2017 Construction Outlook Survey Results
Regional Results – West


1. Compared to 2016, do you expect the available dollar volume of projects you compete for in 2017 to be:

<table>
<thead>
<tr>
<th>Market</th>
<th>Higher</th>
<th>Lower</th>
<th>Same</th>
<th>Net*</th>
</tr>
</thead>
<tbody>
<tr>
<td>All projects</td>
<td>50%</td>
<td>10%</td>
<td>41%</td>
<td>40%</td>
</tr>
<tr>
<td>Retail, Warehouse, Lodging</td>
<td>37%</td>
<td>11%</td>
<td>53%</td>
<td>26%</td>
</tr>
<tr>
<td>Private Office</td>
<td>37%</td>
<td>13%</td>
<td>49%</td>
<td>24%</td>
</tr>
<tr>
<td>Other Transportation (e.g., transit, rail, airport)</td>
<td>35%</td>
<td>13%</td>
<td>51%</td>
<td>22%</td>
</tr>
<tr>
<td>K-12 School</td>
<td>34%</td>
<td>15%</td>
<td>51%</td>
<td>19%</td>
</tr>
<tr>
<td>Highway</td>
<td>33%</td>
<td>16%</td>
<td>51%</td>
<td>17%</td>
</tr>
<tr>
<td>Public Building</td>
<td>29%</td>
<td>13%</td>
<td>58%</td>
<td>16%</td>
</tr>
<tr>
<td>Hospital</td>
<td>31%</td>
<td>15%</td>
<td>54%</td>
<td>15%</td>
</tr>
<tr>
<td>Multifamily Residential</td>
<td>34%</td>
<td>19%</td>
<td>47%</td>
<td>15%</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>28%</td>
<td>16%</td>
<td>56%</td>
<td>12%</td>
</tr>
<tr>
<td>Higher Education</td>
<td>27%</td>
<td>17%</td>
<td>56%</td>
<td>10%</td>
</tr>
<tr>
<td>Water/Sewer</td>
<td>25%</td>
<td>15%</td>
<td>60%</td>
<td>10%</td>
</tr>
<tr>
<td>Federal (e.g., VA, GSA, USACE, NAVFAC)</td>
<td>27%</td>
<td>20%</td>
<td>53%</td>
<td>8%</td>
</tr>
<tr>
<td>Power</td>
<td>21%</td>
<td>15%</td>
<td>64%</td>
<td>6%</td>
</tr>
</tbody>
</table>

*Net equals difference between number of “Higher” and “Lower” responses as percent of total.

2. What numerical change do you expect in your headcount in 2017?

- Increase by more than 25: 17%
- Increase by 16-25: 7%
- Increase by 6-15: 20%
- Increase by 1-5: 30%
- No change: 18%
- Decrease: 7%

3. What percentage change do you expect in your headcount in 2017?

- Increase by more than 26: 8%
- Increase by 1-25: 64%
- No change: 19%
- Decrease: 9%
4. How would you describe your current conditions for filling key salaried positions (project manager/supervisor, estimator, etc.) and hourly craft positions (carpenter, laborer, equipment operator, etc.)?

- I am having a hard time filling both salaried and craft worker positions: 42%
- I am having a hard time filling some salaried positions, but no trouble filling craft worker positions: 8%
- I am having a hard time filling some craft worker positions, but no trouble filling salaried positions: 19%
- I am having no trouble filling any positions: 17%
- I am not doing any hiring: 14%

5. Do you expect any changes in the availability of salaried/hourly craft construction professionals over the coming 12 months?

- It will continue to be easy to find and hire qualified construction professionals: 2%
- It will become easier to find and hire qualified construction professionals: 3%
- It will become harder to find and hire qualified construction professionals: 29%
- It will continue to be hard to find qualified construction professionals: 45%
- Unsure: 21%

6. Has your firm increased pay or benefits to retain or recruit salaried/hourly craft professionals?

- Higher base pay: 54%
- Pay more overtime: 10%
- Provide incentives/bonuses: 32%
- Increase contributions and/or improve employee benefits: 29%
- No, but we are considering increases in pay and/or benefits in the near future: 15%
- No, and we are not considering increases in pay and/or benefits: 10%

7. Compared to 2016, how will your 2017 investment in training and development change?

- Increase: 54%
- Decrease: 1%
- Stay the same: 39%
- Unsure: 5%
8. Which of the following issues are the biggest concerns to you and your business?

- Worker shortages: 54%
- Worker quality: 47%
- Safety: 30%
- Rising direct labor costs: 42%
- Rising subcontractor costs: 26%
- Subcontractor defaults: 8%
- Rising materials costs: 28%
- Growth in federal regulations: 43%
- Growth in state and local regulations: 45%
- External process inefficiencies (such as collaboration with owners, subs and/or vendors): 30%
- Internal company process inefficiencies: 24%
- Increased competition for projects: 45%
- Not enough private sector work: 17%
- Lack of infrastructure investments: 21%
- Lack of public non-infrastructure work: 10%

9. What challenges, if any, do you see regarding the safety and health of your workers?

- Inexperienced skilled labor/workforce shortage: 50%
- Lack of cooperation from federal agencies or regulators: 42%
- Low quality of available safety and health training: 62%
- Poor subcontractor safety and health performance: 33%
10. How would you describe credit or lending conditions for your company?

My firm has had a harder time getting bank loans than a year ago 5%
My firm has had an easier time getting bank loans than a year ago 8%
Bank credit has not been an issue for my firm, but has caused my customers’ projects to be delayed or canceled 25%
Easier bank credit has enabled customers to move ahead with previously delayed projects 4%
There has been no change in bank lending with regard to my firm or customers 58%

11. Did the cost of providing health care insurance for your employees increase or decrease in 2016?

Increased 83%
Decreased 2%
Stayed the same 12%
We did not provide health care insurance in 2016 4%

12. Do you expect the cost of providing health care insurance for your employees to increase or decrease in 2017?

Increase 81%
Decrease 2%
Stay the same 13%
We did not provide health insurance in 2016 and do not plan to do so in 2017 2%
We did not provide health insurance in 2016, but plan to do so in 2017 1%
We provided health insurance in 2016, but do not plan to do so in 2017 1%

13. Do you expect the amount of projects involving Building Information Modeling (BIM) will increase, decrease or stay the same for you in 2017?

Increase more than 26% 7%
Increase 11-25% 13%
Increase 10% or less 15%
Stay the same 21%
Decrease 0%
We do not expect to use BIM on any projects in 2017 19%
14. Do you believe that your firm utilizes lean construction principles on its projects and/or in its operation?

- Yes: 65%
- No: 12%
- Unsure: 23%

15. Do you expect your firm will work on a project using modular construction and/or off-site construction/prefabrication in 2017?

- Yes: 33%
- No: 41%
- Unsure: 25%

16. Does your company plan to purchase or lease new fleet vehicles this year?

- Yes: 58%
- No: 21%
- Unsure: 21%

17. How do you expect your geographic market area will change in 2017?

- We expect to maintain our current geographic area: 54%
- We expect to broaden our geographic area: 41%
- We expect to narrow our geographic area: 3%
- Unsure: 3%

18. What technology do you use or will you implement to see or manage projects outside your traditional market area?

- Mobile devices such as smartphones and tablets: 73%
- Cloud-based servers/storage: 49%
- Cloud-based applications: 47%
- Remote technology such as Citrix, Terminal Service or VPN: 46%

19. Do you use any of the following to collaborate with project partners?

- Email: 90%
- File sharing sites such as Dropbox: 74%
- Online project collaboration software: 45%
- Building Information Modeling: 30%
- Home-grown project website: 19%
- None or do not collaborate: 2%
20. What information technology (IT), if any, do you use to obtain work?

- Estimating/bidding software: 68%
- Social media (e.g., Facebook, Twitter): 37%
- Client relationship management software: 27%
- Marketing/business development software: 26%
- Sales software: 12%

21. What is the size of your in-house IT staff?

- 1 person: 27%
- 2-5 people: 22%
- 6-10 people: 5%
- More than 11 people: 6%
- No in-house staff: 39%

22. Do you use an outsourced service for IT?

- Yes: 62%
- No: 34%
- No, but plan to do so in 2017: 1%
- Unsure: 3%

23. Approximately what percent of your gross annual revenue do you spend on IT?

- Less than 1%: 13%
- 1 to 1.9%: 41%
- 2 to 2.9%: 6%
- 3% or more: 9%
- Unsure: 27%

24. Compared to 2016, how will your 2017 investment in IT change?

- Increase: 41%
- Decrease: 2%
- Stay the same: 45%
- Unsure: 13%
25. What software technology do you plan to invest in during 2017?

- Accounting software: 30%
- Estimating software: 28%
- Document management software: 23%
- Project management software: 20%
- Human resources software: 19%
- Fleet tracking/management software: 17%
- Scheduling software: 16%
- Client relationship management software: 14%
- Building Information Modeling: 10%
- Project collaboration software: 9%
- Outsource payroll: 5%
- Prequalification software: 5%
- Subcontractor bid management/ITB software: 5%
- Service management software: 4%
- None: 11%

26. How does your company plan to use mobile software technology?

- Daily field reports: 63%
- Access to customer and job information from the field: 52%
- Sharing of drawings, photos, and documents: 52%
- Scheduling: 47%
- Access to job cost and project reports from the field: 43%
- Equipment tracking: 34%
- Punch lists: 34%
- GPS tracking (e.g., fleet tracking): 29%
- Time capture and approval: 27%
- Building Information Modeling: 20%
- Inventory tracking: 17%
- Processing service work orders in the field: 14%
- Material acceptance at the job site: 12%
- Processing payments in the field: 7%
27. How do you handle the use of mobile devices (e.g., tablets, smartphones) in your company?

- Company supplies mobile devices to staff; no staff-supplied devices: 49%
- Employees use their own mobile devices; no company-supplied devices: 7%
- We do a combination of both: 43%
- Unsure: 1%

28. Do you currently have a mobile security policy in place?

- Yes: 53%
- No: 36%
- Unsure: 11%

29. Do you currently have an overall IT security plan in place to protect against hacking?

- Yes: 75%
- No: 17%
- Unsure: 8%

30. Do you have a formal IT plan that supports your business objectives?

- Yes: 50%
- No: 28%
- No, but plan to do so in 2017: 7%
- Unsure: 16%

31. What is the main reason you use or plan to adopt cloud-based software?

- Ability to access information anytime and from anywhere: 51%
- We do not use or plan to adopt cloud-based software: 16%
- Redundancy and disaster recovery: 11%
- Built-in security: 4%
- Reduced IT cost: 3%
- Faster implementation: 1%
- Other/unsure: 13%
32. What are your biggest IT challenges?

- Time to implement and train on new technology: 42%
- Connectivity to remote job sites: 40%
- Communication between field and office: 39%
- Employee resistance to technology: 28%
- Integration between software used inside of our company: 25%
- Keeping company data secure from hackers: 21%
- Outdated company software and systems: 17%
- Integration with software used by business partners outside our company: 13%
- Management resistance to technology: 7%
- None: 6%

33. Estimate the total dollar amount of work your firm performed in 2016.

- $10 million or less: 39%
- $10.1 million-$30 million: 20%
- $30.1 million-$50 million: 9%
- $50.1 million-$100 million: 10%
- $100.1 million-$500 million: 12%
- Over $500 million: 10%

34. How many total employees does your organization employ at all of its locations?

- 1-49: 40%
- 50-249: 32%
- 250-499: 13%
- 500-999: 4%
- 1,000 or more: 11%

35. Do you employ union workers, or is your firm primarily open shop?

- We employ union workers for all of our projects: 23%
- We employ union workers for most of our projects: 10%
- We are primarily an open shop contractor, but occasionally employ union workers: 16%
- We are exclusively open shop: 51%