

# Time Provisions in State Highway Construction Contracts

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The importance of time on construction projects is often stressed in the contracts. It is understood that most projects will have a stipulated contract duration during which all construction work is to be completed. The inclusion of time in construction contracts goes well beyond the contract duration; many other provisions also include time, for example, time to provide notification or time to respond. The general conditions provisions and typical supplementary provisions of all state highway agencies were examined and compared on the basis of how time was addressed in the various provisions. The results show that although considerable congruity exists between the state highway agency provisions, not one provision was found to be identical in all states. Some provisions were unique to a single agency.

Time is an integral component of virtually every major construction project. The importance is often specifically stated in the contract. Furthermore, the time in which the construction work is to be completed is typically given with a stipulated sum of money to be forfeited for each day that the project duration extends beyond the contracted completion date. The inclusion of time in construction contract provisions, however, extends far beyond simply including a provision defining the contract duration. Many provisions in construction contracts will address such issues as notice to proceed, payments, differing site provisions, severe weather, disputes, and changes. These matters seemingly have little to do with time as the primary issue; however, time is almost invariably included in all these provisions. For example, the time components of these provisions may lie in the amount of time that the contractor has in which to give notification or to respond to the owner. Failure to satisfy the provisions in the allotted time frame may preclude the contractor from successfully seeking recovery under the provision.

Understanding the nuances of a provision, as modified by time constraints, is important to all signatory parties of the contract. When entering contracts with different state highway agencies, contractors must be careful to review all provisions. It may be inappropriate to assume that the provisions of all state highway agencies are essentially the same.

Because time is an important aspect of virtually all state highway agency contracts, various provisions of the general conditions and supplementary provisions of all state highway agencies were examined. This examination of the contract provisions focused on the manner in which time constraints were addressed or imposed.

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## RESEARCH METHODOLOGY

The research began with a review of the literature on provisions that address time in some fashion. Although several articles addressed provisions including time components, no articles could be found that specifically focused on the time aspects of the provisions. Thus, time was only peripheral to the articles that were found.

It was recognized that time can be addressed in many ways in construction contracts. This information could also be retrieved by several means. One means of collecting this information would have been through direct contacts with individuals in each state agency. A survey could also have been developed to retrieve this information. However, a common shortcoming of these methods is the requirement of a thorough understanding of all the provisions about which information is sought. In addition, contact must be made with an individual who is knowledgeable about the various provisions. It is also possible that some responses may reflect specific practices used on a few projects rather than the specific wording of the construction provisions used on most projects. These shortcomings compromise the accuracy of the information obtained directly through individuals.

It was concluded that the only realistic approach to conducting this research was to examine the provisions directly. This would eliminate any bias. Thus, this research effort began with the acquisition of the general conditions provisions and supplementary provisions of all the state highway agencies (SHAs). Each state highway agency was asked to provide copies of the general conditions provisions and any standard supplementary provisions. In most cases, the agencies simply provided copies of the standard specifications for construction. In a few cases, the agencies photocopied the pages included in general conditions (Division 1) of their standard specifications. Nine state highway agencies required that the standard specifications be purchased. These purchases were made, resulting in representation in the study by all 50 states.

Once the contract documents were obtained, five were randomly selected and examined in detail. This close scrutiny of all provisions resulted in a checklist of those provisions in which time was typically an integral component. The checklist addressed 40 different provisions. Of these, only those bearing the greatest importance to the owner or contractor will be discussed.

1. Are holidays listed in the contract and if so, how many holidays does the agency observe?

No. Holidays State (Unusual Days)

14	AL <sup>1</sup> (Mardi Gras, Jefferson's B-day)
11	AK (Stewards Day, Alaska Day)
10	AR, CO, MS, <sup>1</sup> NM, WA <sup>2</sup>
13	DE <sup>2,3</sup>
8	FL, <sup>2</sup> KS
12	GA
9	ID, MI, ND <sup>3</sup> , WI, WY
14	IN <sup>2,3</sup> (Election Days)
13	KY <sup>1</sup> (FDR Day)
11	ME (Patriots Day)
11	MT (State General Election Day)
11	NH (Fast Day)
11	NJ (Presidential Election Day)
9	RI (Victory Over Japan Day)
10	SD (Pioneer Day)
11	TN <sup>3</sup>
11	UT (Pioneer Day)
12	VT (Town Meeting Day, Bennington Battle Day)
12	WV <sup>3</sup> (West Virginia Day)

\* 22 states not listed.

<sup>1</sup> Observes Memorial Day, Jefferson Davis' birthday, Robert E. Lee's birthday.

<sup>2</sup> Observes day after Thanksgiving.

<sup>3</sup> Observes Good Friday.

2. May the contractor withdraw or modify a bid any time prior to bid opening?

No. SHAs	Response (State)
49	Yes*
1	No (NY)

\* Pennsylvania states that this cannot occur after 9 a.m. on the day of the bid opening. Rhode Island states that this can occur no later than 2 hours prior to the bid opening.

3. How long after bid opening can the agency award the contract?

No. SHAs	Response (State)
26	30 days
1	10 days (OH)
2	40 days (AK, AR)
9	45 days (ID, IL, KY, LA, MA, MO, MT, WA, WI)
1	49 days (MI)
1	50 days (FL)
7	60 days (HI, MD, MS, NH, NC, PA, SC)
1	Not listed (NV)
1	No mention (NY)
1	As allowed by law (OK)

4. Can the contractor withdraw a bid if the contract award is not made by a given time?

No. SHAs	Response (State)
37	Yes
13	No mention (AL, DE, IA, ME, MO, NV, NY, ND, OH, OK, PA, RI, TN)

5. How soon after award are bid guarantees of unsuccessful bidders returned?

No. SHAs	Response (State)
10	After award (AK, CA, CT, DE, GA, MO, NM, SC, UT, VA, WA)
22	After bid opening other than two low bidders
3	3 days (MA, NJ, TX)
1	5 days (KY)
2	10 days (ND, RI)
2	15 days (AL, LA)
8	Only checks returned (AZ, AR, CO, ME, MS, MO, NM, NC)

2	Promptly (IL, MI)
1	As soon as possible (VT)
8	Not listed (IN, IA, KS, NE, NV, NY, OR, PA)

6. How long does the contractor have to return the signed contract to the agency?

No. SHAs	Response (State)
1	8 days (CA)
16	10 days (AL, AZ, AR, CT, HI, KS, LA, MD, MN, NJ, NY, NC, ND, OH, PA, TN)
1	12 days (OR)
19	15 days
8	20 days (DE, FL, MT, NH, SC, SD, WA, WV)
1	28 days (MI)
1	30 days (WY)
3	Not stated (IN, NV, OK)

7. What is forfeited if the contractor does not return the signed contract within the required number of days?

No. SHAs	Response (State)
47	Bid guarantee forfeited as liquidated damages
1	Bid difference forfeited (AL)
2	No mention (IN*, NV)

\* Bonds required in Indiana.

8. What is the date of the Notice to Proceed?

No. SHAs	Response (State)
32	When signed
9	When mailed (IL, IA, LA, MA, MO, ND, RI, SD, VT)
4	When received (AK, GA, NC, WV)
5	Not stated (CA, FL, NM, NY, OR)

9. How is the contract start date defined?

No. SHAs	Response (State)
25	As stated in the NTP
4	10 days after NTP (GA, SD, UT, WY)
1	14 days after NTP (ND)
5	15 days after NTP (AL, CA, IN, IA, TX)
9	When signed (AK, MO, NV, NJ, OH, OK, OR, RI, WI)
4	10 days after signed (IL, MI, NY, WA)
1	15 days after signed (MA)

10. When must the contractor submit a schedule?

No. SHAs	Response (State)
10	Prior to starting work
10	Prior to preconstruction conference (AL, AK, AZ, ID, MS, NH, NC, OR, SC, WI)
1	7 days after award (NE)
5	10 days after award (CO, ME, MA, UT, WA)
7	15 days after award (HI, IN, IA, OH, TX, VA, WV)
1	20 days after award (CA)
2	30 days after award (FL, MD)
1	31 days after award (KY)
5	No mention (AR, MO, MT, NV, SD)
8	Other (CT, DE, GA, KS, LA, MI, ND, PA)

11. Is a preconstruction conference required?

No. SHAs	Response (State)
27	Yes
23	No (CA, CO, CT, DE, HI, IL, KS, LA, MD, MA, MN, NE, NV, NJ, NY, OK, RI, SD, TX, UT, VT, WA, WY)

12. Must all materials be tested and inspected prior to incorporation in the work?

No. SHAs	Response (State)
47	Yes
3	No (CO, NV, WA)

13. How is contract time or duration defined?

No. SHAs	Response (State)
24	Working days, calendar days, fixed completion date, or combination
9	Calendar days, fixed completion date, or combination (AK, CT, MA, NV, OH, OR, PA, SC, VT)
1	Calendar days or fixed completion date
5	Working days, calendar days, or combination (CO, ME, MI, MO, MT)
1	Working days, calendar days, or fixed completion date (NJ)
5	Working days (CA, MN, NE, TX, WA)
3	Working days, fixed completion date, or combination (NH, WV, WY)
2	Calendar days (NC, NY)

14. Does the contract contain a winter exclusion period provision?

No. SHAs	Response (State)
23	No
27	Yes
1	1 Nov–31 Mar (NY)
1	1 Nov–30 Apr (AK)
1	15 Nov–15 Mar (ME)
1	15 Nov–31 Mar (IA)
3	15 Nov–15 Apr (MI, MN, ND)
1	16 Nov–15 Apr (MT)
3	1 Dec–1 Mar (ID, OR, UT)
9	1 Dec–31 Mar (CO, CT, IN, KY, NH, SD, VA, WV, WY)
1	1 Dec–15 Apr (VT)
1	1 Dec–30 Apr (OH)
2	15 Dec–15 Mar (MO, NC)
1	15 Dec–15 Apr (RI)
1	16 Dec–15 Mar (DE)
1	16 Dec 30 Apr (IL)

15. Does work performed in the winter exception period count towards contract time?

No. SHAs	Response (State)
25	No
1	Yes (WV)
1	No work allowed (VT)

16. May the agency require no work to be performed on Sundays?

No. SHAs	Response (State)
25	Yes
25	No (CA, CT, FL, ID, IL, KY, LA, MA, MO, NE, NV, NJ, NM, NC, OH, OK, OR, PA, RI, SC, TN, UT, VA, WA, WI)

\* Results are identical for work performed on holidays.

17. May the agency require no work be performed on the day prior to or following holidays?

No. SHAs	Response (State)
12	Yes (AK, AR, IN, IA, KS, MD, MI, MS, MT, NH, TX, VT)
38	No

18. For a working day contract, does Saturday count as a working day if worked?

No. SHAs	Response (State)
16	Yes
13	No (AL, AZ, DE, ID, IL, IN, IA, KY, LA, MI, MN, MO, NH)
10	Not stated (CA, FL, GA, HI, MD, NV, NJ, TN, WA, WI)
11	Not applicable (AK, CT, MA, NY, NC, OH, OR, PA, SC, VT, VA)

19. For working day contracts, does Sunday or a holiday count as a working day if worked?

No. SHAs	Response (State)
22	Yes
17	No (AL, AZ, DE, FL, GA, ID, IL, LA, MN, MO, NV, NJ, RI, TN, UT, WA, WI)
11	Not applicable (AK, CT, MA, NY, NC, OH, OR, PA, SC, VT, VA)

20. For working day contracts, how often does the agency submit a record of days charged for the contractor to review?

No. SHAs	Response (State)
24	Weekly
3	Twice monthly (KY, OK, SD)
6	Monthly (AL, GA, ID, LA, MS, TX)
6	No mention (AR, DE, FL, MD, NV, NH)
11	Not applicable (AK, CT, MA, NY, NC, OH, OR, PA, SC, VT, VA)

21. For working day contracts, how long does the contractor have to take exception to the agency log of days charged?

No. SHAs	Response (State)
17	1 week
7	10 days (IA, KS, LA, MT, OK, TX, WA)
4	15 days (CA, KY, MS, NE)
1	21 days (MI)
1	30 days (CO)
1	As soon as possible (AL)
19	No mention (AK, AR, CT, DE, MD, MA, MN, MO, NV, NH, NY, NC, OR, OH, PA, SC, VT, VA, WY)

22. For working day contracts, are weather delays excluded from the time charges?

No. SHAs	Response (State)
31	Yes
2	No (WV, WY)
6	No mention (FL, HI, MD, NV, NH, OK)
11	Not applicable (AK, CT, MA, NY, NC, OH, OR, PA, SC, VT, VA)

23. In case of differing site conditions must the contractor notify the agency prior to disturbing?

No. SHAs	Response (State)
42	Yes
8	No mention (CT, GA, KY, NV, NY, PA, RI, SD)

24. Does the contract allow for adjustment of time and price for differing site conditions?

No. SHAs	Response (State)
42	Yes*—includes differing site conditions clause
8	No (CT, GA, KY, NV, NY, PA, RI, SD)
46	Yes—includes adjustment to contract price and time
1	No (NY)
3	No mention (NC, ND, OR)

\* There are no standard clause conditions in AK, MA, NJ, NC, ND, WA.

25. Is adverse weather defined?

No. SHAs	Response (State)
4	Yes (FL, IN, MA, OH)
45	No
1	No mention (IL)

26. Are time extensions allowed?

No. SHAs	Response (State)
50	Yes

27. When are requests for additional contract time due?

No. SHAs	Response (State)
22	Any time prior to completion
2	Within 10 days of start of delay (AK, MD)
1	Within 14 days of start of delay (KY)
2	Within 15 days of start of delay (GA, NJ)
1	Within 30 days of start of delay (CO)
1	Within 90 days of start of delay (HI)
3	Within 7 days of end of delay (CA, IA, MI)
3	Within 10 days of end of delay (AZ, WA, WY)
1	Within 30 days of end of delay (OH)
14	No time stated (AL, AR, ID, IL, MA, MN, MS, MO, MT, NV, NY, TX, VA, WV)

28. Will contract time be extended for weather delays?

No. SHAs	Response (State)
42	Yes
8	No (CT, ID, IN, KY, NC, PA, SC, WV)

29. Are claims procedures addressed?

No. SHAs	Response (State)
45	Yes
5	No clause (CT, IL, NE, NV, TX)

30. When must claims be submitted to the agency?

No. SHAs	Response (State)
43	Notice prior to performing disputed work
1	Within 10 days of knowing cost (KS)
5	Within 30 days of knowing cost (HI, MD, MT, OK, WA)
8	Within 60 days of knowing cost (AK, AZ, DE, GA, ME, MI, TN, WY)
2	Within 120 days of knowing cost (NC, ND)
2	Notice within 15 days of event (CA, CO)
5	No claims clause (CT, IL, NE, NV, TX)

31. Can the agency suspend work?

No. SHAs	Response (State)
49	Yes*
1	No (NV)

\* There are no standard clauses for suspension in AL, AK, AR, CT, FL, HI, KY, MD, MA, NV, NJ, NY, NC, OH, OK, PA, RI, SD, WA)

32. When are proposals for suspension due?

No. SHAs	Response (State)
31	7 days
1	10 days (NJ)
1	14 days (NC)
1	20 days (MD)
1	30 days (MA)
14	No mention (AL, AK, AR, CT, FL, HI, KY, NY, OH, OK, PA, RI, SD, WA)
1	Not applicable (NV)

33. Is there a clause for suspension of work if historical or archeological finds are encountered?

No. SHAs	Response (State)
27	Yes
23	No (AL, AR, CA, FL, IN, IA, KY, MD, MS, MO, NV, NY, NC, OH, OK, OR, RI, TN, VA, WA, WV, WI, WY)

34. Are liquidated damages provisions included?

No. SHAs	Response (State)
50	Yes

35. Are there different values of liquidated damages for calendar day versus working or completion date contracts?

No. SHAs	Response (State)
20	Yes (AL, AZ, AR, CT, DE, GA, IL, IN, LA, ME, MS, MT, NH, NJ, NM, ND, PA, RI, TN, UT)
23	No
7	Not applicable (CA, MN, NE, NY, NC, TX, WA)

36. How quickly must the contractor respond to Notice of Inadequate Maintenance of project?

No. SHAs	Response (State)
3	Immediately (ID, ME, NM)
24	24 hours
2	48 hours (FL, GA)
20	No mention (AK, CA, CT, DE, IL, IA, KY, MA, MI, MO, NE, NV, NY, ND, PA, TX, VT, VA, WA, WI)
1	Within specified time (NH)

37. Can the agency terminate the contract for its own convenience?

No. SHAs	Response (State)
40	Yes
5	National emergency only (IA, MN, SD, TX, VT)
5	No (IN, MO, NV, NC, RI)

38. How long does the contractor have to respond to or correct deficiencies before the agency can terminate the contract?

No. SHAs	Response (State)
1	5 days notice (MA)
1	7 days notice (NC)
37	10 days notice
3	15 days notice (MS, SC, TN)
8	No notice period stated (AK, CA, IA, MD, NV, NY, OH, WA)

39. How long does the surety have to take over work of a defaulting contractor prior to the agency performing or having work performed by others?

No. SHAs	Response (State)
2	10 day notice to surety (DE, GA)
1	20 day notice to surety (MS)
1	30 day notice to surety (SC)
46	No mention

40. How often are progress payments made?

No. SHAs	Response (State)
36	Monthly
8	Twice monthly (AK, AR, KY, NE, NC, ND, VT, WI)
3	Bi-weekly (MA, MI, MT)
3	Not stated (MO, NV, NY)

## RESULTS

### Contract Time

Contract time, the contractual definition of the method of project duration measurement, varies among the state agencies. Contract time may be measured according to calendar days, working days, or a fixed completion date. Most agencies use more than one of these methods depending on type, size, length, and unique time constraints imposed by projects. Only two state agencies stated that they use only calendar days; two other agencies use only working days. Eleven agencies do not use working days on any of their contracts. The practices of the agencies can be summarized as follows:

<i>Basis for Establishing Contract Time</i>	<i>No. SHAs</i>
Calendar days only	2
Working days only	2
Calendar days, working days, or completion date	32
Calendar days or working days	5
Calendar days or completion date	9

### Holidays

Holidays are contractually established days for which no construction time is charged against the contractor. Holiday provisions are particularly relevant on working day schedules. Of all state highway agencies, 28 listed the specific holidays that would be observed. Most of the listed holidays include the commonly observed nine federal holidays: New Years Day, Martin Luther King Day, Presidents Day, Memorial Day, Independence Day, Labor Day, Columbus Day, Thanksgiving Day, and Christmas Day. Several of the southern state agencies observe Robert E. Lee's Birthday, Confederate Memorial Day, and Jefferson Davis's Birthday. Good Friday, Election Day, and the day after Thanksgiving are also popular holidays. Some of the holidays were unique to specific states to commemorate important events, for example, Bennington Battle Day in Vermont, West Virginia Day in West Virginia, and Stewards Day in Alaska. The number of holidays observed ranged from 8 to 14, with the distribution as follows:

<i>No. Holidays</i>	<i>No. SHAs</i>
8	2
9	6
10	6
11	7
12	3
13	2
14	2

The 22 state agencies not specifically listing the holidays were honoring the holidays as established by state law. The possible implications of holidays must be examined in the contract. For example, inspectors and engineers may not be available if the contractor elects to work on a holiday. The contractor may even be prohibited from working on a holiday.

### Working Day Contracts

The implications of the differences in the way contract time is defined should be recognized. Calendar day schedules and completion dates offer little ambiguity; however, working day definitions are not consistently defined. Two state agencies

use only working day contracts, and 37 other agencies use working days in some of their contracts. Most agencies define working days as all days except Saturdays, Sundays, and holidays on which the contractor performs or could be performing work on the contract. Although the definition, on the surface or at face value, seems clear, differences in interpretation and in practice do occur. For example, a contractor may work on Saturdays or Sundays in order to make some progress on the project. Some agencies will count these otherwise exempt days as working days when work is performed. Saturdays are generally counted as working days if they are worked. Of the 39 state agencies that use working days on at least some of their contracts, 23 will count Sundays and holidays as working days if work is performed. Where Sundays and holidays are counted as working days when worked, the contractor would be more prudent in extending the workday during the week rather than working the extra days; that is, if a contractor falls behind schedule, time cannot be gained by working on Sundays and holidays.

The implications of counting working days are also an issue where inclement weather is encountered. Of the 39 agencies using working day contracts on some of their contracts, 31 exclude weather delays from the time charges. Two agency provisions specifically stated that weather delays were not excluded; the provisions of six agencies did not address the topic. Where not defined, the contractor is at somewhat of a loss in approaching the scheduling of a project during the bidding phase.

Working days are not consistently defined. Regardless of the definition used, conditions on a construction site might preclude work being performed on certain days. To avoid confusion as to the schedule, some regular communication must be maintained between the highway agency and the contractor concerning the status of each project. Such communication should be initiated by the state highway agency, indicating the number of working days that have been assessed against a project. The agency provisions addressing the frequency with which such communication takes place are summarized as follows:

When employing a working day contract, how often does the agency submit a record of days charged for the contractor to review?

<i>Response</i>	<i>No. SHAs</i>
Weekly	24
Twice monthly	3
Monthly	6
Does not mention	6
Do not use working days	11

When the agency submits the record of days charged, the contractor is generally in a position to accept the assessment or to challenge or take issue with the assessment. The time in which the contractor has to respond to such a report is usually given in the general conditions provisions. An Illinois provision is typical (1): "One copy of the Weekly Report of the Resident Engineer will be mailed to the Contractor's office weekly. Any disagreement with the working day charges shown must be expressed in writing to the Engineer within seven days of receipt of the Report giving detailed reasons for the disagreement." The essence of these provisions is summarized as follows:

How long does the contractor have to take exception to the agency log of days charged?

<i>Response</i>	<i>No. SHAs</i>
1 week	17
10 days	7
15 days	4
Other	3
Does not mention	8
Do not use working days	11

### Limitation on Operations

The practices concerning charging time for work performed on Sundays and holidays has already been presented. Another practice of agencies is to contractually stipulate that no construction will be performed on certain days. The following Maine provision is illustrative of such clauses (2): "Unless otherwise specified, the Contractor shall not carry on construction operations on Sundays or Holidays, unless of an emergency nature. The Contractor may work on Martin Luther King Day, Washington's Birthday, Patriots Day and Columbus Day without first obtaining permission of the Chief Engineer. Permission to work on Sundays and other Holidays must be obtained prior to the Sunday or Holiday." As stated in the provision, work is not precluded on Sundays or holidays when prior permission is obtained. The following is a summary of the agency requirements concerning the restriction of work activities.

How many agencies may require no work be done on these days?

<i>Response</i>	<i>No. SHAs</i>
Sundays	25
Holidays	25
The day preceding or the day following a holiday	12

On highway projects it may be speculated that work performed on Sundays or holidays will reduce traffic congestion or at least not contribute to it. Thus, the exercise of the provision may be to reduce the adverse impacts of a construction project on the traveling public.

### Winter Exclusion Period

A winter exclusion period is a period of time during which winter conditions are generally sufficiently severe to preclude the performance of significant construction work. States in which winters are more severe tend to stipulate a winter exclusion period during which no construction time is charged against the contractor. Such provisions are used by 27 state highway agencies using working days and are confined principally to the northern and eastern states. The agencies using working day contracts that do not include a winter exclusion period typically exempt days where weather keeps the contractor from working. The provisions concerning winter exclusion periods are not consistent or clear on whether working days will be assessed against the contractor for working during this period.

### Adverse Weather

Many projects undertaken by state highway agencies will be sensitive to adverse weather conditions. The impact of harsh weather conditions on a contractor's operations is well understood and it is a common practice to grant time extensions to a contractor when the construction operations have been delayed by adverse weather. Although this is a common practice, only four state agencies define "adverse weather" in their contract documents. Instead, typical provisions state that the determination of a time extension based on adverse weather is to be made by the engineer. Only four state documents provide specific definitions for adverse weather. One such provision, as used in Massachusetts, states (3): "An 'Act of God' as used in this article is construed to mean an earthquake, flood, cyclone, or other cataclysmic phenomenon of nature beyond the power of the Contractor to foresee or make preparation in defense of. A rain, windstorm, or other natural phenomenon of normal intensity, based on United States Weather Bureau reports, for the particular locality and for the particular season of the year in which the work is being prosecuted, shall not be construed as an 'Act of God' and no extension of time will be granted for the delays resulting therefrom." Although this is one of the more specific definitions noted in the agency documents, some ambiguity still exists. For example, rainfall for a 24-hr period may be compared to the average rainfall for a 24-hr period or against the maximum 24-hr rainfall encountered in a 25-year period or 100-year period. These definitions should be clarified by specifically stating them.

### Time Extensions

Time extensions may be addressed in several different contract clauses including time extensions, damages for delay, termination for default, and suspensions. In general, if the contractor encounters an excusable delay, a time extension is granted. Excusable delays are those which are not the fault of the contractor. Typical provisions, as those used by South Carolina, grant extensions for unforeseeable "conditions beyond the control and without the fault of the contractor" (4). These conditions include acts of the agency that delay the contractor. The documents of all agencies state that time extensions are allowed. However, seven agencies do not grant extensions for weather delays. Other aspects of the time extension provisions should also be understood. The actual provisions for time extensions vary considerably. For example, in some contracts the request for a time extension must be made within 7 days of the end of the delay. In others, the request must be made any time prior to completion. The provisions are extremely varied and warrant close examination by a contractor prior to tendering a bid. The granting of time extensions may also depend on the type of contract; that is, time extensions are more readily granted on working day contracts. The following Indiana provision illustrates this point (5): "If the contract time is on a calendar day basis or has a fixed calendar date for completion, no extension of time will be considered for unsuitable weather or conditions resulting therefrom."

When granting time extensions for adverse weather, some state agencies stipulate that the weather must be severe. The

severity may be measured against the local climatological records for a particular time of the year or in terms of the weather's impact on the construction effort. As stated in the Florida provisions, weather may be considered severe if the contractor can demonstrate that the adverse conditions caused a delay on "one or more controlling items of work" (6). Contractors should be aware of the distinction that is made between time extensions for weather delays versus extensions for delays caused by unusually severe weather.

### Construction Start Date

When a contractor formulates a bid, some consideration must be given to the timing of the construction project start date. The manner in which the start date is defined may influence the amount and type of work that must be scheduled during periods of adverse weather or other conditions that might influence the contractor's profit. The delay in the contract start date will have implications on the availability of the contractor's supervisors, labor supply, equipment, and available financing. In addition, the quotations from material suppliers and subcontractors may include deadlines, after which prices are subject to change. On working day and calendar day contracts, these are the primary concerns. On projects with a stipulated completion date, any delay in the start date simply reduces the number of days available for completing the project. To understand the degree to which the starting date may be altered, consideration must be given to the amount of time that the agency has from the bid opening date to award the contract, the amount of time the successful contractor has to return the signed contract to the agency, the effective date of the notice to proceed, and the definition of the contract start date. Note that of these, only the bid date is fixed to a day on the calendar.

After the bids are opened, the agency carefully examines all aspects of the low bidder's proposal to ensure that it is complete in every detail and that no aspects can be construed as being irregular or nonconforming. During this period, the agency generally retains the bids and bid bonds of the second and third lowest bidders for possible award in the event that the lower bid (or bids) is rejected for some reason. The following Texas provision is typical (7): "The proposal guaranty of the three lowest bidders may be retained until after the contract has been awarded, executed, and bonds made. Proposal guaranties of all except the three lowest bidders will be returned within 72 hours after the bids are opened." The review of the low bidder's proposal and any challenges by other bidders requires some time. These time periods are generally stated in the provisions and are summarized as follows:

What is the time period allowed from bid opening to contract award?

Response	No. SHAs
30 days	26
40 days	2
45 days	9
50 days	1
60 days	7
Not stated	5

Although there is some variability from 30 to 60 days, of greater concern are the five agencies that do not provide this time frame in their documents. In some instances this information may be included in the Instructions to Bidders issued with the Proposal to Bidders. A typical provision is the Illinois clause which states (1): "The award of contract will be made within 45 calendar days after the opening of proposals to the lowest responsible and qualified bidder whose proposal complies with all the requirements prescribed. The successful bidder will be notified by letter that his/her bid has been accepted, and that he/she has been awarded the contract." In the event that the contract award is not made within the stated time period, most agency provisions allow a contractor to withdraw a bid. Typical of several other documents, the Illinois provision adds (1): "If a contract is not awarded within 45 days after the opening of proposals, bidders may file a written request with the Department for the withdrawal of their bid, and the Department will permit such withdrawal." Of the documents examined, 37 agencies specifically state that the contractor can withdraw a bid proposal if the contract is not awarded in the stated time period. The remaining 13 agencies do not address this in their documents, but it is assumed that this issue is more specifically addressed in the instructions to bidders on each individual contract solicitation.

Once a qualified low bidder is identified, the contract is submitted to the contractor for completion. The contractor completes the contract documents and submits the appropriate bond forms. The contractor typically has a stated time period in which to execute these contract documents and return them to the agency. Failure to comply with the stated period may result in forfeiture of the bid guaranty. This claim on the guaranty is generally defined (47 state agencies) as a forfeiture of the guaranty as liquidated damages. The standard specifications of Alabama was the only document that defined the forfeiture as the amount of difference between the contract amount in question and the next higher bid. Two documents of Indiana and Nevada did not define the guaranty amount. Regardless of the definition of the guaranty, the contractor response time could have costly implications if not done as required. The Wisconsin provision, typical of several, states (8): "The contract shall be executed by the bidder, and the contract bond shall be executed by the principal and the sureties, and both shall be presented to the Administrator within 15 days after the date of the notice of the award of the contract." The time provisions of the state agencies are summarized as follows:

How long does the contractor have to return the signed contract to the agency?

Response	No. SHAs
8 days	1
10 days	16
15 days	19
20 days	8
Other	3
Not stated	3

In general, the time provisions for the return of the signed contract do not vary considerably. They only have implications on the low bidder and any other bidders whose proposals and bid guaranties are retained by the agency.

The agency may notify the contractor to proceed with the work with a Notice to Proceed, also referred to as the notice of award. This is an official notification to the contractor of the decision to award and gives the terms under which the contract time will start. The Notice to Proceed may accompany the contract documents sent for the contractor's signature. Most states indicate in their provisions that the award of the contract is not effective until the contract has been executed by all parties. Execution by the agency, which follows the execution by the contractor, may require several weeks so the Notice to Proceed frequently defines the contract start date. The effective start date may be stated in the Notice to Proceed or it may automatically begin a stipulated number of days after the Notice to Proceed. Finally, some agencies define the contract start date as the date the contract is executed by all parties. The effective dates of the Notice to Proceed used by the state agencies are summarized as follows:

What is the effective date of the Notice of Proceed?

<i>Response</i>	<i>No. SHAs</i>
When signed	32
When mailed	9
When received	4
Not stated	5

Most state agencies define the start date as the day on which the contract documents have been fully executed. A typical provision, as used in Connecticut, regarding the Notice to Proceed is as follows (9): "The contractor will be bound to the performance of the contract when given Notice to Proceed with the work on April 1 and no later than 45 calendar days after the date of execution of the contract by the contractor or the deposition of the performance contract bond and payment bond, whichever is last." The start date for the assessment of contract time is stated as follows: "The Notice to Proceed issued to the contractor by the commissioner or his authorized representative will stipulate the date on which it is expected that the contractor will begin construction and from which date contract time will be charged. In no case, however, shall the contractor begin work prior to the date stipulated in the Notice to Proceed."

Although the contractor may not be permitted to actually begin construction work prior to the date given in the Notice to Proceed, preparations for construction can begin. Essentially, the Notice to Proceed is a statement by the agency that it will be bound by the contract and that the contractor is expected to begin work as stated. The establishment of contract start date is important because time charges begin at this point.

### Preconstruction Requirements

Before the contractor may be permitted to begin actual construction activities, certain specified time-related requirements must often be satisfied. One common requirement (noted in 45 agency documents) is that the contractor must provide the agency with a schedule showing the sequence of activities for performing the work. This schedule will be helpful as a communication tool between the contractor and the agency. The Illinois provision is typical (1): "After award of the contract and prior to starting work, the Contractor shall submit

to the Engineer a satisfactory progress schedule or critical path schedule which shall show the proposed sequence of work, and how the Contractor proposes to complete the various items of work within the number of working days set up in the contract or on or before the completion date specified in the contract." The time frame in which the schedule is to be submitted is of interest. The responses are summarized as follows:

How soon after contract award must the schedule be submitted?

<i>Response</i>	<i>No. SHAs</i>
Prior to starting work	11
At or prior to the preconstruction conference	11
10 days after award	5
15 days after award	7
20 days after award	1
30 days after award	2
Other	8
Not stated	5

Agencies that require that the schedules be submitted prior to the preconstruction conference have the advantage of reviewing the schedules prior to the meeting. Under such circumstances, the schedule can be a more meaningful topic for discussion. Twenty-seven of the state agencies stipulated that attendance at a preconstruction conference was required prior to the start of work. These statements are similar to the following South Carolina provision (4): "After receipt of the Notice of Award and prior to the beginning of construction, the Engineer and the Contractor shall establish a mutually agreeable date on which a preconstruction conference will be held. The Contractor shall have present at the preconstruction conference the project superintendent, and other representatives or responsible officials who will be involved during the construction of the project, including representatives of any subcontractors." The provisions may also include requirements concerning the attendance of regulatory officials and the submittal by the contractor of a schedule, the presentation of necessary permits, the materials to be incorporated in the project and the methods of construction to be used. Strong emphasis on the coordination of the work activities is generally the central theme of preconstruction conferences. This helps to minimize misunderstandings at a later date.

### Suspensions

The general conditions provisions of all the state highway agencies contain clauses that give the agencies the ability to suspend work on the contracts. Of the suspensions clauses examined, 31 were standard clauses, similar to the Iowa provisions, which state in part (10): "If the performance of all or any portion of the work is suspended or delayed by the Engineer in writing for an unreasonable period of time (not originally anticipated, customary, or inherent to the construction industry) and the Contractor believes that additional compensation and/or contract time is due as a result of such suspension or delay, the Contractor shall submit to the Engineer in writing a request for adjustment." The standard clauses permit the contractor to recover costs associated with suspensions with the exception of profit.



Although most suspensions clauses provide for compensation to the contractor, two state agencies limit the compensation to time extensions. These are No Claims for Delay Damage provisions, as used in Delaware (11), which stipulate that for delays of any type, "The contractor shall only be entitled to recover an equivalent extension of time for any delay caused wholly or in part by reasons beyond the contractor's or Department's control and the contractor shall not be entitled to recover any damages for any such delay caused by whatever reason." These provisions place a considerable risk on the contractor because no monetary compensation is granted under the contract.

A unique suspensions provision was identified in the documents. Contained in the suspensions section, the provision allows the contractor to suspend the contract in order to provide vacation time for employees. This Florida provision states (6): "The contractor will be allowed to suspend operations for a period not to exceed 14 days annually, in order to provide vacation time for his employees. These 14 days may be divided into no more than two separate periods of vacation time." No provisions of other state agencies were found that allowed the contractor to suspend the contract without incurring time charges.

### Liquidated Damages

In most construction contracts, time is of the essence. As mentioned, the contract duration is defined in terms of working days, calendar days, or by a completion date. Regardless of the definition used, failure to complete the project as stated in the contract will generally result in the assessment of liquidated damages against the contractor. These damages are typically specified as some amount that is assessed for each day of late delivery. Every state highway agency uses a liquidated damages provision in its general conditions or supplementary provisions. Nineteen state agencies distinguish between the amount of liquidated damages charged for working day contracts versus calendar day or completion date contracts.

Wisconsin uses a typical provision, which states (8):

Should the contractor fail to complete the work within the time agreed upon in the contract or within such extra time as may have been allowed by extensions, there shall be deducted from any monies due or that may become due to the contractor, for each and every calendar day for completion date contracts, or working day for working day contracts, that the work shall remain uncompleted, a sum specified as follows:

Original Contract Amount		Daily Charge	
From More Than	To and Including	Calendar Day	Working Day
\$0	\$50,000	\$125	\$275
50,000	100,000	175	300
100,000	300,000	225	475
300,000	500,000	375	750
500,000	1,000,000	475	1,200
1,000,000	—	750	1,750

The sum shall be considered and treated not as a penalty but as fixed, agreed and liquidated damages due the State from the contractor by reason of inconvenience to the public, added cost of engineering and supervision, maintenance of detours and other items which have caused an expenditure of public

funds resulting from his failure to complete the work within the time specified in the contract.

Some contract provisions add that permitting the contractor to work beyond the original contract time does not waive the agencies' right to enforce this provision.

Liquidated damages provisions are found in all of the agency documents. It is often difficult to determine the actual costs for the late delivery of a project. This problem is minimized by having the contracting parties agree on the reasonable value of these damages prior to contract start. Because late completion of construction projects is not rare, considerable litigation is avoided by the incorporation of liquidated damages provisions. From a legal standpoint, it is important that the daily assessment for these damages be reasonable at the time that the contract documents are executed; that is, an amount that is construed to constitute a penalty may not be enforced in the courts.

### Termination of the Contract

Termination of a contract is a serious matter. Termination halts the construction efforts entirely, may include the suspension of payments to the contractor, and places the contractor's bond at risk. Termination provisions consist of those in which the termination is for default and those which are for the convenience of the agency.

The Termination for Default provisions, as addressed by all state highway agencies, list the conditions under which the agency will terminate the contract. Conditions under which the termination may occur include the contractor's failure to begin work under the contract within the time specified, failure to perform the work with sufficient workers and equipment, refusing to correct work that is unacceptable to the agency, discontinuing the prosecution of the work, or becoming insolvent or declaring bankruptcy. The contractor must be given notification prior to the agency termination of the contract. Some agency documents state that the surety will be given an additional notice after termination but prior to the agency assuming the work. Associated with the notification provision are statements similar to the following Wisconsin provision (8): "If the contractor, within a period of 10 calendar days after the date of such notice, shall not proceed in accordance therewith, then the Department shall, upon written certification by the engineer of the fact of such delay, neglect or default and the contractor's failure to comply with such notice, have full power and authority to forfeit the rights of the contractor and at its option to call upon the surety to complete the work in accordance with the terms of the contract."

The time in which the contractor has to respond to a termination notification or to correct deficiencies varies among the agencies as follows:

How long does the contractor have to respond to or correct deficiencies prior to agency termination of the contract?

Response	No. SHAs
5 days	1
7 days	1
10 days	37
15 days	3
Not stated	8

The provisions were examined to determine the amount of time that the sureties are given to take over the work prior to the agency assumption of the work. Only four state agencies included this time frame in their documents with the time varying from 10 to 30 days.

Termination for Convenience provisions were included in 46 of the state agency documents. A typical Termination for Convenience provision is the South Carolina provision, which states (4): "The Department may, by written order, terminate the contract or any portion thereof after determining that for any reasons beyond either Department or Contractor control he is prevented from proceeding with; or completing the work as originally contracted, and that termination would therefore be in the public interest." Provisions typically state the conditions under which Termination for Convenience will occur. Some limit the Termination for Convenience to instances of national emergency or court injunction. At the point of termination, payments to the contractor are typically restricted to "all completed items of work as of that date." Additional provisions may clarify the means by which payments will be made for partially completed work items and for materials purchased but not installed.

## CONCLUSIONS

The analysis of the general conditions provisions of all the state highway agencies indicates that considerable variability exists between the documents of different agencies. Although some standard provisions, such as the suspensions provisions, were in wide usage among some agencies, not one provision was consistent for all agency documents. In addition to the differences that were noted in the time-related provisions, some agency documents failed to address specific topics. Exculpatory clauses, such as the No Damage for Delay provisions, were noted to exist in only a few state agency documents. In general, the time-related general conditions provisions of the state highway agencies are thorough and tend to apportion risk evenly between the agency and the contractor.

## RECOMMENDATIONS

Because of the significant variability between the provisions of the different state agencies, consideration should be given to establishing better communications between the state highway agencies. The objective of improved communications would be to have each agency assess the relative merits of all provisions in comparison to those used by other states. Currently, it appears that many provisions are drafted by each individual state highway agency. The quest for the "perfect" wording for a provision may be more easily realized if different agencies would share their concerns and objectives when drafting particular provisions. Greater consistency may result in fewer problems or misunderstandings with contractors, particularly those firms conducting construction work in several states. In fact, this may result in less reluctance in bidding by out-of-state contractors. In some cases, little rationale can be given

for a time constraint of 10 days in one state agency and 15 or 20 days in another. Where state statutes are not an issue, the merits of such differences should be seriously questioned.

With the current differences in the provisions of agencies in different states, it is imperative that contractors be fully aware of the implications of these differences. A contractor should not undertake bidding before carefully examining all of the general conditions provisions. An unwary contractor may not notice the significance of the difference in the provisions of another state highway agency until a considerable risk has already been realized.

Additional research of the different agency documents may prove worthwhile. Such a study could be broader in scope and could evaluate all major types of provisions regularly found in the general conditions. It would be advisable to also evaluate supplementary provisions that are used on a regular basis. Included in such a study might be the general conditions provisions of other public agencies such as those of selected cities or counties. New insights might be gained from such a study.

Finally, each state highway agency should carefully examine its provisions in the general conditions. Fairness to all contracting parties should be the objective. Exculpatory provisions place an undue risk on contractors, resulting in higher bids. An unwary contractor may fail to recognize such a provision and tender an unrealistic low bid. Although a very low bid might appear to be desirable, a contractor who becomes insolvent on an agency contract is no bargain. In the long run, fair provisions will result in the best use of public funds.

## REFERENCES

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5. *Standard Specifications*. Indiana Department of Highways, Indianapolis, 1988.
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