

CITY OF HOUSTON

RESIDENTIAL PERMITTING 101

**Houston Public Works
Houston Permitting Center**

A general overview of the residential building permit process. This presentation outlines the basic steps involved in submitting plans for review, obtaining permits, and scheduling inspections for one- and two-family dwellings.

TOPICS COVERED IN THIS PRESENTATION

- Project Planning
- Design Requirements
- Building Permit Exemptions
- Licensing & Registration
- Application Process
- Required Reviews by Project Type
- Basic Code Requirements
- Plan Submittal
- Planning Requirements
- Utility Analysis
- Flood Plain Management
- Traffic
- Storm Water
- Required Inspections
- Other Services & Options
- Resources & Other Information
- Website Highlights
- Contact Us

PROJECT PLANNING

Consider the following when planning the project. These items can save time and money.

- Make sure you can financially and legally build your proposed project
- Deed restrictions and property liens
- Survey and property lines (Ensure that your structure can be built in the proposed location)
- Utility availability (Assess if water, storm and sanitary capacity and utilities are available or if additional fees may be required)
- [Platting](#) (May be required if there is a change in use on the property)
- Verify setback requirements
- Floodplain (Refer to Chapter 19 of the [Code of Ordinances](#))

DESIGN REQUIREMENTS

DEFINING THE SCOPE OF WORK



New Construction

(Ground up construction, Foundation Move-In)



Addition

(Square Footage Added)



Remodel

(Alteration or changes to the floor plan of an existing building)

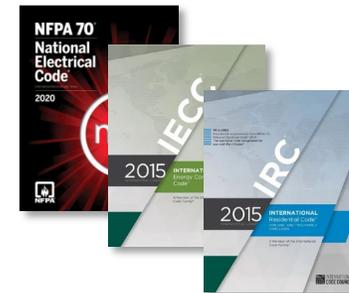


Repair

(Replacement of materials; "like for like" ONLY)

APPLICABLE CODES

- 2015 International Residential Code - Amendments
- 2015 International Energy Conservation Code- [Amendments](#)
- 2020 National Electrical Code
- [Various Code of Ordinance Chapters](#)



PLANS REQUIRED

- A complete set of plans is typically required for review. For detailed requirements please see "Plan Submittal".

BUILDING PERMIT EXEMPTIONS

If your project consists of only the following, you do **NOT** need a building permit.

- One-story detached accessory structures, provided that the floor area does not exceed 120 square ft.
- Fences not over 8 feet high that are not constructed of masonry or concrete, and that are not electrically energized.
- Retaining walls that are not over 4 feet in height measured from the bottom of the footing to the top of the wall, unless supporting a surcharge.
- Water tanks supported directly upon grade if the capacity does not exceed 5,000 gallons and the ratio of height to diameter or width does not exceed 2 to 1.
- Uncovered wood decks accessory to a one- and two-family dwelling that are not more than 30 inches above grade.
- Minor repair and maintenance of existing structures that include: (1) Painting, tarping, wallpapering, tiling, carpeting, cabinets, and counter tops repair and replacement and similar finish work;(2) Repair to gypsum board (sheetrock or drywall) on existing walls that is not part of a fire-rated assembly and that does not exceed an aggregate of 100 square feet; (3) Repair, using the same material, of exterior wood fascia, trim and soffits that do not exceed an aggregate of 128 square feet; or (4) Roof covering that does not exceed an aggregate of 100 square feet.
- Minor single-family residential accessory swings and other residential playground equipment less than 12-feet in height.
- Window awnings supported by an exterior wall which that do not project more than 54 inches from the exterior wall and do not require additional support.
- Decks not exceeding 200 square feet in area, that are not more than 30 inches above grade at any point, are not attached to a dwelling and do not serve the exit door required by Section R311.4

IMPORTANT NOTES:

- Exemption from permit requirements shall not be deemed to grant authorization for any work to be done in any manner in violation of the provisions of the code or any other laws or ordinances of this jurisdiction.
- Properties located in the floodplain may need a floodplain development permit even if a building permit is not required. To obtain more information, please contact the Floodplain Management Office at 832-394-8854 or fmo@houstontx.gov

LICENSING & REGISTRATION

Who can purchase what permits and when?

- The building permit may be purchased by the owner, agent, contractor. General Contractors are not required to be licensed.
- Licensed contractors can purchase trade permits after the building permit has been sold. In some cases, a homeowner may purchase certain trade permits. For more information, please contact us at rmcacd@houstontx.gov.
 - **Electrical**
Master Electrician must be licensed by the [Texas Department of Licensing and Regulation](#) (TDLR) and be registered with the City of Houston.
 - **Mechanical**
Air Conditioning Contractor must have a type A or B license from the [Texas Department of Licensing and Regulation](#) and be registered with the City of Houston. In some instances, a homeowner may obtain this permit.
 - **Plumbing**
Master Plumber must be licensed by the [Texas State Board of Plumbing Examiners](#) and be registered with the City of Houston. In some instances, a homeowner may obtain this permit.
 - **Sidewalk/Driveway**
Only a bonded contractor with a \$2,000 surety bond may pull this permit, although the homeowner may purchase permits in instances where a curb cut is not required.

PLAN REQUIREMENTS

The Plan Review Department is responsible for ensuring that plans comply with all applicable building codes. All new construction projects, most renovations, repairs, or addition projects require plan approval before purchasing a permit. The following depicts the minimum plan submittal requirements for some scopes of work.

NEW CONSTRUCTION / ADDITIONS/ NEW GARAGES & CARPORTS

A set of complete plans - All dimensions and materials clearly indicated

- Survey by Texas Registered surveyor or a complete site plan with dimensions showing: Existing property lines, Easements, Building Setback Line and Proposed Building
- Foundation plans: needed if a project includes a foundation. Dimensions shall include beams and steel bars with foundation conditions noted on plans.
- Floor plans. For additions indicate footprint of existing building and show in detail new addition/affected area with location of partitions, windows and doors.
- Elevation plans
- Door and window schedule shown on plans
- Wall section details
- Roofing and framing plan indicating purlins, ceiling joist and rafters
- Trusses (when applicable)
- Plans must show prescriptive compliance with the 2015 International Energy Conservation Code or include REScheck or IC3 Compliance Report (if applicable)
- [Residential Prerequisite Checklist](#) (Form 1301) Note: For new construction only
- [Grading and Fill Worksheet](#) (Form CE-1094)
- [Calculation of Impervious Percentage Form](#) (Form CE-1207)
- Windstrapping information

PLAN REQUIREMENTS (CONTINUE)

REMODELS

A set of complete plans - All dimensions and materials clearly indicated

- Floor plan of existing building and show in detail affected area
- Materials used
- Existing ceiling framing plan to verify if walls are load bearing or non-load bearing
- If applicable, plans must show prescriptive compliance with the 2015 International Energy Conservation Code or include RESCheck or IC3 Compliance Report.
- Demolition of any load bearing walls will need additional requirements to determine direction of ceiling joists, and the location of header and beam. It may also require an engineer seal

GARAGE CONVERSIONS

A set of complete plans - All dimensions and materials clearly indicated

- Texas registered survey or complete site plan showing existing property lines, easements, building setback lines, and showing the existing building, and any other structures located on the site to determine off-street parking. (Planning)
- Floor plan with use of each room labeled, and the location of partitions, windows and doors identified
- Door and window schedule (including window operation type) or plan with all dimensions clearly indicated.
- Wall section details
- Demolition of any load bearing walls will require additional requirements to determine direction of ceiling joists, and the location of header and beam.
- Plans must show prescriptive compliance with the 2015 International Energy Conservation Code or include RESCheck or IC3 Compliance Report.

REPAIRS

Permits are required for repairs that involve only replacement of existing structural members and other building elements. A [Repair Spec list](#) must be submitted indicating the repairs. Below are some examples:

- Replace siding/doors/windows / trim / stairs / porch / fireplace
- Replace roof covering / ceiling / wall covering / insulation
- Re-frame walls and /or ceiling

For the list of requirements for other residential scopes of work, refer to the [Residential One-Stop Guide](#) (CE-1050) or the [Solar Panel Permit & Inspection Guide and Checklist](#) (CE-1198)

BASIC CODE REQUIREMENTS

Some of the basic code requirements that are reviewed upon submittal are as follows.

- ❑ Location on property – less than 5' from the property line requires a 1hr fire rated wall
- ❑ 1 entry door, minimum size 3'0 wide and 6'8" tall
- ❑ Egress windows required out of bedrooms (Refer to COH [DWG#17-08-R](#) for examples of minimum requirements)
- ❑ Stairs – Tread max. 7 ¾ inch rise and 10" min. depth; Headroom 6' 8" min. typical
- ❑ Smoke Detectors
 - Required in each bedroom and the immediate vicinity outside the bedroom and one on every floor
 - Required to be hardwired, interconnected, with battery backup (requires an electrical permit)
- ❑ Sidewalks required on Major Thoroughfares, Inside 610 Loop, and lots over 125' street frontage
- ❑ Handrails – between 34 -38"
- ❑ Guardrails – 36" in height minimum and 4" openings max
- ❑ Lighting, ventilation, and heating are required
- ❑ Sanitation facilities are required
- ❑ Windows/Insulation/Equipment efficiencies must meet Energy Code Requirements

OUTSIDE DEPARTMENTS

REQUIRED REVIEWS BY PROJECT TYPE

The following chart indicates the various department reviews required depending on the scope of work.

PROJECT TYPE	PLANNING	TAPS & METERS ¹	ONE STOP	FLOOD ²	TRAFFIC	STORM ⁴
New construction	✓	✓		✓	✓	✓
Addition	✓	✓	✓	✓		✓
Remodel			✓	✓		
Garage/Carport (new)	✓	✓	✓	✓	✓ ³	✓
Repair			✓	✓		
Fence	✓		✓	✓		
Driveway/Sidewalk(new)	✓		✓	✓	✓	✓
Driveway/Sidewalk (existing)			✓	✓	✓	✓

Footnotes

- ¹ When the aggregate square footage of all structures on the property is over 3,000 square feet.
- ² Flood applicable if project is in a flood plain
- ³ If driveway is included in scope of work
- ⁴ Storm review required if the residential lot is > 15,000 sq. ft. or if lot ≤ 15,000 sq. ft. with more than 65% impervious area

PLANNING & DEVELOPMENT DEPARTMENT

The Planning & Development Department reviews development site plans, (new construction and additions) for compliance with the City Code of Ordinances (Chapter 42), parking regulations (Chapter 26), tree and shrub regulations (Chapter 33); determine property use and setbacks (Chapter 42).

- Site plan**
 - Drawn to scale
 - Show building setback lines
 - Show all existing and proposed structures
- Survey** (one copy)
- [Landscape analysis form](#)
- Trees** (1 required on lots < 5000 sq. ft. and 2 on lots > 5000 sq. ft.)
- Protected trees**
- Recorded subdivision plat**
(A copy may be requested at



[https://houstontx.govqa.us/WEBAPP/_rs/\(S\(0p2nwbvitzorijboyqsezb5o\)\)/SupportHome.aspx?sSessionID=](https://houstontx.govqa.us/WEBAPP/_rs/(S(0p2nwbvitzorijboyqsezb5o))/SupportHome.aspx?sSessionID=)

For more information, contact pd.siteplanreview@houstontx.gov or 832-394-8849

UTILITY ANALYSIS

The Utility Analysis (Water/WasteWater) group is responsible for managing wastewater flows through wastewater capacity reservations (WCR), managing water demands through water/storm drainage commitment letters, review process which provides information on water, wastewater and storm drainage requirements for new development or for existing development that will require additional water and/or wastewater capacity.



- ❑ **WasteWater Capacity Reservation Letter (WCR)** - Applicable for: (a) new development or for existing development that will require additional water and/or wastewater capacity, (b) if the main water line is $\leq 6''$ or $\geq 20''$ and (c) if the sewer line is $< 8''$.
- ❑ **Impact fee receipt** (or exemption form)
- ❑ **Point of connection**
- ❑ For Impact Fee / WCR Credit
 - Demolition project number or
 - Previous water account or
 - HCAD tax statement

For more information, contact wcrtechs@houstontx.gov or 832-394-8888

FLOOD PLAIN MANAGEMENT

The Flood Plain Section manages all development in the flood plain by reviewing plans, monitoring and inspecting construction activities as required by the Code of Ordinances. An archive of historic Flood Insurance Rate Map (FIRM) panels that are no longer “effective” as determined by FEMA are maintained by this office.

- Elevation Certificates** (must be signed & sealed)
 - When plans are submitted
 - Prior to Framing Inspection
 - Prior to Final Inspection
- Mitigation Plan**
- Site Topography Survey**
- Finish floor elevations of all slabs**
- Cut and fill areas** (must be shaded)
- Appliances (mechanical, electrical & plumbing) must be 2 foot above the 500-year BFE (Base Flood Elevation)**
- Water resistant material** (for areas below the DFE)
- Flood vents** (for areas below the BFE)



Note: No permit shall be issued for development in the floodway except as stipulated in the City of Houston Ordinance [Chap. 19-43 sec \(b\) & \(c\)](#).

For more information, contact fmo@houstontx.gov or 832-394-8854

TRAFFIC

The Traffic Department reviews plans for driveways, sidewalks, and culvert parking lots, issues permits for private street paving work, and addresses right-of-way issues.

Driveways, Sidewalks & Culverts

Plans or drawings drawn to scale are required and must show:

- Existing and proposed driveways
- Location of driveway to nearest neighbor common property line
- Widths of Sidewalks, Ditches, Culverts
- Existing trees, storm inlets and location of edge of pavement
 - Center line of ditch & radii or taper of the driveway

Requires \$2,000 bonded contractor

Note: Minimum culvert size is 24" RCP (reinforced concrete pipe) X width of driveway

For more information, contact 832-394-9513

STORM WATER

The Storm Water review ensures that site drainage complies with all mandated policies directing runoff to the city right-of-way and may not overflow to an adjacent property.

Minimum requirements for residential drainage:

- Detailed site drainage plan
- Single family residences on lots 15,000 sq. ft. or more or over 65% impervious cover require a Storm Water Information Form.
- Some sites require Detention/Storage plans by a Professional Engineer per the Letter of Storm Availability.



For more information, contact 832-394-9124

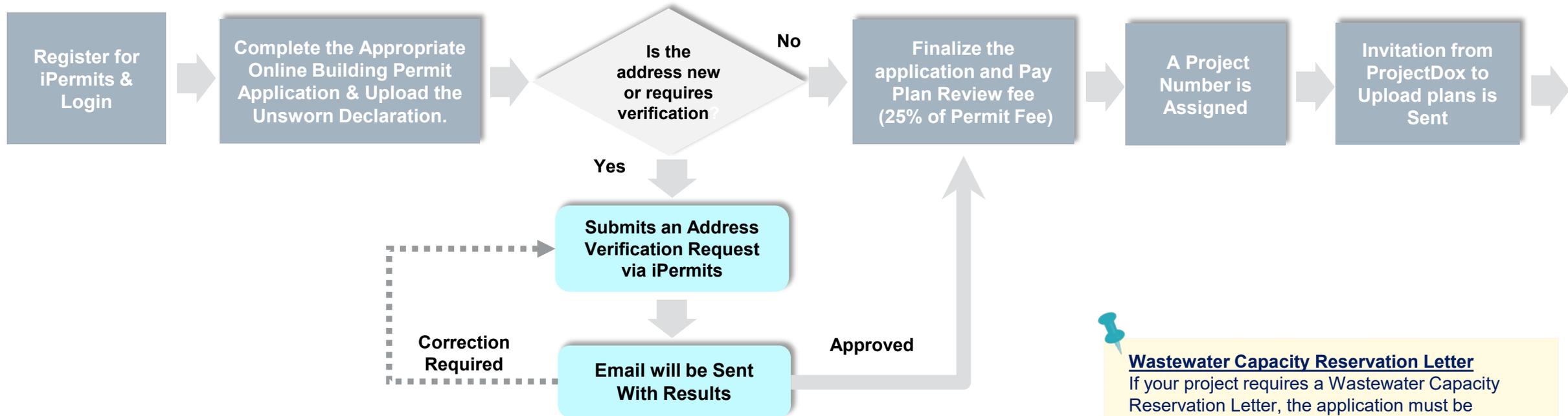
HOW TO APPLY

APPLICATION PROCESS

- ❑ **Electronic Building Permit Application.** Applicants must complete the building permit application electronically using [iPermits](#). For submittal instructions, visit <https://www.houstonpermittingcenter.org/our-services/eservices>.
- ❑ **Declaration In Support of Application For City of Houston Building Permit** ([Individual Owner](#) or [Corporate/Other Business Entity Owners](#)) – Verify if the property has Deed Restrictions and whether this project would be in violation. For more information [click here](#) or contact the Harris County Clerk’s office at (713) 274-8600.
Note: *The declaration must be signed by the property owner and will be validated against HCAD records. If ownership does not match HCAD, applicants must also upload proof of ownership.*
- ❑ **Addresses** are critical and must be verified at the Building Code Enforcement Office for new construction. When completing the application online, there will be an address validation request button that will need to be selected prior to finalizing the application.
- ❑ **Plan Review Fee.** Most projects require the payment of a plan review fee which is 25% of total permit fee.
- ❑ A **Project Number** will be automatically generated by iPermits.

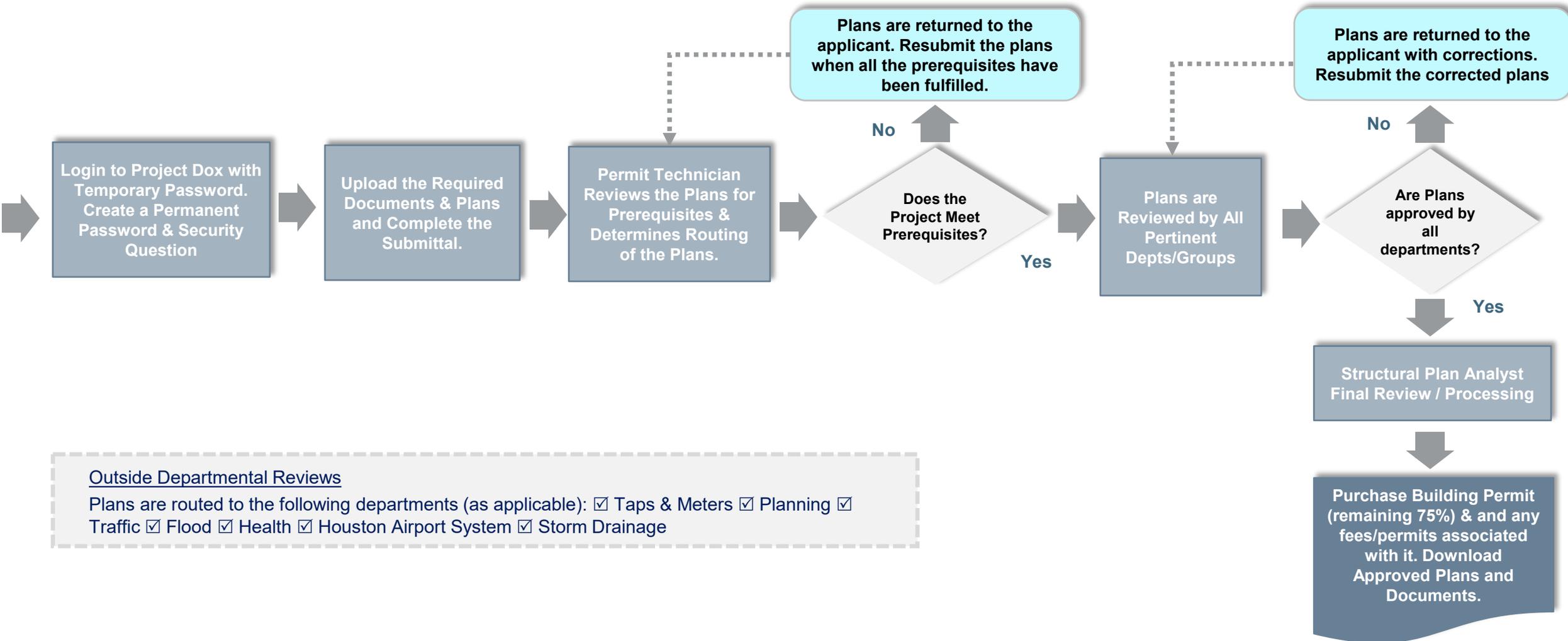
APPLICATION PROCESS

NOTE: The City of Houston utilizes two systems: iPermits & ProjectDox. iPermits is the online system used to complete and submit the building permit application and pay for any fees due. ProjectDox is used to upload plans and any other required documents.



Wastewater Capacity Reservation Letter
If your project requires a Wastewater Capacity Reservation Letter, the application must be submitted separately through iPermits (preferably before submitting your plans). For more information, visit <https://www.houstonpermittingcenter.org/infrastructure-development-services/impact-fee-administration>

PLAN REVIEW PROCESS



Outside Departmental Reviews

Plans are routed to the following departments (as applicable): Taps & Meters Planning Traffic Flood Health Houston Airport System Storm Drainage

INSPECTIONS

INSPECTIONS

Once the appropriate permit is purchased, work may begin. Approved plans and permits must be on the job site for inspections. Be sure to schedule an inspection after the permit has been purchased and the work completed. Inspections may be scheduled [online](#) or by calling the Interactive Voice Response (IVR) System at 713-222-9922.

ELECTRICAL INSPECTIONS

- Ditch Cover** - Schedule when underground conduit is put in
- Rough-in** - Schedule when walls and ceiling are wired
- TCI** - Schedule when temporary power is needed to check wiring
- Meter Loop Services/Final** - Schedule after all work is completed

PLUMBING INSPECTIONS

- Ground, Sewer, Water Service, Storm Drainage, Lawn Sprinklers** - Schedule before pipes are covered
- Rough-in** - Schedule before sheetrock is installed
- Gas/Final** - Schedule when work is complete

INSPECTIONS (CONTINUE)

MECHANICAL INSPECTIONS

- Duct Seal** - Schedule before insulation and sheetrock is installed
- Cover** - Schedule before insulation and sheetrock is installed
- Grille Seal** - Schedule before insulation and sheetrock is installed
- Final** - Schedule after work is complete

STRUCTURAL INSPECTIONS

- Pier / Foundation** - Schedule before placement of concrete
- Windstorm** - Schedule prior to exterior sheathing installation to verify fasteners/straps
- Frame** - Schedule after MEP rough-ins and prior to installing insulation and sheetrock.
Note: Truss plans should be approved at this time.
- Lath/Brick Tie** - Schedule after frame inspection has been approved
- Insulation** - Schedule after frame inspection has been approved
- Building Final** - Schedule after the entire project has been completed to verify that all life safety and grading items have been installed and are working properly

ADDITIONAL INFORMATION

OTHER SERVICES & OPTIONS

▪ NEW RESIDENCE MODEL HOME PROGRAM

- ◆ Designed for builders who build 10 or more units of the same repeat home over a 12-month period.
- ◆ For subsequent identical units built, plan reviews are performed in an expedited manner and permit fees are known in advance.
- ◆ Repeat homes require submittal of a [Grading and Fill Worksheet \(CE-1094\)](#), site plan and landscape analysis form.
- ◆ For more information, refer to the [Model Home Program Brochure](#).

- ## ▪ MULTI-DISCIPLINE INSPECTION PROGRAM (MDI) is a voluntary program for new one- or two-family residential home builders/remodelers administered by Structural Inspections. The objective is to reduce the number of inspections by scheduling inspections as seven (7) specific construction phases are completed. Call the Structural Inspection Section at (832) 394-8840 for more information.

TEMPORARILY SUSPENDED

RESOURCES & OTHER INFORMATION

■ Searching for Issued Building Permits

The City of Houston Building Code Enforcement (BCE) Group has a tool available online that allows users to search for permits sold by BCE in the last three years using different search criteria, such as: job address, applicant name, permit type, zip code, building use.

To access the Sold Permit Search tool, visit

http://www.cohtora.houstontx.gov/approot/soldpermits/online_permit.htm

■ Permit e-Report

Customers can subscribe to receive the Permit e-Report. The report provides information regarding any new construction, remodeling, or change-of-use permits by zip-code and is emailed every Monday.

To sign up to receive the Permit e-Report, please visit: <https://www.houstonpermittingcenter.org/news-events>

■ Reporting Unpermitted Work

An anonymous complaint can be submitted to the City of Houston 311 Help & Information Section for work without a permit. A tracking number will be assigned and can be used to follow up with their office regarding the concern.

An investigator will conduct a site visit and inform the responsible party of the required actions and time frame.

The complaint can be submitted via phone by contacting the City of Houston 311 Help & Information Section at 713.837.0311 or online at: <http://hfdapp.houstontx.gov/311/index.php>

eSERVICES WEBPAGE

<https://www.houstonpermittingcenter.org/our-services/eservices>

HOUSTON PERMITTING center

PERMITS A TO Z PROJECT PLANNER SCHEDULE HELP SERVICES

eServices

Online permits, plan review and inspections

Our Services / eServices

eServices is our self-service portal designed to make it easier to achieve your goals while complying with the City's regulations. Learn more about the services available online. We hope to add more self-service options soon.

Quick Link to iPermits <i>(Register & Apply for a Permit)</i>	iPERMITS PORTAL Sign in or register now	ProjectDox SIGN IN Upload files and check comments	Quick Link to ProjectDox <i>(Upload & Submit Plans)</i>
Schedule an Appointment	ONLINE QUEUING SERVICE Schedule an appointment, check in, or get an eTicket	INSPECTION NOTIFICATION SYSTEM Receive text messages when to expect the inspector on your site and your inspection results.	Register to Receive Inspection Notifications

eSERVICES WEBPAGE

<https://www.houstonpermittingcenter.org/our-services/eservices>

**Electronic Plan Review
User Guides
(Step-by-Step guides
for Electronic Submittals)**



RESIDENTIAL GUIDES

User guides for residential projects

Residential Guide

Residential EPR Guide (Spanish)

Solar Panel Only Guide

COMMERCIAL GUIDES

User guides for commercial projects

Commercial Guide

Commercial EPR Guide (Spanish)

Electronic locks Guide

Sign Guide

OCE GUIDE

User guide for Office of the City Engineer projects

OCE Guide

SYSTEM GUIDES

User guides for system and browser settings

System settings

Reset IE browser options

Electronic Plan Review

The City of Houston is paper free! Applying and submitting plans online is now **required** for:

- Residential building construction projects
- Sign projects
- Electronic locks projects
- Residential solar panel projects
- Commercial building construction projects
- Office of the City Engineer projects

We offer in-depth user guides, live chat, and a support team ready to help you with any issues.

eSERVICES WEBPAGE

<https://www.houstonpermittingcenter.org/our-services/eservices>

PROJECT STATUS



Check the status of your plan review or building inspection

Check Plan Comments

Schedule Inspection or Check Results

Project Status
(Check Plan Review Status & Schedule Inspection)

SOLD PERMITS SEARCH



Search for permits sold over a rolling 3-year period or search by council district

Search the last 3 years

Search by council district

Permits Search

FEE CALCULATOR



Estimate the building permit fee for your project

Commercial project

Residential project

Calculate Permit Fees

CONTACT US OR VISIT US ONLINE

- **General Information**

832-394-9494

rmcacd@houstontx.gov

- **Residential Plan Review**

832-394-8820

Residential.Planreview@houstontx.gov

- **One Stop Plan Review**

832-394-8820

OneStop.PlanReview@houstontx.gov

- **Planning**

832-394-9091

pd.siteplanreview@houstontx.gov

- **Taps and Meters**

832-394-8888

taptechs@houstontx.gov

- **To Schedule Inspections via IVR**

713-222-9922

- **Open Records**

832-394-8800

HPC.OpenRecords@houstontx.gov



- **Building Code Enforcement:**

www.houstonpermittingcenter.org/building-code-enforcement.html

- **Permits/Inspections/Plan Review**

<https://www.houstonpermittingcenter.org/our-services/eservices>

- **Planning & Development** www.houstontx.gov/planning

- **Houston Fire Department**

www.houstontx.gov/fire

- **General Information**

www.houstontx.gov/311

- **Flood Maps**

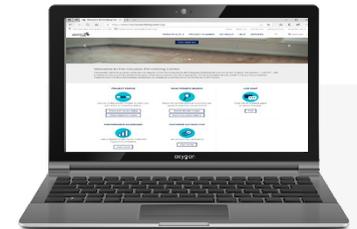
www.tsarp.org

- **Houston Public Works Main Webpage**

www.publicworks.houstontx.gov/home

- **City of Houston Main Webpage**

www.houstontx.gov



thank you!



houstonpublicworks.org

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