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Chapter 7 - Infrastructure Inspection and Acceptance

7.1. GENERAL. This chapter identifies the requirements for inspection and acceptance of public improvements that are owned and maintained by the City and inspection and approval of private improvements and certain public improvements. The general requirements for acceptance/approval are established in the Steamboat Springs Municipal Code Section 26-205 and 206. In accordance with the Code, these standards were developed to outline the detailed steps for inspection and acceptance of public and approval of private improvements.

7.1.1. **Inspection Restriction Dates.** City inspections are not required to be conducted between November 1 and May 1 or at other times when weather conditions may restrict observation of or access to the improvements. The Owner is responsible for scheduling work to be completed in sufficient time for inspections to occur without interference of weather conditions.

7.1.2. **Complete Improvements.** Preliminary and Final acceptance will not be given for partial completion of public improvements unless they are identified on the approved phasing plan in different project phases. Partial approval may be granted for private improvements where the part being approved can function as a stand-alone improvement

7.1.3. **Public Improvements.** For the purpose of infrastructure inspection and acceptance, public improvements are defined as improvements owned or maintained by the City or improvements located on City owned property. Other private improvements may have public access (such as public sidewalks and trails on private property and privately maintained) but are considered private improvements for the purpose of this section.

7.1.4. **Warranty Period.** Public Improvements shall undergo a warranty period between preliminary and final acceptance.

7.1.4.1. **Roads and Bridges.** Section 26-205 (b) (5) of the Municipal Code specifies a two year minimum warranty period for public roads and bridges. This two year minimum warranty period shall include either a) a minimum two year warranty period after placement of asphalt if both lifts are placed in once season or b) a minimum one year warranty period after preliminary acceptance and a minimum one year warranty period after placement of the final lift of asphalt. The warranty period for the roads shall include all the elements of a complete street.

7.1.4.2. **Traffic Signals.** For traffic signals, the warranty period shall be one year after preliminary acceptance.

- 7.1.4.3. Major Storm Water System Components. For major public storm water system components such as energy dissipation structures, diversion structures, regional storm water quality facilities, regional detention ponds, etc, the warranty period shall be two years after preliminary acceptance.
- 7.1.4.4. Sidewalks and Trails. For public sidewalks not part of a road section and for public trails, the warranty period shall be one year after preliminary acceptance.
- 7.1.4.5. Other Public Improvements. As identified in the City's Municipal Code Section 26-205, the Public Works director shall identify the warranty period for other public improvements.

7.2. CITY INSPECTIONS. There are four main types of Public Works site inspections: Preliminary Right-of-Way (ROW) inspection, Final ROW Inspection, Acceptance Inspections, and General Site inspections.

- 7.2.1. Preliminary ROW Inspection. All sites with a building or grading permit are required to conduct a preliminary ROW inspection. The Owner is responsible for contacting the public works department to schedule a preliminary ROW inspection prior to the Owner's need for transfer of permanent power to the building site. At a minimum the site should be rough graded, drainage functioning properly, and any drainage improvements in the ROW installed prior to requesting the preliminary ROW inspection. The preliminary ROW inspection generally includes the items shown on example inspection form included in Attachment 7-A. The items listed on the Preliminary ROW inspection form must be satisfactorily installed prior to approval of the inspection and sign off of the PW Director for permanent power.
- 7.2.2. Final ROW Inspection. Sites with a building or grading permit, no public improvements, and no posted collateral must also conduct a Final ROW inspection. The final ROW inspection must be approved prior to approval of certificate of occupancy or final plat, whichever is first. The Owner is responsible for contacting the public works department to schedule a final ROW inspection. The final ROW inspection generally includes the items shown on the example inspection form included in Appendix 7-A. All items on the approved plan must be installed in general conformance with the approved building permit plans prior to approval of the final ROW inspection. Where City cannot determine compliance by visual inspection or from documentation submitted by the project engineer, the owner may be required to provide additional information to confirm requirements are met.
- 7.2.3. Acceptance Inspection. Sites with public improvements or collateral posted are required to conduct an acceptance inspection. The acceptance inspection must be approved prior to approval of the

certificate of occupancy or final plat, whichever is first and prior to the release of collateral. The City will conduct acceptance inspections as outlined in Section 7.3 for public improvements and 7.4 for private improvements.

7.2.4. General Site Inspections. The City may periodically conduct other general site inspections to monitor construction, evaluate compliance with development plan approvals, inspect storm water management, respond to complaints, or address other engineering related issues. Some common types of general site inspection include:

7.2.4.1. Pre-Paving Inspection: Prior to paving a public street the Project Engineer shall request a pre-paving inspection, and provide a Testing Summary Letter for the road subgrade construction. The pre-paving inspection and Testing Summary Letter must be approved by the Public Works Director prior to paving any public street.

7.2.4.2. Storm water Management Inspection: The City will typically conduct a spring and a fall storm water management inspection of active sites to monitor that sites have appropriate storm water quality controls in place at the beginning and end of the construction season. Additionally inspections will be conducted periodically throughout the year

7.2.4.3. Permanent Storm water Quality Inspection. The City will periodically inspect permanent storm water quality features to monitor that private maintenance and upkeep of these features is occurring as required for the features to function properly.

7.3. ACCEPTANCE OF PUBLIC IMPROVEMENTS: The process to achieve acceptance of public improvements that are owned and maintained by the City or improvements (privately maintained) that are on City property generally is as follows:

7.3.1. Identification of Public Improvements. The cover sheet or notes sheet in the approved civil construction plans shall identify the public improvements and critical improvements for the project. This is to provide the Owner and contractor with a reminder of the public improvements, but it shall not serve to override the designation of public improvements in the Code or these standards if all public improvements are not listed on the civil plans.

7.3.2. Owner Acknowledgement of Acceptance Requirements. Prior to approval of civil construction drawings involving public infrastructure, the Owner shall sign and record the Owner Acknowledgement of Acceptance Requirements Form (Appendix 7-B).

- 7.3.3. Pre-Construction Meeting. A pre-construction meeting with a Public works engineer, the Project Engineer, Owner, and contractor shall be held prior to the start of site work to outline the testing and inspection requirements for the project. It is the responsibility of the Project Engineer and testing firm to outline the testing and inspection requirements.
- 7.3.4. Preliminary Acceptance Request. Once the public improvements are completed, the Owner shall request an inspection for preliminary acceptance. This request shall be in writing and include the Testing Summary Letter from Testing Firm (Appendix D) and any other applicable supporting documentation. The Testing Summary letter shall be signed and stamped by a Professional Engineer. The Testing Summary letter shall certify that the tests were conducted in conformance with the approved plans and specifications.
- 7.3.5. Preliminary Acceptance Inspection. Upon receipt of the inspection request, the Public Works Director shall accompany the Project Engineer on an inspection of the site.
- 7.3.6. Preliminary Punch List. The Project Engineer shall prepare a punch list based on the preliminary acceptance inspection for review by the Public Works Engineer. Where items on the punch list are deemed by the Public Works Director to be necessary to address prior to granting preliminary acceptance, the Owner shall complete those items prior to the Project Engineer preparing the Improvements Summary Letter and request re-inspection. Where punch list items may be addressed prior to final acceptance, the Project Engineer shall prepare the Improvements Summary Letter.
- 7.3.7. Improvements Summary Letter (Appendix 7-C). The Project Engineer shall prepare the Improvements Summary Letter indicating that the public improvements are constructed in substantial conformance with the approved plans and specifications, or where not in substantial conformance the letter shall a) indicate what corrective or mitigation measures are needed to bring the item into substantial conformance, or b) provide additional documentation and discussion for review and approval demonstrating that the changes meet the design intent.
- 7.3.7.1. Work Acceptable. If work was completed satisfactorily for preliminary acceptance, the Public Works Director will submit to the Owner a letter of Preliminary Acceptance with any conditions and punch list items that must be completed prior to Final Acceptance.
- 7.3.7.2. Work Not Acceptable. If work was not completed satisfactorily for preliminary acceptance, the Public Works Director will provide the Owner with a punch list of items that need to be corrected. Owner shall complete the punch list items and contact the Public Works Director for re-inspection.

7.3.8. Final Acceptance Request. Prior to request for final acceptance the warranty period must be expired or near expiration, any punch list items corrected, and the improvements completed. The Owner must request an inspection for final acceptance in writing, and include at a minimum the following documentation: updated Improvements Summary Letter from the Project Engineer, Testing Summary Letter from Testing Firm, and any other necessary supporting documentation.

7.3.9. Final Acceptance Inspection. Upon receipt of the inspection request, the Public Works Director shall accompany the Project Engineer on an inspection of the site.

7.3.9.1. Work Acceptable. If work was completed satisfactorily for final acceptance, the Public Works Director will grant final acceptance in writing once any required as-built documents are approved.

7.3.9.2. Work Not Acceptable. If work was not completed satisfactorily for final acceptance, the Public Works Director will provide the Owner with a punch list of items that need to be corrected. Owner shall complete the punch list items and contact the Director for re-inspection.

7.3.9.3. Engineering Record Drawings. The Public Works Director will identify the need for engineering record as part of the construction plan approval. The Public Works Director may also require record drawings during construction as mitigation for items not constructed in substantial conformance with the project plans and specifications.

7.3.10. Warranty Punch List Items not Completed. If final acceptance is not approved within a reasonable time after completion of the warranty period, the Public Works Director may either extend the warranty period or issue a non-acceptance letter and request that City Council revoke the preliminary acceptance.

7.4. APPROVAL OF PRIVATE IMPROVEMENTS. The section outlines the process for approval of private improvements on sites that have posted collateral. (Sites with private improvements and no posted collateral shall be subject to the Final ROW inspection for approval of the private improvements.) The process for approval of private improvements should be conducted simultaneously with the process for public improvements when sites have both public and private improvements.

7.4.1. Pre-Construction Meeting. A pre-construction meeting with the Project Engineer, testing engineer, Owner, and contractor is required for projects with public improvements and recommended for projects with private improvements. The meeting should be held prior to the start of site work to outline the testing and inspection requirements for the project.

7.4.2. Private Final Approval Request: The Owner must request an inspection for final approval of private improvements in writing, and include at a minimum the following documentation: Completion Letter from the Project Engineer and any other necessary supporting documentation. The Completion letter shall be signed and stamped by a Professional Engineer. The Completion letter shall indicate that the private improvements are constructed in general conformance with the approved plans and specifications. Where not in general conformance, the letter shall indicate a) what corrective or mitigation measures are needed to bring the item into conformance, or b) provide documentation demonstrating that the changes meet the design intent.

7.4.3. Private Final Approval Inspection. Upon receipt of the inspection request, the Public Works Director shall accompany the Project Engineer on an inspection of the site.

7.4.3.1. Work Acceptable. If work was completed satisfactorily for final approval, the Public Works Director will sign the bottom of the Completion Letter indicating that final acceptance of the private improvements is granted.

7.4.3.2. Work Not Acceptable. If work was not completed satisfactorily for final approval, the Public Works Director will provide the Owner with a punch list of items that need to be corrected. Owner shall complete the punch list items and contact the Director for re-inspection.

7.5. APPROVAL OF DETENTION PONDS AND STORMWATER QUALITY FEATURES.

Detention ponds and storm water quality features must be constructed as designed in order to be effective. For some ponds and features it is difficult to confirm that the built conditions meet the design requirements by post construction observation. Additional monitoring during construction and post construction surveying is required. For these improvements, the requirement for additional inspection of these items will be determined at the time of building permit approval. For those ponds and features requiring additional inspection, the Project Engineer shall submit an Infrastructure Summary Letter documenting that these items were built in substantial conformance with the approved plans and specifications.

7.6. REQUEST FOR PUBLIC ACCEPTANCE OF PRIVATE STREETS .An Owner may request that the City accept a private street as a public road. In order to be considered for acceptance as a public road the following minimum conditions must be met prior to request for acceptance.

- a. Streets must be upgraded to meet current City Engineering Standards and Specifications including but not limited to street horizontal and vertical design elements, pavement design, pavement width, shoulder design and width, sidewalk design and

width, drainage design, storm water quality features, ROW width, bicycle facilities, transit facilities, landscaping or other street features, and any easements.

- b. Streets must meet current City Fire code requirements or have an approved variance from the Fire Chief.
- c. An Improvements Summary Letter is provided demonstrating the complete street elements in the ROW (road, drainage, sidewalk, traffic control, etc.) have been constructed in substantial conformance with City Standards and Specifications.
- d. A Testing Summary Letter is provided certifying that the tests were conducted in conformance with the approved plans and specifications.

The Public Works Director shall review the information, conduct a site visit, and if work completed satisfactorily for final acceptance, the Public Works Director will grant acceptance in writing. If work is not completed satisfactorily for final acceptance, the Public Works Director will provide the Owner with a punch list of items that need to be corrected, re-inspected, and approved prior to final acceptance.

OWNER ACKNOWLEDGMENT

The undersigned is developing a project that includes construction of public infrastructure (the "Improvements) on the real property described as follows (the "Property"):

The undersigned acknowledges that:

The Improvements must be constructed by or under the direction of the undersigned and at the cost of the undersigned pursuant to City regulations and the engineering plans and specifications (the "Plans") to be prepared by a Colorado Professional Engineer and submitted to and approved by the City's Public Works Director prior to initiation of construction.

The City's Engineering Standards and Specifications identify the procedures to achieve acceptance of the public infrastructure, and if those procedures are not followed by the Owner and his representatives, the project's infrastructure may not be accepted by the City. Public infrastructure not accepted by the City shall be the responsibility of the Owner to maintain and operate.

The Owner is required to contract with an Engineering Firm and a Testing Firm to provide inspection and testing of the public improvements in accordance with the City's Standards and Specifications.

The Owner shall allow the Engineer and Testing Firms access to the site in order to perform the required inspections, observations, and tests in a manner and frequency to meet or exceed the requirements. The engineers, architects, and testing personnel should disclose promptly to the Public Works Director any construction of the public infrastructure that does not comply with the standards, specifications, or approved plans or may violate City regulations.

City inspection the infrastructure for acceptance is not required to occur between November 1 and April 1 or when climatic conditions may impede access or visibility of the improvements. Owner is responsible for coordinating completion of improvements and allowing sufficient time for inspections outside of this time period.

Appendix 7 - C Example Engineer's Improvements Summary Letter

Company Letterhead

Date

Engineer Name
Engineer Address
Engineer Phone

RE: Subdivision/ Project Name
Improvements Summary Letter
Project Address

Dear (The Project Engineer's Name),

The purpose of this letter is to summarize the status of public and private improvements at (Subdivision Name) for the purpose of (preliminary acceptance, final acceptance, executing an improvements agreement for final plat/CO), or releasing collateral).

Public Improvements

I, (Name of Engineer), have performed or supervised construction observation during Construction for the following public improvements:

<input type="checkbox"/> Public Roads	<input type="checkbox"/> Public Sidewalks	<input type="checkbox"/> Public Trails
<input type="checkbox"/> Public Detention Pond/ Storm water Quality Features	<input type="checkbox"/> Public Storm Sewer System Components	<input type="checkbox"/> Other (list)

In accordance with Sections 5.2 and 5.3 of the Bylaws, Rules, and Policies of the State Board of Licensure of Architects, Professional Engineers, and Professional Land Surveyors, I certify that I performed or supervised construction observation during construction and that based on my observations, the site work completed as of (date) is in substantial conformance with the approved construction drawings and specifications. Quality assurance testing for materials (including gravels, concrete, and asphalt) and compaction were completed by others. The record drawings for (insert item) accurately depict the final installation of those improvements.

As of (date), the following public improvements have not been completed, require modification, or were noted as discrepancies from the approved plans:

Example: Install 24" culvert with FES with construction of southern site access
Example: Construct southern site access (grading, paving)
Example: Repair damaged shoulder along site frontage.

Private Improvements

I have also performed or supervised limited construction observation during construction of the private improvements and conducted a final site inspection on insert date?? for surficial review of the private improvements shown on the approved Civil drawings dated ??? and revised ????, . Based on those observations, the finished appearance of the following private improvements appear to be generally complete per the approved drawings: overall grading, storm drain systems, sidewalks, trails, parking, driveways, vegetation (check for establishment only), storm water quality feature (list), and other site-specific features (list).

On ??? date I performed an inspection per the project specifications of the site’s private detention pond and/or private storm water quality features (list) and detention pond to check that it is constructed per the approved design.

The following revisions/ modifications were observed: (list). Based on my review, the changes will function similar to the original design intent. The following items were observed to be incomplete, require modification, or were noted as discrepancies from the approved plans: list

Example: Site was seeded and mulched, evaluate coverage of vegetation and re-seed as needed to establish vegetation.

Example: Remove erosion control once site is vegetated.

Example: Install sidewalk from Building A to west side of parking lot.

This letter does not constitute a guarantee or acceptance either expressed or implied of work not in compliance with the approved documents or work not properly maintained. Nor is this a release of the Owner’s or Contractor’s obligation to complete work in accordance with the same or provide proper maintenance of the work. We recommend that an on-going maintenance program be established by the Owner for the constructed private improvements to ensure that they function as intended.

Sincerely
(Engineering Company)

(Engineer’s Name)

(Insert Engineer’s Stamp)

Improvements Summary letter approved by Public Works Engineer ___ with conditions ___ without conditions. The conditions include:

Public Works Engineer Name

Date

Appendix 7 – D Example Testing Firm’s Summary Letter

Company Letterhead

Date

Testing Company Name
Testing Company Address
Testing Company Phone

RE: Subdivision/ Project Name
Testing Summary Letter

Dear The Project Engineer’s Name,

The purpose of this letter is to summarize the results of the field and laboratory tests completed on the public infrastructure constructed for Project Name for the purpose of (preliminary acceptance, final acceptance, executing an improvements agreement for final plat/CO), or releasing collateral). Testing Company conducted the testing on a part-time basis from date to date.

Based on the test results obtained during this period, it appears that the list tests performed (example materials were compacted and the gradation requirements met) in substantial conformance with the project specifications.

The attached Testing Documentation Report prepared in accordance with Section 3.8 of the City’s standards provides a detailed summary of the type, number, and location of the tests and observations conducted.

Sincerely,
Testing Company Name

Professional Engineer Stamp

Professional Engineer Name

Testing Summary Letter approved by Public Works Engineer with conditions without conditions. The conditions include:

Public Works Engineer Name

Date