OFFICIAL AGENDA
SPECIAL CALL
BOARD OF ADJUSTMENTS & APPEALS
CITY OF STARKVILLE, MISSISSIPPI
MEETING OF WEDNESDAY, JULY 22, 2020
2ND FLOOR CITY HALL – COMMUNITY DEVELOPMENT,
110 WEST MAIN STREET, 4:00 PM

I. CALL TO ORDER

II. ROLL CALL

III. CONSIDERATION OF THE OFFICIAL AGENDA

IV. APPROVAL OF THE MINUTES:

A. CONSIDERATION OF THE UNAPPROVED MINUTES FOR MARCH 25, 2020

B. CONSIDERATION OF THE UNAPPROVED MINUTES FOR MAY 27, 2020

V. NEW BUSINESS

A. VA 20-04 REQUEST FOR A VARIANCE FROM REQUIRED CURB WIDTH, BUILDING SETBACK, RIGHT OF WAY & MEDIAN LIMITS, AND TRAVEL LANE WIDTH FOR PHASE III ADELAIDE SUBDIVISION LOCATED ON THE WEST SIDE OF ADELAIDE PHASE I AND II ON RYAN AVENUE AND BANCROFT AVENUE WITHIN IS A TN-N ZONING DISTRICT WITH THE PARCEL NUMBERS 105-15-007.00 AND 105-22-001.00

B. VA 20-05 REQUEST FOR A VARIANCE FROM SIDEWALK REQUIREMENTS LOCATED AT 605 DR. MARTIN LUTHER KING JR. DRIVE EAST IN A S-1 WITH THE PROPERTY #117N-00-001.1

C. VA 20-06 REQUEST FOR A VARIANCE FROM PARKING SETBACK, DRIVEWAY WIDTH, ACCESS POINT SPACING, ACCESS POINT LOCATION, ACCESS POINT WIDTH, APPROACH SLOPE OF DETENTION POND, AND BOTTOM SLOPE OF DETENTION POND FOR A PROPOSED CONDOMINIUM DEVELOPMENT LOCATED ON THE NORTHEAST CORNER OF THE INTERSECTION OF GUEST DRIVE AND MALLORY LANE. THE PROPERTY IS LOCATED IN A C ZONING DISTRICT WITH THE PARCEL NUMBERS 103A-00-001.42 AND 103A-00-001.43

VI. ADJOURN

UNAPPROVED MINUTES OF THE MEETING OF
THE BOARD OF ADJUSTMENTS & APPEALS
CITY OF STARKVILLE, MISSISSIPPI
MARCH 25, 2020

Be it remembered that the members of the Board of Adjustments & Appeals of the City of Starkville held their regularly scheduled meeting on March 25, 2020 at 4:00 p.m. in the conference room on the 2nd floor of City Hall located at 110 West Main Street, Starkville, MS.

Joining the meeting via Google Meets virtual meeting platform were Bill Webb, Chairman, Ward 5, Jerry Jefferson, Ward 2, Bo Richardson, Ward 3, Robert Camp, Ward 4, Marco Nicovich, Ward 6, and Shawn Sullivan, Ward 7. Physically present attending the Commissioners was City Planner Daniel Havelin. Attending the meeting via Google Meets virtual meeting platform Emily Corban-Camp, Assistant City Planner.

Chairman Webb opened the meeting.

A CONSIDERATION OF THE WRITTEN AGENDA

OFFICIAL AGENDA
BOARD OF ADJUSTMENTS & APPEALS
CITY OF STARKVILLE, MISSISSIPPI
MEETING OF WEDNESDAY, MARCH 25, 2020
2ND FLOOR CITY HALL – COMMUNITY DEVELOPMENT,
110 WEST MAIN STREET, 4:00 PM

I. CALL TO ORDER
II. ROLL CALL
III. CONSIDERATION OF THE OFFICIAL AGENDA
IV. APPROVAL OF THE MINUTES:
   A. CONSIDERATION OF THE UNAPPROVED MINUTES FOR FEBRUARY 26, 2020
V. NEW BUSINESS
   A. VA 20-02 REQUEST FOR A VARIANCE FROM REAR SETBACK AT 104 MCKINLEY STREET IN AN TN-E ZONING DISTRICT WITH THE PROPERTY #102A-00-077.00
VI. ADJOURN

The Board considered the matter of the approval of the written agenda as amended dated March 25, 2020. Voting unanimously to approve the written agenda as amended.

CONSIDERATION OF THE UNAPPROVED MINUTES FOR FEBRUARY 26, 2020

After discussion and a motion to approve the minutes as amended of the Board of Adjustments and Appeals for February 26, 2020 received unanimous approval.

NEW BUSINESS

A. VA 20-02 REQUEST FOR A VARIANCE FROM REAR SETBACK AT 104 MCKINLEY STREET IN AN TN-E ZONING DISTRICT WITH THE PROPERTY #102A-00-077.0

This is a request for a variance from rear setbacks requirements by Donald Buckner Jr. for at 104 McKinley Street in an TN-E zoning district. The applicant's home was recently destroyed by fire and they have begun the process of applying for building permits to construct a new single unit residential dwelling on the property. The property fronts McKinley Street and backs up to railroad right-of-way. The applicant can site the proposed dwelling to comply with front and side setbacks, but not the rear setback adjacent to the railroad right-of-way. The applicant is requesting relief from the rear setback minimum of 15'. The requested rear setback is 10'.

The request was noticed in accordance with Section 3.7.3.E of the Unified Development Code. 13 property owners of record within 160 feet of the subject property were notified directly by mail of the request. A legal ad was published in the Starkville Daily News on March 3, 2020. A sign was posted on the property in a conspicuous location. As of this date the Planning Office has received no phone calls about the request.

In the opinion of the Planning Department the proposed variance request does meet the criteria for variance review and approval. The reduction in the rear setback would not have any adverse impact on adjacent single dwelling residential property.

Chairman Webb opened the public hearing to citizen comments.

Call for and receiving no comments, Chairman Webb closed the public hearing and opened the item up for discussion.

After a discussion and the motion to approve VA 20-02 received unanimous approval.

ADJOURNMENT

After a discussion and the motion, the Board voted unanimously to adjourn until 4:00 p.m. on May 27, 2020 in the second-floor conference room located at 110 West Main Street, Starkville, MS.

_____

Bill Webb, Chairman

_____

Daniel Havelin, City Planner

UNAPPROVED MINUTES OF THE MEETING OF
THE BOARD OF ADJUSTMENTS & APPEALS
CITY OF STARKVILLE, MISSISSIPPI
MAY 27, 2020

Be it remembered that the members of the Board of Adjustments & Appeals of the City of Starkville held their regularly scheduled meeting on May 27, 2020 at 4:00 p.m. in the conference room on the 2nd floor of City Hall located at 110 West Main Street, Starkville, MS.

There being physically present was Bill Webb, Chairman, Ward 5, Jerry Jefferson, Ward 2, and Shawn Sullivan, Ward 7. Joining the meeting via Google Meets virtual meeting platform were Bo Richardson, Ward 3, Robert Camp, Ward 4, and Marco Nicovich, Ward 6. Physically present attending the Commissioners was City Planner Daniel Havelin and Community Development Director Dr. Simon Kim.

Chairman Webb opened the meeting.

A CONSIDERATION OF THE WRITTEN AGENDA

OFFICIAL AGENDA
BOARD OF ADJUSTMENTS & APPEALS
CITY OF STARKVILLE, MISSISSIPPI
MEETING OF WEDNESDAY, MAY 27, 2020
2ND FLOOR CITY HALL – COMMUNITY DEVELOPMENT,
110 WEST MAIN STREET, 4:00 PM

I. CALL TO ORDER
II. ROLL CALL
III. CONSIDERATION OF THE OFFICIAL AGENDA
IV. NEW BUSINESS
   A. VA 20-03 REQUEST FOR A VARIANCE FROM SIDEWALK REQUIREMENTS FOR LOT 2 OF THE PROPOSED JAX CORNER SUBDIVISION LOCATED AT THE SOUTHWEST CORNER OF HIGHWAY 12 AND JACKSON STREET IN A C ZONING DISTRICT.
V. ADJOURN

The Board considered the matter of the approval of the written agenda as amended dated May 27, 2020. Upon the motion of Mr. Nicovich, seconded by Mr. Jefferson, the Board voted unanimously to approve the written agenda as amended.

NEW BUSINESS

A. VA 20-03 REQUEST FOR A VARIANCE FROM SIDEWALK REQUIREMENTS FOR LOT 2 OF THE PROPOSED JAX CORNER SUBDIVISION LOCATED AT THE SOUTHWEST CORNER OF HIGHWAY 12 AND JACKSON STREET IN A C ZONING DISTRICT.

This is a request for a variance from sidewalk requirements by Jason Pepper on behalf of 4J I, LP for the proposed Jax Corner Subdivision located at the southwest corner of Highway 12 and Jackson Street in a C- Commercial zoning district. The request is for proposed lot 2 of the subdivision.

The proposed subdivision consists of 2 lots. Lot 1 will contain the existing Animal Medical Center and adjacent parking lot. Lot 2 will be marketed for development. Section 14.11.1 of the Unified Development Code requires the construction of sidewalks in all newly platted subdivisions. Section 14.11.3 requires the construction of sidewalks for any development or redevelopment that requires site plan approval. The applicant is requesting relief from Section 14.11.1. Thus, transferring the responsibility of constructing the sidewalks for Lot 2 to the future developer of Lot 2 in accordance with Section 14.11.3.

The request was noticed in accordance with Section 3.7.3.E of the Unified Development Code. 23 property owners of record within 160 feet of the subject property were notified directly by mail of the request. A legal ad was published in the Starkville Daily News on May 3, 2020. A sign was posted on the property in a conspicuous location. As of this date the Planning Office has received no phone calls about the request.

In the opinion of the Planning Department the proposed variance request does meet the criteria for variance review and approval. The request is to transfer the requirement of constructing the sidewalks from the property owner to the future developer of the property and not to avoid constructing sidewalks all together. Thus, the intent of the Unified Development Code will be met.

Chairman Webb opened the public hearing to citizen comments.

Nicholas Madison, Mary Madison, and Russell Madison came forward to ask questions about the request.

Call for and receiving no additional comments, Chairman Webb closed the public hearing and opened the item up for discussion.

After a discussion and upon the motion of Mr. Sullivan, duly seconded by Mr. Jefferson, the motion to approve VA 20-03 received unanimous approval.

ADJOURNMENT

After discussion, Mr. Sullivan moved to adjourn which was seconded by Mr. Jefferson, and the Board voted unanimously to adjourn until 4:00 p.m. on June 24, 2020 in the second-floor conference room located at 110 West Main Street, Starkville, MS.

_____

Bill Webb, Chairman

_____

Daniel Havelin, City Planner

THE CITY OF STARKVILLE
PLANNING DEPARTMENT
BOARD OF ADJUSTMENTS & APPEALS

CITY HALL, 110 WEST MAIN STREET
STARKVILLE, MISSISSIPPI 39759

STAFF REPORT

To:	Members of the Board of Adjustments & Appeals
From:	Daniel Havelin, City Planner (662-323-2525 ext. 3136)
Subject:	VA 20-04 Request for a variance from required curb width, building setback, right of way & median limits, and travel lane width for Phase III Adelaide Subdivision located on the west side of Adelaide Phase I and II on Ryan Avenue and Bancroft Avenue within is a TN-N zoning district with the parcel numbers 105-15-007.00 and 105-22-001.00.
Date:	July 22, 2020

The purpose of this report is to provide information regarding Variance Request by Neel-Schaffer on behalf of Live Adelaide LLC for a variance from required curb width, building setback, right of way & median limits, and travel lane width for Phase III Adelaide Subdivision located on the west side of Adelaide Phase I and II on Ryan Avenue and Bancroft Avenue within is a TN-N zoning district with the parcel numbers 105-15-007.00 and 105-22-001.00.. Please see attachments 1- 7.

BACKGROUND INFORMATION

Phase I of the Adelaide Subdivision began in 2016. As part of the approval of the initial phase, a variance was granted from street right-of-way width, roadway width, and curb type. The variance was approved by the Board of Aldermen on February 16, 2016. In December of 2019 the Unified Development Code was adopted. New requirements relating to setbacks and development standards were established. In order for the Phase III to match Phase I and II, additional variances are required. The Development Review Committee has begun to review the preliminary plat virtually in the MyGov permitting system. The Preliminary Plat (See Attachment 3) is currently scheduled to be reviewed by the Planning and Zoning Commission on August 11, 2020. If the request for Variance is recommended for approval, the applicant's requests will be heard by the Board of Aldermen at the August 18, 2020 meeting.

VARIANCE REQUESTS FROM UDC

1. **Curb Width**- Section 15.4.2.A.3. Gutter width 2.5' (See Attachment 4)
Request: Reduce curb and gutter width from 2.5' to 2'. (See Attachment 7)
Reasoning: To match existing phases

2. **Front Setback**- Section 6.3.4 Fig 6.3-1. B1 Front Setback- 10' min 15' max (See Attachment 5)
Request: Reduce front setback from 10'min to 6' min
Reasoning: To match existing phases

3. **Right of way & Median Limits**- Section 15.4.2.A.3. Median Width 22' (See Attachment 4)
Request: Increase the width of the "median" for the street type Avenue Traditional, 2-Lane, Divided, Parallel Parking. (See Attachment 7)
Reasoning: The proposed one-way street is planned to follow both sides of the existing natural stream. The stream has wooded vegetation along both sides intended to remain and be preserved as a common area for the neighborhood. Thus, increasing the dimensional requirements of a median for the proposed street type.

4. **Travel Lane Width (pavement width)**- Section 15.4.2.B.3. travel lane width 12' (See Attachment 4) and Section 15.4.2.D.3 travel lane width 11' (See Attachment 6)

Request: Provide bulb outs for crosswalk reducing travel lane width to 10' in areas. (See Attachment 7)
Reasoning: To match existing phases

CRITERIA FOR VARIANCE REVIEW AND APPROVAL (Section 3.7.1)

3.7.1. Criteria for variance review and approval.

A. Special Conditions. That special conditions and circumstances exist which are peculiar to the land, structure, or building involved, and the same conditions are not applicable to other land, structures, and buildings in the surrounding area.
B. Literal Interpretation. That the literal interpretation of the provisions of this Code would deprive the applicant of rights commonly enjoyed by other properties in the same district under the terms of this Code.
C. Hardship. That the hardship has not resulted from the actions of the applicant.
D. Special Privilege. That granting the variance requested will not confer on the applicant any special privilege that is denied by this Code to other lands, structures, or buildings in the same district.
E. Minimum Variance. That granting the variance is the minimum variance that will make possible the reasonable use of the land, building, or structure.
F. Consistency with Comprehensive Plan. That the granting of the variance will be consistent with the general purpose, intent, goals, objectives, and policies of the Comprehensive Plan and this code and will not be injurious to surrounding areas or otherwise detrimental to the public welfare.

NOTIFICATION:

The request was noticed in accordance with Section 3.7.3.E of the Unified Development Code.

1. 7 property owners of record within 160 feet of the subject property were notified directly by mail of the request.
2. A legal ad was published in the Starkville Daily News on July 5, 2020.
3. A sign was posted on the property in a conspicuous location.

RESPONSE TO NOTIFICATION

As of this date, the Planning Office has received one phone call requesting information about the request.

ANALYSIS

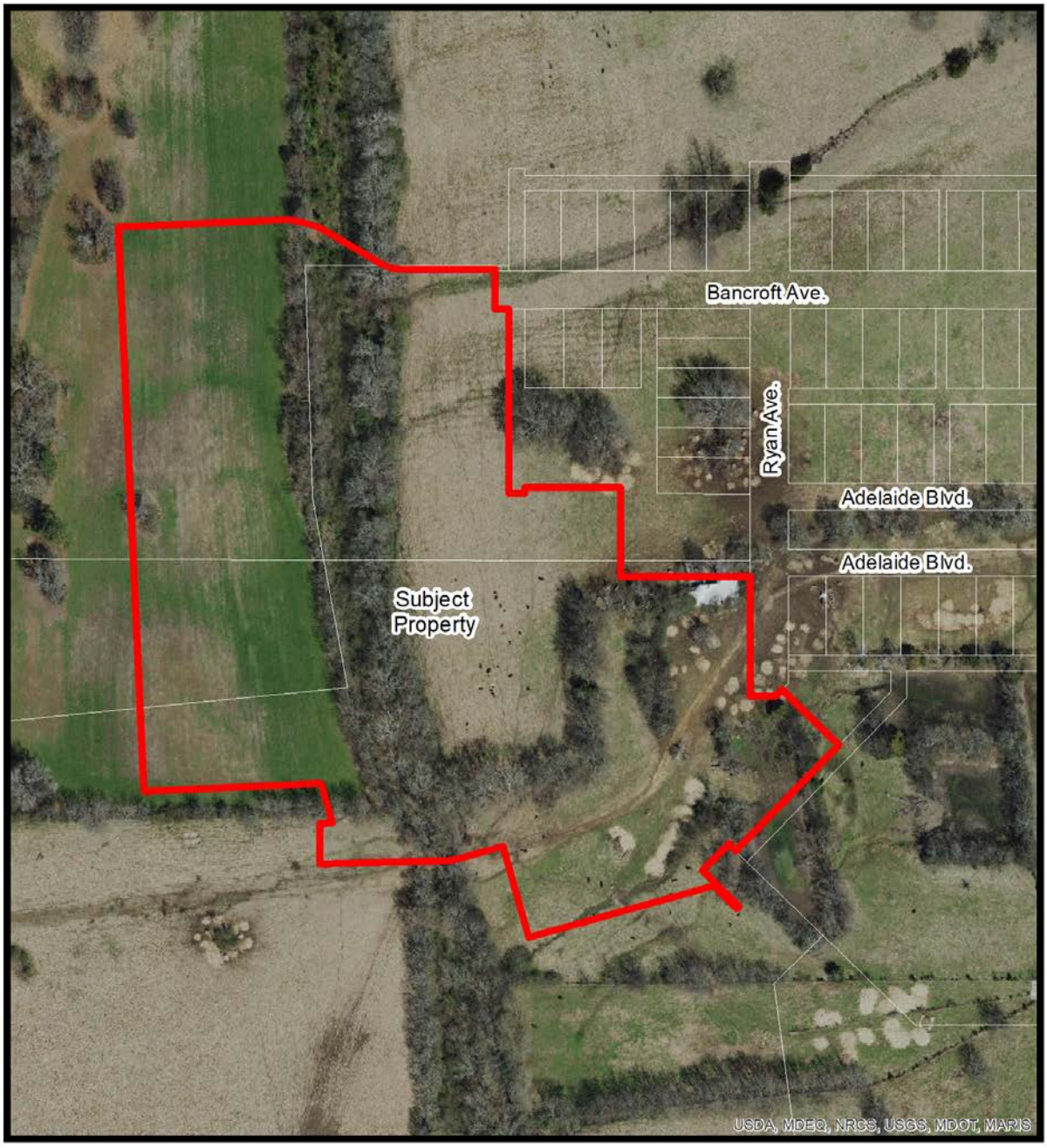
In the opinion of the Planning Department the proposed variance request could meet the criteria for variance review and approval. The proposed variances would match the existing phases.

CONDITIONS OF APPROVAL

Any condition attached to the approval of a variance by the Mayor and Board of Aldermen shall run with the land and shall be binding upon the applicants, their heirs, and successors.

Attachment 1

VA 20-04 Aerial



Legend

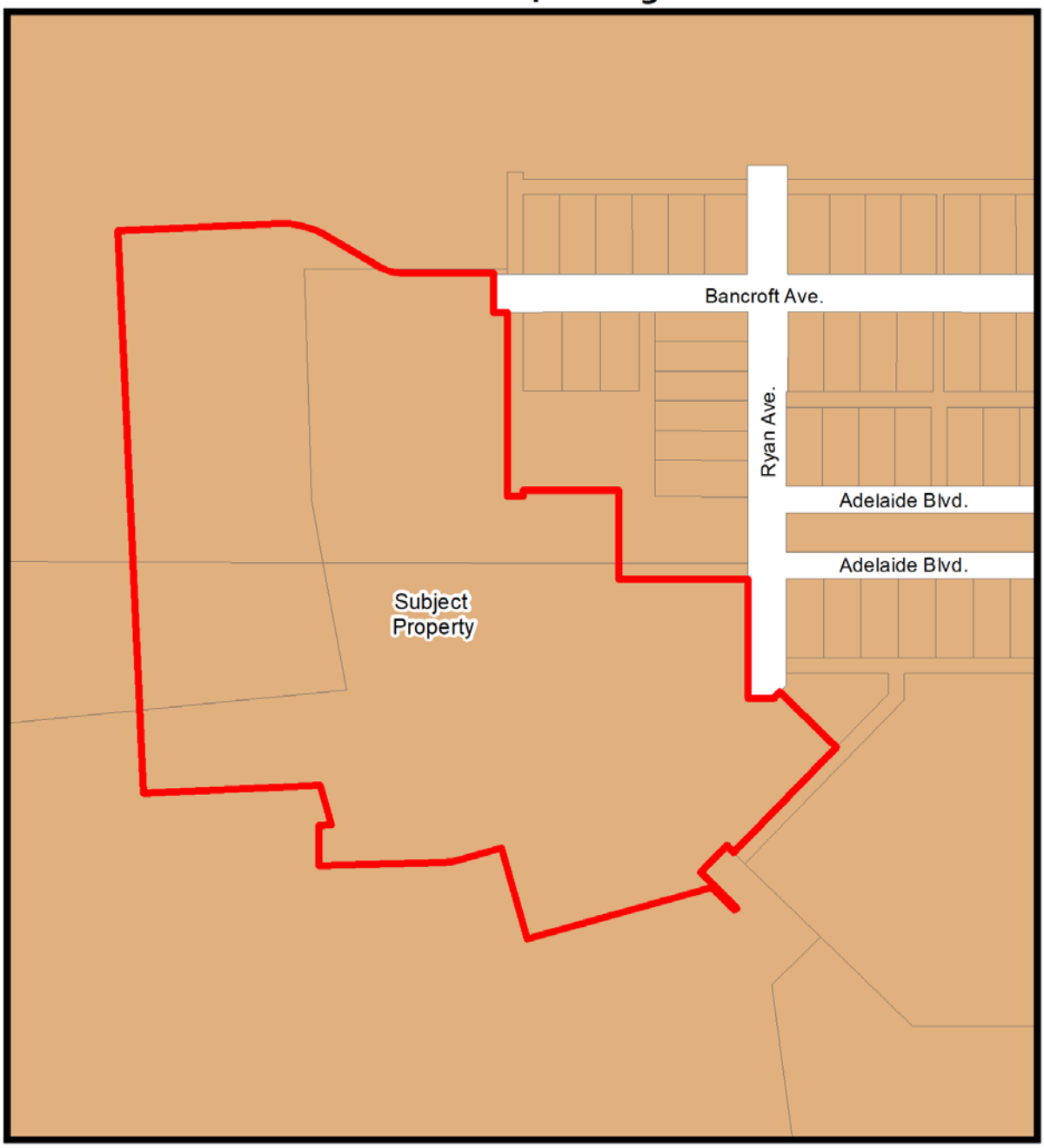
Subject Property

NORTH

0 100 200 400 600 Feet

Attachment 2

VA 20-04 Zoning



Legend

Subject Property

TN-N Traditional Neighborhood- New

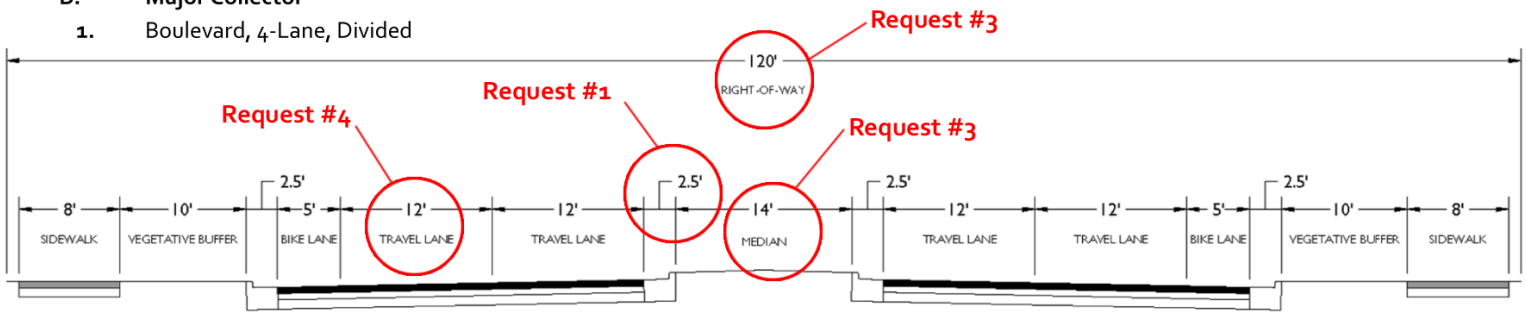
NORTH

0 100 200 400 600 Feet

Attachment 3- Preliminary Plat

B. Major Collector

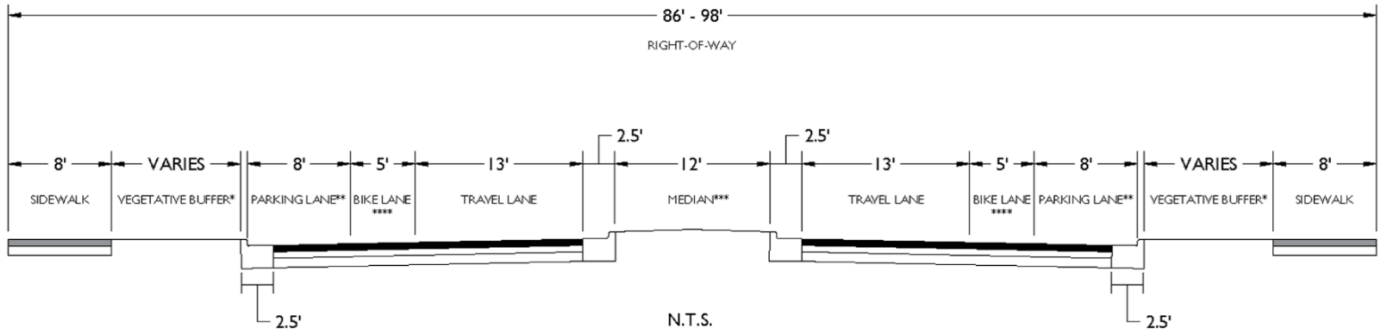
1. Boulevard, 4-Lane, Divided



* BIKE LANES REQUIRED

N.T.S.

2. Avenue, 2-Lane, Divided



N.T.S.

* MAY BE REQUIRED BASED ON ZONING AND LAND USE CONTEXT.
** PARKING IS OPTIONAL BUT MAY BE REQUIRED IN FORM BASED CODE DISTRICTS OR OTHER AREAS AS DETERMINED BY STAFF. PARKING TO BE 8' WIDE.
*** MAY NOT BE REQUIRED BASED ON ZONING AND LAND USE CONTEXT.
**** BIKE LANES OPTIONAL

6.3. Conventional Development

6.3.1. The conventional development is a pattern of residential development that includes single-dwelling and multi-dwelling units.

6.3.2. The conventional development option provides a majority of property owners with open yards on the individual lot.

6.3.3. Under the conventional development option, no preserved common open space is required and the minimum lot size is limited to the lot size for the respective district.

6.3.4. **Base Dimensional Standards**

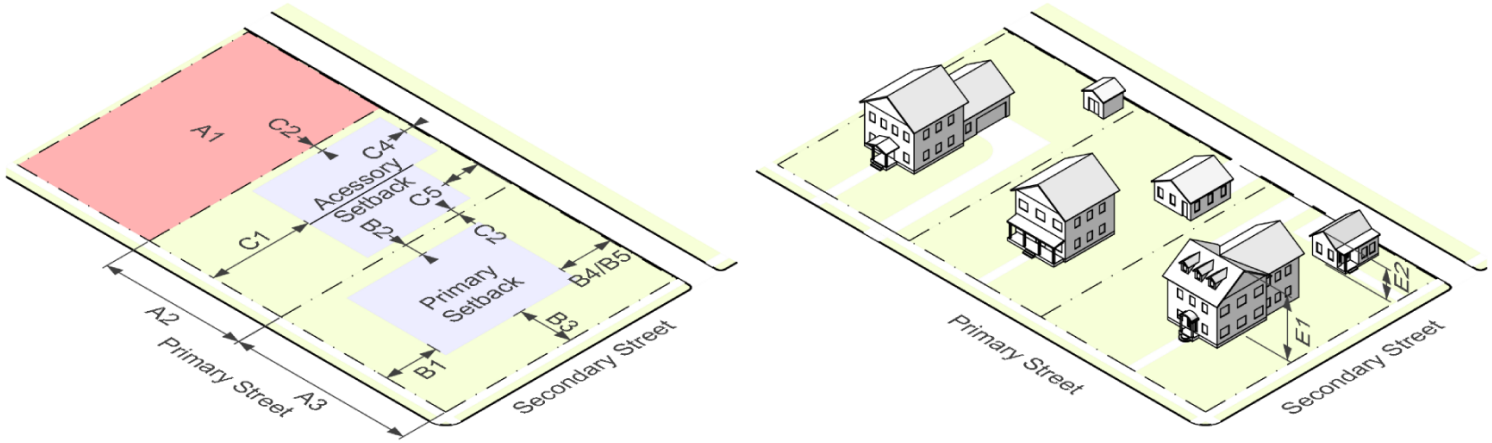


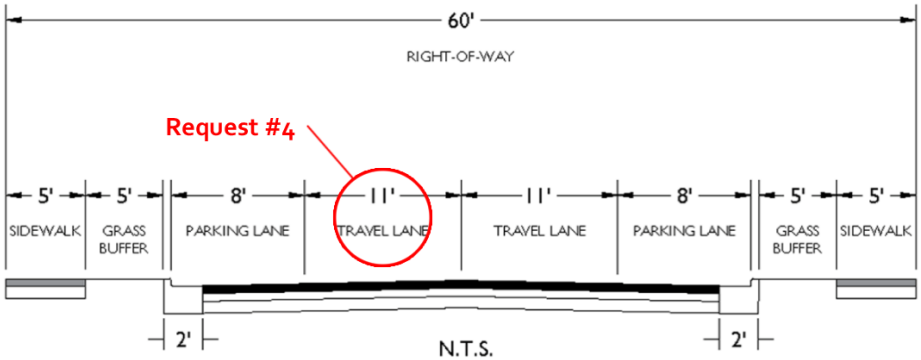
Fig 6.3-1

Detached and Attached Duplex Dwelling								
A. Lot Dimensions	**CR**	**RN**	**SD-2**	**SD-6**	**TN-N**	**TN-E**	**MDU-9**	**MDU-20**
A1 Lot size per unit in sq. ft (min.)	40000	40000	17500	6000	5500	5500	5500	6000
A2 Lot width (min.)	80′	140′	100′	50′	45′	45′	45′	50′
A3 Lot width at corner (min.)	110′	140′	100′	60′	55′	55′	60′	60′
B. Primary Building Setbacks	**CR**	**RN**	**SD-2**	**SD-6**	**TN-N**	**TN-E**	**MDU-9**	**MDU-20**
B1 Front setback	40′ min	40′ min	30′ or infill standards	25′ or infill standards	10′ min 15′ max	15′ or see infill standards	10′ min 15′ max	25′ or infill standards

Request #2

Attachment 5- UDC Section 6.3.4 Fig 6.3-1

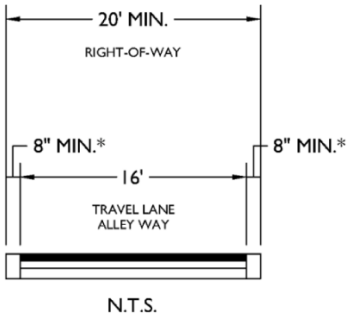
3. Traditional, 2-Lane, Parallel Parking



* BIKE LANES MAY BE REQUIRED AS PART OF OVERALL TRANSPORTATION PLAN

E. Other

1. One-Way Alley, Parking Optional



* 8" MINIMUM RIBBON CURB REQUIRED.
** PARKING IS OPTIONAL BUT MAY BE REQUIRED IN FORM BASED CODE DISTRICTS OR OTHER AREAS AS DETERMINED BY STAFF. PARKING TO BE 8' WIDE, AND WILL REQUIRE AN INCREASE IN THE MINIMUM 20' RIGHT-OF-WAY.

Attachment 7- Proposed Road Sections

THE CITY OF STARKVILLE
PLANNING DEPARTMENT
BOARD OF ADJUSTMENTS & APPEALS

CITY HALL, 110 WEST MAIN STREET
STARKVILLE, MISSISSIPPI 39759

STAFF REPORT

To:	Members of the Board of Adjustments & Appeals
From:	Daniel Havelin, City Planner (662-323-2525 ext. 3136)
Subject:	VA 20-05 Request for a variance from sidewalk requirements located at 605 Dr. Martin Luther King Jr. Drive East in a S-1 with the property #117N-00-001.1
Date:	July 22, 2020

The purpose of this report is to provide information regarding Variance Request by Springer Engineering on behalf of Starkville Utilities for sidewalk requirements located 605 Dr. Martin Luther King Jr. Drive East in a S-1 with the property #117N-00-001.1. Please see attachments 1- 5.

BACKGROUND INFORMATION

Starkville Utilities is in the process of designing an addition to its existing operation center. The addition is greater than 1,000 sqft and therefore triggers the requirements form Site Plan Review in accordance with Section 3.9.2.A. Sidewalks are required on any development or redevelopment within the sidewalk development zone that requires site plan approval (Section 14.11.3.A). The applicant is requesting relief from Section 14.11.2. The applicant is requesting that if the variance is granted to use the "Fee in Lieu" option as established in Section 3.7.5.B.1 (See Attachment 5). Currently the site plan is being reviewed by Development Review Committee. Architecture Review has reviewed and approved the building design plans. If the request for Variance is recommended for approval, the applicant's requests will be heard by the Board of Aldermen at the August 4, 2020 meeting.

VARIANCE REQUEST FROM

1. **Sidewalks Required**- Section 14.11.3.A (See Attachment 4)
   Request: To not construct sidewalks and use the "Fee in Lieu" option
   Reasoning: Placement of the sidewalks along the property line and to the building would be a challenge due to the existing topography, the proximity of two electrical substations, and the off ramp of Highway 12.

CRITERIA FOR VARIANCE REVIEW AND APPROVAL (Section 3.7.1)

3.7.1. Criteria for variance review and approval.

A. Special Conditions. That special conditions and circumstances exist which are peculiar to the land, structure, or building involved, and the same conditions are not applicable to other land, structures, and buildings in the surrounding area.
B. Literal Interpretation. That the literal interpretation of the provisions of this Code would deprive the applicant of rights commonly enjoyed by other properties in the same district under the terms of this Code.
C. Hardship. That the hardship has not resulted from the actions of the applicant.
D. Special Privilege. That granting the variance requested will not confer on the applicant any special privilege that is denied by this Code to other lands, structures, or buildings in the same district.
E. Minimum Variance. That granting the variance is the minimum variance that will make possible the reasonable use of the land, building, or structure.
F. Consistency with Comprehensive Plan. That the granting of the variance will be consistent with the general purpose, intent, goals, objectives, and policies of the Comprehensive Plan and this code and will not be injurious to surrounding areas or otherwise detrimental to the public welfare.

NOTIFICATION:

The request was noticed in accordance with Section 3.7.3.E of the Unified Development Code.

1. 6 property owners of record within 160 feet of the subject property were notified directly by mail of the request.
2. A legal ad was published in the Starkville Daily News on July 5, 2020.
3. A sign was posted on the property in a conspicuous location.

RESPONSE TO NOTIFICATION

As of this date, the Planning Office has received no response from the notifications.

ANALYSIS

In the opinion of the Planning Department the proposed variance request could meet the criteria for variance review and approval. If the sidewalks were to be installed in the location shown on Attachment 3, there are no planned future developments near the site or capital improvement projects involving sidewalks near the site. It would be unlikely that sidewalk connections would be made in the immediate or near future. The "Fee in Lieu" funds could be used other areas near the site to create new connections or enhance existing sidewalks.

CONDITIONS OF APPROVAL

Any condition attached to the approval of a variance by the Mayor and Board of Aldermen shall run with the land and shall be binding upon the applicants, their heirs, and successors.

Attachment 1

VA 20-05 Aerial

Legend

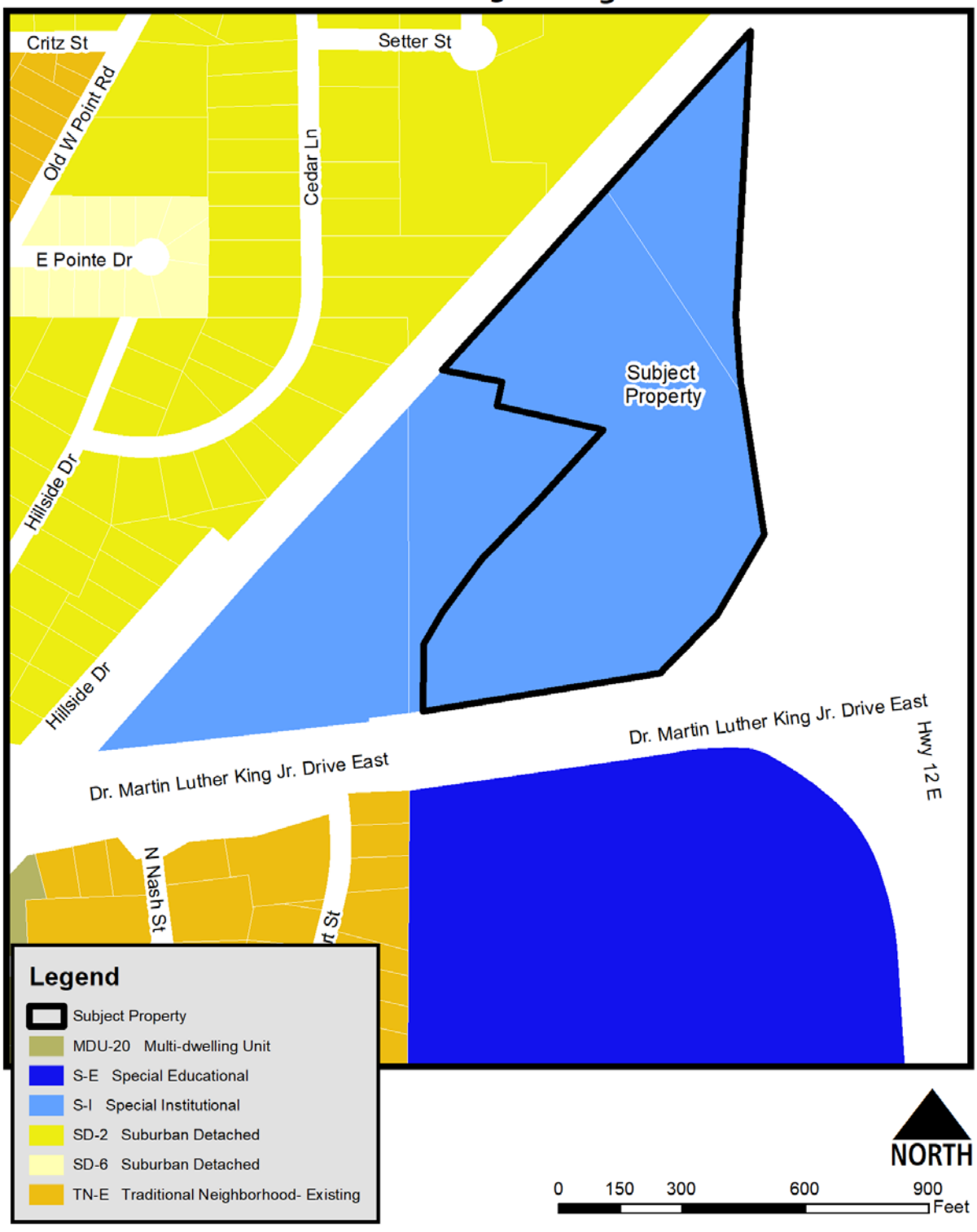
Subject Property

NORTH

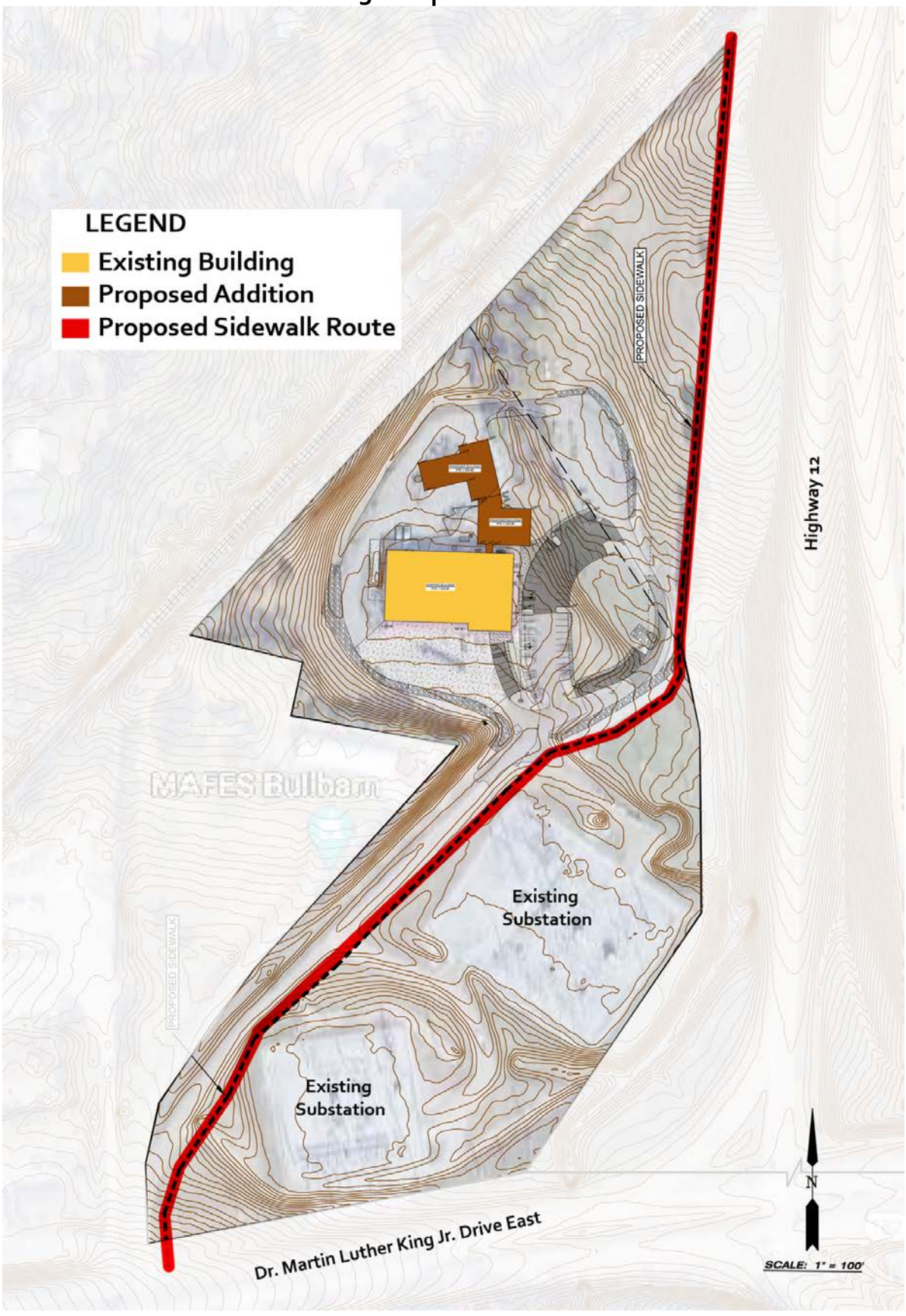
0 150 300 600 900 Feet

Attachment 2

VA 20-05 Zoning



Attachment 3- Proposed Sidewalk Route



14.11. Sidewalks and Pedestrian Circulation

14.11.1. Sidewalks Required by Subdivision. Within all newly platted subdivisions, sidewalks shall be required. The installation shall be required in accordance with Section 15.3.4.H.

14.11.2. General Requirements

A. Sidewalks shall be designed and constructed to comply with the Americans with Disabilities Act and most current version of the Americans with Disabilities Act Accessibility Guidelines. Developments on a corner lot shall be responsible for providing handicapped access curb ramps on the corner.

B. Within the sidewalk development zone (see Fig 14.11-1) required sidewalks shall be located within the right-of-way adjacent to the subject property. Sidewalks shall be provided along all public and private streets from lot line to lot line and align with existing sidewalks on adjacent properties.

C. Unless otherwise specified by the Development Review Committee or the Director of Community Development, sidewalks shall be located closer to the right-of-way line than the back of curb of a street. Thus, creating an area for the planting of sod or other landscape materials.

D. Sidewalk material shall be in accordance with the Development Standards Chart.

E. The width of the sidewalk shall be five (5) feet except for developments that have additional setback requirements in accordance with Section 5.3. In locations with higher current or anticipated pedestrian use, a wider sidewalk may be required as deemed necessary by the Community Development Director and/or the City Engineer.

F. Sidewalks that cannot be located within the right-of-way shall be located as close to the right-of-way as possible in an easement allowing for public access and maintenance. Sidewalk easements width shall be six (6) feet plus the width of the sidewalk.

G. Sidewalk crossings at any driveway shall provide an ADA compliant connection between the sidewalk ends.

H. Crosswalks shall be required and striped in conformance with the latest edition of the Manual on Uniform Traffic Control Devices or to the current City standard.

I. If required, Internal pedestrian circulation shall be provided and meet the requirements of the Development Standards Chart.

14.11.3. Sidewalks Required by Site Plan

A. On any development or redevelopment within the sidewalk development zone that requires site plan approval, sidewalks shall be required.

B. Sidewalks shall be completed and approved by the City prior to issuance of a certificate of occupancy.

C. The developer or property owner of any development or redevelopment shall be required to bring existing sidewalks adjacent to the property into compliance with current sidewalk requirements.

14.11.4. Sidewalks Required by Building Permit

A. On any construction project that does not require site plan approval with a cost for improvements that is greater than fifty thousand dollars ($50,000), sidewalks shall be required unless any of the following conditions exist:

1. The project is a single dwelling unit located on a single lot that is not part of a development that requires sidewalks.

2. The installation cost of the required sidewalk is greater than thirty percent (30%) of the cost for the improvements. The improvement cost shall include all improvements on the site, structure, and/or building for all phases. The installation cost of the sidewalks shall be

billed and paid by the applicant prior to the Board of Adjustment and Appeals' public hearing.

G. **Appearance and presentation.** At any public hearing upon any matter subject to the provisions of this article, the applicant seeking the variance and any other party desiring to be heard upon the application may appear in person, by agent or by attorney. The applicant shall be entitled to make a presentation and at the conclusion of presentations or statements by all other parties, shall be entitled to offer a statement in rebuttal if desired. The chairman of the Board of Adjustment and Appeals shall, at the commencement of the hearing upon each application or at any time during such hearing, require that parties desiring to make a presentation identify themselves and may specify the time to be allowed each such party within which to make such a presentation.

H. **Action.** If approval or denial is recommended by the Board of Adjustments and Appeals, that recommendation and any specific conditions for approval shall be forwarded to the Mayor and Board of Aldermen for their binding decision.

I. **Appeal.** Parties aggrieved by the final decision of the Mayor and Board of Aldermen, may appeal to a court of competent jurisdiction pursuant to state statute.

3.7.4. **Variance conditions.** In recommending any variance, the Board of Adjustments and Appeals shall have the authority to recommend appropriate conditions and safeguards in conformity with this Code. Violation of such conditions and safeguards, when made a part of the terms under which the variance is granted by the Mayor and Board of Aldermen, shall be deemed a violation of this Code. Under no circumstances shall the Board of Adjustments and Appeals recommend, and the Mayor and Board of Aldermen grant, a variance to permit a use other than a use permitted generally in the district involved, nor shall a variance be granted to any use expressly or by implication prohibited by the terms of this Code.

3.7.5. **Variance requests related to sidewalk installation.**

A. Criteria for sidewalk variance review and approval.

1. The review and approval of all sidewalk variances except in form-based zoning districts shall be based on criteria as listed in Section 3.7.2.

2. The review and approval of all sidewalk variances in form-based zoning districts shall be based on criteria as listed in Section 3.7.2 and Section 3.7.3.

B. Requirements for variance approval. Where the Board of Aldermen determine that construction of sidewalks would not be feasible and grant a variance to the sidewalk requirements, one of the two (2) options shall be required:

1. Fee in Lieu. A fee shall be paid prior to issuance of a Certificate of Occupancy or Final Plat to cover the cost of constructing a sidewalk. The fee shall be used to construct sidewalks as needed in accordance with the adopted Capital Improvements Plan. The fee shall be an amount not less than one hundred and fifty percent (150%) of the estimated installation cost. The installation cost of the sidewalks shall be based on unit prices. The unit prices shall be determined based upon quarterly posted construction bid averages provided by the Mississippi Department of Transportation (MDOT). The unit price used to determine the installation cost shall be reviewed and approved by the City Engineer.

2. Alternate Sidewalk Route. The applicant shall construct a sidewalk within the area of the project that is of equal or greater size than the required sidewalk. The location of the alternate sidewalk route shall be as determined by the City Engineer. If an alternate sidewalk route cannot be agreed upon, the fee in lieu option shall be used.

THE CITY OF STARKVILLE
PLANNING DEPARTMENT
BOARD OF ADJUSTMENTS & APPEALS

CITY HALL, 110 WEST MAIN STREET
STARKVILLE, MISSISSIPPI 39759

STAFF REPORT

To:	Members of the Board of Adjustments & Appeals
From:	Daniel Havelin, City Planner (662-323-2525 ext. 3136)
Subject:	VA 20-06 Request for a Variance from parking setback, driveway width, access point spacing, access point location, access point width, approach slope of detention pond, and bottom slope of detention pond for a proposed condominium development located on the northeast corner of the intersection of Guest Drive and Mallory Lane. The property is located in a C zoning district with the parcel numbers 103a-00-001.42 and 103a-00-001.43
Date:	July 22, 2020

The purpose of this report is to provide information regarding Variance request by Pritchard Engineering on behalf of Charlie Morgan from parking setback, driveway width, access point spacing, access point location, access point width, approach slope of detention pond, and bottom slope of detention pond located on the northeast corner of the intersection of Guest Drive and Mallory Lane. The property is located in a C zoning district with the parcel numbers 103A-00-001.42 and 103A-00-001.43. Please see attachments 1- 9.

BACKGROUND INFORMATION

The applicant is proposing a condominium development on the north side of Guest Drive. The applicant has completed two previous condominium projects on the south side of Guest Drive. The proposed development would be the third phase. The two previous developments were complete under the previous code and in a multi-family zoning district. The proposed development is being reviewed under the Unified Development Code in a C-Commercial District. The applicant has already received Special Exception approval to place townhomes on the site. The site plan is currently under review by the Development Review Committee (see Attachment 3). As part of that review, the applicant was made aware of non-compliant elements of the site plan. The applicant has chosen to apply for Variance and Special Exceptions approval for the non-compliant elements to bring the site plan into compliance. The applicant was approved by the Board of Aldermen on July 7, 2020 for the use of "Dwelling, Townhouse/Rowhouse". The Planning and Zoning Commission will hear a request for a Special Exception for several other non-compliant site elements on August 11. 2020. If the request for Variance is recommended for approval, the applicant's requests will be heard by the Board of Aldermen at the September 1, 2020 meeting along with the Special Exception request.

VARIANCE REQUEST FROM UDC

1. **Parking Setbacks**- Section 6.3.4. Behind rear wall of primary building (see Attachment 4)

Request: Park in the front setback
Reasoning: To conform to condos previously built on the south side of Guest Drive

2. **Driveway Width**- Section 14.10.2.C (Table 14.10.1). Multi-Unit Residential 7+ off-street parking spaces (two-way)- Width (max) 24' (see Attachment 5)

Request: Two-way driveway with a 34' width
Reasoning: To conform to condos previously built on the south side of Guest Drive

VARIANCE REQUEST FROM ACCESS MANAGEMENT POLICY
(required in section 14.10.2.E.2 of the UDC see Attachment 5)

3. **Access Point Spacing**- Access Management Policy (see Attachment 7)
Request: The driveway and the perpendicular on street parking are all classified as "access points" to the site. The proposed site plan has a total of 6 access points. Only 2 access points are allowed.
Reasoning: To conform to condos previously built on the south side of Guest Drive

4. **Location of Access Points**- Access Management Policy (see Attachment 7)
Request: Applicant is proposing an access point 40' off of the intersection with Mallory Lane. The current access management policy requires it to be offset 125' from the intersection
Reasoning: To conform to condos previously built on the south side of Guest Drive

5. **Access Point Width**- Access Management Policy (see Attachment 7)
Request: Applicant is proposing the following access widths for the on-street parking: 63', 54', 45', and 45'. The maximum width is 35'.
Reasoning: To conform to condos previously built on the south side of Guest Drive

VARIANCE REQUEST FROM STORMWATER MANUAL
(required in section 16.9.3.C of the UDC see Attachment 8)

6. **Approach Slopes**- Stormwater Manual (see Attachment 9)
Request: Approach Slopes for detention ponds should be less than 5:1. The proposed plan would exceed this requirement.
Reasoning: To conform to condos previously built on the south side of Guest Drive

7. **Drainage Basin Slope**- Stormwater Manual (see Attachment 9)
Request: 7. Drainage basins shall have a minimum of 1.5% Slope if left in a natural, grassed condition. The proposed plan would exceed this requirement.
Reasoning: To conform to condos previously built on the south side of Guest Drive

CRITERIA FOR VARIANCE REVIEW AND APPROVAL (Section 3.7.1)
3.7.1. Criteria for variance review and approval.

A. Special Conditions. That special conditions and circumstances exist which are peculiar to the land, structure, or building involved, and the same conditions are not applicable to other land, structures, and buildings in the surrounding area.
B. Literal Interpretation. That the literal interpretation of the provisions of this Code would deprive the applicant of rights commonly enjoyed by other properties in the same district under the terms of this Code.
C. Hardship. That the hardship has not resulted from the actions of the applicant.
D. Special Privilege. That granting the variance requested will not confer on the applicant any special privilege that is denied by this Code to other lands, structures, or buildings in the same district.
E. Minimum Variance. That granting the variance is the minimum variance that will make possible the reasonable use of the land, building, or structure.
F. Consistency with Comprehensive Plan. That the granting of the variance will be consistent with the general purpose, intent, goals, objectives, and policies of the Comprehensive Plan and this code and will not be injurious to surrounding areas or otherwise detrimental to the public welfare.

NOTIFICATION:

The request was noticed in accordance with Section 3.7.3.E of the Unified Development Code.

1. 41 property owners of record within 160 feet of the subject property were notified directly by mail of the request.
2. A legal ad was published in the Starkville Daily News on July 5.
3. A sign was posted on the property in a conspicuous location.

RESPONSE TO NOTIFICATION

As of this date, the Planning Office has received no response from the notifications.

ANALYSIS

In the opinion of the Planning Department the proposed variance request could meet the criteria for variance review and approval. The parking and access point issues are similar to the development on the south side of the street. However, a continuation of that development pattern could be problematic in the future and is not the intent of the development and use standards in the Unified Development Code. The stormwater issues don't impact the function and purpose of the detention pond. However, the side slopes and bottom slope of the detention pond could have an effect on the safety and aesthetics of the ponds. The current proposed location of the detention ponds is directly adjacent to the road. The western most pond is located adjacent to the intersection of Mallory Lane and Guest Drive and would be highly visible.

CONDITIONS OF APPROVAL

Any condition attached to the approval of a variance by the Mayor and Board of Aldermen shall run with the land and shall be binding upon the applicants, their heirs, and successors.

Attachment 1

VA 20-06 Aerial

Legend

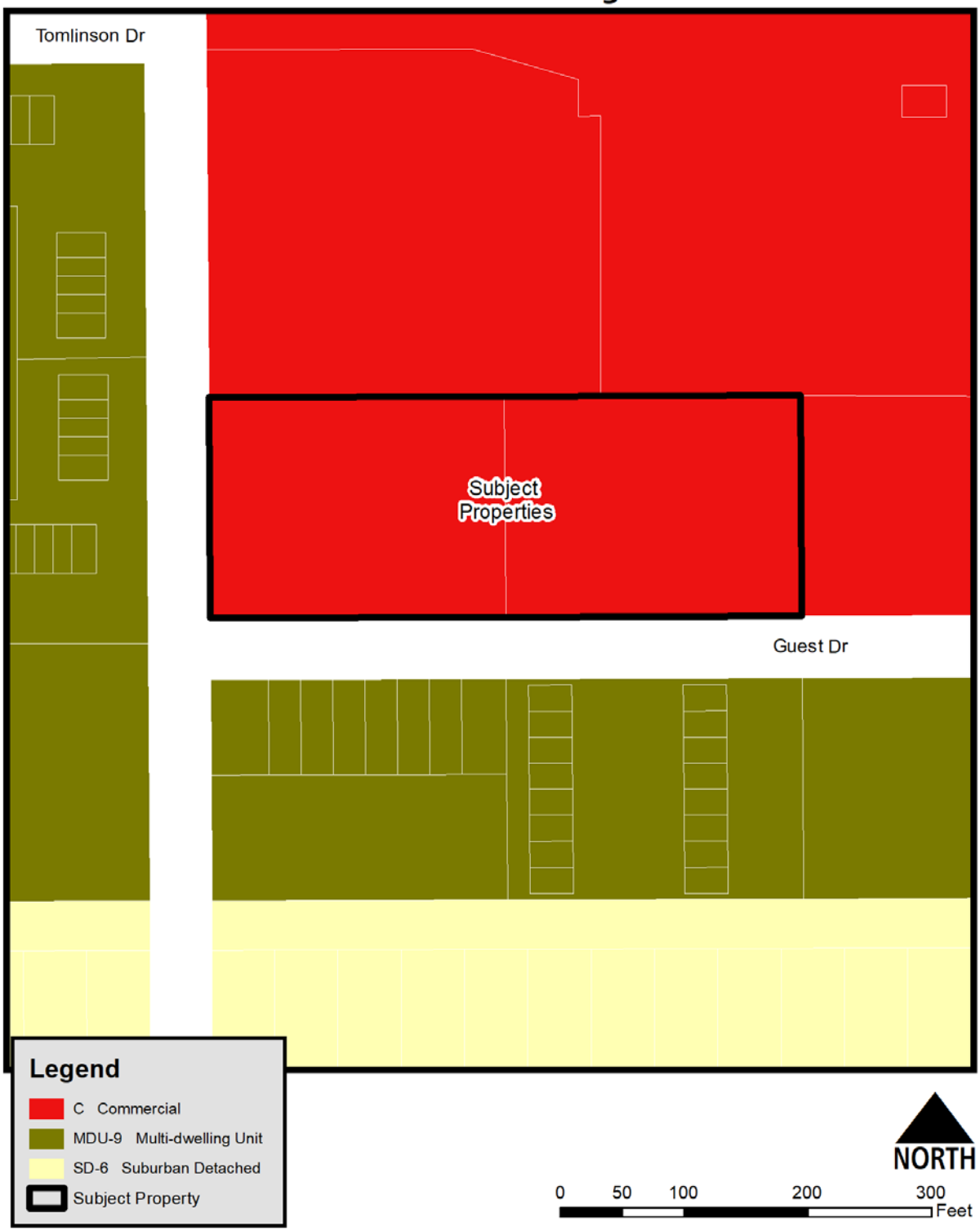
Subject Property

NORTH

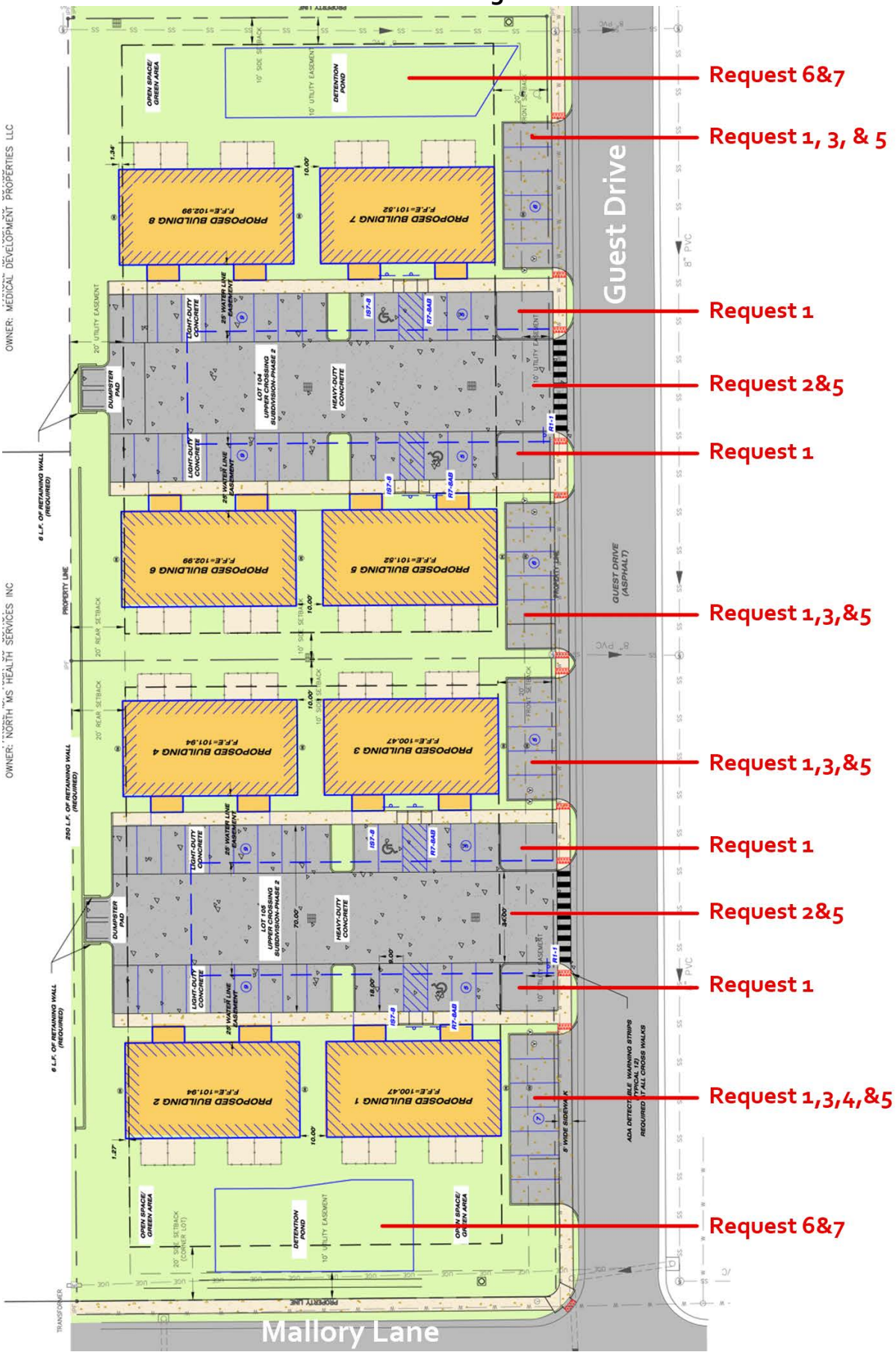
0 50 100 200 300 Feet

Attachment 2

VA 20-06 Zoning



Attachment 3- Site Plan



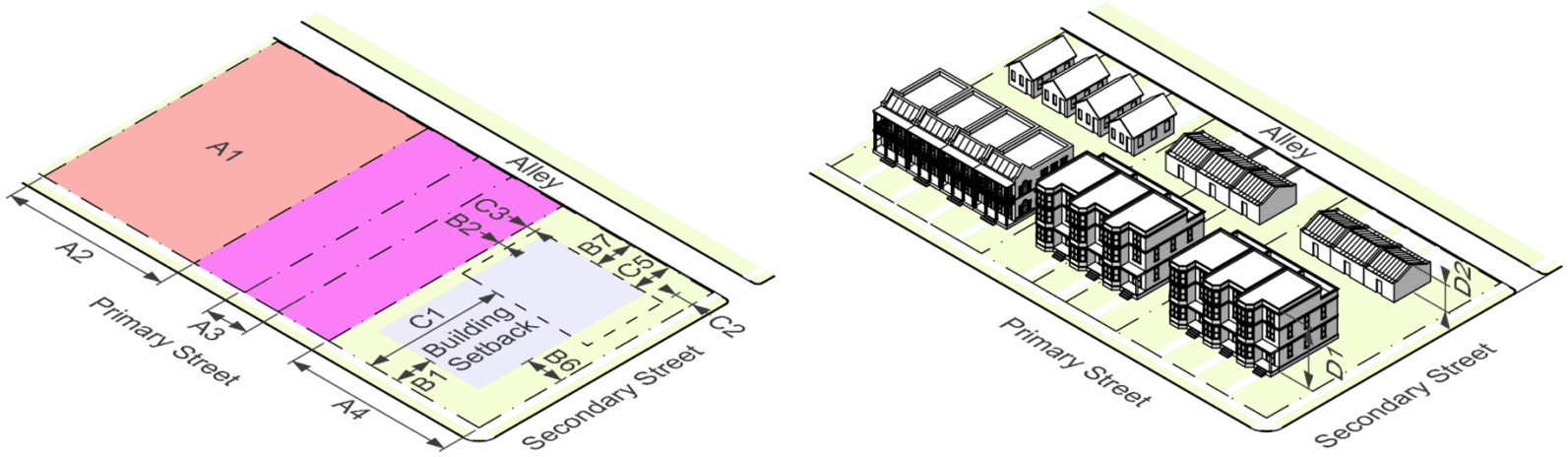


Fig 6.3-2

Townhouse /Rowhouse Dwelling					
A. Lot Dimensions	**TN-N**	**TN-E**	**MDU-9**	**MDU-20**	**C**
A1 Site size per unit (min)	4000 sq. ft.	4000 sq. ft.	3300 sq. ft.	2100 sq. ft.	2100 sq. ft.
A2 Site width (min)	65′	65′	65′	100′	100′
A3 Lot width (min)	20′	20′	18′	18′	18′
A4 Lot width at corner (min)	30′	35′	38′	38′	33′′
B. Building/Structure Setbacks	**TN-N**	**TN-E**	**MDU-9**	**MDU-20**	**C**
B1 Front setback	10/15′ max	15′ or see infill standards	20′	20′	15′
B2 Side setback for building	5′	5′	10′	10′	10′
B3 Side setback between buildings	10′	10′	10′	10′	10′
B4 Side setback between attached units	0′	0′	0′	0′	0′

Townhouse /Rowhouse Dwelling					
B5 Side setback adjacent to detached residential (min.)	10′	10′	15′	25′	25′
B. Building/Structure Setbacks (cont.)	**TN-N**	**TN-E**	**MDU-9**	**MDU-20**	**C**
B6 Side setback corner lot (min.)	10/15′ max	15′ or see infill standards	20′	20′	20′
B7 Rear setback	20′	20′	20′	20′	20′
B7 Rear setback B8 Rear setback adjacent to detached residential	20′ 25′	20′ 25′	20′ 30′	20′ 30′	20′ 30′
C. Parking Setbacks	**TN-N**	**TN-E**	**MDU-9**	**MDU-20**	**C**
C1 From primary street	Behind rear wall of primary building	Behind rear wall of primary building	Behind rear wall of primary building	Behind rear wall of primary building	Behind rear wall of primary building
C2 From side lot line adjacent to street	10′	10′	10′	10′	10′
C3 From side and rear lot line	5′	5′	5′	5′	5′
C4 From rear lot line adjacent to detached residential	10′	10′	10′	10′	10′
C5 From rear alley	20′	20′	20′	20′	20′
D. Height	**TN-N**	**TN-E**	**MDU-9**	**MDU-20**	**C**
D1 Principle building(s) (max)	30′, 2 story	30′, 2 story	28′/ 2 story	38′, 3 story	38′, 3 story
D2 Accessory Structure(s)	1 story	1 story	1 story	1 story	1 story
E. Pedestrian Access	**TN-N**	**TN-E**	**MDU-9**	**MDU-20**	**C**
E1 Street-facing primary entrance for each unit along street	yes	yes	yes	yes	yes
E2 Sidewalk connection to street from each entrance	yes	yes	yes	yes	yes

5. Site signage and traffic control design, materials, and construction shall conform to the City of Starkville Standards of Design and Specifications for subdivisions.

C. **All Driveways**

1. All driveway design and construction must comply with the *City of Starkville Standards of Design & Specifications*, or the Fire Code when conflict exists, except for single unit and duplex residential uses on a single lot.

1. Driveway dimensions measured at the street right-of-way shall be in accordance with the following table:

Table 14.10-1: Driveway Dimension Requirements

	Width (min)	Width (max)	Radius (max)
Single Unit and Duplex Residential	8′	20′	5′
Multi-Unit Residential less than 6 off-street parking spaces	10′	18′	10′
Multi-Unit Residential 7+ off-street parking spaces (one-way)	12′	16′	10′
Multi-Unit Residential 7+ off-street parking spaces (two-way)	20′	24′	10′
Mixed-Use/Commercial (one-way)	12′	18′	10′
Mixed-Use/Commercial (two-way)	20′	32′	15′
Industrial	30′	40′	30′

2. The Community Development Director may require wider driveways where unusual traffic, grade, or site conditions exist.

D. **Driveways for Single Unit and Duplex Residential Uses**

1. When an alley is provided, all driveways shall take access from the alley.
2. No residential lot shall have more than two (2) driveways on the same street. Multiple driveways that service one (1) lot may be no closer than forty (40) feet to each other.
3. Maximum driveway width within the right-of-way shall be twenty (20) feet. Driveway widths up to thirty (30) feet may be allowed by administrative adjustment only within a SD-2 or SD-6 zoning district.
4. Driveways for single and attached duplex dwelling residential shall be a minimum of twenty (20) feet from the intersection of two (2) street rights-of-way.
5. Driveways for multi-dwelling residential shall follow the City's access management policy and be review during site plan approval.
6. Driveways shall meet parking setback requirements per zoning district.
7. Parking areas shall not constitute more than forty percent (40%) of the front yard.
8. Only single and attached duplex dwelling residential shall be permitted to back out directly into a street unless it is determined by the City Engineer that the street type and/or posted speed limit create a safety issue.
9. Gravel driveways shall have a concrete apron that is a minimum of eight (8) feet from the property to the edge of pavement at the street. The design of the apron shall prevent loose gravel from being deposited on the sidewalk and roadway.

E. Driveways for Multi-Unit Residential, Mixed-Use, and Non-Residential

1. When an alley is provided, access from an alley is required and new curb cuts along the public right-of-way are not allowed.
2. Driveways location shall follow the City's access management policy and be review during site plan approval.
3. Driveways shall meet parking setback requirements per zoning district.

F. Cross-Access between Adjoining Development

1. The internal vehicular circulation system shall be designed to allow for vehicular cross-access between adjoining lots or to the boundary of adjoining vacant land zoned to allow non-residential or mixed-use development.
2. Cross-access ways shall provide for two-way vehicular traffic between the vehicle use areas on the adjoining lots through the use of a single driveway or drive aisle that is at least twenty-two (22) feet wide or through the two (2) one-way driveways or aisles that are each at least eleven (11) feet wide.
3. Cross-access ways should be offset from the driveway intersection a minimum of fifty (50) feet to reduce vehicular conflicts.
4. The City Engineer and Community Development Director may waive or modify the requirement for vehicular cross-access upon determining that such cross-access is impractical or undesirable due to the presence of topographic conditions, natural features, or vehicular safety factors.
5. Easements allowing cross-access to and from properties served by a vehicular cross-access, along with agreements defining maintenance responsibilities of property owners, shall be recorded with the Office of the Chancery Clerk of Oktibbeha County before a temporary or final certificate of occupancy is granted.

14.10.3. Calculation of required parking

A. The number of parking spaces required shall be calculated in accordance with the parking for that use. Where the use is not specifically listed or only a broad use category is shown, the Community Development Director shall be responsible for categorizing the use and determining the minimum number of parking spaces.

B. For a multi-tenant development with a combination of commercial or institutional uses, the parking requirements are the sum of the requirements for each use and no parking space for one (1) use can be included in the calculation of parking requirements unless otherwise permitted in this section.

C. Institutional and commercial uses that share a parking lot with other commercial uses may not exceed their minimum parking by more than twenty-five percent (25%).

Attachment 7- Access Management Policy

City of Starkville
Access Management Policy
Approved by Board of Aldermen on 12-18-18

Access and Driveways

1. Applicability: All projects that are required to have site plan review and/ or approval by the Development Review Committee.

2. Exceptions: Single family residential projects on existing lots, agricultural property and roadways owned and maintained by the Mississippi Department of Transportation.

3. Access Point Spacing: Lots that are not used for single-family or agricultural purposes, are permitted vehicular access points but shall not exceed one (1) for every two hundred (200) feet of frontage. Properties that are less than two hundred (200) feet across, or that have less than two hundred (200) feet of frontage on the street, shall be limited to one access point per street frontage unless otherwise approved by the Development Review Committee.

   Developments that are intended to be subdivided into multiple parcels, with or without multiple business owners, will be viewed as a single development and will be subject to the requirements of this section as such. Individual parcels within such developments shall not be permitted access unless the access point meets the requirements of this section.

   The City Engineer may allow two (2) one-way driveways to serve a commercial property. Distances between adjacent one-way commercial driveways with inbound traffic upstream from the outbound drive must have a minimum separation distance of 25 feet. Roadway and the maximum width of a one-way entrance driveway will be 16 feet as outlined and illustrated in the latest version of the Mississippi Department of Transportation Access Management Manual.

4. Location of Access Points: The location of access points shall be based on the following criteria:

   a. The access point shall not conflict with vehicle turning movements; and

   b. The access point shall be located at least one hundred twenty five (125) feet from an intersection of a public or non-city owned roadway as outlined and illustrated in the latest version of the Mississippi Department of Transportation Access Management Manual.

   c. Exceptions may be approved if the property would otherwise be landlocked. If an exception is approved, the access will be right-in/right-out only and may not be allowed closer than fifty (50) feet from the near edge of the intersecting street.

d. Unless the driveway access is shared by multiple lots, the flared portion or curb return shall be located twelve and a half (12.5') feet from boundary line so as to not encroach on adjacent property frontage as outlined and illustrated in the latest version of the Mississippi Department of Transportation Access Management Manual.

e. When an applicant's lot has frontage on more than one street, access shall be given from the lower functional road to the extent possible.

5. In special circumstances, the City Engineer may require a right-in/right-out access if sight distance is limited, high left turn volume is anticipated or other issues may create an unsafe situation for the traveling public.

6. Alignment: Access points shall align with opposing driveway approaches, if any, or shall be offset by at least one hundred-twenty-five (125) feet as outlined and illustrated in the latest version of the Mississippi Department of Transportation Access Management Manual.

7. Width: Non-residential driveways shall be:

   a. a maximum of sixteen (16) feet in drivable surface width for a one way driveway

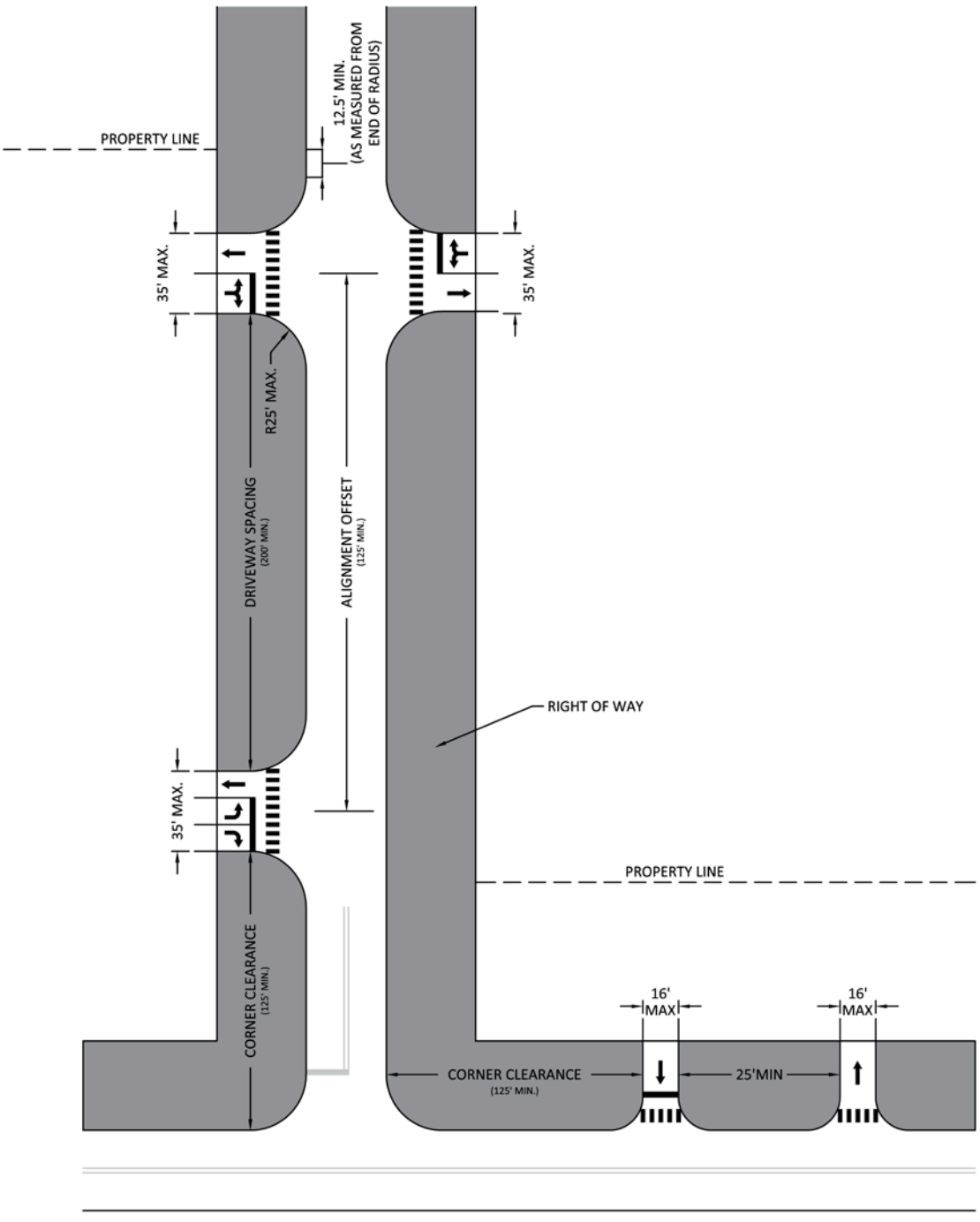
   b. a maximum of thirty-five (35) feet in drivable surface width for a two way driveway

8. Driveway Radius: The maximum allowable driveway radius is twenty-five (25) feet unless approved by the City Engineer based on documentation provided by the applicant justifying the need for a larger radius based on specific site transportation needs.

9. Traffic Impact Study: The City Engineer may require the applicant to prepare and submit a traffic impact study for any proposed site that would generate 100 or more total trips during the peak hour of the traffic generator or the peak hour of the adjacent street as outlined and illustrated in the latest version of the Mississippi Department of Transportation Access Management Manual.

10. Cross access may be required in commercial or mixed-use zoning which front an arterial or collector street.

11. Appeals: Appeals of staff decisions regarding access may be appealed to Board of Adjustment and Appeals.



CITY OF STARKVILLE ENGINEERING DEPARTMENT	ACCESS MANAGEMENT POLICY	ACCESS AND DRIVEWAYS
DATE: DECEMBER 2018	POLICY EXHIBIT	*BASED ON THE POLICY APPROVED BY THE CITY OF STARKVILLE BOARD OF ALDERMAN ON DECEMBER 18th, 2018.*

16.9.3. Improvement Regulation

A. Required Information. A Drainage Plan shall be prepared and certified by a registered professional engineer licensed in the State of Mississippi and submitted with the plans for each proposed development. The stormwater report shall use the United States Department of Agriculture Soil Conservation Service (SCS) method for determining runoff rates and volumes, the TR-55 Method for time of concentration values, and shall follow the format and regulations set forth in this ordinance and in the City of Starkville Standards of Design and Specifications.

1. **Pre-development Calculations.** Calculations shall be provided which show the pre-development rate of runoff for the 2-year, 10-year, and 100-year, 24-hour event. These calculations shall use the SCS Runoff Curve number method in accordance with the United States Department of Agriculture Soil Conservation Service Technical Release 55. The City Engineer reserves the right to allow alternate methods. Recommended curve number values can be found in the City of Starkville Standards of Design and Specifications and shall be in accordance with TR-55. Precipitation frequency estimates should be obtained from the National Oceanic and Atmospheric Administration (NOAA) website.
2. **Post-development Calculations (without mitigation).** Calculations shall be provided which show the post-development rate of runoff for the 2-year, 10-year, and 100-year, 24-hour event. These calculations shall use the same methodology that is used to calculate the existing peak flow rates.
3. **Routed/Detained Calculations.** Calculations shall be provided which show the total planned release rate after detention has been incorporated for the 2-year, 10-year, and 100-year, 24-hour event. These calculations shall use the same methodology that is used to calculate pre- and post-development peak flow rates. The Rational Method shall not be used for detention design.
4. **Drainage Plan:** A comprehensive Drainage Plan shall be designed to safely and completely accommodate existing stormwater runoff, handle the proposed stormwater runoff and to manage increased stormwater runoff. This plan shall adhere to the necessary documents, calculations, and guidelines set forth in this ordinance and in the City of Starkville Standards of Design and Specifications, and shall include and be designed based upon the following:

i. For all stormwater management facilities, design hydrographs of inflow, outflow and routed/detained conditions for the 2-year, 10-year, and 100-year, 24-hour event peak flows from the site under pre-development, post-development, and routed/detained conditions;

B. Time of concentration path including length, slope and type (e.g. sheet, shallow-concentrated, channel, closed conduit, etc.) of flow. Calculation method for time of concentration shall be performed in accordance with the TR-55 method; furthermore, sheet flow shall not exceed one-hundred (100) linear feet for any time of concentration calculation for a post-development scenario and shall not include any flow paths representative of a designed conveyance system including but not limited to curb and gutter, swales, ditches, graded channels, etc.

C. Stormwater Management Facilities: Stormwater management facilities, including detention and retention facilities, are designed primarily to detain increased runoff that occurs from development and additional impervious areas. These facilities must meet the requirements set forth in this ordinance and in the City of Starkville Standards of Design and Specifications.

1. **Location of Facilities:** Stormwater management facilities,

Attachment 9- Stormwater Manual

STORMWATER MANUAL

CITY OF STARKVILLE, MISSISSIPPI

STANDARDS OF DESIGN & SPECIFICATIONS

SECTION ####
DATE

CONTENTS

SECTION 1 – STORMWATER REPORT

Each applicant subject to the guidelines and requirements listed in the City of Starkville Stormwater Management Ordinance shall prepare and submit a Drainage Plan to the City Engineer for approval. The Drainage Plan should encompass and meet all the requirements listed in the City of Starkville Stormwater Management Ordinance. The following checklist shall be in addition to these requirements and shall be considered a minimum standard in addition to, not in place of, the City of Starkville Stormwater Management Ordinance. Furthermore, the City Engineer reserves the right to require additional information and supporting documentation if there is concern for downstream flooding or for the protection of any public or private property downstream.

The following information and data shall be prepared and certified by a registered professional engineer licensed in the State of Mississippi.

1. INTRODUCTION, NARRATIVE & EXECUTIVE SUMMARY

Include at the beginning of the report a brief narrative that includes and describes the following:

A. The location of the property;
B. Lot size and development area in acres;
C. Existing land use, ground cover conditions, and points of discharge;
D. Proposed land use, ground cover conditions, and points of discharge;
E. The general concept for the design and management of the increased runoff peak flows and volumes;
F. Tabular summary of the pre-development, post-development, and detained/routed flows;
G. Tabular summary of the volumes stored for design events;
H. Tabular summary for the water surface elevations for design events; and
I. Any other pertinent information pursuant of the design.

2. PRE-DEVELOPMENT CONDITIONS

A. Exhibit/Schematic.

1. An exhibit or schematic that visualizes and represents the following:
    i. Total land and development area;
    ii. Each sub-basin within the overall area and its respective area;
    iii. The time of concentration associated flow path for the entire basin with transition points between flow types;
    iv. Delineation of land cover/use based on SCS curve number for each land cover/use that exists;
    v. One-foot interval topography;
    vi. All existing stormwater structures and their related information as described in section 8.A.3. of this manual;
    vii. Natural and man-made watercourses, waterways, and conveyance systems;
    viii. Points of runoff discharge including location and direction of flow; and
    ix. Any other pertinent information as required by the City Engineer.
2. On the exhibit, provide in tabular format, the following information for the total basin and each sub-basin (if multiple):
    i. Drainage area;
    ii. Weighted SCS curve number;
    iii. Time of concentration;
    iv. 24-hour precipitation values specific to design events; and
    v. Flow rates for design events.

B. Calculations.

Calculations should be provided such that the proposed flows can easily be recreated and assessed by the City Engineer.

1. *Time of Concentration*. All calculations for the time of concentration shall be in accordance with NRCS TR-55 method. All roughness values, precipitation values, slopes, flow lengths, etc. should be in accordance with City of Starkville Standards of Design & Specifications.
2. *SCS Runoff*. All values used to calculate the parameters of the SCS Runoff method shall be provided including but not limited to runoff, potential maximum retention, initial abstraction, and unit peak discharge.
    i. Points of Discharge. If a development is known to have multiple stormwater discharge locations, the required calculations shall be performed for each individual area. These areas shall be shown and treated as separate flows.
3. *Hydrograph*. An appropriate modeling software shall be used to create design inflow and outflow hydrographs for all required storm events.

3. POST-DEVELOPMENT CONDITIONS

A. Exhibit/Schematic.

1. An exhibit or schematic that visualizes and represents the following:
    i. Total land area;
    ii. Each sub-basin within the overall area and its respective area;
    iii. The time of concentration associated flow path with transition points between flow types;
    iv. Delineation of land cover/use based on SCS curve number for each land cover/use that exists or that is proposed;
    v. One-foot interval grading plan;
    vi. All proposed stormwater and detention structures and their related information as described in section 8.A.3. of this manual;
    vii. Natural or man-made watercourses, waterways or conveyance systems to remain or to be improved;
    viii. Points of discharge including location and direction of flow; and
    ix. Any other pertinent information as required by the City Engineer.

2. On the exhibit, provide in tabular format, the following information for each sub-basin (if multiple):
    i. Drainage area;
    ii. Weighted SCS curve number;
    iii. Time of concentration;
    iv. 24-hour precipitation values specific to design events;
    v. Flow rates for design events; and
    vi. Provide an additional table that compares the above information for the pre-development, post-development, and detained/routed conditions.

B. Calculations.

Calculations should be provided such that the proposed flows can easily be recreated and assessed by the City Engineer.

1. *Time of Concentration*. All calculations for the time of concentration shall be in accordance with NRCS TR-55 method. All roughness values, precipitation values, slopes, flow lengths, etc. should be in accordance with the City of Starkville Standards of Design & Specifications.
2. *SCS Runoff*. All values used to calculate the parameters of the SCS Runoff method shall be provided including but not limited to runoff, potential maximum retention, initial abstraction, and unit peak discharge.
    i. Points of Discharge. If a development is known to have multiple stormwater discharge locations, the required calculations shall be performed for each individual area. These areas shall be shown and treated as separate flows. Post-development flows should mimic pre-development flows as closely as possible.
3. *Hydrograph*. An appropriate modeling software shall be used to create design inflow and outflow hydrographs for all required storm events.
4. *Conveyance Systems*. All proposed conveyance systems including but not limited to storm sewers, open-channels, natural swales, and drainage inlets shall have the following information in tabular format and included on the grading plan: structure type, material, size, slope, inverts, maximum capacity flowing full, maximum velocity flowing full, and the design flow rate flowing into each structure which shall be based on actual contributing area, curve number, time of concentration, etc. All conveyance structures must be designed in accordance with the City of Starkville Standards of Design & Specifications.

4. ROUTED/DETAINED CONDITIONS

A. Inflow Calculations.

Appropriate inflow calculations and values shall be provided for areas that contribute to the proposed detention system. These areas shall be in accordance with and reflect those values determined in the Post-Development calculations. If only a portion of the site is being detained, this should be reflected in the inflow hydrograph.

B. Stage/Storage/Discharge Tabulation.

A tabulation shall be required which relates the storage volume, water surface elevation, and outflow rates for the detention/retention structure to ensure that the proposed structure will adequately store the required storm events. This tabulation shall be based on actual elevations.

C. Outlet Control Structure.

Outlet control structures shall function as simply and automatically as possible, be self-cleaning, and adhere to the requirements outlined in Section 2 of this manual.

1. *Discharge Velocity & Dissipation*. Velocities in excess of those experienced in pre-development conditions shall be reduced through the means of velocity dissipation devices and in accordance with the City of Starkville standards of Design & Specifications. Appropriate calculations shall be provided that adequately demonstrate the reduction in velocity.
2. *Details.* Cross-sectional details shall be provided that relate the outlet control structure to the water surface elevation of the required storm events.
3. *Emergency Overflow*. The City Engineer may require an emergency overflow structure in instances where there is concern that the outlet control structure may be overwhelmed based on site design and conveyance type. In those instances, appropriate calculations to determine the overflow structures ability to convey an event in excess of the design event shall be required. Cross-sectional details for said structures shall be provided with water surface elevations shown for the required storm events.

D. Hydrograph.

An appropriate modeling software shall be used to create design inflow and outflow hydrographs for all required storm events which compare the attenuated peak flow (i.e. pond outflow) to the post-developed peak flow (i.e. pond inflow).

5. AREAS OF DIRECT DISCHARGE

Areas of direct discharge shall be defined as post-development areas within the development that are not routed through any of the proposed on-site detention facilities and discharge directly off-site with no attenuation. The flow from these areas shall be added to the routed/detained flow from the detention facilities using a linking or combine function to provide a total post-development flow, varying time to peaks considered.

A. Exhibit/Schematic.

Areas of direct discharge shall be delineated and described as outlined in section 3.A and should be included on the same schematic as described in section 3.A.

B. Calculations.

All calculations necessary to analyze direct discharge runoff shall be in accordance with section 3.B of this document.

6. UPSTREAM DRAINAGE AREAS & BYPASS SYSTEMS

Upstream tributary flows to a development can overwhelm and cause failure to detention systems that have been designed for the developed site only. If upstream areas exist that contribute to the proposed development, a bypass system capable of conveying and

bypassing the specified event, as described in the City of Starkville Stormwater Management Ordinance, shall be required unless approved otherwise by the City Engineer. The developer has the option to detain upstream flows tributary to the site, bypass these flows, or a combination of the two.

A. Exhibit/Schematic.

An exhibit or schematic shall be provided for all upstream tributary areas that adhere to the schematic guidelines set forth in section 2.A.

B. Calculations.

Calculations for upstream drainage areas shall be in accordance with section 2.B of this report. If the developer chooses to detain the upstream areas, the additional area, flow rate, and volumes should be reflected in the calculations of the stormwater management facility. If the developer chooses to bypass upstream flows, the bypass system should be adequate to convey the specified event and shall meet all the requirements set forth in the City of Starkville Standards of Design & Specifications and in the City of Starkville Stormwater Management Ordinance. All calculations and subsequent parameters (e.g. areas, curve number, time of concentration, etc.) shall be specific to each individual basin.

7. DOWNSTREAM ANALYSIS

A downstream analysis may be required as defined in the City of Starkville Stormwater Management Ordinance. In the event that a downstream analysis is required, exhibits, schematics, calculations, hydrographs, etc. will be required as defined in this document and the Georgia Stormwater Management Manual, Volume 2, Chapter 3.1.9 (current edition), depending on the requirements of the analysis.

8. TOPOGRAPHIC SURVEY & GRADING PLAN

The following requirements pertain to the topographic survey and grading plan which shall be submitted with the infrastructure plan submittal.

A. Topographic Survey.

A topographic survey of the existing conditions shall be provided with one-foot minimum interval contours, meeting National Map Accuracy Standards, of the land to be developed and such adjoining land whose topography may affect the layout or drainage of the developed area including any and all upstream areas. In situations where there are upstream areas contributing to the site and in which it may be impractical to survey these areas, the site topographic survey shall be supplemented with LIDAR contours for all upstream areas. The topographic survey shall include but is not limited to:

1. The banks and centerlines of streams and channels;
2. The normal shoreline of lakes, ponds and retention/detention basins, and lines of inflow and outflow;
3. The locations, size, type, slope, and inverts of stormwater conduits, drainage inlets, swales, conveyance systems, or any other drainage related structures;
4. Storm, sanitary and combined sewers and outfalls of record;
5. Base flood (100-year) elevation (BFE) and floodways for the property, established pursuant to the City of Starkville Flood Plain Ordinance.
6. Environmental features including the limits of wetland areas and any designated natural areas; and
7. Any existing buildings, structures, parking lots, or other existing development or improvements.

B. Grading Plan.

Proposed grades shall be provided with one-foot minimum interval contours and shall be designated with a dark, solid line. Existing contours may remain on the grading plan if they are shown in light, dashed lines and do not interfere with the overall interpretability of the plan. The grading plan shall include but is not limited to:

1. All requirements of 8.A for existing stormwater management facilities that are to remain or be altered after construction is complete;
2. Boundary, existing easements, and proposed easements;
3. North arrow, legend, and graphic scale;
4. Utilities. All of the following existing and proposed utilities shall be included: sanitary sewers, water, gas, telecommunications, utility poles, electric lines, and site lighting;
5. Building Areas. All proposed buildings with the finished floor elevation for the first floor;
6. Site elements. The following shall be included: all proposed curbs, all existing curbs to remain, retaining wall location with elevations, all trees to remain, all proposed vehicular use areas, and all proposed pedestrian use areas;
7. Locations, size, linear length, type, slope, surface and invert elevations (for inflow and outflow locations) of all stormwater conduits, drainage inlets, junction boxes, swales, conveyance systems, detention or retention systems, weirs, baffles, control structures, headwalls, flared-end sections, or any other drainage related structures including any downstream receiving structures that are directly collecting stormwater from the development; an identification number or naming nomenclature that clearly represents the pipe network;
8. Existing streams and floodplains to be maintained and new channels to be constructed including their locations, cross-sections and profiles;
9. Spot elevations for any curb and gutter that is located within a curvilinear line or which is to be installed at minimum slopes;
10. Spot elevations for detention ponds along the bottom of the pond to ensure that the pond fully drains between rain events;
11. Proposed grading to one-foot intervals that show extent and limits of grading, as well as how proposed grades will tie into existing grades. No grading should be completed off-site without a written letter from the property owner stating that such grading is allowed;
12. Details and application rates of any velocity dissipation devices (e.g. rip rap) such that said devices can easily be installed at the appropriate location and with the appropriate material, size, and quantity. Velocity dissipation devices shall be required at all outfalls leaving the site;

13. The conveyance system tabulation as described in 3.B.4;
14. All appropriate details for pipe installation, inlet installation, outlet control structures, emergency spillways, etc. These may be placed on supplemental details sheet and not on the grading plan; and
15. Any proposed environmental enhancement or mitigation features.

SECTION 2 – STORMWATER MANAGEMENT FACILITIES

Stormwater management facilities including detention and retention facilities are designed primarily to detain increased runoff that occurs from development and additional impervious surfaces. These facilities shall meet the requirements set forth in the City of Starkville Stormwater Management Ordinance and in this section.

1. DETENTION BASINS

Detention basins shall be constructed to temporarily detain the increase in stormwater runoff volume occurring on the site due to development and will conform to the following standards.

A. Storage Volumes.

The volume of storage provided in these basins, together with such storage as may be authorized in other detention facilities, shall be sufficient to control the increased runoff from the 2-year, 10-year and 100-year, 24-hour storms; a developer/engineer may elect to detain only part of the proposed site, however, the total post-development flow must still be less than the pre-development flow. Furthermore, pre-existing flow patterns, distributions, and exit locations should be mimicked in the developed conditions; over-detaining a portion of the site will not be allowable if it results in increased direct-discharge flows to other parts of the site.

B. Surcharge.

No surcharge shall be allowed for any storm sewer, storm inlet, detention/retention pond, or other stormwater structure for any event less than or equal to the 25-year, 24-hour storm event.

1. For flows greater than the 25-year, 24-hour event and that are equal to or less than the 100-year, 24-hour event, conveyance should be provided to the stormwater management facilities through designed overland systems (including but not limited to depressions, swales, curb and gutter, flumes, etc.) that do not cause flooding to any properties, private or public.
2. Conveyance systems that are also utilized for detention shall not surcharge for any storm event less than or equal to the 100-year, 24-hour storm event.

C. Maximum Depth.

The maximum planned depth of stormwater storage shall not exceed four (4) feet if visible from or adjacent to public right-of-way unless approved by the City Engineer. Ponds that are placed at the rear of properties or that are not visible from public right-of-way may not exceed a depth of six (6) feet. Any pond greater than four (4) feet deep shall require a safety bench that is at a minimum three (3) feet wide and with a maximum of five (5%) percent cross-slope for every four (4) feet of elevation gained.

D. Vertical Walls.

By special exception, detention basins may use vertical interior walls. The maximum interior height of a vertically walled detention pond is six (6) feet built in two (2) foot high segments. Parts of a wall below the surface of the ground surface shall not be included in the measurement of height. A safety ledge a minimum of two (2) feet wide shall separate segments; landscaping along these ledges shall be required unless utilized for an alternative use such as seating.

E. Approach Slopes.

The approach slopes of the basin shall conform as closely as possible to natural land contours. For ponds located in areas visible from public right-of-way re-grading is preferable if necessary to keep the slopes under 5:1. 4:1 slopes may be allowable if the pond is placed at the rear of the property or is not visible from public right-of-way. Erosion control measures shall be provided as well as devices or measures to ensure public safety.

F. Cut Slopes.

Any cut slopes that may exist and that tie into the proposed detention pond that are in excess of the maximum allowed depth shall have flat areas of less than five (5%) percent cross-slope and three (3) feet wide for every three (3) feet of elevation gained. These flat areas shall be landscaped as deemed appropriate by the Community Development Director;

G. Outlet Control Structures.

Outlet control structures shall be designed as simply as possible and shall operate automatically. Any orifice less than eight (8) inches in diameter shall be protected within a manway structure. Slotted weirs must be at a minimum, four (4) inches in width unless approved by the City Engineer, and V-notch weirs are preferred for reduced maintenance requirements. They will be designed to limit discharges into existing or planned downstream channels or conduits so as not to exceed predetermined safe capacities, and not in excess of flows which would have occurred with the land in its pre-development condition. Exiting velocities shall not exceed ten (10) feet per second.

1. For orifice or conduit control structures, the structure must be located in and protected by a manway structure. Trash racks may also be utilized in place of a manway structure; trash racks shall have no opening more than one-half the size of the area of the orifice being protected. Two-stage trash racks, or screens having progressively smaller openings placed in series, are suggested. Curved or inclined trash racks designed to allow debris to rise with the water level are preferred. In all cases, trash racks shall be either hinged or removable to facilitate maintenance operations. All trash rack operations shall have a paved bottom that extends, at a minimum, six (6) inches beyond each side of the trash rack.

H. Emergency Overflow.

The City Engineer may require an emergency overflow structure in the instances where there is concern that the outlet control structure may be overwhelmed based on site design and conveyance type. In those instances, appropriate calculations to determine the structure's capacity to pass an event in excess of the design event shall be required. Cross-sectional details for said structures shall be provided with water surface elevations shown for the required storm events. A narrative shall be provided in the stormwater report that details how the stormwater management facilities function during extreme flood events and that describes the flow path of any excessive flows that exceed the stormwater management facilities. The City Engineer reserves the right to require additional analysis if there are concerns for downstream flooding.

I. Appearance.

Detention facilities shall, where possible, use natural topography and natural vegetation. In lieu thereof, these facilities shall have planted trees and vegetation such as shrubs and permanent ground cover on their borders as well as within the pond. The purpose of said plantings will be for screening and absorption; therefore, both elements should be considered in the design phase. All ponds shall be at a minimum sodded to a point three (3) feet beyond the top of the levee; no mulch or seed will be allowed.

J. Drainage.

Detention basins shall be designed to completely drain between storm events, and shall fully drain within 48 hours after any given storm event. Any basin that fails to drain in this time period will be considered in violation of the City of Starkville Stormwater Management Ordinance and shall be subject to the enforcement provisions and penalties outlined in the ordinance. Detention pond bottoms shall have a minimum of 1.5% slope if left in a natural, grassed condition. Detention pond bottoms shall have a minimum of 0.5% slope if a paved flume is utilized.

K. Fencing.

Fencing of detention basins is not permitted unless written justification is submitted to and approved by the City Engineer. The preferred method is to manage the contours of the pond through the inclusion of a safety bench to eliminate drop-offs and reduce the potential for accidental drowning. In addition, the safety bench may be landscaped to deter access to the pool. If fencing is required, it shall meet the design requirements of the Community Development Director.

L. Freeboard

If an overflow spillway is required, there shall be a freeboard of four (4) inches from the maximum detention elevation to the top of the levee and the spillway structure should be capable of passing stormwater that is in excess of the 100-year, 24-hour storm. The developer will not be required to provide freeboard if an emergency structure (such as a manway or weir) is incorporated that will safely pass emergency flows.

2. UNDERGROUND BASINS

Underground detention facilities shall be constructed to temporarily detain the increase in stormwater runoff volume occurring on the site due to development and will conform to the following standards:

A. Access.

At a minimum, all underground detention facilities shall be provided with manway access to inflow and outflow ends, any junctions or changes in direction, and control structure junctions.

B. Clear Space

No underground detention facility shall have any permanent structure of any type, other than pavement or recreational amenities (e.g. playground equipment), erected above the system.

C. Drainage.

Underground detention facilities shall be designed to completely drain between storm events, and shall fully drain within 48 hours after any given storm event. Any basin that fails to drain in this time period will be considered in violation of this article and shall be subject to the enforcement provisions and penalties outlined the City of Starkville Stormwater Management Ordinance. Underground detention facility bottoms shall have a minimum of 0.5% slope in the direction of flow.

D. Extreme Flow Conditions.

Underground detention facilities shall be evaluated for the 500-year flow event to ensure no extreme and unintended consequences or flooding occurs once the facilities storage has been exceeded. A narrative shall be provided in the stormwater report that details how the stormwater management facilities function during extreme flood events and that describes the flow path of any excessive flows that exceed the stormwater management facilities. The City Engineer reserves the right to require additional analysis if there are concerns for downstream flooding.

3. RETENTION BASINS

Retention basins designed with permanent pools shall conform to the standards for detention basins as specified and will conform to the following standards:

A. Minimum Depths.

The minimum normal depth of water before the introduction of excess stormwater shall be three (3) feet. The normal design pool shall be maintained year round.

B. Facilities for Emptying.

For emergency purposes, cleaning facilities shall be provided or plans prepared for the use of auxiliary equipment to permit emptying and drainage.

C. Pollution Abatement.

Aeration facilities shall be required.

D. Side Slopes.

Natural side slopes for retention ponds shall be 4:1 or flatter; retention pond bottoms and side slopes shall be permanently sodded. Retention ponds with side slopes shall have a safety bench ledge three (3) feet wide at five (5%) percent cross-slope located at three (3) feet below normal pool elevation and three (3) feet below the maximum storage elevation.

E. Retaining Walls.

Retaining walls are allowed for retention ponds; approach slopes tying into the retaining walls shall be 5:1 or flatter. Retention ponds with retaining walls shall have a safety ledge two (2) feet wide provided at every thirty (30) inches of elevation gained. When vertical interior walls are used they shall have emergency egress steps or ladders provided.

F. Sediment Storage.

Adequate area for sediment storage shall be provided in all retention basins and shall be designed to not interfere at any point with the required storage volume.

4. ALTERNATE MITIGATION METHODS

Acceptable stormwater management facilities may be designed by reference to such creative methods as are provided in the Georgia Stormwater Management Manual (latest version), reference manuals or texts utilizing the most current methods of design and construction, or in accordance with the detention basins and retention basins described previously. Utilization of such optional methods will in no way alter the intent or spirit of the requirements of the City of Starkville Stormwater Management Ordinance and will continue to be subject to all calculations necessary to meet the intent of the ordinance. Utilization of such methods may allow for a reduction in the required detention volume if it is shown that said methods provide substantial reduction in increased peak flows and increased storage for the localized areas in which they are implemented. These methods may include but are not limited to bioretention areas, permeable pavements, stormwater planters, etc.

SECTION 3 – AS-BUILT DOCUMENTATION

All applicants are required to submit actual as-built plans for any stormwater management facilities or practices after final construction is completed. The plan must show the final design for all stormwater management facilities and practices and must be certified, signed, and sealed by the engineer of record. When facilities are not constructed according to the approved plans, the City of Starkville has the explicit authority to compel compliance and have any situations corrected which are not according to the approved plans. If the as-built plan differs substantially from the approved Drainage Plan but is still acceptable to the City of Starkville, then the applicant or responsible party shall update all pertinent submittals prior to final approval.

As-built documentation should include all information related to stormwater conveyance, detention, and stormwater management facilities that was included in the approved Drainage Plan. This information should reflect actual values and not just those approved as a part of the Drainage Plan. This includes but is not limited to the following:

1. Conveyance Systems.

This may include stormwater conduit, open channels, natural channels, swales, box culverts, junction boxes, etc. The following information for these systems shall be provided, at a minimum, on an as-built basis:

A. Location in relation to the site plan;
B. Type;
C. Material;
D. Size or diameter;
E. Length;
F. Slope;
G. Inverts;
H. Available capacity; and
I. 25-year capacity tributary to the conveyance system or design storm capacity required by the City Engineer.

2. Stormwater Management Facilities.

This may include detention ponds, retention ponds, underground detention basins, alternate design facilities, or any other facility used for detention or reduction of runoff rates. The following information for these systems shall be provided, at a minimum, on an as-built basis:

A. Location in relation to the site plan;
B. Side slopes;
C. Grading contours at one-foot intervals;
D. Land cover material for surface facilities;
E. Bottom elevations perpendicular to grade lines and in the direction of flow (i.e. bottom of pond slope);
F. All information relative to the control structure (e.g. size, type, length, slope, invert, etc.);
G. Water surface elevations for the required design events;
H. Calculation of total volume provided; and
I. An analysis of the stormwater management facilities shall also be provided that simulates the design events through facilities to ensure they provide adequate storage and reduced peak flow rates as approved.