

DRAFT

Walker County Subdivision Regulations

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Resolution & Order

THE STATE OF TEXAS §

§ KNOW ALL MEN BY THESE PRESENTS:

COUNTY OF WALKER §

THAT ON THIS, the **INPUT DATE OF ADOPTION**, the Commissioners Court of Walker County, Texas, met in duly called and convened lawful Session at the County Courthouse in Huntsville, Texas, with the following members present:

Robert D. Pierce	County Judge
Danny Kuykendall	Commissioner, Precinct One
Ronnie White	Commissioner, Precinct Two
Bill Dauge	Commissioner, Precinct Three
Jimmy Henry	Commissioner, Precinct Four

And at said meeting, among other business, came up for consideration and adoption the following Resolution and Order:

WHEREAS, the Commissioners Court of Walker County, Texas, has, after proper notice, held a public hearing concerning a proposed revision of the Walker County Subdivision Regulation; and

WHEREAS, after soliciting the public's comments, the Commissioners Court finds that the adoption of revised Regulations will be in the public interest;

NOW THEREFORE BE IT RESOLVED, that the Walker County Commissioners Court hereby adopts the attached document as the revised Walker County Subdivision Regulations and *orders* that they be in full force and effect on **INPUT EFFECTIVE DATE HERE**; and

FURTHER RESOLVED, that County Judge Robert D. Pierce be, and is hereby authorized to sign this Resolution and Order as the act and deed of the Walker County Commissioner's Court.

The foregoing Resolution and order was lawfully moved by INPUT NAME OF COMMISSIONER, duly seconded by INPUT NAME OF COMMISSIONER, and duly adopted by the Commissioners Court on a vote of _____members for the motion and _____ member(s) opposed with _____ commissioner(s) being absent from the dais.

Robert D. Pierce
County Judge, Walker County, Texas

DATE: _____

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Walker County Subdivision Regulations

On xxxx, acting pursuant to the Texas Local Government Code, Walker County adopted the following regulations governing platting and the subdivision of land. They were further revised xxxxx. These Regulations shall be known as the Walker County Subdivision Regulations.

These revised Regulations, as well as required review fees, shall apply to all new Applications received on or after the date that these revised Regulations were adopted by the Walker County Commissioners Court. Any subdivision applications that were originally submitted prior to that date shall be subject to the Regulations and any applicable fees that were in effect at the time of the original submission, unless, at the applicant's option, the applicant elects to proceed under the new regulations or requirements. Compliance with these Regulations shall be a prerequisite to the approval of any subdivision by Walker County, except insofar as they may conflict with any applicable State statute.

Section 1 - Purpose

1.1 These Regulations have been prepared in general to aid in the orderly development of Walker County, Texas, and provide guidelines, which will lead to a desirable environment. Specifically, they have been prepared for the following purposes:

- To furnish the Owner with guidance and assistance in the expedient preparation and approval of his or her plat.
- To protect the citizens of Walker County by providing subdivision and development guidelines for residential, commercial, and industrial subdivisions.
- To provide for the welfare of the public by providing guidelines for the location, design, and construction of roadways, roadway intersections, drainage improvements, and other features that provide for the safety of the general public.
- To provide for the proper arrangement and construction of roads, and to ensure the proper relationship of roads to existing or planned roads.
- To ensure adequate access for emergency response vehicles.
- To ensure that ~~the~~ Walker County will not be burdened with substandard roads in the future.

Section 2 - Definition of Terms

2.1 **100-year Floodplain**

Any land that would be inundated by a flood having a one percent chance of occurring in any given year, including but not limited to any land shown on the current version of the FEMA National Flood Insurance Program Flood Maps

2.2 **100-year Storm**

A storm having a one percent probability of occurrence in any given year.

2.3 **Application**

A submittal that includes a completed Application form along with all required attachments which may be required as part of that submittal and the appropriate review fee. These attachments may include, but are not limited to forms, agency approvals, specifications, drawings, drainage or geotechnical reports, and electronic data files. (See Appendix D). The DPD is authorized to make additions or changes to the Application forms without any additional approval by Commissioners Court.

2.4 **Base Flood Elevation (BFE)**

The water surface elevation resulting from the flood that has a one percent chance of equaling or exceeding that level in any given year (also called the Base Flood).

2.5 **Block**

A tract of land bounded by actual or platted roads, waterways, or other definite boundaries, or a combination thereof.

2.6 **Commissioners Court**

All references in these Regulations to the Commissioners Court shall mean the Commissioners Court of Walker County or the person(s) designated by the Commissioners Court of Walker County.

2.7 **Condominium Development**

A form of real property with portions of the real property designated for separate Ownership or occupancy, and the remainder of the real property designated for common Ownership or occupancy solely by the Owners of those portions. For the purposes of these Regulations, Condominiums shall include, but not be limited to, all developments created under Chapter 82 of the Texas Property Code, also known as the Uniform Condominium Act.

2.8 **County**

All references in these Regulations to the "County" shall mean Walker County.

2.9 **County Engineer**

All references in these Regulations to the "County Engineer" shall be construed to refer to the Professional Engineer employed by or contracted by Walker County for the review of plat applications, plans, permits, or general engineering review related to any application, or his/her authorized representative.

2.10 **Cul-de-sac**

A road having one terminus open for vehicular and the other terminated by a vehicular turnaround.

2.11 **Daughter Tract/Daughter Parcel**

Any of the tracts created by the division of a parent tract, including the remainder of the parent tract itself.

2.12 **DPD**

All references in these regulations to the “DPD” shall be construed to refer to the current Director of Planning and Development for Walker County, Texas, or his/her authorized representative.

2.13 **Easement**

A grant by the property Owner for the use of a strip or parcel of land by the public or utilities, or for any private purpose.

2.14 **ETJ (Extraterritorial Jurisdiction)**

The unincorporated area that is contiguous to the corporate boundaries of a city, as defined by that city, and within various distances of the municipality depending on the number of inhabitants of a municipality. Within an ETJ, cities have statutory authority to adopt rules governing plats and subdivisions.

2.15 **FEMA**

The Federal Emergency Management Agency, a federal agency of the Department of Homeland Security.

2.16 **Frontage**

Frontage is the measurement of distance along the right of way adjacent to and abutting a lot boundary as measured at the edge of the right of way.

2.17 **Guidelines**

The Engineering Guidelines contained in Appendix B as part of the Walker County Subdivision Regulations, as amended.

2.18 **Improvements**

Any or all road pavements, curbs and gutters, sidewalks, utilities, drainage facilities, topsoil, trees, grading, signs, and crosswalks, and may also include walkways, streetlights or any other manmade changes to improved or unimproved real estate.

2.19 **LOG**

Lip of Gutter; the front edge of the curb. The point where the curb meets the roadway pavement. (Also referred to as the “face of curb”).

2.20 **Lot**

For the purpose of these Regulations, a parcel or tract of land exclusive of any adjoining road or road right-of-way. A lot is separated from other parcels by a legal description, a subdivision of record, or survey map, and shall meet the minimum dimensions, area, and setback requirements of these Regulations.

2.21 **Major Thoroughfare**

Major thoroughfare shall mean an arterial road as defined herein.

2.22 **Minimum Requirements**

Requirements when defined as a minimum shall be the minimum acceptable requirements. The County, due to unique issues pertaining to each subdivision, may increase such requirements.

2.23 **Minor Subdivision / Minor Plat**

Minor Subdivision/ Minor Plat shall mean an application for plat that meets the following:

- a) does not include or require the construction of any road or drainage improvements under this policy, excluding detention;
- b) subdivides an existing compliant tract into 4 or fewer parts, tracts, or lots;
- c) and is not located within a platted subdivision.

2.24 **Owner**

The person(s), developer, proprietor, or their successors, possessing title and/or lien to the property to be subdivided. This can also refer to the Owner's surveyor, engineer, lawyer, or planner who has been given authority to represent the Owner.

2.25 **Parent Tract/Parent Parcel**

The original tract/parcel owned by the Owner prior to any division.

2.26 **Plans**

Construction drawings, specifications, reports, calculations, estimates, bidding forms, or other documents required for construction, construction review, or construction-related approvals.

2.27 **Plat**

The Plat is the plat required for filing in the records of the County Clerk and is a map or drawing of a proposed subdivision (1) prepared in conformance with the approved engineering plans application and (2) meeting the requirements of these regulations.

2.28 **Precinct Commissioner**

The Walker County Commissioner in whose precinct the subdivision is located.

2.29 **RV Park:**

Also known as a Recreational Vehicle Park, is a planned facility or location created for the temporary lodging of individuals in Recreational Vehicles, Motor Homes, 5th wheel trailers, and similar vehicles, but not including mobile homes, manufactured homes, or structures not certified and licensed for roadway operation by a state. RV Parks offer short-term lodging not to exceed 5 months per year. For the purposes of this policy, an RV Park would include any property that offers two or more recreational vehicles or recreational vehicle spaces or sites for rent, lease, or financial gain on a single property.

2.30 **Registered Professional Engineer**

A person licensed, as of the date of the plan being presented, to practice engineering in Texas.

2.31 **Registered Professional Land Surveyor**

A person licensed, as of the date of the plan being presented, to practice land surveying in Texas.

2.32 **Regulations**

The Walker County Subdivision Regulations (this document), as amended, including all appendices.

2.33 **Road/Street**

The terms "street" or "road" are interchangeable and mean a vehicular way, including culverts and bridges, and are used to describe all vehicular ways regardless of any other designation they may carry. All roads shall be categorized into one of the following functional classifications:

2.33.1 **Arterial Road**

Arterial roads are those that are principally regional in nature, which will serve vehicular traffic

beyond the limits of a subdivision; or connect one collector or arterial with one or more collectors or arterials. Arterial roads include any road used for through or high-volume traffic (> 10,000 average daily trips), or any road included as an arterial on a county or city transportation plan.

2.33.2 **Collector Road**

Collector roads are those that connect one local road with one or more local roads; or any road with > 1000 average daily trips that is not an arterial road.

2.33.3 **Local Road**

Local roads are those that principally provide direct access to lots within a subdivision and have less than 1000 average daily trips.

All roads Arterial, Collector, and Local roads shall also be classified as follows:

2.33.4 **Urban Road**

For the purposes of this ordinance, an urban road is any road situated such that any of the lot frontages are less than 125 feet. Any road with a curb and gutter design will be considered an urban road.

2.33.5 **Rural Road**

For the purposes of this ordinance, a rural road is any road situated such that any of the lot frontages are 125 feet or more.

2.33.6 **Major Thoroughfare**

Major thoroughfare includes arterial roads, as defined herein, and all roads included either now or in the future in the Walker County Long Range Transportation Plan.

2.34 **Subdivision**

The division of a tract of land into two or more parts to layout (1) a subdivision of the tract, including an addition; (2) lots; or (3) streets, alleys, squares, parks, or (4) other parts of the tract intended to be dedicated to public use or for the use of purchasers or Owners of lots fronting on, or adjacent to, the streets, alleys, squares, parks, or other parts (Sec 232.001, Texas Local Government Code, as amended). The Walker County Commissioners Court has adopted guidelines, incorporated in these Regulations as Appendix A, stating when Owners are required to file a plat for a subdivision.

For the purpose of these Regulations, subdivisions shall be classified as either urban or rural, as follows:

2.34.1 **Urban Subdivision**

Urban subdivisions are any subdivision such that any of the lot frontages are less than 125 feet.

2.34.2 **Rural Subdivision**

Rural subdivisions are any subdivision such that any of the lot frontages are 125 feet or more.

2.35 **Travel Way**

The portion of a road or roadway intended for vehicular travel. Where concrete curb is installed, the travel way shall be measured LOG to LOG. In cases where a rollover curb (i.e. 4"x12" curb) is installed, the travel way shall be measured from the inside edge to the inside edge of the rollover curb (i.e., the rollover curb is not included as part of the travel way). The travel way also does not include gravel or paved shoulders.

2.36 **TxMUTCD**

The latest edition of the Texas Manual on Uniform Traffic Control Devices.

2.37 **Utility**

All persons, firms, corporations, partnerships, municipality₁ or other private authorities providing gas, electric, water, sewer, drainage facilities, telecommunications, cable television₁ or other services of a similar nature.

Section 3 - Application Review and Approval Procedures

General Requirements

- 3.1 Every Owner of any tract of land situated outside the corporate limits of any city in Walker County, Texas must apply for approval and have a plat of the subdivision prepared in compliance with these regulations as authorized by Chapter 232 of the Texas Local Government Code and under the platting and applicability guidelines included in Appendix A. No plat shall be approved for filing in the unincorporated areas of Walker County, Texas without meeting the requirements of these regulations unless specifically exempted. (See Platting Guidelines included as Appendix A)
- 3.2 If the property to be platted lies entirely within the limits of a city, the Owner shall consult directly with that city pertaining to all platting procedures and requirements.
- 3.3 If the property to be platted lies entirely outside of the limits of a city and all ETJs, platting procedures and requirements shall be in accordance with these Regulations.
- 3.4 If the property to be platted lies fully or partially within the ETJ of a city, the platting procedure shall be accomplished in accordance with the current, applicable agreement between the County and that city. A table is included in Appendix E summarizing the plat review and approval authority for the various ETJ's within the County.
- 3.5 In those ETJ's where the agreement provides for a joint review by both the city and the County (reference is made to Appendix E), an Application shall be filed with the entity or office required by the agreement.
- 3.6 It is the obligation of the Owner to submit all information necessary to permit proper review by the County. If this is not done, the submission will be rejected and a new application must be filed.
- 3.7 All subdivisions of land must either be approved for an exception under State or Local exceptions (See Appendix A), or complete all required applications and approvals required herein. All applications for an exception must be approved by the DPD and/or the County Engineer and have an affidavit of exception on the current form filed in the records of the County Clerk.
- 3.8 All applications shall be marked as to the category of application: Exception, Variance, Plat, or Re-plat / Amending Plat. Additionally, applications shall include any request for consideration as a plat seeking consideration under the requirements of a Minor Subdivision. A separate application governed by independent timelines and processes will need to be submitted for each category of application requested and/or necessary for the completion of a project.
- 3.9 All applications must include all submittals as required herein, or shown on the "Walker County Subdivision Regulations Application Checklist" attached as Appendix D. Appendix D is provided as a guide to assist the applicant in the application process and does not provide complete details of each individual requirement, the detailed requirements are provided in the text and appendices of these regulations.
- 3.10 Once an application and application fee are submitted, no refund of any fees will be given unless required by statute or approved by Commissioners Court. There will be no refund due to an application being submitted incomplete or the withdrawal or cancellation of an application or project. It is the Owner's responsibility to review these regulations and associated guidance and submit the

application only after due diligence has been given to the completeness and suitability of the application.

- 3.11 All subdivisions of land not otherwise excepted by these regulations must submit a plat application for approval prior to filing a plat or subdividing any property in the unincorporated areas of Walker County. For certain platting such as amending plats, lot combination in existing subdivisions, and minor subdivisions with prior approval from the DPD and/or County Engineer a minor plat complying with the County's standards may be submitted. The names of the proposed subdivision and any of the physical features (such as streets, parks, etc.) must not be so similar in spelling or pronunciation to the names of similar features in Walker County, as to cause confusion. All streets and roads must be named on the plat, a list of road names must be submitted by the Owner to the Department of Planning and Development, and approval of the names received, prior to the submittal of the plat application for review and approval.
- 3.12 The Owner must submit six fully signed and executed copies of the plat on 18"x24" media, three paper copies, and three mylar copies. In addition to the plat the Owner must submit 3 paper copies of all submittals along with the following digital files for of any plans, plats, exhibits, studies, or other documents required by these regulations for all applications:
- a) A copy of all items in an Adobe .pdf format;
 - b) A copy of all plans, plats, maps, or spatially displayed or related documents and data in .dwg format or pre-approved alternate format.
 - c) A copy of all features shown on the plat must be provided in ESRI shapefile format including but not limited to roads, rights of way, easements, lot lines, property lines, section and block outlines, etc.

All entities or objects within the AutoCAD drawing file shall be at zero elevation. The coordinate system of the electronic drawing and shapefile shall be the Texas State Plane Coordinate System, Central Zone, U.S. Survey feet, grid coordinates. Right-of-way centerlines, real property boundary lines, (lots, blocks, external subdivision boundary, rights-of-way, etc.), and text shall each reside on independent or separate layers. All documents required to be submitted by a registered professional land surveyor or professional engineer must be sealed and signed. *An exemption from the requirement to submit a digital map may be granted if the Owner of the tract submits with the plat application an acknowledged statement indicating that the digital mapping technology necessary to submit a map that complies with this subsection was not reasonably accessible, including justification as to why the technology is not reasonably accessible.*

- 3.13 To protect the public interest, the Commissioners Court of Walker County hereby decrees under the provisions of Chapter 232, Texas Local Government Code, that the Owner of any tract of land that desires to obtain the approval necessary for recording a subdivision plat in the County Clerk's Records of Walker County shall construct all roads and drainage facilities, including storm water detention, along with any items required by other governmental agencies in said subdivision to the standards and specifications set forth in the Engineering Guidelines incorporated as Appendix B of these Regulations before offering said plat for approval, unless financial surety is approved and provided in accordance with Section 6, construction plans are approved by the Commissioners Court, and all necessary permits have been issued. -
- 3.14 If an Owner wishes to construct improvements prior to filing a plat then the owner must submit a variance request, requesting a revised process for submittal and approval of infrastructure.
- 3.15 All road and drainage improvements shall be designed and certified by a Professional Engineer

licensed to practice in Texas. All plans and specifications shall conform to the requirements of these regulations.

- 3.16 The Owner shall submit construction plans, sealed by a Professional Engineer, for roads, drainage, traffic signage, and utilities within the proposed subdivision to the Planning and Development Department and obtain plan approval from the Commissioners Court prior to beginning construction. These plans shall show the location of water, sanitary sewer, and storm sewer utilities, and shall show proposed easements for privately owned utilities (electric, cable television, gas, telephone, etc.). Utilities will be reviewed based on their impact on the right of way, public infrastructure, and the floodplain. These plans shall include the design requirements as described in Appendix B, Engineering Guidelines.

Pre-Application Meeting

- 3.17 It is strongly recommended that the Owner request and attend a pre-application meeting with the Walker County Department of Planning and Development prior to all Plat Applications.
- 3.18 The Owner must submit a request for this meeting and is encouraged to bring to the meeting any of the application documents listed in Appendix D.
- 3.19 A Pre-Application Meeting will generally be scheduled within 10 business days of the receipt of a completed request and the Owner will be notified of the time and date of the meeting. The time, date, duration, and location of the meeting will be at the complete discretion of the County.
- 3.20 The Pre-Application Meeting will allow the Staff to provide some information on the plat application processes, and allow Owner to ask questions related to policy in relation to a potential application.
- 3.21 A Pre-Application meeting does not constitute a Plat Application.

Plat Application

- 3.22 A Plat Application must be submitted and approved prior to any plat being filed for all subdivisions of land subject to these regulations. (See Appendix A for additional guidance on applicability)
- 3.23 Applications and any revised applications or responses to conditional approvals or disapprovals must be submitted during a scheduled submittal meeting with DPD or assigned staff. The Owner or the Owner's designated representative must attend the meeting. This meeting may be scheduled in conjunction with a pre-development meeting if so desired by the applicant.
- 3.24 The Application must include the documents and other information required by these regulations.
- 3.25 All Plat Applications shall include the fee as required by the currently adopted Schedule of fees.
- 3.26 All Plat Applications must include a completed and executed Application Form in its most current version. The application form will be available from the Department of Planning and Development, and the DPD has the authority to update or change this form without the need for any additional action by Commissioners Court.

- 3.27 All Plat Applications shall include copies of the current filed deed for the parent tract.
- 3.28 All Plat Applications shall include a copy of a valid Title Policy/Report for the parent tract acceptable to the County.
- 3.29 All Plat Applications shall include a copy of a Final Plat in compliance with these Regulations and including all final signatures and certifications.
- 3.30 All Plat Applications shall include such documents as necessary to identify the Owner or Owner's agent authorized to sign documents in relation to the plat. This may include, but is not limited to powers of attorney, articles of incorporation, and title documents.
- 3.31 All Plat Applications not specifically exempted from the requirement to submit a detention/drainage study or flood study under these regulations, and all Subdivision Applications that include the construction of any improvements required or regulated under these regulations, must include completed plans, sealed by a Registered Professional Engineer authorized to practice in Texas, for all improvements. The plans must comply with these regulations including but not limited to Appendix B. In addition, all plans must be satisfactory to the Commissioners Court.
- 3.32 All Plat Applications proposing new streets and roads must include copies of a written approval from the governmental authority having jurisdiction over 911 addressing that all road names and spellings included in the plat have been authorized for use.
- 3.33 All Plat Applications that do not indicate plans for the connection to, or installation of, a TCEQ approved municipal wastewater system must include an approved OSSF Subdivision Planning Materials Submittal for Subdivision Development from the TCEQ Authorized Agent, unless exempted in writing. No lot or tract shall be included within any application for subdivision in violation of state law or local order, including, but not limited to the Texas Administrative Code, Title 30, Chapter 285, and the Walker County Regulations for on-site sewage facilities.
- 3.34 All Plat Applications planning to utilize a TCEQ approved municipal wastewater system must include a letter from the wastewater provider including a reference to the provider's valid Certificate of Convenience and Necessity (CCN) or documentation of an application, indicating that the provider is prepared to provide sewer services for to the proposed subdivision.
- 3.35 All Plat Applications shall include letters of serviceability from all water and electric providers including the name, phone number, and e-mail address of the utility company contact. The letter must include a reference to the subdivision and the number of lots to be served.
- 3.36 If a person submits a plat for the subdivision of a tract of land for which the source of the water supply intended for the subdivision is groundwater under that land, the plat application must include a written statement that:
- (1) is prepared by an engineer licensed to practice in this state or a geoscientist licensed to practice in this state; and
 - (2) certifies that adequate groundwater is available for the subdivision.
- 3.37 All Plat Applications that require or include the construction of improvements must include an approved permit issued under the Walker County Regulations for Flood Plain Management. All

plats and plans shall conform to the Walker County Floodplain Regulations regardless of the permitting requirements.

- 3.38 All Plat Applications that require a variance to be granted must submit a copy of all approved variances with the application.
- 3.39 All Plat Applications requiring the construction of improvements must include a detailed and itemized report including the construction cost estimate of all road and drainage improvements sealed by a registered professional engineer authorized to practice in Texas. The report must be acceptable to the County Engineer and the Commissioners Court in format and content.

All Plat Applications requiring the construction of improvements must include a letter signed by the Owner specifying the mechanism and/or entity that will be responsible for maintenance of the public improvements within the subdivision if the roads, drainage, and associated appurtenances are not adopted for public maintenance by Walker County.

- 3.40 All Plat Application shall include any necessary approvals from other governmental agencies such as Texas Department of Transportation, Groundwater Districts, Army Corps of Engineers, etc. Any plat proposed within 2000 feet of the Trinity River or Lake Livingston shall include a letter of “no objection” from the Trinity River Authority. Any plat proposed within 2000 feet of Lake Conroe shall include a letter of “no objection” from the San Jacinto River Authority. Any plat proposing to connect to or provide access from a road under the maintenance or control of the Texas Department of Transportation shall provide written approval of said access or connection. It is the sole responsibility of the Owner and/or the Owner’s Representative to properly research any approvals that are required from other agencies. Acceptance of an application by Walker County does not waive any responsibility or requirement for compliance with any outside agency.

Review Process

- 3.41 All plat applications shall be submitted complete and made as a single submittal. It is the Owner’s responsibility to review these regulations and associated guidance and submit the application only after due diligence has been given to the completeness and suitability of the application. An application checklist is attached as Appendix D, as an aid to compliance. Acceptance of the application for review is not an indication of the completeness of an application. No review for completeness will take place prior to submittal of an application by the Owner and payment of the associated fee. It should be recognized by the Owner that the submittal of a complete application is a requirement of the Owner and that the submittal of incomplete applications affects program costs and expenses and may result in increases in the application fee.
- 3.42 Once an application and application submittal fee are submitted no refund of any fees will be given unless required by statute or approved by the direct action of Commissioners Court. There will be no refund due to an application being submitted incomplete or the withdrawal or cancellation of an application or project.
- 3.43 An application is considered submitted for review on the date application, revised application, or resubmittal is received by the Walker County Department of Planning and Development at:

**1313 University Avenue, Suite A
Huntsville, TX 77320**

- 3.44 Delivery of the application must take place in accordance with the administrative criteria set by the Walker County Department of Planning and Development. The Walker County Department of Planning and Development does not receive any applications on non-business days. Unless an alternative submittal process has been agreed to in advance and in writing by the DPD, all submittals must take place at a submittal meeting scheduled in advance by the Owner.
- 3.45 The DPD is authorized to set any necessary administrative criteria related to the submittal of applications under this policy, including but not limited to, setting the times and/or dates at which applications will be received, requiring appointments for submittal of the applications, making changes as necessary to the administrative forms related to applications, specifying the method and type of payment, and specifying the form of submittal.
- 3.46 The County shall have 10 business days from the date the application is received to notify the Applicant of any documents or other required information missing from the application. The application will not be considered complete until all documents or other required information are submitted. This initial review of the submittal is an administrative review to determine if required documents or other information are missing from the application and should not be construed as a qualitative review to determine approval, completeness, appropriateness, or compliance of the documentation or other submittals with these regulations.
- 3.47 In such cases where the application is missing any document or other required information, the County will notify the Owner of the missing documents or other required information. The missing documents or other required information must be submitted to the County as a single submittal along with payment for any increase in the fee, and a receipt will be provided to Owner for the revised submittal. Each time a submittal is made of missing documents or other required information the 10-business day administrative review period described in Sections 3.42 - 3.48 will begin again. This process will continue until all documents and other required information are submitted, or until the Application expires (See Section 3.67).
- 3.48 If an incomplete application is submitted for review, but the application fee and completed application form are submitted, the Owner may request a "Guidance Review" from the County on the incomplete application prior to submitting the missing documents or other required information in the revised application. The guidance review is a voluntary process designed to improve the Owner's Application without being subject to the strict timelines, revision processes, and rejections processes surrounding completed applications. The DPD and County Engineer are not required to conduct a guidance review of any incomplete applications unless the DPD agrees that the review would have significant benefit to the application, and not create a significant negative impact on County resources. The acceptance of an application for "Guidance Review" is at the total discretion of the DPD. A "Guidance Review" may only be requested or granted on withdrawn or incomplete applications. As the Guidance Review is not a required process it is outside of the application process timeline and there is no maximum response time for this process to complete, however, the Owner may proceed to re-application at any point without waiting for the Guidance Review to be completed if the Owner so desires.
- 3.49 Once an application is considered complete and regulatory review has begun no additional documents or other information may be submitted for review, with the exception of a response to a conditional approval or disapproval by the Commissioners Court or its authorized representative. If an application is withdrawn then a revised application may be submitted under the conditions allowed of this policy.

- 3.50 Following the receipt of a complete Application, the DPD and/or the County Engineer will review the Application for compliance with these regulations and forward the application and the review comments to the Commissioners Court for action.
- 3.51 The DPD and/or County Engineer will submit a copy of the application review(s) to the Commissioners Court, the person authorized by the Commissioners Court, or, in the case of a joint review where the county is not acting as the authorized office, to the specified authorized office.
- 3.52 Unless an Owner successfully withdraws an application, the DPD and/or County Engineer will refer the original application along with comments and recommendations to the Commissioners Court or person designated by the Commissioners Court for action.
- 3.53 The Commissioners Court or its designee will consider the plat application for approval within 30 days of the date of the receipt of a complete application, unless a valid extension is allowed for under law or has been applied for and granted by the Owner.
- 3.54 If an application is approved without conditions, the application will be considered complete and the plat may then be approved for filing by the Commissioners Court. Approval for the plat for filing is a separate action from the approval of the plat application and is not included in the 30-day or 15-day timelines for the approval of the application.
- 3.55 If an application is disapproved, or approved with conditions, by the Commissioners Court or its authorized representative shall provide a written list of conditions for approval to the Owner. The Owner may withdraw the application, or the Owner may submit a written response that satisfies each reason for disapproval provided, or satisfies each condition. If the Owner wishes to submit a response, the response should be submitted as a single submittal addressing each condition or reason.
- 3.56 If the applicant chooses to submit a written response that satisfies each reason for disapproval provided, or satisfies each condition for a conditional approval, the applicant must submit the written response in the same format(s) and quantities as required under the original application. The response shall be accompanied by all required forms and any increases in the application fee or outstanding fee balances shall be paid when submitting the response.
- 3.57 Following the submittal of a response to a conditional approval or disapproval, the Commissioners Court and/or its designee shall review the response and take additional action to approve, approve with conditions, or disapprove the application within 15 calendar days.
- 3.58 The process described in Sections 3.57 through 3.59 shall continue until the application is approved by the Commissioners Court, is approved by the Commissioners Court's designee, expires, or is withdrawn.
- 3.59 At any time following the submittal and acceptance of a completed application the DPD or County Engineer may recommend the application for action by the Commissioners Court or a person herein designated by the Commissioners Court.
- 3.60 At any time following the submittal and acceptance of a completed application, the Commissioners Court may take action on an application without allowing for a withdrawal, revision, or extension.
- 3.61 Following approval of a plat for filing by the Walker County Commissioners Court, the Owner

shall submit the final plat to the County Clerk for recording in accordance with the requirements of the County Clerk's Office.

- 3.62 If a final plat is not recorded within five years of the approval of the plat for filing by the Commissioners Court, the approval of the final plat expires. A single six-month extension may be granted by the Commissioners Court. The extension must be requested in writing by the Owner at least 30 days prior to the expiration.

Withdrawal of an Application

- 3.63 If the Owner wishes to withdraw the application, the Owner must submit a request for an administrative withdrawal of the original application on the current County form. Withdrawal of an application is voluntary and must be requested by the Owner on an approved form. An application is withdrawn can only be submitted as a new application, however, it may be submitted within 90 days of the withdrawal, under the same application number, and pay only the increase in fee that would be charged for a revised application under the schedule of fees. If an application is withdrawn and not resubmitted within 90 days then the application must be submitted as a new application in accordance with these regulations and pay the fee for a new application.
- 3.64 An application submitted following a withdrawal will be processed under a new timeline starting with a review for completeness under these regulations. No replacement applications will be accepted once an application has been accepted as complete without the original application being withdrawn.
- 3.65 The Owner may voluntarily submit a withdrawal of application and replacement application only if approved by an authorized representative of the Commissioners Court.
- 3.66 The DPD and/or the County Engineer are hereby authorized to approve or deny any requests for extension or application withdrawal and/or replacement.

Expiration of an Application

- 3.67 Applications shall automatically expire in 120 days under the conditions laid out in 245.002(e) of the Texas Local Government Code. All applications shall expire as a dormant application under 245.005 5 years from the original date of submittal.

Minor Subdivisions

- 3.68 Minor subdivisions are subdivisions with four or fewer total lots, that are not located within an existing platted subdivision, and that do not require the construction of any road or drainage improvement under these regulations aside from detention. (See definitions section)
- 3.69 Minor Subdivision Applications while not exempt from meeting the detention requirements of these regulations, State, or Federal law, are not required by these regulations to submit engineering plans for review by the County as long as the plat includes the Minor Plat drainage certifications under C11.

- 3.70 Minor Subdivisions are not required to submit 911 name approvals, construction cost estimates, groundwater reports, bonding, maintenance plans, or engineering drawings required for Plats, because by definition these plats do not include or require the construction of said improvements.
- 3.71 Minor Subdivisions shall be submitted in the same formats and quantities as required for in under Section 3.12.
- 3.72 If any portion of the original parent tract being subdivided as a Minor Subdivision is further subdivided so that the total number of daughter tracts ~~lots~~ created from the original parent tract exceeds 4, then all new lots created must be addressed by the re-plat application's engineering plans, including detention for all new lots created by the replat. A note to this effect shall be placed on the face of the plat.
- 3.73 The DPD and/or the County Engineer are hereby authorized to approve, disapprove, or approve with conditions all plat applications involving Minor Subdivisions. Following the approval of a plat for a Minor Subdivision, the plat will be placed on the Commissioners Court agenda to be approved for filing.

Amending Plats and Re-plats Process

- 3.74 Re-plat and Amending Plat applications shall not be subject to the same review timelines and procedures that relate to the approval of plat applications.
- 3.75 Re-plats or Amending Plats otherwise meeting the requirements of a Minor Subdivision will be allowed to utilize the submittal requirements for Minor Subdivision Applications; all other Amending Plats or Re-plats shall meet the same submittal requirements as listed for Plat Applications within these regulations.
- 3.76 As re-plats and amending plats are subject to different procedures and timelines as outlined in Chapter 232 of the Texas Local government code, these applications will be processed in accordance with those requirements (see Section 5).

Section 4 - Plat Requirements

Every plat shall include all of the following:

- 4.1 Date, north arrow, scale, and name of the proposed plat.
- 4.2 All portions of the plat must be legible without magnification.
- 4.3 The plat shall be prepared by a Registered Professional Land Surveyor.
- 4.4 A vicinity map, drawn at a scale appropriate to show all nearby major roadways and sufficient in detail to identify the location of the proposed plat.
- 4.41 The scale of the plat shall not be greater than 200 feet per inch, and shall be to a standard engineering scale.
- 4.5 The plat shall be certified as to accuracy by the surveyor preparing the plat and show in reasonable detail the location of and width of existing and proposed streets, roads, alleys, lots, parks, easements, and other related features within the subdivision.
- 4.6 The plat shall be drawn on tracing cloth or other permanent type of material consisting of one or more sheets measuring eighteen inches wide and twenty-four inches long. If separate sheets are used a key map showing the entire tract shall be drawn on the first sheet.
- 4.7 Bearings and distances, calling for the lines of established surveys, landmarks, school districts and other data furnished, sufficient to locate the property on the ground, must be shown on the plat.
- 4.8 Lots and block numbers are to be arranged in a systematic order as shown on the plat in distinct and legible figures.
- 4.9 The plat (including the entire parent tract if only a portion of that tract is to be subdivided) shall be shown on a single sheet, regardless of its acreage. The plat may also be separately shown on multiple sheets if necessary to show all detail and information as required by this section.
- 4.10 Name, address, telephone number, and email address of the professional individual(s) or firm(s) responsible for the preparation or certification of the plat.
- 4.11 Name, address, telephone number, and email address of the property Owner(s) of record.
- 4.12 All adjacent property Owner's names, deed record, or subdivision name, block, and lot number.
- 4.13 County boundaries, city limits, ETJ boundaries, and subdivision section and/or phase boundaries.
- 4.14 Size, in acres, of all daughter tracts including the remaining portion of the original tract.
- 4.15 Centerline tangent lengths and curve data for all proposed roads.
- 4.16 Road names and road designation (whether the road will be public or private), and right-of-way width for all proposed roads within and all existing roads abutting the plat. All rights-of-way and easements shall comply with Appendix B and Appendix F.
- 4.17 Survey ties across all existing right-of-way located adjacent to the boundary of the subdivision. Each tie shall show the bearing and distance from a proposed property pin to an existing property

pin or fence if a pin cannot be found. Based upon this tie, an approximate right-of-way width shall be shown. The intent of this requirement is to assist in determining if the additional right-of-way is needed.

- 4.18 Any existing County maintained road right-of-way that joins the tract being subdivided shall have the same right-of-way widths and setbacks required herein. The additional right-of-way as might be required shall be furnished by the Owner and measured from an acceptable centerline alignment. The dedication of additional rights-of-way and setbacks along existing County maintained roads is not required to exceed the boundaries of the parent tract(s).
- 4.19 A dimension from the centerline of any existing roadway's pavement or causeway to the edge of the existing or proposed right-of-way.
- 4.20 Any area dedicated for road right of way shall be shown with bearings and distances, and be included on the plat drawing or in the plat notes the acreage of the dedicated road right of way.
- 4.21 All existing property lines and proposed lot lines with approximate bearings and dimensions. For required lot widths and minimum lot size, refer to Appendix B.
- 4.22 Building setback lines for each proposed lot. For building setback requirements, refer to Appendix B. Building setback lines can be included by a note on the plat at the owner's discretion.
- 4.23 All lot lines shall stop at the right-of-way lines; under no circumstances shall they extend past or into the right-of-way.
- 4.24 Proposed easements, existing easements, and detention basins, if needed, based on the requirements outlined in Appendix B.
- 4.25 Location of all existing and proposed water bodies on or immediately adjacent to the subject property.
- 4.26 The location, zone classification, and panel effective date of the 100-year floodplain as identified on the most current Walker County Flood Insurance Rate Map (FIRM), published by the Federal Emergency Management Agency (FEMA).
- 4.27 The location of the proposed cluster mailboxes, if required.
- 4.28 If the proposed plat is to be a private subdivision (containing private roads), the title of the plat shall contain the phrase, "A Private Subdivision". Refer to Section 9 for additional requirements.
- 4.29 All existing and proposed plat boundary lines, phase/section lines, and lot lines with bearings and distance. Bearings shall be based on the Texas State Plane Coordinate System, Central Zone. Distances shall be expressed in U.S. Survey feet, and state whether distances are "Grid" or "Surface". A Combined Scale Factor shall be specified on the face of the plat to eight decimal places (example: 0.12345678) to facilitate the conversion of surface distances to grid distances. At least two external boundary corners of each block within the subdivision shall have grid coordinates depicted on the plat to the nearest one-hundredth of a foot (0.01 feet).
- 4.30 Metes and bounds description of the property to be subdivided shall be certified by a Registered Professional Land Surveyor, describing a beginning point and reciting bearings and distances to

a corner of the original land grant survey of which the subdivision is a part, according to the best available data.

- 4.31 A Texas Registered Professional Land Surveyor, in compliance with the Texas Board of Professional Land Surveying Act and the Board Rules, shall set all subdivision boundary corners, angle points, Points of Curvature, Points of Tangency, lots, blocks, and rights-of-way within the subdivision before the plat is recorded.
- 4.32 All plats shall make accommodation for any necessary easements, rights-of-way, or lot design necessary to accommodate the improvements related to the subdivision as required by these regulations
- 4.33 Any vertical elevations depicted on the plat shall be expressed in U.S. Survey feet, and shall indicate the specific vertical datum used. Describe and locate at least one vertical reference mark used to verify or establish said datum, and indicate the vertical elevation used at each vertical reference mark.
- 4.34 Roads rights of way shall be dedicated to the public except as indicated in Section 8. The dedication of all public roadways and easements shall be accomplished free of liens. All rights-of-way and easements shall be in compliance with Appendix B and Appendix F. All dedications of a right of way shall be by easement and in conformance with these regulations. The dedication shall be accompanied by a plat note as found in Appendix C1. The Owner's and any lien holder's dedication, and restrictions if any, duly acknowledged in the manner required for acknowledgement of deeds, shall also be provided.
- 4.35 If public roadways are to be built as part of the plat, the plat note regarding the responsibility for construction of roadways is found in Appendix C2.
- 4.36 The plat note regarding Owner's responsibilities as found in Appendix C3 must be included if not contained in the Owner's dedication.
- 4.37 All proposed easements and existing easements of record that have a designated route shall be shown on the plat with bearings and dimensions. The Owner shall be responsible for coordinating with all utility providers the location of all utility easements that are shown on the final plat.
- 4.38 If there are any areas within the plat that include a FEMA-mapped floodplain with a Zone A classification, or if there exists within or adjacent to the plat any water-course whose upstream drainage basin is larger than 64 acres, the plat shall also show the extent of the 100-year floodplain as determined by an engineering study under the seal of a Registered Professional Engineer. This study shall be sufficient in scope to determine and establish a base flood elevation (BFE) for all points within the plat in accordance with FEMA approved methodologies and standard engineering practices.
- 4.39 For plats where a FEMA-mapped floodplain with a Zone AE classification exists within the subdivision, the BFE established by the associated FEMA-published flood study may be substituted for the engineering study.
- 4.40 A minimum lowest finished floor elevation (FFE) for buildings shall be established for each lot adjacent to the floodplain. This minimum FFE shall be established in accordance with the most current edition of the Walker County Floodplain Regulations. FFE shall utilize the same vertical

datum as used with the BFE determination, and shall include information as to the elevation of the FFE above the BFE.

- 4.41 The plat note is found in Appendix C4 for Commissioners Court approval, including authorization for the County Clerk to file the plat for record, and the County Clerk's certification as found in Appendix C6. The County Judge's approval and the County Clerk's certification shall be located in the lower right hand corner of the last first sheet of the plat with the County Clerk's approval being last. These signatures shall be obtained after approval by the Walker County Commissioners Court.
- 4.42 All variances granted shall be listed in the notes section of the plat
- 4.43 All parcels within the boundary of the subdivision shall have a block and lot number shown on the plat drawing.
- 4.44 If any lot within the plat will be served by an on-site sewage facility, a signature block as found in Appendix C6 shall be placed on the plat. This block shall show that a properly licensed individual has examined the plat and that it complies with the Walker County On-Site Sewage Facility Regulations, Construction Standards for On-Site Sewage Facility Regulations as published by the Texas Commission on Environmental Quality (TCEQ as amended. The Registered Sanitarian or Engineer that prepared the OSSF planning materials for the developer must sign this signature block.
- 4.45 If rural route mailboxes are proposed, see Appendix C8 for placement of such mailboxes.
- 4.46 If any areas of the plat are located within the ETJ of a city, the signature block as found in Appendix C8 relating to floodplain regulation shall be included on the plat.
- 4.47 If any areas of the plat are located outside of incorporated areas, the plat note as found in Appendix C9 regarding the requirement to obtain a unique Development Permit from the Walker County Floodplain Administrator prior to any manmade change to improved or unimproved real estate, including but not limited to the placement of a structure or surface improvement.
- 4.48 All plats shall include the appropriate drainage notes/certifications as found in Appendix C11.
- 4.49 If the roads within the subdivision will be private, include the appropriate note(s) per the requirements of Section 8.
- 4.50 It is the responsibility of the Owner to assure that the proposed name of the subdivision is not duplicated. Subdivisions with different sections are considered unique. The Owner shall check with the County Clerk's records for verification.
- 4.51 A culvert schedule shall be calculated by a P.E. and included on the plat in table form for all proposed driveway culverts. The table shall include the adjoining street name, lot and block number, and diameter of each culvert. The design requirements are outlined in Appendix B and in the *Regulations for Walker County Driveway Permits, Design, and Materials*.
- 4.52 The Owner shall provide a letter of serviceability from an entity or entities providing water service. If water service to the subdivision will be by individual private wells, include a note on the plat that says that all lots will be served by private, on-site wells.

Section 5- Amending Plats, Re-plats, or Vacating a Plat

- 5.1 The Owner of a previously recorded lot may create an amended plat to create six or fewer lots in the subdivision or a part of the subdivision covered by the preceding plat if:
- a) The changes do not affect any applicable County regulations, including zoning regulations if the County has authority to adopt zoning regulations; and
 - b) The changes do not attempt to amend or remove any existing covenants or restrictions; and
 - c) All applicable requirements of Section 232.009 of the Texas Local Government Code, as amended, are met.
 - d) The amended plat is prepared in accordance with the final plat requirements of these regulations.

- 5.2 The vacation of an existing plat shall be accomplished in accordance with the applicable provisions outlined in Section 232.008 and/or 232.0083 of the Texas Local Government Code, as amended.

- 5.3 Walker County does hereby adopt, as an alternative to the provisions in Section 232.009 governing the revision of plats, the provisions in Sections 212.013, 212.014, 212.015, and 212.016 governing plat vacations, replatting, and plat amendment. The Commissioners Court may approve a plat vacation, a replat, and an amending plat in the same manner and under the same conditions, including the notice and hearing requirements, as a municipal authority responsible for approving plats under those sections.

Instead of the purpose described by Section 212.016(a)(10), an amended plat may be approved and issued by the county to make necessary changes to the preceding plat to create six or fewer lots in the subdivision or a part of the subdivision covered by the preceding plat if:

- a) the changes do not affect applicable County regulations, including zoning regulations if the County has authority to adopt zoning regulations; and
 - b) the changes do not attempt to amend or remove any covenants or restrictions
- 5.4 If an amended plat or a vacated plat is not recorded within two years of the approval by the Commissioners Court, the approval of the amended or vacated plat expires. The Commissioners Court grant a single six-month extension.

Section 6 - Financial Responsibilities and Guarantees

- 6.1 To protect the public interest, the Commissioners Court of Walker County hereby decrees under the provisions of Chapter 232, Local Government Code, that the Owner of any tract of land that desires to obtain approval of a subdivision plat for recording a plat in the County records shall construct all roads and drainage facilities, including storm water detention, and any other items required by other governmental agencies, in said subdivision to the standards and specifications set forth in the Engineering Guidelines incorporated as Appendix B of these Regulations before offering said plat for approval, unless the owner meets the requirements of Section 6.4.
- 6.2 When traffic signal and additional turn lanes are required due to anticipated future traffic generated by the subdivision as determined by the County Engineer or an independent traffic engineer, the cost of future traffic signal shall be included/added to the surety provided to the County. Installation of such signals shall be the responsibility of the Owner. Turn lanes and required signals shall be constructed in conjunction with the roadways. If improvements, turn lanes, traffic signals are required by Texas Department of Transportation(TXDOT) in relation the subdivision, then the Owner shall provide written documentation to the County that all necessary TXDOT permits, surety, and construction requirements have been met with the application.
- 6.3 If the subdivision is required to construct off-site storm water detention, then surety will be required for the construction of the detention facility prior to beginning construction of the subdivision improvements. This surety will be released upon completion of the construction of the detention facility and acceptance of the construction by the County.
- 6.4 If the Owner desires to have the plat approved before completion of construction of the roads and drainage, then the Owner shall give a good and sufficient security in the form of a bond, cash, or letter of credit acceptable to the Commissioners Court, with the form and content reviewed by the Walker County Criminal District Attorney's Office. The bond or letter of credit must:
- (1) be payable to the County Judge of Walker County and to the Judge's successors in office;
 - (2) be in an amount determined by the Commissioners Court to be adequate to ensure proper construction of the roads and streets in and drainage requirements for the subdivision, the estimated cost of construction shall be based on the calculations of a Registered Professional Engineer and acceptable to the Commissioners Court. The security shall contain an amount sufficient for administering the re-bidding of the proposed construction should this become necessary.
 - (3) be executed with sureties as may be approved by the court;
 - (4) be executed by a company authorized to do business as a surety in this State if the court requires a surety bond executed by a corporate surety; and
 - (5) be conditioned that the roads and streets and the drainage requirements for the subdivision will be constructed:
 - (A) in accordance with the specifications adopted by the court; and
 - (B) within a reasonable time as set by the court
- 6.5 The release of the security shall be conditioned on the completion (in compliance with the Engineering Guidelines and these regulations) of all the roads and drainage facilities shown on the

plat.

- 6.6 In areas within the ETJ of a city, the city's financial security policy may apply if the Commissioners Court finds that the City policy provides adequate protection of the County's and public's interest in the land development and construction of infrastructure, and the County is named with the City on the financial document.
- 6.7 The Owner may be granted partial reductions of the security requirement upon written approval by the Commissioners Court, and, if applicable, in accordance with the City ordinance when the subdivision lies inside the ETJ of a city.

Section 7 - Maintenance

- 7.1 By accepting a subdivision plat for filing, the Commissioners Court does not thereby accept the roads or improvements in the subdivision for Ownership or maintenance by the County. The Owner of the platted lots and/or the entity identified in the Maintenance Bond will be responsible for maintenance of all roads within the subdivision until such time, if any, as the maintenance of the roads have been accepted by the County.
- 7.2 The entity named in the Maintenance Plan and the Owner shall be responsible for the maintenance of the roads and other associated drainage and improvements in the subdivision.
- 7.3 No landscaping, irrigation, sidewalks, illumination, water quality features, or other improvements not related to roads and drainage shall be located within the public rights-of-way, unless the Commissioners Court has granted a specific variance. Any such features proposed shall be included in the maintenance plan submitted with the Plat Application.
- 7.4 Once the construction has been completed and the County Engineer has reviewed the construction, the Owner shall provide the DPD with a paper copy and digital files of the "As-Built" plans showing the original approval signatures and the seal of a Registered Professional Engineer. These plans are to show the improvements as they were actually built. The files shall be in the same format as required in Section 3. After the "As-Built" plans are received and all construction deficiencies have been satisfied, the Owner's Engineer shall submit a dated, sealed, certification that all improvements have been constructed in accordance with the plans and the requirements of these regulations, unless as specific written variance has been granted, the form of this certification is subject to the approval of the DPD and/or County Engineer.
- 7.5 The County will consider accepting a road for maintenance only after dedication to the public of an easement for the roadway and associated drainage, and the minimum standards of these regulations being met. The County may also consider any other factors relating to the public's interest in their decision regarding accepting maintenance of the roads or drainage system.
- 7.6 In addition, written certification from a Registered Professional Engineer and the Owner is required, stating that the improvements were constructed in accordance with the applicable subdivision regulations in effect when the subdivision was recorded along with any written approved variances). If a final plat for the subdivision where the improvements are located was never recorded, the improvements must meet the current applicable subdivision regulations subject to any approved variances.
- 7.7 At the end of construction of the subdivision, but prior to consideration of the release of the construction surety or the acceptance of substantial completion of the roads by the County; the Owner shall provide to the County a bond in the amount of 10% of the total accepted cost of construction of the roads and drainage of the subdivision. This bond must be payable to the County Judge, or his successors in office, of Walker County, Texas and may be provided by the contractor or developer. Upon receipt of the additional surety and the acceptance of the substantial completion of the improvements by the County Engineer and the Commissioners Court, the County will continue to inspect the infrastructure for failure, defect, or other issue related to construction or materials for an additional two years. The surety will be released two years from the date of the acceptance of substantial completion of the improvements unless failure of workmanship or

materials, in the sole opinion of the Commissioners Court, has occurred. The Owner will be notified of any deficiencies and given the opportunity to repair such deficiencies. If the Owner does not provide repairs within 90 days, the bond may be used by the County to repair these deficiencies.

- 7.8 Following the two year extended inspection period detailed above, the Commissioners Court, at its discretion, may conduct a hearing to decide whether or not to accept the roads for public maintenance. The Commissioners Court is not obligated to accept any roads, drainage, or other improvements even when they meet the minimum criteria of these regulations, and may consider other factors related to the public benefit, including but not limited to, the benefits of maintenance and cost of maintenance, the number of dwellings or properties served by the roadways, and the benefits to countywide traffic, when making this decision.
- 7.9 The enforcement of deed and plat restrictions are the responsibility of the Owner(s) of the subdivision. However, in the unincorporated areas of Walker County, and the Extraterritorial Jurisdiction, both the city and Walker County, shall have the right and authority to enforce plat restrictions through appropriate legal procedure, prohibit the construction or connection of utilities, and issue permits when the requirements of the plat restrictions have been achieved. This requirement does not create an obligation or requirement on the part of the County or city to enforce any plat restriction unless, in the judgement of the city or County, the enforcement is in public's interest and deemed appropriate or necessary at the time of occurrence.
- 7.10 In the event that the roads and drainage infrastructure are accepted for public maintenance, the County will assume no responsibility for drainage ways or easements in the subdivision outside of the road right-of-way or adjacent easements. Maintenance and liability of improvements not directly related to the roadway and drainage ways, including but not limited to landscaping, illumination, sidewalks, utilities, water quality features, or any other improvements required by other governmental agencies shall not be the responsibility of the County unless specifically approved for maintenance by the Commissioners Court.

Section 8 - Private Subdivisions

If an Owner wishes to create a subdivision utilizing private roads, it must meet the following additional requirements:

- 8.1 Private roads must meet all County road standards, except where specific variances have been granted by Commissioners Court for adequate cause in each case.
- 8.2 The title of the final plat for private subdivisions shall contain the phrase, "A Private Subdivision".
- 8.3 The subdivision plat and restrictions must contain a statement that Walker County will never accept or maintain the roads.
- 8.4 The plat must identify the entity identified in the maintenance plan that shall be responsible for the on-going maintenance of the roads, drainage, and other improvements within the subdivision.
- 8.5 The plat must include a note identifying the entity referenced in the maintenance plan that shall be responsible for the on-going maintenance of the roads, signage, drainage, and other improvements within the subdivision.
- 8.6 The subdivision plat must contain a statement that the entity referenced in the maintenance plan must ensure that the roads, signage, drainage, and other improvements shall be maintained to a standard that will allow emergency vehicles access for the roadway design speed in perpetuity.
- 8.7 The plat must contain a requirement that every deed contains a notice to the grantee that all roads are private, and state the name of the entity that shall be perpetually liable for maintenance, that the County will never accept them for maintenance, and that the quality of the roads must be maintained as to not affect access by public service agencies such as police, fire, and emergency medical services.
- 8.8 All arterial roads must be dedicated to the public and constructed to County standards. Other roads must be dedicated to the homeowners association or other entity identified within the maintenance plan for the use of the property Owners, their assigns and successors, and emergency response agencies.
- 8.9 A sign must be placed at the entrance of the subdivision clearly stating that the roads in this subdivision are private roads. The location of this sign must be shown in the construction plans.
- 8.10 Any Owner that gates the entrances to the subdivision must provide either a crash gate or a lockbox and a letter of approval from all of the affected emergency response agencies stating their approval of full-time access to and from the subdivision.
- 8.11 All road signs and signage in the subdivision shall be marked private, and include design requirements as adopted by the County for public and private roads.
- 8.12 The County will not be responsible for providing enforcement of traffic control within private subdivisions.

Section 9 - Variances

- 9.1 A variance is a grant of relief to a property owner from strict compliance with ~~the regulations of~~ these regulations. The intent of a variance is not to simply remove an inconvenience or financial burden that may result from compliance with applicable regulatory requirements. Variances are intended to help alleviate an undue hardship that would be caused by the literal enforcement of the subject ordinance requirements. Variances are intended to provide relief when the requirements of these regulations render construction or placement of improvements impractical or impossible because of some unique or special characteristic of the subject property itself.
- 9.2 The Commissioners Court of Walker County shall have the authority to grant variances to these Regulations when the public interest, improved design functionality, or the requirements of justice demands relaxation of the strict requirements of the rules.
- 9.3 Any person who wishes to receive a variance shall apply with the proper forms and fees to the Department of Planning and Development.
- 9.4 All variances must be applied for separately from and prior to the application to which the variance is applicable and shall include all applicable information necessary for the review of the variance. In cases where an applicant has received a variance a copy of the approved variance must be submitted with any application to which it applies in order for the application to be considered complete.
- 9.5 The decision of the Commissioners Court whether to grant or deny a variance is at its complete discretion, and shall be final.
- 9.6 If a plat or variance is approved by the Commissioners Court, or is approved with condition(s), documentation of the variance approval will be provided to the applicant following the approval of the Commissioners Court's minutes.
- 9.7 Unless the plat, plans, or construction is completed including any required contingencies, filing, and/or inspections, all variances granted will expire 3 years from the date they are granted unless a specific term is set by the Commissioners Court in its action on the variance or the variance is specifically extended in writing by Commissioners Court.

Section 10 - Penalties

- 10.1 Section 232.005 of the Texas Local Government Code, as amended, provides for the enforcement of the state subdivision laws and of these Regulations.
- 10.2 A person commits an offense if the person knowingly or intentionally violates a requirement of these Regulations, including the Engineering Guidelines and other appendices incorporated herein. Such offense is a Class B Misdemeanor, punishable in July 2011 by (1) a fine not to exceed \$2,000; (2) confinement in jail for a term not to exceed 180 days; or (3) both such fine and confinement. (Texas Penal Code, Title 3, Ch. 12, Sec. 12.03, as amended).
- 10.3 A person may be jointly responsible as a party to an offense if the person (acting with intent to promote or assist the commission of the offense) solicits, encourages, directs, aids, or attempts to aid another person to commit the offense (Texas Penal Code, Title 2, Sec. 7.01, as amended). Thus, a real estate agent or broker, construction contractor, a lender, an attorney, a surveyor, an engineer, a title insurer, or any other person who assists in violating these Regulations may also face criminal penalties.
- 10.4 Besides prosecuting a criminal complaint, the County Attorney or other prosecuting attorney for the County may file a civil action in a court of competent jurisdiction to enjoin any violation or threatened violation of these Regulations, and to recover damages.
- 10.5 A tract that has been subdivided without compliance with these Regulations will be ineligible to obtain a permit for the construction or modification of an On-Site Sewage Facility or the issuance of a Development Permit under the Walker County Floodplain Development, until such time as the tract has been brought into compliance.

Appendix A - Platting Guidelines

As a guide to the public in determining when it is necessary to file a plat and comply with these Regulations (as amended), the Commissioners Court (as an incident of its power to enforce the subdivision laws and regulations under Chapter 232, Texas Local Government Code, as amended) has adopted the following policy guidelines stating when the division of an existing tract shall be considered by the Court to be a subdivision requiring the filing of a plat by law and/or compliance with regulations adopted under Chapter 232 authorizing the regulation of plats and subdivisions of land, and thus requiring compliance with these Regulations:

A1 - Plat Required

- A1.1 Unless otherwise specifically exempted in these regulations, the owner of a tract of land located outside the limits of a municipality must have a plat of the subdivision prepared and approved under these regulations if the owner divides the tract into two or more parts to lay out:
1. a subdivision of the tract, including an addition;
 2. Lots; or
 3. streets, alleys, squares, parks, or other parts of the tract intended to be dedicated to public use or for the use of purchasers or owners of lots fronting on or adjacent to the streets, alleys, squares, parks, or other parts.

A division of a tract includes division regardless of whether it is made by using a metes and bounds description in a deed of conveyance or in a contract for deed, by using a contract of sale or other executory contract to convey, or by any other means.

- A1.2 If a plat is required under these guidelines, it is immaterial that the division of daughter tracts is by contract, option, lease, or lease-purchase, rather than by deed, or that the daughter tracts are described by metes and bounds rather than lot and block.
- A1.3 If the subdivision is for a Condominium Development, and if two or more structures, portions of structures, areas, or spaces are offered for sale, rent or lease, then the subdivision shall comply in all respects with these Regulations and the Walker County Engineering Guidelines. If compliance is required, an application for plat approval of the proposed Subdivision shall be prepared and submitted to the Commissioners Court in accordance with the terms and procedures set forth in these regulations. The final plat must be filed and recorded with the Walker County Clerk. This section excludes Manufactured Housing Communities separately regulated under the Walker County Manufactured Home Rental Community Regulations.
- A1.4 For the purpose of compliance with the Walker County Subdivision Regulations, any proposed RV Park or addition to any existing RV Park must comply with the minimum requirements of the current version of the Walker County Manufactured Home Rental Community Regulations. The requirements of said regulations must be applied to the RV Park in the same manner as they would to a Manufactured Home Rental Community. RV Park submittals must be submitted under the fee schedules and under the application requirements of these regulations

A2 - Exceptions by Law

- A2.1 A property that has frontage on a public street and whose boundary has not changed since February 1, 2000, is considered a legal lot. *[Texas Court of Appeals, Elgin Bank v. Travis County]*
- A2.2 In accordance with Section 232.0015, Texas Local Government Code, as amended, the filing of a plat is not required when the Owner does not lay out a part of the tract as described by Texas Local Government Code 232.001 (a)(3), and when the subdivision meets one of the requirements listed below (A2.2.1 – A2.2.8). In compliance with 232 Texas Local Government Code and these regulations, all daughter tracts for any exception must have a minimum of 50 feet of frontage on a publicly maintained road, not be part of a previously platted subdivision, and all exceptions must apply for and file an affidavit of exception.
- A2.2.1 All daughter tracts are greater than 10 acres. *[LGC § 232.0015(f)]*
- A2.2.2 The land is to be used primarily for agricultural use, as defined by Article VIII, Section 1d, Texas Constitution, as amended, or for farm, ranch, wildlife management, or timber production use within the meaning of Art. VIII, Sec. 1-d-1, Texas Constitution, as amended. *[LGC § 232.0015(c)]* If a tract of land ceases to be used primarily for these uses, the Owner shall be required to comply with these Regulations on the same basis as any newly divided tract. *[LGC § 232.0015(d)]*
- A2.2.3 A person makes a conveyance of four or fewer tracts, each of which is sold, conveyed, given, or otherwise transferred, to persons who are related to the Owner within the third degree of consanguinity (parent, child, grandparent, grandchild, sister, brother, great-grandparent, great-grandchild, aunt, uncle, niece, nephew) or affinity (the spouse of anyone listed above, or so related to the Owner's spouse) for their personal use. *[LGC § 232.0015(e)]*
- A2.2.4 All daughter tracts are to be sold to veterans through the Veteran's Land Board Program. *[LGC § 232.0015(g)]*
- A2.2.5 The Owner of the land is the State of Texas, an agency, board or commission of the State of Texas, or a permanent school fund or other dedicated fund of the State, and the Owner does not lay out any part of the tract for roads, parks, or other areas for the common use of two or more tracts or the use of the public. *[LGC § 232.0015(h)]*
- A2.2.6 The Owner is a political subdivision of the State of Texas, the land is situated in a floodplain, and all lots are sold to adjoining landowners. *[LGC § 232.0015(i)]*
- A2.2.7 The Owner divides the tract into two parts and one new part is retained by the Owner and the balance of the property is transferred to another person who will further subdivide the tract subject to the platting requirements herein. *[LGC § 232.0015(j)]*
- A2.2.8 The Owner transfers all parts to persons who owned an undivided interest in the original tract and a plat is filed before any further development of any part of the tract. *[LGC § 232.0015(k)]*
- A2.3 All exemptions in this subsection must be approved in writing by the County Engineer and/or DPD prior to the division of the property. To claim any exemption, the person or entity who claims to be entitled to any exclusion to platting set out in these Guidelines must provide:

- A2.4 An affidavit claiming the exemption and setting out the detailed basis for exclusion from the platting requirement, subject to penalties of perjury.
- A2.5 A copy of the deeds or other instruments creating the daughter tracts referenced in the affidavit.
- A2.6 The division shall comply with any other applicable State or Local regulations including but not limited to on-site sewage and floodplain regulations.

A3 - Additional Exceptions

The Commissioners Court has adopted the following additional policy guidelines stating the division of an existing tract may be considered exempt from the requirement to file a plat and may instead apply for and file an affidavit of exception. All daughter tracts must have a minimum of 50 feet of frontage on a publicly maintained road, no portion of the tract is within a previously platted subdivision, and the subdivision meets at least one of the requirements listed below (A3.1- A3.11).

- A3.1 Any tract whose boundary has not changed since January 1, 1996, may be sold in its entirety without being platted.
- A3.2 A plat is not required when daughter tracts are created solely for purposes of platting them as individual subdivisions in their own right, providing that each daughter tract has at least 50 feet of frontage on a publicly maintained road. The Owner must submit to the Court the preliminary plat for the project as a whole before claiming this exception.
- A3.3 A plat is not required when two or more adjacent landowners, or a single landowner owning two or more adjacent tracts, adjusts or changes the property lines that separate their (the) respective tracts, so long as there is the same number of tracts in existence before and after the transaction. This exemption applies whether the transaction requires an exchange of land by both Owners, or only a transfer of land from one Owner to the other, and whether the transaction takes the form of a sale or of an exchange in kind. Any land added to a tract through such a transaction shall become an integral part of that tract, and may not be separately conveyed, except in compliance with the subdivision laws. Each resulting tract shall be subject to the minimum lot size requirements of these Regulations and other applicable laws. This exception does not apply if the adjustment will change the boundary between two legally platted lots, or add or subtract land from a legally platted subdivision.
- A3.4 This exemption may not be exercised within two years of exercising another exemption.
- A3.5 A plat is not required when a smaller tract is surveyed out of the parent tract solely for the purposes of obtaining financing for purchase or improvement of that part of the property, provided that possession and primary beneficial Ownership of the entire parent tract are intended to remain unified.
- A3.6 A plat is not required when a smaller tract is created by the legitimate foreclosure of a valid lien on a part of the parent tract. This provision does not exempt sham transactions or foreclosures staged to avoid the platting requirement.
- A3.7 A plat is not required if the property has been divided by the final decree of a court of record with appropriate jurisdiction.

- A3.8 All exemptions in this subsection must be approved in writing by the County Engineer and/or DPD prior to the division of the property. To claim any exemption, the person or entity who claims to be entitled to any exclusion to platting set out in these Guidelines must provide:
- A3.9 An affidavit claiming the exemption and setting out the detailed basis for exclusion from the platting requirement, subject to penalties of perjury.
- A3.10 A copy of the deed for the parent tract(s).
- A3.11 A copy of a survey or surveys sealed by a Registered Professional Land Surveyor of the proposed daughter tracts, and their general location in relation to the parent tract.
- A3.12 The division shall comply with any other applicable State or Local regulations including but not limited to on-site sewage and floodplain regulations.

Appendix B – Engineering Guidelines

B1 - Graphic Requirements

- B1.1. Provide legible construction drawings, to an accurate scale, and provide a north arrow where applicable. Construction drawings shall not conflict with the plat, specifications, or within the sheets. Incomplete plan sets will be rejected.
- B1.2. The seal, date, and signature of the Professional Engineer responsible for the plans are required on each sheet developed by the design engineer.
- B1.3. Provide a cover sheet for projects involving three or more design plans, excluding detail sheets. Plan sheet numbers and titles must be listed on the cover sheet. Include a vicinity map to identify the project location. Show pertinent City Limits and ETJs on the vicinity map. Include the following note:
“The design of this project will not negatively impact this property or adjacent properties.”
- B1.4. Each set of engineering plans shall contain paving and drainage key drawings indexing specific plan and profile sheets.
- B1.5. Draw key overall layouts to a minimum scale of 1" = 200'.
- B1.6. Provide complete, clear stationing. Generally, stationing runs down the centerline of streets and is used for all improvements in and adjacent to the right-of-way. Plan stationing must run from left to right, except for short streets or lines originating from a major intersection, where the full length can be shown on one sheet.
- B1.7. Standard scales permitted for plans and profiles drawings are as follows:
1" = 20' Horizontal, 1" = 2' Vertical
1" = 40' Horizontal, 1" = 4' Vertical, or
1" = 50' Horizontal, 1" = 5' Vertical
Above scales are minimum; larger scales may be used to show details of construction.
- B1.8. Make a statement on the cover sheet referencing assumed control coordinates.
- B1.9. Each sheet of the plan and profile shall have a benchmark elevation and description defined. Projects in flood-prone areas shall be tied to the NAVD 1983 datum, or the datum used for current FEMA maps. If the property lies below the base flood level, the floodplain must be delineated graphically on all plan sheets.
- B1.10. If a roadway exists where plans are being prepared to improve or construct new pavement or a utility, label the existing roadway width, surfacing type, and thickness.
- B1.11. Show all street and road alignments on plans.
- B1.12. Show and label proposed pavement, typical cross-sections, details, lines and grades, and existing topography within the street right-of-way, and any easement contiguous with the right-of-way. At the intersection, the cross street details shall be shown at sufficient distance (20-foot minimum distance

outside the primary roadway right-of-way) in each direction along the cross-street for designing adequate street crossings.

- B1.13. Match lines between plan and profile sheets shall not be placed or shown within cross street intersections including cross street right-of-way.
- B1.14. A drainage area map shall be submitted and shall include drainage computations with drainage area and storm water flow labeled.
- B1.15. Basic plan and profile sheets shall contain the following information:
- a. The profile vertical scale shall be 1/10th the horizontal scale.
 - b. The plan view and profile view shall be on the same sheet whenever practical.
 - c. All existing and proposed utilities and pavement shall be on the same plan and profile sheet for a given section.
 - d. Identify lot lines, property lines, easements, rights-of-way, and outfalls.
 - e. Label each plan sheet as to street/easement widths, pavement widths, pavement thickness where applicable, type of roadway materials, curbs, intersection radii, curve data, stationing, existing utilities (type and location), and any other pertinent feature affecting design.
 - f. Show water, sewer, paving, and drainage design in and adjacent to right-of-way on the same plan and profile sheets. Graphically show flow line elevations and direction of flow for ditches.
 - g. Show and label all ditches, swales, culverts, headwalls, erosion control, detention ponds, and any other drainage structures or facilities.
 - h. Show and label floodplains.
 - i. Label proposed top of curb grades except at railroad crossings. Centerline grades are acceptable only for paving without curb and gutters.
 - j. Show in profile curb return elevations for turnouts.
 - k. Show existing and proposed station median noses or the centerline of median openings, including median width.
 - l. The design of both roadways is required on paving sections with a median.
 - m. In plan view, show station PCs, PTs, and radius returns. Show in profile station radius returns and grade change PIs with their respective elevations.
 - n. Show all water and sewer service leads in plan view.
 - o. Specify the rim and all flow line elevations at all inlets and junction boxes. Locate inlets within 5 feet of lot lines.
 - p. In profile view, show all storm sewer and label length, grade, material, and size.
 - q. In profile view, show and label existing ground profiles at both right-of-way lines.

B2 - Lot, Utility Easement, and Setback Requirements

- B2.1. Lots shall have a minimum of 50 feet of frontage along the right of way of an existing publicly maintained road or a privately maintained road meeting the requirements of these regulations.
- B2.2. Lots shall have a maximum depth no greater than three times the frontage of the lot, with the exception of flag lots.
- B2.3. Flag Lots
- B2.3.1. Flag lots shall have a minimum staff with of 50 feet.
- B2.3.2. Each flag lot shall provide for vehicular access to the principal portion for the lot through the staff.
- B2.3.3. Any area required to be used for vehicular access purposes shall be depicted by a note on the subdivision plat that restricts the portions of the lots for ingress and egress only and that precludes construction of any building or structure within those portions. If the vehicular access is to be shared, the plat note shall clearly indicate the joint or shared nature of the access.
- B2.4. For determining the area required for an on-site sewage facility, the minimum lot size shall be in accordance with the current regulations of the Walker County, the Texas Commission on Environmental Quality, or the Authorized Agent having jurisdiction.
- B2.5. The building setback line on arterial roadways shall be 50 feet from the edge of the right-of-way.
- B2.6. The building setback line on all collector and local roads shall be 25 feet from the edge of the right-of-way.
- B2.7. The right-of-way shall be used for the purpose of paving and maintaining streets and installing, containing, and maintaining storm sewers. Any additional utilities will require a separate utility easement outside the street rights-of-way. Where a subdivision is made on an existing publicly maintained road and there are existing utilities in place see section B4.14(2).
- B2.8. Each lot shall have a minimum 20 foot utility easement for dry utilities. The utility provider may require additional width.
- B2.9. The following roads are designated as arterial roadways. The Commissioners Court may specify additional roadways upon recommendation by the County Engineer:
- All roads maintained under the State of Federal system of Roads including but not limited to roads designated as Farm to Market Roads, State Highways, Interstate Highways, and United States Highways.*
- B2.10. If the building set back lines as stated above conflict with the setback requirements adopted by a municipality, the municipal requirements shall prevail if they are in the ETJ of the municipality.

B3 - Road Alignments

- B3.1. New roadways that do not connect to an existing public road will not be approved without a specific variance.
- B3.2. An internal road system that minimizes driveways and cross-streets to existing County or other public roadways is required. Lots bordering on an existing arterial road shall have access to an internal, platted road and, the final plat shall contain a restriction requiring driveways to connect only to an internal, platted road.
- B3.3. Road Intersections
 - B3.3.1. Roads shall be designed and constructed as to intersect with each other at 90 degrees, plus or minus 10 degrees.
 - B3.3.2. At a "T" intersection, where a street has not been improved to its ultimate width, the pavement shall be stopped at either the right-of-way line or the end of curb return.
- B3.4. Points of Access
 - B3.4.1. Developments that exceed 30 dwelling units shall be provided with two separate and approved access roads. Exception: Where there are 31 to 149 lots or dwelling units, a single access point will be permitted if that access provides a 40-foot wide travel way. A dwelling unit is defined as a single unit of residence for a family of one or more persons.
 - B3.4.2. Where two fire apparatus access roads are required, they shall be placed a distance apart equal to, but not less than, one-half of the length of the maximum overall diagonal dimension of the property or area to be served, measured in a straight line between accesses.

B4 - Minimum Road Design Requirements

- B4.1. Unless otherwise stated in these Regulations, all roads shall be designed and constructed in accordance with 2014 TxDOT Standards.
- B4.2. Subdivisions of thirty (30) lots and less, utilizing frontage or access along existing publicly maintained roads, are not required to improve existing roadways, but shall dedicate right-of-way as required by these Regulations. If more than 30 lots in the proposed subdivision have frontage on an existing public right of way, the existing public street shall be improved along the frontage to meet the requirements of these Regulations.
- B4.3. Excluding a road that would provide access to future plats will not be permitted; connectivity is required.
- B4.4. Lots intended to access future roads will not be approved.
- B4.5. For purposes of this Appendix, ADT shall be defined as the anticipated average daily traffic at the time of complete build-out of the subdivision, including any future development that may be served by a given road. For planning purposes, it shall be assumed that single-family residential lots will generate a minimum 9.44 ADT. If an area of future development consists of ½ acre or more, it shall be assumed that such development will produce an ADT of 57 per acre, unless there is a note prohibiting future subdivision and limiting the lot to single-family residential construction.
- B4.6. Areas of future development with residential, commercial, or unspecified land use (including reserves or residuals) will not be permitted independent access from that of the proposed or existing streets, unless road conditions meet the average daily trips for ultimate buildout.
- B4.7. Roadways shall be classified as Arterial, Collector, or Local Streets and conform to Table B4.1.

Table B4.1 Roadway Design Standards

Street Classification ⁽¹⁾		Projected Volume per Day ⁽²⁾	Number of Travel Lanes (Min. 12' Wide)	Min. Center Lane Width (ft)	Min. Paved Shoulder Width (ft)	Is Curb & Gutter ⁽³⁾ Required	Min. Pavement Width ⁽⁴⁾ (ft)	Min. Right-of-Way Width (ft)	Min. Design Speed (MPH)	Min. Design Storm ⁽⁵⁾ (Yr)
Arterial	Rural	10,000+	2	14	6	No	50	100	45	10
	Urban	10,000+	4	20		Yes	69	100	45	10
Collector	Rural	5,000-9,999	2		6	No	36	90	35	10
		1,000-4,999	2		2	No	28	80	35	10
	Urban	5,000-9,999	2	14	8 ⁽⁶⁾	Yes	55	80	35	10
		1,000-4,999	2		8 ⁽⁶⁾	Yes	41	60	35	10
Local	Rural	< 1,000	N/A		2	No	26	80	30	10
	Urban	< 1,000	N/A			Yes	32	50	30	5

Notes:

- (1) Refer to Section 2 for Rural and Urban definitions.
- (2) Roads with a projected volume over 5,000 trips per day shall have striping.
- (3) If curb & gutter is not required, the developer can choose to install curb & gutter in lieu of shoulders. Standard 6" concrete curbs and 4"x12" rollover curbs are permitted. Within urban single-family residential subdivisions where residential lots have frontage, 4"x12" rollover curbs are required. Asphalt will not be permitted on curb and gutter roadways. Refer to Appendix G for details.
- (4) For curb and gutter pavement sections, this measurement is from back of curb to back of curb.
- (5) Culverts under streets shall be designed per Appendix B.12.
- (6) The paved shoulder on Urban Collectors is a parking lane.

- B4.8. Refer to Appendix F for typical roadway cross-sections and Appendix G for curb & gutter details.
- B4.9. Residential lots shall not have direct access to arterial roads.
- B4.10. If the Collector road is included in a roadway or transportation plan, the right-of-way and pavement cross-section shall be as required in the plan.
- B4.11. Local roads shall be designed as follows:
- a. Developer can choose to install curb and gutter in lieu of shoulders on local roads. Standard 6" concrete curbs are permitted. Rollover curbs (4"x12") are permitted in single-family residential subdivisions where residential lots have frontage.
 - b. Block length shall not exceed 1,000 feet (centerline to centerline) for urban lots and 2,000 feet for rural lots; the minimum distance shall be 200 feet.
- B4.12. The following standards apply to all roads:
- a. Pavement striping shall comply with the Texas Manual on Uniform Traffic Control Devices.
 - b. Utility lines shall not be located under the street pavement, except at perpendicular crossings. Steel casing is required for all water and sanitary sewer crossings under existing streets. Provide steel casing on all water and sanitary sewer crossings under proposed arterial and collector streets. Casing shall extend a minimum of 5 feet beyond outside the edge of the pavement with a minimum wall thickness of 0.375 inches, rolled steel type. Spiral steel will not be allowed. Exemption: service leads are not required to be cased.
 - c. All utility installation shall comply with Texas Administrative Code, Title 43, Part 1, Chapter 21, Subchapter C.
 - d. All pipeline installation shall be reviewed and approved by Walker County. Where utilities cross pipelines, signage shall be installed where the utility crosses the pipeline's easement line, one foot outside of the easement. The sign shall note the type of utility crossing the pipeline (i.e., water, sewer, storm, gas, etc.).
 - e. Roads shall be dedicated to the public except as indicated in Section 8. The Owner may dedicate the right of way or an easement for road, drainage, and utility purposes, at the Owner's option.
 - f. Accepted roads must have driveways that meet Walker County standards and TxDOT standards. The most restrictive criteria shall apply.
 - g. Where concrete curb and gutter are constructed, they shall be constructed per 2014 TxDOT Specification Item 529.
 - h. Loops, being a single street connecting to the same street on each end, shall not exceed 1,000 feet for urban streets and 2,000 feet for rural streets.
 - i. Dead end streets shall not exceed 1,000 feet for urban streets and 2,000 feet for rural streets.
 - j. Manholes shall not be located in or under the street pavement.
 - k. Driveways shall comply with the Regulations for Walker County Driveway Permits, Design, and Materials.
 - l. The minimum grade for all roads shall be 0.5% and the maximum grade shall be 7%.

- m. Curb and gutter roads shall have a minimum 1% fall around intersection turnout for a maximum radius of 35 feet. Grades for larger radii shall be determined on an individual basis.
- n. Minimum street intersection radii shall be 25 feet.
- o. All roads shall maintain a height clearance of at least 14 feet.
- p. Provide a vertical curve anywhere the algebraic difference between grades exceeds one percent. Specify the PI station and elevation, and stations and elevations on the curve every 10 ft. Design curves in accordance with the TxDOT Roadway Design Manual, and specify the K Value for vertical curves.
- q. Roads may have a minimum centerline radius of 300 feet or more as long as minimum sight distance requirements are met. The minimum tangent on reverse curves between points of curvature shall be 50 feet.
- r. Provide a cut back a minimum of 15 feet from the point where the street right-of-way lines would intersect to provide a visibility triangle. A 25' radius at intersecting right-of-way lines is also acceptable.
- s. A permit, encroachment agreement, or letter of no objection, from the pipeline company is required when paving is placed over transmission pipelines. Whenever possible roadway crossings of pipelines shall be avoided or minimized by design.
- t. In new subdivisions, the Owner shall install cluster mailboxes at the location(s) approved by the DPD or County Engineer and the US Postal Service. The placement of individual or cluster mailboxes along arterial and collector roads shall not be permitted in new subdivisions, unless specifically approved by the DPD or County Engineer. Mailboxes shall not encroach on/over sidewalks or other public walks or ways in the County right-of-ways. Mailboxes shall be installed in accordance with applicable postal regulations with breakaway supports.
- u. All pavements are to be designed by a Registered Professional Engineer. The design shall be based on a minimum 20-year design life and in conjunction with recommendations based upon a soils report of samples taken along the proposed roadways. Test borings shall be placed at a maximum spacing of 500 feet or other sampling frequency approved by the County Engineer based on recommendations provided by the geotechnical engineer. The soils report and pavement design shall be submitted to the County Engineer for review. The pavement design must be approved by the County Engineer prior to or concurrently with the review and approval of the construction plans. In addition to the basis of the pavement design, the soils report shall contain the results of sampled and tested subgrade for plasticity index, pH, sulfate content, and maximum density.
- v. Provide a Traffic Control Plan in accordance with the Texas Manual on Uniform Traffic Control Devices.

B4.13. The following requirements apply to dead-end roads and cul-de-sacs:

- a. Dead end roads having a throat length longer than 150 feet shall have a cul-de-sac with a minimum right-of-way radius of 50 feet (40 feet to face of curb/edge of asphalt). A cul-de-sac is not required on dead-end streets that have a throat length of 150 feet or less.
- b. "No Outlet" signs must be placed at the entrance to the dead-end road, even if the road is planned to be extended in the future.

- c. Dead end roads that end at undeveloped property must be extended to the property line. At the terminus, a temporary cul-de-sac shall be provided for all such streets having a throat length more than 150 feet, constructed in accordance with the requirements of this Appendix. Hammerhead design will not be allowed; however, alternate designs, such as landscape center islands, may be considered by the County Engineer to ensure a sufficient turnaround area is provided.
- d. For all temporary cul-de-sacs, temporary easements shall be established for the portions of the cul-de-sac that lie outside the road right-of-way. Such easements that lie within the plat boundary shall be shown on the final plat. Easements that lie outside the boundary of the plat may be in the form of a separate document, but must be recorded prior to the construction of any roadway improvements or final plat approval. The plat or easement document shall include a note stating the easement shall automatically terminate upon the date a plat or other appropriate instrument has been recorded that publicly dedicates a road extension.
- e. Standard TxDOT barricades shall be placed at the end of all dead-end roads not terminating in a cul-de-sac.

B4.14. Additional Right of Way for Existing Roads

When a subdivision is adjacent to an existing road, the County Engineer shall determine the right-of-way width that will be necessary for the maintenance and improvement of the existing road. If the existing road is an Arterial roadway, as defined herein, the Owner shall dedicate to the public up to 100 feet in the overall width of the right-of-way, as determined by the DPD or County Engineer. The Owner shall dedicate an easement for the road, drainage, and utility purposes. No utilities, debris, landscaping, irrigation, sidewalks, illumination, water quality features, or other improvements not related to roads and drainage shall be located within the public rights-of-way, unless the Commissioners Court has granted a specific variance, with the following exception:

- 1) fire hydrants that are located either 5 feet from the edge of the road or on the high bank of the ditch's backslope, whichever is furthest from the edge of the road.
- 2) Where a subdivision is made on an existing publicly maintained road, there is no new construction of road and drainage infrastructure required, and there are existing utilities in place, they do not have to be relocated at the time of the plat. This does not preclude the County or other public agency from requesting the utility to be relocated at a future date where a right exists, nor exclude future action by the County or public agencies related to the relocation or construction of the utilities. No landscaping, irrigation, sidewalks, illumination, water quality features, or other improvements not related to roads and drainage shall be located within the public rights-of-way unless the Commissioners Court has granted a specific variance

B4.15. A traffic impact analysis is required if any of the criteria below is met:

- a. Volume per day is 5,000 or greater
- b. All developments located within 500 feet of the intersection of two or more arterial and/or collector streets with an overall footprint in excess of 5 acres
- c. New school construction
- d. Shopping centers with gross square footage in excess of 100,000 square feet
- e. TxDOT requires an analysis or there are more than 150 peak hour trips

B5 - Construction – General

- B5.1. A preconstruction meeting must be scheduled prior to the start of construction. The Design Engineer, Owner, Contractor, Subcontractors, DPD, and County Engineer shall attend this meeting. All roads are to be constructed in accordance with the construction documents as approved by the County Engineer and in accordance with the specifications found in the 2014 version of the “Texas Department of Transportation Manual Standard Specifications for Construction of Highways, Streets, and Bridges” unless otherwise stated on the construction documents approved by the County Engineer.
- B5.2. All materials must be sampled and tested by an A2LA Certified Independent Testing Laboratory in accordance with the construction documents approved by the County Engineer. The Owner shall pay for all testing services and shall furnish the County Engineer with certified copies of these test results. The County Engineer must approve the test results prior to constructing the next course of the roadway structure. Any material that does not meet the minimum required test specifications shall be removed, re-compacted or replaced, and retested unless alternative remedial action is approved in writing from the County Engineer.
- B5.3. All utilities installed in the public right of way shall comply with State and Federal regulations.

B6 - Subgrade

- B6.1. The preparation of the subgrade shall follow standard engineering practices as directed by the County Engineer in conjunction with recommendations outlined in the geotechnical report. When the Plasticity Index (PI) is greater than 15, a sufficient amount of lime shall be added as described in Item 260 of the 2014 edition of the TxDOT Standard Specifications for Construction until the PI is less than 15. If the addition of lime as described in Item 260 is not feasible, an alternate stabilizing design shall be proposed and submitted to the County Engineer for approval. The subgrade shall be prepared and compacted to achieve a dry density per TxDOT Item 132. In addition, proof rolling **is** required.
- B6.2. The subgrade shall be inspected and approved by an A2LA Certified Independent Testing Laboratory and a certified copy of all inspection reports furnished to the County Engineer, who must approve the report prior to the application of the base material. All density test reports shall include a copy of the worksheet showing the percentage of the maximum dry (Proctor) density. The County Engineer shall determine the number and location of all subgrade tests.

B7 - Base Material

- B7.1. Base material shall conform to Item 247 of the 2014 edition of the TxDOT Standard Specifications for Construction, "Flexible Base". The base material shall be Type A or D, Grade 1 or 2, or as approved by the County Engineer.
- B7.2. Each layer of base course shall be tested for in-place dry density and measured for compacted thickness. The County Engineer shall determine the number and location of all base test samples.
- B7.3. The base shall be prepared and compacted to achieve a minimum of 95% of the maximum (Proctor) dry density or as approved by the County Engineer upon recommendation by the testing laboratory. The maximum lift shall not exceed eight inches. The base must be inspected and approved by an Independent Testing Laboratory and a certified copy of the test results furnished to the County Engineer for approval. Prior to the placement of the first lift of base, the stockpile shall be tested for the specifications found in Item 247 Table 1 and the result furnished to the County Engineer for approval.

B8 - Bituminous Pavement

- B8.1. Roads require a minimum 2-inch wearing surface of HMAC Type D in conformance with TxDOT Specification Item 341 and all other applicable items. The mix shall be from a TxDOT certified plant. The mix design shall be submitted to the County Engineer for approval prior to placement of the material. Contractor's Quality Control (CQC) test reports shall be submitted to the County Engineer ~~on a daily basis~~. As a minimum, daily CQC testing on the produced mix shall include Sieve Analysis TEX-200-F, Asphalt Content TEX-210-F, Hveem Stability TEX-208-F, Laboratory Compacted Density TEX-207-F, and Maximum Specific Gravity TEX-227-F. Each HMAC course shall be tested for in-place density, bituminous content, and aggregate gradation, and shall be measured for compacted thickness. Unless otherwise directed or approved by the County Engineer, testing shall be conducted on a minimum of three locations per each paving pass, one located within 50-feet of the start of each pass, one located within 50-feet of the end of each pass, and at least one per 300-feet of paving between. Test locations shall be at least two feet clear of joints and pavement edges. Core samples shall be at least four inches in diameter for Type D HMAC.

B9 - Concrete Pavement

- B9.1. Portland cement concrete pavement is required for curb and gutter roadways and may be used on streets with roadside ditches. Concrete pavement shall be in conformance with 2014 TxDOT Specification Item 360 and all other applicable Items. The mix shall be from a TxDOT certified plant. The mix design shall be submitted to the County Engineer for approval prior to placement of the material.
- B9.2. The following are the allowed minimum requirements minimum thickness and reinforcement requirements for concrete pavement. Refer to Appendix H for concrete pavement details. Pavement thickness and reinforcement shall be designed by the Professional Engineer responsible for the project, and based on a current soils analysis and recommendations by a qualified geotechnical engineer. Pavement design, based on soils analysis, use, loading, and life span, may require greater thickness and more reinforcement, than the minimum required.
- a. For pavement widths less than, or equal to, 32 feet B/B of curb, minimum concrete slab thickness shall be 6 inches for $f_c' = 3,000$ psi and reinforcement shall be Grade 60, $f_y = 60,000$ psi, #4 deformed reinforcing bars spaced at 18 inches center to center transversely and 24 inches center to center longitudinally, and minimum lap length of 22 inches. Expansion joints shall be placed at the end of each curb return, and at a maximum spacing of 60 feet. Minimum stabilized subgrade thickness shall be 6 inches.
 - b. For pavement widths greater than 32 feet B/B of curb, minimum concrete slab thickness shall be 8 inches for $f_c' = 3,000$ psi, and reinforcement shall be grade 60, $f_y = 60,000$ psi, #4 deformed reinforcing bars, 18 inches center to center transversely and 24 inches center to center longitudinally, and minimum lap length of 22 inches. Expansion joints shall be placed at the end of each curb return at a maximum spacing of 60 feet. Minimum stabilized subgrade thickness shall be 8 inches.
- B9.3. Concrete headers shall be placed at the end of all concrete pavements.
- B9.4. All concrete pavement to be removed shall be removed to either to the existing joint or a sawed joint.

B10 - Concrete – General

- B10.1. Unless otherwise specified, concrete shall be in accordance with Item 421 of the current edition of the TxDOT Standard Specifications for Construction and be placed in accordance with the applicable item.
- B10.2. All concrete shall be tested for compressive strength. One set of three concrete test cylinders shall be molded for every 50 cubic yards of concrete placed for each class of concrete per day, or at any other interval as determined by the County Engineer. A slump test shall be required with each set of test cylinders. One cylinder shall be tested for compressive strength at an age of seven days and the remaining two cylinders shall be tested at 28 days of age.

B11 - Road Names, Signs, and Markers

- B11.1. All roads shall be named, with prior approval for said name from the Walker County 911 Addressing Coordinator. Roads must be named in a manner to avoid confusion in identification. Roads that are extensions of existing roads must carry the names of those in existence. The Owner shall provide the Coordinator with two digital files of the plat. One file shall be in an Adobe .pdf format, and the other file shall be in an AutoCAD .dwg format georeferenced to NAD 1983 State Plane Grid Coordinate System, Texas Central Zone (4203), with drawing in US feet. The road names shall be displayed on standard intersection road marker signs erected by the Owner in compliance with the TxMUTCD "Street Name Signs" and at the locations, as indicated on the construction plans.
- B11.2. Traffic control signs (such as stop, yield, and speed limit signs) shall be installed by the Owner of said subdivision in compliance with the TxMUTCD and at the locations as indicated on the approved construction plans. Other traffic control signs, as shown on the construction plans, shall be installed to indicate any unusual traffic or road hazard or conditions that may exist. All traffic control devices shall be placed in compliance with the TxMUTCD and the construction cost shall be borne by the Owner.
- B11.3. A speed limit of 30 mph for local roads, 35 mph for collector roads, and 45 mph for arterial roads within all platted subdivisions are hereby adopted. This limit may be changed only by Commissioners Court upon the basis of an engineering and traffic investigation showing that the prima facie maximum reasonable and prudent speed for a particular road (or part of a road) should be different. The placement of a stop sign or a yield sign on the minor road at intersections shall be evaluated on a case-by-case basis in accordance with the TxMUTCD.
- B11.4. For any road that is proposed to be extended ~~at some time~~ in the future, a minimum of five metal channel posts, equally spaced, shall be placed at the end of the road. Each post shall have an 18"x18" red diamond object marker sign (type OM-4 per TxMUTCD) placed four feet above the existing ground.
- B11.5. A future road extension sign shall be placed at the end of all roads and temporary cul-de-sacs that are proposed to be extended ~~at some time~~ in the future. The sign shall state the following: Future Extension of <name of road>.
- B11.6. Signage that differs from the standard signage that is maintained by the County shall be maintained by the Owner. The signage shall be maintained in such a fashion to comply with the TxMUTCD requirements.

B12 - Drainage

- B12.1 Drainage infrastructure design and supporting calculations shall be completed by a Registered Professional Engineer, shall be in accordance with the methods described in the City of Huntsville Engineering Design Criteria Manual unless otherwise specified in this section, and shall conform to standard engineering practices and procedures. All data and supporting calculations must be presented to the County Engineer as part of the construction plans.
- B12.2 If the County accepts maintenance responsibility, the County's maintenance responsibility will be limited to only public drainage improvements that are located within the road right-of-way or parallel and adjacent to the right of way. Maintenance responsibility for all other storm water management controls will remain with the Owner(s) or a designated Property Owner's Association.
- B12.3 Easements shall be provided, where necessary, for all drainage courses in and across the property to be platted. The location and width shall be shown on the plat and marked "Private Drainage Easement" or "Private Drainage and Underground Utilities Easement". In general, a "Private Drainage Easement" shall be a minimum of 20 feet in width when it is not parallel to a public right of way. All drainage easements shall be located in such a manner as to be locatable on the ground. Owner is responsible for the maintenance of private easements. See B12.12.c for storm sewer easement requirements.
- B12.4 Provide a minimum 30-foot-by 30-foot drainage easement adjacent to the right-of-way, upstream and downstream of each culvert where it crosses a street.
- B12.5 Drainage infrastructure design shall be supported with a legible drainage area map that includes labeled contours, flow arrows, delineated onsite and offsite drainage areas, drainage area acreage, computed peak flow rates, and all existing and proposed drainage infrastructure clearly labeled.
- B12.6 Provide a culvert schedule noting the size, minimum slope, and quantity of all driveway culverts on a sheet with an overall layout of the development.
- B12.7 Both a plan and profile views shall be shown in the construction plans for all proposed drainage infrastructure. Each plan and profile shall show the design flow, velocity, invert elevations, and the hydraulic grade line for the design storm.
- B12.8 Detention Facilities
- a. Detention ponds shall be designed, constructed, and maintained by the Owner(s) or a designated Property Owner's Association to mitigate the increased rate of runoff discharge from the platted area in order to meet or reduce the rate of drainage of the watershed, at the release point of the development, to its pre-developed state. Exceptions may be allowed when the Owner can demonstrate that downstream properties will not be adversely affected.
 - b. The detention design for all onsite and offsite detention ponds shall be submitted with each engineering plan submittal.
 - c. Offsite detention ponds shall be located in a dedicated easement, and a copy of the dedicated easement shall be submitted with the engineering plans.
 - d. When a development is planned to be separated into several sections, a master drainage and detention plan will need to be provided that indicates that the pond is designed considering ultimate developed conditions.

- e. The detention pond and detention outlet structures are to be designed to mitigate increased runoff peak flow rates for the 5-year, 25-year, and 100-year storm events.
- f. For watershed's less than 50 acres, a detention storage estimating method, such as the modified rational method, may be used for detention design. Otherwise, the pond shall be designed per Section B12.8.g.
- g. For watersheds greater than or equal to 50 acres, the NRCS unit hydrograph method along with the Modified Puls level pool routing method shall be used for detention design.
- h. For both curbed and uncurbed streets, runoff from the 100-year storm event shall be conveyed in a controlled manner, either overland or underground, to the detention facility or otherwise mitigated, as necessary.
- i. Detention ponds shall have a minimum side slope of 4 to 1, a minimum 10-foot maintenance access berm, a minimum of 1-foot of freeboard, and a minimum 0.75% bottom slope.
- j. Inlet pipes or channels shall be set a minimum of 6-inches above the bottom of the pond and shall include adequate erosion protection.
- k. Pond outlet orifices shall not be less than 6-inches in diameter and the minimum outlet pipe shall be 18-inches.
- l. Outlet pipes shall be set a minimum of 6-inches above the flow line of the receiving watercourse and shall include adequate erosion protection. The outlet pipe shall enter the receiving watercourse at a 60-degree angle, plus or minus 10 degrees.
- m. Outlet exit velocities exceeding 5 feet per second shall have riprap erosion protection and exit velocities exceeding 10 feet per second shall have concrete energy dissipating devices.
- n. Detention ponds shall have an emergency overflow located at the 100-year water surface elevation and at the pond outlet. It shall be designed to convey the 100-year storm event assuming the main outlet is clogged. The emergency weir shall be constructed with concrete slope paving.

B12.9 Roadway Bridges and Culverts

- a. Crossings for all public roads shall be designed to convey runoff from the 100-year storm event with the maximum water surface level not exceeding the lowest edge of pavement elevation of the road and without causing an increase in the pre-developed water surface for areas located outside of the platted area.
- b. The rational method shall be used to calculate peak flow rates for watersheds less than 200 acres. The NRCS unit hydrograph method or regression curves shall be used for watersheds greater than or equal to 200 acres.
- c. For culverts, hydraulic calculations shall consider entrance, exit, and friction losses as well as downstream hydraulic conditions (i.e. tailwater).
- d. For culverts, exit velocities exceeding 5 feet per second shall have riprap erosion protection, and exit velocities exceeding 10 feet per second shall have concrete energy dissipating devices.
- e. For span bridges, the bottom chord shall be set to 1.5 feet above the 1% annual chance base flood elevation and shall completely span the FEMA designated floodway (Note: a floodplain permit will be required for any development within a FEMA special flood hazard area).

- f. Bridges, culverts, and all other drainage structures shall be designed and constructed per 2014 TxDOT Specification Section Items 400 - 499.
- g. Provide safety end treatments and headwalls in accordance with TxDOT Bridge Standards details.

B12.10 Roadside Ditches

- a. Roadside ditches shall convey runoff from the 10-year storm event with 6 inches of freeboard.
- b. The rational method shall be used to determine peak flows for all roadside ditch design.
- c. Roadside ditches shall have a minimum depth of 18 inches or equal. The minimum depth is to be measured from the edge of the road or the elevation at the ROW, whichever is lower.
- d. Velocities in the roadside ditch shall not exceed 5 feet per second for the design storm. Concrete slope paving shall be installed where velocities exceed 5 feet per second for the design storm.
- e. Grass-lined roadside ditch front slopes shall have a minimum grade of 6 to 1 and the back slopes shall have a minimum grade of 4 to 1.
- f. Ditch longitudinal slopes shall not be less than 0.5%.
- g. Refer to Appendix F for a typical roadside ditch cross-section.

B12.11 Driveway Culverts

- a. Driveway culverts shall comply with the Regulations for Walker County Driveway Permits, Design, and Materials.
- b. Driveway culverts shall convey runoff from the 10-year storm event assuming full-flow hydraulic conditions.
- c. The rational method shall be used to determine peak flows for driveway culvert design.
- d. A driveway culvert schedule shall be provided in the construction drawings and plat. The table shall include section number, block number, lot number, and culvert size.
- e. Exit velocities exceeding 5 feet per second shall have riprap erosion protection and exit velocities exceeding 10 feet per second shall have concrete energy dissipating devices.
- f. Sheet flow from driveways shall be shed to the roadside ditch prior to the sheet flow reaching the driveway culvert crossing.
- g. Provide safety end treatments and headwalls in accordance with TxDOT Bridge Standards details.

B12.12 Storm Sewer

- a. All closed conduit storm sewers shall be:
 - i. Reinforced concrete pipe in accordance with 2014 TxDOT Specification Item 464,
 - ii. Dual wall, corrugated, smooth interior, high-density polyethylene in accordance with ASTM F2306 and AASHTO M252 or M294, or
 - iii. Dual wall, corrugated, smooth interior polypropylene (PP) pipe in accordance with ASTM F2881 and AASHTO M330.
- b. Refer to Appendix J for pipe bedding and backfill details.
- c. When storm sewers are permitted outside of the public right of way, the minimum easement width shall be the following:

		Pipe Depth D:	4'	5'	6'	7'	8'	9'	10'	11'	12'	13'	14'
Pipe Dia.	d ₀	X Value	15' Esm't	20' Esm't		25' Esm't (Trench Box Required)							
8"	1	0.5	12.0	16.0	20.0	24.0	28.0	32.0	36.0	40.0	44.0	48.0	52.0
12"	1.3		11.1	15.1	19.1	23.1	27.1	31.1	35.1	39.1	43.1	47.1	51.1
15"	1.7		9.9	13.9	17.9	21.9	25.9	29.9	33.9	37.9	41.9	45.9	49.9
18"	2		9.0	13.0	17.0	21.0	25.0	29.0	33.0	37.0	41.0	45.0	49.0
24"	2.5	0.75	8.0	12.0	16.0	20.0	24.0	28.0	32.0	36.0	40.0	44.0	48.0
30"	3			10.5	14.5	18.5	22.5	26.5	30.5	34.5	38.5	42.5	46.5
36"	3.5		9.0	13.0	17.0	21.0	25.0	29.0	33.0	37.0	41.0	45.0	
42"	4	1		12.0	16.0	20.0	24.0	28.0	32.0	36.0	40.0	44.0	
48"	4.5		10.5	14.5	18.5	22.5	26.5	30.5	34.5	38.5	42.5		
54"	5.1	1.25		9.2	13.2	17.2	21.2	25.2	29.2	33.2	37.2	41.2	
60"	5.6		15.7	19.8	23.7	27.7	31.7	35.7	39.7				
66"	6.2		1.5	Depth is not Applicable				18.4	22.4	26.4	30.4	34.4	38.4
72"	6.7	16.9		20.9	24.9	28.9	32.9	36.9					

Trench Width Formula for Predominately Type C Soils: $W = d_0 + 2X + 4 [D - (d_0 + 0.5)]$

- d. The design storm for storm sewer design shall be in accordance with Table 3.1. The design storm HGL shall not exceed 12-inches below the gutter flow line.
- e. For the 100-year storm event, the starting HGL shall be equal to the top of pipe or the 25-year storm event water surface elevation of the receiving watercourse, whichever is greater.
- f. Storm sewer conduits shall have a minimum velocity of 3 feet per second and a maximum velocity of 10 feet per second when flowing full.

- g. Storm manholes shall have a maximum spacing of 600 feet measured along the conduit run. Manholes for storm sewer conduits shall be placed at size changes, cross-section changes, grade changes, inlet lead and conduit intersections, and direction changes.
- h. At the change in pipe size, match the soffits of the two pipes.
- i. A straight line should be used for the design of precast inlet leads and storm sewers 30 inches in diameter or less. Precast storm sewers 36 inches in diameter and larger may be deflected at joints not to exceed the manufacturer's recommendation.
- j. Soil borings with logs shall be made along the alignment of all storm sewers having a cross-section equal to or greater than 42 inches in diameter or equivalent cross-section area. Borings should be taken at intervals not exceeding 500 linear feet and to a depth not less than 3 feet below the flow line of the sewer.
- k. Any storm sewer 42 inches or smaller located underneath or within 1 foot of a paving section shall be bedded and backfilled 2 sack cement stabilized sand.
- l. Curb inlets shall be designed to prevent water from ponding above the curb during the 5-year storm event.
- m. The gutter run to an inlet shall not exceed 700 feet.
- n. In profile view, provide both top-of-curb ground elevations at the left and right ROW. Curbs should be below both right-of-way profiles to facilitate drainage. The right-of-way must drain to the street for curbed roads at a minimum slope of ¼ inch per foot, and a maximum slope of 1 foot per 7 feet. Show and label proposed profiles where cut or fill is necessary.
- o. House finished floor elevations shall be set a minimum of 1 foot above natural ground or 18 inches above the base flood elevation, whichever is greater. This minimum requirement shall be noted on the plat.
- p. During a 100-year storm event, the water elevation shall not exceed the elevation at the adjacent right of way line or the elevation at the right of way adjacent drainage/utility easement. The Engineer shall demonstrate proper cascading of flow through the streets or adequate conveyance capacity in the storm sewer pipes and inlets to ensure that runoff from the 100-year event is contained within the street right of way as it is conveyed to the outlet point. Supporting calculations shall be provided demonstrating property conveyance of runoff from the 1% annual chance storm.

B13 - Testing and Reporting

The following list ~~are~~^{is} the minimum requirements that will be provided at the pre-construction conference and the material testing shall be to the satisfaction of the County. The Commissioners Court reserves the right to require any additional inspection, testing, or reporting, at the expense of the Owner, as deemed necessary to ensure compliance with these regulations and/or standard construction/engineering practices.

- B13.1 Prior to construction, the applicant shall request a pre-construction meeting with the County. The developer, the applicant's engineer, and the contractor are required to attend. The applicant's engineer shall periodically inspect the construction. It is the responsibility of the applicant's engineer to ensure the project is constructed in accordance with the plans and specifications.
- B13.2 The owner/developer or contractor needs to provide a material testing lab to the County for approval.
- B13.3 Prior to subgrade inspection, the County will require soil test reports, lab recommendations of stabilization, proof roll reports, density test reports and PH Test Reports (if required).
- B13.4 Prior to base inspection/pre-paving, the County will require base depth reports, base source/tickets, and compaction/density tests.
- B13.5 Notify County prior to placing drainage structures and bridges. County may inspect drainage structures prior and during to installation. This includes steel placement, dimensions, precast structures, etc.
- B13.6 Prior to paving, provide emulsion submittals, and asphalt submittals for County Review, and the County must inspect the base. Notify the County 48 hours prior to paving.
- B13.7 After paving, provide core samples and tickets for County for review. Where cores are made, the developer is required to repair the hole with like material.
- B13.8 During the final walkthrough, a complete package of lab reports will be required.
- B13.9 After construction is deemed complete and all punchlist items are addressed, the applicant's engineer shall submit a Certification of Completion and request construction acceptance. In addition, the applicant's engineer shall submit certified record drawings, with all revisions clouded, to the County that include the following statement on the cover sheet:

I, _____, a registered Professional Engineer, duly licensed to practice in the State of Texas do hereby certify that construction was completed in accordance with the plans and specifications approved by Walker County.

Appendix C - Plat Notes

C1 - Owner's Dedication

STATE OF TEXAS

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KNOW ALL MEN BY THESE PRESENTS;

COUNTY OF WALKER

I, (*Current Owner*) sole Owner** (*or co-Owner*) of the certain tract of land shown hereon and described in a deed recorded in Document No. (*or Volume and Page*) of the Official Records of Walker County, Texas, **[and do hereby state that there are no lien holders of the certain tract of land]*, and do hereby (*subdivide, re-subdivide, amend, etc.*) said tract as shown hereon, and do hereby consent to all plat note requirements shown hereon, and do hereby forever dedicate to the public the roads, alleys, rights-of-way, easements and public places shown hereon for such public purposes as Walker County may deem appropriate, and do hereby state that all public roadways and easements as shown on this plat are free of liens or this dedication is approved by a lienholder. This subdivision is to be known as (*name of subdivision*).

TO CERTIFY WHICH, WITNESS by my hand this _____ day of _____, 20 ____.

_____ <Owner's signature>

<Typed Name>

<Typed Title>

<Typed Address>

** If there is a Lien Holder of the property, remove the bracketed statement and add a separate signature block and notary signature block for the Lienholder or submit a Lienholder's Subordination to Dedication (obtain the current form from Planning and Development).*

*** There must be a separate signature block, each with a notary signature block, for each Owner on the deed.*

C2 - Roadway Construction

In approving this plat by the Commissioners Court of Walker County, Texas, it is understood that the building of all roads, and other public thoroughfares, and any bridges or culverts necessary to be constructed or placed is the responsibility of the Owner(s) of the tract of land covered by this plat in accordance with the plans and specifications prescribed by the Commissioners Court of Walker County, Texas. Said Commissioners Court assumes no obligation to build or maintain any of the roads, or other public thoroughfares shown on this plat, or of constructing or maintaining any of the bridges or drainage improvements in connection therewith. The County will assume no responsibility for drainage ways or easements in the subdivision, other than those draining or protecting the road system at such time, if any, the roads are adopted for public maintenance.

C3 - Owner's Responsibilities

It is the responsibility of the Owner, not the County, to assure compliance with the provisions of all applicable state, federal and local laws and regulations relating to the platting and development of this property.

The County assumes no responsibility for the accuracy of representations by other parties in this plat. Floodplain data, in particular, may change. It is further understood that the Owners of the tract of land covered by this plat must install and maintain at their own expense all traffic control devices and signage that may be required before the roads in the subdivision have finally been accepted for maintenance by the County.

C4 - Commissioners Court Approval

STATE OF TEXAS

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KNOW ALL MEN BY THESE PRESENTS;

COUNTY OF WALKER

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The Commissioners Court of Walker County, Texas, does hereby certify that this map or plat, with field notes hereon, for a subdivision having been fully presented to the Commissioners Court of Walker County, Texas, and by the said Court duly considered, was on this day approved and that this plat is authorized to be registered and recorded in the proper records of the County Clerk of Walker County, Texas. This certification is based upon the representations of the developer/developer's agent, engineer, sanitarian and/or surveyor whose seal(s) and/or signatures are affixed hereto. This certification is made solely upon such representations and should not be relied upon for verifications of the facts alleged. Walker County disclaims any responsibility to any member of the public for independent verification of the representations, factual or otherwise, contained in this plat and the documents associated with it.

Insert Current Commissioners Court Signature Block _____

C5 - County Clerk's Certification

STATE OF TEXAS

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KNOW ALL MEN BY THESE PRESENTS;

COUNTY OF WALKER

I, *<name of current clerk>*, Clerk of the County Court of said County, do hereby certify that the foregoing instrument in writing, with its certificate of authentication was filed for record in my office on the ____ day of _____, 20__ A.D., at _____ o'clock, __.M., and duly recorded this the day of _____, 20__ A.D., at _____ o'clock, __.M., in the Official Public Records of said County in Instrument No. _____.

TO CERTIFY WHICH, WITNESS my hand and seal at the County Court of said County, at my office in Huntsville, Texas, the date last shown above written.

<name of current clerk>, Clerk County Court
of Walker County, Texas

By: _____, Deputy

C6-On-site Sewage Facility Review

Based upon a review of the plat and plans as represented by the said engineer or surveyor, I, the bellow signed design/review professional, being qualified to make said determination under Texas law, find that this plat complies with the requirements of the Walker County On-Site Sewage Facility Regulations, and Title 30 of the Texas Administrative Code, Chapter 285, including but not limited to the suitability of the proposed lots to accommodate on-site sewage facilities within the proposed development considering all of the requirements of Title 30, 285 TAC and any applicable local orders. I also agree that Walker County its agents and assigns bear no responsibility to any member of the public for independent verification of the representations, factual or otherwise, contained in this plat and the documents associated with it.

<name of P.E. or R.S>

Date

C7 - Mailboxes

Rural mailboxes shall be set three feet from the edge of the pavement or behind curbs, when used. All mailboxes within County arterial right-of-way shall meet the current TxDOT standards. Any mailbox that interferes or negatively effects the maintenance or use of the roads or drainage system may be removed by Walker County.

C8 - Floodplain Regulations Certification

Based upon a review of the plat and associated plans, I, the below signed Professional Engineer find that this plat complies with the requirements of the current Walker County Floodplain Regulations. I further understand and agree that this finding is made by and through my independent review, and that Walker County has no responsibility to any member of the public for independent verification of the representations, factual or otherwise, contained in this plat and the documents associated within it.

<name of P.E.>

Date

C9 - Development Notes

No structure or land within this plat shall hereafter be developed without first obtaining a Development Permit from the Walker County Floodplain Administrator, unless the proposed development is exempt or excepted from the Walker County Floodplain Development Regulations.

The minimum lowest finished floor elevation shall be in minimum compliance with the local, State, or Federal regulations whichever elevation is higher.

C10- Plat Notes Addressing Area Drainage

Note for Minor Subdivision Plat

All owners of lots within the subdivision shall have the responsibility of complying with the Walker County Subdivision Regulations' policies on drainage runoff due to the development of impervious areas created through the development of the lot for residential, commercial, or recreational use. It is the responsibility of lot owners to comply with any regulations or limitations noted, and permits issued by Walker County for development do not act as a waiver or variance of the lot owner's responsibility to provide for excess runoff and drainage created by the permitted development. If detention of water is necessary in order to comply with the local, state, or federal regulations including but not limited to the Walker County Subdivision Regulations then the owner may be able to accomplish compliance with said policies through creating detention on a single lot, multiple lots, or the entire subdivision depending on the circumstances involved and depending on the owner's ability to obtain the cooperation of other owners in the subdivision. A copy of an agreement between owners to create detention shall be submitted to Walker County and filed in the public records becoming a restriction on future owners, heirs and assigns.

Engineer's Note for Subdivision Plats (certified by engineer)

Based on calculations made from available data, if the impervious cover (structures, driveways, sidewalks, etc.) on each lot does not exceed XXXX square feet, then the existing detention on the property will be sufficient. However, if the impervious cover of the property exceeds or surpasses XXXX square feet then further study will be necessary and possible drainage/detention improvements may be required in accordance with current Local, State, and Federal regulation including the Walker County Subdivision Regulations. Local approval or allowance must be given by Walker County in writing prior to alteration of the drainage infrastructure. It is the responsibility of lot owners to comply with any regulations or limitations noted, and permits issued by Walker County for development do not act as a waiver or variance of the lot owner's responsibility to provide for excess runoff and drainage created by the permitted development.

The first section of this note can be altered to reflect weighted development of larger lots considering the effect of increase in runoff on a per lot basis by allowing larger amounts of impervious cover on larger acreage lots, or could reflect a unified sizing of impervious cover for all lots in the subdivision considering the effects of increased runoff from the subdivision as a whole. Example: ... if impervious cover on Lots 1,2,&3 does not exceed 6,000 sq. ft. and impervious cover on lots 4 & 5 does not exceed 8,000 sq. ft. then...

Drainage Acceptance Note on all Plats (certified by owner/developer)

All lots within the subdivision and the owners thereof must continue to accept all existing drainage flows and drainage structures in place at the time of development that are a part of or necessary to the public roads infrastructure or public system of drainage, in addition to all natural flows of water entering onto or crossing the property.

Appendix D - Plat Application Checklists

WALKER COUNTY SUBDIVISION APPLICATION CHECKLISTS

The applicant is responsible for the submittal of all documents on the checklist with each separate application submittal. The submittal of a document or file under a previous application does not supplant the requirement for submittal with a future application. Application submittals shall be submitted in whole on the date of application; applications will not be allowed to be submitted at separate times or on separate dates.

All submittals shall be submitted with 3 properly sized paper copies and a digital .pdf file unless otherwise required below or by the Walker County Subdivision Regulations. Any digital media delivered with or containing part of an application, including but not limited to flash drives, DVDs, hard drives, etc., are considered to be part of the application and will not normally be returned to applicant.

SUBMITTAL REQUIREMENTS BY APPLICATION TYPE

Variance Request Application Submittal Checklist

1	Completed Variance Request Application Form
2	Copy of the Deed for the Parent Tract and an acceptable Title Commitment or Title Policy/Report
3	Authorized Signatory Documentation
4	7 paper copies and 1 digital copy (.pdf) of all plans, drawings, exhibits, engineering studies, or other back-up submitted in support of the variance request.

Plat Application Submittal Checklist

1*	Approved 911 Addressing Road and Feature Name Review. (If applicable)
2	Completed Application Form
3	Required Fee(s)
4	Authorized Signatory Documentation
5	Copy of the Deed for the Parent Tract and an acceptable Title Commitment or Title Policy/Report
6	Copies of any approved variance requests that relate to the application (if applicable)
7	Copy of an approved an approved <i>OSSF Subdivision Planning Materials Submittal for Subdivision</i> (If applicable)
8*	Approved Development Permit under the Regulations for Floodplain Management for all proposed infrastructure. (If applicable)
9	Copies of required Plans, Reports, Calculations, and Studies sealed by a Professional Engineer. (3 properly sized paper copies and 2 digital files (.pdf, .dwg) (if applicable)
10*	Copies of the proposed Final Plat including all seals and signatures. (3 paper copies, 3 mylar copies, and three digital files (.pdf, .dwg, and shapefile formats)
11	Sealed Engineer's Cost Estimate for Road and Drainage Improvements (If applicable)
12	Improvement Maintenance Plan (if applicable)
13	An original copy of the completed financial surety documents/or documentation of acceptance of completed construction and post construction bonding.
14	Letters of Serviceability from the Wastewater, Water, and Electric provider
15	Groundwater Certification (if applicable)
16*	Tax Certificate Showing Taxes Paid to Date
17*	Necessary Approvals from Other Governmental Entities (If applicable)
18	Covenant for Maintenance of Storm Water Detention System

**Plat Applications and Amending or Re-plat Applications classified as Minor Subdivisions must submit the items marked with an asterisk.*

(If applicable) - Some application submittals may not be applicable to all subdivision applications, especially in cases where no infrastructure is required or proposed. Check regulations for applicability.

Amending or Re-plat Applications additional items

1	A copy of the current deed restrictions for the subdivision, if any.
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Exception Application Submittal Checklist		
		Completed Variance Request Application Form
2		Required Fee(s) per the current schedule of fees
3		Copy of the Deed for the Parent Tract and an acceptable Title Commitment or Title Policy/Report
4		Copy of an approved On-Site Sewage Facility Subdivision/Development Plan
5		Written copies of any applicable Federal, State, and Local approvals required.
6		Copy of plat and metes and bounds description for proposed
7		Acceptable Authorized Signatory Documentation for any plat for any agent not listed on the deed, or for any agent of a corporation or other entity having ownership of the land.
8		Copy of the tax certificate showing taxes paid to date. (County Clerk's Requirement for filing)

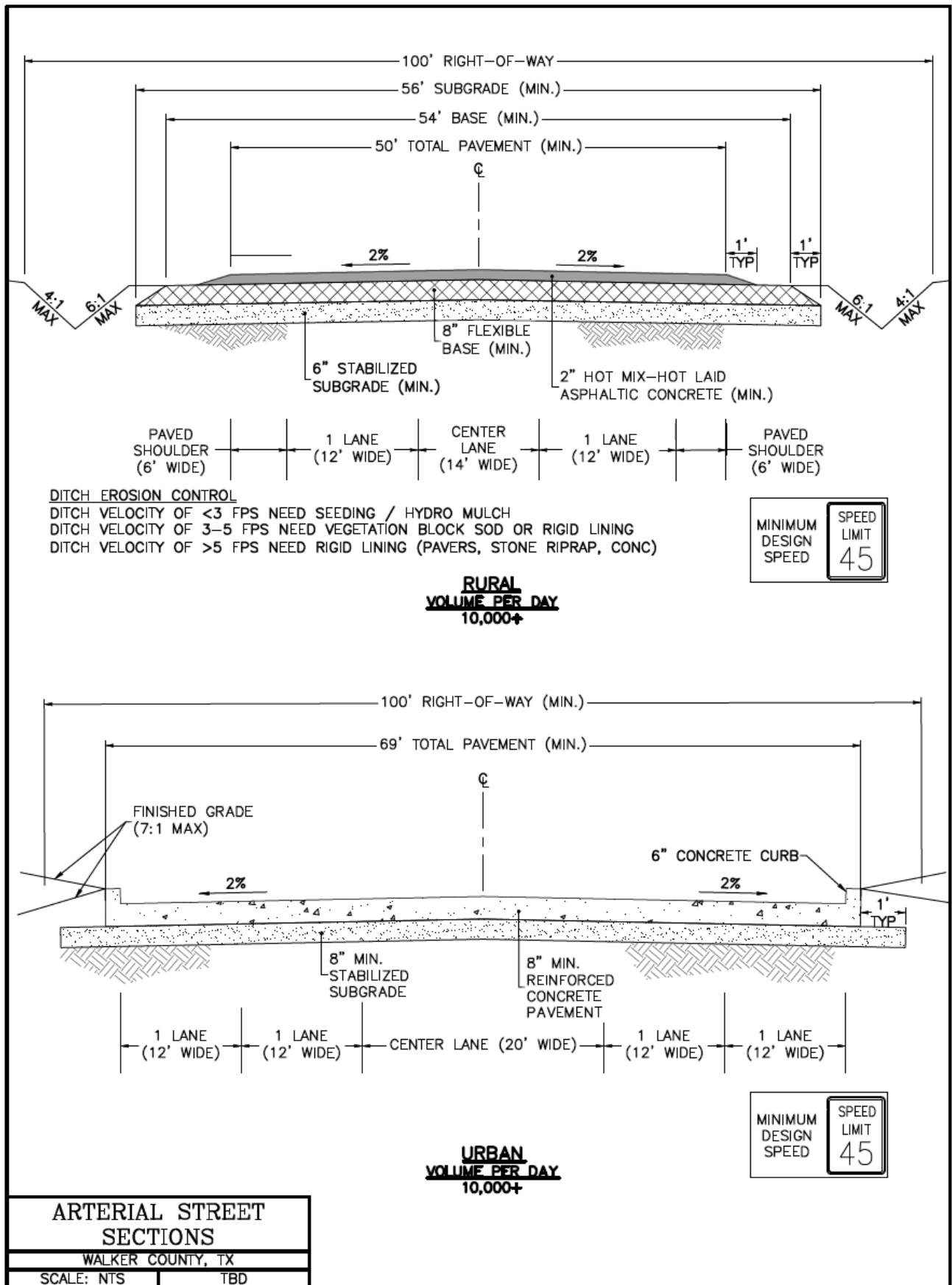
Appendix E - Plat Review and Approval Authority in ETJ's

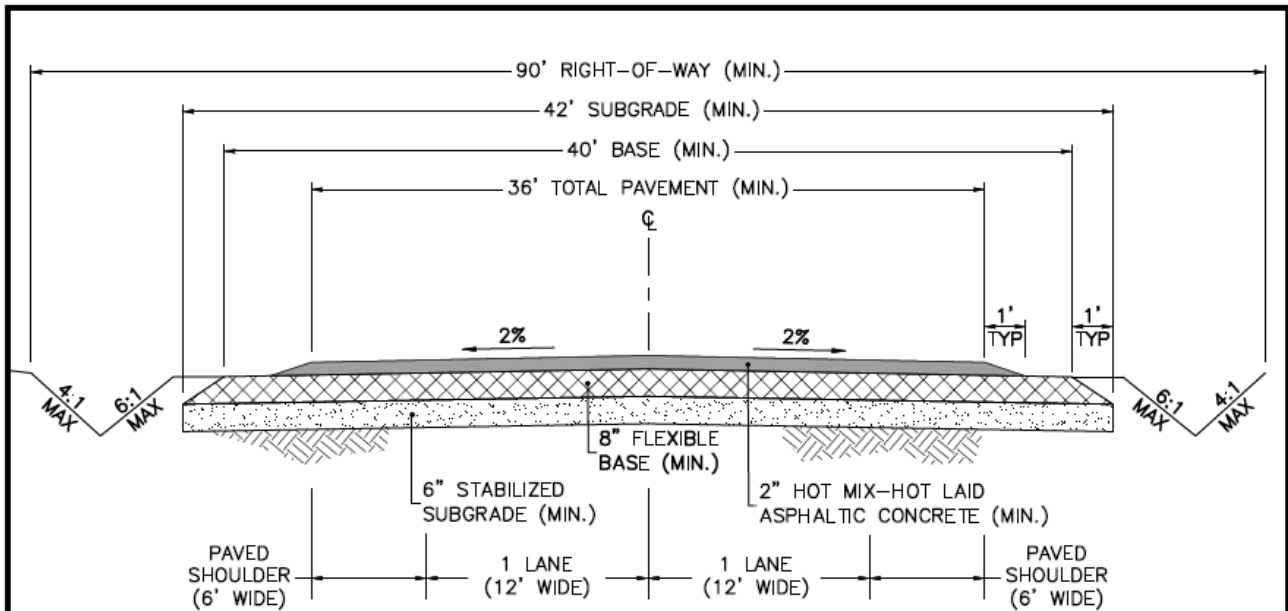
ETJ	Review Authority	Are plats approved by the Walker County Commissioners Court?	County Judge Signature Block Required?	County Clerk Signature Block Required?	Walker Co. Approval of Floodplain Regulation and OSSF required?
Huntsville ETJ	City of Huntsville ¹	No	No	Yes	Yes
New Waverly ETJ	Walker County	Yes	Yes	Yes	Yes
Riverside ETJ	Walker County	Yes	Yes	Yes	Yes

¹ In the Huntsville ETJ's, both the County and the respective city have joint, cooperative review authority. In these cases, there is a common rulebook, or "Unified Development Code", that is used by both the City and County.

The general requirements represented in this table are subject to change based on any approved alterations of the agreements between Walker County and the incorporated cities. Please check the requirements of the current agreements for subdivision regulation in the ETJ for up to date information.

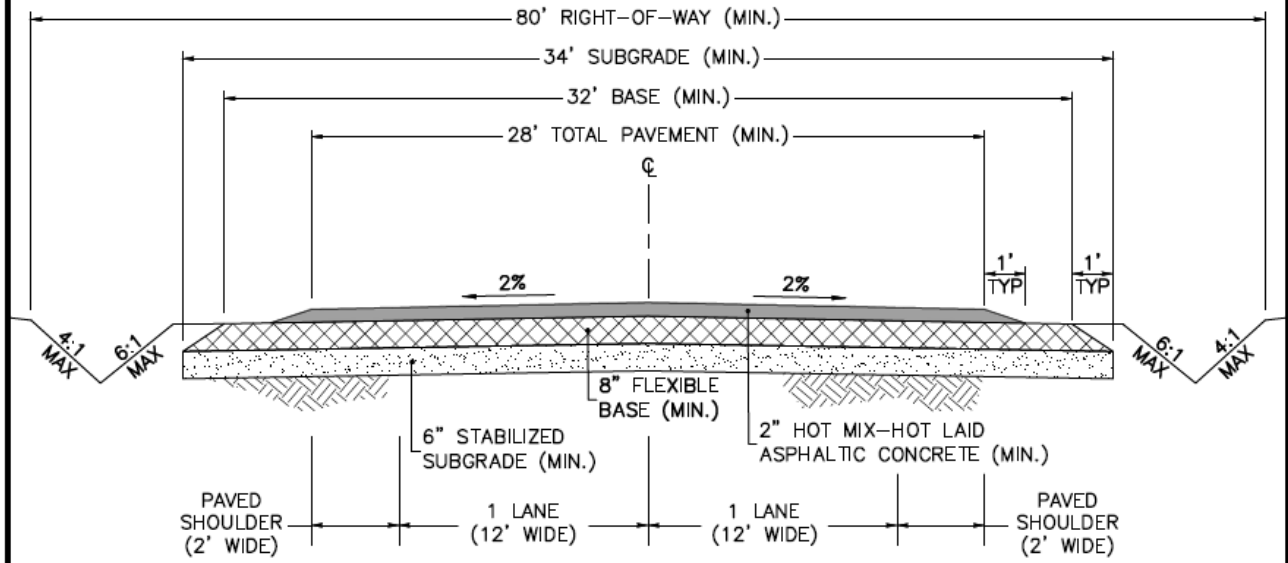
Appendix F – Roadway Cross-Sections





VOLUME PER DAY
5,000-9,999

MINIMUM DESIGN SPEED	SPEED LIMIT 35
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VOLUME PER DAY
1,000-4,999

MINIMUM DESIGN SPEED	SPEED LIMIT 35
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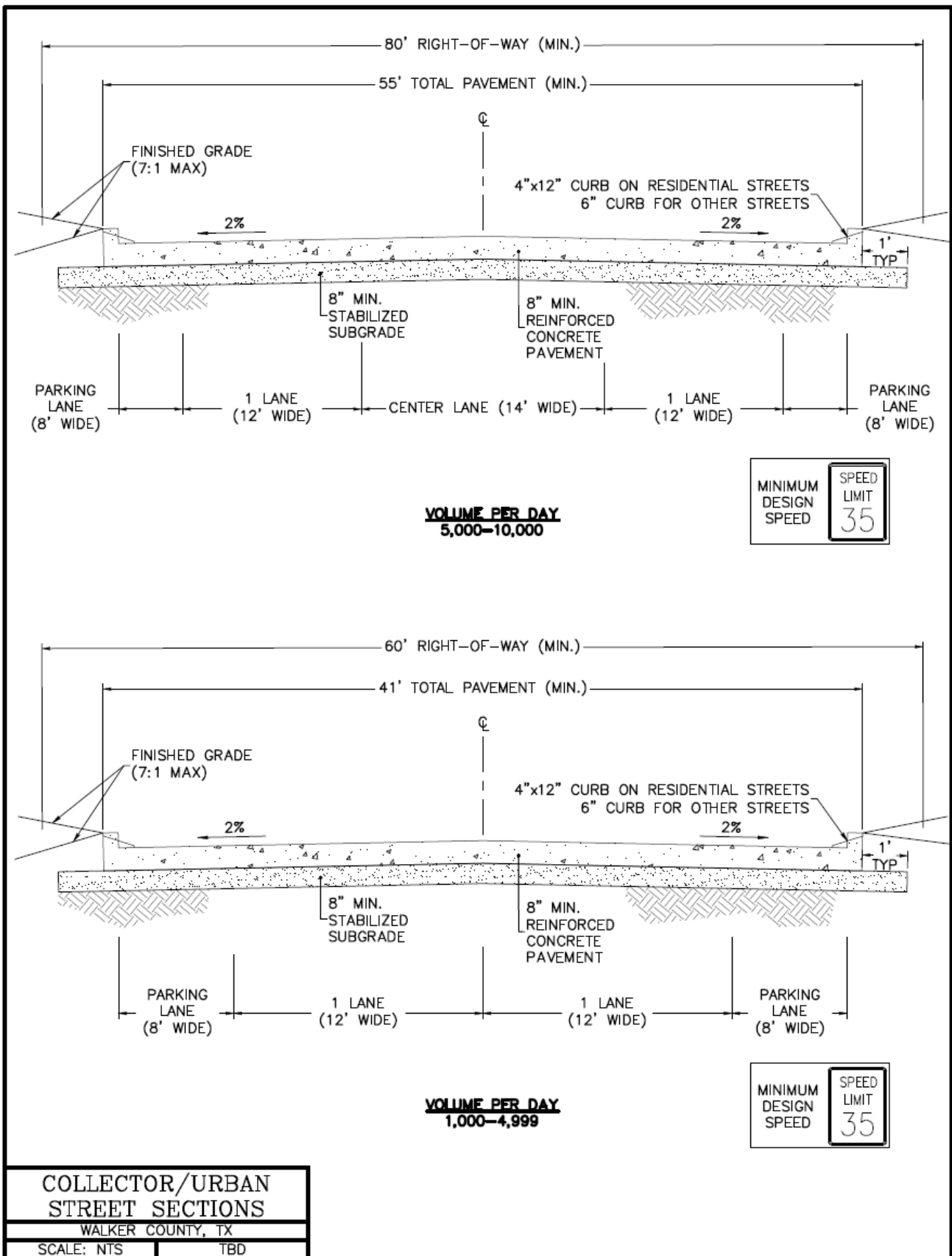
COLLECTOR/RURAL STREET SECTIONS

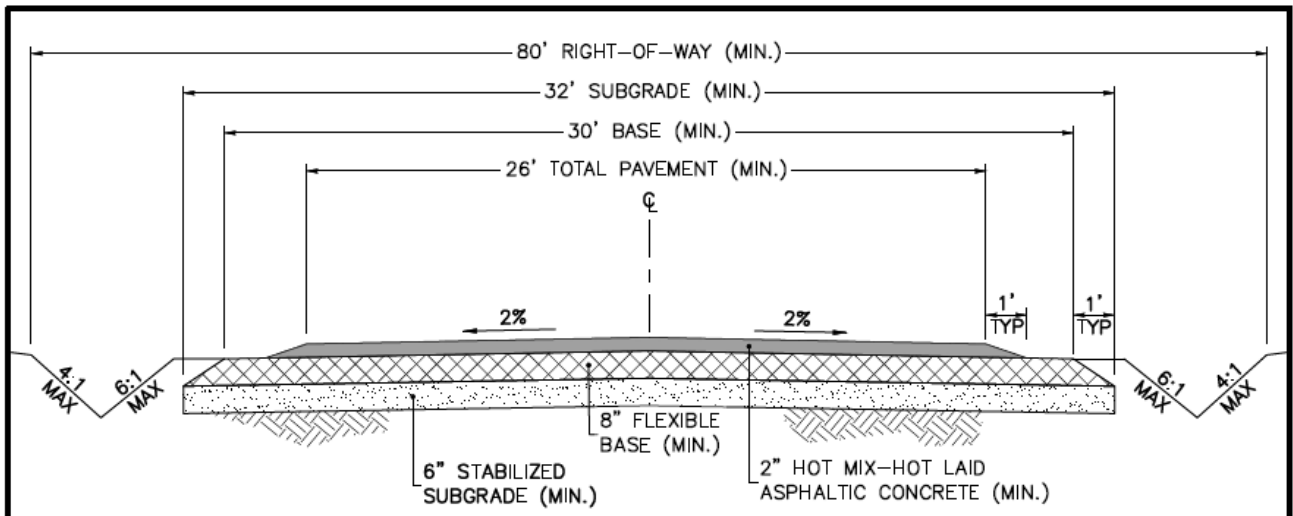
WALKER COUNTY, TX

SCALE: NTS TBD

DITCH EROSION CONTROL

- DITCH VELOCITY OF <3 FPS NEED SEEDING / HYDRO MULCH
- DITCH VELOCITY OF 3-5 FPS NEED VEGETATION BLOCK SOD OR RIGID LINING
- DITCH VELOCITY OF >5 FPS NEED RIGID LINING (PAVERS, STONE RIPRAP, CONC)

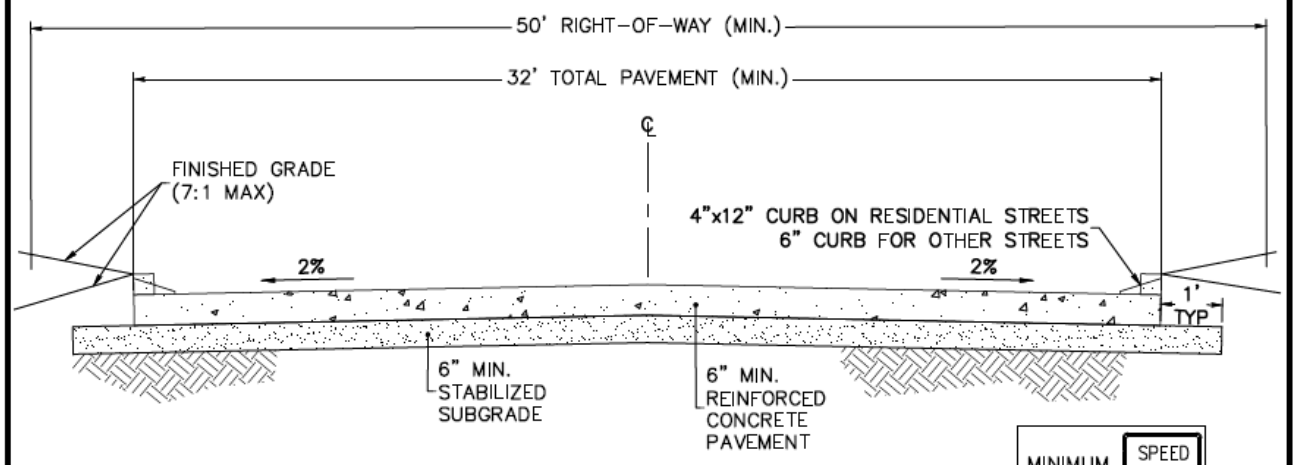




DITCH EROSION CONTROL
 DITCH VELOCITY OF <3 FPS NEED SEEDING / HYDRO MULCH
 DITCH VELOCITY OF 3-5 FPS NEED VEGETATION BLOCK SOD OR RIGID LINING
 DITCH VELOCITY OF >5 FPS NEED RIGID LINING (PAVERS, STONE RIPRAP, CONC)

MINIMUM DESIGN SPEED	SPEED LIMIT 30
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RURAL
VOLUME PER DAY
LESS THAN 1,000

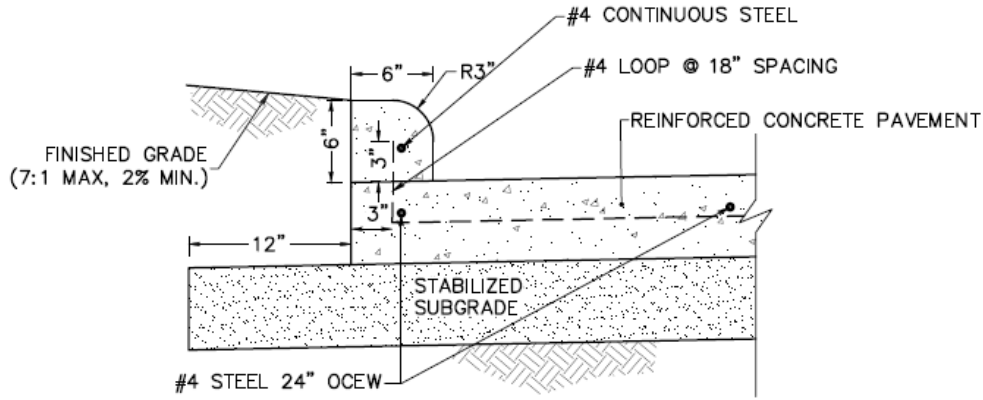


MINIMUM DESIGN SPEED	SPEED LIMIT 30
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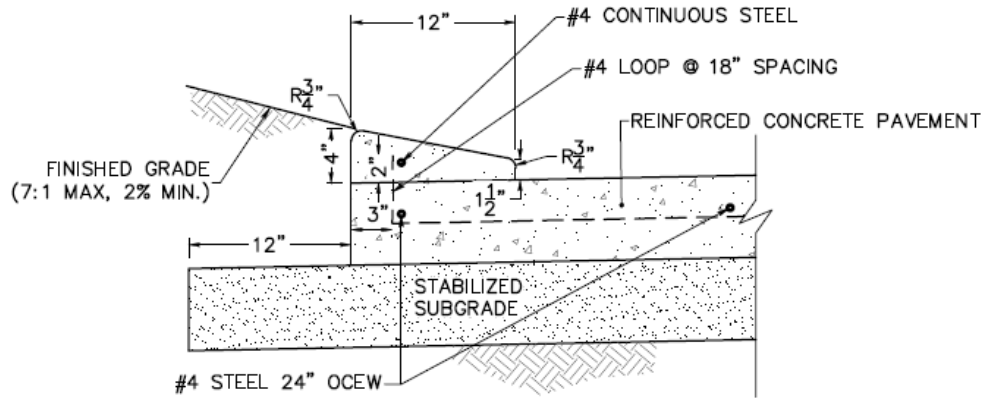
URBAN
VOLUME PER DAY
LESS THAN 1,000

LOCAL STREET SECTIONS	
WALKER COUNTY	
SCALE: NTS	TBD

Appendix G – Curb Details



**6" CURB
(ALL STREETS)**



**4"x12" ROLLOVER CURB
(RESIDENTIAL LOTS ONLY)**

NOTES:

1. CONCRETE SHALL BE CLASS A (3000 PSI).
2. ALL REINFORCING BARS SHALL BE #4 GRADE 60 STEEL (100% TIED), UNLESS OTHERWISE SPECIFIED.
3. ROUND ALL EXPOSED SHARP EDGES WITH A ROUNDING TOOL TO A MINIMUM RADIUS OF 1/4 INCH.
4. PROVIDE EPOXIED DOWELS WHERE CONCRETE CURBS ARE PLACED ON EXISTING CONCRETE PAVEMENT.
5. EXPANSION AND CONTRACTION JOINTS SHALL BE CONSTRUCTED TO MATCH, INCLUDING PAVEMENT JOINTS IN THE CURB AND GUTTER LINES ADJACENT TO JOINTED CONCRETE PAVEMENT. WHERE PLACEMENT OF CURB OR CURB AND GUTTER IS NOT ADJACENT TO CONCRETE PAVEMENT, EXPANSION JOINTS SHALL BE PROVIDED AT STRUCTURES, CURB RETURNS, AND AT THE LOCATIONS DIRECTED BY THE ENGINEER.
6. ONE-HALF INCH EXPANSION JOINT MATERIAL SHALL BE PROVIDED WHERE CURB OR CURB AND GUTTER IS ADJACENT TO SIDEWALK OR RIPRAP.
7. ALL JOINTS SHALL BE EPOXY SEALED, (GRAY COLOR TO MATCH).
8. ALL CURB SHALL BE SPRAYED WITH WHITE PIGMENTED CURING COMPOUND.
9. PLACE BACKFILL BEHIND THE CURB WITHIN 7-DAYS OF NEW CURB INSTALLATION.

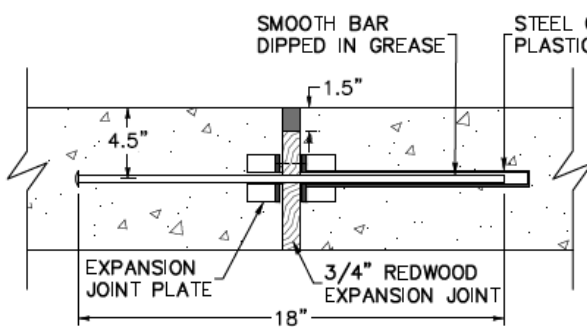
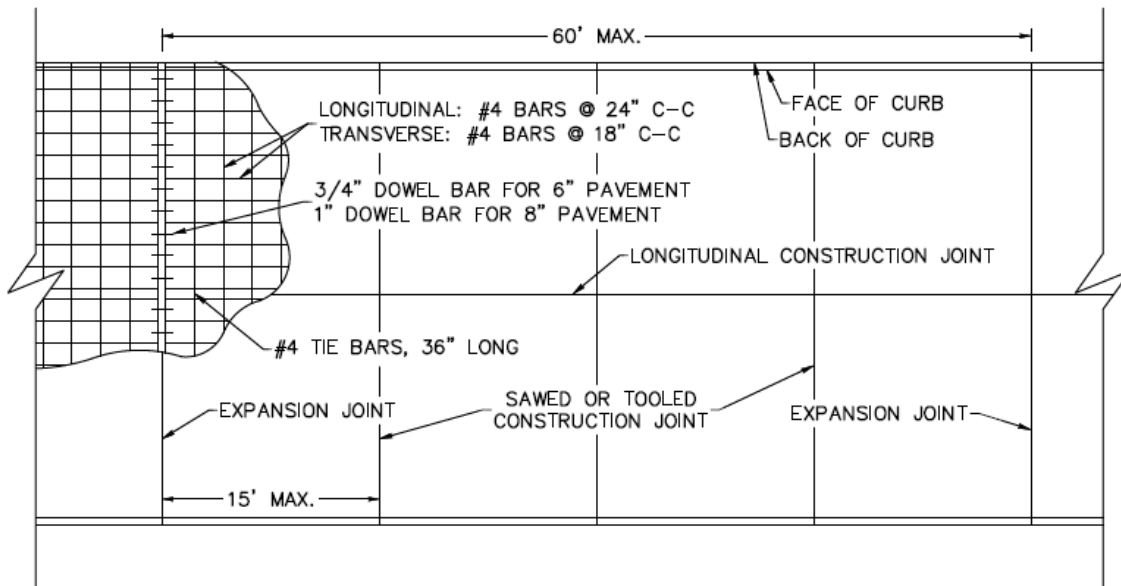
**CONCRETE CURB
DETAILS**

WALKER COUNTY

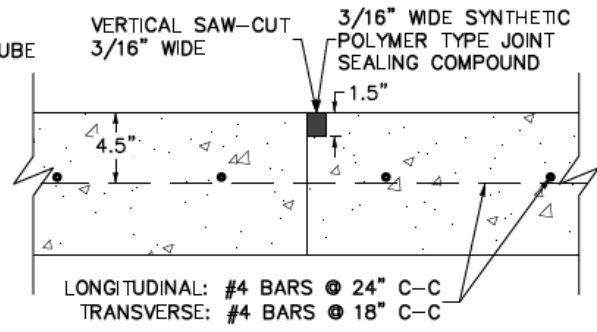
SCALE: NTS

TBD

Appendix H – Concrete Pavement Details



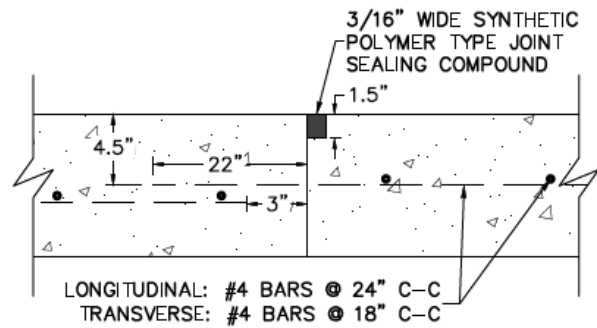
EXPANSION JOINT



**TRANSVERSE "SAWED"
 CONSTRUCTION JOINT**

NOTES:

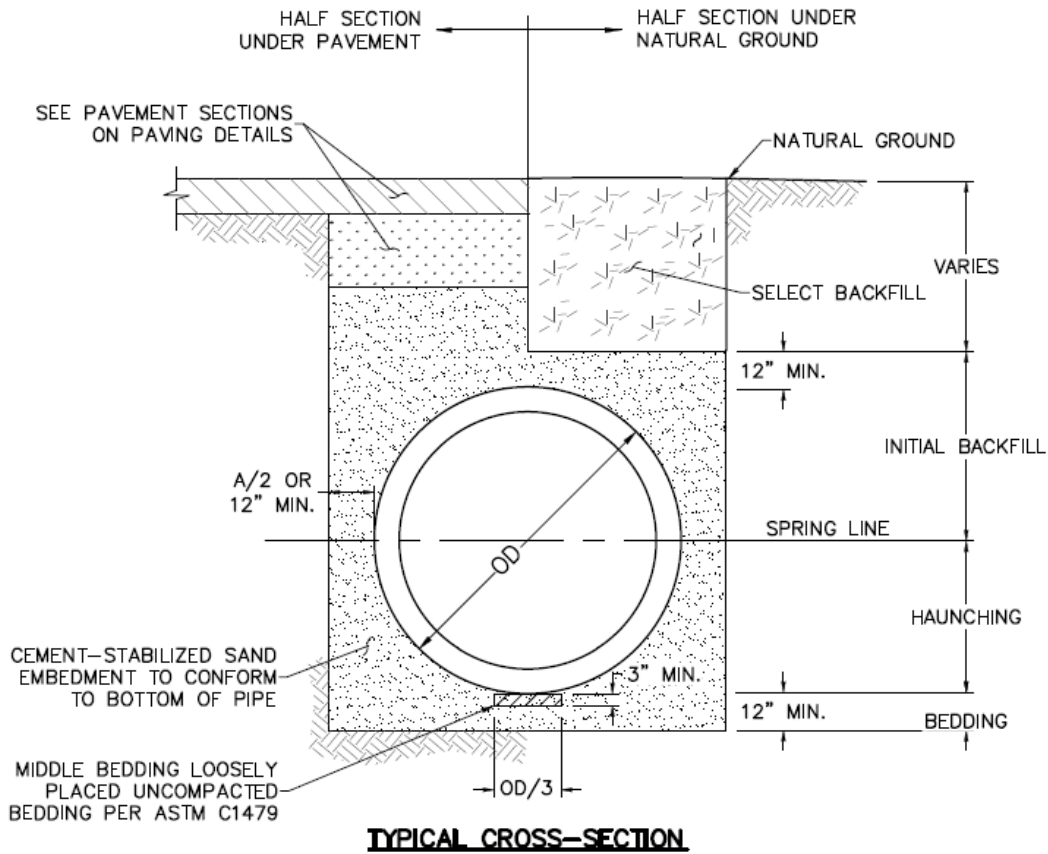
1. CONCRETE SHALL BE CLASS A (3000 PSI @ 28 DAYS).
2. ALL REINFORCING BARS SHALL BE #4 GRADE 60 STEEL (100% TIED), UNLESS OTHERWISE SPECIFIED.
3. ROUND ALL EXPOSED SHARP EDGES WITH A ROUNDING TOOL TO A MINIMUM RADIUS OF 1/4 INCH



**LONGITUDINAL
 CONSTRUCTION JOINT**

CONCRETE PAVEMENT DETAILS	
WALKER COUNTY	
SCALE: NTS	TBD

Appendix I – Storm Bedding and Backfill Details



NOTES:

1. THIS DETAIL MAY BE USED ONLY FOR DRY STABLE TRENCH CONDITIONS.
2. MINIMUM TRENCH WIDTH SHALL BE PIPE OD PLUS AN ALLOWANCE "A" FOR THE NOMINAL PIPE SIZE:

NOMINAL PIPE SIZE	"A"
18" TO 30"	24"
OVER 30"	36"

3. MAXIMUM TRENCH WIDTH SHALL BE NOT GREATER THAN MINIMUM TRENCH WIDTH PLUS 24 INCHES, UNLESS OTHERWISE NOTED.
4. CEMENT STABILIZED SAND TO BE BACKFILLED UP TO BOTTOM OF SUBGRADE WHERE PIPES CROSS ANY ROAD.
5. ANY STORM SEWER 48 INCHES OR SMALLER LOCATED UNDERNEATH OR WITHIN 1 FOOT OF A PAVING SECTION SHALL BE BEDDED AND BACKFILLED WITH 1,000-PSI CEMENT STABILIZED SAND.

**RCP STORM BEDDING
AND BACKFILL DETAIL**

WALKER COUNTY

SCALE: NTS TBD

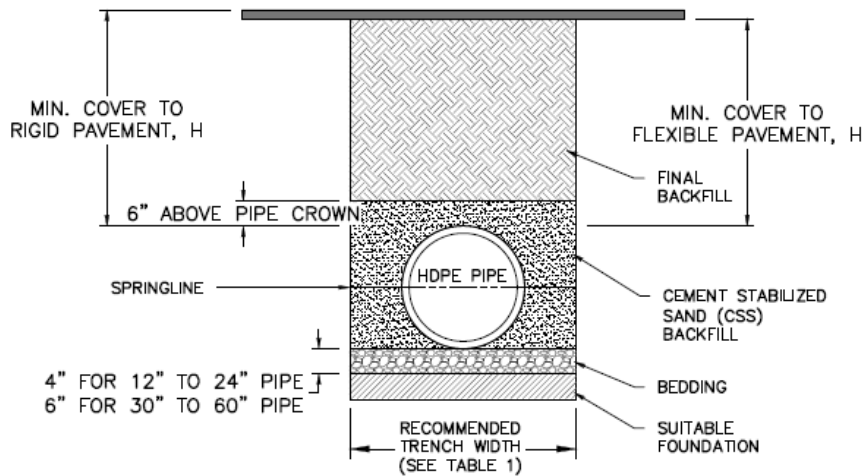


TABLE 1
RECOMMENDED MINIMUM TRENCH WIDTHS

PIPE DIAM.	MIN. TRENCH WIDTH
12" (300mm)	30" (762mm)
15" (375mm)	34" (864mm)
18" (450mm)	39" (991mm)
24" (600mm)	48" (1219mm)
30" (750mm)	56" (1422mm)
36" (900mm)	64" (1626mm)
42" (1050mm)	72" (1829mm)
48" (1200mm)	80" (2032mm)
60" (1500mm)	96" (2438mm)

NOTES:

1. ALL PIPE SYSTEMS SHALL BE INSTALLED IN ACCORDANCE WITH ASTM D2321, "STANDARD PRACTICE FOR UNDERGROUND INSTALLATION OF THERMOPLASTIC PIPE FOR SEWERS AND OTHER GRAVITY FLOW APPLICATIONS", LATEST ADDITION. NATIVE SOILS SHALL BE OF ADEQUATE STIFFNESS TO WITHSTAND A VERTICAL CUT WITHOUT MATERIAL SLOUGHING. DUE TO THE FINAL SET STRENGTH, CEMENT STABILIZED SAND (CSS) SHALL BE COMPACTED TO 85% SPD OR GREATER. SEE NOTES 7 AND 9 REGARDING SET STRENGTH.
2. RECOMMENDED TRENCH WIDTHS ARE LISTED IN TABLE 1 PER ASTM D2321. THESE VALUES ARE BASED ON PROVIDING SUFFICIENT SPACE BETWEEN THE PIPE O.D. AND THE TRENCH WALL, SUCH THAT WORKING ROOM FOR COMPACTION EQUIPMENT IS PROVIDED WITHOUT DAMAGING THE PIPE OR TRENCH WALL INTEGRITY. NARROWER TRENCHES MAY BE POSSIBLE BASED ON THE COMPACTION EQUIPMENT.
3. CSS SHALL HAVE A MIX DESIGN OF ADEQUATE FINAL STRENGTH TO CARRY ALL LIVE AND DEAD LOADING BUT ALLOW FOR ANY FUTURE EXCAVATION. TYPICAL 7 DAY COMPRESSIVE STRENGTHS RANGE BETWEEN 50 AND 100 PSI. MIX DESIGNS CAN VARY BASED ON THE CEMENT, ASH, SOIL, ADMIXTURES, AND WATER RATIO AND SHALL BE DESIGNED AND DEFINED BY THE ENGINEER OF RECORD. THE AMERICAN CONCRETE INSTITUTE (ACI) REPORT ACI 230.1R-09 IS ONE RESOURCE THAT PROVIDES MIX DESIGNS BASED ON DIFFERENT CLASSIFICATIONS OF SOIL.
4. CSS SHOULD NOT BE PLACED WHEN TEMPERATURES ARE BELOW 40°F, AGAINST FROZEN TRENCH MATERIAL OR WHEN APPRECIABLE PRECIPITATION IS FORECASTED DURING PLACEMENT.
5. **FOUNDATION:** WHERE THE TRENCH BOTTOM IS UNSTABLE, THE CONTRACTOR SHALL EXCAVATE TO A DEPTH REQUIRED BY THE ENGINEER AND REPLACE WITH SUITABLE MATERIAL AS SPECIFIED BY THE ENGINEER. AS AN ALTERNATIVE AND AT THE DISCRETION OF THE DESIGN ENGINEER, THE TRENCH BOTTOM MAY BE STABILIZED USING A GEOTEXTILE MATERIAL.
6. **BEDDING:** SUITABLE MATERIAL SHALL BE CSS, OR CLASS I OR II PER ASTM D2321. THE CONTRACTOR SHALL PROVIDE DOCUMENTATION FOR MATERIAL SPECIFICATION TO ENGINEER. UNLESS OTHERWISE NOTED BY THE ENGINEER, MINIMUM BEDDING THICKNESS SHALL BE 4" (100mm) FOR 12"-24" DIAMETER PIPE (300mm-600mm); 6" (150mm) FOR 30"-60" (750mm-1500mm) DIAMETER PIPE. THE MIDDLE 1/3 BENEATH THE PIPE INVERT SHALL BE LOOSELY PLACED.
7. **FINAL BACKFILL:** THE CSS BACKFILL SHALL BE ALLOWED TO CURE AT LEAST 4 HOURS TO REACH AN INITIAL SET STRENGTH PRIOR TO PLACING SOIL ABOVE THE PIPE EMBEDMENT. ADDITIONAL CURE TIME MAY BE REQUIRED BASED ON THE OVERALL FINAL FILL HEIGHT (SEE NOTE 9).
8. **MINIMUM COVER:** MINIMUM COVER, H, IS 12" (300mm) THROUGH 48" (1200mm) DIAMETER PIPE AND 24" (600mm) OF COVER FOR 60" (1500mm) DIAMETER PIPE, MEASURED FROM TOP OF PIPE TO BOTTOM OF FLEXIBLE PAVEMENT OR TO TOP OF RIGID PAVEMENT.
9. **MAXIMUM COVER:** MAXIMUM COVER, H, IS BASED ON A MINIMUM 4HR SET TIME OF THE CSS BACKFILL PRIOR TO ANY SOIL PLACEMENT ABOVE THE BACKFILL ENVELOPE. FILL HEIGHTS UP TO 15FT ARE SUITABLE FOR ALL DIAMETERS. LONGER SET TIME MAY ALLOW FOR GREATER FILL HEIGHTS, CONTACT AN ADS REPRESENTATIVE FOR GUIDANCE; SET TIME LESS THAN 4HR MAY RESULT IN HIGHER THAN EXPECTED DEFLECTION AND IMPACT LONG-TERM PERFORMANCE.

**HDPE STORM BEDDING
AND BACKFILL DETAIL**
WALKER COUNTY
SCALE: NTS TBD

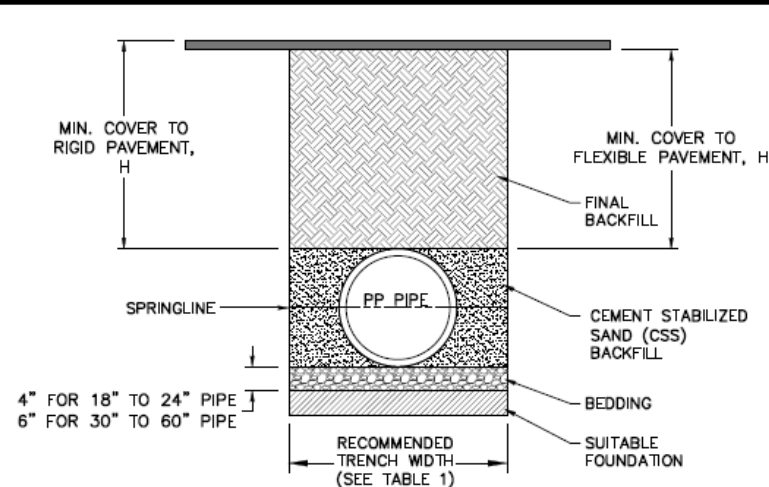


TABLE 1
MINIMUM TRENCH WIDTHS AND MAXIMUM FILL HEIGHTS

PIPE DIAM.	MIN. TRENCH WIDTH	MAX. FILL HEIGHT
18" (450mm)	45" (1143mm)	21.0' (6.4m)
24" (600mm)	52" (1321mm)	16.5' (5.0m)
30" (750mm)	60" (1524mm)	18.5' (5.6m)
36" (900mm)	78" (1981mm)	15.5' (4.7m)
42" (1050mm)	83" (2108mm)	15.0' (4.6m)
48" (1200mm)	90" (2286mm)	14.0' (4.3m)
60" (1500mm)	103" (2616mm)	13.0' (4.0m)

NOTES:

- ALL PIPE SYSTEMS SHALL BE INSTALLED IN ACCORDANCE WITH ASTM D2321, "STANDARD PRACTICE FOR UNDERGROUND INSTALLATION OF THERMOPLASTIC PIPE FOR SEWERS AND OTHER GRAVITY FLOW APPLICATIONS", LATEST ADDITION. NATIVE SOILS SHALL BE OF ADEQUATE STIFFNESS TO WITHSTAND A VERTICAL CUT WITHOUT MATERIAL SLOUGHING. CEMENT-STABILIZED SAND (CSS) EMBEDMENT REQUIRES PLACEMENT IN MAXIMUM 6" (150mm) LIFTS COMPACTED TO A MINIMUM OF 95% OF MAXIMUM DRY DENSITY IN ACCORDANCE WITH ASTM D558, WITH MOISTURE CONTENT ON THE DRY SIDE OF OPTIMUM BUT SUFFICIENT FOR EFFECTIVE HYDRATION.
- CSS SHALL HAVE A MIX DESIGN OF ADEQUATE FINAL STRENGTH TO CARRY ALL LIVE AND DEAD LOADING BUT ALLOW FOR ANY FUTURE EXCAVATION. THE MIXTURE SHALL CONSIST OF NO LESS THAN 1.1 SACKS OF TYPE 1 PORTLAND CEMENT (CONFORMING TO ASTM C 150) PER ONE TON OF SAND (CONFORMING TO ASTM C 33), RESULTING IN A MINIMUM UNCONFINED COMPRESSIVE STRENGTH OF 100 PSI WITHIN 48 HRS OF SET TIME. REFERENCE THE CITY OF HOUSTON SPECIFICATION SECTION 02321 "CEMENT STABILIZED SAND" FOR FURTHER PLACEMENT AND MATERIAL REQUIREMENTS.
- CSS SHOULD NOT BE PLACED WHEN TEMPERATURES ARE BELOW 40°F, AGAINST FROZEN TRENCH MATERIAL OR WHEN APPRECIABLE PRECIPITATION IS FORECASTED DURING PLACEMENT.
- FOUNDATION:** WHERE THE TRENCH BOTTOM IS UNSTABLE, THE CONTRACTOR SHALL EXCAVATE TO A DEPTH REQUIRED BY THE ENGINEER AND REPLACE WITH SUITABLE MATERIAL AS SPECIFIED BY THE ENGINEER. AS AN ALTERNATIVE AND AT THE DISCRETION OF THE DESIGN ENGINEER, THE TRENCH BOTTOM MAY BE STABILIZED USING A GEOTEXTILE MATERIAL.
- BEDDING:** SUITABLE MATERIAL SHALL BE CSS, OR CLASS I OR II PER ASTM D2321. THE CONTRACTOR SHALL PROVIDE DOCUMENTATION FOR MATERIAL SPECIFICATION TO ENGINEER. UNLESS OTHERWISE NOTED BY THE ENGINEER, MINIMUM BEDDING THICKNESS SHALL BE 4" (100mm) FOR 18"-24" DIAMETER PIPE (450mm-600mm); 6" (150mm) FOR 30"-60" (750mm-1500mm) DIAMETER PIPE. THE MIDDLE 1/3 BENEATH THE PIPE INVERT SHALL BE LOOSELY PLACED.
- FINAL BACKFILL:** THE CSS BACKFILL SHALL BE ALLOWED TO CURE AT LEAST 4 HOURS TO REACH AN INITIAL SET STRENGTH PRIOR TO PLACING SOIL ABOVE THE PIPE EMBEDMENT. ADDITIONAL CURE TIME MAY BE REQUIRED BASED ON THE OVERALL FINAL FILL HEIGHT (SEE NOTE 9).
- MINIMUM COVER:** IN UNPAVED AREAS, MINIMUM COVER, H, IS 12" (300mm) FOR PIPES UP TO 48" (1200mm) IN DIAMETER AND 24" (600mm) FOR 60" (1500mm) DIAMETER PIPE. IN PAVED AREAS, MINIMUM COVER IS 24" (300mm) FOR PIPES UP TO 48" (1200mm) IN DIAMETER AND 30" (600mm) FOR 60" (1500mm) DIAMETER PIPE. H IS MEASURED FROM THE TOP OF PIPE TO BOTTOM OF FLEXIBLE PAVEMENT OR TO TOP OF RIGID PAVEMENT, ASSUMING HL-93 LOADING.
- MAXIMUM COVER:** MAXIMUM COVER(S), H, ARE LISTED ABOVE IN TABLE 1. THESE VALUES ARE BASED ON A MINIMUM 4 HR SET TIME OF THE CSS BACKFILL PRIOR TO ANY SOIL PLACEMENT ABOVE THE BACKFILL ENVELOPE. SET TIMES LESS THAN 4 HR MAY RESULT IN HIGHER THAN EXPECTED DEFLECTION AND IMPACT LONG-TERM PERFORMANCE. NATIVE SOILS ARE ASSUMED TO BE SOFT COHESIVE CLAYS, AND GROUND WATER LEVELS ARE ASSUMED TO BE AT THE SPRINGLINE OF THE PIPE. STRONGER NATIVE SOILS OR HIGHER GROUNDWATER LEVELS WILL AFFECT THE VALUES LISTED IN THE TABLE.

POLYPROPYLENE STORM BEDDING AND BACKFILL DETAIL	
WALKER COUNTY	
SCALE: NTS	TBD