Session 3
Permits/Construction
Welcome and Introductions
Session 3 - Permits

- Engineering & Mobility department permits – Grading/Floodplain Development /Construction Release/
- Planning Department Environmental Permits & Submittals – Tree Preservation/Removal. Geological Assessment, Inventory of Natural Features
- Permitting and Code Compliance department permits – Types/Applications
- Utility department - Trunk Main Reimbursement/Impact Fees/Service Applications/Oversize
- Public Inspections & Final Acceptance
- Private Inspections & C of O
- Commons Development Issues
- Final Review
Engineering Permits
Grading Permit

- Created with initial UDC. Allows “early” grading of site before other permits are issued
- Required for grading activity of 0.1 acres or more
- Allows: erosion controls, mass grading, detention and LID
- Does NOT allow: Paving, flatwork, structures (retaining walls), or utility installation
- Applies to City Limits only
- Application/approval after Infrastructure Documents LOC approval
- Current Fees
  - $260 + $25 per acre
ENGINEERING PERMITS

Grading Permit

Application Requirements

• Approval of LOC or recorded plat
• Construction plans (including detention/LID)
• Drainage Study
• Tree Preservation Plan
• Tree Removal Permit
• TCEQ Notice of Intent (5+ acres)
• Floodplain Permit

*Pay for permit prior to issuance
Floodplain Development Permit

• Required for any construction activity within 100 feet of:
  • FEMA 1% annual chance floodplain
  • SARA modeled 1% annual chance floodplain (adopted by City as best available information)
  • Local floodplains
  • Applies to City Limits only (Kendall County is floodplain administrator in ETJ)

• Current Fees
  • Individual residential lot - $80
  • All other permits - $260
Floodplain Development Permit

Application requirements

• Floodplain permit application
  • Base Flood Elevation & Finished Floor Elevations
• Construction plans
• Drainage study
• FEMA approval of CLOMR/LOMR, if applicable
• Elevation Certificate (submitted with the floodplain development permit, form survey, and prior to CofO)

*Pay for permit prior to issuance
Construction Release Permit

• Required for construction of public infrastructure required by platting
• Pre-construction meeting required
• Final plat must be approved prior to pre-construction meeting
• Current Fees
  • $520 + $25/acre or lot, whichever is greater
  • Inspection fee – 1% of OPC
Construction Release Permit

Submittal Requirements
- TCEQ Notice of Intent (5+ acres)
- Opinion of Probable Cost
- Tree Removal Permit
- Floodplain Development Permit, if applicable
- TxDOT Permits (driveway or utility), if applicable
- County approval, if within ETJ

*Pay for permit prior to issuance
Environmental Submittals & Permits

Ryan Bass
Land Study

- Tree Survey
- Inventory of Natural Features Memo
- Geological Assessment
- Habitat Assessment
Environmental Permits

Tree Preservation

- UDC Section 8.3
- Tree Preservation Plans
- Preservation Rates
- Mitigation Requirements
- Tree Removal Permits
Environmental Permits

Tree Preservation

- Cumulative Effect of Tree Removal and Canopy Loss
- Tree Ordinance is Designed to Encourage Preservation of Existing Trees
Environmental Permits

Tree Preservation

- Loss of Overstory = Heat Islands
- Oak Wilt
- Preserve > Plant > Pay
Environmental Permits

Tree Preservation

- Loss of Overstory = Heat Islands
- Oak Wilt
- Preserve > Plant > Pay
Tree Preservation

Preservation Rates

- Residential: Standard / Legacy = 35%
- Residential: Heritage = 100%
- Commercial: Standard / Legacy = 40%
- Commercial: Heritage = 100%
Environmental Permits

Tree Preservation

**Drainageway Protection Zone 1**

(a) Standard Trees – 100% shall be preserved  
(b) Legacy trees – 100% shall be preserved  
(c) Heritage trees – 100% shall be preserved

**Drainageway Protection Zone 2 and the Water Supply Protection Zone**

(a) Standard trees – 50% shall be preserved  
(b) Legacy trees – 80% shall be preserved  
(c) Heritage trees – 100% shall be preserved
Environmental Permits

Mitigation for Tree Removal

- Mitigation Methods

<table>
<thead>
<tr>
<th>Tree Classification</th>
<th>Tree Diameter Removed (DBH)</th>
<th>Tree Planting: Aggregate TC in inches of trees removed</th>
<th>Mitigation Fee per inch (TC) of tree removed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standard</td>
<td>8.0”-11.9”</td>
<td>1:1</td>
<td>$50</td>
</tr>
<tr>
<td>Legacy</td>
<td>12.0”-23.9”</td>
<td>1.5:1</td>
<td>$100</td>
</tr>
<tr>
<td>Heritage</td>
<td>&gt;24.0”</td>
<td>3:1</td>
<td>$200</td>
</tr>
</tbody>
</table>

Table Mitigation methods for tree removal within DPZ.

<table>
<thead>
<tr>
<th>Tree Classification</th>
<th>Tree Diameter Removed (DBH)</th>
<th>Tree Planting: Aggregate TC in inches of trees removed</th>
<th>Mitigation Fee per inch (TC) of tree removed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standard</td>
<td>8.0”-11.9”</td>
<td>1:1</td>
<td>$100</td>
</tr>
<tr>
<td>Legacy</td>
<td>12.0”-23.9”</td>
<td>2:1</td>
<td>$200</td>
</tr>
<tr>
<td>Heritage</td>
<td>24.0” or larger</td>
<td>3:1</td>
<td>$400</td>
</tr>
</tbody>
</table>
## Mitigation for Tree Removal

### Environmental Permits

<table>
<thead>
<tr>
<th>Onsite</th>
<th>Class</th>
<th>Total</th>
<th>Preserve</th>
<th>Remove</th>
<th>Requirement</th>
<th>Preservation Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Standard/Legacy</td>
<td>10</td>
<td>3</td>
<td>7</td>
<td>40.0%</td>
<td>30.0%</td>
</tr>
<tr>
<td></td>
<td>Heritage</td>
<td>10</td>
<td>8</td>
<td>2</td>
<td>100.0%</td>
<td>80.0%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Preservation Deficit by Class</th>
<th>Trees</th>
<th>DBH</th>
<th>TC</th>
<th>Mitigation Provided (TC)</th>
<th>Mitigation Total (TC)</th>
<th>Rate</th>
<th>Subtotal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standard Trees needed to meet 40%</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>$50.00</td>
<td>$0.00</td>
</tr>
<tr>
<td>Legacy Trees needed to meet 40%</td>
<td>1</td>
<td>18</td>
<td>57</td>
<td>0</td>
<td>57</td>
<td>$100.00</td>
<td>$5,654.70</td>
</tr>
<tr>
<td>Heritage Trees needed to meet 100%</td>
<td>2</td>
<td>60</td>
<td>188</td>
<td>0</td>
<td>188</td>
<td>$200.00</td>
<td>$37,698.00</td>
</tr>
</tbody>
</table>

**Total** $43,352.70
Building Permits
Site Development Permit

Options for Building Permits

1. Site Development Permit + Building Permit (building only)
   - Allows for onsite improvements (outside of the building) during construction of public improvements
   - Building Permit (building only) would be issued later once the public infrastructure is complete

2. Building Permit (building and site work)
   - Public infrastructure must be complete and accepted prior to issuance of building permit
Site Development Permit

- Allows construction of driveways, utility services, parking lots, private plumbing (outside of building), etc.
- Can apply concurrently with the initial plat submittal
- **SDP utility extensions NOT allowed to connect to CRP services stubs until CRP acceptance**
- Cannot be issued until plat is approved & recorded
- Current Fees
  - $250 + $25/acre or lot, whichever is greater
Site Development Permit

Submittal Requirements

• Construction plans
• Drainage study
• Traffic Study
• TCEQ Notice of Intent (5+ acres)
• Approval letters for utility design (other than the City of Boerne), if applicable
• TxDOT permits (driveway/utility), if applicable
Building Permits

Submittal documents:

- Any commercial demolition requires an asbestos survey
- TAS Registration Number
- Site Plan
- Geotech Study
- Foundation Plan
- Structural Plan includes IBC required design loads and any special inspection schedules
- Architectural Plan
- Illumination Plan & Specifications
- Energy Compliance with declared path meeting IECC 2021 modified to Zone 2
City of Boerne Utilities

- City of Boerne Utilities
  - Electric
  - Water
  - Reclaimed Water
  - Wastewater
  - Natural Gas

- Funding
  - Rates, NOT Taxes
  - General Fund Contributions
Impact Fees

- The City of Boerne assesses Impact Fees for new potable water and wastewater services
- Texas Local Government Code
  - Chapter 395
- COB Ordinance 2023-18
- Land Use Assumptions
- Capital Improvement Plan
- Rate Credits
- Fee/LUE
Utility Service Contract

- New Services
- Modified Services
  - Increase/Decrease
  - Relocate
  - Temporary On/Off
- Pre-design Meeting Required

<table>
<thead>
<tr>
<th>Electric</th>
<th>Potable Water</th>
<th>Sewer</th>
<th>Gas</th>
</tr>
</thead>
<tbody>
<tr>
<td>New/Increase Service (On/Off)</td>
<td>New/Increase Service (On/Off)</td>
<td>New/Increase Service (On/Off)</td>
<td>New/Increase Service (On/Off)</td>
</tr>
<tr>
<td>Temporary Service</td>
<td>New/Increase Service (On/Off)</td>
<td>New/Increase Service (On/Off)</td>
<td>New/Increase Service (On/Off)</td>
</tr>
<tr>
<td>Relocate Service</td>
<td>Relocate Service</td>
<td>Relocate Service</td>
<td>Relocate Service</td>
</tr>
<tr>
<td>Remove Service</td>
<td>Remove Service</td>
<td>Remove Service</td>
<td>Remove Service</td>
</tr>
<tr>
<td>Primary Extension</td>
<td>Primary Extension</td>
<td>Primary Extension</td>
<td>Primary Extension</td>
</tr>
<tr>
<td>Meters/Sources Per</td>
<td>Meters/Sources Per</td>
<td>Meters/Sources Per</td>
<td>Meters/Sources Per</td>
</tr>
</tbody>
</table>

- Pre-design Meeting Required

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*Note: This is a partial representation of the document content.*
City Oversize Request

- City of Boerne UDC 7.10(F-G)
  - Developer
    - Minimum Sizes OR,
    - As-Required if larger
  - City
    - Additional Capacity
    - Capital
    - Design
    - Performance Guarantee
- State Law
  - Requires Contract
Trunk Main Reimbursement

- City of Boerne UDC 7.10(H)
  - Developer Utility Extensions
  - EXTRA Capacity
  - Through unservice and unsubdivided area
  - Value per Acre/(cost minus City oversizing)
  - Developer submittal – City review
Inspections for Public Improvements & Final Acceptance
Inspections for Public Improvements

When is an Inspection Required?

• An inspection is required for the installation of any public infrastructure on residential or commercial projects within the city limits. Inspections must be scheduled at least 24 hours in advance. Certain inspections which interrupt utility service to customers may require up to two weeks notice for proper coordination.

How do I schedule an Inspection?

• To schedule an inspection, call the City of Boerne Engineering and Mobility office at (830) 248-1538. Provide the project name, project location and type of inspection service required.
Inspections for Public Improvements & Final Acceptance

Inspections for Public Improvements

CONSTRUCTION INSPECTION AND SPECIFICATIONS

Inspection Overview
A plan review by the city engineer ensures projects meet compliance with city construction specifications and city ordinance. From pre-development to pre-construction to final acceptance, the Engineering and Mobility Department will work to ensure projects are constructed safely and responsibly.

When is an Inspection Required?
An inspection is required for the installation of any public infrastructure on residential or commercial projects within the city limits. Inspections must be scheduled at least 24 hours in advance. Certain inspections which interrupt utility service to customers may require up to two weeks notice for proper coordination.

How do I schedule an Inspection?
To schedule an inspection, call the City of Boerne Engineering and Mobility office at (830) 248-1536. Provide the project name, project location and type of inspection service required.

Inspection Resources
- City of Boerne Standard Specifications for Public Works Construction
- Construction Inspection FAQ
- Process for Final Acceptance of Public Infrastructure
- Subdivision Infrastructure Completion Checklist
- City of Boerne General Construction Notes
Inspections for Public Improvements & Final Acceptance

Final Acceptance

Submittal requirements

• Substantial completion checklist signed by E&M
• Plan of Record (including electric)
• AutoCAD drawing (single file with linework)
• Certified construction costs (signed and sealed)
• Warranty bond (20% of certified construction costs)*
• Letter of certification (Professional Engineer)
• Lot grading certification (Professional Engineer)
Submittal requirements (continued)

- Letter of certification for property pins (Licensed Surveyor)
- Maintenance schedule for drainage facilities
- Release of Lien or Affidavit as to Debts and Liens*
- Payment of outstanding review/inspection fees
- Completion notices sent to TCEQ

*City has standard forms – other forms can be used but subject to review fee/time from City Attorney
Inspections for Private Improvements & Certificate of Occupancy (CofO)
Inspections for Private Improvements & Certificate of Occupancy (CofO)

Inspections for Private Improvements

• Required inspections per IBC 110.3

• All inspections are arranged through the online portal for SmartGov at https://ci-boerne-tx.smartgovcommunity.com/Public/Home

• Plumbing rough-in

• Form board survey

• Pre-pour inspection includes electrical slab bond.

• Framing inspection with MEP and plumbing top out.

• Energy reporting prepared by and signed by the design professional

• All required special inspections by 3rd party inspectors.

• Final Fire Inspections as required by the Fire Marshal’s office.

• Building Final
Certificate of Occupancy

After the acceptance of Engineering and Utility departments and successful completion of the Final Fire Inspection and the Final Building inspections a Certificate of Occupancy will be issued through the Code Enforcement Office.

Temporary C of O’s are discouraged but will be considered in limited circumstances providing the building or portions of the building can be occupied safely with conditions and a specific time period for which the temporary certificate is valid.
Common Development Issues
Planning

- Submittal of incomplete application
- Address all comments; ask questions if uncertain
- Communicate Intentions with staff
- Complete recordation info
- No internal QA/QC review
Common Development Issues

Design of Public Improvements

- Design prepared for city/utility rules other than City of Boerne
- Incomplete construction plans
  - Primary electric design is responsibility of development design team, NOT the utility
- Not addressing comments, same comments on every project.
- Development engineers submitting preliminary plans or plans without QA/QC review.
Public Construction

• Materials arriving on job-site without prior approval.
• Materials being installed that do not match the approved submittals
• Wrong geotechnical density testing method, ASTM D1557 is correct
• Incorrect concrete mix
• No field changes allowed to engineered designs
• No-show/not ready for inspections
• Revegetation
Questions/Final Review