. LOW FUEL LEVEL ALARM.
8. FILL PIPE EXTENDED 10% INTO TANK.
9. HIGH-FUEL LEVEL ALARM-SET AT 95%.
10. 7.5 GALLON LOCKABLE FILL WITH SPILL CONTAINMENT.

ANTENNA & COAX NOTES:

1. VERIFY EACH CABLE LENGTH, DIAMETER, ROUTING, COLOR CODING AND ALL APPROPRIATECS.

2. THE MAXIMUM COAXIAL CABLE LENGTH AND CORRESPONDING COAXIAL DIAMETER IS SHOWN ON A2.0. THIS CABLE LENGTH IS TO BE USED FOR FABRICATION OR CONTROL LOTION ACTION (ABLE LENGTHS) MUST BE VERIFIED MAXIMUM CABLE SQUARE

3. ALL COAX CABLES SHALL UTILIZED GROUND KITS, GROUNDED AS FOLLOWS:
 - A. NEAR ANTENNA AND CENTER ELEVATION.
 - B. MIDDLE OF TOWER (MID-HEIGHT OF ANTENNA), IF CABLE RUN IS OVER 200'-
 - C. BOTTOM OF TOWER.
 - D. AT MASTER GROUND BUS 3'-0" FROM MAINS-BUS CABINET.

4. ALL TOP JUMPERS SHALL BE LENGTHS AS SHOWN AND INSTALLED BY CONTRACTOR

6. BANDING SHALL BE IN ACCORDANCE WITH SHEET A2.0, RFLD AND AS FOLLOWS:

A. MAIN LINE COLOR BANDS SHALL BE 2" WIDE. MAINTAIN 1" SPACING BETWEEN

B. FREQUENCY COLOR BANDS SHALL BE 2" WIDE WITH NO SPACE BETWEEN COLORS.

c. JUMPER COLOR BANDS SHALL BE 1" WIDE WITH 1" SPACE

7. FINAL COAXIAL CABLE SIZES SHALL BE DETERMINED BY AT&T RF ENGINEER. SEE ANTENNA SCHEDULE SHEET #2.0. BASE ON FINAL CABLE RUN LENGTHS DETERMINED BY AT&T.
8. SEE CONSTRUCTION MANAGER FOR ANTENNA SUPPORT ASSEMBLY TYPE.
9. ALL COAXIAL CABLE WILL BE SECURED TO THE DESIGNED SUPPORT STRUCTURE AT THE ANTENNA POINTS. EXPOSED COAXIAL CABLE MANUFACTURER SPECIFICATIONS WHICH ARE LESS THAN HARDWARE SPECIFIED IN THE COAXIAL CABLE ROUTING DETAILS OF THE SUPPLIED STRUCTURAL REPORT BY OTHERS.
10. PROVIDE AT LEAST 8" OF SLACK IN THE MAIN COAXIAL CABLES AT THE ANTENNA MOUNTING ELEVATION TO PROVIDE FOR FUTURE CONSTRUCTION REPLACEMENT.

[illegible][illegible][illegible][illegible]

1964 1965 1966 1967 1968 1969 1970 1971 1972 1973 1974 1975 1976 1977 1978 1979 1980 1981 1982 1983 1984 1985 1986 1987 1988 1989 1990 1991 1992 1993 1994 1995 1996 1997 1998 1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020 2021 2022 2023 2024 2025 2026 2027 2028 2029 2030 2031 2032 2033 2034 2035 2036 2037 2038 2039 2040 2041 2042 2043 2044 2045 2046 2047 2048 2049 2050 2051 2052 2053 2054 2055 2056 2057 2058 2059 2060 2061 2062 2063 2064 2065 2066 2067 2068 2069 2070 2071 2072 2073 2074 2075 2076 2077 2078 2079 2080 2081 2082 2083 2084 2085 2086 2087 2088 2089 2090 2091 2092 2093 2094 2095 2096 2097 2098 2099 2100 2101 2102 2103 2104 2105 2106 2107 2108 2109 2110 2111 2112 2113 2114 2115 2116 2117 2118 2119 2120 2121 2122 2123 2124 2125 2126 2127 2128 2129 2130 2131 2132 2133 2134 2135 2136 2137 2138 2139 2140 2141 2142 2143 2144 2145 2146 2147 2148 2149 2150 2151 2152 2153 2154 2155 2156 2157 2158 2159 2160 2161 2162 2163 2164 2165 2166 2167 2168 2169 2170 2171 2172 2173 2174 2175 2176 2177 2178 2179 2180 2181 2182 2183 2184 2185 2186 2187 2188 2189 2190 2191 2192 2193 2194 2195 2196 2197 2198 2199 2200 2201 2202 2203 2204 2205 2206 2207 2208 2209 2210 2211 2212 2213 2214 2215 2216 2217 2218 2219 2220 2221 2222 2223 2224 2225 2226 2227 2228 2229 2230 2231 2232 2233 2234 2235 2236 2237 2238 2239 2240 2241 2242 2243 2244 2245 2246 2247 2248 2249 2250 2251 2252 2253 2254 2255 2256 2257 2258 2259 2260 2261 2262 2263 2264 2265 2266 2267 2268 2269 2270 2271 2272 2273 2274 2275 2276 2277 2278 2279 2280 2281 2282 2283 2284 2285 2286 2287 2288 2289 2290 2291 2292 2293 2294 2295 2296 2297 2298 2299 2300 2301 2302 2303 2304 2305 2306 2307 2308 2309 2310 2311 2312 2313 2314 2315 2316 2317 2318 2319 2320 2321 2322 2323 2324 2325 2326 2327 2328 2329 2330 2331 2332 2333 2334 2335 2336 2337 2338 2339 2340 2341 2342 2343 2344 2345 2346 2347 2348 2349 2350 2351 2352 2353 2354 2355 2356 2357 2358 2359 2360 2361 2362 2363 2364 2365 2366 2367 2368 2369 2370 2371 2372 2373 2374 2375 2376 2377 2378 2379 2380 2381 2382 2383 2384 2385 2386 2387 2388 2389 2390 2391 2392 2393 2394 2395 2396 2397 2398 2399 2400 2401 2402 2403 2404 2405 2406 2407 2408 2409 2410 2411 2412 2413 2414 2415 2416 2417 2418 2419 2420 2421 2422 2423 2424 2425 2426 2427 2428 2429 2430 2431 2432 2433 2434 2435 2436 2437 2438 2439 2440 2441 2442 2443 2444 2445 2446 2447 2448 2449 2450 2451 2452 2453 2454 2455 2456 2457 2458 2459 2460 2461 2462 2463 2464 2465 2466 2467 2468 2469 2470 2471 2472 2473 2474 2475 2476 2477 2478 2479 2480 2481 2482 2483 2484 2485 2486 2487 2488 2489 2490 2491 2492 2493 2494 2495 2496 2497 2498 2499 2500 2501 2502 2503 2504 2505 2506 2507 2508 2509 2510 2511 2512 2513 2514 2515 2516 2517 2518 2519 2520 2521 2522 2523 2524 2525 2526 2527 2528 2529 2530 2531 2532 2533 2534 2535 2536 2537 2538 2539 2540 2541 2542 2543 2544 2545 2546 2547 2548 2549 2550 2551 2552 2553 2554 2555 2556 2557 2558 2559 2560 2561 2562 2563 2564 2565 2566 2567 2568 2569 2570 2571 2572 2573 2574 2575 2576 2577 2578 2579 2580 2581 2582 2583 2584 2585 2586 2587 2588 2589 2590 2591 2592 2593 2594 2595 2596 2597 2598 2599 2600 2601 2602 2603 2604 2605 2606 2607 2608 2609 2610 2611 2612 2613 2614 2615 2616 2617 2618 2619 2620 2621 2622 2623 2624 2625 2626 2627 2628 2629 2630 2631 2632 2633 2634 2635 2636 2637 2638 2639 2640 2641 2642 2643 2644 2645 2646 2647 2648 2649 2650 2651 2652 2653 2654 2655 2656 2657 2658 2659 2660 2661 2662 2663 2664 2665 2666 2667 2668 2669 2670 2671 2672 2673 2674 2675 2676 2677 2678 2679 2680 2681 2682 2683 2684 2685 2686 2687 2688 2689 2690 2691 2692 2693 2694 2695 2696 2697 2698 2699 2700 2701 2702 2703 2704 2705 2706 2707 2708 2709 2710 2711 2712 2713 2714 2715 2716 2717 2718 2719 2720 2721 2722 2723 2724 2725 2726 2727 2728 2729 2730 2731 2732 2733 2734 2735 2736 2737 2738 2739 2740 2741 2742 2743 2744 2745 2746 2747 2748 2749 2750 2751 2752 2753 2754 2755 2756 2757 2758 2759 2760 2761 2762 2763 2764 2765 2766 2767 2768 2769 2770 2771 2772 2773 2774 2775 2776 2777 2778 2779 2780 2781 2

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1. The first step in the process is to identify the problem. This involves gathering information about the situation and determining what needs to be solved.

100

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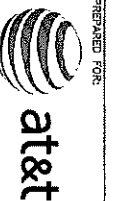
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07-07061-4100-10
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[illegible]

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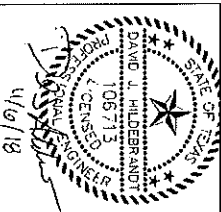
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AT&T MOBILITY
1801 VALLEY VIEW LANE
FARMERS BRANCH, TX 75234

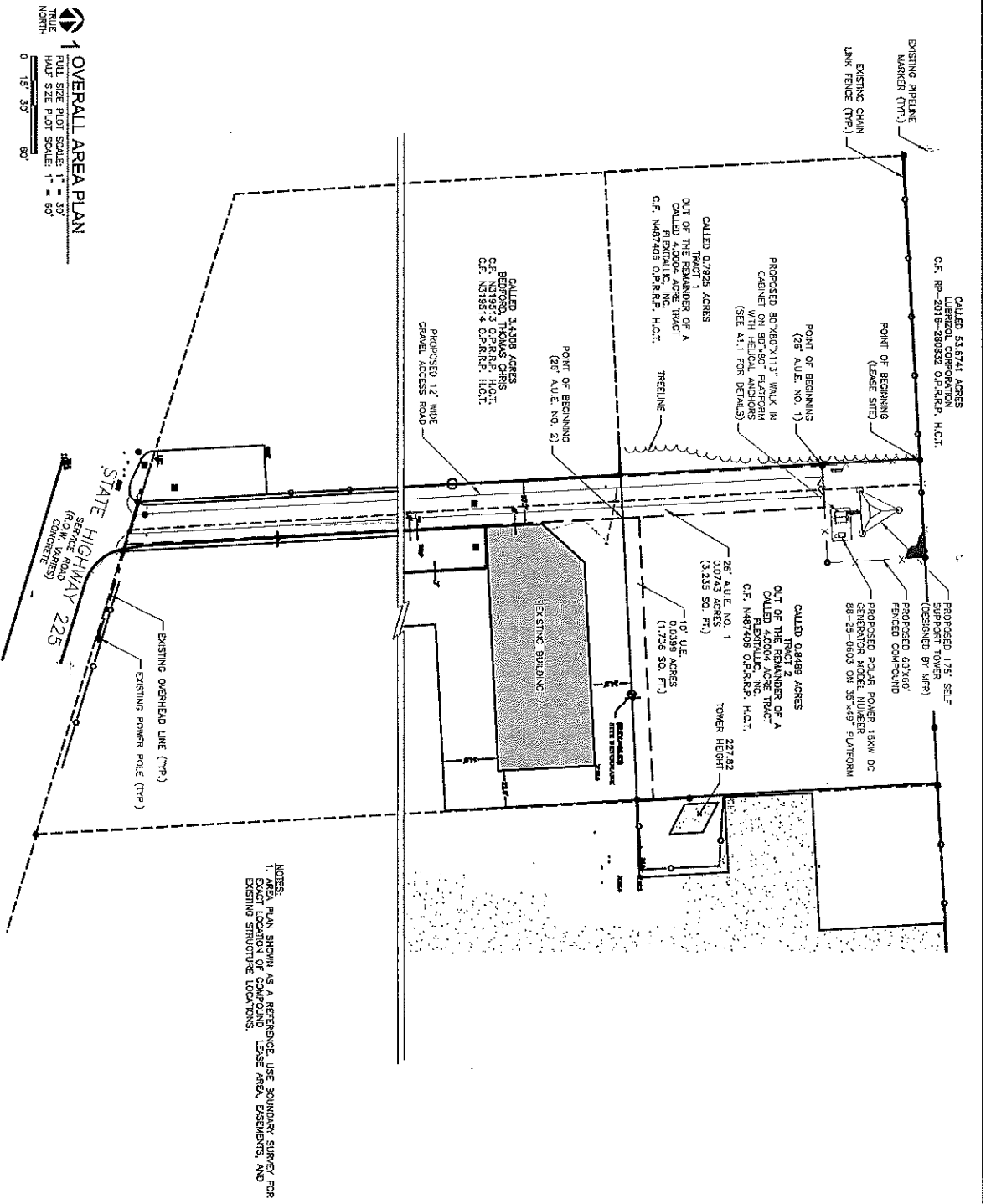
TILLMAN
INFRASTRUCTURE

SITE NAME:
ATC GS ICE
HOUSE RELO
SITE NUMBER:
HX0713 (HX0549)
SITE ADDRESS:
6911 HWY 225
DEER PARK, TX 77536
HARRIS COUNTY



LEVEL 5 CONSULTING ENGINEERS, INC.	
10315 FM 225, STE. 301 GARDEN RIDGE, TX 77466 PH: (281) 562-9711 F: 73466	
DRAWN BY: JL	DATE: 04/23/18
APPROVED BY: JH	DATE: 04/23/18
NO DESCRIPTION	BY DATE
0 ISSUED FOR CONSTRUCTION	L 04/23/18
1 NEW RFS	L 02/15/18
2 NEW RFS	WS 11/07/18

SHEET TITLE:
OVERALL AREA
PLAN
SHEET NUMBER:
A0.0

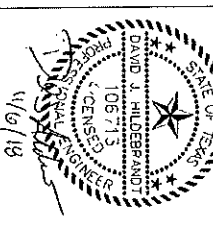




AT&T MOBILITY
1801 GULFVIEW LANE
FARMERS BRANCH, TX 75234

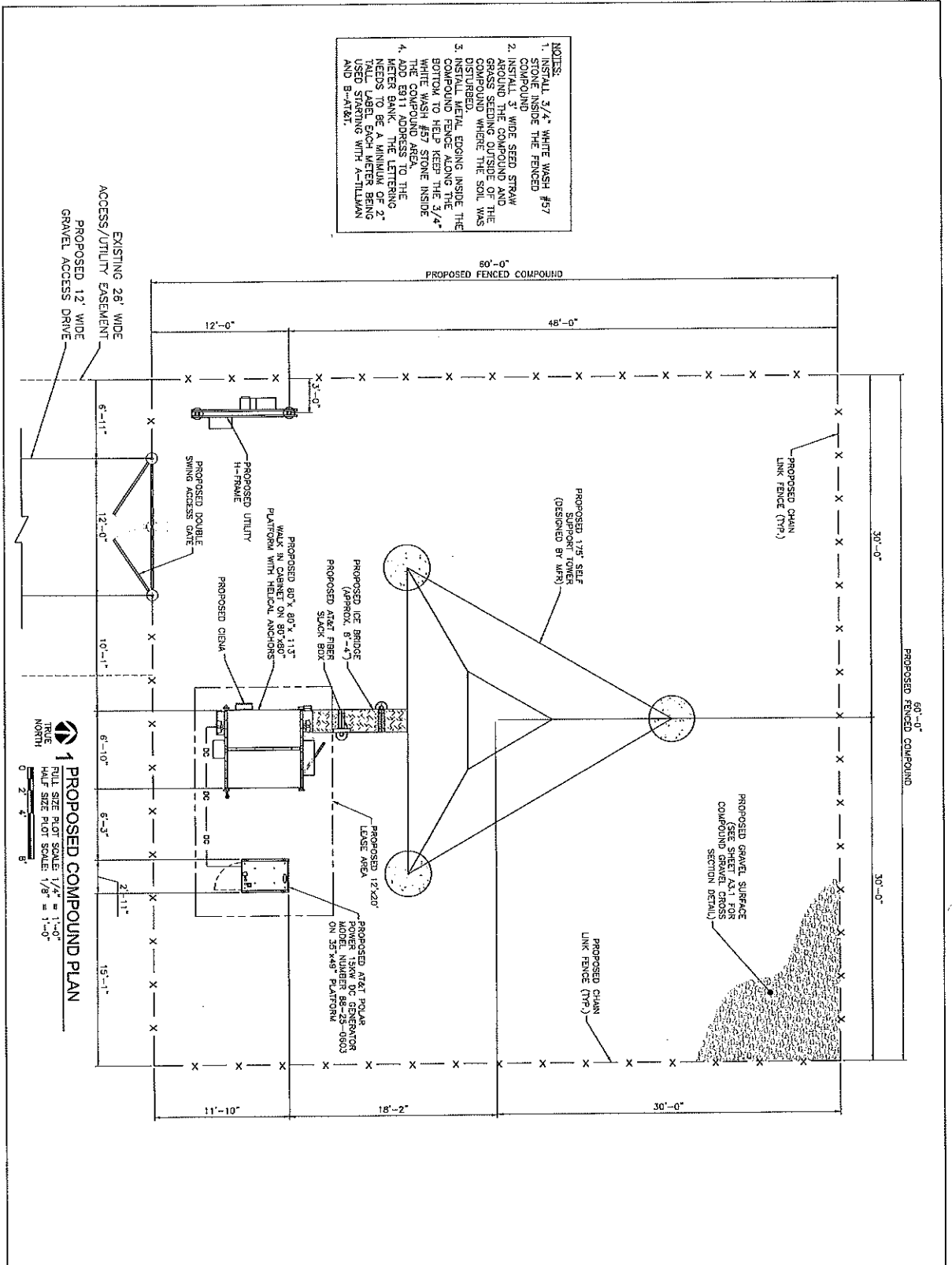
TILLMAN
INFRASTRUCTURE

SITE NAME:
ATC GS ICE
HOUSE RELO
SITE NUMBER:
HX0713 (HX0549)
SITE ADDRESS:
6911 HWY 225
DEER PARK, TX 77536
HARRIS COUNTY



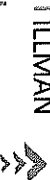
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NO DESCRIPTION	BY DATE
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1 NEW PDS	IL 03/14/18
2 NEW PDS	WIS 11/07/18
DATE DRAWN: 04/23/18	
APPROVED BY: TH	
DRAWN BY: IL	
1915 FM 223, STE. 301 CADDEN RIDGE, TX 77346 PH: (281) 5423911 F: 13046	

SHEET TITLE:
PROPOSED
COMPOUND PLAN
SHEET NUMBER:
A1.0





AT&T MOBILITY
1801 VALLEY VIEW LANE
FARMERS BRANCH, TX 75234



INFRASTRUCTURE

SITE NAME:
ATC GS ICE
HOUSE RELO

HX0713 (HX0549)

6911 HWY 225
DEER PARK, TX 77536
HARRIS COUNTY

STATE OF TEXAS



4/6/13



PH: (210) 545-1111
9315 FM 2252, STE. 301
GARDEN RIDGE, TX 78266

APPROVED BY:	TH
DATE DRAWN:	04/23/18

NO	DESCRIPTION	BY	DATE
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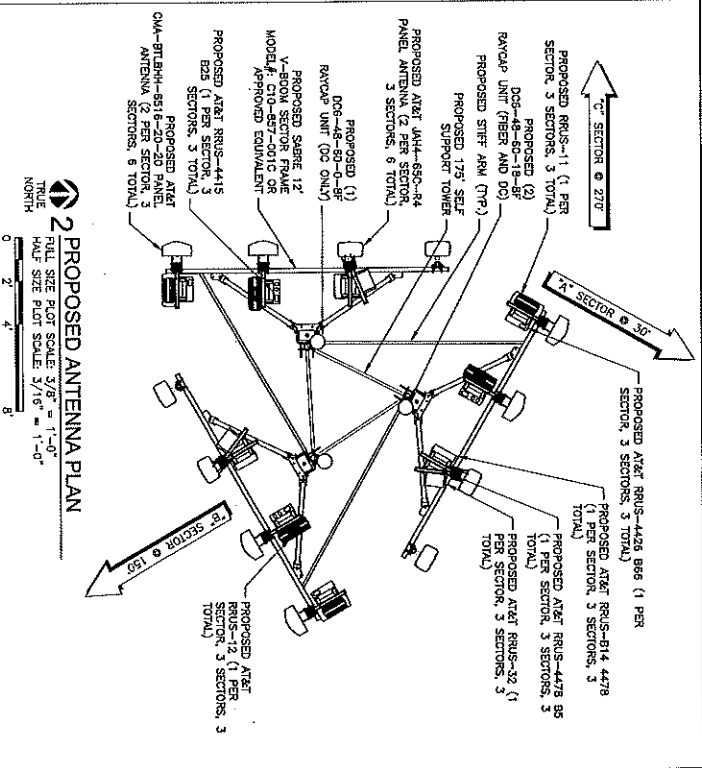
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PROPOSED LOWE
ELEVATION AND

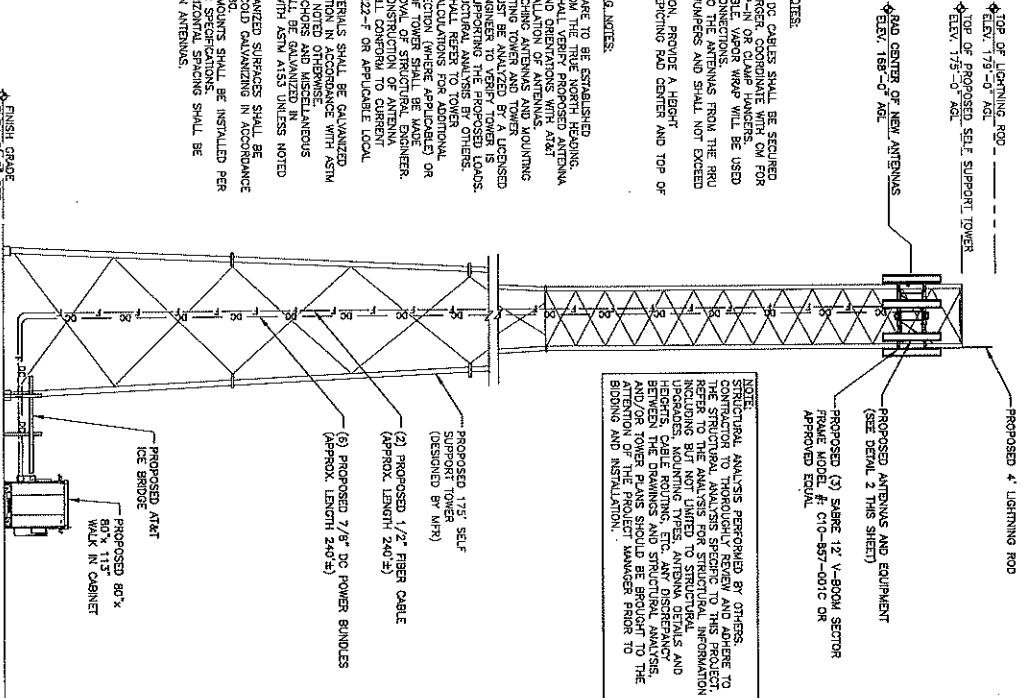
SHEET NUMBER: _____

0.750



PROPOSED ANTENNA PLAN
 FULL SIZE PLOT SCALE: 3/8" = 1'-0"

TRUE NORTH
HALF SIZE PLOT SCALE: 3/16" = 1'-0"



PROPOSED TOWER ELEVATION

SCALE: N.I.S.

ANTENNA CABLE NOTES

1. ALL FEEDS AND DC CABLES SHALL BE SECURED USING ROSTENBERG LOCKWORMS WITH CH FOR LOCKING AND TIGHTENING THE LOCKWORMS.
2. WHERE APPLICABLE, FIBER WIRE WILL BE USED TO SEC. ALL CONNECTIONS.
3. ALL JUMBERS TO THE ANTENNAS FROM THE PSU WILL BE 1/2" JUMBERS AND SHALL NOT EXCEED 6'-0".
4. UPON COMPLETION, PROVIDE A HEIGHT VERIFICATION DEPICTING RAD CENTER AND TOP OF ANTENNA.

ANTENNA MOUNTING NOTE

1. ALL MATERIALS ARE TO BE ESTABLISHED ACCORDING TO THE FOLLOWING:
2. CONTRACTOR SHALL VERIFY PROPOSED ANTENNA ROAD CENTER AND ORIENTATIONS WITH AETI PRIOR TO INSTALLATION OF MATERIALS.
3. ALL MATERIALS SHALL BE INSTALLED IN THE FOLLOWING SECTIONS, EXISTING TOWER AND TOWER FOUNDATION MUST BE ANALYZED BY A LICENSED ENGINEER TO DETERMINE IF THE PROPOSED LOADS ARE CAPABLE OF SUPPORTING THE PROPOSED LOADS REFER TO STRUCTURAL ANALYSIS BY OTHERS.
4. CONTRACTOR SHALL REFER TO TOWER FOUNDATION LOADS (WHERE APPLICABLE) OR MODIFICATION OF TOWER SHALL BE MADE WITHOUT APPROVAL OF STRUCTURAL ENGINEER.
5. CONTRACTOR SHALL SUBMIT TO CURRENT SUPPORTS SHALL CONFORM TO CURRENT ANSI/TIA/EIA-222-F OR APPLICABLE LOCAL CODES.
6. ALL STEEL MATERIALS SHALL BE GALVANIZED TO PREVENT CORROSION WITH ASTM A123, UNLESS NOTED OTHERWISE.
7. ALL BOLTS, ANCHORS AND MISCELLANEOUS HARDWARE SHALL BE GALVANIZED TO PREVENT CORROSION WITH ASTM A123 UNLESS NOTED OTHERWISE.
8. DAMAGED GALVANIZED SURFACES SHALL BE REPAIRED TO MATCH GALVANIZING IN ACCORDANCE WITH ASTM A123.
9. ALL ANTENNA MOUNTS SHALL BE INSTALLED PERMANENTLY IN ACCORDANCE WITH MANUFACTURER SPECIFICATIONS.
10. ALL CABLE BETWEEN ANTENNAS SHALL BE

STRUCTURAL ANALYSTS PERFORMED BY OTHERS. CONTRACTOR TO THOROUGHLY REVIEW AND ADHERE TO THE STRUCTURAL ANALYSIS SPECIFIC TO THIS PROJECT. REFERS TO THE ANALYSIS FOR STRUCTURAL INFORMATION INCLUDING BUT NOT LIMITED TO STRUCTURAL UPLOADS, ACCOUNTING TYPES, UNIFORM DEBITS AND HEIGHTS, CHIEF ROUTING, ETC. ANY DISCREPANCY BETWEEN THE DRAWINGS AND STRUCTURAL ANALYSIS, AND/OR TOWER PLANS SHOULD BE BROUGHT TO THE ATTENTION OF THE PROJECT MANAGER PRIOR TO BIDDING AND INSTALLATION.

- (2) PROPOSED 1/2" FIBER CABLE
(APPROX. LENGTH 240'±)
- (6) PROPOSED 7/8" DC POWER BUNDLES
(APPROX. LENGTH 240'±)

MANUFACTURER: ERICSSON
MODEL: RU5-4426 B66
WEIGHT, EXCL. MOUNTING HARDWARE:
48.4 LBS (22 KG)

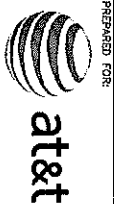
RRUS-4426 B66
SCALE: N.T.S.
3

4 KRUS-44/8 B3
SCALE: N.T.S.

5 RKUS-4418 B1
SCALE: N.T.S.

PROPOSED TOWER
ELEVATION AND
SHEET TITLE:

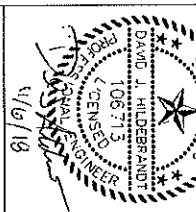
A2.0



AT&T MOBILITY
1801 VALLEY VIEW LANE
FARMERS BRANCH, TX 75234



SITE NAME:
ATC GS ICE
HOUSE RELO
SITE NUMBER:
HX0713 (HX0549)
SITE ADDRESS:
6911 HWY 225
DEER PARK, TX 77536
HARRIS COUNTY



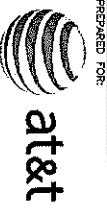
LEVELS
CONSULTING ENGINEERS, INC.
19315 FM 2276, STE. 301
GARLAND, TEXAS 75042
PHONE: (214) 542-2911
FAX: (214) 542-2911
DRAWN BY: TL
APPROVED BY: TH
DATE DRAWN: 04/23/18

NO.	DESCRIPTION	REVISION	BY	DATE
0	ISSUED FOR CONSTRUCTION	1	TL	04/23/18
1	REV. RDS	1	TL	03/14/18
2	REV. RDS	1	TH	11/07/18

SHEET TITLE:
ANTENNA
CONFIGURATION
(SECTOR A)
SHEET NUMBER:
A2.1

Section 17A - FINAL TOWER CONFIGURATION - SECTOR A (OR OMNI)

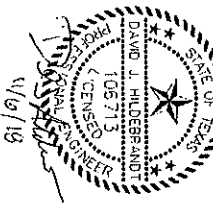
ANTENNA POSITION 1: (Left to Right from Back of Antenna (unless otherwise specified))	ANTENNA POSITION 1	ANTENNA POSITION 2	ANTENNA POSITION 3	ANTENNA POSITION 4	ANTENNA POSITION 5
ANTENNA WAVE - MODEL	CU-5T-BR-NAC (022020-15, RET)	CU-5T-BR-NAC (022020-15, RET)	JUH-452-R4	JUH-452-R4	
ANTENNA VENDOR: OMA	OMA	OMA	COMASCOPE	COMASCOPE	
ANTENNA SIZE (H x W x D)	120x14.207.3	120x14.207.3	66x13.8x3.2	66x13.8x3.2	
ANTENNA WEIGHT	58	58	87.2	87.2	
AZIMUTH	30	30	30	30	
MAGNETIC DECLINATION			186	186	
RADIATION CENTER (HxW)	186				
ANTENNA TP HEIGHT					
MECHANICAL DOWN TILT					
FEDER ANGLE/T					
VERTICAL SEPARATION from ANTENNA ABOVE (TIP to TIP)					
VERTICAL SEPARATION from ANTENNA BELOW (TIP to TIP)					
HORIZONTAL SEPARATION from CLOSEST ANTENNA to LEFT (CENTERLINE to CENTERLINE)					
HORIZONTAL SEPARATION from CLOSEST ANTENNA to RIGHT (CENTERLINE to CENTERLINE)					
HORIZONTAL SEPARATION from ANOTHER ANTENNA (within antenna 5' x 5' footprint)					
Antenna RET Model (QTY/MODEL)					
SLING ARRESTOR (QTY/MODEL)					
DR. EXER. (QTY/MODEL)					
DR. EXER. (QTY/MODEL)					
DC BLOCK (QTY/MODEL)					
THALIA (QTY/MODEL)					
CURRENT INJECTORS FOR TMA (QTY/MODEL)					
PSU FOR TMA (QTY/MODEL)					
FLYER (QTY/MODEL)					
SQUID (QTY/MODEL)					
FIBER TRUNK (QTY/MODEL)					
DC TRUNK (QTY/MODEL)					
REPTER (QTY/MODEL)					
RER - 700 band (QTY/MODEL)	REL-5-11 E 87.2		1	514.4478	
RER - 800 band (QTY/MODEL)			1	447.85	
RER - 900 band (QTY/MODEL)		447.825			
RER - AWS band (QTY/MODEL)	448.850		1	800.5-12	
RER - WCS band (QTY/MODEL)					



AT&T MOBILITY
1801 LINDEN LANE
FARMERS BRANCH, TX 75234

TILLMAN
INFRASTRUCTURE

SITE NAME:
ATC GS ICE
HOUSE RELO
HX0713 (HX0549)
SITE NUMBER:
6911 HWY 225
DEER PARK, TX 77536
HARRIS COUNTY



WLEVELS
CONSULTING ENGINEERS, INC.
19315 FM 2252, STE. 301
DALLAS, TEXAS 75224
PHONE: (214) 542-5911
FAX: (214) 542-5912

NO.	DESCRIPTION	BY	DATE
0	ISSUED FOR CONSTRUCTION	IL	04/23/18
1	REV RFS	IL	05/15/18
2	REV RFS	WS	11/07/18

SHEET TITLE:
ANTENNA
CONFIGURATION
(SECTOR B)
A2.2

Section 17B - FINAL TOWER CONFIGURATION - SECTOR B

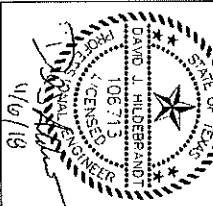
ANTENNA POSITION 1 <small>(unless otherwise specified)</small>	ANTENNA POSITION 2	ANTENNA POSITION 3	ANTENNA POSITION 4	ANTENNA POSITION 5
ANTENNA MAKE: JAOB01	CUA-8T-SH-HS-92200A-15-RET	CUA-8T-SH-HS-92200A-15-RET	JUA-45C-R4	JUA-45C-R4
ANTENNA VENDOR: CNA	CNA	CNA	COMSCOPE	COMSCOPE
ANTENNA SIZE H x W x D: 72x14.25x2.8	72x14.25x2.8	72x14.25x2.8	BOX 13 BOX 2	BOX 13 BOX 2
ANTENNA WEIGHT: 68	68	67.2	67.2	67.2
ACQUANTY: 450	450	450	450	450
MAGNETIC DECLINATION:				
RADIATION CENTER (FEET): 188	188	188	188	188
ANTENNA TYP HEIGHT:				
MECHANICAL DOWN TILT:				
FEEDER AMOUNT:				
VERTICAL SEPARATION FROM ANTENNA ABOVE <small>(TYP to TYP)</small>				
VERTICAL SEPARATION FROM ANTENNA BELOW <small>(TYP to TYP)</small>				
HORIZONTAL SEPARATION FROM CLOSEST ANTENNA TO LEFT (CENTERLINE TO CENTERLINE)				
HORIZONTAL SEPARATION FROM CLOSEST ANTENNA TO RIGHT (CENTERLINE TO CENTERLINE)				
HORIZONTAL SEPARATION FROM ANOTHER ANTENNA (specify antenna # if not the same)				
ANTENNA RET MOUNT (QTY/MODEL)				
SURGE ARRESTOR (QTY/MODEL)				
DIPLEXER (QTY/MODEL)				
Antenna RET CONTROL UNIT (QTY/MODEL)				
DC BLOCK (QTY/MODEL)				
THALIA (QTY/MODEL)				
CURRENT INJECTORS FOR TMA (QTY/MODEL)				
POU FOR TMA (QTY/MODEL)				
FILTER (QTY/MODEL)				
1500 (QTY/MODEL)				
FIBER TRUNK (QTY/MODEL)				
DC TRUNK (QTY/MODEL)				
REPEATER (QTY/MODEL)				
RRH - 700 band (QTY/MODEL)	RRH-S-1 E-B7.2	1	514-4478	
RRH - 450 band (QTY/MODEL)		1	4478 55	
RRH - 1500 band (QTY/MODEL)				
RRH - AWS band (QTY/MODEL)	4478 55	1	RRH-S-2	
RRH - WCS band (QTY/MODEL)		1	RRH-S-3	



AT&T MOBILITY
1801 VALLEY VIEW AVE
FARMERS BRANCH, TX 75234

TILLMAN
INFRASTRUCTURE

SITE NAME
ATC GS ICE
HOUSE RELO
SITE NUMBER
HX0713 (HX0549)
SITE ADDRESS
6911 HWY 225
DEER PARK, TX 77536
HARRIS COUNTY



LEVEL 5
CONSULTING ENGINEERS, INC.
1915 N. 2202, STE. 301
DARTON RIDGE, TX 75266
PH: (214) 542-5971
F: (214) 542-5972

NO. DESCRIPTION	BY DATE
0 ISSUED FOR CONSTRUCTION	11/04/23/18
1 REV RFS	11/03/14/18
2 REV RFS	11/11/07/18

SHEET TITLE:
ANTENNA
CONFIGURATION
(SECTOR C)

SHEET NUMBER:
A2.3

Section 17C - FINAL TOWER CONFIGURATION - SECTOR C

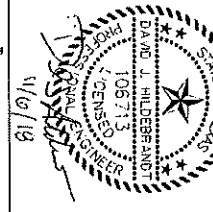
ANTENNA POSITION 1: (unless otherwise specified)	ANTENNA POSITION 1	ANTENNA POSITION 2	ANTENNA POSITION 3	ANTENNA POSITION 4	ANTENNA POSITION 5
ANTENNA MAKE - MODEL	ORA-8T1E-H485153202145, NET	ORA-8T1E-H485153202145, NET	JWA-48C-R4	JWA-48C-R4	
ANTENNA VENDOR	ORA	ORA	COMSCOPE	COMSCOPE	
ANTENNA SIZE H x W x D	72X12X7.8	72X16.2X7.5	88X13.8X4.2	88X13.8X4.2	
ANTENNA WEIGHT	88	88	87.2	87.2	
AZIMUTH	270	270	270	270	
MAGNETIC DECLINATION					
RADIATION CENTER (feet)	148	148	148	148	
ANTENNA TP HEIGHT					
MECHANICAL DOWN TILT					
FEEDER AMOUNT					
VERTICAL SEPARATION from ANTENNA ABOVE (TP to TP)					
VERTICAL SEPARATION from ANTENNA BELOW (TP to TP)					
HORIZONTAL SEPARATION from CLOSEST ANTENNA to LEFT (CENTRILINE to CENTRILINE)					
HORIZONTAL SEPARATION from CLOSEST ANTENNA to RIGHT (CENTRILINE to CENTRILINE)					
HORIZONTAL SEPARATION from CLOSEST ANTENNA (with antenna #14 of finished)					
Antenna RET MOUNT (QTY/MODEL)					
LONGER ARRESTOR (QTY/MODEL)					
OPT LEVER (QTY/MODEL)					
DIP LEVER (QTY/MODEL)					
Antenna RET CONTROL UNIT (QTY/MODEL)					
DC BLOCK (QTY/MODEL)					
TRAILER (QTY/MODEL)					
CURRENT INJECTORS FOR TMA (QTY/MODEL)					
POU FOR TMA (QTY/MODEL)					
FILTER (QTY/MODEL)					
SQUID (QTY/MODEL)					
FIBER TRUNK (QTY/MODEL)					
DC TRUNK (QTY/MODEL)					
RF PDAVER (QTY/MODEL)					
RFH - 700 band (QTY/MODEL)					
RFH - 850 band (QTY/MODEL)					
RFH - 900 band (QTY/MODEL)					
RFH - AWS band (QTY/MODEL)					
RFH - WCS band (QTY/MODEL)					



AT&T MOBILITY
1801 WALLEY VEE LANE
FARMERS BRANCH, TX 75234

TILLMAN
INFRASTRUCTURE

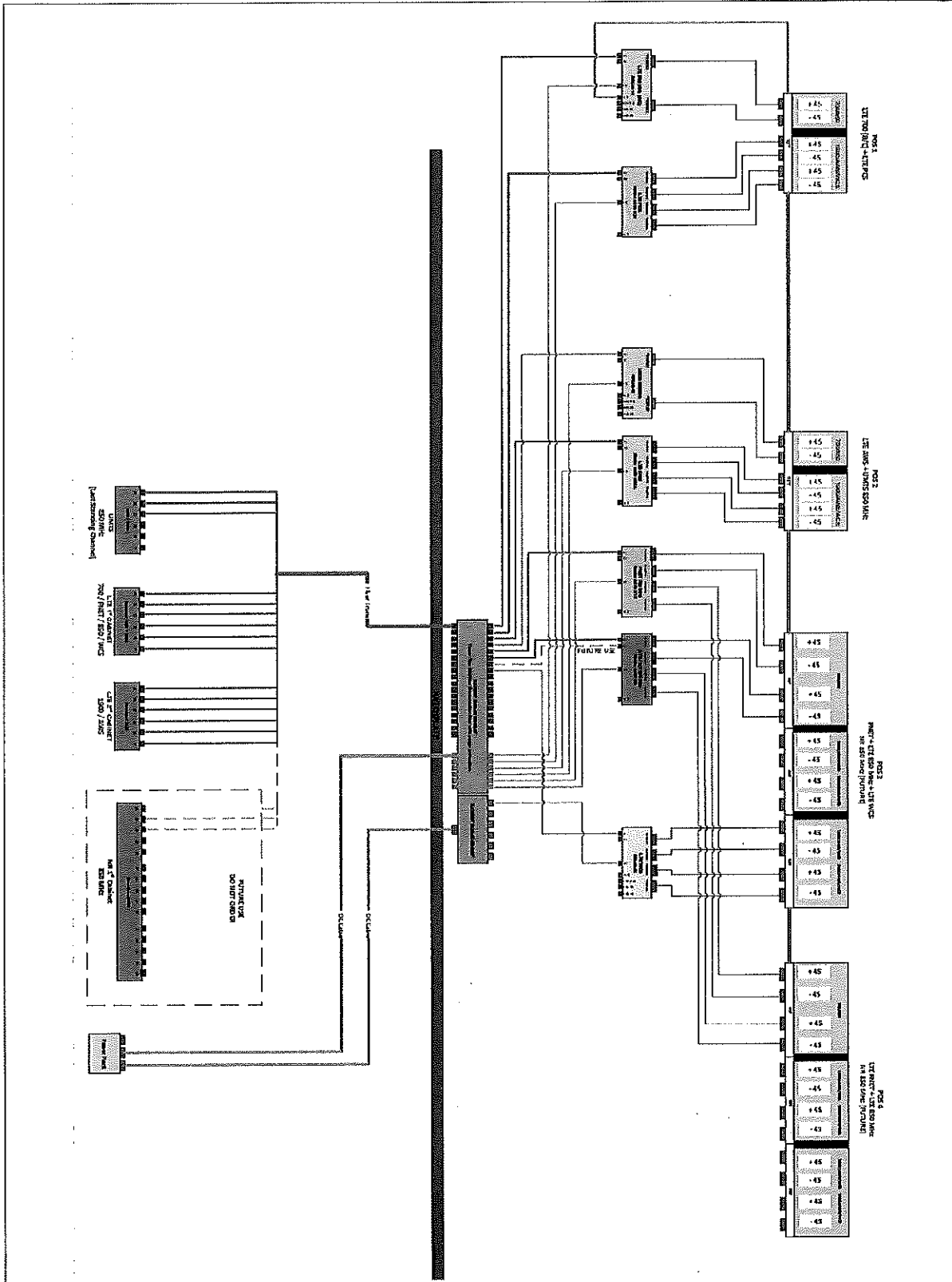
SITE NAME:
ATC GS ICE
HOUSE RELO
SITE NUMBER:
HX0713 (HX0549)
SITE ADDRESS:
6811 HWY 225
DEER PARK, TX 77536
HARRIS COUNTY

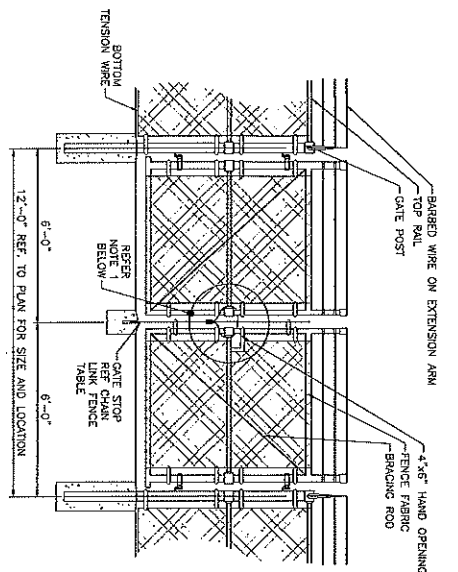


LEVELS
13115 FM 2232, STE. 201
GARDEN RIDGE, TX 77565
PH: (281) 546-5911
F: 13466

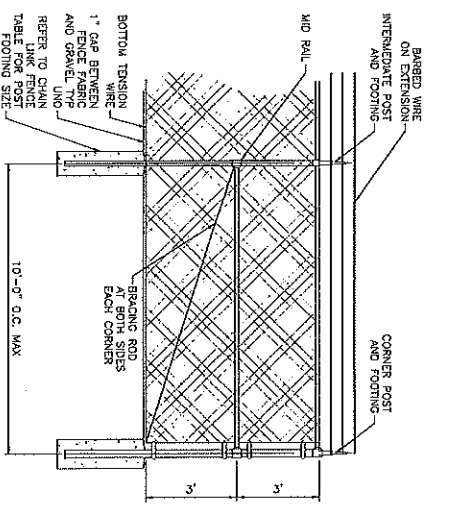
NO.	DESCRIPTION	BY	DATE
1	ISSUED FOR CONSTRUCTION	IL	04/23/18
2	REV BNS	NS	11/07/18

SHEET TITLE:	
PLUMBING DIAGRAM	
SHEET NUMBER: A2.4	

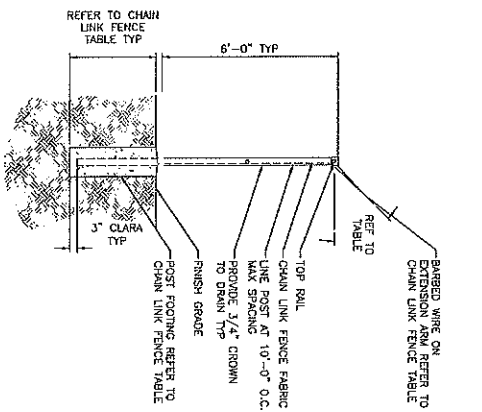




NOTE 1:
CONTRACTOR TO SUPPLY AND INSTALL A STYRELOCK FOR LOCKING THE GATE.
SCALE: N.T.S.



SCALE: N.T.S.

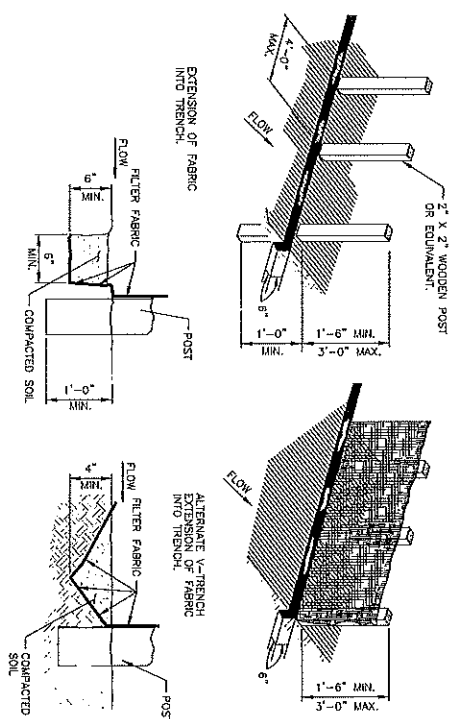


SCALE: N.T.S.

COMPONENT	DIMENSIONS	HARDWARE AND FEATURES
FENCE FABRIC	6' HIGH, 9 GA. 2"x2" ZINC COATED MESH	SELVEDGE TOP AND BOTTOM
BARBED WIRE	BARBED WIRE WITH FOUR (4) POINTS	THREE (3) RUNS
EXTENSION ARM	STAMPED STEEL WITH WALLEABLE IRON BASE	45 DEGREE, ANGLE OUTWARD
END AND CORNER POSTS	3" STD. GA. (SCH 40) PIPE	35"x12" CONCRETE FOOTING
LINE POSTS	2" STD. GA. (SCH 40) PIPE	35"x10" CONCRETE FOOTING, REF. NOTE 3
DRIVEWAY GATE POSTS	4" STD. GA. (SCH 40) PIPE	48"x12" CONCRETE FOOTING
WALKWAY GATE POSTS	3" STD. GA. (SCH 40) PIPE	35"x12" CONCRETE FOOTING
TOP RAILS	1 1/2" STD. GA. (SCH 40) PIPE	ATTACHED WITH PROPER FITTING
MID RAILS	1 1/2" STD. GA. (SCH 40) PIPE	ATTACHED WITH PROPER FITTING
BRACE RODS	3/8" CARBON STEEL	ATTACHED TO TOP AND BOTTOM
BOTTOM TENSION WIRE	7 GA. 1900 LB. TENSILE STRENGTH	ALL SIDES
TENSION BARS	3/16" x 3/4" FULL HEIGHT OF FABRIC	SPACE TENSION BARS AT 15' +/- 0.0.
TENSION WIRE	9 GA. ALUMINUM	12" O.C. FOR LINE POSTS AND GATES
GATE FRAME	2" STD. GA. (SCH 40) PIPE	WELDED ASS. W/ 100 GA. AND SILVER PAINT W/ 100 GA. (SEE ASS.)
POST CAPS	PER POST DIAMETER	ALL POSTS
POST RAIL AND GATE FITTINGS	AS REQUIRED	STAMPED STEEL OR WALLEABLE CASTING
GATE HINGES	AS REQUIRED	OFFSET TYPE WITH 180 DEGREE SWING
DOUBLE GATE LATCH	AS REQUIRED	DUCKBILL LATCH ON ACTIVE LEAF, DROP BOLTS ON BOTH LEAVES
GATE STOPS (CLOSED POSITION)	AS REQUIRED	MUSHROOM STOP SET IN CONCRETE
GATE STOPS (OPEN POSITION)	AS REQUIRED	AS REQUIRED
LOCK CHAIN	3/8" SIZE, 36" LONG	HOT DIPPED GALVANIZED OR VINYL COATED

4 FENCE SPECIFICATION TABLE
SCALE: N.T.S.

- GENERAL NOTES:
1. AT 4-Feet MAXIMUM SPACING, IF FACTORY PREASSEMBLED FENCE WITH SUPPORT OF POST MAY BE INCREASED TO 8 FEET MAXIMUM.
- WHEN TWO SECTIONS OF FENCE ARE JOINED, EACH OTHER OVERLAP 6 INCHES TO BE SURE AND ATTACH TO THE POSTS.
- REMOVE SECURITY DEPOSITS WHEN SLIT DEPTH REACHES ONE-THIRD OF THE HEIGHT OF THE FENCE.



5 SILT FENCE DETAIL
SCALE: N.T.S.

PREPARED FOR

AT&T MOBILITY
1801 VALLEY VIEW LANE
FARMERS BRANCH, TX 75234

TILLMAN

INFRASTRUCTURE

SITE NAME:
ATC GS ICE
HOUSE RELO

SITE NUMBER:
HX0713 (HX0549)

SITE ADDRESS:
6811 HWY 225
DEER PARK, TX 77236
HARRIS COUNTY

DATE: 04/23/18

NO. DESCRIPTION: 0 ISSUED FOR CONSTRUCTION

1 NEW RFS

2 NEW RFS

DATE: 04/23/18

APPROVED BY: TH

1015 PM 2212, STE. 201
GARDEN GROVE, TX 77246
DRAWN BY: TH

1015 PM 2212, STE. 201
GARDEN GROVE, TX 77246
DRAWN BY: TH

1015 PM 2212, STE. 201
GARDEN GROVE, TX 77246
DRAWN BY: TH

1015 PM 2212, STE. 201
GARDEN GROVE, TX 77246
DRAWN BY: TH

1015 PM 2212, STE. 201
GARDEN GROVE, TX 77246
DRAWN BY: TH

1015 PM 2212, STE. 201
GARDEN GROVE, TX 77246
DRAWN BY: TH

1015 PM 2212, STE. 201
GARDEN GROVE, TX 77246
DRAWN BY: TH

1015 PM 2212, STE. 201
GARDEN GROVE, TX 77246
DRAWN BY: TH

1015 PM 2212, STE. 201
GARDEN GROVE, TX 77246
DRAWN BY: TH

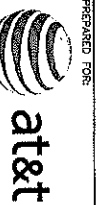
1015 PM 2212, STE. 201
GARDEN GROVE, TX 77246
DRAWN BY: TH

1015 PM 2212, STE. 201
GARDEN GROVE, TX 77246
DRAWN BY: TH

1015 PM 2212, STE. 201
GARDEN GROVE, TX 77246
DRAWN BY: TH

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REV.	DATE	DESCRIPTION	DATE	BY	APPROVED
3	0000-04-30	ADDED 5/8" WIC MOUNTING HARDWARE	5.21.18	PCG	



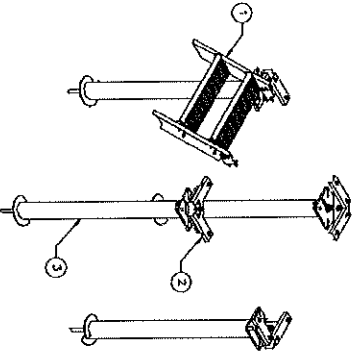
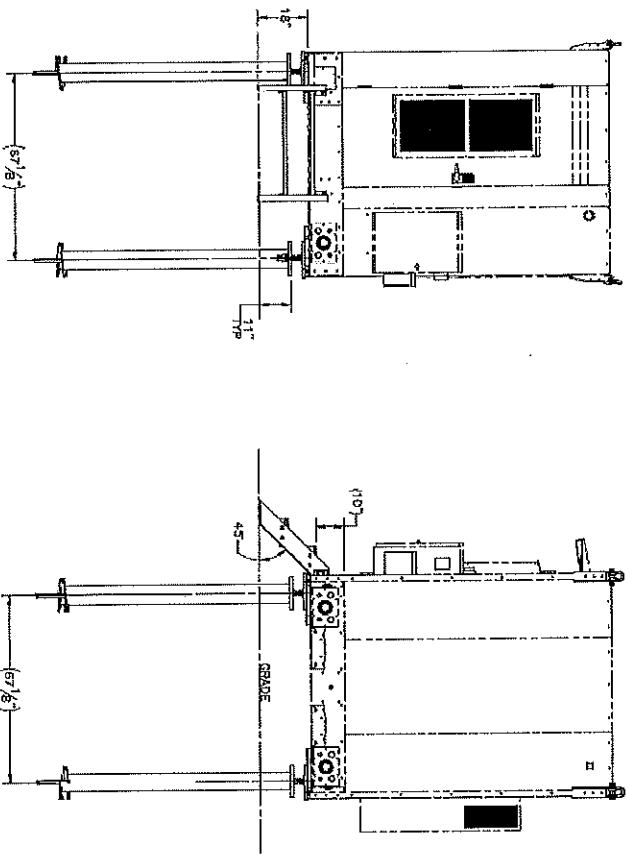
AT&T MOBILITY
1801 WALDEMAR LANE
FARMERS BRANCH, TX 75234

TILLMAN
INFRASTRUCTURE

SITE NAME:
ATC GS ICE HOUSE RELO
SITE NUMBER:
HX0713 (HX0549)
SITE ADDRESS:
6811 HWY 225
DEER PARK, TX 77536
HARRIS COUNTY



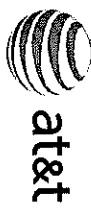
TILEVELS
CONSULTING ENGINEERS, INC.
1915 FM 1252, STE. 201
DALLAS, TEXAS 75244
PH: (214) 943-5911
FAX: (214) 943-5912



REV.	DATE	DESCRIPTION	DATE	BY	APPROVED
1	1003-0900-0018	WIC 2-STEP STAIRS KIT, 45 DEGREE	103.1		
2	W-000-771	ATT WIC HELICAL ADAPTER WELDMENT	45.0		
3	1008-0000-0015	6" X 7" HELICAL SINGLE STUD OPTION	177.4		
4	002-04T-H030	ROD TIE ROD, 1.00" - 8 X 9.00" LG. ASTM A193 B7.7	1.80		
5	002-0N0-0000	WIC 2-STEP STAIRS KIT, 45 DEGREE	0.43		
6	002-0N0-0008	NUT, HX, ANCO LOCK, 1.00" - BUNC. OR 2H, GALV	0.42		
7	002-01W-0008	NUT, HX, 1.00" - BUNC. OR 2H, GALV	0.09		
8	002-09W-0024	WASHER, FLAT, 1.00", F435, GALV	0.07		
9	002-09W-0008	WASHER, FLAT, 1.00", F435, GALV	0.06		
10	002-09W-0004	WASHER, FLAT, 1.00", F435, GALV	0.05		
11	002-08C-0033	BOLT, FK RD, 6525-TTUNG X 1.75" LG. ASTM A325.	0.03		
12	002-01W-0004	WASHER, SPRT LOCK, 825 INCH, GALV	0.03		
13	002-0N0-0011	NUT, HX, 5025-TTUNG, CR DR, GALV	0.12		

REV.	DATE	DESCRIPTION	DATE	BY	APPROVED
1	1000-0000-0101	HELICAL MOUNTED WIC ASSEMBLY	1000-0000-0101		

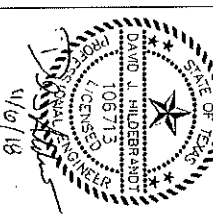
SHEET TITLE:
EQUIPMENT DETAILS
SHEET NUMBER:
A3.3



AT&T MOBILITY
1801 WILSON BLVD, SUITE 100
FARMERS BRANCH, TX 75234

TILLMAN
INFRASTRUCTURE

SITE NAME:
**ATC GS ICE
HOUSE RELO**
SITE NUMBER:
HX0713 (HX0549)
SITE ADDRESS:
8911 HWY 226
DEER PARK, TX 77536
HARRIS COUNTY



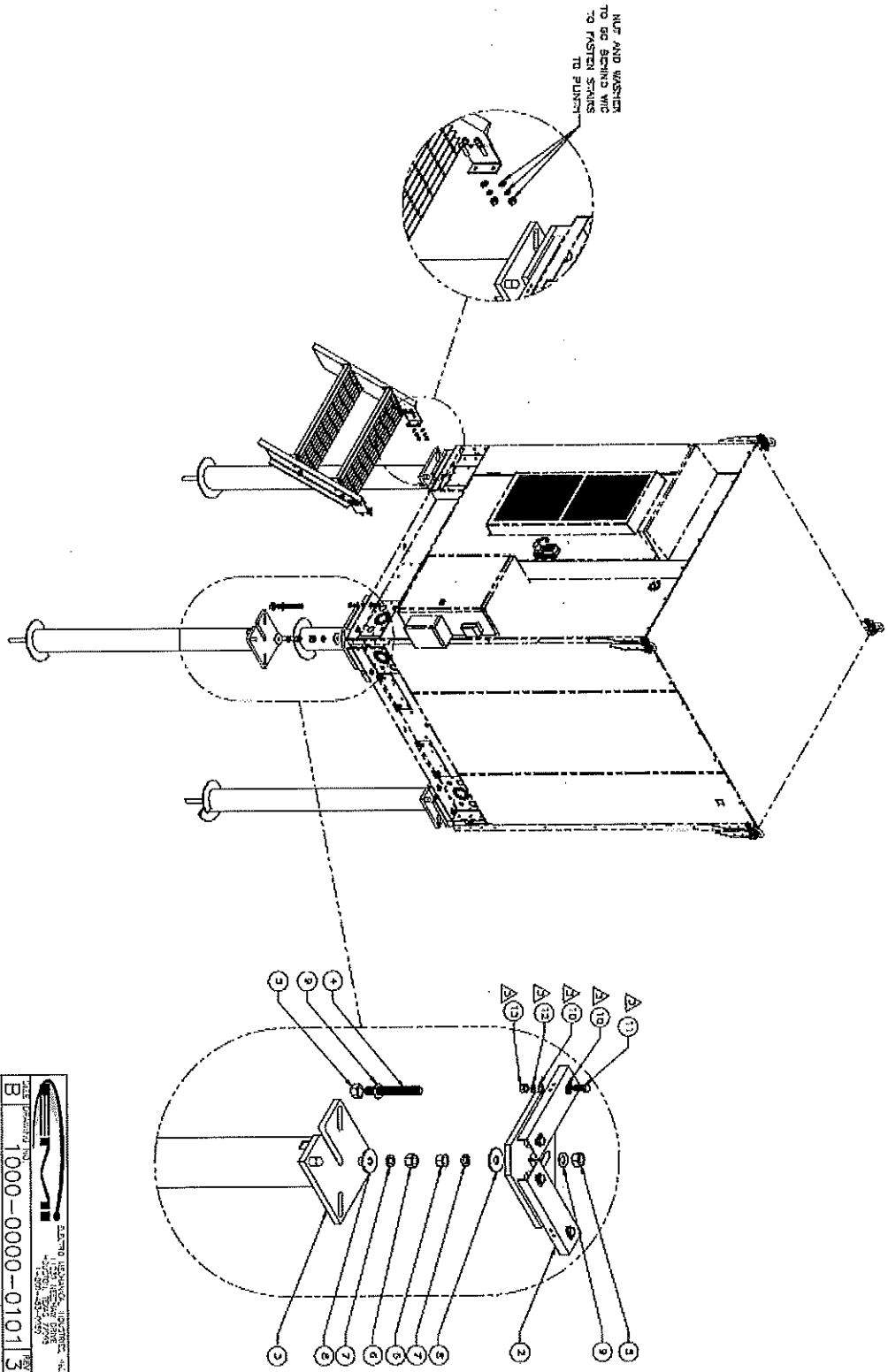
LEVEL 5
CONSULTING ENGINEERS, INC.
19315 FM 2225, STE. 307
DALLAS, TEXAS 75246
PH: (214) 342-5911
F: (214) 342-5911


REVISION		BY	DATE
1	ISSUED FOR CONSTRUCTION	IL	04/23/18
2	NEW RFS	WJS	11/07/18

SHEET TITLE:
EQUIPMENT DETAILS

SHEET NUMBER:
A3.4

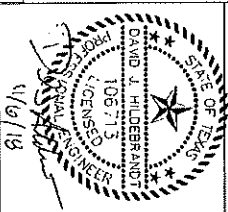
DATE: 04/23/18
BY: IL
1000-0000-01013
SHEET 2 OF 3





HILLMAN
INFRASTRUCTURE

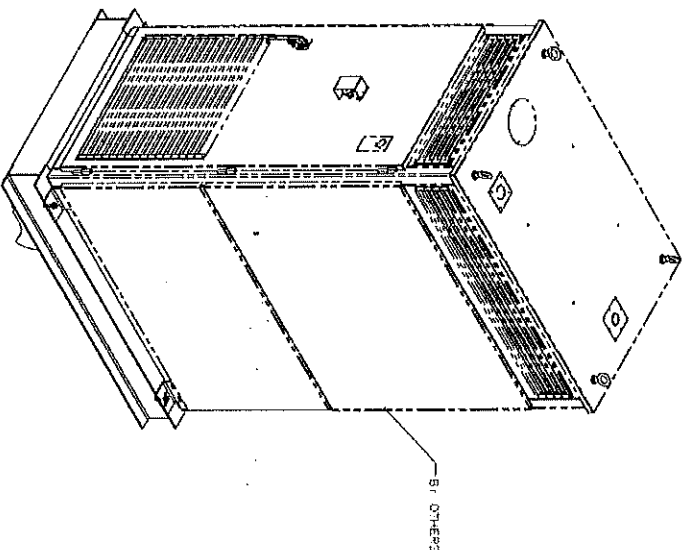
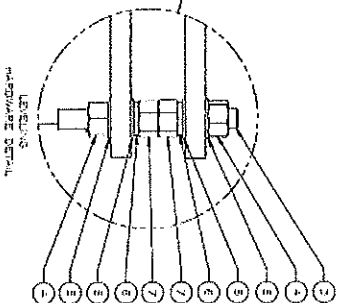
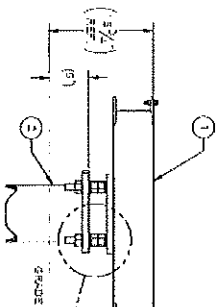
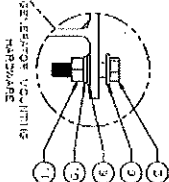
SITE ADDRESS:
6911 HWY 225
DEER PARK, TX 77536
HARRIS COUNTY



LEVEL 3
CONSULTING ENGINEERS, INC.

9315 FM 2125, STE. 301
BARBORN RIDGE, TX 78046

PH: (214) 542-59
F-136



ITEM	QTY	NAME / NUMBER	DESCRIPTION	UNIT	PRICE	TOTAL
1	1	W-000-474	GENERATOR FRAME WELDING		204.1	204.1
2	1	W-000-1013	HEAVY PLATE, 8" X 7" BASE		194.0	194.0
3	4	002-0AT-0000	ROD, STEEL, 1.007-8 X 9.007 LG, A314		2.01	8.04
4	8	002-0AG-0000	ROD, STEEL, 1.007-8 X 9.007 LG, A314		0.45	3.60
5	16	002-0PW-0008	NUT, HK, ANCO LOCK, 1.00-BUNC, GR 3H, GALV		0.08	1.28
6	8	002-0W-0008	WASHER, FLAT, 1.007, F436, GALV		0.09	0.72
7	8	002-0W-0008	WASHER, SPLIT LOCK, 1.007, GALV		0.42	3.36
8	4	COMMON	NUT, HA, 1.007-8UNC, GR 3H, GALV		0.07	0.28
9	8	COMMON	WASHER, FLAT, 43/32 INCH ZINC PLTD		0.00	0.00
10	4	COMMON	WASHER, SPLIT LOCK, 43/32 INCH, ZINC PLTD		0.01	0.04
11	4	COMMON	NUT, HEX, 43/32-14 UNC, GR 8, ZINC		0.004	0.016
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GENERATOR PLATFORM

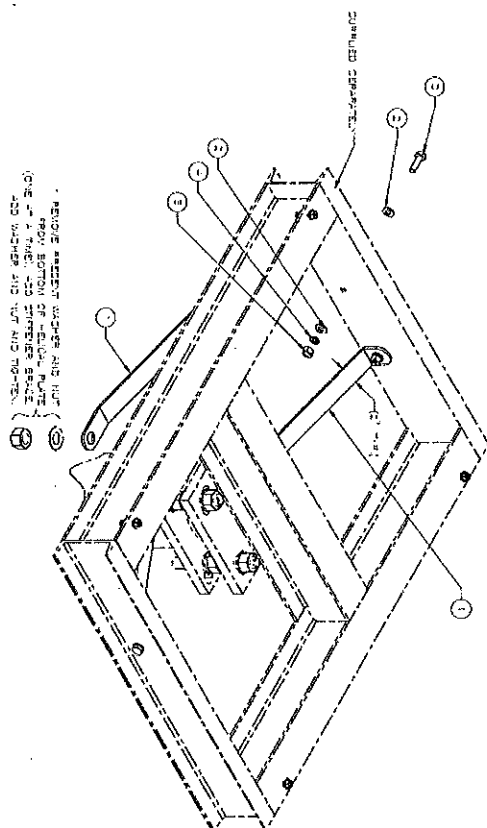
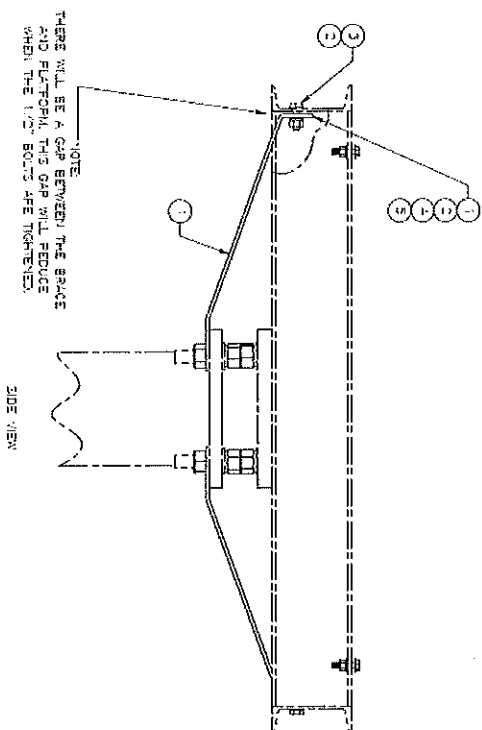
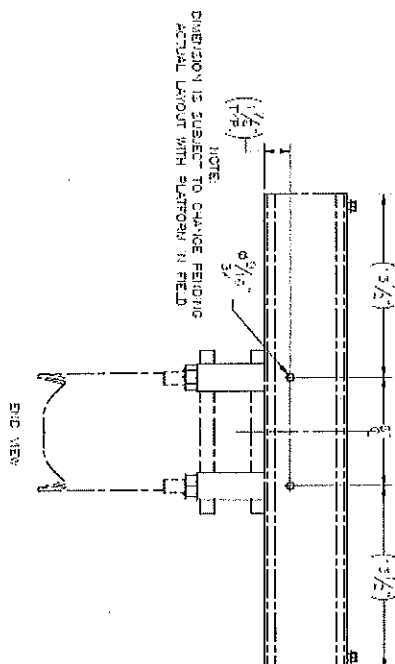
SHEET TITLE:

EQUIPMENT DETAILS

SHEET NUMBER:

A3.5

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ITEM NO.	PART NUMBER	DESCRIPTION	LENGTH	WEIGHT
1	P-001-783	STIFFENER, GENERATOR PLATFORM	22 9/16"	3.1
2	PG-001-0002	WASHER, PLAT, .500", F436, GALV		0.02
3	PG-001-0012	BOLT, HX HD, .500"-13UNC X 1.75 LG, ASTM A325, GALV		0.16
4	PG-001-0012	WASHER, SPLIT LOCK, .500", GALV		0.01
5	PG-001-0011	NUT, HEX, .500"-13UNC, GR DH, GALV		0.05

QUANTITY	1	APPROVED	DATE	11/07/18
REVISION	1	BY	DATE	11/07/18
REVISION	2	BY	DATE	11/07/18
REVISION	3	BY	DATE	11/07/18
REVISION	4	BY	DATE	11/07/18
REVISION	5	BY	DATE	11/07/18
REVISION	6	BY	DATE	11/07/18
REVISION	7	BY	DATE	11/07/18
REVISION	8	BY	DATE	11/07/18
REVISION	9	BY	DATE	11/07/18
REVISION	10	BY	DATE	11/07/18

AT&T MOBILITY
1801 VALLEY VIEW LANE
FARMERS BRANCH, TX 75234

TILLMAN
INFRASTRUCTURE

SITE NAME:
ATC GS ICE HOUSE RELO

SITE NUMBER:
HX0713 (HX0549)

SITE ADDRESS:
8111 HWY 225
DEER PARK, TX 77536
HARRIS COUNTY


STATE OF TEXAS
DAVID J. HILDEBRANDT
106713
LICENSED PROFESSIONAL ENGINEER

11/6/18


***LEVEL 5**
19111 FM 2725, STE. 300
GARDEN RIDGE, TX 75046
PH: (409) 242-9911
F: (409) 242-9911

DATE DRAWN: 04/23/18
DATE CHECKED: 04/23/18
DATE DESIGNED: 04/23/18
DATE REVISED: 04/23/18
DATE APPROVED: 04/23/18

SHEET NUMBER:
A3.6



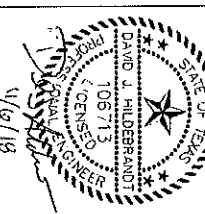
AT&T MOBILITY
1801 VALLEY VIEW LANE
FARMERS BRANCH, TX 75234



TILLMAN
CONCRETE

SITE NAME:
ATC GS ICE
HOUSE RELO
SITE NUMBER:
HX0713 (HX0549)

SITE ADDRESS:
6911 HWY 225
DEER PARK, TX 777
HARRIS COUNTY



4/6/15

PH: (210) 542-5915
F-13646

APPROVED BY:	TH
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NO	DESCRIPTION	BY	DATE
REVISION			

0	ISSUED FOR CONSTRUCTION	1E	04/20/19
1	NEW PETS	1L	03/14/19
2	NEW PETS	1M	11/02/18

[illegible]

SHEET TITLE:

ELECTRICAL AND
TELECOM PLAN

SHEET NUMBER:
E1.0

PROPOSED ICE BRIDGE
(APPROX. 8'-4")

PROPOSED AT&T FIBER
SLACK BOX

PROPOSED UTILITY
H-FRAME

PROPOSED WALK IN CABINET ON 80"X113"
PLATFORM WITH HELICAL ANCHORS

PROPOSED DOUBLE
SLING ACCESS GATE

PROPOSED CENA

PROPOSED AT&T POLAR
COORDINATOR
MODEL NUMBER BB-25-0803
ON 35"X49" PLATFORM

ELECTRICAL / TELCO SITE PLAN

TRUE NORTH

FULL SIZE PLOT SCALE: $1/4" = 100'$
HALF SIZE PLOT SCALE: $1/8" = 100'$

0 2' 4' 8'

AL POWER PANEL - 274T												
LOCATION: NINE EASTVIEW		ELECTRICIAN: JH		DATE: 08/01/2004		PAGE: 1 OF 1		SHEET: 1 OF 1		TOTAL: 1 OF 1		
DESCRIPTION	QTY	UNIT	PRICE	TOTAL	DESCRIPTION	QTY	UNIT	PRICE	TOTAL	DESCRIPTION	QTY	UNIT
RECEIVING SHED 1A	1	EA	1150	1150	RECEIVING SHED 1B	1	EA	1150	1150	RECEIVING SHED 1C	1	EA
RECEIVING SHED 1C	1	EA	1150	1150	RECEIVING SHED 1D	1	EA	1150	1150	RECEIVING SHED 1E	1	EA
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Load Analysis for UNIT 1, UNIT 2		
	MEC	Demand Load (kVA)
Description	Reference	
Lighting Load	220.42	0.5
Receptacles	220.44	0.95
General Load - Wireless Equipment + 25%	220.14	27.55
	Total	29.00
Transformer Size: 160kVA		
Service Description: 240V, 200A, 3PH, 3W/200V Grounding		

Short-circuit Calculation - 1PH 230V (Equivalent YIA Method)	
Infinitive Bus from Utility	
Transformer	1567 kVA
Max Transformer Size	1,406%
Trans. Impedance (%Z)	21.406%
Service lateral conductors	21 Sets of 1500kcmil
Service lateral length (mft.)	50 ft.
AT&T Feeder conductors	36/0
AT&T Feeder length (mft.)	30 ft.
APF at AT&T Equipment Panel	21.750kA
AT&T Panelboard from AIC Rating	22,000kA

NOTE:
1. A PERMANENTLY AFFIXED LABEL SHALL BE APPLIED WITH THE FAULT CURRENT AT THE TIME OF INSTALLATION AND CALCULATION. THE LABEL SHALL BE 2"x3" IN SIZE AND SHALL BE BLUE LETTERING ON A CONTRASTING BACKGROUND. THIS LABEL SHALL ALSO INCLUDE THE DATE OF THE CALCULATION.

2 PANEL SCHEDULE

3 LOAD ANALYSIS

4 SHORT CIRCUIT CALCULATIONS

PANEL CAPACITY (KVA):	48
CONNECTED LOAD (KVA):	23.88

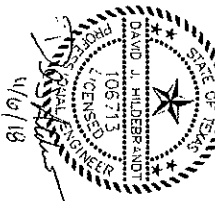
PANEL CAPACITY (KW):	48
PANEL LOADING (100% AT LOAD) (KW):	1.0
PANEL LOADING (125% C LOAD) (KW):	20.5
PANEL LOADING TOTAL (KW):	29.5
SPACE CAPACITY (KW):	18.5



AT&T MOBILITY
1801 VALLEY VIEW LANE
FARMERS BRANCH, TX 75224

TILLMAN
INFRASTRUCTURE

SITE NAME:
**ATC G5 ICE
HOUSE RELO**
SITE NUMBER:
HX0713 (HX0549)
SITE ADDRESS:
6911 HWY 225
DEER PARK, TX 77356
HARRIS COUNTY



LEVELS
CONSULTING ENGINEERS, INC.
15115 FM 2252, STE. 201
GARDEN ROBE, TX 77035
PH: (281) 562-9911
F: 33646

REVISION		DATE
NO DISCREPANCY	BY DATE	
0 ISSUED FOR CONSTRUCTION	IL	04/23/18
1 NEW PDS	IL	03/14/18
2 NEW PDS	WS	11/07/18

SHEET TITLE:
**GROUNDING SCHEMATIC
AND
ONE-LINE DIAGRAM**

SHEET NUMBER:
E2.0

GROUNDING NOTES:

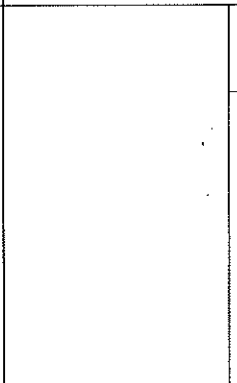
1. ANTENNA GROUND BARS SHALL BE INSTALLED WITHOUT INSULATOR (GENSET) USING UL LISTED MOUNTING DEVICES.
2. CONNECTING SURFACES.

ABBREVIATIONS:

AGB ANTENNA GROUND BAR
MGB MASTER GROUND BAR

GROUNDING LEGEND:

SYMBOL	DESCRIPTION
—○—	EXOTHERMIC WELD
—●—	GROUND WIRE
—■—	MECHANICAL CONNECTION

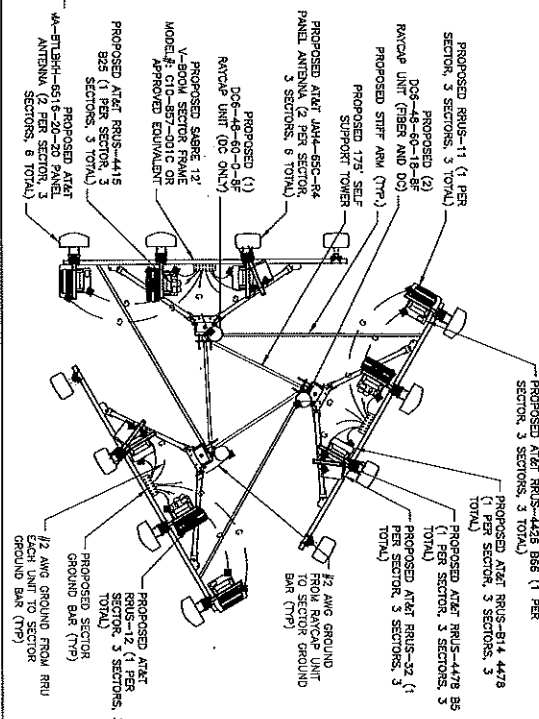


DC GENERATOR OPERATION:

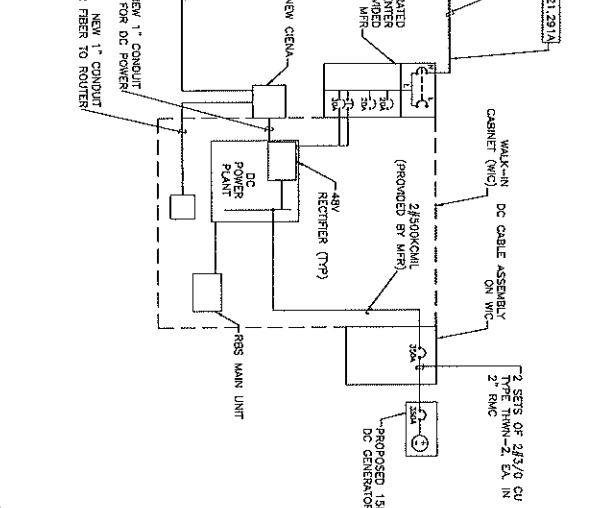
THE STANDBY DC GENSET CONNECTS DIRECTLY TO THE DC BUS THROUGH DISCONNECTS. THE GENSET PROVIDES THE PRIMARY POWER TO THE DC BUS. THE GENSET CONTROLS THE SITE BATTERY PACK AT VOLTAGE AROUND 50VDC. UPON THE LOSS OF UTILITY GRID, THE BATTERY VOLTAGE WILL DROP TO 45VDC. THE GENSET WILL START WHEN THE BATTERY VOLTAGE REACHES 50VDC. THE CONTROLLER STARTS THE ADJUSTABLE DELAY (60 SEC) TO CONFIRM UTILITY POWER LOSS. AFTER THE ELAPSED DELAY AND 30 SEC WARMUP TIME, THE 15KW DC GENERATOR DELIVERS FULL RATED POWER (2700W/95). UNTIL THE BATTERY VOLTAGE REACHES 51.5V, AT THIS POINT THE CONTROLLER SWITCHES TO CONSTANT VOLTAGE MODE, KEEPING THE BATTERY VOLTAGE AT 51.5V. THE GENSET WILL OPERATE AT THIS MODE UNTIL UTILITY GRID COMES BACK. WHEN POWER IS RESTORED, THE BATTERY VOLTAGE WILL INCREASE BACK TO 45VDC. THE RECHARGER CONTROLLER CHARGES THE BATTERY. THE RECHARGER OUTPUT CURRENT TO DROP. THIS ALSO FORCES THE DC GENERATOR OUTPUT CURRENT TO DROP. AUTOMATICALLY, CURRENT THE LOAD BECAUSE THEY ARE SET AT A HIGHER VOLTAGE.

THE DC GENSET WILL AUTOMATICALLY STOP WHEN THE GENERATOR VOLTAGE IS THREE BELOW CONDITIONS:
1. VDC (FIELD ADJUSTABLE)
2. LOW CURRENT DEMAND: CURRENT DROPS TO 15 AMPS (FIELD ADJUSTABLE)
3. TIME OUT: ELAPSED TIME 60SEC (FIELD ADJUSTABLE) - THIS DELAY IS TO CONFIRM UTILITY POWER IS FULLY RESTORED.

1 ANTENNA GROUNDING PLAN



2 ONE-LINE DIAGRAM



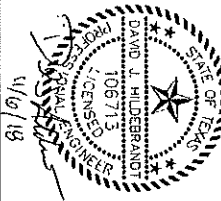


AT&T MOBILITY
1801 MULLEN AVE
FARMERS BRANCH, TX 75234

TILLMAN
INFRASTRUCTURE

SITE NAME:
ATC GS ICE
HOUSE RELO
SITE NUMBER:
HX0713 (HX0549)

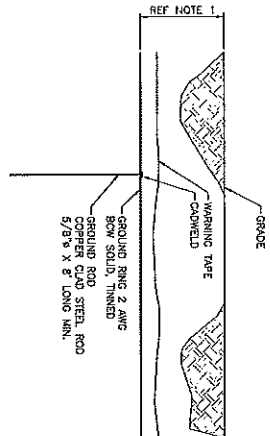
SITE ADDRESS:
6911 HWY 225
DEER PARK, TX 77556
HARRIS COUNTY



APPROVED BY: TH	
DATE DRAWN: 04/23/18	
NO DESCRIPTION	
0 ISSUED FOR CONSTRUCTION	BY DATE
1 REV RFS	IL 04/23/18
2 REV RFS	IL 03/14/18
3 REV RFS	WS 11/07/18

SHEET TITLE:
GROUNDING
DETAILS

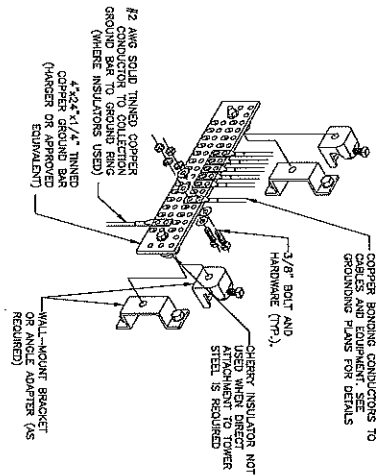
SHEET NUMBER:
E3.0



- NOTE:
1. DEPTH SHALL BE MIN. 30\"/>
 2. THE VERTICAL

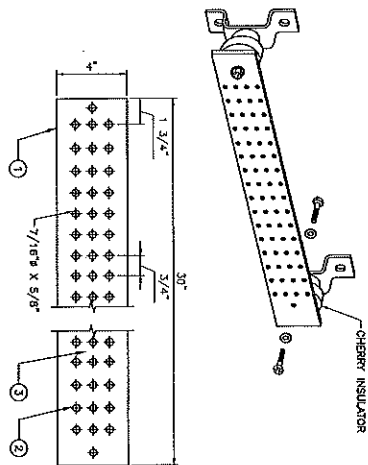
1 TYPICAL GROUND ROD DETAIL

SCALE: N.T.S.



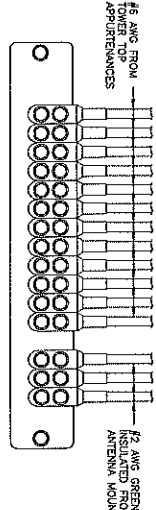
2 GROUND BAR DETAIL

SCALE: N.T.S.



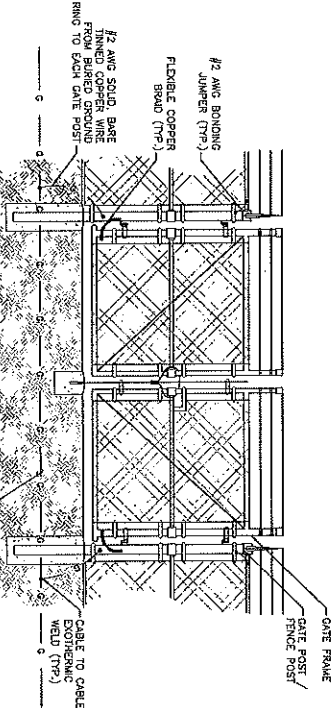
3 TYPICAL EXTERIOR MAIN GROUND BAR DETAIL

SCALE: N.T.S.



4 TYPICAL UPPER GROUND BAR DETAIL

SCALE: N.T.S.



5 FENCE AND GATE GROUNDING DETAIL

SCALE: N.T.S.

NOTE:

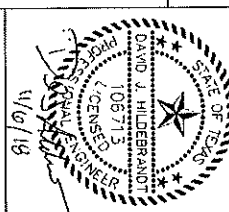
CONNECTIONS TO UTILIZE ANTI-OXIDATION COMPOUND (THOMAS & BETTS) ON ALL LUG CONNECTIONS.

SITE NAME:
ATC GS ICE
HOUSE RELO

SITE NUMBER:
HX0713 (HX0549)

SITE ADDRESS:
6911 HWY 225
DEER PARK, TX 77536

DEER PARK, TX 77609
HARRIS COUNTY



7 LEVELS
CONSULTING ENGINEERS, INC.
18185 ELM ST. STE. 101 PH-72115

GARDEN RIDGE, TX 78726

DRAWN BY: IL

APPROVED BY:	TH
DATE DRAWN:	04/23/18

NO.	DESCRIPTION	BY	DATE
	REVISION		

0	ISSUED FOR CONSTRUCTION	1L	04/
1	NEW RPTS	1L	03/

2	NEW RDS	WS	11/
---	---------	----	-----

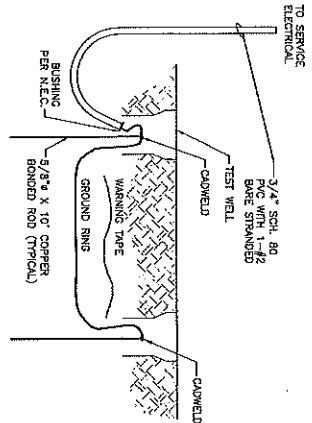
[illegible]

SHEET TITLE:			
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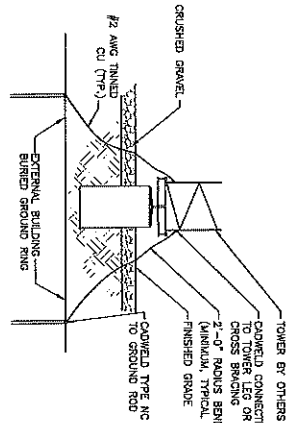
GROUNDING DETAILS

DETAILS

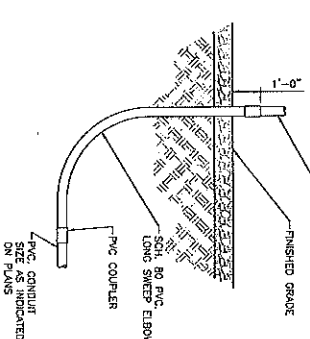
SHEET NUMBER:
E31



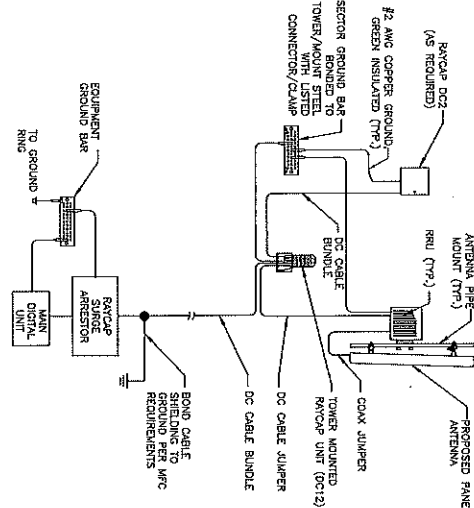
1
TYPICAL GROUNDING ELECTRODE DETAIL
SCALE: NTS



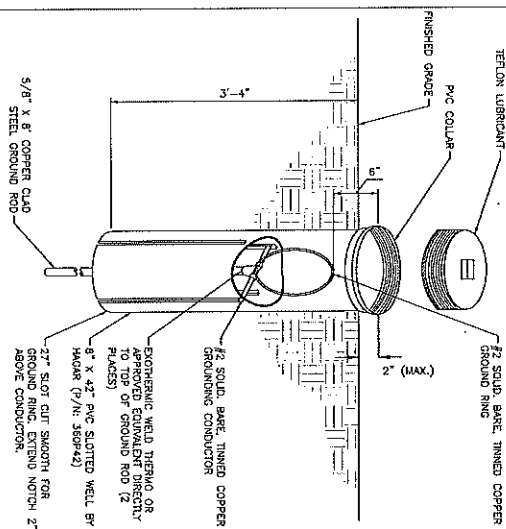
2 TYPICAL TOWER GROUNDING DETAIL



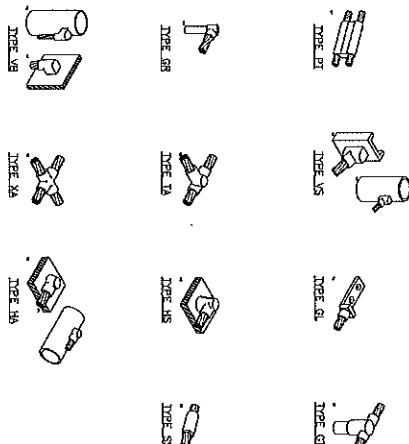
3 TYPICAL CONDUIT TRANSITION DETAIL



4 GROUNDING SCHEMATIC - TOWER TOP RU



5 TYPICAL INSPECTION WELL DETAIL
SCALE: N.T.S.



6 TYPICAL CADWELD CONNECTIONS

**GROUNDING
DETAILS**

SHEET NUMBER:
E3.1

