



P.O. Box 5021, 59403-5021

May 30, 2014

REGARDING: City of Great Falls Inspection Policy and Fees for Infrastructure Construction

FROM: Dave Dobbs, P.E., City Engineer

On May 20, 2014, the Great Falls City Commission approved Resolution 10075 which adjusted fees charged by the Engineering Division, including fees for the inspection of privately installed public infrastructure. Adjustments were also made to the starting time at which fees would be assessed for engineering work performed by City staff engineers.

A complete list of fees can be viewed on the City's website under Resolution 10075

The updated policy is attached. If there are questions, please contact the City Engineer's Office at 406-771-1258.

[insppolicy2014](#)

City of Great Falls Inspection Policy for Privately Installed Public Infrastructure

APPROVED: _____

John W. Lawton
City Manager

DATE: May _____, 2004

Two methods of construction inspection are allowed. Both Type One and Type Two inspection methods will be used. Developers can request a preferred inspection method. The City will make the final decision on which projects get assigned to which method, based on developer and contractor past performance, timing of improvements, and availability of inspectors.

Type One: Full Time City Inspection

1. Plans and specifications will be prepared by consulting engineers and reviewed by the City for compliance with requirements, as they have been previously. "Dry utilities" (gas, phone, cable, phone) will be noted on the plans in a specific or general way. A typical design for joint trenching will be included with the infrastructure plans as appropriate.
2. A preconstruction meeting will be held prior to the start of construction. Key people that will be required to attend will include the developer, consultant engineer, prime contractor, major subcontractors, utility company representatives, City development engineer, and City inspector. Representatives may substitute if they are authorized to make agreements and sign documents. Others present may include minor subcontractors, consultant inspector, and City operations and utility personnel.
3. Topics of the preconstruction meeting will include a review of the plans and specifications; testing requirements; and schedule. Phone numbers and email addresses for key personnel will be collected and distributed. An agenda for the meeting will be provided and followed.
4. A city inspector(s) will be assigned to full time inspection duties. This will include evenings and weekends if arrangements are made at least 48 hours beforehand, as agreed to at the preconstruction meeting.
5. Daily inspection will include compaction testing at no added fee. Proctors will have to be available before the start of construction and will be provided by a certified testing lab at the developer's expense.
6. Daily inspection logs will be kept and made available to the developer or his engineer upon request, and at the end of the project.

7. If it appears that field changes to the approved plans are necessary, the City's development engineer or inspector will contact the developer's engineer to discuss any ramifications. This will be a topic for discussion at the preconstruction meeting.
8. The inspector will keep "red line" notes during construction to be used in the preparation of asbuilts. As agreed to at the preconstruction meeting or other appropriate time, either the City or consulting engineer will prepare the asbuilts. Since the City collected the asbuilt notes, the city will stamp the "asbuilt" drawings. The consultant's stamp will remain on the plans as the designer.
9. Policy details. Inspection fees for City inspectors will be \$59 per hour. Beyond normal working hours (Monday thru Friday, 8 a.m. to 4:30 p.m.), the fee will be \$71 per hour. City development engineer and other staff engineer fee will be \$96 per hour, which shall start with the submittal of infrastructure plans and continue through as built plans and final warranty inspection. The project schedule will need to be provided long enough before the start of construction to allow for inspector scheduling. The City must be notified of schedule changes.
10. Types of work requiring and not requiring full time inspection. Full time inspection is required during utility installation, backfilling / compaction; installation of concrete and asphalt; and some other items. Spot inspection is acceptable when cutting down to grade, trenching (no utilities being installed), and cleanup. Inspection frequency during the installation of base course gravel will be at the inspector's discretion.
11. Authority to shut down construction. The City may order an immediate stop to the work in progress if defective or unacceptable types of materials are being installed; if the contractor fails to have the proper equipment on site to properly perform the work in progress; or if it is discovered that the infrastructure is not being installed in the proper location or elevation shown on the approved plans. The developer and /or consulting engineer will be immediately notified of this occurrence. The inability of the City official to notify the developer or consultant because of failure to establish telephone contact will not be cause for continuing of on-site construction.
12. The City will not provide construction staking services. However, the City may check the staking for accuracy, at its discretion.

Type Two: Full Time Consultant Inspection with City Oversight. In summary, an approved consultant inspector will handle the project. A City inspector will be assigned to periodic inspection of all construction projects that are not receiving Type One inspection. Most of the conditions that apply when the City is doing the inspection will also apply when the consulting engineer is providing inspection.

1. Steps 1, 2, 3, 10, and 11 from the Type One inspection regiment (above) also apply for Type Two inspections.
2. The consulting engineer will provide a full time inspector for the project. The inspector will be required to prove his or her capabilities to the City's satisfaction. Criteria for an

acceptable inspector will be construction experience, related education, and past performance. The geotechnical engineer responsible for compaction testing will be identified.

3. City inspectors and/or engineers will make periodic inspection visits to Type Two inspected projects. Compaction tests may be performed to confirm results of private geotechnical firms. Daily construction logs, approved construction plans, specifications, documents, etc. must be available on-site for review during working hours when construction is in progress.
4. The absence of the private inspector at the job site during the performance of work that requires inspection may be cause for the immediate shutdown of construction activities. The developer and/or consulting engineer will be immediately notified of this occurrence. The inability of the City official to notify the developer or consultant because of failure to establish telephone contact will not be cause for continuing of on-site construction.
5. If it appears that changes to the approved plans are necessary, the consultant's inspector will contact the City's development engineer or inspector to discuss any ramifications. Approval must be received from the City prior to making changes. This will be a topic for discussion at the preconstruction meeting.
6. The consulting engineer shall immediately notify the City if the developer orders the discontinuance of construction inspection while work is in progress.
7. The same City hourly fees that apply to Type One inspections will apply to the City's periodic inspections performed during Type Two inspected projects.

Policy for miscellaneous inspections:

1. Private water and sewer service line inspection. Inspection and compaction testing may be required.
2. Private storm drainage facilities will normally be inspected by the consulting engineer. The City may, at its discretion, inspect the facilities for compliance with the approved plans. Changes to the approved plans shall be submitted for consideration to the City. At the completion of construction, the consultant shall certify in writing that the facility was built in accordance with approved plans.

Testing Requirements:

1. Water Main, Fire Line, and Service Line:

Pressure Tests: In accordance with MPWSS and City Standards. City inspector must be notified.

Water Main Flushing and Disinfection: In accordance with MPWSS and City Standards. City inspector must be notified.

Water Main Bacteriological Testing: City inspector and Great Falls Water Treatment Plant Laboratory must be notified. City will perform bacteriological tests. The inspector will verify and log the results.

2. Sanitary Sewer Main and Storm Drain Mains:

Main and Manhole Leakage Tests: In accordance with MPWSS and City Standards. City inspector must be notified.

Sanitary Sewer and Storm Drain Television: Notify City Inspector and Utilities Division. City will perform inspection.

3. Trench Materials Testing (All Utilities):

Bedding Materials:

Laboratory Gradation: One test for each bedding material type; test must be performed within two years of the start of the project.

Laboratory Plasticity: One test for each bedding material type; test must be performed within two years of the start of the project.

Laboratory Maximum Density / Optimum Moisture: One test for each bedding material type; test must be performed within two years of the start of the project.

Field Density / Moisture Tests: Minimum of one test for each 200 linear feet of main installed.

Trench Excavation or Import Soils:

Laboratory Maximum Density / Optimum Moisture: One test for each soil type or mixture of soil types.

Field Density / Moisture Tests: Minimum of one test at random locations for 50% of the lifts per 200 linear feet of mainline trench (i.e. 10 lifts would require 5 tests per 200 feet of trench). Minimum of two tests for each service line (random locations and depths). Service lines to be tested between main and property line.

4. Street Subgrade and Base:

Subgrade Soils:

Laboratory Maximum Density / Optimum Moisture: One test per each soil type.

Field Density / Moisture Tests: Minimum of one test per station (100 linear feet) at random locations.

Gravel Base:

Laboratory Gradation: One test per each gravel type; test must be performed within two years of the start of the project.

Laboratory Plasticity: One test for each gravel type; test must be performed within two years of the start of the project.

Laboratory Maximum Density / Optimum Moisture: One test for each gravel type; test must be performed within two years of the start of the project.

Field Density / Moisture Tests: Minimum of one test per station (100 linear feet) at random locations.

5. Roadway Pavement:

Portland Cement (P/C) Concrete:

Laboratory P/C Mix Design: In accordance with MPWSS; must be performed within two years of the start of the project.

Air: In accordance with MPWSS.

Compression Strength: In accordance with MPWSS and City specifications.

Slump: In accordance with MPWSS.

Asphaltic Cement (A/C) Concrete:

Laboratory A/C Mix Design: In accordance with MPWSS; must be performed within two years of the start of the project.

Field A/C Density: Minimum of one test per station (100 linear feet) at random locations.

Field Core Thickness: Minimum of one core per station (100 linear feet) at random locations.

6. Sidewalks, Driveways, Valley Gutters, Misc. Concrete:

Laboratory P/C Design Mix: In accordance with MPWSS; must be performed within two years of the start of the project.

Air: In accordance with MPWSS.

Compression Strength: In accordance with MPWSS and City specifications.

Slump: In accordance with MPWSS.

Required Notifications to the City:

- Conducting Water Main Flushing and Pressure Testing
- Initiating Bacteriological Testing
- Conducting Sanitary and Storm Sewer Main and Manhole Testing
- Other Important Construction Findings or Events.

Final Inspection:

- Conduct Final Walk Through Inspection with City Representatives.
- City to prepare and furnish Consulting Engineer with Final Inspection Punch List (Copies to Developer and Contractors).

Final Submittals to City:

- Materials Submittals: Water main and all appurtenances, water services and all appurtenances, sanitary sewer main and all appurtenances, sanitary sewer services and all appurtenances, storm drain and all appurtenances, P/C and A/C mix designs, gravel.
- As-Built Plans (as agreed to in the preconstruction meeting or other appropriate time).
- O & M Manuals for sewage lift stations, water booster stations, and specialty facilities.
- Test Results
- Inspection Daily Work Diary
- Construction Photographs
- Completion dated for warranty
- Certify all public improvements were installed in accordance with plans and specifications at the completion of the project.

Changes to the Inspection Policy:

It is anticipated that changes will be needed to the Policy from time to time. The City Engineer, with approval of the Public Works Director, is authorized to institute these changes. Developers, consulting engineers, contractors or others may request that changes be made to the Policy.

Date of original approval: May __, 2004

Modifications:

<u>Number</u>	<u>Date</u>	<u>Nature of Modification</u>
1	5/20/14	Update to hourly fees and work included under city engineering staff involvement; see page 2, paragraph 9. Fees approved by City Commission under Resolution 10075.