

City of Denton
Construction Criteria Manual



February 20, 2002

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Overview

These rules and criteria shall be known as the City of Denton Construction Criteria. The purpose of these construction criteria is to establish standard principles and practices for construction within the City of Denton, Texas and within its extraterritorial jurisdiction where applicable.

The standards and procedures are intended for use only as guides and to establish minimum criteria. Responsibility for actual document preparation and construction standards and practices remains with the engineer, contractor and/or owner. Users of this criteria manual should be knowledgeable and experienced in construction principals and practices. In addition, these criteria are not intended to be a complete set of criteria. The Denton Development Code, North Central Texas Council of Governments Standard Specifications for Public Works Construction, the City of Denton Addendum to the NCTCOG Specifications, the City of Denton Standard Detail Sheets, and the latest adopted Building, Electrical, Mechanical, Plumbing, Housing, and Dangerous buildings Codes including local amendments shall be consulted for additional criteria.

Any deviation from the criteria in this manual will require approval of a variance by the appropriate deciding body where applicable as described in the Procedures section of the Development Code except where specifically noted otherwise in this manual. The criteria in this manual does not supercede the criteria contained in the Denton Development Code and any revisions to the Denton development Code shall supercede the criteria in this manual.

The items contained in this section of the Construction Criteria Manual are presented to help the reader become more familiar with various processes related to public works construction in the City of Denton.

Adopted Local Amendments to the latest adopted version of the North Central Texas Council of Governments may only be changed by ordinance.

Section 1 – Public Works Construction

A. Approvals

1. **Zoning:** Before any public works construction relative to a development may commence staff will verify that the subject development has appropriate/correct zoning. If the subject zoning is not appropriate for the development, construction may not take place until the appropriate zoning for the development has been approved in accordance with the Development Code.
2. **Plat:** Before any public works construction relative to a development may commence staff will verify that the subject development is platted. If the property is not appropriately platted, construction may not take place until a plat for the development has been approved and has been filed in accordance with the Development Code.
3. **Construction Plans:**
 - a. **General:** Before any public works construction relative to a development may commence, staff will verify that the construction plans have been approved. If the plans have not been approved, construction may not take place until all required corrections have been made.
 - b. **Responsibility:** The project engineer is responsible for the accuracy, completeness and conformance to city standards. The purpose of the city review is to ensure conformance to city policies and standards. However, the city review is limited to facts as presented on submitted plans. The city has no project engineering responsibility. The engineer certifying the plans is responsible for the accuracy and completeness of the documents submitted for review and actual construction. The city reserves the right to require corrections to actual conditions in the field, which is found to be contrary to, or omitted from submitted plans.
 - c. **Format:** Construction plans shall be digitally drawn on twenty-two (22) or twenty-four (24) inch by thirty-six (36) inch size sheets. Each sheet shall contain no more than two (2) individual improvements.
 - d. **Plan Requirements:** Construction Plans must contain the following before they can be approved:
 - i **General.** North arrow, scale, date and mean sea level elevations of all improvements. Plans should be drawn with a horizontal scale of one (1) inch equals forty (40) feet or larger, and appropriate corresponding vertical scale. The plans shall provide for a reference to elevation benchmark or monumentation used in the development of the plans. The construction plans shall be signed and sealed by a professional engineer licensed by the State of Texas prior to bidding the project for construction and before a pre construction conference is held.
 - ii **Streets.** The plan and profile of streets showing proposed and existing grades at each side of the right of way, showing the top of curb grades at one-hundred-foot intervals for straight grades and twenty-five-foot intervals for vertical curves. Typical right-of-way cross sections of streets, sidewalks, and alleys showing the width and type of pavement, base, and subgrade, the location within the right-of-way, and specific street crown information, including the pavement transition to split curbs, valley gutters, and storm water inlets.
 - iii **Sanitary sewer systems.** Plan and profile for each sanitary sewer line showing existing and proposed ground level elevation at center line of pipe, pipe size, flow line elevation at all drops, and turns, and station numbers at fifty-foot intervals, with a section showing embedment.
 - iv **Water systems.** Plan view and profile for lines 12 inches in diameter or larger, of the water distribution system showing pipe sizes and the location and stationing of valves, fire hydrants, fittings and other appurtenances, with a section showing embedment.

- v Storm water management systems. Plans and profile of all proposed channels, ditches, underground systems, detention areas, and any other storm water improvements, modifications, or facilities proposed to serve the development. The plans shall specify in detail the materials sizing location and stationing for all channels or ditches, storm water pipes, pipe connections, inlets, outlets, manholes, culverts, bridges and any other drainage structures and improvements. Each improvement shall show the hydraulic data on which the design of the improvement was based.
- vi Grading. A grading plan showing the existing and proposed topography in two-foot contours, proposed or minimum finished floor elevations, and the 100-year flood limits, if any. The grading plan shall consist of contours and spot elevations with water directional arrows to define the flow patterns.
- vii Erosion control. The location, size and character of all temporary and permanent erosion and sediment control facilities with specifications detailing all on-site erosion control measures which will be established and maintained during all periods of development and construction.

B. Development Contracts

1. General: Before a plat will be filed or related construction begins a development contract must be executed.
 - a. Contract Form: Developers/Contractors are strongly encouraged to use the standard contract form provided by the City of Denton, available on the City of Denton web site or at the Engineering Department. Use of the standard documents will expedite review of the contracts and ensure that they will ultimately be approved and executed. Use of contract forms other than those provided by the City of Denton will result in increased review time and may result in the City's inability to execute such contract.
 - b. Exhibit "A": A copy of the contractor's proposal or an engineer's estimate for the associated public improvements is to be attached to the development contract.
2. Required Bonds or Escrows: The requirements for sureties to issue bonds and the standards for additional or substitute bonds as set forth in NCTCOG standards referenced above are incorporated into this section of the manual for all purposes and shall be controlling in all aspects unless in conflict with the terms set forth in this section.
 - a. Performance bond. That the owner or contractor shall provide a performance bond as required by Texas Government. Code Ann. and in conformance with the most current edition of the Standard Specifications for Public Works Construction adopted by the North Central Texas Council of Governments (NCTCOG), as amended by city, in the amount of one hundred (100) percent of the cost of constructing the public improvements. The bond shall be furnished on the form provided by the City of Denton which shall include a provision insuring the repair and replacement of all defects in the improvements due to faulty materials and workmanship that appear within a period of two (2) years from the date of acceptance of the improvements by the city. The performance bond shall be issued by a surety company authorized to do business in the State of Texas, Treasury Listed and acceptable to the City of Denton. If the cost of constructing the improvements is less than fifteen thousand dollars (\$15,000.00), the city may execute an escrow agreement with the owner or developer in lieu of the bond. Cash money in the amount of the cost of completing the improvements, as determined by the city engineer, may be deposited with a bank as escrow agent pursuant to an agreement, the form and provisions thereof to be approved by the Director of Engineering and City Attorney, to insure completion of the improvements.
 - b. Payment bond. That the owner or contractor shall provide a payment bond as required by Texas Government. Code Ann. as amended, in the amount of one hundred (100) percent of the cost of constructing the public improvements. The bond shall be furnished on a form provided by the

City of Denton and shall be issued by a bonding company authorized to do business in the State of Texas, Treasury Listed and acceptable to the City of Denton. If the cost of constructing the improvements is less than twenty-five thousand dollars (\$25,000.00), the payment bond is not required but in exchange, the contractor must supply the City an affidavit of payment prior to acceptance of the project.

3. **Contractors Liability Insurance:** The owner or contractor will comply with the insurance requirements applicable to the city's public works specifications and provide certificates evidencing such insurance coverage's to the Director of Engineering or his/her representative.
 4. **Approvals:** The contract and supporting documents signed by the Owner, contractor and surety company representatives or escrow officer shall be submitted to the City of Denton Engineering Department in triplicate all with original signatures. Upon a cursory review and determination of completeness by the Engineering Department, the contracts and supporting documents will be forwarded to the City of Denton Legal Department for a detailed review of the documents. Once the Legal Department approves and signs the contracts, they will be forwarded to the City Manager to be executed.
- C. Inspection Fees**
1. **Applicability:** All private developments are subject to a public works inspection fee.
 2. **Amount:** The public works inspection fee is equal to 3.5% of the construction amount as provided in "exhibit A" of the development contract.
 3. **Time of Payment:** The public works inspection fee must be paid prior to filing the plat if applicable and before the beginning of construction.
- D. Plan Review Fee**
1. **Applicability:** All private developments are subject to a public works plan review fee.
 2. **Amount:** The public works plan review fee is equal to 1.0% of the construction amount as provided in "exhibit A" of the development contract.
 3. **Time of Payment:** The public works plan review fee must be paid prior to filing the plat if applicable and before the beginning of construction.
- E. Pre Construction Meeting**
1. **General:** Prior to beginning construction of public works improvements, the contractor or owner will contact the City of Denton Engineering Department to schedule a pre construction meeting. The meeting will be scheduled by the Engineering department and must be held prior to the beginning of construction.
 2. **Pre requirements:** Prior to holding a pre construction meeting the following needs to be completed:
 - a. Development Contracts Submitted to the Engineering Department.
 - b. Four sets of approved construction plans submitted to the Engineering Department.
 - c. Material Submittals submitted to the Engineering Department.
 - d. Traffic control Plan submitted to the Engineering Department.
 - e. Excavation Protection Plan submitted to the Engineering Department.
 - f. Clearing and Grading permit applied for with Building Inspections.
 3. **Topics:** The following topics will be covered at the pre construction meeting:
 - a. Proposed Start Date
 - b. Required Notifications
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- c. General review of City of Denton construction specifications
- d. Review of the status of any supplementary information/documents required by the owner/contractor
- e. Chain of command for both the contractor/owner and City of Denton interest
- f. Page by page review of the construction plans

4. Types

- a. **Formal:** Developments with public improvements where the total value of the public improvements is over \$15,000 are required to have a formal pre construction meeting. A formal pre construction meeting will be held in a meeting room and will require attendance by all required personnel as described below. In some instances, developments with a total value of public improvements under \$15,000 may also be required to have a formal pre construction meeting based on the opinion of the Director of Engineering.
- b. **Informal:** Developments with public improvements where the total value of the public improvements is under \$15,000 may only be required to have an informal pre construction meeting. Generally, an informal pre construction meeting can be held at the site and requires an abbreviated list of attendees. Required attendees for an informal pre construction meeting will be determined by the Director of Engineering or his/her representative and will be based on the type, location and nature of the improvements.

5. **Required Attendance:** The following individuals are required in attendance at a pre construction meeting:

- a. Owner/Developer
- b. General Contractor
- c. Sub Contractors
- d. Developers Engineer
- e. The City of Denton will invite to the meeting:
- f. Development Review Engineer
- g. Construction Inspector
- h. Representatives from all applicable franchise utility companies
- i. Any other City of Denton Staff representative deemed necessary by the director of engineering or his/her representative

F. **Material Submittals.** Three sets of material submittals must be submitted to the Engineering Department for review prior to the pre construction meeting. Submittals are required for all materials to be placed on, or in the ground. Concrete batch design is only required if the contractor plans to set up their own batch plant or obtain concrete from a concrete company outside of Denton. Asphalt batch design is not required as all asphalt is required to meet requirements for Texas Department of Transportation (TxDOT) type A for base or TxDOT type C for the surface coat.

G. **CLEARING & GRADING PERMIT.** A clearing and grading permit shall be issued in accordance with the Site design Manual prior to beginning construction and shall be applied for with the City of Denton Building Inspections Division prior to holding a pre construction meeting.

H. **TRAFFIC CONTROL PLAN.** In the event that a traffic control plan is not included in the approved construction plans for all construction in the public right of way, the contractor shall submit prior to the pre construction meeting, a traffic control plan to be used during construction of the project. The traffic

control plan should address the phasing of construction and all closures and detours that are considered necessary over the course of construction. In the event that there will be road closures/detours, please note section I below (Notifications of Contractor) concerning proper notification of street closures and detours.

- I. **Excavation Protection Plan.** Prior to the pre construction meeting, the contractor shall submit a copy of the site-specific excavation protection plan for the project to the Engineering Department. The Excavation Protection plan should outline what methods of excavation protection the contractor will use, where each type of protection measure is anticipated to be used, the specific protection equipment the contractor plans to use including any limitations that may apply, the site soil conditions as well as any other minimum OSHA standards that apply to excavation protection. The City of Denton will review the document in an attempt to understand how the contractor will protect workers in and around the excavation and may make specific comments about any limitations noted or omissions in the report, but in no way assumes responsibility for the excavation protection or adequacy of the plan. It should be noted that the “Slope” or “Minimum Angle of Repose” method is not an acceptable method in an existing public right of way.
- J. **Notifications of Contractor.**
 1. **Inspector:** the contractor must notify the inspector at least 48 hours in advance of beginning construction of the project.
 2. **Affected Property Owners:** All property owners/residents that are directly adjacent to the construction must be notified by the contractor that construction will begin at least 48 hours prior to the beginning of construction. The Director of Engineering or his/her representative may require notification of additional property owners/residents depending on the scope, type, location or nature of the construction.
 3. **General Public:** If in the opinion of the director of Engineering or his/her representative the construction will have a regional impact including but not limited to disruption of traffic on an arterial or collector street, the contractor may be required to give longer than 48 hours notice to the project inspector so that the proposed construction may be listed in the Denton Record Chronicle and on DTV (cable channel 26) prior to the start of Construction.
 4. **Street Closure:** If a street will need to be completely closed for more than 2 hours at a time
- K. **Construction Specifications.** All public works construction shall conform to the most recent update of the North Central Texas Council of Governments Specifications and City of Denton amendments to those specifications. City of Denton addendums are kept on file with the Engineering Department. The contractor is responsible for maintaining a copy of the City of Denton addendum to the NCTGOG specifications on the job site.
- L. **Inspection Required**
 1. **General.** The developer shall cause his engineer and surveyor to design, stake and help interpret the plans during construction of improvement and shall cause his contractor to construct the improvements in accordance with this manual, other applicable City of Denton manuals, the Development Code and engineering plans. The approved engineering plan shall be so marked on the face by the Director of Engineering or his/her representative. The Director of Engineering or his/her representative shall assign an inspector to the construction project. The inspector shall inspect any and all phases of the construction of improvements for the development. The developer or his/her contractor should maintain daily contact with the inspector during construction of improvements. No sanitary sewer, water or storm sewer pipe shall be covered without approval of the inspector. No subgrade material or stabilization shall be applied to the street subgrade without the approval of the city. No concrete may be poured nor asphaltic surface applied to the base without approval of the city. The inspector may at any time cause any construction, installation, maintenance or location or improvements to cease when, in his/her judgment, the requirements of this manual or the standards

and specifications as hereinbefore provided have been violated and may require such reconstruction or other work as may be necessary to correct any such violation.

2. **Inspection Procedures.** The Director of Engineering or his/her representative will appoint an inspector once a permit has been issued and the inspector may inspect any and all phases of the construction of improvements. The owner or his contractor should maintain daily contact with the appointed inspector during construction of improvements. The Inspector will visit the site at least once daily to inspect the status of the construction. If the contractor or owner needs the inspector at a specific time, the inspector may be reached by calling the City of Denton Engineering Department between 8:00 & 8:30 AM or 1:00 & 1:30 PM to schedule an appointment. Specific appointments must be scheduled at least two hours in advance unless other arrangements have been worked out with the inspector. If inspection is required before 8:00 AM or after 5:00 PM Monday through Friday or any time on Saturday an overtime inspection fee will be charged in accordance with the applicable ordinance. Saturday inspections must be scheduled by the prior Wednesday at 5:00 PM.
- M. **Materials Testing.** All required geotechnical testing such as PH series, density tests, concrete cylinders and gradations are the responsibility of the owner/contractor including the cost of such tests. Copies of all test reports are to be given to the inspector.
- N. **Field Changes.** Prior to making field changes, the contractor is responsible determination as to whether the change can be made informally meaning without formal approvals or whether the change needs to be accomplished through approval of the design engineer and the Director of Engineering. Changes that require approval by the design engineer must be routed through him/her and approved by the Director of Engineering prior to making the change in the field. The Director of Engineering will determine if the change can be accomplished without changing the construction plans or whether a construction plan change is appropriate. In either event, the change will need to be reflected in the as-built construction plans.
- O. **Acceptance.** The director of Engineering or his/her representative shall receive and approve for the city, the title, use and maintenance of the improvements when:
 1. The Director of engineering or his/her representative finds the improvements to be installed and completed in accordance with the plans and specifications as certified in writing.
 2. An appropriate plat for the project has been filed.
 3. The Director of Engineering or his/her representative has received a reproducible set of as built plans and an electronic copy of the plans from the developer acceptable to the Director of Engineering; and
 4. All applicable fees have been paid and submissions made by the developer or contractor and received by the City of Denton.

Section 2 – Building Construction

The items contained in this section of the Construction Criteria Manual are presented to help the reader become more familiar with various processes related to building construction in the City of Denton.

The rules, administrative procedures and ordinances contained in this section of the Construction Criteria Manual have been promulgated to administer and implement the regulations concerning both residential and commercial building construction in the City of Denton. Adopted local amendments to the latest adopted Building Code, Electrical Code, Mechanical Code, Plumbing Code, or Dangerous Buildings Code may only be changed by ordinance.

A. Building Code

1. **General** -Section one describes local amendments to the latest adopted Building Code, Electrical Code, Plumbing Code, Energy Code and Mechanical Codes adopted by the City of Denton including any amendments to those codes adopted by the City . This section contains building inspection procedures, building permit procedures, code compliances and other building construction related issues.
2. **Building Code Administrative Provisions** - This rule is promulgated to administer and implement the Building Code, Electrical Code, Mechanical Code, Plumbing Code, Energy Code, Housing Code and Dangerous Buildings Code along with any amendments to those codes adopted by the City.
3. **Conflicting Provisions**
 - a. Wherever conflicting provisions or requirements occur between this code, the technical codes and any other code or laws, the most restrictive shall govern.
 - b. Where conflicts occur between the technical codes, those provisions providing the greater safety to life shall govern. In other conflicts where sanitation, life safety and fire safety are not involved, the most restrictive provisions shall govern.
 - c. Where in any specific case different sections within any of the technical codes specify different materials, methods of construction or other requirements, the most restrictive shall govern. Where there is a conflict between a general requirement and a specific requirement, the specific requirement shall be applicable.
 - d. Where conflicts occur between any specific provisions of this code and any administrative provisions in any technical code, which is then applicable within this jurisdiction, those provisions becoming the law last in time shall prevail.
4. **Alternate Material and Methods of Construction**
 - a. The provisions of the technical codes are not intended to prevent the use of any material or method of construction not specifically prescribed by the technical codes, provided any alternate has been approved and its use authorized by the building official.
 - b. The building official may approve any alternate, provided he finds that the proposed design is satisfactory and complies with the provisions of the technical codes and that the material, method or work offered is, for the purpose intended, at least the equivalent of that prescribed in the technical codes in suitability, strength, effectiveness, fire resistance, durability, safety and sanitation.
 - c. The building official may require that sufficient evidence or proof be submitted to substantiate any claims that may be made regarding its use.
5. **Modifications.** Wherever there are practical difficulties involved in carrying out the provisions of the technical codes, the building official may grant modifications for individual cases, provided he shall first find that a special individual reason makes the strict letter of the technical code impractical and

the modification is in conformity with the intent and purpose of the technical code and that such modification does not lessen health, life and fire safety requirements or any degree of structural integrity.

6. **Amendments.** See Ordinance 2001-447 for amendments to applicable codes.
7. **Code Compliance.** All structures within the corporate city limits of Denton must comply with all City codes and ordinances whether or not they are served by City utilities. State owned buildings and federally owned buildings are exempted except for the electric service and water/wastewater service connections.
 - a. All structures receiving water and/or wastewater service from the City of Denton must comply with the Plumbing Code.
 - b. All structures receiving electrical service from the City of Denton must comply with the Electrical code.
 - c. Any inspector who identifies practical compliance problems in a specific instance shall be authorized to grant a modification or approve an alternate method of compliance in accordance with applicable code requirements.

B. **Permitting**

Requirements for a Building Permit Application - The following is a summary of preliminary reviews, prerequisite approvals or permits that may be necessary before submittal of an application for a building permit. Applicants unsure of the applicability of a particular requirement are encouraged to contact the Building Inspections Division listed below for specific information or preliminary consultations. All plans shall be submitted to the building inspections division.

Building Inspections Division
221 N. Elm Street
Denton, TX 76201
(940) 349-8360 Phone
(940) 349-7208 Fax

1. **New Single & Two Family Residential Construction Plan Submittal.** In order for all departments to accurately review plans, a building permit application and three (3) complete sets of plans must be submitted to the Building Inspection Division. Where the proposal is to construct a house that has previously been approved only site plans are required to be submitted for review. A complete set of review plans shall include the following:
 - a. **Required Site Plan Information:**
 - i All drawings drawn to an engineer's scale with the scale clearly indicated on the plan;
 - ii Property lines and lot dimensions;
 - iii All dimensions and finished floor elevations of the proposed building;
 - iv Proposed floor area;
 - v Easement locations;
 - vi All existing and proposed driveway approaches;
 - vii All existing and proposed sidewalks;
 - viii Existing and proposed zoning of property;
 - ix Legal description of property which includes lot, block and subdivision name;

- x Contour lines or spot elevations along with directional arrows showing the flow of surface water when construction is finished;
- xi Required and proposed front, side and rear building setback lines; and
- xii Location of existing utility poles, gas meters, pad mounted transformers, power pedestals, curb inlets, water meters, etc.
- xiii Compliance with the International Energy Code.

b. Required Utility / Mechanical Site Plan Information:

- i All drawings drawn to an engineer's scale with the scale clearly indicated on the plan;
- ii Size and location of existing and proposed public water and sewer mains and private water and sewer service lines;
- iii All proposed and existing water and sewer service lines and meter locations. Please note that all lines and meters shall be located outside driveway approaches and sidewalks regardless of whether services or approaches are existing or proposed. Water meters and sewer clean outs shall only be located in unpaved areas within the public right-of-way or public easement. All sewer lateral lines shall be connected to the flow line at sewer clean out not at the sewer stack.
- iv Show proposed location of meter base, electric transformer, and any other electric utility facility needed to provide electric service. Contact Denton Municipal Electric to coordinate service details.

2. **New Construction Plan Submittal For All Other Uses.** In order for all departments to accurately review plans, nine (9) complete sets must be submitted to the Building Inspection Division along with one (1) specification manual where available. All submittals shall comply with the State Engineering & Architectural Licensing Act. A complete set shall include the following:

a. Required Site Plan Information:

- i All drawings drawn to an engineer's or architects scale with the scale clearly indicated on the plan;
- ii A vicinity map which shows the location of the building site and surrounding streets, including street names;
- iii A north arrow indicated;
- iv All dimensions and elevations of the proposed building;
- v Proposed building uses and floor area of each;
- vi All existing and proposed buildings and structures;
- vii All existing and proposed driveway approaches;
- viii All existing and proposed sidewalks;
- ix All parking lots, parking spaces, and drive lanes;
- x Proposed dumpster pad sites;
- xi Existing and proposed zoning of property;
- xii Legal description of property which includes lot, block and subdivision name;
- xiii A paving section, which shows the pavement and subgrade of the parking lot and approaches;

- xiv Contour lines or spot elevations along with directional arrows showing the flow of surface water when construction is finished;
- xv Required and proposed front, side and rear building setback lines;
- xvi Proposed fire lanes; and
- xvii Location of existing utility poles, gas meters, pad mounted transformers, power pedestals, curb inlets, water meters, etc.

b. Required Utility / Mechanical Site Plan Information:

- i All drawings drawn to an engineer's scale with the scale clearly indicated on the plan;
- ii A vicinity map which shows the location of the building site and surrounding streets, including street names;
- iii A north arrow indicated;
- iv All dimensions and elevations of the proposed building;
- v All existing and proposed buildings and structures;
- vi All existing and proposed public and private utility easement;
- vii Size and location of existing and proposed public water and sewer mains and private water and sewer service lines;
- viii Existing and proposed water or sewer meters, fire hydrants, valves, manholes and cleanouts;
- ix Backflow devices in fire lines, within the public right-of-way or public easements approved by the Fire Marshal's office;
- x Existing and proposed backflow prevention assemblies and locations for internal or premise isolation. For information concerning Assessment of Hazard and Selection of Assemblies for Internal Protection and Premise Isolation Protection contact the City of Denton Water Meter Shop (cross connection program) at 940-349-7381.
- xi All proposed and existing water and sewer service lines and meter locations. Please note that all lines and meters shall be located outside driveway approaches regardless of whether services or approaches are existing or proposed. Water meters and sewer clean outs shall only be located in unpaved areas within the public right-of-way or public easement. All sewer lateral lines shall be connected to flow line at sewer clean out not at the sewer stack. All water meters greater than two inches (2") shall submit peak flows approved by the Water Meter Shop. Special and unusual circumstances may warrant exception from the Director of Water/Wastewater Utilities.
- xii Show voltage requirements and whether single-phase or three-phase electric service is required;
- xiii Provide electric loading information such as electric panel size, size and number of secondary conduit and conductors, or load analysis;
- xiv Show proposed location of meter base, electric transformer, and any other electric utility facility needed to provide electric service.

3. **Additions and Alterations, Submittal Requirements.** All applications for building permits for additions to existing buildings from the City shall be accompanied by a three (3) site plans drawn to scale, showing the actual dimensions of the lot to be built upon, the location and size of the proposed building, the location of proposed accessory buildings all in relation to lot lines and parking, landscaping driveway locations.

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4. **Permit Packs.** The permittee will be provided with a weatherproof bag in which to place the permit and all associated inspection records, survey reports or elevation certificates. Failure to provide this package on site at the time of inspection shall result in disapproval and a re-inspection fee will be assessed.
 5. **Building Permits - Minimum Standards.** The following requirements shall govern the issuance of a building permit for a structure, which has been cited by the building official pursuant to the Minimum Housing Code or Dangerous Buildings Code:
 - a. The owner or applicant shall declare that the structure has been cited when a building permit application is filed.
 - b. The building official may accept a copy of the report issued with the citation in lieu of plans and specifications.
 - c. The permit may be revoked if the owner or applicant fails to comply with an order of the Construction Advisory and Appeals Board.
 6. **Prior Approvals/Actions**
 - a. **Zoning:** Before a permit is issued, staff will verify that the subject lot is appropriately zoned in accordance with the City of Denton Development Code for the intended building/use. If the zoning is not appropriate, appropriate zoning will need to be approved prior to issuance of a building permit.
 - b. **Plat:** Before a permit is issued, staff will verify that the subject lot is appropriately platted in accordance with the City of Denton Development Code for the intended building/use. If the platting is not appropriate, an appropriate plat will need to be approved and filed prior to issuance of a building permit.
 - c. **Development Contract:** Before a plat is filed if applicable and a permit is issued, development contracts as provided for in the Denton Development Code and in the Public Works Section of this manual will need to be executed if there are associated public improvements to be constructed as part of the development.
 - d. **Clearing & Grading and Landscape Permits:** All applicable clearing& grading and landscaping must be approved and permitted in accordance with the Denton Development Code and the Site Design Criteria Manual before a building permit is issued.
- C. Building Inspection Procedures**
- The following provides administrative procedures for informational purposes only.
1. **Inspections** - Inspection request received by 8:00am Monday - Friday, excluding holidays will be made that day. Requests received after 8:00am will be scheduled for the next working day.
 - a. If the inspection passes an approval will be given and the job may commence.
 - b. If the inspection fails disapproval will be given stating the nature of the violation. No work associated with the disapproval may proceed and no such part of the inspected work shall be concealed without the inspector's approval. Partial inspections shall be reported as partials on the inspection form and shall indicate what areas have been inspected.
 - c. If work is performed without permit, the procedure in "B" above shall be followed.
 - d. If the building is locked, procedure in "B" above shall be followed. Mandatory re-inspection fee will be charged on a locked building.
 - e. Whenever work is initiated on a site all construction debris from that site shall be confined to the container or dumpster. Such construction debris poses a threat to public health, safety and comfort so that it constitutes a nuisance. If there exists a site that has not provided a proper trash containment area, the building official or his designee shall give a written notice of such
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noncompliance and the contractor shall have all debris cleared from the premise within 24 hours and a container or dumpster installed. At the end of the 24-hour period, the building official shall cause the site to be re-inspected and shall assess a re-inspection fee. If after the initial 24 hours the site has not been cleared of all debris in accordance with the provisions of this section the building official shall issue a stop work order. When a stop work order has been issued a re-inspection fee shall be assessed and a municipal court citation may be issued. To obtain a re-inspection for removal of the stop work order, a request must be submitted therefore to the building official or his designee.

2. **Required Residential Inspections** - All construction projects requiring concrete, building, plumbing, electrical, and mechanical inspections shall receive the following grouped inspections:
 - a. Plumbing Rough. All water and sewer piping installed. Water test performed on sewer and water. Instead of a water test being applied a 5lb air test may be placed on the sewer and a 60lb air test on the water piping.
 - b. Foundation - Foundation Inspections. Forms are erected and braced, beams excavated, reinforcements in place, all drops, blockouts or slab elevation changes in place. Form board survey by a registered land surveyor is provided to the inspector along with a finish floor elevation if applicable. Form Board Surveys are required for all new residential construction. Surveys shall be prepared by a registered land surveyor and shall verify:
 - c. The structure has been placed at the location as identified on the approved plans.
 - d. The structure meets the required setbacks as identified on the approved plans.
 - e. If the structure is located in a flood plain or adjacent to a drainage way the minimum finished floor elevation shall be verified by a registered land surveyor and such form shall be available at the time of inspection
 - f. Seconds Inspection (Residential) - shall include electrical rough, plumbing stack out, mechanical rough & framing All framing, fireblocking, fastening, bracing in place and roof dried in. Mechanical equipment installed, electrical wiring including service, feeders & branch circuits have been installed. Plumbing stackout complete along with testing of all associated piping.
 - g. Insulation Inspection.
 - h. Second Inspections (Commercial) - Electric Rough, Plumbing Stackout, Mechanical Rough and Framing may be performed as a single inspection or as separate inspections.
 - i. Driveway, Sidewalks. All form boards and expansion joints in place, curb properly cut and reinforcing in place.
 - j. Finals - shall include electrical, plumbing, mechanical, landscaping & building. Building complete and ready for occupancy. In addition, any public improvements required as a condition for the subdivision approval or lot must be complete and accepted by the City of Denton Engineering Department.
3. **Required Commercial Inspections (Includes Multi-family)**
 - a. Plumbing Rough. All water and sewer piping installed. Water test performed on sewer and water. Instead of a water test being applied a 5lb air test may be placed on the sewer and a 60lb air test on the water piping.
 - b. Foundation Inspections. Forms are erected and braced, beams excavated, reinforcements in place, all drops, blockouts or slab elevation changes in place. Form board survey by a registered land surveyor to verify setbacks is provided to the inspector along with a finish floor elevation if applicable.

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- c. **Electrical Rough.** All service conductors, feeders and branch circuits are to be installed. Panelboards, Switchgear, Transformers and related equipment shall also be installed. Conduits shall be installed and supported. Lighting fixtures shall be installed and supported.
 - d. **Plumbing Stackout.** All water, wastewater and gas piping shall be installed and properly tested.
 - e. **Mechanical Rough.** All mechanical equipment, ducts and dampers are to be installed. Metal duct shall be fully anchored and joints fastened and taped. Insulation shall not be installed prior to the inspection.
 - f. **Insulation Inspection.**
 - g. **Framing.** All structural & non-structural framing shall be completed. Firestopping or draftstopping shall be installed.
 - h. **Insulation Inspection**
 - i. **Finals.** Shall include electrical, plumbing, mechanical, landscaping and building inspections. Inspections may be requested cumulatively or separately. All trade work shall be complete along with grading, paving and landscaping. All plants and landscape materials must be installed according to the approved site plan prior to CO release. In addition, any public improvements required as a condition for the subdivision approval or lot must be complete and accepted by the City of Denton Engineering Department.
4. **Re-Inspection Fees.** Re-inspection fees shall be charged for each inspection, which is requested when work is not complete. A request for inspection of any of the inspections in the group shall constitute a request for performing inspection for all listed inspections in the respective group.
 5. **Third Party Inspections.** Third party inspections may be required as provided for in the building code. Third party inspectors may inspect new single-family dwellings. Reports of these inspections shall be made available to the building official or his designee at the time of the foundation inspection.
- D. Certificates of Occupancy**
1. **General**
 - a. An inspection of all existing commercial properties shall be made prior to any change in use or connections of utilities.
 - b. Verification of proper zoning shall be made at the time of inspections.
 - c. Verification of compliance with the minimum parking regulations shall be performed. If requested by the inspector the applicant shall provide a "parking lot study" which shall indicate the total square footage of the building including the size and use of all additional business within the same building as well as the total number of parking spaces on site. If a premise contains multiple buildings the survey shall include all buildings and uses as requested by the inspector.
 - d. Verification of compliance with cross connection provisions of the plumbing code.
 - e. Verification of compliance with applicable sections of the plumbing, mechanical, electrical and building codes.
 - f. Verification by the fire marshal of compliance with applicable fire codes.
 - g. Verification of all food handling establishments or daycare facilities of compliance with applicable health codes.
 2. **Temporary Certificate Of Occupancy.** A temporary certificate of occupancy is required for any building, which has not received all final inspections if the owner intends to use or occupy any portion of the building.
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E. Interpretations

1. A building permit is not required for a residential or commercial accessory structure if the total floor area of the structure is 120 square feet or less.
2. Repairs to roof covering only do not require a permit if all structural elements and decking are structurally sound, and repair work complies with all applicable codes.
3. Repairs to rafters, decking, or trusses require a building permit
4. Repairs involving the installation of flashing, fascia, and soffit do not require a building permit, if all structural elements and decking are structurally sound and repair work complies with all codes.
5. Water damaged insulation and sheetrock may be replaced without a building permit unless structural elements require repair or replacement. All repair work shall comply with all applicable codes.
6. Any newly constructed interior wall shall receive full plan review, permits and inspections. Permanent partitions shall require full plan review, permits and inspections.
7. Repair and replacement of existing siding and felt paper do not require a building permit unless structural elements require replacement. All repairs shall be performed in accordance with applicable codes.
8. Master plumbers are not required to file evidence of bonding with the Building Official.
9. Licensed heating and air conditioning contractors are not required to file evidence of bonding with the Building Official.
10. Master electricians are not required to file evidence of bonding with Building Official.

F. Public / Semi-Public Swimming Pool Owners

Reserved

G. Food Safety

Reserved

Section 3 – Parking Lot Construction

The items contained in this section of the Construction Criteria Manual are presented to help the reader become more familiar with various processes related to parking lot construction in the City of Denton.

Adopted Local Amendments to the latest adopted version of the North Central Texas Council of Governments may only be changed by ordinance.

A. Approvals

1. **Zoning:** Before any parking lot construction relative to a development may commence staff will verify that the subject development has appropriate/correct zoning. If the subject zoning is not appropriate for the development, construction of the parking lot may not take place until the appropriate zoning for the development has been approved in accordance with the Development Code.
2. **Plat:** Before any parking lot construction relative to a development may commence staff will verify that the subject development is platted. If the property is not appropriately platted, construction of the parking lot may not take place until a plat for the development has been approved and has been filed in accordance with the Development Code.
3. **Construction Plans:** Parking lot plans are required as part of the submittal requirements for building permits and must comply with the standards in that section of this manual in addition to any of the standards below. In the event that a parking lot is being proposed independent of a building permit application, the standards below apply.
 - a. **General:** Three sets of parking lot plans are required for review. Before any parking lot construction relative to a development may commence, staff will verify that the construction plans have been approved. If the plans have not been approved, parking lot construction may not take place until all required corrections have been made.
 - b. **Responsibility:** The project engineer or architect is responsible for the accuracy, completeness and conformance to city standards. The purpose of the city review is to ensure conformance to city policies and standards. However, the city review is limited to facts as presented on submitted plans. The city has no project engineering/design responsibility. The engineer or architect certifying the plans is responsible for the accuracy and completeness of the documents submitted for review and actual construction. The city reserves the right to require corrections to actual conditions in the field, which is found to be contrary to, or omitted from submitted plans.
 - c. **Content:** Parking lot Plans must contain the following information.
 - d. **Plan view** including limits of pavement, location of parking spaces and driveways with dimension control at an accepted engineer's scale
 - e. **Proposed Pavement Section** including subgrade and reinforcement if applicable.
 - f. **Spot elevations** or arrows indicating how the parking lot will drain.
4. **Landscape Plans:** Landscape plans for the parking lot must be complete concurrent with the parking lot design in order for review of the plans to be completed. Landscape requirements for parking lots are contained in the Site Design Manual.

B. Permit Required

1. **General:** A parking lot permit shall be required for each property, other than property used or to be used for a single- or two-family dwelling within the city in any of the following cases:
 - a. For the construction of a new parking lot or for the improvement, reconstruction, enlargement, relocation or alteration of any existing parking lot;

- b. For the construction of a new driveway or the reconstruction, relocation or alteration of an existing driveway to a parking lot;
 - c. For the alteration or rearrangement of parking spaces, travel lanes, stacking lanes, maneuvering areas or fire lanes of existing parking lots;
 - d. For any application, submitted after the effective date of the ordinance from which this section is derived, seeking approval of a plat or replat for property on which there is an existing parking lot. For any application, submitted after the effective date of the ordinance from which this section is derived, for a certificate of occupancy for any use of property on which there is an existing parking lot or driveway which does not comply with the requirements of this section, if the property has been vacant for a period of more than six (6) months immediately prior to the application.
 2. **Compliance.** The application, plans and specifications shall be reviewed by the Engineering Department to verify compliance with the requirements of this manual, the Development Code or any other ordinance. If the department finds that the plans for the parking lot for the property covered by the application conforms to the development code, this manual, other applicable manuals and other applicable ordinances, the permit shall be issued. The department may issue a permit for property where any parking lot is not in compliance with this Code, if the department determines that, because of some condition peculiar to the property, compliance is not reasonably possible. Any permit issued may impose reasonable conditions or limitations that would serve the purpose of any requirement of this section or would otherwise be necessary to provide for traffic safety, including but not limited to the following:
 - a. Requiring that any existing driveway be relocated or that a new driveway be located so as to provide for joint or shared access by adjacent properties for present or future development;
 - b. Providing for use restrictions or special design requirements for a driveway or parking lot it serves, such as divided one-way traffic, controlled turning movements into or out of the driveway or controlled access from the street;
 - c. Providing for temporary use of a driveway or parking lot for a specified time or for a limited purpose or until the occurrence of a specified event.
 3. **Refusal of permits.** An applicant may appeal any denial, condition, or limitation of a permit to the development review committee. If the committee upholds the refusal, condition or limitation, the applicant may appeal to the Traffic Safety Commission (TSC), which shall make a final determination.
 4. **Expiration.** Any permit issued under this section shall expire by limitation and become null and void if the work authorized by such permit is not commenced within one hundred eighty (180) days from the date of such permit or if the work authorized by the permit is suspended or abandoned at any time after the work is commenced for a period of one hundred eighty (180) days.
 5. **Modifications.** After the work performed under the permit is approved, no person shall thereafter alter or change the approved driveway or parking lot without submitting a new application in accordance with the provisions of this section.
 6. **Driveway Closures:** Where the closing or relocating of one (1) or more existing driveways or portions thereof is necessary to comply with this manual, other manual or Development Code, or a permit issued, access shall be closed by the installation of curb and gutter along the gutter line of the street, if any, and the filling of the existing driveway approach depression with asphalt, concrete or top soil and planted to be consistent with the adjacent parkway, all in accordance with city specifications. If there is no existing curb and gutter on the street, the parkway shall be backfilled with topsoil and planted with appropriate ground cover. A permit separate from the parking lot permit is required for this work.
- C. **Clearing and Grading Permit.** A clearing and grading permit shall be issued in accordance with the Site design Manual prior to issuance of a Parking Lot Permit.

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- D. **Landscape Permit.** A landscape permit shall be issued in accordance with the Site Design Manual prior to issuance of a Parking Lot Permit.
- E. **Inspection Required:**
1. **General:** The developer shall cause his engineer to design, stake and help interpret the plans during construction of improvements and shall cause his contractor to construct the improvements in accordance with this manual, the Development Code, other applicable manuals and parking lot plans. The approved parking lot plans shall be so marked on the face by the Director of Engineering or his/her representative. The Director of Engineering or his/her representative will appoint an inspector and the inspector may inspect any and all phases of the construction of improvements. The owner or his contractor should maintain daily contact with the appointed inspector during construction of improvements. No subgrade material or stabilization shall be applied to the subgrade without the approval of the city. No concrete may be poured nor asphaltic surface applied to the base without approval of the city. The Inspector may at any time cause any construction, installation, maintenance or location or improvements to cease when, in his/her judgment, the requirements of this manual or the standards and specifications as hereinbefore provided have been violated and may require such reconstruction or other work as may be necessary to correct any such violation.
 2. **Inspection Procedures:** The Director of Engineering or his/her representative will appoint an inspector once a permit has been issued and the inspector may inspect any and all phases of the construction of improvements. The owner or his contractor should maintain daily contact with the appointed inspector during construction of improvements. The Inspector will visit the site at least once daily to inspect the status of the construction. If the contractor or owner needs the inspector at a specific time, the inspector may be reached by calling the City of Denton Engineering Department between 8:00 & 8:30 AM or 1:00 & 1:30 PM to schedule an appointment. Specific appointments must be scheduled at least two hours in advance unless other arrangements have been worked out with the inspector. If inspection is required before 8:00 AM or after 5:00 PM Monday through Friday or any time on Saturday an overtime inspection fee will be charged in accordance with the applicable ordinance. Saturday inspections must be scheduled by the prior Wednesday at 5:00 PM.
- F. **Construction Specifications.** All parking lot construction shall conform to the most recent update of the North Central Texas Council of Governments Specifications and City of Denton amendments to those specifications. City of Denton addendums are kept on file with the Engineering Department. The contractor is responsible for maintaining a copy of the City of Denton addendum to the NCTGOG specifications on the job site.
- G. **Materials Testing.** All required geotechnical testing such as PH series, density tests, concrete cylinders and gradations are the responsibility of the owner/contractor including the cost of such tests. Copies of all test reports are to be given to the inspector.
- H. **Final Inspection.** No certificate of occupancy shall be issued for any building on any property for which a permit is required, until the construction, improvements, alterations or other work covered by the permit is completed in accordance with the permit issued, the requirements of this section or the provisions of any other applicable ordinance or manual. Where no building permit was required in connection with the requested permit, no parking lot or driveway on the property for which the permit was issued shall be used until and unless the work is completed in accordance with the permit and this Code.

