

32 31 13 CHAIN LINK FENCES AND GATES

PART 1 - GENERAL

1.1 SUMMARY

- A. The work includes furnishing all materials, labor and equipment to install chain link fencing, gates, and required accessories.

1.2 QUALITY ASSURANCE

- A. All work is to be in compliance with the standards of the authority having jurisdiction.
- B. Contractor is to furnish workman qualified to perform the work.
- C. All work and materials that apply to this section are to be in accordance with the applicable sections of the American Society for Testing and Materials (ASTM) standards.
- D. All materials and installation shall be in accordance with the Chain Link Fabrication Manufacturer's Association's (CLFMA) requirements.
- E. The manufacturer and installer must have a minimum of 5 years in the fence manufacturing and installation experience, respectively.
- F. Contractor is required to have the owner perform a visual inspection once complete. Any insufficiencies in the finished installation are to be remediated. The contractor is to bear the cost of the remediation work.

1.3 SUBMITTALS

- A. Product information on the material properties of the fence fabric, posts along with shop drawings of the fence layout and post foundations are to be submitted to the Architect.

1.4 PROJECT CONDITIONS

- A. Contractor is to verify the layout of the fence. If any discrepancies with the existing conditions or other proposed improvements are discovered then those discrepancies are to be brought to the Architect's attention. The work is not to begin until the discrepancies are resolved.
- B. Coordinate the fence installation with the installation of underground utilities. Fence posts are not to be placed above existing or proposed underground utilities.

1.5 WARRANTY

- A. The manufacturer's warranty is to be provided to the Owner. The Warranty is to warrant any defects such as rust or corrosion for a period not less than 10 years from substantial completion.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Manufacturers are subject to compliance with these specifications; the following manufacturers that are acceptable include, but are not limited to:
1. Allied Tube and Conduit: www.alliedeg.us
 2. American Fence: www.americanfence.com
 3. Circle A Fences: www.circleafences.net

2.2 MATERIALS

- A. Portland Cement Concrete is to be used per the appropriate ASTM standard. Top of footing is to be shaped in a sloped fashion to provide positive drainage away from the post.
- B. Fence Fabric shall be to the height as shown on the plans. Fence fabric shall have a 2" mesh with 11-gauge wire core thickness. Wire shall be polymer (vinyl) coated in accordance with ASTM F668. Vinyl coating shall be black unless specified otherwise on the drawings of 0.022 inch thickness.

C. Post Schedule

<u>Description</u>	<u>Outside Diameter (in.)</u>	<u>Weight (lbs/ft)</u>
Top Rail	1.66	2.27
Line Post	2.375	2.65
Terminal, Corner Angle, End & Pull Pull Post	2.875	5.79
Swing Gate Post	2.875	5.79
Gate Frames	1.90	2.72

- D. Tension Wire at Bottom of Fence Fabric: 6-gauge steel vinyl finish wir, continuous and connected to all end and terminal posts.
- E. Provide metal parts with vinyl coating. Coating is to be a minimum of 0.022 inches in thickness.
- F. Fittings must comply with ASTM F 626.

PART 3 - EXECUTION

3.1 INSTALLATION

- A. Install fence posts per manufacture's requirements. All posts are to be set in concrete per manufacturer's recommendation.
- B. Install fence to height and in location specified on the drawings.
- C. Procure the services of a licensed land surveyor to stake location of the proposed fence terminal posts and gates. Straight sections of fence are to be staked at intervals no greater than 100-ft.
- D. Playground, detention pond and other areas to be fenced are not to be fenced until the area they enclose have been ceased from construction activity. Detention pond's requiring an as-built signoff from the municipality shall not be fenced until the signoff has been obtained.
- E. Space fence posts at intervals not to exceed 10-ft, center to center, between angle, corner, terminal and gate posts.
- F. Fences are to be installed with top rails that are to be secured at ends with rail-end fittings. Top rails are to pass through eye tops on posts.
- G. Install tension wire 3-inches above grade and tension and connect to end posts in a manner to prevent loss of tension or slippage.
- H. Fence fabric is to be installed along outside face of fence posts and is to be tensioned per the manufacturer's requirements and attached to corner, angle, gate, or end post with tension bars that extend the full height of the fabric and bands.
- I. Bands and ties are to be installed per manufacturer's recommendation.
- J. Fence fabric is to be installed ½" above finished grade and to be attached along top with wire ties. Wire ties are to be installed as to not create a safety hazard. Ties are to be 18 inches apart or as recommended by the manufacturer.

3.2 GATE INSTALLATION

- A. Fence Gate: Install fence gate per manufacturer's instructions. Fence fabric is to be installed over the gate as previously described. Gates are to be set to open both ways without obstructions. Contractor is to furnish any materials, including lubricants, necessary to establish correct operation of gate. Gates are to be of the size and in the location indicated on the drawings.

3.3 FENCING ADJUSTMENT

- A. In situations where fencing is to be adjusted due to proposed grades being raised or lowered fence posts and fabric are to be reinstalled as necessary per this specification or the manufacturer's guidelines.

3.4 CLEANUP

- A. Remove any construction waste or debris from the project site and dispose of in a legal manner.

3.5 INSPECTION AND TESTING

- A. Contractor is to coordinate visual inspection by the owner or the owner's representative. Any areas that are found to be defective are to be remedied by the contractor before final inspection. Any remedial repairs are to be performed under the supervision of the testing agency at the Contractor's expense.

END OF SECTION 32 3113