

CHAPTER 9 - INSPECTION & CERTIFICATION



Chapter Organization

- 9.1 Introduction..... 1
- 9.2 Applicability 1
- 9.3 Authority to Stop Work 1
- 9.4 Responsibilities..... 1
 - 9.4.1 Development Inspector 1
 - 9.4.2 On-site Inspector..... 2
 - 9.4.3 Applicant’s Engineer 2
 - 9.4.4 Contractor 3
- 9.5 Right-of-Way Permits..... 3
- 9.6 Pre-construction Meeting..... 3
- 9.7 Construction Notification..... 4
 - 9.7.1 Notices of Upcoming Construction 4
 - 9.7.2 Notices of Utility Shutdown and Access Limitations..... 5
 - 9.7.3 Notices for Inspection..... 5
- 9.8 Field and Lab Testing 6
 - 9.8.1 Reporting..... 6
 - 9.8.2 Minimum Material Testing Frequencies..... 6
 - 9.8.3 Field Testing and Lab Requirements 6
- 9.9 Required Inspections..... 6
 - 9.9.1 Erosion and Sediment Inspections 7
 - 9.9.2 Utility Inspections..... 7

9.9.3 HMA Inspections 7

9.9.4 Drainage Structure Inspections 7

9.9.5 Drainage Swale and Drainage Facilities Inspections..... 7

9.9.6 Swale Inspection During Warranty Period 8

9.10 Miscellaneous 8

9.10.1 Changes During Construction..... 8

9.10.2 Construction Complaints 9

9.10.3 Conflict Resolution 9

9.11 Final Walk-Through..... 9

9.12 Record Drawings 9

9.13 Project Certification 10

9.13.1 Certification of Drainage Facilities..... 11

9.14 Performance Surety..... 11

9.14.1 Performance Surety Authorized..... 11

9.14.2 Performance Surety Criteria 11

9.14.3 Performance Surety Release 12

9.15 Warranty Surety 12

9.15.1 Warranty Surety Amount..... 12

9.15.2 Acceptable Sureties..... 12

9.15.3 Warranty Duration 13

9.15.4 Time Frames to Complete Repair 13

9.15.5 Failure to Complete Repair 13

9.15.6 Responsibility for Maintenance 13

9.16 Street Establishment..... 13

List of Figures

Figure 9-1 Typical Sign..... 5

List of Tables

Table 9.1 Required Sign Information..... 5

List of Appendices

Appendix 9-A - Minimum Material Testing Frequencies..... 16

Appendix 9-B - Final Certification Checklist - Sample..... 17

Appendix 9-C - Removed 17

Appendix 9-D - Erosion and Sediment Control Log..... 18

9.1 INTRODUCTION

Inspection oversight is required for the construction of all public and private streets, alleys, driveways, and utility improvements. Water and sewer construction shall also be monitored by the system purveyor and/or agency of system ownership.

The City of Spokane Valley's construction certification process is based on the project construction certification procedures found in the *Project Construction Certification Procedures for Spokane County Road, Drainage, and Sewer Projects*, dated April 2002. Spokane County Department of Public Works and the American Council of Engineering Companies of Washington (a subcommittee named the Spokane County Construction Certification Committee) developed that document.

9.2 APPLICABILITY

The following projects require construction certification:

- a. New construction of public streets;
- b. New construction of private streets;
- c. New construction of engineered driveways;
- d. Frontage improvements on public streets, including pavement widening, curb and gutter, sidewalk, and drainage improvements; and,
- e. Swales and drywells.

9.3 AUTHORITY TO STOP WORK

The Development Inspector has the authority to stop work when any of the following situations exists:

- a. The Contractor is working without a valid permit;
- b. The Contractor is executing work not included in the approved plans;
- c. Required inspections and tests are not being performed;
- d. Test results do not meet required specifications; and,
- e. Construction activities have the potential to adversely impact public or private property or human life.

9.4 RESPONSIBILITIES

9.4.1 DEVELOPMENT INSPECTOR

The Development Inspector is a City employee and is responsible for:

- a. Coordinating with and reviewing submittals from the On-site Inspector(s);

- b. Performing development walk-through on private and public streets for acceptance and surety reductions;
- c. Reviewing and accepting certification packages. A project certification will not be accepted if required frequencies for testing are not met or test results do not meet specifications;
- d. Reviewing quantity estimates for performance and warranty sureties;
- e. Performing final inspections of public streets for surety release and street establishment; and,
- f. Inspecting swales located in border easements and/or right-of-way for single family dwellings and duplexes prior to issuing a certificate of occupancy.

9.4.2 ON-SITE INSPECTOR

The Applicant is required to secure the services of an On-site Inspector for all projects requiring certification.

The On-site Inspector is responsible for:

- a. Preparing weekly reports;
- b. Ensuring that plans and specifications are followed;
- c. Inspecting paved areas, curb and gutter, sidewalks, approaches, drainage improvements, and utilities within the right-of-way and border easements. The On-site Inspector shall be present at all times for HMA placement, any trench work within the street prism, and for drywell installation;
- d. Coordinating required testing and frequencies (see Appendix 9-A);
- e. Monitoring traffic control;
- f. Verifying fire hydrants, gates, and No Parking signs were installed at the location shown in the plans;
- g. Preparing as-built drawings, and,
- h. Preparing the certification package.

9.4.3 APPLICANT'S ENGINEER

The Applicant's Engineer is an Engineer, as defined in the Definitions, hired by the Applicant.

The Applicant's Engineer provides required project modifications that occur during the construction process, coordinating with the Contractor and obtaining City approval when significant modifications are required.

Conflicts arising due to concerns regarding project design or constructability, whether surfaced by the Contractor, On-site Inspector, or Development Inspector, shall be addressed by the Applicant's Engineer. The method of addressing the

concern shall be confirmed by the Development Inspector with specific follow-up oversight by the On-site Inspector.

9.4.4 CONTRACTOR

The Contractor is responsible for:

- a. Attending the pre-construction meeting;
- b. Providing all licenses, bonds and insurance information at the pre-construction meeting;
- c. Construction notification in accordance with Section 9.7;
- d. Having knowledge of the testing frequencies and construction items requiring inspection (see Appendix 9-A);
- e. Notifying the On-site Inspector and Development Inspector, as applicable, prior to the placement of construction items requiring inspection;
- f. Completing all improvements in accordance with the approved plans; and,
- g. Correcting deficiencies as identified by the On-site Inspector, the Development Inspector, or the applicant.

9.5 RIGHT-OF-WAY PERMITS

Right-of-way permits are required for all work in the public right-of-way. No person, firm or corporation shall commence work or permit any other person, firm or corporation to commence work on the construction, alteration, repair or removal, cutting and/or paving of any street, alley or other public place in the City without first obtaining a written right-of-way construction permit and approved plans from the City.

The Applicant shall secure the services of an On-site Inspector before securing a right-of-way construction permit for any given project requiring certification.

9.6 PRE-CONSTRUCTION MEETING

A pre-construction meeting is required for the following projects:

- a. Subdivisions;
- b. Short subdivisions;
- c. Binding site plans;
- d. Commercial projects with frontage and/or full street improvements; and,
- e. Other projects which the City deems a pre-construction meeting is required.

The pre-construction meeting shall be held prior to commencing work. The purpose of the pre-construction meeting is to discuss project concerns or issues, construction notification requirements and certification procedures. The Applicant, Applicant's Engineer, Contractor, HMA and concrete subcontractors, Development Inspector and On-site Inspector are required to attend this meeting. A pre-construction meeting will not be held

if the Contractor, paving and concrete subcontractors, and/or the On-site Inspector are not present.

The Contractor shall bring a properly planned and coordinated project schedule to the pre-construction meeting.

9.7 CONSTRUCTION NOTIFICATION

9.7.1 NOTICES OF UPCOMING CONSTRUCTION

Construction warning signs shall be securely posted 48 days prior to construction of short subdivisions, subdivisions or any other project with street construction. Signs shall be placed at all ingresses to the project area and shall be clearly visible from the right-of-way. A typical sign is included in Figure 9-1. The Contractor shall notify the Development Inspector within 24 hours of installing the sign(s).

The signs shall be posted for the duration of the project and shall conform to the following:

- a. The signs shall be made of materials that are able to withstand weather for the duration. The signs shall be maintained to remain readable from the public right-of-way;
- b. The sign supports shall meet current safety standards;
- c. The bottom of the sign shall be 7 feet above ground;
- d. Lettering shall be easily readable and shall be per Table 9.1; and,
- e. The signs shall include the information required in Table 9.1.

On large or high profile projects, the Applicant shall provide the proposed project schedule and weekly updates to the City's Public Information Officer to notify the public of the project progress.

FIGURE 9-1 TYPICAL SIGN

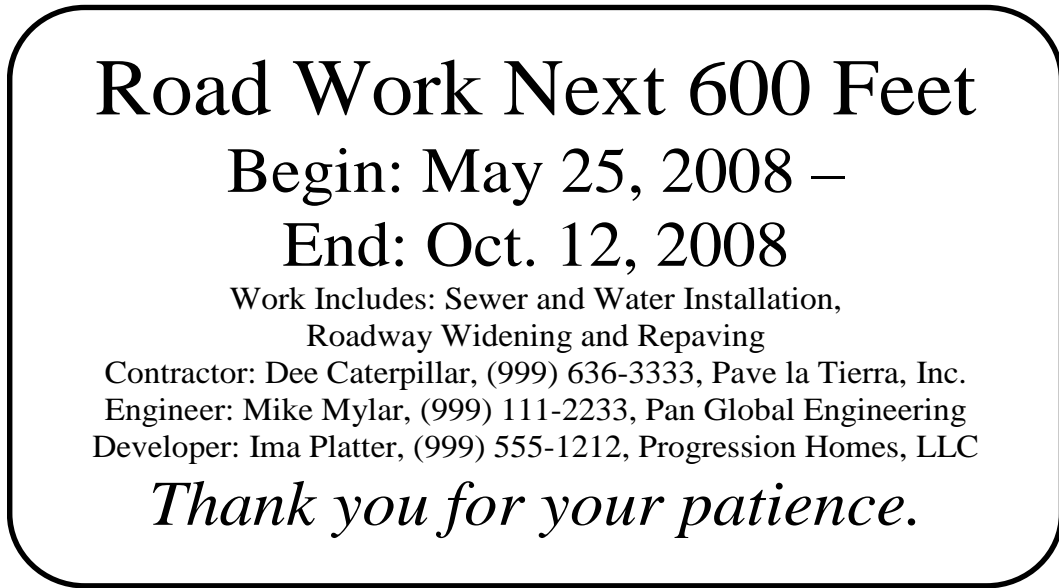


TABLE 9.1 REQUIRED SIGN INFORMATION

INFORMATION ON SIGN	MINIMUM TEXT HEIGHT
Road Work Next # Miles/Feet	2 ½ inch
Begin: Month, Day Year – End: Month, Day Year	2 inch
Work includes: New Street, Utility Installation, Paving ...	1 inch
Contractor: Contact Name, Phone Number, Company Name	1 inch
Engineer: Contact Name, Phone Number, Company Name	1 inch
Developer: Contact Name, Phone Number, Company Name	1 inch
Thank you for your patience.	2 inch

9.7.2 NOTICES OF UTILITY SHUTDOWN AND ACCESS LIMITATIONS

Affected residents and businesses are to be notified at least 24 hours in advance of when their utilities (water, electricity, etc.) will be interrupted and/or when access will be limited. The notification shall include the duration of the interruption.

The Contractor shall provide written notification and hand deliver the notification to the affected residents and businesses. The Contractor shall provide a copy of the notification and a list of the citizens/businesses notified to the Development Inspector. This information shall be included in the weekly reports.

9.7.3 NOTICES FOR INSPECTION

The Contractor shall inform the Development Inspector at least 24 hours in advance of paving operations or installation of drywells. At least 72hours notice is required for work performed during the weekend or on Monday. It is the responsibility of

the Contractor to coordinate with the On-site Inspector for all required inspections and required testing.

Engineering will not accept any improvements failing to meet the minimum number of required tests or failing to meet the required test results.

9.8 FIELD AND LAB TESTING

9.8.1 REPORTING

The On-site Inspector shall prepare weekly project summary reports. All lab and field-testing reports shall be included in these weekly reports and in final certification packages. Test reports that show failing tests shall have follow-up test reports that show passing tests for the area of failure. On-site samples shall be used for testing. Any nonconforming issues shall be fully recorded with subsequent documents detailing how the issue was corrected.

9.8.2 MINIMUM MATERIAL TESTING FREQUENCIES

Material testing is required as specified in Appendix 9-A. The frequency of testing may be increased at the discretion of the On-site Inspector or the Development Inspector. Any known site soil special areas of concern shall be addressed with increased testing frequencies based on sound engineering judgment. Wet weather conditions may also require additional testing frequencies.

The On-site Inspector shall coordinate the number of tests, locations, etc. with an approved materials lab. The Applicant shall be responsible for the testing and laboratory costs.

Engineering will not accept any improvements failing to meet the minimum number of required tests or failing to meet the required test results.

9.8.3 FIELD TESTING AND LAB REQUIREMENTS

A material supplier, the Applicant, or the Contractor may not perform testing for certification purposes. Field testing shall be conducted by personnel that is adequately trained, qualified, and certified in accordance with the applicable test specifications. Field testing and laboratories shall have a national recognized accreditation, for the field and lab tests performed by the firm, such as AASHTO, Washington Association of Building Officials (WABO), American Association of Laboratory Accreditation (A2LA), etc.

The entity in charge of field testing and the laboratory shall submit copies of their accreditation to the On-site Inspector so this information can be included in the certification package.

9.9 REQUIRED INSPECTIONS

The On-site Inspector is required to certify the inspection of the following (See Appendix 9-B for required testing frequency):

- a. Placement and maintenance of erosion control. A site log shall be completed for the project;
- b. Embankment placement and density control;
- c. Trenching backfill and density control;
- d. Inspection and testing during pipe installation and pipe zone material placement (see Section 9.8.1 for additional information);
- e. Subgrade line and grade/density control;
- f. HMA surfacing line and grade/density control (see Section 9.8.3 for additional information);
- g. Installation of drainage improvements and any required testing;
- h. Installation of curb and gutter and material quality; and,
- i. Installation of sidewalks and material quality.

9.9.1 EROSION AND SEDIMENT INSPECTIONS

A site log shall be completed for the project. The site log shall include the results of all site inspections, sampling as applicable and other records. For sites one acre or larger, inspections must be conducted by a Certified Erosion and Sediment Control Lead (CESCL) (See Appendix 9-D).

9.9.2 UTILITY INSPECTIONS

Utility work shall be in accordance with Spokane County Interim Policy Regarding Sewer Construction Inspections, Record Drawings & Engineer's Statement and Spokane County Division of Utilities Protocol for Television Inspection of Sewers.

Whenever pipe installation or pipe zone material placement and compaction are underway, the On-site Inspector shall observe the work on a continual basis.

9.9.3 HMA INSPECTIONS

The On-site Inspector shall be present at all times during paving operations.

9.9.4 DRAINAGE STRUCTURE INSPECTIONS

The On-site Inspector shall be present at all times during the installation of pipe, pipe zone material, drywells (including the geotextile and drainrock surrounding the drywell barrel), catch basins, and other drainage structures or facilities.

9.9.5 DRAINAGE SWALE AND DRAINAGE FACILITIES INSPECTIONS

The On-site Inspector shall verify that the volume of each finished drainage swale equals or exceeds the design volume of the swale at a 6-inch and 1-foot depth. Additionally, the On-site Inspector shall verify that there is adequate and continuous grade from the street to the swale for the effective conveyance of runoff. If these items are deficient, the On-site Inspector shall notify the Contractor and/or Applicant's Engineer to determine a solution. Elevation sensitive aspects of

installed materials, such as drywell rims, etc., shall be verified as being within normal industry tolerances (i.e., drywell rim elevations +/- 5/100').

At the discretion of the City, a test of the facility may be conducted to demonstrate adequate performance. The test shall be performed in the presence of the On-site Inspector and Development Inspector.

All aspects of the drainage facility, including landscaping, irrigation, and establishment of specified vegetation, shall be completed in accordance with the accepted plans. An exception may be granted for single-family or two-family residential subdivisions where the completion of the swales is not practical until such time as the dwellings are constructed. In these cases, the Applicant shall rough-grade the swales to the required volume, install all drywells, inlets, and curb drops and other structures in accordance with the accepted plans.

If the driveway approach width is greater than the width shown in the lot plans, engineering calculations shall be submitted that demonstrate that treatment and storage requirements are met.

Erosion control measures shall be implemented to protect the installed drainage structures and to prevent erosion and/or failure of the swale side slopes. This includes, but is not limited to, lining the swale with geo-fabric that can be removed along with accumulated silt, until the swale is final-graded and vegetated.

Completion of the landscaping, irrigation, and establishment of specified vegetation shall be required prior to issuance of the final Certificate of Occupancy or final inspection for any associated dwelling. For single and two-family dwellings, it shall be the responsibility of the Builder to satisfy these requirements.

Acceptance of performance sureties, in lieu of establishing the vegetation, shall be permitted only when completion of improvements prior to final land action or permanent Certificate of Occupancy is impractical because of cold weather not suitable for the establishment of vegetation.

9.9.6 SWALE INSPECTION DURING WARRANTY PERIOD

The Applicant's Engineer and the Development Inspector shall monitor performance of swales during the construction and warranty periods for proper percolation. Swales that do not percolate properly shall require corrective work or measures and are the financial responsibility of the Applicant.

9.10 MISCELLANEOUS

9.10.1 CHANGES DURING CONSTRUCTION

Changes during construction that affect the scope of the project and/or the accepted individual lot plans shall be submitted for review by the City. The Development Inspector will determine if the change is significant. Minor changes do not require City review, but shall be discussed with the Development Inspector and documented in the daily and weekly inspection reports.

The Development Inspector shall review and approve any significant field changes to the design plans and permits that have prior approval. Review and acceptance of any changes to approved plans for utility, site improvements and street right-of-way work shall require the oversight of both the utility operator as well as the Development Inspector.

9.10.2 CONSTRUCTION COMPLAINTS

Complaints from citizens regarding the project shall be documented and shared with the Development Inspector and resolved by the Applicant.

On more significant or high profile projects, the City may assign a City staff member to notify the public of the project schedule and provide weekly up-dates (See Section 9.6).

9.10.3 CONFLICT RESOLUTION

During the construction process, occasional differences may arise between the Applicant's Engineer and/or Contractor and City staff regarding interpretation of policies, standards or guidance documents. When the Applicant's Engineer or Contractor does not agree with an interpretation made by City staff, the Applicant's Engineer may appeal to the City Engineer. The determination by the City Engineer shall be final.

9.11 FINAL WALK-THROUGH

When requested by the Applicant, the On-site Inspector and Contractor shall prepare a punch list. When the punch list items have been addressed, the Applicant shall schedule a final walk-through with the Development Inspector.

If no deficiencies are found, the On-site Inspector shall then prepare a certification package in accordance with Section 9.13. If deficiencies are found, another final walk-through with the Development Inspector is required. The Applicant shall continue to be responsible for correction of all deficiencies until the City accepts the project unless as noted in Section 9.14. Applicant should consider taking verification photographs immediately following the final walk-through. Verification photographs may be helpful in resolving cases of damage by third parties (utility companies, builders, landscapers).

9.12 RECORD DRAWINGS

All construction changes shall be recorded on a set of approved plans with the original approval stamp from the City. After the final walk-through, the Applicant's Engineer or On-site Inspector shall prepare record drawings for the project. Record drawings shall be stamped and have a signed certification statement saying:

“I have reviewed the construction and to my knowledge I find it to be in conformance with the approved plans except as noted”.

Changes from the originally accepted documents shall be clearly noted with “clouds” on the approved plans and changes shall be noted in the revision block. Revised notes,

elevations, grades or other text shall be lined through. Clean new sheets are not desired. Any changes to easements shall be clearly shown on the record drawings. Record drawings shall be marked “Record Drawings.”

If a change represents a deviation from the design intent or system performance in the judgment of the Applicant’s Engineer, then it shall be clearly shown. It is recommended that spot elevations (on swales, curb, gutter, etc.) to depict final grades be taken and compared with the final design. Differences shall be noted on the record drawings. Significant changes shall be coordinated with the Applicant’s Engineer. Elements of the plans that were not built shall have a design change acceptance from the City prior to final inspection and submittal of record drawings.

9.13 PROJECT CERTIFICATION

The On-site Inspector shall prepare a certification package for the project. The package shall include:

- a. Certification letter from Engineer with stamp;
- b. Weekly reports;
- c. Material test reports;
- d. A summary of the test results, including a discussion of how they compare to required specification;
- e. The certification checklist (Appendix 9-B);
- f. Erosion and Sediment Control Logs (Appendix 9-D);
- g. Truck tickets;
- h. All related construction documents including correspondence and communication records;
- i. Copies of the required accreditation for the field testing staff and testing laboratory in accordance with Section 9.8.3;
- j. Copies of drywell registrations; and,
- k. One set of record drawings.

The City of Spokane Valley will review the certification package within two weeks and shall notify the Applicant if the project is accepted to go to warranty. This Notice of Substantial Completion is conditioned upon no further deficiencies being discovered before the City accepts the project.

Upon notification that the project is provisionally accepted and upon receipt of the warranty surety, the warranty period shall begin.

9.13.1 CERTIFICATION OF DRAINAGE FACILITIES

Stormwater facilities located in tracts shall be certified prior to final plat approval for plats, short plats and binding site plans. The certification of stormwater facilities located within border easements and rights-of-way for single-family and two-family dwellings may be delayed until the issuance of the final Certificate of Occupancy (Refer to Section 9.9.5).

Drainage facilities associated with a commercial building permit shall be certified, as specified in Section 9.13, prior to issuing a final Certificate of Occupancy.

9.14 PERFORMANCE SURETY

9.14.1 PERFORMANCE SURETY AUTHORIZED

Except as otherwise provided in section 9.14, Applicants shall complete all plan improvements prior to approval of the final plat, short plat, binding site plan or any phase thereof, the issuance of any Certificate of Occupancy (commercial, residential, or otherwise), or performance of a final inspection. The City may authorize the use of performance surety solely pursuant to section 9.14.

9.14.2 PERFORMANCE SURETY CRITERIA

(A) A performance surety in lieu of construction of one or more required plan improvements may only be accepted by the City if:

(1) The required construction cannot be completed due to situations out of human control such as adverse weather, inability to acquire construction materials or other unforeseen complications;

(2) The Applicant submits a completion schedule and the schedule is approved by the City. Non-landscaping items shall be completed no later than nine months after the effective date of the performance surety or July 31st of the following year, whichever is earlier. Completion of landscaping items shall be completed no later than 18 months after the effective date of the performance surety;

(3) Required plan improvements have been made that are sufficiently complete as to allow the needed proper function and operation of the transportation, sewer, water, and stormwater systems, as determined by the City;

(4) All-weather driving surfaces approved by the Fire Department are constructed to all locations of flammables before flammables brought on site; and

(5) The Applicant has no other outstanding project improvements within the City that have been deemed by the City to be untimely, in bad faith, unsatisfactory, or incomplete and the Applicant has provided an acceptable performance surety covering all such outstanding improvements.

(B) All performance sureties shall be in an amount of 125% of the estimated construction cost for all outstanding required plan improvements for the project that

are covered by the performance surety. Performance sureties shall be a letter of credit or cash savings assignment substantially in the form of the City's draft performance surety. The City shall maintain a current acceptable draft form of performance surety. Performance bonds are not allowed as acceptable performance sureties. The Applicant's Engineer or designer of record shall submit quantities for the complete nature of the work to be performed. The Development Inspector shall enter that information into an updated calculation spreadsheet to determine the performance surety amount. Performance surety amounts shall include all construction costs, including erosion and sediment control, critical area mitigations and inspection costs. Note, items such as granting of easements and dedications of right-of-way shall not be covered by a performance surety.

9.14.3 PERFORMANCE SURETY RELEASE

The performance surety shall be released when all of the following conditions have been met:

- (A) A certification package is accepted by the City;
- (B) The Applicant has paid in full all costs incurred by the City;
- (C) All monuments have been reset and referenced by a surveyor; and,
- (D) The Applicant has submitted a warranty surety for improvements in the public right-of-way and border easements as specified in Section 9.15.

9.15 WARRANTY SURETY

All projects with improvements in the public rights-of-way or border easements shall submit to the City a warranty surety. The warranty surety shall guarantee against material and/or workmanship defects in street construction, in utility work within the rights-of-way and border easements, and/or in drainage facilities as required by the City. The warranty surety shall guarantee against damages to street infrastructure and drainage facilities.

9.15.1 WARRANTY SURETY AMOUNT

The Applicant's Engineer shall submit quantities for the complete nature of the work to be performed within or on the rights-of-way, border easements, or on the frontage of the City rights-of-way. The Development Inspector shall enter that information into an updated calculation spreadsheet reflecting a total valuation of the work to be performed. The Development Inspector shall then calculate 20% of that total work to be performed and request a warranty surety for that amount from the Applicant.

9.15.2 ACCEPTABLE SURETIES

The warranty surety shall be based on the total warranty amount required for the project as set forth in section 9.15.1. Warranty sureties shall be in the form of a letter of credit, cash savings assignment, or bond substantially in the form of the City's draft warranty surety. The City shall maintain current acceptable draft forms of warranty sureties.

9.15.3 WARRANTY DURATION

A warranty surety shall remain in effect for two years from the date the City provisionally accepts the streets. At least 30 prior to the expiration of the warranty, the Applicant shall retain an Engineer to inspect the improvements. Any deficiencies noted shall be repaired prior to the release of the surety. If the inspection is not conducted and the deficiencies are not repaired, the warranty surety shall be renewed by the Applicant until this requirement is satisfied. The Development Inspector shall conduct a walk-through prior to releasing the warranty surety.

9.15.4 TIME FRAMES TO COMPLETE REPAIR

The warranty surety shall be used to correct deficiencies due to materials and/or workmanship.

At any time before the end of the warranty period, the City may notify the Applicant of needed repairs. If repairs are considered to be an imminent danger to the public's health, safety, and welfare, the Applicant shall act within 24 hours to complete the repair. If the work is not considered a safety issue, the Applicant shall have 10 business days to schedule the work, and 60 calendar days to complete the work. Extensions of time may be considered when necessary due to weather constraints.

When the Applicant's project is accepted and in warranty, or after releasing the warranty surety, the Builder shall be responsible for any damage to the improvements resulting from their project including the construction, operation or maintenance of their project. Any deficiencies shall be corrected by the Builder prior to the final inspection of their project or the issuance of the final Certificate of Occupancy for the structure.

9.15.5 FAILURE TO COMPLETE REPAIR

If the warranty repairs are not completed in the time frame specified, the City may choose to conduct the necessary repairs. The City may either invoice the Applicant or collect from the surety for all costs for the related work, plus a \$500 administrative fee.

9.15.6 RESPONSIBILITY FOR MAINTENANCE

The Applicant shall be responsible for maintaining all public improvements, excluding snow plowing, throughout the warranty period.

9.16 STREET ESTABLISHMENT

When the project has been certified and accepted, the Applicant may request to receive provisional acceptance after posting a warranty surety pursuant to Section 9.14. The Applicant shall be responsible to repair failures during the warranty period pursuant to Section 9.15.4. Final acceptance shall be granted after the warranty period assuming all deficiencies have been corrected.

The City Manager is responsible for approving the establishment of new streets. When the project receives final acceptance, the City Engineer shall recommend to the City Manager that the streets be established.

APPENDIX INDEX

- Appendix 9-A - Minimum Material Testing Frequencies
- Appendix 9-B - Final Certification Checklist – Sample
- Appendix 9-C - Removed
- Appendix 9-D - Erosion and Sediment Control Log

APPENDIX 9-A – Minimum Material Testing Frequencies

The following testing frequencies represent the minimum requirements during construction. If individual tests fail to meet specifications, additional testing shall be conducted to assure conformance.

Earth Embankment	1 density test per lift per 500 CY placed
Road Subgrade	1 density test per 100 LF of lane or equivalent
Crushed Rock	1 density test per 100 LF of lane or equivalent per lift
Trench Embankment	1 density test per 150 CY with varying test depths
Crushed Rock under Curb and Sidewalks	1 density test per 100 LF of curb of walk length per lift (Unless tested as part of the roadway crushed rock)
Concrete for Curbs and Sidewalks	1 set (4 cylinders) per 100 CY (Minimum 1 set per day)
Aggregate Quality	1 set of air, slump, temperature, etc. on first truck and with cylinders thereafter 1 gradation test 1 sand equivalent test 1 fractured face test
Asphalt Pavement	1 Lot = 400 tons 5 random density tests per lot (Minimum 5 tests per day) 1 test to verify gradation per 1,000 tons (Minimum 1 test per day) 1 test to verify asphalt content per 1,000 tons (Minimum 1 test per day) 1 test to verify maximum density per 1,000 tons (Minimum 1 test per day)

APPENDIX 9-B – Final Certification Checklist (Sample)

Project:

Certification Letter:

Statement of intent to certify the project.
PE Stamp and Signature.

Record Drawings Mylar Drawings:

PE Stamp and Signature
Lettered certification statement (Section 9.12)

Project Documents:

Daily Inspection Reports:

Field Reports:

Inspection of Asphalt Paving:

100% On site inspection during paving

Compaction Reports:

Sewer trench lifts.

Water trench lifts.

Utility trench lifts.

Crushed Rock lifts.

Material Documents: Field and Laboratory Tests:

	Field	Test	Lab	Test
Concrete	<input type="text"/>	(Slump, Air Content, Temp).	<input type="text"/>	(Break Test)
Subgrade:	<input type="text"/>	(Compaction)	<input type="text"/>	(Gradation, Proctor)
Crushed Rock	<input type="text"/>	(Compaction, Depth)	<input type="text"/>	(Gradation, Proctor)
Asphalt	<input type="text"/>	(Compaction, Thickness)	<input type="text"/>	(Rice, Gradation, Oil Content)
On Site Inspections of Drainage Items:			<input type="text"/>	
	Drywells:	<input type="text"/>		
	Gutter Inlets:	<input type="text"/>		
	Culverts:	<input type="text"/>		
	Sidewalk Vaults:	<input type="text"/>		
	Drainage Ditches:	<input type="text"/>		
	Other:	<input type="text"/>		

Incoming/Outgoing Correspondence

APPENDIX 9-C – Removed

APPENDIX 9-D – EROSION AND SEDIMENT CONTROL LOG

The following items are to be included in the daily logs and inspection reports to assure conformance:

- a. Date of Inspection.
- b. When, where and how the BMPs were installed, removed or modified.
- c. Repairs needed or made.
- d. Observations of BMP effectiveness and proper placement.
- e. Recommendations for improving performance of BMPs.
- f. Identify the points where stormwater runoff potentially leaves the site, is collected in a surface water conveyance system, (i.e., road ditch, storm sewer), and enters receiving waters of the state.
- g. If water sheet flows from the site, identify the point at which it becomes concentrated in a collection system.
- h. Inspect for SWPPP requirements including BMPs as required to ensure adequacy.