PERMIT CENTER

RECORD CONSTRUCTION DOCUMENT PACKET

INFORMATIONAL BROCHURE

The attached information sheets provide the requirements for Record Construction Documents that are necessary prior to final development project acceptance by the City of Auburn. Reference to Record Construction Drawing and Document requirements are noted in the City of Auburn's "Design Standards" and "Construction Standards".

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RECORD CONSTRUCTION DOCUMENTS

The following requirements are intended to provide information necessary to furnish the City with satisfactory Record Construction Documents, final public utility easements, final Storm Drainage Report, and the final electronic drawing file:

1. The owner's engineer, surveyor, or general contractor shall be responsible for tracking all relevant field changes to the approved construction drawings. These changes shall be clearly identified in a comprehensive manner on one set of City approved blue line drawings.

2. **Certified Record Construction Drawings** are to be provided by a representative of the owner/agent and shall accurately reflect all field design revisions made during the construction process. Each sheet shall include the following statement (note that signature block should be on original mylars ready to sign at project close-out) and the owner's agent must indicate in what capacity they are acting (contractor, surveyor, engineer) on behalf of the owner:

RECORD DRAWING CERTIFICATION

THESE DRAWINGS CONFORM TO THE CONTRACTOR'S CONSTRUCTION RECORDS.

BY:_____ DATE:_____

TITLE/POSITION:_____

CONFIRMED BY CITY _____ DATE:_____

3. All recorded changes shall be clearly reflected on the City approved mylar drawings. These record drawing revisions shall be consistent with the comprehensive red-line drawings provided from field records. Any change in this procedure must be approved by the City.

4. The Record Construction Drawings shall identify all existing or abandoned utilities that were encountered during construction that were not shown on the approved construction drawings.

5. A **final Storm Drainage Report** (2 copies) shall be submitted with record drawings. Note any design changes related to utility location, discharge rates, storage volumes, head changes, or infiltration rates. The following statement shall be on the cover sheet of the report and signed, sealed and dated by a registered professional engineer:

   This final storm drainage quantity/quality report conforms to the field conditions as shown on the Record Construction Documents.

6. The Engineer shall submit computer-aided design **(CAD) drawing files** of the project as specified below:

   A. FORMAT. Digital files shall be provided in AutoCAD 2006 or older ".DWG" format. All support files required to display or plot the files in the same manner as developed shall be delivered along with these files. Scanned hard copy drawings using raster-to-vector conversion will not be acceptable digital format.

   B. MEDIA. Digital files will be submitted on DOS/Windows compatible CD-ROM. Disks shall be clearly labeled with the project name, drawing name(s), name of the drafting/engineering company or individual(s), date, and appropriate City of Auburn identifiers (e.g., BLD#, FAC#, ect.).

C. SPATIAL REFERENCES. Drawings will be at full scale, and they will be accurately located in State Plane coordinates (Washington North zone) and tied to two City of Auburn horizontal control monuments. Datum will be noted on the drawings. As of January 1, 2002, survey control datum NAD83/91 shall be used for horizontal control and NAVD 88 for vertical control, for all drawings.

D. CONTENTS. The digital drawing files shall include, as a minimum:

- The overall project site plan showing new and existing construction, property lines, easements, and survey references;
- New and existing water, sanitary sewer, and storm drainage lines showing location, size, and material of utility lines and structures;
- Any special text font files used in the drawings that are not included in the standard AutoCAD library.
- **Separate layering showing existing impervious surfaces, new impervious surfaces, and annotation on the area of each. Layer features for impervious surfaces will be created from closed polylines to aid in verifying calculations of impervious surface area**.

E. DOCUMENTATION. A detailed list of drawing files with corresponding layers and layer descriptions will be submitted with the digital files. Layer names will conform to the following format for features specified below, and layer descriptions will provide further identifying information:

- Survey/parcel features: SV-[*]-[EXST/PROP]-[LIN/SYM/TXT/HAT]

  Where [*] = feature type, such as PRCL for parcel line, EASE for easement, DEED for deed, or SECT for section line; [EXST/PROP] = existing or proposed feature; [LIN/SYM/TXT/HAT] = line, symbol, text, or hatch feature.
- Impervious surface features: IM-[*]-[EXST/PROP]-[LIN/SYM/TXT/HAT]

  Where [*] = impervious feature type, such as CPAD for concrete pad, DWPK for driveway/parking, PVMT for pavement, BLDG for building, or PERM for other permanent structures; [EXST/PROP] = existing or proposed feature; [LIN/SYM/TXT/HAT] = line, symbol, text, or hatch feature.
- Utility features: UT-[*]-[EXST/PROP]-[LIN/SYM/TXT/HAT]

  Where [*] = utility feature type, such as WAMN for water main, FHYD for fire hydrant, VALV for water valve, SWMH for sewer manhole, or STCB for storm catch basin;; [EXST/PROP] = existing or proposed feature; [LIN/SYM/TXT/HAT] = line, symbol, text, or hatch feature.

The electronic CAD drawing files will be used by the City to calculate impervious surface quantities and selected features will also be extracted from the drawing files for incorporation into the City's GIS system. The electronic CAD drawing files will be retained as permanent documents, but will not be released to anyone without the express permission of the Engineer of Record. Final recorded changes shall be clearly reflected when Certified Record Construction Drawings are processed.

7. **Easement** locations shall be clearly noted on the final drawings. Prior to plan approval, public utility easements shall be prepared on forms provided by the City and shall include a certified legal description and utility map, prepared by a licensed land surveyor or P.E.

   The City shall also be notified of any changes to easement legals with the submittal of final Record Construction Drawings. The previously submitted easements shall then be corrected and processed for recording.

8. The final project approval shall not be processed until the City has received and approved the certified Record Construction Drawings including the final storm drainage report and applicable public utility easements and electronic drawing files.

The Record Construction Drawings shall identify, with red permanent ink, all deviations from the approved construction drawings as follows:

Site Work

Building footprint
Finished floor elevation to nearest 0.1 foot vertical
Water, sewer, storm drainage and water quality
Landscaping areas
Parking lots, driveways and roadways
Total impervious area indicated on front plan sheet

Sanitary Sewer

Manholes:

Type and size of structure
Location to the nearest 1 foot horizontal
Rim and invert elevations to the nearest 0.1 foot vertical
Pipe sizes to the nearest 1 inch inside diameter

Pipes:

Type of pipe
Location to the nearest 1 foot horizontal
Length between structures to the nearest 1 foot
Slopes based on invert elevations
Pipe sizes to the nearest 1 inch inside diameter

Side Sewers:

Type of pipe
Location from reference manhole downstream to the nearest 1 foot horizontal and consistent with the TV report
Length between structures to the nearest 1 foot
Slopes based on the constructed invert elevations
Invert elevations at right-of-way lines to the nearest 0.5 feet vertical

Storm Drainage

Manholes and Catch Basins:

Type and size of structure
Location to the nearest 1 foot horizontal
Rim and invert elevations to the nearest 0.1 foot vertical
Pipes sizes to the nearest 1 inch inside diameter

Pipes:

Type of pipe
Location to the nearest 1 foot horizontal
Length between structures to the nearest 1 foot
Slopes based on the constructed invert elevations
Pipes sizes to the nearest 1 inch inside diameter

Ditches:

Location to the nearest 1 foot horizontal
Invert elevations to nearest .5 vertical
Identify side slopes 2:1, 3:1, etc.
Describe ditch protection such as quarry spalls

Retention/Detention Systems:

Control structure and orifice sizing
Volume of storage provided
Storage and ponding limits
Overflow elevation and location
Roof drain connections
Bypass area
Permanent stabilization and erosion control

Water Quality Control System:

Bio-swale design width top and bottom, side slopes, and length to nearest 0.1 vertical and 0.5 foot horizontal
Final planting information
Oil/water separator size, model and location
Pipe sizes to nearest inch and 0.1 vertical and 0.5 horizontal.

Water

Pipes:

Type of pipe and type of joint (Mj, Flange, etc.)
Deflection of bends to the nearest 1 degree
Location to the nearest 1 foot horizontal
Location to the nearest 0.5 foot vertical between valves at 50 foot stations and intersections with other utilities
Length between valves to the nearest 1 foot
Pipes sizes to the nearest 1 inch inside diameter

Valves, Hydrants, Blowoffs, air vacs., plugs, caps, tees, crosses, and PRV's:

Type of facility
Location to the nearest 1 foot horizontal

Meters and services:

Size of service and type of material
Location of service line to the nearest 1 foot horizontal
Meter location to the nearest 1 foot horizontal
Meter sizes to the nearest 1/4 inch in diameter

Public Streets

Roadway Section:

Final roadway pavement material section to nearest 0.1 vertical
Centerline elevations to the nearest 0.1 foot vertical at 100 foot stations
Centerline slopes and vertical curve data based on the constructed centerline elevations
Gutterline elevations to the nearest 0.1 foot vertical (if not a standard crown section)
Gutterline slopes and vertical curve data based on the constructed gutterline elevations (if not a standard crown section)
Type and location of monuments

Driveways and sidewalks:

Type of driveway (commercial or residential)
Centerline driveway location to the nearest 1 foot horizontal
Driveway and sidewalk width to the nearest 1 foot horizontal

Channelization:

Traffic islands shown and identified as raised median or painted
Show stop bars, turn arrows, start and end of tapers
Type of buttons, reflector, and curbs
General layout location to the nearest 1 foot horizontal

Signing:

Type and location of signs to the nearest 1 foot horizontal

Illumination:

Location and wattage of luminaries, junction boxes, and service cabinets to the nearest 1 foot horizontal
Mounting height of luminaire to nearest 1 foot vertical

Signalization:

Location of signal poles, detection loops, junction boxes, service cabinets, and controller cabinets to the nearest 1 foot horizontal
Location and type of vehicle signal head (3 section, 5 section, optically programmed) and pedestrian signal head to nearest foot horizontal
Location of pre-emption detector to nearest foot horizontal