



Jefferson Parish

SUBDIVISION PUBLIC IMPROVEMENTS STANDARDS

MANUAL

GUIDELINES FOR
SUBMITTAL AND APPROVAL OF
SUBDIVISION ENGINEERING PLANS

November 30, 2018

JEFFERSON PARISH SUBDIVISION PUBLIC IMPROVEMENTS STANDARDS MANUAL

SUBMITTAL AND APPROVAL OF SUBDIVISION ENGINEERING PLANS

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1. PURPOSE

In order to establish a uniform procedure for submittal and approval of “Subdivision Engineering Plans” the Jefferson Parish Office of Public Works (herein referred to as “this office”) has established the following procedure, consisting of the following phases:

2. Phase I : “Preliminary Plans” Phase:

2.1 Submittals’ identification and date stamp.

Preliminary plans must clearly be identified as “Preliminary Plans” or “Preliminary Plans, 1st Submittal”. Preliminary plans must include a submittal date. If, depending on the type and number of comments, it becomes necessary to submit a second set of preliminary plans, these plans must be identified as “Preliminary Plans, 2nd Submittal” etc.

2.2 Typical Plan Sheets:

	Sheet No.
Title Sheet (including a vicinity map and a location map).....	1
Subdivision Layout.....	2
Typical Section*	3
Notes & General Legend of Symbols.....	4
Master Drainage and Paving Plan**	5
Master Water Plan**	6
Master Sewer Plan**	7
Master Street Lighting Plan**	8
Plan and Profile Sheets.....	9 –
Construction Phasing.	
Miscellaneous Detail Sheets.	
Lift Station Plans, if applicable	
Jefferson Parish Standard Plans.	
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* Typical sections shall include all proposed utilities (public and private), servitude widths (public and private), right-of-way width, pavement section, curbs, gutters, etc.

** Master “Drainage and Paving”, “Water”, “Sewer”, and “Street Lighting” Plans will require the signature of the Director of the Department of Engineering however; the “Street Lighting” plan will require approvals (signature) from Entergy, the Developer, and the Department of Lighting Regulatory Inspection prior to the Director of the Department of Engineering’s signature. All plan

sheets, which require the signature of the Director of the Department of Engineering shall include the following notes:

2.3 Signature block notes:

1. APPROVAL OF THESE PLANS BY THE DIRECTOR OF ENGINEERING IS VALID FOR EIGHTEEN (18) MONTHS AFTER DATE OF SIGNATURE. IF CONSTRUCTION HAS NOT STARTED WITHIN THIS PERIOD, IT WILL BE NECESSARY TO RE-SUBMIT THESE PLANS TO THE DEPARTMENT OF ENGINEERING TO BE REVIEWED AND APPROVED AGAIN.
2. REVISIONS MADE TO THIS PLAN AFTER THE DIRECTOR OF THE DEPARTMENT OF ENGINEERING HAS APPROVED IT WILL VOID THE DIRECTOR'S APPROVAL AND REQUIRE THE REVISED PLAN TO BE RE-SUBMITTED FOR REVIEW AND APPROVAL ONCE AGAIN.
3. IF FACILITIES ARE NOT INSTALLED IN ACCORDANCE WITH THE PLAN, THE DIRECTOR'S APPROVAL WILL BE VOIDED, REQUIRING THE PLAN TO BE REVISED AND RE-SUBMITTED FOR REVIEW AND APPROVAL ONCE AGAIN.
4. APPROVAL OF THIS PLAN IS BASED ON THE UNDERSTANDING THAT ALL SERVITUDES SHOWN, EITHER HAVE BEEN RECORDED OR WILL BE INCLUDED ON THE FINAL PLAT.
5. ALL OR PART OF THIS PROJECT MAY BE LOCATED IN WETLANDS. APPROVAL OF THIS PROJECT BY THE PARISH OF JEFFERSON GRANTS NO PROPERTY RIGHTS AND DOES NOT ELIMINATE THE NEED TO OBTAIN APPROVALS FROM STATE AND FEDERAL AGENCIES PRIOR TO BEGINNING THE PROJECT.

Note No. 5, above, shall be included only when the development is located within wetland area.

In addition, if Jefferson Parish approval only applies to certain sections of overall Subdivision Submittals, this fact shall be made clear on all plan sheets, which require approval. An example of this situation would be proposed subdivisions in the City of Kenner. Our concerns and jurisdictions in Kenner are limited to the Water Distribution System and the Major Drainage Canal System. When approval would only apply to a certain utility and / or section, additional notes shall be added (i.e.):

6. APPROVAL OF THESE PLANS BY THE JEFFERSON PARISH DIRECTOR OF ENGINEERING IS LIMITED TO THE **WATER DISTRIBUTION SYSTEM ONLY.**

Plans will be signed in Phase III, "Plan Approval" Phase.

2.4 Submittals and reviews

2.4.1 Submittals:

The following will provide guidelines for required submittals during reviews:

- PDF copy of the complete set of the plans, including all the applicable standards. PDF copy may be e-mailed to the Engineering Department, may be submitted on a USB flash drive, or a CD-ROM.
- The parish may request paper copies of the complete sets of the plans (traditionally, three sets), including all the applicable standards.
-

2.4.2 Review and comments:

Comments may be relayed to the A/E in forms of “written comments”, “marked-up plans” (marked up PDF or paper copy), and/or may be discussed during scheduled meetings or combination of all.

“Written comments” must be responded to in writing, “marked-up plans” must be returned to this office, and minutes of scheduled meetings shall be composed by the A/E and must be submitted in writing along with the next plan submittal as one package.

The A/E shall verify that all comments from different sections of the Engineering Department (streets, street drainage, major drainage, traffic, water distribution system, sanitary sewer system, street lighting, etc.) have been received and the A/E shall revise the plans accordingly.

The A/E will have the opportunity to appeal, on behalf of his/her client, any standards and/or request any special consideration due to justifiable conditions. It is recommended that any such appeals by the A/E be undertaken during the Preliminary Phase 1st or 2nd Submittal.

3. Phase II : “Final Plans” Phase:

By definition, plans are final when it is believed that all comments have been received and have been incorporated in plans. Depending on the degree of completeness of the preliminary plans, this “Final Plan Phase” Formal Submittals may not be necessary. Minor comments and revisions may be handled by phone, or e-mail, etc.

3.1 Formal Submittals and Reviews

3.1.1 Submittals:

The following will provide guidelines for required submittals during reviews:

- PDF copy of the complete set of the plans, including all the applicable standards. PDF copy may be e-mailed to the Engineering Department, may be submitted on a USB flash drive, or a CD-ROM.
- The parish may request paper copies of the complete sets of the plans (traditionally, three sets), including all the applicable standards.

3.1.2 Review and comments:

Final comments and changes, if any, will be made during this “Final Plan” Phase.

3.2 Sanitary sewer Lift Station / Collection Line Impact Fee

The Lift Station/Collection Line Impact Fee is based on the estimated additional sewerage discharge from the proposed development. The impact fee will be determined by the Department of Sewerage according to the effect of the proposed subdivision on the existing sewer system.

The Impact Fee will be due from the developer prior to final approval of the Engineering Plans. Checks or Money Orders shall be made to Jefferson Parish Department of Sewerage (736-6674).

4. Phase III : “Plan Approval” Phase:

4.1 Signature sheets submittals

The following must be provided to this office by the A/E at the time subdivision plans are submitted for the Director of Engineering Signature:

4.1.1 Electronic copies

Electronic copy of the complete (all sheets) subdivision plans on CD-ROM in “PDF” and “DWG” format.

4.1.2 Paper copy

One (1) complete sets prints, including all Jefferson Parish standard plans are required for the project.

4.1.3 Reproducible sheets for signature

Two sets of the reproducible master plans (**Paving and Drainage**, **Water**, and **Sewer**) for the director's signature. Both signed sets will be returned to the A/E. [Street Lighting plan will be handled similarly but at a later date]

4.2 Final submittals

4.2.1 Reproducibles

One (1) complete set of reproducible plans, including all standard plans required for the project. The A/E shall incorporate one set of the previously signed sheets in this set.

4.2.2 Paper copies

Three (3) complete sets prints, including all Jefferson Parish standard plans are required for the project. These sets shall include all the signed sheets.

5. PLAN PREPARATION GUIDELINES:

5.1 General:

5.1.1 Phasing (Construction Phasing)

Phasing shall generally refer to Construction Stage Phasing and shall be limited to construction related items. All other Stages of projects including Planning, Design, Approval, etc., shall not be limited to Phasing.

Construction Phasing shall be introduced and included in "Preliminary Plans" phase. Modifications to "Construction Phasing" will most likely delay the entire "Plan Approval" process.

5.1.2 ...[Left Blank]

5.2 Paving and Drainage:

5.2.1 Jefferson Parish Contacts

Add the following note to the “GENERAL NOTES” which are placed on the Notes & General Legend of Symbols Plan Sheet:

Contractor must contact Jefferson Parish Departments of:

- 1) Engineering, Chuong Pham, 736-6530.
- 2) Engineering Inspection, Errol Martin, 349-5843.

5.2.2 Jefferson Parish Standard Drawings

Any applicable Jefferson Parish Standards shall be included in the drawings and shall be referenced to as applicable throughout the plans and the specifications. Following is a list of current Jefferson Parish Standard drawings:

You must have [Adobe Acrobat Reader](#) to view documents (drawings) on the Parish Website that are listed on this page.

~~If you use AutoCAD, a DWG file containing these drawings can be forwarded directly to you. Please e-mail your request to Jeff Wassermann JWassermann@jeffparish.net or call our office at 736-6500 to provide your e-mail address. Originals of these drawings are available from the Jefferson Parish Engineering Department.~~

Public Works Standard Details

- [Typical Bird Bath Drain and Cleanout Structure Layout Plan](#)
- [Brick Sidewalk Details](#)
- [Conflict Boxes Standard Details](#)
- [Curb and Curb & Gutter Details](#)
- [Curb Ramp for the Handicapped](#)
- [Drainage Standard Details - Sheet No. 1 or 3](#)
- [Drainage Standard Details - Sheet No. 2 or 3](#)
- [Drainage Standard Details - Sheet No. 3 or 3](#)
- [Parking Lot Storm Runoff Detention Guidelines](#)
- [Plan Detail SPR-1 - Design Details and General Notes](#)
- [Typical Roadway Details - Sheet No. 1 of 2](#)
- [Typical Roadway Details - Sheet No. 2 of 2](#)
- [Typical Roadway Restoration Details](#)
- [Storm Drainage Design Manual](#)
- [Typical Sidewalk Details](#)
- [Typical \(RCP\) & \(RCPA\) & \(PVC\) Pipe Trench Details](#)
- [Typical Outfall Pipe Details](#)

5.2.3 Master Paving and Drainage Plan

The Master Paving and Drainage Plan shall show the general configuration of proposed subdivision, including all streets, lots, sidewalks, connections to existing roadways, etc., along with all pertinent drainage information, including catch basins, drainage manholes, drainage pipes, connections to existing drainage pipes, outfall pipes, etc.

5.2.4 Plan/Profile sheets

Plan/Profile sheets shall include a longitudinal profile grade line with a minimum slope of 0.4%. Vertical curves with a minimum length of sixty (60) feet shall be required when the change in grade is greater than 1%.

All horizontal and vertical geometry for local streets shall meet the American Association of State Highway and Transportation Officials (AASHTO) "A Policy on Geometric Design of Highways and Streets," latest edition, criteria for 25 mph design.

All horizontal and vertical geometry for collector streets shall meet the AASHTO "A Policy On Geometric Design of Highways and Streets," latest edition, criteria for a design speed within the range of 30 mph to 45 mph as determined by the Jefferson Parish Engineering Department. Collector Streets shall also be designed in accordance with all criteria of the Jefferson Parish Thoroughfare plan.

5.2.5 Catch basin spacing

Catch basin spacing should be designed so that runoff from no more than one acre of drainage area shall drain into each catch basin.

5.2.6 Bird Bath

Bird Bath piping shall be included in the design to address possible future differential settlement that may cause Bird Baths.

5.2.7 Rear Yard Drainage and Grading

Rear Yard Drainage shall be included in the design to address “turtle back” situations where new subdivisions back-up to older existing subdivisions.

“Turtle back” lot configurations will not be permitted within a new subdivision. All lots shall be sloped from the back to the front as per Jefferson Parish Ordinance, and all Jefferson Parish Department of Inspection and Code Enforcement requirements.

The grading is to be extended from the established curb height and shall slope upwards toward the property line, one-half ($\frac{1}{2}$) inch for each foot of width of sidewalk area (sidewalk area means that portion of ground between the roadway and the property line of the adjacent landowner) and then beginning at the property line shall slope upwards one (1) inch in twenty (20) feet toward the rear property line

Where a residential lot depth is two hundred (200) feet or more, grade sloping from back to front may not be reasonable (feasible). In such cases, a detailed drainage plan will be required, demonstrating how the lots will be drained. This drainage plan will require the approval of the Jefferson Parish Drainage, Inspection and Code Enforcement, and Engineering Departments.

Under no circumstances runoff from any property shall be allowed to flow on to another property without proper design and proper required servitudes. { All servitudes must be recorded and must be included in the final Plat. }

5.2.8 Longitudinal Profile

Longitudinal Profile shall be in a range in elevation between 1.5 feet and 2.5 feet below Base Flood Elevation.

5.2.9 Maximum size and Minimum cover for PVC Drain Pipe

Maximum allowable size for PVC pipe shall be 36". Minimum cover for PVC Drain Pipe shall be two (2') feet with the exception of pipes under concrete roadways which minimum cover would be 12 inches below the bottom of the concrete pavement.

5.2.10 Subdivisions that back-up to drainage canals or bayous

Subdivision backyards that back-up to drainage canals or bayous shall have a 12" non-granular blanket to prevent erosion.

5.2.11 Handicapped Ramps

Required Handicapped Ramps shall be shown on the Street Lighting Plan to avoid conflicts with Street Lights.

5.2.12 Outfall Pipes

Outfall Pipes shall be RCP in accordance with Jefferson Parish Standard Plans. [Typical Outfall Pipe Details](#)

5.2.13 Base Course Thickness

Base Course thickness shall be determined from Jefferson Parish's Soils Map.

5.2.14 Typical Section

Typical Section shall be Parabolic Crown in accordance with Jefferson Parish's Standard Plans. Double tangent crown shall be allowed only with prior written permission from the Department of Engineering.

Roadway thickness shall be 7" minimum Portland Cement Concrete or structurally equivalent thickness of asphalt, 26 feet wide, and placed within a 50 foot Right-of-Way. Curbs or curb and gutters shall be 5" high mountable curbs, except at intersections curbs shall be 6" high barrier, with 5 foot transition as per Jefferson Parish Standard Details.

5.2.15 Turning radius

Turning radius shall be 12 foot minimum on local subdivision streets, and 25 foot minimum at intersection with collector streets.

5.2.16 Horizontal Curves

Horizontal Curves shall have a minimum radius of 200 feet. Tangent distance between reverse curves shall be 100 feet minimum.

5.2.17 Paving Notes

5.2.17.1 Pavement

Unless otherwise noted, Roadway thickness shall be 7" minimum Portland Cement Concrete or structurally equivalent thickness of asphalt, 26 feet wide, and placed within a 50 foot Right-of-Way. Curbs or curb and gutters shall be 5" high mountable curbs, except at intersections curbs shall be 6" high barrier, with 5 foot transition as per Jefferson Parish Standard Details.

5.2.17.2 Minimum Compressive Strength

Portland Cement Concrete Pavement shall attain a minimum compressive strength of 4,000 psi at 28 days.

5.2.17.3 Opening to Traffic

Pavement shall not be opened to traffic until 28 days after placement, unless approved by the engineer (this approval may be granted when a minimum compressive strength of 3,500 psi achieved).

5.2.17.4 Boxed Outs

All drainage and sewer structures in pavement shall be boxed out.

5.2.17.5 Base Course

Base course shall consist of AASHTO A4 or better soils limited to a maximum liquid limit of 25 and a maximum plasticity index of 6, "Pumped" River Sand generally meets this requirement. Base course thickness shall be determined from Jefferson Parish soils map and compacted to 97 (standard) proctor density. Density tests will be required at 200 foot intervals.

5.2.17.6 Replacements of Concrete at Utility Crossings and Tie-ins

Concrete pavement removed for tie-ins and for utility crossings shall be removed joint to joint and replaced with concrete which shall attain 4,000 psi at 72 hours. Concrete shall be in accordance with Jefferson Parish Standard Plan for Roadway Restoration.

5.2.17.7 Testing Laboratories

An approved testing laboratory, selected by the engineer, shall be retained by the contractor and shall provide all required testing. Test reports must be furnished to the Jefferson Parish Department of Engineering (Attention: Errol Martin FAX 349-5175) upon the completion of each individual report.

No concrete shall be poured without the services of the testing lab technician to witness the pour, make slump tests and make test cylinders.

Any concrete poured without the services of the testing lab technician shall be subject to discretionary testing ordered by the Department of Engineering at the expense of the contractor. Subdivision streets will not be accepted for maintenance if the contractor has not paid testing laboratory for the discretionary testing.

5.2.17.8 Notification

Contractor must notify the testing lab and the Department of Engineering Inspection Section (736-6793 or 736-6799) at least 48 hours prior to pouring concrete.

5.2.17.9 Test Cylinders

A set of four (4) test cylinders will be required for each 100 cubic yards of concrete poured. At the point of 25 C.Y. above 100 C.Y., a second set of test cylinders will be required.

5.2.17.10 Coring

Any test cylinder that does not attain a minimum of 4,000 psi at 28 days will necessitate the immediate notification of the Department of Engineering. Coring for compressive strength will be required within seven (7) days with results furnished to the Department of Engineering within ten (10) days.

5.2.17.11 Curing Compound

Immediately after completion of finishing operations and as soon as marring of concrete will not occur, the pavement surface shall be cured by covering with a white pigmented curing compound in conformance with DOTD Standard

Specifications for Roads and Bridges latest edition. All curb dowel bars shall be protected prior to application of curing compound.

5.2.17.12 Base Adjustments

Contractor shall use the necessary sand base to bring the roadway to the grades shown on the plans. This may require more than the minimum sand base.

5.2.17.13 Joint Sealer

Joint Sealer shall be in accordance with Section 1005.02 of DOTD Standard Specifications for Roads and Bridges, 2016 Edition. The sealant and backer material shall be approved products listed in DOTD's Approved Materials List.

5.2.17.14 Settlement Factors

Contractor must add a settlement factor (provided by Department of Engineering) to street grades shown on these plans to compensate for settlement during construction.

5.2.17.15 Depressed Curbs

The contractor is required to provide depressed curbs (as per Jefferson Parish Standard Plans) at location of H.C. ramps shown on the plans.

5.2.18 General Notes

5.2.18.1 Pre-Construction Conference

Pre-construction Conference: Prior to start of construction, the engineer shall schedule a pre-construction conference. The contractor shall be represented at the conference by his project superintendent or any other concerned personnel. Representatives from the Department of Public Works (Mr. Pete Blaha, 736-6791 and Mr. Errol Martin Phone 349-5843), from the testing lab and from other Jefferson Parish Departments will be invited as well as representatives of utility companies, when necessary.

5.2.18.2 Final Inspection Notifications

Prior to final inspection, contractor shall coordinate with all concerned parties listed below to have their representatives present at the site: Mr. Pete Blaha, 736-6791 and Mr. Errol Martin, 349-5843, Department of Engineering Inspection Division who will notify their inspectors (Streets & Utilities) to be present at the inspection. Mrs. Kim Battaglia Department of Engineering, Surveying Division (736-6864) who will send a team for the verification of street grades, drainage and sanitary sewer structures, and inverts, and to make sure they are constructed properly in conformance with approved plans. Contractor shall have sufficient work force to assist all inspectors in the performance of their tasks.

5.2.18.3 LPDES Permits

The developer is responsible to file for a LPDES permit for storm water discharges associated with construction activities for projects of five (5) acres or more. Additionally, developer is responsible to develop a storm water pollution prevention plan to be kept on job site at all times.

5.2.18.4 As-Built Plans

Prior to Final Acceptance of subdivisions, As-Built Plans (one set of mylars, and "PDF" & "DWG" files on CD) shall be delivered to Jefferson Parish Department of Engineering. As-Built Plans must include Master Paving and Drainage Plan, Master Sewer Plan, Master Water Plan, and Plan/Profile Sheets.

5.2.18.5 Wrapping the Pipe Joints

All pipe joints shall be wrapped with a 36" wide piece of filter cloth (DOTD specifications for Roads and Bridges 2016 Edition) centered on the joint and lapped 36".

5.2.18.6 Plastic Drain Lines

All Plastic Drain Lines shall be in accordance with DOTD Standard Specifications for Roads and Bridges, 2016 Edition.

Plastic Drain Pipe used as main drain line or within the road right of way shall conform to Section 1006 of the DOTD Standard Specifications for Roads and Bridges, 2016 Edition and shall be listed on DOTD's Approved Materials List and shall have type 3 joints.

Plastic drain lines outside of road right of way and used for rear yard drainage shall conform to section 1006 of the DOTD Standard Specifications for Roads and Bridges, 2016 Edition and shall be listed on DOTD's Approved Materials List and shall have type 2 joints.

5.2.18.7 Minimum Depth of Cover during Construction

PVC drain pipes beneath proposed roadways shall have a minimum depth of cover of two (2) feet during construction. Material shall be added as required to maintain the minimum 2 feet of cover prior to placement of concrete.

5.2.18.8 Backfill

Backfill material shall be thoroughly compacted under haunches and then compacted in layers not exceeding 12" compacted thickness. Each layer shall be compacted by approved methods to at least 97 percent of maximum density (Standard Proctor) prior to placement of a subsequent layer. Exposed slopes at the conduit ends shall be covered by at least 12" compacted thickness of plastic soil blanket.

5.2.18.9 Minimum Depth of Cover

The minimum depth of cover for RCP and PVC beneath pavement shall be one (1) foot at completion of construction. Cover for pipe beneath pavement shall be one (1) foot at completion of construction. Cover for pipe beneath pavement will be measured from top of pipe to bottom of concrete. The minimum depth of cover for RCP and PVC located behind back of curb shall be 18 inches for RCP and 24 inches for PVC.

5.2.18.10 Pipe Construction Compliance Monitoring

The Parish reserves the right at any time during construction to excavate, at the Parish's expense, any section of pipe to monitor compliance with manufacturers bedding requirements. Should the exposed pipe reveal improper bedding, the entire job or a portion thereof at the director's discretion shall be excavated at the contractor's expense and any differences corrected.

5.2.18.11 Deflection testing

No sooner than 30 days after installation of PVC pipe, a five percent deflection test will be required before accepting this material. The developer must pay the testing fee for laboratories selected by the Parish. Any pipe section that fails the test will have to be excavated and reinstalled with proper bedding.

Copies of all test reports shall be forwarded to the Jefferson Parish Department of Engineering.

5.2.18.12 Water Stop

Proposed plastic pipe for drain tie-in shall use one standard double gasket, positioned on the pipe in the center of the manhole wall with the leading (lower) edge of gasket closest to the inside of the manhole.

5.2.18.13 Precast Drainage Structures

Precast Drainage Structures located within streets shall be certified to be in compliance with ASTM C-857-92. Reinforcing Steel shall be per ASTM A-615, Grade 60 and meet AASHTO HS 20-44 loading. Concrete shall be 4,000 psi at 28 days.

5.2.19 J. P. Concrete Pavement Core Policy

- 1) Cores shall attain a minimum thickness of seven (7) inches. There will be no tolerance with regard to the minimum pavement thickness. Any core certified to be less than 7 inches thick shall be deemed to have failed. (Example: 6.99 inches shall constitute a failed core).
- 2) For each pour, cores will be staggered, side to side to represent all panels.
- 3) Within the limits of each pour, cores shall be equally spaced, and the number of cores shall be determined by dividing the pour length (in feet) by 200 and rounding up. Example: 825 foot pour length $> 825/200 = 4.13.5$ cores.
- 4) The contractor has the option of pouring the street full width (26 feet) or using split slab construction with two pours (13 feet each). It should be noted that split slab construction will require twice as many cores.
- 5) An additional core shall be required at each intersection.

- 6) When a core of less than required thickness is found, two additional cores will be allowed within a 5 foot radius from the failed core (within the same failed slab). If both cores meet the minimum required thickness, that section will be acceptable. If one of the additional cores fails, contractor shall have to remove and replace the defective slab.

Slab shall be defined as a section of concrete pavement bounded by joints.

Testing will be carried on the abutting slabs where only one additional core will be allowed in each abutting slab. This procedure of testing will be repeated until satisfactory core lengths are obtained.

- 7) All replaced pavement shall require base density, concrete compressive strength and core thickness testing.

5.3 Utilities:

5.3.1 General

5.3.1.1 Existing utilities

All existing utilities shall be shown on the **plan** and the **profile** views within the drawing limits. This will include **Storm Drainage System, Sanitary Sewerage System, and Water Distribution System**. All of the following sources are suggested to be examined to compile information about the location, size, type, function, etc. of any existing drainage, water and sewer system components:

- Jefferson Parish Water Unit Sheets.
- Jefferson Parish Sewer Unit Sheets.
- Jefferson Parish Drainage Unit Sheets.
- Jefferson Parish Geo-Media mapping system.
- Any available As-Built drawings, which may provide useable information.
- Survey.

The task of depicting the existing Jefferson Parish Owned Utilities on the construction drawings, correctly, is solely the responsibility of the A/E and the fact that Jefferson Parish provides review and comments during the design stages will not relieve the A/E from this very crucial responsibility whatsoever.

5.3.1.2 Proposed utilities

All proposed utilities shall be shown on the **plan** and the **profile** views within the drawing limits. This will include **Storm Drainage System, Sanitary Sewerage System, and Water Distribution System.**

5.3.1.3 Jefferson Parish Standard Drawings

Any applicable Jefferson Parish Standards shall be included in the drawings and shall be referenced to as applicable throughout the plans and the specifications. Following is a list of current Jefferson Parish Standard drawings:

You must have [Adobe Acrobat Reader](#) to view documents (drawings) on the Parish Website that are listed on this page.

~~If you use AutoCAD, a DWG file containing these drawings can be forwarded directly to you. Please e-mail your request to Jeff Wassermann JWassermann@jeffparish.net or call our office at 736-6500 to provide your e-mail address. Originals of these drawings are available from the Jefferson Parish Engineering Department.~~

[Public Works Standard Details](#)

- [Sewer Standard Details - Sheet No. 1 of 2](#)
- [Sewer Standard Details - Sheet No. 2 of 2](#)
- [Water Standard Details](#)
- [Appendix A \(Gravity Sanitary Sewer System General Standard Notes\)](#)
- [Appendix B \(Sanitary Sewer "Force Main System" General Standard Notes\)](#)
- [Appendix C \(Water Distribution System General Standard Notes\)](#)

5.3.1.4 Jefferson Parish Contacts

Add the following note to the "GENERAL NOTES": Contractor must contact Jefferson Parish Departments of:

- 1) [Engineering](#), Pete Blaha, Inspection Supervisor, 736-6791 ([Primary Contact](#)).
- 2) [Engineering](#), Ray Mowla, Chief Engineer, 736-6818 ([Secondary Contact](#)).
- 3) East Bank Water, Tyrell Chatman, General Superintendent, 838-4334, 838-4315
- 4) West Bank Water, Tyrell Chatman, General Superintendent, 838-4334, 838-4315
- 5) Sewerage Lift Station, Glenn Miller, General Superintendent, 736-6678
- 6) Sewerage Lines, Adolph Grimes, General Superintendent, 437-4815
- 7) Sewerage, Project Coordinator, Joseph Carrillo, 736-6671.
- 8) East Bank Sewerage Line Repair, Craig Bradley, Superintendent II, 736-6683
- 9) West Bank Sewerage Line Repair, Donald Jackson, Superintendent II, 437-4816
- 10) East Bank Drainage, Richard Davis, Superintendent III, 736-8764

- 11) West Bank Drainage, Dominick Ditcharo, Superintendent III, 437-4941

5.3.2 Storm Drainage system

5.3.2.1 Design Guidelines

5.3.2.1.1 General

The design of storm water drainage systems shall insure adequate control of storm water runoff through the use of properly sized and positioned drainage structures including, but not limited to, curb and gutter, curb and grate inlets, storm sewer pipe, box culverts, intersectional drains, open ditches, detention system, and bridges.

5.3.2.1.2 Master Drainage Plans

The design of storm water drainage systems shall be compatible with master drainage plans developed for and approved by Jefferson Parish. [Jefferson Parish Engineering Department Contact: Mr. Ray Mowla, 736-6818.]

5.3.2.1.3 Parish Drainage Design Manual

The design of storm water drainage systems shall be in accordance with the requirements and recommendations of the “Jefferson Parish Drainage Design Manual” and the following notes:

5.3.2.1.4 General Drainage Design Guidelines Notes

5.3.2.1.4.1 Effect of Runoff on Adjacent Properties

- 1) Drainage facilities shall be designed to prevent runoff onto adjacent properties.

5.3.2.1.4.2 Storm Drainage Pipe and Culverts

- 1) Pipe and culvert sizes shall be selected by use of a computed hydrological and hydraulic data. Design flows shall be based on climatic factors such as rainfall intensity, duration, frequency and distribution and physiographic factors such as size,

shape and slope, and roughness characteristics as well as its tendency to become choked and the ability to clean and remove obstructions.

- 2) The minimum storm drainage pipe size shall be 15 inches.
- 3) Cross drains shall be provided to accommodate all natural water flow and shall be of sufficient length to permit construction of a full width roadway including side slopes. Headwalls or flared end section aprons as well as channel bottom and slope protection shall be provided at the upstream and discharge end of the cross drain as required by Jefferson Parish.

5.3.2.1.4.3 Streets, Curb and Gutter, and Inlets

- 1) The horizontal and vertical alignment of streets shall be compatible with the storm water runoff system and drainage design.
- 2) Street grades shall be coordinated with lot drainage as proposed in the grading plan. Slab elevations in residential areas and commercial areas shall be 18" and 6" above the street curb elevation respectively or above 100 yr. flood level whichever is higher.
- 3) The hydraulic capacity of the curb and gutter shall be determined by generally accepted engineering procedures taking into consideration roughness, street cross-slope, and street gradient, and allowable spread of water over the travel lane.
- 4) The hydraulic capacity of curb inlets shall be determined by generally accepted engineering procedure taking into consideration inlet geometry and characteristics of the gutter flow. Curb inlets shall be spaced so as to limit the spread of water to not more than one quarter of the street width during a design storm of ten (10) year return period and 15 minute inlet time. Inlets shall also be placed at all low points in the gutter grade, at intersections where necessary to prevent gutter flow from crossing traffic lanes of an intersecting street, or at points of special concern as designated by the Parish.
- 5) The structural design of all box culverts or bridges shall conform to the latest standard plans of the DOTD and Jefferson Parish Department of Public Works for HL-93 load criteria. Bridges, where required, shall be designed and constructed for minimum impedance to the drainage flows. Velocity of flows in the drainage canals shall be limited to; for earthen sections 2-3 ft. / sec. and for concrete sections 3-8 ft. /sec.

5.3.3 Sanitary Sewer System:

5.3.3.1 General

5.3.3.1.1 Sanitary sewer Lift Station / Collection Line Impact Fee:

The Lift Station/Collection Line Impact Fee is based on the estimated additional sewerage discharge from the proposed development. The Impact Fee will be

determined by the Department of Sewerage according to the effect of the proposed subdivision on the existing sewer system.

The Impact Fee will be due from the developer prior to final approval of the Engineering Plans. Checks or Money Orders shall be made to Jefferson Parish Department of Sewerage (736-6674).

The Impact Fee will be calculated by the Department of Sewerage. [Jefferson Parish Engineering Department Contact: Mr. Chanen Joseph, 736-6824]

5.3.3.2 Gravity System:

5.3.3.2.1 Design Criteria:

The minimum design standards of the Gravity Sanitary Sewer System for each subdivision shall conform to Jefferson Parish Standard Details and Notes and shall generally conform to the following:

- 1) Pipe size – Minimum 8 inches.
- 2) Pipe slope – Minimum 0.33%, (Preferred 0.40% whenever possible especially when low flow is anticipated) for 8-inch pipe.
- 3) Velocity – Minimum 2 feet per second, Maximum 8 feet per second.
- 4) Waste per person – 100 gallons per day.
- 5) People per dwelling unit – 4 (four).
- 6) Peak factor – 3.5 minimum.
- 7) Maximum manhole separation – 350 feet with manholes required at each grade change and alignment change.
- 8) Minimum cover – 3 feet.
- 9) Top manhole elevation – ground elevation, minimum.

5.3.3.2.2 Gravity System Plan Preparation Notes:

See Appendix “A”.

5.3.3.3 Force Main System:

See Appendix “B”.

5.3.3.4 Low pressure sanitary sewer system

Jefferson Parish Department of Sewerage will not maintain any Low Pressure Sanitary Sewer System. Private Sewer Grinder Pumps and Low Pressure Sanitary Sewer Systems will be allowed only with the approval of the "Louisiana State Department of Health and Hospitals" and the Director of Jefferson Parish Sewerage Department.

5.3.3.5 Pump Stations:

- a. The use of sewer lift stations should be minimized. However, when pump stations cannot be avoided, they should be designed for easy maintenance, maximum operating life, and adequate pumping capacity. The design calculations must show flow rates, estimated Total Discharge Head, and velocities for the pump station and force main. [Consult with the Sewerage Department on all Lift Station Design Parameters, Mr. Christopher Fernandez, 736-6673]
- b. Minimum of two (2) pumps, each of which has capacity to handle the expected load.
- c. Adequate controls with overload and lightning protection and alternators.
- d. Necessary servitudes, access roads, driveways, and security fencing.
- e. Servitudes shall extend a minimum of 7' beyond any components of a sewer lift station in every direction. The parish may require additional servitudes if deemed necessary.
- f. Sewer lift stations shall not be constructed on public right-of-way.
- g. Sewer lift stations shall be constructed on private property and within a sewer servitude given to the parish.
- h. Gravity lines shall not directly enter the wet well. A sewerage collection manhole with adequate stub outs shall be provided. The collection manhole shall be connected to the wet well by an adequately sized conveyance pipe for any future expansion of the station.
- i. Minimum flow rate of 3 feet per second in force main, with a maximum of 8 feet per second with dual pump operation.
- j. Adequately vented wet well.

- k. All bolts, nuts, anchor bolts, guard rails and chains for submersible pumps shall be of 304 stainless steel with aluminum hatch and stainless steel frame and hardware.

5.3.4 Water Distribution System

5.3.4.1 Design Criteria and Guidelines

5.3.4.1.1 General

The water distribution network shall consist of pipes, fittings, and other appurtenances designed to convey potable water at adequate quality, pressure, and discharge. Water mains shall be designed, constructed and properly connected with the public water supply system in such a manner as to adequately serve all lots shown on the subdivision plat for both domestic and fire prevention purposes, and will adhere to the Parish standard details and notes (Appendix "C") and also to the minimum requirements set forth herein below (if these minimum requirements cannot be achieved, all deficiencies shall be disclosed on plans and on all pertinent legal documents and shall document all authoritative parties approval):

5.3.4.1.2 Hardy Cross Method / Hazen-Williams formula

Water distribution systems shall be designed using the Hardy Cross Method. The Hazen-Williams formula shall be used in computing head losses.

5.3.4.1.3 Minimum Flow

Water distribution systems shall be designed for the peak hourly flow or the maximum daily flow plus fire flow, whichever is greater.

Required fire flows shall be determined from the following publication and any future updates:

- Latest Jefferson Parish adopted NFPA publications.
 - The A/E shall contact the local fire departments, in writing (and copy Ray Mowla, Jefferson Parish Engineering Department at: rmowla@jeffparish.net), to familiarize himself with any specific requirements.

- The above communication is most important when the project is in areas such as City of Kenner, Town of Grand Isle, Town of Jean Lafitte, etc.
- Jefferson Parish Standards and requirements.

5.3.4.1.4 Fire flow test and flow requirements

Fire flow tests may be required to determine the existing system's fire flow capacity and adequacy at locations where proposed water mains will connect to the existing water system. The A/E is responsible for determining the availability and adequacy of water by flow testing. The Jefferson Parish Department of Engineering, Water, and the local Fire Department shall be notified of the time and location of any needed flow testing a minimum of 48 hours prior to the test. The following is the current contact list for Jefferson Parish engineering and water Departments:

The following individuals from the Jefferson Parish Engineering Department should be contacted to schedule the test:

Utility Inspection (all projects):

Mike Calecas
Project Coordinator
Jeff. Parish Dept. of Engineering
Utility Inspection
Joe Yenni Bldg. – Suite 801
1221 Elmwood Park Blvd.
Jefferson, LA 70123
Phone (504) 736-6509
FAX (504) 736-6792
mcalecas@jeffparish.net

Project Engineer (Commercial Projects):

Ken Schexnayder, P.E.
Jefferson Parish
Dept. of Engineering
Joe Yenni Bldg. – Suite 801
1221 Elmwood Park Blvd.
Jefferson, LA 70123
504-736-6820

504-736-6526 (fax)
kschexnayder@jeffparish.net

Project Engineer (All Non-Commercial Projects):

Chanen Joseph, P.E.
Engineering Dept. Suite 801
1221 Elmwood Park Blvd.
Harahan, LA 70123
504-736-6824
504-736-6526 (fax)
cpjoseph@jeffparish.net

The following two individuals from the Jefferson Parish Water Department should be contacted to schedule the test:

Mario Kennedy
East Bank Water, Superintendent II, 838-4334
M Kennedy MKennedy@jeffparish.net

Kevin Sampey
West Bank Water, Superintendent II, 437-4979 or 437-4978
Kevin Sampey KSampey@jeffparish.net

Ray Mowla, Chief Engineer – Water, Sewerage, & Drainage
Jefferson Parish Engineering Department (rmowla@jeffparish.net) shall be copied on all correspondences.

The Jefferson Parish Engineering, and/or Water Departments will **only assist** the A/E and the fire department in conducting the actual fire flow tests. As a minimum, the following items shall be ironed out between the A/E and the local fire department prior to scheduling a Fire Flow Test with the Parish (these items shall be submitted to the parish prior or at the time of the request for testing):

- Location of the test.
 - The A/E shall review the Parish's water distribution maps (unit sheets and/or GIS). These maps can be obtained through the Jefferson Parish Engineering Department.
 - All maintained Jefferson Parish water valves and hydrants are numbered for ease of reference.

- Method of the test.
 - This shall consist of a marked up copy of the Jefferson Parish water distribution map, identifying the flowing hydrant and the pressure hydrant. This marked up map shall also identify any special requirements for valve closures, etc.
 - Duration of the test.
 - Date and Time of the day.
 - Acceptable required equipment. The parish can supply the pressure and pitot gauges and hydrant wrenches.
- Calculated flow (GPM) for the proposed facilities at 20 psi residual pressure.
 - Important note - To obtain satisfactory test results for theoretical calculation of expected flows at 20 psi residual pressure, sufficient discharge should be achieved to cause a drop in pressure at the pressure hydrant of at least 25 percent.

5.3.4.1.5 Minimum Pressure

The water distribution system shall be designed so that the following range of dynamic pressures are provided: 50 psi to 60 psi for average daily flows; 20 psi to 30 psi for peak hour flows; 20 psi to 50 psi for maximum daily flow plus fire flow. The minimum dynamic pressure at any point shall be 20 psi.

5.3.4.1.6 Maximum design velocity

The maximum design velocity shall not exceed 5 fps.

5.3.4.1.7 Water Service Connections and Meter Box locations

All lots must be provided with a complete water service connection and a meter box. A complete service connection shall include:

5.3.4.1.7.1 Service Saddle

Service saddles shall be Cascade Style CS12, Smith-Blair 325, or Romac Style 202BS. Saddles with "U-bolts" shall not be used with PVC pipe.

5.3.4.1.7.2 Polyethylene Tubing $\frac{3}{4}$ inch through 2 inch

Polyethylene (PE) Tubing shall be PE3408/PE3608, DR9, conforming to ASTM D2737, AWWA C901, cell class 345464C.

5.3.4.1.7.3 Corporation Stop

Corporation stops shall be made of heavy brass alloy per 89833 ASTM B62 and ASTM B584 and shall meet or exceed AWWA C800-05 specifications with a 250 psi working pressure.

- **Joint Compression Fitting (CC/AWWA):**

Corporation stop shall have an inlet of CC/AWWA male taper threads and an outlet of pack joint compression fitting with clamping set screw to have large raised rectangular keyway. Corporation stops shall be available in sizes from $\frac{3}{4}$ " to 2".

5.3.4.1.7.4 Curb Stop (Ball Meter Valve)

Curb stop ball valve shall be made of heavy brass alloy 89833 per ASTM B62 and ASTM B584 and shall meet or exceed AWWA C800-05 specifications with a 250 psi working pressure.

- **Pack Joint Compression Type Inlet:**

Curb stop ball valve shall have an inlet of pack joint compression type fitting with clamping set screw and an outlet of Meter Swivel Nut. Curb stop ball shall have large raised rectangular key way with padlock wings.

5.3.4.1.7.5 Cast Iron Meter Box and Cover assembly

Cast Iron Meter Box and Cover Assemblies For $\frac{3}{4}$ " and 1" Meters:

Meter boxes and cover assemblies for $\frac{3}{4}$ " and 1" meters shall be cast from cast iron and meet ASTM A48 class 30B standards. Meter boxes shall have oval shape dimensions of 19-1/4" L X 10-3/8" W X 11-3/8" H and cover dimensions shall be 18-5/16" l x 9-5/8" x 2" h. Coating shall be a bituminous asphaltic tar. **(See Drawing #1)**

Meter box cover shall have a 2" hole to install the Itron through the lid mount kit. (See Drawing #5)

Meter boxes shall be "SIP 6396" or "Sigma MB-282T".

5.3.4.1.7.6 Location of Service Connections and / or Meter Boxes

Location of Service Connections and / or Meter Boxes shall be shown on the water plans with stipulation that these locations may be modified (modifications must be documented) during the construction as necessary.

5.3.4.1.8 Water Valves Location and Spacing

Valves shall be installed at each intersection or change in pipe size, and shall be placed so that no single case of pipe breakage shall require shutting off from service an artery, or more than 500 feet of pipe in high value districts, or more than 800 feet of pipe in any area.

5.3.4.1.9 Hydrant Spacing

Fire hydrant spacing shall not be greater than 400 feet in residential areas or 350 feet in commercial areas. Any facility that requires fire protection shall not be farther than 200 feet from a fire hydrant. Exception to these requirements shall be in remote areas with limited water availability and / or limited fire protection needs in which case a letter from the local fire department chief will be required for issuance of any building permit and /or water meter.

5.3.4.1.10 Configuration

Water distribution systems shall be laid out on a grid system with cross connections at cross streets and shall be looped with more than one source of supply. Dead end pipes shall be avoided whenever possible.

5.3.4.1.11 Minimum Pipe Diameter

- 1) Mains shall be a minimum 8" in diameter [possible exception to this 8" minimum for mains would be Dead End mains that will not support a Hydrant. This may be necessary to avoid the possibility of stagnation when the main usage is minimal.]

- 2) Larger mains may be required if conditions warrant. Possible conditions that may warrant larger mains are as follows:
 - a. If the main will serve as a transmission line as well as distribution line.
 - b. Permanent or temporary (due to construction phasing) dead end mains which support a hydrants or fire lines.
 - c. If the 8" diameter main would not provide adequate pressure, flow, velocities, etc.
- 3) The requirements for water distribution systems serving commercial and industrial developments shall be determined by the A/E by engineering analysis based upon specific water requirements for the type of use intended or those required by the height and density permitted by the zoning classification of the property, whichever is greater.

5.3.4.1.12 Pressure testing, Chlorination and Sterilization

All new and/or modified segments of the Water Distribution System shall be tested to 100 P.S.I. This pressure shall be maintained for a period of two (2) hours with no discernible pressure loss. Leaks shall be repaired by removing and replacing faulty sections. The pressure test shall be performed by the contractor under the direct supervision of the Jefferson Parish Engineering Department. Before being placed in service, all new, modified and/or contaminated segments of the water distribution system shall be flushed and disinfected (Chlorinated) either by Jefferson Parish Engineering Department personnel or under their direct supervision [any direct involvement (beside supervision) of Jefferson Parish Engineering Department shall be due to inability of the contractor to perform these tasks. In such case the contractor will be responsible to reimburse the parish for the specific work performed.] Flushing should be done at flow rates sufficient to provide a velocity in the lines of at least 2.5 feet per second. Disinfection should comply with AWWA standard C651, "Disinfecting Water Mains". Only after satisfactory pressure testing and disinfection (chlorination) is completed can the segment be tied into the existing water distribution system. Under no circumstances will the contractor be allowed to make a tie-in to the existing water distribution system without direct supervision of the Jefferson Parish engineering department. All costs associated with the testing and chlorination procedure shall be the responsibility of the contractor.

5.3.4.1.13 Jefferson Parish "Water Standard Details" and Notes.

- Jefferson Parish "Water Standard Details" (sheet 1 of 1) shall be included in the plans.

- Jefferson Parish Standard Notes (Appendix “C”) shall be attached to the plans.

5.4 Servitudes:

5.4.1 Width

Utilities and/or drainage servitudes of an appropriate width as required shall be provided, as per relevant Parish requirements.

5.4.2 Sewer lift stations

Servitudes for sewer lift stations shall extend a minimum of 7' beyond any components of a sewer lift station in every direction. The parish may require additional servitudes if deemed necessary.

5.4.3 Intersecting servitudes

Where servitudes intersect or sharp changes in alignment are necessary, corners shall be cutoff sufficiently to permit equipment access.

5.4.4 Paving over servitudes

Servitudes can be dedicated with provisions for paving and use for parking. Any damages to such pavement resulting from utilities failure, repair and maintenance will be at the risk of the property owner.

5.5 Private Subdivisions:

Where a new private subdivision is proposed, the subdivision design, lot layout, street design, utilities, etc., shall meet the Parish minimum standard requirements. Private subdivisions shall require similar procedures as non-private subdivisions through plan approval, construction, inspection, and final acceptance phases.

5.6 Subdivisions with Masonry Walls:

Developers of subdivisions with masonry walls will be required to install sidewalks outside of those sections of wall that abut public streets. These sidewalks are to be constructed after the wall is completed.

5.7 Traffic: [This section is left blank]

5.8 Appendices (Separate documents, available on Jefferson Parish site):

5.8.1 Appendix “A” (Jefferson Parish Department of Engineering Gravity Sanitary Sewer System General Standard Notes)

5.8.2 Appendix “B” (Jefferson Parish Department of Engineering Sanitary Sewer “Force Main System” General Standard Notes)

5.8.3 Appendix “C” (Jefferson Parish department of Engineering Water Distribution System General Standard Notes)