



**City of Flowery Branch
City Council Meeting
Thursday, November 6, 2025, 6:00 PM
5410 Pine Street
Flowery Branch, GA 30542**



Call Work Session to Order:

Pledge of Allegiance:

Adoption of Agenda:

Awards & Recognitions:

Public Hearing:

- a. Consider Ordinance 767 - Text Amendment to Article 21 - Parking & Article 22 - Loading

Unfinished Business - Work Session:

New Business - Work Session:

- a. Consider the First Reading of Ordinance 765 Text Amendment Pump Stations

Department Reports:

- a. City Manager Report
- b. City Clerk Report
- c. Department of Fun Report
- d. Finance Department Report
- e. Human Resources Report
- f. Planning Department Report
- g. Police Department Report
- h. Public Utilities Report
- i. Public Works Report
- j. Attorney Report
- k. Council Report

Adjournment Work Session:

Voting Session Agenda

Call Voting Session to Order:

Public Comments:

Consent Agenda:

- a. Consider October 2, 2025 City Council Meeting Minutes
- b. Consider October 16, 2025 City Council Meeting Minutes
- c. Consider October 2025 Per Diem for Mayor Asbridge

Unfinished Business - Voting Session:

- a. Consider the Second Reading of Ordinance 766, Amendment to the Official Zoning Map

New Business - Voting Session:

- a. Consider the First Reading of Ordinance 767 - Text Amendment to Article 21 - Parking & Article 22 - Loading
- b. Consider the First Reading of Ordinance 765 Text Amendment Pump Stations

Executive Session:**Adjournment:**

If you have a disability or impairment and need special assistance, please contact the City Clerk prior to the meeting at 770-967-6371 - Meeting agenda is subject to change.

ORDINANCE NO. 767

AN ORDINANCE AMENDING THE ZONING ORDINANCE OF THE CITY OF FLOWERY BRANCH, GEORGIA, ORDINANCE NO. 767, TO PROVIDE FOR CHANGES TO SPECIFICATIONS FOR PARKING AND LOADING IN ARTICLE 21 – PARKING AND ARTICLE 22 – LOADING, TO STRIKE IN ITS ENTIRETY SEC. 21.12. – PARKING SPACE AND AISLE DESIGN SPECIFICATIONS AND TO BE REPLACED WITH A NEW SEC. 21.12 – PARKING SPACE AND AISLE DESIGN SPECIFICATIONS, AND TO STRIKE IN ITS ENTIRETY SEC. 22.4 – MINIMUM NUMBER OF OFF-STREET LOADING SPACES REQUIRED WITHIN ARTICLE 22 – LOADING, AND TO BE REPLACED WITH A NEW SEC. 22.4 – MINIMUM NUMBER OF OFF-STREET LOADING SPACES REQUIRED, AS SHOWN ON ATTACHED EXHIBIT “A”, PROVIDING FOR SEVERABILITY, REPEALING CONFLICTING ORDINANCES, AND FOR ALL OTHER LAWFUL PURPOSES.

WHEREAS, the Zoning Ordinance of the City of Flowery Branch, Georgia, authorizes the amendment of the text of the City of Flowery Branch Zoning Ordinance by the City Council; and

WHEREAS, the Zoning Administrator is authorized, pursuant to Section 33.2 of the Zoning Ordinance, to initiate an amendment to the Zoning Ordinance for consideration by the City Council; and

WHEREAS, it is in the public interest to update existing codes; and

WHEREAS, the changes to the code enhance the health, safety, and overall general welfare of the citizens of Flowery Branch; and

WHEREAS, the City has complied with the Zoning Procedures Law and the requirements of Article 33 of the Zoning Ordinance with regard to text amendments, including the holding of an advertised public hearing; and

NOW THEREFORE, THE CITY COUNCIL OF THE CITY OF FLOWERY BRANCH HEREBY ORDAINS THAT THE FLOWERY BRANCH ZONING ORDINANCE IS AMENDED AS FOLLOWS:

SECTION 1. AMENDMENT.

To provide for changes to specifications for parking and loading in Article 21 – Parking and Article 22 – Loading, to strike in its entirety Sec. 21.12. – Parking Space and Aisle Design Specifications and to be replaced with a new Sec. 21.12 – Parking Space and Aisle Design Specifications, and to strike in its entirety Sec. 22.4 – Minimum Number of Off-street Loading Spaces Required within Article 22 – Loading, and to be replaced with a new Sec. 22.4 – Minimum Number of Off-street Loading Spaces Required, as shown on attached Exhibit “A”.

SECTION 2. SEVERABILITY.

Should any section or provision of this Ordinance be declared invalid or unconstitutional by any court of competent jurisdiction, such declaration shall not affect the validity of this Ordinance as a whole or any part thereof which is not specifically declared to be invalid or unconstitutional.

SECTION 3. EFFECTIVE DATE.

The effective date of this Ordinance shall be upon approval by the City Council of the City of Flowery Branch, Georgia.

SECTION 4. REPEALER.

All ordinances and parts of ordinances in conflict herewith are hereby repealed to the extent of the conflict.

Approved this _____ day of _____ 2025.

Edward R. Asbridge, Mayor

ATTEST:

Shelia R. Cooper, City Clerk

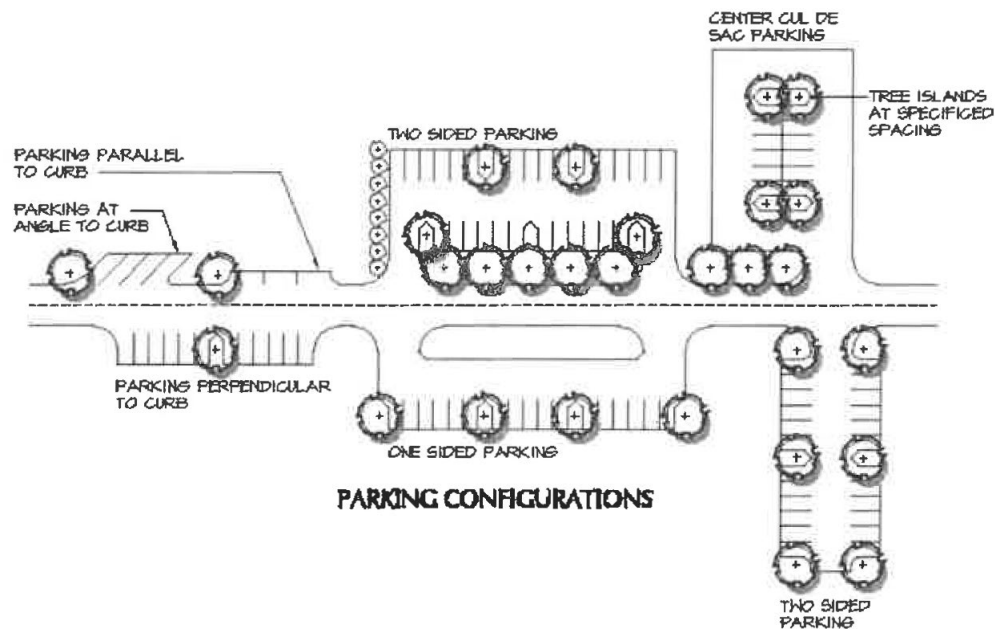
APPROVED AS TO FORM:

Ted Baggett, City Attorney

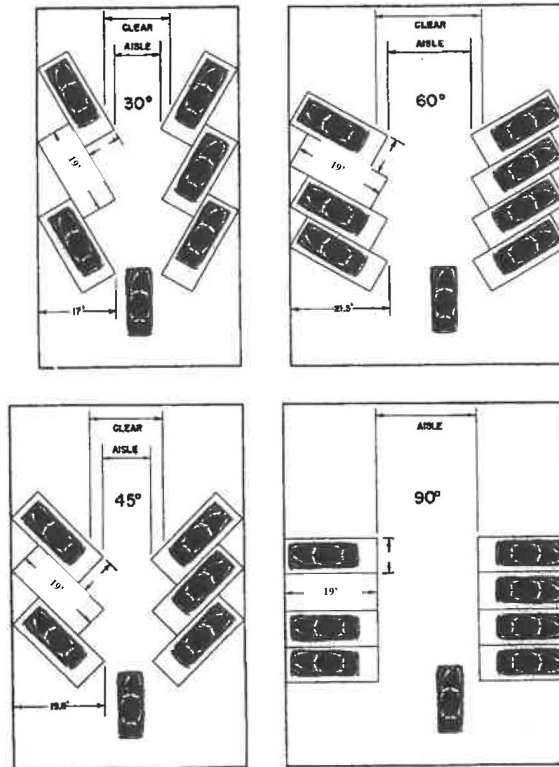
Exhibit "A"

ARTICLE 21. PARKING

Sec. 21.12. Parking Space and Aisle Design Specifications.



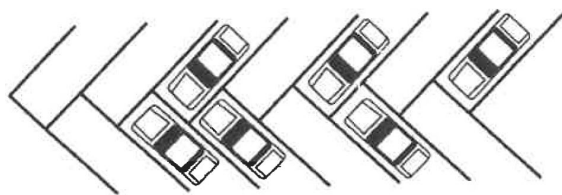
- (a) *Angled Parking.* Designers are permitted flexibility with regard to parking lot designs, subject to the requirements of this Article.



Source: De Chiara, Joseph, and Lee E. Koppelman. 1984. *Time-Saver Standards for Site Planning*. Figure 6.205, p. 663. New York: McGraw-Hill.

- (b) *Parking Space Width and Length.* Parking spaces shall be a minimum of nine (9) feet in width and nineteen (19) feet in length.
- (c) *Interlocking design.* An interlocking or "herringbone" parking design is not permitted, as it exposes the side of one vehicle to the front of another, which can result in substantial damage if the vehicle rolls forward (see figure).

Interlocking Parking Space Design Prohibited



Source: Stover, Vergil G., and Frank J. Koepke. 2002. *Transportation and Land Development* (2nd Ed.). Washington, DC: Institute of Transportation Engineers. Figure 9-6, p. 9-15.

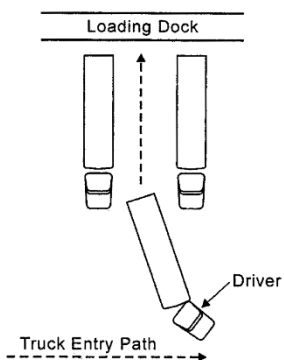
- (d) Inter-parcel driveway connection or provision of a future inter-parcel driveway stub (with appropriate cross-access easements) shall be required between adjacent non-residential properties. This requirement may be waived by the Director only if it is demonstrated that an inter-parcel connection is not feasible due to traffic safety or topographic concerns.
- (e) Interior driveways, with or without parking, shall be 12 to 16 feet wide for one-way traffic, and 22 to 24 feet wide for two-way traffic. Driveways that are determined to be essential fire access shall be increased to a minimum of 20 feet in width.

- (f) Interior driveways providing primary access to loading/unloading zones or loading docks for truck traffic shall be increased to 14 feet in width per travel lane.
- (g) Interior driveways surrounding gasoline pumps shall be increased to 40 feet in total width (as measured from the base of the gasoline pump islands).
- (h) Bumper stops shall be installed to separate parking spaces from sidewalks, rights-of-way, adjacent properties and landscape strips to prevent overhangs or encroachments. Where required, bumper stops shall be a minimum of 6 inches in height and 6 inches in width. Bumper stops shall be constructed of concrete, stone, or equally suitable material approved in writing by the Zoning Administrator, and be permanently secured to the pavement surface.

ARTICLE 22. - LOADING

Sec. 22.1. - Off-Street Loading Required.

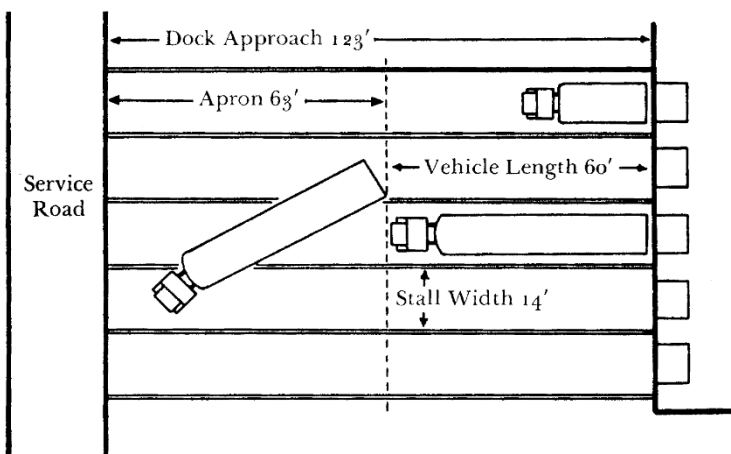
On the same lot with every building, structure or part thereof, erected or occupied for manufacturing, storage, warehouse, truck freight terminal, department store, wholesale store, grocery supermarket, hotel, hospital, mortuary, dry cleaning plant, retail business, or other uses similarly involving the receipt or distribution of vehicles, materials or merchandise, there shall be provided and maintained adequate space for the standing, loading, and unloading of such materials to avoid undue interference with public use of streets, alleys, and private or public parking areas.



Source: Stover, Vergil G., and Frank J. Koepke. 2002. *Transportation and Land Development* (2nd Ed.). Washington, DC: Institute of Transportation Engineers. Figure 10-5, p. 10-9.

Sec. 22.2. - Loading Area Specifications.

Unless otherwise approved by the Zoning Administrator, loading spaces shall be a minimum of fourteen (14) feet wide, forty (40) feet long, with fourteen (14) feet of height clearance. When the development requires loading and unloading by full-size tractor-trailers, loading spaces shall be sixty (60) feet long with a sixty-three (63) foot apron,

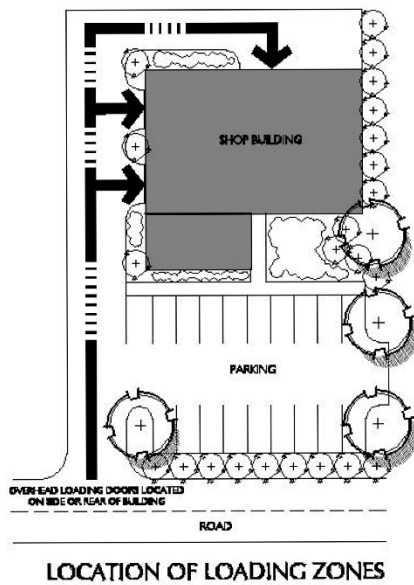


for a total approach zone of 155 feet.

Source: De Chiara, Joseph, and Lee E. Koppelman. 1984. *Time-Saver Standards for Site Planning*. Figure 6.188, p. 652. New York: McGraw-Hill.

Sec. 22.3. - Loading Area Locations.

Loading areas shall be located to the rear of the building unless site design precludes a rear location, in which case loading shall be to the side of a building. Loading areas shall not be permitted within front yards.



Sec. 22.4. - Minimum Number of Off-Street Loading Spaces Required.

Off-street loading spaces for various types of use shall be in accordance with the following table and shall be of the same dimensions as described in Section 22.2 unless other permissible dimensions are specifically denoted.

Off-street Loading Requirements		
Type of Use	Gross Floor Area (Sq. Ft.)	Loading Space Required
Single retail establishment services	0 to 19,999;	None
	20,000 to 49,999;	One
	50,000 to 250,000;	Two
	Over 250,000	Three
Shopping centers	0 to 19,999;	None
	20,000 to 49,999;	One
	50,000 to 100,000;	Two
	Each additional 100,000	One
Office buildings, multi-family residential over 4 stories, hospitals, health care establishments, hotels and motels	0 to 999,999;	None
	1,000,000 to 2,000,000	One
	More than 2,000,000;	Two
Manufacturing, warehousing, wholesaling, etc.	Up to 14,999;	One
	15,000 to 39,999;	Two
	40,000 to 65,000;	Three
	Each additional 80,000	One
Recycling centers		2 loading spaces measuring no less than 12 ft. by 35 ft. and having 14 ft. of vertical clearing

Memorandum

To: City of Flowery Branch, City Manager, and City Council

From: Chris McCrary, Planning and Community Development Director

Date: November 6th, 2025

Subject: Ordinance 767 Text Amendments to Article 21 – Parking and Article 22 - Loading

Applicant: Chris McCrary
Director of Planning & Community Development

Owner: N/A

Existing Zoning: N/A – Text Amendment

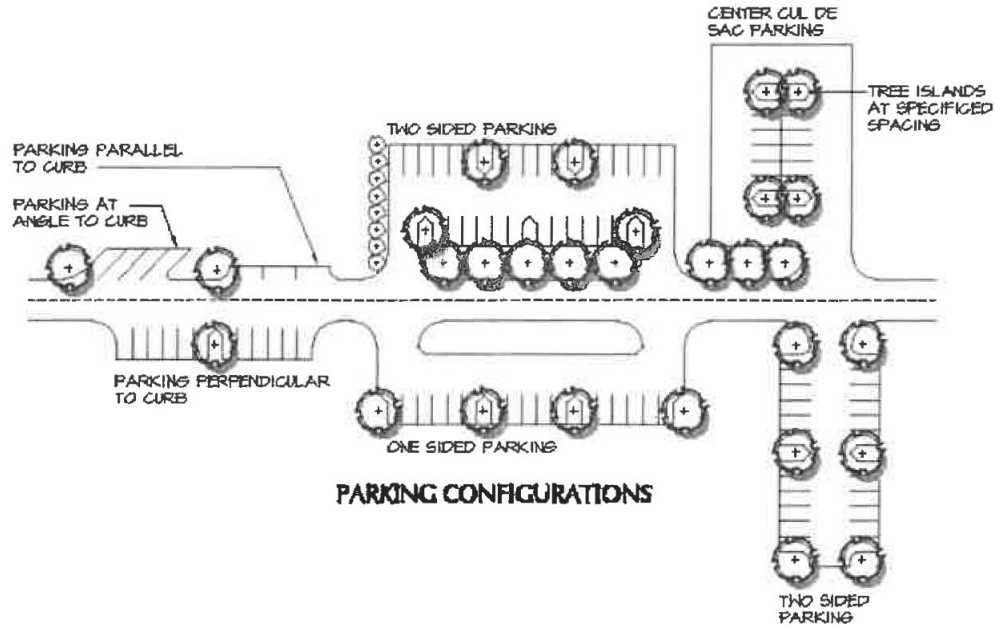
Location in Code of Ordinances:

- Appendix C – Zoning Ordinance, Article 21. – Parking, Sec. 21.12 Parking Space and Aisle Design Specifications & Article 22 – Loading, Sec.22.4 – Minimum Number of Off-Street Loading Spaces Required.

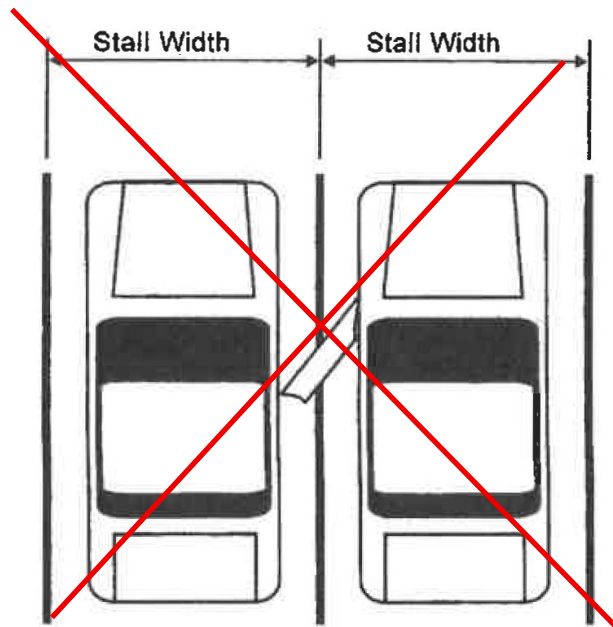
Pursuant to Article 33 – Text Amendments of the Code of Ordinances for the City of Flowery Branch, City Council may amend regulations, Articles, or Sections of the Zoning Ordinance when appropriate factors or circumstances arise. Ordinance 767 proposes several changes and additions to the specifications and dimensional requirements for parking and loading as well as correcting inconsistencies.

ARTICLE 21. PARKING

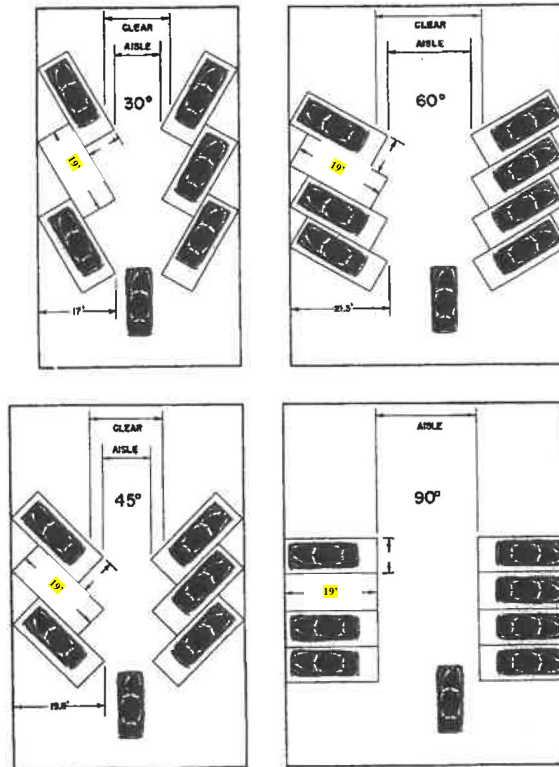
Sec. 21.12. Parking Space and Aisle Design Specifications.



- (a) *Angled Parking*. Designers are permitted flexibility with regard to parking lot designs, subject to the requirements of this Article.



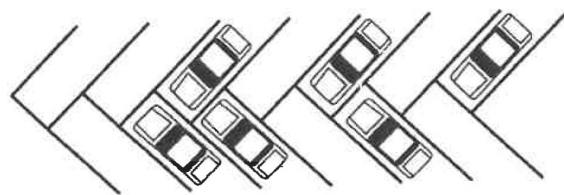
Source: Stover, Vergil G., and Frank J. Koepke. 2002. *Transportation and Land Development* (2nd Ed.). Washington, DC: Institute of Transportation Engineers. Figure 9-13, p. 9-24.



Source: De Chiara, Joseph, and Lee E. Koppelman. 1984. *Time-Saver Standards for Site Planning*. Figure 6.205, p. 663. New York: McGraw-Hill.

- (b) *Parking Space Width and Length.* Parking spaces shall be a minimum of ~~ten (10)~~ **nine (9)** feet in width and ~~twenty (20)~~ **nineteen (19)** feet in length.
- (c) *Interlocking design.* An interlocking or "herringbone" parking design is not permitted, as it exposes the side of one vehicle to the front of another, which can result in substantial damage if the vehicle rolls forward (see figure).

Interlocking Parking Space Design Prohibited



Source: Stover, Vergil G., and Frank J. Koepke. 2002. *Transportation and Land Development* (2nd Ed.). Washington, DC: Institute of Transportation Engineers. Figure 9-6, p. 9-15.

- (d) *Aisle widths.* Parking driveway maneuvering aisle width requirements vary according to the width and length of parking spaces and the angle of parking. For a single row of ninety (90) degree head-in parking, the minimum depth for a parking space plus the width of the aisle shall be forty two (42) feet. For two (2) rows of ninety (90) degree head-in parking using the same aisle, the minimum depth for parking spaces plus the width of the aisle shall be sixty two (62) feet (i.e., curb to curb) for nine (9) foot wide spaces and sixty (60) feet (i.e., curb to curb) for ten (10) foot wide spaces. Interior driveways shall connect each parking space with a public right of way.

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- (d) Inter-parcel driveway connection or provision of a future inter-parcel driveway stub (with appropriate cross-access easements) shall be required between adjacent non-residential properties. This requirement may be waived by the Director only if it is demonstrated that an inter-parcel connection is not feasible due to traffic safety or topographic concerns.
 - (e) Interior driveways, with or without parking, shall be 12 to 16 feet wide for one-way traffic, and 22 to 24 feet wide for two-way traffic. Driveways that are determined to be essential fire access shall be increased to a minimum of 20 feet in width.
 - (f) Interior driveways providing primary access to loading/unloading zones or loading docks for truck traffic shall be increased to 14 feet in width per travel lane.
 - (g) Interior driveways surrounding gasoline pumps shall be increased to 40 feet in total width (as measured from the base of the gasoline pump islands).
 - (h) Bumper stops shall be installed to separate parking spaces from sidewalks, rights-of-way, adjacent properties and landscape strips to prevent overhangs or encroachments. Where required, bumper stops shall be a minimum of 6 inches in height and 6 inches in width. Bumper stops shall be constructed of concrete, stone, or equally suitable material approved in writing by the Zoning Administrator, and be permanently secured to the pavement surface.



ARTICLE 22. - LOADING

Sec. 22.4. - Minimum Number of Off-Street Loading Spaces Required.

Off-street loading spaces for various types of use shall be in accordance with the following table and shall be of the same dimensions as described in Section 22.2 unless other permissible dimensions are specifically denoted. Off-street loading spaces shall be provided according to the following table:

Land Use	Size (Gross Floor Area in Square Feet)	Loading Docks	Parking Spaces	Total Spaces
Office	0 – 30,000	0	1	1
	30,001 – 100,000	1	1	2
	Each additional 100,000	1	1	+2
Commercial – Highway Business	0 – 10,000	0	1	1
	10,001 – 30,000	2	1	3
	30,001 – 80,000	3	2	5
	Each additional 80,000	1	2	+3
Commercial – Central Business District	0 – 10,000	0	1	1
	10,001 – 30,000	1	1	2
	30,001 – 80,000	2	1	3
	Each additional 80,000	1	0	+1
Industrial	0 – 5,000	0	1	1
	5,001 – 30,000	1	1	2
	30,001 – 50,000	2	1	3
	50,001 – 100,000	3	1	4
	Each additional 100,000	1	0	+1

Source: National Parking Association, 1992. Recommended Zoning Ordinance Provisions for Parking and Off-Street Loading Space. In Transportation and Land Development, 2nd Ed. 2002 (Washington, DC, Institute of Transportation Engineers, 2002, p. 10-8, Table 10-3).



Off-street Loading Requirements		
Type of Use	Gross Floor Area (Sq. Ft.)	Loading Space Required
Single retail establishment services	0 to 19,999;	None
	20,000 to 49,999;	One
	50,000 to 250,000;	Two
	Over 250,000	Three
Shopping centers	0 to 19,999;	None
	20,000 to 49,999;	One
	50,000 to 100,000;	Two
	Each additional 100,000	One
Office buildings, multi-family residential over 4 stories, hospitals, health care establishments, hotels and motels	0 to 999,999;	None
	1,000,000 to 2,000,000	One
	More than 2,000,000;	Two
Manufacturing, warehousing, wholesaling, etc.	Up to 14,999;	One
	15,000 to 39,999;	Two
	40,000 to 65,000;	Three
	Each additional 80,000	One
Recycling centers		2 loading spaces measuring no less than 12 ft. by 35 ft. and having 14 ft. of vertical clearing

Recommendation:

Staff recommends **APPROVAL** of Ordinance 767 for the proposed Text Amendments to Article 21 – Parking and Article 22 – Loading.

ORDINANCE NO. 765

AN ORDINANCE AMENDING THE CITY CODE OF THE CITY OF FLOWERY BRANCH, GEORGIA TO PROVIDE FOR CHANGES TO SPECIFICATIONS FOR PUMP STATIONS IN CHAPTER 50 – UTILITIES WITHIN ARTICLE II – STANDARD SPECIFICATIONS, DIVISION II- CONSTRUCTION OF WATER AND WASTEWATER LINES, SUBDIVISION VII – PUMP STATIONS, SEC. 50-259 – EXECUTION, TO STRIKE IN ITS ENTIRETY SAID SEC. 50-259 – EXECUTION, TO REPLACE SAID SECTION WITH A NEW SEC. 50-259 – EXECUTION, TO PROVIDE FOR SEVERABILITY, TO REPEAL CONFLICTING ORDINANCES, TO PROVIDE FOR AN EFFECTIVE DATE AND FOR ALL OTHER LAWFUL PURPOSES.

WHEREAS, the duly elected governing authority of the City of Flowery Branch, Georgia is vested with legislative power to adopt clearly reasonable ordinances, resolutions, or regulations relating to its property, affairs, and local government for which no provision has been made by general law, and which are not inconsistent with the Constitution or any charter provision applicable thereto; and

WHEREAS, the City Council finds that in the interests of the public, the enactment of this ordinance by reasonable means, as allowed under state law, and not unduly oppressive, is necessary to protect the health, safety, morals, and general welfare of the citizens of the city.

NOW THEREFORE, THE COUNCIL OF THE CITY OF FLOWERY BRANCH HEREBY ORDAINS AS FOLLOWS:

SECTION 1.

Section 50-259 - Execution of the City Code of Flowery Branch is hereby amended to read as follows:

Sec. 50-259 - Execution.

- (a) The developer shall furnish, install and dedicate to the city the entire lift station/force main system. The system will be designed by the developer's engineer (professional engineer registered in the state). The design must be reviewed and approved by the city's engineer.
- (b) The engineer shall locate and size the lift station and all components to accommodate the largest possible subbasin. The city will investigate the service impact associated with future city needs within the subbasin, and the potential installation of additional force mains required to serve the subbasin that will drain to the lift station. If, in the city's opinion, an additional or larger force main is to be installed concurrently with the developer's project, the engineer will design and the city's engineer must approve the design of said additional mains.

Where practical, all of the force mains will be installed in parallel and in the same ditch.

- (c) Pump stations shall meet the following requirements:
 - (1) Pump station located above the 100-year floodplain.
 - (2) Furnish pump head calculations and system curve.
 - (3) Furnish automatic alternation of pumps to prolong life.
 - (4) Cables into or out of the wet well sealed watertight.
 - (5) Install three-phase voltage monitors on main power feed with output alarm relay.
 - (6) Install fused disconnect on main power feed.
 - (7) Furnish wet well buoyancy calculation based on a groundwater level approximately at grade level
- (d) Pump stations with a capacity less than 750 GPM shall be approved by the City and conform to one of the following:
 - (1) All submersible pumps specifications shall be approved by the City.
 - (2) All pumps must be supplied with a certified pump test curve from the manufacturer.
 - (3) Gorman-Rupp self-priming centrifugals will only be allowed on a case-by-case basis when other pumps are not available.
 - (4) All pumps must be approved by the City and be able to pass a three-inch solid and shall conform to the following:
 - a. N – impellers
 - b. Copper/Cutter impellers
 - c. All pump specifications shall be approved by the city with anti-clog technology.
- (e) Site layout.
 - (1) A buffer may be required around each lift station site. The city, at its discretion, may require a buffer dependent on the proximity of structures, type of development, size of pump station, or other factors which may indicate a need for additional buffer. Typically, this buffer is required in residential subdivisions, and shall be indicated on the final plat. In addition, a permanent easement, dedicated to the city, shall be provided to include the required fenced-in area, with an additional one foot extending beyond the fence on all sides. A permanent 20-foot access easement, dedicated to the city, shall be provided as well.
 - (2) Earth slopes around the pump station created by fill that are steeper than 3:1 must be stabilized with riprap. All fill slopes shall be compacted to not less than 95 percent of maximum density. A certified letter of compaction shall be provided to the inspector prior to final inspection.
 - (3) A minimum four-inch concrete pad (15 feet by 15 feet minimum) shall have two percent fall away from the wet well in all directions. Concrete must extend

six inches past all fence posts the full perimeter. Reinforcing steel shall be used in the slab. Asphalt is not acceptable for the pad.

(4) Driveway

- a. All pump station sites shall be provided with a paved access road on a permanent easement dedicated to the city minimum 12-foot width concrete or asphalt paving is acceptable.
- b. If an access road is over 50 feet in length, a vehicle turnaround will be required. For access roads less than 50 feet, a required turnaround will be determined on a case-by-case basis. Access road and vehicle turnaround area to be paved shall be a 12-foot minimum width. All turnarounds shall be 20 feet outside the fence, 16 feet deep with a 15-foot radius to the driveway. Concrete or asphalt is acceptable.

(5) Site plan shall show finished grade contour lines (one-foot intervals) in and around lift station and access road. Spot elevations shall be provided on station pad to show proper drainage.

(6) Site plan shall show all existing and proposed utilities. All utility meters must be properly mounted outside a fenced station. If gas is required, the gas pipe must be buried underground.

(7) Water meter shall be set at the right-of-way.

(8) A copper potable water service with an acceptable double check valve backflow prevention device must be provided. A frostproof yard hydrant with 50 feet of one-inch water hose with brass nozzle must be installed.

(9) Provide site lighting.

(10) Fenced areas for all stations are to be a minimum 30 feet by 30 feet. Fences are to be installed using eight-foot-high no. 4 feet chain-link wire with top rails and bottom tension wires; three strands of barbed wire at the top on angled extension arms; posts in three feet of concrete spaced ten feet apart. A two-foot length of chain that can be locked with No. 2 Master lock must be provided. Provide a 14-foot-wide gate on four-inch diameter posts.

(11) All ground surface not intended to be paved within pump station fenced area, shall be covered with a minimum four inches of graded aggregate base. Graded aggregate base to be per state department of transportation specifications.

(12) Spare parts.

- a. Provide a backup pump as required by the City.
- b. Provide spare air and vacuum relief valve for force main (if applicable).
- c. Provide two extra sets of seals per model of pump, two sets of wear rings, one vacuum pump, five float switches, and one motor starter.
- d. Provide one spare fuse of each type used

- e. [Provide one spare base, relay or alternator \(if applicable\) of each type used.](#)
 - f. [A backup level controller or floats shall be provided.](#)
- (13) Wet well/check valve vault.
- a. The wet well shall be sized to prevent excessive cycling of the pumps. Starts shall be limited to one start per ten minutes unless otherwise recommended by the pump manufacturer. Size shall be as recommended by the pump supplier and shall be a minimum of eight feet in diameter.
 - b. [The guide rails for pump slide brackets shall be stainless steel and galvanized pipes are prohibited.](#)
 - c. Hatch doors shall be sized by the pump supplier to allow adequate clearance to easily remove the pumps. Hatches shall be aluminum with stainless steel hardware suitable for 150 pounds per square feet loading. Provide cylinders to prevent hatch from slamming shut and safety netting. [Safety hatches shall be installed and shall be approved by the City.](#)
 - d. [Check valve vaults for all stations shall be six feet by six feet precast concrete with one 48-inch by 48-inch double leaf aluminum hatch for four-inch and six-inch piping. Vault size shall be eight feet by eight feet for piping eight inches and above. All vaults shall be accessible by ladder if necessary.](#)
 - e. Storage shall be provided above the high-level alarm equal to three hour at design flow. Storage volume is calculated to be that volume between the high-level alarm and the lowest point of overflow (including basement elevations regardless of backflow valves in service lines). Said storage may consist of any combination of line capacity, manhole capacity, and wet well volume. No corrugated metal pipe may be utilized for storage.
 - f. [All swing check valve specifications shall be approved by the City.](#)
 - g. All pump stations shall have a plug valve and capped tee installed on the force main to allow for emergency connection by portable pumps. [Valve vault or approved location shall have bypass connection capability. Bypass fittings shall be provided and shall be approved by the City.](#) Plug valve shall be no less than three feet outside the pump station. A valve key shall be provided to the authority.
 - h. All piping in the wet well and check valve vault is to be flanged pipe to flanged pipe. No uniflange or megaflange types will be allowed. Solid sleeve flex joint shall be used between the wet well and valve vault.
 - i. [Valve vault shall have pressure gauges for each discharge pipe for pumps. The pressure gauges shall be installed on the discharge side of](#)

the check valve. Final gauge layout shall be approved by the City prior to the issuance of any subsequent permits.

- j. Floats and probes shall be installed at the closest accessible location.
- k. Steps are to be removed and grouted from wet well and check valve vault before station is accepted by the authority.
- l. Wet well and discharge manholes are to be fiberglass or to be coated with a bitumastic coating or approved equal.
- m. All pump stations shall comply with NFPA 820.

(14) Electrical specifications:

- a. Three-phase power shall be provided for all pumps. No phase converters or single-phase power allowed. The power source may be 208 voltage, 240 voltage, 460 voltage, or 480 voltage.
- b. All conduit shall be galvanized rigid conduit or MMC with threaded couplings. No threadless couplings shall be allowed.
- c. No conduit runs or junction boxes are to be installed inside or on top of wet well. Splicing of cables inside the wet well will not be permitted.
- d. When main fused disconnect switch or main circuit breaker is used, it shall meet the following requirements:
 - 1. Be of a type that can be locked in the on or off position.
 - 2. The switch shall be U.L. listed for service entrance.
 - 3. The enclosure shall be stainless steel.
 - 4. The switch must be mounted inside the fenced area of the station.
- e. Pump stations shall have factory installed six-digit nonresettable elapsed time meters to show individual pump running times to the one-tenth of an hour. A similar elapsed time meter shall be included to indicate simultaneous operation of pumps to the one-tenth of an hour.
- f. All control wiring shall be stranded. No solid wire shall be allowed.
- g. Pump control panel enclosure shall be NEMA 4X stainless steel.
- h. Provide one RJ-11 telephone jack in the control panel.
- i. A surge suppressor shall be provided at the power service entrance. The surge suppressor shall have voltage characteristics to match the power service.
- j. The wet well level controller shall be an SC model (100,1000, 2000) with a 2 – float backup. (Or an approved equal.)
- k. A Raco Dialer (or current alarm agent) shall be installed to match the City's current alarm system.
 - 1. The surge suppressor shall be in NEMA 4X enclosure and shall provide line to line, line to neutral, line to ground and neutral to ground protection modes as applicable for the power service.

2. The surge suppressor shall be provided with a disconnect. Minimum surge current rating shall be 100KA per phase per NEMA LS-1. The surge suppression system shall be duty cycle tested to survive 20KV, 10KA, IEEE C62.41 category surge current with less than five percent degradation of clamping voltage. The surge suppressor shall have minimum repetitive surge capacity of 2,500 impulses per mode and 5,000 impulses per phase. Status indicating lights and form C dry alarm contacts shall be provided.
 3. The surge suppressor shall be UL listed and labeled under UL 1449 and UL 1283. [The surge suppressor shall be approved by the City.](#)
- (15) All pump stations must be provided with backup power. This back-up power can be provided by independent dual power feed or diesel generators.
- (16) Generator specifications:
- a. Generator shall be furnished with a one-year service contract which covers all labor and material costs for normal maintenance and emergency repairs.
 - b. The standby generator shall be rated for continuous standby duty for the stations full load demand. The generator shall be sized to run all pumps simultaneously with staggered startups or as indicated in the drawings. The engine-generator set shall be rated for continuous standby duty operating in an ambient temperature of 40 degree C. The set shall have a standby power capacity sufficient to operate all pumps simultaneously with staggered startups and pump station auxiliary loads at 0.80 power factor, and shall operate at a speed not to exceed 1,800 rpm. It shall be rated 480/277 volt, as indicated, three-phase, four-wire, 60-Hertz.
 - c. Voltage regulation from no load to rated load shall be within plus or minus four percent of rated voltage for units up to and including 25 kw and within plus or minus three percent of rated voltage for units rated 30 kw or higher.
 - d. The frequency regulation shall not exceed three-Hertz from no load to rated load. Frequency variation shall not exceed plus or minus 0.3 Hertz for constant loads from no load to rated load.
 - e. Instantaneous voltage dip for all possible sequences of load application and motor starting for loads described in conditions of service shall not exceed 20 percent of nominal voltage.
 - f. The generator and associated appurtenances shall be housed in a weatherproof sound attenuated enclosure. Quiet site soundproofing shall be provided to reduce noise to 73 db at a distance of 23 feet (seven meters) for diesel powered generators.

- g. Generator insulation shall be class B or F. Temperature rise shall be in accordance with NEMA Standard MG-1 for continuous duty at all output ratings.
- h. Voltage regulator shall be an automatic, temperature compensated, solid state type with a manual adjustment range of plus or minus five percent of rated voltage. Exciter shall be a solid-state, static type or brushless rotating type utilizing rotating diode rectifiers. Minimum rating of exciter shall be according to NEMA Standard MG-1.
- i. Generator lead terminal box shall be of ample size to accept and terminate connecting cables as indicated on the drawings. Generator leads shall be furnished with terminal connectors suitable for the customers connecting cables.
- j. The engine shall be heavy-duty compression-ignition, cold-starting diesel type arranged for direct connection to an alternating current generator. It shall be a current model of a type in a regular production by a manufacturer regularly engaged in building this type of diesel engine. Engine shall have at least a published intermittent brake horsepower rating at specified generator speed required by generator at rated full load output and shall operate without undue heating, vibration, or wear. Engine shall operate satisfactorily on No. 2 diesel fuel.
- k. Battery charger shall be automatic, two-rate type providing for equalizing charge and continuous taper charging. Output characteristics shall match requirements of battery furnished. Provided charger suitable for operation on 120 volt, single-phase, 60-Hertz current to be rated not less than six-amp direct current. Furnish battery charger with following features:
 - 1. Direct current voltage regulation: plus or minus two percent for variations in line voltage of plus or minus ten percent.
 - 2. Direct current voltmeter and direct current ammeter, each with suitable scales.
 - 3. Automatic current limiting to prevent overloading due to engine cranking, shorted output or reversed battery connections.
 - 4. Equalize charge rate with manually set timer.
 - 5. Integral protection to prevent battery discharge through charger on loss of alternating current line voltage.
 - 6. Terminal block with terminals for all external connections.
- l. The entire standby generator set shall have a five-year warranty period from the date of commissioning.
- m. Outdoor weather-protective housing with critical grade exhaust muffler shall be installed. The housing shall have hinged side access doors and a rear control door. All doors shall be lockable. All sheet metal shall be

primed for corrosion protection and finish painted with the manufacturer's standard color. Vibration isolators as recommended by the generator set manufacturer shall be provided. The generator must be mounted far enough away from obstructions to allow all doors to be opened 90 degrees. All conduits shall be installed underground.

- n. Generator shall be supplied with all auxiliary systems necessary for operation (e.g., batteries, battery charger, block heater, convenience receptacle, enclosure light, motorized dampers etc.). The auxiliary system shall be powered from load center with adequately sized 480 1 208 1 120 V transformer, installed in the enclosure.
- o. Generator control panel shall be mounted with vibration isolators on the unit. Instruments shall be of direct-reading type, factory mounted and factory connected. Instruments shall be accurate within three percent. Provide panel with the following instruments gauges, features and alarms:
 - 1. Three position manual-off-auto switch.
 - 2. Manual starting switch.
 - 3. Emergency shutdown switch.
 - 4. Full automatic starting from pilot device initiating start when normal power fails. Automatic cranking shall be interrupted cycle type not affected by ambient temperature with overall time limit. A total of five cranking cycles shall automatically shut down engine after a time delay.
 - 5. Automatic shutdown devices with manual reset and individual indicating lights for low oil pressure, high coolant temperature, engine over-speed, and failure of engine to start. Auxiliary contacts on all aforementioned shutdown devices to operate a remote generator failure alarm.
 - 6. Gauges and instruments shall include fuel gauge, running time meter, lubricating oil gauge, coolant temperature gauge, voltmeter, and ampmeter.
- p. The standby power system shall include an automatic transfer switch according to UL 1008. Transfer switch shall be rated for 100 percent of full load and shall have short circuit current rating as indicated. Switch shall be provided with indicators for all phases of operation and be equipped with a fully programmable timer for exercising the equipment. Provide silver plated load contacts with arcing tips and arc extinguishing devices. Provide the transfer switch with an internal manual operator, with the same transfer speed as the electrical operator.
- q. Provide the automatic transfer switch with the following features:
 - 1. Full phase relay protection with three voltage sensing relays.

2. Starting and load transfer to alternate source on a drop to 80 percent on any phase of normal voltage or one-Hertz frequency drop. Retransfer of load to normal source when voltage of all phases is restored to 90-95 percent.
 3. Transfer to standby generator when generator voltage and frequency are 90 percent of rated values
 4. Adjustable time delay, zero to two minutes, on transfer from alternate to normal. After transfer to the normal source, engine generator to run for adjustable time period to zero to five minutes before shutdown.
- r. Generator shall be load tested at 100 percent full load on site for a period of four hours using resistive load banks. Notify the authority inspector prior to test, and provide certification letter from the manufacturer. Perform functional transfer tests simulating loss and return of utility power.
 - s. Three complete sets of O&M manuals and keys shall be provided for generator and automatic transfer switch.
 - t. Generator control system must include a programmable control device (exerciser) to allow automatic start-up and test functions. Test functions can be programmed for daily, weekly or monthly testing. Connections for remote monitoring of function and failure must be provided.
 - u. Pump stations are required to have continuous standby power. Generators shall be diesel powered with 100 gallons minimum fuel storage capacity or 24-hour operating time, which ever is greater. Fuel storage shall be accomplished by the use of corrosion-resistant double wall subbase fuel tank only; no underground storage will be allowed. A leak detection device shall be provided in the interstitial space for sensing fuel leakage. The device contact shall be connected to the generator control panel terminals for telemetry.
 - v. Generator [specifications shall be approved by the City.](#)
 - w. Generator manufacturer will provide a 5-year comprehensive warranty to include parts and labor.
 - x. Provide the manufacturer recommended set of spare parts for the generator and the automatic transfer switch. These shall include, but not be limited to, one filter for each system, two spare injectors, fuel injection pump, one fuse of each rating, and two indicating lights of each type. Pack spare parts in suitable boxes, bearing label of the content and the equipment for which it is intended.
 - y. Transfer switches shall be in a NEMA 4 X enclosure and shall be supplied by the generator manufacturer. [All transfer switch specifications shall be approved by the City.](#)

- z. A generator ground grid must be provided and connected to the pump station grounding system.

(17) Monitoring system. Provide pump station with auto dialer monitoring system in a NEMA 4X rated, stainless steel, wall-mounted enclosure complete with mounting hardware. Provide conduit stub for future telemetry connection.

- a. The city's Raco Dialer shall be wired to alarm at: power failure (phase failure), generator running, wet well high level, wet well low level, pump 1 and pump 2 failure (pump 3 if necessary)

SECTION 3.

Should any section or provision of this Ordinance be declared invalid or unconstitutional by any court of competent jurisdiction, such declaration shall not affect the validity of this Ordinance as a whole or any part thereof which is not specifically declared to be invalid or unconstitutional.

SECTION 4.

This ordinance shall take effect immediately upon approval.

SECTION 5.

All ordinances and parts of ordinances in conflict herewith are hereby repealed to the extent of the conflict.

Approved this ____ day of ____ 2025.

Edward R. Asbridge, Mayor

Shelia R. Cooper, City Clerk

APPROVED AS TO FORM

Ted C. Baggett, City Attorney



Memorandum

To: City of Flowery Branch, City Manager, and City Council

From: Chris McCrary, Planning and Community Development Director

Date: November 6th, 2025

Subject: Ordinance 765 Text Amendment to Specifications for Pump Stations

Applicant: Peter Woerner
Director of Public Utilities

Owner: N/A

Existing Zoning: N/A – Text Amendment

Location in City Code:

- Chapter 50 – Utilities, Article II – Standard Specifications, Subdivision VII – Pump Stations, Sec. 50-259 - Execution

Pursuant to Article 33 – Text Amendments of the Code of Ordinances for the City of Flowery Branch, City Council may amend regulations, Articles, or Sections of the Zoning Ordinance when appropriate factors or circumstances arise. Ordinance 765 proposes several changes and additions to the specifications and enforcement of regulations for pump stations within the City of Flowery Branch. The proposed changes will increase the dependability of all new and current lift stations as well as make them more operationally friendly and decrease the financial maintenance burden for the City.



Code Section with Changes:

Chapter 50 - Utilities

Article II. – Standard Specifications

Subdivision VII. - Pump Stations

Sec. 50-259. - Execution.

- (a) The developer shall furnish, install and dedicate to the city the entire lift station/force main system. The system will be designed by the developer's engineer (professional engineer registered in the state). The design must be reviewed and approved by the city's engineer.
- (b) The engineer shall locate and size the lift station and all components to accommodate the largest possible subbasin. The city will investigate the service impact associated with future city needs within the subbasin, and the potential installation of additional force mains required to serve the subbasin that will drain to the lift station. If, in the city's opinion, an additional or larger force main is to be installed concurrently with the developer's project, the engineer will design and the city's engineer must approve the design of said additional mains. Where practical, all of the force mains will be installed in parallel and in the same ditch.
- (c) Pump stations shall meet the following requirements:
 - (1) Pump station located above the 100-year floodplain.
 - (2) Furnish pump head calculations and system curve.
 - (3) Furnish automatic alternation of pumps to prolong life.
 - (4) Cables into or out of the wet well sealed watertight.
 - (5) Install three-phase voltage monitors on main power feed with output alarm relay.
 - (6) Install fused disconnect on main power feed.
 - (7) Furnish wet well buoyancy calculation based on a groundwater level approximately at grade level
- (d) Pump stations with a capacity less than 750 GPM shall be approved by the City and conform to one of the following:
 - (1) All submersible pumps specifications shall be approved by the City.
 - a. Flygt.—
 - b.—b.Yeomans.



c. — c.KSB.

- (2) All pumps must be supplied with a certified pump test curve from the manufacturer.
- (3) Gorman-Rupp self-priming centrifugals will only be allowed on a case-by-case basis when other pumps are not available.
- (4) All pumps must be approved by the City and be able to pass a three-inch solid and shall conform to the following:
 - a. N – impellers
 - b. Copper/Cutter impellers
 - c. All pump specifications shall be approved by the city with anti-clog technology.

(e) Site layout.

- (1) A buffer may be required around each lift station site. The city, at its discretion, may require a buffer dependent on the proximity of structures, type of development, size of pump station, or other factors which may indicate a need for additional buffer. Typically, this buffer is required in residential subdivisions, and shall be indicated on the final plat. In addition, a permanent easement, dedicated to the city, shall be provided to include the required fenced-in area, with an additional one foot six inches extending beyond the fence on all sides. A permanent 20-foot access easement, dedicated to the city, shall be provided as well.
- (2) Earth slopes around the pump station created by fill that are steeper than 3:1 must be stabilized with riprap. All fill slopes shall be compacted to not less than 95 percent of maximum density. A certified letter of compaction shall be provided to the inspector prior to final inspection.
- (3) A minimum four-inch concrete pad (15 feet by 15 feet minimum) shall have two percent fall away from the wet well in all directions. Concrete must extend six inches past all fence posts the full perimeter. Reinforcing steel shall be used in the slab. Asphalt is not acceptable for the pad.
- (4) Driveway
 - a. All pump station sites shall be provided with a paved access road on a permanent easement dedicated to the city minimum 12-foot width concrete or asphalt paving is acceptable.



- b. If an access road is over 50 feet in length, a vehicle turnaround will be required. For access roads less than 50 feet, a required turnaround will be determined on a case-by-case basis. Access road and vehicle turnaround area to be paved shall be a 12-foot minimum width. All turnarounds shall be 20 feet outside the fence, 16 feet deep with a 15-foot radius to the driveway. Concrete or asphalt is acceptable.
- (5) Site plan shall show finished grade contour lines (~~two~~ **one**-foot intervals) in and around lift station and access road. Spot elevations shall be provided on station pad to show proper drainage.
- (6) Site plan shall show all existing and proposed utilities. All utility meters must be properly mounted outside a fenced station. If gas is required, the gas pipe must be buried underground.
- (7) Water meter shall be set at the right-of-way.
- (8) A copper potable water service with an acceptable double check valve backflow prevention device must be provided. A frostproof yard hydrant with 50 feet of one-inch water hose with brass nozzle must be installed.
- (9) Provide site lighting.
- (10) Fenced areas for all stations are to be a minimum 30 feet by 30 feet. Fences are to be installed using eight-foot-high no. 4 feet **chain-link** wire with top rails and bottom tension wires; three strands of barbed wire at the top on angled extension arms; posts in three feet of concrete spaced ten feet apart. A two-foot length of chain that can be locked with No. 2 Master lock must be provided. Provide a 14-foot-wide gate on four-inch diameter posts.
- (11) All ground surface not intended to be paved within pump station fenced area, shall be covered with a minimum four inches of graded aggregate base. Graded aggregate base to be per state department of transportation specifications.
- (12) Spare parts.
 - a. **Provide a backup pump as required by the City.**
 - b. Provide spare air and vacuum relief valve for force main (if applicable).
 - c. Provide two extra sets of seals per model of pump, two sets of wear rings, one vacuum pump, five float switches, and one motor starter.
 - d. Provide one spare fuse of each type used



- e. Provide one spare base, relay or alternator (if applicable) of each type used.
 - f. A backup level controller or floats shall be provided.
- (13) Wet well/check valve vault.
- a. The wet well shall be sized to prevent excessive cycling of the pumps. Starts shall be limited to one start per ten minutes unless otherwise recommended by the pump manufacturer. Size shall be as recommended by the pump supplier and shall be a minimum of eight feet in diameter.
 - b. The guide rails for pump slide brackets shall be stainless steel and galvanized pipes are prohibited.
 - c. Hatch doors shall be sized by the pump supplier to allow adequate clearance to easily remove the pumps. Hatches shall be aluminum with stainless steel hardware suitable for 150 pounds per square feet loading. Provide cylinders to prevent hatch from slamming shut and safety netting. Safety hatches shall be installed and shall be approved by the City.
 - d. Check valve vaults for all stations shall be six feet by six feet precast concrete with one 48-inch by 48-inch double leaf aluminum hatch for four-inch and six-inch piping. Vault size shall be eight feet by eight feet for piping eight inches and above. All vaults shall be accessible by ladder if necessary.
 - e. Storage shall be provided above the high-level alarm equal to three hour at design flow. Storage volume is calculated to be that volume between the high-level alarm and the lowest point of overflow (including basement elevations regardless of backflow valves in service lines). Said storage may consist of any combination of line capacity, manhole capacity, and wet well volume. No corrugated metal pipe may be utilized for storage.
 - f. All swing check valve specifications shall be approved by the City. ÷
 - 1.—Val-Matic Swing Flex.
 - 2.—GA Industries, Inc., Mars, PA.
 - 3.—American Darling.
 - 4.—Approved equal.
 - g. All pump stations shall have a plug valve and capped tee installed on the force main to allow for emergency connection by portable pumps. Valve vault or approved location shall have bypass connection capability. Bypass fittings shall be provided and shall be approved by the City. Plug valve shall



be no less than three feet outside the pump station. A valve key shall be provided to the authority.

- h. All piping in the wet well and check valve vault is to be flanged pipe to flanged pipe. No uniflange or megaflange types will be allowed. Solid sleeve flex joint shall be used between the wet well and valve vault.
 - i. Valve vault shall have pressure gauges for each discharge pipe for pumps. The pressure gauges shall be installed on the discharge side of the check valve. Final gauge layout shall be approved by the City prior to the issuance of any subsequent permits.
 - j. Floats and probes shall be installed at the closest accessible location.
 - k. Steps are to be removed and grouted from wet well and check valve vault before station is accepted by the authority.
 - l. Wet well and discharge manholes are to be fiberglass or to be coated with a bitumastic coating or approved equal.
 - m. All pump stations shall comply with NFPA 820.
- (14) Electrical specifications:
- a. Three-phase power shall be provided for all pumps. No phase converters or single-phase power allowed. The power source may be 208 voltage, 240 voltage, 460 voltage, or 480 voltage.
 - b. All conduit shall be galvanized rigid conduit or MMC with threaded couplings. No threadless couplings shall be allowed.
 - c. No conduit runs or junction boxes are to be installed inside or on top of wet well. Splicing of cables inside the wet well will not be permitted.
 - d. When main fused disconnect switch or main circuit breaker is used, it shall meet the following requirements:
 - 1. Be of a type that can be locked in the on or off position.
 - 2. The switch shall be U.L. listed for service entrance.
 - 3. The enclosure shall be stainless steel.
 - 4. The switch must be mounted inside the fenced area of the station.
 - e. Pump stations shall have factory installed six-digit nonresettable elapsed time meters to show individual pump running times to the one-tenth of an



hour. A similar elapsed time meter shall be included to indicate simultaneous operation of pumps to the one-tenth of an hour.

- f. All control wiring shall be stranded. No solid wire shall be allowed.
- g. Pump control panel enclosure shall be NEMA 4X stainless steel.
- h. Provide one RJ-11 telephone jack in the control panel.
- i. A surge suppressor shall be provided at the power service entrance. The surge suppressor shall have voltage characteristics to match the power service.
- j. The wet well level controller shall be an SC model (100,1000, 2000) with a 2 – float backup. (Or an approved equal.)
- k. A Raco Dialer (or current alarm agent) shall be installed to match the City's current alarm system.
 - 1. The surge suppressor shall be in NEMA 4X enclosure and shall provide line to line, line to neutral, line to ground and neutral to ground protection modes as applicable for the power service.
 - 2. The surge suppressor shall be provided with a disconnect. Minimum surge current rating shall be 100KA per phase per NEMA LS-1. The surge suppression system shall be duty cycle tested to survive 20KV, 10KA, IEEE C62.41 category surge current with less than five percent degradation of clamping voltage. The surge suppressor shall have minimum repetitive surge capacity of 2,500 impulses per mode and 5,000 impulses per phase. Status indicating lights and form C dry alarm contacts shall be provided.
 - 3. The surge suppressor shall be UL listed and labeled under UL 1449 and UL 1283. The surge suppressor specifications shall be approved by the City.
 - 4. Acceptable manufacturers are:
 - (i) Liebert.
 - (ii) Current Technologies.
 - (iii) United Power.



- (15) All pump stations must be provided with backup power. This back-up power can be provided by independent dual power feed or diesel generators.
- (16) Generator specifications:
- Generator shall be furnished with a one-year service contract which covers all labor and material costs for normal maintenance and emergency repairs.
 - The standby generator shall be rated for continuous standby duty for the stations full load demand. The generator shall be sized to run all pumps simultaneously with staggered startups or as indicated in the drawings. The engine-generator set shall be rated for continuous standby duty operating in an ambient temperature of 40 degree C. The set shall have a standby power capacity sufficient to operate all pumps simultaneously with staggered startups and pump station auxiliary loads at 0.80 power factor, and shall operate at a speed not to exceed 1,800 rpm. It shall be rated 480/277 volt, as indicated, three-phase, four-wire, 60-Hertz.
 - Voltage regulation from no load to rated load shall be within plus or minus four percent of rated voltage for units up to and including 25 kw and within plus or minus three percent of rated voltage for units rated 30 kw or higher.
 - The frequency regulation shall not exceed three-Hertz from no load to rated load. Frequency variation shall not exceed plus or minus 0.3 Hertz for constant loads from no load to rated load.
 - Instantaneous voltage dip for all possible sequences of load application and motor starting for loads described in conditions of service shall not exceed 20 percent of nominal voltage.
 - The generator and associated appurtenances shall be housed in a weatherproof sound attenuated enclosure. Quiet site soundproofing shall be provided to reduce noise to 73 db at a distance of 23 feet (seven meters) for diesel powered generators.
 - Generator insulation shall be class B or F. Temperature rise shall be in accordance with NEMA Standard MG-1 for continuous duty at all output ratings.
 - Voltage regulator shall be an automatic, temperature compensated, solid state type with a manual adjustment range of plus or minus five percent of



rated voltage. Exciter shall be a solid-state, static type or brushless rotating type utilizing rotating diode rectifiers. Minimum rating of exciter shall be according to NEMA Standard MG-1.

- i. Generator lead terminal box shall be of ample size to accept and terminate connecting cables as indicated on the drawings. Generator leads shall be furnished with terminal connectors suitable for the customers connecting cables.
- j. The engine shall be heavy-duty compression-ignition, cold-starting diesel type arranged for direct connection to an alternating current generator. It shall be a current model of a type in a regular production by a manufacturer regularly engaged in building this type of diesel engine. Engine shall have at least a published intermittent brake horsepower rating at specified generator speed required by generator at rated full load output and shall operate without undue heating, vibration, or wear. Engine shall operate satisfactorily on No. 2 diesel fuel.
- k. Battery charger shall be automatic, two-rate type providing for equalizing charge and continuous taper charging. Output characteristics shall match requirements of battery furnished. Provided charger suitable for operation on 120 volt, single-phase, 60-Hertz current to be rated not less than six-amp direct current. Furnish battery charger with following features:
 - 1. Direct current voltage regulation: plus or minus two percent for variations in line voltage of plus or minus ten percent.
 - 2. Direct current voltmeter and direct current ammeter, each with suitable scales.
 - 3. Automatic current limiting to prevent overloading due to engine cranking, shorted output or reversed battery connections.
 - 4. Equalize charge rate with manually set timer.
 - 5. Integral protection to prevent battery discharge through charger on loss of alternating current line voltage.
 - 6. Terminal block with terminals for all external connections.



- l. The entire standby generator set shall have a five-year warranty period from the date of commissioning.
- m. Outdoor weather-protective housing with critical grade exhaust muffler shall be installed. The housing shall have hinged side access doors and a rear control door. All doors shall be lockable. All sheet metal shall be primed for corrosion protection and finish painted with the manufacturer's standard color. Vibration isolators as recommended by the generator set manufacturer shall be provided. The generator must be mounted far enough away from obstructions to allow all doors to be opened 90 degrees. All conduits shall be installed underground.
- n. Generator shall be supplied with all auxiliary systems necessary for operation (e.g., batteries, battery charger, block heater, convenience receptacle, enclosure light, motorized dampers etc.). The auxiliary system shall be powered from load center with adequately sized 480 1 208 1 120 V transformer, installed in the enclosure.
- o. Generator control panel shall be mounted with vibration isolators on the unit. Instruments shall be of direct-reading type, factory mounted and factory connected. Instruments shall be accurate within three percent. Provide panel with the following instruments gauges, features and alarms:
 - 1. Three position manual-off-auto switch.
 - 2. Manual starting switch.
 - 3. Emergency shutdown switch.
 - 4. Full automatic starting from pilot device initiating start when normal power fails. Automatic cranking shall be interrupted cycle type not affected by ambient temperature with overall time limit. A total of five cranking cycles shall automatically shut down engine after a time delay.
 - 5. Automatic shutdown devices with manual reset and individual indicating lights for low oil pressure, high coolant temperature, engine over-speed, and failure of engine to start. Auxiliary contacts on all aforementioned shutdown devices to operate a remote generator failure alarm.



6. Gauges and instruments shall include fuel gauge, running time meter, lubricating oil gauge, coolant temperature gauge, voltmeter, and ampmeter.
- p. The standby power system shall include an automatic transfer switch according to UL 1008. Transfer switch shall be rated for 100 percent of full load and shall have short circuit current rating as indicated. Switch shall be provided with indicators for all phases of operation and be equipped with a fully programmable timer for exercising the equipment. Provide silver plated load contacts with arcing tips and arc extinguishing devices. Provide the transfer switch with an internal manual operator, with the same transfer speed as the electrical operator.
 - q. Provide the automatic transfer switch with the following features:
 - 1. Full phase relay protection with three voltage sensing relays.
 - 2. Starting and load transfer to alternate source on a drop to 80 percent on any phase of normal voltage or one-Hertz frequency drop. Retransfer of load to normal source when voltage of all phases is restored to 90-95 percent.
 - 3. Transfer to standby generator when generator voltage and frequency are 90 percent of rated values
 - 4. Adjustable time delay, zero to two minutes, on transfer from alternate to normal. After transfer to the normal source, engine generator to run for adjustable time period to zero to five minutes before shutdown.
 - r. Generator shall be load tested at 100 percent full load on site for a period of four hours using resistive load banks. Notify the authority inspector prior to test, and provide certification letter from the manufacturer. Perform functional transfer tests simulating loss and return of utility power.
 - s. Three complete sets of O&M manuals and keys shall be provided for generator and automatic transfer switch.
 - t. Generator control system must include a programmable control device (exerciser) to allow automatic start-up and test functions. Test functions can be programmed for daily, weekly or monthly testing. Connections for remote monitoring of function and failure must be provided.



- u. Pump stations are required to have continuous standby power. Generators shall be diesel powered with 100 gallons minimum fuel storage capacity or 24-hour operating time, which ever is greater. Fuel storage shall be accomplished by the use of corrosion-resistant double wall subbase fuel tank only; no underground storage will be allowed. A leak detection device shall be provided in the interstitial space for sensing fuel leakage. The device contact shall be connected to the generator control panel terminals for telemetry.
- v. Generator specifications shall be approved by the City. can be obtained from the following manufacturers:
 - ~~1. Cummins-Onan.~~
 - ~~2. Kohler.~~
 - ~~3. Approved equal.~~
- w. Generator manufacturer will provide a 5-year comprehensive warranty to include parts and labor.
- x. Provide the manufacturer recommended set of spare parts for the generator and the automatic transfer switch. These shall include, but not be limited to, one filter for each system, two spare injectors, fuel injection pump, one fuse of each rating, and two indicating lights of each type. Pack spare parts in suitable boxes, bearing label of the content and the equipment for which it is intended.
- y. Transfer switches shall be in a NEMA 4 X enclosure and shall be supplied by the generator manufacturer. All transfer switch specifications shall be approved by the City. Acceptable manufacturers are:
 - ~~1. Cummins-Onan.~~
 - ~~2. ASCO.~~
- z. A generator ground grid must be provided and connected to the pump station grounding system.

(17) Monitoring system. Provide pump station with auto dialer monitoring system in a NEMA 4X rated, stainless steel, wall-mounted enclosure complete with mounting hardware. Provide conduit stub for future telemetry connection.



- a. The city's Raco Dialer shall be wired to alarm at: power failure (phase failure), generator running, wet well high level, wet well low level, pump 1 and pump 2 failure (pump 3 if necessary)

Recommendation:

Staff recommends **APPROVAL** of the proposed Text Amendment to Chapter 50 – Utilities, Article II – Standard Specifications, Subdivision VII – Pump Stations, Sec. 50-259 – Execution for the additions and changes to pump station specifications and regulatory enforcement.



**City of Flowery Branch
City Council Meeting
Thursday, October 2, 2025, 6:00 PM
5410 Pine Street
Flowery Branch, GA 30542**



Call Work Session to Order:

Mayor Asbridge called the meeting to order at 6:01 p.m.

Present: Mayor Asbridge and Council Members Joe Anglin, Oliver McClellan, William McDaniel, and Joseph Mezzanotte.

Also present were City Manager Tonya Parrish, City Clerk Shelia Cooper, Finance Director Matthew Hamby, Planning and Community Development Director Chris McCrary, Department of Fun Director Renee Carden, Human Resources Director Krystle Hightower, Public Works Director Bill Whidden, Public Utilities Director Peter Woerner, Police Chief Chris Hulsey, and City Attorney Ted Baggett

Absent: Council Member Chris Mundy

Pledge of Allegiance:

Mayor Asbridge led the Pledge of Allegiance.

Adoption of Agenda:

There was a motion made to adopt the agenda as presented.

Motion:	Joe Anglin
Second:	William McDaniel
Ayes:	Joe Anglin, Oliver McClellan, William McDaniel, Joseph Mezzanotte
Nays:	None
Result:	Passed

Awards & Recognitions: There were no awards or recognitions.

Public Hearing:

- a. **Public Hearing to Consider First Reading of Ordinance 759 for Rezoning of 6167 Wade Orr Road**

Director McCrary presented the first reading of Ordinance 759 for the rezoning of 6167 Wade Orr Road. The City of Flowery Branch is initiating a rezoning from M-1 - Manufacturing & Industrial, Light to R-2 - Residential Moderate Density for the property

located at 6167 Wade Orr Rd, tax map parcel #08134 000002. The total parcel assemblage is +/- 59 acres and is located within the Suburban Residential Character Area of the City of Flowery Branch Comprehensive Plan. Following the rezoning of Mulberry Summit from M-1 to R-3, the remaining parcel became an isolated industrial zoning parcel, accessible only via Wade Orr Road. Surrounded entirely by residential developments, the site falls within the Suburban Residential Character Area of the Comprehensive Plan. Rezoning the parcel to R-2 would align it with the Comprehensive Plan's Future Development Map and ensure consistency with the surrounding residential character. Staff recommends the approval of the proposed rezoning from M-1 - Manufacturing & Industrial, Light to R-2 - Residential Moderate Density for 6167 Wade Orr Road, Flowery Branch, GA 30542, tax map parcel #08134 000002.

In Favor of Ordinance 759:

Diane Sargent, 6278 Saddlehorse Drive, Flowery Branch, Georgia 30542
John Baisley, 6168 Compass Drive, Flowery Branch, Georgia 30542
Julia Ceasar, 6123 Saddlehorse Drive, Flowery Branch, Georgia 30542
William Coleman, 6424 Compass Drive, Flowery Branch, Georgia 30542
Wendy Frazier, 6216 Tall Woods Court, Flowery Branch, Georgia 30542
White Simpson, 6160 Wade Orr Road, Flowery Branch, Georgia 30542
Jim Johnson, 6156 Wade Orr Road, Flowery Branch, Georgia 30542

In Opposition of Ordinance 759:

Jim Walker representative of America's Home Place. America's Home Place owns the property at 6167 Wade Orr Road.

There were 4 minutes and 5 seconds remaining for the rebuttal and John Baisley spoke the remaining time.

Mayor Asbridge closed the Public Hearing at 6:24 p.m.

b. *Public Hearing to Consider First Reading of Ordinance 760 for Approval of a Master Concept Plan at 6167 Wade Orr Road*

Director McCrary presented a consideration of Ordinance 760 for approval of a Master Concept Plan at 6167 Wade Orr Road. The applicant is requesting approval of a comprehensive master site plan for the construction of an industrial development containing two warehouses, one totaling 226,800 SF and the second totaling 346,410 SF, along with associated parking, truck court, truck terminals, and detention ponds. Council acceptance of the master plan is a condition of Ordinance 503, adopted on October 16th, 2014, which established a rezoning of the parcel from Hall County AR-III – Agricultural Residential to Flowery Branch M-1 – Manufacturing & Industrial, Light.

The conditions of rezoning under Ordinance 503 prohibit the construction of a distribution center, including truck terminals. The applicant states the proposed use of warehousing is distinct from the prohibited “distribution center, including truck terminals” use. However, the definition of warehouse in the code also makes reference to truck terminals, as does the

proposed site plan, calling into question the appropriateness of the proposed use.

The following definitions are taken from the City of Flowery Branch Code of Ordinances:

- Distribution center: A use where goods are received and/or stored for delivery to the ultimate customer at remote locations.
- Truck terminal: A facility or premise for the receipt, transfer, short-term storage, and dispatching of goods transported by truck.
- Warehouse: A use involving the storage of products, supplies, and equipment, and which typically involves truck or rail transportation to and from the site.

Developing a large distribution warehouse on the subject site, currently zoned M-1 – Industrial & Manufacturing, Light, presents significant transportation challenges. Existing zoning conditions restrict all tractor-trailer traffic to the intersection of Wade Orr Road and Hog Mountain Road. A weight-limited bridge, located between the proposed development and this intersection, prohibits trucks with more than three axles preventing structural damage and ensure the safety of passenger vehicles, as confirmed by GDOT District Traffic Engineer Jonathan Peevy, P.E.

Furthermore, the intersection of Wade Orr Road and Hog Mountain Road currently operates at unacceptable levels of service during peak AM and PM hours. Improvements would be necessary to mitigate worsening traffic conditions. The intersection falls within Hall County's right-of-way, and any modifications would require approval from the Hall County Transportation Department. According to Hall County Engineer Brent Cook, an all-way stop is not supported, though alternative solutions, such as a roundabout, could improve operational efficiency. However, implementing such improvements would necessitate acquiring additional right-of-way. These constraints—restricted truck access due to the bridge's weight limit, poor intersection performance, and the need for costly right-of-way acquisition—pose significant barriers to developing a distribution warehouse. No straightforward solutions exist to accommodate tractor-trailer traffic for the proposed industrial development.

Hall County Government provided a letter of opposition to the project citing concerns regarding both traffic impacts as well as a lack of harmony with the surrounding residential land uses, stating that the proposed industrial development is significantly out of character with current zoning and land use.

In consideration of the lack of harmony with the City of Flowery Branch Future Land Use Map along with the traffic challenges outlined in the presentation, staff recommends denial of the proposed comprehensive master site plan for an industrial development at 6167 Wade Orr Road.

In Favor of Ordinance 760:

Steve Rowley, 12600 Deerfield Parkway, Alpharetta, Georgia 30004

Wesley Reed, P.E., Associate at Eberly & Associate, 2951 Flowers Road, Suite 119, Atlanta, Georgia 30341

Council held a discussion with Mr. Rowley and Mr. Reed.

In Opposition of Ordinance 760:

John Baisley, 6168 Compass Point, Flowery Branch, Georgia 30542

Mayor Asbridge gave Mr. Rowley the remaining time for rebuttal.

Mayor Asbridge closed the Public Hearing at 7:08 p.m.

Unfinished Business - Work Session: There was no unfinished business in the work session.

New Business - Work Session:

a. *Capital Projects Update*

Director Hamby presented capital projects update for 2025 year-end summaries with projected completion dates. He provided a 2026 first quarter summary and highlighted some of the 2026 new capital improvement projects.

b. *Consider a Second Amendment to Red Oak Sanitation, Inc. Agreement*

City Manager Parrish presented a Second Amendment to Red Oak Sanitation, Inc. Agreement. The current agreement expired in June 2025, but both parties wish to continue the agreement. The same pricing will remain in effect. Red Oak Sanitation handles all billing, customer accounts, customer service, etc. The City of Flowery Branch simply negotiated the terms of the agreement stating that Red Oak would be the sole provider of sanitation removal for residential customers within the city limits as well as the pricing associated with the services being provided. The contract will renew annually as described in the agreement unless either party desires to terminate the contract and may do so with the provisions in the contract.

Department Reports:

c. Department of Fun Report

Director Carden noted upcoming events.

d. Finance Department Report

Director Hamby presented an update on the Finance Department.

h. Public Utilities Report

Director Woerner wanted to say thanks to Mayor Asbridge and Council Member McClellan for visiting the sewer plant.

k. Council Report

Council Member McClellan congratulated the finance department on managing the City's money so well.

Adjournment Work Session:

Mayor Asbridge adjourned the work session at 7:37 p.m.

Voting Session Migration

Call Voting Session to Order:

Mayor Asbridge called the voting session to order at 7:37 p.m.

Public Comments:

Diane Sargent, 6278 Saddle Horse Drive, Flowery Branch, Georgia
Ms. Sargent is opposed to the proposed warehouse on Wade Orr Road.

John Baisley, 6168 Compass Drive, Flowery Branch, Georgia
Mr. Baisley is opposed to the proposed warehouse on Wade Orr Road.

Keith Jones, Compass Pointe HOA
Mr. Jones is opposed to the proposed warehouse on Wade Orr Road.

Nance Joiner, 6533 Bearing Drive, Flowery Branch, Georgia
Ms. Joiner is opposed to the proposed warehouse on Wade Orr Road.

Jim Johnson, 6156 Wade Orr Road, Flowery Branch, Georgia
Mr. Johnson is opposed to the proposed warehouse on Wade Orr Road.

Julia Ceaser, 6123 Saddlehorse Drive, Flowery Branch, Georgia
Ms. Ceaser is opposed to the proposed warehouse on Wade Orr Road.

Jim Homewood, 6079 Portsmouth Drive, Flowery Branch, Georgia
Mr. Homewood is opposed to the proposed warehouse on Wade Orr Road.

Fernando Andino, 6207 Saddlehorse Drive, Flowery Branch, Georgia
Mr. Andino is opposed to the proposed warehouse on Wade Orr Road.

Kristie Welchel, 6172 Wade Orr Road, Flowery Branch, Georgia
Ms. Welchel is opposed to the proposed warehouse on Wade Orr Road.

Consent Agenda:

- a. Consider September 4, 2025 City Council Meeting Minutes
- b. Consider September 18, 2025 City Council Meeting Minutes
- c. Consider Mayor Asbridge September 2025 Per Diem

There was a motion made to approve the consent agenda as presented.

Motion: Oliver McClellan
Second: William McDaniel
Ayes: Joe Anglin, Oliver McClellan, William McDaniel, Joseph Mezzanotte
Nays: None
Result: Passed

Unfinished Business - Voting Session: There was no unfinished business in the voting session.

New Business - Voting Session:

a. **Consider First Reading of Ordinance 759 for Rezoning of 6167 Wade Orr Road**

City Clerk Cooper read the caption for Ordinance 759.

There was a motion made to approve Ordinance 759.

Motion: Oliver McClellan
Second: Joseph Mezzanotte
Ayes: Joe Anglin, Oliver McClellan, William McDaniel, Joseph Mezzanotte
Nays: None
Result: Passed

b. **Consider First Reading of Ordinance 760 for Approval of a Master Concept Plan at 6167 Wade Orr Road**

City Clerk Cooper read the caption for Ordinance 760.

There was a motion made to deny the first reading of Ordinance 760.

Motion: Oliver McClellan
Second: William McDaniel
Ayes: Joe Anglin, Oliver McClellan, William McDaniel, Joseph Mezzanotte
Nays: None
Result: passed

c. **Consider a Second Amendment to Red Oak Sanitation, Inc. Agreement**

There was a motion made to approve the second amendment to the residential waste services agreement with Red Oak Sanitation, Inc.

Motion: William McDaniel
Second: Oliver McClellan

Ayes: Joe Anglin, Oliver McClellan, William McDaniel, Joseph Mezzanotte
Nays: None
Result: passed

Executive Session:

There was a motion made to enter an executive session for matters related to the acquisition/disposition of real estate, for matters related to certain personnel issues, and for matters related to pending or potential litigation at 7:59 p.m.

Motion: Oliver McClellan
Second: William McDaniel
Ayes: Joe Anglin, Oliver McClellan, William McDaniel, Joseph Mezzanotte
Nays: None
Result: Passed

There was a motion made to exit executive session at 8:10 p.m.

Motion: Oliver McClellan
Second: William McDaniel
Ayes: Joe Anglin, Oliver McClellan, William McDaniel, Joseph Mezzanotte
Nays: None
Result: Passed

Adjournment:

There was a motion made to adjourn the meeting at 8:10 p.m.

Motion: Oliver McClellan
Second: William McDaniel
Ayes: Joe Anglin, Oliver McClellan, William McDaniel, Joseph Mezzanotte
Nays: None
Result: passed

Edward R. Asbridge
Mayor

Date

Shelia Cooper
City Clerk



**City of Flowery Branch
City Council Meeting
Thursday, October 16, 2025, 6:00 PM
5410 Pine Street
Flowery Branch, GA 30542**



Call Work Session to Order:

Mayor Asbridge called the meeting to order at 6:00 p.m.

Present: Mayor Asbridge and Council Members Joe Anglin, William McDaniel, Joseph Mezzanotte, and Chris Mundy

Also present were City Manager Tonya Parrish, Assistant City Clerk Nancy Rodriguez, Finance Director Matthew Hamby, Planning and Community Development Director Chris McCrary, Public Works Director Bill Whidden, Human Resources Director Krystle Hightower, Department of Fun Director Renee Carden, and City Attorney Ted Baggett.

Absent: Council Member Oliver McClellan and City Clerk Shelia Cooper

Pledge of Allegiance:

Mayor Asbridge led the Pledge of Allegiance.

Adoption of Agenda:

There was a motion made to adopt the agenda as presented.

Motion:	Chris Mundy
Second:	William McDaniel
Ayes:	Joe Anglin, William McDaniel, Joseph Mezzanotte, Chris Mundy
Nays:	None
Result:	passed

Awards & Recognitions: There were no awards or recognitions.

Public Hearing:

a. **Adoption of Official Zoning Map**

City Planner Dani Nash presented consideration of adopting an Official Zoning Map of the City of Flowery Branch. Pursuant to Article 3, Sec. 3.4, the Governing Body is to approve changes in zoning districts, boundaries, or other subject matter portrayed on the official zoning map for the City of Flowery Branch. There have been several approved annexations, rezonings, and text amendments which established new zoning categories, necessitating an update to both the map itself and the information displayed in the map legend of the official zoning map. The following report details the changes and revisions

that are contained within this update. Staff recommends approval of the proposed amendments to the Official Zoning Map for the City of Flowery Branch.

City Attorney Baggett added, for purposes of the record, the adoption of the zoning map pursuant to Ordinance 766, pursuant to Section 3.4 of the City of Flowery Branch Zoning Ordinance to provide for the adoption and replacement of an Official Zoning Map of the City of Flowery Branch, Georgia.

There being no one wishing to speak in favor or opposition, Mayor Asbridge closed the public hearing at 6:05 p.m.

Unfinished Business - Work Session: There was no unfinished business in the work session.

New Business - Work Session:

- a. ***Consideration of Executing a Memorandum of Understanding (MOU) with Penn Hodge, LLC for the development of Downtown Flowery Branch or Old Town – Phase II.***

City Manager Parrish presented consideration of executing a Memorandum of Understanding with Penn Hodge, LLC for the development of Downtown Flowery Branch or Old Town Phase II. Penn Hodge LLC has expressed an interest in exploring the possible acquisition of development rights to one or more of the city-owned parcels for constructing one or more projects containing retail, office, or residential components. This MOU provides Penn Hodge, LLC with the exclusive right to develop the project in one or more phases. All redevelopment proposed (all parcels) and included in this MOU are within the Tax Allocation District.

Council held a discussion with City Manager Parrish.

- b. ***Consider Farm Winery / Tasting Room License for Yonah Mountain Vineyards, LLC***

City Manager Parrish presented a consideration for Farm Winery/Tasting Room License for Yonah Mountain Vineyards, LLC. Applicant Eric Miller has applied for a Farm Winery/Tasting Room license. The proposed business is a farm winery based in White County, Georgia, with plans to operate a tasting room in Flowery Branch. Under current regulations, farm wineries are permitted to sell wine in closed packages for off-premises consumption at tasting rooms that are exclusively owned and operated by the winery, at no more than five (5) locations other than the primary winery premises. The application has been reviewed and processed by the Chief of Police.

Council held a discussion with City Manager Parrish.

Department Reports:

- c. Department of Fun Report
Director Carden noted upcoming events.

k. Council Report

Mayor Asbridge welcomed residents to the meeting.

Adjournment Work Session:

Mayor Asbridge adjourned the work session at 6:11 p.m.

Voting Session Agenda

Call Voting Session to Order:

Mayor Asbridge called the voting session to order at 6:11 p.m.

There were no public comments.

Consent Agenda: There were no items on the consent agenda.

Unfinished Business - Voting Session:

a. **Consider Second Reading of Ordinance 759 for Rezoning of 6167 Wade Orr Road**

Assistant City Clerk Rodriguez read the caption for Ordinance 759.

There was a motion made to approve Ordinance 759.

Motion: Chris Mundy
Second: Joseph Mezzanotte
Ayes: Joe Anglin, William McDaniel, Joseph Mezzanotte, Chris Mundy
Nays: None
Result: passed

New Business - Voting Session:

a. **Adoption of Official Zoning Map**

Assistant City Clerk Rodriguez read the caption for Ordinance 766.

There was a motion made to approve Ordinance 766.

Motion: Joe Anglin
Second: William McDaniel
Ayes: Joe Anglin, William McDaniel, Joseph Mezzanotte, Chris Mundy
Nays: None
Result: passed

b. **Consideration of Executing a Memorandum of Understanding (MOU) with Penn Hodge, LLC for the development of Downtown Flowery Branch or Old Town – Phase II.**

There was a motion made to execute a Memorandum of Understanding with Penn Hodge, LLC for the development of Downtown Flowery Branch or Old Town.

Motion: Chris Mundy
Second: Joseph Mezzanotte
Ayes: Joe Anglin, William McDaniel, Joseph Mezzanotte, Chris Mundy
Nays: None
Result:

c. **Consider Farm Winery / Tasting Room License for Yonah Mountain Vineyards, LLC**

There was a motion made to approve the alcohol license issuance for The Branch Social Farm Winery/ Tasting Room license.

Motion: Joe Anglin
Second: Chris Mundy
Ayes: Joe Anglin, William McDaniel, Joseph Mezzanotte, Chris Mundy
Nays: None
Result:

Executive Session: There was no executive session held.

Adjournment:

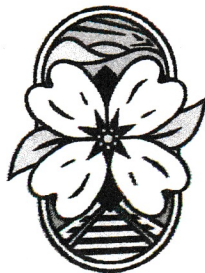
There was a motion made to adjourn the meeting at 6:16 p.m.

Motion: Chris Mundy
Second: Joseph Mezzanotte
Ayes: Joe Anglin, William McDaniel, Joseph Mezzanotte, Chris Mundy
Nays: None
Result: passed

Edward R. Asbridge
Mayor

Date

Shelia Cooper
City Clerk



**City of Flowery Branch
Mayor & Council Attendance Sheet Per Diem Pay**

Name: Mayor Edward R. Asbridge Month/Year: _____

Meeting Date		Description of Meeting
10-1	3-5pm	Tour of Downtown
10-10	9-10AM	CHAMBER EDC @ OAKWOOD

My signature certifies that I am eligible to be paid for 2 meeting dates, a maximum of 5 per month, in accordance with the Per Diem Pay as described in Ordinance 477 and at a rate of \$50.00 per meeting.

Total of \$ 100⁰⁰

Edward R. Asbridge
Signature

ORDINANCE NO. 766
AN ORDINANCE PURSUANT TO SECTION 3.4 OF THE CITY OF FLOWERY
BRANCH ZONING ORDINANCE TO PROVIDE FOR THE ADOPTION AND
REPLACEMENT OF AN OFFICIAL ZONING MAP OF THE CITY OF FLOWERY
BRANCH, GEORGIA.

The Council of the City of Flowery Branch hereby ordains that the City of Flowery Branch Zoning Ordinance is amended pursuant to Section 3.4 by adopting a new official zoning map. The map is attached hereto as Exhibit A and incorporated herein by reference. The map bears the legend Official Zoning Map of the City of Flowery Branch, Georgia, October 16th, 2025.

The new official zoning map shall be identified by the signature of the Mayor, attested by the City Clerk, and shall bear the seal of the City under the following words: "This is to certify that this official zoning map supersedes and replaces the previous official zoning map, as amended, as part of the Flowery Branch Zoning Ordinance." The new official zoning map shall be an attachment to the Flowery Branch zoning ordinance.

The previous official zoning map shall be preserved and maintained in the offices of the Planning Department of the City of Flowery Branch.

Any property that is located within the municipal boundaries of the City of Flowery Branch, Georgia, that is not shown on the official zoning map of the City of Flowery Branch, Georgia, which is adopted pursuant to this ordinance, or that is not shown within a specific zoning classification on the zoning map attached hereto shall be classified as R-1 Residential, Detached, Single-Family Low-Density District. All conditions of zoning that were placed on any land in the City of Flowery Branch, Georgia at the time of any prior zoning of that property, and any conditional use permits and conditions related thereto shall remain in full force and effect.

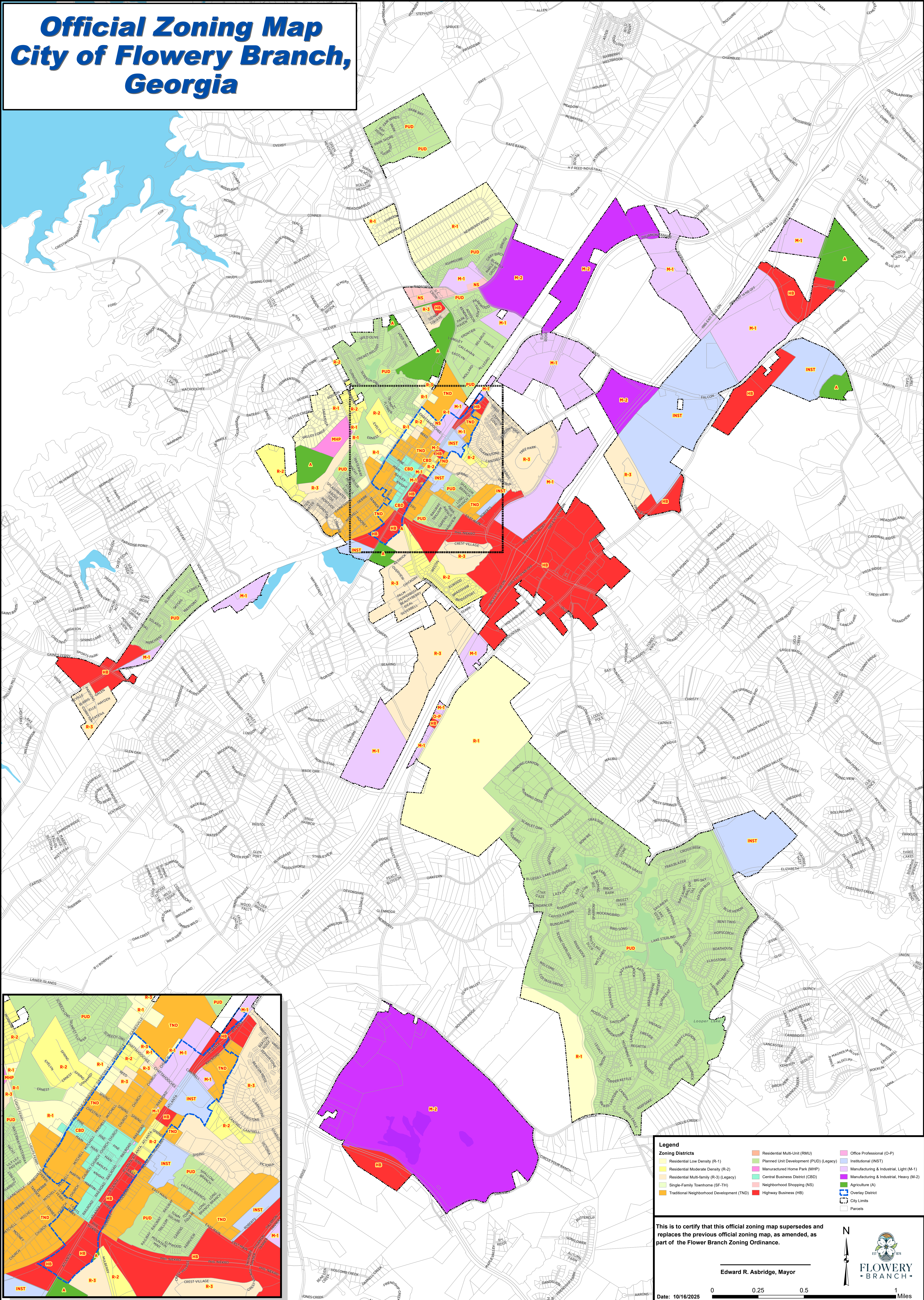
IT IS SO ORDAINED, this _____ day of _____ 2025

Edward R. Asbridge, Mayor

Attest: _____
Shelia R. Cooper, City Clerk

Official Zoning Map

City of Flowery Branch, Georgia





Memorandum

To: City of Flowery Branch, City Manager, and City Council

From: Chris McCrary, Planning and Community Development Director

Date: October 16th, 2025

Subject: Ordinance 766 – Adoption of Amended Zoning Map

Applicant: N/A

Owner: N/A

Existing Zoning: Multiple Zoning Designations

Location:

- City of Flowery Branch.

EXECUTIVE SUMMARY:

Pursuant to Article 3, Sec. 3.4, the Governing Body is to approve changes in zoning districts, boundaries, or other subject matter portrayed on the official zoning map for the City of Flowery Branch. There have been several approved annexations, rezonings, and text amendments which established new zoning categories necessitating an update to both the map itself as well as the information displayed in the map legend of the official zoning map. The following report details the changes and revisions that are contained within this update.



Boundary Areas Adjusted via Annexation:

The parcel located at 5623 Hog Mountain Road, tax map parcel #15048 000045, was annexed from Hall County and rezoned from Hall County AR-1 to Flowery Branch M-2 by Vulcan Lands, Inc.





A portion of 6300 Jones Rd. (small portion shaded blue), tax map parcel #08118 001015, was annexed into the city limits and the collective tracts outlined in red were rezoned from Flowery Branch R-1 to Flowery Branch R-2 by Heritage Homes, LLC.





The parcel located at 4272 Thurmon Tanner Parkway, tax map parcel #08073 000012, was annexed from Hall County and rezoned from Hall County I-1 to Flowery Branch M-1 by Around the Pickle, LLC.





Zoning Adjustments via Rezoning:

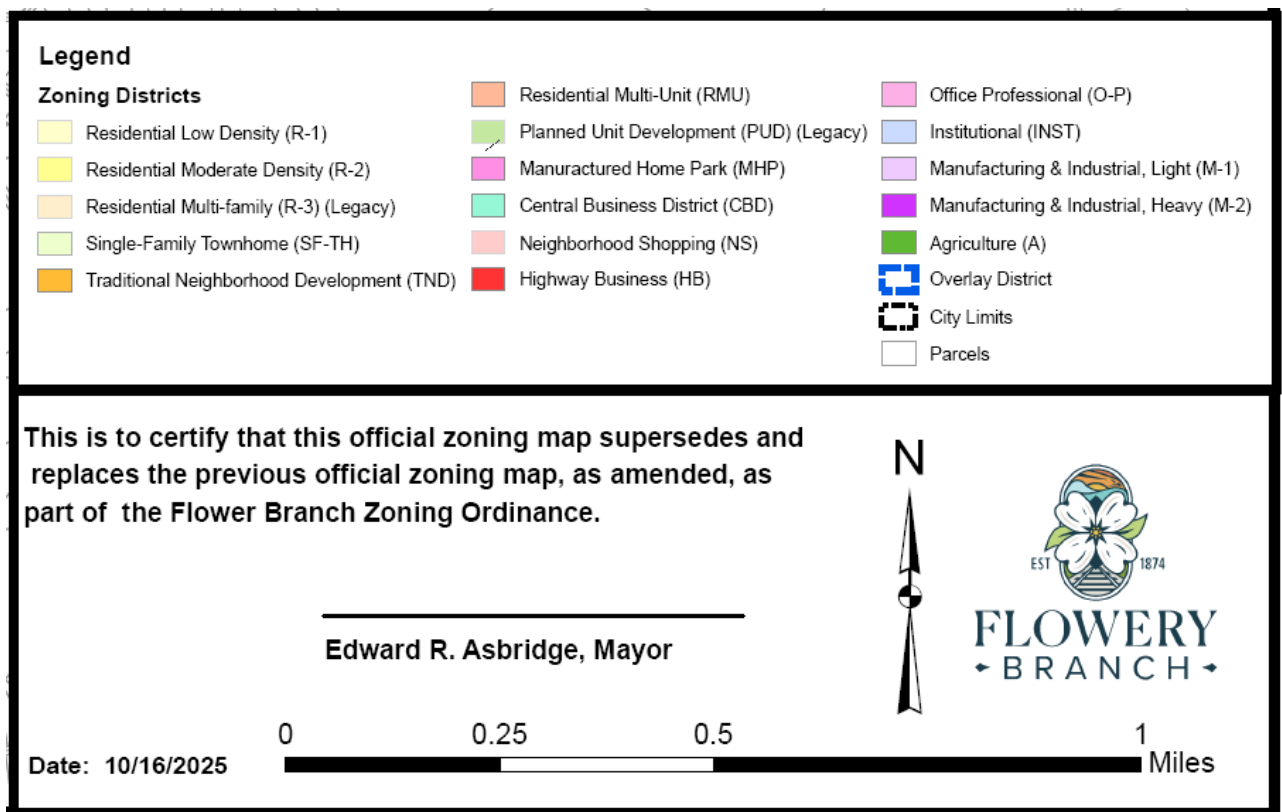
Two parcels located at 5238 & 5250 Hog Mountain Road, tax map parcel #08116 000016 & #08116 000017, were rezoned from Flowery Branch M-1 to Flowery Branch O-P and Flowery Branch HB, respectively, by Dodson Vet Enterprises, LLC.

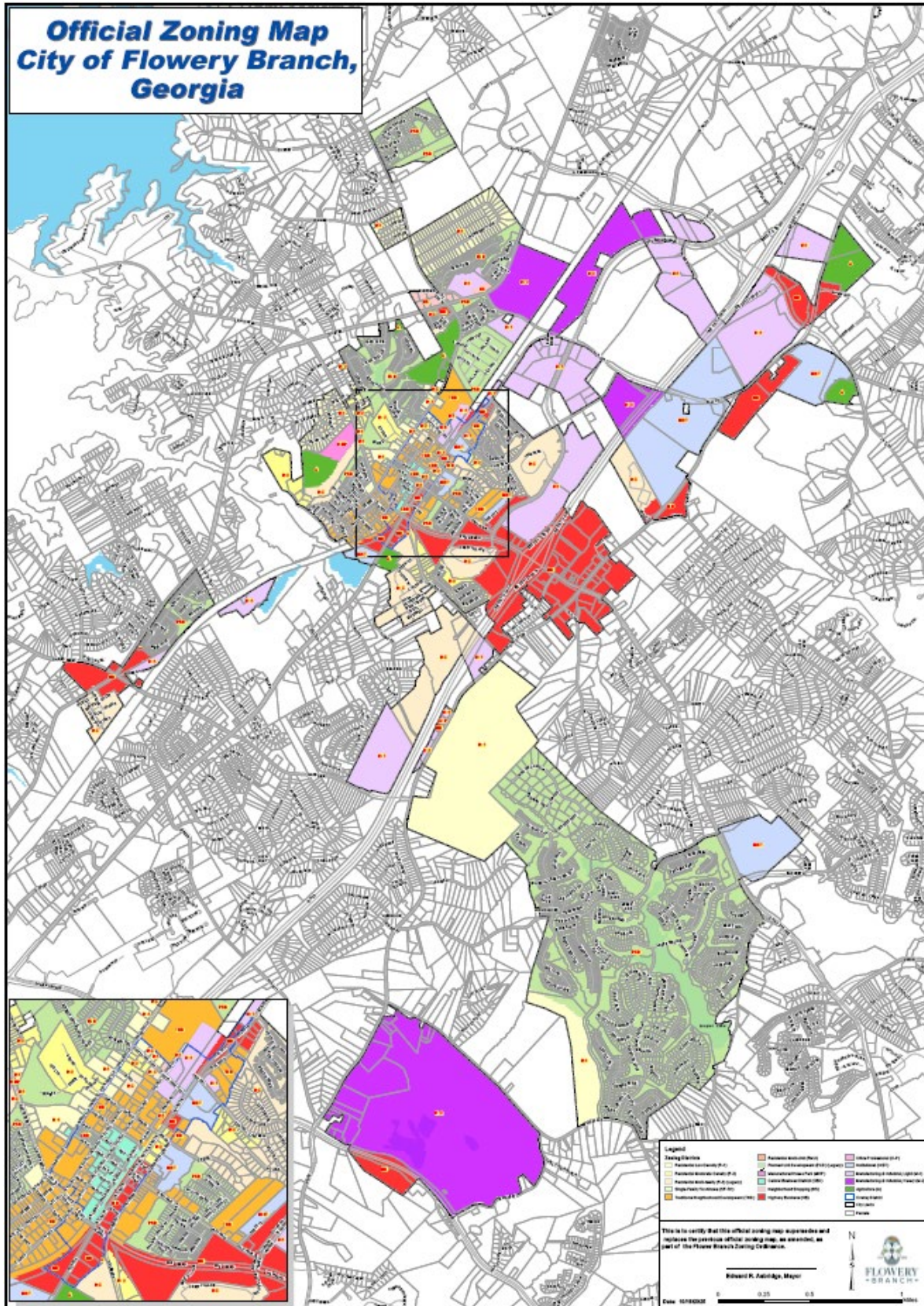




Zoning District Amendments:

The zoning districts Residential Multi-family (R-3) and Planned Unit Development (PUD) were amended to Legacy categories. The zoning districts Single-Family Townhome (SF-TH) and Residential Multi-Unit (RMU) were added. The logo has also been updated to reflect the new branding.







Recommendation:

Staff recommends **APPROVAL** of the proposed amendments to the Official Zoning Map for the City of Flowery Branch.

ORDINANCE NO. 767

AN ORDINANCE AMENDING THE ZONING ORDINANCE OF THE CITY OF FLOWERY BRANCH, GEORGIA, ORDINANCE NO. 767, TO PROVIDE FOR CHANGES TO SPECIFICATIONS FOR PARKING AND LOADING IN ARTICLE 21 – PARKING AND ARTICLE 22 – LOADING, TO STRIKE IN ITS ENTIRETY SEC. 21.12. – PARKING SPACE AND AISLE DESIGN SPECIFICATIONS AND TO BE REPLACED WITH A NEW SEC. 21.12 – PARKING SPACE AND AISLE DESIGN SPECIFICATIONS, AND TO STRIKE IN ITS ENTIRETY SEC. 22.4 – MINIMUM NUMBER OF OFF-STREET LOADING SPACES REQUIRED WITHIN ARTICLE 22 – LOADING, AND TO BE REPLACED WITH A NEW SEC. 22.4 – MINIMUM NUMBER OF OFF-STREET LOADING SPACES REQUIRED, AS SHOWN ON ATTACHED EXHIBIT “A”, PROVIDING FOR SEVERABILITY, REPEALING CONFLICTING ORDINANCES, AND FOR ALL OTHER LAWFUL PURPOSES.

WHEREAS, the Zoning Ordinance of the City of Flowery Branch, Georgia, authorizes the amendment of the text of the City of Flowery Branch Zoning Ordinance by the City Council; and

WHEREAS, the Zoning Administrator is authorized, pursuant to Section 33.2 of the Zoning Ordinance, to initiate an amendment to the Zoning Ordinance for consideration by the City Council; and

WHEREAS, it is in the public interest to update existing codes; and

WHEREAS, the changes to the code enhance the health, safety, and overall general welfare of the citizens of Flowery Branch; and

WHEREAS, the City has complied with the Zoning Procedures Law and the requirements of Article 33 of the Zoning Ordinance with regard to text amendments, including the holding of an advertised public hearing; and

NOW THEREFORE, THE CITY COUNCIL OF THE CITY OF FLOWERY BRANCH HEREBY ORDAINS THAT THE FLOWERY BRANCH ZONING ORDINANCE IS AMENDED AS FOLLOWS:

SECTION 1. AMENDMENT.

To provide for changes to specifications for parking and loading in Article 21 – Parking and Article 22 – Loading, to strike in its entirety Sec. 21.12. – Parking Space and Aisle Design Specifications and to be replaced with a new Sec. 21.12 – Parking Space and Aisle Design Specifications, and to strike in its entirety Sec. 22.4 – Minimum Number of Off-street Loading Spaces Required within Article 22 – Loading, and to be replaced with a new Sec. 22.4 – Minimum Number of Off-street Loading Spaces Required, as shown on attached Exhibit “A”.

SECTION 2. SEVERABILITY.

Should any section or provision of this Ordinance be declared invalid or unconstitutional by any court of competent jurisdiction, such declaration shall not affect the validity of this Ordinance as a whole or any part thereof which is not specifically declared to be invalid or unconstitutional.

SECTION 3. EFFECTIVE DATE.

The effective date of this Ordinance shall be upon approval by the City Council of the City of Flowery Branch, Georgia.

SECTION 4. REPEALER.

All ordinances and parts of ordinances in conflict herewith are hereby repealed to the extent of the conflict.

Approved this _____ day of _____ 2025.

Edward R. Asbridge, Mayor

ATTEST:

Shelia R. Cooper, City Clerk

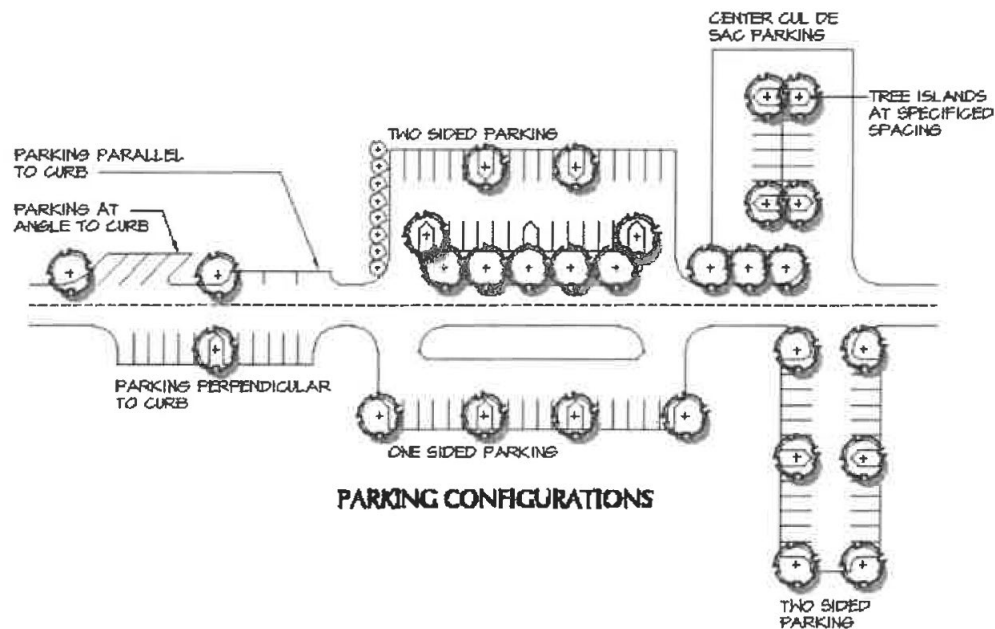
APPROVED AS TO FORM:

Ted Baggett, City Attorney

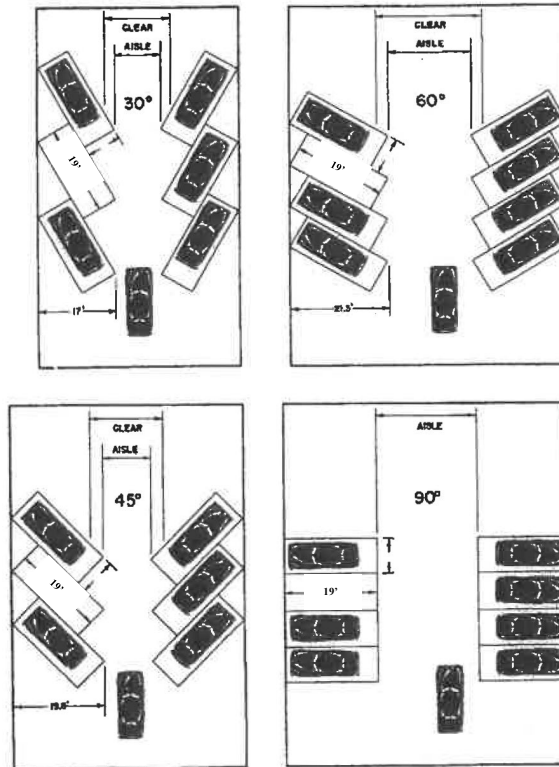
Exhibit "A"

ARTICLE 21. PARKING

Sec. 21.12. Parking Space and Aisle Design Specifications.



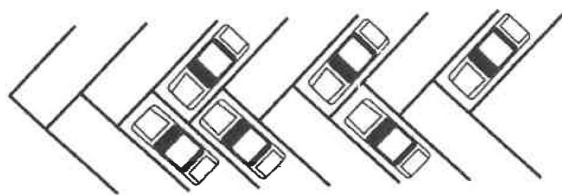
- (a) *Angled Parking.* Designers are permitted flexibility with regard to parking lot designs, subject to the requirements of this Article.



Source: De Chiara, Joseph, and Lee E. Koppelman. 1984. *Time-Saver Standards for Site Planning*. Figure 6.205, p. 663. New York: McGraw-Hill.

- (b) *Parking Space Width and Length.* Parking spaces shall be a minimum of nine (9) feet in width and nineteen (19) feet in length.
- (c) *Interlocking design.* An interlocking or "herringbone" parking design is not permitted, as it exposes the side of one vehicle to the front of another, which can result in substantial damage if the vehicle rolls forward (see figure).

Interlocking Parking Space Design Prohibited



Source: Stover, Vergil G., and Frank J. Koepke. 2002. *Transportation and Land Development* (2nd Ed.). Washington, DC: Institute of Transportation Engineers. Figure 9-6, p. 9-15.

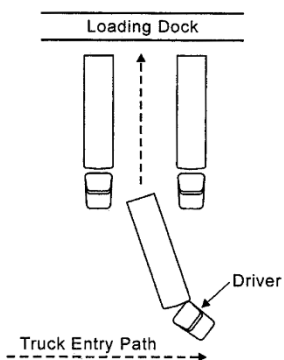
- (d) Inter-parcel driveway connection or provision of a future inter-parcel driveway stub (with appropriate cross-access easements) shall be required between adjacent non-residential properties. This requirement may be waived by the Director only if it is demonstrated that an inter-parcel connection is not feasible due to traffic safety or topographic concerns.
- (e) Interior driveways, with or without parking, shall be 12 to 16 feet wide for one-way traffic, and 22 to 24 feet wide for two-way traffic. Driveways that are determined to be essential fire access shall be increased to a minimum of 20 feet in width.

- (f) Interior driveways providing primary access to loading/unloading zones or loading docks for truck traffic shall be increased to 14 feet in width per travel lane.
- (g) Interior driveways surrounding gasoline pumps shall be increased to 40 feet in total width (as measured from the base of the gasoline pump islands).
- (h) Bumper stops shall be installed to separate parking spaces from sidewalks, rights-of-way, adjacent properties and landscape strips to prevent overhangs or encroachments. Where required, bumper stops shall be a minimum of 6 inches in height and 6 inches in width. Bumper stops shall be constructed of concrete, stone, or equally suitable material approved in writing by the Zoning Administrator, and be permanently secured to the pavement surface.

ARTICLE 22. - LOADING

Sec. 22.1. - Off-Street Loading Required.

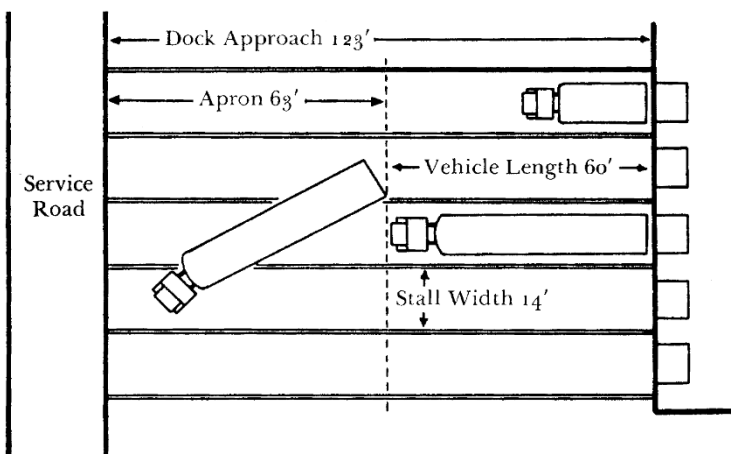
On the same lot with every building, structure or part thereof, erected or occupied for manufacturing, storage, warehouse, truck freight terminal, department store, wholesale store, grocery supermarket, hotel, hospital, mortuary, dry cleaning plant, retail business, or other uses similarly involving the receipt or distribution of vehicles, materials or merchandise, there shall be provided and maintained adequate space for the standing, loading, and unloading of such materials to avoid undue interference with public use of streets, alleys, and private or public parking areas.



Source: Stover, Vergil G., and Frank J. Koepke. 2002. *Transportation and Land Development* (2nd Ed.). Washington, DC: Institute of Transportation Engineers. Figure 10-5, p. 10-9.

Sec. 22.2. - Loading Area Specifications.

Unless otherwise approved by the Zoning Administrator, loading spaces shall be a minimum of fourteen (14) feet wide, forty (40) feet long, with fourteen (14) feet of height clearance. When the development requires loading and unloading by full-size tractor-trailers, loading spaces shall be sixty (60) feet long with a sixty-three (63) foot apron,

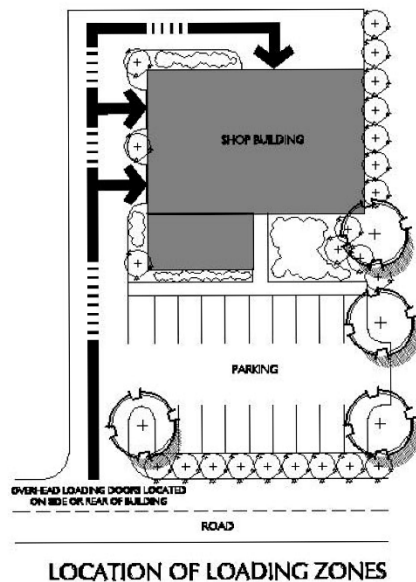


for a total approach zone of 155 feet.

Source: De Chiara, Joseph, and Lee E. Koppelman. 1984. *Time-Saver Standards for Site Planning*. Figure 6.188, p. 652. New York: McGraw-Hill.

Sec. 22.3. - Loading Area Locations.

Loading areas shall be located to the rear of the building unless site design precludes a rear location, in which case loading shall be to the side of a building. Loading areas shall not be permitted within front yards.



Sec. 22.4. - Minimum Number of Off-Street Loading Spaces Required.

Off-street loading spaces for various types of use shall be in accordance with the following table and shall be of the same dimensions as described in Section 22.2 unless other permissible dimensions are specifically denoted.

Off-street Loading Requirements		
Type of Use	Gross Floor Area (Sq. Ft.)	Loading Space Required
Single retail establishment services	0 to 19,999;	None
	20,000 to 49,999;	One
	50,000 to 250,000;	Two
	Over 250,000	Three
Shopping centers	0 to 19,999;	None
	20,000 to 49,999;	One
	50,000 to 100,000;	Two
	Each additional 100,000	One
Office buildings, multi-family residential over 4 stories, hospitals, health care establishments, hotels and motels	0 to 999,999;	None
	1,000,000 to 2,000,000	One
	More than 2,000,000;	Two
Manufacturing, warehousing, wholesaling, etc.	Up to 14,999;	One
	15,000 to 39,999;	Two
	40,000 to 65,000;	Three
	Each additional 80,000	One
Recycling centers		2 loading spaces measuring no less than 12 ft. by 35 ft. and having 14 ft. of vertical clearing

Memorandum

To: City of Flowery Branch, City Manager, and City Council

From: Chris McCrary, Planning and Community Development Director

Date: November 6th, 2025

Subject: Ordinance 767 Text Amendments to Article 21 – Parking and Article 22 - Loading

Applicant: Chris McCrary
Director of Planning & Community Development

Owner: N/A

Existing Zoning: N/A – Text Amendment

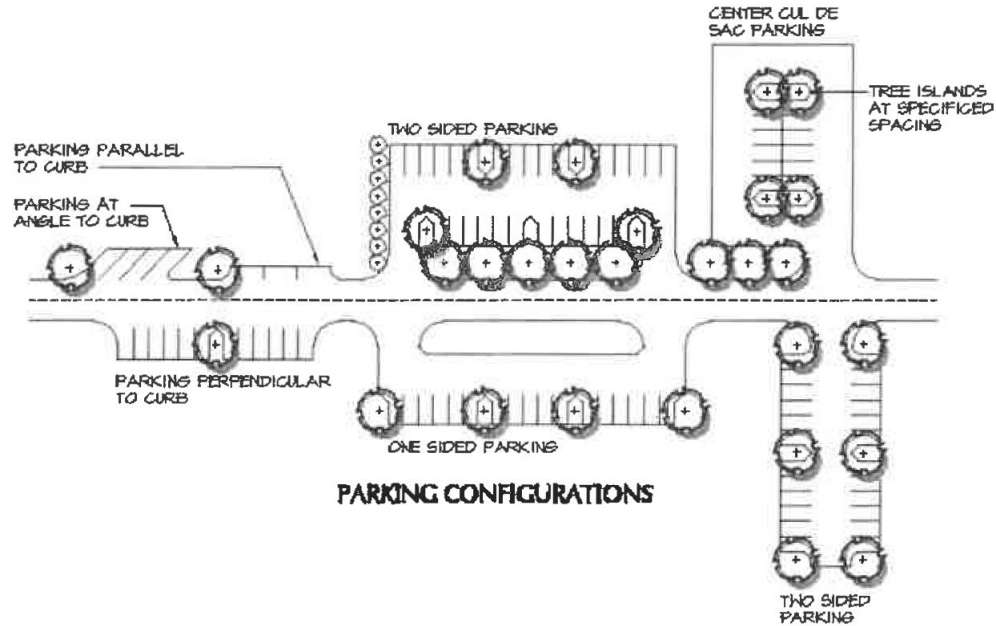
Location in Code of Ordinances:

- Appendix C – Zoning Ordinance, Article 21. – Parking, Sec. 21.12 Parking Space and Aisle Design Specifications & Article 22 – Loading, Sec.22.4 – Minimum Number of Off-Street Loading Spaces Required.

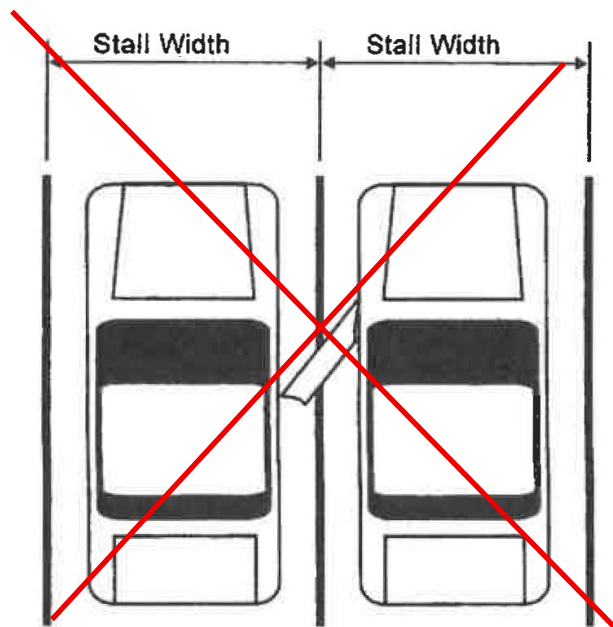
Pursuant to Article 33 – Text Amendments of the Code of Ordinances for the City of Flowery Branch, City Council may amend regulations, Articles, or Sections of the Zoning Ordinance when appropriate factors or circumstances arise. Ordinance 767 proposes several changes and additions to the specifications and dimensional requirements for parking and loading as well as correcting inconsistencies.

ARTICLE 21. PARKING

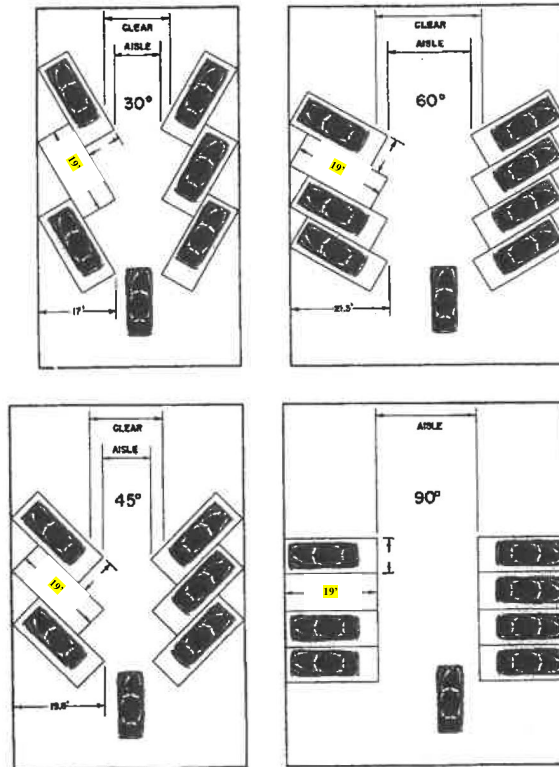
Sec. 21.12. Parking Space and Aisle Design Specifications.



- (a) *Angled Parking*. Designers are permitted flexibility with regard to parking lot designs, subject to the requirements of this Article.



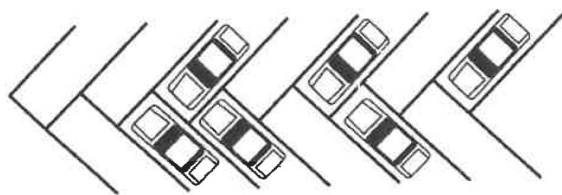
Source: Stover, Vergil G., and Frank J. Koepke. 2002. *Transportation and Land Development* (2nd Ed.). Washington, DC: Institute of Transportation Engineers. Figure 9-13, p. 9-24.



Source: De Chiara, Joseph, and Lee E. Koppelman. 1984. *Time-Saver Standards for Site Planning*. Figure 6.205, p. 663. New York: McGraw-Hill.

- (b) *Parking Space Width and Length*. Parking spaces shall be a minimum of ~~ten (10)~~ **nine (9)** feet in width and ~~twenty (20)~~ **nineteen (19)** feet in length.
- (c) *Interlocking design*. An interlocking or "herringbone" parking design is not permitted, as it exposes the side of one vehicle to the front of another, which can result in substantial damage if the vehicle rolls forward (see figure).

Interlocking Parking Space Design Prohibited



Source: Stover, Vergil G., and Frank J. Koepke. 2002. *Transportation and Land Development* (2nd Ed.). Washington, DC: Institute of Transportation Engineers. Figure 9-6, p. 9-15.

- (d) *Aisle widths*. Parking driveway maneuvering aisle width requirements vary according to the width and length of parking spaces and the angle of parking. For a single row of ninety (90) degree head-in parking, the minimum depth for a parking space plus the width of the aisle shall be forty two (42) feet. For two (2) rows of ninety (90) degree head-in parking using the same aisle, the minimum depth for parking spaces plus the width of the aisle shall be sixty two (62) feet (i.e., curb to curb) for nine (9) foot wide spaces and sixty (60) feet (i.e., curb to curb) for ten (10) foot wide spaces. Interior driveways shall connect each parking space with a public right of way.

-
- (d) Inter-parcel driveway connection or provision of a future inter-parcel driveway stub (with appropriate cross-access easements) shall be required between adjacent non-residential properties. This requirement may be waived by the Director only if it is demonstrated that an inter-parcel connection is not feasible due to traffic safety or topographic concerns.
 - (e) Interior driveways, with or without parking, shall be 12 to 16 feet wide for one-way traffic, and 22 to 24 feet wide for two-way traffic. Driveways that are determined to be essential fire access shall be increased to a minimum of 20 feet in width.
 - (f) Interior driveways providing primary access to loading/unloading zones or loading docks for truck traffic shall be increased to 14 feet in width per travel lane.
 - (g) Interior driveways surrounding gasoline pumps shall be increased to 40 feet in total width (as measured from the base of the gasoline pump islands).
 - (h) Bumper stops shall be installed to separate parking spaces from sidewalks, rights-of-way, adjacent properties and landscape strips to prevent overhangs or encroachments. Where required, bumper stops shall be a minimum of 6 inches in height and 6 inches in width. Bumper stops shall be constructed of concrete, stone, or equally suitable material approved in writing by the Zoning Administrator, and be permanently secured to the pavement surface.



ARTICLE 22. - LOADING

Sec. 22.4. - Minimum Number of Off-Street Loading Spaces Required.

Off-street loading spaces for various types of use shall be in accordance with the following table and shall be of the same dimensions as described in Section 22.2 unless other permissible dimensions are specifically denoted. Off-street loading spaces shall be provided according to the following table:

Land Use	Size (Gross Floor Area in Square Feet)	Loading Docks	Parking Spaces	Total Spaces
Office	0 – 30,000	0	1	1
	30,001 – 100,000	1	1	2
	Each additional 100,000	1	1	+2
Commercial – Highway Business	0 – 10,000	0	1	1
	10,001 – 30,000	2	1	3
	30,001 – 80,000	3	2	5
	Each additional 80,000	1	2	+3
Commercial – Central Business District	0 – 10,000	0	1	1
	10,001 – 30,000	1	1	2
	30,001 – 80,000	2	1	3
	Each additional 80,000	1	0	+1
Industrial	0 – 5,000	0	1	1
	5,001 – 30,000	1	1	2
	30,001 – 50,000	2	1	3
	50,001 – 100,000	3	1	4
	Each additional 100,000	1	0	+1

Source: National Parking Association, 1992. Recommended Zoning Ordinance Provisions for Parking and Off-Street Loading Space. In Transportation and Land Development, 2nd Ed. 2002 (Washington, DC, Institute of Transportation Engineers, 2002, p. 10-8, Table 10-3).



Off-street Loading Requirements		
Type of Use	Gross Floor Area (Sq. Ft.)	Loading Space Required
Single retail establishment services	0 to 19,999;	None
	20,000 to 49,999;	One
	50,000 to 250,000;	Two
	Over 250,000	Three
Shopping centers	0 to 19,999;	None
	20,000 to 49,999;	One
	50,000 to 100,000;	Two
	Each additional 100,000	One
Office buildings, multi-family residential over 4 stories, hospitals, health care establishments, hotels and motels	0 to 999,999;	None
	1,000,000 to 2,000,000	One
	More than 2,000,000;	Two
Manufacturing, warehousing, wholesaling, etc.	Up to 14,999;	One
	15,000 to 39,999;	Two
	40,000 to 65,000;	Three
	Each additional 80,000	One
Recycling centers		2 loading spaces measuring no less than 12 ft. by 35 ft. and having 14 ft. of vertical clearing

Recommendation:

Staff recommends **APPROVAL** of Ordinance 767 for the proposed Text Amendments to Article 21 – Parking and Article 22 – Loading.

ORDINANCE NO. 765

AN ORDINANCE AMENDING THE CITY CODE OF THE CITY OF FLOWERY BRANCH, GEORGIA TO PROVIDE FOR CHANGES TO SPECIFICATIONS FOR PUMP STATIONS IN CHAPTER 50 – UTILITIES WITHIN ARTICLE II – STANDARD SPECIFICATIONS, DIVISION II- CONSTRUCTION OF WATER AND WASTEWATER LINES, SUBDIVISION VII – PUMP STATIONS, SEC. 50-259 – EXECUTION, TO STRIKE IN ITS ENTIRETY SAID SEC. 50-259 – EXECUTION, TO REPLACE SAID SECTION WITH A NEW SEC. 50-259 – EXECUTION, TO PROVIDE FOR SEVERABILITY, TO REPEAL CONFLICTING ORDINANCES, TO PROVIDE FOR AN EFFECTIVE DATE AND FOR ALL OTHER LAWFUL PURPOSES.

WHEREAS, the duly elected governing authority of the City of Flowery Branch, Georgia is vested with legislative power to adopt clearly reasonable ordinances, resolutions, or regulations relating to its property, affairs, and local government for which no provision has been made by general law, and which are not inconsistent with the Constitution or any charter provision applicable thereto; and

WHEREAS, the City Council finds that in the interests of the public, the enactment of this ordinance by reasonable means, as allowed under state law, and not unduly oppressive, is necessary to protect the health, safety, morals, and general welfare of the citizens of the city.

NOW THEREFORE, THE COUNCIL OF THE CITY OF FLOWERY BRANCH HEREBY ORDAINS AS FOLLOWS:

SECTION 1.

Section 50-259 - Execution of the City Code of Flowery Branch is hereby amended to read as follows:

Sec. 50-259 - Execution.

- (a) The developer shall furnish, install and dedicate to the city the entire lift station/force main system. The system will be designed by the developer's engineer (professional engineer registered in the state). The design must be reviewed and approved by the city's engineer.
- (b) The engineer shall locate and size the lift station and all components to accommodate the largest possible subbasin. The city will investigate the service impact associated with future city needs within the subbasin, and the potential installation of additional force mains required to serve the subbasin that will drain to the lift station. If, in the city's opinion, an additional or larger force main is to be installed concurrently with the developer's project, the engineer will design and the city's engineer must approve the design of said additional mains.

Where practical, all of the force mains will be installed in parallel and in the same ditch.

- (c) Pump stations shall meet the following requirements:
 - (1) Pump station located above the 100-year floodplain.
 - (2) Furnish pump head calculations and system curve.
 - (3) Furnish automatic alternation of pumps to prolong life.
 - (4) Cables into or out of the wet well sealed watertight.
 - (5) Install three-phase voltage monitors on main power feed with output alarm relay.
 - (6) Install fused disconnect on main power feed.
 - (7) Furnish wet well buoyancy calculation based on a groundwater level approximately at grade level
- (d) Pump stations with a capacity less than 750 GPM shall be approved by the City and conform to one of the following:
 - (1) All submersible pumps specifications shall be approved by the City.
 - (2) All pumps must be supplied with a certified pump test curve from the manufacturer.
 - (3) Gorman-Rupp self-priming centrifugals will only be allowed on a case-by-case basis when other pumps are not available.
 - (4) All pumps must be approved by the City and be able to pass a three-inch solid and shall conform to the following:
 - a. N – impellers
 - b. Copper/Cutter impellers
 - c. All pump specifications shall be approved by the city with anti-clog technology.
- (e) Site layout.
 - (1) A buffer may be required around each lift station site. The city, at its discretion, may require a buffer dependent on the proximity of structures, type of development, size of pump station, or other factors which may indicate a need for additional buffer. Typically, this buffer is required in residential subdivisions, and shall be indicated on the final plat. In addition, a permanent easement, dedicated to the city, shall be provided to include the required fenced-in area, with an additional one foot extending beyond the fence on all sides. A permanent 20-foot access easement, dedicated to the city, shall be provided as well.
 - (2) Earth slopes around the pump station created by fill that are steeper than 3:1 must be stabilized with riprap. All fill slopes shall be compacted to not less than 95 percent of maximum density. A certified letter of compaction shall be provided to the inspector prior to final inspection.
 - (3) A minimum four-inch concrete pad (15 feet by 15 feet minimum) shall have two percent fall away from the wet well in all directions. Concrete must extend

six inches past all fence posts the full perimeter. Reinforcing steel shall be used in the slab. Asphalt is not acceptable for the pad.

(4) Driveway

- a. All pump station sites shall be provided with a paved access road on a permanent easement dedicated to the city minimum 12-foot width concrete or asphalt paving is acceptable.
- b. If an access road is over 50 feet in length, a vehicle turnaround will be required. For access roads less than 50 feet, a required turnaround will be determined on a case-by-case basis. Access road and vehicle turnaround area to be paved shall be a 12-foot minimum width. All turnarounds shall be 20 feet outside the fence, 16 feet deep with a 15-foot radius to the driveway. Concrete or asphalt is acceptable.

(5) Site plan shall show finished grade contour lines (one-foot intervals) in and around lift station and access road. Spot elevations shall be provided on station pad to show proper drainage.

(6) Site plan shall show all existing and proposed utilities. All utility meters must be properly mounted outside a fenced station. If gas is required, the gas pipe must be buried underground.

(7) Water meter shall be set at the right-of-way.

(8) A copper potable water service with an acceptable double check valve backflow prevention device must be provided. A frostproof yard hydrant with 50 feet of one-inch water hose with brass nozzle must be installed.

(9) Provide site lighting.

(10) Fenced areas for all stations are to be a minimum 30 feet by 30 feet. Fences are to be installed using eight-foot-high no. 4 feet chain-link wire with top rails and bottom tension wires; three strands of barbed wire at the top on angled extension arms; posts in three feet of concrete spaced ten feet apart. A two-foot length of chain that can be locked with No. 2 Master lock must be provided. Provide a 14-foot-wide gate on four-inch diameter posts.

(11) All ground surface not intended to be paved within pump station fenced area, shall be covered with a minimum four inches of graded aggregate base. Graded aggregate base to be per state department of transportation specifications.

(12) Spare parts.

- a. Provide a backup pump as required by the City.
- b. Provide spare air and vacuum relief valve for force main (if applicable).
- c. Provide two extra sets of seals per model of pump, two sets of wear rings, one vacuum pump, five float switches, and one motor starter.
- d. Provide one spare fuse of each type used

- e. [Provide one spare base, relay or alternator \(if applicable\) of each type used.](#)
 - f. [A backup level controller or floats shall be provided.](#)
- (13) Wet well/check valve vault.
- a. The wet well shall be sized to prevent excessive cycling of the pumps. Starts shall be limited to one start per ten minutes unless otherwise recommended by the pump manufacturer. Size shall be as recommended by the pump supplier and shall be a minimum of eight feet in diameter.
 - b. [The guide rails for pump slide brackets shall be stainless steel and galvanized pipes are prohibited.](#)
 - c. Hatch doors shall be sized by the pump supplier to allow adequate clearance to easily remove the pumps. Hatches shall be aluminum with stainless steel hardware suitable for 150 pounds per square feet loading. Provide cylinders to prevent hatch from slamming shut and safety netting. [Safety hatches shall be installed and shall be approved by the City.](#)
 - d. [Check valve vaults for all stations shall be six feet by six feet precast concrete with one 48-inch by 48-inch double leaf aluminum hatch for four-inch and six-inch piping. Vault size shall be eight feet by eight feet for piping eight inches and above. All vaults shall be accessible by ladder if necessary.](#)
 - e. Storage shall be provided above the high-level alarm equal to three hour at design flow. Storage volume is calculated to be that volume between the high-level alarm and the lowest point of overflow (including basement elevations regardless of backflow valves in service lines). Said storage may consist of any combination of line capacity, manhole capacity, and wet well volume. No corrugated metal pipe may be utilized for storage.
 - f. [All swing check valve specifications shall be approved by the City.](#)
 - g. All pump stations shall have a plug valve and capped tee installed on the force main to allow for emergency connection by portable pumps. [Valve vault or approved location shall have bypass connection capability. Bypass fittings shall be provided and shall be approved by the City.](#) Plug valve shall be no less than three feet outside the pump station. A valve key shall be provided to the authority.
 - h. All piping in the wet well and check valve vault is to be flanged pipe to flanged pipe. No uniflange or megaflange types will be allowed. Solid sleeve flex joint shall be used between the wet well and valve vault.
 - i. [Valve vault shall have pressure gauges for each discharge pipe for pumps. The pressure gauges shall be installed on the discharge side of](#)

the check valve. Final gauge layout shall be approved by the City prior to the issuance of any subsequent permits.

- j. Floats and probes shall be installed at the closest accessible location.
- k. Steps are to be removed and grouted from wet well and check valve vault before station is accepted by the authority.
- l. Wet well and discharge manholes are to be fiberglass or to be coated with a bitumastic coating or approved equal.
- m. All pump stations shall comply with NFPA 820.

(14) Electrical specifications:

- a. Three-phase power shall be provided for all pumps. No phase converters or single-phase power allowed. The power source may be 208 voltage, 240 voltage, 460 voltage, or 480 voltage.
- b. All conduit shall be galvanized rigid conduit or MMC with threaded couplings. No threadless couplings shall be allowed.
- c. No conduit runs or junction boxes are to be installed inside or on top of wet well. Splicing of cables inside the wet well will not be permitted.
- d. When main fused disconnect switch or main circuit breaker is used, it shall meet the following requirements:
 - 1. Be of a type that can be locked in the on or off position.
 - 2. The switch shall be U.L. listed for service entrance.
 - 3. The enclosure shall be stainless steel.
 - 4. The switch must be mounted inside the fenced area of the station.
- e. Pump stations shall have factory installed six-digit nonresettable elapsed time meters to show individual pump running times to the one-tenth of an hour. A similar elapsed time meter shall be included to indicate simultaneous operation of pumps to the one-tenth of an hour.
- f. All control wiring shall be stranded. No solid wire shall be allowed.
- g. Pump control panel enclosure shall be NEMA 4X stainless steel.
- h. Provide one RJ-11 telephone jack in the control panel.
- i. A surge suppressor shall be provided at the power service entrance. The surge suppressor shall have voltage characteristics to match the power service.
- j. The wet well level controller shall be an SC model (100,1000, 2000) with a 2 – float backup. (Or an approved equal.)
- k. A Raco Dialer (or current alarm agent) shall be installed to match the City's current alarm system.
 - 1. The surge suppressor shall be in NEMA 4X enclosure and shall provide line to line, line to neutral, line to ground and neutral to ground protection modes as applicable for the power service.

2. The surge suppressor shall be provided with a disconnect. Minimum surge current rating shall be 100KA per phase per NEMA LS-1. The surge suppression system shall be duty cycle tested to survive 20KV, 10KA, IEEE C62.41 category surge current with less than five percent degradation of clamping voltage. The surge suppressor shall have minimum repetitive surge capacity of 2,500 impulses per mode and 5,000 impulses per phase. Status indicating lights and form C dry alarm contacts shall be provided.
 3. The surge suppressor shall be UL listed and labeled under UL 1449 and UL 1283. [The surge suppressor shall be approved by the City.](#)
- (15) All pump stations must be provided with backup power. This back-up power can be provided by independent dual power feed or diesel generators.
- (16) Generator specifications:
- a. Generator shall be furnished with a one-year service contract which covers all labor and material costs for normal maintenance and emergency repairs.
 - b. The standby generator shall be rated for continuous standby duty for the stations full load demand. The generator shall be sized to run all pumps simultaneously with staggered startups or as indicated in the drawings. The engine-generator set shall be rated for continuous standby duty operating in an ambient temperature of 40 degree C. The set shall have a standby power capacity sufficient to operate all pumps simultaneously with staggered startups and pump station auxiliary loads at 0.80 power factor, and shall operate at a speed not to exceed 1,800 rpm. It shall be rated 480/277 volt, as indicated, three-phase, four-wire, 60-Hertz.
 - c. Voltage regulation from no load to rated load shall be within plus or minus four percent of rated voltage for units up to and including 25 kw and within plus or minus three percent of rated voltage for units rated 30 kw or higher.
 - d. The frequency regulation shall not exceed three-Hertz from no load to rated load. Frequency variation shall not exceed plus or minus 0.3 Hertz for constant loads from no load to rated load.
 - e. Instantaneous voltage dip for all possible sequences of load application and motor starting for loads described in conditions of service shall not exceed 20 percent of nominal voltage.
 - f. The generator and associated appurtenances shall be housed in a weatherproof sound attenuated enclosure. Quiet site soundproofing shall be provided to reduce noise to 73 db at a distance of 23 feet (seven meters) for diesel powered generators.

- g. Generator insulation shall be class B or F. Temperature rise shall be in accordance with NEMA Standard MG-1 for continuous duty at all output ratings.
- h. Voltage regulator shall be an automatic, temperature compensated, solid state type with a manual adjustment range of plus or minus five percent of rated voltage. Exciter shall be a solid-state, static type or brushless rotating type utilizing rotating diode rectifiers. Minimum rating of exciter shall be according to NEMA Standard MG-1.
- i. Generator lead terminal box shall be of ample size to accept and terminate connecting cables as indicated on the drawings. Generator leads shall be furnished with terminal connectors suitable for the customers connecting cables.
- j. The engine shall be heavy-duty compression-ignition, cold-starting diesel type arranged for direct connection to an alternating current generator. It shall be a current model of a type in a regular production by a manufacturer regularly engaged in building this type of diesel engine. Engine shall have at least a published intermittent brake horsepower rating at specified generator speed required by generator at rated full load output and shall operate without undue heating, vibration, or wear. Engine shall operate satisfactorily on No. 2 diesel fuel.
- k. Battery charger shall be automatic, two-rate type providing for equalizing charge and continuous taper charging. Output characteristics shall match requirements of battery furnished. Provided charger suitable for operation on 120 volt, single-phase, 60-Hertz current to be rated not less than six-amp direct current. Furnish battery charger with following features:
 - 1. Direct current voltage regulation: plus or minus two percent for variations in line voltage of plus or minus ten percent.
 - 2. Direct current voltmeter and direct current ammeter, each with suitable scales.
 - 3. Automatic current limiting to prevent overloading due to engine cranking, shorted output or reversed battery connections.
 - 4. Equalize charge rate with manually set timer.
 - 5. Integral protection to prevent battery discharge through charger on loss of alternating current line voltage.
 - 6. Terminal block with terminals for all external connections.
- l. The entire standby generator set shall have a five-year warranty period from the date of commissioning.
- m. Outdoor weather-protective housing with critical grade exhaust muffler shall be installed. The housing shall have hinged side access doors and a rear control door. All doors shall be lockable. All sheet metal shall be

primed for corrosion protection and finish painted with the manufacturer's standard color. Vibration isolators as recommended by the generator set manufacturer shall be provided. The generator must be mounted far enough away from obstructions to allow all doors to be opened 90 degrees. All conduits shall be installed underground.

- n. Generator shall be supplied with all auxiliary systems necessary for operation (e.g., batteries, battery charger, block heater, convenience receptacle, enclosure light, motorized dampers etc.). The auxiliary system shall be powered from load center with adequately sized 480 1 208 1 120 V transformer, installed in the enclosure.
- o. Generator control panel shall be mounted with vibration isolators on the unit. Instruments shall be of direct-reading type, factory mounted and factory connected. Instruments shall be accurate within three percent. Provide panel with the following instruments gauges, features and alarms:
 - 1. Three position manual-off-auto switch.
 - 2. Manual starting switch.
 - 3. Emergency shutdown switch.
 - 4. Full automatic starting from pilot device initiating start when normal power fails. Automatic cranking shall be interrupted cycle type not affected by ambient temperature with overall time limit. A total of five cranking cycles shall automatically shut down engine after a time delay.
 - 5. Automatic shutdown devices with manual reset and individual indicating lights for low oil pressure, high coolant temperature, engine over-speed, and failure of engine to start. Auxiliary contacts on all aforementioned shutdown devices to operate a remote generator failure alarm.
 - 6. Gauges and instruments shall include fuel gauge, running time meter, lubricating oil gauge, coolant temperature gauge, voltmeter, and ampmeter.
- p. The standby power system shall include an automatic transfer switch according to UL 1008. Transfer switch shall be rated for 100 percent of full load and shall have short circuit current rating as indicated. Switch shall be provided with indicators for all phases of operation and be equipped with a fully programmable timer for exercising the equipment. Provide silver plated load contacts with arcing tips and arc extinguishing devices. Provide the transfer switch with an internal manual operator, with the same transfer speed as the electrical operator.
- q. Provide the automatic transfer switch with the following features:
 - 1. Full phase relay protection with three voltage sensing relays.

2. Starting and load transfer to alternate source on a drop to 80 percent on any phase of normal voltage or one-Hertz frequency drop. Retransfer of load to normal source when voltage of all phases is restored to 90-95 percent.
 3. Transfer to standby generator when generator voltage and frequency are 90 percent of rated values
 4. Adjustable time delay, zero to two minutes, on transfer from alternate to normal. After transfer to the normal source, engine generator to run for adjustable time period to zero to five minutes before shutdown.
- r. Generator shall be load tested at 100 percent full load on site for a period of four hours using resistive load banks. Notify the authority inspector prior to test, and provide certification letter from the manufacturer. Perform functional transfer tests simulating loss and return of utility power.
 - s. Three complete sets of O&M manuals and keys shall be provided for generator and automatic transfer switch.
 - t. Generator control system must include a programmable control device (exerciser) to allow automatic start-up and test functions. Test functions can be programmed for daily, weekly or monthly testing. Connections for remote monitoring of function and failure must be provided.
 - u. Pump stations are required to have continuous standby power. Generators shall be diesel powered with 100 gallons minimum fuel storage capacity or 24-hour operating time, which ever is greater. Fuel storage shall be accomplished by the use of corrosion-resistant double wall subbase fuel tank only; no underground storage will be allowed. A leak detection device shall be provided in the interstitial space for sensing fuel leakage. The device contact shall be connected to the generator control panel terminals for telemetry.
 - v. Generator [specifications shall be approved by the City.](#)
 - w. Generator manufacturer will provide a 5-year comprehensive warranty to include parts and labor.
 - x. Provide the manufacturer recommended set of spare parts for the generator and the automatic transfer switch. These shall include, but not be limited to, one filter for each system, two spare injectors, fuel injection pump, one fuse of each rating, and two indicating lights of each type. Pack spare parts in suitable boxes, bearing label of the content and the equipment for which it is intended.
 - y. Transfer switches shall be in a NEMA 4 X enclosure and shall be supplied by the generator manufacturer. [All transfer switch specifications shall be approved by the City.](#)

- z. A generator ground grid must be provided and connected to the pump station grounding system.

(17) Monitoring system. Provide pump station with auto dialer monitoring system in a NEMA 4X rated, stainless steel, wall-mounted enclosure complete with mounting hardware. Provide conduit stub for future telemetry connection.

- a. The city's Raco Dialer shall be wired to alarm at: power failure (phase failure), generator running, wet well high level, wet well low level, pump 1 and pump 2 failure (pump 3 if necessary)

SECTION 3.

Should any section or provision of this Ordinance be declared invalid or unconstitutional by any court of competent jurisdiction, such declaration shall not affect the validity of this Ordinance as a whole or any part thereof which is not specifically declared to be invalid or unconstitutional.

SECTION 4.

This ordinance shall take effect immediately upon approval.

SECTION 5.

All ordinances and parts of ordinances in conflict herewith are hereby repealed to the extent of the conflict.

Approved this ____ day of ____ 2025.

Edward R. Asbridge, Mayor

Shelia R. Cooper, City Clerk

APPROVED AS TO FORM

Ted C. Baggett, City Attorney



Memorandum

To: City of Flowery Branch, City Manager, and City Council

From: Chris McCrary, Planning and Community Development Director

Date: November 6th, 2025

Subject: Ordinance 765 Text Amendment to Specifications for Pump Stations

Applicant: Peter Woerner
Director of Public Utilities

Owner: N/A

Existing Zoning: N/A – Text Amendment

Location in City Code:

- Chapter 50 – Utilities, Article II – Standard Specifications, Subdivision VII – Pump Stations, Sec. 50-259 - Execution

Pursuant to Article 33 – Text Amendments of the Code of Ordinances for the City of Flowery Branch, City Council may amend regulations, Articles, or Sections of the Zoning Ordinance when appropriate factors or circumstances arise. Ordinance 765 proposes several changes and additions to the specifications and enforcement of regulations for pump stations within the City of Flowery Branch. The proposed changes will increase the dependability of all new and current lift stations as well as make them more operationally friendly and decrease the financial maintenance burden for the City.



Code Section with Changes:

Chapter 50 - Utilities

Article II. – Standard Specifications

Subdivision VII. - Pump Stations

Sec. 50-259. - Execution.

- (a) The developer shall furnish, install and dedicate to the city the entire lift station/force main system. The system will be designed by the developer's engineer (professional engineer registered in the state). The design must be reviewed and approved by the city's engineer.
- (b) The engineer shall locate and size the lift station and all components to accommodate the largest possible subbasin. The city will investigate the service impact associated with future city needs within the subbasin, and the potential installation of additional force mains required to serve the subbasin that will drain to the lift station. If, in the city's opinion, an additional or larger force main is to be installed concurrently with the developer's project, the engineer will design and the city's engineer must approve the design of said additional mains. Where practical, all of the force mains will be installed in parallel and in the same ditch.
- (c) Pump stations shall meet the following requirements:
 - (1) Pump station located above the 100-year floodplain.
 - (2) Furnish pump head calculations and system curve.
 - (3) Furnish automatic alternation of pumps to prolong life.
 - (4) Cables into or out of the wet well sealed watertight.
 - (5) Install three-phase voltage monitors on main power feed with output alarm relay.
 - (6) Install fused disconnect on main power feed.
 - (7) Furnish wet well buoyancy calculation based on a groundwater level approximately at grade level
- (d) Pump stations with a capacity less than 750 GPM shall be approved by the City and conform to one of the following:
 - (1) All submersible pumps specifications shall be approved by the City.
 - a. Flygt.—
 - b.—b.Yeomans.



~~c. – c.KSB.~~

- (2) All pumps must be supplied with a certified pump test curve from the manufacturer.
- (3) Gorman-Rupp self-priming centrifugals will only be allowed on a case-by-case basis when other pumps are not available.
- (4) All pumps must be approved by the City and be able to pass a three-inch solid and shall conform to the following:
 - a. N – impellers
 - b. Copper/Cutter impellers
 - c. All pump specifications shall be approved by the city with anti-clog technology.

(e) Site layout.

- (1) A buffer may be required around each lift station site. The city, at its discretion, may require a buffer dependent on the proximity of structures, type of development, size of pump station, or other factors which may indicate a need for additional buffer. Typically, this buffer is required in residential subdivisions, and shall be indicated on the final plat. In addition, a permanent easement, dedicated to the city, shall be provided to include the required fenced-in area, with an additional one foot six inches extending beyond the fence on all sides. A permanent 20-foot access easement, dedicated to the city, shall be provided as well.
- (2) Earth slopes around the pump station created by fill that are steeper than 3:1 must be stabilized with riprap. All fill slopes shall be compacted to not less than 95 percent of maximum density. A certified letter of compaction shall be provided to the inspector prior to final inspection.
- (3) A minimum four-inch concrete pad (15 feet by 15 feet minimum) shall have two percent fall away from the wet well in all directions. Concrete must extend six inches past all fence posts the full perimeter. Reinforcing steel shall be used in the slab. Asphalt is not acceptable for the pad.
- (4) Driveway
 - a. All pump station sites shall be provided with a paved access road on a permanent easement dedicated to the city minimum 12-foot width concrete or asphalt paving is acceptable.



- b. If an access road is over 50 feet in length, a vehicle turnaround will be required. For access roads less than 50 feet, a required turnaround will be determined on a case-by-case basis. Access road and vehicle turnaround area to be paved shall be a 12-foot minimum width. All turnarounds shall be 20 feet outside the fence, 16 feet deep with a 15-foot radius to the driveway. Concrete or asphalt is acceptable.
- (5) Site plan shall show finished grade contour lines (~~two~~ **one**-foot intervals) in and around lift station and access road. Spot elevations shall be provided on station pad to show proper drainage.
- (6) Site plan shall show all existing and proposed utilities. All utility meters must be properly mounted outside a fenced station. If gas is required, the gas pipe must be buried underground.
- (7) Water meter shall be set at the right-of-way.
- (8) A copper potable water service with an acceptable double check valve backflow prevention device must be provided. A frostproof yard hydrant with 50 feet of one-inch water hose with brass nozzle must be installed.
- (9) Provide site lighting.
- (10) Fenced areas for all stations are to be a minimum 30 feet by 30 feet. Fences are to be installed using eight-foot-high no. 4 feet **chain-link** wire with top rails and bottom tension wires; three strands of barbed wire at the top on angled extension arms; posts in three feet of concrete spaced ten feet apart. A two-foot length of chain that can be locked with No. 2 Master lock must be provided. Provide a 14-foot-wide gate on four-inch diameter posts.
- (11) All ground surface not intended to be paved within pump station fenced area, shall be covered with a minimum four inches of graded aggregate base. Graded aggregate base to be per state department of transportation specifications.
- (12) Spare parts.
 - a. **Provide a backup pump as required by the City.**
 - b. Provide spare air and vacuum relief valve for force main (if applicable).
 - c. Provide two extra sets of seals per model of pump, two sets of wear rings, one vacuum pump, five float switches, and one motor starter.
 - d. Provide one spare fuse of each type used



- e. Provide one spare base, relay or alternator (if applicable) of each type used.
 - f. A backup level controller or floats shall be provided.
- (13) Wet well/check valve vault.
- a. The wet well shall be sized to prevent excessive cycling of the pumps. Starts shall be limited to one start per ten minutes unless otherwise recommended by the pump manufacturer. Size shall be as recommended by the pump supplier and shall be a minimum of eight feet in diameter.
 - b. The guide rails for pump slide brackets shall be stainless steel and galvanized pipes are prohibited.
 - c. Hatch doors shall be sized by the pump supplier to allow adequate clearance to easily remove the pumps. Hatches shall be aluminum with stainless steel hardware suitable for 150 pounds per square feet loading. Provide cylinders to prevent hatch from slamming shut and safety netting. Safety hatches shall be installed and shall be approved by the City.
 - d. Check valve vaults for all stations shall be six feet by six feet precast concrete with one 48-inch by 48-inch double leaf aluminum hatch for four-inch and six-inch piping. Vault size shall be eight feet by eight feet for piping eight inches and above. All vaults shall be accessible by ladder if necessary.
 - e. Storage shall be provided above the high-level alarm equal to three hour at design flow. Storage volume is calculated to be that volume between the high-level alarm and the lowest point of overflow (including basement elevations regardless of backflow valves in service lines). Said storage may consist of any combination of line capacity, manhole capacity, and wet well volume. No corrugated metal pipe may be utilized for storage.
 - f. All swing check valve specifications shall be approved by the City. ÷
 - 1.—Val-Matic Swing Flex.
 - 2.—GA Industries, Inc., Mars, PA.
 - 3.—American Darling.
 - 4.—Approved equal.
 - g. All pump stations shall have a plug valve and capped tee installed on the force main to allow for emergency connection by portable pumps. Valve vault or approved location shall have bypass connection capability. Bypass fittings shall be provided and shall be approved by the City. Plug valve shall



be no less than three feet outside the pump station. A valve key shall be provided to the authority.

- h. All piping in the wet well and check valve vault is to be flanged pipe to flanged pipe. No uniflange or megaflange types will be allowed. Solid sleeve flex joint shall be used between the wet well and valve vault.
 - i. Valve vault shall have pressure gauges for each discharge pipe for pumps. The pressure gauges shall be installed on the discharge side of the check valve. Final gauge layout shall be approved by the City prior to the issuance of any subsequent permits.
 - j. Floats and probes shall be installed at the closest accessible location.
 - k. Steps are to be removed and grouted from wet well and check valve vault before station is accepted by the authority.
 - l. Wet well and discharge manholes are to be fiberglass or to be coated with a bitumastic coating or approved equal.
 - m. All pump stations shall comply with NFPA 820.
- (14) Electrical specifications:
- a. Three-phase power shall be provided for all pumps. No phase converters or single-phase power allowed. The power source may be 208 voltage, 240 voltage, 460 voltage, or 480 voltage.
 - b. All conduit shall be galvanized rigid conduit or MMC with threaded couplings. No threadless couplings shall be allowed.
 - c. No conduit runs or junction boxes are to be installed inside or on top of wet well. Splicing of cables inside the wet well will not be permitted.
 - d. When main fused disconnect switch or main circuit breaker is used, it shall meet the following requirements:
 - 1. Be of a type that can be locked in the on or off position.
 - 2. The switch shall be U.L. listed for service entrance.
 - 3. The enclosure shall be stainless steel.
 - 4. The switch must be mounted inside the fenced area of the station.
 - e. Pump stations shall have factory installed six-digit nonresettable elapsed time meters to show individual pump running times to the one-tenth of an



hour. A similar elapsed time meter shall be included to indicate simultaneous operation of pumps to the one-tenth of an hour.

- f. All control wiring shall be stranded. No solid wire shall be allowed.
- g. Pump control panel enclosure shall be NEMA 4X stainless steel.
- h. Provide one RJ-11 telephone jack in the control panel.
- i. A surge suppressor shall be provided at the power service entrance. The surge suppressor shall have voltage characteristics to match the power service.
- j. The wet well level controller shall be an SC model (100,1000, 2000) with a 2 – float backup. (Or an approved equal.)
- k. A Raco Dialer (or current alarm agent) shall be installed to match the City's current alarm system.

1. The surge suppressor shall be in NEMA 4X enclosure and shall provide line to line, line to neutral, line to ground and neutral to ground protection modes as applicable for the power service.

2. The surge suppressor shall be provided with a disconnect. Minimum surge current rating shall be 100KA per phase per NEMA LS-1. The surge suppression system shall be duty cycle tested to survive 20KV, 10KA, IEEE C62.41 category surge current with less than five percent degradation of clamping voltage. The surge suppressor shall have minimum repetitive surge capacity of 2,500 impulses per mode and 5,000 impulses per phase. Status indicating lights and form C dry alarm contacts shall be provided.

3. The surge suppressor shall be UL listed and labeled under UL 1449 and UL 1283. The surge suppressor specifications shall be approved by the City.

4. Acceptable manufacturers are:

- (i) Liebert.
- (ii) Current Technologies.
- (iii) United Power.



- (15) All pump stations must be provided with backup power. This back-up power can be provided by independent dual power feed or diesel generators.
- (16) Generator specifications:
- Generator shall be furnished with a one-year service contract which covers all labor and material costs for normal maintenance and emergency repairs.
 - The standby generator shall be rated for continuous standby duty for the stations full load demand. The generator shall be sized to run all pumps simultaneously with staggered startups or as indicated in the drawings. The engine-generator set shall be rated for continuous standby duty operating in an ambient temperature of 40 degree C. The set shall have a standby power capacity sufficient to operate all pumps simultaneously with staggered startups and pump station auxiliary loads at 0.80 power factor, and shall operate at a speed not to exceed 1,800 rpm. It shall be rated 480/277 volt, as indicated, three-phase, four-wire, 60-Hertz.
 - Voltage regulation from no load to rated load shall be within plus or minus four percent of rated voltage for units up to and including 25 kw and within plus or minus three percent of rated voltage for units rated 30 kw or higher.
 - The frequency regulation shall not exceed three-Hertz from no load to rated load. Frequency variation shall not exceed plus or minus 0.3 Hertz for constant loads from no load to rated load.
 - Instantaneous voltage dip for all possible sequences of load application and motor starting for loads described in conditions of service shall not exceed 20 percent of nominal voltage.
 - The generator and associated appurtenances shall be housed in a weatherproof sound attenuated enclosure. Quiet site soundproofing shall be provided to reduce noise to 73 db at a distance of 23 feet (seven meters) for diesel powered generators.
 - Generator insulation shall be class B or F. Temperature rise shall be in accordance with NEMA Standard MG-1 for continuous duty at all output ratings.
 - Voltage regulator shall be an automatic, temperature compensated, solid state type with a manual adjustment range of plus or minus five percent of



rated voltage. Exciter shall be a solid-state, static type or brushless rotating type utilizing rotating diode rectifiers. Minimum rating of exciter shall be according to NEMA Standard MG-1.

- i. Generator lead terminal box shall be of ample size to accept and terminate connecting cables as indicated on the drawings. Generator leads shall be furnished with terminal connectors suitable for the customers connecting cables.
- j. The engine shall be heavy-duty compression-ignition, cold-starting diesel type arranged for direct connection to an alternating current generator. It shall be a current model of a type in a regular production by a manufacturer regularly engaged in building this type of diesel engine. Engine shall have at least a published intermittent brake horsepower rating at specified generator speed required by generator at rated full load output and shall operate without undue heating, vibration, or wear. Engine shall operate satisfactorily on No. 2 diesel fuel.
- k. Battery charger shall be automatic, two-rate type providing for equalizing charge and continuous taper charging. Output characteristics shall match requirements of battery furnished. Provided charger suitable for operation on 120 volt, single-phase, 60-Hertz current to be rated not less than six-amp direct current. Furnish battery charger with following features:
 - 1. Direct current voltage regulation: plus or minus two percent for variations in line voltage of plus or minus ten percent.
 - 2. Direct current voltmeter and direct current ammeter, each with suitable scales.
 - 3. Automatic current limiting to prevent overloading due to engine cranking, shorted output or reversed battery connections.
 - 4. Equalize charge rate with manually set timer.
 - 5. Integral protection to prevent battery discharge through charger on loss of alternating current line voltage.
 - 6. Terminal block with terminals for all external connections.



- l. The entire standby generator set shall have a five-year warranty period from the date of commissioning.
- m. Outdoor weather-protective housing with critical grade exhaust muffler shall be installed. The housing shall have hinged side access doors and a rear control door. All doors shall be lockable. All sheet metal shall be primed for corrosion protection and finish painted with the manufacturer's standard color. Vibration isolators as recommended by the generator set manufacturer shall be provided. The generator must be mounted far enough away from obstructions to allow all doors to be opened 90 degrees. All conduits shall be installed underground.
- n. Generator shall be supplied with all auxiliary systems necessary for operation (e.g., batteries, battery charger, block heater, convenience receptacle, enclosure light, motorized dampers etc.). The auxiliary system shall be powered from load center with adequately sized 480 1 208 1 120 V transformer, installed in the enclosure.
- o. Generator control panel shall be mounted with vibration isolators on the unit. Instruments shall be of direct-reading type, factory mounted and factory connected. Instruments shall be accurate within three percent. Provide panel with the following instruments gauges, features and alarms:
 - 1. Three position manual-off-auto switch.
 - 2. Manual starting switch.
 - 3. Emergency shutdown switch.
 - 4. Full automatic starting from pilot device initiating start when normal power fails. Automatic cranking shall be interrupted cycle type not affected by ambient temperature with overall time limit. A total of five cranking cycles shall automatically shut down engine after a time delay.
 - 5. Automatic shutdown devices with manual reset and individual indicating lights for low oil pressure, high coolant temperature, engine over-speed, and failure of engine to start. Auxiliary contacts on all aforementioned shutdown devices to operate a remote generator failure alarm.



6. Gauges and instruments shall include fuel gauge, running time meter, lubricating oil gauge, coolant temperature gauge, voltmeter, and ampmeter.
- p. The standby power system shall include an automatic transfer switch according to UL 1008. Transfer switch shall be rated for 100 percent of full load and shall have short circuit current rating as indicated. Switch shall be provided with indicators for all phases of operation and be equipped with a fully programmable timer for exercising the equipment. Provide silver plated load contacts with arcing tips and arc extinguishing devices. Provide the transfer switch with an internal manual operator, with the same transfer speed as the electrical operator.
- q. Provide the automatic transfer switch with the following features:
1. Full phase relay protection with three voltage sensing relays.
 2. Starting and load transfer to alternate source on a drop to 80 percent on any phase of normal voltage or one-Hertz frequency drop. Retransfer of load to normal source when voltage of all phases is restored to 90-95 percent.
 3. Transfer to standby generator when generator voltage and frequency are 90 percent of rated values
 4. Adjustable time delay, zero to two minutes, on transfer from alternate to normal. After transfer to the normal source, engine generator to run for adjustable time period to zero to five minutes before shutdown.
- r. Generator shall be load tested at 100 percent full load on site for a period of four hours using resistive load banks. Notify the authority inspector prior to test, and provide certification letter from the manufacturer. Perform functional transfer tests simulating loss and return of utility power.
- s. Three complete sets of O&M manuals and keys shall be provided for generator and automatic transfer switch.
- t. Generator control system must include a programmable control device (exerciser) to allow automatic start-up and test functions. Test functions can be programmed for daily, weekly or monthly testing. Connections for remote monitoring of function and failure must be provided.



- u. Pump stations are required to have continuous standby power. Generators shall be diesel powered with 100 gallons minimum fuel storage capacity or 24-hour operating time, whichever is greater. Fuel storage shall be accomplished by the use of corrosion-resistant double wall subbase fuel tank only; no underground storage will be allowed. A leak detection device shall be provided in the interstitial space for sensing fuel leakage. The device contact shall be connected to the generator control panel terminals for telemetry.
- v. Generator specifications shall be approved by the City. can be obtained from the following manufacturers:
 - ~~1. Cummins-Onan.~~
 - ~~2. Kohler.~~
 - ~~3. Approved equal.~~
- w. Generator manufacturer will provide a 5-year comprehensive warranty to include parts and labor.
- x. Provide the manufacturer recommended set of spare parts for the generator and the automatic transfer switch. These shall include, but not be limited to, one filter for each system, two spare injectors, fuel injection pump, one fuse of each rating, and two indicating lights of each type. Pack spare parts in suitable boxes, bearing label of the content and the equipment for which it is intended.
- y. Transfer switches shall be in a NEMA 4 X enclosure and shall be supplied by the generator manufacturer. All transfer switch specifications shall be approved by the City. Acceptable manufacturers are:
 - ~~1. Cummins-Onan.~~
 - ~~2. ASCO.~~
- z. A generator ground grid must be provided and connected to the pump station grounding system.

(17) Monitoring system. Provide pump station with auto dialer monitoring system in a NEMA 4X rated, stainless steel, wall-mounted enclosure complete with mounting hardware. Provide conduit stub for future telemetry connection.



- a. The city's Raco Dialer shall be wired to alarm at: power failure (phase failure), generator running, wet well high level, wet well low level, pump 1 and pump 2 failure (pump 3 if necessary)

Recommendation:

Staff recommends **APPROVAL** of the proposed Text Amendment to Chapter 50 – Utilities, Article II – Standard Specifications, Subdivision VII – Pump Stations, Sec. 50-259 – Execution for the additions and changes to pump station specifications and regulatory enforcement.