

JOHN J. TECKLENBURG
Mayor

City of Charleston
South Carolina
Department of Public Service

THOMAS F. O'BRIEN
Interim Director of Public
Service

**PUBLIC WORKS AND UTILITIES COMMITTEE
AGENDA**

There will be a meeting of the Public Works and Utilities Committee on Monday, February 11, 2019 to begin at 4:00 p.m., first floor conference room at City Hall. The following items will be heard:

A. Invocation

B. Approval of Public Works and Utilities Committee Minutes

January 8, 2019

January 22, 2019 (Deferred)

C. Request to Set a Public Hearing

None

D. Acceptance and Dedication of Rights-of-Way and Easements

1. Bluestone and granite curb at 475 East Bay Street. Approved to notify SCDOT that the city intends to accept maintenance responsibility for bluestone and granite curb to be constructed in conjunction with the project at 475 East Bay Street with the SCDOT right-of-way (US-52).
 - a. Letter
 - b. Map
2. 642 Meeting Street. Approved to notify SCDOT that the City intend to accept maintenance responsibility for street lighting and street trees on North Nassau Street (S-119) to be constructed in conjunction with the project at 642 Meeting Street.
 - a. Letter
 - b. Map

E. Temporary Encroachments Approved by The Department of Public Service (For information only)

1. **29 Broad St.** – Installing 40"x16" right angle sign over public right-of-way. This encroachment is temporary. **Approved January 25, 2019.**
2. **43 Broad St. – Old Whaling** – Installing 30"x30" right angle sign over public right-of-way. This encroachment is temporary. **Approved January 25, 2019.**
3. **213 Black Powder Ln.** – Installing irrigation encroaching into right-of-way. This encroachment is temporary. **Approved January 25, 2019.**
4. **531 Park Crossing St.** – Installing irrigation encroaching into right-of-way. This encroachment is temporary. **Approved January 25, 2019.**
5. **577 Wading Pl.** – Installing irrigation encroaching into right-of-way. This encroachment is temporary. **Approved January 25, 2019.**
6. **1605 Juliana St.** – Installing irrigation encroaching into right-of-way. This encroachment is temporary. **Approved January 25, 2019.**
7. **1609 Juliana St.** – Installing irrigation encroaching into right-of-way. This encroachment is temporary. **Approved January 25, 2019.**
8. **1612 Juliana St.** – Installing irrigation encroaching into right-of-way. This encroachment is temporary. **Approved January 25, 2019.**
9. **1702 Trewin Ct.** – Installing irrigation encroaching into right-of-way. This encroachment is temporary. **Approved January 25, 2019.**
10. **2542 Josiah St.** – Installing irrigation encroaching into right-of-way. This encroachment is temporary. **Approved January 25, 2019.**
11. **2544 Josiah St.** – Installing irrigation encroaching into right-of-way. This encroachment is temporary. **Approved January 25, 2019.**
12. **2548 Josiah St.** – Installing irrigation encroaching into right-of-way. This encroachment is temporary. **Approved January 25, 2019.**
13. **2552 Daniel Island Dr.** – Installing irrigation encroaching into right-of-way. This encroachment is temporary. **Approved January 25, 2019.**
14. **2556 Daniel Island Dr.** – Installing irrigation encroaching into right-of-way. This encroachment is temporary. **Approved January 25, 2019.**
15. **2566 Daniel Island Dr.** – Installing irrigation encroaching into right-of-way. This encroachment is temporary. **Approved January 25, 2019.**
16. **2569 Daniel Island Dr.** – Installing irrigation encroaching into right-of-way. This encroachment is temporary. **Approved January 25, 2019.**

17. **2577 Daniel Island Dr.** – Installing irrigation encroaching into right-of-way. This encroachment is temporary. **Approved January 25, 2019.**
18. **2602 Daniel Island Dr.** – Installing irrigation encroaching into right-of-way. This encroachment is temporary. **Approved January 25, 2019.**
19. **2610 Daniel Island Dr.** – Installing irrigation encroaching into right-of-way. This encroachment is temporary. **Approved January 25, 2019.**
20. **2614 Daniel Island Dr.** – Installing irrigation encroaching into right-of-way. This encroachment is temporary. **Approved January 25, 2019.**
21. **1710 Trewin Ct.** – Transfer installing irrigation encroaching into right-of-way. This encroachment is temporary. **Approved January 25, 2019.**
22. **1958 Bellona St.** – Transfer installing irrigation encroaching into right-of-way. This encroachment is temporary. **Approved January 25, 2019.**
23. **2553 Daniel Island Dr.** – Transfer installing irrigation encroaching into right-of-way. This encroachment is temporary. **Approved January 25, 2019.**

F. Miscellaneous or Other New Business (Action may or may not be taken)

- a. Update from Project Managers.
- b. Update on Councilmember Shahid's request regarding Drainage issues.
- c. Update from Floodplain Manager on Freeboard.
- d. Update on Stormwater Design Standards Manual revisions.
- e. Interim Stormwater Standards Ordinance:

An ordinance to amend the Stormwater Design Standards Manual in accordance with Sec. 27-28 of the Code of the City of Charleston, by adding interim requirements for stormwater systems and facilities for new developments within all areas of the City other than the Church Creek Drainage Basin; to provide for exemptions; and to provide for an expiration date. *(Requested by Councilwoman Jackson)*

- f. Moratorium Ordinance:
An ordinance to amend Chapter 54 of the Code of the City of Charleston, South Carolina (Zoning Ordinance), by adding new definitions to Article 1, General Provisions, Part 3, Definitions, and by adding to Article 9, Administration and Enforcement, a new Part 6, entitled, "Temporary Moratorium Applicable to Special Flood Hazard Areas on James Island and Johns Island," and in other respects, to provide for the temporary suspension of the issuance of development permits and approvals for the purpose of allowing the City time to update and revise its Stormwater Design Standards Manual to ensure the sustainability of development on James Island and Johns Island, while protecting existing and future residents, business owners,

landowners, and developers in these areas from the adverse impacts of flooding which may result from land disturbing activities, development, and construction within such areas. ***(Requested by Councilwoman Jackson; deferred and referred to the Committee on Public Works and Utilities at the January 22, 2019 City Council meeting)***

Councilmember Keith Waring,
Chairperson

In accordance with the Americans with Disabilities Act, people who need alternative formats, ASL (American Sign Language) Interpretation or other accommodation please contact Janet Schumacher at (843) 577-1389 or email to schumacherj@charleston-sc.gov three business days prior to the meeting.



JOHN J. TECKLENBURG
Mayor

City of Charleston
South Carolina
Department of Public Service

THOMAS F. O'BRIEN
Interim Director of Public
Service

February 13, 2019

Mr. Kirk R. Richards, P.E.
Assistant District Maintenance Engineer
SCDOT-District Six
6355 Fain Blvd.
North Charleston, SC 29406

RE: Maintenance of granite curb and bluestone pavers on 475 East Bay Street.
(US-52)

Dear Mr. Richards:

This letter concerns the proposed installation and 1030 LF of granite curb and bluestone pavers to be constructed in conjunction with the project at 475 East Bay Street.

The City Council of Charleston, at its meeting held on February 12, 2019, agreed to accept maintenance responsibility for the concrete sidewalk and granite curb within the State maintained right-of-way shown on the attached drawing and which will be constructed under a valid SCDOT Encroachment Permit. The City of Charleston agrees to maintain this sidewalk and corner accessibility ramps in compliance with current ADA and SCDOT standards (ADA Standards for Transportation Facilities, SC Highway Design Manual, SCDOT Standard Drawings, AASHTO Guide for Development of Pedestrian Facilities).

Should there be any questions, please do not hesitate to contact me at 843-724-3754 or at obrient@charleston-sc.gov.

Sincerely,


Thomas F. O'Brien,

Copy to:

Maurice Gunn, Deputy Director of Operations
Matthew Blackwell, Site Development Manager
Patterson Farmer, PE, Senior Civil Engineer

TFO/tmg



January 15, 2019

Tom O'Brien
City of Charleston
Department of Public Service
Engineering Division
2 George Street, Suite 2100
Charleston, SC 29401

Liberty by Hilton Club
SCDOT Curb & Sidewalk Maintenance Request Letter
City Project ID: TRC-SP2017-000064

Dear Mr. O'Brien,

As part of the encroachment permit review for Liberty by Hilton Club, City ID# TRC-SP2017-000064, the SCDOT is requesting that we provide a signed maintenance agreement letter from the City of Charleston for proposed +/-1030 LF of sidewalk and granite curb to be installed within the SCDOT Right-of-Way along East Bay Street, Calhoun Street and Alexander Street. Please let this letter represent our formal request to the City of Charleston for a signed maintenance agreement letter for the new sidewalk and granite curb on these streets associated with the Liberty by Hilton Club project.

Should you have any questions or need additional information, please call our office.

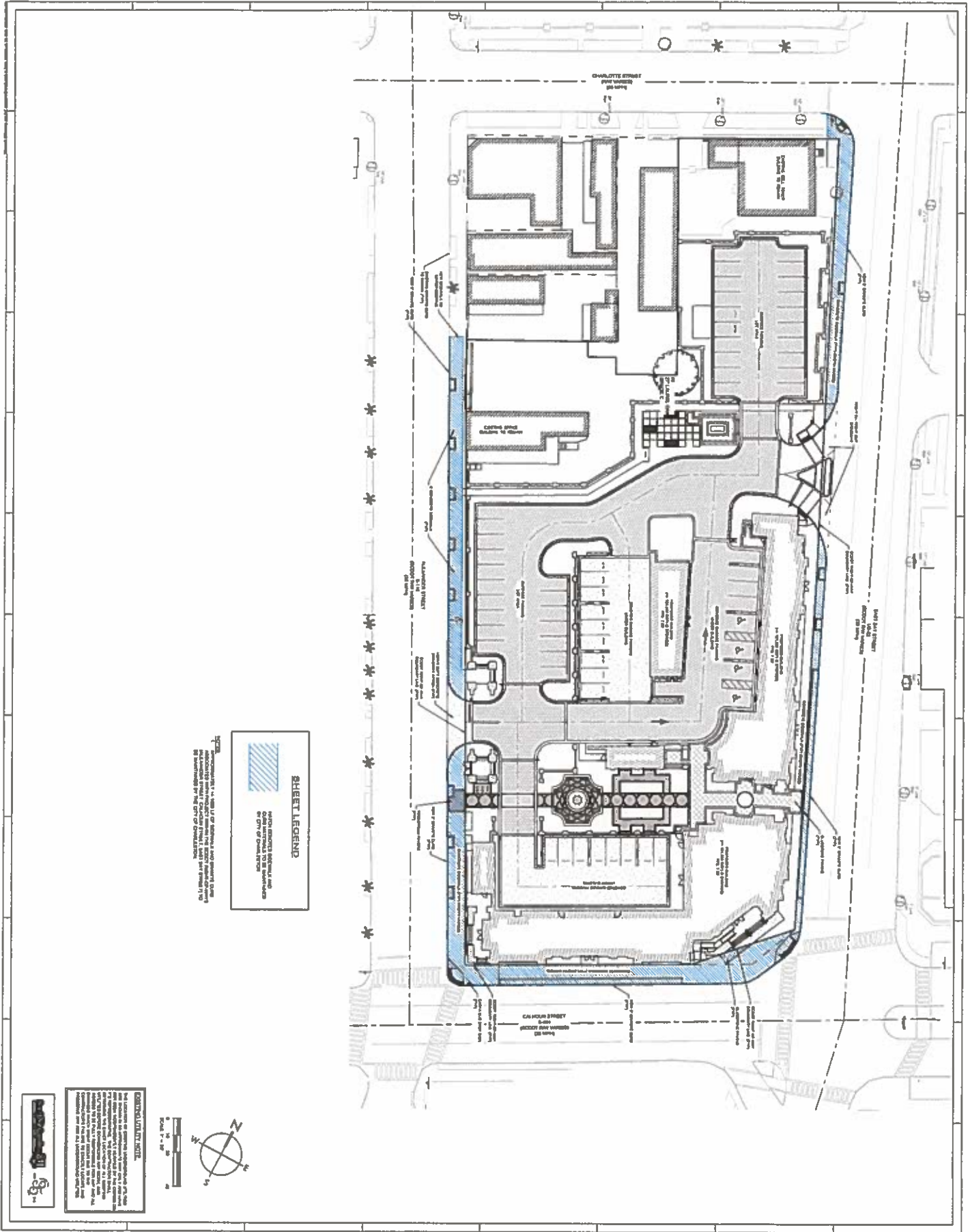
SEAMON, WHITESIDE & ASSOCIATES, INC.

A handwritten signature in blue ink that reads 'Patterson Farmer'.

Patterson Farmer, PE
Senior Civil Engineer

CC: Anna Lewis, Entitlements Manager, SWA

Job #7701

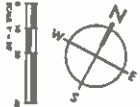


SHEET LEGEND

HATCHED AREAS INDICATE THE PROJECT SITE TO BE MAINTAINED BY THE CITY OF CHARLESTON

GENERAL NOTES:

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS FROM THE CITY OF CHARLESTON AND THE SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION AND PUBLIC SAFETY (DOT) PRIOR TO THE START OF CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS FROM THE CITY OF CHARLESTON AND THE SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION AND PUBLIC SAFETY (DOT) PRIOR TO THE START OF CONSTRUCTION.



PROJECT NO. 2024-001
 DATE 05/20/24
 SHEET 1 OF 1

PROJECT TITLE:
 SUDOT FRONT OF MALL
 CITY OF CHARLESTON MAINTENANCE EXHIBIT
 SIDEWALK SPECIALTY PAVING AND GRANITE CURB

NO.	DESCRIPTION	DATE	BY	CHECKED
1	ISSUED FOR PERMITS	05/20/24	JW	JW
2	ISSUED FOR CONSTRUCTION	05/20/24	JW	JW
3	ISSUED FOR FINAL AS-BUILT	05/20/24	JW	JW

LIBERTY BY HILTON CLUB

475 East Bay Street
 Charleston, SC 29403





JOHN J. TECKLENBURG
Mayor

City of Charleston
South Carolina
Department of Public Service

THOMAS F. O'BRIEN
Interim Director of Public
Service

February 13, 2019

Mr. Kirk R. Richards, P.E.
Assistant District Maintenance Engineer
SCDOT-District Six
6355 Fain Blvd.
North Charleston, SC 29406

RE: Maintenance of street lights and street trees on North Nassau St. (S-119), in conjunction with project at 642 Meeting Street (S-10-107).

Dear Mr. Richards:

This letter concerns the proposed installation of street lights and street trees to be installed in conjunction with the project within the SCDOT right-of-way on Meeting Street (S-10-107).

The City Council of Charleston, at its meeting held on February 13, 2019, agreed to accept maintenance responsibility for the street lights and street trees within the State maintained right-of-way shown on the attached drawing and which will be constructed under a valid SCDOT Encroachment Permit. The City of Charleston agrees to maintain this sidewalk and corner accessibility ramps in compliance with current ADA and SCDOT standards (ADA Standards for Transportation Facilities, SC Highway Design Manual, SCDOT Standard Drawings, AASHTO Guide for Development of Pedestrian Facilities).

Should there be any questions, please do not hesitate to contact me at 843-724-3754 or at obrient@charleston-sc.gov.

Sincerely,


Thomas F. O'Brien,

Copy to:

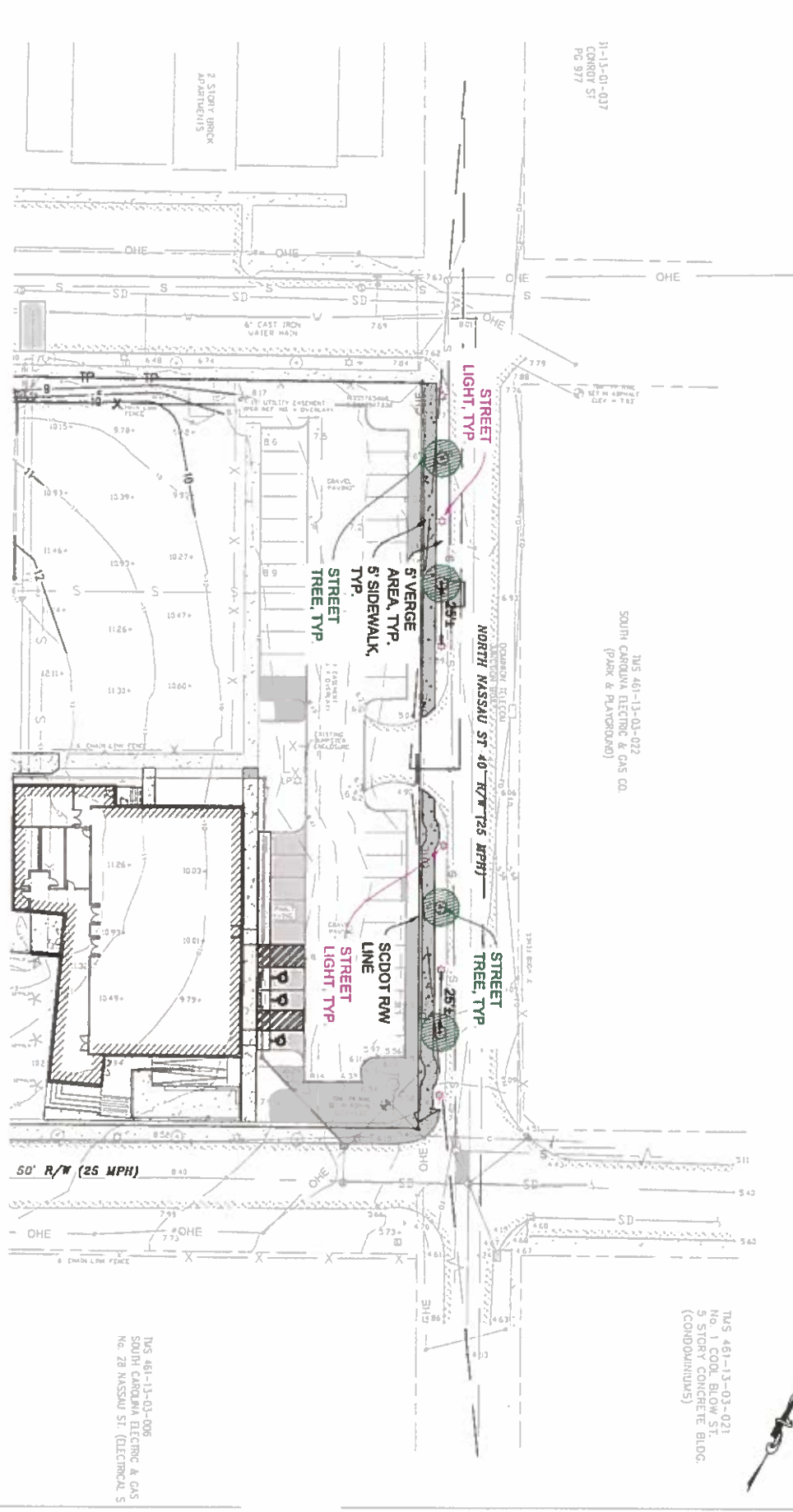
Maurice Gunn, Deputy Director of Operations

Matthew Blackwell, Site Development Manager

Brian Pokrant, GIS Analyst

Cameron Baker, PE, CBaker Engineer

TFO/tmg



31-13-01-017
CONROY ST
PG 977

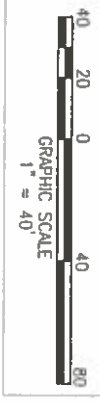
TMS 461-13-03-022
SOUTH CAROLINA ELECTRIC & GAS CO.
(PARK & PLAYGROUND)

TMS 461-13-03-021
No. 1 COOL BLOW ST.
5 STORY CONCRETE BLDG.
(CONDOMINIUMS)

TMS 461-13-03-006
SOUTH CAROLINA ELECTRIC & GAS
No. 28 NASSAU ST. (ELECTRICAL S

LANDSCAPE AND STREET LIGHT EXHIBIT

MEETING STREET ACADEMY - PHASE III
642 MEETING STREET
CITY OF CHARLESTON, SOUTH CAROLINA
TMS NO. 461-13-03-005





Ratification
Number _____

A N O R D I N A N C E

TO AMEND THE STORMWATER DESIGN STANDARDS MANUAL IN ACCORDANCE WITH SEC. 27-28 OF THE CODE OF THE CITY OF CHARLESTON, BY ADDING INTERIM REQUIREMENTS FOR STORMWATER SYSTEMS AND FACILITIES FOR NEW DEVELOPMENTS WITHIN ALL AREAS OF THE CITY OTHER THAN THE CHURCH CREEK DRAINAGE BASIN; TO PROVIDE FOR EXEMPTIONS; AND TO PROVIDE FOR AN EXPIRATION DATE.

BE IT ORDAINED BY THE MAYOR AND COUNCILMEMBERS OF CHARLESTON, IN CITY COUNCIL ASSEMBLED:

Section 1. Findings. City Council hereby finds as follows:

(a) Stormwater drainage is a major problem in the City of Charleston. The existing facilities for the removal of stormwater runoff at an acceptable level are inadequate in a large portion of the City, as is evidenced by the numerous and recurrent incidents of surface flooding during periods of moderate to heavy rainfall.

(b) The severity of flooding varies from area to area and with the intensity and duration of the rain. Flooding can result in hardships to the City residents in the form of disruption of vital services and the loss of mobility and income. In some instances, the flooding has also resulted in property loss or damage, and most importantly, has posed a potential hazard to the health and safety of the population.

(c) With the continued growth, and the resulting land development, the frequency of flooding and its impact can only be expected to increase due to the increased quantities and concentration of stormwater runoff.

(d) In recognition of the problem and the need for remedial action, the City is in the process of updating its Stormwater Design Standards Manual ("Manual"), with such updates anticipated to be in final draft form during the summer of 2019

and adopted by City Council, with appropriate revisions as necessary, during the fall of 2019.

(e) These updates to the Manual are expected to incorporate provisions for reducing runoff volume; limit the use of fill materials; encourage and require innovative stormwater management approaches that restore the predevelopment site hydrology through site design techniques that promote infiltration, evaporation, storage, and treatment of runoff; create functional and appealing site drainage, such as protecting and/or reestablishing natural landscape features; minimize impervious area; and treat stormwater as a resource rather than a burden, with the goal of, among other things, helping to reduce the cost of site clearing/grading to developers.

(f) Notwithstanding ongoing efforts by the City to implement regulations to alleviate flooding conditions throughout the City, it is evident that the City needs the opportunity to review, adopt, and implement these anticipated changes to the Manual before permitting additional land disturbing activities, development, and construction within the City which may increase flood damage.

(g) The adoption of interim requirements for stormwater systems and facilities will enable the City to control filling, grading, and other development which may increase flood damage until it has had the opportunity to complete the evaluation and implementation of the necessary changes to the Manual.

(h) The public health and safety, and the economic well-being of the City, its residents, and property owners demand that such measures be taken.

Section 2. Section 3.1, "General Requirements," of the Stormwater Design Standards Manual dated March 15, 2013, as amended by Ordinance No. 2018-115 ratified in City Council on September 18, 2018, is hereby amended by adding a new Subsection 3.1.2.e to state as follows:

"e. **Interim Requirements for Stormwater Systems and Facilities:**

For projects in all areas of the City other than the Church Creek Drainage Basin, as defined in Subsection 3.1.2.d hereinabove, all permanent stormwater management systems associated with new development shall, in addition to all other applicable requirements of this Section, be designed and constructed to meet the following requirements:

- i. Easements for open conveyances shall be at least twenty-four feet (24') in width. The easement shall include a maintenance shelf with a width of at least twenty feet (20') and direct access to a public right-of-way with a width of at least twenty feet (20'). If the open conveyance is more than four feet (4') wide and/or more than four feet (4') deep, the easement

width shall be increased by two feet (2') for each foot of conveyance width or depth above four feet (4').

- ii. A main conveyance is a drainage facility serving or intended to serve one hundred or more lots; or providing drainage for more than one development or subdivision, provided the combined acreage of such developments or subdivisions is at least thirty (30) acres. Main conveyance components shall utilize open drainage channels and ponds to move large volumes of water over long distances. Culverts may be used where required at points where main conveyances cross topological features. Box culverts or pre-engineered spans or bridges shall be used in lieu of pipes for locations where main conveyance assets or channels cross roadways or trails.
- iii. Channels shall be sized to operate at full capacity with reasonable vegetative growth. A channel opening dimension factor of safety of 1.25 shall be used for conveyance structures to account for normal accumulation of debris and sediment between maintenance cycles. The 1.25 factor of safety shall be based upon hydraulic capacity during the 100-year storm conditions. Channel easement width shall be adequate for the channel as well as for access and maintenance. Access shall be sufficient to allow for loading and unloading of equipment and enable mowers and excavators to traverse the length of the conveyance facility. Access for loading/unloading equipment shall be within, adjacent to, and nearby to enable efficient maintenance activity. Main conveyance easements shall allow for a maintenance shelf on one side of the channel. Side slopes shall include a maximum slope of 2.5H:1V. Projects where alternate channel side slopes are proposed, such as a wall, bulkhead or hardscape will be considered on a case-by-case basis. The minimum width for a main conveyance channel easement is shall be fifty (50) feet. Access and shelf areas shall accommodate maintenance equipment such as excavators and other equipment required for effective operation to traverse, function, and freely move without risks associated with encroaching upon private property.
- iv. All discharges to tidally affected receiving waters shall be equipped with surge protection devices. Surge protection devices will not be required in areas located upstream of existing devices where protection is provided. All devices shall be located to facilitate maintenance and shall be constructed of stainless steel, aluminum, or other materials that are corrosion resistant and designed for installation in a marine, saltwater environment. The city reserves the right to standardize, develop standards

for, and review designs associated with tidal surge protection devices. In some cases, maintaining tidal flow under normal conditions may be necessary. In these cases, a self-regulating tide gate shall be used to prevent storm surge in upstream areas. Tide gates and self-regulating tide gates shall be manufactured from non-corrosive material and shall be in accordance with the Waterman Industries SRT or an approved equivalent. The City reserves the right to continue to develop, amend, update, revise, and implement standards associated with devices as technology evolves.

- v. Conveyance culverts shall be sized to ensure operation at full required capacity under severe conditions common in the area of installation. Minimum sizes shall be determined to reduce the potential for fouling or clogging due to trapped debris. Culverts shall be sized with a 1.25 safety factor based on hydraulic capacity during a 50-year storm frequency event to allow for normally occurring conditions. Maintenance access easements shall be provided on each side of culvert crossings parallel to the flow way to enable maintenance equipment to stage and operate without risk of inflicting permanent damage to improvements in the easement. Culvert headwalls shall include robust components not easily damaged by a backhoe or excavator bucket.
- vi. Only on-site, native fill, comprised of material that is excavated from the project site, shall be used in grading and fill activities on a site. The use of off-site, non-native material for grading and fill activities on a site is prohibited.
- vii. Where a project is located in a portion of a drainage basin where capital improvements have been recommended to improve drainage or reduce flooding potential, property owners may incorporate improvements into site design plans, provided the drainage improvements shown on plans are consistent with the function, intent, and effect of the capital project recommended in any study or evaluation of such basin commissioned by the City or its agent. These projects will be reviewed on a case-by-case basis, and the City reserves the right to engage in collaborative and creative design efforts that result in improvements to drainage in the basin serving the best interest of the public.
- viii. Soil infiltration BMPs shall be incorporated into the site design to the maximum extent practicable. Soils in non-structural areas shall have an infiltration rate of at least 0.3 inches per hour. Infiltration BMPs shall be consistent with the most current version of Low Impact Development in Coastal South Carolina: A Planning and Design Guide, completed in

September 2014 and published by the ACE Basin and North Inlet – Winyah Bay National Estuarine Research Reserves.

- ix. The following shall be exempt from the application of these Interim Requirements:
- (a) Real property located on the Peninsula, meaning the area of the City of Charleston bounded by the Cooper River to the east, the Ashley River to the west and south, and the Charleston City Limits to the north;
 - (b) Real property subject to a Development Agreement adopted under Sec. 23-20;
 - (c) Real property subject to a Planned Unit Development (“PUD”) adopted under Part 7 of Article 2 of the Zoning Ordinance;
 - (d) Real property equal to or less than one (1) acre of buildable area;
 - (e) Applications for a building permit for no more than one (1) of the following: (i) a one-family detached dwelling; (ii) a two-family dwelling; or (iii) a commercial building with no more than 5,000 square feet of gross floor area;
 - (f) Applications submitted by governmental entities, including the City, for developments involving a public purpose.
- x. These Interim Requirements shall automatically expire upon City Council’s adoption of the revisions to the Stormwater Design Standards Manual anticipated in the fall of 2019.”

Section 3. This Ordinance shall become effective upon ratification.

Ratified in City Council this ___ day of _____ in the year of
Our Lord, 2019, in the ____ Year of the Independence of the
United States of America.

By: _____
John J. Tecklenburg, Mayor
City of Charleston

ATTEST:

By: _____
Vanessa Turner Maybank
Clerk of Council



Ratification
Number _____

AN ORDINANCE

TO AMEND CHAPTER 54 OF THE CODE OF THE CITY OF CHARLESTON, SOUTH CAROLINA (ZONING ORDINANCE), BY ADDING NEW DEFINITIONS TO ARTICLE 1, GENERAL PROVISIONS, PART 3, DEFINITIONS, AND BY ADDING TO ARTICLE 9, ADMINISTRATION AND ENFORCEMENT, A NEW PART 6, ENTITLED, "TEMPORARY MORATORIUM APPLICABLE TO SPECIAL FLOOD HAZARD AREAS ON JAMES ISLAND AND JOHNS ISLAND," AND IN OTHER RESPECTS, TO PROVIDE FOR THE TEMPORARY SUSPENSION OF THE ISSUANCE OF DEVELOPMENT PERMITS AND APPROVALS FOR THE PURPOSE OF ALLOWING THE CITY TIME TO UPDATE AND REVISE ITS STORMWATER DESIGN STANDARDS MANUAL TO ENSURE THE SUSTAINABILITY OF DEVELOPMENT ON JAMES ISLAND AND JOHNS ISLAND, WHILE PROTECTING EXISTING AND FUTURE RESIDENTS, BUSINESS OWNERS, LANDOWNERS, AND DEVELOPERS IN THESE AREAS FROM THE ADVERSE IMPACTS OF FLOODING WHICH MAY RESULT FROM LAND DISTURBING ACTIVITIES, DEVELOPMENT, AND CONSTRUCTION WITHIN SUCH AREAS.

BE IT ORDAINED BY THE MAYOR AND COUNILMEMBERS OF CHARLESTON, IN CITY COUNCIL ASSEMBLED:

Section 1. The following new definitions shall be added to Sec. 54-120, "Definitions," of Article 1, "General Provisions," Part 3, "Definitions," of Chapter 54 of the Code of the City of Charleston, South Carolina (Zoning Ordinance), to be included in alphabetical order with the other terms defined therein:

Approved or Approval, as used in Parts 5 and 6 of Article 9 of this Chapter, means a final action by the local governing body or an exhaustion of all administrative remedies that results in the authorization of a site specific development plan.

Base Flood means the flood having a one (1) percent chance of being equaled or exceeded in any given year.

Building Permit, as used in Parts 5 and 6 of Article 9 of this Chapter, means a written authorization issued by the building official that authorizes the construction or renovation of a building or structure at a specified location.

City Code means the Code of the City of Charleston, South Carolina, as defined in Sec. 1-1 of the City Code.

City Council or Council means the city council of the City of Charleston, South Carolina, as defined in Sec. 1-2 of the City Code.

Development, as used in Part 6 of Article 9 of this Chapter, means any of the following actions undertaken by any person: (a) Any division or subdivision of a lot, tract, parcel, or other division of real property by plat, deed, or otherwise; (b) The construction, installation, or alteration of land, a structure, impervious surface, or a drainage facility; (c) Clearing, scraping, grubbing or otherwise significantly disturbing the soil, vegetation, mud, sand, or rock of a site; or (d) Adding, removing, exposing, excavating, leveling, grading, digging, burrowing, dumping, piling, dredging, or otherwise disturbing the soil, vegetation, mud, sand, or rock of a site.

Development Permit, as used in Part 6 of Article 9 of this Chapter, means a building permit, zoning permit, subdivision approval, rezoning certification, special exception, variance or any other official action of a local governing body having the effect of permitting the development of real property.

Flood or Flooding is a temporary rise in the level of water which results in the inundation of areas not ordinarily covered by water.

Joint Resolutions, as used in Part 5 of Article 9 of this Chapter, refers to the Permit Extension Joint Resolutions of 2010 and 2013, adopted by (1) Act Number 297 which was ratified by the 118th Session, 2009-2010 South Carolina General Assembly on May 13, 2010, and signed by the Governor on May 19, 2010, A297, R215, H4445; and (2) Act Number 112 which was ratified by the 120th Session, 2013-2014 South Carolina General Assembly on June 19, 2013 and signed by the Governor on June 20, 2013, A112, R123, H3774.

Land Development Plan. See Site Plan.

Landowner, as used in Parts 5 and 6 of Article 9 of this Chapter, means an owner of a legal or equitable interest in real property including the heirs, devisees, successors, assigns, and personal representatives of the owner. **Landowner**, as used in Parts 5 and 6 of Article 9 of this Chapter, includes a person holding a valid option to purchase real property pursuant to a contract with the owner to act as his agent or representative for purposes of submitting a proposed site specific development plan pursuant to Part 5 of Article 9 of this Chapter.

Local Governing Body, as used in Parts 5 and 6 of Article 9 of this Chapter, means: (a) City Council; or (b) a body or board authorized by statute or by City Council to make land use decisions, to include the Planning Commission, Boards of Zoning Appeals, Boards of Architectural Review, Design Review Board, TRC, and such staff as are authorized to approve site specific development plans or development permits pursuant to the provisions of this Chapter.

Real Property or Property, as used in Parts 5 and 6 of Article 9 of this Chapter, means all real property that is subject to the land use and development ordinances or regulations of the City, and includes the earth, water, and air, above, below, or on the surface, and includes improvements or structures customarily regarded as a part of real property.

Site Specific Development Plan means a development plan submitted to a local governing body by a landowner describing with reasonable certainty the types and density or intensity of uses for a specific property or properties. Site specific development plans include a planned unit development; a preliminary or final subdivision plat; a conceptual plan submitted to the Boards of Architectural Review or Design Review Board; a development plan (preliminary plat and construction documents) submitted to the TRC for final review under Sec. 54-810; a preliminary or general development plan submitted to staff authorized to grant approval pursuant to the provisions of this Chapter that qualifies for either preliminary or final approval; a variance; and a conditional use or special exception permit plan.

Special Flood Hazard Area or SFHA means the land in the flood plain within a community subject to a one (1) percent or greater chance of flooding in any given year. The one (1) percent annual chance flood is also referred to as the base flood or 100-year flood. SFHAs are labeled as Zone A, Zone AO, Zone AH, Zones A1-A30, Zone AE, Zone A99, Zone AR, Zone AR/AE, Zone AR/AO, Zone AR/A1-A30, Zone AR/A, Zone V, Zone VE, and Zones V1-V30 on the Flood Insurance Rate Map ("FIRM") published by the Federal Emergency Management Agency ("FEMA").

Technical Review Committee or TRC means the committee established under Sec 54-16.1 and Sec 54-316.2 for the purpose of reviewing and approving land development plans, reviewing and approving certain subdivision plats, and for other purposes described in this Chapter.

Temporary moratorium, as used in Parts 5 and 6 of Article 9 of this Chapter, means the moratorium undertaken and completed for the development of property under the terms and conditions of a site specific development plan.

Section 2. Sec. 54-961, "Definitions," of Article 9, "Administration and Enforcement," Part 5, "Vested Rights," of Chapter 54 of the Code of the City of Charleston, South Carolina (Zoning Ordinance) shall be deleted in its entirety and shown as Reserved.

Section 3. Part 6, "Temporary Moratorium-Church Creek Drainage Basin," of Article 9, "Administration and Enforcement," of Chapter 54 of the Code of the City of Charleston, South Carolina (Zoning Ordinance) has expired by its terms and is hereby deleted in its entirety and replaced with the following new Part 6:

**PART 6
TEMPORARY MORATORIUM APPLICABLE TO SPECIAL FLOOD HAZARD
AREAS ON JAMES ISLAND AND JOHNS ISLAND**

Sec. 54-970. – Findings.

City Council hereby finds as follows:

- (1) The General Assembly has recognized that the fundamental purposes of municipal land development regulations are "to assure the timely provision of required streets, utilities, and other facilities and service to new land developments" and "to assure, in general, the wise and timely development of new areas, and redevelopment of previously developed areas in harmony with the comprehensive plans of municipalities."
- (2) The General Assembly requires that, in enacting land development regulations, a municipality "shall prescribe that no land development plan, including subdivision plats, will be approved unless all land intended for use as building sites can be used safely for building purposes, without danger from flood or other inundation or from other menaces to health, safety, or public welfare."
- (3) Those portions of the City of Charleston located on James Island and Johns Island have experienced growth more rapidly in recent year than in any other area of the City,

with more development expected in the near future. Many current applications and anticipated future applications involve land disturbing activities, development, and construction in Special Flood Hazard Areas ("SFHAs"), i.e., those areas in the flood plain within a community subject to a one (1) percent or greater chance of flooding in any given year.

- (4) With continued growth and resulting development in these areas, the frequency of flooding and its impact may be expected to increase due to increased volume and concentration of stormwater runoff.
- (5) Based on the City's past studies relating to other areas subject to the base flood, including areas within the Church Creek Drainage Basin, as well as the topography, high tides, significant rain events, existing development, and anticipated future development on James Island and Johns Island, it is clear that land disturbing activities, development, and construction within SFHAs require careful consideration of the adverse impacts of these activities with respect to flooding both on and off the site.
- (6) A proactive approach to deal with the possibility for increased flooding from future land disturbing activities, development, and construction within SFHAs on James Island and Johns Island will help preserve property values for existing and future residents, business owners, landowners, and developers in the area by helping to ensure that properties, both developed and undeveloped, on James Island and Johns Island will be protected from flooding and flood-related issues.
- (7) In the medium- and long-term, this approach will also help owners and developers of vacant lands in these areas maximize the return on their investments by helping to ensure that current and future development is sustainable and that flooding impacts from other developments are minimized.
- (8) It is essential to ensure that future development on James Island and Johns Island will be compatible with such an orderly and effective drainage and floodplain management plan, and that new development within SFHAs will not have an adverse impact upon the future owners and users of the development or the drainage of areas either upstream or downstream of the proposed development site.
- (9) In recognition of the possibility of increased flooding from land disturbing activities, development, and construction within SFHAs, the City is in the process of updating its Stormwater Design Standards Manual ("Manual"), with such updates anticipated to be in final draft form during the summer of 2019 and adopted by City Council, with

appropriate revisions as necessary, during the fall of 2019. These updates are expected to incorporate provisions for reducing runoff volume; limit the use of fill materials within SFHAs; encourage and require innovative stormwater management approaches that restore the predevelopment site hydrology through site design techniques that promote infiltration, evaporation, storage, and treatment of runoff; create functional and appealing site drainage, such as protecting and/or reestablishing natural landscape features; minimize impervious area; and treat stormwater as a resource rather than a burden, with the goal of, among other things, helping to reduce the cost of site clearing/grading to developers.

- (10) Notwithstanding ongoing efforts by the City to study and model the drainage conditions on James Island and Johns Island and to implement regulations to alleviate flooding conditions throughout the City, it is evident that the City needs the opportunity to review, adopt, and implement these anticipated changes to the Manual before permitting additional land disturbing activities, development, and construction within SFHAs on James Island and Johns Island.
- (11) The public health and safety, and the economic well-being of the City, its residents, and property owners, who live, work, play, own businesses, and invest in these areas, demand that measures be taken to temporarily prohibit land disturbing activities, development, and construction in the areas of James Island and Johns Island subject to the base flood for a reasonable period of time to enable the City to evaluate and implement the necessary changes to the Manual.

Sec. 54-971. – Temporary Moratorium.

Subject to the exceptions as set forth in Sec. 54-972, no application for a development permit or approval from any local governing body shall be granted for real property located in whole or in part within an SFHA on James Island or Johns Island. This temporary moratorium shall automatically expire upon the earlier of the following dates (the “Expiration Date”): (1) the adoption of the revisions to the Manual described in Sec. 54-970(9); or (2) November 1, 2019.

Sec. 54-972. – Exceptions.

The following exceptions shall apply to the temporary moratorium imposed by Sec. 54-971:

- (1) Applications for a development permit or approval which comply with Sec. 54-975.
- (2) Real property subject to a Development Agreement adopted under Sec. 23-20.

- (3) Real property subject to a Planned Unit Development ("PUD") adopted under Part 7 of Article 2 of this Chapter.
- (4) Applications for a building permit for no more than one (1) of the following on a lot in existence as of January 22, 2019 (the "Effective Date"): (a) a one-family detached dwelling; (b) a two-family dwelling; or (c) a commercial building with no more than 5,000 square feet of gross floor area.
- (5) Applications for a development permit on a lot in existence as of the Effective Date, to the extent (a) the application does not require review or approval by TRC; and (b) the stormwater management system for the lot has been approved on or before the Effective Date.
- (6) Applications for development permits for any property which has received development plan, i.e., preliminary plat and construction document, approval under Sec. 54-810 as of the Effective Date.
- (7) Applications for a property line abandonment, as defined in Sec. 54-803.b.
- (8) Applications for a property line adjustment, as defined in Sec. 54-803.c.
- (9) Applications for zoning map amendments.
- (10) Applications for zoning text amendments.
- (11) Applications authorized to be decided by City Council under this Chapter or any other provision of the City Code.
- (12) Applications submitted by governmental entities, including the City, for developments involving a public purpose.

Sec. 54-973 – Alteration of Floodplain Boundaries.

Nothing in this Part shall be construed to limit or abridge the right of a landowner to seek review and approval of an alteration to the boundary of the base flood or the delineation of an SFHA on the landowner's property upon a showing of topographic data that supports the alteration in accordance with federal law, state law, and the City Code. To the extent a landowner obtains approval removing a portion of the landowner's property from the SFHA prior to the Expiration Date, Sec. 54-971 shall continue to apply to the extent that the real property remains located in whole or in part within an SFHA.

Sec. 54-974 – Status Reports.

After the Effective Date, the Stormwater Department Director or his or her designee shall provide monthly status reports to City Council on the progress of the revisions to the Manual described in Sec. 54-970(9).

Sec. 54-975 – Interim Standards for Stormwater Systems and Facilities

- (A) Interim Standards: After the Effective Date, applications for development permits or approval which meet the following interim standards for stormwater systems and facilities may be approved notwithstanding Sec. 54-971:
- (1) Easements for open conveyances shall be at least twenty-four feet (24') in width. The easement shall include a maintenance shelf with a width of at least twenty feet (20') and direct access to a public right-of-way with a width of at least twenty feet (20'). If the open conveyance is more than four feet (4') wide and/or more than four feet (4') deep, the easement width shall be increased by two feet (2') for each foot of conveyance width or depth above four feet (4').
 - (2) A main conveyance is a drainage facility serving or intended to serve one hundred or more lots; or providing drainage for more than one development or subdivision, provided the combined acreage of such developments or subdivisions is at least thirty (30) acres. Main conveyance components shall utilize open drainage channels and ponds to move large volumes of water over long distances. Culverts may be used where required at points where main conveyances cross topological features. Box culverts or pre-engineered spans or bridges shall be used in lieu of pipes for locations where main conveyance assets or channels cross roadways or trails.
 - (3) Channels shall be sized to operate at full capacity with reasonable vegetative growth. A channel opening dimension factor of safety of 1.25 shall be used for conveyance structures to account for normal accumulation of debris and sediment between maintenance cycles. The 1.25 factor of safety shall be based upon hydraulic capacity during the 100-year storm conditions. Channel easement width shall be adequate for the channel as well as for access and maintenance. Access shall be sufficient to allow for loading and unloading of equipment and enable mowers and excavators to traverse the length of the conveyance facility. Access for loading/unloading equipment shall be within, adjacent to, and nearby to enable efficient maintenance activity. Main conveyance easements shall allow for a maintenance shelf on one side of the channel. Side slopes shall include a maximum slope of 2.5H:1V. Projects where alternate channel side slopes are proposed, such as a wall, bulkhead or hardscape will be

considered on a case-by-case basis. The minimum width for a main conveyance channel easement is shall be fifty (50) feet. Access and shelf areas shall accommodate maintenance equipment such as excavators and other equipment required for effective operation to traverse, function, and freely move without risks associated with encroaching upon private property.

- (4) Storm event volume release rates shall be reviewed on a case-by-case basis to determine the optimum storage period based on conditions anticipated during a 100-year storm frequency event. Release rates shall be controlled to prevent adverse impacts on-site, upstream, and downstream.
- (5) All discharges to tidally affected receiving waters shall be equipped with surge protection devices. Surge protection devices will not be required in areas located upstream of existing devices where protection is provided. All devices shall be located to facilitate maintenance and shall be constructed of stainless steel, aluminum, or other materials that are corrosion resistant and designed for installation in a marine, saltwater environment. The city reserves the right to standardize, develop standards for, and review designs associated with tidal surge protection devices. In some cases, maintaining tidal flow under normal conditions may be necessary. In these cases, a self-regulating tide gate shall be used to prevent storm surge in upstream areas. Tide gates and self-regulating tide gates shall be manufactured from non-corrosive material and shall be in accordance with the Waterman Industries SRT or an approved equivalent. The City reserves the right to continue to develop, amend, update, revise, and implement standards associated with devices as technology evolves.
- (6) Conveyance culverts shall be sized to ensure operation at full required capacity under severe conditions common in the area of installation. Minimum sizes shall be determined to reduce the potential for fouling or clogging due to trapped debris. Culverts shall be sized with a 1.25 safety factor based on hydraulic capacity during a 50-year storm frequency event to allow for normally occurring conditions. Maintenance access easements shall be provided on each side of culvert crossings parallel to the flow way to enable maintenance equipment to stage and operate without risk of inflicting permanent damage to improvements in the easement. Culvert headwalls shall include robust components not easily damaged by a backhoe or excavator bucket.
- (7) Adverse impacts which reduce floodplain storage shall be prevented. In cases where adverse impacts to the floodplain are proposed, such adverse impacts shall be mitigated on a minimum 1.25:1 basis based on storage volume to prevent deterioration of basin storage capacity during storm events over time. Mitigation shall be within the

same basin having an effect on the same water surface elevations and hydraulics as the proposed impact.

- (8) Where a project is located in a portion of a drainage basin where capital improvements have been recommended to improve drainage or reduce flooding potential, property owners may incorporate improvements into site design plans, provided the drainage improvements shown on plans are consistent with the function, intent, and effect of the capital project recommended in any study or evaluation of such basin commissioned by the City or its agent. These projects will be reviewed on a case-by-case basis, and the City reserves the right to engage in collaborative and creative design efforts that result in improvements to drainage in the basin serving the best interest of the public.
- (9) The soil characteristics of fill material placed on non-structural areas shall ensure that granular soils are used which promote infiltration and reduce runoff. Soil infiltration BMPs shall be incorporated into the site design to the maximum extent practicable. Soils in non-structural areas shall have an infiltration rate of at least 0.3 inches per hour. Infiltration BMPs shall be consistent with the most current version of Low Impact Development in Coastal South Carolina: A Planning and Design Guide, completed in September 2014 and published by the ACE Basin and North Inlet – Winyah Bay National Estuarine Research Reserves.
- (B) Terms. The terms used in this Sec. 54-975 shall be interpreted in light of the definitions and other provisions set forth in (1) Chapter 27—Stormwater Management and Flood Control of the City Code; and (2) the Manual.

Section 4. This Ordinance shall become effective upon ratification.

Ratified in City Council this ___ day of _____
in the year of Our Lord, 2019, in the ___ Year
of the Independence of the United States of
America.

By: _____
John J. Tecklenburg, Mayor
City of Charleston

ATTEST:

By: _____
Vanessa Turner Maybank,
Clerk of Council