10144503



City of Napoleon, Ohio

Zoning Department

255 West Riverview Avenue, P.O. Box 151

Napoleon, OH 43545

Mark B. Spiess, Senior Engineering Technician / Zoning Administrator
Telephone: (419) 592-4010 Fax: (419) 599-8393

www.napoleonohio.com

Commercial Zoning Permit Application

Date 10/24/18 Job Location 11-600 State RD. 424	
Owner Honry County Telephone # (4/9) 592-	4016
Owner Address 1853 Oak wood Ave, Napolpon, OH 43545	
Contractor New Kirk Cell Phone # (231) 722-1691	
Description of Work to be Performed ADDing Back up Diesel generator to prexisting ATT CPIL tower.	<u></u>
Estimated Completion Date 12-20-/8 Estimated Cost 825,000	
	TOTAL COST
Demo Permit - \$100.00 - See Separate Form (MDEMO 100.1700.46690)	\$
Zoning Permit - \$50.00 (MZON 100.1700.46690)	\$ 50.00
Fence - \$25.00 (MZON 100.1700.46690)	\$
Garage and Shed Under 200 SF (Detached) - \$25.00 (MZON 100.1700.46690)	\$
Driveway/Sidewalk/Curbing - \$0.00	\$
Outside Water/Sewer Repair - \$0.00	\$
1" Water Tap, 5/8" Meter, Copper Setter and Transmitter - \$1,200.00(Outside City - \$1,680) (MLBDG 510.0000.47300)	\$
1" Water Tap, 3/4"Meter, Copper Setter and Transmitter - \$1,300.00(Outside City - \$1,820) (MLBDG 510.0000.47300)	\$
1" Water Tap, 1" Meter, Copper Setter and Transmitter - \$1,400.00 (Outside City - \$1,960) (MLBDG 510.0000.47300)	\$
1 1/2" Water Tap and Larger - See Operations Superintendent	\$
Sanitary Sewer Tap - \$600.00 (MLBDG 510.0000.44730)	\$
Sanitary Sewer, Multifamily 51 ft or more - \$100.00 + \$10.00 for each 50 ft increment (MLBDG 510.0000.44730)	\$
Plan Review - \$200.00 (MLBDG 510,0000.44730)	\$
Sewer Main Extension in Right of Way Inspection – 2% of Construction Cost (MLBDG 510.0000.44730)	\$
TOTAL FEE:	\$ 50.00
I FULLY UNDERSTAND THAT NO EXCAVATION, CONSTRUCTION OR STRUCTURAL ALTERATION, ELECTRICAL OR MECHANICA OR ALTERATION OF ANY BUILDING STRUCTURE, SIGN, OR PART THEREOF AND NO USE OF THE ABOVE SHALL BE UNDERTAKED PERFORMED UNTIL THE PERMIT APPLIED FOR HEREIN HAS BEEN APPROVED AND ISSUED BY THE CITY OF NAPOLEON ZONIN I hereby certify that I am the Owner of the named property, or that the proposed work is authorized by the Owner of record and that I have been authorized this application as his/her authorized agent and I agree to conform to all applicable laws of the jurisdiction. In addition, if a permit for Work described in the issued, I certify that the code official or the code official's authorized representative shall have the authority to enter areas covered by such permit at any recenforce the provisions of the code(s) applicable to such permit. I HEREBY ACKNOWLEDGE THAT I HAVE READ AND FULLY UNDERSTAND THE ABOVE LISTED INSTRUCTIONS. SIGNATURE OF APPLICANT: DATE: /0/24//8	EN OR G DEPARTMENT. by the Owner to make is application is
BATCH# 40023 CHECK# () DATE 10.30-18	

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BATCH#	40023	CHECK#	DATE 10-30-18	
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s\Zoning Application -	Commercial docx			

GENERAL DYNAMICS Wireless Services

Zachary Arrasmith
Site Acquisition

10/24/2018

Please see the attached permit application and check for a Generator installation for AT&T.

If you have any additional fees, or questions, please do not hesitate to call me at (502) 265-8536, or email me at zachary.arrasmith@gdit.com

Sincerely,

Zachary Arrasmith Site Acquisition General Dynamics

821 Ulrich Ave Louisville, KY 40219



CUS-NAPOLEON (HOSPITAL)

FA#: 10144503

11-600 STATE ROAD 424 NAPOLEON, OHIO 43545

GENERATOR UPGRADE

	SITE INFORMATION	APPROVALS			SHEET INDEX		concepts,	its specific pro ideas, designs and by any pe	loped and presented oject. None of the s, plans, and details serson, firm or
GOVERNING CODE:	IBC & NEC			SHEET NUMBER	DESCRIPTION	REVISION	corporation without the Group English	on for any purp he expressed to pineering, inc.	pose whatsoever, written consent of F The Owner shall be see for information with this project.
SITE ADDRESS:	11-600 STATE ROAD 424			T-1	TITLE SHEET	NUMBER 0	permitted reference	ta retain copi in connection	ies for information with this project.
	NAPOLEON, OHIO 43545	AT&T CONSTRUCTION MANAGER	DATE	SP-1	GENERAL NOTES	0	-		
COUNTY:	HENRY			A-1	SITE PLAN	0	11		APOLEON
PROPERTY OWNER:	AT&T	·	5 <u></u>	S-1	FOUNDATION DETAILS	0	11	(HOS	SPITAL)
		GENERAL DYNAMICS CONSTRUCTION MANAGER	DATE	E-1	WIRING DIAGRAM	0	11	FA#: 10	1144503
APPLICANT:	AT&T MOBILITY			D-1	CONSTRUCTION DETAILS	0	1 11 4	ודאדם מחי	E ROAD 424
	930 NATIONAL PKWY, 4TH FLOOR SCHAUMBURG, IL 60173	PROPERTY OWNER	a	D-2	CONSTRUCTION DETAILS	0			OHIO 4354
SCOPE OF WORK:	INSTALL NEW DIESEL GENERATOR WITH SUBBASE FUEL TANK ON NEW	PROPERTY OWNER	DATE	G-1	GENERATOR DETAILS	0	[OLLOI1,	
SCOPE OF WORK:	CONCRETE PAD. INTEGRATE EXISTING ALARM AND ELECTRICAL			G-2	GENERATOR DETAILS	0	DRAWN I		J
	CONNECTIONS WITH NEW GENERATOR.	SITE ACQUISITION	DATE	G-3	GENERATOR DETAILS	0			
LITTLET INCODULTION	I. THE BLANC CHOW COME IMPOSED CHECKER CTRUCTURE ADDRE	SILE MOROIONION	DAIL				CHECKET) BY:	M
UILLIY INFORMATION	H: THE PLANS SHOW SOME KNOWN SUBSURFACE STRUCTURE, ABOVE GROUND STRUCTURES AND OR EXISTING UTILITIES BELIEVED TO BE IN						NO:		ISSUE:
	THE WORKING AREA. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY ALL UTILITIES. PIPELINES AND OTHER STRUCTURES SHOWN OR	CONTRACTOR	DATE				0	06/05/18	REVIEW CD
	NOT SHOWN ON THESE PLANS. THE CONTRACTOR SHALL VERIFY STATE						1 -		
	AND LOCAL UTILITY NOTIFICATION SERVICES BEFORE DIGGING OR DRILLING, ANY DAMAGE TO EXISTING UTILITIES SHALL BE REPAIRED TO	w							
	THE SATISFACTION OF THE OWNER AND ENGINEER AT THE CONTRACTOR'S	CONTRACTOR	DATE						
	EXPENSE.						1		
GENERAL SITE	(1) FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION.	00/70/00/00	·				1	-	-
INFORMATION:	(2) HANDICAP ACCESS IS NOT REQUIRED.	CONTRACTOR	DATE				1		+
	(3) FACILITY HAS NO PLUMBING OR PARKING. (4) NO GRADING WILL BE REQUIRED FOR THIS SITE.								
	AREA MAP	PROJECT TEAM			VICINITY MAP		l		-
Independence of the second sec	SITE LOCATION	5925 LAKESIDE BLVD. WIRELESS INDIANAPOLIS, IN 46278 12906 SI 317-290-4984 LOUISVILI	AMS DYNAMICS SERVICES HELBYVILLE ROAD, STE. 230 E, KY 40243 02-653-6963		SITE LOCATIO Mapoleon	N The state of the	SHEET TO	No. 614 STATE OHIO OHIO OHIO OHIO OHIO OHIO OHIO OHI	7 - 0 - 0 - 0 - 0 - 0 - 0 - 0 - 0 - 0 -



GENERAL DYNAMICS Wireless Services
12906 SHELBYMILE ROAD,
STE. 230
LOUISVILLE, KY 40243
502-653-6963

FIRST GROUP ENGINEERING 5925 LAKESIDE BLVD. INDIANAPOLIS, IN 46278

NO:	DATE:	ISSUE
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NOTES TO CONTRACTOR:

- 1. THE GENERAL CONTRACTOR MUST VERIFY ALL DIMENSIONS, CONDITIONS AND ELEVATIONS BEFORE STARTING WORK. ALL DISCREPANCIES SHALL BE RESOLVED BEFORE PROCEEDING WITH THE WORK. ALL WORK SHALL BE PERFORMED IN A WORKMANLIKE MANNER IN ACCORDANCE WITH ACCEPTED CONSTRUCTION PRACTICES.
- 2. IT IS THE INTENTION OF THESE DRAWINGS TO SHOW THE COMPLETED INSTALLATION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL TEMPORARY BRACING, SHORING, TIES, FORM WORK, ETC. IN ACCORDANCE WITH ALL NATIONAL, STATE AND LOCAL ORDINANCES TO SAFELY EXECUTE ALL WORK AND SHALL BE RESPONSIBLE FOR SAME, ALL WORK SHALL BE IN ACCORDANCE WITH LOCAL CODES.
- 3. THE CONTRACTOR SHALL USE ADEQUATE NUMBER OF SKILLED WORKMAN WHO ARE THOROUGHLY TRAINED AND EXPERIENCED IN THE NECESSARY CRAFTS AND WHO ARE COMPLETELY FAMILIAR WITH THE SPECIFIED REQUIREMENTS AND METHOD NEEDED FOR PROPER PERFORMANCE OF THE WORK.
- 4. CONSTRUCTION CONTRACTOR AGREES THAT IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, CONSTRUCTION CONTRACTOR WILL BE REQUIRED TO ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THE PROJECT, INCLUDING THE SAFETY OF ALL PERSONS AND PROPERTY. THAT THIS REQUIREMENT SHALL BE MADE TO APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS AND CONSTRUCTION CONTRACTOR FURTHER AGREES TO INDEMNIFY AND HOLD DESIGN ENGINEER HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED. IN CONNECTION WITH PERFORMANCE OF WORK ON THIS PROJECT.
- 5. SITE GROUNDING SHALL COMPLY WITH AT&T MOBILITY WRELESS SERVICES TECHNICAL SPECIFICATIONS FOR FACILITY GROUNDING FOR CELL SITE STANDARDS, LATEST EDITION, AND COMPLY WITH AT&T MOBILITY TOWERS GROUNDING CHECKLIST, LATEST VERSION. WHEN NATIONAL AND LOCAL GROUNDING CODES ARE MORE STRINGENT, THEY SHALL GOVERN.
- 6. ALL WORK SHALL COMPLY WITH OSHA AND STATE SAFETY REQUIREMENTS. PROCEDURES FOR THE PROTECTION OF EXCAVATIONS, EXISTING CONSTRUCTION AND UTILITIES SHALL BE ESTABLISHED PRIOR TO FOUNDATION INSTALLATION. IF FAA
- 7. ALL WORK SHALL BE ACCOMPLISHED IN ACCORDANCE WITH ALL LOCAL, STATE AND FEDERAL CODES OR ORDINANCES. THE MOST STRINGENT CODE WILL APPLY IN THE CASE OF DISCREPANCIES OR DIFFERENCES IN THE CODE REQUIREMENTS.
- 8. ANY DAMAGE TO THE ADJACENT PROPERTIES WILL BE CORRECTED AT THE CONTRACTOR'S EXPENSE TO THE SATISFACTION OF THE LANDOWNER AND THE ENGINEER.
- 9. THE COMPLETE BID PACKAGE INCLUDES THESE CONSTRUCTION DRAWINGS ALONG WITH THE SPECIFICATIONS. CONTRACTOR IS RESPONSIBLE FOR REVIEW OF TOTAL BID PACKAGE PRIOR TO BID SUBMITTAL.
- 10. CONTRACTOR SHALL VERIFY LOCATION OF ALL EXISTING UTILITIES WITHIN CONSTRUCTION LIMITS PRIOR TO CONSTRUCTION.
- 11. THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING POSITIVE DRAINAGE ON THE SITE AT ALL TIME. SILT FENCE AND EROSION CONTROL SHALL BE MAINTAINED ON THE DOWNSTREAM SIDE OF THE SITE AT ALL TIMES. ANY DAMAGE TO ADJACENT PROPERTIES WILL BE CORRECTED AT THE CONTRACTOR'S EXPENSE
- 12. PERMITS: THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING AND INCURRING THE COST OF ALL REQUIRED PERMITS, INSPECTIONS, CERTIFICATES, ETC.
- 13. RECORD DRAWINGS: MAINTAIN A RECORD OF ALL CHANGES, SUBSTITUTIONS BETWEEN WORK AS SPECIFIED AND INSTALLED. RECORD CHANGES ON A CLEAN SET OF CONTRACT DRAWING WHICH SHALL BE TURNED OVER TO THE CONSTRUCTION MANAGER UPON COMPLETION OF THE PROJECT.
- 14. RECORD PHOTOS: INCLUDE TIMEDATE STAMPED PHOTOS WITH TAPE MEASURE DEPTH VERIFICATION.
- 15. ALL MATERIAL SHALL BE FURNISHED AND WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS.
- 16. CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIRING ANY DAMAGE CAUSED BY THE CONSTRUCTION OPERATION.
- 17. CONTRACTOR SHALL REMOVE ALL TRASH AND DEBRIS FROM THE SITE ON A DAILY BASIS.
- 18. INFORMATION SHOWN ON THESE DRAWINGS WAS OBTAINED FROM DRAWINGS PROVIDED BY THE SITE OWNER. CONTRACTOR SHALL NOTIFY GENERAL DYNAMICS WIRELESS SERVICES OF ANY DISCREPANCIES PRIOR TO ORDERING MATERIAL OR PROCEEDING WITH CONSTRUCTION.
- 19. CLEARING OF TREES AND VEGETATION ON THE SITE SHOULD BE HELD TO A MINIMUM. ONLY THE TREES NECESSARY FOR CONSTRUCTION OF THE FACILITIES SHALL BE REMOVED. ANY DAMAGE TO THE PROPERTY OUTSIDE THE LEASED PROPERTY SHALL BE REPAIRED BY THE CONTRACTOR AT HIS OWN EXPENSE.
- 20. ALL SUITABLE MATERIAL FOR BACK FILL OF THE SITE SHALL BE INCLUDED IN THE BID EXCESS TOPSOIL AND UNSUITABLE MATERIAL SHALL BE DISPOSED OF OFF SITE AT LOCATION APPROVED BY GOVERNING AGENCIES PRIOR TO DISPOSAL.
- 21. SEEDING AND MULCHING OF THE SITE SHALL BE ACCOMPLISHED AS SOON AS POSSIBLE AFTER COMPLETION OF THE SITE DEVELOPMENT. THE CONTRACTOR IS RESPONSIBLE FOR POSSIBLE FOR A MINIMUM PERIOD OF ONE YEAR.

GENERAL NOTES:

- 1. THIS PROPOSAL IS FOR THE ADDITION OF A NEW GENERATOR ON A CONCRETE PAD TO AN EXISTING UNMANNED TELECOMMUNICATIONS FACILITY.
- 2. THE PROPOSED FACILITY WILL BE UNMANNED AND DOES NOT REQUIRE POTABLE WATER OR SEWER SERVICE.
- THE PROPOSED FACILITY IS UNMANNED AND IS NOT FOR HUMAN HABITATION. NO HANDICAP ACCESS IS REQUIRED.
- OCCUPANCY IS LIMITED TO PERIODIC MAINTENANCE AND INSPECTION, APPROXIMATELY 2 TIMES PER MONTH BY AT&T TECHNICIANS.
- 5. OUTDOOR STORAGE AND SOLID WASTE CONTAINERS ARE NOT PROPOSED.
- 6. ALL MATERIAL SHALL BE FURNISHED AND WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS.
- 7. CONTRACTOR SHALL REMOVE ALL TRASH AND DEBRIS FROM THE SITE ON A DAILY BASIS.
- 8. INFORMATION SHOWN ON THESE DRAWINGS WAS OBTAINED FROM DRAWINGS PROVIDED BY THE SITE OWNER. CONTRACTOR SHALL NOTIFY AT&T OF ANY DISCREPANCIES PRIOR TO ORDERING MATERIAL OR PROCEEDING WITH CONSTRUCTION.

ELECTRICAL NOTES:

- A. GENERAL
- 1. COORDINATE LOCATION AND PROPER REQUIREMENTS OF ALL EQUIPMENT WITH AT&T MOBILITY AND EQUIPMENT SUPPLIES PRIOR TO INSTALLATION.
- 2. COORDINATE LOCATION AND REQUIREMENTS FOR ELECTRICAL SERVICE WITH THE PROPERTY REPRESENTATIVE, AT&T MOBILITY AND UTILITY COMPANIES. ROUTING OF CONDUITS MAY BE MODIFIED TO MEET SITE REQUIREMENTS. EXACT CONDUIT ROUTING TO BE DETERMINED IN THE
- 3. ALL WRING AND EQUIPMENT SHOWN ON ELECTRICAL SHEETS SHALL BE FURNISHED AND INSTALLED UNDER ELECTRICAL PORTION OF CONTRACT UNLESS OTHERWISE NOTED.
- 4. UNINTERRUPTED ELECTRICAL SERVICE FOR EXISTING EQUIPMENT SHALL BE MAINTAINED DURING THE INSTALLATION OF THE WORK DESCRIBED UNDER THESE DOCUMENTS. TEMPORARY EQUIPMENT, CABLES AND WHATEVER ELSE IS NECESSARY SHALL BE PROVIDED BY CONTRACTOR AS REQUIRED TO MAINTAIN ELECTRICAL SERVICE. TEMPORARY SERVICE FACILITIES, IF REQUIRED AT ANY TIME, SHALL NOT BE DISCONNECTED OR REMOVED UNTIL NEW SERVICE EQUIPMENT IS IN PROPER OPERATION. IF ANY SERVICE OR SYSTEM MUST BE INTERRUPTED, THE CONTRACTOR SHALL REQUEST PERMISSION IN WRITING STATING THE DATE, TIME, ETC. THE SERVICE WILL BE INTERRUPTED AND THE AREAS AFFECTED. THIS REQUEST SHALL BE MADE IN SUFFICIENT TIME FOR PROPER ARRANGEMENTS TO BE MADE. WRITTEN PERMISSION SHALL BE OBTAINED FROM THE OWNER BEFORE INTERRUPTING ELECTRICAL SERVICE.
- 5. COORDINATE NEW WORK WITH OTHER TRADES AND VERIFY EXISTING CONDITIONS TO AVOID INTERFERENCE. IN CASE OF INTERFERENCE, AT&T MOBILITY'S REPRESENTATIVE WILL DECIDE WHICH WORK IS TO BE RELOCATED, REGARDLESS OF WHICH WAS FIRST INSTALLED.
- 6. THE INSTALLATION MUST COMPLY WITH NEC AND ALL FEDERAL, STATE AND LOCAL RULES AND REGULATIONS.
- 7. THE DRAWINGS ARE DIAGRAMMATIC AND INDICATE THE GENERAL ARRANGEMENT OF SYSTEMS AND EQUIPMENT UNLESS OTHERWISE DEFINED BY DIMENSIONS OR DETAILS. EXACT EQUIPMENT LOCATIONS AND RACEWAY ROUTING SHALL BE GOVERNED BY ACTUAL FIELD CONDITIONS ANDOR DIRECTIONS FROM AT&T MOBILITY'S REPRESENTATIVE.
- 8. CONTRACTOR SHALL PAY ALL PERMITS AND FEES REQUIRED.
- 9. ALL MATERIALS SHALL BE FURNISHED AND WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE APPLICABLE SECTIONS OF THE STANDARDS REFERENCED BELOW:
 - A. ANSI (AMERICAN NATIONAL STANDARDS INSTITUTE)
 - B. ASTM (AMERICAN SOCIETY FOR TESTING MATERIALS)
 - C. ETL (ELECTRICAL TESTING LABORATORY)
 - D. ICEA (INSULATED CABLE ENGINEERS ASSOCIATION)
 E. IEEE (INSTITUTE OF ELECTRICAL AND ELECTRONIC ENGINEERS)
 - F. NBFU (NATIONAL BOARD OF FIRE UNDERWRITERS)
 - G. NESC (NATIONAL ELECTRICAL SAFETY CODE)
 - H. NEMA (NATIONAL ELECTRICAL MANUFACTURER'S ASSOCIATION)
 - I. NFPA (NATIONAL FIRE PROTECTION ASSOCIATION)
 - J. UL (UNDERWRITERS LABORATORY)
- 10. CONTRACTOR SHALL REVIEW PLANS, DETAILS AND SPECIFICATIONS IN DETAIL AND ADJUST WORK TO CONFIRM WITH ACTUAL SITE CONDITIONS SO THAT ELECTRICAL DEVICES AND EQUIPMENT WILL BE PROPERLY LOCATED AND READILY ACCESSIBLE. QUANTITIES LISTED IN MATERIAL LISTS ON THE DRAWINGS ARE FOR INFORMATION ONLY. THE CONTRACTOR SHALL PROVIDE HIS OWN TAKEOFF FOR MATERIAL QUANTITY AND TYPES BASED ON ACTUAL SITE CONDITIONS. IN ADDITION, CONTRACTOR SHALL PROVIDE ALL NECESSARY MATERIALS TO INSTALL EQUIPMENT FURNISHED BY AT&T MOBILITY OR ITS SUPPLIERS. ALL ITEMS NOT SPECIFICALLY MENTIONED HEREIN OR SHOWN ON THE CONTRACT DRAWINGS, BUT WHICH ARE OBVIOUSLY NECESSARY TO MAKE A COMPLETE WORKING INSTALLATION, SHALL BE INCLUDED.
- 11. THE CONTRACTOR OR BIDDER SHALL BEAR THE RESPONSIBILITY OF NOTIFYING (IN WRITING) AT&T MOBILITY'S REPRESENTATIVE OF ANY CONFLICTS PRIOR TO THE SUBMISSION OF CONTRACTOR'S PROPOSAL OR PERFORMANCE OF WORK. IN THE EVENT OF DISCREPANCIES THE CONTRACTOR SHALL PRICE THE MORE COSTLY OR EXTENSIVE
- 12. ALL FLOORS WHERE PENETRATIONS ARE REQUIRED IN BUILDING ARE TO BE CORE DRILLED AND THEN FIREPROOFED.

B. WIRING CONDUIT

- 1. PROVIDE PULL BOXES AND JUNCTION BOXES WHERE SHOWN OR AS REQUIRED BY CODE SUCH THAT NO MORE THAN THE EQUIVALENT OF FOUR QUARTER BENDS (360 DEGREES TOTAL) EXIST IN/ON CONDUIT RUN.
- 2. ALL POWER AND CONTROL INDICATION WIRING SHALL BE TYPE THHN/THWN 800V RATED 75 DEGREES CELSIUS, UNLESS NOTED OTHERWISE.
- 3. CONDUIT BENDS SHALL BE MADE IN ACCORDANCE WITH NEC TABLE 346-10. NO RIGHT ANGLE DEVICE OTHER THAN STANDARD CONDUIT ELBOWS WITH 12" MINIMUM INSIDE SWEEPS FOR ALL CONDUITS 2" OR LARGER.
- 4. POWER WIRING SIZE SHALL NOT BE SMALLER THAN 12 AWG.
- 5. ALL WIRING SHALL BE COPPER. ALUMINUM WILL NOT BE ACCEPTABLE. ALL POWER CIRCUITS SHALL CONTAIN A GROUND WIRE.
- 6. PHASE MARKINGS TO BE USED AT POWER CONDUCTOR TERMINATIONS.
- 7. CONTRACTOR SHALL ENSURE INTEGRITY IS MAINTAINED WHEN INSTALLING CONDUIT AND WIRING.
- 8. INSTALL PULL STRING IN ALL CONDUIT.
- 9. FOR ROOFTOP INSTALLS AND BUILD-OUTS, CONDUITS INSIDE BUILDING AND ON ROOF SHALL BE RGS, UNLESS OTHERWISE NOTED. FOR RAW LAND SITES AND CO-LOCATES, PVC SCHEDULE 80 SHALL BE UTILIZED UNLESS NOTED OTHERWISE.
- 10. MAINTAIN MINIMUM 1'-0" VERTICAL AND 1'-0" HORIZONTAL SEPARATION FROM ANY MECHANICAL GAS PIPING.
- 11. ALL WIRING ROUTED IN PLENUM TO BE PLENUM RATED OR IN METALLIC FLEX (LIQUIDITE) CONDUIT.
- 12. INSPECTION WINDOWS ARE REQUIRED ON ALL LUGS.
- C. EQUIPMENT
- 1. EQUIPMENT PARTS CONNECTED TO EXISTING PANELS, DUCTS, ETC. SHALL MATCH THE CHARACTERISTICS (AC, V, A) OF THAT EQUIPMENT.
- 2. ALL ELECTRICAL EQUIPMENT OUTSIDE SHALL BE NEMA OR 3R RATED.
- D. GROUNDING
- 1. ALL GROUND CONNECTIONS TO BUILDING SHALL BE MADE USING TWO—HOLE CONNECTORS. PROVIDE STAINLESS STEEL BOLTS AND LOCK WASHERS ON ALL MECHANICAL GROUND CONNECTIONS.
- 2. ALL EQUIPMENT SURFACES TO BE BONDED TO GROUNDING SYSTEM SHALL BE STRIPPED OF AL PAINT AND DIRT. CONNECTIONS TO VARIOUS METALS SHALL BE OF A TYPE AS TO NOT CAUSE A GALVANIC OR CORROSIVE REACTION. AREA SHALL BE REPAINTED FOLLOWING BONDING.
- 3. ANY METALLIC ITEM WITHIN 6' OF GROUND CONDUCTORS MUST BE CONNECTED TO THE GROUNDING SYSTEM.
- 4. EXTERIOR, ABOVE GRADE GROUND CONNECTIONS SHALL BE FURNISHED WITH A LIBERAL PROTECTIVE COATING OF ANTI-OXIDE COMPOUND.
- 5. ALL MATERIALS AND LABOR REQUIRED FOR THE GROUNDING SYSTEM AS INDICATED ON THE PLANS AND DETAILS, AND AS DESCRIBED HEREIN SHALL BE FURNISHED BY THIS CONTRACTOR UNLESS OTHERWISE NOTED.
- 6. EXACT LOCATION OF GROUND CONNECTION POINTS SHALL BE DETERMINED IN FIELD.
 ADJUST LOCATIONS INDICATED ON THE PLANS ACCORDING TO ACTUAL EQUIPMENT LOCATIONS TO KEEP THE GROUND CONNECTIONS CABLES AS SHORT AS POSSIBLE.
- 7. PROVIDE ALL ELECTRICAL SYSTEM AND EQUIPMENT GROUNDS AS REQUIRED BY THE CURRENT EDITION OF THE NATIONAL ELECTRICAL CODE AND THE CURRENT EDITION OF THE NATIONAL ELECTRICAL SAFETY CODE. BONDING JUMPERS WITH APPROVED GROUND FITTINGS SHALL BE INSTALLED AT ALL RACEWAYS, EQUIPMENT ENCLOSURES, PULL BOXES, ETC. TO MAINTAIN GROUND CONTINUITY WHERE REQUIRED BY CODE.
- 8. ALL EQUIPMENT GROUND CONDUCTORS SHALL BE TIN COATED, 2 AWG COPPER UNLESS NOTED OTHERWISE ON THE DRAWINGS.
- E. INSPECTION DOCUMENTATION
- 1. INCLUDE TIME DATE STAMPED PHOTOS WITH TAPE MEASURE VERIFICATION FOR ALL BURIED CONDUIT.
- 2. THE CONTRACTOR, UPON COMPLETION OF HIS WORK, SHALL PROVIDE AS—BUILT DRAWINGS. INFORMATION SHOULD BE GIVEN TO THE GENERAL CONTRACTOR FOR INCLUSION IN FINAL AS BUILT SURVEY DOCUMENTS TO BE GIVEN TO THE OWNER.
- 3. CONTRACTOR SHALL SUPPLY DOCUMENTATION ATTESTING TO THE COMPLETE GROUND SYSTEM'S RESISTIVITY (MAX. 5 OHMS).
- 4. AN ELECTRICAL INSPECTION SHALL BE MADE BY AN INSPECTING AGENCY APPROVED BY AT&T MOBILITY'S REPRESENTATIVE. CONTRACTOR SHALL COORDINATE ALL INSPECTIONS
- 5. CONTRACTOR SHALL HAVE ATS AND GENERATOR RELAY INSTALLATION AND CONNECTIONS INSPECTED BY OTHERS TO ENSURE THAT UL LISTING FOR THAT EQUIPMENT IS NOT VOIDED.



GENERAL DYNAMICS
Wireless Services
12906 SHELBYMLLE ROAD,
STE. 230
LOUISVILLE, KY 40243
502-653-6963

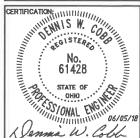
FIRST GROUP ENGINEERING 5925 LAKESIDE BLVD. INDIANAPOLIS, IN 46278

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CUS-NAPOLEON (HOSPITAL) FA#: 10144503

11-600 STATE ROAD 424 NAPOLEON, OHIO 43545

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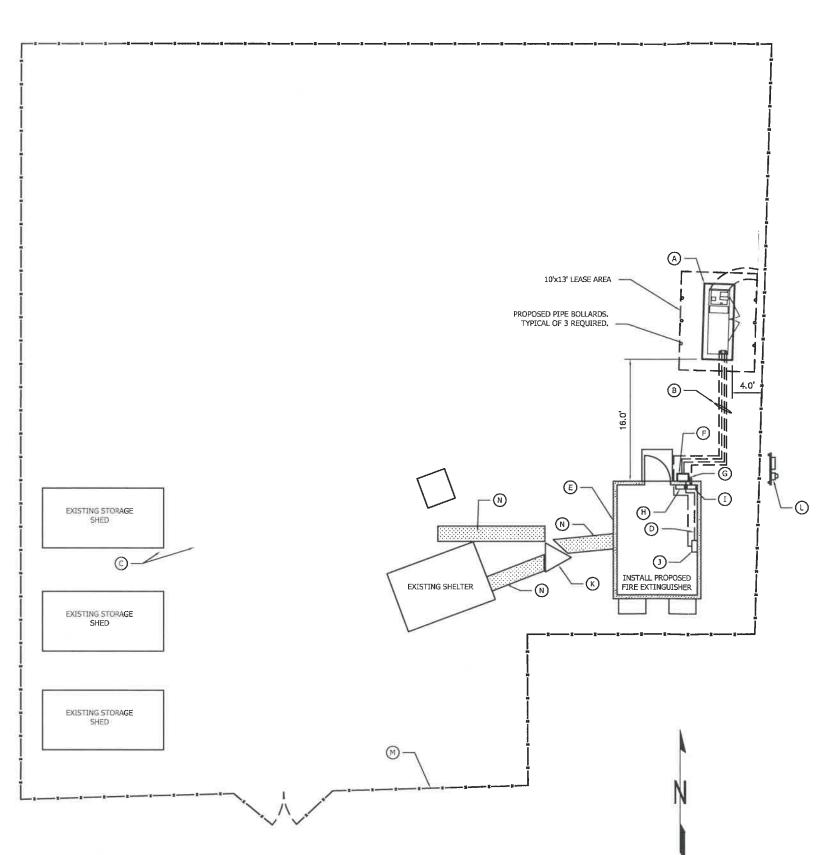
SHEET TITLE:

GENERAL NOTES

SHEET NUMBER:

SP-1

DO NOT SCALE DRAWING



SCOPE OF WORK NOTES

GENERAL:

- NEW DIESEL GENERATOR PROVIDED BY GENERAL DYNAMICS AND INSTALLED BY GENERAL CONTRACTOR.
- NEW 4'-0' X 10'-0' CONCRETE PAD PROVIDED AND INSTALLED BY GENERAL CONTRACTOR (AS REQUIRED) SEE S-1.
- NEW AUTOMATIC TRANSFER SWITCH PROVIDED BY GENERAL DYNAMICS AND INSTALLED BY CONTRACTOR (AS REQUIRED)
- · CONTRACTOR TO VERIFY ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION.
- CONTRACTOR SHALL RESTORE AND REPAIR ANY DAMAGED AREAS CAUSED BY CONSTRUCTION TO ORIGINAL OR BETTER CONDITION.

CONDUITS:

- . INSTALL PULL STRING IN EACH CONDUIT.
- (1) NEW 2" AND (1) NEW 1" ELECTRICAL CONDUITS WITH CONDUCTORS TO RUN FROM NEW GENERATOR TO NEW ATS. CONDUIT PROVIDED AND INSTALLED BY GENERAL CONTRACTOR, SEE E-1.
- (2) NEW 1' ELECTRICAL CONDUIT WITH CONDUCTORS TO RUN FROM NEW GENERATOR TO AC PANEL. CONDUIT PROVIDED AND INSTALLED BY GENERAL CONTRACTOR. SEE E-1.
- NEW 1" ALARM CONDUIT AND CABLING PROVIDED AND INSTALLED BY GENERAL CONTRACTOR. SEE E-1.

GROUNDING:

 NEW EXOTHERMIC CONNECTION FROM EXISTING GROUND RING TO NEW MECHANICAL CONNECTION AT GENERATOR CHASSIS. GENERAL CONTRACTOR TO VERIFY LOCATION IN FIELD. LOCATE GROUND RODS NO MORE THAN 16'-O" APART.

H-FRAME:

- PROVIDE NEW H-FRAME IF REQUIRED, MATCH EXISTING H-FRAME MATERIAL FOR CONSTRUCTION OF NEW H-FRAME. USE ALL GALVANIZED COMPONENTS, WHITE PLASTIC CAPS ON UNI-STRUTS, WEATHER CAPS ON TOPS OF PIPE AND CONCRETE.
- · SUPPORTS BELOW FROST LINE.
- TOP OF FOOTING SHOULD BE AT LEAST 2" ABOVE EXISTING GROUND LEVEL.
- SLOPE THE GROUND AWAY FROM THE H-FRAME FOR POSITIVE WATER DRAINAGE OFF OF THE H-FRAME.

FIRE PROTECTION:

A TEN POUND DRY CHEMICAL (MONOAMMONIUM PHOSPHATE) FIRE EXTINGUISHER SHALL BE PLACED ON—SITE. COORDINATE PLACEMENT AND LOCATION WITH SITE OWNER OR CONSTRUCTION MANAGER.

CONSTRUCTION LEGEND

- A. INSTALL NEW DIESEL GENERATOR PER MANUFACTURERS SPECIFICATIONS IN 4'X10' LEASE AREA.
- B. PROPOSED AT&T UNDERGROUND ELECTRICAL SERVICE & CONTROLS FROM GENERATOR TO EQUIPMENT INSIDE SHELTER, SEE SHEET E-1. FIELD LOCATE EXISTING UTILITIES & GROUND RING.
- C. 2 -#2 AWG BARE TINNED GROUND WIRE TO EXISTING SITE GROUND RING. GROUND GENERATOR PER MANUFACTURERS RECOMMENDATIONS.
- D. CONNECT PROPOSED ATS TO EXISTING ALARM/TELCO
- E. AT&T EQUIPMENT SHELTER
- F. INSTALL AUTOMATIC TRANSFER SWITCH
- G. INTERCEPT MAIN POWER FEED IN FRONT OF EXISTING MTS. ROUTE MAIN POWER FEED TO NEW ATS. RECONNECT NEW ATS TO EXISTING MTS.
- H. EXISTING DISCONNECT
- I. EXISTING AC PANEL -- VERIFY LOCATION
- J. EXISTING TELCO BOARD/ALARM -- VERIFY LOCATION
- K. GUYED TOWER
- L. AT&T METER
- M. CHAIN LINK FENCE
- N. ICE BRIDGE



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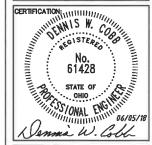
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STRUCTURAL GENERAL NOTES: GENERAL CONDITIONS DESIGN AND CONSTRUCTION OF ALL WORK SHALL CONFORM TO LOCAL BUILDING CODES, ACI 318-11. IN CASE OF CONFLICT BETWEEN THE CODES, STANDARDS AND/OR MANUFACTURER'S REQUIREMENTS, USE THE MOST STRINGENT PROMSIONS. 1.2 IT IS THE EXPRESS INTENT OF PARTIES INVOLVED IN THIS PROJECT THAT THE CONTRACTOR OR SUBCONTRACTOR OR INDEPENDENT CONTRACTOR OR THE RESPECTIVE EMPLOYEES SHALL EXCULPATE THE ARCHITECT, THE ENGINEER, TECH, CONSTRUCTION MANAGER, THE OWNER AND THEIR AGENTS FROM ANY EXPENSE ARISING IN ANY MATTER FROM THE WRONGFUL OR NEGLIGENT ACT, OR FAILURE TO CARRY METHODS, TECHNIQUES OR PROCEDURES OR FAILURE TO CONFORM TO THE STATE SCAFFOLDING ACT IN CONNECTION WITH THE WORK. 1.4 VERIFY ALL EQUIPMENT MOUNT 1.5 DESIGN LOADS ARE (KOHLER): VERIFY ALL EQUIPMENT MOUNTING DIMENSIONS PER MANUFACTURER DRAWINGS LIVE LOAD. 100 PSF EQUIPMENT SIZE: _99" H, 94.8" W, 38" D WEIGHT WITH WOODEN SHIPPING SKID ENCLOSED GENERATOR WITH EMPTY FUEL TANK_3750 LBS 2.0 FOR DESIGN AND ANALYSIS OF THE FOUNDATION, THE MINIMUM NET SOIL BEARING 3.0 CAPACITY SHALL BE ASSUMED TO BE 2000# PSF. MEET OR EXCEED THE FOLLOWING CODES AND STANDARDS: CONSTRUCTION: ACI 301 CRSI MANUAL OF STANDARD PRACTICE DETAILING: ASTM A 615 GRADE 60, DEFORMED ASTM C 94. READY MIX CONCRETE REINF. STEEL: MIXING: AIR ENTRAINMENT___ACI 318 AND ASTM C-260 AGREGATE ASTM C 33 AND C 330 (FOR LIGHT WEIGHT) 3.2 CONCRETE STRENGTH AT 28 DAYS SHALL BE 4000 PSI MINIMUM. 3.3 DO NOT FIELD BEND OR WELD TO GRADE 60 REINFORCED STEEL. 3.4 PROVIDE AIR ENTRAINED CONCRETE WITH AIR CONTENT OF 5 TO 7% FOR ALL CONCRETE EXPOSED TO EARTH OR WEATHER. 3.5 MAXIMUM AGGREGATE SIZE: 3.47 3.5 MAXIMUM AGGREGATE SIZE: 3/4" 3.6 DO NOT USE IN ADMIXTURE, WATER OR OTHER CONSTITUENTS OF CONCRETE WHICH HAS CALCIUM CHLORIDE. WHICH HAS CALCIUM CHLORIDE. 3.7 MINIMUM COVER FOR REINFORCING STEEL SHALL BE AS SHOWN ON PLANS. 4.0 FOUNDATION AND EXCAVATION NOTES 4.1 SLAB SHALL BE CONSTRUCTED UPON UNDISTURBED, NATURAL SUBGRADE OR COMPACTED GRANULAR FILL WITH AN ASSUMED MINIMUM NET ALLOWABLE BEARING COMPACTED GRANULAR FILE WITH AN ASSUMED MINIMUM NET ALLOWABLE BEARING CAPACITY OF 2000# PSF. 4.2 ALL ORGANIC AND/OR OTHER UNSUITABLE MATERIAL SHALL BE REMOVED FROM FOUNDATION AND SLAB SUBGRADE AND BACKFILL AREAS, AND THEN BACKFILLED WITH ACCEPTABLE GRANULAR FILL COMPACTED TO 95 PERCENT

DOUBLE WALL FUEL BASE SPECIFICATION

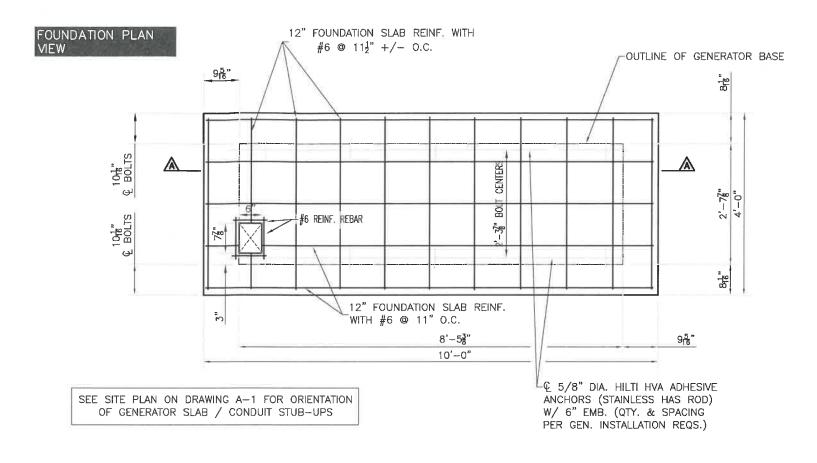
REF: ATT 50KW GENERATOR PACKAGE UL REGISTRATION NUMBER: MH18459 UL 142 DOUBLE WALL FUEL TANK BASE SPECIFICATION FUEL TANK BASE CONSTRUCTION: BE CONSTRUCTED IN ACCORDANCE WITH UNDERWRITERS LABORATORIES BE CONSTRUCTED IN ACCORDANCE WITH UNDERWRITERS LABORATORIES STANDARD UL-142. BE CONSTRUCTED IN ACCORDANCE WITH FLAMMABLE AND COMBUSTIBLE ENGINE AND GAS TURBINES, NFPA 37; AND THE STANDARD FOR EMERGENCY AND STANDBY POWER SYSTEMS, NFPA 110.

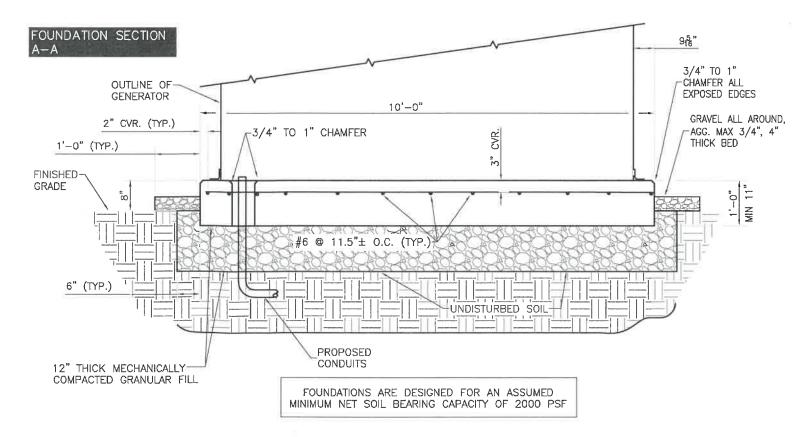
ANCHOR MINIMUM (4) © 5/8" FOR GEN-SET MOUNTING.
SUB BASE TANK TESTING: PRIMARY TANK AND SECONDARY CONTAINMENT BASIN SECTIONS SHALL BE PRESSURIZED AT 3-5 PSI AND LEAK-CHECKED TO ENSURE INTEGRITY OF SUB BASE WELD SEAMS PER UL-142 STANDARDS. -5 GALLON SPILL CONTAINMENT WITH ALARM

OF MAXIMUM DENSITY AT OPTIMUM MOISTURE CONTENT (ASTM D1557)
4.3 THE CONTRACTOR SHALL PROVIDE ALL NECESSARY MEASURES TO PREVENT ANY WATER, FROST, OR ICE FROM PENETRATING ANT FOOTING OR STRUCTURE

SUBGRADE BEFORE AND AFTER PLACING CONCRETE, AND UNTIL SUCH CONCRETE

-40% REMAINING FOR ALARM
-20% REMAINING FOR SHUT DOWN
-FACTORY PRE-SET AT 95% FULL ALARM
FULL CONTAINMENT BASIN: SUB BASE TANK SHALL INCLUDE A WELDED STEEL CONTAINMENT BASIN. SIZED AT A MINIMUM OF 110% OF THE TANK CAPACITY TO PREVENT ESCAPE OF FUEL INTO THE ENVIRONMENT IN THE EVENT OF A TANK RUPTURE. A FUEL CONTAINMENT BASIN LEAK DETECTOR SWITCH SHALL BE







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		DI	AGRAM	CIRCUIT	CHEDULI	
NO.	FROM	то	WIRES	GROUND	CONDUIT SIZE	FUNCTION
1	SERVICE PROVIDER1	PROPOSED ATS	(3) 3/10	(1) #4	2**	POWER FEED
2	PROPOSED ATS	GENERATOR	(2) #10	(1) #10	1"	START CIRCUIT
3	GENERATOR	PROPOSED ATS	(3) 3/10	(1) #4	2"	POWER FEED
4	PROPOSED ATS	EXISTING DISCONNECT	(3) 3#0	(1) #4	2"	POWER FEED
5	EXISTING DISCONNECT	EXISTING CIRCUIT PANEL	(3) 3/10	(1) #4	2"	POWER FEED
6	EXISTING CIRCUIT PANEL	GENERATOR	(2) #12 (2) #12	(1) #12 (1) #12	1=	2-20 AMP CIRCUITS FOR (1) GENERATOR BLOCK HEATER & (2) BATTERY HEATER/CHARGER
7	PROPOSED ATS	EXISTING ALARM	4-PAIR 24 AWG	N/A	1"	ALARM CABLES FROM ATS PROVIDE 25' OF SLACK CABLE. FINAL PUNCH DOWN IS BY AT&T TECH. LABEL ALL WIRES.
8	GENERATOR	EXISTING ALARM	12-PAIR 24 AWG	N/A	1"	ALARM CABLES FROM GENERATOR PROVIDE 25' OF SLACK CABLE. FINAL PUNCH DOWN IS BY AT&T TECH. LABEL ALL WIRES.
		ALARM	WIRFII	DENTIFIC	ATION CH	ART
NAME		COLOR				DESCRIPTION
CF		GREEN/WH				CRITICAL FAULT
FL		BLUE/WHI	ΤE			FUEL LEAK
GR		BROWN/WH	IITE			GENERATOR RUNNING
LF		GREEN/RI	ED			LOW FUEL
MAF		-				MAJOR FAULT
MIF		BLUE/BLA	CK	MA	JOR FAULT (PRE-ALARMS)	

EXISTING ALARM PROPOSED **GENERATOR** PROPOSED ATS 6 EQUIPMENT 0 A. TELCO/ALARM PANEL B. AC PANEL C. PROPOSED ATS ON PROPOSED H-FRAME **EXISTING** EXTENSION CIRCUIT PANEL D. EXISTING MTS EXISTING CGIP EXISTING F. EXISTING AT&T METER MTS FROM METER / PRIMARY DISCONNECT **EXISTING** CIRCUIT PANEL PROPOSED WIRING DIAGRAM SCALE: N.T.S.

NOTE: FIELD VERIFY LOCATION OF ALL EQUIPMENT

NOTE: CONTRACTOR TO FOLLOW MANUFACTURER'S ALARM RECOMMENDATIONS



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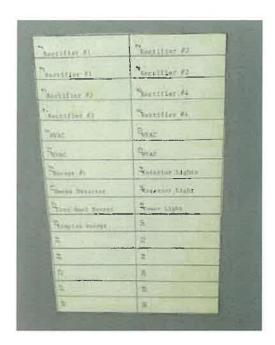
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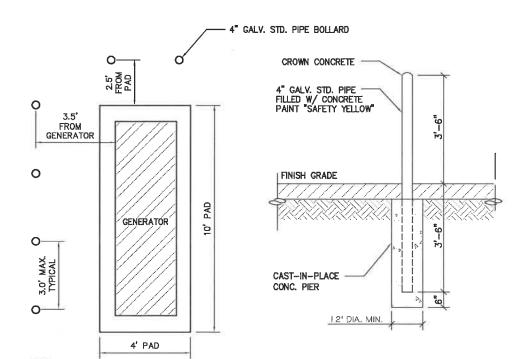
NOTE: CONTRACTOR TO LABEL WIRES WITH P-TOUCH OR SIMILAR LABELS ONLY. ABSOLUTELY NO HANDWRITTEN LABELS

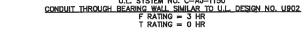
SCALE: N.T.S.

NOTE: CONTRACTOR TO UTILIZE NEXT AVAILABLE IN SEQUENCE SINGLE BREAKER POSITION FOR GENERATOR, BATTERY CHARGER, BATTERY HEATER, AND BLOCK HEATER.

EXISTING PANEL SCALE: N.T.S.

PIPE BOLLARD PLAN LAYOUT AND DETAILS





1. FLOOR OR WALL ASSEMBLY: MINIMUM 4-1/2" THICK REINFORCED LIGHTWEIGHT OR NORMAL WEIGHT (100-150# PCF) CONCRETE. WALL MAY ALSO BE CONSTRUCTED OF ANY UL CLASSIFIED CONCRETE BLOCKS (BEARING THE UL CLASSIFICATION MARK) MAX DIAMETER OF OPENING IS 4". SEE CONCRETE BLOCKS (CATZ) CATEGORY IN THE FIRE

U.L. SYSTEM NO. C-AJ-1150

DIAMETER OF OPENING IS 4". SEE CONCRETE BLOCKS (CATZ) CATEGORY IN THE FIRE RESISTANCE DIRECTORY FOR NAMES OF MANUFACTURERS.

2. THROUGH PENETRATIONS: ONE METALLIC PIPE OR CONDUIT TO BE INSTALLED WITHIN THE FIRESTOP SYSTEM. PIPE OR CONDUIT TO BE RIGIDLY SUPPORTED ON BOTH SIDES OF THE FLOOR OR WALL ASSEMBLY. THE ANNULAR SPACE SHALL BE MINIMUM O" (POINT CONTACT) TO A MAXIMUM 1-3/8", THE FOLLOWING TYPES AND SIZES OF METALLIC PIPES OR CONDUITS MAY BE USED.

- A. STEEL PIPE-NOMINAL $6^{\prime\prime}$ DIAMETER (OR SMALLER) SCHEDULE 40 (OR HEAVIER) STEEL PIPE.
- B. IRON PIPE-NOMINAL 6" DIAMETER (OR SMALLER) CAST OR DUCTILE IRON PIPE.
- C. CONDUIT-NOMINAL 4" DIAMETER (OR SMALLER) STEEL ELECTRICAL METALLIC TUBING OR NOMINAL 3-1/2" DIAMETER (OR SMALLER) STEEL CONDUIT.

3. PACKING MATERIAL: MINIMUM 6" THICKNESS OF MIN 4.0 PCF MINERAL WOOL BATTING INSULATION FIRMLY PACKED INTO OPENING AS A PERMANENT FORM. PACKING MATERIAL TO BE RECESSED FROM TOP SURFACE OF FLOOR OR FROM BOTH SURFACES OF WALL AS REQUIRED TO ACCOMMODATE THE REQUIRED THICKNESS OF FULL MATERIAL.
4. FILL, VOID, OR SCARCITY MATERIAL (BEARING THE UL CLASSIFICATION MARK): SEALANT:

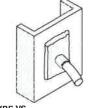
MINIMUM 1/4" THICKNESS OF FILL MATERIAL APPLIED WITHIN THE ANNULLS, FLUSH WITH TOP SURFACE OF FLOOR AND WITH BOTH SURFACES OF WALL. AT THE POINT CONTACT LOCATION BETWEEN PIPE AND CONCRETE, A MINIMUM 1/2" DIAMETER BEAD OF FILL MATERIAL SHALL BE APPLIED AT THE CONCRETE/PIPE INTERFACE ON THE TOP SURFACE OF THE FLOOR AND ON BOTH SURFACES OF WALL W RATING APPLIES ONLY WHEN CP601S OR CP604 SEALANT IS USED.

HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC.: CP601S, C0604, CP606, OR FS-ONE SEALANT.

NOTE: IF EXISTING CONSTRUCTION VARIES FROM THIS DETAIL, AN EQUAL 3-HOUR U.L. PENETRATION APPROPRIATE FOR THE EXISTING 2 WALL TYPE

NOTE: GC SHALL USE NON-SHRINKING CAULK TO WEATHERSEAL ALL PENETRATIONS INTO OR THRU SHELTER WALL.

OUTER WALL PENETRATION DETAIL (IF APPLICABLE) SCALE: N.T.S.



CABLE TAP DOWN AT 45° TO VERTICAL STEEL SURFACE OR THE SIDE OF HORIZONTAL OR

TYPE TA





TYPE GT TEE OF HORIZONTAL RUN AND TOP CABLES. THROUGH CABLE TO TOP OF



TYPE VN
HORIZONTAL CABLE TAP TO
VERTICAL STEEL SURFACE OR
THE SIDE OF HORIZONTAL PIPE.

TYPE VV
THROUGH VERTICAL CABLE
TO VERTICAL STEEL SURFACE
TO THE SIDE OF EITHER
HORIZONTAL OR VERTICAL PIPE.



CROSS OF HORIZONTAL CABLES LAPPED AND NOT CUT



THROUGH CABLES TO SIDE OF GROUND ROD.



TYPE HS HORIZONTAL



CABLE TAP TO TOP OF GROUND ROD.



CABLES TO GROUND ROD

CADWELD DETAILS



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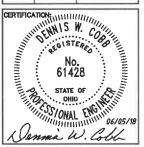
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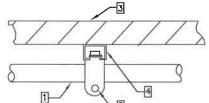
BUTTERFLY CLAMP AS REQUIRED

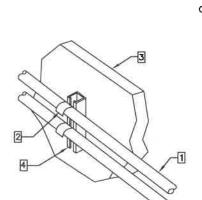
EXISTING WALL / CEILING

VERTICAL "UNISTRUT" P100 'T'
SERIES LENGTH BASED ON NUMBER OF
CONDUIT TO BE MOUNTED

UNISTRUT MOUNTING CHART					
USE					
3/8" TOGGLES BOLT					
3/8" LAG SCREW					
3/8" HILTI HY-20 WITH SCREEN, MIN. EMBEDMENT 2-1/2"					
3/8" HILTI HY-150 WITH SCREEN, MIN. EMBEDMENT 2-1/2"					

NOTE: USE GALVANIZED OR STAINLESS STEEL HARDWARE FOR WALL MOUNT AND CONNECTIONS OF CHANNELS SPACE UNITS © 5'-0" O.C. LENGTH OF RUN





INTERACT ATS MOUNTING DETAIL

USE THIS SECTION UNDER GRASS USE THIS SECTION UNDER GRASS PAVEMENT OR VEHICLE OR LAWN CARE TRAFFIC AREA RESTORE SURFACE TO ORIGINAL CONDITION GRADE 9 (CA-6) GRAVEL COMPACT TO 95% STANDARD PROCTOR UTILITY WARNING TAPE 4" BELOW GRADE MIN. DEPTH ENTIRE LENGTH OF TRENCH CHARTER DETAIL RETURN ORIGINAL MATERIAL TO TRENCH, COMPACT AS NECESSARY ON SHEET E-3 BASED ON TO PREVENT SERIOUS SETTLEMENT CONDUIT TYPE 2" SAND FOR NEW ELECTRICAL AND TELEPHONE SERVICES - SEE UTILITY AND SITE PLANS. PROVIDE 2" SAND APPROVED PULL BOXES AS REQUIRED AND COORDINATE INSTALLATION WITH ALL UTILITY COMPANIES FOR INTERFACING AT TERMINATION POINTS, PROVIDE FULL LENGTH PULL STRINGS (TYP)

- INCLUDE TIME/DATE STAMPED PHOTOS WITH TAPE MEASURE DEPTH VERIFICATION.
- CONDUIT SIZE, TYPE, QUANTITY AND SEPARATION DIMENSION TO BE VERIFIED WITH LOCAL UTILITY COMPANY REQUIREMENTS.

CLEAR SPACE EQUAL TO LARGER CONDUIT DIAMETER

MINIMUM COVER REQUIREMENTS, O TO 800 VOLTS NOMINAL, BURIAL IN INCHES

TYPE OF WIRING METHOD OR CIRCUIT

LOCATION OF WIRING METHOD OR CIRCUIT	DIRECT BURIAL CABLES OR CONDUCTORS	RIGID METAL CONDUIT OR INTERMEDIATE METAL CONDUIT
ALL LOCATIONS NOT SPECIFIED BELOW	24 INCHES	6 INCHES
IN TRENCH BELOW 2 INCH THICK CONCRETE OR EQUIVALENT	18 INCHES	6 INCHES
UNDER STREETS OR HIGHWAYS	24 INCHES	24 INCHES

COVER IS DEFINED AS THE SHORTEST DISTANCE IN INCHES MEASURED BETWEEN A POINT ON THE TOP SURFACE OF ANY DIRECT-BURIED CONDUCTOR, CABLE CONDUIT OR OTHER RACEWAY AND THE TOP SURFACE OF FINISHED GRADE, CONCRETE OR SIMILAR COVER.

INSTALL WARNING TAPE 4" BELOW GRADE FOR THE ENTIRE LENGTH OF TRENCH.

PROVIDE AT LEAST 2" OF SAND BED ABOVE CONDUIT AND 2" OF SAND BED BELOW THE CONDUIT.

at&t

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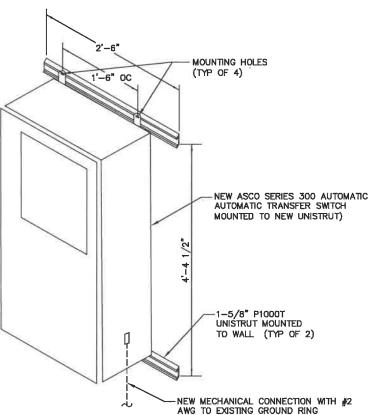
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1 CONDUIT WALL MOUNT

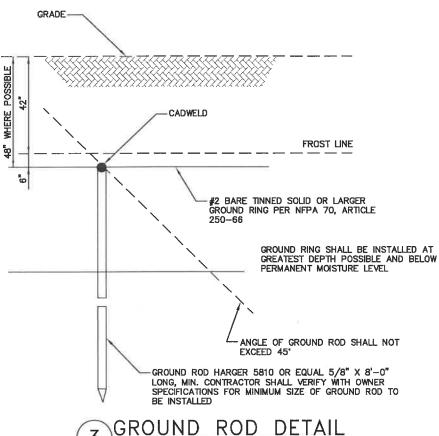
UNISTRUT MOUNTING CHART WALL CONSTRUCTION TYPE HOLLOW 3/8" TOGGLES BOLT HOLLOW, AT STUD 3/8" LAG SCREW CONCRETE BLOCK (HOLLOW) 7/16" HILTI HY-20 WITH SCREEN, MIN. EMBEDMENT 2-1/2" CONCRETE (SOLID) 7/16" HILTI HY-150 WITH SCREEN, MIN. EMBEDMENT 2-1/2"

NOTE: USE GALVANIZED OR STAINLESS STEEL HARDWARE FOR WALL MOUNT AND CONNECTIONS OF CHANNELS

NOTE:
GC SHALL USE NON-SHRINKING CAULK TO
WEATHER SEAL ALL PENETRATIONS INTO OR
THROUGH SHELTER WALL



GRADE-GROUND RODS MAY BE: -COPPER CLAD STEEL -SOLID COPPER GROUNDING RODS SHALL HAVE A MAXIMUM SPACING TWICE THE LENGTH OF ROD NOTE: SEE RESISTIVITY REPORT FOR VERIFICATION AS AVAILABLE A LARGER CONDUCTOR SHALL BE REQUIRED IN AREAS HIGHLY PRONE TO LIGHTNING AND/OR AREAS WITH HIGHLY ACIDIC SOIL NOTE: GROUND RODS INSTALLED WITHIN CLOSE PROXIMITY TO TOWER OR WHEN SOIL IS AT OR BELOW 2,000 OHM-CM, SHALL BE GALVANIZED TO PREVENT GALVANIC CORROSION OF TOWER, (SEE ANSI/TIA-EIA-222-G)



CONDUCTOR BURIAL REQUIREMENTS

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