



JUNE 2015 NEWSLETTER

THE NATIONS LEADER IN ESTIMATING SOFTWARE

Building On Opportunities: Tri-City Grows With Pre-Fab

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There's an old saying: "It's better to be lucky than good." At Tri-City Electric (Davenport, IA) – founded in 1895 – they would like to amend that to: "It's better to be lucky AND good."

Luck has played a small role in the tripling of the company's workforce size in the past five years; there are now approximately 900 electricians in the field on Tri-City's projects at any given time.

According to Mike Huskey, VP estimating: "One contributing factor in that growth has been our location. It's been noted that there is more work per square mile in the Midwest market than any other comparable square mile in the United States!"

But there's also a need to be on the cutting edge – first to win the work on such projects, and then to bring them home at a profit. One company asset is estimating software from McCormick Systems, of course. The company also has a well-established CAD operation, and is well-versed in BIM.

More evidence of Tri-City's innovative approach is the growth of its pre-fab operation. Note that the company's executives ventured into this area slowly; only now, five years after its start, are they willing to talk about it.

One step at a time

"From I'd say 2001 to 2010, everyone knew that pre-fab was out there. But we took a slow approach to getting it going. In 2010, we starting looking into what we could do with our own pre-fab department," explained Huskey.

Mark Buskirk, who is VP project management, runs the pre-fab operation. "The operation has grown – we now have 12 electricians in there. We had to totally revamp our storage space in the warehouse, to make room for it," he said. We have virtually eliminated our electrical stock and replaced our warehouse space with pre-fabrication.



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to a Friend

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[Subcontractors Lag in the Data Revolution](#)

Dr. Daneshgari on [The Industrialization of Construction](#)

[Tech Scan of the Architect’s Show](#)

[Training Dates](#)



STANDARD CLASSES

July 8-10	(Maryland)
July 8-10	(Arizona)
Aug. 5-7	(Arizona)
Sept. 16-18	(Arizona)
Sept. 16-18	(Maryland)
Oct. 21-23	(Arizona)

ADVANCED CLASSES

July 23-24	(Arizona)
Oct. 29-30	(Arizona)

“It’s a controlled environment. We’ve adopted a just-in-time approach – so the best idea is: You pre-fabricate it today, and it’s delivered to the jobsite on the same day.”

Tri-City has created a form for project managers and foremen to use when requesting work from the pre-fab shop – from larger efforts down to a single item. This form is available on tablets and smart phones that are used on jobsites.

Additionally, with the use of the CAD operation, BIM, and what the company calls “Total Station,” Buskirk noted: “we are working to get a given project laid out faster than we have in the past. What that means is that the BIM/CAD operation will provide input into the pre-fab operation – it will be faster, with greater accuracy.”

Pre-figuring via the pre-fab shop

One recent project (still in progress) on which pre-fab has been profitably used is a new dormitory at the University of Iowa.

“The dorm rooms are all the same,” Buskirk said. “So we built a room – an actual room as it would be constructed on-site – in our pre-fab department. That enabled us to see all of the conduit runs and where they would go, and to identify all of the parts and pieces as they would be needed in each room.”

Here’s where another Tri-City focus comes to the fore: The company has worked (over the five-year period) to identify exactly what the pre-fab operation is creating on the bottom line – costs? Savings? Unneeded expense?

Is it all a wash?

“We believe we saved six hours per room, thanks to the pre-fab operation,” Buskirk claimed. “Now, that probably sounds good – but considering that there are 250 rooms, it’s really great!”

Erecting a tent

For one recent data center project, Tri-City’s work included building duct banks. With 20-foot- and 40-foot-long runs, it wasn’t easy – initially – to calculate how pre-fab could play a role.

“This is a huge amount of work as there are, as everyone knows, a lot of low-voltage cable runs in any data center,” explained Huskey. “We came up with the idea of including pre-fab in this element of the job – but we could not make it work if we did the pre-fab at our warehouse.”

Tri-City put up a tent near the job site; electricians (as many as 15 at a time) did the pre-fabrication of the ductwork in the tent. “This made sense – to have the pre-fab operation right there, instead of maybe a three-hour drive away.”

That project marked the first time Tri-City established a “mobile” pre-fab shop close to the job site (and outside of its warehouse).

Where software fits

Tracking exactly what is spent and what is saved is assigned, according to Huskey, to the McCormick estimating system. “We have been and still are building pre-fab into our estimates.

“ESTIMATING BY HAND” CLASSES

June 18-19 (Arizona)
Nov. 19-20 (Arizona)

PLUMBING & MECHANICAL CLASSES

Dec. 16-18 (Arizona)

Click here for the complete list of upcoming [2015 training dates](#)

Training can be "suited" to your facility. We can tailor our training to your needs. Ask us about customized training at your site!

Call to register for any of the above classes, including those in Maryland: 1-800-444-4890.

We've posted training dates, directions to our training facilities, and registration forms on our Web page. Click the "Education" button on our home page, or [click here](#).

“For example, on a typical project, when we get one floor (of a multi-floor building) done, we check carefully to see what pre-fabrication has accomplished on that one floor. We’re not waiting until the end of the project.”

One key interface between the real-world pre-fab operations and the working of Tri-City’s estimating software, Huskey said, is Assemblies. “It’s so easy to create assemblies using the McCormick software. And those assemblies are, typically, among the items put together in the pre-fab shop. So it all fits.”

Additionally, the company’s pre-fab effort’s numbers are all on record, all in McCormick-software-created estimates. “We’ve been tracking the pre-fab results for the whole time, the whole five years,” Huskey said.

“But we took our time – we were careful. We looked at the numbers and over time, we made some adjustments. We waited until we had complete confidence in what we were doing.

“Only within the past year or so have we incorporated pre-fab into 100% of our estimates. We are now able to extend our estimates and view our prefabrication deducts and make intelligent decisions on how the pre-fab will affect our bottom line.”

What’s more, the concept of pre-fab has spread – “infecting,” if one can use that word, the company’s project-runners. “For our foremen and our project managers, today,” Buskirk added, “it’s now a case of ‘How can I use pre-fab so that I can get a part of this job built faster?’”

“We’ve had, and still have, frequent meetings with the field supervision, talking about how pre-fab can work. But lately you can see that it’s changed. Now, they are coming to us with their ideas.”

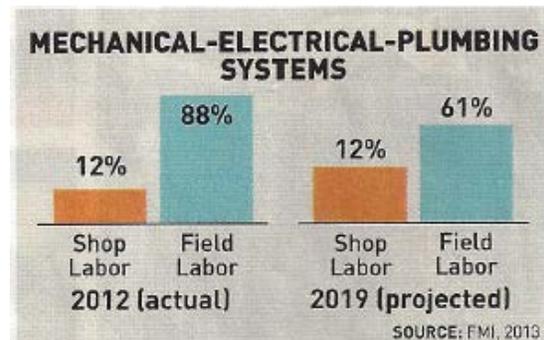
Huskey also noted: “We may have been at this for five years, but it continuously evolves. We think – yes, it’s been five years, but we think that, really, we have only tackled the low-hanging fruit.

“The proof of that is someone is always coming up with a new idea of how we can use pre-fab on one of our projects.”



More On Pre-Fab

A recent one-page article in Engineering News-Record included a graphic that noted that pre-fabrication on MEP (mechanical, electrical, and plumbing) pieces of construction projects nationwide would go from 12% in 2012 to an estimated 39% in 2019.



Note that the graphic above DOES NOT SAY THAT. However, it mistakenly identifies the “shop labor” element as 12%, when it should be 39%. An industry writer/editor (who works for McCormick Systems) contacted ENR’s editors to check on the error, and had it confirmed that the 2019 shop labor piece should be labeled 39%.

The latest McCormick version is...

V11.72

with a release date of

4/20/15

If you are on an older version, just fill out this [form](#) and send it in!

Visit the [McCormick Website](#)

Note that this item is NOT here to point out ENR's error – everyone makes mistakes, including graphic artists. The point is the SURGE in use of pre-fab in a seven-year period by mechanical, electrical, and plumbing contractors – from an actual 12% in aggregate in 2012, to 39%.

[See the lead article in the April 2015 issue](#) of the McCormick newsletter for another article on a customer, E-J Electric, which makes extensive use of pre-fabrication.

Reminder: The 2016 User's Conference Will Be Here Before You Know It!!!

Dates: March 9-12, 2016. Location: Chandler AZ

Please mark your calendar – this will be your best in-person chance to update yourself on the exciting changes included in V12 and the enhancements to OSE Pro.

Details coming soon . . .

Trade Service Offers A Suite of ICT Estimating and Submittals Data Solutions

Trade Service is promoting TRA-SER® ICT and Submittal Manager™, created specifically for contractors who specialize in Information & Communications Technology (ICT). For the first time, ICT contractors will have access to a comprehensive digital database of over 250,000 items from 100 manufacturers where they can access pricing, detailed product descriptions, images, manufacturer catalog pages, specification sheets and installation instructions for both estimating and submittal purposes. Voice/Data/Video, Telecommunications and Low Voltage items are included.



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TRA-SER ICT is an easy-to-use tool for contractors who need to create accurate bids to win more jobs. With the built-in functionality of Supplier Xchange™, contractors can get instantaneous price quotes from their preferred suppliers ready to go into any estimate, helping to improve the speed and accuracy of bids.

TRA-SER ICT integrates with the McCormick Estimating System so that prices can be constantly updated within the software, independent of the TRA-SER interface. Any price quotes obtained through Supplier Xchange can be inserted directly into the estimate, minimizing rework.

Current TRA-SER and/or Submittal Manager users can simply add the ICT data to their current subscription(s) for just \$29.95 each per month with no license fee.

CONTACT

Trade Service Sales at 800-701-7003, sales@tradeservice.com

**Visit McCormick Systems in Our Booths
... At These Industry Shows**

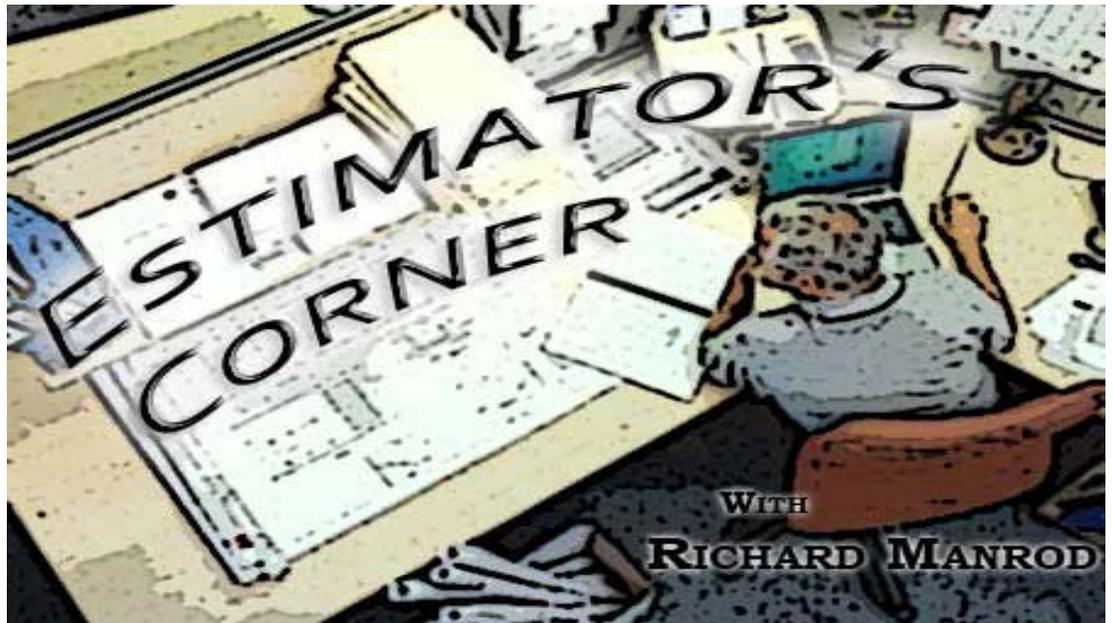


Las Vegas NV, Sept. 20-24 – [BICSI Fall Conference](#)

San Francisco, Oct. 4-6 – [for the NECA Show.](#)

Tampa FL, Oct. 21-24 – [for the IECI Electric Expo](#)

Estimator's Corner



Checking The Specifications

- Are special Job conditions listed in the Specifications? Are some Job conditions not listed? Some examples are:
 - Does storage need to be provided at your warehouse?
 - Material storage. The costs involved in receiving, storing, and delivering the material should be included in the estimate.
 - What are the costs of delivery from your warehouse, if needed?
 - What is the cost for job site storage? Do you need to provide trailers, gang boxes, etc., or will secure storage be provided during construction? These costs should be in the Estimate.
 - Once the material is at the site – what are the delivery costs? On multi story buildings, the cost of delivering material increases considerably as the floors go up. How much time will be used to move the material at the site? Is the lift available and is there a cost involved? Is the storage area secure? Will guards need to be hired, fencing installed, etc.? Include these costs in your Estimate.
 - How much damage might there be from moving material? How much will be lost through the disappearance of material? Whenever fixtures are moved they may be damaged, usually the lens. If the fixture lens needs replacing, will you be compensated for the material and labor? As the price of copper increases (when it does), just about every contractor has seen some copper items disappear from the job site. These costs (or the cost for security) should be included in the estimate.
- Cleanup is another job-related cost. How extensive will the cleanup be? Will you have to assign people to it, or will the journeyman on the Job be responsible? Don't ignore these costs.
- Do your employees need special security clearance to access the job site? How much lost time will be involved in entering and leaving the site? Will they have to have protection for themselves and their tools (schools while in session, prisons, mental institutions, etc.)? These costs should be included in the estimate.

- Will drug testing be required? If so – what are the costs involved? These costs can't be overlooked.
 - Will special safety meetings, safety equipment (dust masks, clothing, etc.), testing, and reports be required? Add any related costs to the Estimate.
 - Quality Control may be part of the Job. How extensive is it? What are the costs involved? You can't omit those costs from the estimate.
 - Does the job require seismic resisting? If so – what additional costs are involved? Those costs need to be included in the estimate.
- Is additional insurance needed? Add the cost to the Bid Summary.
 - Are there areas of responsibility shifted from the owner, architect, engineer, or general contractor . . . to you? If so, are there costs involved? Can they be added to the estimate?
 - Are “as-built” drawings required? If so add their cost to your Bid Summary (Note: As-built drawings may be more expensive than seems on the surface. Keep careful records of your company's costs for as-built drawings based on a project's size, type and complexity.)
 - Check for any penalty clauses that may affect the estimate or the completion of the job. Is the work force available to complete the job within the requirements? Will overtime be required? Be sure to include those cost in the Bid Summary either as an additional labor amount or as a Direct Job Expense.
 - Will the completion schedule, owner occupancy, etc. require shift work or overtime? If so, include those cost in the Bid Summary.
 - Check for work required in other Divisions, including any requirements or schedules that will affect the Job. Add those costs to the estimate.
 - Do you know the other trades that will be working on this project, and what is your relationship with them? Will there be additional costs because of their involvement?
 - Is a sample copy of the contract included or referred to as part of these specifications? Read the contract very carefully. Is it a standard contract (AIA, AGC, etc.)? If it is a standard contract, check with an attorney, trade association, other contractors, etc. Are the contracts terms and conditions acceptable? If the contract is not a standard contract, having it reviewed by your attorney would be wise. If the contract needs revision, can it be revised without additional cost to your company?
 - Is the job location outside of our normal working area? If so, what kind of help will be available? Will productivity be lower? Will I need to send supervisory help? How much supervisory help is necessary – and for how long will they be needed? Add these costs to the estimate.
 - Will travel time be required? How many people will I be sending to this job, and what will be they're costs. Don't forget to deduct the travel time from they're daily work hours. The travel time may require additional help to complete the job within the required time.

Many of these issues have been covered in other newsletters, but another reminder is usually good.

Take your time at the pre-job meeting. If it involves an existing building, spend some time with the building custodian or manager if possible. Many secrets may be learned. Don't

assume anything, check the jobsite thoroughly. AND: **Don't forget to add all these additional costs to the Estimate.**

If you have any questions about the things in these areas - Please feel free to give us a call - 800-444-4890



Using Workspaces

Now that we've looked at what can be done with the Toolbar buttons ([see Trainer's Tips in the April newsletter](#)), think about the value of having pages of those buttons at your fingertips.

Advantage of using the Toolbar buttons is that with one click you're looking at your Takeoff Windows, whereas with Workspaces you will need to open the Workspace window, find the Workspace page, and click on the Workspace button needed.

The advantage of Workspaces is there are many pages of buttons. Some of the buttons are set up to help build Job Assemblies.

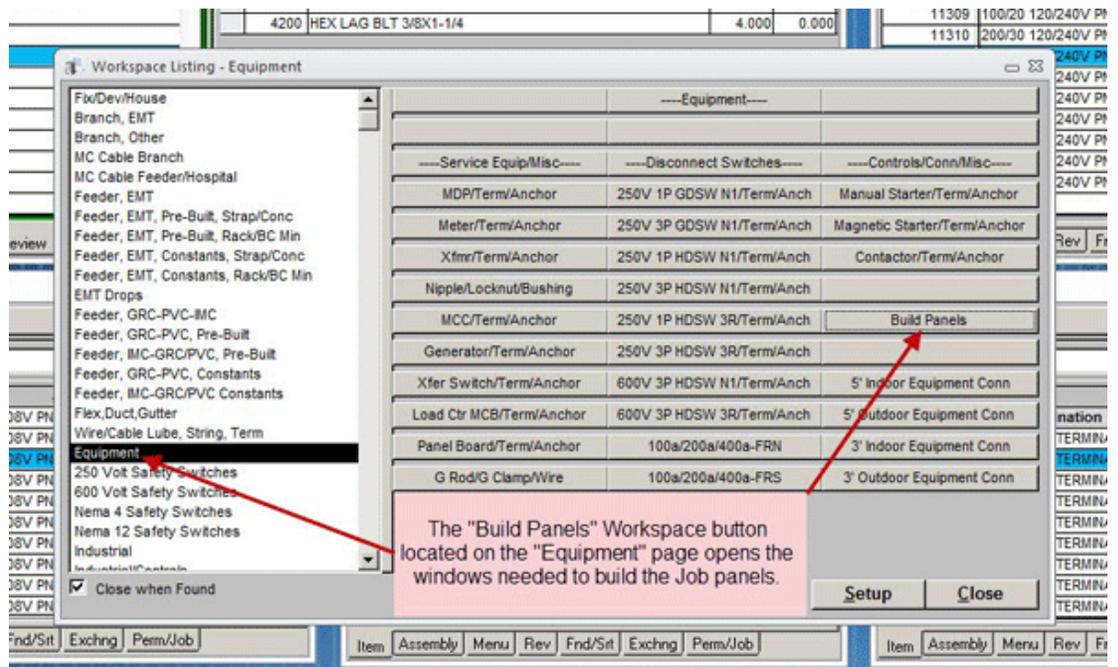
The page and button shown below are setup to build the Fixture Assemblies or any special new Assemblies needed in an area with blank lines.

Fix/Dev/House	Fixtures	Devices	House
Branch, EMT	Build Fixture	Recp/Tel/Switch St	14-2/14-3 Romex/Box
Branch, Other	A Fix/B Fx/C Fix	Recp/Tel/Branch St	12-2/12-3 Romex/Box
MC Cable Branch	A Fix/B Fx/Switch	Switch/3 Way/Dimmer St	10-2/10-3 Romex/Box
MC Cable Feeder/Hospital	A Fix/B Fx/Branch		
Feeder, EMT	A Fix/Switch/Branch	Recp/Tel/Switch Sp	Recp/Switch/Dimmer
Feeder, EMT, Pre-Built, Strap/Conc		Recp/Tel/Branch Sp	Fx/Strip/Equip Conn
Feeder, EMT, Pre-Built, Rack/BC Min	Lighting Control	Switch/Switch/3 Way Sp	Baseboard/Bath Heat/Therm
Feeder, EMT, Constants, Strap/Conc			
Feeder, EMT, Constants, Rack/BC Min		600/1000/2000 Dimmer	
Feeder, GRC-PVC-IMC			
Feeder, GRC-PVC, Pre-Built			
Feeder, IMC-GRC/PVC, Pre-Built			
Feeder, GRC-PVC, Constants			
Feeder, IMC-GRC/PVC Constants			
Flex,Duct,Gutter			
Wire/Cable Lube, String, Term			
Equipment			
250 Volt Safety Switches			
600 Volt Safety Switches			
Nema 4 Safety Switches			
Nema 12 Safety Switches			
Industrial			
Industrial Products			
<input checked="" type="checkbox"/> Close when Found			

The Fix/Dev/House Workspace page has a "Build Fixture" button that is setup to build the Job fixture Assemblies.

The "Build Misc Line 100080" takes the User to a blank line that he can build whatever he wants.

The Workspace page and buttons shown below are set to build the Job panel Assemblies.



Estimating Plumbing & Mechanical Systems



Plumbing Cost Codes

Shown below is an example of an Extension report broken out by cost codes. This allows costing by the type of work. The Cost Code category and value is shown. Cost Codes may be modified by the users of the 6000 Systems.

Item #	Item Name	Quantity	Price 1 u	Ext Price 1	Bid Lbr u	Bid Lbr Ext	CCode
Category: COPPER 95/5							
89	1/2 L-SOFT COPPER TUBE	8.00	\$2.20 E	\$17.60	.04 E	.32	2
150	1/2 L-HARD COPPER TUBE	50.00	\$1.50 E	\$75.20	.04 E	2.00	2
151	3/4 L-HARD COPPER TUBE	200.00	\$2.42 E	\$701.80	.04 E	11.60	2
2,757	1/2 90 ELBOW CxC	4.00	\$6.60 E	\$2.39	.28 E	1.12	2
2,758	3/4 90 ELBOW CxC	7.00	\$1.34 E	\$9.40	.37 E	2.59	2
2,778	3/4 UNION CxC	2.00	\$8.91 E	\$17.82	.56 E	1.12	2
2,810	1/2 ADAPTER CxF	4.00	\$1.98 E	\$7.94	.36 E	1.44	2
2,811	3/4 ADAPTER CxF	3.00	\$2.73 E	\$8.18	.48 E	1.44	2
2,853	3/4X3/4X1/2 RED TEE CXCX	1.00	\$2.37 E	\$2.37	.44 E	.44	2
3,022	1/2 TEE CXCX	2.00	\$1.02 E	\$2.04	.42 E	.84	2
3,023	3/4 TEE CXCX	4.00	\$2.46 E	\$9.85	.56 E	2.24	2
3,038	3/4X1/2 FITTING RED FTGX	4.00	\$1.61 E	\$6.45	.16 E	.64	2
3,118	1/2 COUPLING CXC	2.50	\$6.60 E	\$1.49	.28 E	.70	2
3,119	3/4 COUPLING CXC	28.50	\$1.24 E	\$35.40	.37 E	10.55	2
3,167	1/2 ADAPTER CxM	6.00	\$1.25 E	\$7.49	.15 E	.90	2
3,168	3/4 ADAPTER CxM	5.00	\$2.10 E	\$10.49	.20 E	1.00	2
				\$915.89		38.94	
Category: VALVES							
14,048	3/4 SWT BRZ RS GATE VAL	3.00	\$42.00 E	\$126.00	.41 E	1.23	33
14,817	3/4 SWT BRZ DISC SWG CH	1.00	\$47.60 E	\$47.60	.41 E	.41	33
14,943	3/4 SWT BRZ DISC SWG C	1.00	\$54.80 E	\$54.80	.41 E	.41	33
16,160	3/4" NBF CIRC AQUASTAT	1.00	\$14.65 E	\$14.65	.35 E	.35	33
				\$243.05		2.40	
Category: C.I. SOIL NO HUB							
38	2 C.I. NO HUB PIPE	44.00	\$3.40 E	\$149.54	.08 E	3.52	41
39	3 C.I. NO HUB PIPE	69.00	\$4.69 E	\$323.52	.11 E	7.59	41
1,276	2 NH SAN TEE	1.00	\$6.88 E	\$6.88	.41 E	.41	41
1,289	3X2 NH RED SAN TEE	3.00	\$7.53 E	\$22.60	.53 E	1.59	41
1,327	3X2 NH HEEL OUTLET	2.00	\$11.08 E	\$22.15	.55 E	1.10	41
1,358	4X2 CLOSET FLANGE	2.00	\$9.22 E	\$18.44	.56 E	1.12	41
1,360	4X3 CLOSET FLANGE	2.00	\$11.32 E	\$22.64	.56 E	1.12	41
1,364	4X3X6X12 NH CLOSET BEN	2.00	\$28.17 E	\$56.34	.72 E	1.44	41
1,472	2" NH COUPLING	5.00	\$2.18 E	\$10.89	.04 E	.20	41
1,474	3" NH COUPLING	20.50	\$2.60 E	\$53.36	.04 E	.82	41
				\$688.37		18.91	
Category: C.I. SOIL SOIL COMP. JT							
1,467	2 NH P-TRAP W/1/2" HEEL	1.00	\$16.31 E	\$16.31	.98 E	.98	42
1,467	3X3 NH CLEANOUTS--TWO	1.00	\$33.75 E	\$33.75	.79 E	.79	42
				\$50.05		1.77	
Category: PLUMBING CONSUMABLES							
12,190	3/4 F/HOSEKF/HOSE SWV	1.00	\$3.06 E	\$3.06	.35 E	.35	53
16,531	3/4 T&P RELIEF VAV,SC	1.00	\$18.76 E	\$18.76	.35 E	.35	53
16,602	AK9 ALWVSS 3-1/2" STEM	2.00	\$38.68 E	\$77.35	.38 E	.76	53
17,000	1/2" 95/5 SOLDER JOINT	28.50	\$0.09 E	\$2.58	.00 E	.00	53
17,002	3/4" 95/5 SOLDER JOINT	44.50	\$0.13 E	\$5.72	.00 E	.00	53
17,431	2" 2005A CP 5" ADJ STRN F	1.00	\$82.20 E	\$82.20	1.41 E	1.41	53
17,716	3" FLR CLEANOUT J.R 402	2.00	\$73.20 E	\$146.40	.99 E	1.98	53
				\$316.06		4.85	
Category: PLUMBING FIXTURES							
18,026	1/2 P1-500 TRAP PRIMER	1.00	\$34.30 E	\$34.30	.85 E	.85	59
				\$34.30		.85	
			Totals	\$2,247.72		67.72	

Below is a list of the Plumbing Estimating systems Cost Codes and their value.

<u>Description:</u>	<u>Value:</u>	<u>Description:</u>	<u>Value:</u>
NONE	97	COPPER PROGRESS	92
COPPER LEAD FREE	1	GROOVED COPPER	82
COPPER 95/5	2	COPPER GROOVED	96
COPPER SILVER/SOD	3	HVAC	51
POLYBUTYLE	4	HVAC SPECIALTIES	110
SCH 40 PVC	5	REFRIGERATION	52
SCH 80 PVC	6	PLUMBING CONSUMABLES	53
SCH 40 CPVC	7	HVAC EQUIPMENT	55
SCH 80 CPVC	8	REFRIG. EQUIPMENT	56
SCH 40 T&C 150#	9	PLUMBING EQUIPMENT	57
SCH 80 T&C 150#	10	TREATMENT PLANT EQUIP	58
SCH 40 T&C 300#	11	PLUMBING FIXTURES	59
SCH 80 T&C 300#	12	3000# SS T304 SOCKET	61
SCH 40 T&C 125#	13	6000# SS T304 SOCKET	62
SCH 80 T&C 125#	14	3000# SS T316 SOCKET	63
SCH 40 T&C 300#	15	6000# SS T316 SOCKET	64
SCH 80 T&C 300#	16	FIBERGLASS FRP	65
SCH 40 STDWLD	17	FLG PIPE & 125# FTGS	66
SCH 80 STDWLD	18	SDR 35 - GASKETED	67
SCH 40 /XHWLD	19	FLG PIPE SPOOL CL150	68
SCH 80/XHWLD	20	REINF CONCRETE PRSUR	69
SCH 40 STD WLD	21	WATER MAIN CEMENT LN	70
SCH 80 XHWLD	22	WATER MAIN C.T. EPOXY	71
SCH40 BLK 3M SOC WLD	23	FOUNDATION DRAINAGE	72
SCH 40 GALV T&C-150#	24	SCH 5 SS T304 WELD	74
SCH 40 GALV T&C-300#	25	SCH 5 SS T316 WELD	75
SCH 80 GALV T&C-300#	26	SCH 10 SS T304 WELD	76
SCH 10 BLACK GROOVED	27	SCH 10 SS T316 WELD	77
SCH 40 BLACK GROOVED	28	SCH 40 SS T&C 150#	78
SCH 40 GALV GROOVED	29	SCH 40 SS T304 WELD	79
SCH 40 BLACK STD WLD	30	SCH 40 SS T316 WELD	80
SCH 80 BLACK STD WLD	31	EXCAVATION/TRENCH	86
SCH 80 BLACK XHY WLD	32	PLUMBING PIPE SLEEVE	87
VALVES	33	CALCIUM S SILICATE	88
PVC SCH 40 DWV	34	PLUMBING PIPE INSUL.	89
ABS SCH 40 DWV	35	FIRE PROTECTION	91
COPPER DW DWV	36	DEMO	93
GLASS DWV	37	SLIDE & DRIVE DUCT	94
CH 40 POLYPR FU/JT	38	SCH 160 PE BLK STEEL	95
DURIRON M.J.	39	DIMPLE LOCK DUCT	98
FIBERGLAS	40	GALV RD DUCT	99
C.I. SOIL NO HUB	41	GALV REGISTER BOX	100
C.I. SOIL <u>SOIL</u> COMP. JT	42	GALV DUCT	101
C.I. SOIL LEAD-OAKUM	43	OVAL DUCT	102
C.I. SOIL XTRA HEAVY	44	ALUMINUM PIPE & FITTINGS	103
C.I. DRAINAGE BLACK	45	SS DUCT PIPE & FITTINGS	104
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perspective

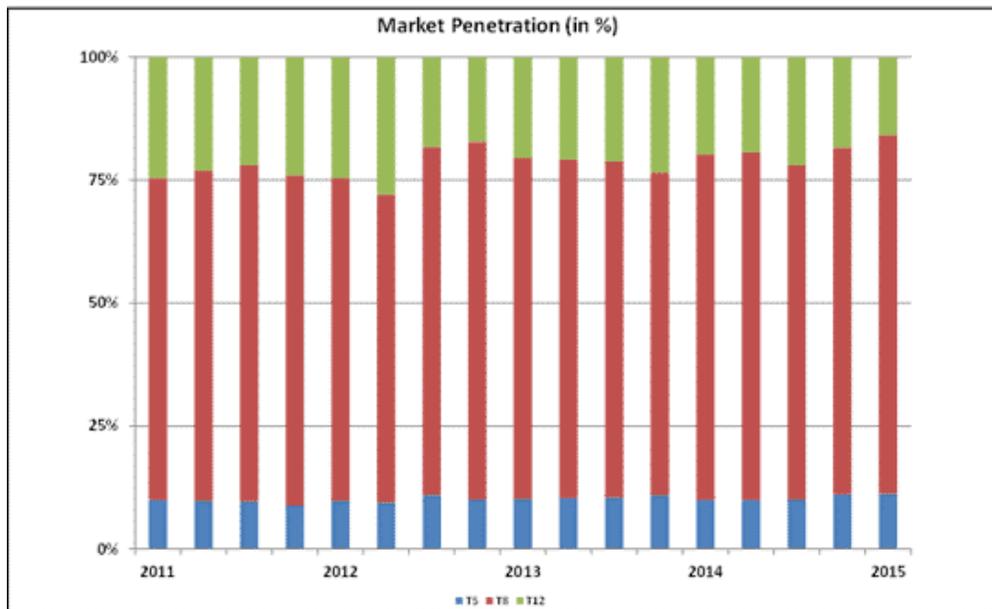
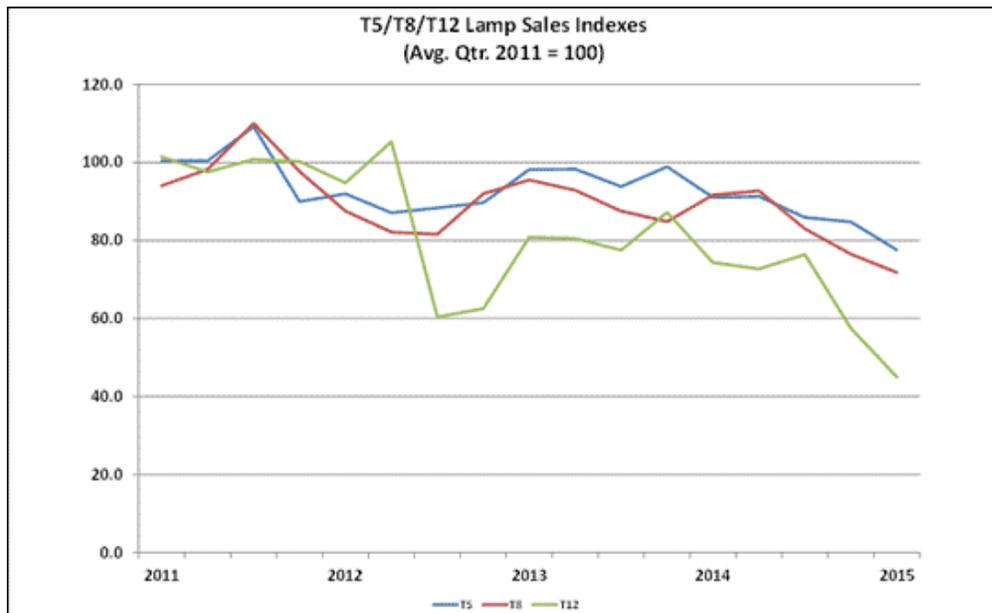
Funds for Solar Workforce Training



([from a DOE website](#))

May 26, 2015 Today, the Energy Department is announcing \$32 million in funding to help train American workers for the solar energy workforce and to further drive down the cost of solar by developing innovative low-cost concentrating solar power collectors and increasing access to critical solar data. The Department is making up to \$12 million available to develop a diverse, well-trained solar support workforce, including professionals in the insurance, real estate, and utility industries, who consumers rely on when they choose solar. An additional \$5 million will fund projects aimed at increasing market transparency and access to key solar energy datasets, and \$15 million will fund projects to develop new designs for concentrating solar power (CSP) collectors, the most expensive component of CSP systems. Altogether, this funding will help make solar energy more accessible and affordable for American families and businesses.

Downward Trend Continues in Linear Fluorescent Shipments



(from NEMA)

NEMA's linear fluorescent lamp shipment indexes for 2015Q1 continued the downward trend exhibited during calendar year 2014. As expected, due to energy efficiency regulations the index for T12 lamps declined for the fifth consecutive quarter on a year-over-year (y/y) basis, dropping by 39.5 percent. T8 shipments also posted a double digit decline, decreasing by 21.7 percent. Shipments of T5 lamps fell more modestly registering a year-over-year decrease of 14.8 percent.

Seasonally adjusted shipments of T5 lamps garnered a modest increase of 0.1 percentage points to reach a share of 11.2 percent, an all-time high watermark for the series. The market share for T8 lamps posted the largest gain, increasing by 2.4 percentage points to a share of 72.8 percent. T12 lamps slipped to a share of 15.9 percent for 2015Q1.

Construction Unemployment Hits 10-Year Low In May



(from AGC)

Construction firms added 17,000 jobs in May and 273,000 over 12 months, as the sector's unemployment rate fell to 6.7 percent, the lowest May rate since 2006, according to an analysis by the Associated General Contractors of America. Association officials noted that the job gains come as the private and public sectors are increasing investments in construction services.

Architect's Index Slumps In April – And May, Too

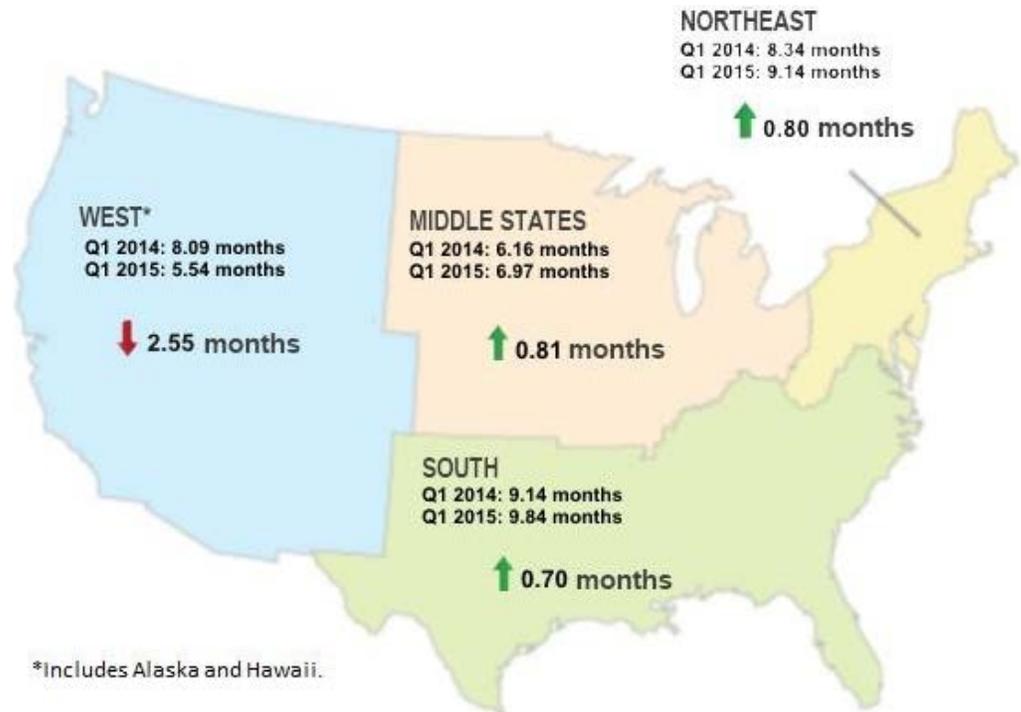
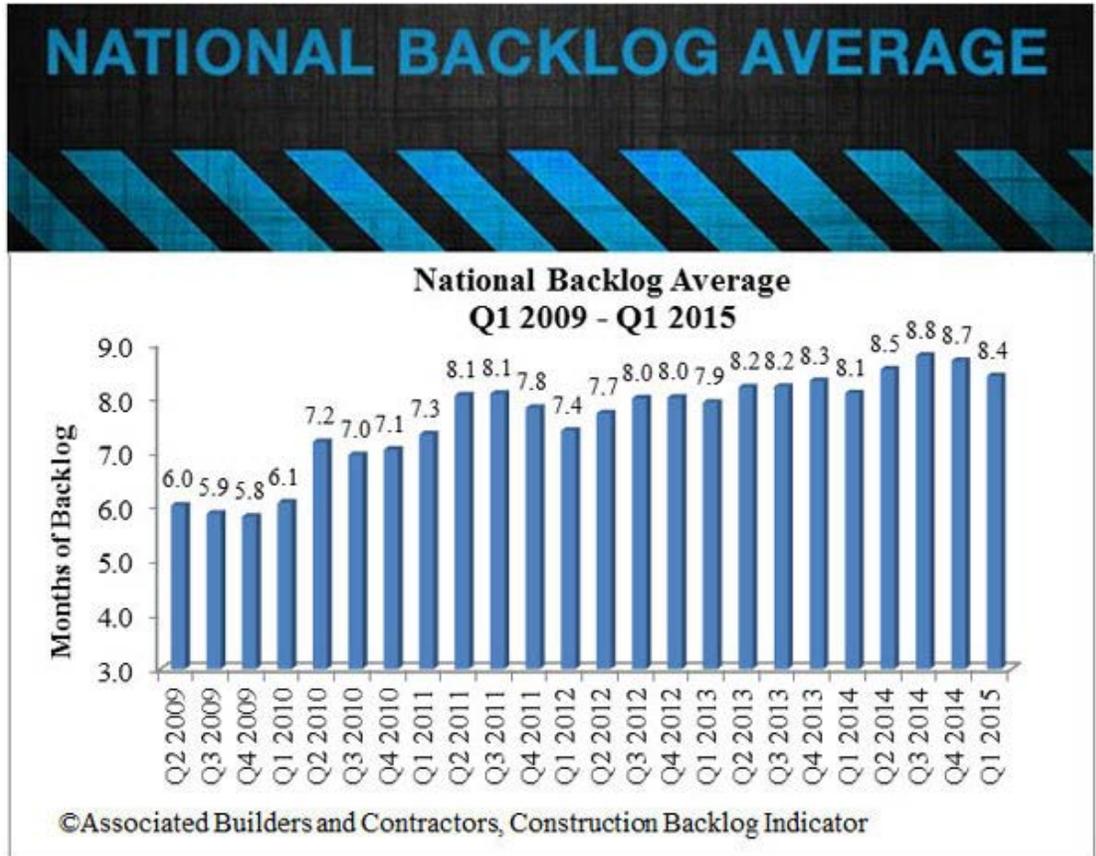
[April report from AIA](#) (illustrated in part below)

[May report](#): More of the same



Construction Backlog Indicator Falls In Q1

(from ABC)



©Associated Builders and Contractors, Construction Backlog Indicator

CONSTRUCTION BACKLOG INDICATOR			
Region	% Change		Change from Q4 2014
Northeast	-10.2%	—	1.04 months
South	5.9%	+	0.55 months
Middle States	-0.7%	—	0.05 months
West	-25.3%	—	1.88 months
Industry			
Commercial/Institutional	-5.9%	—	0.51 months
Heavy Industrial	3.1%	+	0.20 months
Infrastructure	-0.4%	—	0.04 months
Company Size			
<\$30 Million	-9.6%	—	0.77 months
\$30-\$50 Million	2.6%	+	0.22 months
\$50-\$100 Million	-0.9%	—	0.09 months
>\$100 Million	-2.4%	—	0.26 months



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