



NEW MILLENNIUM
BUILDING SYSTEMS

Flexible to the Finish



Steel joist and deck design, manufacturing and delivery

Contents

It's time for a New Millennium	2
Increase your competitive advantage	3
Elevate your design ideas	5
Lower your project costs	6
Simplify your process	7
Contact us for business growth	9

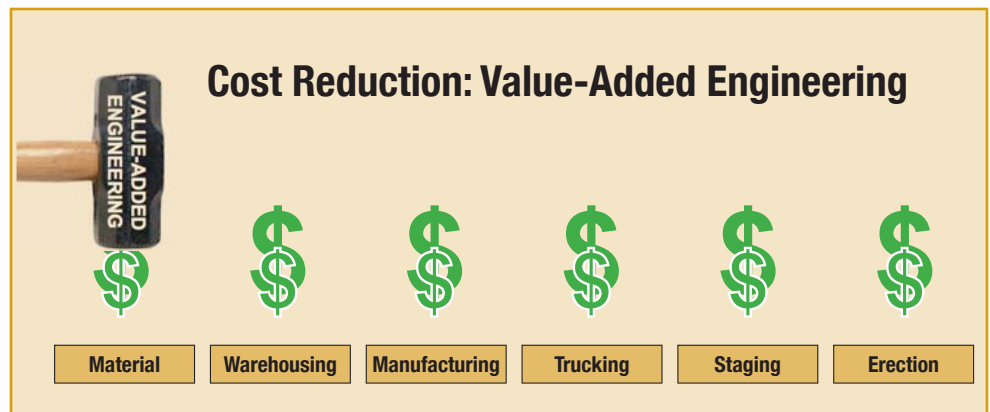
It's time for a New Millennium.

The time has come to elevate your design ideas and to lower the costs of your steel projects.

At a time when project cost, efficiency and ease of doing business are critical to your success, New Millennium offers your firm a unique level of design, manufacturing and delivery flexibility.

When we are consulted early in the design process, we can elevate your design ideas and remove a range of related costs from most any project. As your trusted steel joist and deck resource, we can identify and resolve problems before they impact the project cost.

Our dynamic design, manufacturing and delivery business model saves time, money and project hassles. That's why we always start a project by asking you: What do you need, and when do you need it?



When New Millennium is involved during the steel package design and planning phase, unnecessary costs associated with joists and deck are prevented.

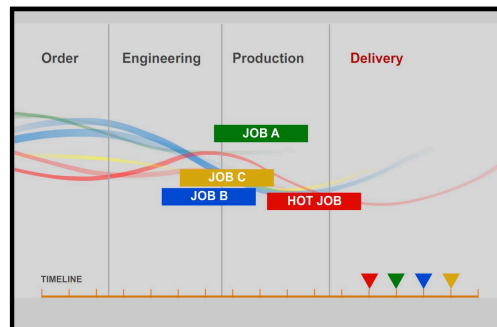
Increase your competitive advantage.

Now is the time for flexible design, manufacturing and delivery.

During the steel fabrication phase of a project, necessary changes can cause a chain reaction of cost escalation, unless they are immediately resolved. We understand this, so we don't see changes to projects as problems. We see them as opportunities to help all involved, by doing whatever it takes to meet the project's goals.

Our dynamic design, manufacturing and delivery process enables us to keep your project and your reputation moving forward. We can accommodate just-in-time project needs and shifting timelines.

Another cost-saving advantage may be that the project can be completed ahead of schedule, enabling the owner or developer to achieve occupancy or retail income that can be significant.



Our dynamic design, manufacturing and delivery process meets the project's timetable, even when that timetable changes.



One of our manufacturing advantages is the ability to use hot-rolled steel angles or cold-formed steel shapes – whichever is the most economical for you. Both flat-rolled steel which we cold-form ourselves and hot-rolled angles are readily available from our parent company, Steel Dynamics, Inc.



Our people work as flexible teams, bringing their skills together in synergistic ways to do whatever it takes to meet the project's needs and to earn your trust.



Save potentially thousands of dollars on a project by involving us at the joist-and-deck design stage. We can anticipate and prevent costly problems before they happen.

Economical Load Table (span = 56) units: lbs

Joist Load	Span	Depth	Weight	Capacity	Capacity
200	100	80	80	2000	7.0
200	100	100	100	2000	8.0
200	100	120	120	2000	9.0
200	100	140	140	2000	10.0
200	100	160	160	2000	11.0
200	100	180	180	2000	12.0
200	100	200	200	2000	13.0
200	100	220	220	2000	14.0
200	100	240	240	2000	15.0
200	100	260	260	2000	16.0
200	100	280	280	2000	17.0
200	100	300	300	2000	18.0
200	100	320	320	2000	19.0
200	100	340	340	2000	20.0
200	100	360	360	2000	21.0
200	100	380	380	2000	22.0
200	100	400	400	2000	23.0
200	100	420	420	2000	24.0
200	100	440	440	2000	25.0
200	100	460	460	2000	26.0
200	100	480	480	2000	27.0
200	100	500	500	2000	28.0
200	100	520	520	2000	29.0
200	100	540	540	2000	30.0
200	100	560	560	2000	31.0
200	100	580	580	2000	32.0
200	100	600	600	2000	33.0
200	100	620	620	2000	34.0
200	100	640	640	2000	35.0
200	100	660	660	2000	36.0
200	100	680	680	2000	37.0
200	100	700	700	2000	38.0
200	100	720	720	2000	39.0
200	100	740	740	2000	40.0
200	100	760	760	2000	41.0
200	100	780	780	2000	42.0
200	100	800	800	2000	43.0
200	100	820	820	2000	44.0
200	100	840	840	2000	45.0
200	100	860	860	2000	46.0
200	100	880	880	2000	47.0
200	100	900	900	2000	48.0
200	100	920	920	2000	49.0
200	100	940	940	2000	50.0
200	100	960	960	2000	51.0
200	100	980	980	2000	52.0
200	100	1000	1000	2000	53.0
200	100	1020	1020	2000	54.0
200	100	1040	1040	2000	55.0
200	100	1060	1060	2000	56.0
200	100	1080	1080	2000	57.0
200	100	1100	1100	2000	58.0
200	100	1120	1120	2000	59.0
200	100	1140	1140	2000	60.0
200	100	1160	1160	2000	61.0
200	100	1180	1180	2000	62.0
200	100	1200	1200	2000	63.0
200	100	1220	1220	2000	64.0
200	100	1240	1240	2000	65.0
200	100	1260	1260	2000	66.0
200	100	1280	1280	2000	67.0
200	100	1300	1300	2000	68.0
200	100	1320	1320	2000	69.0
200	100	1340	1340	2000	70.0
200	100	1360	1360	2000	71.0
200	100	1380	1380	2000	72.0
200	100	1400	1400	2000	73.0
200	100	1420	1420	2000	74.0
200	100	1440	1440	2000	75.0
200	100	1460	1460	2000	76.0
200	100	1480	1480	2000	77.0
200	100	1500	1500	2000	78.0
200	100	1520	1520	2000	79.0
200	100	1540	1540	2000	80.0
200	100	1560	1560	2000	81.0
200	100	1580	1580	2000	82.0
200	100	1600	1600	2000	83.0
200	100	1620	1620	2000	84.0
200	100	1640	1640	2000	85.0
200	100	1660	1660	2000	86.0
200	100	1680	1680	2000	87.0
200	100	1700	1700	2000	88.0
200	100	1720	1720	2000	89.0
200	100	1740	1740	2000	90.0
200	100	1760	1760	2000	91.0
200	100	1780	1780	2000	92.0
200	100	1800	1800	2000	93.0
200	100	1820	1820	2000	94.0
200	100	1840	1840	2000	95.0
200	100	1860	1860	2000	96.0
200	100	1880	1880	2000	97.0
200	100	1900	1900	2000	98.0
200	100	1920	1920	2000	99.0
200	100	1940	1940	2000	100.0
200	100	1960	1960	2000	101.0
200	100	1980	1980	2000	102.0
200	100	2000	2000	2000	103.0
200	100	2020	2020	2000	104.0
200	100	2040	2040	2000	105.0
200	100	2060	2060	2000	106.0
200	100	2080	2080	2000	107.0
200	100	2100	2100	2000	108.0
200	100	2120	2120	2000	109.0
200	100	2140	2140	2000	110.0
200	100	2160	2160	2000	111.0
200	100	2180	2180	2000	112.0
200	100	2200	2200	2000	113.0
200	100	2220	2220	2000	114.0
200	100	2240	2240	2000	115.0
200	100	2260	2260	2000	116.0
200	100	2280	2280	2000	117.0
200	100	2300	2300	2000	118.0
200	100	2320	2320	2000	119.0
200	100	2340	2340	2000	120.0
200	100	2360	2360	2000	121.0
200	100	2380	2380	2000	122.0
200	100	2400	2400	2000	123.0
200	100	2420	2420	2000	124.0
200	100	2440	2440	2000	125.0
200	100	2460	2460	2000	126.0
200	100	2480	2480	2000	127.0
200	100	2500	2500	2000	128.0
200	100	2520	2520	2000	129.0
200	100	2540	2540	2000	130.0
200	100	2560	2560	2000	131.0
200	100	2580	2580	2000	132.0
200	100	2600	2600	2000	133.0
200	100	2620	2620	2000	134.0
200	100	2640	2640	2000	135.0
200	100	2660	2660	2000	136.0
200	100	2680	2680	2000	137.0
200	100	2700	2700	2000	138.0
200	100	2720	2720	2000	139.0
200	100	2740	2740	2000	140.0
200	100	2760	2760	2000	141.0
200	100	2780	2780	2000	142.0
200	100	2800	2800	2000	143.0
200	100	2820	2820	2000	144.0
200	100	2840	2840	2000	145.0
200	100	2860	2860	2000	146.0
200	100	2880	2880	2000	147.0
200	100	2900	2900	2000	148.0
200	100	2920	2920	2000	149.0
200	100	2940	2940	2000	150.0
200	100	2960	2960	2000	151.0
200	100	2980	2980	2000	152.0
200	100	3000	3000	2000	153.0
200	100	3020	3020	2000	154.0
200	100	3040	3040	2000	155.0
200	100	3060	3060	2000	156.0
200	100	3080	3080	2000	157.0
200	100	3100	3100	2000	158.0
200	100	3120	3120	2000	159.0
200	100	3140	3140	2000	160.0
200	100	3160	3160	2000	161.0
200	100	3180	3180	2000	162.0
200	100	3200	3200	2000	163.0
200	100	3220	3220	2000	164.0
200	100	3240	3240	2000	165.0
200	100	3260	3260	2000	166.0
200	100	3280	3280	2000	167.0
200	100	3300	3300	2000	168.0
200	100	3320	3320	2000	169.0
200	100	3340	3340	2000	170.0
200	100	3360	3360	2000	171.0
200	100	3380	3380	2000	172.0
200	100	3400	3400	2000	173.0
200	100	3420	3420	2000	174.0
200	100	3440	3440	2000	175.0
200	100	3460	3460	2000	176.0
200	100	3480	3480	2000	177.0
200	100	3500	3500	2000	178.0
200	100	3520	3520	2000	179.0
200	100	3540	3540	2000	180.0
200	100	3560	3560	2000	181.0
200	100	3580	3580	2000	182.0
200	100	3600	3600	2000	183.0
200	100	3620	3620	2000	184.0
200	100	3640	3640	2000	185.0
200	100	3660	3660	2000	186.0
200	100	3680	3680	2000	187.0
200	100	3700	3700	2000	188.0
200	100	3720	3720	2000	189.0
200	100	3740	3740	2000	190.0
200	100	3760	3760	2000	191.0
200	100	3780	3780	2000	192.0
200	100	3800	3800	2000	193.0
200	100	3820	3820	2000	194.0
200	100	3840	3840	2000	195.0
200	100	3860	3860	2000	196.0
200	100	3880	3880	2000	197.0
200	100	3900	3900	2000	198.0
200	100	3920	3920	2000	199.0
200	100	3940	3940	2000	200.0
200	100	3960	3960	2000	201.0
200	100	3980	3980	2000	202.0
200	100	4000	4000	2000	203.0
200	100	4020	4020	2000	204.0
200	100	4040	4040	2000	205.0
200	100	4060	4060	2000	206.0
200	100	4080	4080	2000	207.0
200	100	4100	4100	2000	208.0
200	100	4120	4120	2000	209.0
200	100	4140	4140	2000	210.0
200	100	4160	4160	2000	211.0
200	100	4180	4180	2000	212.0
200	100	4200	4200	2000	213.0
200	100	4220	4220	2000	214.0
200	100	4240	4240		

Elevate your design ideas.

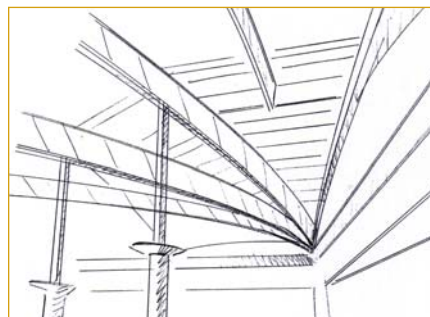
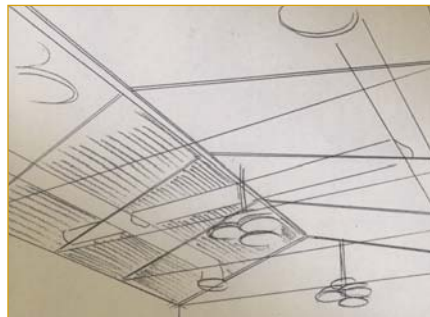
Together, let's change the shape of roof-line design.

Designing and building joists requires more than a run-of-the-mill approach, and we are built for joist design innovation. Our design engineers are not only exploring the possibilities of steel joist design, they continue to expand the range of architectural joist specification based on standards established by the Steel Joist Institute (SJI).



After nearly two years in development, our new special profile joist catalog represents a vast expansion of the design engineering specifications necessary to achieve unique new roof-line concepts.

- *Vast expansion of standard joist engineering specifications to incorporate special profile joists*
- *New specifications support an infinite number of joist design possibilities*
- *New catalog includes illustrations, charts and detailed guidelines*
- *New tables support over 39,000 joist designs*
- *Design considerations include shipping, handling and erection*



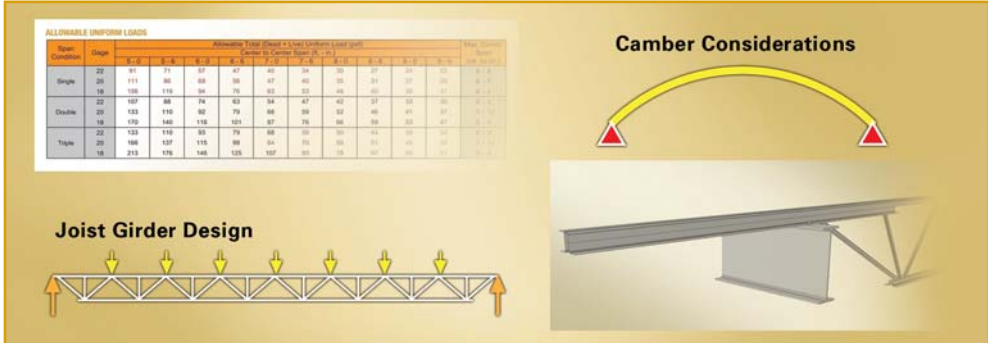
By involving us early in the design process, you can quickly evaluate a range of cost effective engineering options to achieve your most distinctive architectural ideas.

Lower your costs.

Great design is cost-effectively engineered.

When you involve us early in the design process, you can quickly evaluate a range of cost-effective options compatible with the project's aesthetic goals.

Here are some of the engineering considerations we examine when we are brought in early on a project to collaborate on project cost reduction through better design, clash prevention and overall project efficiency.



ALLOWABLE UNIFORM LOADS

Member	Depth	Allowable Total Load + Top Chord Load only												
		12'	14'	16'	18'	20'	22'	24'	26'	28'	30'	32'	34'	
Single	22	81	71	67	67	66	64	62	60	57	54	52	50	48
	20	111	96	90	86	82	78	74	70	66	62	58	54	50
	18	150	130	124	118	112	105	98	91	84	77	70	63	56
Double	22	107	94	89	85	81	77	73	69	65	61	57	53	49
	20	153	135	128	122	116	110	104	98	92	86	80	74	68
	18	202	180	172	165	157	149	141	133	125	117	109	101	93
Triple	22	133	119	113	108	103	98	93	88	83	78	73	68	63
	20	186	163	155	148	141	134	127	120	113	106	99	92	85
	18	253	226	217	210	202	194	186	178	170	162	154	146	138

Camber Considerations

Joist Girder Design

Actual Loading

We often suggest designing basic joists as load-per-foot instead of using a specific catalog joist size. This can often increase savings by designing only for exact loads (dead + live).

Joist Depth

We evaluate reducing the number of structural components through longer spans, deeper joists and special profile joists. This can reduce project costs.

Deck Span

We may determine that by spacing joists to maximize deck span, we can increase the loading on joists while reducing the number of pieces – thus lowering overall erection costs.

Camber

We recognize joist camber affects adjacent framing and deck supports. The longer the joist, the more camber to be accounted for. Making adjustments before the joists arrive on the job saves time and money.

Extended Ends

An R12 extension on a 10K1 joist requires that the joist top chord be sized accordingly, which increases joist cost. To avoid this, we collaborate with structural engineers on specifying actual loads. Also, if the extension exceeds 5'-0", we may recommend a 5" deep extension.

Moment Connections

We consult on the transference of axial loads through the joist/girder ends. Using proper connection details can eliminate unnecessary costs.

Sloping Joists

We make sure joist seats are specified at the proper depth. This eliminates coordination and manufacturing problems, saving time and money.

Weld Sizes

We minimize field weld sizes for joist seat anchorage and bottom chord attachments. The size of the field weld can increase the material thickness, increasing the project's costs.

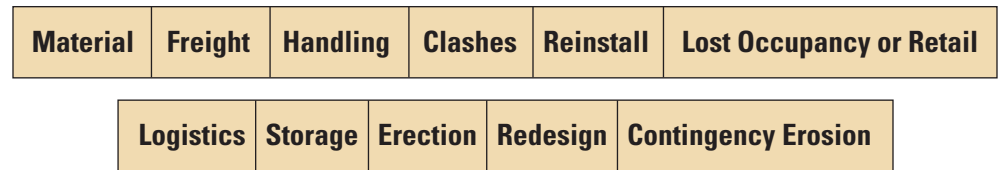
Let's simplify your process.

So we can increase your success.

The time has come to simplify the overly costly and complicated process of building design and construction.

On a steel project, the steel package comes early in the project and its design considerations must account for all subsequent construction including electrical, HVAC, plumbing, fire systems, lighting, building automation and voice-data-video routing. Cost prevention here is a matter of clash prevention by way of early joist and deck design collaboration.

Comprehensive Cost Saving Implications Through Collaborative Joist/Deck Design



Let's make the RFI process work.

We believe the core purpose of the RFI is to clarify and communicate project issues. During the clarification and communication phase of a project, critical issues are identified and resolved. The intention of this process is to prevent costly errors – before they happen. Moreover, we strive to improve this communication process through a new era of highly collaborative and proactive project participation.

Let's get going on BIM.

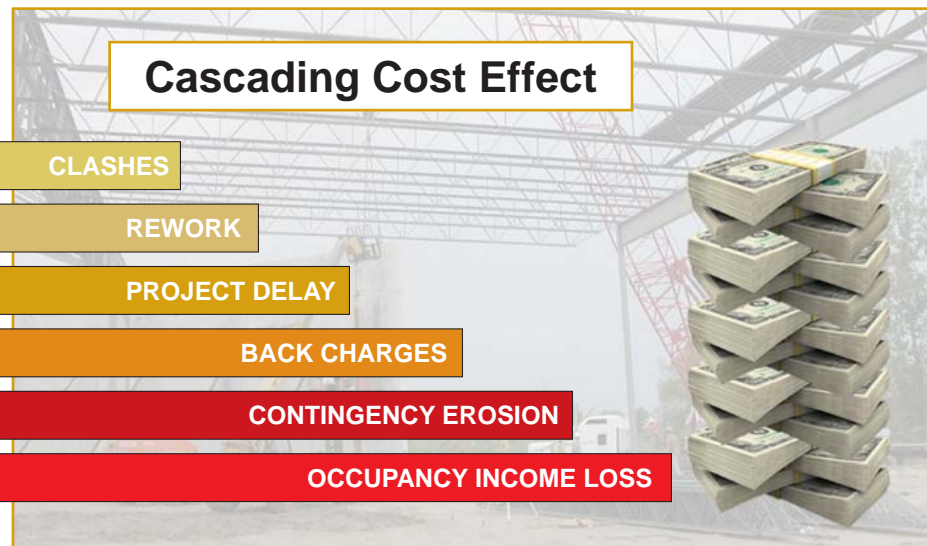
Our stand is that Building Information Modeling (BIM) is a necessity. Unlike email, BIM is not just a computerized way to reactively communicate. BIM is a technological response to a people problem, a proactive tool that streamlines the communication process. Soon, BIM will be a tool used by everyone in the construction business. We're committed to helping you realize the tangible benefits of BIM.



In the future, project collaboration will be enabled by BIM, but project cost reduction will require having a proactive partner like New Millennium on the project team.

Let's take the owner's point of view.

Eventually, all informed owners and developers will recognize inflated contingency fees for what they are, and they will reward those of us who show them a better way. Get us involved on the ground floor of joist and deck design, and we'll help you anticipate and remedy a wide range of potential "clashes" and other owner costs, before they can erode contingency fees and the relationship between your firm and the owner/developer.



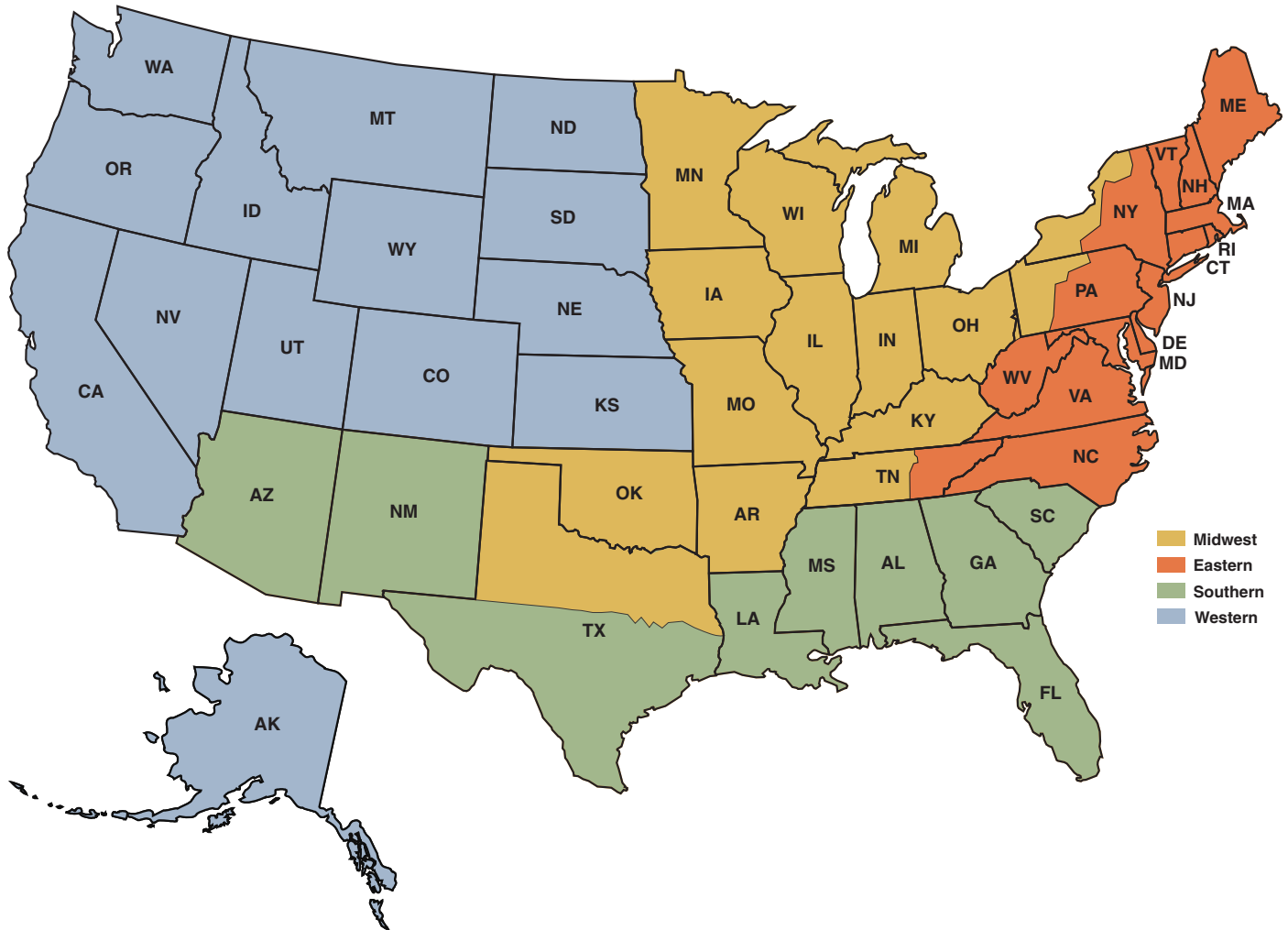
As owners more carefully evaluate project inefficiency, they are seeing a cascading cost effect that must be eliminated.



NEW MILLENNIUM
BUILDING SYSTEMS

Flexible to the Finish

Contact us for business growth.



■ Midwest
■ Eastern
■ Southern
■ Western

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