City of Dallas

Planning & Development Department
Drainage/Paving & Traffic Engineering Check list
Submission Guidelines & Plan Review

Project Name: _____
City Plan File # (Plat #): S_____-_____
Zoning (or PD/SUP #, if applicable): _____
Engineering Consulting Firm: _____
Engineer-of-Record: _____, PE
Date: _____

Effective April 1, 2020, all drainage & paving engineering plans are submitted, reviewed and approved electronically through the ProjectDox portal:
https://plansubmittal.dallascityhall.com/

Reference guides to assist with making submittals are available on the Engineering website:
https://dallascityhall.com/departments/sustainabledevelopment/land-management/Pages/engineering-forms.aspx

The following submittal procedures should be followed for the review of drainage and paving engineering plans. Per Chapter 52 of the Dallas City Code, amended May 1, 2024, a $1,848 review fee in addition to $15 (one-time fee) technology fee for the first two design reviews of engineering plans is required. A $2,252 review fee for each subsequent review is required after the first two design reviews of engineering plans. A $2,252 review fee is required for any design revision reviews (RTF) after the plans are stamped if original drainage paving submittal was after May 1, 2024. If the original drainage and paving plans were submitted before May 1, 2024, then the fee for RTF is $500.

Failure to complete a task in ProjectDox, pay required review fees, and submitting a copy of this completed checklist will result in the review of your plans being delayed.

Plan Format, General Standards & Helpful Links

General Sheet Order for Plan Submission

- Cover Sheet **(Always Required)**
- Preliminary or Final Recorded Plat **(Always Required)**
- Existing Conditions Plan / Topographic Survey
- Demolition Plan
- Site Layout or Dimension Control Plan **(Always Required)**
- Paving Plan (& Profile, where applicable)
- Grading Plan **(Always Required)**
- Existing Drainage Area Map **(Always Required)**
- Proposed Drainage Area Map **(Always Required)**
- Storm Drain Plan (& Profile, where applicable)
- Erosion Control Plan
- Signage, Striping & Lighting Plan
- Construction Details

Standard Plan Sheet Format and Information

All plans should be landscape orientated, clear, legible, and to scale. Engineer scales: 1"= 10', 20', 30', 40', or 50'. Larger scales may be used for overall/indexing sheets. No Architectural Scales. Plan orientation should generally face north to the top or left-hand side of sheet. The following information should be included on **ALL** sheets:

- Engineering Firm Name & Registration #, Address, and Phone Number
- Engineer's Seal or preliminary statement as approved by the Board of Professional Engineers
- Surveying Firm Name & Registration #, Address, and Phone Number
- Developer's Name, Address, and Phone Number
- Owner's Name, Address, and Phone Number
- DPXX-XXX for electronic plan submittal
- (File number will be assigned at time of submission)
- Plat File#: S - (Has 6 numbers with a hyphen in the middle)

Helpful Links

- Street Design Manual, Drainage Design Manual, Off-Street Parking and Driveways Handbook, Traffic Sign Standards, 251D-1 Standard Construction Details - http://dallascityhall.com/departments/sustainabledevelopment/Engineering/Pages/engineering-forms.aspx
- City of Dallas Zoning Website - https://gis.dallascityhall.com/zoningweb/
- City of Dallas Thoroughfare Plan - https://gis.dallascityhall.com/thoroughfare/
- City of Dallas Codes - http://dallascityhall.com/government/Pages/city- codes.aspx
- City of Dallas Planned Development (PD) District Regulations - http://www.dallascityattorney.com/COV.html
- Dallas Central Appraisal District - http://www.dcad.org/
- FEMA Flood Map Service Center - https://msc.fema.gov/portal

- NCTCOG Landfills - http://nctcoggis.maps.arcgis.com/apps/webappviewer/index.html?id=984fb93ffc4b46c196c2430d9e5b6609
- NOAA Atlas 14 - https://hdsc.nws.noaa.gov/hdsc/pfds/pfds_map_cont.html
- Traffic Engineering Review Checklist – https://dallascityhall.com/departments/sustainabledevelopment/Engineering/DCH%20Documents/paving_drainage/Traffic%20Engineering%20Review%20Checklist.xlsx

Engineering Check List

1. Have plans been submitted to Water/Wastewater Engineering for review and approval?
   _____Yes
   _____No
   ** Please note that Engineering plan review is divided into two separate sections: Drainage/Paving Engineering and Water/Wastewater Engineering. Each section has its own submittal requirements, review check lists and review fees. Contact (214) 948-4607 for additional information on Water/Wastewater Engineering submittal.
2. Is a completed Traffic Engineering Review Checklist Form included in this submittal?
   _____Yes
   _____No – Note: This is a required submittal item.
3. Is the property being platted?
   _____Yes – What is the Preliminary Plat number? S_____-_____
   **Please note: If the property is being platted, a preliminary plat must be approved by City Plan Commission prior to the submittal of engineering plans, per the Dallas City Code, Section 51A-8.404(a).
   _____No – Property is already platted: S_____-_____
   _____N/A – Property does not need to be platted because: _____
   _____
4. Is the property being re-zoned?
   _____Yes – Zoning classification changed from_____to _____
   **Please note: Re-zoning of property may result in required detention.
   _____No
5. Is there a PD or Specific Use Permit (SUP) related to this development?
   _____Yes – Submit highlighted sections of the conditions of the PD/SUP. List any conditions regarding sidewalks, paving and/or drainage: _____
   _____
   _____No
6. Has any part of the site ever been used as a cemetery?
   _____Yes – Additional conditions may need to be met prior to plan approval.
   _____No
7. Has any part of the site ever been part of a "brown field" and/or a landfill in the past?
   _____Yes – Additional conditions may need to be met prior to plan approval.
   _____No

8. Is any part of this development within the Escarpment Zone or Geologically Similar Area?
   _____Yes – Escarpment Permit Approval Letter is attached.
   _____Yes – Escarpment Permit is currently under review.
   _____Yes – We are preparing to submit for Escarpment Permit.
   _____No
9. Is an itemized breakdown with quantities of all proposed public paving and drainage infrastructure within City ROW and Easements included in this submittal?
   _____Yes
   _____No – Note: This is required prior to plan approval.
   _____N/A
10. Is there any proposed construction activity or land disturbance within 150 feet of the toe of a levee?
   _____Yes – Coordination with DWU Floodplain Management& US Army Corps of Engineers will be required.
   _____No
11. Are any retaining/screening walls proposed?
   _____Yes – Maximum vertical distance measured from the <u>bottom of the footing</u> to the top of the wall =_____feet.
   _____No
12. Is any proposed excavation or filling in excess of 5 feet?
   _____Yes – Maximum depth of excavation =_____feet.
   _____Yes – Maximum depth of fill =_____feet.
   _____No
   **Please be sure to coordinate with Water/Wastewater Engineering Section if any proposed excavation or fill is over an existing water/wastewater main.
13. Are sidewalks shown on all street frontages? Per the Dallas City Code, sidewalks are required on <u>all</u> street frontages. Plans submitted for Drainage/Paving review <u>must</u> include the required sidewalks. The applicant may apply for a Sidewalk Waiver with Building Inspections when the Building Permit is submitted.
   _____Yes
   _____No – Sidewalk waiver has been obtained and a copy is attached.
14. Is on-street parking being proposed?
   _____Yes – Design must be coordinated with the Department of Transportation.
   _____No
15. Will an acre or more of soil be disturbed with this development?
   _____Yes – Engineer should inform developer that a SWPPP must be submitted prior to obtaining any permits.
   _____No

16. Is there a thoroughfare adjacent to the development, or within (passes through) the development? Please refer to the City of Dallas Thoroughfare Plan.
    _____Yes, thoroughfare is adjacent. **Please note that the developer is responsible for the design and construction of half of the width of the thoroughfare which abuts the proposed development if the length of the thoroughfare frontage is 1,000 feet or more.
    _____Yes, thoroughfare passes within. **Please note that the developer is responsible for the entire width of the thoroughfare within the limits of the proposed development.
    _____No
17. If you answered Yes to #15, that an existing or planned thoroughfare is adjacent to or passes within the development, is the pavement width, right-of-way, and any other elements prescribed in the Thoroughfare Plan provided?
    _____Yes – Please explain: _____
    _____
    _____No – Please explain: _____
    _____
    _____N/A (responded "No" to #15)
18. Does this development comply with the International Fire Code?
    _____Yes – I have read the code and verified that it complies.
    _____No – Please explain: _____
    ** Please note: Where the vertical distance between the grade plane and the highest roof surface exceeds 30 feet, adjacent aerial fire apparatus access roads shall have a minimum unobstructed width of 26 feet. Otherwise, adjacent access roads shall have a minimum unobstructed width of 20 feet.
19. Is there any lot-to-lot drainage? Is the site currently accepting runoff from adjacent properties, or will the site be draining onto/through adjacent properties (regardless of current drainage pattern)?
    _____Yes – Private Drainage Easements may be required.
    _____No
20. Is any work proposed within areas designated as floodplain by FEMA and/or the City of Dallas, or in areas near unstudied streams/creeks?
    _____Yes – A Fill/Alteration Permit may be required by DWU Floodplain Management. If already obtained, Fill Permit# _____
    _____No
21. Is any work proposed within the Mill Creek hazardous drainage area?
    _____Yes – FF Elevations must be a minimum of 3 feet above the top of curb elevation at the nearest downstream inlet.
    _____No
22. Is any work proposed within the Peaks Branch hazardous drainage area?
    _____Yes – FF Elevations are recommended to be a minimum of 3 feet above the top of curb elevation at the nearest downstream inlet.
    _____No

23. Do all storm water outfall locations have the capacity to convey the 100-year storm?
    _____Yes – Provide supporting drainage plans and calculations
    _____No – Detention may be required
    ** It is the responsibility of the engineer of record to verify the capacity of existing storm sewer systems, swales/channels, street gutters, or any other public or private conveyances into which the proposed development will discharge storm runoff. If design plans or as-built plans are not on record or otherwise available, it may be necessary for the engineer of record to perform field verification of the location, size, slope, depth, etc. of these systems to determine their capacity.
24. Is any storm water runoff from the site being diverted from its existing outfall location into a new outfall?
    _____Yes – Please explain: _____
    _____
    _____No
25. Is any storm water runoff being discharged onto adjacent cities or other entities?
    _____Yes, onto another City – Please note: Detention may be required, and the adjacent City must approve the plans.
    _____Yes, onto another Entity (e.g., TxDOT, DART, etc.) – Please note: Engineering plans must be reviewed and approved by that entity.
    _____No
26. Is there any proposed connection to the storm sewer system that would discharge anything other than rainfall runoff?
    _____Yes – Please explain: _____
    _____No
27. Is detention being proposed?
    _____Yes. **Please note: Detention must be located onsite, easements must be clear of obstructions and building encroachments, and adequate access must be provided for maintenance purposes via Detention Area Access Easement.
    _____No

Required Sheet Information

Cover Sheet

- ☐ Project Name, Lot & Block Number/Legal Description
- ☐ Sheet Index
- ☐ Vicinity Map & Mapsco page number (as shown at www.dcad.org)
  - ☐ All information is clearly shown on the Cover Sheet.
  - ☐ Some information is missing. Here is what's missing and why:

    _____
    _____
    _____

Preliminary or Final Plat

- ☐ When the City Plan Commission approves the Preliminary Plat, a conditional approval letter is issued and mailed to the owner and Surveyor. The Engineer should request a copy from the owner and:

- ☐ Ensure that the surveyor has addressed all conditions on the Preliminary Plat that is being submitted with the engineering plans,
- ☐ Ensure that all conditions are addressed on the engineering plans.

☐ Right-of-Way dedications are clearly shown and dimensioned
☐ Easement dedications are clearly shown and dimensioned
☐ All existing easements are clearly shown and dimensioned
☐ Vicinity Map & Mapsco page number (as shown at www.dcad.org)
- ☐ All information is clearly shown on the Plat.
- ☐ Some information is missing. Here is what's missing and why:

_____

_____

_____

Existing Conditions Plan

☐ Show and label existing contour lines (with elevation labels) at one or two-foot contour intervals referenced to sea-level datum.
☐ Show and label existing drive approaches, street frontage sidewalks & barrier- free ramps, street and onsite pavement material (e.g., concrete, asphalt, pavers, gravel, etc.), street pavement & right-of-way widths, on-street parking, street curb lines, bar-ditches, onsite buildings, vehicle circulation lanes, private drives, fire lanes, parking areas, landscape areas, fencing, retaining walls, and all public and private storm/water/wastewater/other utility infrastructure.
☐ Show, label, and dimension all existing easements.
☐ Show and label all existing signs, utilities, signal poles, parking meters, bike racks, news racks, advertising kiosks, DART bench/shelter, etc. located within the right- of-way.
☐ Show and label all streams, creeks, drainage ways, and 100-year floodplain. In addition to FEMA overlays, show and label actual 100-year water surface elevations.
- ☐ All information is clearly shown on the Existing Conditions Plan.
- ☐ Some information is missing. Here is what's missing and why:

_____

_____

_____

Demolition Plan

☐ All items listed above under "Existing Conditions Plan" is either labeled: "Existing to Remain", "To be Removed", or "To be Relocated".
- ☐ All information is clearly shown on the Demolition Plan.
- ☐ Some information is missing. Here is what's missing and why:

_____

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_____

Site Layout or Dimension Control Plan

- ☐ Show and label street pavement and right-of-way widths, street centerline, street curb lines, proposed drive approaches, width of sidewalk along the street frontage, width of landscape area between the sidewalk and street curb (if applicable), barrier-free ramps, on-site and off-site pavement material (e.g., concrete, asphalt, permeable pavers, etc.), on-street parking, bar-ditches, on-site buildings, on-site sidewalks, vehicle circulation lanes, private drives, fire lanes, parking areas, fencing, retaining walls, and landscape areas.
- ☐ Show and label all existing and proposed signs, utilities, signal poles, parking meters, bike racks, news racks, advertising kiosks, DART bench/shelter, etc. located within the right-of-way.
- ☐ Show, label, and dimension visibility triangles at street intersections and drive approaches.
  - ☐ All information is clearly shown on the Site Layout or Dimension Control Plan.
  - ☐ Some information is missing. Here is what's missing and why:

    _____

    _____

    _____

Paving Plan (& Profile, where applicable)

- ☐ All proposed work is clearly shown and labeled with a paving legend to distinguish between the different pavement specifications within the right-of- way and private property.
- ☐ Limits of new paving and adjustments to intersecting streets and drives are clearly defined by stations and dimensions, as necessary.
- ☐ Typical cross sections are shown and dimensioned for each proposed street/alley classification with station limits and centerline corrections.
- ☐ Station/top of curb (offset from centerline if not typical) for all PC's, PT's and midpoints of curb returns.
- ☐ A curve schedule should be provided for concentric and non-concentric curves.
- ☐ Check all drives, intersections and other locations involving cross traffic for possible hazardous situations. Watch for obstructed sight distance, hindrances to safe operation at design speed, danger to pedestrians, etc.
- ☐ Intermediate tangents have been designed between reverse curves based on the design speed along the centerline of the proposed streets.
- ☐ Complete vertical curve information is provided and meets minimum sight distance requirements for design speed.
- ☐ Existing and proposed water/wastewater lines are clearly shown and labeled when located under proposed pavement.
- ☐ Street lighting on divided thoroughfares is clearly shown and labeled.
- ☐ Type, thickness, strength, rebar size, and subgrade preparation of proposed pavement is shown and is in conformance with standards.
- ☐ Show cross-slope of street and driveway slopes into property. Slopes must comply with the Street Design Manual.
- ☐ Show, label, and dimension driveways.

- ☐ Sidewalks are clearly shown and labeled on all street frontages. Concrete thickness, strength, and rebar size is shown and is in conformance with standards.
- ☐ Show, label, and dimension sidewalks on all street frontages. Concrete thickness, strength, and rebar size is shown and is in conformance with standards.
  (Please note: Where the vertical distance between the grade plane and the highest roof surface exceeds 30 feet, adjacent aerial fire apparatus access roads shall have a minimum unobstructed width of 26 feet. Otherwise, adjacent access roads shall have a minimum unobstructed width of 20 feet.)
  - ☐ All information is clearly shown on the Paving Plan.
  - ☐ Some information is missing. Here is what's missing and why:

    _____

    _____

    _____

Grading Plan

- ☐ Existing onsite and offsite contour lines (with elevation labels) and proposed grades are clearly shown and labeled.
- ☐ Surface drainage easements are provided for lot-to-lot drainage paths.
- ☐ Typical cross sections for all retaining walls are provided. Show footings, utility crossings, wall heights, and distances to property lines.
- ☐ All utilities are clearly shown and labeled.
- ☐ Show and label all streams, creeks, drainage ways, and 100-year floodplain. In addition to FEMA overlays, show and label actual 100-year water surface elevations.
  - ☐ All information is clearly shown on the Grading Plan.
  - ☐ Some information is missing. Here is what's missing and why:

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    _____

    _____

Existing Drainage Area Map

- ☐ Existing onsite and offsite contour lines (with elevation labels), onsite and offsite subdivided drainage areas, and drainage area calculation tables are clearly shown.
- ☐ Indicate zoning for each drainage area.
- ☐ Existing inlets and storm drain lines are clearly shown and labeled.
- ☐ Existing onsite and offsite flow direction is clearly shown with directional flow arrows. Reference 311T-/421Q-/DP-file numbers.
- ☐ Show the design storm that the downstream storm drain system was designed for (e.g, 25-year storm, 100-year storm, etc.) and the drainage criteria that was used for that design.
- ☐ Show and label outfall locations.
- ☐ Show and label all streams, creeks, drainage ways, and 100-year floodplain. In addition to FEMA overlays, show and label actual 100-year water surface elevations.
  - ☐ All information is clearly shown on the Existing Drainage Area Map.

☐ Some information is missing. Here is what's missing and why:

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Proposed Drainage Area Map

- ☐ Proposed onsite and offsite grades, onsite and offsite subdivided drainage areas, and drainage area calculation tables are clearly shown.
- ☐ Indicate zoning for each drainage area.
- ☐ Existing and proposed inlets and storm drain lines are clearly shown and labeled.
- ☐ Proposed onsite and existing offsite flow direction is clearly shown with directional flow arrows. Reference 311T-/421Q-/DP- file numbers.
- ☐ Show runoff calculations and use design criteria as shown in the Drainage Design Manual.
- ☐ Show and label outfall locations.
- ☐ Demonstrate, with supporting calculations, that there is adequate capacity downstream to convey the 100-year storm.
- ☐ Show and label all streams, creeks, drainage ways, and 100-year floodplain. In addition to FEMA overlays, show and label actual 100-year water surface elevations.
  - ☐ All information is clearly shown on the Proposed Drainage Area Map.
  - ☐ Some information is missing. Here is what's missing and why:

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_____

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Storm Drain Plan (& Profile, where applicable)

- ☐ Show a plan and profile for all proposed public storm drain lines. Pipe lengths are to be shown by stationing at each structure. Show pipe size, material, slope and class for each run. Show pipe inverts, discharge, velocity and friction slope. Show and label the hydraulic gradient.
- ☐ Show all hydraulics, velocity head changes, gradients, computations and profile outfalls with typical sections and computations.
- ☐ Specify at least Class III RCP. Provide inlets where street capacity is exceeded. Provide inlets where alley runoff exceeds intersecting street capacity. For thoroughfares, one lane must remain dry.
- ☐ Existing and proposed inlets and storm drain lines are clearly shown and labeled.
- ☐ Discharge storm drains at the flowline of creeks and channels with the last 10 feet at a grade not to exceed one percent, unless otherwise directed.
- ☐ Show the 100-year water surface elevation at the outfall of the storm drains.
- ☐ Where connections are made to an existing storm drain, provide the design data of existing system (Q100, HGL, inverts, diameter, etc.).
- ☐ Intersect laterals at 60 degrees with the trunk line, if possible. Where laterals tie into a trunk line, channel or creek, place them at 60-degree angle with center lines. Connect them so that longitudinal centers intersect.

- ☐ Indicate flow line elevations of the storm drains on the profile. Label the line grade (in percent). Match top inside of pipe where adjacent to other size pipe.
- ☐ Do not use high velocities in storm drain design. Refer to the Drainage Design Manual for maximum allowed velocities.
- ☐ The minimum pipe slope is 0.30% unless otherwise directed.
- ☐ The downstream system must be sized to adequately convey the fully developed runoff from the site.
- ☐ Provide a written statement certifying that you have analyzed the proposed storm drainage outfall effects on the adjoining property owner(s) and that your discharge will not adversely affect or jeopardize any downstream properties.
- ☐ Proposed driveway turnouts must be a minimum of 10 feet from any existing or proposed inlet.
- ☐ Do not use bends on public storm drain lines for pipe sizes less than 30-inch diameter.
- ☐ Do not use 90-degree bends on storm drains or outfall. Provide a junction structure or manhole.
- ☐ Show and label all streams, creeks, drainage ways, and 100-year floodplain. In addition to FEMA overlays, show and label actual 100-year water surface elevations.
- ☐ Drainage swales/channels should have cross sections with 100-year water surface elevation, slopes, side slopes, and velocity clearly shown and labeled.
  - ☐ All information is clearly shown on the Storm Drain Plan.
  - ☐ Some information is missing. Here is what's missing and why:

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_____

Erosion Control Plan

- ☐ Existing contour lines (with elevation labels) and proposed grades are clearly shown and labeled.
- ☐ Design plans comply with all current rules and regulations of EPA, TCEQ, and other applicable federal and state agencies.
  - ☐ All information is clearly shown on the Erosion Control Plan.
  - ☐ Some information is missing. Here is what's missing and why:

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_____

_____

Construction Details

- ☐ All details are clearly labeled private or public.
- ☐ All applicable details from the City of Dallas 251D-1 Standard Construction Details should be clearly shown, labeled, and cross referenced on the plans.
- ☐ All details not covered by the City of Dallas 251D-1 Standard Construction Details are clearly shown, labeled, and dimensioned.
- ☐ All applicable details for work within the right-of-way of another entity (e.g., TxDOT, DART, etc.) are clearly shown, labeled, and cross referenced on the plans.

☐ All information is clearly shown on the Construction Details.
☐ Some information is missing. Here is what's missing and why:

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_____

_____

Required Compliances with Sec. 51A-8.601

Please certify and confirm that your development is designed to comply with all the below listed documents per SEC. 51A-8.601 (b) and if there are any deviation to any of these documents then state the reason and the justifications and attach the documents.

Per SEC. 51A-8.601. GENERAL STANDARDS.
(b) All street paving, storm drainage, bridge, and culvert design and construction must conform to the standards, criteria, and requirements of the following, as they may from time to time be amended by those responsible for their promulgation, except that the design criteria in effect on the date the commission approves the preliminary plat must be used to design the infrastructure.

1. The Thoroughfare Plan for the City of Dallas with the latest amendments. (June 1993)
2. The Central Business District Streets and Vehicular Circulation Plan with the latest amendments. (November 1988)
3. The Long-Range Physical Plan for Parks and Recreational Facilities. (August 2002)
4. The Street Design Manual of the city of Dallas. (September 2019)
5. The Drainage Design Manual of the city of Dallas. (September 2019)
6. Drainage/Paving and Traffic Engineering checklists of Planning and Development Department. {December 2024(DP) and July 2024 (Traffic)}.
7. The Standard Construction Details of the Department of Public Works. (September 2022)
8. The Texas Uniform Traffic Control Device Manual. (October 2014)
9. The most recently adopted Dallas Bike Plan. (June 2011)

I have reviewed this entire check list and certify that the design plans submitted have been reviewed by me and are in compliance with all City of Dallas design standards and Sec. 51A-8.601(b). I understand that the City reserves the right to provide review comments at any time throughout the plan review process until all standards have been addressed.

_____, P.E.
Print Name

_____
Signature

_____
Date