

GENERAL DEVELOPMENT SPECIFICATIONS
CITY OF BROOKFIELD, WI
SECTION 12.00
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12.01 DEVELOPMENT SPECIFICATIONS

All references to Engineer in the General, Water Main, and Sanitary Sewer Specification reference the City and/ or City Engineer.

12.02 STANDARD SPECIFICATIONS

The STANDARD SPECIFICATIONS FOR SEWER AND WATER CONSTRUCTION IN WISCONSIN, Sixth Edition, dated December 2003, and any current changes or addenda thereto, shall be incorporated. In addition, the City of Brookfield Public Infrastructure and Development Handbook and the City of Brookfield Public Improvement Standard Detail Plates shall be incorporated. Any alternate/substitutions from material specifications shall be approved by the City Engineer.

12.03 PRECONSTRUCTION CONFERENCE

At least one week before the actual start of construction, a preconstruction conference will be held at City Hall in order to acquaint all those concerned with the plan of operation and schedule that the Contractor will follow. The Contractor shall be prepared at this time to answer questions with regard to the Contractor's proposed construction operations and to present a "Gantt" or "Bar" type schedule showing a breakdown of major items of work and the work location. The schedule shall be reasonably accurate and shall include the size of the Contractor's work force, anticipated road closing, and clean-up plans. At this time the Contractor shall also submit a traffic control plan for approval by the Engineer. This plan shall be a drawing that shows at a minimum the type and placement of signs and barricades.

12.04 SHOP DRAWINGS, DATA ON MATERIALS, AND EQUIPMENT AND SAMPLES

The Contractor shall furnish to the Engineer such working drawings, data on materials, and equipment and samples as are required for the proper control of the work. All working drawings, data and samples shall be subject to review by the Engineer for conformity with the drawings and Specifications.

By submitting Shop Drawings, Product Data and Samples, the Contractor represents that he has determined and verified all materials, field measurements, and field construction criteria related thereto, or will do so, and that he has checked and coordinated the information contained within such submittals with the requirements of the work and of the contract documents. The Contractor shall not be relieved of responsibility for any deviation from the requirements of the contract documents by the Engineer's approval of Shop Drawings, Product Data or Samples, unless the Contractor has specifically informed the Engineer in writing of such deviation at the time of submission and Engineer has given written approval to the specific deviation. The Contractor shall not be relieved from responsibility for errors or omissions in the Shop Drawings, Product Data or Samples by the Engineer's approval thereof.

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Data on materials and equipment include, without limitation, materials and equipment lists, catalog data sheets, cuts, performance curves, diagrams, and similar descriptive lists. Materials and equipment lists shall give, for each item thereon, the name and location of the supplier or manufacturer, trade name, catalog reference, size, finish, and all other pertinent data.

The Contractor shall submit manufacturers' literature and Material Safety Data Sheets (MSDS) on all materials to be used in coating and painting operations, including, but not limited to coatings, paints, thinners, solvents and cleaning fluids. No materials will be allowed which have been stored over 60 days, or manufacturers' recommended shelf life, whichever is less. Contractor shall maintain copies of MSDS's at jobsite at all times. Copies of all invoices showing purchased dates and delivery for all material mentioned above will be required.

A. Submittal Requirements

1. The shop drawings shall be labeled and categorized to conform to the specific division of the specification format. The Contractor shall submit the submittal in PDF electronic format. Files shall be electronically searchable. The submittal shall contain the following information:
 - a. Date of submittal
 - b. Section reference number in specifications.
 - c. Submittal number
 - d. Brief description of submittal
 - e. Location where material or equipment is to be installed.
 - f. The Contractor's signature and certification stating that he has checked the drawings or items before submission.
2. The first page of the submittal shall be the Contractor's letter of submittal.
3. Failure of the Contractor to submit shop drawings and certifications to the Engineer in ample time for review shall not constitute just cause for approved extension of the construction time.
4. Failure of the subcontractor to submit shop drawings and certifications to the Contractor in ample time for review by the Engineer shall not constitute just cause for approved extensions of the construction time.

B. Review and Revision of Submittals

The Contractor shall allow a minimum of ten (10) working days for City review of the first submittal of shop drawings. Ten (10) working days shall be allowed for City review for all subsequent resubmits. Upon completing the review, the Engineer will return a marked PDF copy of the submittal.

If the submittal is returned to the Contractor marked “APPROVED,” a revision of said submittal will not be required.

If the submittal is returned to the Contractor marked “APPROVED AS NOTED,” formal revision of said submittal will not be required.

If the drawings are returned to the Contractor marked, “AMEND AND RESUBMIT,” the Contractor shall revise said submittal and resubmit a PDF copy of said revised drawings to the Engineer, as in the case of an original submittal including the time frame above.

If the drawings are returned to the Contractor marked, “REJECTED,” the Contractor shall revise said submittal and resubmit a PDF copy of said revised drawings to the Engineer, as in the case of an original submittal including the time frame above.

Revisions indicated on shop drawings shall be considered as changes necessary to meet the requirements of the Plans and Specifications. The Contractor shall have no claim for damages or extension of time due to any delay resulting from making required revisions to shop drawings.

12.05 NOTIFICATION

The Contractor shall notify the City of BROOKFIELD Police Department (262/787-3702), the City of BROOKFIELD Fire Department (262/782-8932) and the Riteway School Bus Company (414/249-5048) at least 72 hours in advance of the scheduled work. Details for signs and barricades in or adjacent to road right-of-way shall be as submitted to the Engineer, and ample notice given on road closings and detours to allow proper notification to the media.

The Contractor shall notify the City's survey crew chief five working days prior to the start of any construction with information as to the number of working crews, starting point and start date. In addition, at least three working days notice shall be given to the survey crew for additional staking that is required during construction. Restaking required due to Contractor negligence shall be at the Contractor's expense.

The Contractor shall notify the City of Brookfield Engineering Department (262/787-3919) three (3) working days prior to the start of the work to confirm the start date, schedule a City Inspector and locate City owned utilities (water, sanitary sewer & storm sewer).

12.06 SCHEDULING OF THE WORK

Contractor shall cooperate with and coordinate his work with the work of any other contractor, utility service company or City employees performing additional work on the project site to assure compliance of schedules.

12.07 UTILITY LOCATIONS

The plans indicate only approximate locations of gas main, sanitary sewer, storm sewer, telephone and electric lines, etc., which were obtained from the various utilities involved. The Contractor shall be required to contact the utilities and “Digger’s Hotline” regarding exact locations of the facilities and shall be held fully responsible for the repair of any damaged underground pipes, conduits or structures and for any overhead wires, cables or poles as a result of their work.

It shall be the Contractor’s responsibility to coordinate temporary utility pole and/or light pole bracing when adequate separation cannot be maintained.

12.08 PERMITS & APPROVALS

The Contractor shall comply with all provisions, constraints, conditions and requirements of all necessary City, County, State, and DNR permits and approvals. Work shall not proceed until the City of Brookfield has received a copy of all the necessary permits and approvals.

12.09 STORAGE OF MATERIALS ON THE JOB SITE

Pipe shall be stored on site in a manner that will prevent bowing of the barrel and cracking or damage to the bell end or to the pipe barrel.

Storage of construction soil and backfill shall be done as to be consistent with the Wisconsin Department of Natural Resources Stormwater Construction and Post-Construction Technical Standards and/or as directed by the inspector.

12.10 DISRUPTION OF WELLS AND DEWATERING

Any disruption of the wells of buildings due to the de-watering and construction of this project shall be the full responsibility of the Contractor.

In the event of dewatering, Contractor must take adequate measures to prevent or reduce discharge of sediment from any dewatering. These measures may include sediment bags, temporary sediment basins and adequate natural sediment removal vegetation such as grass between the pump discharge and any storm sewer/stream/creek. All dewatering sediment control measures shall be approved by the City and/or DNR.

If dewatering is necessary, the Contractor shall submit a dewatering plan to the City for review. This plan shall describe the dewatering system and include a schedule that shows the proposed timing and sequencing of operations.

The Contractor shall be responsible for obtaining de-watering and discharge permits from the Wisconsin Department of Natural Resources if de-watering is necessary. Contact

Wisconsin Department of Natural Resources, Private Water Section, P.O. Box 7921,
Madison, WI 53707.

12.11 REMOVAL OF SIGNS

Street signs, stop signs, and traffic signs which may be in the construction area shall be removed and reset by the Contractor as directed by the Engineer.

12.12 POLYSTYRENE INSULATION

Polystyrene insulation boards shall be installed where indicated on the plans, or at storm sewer crossings as directed by the Engineer according to the City of Brookfield Standard Detail No. UTY-3 and Standard Specifications.

Polystyrene insulation board shall conform to the requirements for Extruded Insulation Board, AASHTO Designation M230, except as hereinafter revised. Delete flammability requirement.

12.13 SURVEY MONUMENTS

The Contractor shall use extreme caution during construction operations so as not to disturb any land survey points, property pins or any other government markers until the Engineer or a Registered Land Surveyor can properly reference their location. Care shall also be taken not to disturb construction stakes/lathe and benchmarks.

12.14 PRESERVATION OF TREES

The Contractor shall make every reasonable effort to preserve all trees and landscape vegetation in the public right of way. Should there be a question regarding tree removal, the Contractor and City Inspector must contact the City Arborist Gary Majeskie (262/796-6675).

Root disturbance to trees shall be minimized. Root removal, when necessary, shall be performed according to approved techniques. Roots shall not be torn off or ripped with the backhoe. Roots extending into the trench shall be cut clean with hand tools or a power root saw. All roots over 2" in diameter shall be cut flush with the side of the trench closest to the tree. Do not paint or treat the root ends.

Construction equipment and material stockpiles (sand, soil, stone, gravel, etc.) shall not be driven, parked, placed or stored on the surface of any unpaved areas within the driplines (outermost reach of branches) of any trees. Chemicals, rinsates and petroleum products shall not be discharged within the driplines of any trees.

Care shall be taken not to damage tree trunks or branches. The City Arborist shall be notified if damage occurs and a plan will be formulated to repair the damage. Contractor shall be responsible for all costs associated with the repair, rejuvenation, replacement and/or value of trees damaged due to negligence.

12.15 RESTORATION OF LAWN AREAS

All lawn or turf areas in public right of way and/or easement areas shall be restored with (4) inches of screened top soil spread evenly, seeded with WisDOT No. 40 seed mix applied at a rate of 90 lbs/acre, then seeded with seed oats at a rate of 50 lbs/acre, and fertilized with WisDOT 629, Type A fertilizer. The Contractor shall submit certified test reports for each type of seed mixture used.

Unless otherwise directed by the Engineer, ditches with 3% slope or greater and all slopes with grades of 4:1 and steeper shall be restored with WisDOT Class 1, Type B, erosion mat installed per manufacturer's recommendations. All other areas, not restored with erosion mat can be restored with Mulch.

12.16 DRIVEWAYS

The Contractor shall not keep any driveway closed for more than a four-hour period. Private driveways shall not be used for construction trucking or turn around. For commercial properties having two driveways, at least one driveway shall be accessible during that properties normal business hours.

12.17 TRAFFIC CONTROL

Any road and/or lane closure requires the Contractor to submit a detailed traffic control plan to be approved by the Engineer prior to initiating any construction. Each traffic control plan is subject to acceptance, rejection, or suggested revision by Engineer. No construction operations may begin without the complete approval of the plan.

The Contractor shall maintain at least one lane of traffic clear of soil from the excavation and backfill materials. The lane shall be maintained with proper traffic control per the manual of Uniform Traffic Control Devices (MUTCD). Any lane closure necessary on arterial roads shall be limited to between the hours of 9:00 am and 3:00 pm, unless otherwise approved by the Engineer. No road closures will be allowed unless otherwise approved by the Engineer.

The Contractor shall submit 24 hour contract information for 2 local persons who will respond to traffic related maintenance and request. The Contractor shall maintain all traffic control devices, on a 24 hour basis, throughout term of the contract including work suspensions.

The Contractor shall obtain any and all permits necessary from the State and County to allow for signing, barricading, and work within the State and County Right-of-Way as necessary to complete the project.

All necessary signs, flagmen, warning lights, barricades and temporary striping necessary shall conform to the MUTCD and shall be provided and maintained by the Contractor. Failure to safeguard the work zone properly will result in a shutdown of the job until such

requirements are met. In addition, the Contractor shall be responsible for adequately barricading and/or constructing temporary fence barriers in the areas of construction to protect against personal injury and provide and ensure that all construction equipment has properly operating lights and warning signals.

The Contractor shall maintain access to individual residences and businesses at all times, unless otherwise approved by the affected property owner and Engineer.

12.18 PAVEMENT MARKINGS

The Contractor shall follow the notes and guidelines identified in the plans regarding permanent pavement markings. Any existing pavement markings that are disturbed as part of the project shall be replaced "in kind" by the Contractor. All pavement markings shall utilize Epoxy paint unless otherwise approved by the Engineer.

12.19 EROSION CONTROL

The Contractor shall submit an erosion control schedule prior to the pre-construction conference.

The Contractor shall protect downstream ditches and storm sewers from construction debris and siltation. The Contractor shall furnish and install all erosion control devices as shown on the plans and as directed by the Engineer or as necessary to be consistent with the Wisconsin Department of Natural Resources Storm water Construction and Post-Construction Technical Standards and the City Standard Details.

Storage of construction materials, soil and backfill shall be in accordance with the requirements stated in the Wisconsin Department of Natural Resources Storm water Construction and Post-Construction Technical Standards. Inlet protection shall be installed in all storm inlets adjacent to the work as shown in the plans and/or as directed by the Engineer.

Contractor shall maintain all erosion control measures as necessary to provide proper function throughout the project. Sediment log ditch checks shall be installed as shown in the plans and/or as directed by the Engineer per the manufacturer's directions. All erosion protection shall be removed once turf has been established.

Contractor shall use a temporary cover crop seed mixture on any turf areas that will be left unrestored (topsoil, fertilizer, seed & mulch) for more than 7 days. Contractor shall replace any rip-rap removed from drainage ditches. The cost of temporary cover crop seeding, rip-rap replacement and any other necessary erosion control measures not included in the bid schedule shall be considered incidental.

12.20 CLEAN-UP AND STREET SWEEPING

The Contractor shall at all times keep the site of the Work, including streets and all private or public property involved in or adjacent to the Work, free from any rubbish,

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surplus or waste materials that have been deposited by the Contractor's employees or which have accumulated as a result of the Work

The Contractor shall sweep all City, County, and/or State roads on a daily basis, deemed necessary by the Engineer to keep all pavement surfaces free of dust and debris, and to prevent sediment from entering any water body or storm sewer. The Contractor shall furnish a **pick-up sweeper, which actively controls dust** and all trucks or other equipment the Engineer deems necessary to remove all sediment. Contractor shall be responsible for proper disposal of all sweepings. Keeping the job site clear including street sweeping shall be considered incidental.

If, in the judgment of the City's authorized representative, it is deemed necessary to use a dust palative, it shall be of approved kind and reasonably applied to the affected areas in accordance with Section 1.7.6 of the Standard Specifications. This shall be the Contractor's responsibility.