



MASTERS ELECTRICAL SERVICES LTD. 4239 W. IH-10; SEGUIN, TEXAS 78155

Power-Up June's News



TOGETHER EVERYONE ACHIEVES
MORE!

Summer's approaching!

The month of May brought plenty of rain, humidity, and temps peaking over 80 degrees. We are convinced that summer is just around the corner!

Summer months in the construction field usually mean more work and longer days! Remember to stay well rested, hydrated and safe on your jobsite every day.

Don't forget to view page (8) for more important information from our Human Resource Department.

Company Slogan

“No matter what industry you're in nothing happens till the power goes on.”

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Our Core Value!

Motivation

Attitude

Safety

Teamwork

Excellence

Relationship

Service

Project List

New Jobs

• COUNTY LINE VET CLINIC	1445 S. WALNUT NEW BRAUNFELS, TX 78130	MIGUEL VELOZ
• SEGUIN ELK'S LODGE	1331 C.H. MATTHIES JR, SEGUIN, TX 78155	RUBEN RODRIGUEZ
• ROGER M DREYER MEMORIAL T-HANGER	GONZALES, TX. 78629	RAFAEL SILVESTRE
• LEIF JOHNSON FORD	15301 IH 35 BUDA, TX 78610	DONNIE ALSOBROOKS
• HEALTH BY DESIGN	7003 S NEW BRAUNFELS AVE, SA TX 78223	BRIAN BROOKS
• CIBOLO VALLEY WWTP	WILEY ROAD BULVERDE TX	FABIAN FISCAL
• MUSCO HIDDEN VALLEY	125 MABEL JONES DR. CANYON LAKE, TX 78133	ROBERTO FRAIRE JR.
• MUSCO JUMBO EVANS	101 JUMBO EVANS BLVD SPRING BRANCH, TX 78070	ROBERTO FRAIRE JR.
• STINSON MUNICIPAL AIRPORT	1519 ASHLEY RD SAN ANTONIO, TX 78214	ROBERTO FRAIRE JR.
• FOCAL POINT VISION	343 W. SUNSET RD SAN ANTONIO TX 78209	JOHNNIE RIDDLE
• CIBOLO MEDICAL OFFICE BLDG	813 N. MAIN STREET CIBOLO TX 78108	JAIME PAWELEK
• ESISD PERFORMIMG ARTS	7173 FM 1682 SAN ANTONIO TX 78252	DONNIE ALSOBROOKS
• SWISD HIGH SCHOOL RENOV	11914 DRAGON LANE SAN ANTONIO, TX 78252	ABEL HAWKINS
• IDEA MAYS PHASE 2	1210 HORAL DR, SAN ANTONIO, TX 78245	ROBERTO FRAIRE SR.
• SEGUIN ER	101 SOUTH HWY BYPASS SEGUIN, TX 78155	

Current Jobs

• DISTRICT 3 COMMUNITY CENTER	3303 PECAN VALLEY DR SA, TX 78210	SPENCER DWYER
• EOG RESOURCES	VARIOUS LOCATIONS	THOMAS NOLL
• SOUTHERN M RANCH	4239 GOLDFINCH RD. PEARSALL TX 78601	RUBEN GUERRA
• SEGUIN ANIMAL SHELTER	555 FRED BYRD SEGUIN, TX 78155	DONNIE ALSOBROOKS
• WEST RIDGE MS	9201 SCENIC BLUFF DRIVE, AUSTIN TX	RUBEN RODRIGUEZ
• NORTHWEST VISTA PARKING LOT EXPAN	3535 N. US HIGHWAY 281 SUITE 101 SA, TX 78259	ABEL HAWKINS
• SAN PEDRO MUSCO	6102 SAN PEDRO SAN ANTONIO, TX 78216	ROBERTO FRAIRE JR
• AND CALL CENTER	1045 CHEEVER BLVD SAN ANTONIO, TX 78217	JAIME PAWELEK
• IDEA NAJIM (WW WHITE)	926 S. WW WHITE RD. SAN ANTONIO, TX 78220	LONNIE HARPER
• IDEA EWING HALSELL	2523 W. ANSLEY BLVD. SAN ANTONIO, TX 78224	ROBERTO FRAIRE SR
• NEW BRAUNFELS RECREATION CENTER	345 LANDA STREET NEW BRAUNFELS TX 78130	PERRY WINCHESTER
• DOMINION SPRINGS PLAZA	23534 IH 10 WEST SAN ANTONIO, TX 78257	SHAWN SHAW
• TLU C.M. WESTON PERFORMING ARTS	510 FLEMING SEGUIN, TX 78155	SPENCER DWYER
• CROSSPOINT	301 YUCCA SAN ANTONIO, TX 78070	JAIME PAWELEK
• SMITHSON VALLEY HS ATHLETIC ADD/RENO	14001 TEXAS HWY 46 – SPRING BRANCH, TX 78070	STEPHEN URESTI
• LAURELWOODS COMMON SHELL & T1	1824 WEST SLAUGHTER LANE, AUSTIN TX 78748	RAFAEL SILVESTRE

Project List

Recently Completed Jobs

• SEGUIN PUBLIC LIBRARY	313 WEST NOLTE ST. SEGUIN TX 78155	CODY SMITH
• LOCKHART ISD NEW ELEMENTARY	FM 1854 LYTTON SPRINGS, TX 78616	SCOTT BARKER
• NEW BRAUNFELS CITY HALL	955 N. WALNUT NB, TX 78130	LONNIE HARPER
• MSI MISC STEEL INDUSTRIES	400 BNTON CREEK RD, KYLE, TX 78640	MIGUEL VELOZ
• RAST IRON WORKS	6430 RAILWAY, SAN ANTONIO TX 78218	SHAWN SHAW
• BUA REMODEL	7838 BARLITE BOULAVARD SAN ANTONIO TX	JAIME PAWELEK
• CSMI	NORTH HEIDEKE ST.	CHRIS KOEPEL
• GONZALES ISD PH 2	926 St. LAWRENCE ST. SA, TX 78629	RAFAEL SILVESTRE
• PLEASANTON MAIN ST	MAIN ST PLEASANTON, TX 78064	JOHNIE RIDDLE
• NISD CAFÉ REMODELS CODY & LEON VALLEY	10403 DUGAS DR. 78245 & 7111 H	BRIAN BROOKS & STEPHEN URESTI
• BEXAR METRO GENERATOR REPLACEMENT	9320 SE LOOP 410 SAN ANTONIO , TX 78223	FABIAN FISCAL

Thank you to our foremen in the field and every employee who has helped to complete these jobs. Masters Electric appreciates your hard work! 😊😊

Project Spotlight

Idea WW White

IDEA public schools got their start in the Rio Grande Valley in 1998 as an after school program called IDEA Academy. The word "IDEA" in their name is an acronym for "Individuals Dedicated to Excellence and Achievement". Since then they have built 34 schools in the Rio Grande Valley, currently educating 22,000 students with a 100% college acceptance rate.

IDEA expanded their footprint into the San Antonio area in 2012 via an invitation from former San Antonio Spur, David Robinson. They currently have 14 schools in the area that educate 5,400 students and boast the same 100% college acceptance rate.

One of the most recent campuses that is being constructed is IDEA Harvey E. Najim. Masters is teamed up with Kencon Constructors to complete this project, located at 926 South WW White road. Lonnie Harper is leading the Masters Team onsite, and Jay Garza and the pre-fab crew completed a lot of work ahead of time at the shop and followed up with installation onsite. The latest two IDEA schools that Masters is working on have a full LED lighting fixture package, as well as a state-of-the-art lighting control system that meets IECC 2015 energy code compliance for occupancy and vacancy sensing, as well as daylight harvesting.

Masters would like to thank Lonnie and all of the employees that helped successfully build this project, as well as Kencon for the opportunity.

EC&M News

Test your Knowledge!

Q. What is the Code requirement for sizing branch-circuit conductors?

A. Branch-circuit conductors must have an ampacity of not less than the maximum load to be served. Conductors must be the larger of 210.19(A)(1)(a) or (b):

(a) Conductors must be sized no less than 125% of the continuous loads, plus 100% of the noncontinuous loads, based on the terminal temperature rating ampacities as listed in Table 310.15(B)(16).

(b) Conductors must be sized to the maximum load to be served after the application of any adjustment or correction factors.

Branch Circuit Sizing
210.19(A)(1)(a) and (b) Example

210.19(A)(1)(a):
 $45A \times 1.25 = 56A$
 6 AWG Rated 65A at 75°C
 [Table 310.15(B)(16)]

210.19(A)(1)(b):
 4 Current Carrying Conductors
 [310.15(B)(5)(c)]
 [Table 310.15(B)(3)(a)]
 80% Adjustment Factor
 Use 90°C rating for adjustment
 $75A \times 0.80 = 60A$ (Ok for 45A Load [210.19(A)(1)(b)])

Data Processing Equipment With Nonlinear Load
 Equipment Rated 75°C
 45A Continuous Load

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Exception: If the assembly and the overcurrent device are both listed for operation at 100% of its rating, the conductors can be sized at 100% of the continuous load.

Equipment suitable for 100% continuous loading is rarely available in ratings under 400A. See the definition of “Continuous Load” in Art. 100. See Sec. 210.20 for the sizing requirements for the branch-circuit overcurrent device for continuous and noncontinuous loads.

Here’s an example problem that shows how to apply these Code requirements.

What size branch-circuit conductors are required for a 4-wire circuit of a 45A nonlinear continuous

load, if the equipment terminals are rated 75°C?

Since the load is 45A continuous, the conductors must be sized to have an ampacity of not less than 56A ($45A \times 1.25$). According to the 75°C column of Table 310.15(B)(16), a 6 AWG conductor is suitable, because it has an ampere rating of 65A at 75°C. This satisfies the portion of the calculation discussed in Sec. 210.19(A)(1)(a).

For 210.19(A)(1)(b), we need to address ambient temperature and conductor bundling.

Because the neutral in this example is considered a current-carrying conductor [310.15(B)(5)(c)], there are four current-carrying conductors. Table 310.15(B)(3)(a) requires an adjustment factor of 80% for this example.

6 AWG rated 75A at 90°C $\times 0.80 = 60A$ after adjustment factors, which is adequate for the 45A load (**Figure**). If we’d selected an 8 AWG rated 55A at 90°C, based on the 45A load, it would be too small for the load after applying the adjustment factor ($55A \times 0.80 = 44A$).

Informational Note 4: To provide reasonable efficiency of operation of electrical equipment, branch-circuit conductors should be sized to prevent a voltage drop not to exceed 3%. In addition, the maximum total voltage drop on both feeders and branch circuits shouldn’t exceed 5%.

Many believe the NEC requires conductor voltage drop, as per Informational Note 4 to be applied when sizing conductors. Although this is often a good practice, it’s not a Code requirement because Informational Notes are only advisory statements [90.5(C)]. The NEC doesn’t consider voltage drop to be a safety issue, except for sensitive electronic equipment [647.4(D)] and fire pumps [695.7].

Employee Spotlight

Employee of the Month



Fabian Fiscal

Fabian Fiscal has been employed by Masters Electrical Services, LTD since March 2016 and is currently a service journeyman electrician. Even though he has only work with Masters for a little over a year, he has been in the trade for over nine years.

Fabian was born in Eagle Pass and moved to Seguin about eighteen years ago where he graduated from the local High school. He lives here in Seguin with his wife of seven years their two little girls that are 3 and 6. They also has two chocolate labs both over five years old, whom their family love dearly. Fabian enjoys spending quality time with his family Bar-B-Queuing, fishing and going to local parks. His favorite food is Italian and his least favorite chore, is anything to do with laundry!

Fabian Fiscal is an asset and we are looking forward to his continued employment here at Masters Electrical Services, LTD.

Safety News

Using ladders safely

Introductory comment - Whether you use ladders frequently or only occasionally, injuries from accidents are likely to be severe. In this session you'll learn four key ways to protect yourself.

Meeting Starter Questions – When did you last use a ladder in any of your regular assignment? What precaution do you take when setting up climbing, descending, or working on ladders? Have you ever sustained an injuring from a ladder accident? How did it happen and what did you do?

Critical Safety Points – Most ladder accidents are caused by carelessness, and the consequences are often severe

Critical Safety Points – Most ladder accidents are caused by carelessness, and the consequences are often severe and even fatal the most common hazards to avoid are. Failing to secure the ladder properly. This may cause the ladder to fall backwards (if the angle is too steep) or slid to the ground (if the angle isn't steep enough). If the base seems unstable, secure the bottom by trying the base to stakes or blocks. When the ladder is vertical, and the top touches the wall, pull out the base one foot for every four feet in height.

Overreaching. A good rule: Always keep your belt buckle inside the rails of the ladder. When you can no longer reach comfortably and safely from position, get down and move the ladder to a new position. Don't stand higher than the second step from the top of a stepladder or the third rung from the top of a portable ladder. The higher you go on a ladder, the greater the possibility it will slip out from its base.

Climbing or descending carelessly. Always face the ladder and take one step at a time with your feet at the center of the rungs. Grab the rungs of the ladder, not the side rails. The rungs are easier to hold onto if your footing slips. Just as dangerous as overreaching is trying to move, shift or extend a ladder while you're on it by rocking, shifting or pushing it away from a supporting wall. You should never be on a ladder when you're repositioning it.

Carrying too heavy or bulky loads. The extra, awkward weight may cause you to fall. Climb up first by yourself, and then pull up the material with a rope or carry tools in your tool belt. Never climb a ladder one-handed, and never leave tools or materials on top of ladders- you don't want anything to fall on you.

Hot Topic

From Human Resources

NOW ACCEPTING APPLICATIONS FOR:

Journeyman Foreman Electrician with minimum 2 years Supervisory (Foreman) experience:

- Must have practice of overseeing commercial electrical projects of \$100k or more for at least 2 years.
 - To include coordination with General Contractors, Subcontractors and other trades on commercial jobsite.
 - Will be required to manage numerous employees on jobsite.
 - Must have all tools necessary to be a capable foreman.
 - Technologically advanced company need to know the ins and outs of IPad usage, Email, and be organized.
 - Capable of troubleshooting any and all electrical issues.
 - Should have experience with all voltages up to and including 600V
 - Should be competent in all layout up to and including underground, fixture, and device.
 - Experience in operating equipment to include backhoe, skid steer, excavator, trencher, pole truck and bucket truck
 - Be familiar with low voltage lighting controls and IECC 2015

401(k) Changes:

As most of you may know by now, we are recently transferred our 401(k) retirement plan from Lincoln Financial to Transamerica. The transfer should be in full effect by mid-May. You can now enroll or login to your account at www.ta-retirement.com for account balances, changes to contributions or beneficiaries, and enrollment options. To be eligible for our plan, you must have worked for our company at least 1 year and must be at least 21 years old.

If you have any questions regarding your 401(k), eligibility or changes, please contact Alyssa at 830-303-6330 or go online to www.ta-retirement.com for more information.

June's Birthdays

- **Aaron Boyle** 6/03
- **Ruben Escobar** 6/04
- **Russel Kroboth** 6/07
- **Donald Alsobrooks** 6/10
- **Duncan Larko** 6/19
- **Cody Smith** 6/25
- **Juan Sarabia** 6/29



Happy Birthday from your family here at

Masters Electrical Services!