ORDINANCE NO. 2024-03-06

AN ORDINANCE OF THE CITY OF DECATUR, TEXAS AMENDING THE CODE OF ORDINANCES BY REPEALING AND REPLACING ORDINANCE 2000-05-08 CODIFIED AS APPENDIX A; PRESCRIBING RULES AND REGULATIONS GOVERNING PLATS, PLANS, AND SUBDIVISIONS OF LAND WITHIN THE CORPORATE LIMITS OF THE CITY OF DECATUR, TEXAS, OR WITHIN ITS JURISDICTION, CONTAINING CERTAIN DEFINITIONS; REPEALING ORDINANCE NO. 05-01-01 CODIFIED AS APPENDIX C; PROVIDING NEW APPENDICES GOVERNING DESIGN, CONSTRUCTION, FEES, AND OTHER STANDARDS; PROVIDING A SEVERABILITY CLAUSE; PROVIDING A SAVINGS CLAUSE; PROVIDING A PENALTY CLAUSE; AND PROVIDING AN EFFECTIVE DATE.

WHEREAS, the City of Decatur (the "City") is a home rule municipality acting under its Charter adopted by the electorate pursuant to Section XI, Section 5, of the Texas Constitution and Chapter 9 of the Local Government Code; and

WHEREAS, Chapters 211 through 214 of the Texas Local Government Code, among others laws including Chapter 245 of the Texas Local Government Code, govern the regulation of subdivisions within the corporate and jurisdictional boundaries of Texas cities; and

WHEREAS, in 2000, via Ordinance 2000-05-08, the City Council adopted subdivision regulations which were codified as Appendix A of the Code of Ordinances (the "subdivision ordinance"); and

WHEREAS, in 2001, via Ordinance No. 05-01-01, the City Council adopted design standards for subdivisions which were codified as Appendix C of the Code of Ordinances ("design standards"); and

WHEREAS, the City Council has investigated and determined it is in the best interest of the public safety, health, and welfare of all citizens to repeal and replace the subdivision ordinance and design standards with provisions consistent with current state law and the City Charter of Decatur, Texas and improve the general organization of the subdivision ordinance;

NOW, THEREFORE, BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF DECATUR, TEXAS:

Section 1. Findings Incorporated.

The findings set forth above are incorporated into the body of this Ordinance as if fully set forth herein.

Section 2. Amendments.

Appendix A "Subdivisions" and Appendix C "Design Standards" of the Code of Ordinances of the City of Decatur, Texas are hereby repealed and replaced in their entireties with a new Appendix A "Subdivisions" which shall read as set forth in Exhibit A.

Section 3. Penalty.

Any person, firm, or corporation who intentionally, knowingly, or recklessly violates any provision of this Ordinance or the Code of Ordinances, as amended hereby, shall be subject to a fine not to exceed the sum of five hundred dollars ($500.00) for each offense, and each and every day any such offense shall continue shall be deemed to constitute a separate offense, provided, however, that in all cases involving violation of any provision of this Ordinance or Code of Ordinances, as amended hereby, governing the fire safety, zoning, or public health and sanitation shall be subject to a fine not to exceed the sum of two thousand dollars ($2,000.00) for each offense.

Section 4. Cumulative Repealer and Savings.

That this Ordinance shall be and is hereby declared to be cumulative of all other Ordinances of the City of Decatur not in conflict with this Ordinance. This Ordinance shall not operate to repeal or affect the Code of Ordinances of the City of Decatur or any Ordinances except insofar as the provisions thereof might be inconsistent or in conflict with the provisions of this Ordinance. In the event any such inconsistencies or conflicts occur in other ordinances or parts of ordinances, those ordinances or parts of ordinances are hereby repealed but only to the extent of such conflicts. Likewise, if any part of this Ordinance shall be declared invalid by a court of competent jurisdiction, such judgment shall not invalidate the remaining provisions of the Ordinance. The provisions of this Ordinance shall supersede all laws and ordinances not consistent herewith, insofar as the City of Decatur, Texas is affected thereby.

Section 5. Severability Clause.

It is hereby declared to be the intention of the City Council that the phrases, clauses, sentences, paragraphs, and sections of this Ordinance are severable, and if any phrase, clause, sentence, paragraph, or section of this Ordinance shall be declared unconstitutional by the valid judgment or decree of any court of competent jurisdiction, such unconstitutionality shall not affect any of the remaining phrases, clauses, sentences, paragraphs, and sections of this Ordinance, since the same would have been enacted by the City Council without the incorporation of this Ordinance of any such unconstitutional phrase, clause, sentence, paragraph, or section.

Section 6. Effective Date.

This Ordinance shall become effective immediately upon its passage and publication as required by law.

PRESENTED ON FIRST READING THE 26th DAY OF FEBRUARY, 2024.

PRESENTED ON SECOND READING AND APPROVED THIS THE 11th DAY OF MARCH, 2024 BY A VOTE OF 6 AYES, Ø NAYS, AND Ø ABSTENTIONS, AT A REGULAR MEETING OF THE CITY COUNCIL OF THE CITY OF DECATUR, TEXAS.

Mike McQuiston, Mayor

ATTEST:

Asucena Delgado

Asucena Delgado, City Secretary

APPROVED AS TO FORM:

Pam Liston, City Attorney

EXHIBIT "A"

Decatur Subdivision Ordinance

Approved by Council

3/11/24

Contents

CHAPTER 1: GENERAL PROVISIONS

SECTION 101: GENERAL

Subsection 101.1 Title
This Ordinance may be known and cited as the "Decatur Subdivision Ordinance" and will be referred to herein as "this Ordinance."

Subsection 101.2 Purpose
In order to achieve the orderly, efficient, and environmentally sound subdivision of land, the City must be provided with appropriate guidelines and development management mechanisms. This Ordinance, in conjunction with any other land use control tool as now or hereafter may be adopted by the City, provides those guidelines and mechanisms. It is the intent and stated purpose of this Ordinance to:

1. Provide for the orderly, safe, and healthful development within the City; and to promote the health, safety, and general welfare of the community;
2. Ensure safety from fire, flood, and other danger, and to prevent overcrowding of the land and undue congestion of population;
3. Guide public and private development in order to provide adequate and efficient transportation, water, wastewater, drainage, stormwater quality, parks, and other public requirements and facilities;
4. Ensure that adequate public facilities and services are available in an equitable manner to all parts of the City and will have sufficient capacity to serve a proposed subdivision or development, and that community will be required to bear no more than its fair share of the cost of providing the facilities and services;
5. Prevent the pollution and sedimentation of streams and ponds; to ensure the adequacy of drainage facilities; to safeguard the water table; to encourage the wise use and management of natural resources; and enhance the stability and beauty of the community and the value of the land;
6. Provide for open spaces through efficient design and layout of the land; and
7. Promote development that supports the City's goals to protect the environment and to use sustainable construction design, materials, and practices.

Subsection 101.3 Effective Date
This Ordinance shall become effective immediately upon its final adoption.

Subsection 101.4 Amendment
The City Council may from time to time amend this ordinance, in accordance with appropriate procedures provided by law. It is the responsibility of the Developer to obtain the most current Subdivision Ordinance as adopted by the City Council.

Subsection 101.5 Interpretation
In the interpretation and application of the provisions of this Ordinance, it is the intention of the City Council that the principles, standards, and requirements provided for herein shall be minimum requirements for the platting and developing of subdivisions in the City. Where other ordinances of the City are more restrictive in their requirements, such other ordinances shall control.

In the event a word or phrase used in this Ordinance is unclear or ambiguous, any interpretation shall be made in a manner that uses reasonable judgment to apply the intent and purpose of the Ordinance to the specific situation in question. The City Manager shall have the authority, upon request of an affected person, to interpret unclear or ambiguous words and phrases, which interpretation may be appealed to the City Council.

SECTION 102: APPLICABILITY

Subsection 102.1 Authority of City
In accordance with Chapter 212, Texas Local Government Code, and the City of Decatur Charter, platting is required for all land to be improved for public or private use or subdivided within the corporate limits of the City. The provisions of this Ordinance are expressly extended to all areas inside the City limits.

This Ordinance applies to all subdivisions of land, development, redevelopment, and land disturbing activities located within the corporate limits of the City, as provided by law, and to all additions of land within the corporate limits of the City, except as expressly stated in this Ordinance.

Subsection 102.2 Design Standards and Construction Standards.
The City has adopted engineering Design Standards and Construction Standards, as defined herein in section 202. The Design Standards and the Construction Standards, as they exist or may be amended, shall remain in force of law and effect and are herein incorporated into this Ordinance as Appendix I and Appendix V. The Design Standards may be drafted or revised, from time to time, at the discretion and determination of Administrative Officials, with approval by the City Council. As revised Design Standards are approved and adopted by the City Council, said standards shall be included and substituted for the existing Design Standards, and shall thereafter have the same force of law and effect as if originally adopted hereby. A copy of the current Design Standards shall be kept on file and available for review Public Works office and on the city's website.

Subsection 102.3 Compliance with city plans and ordinances required.
It is hereby declared to be the policy of the City to consider the subdivision and development of land as subject to the control of the City in order to carry out the purpose of all applicable City ordinances and plans, and to promote the orderly, planned, efficient and economical development of the City. Applicable City ordinances and plans with which all applications must comply include, but are not limited to, the following:

1. Comprehensive Plan, as amended;
2. Zoning Ordinance, as amended;
3. Design Standards, as amended;
4. Construction Standards Details, as amended;
5. Main Street Program (Downtown) Plan, as amended;
6. All building codes, as adopted and as amended;
7. All Master Plans, as amended, including but not limited to Master Water Plan, Master Wastewater Plan, Master Thoroughfare Plan;
8. Related Standards, as outlined in subsection 401.2 “Related standards,” and as amended;
9. Other applicable portions of the City’s Code of Ordinances.

Subsection 102.4 Subdivision and Development of Land Policies

1. Land shall not be subdivided or developed until proper provision has been made for drainage, water, wastewater, transportation and other facilities required by this Ordinance.
2. All public and private facilities and improvements shall be of at least the capacity necessary to adequately serve the development and shall conform to and be in accordance with this Ordinance.
3. This Ordinance shall supplement and facilitate the enforcement of provisions and standards contained in building codes adopted by the City where applicable.

SECTION 103: AUTHORITY

Subsection 103.1 Administrative Officials

103.1.1 Director of Planning

Duties of the Director of Planning. The Director of Planning, as designated by the City Manager, is responsible for taking the following actions with regards to all applications under these regulations:

1. Accepting an application for submittal, filing, and processing;
2. Coordinating with other City departments concerning an application or petition;
3. Reviewing and preparing reports to City Manager, Planning and Zoning Commission, and/or the City Council to make recommendation for approval/denial for any plat application that the Director of Planning is not the final decision maker;
4. Authority delegated for deciding applications. The Director of Planning is the final decision maker, as delegated by the City Manager or the City Manager’s designee per subsection 302.4.2 “Decision and delegation of approval responsibility,” for the following types of applications (subject to appeal as provided in this Ordinance):
    a. Minor Plat applications, as outlined in subsection 308;
    b. Amending Plat applications, as outlined in subsection 307;
    c. Extension of a Preliminary Plat approval, as outlined in subsection 303.6;
5. Authority delegated for deciding waivers. The Director of Planning is the final decision maker, as delegated by the City Manager, for:
    a. Minor Waivers, as outlined in subsection 703.
    b. Initiating enforcement actions concerning compliance with the standards applicable to an application and the conditions imposed thereon.

103.1.2 City Engineer and Building Official

The City Engineer and/or Building Official, as designated by the City Manager, is responsible for taking the following actions with regards to all applications under these regulations:

1. The City Engineer shall review and make recommendations with regard to public improvement infrastructure and other site preparation activities associated with platting, including without limitation, application for approval of construction and civil engineering plans, all related construction management tasks, and contracts for public improvements.
2. The City Engineer shall consider appeals to decisions pertaining to any standards for which the City Engineer is the responsible official.
3. The City Engineer shall promulgate additional or modified policies, standards, and administrative rules that apply to these regulations and applications.
4. The Building Official, after consultation with the City Engineer, shall be the final decision maker, as designated in this Ordinance per subsection 302.4.2 “Decision and delegation of approval responsibility,” for the following types of application (subject to appeal as provided in this Ordinance):
    a. Construction Plans;
    b. Application for a site preparation or public improvement permit;
    c. All related construction management tasks.

103.1.3 City Manager

The City Manager shall:

1. Have approval authority where designated in this Ordinance and may assign review and approval authority to a qualified staff member when applicable.
2. Have authority for deciding certain appeals. The City Manager shall have the final authority to hear and decide the following appeals:
    a. Appeal of decision by Director of Planning on Minor Plat application;
    b. Appeal of decision by Director of Planning on Amending Plat application;
    c. Appeal of decision by Director of Planning on Minor Waiver;
    d. Appeal of decision by Director of Planning on extension of a Preliminary Plat approval; and
    e. Any variance petition on an application.

103.1.4 Planning and Zoning Commission

The Planning and Zoning Commission shall have the powers and duties as provided for in this Ordinance, the Charter of the City, and as authorized by Chapter 212, Texas Local Government Code and other applicable state law. More specifically the Planning and Zoning Commission shall:

1. Have authority for recommending approval or denial of applications. The Planning and Zoning Commission shall have advisory authority to the City Council on the following types of applications:
    a. Preliminary Plats

    b. Final Plats
    c. Replats
    d. Vacating Plats
2. Have authority for recommending approval or denial of Major Waivers. The Planning and Zoning Commission shall have advisory authority to the City Council regarding Major Waivers, as outlined in subsection 702.
3. Make such determinations, decisions, or recommendations as may be required from time to time by this Ordinance, other City ordinances, City Charter, or state law.

103.1.5 City Council

The City Council shall:

1. Have authority for deciding matters related to land use and appropriate delegation of functions. The City Council shall be the final authority to hear and decide the following land use matters:
    a. Preliminary Plat application, after recommendation of the Planning and Zoning Commission;
    b. Final Plat application, after recommendation of the Planning and Zoning Commission;
    c. Replat application, after recommendation of the Planning and Zoning Commission;
    d. Vacating Plat application, after recommendation of the Planning and Zoning Commission;
    e. Major Waivers, after recommendation of the Planning and Zoning Commission;
    f. Any other land use matters required to be decided by City Council pursuant to federal, state, or local law.
2. City Council may from time to time amend, supplement, or change by ordinance the text of these regulations on its own initiative or upon petition for a text amendment, following review and recommendation by the Planning and Zoning Commission.

Subsection 103.2 Enforcement and Penalties

Violations of provisions of this Ordinance or failure to comply with any of its requirements shall constitute a misdemeanor and upon conviction, be punished by a fine not to exceed $2,000.00. A violation of this Ordinance or failure to comply with any of its requirements shall constitute a class C misdemeanor. Each calendar day such violation continues shall be considered a separate offense.

Nothing herein contained shall prevent the City from taking any other lawful action necessary to prevent or remedy any violation. Appropriate actions and proceedings may be taken by the City in law or in equity to prevent any violation of these regulations, to prevent unlawful construction, to recover damages, to restrain, correct, or abate a violation, and to prevent illegal occupancy of a building structure or premises. These remedies shall be in addition to the penalties described in this subsection.

Subsection 103.3 Severability and Validity

It is hereby declared to be the intention of the City Council that the sections, paragraphs, sentences, clauses and phrases of this Ordinance are severable and, if any phrase, clause, sentence, paragraph or section of this Ordinance shall be declared invalid by the valid judgment or decree of any court of competent jurisdiction, such invalidity shall not affect any of the remaining phrases, clauses, sentences, paragraphs and sections of this Ordinance, since the same would have been enacted by the City Council without the incorporation in this Ordinance of any such invalid phrase, clause, sentence, paragraph or section.

CHAPTER 2: DEFINITIONS

SECTION 201: GENERAL

Subsection 201.1 Scope

Unless otherwise expressly stated, the following terms shall, for the purposes of this Ordinance, have the meanings shown in this chapter.

Subsection 201.2 Interchangeability and Directive Terms

For the purposes of this Ordinance certain terms or words herein shall be interpreted or defined as follows:

1. Words used in the present tense include the future tense.
1. The singular includes the plural.
2. The word "person" includes a corporation as well as an individual.
3. The term "shall" is always mandatory.
4. The term "may" is directive.

Subsection 201.3 Terms Defined in Other Codes

Where terms not defined in this Ordinance are defined in other City codes, such terms shall have the meanings ascribed to them as in those codes.

Subsection 201.4 Terms Not Defined

Words and terms not expressly defined herein are to be construed according to the normally accepted meaning of such words or terms or, where no definition appears, then according to their customary usage in the practice of municipal planning and engineering.

SECTION 202: DEFINITIONS

Abandonment: The legal process by which land dedicated to public use may revert to private use.

Addition: See Subdivision.

Administrative Officials: Any office referred to in this Ordinance by title, e.g., Building Official, City Secretary, City Attorney, City Engineer, Director of Public Works, Director of Planning, etc., shall be the person so retained in this position by the City or their duly authorized representative.

Agreement, ETJ Development: A written agreement as authorized by and in accordance with the Texas Local Government Code, including Section 212.172 as amended, between the City and the Subdivider located within the extraterritorial jurisdiction (ETJ) of the City.

Agreement, Development: A written agreement between the City and Subdivider for the purpose of establishing mutually agreed upon standards and conditions that will govern development of the property. The terms of a Development Agreement may include but are not limited to the following: conditions to mitigate the project impacts, development incentives, clarification of project phasing and timing of public improvements. allocation of responsibility for the construction of water, wastewater, and road and drainage infrastructure and the sharing of costs; payment of impact fees, and other charges related to the development; dedication of parkland, open space, drainage, conversation and/or greenbelt areas; annexation; intensity of development, land uses; provisions for City services such as fire protection, emergency medical services, and trash collection.

Agreement, Escrow: A written agreement between the City and a Subdivider of property providing a financial assurance from the Subdivider to the City as a guarantee that certain Public Infrastructure Improvements will be constructed by the Subdivider in accordance with City regulations or in lieu of construction of thoroughfares, water, wastewater, stormwater or drainage facilities by the Subdivider prior to the City's issuance of a permit.

Agreement, Facilities: A written agreement between the City and a Subdivider that is required as a condition of Plat approval, the purpose of which includes but is not limited to, ensuring that new development is adequately served by Infrastructure and that Public Infrastructure Improvements are constructed according to City regulations, providing financial guarantees for project completion, payment of contractors and maintenance of Public Infrastructure Improvements after acceptance by the City, providing for fees, dedication of land and other matters related to development of the subject property.

Agreement, Subdivider: Agreement between the City and a Subdivider, as approved by City Council, which includes provisions for construction, including any required oversizing, of Public Improvements, Subdivider financial responsibilities, City participation, pro rata agreements, escrow deposits, and other provisions for the development of the land. *Alley:* A minor public right-of-way not intended to provide the primary means of access to abutting lots which is used primarily for vehicular service access to the back or sides of properties otherwise abutting on a street.

Applicant: The person or entity responsible for the submission of an application who is either the legal owner of the property for which an application is submitted or is a duly authorized representative of the property owner. (Also, see Subdivider).

Approval: A determination by the official, board, commission, or City Council responsible for such determination that the application complies with the minimum provisions of this Ordinance. *NOTE:* Such approval does not constitute approval of the engineering or surveying contained in the plans, as the design engineer or surveyor that sealed the plans is responsible for the adequacy of such plans.

Base Flood: The flood having a one (1) percent chance of being equaled or exceeded in any given year, determination based upon Federal Emergency Management Agency (FEMA) guidelines and as shown in the current effective Flood Insurance Study.

Block: A tract or parcel of land bounded by streets or by a combination of streets and public parks, cemeteries, railroad rights-of-way, highway, stream, or corporate boundary lines.

Building: Any structure built for support, shelter or enclosure of persons, animals, or movable property of any kind.

Building Official: The Building Official of the City of Decatur Texas or designee.

Building Permit: An official certificate issued by the Building Official that indicates that the subdivision has been approved, the plat has been recorded and that construction may begin.

Building Setback Line: The line within a lot defining the minimum horizontal distance between a building or other structure and the adjacent street line or property line.

Certificate of Approval: An official certificate or letter issued by the City through the City Manager or their designee.

Certificate of Occupancy: An official certificate issued by the City through the Building Official which indicates conformance with City standards, regulations, and conditions of zoning variances, if applicable, and that authorizes legal use of the premises.

City: The City of Decatur, Texas.

City Council: The City Council of the City of Decatur, Texas.

City Engineer: The City Engineer of the City of Decatur or designee.

City Manager: The City Manager of the City of Decatur or designee.

City Required Percentage: The percentage of land and park fees required to be paid to satisfy parkland dedication requirements of the City.

Civil Engineering Plans: A set of drawings and/or specifications, including paving, water, wastewater, drainage, or other required plans, submitted to the City for review in conjunction with a subdivision or a development. Also referred to as construction plans.

Commission: See Planning and Zoning Commission.

Comprehensive Plan: The plan adopted by the City Council as the official policy regarding the guidance and coordination of the development of private and public land in the City of Decatur, Texas.

Construction Standards: The Construction Standards are hereby adopted as a part of this Ordinance, and as amended, as Appendix V.
Construction Plans: See Civil Engineering Plans.

County: Wise County, Texas.

Cul-de-sac: A street having one outlet to another street and terminated on the opposite end by a vehicular turnaround.

Dead-End Street: A street, other than a cul-de-sac, with only one outlet.

Dedication: The dedication of land to the public or use of the land by the public as part of and a condition of development, such as the granting of a right-of-way for a public street.

Design Standards: The Design Standards are hereby adopted as a part of this Ordinance, and as amended, as Appendix I.

Developer: A person or entity, limited to the property owner or duly authorized representative thereof, who proposes to undertake or undertakes the division or improvement of land and/or other activities covered by this Ordinance so as to constitute a Subdivision, including the preparation of a Plat showing the layout of the land and the public improvements involved therein (Also, see Subdivider).

Development: Any human-initiated change to improved or unimproved real estate, including, but not limited to, new construction or the enlargement of any exterior dimension of a building or other structure, and the installation of any type of site improvement, including offsite features, such as street median openings and clearing of vegetation for the purposes of grading, but not including bona fide agricultural activities. When used as a noun within this Ordinance, the term "development" shall be construed to also include subdivisions, redevelopments, and land disturbing activities.

Director of Planning: The Director of Planning of the City of Decatur or designee.

Director of Public Works: The Director of Public Works of the City of Decatur or designee.

Dwelling Unit: Any building, or portion thereof, which contains living facilities, including provisions for sleeping, eating, cooking and sanitation, as required by this Ordinance for not more than one (1) family. For purposes of this Ordinance, dwelling units include temporary or quasi-dwelling units such as: suites within hotel or motel-type uses, suites within senior care or assisted care-type facilities, accessory dwelling units, and mobile or semi-mobile living facilities.

Easement: An authorization by a property owner for another to use the owner's property for a specified purpose.
Engineering Site Plan: A detailed plan of the public and private improvements to be constructed for the purpose of ensuring compliance with applicable development regulations affecting development of the property, coordinating and documenting the design of public and private improvements to be constructed, and coordinating the subdivision of land, including the granting of easements.

Extraterritorial Jurisdiction: The unincorporated area of the County that is contiguous to the corporate boundaries of a municipality, more specifically described in Section 42.021 of the Local Government Code, as may exist, or be amended in the future.

Fee Schedule: The current Fee Schedule adopted by the City Council.

File/Filed/Filing: The day the approved plat is filed with the County.

Final Acceptance: Acceptance by the City of all infrastructure improvements constructed by the Developer in conjunction with the development of land.

Flood Hazard Boundary Map (FHBM): An official map issued by the Federal Insurance Administration (FIA) where the areas of special flood hazards have been designated.

Flood Insurance Rate Map (FIRM): An official map on which the FIA has delineated both the areas of special flood hazards and the risk premium zones applicable to flood insurance.

Flood Insurance Study: The official report provided by the FIA containing flood profiles, the water surface elevation of the base flood and the flood hazard boundary map.

Floodplain: The area subject to be inundated by water from the base flood.

Floodway: A drainage area designated on a plat to accommodate the design flood for existing creeks and open drainage ways.

Floodway Easement: A drainage area dedicated to the City for control and maintenance of a floodplain.

Improvement: Physical modifications which are installed or constructed by the subdivider/developer for the benefit of the lot owners and for the proper development of the land.

Infrastructure: All streets, alleys, sidewalks, storm drainage, water and wastewater facilities, utilities, lighting, transportation, and other facilities as required by the City.

Land Planner: Persons other than Surveyors or Engineers who also possess and can demonstrate a valid proficiency in the planning of residential, commercial, industrial, and other related developments, such proficiency often having been acquired by education in the field of landscape architecture or other specialized planning curriculum and/or by actual experience and practice in the field of land planning and may be a member of the A.I.C.P.

Lot: Attract or parcel of land having frontage on a public street, and which is, or in the future may be, offered for sale, conveyance, transfer, or improvement which is designated as a distinct and separate tract, and which is identified by a tract, or lot number or symbol in a duly approved subdivision plat which has been properly filed of record.

Lot, Area: The net area of the lot, exclusive of any portion of streets, alleys, or rights-of way.

Lot, Corner: A lot or parcel of land abutting two (2) or more streets at their intersection or abutting two (2) parts of the same street which form an interior angle of less than 135 degrees.

Lot Depth: The horizontal distance measured perpendicularly between two (2) points on the front lot line and two (2) points on the rear lot line which creates an area that meets (or exceeds) the zoning district's minimum width and depth requirements. Lot depth shall not include easements that are located behind the front building line that impair the use of the lot surface as a yard.

Lot, Double or Reverse Frontage: A lot having frontage on two (2) nonintersecting streets, as distinguished from a corner lot.

Lot, Flag: A lot having access to a street by means of a parcel of land having a depth greater than its frontage and having a width less than the minimum required lot width. May also be referred to as a Panhandle Lot.

Lot Frontage: A lot having a frontage on two (2) non-intersecting streets, as distinguished from a corner lot.

Lot, Interior: A lot other than a corner lot.

Lot, Key: A corner lot that is designed such that the lots located directly behind it face the side street of the corner lot and are not separated by an alley.

Lot Line, Front: The narrower side of the lot abutting a street. Where two (2) lot lines abutting streets are of equal length, the owner shall have a choice in designating which shall be designated as the Front Lot Line, and therefore the lot frontage. For a lot which has a boundary line which does not abut the front street line, is not a rear lot line and lies along the same general directional orientation as the front and rear lot lines, said line shall be considered a front lot line in establishing minimum setback lines.

Lot Line, Rear: The lot line farthest from and most parallel to the front lot line. For triangular lots, the point opposite the front lot line shall be considered the rear lot line and have a value of zero.

Lot Line, Side: Any lot line not the front or rear lot line.

Lot Lines: The lines bounding a lot as defined herein. May also be referred to as a Property Line.

Lot of Record: A lot, which is part of a subdivision, the plat of which has been recorded in the records of Wise County.

Lot Width: The horizontal distance measured between side lot lines parallel to the front lot line and measured from the point on the building line that is closest to the front lot line.

Major Waiver: A waiver from a particular standard or requirement of this Ordinance that requires over 15% differentiation from the required dimensional standards. Major Waivers are granted only because compliance with the Ordinance requirements would substantially limit the applicant’s ability to utilize the land in a manner requested and requires Planning and Zoning Commission recommendation and City Council approval.

Master Plan: See Comprehensive Plan.

Maximum: For the purposes of this Ordinance, “the maximum” is the amount that is the upper limit allowed by this Ordinance less than the maximum may be allowed, unless otherwise specified.

Minimum: For the purposes of this Ordinance, “the minimum” is the amount that is the least amount required of a developer, but more than the minimum may be provided, unless otherwise specified.

Minor Waiver: A waiver from a particular standard or requirement of this Ordinance that is equal to or less than 15% differentiation from the required dimensional standards, which is approved administratively by the City Manager unless otherwise noted.

Multi-Family Residential: Structure(s) or projects with more than one (1) dwelling unit on one (1) lot or mixed-use structures containing at least one (1) dwelling unit. Includes two-family or duplex residential. Includes group or community home-type uses. For purposes of this Section structures that have restricted usage of one (1) person per room (documentation must be provided with building permit application), dwelling unit count shall be assessed based on the number of rooms available for residential living, divided by the persons per household number stipulated in Appendix II, to ascertain number of dwelling units to be utilized in determining dedication and/or fees required. Multi-family residential projects shall be assessed parkland fees and pay parkland fees of this Section prior to the issuance of a building permit.

Non-conforming Lot: means a platted lot of record that does not conform to the lot area, lot width, or lot depth requirements established in the Zoning Ordinance but did comply with applicable ordinance provisions at the time the lot was created.

Off-site: Located outside the boundary of a development.

On-site: Located within the boundary of a development.

Ordinance (also referred to as "this Ordinance"): Refers to the Subdivision Ordinance of the City, as may be amended in the future.

Park: Includes a variety of parks, trails, open spaces, natural preserves, gathering spaces, and recreational opportunities and facilities that are open and accessible to the general public and are located within a convenient distance of the residences to be served thereby.

Pavement Width: The portion of a street available for vehicular traffic. Where curbs are laid, it is the portion between the faces of the curbs. Otherwise, it is the portion between the edges of the pavement.

Performance Bond: The Performance Bond coverage guarantees that the principal will faithfully perform the terms and conditions of the written contract for the construction of public improvements.

Permit: A license, certificate, approval, registration, consent, permit, contract or other agreement for the construction or provision of service from a utility owned, operated, or controlled by the City, or other form of authorization required by law, rule, regulation, order, or ordinance, which has been approved by the City, that a person or entity must obtain to perform an action or initiate, continue, or complete a project for which the permit is sought, and for which the application for the permit or information required to be submitted for consideration provides notice of the project to the City.

Planning and Zoning Commission: The regulatory body that is responsible for advising the City Council in relation to managing the growth and development of the City and for review and recommendations of Plat submittals, Major Waivers, and appropriate regulations.

Plat, Amending: A revised plat making minor changes to the original recorded final plat.

Plat Application: The documents, maps, drawings, and fees submitted to the City for review.

Plat, Final: (Also known as Record or Filing Plat) The one official and authentic map of any given subdivision of land prepared from actual field measurement and staking of all identifiable points by a Licensed Surveyor or Engineer with the subdivision location referenced to a survey corner and all boundaries, corners and curves of the land division sufficiently described so that they can be reproduced without additional references. Angular measurements and bearings shall be accurate to the nearest minute. Distances shall be accurate to the nearest tenth of a foot. The final Plat of any lot, tract or parcel of land shall be recorded in the Records of Wise County, Texas.

Plat, Minor: A minor plat is a subdivision resulting in four or fewer lots and not requiring the creation or dedication of any public right-of-way. Includes the combination of lots for purposes of development resulting in four or fewer lots and not requiring the creation or dedication of any public right-of-way.

Plat, Preliminary: The graphic expression of the proposed overall plan for subdividing, improving, and developing a tract shown by superimposing a scaled drawing of the proposed land division on a topographic map and showing in plan existing and proposed drainage features and facilities, street layout and direction of curb flow and other pertinent features with notations sufficient to substantially identify the general scope and detail of proposed development.

Plat, Replat: Any change in a map of a recorded plat, except as permitted as an amended plat.

Pre-application Plan: A sketch drawing of initial development ideas superimposed on a topographic map to indicate generally the plan of development and to serve as a working base for noting and incorporating suggestions of the City Manager, Planning and Zoning Commission, Planning Director, City Engineer or others who are consulted prior to the preparation of the Preliminary Plat.

Property Owner: The legally recognized proprietor of the land for which an application is being submitted (Also, see Subdivider).

Public facilities system: The collection of water, wastewater, street, drainage, or park facilities owned or operated by or on behalf of the City for the purpose of providing services to the public, including existing and new developments.

Public infrastructure improvement: A water, wastewater, street, drainage, or park facility that is a part of one or more of the City's public facilities systems.

Record Drawings: A group of drawings or plans that depicts the final configuration of the installed or constructed improvements of a development, improvements that have been verified by the contractor as their installation or construction occurs during development. The record drawings shall reflect the Civil Engineering Plans used, corrected, and/or clarified in the field.

Replatting: The re-subdivision of any part or all of any block or blocks of a previously platted subdivision, addition, lot, or tract.

Residential Development: The actual or proposed use of land for one or more buildings or structures that are designed or intended to be used, in whole or in part, as dwelling units.

Residential Uses: Includes single family residential and multi-family residential uses.

Resubdivision: See Subdivision.

Right-of-Way: That portion of the subdivision dedicated for public streets with the adjacent lot lines being the boundaries of the right-of-way.

Single Family Residential: Structure(s) with one (1) dwelling unit on one (1) lot, not to include mixed-use or live-work structures. Any one (1) proposed lot containing only one (1) proposed dwelling unit shall be assessed parkland fees and pay parkland fees of this Section prior to filing an associated plat for record.

Street: A public right-of-way, however designated, which provides vehicular traffic access to adjacent lands.

Subdivider: Any person or entity, restricted to include only the owner, equitable owner or authorized agent of such owner or equitable owner of the subject property, thereof dividing or proposing to divide land, so as to constitute a subdivision as that term is defined herein, or proposing improvement of land and/or other activities covered by this Ordinance. In any event, the term Subdivider is intended to include the terms developer, property owner, and applicant. .

Subdivision: (Includes Resubdivision and Additions) The division of any lot, tract, or parcel of land into two or more lots or sites for the purpose of sale or of building development, whether immediate or future. The term includes resubdivision or replatting of an existing subdivision, or lot, building upon, or other development of land, but does not include the division of land into tracts where each resulting lot is more than five acres in size; does not involve or require any new street, alley, or easement of access; and no public improvement is being dedicated. As part of a subdivision, if any lot is proposed to be five acres in area or smaller, the entire parent tract must be platted together with such other lots or tracts. When appropriate to context, the term subdivision shall relate to the process of subdividing or to the land subdivided.

Surveyor: A Licensed State Land Surveyor or a Registered Professional Land Surveyor as authorized by the Texas State statutes to practice the profession of surveying.

Thoroughfare Plan: A component of the Master Thoroughfare Plan, as adopted by the City and as may be amended, that generally represents the proposed grid-system of major and minor thoroughfares that will support the *Future Land Use Plan*. The exact locations of future roadways cannot be determined without engineering and environmental analysis, but the plan should be used as a guide as development occurs in terms of how connections should be made and by what type of thoroughfare. The Thoroughfare Plan also shows existing railroads and proposed transit rail stations.

Tract: A tract of land is a general term and can define a platted lot of a few acres or square miles or a large identifiable area of land.

Utilities: An agency under public franchise or ownership which provides a regulated service to the public, such as electric, gas, or communication services.

Utility Easement: See Easement.

Zoning Ordinance: The Comprehensive Zoning Ordinance of the City, including all duly adopted amendments thereto.

CHAPTER 3: SUBDIVISION PROCEDURES

SECTION 301: GENERAL PROVISIONS

Subsection 301.1 Purpose
The platting process is intended to protect and provide for the public health, safety, and general welfare of the City by requiring the orderly layout and use of land and to ensure proper legal descriptions and monumentation of platted land, and to remedy the problems associated with inappropriately platted properties, including premature subdivision, incomplete subdivision, and scattered subdivision.

Subsection 301.2 Approval required.
It shall be unlawful for any person, firm, corporation, or organization to construct or cause to be constructed any streets, utilities, buildings, or other improvements to any tract of land, and any official of the City shall not issue any permit for such improvements or to serve or connect said land, or any part thereof, or for the use of the owners or purchasers of said land, or any part thereof, with any public utilities such as water, sewer, lights, gas, etc., which may be owned, controlled, distributed, franchised, or supplied by City, unless and until a plat, plan or replat shall have been first approved in the manner provided by this Ordinance.

A written request may be submitted for a determination as to whether a Plat shall be required under Subchapter A, Chapter 212 of the Texas Local Government Code, in accordance with Section 212.0115 of that chapter.

Subsection 301.3 Requirement to Plat
In accordance with Section 212.004 of the Texas Local Government Code, a Plat is required when:

1. To create a building site on a single lot or tract
2. To construct or enlarge any exterior dimension of any building, structure, or improvement on land without an existing plat, in association with a building permit application.
3. To subdivide land to divide a lot or tract into two or more parcels.
4. To combine lots or tracts
5. To lay out streets, alleys, squares parks or other parts
6. To amend a plat; or
7. To correct errors on an approved and recorded plat.
8. When a division of a tract, whether it is made by using a metes and bounds description in a deed of conveyance or in a contract of deed, by using a contract of sale, or other executing contract, or by using any other method. A division of land does not include a division of land into parts greater than 5 acres, where each part has access, and no public improvement is dedicated.

Subsection 301.4 Types of plats required.

1. A Preliminary Plat, in accordance with subsection 303, shall be required for any subdivision of a tract which will involve dedication of City streets, drainage ways and/or utilities. Please note, no subdivision of land, except for Minor Plats, shall be allowed without proper submittal, approval, and adoption of a Preliminary Plat.

2. A Final Plat or Minor Plat, in accordance with subsections 304 and 308, shall be required prior to any land division or development that is subject to this Ordinance.

3. A Replat, in accordance with subsection 305, shall be required to alter or create new lot lines, add, or remove easements, or alter any other aspects of a recorded Plat. In the case of minor revisions to recorded Plats or lots, a Minor or Amending Plat may also be utilized if allowed in accordance with subsection 308 "Minor Plat" and subsection 307 "Amending Plat."

4. A Vacating Plat, in accordance subsection 306, may be utilized to provide a means of nullifying a recorded plat in its entirety, consistent with this Ordinance and state law.

Subsection 301.5 Non-Conforming Uses

No plat or replat shall create a non-conforming use and/or condition for parking, signs, or other such City regulations. If a lot or tract is being subdivided, an Engineering Site Plan may be required if determined by staff to ensure that the subdivision of property is not creating a nonconforming use and/or condition according to this chapter and other regulations.

Subsection 301.6 Non-Conforming Lots

No plat or replat shall create a non-conforming lot. All lots shall conform to the requirements of the City's zoning ordinance.

Subsection 301.7 Exemptions

The following types of subdivision, development, or alteration of an existing structure do not require approval by the City;

1. The division of land into two or more parts where all parts are larger than 5 acres and where each part has access, and no public improvements are being dedicated.
2. The division of property through inheritance, the probate of an estate, or by a court of law.
3. When a new building or addition is no more than 10% of the size of the existing building or buildings on the tract, provided there are one or more buildings already located on the tract. This provision shall apply up to a maximum addition of 5,000 square feet in size when there are no significant impacts to the property as determined by a current survey. A plat will be required, however, if there are changes in drainage, City utilities or required parking.

4. Exemptions as outlined in subsection 403.3 “Exemptions from Curb, Gutter, and Sidewalk Requirements”.
5. However, the City shall not extend utilities, provide access to public roads or issue building permits for the development of any property which has not received Final Plat approval, except as otherwise provided by this ordinance.

SECTION 302: SUBMITTAL PROCESS

Subsection 302.1 Pre-submittal conference.

302.1.1 Purpose. Prior to the official submission of an application for review and consideration, applicants may request a pre-submittal conference which provides an opportunity for the Developer and the City to communicate and streamline the application process for each development giving the Developer an opportunity to:

1. Discuss the proposed development with the Director of Public Works, the Director of Planning, and the City Engineer, Police Chief, Fire Marshal, and other City staff;
2. Obtain copies of all forms, publications, design criteria, Comprehensive Master Plan criteria and standards available from the City;
3. Determine whether the current zoning is appropriate for the proposed development or if rezoning may be required;
4. Determine whether a Plat is required for the development;
5. Outline development process and sequence.

302.1.2 Pre-submittal conference request. To schedule a pre–submittal conference, the applicant shall request a conference time with staff and submit a Pre-application Plan. The applicant shall then be notified by staff of the time and place for the pre-submittal conference. No Development Application shall be accepted for filing at a pre-submittal conference. There shall be no vested rights based on a pre-submittal conference.

Subsection 302.2 Application contents.

302.2.1 General application contents. All applications shall be submitted on a form supplied by the City with the required information and exhibits as stated on the application form and in accordance with the Design Standards.

302.2.2 Submittal deadlines. The City Manager shall establish submittal deadlines for all applications. Such submittal schedule will be posted on the city website.

302.2.3 Fees required. Every application shall be accompanied by the prescribed fees set forth in the City’s fee schedule, as approved by City Council, and as may be amended. Fees are not refundable and are not a guarantee of approval. Review of the application shall not begin until the appropriate fees have been processed by the City.

Subsection 302.3 Application submittal process.

302.3.1 Initiation by owner. An application required under this Ordinance may be initiated only by the owner of the land subject to the application, or by the owner’s duly authorized representative. If the applicant is a representative of the property owner, the application shall include a written and notarized statement from the property owner, such as a duly executed power of attorney, authorizing the representative to file the application on the owner's behalf.

302.3.2 Applicability. The procedures within this chapter shall apply to all applications that are required by the City and submitted in accordance with this Ordinance.

302.3.3 Official filing date. The submission date established by the City, in accordance with subsection 302.2.2 of this chapter, upon which a Plat application is filed shall be the "official filing date" for purposes of determining the 30-day time frame within which the City is required to act upon a Plat to approve, approve with conditions, or deny in accordance with this Ordinance and state law.

302.3.4 Owners dedication language. Refer to the Design Standards for the appropriate owner dedication language to include on the Plat and all other plat signature block wording and form.

Subsection 302.4 Application processing, action and notification following decision.

302.4.1 Action by responsible official. Once an application is filed, the City shall initiate internal review and assessment of the application as follows:

1. Initiate review of application and supporting materials submitted.
    (a) In accordance with Chapter 245 of the Texas Local Government Code, as amended, and other applicable law, an application filed with the City shall expire on or after the forty-fifth (45th) day after the date the application is filed if:
        (1) The applicant fails to provide documents or other information necessary to comply with the technical requirements relating to and conforming with the form and content of the City's application as outlined in the Design Standards; and
        (2) On or before the tenth (10th) business day after the date the application is filed, the City provides the applicant with written notice of the failure the applicant to comply with the requirements of subparagraph (1), and the written notice specifies the necessary documents or other information and the date the application will expire if the documents or other information is not provided; and
        (3) The applicant fails to provide the specified documents or other information within the time provided in the notice.

2. Request written comments from other City departments, such as engineering, fire, or other departments as deemed necessary. Comments will be submitted to the applicant for compliance and revisions. The City shall also, to the extent possible,

work with the applicant by advising on and communicating revisions that may be necessary to bring the application into compliance with the City regulations in preparation for consideration by the City Manager, Director of Planning, Planning and Zoning Commission, or City Council as applicable. All technical comments to an application must be sufficiently addressed by the applicant to receive a recommendation for approval from City staff.

3. Upon determination that the application is ready to be acted upon, schedule for administrative decision by Director of Planning, consideration for recommendation by the Planning and Zoning Commission, or consideration by the City Council, as applicable.

302.4.2 Notification of decision. Upon a conditional approval or denial of an application, the City shall provide the applicant a written statement of the conditions for the conditional approval or reasons for denial articulating each specific condition for the conditional approval or reasons for denial. Such notice shall include conditions or reasons directly related to the requirements upon which the conditional approval or denial relate including citations to sections of this Ordinance, other local ordinances and regulations, and/or state and federal laws. If the decision is an approval of an application, the City Manager, Director of Planning, or City Council, as applicable, shall endorse the Plat with a certificate indicating the approval.

Subsection 302.5 Amendments and expiration.

302.5.1 Amendments/revisions to a pending application. Unless expressly otherwise provided by this Ordinance, any request to amend or revise an application shall be considered a new application, which must be decided in accordance with the procedures and time restrictions governing the original application and the standards in effect at the time such new application is filed with the City, unless the amendment of the application is in response to questions or comments from the review of the original application, or is necessary to address conditions of approval, or is in response to the denial of the application.

302.5.2 Time of expiration of current applications. Unless expressly otherwise provided by this Ordinance, an approved application and associated permit shall automatically expire two (2) years following the approval date of the application, and shall become null and void, and all activities under the permit thereafter shall be deemed in violation of this Ordinance, if no progress has been made toward the completion of the project, as “progress” is defined in Section 245.005 of the Texas Local Government Code, unless the applicant seeks a time extension prior to the expiration of the permit, Plat or approval and such extension of time is granted by the City. Provided however, that an approved Final Plat, Minor Plat, Replat or Amended Plat shall not expire so long as it has been recorded within 180 days of the date of approval.

302.5.3 Time of expiration of applications approved prior to the establishment of this Subdivision Ordinance

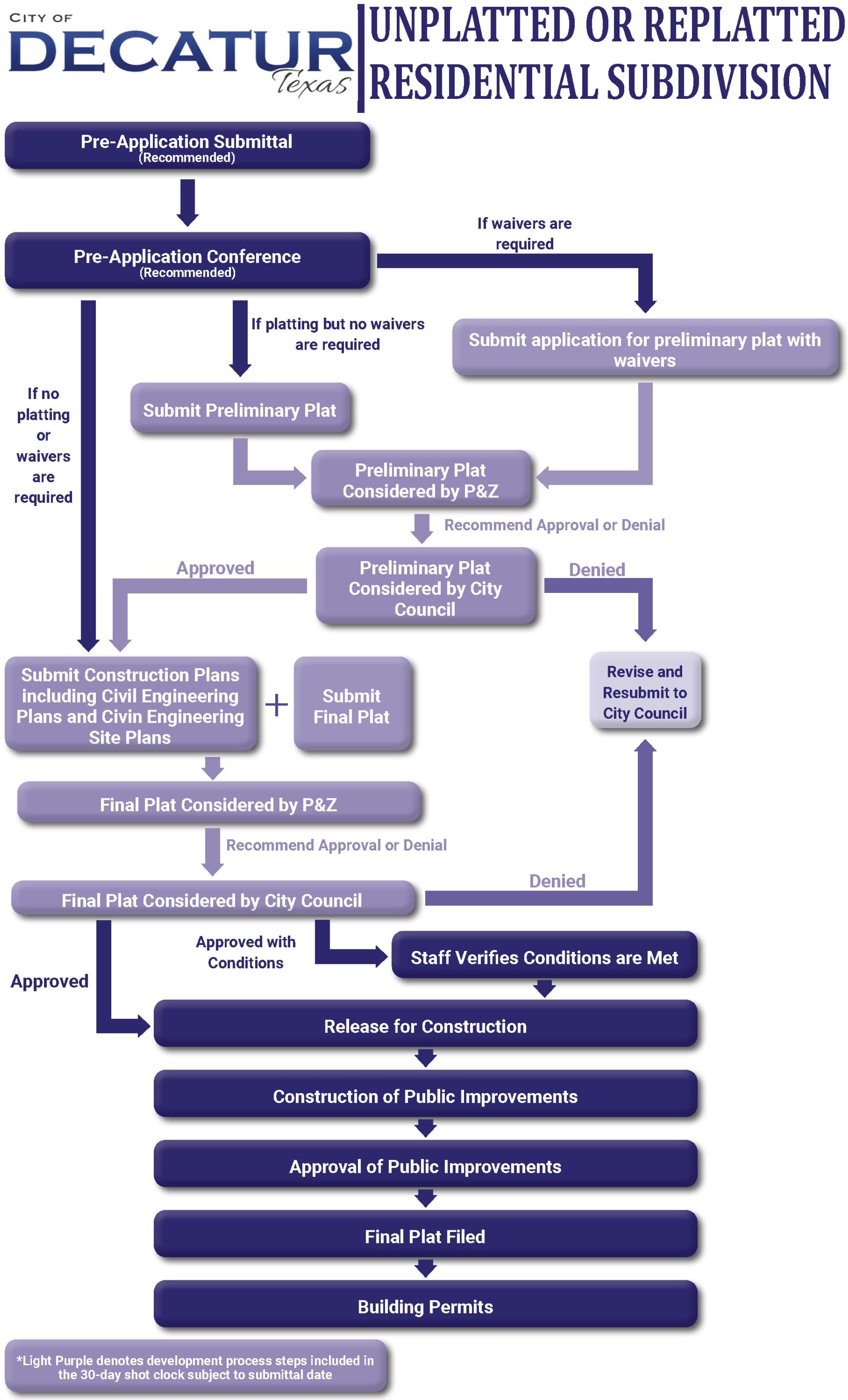
1. **Two-Year Expiration Established.** Notwithstanding any other provision of this Chapter, for any approved application for which no expiration date was in effect on the date this Chapter was duly adopted by City Council, an expiration date of two (2) years following the date of approval of the application shall apply, unless the applicant files a written petition before such date for a vested rights determination alleging that progress has been made toward completion of the project for which the application subject to expiration was filed. If a vested rights petition is timely filed and subsequently approved, the City Council shall determine the expiration date of the application in deciding the petition.
2. **Five-Year Expiration Established.** Notwithstanding any other provision of this Chapter, once an approved application has expired as described above, all previously approved applications for the same land also shall expire no later than five (5) years following the date of filing of the first application for the project for which the expired application was filed, unless the applicant files a written petition before such date for a vested rights determination. If a vested rights petition is timely filed and subsequently approved, the City Council shall determine the expiration date of the previously approved applications in deciding the petition.

302.5.4 Effect of expiration. Upon the expiration of an approved application, all previously approved applications for the same land shall also expire on the expiration date if the approved application or permit was required to avoid expiration for the previously approved applications(s). Thereafter, a new application must be submitted for consideration and approval subject to regulations in effect at the time the new applications is filed.

Subsection 302.6 Filing of approved Plat.

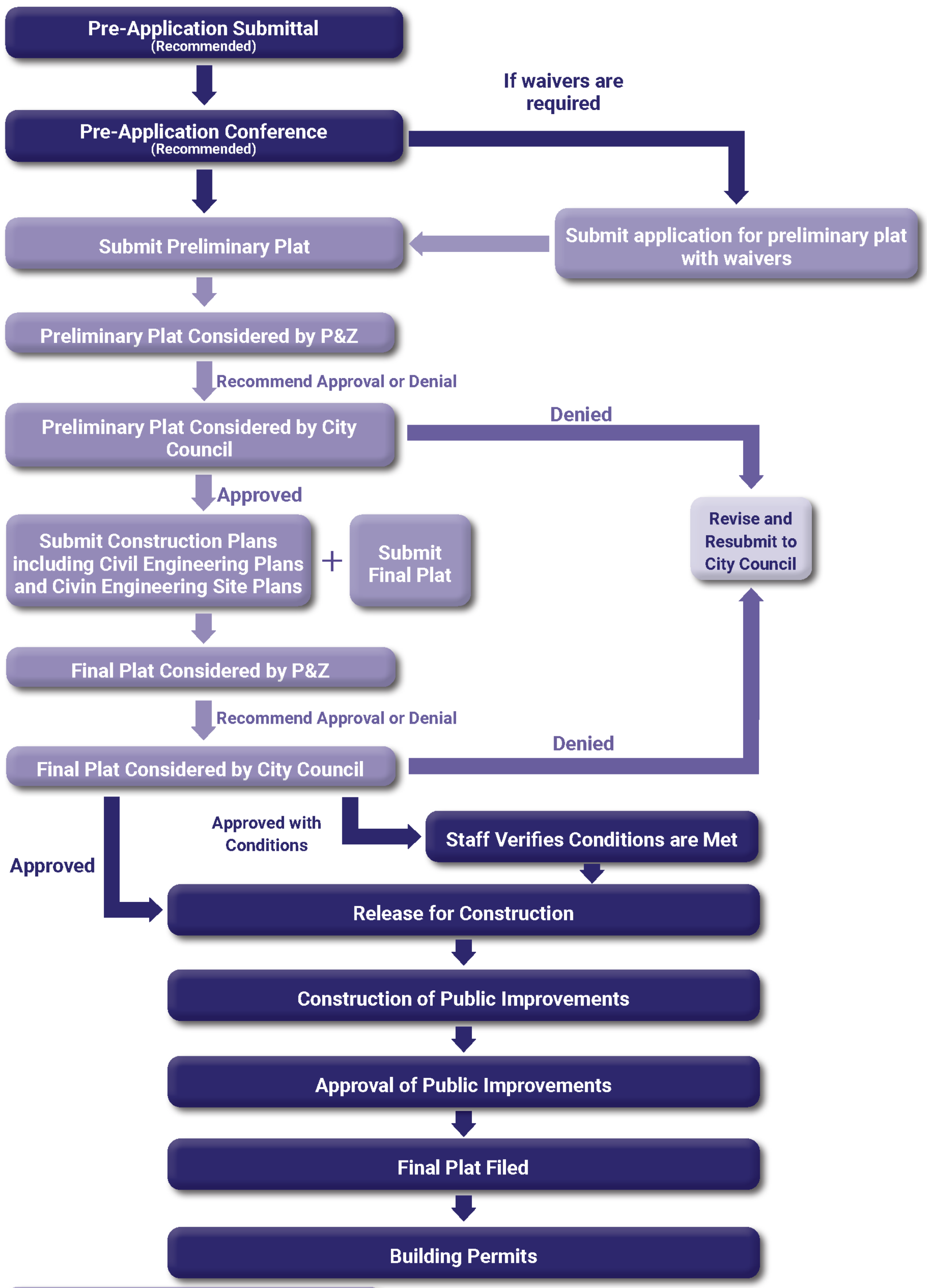
Unless expressly otherwise provided by this Ordinance, an approved Final Plat, Minor Plat, Replat, Vacating Plat and Amending Plat shall be filed with the County. The Plat shall be filed by the applicant and the plat shall include a notice to return a file stamped copy to the City.

Subsection 302.7 Flow Charts of Subdivision Process



City of DECATUR Texas

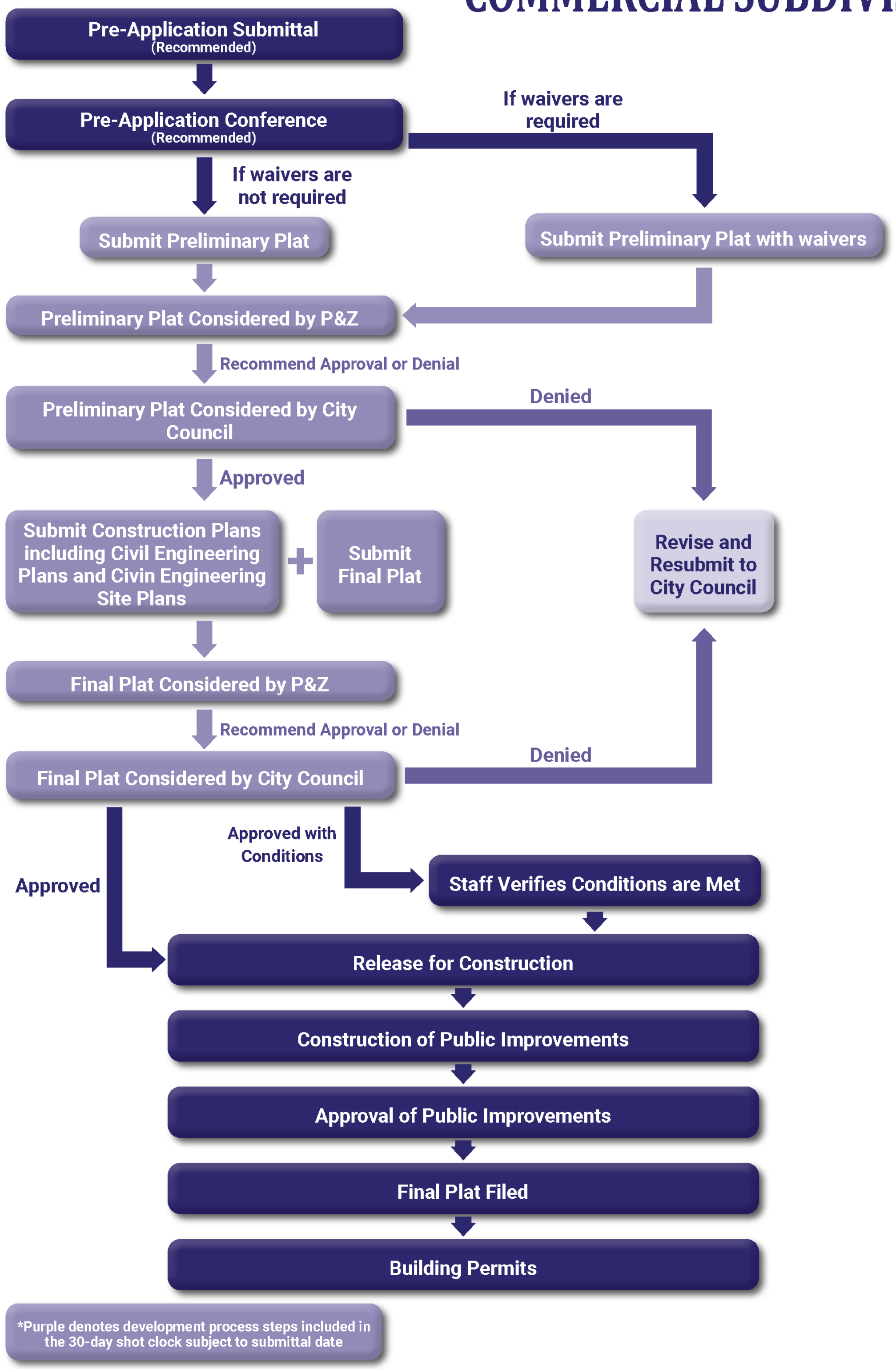
UNPLATTED MULTI-FAMILY OR COMMERCIAL SUBDIVISION



*Purple denotes development process steps included in the 30-day shot clock subject to submittal date

CITY OF DECATUR Texas

PREVIOUSLY PLATTED MULTI-FAMILY OR COMMERCIAL SUBDIVISION



SECTION 303: PRELIMINARY PLAT

Subsection 303.1 Purpose
The purpose of a Preliminary Plat is to determine the general layout of the subdivision, the adequacy of public facilities needed to serve the intended development, and the overall compliance of the land division with applicable requirements of this Ordinance. A Preliminary Plat is not recorded in the county.

Subsection 303.2 Applicability
A Preliminary Plat is required for any subdivision of a tract which will involve dedication of City streets, drainage ways and/or utilities. Please note, no subdivision of land, except for Minor Plats, shall be allowed without proper submittal, approval, and adoption of a Preliminary Plat.

Subsection 303.3 Exceptions
A Preliminary Plat is not required for a Minor Plat, Vacating Plat, or Amended Plat.

Subsection 303.4 Application Requirements.
Preliminary Plat applications shall be submitted in accordance with section 302 “Submittal process,” and the Design Standards.

Subsection 303.5 Decision
A final decision on Preliminary Plat application shall be given by the City Council in accordance with subsection 302.4.2 “Decision and delegation of approval responsibility.”

Subsection 303.6 Extension Procedures
Preliminary Plats shall expire in accordance with subsection 302.5 Amendments and expiration. To avoid expiration of a Preliminary Plat, sixty (60) days prior to or following the lapse of approval of a Preliminary Plat as provided in this Ordinance, the property owner may petition in writing requesting to extend the approval.

In determining whether to grant such request, the Director of Planning shall consider the reasons for lapse, the ability of the property owner to comply with any conditions attached to the original approval, and the extent to which newly adopted regulations shall apply to the plat. The Director of Planning may extend the time of approval for the Preliminary Plat by one (1) year. If it is determined the Preliminary Plat does not meet the requirements for the extension, the Director of Planning shall deny the request, in which instance the property owner must submit a new application for approval.

Subsection 303.7 Effect of Approval
The approval of a Preliminary Plat shall allow the applicant to proceed with the next step in the development and platting process by submitting a Final Plat and Civil Engineering Plans. Approval of the Preliminary Plat shall be deemed a general approval of the

subdivision’s layout only and shall not constitute approval or acceptance of Final Plat or Civil Engineering Plans.

SECTION 304: FINAL PLAT

Subsection 304.1 Purpose
The purpose of a Final Plat is to ensure that the proposed subdivision and development of the land is consistent with all standards of this Ordinance and other applicable ordinances pertaining to the land use regulations, the adequacy of public facilities, that public improvements to serve the subdivision or development have been installed and accepted by the City or that provision for such installation has been made, that all other requirements and conditions have been satisfied or provided for to allow the Final Plat to be recorded.

Subsection 304.2 Applicability
A Final Plat is required for all subdivisions of property and the record of single lots as well as the dedication of public rights-of-way and easements.

Subsection 304.3 Exceptions
A Final Plat is not required when a Minor Plat is sufficient.

Subsection 304.4 Application Requirements.
Final Plat applications shall be submitted in accordance with section 302 “Submittal process,” and the Design Standards.

Subsection 304.5 Decision
A final decision on a Final Plat application shall be given by the City Council in accordance with subsection 302.4.2 “Decision and delegation of approval responsibility.”

Subsection 304.6 Engineering Plan Requirements
Complete Civil Engineering Plans shall accompany submittal of any Final Plat and, where required, an engineering site plan. The Civil Engineering Plans shall be considered as an integral part of the Final Plat and will be reviewed accordingly. Civil Engineering Plans shall contain engineering data for the construction of all public improvements (including, but not limited to, water, sanitary sewer, storm sewer, grading, filling, erosion control and paving) consistent with this Ordinance. Please see the Design Standards (Appendix I) for requirements and further details.

Subsection 304.7 Effect of Approval
Approval of a Final Plat constitutes authorization for the City Manager to release Civil Engineering Plans subject to their final approval and for the City Manager to authorize for the property owner to commence grading of the site and construction of public improvements. Exceptions may be granted to allow for clearing and grading prior to the approval of a Final Plat at the discretion of the City Manager. Approval of a Final Plat shall certify compliance with the regulations of the City pertaining to the subdivision of land.

Subsection 304.8 Signing and Recording of Final Plat
Installation of public improvements is required prior to recordation of the Final Plat. Approval of the Final Plat shall not be granted until all conditions of approval have been satisfied and all public improvements have been satisfactorily completed. An approved and signed Final Plat shall be filed with the County as a record of the subdivision of land and may be used to reference lots and interests in property thereon defined for the purpose of conveyance and development as allowed by these regulations and other provisions of the City's Code of Ordinances.

Subsection 304.9 Filing requirement and period of validity
An approved Final Plat shall be filed with the County in accordance with subsection 302.6 "Filing of approved Plat." If an approved Final Plat is not filed with the County, approval shall expire in accordance with subsection 302.5 "Amendments and expiration."

SECTION 305: REPLAT

Subsection 305.1 Purpose
The purpose of a Replat is to allow for changes to a recorded Plat while providing for conformance with the requirements of this Ordinance.

Subsection 305.2 Applicability
A Replat is required to alter or create new lot lines, add, or remove easements, or alter any other aspects of a recorded Plat.

Subsection 305.3 Application Requirements.
Replat applications shall be submitted in accordance with section 302 "Submittal process," and the Design Standards.

Subsection 305.4 Decision
A final decision on a Replat application shall be given by the City Council in accordance with subsection 302.4.2 "Decision and delegation of approval responsibility."

Subsection 305.5 Filing requirement and period of Validity
An approved Replat shall be filed with the County in accordance with subsection 302.6, Filing of approved Plat. If an approved Replat is not filed with the County, approval shall expire in accordance with subsection 302.5 "Amendments and expiration."

Subsection 305.6 Public hearing requirements.
A public hearing notice regarding a Replat application shall be provided as required in accordance with section 212.015 of the Texas Local Government Code.

SECTION 306: VACATING PLAT

Subsection 306.1 Purpose
The purpose a Vacating Plat is to provide a means of nullifying a recorded plat in its entirety, consistent with this Ordinance and state law.

Subsection 306.2 Applicability
A Vacating Plat shall be in accordance with the following conditions:

1. The owner may vacate a Plat before any lots within the original subdivision are sold; or
2. If lots within the subdivision have been sold, the original Plat or portions of the original Plat may be vacated only upon the application of all the owners of the lots within the original subdivision.

Subsection 306.3 Application Requirements.
Vacating Plat applications shall be submitted in accordance with section 302 “Submittal process,” and the Design Standards.

Subsection 306.4 Decision
A final decision on a Vacating Plat application shall be given by the City Council in accordance with subsection 302.4.2 “Decision and delegation of approval responsibility.”

Subsection 306.5 Filing requirement
An approved Vacating Plat shall be filed with the County in accordance with subsection 302.6 “Filing of approved Plat.”

SECTION 307: AMENDING PLAT

Subsection 307.1 Purpose
The purpose of the Amending Plat is to allow approval through administrative action by the City Manager in certain circumstances without review and approval by the Planning and Zoning Commission.

Subsection 307.2 Applicability
An application for an Amending Plat may be submitted if it meets one or more of the following conditions:

1. To correct an error in any course or distance shown on the prior Plat.
2. To add any course or distance that was omitted on the prior Plat.
3. To correct an error in the description of the real property shown on the prior Plat.
4. To indicate monuments set after death, disability, or retirement from practice of the engineer or surveyor charged with responsibility for setting monuments.
5. To show the property location or character of any monument which has been changed in location or character or which originally was shown at the wrong location or incorrectly as to its character on the prior plat.
6. To correct any other type of scrivener or clerical error or omission as previously approved by the municipal authority responsible for approving Plats; such errors

and omissions may include, but are not limited to, lot numbers, acreage, street names, and identification of adjacent recorded plats.

7. To correct an error in courses and distances of lot lines between two (2) adjacent lots where both lot owners join in the application for Plat amendment and neither lot is abolished, provided that such amendment does not attempt to remove recorded covenants or restrictions and does not have a material adverse effect on the property rights of the other owners in the plat.
8. To relocate a lot line in order to cure an inadvertent encroachment of a building or improvement on a lot line or on an easement.
9. To relocate one (1) or more lot lines between one (1) or more adjacent lots where the owner or owners of all such lots join in the application for the Plat amendment, provided that the amendment does not:
    a. Attempt to remove recorded covenants or restrictions; or
    b. Increase the number of lots.
10. To make necessary changes to the prior Plat to create six (6) or fewer lots in the subdivision or a part of the subdivision covered by the prior Plat if:
    a. The changes do not affect applicable zoning and other regulations of the City; and
    b. The changes do not attempt to amend or remove any covenants or restrictions; and
    c. The area covered by the changes is located in an area that the Planning and Zoning Commission and City Council has approved, after a public hearing, as suitable for residential development.

Subsection 307.3 Application Requirements.
Amending Plat applications shall be submitted in accordance with section 302 “Submittal process,” and the Design Standards.

Subsection 307.4 Decision
A final decision on an Amending Plat application shall be given by the City Manager in accordance with subsection 302.4.2 “Decision and delegation of approval responsibility.”

Subsection 307.5 Filing requirement
An approved Amending Plat shall be filed with the County in accordance with subsection 302.6 “Filing of approved Plat.”

SECTION 308: MINOR PLAT

Subsection 308.1 Purpose
The purpose of the Minor Plat is to simplify divisions of land under certain circumstances as outlined by this Ordinance and state law and allow administrative approval of a Minor Plat by the Director in certain circumstances without review and approval by the Planning and Zoning Commission.

Subsection 308.2 Applicability
A Minor Plat application may be submitted for consideration when:

1. The proposed division includes four (4) or fewer lots; and
2. The total area covered by the Minor Plat does not exceed forty (40) acres; and
3. Every lot created by the Plat has frontage on an existing paved street; and
4. Every lot within the Plat is able to be established without the need for the creation of a new street or extension of municipal facilities; and
5. The area covered by the Plat does not constitute a portion or a phase of an approved Preliminary Plat; and
6. Except for right-of-way widening and easements, the Minor Plat does not require construction of any public improvements to comply with this Ordinance.

Subsection 308.3 Application Requirements.
Minor Plat applications shall be submitted in accordance with section 302, Submittal process, and the Design Standards.

Subsection 308.4 Decision
A final decision on Minor Plat application shall be given by the City Manager in accordance with subsection 302.4.2 “Decision and delegation of approval responsibility.”

Subsection 308.5 Filing requirement
An approved Minor Plat shall be filed with the County in accordance with subsection 302.6 “Filing of approved Plat.”

CHAPTER 4: SUBDIVISION REGULATIONS

SECTION 401: GENERAL

Subsection 401.1 General Provisions

No Plat shall be approved by the Planning and Zoning Commission, and no completed improvements shall be accepted by the City Manager, unless and until such conforms to the Design Standards of this Ordinance, and all other applicable standards as prescribed by the City. All streets, alleys, sidewalks, drainage ways, water and sewer lines, and improvements shall be designed, placed, and constructed in accordance with the Design Standards, related standards as outlined in subsection 401.2 “Related Standards, and any other applicable ordinances of the City.

Subsection 401.2 Related Standards

The latest version of Standard Specifications for Public Works Construction, North Central Texas of the North Central Texas Council of Governments, with all amendments thereto, is adopted as the City’s technical specifications, except as amended by the Design Standards. A copy of the Standard Specifications for Public Works Construction, North Central Texas of the North Central Texas Council of Governments is incorporated by reference and is on file with the City Secretary.

SECTION 402: DEVELOPER’S OBLIGATIONS

See Design Standards for further regulations and details.

Subsection 402.1 Responsibility for Improvements

All of the improvements required under these regulations, or improvements specified in the Comprehensive Plan, or improvements which, in the judgment of the City Manager are necessary for the adequate provision of streets, utilities, drainage, services, and facilities to the subdivision and to the surrounding areas of the City, shall be constructed at the sole expense of the developer, unless otherwise provided for and approved by City Council. All improvements required by this Ordinance shall be constructed and accepted by the City Manager prior to filing the associated plat at the County, unless otherwise specified in a Subdivider’s Agreement approved by City Council. Payment for any and all improvements that are not to be made at the time of the primary construction of the subdivision or development shall be made a part of the signed and executed Subdivider’s Agreement and/or Escrow Agreement.

SECTION 403: DIMENSIONAL STANDARDS

Subsection 403.1 Lots and Blocks

Proposed lots and blocks within a subdivision shall meet the requirements set forth in the Design Standards.

Subsection 403.2 Right-of-Way
Right-of-way shall be dedicated in order to provide for streets, sidewalks, pathways, and other required public facilities and shall be configured in accordance with the standards set forth in the Design Standards.

Subsection 403.3 Streets and Sidewalks
The arrangement, character, extent, width, grade, lighting, signage, screening (where applicable), location and construction of all streets, sidewalks, and pathways shall conform to the Thoroughfare Plan and the Design Standards. Where the subdivision or any lot therein abuts a state or county highway, road, or right-of-way, additional standards or review may apply. Subdivisions shall be supported by a street network having adequate capacity, ingress/egress, and circulation. The subdivider/developer shall be responsible for the cost of street improvements to serve the development, subject to the City's cost participation policies on oversized facilities which must be included in a Subdivider Agreement.

Subsection 403.4 Sidewalk (Curb & Gutter) Requirements
1. In already established single-family residential neighborhoods, sidewalk and curb & gutter is required:
    a. For new construction.
    b. Along all arterial and collector streets.
    c. Along local streets when:
        i. Directly connecting to developments to parks, schools, commercial destinations, and public facilities as determined by the City Manager.
        ii. Or along a roadway that is fronted by parks, schools, commercial destinations, and public facilities and bound by two (2) primary streets as determined by the City Manager.
    d. When a property is adjacent to a state-right-of-way, the owner shall comply with development and infrastructure requirements established by the State of Texas for all required permits and approvals.
    e. For future hike & bike trails.
    f. When depicted on a current or future Sidewalk Master Plan and in conformance with the Comprehensive Plan.
    g. When a property is located within the boundaries of the Main Street Historic District.
2. In already established single-family residential neighborhoods, sidewalk and curb & gutter are not required under the following:
    a. A request for a building permit for remodeling or repair of the interior or exterior of the existing square footage of a structure when the work to be performed pursuant to that building permit does not expand the total square footage. The addition of a brick ledge or other widening of the exterior wall shall not be considered an expansion or alteration of existing square footage.

b. A subdivision of land required by a Court of competent jurisdiction which does not create more than two (2) lots.
c. Construction of an Accessory Structure that does not exceed two hundred (200) square feet, that is portable in nature, and that is not permanently affixed to the property by means of placement on a foundation.
d. Removal or demolition of a structure.
e. Improvements to cemeteries existing upon the date of adoption of this Ordinance that comply with all applicable State and local laws and regulations.
f. A request for a building permit for a swimming pool.

Subsection 403.5 Alleys
Alleys shall be platted and constructed in accordance with the Thoroughfare Plan of the Comprehensive Plan or other plans approved by the City Council and shall conform to the requirements set forth in the Design Standards.

Subsection 403.6 Driveways
All driveway approaches, curbs, gutters, pavements, and appurtenances necessary to provide access to properties shall be provided by the developer, shall be designed, constructed, and maintained in accordance with standards in the Design Standards, Zoning Ordinance and Planned Development Ordinance (if applicable to the subject property).

Subsection 403.7 Grading
A grading permit shall be obtained prior to stockpiling or filling property within the city limits and the fill will be placed in accordance with the geotechnical report. Grading permits are approved by the City Manager.

Subsection 403.8 Easements
For new development, all necessary onsite easements shall be dedicated on the subdivision plat and not by separate instrument, unless authorized by the City Manager. The easements minimum width shall be established, labeled for specific purpose, and to the specific entity if not dedicated to the public.

Subsection 403.9 Drainage
Drainage facilities shall be provided and constructed by the developer and constructed by the developer in accordance with the Design Standards.

Subsection 403.10 Water and Wastewater
The design and construction of all water and wastewater facilities shall conform to the Design Standards, Construction Standards Detail, and state and federal requirements.

Subsection 403.11 Stormwater
The design and construction of all storm water facilities shall conform to the Design Standards and state and federal requirements. The subdivider/developers shall be responsible for the costs of any easements and storm water to serve the development, subject to the City's cost participation policies on oversized facilities which must be included in a Subdivider Agreement. Facilities shall be designed for ultimate conditions assuming no upstream detention. Please see the Design Standards for further regulations and details.

Subsection 403.12 Fire Protection
Sufficient utility capacity, fire hydrants and other fire suppression installations shall be provided to ensure adequate fire protection for all proposed developments, in accordance with this Ordinance, Design Standards, and with the currently adopted International Fire Code, as amended.

CHAPTER 5: INFRASTRUCTURE DEVELOPMENT PROCEDURES

SECTION 501: GENERAL

Subsection 501.1 General Provisions

The Subdivider shall furnish, extend, install and/or construct all infrastructure, including but not limited to, the water and sanitary sewer systems and the street and drainage facilities necessary for the proper development of the subdivision. All such facilities shall be designed and constructed in accordance with the Design Standards, any applicable master plans, and other City ordinances.

SECTION 502: APPROVAL AND ACCEPTANCE

Subsection 502.1 General

The City will withhold all city services and improvements of whatsoever nature, including the maintenance of streets and the furnishing of all other City services from any subdivision or property until all of the street, utility, storm drainage and other public improvements, as well as lot improvements such as retaining walls and grading and installation of improvements required for proper lot drainage and prevention of soil erosion on the individual residential lots, are properly constructed according to the approved Civil Engineering Plans and to city standards, and until such public improvements are inspected and accepted by the city.

Subsection 502.2 Acceptance of Dedication Offers

Acceptance of formal offers for the dedication of streets, public areas, easements, or parks shall be by authorization of the City Manager. The approval by the Planning and Zoning Commission of a Preliminary or Final Plat shall not, in and of itself, be deemed to constitute approval of public infrastructure.

Subsection 502.3 Inspections

Periodic inspections of public infrastructure as required by the City shall be conducted by the City Manager. Inspections shall ensure that construction is in accordance with the approved construction plans, the Design Standards and the City Code of Ordinances. Certain inspections (e.g., of retaining walls or of materials) shall by conducted by an independent, duly qualified firm engaged by the subdivider/developer. Upon completion of these inspections, a written report shall be forwarded to the City that fully documents the inspections, the tests completed, specific items that are in compliance or noncompliance, actions that must be taken to bring the construction into compliance, and any other information required by the City Manager. The City may either require reinspection by the applicant's independent firm or conduct its own independent inspection as required by the City Manager.

Subsection 502.4 Agreements and Financial Assurances for Improvements

Before final acceptance of a Subdivision located all or partially within the City, the City Manager must be satisfied that all required Public Infrastructure Improvements have been constructed in accordance with the approved Civil Engineering Plans and with the requirements of this Ordinance.

502.4.1 Development Agreements and Guarantee

A Subdivider shall be required to enter into a Development Agreement with the City, which shall govern the subdivision if there are pro rata payments or other financial agreements, to ensure the development of the Plat as agreed upon by both the Subdivider and the City. City participation in cost, escrow deposits, or other future considerations, will not be issued prior to filing the Development Agreement with the County.

Whenever the City permits a Subdivider to delay the construction of public infrastructure, it shall require the Subdivider to enter into a Development Agreement with the City to provide terms for sufficient financial security, covering the completion of the public improvements. The Development Agreement shall establish that the security shall be in the form of cash escrow or, where authorized by the City, a performance bond or letter of credit or other security acceptable to the City Council and in a form approved by the City Attorney.

502.4.2 Oversizing of infrastructure

The City and Subdivider may enter into a Facilities Agreement or a Developer's Participation Agreement, as specified in Texas Local Government Code 212.071, approved by the City Council, where the City is requesting a Subdivider oversize public infrastructure.

Financial security shall be in an amount equal to 100 percent of the estimated cost of completion of the required public improvements and lot improvements. The issuer of any surety bond and letter of credit shall be subject to the approval of the City Manager and the City Attorney.

502.4.3 Performance Bonds

The performance bond shall comply with the following requirements:

1. All performance bonds must be in forms acceptable to the City Manager and the City Attorney.
2. All performance bonds must be executed by such sureties as are named in the current list of "Companies Holding Certificates of Authority as Acceptable Sureties on Federal Bonds and as Acceptable Reinsuring Companies", as published in Circular 570, as may be amended, by the Financial Management Service, Surety Bond Branch, U.S. Department of the Treasury.
3. All performance bonds must be signed by an agent and must be accompanied by a certified copy of the authority for him or her to act.

4. All performance bonds shall be obtained from surety or insurance companies that are duly licensed or authorized in the State of Texas to issue performance bonds for the limits and coverage required. If the surety on any performance bond furnished by the applicant is declared bankrupt, or becomes insolvent, or its right to do business in terminated in the State of Texas, or the surety ceases to meet the requirements listed in Circular 570, the subdivider/developer shall, within 20 calendar days thereafter, substitute another performance bond and surety, both of which must be acceptable to the city.
5. Bonds must allow City authority to assign its right to receive funds under the security to a third-party.

502.4.4 Letters of Credit

If the city council authorizes the applicant to post a letter of credit as security for its promises contained in the Subdivider Agreement, the letter of credit shall: 1. Be irrevocable;

2. List the City as the sole beneficiary, and
3. Be conditioned that the water and sewer service facilities will be constructed or installed:
   a. In compliance with the model rules adopted under Section 16.343, Water Code and the ordinances, rules, and regulations, of the City, and
   b. Within the time stated on the plat or on the document attached to the plat for the subdivision or within any extension of that time.
4. Be for a term sufficient to cover the completion, maintenance, and warranty periods, but in no event less than two years; and
5. Require only that the City Manager present the issuer with a sight draft and a certificate signed by an authorized representative of the City certifying to the City's right to draw funds under the letter of credit.
6. If the City Manager is satisfied that such portion of the improvements has been completed in accordance with City standards, he or she may, but is not required to, cause the amount of the security to be reduced by such amount that he or she deems appropriate, so that the remaining amount of the security adequately insures the completion of the remaining public improvements.
7. Upon acceptance by the City of all required public improvements and the required security for maintenance and warranty is otherwise provided by the contractors or by others, the City will release the entire amount of the subdivider/developer's security.

502.4.5 Record Drawings

The City will not deem required public improvements satisfactorily completed until the applicant's engineer or surveyor has certified to the City Manager, through submission of detailed record drawings of the property which indicate all public improvements and their locations, dimensions, materials and other information required by the City Manager, and until all required public improvements have been completed. The record drawings shall be stamped drawings of the paving, drainage, water, sanitary sewer, and other public improvements, showing that the layout of the lines and grades of all public improvements are in accordance with Civil Engineering Plans for the Plat, and showing all changes made in the plans during construction, and containing on each sheet a "record drawing" stamp bearing the signature of the licensed professional engineer and the date. The record drawings shall be submitted in the form required by the Design Standards. When such requirements have been met satisfactorily, the City Manager shall issue the letter of acceptance of the improvements.

502.4.6 Deferral of Required Improvements

The Planning and Zoning Commission may defer to the City Council to the ability to waive the required Public Infrastructure Improvements, at the time of Final Plat approval, subject to appropriate conditions, the provision of any or all Public Infrastructure Improvements as, in its judgment, are not required in the immediate interests of the public health, safety, and general welfare, or which are inappropriate because of the inadequacy or nonexistence of connecting facilities.

Whenever it is deemed necessary by the City Council to defer the construction of any Improvement required under these regulations because of incompatible grades, future planning, inadequate or nonexistent connecting facilities, or for other reasons, the Subdivider shall deposit in escrow his or her share of the costs in accordance with City participation and oversizing policies of the future Public Infrastructure Improvements with the City. The escrow shall be deposited prior to approval of the Final Plat, or the Subdivider may execute a Escrow Agreement secured by a cash escrow or, where authorized, a letter of credit guaranteeing completion of the deferred Public Infrastructure Improvements upon demand of the City.

502.4.7 Temporary Improvements

No temporary Improvement will be required or approved by the City until the Final Plat has been approved, and a performance bond or other security in an amount determined by the City Manager is submitted.

The applicant shall build and pay for all costs of temporary Improvements required by the City and shall maintain those temporary Improvements for the period specified by the City. Prior to construction of any temporary facility or Improvement, the applicant shall file with the City a Facilities Agreement and Escrow Agreement or, where authorized, a letter of credit shall ensure that the temporary facilities will be properly constructed, maintained, and removed.

Any temporary Public Infrastructure Improvement (e.g., a temporary cul-de-sac, alley turnout, drainage swale, erosion control device, etc.) shall be placed within an easement established specifically for that purpose. The recording information of the instrument establishing the temporary easement shall be clearly shown on the final plat for the subdivision prior to approval of the final plat. A temporary easement for a required public improvement shall not be abandoned without the City Manager or their designee's approval and without written consent by the City.

502.4.8 Compliance Requirements

In those cases where a Subdivider Agreement has been executed and security has been posted, and the required Public Infrastructure Improvements have not been installed within the terms of the Subdivider Agreement, the City may:

1. Declare the Subdivider Agreement to be in default and require that all the Public Infrastructure Improvements be installed regardless of the extent of completion of the development at the time the Subdivider Agreement is declared to be in default;
2. Suspend Final Plat approval until the Public Infrastructure Improvements are completed, and may record a document to that effect for the purpose of public notice;
3. Obtain funds under the security and complete the Public Infrastructure Improvements itself or through a third party;
4. Assign its right to receive funds under the security to any third party, including a subsequent owner of the subdivision for which Public Infrastructure Improvements were not constructed, in whole or in part, in exchange for that subsequent owner's promise to complete the Public Infrastructure Improvements on the property; or
5. Exercise any other rights or remedies available under the law.

Subsection 502.5 Maintenance Bond

Upon acceptance of Public Infrastructure Improvements, the Subdivider shall provide a 2-year maintenance bond, valued at 100% of the cost of the Public Infrastructure Improvements. In lieu of a maintenance bond, the Subdivider may provide letter of credit, or cash escrow as approved by the City Manager.

CHAPTER 6: PARKS AND OPEN SPACE

SECTION 601: PARKLAND DEDICATION AND DEVELOPMENT

Subsection 601.1 Purpose

This section is adopted to provide open space and recreational areas in the form of parks as a function of subdivision and site development in the City. This section is enacted in accordance with the Charter, the U.S. and Texas Constitutions, and the statutes of the State of Texas, including, but not by way of limitation, Texas Local Government Code Chapter 212, as may be amended from time to time.

It is hereby declared by the City Council that open space and recreational areas in the form of trails, parks, and preserves are necessary for the health and welfare of the residents of the City, and that the only adequate procedure to provide for parks is by integrating such requirements into the procedure for planning and developing property or subdivisions in the City to accommodate the associated and proportionate impact on the parks and recreation system, whether such development consists of subdivision, new construction on vacant land, or rebuilding and remodeling of structures on previously developed property.

Parks provide for a variety of indoor and outdoor recreational and healthy living opportunities and are located in various locations throughout the City. The land area of the City being less than nine (9) square miles shall be prima facie evidence that any park located therein is within a convenient distance from any residence located therein. The primary cost of purchasing or acquiring, developing, and improving parks shall be borne by the landowners of residential property or projects who, by reason of the proximity of their property to such parks, are the primary beneficiaries of such facilities.

Due to the City's small size, a typical park is designed to serve the needs of residents from the entire community no matter where the park is or will be located in the City. Parks serve both active and passive leisure and recreation needs of residents and their visitors, in addition to serving the essential purposes of providing open space to maintain the rural character of the City as desired by the community. The purchase, acquisition, development, and improvement of the basic infrastructure and facilities for parks in the City are based upon the demand from the residents they are intended to serve.

Recognizing that there are different sizes, scales, and types of park facilities, the required level of service contained herein has been designed based on the smallest of park facilities at existing level of service, a neighborhood park of one (1) acre, to meet the "basic" infrastructure and facilities standard. Any fees collected per these requirements can, however, be utilized in the purchase or acquisition of parkland, development, and/or improvement of any size or scale park facility in the City as planned for or recommended, either express or implied, in the park master plans of the City, as may be amended from time to time.

Therefore, the following requirements are adopted to affect the purposes stated above. Please see Appendix II, III, and IV for further details and regulations.

CHAPTER 7 RELIEF PROCEDURES

SECTION 701: GENERAL

Subsection 701.1 Purpose

The purpose of these relief procedures is to allow an applicant to differ from a particular standard or requirement of the Ordinance that would substantially limit the applicant's ability to utilize the land in a manner requested, but still meet the spirit and intent of the Ordinance.

1. The rules and regulations of this Ordinance are the standard requirements of the City. Suspension of any of these rules and regulations may be granted upon a good and sufficient showing by the applicant that there are special circumstances or conditions affecting the lot in question, or that enforcement of the provisions of this chapter will deprive the applicant of a substantial property right and that such suspension, if granted, will not be materially detrimental to the public welfare or injurious to other property or property rights in the vicinity.
2. Each and every application for waiver shall be decided solely and entirely on its own merits and the disposition of any prior or pending application for a waiver shall not be allowed to enter into or affect any decision on the application in question.
3. Pecuniary interests (i.e., financial issues) standing alone shall not be justification for the granting of a waiver.
4. Waivers will be deemed as Major or Minor as defined within this Ordinance.

Subsection 701.2 Applicability

An applicant may request relief from a particular standard or requirement applicable to a Preliminary Plat, Construction Plans, Final Plat, or Replat. The relief petition shall be specific in nature and shall only involve relief consideration for one particular standard or requirement. An applicant may, if desired, submit more than one relief petition if there are several standards or requirements at issue.

SECTION 702: MAJOR WAIVERS

Subsection 702.1 Major Waivers Submission Procedure

A request for a Major Waiver shall be submitted in writing by the applicant with the submittal of Preliminary Plat, Construction Plans, Final Plat, or Replat, as applicable on a form prepared by the City. No Major Waiver may be considered for recommendation by the Planning and Zoning Commission or considered by the City Council unless the applicant has made such written request and paid the applicable fee.

The applicant's request shall state the grounds for a Major Waiver request and all of the facts relied upon by the applicant. Failure to do so will result in denial of the associated waiver.

Subsection 702.2 Major Waiver Criteria

1. The Planning and Zoning Commission may recommend, and the City Council may grant a Major Waiver from regulations within this Ordinance when the applicant has demonstrated that undue hardship will result from strict compliance.
2. The Planning and Zoning Commission and the City Council shall consider the following factors:
    a. The general purpose and intent of this Ordinance;
    b. The nature of the proposed land use involved and existing uses of the land in the vicinity;
    c. The number of persons who will reside or work in the proposed development; and
    d. The effect such waiver might have upon public infrastructure, traffic conditions and upon the public health, safety, convenience, and welfare in the vicinity.
3. No Major Waiver shall be granted unless the City Council finds:
    a. That there are special circumstances or conditions affecting the land involved or other constraints such that the strict application of the provisions of this Ordinance would deprive the applicant of the reasonable use of the land.
    b. That the waiver is necessary for the preservation and enjoyment of a substantial property right of the applicant, and that the granting of the waiver will not be detrimental to the public health, safety, or welfare or injurious to other property in the area.
    c. That the granting of the waiver will not have the effect of preventing the orderly subdivision of other lands in the area in accordance with the provisions of this Ordinance.
    d. The hardship is not a mere inconvenience. Financial hardship to the applicant shall not be deemed to constitute undue hardship in and of itself.
4. The City Council shall not grant a Major Waiver that would constitute a violation of, or conflict with, any other valid ordinance, code, regulation, master plan, or Comprehensive Plan of the City.
5. Any falsification of information by the applicant shall be cause for the Major Waiver request to be denied. If the Major Waiver request is approved based upon false information, whether intentional or not, discovery of such false information shall nullify prior approval of the waiver and shall be grounds for reconsideration of the Major Waiver request.

Subsection 702.3 Burden of Proof

The applicant bears the burden of proof to demonstrate that the requirement for which a Major Waiver is requested, if uniformly applied, imposes an undue hardship or disproportionate burden on the applicant. The applicant shall submit the burden of proof with the original submittal.

Subsection 702.4 Decision

The City Council shall consider the Major Waiver in a public hearing, and, based upon the criteria set forth in subsection 702.2 "Major Waiver Criteria," shall take one of the following actions:

1. Deny the petition, and impose the standard or requirement as it is stated in this Subdivision Ordinance; or
2. Grant the petition and waive in whole or in part the standard or requirement as it is stated in this Ordinance and attach reasonable conditions to the Major Waiver to protect the public health, safety, and welfare.

Subsection 702.5 Notification of Decision on Petition

The applicant shall be notified of the decision on the Major Waiver by the City Manager within fourteen (14) calendar days following the decision.

SECTION 703: MINOR WAIVERS

Subsection 703.1 Generally

1. Where the City Manager finds that undue hardships will result from strict compliance with a certain provision(s) of these subdivision regulations, or where the purposes of these regulations may be served to a greater extent by an alternative proposal, the City Manager may approve a Minor Waiver from any portion of these regulations so that substantial justice may be done and the public interest is secured, provided that the Minor Waiver shall not have the effect of nullifying the intent and purpose of these regulations, and further provided that the City Manager shall not approve a Minor Waiver unless the City Manager makes findings based upon the evidence presented to the City Manager in each specific case that:
    a. Granting the Minor Waiver will not be detrimental to the public safety, health, or welfare, and will not be injurious to other property or to the owners of other property, and the Minor Waiver will not prevent the orderly subdivision of other property in the vicinity.

    b. The conditions upon which the request for a Minor Waiver is based are unique to the property for which the Minor Waiver is sought, and are not applicable generally to other property.

    c. Because of the particular physical surroundings, shape and/or topographical conditions of the specific property involved, a particular undue hardship to the property owner would result, as distinguished from a mere inconvenience or increased expense, if the strict letter of these regulations is carried out.

d. The Minor Waiver will not in any manner vary the provisions of the Zoning Ordinance, Comprehensive Plan (as amended), or any other adopted plan(s) or ordinance(s) of the City.

e. An alternate design will generally achieve the same result or intent as the standards and regulations prescribed herein.

Subsection 703.2 Procedures

1. A petition for a Minor Waiver shall be submitted to the City Manager by the property owner. The petition shall state fully the grounds for the application, and all of the facts relied upon by the petitioner.
2. All Minor Waivers shall be considered by the City Manager.
3. All Minor Waivers shall have final approval or disapproval by the City Manager.

Subsection 703.3 Criteria for waivers from Sidewalk (Curb & Gutter) Requirements
Where the City Manager finds that the imposition of certain sidewalk (curb & gutter) requirements pursuant to these regulations exceeds reasonable benefit to the property owner, the City Manager may approve waivers for such requirements, so as to prevent such exceedance. In order to qualify for such a waiver, the property owner must be aware of the sidewalk (curb & gutter) requirements as outlined in subsection 403.4 “Sidewalk (curb & gutter) Requirements.”

1. The City Manager shall consider the following in review of waiver requests regarding sidewalk (curb & gutter) requirements:
   a. Evaluation of curbs/sidewalks would be based on the existence of curbs/sidewalks immediately adjacent to the property which would provide continuation of said improvements;
   b. Proximity of the property to schools, parks, public facilities, and commercial centers.
   c. Other factors such as terrain or creation of drainage issues, etc. will also be considered;
   d. If the property owner disagrees with the decision of the City Manager an appeal must be made to the City Council.

SECTION 704: PROPORTIONALITY

Subsection 704.1 Purpose, Applicability, Effect

1. Purpose. The purpose of a proportionality determination is to assure that a requirement to dedicate, construct or pay a fee for a public infrastructure improvement imposed on a proposed plat as a condition of approval does not result in a disproportionate cost burden on the property owner taking into consideration the nature and extent of the demands created by the proposed development on the City’s public facilities systems.

2. Applicability. A property owner may contest any requirement to dedicate land, to construct improvements or to pay development fees (other than impact fees adopted under Texas Local Government Code chapter 395), for a public infrastructure improvement, which requirement is imposed under this Ordinance, whether the requirement is applicable under uniform standards or imposed pursuant to an individual evaluation of the proposed subdivision.

Subsection 704.2 Proportionality determination by City Engineer

Prior to a recommendation by the Planning and Zoning Commission on a Preliminary Plat, or if no Preliminary Plat is required, on a Final Plat, the City Engineer shall determine that public infrastructure improvements being imposed as a condition of plat approval is roughly proportionate to the demand created by the development on the City's public facilities systems, taking into consideration the nature and extent of the development proposed.

1. In making a proportionality determination, the City Engineer and the City Council may rely upon categorical findings pertaining to:
    a. On-site improvements;
    b. The proposed or potential use of the land;
    c. The timing and sequence of development in relation to availability of adequate levels of public facilities;
    d. Impact fee studies or other studies that measure the demand for services created by the development;
    e. The impact on the City's public facilities systems;
    f. The function of the public infrastructure improvements in serving the proposed development;
    g. The degree to which public infrastructure improvements to serve the subdivision are supplied by other developments;
    h. The anticipated participation by the City in the costs of such improvements;
    i. Any reimbursements for the costs of public infrastructure improvements for which the proposed development is eligible; or
    j. Any other information relating to the mitigating effects of the public infrastructure improvements on the impacts created by the development on the City's public facilities systems.
2. The City Manager may promulgate any application requirements that may assist in making the proportionality determination required by this section.

Subsection 704.3 Commission and City Council determination

The Planning and Zoning Commission and the City Council shall take into account the City Engineer’s report concerning the proportionality of public infrastructure improvement requirements to be applied to a proposed preliminary or final plat application, as the case may be, in making its recommendation or decision on the plat application and shall identify any variation to the requirements that are to be included as conditions to plat approval. The City Council's determination may include one of the following actions:

1. Approve the plat thereby imposing the standard or condition on the plat application in accordance with the City Engineer's determination;
2. Upon a finding that the proposed dedication, construction, or fee requirements are inadequate to offset the impacts of the subdivision on the public facilities system for water, wastewater, street, drainage, or park improvements, either deny the plat application or require that additional public infrastructure improvements be made as a condition of approval of the application; or
3. Waive in whole or in part any dedication, construction, or fee requirement for public infrastructure improvements to the extent nece3ssary to achieve proportionality; or
4. Direct that the City participates in the costs of acquiring land for or constructing the public infrastructure improvement under standard participation policies.

APPENDIX I: DESIGN STANDARDS

APPENDIX I - DESIGN STANDARDS

CHAPTER 1. - DESIGN CRITERIA

SECTION 101. - GENERAL.

101.1 Intended use.

The following Design Criteria are primarily intended for use by the Developer's Engineer. There may be special circumstances which would dictate requirements in excess of those outlined; however, in most cases, these exceptions will be apparent to the Developer's Engineer while preparing the Construction Plans and Specifications for the subdivision.

101.2 Maintenance.

These criteria and related standards shall be maintained, modified, and kept current by the City Manager or their designee. Any modifications may require approval by City Council.

101.3 Related standards.

The latest version of Standard Specifications for Public Works Construction, North Central Texas of the North Central Texas Council of Governments, with all amendments thereto, shall govern and shall constitute the technical specifications except as amended by the Decatur Construction Standards and is made a part thereof, but is not physically bound within this document.

101.4 Compliance required.

All subdivision, development and new construction shall comply with all related City Ordinances, including, but not limited to, the Subdivision Ordinance and Zoning Ordinance.

101.5 Conformance required.

The City Council and the City or its representatives shall approve no final plat, shall accept no completed improvements, shall issue no permits or rights to occupy unless and until such improvements conform to these standards herein listed and all other applicable standards as prescribed by the City of Decatur. All improvements, including, but not limited to, streets, alleys, sidewalks, drainage ways, water and sanitary sewer lines, landscaping, buffering and green space, shall be designed, placed, and constructed in accordance with the following Design Criteria and Construction Standards.

101.6 Flood areas.

Any land which in its natural state is subject to a one-hundred-year flood or which cannot be properly drained shall not be subdivided, re-subdivided or developed until receipt of evidence that the construction of specific improvements proposed by the Developer can be expected to yield a usable building site. Thereafter, the Planning and Zoning Commission may recommend approval of the plat; however, construction upon such land shall be prohibited until the specific improvements have been planned and completed. Flood Areas may or may not be designated as FEMA flood areas.

101.7 Variances.

Where specific topographic or other conditions make variance from these standards necessary in order to achieve the best overall design, the City Manager or their designee.

101.8 Special exceptions.

Where the appropriate use of the neighboring property will not be substantially injured, the City Manager or their designee, after consultation with the City Engineer, may in specific cases, and subject to appropriate conditions and safeguards, authorize special exceptions to the Design Criteria items in order to permit reasonable development and improvement of property where literal enforcement of these values would result in an unnecessary hardship.

(Ord. No. 05-01-01, § 1, 2-14-05)

SECTION 102. - BLOCKS.

102.1 Length.

The length of a block shall be considered to be the distance from property corner to property corner measured along the property line of the block face (1) of greatest distance, or (2) on which the greatest number of lots face. Where no existing subdivision controls, the block length should not be less than five hundred (500) feet in length nor greater than one thousand six hundred (1,600) feet in length. However, in cases where physical barriers, property ownership, or individual usage creates conditions where it is appropriate that these standards be varied, the length may be increased or decreased to meet existing conditions, having due regard for connecting streets, circulation of traffic and public safety.

102.2 Width.

The width of a block shall be considered to be the distance from property corner to property corner measured along the property line of the block face (1) of least dimension, or (2) on which the fewest number of lots face.

102.3 Shape criteria.

The length, width and shapes of blocks shall be determined with due regard to:

1. Provision of adequate building sites suitable to the special needs of the type of use contemplated, and
2. Zoning requirements as to lot sizes and dimensions, and
3. Needs for convenient access, circulation, control, and safety of street traffic, and
4. Limitations and opportunities of topography.

102.4 Streets.

Intersecting streets should be provided at such intervals as to serve traffic adequately and to meet existing streets in a safe manner as determined by the City.

102.5 Walkway required.

Where long blocks in the vicinity of a school, park or shopping center are platted, the City may require a public walkway near the middle of long blocks or opposite a street that terminates between the streets at the ends of the block. If required, the concrete walkway shall not be less than four (4) feet nor more than eight (8) feet in width, through the block from sidewalk to sidewalk, or curb to curb, or if no street, to the property line adjacent to the school, park, or shopping center.

(Ord. No. 05-01-01, § 1, 2-14-05)

SECTION 103. - LOTS.

103.1 Design.

Lot design shall provide adequate width, depth, and shape to provide open area, to eliminate overcrowding and to be appropriate for the location of the subdivision for the type of development and use contemplated and in accordance with the Zoning Ordinance of the City of Decatur.

103.2 Width.

No lot shall have less width at the building line than is required by the Zoning Ordinance.

103.3 Building lines.

Building lines shall be shown on all lots in the subdivision but shall not be less restrictive than the Zoning Ordinance.

103.4 Side lines.

All side lines of lots shall be at approximately right angles to straight street lines and radial to curved street lines, except where a variation to this rule will provide a better street and lot layout.

103.5 Front yard.

The shorter dimension across a residential lot, adjacent to a street, shall designate the front yard orientation of the lot, unless otherwise specified on the face of the plat.

103.6 Adequate size.

Depth and width of properties reserved or laid out for commercial and industrial purposes shall be adequate to provide for the off-street service and parking facilities required by the type of use and development contemplated.

103.7 Frontage.

Every lot shall have frontage on, and access to, a public street.

103.8 Double frontage.

Double frontage and reverse frontage lots should be avoided except where essential to provide separation of residential development from traffic arteries or to overcome specific disadvantages of topography and orientation.

103.9 Access limits.

Residential lots shall not have direct access onto arterial streets, and direct access from residential lots shall be permitted on collector streets only where design conditions do not permit any other possibility.

103.10 Large lots.

Where the area is divided into larger lots than for normal urban building sites, and in the opinion of the City, any or all of the tracts are susceptible of being re-subdivided, the original subdivision shall be such that the alignment of future street dedications may conform to the general street layout in the surrounding area so that the larger tracts may be later subdivided in conformance with the requirements of this Ordinance and the minimum standards specified by the Zoning Ordinance.

103.11 Markers.

Lot markers shall be iron pins not less than one-half (½) inch in diameter and no less than eighteen (18) inches long and shall be set flush with the ground at each lot corner.

103.12 Corners.

All lot corners shall be set prior to the acceptance of the public improvements and shall be marked in a way that is traceable to the responsible registrant or associated employer.

103.13 Control monuments.

A minimum of two (2) four-inch × four-inch × eighteen-inch concrete monuments with one-half-inch × eighteen-inch reinforcing rebar may be required to be placed in easily accessible locations, such as street intersections or point of curvatures and may be required to be placed below back of curb for monument protection.

(Ord. No. 05-01-01, § 1, 2-14-05)

SECTION 104. - EASEMENTS.

104.1 Utility easements.

Utility easements shall be provided on subdivision plats when the following criteria indicate that an easement is required:

1. Where not adjacent to a public right-of-way, easements at least fifteen (15) feet wide for utility construction, service and maintenance shall be provided where necessary in locations approved by the City, and
2. Easements at least fifteen (15) feet wide for utility construction, service and maintenance shall be provided for lots which have frontage along state highways, and
3. Easements of at least ten (10) feet in width shall be provided on each side of all rear lot lines and alongside lot lines, where necessary, for utilities such as electric, telephone and gas, and
4. Easements having greater width dimensions may also be required along or across lots where engineering design or special conditions make it necessary for the installation of utilities outside public rights-of-ways.

The following statement of restrictions shall be placed in the dedication instrument:

UTILITY EASEMENT RESTRICTION:

Any public utility, including the City of Decatur, shall have the right to remove all or part of any building, fences, trees, shrubs, other growths or improvements which in any way endanger or *interfere with the construction, maintenance, or efficiency of its respective systems on any of the easements shown on the plat; and any public utility, including the City of Decatur, shall have the right at all times of ingress and egress to and from and upon said easements for the purpose of construction, reconstruction, inspection, patrolling, maintaining and adding to or removing all or part of its respective systems without the necessity at any time of procuring the permission of anyone.*

104.2 Fire lane easement.

Emergency access and fire lane easements shall be provided in locations required by the Fire Marshal of the Decatur Fire Department. These easements shall have a minimum width of twenty (20) feet [twenty-four (24) feet when parking is located on both sides of the easement] and a minimum height clearance of fourteen (14) feet. Any emergency access and fire lane easement more than one hundred (100) feet in length shall either connect at each end to a dedicated public street or be provided with a cul-de-sac having a minimum diameter of eighty (80) feet with an additional distance of ten (10) feet on all sides clear of permanent structures. These easements shall be paved in accordance with these Design Standards and shall be maintained by means of a Homeowner’s Association, the property owner granting the easement or other means as approved by the City.

104.3 Public open space easement.

A fifteen-foot × fifteen-foot triangular public "open space" easement is required on corner lots at the intersection of an alley and a street.

	Local		Arterial
Local	1		2
	1		2
Arterial	2		3

A triangular public open space easement (POSE) is required on corner lots at the intersection of two (2) streets in accordance with the table above:

1. Type 1 POSE = 20' × 20'
2. Type 2 POSE = 25' × 25'
3. Type 3 POSE = 45' × 45'

The following full statement of restrictions shall be placed in the dedication instrument or on the face of the plat:

PUBLIC OPEN SPACE EASEMENT RESTRICTION:

No structure, object or plant of any type may obstruct vision from a height of thirty (30) inches to a height of ten (10) feet above the top of the curb, including, but not limited to buildings, fences, *walks, signs, trees, shrubs, cars, trucks, etc., in the public open space easement as shown on the plat.*

104.4 Drainage easement.

Drainage easement requirements are as follows:

1. Easements for storm drainage facilities shall be provided at locations containing proposed or existing drainageways.
2. Storm drainage easements of fifteen (15) feet minimum width shall be provided for existing and proposed enclosed drainage systems. Easements shall be centered on the systems. Larger easements, where necessary, shall be provided as directed by the City Engineer.
3. Storm drainage easements shall be provided for emergency overflow drainageways of sufficient width to contain within the easement stormwater resulting from a one-hundred-year frequency storm less the amount of stormwater carried in an enclosed system of a capacity required by the City of Decatur.
4. No construction or filling without the written approval of the City of Decatur shall be allowed within a drainage easement, and then only after detailed engineering plans and studies show that no flooding will result, that no obstruction to the natural flow of water will result and subject to all owners of the property affected by such construction becoming a party to the request. Where construction is permitted, all finished floor elevations shall be a minimum of two (2) foot above the one-hundred-year ultimate flood elevation.

The following statement of restriction shall be placed in the dedication instrument of the subdivision plat:

DRAINAGE EASEMENT RESTRICTION:

No construction or filling, without the written approval of the City of Decatur, shall be allowed within a drainage easement, and then only after detailed engineering plans and studies show that no flooding will result, that no obstruction to the natural flow of water will result; and subject to all owners of the property affected by such construction becoming a party to the request. Where construction is permitted, all finished floor elevations shall be a minimum of two (2) feet above the one-hundred-year ultimate flood elevation.

104.5 Floodway easement.

Floodway easement requirements are as follows:

1. Floodway easements shall be provided along natural drainageways and lakes or reservoirs. Floodway easements shall encompass all areas beneath the water surface elevation of the base flood, plus such additional width as may be required to provide ingress and egress to allow maintenance of the banks and for the protection of adjacent property as determined and required by the City Engineer.
2. Existing creeks, lakes, reservoirs, or drainage channels traversing along or across portions of this addition will remain as an open channel at all times and will be maintained by the

individual owners of the lot or lots that are traversed by or adjacent to the drainage courses along or across said lots.

3. The City of Decatur will not be responsible for the maintenance and operation of said drainageways or for the control of erosion.
4. Each property owner shall keep the natural drainage channels traversing or adjacent to his property clean and free of debris, silt or any substance which would result in unsanitary conditions, and the City shall have the right of ingress and egress for the purpose of inspection and supervision of maintenance work by the property owner to alleviate any undesirable conditions which may occur.

The natural drainage channel, as is the case of all natural drainage channels, are subject to storm water overflow and natural bank erosion to an extent that cannot be definitely defined. The City of Decatur shall not be liable for damages of any nature resulting from the occurrence of these natural phenomena, nor resulting from a failure of any structure(s) within the natural drainage channels. The natural drainage channel crossing each lot is shown by the floodway easement line as shown on the plat.

The following statement of restrictions shall be placed in the dedication instrument of the subdivision plat:

FLOODWAY EASEMENT RESTRICTION:

No construction, without the written approval of the City of Decatur, shall be allowed within a floodway easement, and then only after detailed engineering plans and studies show that no flooding will result, that no obstruction to the natural flow of water will result; and subject to all owners of the property affected by such construction becoming a party to the request. Where construction is permitted, all finished floor elevations shall be a minimum of two (2) feet above the one-hundred-year ultimate flood elevation.

(Ord. No. 05-01-01, § 1, 2-14-05)

SECTION 105. - ALLEYS.

Alleys shall meet the following requirements:

1. Alleys shall be constructed a minimum of ten (10) feet in width within a minimum fifteen (15) foot right-of-way. Wider alleys required for drainage or other purposes, shall be constructed in rights-of-way approved by the public service director. Alley turnouts shall be a minimum of twenty (20) feet in width at the curb-line, or the width of the alley, whichever is greater. Paving in alleys adjacent to masonry screening walls shall be constructed a minimum of twelve (12) feet in width and shall abut the screening wall. Alleys for other than residential uses shall be dedicated and paved a minimum of twenty (20) feet in width. All alleys shall be constructed with pavement of reinforced concrete of three thousand (3,000) psi minimum compressive strength or thirty-six hundred (3,600) psi minimum compressive strength. The developer shall construct the full width of the alley at his own costs. Alleys with three thousand (3,000) psi concrete shall be constructed with a minimum thickness of five (5) inches in the invert and eight (8) inches

at the edges (average seven-inch thickness), and alleys with thirty-six hundred (3600) psi concrete shall be constructed with a minimum thickness of five (5) inches in the invert and seven (7) inches at the edges (average six-inch thickness.).

(Ord. No. 05-01-01, § 1, 2-14-05)

SECTION 106. - SIDEWALKS.

Sidewalks shall be required in all new subdivisions as follows:

1. Sidewalks shall be constructed for all lots adjoining dedicated streets, along major arterials where lots do not adjoin the street, across power line easements and in other areas where pedestrian walkways are necessary.
2. Sidewalks shall be constructed in all parking areas to assure safe pedestrian access from parking spaces to structures.
3. Sidewalks shall be designed and constructed so as to assure uninterrupted connections between all pedestrian walkways.
4. Sidewalks shall be designed and constructed to minimize pedestrian and automobile conflicts in order to provide the safest pedestrian access possible.
5. Sidewalks shall be designed and constructed so as to connect with existing pedestrian walkways and to assure connection with future pedestrian walkways.
6. Sidewalks shall be constructed either one (1) foot from the property line within the street rights-of-way or within a dedicated sidewalk easement and shall extend along the street frontage including the side of corner lots and block ends. Lots requiring landscaping shall put trees between the sidewalk and the street.
7. Sidewalks along existing arterials or streets so designated by the Master Plan shall be no less than five (5) feet in width.
8. Sidewalks abutting screening walls, parking areas or fences shall be five (5) feet in width.
9. Sidewalk construction may be delayed until development of lots, but in locations not adjacent to lots and across bridges and culverts, the sidewalk shall be constructed with the other improvements to the subdivision.
10. Routing to clear poles, trees or other obstacles shall be subject to approval by City development staff.
11. The plat or construction plans shall show the location of all proposed sidewalks and shall state at what stage of the project they will be constructed.
12. All sidewalks shall conform to ADA requirements.
13. Barrier free ramps should be provided for access to the street. The following specifications shall apply:
    a. Ramp to be five (5) feet in width.
    b. Ramp to be constructed with minimum three thousand (3,000) psi twenty-eight-day strength concrete.
    c. Ramp concrete thickness shall be the same as the street (six-inch normal residential).
    d. No. 3 bars shall be used for reinforcement (twenty-four-inch on centers).

e. Curb return shall match existing curb height of the street and taper to the connecting walk with a one-foot radius.
f. Street shall be blocked out (maximum twelve (12) inches) and dowels installed.
g. Saw joints shall be made one and one-half-inch minimum depth and sealed with silicone joint sealant material.
h. Subgrade shall be prepared to a minimum depth of six (6) inches.
i. At no time shall the walk running parallel to the street be altered.
j. Surface of walk may be coarse and ribbed to provide extra traction.

(Ord. No. 05-01-01, § 1, 2-14-05)

SECTION 107. - LANDSCAPE DESIGN.

107.1 Purpose.

The purpose of this section is to encourage low maintenance landscaping, water conservation and tree preservation while providing guidelines for minimum landscaping throughout the City.

107.2 Single-family residential landscaping requirements.

These standards apply to new detached and attached single-family residential developments. These standards may be met by saving existing trees on the site or planting new trees from the recommended list. Lot size designations apply to the zoning classification(s) of the subdivision rather than to each individual lot. In the case of PD developments, landscaping will be in accordance with lot sizes designated within the approved PD design.

1. One (1) shade tree (two and one-half-inch caliper minimum) provided for all single-family residential lots less than eight thousand (8,000) square feet. Please see Recommended Tree List for Landscaping on Private Property for further details.
2. Two (2) shade trees (two and one-half-inch caliper minimum) provided for all single-family residential lots of eight thousand (8,000) square feet to less than ten thousand (10,000) square feet. Please see Recommended Tree List for Landscaping on Private Property for further details.
3. Three (3) shade trees (two and one-half-inch caliper minimum) provided for all single-family residential lots of ten thousand (10,000) square feet or more. Please see Recommended Tree List for Landscaping on Private Property for further details.

A tree survey shall be required with preliminary plats, and/or clearing and grading permit or at the request of the of the City Manager or their designee.

All trees planted within Five (5′) feet of a curb, walk or drive must include an approved rigid plastic root barrier approved by the City Manager or their designee.

All required trees must be planted prior to request for final building inspection of dwelling.

107.3. Multi-family landscaping requirements.

These standards apply to new multi-family zoning developments. Those uses located on the square with no on-premises parking are exempt from this ordinance. These standards may be met either by saving existing trees on the site or planting new trees from the recommended list.

1. A ten-foot linear landscape strip is to be provided adjacent to all public and private streets, exclusive of rights-of-way. The landscape strip will include one (1) shade tree (two and one-half-inch caliper minimum) for every fifty (50) linear feet of street frontage.
2. Where parking lots and drives abut the landscape strip along a street right-of-way, a continuous hedge of evergreen shrubs will be provided to screen those areas from the street. The shrubs must be a minimum of a ten-gallon size at planting with a minimum mature height of three (3) feet. Shrubs will be planted according to the spacing recommended for their species. The screening will extend along the entire street frontage of the parking lot, exclusive of driveways and visibility clips. A landscape berm may be provided in lieu of the screening hedge. The berm must be a minimum of thirty-six (36) inches above the average grade of the street and parking lot curbs with a slope not to exceed 2:1.
3. All trees planted within Five (5′) feet of a curb, walk or drive must include an approved rigid plastic root barrier approved by the City Manager or their designee.
4. Landscaping will also be provided for the interior parking areas. Trees will be planted in each parking lot to attain a minimum average density of one (1) shade tree (two and one-half-inch caliper minimum) for each fifteen (15) parking spaces provided, or any fraction thereof. Interior parking lot landscaping will include an overall percentage of greenery, in addition trees, as outlined below. Please see Recommended Tree List for Landscaping on Private Property for further details.

Total Parking Area	Interior Landscape Area
0—24,999 square feet	5%
25,000—49,999 square feet	8%
50,000 square feet and larger	10%

5. To calculate the total parking area and the subsequent percentage of required interior lot landscaping, total the square footage of parking spaces, planting islands, curbed areas and all interior driveways and aisles. Landscaped areas located contiguous to the parking lot may be used to meet the interior landscaping requirement. Landscaped areas

located outside and away from the parking lot may not be used to meet the interior landscaping requirement.

6. The required landscaping for parking lots shall be more or less evenly distributed throughout the parking lot, although adjustments may be approved by the City Manager or their designee where the shape or size of the parking lot, the location of existing trees or other natural constraints reasonably prevent such distribution.
7. All landscaped areas, including the permeable areas and drip lines around trees and planting beds used for visual screening which abut any parking lot or vehicular travel area, shall be protected with curbs sufficient to protect them from vehicular intrusion.

An automatic irrigation system is required for all landscaping. Irrigation systems shall be designed and installed with rain sensors and low gallonage, low angle nozzles in such a way as to avoid water overflow into the street. A freeze sensor shall be placed in each controller to prevent the irrigation system from activating to create unsafe spillage on roads and/or sidewalks.

107.4 Office, retail & commercial landscaping requirements.

These standards apply to new office, retail, and commercial developments. Those uses located on the square with no on-premises parking are exempt from this ordinance. These standards may be met either by saving existing trees on the site or planting new trees from the recommended list.

1. A ten-foot linear landscape strip is to be provided adjacent to all public and private streets, exclusive of rights-of-way. The landscape strip will include one (1) shade tree (two and one-half-inch caliper minimum) for every fifty (50) linear feet of street frontage.
2. Where parking lots and drives about the landscape strip along a street right-of-way, a continuous hedge of evergreen shrubs will be provided to screen those areas from the street. The shrubs must be a minimum of a ten-gallon size at planting with a minimum mature height of three (3) feet. Shrubs will be planted according to the spacing recommended for their species. The screening will extend along the entire street frontage of the parking lot, exclusive of driveways and visibility clips. A landscape berm may be provided in lieu of the screening hedge. The berm must be a minimum of thirty-six (36) inches above the average grade of the street and parking lot curbs with a slope not to exceed 3:1.
3. Landscaping will also be provided for the interior parking areas. Trees will be planted in each parking lot to attain a minimum average density of one (1) shade tree (two and one-half-inch caliper minimum) for each fifteen (15) parking spaces provided, or any fraction thereof. Interior parking lot landscaping will include an overall percentage of greenery, in addition trees, as outlined below.

Total Parking Area	Interior Landscape Area
0—24,999 square feet	5%

25,000—49,999 square feet	8%
50,000 square feet and larger	10%

4. Except for customer and employee parking, parking lot landscape requirements do not apply to storage or standing parking spaces incidental to uses, such as sales and rental of motor vehicles, mobile homes, boats, trailers, or other similar uses.
5. To calculate the total parking area and the subsequent percentage of required interior lot landscaping, total the square footage of parking spaces, planting islands, curbed areas and all interior driveways and aisles. Landscaped areas located contiguous to the parking lot may be used to meet the interior landscaping requirement. Landscaped areas located outside and away from the parking lot may not be used to meet the interior landscaping requirement.
6. The required landscaping for parking lots shall be more or less evenly distributed throughout the parking lot, although adjustments may be approved by the City Manager or their designee where the shape or size of the parking lot, the location of existing trees or other natural constraints reasonably prevent such distribution.
7. All landscaped areas, including the permeable areas and drip lines around trees and planting beds used for visual screening which abut any parking lot or vehicular travel area, shall be protected with curbs sufficient to protect them from vehicular intrusion.

An automatic irrigation system is required for all landscaping. Irrigation systems shall be designed and installed with rain sensors and low gallonage, low angle nozzles in such a way as to avoid water overflow into the street. A freeze sensor shall be placed in each controller to prevent the irrigation system from activating to create unsafe spillage on roads and/or sidewalks.

107.5 Industrial landscaping requirements.

These standards apply to new industrial developments. Those uses located on the square with no on-premises parking are exempt from this ordinance. These standards may be met by saving existing trees on the site or planting new trees.

1. A ten-foot linear landscape strip is to be provided adjacent to all perimeter public streets, exclusive of rights-of-way. The landscape strip will include one (1) shade tree (two and one-half-inch caliper minimum) for every fifty (50) linear feet of street frontage.
2. Where parking lots and drives abut the landscape strip along a street right-of-way, a continuous hedge of evergreen shrubs will be provided to screen those areas from the street. The shrubs must be a minimum of three (3) feet in height at maturity and planted according to the spacing shown below. The screening will extend along the entire street frontage of the parking lot, exclusive of driveways and visibility clips. A landscape berm may be provided in lieu of the screening hedge. The berm must be a minimum of thirty-six (36) inches above the average grade of the street and parking lot curbs with a slope not to exceed 3:1.

3. All trees planted within Five (5′) feet of a curb, walk or drive must include an approved rigid plastic root barrier approved by the City Manager or their designee.
4. Landscaping will also be provided for the interior employee and customer parking areas. Trees will be planted in each parking area to attain a minimum average density of one (1) shade tree (two and one-half-inch caliper minimum) for each twenty-five (25) parking spaces provided, or any fraction thereof. Interior parking lot landscaping will include an overall percentage of greenery, in addition trees, resulting in one hundred (100) square feet per provided tree.
5. The required landscaping for parking lots shall be more or less evenly distributed throughout the parking lot, although adjustments may be approved by the City Manager or their designee where the shape or size of the parking lot, the location of existing trees or other natural constraints reasonably prevent such distribution.
6. All landscaped areas, including the permeable areas and drip lines around trees and planting beds used for visual screening which abut any parking lot or vehicular travel area, shall be protected with curbs sufficient to protect them from vehicular intrusion.

An automatic irrigation system is required for all landscaping. Irrigation systems shall be designed and installed with low gallonage and low angle nozzles in such a way as to avoid water overflow into the street. A freeze sensor shall be placed in each controller to prevent the irrigation system from activating to create unsafe spillage on roads and/or sidewalks.

107.6 Xeriscaping requirements.

These standards apply to industrial developments.

For the purposes of this section, *XERISCAPING* is defined as a method of landscaping that emphasizes water conservation, accomplished by following sound horticultural and landscaping practices, such as planning and design, soil improvement, limited turf areas, use of mulches, use of low-water demand plants, efficient irrigation practices and appropriate maintenance. The use of xeriscaping is intended to promote prudent use of the city's water resources and reduce the need for additional water system infrastructure and to help ensure viability of required plantings during periods of drought. All landscaping shall comply, where feasible, with the following requirements designed to reduce water usage:

1. Required plant materials shall be selected from those identified as native plants, and those that have been adapted to the local climate and conditions. Native plants and planting practices are identified through the "Texas SmartScape" program as published by the North Central Texas Council of Governments Regional Storm Water Management Program.
2. Where specific conditions reduce the likelihood that these plant materials will survive, alternative plants may be provided, subject to review and approval by the City Manager or their designee.
3. Plants not recommended in the "Texas SmartScape" program are subject to the review and approval of the City Manager or their designee. The City Manager or their designee may require the applicant provide additional information related to the hardiness, adaptability and water demands of the plant(s) when used.

4. For maximum reduction in water usage, xeriscape plants should not be interspersed in plant massings with plants requiring higher water usage. Property owners and developers are encouraged to design irrigation systems and watering schedules that supply the appropriate amount of water for plantings, without overwatering.
5. Permeable pavement in low-traffic areas or overflow parking may be approved by the City Manager or their designee where conditions are favorable to filter storm water and reduce run-off. Adequate strength of the permeable pavement must be proven by the applicant to ensure pavement life.

107.7 General provisions.

Clear cutting of trees is prohibited within the City of Decatur. Cutting of trees, grading and land clearing may be done, only for development purposes, in accordance with an approved final plat with the construction plans and/or engineering site plan. Cutting trees and land clearing for other than development purposes shall be considered on a case-by-case basis by the City Manager or their designee. The existing natural landscape character of the City shall be preserved to the extent reasonable and feasible. In an area of the street frontage containing a stand of recommended trees, the developer shall use best good faith efforts to preserve such trees.

It is recommended that trees from the list provided in this section be considered to meet the requirement of this ordinance, however alternate species may be presented to the City Manager or their designee for approval. For every recommended tree in healthy, thriving condition that is preserved, the developer/owner shall be given credits as outlined below. Tree caliper shall be measured at one (1) foot from the base of the tree. Credit for trees saved in the required ten-foot landscape strip will only be applicable for trees required in the landscape strip area. Credit for trees saved in the parking area will only be applicable for trees required in the parking area.

Size Of Existing Trees From Recommended List	Credit
4—8" Caliper	2
9—14" Caliper	3
15—24" Caliper	4
25+" Caliper	5

Points granted for trees of greater size will be considered on a case-by-case basis by the City Manager or their designee. Unprotected trees that are preserved and in healthy and thriving condition and are six (6) inches or greater shall receive a credit of 1:1.

Where conflict arises regarding existing trees and required parking spaces to be provided, the following applies:

1. A reduction in parking spaces may be allowed, up to a maximum of ten (10) percent of the total required parking spaces required, in order to protect qualified trees from the Protected or Recommended Tree Lists located in the parking area.
2. Reduction in the number of parking spaces allowed for each protected tree shall be determined on a case-by-case basis and influenced by the tree's chances of survival.

Landscaping with irrigation is required for all development and construction as follows:

1. A landscape plan must be submitted as part of the engineering site plan process for all multi-family, commercial and industrial zoning districts and for non-residential uses allowed in single-family residential districts. A tree survey may be requested to accompany all final plats for single-family detached and attached residential additions.
2. Where the location of existing overhead utility lines conflict with the required landscape strip, planting of trees that mature at a lesser height will be required, i.e., Chinese Pistache, Japanese Black Pine, and Aristocrat Pear. Where easements containing underground utilities conflict with the required landscaping strip, required tree planting shall be outside the easement on the property owner's side.
3. Required landscaping must be permanently maintained in a healthy growing condition at all times. The property owner is responsible for permanent maintenance of all plantings on an as needed basis. This maintenance includes, but is not limited to, regular weeding, mowing of grass, irrigating, fertilizing, pruning, repair/replacement of damaged hardscape and replacement of sick/dying plants.
4. To maintain visibility, no fence, structure, or planting higher than three (3) feet above the established street grades, nor any tree with foliage extending below ten (10) feet above the established street grades, shall be planted within twenty (20) feet of any street intersection.
5. All common areas abutting an existing arterial, or one (1) so designated by the Thoroughfare Master Plan, shall be landscaped, and irrigated.
6. A two-year maintenance bond as defined in the Subdivision Ordinance shall be required covering all required landscaping and irrigation improvements before acceptance of dedicated improvements or Certificate of Occupancy. Please submit the maintenance bond to the City Manager or their designee.
7. All required landscaping and irrigation shall be adequately maintained and promptly replaced when necessary.

8. In cases where equitable landscaping can be achieved through varying means, City Manager or their designee may grant permission to deviate from the exact specifications of this ordinance to facilitate a better overall design but not to lessen the requirements.

107.8 Tree survey and mitigation plan requirements.

This section shall apply to all residential and non-residential developments. A tree survey identifying all trees, by species and size, on the subject property shall be prepared by a civil engineer, arborist, landscape architect or surveyor A tree survey and mitigation plan shall be required with preliminary plats, final plats and/or clearing and grading permit or at the request of the City Manager or their designee. Trees within rights-of-way and City easements do not have to be shown.

107.9 Provisions for removal and replacement of protected trees.

Protected trees, as designated on the landscape plan, and referenced on the Recommended tree list for private property, if removed, injured, or destroyed, shall be replanted on a 1:1 ratio per caliper inch. If protected trees are removed, injured, or destroyed and not replaced, penalties for such shall be paid according to the following chart:

Size of Caliper	Cost of Removing/Removed Protected Trees*
5—9"	Please see City of Decatur Fee Schedule
10—14"	Please see City of Decatur Fee Schedule
15—24"	Please see City of Decatur Fee Schedule
25"+	Please see City of Decatur Fee Schedule
* Per tree	

107.10 Payment for tree removal shall be due prior to the issuance of the certificate of occupancy.

Funds received for tree removal shall be designated to a general beautification fund as deemed appropriate by the City.

Exceptions. Tree Mitigation fees may not be required for removed trees if the tree:

1. Is located on a property that is an existing one-family or two-family dwelling that is the person's residence; and
2. Is less than 10 inches in diameter at the point on the trunk 4.5 feet above Natural Grade
3. A municipality that imposes a tree mitigation fee for tree removal on a person's property must allow that person to apply for a credit for tree planting under this section to offset the amount of the fee.

107.11 Qualification to prepare plans.

For all lots one (1) acre or larger, Landscape Plans shall be prepared by a Registered Landscape Architect. For lots less than one (1) acre, a Landscape Designer or Landscape Contractor, knowledgeable in plant materials and landscape design may also prepare the landscape plan. Irrigation plans shall be prepared by a Licensed Irrigator. The City Manager or their designee may reject plans if deemed of insufficient quality or completeness and require that plans be prepared by a Registered Landscape Architect or other qualified professional.

107.12 Landscape plan requirements.

The following items shall be provided on the required landscape plan and is to be incorporated into the set of engineered site plans.

1. Sheet size twenty-four-inch × thirty-six-inch, or as approved.
2. Acceptable scale: one (1) inch equals ten (1) feet, one (1) inch equals twenty (20) feet, or as approved.
3. North arrow, graphic and written scale in close proximity.
4. Appropriate title (i.e., "Landscape Plan")
5. Title block includes street address, lot and block, subdivision name, city, state, date of preparation.
6. Name and address of owner.
7. Name, address, and phone of firm preparing plan.
8. Boundary shown with dimensions.
9. Any existing easements and utilities shown. (i.e., water, sewer, storm drain, gas, electric, cable, etc.)
10. Width and type of buffer yards labeled on all sides.
11. Location, caliper size and name of all existing trees which are to be preserved.
12. Location, quantity, size, and name of all proposed plant materials.
13. Maintenance note provided. Please utilize language below:

    MAINTENANCE STANDARDS:

    a. *Developer, at its sole expense, shall furnish or cause to be furnished, all labor, materials, equipment, accessories, and services necessary to maintain all plant materials when and as they become damaged or die.*
    b. *Landscape and open areas shall be free of trash, litter, and weeds.*
    c. *All trees and shrubs shall be maintained in accordance with the Engineering Design Standards – Public R.O.W. Visibility Requirements.*
    d. *Tree maintenance shall be in accordance with the American National Standards for Tree Care Operations, ANSI A300 and the standards of the International Society of Arboriculture (ISA).*
    e. *Tree staking materials, if used, shall be removed after (1) growing season and not more than (1) year after installation. Steel tree stakes, wires, and hoses are prohibited.*

14. Provide standard Interior Landscape Calculation Chart from Approved Site Plan.

15. Visibility triangles shown.
16. Landscape Architect seal signed and dated if size of development requires such.
17. Any berms delineated with one-foot contour intervals.

107.13 Irrigation plan requirements:

The following items shall be provided on the required irrigation plan.

1. Sheet size twenty-four-inch × thirty-six-inch, or as approved.
2. Acceptable scale: one (1) inch equals ten (10) feet, one (1) inch equals twenty (20) feet, or as approved. (Must be same as Landscape Plan)
3. North arrow, graphic and written scale in close proximity.
4. Appropriate title (i.e., "Irrigation Plan")
5. Title block includes street address, lot and block, subdivision name, city, state, date of preparation.
6. Name and address of owner.
7. Name, address, and phone of firm preparing plan.
8. Boundary shown with dimensions.
9. Location of all existing trees which are to be saved.
10. All pipes labeled as to size.
11. All heads labeled as to type. (Legend is acceptable)
12. Backflow prevention labeled with type and size.
13. Connection to water service shown after meter.
14. Second meter (with size) shown if intended.
15. Any existing easements and utilities shown. (i.e., water, sewer, storm drain, gas, electric, cable, etc.)
16. Note on plan: "All backflow installations and connections to City water lines must be permitted separately by the City inspection staff."
17. Maintenance note provided. Please utilize Irrigation Standards language below:

    IRRIGATION STANDARDS:

    a. *Any changes to these approved irrigation drawings shall be authorized by the City Manager or their designee.*
    b. *Contact the City of Decatur for irrigation permit prior to installing the irrigation system.*
    c. *Irrigation overspray on streets and walks is prohibited.*
    d. *Mainlines, valves, or control wires shall not be located in the R.O.W.*
    e. *ET irrigation controllers shall be programmed and adjusted to not exceed the Landscape Water Allowance (LWA) prior to approval of landscape installation.*

18. Valves shall be located a minimum of (3’) away from storm sewers, and sanitary sewer lines and 5 feet from City fire hydrants and water valves.
19. The bore depth under streets, drive aisles, and fire lanes shall provide (2’) of clearance (minimum).
20. Irrigation heads that run parallel and near public water and sanitary sewer lines; shall be fed from stubbed laterals or bull-beads. A minimum 5-foot separation is required

between irrigation main lines and laterals that run parallel to public water and sanitary sewer lines.

21. No valves, backflow prevention assemblies, quick couplers etc. shall be located closer than 10′ from the curb at street or driveway intersections.
22. Plan sealed, signed, and dated by qualified professional as authorized above.

107.14 Landscaping of dedicated streets, medians, or other public rights-of-way.[2]

All unpaved public medians and parkways shall be landscaped with a minimum of four (4) inches of topsoil, seeded or sodded with Bermuda grass and irrigated with a properly designed and installed system. The location of trees shall be coordinated with the City to avoid conflict with any utilities within the medians and traffic movement. These landscape areas shall be maintained by the developer or owner until adequate coverage is attained at a maintenance level compatible with like areas in other parts of the City unless other contractual arrangements are made between the developer and the City. The City will assume responsibility after one (1) year. This allows the landscaping materials to go through a full cycle of season change. All water usage shall be metered. Within medians, no plantings or irrigation facilities shall be permitted within areas five (5) feet in width or less. All such areas shall be covered with stamped concrete as approved by the City Manager or their designee. Upon installation, all landscape and irrigation materials within medians or right(s)-of-way shall become the property of the City.

1. Trees must not be planted within thirty (30) feet of intersections or utility poles.
2. Trees shall be spaced forty-five (45) feet apart when planted in rows and thirty (30) feet apart when planted in groups.
3. Only trees with a mature height of less than thirty (30) feet may be planted directly under utility lines. Trees with mature heights greater than thirty (30) feet must be planted a minimum of fifteen (15) feet from the outside edge of the last energized line.
4. Ornamental tree spacing will be evaluated based on the desired effect.
5. Trees must be planted a minimum of ten (10) feet from the edge of the curb.

Areas where median cuts are made, solid sod (Bermuda grass) will be used to repair any disturbed area. Stamped concrete will be used to cover median noses to the radius point (maximum) or as defined by the City.

107.15 Submittal of plans.

Any developer desiring to install or maintain landscaping materials or irrigation facilities in any portion of a dedicated street, median or other public rights-of-way shall submit to the Planning and Public Works Departments complete plans for any and all proposed improvements. The plans shall include the following:

1. A scale drawing (one (1) inch equals forty (40) feet) clearly indicating the location, type, size and description of all proposed landscape materials and existing utilities. Planting design of materials must be submitted to ensure adequate coverage.
2. The name of the subdivision or addition, and the name and address of the developer.
3. A north arrow, scale, and date of preparation.
4. A clear indication of the configuration, location, type and size of all irrigation, piping, heads, and controllers, including the name, address, and license seal of the designer.
5. Such other information reasonably deemed necessary by the reviewing Departments.

107.16 Review and approval by the City.

The City will review and approve or deny the submitted plans and have the right to require revisions. Any installation of landscape material or irrigation facilities shall be in full compliance with the plans and specifications as approved by the City.

107.17 Agreement.

In the case where undeveloped land exists on both sides of a public street intended to have a median, the first to develop will carry the burden of submitting plans for landscaping and irrigating the median along with escrowing half the accepted estimated cost of implementation. The second to develop will adjust those accepted plans (if necessary), escrow half the cost of implementation according to the current construction cost, and complete the landscaping with irrigation using both escrowed amounts. In the event that the original escrow amount has fallen short of current construction cost, the city will make up the difference in cost, however if current construction costs have fallen and the original amount covers more than half of the cost, then the extra funds shall be placed in the City's account for maintaining and planting medians. If required by the the City Manager or their designee, developer shall also provide the City with a cash escrow to the City for one hundred and ten (110) percent of the total cost of the proposed improvements prior to approval of the plans by City Council. In order to defray future costs of landscaping and irrigation, the City Manager or their designee may also require such other terms and conditions in the agreement they deem reasonably necessary to ensure the proper installation and maintenance of all landscaping and irrigation facilities.

107.18 Landscape and irrigation criteria.

In areas to be maintained by the City, all landscape and irrigation materials to be used by the developer shall be designed to conserve water and be of low maintenance. All landscape and irrigation improvements shall conform to the requirements of the City governing sight distance for traffic safety and other ordinances of the City.

A list of all plant types and irrigation plans shall be submitted as part of the Engineering Site Plan for review and approval. The developer shall furnish, or cause to be furnished at its sole expense, all labor, equipment, accessories, and services necessary to install all landscaping materials and irrigation facilities in accordance with the plans as approved by the City. All installations will be inspected by the City. All planting, if maintained by the City, must be approved by the City of Decatur. Irrigation facilities within medians or adjacent to curbs shall be designed and installed with low gallonage and low angle nozzles in such a way as to avoid water overflow into the street. A freeze sensor will be placed in each controller to prevent the irrigation system from activating to create unsafe spillage on roads and/or sidewalks.

107.19 Maintenance requirement.

1. Developer, at its sole expense, shall furnish or cause to be furnished, all labor, materials, equipment, accessories, and services necessary to maintain all plant materials when and as they become damaged or die.
2. Landscape and open areas shall be free of trash, litter, and weeds.

3. All trees and shrubs shall be maintained in accordance with the Engineering Design Standards – Public R.O.W. Visibility Requirements.
4. Tree maintenance shall be in accordance with the American National Standards for Tree Care Operations, ANSI A300 and the standards of the International Society of Arboriculture (ISA).
5. Tree staking materials, if used, shall be removed after (1) growing season and not more than (1) year after installation. Steel tree stakes, wires, and hoses are prohibited.

In residential developments, the developer shall maintain all landscaping and irrigation materials and equipment. If, after development, less than ninety (90) percent of the lots in the residential subdivision have building permits issued for the construction, then in such event, the developer's maintenance responsibilities shall continue until such ninety (90) percent issuance is realized. With approval by the City, the developer may relinquish maintenance responsibility to a viable homeowner’s association.

(Ord. No. 04-08-20, § 1, 9-27-04; Ord. No. 05-01-01, § 1, 2-14-05; Ord. No. 06-06-19, § 1, 6-26-06)

Footnotes:

--- *(**2**)* --- ***Note—*** *These provisions are not meant to apply to internal streets within industrial developments.*

SECTION 108. - BUFFERING.

Buffering shall be required in all subdivisions and for all development and construction as follows:

1. All residential subdivisions or developments abutting arterial streets either existing or so designated by the Master Plan shall buffer the entire length of the abutted street.
2. All development having open yard storage, rear loading docks or facilities, trash dumpsters or other related activity or materials generating noise, dust, or other pollutants not common to the general area or compatible with adjacent zoning designations or use shall buffer to encompass such areas.
3. All trash dumpsters shall be encompassed with a buffer which shall include a solid, decorative gated access designed to be architecturally compatible with the area.
4. All subdivisions and development adjoining property with a different zoning classification or use shall buffer the whole length of the adjoin.
5. All buffers shall be architecturally compatible with the general area.
6. Buffering, landscaping, and architectural compatibility shall be approved by City Staff prior to platting or construction.
7. The proximity of the wall to the landscaping shall be such that the landscaping always fronts the street and, if not applicable, fronts the most restrictive district or use. When proven that the overall design can be improved by reorientation, this proximity can be modified by City Staff approval as long as none of the requirements are lessened.

8. All required buffers shall be a minimum of Type C unless otherwise specified in the Buffer Type Table shown below. Normal landscaping requirements specified in Section 107 above may be counted towards the landscape buffer requirements specified in this Section. A landscape band will constitute two-inch caliper overstory trees every fifty (50) linear feet and groundcover within a ten-foot landscape strip.

BUFFER TYPE TABLE

	SF-1	**SF-2**	**2F**	**MF**	**MHD**	**CO**	**C1**	**C1A**	**C2**	**LI**	**HI**
SF-1			A	B	B	B	B	B	C	C	C
SF-2				B	B	B	B	B	C	C	C
2F	A			A	B	B	B	B	C	C	C
MF	B	B	A		B	B	B	B	C	C	C
MHD	B	B	B	B		B	B	B	C	C	C
CO	B	B	B	B	B				B	C	C
C1	B	B	B	B	B					C	C
C1A	B	B	B	B	B					C	C
C2	C	C	C	C	C	B				B	B
LI	C	C	C	C	C	C	C	C	B		
HI	C	C	C	C	C	C	C	C	B		

a. Type A—Four (4) feet One (1) linear landscaping band.
b. Type B—Six (6) feet Decorative fence architecturally compatible with general area with one (1) linear landscaping band.
c. Type C—Six (6) feet Decorative fence architecturally compatible with general area with two (2) linear landscaping bands.

9. Decorative fencing shall be composed of at least fifty (50) percent masonry material with all structural elements being masonry. Decorative fencing shall be at least eighty

(80) percent solid with no more than twenty (20) percent open space. Fencing may be replaced with an additional band of landscaping.

10. Where two (2) different zoning classifications or uses are separated by rights-of-way, the required buffer type may be reduced by one (1) level to the minimum of a Type A.
11. In cases where an equitable buffer can be achieved through varying means, City Staff may grant permission to deviate from the exact specifications of this ordinance to facilitate a better overall design but not to lessen the requirements.

APPROVED TREE LIST

1. Approved Tree List For Required Landscaping on Public Rights-of-way:

Scientific Name	Common Name	Size at Maturity
Pinus nigra	Austrian Pine	>25 ft. (30 ft.)
Pinus eldarica	Afghan Pine	>25 ft. (40 ft.)
Pyrus calleryana 'Aristocrat'	Aristocrat Pear	25 ft.
Pyrus calleryana 'Bradford'	Bradford Pear	25 ft.
Quercus macrocarpa	Bur Oak	>25 ft. (80 ft.)
Quercus virginiana	Live Oak	>25 ft. (50 ft.)
Quercus shumardii/texana)	Shumard/Texas Red Oak	>25 ft. (80 ft.)
Quercus muhlenbergii	Chinquapin Oak	>25 ft. (80 ft.)
Ulmus crassifolia	Cedar Elm	>25 ft. (80 ft.)
Ulmus parvifolia	Lacebark Elm	>25 ft. (50 ft.)
Pistacia chinensis	Chinese Pistachio	>25 ft. (50—70 ft.)
Pinus thunbergii	Japanese Black Pine	>25 ft. (30 ft.)
Carya Illinoinensis	Pecan	>25 ft. (100 ft.)
Cercis candensis	Eastern Red Bud	<25 ft. (20 ft.)

Taxodium distichum	Bald Cypress	>25 ft. (80 ft.)

2. Recommended Tree List For Landscaping on Private Property:

Scientific Name	Common Name	Size at Maturity
Chilopsis linearis	Desert Willow	>25 ft. (30 ft.)
Diospyrus texana	Texas Persimmon	<25 ft. (10—30 ft.)
Fraxenis texensis	Texas Ash	>25 ft. (50 ft.)
Liquidambar styraciflua	Sweetgum	>25 ft. (70 ft.)
Pinus nigra	Austrian Pine	>25 ft. (30 ft.)
Pinus eldarica	Afghan Pine	>25 ft. (40 ft.)
Pyrus calleryana 'Bradford'	Bradford Pear	25 ft.
Pyrus calleryana 'Aristocrat'	Aristocrat Pear	25 ft.
Quercus macrocarpa	Bur Oak	>25 ft. (80 ft.)
Quercus virginiana	Live Oak	>25 ft. (50 ft.)
Quercus shumardii/texana	Shumard/Texas Red Oak	>25 ft. (80 ft.)
Quercus muhlenbergii	Chinquapin Oak	>25 ft. (80 ft.)
Ulmus crassifolia	Cedar Elm	>25 ft. (80 ft.)
Ulmus parvifolia	Lacebark Elm	>25 ft. (50 ft.)
Pistacia chinensis	Chinese Pistachio	>25 ft. (50—70 ft.)
Pinus thunbergii	Japanese Black Pine	>25 ft. (30 ft.)
Carya illinoinensis	Pecan	>25 ft. (100 ft.)

Magnolia grandiflora	Southern Magnolia	>25 ft. (60 ft.)
Acer saccharum "Caddo"	Caddo Maple	>25 ft. (60 ft.)
Quercus accutissima	Sawtooth Oak	>25 ft. (50 ft.)
Taxodium accendens	Pond Cypress	>25 ft. (70 ft.)
Taxodium distichum	Bald Cypress	>25 ft. (80 ft.)

3. Protected Trees – Any tree that is not an Unprotected Tree that meets the following criteria:

   a. Six-inch trunk diameter or larger, measured four and one-half feet above Natural Grade.
   b. Six-inch total diameter for multi-trunk trees, calculated by summing the largest trunk and half the diameter of all other trunks as measured four and one-half feet above Natural Grade.
   c. Trees of all species that are 6" or greater in dbh (diameter at breast height) are considered protected except for Unprotected Trees. Trees less than six inches (6") in dbh are not subject to tree protection. The trees selected for mitigation will be indicated on the tree survey and construction plans and will be protected in the same manner as a protected tree. The City Manager of their designees will approve the trees recommended for mitigation.
   d. Unprotected Trees
      Hackberry, Mesquite, Bois d' arc, Cottonwood and Honey Locust Trees are considered to be Unprotected Trees. Unprotected Trees do not require preservation, protection measures or replacement. Unprotected Trees shall not be used as Replacement Trees to comply with mitigation requirements.
   e. Root Barrier Requirements for Trees in Right of Way
      Where Street Trees are placed within the right-of-way, root barriers shall be placed on all sides of the planting zone where AW mains and/or services are located. Root barriers shall be installed no closer than seven (7) feet from the tree trunk. Utilities shall be placed no closer than two (2) feet from the root barrier. In no circumstances shall utility infrastructure be placed within the planting zone. Where "Street Tree Utility Gaps" are located between planting zones, the gap shall be a minimum of eight (8) feet wide between root barriers. Additional width will be required to allow for multiple utilities to be placed within the "utility gap.

RECOMMENDED SHRUBBERY LIST

Scientific Name	Common Name	Spacing
Berberis thunbergii	Barberry, Red	2'—3'
Ilex cornuta 'Burfordii Nana'	Dwarf Burford Holly	2'—3'
Elaeagnus macrophylla Elaeagnus,	Silverberry (Ebbenji')	3'—4'
Myrica pusilla	Myrtle, Dwarf Wax	2'—3'
Rhapiolepis indica	Indian Hawthorn	2'—3'
Juniperus Sabina 'Tamariscilfolia'	Tam Juniper	3'

Other varieties complying with height and spacing requirements may be acceptable when approved by the City Manager or their designee.

Lists are based on publications of Neil Sperry and Howard Garrett.

(Ord. No. 04-08-20, § 1, 9-27-04; Ord. No. 05-01-01, § 1, 2-14-05; Ord. No. 06-06-19, § 1, 6-26-06)

SECTION 109. - GREEN SPACE.

Green space shall be required in all subdivisions and for all development and construction as follows:

1. Residential developments having four (4) or more units on a single lot shall provide an open, green space for area residents at the ratio of one hundred (100) square feet of green space per bedroom with a five-hundred-square-foot minimum.
2. Green space should be clustered when possible and connected through pedestrian walkways with connections to pedestrian walkways on adjoining properties.
3. Green space shall be designed according to these criteria, each given in order of importance: a) to offer safe, open, common, natural space to residents, b) to serve as many residents as possible, and c) to provide safe pedestrian access to adjacent pedestrian attractors.
4. Green space shall be in addition to any other requirement resulting in open space or green space.
5. Green space shall be subject to all buffer and landscaping requirements when applicable.

6. At a minimum, green space shall be covered with lawn grasses and a three-inch diameter canopy tree per five hundred (500) square feet of green space.
7. If found to meet the intent of the ordinance, City Staff may grant permission to deviate from the exact specifications of this ordinance to facilitate a better overall design but not to lessen the requirements.
8. Green spaces shall be identified on the plat and the following full statement of restrictions shall be placed in the dedication instrument on the face of the plat:

GREEN SPACE RESTRICTION:

Green space areas are strictly reserved as landscaped, open green spaces only and shall never allow intrusions of any kind that are not landscape related or that in any way lessen the amount of area or landscape material without the expressed, written permission of the City of Decatur.

(Ord. No. 05-01-01, § 1, 2-14-05)

SECTION 110. - MISCELLANEOUS.

110.1 Private streets.

All streets, including streets in Planned Developments as defined by the Zoning Ordinance, not dedicated to the public shall be paved in accordance with these Design Standards and shall be maintained by means of a Home Owner's Association, the property owner or other means as approved by the Commission.

Any request to dedicate a private street as a public street shall be approved only if arrangements are made to bring the street into conformity with all City standards and regulations in effect at the time of dedication at the cost of affected property owners.

All private streets that intersect with public streets shall be constructed with standard drive approaches. In such cases where an unusual condition exists, the City Manager or their designee may approve standard intersection approaches if the approval is requested prior to the preparation of the plans. Private streets will be named and shown on the plat. Street signs for said private streets shall be erected and maintained by the Homeowner's Association or property owner.

110.2 Trench safety.

In conformance with House Bills 662 and 665 as passed by the Seventieth Legislature Regular Session of the State of Texas, all construction projects within the City of Decatur or its extraterritorial jurisdiction as provided by the Municipal Annexation Act (Article 970a, Vernon's Texas Civil Statutes) shall contain provisions for trench safety.

On construction projects in which trench excavation will exceed a depth of five (5) feet, the uniform set of general conditions must require that the bid documents and the contract include detailed plans and specifications for adequate safety systems that meet Occupational Safety and Health Administration standards and that these plans and specifications include a pay item for these same safety systems.

110.3 Underground utilities.

All distribution lines, cables, etc. for utilities shall be installed below ground within the subdivision. Transmission lines or major cables to provide utilities such as electric, telephone and cable television to the area as a whole may be located above ground on the perimeter of the subdivision being served. The installation of these utilities shall conform to commonly accepted construction standards and be subject to review by the City Manager or their designee.

110.4 Off-street parking.

All parking shall be off-street, meaning that all vehicle maneuvering is done on the subject parcel and not on the street or rights-of-way. The following minimum dimensions apply for off-street parking:

Parking Angle	Stall Width	Stall Length	Maneuvering Space
90 degrees	9 feet	18 feet	24 feet
60 degrees	9 feet	18 feet	20 feet
45 degrees	9 feet	18 feet	18 feet

110.5 Driveway approaches.

All driveway approaches connecting to City streets shall be composed of concrete and shall meet the construction requirements as specified in Sheet P-5 of the City's Construction Standards. (Note: Driveway spacing and width details are given in Section 201.8, Tables G & H).

(Ord. No. 05-01-01, § 1, 2-14-05)

SECTION 111. - PARKING.

111.1 Off-street parking.

All parking shall be off-street, meaning that all vehicle maneuvering is done on the subject parcel and not on the street or rights-of-way.

1. Three thousand six hundred (3,600) psi reinforced concrete with a minimum thickness of six (6) inches or four (4) inches of Type "B" and two (2) inches of Type "D" HMAC.
2. Subgrade thickness and content shall be determined from a geotechnical report sealed by a licensed professional engineer registered in Texas provided by the developer.
3. Standard curb and gutter as shown on P-4 of the Construction Standards shall be placed around all landscaping areas and the external boundary of the parking area.
4. All off-street parking areas shall be striped in accordance with the latest addition of the Manual on Uniform Traffic Control Devices (MUTCD) published by the Texas Department of Transportation.

5. The following minimum dimensions apply for off-street parking (See Appendix A):

Parking Angle	Stall Width	Stall Length	Maneuvering Space
90 Degrees	9 feet	18 feet	24 feet
60 Degrees	9 feet	20 feet	20 feet
45 Degrees	9 feet	19 feet	18 feet

(Ord. No. 05-01-01, § 1, 2-14-05)

SECTION 112. - DRIVEWAYS.

112.1 Driveway approaches.

All driveway approaches connecting to City streets shall be composed of concrete and shall meet the construction requirements as specified in Sheet P-5 of the City's Construction Standards. (See Tables F and G in section 201.8 for driveway spacing and width details).

The normal driveway grade within the street rights-of-way is set at one-quarter (¼) inch per foot rise above the top of curb at the property line. The minimum elevation of a driveway at the rights-of-way is two (2) inches above the top of curb. Barrier free sidewalk construction requires a maximum driveway grade as measured from the gutter of eight (8) percent.

Where driveway construction or reconstruction must occur off the street rights-of-way, the usual maximum grade is fourteen (14) percent. The maximum change in grade without vertical curve is twelve (12) percent for any ten (10) feet in distance. Driveways should be profiled for a distance of at least twenty-five (25) feet outside the rights-of-way to ensure adequate replacement design.

Due to state laws requiring barrier free construction of sidewalks, steps or other abrupt changes in sidewalk grades are prohibited at driveways.

(Ord. No. 05-01-01, § 1, 2-14-05)

CHAPTER 2. - IMPROVEMENTS

SECTION 201. - STREET IMPROVEMENTS.

201.1 Street classification definitions.

Streets shall be classified according to the following:

1. *Arterial (principal, major, minor):* The main function of an arterial is to carry traffic from one (1) urban area to another. The arterial system serves the major activity centers of urbanized areas. A thoroughfare is used for longer urban trips and carries a high portion of the total traffic with a minimum of mileage.
2. *Local:* Carries traffic from residential and commercial areas to principal, major, and minor arterials and interconnects individual sites. Local streets carry light traffic volumes and trips are of a short duration.

201.2 General requirements.

The following general requirements apply to street improvements:

1. Adequate streets shall be provided by the subdivider. The arrangement, character, extent, pavement width, rights-of-way width, grade and location of each street shall conform to the Master Plan. Each street shall be considered in its relation to existing and planned streets, topographical conditions, significant natural features such as mature trees or water courses, public safety and convenience, and its relationship to the proposed uses of land to be served by such street.
2. Whenever a tract to be subdivided abuts any part of any street so designated on the Master Plan, or where a street designated on the Master Plan crosses any part of the tract to be subdivided, such part of the proposed public street shall be platted. The rights-of-way shall be dedicated, and the street shall be constructed by the subdivider, generally consistent with the location as indicated on the Master Plan, and to a width consistent with the Master Plan and the requirements of the Subdivision Ordinance.
3. Whenever a subdivision, development or new construction occurs adjacent to an existing street, the street shall be curbed and guttered according to the specifications given herein.
4. All streets shall be designed to coordinate with existing streets in adjoining subdivisions. When conditions permit, centerline offsets shall be at least one hundred thirty-five (135) feet. Greater centerline offsets may be required by the City Manager or their designee and shall be planned where necessary for traffic safety.
5. Streets shall be named to provide continuity with existing streets. Names of new streets shall not duplicate or cause confusion with the names of existing streets. All street names are subject to approval by the Planning and Zoning Commission upon recommendation of the City Staff.
6. Where adjoining areas are not subdivided, the arrangement of streets in the subdivision shall make provision for the proper projection of streets into such un-subdivided area.
7. Streets should be platted to allow two (2) tiers of lots between streets when possible.

8. The reservation in private ownership of strips of land at the end of proposed or existing streets and intended solely or primarily for the purpose of controlling access to property not included in the subdivision shall be prohibited.
9. Half streets shall be prohibited, except divided arterial streets where essential to the reasonable development of the subdivision in conformity with the other requirements of these regulations, and where the Commission finds it will be reasonable to require the dedication of the other half when the adjoining land is subdivided. The other half of the street shall be platted within the adjacent tract at the time it is platted.
10. A median opening with an offset of less than one hundred twenty-five (125) feet from the centerline of an intersecting street or alley shall be prohibited.
11. Eyebrows or partial cul-de-sacs are not permitted on arterial streets.

201.3 Cul-de-sacs.

The following shall apply to cul-de-sacs:

1. Streets designated to be dead-ended permanently shall be platted and constructed with a paved cul-de-sac. Any dead-end street of a temporary nature, if longer than two hundred (200) feet, shall have a surfaced turning area eighty (80) feet in diameter for a cul-de-sac. Temporary dead-end streets shall have provisions for future extension of the street and utilities and, if the temporary cul-de-sac is utilized, a reversionary right to the land abutting the turnaround for excess rights-of-way shall be provided.
2. A street ending permanently in a cul-de-sac should not be longer than six hundred (600) feet and shall be provided at the closed end with a turnaround having an outside roadway diameter of at least eighty (80) feet, and a street property line diameter of at least one hundred (100) feet.

Street class requirements.

The following street class requirements shall apply:

3. Street layout shall provide for continuation of local streets in areas between arterials.
4. Those local streets designated by the Planning and Zoning Commission shall be extended through the tract to the tract boundary to provide future connection with adjoining unplatted lands. In general, these extensions should be at such intervals as necessary to facilitate internal vehicular circulation with adjoining unplatted lands.
5. Where single-family or duplex uses abut an existing or proposed arterial street, the plat or dedication instrument will provide:
    a. Lots to side onto the arterial with a non-access restriction on the arterial, or
    b. Reverse frontage with screening and containing a non-access restriction along the rear property line, or
    c. Other treatment as may be necessary or required for adequate protection of adjoining properties, and as approved by the City Council after taking into consideration the proposed method of off-street parking and maneuvering which will prevent the necessity of backing into the arterial street.

201.4 Street design general provisions.

The following general provisions shall apply:

1. All dedicated streets shall conform to the criteria set forth in the Master Plan. Additional rights-of-way will be required at most intersections and may be required at high-volume driveways to provide for left and right turn lanes to maintain traffic volume capacities through the intersections. Additional utility easements may also be required beyond the rights-of-way in some locations.
2. The dedicated streets shall conform to the minimal design parameters as shown in Table A in section 201.8.
3. Streets shall be designed in accordance with The Texas Department of Transportation's Highway Design Division Operations and Procedures Manual.
4. No street intersections of an arterial (principal, major or minor) shall vary from a ninety-degree angle by more than five (5) degrees. Intersections of a local streets shall not vary from ninety (90) degrees by more than fifteen (15) degrees.
5. All intersections shall have:
    a. A tangent section at least fifty (50) feet long that meets the angle of intersection requirements, and
    b. A centerline curve radius of at least four hundred (400) feet.

201.5 Pavement types.

The developer shall provide a geotechnical report, sealed by a licensed professional engineer, containing recommendations for subgrade thickness and content. The minimum pavement thicknesses are provided below.

1. For Local Streets serving primarily residential areas, the developer shall construct six (6) inches reinforced concrete or four (4) inches of Type "B" and two (2) inches of Type "D" asphalt on a minimum of eight (8) inches of stabilized subgrade.
2. For Arterial Streets, the developer shall construct eight (8) inches of reinforced concrete on ten (10) inches of stabilized subgrade or as approved by the City Manager or their designee.

201.6 Street signs.

The following requirements shall apply:

1. Street signs shall be furnished and installed by the Subdivider for all intersections within or abutting the subdivision.
2. Street signs shall be six (6) inches extruded, have white lettering on a green background, be engineer grade reflectorized, and include the block numbers along with the street name.
3. Stop signs shall be twenty-four-inch by twenty-four-inch in size and shall conform to the standards as set forth in the Texas Manual on Uniform Traffic Control Devices.
4. All signs shall be of engineer grade reflective material and be located in accordance with the Texas Manual on Uniform Traffic Control Devices.

5. The sign pole shall be buried to a minimum depth of two (2) feet and placed in twelve (12) inches diameter concrete filled posthole. The pole shall be tall enough to accommodate all applicable signs. The bottom of the stop sign shall be located seven (7) feet above the finished grade of the surrounding ground.
6. The developer shall submit a list of signs to be placed and a graphical representation of the signs for review by City Staff prior to installation.

201.7 Street Design Tables.

The following tables provide design information as given in the Master Plan.

Table A—Street Design Criteria

Street Classification	Min. Design Speed (MPH)	Max. % Grade	Min. % Grade	Area Free from Storm Water, Using a 100-Year Frequency Storm
Arterials				
Principal	70	6	0.5	One lane in each direction
Major	70	6	0.5	
Minor	60	6	0.5	
Local	30	10	0.5	

Table B—Urban ROW Widths

Thoroughfare Planning and Design Guides, North Central Texas Council of Governments, June 1995

Functional Class	No. Lanes	Median	Min. (feet)	Recommended (feet)	Intersection (feet)
Principal	6	Yes	132	156	200
	4	Yes	108	132	150
Major	6	Yes	110	132	142
	4	Yes	86	102	112
	5	No	80	95	105
	3	No	58	70	75
Minor	4	Yes	80	100	110
	4	No	64	80	90
	3	No	56	68	80
	2	No	50	60	72
	3	No	56	68	66
	2	No	50	60	60

Table C—Lane Widths

Location	Functional Classification	Min. (feet)	Recommended (feet)
Urban	Principal	12	12
	Major	12	12
	Minor	11	12
Rural	Principal	12	12
	Major	12	12
	Minor	12	12

Table D—Median Widths

Thoroughfare Planning and Design Guides, North Central Texas Council of Governments, June 1995

Design Speed	Minimum (feet)	Recommended (feet)
55+	40	54
45—54	22	30
40—44	18	22
<40	14	18

Table E—Median Lane Widths for Two-Way Left Turn Lanes

Thoroughfare Planning and Design Guides, North Central Texas Council of Governments, June 1995

Speed Limit (mph)	Usual (feet)	Minimum (feet)
0-30	12—14	11
35—40	12—14	11
45—50	14	12
50+	16	14

Table F—Design Speeds

Thoroughfare Planning and Design Guides, North Central Texas Council of Governments, June 1995

Location	Functional Classification	Recommended Range (mph)
Urban	Principal	45—70
	Major	45—55
	Minor	40—50
Rural	Principal	50—70
	Major	50—70
	Minor	40—60

Table G—Access Management Minimum Spacing

Thoroughfare Planning and Design Guides, North Central Texas Council of Governments, June 1995

Functional Classification	Driveway Spacing	Median Openings	
		Directional	Full
Principal	440	2,640	5,280
Principal (Svc. Rds.)	330	N/A	N/A
Major/Minor	220	440	880
Local	One Per Lot	N/A	N/A

Table H—Driveway Widths

Area	Minimum (feet)	Maximum (feet)
Residential	8	24
Commercial	10 — One Way	28
Industrial	10 — One Way	30

201.8 Horizontal curves and super elevation.

The alignment of the streets and arterials is usually determined by the alignments of the existing rights-of-way or structures which cannot be relocated. Changes in the direction of a street or thoroughfare are minimized by constructing a simple curve having a radius which is compatible with the speed of vehicular traffic. To increase the safety and reduce discomfort to drivers traversing a curved portion of a street or arterial, the pavement may be super-elevated.

For small deflection angles, horizontal curves should be sufficiently long to avoid appearance of a kink. Curves should be at least five hundred (500) feet long for a central angle of five (5) degrees, and the minimum length should be increased to one hundred (100) feet for each one (1) degree decrease in the central angle.

Curvature in the alignment of arterials is allowed under certain conditions, but the greater traffic volume and the higher vehicle speeds which accompany these thoroughfares tend to increase the number of accidents when curving of alignment occurs. Curves in the alignment of minor streets usually provide aesthetic value to residential neighborhoods without affecting the orderly flow of traffic or safety.

A recommended minimum radius of curvature or vehicle design speed and pavement cross-slopes is shown in Table H. These are based on traffic consisting of typical present-day automobiles operating under optimum weather conditions. There are other important considerations in the design of curves on thoroughfares including the location of intersecting streets, drives, bridges and other topographic features. When super-elevation is required on and arterials, the following formula will be used:

$$E=(V^{2}/15R)-f$$

Where:

e = rate of roadway super-elevation, feet per foot;

f = side friction factor (see table H);

V = vehicle design speed, mph; and,

R = radius of curve in feet.

Table H—Minimum Centerline Radius for Roadways

Super-Elevation	Rate of Design Speed (mph)			
In/ft	30	35	40	45
-½	590	790	1010	1270
- 3/8	540	720	930	1170
-¼	500	670	860	1080
- 1/8	470	630	800	1010
0	440	590	750	940
+ 1/8	420	550	710	890
+¼	390	520	670	840
+ 3/8	370	490	630	790
+½	360	470	600	750

Street Classification	Side Friction Factor (f)
Local/Residential	0.160
Arterials	0.145

Local or residential streets intersecting an arterial will have a tangent section of centerline at least fifty (50) feet in length measured from the rights-of-way line of the arterial; however, no such tangent is required when the local or residential street curve has a centerline radius greater than four hundred (400) feet with the center located on the or arterial street rights-of-way line. Within a reverse curve, there will be a tangent section of centerline no less than one hundred (100) feet long.

Table I—Vertical Curves

When two (2) longitudinal street grades intersect at a point of vertical intersection (PVI) and the algebraic difference in the grades is one (1) percent or greater, a vertical curve is required. Vertical curves are utilized in roadway design to affect a gradual change between tangent grades and should result in a design, which is safe, comfortable in operation, pleasing in appearance and adequate for drainage. The vertical curve will be formed by a simple parabola and may be a crest vertical curve or a sag vertical curve.

MINIMUM LENGTH OF A VERTICAL CURVE

Crest Vertical Curve	Sag Vertical Curve
L = KA Where:	L = KA Where:
L = minimum length vertical curve required for safe stopping sight distance;	L = minimum length vertical curve required for comfort;
K = horizontal distance in feet required to effect a one (1) percent change in gradient;	K = horizontal distance in feet required to effect a one (1) percent change in gradient;
A = algebraic difference in grade.	A = algebraic difference in grade.

Design Speed (mph)	Safe Stopping Sight Distance (ft)	Normal Crest Vertical Curve K (ft)	Normal Sag Vertical Curve K (ft)
70	730	247	181
60	570	151	136
50	425	84	96
45	360	61	79
40	305	44	64
35	250	29	49
30	200	19	37

Based on Geometric Design of Highways and Streets 2001 by AASHTO

(Ord. No. 05-01-01, § 1, 2-14-05)

SECTION 202. - WATER SYSTEM IMPROVEMENTS.

202.1 General.

This section pertains to general design requirements for water distribution system construction in the City of Decatur.

1. All water lines shall be sized and designed in accordance with the City of Decatur Water Distribution System Master Plan or as determined by the City Manager or their designee. In the absence of specific standards, all water supply, distribution, pumping, and storage improvements shall be designed in accordance with the most current standards of the American Water Works Association, the Standard Specifications for Public Works Construction of the North Central Texas Council of Governments, and criteria adopted by the Texas Administrative Code, Chapter 290, "Public Drinking Water."
2. Water lines for multi-family, commercial and industrial fire protection lines shall be dedicated to the public, unless the system is isolated from the public system by a detector check valve.
3. The developer shall furnish, install, construct, or extend, at his own expense, water distribution facilities necessary for the proper development of the subdivision. The water system shall provide individual service to every lot in the subdivision. All water mains constructed within a proposed subdivision shall be extended to the perimeter of the proposed subdivision to allow for future extension of the water system into adjacent properties. The water system shall be designed and constructed in accordance with the specifications contained in these Standards. Where considered necessary by City Staff, the facilities shall be sized in excess of that dictated by these Standards to provide for the future growth and expansion of the City's water distribution system.

202.2 Water line sizing.

1. Standard water line sizes are eight-inch, twelve-inch, and sixteen-inch diameter. Other sizes must be approved by the City Manager or their designee.
2. All water lines shall be a minimum of eight (8) inches in diameter. All water lines shall be looped except in cul-de-sacs. Dead end lines shall not exceed fifty (50) feet on multi-family, commercial, or industrial sites.

202.3 Water line location.

1. Water lines shall be located in the parkway. Along State Highways, water lines are required to be constructed on both sides of roadway. New water lines crossing existing streets shall be placed by boring. A casing shall be required under major and minor collector roadways. Open cut excavation will not be allowed to cross existing streets, unless approved by the City Manager or their designee.
2. All public water lines located on private property shall be centered in an easement. Water lines shall not be located under paved surfaces where possible. Easements for water line construction shall meet the following requirements:
    a. The easement width shall be a minimum of fifteen (15) feet. The easement width shall be a minimum of twenty (20) feet for two (2) utilities (water and/or sanitary sewer) within the same easement.

b. If the water line is less than twelve (12) feet deep, the outside diameter of the water line shall be located a minimum distance of six (6) feet from the edge of the easement, and if other utilities are located in the same easement, the outside diameter of the water line shall be located a minimum distance of four (4) feet from the outside diameter of the other utilities.
c. If the water line is greater than twelve (12) feet deep, the outside diameter of the water line shall be located a minimum distance of nine (9) feet from the edge of the easement, and if other utilities are located in the same easement, the outside diameter of the water line shall be located a minimum distance of six (6) feet from the outside diameter of the other utilities.

202.4 Water line materials.

1. Polyvinyl Chloride (PVC) Pipe.
    a. PVC pipe shall be designed, manufactured, and tested in accordance with the applicable requirements of AWWA C-900 and AWWA M-23.
    b. All PVC water pipe shall be blue in color.
    c. Eight-inch through sixteen-inch water pipe shall be pressure class 235, DR 18. Pressure class 305, DR 14 pipe may be required by the City Manager or their designee in areas of high distribution system pressure.
2. Fittings.
    a. Fittings shall be ductile iron in accordance with AWWA C110 or AWWA C153.
    b. Bolts, nuts, and gaskets to be accordance with AWWA C111. Gaskets shall be neoprene or other synthetic rubber and factory installed. Natural rubber will not be acceptable.
    c. All buried metal shall be wrapped in polyethylene in accordance with AWWA C105.
    d. The pipe on either side of the fitting shall be restrained to the fitting utilizing EBAA iron megalug fittings or City approval equal. The deflection of the pipe at the fitting shall not exceed 50% of the manufacturer maximum allowable deflection.

202.5 Installation.

1. PVC water pipe and appurtenances shall be installed as specified in AWWA Manual M-23 and in accordance with the pipe manufacturer's recommendations.
2. General.
    a. All installations shall conform to the latest City Construction Standards Details and NCTCOG Specifications, as amended by these standards.
    b. Water service must be maintained to all customers by temporary means throughout construction. All connections to existing water mains shall be made under pressure unless dry connections will not cause any loss of service. Under special conditions connections that cause an interruption of service may be performed with approval of the City Manager or their designee.
    c. All eight-inch water pipes shall be installed with a minimum of forty-two (42) inches of cover over top of pipe; twelve-inch water pipes shall be installed with a

minimum of forty-eight (48) inches cover. Pipes sixteen (16) inches and larger shall be installed with a minimum of sixty (60) inches of cover over top of pipe.

d. Deflections made at pipe joints or fittings shall not exceed 50% of the manufacturer maximum allowable deflection.
e. The water line shall be designed and installed to limit high points along the line.
f. All piping with mechanical couplings, push-on, or similar joints shall be designed with blocking, anchors, and restraining harnesses to preclude separation of joints. Blocking to be in accordance with City Construction Standards Details.
g. The amount of trench excavation shall not exceed fifty (50) feet from the end of the pipe laying operations. At the end of each workday, all trench excavation shall be backfilled to the end of the pipe laying operation. Barricades and lights will be required around any open trench left overnight.
h. Coated tracer wire shall be installed in the embedment material above the PVC pipe with the tracer wire terminating in the in-line gate valve boxes accessible by City Staff. Blue underground water line tape of a minimum four-inch width shall be installed above the embedment material.
i. Density tests shall be taken every two hundred (200) feet in each lift by a City approved laboratory. The density reports shall be submitted daily to the City Manager or their designee. All density reports shall be completed and delivered to the City Manager or their designee before paving is allowed to begin.
j. Pipeline markers shall be provided outside of pavement for all bends, tee, valves, and at right-of-way or railroad crossings.

202.6. Fire hydrants.

Materials and installation shall conform to the latest City Construction Standards Details and NCTCOG Specifications, as amended by these standards.

1. Fire hydrants in commercial and industrial areas shall generally be at street intersections and so located that there will be a fire hydrant every three hundred (300) feet. Fire hydrants in a residential area shall be generally located on street intersections and not over five hundred (500) feet apart. Fire hydrants in a multi-family complex shall be generally located on street intersections and not over three hundred (300) feet apart. Fire hydrant spacing is measured by hose lay-length and not a direct path.
2. Materials.
    a. Fire hydrants shall be manufactured in accordance with AWWA C-502, Dry-Barrel Fire Hydrants.
    b. Hydrants shall be manufactured such that all maintenance and adjustments can be performed without excavation and such that hydrants may be faced in any direction in relation to base.
    c. The hydrant nozzle arrangement shall be three-way, consisting of two (2) two and one-half-inch hose nozzles and one (1) five-inch pumper nozzle. The two (2) hose nozzles are one hundred eighty (180) degrees apart with the pumper nozzle in between and on the same horizontal plane. Centerline of outlet nozzle shall be a minimum of eighteen (18) inches above the ground/hydrant bury line.

d. Threads on hose and pumper nozzles shall meet the requirements of National Fire Protection Association, NFPA 1963, "Standard for Screw Threads and Gaskets for Fire Hose Couplings" as follows:

	HOSE NOZZLE	PUMPER NOZZLE
Nominal Size of Coupling Waterway	2½"	5"
Number of Threads per Inch	7½	4
Thread Designation (NH = Fire Hose)	2.5—7.5 NH	4—4 NH

e. Nozzle cap harnessing and gaskets shall be furnished.
f. Shut off.
   i. The hydrants shall be of the compression type, with the main valve opening against the pressure and closing with the pressure.
   ii. The valve action shall provide positive shut-off at minimum closing torque.
   iii. Wedge action closing gates shall not be used.
   iv. All hydrants shall open by turning the operating-stem nut to the LEFT (COUNTERCLOCKWISE). A clearly visible CURVED ARROW and the word "OPEN" shall be cast in relief on the top of the hydrant to indicate the direction of opening.
   v. The fire hydrant operating nut shall be square in shape. The square nut shall measure one (1) inch at the base, and seven-eighths (7/8) inch at the top with all faces tapered uniformly. The nut shall be so designed as to protect the working mechanism from the moisture and dirt.
   vi. Hub Type — Inlet connection shall be mechanical joint unless otherwise specified and shall be for six-inch ductile iron pipe. The nominal diameter of the fire hydrant main valve opening is to be five and one-fourth (5¼) inches.
   vii. Hydrant Body — The body of the hydrant between the elbow and the top cap must be made in two (2) parts connected by a swivel flange, or breakable flange which will permit facing of the nozzles in any desired direction in increments of forty-five (45) degrees or less. The complete hydrant shall be of such design that when the hydrant barrel is broken through traffic collision or otherwise, it may be replaced without disturbing the bottom section of the hydrant. Extension sections, where required, shall include barrel extension section, extension rod with connectors provided for lengthening the complete unit. These units shall be available in increments of six (6) inches in length.

3. Location Markers — A location marker shall be placed in the center of the roadway opposite the fire hydrant. If the fire hydrant is located near the intersection of at least two (2) streets, a marker shall be placed on all streets. The installation of this reflector shall be in accordance with the manufacturer's recommendation. Location markers shall be Stemsonite 1-88-55A or approved equal.
4. See approved products list for acceptable fire hydrants manufacturers, paints manufacturers, and colors.

202.7 Valves.

1. Materials and installation shall conform to the latest City Construction Standards Details and NCTCOG Specifications, as amended by these standards.
2. Resilient seated gate valves shall be used for eight-inch through sixteen-inch water lines.
3. Valves of approved design shall be installed at the intersections of all water mains so as to provide for proper maintenance and operation of the system and to provide a means of shutting off the supply to portions of the system for repairs. Valves shall be spaced such that only one (1) fire hydrant is out of service at any one (1) time. Four (4) valves shall be used on a four-way water line intersection and a minimum of three (3) valves shall be used on a three-way intersection.
4. Resilient Seated Gate Valves.
    a. Resilient seated gate valves shall meet or exceed the latest revisions of AWWA C509 and shall meet or exceed the requirements of these standards.
    b. Resilient seated gate valves for buried service shall be furnished with a square two-inch operating nut. The valve box shall be Tyler Pipe 6850 series or approved equal. The valve box lid shall be painted blue. The paint shall be Glidden or approved equal.
5. Installation.
    a. Valves shall be furnished with extensions, such that the working nut is a maximum of thirty-six (36) inches below grade.
    b. Adjustable valve boxes shall be furnished and set on each valve in accordance with these standards. Valves that are deeper than thirty-six (36), AWWA C900 PVC pipe shall be used for stacks, as long as the adjustable valve box is used at the top.
    c. After the final clean-up and alignment has been complete, the contractor shall cast in place a concrete block, twenty-four (24) inches by twenty-four (24) inches around all valve box tops at the finish grade. See City Construction Standards Details for additional details.
    d. Valves located within a right-of-way shall be indicated on the face of the curb, or where curbs do not exist, on a conspicuous location adjacent to the valve location. Markings are to be the stamping of a four-inch-high letter "V" with the point of the "V" pointing towards the valve location.
    e. Valve markers shall be provided for valves outside of pavement.

6. Manufacturers.
    a. See approved products list for acceptable valve manufacturers.

202.8 Air release and flushing valves.

1. Materials and installation shall conform to the latest City Construction Standards Details and NCTCOG Specifications, as amended by these standards.
2. Adequate air relief and flushing valves shall be provided for flushing, disinfection, daily operation requirements and repairs when required by the City Manager or their designee. Air release valves shall be required on twelve (12) inches and larger water lines at all high points in the line. Water lines shall be designed so that each section of the water line can be flushed at its lowest and highest points.
3. All dead-end lines shall have a fire hydrant installed for flushing purposes. If installation of a fire hydrant is not possible, a flushing valve is required.
4. A fire hydrant shall be required at high points on water lines smaller than twelve (12) inches for air relief and flushing.
5. Air release valves and air/vacuum valves shall meet or exceed the latest revision of AWWA C512 and M51.

202.9 Tapping sleeve.

1. A tapping sleeve and valve shall be used when connecting a new water line to an existing line. A resilient seated gate valve shall be flanged to the tapping sleeve. The tapping sleeve shall be a Smith-Blair stainless steel tapping sleeve or approved equal.

202.10 Water service.

1. Materials and installation shall conform to the latest City Construction Standards Details and NCTCOG Specifications, as amended by these standards.
2. The water meter box shall be placed a minimum of twelve (12) inches behind the back of curb, and the water service shall be no more than fourteen (14) inches deep, covered with a meter box in place at grade. If no curb is present, the water service shall be located at the property line, no more than fourteen (14) inches deep, covered with a meter box in place at grade. Along roadways without a curb the water service line shall be constructed at a minimum of eighteen (18) inches below the ditch flow line.
3. Meter and service sizes will be determined by the developer prior to requesting service from the City. The minimum water service size between the water main and the meter shall be three-fourth (¾) inches and the minimum meter size shall be five-eighth (5/8) inches.
4. Water services on undeveloped lots shall be located at the property line and shall be a minimum of one (1) inch in diameter.
5. Materials for service saddles, corporation stops, curbs stops, and service lines shall be provided as shown in the latest City Construction Standards Details
    a. Meter box for meters two (2) inches and smaller. Meter boxes shall be provided for meters two (2) inches and smaller as shown in the Construction Details.
    b. A concrete vault shall be provided for meters larger than two (2) inches as shown in the Construction Details.

6. Installation.
    a. General.
        i. All water services shall be installed in accordance with the City Construction Standards Details these standards.
        ii. Each individual service location shall be saw cut into the face of the curb with a four-inch-high blue "W" painted by the Contractor. If no curb exists, a similar mark should be placed in the pavement near the edge of the roadway.
            (a) Residential Meters — All residential meters shall be manufactured by Badger Meters.
            (b) Commercial Meters (two (2) inches and larger) — The developer shall purchase from the manufacturer a master compound meter. The meter shall be installed by a licensed utility contractor. All meters in this size class are required to have a strainer prior to the meter.

202.11 Flushing valves.

1. Materials
    a. Corporation stop shall be two-inch ball type with compression outlet fitting, designed for a minimum working pressure of two hundred (200) psi.
    b. Two-inch curb stop shall be ball type with compression inlet fitting with fee head shut off.
    c. Pipe shall be two (2) inches diameter, Type K copper as specified in ASTM B88.

202.12 Water line bore.

1. Materials and installation shall conform to the latest City Construction Standards Details and NCTCOG Specifications, as amended by these standards.
2. Casings shall be required under arterials, highway crossings, and railroad crossings. Casings may also be required were deemed necessary by the City Manager or their designee. The construction bore pit shall be located at a minimum distance of four (4) feet behind the back of curb or edge of pavement where no curb is present.
3. The design engineer shall design the water line pipe casing for the following loading conditions and applicable combinations thereof:
    a. Cooper's E-80 Railway loading or AASHTO HS20 loading as applicable,
    b. Earth loading with the height of fill above the casing as shown on the plans,
    c. Loads applied during jacking, including axial load from jacking, and
    d. All other applicable loading conditions, including loads applied during transportation and handling.
    e. Minimum casing thickness as shown on the City Construction Standards Details.
4. Materials.
    a. Steel Casing Pipe — Steel casing pipe shall be new (or used if approved by the City Manager or their designee) and suitable for the purpose intended and shall have a minimum yield strength of thirty-five thousand (35,000) psi. Casing shall meet \ ASTM A-139, or approved equal. Pipe shall be coated with coal tar epoxy (fifteen (15) mils min.) in accordance with AWWA C-210. Pipe joints shall be

welded in accordance with AWWA C-206. After pipe is welded, coating shall be field repaired.

b. Cement Mortar — Cement mortar shall consist of one (1) part cement to two (2) parts clean sand with sufficient water to make a thick, workable mix.
c. Pressure Grout Mix — Grout shall be comprised of one (1) cubic foot of cement and three and one-half (3.5) cubic feet of clean fine sand with sufficient water added to provide a free-flowing thick slurry. If desired to maintain solids in the mixture in suspension, one (1) cubic foot of commercial grade bentonite may be added to each twelve (12) to fifteen (15) cubic feet of the slurry.
d. Casing Insulators (Spacers) — Use casing insulators for any type of carrier pipe. Insulators shall fit snug over the carrier pipe and position the carrier pipe approximately in the center of the casing pipe to provide adequate clearance between the carrier pipe bell and the casing pipe. Insulators shall be manufactured by "Recon" and be Racci Type or approved equal.

5. Installation.
   a. Do not allow excavation over the limits of the bore or tunnel as specified. Trench walls of access pits adjacent to the bore or tunnel face shall be truly vertical. Shore the trench walls as necessary to protect workmen, the public, structures, roadways, and other improvements.
   b. Excavations within the rights-of-way and not under surfacing shall be backfilled and consolidated by mechanical methods as specified in these standards for compaction of trenches under roadways. Surplus material shall be removed from the rights-of-way and the excavation finished to original grades. Backfill pits immediately after the installation of the carrier pipe is completed. If carrier pipe is not installed immediately after casing pipe installation, the City may require the access pits be temporarily backfilled until installation of carrier pipe.
   c. Where seeding or sodding is disturbed by excavation or backfilling operations, such areas shall be replaced by seeding or sodding as specified elsewhere.
   d. Install single piece rubber pull-on end seal on casing pipe. Seal between casing and carrier pipe shall be watertight. If watertight seal cannot be achieved, other means to be utilized with City approval.

(Ord. No. 05-01-01, § 1, 2-14-05)

SECTION 203. - WASTEWATER SYSTEM IMPROVEMENTS.

203.1 General.

This section pertains to general design requirements for wastewater collection system construction in the City of Decatur. All sewer lines shall be sized and designed in accordance with the Master Plan or as determined by the City Manager or their designee. In the absence of specific standards, all collection, treatment, and disposal systems shall be designed in accordance with the most current criteria adopted by the Texas Administrative Code, Chapter 217, "Design Criteria for Domestic Wastewater Systems."

1. All sewers shall be designed with consideration for serving the full drainage area subject to collection by the sewer in question; the drainage area may be modified with the concurrence of the City Manager or their designee because of the projected rate of development or the financial feasibility of the proposed extension.
2. Sewers should be designed with straight alignment whenever possible. When horizontal curvatures must be used, the maximum joint deflection should not exceed 50% of the pipe manufacturer's recommendations.
3. The developer shall furnish, install, construct, or extend, at his own expense, wastewater collection facilities necessary for the proper development of the subdivision. The wastewater collection system shall provide individual service to every lot in the subdivision. All sewer mains constructed within a proposed subdivision shall be extended to the perimeter of the proposed subdivision to allow for future extension of the wastewater collection system into adjacent properties. The wastewater collection system shall be designed and constructed in accordance with the specifications contained in these Standards. Where considered necessary by City Staff, the facilities shall be sized in excess of that dictated by these Standards to provide for the future growth and expansion of the City's wastewater collection system.
4. All sewer slopes shall conform to TAC Chapter 217. Hydraulic analysis of the sewer pipe must utilize an "n" value of 0.013 for Manning's formula.
5. When a one hundred fifty (150) psi rated sewer line is required due to its proximity to a water line, the one hundred fifty (150) psi rated pipe shall terminate at a manhole on each end. The pipe shall be extended to the interior wall of the manhole. No external boot connection will be allowed.

203.2 Sanitary sewer line sizing.

1. Standard sewer line sizes are eight (8) inches, twelve (12) inches, fifteen (15) inches, and eighteen (18) inches in diameter; other sizes must be approved by the City Manager or their designee.
2. Sewer lines shall be a minimum of eight (8) inches in diameter.

203.3 Location.

1. Sewer lines shall be constructed at a minimum depth of four (4) feet. They shall be located in the parkway and are required to be constructed on both sides of a state highway. No sewer lines will be allowed to cross a state highway.

2. Easements for sewer line construction shall meet the following requirements:
    a. The easement width shall be a minimum of fifteen (15) feet. The easement width shall be a minimum of twenty (20) feet for two (2) utilities within the same easement.
    b. If the sewer line is less than twelve (12) feet deep, the outside diameter of the sewer line shall be located a minimum distance of six (6) feet from the edge of the easement, and if other utilities are located in the same easement, the outside diameter of the sewer line shall be located a minimum distance of four (4) feet from the outside diameter of the other utilities.
    c. If the sewer line is greater than twelve (12) feet deep, the outside diameter of the sewer line shall be located a minimum distance of nine (9) feet from the edge of the easement, and if other utilities are located in the same easement, the outside diameter of the sewer line shall be located a minimum distance of six (6) feet from the outside diameter of the other utilities.

203.4 Materials.

1. All sanitary sewer pipes shall be PVC pipe type SDR-26 for sewer lines constructed less than fifteen (15) feet deep. SDR-26 shall be provided where sewer lines exceed fifteen (15) feet. PVC pipe will not be allowed for depths greater than twenty-four (24) feet unless approved by City Manager or their designee. If service connections are needed on sewer pipe constructed below fifteen (15) feet in depth, a parallel line shall be constructed at a shallower depth, specifically for service connections.
2. All PVC sanitary sewer pipe shall be green in color.
3. PVC sewer pipe and fittings shall conform to the current ASTM Designation D3034 for four (4) inches through fifteen (15) inches and ASTM Designation F679 for greater than fifteen (15) inches. Sewer pipe required to have one hundred fifty (150) psi rating shall conform to ASTM Designation D2241.

203.5 Installation.

1. General.
    a. All installations shall conform to ASTM Designation D2321 to the latest City Construction Standards Details and NCTCOG Specifications, as amended by these standards.
    b. Sewer lines shall not be installed within nine (9) feet horizontally or vertically of any water main or fire hydrant. Where sewer lines must be installed within nine (9) feet of a water main or hydrant, materials shall be in accordance with TAC Chapter 217.
    c. Construction shall begin at the downstream end of project and continue upstream with the bell facing upstream. No upstream piping shall be installed before downstream piping unless approved by the City Manager or their designee.
2. Excavation and Backfill.
    a. Green marker tape with the wording "Buried Sanitary Sewer" shall be installed in the backfill material no more than twelve (12) inches above the top of the pipe.

b. The amount of trench excavation shall not exceed fifty (50) feet from the end of the pipe laying operations. At the end of each workday, all trench excavation shall be backfilled to the end of the pipe laying operation. Barricades and lights will be required around any open trench left overnight.
c. Density tests shall be taken every two hundred (200) feet in each lift by a City approved laboratory. The density reports shall be submitted daily to the City Manager or their designee. All density reports shall be completed and delivered to the City Manager or their designee before paving is allowed to begin.

203.6 Testing and inspection.

1. All sanitary sewer lines shall be tested in accordance with TAC Chapter 217 prior to acceptance by the City Manager of their designee.
2. All sanitary sewer lines shall be inspected using television inspection methods prior to acceptance by the City Manager or their designee.
    a. The Contractor is responsible for cleaning the sewer pipe. If the inspection shows debris or evidence that the line has not been properly cleaned, the review will cease, and the tape will be returned to the Contractor.
    b. A city representative shall be present during the television inspection, unless otherwise authorized in writing.
    c. The televised inspection shall commence only after the line has passed both air and mandrel test.
3. Televised Inspection Criteria.
    a. All sanitary sewer mains must be flushed with water just prior to televised inspection. Water is to be provided at the Contractor's expense. A city representative shall be present during the flushing of the main.
    b. All video information on tape must have good picture quality.
    c. As a title heading on the tape and during the televising, the operator must:
        i. Note the project name and Contractor name.
        ii. Note the name of the company and the operator performing the video inspection.
        iii. Note line size and material, joint type, and length.
        iv. Line segment to be televised including beginning and ending station numbers.
        v. Note page of plans used and year plans were stamped.
        vi. Note date and time of inspection.
        vii. Footage counter must be displayed on the tape during the filming.
        viii. Show the above title block before and after each line segment. Show the title block at one hundred-foot intervals while filming the line segment.
        ix. All defects should be shown on film for a minimum of ten (10) seconds before proceeding with the televising.

d. The Contractor shall supply a log sheet used in conjunction with the video tape for written documentation. All written information gathered must be legible and clearly understandable.
    i. Note the project name, Contractor name and contract number.
    ii. Note the name of the company and the operator performing the video inspection.
    iii. Note pipe size and material, joint type, and length between joints.
    iv. Note the video tape footage counter, start to end.
    v. Note line segment to be televised, station numbers from and station numbers to length of line segment as indicated on plans.
    vi. Note page of plans used and year plans were stamped.
    vii. Note date and time of inspection.
    viii. Indicate by sketch the line segment to be televised in relation to surrounding road intersections and street addresses. Identify manhole station numbers. Show direction of flow with arrows and direction the camera is going. Indicate direction of north on the sketch.
    ix. Note the water depth at the beginning, every fifty-foot station, every change in grade, and at the end of the line segment.
    x. Identify the clock location, direction, size, and type of laterals entering main. Indicate laterals as saddles, punched, or glued fittings.
    xi. Indicate final footage televised at end of the log sheet.
        (a) All tapes and run sheets shall be submitted to the City Manager or their designee. All tapes and log sheets shall become the property of the city.

4. Criteria for repair.
    a. The Contractor shall make repairs if the inspection reveals any deficiency in the sewer line. If repairs are required, another test or television inspection shall be made after the repairs are complete from manhole to manhole at the Contractor's expense.
    b. Repairs shall be made to the satisfaction of the City Manager or their designee.

203.7 Manholes.

1. Materials and installation shall conform to the latest City Construction Standards Details and NCTCOG Specifications, as amended by these standards.
2. Manholes shall be located at all intersections of sewer lines and at intermediate spacing along the line in accordance with TCEQ. Manholes should be located at all changes in horizontal alignment or vertical grade and at the ends of all sewer lines.
3. A manhole is required at the junction of sewer lines with different inside pipe diameters or where a changer in material occurs.
4. A drop of at least 0.1 feet is required through the manhole when a change in flow direction occurs.
5. The flow line into a manhole should not be greater than six (6) inches above the flow line out of the manhole. Where the flow line in is greater than two (2) feet above the flow line out, an interior drop manhole is required.

6. Minimum manhole inside diameter is four (4) feet.
7. Drop-connection manholes shall have a minimum inside diameter of five (5) feet.
8. Minimum cast in place manhole wall thickness is eight (8) inches. For depths greater than twelve (12) feet add an extra four (4) inches of thickness for each additional six (6) feet of depth.
9. Minimum pre-cast wall thickness is six (6) inches.
10. A manhole is required where a sanitary sewer line enters and exits private property.
11. All manholes shall be constructed of concrete. All manholes shall be provided with an interior epoxy liner that coats all parts of the manhole, including the invert.
12. Installation.

USE THE FOLLOWING TABLE TO DETERMINE SANITARY SEWER MANHOLE SIZES:

Pipe Sizes	Depth of Cover	Maximum Diameter of Manhole	Number of Pipe Connections Allowed in Manhole
Under 12"	<12'	4'	3
	12'—20'	5'	3
12" to 18"	<12'	5'	3
	12'—20'	6'	4

NOTE: *If the proposed design requires the sewer line to be placed at depths greater than shown above, the design will require approval by the City Manager or their designee.*

1. Cast-in-place.
    a. The manhole foundation shall be poured on undisturbed soil and shall have a minimum thickness of eight (8) inches.
    b. The inlet and outlet pipes shall be poured into the foundation of the manhole. The pipe shall extend one and one-half (1½) inches into the manhole. When straight through flow occurs, the pipe shall not be laid continuously through the manhole.
    c. The invert shall be shaped and smoothed so that no projections will exist, and the invert shall be self-cleaning. The invert floor shall have a minimum slope of one (1) inch per foot.
    d. Concrete work shall conform to all requirements of ACI 301, Standard Specification for Structural Concrete, published by the American Concrete Institute, except as modified herein.
    e. Detailing of concrete reinforcement and accessories shall be in accordance with ACI Publication 315.

f. Portland Cement shall be Type II, low-alkali and conform to ASTM Designation C-150.
g. The manhole shall not be backfilled within twelve (12) hours after the concrete placement.
h. The face of curb shall be sawed with an "MH" to mark the location of all manholes. The location of the stamp shall be a line that intersects the center of the manhole cover and the curb perpendicular to the centerline of the street. For manholes located in intersections, the curb shall be stamped at the closest location to the manhole. If no curb exists, a similar mark should be placed in the pavement near the edge of the roadway.
i. Manhole base shall have a spread footing and be placed on a minimum of twelve (12) inches of crushed rock.
j. Precast Manhole.

2. Precast manholes shall be constructed in accordance with ASTM Designation C-478.
3. Manhole base shall have a spread footing and be placed on a minimum of eight (8) inches of crushed rock.

203.8 Manhole frame and cover.

1. Cover.
    a. All manhole covers shall conform to the Standard Specifications for Grey Iron Castings, ASTM A-48, Class 30 B.
    b. All manhole covers shall be thirty (30) inches in diameter.
    c. All manhole covers shall have two (2) integrally cast pick bars.
    d. See approved products list for acceptable manufacturers.
2. Frames.
    a. All manhole frames shall conform to the Standard Specifications for Grey Iron Castings, ASTM A-48, Class 30 B.
    b. All manhole frames shall provide a thirty-two (32) and ¼ inch opening to assure proper fit of the manhole cover.
    c. See approved products list for acceptable manufacturers.
3. Extension Ring.
    a. All precast reinforced concrete extension rings shall conform to ASTM C-478.
    b. The number of extension ring sections shall be kept to a minimum (i.e., use 1–12-inch extension ring instead of two- to six-inch extension rings).
    c. A one-inch by three and one-half-inch bitumastic gasket shall be used to seal the extension ring at both joints.
4. Rain Pan.
    a. Rain pans shall be high density polyethylene plastic.
    b. See approved products list for acceptable manufacturers.

203.9 Sewer service.

1. No sewer service line (lateral) shall be less than four (4) inches in nominal diameter. Non-residential sewer laterals shall be six (6) inches minimum diameter.
2. Sewer laterals shall be located at the center of the lot and extended to the property line and be a minimum of ten (10) feet downstream of the water service.
3. Sewer service laterals shall have no more than six (6) feet of cover at the property line.
4. A cleanout shall be located on the service lateral at the time of connection to the building.
5. All lateral sewer service lines shall be PVC pipe type SDR-26.
6. All PVC sanitary sewer pipe used for lateral services shall be green in color.
7. All service laterals shall be installed in accordance with the sanitary sewer embedment and backfill standards.

203.10 Cleanouts.

1. All cleanouts are to be constructed of PVC pipe type SDR-35.
2. All PVC sanitary sewer pipe shall be green in color.
3. PVC sewer pipe and fittings shall conform to the current ASTM Designation D3034 for four (4) inches through fifteen (15) inches and ASTM Designation F679 for greater than fifteen (15) inches.

203.11 Main line cleanouts.

Main line cleanouts shall be located on dead end sewer mains at a distance no greater than two hundred fifty (250) feet from the preceding manhole. If the distance is greater than two hundred fifty (250) feet, a manhole shall be installed at the end of the line.

203.12 Aerial sewer.

1. The piers for the aerial crossing shall be designed in accordance with the guidelines of the Ductile Iron Pipe Research Association.
2. Aerial sewer crossings shall be located in areas where the sewer line cannot be constructed with the appropriate minimum cover. The design engineer shall design the aerial crossing in accordance with these standards and as approved by the City Manager or their designee.
3. Pier placement and spacing shall be determined according to soils analysis performed by a geotechnical engineer. Piers shall be placed at a maximum span distance as indicated by the design engineer's calculations.
4. Pier placement and spacing along with a soils report shall be submitted to the City Manager or their designee.
5. All above ground sewer installations shall be ductile iron, minimum Class 150, utilizing restrained joints and shall have a wall thickness required for the size and span as designed. The pipe shall have an internal polyurethane coating suitable for wastewater service.
6. The aerial pipe shall be connected to the sanitary sewer pipe by means of a manhole on each side of the aerial crossing.
7. The design engineer shall submit a pipe design for approval by the City Manager or their designee.

203.13 Sewer line boring.

1. The design engineer shall design the sewer line pipe casing for the following loading conditions and applicable combinations thereof:
    a. Cooper's E-80 Railway loading or AASHTO HS20 loading as applicable.
    b. Earth loading with the height of fill above the casing as shown on the plans.
    c. Loads applied during jacking, including axial load from jacking.
    d. All other applicable loading conditions, including loads applied during transportation and handling.
    e. Minimum casing thickness is shown on the City Construction Standards Details
2. Steel casing pipe shall be new (or used if approved by the City Manager or their designee) and suitable for the purpose intended and shall have a minimum yield strength of thirty-five thousand (35,000) psi. Casing shall meet ASTM A-139. Pipe shall be coated with coal tar epoxy (fifteen (15) mils min.) in accordance with AWWA C-210. Pipe joints shall be welded in accordance with AWWA C-206. After pipe is welded, coating shall be repaired.
3. Cement mortar shall consist of one (1) part cement to two (2) parts clean sand with sufficient water to make a thick, workable mix.
4. Grout shall be comprised of one (1) cubic foot of cement and three and one-half (3.5) cubic feet of clean fine sand with sufficient water added to provide a free-flowing thick slurry. If desired to maintain solids in the mixture in suspension, one (1) cubic foot of commercial grade bentonite may be added to each twelve (12) to fifteen (15) cubic feet of the slurry.
5. Casing insulators shall be used for any type of carrier pipe. Insulators shall fit snug over the carrier pipe and position the carrier pipe approximately in the center of the casing pipe to provide adequate clearance between the carrier pipe bell and the casing pipe. Insulators shall be manufactured by "Recon" and be Racci Type or approved equal.
6. All bores shall be installed at a grade that matches the grade of the carrier pipe.
7. All bores shall maintain grade enough to ensure desired clearance distances between existing utilities and bore.
8. Bore pits must be a minimum of four (4) feet from the back of curb when located for boring under roadways.
9. Do not allow excavation over the limits of the bore or tunnel as specified. Trench walls of access pits adjacent to the bore or tunnel face shall be truly vertical. Shore the trench walls as necessary to protect workmen, the public, structures, roadways, and other improvements.
10. Excavations within the rights-of-way and not under surfacing shall be backfilled and consolidated by mechanical methods as specified in these standards for compaction of trenches under roadways. Surplus material shall be removed from the rights-of-way and the excavation finished to original grades. Backfill pits immediately after the installation of the carrier pipe is completed. If carrier pipe is not installed immediately after casing pipe installation, the rights-of-way Owner may require the access pits be temporarily backfilled until installation of carrier pipe.
11. Where seeding or sodding is disturbed by excavation or backfilling operations, such areas shall be replaced by seeding or sodding as specified elsewhere.

12. Install single piece rubber pull-on end seal on casing pipe. Seal between casing and carrier pipe shall be watertight. If watertight seal cannot be achieved, other means to be utilized with City approval.

203.14 Lift stations.

1. Lift stations shall be installed only if approved by the City Manager or their designee. or shown on the master wastewater plan for the City.
2. Lift stations shall be designed to accommodate the peak wet weather flow rate for the build out of the service area.
3. All lift stations shall be designed using wet pit submersible pumps, reinforced concrete or fiberglass wet wells with separate check valve vault and flow meter vaults.
4. Permanent lift stations and all appurtenances shall be constructed on property dedicated to the city in fee simple. Temporary lift stations and appurtenances may be placed in a public easement. Whether a lift station is temporary or permanent shall be determined by the City.
5. Lift stations shall be designed by a professional engineer licensed in the state of Texas.
6. Lift stations must be designed in accordance with 30 TAC 217, NFPA 820, Hydraulic Institute Pump Intake Design Standards (ANSI/HI 9.8).
7. Construction plans submitted for the lift station shall include wet well hydraulic and structural design, vault designs, pump specifications, pipe design, and applicable instrumentation including approved telemetry equipment.
8. Construction plans shall be accompanied by a preliminary design report that shall include at a minimum: Project background, site discussion, flow calculations, wet well size calculations, wet well buoyancy calculations, detention time calculations, system curve calculations, pump selection, water hammer calculations, vent sizing calculations, and odor control discussion,
9. No components requiring service may be placed in the wet well unless they can easily be removed without entering the wet well.
10. No carbon steel parts may be used within the wet well of the lift station. Stainless steel, aluminum, bronze, PVC, coated ductile iron may be used. Plated steel parts may not be used.
11. No bare steel or painted steel materials shall be used in the construction of the lift station or its components. All steel parts shall be stainless steel or hot dipped galvanized and electro-galvanized steel may not be used. The generator enclosure may be factory painted steel.
12. The interior of the concrete wet well shall be lined with corrosion resistant materials acceptable to the City. The interior lining system shall be installed only by manufacturer-certified installers and tested by manufacturer-certified third-party inspectors acceptable to the City Engineer.

13. All isolation valves, check valves and fittings shall be installed in a valve vault with a double leaf access hatch. A 4-inch pressure gauge shall be installed on the discharge main exiting the vault. Lift station discharge and suction piping shall be ductile iron lined with minimum of 40-mil NDT ceramic epoxy lining Protecto 401. Exterior of piping shall be coated with a coating suitable for wastewater. Piping coating must be installed by manufacturer-certified installers and tested by manufacturer-certified third-party inspectors acceptable to the City Engineer.
14. Fixed standby generators shall be required at lift stations. Lift stations so equipped will include an automatic transfer switch with programmable exercise cycle. Generators will require sound attenuation if the decibel rating at the property line is anticipated to exceed that allowed by applicable zoning ordinances.
15. Access hatches to the wet well and vaults shall be ASSHTO H-20 rated, internally drained, channel frame-style, air-tight sealing gasketed, spring-assisted, lockable, aluminum, or stainless steel. The hatch to the wet well shall be fitted with integral secondary fall protection grating.
16. Odor control devices shall be installed for the lift station and at the termination of the force main as approved by the City engineer. Odor control shall be provided at the lift station.
17. Cranes shall be provided for any equipment in excess of 2,000 lbs.
18. 6-inch bypass quick connect shall be provided.
19. City staff shall review and provide feedback on the control valves and isolation valves.
20. Instrumentation and control:
    a. All electrical and control panels shall be located with a minimum of six (6) feet of clear working area from the edge of the wet well hatch.
    b. The voltage supplied for pump operation shall be three-phase, four hundred eighty (480) volts. Converting single phase power to three-phase power using additional mechanical equipment shall not be allowed. Alternative power supply may be considered for pump motors under 5 HP.
    c. All electrical panels shall be NEMA 4X stainless steel construction. Exposed conduit shall be Sch. 40 aluminum with galvanized malleable iron fittings. Conduit clamps and attachment devices shall be aluminum or stainless steel. All conduits into the control panel shall be gas tight.
    d. Provide a separate disconnect panel for each pump, adjacent to the wet well, with an air break.
    e. The control panel for the pumps shall be installed under a metal sunshade that will prevent the sunlight from directly striking the panel between 10:00 a.m. and 5:00 p.m. at any time during the year. The sunshade shall be designed to withstand all live and dead loads required by the building code.
    f. Wet-well level control shall be achieved through the use of an ultrasonic level indicating transmitter or float controls. If ultrasonic level controls are used, they must be backed-up with float controls.

g. All lift stations shall have SCADA telemetry equipment installed that interfaces with the City's SCADA system and meets the City's protocol and specifications. The SCADA system shall be designed, furnished, and installed by the City's designated SCADA system integrator.
h. Submersible pumps shall be provided with moisture and motor over-temperature sensors.

21. Site requirements.
    a. Lift station site shall be of sufficient size and laid out in such a manner to allow service vehicles unobstructed access to the wetwell and valve vault.
    b. The lift station, controls, valve vaults, generators, and ancillary equipment shall be enclosed by an 8-foot masonry or painted steel picket fence. In residential areas, the fence shall be a powder coated steel picket decorative fence. A double leaf gate at least 16 feet wide shall be provided with locking device and gate leaf holdbacks.
    c. A concrete pad will be required at the front of the control cabinet. The pad shall provide a three-foot working area away from the face of the cabinet and extend the width of the enclosure mounting structure.
    d. The site shall be graded to drain away from the station to prevent stormwater inflow or infiltration into the wet-well. The site shall be covered by a weed-preventative barrier and Number 57 stone outside the limits of the concrete pad and driveway.
    e. The site shall be graded to drain away from the station to prevent stormwater inflow or infiltration into the wet-well.
    f. The site shall be located outside of the one-hundred-year flood plain.
    g. The site shall not be located within one hundred (100) feet of an existing or proposed residence, if possible. If within one hundred (100) feet of a residence, odor control must be provided.
    h. If applicable the lift station site driveway shall include driveway area for maintenance vehicles to park off public roadway while performing maintenance. The minimum driveway length shall be fifteen (15) feet.
    i. A concrete driveway turning area is required where access drives extend more than twenty (20) feet from main roads. The driveway area shall be "T" shaped with the applicable turning radius. The minimum driveway width shall be fifteen (15) feet.
22. Force Mains
    a. Force mains shall be designed per 30 TAC §217.
    b. Within the lift station site, force mains shall be mechanically restrained and blocked ductile iron, lined with minimum of 40-mil NDT ceramic epoxy lining Protecto 401. Buried ductile iron pipe shall be polyethylene wrapped.
    c. Force mains shall include a 6-inch quick connect bypass assembly, located in the valve vault, to allow the lift station pumps and valves to be completely bypassed for major maintenance or emergency operations events.
    d. Air release valves shall be provided at all high points in the force main.

e. Force main design shall incorporate provisions for hydraulic transient mitigation as need to assure long-term, reliable operations of the facility. Air release valves and force main discharge points shall be provided with passive odor control devices designed for easy maintenance access including dedicated isolation valves.

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SECTION 204. - DRAINAGE AND STORM SEWER IMPROVEMENTS.

204.1 General.

Drainage facilities shall be provided and constructed by the developer in accordance with all city standards and the following basic requirements:

204.2 Runoff calculations.

1. The selection of which method to use for calculating runoff depends upon the size of the contributing drainage area at the most downstream point of the project. The "Rational Method" is acceptable for designing projects in which the drainage area is less than one hundred (100) acres. A unit hydrograph method is required for projects with larger drainage areas.
2. No matter which method is used to calculate runoff, a developer or builder of property greater than one (1) acre in size, or any property that was platted as a part of an overall tract which was greater than one (1) acre in size (including churches and schools), shall perform a downstream assessment to determine adverse impacts and the need for onsite detention. . The downstream assessment will be performed on the existing, proposed, and ultimate conditions. The existing conditions are those conditions that currently exist offsite with onsite conditions to be considered ‘undeveloped’. Proposed conditions are those conditions that currently existing offsite with onsite conditions to be considered ‘developed’. Ultimate conditions assume the entire watershed is fully developed in accordance with the City’s ultimate land use plan.
3. A downstream assessment shall consist of the following actions to be taken by the engineer and submitted to the City for review and approval:
    a. Perform a hydrologic analysis to determine the existing, proposed, and ultimate peak flows for the 1-year, 10-year and 100-year design storm events. The hydrologic method will either be the Rational Method or Unit Hydrograph Method which is described above.
    b. Perform a hydraulic analysis of the downstream receiving open channel or closed storm sewer system. The analysis shall consider the existing, proposed, and ultimate peak flows determined in the hydrologic analysis. If the downstream system, cannot handle the increased post developed flows, then on-site detention shall be required. An analysis of the downstream closed storm sewer system must show adequate capacity to convey the 10-year storm event with the 100-year contained within the street or within the pipe. For open channels, the post developed flow shall not increase the 100-year water surface elevation by no more than 0.1’, unless is it shown the water is contained within the channel banks

while keeping a one (1) foot freeboard. In addition, the post developed flow shall not cause a velocity increase of more than 5% if less than six (6) feet per second during the 100-year design storm, or no velocity increases if the existing velocity is already six (6) feet per second. The analysis shall be performed to a point where the subject drainage area is 10% or less of the contributing overall drainage basin. For example, if a site has a two (2) acre drainage area, then the analysis shall extend to a minimum of twenty (20) acres.

4. Items that are typically included in the hydrologic portion of the downstream assessment include the following:
    a. Hydrology workmap showing drainage areas, junctions, flow change locations, routes, diversions, and sink. The workmap shall match the labeling and naming convention in HEC-HMS.
    b. Provide the HEC-HMS model which should include the existing, proposed, and ultimate scenarios.
    c. Drainage Area Map and an associated runoff table for Rational Method assessments.
    d. Land Use Maps.
    e. Time of Concentration Exhibits and Tables.
    f. Soil Map Exhibits.
    g. Overall Summary of the Hydrologic Parameters.
    h. Subreach Calculations.
    i. Stage-Storage-Discharge information for ponds.
    j. Record drawings of any previously approved projects that the study maybe relying upon. Clearly show how the record drawings relate to the hydrologic conditions for the specific site.
    k. Hydraulic work maps showing the creek, FEMA floodplain, Existing Floodplain, Proposal floodplain and ultimate floodplain.
    l. Hydraulic comparison table of the existing, proposed and ultimate water surface elevations Indicating the increases in water surface elevations between the existing and proposed conditions.
    m. Velocity comparison table showing the existing, proposed, and ultimate velocities. Indicate the increases in velocities between the existing and proposed conditions.
    n. HGL spreadsheets showing the existing storm drainage system has capacity to convey the post developed flows.
    o. HEC-RAS models.
    p. Modified Puls Calculations and Models.
    q. Street capacity calculations and supporting cross-sections.

5. Runoff computations shall be based upon fully developed watershed conditions in accordance with the land use projections in the latest Master Plan. The design engineer shall size drainage facilities by disregarding the detention effects of upstream property and calculating the runoff as if the off-site property was developed without any detention. If an approved regional detention/retention facility is in operation, the design

engineer may size downstream drainage facilities based on consideration of the detention effects of the regional facility.

6. Procedure for drainage areas less than two hundred (200) acres.
    a. Computation of Storm Water Runoff for drainage areas less than one hundred (100) acres shall be by the "Rational Method," which is based on the principle that the maximum rate of runoff from a given drainage area for an assumed rainfall intensity occurs when all parts of the area are contributing to the flow at the point of discharge. The formula for calculation of runoff by the "Rational Method" is: Q = CIA
        i. Where: Q = the maximum rate of discharge, expressed in cubic feet per second.
        ii. C = Coefficient of Runoff.

Park areas - No developed land	0.30
Developed Park sites	0.40
Single-family Residential	0.55
Duplex	0.60
Multiple Family	0.70
Schools	0.70
Churches	0.70
Neighborhood Commercial	0.70
Office Commercial	0.70
Commercial	0.85
Industrial	0.85

        iii. I = Intensity of Runoff in inches per hour (Use NOAA Atlas 14, Decatur, Tx).
        iv. A = Drainage Area in acres.

    b. Time of concentration is the longest time, without interruption of flow by detention devices, that a drop of water takes to flow from the farthest point of the drainage area to the point of concentration (i.e., the point of design). The time of concentration is composed of the inlet time and the flow time in a conduit or channel to the point of design.

c. When designing inlets and laterals, the time of concentration is equal to the inlet time. The design engineer will compare the above specified inlet times to the actual calculated inlet time by computing the flow time overland and along the gutter to the first inlet. Manning's equation shall be used to determine flow time to the inlet. The design engineer may use the actual calculated or specified inlet time.
    i. The inlet time shall be ten (10) minutes for property zoned multiple family, churches, schools, local business, central business, commercial, or industrial. (Developed Condition)
    ii. An inlet time of fifteen (15) minutes shall be used for property zoned for parks, cemeteries, agricultural, and single-family residential. (Developed conditions)
    iii. The time of concentration for existing conditions is almost always longer than proposed and ultimate conditions.
    iv. Provide supporting documentation for the time of concentrations that are calculated using TR-55.

7. Procedures for Drainage Areas greater than one hundred (100) acres:
    a. For drainage areas in excess of one hundred (100) acres where the use of the "Rational Method" does not provide reliable results, the use of a unit hydrograph method shall be made. The use of a unit hydrograph calculation will be based upon standard and accepted engineering principles subject to the approval of the City Manager or their designee. Acceptable methods include the Soil Conservation Service (SCS) Technical Release Number 55 or the Corps of Engineers HEC-HMS models for drainage areas one hundred (100) acres or more. HEC-1 models shall be converted to HEC-HMS models.
    b. The unit hydrograph method shall be based upon fully developed watershed conditions assuming no effects from the small on-site detention facilities. The detention effects of large regional detention facilities can be considered in unit hydrograph methods, if approved by the City. The pond shall have been designed using the unit hydrology analysis and based upon the City's then current criteria, unless otherwise approved by the City.
    c. Circumstances that may require the use of a unit hydrograph method include sizing open channels, reclaiming floodplains, creating lakes, or building other types of drainage-related facilities on major drainage courses. Design engineers of these types of facilities should be aware that the requirement of designing for fully developed watershed conditions will mean that they will have to calculate these fully developed flows instead of using the flows calculated in the Federal Emergency Management Agency's (FEMA) flood insurance studies for Decatur or Wise County.

204.3 Design storm frequencies.

The approved drainage system shall provide for positive overflow at all low points. The term "positive overflow" means that when the inlets do not function properly or when the design capacity of the conduit is exceeded, the excess flow can be conveyed overland along a grassed or paved course. Normally, this would mean along a street or alley, or shall require the dedications of special drainage easements on private property.

DRAINAGE FACILITY	DESIGN RECURRENCE INTERVAL
Closed Storm Sewer Systems	10-year with 100-year positive overflow in streets such that the depth of flow in the street does not exceed the top of curb.
Closed Storm Sewer Systems and Inlets at Street Low Point or Sag	100-year with positive overflow
Culverts and Bridges	100-year
Concrete-lined Channels	100-year
Earthen Channels	100-year

204.4 Street and alley capacity.

1. The depth of flow in the streets shall not exceed the top of curb for the one-hundred-year storm.
2. The flows created by the one-hundred-year storm shall be contained within the pavement of the alley.
3. The first-floor elevations of all residential and other structures shall be set at a minimum elevation of one (1) foot above the top of the street curb elevation or the alley invert, and with positive drainage provided away from the structure. Positive overflow sections shall provide a minimum of one (1) foot of freeboard (100-year ultimate flow) from the overflow invert adjacent to structures and the corresponding first floor elevation of all residential and other structures.

204.5 Inlet placement and capacity.

1. Storm sewer inlets shall be built along paved streets at such intervals that the depth of flow, based upon the one-hundred-year storm, does not exceed the top of curb. Inlets shall be located as necessary to remove the flow based on a ten-year storm. If in the opinion of the City Manager or their designee the flow in the gutters would be excessive using the above design criteria, the storm sewers or inlet locations could be altered to relieve adverse conditions.

2. The spread criteria for arterial streets shall be one dry lane in each direction during the design storm event. The spread criteria for a collector street shall be one dry lane during the design storm event.
3. Inlets shall be placed upstream from an intersection whenever possible. At any intersection, only one (1) street shall be crossed with surface drainage and this street shall be the lower classified street. No more than five (5) cfs during the 10-year storm event shall cross the street. When an alley intersects a street, inlets shall be placed in the alley whenever flow down that alley would cause the capacity of the intersecting street to be exceeded.
4. The minimum inlet size shall be five (5) feet. No more than twenty (20) feet of inlet shall be placed along one (1) gutter at any given location. Minimum sizes of laterals shall be eighteen (18) inches for use with five-foot inlets, twenty-one-inch laterals with ten-foot, fourteen-foot, and drop inlets and twenty-four-inch laterals for twenty-foot inlets. Where laterals tie into trunk lines, place the laterals on a sixty-degree angle with the trunk line and connect them so that the longitudinal centers intersect.

204.6 Pipe design standards.

1. Storm sewer conduit shall be sized to flow full. Manning's Equation shall be used to determine the conduit size.
2. Minimum and Maximum Velocities in Pipes.
    a. The minimum velocities in conduit shall be two and one-half (2.5) feet per second.
    b. Maximum velocity in the pipe shall not exceed twelve (12) feet per second.
    c. The maximum discharge velocities in the pipe shall also not exceed the permitted velocity of the receiving channel or conduit at the outfall to prevent erosive conditions. The maximum outfall velocity of a conduit in partial flow shall be computed for partial depth and shall not exceed the maximum permissible velocity of the receiving channel unless controlled by an appropriate energy dissipater (e.g., stilling basins, impact basins, riprap protection).
3. In general, storm water shall be carried in concrete pipe conduit, but other types of conduit can be used to carry stormwater. However, prior permission to use other conduit materials must be obtained from the City Manager or their designee.
4. Hydraulic Gradient.
    a. Conduits must be sized, and slopes must be set such that runoff flows smoothly down the drainage system. To ensure this smooth passage, the hydraulic gradient must be at the proper elevations. The hydraulic grade line shall be established and shown on the plans for all storm sewer design.
    b. The hydraulic grade line shall in no case be closer to the surface of the ground or street than one (1) foot.
    c. Hydraulic gradient calculations shall account for all head losses that may occur in the storm sewer line. Friction head loss shall be determined by direct application of Manning's Equation. Minor losses due to turbulence at structures shall be determined using Appendix B of this section.

204.7 Culvert design.

1. One (1) foot of freeboard is required between the one-hundred-year water surface elevation and the top of curb elevation. Exceptions must be approved in writing by the City Manager or their designee.
2. Culverts must be designed using standard methods and engineering judgment. Culverts shall be designed in accordance with the latest edition of the Texas Department of Transportation (TxDOT) Hydraulic Design Manual. Standards of the City of Decatur will take precedence over TxDOT Manual in cases of conflict.
3. Culvert hydraulic grade line calculations shall consider both inlet and outlet control.
4. Culverts shall be skewed such that impacts due to the flood and normal flow angles of attack on the structure are minimized.
5. The maximum velocity through a culvert shall be fifteen (15) feet per second, however, the discharge from the culvert into an open system shall not exceed 6 feet per second.
6. Stream stability shall be assessed when determining the number of barrels, height and width and culvert skew. Potential for scour shall be accounted for in the design.

204.8 Bridges.

1. Two (2) feet of freeboard is required between the one-hundred-year ultimate water surface elevation and the low chord of the bridge. Exceptions to this requirement must be approved by the City Manager or their designee in writing.
2. The skew of the bridge piers and abutments shall be oriented as close to the normal or flood direction of flow resulting in an angle of attack as close to zero (0) degrees as possible.
3. Bridges shall be designed using standard methods.
4. Stream stability shall be assessed when designing the abutments and interior bents of the bridge. Scour shall be accounted for in the design.

204.9 Channels.

1. Open channels are discouraged in urban areas. Open channels may be used instead of an enclosed system when the pipe size, necessary to carry the design storm event, exceeds the capacity of two- to sixty-inch RCP. Open channels shall not be permitted when two- to sixty-inch RCP pipes will carry the design flow, unless approved by the City Manager or their designee.
2. Open channel design criteria:
    a. Channels may be left in their natural state provided that the channel velocities are six (6.0) feet per second or less and that one (1) foot of freeboard is available during the design storm event.
    b. If the natural channel is to be replaced by an improved channel, the flow from the one-hundred-year design flood must be contained within the improved channel while allowing for one (1) foot of freeboard.
    c. Improved channels shall be trapezoidal shaped and include a lined section if the design velocity is greater than six (6) feet per second. Lining types such as concrete, rock walls and gabions may be used upon approval of the City Manager

or their designee. The maximum velocity allowed in concrete lined channels is fifteen (15) feet per second. Supercritical flow is not allowed.

d. Unless shown to be feasible in a soils report sealed by a licensed professional engineer in the State of Texas and approved by the City Manager or their designee, improved channels shall have minimum side slopes of:
    i. Four (4) feet horizontal to one (1) foot vertical for earthen, grassed-lined side slopes.
    ii. One and one-half (1.5) feet horizontal to one (1) foot vertical for concrete-lined side slopes in rock.

e. Where practicable, all unpaved channels should have sufficient grade to avoid ponding during backwater flow conditions. A minimum slope of 0.40 percent is required for earthen channels and swales, except those used as part of a wetlands area.

f. The developer or owner shall use low maintenance vegetation for vegetative cover, as approved by the City Manager or their designee prior to planting. The selection of materials shall comply with the current ground cover listing for North Central Texas furnished through the Texas Agricultural Extension Service.

3. Manning's equation can be used to design channels and determine water surface elevations and velocities when backwater effects are negligible. Channels where backwater effects occur must be designed using models accepted by FEMA.
4. All channel sections must consider and account for channel stabilization in their design. This requirement pertains to all sections whether they are left in their natural condition or are modified in any manner. The design of all drainage channels and swales shall assure adequate capacity and minimum maintenance to overcome the result of erosion, silting, sloughing of bends or similar occurrences.
5. When performing hydraulic analyses for channel or drainageway design, the starting water surface shall be based on the following criteria:
    a. When the ratio of the drainage area of the receiving creek (at the confluence location) to the drainage area of the channel or drainageway being designed is fifteen (15) or greater, the ten-year water surface of the receiving creek shall be used as the starting water surface for hydraulic design calculations. For creeks where the ten-year water surface is not available, the slope-area method will be used for starting design calculations.
    b. When the ratio of the drainage area is less than fifteen (15), the one-hundred-year elevation on the receiving creek shall be used as the starting water surface for design calculations.

204.10 Detention design.

Detention/retention facilities shall be designed for the one-hundred-year design flood according to the following criteria:

1. Dedicated detention/retention basins shall also include an additional one (1) foot of freeboard. The volume of runoff storage for drainage areas greater than one hundred (100) acres shall be computed using unit hydrograph procedures. Acceptable unit hydrograph procedures are provided in section XI.B.5 of this document.

For drainage areas less than one hundred (100) acres, the above methods are recommended; however, an approximate routing method based on the rational formula is allowable.

2. All detention facilities designed shall consider the timing of the flood peak in the main channel into which the detention facility drains. Delaying the peak from a site in lower portions of a watershed may result in a higher peak on the main channel.
3. A detention facility shall have enough gradient to ensure positive drainage to the outlet structures so as to avoid nuisance conditions such as standing water, odors, insects, and weeds. A minimum slope of 0.40 percent towards the outlet structure is required for all detention facilities.
4. Detention areas in parking lots shall not be:
    a. In required parking spaces but in extra spaces.
    b. Behind speed bumps unless the speed bumps are made with reinforced concrete.
    c. Deeper than six (6) inches unless otherwise approved by the City Manager or their designee and warning signs shall be posted.
5. Drainage easements shall be provided for all regional detention/retention facilities and for other detention/retention facilities where two (2) or more owners are involved.
6. Detention facilities shall be designed to empty in less than twenty-four (24) hours unless it is also serving as an erosion control facility.
7. Detention facilities used as a sediment control device shall meet the following requirements:
    a. The sediment control facility shall be designed with minimal velocities such that sediment is dropped and not picked up by flows at any time during the storm event.
    b. The basin shall be designed with adequate sediment storage area so that sediment removal is not required more than twice a year. Expected removal periods greater than twice a year must be specified in the maintenance plan and approved by the City Manager or their designee.
    c. Sediment control facilities cannot be used to meet detention requirements unless the volume of sediment is included in the calculations for the detention basin design.
8. The owner shall maintain detention/retention facilities unless the facilities are dedicated to the City of Decatur. The following measures are required to ensure the facility functions properly.
    a. Facilities should be mowed at least twice a year to control weeds and discourage woody growth.
    b. Debris, litter, and accumulated sediment should be removed from detention facilities at least twice a year. Particular attention should be given to removal of debris, litter, and sediment around outlet structures.
    c. Detention basins designed for sediment removal shall be maintained as specified in the maintenance plan and approved by the City Manager or their designee with construction plan submittal.

204.11 Flumes.

The use of flumes is not recommended for widespread use. Flumes shall not be permitted when the purpose of a permanent flume is to carry runoff down the sides of earthen channels. A flume may be used to direct overflow runoff along property lines until the runoff can be intercepted by streets or conduits. Flumes crossing sidewalks shall be covered or bridged such as to minimize danger to pedestrians.

204.12 Residential grading and drainage.

1. Surface runoff from residential lots shall cross no more than one (1) additional lot before being directed toward the street or a dedicated drainage system. When the flow reaches the second lot, side lot swales shall be in place to direct the flows to the street or to a dedicated city drainage system within an easement in the rear yard. Furthermore, no more than one (1) lot may drain to a second lot before the flow is directed to a street or to a dedicated city drainage system. Where lot to lot drainage occurs, the lot lines shall be aligned, and a dedicated private drainage easement shall be provided.
2. Three (3) general categories of residential lot grading and drainage plans are anticipated within the City of Decatur as shown in Figure No. 1. Specific deviations from these three (3) plans will be considered on an individual basis.
3. When adjacent to the floodplain, the finished floor (FF) elevation of commercial buildings shall be two (2) feet above the one hundred-year fully developed water surface elevation (WSE) of the ultimate floodplain. The FF elevation of residential buildings shall be two (2) feet above the one hundred-year fully developed water surface elevation (WSE) of the ultimate floodplain.

(Ord. No. 05-01-01, § 1, 2-14-05)

CHAPTER 3. - PLATTING & CONSTRUCTION PLANS

SECTION 301. - INFORMATION REQUIRED FOR PLAT APPLICATIONS & CONSTRUCTION PLANS.

301.1 Preliminary plats.

A preliminary plat application shall include the information listed below and shall be presented in the format described below:

1. Title block.
2. For all residential subdivisions, a plan summary table, to include total acreage per phase, total number of lots and number of lots per phase and zoning classification, minimum lot size, minimum dwelling size, and density per acre.
3. North point arrow (oriented to the top or right of the sheet) and date. Dates or revisions are also to be added with each modified set of plans.
4. Name, address, and phone number or contact person of developer, owner, or builder, engineer or surveyor.
5. Sheet size shall be 22″ x 34″.
6. Location map 1″ = 1,000′ (Must use City base map).
7. The maximum scale on preliminary shall be 1″=100″, except that nonresidential tracts over 100 acres may be drawn to a maximum scale of 1″ = 200′.
8. Abstract(s) and survey(s) of subject tract.
9. Abstract and survey lines.
10. Boundary line, accurate in scale, of the subject tract.
11. The layout, building setback lines including setbacks from water, sanitary sewer and drainage easements and approximate dimensions of proposed lots, blocks, etc.
12. Lot number, block letter designations and acreage of each lot.
13. Zoning of subject lot and adjoining property.
14. Contours with intervals of two feet or less, referred to sea level datum, including benchmark.
15. The names of adjacent subdivisions and/or the names of record owners of adjoining parcels of unplatted land.
16. Lines or limits designating boundaries of municipalities, counties, and special districts such as municipal utility districts, road utility districts, levee districts, etc.
17. Existing and proposed sanitary sewer and water system shown for a distance which impacts the subject property.
18. Other utility systems, proposed and existing, including private transmission lines.
19. A drainage plan of the proposed and existing drainage systems, including all drainage areas (on-site and off-site) that affect the area being platted. The plan shall show the property both in its natural state and in the ultimate development, location of lines, inlets, existing and proposed easements, proposed drainage rights-of-way, all required

drainage calculations in accordance with the City drainage criteria manual. In addition, the 100-year floodplain, if applicable, shall be delineated.

20. Existing and proposed streets and alleys, including widths of right-of-way and pavement. Street names shall provide continuity with existing streets. Where a development abuts or contains a street shown on the City's thoroughfare plan, the preliminary plat shall include a proposed dedication of right-of-way in accordance with the requirements of the thoroughfare plan.
21. Cross-section of proposed streets and alleys showing the width of pavement, type of pavement and location and width of sidewalks.
22. Easements, deed restrictions or encumbrances which impact development of the lot.
23. Control of access lines, corner clips and clear vision areas.
24. The required Traffic Impact Worksheet or Traffic Impact Analysis *(if applicable, see Subdivision Ordinance Section 303.2 Traffic Impact Analysis Requirements.)*
25. Traffic control signals, devices, and striping.
26. Median openings, turning lanes, acceleration, and deceleration lanes.
27. For residential developments, park dedication provisions are to be addressed by the park board prior to approval of the preliminary plat. The park dedication agreement shall be noted on the face of the plat with the approval date.
28. All land proposed for public use dedication or to be reserved for the common use of all property owners, together with conditions or limitations of such use, and must be identified with a lot and block designation except street and alley rights-of-way.
29. Phase lines must be clearly delineated, with improvements capable of standing alone as development occurs and not depending on future construction to meet City standards or requirements.
30. City signature block.
31. Tree survey and mitigation plan (single-family).

301.2 Final plats.

A final plat application shall include the information listed below and shall be presented in the format described below:

1. Title block.
2. For all residential subdivisions, a plan summary table, to include total acreage per phase, total number of lots and number of lots per phase and zoning classification, minimum lot size, minimum dwelling size and density per acre and a summary table of each lot area (sq. ft).
3. North point arrow (oriented to the top or right of the sheet) and date. Dates of revisions are also to be added with each modified set of plans.
4. Address and phone number of contact person of developer, owner or builder, engineer or surveyor.

5. Sheet size of 24" × 36" for review copies.
6. Location map 1" = 1,000' (Must use City base map). Maximum scale of 1" = 100', (maximum scale of 1" = 200', one sheet for addressing purposes).
7. Boundary lines, accurate in scale and with exact distances and bearings, of the subject tract and each lot within the subdivision including exact acreage per lot for all non-single-family developments. Location of corner pins and monuments, including description and whether found or set.
8. Metes and bounds description of the subdivision, with exact acreage, in reference to the deed records of the county, including the volume and page of the deed for the land being platted.
9. Lot number and block letter designations. Building setback lines shall be shown or noted including setback lines from all water, sanitary sewer, and drainage easements.
10. Zoning of subject lot and adjacent property.
11. The names of adjacent subdivisions and/or the names of record owners of adjoining parcels of unsubdivided land.
12. Lines or limits designating boundaries of municipalities, counties, and special districts such as municipal utility districts, road utility districts, levee districts, etc.
13. Existing and proposed streets, alleys and access easements, including street names, with all curve data and widths of rights-of-way.
14. Easements or encumbrances which impact development of the lot.
15. Control of access lines, corner clips and clear vision areas.
16. All land proposed for public use dedication or to be reserved for the common use of all property owners, together with conditions or limitations of such use. Such reservations and dedications must be identified with a lot and block designation except street and alley rights-of-way. R.O.W. dedication square footage and acreage must be listed on the plan.
17. The 100-year flood plain per current FEMA Flood Insurance Rate Map (FIRM), if applicable, shall be delineated. If the floodplain is not mapped, the developer is responsible for making this determination using a FEMA approved method.
18. Flowage easements, if any, pertaining to drainage including a note regarding responsibility for maintenance.
19. Right-of-way and public property to be abandoned should be identified on the plat with additional information being provided separately as required for the creation of an abandonment ordinance.
20. Certification by a licensed land surveyor, registered in the state, to the effect that the plan represents a survey made by him or under his direct supervision and that all the monuments and corner pins shown exist and are correctly described.

21. A certification of ownership and dedication of all streets, alleys, parks, easements and other public ways, signed and acknowledged before a notary public by the owner, trustee(s) or person(s) duly authorized to sign the plat. This will include any lienholder(s) on the property.
22. City signature block.
23. Approved administrative modifications and alternative standards shall be listed on the face of the plat.

301.3 Replats.

The replat shall be in accordance with the final plat requirements of this code, with the following additional requirements:

1. Exact name of previous plat, which shall be retained in the title of the replat identified.
2. Blocks, lots and portions thereof, which are being replatted shall be identified.
3. Volume and page number where the previous plat was recorded shall be identified.
4. Original plat information being deleted abandoned, or changed by the replat, (lots and blocks, rights-of-way, etc.) shall be shown lightly sketched or dotted on the drawing with a note of explanation.
5. The word "replat" shall be shown in the title block.
6. A purpose statement detailing the reason for the replat.

301.4 Vacating plats.

The vacating plat shall be in accordance with the final plat requirements of this ordinance, with the following additions:

1. A note identifying what is being vacated of the original plat shall be indicated; and
2. The words "Vacating Plat" shall be shown in the title block.

301.5 Amending plats.

An amending plat shall contain all information required for a final plat, as prescribed by this ordinance, provided, however, that the signature block and signature of the chairman of the Planning & Zoning Commission shall not be required. The following signature block shall appear on the amending plat:

CITY SIGNATURE BLOCK On the ______day of _____________, 20____, this amending plat was approved by the City Manager, the Director of Planning, or other City Manager designee. Signed: ___________________________

Attest: ________________________

City Secretary

Title: ___________________________

A purpose statement and cloud depiction indicating the amendment or change on the plat.

The amending plat shall be in accordance with the following additional requirements:

a. Shall contain a note identifying what element(s) of the plat is (are) being amended.
b. Shall contain a graphic representation encircling the area of the plat being amended.
c. The words “Amending Plat” shall be shown in the title block.

301.6 Minor plats.

A minor plat shall contain all information required for a final plat, as described by this Ordinance, provided, however, that the signature block and signature of the chairman of the Planning & Zoning Commission shall not be required. The following signature block shall appear on the minor plat:

CITY SIGNATURE BLOCK

On the ______day of _____________, 20____, this minor plat was approved by the City Manager, the Director of Planning and Development, or another City Manager designee.

Signed: ___________________________

Attest: ________________________

City Secretary

Title: ___________________________

301.7 Construction plans.

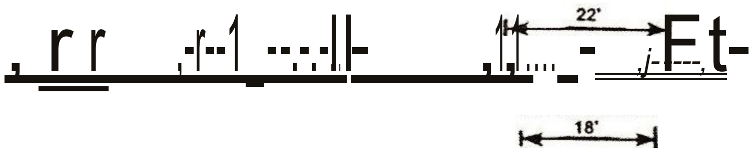
Complete construction plans shall accompany submittal of any final plat and, where required, an engineering site plan. The construction plans shall be considered as an integral part of the final plat and will be reviewed accordingly. Plans shall contain engineering data for the construction of all public improvements (water, sanitary sewer, storm sewer, grading, filling, erosion control and paving) consistent with current City development standards and master plans. Plans shall contain the following:

1. Plans and profiles shall be drawn on sheets measuring 24" × 34" overall dimensions.
2. Maximum scale for all construction plans shall be 1" = 40' horizontal and 1" = 5' vertical. (e.g., 1" = 50' horizontal and 6' vertical are not acceptable) Construction plans for street reconstruction shall be drawn to a 1" = 20' scale.
3. North point arrow oriented to top or right of the sheet.
4. Date: (Dates of revisions to be added with each modified set of plans).
5. Benchmark description to sea level datum (to be obtained from City Engineer's office). In the event a benchmark is not available near the project site, a temporary benchmark shall be established based on the City's benchmark.
6. Typical cross-sections of proposed streets and alleys drawn to a maximum scale of 1" = 10' horizontal and 1" = 2' vertical and drawn from beyond right-of-way to beyond right-of-way.
7. Proposed street and alley pavement sections shall include thickness of pavement, base course, subgrade, pavement cross-slope, parkway cross-slope, location and width of sidewalks, typical location of underground utilities.
8. Plan and profile of each street and alley with top of curb grades for streets and center lines for alleys. The plan view shall show all existing features and the profile view shall include the existing ground. The profile grade lines and cross-sections of intersecting streets should be adjusted to provide a smooth junction and proper drainage.
9. A drainage area map to a maximum scale 1" = 200', (1" = 1000' if over 500 acres) of all areas contributing storm water runoff or drainage within and surrounding the proposed subdivision. The drainage area map shall include size of areas, storm frequency, duration data, amounts of runoff, points of concentration and any additional data necessary for the proper design of drainage facilities.
10. A plan and profile of proposed storm sewer showing hydraulic gradient and hydraulic data, pipe grades and sizes, manholes, inlets, pipe connections, culverts, outfall structures, bridges, ditches.
11. A plan of the proposed water distribution system showing pipe sizes, location of valves, fire hydrants, fittings, and other appurtenances, including installation and backfill details. Plan and profile sheets will be required for water mains 12” or larger.

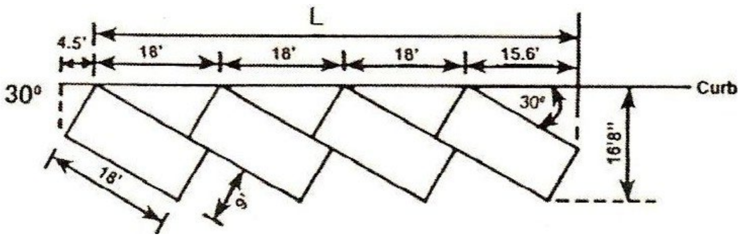
12. A plan and profile of the proposed sanitary sewer system with pipe grades and sizes, manholes, cleanouts, and other appurtenances, including installation and backfill details.
13. All profiles shall include the elevation of other utility crossings.
14. Each plan and profile sheet shall be signed and sealed by a state-licensed professional civil engineer.
15. Trench safety plan, prepared by a state-licensed professional engineer, and soil analysis shall be provided with all construction plans when required by state or federal law.
16. The City reserves the right to require corrections to plans based on actual field conditions which are found to be contrary to the information shown on the plans.
17. The engineer certifying the plans is responsible for the accuracy and completeness of plans submitted for review and construction.
18. Grading plans which show contour intervals of 2 feet or less, finished contours and/or grades. Grading plans shall be in sufficient detail to indicate required drainage for each lot in compliance with Design Standards.
19. Finished floor elevation, proposed grading and drainage for all single-family lots. The builder is responsible for furnishing a certification of the foundation elevation and building setbacks prior to construction of a foundation.
20. Tree survey and mitigation plans.
21. Erosion control plans for both during and after construction.
22. A traffic control plan shall be submitted for all proposed construction within a street right-of-way. The traffic control plan shall incorporate all applicable state department of transportation traffic control plan sheets. The plan will include all traffic control signs required inside the development and shall be installed during construction. This plan will also include street name signs meeting city standards.
23. The developer is responsible for submitting a street lighting plan and construction in accordance with this chapter.
24. External agencies permit submittals. Submittals for floodplain development to F.E.M.A., and the U.S. Corps of Engineers (C.D.C. applications), can be processed concurrently with City staff approval. Submittals for TXDOT permits will be processed through City initiation (per TXDOT policy) only upon completion of City staff review. Permits are granted only to the City by TXDOT and not to private developers.
25. The contractor shall establish erosion control devices in accordance with the current Texas Pollution Discharge Elimination System (TPDES) requirements.

Appendix A
Space Requirements for Parking at Various Angles
City of Decatur

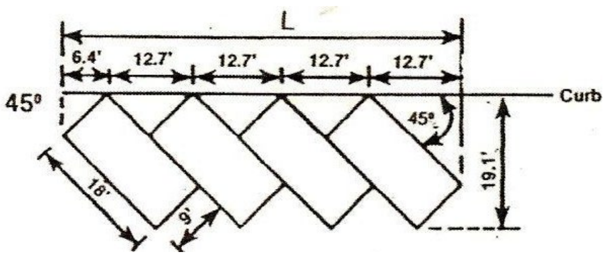
Parallel



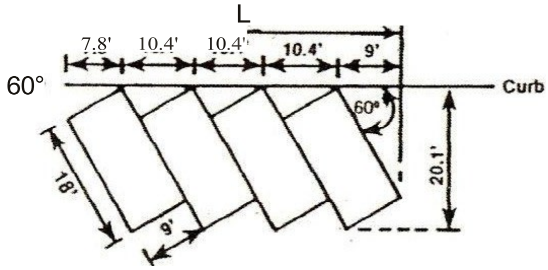
$n \quad \frac{L}{22}$



$n = \frac{L-20.1}{18} + 1$



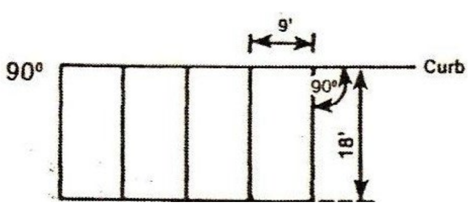
$n = \frac{L-6.4}{12.7}$



$n \quad \frac{L-16.8}{10.4} + 1$

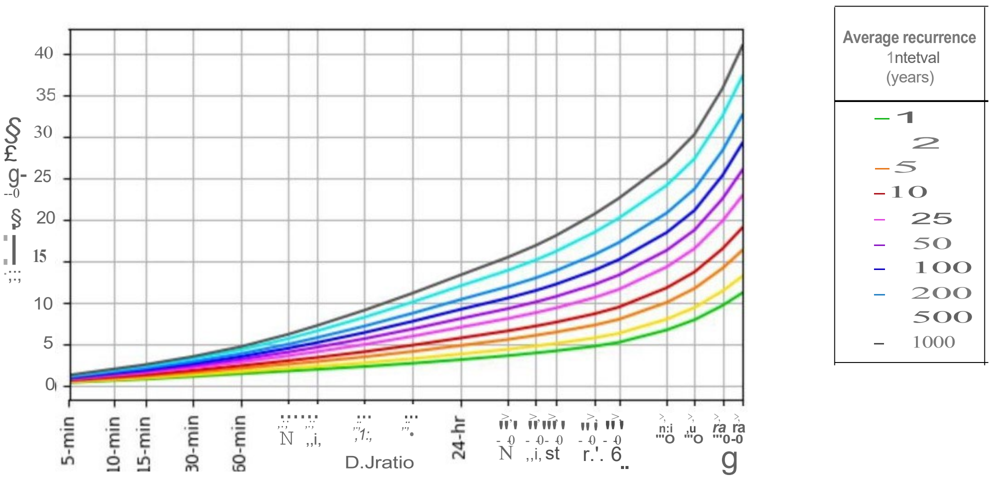
n = number of spac:es

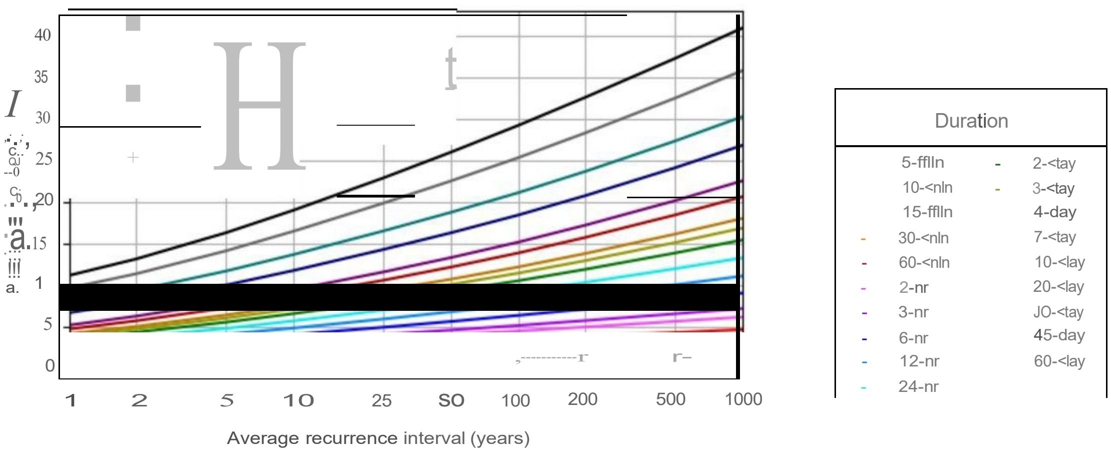
l = c;urt, length



$n \quad \frac{L}{9}$

PDS-based depth-duration-frequency (DDF) curves
Latitude: 33.2733°, Longitude: -97.5769°





APPENDIX C
MINOR HEAD LOSSES

A. Entrance Losses

1. Equation:

$$HL = Ke \frac{(V_2)^2}{2g}$$

Where:

HL = head loss (feet

V_2 = velocity in downstream pipe (ft/s)

Ke = head loss coefficient

G = gravity constant (32.2 ft/s ^{2})

2. Entrance Loss Coefficients (Ke)

Type of Structure and Design of Entrance Ke

Concrete Pipe

Projecting from fill:

Socket end (groove-end)......0.2

Square cut end......0.5

Headwall or headwall and wingwalls:

Socket end of pipe (groove-end)......0.2

Square-edge......0.5

Rounded (radius = 1/12 D)......0.2

Mitered to conform to fill slope...... 0.7

End-section conforming to fill slope...... 0.5

Beveled edges, 33° to 45° bevels 0.2

Side- or slopetapered inlet...... 0.2

Pipe or Pipe-Arch Corrugated Metal

Projecting from fill (no headwall).......0.9

Headwall or headwall and wingwalls square-edged...... 0.5

Mitered to conform to fill slope, paved or unpaved slope.......0.7

End-section conforming to fill slope 0.5

Beveled edges, 33° to 45° bevels 0.2

Side- or slope-tapered inlet...... 0.2

Box, Reinforced Concrete

Headwall parallel to embankment (no wingwalls):

Square-edged on 3 edges 0.5

Rounded on 3 edges to radius of 1/12 barrel dimension or beveled on 3 sides 0.2

Wingwalls at 30° to 75° to barrel:

Square-edge rounded to radius of 1/12 barrel dimension or beveled on 3 sides 0.2

Wingwall at 10° to 25° to barrel:

Square-edged at crown 0.5

Wingwall parallel (extension of sides):

Square-edged at crown 0.7

Side- or slope-tapered inlet...... 0.2

B. **Bend Losses**

1. Equation:

$$HL = Kb \frac{(V_2)^2}{2g}$$

Where:

HL = head loss (feet)

V_2 = velocity in downstream pipe (ft/s)

Kb = head loss coefficient

G = gravity constant (32.2 ft/s ^{2})

2. Bend Loss Coefficient (Kb)

The following head loss coefficients for bends in storms are for pipes with diameters of forty-eight (48) inches or less. For storm sewers with diameters greater than forty-eight (48) inches the momentum equation should be used to determine headloss.

Conduit on Curves

		K;sub\sub;		
	Radius of Pipe Bend			
	90°	**60°**	**45°**	**22.5°**
Pipe radius = diameter	0.50	0.43	0.35	0.20
Pipe radius = 2 to 8 diameter	0.25	0.21	0.18	0.10
Pipe radius = 8 to 20 diameter	0.40	0.34	0.28	0.16

C. **Junction Losses**

1. Equation:

HL	=	$(V_2)^2$	-	$Kj(V_1)^2$
		______		______
		2g		2g

Where:

HL = Head loss (ft)

V_1 = Velocity in the upstream pipe (ft/s)

V_2 = Velocity in the downstream pipe (ft/s)

Kj = Head loss coefficient

G = Gravity constant (3.2 ft/s^2)

2. Junction Loss Coefficient (Kj)

Description of Condition Kj

Inlet on Main Line...... 0.50

Inlet on Main Line with Lateral......0.25

Manhole on Main Line with 22½° Lateral......0.75

Manhole on Main Line with 45° Lateral..... 0.50

Manhole on Main Line with 60° Lateral..... 0.35

Manhole on Main Line with 90° Lateral..... 0.25

45° Wye Connection or Cut-in.......0.75

60° Wye Connection or Cut-in...... 0.70

Inlet or Manhole at Beginning of Line......1.25

APPENDIX II: PARKLAND DEDICATION AND PARK DEVELOPMENT FEES

APPENDIX II. PARKLAND DEDICATION AND PARK DEVELOPMENT FEES

A. Dedication Requirements for Parks.

1. Land Dedication.

   Single-family: One (1) acre per 53 dwelling units

   Multi-family: One (1) acre per 51 dwelling units

2. Fee-In-Lieu of Land Dedication.

   Single-family: $1,211.16 per dwelling unit

   Multi-family: $1,262.60 per dwelling unit

3. Park Development Fee.

   Single-family: $1,798.96 per dwelling unit

   Multi-family: $1,875.37 per dwelling unit

4. Total Park Fees.

   Single-family $1,211.16 + $1,798.96 = $3,010.12 X 35% (City Required Percentage) = $1,053.54 per dwelling unit

   Multi-family: $1,262.60 + $1,875.37 = $3,137.97 X 25% (City Required Percentage) = $784.49 per dwelling unit

In order to be developmentally competitive with neighboring communities, the City only requires a City Required Percentage of its total park fees and to be paid to satisfy the City's park fee requirements.

APPENDIX III: PARKLAND DEDICATION AND PARK DEVELOPMENT METHODOLOGY

APPENDIX III. PARKLAND DEDICATION AND PARK DEVELOPMENT METHODOLOGY

Variable	Calculation Factor	Description
Parkland Dedication Inputs		
Existing City Population	7,094	2019 City population estimate (US Census Bureau)
Existing City Park Acres	51.04	Acres of dedicated, Cityowned parkland
Parkland Level of Service	139 people per 1 acre (rounded up from 138.98)	Existing City population/ existing City park acres
City Persons per Household Single-family: Multi-family:	 2.59 2.7	2019 Persons per Household per most recently available US Census data
Fee-in-Lieu of Land Inputs		
Existing City Population	7,094	2019 City population estimate (US Census Bureau)
Existing City Park Acres	51.04	Acres of dedicated, Cityowned parkland
Parkland Level of Service	139 people per 1 acre (rounded up from 138.98)	Existing City population/ existing City park acres
Existing City Market Value - City of Decatur	$65,000.00	2021 value of one acre of vacant land in the City
Existing City Acres	5,628.31	City land area, excluding ETJ
City Persons per Household Single-family: Multi-family:	 2.59 2.7	2019 Persons per Household per most recently available US Census data
Park Development Fee Inputs		
Existing City Population	7,094	2019 City population estimate (US Census Bureau)
Number of Developed City Parks	6	Count of all City-owned, developed parks
Facilities Level of Service	1182 people per developed City park	Population/ number of developed City parks
Park Development Cost Factor	$820,997.10	Cost estimate of developing one Neighborhood Park to desired level of service

City Persons per Household Single-family:	2.59	City 2019 Persons per Household per most recently available US Census data
Multi-family:	2.7	

A. *Parkland Dedication Formula:*

Parkland Level of Service/City Persons per Household = Parkland Dedication Requirement

Single-family: 139/2.59 = one acre per 53 dwelling units

Multi-family: 139/2.7 = one acre per 51 dwelling units

B. *Fee In-Lieu of Land Formula:*

STEP 1. Parkland Cost Factor/Parkland Level of Service = Land Cost per Person

$65,000 per acre/139 people per acre = $467.63 per person

STEP 2. City Persons per Household × Land Cost per Person = Fee In-Lieu of Land

Single-family: 2.59 PPH × $467.63 per person = $1,211.16 per unit

Multi-family: 2.7 PPH × $467.63 per person = $1,262.60 per unit

C. *Park Development Fee Formula:*

STEP 1: Parkland Development Cost Factor/Facilities Level of Service = Park Development Cost Per Person

$820,997.10 neighborhood park cost/1182 people per developed park = $694.58 per person

STEP 2: City Persons per Household × Park Development Cost Per Person = Parkland Development Fee by Density

Single-family: 2.59 PPH × $694.58 per person = $1,798.96 per unit

Multi-family: 2.7 PPH × $694.58 per person = $1,875.37 per unit

D. *Total Parkland Fee per Unit:*

Fee In-Lieu of Land by Density + Parkland Development Fee by Density = Total Parkland Fee per Unit

Single-family $1,211.16 + $1,798.96 = $3,010.12 × 35% (City Required Percentage) = $1,053.54 per unit

Multi-family: $1,262.60 + $1,875.37 = $3,137.97 × 25% (City Required Percentage) = $784.49 per unit

APPENDIX IV: PARKLAND DEVELOPMENT – NEIGHBORHOOD PARK LEVEL OF SERVICE ESTIMATE

APPENDIX IV. PARKLAND DEVELOPMENT: NEIGHBORHOOD PARK LEVEL OF SERVICE ESTIMATE

Expenditure	Quantity	Unit	Per Each	Total
Mobilization	1	LS	$30,000.00	$30,000.00
Demo	1	LS	$5,000.00	$5,000.00
Earthwork/Site Preparation	1	LS	$4,500.00	$4,500.00
Park Sign	1	LS	$10,000.00	$10,000.00
8' Concrete Sidewalk (1/2 mile)	21120	SF	$6.00	$126,720.00
Picnic Unit (Slab, Table, Trash Receptacle, Grill)	3	EA	$4,000.00	$12,000.00
Shade Pavilion (Slab and Shelter)	1	LS	$50,000.00	$50,000.00
Benches	5	EA	$2,000.00	$10,000.00
Bicycle Rack	1	EA	$1,500.00	$1,500.00
Trash Receptacles	3	EA	$700.00	$2,100.00
Drinking Fountain	1	EA	$5,000.00	$5,000.00
Playground (Equipment, Surfacing, and Drainage)	1	LS	$150,000.00	$150,000.00
Fencing	1	LS	$60,000.00	$60,000.00
Parking Lot (10 Spaces)	10	EA	$5,000.00	$50,000.00
ADA Ramps	4	EA	$2,000.00	$8,000.00
Site Utilities (Water Meter, Electrical Service, etc.)	1	LS	$10,000.00	$10,000.00

Area Lighting (12' HT)	20	EA	$5,000.00	$100,000.00
Drainage (Inlets, Pipe, Headwalls)	1	LS	$5,500.00	$5,500.00
Landscaping (Shrubs, Ground Cover, Bed Prep, and Irrigation)	1	LS	$40,000.00	$40,000.00
Shade Trees	30	EA	$700.00	$21,000.00
Finish Sodding, Grading and Seeding	1	LS	$10,000.00	$10,000.00
			Sub-Total	**$710,820.00**
			Contingency: 5%	**$35,541.00**
			Construction Total:	**$746,361.00**
			Soft Costs (Design, Surveying, Geotech.Engineering): 10%	**$74,636.10**
			Typical Neighborhood Park Total:	**$820.997.10**

(Ord. No. 2021-09-15 , § 1, 9-13-21)

APPENDIX V: CONSTRUCTION STANDARDS

CITY OF DECATUR
CONSTRUCTION STANDARDS
TABLE OF CONTENTS

WATER

NOTE:
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CITY OF DECATUR
CONSTRUCTION STANDARDS
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WASTE WATER

NOTE:
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CITY OF DECATUR
CONSTRUCTION STANDARDS
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ROADWAY

NOTE:
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CITY OF DECATUR
CONSTRUCTION STANDARDS
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STORM SEWER

NOTE:
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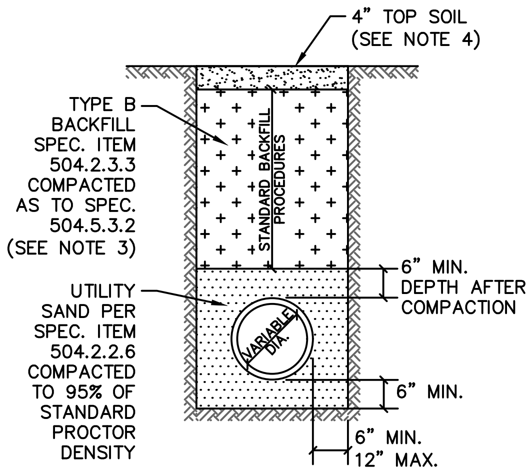
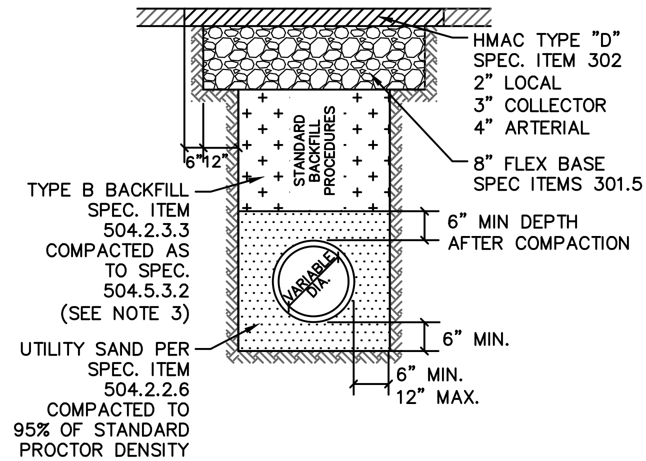
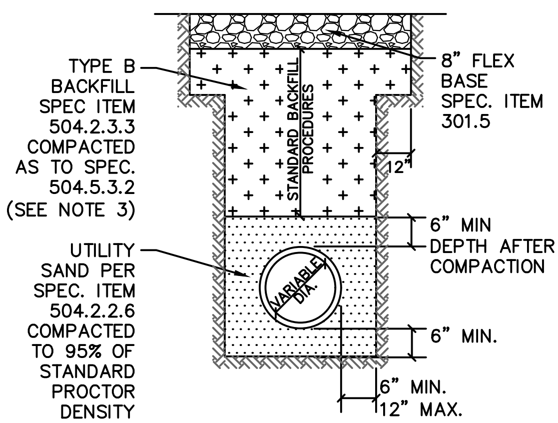


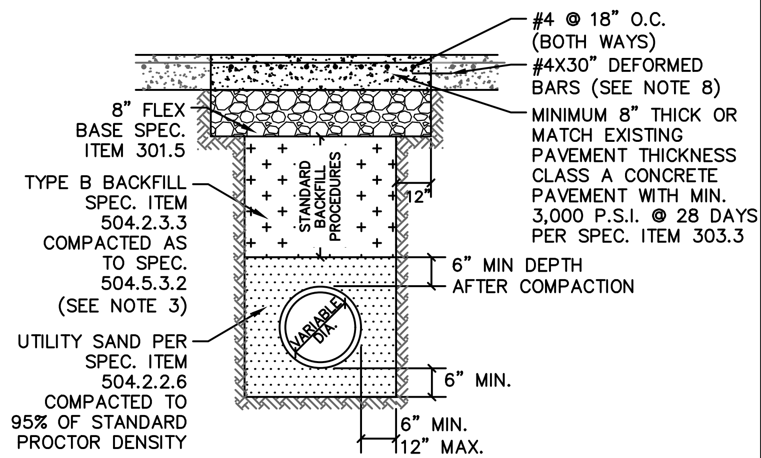
UNPAVED AREA



ASPHALT PAVEMENT



GRAVEL SURFACE



CONCRETE PAVEMENT

NOTES:

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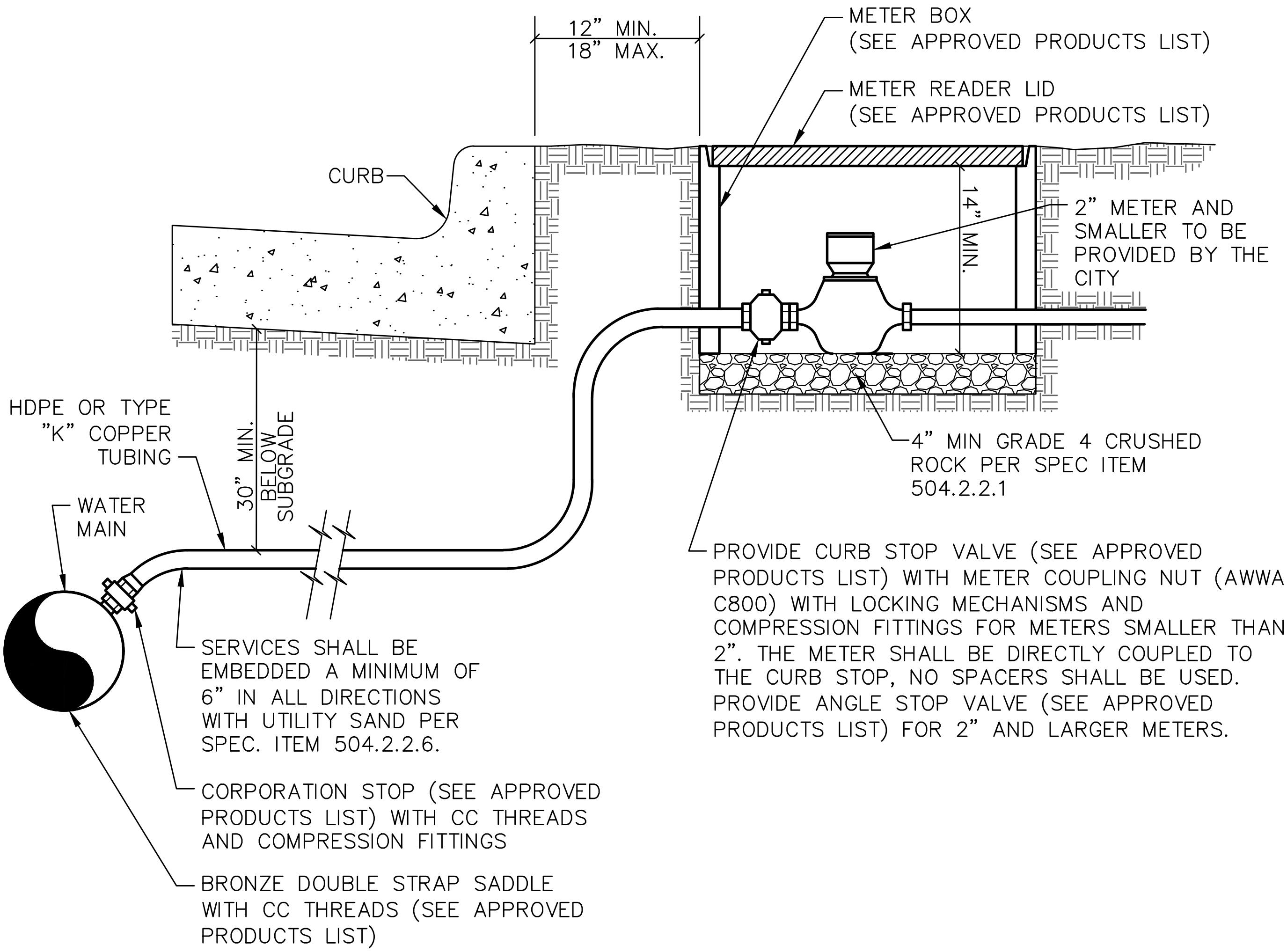
2. AT THE END OF EACH WORK DAY ALL SPOILS SHALL BE REMOVED FROM THE CITY R.O.W. UNLESS PRIOR WRITTEN PERMISSION IS OBTAINED FROM THE CITY TO STORE SPOILS IN DESIGNATED SPOIL STORAGE AREAS THAT DO NOT OBSTRUCT AUTOMOBILE OR PEDESTRIAN TRAFFIC.
3. ROCKS GREATER THAN 4" IN DIAMETER SHALL BE REMOVED FROM ANY NATIVE MATERIAL USED AS BACKFILL.
4. TOPSOIL SHALL BE 4" IN DEPTH AND SHALL BE LOOSE AND FREE OF ROCKS OR CLODS GREATER THAN 1/4" IN DIAMETER. ALL TOPSOIL SHALL BE APPROVED BY THE CITY PRIOR TO INSTALLATION.
5. ALL PAVEMENT SHALL BE REMOVED ALONG NEAT SAW CUT LINES PER SPEC. ITEM 402.3.
6. COATED TRACER WIRE SHALL BE INSTALLED IN THE EMBEDMENT MATERIAL ABOVE THE PVC PIPE WITH THE TRACER WIRE TERMINATING IN IN-LINE GATE VALVE BOXES ACCESSIBLE BY CITY STAFF. BLUE UNDERGROUND WATER LINE WARNING TAPE OF MIN 4" WIDTH SHALL BE INSTALLED ABOVE THE EMBEDMENT MATERIAL.
7. A MAXIMUM OF 50 FT OF OPEN TRENCH WILL BE ALLOWED AT ANY TIME, UNLESS APPROVED BY THE CITY.
8. DEFORMED BARS DOWELED AND EPOXYED MIN. 15" INTO EXISTING PAVEMENT @ 18" O.C. (TYP).



METER SERVICE LAYOUT

NOTES:

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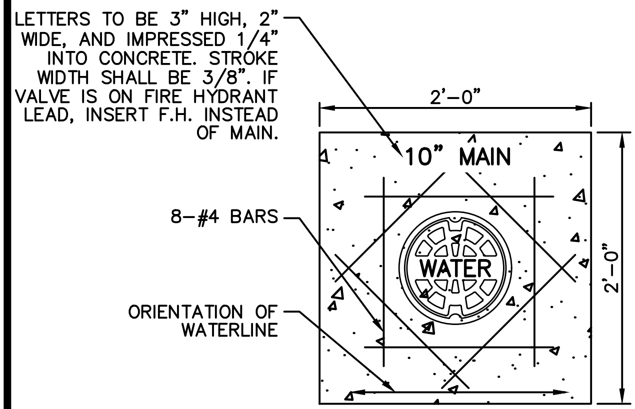
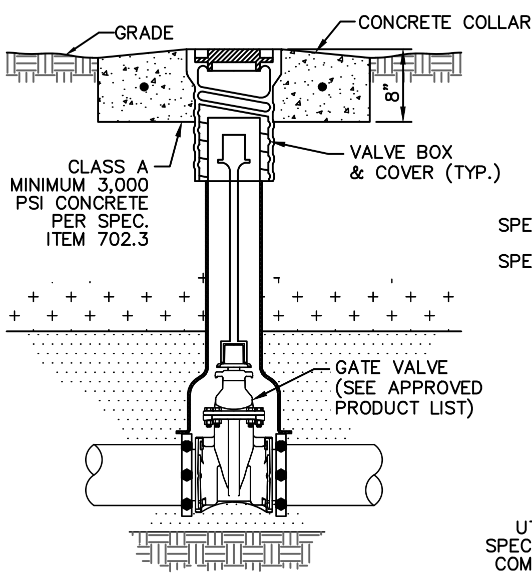
2. SERVICE LINE TO BE SIZED TO MATCH METER SIZE.
3. METER BOX SHALL BE H-20 RATED IF IN DRIVEWAY.



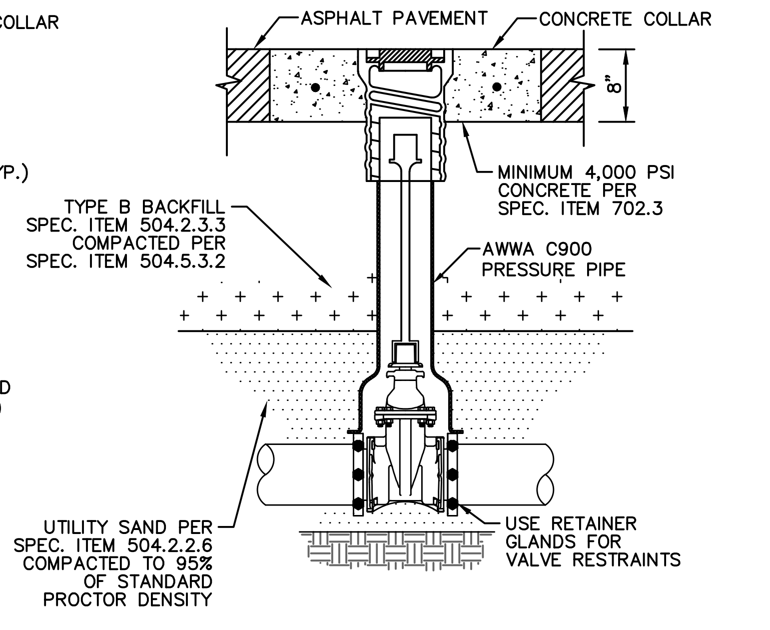
CONCRETE COLLAR

NOTES:

1. ALL SPEC. ITEM NUMBERS REFERENCE THE 5TH EDITION OF THE NCTCOG STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION. UTILIZE THE EQUIVALENT SECTION REFERENCE IN THE MOST CURRENT EDITION OF THE NCTCOG STANDARD SPECIFICATIONS IF THE 5TH EDITION IS NOT THE MOST CURRENT EDITION.
2. GATE VALVE SHALL BE RESILIENT SEAT TYPE WITH A NON RISING STEM, A 2-INCH SQUARE OPERATOR, AND A FULLY ENCAPSULATED WEDGE. RESILIENT SEAT GATE VALVE SHALL CONFORM TO AWWA C509.
3. THE VALVE AND JOINT ASSEMBLIES SHALL BE WRAPPED IN POLYETHYLENE ACCORDING TO AWWA C105.
4. THE JOINT TYPE SHALL BE MECHANICAL JOINT UNLESS OTHERWISE SPECIFIED IN THE PLANS.
5. STEM EXTENSIONS ARE REQUIRED WHEN THE DEPTH TO THE TOP OF THE OPERATING NUT EQUALS OR EXCEEDS 3 FEET.
6. BOX TOP INSETS ARE REQUIRED IN ALL BOX INSTALLATIONS.
7. 16" AND LARGER GATE VALVES REQUIRE CONCRETE BLOCK UNDER THE VALVE BODY. CONCRETE BLOCK SHALL BE 12"X12"X6" CLASS B MINIMUM 2,000 P.S.I. CONCRETE BASE PER SPEC. ITEM 702.3.
8. GATE VALVE SHALL BE OPEN LEFT, COUNTER-CLOCKWISE.
9. CONCRETE COLLARS ARE NOT REQUIRED IN CONCRETE PAVEMENT.
10. ALL VALVE COVERS SHALL BE PAINTED BLUE.
11. A "V" SHALL BE SAW CUT IN THE CURB AT ALL VALVE LOCATIONS.



VALVES IN YARDS OR OTHER AREAS NOT SUBJECT TO TRAFFIC



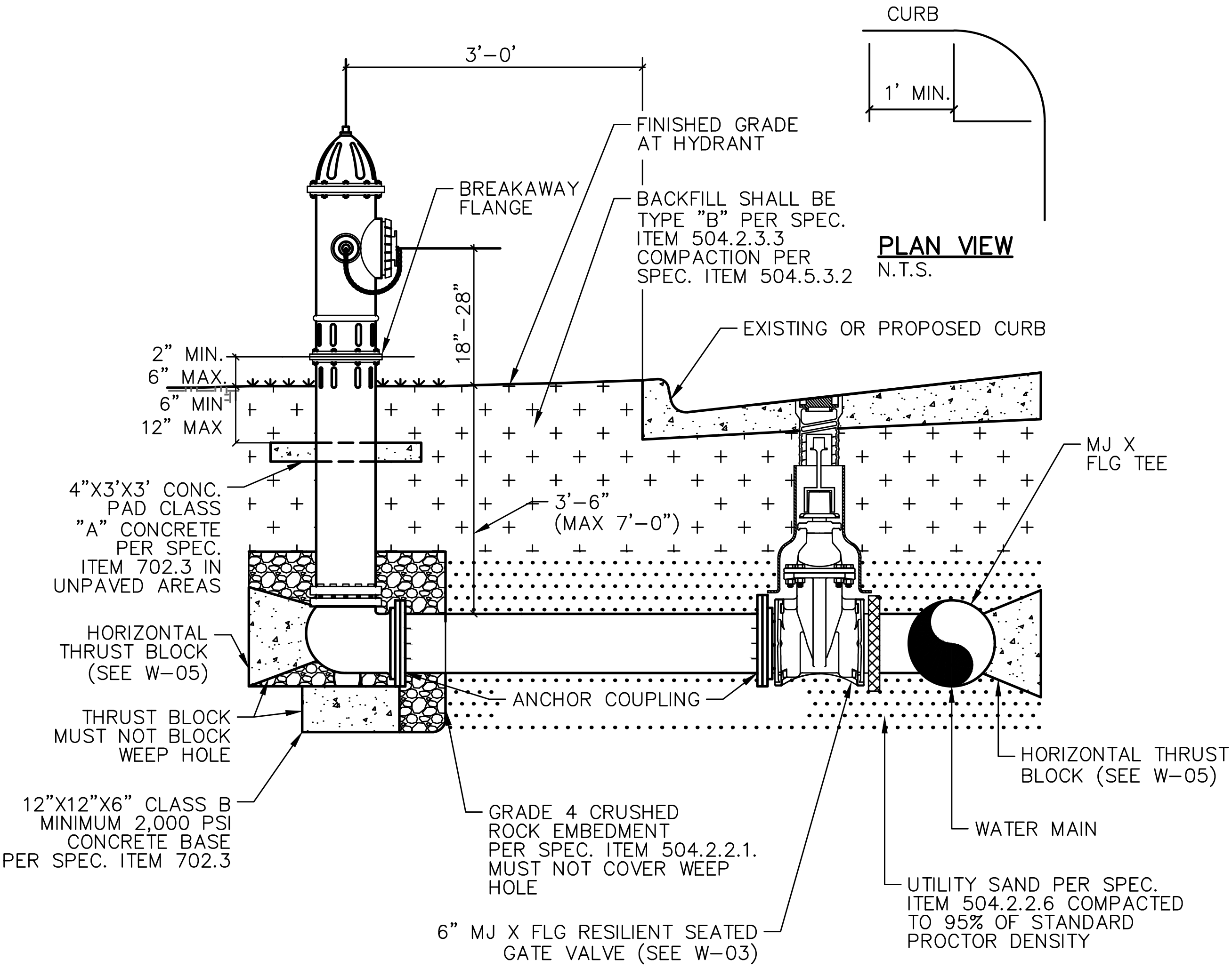
VALVES WITHIN ROADWAYS OR OTHER PAVED OR SURFACED AREAS

City of Decatur
Construction Standards

WATER VALVE AND BOX INSTALLATION

REVISED FEB 2024

W-03



NOTES:

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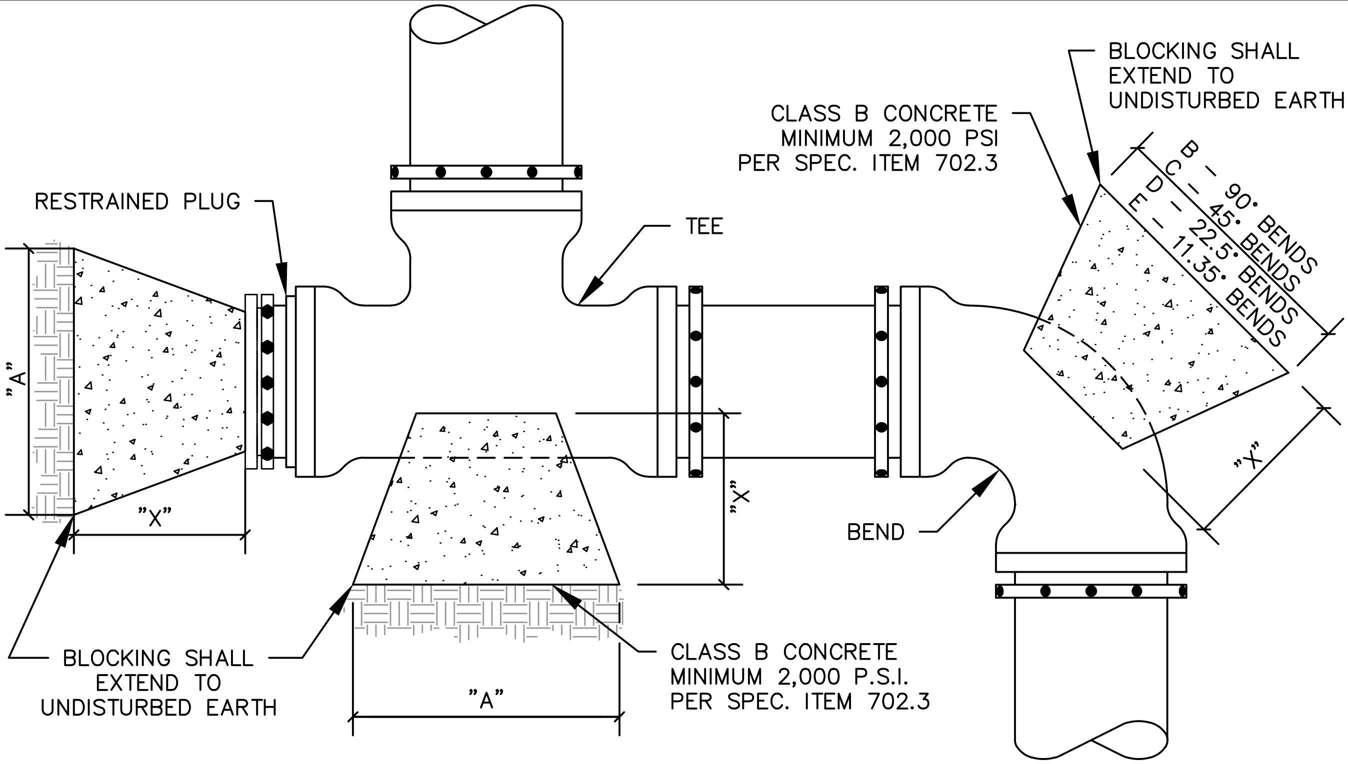
2. ALL FIRE HYDRANTS SHALL CONFORM TO AWWA C502. FIRE HYDRANTS SHALL HAVE A 5 1/4" MIN VALVE OPENING AND AN INSIDE BARREL DIAMETER OF APPROXIMATELY 7". ALL HYDRANTS SHALL BE EQUIPPED WITH A BREAKAWAY FLANGE.
3. ALL BELOW GROUND IRON ASSEMBLES SHALL BE WRAPPED IN POLYETHYLENE ACCORDING TO AWWA C105.
4. FIRE HYDRANT LEADS GREATER THAN A SINGLE PIPE JOINT REQUIRE JOINT THRUST RETAINERS.
5. FIRE HYDRANT SHALL BE PLACED ON THE EXTENDED LOT LINE WHEN POSSIBLE.
6. FIRE HYDRANT SHALL BE LOCATED A MINIMUM 1 FT. OUTSIDE OF THE AREA BETWEEN THE P.C.'S OF THE CORNER TURNING RADIS AT THE INTERSECTIONS. (SEE PLAN VIEW)
7. FIRE HYDRANT NO CLOSER THAN 18" TO EXISTING OR PROPOSED SIDEWALKS.
8. ALL FIRE HYDRANTS SHALL BE AT LEAST 42 INCHES FROM ANY ABOVE GROUND OBSTRUCTIONS, SUCH AS GUARDRAILS, RETAINING WALLS, BOLLARDS, ETC.
9. SEE APPROVED PRODUCTS LIST FOR ACCEPTABLE FIRE HYDRANT MANUFACTURERS, FIRE HYDRANT PAINT MANUFACTURERS, AND FIRE HYDRANT COLOR.
10. FIRE HYDRANT PAINT MUST BE BRUSHED ON, IT MAY NOT BE SPRAYED. SEE APPROVED PRODUCTS LIST.
11. FIRE HYDRANT SHALL BE OPEN LEFT, COUNTER-CLOCKWISE. A CLEARLY VISIBLE CURVED ARROW AND THE WORD "OPEN" SHALL BE CAST IN RELIEF ON TOP OF THE HYDRANT TO INDICATE THE DIRECTION OF OPENING.



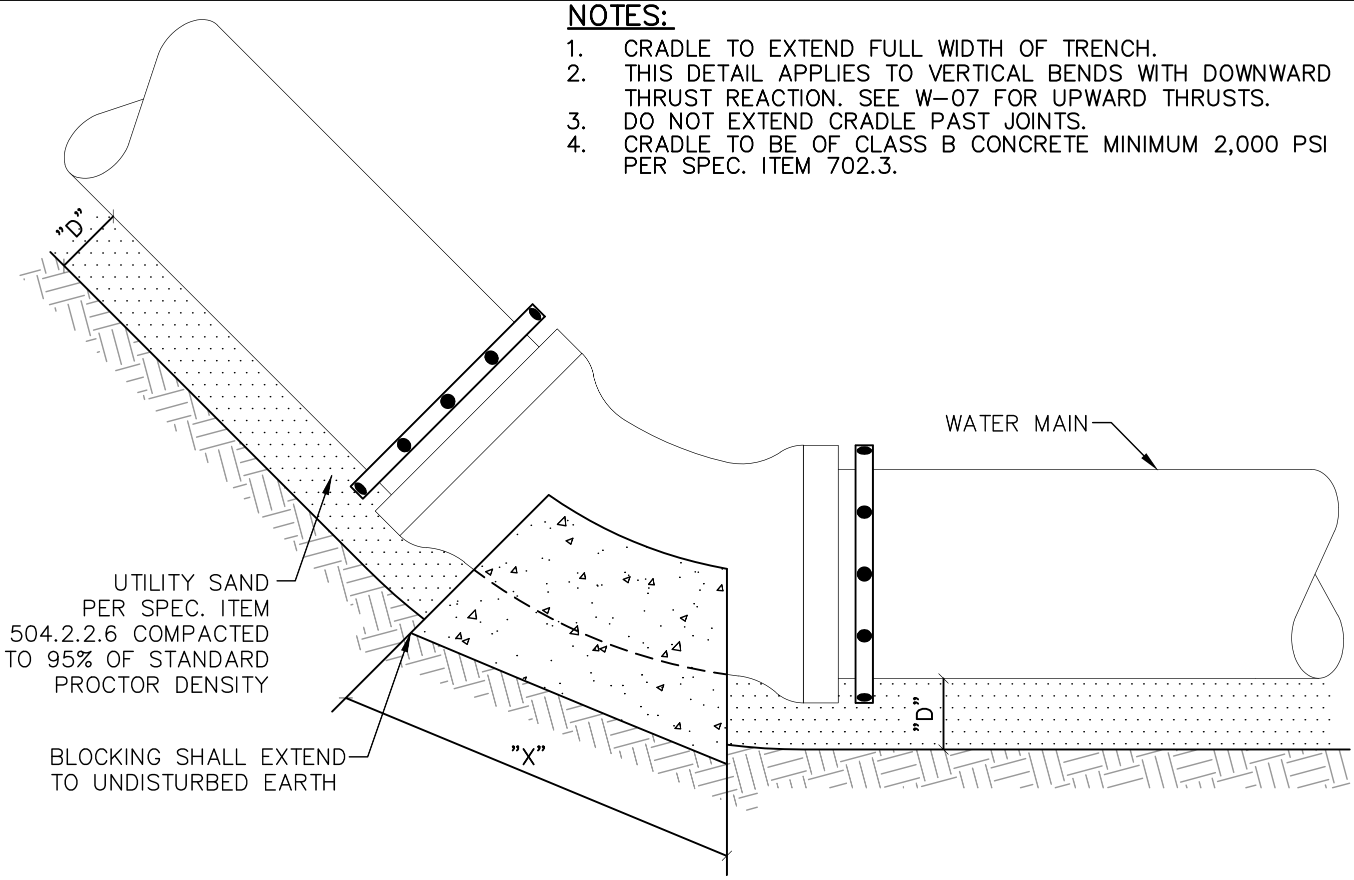
HORIZONTAL BLOCKING TABLE

PIPE SIZE	"X" DIM.	PLUGS & TEES		90° BENDS		45° BENDS		22.50° BENDS		11.25° BENDS	
		"A"	MIN. AREA (sf)	"B"	MIN. AREA (sf)	"C"	MIN. AREA (sf)	"D"	MIN. AREA (sf)	"E"	MIN. AREA (sf)
6"	1'–6"	1'–9"	3.18	2'–1"	4.50	1'–7"	2.43	1'–1"	1.24	1'–0"	1.00
8"	1'–6"	2'–5"	5.65	2'–10"	8.00	2'–1"	4.33	1'–6"	2.21	1'–1"	1.11
10"	1'–6"	3'–0"	8.84	3'–6"	12.50	2'–7"	6.76	1'–10"	3.45	1'–4"	1.73
12"	1'–6"	3'–7"	12.72	4'–3"	17.99	3'–1"	9.74	2'–3"	4.96	1'–7"	2.49
16"	2'–0"	4'–9"	22.62	5'–8"	31.99	4'–2"	17.31	2'–12"	8.83	2'–1"	4.43

DIMENSION "X" TO BE A MINIMUM OF 1'–6", BUT IS TO BE INCREASED WHERE NECESSARY TO PROVIDE BEARING AGAINST UNDISTURBED TRENCH WALL.

NOTES:

1. ALL SPEC. ITEM NUMBERS REFERENCE THE 5TH EDITION OF THE NCTCOG STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION. UTILIZE THE EQUIVALENT SECTION REFERENCE IN THE MOST CURRENT EDITION OF THE NCTCOG STANDARD SPECIFICATIONS IF THE 5TH EDITION IS NOT THE MOST CURRENT EDITION.
2. BEARING AREAS SHOWN ARE BASED ON 225 PSI TEST PRESSURE, 3,000 PSF ALLOWABLE SOIL BEARING PRESSURE, AND 1.5 SAFETY FACTOR.
3. THE ENGINEER SHALL PROVIDE A SEPARATE BLOCKING TABLE WHEN THE CONDITIONS DO NOT MEET THE ABOVE ASSUMPTIONS.
4. WRAP ALL BELOW GROUND IRON ASSEMBLIES IN POLYETHYLENE ACCORDING TO AWWA C105.
5. ALL TEES, BENDS, PLUGS, ETC. SHALL BE MECHANICALLY RESTRAINED.
6. BLOCKING FOR LINES LARGER THAN 16" SHALL BE DESIGNED FOR THE SPECIFIC LOCATION AND SHOWN ON THE DRAWINGS.



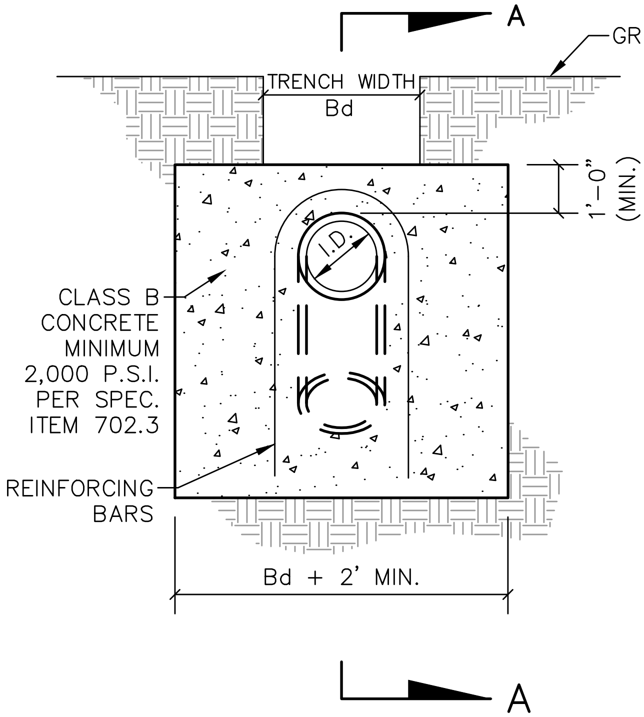
NOTES:
1. CRADLE TO EXTEND FULL WIDTH OF TRENCH.
2. THIS DETAIL APPLIES TO VERTICAL BENDS WITH DOWNWARD THRUST REACTION. SEE W-07 FOR UPWARD THRUSTS.
3. DO NOT EXTEND CRADLE PAST JOINTS.
4. CRADLE TO BE OF CLASS B CONCRETE MINIMUM 2,000 PSI PER SPEC. ITEM 702.3.

"D" = 6" MINIMUM OR TO UNDISTURBED SOIL

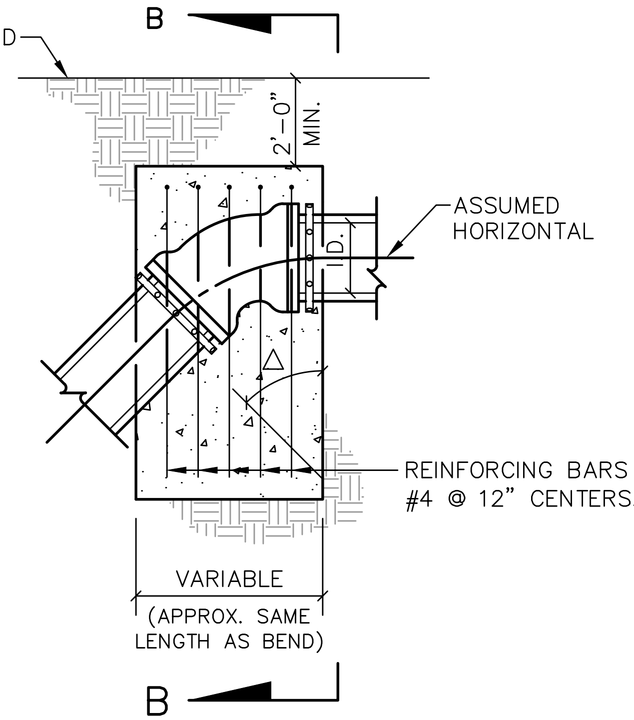
CONCRETE CRADLE TABLE

PIPE SIZE	90° BENDS		45° BENDS		22.50° BENDS		11.25° BENDS	
	"X"	MIN. AREA (sf)	"X"	MIN. AREA (sf)	"X"	MIN. AREA (sf)	"X"	MIN. AREA (sf)
6"	2–1"	4.50	1'–7"	2.43	1'–1"	1.24	1'–0"	1.00
8"	2–10"	8.00	2'–1"	4.33	1'–6"	2.21	1'–1"	1.11
10"	3'–6"	12.50	2'–7"	6.76	1'–10"	3.45	1'–4"	1.73
12"	4'–3"	17.99	3'–1"	9.74	2'–3"	4.96	1'–7"	2.49
16"	5'–8"	31.99	4'–2"	17.31	3'–0"	8.83	2'–2"	4.43

NOTES:
1. ALL SPEC. ITEM NUMBERS REFERENCE THE 5TH EDITION OF THE NCTCOG STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION. UTILIZE THE EQUIVALENT SECTION REFERENCE IN THE MOST CURRENT EDITION OF THE NCTCOG STANDARD SPECIFICATIONS IF THE 5TH EDITION IS NOT THE MOST CURRENT EDITION.
2. BEARING AREAS SHOWN ARE BASED ON 225 PSI TEST PRESSURE, 3,000 PSF ALLOWABLE SOIL BEARING PRESSURE, AND 1.5 SAFETY FACTOR.
3. THE ENGINEER SHALL PROVIDE A SEPARATE BLOCKING TABLE WHEN THE CONDITIONS DO NOT MEET THE ABOVE ASSUMPTIONS.
4. WRAP ALL BELOW GROUND IRON ASSEMBLIES IN POLYETHYLENE ACCORDING TO AWWA C105.
5. ALL TEES, BENDS, PLUGS, ETC. SHALL BE MECHANICALLY RESTRAINED BY MEGALUG OR APPROVED EQUAL.
6. BLOCKING FOR LINES LARGER THAN 16" SHALL BE DESIGNED FOR THE SPECIFIC LOCATION AND SHOWN ON THE DRAWINGS.



ELEVATION "B–B"



SECTION "A–A"

VERTICAL THRUST BLOCK TABLE

△ →	11.25°		22.50°		45.00°		90.00°	
I.D. (IN.)	MIN #4 BARS	VOL. (C.Y.)	MIN #4 BARS	VOL. (C.Y.)	MIN #4 BARS	VOL. (C.Y.)	MIN #4 BARS	VOL. (C.Y.)
6	1	0.5	1	1.0	1	1.8	2	2.5
8	1	0.5	1	1.0	2	1.8	3	2.5
10	1	1.1	2	2.2	3	4.0	5	5.7
12	1	1.1	2	2.2	4	4.0	7	5.7
16	1	2.5	4	4.9	7	9.0	12	12.7

NOTES:

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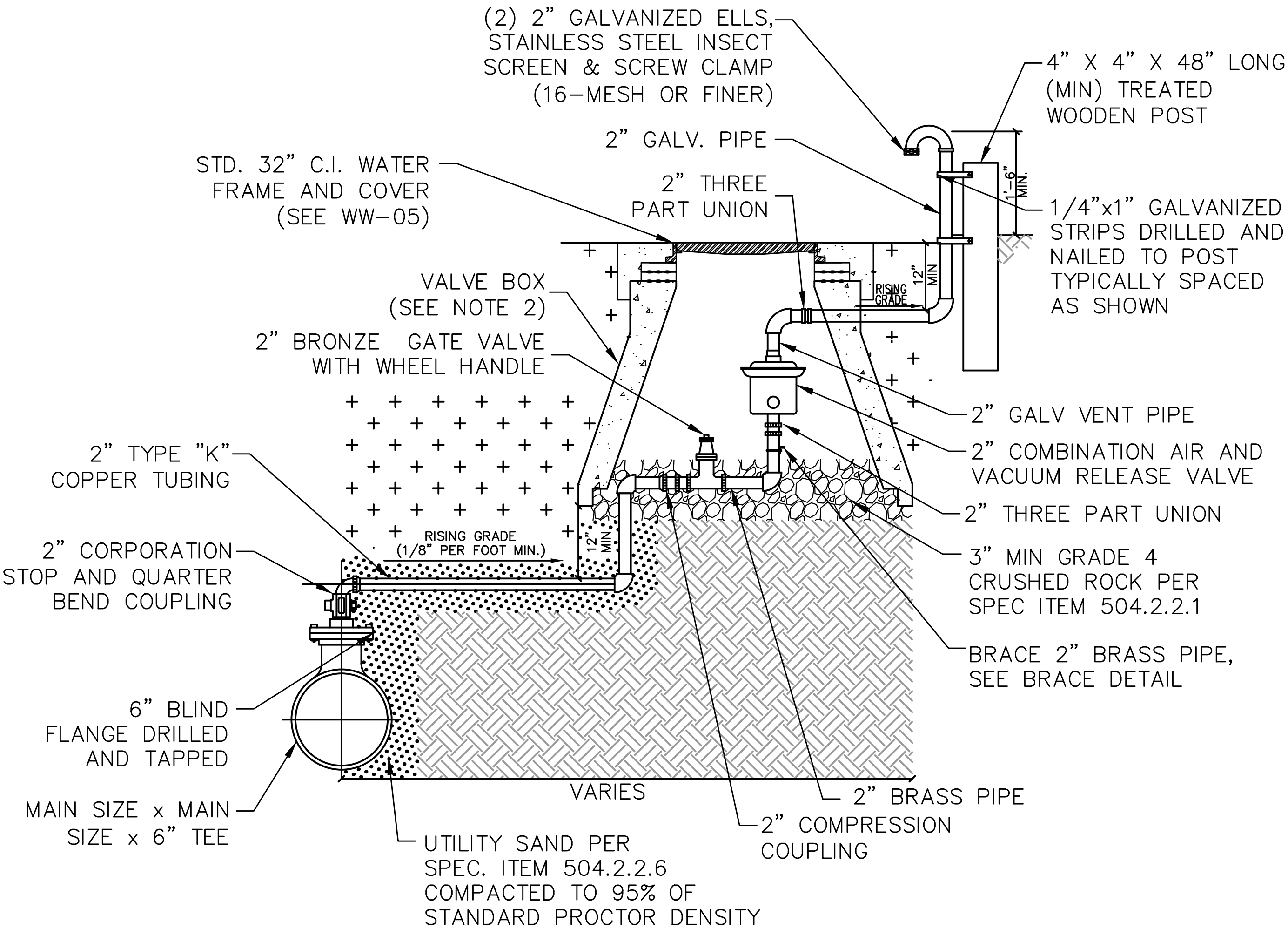
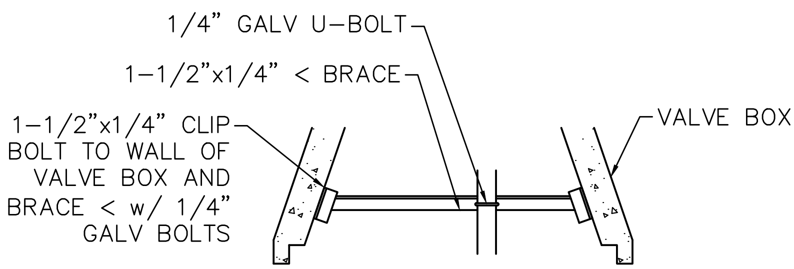
2. CONCRETE VOLUMES SHOWN ARE BASED ON 225 PSI TEST PRESSURE, 3,000 PSF ALLOWABLE SOIL BEARING PRESSURE, AND 1.5 SAFETY FACTOR.
3. BAR QUANTITIES ARE BASED ON 30 KSI #4 STEEL REINFORCEMENT BAR AND A SAFETY FACTOR OF 1.5.
4. THE ENGINEER SHALL PROVIDE A SEPARATE BLOCKING TABLE WHEN THE CONDITIONS DO NOT MEET THE ABOVE ASSUMPTIONS.
5. WRAP ALL BELOW GROUND IRON ASSEMBLIES IN POLYETHYLENE ACCORDING TO AWWA C105.
6. ALL TEES, BENDS, PLUGS, ETC. SHALL BE MECHANICALLY RESTRAINED.
7. BLOCKING FOR LINES LARGER THAN 16" SHALL BE DESIGNED FOR THE SPECIFIC LOCATION AND SHOWN ON THE DRAWINGS.





BRACE DETAIL

NOTES:

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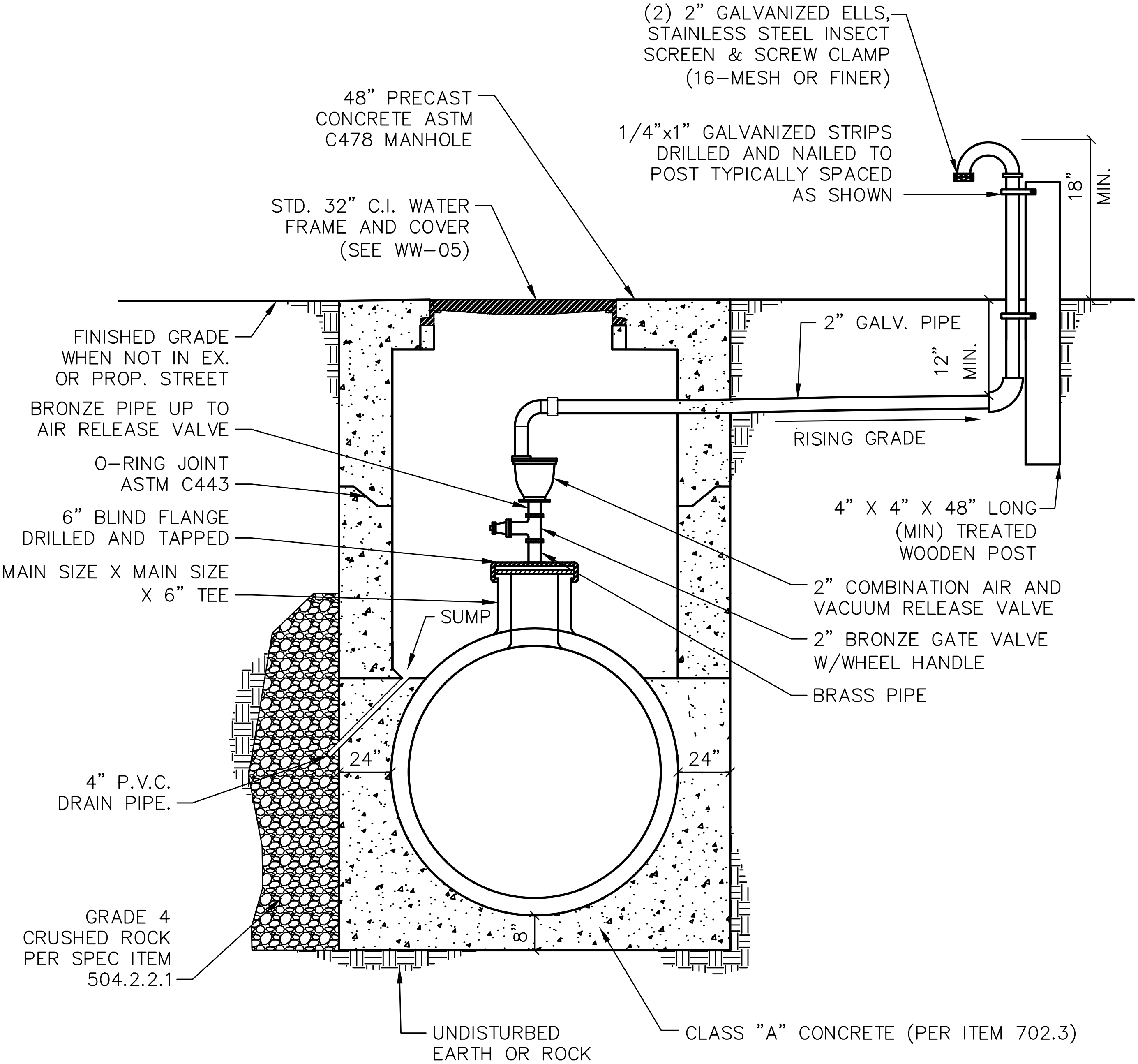
2. VALVE BOX SHALL BE 48" ASTM-C478 CONCENTRIC MANHOLE CONE WITH RING AND COVER (SEE APPROVED PRODUCTS LIST).
3. AIR RELEASE VALVES SHALL BE IN ACCORDANCE WITH AWWA C512 AND AWWA M51.
4. SEE APPROVED PRODUCT LIST FOR ACCEPTABLE AIR RELEASE VALVE MANUFACTURERS.

DECATUR TX **City of Decatur** **Construction Standards**	AIR RELEASE VALVE TYPE 1	**REVISED FEB 2024** W-08A



NOTE:

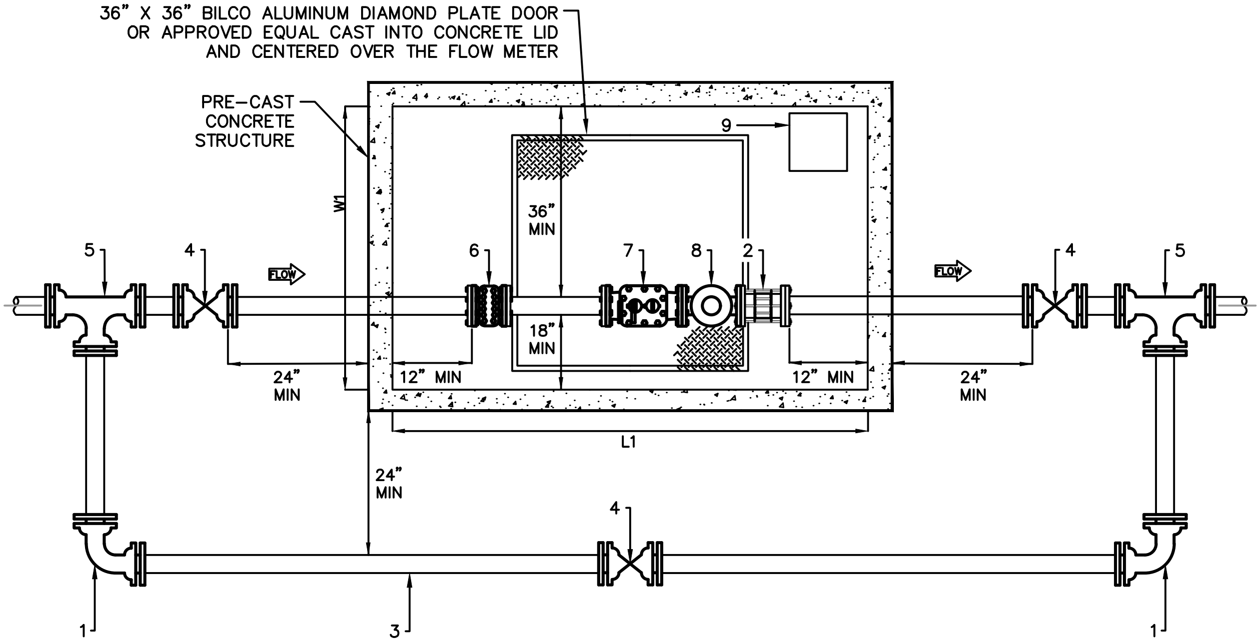
1. ALL SPEC. ITEM NUMBERS REFERENCE THE 5TH EDITION OF THE NCTCOG STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION. UTILIZE THE EQUIVALENT SECTION REFERENCE IN THE MOST CURRENT EDITION OF THE NCTCOG STANDARD SPECIFICATIONS IF THE 5TH EDITION IS NOT THE MOST CURRENT EDITION.
2. AIR RELEASE VALVES SHALL BE IN ACCORDANCE WITH AWWA C512 AND AWWA M51.
3. SEE APPROVED PRODUCT LIST FOR ACCEPTABLE AIR RELEASE VALVE MANUFACTURERS.

City of Decatur Construction Standards	AIR RELEASE VALVE TYPE 2	REVISED FEB 2024 / W-08B

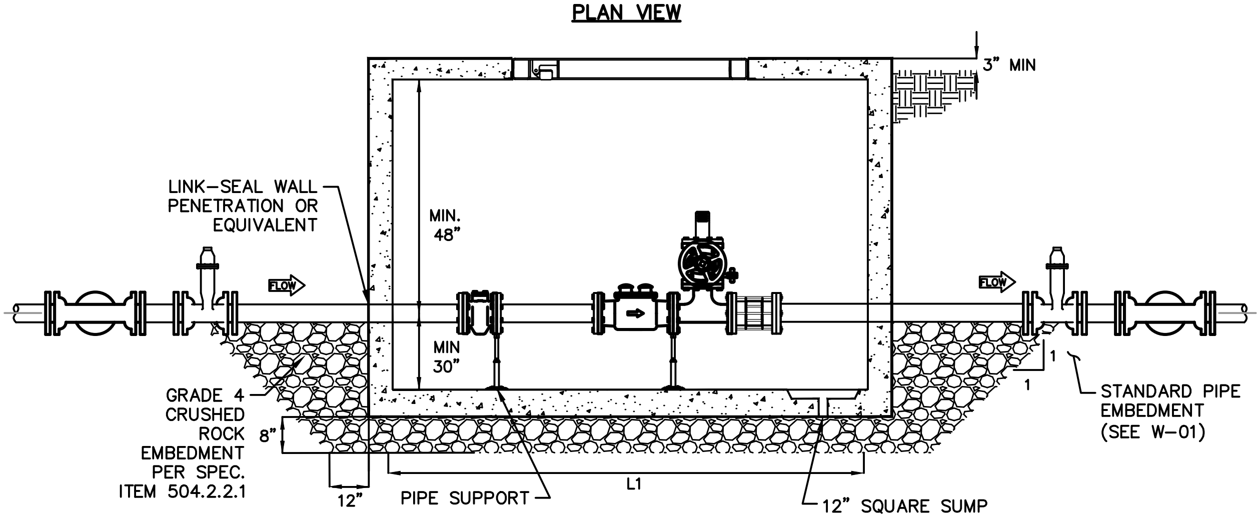
MATERIALS LIST:

1. D.I. 90 DEG. BEND
2. RESTRAINED FLANGED COUPLING ADAPTER
3. BYPASS LINE SIZED THE SAME AS THE MAIN LINE
4. GATE VALVE
5. D.I. TEE
6. STRAINER
7. COMPOUND OR TURBINE METER
8. TESTING TEE FLG. X FLG. WITH 2" GATE VALVE AND FLG. X THREADED END DISCHARGE PIPE
9. 12" SQUARE SUMP WITH CAST IRON GRATE AND DRAIN

DIMENSIONS		
SIZE	L1	W1
3"	6'–8"	4'–9"
4"	7'–7"	4'–10"
6"	9'–1"	5'–0"
8"	10'–4"	5'–2"



PLAN VIEW

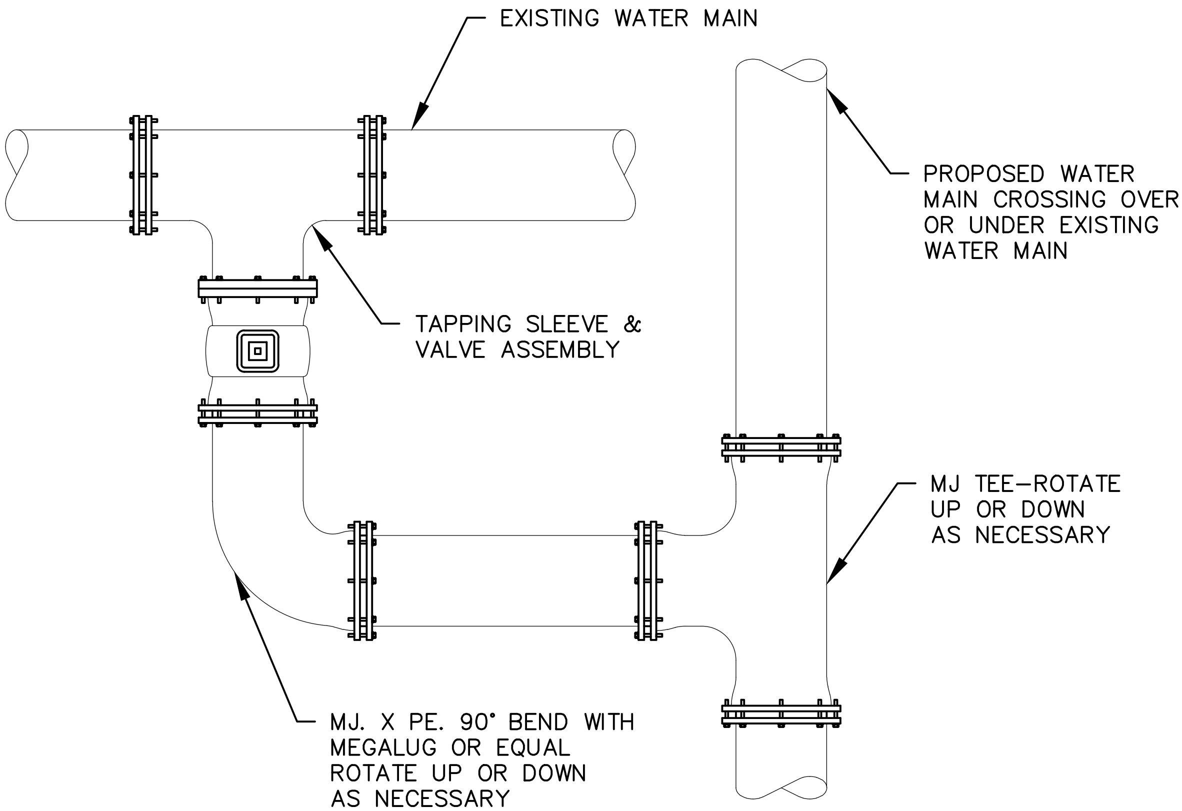


ELEVATION

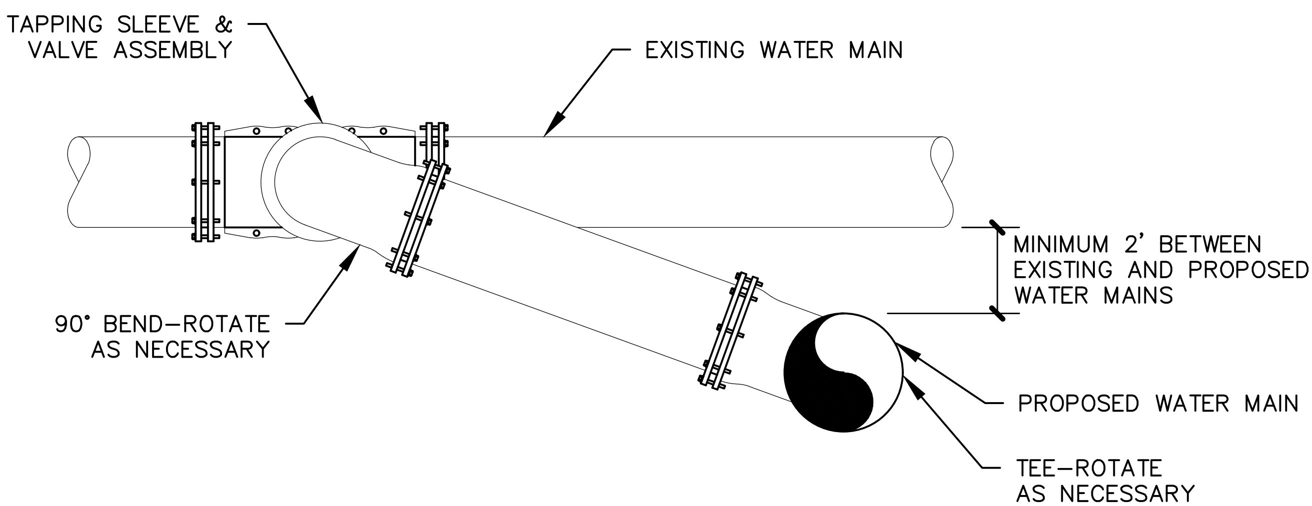
NOTES:

1. ALL SPEC. ITEM NUMBERS REFERENCE THE 5TH EDITION OF THE NCTCOG STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION. UTILIZE THE EQUIVALENT SECTION REFERENCE IN THE MOST CURRENT EDITION OF THE NCTCOG STANDARD SPECIFICATIONS IF THE 5TH EDITION IS NOT THE MOST CURRENT EDITION.
2. NOTIFY THE CITY PRIOR TO CONSTRUCTION OF METER VAULT OR BY–PASS ASSEMBLY.
3. THE VAULT SHALL NOT BE INSTALLED IN ANY DRIVING OR PARKING AREAS AND MUST BE LOCATED IN A UTILITY EASEMENT DEDICATED TO THE CITY OF DECATUR.
4. THE CONTRACTOR MAY HAVE THE WALL CORED BEFORE INSTALLATION OF VAULT AND PIPING. BREAKING OF THE WALL WITH A JACKHAMMER IS NOT PERMITTED.
5. ALL PIPING SHALL BE DUCTILE IRON. ALL PIPING AND EQUIPMENT IN VAULT SHALL BE COATED PER MANUFACTURER FOR THE INTENDED USE.

City of Decatur Construction Standards	METER VAULT	REVISED FEB 2024 / W-09



PLAN

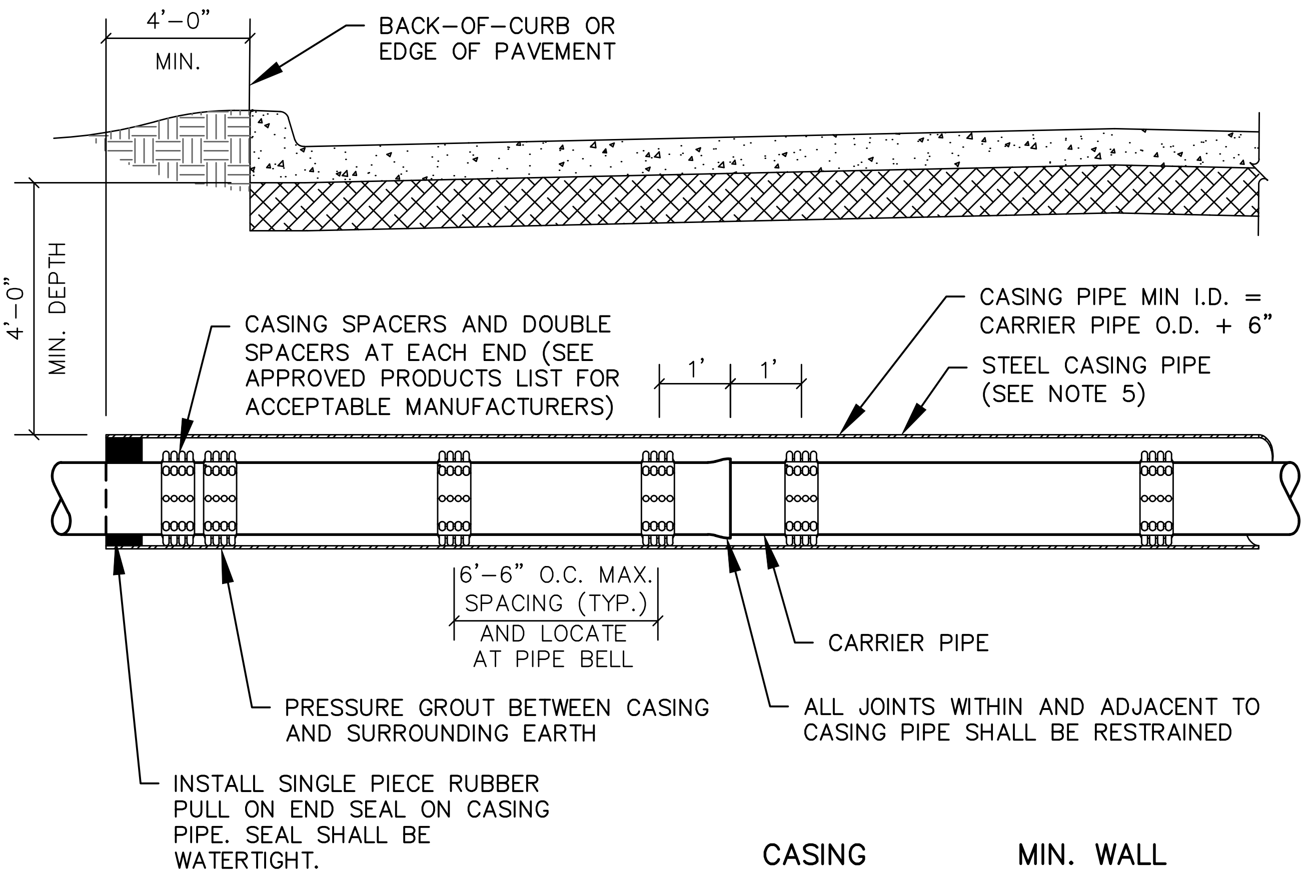


SECTION

NOTES:

1. ALL VALVES, JOINTS, AND FITTINGS TO BE MECHANICALLY RESTRAINED.
2. WRAP ALL BELOW GROUND ASSEMBLIES IN POLYETHYLENE ACCORDING TO AWWA C105.
3. THE DIAMETER OF THE CONNECTING PIPE BETWEEN THE PROPOSED AND EXISTING WATER MAINS SHALL HAVE A DIAMETER EQUAL TO THE SMALLER OF THE TWO MAINS TO BE CONNECTED THROUGH THE PROPOSED RING CONNECTION.

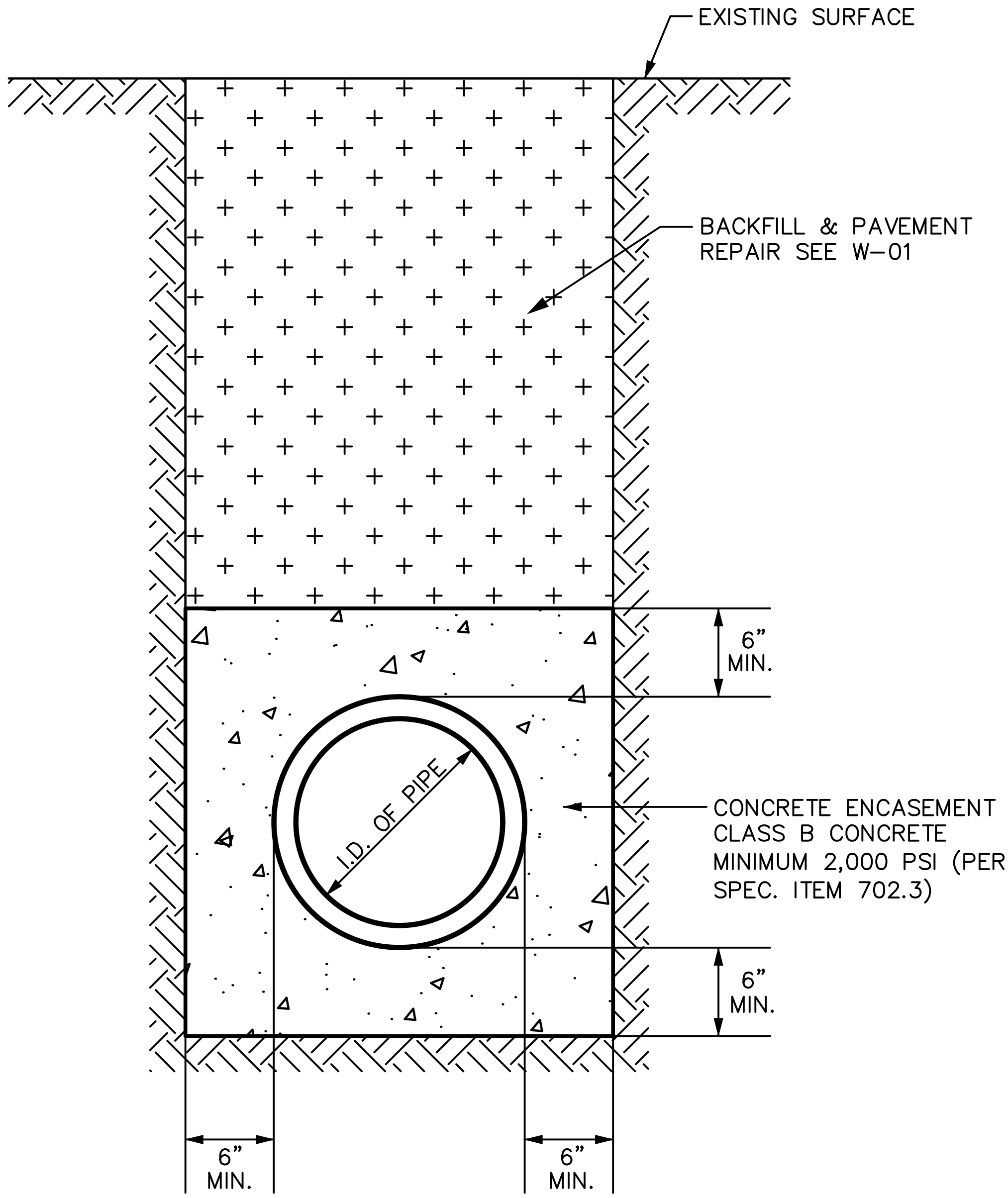
DECATUR TX **City of Decatur** **Construction Standards**	TYPICAL RING CONNECTION	**REVISED FEB 2024** W-10



CASING DIAMETER	MIN. WALL THICKNESS
LESS THAN 12"	0.25"
14" – 18"	0.3125
20" – 24"	0.375"
26" – 32"	0.50"
34" – 42"	0.625"
GREATER THAN 42"	DESIGN BY ENGINEER

NOTES:

1. ALL SPEC. ITEM NUMBERS REFERENCE THE 5TH EDITION OF THE NCTCOG STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION. UTILIZE THE EQUIVALENT SECTION REFERENCE IN THE MOST CURRENT EDITION OF THE NCTCOG STANDARD SPECIFICATIONS IF THE 5TH EDITION IS NOT THE MOST CURRENT EDITION.
2. BORE PIT SHALL MEET OSHA AND STATE REQUIREMENTS.
3. WHERE A BORE IS TO BE PARTIALLY OR COMPLETELY ABANDONED, SAID BORE SHALL BE COMPLETELY FILLED WITH HYDRAULICALLY PLACED CEMENT GROUT.
4. THE EDGE OF BORE PIT SHALL BE A MINIMUM OF 4' BEHIND THE BACK OF CURB OR EDGE OF PAVEMENT.
5. STEEL CASING PIPE SHALL BE MINIMUM 35 KSI ASTM A139, GRADE B CARBON STEEL, AND SHALL HAVE A TAR-COAL EXPOXY COATING IN ACCORDANCE WITH AWWA C210.
6. CASING PIPE SHALL BE PLACED AT THE SAME SLOPE AS THE CARRIER PIPE TO ENSURE THAT THE CARRIER PIPE IS PLACED ALONG THE SPECIFIED GRADE. IF THE PROPER SLOPE CANNOT BE MAINTAINED, THE CASING SPACERS SHALL BE ADJUSTED SO THAT THE CARRIER PIPE IS PLACED AT THE SPECIFIED GRADE.



NOTES:

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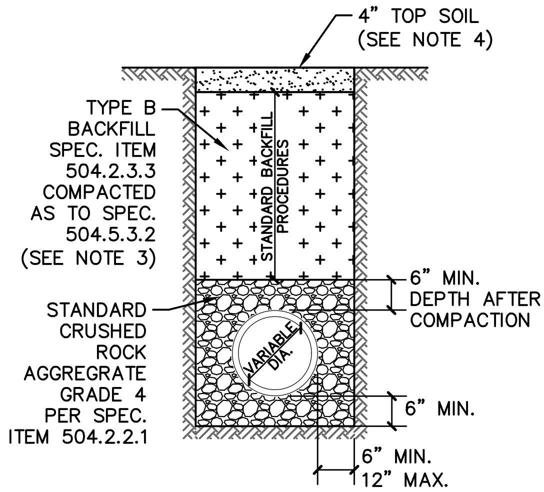
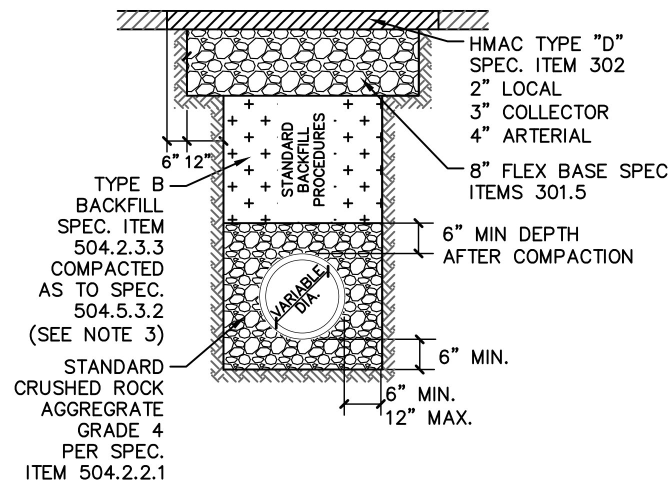
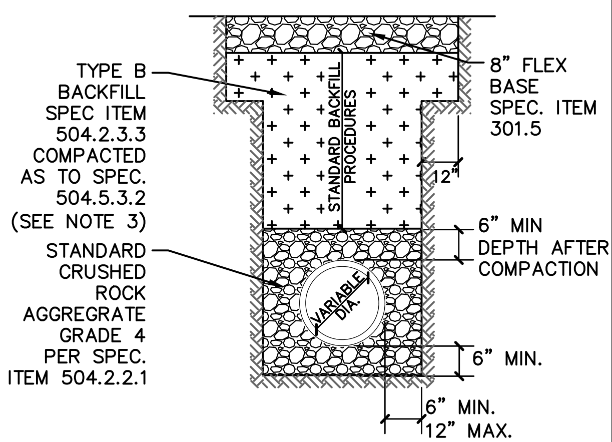
City of Decatur Construction Standards	CONCRETE ENCASEMENT	REVISED FEB 2024
		W-12



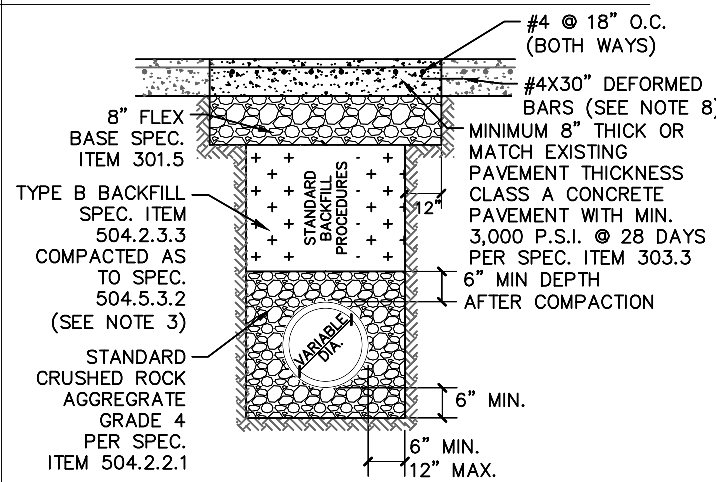
UNPAVED AREA



ASPHALT PAVEMENT



GRAVEL SURFACE



CONCRETE PAVEMENT

NOTES:

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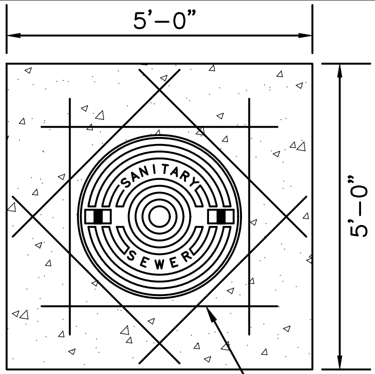
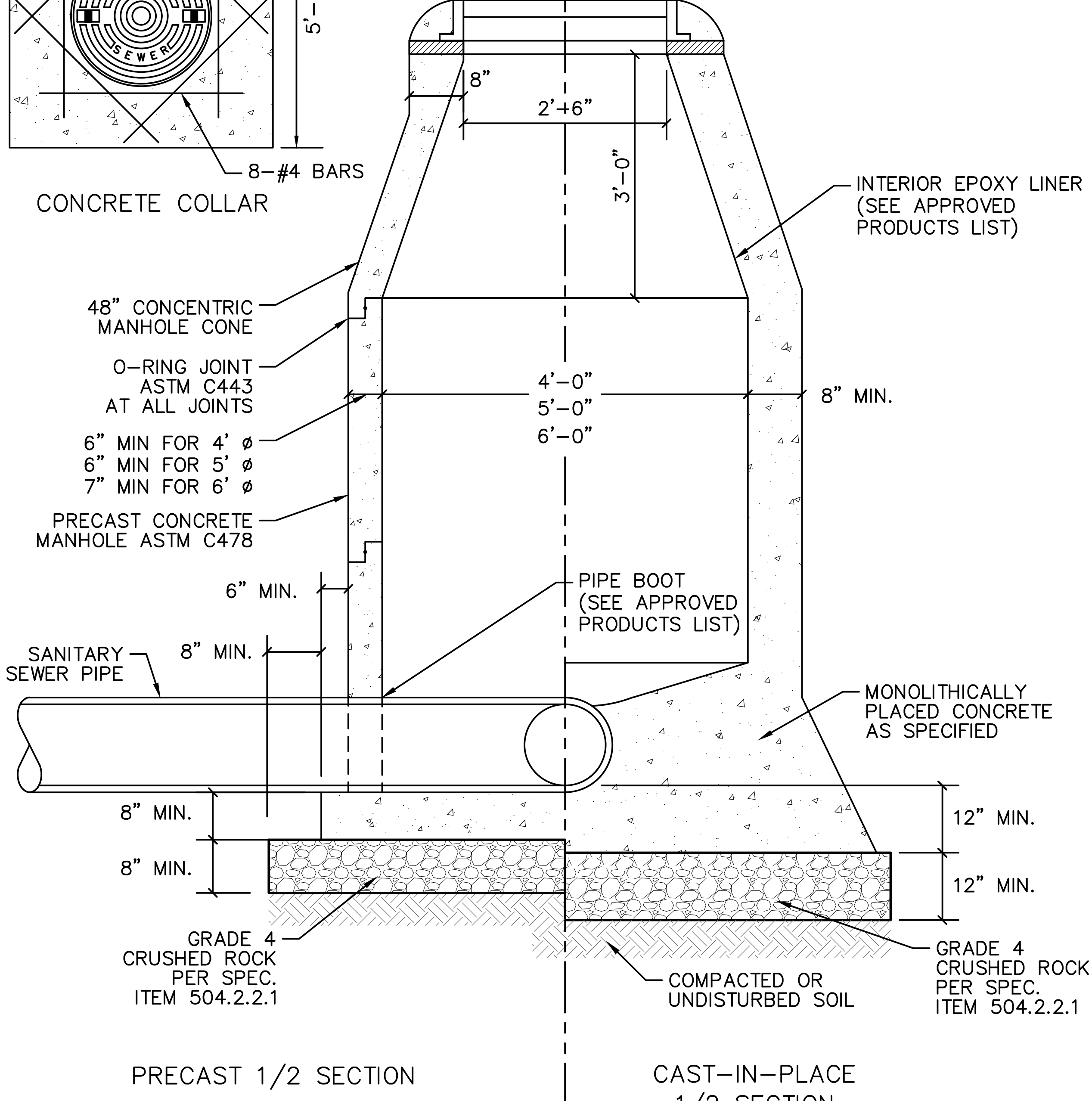
2. AT THE END OF EACH WORK DAY ALL SPOILS SHALL BE REMOVED FROM THE CITY R.O.W. UNLESS PRIOR WRITTEN PERMISSION IS OBTAINED FROM THE CITY TO STORE SPOILS IN DESIGNATED SPOIL STORAGE AREAS THAT DO NOT OBSTRUCT AUTOMOBILE OR PEDESTRIAN TRAFFIC.
3. ROCKS GREATER THAN 4" IN DIAMETER SHALL BE REMOVED FROM ANY NATIVE MATERIAL USED AS BACKFILL.
4. TOPSOIL SHALL BE 4" IN DEPTH AND SHALL BE LOOSE AND FREE OF ROCKS OR CLODS GREATER THAN 1/4" IN DIAMETER. ALL TOPSOIL SHALL BE APPROVED BY THE CITY PRIOR TO INSTALLATION.
5. ALL PAVEMENT SHALL BE REMOVED ALONG NEAT SAW CUT LINES PER SPEC. ITEM 402.3.
6. SEWER LINE WARNING TAPE OF MIN 4" WIDTH SHALL BE INSTALLED ABOVE THE EMBEDMENT MATERIAL.
7. A MAXIMUM OF 50 FT OF OPEN TRENCH WILL BE ALLOWED AT ANY TIME, UNLESS APPROVED BY THE CITY.
8. DEFORMED BARS DOWELED AND EPOXYED MIN. 15" INTO EXISTING PAVEMENT @ 18" O.C. (TYP).



CONCRETE COLLAR



PRECAST 1/2 SECTION

CAST–IN–PLACE 1/2 SECTION

NOTES:
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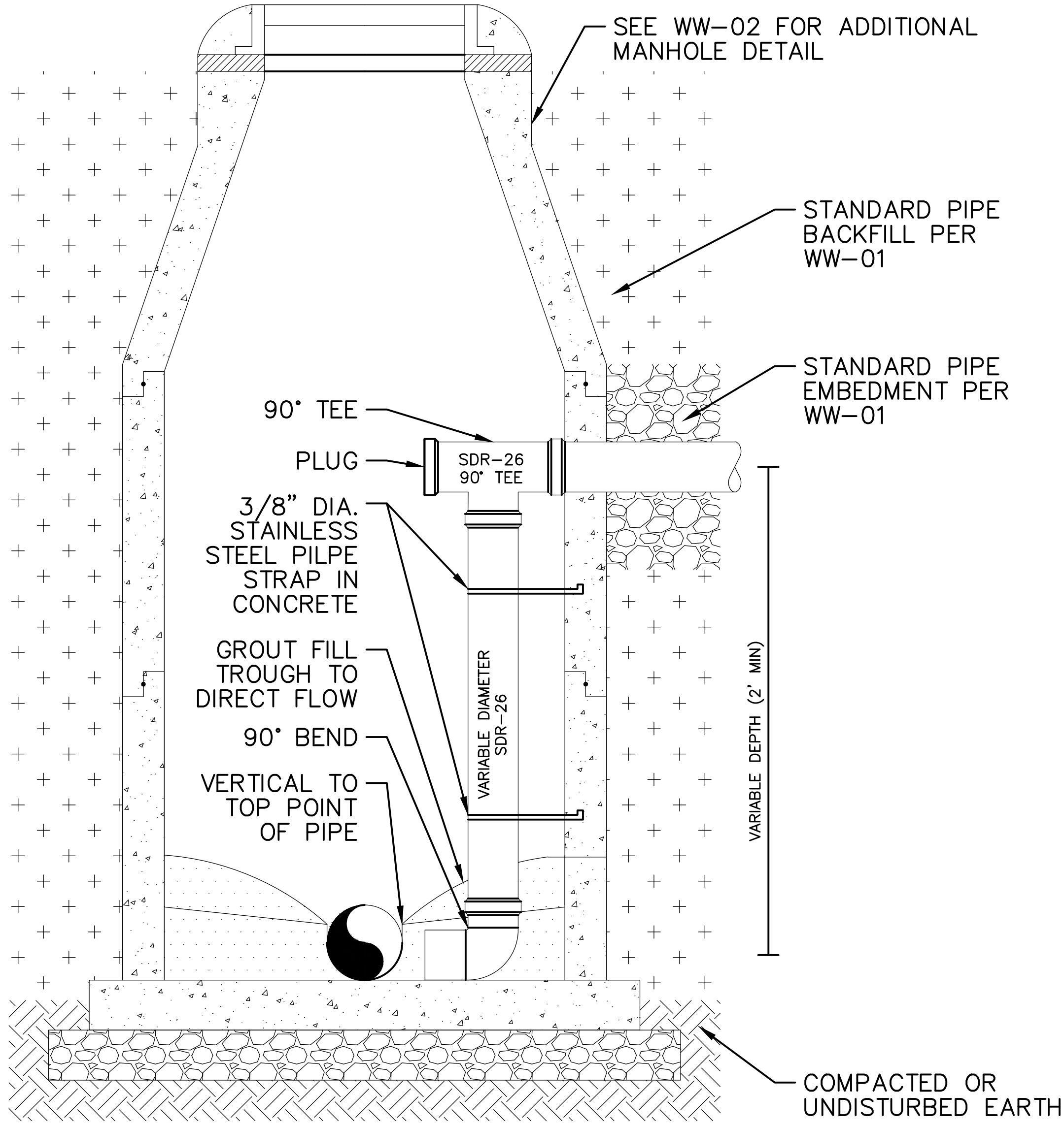
2. MANHOLES SHALL BE CONCENTRIC UNLESS OTHERWISE APPROVED BY THE CITY.
3. 4'X4' PAVEMENT INSERTS OF 6" 3000 PSI CONCRETE SHALL BE PROVIDED FOR MANHOLE LIDS.
4. INVERTS SHALL BE EQUAL TO OR GREATER THAN THE PIPE DIAMETER.



ELEVATION A

NOTES:

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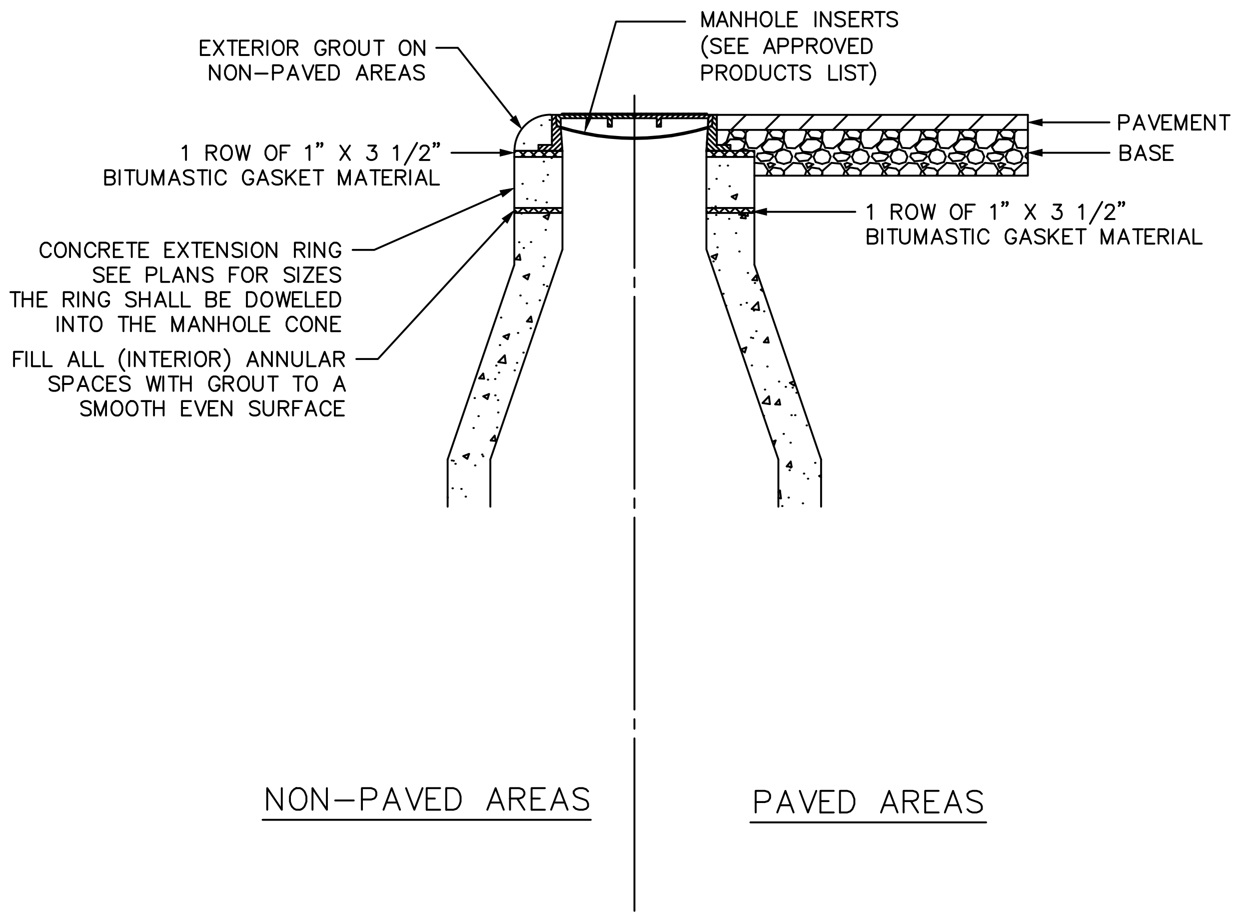
2. LOCATE FLOWLINE OF DROP LINE AT TOP OF EXISTING WASTEWATER LINE UNLESS NOTED OTHERWISE ON PLANS.

City of Decatur Construction Standards	SANITARY SEWER MANHOLE DROP CONNECTIONS	REVISED FEB 2024 / WW-03



NOTES:

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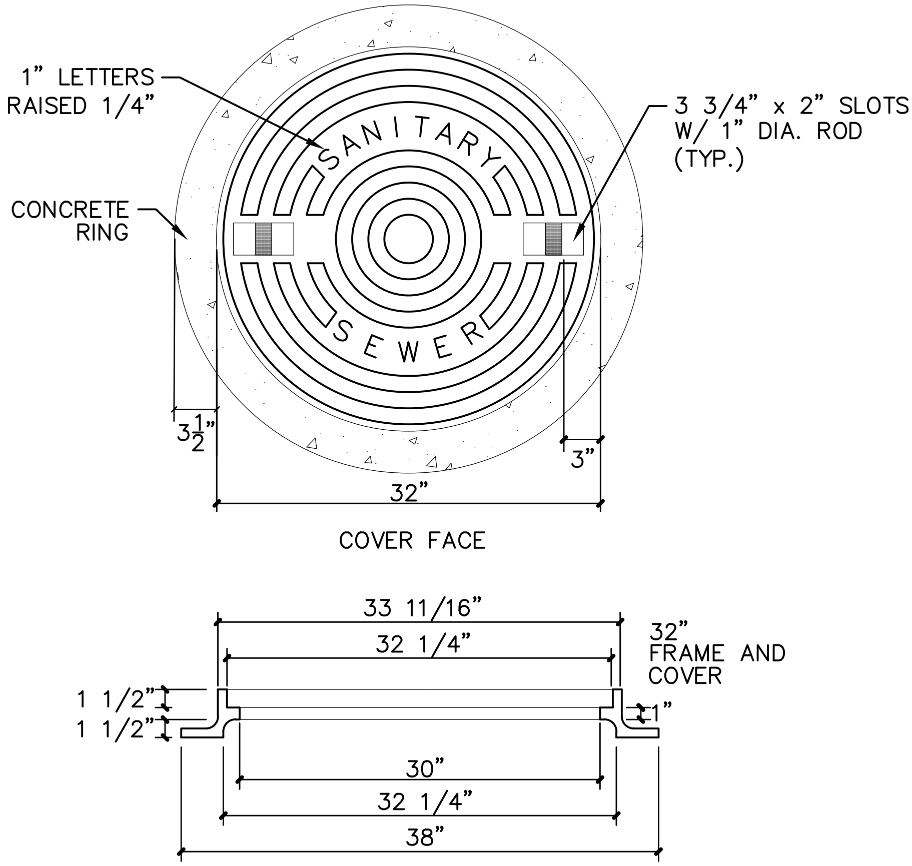
2. NO GAPS WILL BE ALLOWED IN BITUMASTIC GASKET.
3. MANHOLE OPENING SHALL BE A MINIMUM OF 30".
4. THERE SHALL BE A SMOOTH TRANSITION BETWEEN THE FRAME AND CONE OR GRADE RING, OR THE GRADE RING AND THE CONE.
5. CONCRETE EXTENSION RINGS MAY BE PRECAST OR CAST-IN-PLACE. BRICK EXTENSION RINGS WILL NOT BE ALLOWED.
6. STANDARD EXTENSIONS SHALL BE 2", 3", 4", 6", AND 12". EXTENSIONS SHALL BE SIZED TO MINIMIZE THE NUMBER REQUIRED TO RAISE THE MANHOLE. NO MORE THAN 1-2" EXTENSION WILL BE ALLOWED ON ANY MANHOLE.

DECATUR TX **City of Decatur** **Construction Standards**	EXTENSION RING INSTALLATION FRAME AND COVER PLACEMENT	**REVISED FEB 2024** WW-04

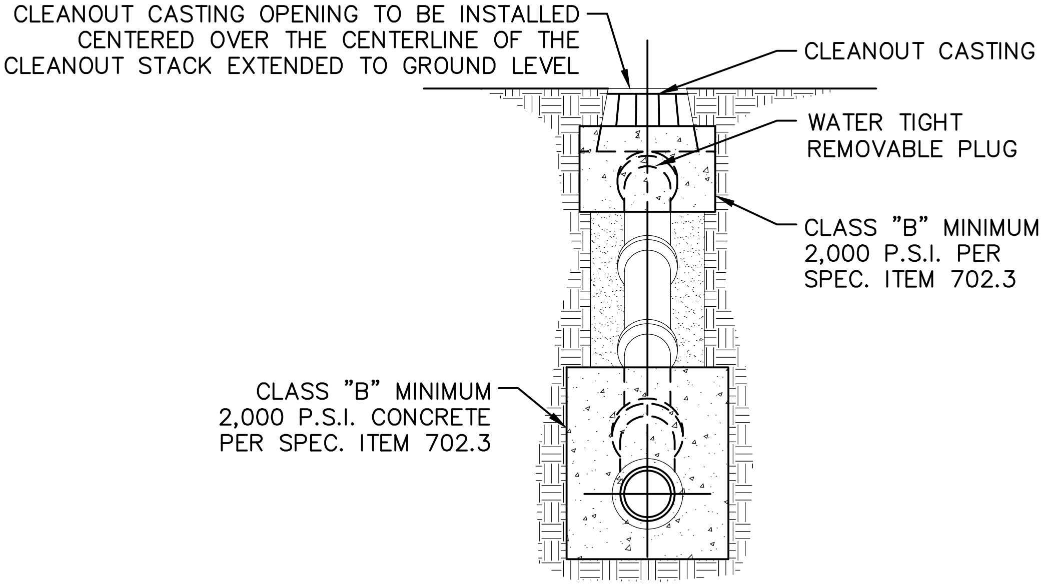


City of Decatur
Construction Standards

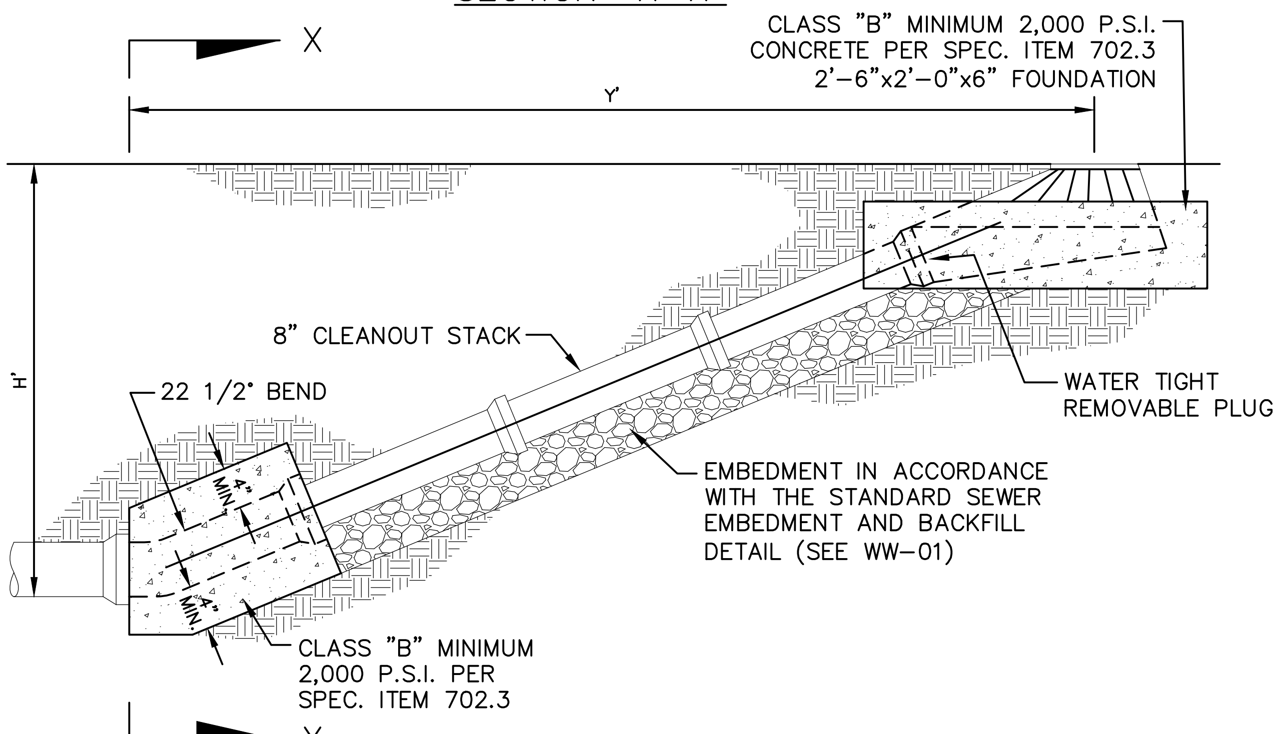
MANHOLE RING AND COVER

REVISED
FEB 2024

WW-05



SECTION "X–X"



PROFILE VIEW

H'	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	H'
Y'	10	12	14	17	19	22	24	27	29	31	34	36	39	41	43	46	48	Y'

NOTES:

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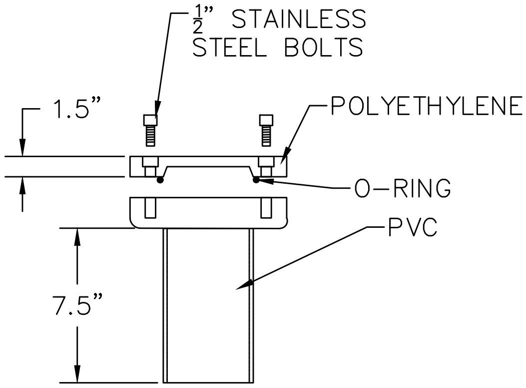
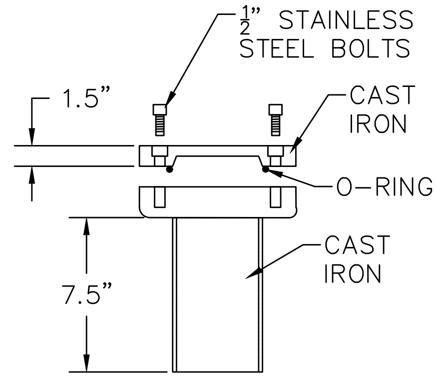
2. TO BE UTILIZED FOR TEMPORARY END OF LINE INSTALLATIONS. PERMANENT END OF LINE INSTALLATIONS REQUIRE A MANHOLE.
3. IF CLEAN OUT IS PLACE IN ADVANCE OF PLACEMENT PLACE SAND AROUND CLEANOUT CASTING IN LIEU OF CLASS "B" CONCRETE PER ITEM 702.3.

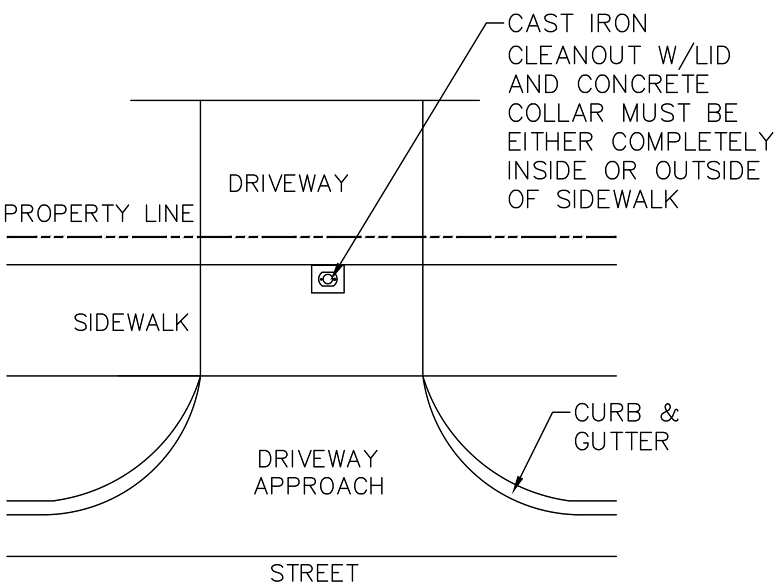
DECATUR TX **City of Decatur** **Construction Standards**	SANITARY SEWER MAIN CLEANOUT	**REVISED FEB 2024** WW-06



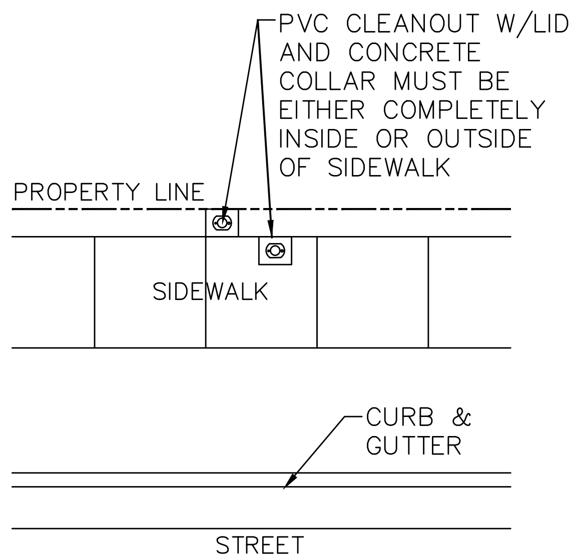
PVC CLEANOUT W/S.S. BOLTS
AND POLYETHYLENE LID
FOR UN–PAVED AREAS



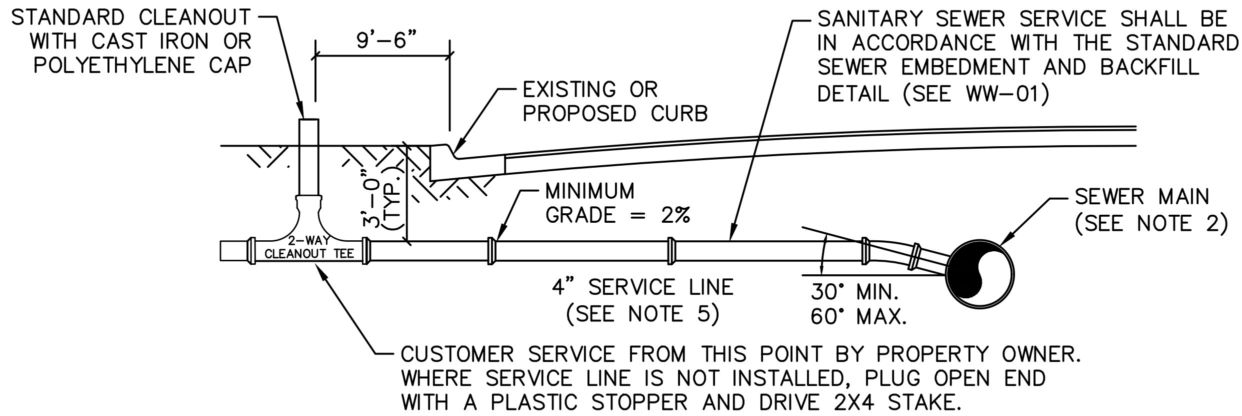
CAST IRON CLEANOUT W/S.S.
BOLTS AND C.I. LID
FOR PAVED AREAS



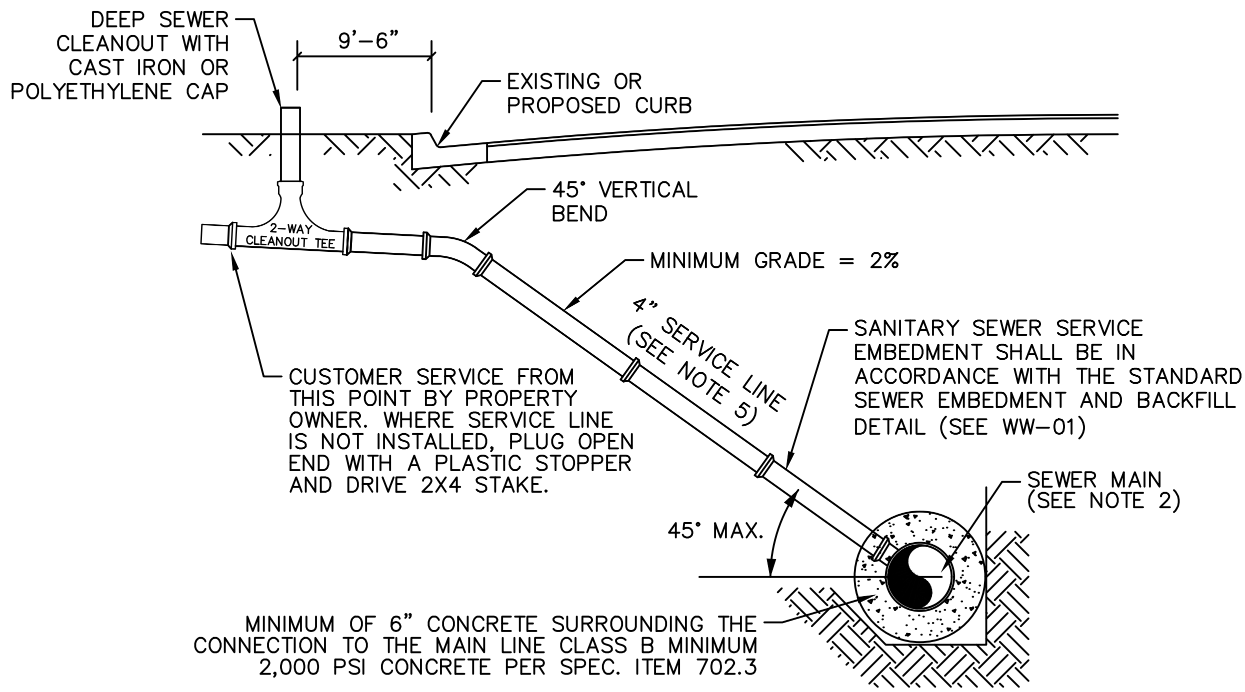
CAST IRON CLEANOUT BOOT
W/CAST IRON LID FOR PAVED
AREAS



PVC CLEANOUT BOOT
W/POLYETHYLENE LID FOR
NON–PAVED AREAS



STANDARD SEWER SERVICE DETAIL



DEEP SEWER SERVICE DETAIL

NOTES:

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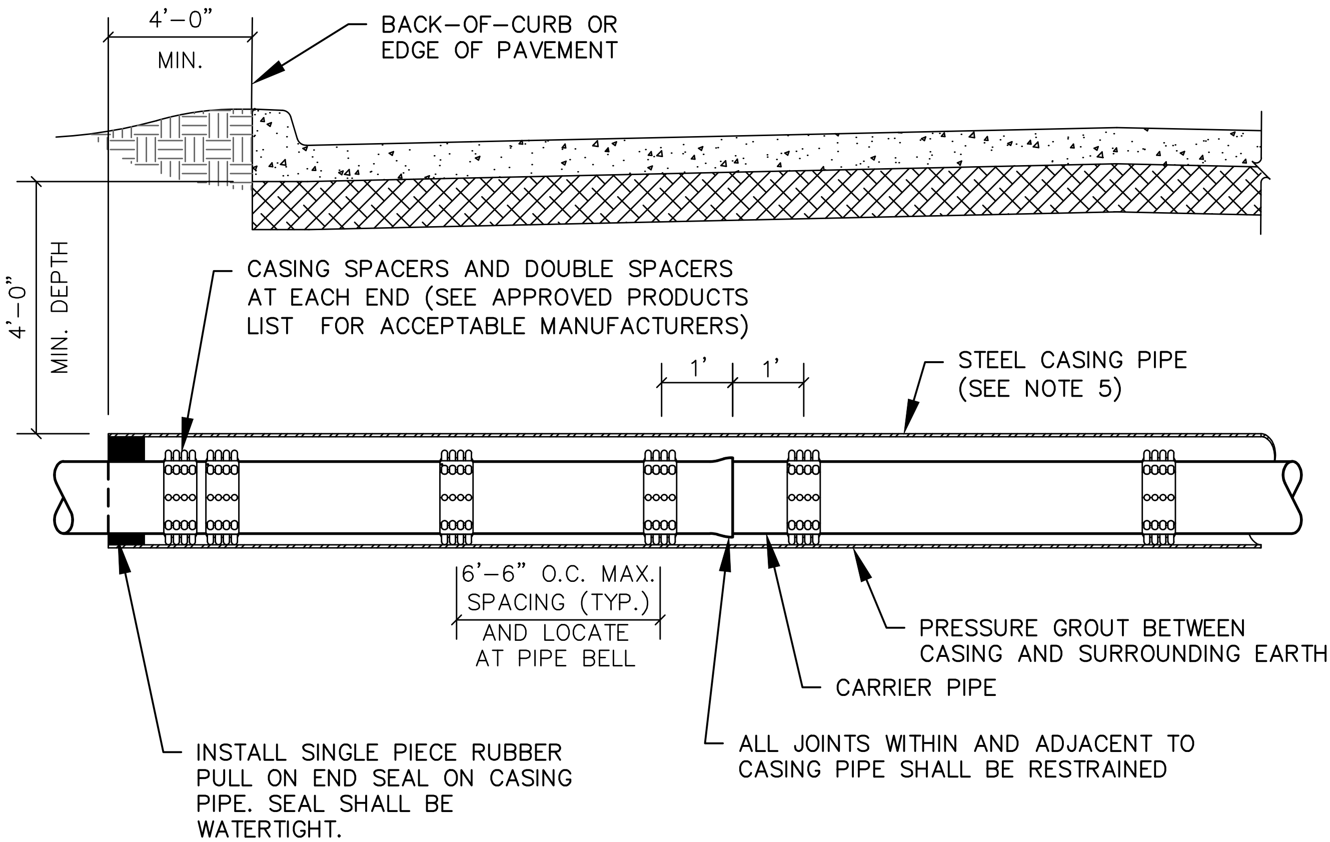
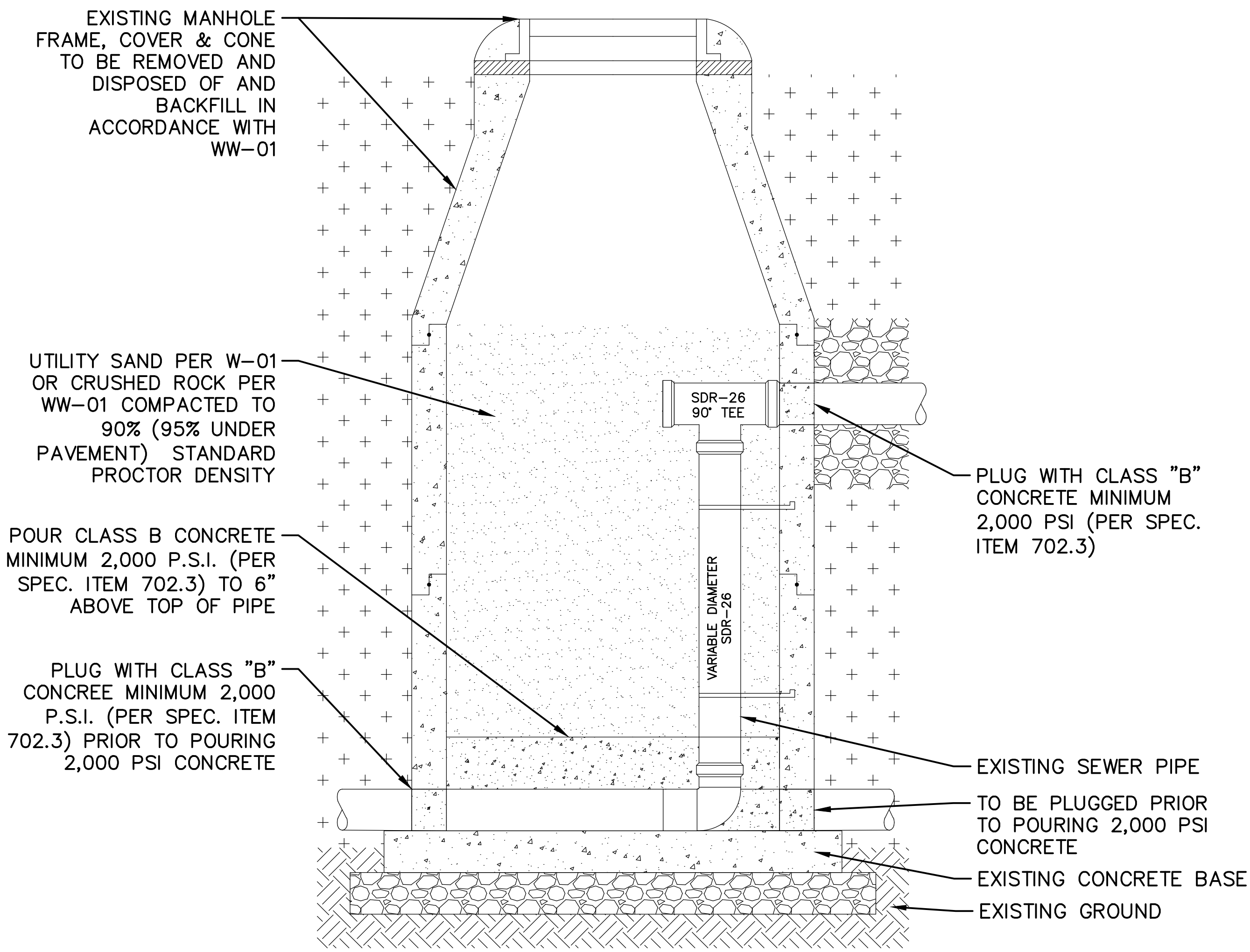
2. EITHER A WYE FITTING OR A TEE WYE FITTING MAY BE USED FOR CONNECTION TO SEWER MAIN. NO TEES OR WYE SADDLES WILL BE ALLOWED. ALL CONNECTIONS TO BE MADE AT THE TWO O'CLOCK OR TEN O'CLOCK POSITION.
3. CONNECTIONS TO SEWER MAINS FROM 0' TO 7' DEEP SHALL CONFORM TO THE STANDARD SEWER CONNECTION DETAIL. CONNECTIONS TO SEWER MAINS DEEPER THAN 7' SHALL CONFORM TO THE DEEP SEWER CONNECTION DETAILS.
4. MARK SEWER SERVICE LINE LOCATION WITH RED VINYL TAPE AT LEAST 3" WIDE AND 10 MIL THICK. ATTACH TAPE TO THE END OF THE SERVICE AND EXTEND THROUGH THE BACKFILL AT THE POINT OF THE HOUSE SERVICE CONNECTION BEHIND THE CURB.
5. A 6" SERVICE LINE IS REQUIRED FOR SERVICES OTHER THAN A SINGLE FAMILY RESIDENCE.



CASING DIAMETER	MIN. WALL THICKNESS
LESS THAN 12"	0.25"
14" – 18"	0.3125
20" – 24"	0.375"
26" – 32"	0.50"
34" – 42"	0.625"
GREATER THAN 42"	DESIGN BY ENGINEER

NOTES:

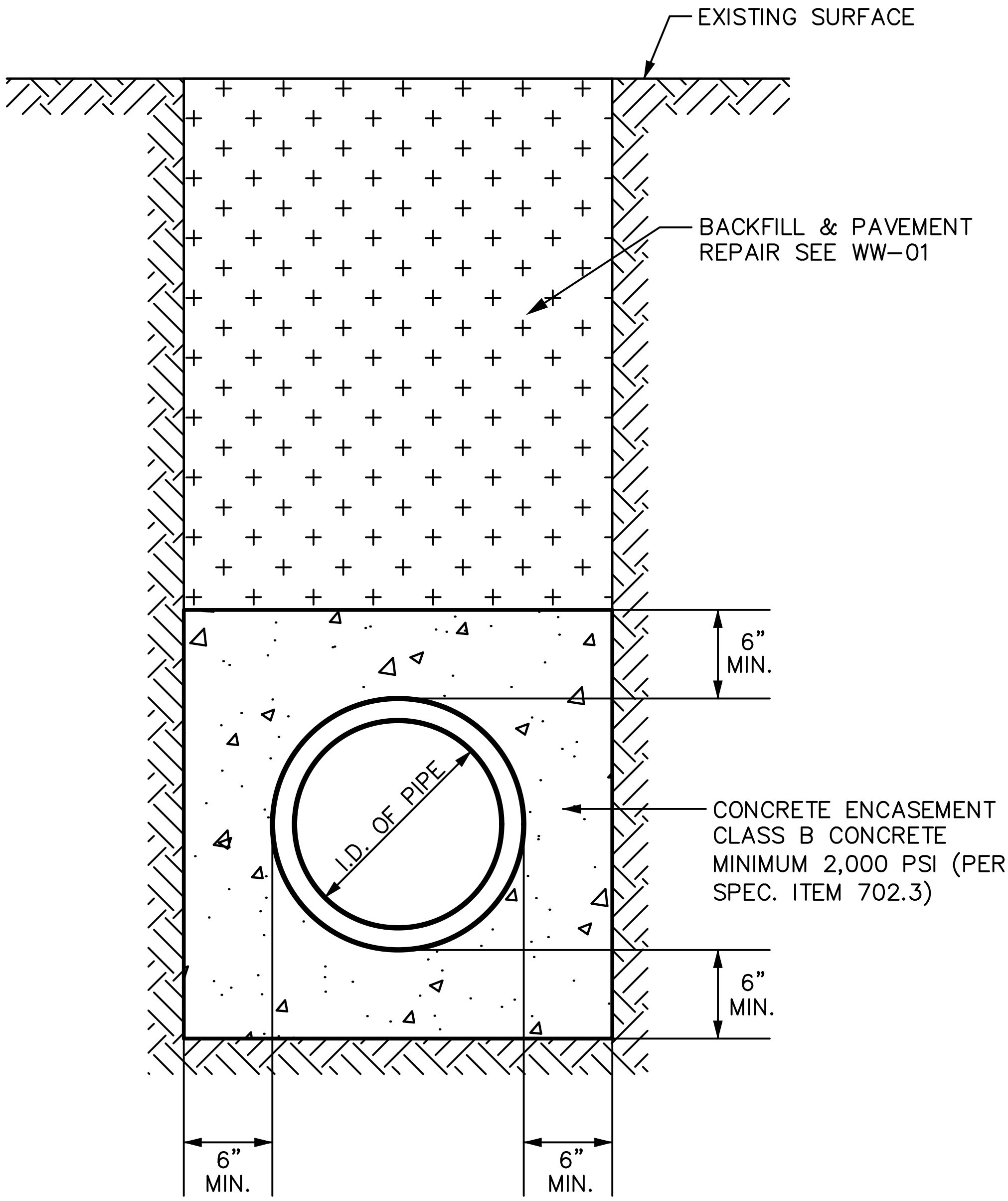
1. ALL SPEC. ITEM NUMBERS REFERENCE THE 5TH EDITION OF THE NCTCOG STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION. UTILIZE THE EQUIVALENT SECTION REFERENCE IN THE MOST CURRENT EDITION OF THE NCTCOG STANDARD SPECIFICATIONS IF THE 5TH EDITION IS NOT THE MOST CURRENT EDITION.
2. BORE PIT SHALL MEET OSHA AND STATE REQUIREMENTS.
3. WHERE A BORE IS TO BE PARTIALLY OR COMPLETELY ABANDONED, SAID BORE SHALL BE COMPLETELY FILLED WITH HYDRAULICALLY PLACED CEMENT GROUT.
4. THE EDGE OF BORE PIT SHALL BE A MINIMUM OF 4' BEHIND THE BACK OF CURB OR EDGE OF PAVEMENT.
5. STEEL CASING PIPE SHALL BE MINIMUM 35 KSI ASTM A139, GRADE B CARBON STEEL, AND SHALL HAVE A COAL–TAR EXPOXY COATING IN ACCORDANCE WITH AWWA C210.
6. CASING PIPE SHALL BE PLACED AT THE SAME SLOPE AS THE CARRIER PIPE, TO ENSURE THAT THE CARRIER PIPE IS PLACED ALONG THE SPECIFIED GRADE. IF THE PROPER SLOPE CANNOT BE MAINTAINED, THE CASING SPACERS SHALL BE ADJUSTED SO THAT THE CARRIER PIPE IS PLACED AT THE SPECIFIED GRADE.



NOTES:

1. ALL SPEC. ITEM NUMBERS REFERENCE THE 5TH EDITION OF THE NCTCOG STANDARD SPECIFICATION FOR PUBLIC WORKS CONSTRUCTION. UTILIZE THE EQUIVALENT SECTION REFERENCE IN THE MOST CURRENT EDITION OF THE NCTCOG STANDARD SPECIFICATIONS IF THE 5TH EDITION IS NOT THE MOST CURRENT EDITION.

DECATUR TX **City of Decatur** **Construction Standards**	MANHOLE ABANDONMENT	**REVISED FEB 2024** WW-10



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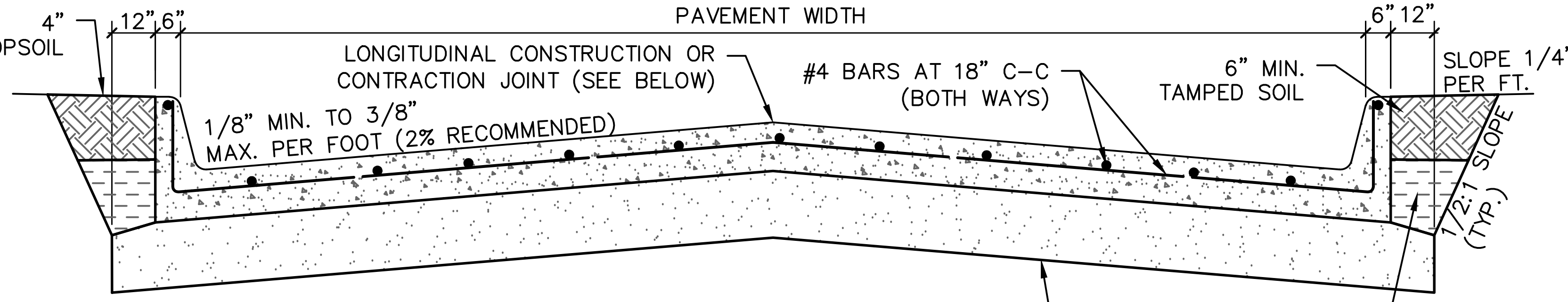
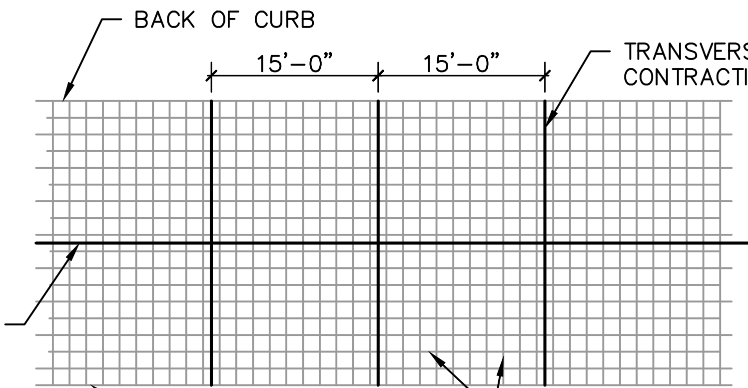


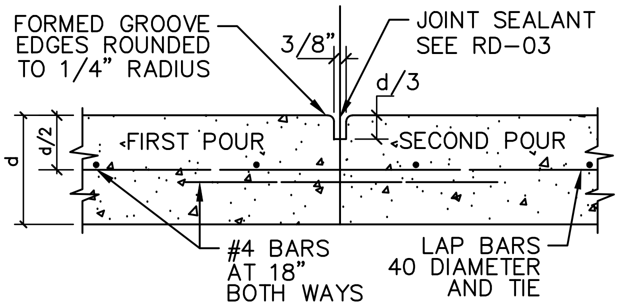
REINFORCED CONCRETE PAVEMENT



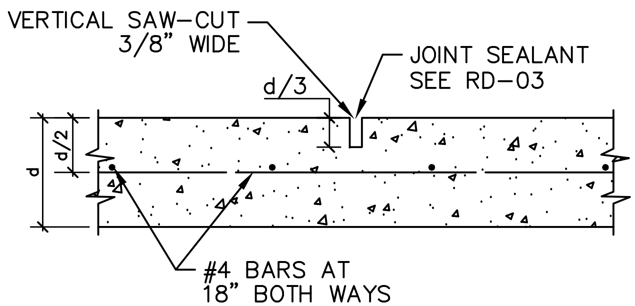
STEEL LAYOUT PLAN

NOTES:

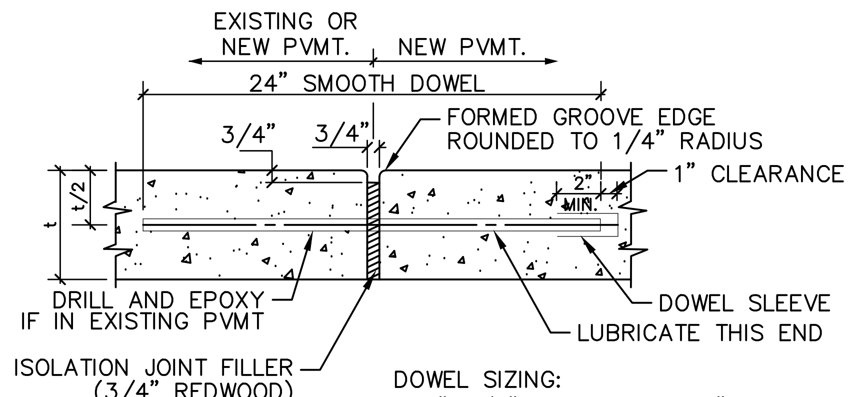
1. ALL SPEC. ITEM NUMBERS REFERENCE THE 5TH EDITION OF THE NCTCOG STANDARD SPECIFCATIONS FOR PUBLIC WORKS CONSTRUCTION. UTILIZE THE EQUIVALENT SECTION REFERENCE IN THE MOST CURRENT EDITION OF THE NCTCOG STANDARD SPECIFICATIONS IF THE 5TH EDITION IS NOT THE MOST CURRENT EDITION.
2. MINIMUM PAVEMENT DEPTH SHALL BE 8" FOR PRINCIPAL, 7" FOR ARTERIAL, AND 6" FOR COLLECTOR AND LOCAL IN ACCORDANCE WITH THE MASTER THOROUGHFARE PLAN.
3. ALL CONCRETE PAVEMENT SHALL BE CLASS "C" CONCRETE PER ITEM 303.3 OR AS SPECIFIED BY THE OWNER.
4. A GEOTECHNICAL REPORT SEALED BY A LICENSED PROFESSIONAL ENGINEER IS REQUIRED TO PROVIDE RECOMMENDATIONS FOR LIME OR CEMENT CONTENT AND SUBGRADE THICKNESS.
5. MONOLITIC CURB SHALL BE USED WITH THIS TYPE OF PAVING.



TRANSVERSE OR LONGITUDINAL
CONSTRUCTION JOINT



TRANSVERSE OR LONGITUDINAL
SAWED CONSTRUCTION JOINT

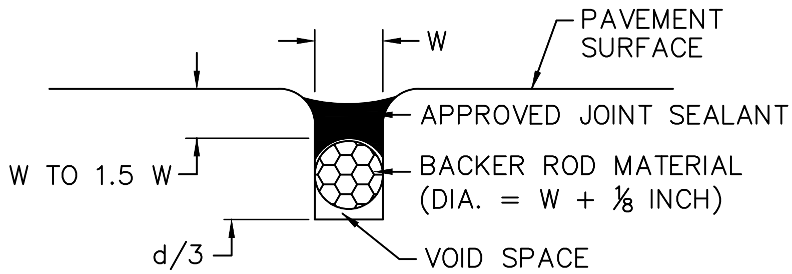


DOWEL SIZING:
t=6" 3/4" DIAMETER @ 18" CENTERS
t=7" 1" DIAMETER @ 18" CENTERS
t=8" 1-1/4" DIAMETER @ 18" CENTERS

EXPANSION JOINT

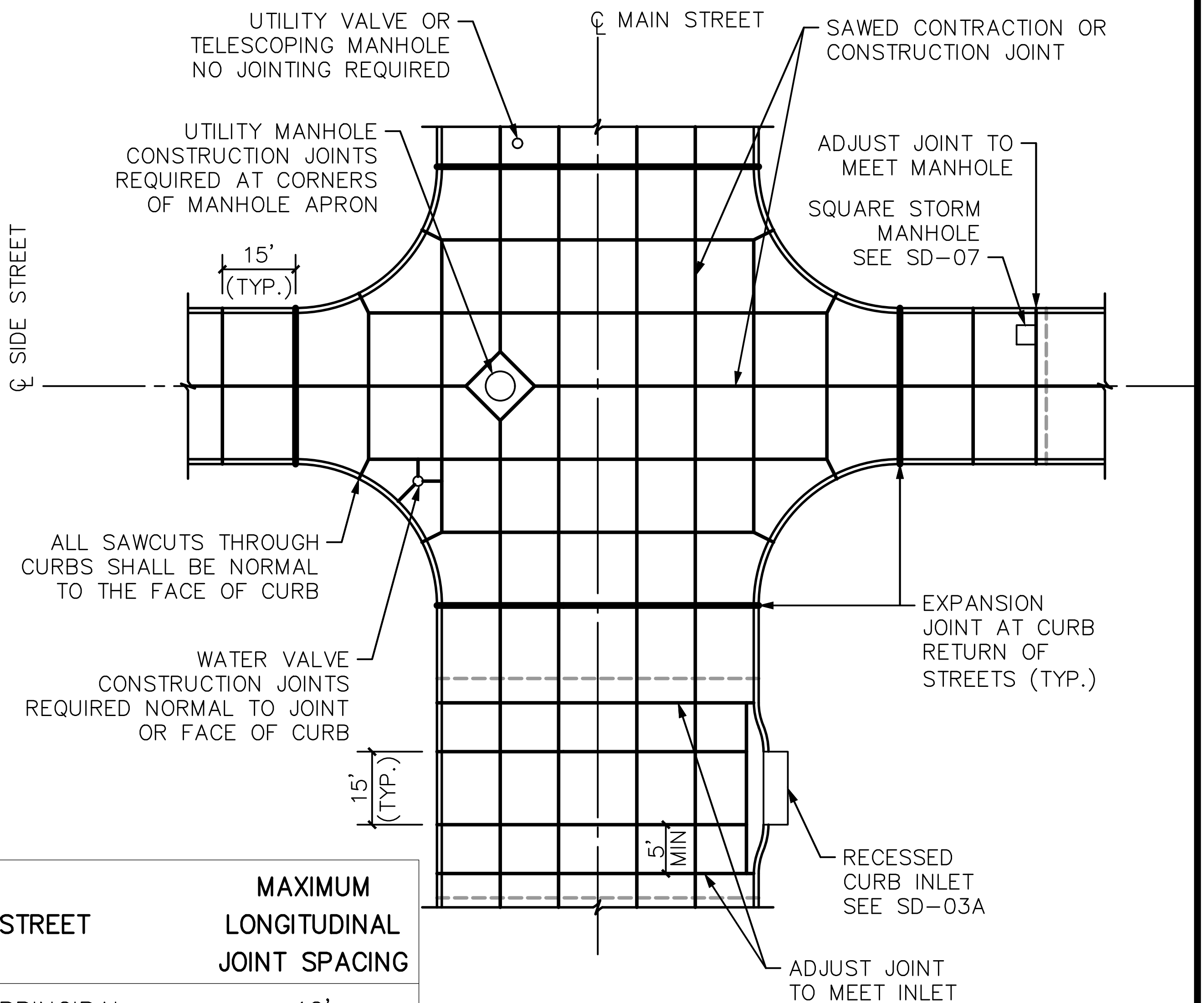
NOTES:

1. ALL SPEC. ITEM NUMBERS REFERENCE THE 5TH EDITION OF THE NCTCOG STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION. UTILIZE THE EQUIVALENT SECTION REFERENCE IN THE MOST CURRENT EDITION OF THE NCTCOG STANDARD SPECIFICATIONS IF THE 5TH EDITION IS NOT THE MOST CURRENT EDITION.
2. ALL ISOLATION JOINTS SHALL EXTEND THROUGH THE CURB SECTION.
3. THE SAW-CUT OF ALL TRANSVERSE CONTRACTION JOINTS SHALL EXTEND THROUGH THE CURB SECTION.
4. AT ALL TRANSVERSE CONSTRUCTION JOINTS THE CURB SECTION SHALL BE SAW-CUT.
5. APPROVED DOWEL SUPPORT BASKET SHALL BE PROVIDED TO ENSURE SPECIFIED DEPTH AND ORIENTATION FOR EXPANSION JOINTS.
6. EXPANSION JOINTS SHALL BE SPACED AT 600' MAX.



NOTES:
1. d = THICKNESS OF PAVEMENT
2. METHODS AND MATERIALS FOR JOINT CLEANING AND SEALING TO FOLLOW TXDOT ITEM SPECIFICATION 713.
3. TXDOT CLASS 8 JOINT SEALANT TO BE USED PER TXDOT DMS-6310.

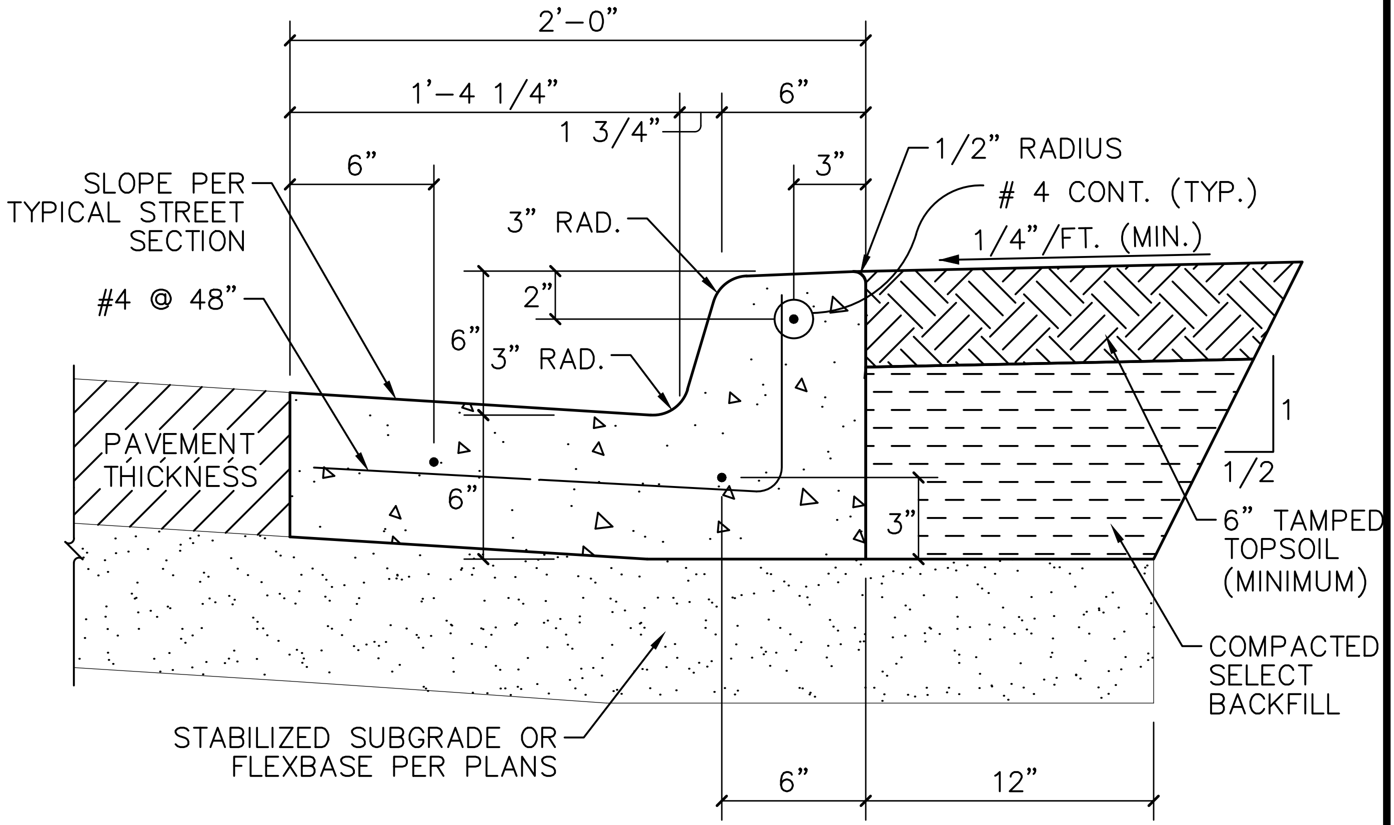
SILICONE JOINT SEALANT (COLD POUR)



STREET	MAXIMUM LONGITUDINAL JOINT SPACING
PRINCIPAL	12'
ARTERIAL	13'
COLLECTOR/LOCAL	15'

NOTES:

1. ALL SPEC. ITEM NUMBERS REFERENCE THE 5TH EDITION OF THE NCTCOG STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION. UTILIZE THE EQUIVALENT SECTION REFERENCE IN THE MOST CURRENT EDITION OF THE NCTCOG STANDARD SPECIFICATIONS IF THE 5TH EDITION IS NOT THE MOST CURRENT EDITION.
2. REFER TO RD-01 AND NCTCOG ITEM 303.3 FOR CONCRETE PAVEMENT.
3. MAXIMUM TRANSVERSE JOINT SPACING IS 15'.
4. LONGITUDINAL JOINT SPACING SHALL MATCH LANE LINES UNLESS NOTED OTHERWISE.
5. ALL PAVEMENT JOINTS SHALL BE SEALED IN ACCORDANCE WITH RD-03.
6. MINIMUM 5' JOINT SPACING.



NOTES:

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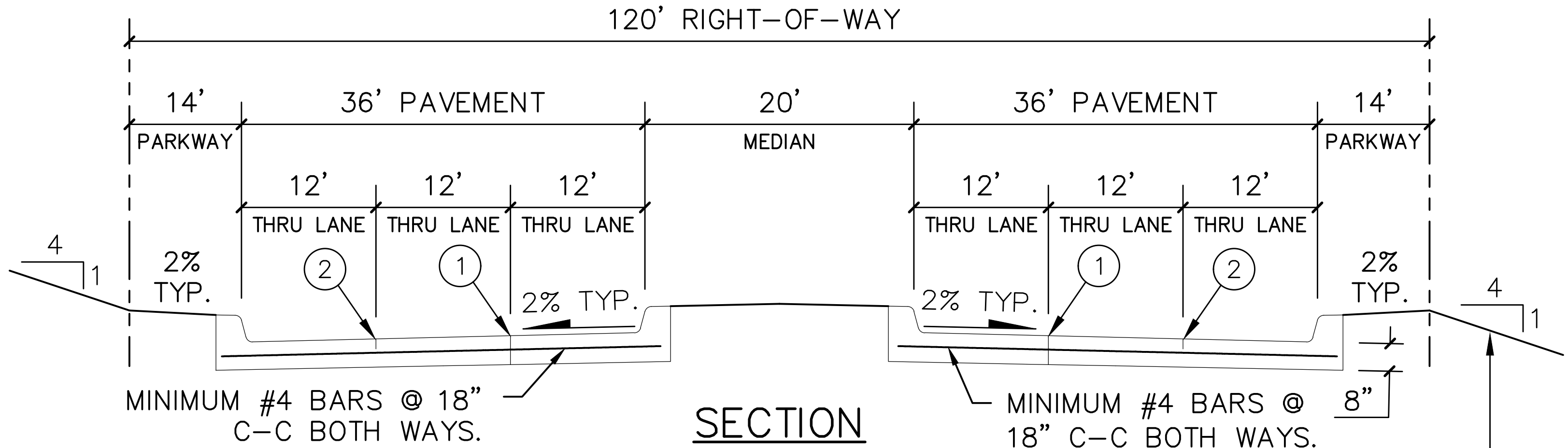
2. ROCKS GREATER THAN 4" IN DIAMETER SHALL BE REMOVED FROM ANY NATIVE MATERIAL USED AS BACKFILL.

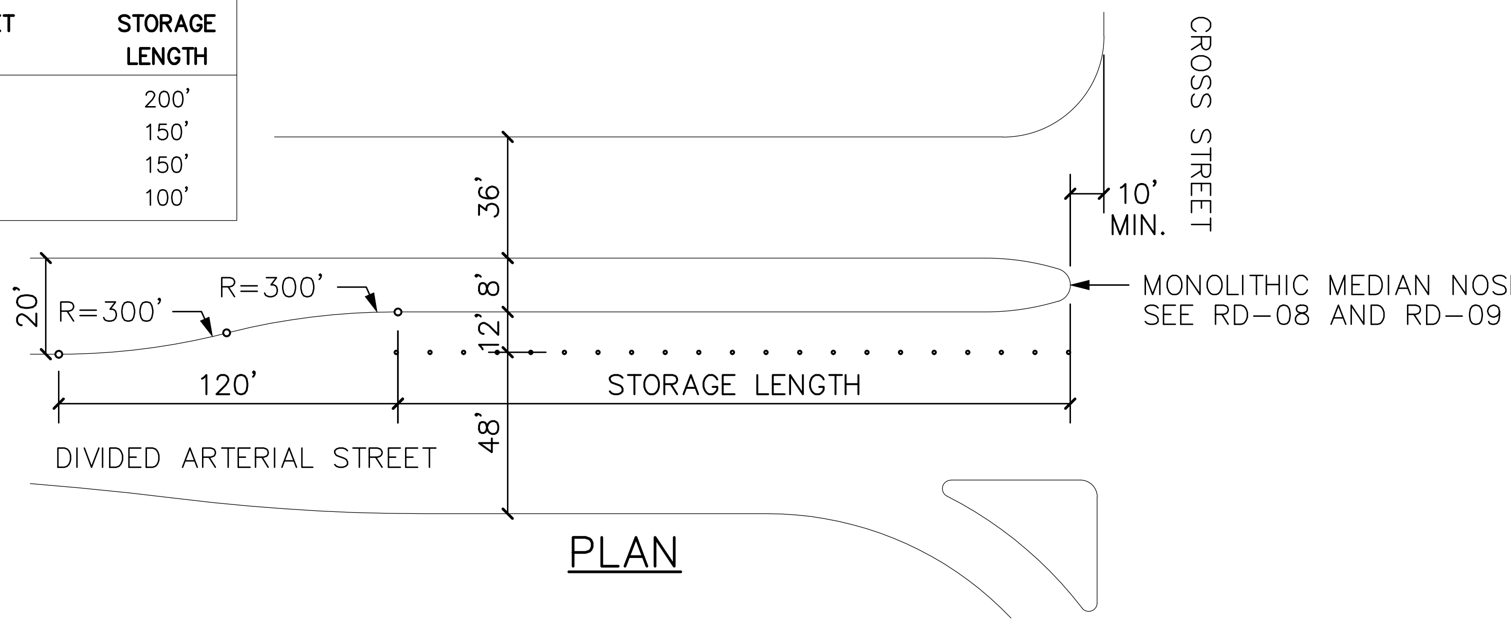
DECATUR TX	**City of Decatur** **Construction Standards**	STANDARD 6-INCH CURB AND 18-INCH GUTTER	**REVISED FEB 2024** RD-05



SECTION

① LONGITUDINAL CONSTRUCTION JOINT
② LONGITUDINAL SAWED CONTRACTION JOINT

CROSS STREET	MINIMUM STORAGE LENGTH
PRINCIPAL	200'
ARTERIAL	150'
COLLECTOR	150'
LOCAL	100'



PLAN

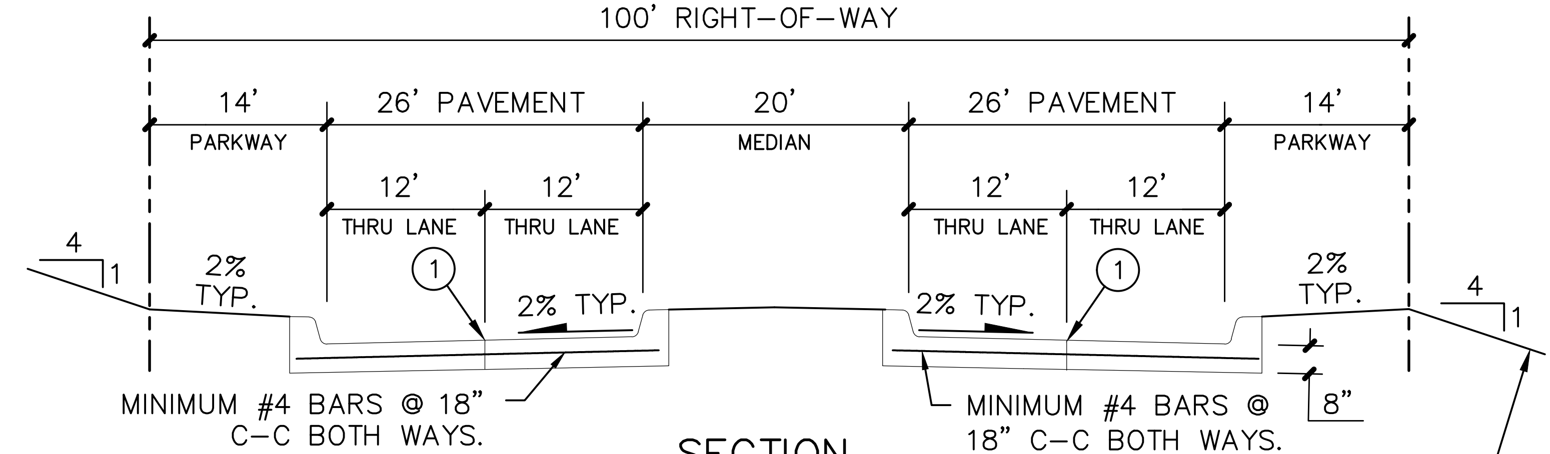
NOTES:
1. ALL SPEC. ITEM NUMBERS REFERENCE THE 5TH EDITION OF THE NCTCOG STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION. UTILIZE THE EQUIVALENT SECTION REFERENCE IN THE MOST CURRENT EDITION OF THE NCTCOG STANDARD SPECIFICATIONS IF THE 5TH EDITION IS NOT THE MOST CURRENT EDITION.
2. REFER TO RD-01 AND NCTCOG ITEM 303.3 FOR CONCRETE PAVEMENT.
3. MIN. CURB HEIGHT AND WIDTH SHALL BE 6" OR AS SPECIFIED BY OWNER.

DECATUR TX
City of Decatur
Construction Standards

REINFORCED CONCRETE PAVEMENT
SIX LANE DIVIDED THOROUGHFARE

REVISED FEB 2024

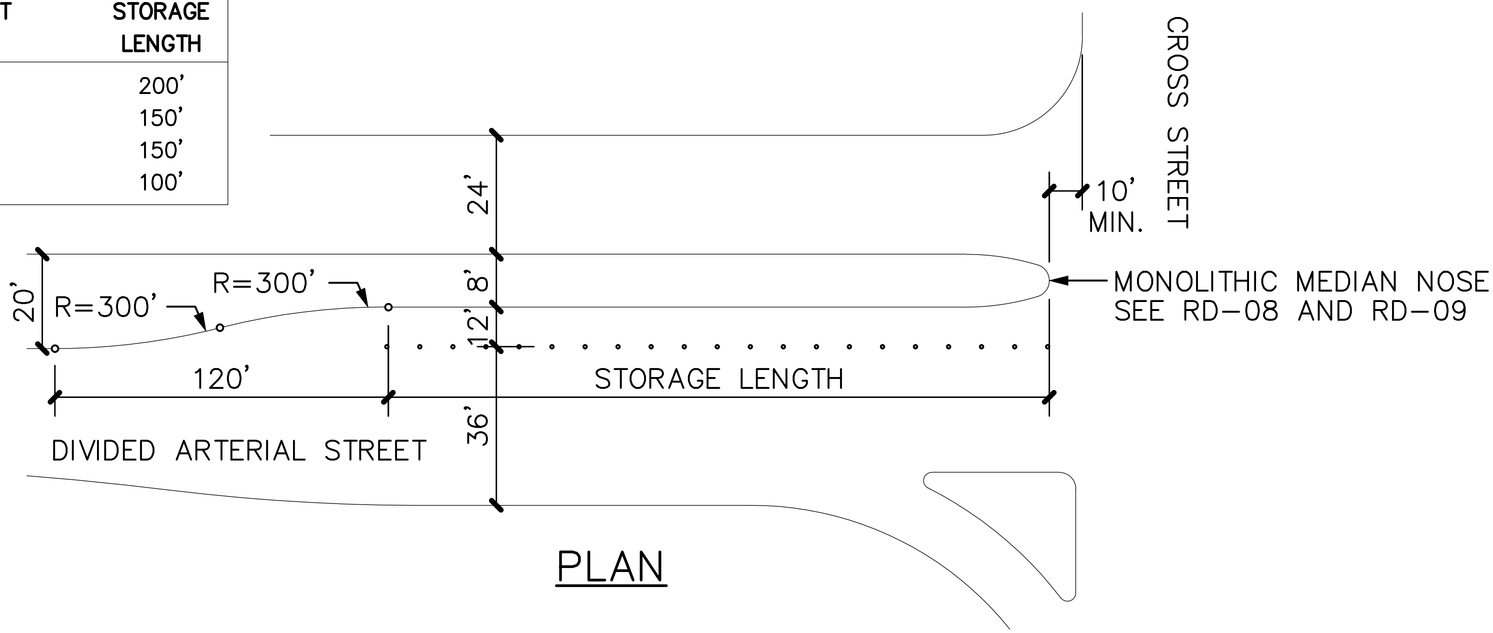
RD-06



SECTION

1 LONGITUDINAL CONSTRUCTION JOINT

CROSS STREET	MINIMUM STORAGE LENGTH
PRINCIPAL	200'
ARTERIAL	150'
COLLECTOR	150'
LOCAL	100'



PLAN

NOTES:

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2. REFER TO RD-01 AND NCTCOG ITEM 303.3 FOR CONCRETE PAVEMENT.
3. MIN. CURB HEIGHT AND WIDTH SHALL BE 6" OR AS SPECIFIED BY OWNER.

DECATUR TX

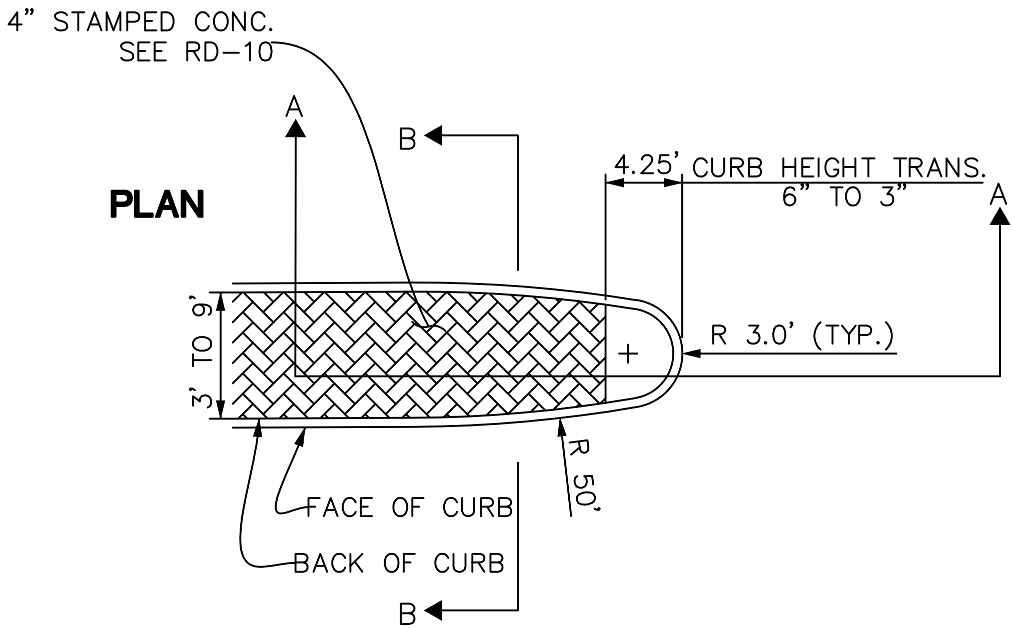
City of Decatur
Construction Standards

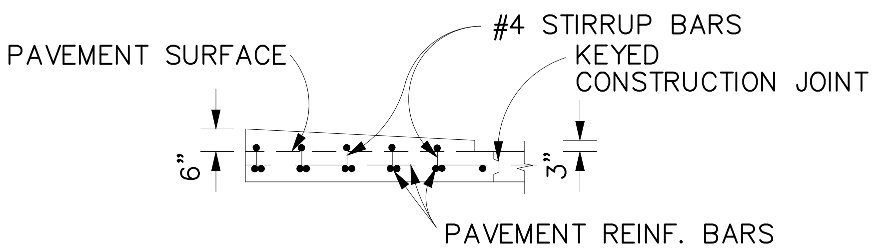
REINFORCED CONCRETE PAVEMENT
FOUR LANE DIVIDED
THOROUGHFARE

REVISED FEB 2024

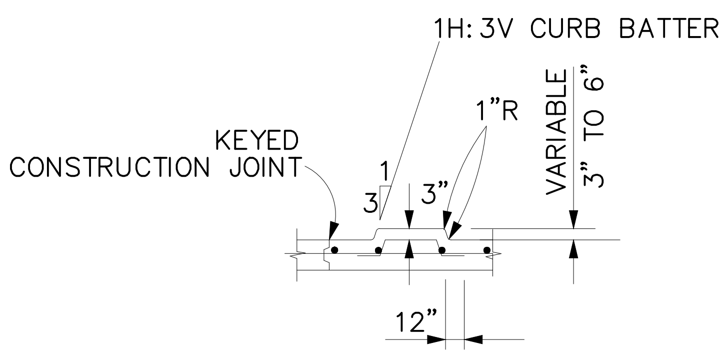
RD-07

PLAN





SECTION A–A



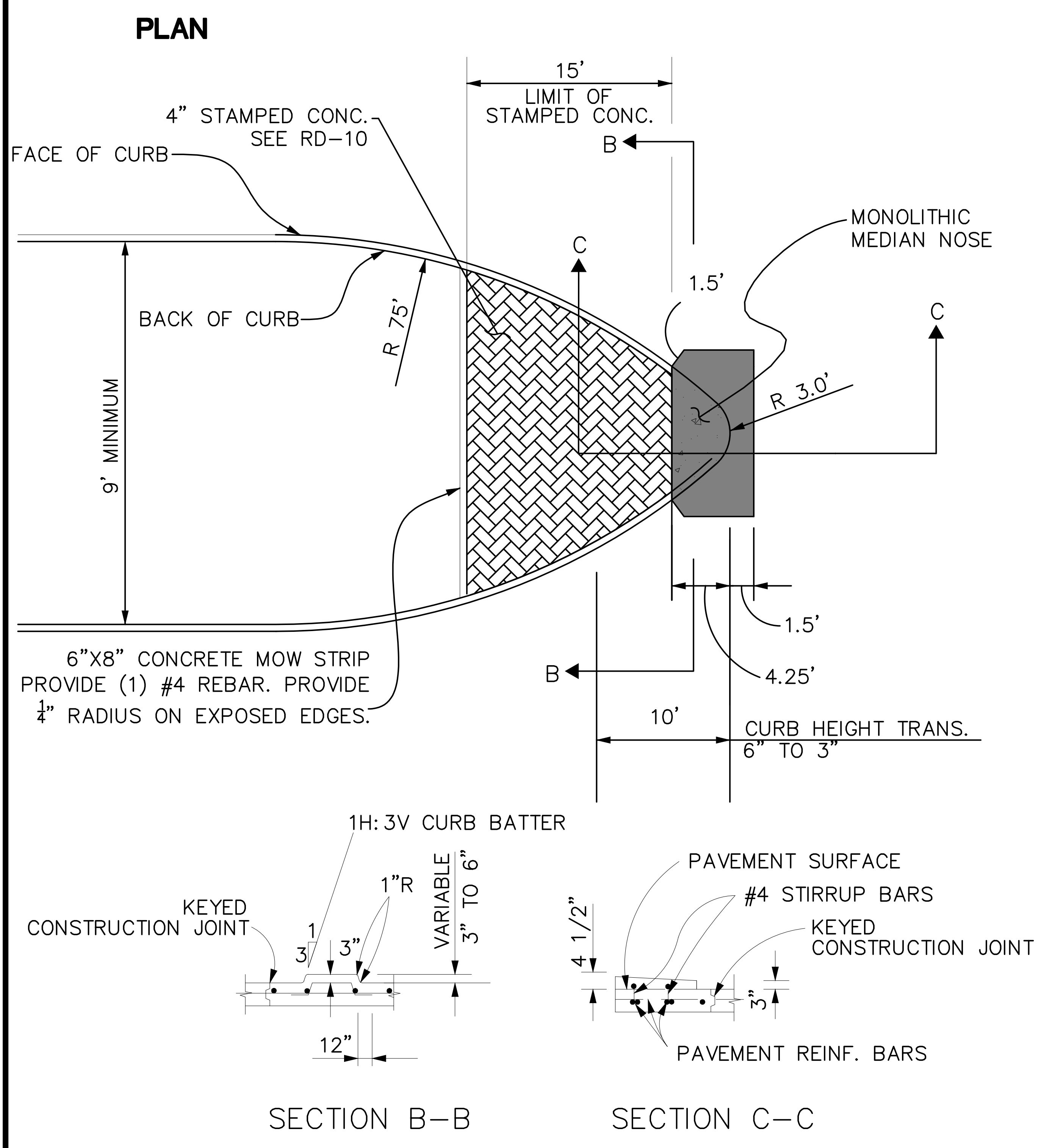
SECTION B–B

City of Decatur
Construction Standards

MONOLITHIC MEDIAN NOSE TYPE 1

REVISED
FEB 2024

RD-08

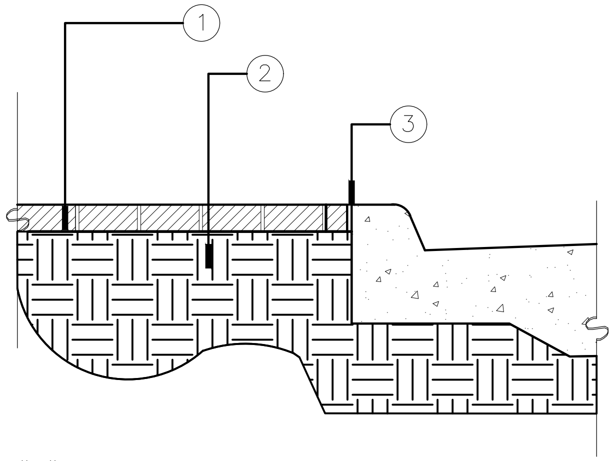


City of Decatur
Construction Standards

MONOLITHIC MEDIAN NOSE TYPE 2

REVISED
FEB 2024

RD-09



(1) 4" CLASS "A" CONCRETE PAVEMENT REINFORCED WITH #4 BARS @ 18" SPACING

(2) IN SITU MATERIAL COMPACTED TO 95% PROCTOR DENSITY

(3) EXPANSION JOINT (SEE RD-02) WITH JOINT SEALER (SEE RD-03)

COLORED TEXTURED CONCRETE

PLACE COLORED TEXTURED CONCRETE USING STAMPS.

PATTERN ONLY THE CONCRETE ISLANDS, REFERENCE THIS SHEET AND CITY OF DECATUR STANDARD MONOLITHIC MEDIAN NOSE DETAIL. DIMENSIONS SHOWN ARE NOMINAL. BASE ACTUAL DIMENSIONS ON TEXTURE MODULES.

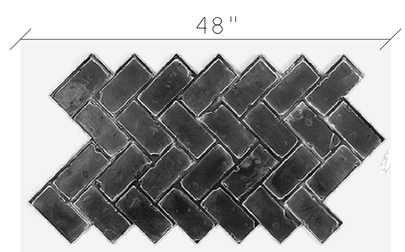
TEXTURED SURFACES SHALL HAVE AN ANTIQUE FINISH ATTAINED BY APPLICATION OF CONCRETE COLORS OF TEXAS LLC INTEGRAL COLOR AND ANTIQUING RELEASE*.

BASE COLOR SHALL BE ATTAINED WITH CONCRETE COLORS OF TEXAS LLC INTEGRAL COLOR, SEE DETAIL FOR COLOR. ANTIQUE BY APPLYING ANTIQUING RELEASE, SEE DETAIL FOR COLOR.
SEAL ALL COLORED TEXTURED CONCRETE WITH A CLEAR SEALER APPROVED BY THE COLOR HARDENER MANUFACTURER.

- FOR CONTRACTORS INFORMATION ONLY.
* OR APPROVED EQUAL.

INTEGRAL COLORED AND TEXTURED CONCRETE MOUNTABLE CURB STAMP TOOL

Scofield LITHOTEX Pavecrafters Skins
Used Brick Herringbone Pattern - 2570*
- For contractors information only.
* Or approved equal.



INTEGRAL COLORED AND TEXTURED COLOR PALETTE

SPLITTER ISLANDS AT ROUNDABOUT
CONCRETE COLORS OF TEXAS LLC INTEGRAL COLOR*: 201 - 1 DOESKIN
CONCRETE COLORS OF TEXAS LLC ANTIQUING RELEASE*: 108 - B PORTEBELLO
SCOFIELD CURESEAL-W SEMIGLOSS*

TUCK APRON
HELIX COLOR SYSTEMS*: DECATUR RED
RELEASE: N/A
SCOFIELD CURESEAL-W SEMIGLOSS*

OTHER SPLITTER ISLANDS
HELIX COLOR SYSTEMS*: DECATUR RED
RELEASE*: BASALT GRAY RL
SCOFIELD CURESEAL-W SEMIGLOSS*

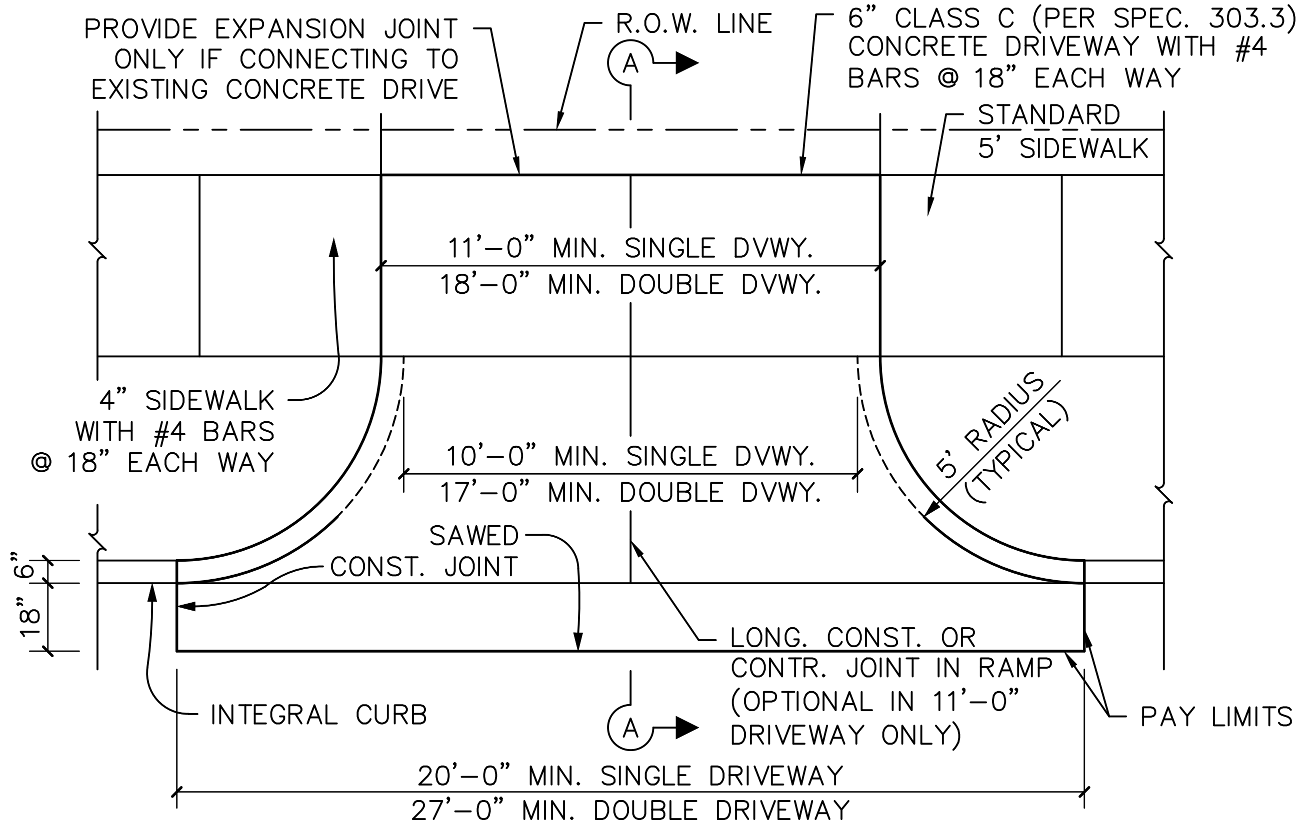
- FOR CONTRACTORS INFORMATION ONLY.
* OR APPROVED EQUAL.

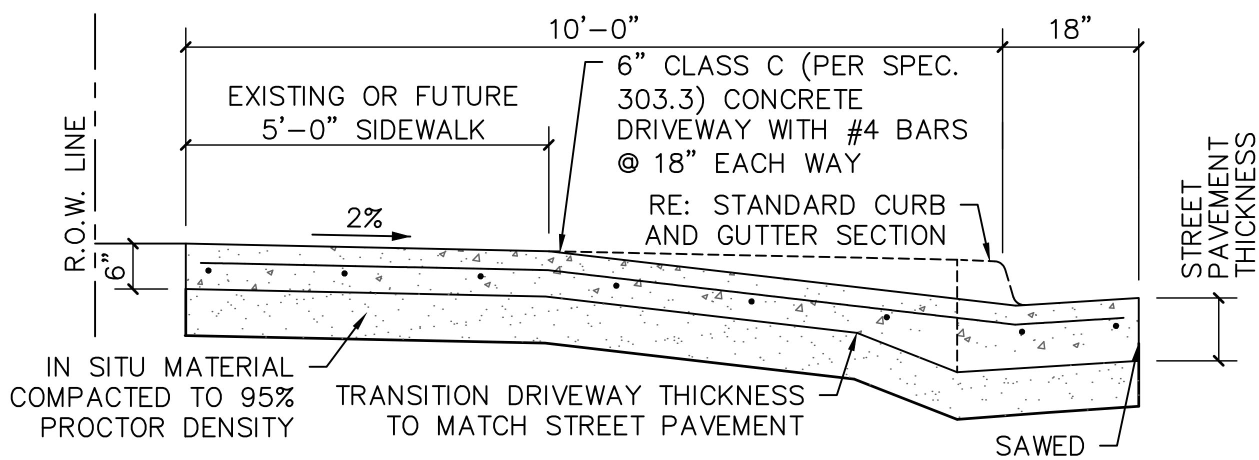
DECATUR TX
City of Decatur
Construction Standards

STAMPED CONCRETE

REVISED FEB 2024

RD-10





SECTION A–A

NOTES:

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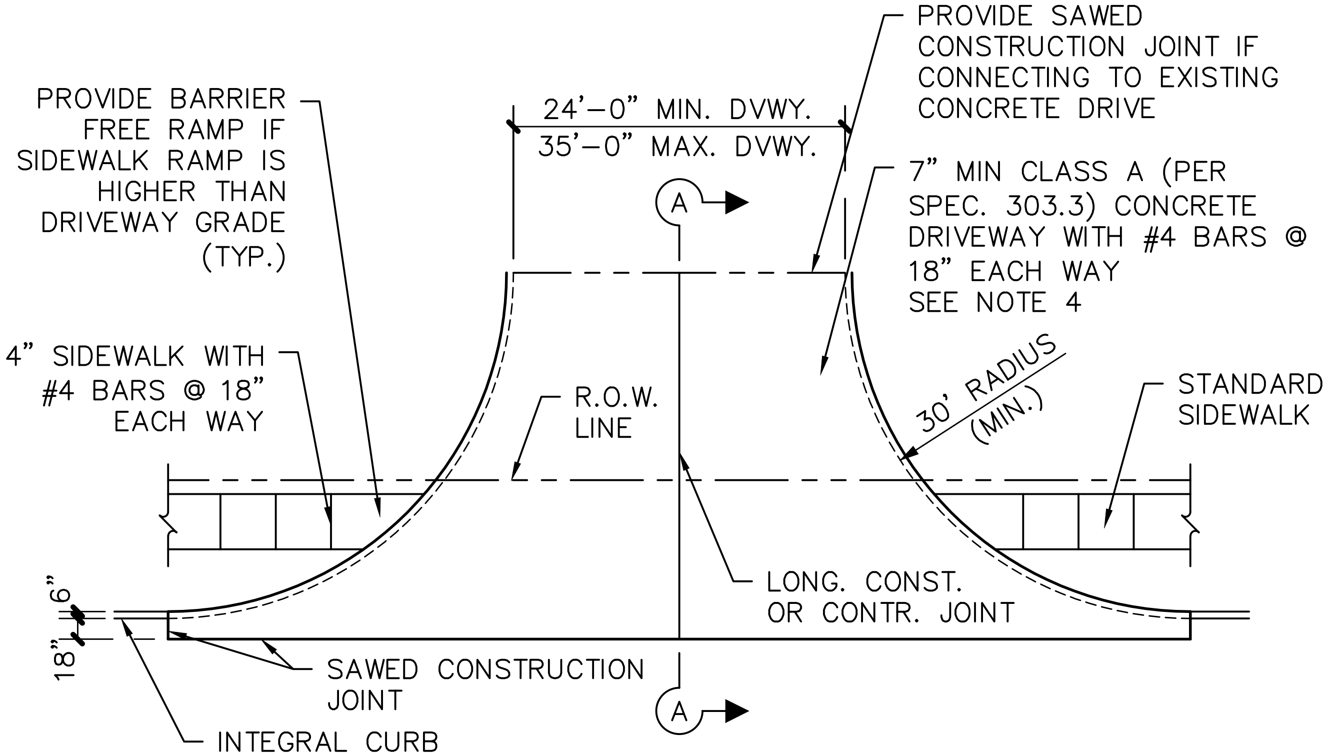
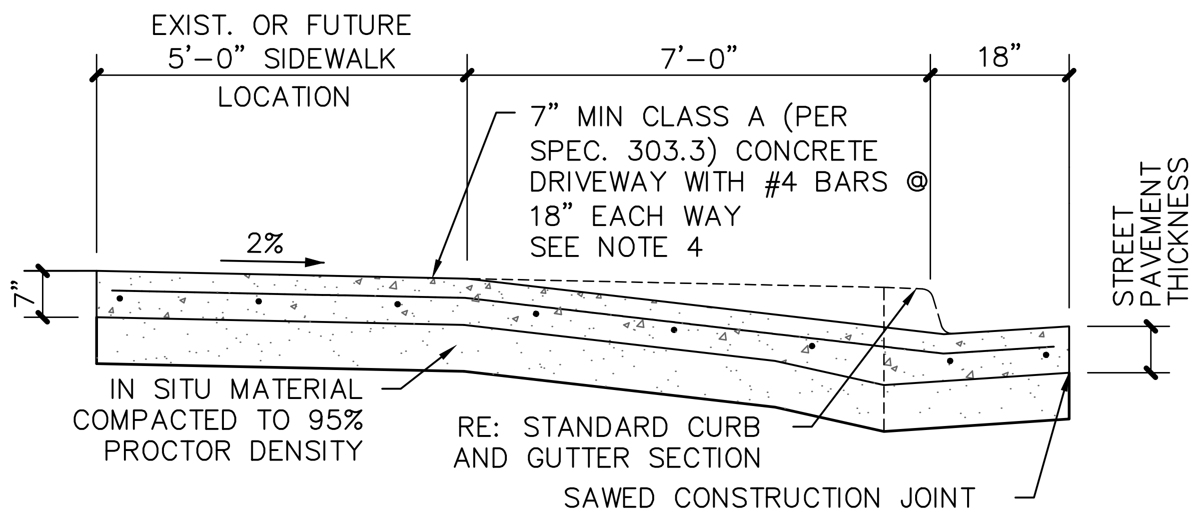
2. SIDEWALK SECTION THROUGH DRIVEWAY SHALL BE POURED SAME THICKNESS AS DRIVEWAY APPROACH (EXISTING SIDEWALK, IF ANY, SHALL BE REMOVED AND REPLACED).
3. EXISTING CURB AND GUTTER SHALL BE VERTICALLY SAWCUT. HORIZONTAL SAWCUTTING OF CURB NOT ALLOWED.





SECTION A–A

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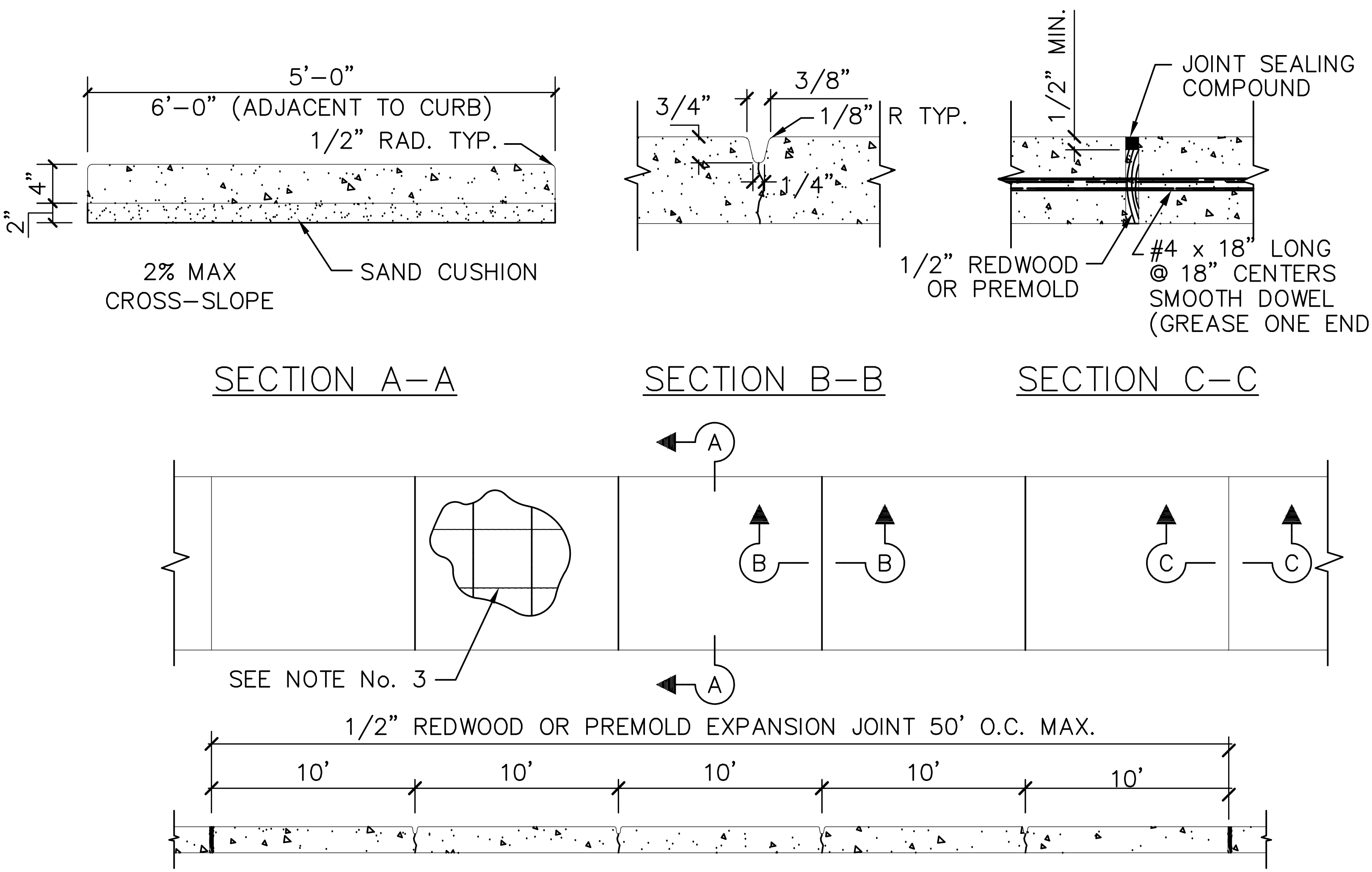
2. EXISTING CURB AND GUTTER SHALL BE VERTICALLY SAWCUT. HORIZONTAL SAWCUTTING OF CURB NOT ALLOWED
3. SIDEWALK SECTION THROUGH DRIVEWAY SHALL BE POURED SAME THICKNESS AS DRIVEWAY APPROACH (EXISTING SIDEWALK, IF ANY, SHALL BE REMOVED AND REPLACED).
4. MATCH EXISTING DRIVEWAY THICKNESS OR AS DICTATED BY GEOTECHNICAL REPORT.



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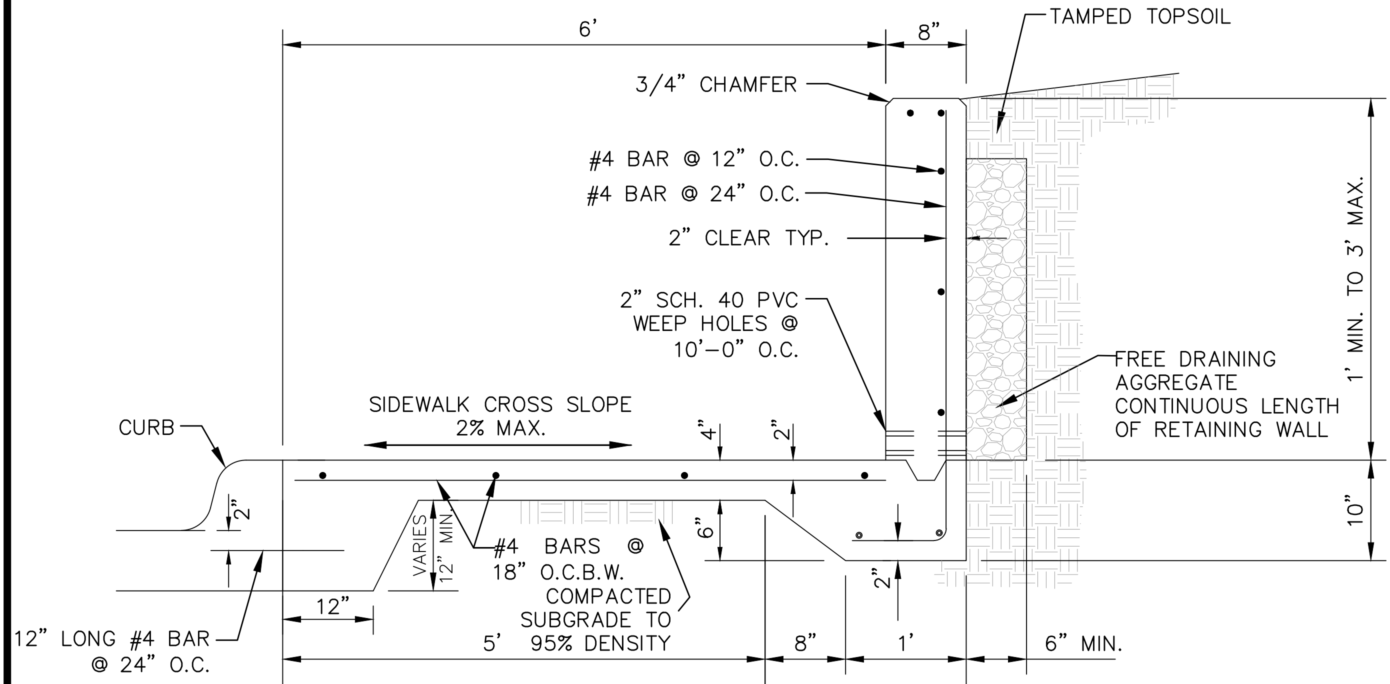
2. CONCRETE SHALL BE CLASS "A", 3000 PSI PER SPEC. ITEM 303.3.
3. REINFORCEMENT SHALL BE #4 BARS @ 18" EACH WAY.
4. PROVIDE EXPANSION JOINTS ALSO WHEN CONNECTING TO EXISTING SIDEWALKS, DRIVEWAYS, CURBS, AND GUTTER.

City of Decatur
Construction Standards

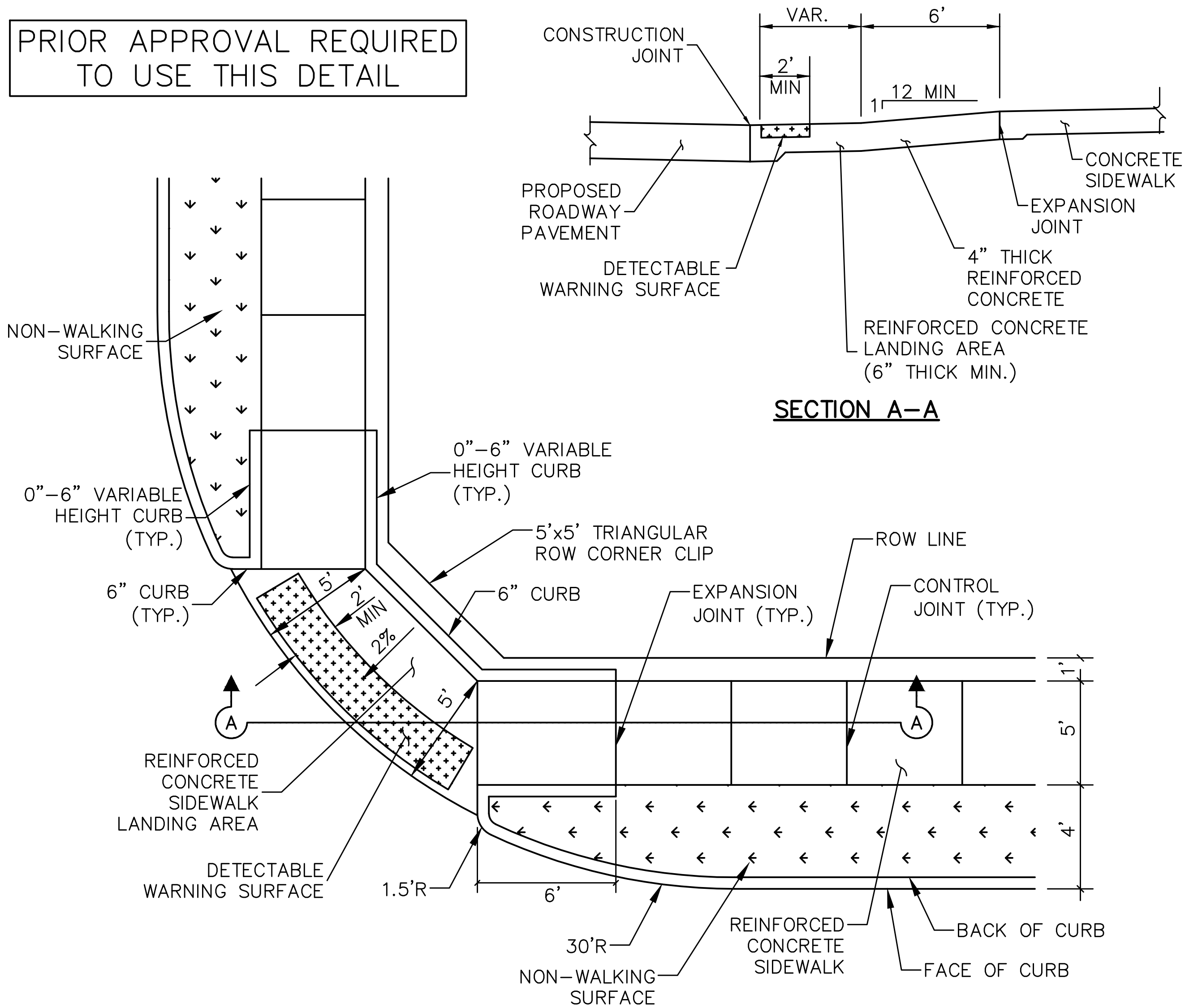
CONCRETE SIDEWALK

REVISED FEB 2024

RD-13


6'
8"
TAMPED TOPSOIL
3/4" CHAMFER
#4 BAR @ 12" O.C.
#4 BAR @ 24" O.C.
2" CLEAR TYP.
2" SCH. 40 PVC
WEEP HOLES @
10'-0" O.C.
1' MIN. TO 3' MAX.
FREE DRAINING
AGGREGATE
CONTINUOUS LENGTH
OF RETAINING WALL
SIDEWALK CROSS SLOPE
2% MAX.
CURB
4"
2"
2"
VARIES
12" MIN
#4 BARS @
18" O.C.B.W.
6"
10"
2"
COMPACTED
SUBGRADE TO
95% DENSITY
12"
12" LONG #4 BAR
@ 24" O.C.
5'
8"
1'
6" MIN.

PRIOR APPROVAL REQUIRED
TO USE THIS DETAIL



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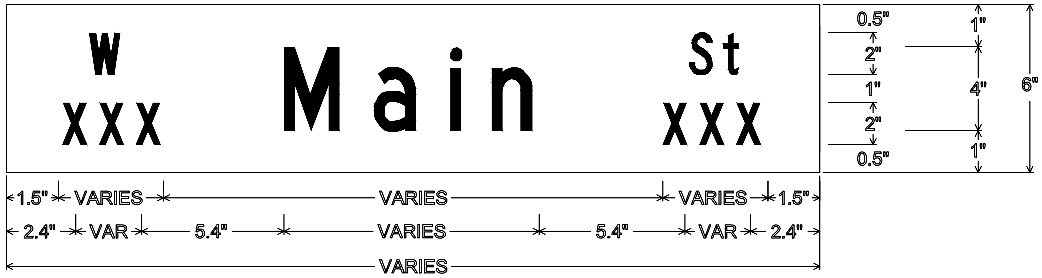
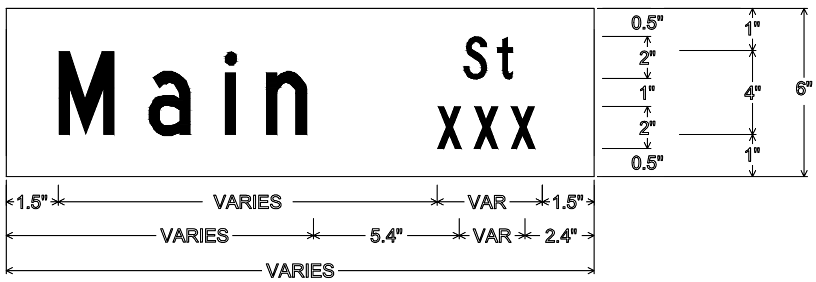
2. CURB RAMPS MUST CONTAIN A DETECTABLE WARNING SURFACE THAT CONSISTS OF RAISED TRUNCATED DOMES COMPLYING WITH SECTION 705 OF THE TAS.

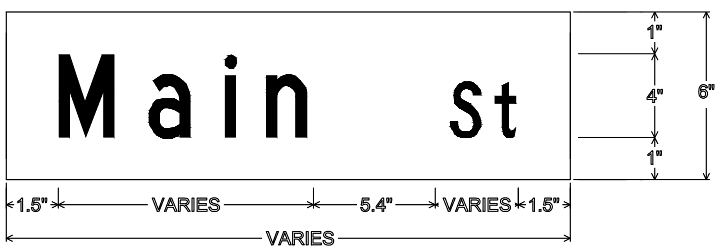
DECATUR TX **City of Decatur** **Construction Standards**	BARRIER FREE RAMP	**REVISED FEB 2024** RD-15



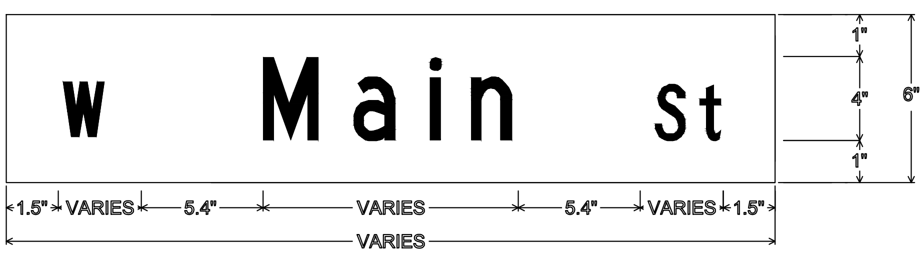
White on Blue



White on Blue



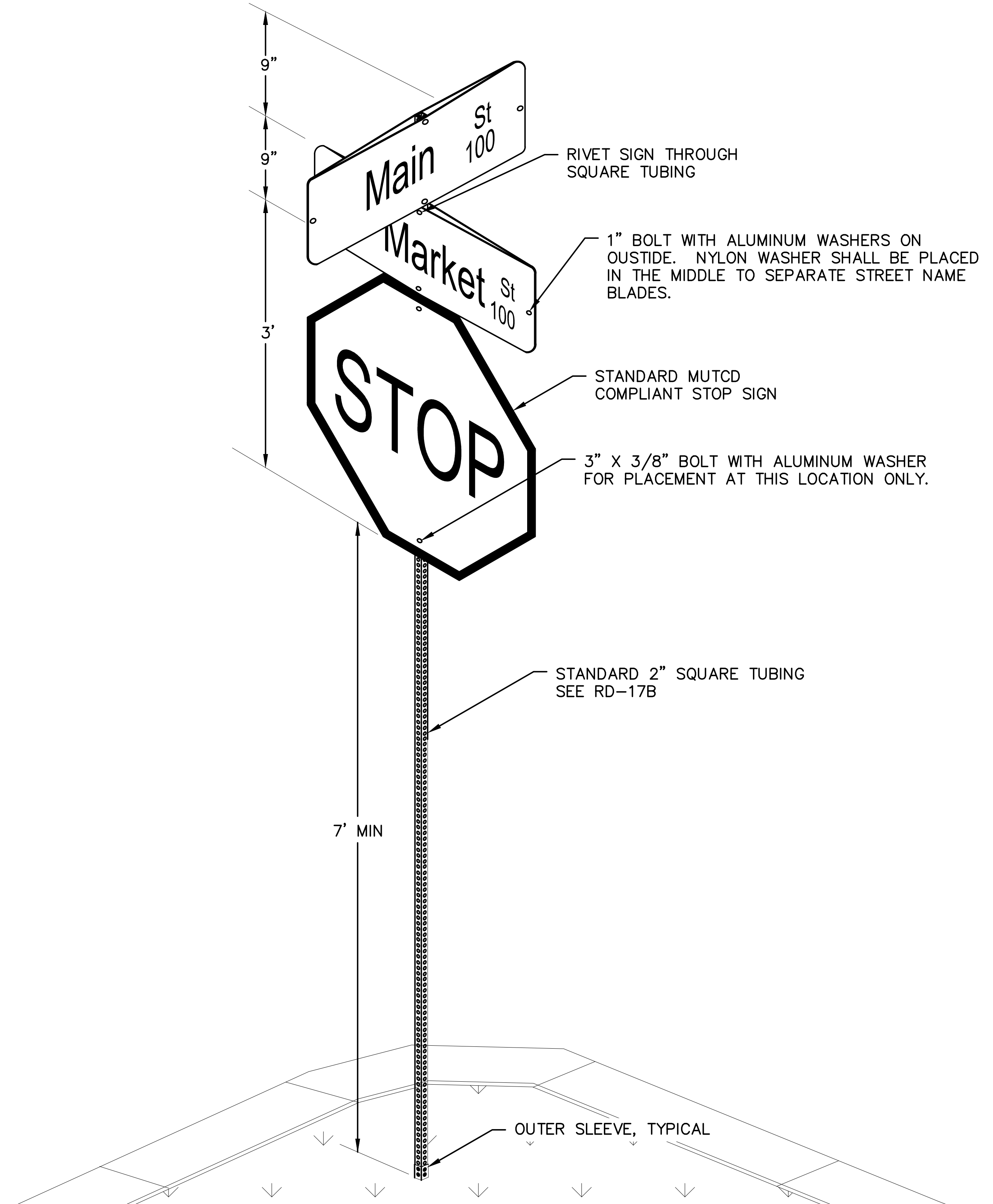
White on Blue



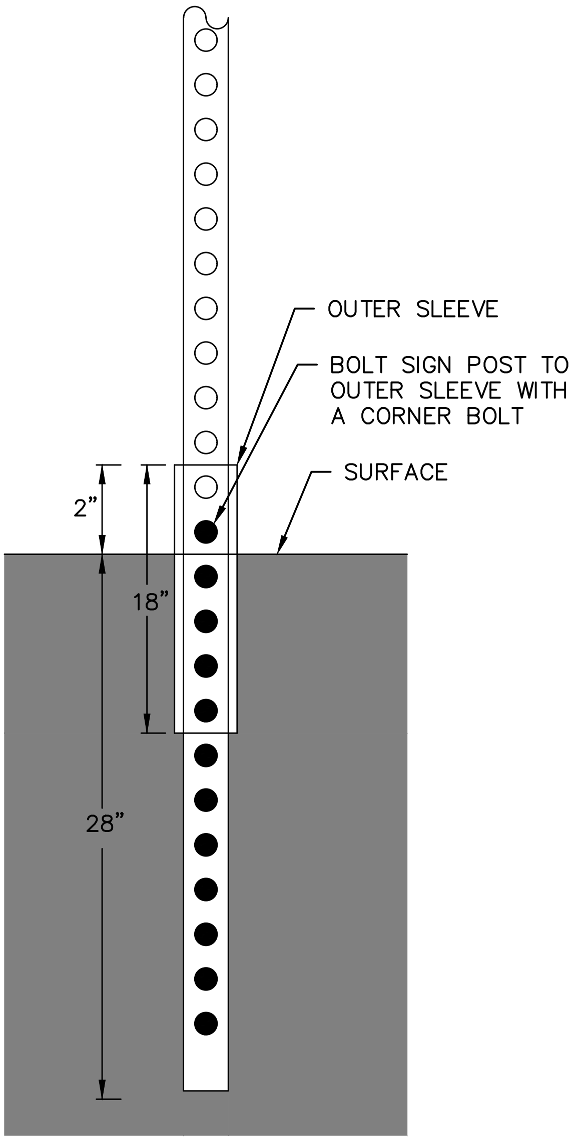
White on Blue

NOTES

1. SIGN BLANK FOR 2 INCH POST INSTALL: 0.08 FEDERAL SPEC. ALUM. (LP/SP INSTALL 0.125 UNDRILLED)
2. FONT: HIGHWAY GOTHIC 'C' OR 'B' (DEPENDING ON LENGTH OF NAME)
3. STREET NAME SIGN SHEETING SHALL BE WHITE 3M DIAMOND GRADE CUBED (DG3) WITH GREEN ELECTRO-CUT (EC) TRANSPARENT FILM AS AN OVERLAY OR AN APPROVED EQUAL.
4. REFER TO DETAIL D3-1G OF THE TEXAS STANDARD HIGHWAY SIGN DESIGN MANUAL FOR ADDITIONAL SPACING REQUIREMENTS.



City of Decatur Construction Standards	SIGN POST INSTALLATION	REVISED FEB 2024
		RD-17A



NOTES:

1. ALL POSTS AND ANCHROS SHALL CONFORM TO THE STANDARD SPECIFICATIONS FOR HOT ROLLED CARBON SHEET STEEL, STRUCTURAL QUALITY ASTM DESIGNATION A570–79.

2. ALL POSTS AND ANCHORS SHALL CARRY MINIMUM CERTIFIABLE 60,000 PSI YIELD STRENGTH.

3. ALL POSTS AND ANCHORS SHALL BE MANUFACTURED FROM RAW STEEL, FORMED AND WELDED ON THE CORNER PRIOR TO RECEIVING A TRIPLE COAT PROTECTION OF INLINE HOT–DIPPED, GALVANIZED ZINC PER AASHTO M–120 (0.8 OZ. PER SQUARE FOOT) FOLLOWED BY A CHROMATE CONVERSION COATING AND A CROSS–LINKED POLYURETHANE ACRYLIC EXTERIOR COATING. THE INTERIOR SHALL RECEIVE A DOUBLE COAT OF ZINC BASED ORGANIC COATING, TESTED IN ACCORDANCE WITH ASTM B–117.

4. ALL TOP POSTS MUST BE CAPABLE OF FRACTURING AT THE POINT OF CONNECTION WITH A SINGLE ANCHOR, WHEN IMPACTED, IN SUCH A MANNER THAT THE PIECE INSIDE OF THE ANCHOR CAN BE REMOVED SO AS TO ALLOW TO RECEIVE A NEW TOP POST.

5. THE SHAPE OF ALL POSTS AND ANCHORS SHALL BE SQUARE AND STRAIGHT WITH SMOOTH TUBING WELDED IN ONE CORNER WITH A TOLERANCE THAT PERMITS TELESCOPING OF THE NEXT LARGER OR SMALL SIZE, IN ¼" INCREMENTS.

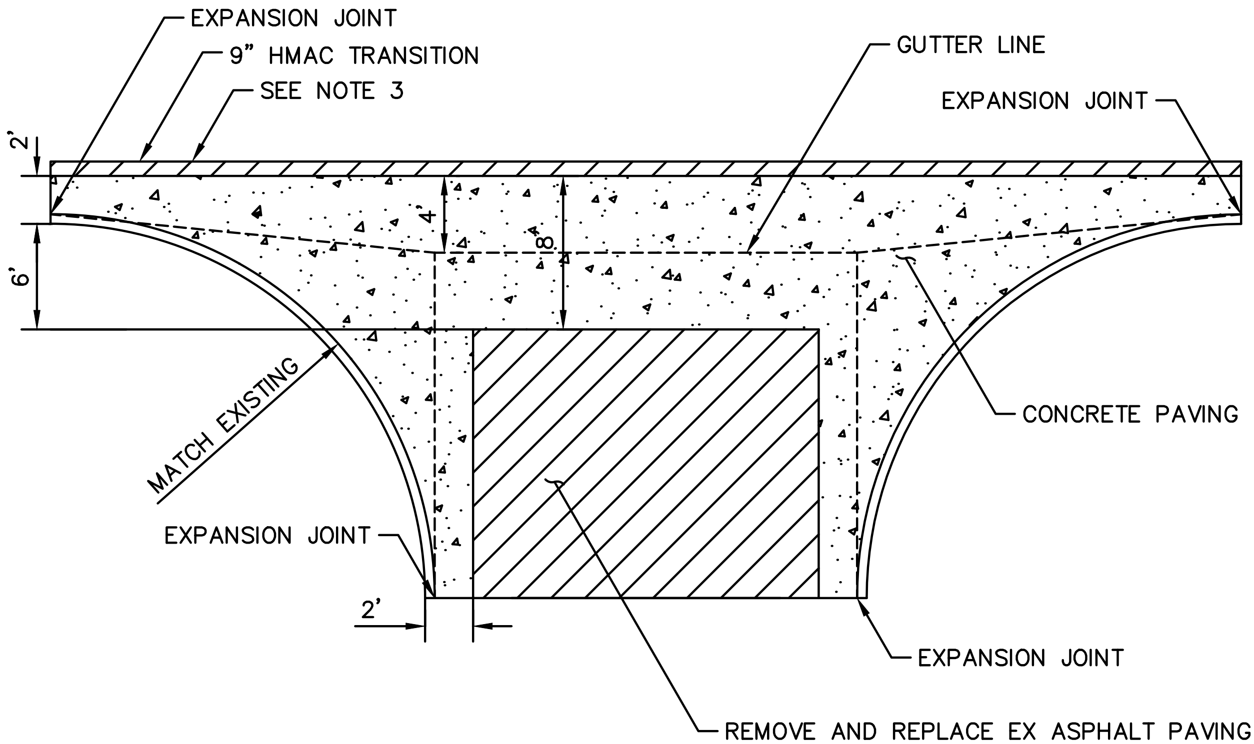
6. ALL ANCHORS SHALL BE 12 GAUGE WITH HOLES THAT ARE FULLY PERFORATED 7/16" DIAMETER ON 1" CENTERS FOR AT LEAST THE TOP 4" OF THE ANCHOR WHILE BEING TRULY ALIGNED IN THE CENTER OF THE SECTION.

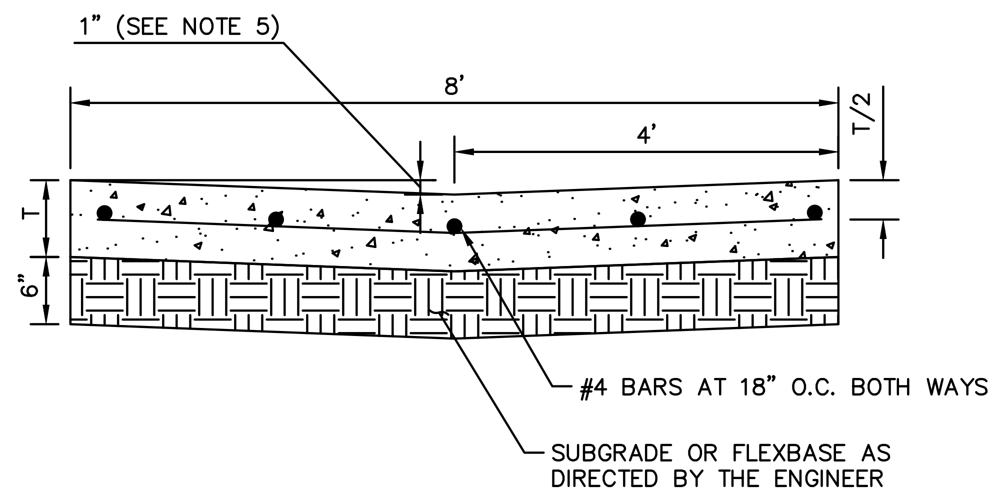
7. ALL TOP POSTS SHALL BE 14 GAUGE WITH HOLES THAT ARE PRE PUNCHED ON 1" CENTERS FOR THE ENTIRE LENGTH OF THE POST AND TRULY ALIGNED IN THE CENTER OF SECTION.

8. STANDARD OUTSIDE CORNER RADII SHALL BE 5/32" PLUS OR MINUS 1/32".

9. SIGNS TO BE ATTACHED TO POST AT THE DESIRED HEIGHT WITH BOLTS.

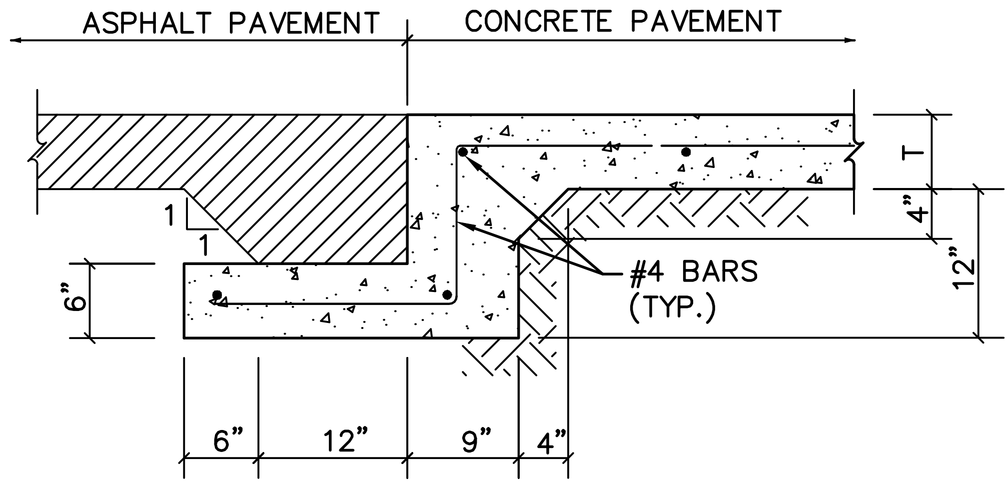
DECATUR TX **City of Decatur** **Construction Standards**	SIGN POST SQUARE TUBING	**REVISED FEB 2024** RD-17B



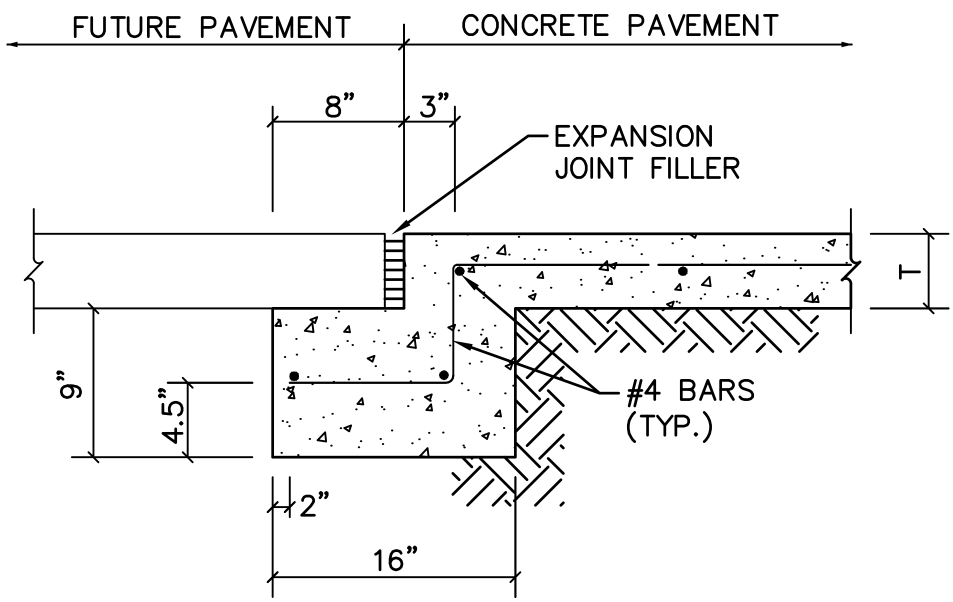


NOTES:

1. MINIMUM PAVEMENT DEPTH SHALL BE 8".
2. REFER TO RD-01 AND NCTCOG ITEM 303.3 FOR CONCRETE PAVEMENT.
3. 9" AND 24" HMAC TRANSITION SUBSIDIARY TO CONCRETE VALLEY GUTTER.
4. GUTTER TO BE SHAPED TO CONFORM WITH CONCRETE VALLEY (OR PAVEMENT).
5. IF VALLEY GUTTER IS ADJACENT TO BARRIER FREE RAMPS, CROSS SLOPE SHALL BE ADA COMPLIANT.

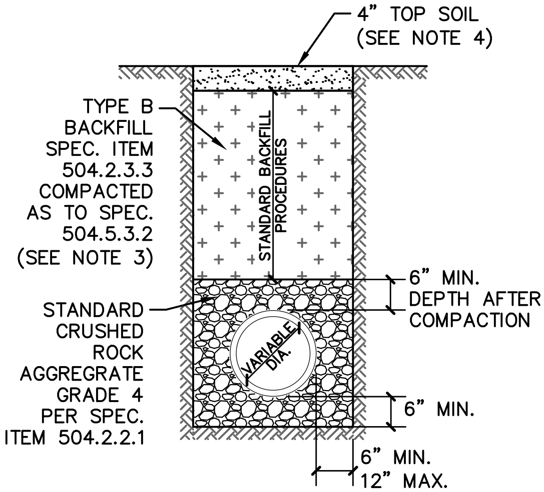


ASPHALT TO CONCRETE HEADER

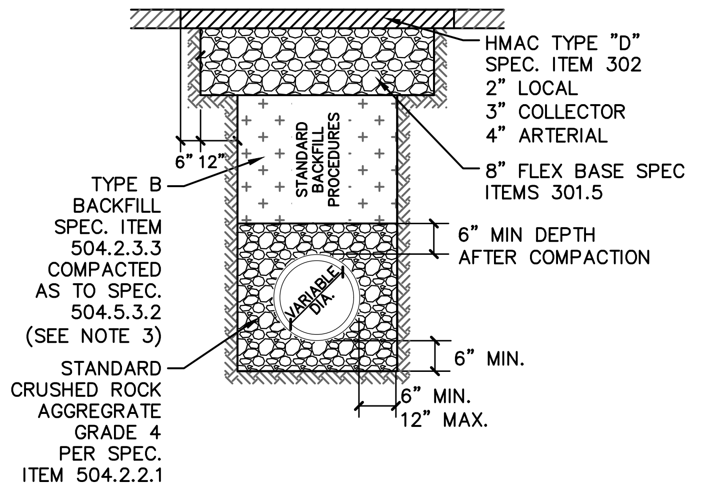


STREET HEADER FOR FUTURE PAVEMENT

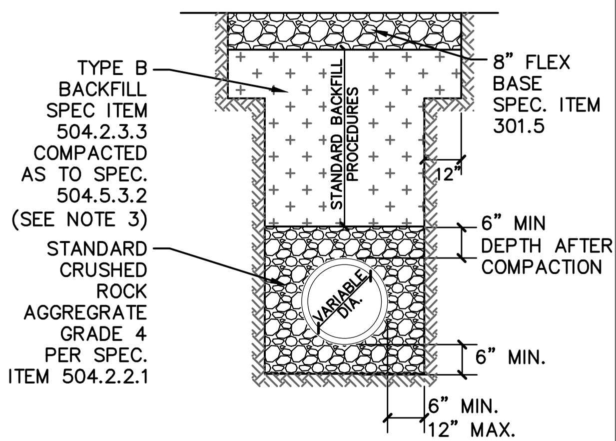
DECATUR TX **City of Decatur** **Construction Standards**	CONCRETE STREET HEADER	**REVISED FEB 2024**
		RD-19



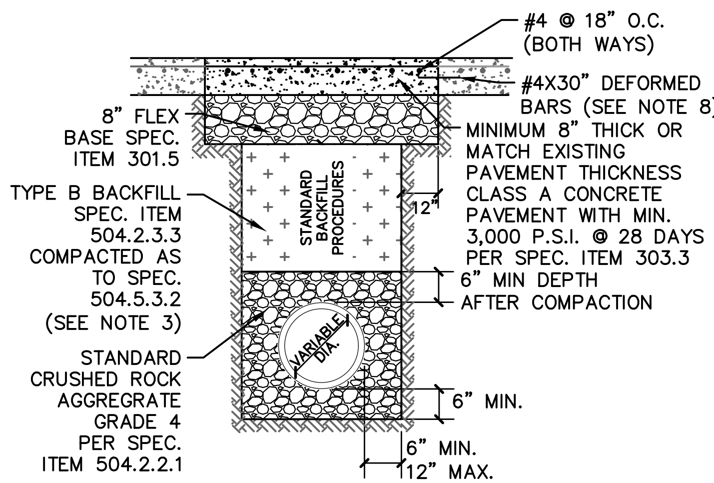
UNPAVED AREA



ASPHALT PAVEMENT



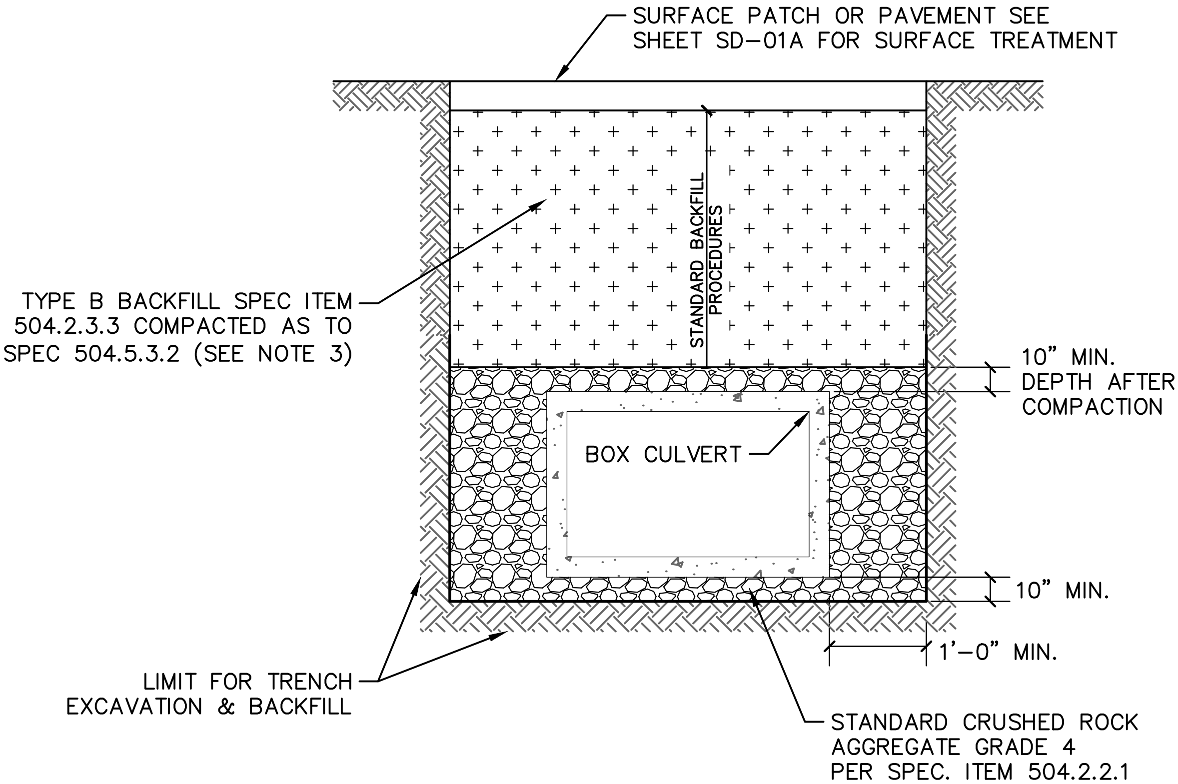
GRAVEL SURFACE



CONCRETE PAVEMENT

NOTES:

1. ALL SPEC. ITEM NUMBERS REFERENCE THE 5TH EDITION OF NCTCOG STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION. UTILIZE THE EQUIVALENT SECTION REFERENCE IN THE MOST CURRENT EDITION OF THE NCTCOG STANDARD SPECIFICATIONS IF THE 5TH EDITION IS NOT THE MOST RECENT EDITION.
2. AT THE END OF EACH WORK DAY ALL SPOILS SHALL BE REMOVED FROM THE CITY R.O.W. UNLESS PRIOR WRITTEN PERMISSION IS OBTAINED FROM THE CITY TO STORE SPOILS IN DESIGNATED SPOIL STORAGE AREAS THAT DO NOT OBSTRUCT AUTOMOBILE OR PEDESTRIAN TRAFFIC.
3. ROCKS GREATER THAN 4" IN DIAMETER SHALL BE REMOVED FROM ANY NATIVE MATERIAL USED AS BACKFILL.
4. TOPSOIL SHALL BE 4" IN DEPTH AND SHALL BE LOOSE AND FREE OF ROCKS OR CLODS GREATER THAN 1/4" IN DIAMETER. ALL TOPSOIL SHALL BE APPROVED BY THE CITY PRIOR TO INSTALLATION.
5. ALL PAVEMENT SHALL BE REMOVED ALONG NEAT SAW CUT LINES PER SPEC. ITEM 402.3.
6. STORM LINE WARNING TAPE OF MIN 4" WIDTH SHALL BE INSTALLED ABOVE THE EMBEDMENT MATERIAL.
7. A MAXIMUM OF 50 FT OF OPEN TRENCH WILL BE ALLOWED AT ANY TIME, UNLESS APPROVED BY THE CITY.
8. DEFORMED BARS DOWELED AND EPOXYED MIN. 15" INTO EXISTING PAVEMENT @ 18" O.C. (TYP).



BOX EMBEDMENT

NOTES:

1. ALL SPEC. ITEM NUMBERS REFERENCE THE 5TH EDITION OF NCTCOG STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION. UTILIZE THE EQUIVALENT SECTION REFERENCE IN THE MOST CURRENT EDITION OF THE NCTCOG STANDARD SPECIFICATIONS IF THE 5TH EDITION IS NOT THE MOST CURRENT EDITION.
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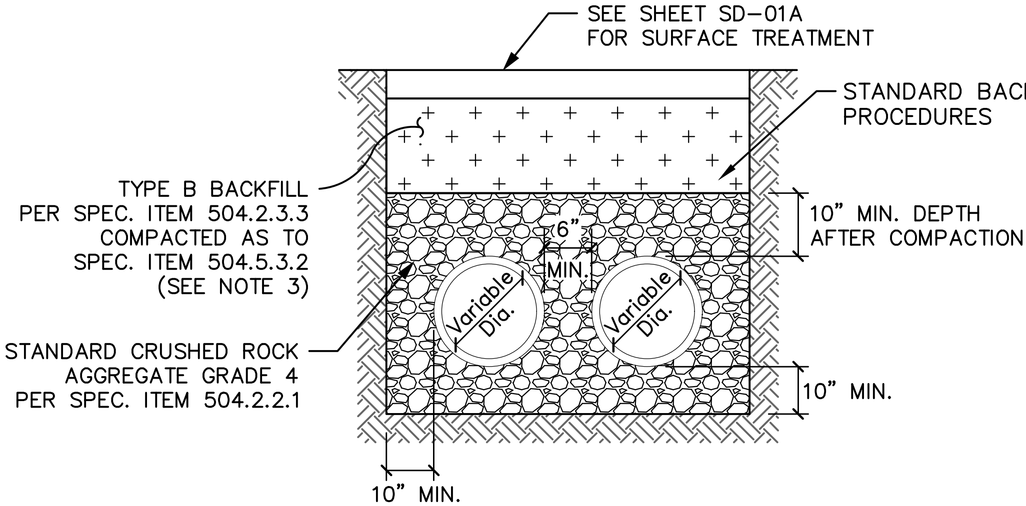
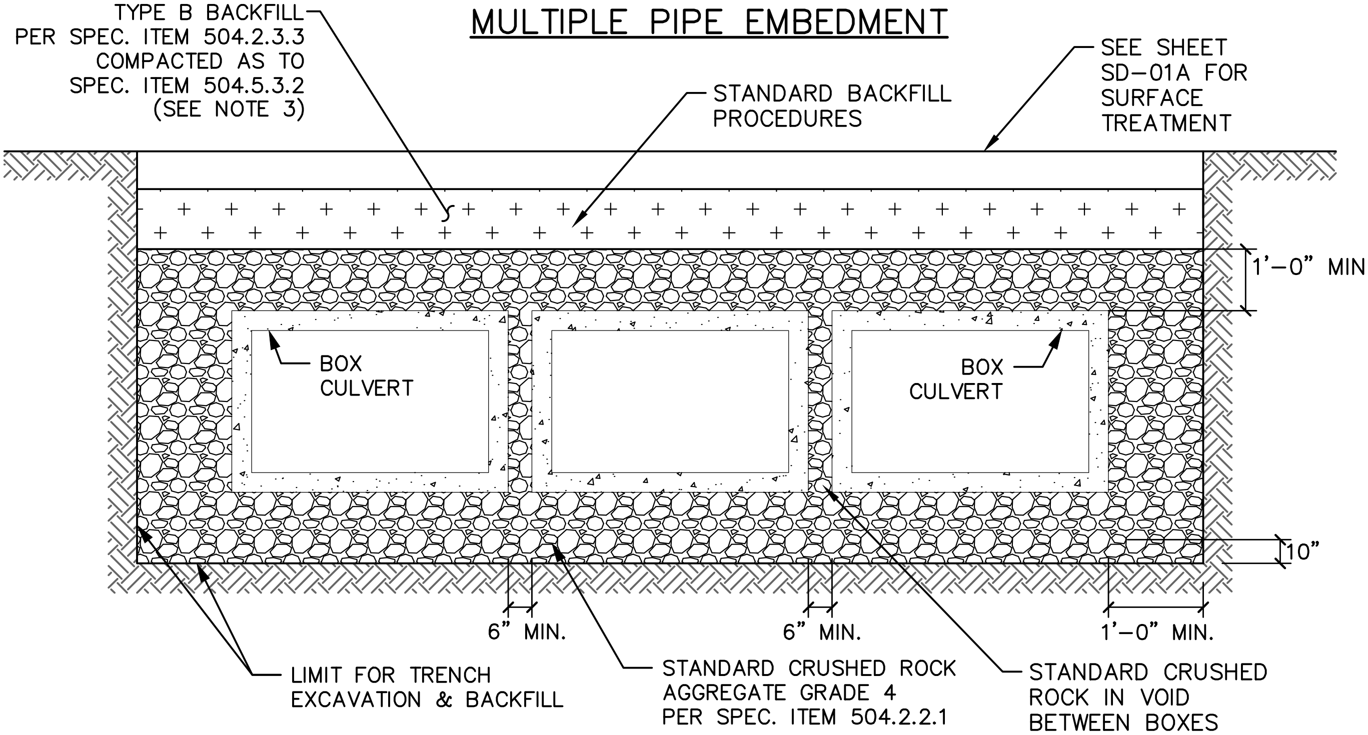
3. ROCKS GREATER THAN 4" IN DIAMETER SHALL BE REMOVED FROM ANY NATIVE MATERIAL USED AS BACKFILL.
4. TOPSOIL SHALL BE 4" IN DEPTH AND SHALL BE LOOSE AND FREE OF ROCKS OR CLODS GREATER THAN 1/4" IN DIAMETER. ALL TOPSOIL SHALL BE APPROVED BY THE CITY PRIOR TO INSTALLATION.
5. ALL PAVEMENT SHALL BE REMOVED ALONG NEAT SAW CUT LINES PER SPEC. ITEM 402.3.
6. STORM LINE WARNING TAPE OF MIN 4" WIDTH SHALL BE INSTALLED ABOVE THE EMBEDMENT MATERIAL.
7. A MAXIMUM OF 50 FT OF OPEN TRENCH WILL BE ALLOWED AT ANY TIME, UNLESS APPROVED BY THE CITY.



MULTIPLE PIPE EMBEDMENT

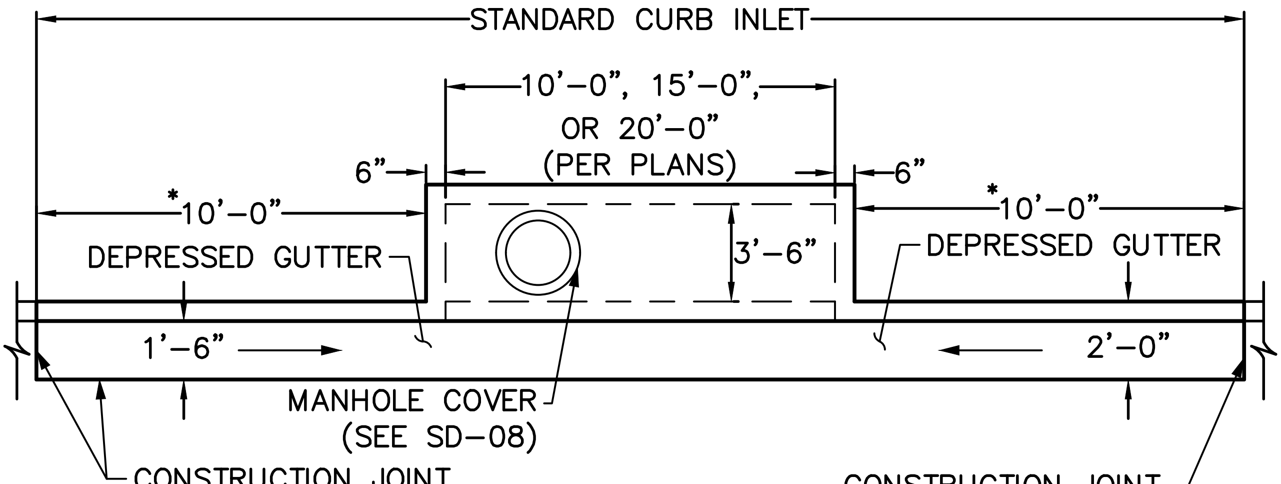


MULTIPLE BOX EMBEDMENT

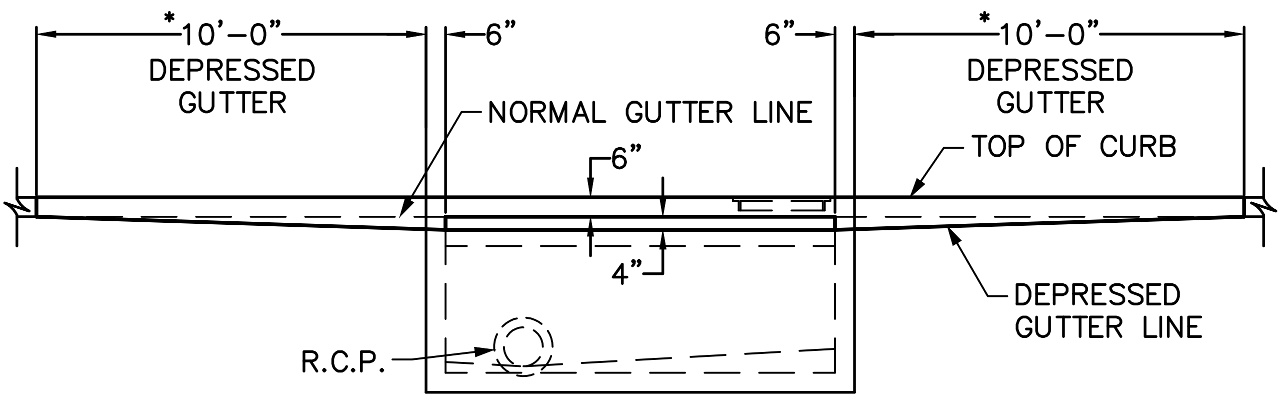
NOTES:

1. ALL SPEC. ITEM NUMBERS REFERENCE THE 5TH EDITION OF NCTCOG STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION. UTILIZE THE EQUIVALENT SECTION REFERENCE IN THE MOST CURRENT EDITION OF THE NCTCOG STANDARD SPECIFICATIONS IF THE 5TH EDITION IS NOT THE MOST CURRENT EDITION.
2. AT THE END OF EACH WORK DAY ALL SPOILS SHALL BE REMOVED FROM THE CITY R.O.W. UNLESS PRIOR WRITTEN PERMISSION IS OBTAINED FROM THE CITY TO STORE SPOILS IN DESIGNATED SPOIL STORAGE AREAS THAT DO NOT OBSTRUCT AUTOMOBILE OR PEDESTRIAN TRAFFIC.
3. ROCKS GREATER THAN 4" IN DIAMETER SHALL BE REMOVED FROM ANY NATIVE MATERIAL USED AS BACKFILL.
4. TOPSOIL SHALL BE 4" IN DEPTH AND SHALL BE LOOSE AND FREE OF ROCKS OR CLODS GREATER THAN 1/4" IN DIAMETER. ALL TOPSOIL SHALL BE APPROVED BY THE CITY PRIOR TO INSTALLATION.
5. ALL PAVEMENT SHALL BE REMOVED ALONG NEAT SAW CUT LINES PER SPEC. ITEM 402.3.
6. STORM LINE WARNING TAPE OF MIN 4" WIDTH SHALL BE INSTALLED ABOVE THE EMBEDMENT MATERIAL.
7. A MAXIMUM OF 50 FT OF OPEN TRENCH WILL BE ALLOWED AT ANY TIME, UNLESS APPROVED BY THE CITY.

DECATUR TX **City of Decatur** **Construction Standards**	STANDARD STORM DRAIN EMBEDMENT AND BACKFILL	**REVISED FEB 2024** SD-01C



PLAN

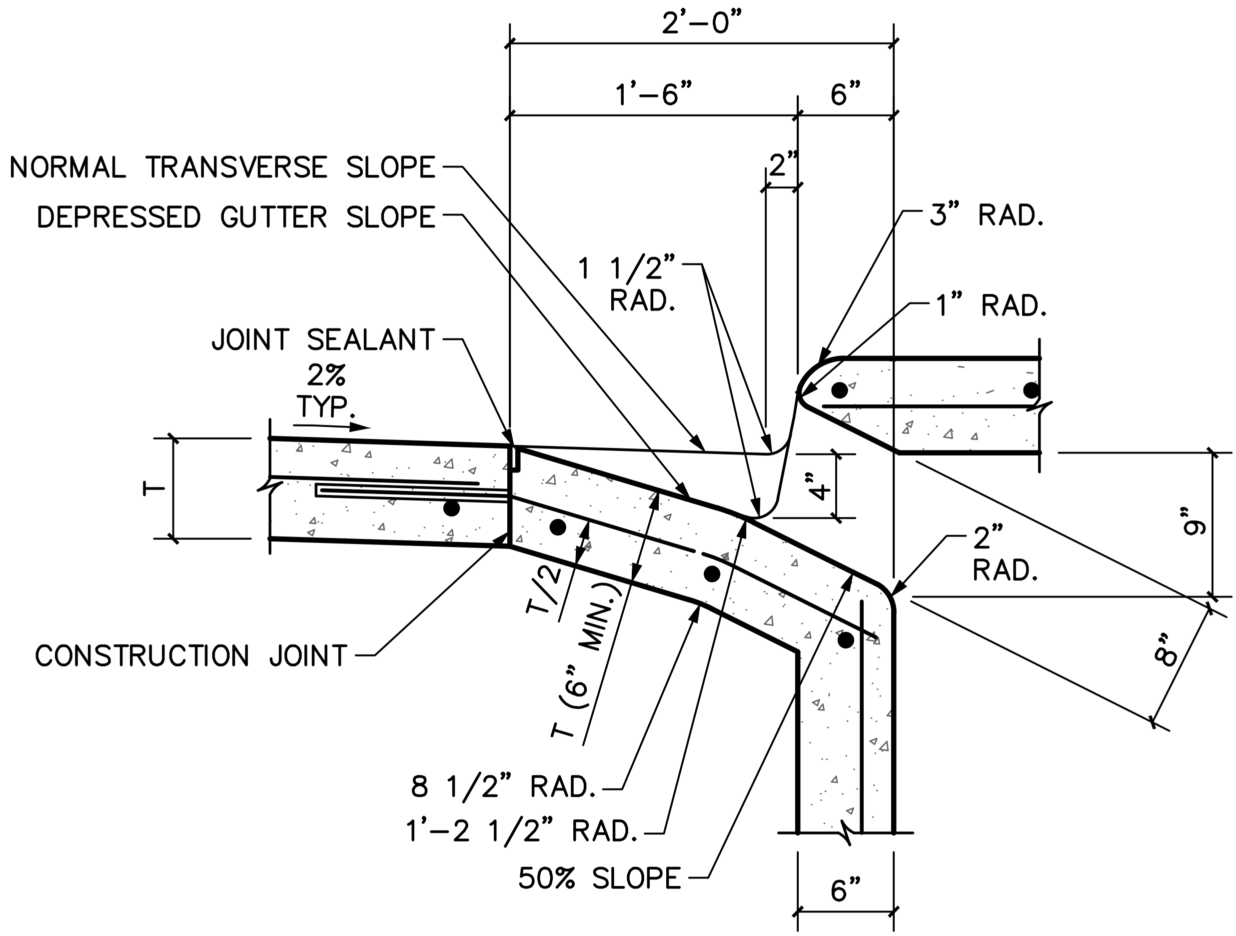


PROFILE

NOTES:

1. ALL SPEC. ITEM NUMBERS REFERENCE THE 5TH EDITION OF THE NCTCOG STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION. UTILIZE THE EQUIVALENT SECTION REFERENCE IN THE MOST CURRENT EDITION OF THE NCTCOG STANDARD SPECIFICATIONS IF THE 5TH EDITION IS NOT THE MOST CURRENT EDITION.
2. CONCRETE SHALL BE 4,200 PSI, CLASS F (PER SPEC. 702.3).
3. TOP OF INLET TO SLOPE 2% TOWARDS STREET OR PER PLAN.
4. CENTER SUPPORT BEAM REQUIRED FOR 15' AND 20' STANDARD CURB INLETS.
5. ADDITIONAL REINFORCING STEEL TO BE PLACED AROUND MANHOLE OPENING.
6. WING LENGTH MAY BE DECREASED BASED UPON SITE SPECIFIC CONDITIONS. CITY MUST APPROVE SHORTER LENGTH.
7. PIPE SHALL BE PLACED AT DOWNSTREAM END INLET. MANHOLE SHALL BE PLACED AT UPSTREAM END AT INLET.
8. MANHOLE COVERS INSIDE OPENING SHALL BE 30". INLET TOP WILL NEED TO BE CAST IN PLACE IN ORDER TO ACCOMMODATE 30" OPENING/COVER.
9. TWO MANHOLES ARE REQUIRED ON 15' AND 20' INLETS.

DECATUR TX **City of Decatur** **Construction Standards**	STANDARD STORM DRAIN CURB INLET	**REVISED FEB 2024** SD-02A

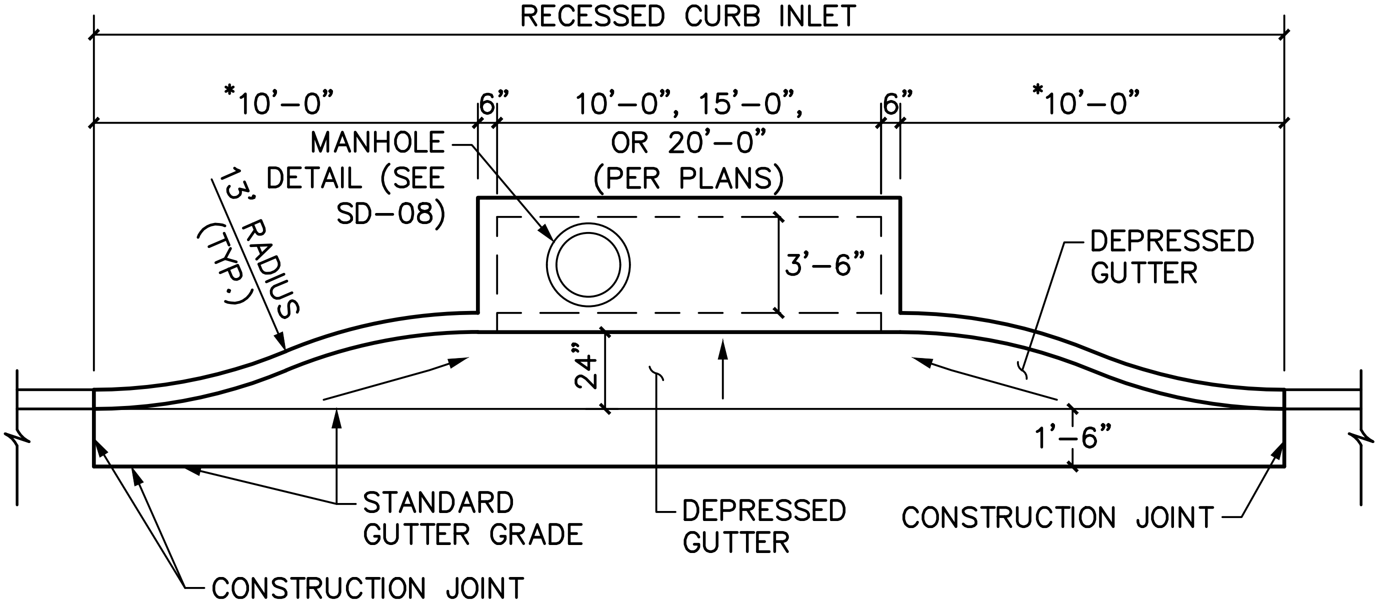


City of Decatur
Construction Standards

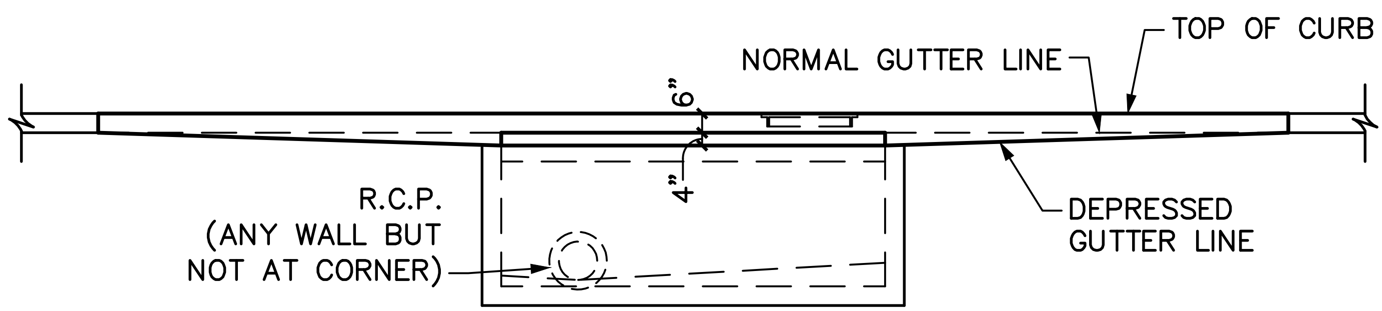
STANDARD CURB INLET THROAT

REVISED
FEB 2024

SD-02B



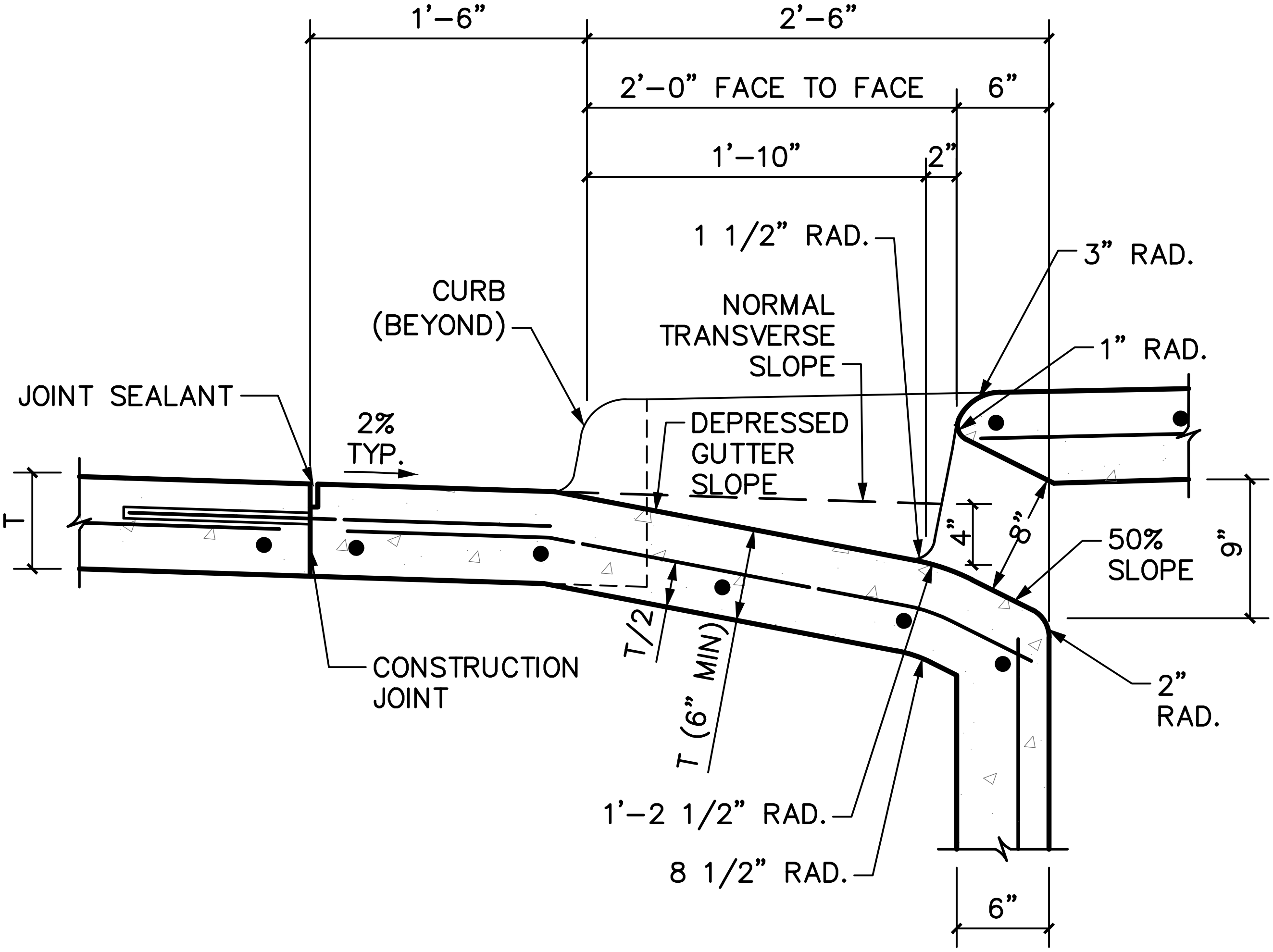
PLAN



PROFILE

NOTES:

1. ALL SPEC. ITEM NUMBERS REFERENCE THE 5TH EDITION OF THE NCTCOG STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION. UTILIZE THE EQUIVALENT SECTION REFERENCE IN THE MOST CURRENT EDITION OF THE NCTCOG STANDARD SPECIFICATIONS IF THE 5TH EDITION IS NOT THE MOST CURRENT EDITION.
2. CONCRETE SHALL BE 4,200 PSI, CLASS F (PER SPEC. 702.3).
3. TOP OF INLET TO SLOPE 2% TOWARDS STREET OR PER PLAN.
4. CENTER SUPPORT BEAM REQUIRED FOR 15' AND 20' STANDARD CURB INLETS.
5. ADDITIONAL REINFORCING STEEL TO BE PLACED AROUND MANHOLE OPENING.
6. WING LENGTH MAY BE DECREASED BASED UPON SITE SPECIFIC CONDITIONS. CITY MUST APPROVE SHORTER LENGTH.
7. MANHOLE COVERS INSIDE OPENING SHALL BE 30". INLET TOP WILL NEED TO BE CAST IN PLACE IN ORDER TO ACCOMMODATE 30" OPENING/COVER.
8. TWO MANHOLES ARE REQUIRED ON 15' AND 20' INLETS.

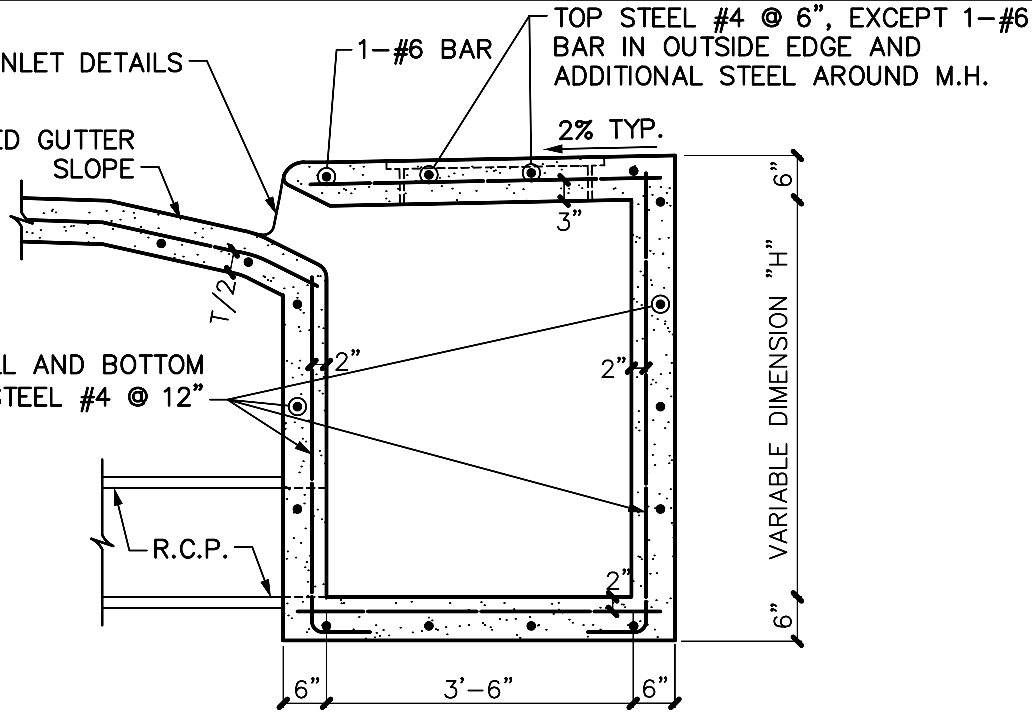


City of Decatur
Construction Standards

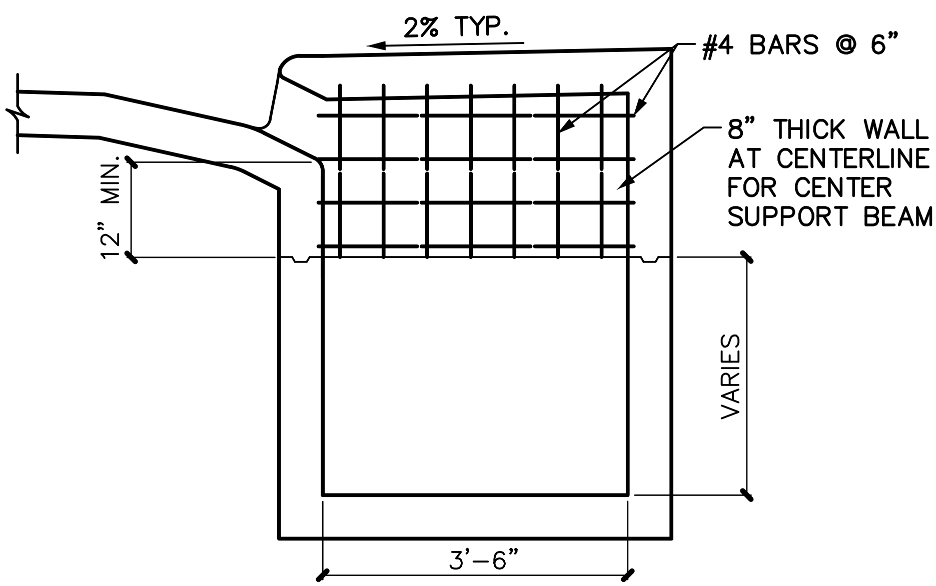
RECESSED CURB INLET THROAT

REVISED FEB 2024

SD-03B



INLET SECTION FOR RECESSED AND STANDARD INLETS



CENTER SUPPORT BEAM FOR 15' AND 20' RECESSED AND STANDARD INLETS

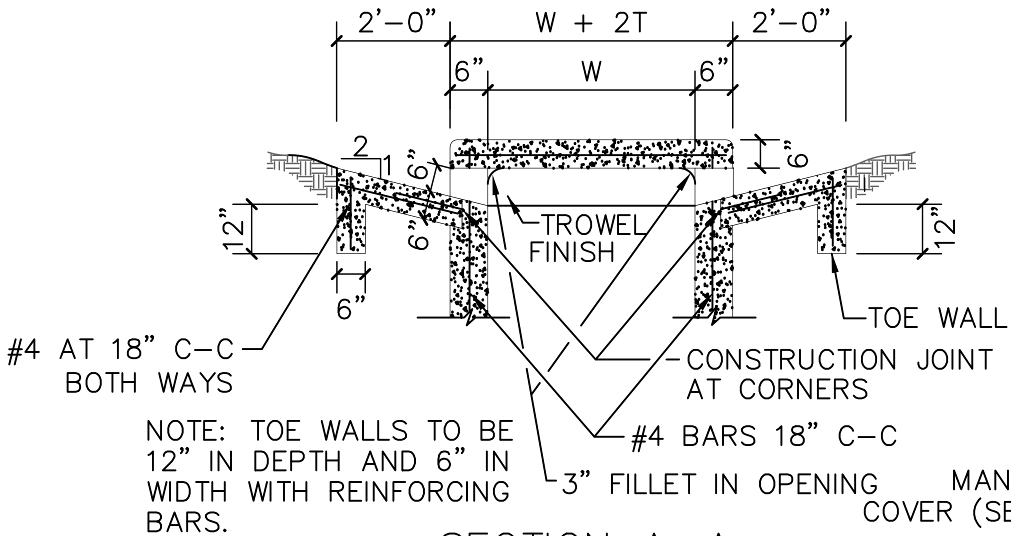
NOTES:

1. ALL SPEC. ITEM NUMBERS REFERENCE THE 5TH EDITION OF THE NCTCOG STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION. UTILIZE THE EQUIVALENT SECTION REFERENCE IN THE MOST CURRENT EDITION OF THE NCTCOG STANDARD SPECIFICATIONS IF THE 5TH EDITION IS NOT THE MOST CURRENT EDITION.
2. CONCRETE SHALL BE 4,200 PSI, CLASS F (PER SPEC. 702.3).
3. TOP OF INLET TO SLOPE 2% TOWARDS STREET OR PER PLAN.
4. REINFORCING STEEL LAYOUT APPLICABLE TO BOTH RECESSED AND ON–GRADE CURB INLETS.

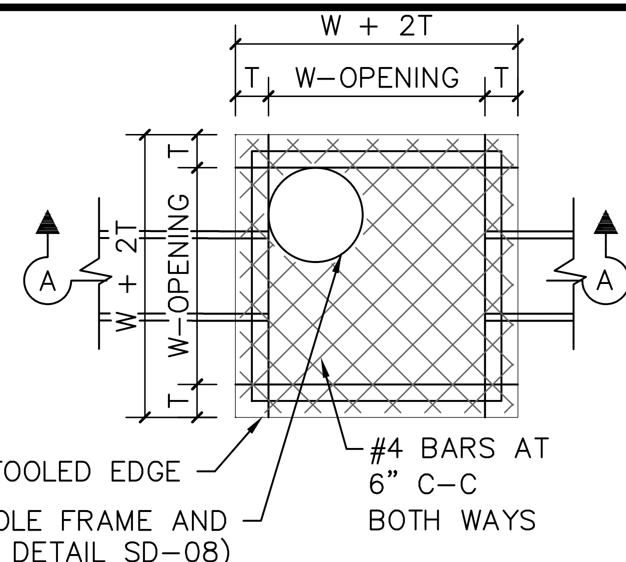
DECATUR TX **City of Decatur** **Construction Standards**	CENTER SUPPORT BEAM FOR INLETS	**REVISED FEB 2024** SD-04

NOTES:

1. IN GENERAL, INLET REINFORCING STEEL SHALL BE #4 BARS ON 12" CENTERS BOTH WAYS FOR GUTTER, BOTTOM SLAB ENDS, FRONT AND BACK WALLS, AND #4 BARS ON 6" CENTERS BOTH WAYS FOR TOP SLABS. AN ADDITIONAL #6 BAR SHALL BE PLACED IN THE FRONT EDGE OF THE TOP SLAB IN THE INLETS AND ADDITIONAL REINFORCING STEEL SHALL BE PLACED AROUND MANHOLES AS SHOWN.
2. ALL REINFORCING STEEL SHALL BE GRADE 60.
3. ALL CONCRETE SHALL BE CLASS "A" MIN. 3000 PSI 28-DAY STRENGTH. ALL EXPOSED CORNERS SHALL BE CHAMFERED 3/4".
4. ALL REINFORCING STEEL SHALL HAVE A MINIMUM COVER OF 2" TO THE CENTERS OF THE BARS.
5. 10'-0" OF EXISTING CURB AND GUTTER UPSTREAM AND 10'-0" OF EXISTING CURB AND GUTTER DOWNSTREAM SHALL BE REMOVED AND REPOURED INTEGRALLY WITH EACH INLET.
6. ALL BACK FILLING SHALL BE IN ACCORDANCE WITH SPEC. ITEM 504.2.3.3 COMPACTED AS TO 95% STANDARD PROCTOR DENSITY.
7. CENTER BEAM IS REQUIRED FOR ALL INLET OPENINGS GREATER THAN 10'-0".
8. TWO MANHOLE FRAMES AND COVERS ARE REQUIRED WHEN INLET OPENING IS GREATER THAN 10'-0".
9. ALL INLET FLOORS ARE TO HAVE A 2% SLOPE TOWARDS THE OUTLET PIPE.
10. MINIMUM INLET OPENING SIZE IS 5'-0".
11. MAXIMUM INLET OPENING SIZE IS 20'-0".
12. OUTLET PIPE TO BE PLACED AT LOWEST END OF FLOOR INLET. MANHOLE COVER TO BE PLACED AT OUTLET END OF INLET.
13. SEE APPROVED PRODUCTS LIST FOR MANHOLE COVER AND LID MANUFACTURERS.
14. MANHOLE COVERS SHALL HAVE CHAINS ATTACHED TO PREVENT COVERS FROM BEING WASHED AWAY DURING FLOOD CONDITIONS.



SECTION A–A



PLAN VIEW

NOTES:

1. ALL SPEC. ITEM NUMBERS REFERENCE THE 5H EDITION OF THE NCTCOG STANDARD SPECIFICATIONS FOR PUBLIC WORK CONSTRUCTION. UTILIZE THE EQUIVALENT SECTION REFERENCE IN THE MOST CURRENT EDITION OF THE NCTCOG STANDARD SPECIFICATIONS IF THE 5TH EDITION IS NOT THE MOST CURRENT EDITION.
2. CONCRETE FOR DROP INLETS SHALL BE CLASS F (PER SPEC. ITEM 702.3).
3. LAYERS OF REINFORCING STEEL NEAREST THE INTERIOR AND EXTERIOR SURFACES SHALL HAVE A COVER OF 2" TO THE CENTER OF BARS, UNLESS OTHERWISE NOTED.
4. FOR DETAILS OF REINFORCING TO LOWER PORTIONS OF INLET, SEE APPROPRIATE SQUARE MANHOLE DETAILS.
5. DEPTH OF DROP INLET FROM FINISHED GRADE TO FLOW LINE OF INLET IS VARIABLE. APPROXIMATE DEPTH SHALL BE SHOWN ON PLANS AT LOCATION OF INLET.
6. ALL STANDARD DROP INLETS SHALL HAVE ONE OPENING ON EACH SIDE UNLESS SHOWN ON PLANS.
7. DECK MAY BE REINFORCED THE SAME AS STANDARD SQUARE STORM DRAIN MANHOLE.
8. SEE APPROVED PRODUCTS LIST FOR STORM DRAIN LID AND COVER MANUFACTURERS.

INLET SIZE	T	W
2' SQUARE	7"	2'–0"
4' SQUARE	7"	4'–0"
5' SQUARE	8"	5'–0"
6' SQUARE	9"	6'–0"
7' SQUARE	9"	7'–0"
8' SQUARE	9"	8'–0"

FOR LOWER PORTION OF 2' SQUARE DROP INLET USE REINF. STEEL DETAILS OF 4' SQUARE MANHOLE AND ELIMINATE INLET RING AND COVER.

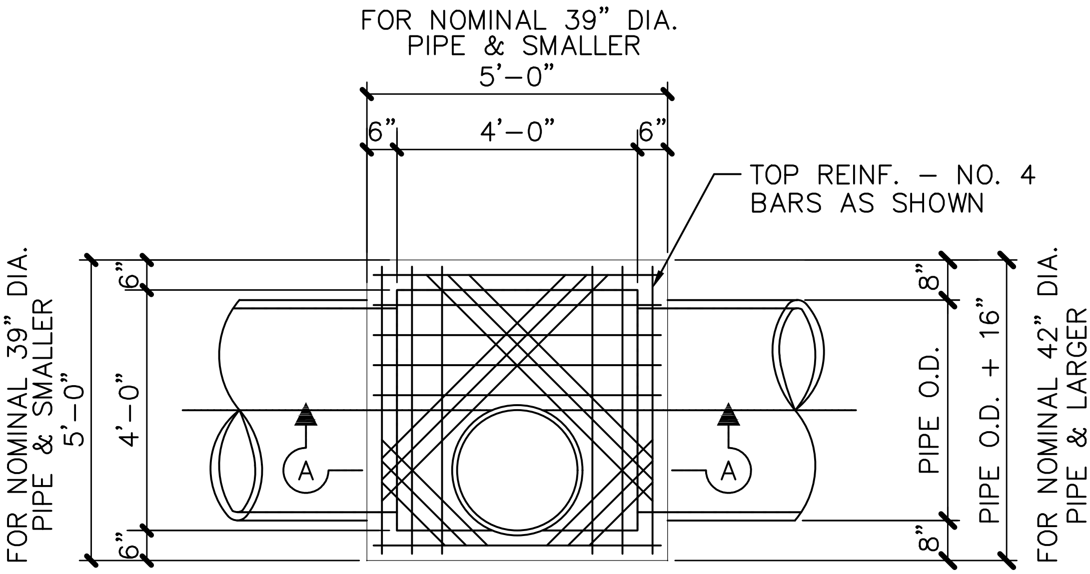
DECATUR TX

City of Decatur
Construction Standards

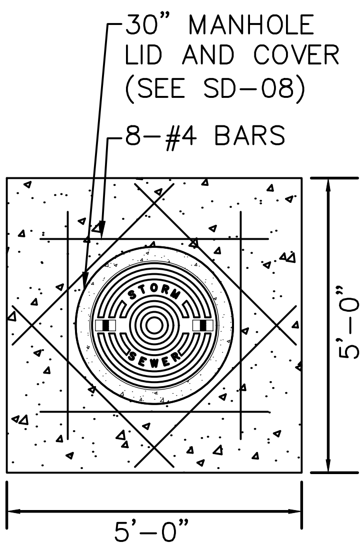
STANDARD DROP INLET

REVISED FEB 2024

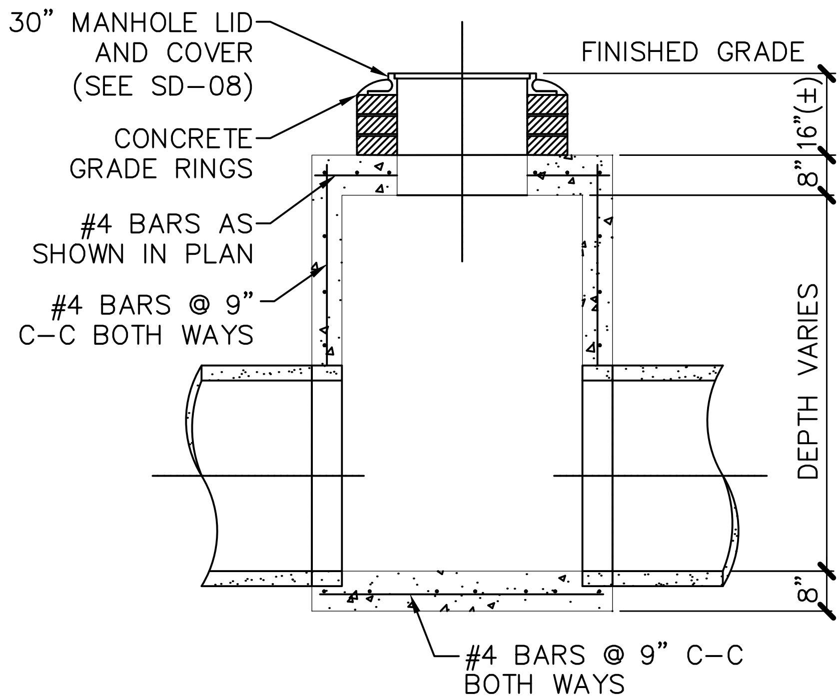
SD-06



PLAN VIEW



CONCRETE COLLAR

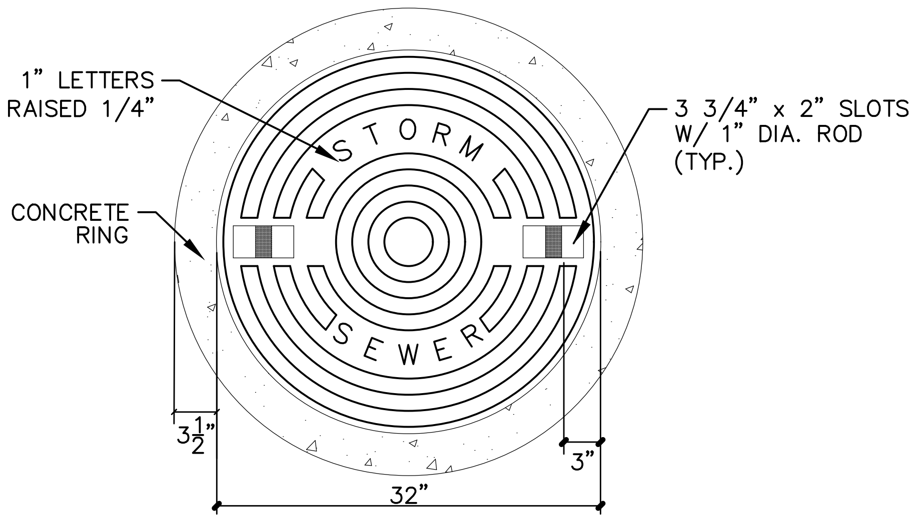


SECTION A–A

NOTES:

1. ALL SPEC. ITEM NUMBERS REFERENCE THE 5TH EDITION OF THE NCTCOG STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION. UTILIZE THE EQUIVALENT SECTION REFERENCE IN THE MOST CURRENT EDITION OF THE NCTCOG STANDARD SPECIFICATIONS IF THE 5TH EDITION IS NOT THE MOST RECENT EDITION.
2. CONCRETE SHALL BE CLASS F (PER SPEC. ITEM 702.3).
3. 5'X5' CONCRETE COLLAR OF 6" 3600 PSI CLASS "C" CONCRETE SHALL BE PROVIDED FOR MANHOLE LIDS LOCATED IN ASPHALT PAVING OR OUTSIDE OF PAVING LIMITS.

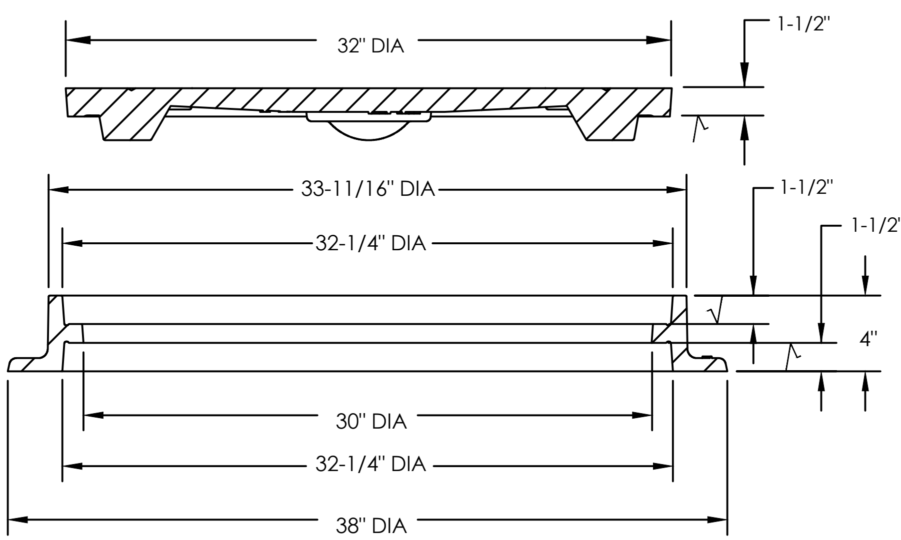
DECATUR TX **City of Decatur** **Construction Standards**	STANDARD 4-FOOT SQUARE STORM DRAIN MANHOLE	**REVISED FEB 2024** SD-07



NOTES:

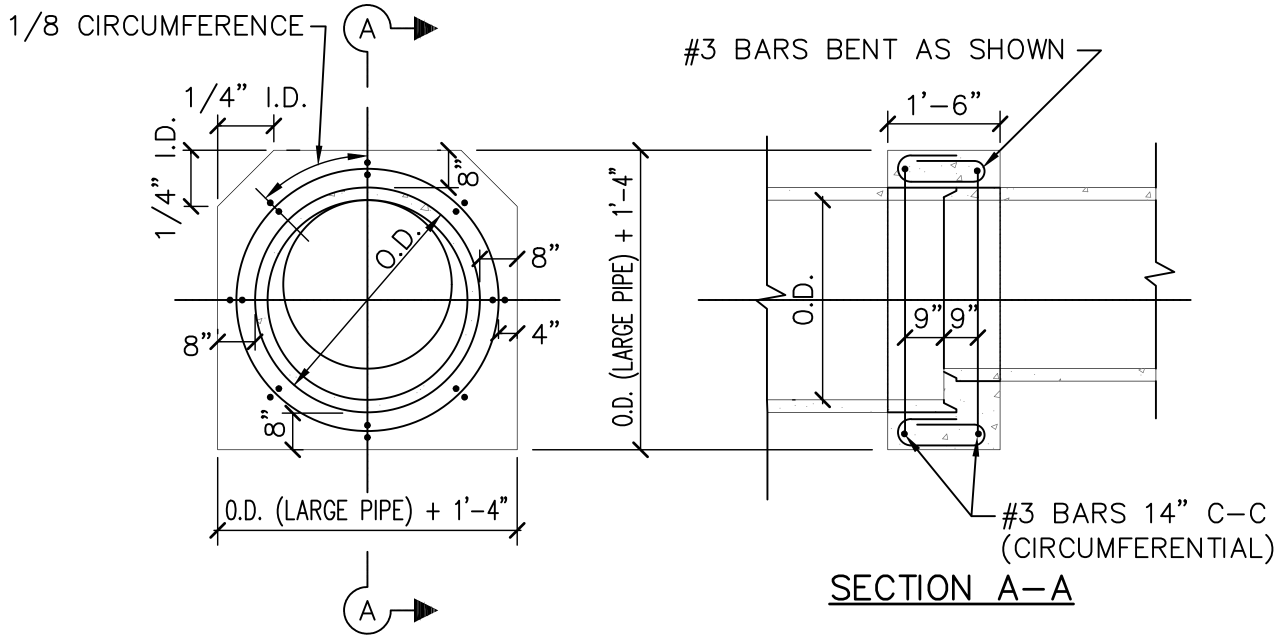
1. SEE APPROVED PRODUCTS LIST FOR ACCEPTABLE STORM DRAIN LID AND COVER MANUFACTURERS.

TOP VIEW



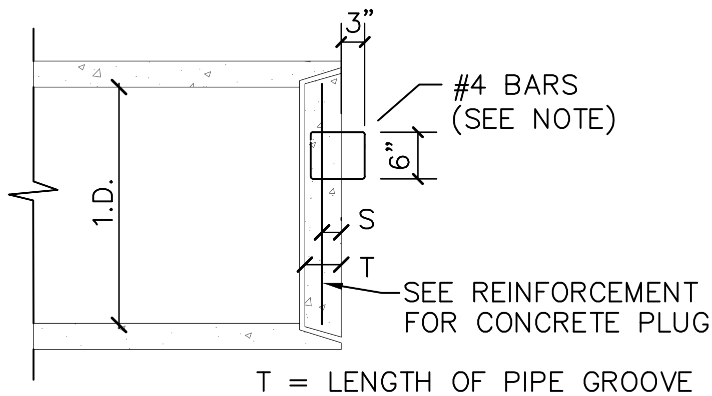
SECTION VIEW

City of Decatur Construction Standards	MANHOLE COVER	REVISED FEB 2024
		SD-08



REINFORCED CONCRETE COLLAR

PIPE SIZE	REINF. BAR	DISTANCE C-C BOTH WAYS	S
18"-33"	# 3	12"	1/2 T
36"-54"	# 3	12"	1/3 T
60"-84"	# 4	12"	1/4 T



REINFORCED CONCRETE PIPE PLUG

NOTES:

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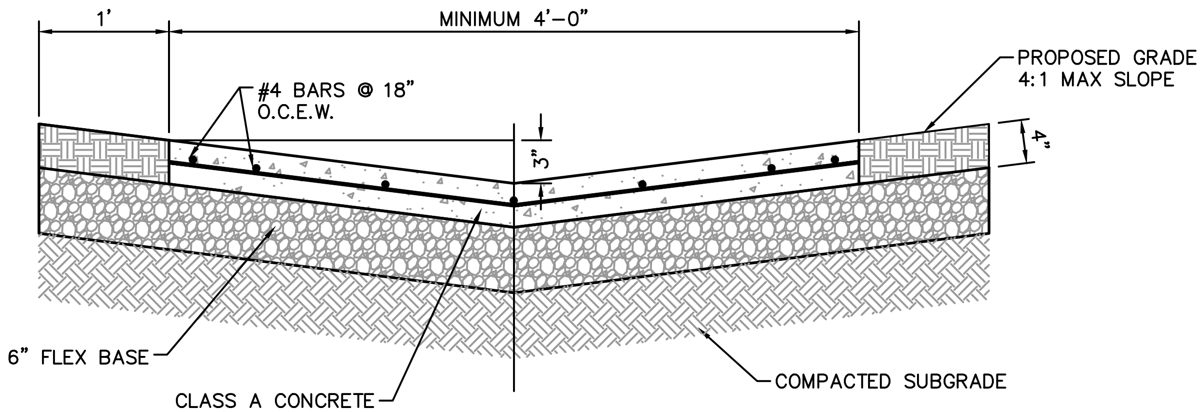
2. CONCRETE SHALL BE CLASS A (PER SPEC. ITEM 702.3).
3. STEEL HANDLE FOR REINFORCED CONCRETE PIPE PLUG SHALL BE LOCATED 1/4 I.D. ABOVE CENTER POINT OF PLUG. TWO (2) STEEL HANDLES WILL BE REQUIRED ON PLUGS OF 36" DIA. PIPES OR LARGER AND SHALL BE PLACED 1/4 I.D. APART AND 1/4 I.D. ABOVE CENTER OF PLUG.
4. COLLARS MAY ONLY BE USED TO REDUCE THE DIAMETER ONE PIPE SIZE. A JUNCTION BOX IS REQUIRED FOR REDUCING MORE THAN ONE PIPE SIZE.



NOTES:

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2. SIDE SLOPES TO BE HYDROMULCHED.
3. PROVIDE CONSTRUCTION JOINT EVERY 10' AND EXPANSION JOINTS EVERY 50' IN ACCORDANCE WITH RD-02. SEAL ALL JOINTS.