CITY OF MANDEVILLE

FILL REQUIREMENTS, POLICIES, AND PROCEDURES

WHAT IS FILL?

- Any material made up of earthen matter, soil, or rock which could change the topography or raises the level of the existing ground by deposition, excavation, or grading on site.
- Includes structures and building material.
- Residents are allowed to maintain there property with up to 4 CY of material without a permit.

WHAT IS FILL?

- Section 5.2.3.1 (2) states Min. topsoil may be provided for landscaping and surface drainage as detailed on the drainage plan to be approved by the Director of Public Works or the City Engineer, Soil with Clay content above 30% is prohibited for this purpose.

RED CLAY

Clay content appx 40%(not approved for site/landscaping fill)

Approved for structural fill under impervious areas including soil mitigation, (e.g. slabs, driveways, and sidewalks).

SAMPLE INFORMATION:
DATE SAMPLED: 8/24/2020
SAMPLE TYPE: middle cut
SAMPLE SOURCE: From contractor
SAMPLED BY: by contractor

ATTERBERG LIMITS:
TEST PROCEDURE: DOTD TR 428
LIQUID LIMIT: 46
PLASTICITY INDEX: 24
PLASTIC LIMIT: 22

HYDROMETER ANALYSIS & CLASSIFICATION:
TEST PROCEDURES: DOTD TR 407
DOTD TR 413
DOTD TR 423

	SAMPLE 1
% Retained #3/4	
% Retained #4	
% Retained #10	
% Retained #40	1
% Retained #200	45
% Silt	10
% Clay & Colloids	44
% Pass #10	100
% Pass #40	99
% Pass #200	54
% Sand	46
Soil Group	A-7-6
Group Index	(10)
Classification	Sandy Clay
% Organic	3

SOIL ANALYSIS REPORT

SAMPLE INFORMATION:
DATE SAMPLED: 8/24/2020
SAMPLE TYPE: top cut
SAMPLE SOURCE: From contractor
SAMPLED BY: by contractor

ATTERBERG LIMITS:
TEST PROCEDURE: DOTD TR 428
LIQUID LIMIT: 39
PLASTICITY INDEX: 20
PLASTIC LIMIT: 19

HYDROMETER ANALYSIS & CLASSIFICATION:
TEST PROCEDURES: DOTD TR 407
DOTD TR 413
DOTD TR 423

	SAMPLE 1
% Retained #3/4	
% Retained #4	
% Retained #10	
% Retained #40	2
% Retained #200	23
% Silt	37
% Clay & Colloids	38
% Pass #10	100
% Pass #40	98
% Pass #200	75
% Sand	25
Soil Group	A-6
Group Index	(16)
Classification	Lt. silty Clay
% Organic	4

APPLICABLE LAWS

Civil Code Article 646

- **Predial Servitude.** A predial servitude is a charge on a servient estate for the benefit of a dominant estate.

Civil Code Article 655

- **Natural Drainage.** An estate situated below is bound to receive the surface waters that flow naturally from an estate situated above unless an act of man has created the flow.

Civil Code Article 656

- **Obligations of the owners**. The owner of the servient estate may not do anything to prevent the flow of the water. The owner of the dominant estate may not do anything to render the servitude more burdensome.

PERMIT REQUIREMENTS

Drainage Plan requirements

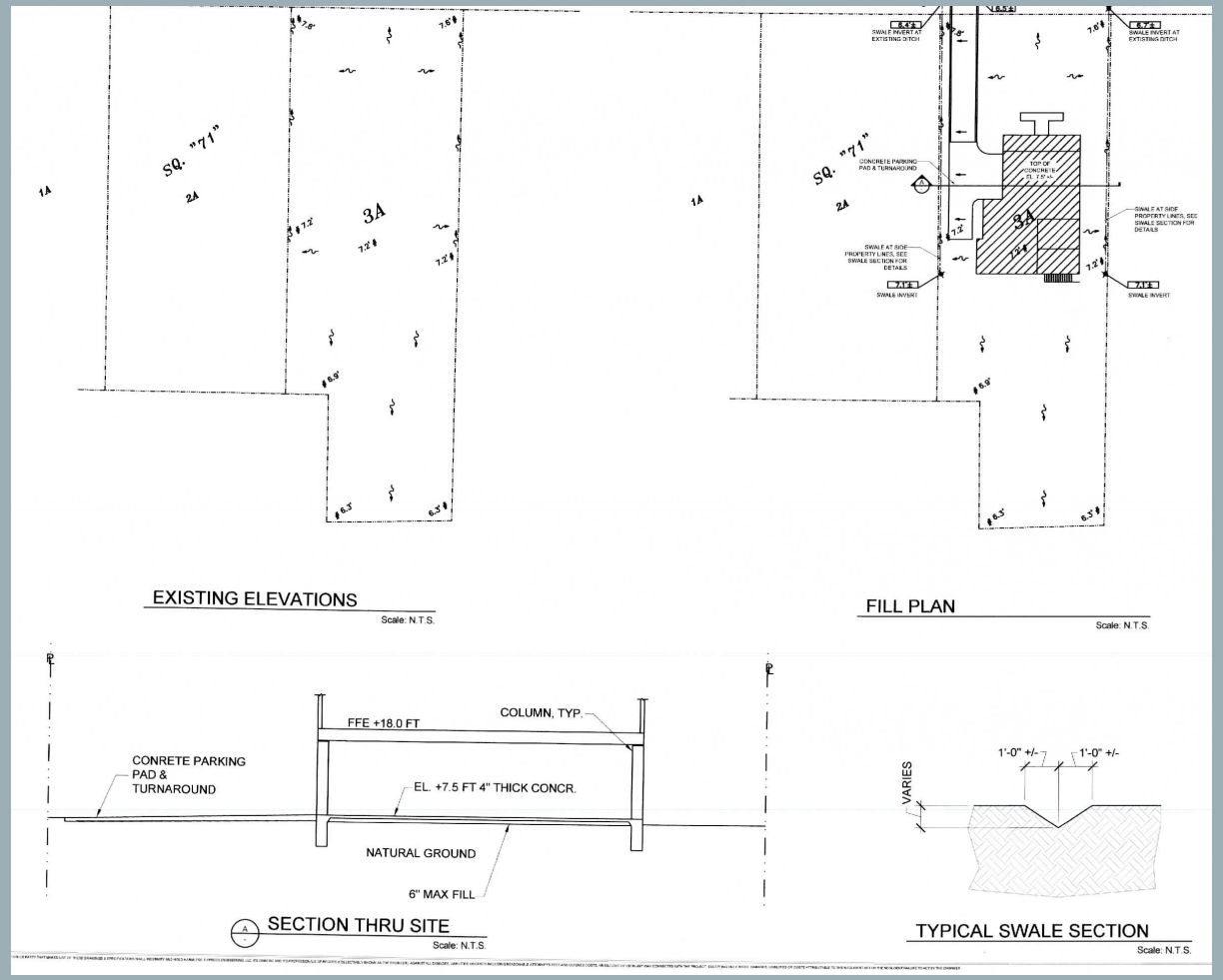
Residential

- Proposed building and structures finished floor elevations
- Driveway elevations
- Existing and proposed site elevations
- Natural drainage patterns existing and proposed including outfalls

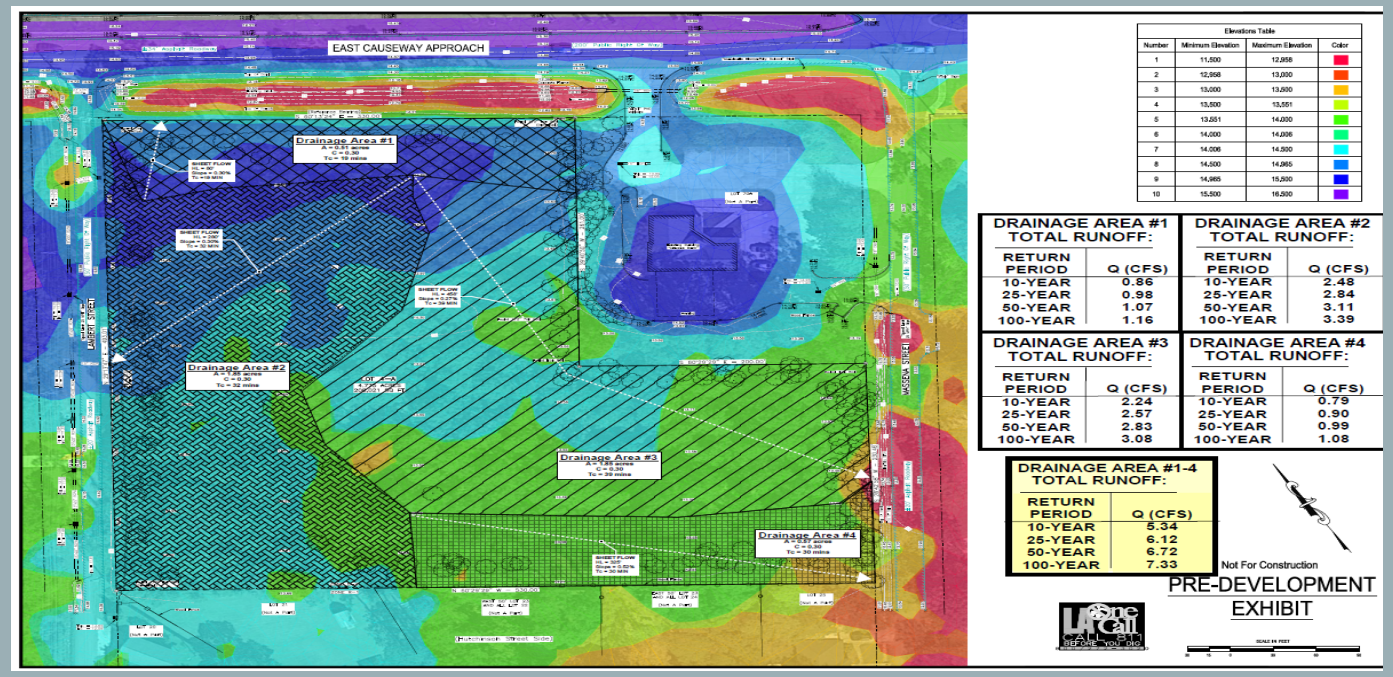
Commercial

- Hydrologic report required for sites greater than 1 acre showing pre-development versus post development runoff rates using the rational method for a 10 year storm frequency with a 24 hour duration.
- Locations, sizes, and grades of required culverts, storm drainage system, drainage ditches.
- Stormwater pollution prevention plan for erosion control measures.
- Stamped by a licensed Civil engineer
- 1' contour map.

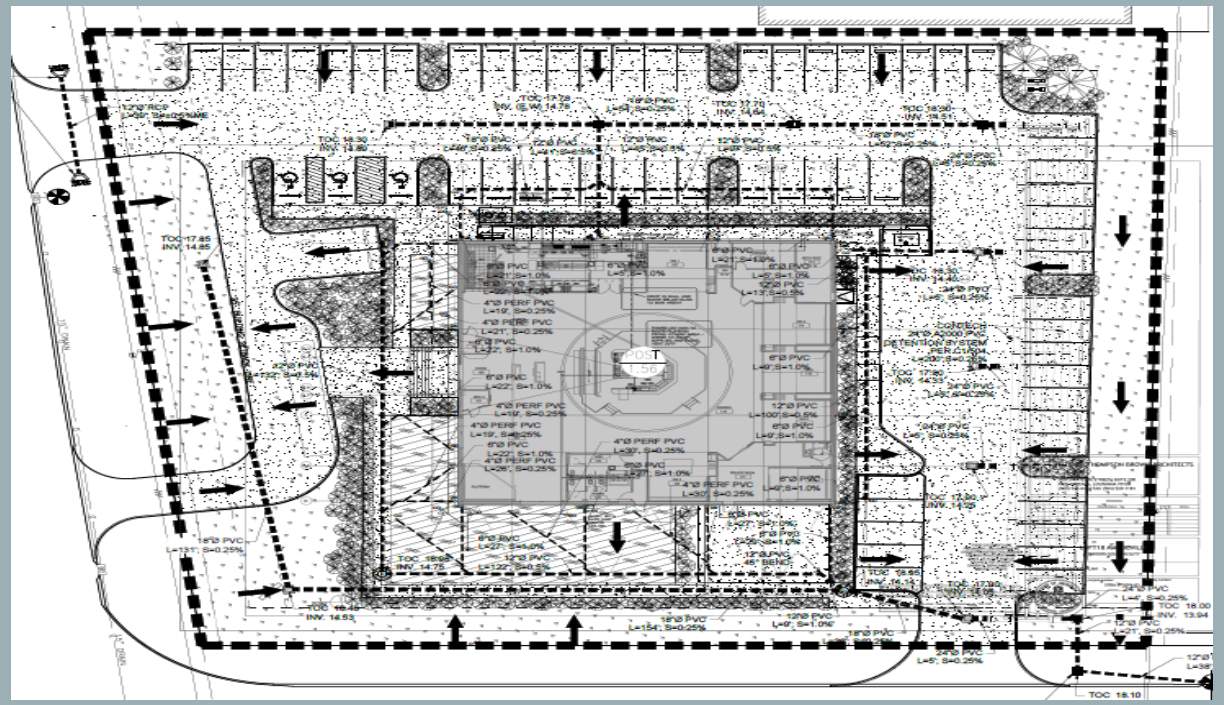
RESIDENTIAL DRAINAGE PLAN



COMMERCIAL PLAN EXAMPLE PRE DEVELOPMENT



COMMERCIAL PLAN EXAMPLE POST DEVELOPMENT

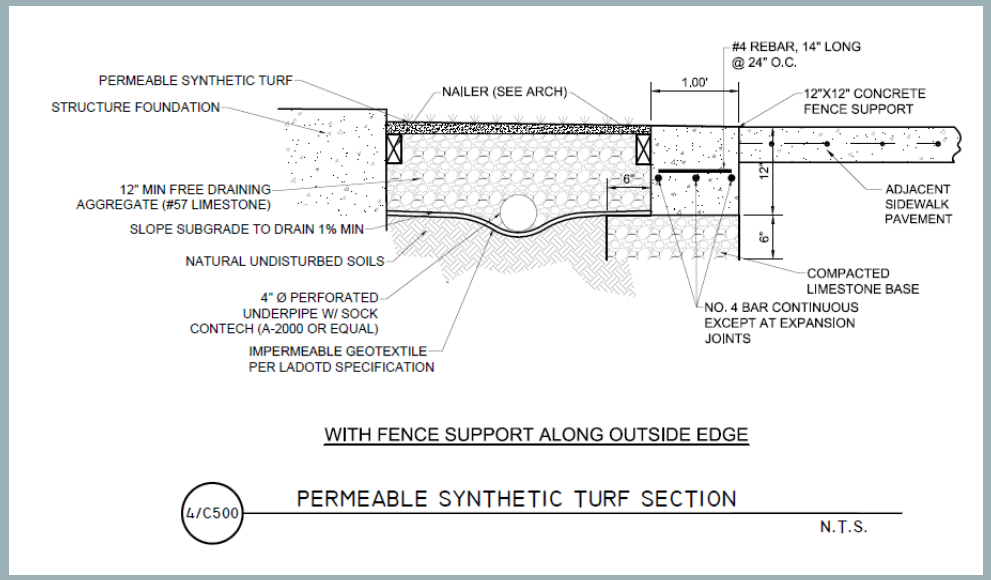


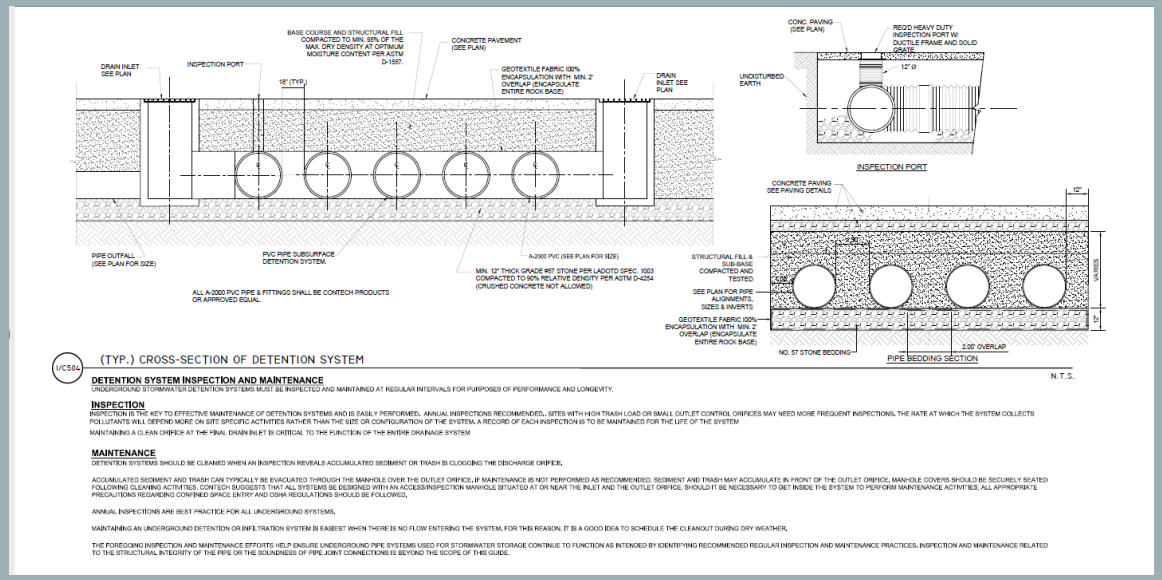
SWPPP

CORRECT

NOT CORRECT

COMMERCIAL PLAN EXAMPLES





DETENTION SYSTEM INSPECTION AND MAINTENANCE

UNDERGROUND STORMWATER DETENTION SYSTEMS MUST BE INSPECTED AND MAINTAINED AT REGULAR INTERVALS FOR PURPOSES OF PERFORMANCE AND LONGEVITY.

INSPECTION

INSPECTION IS THE KEY TO EFFECTIVE MAINTENANCE OF DETENTION SYSTEMS AND IS EASILY PERFORMED. ANNUAL INSPECTIONS RECOMMENDED., SITES WITH HIGH TRASH LOAD OR SMALL OUTLET CONTROL ORIFICES MAY NEED MORE FREQUENT INSPECTIONS. THE RATE AT WHICH THE SYSTEM COLLECTS POLLUTANTS WILL DEPEND MORE ON SITE SPECIFIC ACTIVITIES RATHER THAN THE SIZE OR CONFIGURATION OF THE SYSTEM. A RECORD OF EACH INSPECTION IS TO BE MAINTAINED FOR THE LIFE OF THE SYSTEM

MAINTAINING A CLEAN ORIFICE AT THE FINAL DRAIN INLET IS CRITICAL TO THE FUNCTION OF THE ENTIRE DRAINAGE SYSTEM

MAINTENANCE

DETENTION SYSTEMS SHOULD BE CLEANED WHEN AN INSPECTION REVEALS ACCUMULATED SEDIMENT OR TRASH IS CLOGGING THE DISCHARGE ORIFICE.

ACCUMULATED SEDIMENT AND TRASH CAN TYPICALLY BE EVACUATED THROUGH THE MANHOLE OVER THE OUTLET ORIFICE. IF MAINTENANCE IS NOT PERFORMED AS RECOMMENDED, SEDIMENT AND TRASH MAY ACCUMULATE IN FRONT OF THE OUTLET ORIFICE. MANHOLE COVERS SHOULD BE SECURELY SEATED FOLLOWING CLEANING ACTIVITIES. CONTECH SUGGESTS THAT ALL SYSTEMS BE DESIGNED WITH AN ACCESS/INSPECTION MANHOLE SITUATED AT OR NEAR THE INLET AND THE OUTLET ORIFICE. SHOULD IT BE NECESSARY TO GET INSIDE THE SYSTEM TO PERFORM MAINTENANCE ACTIVITIES, ALL APPROPRIATE PRECAUTIONS REGARDING CONFINED SPACE ENTRY AND OSHA REGULATIONS SHOULD BE FOLLOWED.

ANNUAL INSPECTIONS ARE BEST PRACTICE FOR ALL UNDERGROUND SYSTEMS.

MAINTAINING AN UNDERGROUND DETENTION OR INFILTRATION SYSTEM IS EASIEST WHEN THERE IS NO FLOW ENTERING THE SYSTEM. FOR THIS REASON, IT IS A GOOD IDEA TO SCHEDULE THE CLEANOUT DURING DRY WEATHER.

THE FORESOING INSPECTION AND MAINTENANCE EFFORTS HELP ENSURE UNDERGROUND PIPE SYSTEMS USED FOR STORMWATER STORAGE CONTINUE TO FUNCTION AS INTENDED BY IDENTIFYING RECOMMENDED REGULAR INSPECTION AND MAINTENANCE PRACTICES. INSPECTION AND MAINTENANCE RELATED TO THE STRUCTURAL INTEGRITY OF THE PIPE OR THE SOUNDNESS OF PIPE JOINT CONNECTIONS IS BEYOND THE SCOPE OF THIS GUIDE.

DRAINAGE OVERLAY DISTRICT

The D-O district includes any area that is below six (6) feet MSL, is adjacent to or includes areas of periodic inundation (5 ft. MSL or lower) from the flood waters of a natural drainageway through the City of Mandeville including those areas adjacent to natural drainageways subject to the regulations of the State Coastal Management Division, subject to Section 10 of the Rivers and Harbors Act and subject to Section 404 of the Clean Water Act.

COASTAL HIGH HAZARD AREAS(V, V-130, OR VE-ZONES)

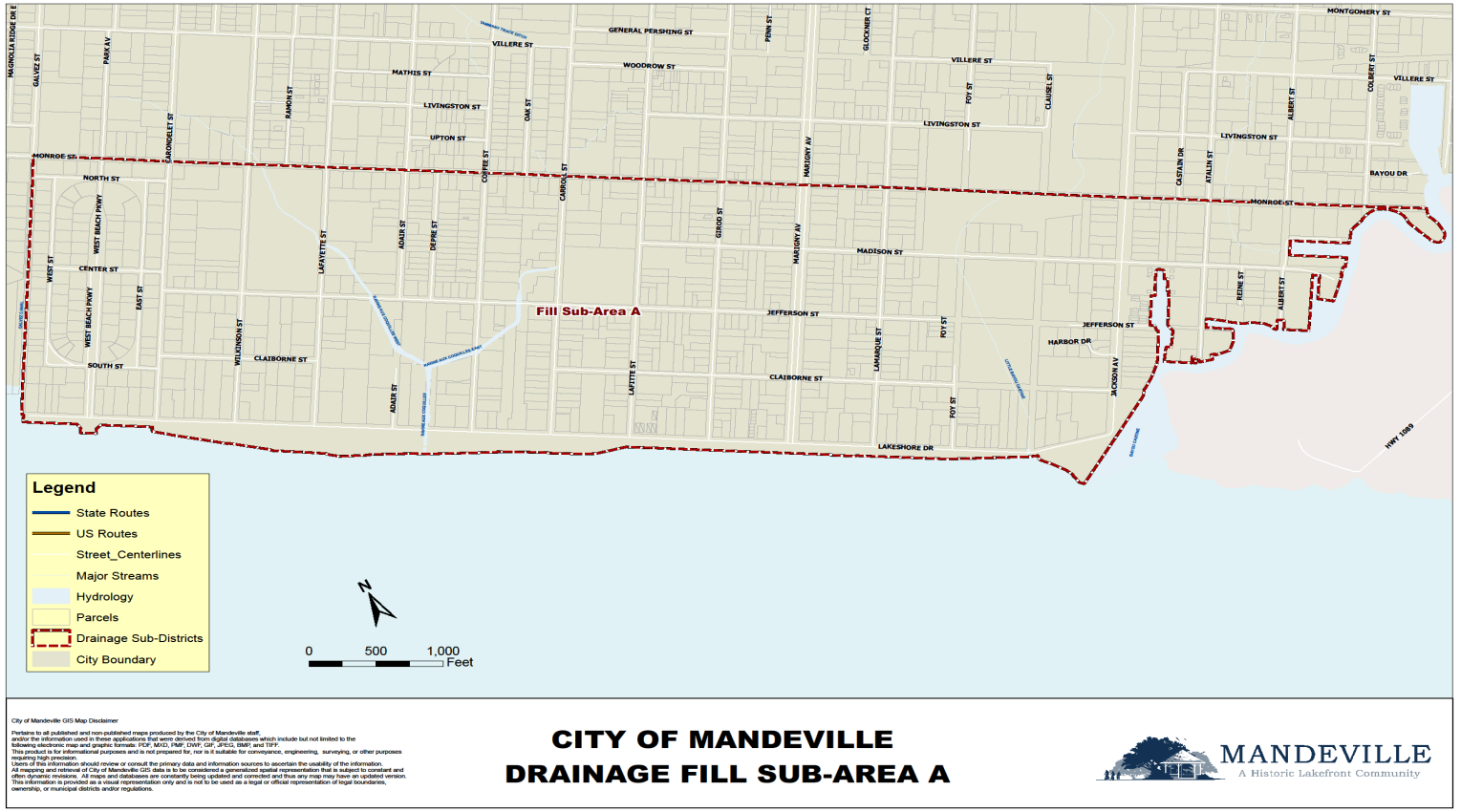
These areas have special flood hazards associated with high velocity waters from tidal surges and hurricane wave wash

- Provide that all new construction and substantial improvements have the space below the lowest floor either free of obstruction or constructed with non supporting breakaway walls, open wood lattice-work, or insect screening intended to collapse under wind and water loads without causing collapse, displacement, or other structural damage to the elevated portion of the building or supporting foundation system.
- Pile construction shall be required in V zones.
- Prohibit the use of fill for structural support of buildings (tangible slab to break up with wave action)

SUB-AREA A / DRAINAGE OVERLAY DIST.

Located between Monroe Street, Lakeshore Dr., Bayou Castin, and Galvez Street.

The D-O district includes any area that is below six (6) feet MSL, is adjacent to or includes areas of periodic inundation (5 ft. MSL or lower) from the flood waters of a natural drainageway through the City of Mandeville including those areas adjacent to natural drainageways subject to the regulations of the State Coastal Management Division, subject to Section 10 of the Rivers and Harbors Act and subject to Section 404 of the Clean Water Act.



SUB-AREA A AND D-O DIST.

Grading and Fill

- 6" of fill is allowed under the roofline
- Site can be graded, or surface/subsurface drainage may be added to convey water to the City's stormwater system.
- Fill Shall not have an inverse impact on adjacent properties or installed withing the driplines of existing trees. TYP.

Foundation and Slabs

Habitable Structure

- Pile Construction in V zones
- Pier or pile construction **Required.** Grade beams/footings below natural grade.
- Top of slab below building can be 6" above natural grade.

Non-Habitable spaces

- Top of slab can be 6" above natural ground.

Driveway

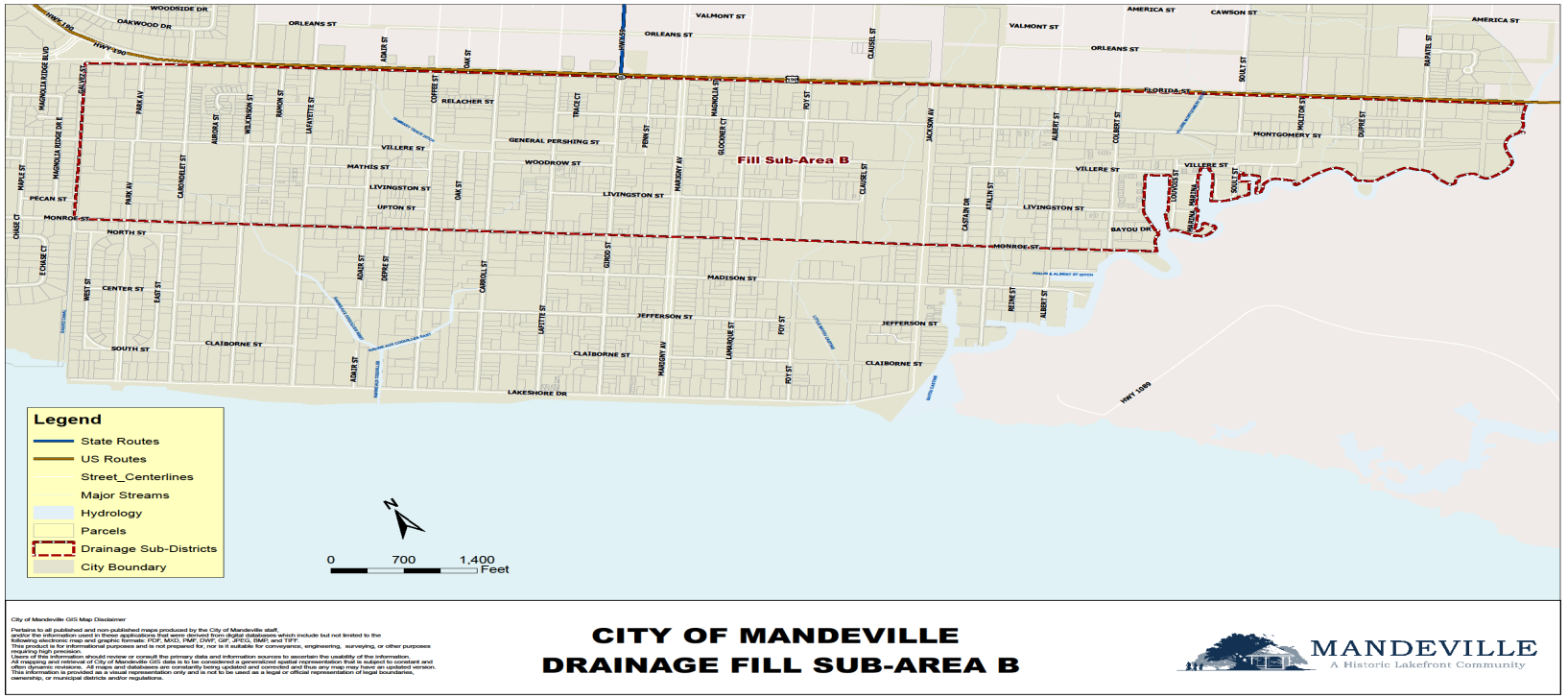
- Built at natural grade except where is needs to meet parking below structure or to convey water. (TOS 6" max)
- Cannot be located closer than 5' to the side or rear property line **EXCEPT** to provide parking behind the building line.

Parking Lots

- Not allowed in the D-O District Without special use permit.
- Cannot be elevated more than 6" above natural ground.

SUB-AREA B

Located between Monroe Street,
Florida St., Bayou Castin, and Galvez.



SUB AREA B.

Grading and Fill

- 2’ of fill is allowed under roofline
- Attached garage top of slab can be 12” above existing grade.
- Must tapper 3:1 from the structure and extend no more than 6’ beyond structure.
- No fill outside the buildable area.

Foundation and Slabs

Habitable Structure

- Finished floor must be the greater of 12” above centerline of roadway or current FEMA requirements.
- For Pier construction grade beams/footings must be at or below natural grade.

Non-Habitable spaces

- Top of slab can be 6” above natural ground.

Driveway

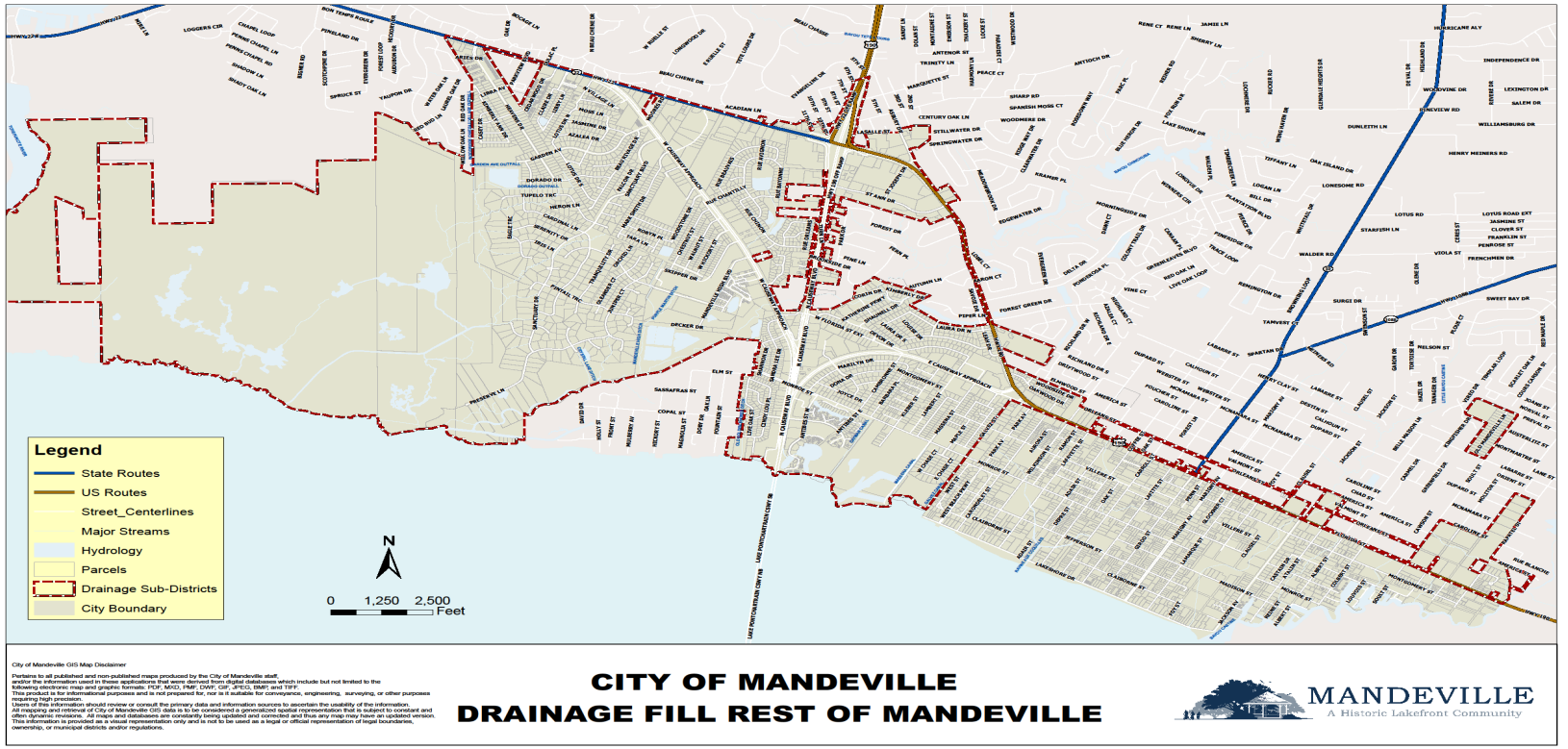
- 16’ before structure, driveway can ramp to attached garage finished floor elevation but shall ne exceed 6” max
- Cannot be located closer than 5’ to the side or rear property line **EXCEPT** to provide parking behind the building line.

Parking Lots

- Cannot be elevated more than 6” above natural ground, **Unless** ADA ramps are required.

REMAINDER OF THE CITY

Everywhere else not located in the drainage overlay district and outside of Sub-Area A and Sub-Area B.



REMAINDER OF THE CITY

Grading and Fill

- 2’ of fill is allowed under roofline w/out retainer methods
- Lots < 20,000sf - Attached garages top of slab can be the greater of **24”** above existing grade or **9.5’** MSL
- Lots > 20,000sf and where driveways are greater than 15’ from side property line - Attached garages top of slab can be the greater of **32”** above existing grade or **9.5’** MSL
- Must tapper 3:1 from the structure and extend no more than 6’ beyond structure.

Parking Lots

- Cannot be elevated more than 6” above natural ground, **Unless** ADA ramps are required.

Foundation and Slabs

Habitable Structures

- Finished floor must be the greater of 12” above centerline of roadway or current FEMA requirements.
- Lots in the D-O District platted prior to 5/1/15, > 20,000sf, and outside of SubArea A, fill and chain wall construction may be used under slab foundation.

REMAINDER OF THE CITY

Non-Habitable Structures

Detached accessory structures **within the buildable area**

- Top of slab can be the greater of **24”** above existing grade or **9.5’** MSL

Non-Habitable Structures

Detached accessory structures **outside the buildable area**

- Detached Garage -12” of fill max is allowed and the TOS cannot exceed 18” above existing grade.
- Any other accessory structure – 6” of fill under the structure is allowed.

PROCESSES/PROCEDURES

New Construction – Residential

Homes/Accessory Structures

- Applicant submits Drainage Plan.
- PW reviews for compliance
- PW Denys or Approves the Plan

Construction Begins

- PW preforms an initial drainage inspection before concrete is poured
- PW passes or fails the inspection
- If fail, the owner will have to correct before proceeding

Completion

- A Final Drainage inspection is preformed
- If fail, The owner will have to correct before receiving occupancy

PROCESSES/PROCEDURES

Grading Permits – Owners seeking to improve or correct a drainage issue on the property

- Applicant applies for a permit
- PW will meet with the owner to identify what issue exists
- PW will indicate how much material will be allowed to correct the problem
- Owner will complete the permit application
- PW will review the application and reference any past survey data if available and adjust permit if needed
- Permit will be issued.
- When work is complete, a Final inspection is performed.

PROCESSES/PROCEDURES

Violations – W/O Permit

- Stop Work is issued by Building Official or PW and to contact PW
- Contact is made B/T PW and owner to explain the intent and PW to explain what is non-compliant
- At this point, grade shots are taken or probing of ground to determine how much material will need to be removed
- If information is available from previous permits, this aids us in determining what the existing conditions were.
- PW will determine scope of work that will be allowed and what material would need to be removed
- Owner will complete the permit application(If Needed)
- PW will review the application and reference any past survey data if available and adjust permit if needed
- Permit will be issued.
- If non responsive, fines of **$500 per day** can be assessed through code enforcement and Mayors court process.