City of Dallas

A Brief Introduction to the City of Dallas Engineering Division Review & Approval Process

Water/Wastewater & Paving/Drainage Engineering Outreach Lunch-and-Learn Presentation

Linda Velez, PE, Engineering Program Administrator
Thuc Pham, PE, Engineering Program Administrator
Development Services
City of Dallas

Who We Are

Development Services – Land Development Team

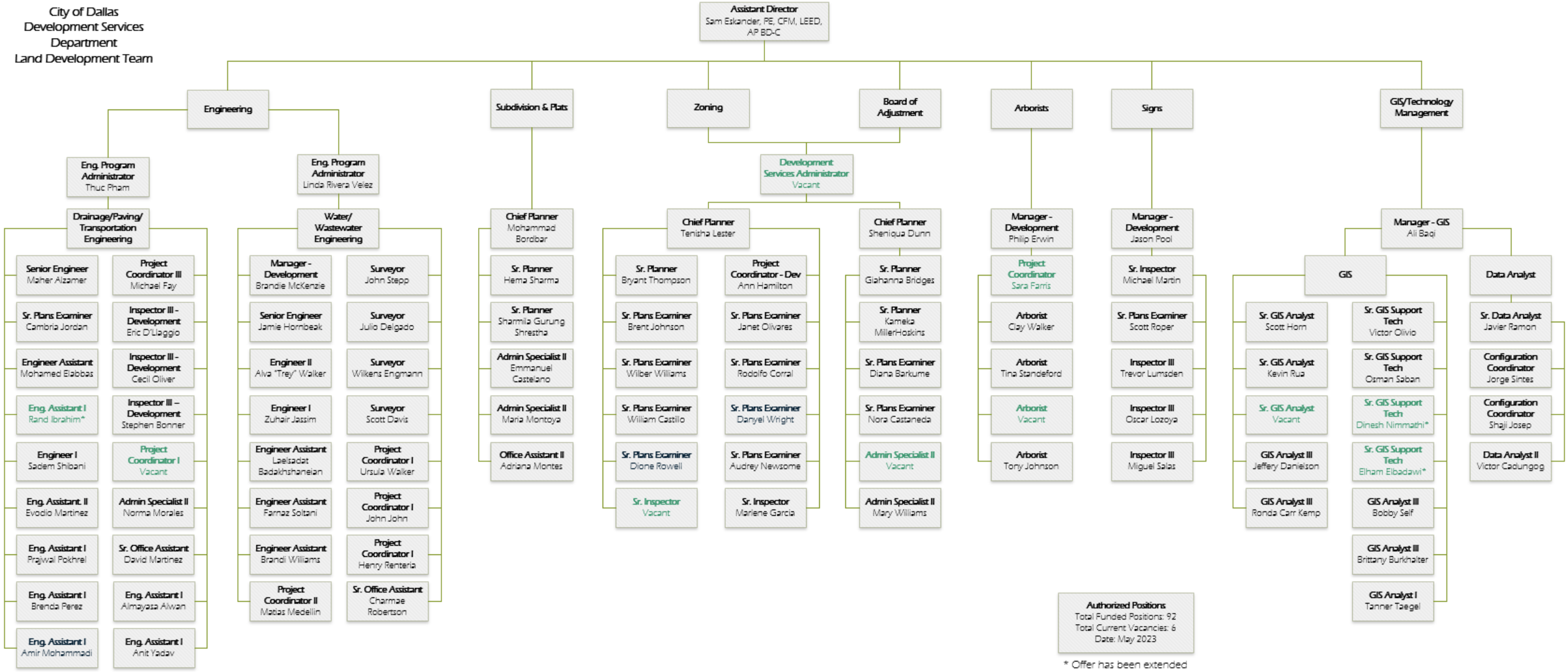
❑ Engineering Division

Represent Department of Public Works and Dallas Water Utilities by reviewing Engineering Plans, Permit Drawings, and Survey Documents to verify compliance with City of Dallas code, standards, and policies as it relates to Private Development.

- Andrew Espinoza – Director
- Sam Eskander, PE, CFM – Assistant Director
- Linda Velez, PE – W & WW Engineering Program Administrator
- Thuc Pham, PE – P & D Engineering Program Administrator
- Brandie McKenzie – Manager Development

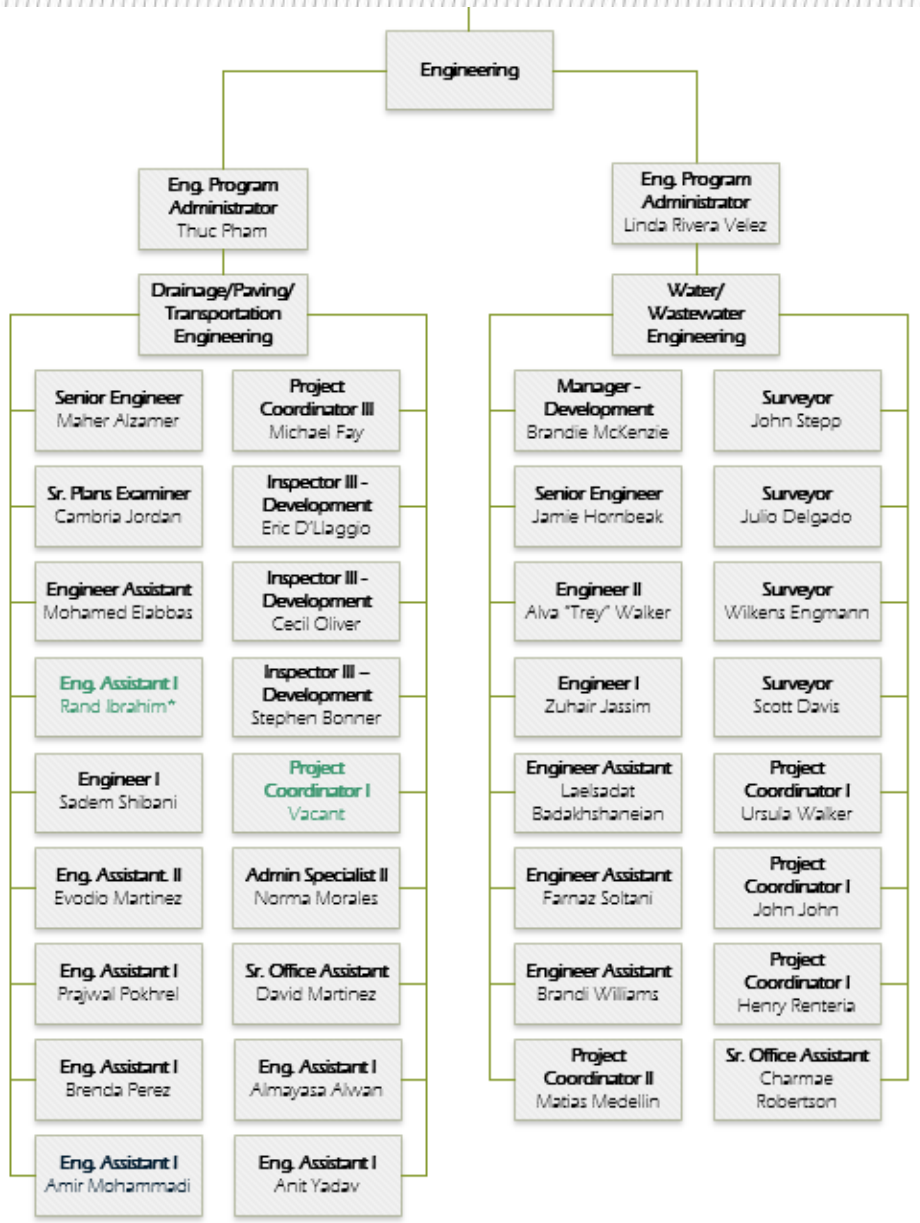
Land Development Org Chart

City of Dallas
Development Services
Department
Land Development Team



* Offer has been extended

Engineering Division Organization Chart



Agenda

- **Introductions**
  - Although we follow DWU & PBW standards, we are a separate department that focuses on ***water/wastewater*** & ***paving/drainage*** improvements related to **Private Development** projects (i.e., We are not DWU – Main St).

- **Objective**
  - Discuss the process for an efficient plan submittal.

- **General Overview Permit Review Process**
  - Review the Water/Wastewater & Paving/Drainage checklist to ensure all necessary items are addressed.
  - Review the process for submitting field notes for separate instrument easements and backflow agreements.
  - Discuss the "hot zones" for construction around Dallas, and the process for submitting plans in these areas.

- Water/Wastewater Engineering Process & Tips

- Paving/Drainage Engineering Process & Tips

Our Objectives for Today's Class

- **GOAL** – Partner with the development community and professional consultants to improve the review and approval experience.

- **Strengthen communication** between the development team and the City.

- Provide **guidance** on:
  - the engineering plan review and permit process.
  - common mistakes and repetitive review comments.

- **Improve the efficiency** of project reviews.

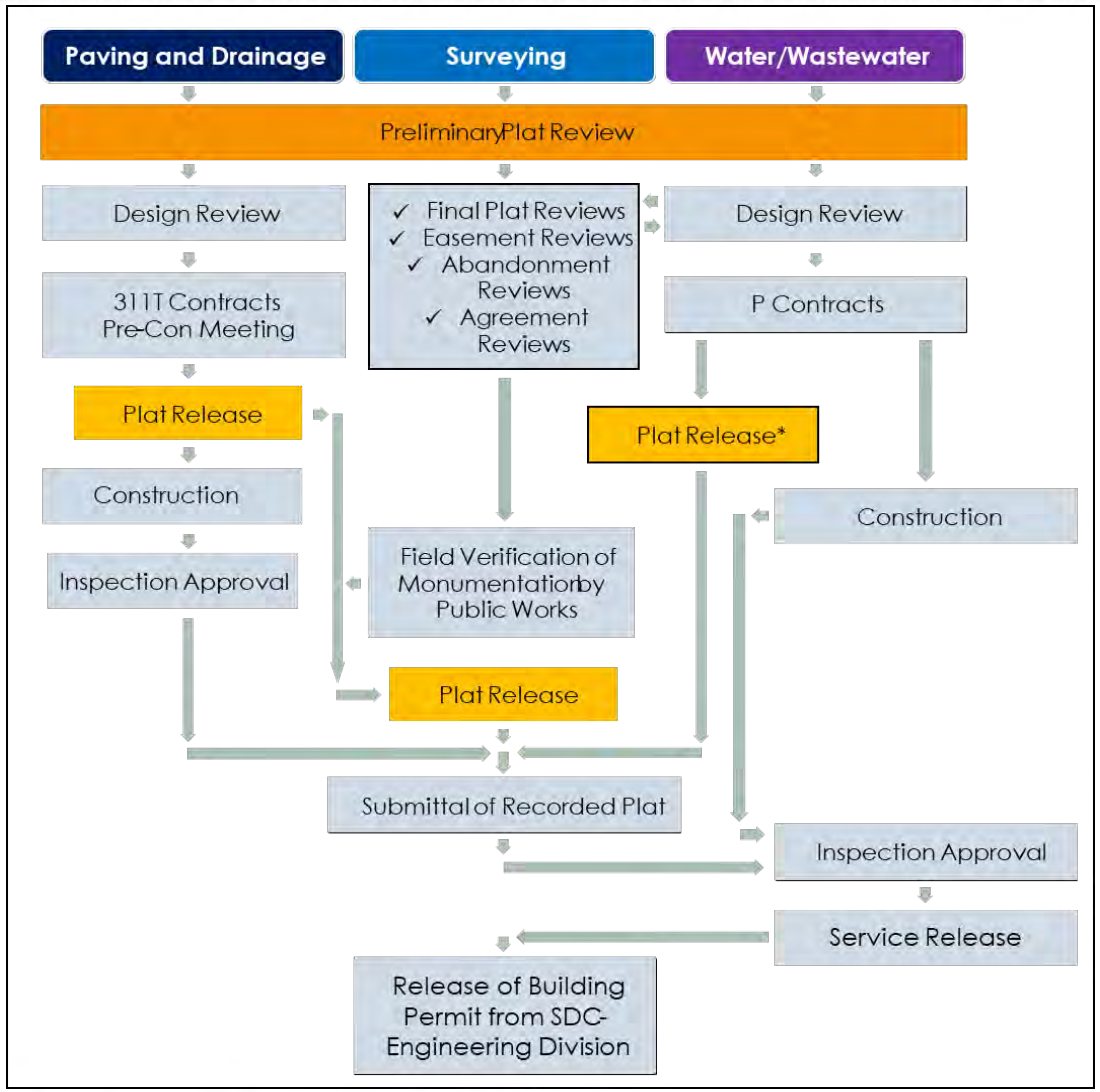
Engineering Plan Review Submittal Process

- If platting, must have an approved preliminary plat before you can submit Civil Plans (Reference **51A-8.404**)

- Verify the CPC Conditional Approval Letter requirements

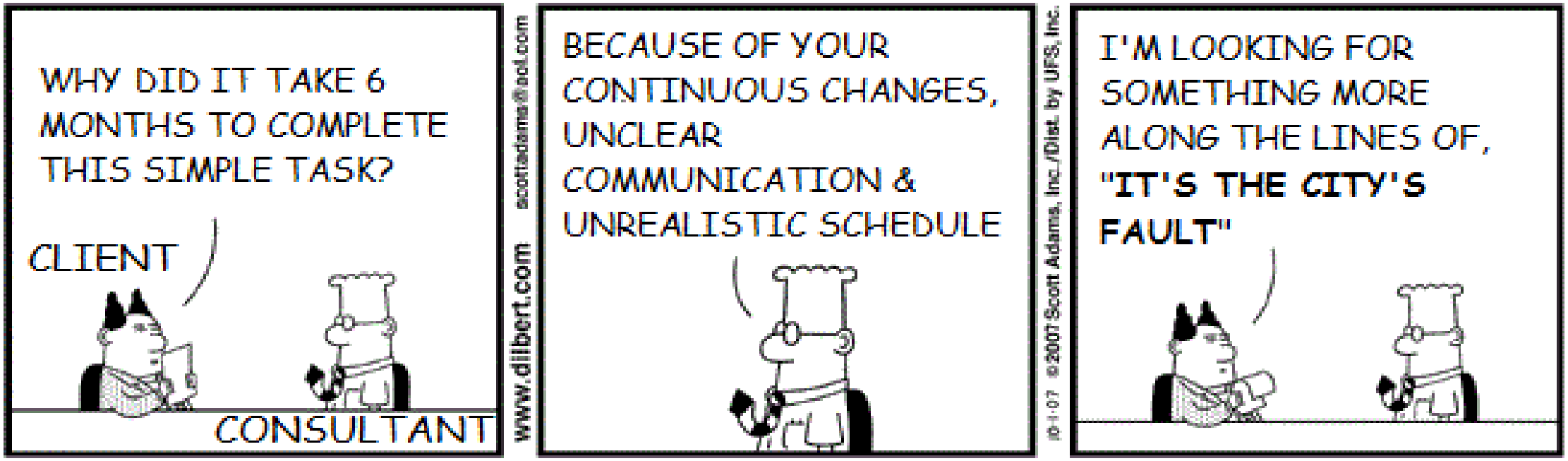
- **Note: *Paving/Drainage*** and **Water/ Wastewater Engineering** submittals require separate reviews and fees.

Engineering Flow Chat



- The following flow chart exhibit is a general guideline for the development process as it relates to Development Services, i.e., Paving/Drainage, Water/Wastewater, and Surveying.
- Each project's review process contains multiple variables which affects its critical path.
- *** Easements and Agreements by Separate Instrument **MUST** be recorded prior to any plat and permit release. It is the developer's & engineer's responsibility to plan and manage the project schedule accordingly. Failure to do so **does not** warrant **any variance from this Section's policy.**

Quality Submittals = Efficient Review Process



CREDIT: CARTOONSTOCK.COM

Who We Are

Andrew Espinoza
Director

Sam Eskander
Assistant Director

Linda Velez
Water/Wastewater Engineering
Program Administrator

Thuc Pham
Paving/Drainage Engineering
Program Administrator

Who We Are, Con't

Administrative Staff:

- Charmae Robertson – Senior Office Assistant
- David Martinez– Senior Office Assistant
- Norma Morales – Administrative Specialist II

Manager Development:

- Brandie McKenzie

Contract Administrator:

- Michael Fay

Permit Reviewers :

- Henry Renteria
- Mathew John
- Ursula Walker

Dallas Fire & Rescue Representative:

Ricky Butler – Room 204
Monday – Thursday
(469) 323-5980

Fire Protection Engineering (Sprinkler/meter):

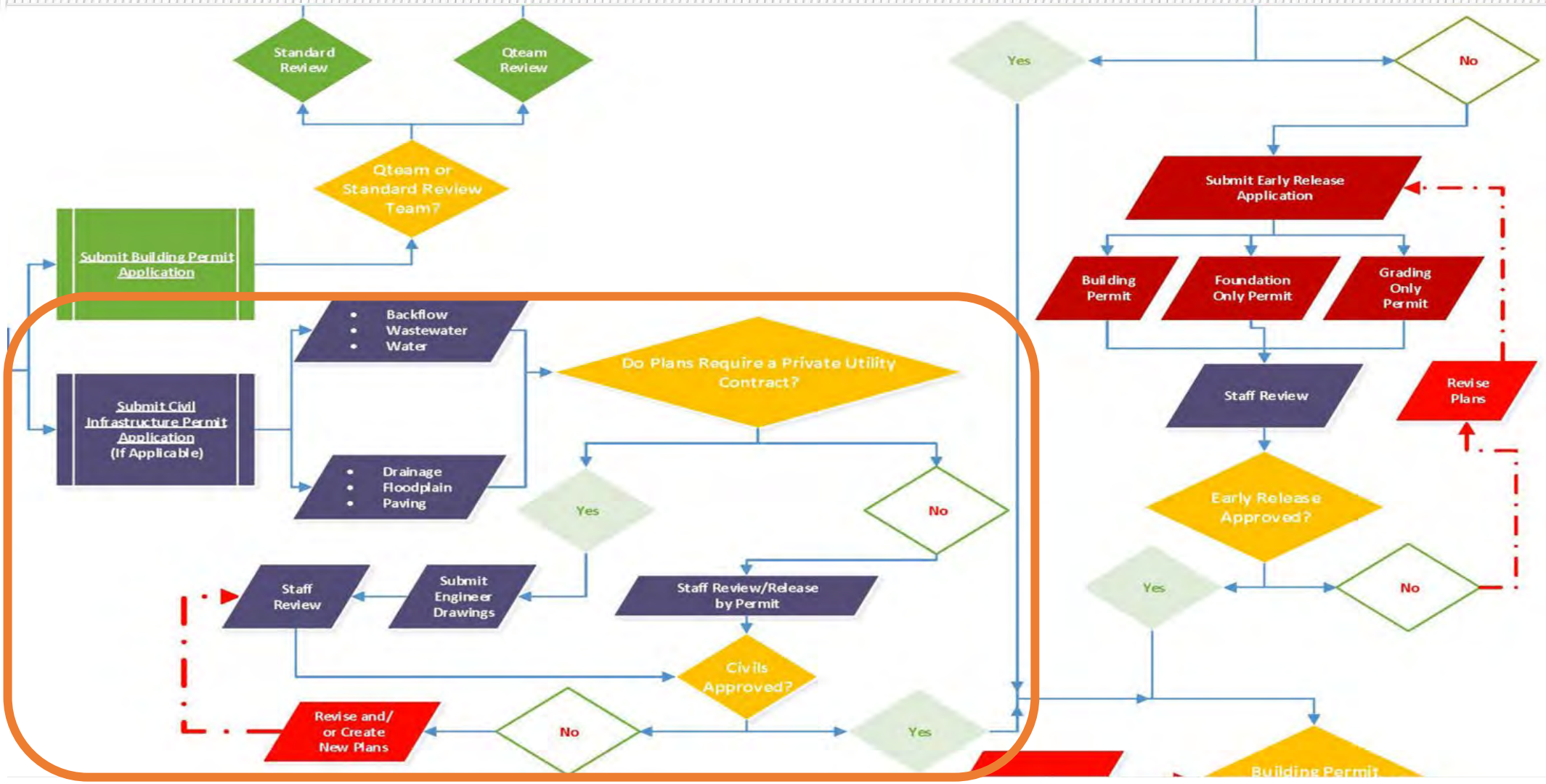
Scott Pieri – Room 210

What We Do

In addition to reviewing Water and Wastewater Design Plans for private development projects:

- W/WW Availability Letter
- W/WW Easement Coordinating
- W/WW "Permit-Only" Review
- Wastewater Capacity Flow Test
- Wastewater Private Flow Test/Condition Check Processing
- Water meter permit "Pink Card"
- Water Pressure Test
- Water Size on Size Request
- Building Permit Processing
- Preliminary Plat Review

Dallas Development Process



- **We are just one piece of the overall process.**

Types of W/WW Reviews (Room 200)

1. Permit Only Review

- Fee determined with Permit Application in Room 105
- Service design not required by Private Development Contract
- No FH or WWMH proposed

2. Private Development Engineering Plan Review

- Plans requiring **more than 100 ft.** of construction of W/WW mains
  - $1, 500 Design Review Fee

- Plans requiring **less than 100 ft.** of construction of W/WW mains
  - $500 Design Review Fee

- With **PDox** you can now do your payment **online**.

When is a P-Contract Required?

If the service installation meets ANY of the following criteria, a Private Development Contract will be required:

- Located in the **Central Business District** (area bound by I-45, Woodall Rogers, Stemmons and R. L. Thornton)
- Water and /or wastewater main is more than **20 feet deep**
- Water and/or Wastewater **main extension is required**
- **Service length is greater than 60 feet** as measured from the connection at the existing water main to the centerline of the meter vault
- Service length is greater than 25 feet **in a Principal Arterial/Minor Arterial or State Highway**
- **Paving** over substandard main involved
- **Wastewater Manhole** is required
  - WW connection to trunk main (18" or larger) will require a gas sealed WWMH
  - 10" WW Lateral or larger will require WWMH
- **Railroad easement** is required
- **Water main is reinforced concrete** cylinder pipe
- **Water main is larger than 16 inches** in diameter
- **Suspended water vault** required
- **Fire Hydrant** is required

What to Know Before Submitting

Initial Coordination

- Coordinate your fire protection requirements prior to submitting plans with **Ricky Butler in Room 204**.
  - May require a P-Contract if FH is required. Better to know before starting the process instead of a hold during construction.
  - **NOTE -** Private Plumbing Fire Protection (Room 210) approval **does not** equate to fire meter permit approval.
- Review all as-built drawings:
  - **Room 215 for the DWU Vault** – Water/Wastewater Plans
  - **Room 314 for the Survey Vault** – Paving/Drainage Plans

What to Know Before Submitting

Initial Coordination

- Come talk to us in **Room 200!** We have an open-door policy.
  - Please be sure to include the ***entire plan/concept***.
  - Provide the ***address/total site boundary*** for what you are designing.
  - Any ***future phases*** could be discussed.
    - ❖ The earlier we are aware of the overall development, the more we can plan accordingly **to avoid having to replace brand new infrastructure**.
- **Sealing Engineer** is responsible for **QC**;
  - **City Reviewers** are responsible for verifying **conformance to standards**, **NOT** to provide design layouts and labels.

What to Know Before Submitting

Fire Coordination Certificate

- As part of the water/wastewater review process, the Engineer of record (EOR) shall submit a **Fire Coordination Certificate**, which states that they have done all required due diligence and the plan **meets fire code** requirements.

- The **EOR** can choose to meet with **Ricky Butler in Room 204** first to review the plan and make sure the design complies with fire code.

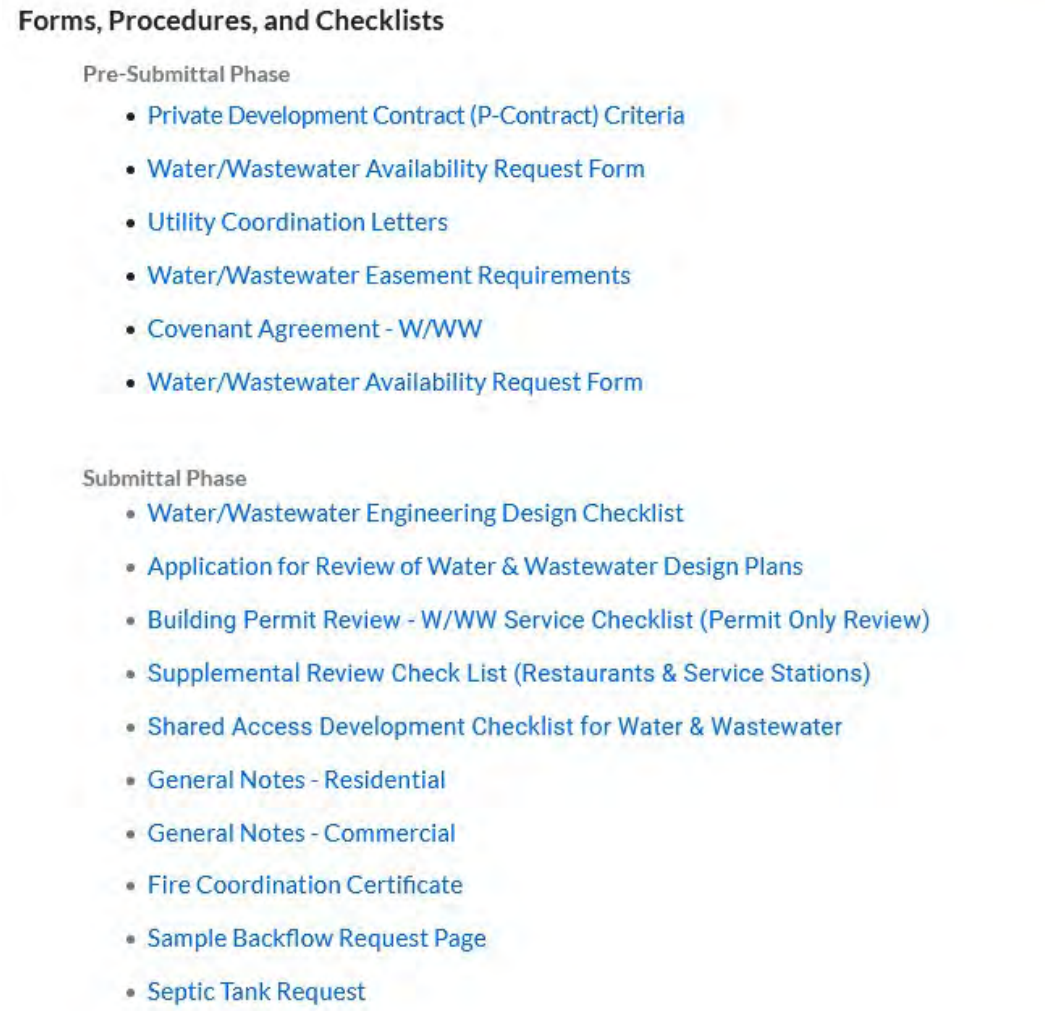
- The **EOR** is responsible for **signing the Certificate** and submit it along with the plans via Project Dox.

What to Know Before Submitting

Checklists and Manuals

- www.DallasCityHall.com
- Departments → All Departments → Development Services → Land Management → Engineering/Survey Forms, Procedures and Checklists

https://dallascityhall.com/departments/sustainabledevelopment/land-management/Pages/engineering-forms.aspx



Forms, Procedures, and Checklists

Pre-Submittal Phase

- Private Development Contract (P-Contract) Criteria
- Water/Wastewater Availability Request Form
- Utility Coordination Letters
- Water/Wastewater Easement Requirements
- Covenant Agreement - W/WW
- Water/Wastewater Availability Request Form

Submittal Phase

- Water/Wastewater Engineering Design Checklist
- Application for Review of Water & Wastewater Design Plans
- Building Permit Review - W/WW Service Checklist (Permit Only Review)
- Supplemental Review Check List (Restaurants & Service Stations)
- Shared Access Development Checklist for Water & Wastewater
- General Notes - Residential
- General Notes - Commercial
- Fire Coordination Certificate
- Sample Backflow Request Page
- Septic Tank Request

What to Know Before Submitting

Pre-development Meeting

Pre-Development Meeting Availability:
*Currently scheduling the 4th week of April 2023 *

The cost of each predevelopment meeting is determined by the size of the project.

Project Size	Cost
0 - 25,000 sf	$250
25,001 sf - 50,000 sf	$500
50,001 sf or more	$750

Contact Us
Please feel free to contact any of our team members or visit us at our office located at the Oak Cliff Municipal Center - **320 E. Jefferson Blvd, Room 204 Dallas, TX 75203.**

Doborah Jackson
Project Coordinator
Office: 214-948-4625
Email: doborah.jackson@dallas.gov

Charles Trammel
Sr. Plans Examiner
Office: 214-948-4618
Email: charles.trammel@dallas.gov

James (Jim) Shelton
Senior Project Coordinator
Office: 214-948-4306
Email: james.shelton2@dallas.gov

Research at the DWU Vault

- The **DWU Vault** can be located in **Room 215 at OCMC**.

- In addition to checking the existing water and wastewater mains, the **following items** can also be verified:
  - **Condition** of existing mains
  - Any pending **Capital Improvement Projects** and **Bond Projects**.
  - Historical **Water / Sewer Maps** (Most accurate info for plans prior to 1980s)
  - Water main **pressure zones**.
  - **Red-ups** and **As-built drawings**.

- You can email DWUVault@dallascityhall.com for additional inquiries.

What to Know Before Submitting

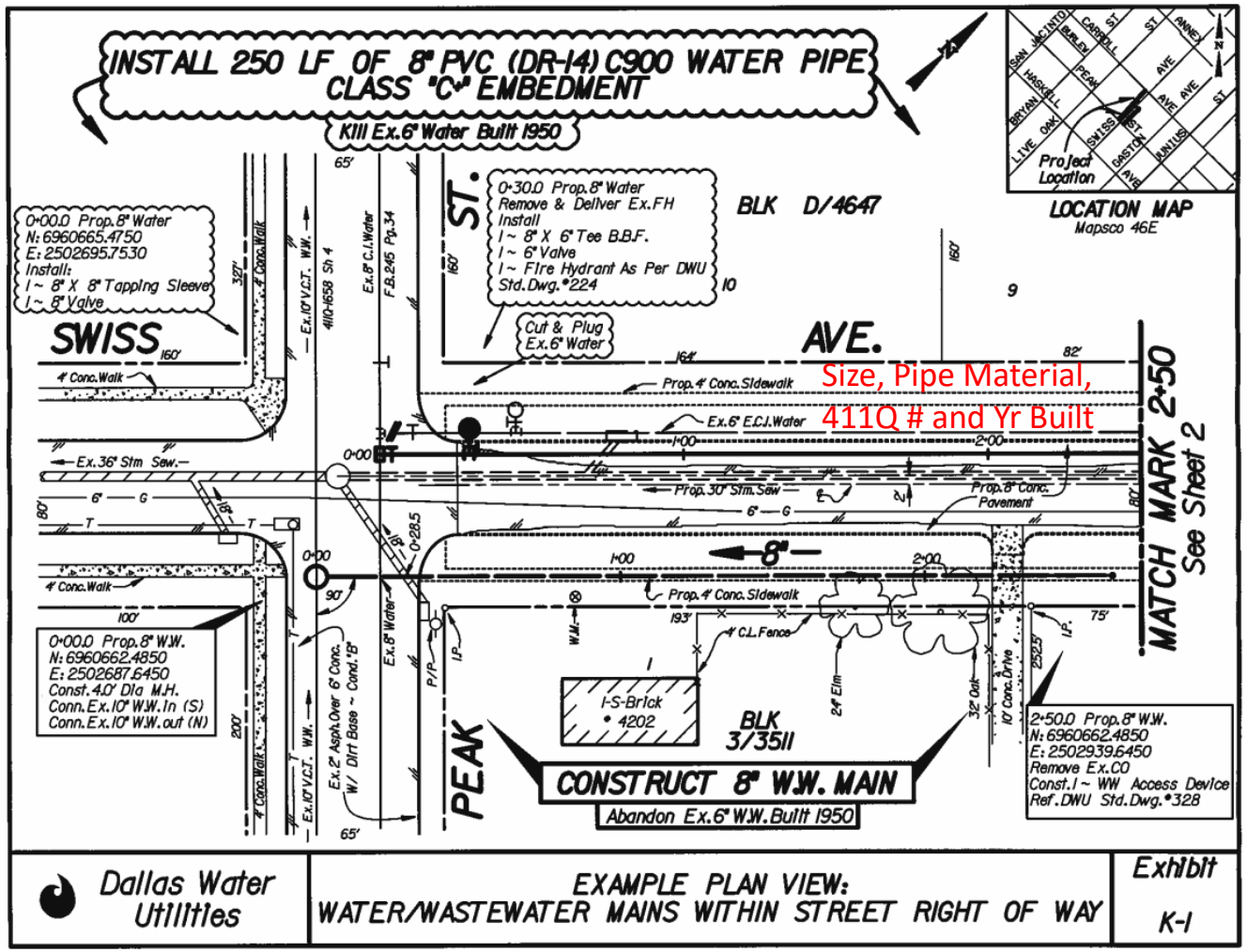
Review Drafting Standards

- Review the **Drafting Manual**:
  - https://dallascityhall.com/departments/waterutilities/DCH%20Documents/pdf/PipelineDrafting_standards_july2012.pdf

- Review the **Design Checklist**:
  - https://dallascityhall.com/departments/sustainabledevelopment/Engineering/DCH%20Documents/W-WW%20Engineering%20Design%20Checklist.pdf

- Select the correct **general notes** (Updated as of 06/19):
  - Single Family / Shared Access – **Residential** General Notes
  - Commercial / Multi-family – **Commercial** General Notes

- Be sure to include the **new Title Block**



Water Main

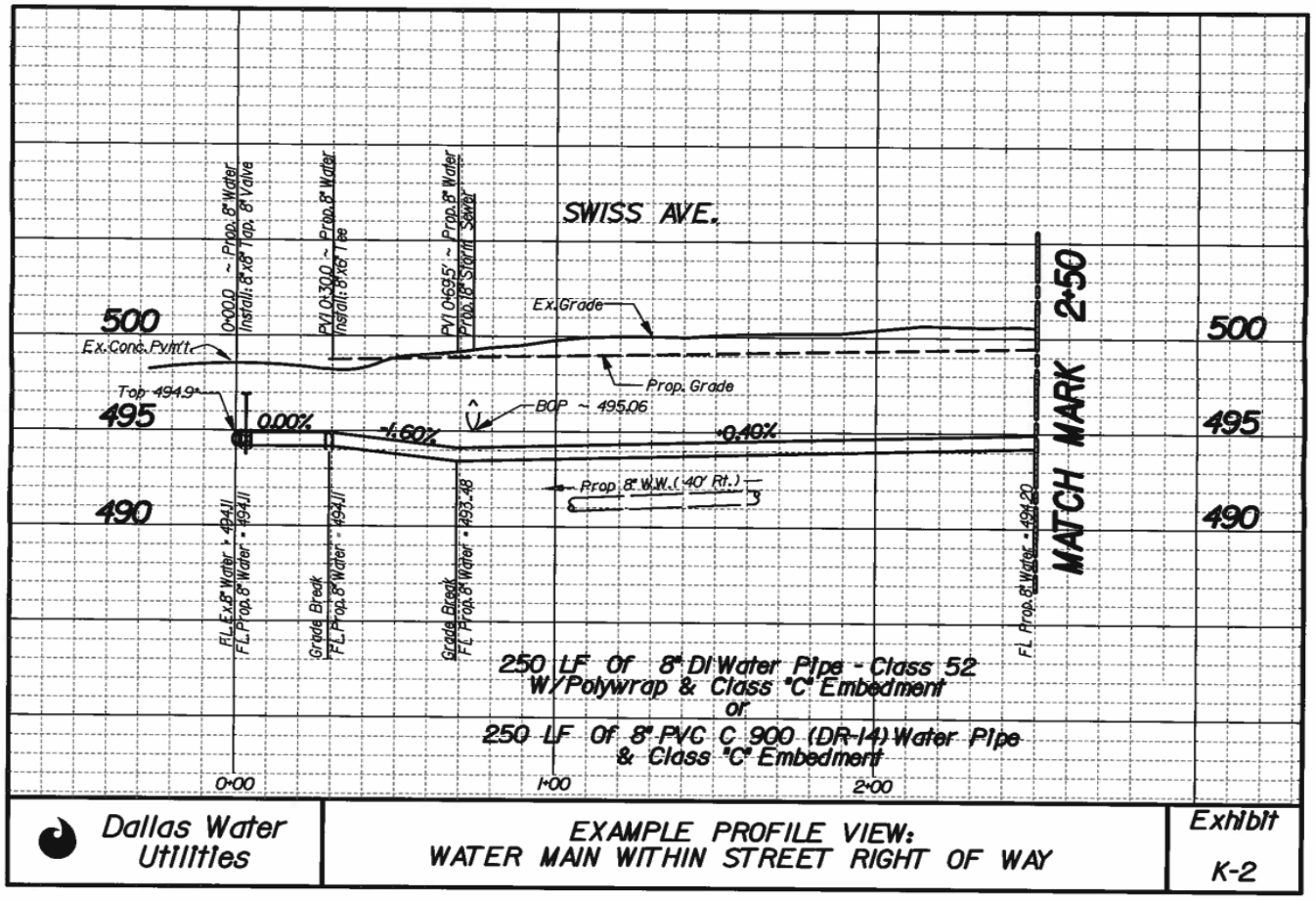
- **Solid** and **bold** linetype
- Callout notes **clouded.**
- Use **"Install"** and **"Connect to"**
- Existing lines are ***"Killed"*** (include year built)
- **Number gate valves** on mains and FH leads only.

Wastewater Main

- **Dashed** and **bold** linetype
- Callout notes **boxed**.
- Use **"Construct"** and **"Connect to"**
- Existing lines are **"Abandoned"** (include year built)
- N/E callouts, provided for all Structures.
- Provide **flow arrows** for existing / proposed mains
- Show **FFE** and Show/Label controlling WWMH **Rim** Elevation.
- Label all **W/WW demand** in **GPM.**

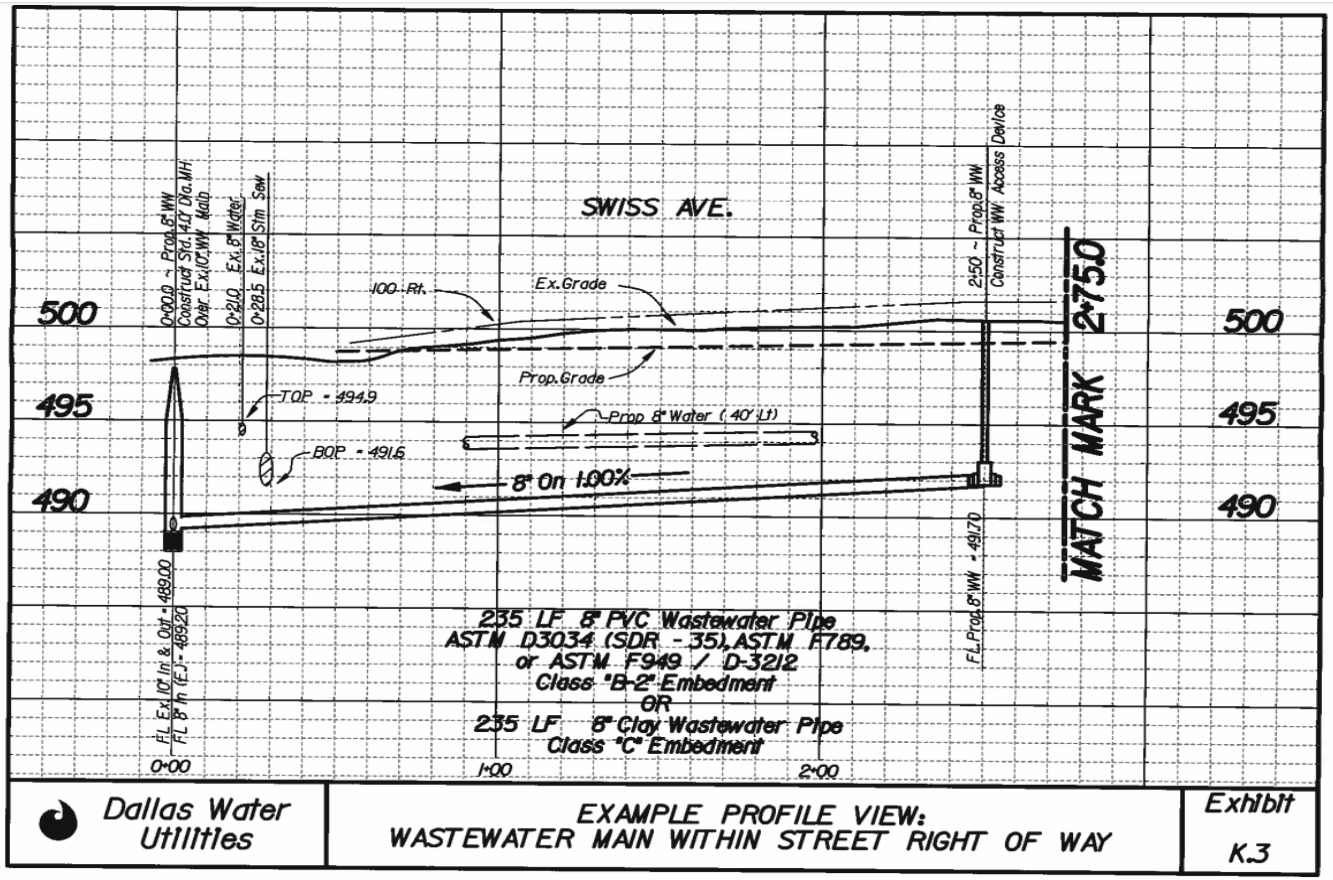
Surrounding Utilities

- Show and label all existing and proposed franchise utilities, water and wastewater mains surrounding project. **Dimension** all utilities to the property line.



Water Main Profiles:

- Call out proper **embedment** type
- Include horizontal **off-set distances** for all parallel mains and existing utilities.
- High Points require **air release valves** where fire hydrants or large services cannot provide air release.
- Greater than 0.00% **slope.**
- **Vertical bends/offsets** should be shown on plans.
- Vertical Scale: 1”=6’

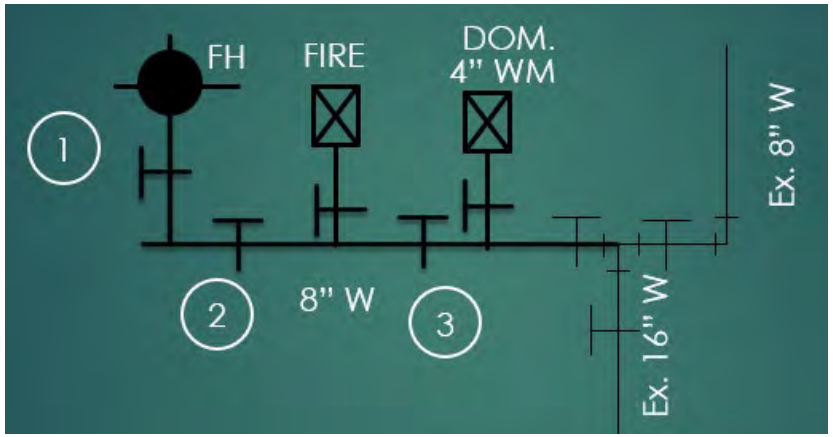


Wastewater Main Profiles:

- Call out proper **embedment** type
- Include horizontal **off-set distances** for all parallel mains
- Include the following information:
  - **Velocity** (min 2 fps) - V75/Vprop
  - **Qexist** (in gpm)
  - **Qprop** (in gpm)
  - **Q75**= 75% of full flow capacity (in gpm)
- Vertical Scale: **1”=6’**
- Drop in manholes should be **0.2’.**
- Provide **FL(In)/(Out)** and **flow directions**
- Include **vertical separation** at **all crossings**

Water Main Design

- Valve separation is needed between other **large services** and **fire hydrants** and other **intersecting main lines**.
- Provide valve numbers **ONLY** on **Fire Hydrant leads** and **on mains**.



- **Large meter services (>2")** are **not allowed**
  - Inside buildings
  - Areas not accessible by a service truck
  - Drive patterns
  - Or in parking areas (unless protected by bollards)

Tap Connections

- On Large water meters a Tapping Sleeve (“Tap”) is allowed with mains **under 40 years** old, otherwise a **Tee** is required.
- Tap is not allowed on large service if **valve separation** is needed between adjacent services and/or fire hydrants.
- Tap is not allowed for **size-on-size** connections.

Reviewing the Checklist

- The **DWU Engineering Design Checklist** can be found at:

https://dallascityhall.com/departments/sustainabledevelopment/Engineering/Pages/engineering-forms.aspx

- **Checklist items** that tend to get **overlooked** include:
  - **Two Benchmarks** per design sheet (One benchmark must be an approved DWU benchmark) (DFT 3-9)
  - Property and Easement alignments and **bearing & distance** shown on Plat must match the design plans.
  - Mains and easements are aligned so that on-street and on-site **parking spaces** do not encroach.
  - Mains are no closer than **3-feet** from the **edge of ROW** without an easement.
  - Minimum **20' spacing from structures** to water; **10' min.** for wastewater main.
  - Water services & wastewater **laterals must be at least 1 pipe size smaller** than main (MNL 2.4.3 & 4.4.3).
  - **No trees within 10'** of water/wastewater mains and **no trees** within water / wastewater **easements.**

Reviewing the Checklist – cont'd

- **Checklist items** that tend to get **overlooked** include **(cont'd)**:
  - Replace mains if pipe is **over 40 years old,** sub-standard in size or condition (MNL 2.3 & 4.3).
  - If **paving over** mains, replace pipe if **over 40 years-old,** sub-standard in size or condition (MNL 2.3 & 4.3)
  - Water **taps over 16**" are not allowed (MNL 2.4.1).
  - Verify that water connections do not cross **pressure zones** (MNL 2.2.4).
  - **Dead end main** with FH and no services must be less than **100**' in length or loop the main to avoid stagnant water in dead end main. (**Only 1 FH allowed on a dead end main**) (MNL 2.12).
  - Minimum of one (1) water service to each lot with **no service crossing lot lines** (MNL 2.13.1).
  - **No size-on-size meters** allowed without special approval from DWU Distribution.
    - Reviewer shall facilitate this request.
  - No service taps are allowed on 18" and larger mains without approval and requires gas-sealed manhole (>18") (MNL 4.4.1 & 4.11, DWG 307).
  - WW lateral sizing per (MNL 4.12.3); have **2% slope** (1% min.) and **2' cover min**. (MNL 4.12.4).
  - Building **finished floor elevation** must be **≥ 18" above Controlling WWMH rim elevation** or provide a **recorded Covenant Agreement for Backflow protection** (Forms 11.10 and 11.26). **NOTE: failure to start the process immediately may result in the delay of your project schedule. It is the developer's responsibility to manage the project's schedule and plan accordingly.

Easements/Backflow Agreements

Survey Field Notes/ Backflow Agreement by Separate Instrument Routing

- ❑ **Submit Field Notes** as quickly as possible. This will usually be critical path item!
  - Submit package to your **Reviewer**
    - o 1 copy of the SPRG Checklist
    - o 3 copies of the field notes
    - o 1 copy of warranty deed
    - o 1 copy of closure sheet

- ❑ The Reviewer submits package to **City Surveyor**
  - The City Surveyor will coordinate with Private Surveyor (**1–2-week turnaround**)

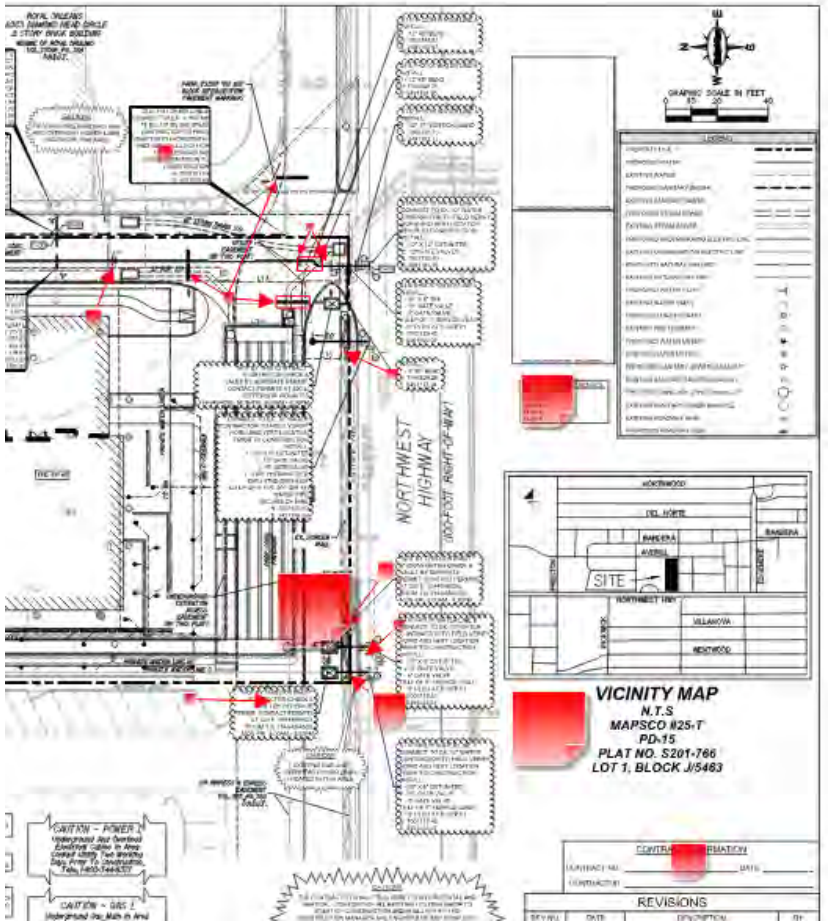
- ❑ Once field notes are approved, the City Surveyor will route the field notes to **Real Estate Division**.
  - Owner submits documents required.
  - Owner , Owner's Attorney, and the City Attorney. (**2–3-month turnaround**)
  - **Real Estate –> Documents Recorded**.

*** NO Permit nor Construction Release will be provided until field notes are recorded and recording info. labeled on plans.

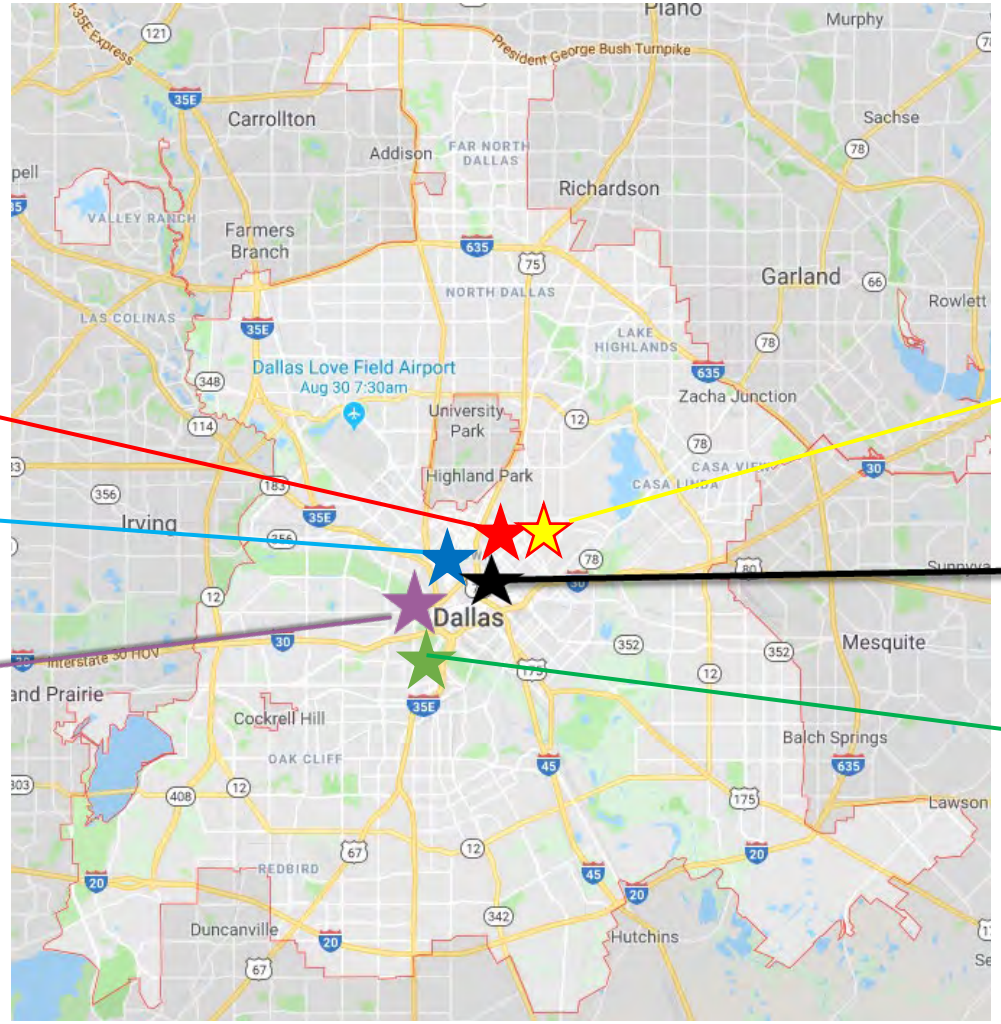
NOTE, City attorney **WILL NOT** accept any changes to verbiage of public easement dedication.

Provide Comment Responses

- Provide a **written** response, confirmation and/or clarification to **each** comment on Project Dox.
  - Just stating “Ok” or “addressed” does not help the reviewer understand the intent or clarifies any question made.
- If a **meeting is needed** to clarify the comments, please coordinate it with the assigned reviewer, before resubmitting the plan.



“Hot” Areas in Development



Uptown

Design District

Singleton/Commerce

Lower Greenville

Deep Ellum

Bishop Arts District

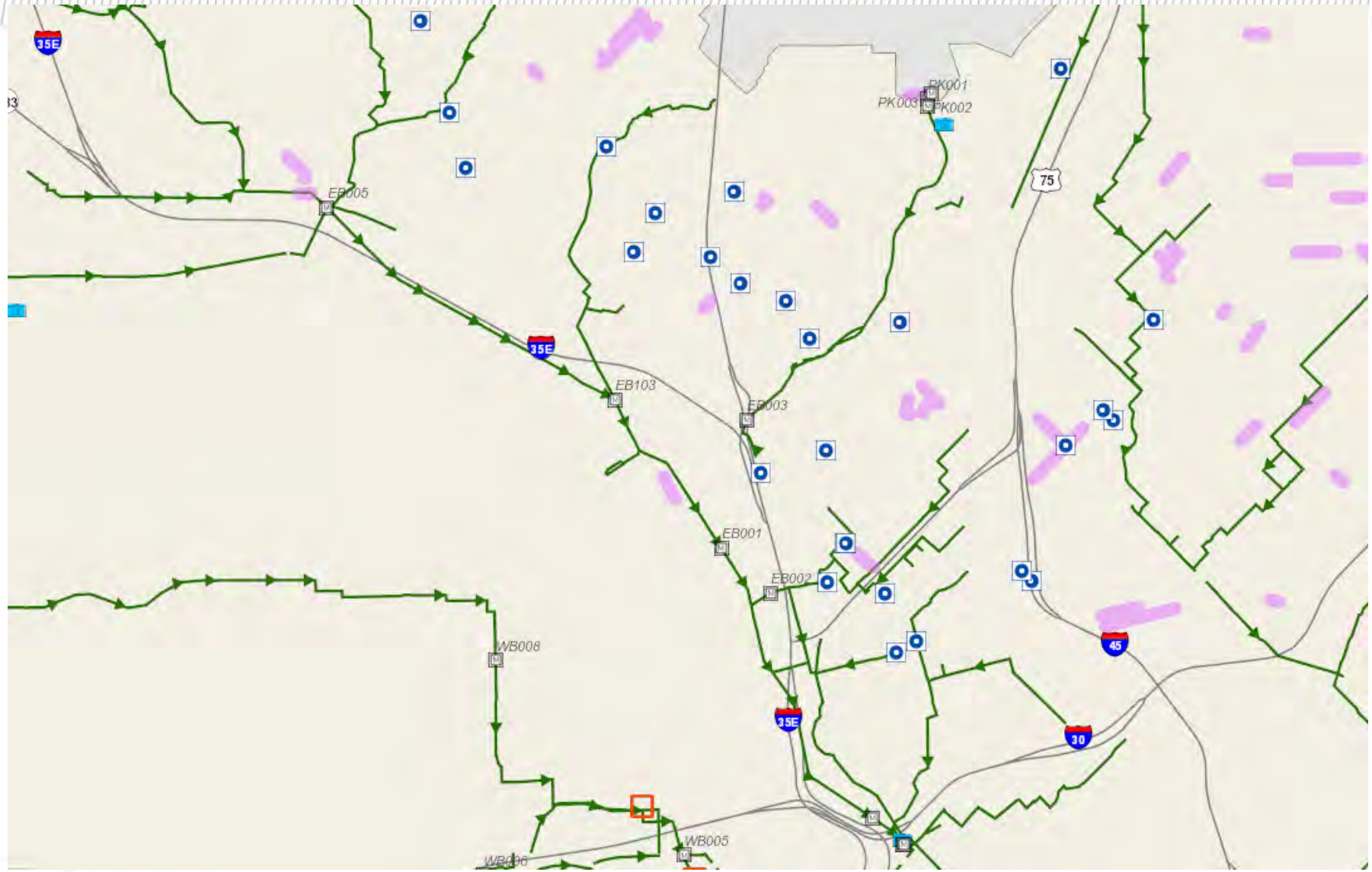
Lower East Bank Interceptor (LEBI)

- The City of Dallas' **Lower East Bank Interceptor** is currently at **100% capacity**.
- Any proposed development that discharges to the LEBI **must be reported to DWU**.
- EOR to submit the following information to engineer reviewer to facilitate coordination with DWU:
  - **Exhibit of the location of the Project.**
    - Location of the proposed ww laterals and the existing wastewater main to which they will be discharging to.
  - **Description of proposed development.**
  - **Total proposed Wastewater Peak Flow (gpm).**
    - If more than one (1) ww lateral, specify flow per each of them.

- A WW report, analysis, and modeling of the wastewater system from the **interceptor to the project site** must be submitted to this office.

NOTE engineering plans **will not be release** until it is confirmed that the system **will not** have adverse **surcharge in peak conditions** and that it can safely convey wastewater flows without the risk of **backflow into existing connections** and that the **HGL will not be less than 3 ft below the Rim** elevation of the downstream wastewater manholes.

Lower East Bank Interceptor (LEBI)



Lower East Bank Interceptor (LEBI)

Final Inspection and Certificate of Acceptance (COA)

- All water and wastewater appurtenances have been adjusted to their final position and a **final inspection for the P-Contract** has been **successfully completed** and;
- The **final plat** has been **filed with the County** (if applicable) and **matches** the **design plans** and;
- All **fees owed to the City** have been **paid** and;
- A **pay affidavit** sent to Private Development stating that the **contractor** has been **paid in full**.

Drainage & Paving Engineering Review

Who We Are

Administrative Staff:

- David Martinez– Senior Office Assistant
- Norma Morales – Administrative Specialist II
- Cambria Jordan – Senior Plans Examiner

Private Development Contract Administrator:

- Michael Fay – Project Coordinator III

Plan Reviewers:

- Maher Alzamer– Senior Engineer
- Sadem Shibani – Engineer I
- Evodio Martinez – Engineer Assistant II
- Brenda Perez – Engineer Assistant I
- Prajwal Pokhrel – Engineer Assistant I
- Almayasa Alwan – Engineer Assistant I
- Anit Yadav – Engineer Assistant I
- Amir Mohammadi – Engineer Assistant I
- Mohamed Elabbas – Engineer Assistant I

Inspectors:

- Eric D'Llaggio – Inspector III
- Cecil Oliver – Inspector III
- Stephen Bonner – Inspector III

Plat & Field Note Reviewers:

- John Stepp - Surveyor
- Julio Delgado - Surveyor
- Wilkens Engmann - Surveyor
- Scott Davis - Surveyor
- Matias Medellin – Project Coordinator II

Submittal Process

- Types of Submittal:
  1. Grading Only (A fee is associated with Subdivision's Application)
     - Smaller plat projects, little to no public improvements required
     - Often required by Building Inspections for permits
     - Should address OVERALL drainage

  2. Full Engineering ($1,500 associated with submittal to Engineering)
     - Assigned DP-number
     - May or may not require 3-way contracts

- Credit Card or Check should be made payable to **City of Dallas**

Submittal Process Cont'd

- Review the PD and provide highlighted section that may apply to your civil design
- Engineering Plans are now submitted electronically via Project Dox.
- Always provide Letter of Transmittal clarifying your submittal intent with appropriate file number

Average Review Times

- 1st Review = 43 Business Days (48 last time)
- 1st Review **Goal** = 15 Business Days

- Subsequent Review = 22 Business Days (30 last time)
- Subsequent Review **Goal** = 10 Business Days

DP-Full Engineering Submittals

- Fees:
  - $1,500 covers 2 reviews
  - $500 for each subsequent review

Note: Plans will not be routed to reviewers until payment balance is current

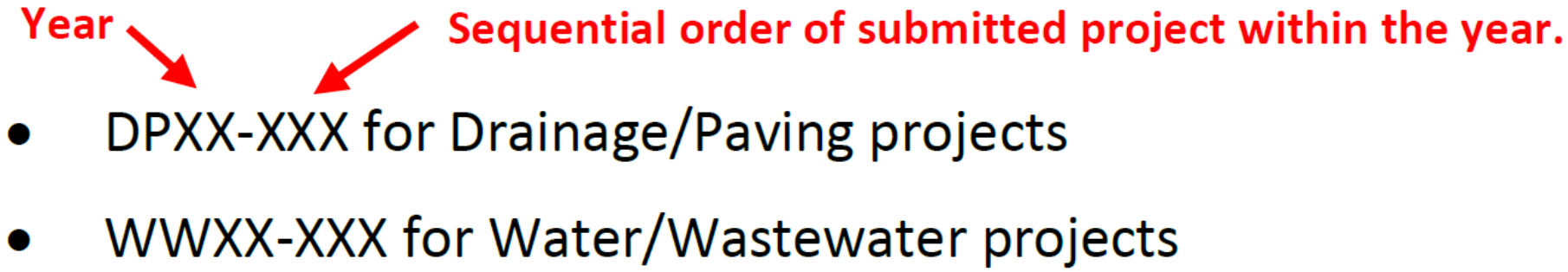
- Plan Review Submittal Procedures and Checklist
  - Pay attention to what you are certifying to on the check list.

General Overview of Permit Process: Paving & Drainage – Shared Access

1. Preliminary Plat Submittal/Approval
2. Submit Civils for Review and Approval (include SWPPP)
3. Execute Private Development Contracts - coordinate with Michael Fay *Reference 51A-8.612*
4. Pre-Construction Meeting → *Reference 51A-8.702*
5. Developer's Surety Bond, Letter of Credit, or Cash Deposit
6. Batch stamp final plans
7. Final Plat Release – Note: Shared Access Area Agreement must be recorded first.
8. Construction **(paving & drainage included in 3-way contracts)**
9. Inspection Approval & Acceptance
10. Submittal of Recorded Plat
11. Release of Building Permit

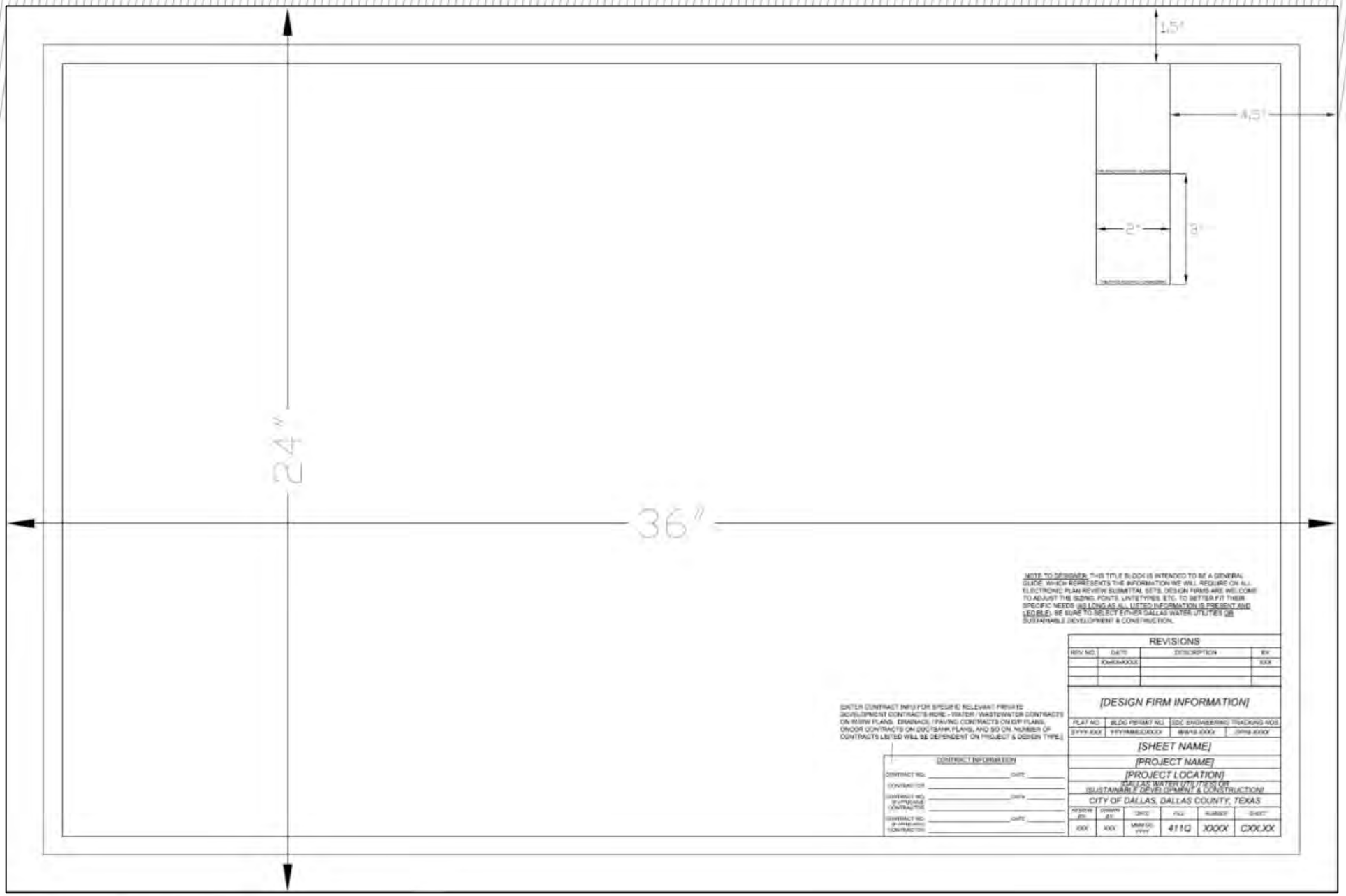
Electronic Plan Review
ProjectDox

- https://plansubmittal.dallascityhall.com
- Submittal will be uploaded to the City website



- Be sure to follow the proper **naming convention** when submitting plans.
  - If the plans are renamed, and do not follow the proper naming convention, Project Dox will recognize this as a new sheet, and not as an updated version of the old sheet.

- Please be sure to use the correct title block, 3-way contract blocks, and the blank space for the batch stamp. A .dwg file is available on the City forms website link.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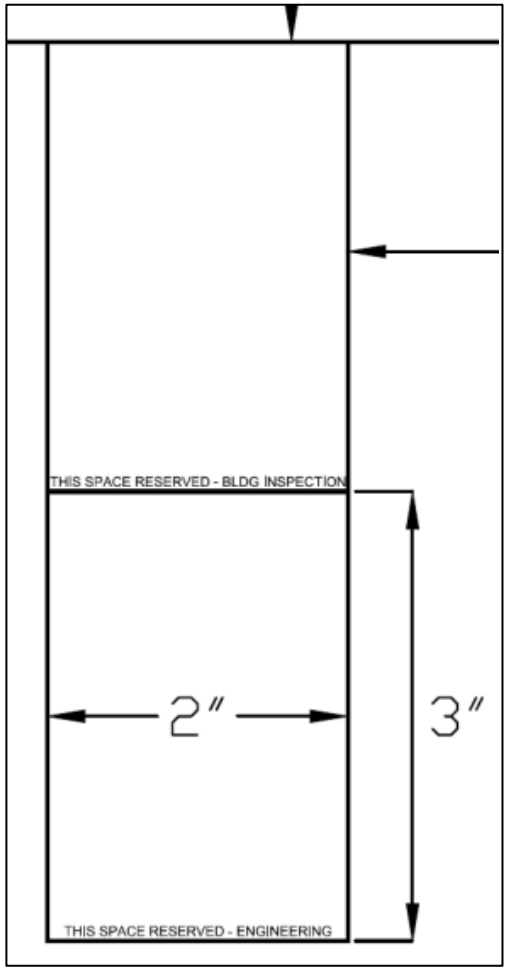
4.5"
2"
3"
24"
36"
NOTE TO DESIGNER: THIS TITLE BLOCK IS INTENDED TO BE A GENERAL GUIDE, WHICH REPRESENTS THE INFORMATION WE WILL REQUIRE ON ALL ELECTRONIC PLAN REVIEW SUBMITTAL SETS. DESIGN FIRMS ARE WELCOME TO ADJUST THE SIZING, FONTS, LINETYPES, ETC. TO BETTER FIT THEIR SPECIFIC NEEDS (AS LONG AS ALL LISTED INFORMATION IS PRESENT AND LEGIBLE). BE SURE TO SELECT EITHER DALLAS WATER UTILITIES OR SUSTAINABLE DEVELOPMENT & CONSTRUCTION.
REVISIONS
REV NO.
DATE
DESCRIPTION
BY
XXXXXXXX
XXX
[DESIGN FIRM INFORMATION]
PLAT NO.
BLDG PERMIT NO.
SDC ENGINEERING TRACKING NOS.
S-YYY-XXX
B-YYMMBLDXXXX
WWYS-XXXX
DRYS-XXXX
[SHEET NAME]
[PROJECT NAME]
[PROJECT LOCATION]
[DALLAS WATER UTILITIES OR SUSTAINABLE DEVELOPMENT & CONSTRUCTION]
CITY OF DALLAS, DALLAS COUNTY, TEXAS
DESIGNED BY
DRAWN BY
DATE
FILE NUMBER
SHEET
XXX
XXX
MM/DD/YYYY
4110
XXXX
CXX.XX
[ENTER CONTRACT INFO FOR SPECIFIC RELEVANT PRIVATE DEVELOPMENT CONTRACTS (MORE - WATER / WASTEWATER CONTRACTS ON R&SW PLANS, DRAINAGE / PAVING CONTRACTS ON GIP PLANS, ON/OFF CONTRACTS ON DUCTBANK PLANS, AND SO ON, NUMBER OF CONTRACTS LISTED WILL BE DEPENDENT ON PROJECT & DESIGN TYPE.]
CONTRACT INFORMATION
CONTRACT NO.
DATE
CONTRACTOR
CONTRACT NO. (IF APPLICABLE) CONTRACTOR
DATE
CONTRACT NO. (IF APPLICABLE) CONTRACTOR
DATE



NOTE TO DESIGNER: THIS TITLE BLOCK IS INTENDED TO BE A GENERAL GUIDE, WHICH REPRESENTS THE INFORMATION WE WILL REQUIRE ON ALL ELECTRONIC PLAN REVIEW SUBMITTAL SETS. DESIGN FIRMS ARE WELCOME TO ADJUST THE SIZING, FONTS, LINTETYPES, ETC. TO BETTER FIT THEIR SPECIFIC NEEDS (AS LONG AS ALL LISTED INFORMATION IS PRESENT AND LEGIBLE). BE SURE TO SELECT EITHER DALLAS WATER UTILITIES OR SUSTAINABLE DEVELOPMENT & CONSTRUCTION.

[ENTER CONTRACT INFO FOR SPECIFIC RELEVANT PRIVATE DEVELOPMENT CONTRACTS HERE - WATER / WASTEWATER CONTRACTS ON W/WW PLANS, DRAINAGE / PAVING CONTRACTS ON D/P PLANS, ONCOR CONTRACTS ON DUCTBANK PLANS, AND SO ON. NUMBER OF CONTRACTS LISTED WILL BE DEPENDENT ON PROJECT & DESIGN TYPE.]

CONTRACT INFORMATION

CONTRACT NO. _____ DATE _____
CONTRACTOR _____
CONTRACT NO. _____ DATE _____
(IF APPLICABLE)
CONTRACTOR _____
CONTRACT NO. _____ DATE _____
(IF APPLICABLE)
CONTRACTOR _____

REVISIONS

REV NO.	DATE	DESCRIPTION	BY
	XX-XX-XXXX		XXX

[DESIGN FIRM INFORMATION]

PLAT NO.	*BLDG PERMIT NO.*	*SDC ENGINEERING TRACKING NOS.*	
SYYY-XXX	*YYYYMMDDXXXX*	*WW18-XXXX*	*DP18-XXXX*

[SHEET NAME]

[PROJECT NAME]

[PROJECT LOCATION]

[DALLAS WATER UTILITIES] OR [SUSTAINABLE DEVELOPMENT & CONSTRUCTION]

CITY OF DALLAS, DALLAS COUNTY, TEXAS

REVIEW BY:	*DRAWN BY:*	*DATE*	*FILE*	*NUMBER*	*SHEET*
XXX	*XXX*	*MMM DD, YYYY*	*411Q*	*XXXX*	*CXX.XX*

Drawings Folder

UPDATED CITY-APPROVED PLAN SET SHEET INDEX WITH ADDENDUM			
SHEET NO	**DESCRIPTION/DRAWING SHEET TITLE**	**DRAWING VERSION**	**FILE NAME**
G0.00	COVER SHEET	Version 1	G0.00_COVER SHT.pdf
G0.01	INDEX	Version 3	G0.01_INDEX.pdf
G0.02	CODE ANALYSIS	Version 1	G0.02_CODES ANLY.pdf
C01	COVER	Version 1	C01_COVER.pdf
C02	RECORDED PLAT	Version 4	C02_PLAT.pdf
C03	GENERAL NOTES	Version 4	C03.01_GEN NOTE.pdf
C04	DEMOLITION PLAN	Version 4	C04.01_DEMO.pdf
C05	DIMENSION CONTROL PLAN	Version 4	C05.01_DIM CTRL.pdf
C06	PAVING PLAN & PROFILE	Version 4	C06.01_PAVING.pdf
C06.50	PAVING PLAN DETAILS	Version 4	C06.50_PAV DTL.pdf
C07	GRADING PLAN	Version 4	C07.01_GRADING.pdf
C07.50	GRADING PLAN DETAILS	Version 4	C07.50_GRADE DTL.pdf
C08	DRAINAGE AREA MAP	Version 4	C08.01_DAM.pdf
C09	STORM SEWER PLAN & PROFILE	Version 4	C09.01_STORM.pdf
C09.50	STORM SEWER DETAILS	Version 4	C09.50_STORM DTL.pdf
C10	WATER & WASTEWATER PLAN & PROFILE	Version 4	C10.01_WTR-WW.pdf
C10.5	WATER & WASTEWATER DETAILS	Version 4	C10.50_WTR-WW DTL.pdf
C11	EROSION CONTROL	Version 4	C11.01_ER CTRL.pdf
C11.50	EROSION CONTROL DETAILS	Version 4	C11.50_ER CTRL DTL.pdf

Documents Folder

The following plans and documents must be uploaded to the **Documents** folder.

Drainage/Paving Engineering

- Preliminary/Final Plat
- Plan Review Check List
- 421Q/411Q/311T- Reference Plans
- Water/Wastewater Plans
- SWPPP (If available)
- All as-builts obtained during your due diligence research

Water/Wastewater Engineering

- Preliminary/Final Plat
- Plan Review Check List
- 421Q/411Q/311T- Reference Plans
- Drainage/Paving/Grading Plans
- All as-builts obtained during your due diligence research

What to Know Before Submitting – Initial Coordination

- Existing/proposed street and driveway widths - Coordinate with **Ricky Butler in Room 204.**
  - Pavement width must be 26’ when the structure exceeds 30’ in height.
- Review all as-built drawings:
  - **Room 314 for the Survey Vault** – Paving/Drainage Plans
  - **Room 215 for the DWU Vault** – Water/Wastewater Plans
- Come talk to us in Room 200! Please be sure to include the entire plan/concept

What to Know Before Submitting – Checklists and Manuals

- www.DallasCityHall.com
- Departments → All Departments → Development Services → Land Management → Engineering/Survey Forms, Procedures and Checklists
- https://dallascityhall.com/departments/sustainabledevelopment/land-management/Pages/engineering-forms.aspx

Paving/Drainage Engineering:

Manuals:

The 2019 City of Dallas Street and Drainage Design Manuals and Street Process Manual are all in effect for projects with preliminary plats that were approved by City Plan Commission on or after October 1, 2019. If the infrastructure construction is not included in a city-approved private development contract within two years from the preliminary plat approval date, then the infrastructure must be redesigned using the most current criteria.

2019 Drainage Design Manual
2019 Drainage Design Manual FAQ's
2019 Street Design Manual
2019 Street Process Manual
Thoroughfare Plan
Complete Streets Design Manual
USACE Criteria For Construction within Fed. Flood Limits (Pamphlet 1150-2-1) October 2003 ver.
Off-Street Parking and Driveways Handbook
2002 Standard Construction Details
2021 Standard Construction Details (Paving and Drainage)
2002 Standard Construction Details
2002 Standard Construction Details - with Signatures
Traffic Sign Standards
1993 Drainage Design Manual
1998 Paving Design Manual

Forms, Procedures, and Checklists:

Plan Review Submittal Procedures and Checklists (.pdf)
Traffic Engineering Review Checklist (.xlsx)
Drainage Report Template (.doc)
Drainage Report Template (.pdf)
Covenant Agreement - P/D
Trip Generation Worksheet (.pdf)
Trip Generation Worksheet (.xl)
Development Impact Review (DIR) Form
Indented Parking Form
Parklet Review Form

Common Errors: Infrastructure Notes

- City of Dallas Infrastructure Notes should be placed on respective design drawings (Paving, Grading, Drainage)
  - Recommend not to place in General Notes nor Cover
  - Helpful for your clients' contractor and for you

- Use the verbiage provided to you from our provided attachment

Common Errors: Easements

- Applicable existing easements & proposed dedications must be shown & labeled on Site, Paving, Drainage, Grading Plans
  - ROW Dedications
  - Drainage Easements (public/private)
  - Detention Area Easements / Detention Area Access Easements
  - Water/Wastewater Easements, etc.
- "By separate Instrument No. _____"
  - Private easement or if not platting
- "By This Plat"
  - Public Easements or ROW dedication

Common Errors: Visibility Triangles

- Shown & labeled on Site, Paving, Grading, & Landscaping Plans
- For pedestrian and vehicular safety
- Not a sight easement nor corner clip
- May also need sight distance analysis at roadway curves

Common Errors: Visibility Triangles Cont'd

- 20' x 20' at driveway locations
  - Measured along face of roadway curb and edge of driveway
- 45' x 45' at street intersections
  - Measured along face of roadway curbs
- 30' x 30' at street intersections within CBD (and some PD's)
  - Measured along face of roadway curbs

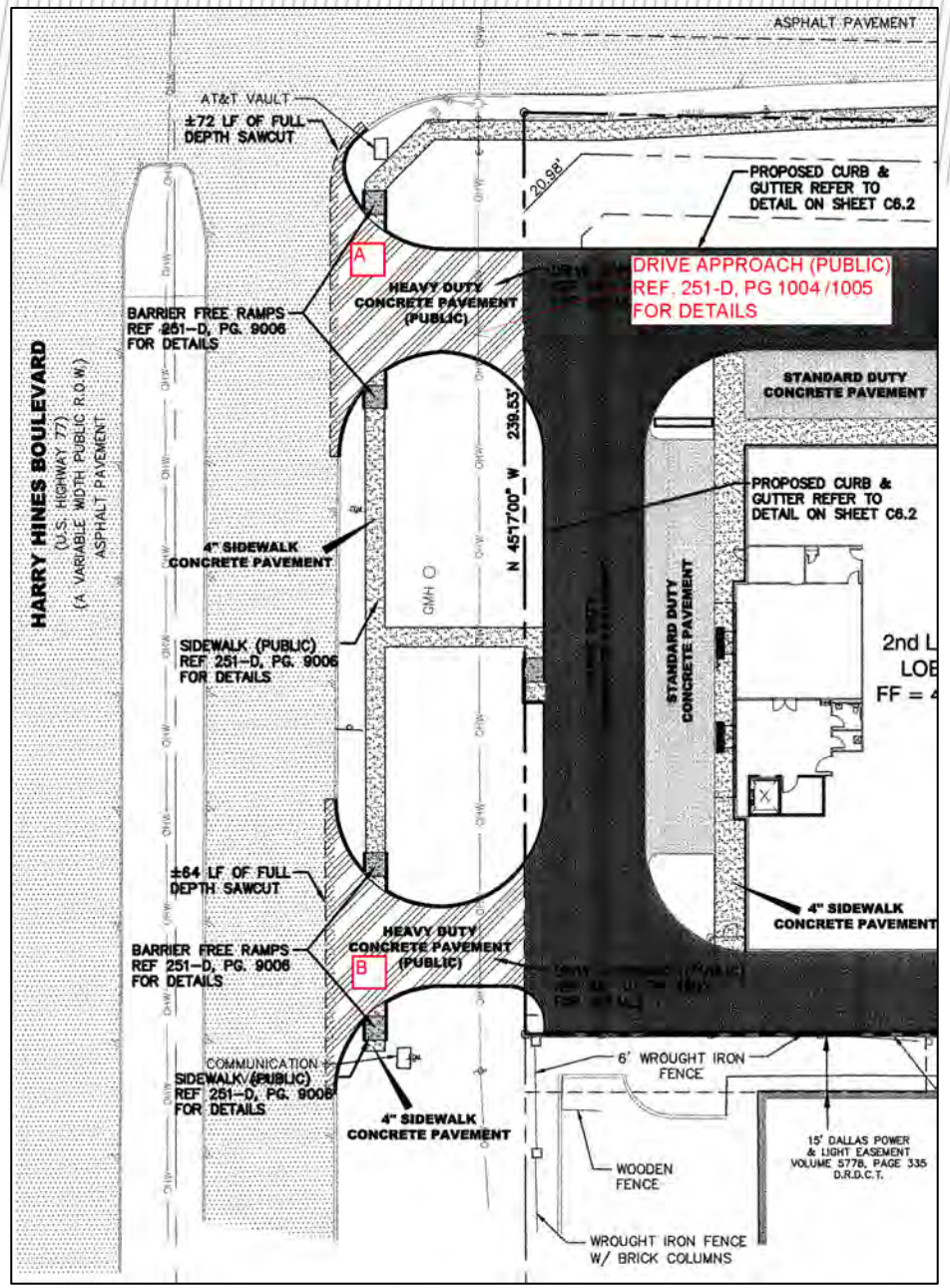
Common Errors: Driveway

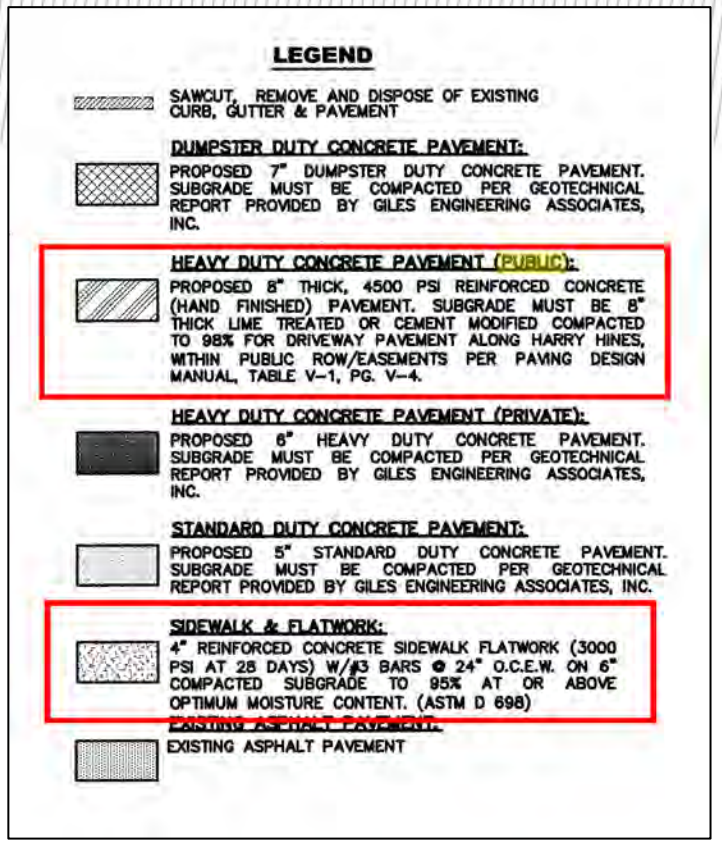
- Private pavement design ends at R.O.W. or public easement
- Remember Pedestrian Crossings
  - Barrier- Free Ramps (BFR)
  - 2% max. cross-slope
    - General labels may not reflect design
- Provide spot elevations for critical design points
- TxDOT approval required if adjacent to state roadway

Common Errors: Driveway

- 6” min. thick concrete pavement for single family drive apron
- 8” min. thick concrete pavement for all others
  - 98% subgrade compaction
  - No. 3 rebar ; No.4 rebar for >8”
  - Subgrade stabilization
  - -2% to +4% Optimum Moisture
- Recommend separate hatching

- In lieu of subgrade stabilization, 2” of concrete may be added to thickness;
  - Clarify pavement x-section/legend with note





ROW Pavement:

- **Concrete Thickness**
- **Concrete Strength**
- **Subgrade Preparation & Compaction**
- **Location of Sidewalks/BFR**
- **Rebar Size**
- **Expansion Joints**
- **Connections to Existing Pavement**
- **References to 251D-1 Standard Construction Details**

Common Errors: Signage & Marking

- Prepare signage & striping plans for review by Department of Transportation(TRN)
  - Must clearly show street name and addressing block numbers – this is **not** the same as Lot/Block number
    - Contact: Victor Olivo: victor.olivo@dallas.gov
  - May be included in Paving Plan if illustrated clearly

- Allows TRN to be proactive in preparing work order for any signage

- Allows TRN to have a head start in releasing holds

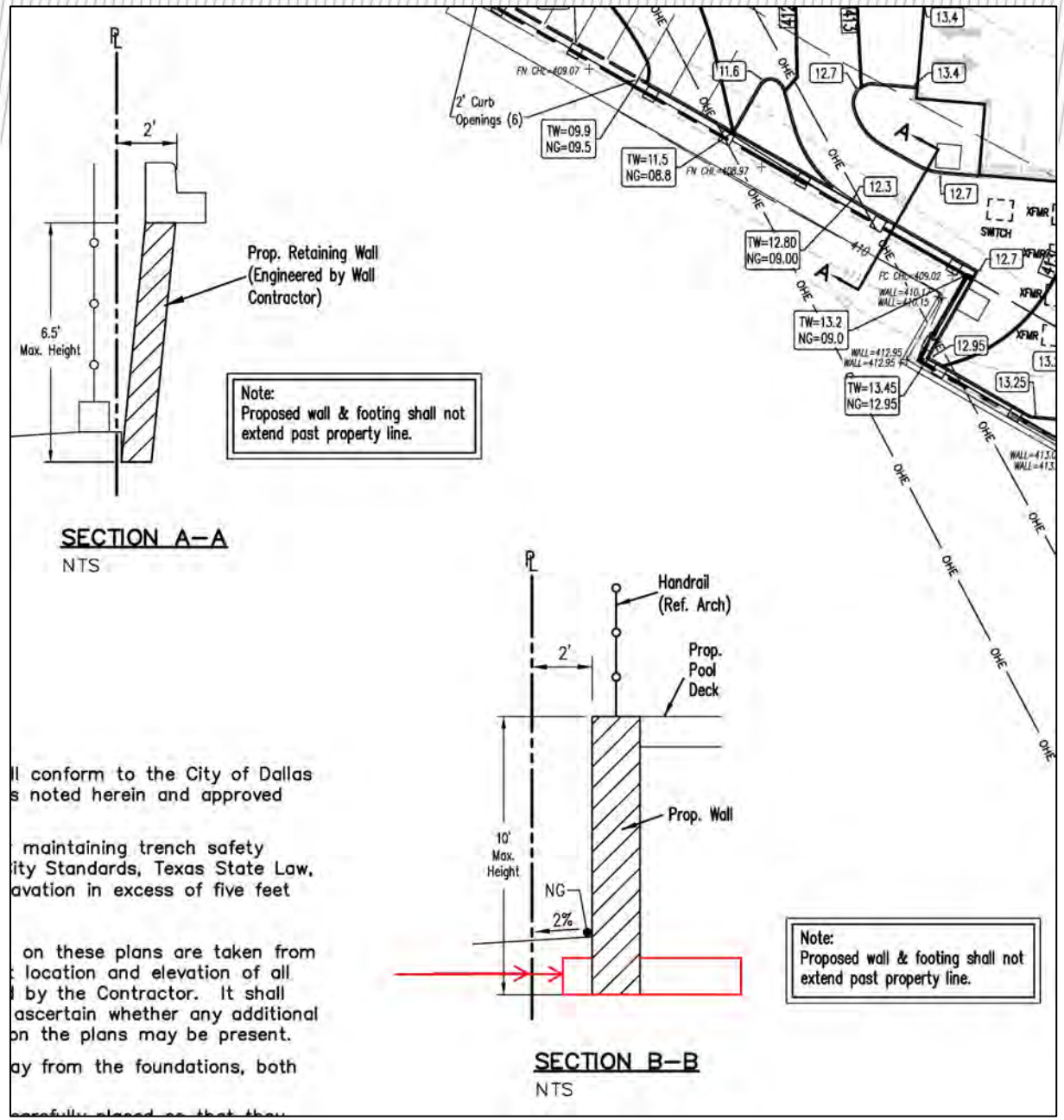
Common Errors: Retaining Wall

- Retaining Wall designs should include cross-section that shows:
  - the relation between property line and footing;
  - max. height of wall measured form bottom of footing and;
  - wall material

- ≥ 4-feet in height (from bottom of footing) requires permit and sealed drawings

- If referencing Geotechnical Report, please provide a PDF copy for use in future Retaining Wall Permit Review/Approval

RETAINING WALL EXAMPLE



Common Errors: Retaining Walls in Shared Access Developments

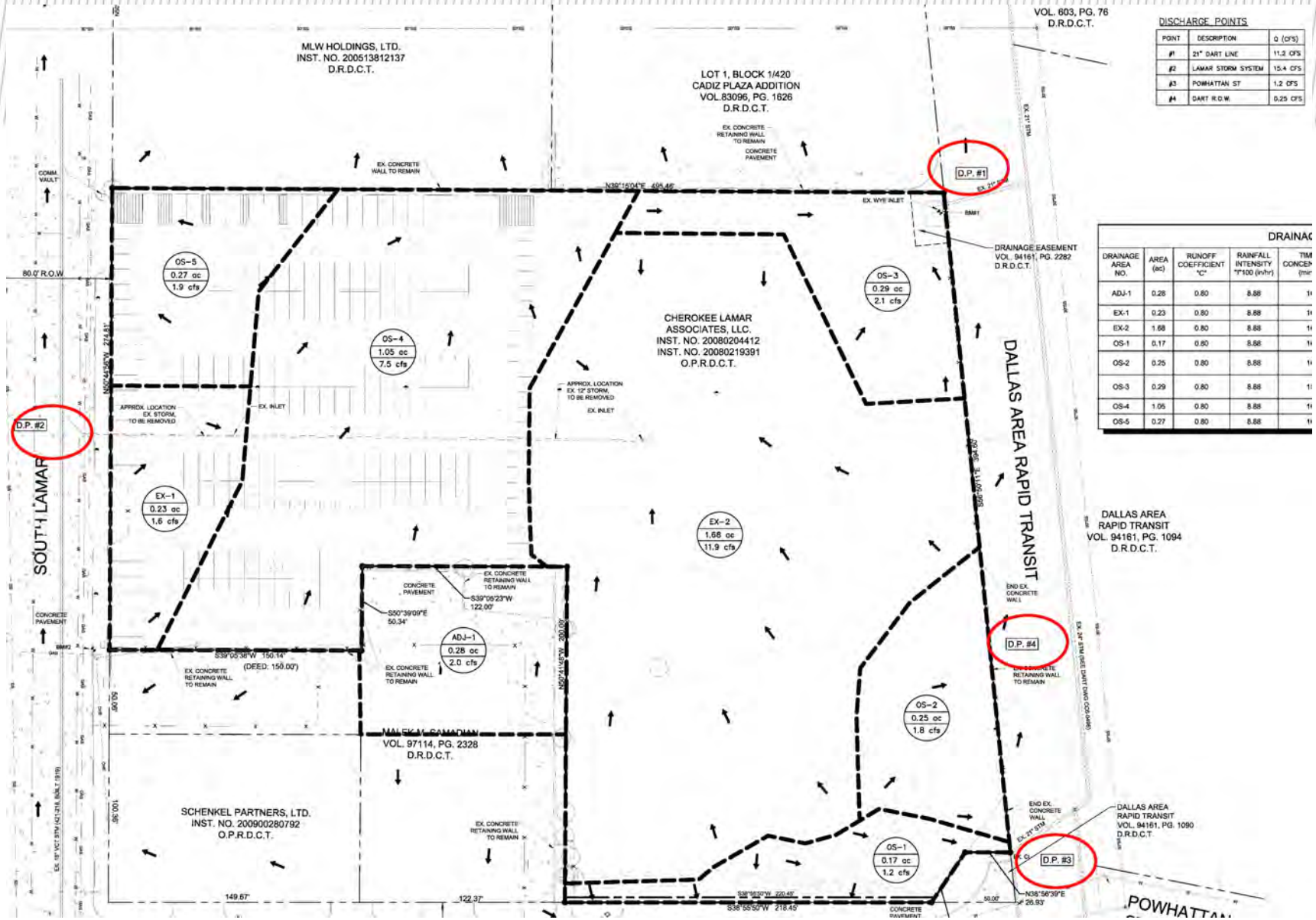
- Permits cannot be issued in Shared Access Developments until the Final Plat has been filed and recorded at the County.
- Retaining walls sometimes need to be constructed to perform utility work.
- Be sure to include walls in cost estimate for 3-way contract package.

Common Errors: Drainage Area Map

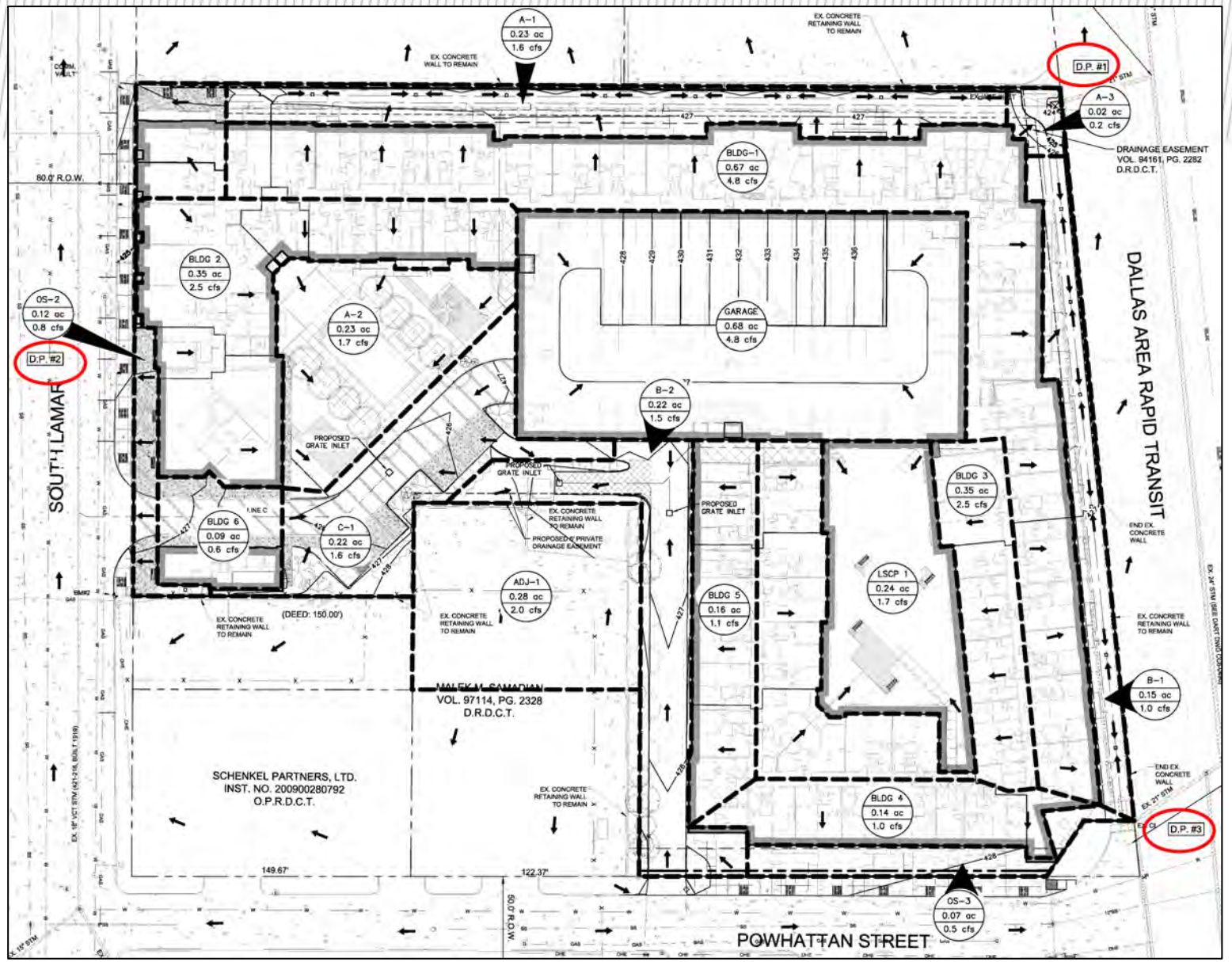
- Provide Existing Drainage Area Map
- Show flow Arrows
- Label key discharge points
- Existing hydrologic calculations based on existing drainage system design

Common Errors: Drainage Area Map

- Show existing and proposed storm drainage system on respective existing and proposed drainage area maps
- Label critical information of drainage system (size, manhole location, material, 421Q/311D or T if existing)
- Show and label drainage easements



EX: Drainage Area Map Example



DRAINAGE POINTS

#1 ALLOWABLE RELEASE AT DP-1 IS 12.93 CFS PER DART PLANS DATED APRIL 15, 1993. PROPOSED DETAINED RELEASE RATE = 12.80 CFS.

#2 2.9 CFS IS DRAINING FROM SITE TO SOUTH LAMAR STREET.

#3 1.5 CFS IS DRAINING FROM SITE TO EXISTING INLET ON POWHATTAN STREET.

Drainage Area Map Example

Common Errors: Drainage Easement

- Drainage Easements should be dedicated for all public storm sewer lines located within private property.
- Typical easement widths are as follows:
  - 15 feet for 39” and under;
  - 20 feet for 42” through 54”;
  - 25 feet for 60” through 66” and;
  - 30 feet for 72” through 102”.
- For storm drain facilities that are deeper than 20 feet, increase storm drain easement width by 4 feet for each additional foot of depth.
- Private drainage easement required for any lot-to-lot drainage regardless if it was an existing condition prior to development

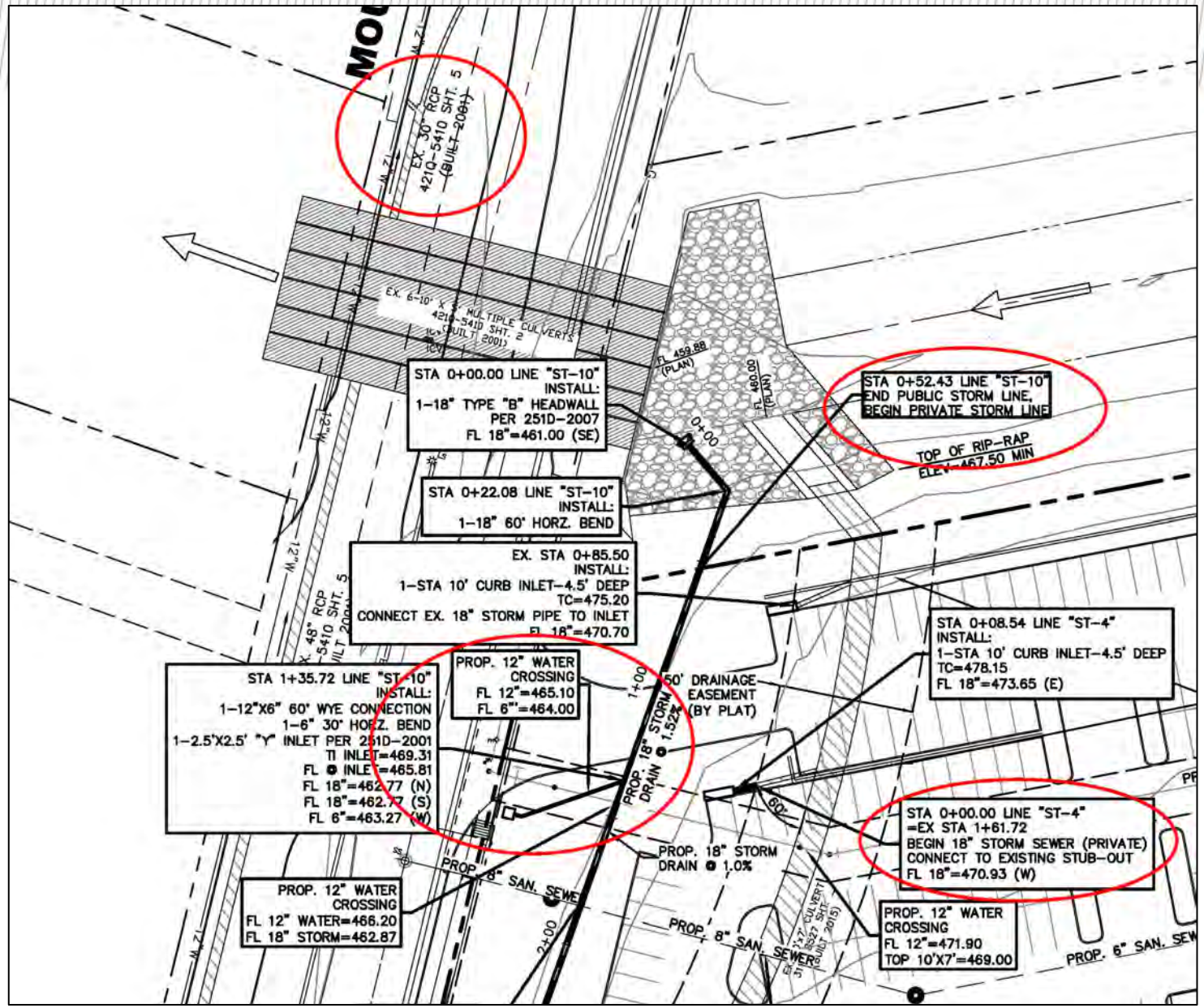
Common Errors: Drainage Calculation

- Existing & Proposed C-value based on weighted runoff coefficients – pervious / impervious areas.

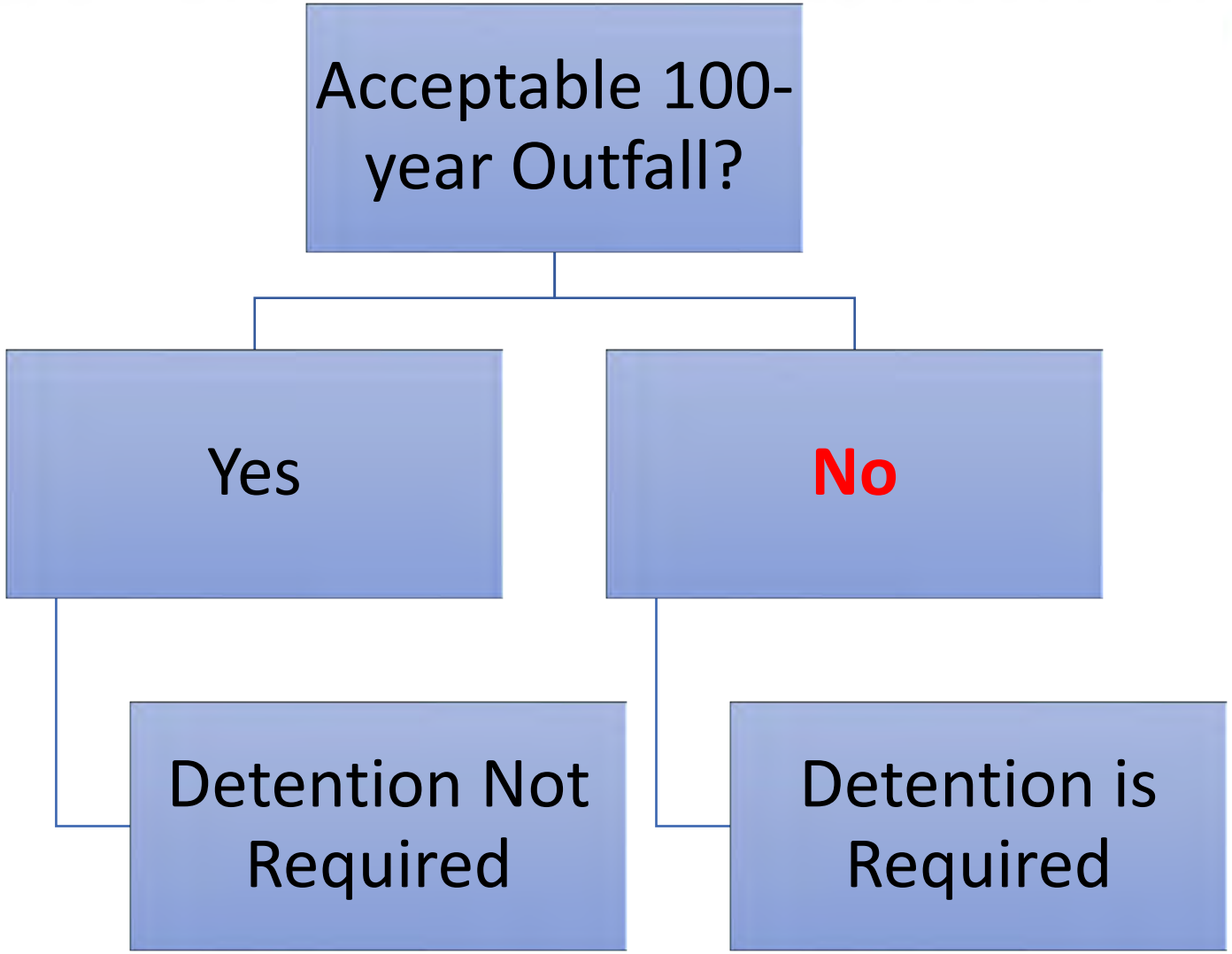
Common Errors: Drainage System

- Delineation / labeling of proposed storm line - End public, begin private
  - Helps contractor identify DP- contract work
- Pay attention to conversion of sheet flow to point discharge to adjacent property
- Provide critical flow data on profiles and inlet on plans
  - Q_{100}, Q_{CAP}, V_{100}, S_f, HGL, etc.

DRAINAGE SYSTEM EXAMPLE



Is Detention Required?



Common Errors: Detention

- Detention may be required if the capacity of available outfall is not adequate to carry the developed runoff.
  - *Reference 51A 8.611(e)*

- Diversion of drainage areas to different storm systems is not allowed without detention unless justification of design capacity is provided.

Common Errors: Detention

- Detention Area Easements & Detention Area Access Easements are required to be shown on the plat and on all civil construction sheets.

- All easements outside of the limits of the subject platted lot must be dedicated by separate instrument.

Common Errors – Final Tips

- Review City of Dallas standards before starting your design
- Take advantage of meeting with us prior to submittal; Open door policy
- Sealing Engineer is responsible for QC;
- City Reviewers are responsible for verifying conformance to standards, not to provide the design layouts and labels.

Common Errors – Final Tips

- City Website
  - www.dallascityhall.com

- Dallas City Code
  - http://dallascityhall.com/government/Pages/city-codes.aspx
  - City Code (Volumes 1-3) → View Code

- Construction Codes
  - http://dallascityhall.com/departments/sustainabledevelopment/buildinginspection/Pages/construction_codes.aspx

Feedback?