

**CITY OF LAKEVILLE
STANDARD SPECIFICATIONS
FOR ALL SITE WORK
IN PUBLIC RIGHT-OF-WAY**

SECTION 2

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CITY OF LAKEVILLE STANDARD SPECIFICATIONS FOR SITE WORK

- 1.00 SCOPE: This work shall consist of excavation and embankment construction, maintaining traffic and restoration of all areas and structures disturbed during construction. All areas shall be restored in original condition or better unless specified otherwise.
- 2.00 SPECIFICATION REFERENCE: All references to Mn/DOT specifications shall mean the latest edition of the Minnesota Department of Transportation (Mn/DOT) “Standard Specifications for Construction.” The Mn/DOT “Standard Specifications for Construction” shall govern except as modified or altered herein by these specifications.

Method of measurement for payment of work performed shall be in accordance with Mn/DOT specifications or C.E.A.M. specifications, unless modified by Special Provision Specifications.

In the above-referenced state specifications, any words referring to the State of Minnesota or the Department of Transportation shall mean the Owner.

- 3.00 RESTORATION OF FENCES AND SIGNS: Any fences, signs, mailboxes or other structures disrupted as a result of the construction shall be restored to existing or better condition. This work shall include relocation of existing signs where required.
- 4.00 MAINTENANCE DURING CONSTRUCTION: All required maintenance of contract construction items shall be in accordance with the provisions of Mn/DOT 1404, 1514 and 1515 with the added stipulations:

Maintenance of streets and any detours, by-passes, equipment, stockpile or storage areas provided in conjunction with the project shall be required and shall be the responsibility of the Contractor. Said maintenance shall include, but not be limited to, keeping the street free of obstacles, parked equipment, unused barricades, blading the traveled ways, controlling the dust in the construction area and on detours, and maintenance of all barricades, flashers, and other traffic control devices.

The contractor shall maintain essential services during the course of the project. Essential services shall include mail delivery, garbage pickup, school bus service, drainage and public utility services. The Contractor shall coordinate his work with utility companies during construction.

- 5.00 REMOVING MISCELLANEOUS STRUCTURES (MN/DOT 2104): Removing, salvaging and relocating existing features shall be accomplished in accordance with the provisions of Mn/DOT Specification 2104, except as modified below:
- 5.01 All castings shall be salvaged and delivered to a site designated by the owner. All other items removed from the project shall be disposed of by the Contractor at his own disposal site. All bituminous material and concrete curbing or pavement excavated shall become the property of the Contractor.
- 5.02 Removal of culvert pipes including pipe aprons, where indicated on the drawings, shall be in a manner and at the stage of construction so that drainage will be maintained.

- 5.03 Removing curb and bituminous pavement where directed shall be accompanied by full depth sawing so as to provide a neat, vertical straight edge from which to extend the proposed construction.
- 5.04 Removal of catch basins shall include restoration of existing pipe and structures as specified.
- 5.05 Existing traffic control signs that are essential to the safe passage of traffic during construction shall be relocated immediately adjacent to the existing sign location and in accordance with the "Minnesota Manual on Uniform Traffic Control Devices."
- 5.06 Existing mailboxes and newspaper boxes shall be relocated promptly so as to not interrupt delivery services. Final placement shall be in accordance with the Standard plates and in a manner equal to or better than the installation that existed prior to construction.
- 5.07 All excess materials and debris to be disposed of by the Contractor off site shall be in accordance with Mn/DOT 2104.3D3 and Dakota County policies and procedures.
- 6.00 EXCAVATION AND EMBANKMENT (MN/DOT 2105)
- 6.01 Embankment: This work shall consist of the construction of the embankments required to shape the roadway, walkways, building areas and inslopes to the design elevations as indicated on the drawings. Embankment materials shall be suitable material obtained from the common excavation as indicated on the drawings or directed by the Engineer.
- 6.02 Excess Excavation Material: Excess common, subgrade and common channel excavation material not required or suitable for street or embankment construction shall be disposed of by the Contractor off of the project site in accordance with Mn/DOT 2104.3D3 unless otherwise shown on the plans or as directed by the Engineer.
- 6.03 Common Excavation: Common excavation shall include all types of excavation and shall include removal of any existing concrete curb, sidewalk, pavement, brush and debris unless separate bid items are provided for. Common excavation shall include all topsoil stripping in controlled fill areas (1 foot maximum if a separate bid item is provided for subgrade excavation) and all borrow material from on-site borrow pits made for obtaining suitable embankment or topsoil material.
- 6.04 Subgrade Excavation: This work shall include topsoil stripping in excess of one foot below subgrade and removal of all other unsuitable material below plan subgrade as directed by the Engineer.
- 6.05 Muck Excavation: This work shall include removal of all saturated unsuitable material which cannot be removed by conventional scraper and dozer methods and requires use of other equipment such as a dragline or backhoe.

6.06 Compaction Requirements: Compaction requirements for all embankments and trench backfill constructed under this contract shall be in accordance to Mn/DOT 2105.3F except modified as follows:

A...Areas outside street right-of-way: Areas outside of the street right-of-way shall be compacted to 95% of Standard Proctor Density (T-99) ASTM D-698 or 90% Modified Proctor Density (T-180) ASTM D-1557. Side yards shall be compacted to 100% of Standard Proctor Density (T-99) ASTM D-698.

B...Areas within street right-of-way: Trench backfilling or embankment construction shall meet the following requirements:

1...Below upper 3 feet: The zone from the bottom of embankment or trench to within 3 feet of top of subgrade, except adjacent to structures, shall be compacted to 95% of Standard Proctor Density (T-99) ASTM D-698 or 90% Modified Proctor Density (T-180) ASTM D-1557.

2...Upper 3 feet: The zone from 3 feet below top of subgrade to top of subgrade together with those portions of embankment or trench backfill below the upper 3 feet adjacent to structures shall be compacted to 100% of Standard Proctor Density (T-99) ASTM D-698 or 95% Modified Proctor Density (T-180).

7.00 BOULDER/MODULAR BLOCK RETAINING WALLS: The payment will be based on 2' of buried block/stone plus the exposed face of the wall. Any wall over 4' vertical height will require a building permit from the City of Lakeville's Building Department. All materials used must meet MnDOT construction requirements. It will also require a chain link/vinyl fence installed on top for safety, with a minimum height of 42". If located adjacent to a trail, the fence height may be increased. A guard rail shall be installed if the wall is adjacent to and supporting a private drive or parking area.

8.00 PLANT INSTALLATION (MN/DOT 2571): This work may also consist of transplanting trees, shrubs, vines and perennials existing with the project area.

After planting has been completed and the plantings maintained for 60 days, the live plantings shall be accepted for payment in full. The contractor shall provide a one-year warranty except for transplanted trees exceeding 6 inches in diameter measured at a point 2 feet above the ground. Trees exceeding 6 inches in diameter shall be maintained for the 60-day maintenance period, but shall not be subject to the one-year warranty provisions. The Contractors shall replace any plantings which fail during the warranty period.

9.00 SEEDING AND SODDING: Turf establishment shall be accomplished in accordance with the provisions of the Mn/DOT 2105 and 2575 except as modified below:

9.01 The contractor shall place salvaged topsoil from the common excavation to a minimum thickness of 6". After preparation of the subgrade, but prior to placing topsoil, the Contractor shall notify the Engineer so that inspection may be made of the subgrade to assure compliance with the specified topsoil thickness.

- 9.02 Topsoil to be furnished under a separate bid item shall comply with topsoil borrow (Mn/DOT 3877.2).
- 9.03 All sod shall be lawn and boulevard type sod and no peat or pasture sod will be allowed. Sod shall be provided along and adjacent to maintained lawns, between the curb and sidewalk or multipurpose trail ways and to a minimum of 3-feet behind the sidewalk or trail way, in areas susceptible to erosion as determined by the Engineer during restoration and in any areas where directed by the Engineer.
- 9.04 Joints between the sod and in-place improvements such as curbs, walks and existing turf shall abut tightly and shall be such that drainage will be conducted over the surface of the sod. Where sod meets existing turf, the edge at the point of juncture shall be prepared so that the new sod to existing turf joint is flush and tight. A smoothly contoured transition with proposed slopes rounded into existing or proposed contours shall be provided within the construction area and along its perimeter. Where proposed sodding meets existing or proposed seeding areas, the sod shall be placed and rolled, or banked flush with topsoil thoroughly placed to form a flush surface.
- 9.05 Sod shall be rolled in accordance with Mn/DOT 2575. If, after rolling, the surface of the sod is not free of humps or depressions, the Contractor shall make suitable corrections to the topsoil and/or subgrade, replace the sod and roll the sod. All rolling operations shall take place in the presence of the project representative.
- 9.06 Sod placed along drainage swales or embankments steeper than 4:1 slope shall be pegged or staked in place and shingled with bio-degradable anchors. No metal anchors shall be allowed.
- 9.07 The Contractor shall maintain the sod in accordance with Mn/DOT 2575.K.1.
- 9.08 Turf on all other areas disturbed by construction shall be restored by seeding, mulching and fertilizing. Seed Mixture No. 250 will be placed at the rate of 70 pounds per acre on all building lots and outlots designated for future development. Seed Mixture No. 350 will be placed at a rate of 84.5 pounds per acre in all natural areas, greenways, and city owned outlots not designated as active park areas. Wetland mitigation and stormwater basin must follow the BWSR 2005 Seeding Guidelines. Dormant seeding application rate shall be doubled. Mulch material shall be Type 1 placed at a target rate of approximately 2 tons per acre so that approximately 10% or less of the soil surface is visible through the mulched areas. The mulch shall be immediately disc anchored. On slopes steeper than 3:1 seeding is to be covered with an erosion control blanket per Mn/DOT specifications. Fertilizer shall be analyzed 23-0-30 NPK applied at the rate of 200 pounds per acre.

Temporary seeding and mulching is required on exposed soils per the MPCA NPDES requirements. Seed Mixtures 100B (Fall Cover) and 110B (Spring/Summer) must be used at a rate of 100 pounds per acre.

To reduce weed establishment, the contractor/developer must mow 2 to 3 times (30 days apart) during the first year with mower deck about 6-8 inches off the ground and one time during the second year before weeds set their seeds. Over seeding and restoration may be required during this 2-year maintenance process and will be the responsibility of the contractor.

9.09 Dormant Seeding: All seed applied after September 15th shall be applied at twice the normal rate.

9.10 Existing turf in areas outside of the roadway slopes and boulevards outside of the construction limits that is damaged by the Contractor shall be restored at the Contractor's expense.

10.00 EROSION CONTROL:

The Contractor shall furnish all material, labor, tools and equipment required for the temporary control of erosion as shown on the plans or as directed by the Engineer, and shall provide for the acceptable maintenance thereof until permanent erosion prevention features have been constructed and are effective. Temporary erosion controls shall effectively prevent erosion of soil and sedimentation into storm sewers, lakes, ponds, rivers, streams and natural drainage courses; and onto areas outside of the construction limits, streets, alleys, driveways, boulevards and private property.

The contractor shall comply with all state and local erosion and sediment control requirements. The contractor, if required, shall obtain and be responsible for requirements outlined in the MPCA NPDES permit.

11.00 POLLUTION CONTROL: The contractor shall implement the following pollution prevention management measures on the site:

11.01 Solid Waste: Collected sediment, asphalt and concrete millings, floating debris, paper, plastic, fabric, construction and demolition debris and other wastes must be disposed of properly and must comply with MPCA disposal requirements.

11.02 Hazardous Materials: Oil, gasoline, paint and any hazardous substances must be properly stored, including secondary containment, to prevent spills, leaks or other discharge. Restricted access to storage areas must be provided to prevent vandalism. Storage and disposal of hazardous waste must be in compliance with MPCA NPDES permit and regulations.

11.03 External washing of trucks and other construction vehicles must be limited to a defined area of the site. Runoff must be contained and waste properly disposed in compliance with the MPCA NPDES permits. No engine degreasing is allowed on site.

12.00 DEWATERING AND BASIN DRAINING:

12.01 Water must be discharged to a sedimentation basin before entering surface water, if this is not possible, it must be treated with Best Management Practices to ensure that it does not negatively affect property owners downstream or surface water quality downstream. The Contractor is responsible for protecting discharge points from erosion and must ensure that discharge is dispersed over energy dissipation measures. Discharge that contains suspended solids must have adequate sedimentation control measures applied.

12.02. Dewatering and basin draining activities cannot result in on-site or off-site erosion, negative impacts to downstream wetlands or nuisance conditions.

13.00 INSPECTIONS AND MAINTENANCE:

- 13.01 The Contractor is responsible for regularly inspecting the construction site. This must be done at least once every 7 days (during active construction) as well as within 24 hours of a rain event greater than 0.5 inches in 24 hours. Once a portion of the site has been stabilized, it only needs to be inspected once a month. When construction is halted during the winter months, inspections and maintenance must be resumed once runoff occurs and/or before construction resumes.
- 13.02 Written records of inspections and maintenance must be kept. These records must include: inspector's name, date and time of inspection, results of the inspection, recommendations stemming from the inspection, actions taken as a result of the inspection's recommendations, day and time of any rainfall events over 0.5 inches in 24 hours.
- 13.03 Best Management Practices for erosion and sediment control must be inspected to ensure effectiveness. Inspection and maintenance requirements of BMPs are as discussed in the MPCA's NPDES permit (see Part IV.E.4).
- 13.04 Infiltration areas must be protected from soil compaction due to construction equipment. Infiltration areas must also be monitored to ensure there is no sediment being deposited from construction activities.