

CHAPTER 7

AS-BUILTS RECORD DRAWINGS

7.0 GENERAL

- A. Sanitary sewer, storm sewer and water main record drawings shall be prepared by the inspecting engineer and submitted to the City Engineer for approval.
- B. Grading and drainage record drawings, water quality and quantity including panels shall be prepared by the developer's design engineer and submitted to the City Engineer for approval.
- C. All as-builts shall conform to horizontal datum based on the Wisconsin State Plane coordinate system grid, south zone and all bearings are referred to grid north. All vertical datum shall be based on mean sea level, 1929 adjustment.

7.1 SANITARY SEWER RECORD DRAWINGS

- A. Sanitary sewer record drawings shall be done in accordance with MMSD rules and regulations.
- B. Five prints of the as-builts shall be submitted to the City of Franklin for approval. The City of Franklin will forward copies to MMSD for approval.

7.2 WATER MAIN RECORD DRAWINGS

Water main record drawings shall include the following:

- A. Shall be done at the same scale as sewer as-builts. 1" = 40' (Mylar prints of construction plans are generally used.)
- B. All appurtenances shown. Two ties to all above ground improvements (valves, hydrants, stop boxes).
- C. Main type location and size.
- D. Lateral type, location and size.
- E. Hydrant type, location and size.
- F. Fitting type, location, size and elevation on top of northwest flange bolt.
- G. Lateral lengths.
- H. Name of contractor, date construction completed.
- I. Subdivision lot numbers, consistent.
- J. Street name.

- K. Edge of pavement and right-of-way.
- L. Existing sanitary sewer (half tone).
- M. Existing storm sewer (half tone).
- N. Inspector's name, firm.
Adjoining file numbers.
- O. Location of mainline off of right-of-way, centerline or another utility.
- P. Existing water main easement (if applicable).
- Q. Elevation of top of main at stub end.
- R. **Submit a separate table of data (i.e. MS Excel Spreadsheet) with the GPS collected survey data in accordance with 5.0.5.**

7.3 STORM SEWER RECORD DRAWINGS

Storm sewer record drawings shall include the following:

- A. Shall be done at same scale as sanitary sewer and water main as-builts - 1" = 40'. (Mylar prints of construction plans are generally used).
- B. All appurtenances relating to storm sewer.
- C. Main type, size, location and length.
- D. Sump line type, size, clean-outs and lateral locations (if applicable).
- E. Inlets, manholes, type of construction.
- F. Rim elevations and invert elevations at all manholes/inlets.
- G. Subdivision lot numbers consistent with final plat.
- H. Edge of pavement, right-of-way.
- I. Street name.
- J. Name of contractor, date construction was complete.
- K. Name of inspector, firm.
- L. Subdivision name.
- M. Storm sewer easements and widths.

7.4 GRADING AND DRAINAGE RECORD DRAWINGS

After grading is completed, the developer engineer's shall provide a grading record drawing to verify conformance with the

approved grading plan. The drawing shall consist of the following:

- A. Use approved grading plan as the base sheet. Denote "record drawing" in bold letters at the top and specify the firm doing the as-built. Cross out the name of the design firm if different than firm doing record drawings.
- B. Spot elevations at all property corners to the nearest tenth of a foot.
- C. Spot elevations in side yard swales between lots to the nearest tenth of a foot.
- D. Crossroad culvert invert elevations to the nearest hundredth of a foot.
- E. Flowline ditch elevations at every even station to the nearest tenth of a foot.
- F. Berm elevations to the nearest tenth of a foot.
- G. Spot elevations at all high and low points to the nearest tenth of a foot.
- H. Verify topographic lines as directed by the City Engineer.
- I. Certification grades shown on lot corners or lot lines shall be no less than 0.40 ft. lower than final grades shown on approved master grading plan or higher than 0.10 ft. higher than final grades shown on approved master grading plan.
- J. Certification for house pad grade/grades shall be between 0.00 ft. and 2.00 ft. lower than final grade shown on approved master grading plan.
- K. Certification grades of top of curb shown at side lot lines extended to the curb.
- L. As-built grades of concrete walks at side lot line extended to walk.
- M. Concrete curb and gutter and walk grades will be considered acceptable if certified elevations are within .10 ft. of design elevations.
- N. Grading certification shall include water retention and detention ponds, water quality ponds and temporary sedimentation basins. Dimensions shall be given on the certification plan. They shall show the length and width of berms, pond bottoms, spillways and safety shelves. Elevations shall be given in a minimum of 50 ft. grid starting at the outside toe of the berms or if berms are not shown, the grid shall start at the point of influence of the pond's first declining elevation. A tighter grid may be required at the direction of the City Engineer. Elevations will also be required at storm sewer inlet and

outlet pipes, stand pipes, weirs and spillways. Grid elevations shall be certified to be correct if they are between 0.1 feet higher to 0.4 feet lower than grades given on the grading plan.