

# ∞ COMPLETENESS CHECK REVIEW GUIDELINES ∞

## Construction Plan – B & D Site Plans

### Site Plan Review

- Correct type of application for proposed project
- Zoning application needed (in city limits only – check conduit. overlay)
- Legal description, and Land Status Report if applicable
- Legal description on plan matches tax certificate (unless tax exempt)
- Boundary lines with bearings and dimensions
- Demolitions referred to Historic Preservation Officer (in city limits)
- Airport Hazard Area
- Small project?
- Correct tax plats (not required for small projects) - current & to scale

### Water Quality and Drainage Construction Review

- Engineer's seal (w/o qualifiers), signature & date on all unbound sheets & front page of bound documents containing engineering work
- Recorded Final Plat (or concurrent submittal) or legal tract determination (subdivisions only; site planner checks site plans)
- Engineer's project summary letter (signed, sealed and dated by P.E.)
- Discussion of compliance with 2-year peak flow control and water quality requirements
- Provision (or formal request to Watershed Engineering Division for RSMP or waiver) for flood control compliance
- Standard details from application packet
- Private and public roadways - layout and geometric data
- Floodplain delineations and drainage easements (or ROW) for fully developed condition flows
- Drainage area map (off-site and on-site) with flow patterns
- Drainage/2-year peak flow control/water quality study with hydrologic & hydraulic data for associated infrastructure
- Detailed drainage/2-year peak flow control/ water quality plan and physical data (existing and proposed) for associated infrastructure
- Access, operation and maintenance easements for flood, 2-year peak flow control and water quality controls
- Drainage layout map with drainage system layout
- Street and drainage plans with station and elevation
- Street and drainage profiles with support data
- Detention pond and standard details

### FEMA Floodplain Review

- Floodplain note on the cover page with correct FEMA FIRM Panel number and revision letter (suffix), as well as correct effective date

## **Construction Plan (B Site Plans and D Site Plans) continued**

- Lowest Finished Floor Elevation (FFE) on all proposed structures in relation to Mean Sea Level (MSL) (regardless of whether or not proposed structure is in the floodplain) (see Building Criteria Manual Ch. 58, Art. 8, C. 1. A.)
- FEMA 100-year floodplain is clearly delineated
- Do the topographic lines indicate a defined channel on or near the site? If so, have they dedicated an easement (with easement document note) for this channel if the drainage area is less than 64 acres? If the drainage study is greater than 64 acres, have they provided a floodplain study?
- If there's parking in the fully developed 100-year floodplain, is the average depth less than eight inches and the greatest depth no more than twelve inches? (see DCM 25-7-95)
- No development in the fully developed 25-year floodplain (see DCM 25-7-92)

## **Environmental Review**

- Chapter 245 determination
  - Identify variances - 25-8-41, 42, 43
  - Erosion sedimentation control plan – 25-8-181
  - Tree protection plan – 25-8-604
  - Tree survey for trees over 8" – 25-8-604
  - Slope map (except in urban watersheds) – 25-8-301
  - Grading plan – 25-8-181
  - Appendix Q1/Q2 – 25-8-62, 63
  - Critical Environmental Features identified – 25-8-281
  - All trenching in the Recharge Zone that is greater than (5') five feet deep requires inspection by a geologist, per the Void and Water Flow Mitigation Rule
  - Environmental Resource Inventory (if required by code) – 25-8-121
- Add the ERI if any of the following conditions exist:
- Over the recharge zone
  - Over the contributing zone
  - With a gradient of more than 15%
  - In a floodplain
  - In a CWQZ
  - In a WQTZ

*Please provide an ERI that meets the criteria described in LDC 25-8-121 to 125 and ECM 1.3.0*

- Engineer's report - Application
- Landscape plans, Appendix C, notes and details
- Plat notes – ECM Appendix P
- CWQZ/WQTZ and 100 year floodplains delineated – 25-8-92, 93
- Watershed status and standard notes - Application
- Restrictive covenants - Application
- Storm Water Pollution Prevention Plan (if over 1 acre LOC and if infrastructure is proposed) – ECM 1.4.0

## **Construction Plan (B Site Plans and D Site Plans) continued**

### **Transportation Review**

- TXDOT station numbers (if access is proposed to State highway)
- Sidewalks (if required on plat)

### **Austin Water Utility General Requirements**

- Add a copy of the W/WW Service Extension Request to the cover sheet. A completed and signed SER is not necessary for completeness check. However, an application should have been submitted.
- Pressure Zone and Service Extension Number are required on cover sheet.
- A general location map (Showing Grid number & Mapsco Page number)
- Standard and updated Austin Water Utility construction notes. **(See attachment at end of this document)**
- Size, pipe material and location of main with respect to the easements and rights-of way.
- Location, size and material of all existing water and wastewater mains, lines and services.
- Indicate wastewater flow direction on all plan views for both existing and proposed wastewater mains.
- Location, size and description of other utilities where they may conflict with water or wastewater mains or other service lines.
- If new force mains or lift stations are part of the plans, an additional set of the plans and an engineer's report, in accordance to chapter 217 of the TCEQ rules, shall be submitted to 625 E. 10<sup>th</sup> St., Suite 400, Austin, Texas. Review by the Facility Engineering Division will be concurrent to the Pipeline Engineering review.

### **AWU Water System Check List**

All plan view drawings shall include all applicable items listed in the General Requirements above plus the following items:

- Stations of all proposed connections to existing or proposed water mains. Provide water ID numbers and water intersection numbers at all water connection points.
- Calculated design pressure at highest and lowest lot served and provide fire flow demand in gpm per the International Fire Code (Show information on Cover Sheet).
- Retaining walls, including geo-grid, straps, tie-backs and all other components.

All profile views shall be provided for all water mains (identify and public or private); it shall show all applicable items listed in the General Requirements plus the following items:

- The existing ground profile and proposed street finish grade or subgrade.
- Station numbers and elevations of all utility crossings.
- Identify pipe size, percent grade and pipe material to be used including ASTM and/or AWWA designation. If an alternate material is to be allowed, both should be listed (example "D.I. Class 350 or 250 or DR14 C900 PVC").

## **Construction Plan (B Site Plans and D Site Plans) continued**

- Station numbers and elevations for starting points, ending points, point of intersection, grade breaks, valves, fire hydrants, air release valves, pressure/flow regulating valves and at intermediate points every 100 feet.
- Retaining walls, including geo-grid, straps, tie-backs and all other components.

### **AWU Wastewater System Check List**

All plan view drawings shall include all applicable items listed in the General Requirements mentioned above plus the following items:

- Station numbers at all proposed connections to existing or proposed wastewater mains.
- Provide manhole ID numbers and profile numbers or City Job numbers at all wastewater connection points.
- The location, alignment and structural features of the wastewater main, including manholes and concrete retards, if applicable.
- Station numbers for beginning points, ending points, manholes, clean-outs and other appurtenances.
- Location of all existing and proposed wastewater services, mains and manholes.
- Retaining walls, including geo-grid, straps, tie-backs and all other components.

A profile view shall be provided for all wastewater mains (identify and public or private) and shall include all applicable items listed in the general requirements above plus the following items:

- The existing ground profile and proposed street finish grade or subgrade or finished grade if not under pavement.
- Station numbers and elevations of all utility crossings.
- Identify the pipe size, percent grade and pipe material to be used including ASTM and/or AWWA designation. If an alternate material is to be allowed, both should be listed (example "DI class 350 or SDR 26 PVC").
- Station numbers and elevations for starting points, ending points, manholes, clean-outs and at intermediate points every 100 feet.
- Elevations shall be indicated on the profile showing the finish floor elevations of all existing structures. If the structure has an active septic tank or other disposal system, the flow line elevation of the plumbing where it exits from the structure is to be indicated. If a lot or tract is vacant, side shots may be required from the middle of each lot to ensure gravity service is possible from the lot to the main.
- Design flows, minimum and maximum, and flow velocities at minimum and maximum dry weather flows.
- Retaining walls, including geo-grid, straps, tie-backs and all other components.
- Culverts, bridges and other drainage structures.

### **Austin Energy**

- Show standard Austin Energy notes (See attachment at end of this document)
- Show existing electric facilities

## **Construction Plan (B Site Plans and D Site Plans) continued**

### **Right-of-Way Management**

- Required TCP Details: Appropriate 804s series
- Lane Closures and Flagging
- Sidewalk affected
- Devices
  - Cones
  - Barricades
  - Signs
- Work area protection
  - Temporary Paving (1100s4 series)
  - Steel Plates (or backfill each day)
  - Fencing
  - Material and Equipment Storage
- Covered Walkways for all overhead activities
- Stabilized Const. Entrance
- Detours
- General Notes

\*If an engineered Traffic Control Plan (T.C.P.) is not provided, work specific details must be called out in the plan view.

- Other Considerations (FYI'S):
  - AULCC clearance for all utility extensions over 300' outside DAPCZ and over 25' in DAPCZ
  - Parking
    - Utilizing public parking (metered spaces)
  - Restoration
    - Asphalt/Pavement (1100s series details)
    - Sidewalk (sidewalk repair details)
    - Driveways ( appropriate 400s series)
    - Curb Repair (appropriate 400s series)
    - Pipe installation and Trench Repair
    - Pavement Marking
- Show standard Austin Energy notes (See attachment at end of this document)

## Austin Energy

- **AUSTIN ENERGY STANDARD NOTES**

- EL. ADD THE FOLLOWING NOTE:
  - Austin Energy has the right to prune and/or remove trees, shrubbery and other obstructions to the extent necessary to keep the easements clear. Austin Energy will perform all tree work in compliance with Chapter 25-8, Subchapter B of the City of Austin Land Development Code.
- EL. ADD THE FOLLOWING NOTE:
  - The owner/developer of this subdivision/lot shall provide Austin Energy with any easement and/or access required, in addition to those indicated, for the installation and ongoing maintenance of overhead and underground electric facilities. These easements and/or access are required to provide electric service to the building and will not be located so as to cause the site to be out of compliance with Chapter 25-8 of the City of Austin Land Development Code.
- EL. ADD THE FOLLOWING NOTE:
  - The owner shall be responsible for installation of temporary erosion control, revegetation and tree protection. In addition, the owner shall be responsible for any initial tree pruning and tree removal that is within ten feet of the center line of the proposed overhead electrical facilities designed to provide electric service to this project. The owner shall include Austin Energy's work within the limits of construction for this project.
- EL. ADD THE FOLLOWING NOTE:
  - The owner of the property is responsible for maintaining clearances required by the National Electric Safety Code, Occupational Safety and Health Administration (OSHA) regulations, City of Austin rules and regulations and Texas state laws pertaining to clearances when working in close proximity to overhead power lines and equipment. Austin Energy will not render electric service unless required clearances are maintained. All costs incurred because of failure to comply with the required clearances will be charged to the owner.

## **AUSTIN WATER UTILITY GENERAL CONSTRUCTION NOTES**

**August 21, 2013**

1. **THE CITY STANDARD CONSTRUCTION SPECIFICATIONS CURRENT AT THE TIME OF BIDDING SHALL COVER MATERIAL AND METHODS USED TO DO THIS WORK.**
2. **CONTRACTOR MUST OBTAIN A STREET CUT PERMIT FROM WATERSHED PROTECTION AND DEVELOPMENT REVIEW DEPARTMENT, RIGHT OF WAY MANAGEMENT DIVISION BEFORE BEGINNING CONSTRUCTION WITHIN THE RIGHT-OF-WAY OF A PUBLIC STREET OR ALLEY.**
3. **AT LEAST 48 HOURS BEFORE BEGINNING ANY WATER AND WASTEWATER CONSTRUCTION IN PUBLIC R.O.W. OR PUBLIC EASEMENT, THE CONTRACTOR SHALL NOTIFY WATERSHED PROTECTION AND DEVELOPMENT REVIEW INSPECTION OR WATER AND WASTEWATER UTILITY TAPS INSPECTION AT THE NUMBER INDICATED ON THE PLANS BY THE AWU PLAN REVIEWER.**
4. **THE CONTRACTOR SHALL CONTACT THE AUSTIN AREA "ONE CALL" SYSTEM AT 1-800-344-8377 FOR EXISTING UTILITY LOCATIONS PRIOR TO ANY EXCAVATION IN ADVANCE OF CONSTRUCTION. THE CONTRACTOR SHALL VERIFY THE LOCATIONS OF ALL UTILITIES TO BE EXTENDED, TIED TO, OR ALTERED, OR SUBJECT TO DAMAGE/INCONVENIENCE BY THE CONSTRUCTION OPERATIONS. THE CITY OF AUSTIN WATER AND WASTEWATER MAINTENANCE RESPONSIBILITY ENDS AT R.O.W./EASEMENT LINES.**
5. **NO OTHER UTILITY SERVICE/APPURTENANCES SHALL BE PLACED NEAR THE PROPERTY LINE, OR OTHER ASSIGNED LOCATION DESIGNATED FOR WATER AND WASTEWATER UTILITY SERVICE THAT WOULD INTERFERE WITH THE WATER AND WASTEWATER SERVICES.**
6. **THE CITY SPECIFICATION ITEM 509S WILL BE REQUIRED AS A MINIMUM TRENCH SAFETY MEASURE.**
7. **ALL MATERIALS TESTS, INCLUDING SOIL DENSITY TESTS AND DETAILED SOIL ANALYSES, SHALL BE CONDUCTED BY AN INDEPENDENT LABORATORY AND FUNDED BY THE OWNER IN ACCORDANCE WITH CITY STANDARD SPECIFICATION ITEM 1804S.04.**
8. **PRESSURE TAPS SHALL BE IN ACCORDANCE WITH CITY STANDARD SPECIFICATION ITEM 510.3(24). THE CONTRACTOR SHALL PERFORM EXCAVATION ETC., AND SHALL FURNISH, INSTALL AND AIR TEST THE SLEEVE AND VALVE. WHEN CONTRACTORS MAKE THE TAP A CITY INSPECTOR MUST BE PRESENT AND 2 WORKING DAYS (MIN.) NOTICE MUST BE GIVEN. "SIZE ON SIZE" TAPS WILL NOT BE PERMITTED, UNLESS, IT HAS BEEN DEMONSTRATED THAT A MORE ACCEPTABLE CONNECTION WOULD INVOLVE CONSIDERABLE HARDSHIP TO THE UTILITY SYSTEM. ALL TAPS SHALL BE MADE BY USE OF AN APPROVED FULL CIRCLE-GASKETED CAST IRON OR DUCTILE IRON TAPPING SLEEVE. CONCRETE BLOCKING SHALL BE PLACED UNDER ALL TAP SLEEVES PRIOR TO MAKING THE PRESSURE TAP AND THE USE OF PRECAST BLOCKS MAY BE USED TO HOLD THE TAP IN ITS CORRECT POSITION PRIOR TO BLOCKING. THE BLOCKING BEHIND AND UNDER THE TAP SHALL HAVE A MINIMUM OF 24 HOURS CURING TIME BEFORE THE VALVE CAN BE RE-OPENED FOR SERVICE FROM THAT TAP.**
9. **THRUST RESTRAINT SHALL BE IN ACCORDANCE WITH CITY STANDARD SPECIFICATION ITEM 510.3 (22).**
10. **ALL BRANCH CONNECTIONS SHALL HAVE THE VALVE BOLTED TO THE MAIN BY METHODS OF FLANGE OR SWIVEL TEES. FOSTER ADAPTORS MAY BE USED IN LIEU OF FLANGE OR SWIVEL TEES WHEN CALLED OUT ON THE PLANS BY THE DESIGN ENGINEER.**

11. A). FIRE HYDRANTS SHALL BE SET IN ACCORDANCE WITH CITY STANDARD SPECIFICATION ITEM 511S.4 B). FIRE HYDRANTS SHALL BE PAINTED FLYNT ALUMINUM OR EQUAL.
12. WATER LINE TESTING AND STERILIZATION SHALL BE PERFORMED IN ACCORDANCE WITH CITY STANDARD SPECIFICATION ITEMS 510.3 (27)-(29). FORCE MAIN PRESSURE TESTING SHALL BE CONDUCTED AND FALL UNDER THE SPECIFICATIONS AS WATER LINES (PRESSURE PIPE) OR AT THE PRESSURES SHOWN ON THE APPROVED PLANS.
13. ALL MATERIAL USED ON THIS PROJECT MUST BE LISTED ON THE STANDARD PRODUCTS LISTING. ANY MATERIAL NOT LISTED HAS TO GO THROUGH THE REVIEW OF THE STANDARDS COMMITTEE FOR REVIEW AND APPROVAL PRIOR TO START OF PROJECT. TESTING AND EVALUATION OF PRODUCTS ARE REQUIRED BEFORE APPROVAL WILL BE GIVEN ANY CONSIDERATION.
14. WHEN WATER SERVICES ARE DAMAGED AND THE SERVICE MATERIAL IS PE, THE LINE SHALL BE REPAIRED ONLY BY HEAT FUSION WELD OR REPLACED THE FULL LENGTH WITH TYPE K COPPER MATERIAL. ANY TIME PB IS DAMAGED OR TAMPERED WITH IN ANY WAY, THE SERVICE LINE SHALL BE REPLACED FULL LENGTH WITH TYPE K COPPER MATERIAL. NOTE: FULL LENGTH IS FROM CORPORATION STOP TO METER.
15. WHEN AN EXISTING WATERLINE SHUT OUT IS NECESSARY AND POSSIBLE, THE CONTRACTOR SHALL NOTIFY THE CONSTRUCTION INSPECTOR WHO WILL THEN NOTIFY THE AUSTIN WATER UTILITY DISPATCH AND THE AFFECTED CUSTOMERS A MINIMUM OF SEVENTY-TWO (72) HOURS IN ADVANCE.
16. THE CONTRACTOR SHALL NOTIFY THE CONSTRUCTION INSPECTOR SO THAT HE CAN NOTIFY THE AUSTIN WATER UTILITY AT 972--0000 AT A MINIMUM OF 72 HOURS PRIOR TO RELOCATING ANY DOMESTIC OR FIRE DEMAND WATER METERS. THE CONTRACTOR SHALL CAREFULLY REMOVE ALL METERS AND METERS BOXES THAT ARE INDICATED TO BE RELOCATED OR SALVAGED. THE CONTRACTOR SHALL INSTALL THE REMOVED METER OR CITY PROVIDED METER AT THE NEW LOCATION INDICATED ON THE CONSTRUCTION PLANS.
17. ALL MANHOLES IN UNPAVED AREAS PROVIDING DIRECT ACCESS TO A WASTEWATER LINE SHALL BE WATERTIGHT AND BEAR THE WORDING AND INSIGNIA FOR THE CITY OF AUSTIN.
18. THE CONTRACTOR SHALL VERIFY ALL VERTICAL AND HORIZONTAL LOCATIONS OF EXISTING UTILITIES PRIOR TO STARTING ONSITE UTILITY WORK.
19. ALL RESPONSIBILITY FOR THE ADEQUACY OF THESE PLANS REMAINS WITH THE ENGINEER WHO PREPARED THEM. APPROVAL OF THESE PLANS BY THE CITY OF AUSTIN DOES NOT REMOVE THESE RESPONSIBILITIES.
20. REVIEW BY THE AUSTIN WATER UTILITY APPLIES ONLY TO FACILITIES WITHIN PUBLIC STREETS OR PUBLIC UTILITY EASEMENTS. ALL OTHER WATER AND WASTEWATER FACILITIES INSIDE PRIVATE PROPERTY ARE UNDER THE JURISDICTION OF BUILDING INSPECTION.
21. ALL WATER AND WASTEWATER MAINS SHALL BE INSTALLED IN ACCORDANCE WITH THE SEPARATION DISTANCES INDICATED IN CHAPTER 290 – *DRINKING WATER STANDARDS*, AND CHAPTER 217 – *DESIGN CRITERIA FOR SEWAERAGE SYSTEMS*, OF TCEQ RULES.
22. CONTRACTOR'S PERSONNEL THAT PERFORM BUTT FUSION AND ELECTROFUSION ON OR TO HDPE PIPE AND FITTINGS MUST HAVE CURRENT QUALIFICATION TRAINING CERTIFICATE ISSUED BY MCELROY OR COMPARABLE TRAINING PROGRAM.
23. SHOP DRAWINGS SHALL BE SUBMITTED FOR AWU APPROVAL FOR LARGE DIAMETER PRE-CAST MANHOLES, JUNCTION BOXES, WET WELLS, AND SIMILAR STRUCTURES. THE SHOP DRAWINGS SHALL INCLUDE FLOWLINE ELEVATIONS OF ALL INCOMING AND OUTGOING PIPES, ELEVATION OF TRANSITION FROM LARGE DIAMETER SECTIONS TO 48" ID SECTION, TOP OF MANHOLE ELEVATION, SURROUNDING GROUND ELEVATION, AS WELL AS SPECIAL CONSTRUCTION CONSIDERATIONS THAT ARE SPECIFIED IN THE CONTRACT DRAWINGS.
24. VALVE STEM EXTENSIONS SHALL CONSIST OF A SINGLE PIECE OF IRON ROD OF THE REQUIRED LENGTH WITH A SOCKET ON ONE END AND NUT ON THE OTHER.
25. ASBESTOS CONCRETE PIPE (AC PIPE) HAS BEEN INSTALLED IN THE PAST AS PART OF AUSTIN WATER UTILITY'S WATER DISTRIBUTION AND WASTEWATER COLLECTION SYSTEMS. AUSTIN WATER UTILITY'S INFRASTRUCTURE INCLUDES AC PIPE THAT IS CURRENTLY IN SERVICE AS WELL

**AS AC PIPE THAT HAS BEEN ABANDONED AND IS NO LONGER IN SERVICE. RECORD INFORMATION MAY NOT BE COMPLETE IN YOUR PROJECT AREA. CONTRACTORS AND SUBCONTRACTORS MUST BE ALERT TO THE PRESENCE AC PIPE AND BE KNOWLEDGABLE OF HOW TO IDENTIFY IT. DISTURBANCE, REMOVAL OR CUTTING OF ASBESTOS CONTAINING PIPE IS TO BE CONDUCTED IN ACCORDANCE WITH THE REQUIREMENTS OF TEXAS ADMINISTRATIVE CODE 25, SECTION 15, ARTICLE 4477-3A AND 29 CFR 1926.1101. REFERENCE STANDARD SPECIFICATION SECTION 01901. CONTACT THE CITY OF AUSTIN ASBESTOS MANAGER AT 512-974-7154 THIRTY (30) DAYS PRIOR TO THE PLANNED DISTURBANCE OF THE AC PIPE. ONLY LICENSED PERSONNEL ARE PERMITTED TO DISTURB, REMOVE, TRANSPORT AND DISPOSE OF AC PIPE.**

DISCLAIMER: Due to the variety of applications and regulations being addressed during the completeness check review process, additional information may be required depending on the specifics of each application