



SIMA-10-2020

Standard Practice for Procuring and Planning Snow and Ice Management Services

an American National Standard



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Forward

This foreword will not be considered part of the SIMA-10-2020 Standard Practice for Procuring and Planning Snow and Ice Management standard.

As the only non-profit snow industry trade association in the United States, the mission of the Snow & Ice Management Association (SIMA) is empowering snow and ice management professionals for success. After creating several Best Practices Guidelines, SIMA recognized the need for formal, verified standards that are easily understood and readily adopted by all industry stakeholders. To accomplish this, SIMA was approved as an ANSI Accredited Standards Developer in August 2018.

Development of ANSI recognized standards will enable social, economic, and environmental guidelines of policy and practice for: 1) Delivery of safe and cost-efficient winter management operations and service verification; 2) Continuation of emergency services, commerce, public, and social activities; 3) Environmentally responsible awareness and use of salt and other anti-icing and de-icing products. Formal standards will also provide the necessary third-party credibility for establishing guidelines of policy that define levels of service (LOS) for clients (facilities/properties), and standards of practice for snow management industry personnel.

The Standard Practice for Procuring and Planning Snow and Ice Management Services was developed to provide snow and ice management service providers and their customers standardized ways and methods of planning and preparation for snow and ice storms. Current practices are actualizing into inconsistent terms, lack of clarity, and unmet expectations. During snow and ice events (winter storms) standardized methods of procurement and planning are needed to enhance public safety and transportation.

SIMA oversees the Standards Development Committee (SDC), responsible for proposing and developing SIMA standards and assigning and monitoring Stakeholder Advisory Groups (SAG) to develop content for standards. At the writing of this standard, group members included:

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To learn more about SIMA Standards, go to www.sima.org/standards. Information requests regarding this document must be forwarded to SIMA Standards Administrator, Ellen Lobello, at ellen@sima.org.

This standard is issued under the fixed designation SIMA-10-2020; the number immediately following the designation indicates the year of original adoption or, in the case of revision, the year of last revision. A number in parentheses indicates the year of last reapproval.

1 Scope, Purpose and Application

- 1.1 Scope:** This standard practice covers essential procuring and planning for snow and ice management services. A standard for procuring and planning is essential for business continuity and to improve safety for patrons, tenants, employees and the general public. Knowing how to describe service requirements in a snow and ice management request for proposal (RFP) is an important component to providing effective services, particularly where winter weather is a variable.
- 1.2 Purpose:** This standard practice provides guidance on the snow and ice management procurement and planning process to aid in the creation of RFPs, contracts, agreements, and monitoring procedures.
- 1.3 Application:** This standard is intended to apply to snow and ice service providers and property and facility owners and managers in the snow and ice procuring and planning process.

2 Referenced Documents and Resources

SIMA Purchasing Snow & Ice Management: Quality RFP Creation and Best Practices
Available from the Snow & Ice Management Association, www.sima.org/bestpractices

Snow and Ice Management Standard Glossary of Terms
Available from the Snow & Ice Management Association, www.sima.org/bestpractices

3 General Procurement

- 3.1** Designate a minimum one-year contract (ideally multi-year or annually renewable where possible) with cancellation clauses for both parties. This will help ensure consistency and account for potential weather volatility in a winter season.
- 3.2** Award contracts for sites and portfolios of sites no later than September 1 of each year for general procurement and planning processes.

- 3.3 Ensure contracted service begins at least 2 weeks prior to the typical start of winter in a given area, to account for early winter storms.
- 3.4 Any RFPs will include all restrictions related to subcontracting of services performed. Subcontracting of services are subject to the provisions of this Standard Practice.

4 **Level of Service (LOS) and Scope of Work (SOW)**

- 4.1 Service agreements will include a LOS and SOW related to clearing snow and ice from roadways, parking lots and sidewalk services and keeping surfaces clear of snow and ice within the contracted response times for safe vehicle and pedestrian traffic. Service agreements will have expectations specifically related to the site(s) being serviced that will be clearly communicated with all parties involved.
- 4.2 Level of Service (LOS). Minimum expectations to include in the LOS should include:
 - 4.2.1 **Description of Outcomes** - Clearly define the end result expected from snow and ice management.
 - 4.2.2 **Service Initiation** - Define the service initiator(s) that identify when services should be dispatched. Include any scenarios in which triggers or thresholds may change, taking extended and severe weather events into consideration.
 - 4.2.3 **Timeframes** - Identify completion time(s) for areas of the site, taking into account key hours in which the public frequent the site, employee traffic and shift changes, and timing-related variables, including delivery times, major events, etc.
 - 4.2.4 **Service Priorities** - Identify sections or areas of the site that must be cleared first, such as sidewalks to entries and exits, handicap stalls, delivery ramps, etc. The priority areas may have a time priority for completion and should indicate as such. These descriptions should be communicated clearly with no ambiguity about relative importance related to other areas of the site.
 - 4.2.5 **Post-storm requirements** - Identify services that you expect to occur after a snow or ice storm. Include any expectations in the event of severe and extended weather events.
 - 4.2.6 **Initiation of Additional Services** - Define clearly who makes the decision to initiate any additional services and any associated parameters and expectations.

4.3 Scope of Work (SOW)

4.3.1 *Scope of Work and Site Assessments* must be understood by all parties involved for each physical site and specific activities documented.

4.3.2 Site assessments should include:

4.3.2.1 *Entry and exits* - Entrance and exit routes should be well documented, as well as any obstructions or site-specific variables that may cause issues for service or egress.

4.3.2.2 *Accessibility* - Identify any structures or services (locked gates, security areas, hours of operation, etc.) that may hinder access to the service areas and prevent services from occurring.

4.3.2.3 *Site Map* - A site map can yield detailed and critical information that is not always available via web-based maps or visual inspections. This may include property boundaries, areas identified for stacking/piling snow and ice, and high priority areas.

4.3.2.4 *Environmental and Sustainability* - Document site proximity to local rivers, streams, lakes, groundwater wells, sensitive parks, refuges or reserves; and local or state environmental regulations related to private and public surface and groundwater.

4.3.2.5 *Architectural* - Structures that might create adverse conditions when covered in snow/ice (e.g. overhangs across an entrance, speed blocks, etc.); Parking lot obstructions, slopes or drainage issues; Damaged or subpar areas of a structure or site (e.g., drainage spout near sidewalk entrance, damaged concrete, etc.).

4.3.3 Scope of Work should include:

4.3.3.1 *Areas of Service* - Documentation of boundaries of the site(s), or service areas so that it is clear what portions of a site services should be rendered, and/or where they should not (e.g. linked parking lots owned by different tenants etc.).

4.3.3.2 *Acceptable Services* - The list of services that can or should be used to manage snow and ice on a site (e.g., snow removal, snow clearing, deicing, ice monitoring, anti-icing, etc.).

4.3.3.3 *Site Inspections* - Site inspections should include:

- Identify party responsible for creating a site engineering plan.
- Define criteria to include in site engineering plan, including priority areas, snow stacking and equipment/salt staging sites, etc.
- Include any areas/priorities/needs identified from site assessment.
- Identify party responsible for preseason and postseason inspections.
- Define if the provider is responsible for installing marking stakes as well as for removal and timing of removal.

- Define if the provider is responsible for any damage not identified with preseason pictures and/or documented during a preseason walkthrough.
- Within 30 days from the end of the contracted season, schedule postseason communication between site management and service provider to address any problems, damage, etc.; with site inspections scheduled as needed.
- Document damage and necessary repairs.
- Define time frame when repairs are expected to be completed.

4.3.3.4 *Material Use* - Identify the associated chemicals/compounds that are accepted in moderate levels on the site, as well as those that are not acceptable due to site-specific structural or environmental sensitivities. Determine and outline whether materials can be stored on site and any guidelines related to storage and access.

4.3.3.5 *Equipment Requirements* - Identify any specific equipment required or specify types of equipment that are not acceptable on site if appropriate. Describe any dedicated equipment requirements (on-site 24/7) and if it is acceptable to stage equipment on site.

5 Monitoring Procedures & Documentation

5.1 It is essential that any procurement process includes a rigorous review and final communication of documentation required for billing and risk management.

5.1.1 *Service Report* - There shall be general site documentation and recordkeeping, known as a service report. At a minimum, the report should include why service was initiated, what services were performed and by what methods, by whom and when. Typical reports should include:

- Name and location of site
- Operator(s) or account manager on-site
- Date of service
- Time of service (start and end times)
- Conditions of physical site upon start of service (snow and ice specific)
- Condition of physical site upon completion of service (snow and ice specific)
- Weather-related conditions or circumstances, which may include reports from verified weather forecasting service
- Services rendered
- Materials applied (types and amounts)
- Notes/Special circumstances or conditions
- Photos (time/date stamped)

5.1.2 *Billing requirements* - Describe the level of detail required in invoices for services performed. Define timeframes for invoice submissions (ex: 72 hours after service, 7 days, 30 days, etc.).....

- 5.1.3** *Technology requirements* - Identify and describe any specific work order system, invoicing system, documentation portal or other reporting-related technology requirement that may be used by service providers. Identify and describe any Global Positioning System (GPS) or other electronically created verification of services with a third party software system that may be used by service providers. Clarify if photos and/or videos are required for monitoring and documentation.
- 5.1.4** *Service controls* - Identify decision-making authority for which parties (and any associated individuals/positions) have control over service levels, in relation to starting service, continuing service, new services, and stopping of services before or during an event.
- 5.1.5** *Communication process* - Identify the flow of communication between any related parties before, during, or after service. This may include dealing with service failure, emergencies or injuries on-site, and any complaints received.

6 Definitions

- 6.1** *Accumulation Threshold* - The agreed-upon maximum amount of snow or ice accumulation acceptable.
- 6.2** *Anti-icing* - The act of applying a deicer chemical (a liquid or a solid) to a surface before the storm starts in an effort to prevent ice from forming and bonding to the surface or to enhance plowing efforts.
- 6.3** *Deicing* - The act of applying a deicer chemical (typically a solid or pre-wet solid) to an accumulation of ice or snow in an effort to melt it and weaken its bond to the surface.
- 6.4** *Event* - A meteorological weather system with a defined start and stop time that produces any type or combination of winter precipitation (e.g., ice, snow, hail, sleet, freezing rain, etc.).
- 6.5** *Ice Monitoring* - A contractually agreed upon service in which one or more people visit a site to monitor for signs of ice accumulation.
- 6.6** *Ice* - The solid form of water. Ice forms only when water is exposed to temperatures below freezing.
- 6.7** *Level of Service (LOS)* - A description of the expected outcome(s) on a site or set of sites from the completed performance of snow and ice management services. Level of Service typically defines expectations for surface conditions at specific times (completion times) or timeframes, or alternate/additional expectations for events that exceed a defined timeframe and/or a defined amount of accumulation(s).
- 6.8** *Procurement* - a purchasing process that controls quantity, quality, sourcing and timing to ensure the best possible total cost of ownership.

- 6.9 *Scope of Work (SOW)*** - Defines the service criteria (e.g., snow clearing, ice management, etc.) and specific areas to be serviced on a site or set of sites. The SOW can include any issues that may impact the execution of service (i.e. poor site drainage, slopes/hills etc.).
- 6.10 *Service Area*** - Specific locations on a site where some portion of work will be performed as a part of the service agreement.
- 6.11 *Service Initiator*** - A contractually defined start of one or more snow services (plowing, deicing, snow relocation, etc.). Service Initiators can take many forms, including Trigger Depth; Accumulation Threshold; weather forecast; written request by a client; automated or tech- enabled “service request” or work order; experienced judgment by a snow professional (site inspection, ice watch, etc.).
- 6.12 *Service Report*** - A document or digital submission detailing the services provided during an event.
- 6.13 *Site Engineering Plan*** - A visual representation of a site that includes some or all of the following related to snow and ice management: Areas to be serviced/high priority areas, key obstacles, and logistical information such as where snow will be piled, etc.
- 6.14 *Site Map*** - A visual map of a site or set of sites used for bidding snow services and serving as a basis for creating a Site Engineering Plan.
- 6.15 *Site*** - The property or collection of contiguous properties where services are to be performed.
- 6.16 *Snow and Ice Management*** - The combination of all business practices and operational procedures used to prevent or mitigate the effects of snow and ice accumulation on a site or set of sites.
- 6.17 *Snow Clearing*** - The moving of accumulated snow from the surface of a defined service area.
- 6.18 *Snow Removal*** - The physical act of taking snow completely away from a site during or after an event.
- 6.19 *Snow Stacking*** - The process of creating a large pile of snow for storage or temporary staging.
- 6.20 *Snow*** - Precipitation in the form of ice crystals. It originates in clouds when temperatures are below the freezing point, when water vapor in the atmosphere condenses directly into ice without going through the liquid stage. Once an ice crystal has formed, it absorbs and freezes additional water vapor from the surrounding air, growing into a snow crystal or snow pellet, which then falls to Earth.
- 6.21 *Trigger Depth*** - The agreed upon measurable amount of accumulated snow or ice wherein snow and ice management services will be dispatched.