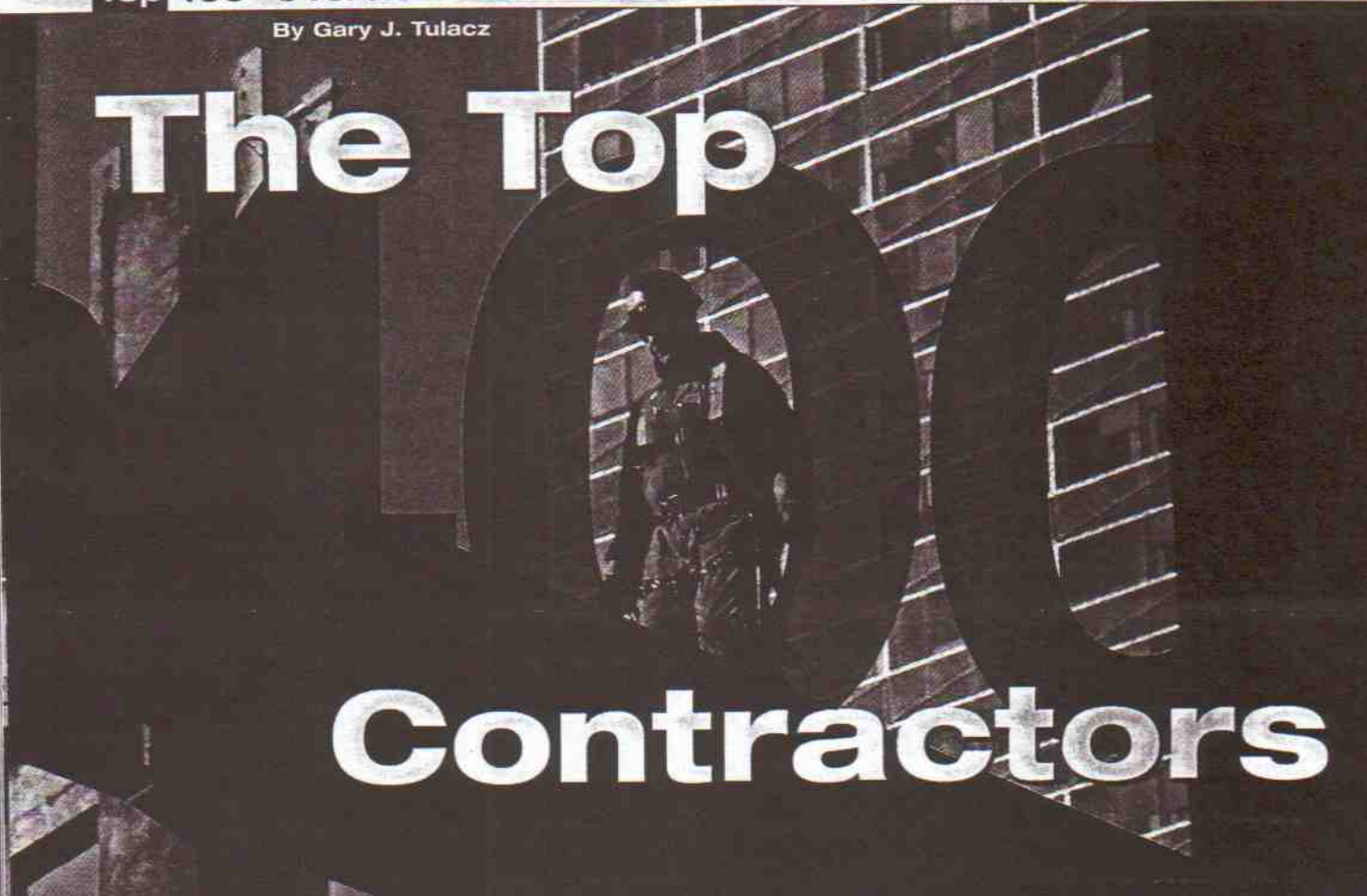


By Gary J. Tulacz



The Top 400 Contractors

Prosperity Allows Firms To Be Selective

The construction market for U.S. contractors is hot, and smart contractors now are enjoying a business environment that they hope for, but rarely experience. There is enough work to go around to satisfy contractors in most markets, and there is enough security for them to focus on good business practices.

The size of the boom can be seen in the revenue figures from ENR's Top 400 Contractors. The group, as a whole, generated \$262.76 billion in revenue in 2006, up 11.55% from 2005. But this level of increase actually is misleading. Atlanta-based paving giant APAC, which reported \$1.96 billion in revenue last year, was acquired by Oldcastle Materials and did not participate in this year's survey. And Centex, which reported total company construction revenue of \$12.98 billion last year, reported only the revenue from

its commercial building group this year: \$2.09 billion. If APAC and Centex were omitted from the year-to-year calculations, the remaining Top 400 firms enjoyed an average increase of 18.15% from 2005 to 2006.

No firm is enjoying the hot market more than McDermott International. For several years, it had struggled to stay afloat in the face of asbestos litigation against its Babcock & Wilcox subsidiary. "The conventional wisdom was that we would lose B&W to the Asbestos Trust,"

says Bruce W. Wilkinson, McDermott's CEO. In addition, its J. Ray McDermott unit suffered losses from damaged offshore platform projects. "We ended up reducing headcount, cutting expenses and selling assets," Wilkinson says.

Eventually, McDermott was able to settle with the Asbestos Trust, effectively buying B&W back from Chapter 11 status. And, on Dec. 28, 2006, McDermott reintegrated B&W into the company. "We managed to turn ourselves around just in time for the construction boom," Wilkinson says. On May 7, the firm reported first quarter earnings of \$158.1 million on revenue of \$1.36 billion. Its share price, which was trading below \$5 in 2003, hit \$70 a share on May 11. "I joined the company in 2000," Wilkinson says. "The first five-and-a-half years were pretty miserable, but the past 18 months have been pretty rosy," he says.

The current market "is almost like a repeat of last year, very busy," says Mike Bolen, CEO of McCarthy. He believes all signs point to a continuing strength in the market. "The designers are working near capacity, and this projects out to at least another eight to 16 months of activity," he says. "The economy feels solid over the next five or six years," says Robert Hunt, CEO of Hunt Construction Group. "It's not like the boom of the late 1990s, where the levels of work were unrealistically high. I expect this market to stay strong for a while."

Some local areas are booming. "The New York City area is an unbelievably strong market," says Johan Karlstrom, executive vice president of Skanska AB. He notes that three major stadiums are to be built, along with two major subway lines, lower Manhattan redevelopment, and major office work in midtown Manhat-

tan. "There's a risk with all this work, from potential labor shortages to materials price escalation," says Karlstrom. But Skanska is pooling resources from its building and civil groups to keep work is fully staffed, he says.

Boston is another boomtown. "In Boston, vacancy rates that were in the 16 to 18% range a few years ago have dropped to single digits," says John Fish, CEO of Suffolk Construction. Further, prime office space has gone from \$25 to \$35 sq ft to \$60, he says. "There's over 25 million sq ft of space in the pipeline," Fish notes.

A rising tide may lift all boats, but it does not help the ones with holes in their hulls. "Of the 25 largest contractors in Boston five years ago, 8 are out of business," says Fish. Earlier this year, 103-year-old George B. H. Macomber Co., Boston, closed its doors and, on March

16, Payton Construction, Boston, filed for reorganization under Chapter 11.

Bottom Line Thinking

The very hot market has many contractors rethinking their strategies. "The past couple years, we have been talking about curbing our appetite," says Nicholas Makes, senior vice president and portfolio director for Turner Construction. He says that the firm is focusing more on projects in its "sweet spot," where it has expertise, where the owners are reliable, and it can expect a reasonable return.

Turner is not the only contractor being more selective. "Margins used to be 4% and nothing less, but that drifted down," says Hunt. However, he sees that margins are on the rise again. "There are fewer fly-by-night contractors that will try to lowball you," he says.

The volume of work also is giving

The 2007 Top 400 at a Glance

Volume

	DOMESTIC		INTERNATIONAL		TOTAL	
	\$ BIL.	% CHG.	\$ BIL.	% CHG.	\$ BIL.	% CHG.
REVENUE	223.4	+11.7	39.3	+10.6	262.8	+11.5
NEW CONTRACTS	257.5	+11.9	44.1	+13.1	301.7	+12.1

Profitability

	NUMBER OF FIRMS REPORTING		AVERAGE % OF	
	PROFIT	LOSS	PROFIT	LOSS
DOMESTIC	332	14	4.1	NA
INTERNATIONAL	55	27	7.8	NA

Professional Staff

	NUMBER OF FIRMS REPORTING		AVERAGE % OF	
	DOMESTIC	INTL.	DOMESTIC	INTL.
INCREASE	251	33	13.6	40.7
DECREASE	16	5	13.8	17.9
SAME	99	59	NA	NA

Backlog

	NUMBER OF FIRMS REPORTING	AVERAGE %
HIGHER	260	36.5
LOWER	62	19.3
SAME	48	NA

Market Analysis

TYPE OF WORK	REVENUE \$ MIL.	PERCENT OF TOTAL
BUILDING	141,817.0	54.0
MANUFACTURING	6,315.3	2.4
INDUSTRIAL	14,843.0	5.6
PETROLEUM	25,072.3	9.5
WATER	4,644.9	1.8
SEWER WASTE	4,716.1	1.8
TRANSPORTATION	31,902.7	12.1
HAZARDOUS WASTE	6,067.1	2.3
POWER	14,360.7	5.5
TELECOMMUNICATIONS	3,175.1	1.2
OTHER	9,845.4	3.7

International Regions

	NUMBER OF FIRMS	REVENUE \$ MIL.	PERCENT OF TOTAL
CANADA	39	6,455.7	16.4
LATIN AMERICA	31	2,199.4	5.6
CARRIBEAN ISLANDS	31	1,488.9	3.8
EUROPE	28	9,901.4	25.2
MIDDLE EAST	24	12,402.3	31.5
ASIA/AUSTRALIA	24	4,842.1	12.3
AFRICA	14	2,018.7	5.1
ANTARCTIC/ARCTIC	2	38.2	0.1

contractors the freedom to turn down onerous contract clauses or simply walk away. "We still see a lot of exculpatory language in contracts," says Jack Mascaro, chairman of Mascaro Construction. "Owners have to realize that there's no such thing as a 'get-something-for-nothing' clause." He says that his company has walked away from jobs where the contract terms unfairly shifted risks or contained consequential damages clauses.

Not all markets are booming. For some contractors, the market has caused them to refocus their strategies. In March, Insituform announced that it would be selling its tunneling division to focus on its primary market of water and sewer repair and upgrade. "Our market is flat," says Tom Rooney, CEO. He says that the homebuilding bust, with the reduction in utility connection and new user fees, has caused many public utilities to pull back on upgrades.

But that slow growth has not caused Insituform to sit on its hands. Last year, the company introduced a new robotic process to line and upgrade water pipes. While similar to 'pigs' commonly used in pipeline inspections, Insituform's new iTAP system can robotically reinstate service connections without the need for digging. "It was a major technological test to be able to design a robot that could work in high water pressure pipes as small as 6 in.," says Rooney. He says that the firm recently successfully completed its first major project with iTAP in Monroe, Mich., and that several other munic-

ipalities have shown interest.

One new face on the Top 400 is Heery International, thanks in part to its increasing willingness to take projects on an at-risk basis and in part from its acquisition of Charter Builders, Dallas, which ranked No. 292 on last year's Top 400. Heery has parlayed its design-build and program management expertise with Charter's design-build experience to work on the renovation of the Cotton Bowl in Dallas, says James Moynihan, CEO of both Heery and of Balfour Beatty Construction, which covers all of the company's infrastructure and rail work. "It's not like we're new to risk," he says. "Heery has done about \$1.5 billion in design-build and CM-at-risk projects since 1993."

Petering Out?

On the heavy civil side, more transportation work is beginning to break free. "There's a plethora of work from state [transportation departments] that put off projects waiting to see how these public-private partnerships would evolve," says Daniel J. Walsh, president of Walsh Construction Co., Chicago. He believes that PPP work that was so eagerly awaited by many state DOTs has yet to materialize. "Many states have stepped back from PPP and that has caused some of the pent-up demand to shake free."

For Fluor, the PPP market is more robust in Europe. "We just won a 30-year reconstruction and widening of a highway in Germany," says Mervyn Sambles,

vice president of corporate development. But in the U.S., PPP projects are slow to develop. "Even in states that allow PPP, there continues to be debate," he says.

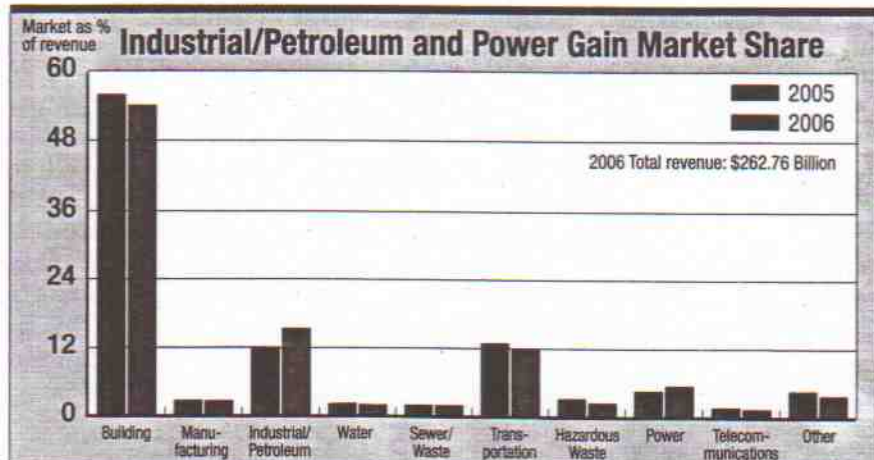
Few contractors see a quick expansion of PPP project use. "They are very hard deals to get done," says Bolen. "There are too many parties, too many moving parts, too much politics. We probably toss about 90% of the ones we review in the 'too-much-trouble' pile."

Many contractors in the civil market express frustration at the public's lack of interest in the nation's aging infrastructure. "Work in the U.S. is essentially flat," says Rooney. The big problem is that the American public isn't aware of the dangers posed by crumbling infrastructure. "It took the blackout in the Northeast a few years ago to focus the public's attention on the electrical grid, and Hurricane Katrina to focus them on flood control," says Rooney. He fears that a similar disaster, such as a deadly outbreak of disease from bad water or sewer breakdown may be the only thing that focuses the public's attention on critical infrastructure needs.

California is one state that has taken the infrastructure crisis seriously, with voters recently approving several major bond issues. But that has not translated into a lot of work yet, says Mike Crawford, CEO of Sukut Construction. He is more concerned with some of California's environmental initiatives that seem to have gained some traction. "There is a move to stop grading in the winter because of water runoff concerns," he says. He notes that surface contaminants collect during the dry season in southern California "but stopping grading during the dry season would be disastrous."

Lights On

The power market is getting back on track. "Capacity reserve margins are tracking to reach a critical point by 2012, so there's a pick-up in demand now," says Sambles of Fluor. This has led to new focus on clean coal plants. "But there are always permitting problems with coal, so we are beginning to see interest in the



interim in gas-fired plants as they are easier to permit and quicker to build.”

McDermott was the victim of the resistance to coal recently when Dallas-based utility TXU pulled the plug on eight coal-fired units. Babcock & Wilcox, which had been contracted to supply boilers for these plants, settled with TXU in April. “If there’s an Achilles heel in coal, it’s CO₂,” says McDermott’s Wilkinson. “It’s rare that you can win the biggest contract in the company’s history, then lose it in the same year.”

One major new project, announced on May 4, was the award of an engineering, procurement and construction contract by Southwestern Electric Power Co. to The Shaw Group to build a new 600-MW powerplant in Hempstead County, Arkansas. “This is the first ultra-supercritical clean-coal plant in the country,” says Jim Lamon, president of Shaw’s fossil fuel group. “For the next eight years or so, clean coal plants will dominate the market,” he says. But he also believes that growing environmental

The Top 20 Hazardous Waste

Revenue: \$6.1 billion of \$6.1 billion

- 1 BECTEL
- 2 WASHINGTON GROUP INTERNATIONAL INC.
- 3 FLUOR CORP.
- 4 THE SHAW GROUP INC.
- 5 JACOBS
- 6 SEVENSON ENVIRONMENTAL SERVICES
- 7 CH2M HILL COS.
- 8 PARSONS
- 9 EARTH TECH INC.
- 10 MCDERMOTT INTERNATIONAL INC.
- 11 O’CONNOR CONSTRUCTORS
- 12 RECON LP
- 13 J. FLETCHER CREAMER & SON INC.
- 14 WESTON SOLUTIONS INC.
- 15 CDM
- 16 THE CONTI GROUP
- 17 CONESTOGA-ROVERS & ASSOC.
- 18 TURNER INDUSTRIES GROUP LLC
- 19 MWH GLOBAL
- 20 SKANSKA USA INC.

The Top 20 Industrial Process/Petro.

Revenue: \$31.0 billion of \$39.9 billion

- 1 FLUOR CORP.
- 2 BECTEL
- 3 CB&I
- 4 JACOBS
- 5 TURNER INDUSTRIES GROUP LLC
- 6 MCDERMOTT INTERNATIONAL INC.
- 7 FOSTER WHEELER LTD.
- 8 KBR
- 9 FAGEN INC.
- 10 TIC HOLDINGS INC.
- 11 PCL CONSTRUCTION ENTERPRISES INC.
- 12 THE SHAW GROUP INC.
- 13 KIEWIT CORP.
- 14 ZACHRY CONSTRUCTION CORP.
- 15 SKANSKA USA INC.
- 16 DPR CONSTRUCTION INC.
- 17 ASRC ENERGY SERVICES
- 18 BE&K INC.
- 19 WASHINGTON GROUP INTERNATIONAL INC.
- 20 MATRIX SERVICE CO.

The Top 20 Power

Revenue: \$12.4 billion of \$14.4 billion

- 1 BECTEL
- 2 MCDERMOTT INTERNATIONAL INC.
- 3 THE SHAW GROUP INC.
- 4 FLUOR CORP.
- 5 BLACK & VEATCH
- 6 DAY & ZIMMERMANN GROUP
- 7 WASHINGTON GROUP INTERNATIONAL INC.
- 8 FOSTER WHEELER LTD.
- 9 KIEWIT CORP.
- 10 TIC HOLDINGS INC.
- 11 ZACHRY CONSTRUCTION CORP.
- 12 M.A. MORTENSON CO.
- 13 KENNY CONSTRUCTION
- 14 INDUSTRIAL CONTRACTORS INC.
- 15 AMEC
- 16 PCL CONSTRUCTION ENTERPRISES INC.
- 17 BURNS & MCDONNELL
- 18 BARTON MALOW CO.
- 19 AZCO INC.
- 20 JOSEPH JINGOLI & SON INC.

The Top 20 Telecommunications

Revenue: \$3.1 billion of \$3.2 billion

- 1 BECTEL
- 2 HOLDER CONSTRUCTION CO.
- 3 FLUOR CORP.
- 4 THE TURNER CORP.
- 5 DPR CONSTRUCTION INC.
- 6 SKANSKA USA INC.
- 7 GILBANE BUILDING CO.
- 8 CH2M HILL COS.
- 9 DANELLA COS. INC.
- 10 TETRA TECH INC.
- 11 MICHELS CORP.
- 12 ROEBBELEN CONTRACTING INC.
- 13 BLACK & VEATCH
- 14 CONTI COMMUNICATIONS INC.
- 15 SHOOK NATIONAL CORP.
- 16 IHC CONSTRUCTION COS. LLC
- 17 J.E. DUNN CONSTRUCTION GROUP
- 18 J. FLETCHER CREAMER & SON INC.
- 19 THE WHITING-TURNER CONTRACTING CO.
- 20 TENG AFFILIATED COS.

The Top 20 Transportation

Revenue: \$18.4 billion of \$31.9 billion

- 1 BECTEL
- 2 KIEWIT CORP.
- 3 GRANITE CONSTRUCTION INC.
- 4 THE WALSH GROUP LTD.
- 5 SKANSKA USA INC.
- 6 THE LANE CONSTRUCTION CORP.
- 7 KBR
- 8 BALFOUR BEATTY CONSTRUCTION INC.
- 9 FLATIRON CONSTRUCTION
- 10 PCL CONSTRUCTION ENTERPRISES INC.
- 11 JACOBS
- 12 THE TURNER CORP.
- 13 WILLIAMS BROTHERS CONSTRUCTION CO. INC.
- 14 CLARK GROUP
- 15 PARSONS
- 16 WEEKS MARINE INC.
- 17 THE HUBBARD GROUP
- 18 AUSTIN INDUSTRIES
- 19 FLUOR CORP.
- 20 VECCELLIO GROUP INC.

concerns and community acceptance will lead nuclear to be the power source of choice by 2015.

There is a real resurgence in interest in nuclear power. "There are about 35 units now in the planning or initial permitting stages," says Sambles. Most of the units are additional reactors to existing plants. This has led Fluor to establish a new nuclear division.

McDermott also is interested in the nuclear market. "B&W has a long history in the nuclear market," says Wilkinson. But B&W sold its commercial and industrial nuclear group to Framatome [now France's Areva NP] in 1993, retaining the government group. "We are now exploring nuclear work on the commercial side again," he says.

On the international front, Shaw Group announced on March 1 that the Westinghouse/Shaw Consortium had completed a framework agreement with China's State Nuclear Power Technology Company to provide four AP1000 nuclear reactors in China. Shaw will provide engineering, procurement, commissioning and project management services, Lamon notes.

If They Come, You Will Build It

Almost all contractors put finding workers, both in the trades and in management, at the top of their list of concerns. "Right now, our growth is limited only by how many qualified people we can bring to jobs," says Bolen of McCarthy. He says this shortage of people has led to meticulous tracking of project assignments. He notes, "Moving people from job to job brings in a whole new level of planning."

The volume of work is putting pressure on the availability of craft labor throughout the country. But there are a few jobs in the pipeline that could really ramp up this shortage. "The big Motiva refinery expansion over at Port Arthur, Texas, could draw up to 5,000-6,000 workers once it's under way," says Ross Cates, vice president of procurement for BE&K. That proposed project is a 325,000-barrel-a-day expansion to the refinery's capacity. "We are working with

The Top 100 Contractors by New Contracts*

RANK	FIRM	2006 CONTRACTS ¹	RANK	FIRM	2006 CONTRACTS ¹
1	FLUOR CORP.	19,276.2	51	ABB LUMMUS GLOBAL	1,185.2
2	BECHTEL	13,904.0	52	HOLDER CONSTRUCTION CO.	1,173.8
3	BOVIS LEND LEASE	10,410.7	53	THE LANE CONSTRUCTION CORP.	1,164.0
4	THE TURNER CORP.	10,272.0	54	DUKE CONSTRUCTION	1,052.0
5	JACOBS	9,830.2	55	ROBINS & MORTON	1,018.0
6	THE SHAW GROUP INC.	7,148.8	56	CLAYCO	950.0
7	MCDERMOTT INTERNATIONAL INC.	6,557.6	57	THE FLINTCO COS. INC.	935.0
8	SKANSKA USA INC.	4,906.0	58	KRAUS-ANDERSON CONSTRUCTION CO.	933.0
9	PCL CONSTRUCTION ENTERPRISES INC.	4,827.0	59	HITT CONTRACTING INC.	880.0
10	THE WHITING-TURNER CONTRACTING CO.	4,500.0	60	HUNT BUILDING CO. LTD.	858.0
11	CB&I	4,429.0	61	FLATIRON CONSTRUCTION	853.4
12	STRUCTURE TONE	4,021.0	62	LAYNE CHRISTENSEN CO.	811.0
13	THE WALSH GROUP LTD.	3,845.1	63	PANATTONI CONSTRUCTION INC.	789.0
14	KIEWIT CORP.	3,705.5	64	HUNTER ROBERTS CONSTRUCTION GRP.	774.8
15	MCCARTHY BUILDING COS. INC.	3,702.0	65	MCGOUGH COS.	771.0
16	KBR	3,697.7	66	THE HASKELL CO.	765.0
17	PERINI CORP.	3,596.0	67	KOKOSING CONSTRUCTION CO. INC.	763.1
18	CLARK GROUP	3,371.4	68	ROY ANDERSON HOLDING CORP.	754.0
19	WASHINGTON GRP. INTERNATIONAL INC.	3,304.1	69	DAVID E. HARVEY BUILDERS INC.	750.0
20	FOSTER WHEELER LTD.	3,287.0	70	HAWAIIAN DREDGING CONSTR. CO. INC.	742.0
21	GILBANE BUILDING CO.	3,204.0	71	HARDIN CONSTRUCTION CO. LLC	721.5
22	J.E. DUNN CONSTRUCTION GROUP	3,140.1	72	FRU-CO CONSTRUCTION CORP.	720.5
23	SWINERTON INC.	2,972.0	73	MESSER CONSTRUCTION	717.3
24	TUTOR-SALIBA CORP.	2,773.0	74	BOH BROS. CONSTRUCTION CO. LLC	700.0
25	HENSEL PHELPS CONSTRUCTION CO.	2,635.4	75	SUNDT CONSTRUCTION INC.	699.0
26	BLACK & VEATCH	2,451.6	76	JAMES G. DAVIS CONSTRUCTION CORP.	692.0
27	GRANITE CONSTRUCTION INC.	2,449.6	77	O&G INDUSTRIES INC.	688.3
28	WEBCOR BUILDERS	2,370.8	78	SELLEN CONSTRUCTION CO. INC.	686.0
29	TIC HOLDINGS INC.	2,344.0	79	HOAR CONSTRUCTION LLC	681.9
30	AUSTIN INDUSTRIES	1,896.6	80	TELLEPSEN	672.0
31	BE&K INC.	1,850.0	81	THE HANOVER CO.	670.0
32	CENTEX	1,744.6	82	TORCON INC.	669.0
33	BRASFIELD & GORRIE LLC	1,740.0	83	TEICHERT CONSTRUCTION	661.0
34	THE YATES COS. INC.	1,722.3	84	JAMES MCHUGH CONSTRUCTION CO.	656.7
35	OPUS GROUP	1,680.0	85	VCC	650.0
36	ZACHRY CONSTRUCTION CORP.	1,650.0	86	DEVCON CONSTRUCTION INC.	650.0
37	FAGEN INC.	1,628.0	87	HATHAWAY DINWIDDIE CONSTR. CO.	649.4
38	AMERICAN BRIDGE CO.	1,600.7	88	WALTON CONSTRUCTION CO. LLC	632.0
39	DPR CONSTRUCTION INC.	1,600.0	89	SHAWMUT DESIGN AND CONSTRUCTION	624.0
40	THE WEITZ CO. LLC	1,578.9	90	MWH GLOBAL	621.5
41	ALBERICI CORP.	1,563.2	91	THE PENTA BUILDING GROUP INC.	621.0
42	PARSONS	1,496.8	92	KITCHELL CORP.	619.1
43	M.A. MORTENSON CO.	1,492.8	93	DICK CONSTRUCTION CO.	615.0
44	PEPPER CONSTRUCTION GROUP	1,491.0	94	ROEL CONSTRUCTION CO.	610.0
45	HUNT CONSTRUCTION GROUP INC.	1,400.0	95	WILLIAM A. BERRY & SON INC.	607.4
46	BARTON MALOW CO.	1,400.0	96	ARMADA HOFFLER CONSTRUCTION CO.	604.4
47	MANHATTAN CONSTRUCTION CO.	1,357.0	97	C.W. DRIVER	601.6
48	SUFFOLK CONSTRUCTION CO. INC.	1,311.1	98	POWER CONSTRUCTION CO. LLC	600.0
49	THE HOWARD S. WRIGHT COS.	1,280.0	99	ANGELO IAFRATE COS.	600.0
50	WALBRIDGE ALDINGER	1,250.0	100	CHANEN CONSTRUCTION CO. INC.	597.7

*AMONG TOP 400 FIRMS PROVIDING REVENUE DATA; †=IN \$ MIL.

