



PUBLIC NOTICE
WILLIAMSBURG PLANNING COMMISSION

The Williamsburg Planning Commission will hold a public hearing on Wednesday, July 15, 2015, 3:30 P.M. in the Third Floor Conference Room at the Williamsburg Municipal Building, 401 Lafayette Street, to consider the following:

PCR #15-014: Request of the Colonial Williamsburg Foundation to amend the 2013 Comprehensive Plan by changing the Future Land Use designation for approximately 46 acres on the west side of South England Street and north of Route 199 from *Low Density Single-Family Detached Residential* land use to *Colonial Williamsburg Support* land use, and to revise the related text to reflect this change.

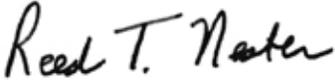
PCR #15-015: Request of the Colonial Williamsburg Foundation to amend the MS Museum Support District by adding "Shooting ranges for 18th Century firearms" as a special use permit use. [Sec. 21-434(6)i.]

PCR #15-016: Request of the Colonial Williamsburg Foundation to rezone approximately 46 acres on a portion of 640 South England Street (the west side of South England Street north of Route 199) from RS-1 Single-Family Dwelling District to MS Museum Support District. It is proposed to apply for a special use permit to construct a "Shooting range for 18th Century firearms" (Musket Range) on this property.

PCR #15-017: Request of the Colonial Williamsburg Foundation for a special use permit to construct a "Shooting range for 18th Century firearms" (Musket Range) at 640 South England Street (west of South England Street and north of Route 199). The Musket Range will "offer a hands-on experience to educate guests on the construction and uses of period muskets."

Additional information is available at www.williamsburgva.gov/publicnotice or at the Planning Department (757) 220-6130, 401 Lafayette Street. Interested citizens are invited to attend this hearing and present their comments to Planning Commission.

If you are disabled and need accommodation in order to participate in the public hearing, please call the Planning Department at (757) 220-6130, (TTY) 220-6108, no later than 12:00 noon, Wednesday, July 8, 2015.


Reed T. Nester
Planning Director



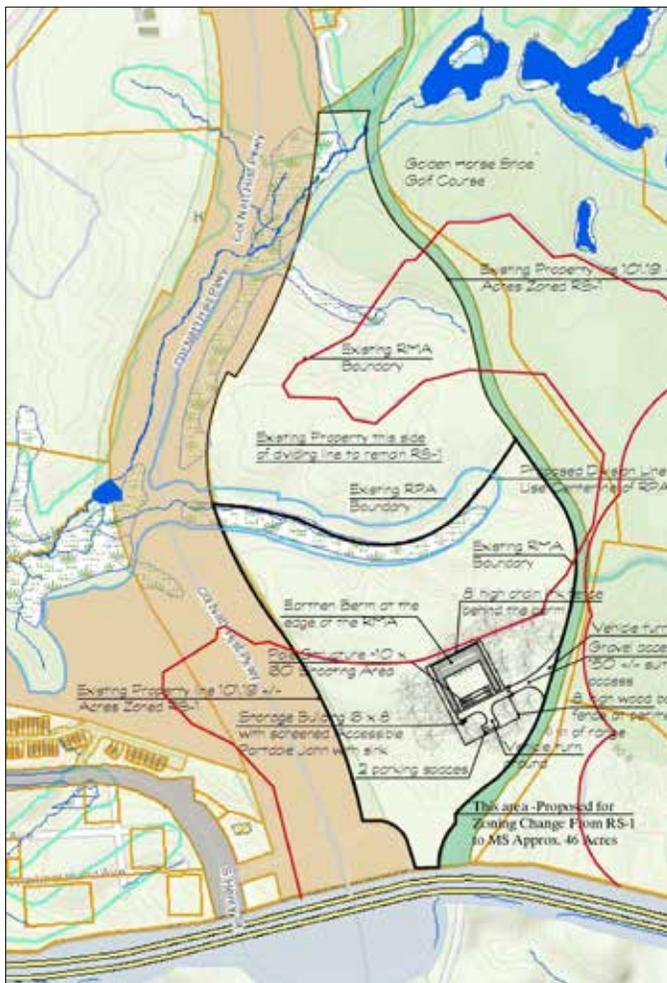
CITY OF WILLIAMSBURG
MEMORANDUM

DATE: June 24, 2015

SUBJECT: Request of The Colonial Williamsburg Foundation to construct a Musket Range at 640 South England Street

- PCR #15-014: Amend 2013 Comprehensive Plan
- PCR #15-015: Amend MS Museum Support District Use Regulations
- PCR #15-016: Rezone 46 acres from RS-2 to MS
- PCR #15-017: Special Use Permit for Musket Range

The Colonial Williamsburg Foundation is proposing to construct a Musket Range at 640 South England Street. This is on the west side of the street, just south of the entrance to the Golden Horseshoe Green Course, and is located between South England Street and the Colonial Parkway. The applicant states that:



Over the past decade visitation to the Foundation's Historic Area has declined, impacting the Foundation and local businesses in the community. In an effort to reverse this trend the Foundation is implementing new initiatives to draw new guests to the area and to improve the guest experience, enticing longer stays. The musket firing range is one such initiative.

The 18th-century musket firing range experience is intended to be both an engaging guest attraction and an immersive education about the role of firearms in 18th-century American life. Firearms were an important part of life for 18th-century colonists. As such, offering a hands-on experience to educate guests on the construction and uses of period muskets will be an exciting addition to the living history museum. It will be a natural extension of two existing offerings in the Historic Area: The Revolutionary City reenactment programs and the trades currently being practiced and interpreted at the blacksmith and gunsmith shops.

COMPREHENSIVE PLAN

The 2013 Comprehensive Plan designates this area as *Low Density Single-Family Detached Residential* land use, which is defined by the Plan as follows:

This category addresses the lowest intensity of residential development - large lot single family detached residential areas – with densities of up to 3 dwelling units/net acre. Lot sizes will generally range from 10,000 SF to 20,000 square feet. This category is implemented by the RS-1, RS-2 and PDR zoning districts.

Land to the north and east is designated *Colonial Williamsburg Resort* and *Low Density Single-Family Detached Residential* land use, areas to the west are designated *Parks, Parkway and Recreation* land use, and land to the south is in James City County and is designated *Low Density Residential* land use.

As a part of this proposal, The Colonial Williamsburg Foundation is proposing to amend the 2013 Comprehensive Plan **[PCR #15-014]** by changing the land use designation for the musket range area from *Low Density Single-Family Detached Residential* to *Colonial Williamsburg Support*, which is defined by the Plan as follows

The Colonial Williamsburg Support uses include a variety of commercial and industrial facilities that support the functioning of the Colonial Williamsburg Historic District. The Visitor Center, Bruton Heights Education Campus and the Colonial Williamsburg Nursery fall under this category. This category is implemented by the MS zoning district.

In addition, an amendment is proposed to the text of *Chapter 8. Neighborhoods and Housing*. The proposed change of 46 acres from *Low Density Single-Family Detached Residential* to *Colonial Williamsburg Support* land use removes 21 net acres of developable residential land along South England Street, reducing the estimated yield from 127 houses to 64 houses. The Comprehensive Plan changes are detailed in the attached ordinance.



ZONING

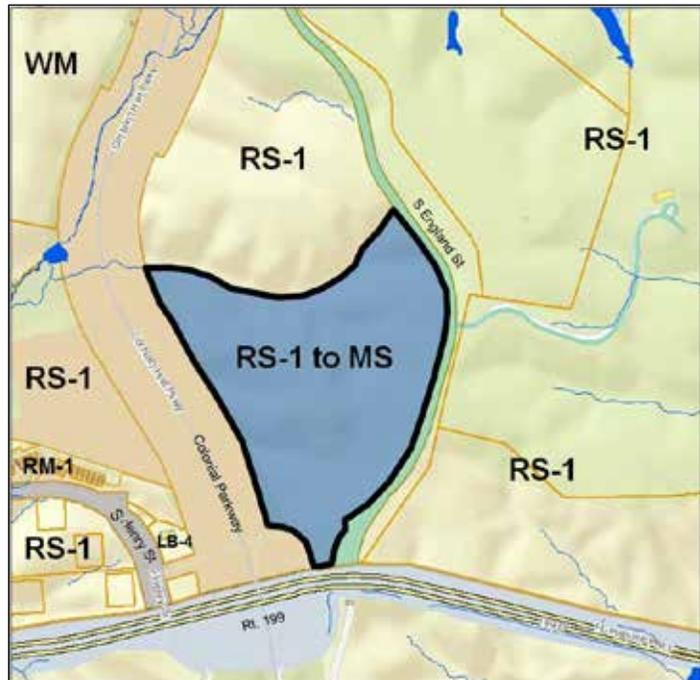
This property is located in the Single Family Dwelling District RS-1. The statement of intent for the RS-1 District reads:

This district is established as a single-family residential area with low population density. The regulations for this district are designed to stabilize and protect the essential characteristics of the land and to promote and encourage a suitable environment for family life. To these ends, development is limited to a relatively low density and permitted uses are limited basically to providing homes for the residents. Certain additional uses that may be compatible with single-family neighborhoods, such as churches, schools and day care centers, may be allowed with the issuance of special permits.

Land to the north and east are zoned Single Family Dwelling District RS-1, land to the west is zoned Single Family Dwelling District RS-1, Multifamily Dwelling District RM-1 (The Oaks), Limited Business Corridor District LB-4, and William & Mary District WM. Land to the south is in James City County, and is zoned R8 Rural Residential.

As a part of this proposal, The Colonial Williamsburg Foundation is proposing to amend the text of the Museum Support District MS to add "Shooting ranges for 18th Century firearms" as a special use permit use under Sec. 21-434(6), Support facilities for the Colonial Williamsburg historic area [PCR #15-015].

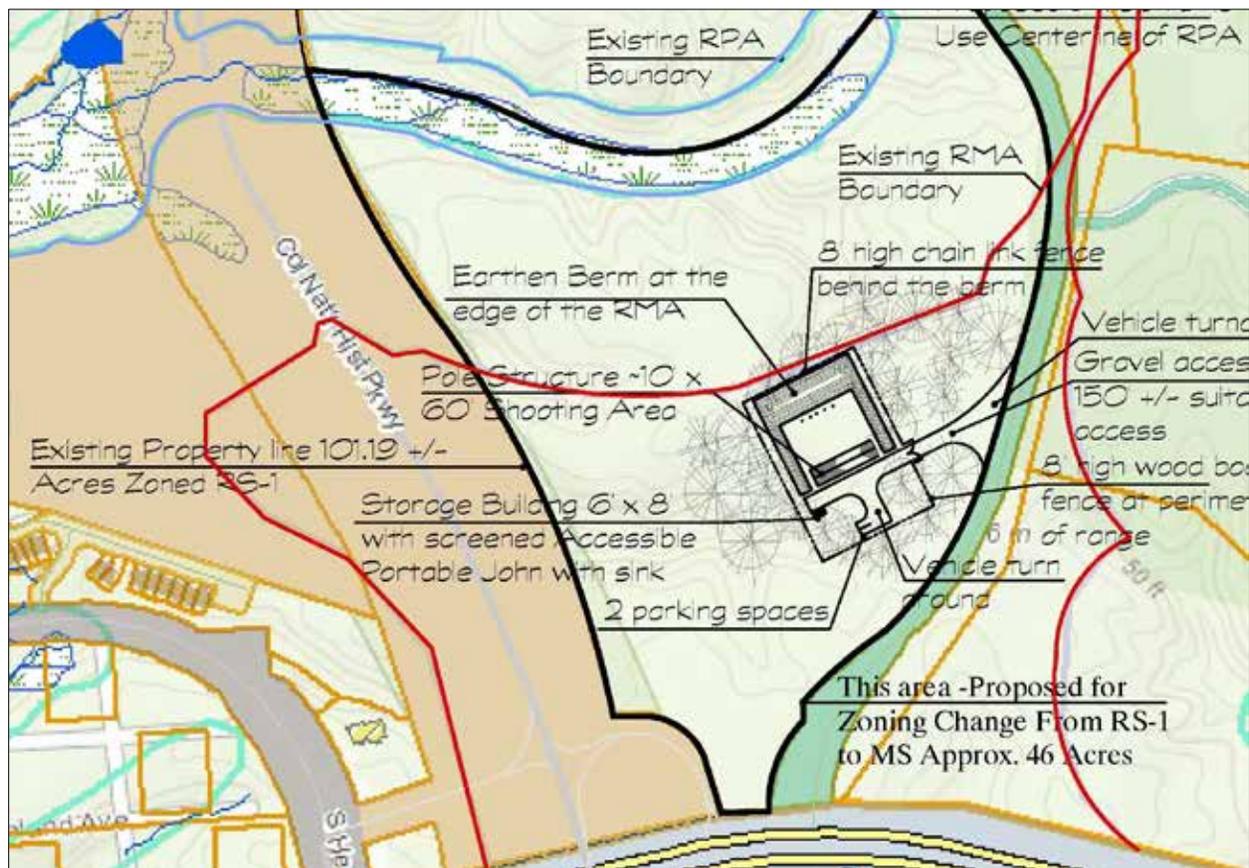
In conjunction with the zoning text change, it is proposed to rezone the 46 acres proposed for the Musket Range from Single Family Dwelling District RS-1 to Museum Support District MS [PCR #15-016]. The statement of intent for the MS District reads:



This district is established to allow uses that are related to and support the functioning of the Colonial Williamsburg historic area. The most intensive uses may be allowed with special permits, to ensure compatibility with the Colonial Williamsburg historic area and surrounding residential neighborhoods.

The amendment of the Comprehensive Plan coupled with the zoning changes described above will give The Colonial Williamsburg Foundation the ability to apply for a special use permit for the proposed Musket Range, which is detailed in the next section.

MUSKET RANGE DETAILS [PCR #15-017]



According to the applicant's statement,

The core of the [musket range] experience will comprise personalized education about an assortment of replica firearms, followed by the opportunity to fire each weapon a few times. Each guest will be transported to the range from the Williamsburg Lodge where they will be met by a range officer, who will be both a licensed range safety officer and an historic interpreter. There will be a sufficient number of instructors to provide the guests a safe and enjoyable experience. The instructors will introduce the guest to each weapon, explain its purpose, load it for the guest, and answer any questions he or she may have before handing the weapon to the guest to be fired at a target. This process will be repeated for the firing of each weapon. At the end of the educational experience, guests will be brought back to the Williamsburg Lodge.

Safety and being a good neighbor are priorities of the Foundation. All instructors will go through a firing range class offered by a nationally recognized organization. The number of instructors present during operating hours and the training instructors will receive provides an increased level of safety. Noise checks have been performed, although not measured, and a second round of tests will be scheduled.

The Musket Range is located in the Corridor Protection District, and the Architectural Review Board will need to approve the conceptual design of all buildings and structures prior to Planning Commission action on the special use permit.

SPECIAL USE PERMIT

The special use permit section of the Zoning Ordinance (Sec. 21-42) establishes the following criteria for special use permits:

- (a) *The proposed use shall be:*
 - (1) *In harmony with the adopted comprehensive plan;*
 - (2) *In harmony with the intent and purpose of the zoning district in which the use is proposed to be located;*
 - (3) *In harmony with the character of adjacent properties and the surrounding neighborhoods, and with existing and proposed development.*
- (b) *The proposed use shall be adequately served by essential public services such as streets, drainage facilities, fire protection and public water and sewer facilities.*
- (c) *The proposed use shall not result in the destruction, loss or damage of any feature determined to be of significant ecological, scenic or historic importance.*
- (d) *The proposed use shall be designed, sited and landscaped so that the use will not hinder or discourage the appropriate development or use of adjacent properties and surrounding neighborhoods.*

Additional reasonable standards as deemed necessary to protect the public interest and welfare may be imposed, including: more restrictive sign standards; additional open space, landscaping or screening requirements; additional yard requirements; special lighting requirements; limitation on hours of operation; and additional off-street parking and loading requirements.

The Planning Director or Planning Commission may require the following additional information:

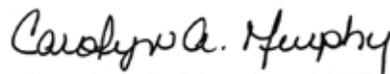
- (1) *A traffic impact analysis, showing the effect of traffic generated by this project on surrounding streets and neighborhoods.*
- (2) *A public utility analysis, showing the effect of this project on public water, sewer and/or storm drainage facilities.*
- (3) *A fiscal impact analysis. The Planning Director or the Planning Commission may request the City Council to provide funds for the preparation of this study by the City.*

Staff does not feel that any of these additional studies are needed in order to make a decision on this request. However, staff does feel that a noise analysis should be a part of the review process prior to the Planning Commission public hearing.

PUBLIC HEARING DATE

A public hearing is scheduled for the regular Planning Commission meeting on July 15.


Reed T. Nester, AICP
Planning Director


Carolyn A. Murphy, AICP
Deputy Planning Director

ORDINANCE #15-__
PROPOSED ORDINANCE #15-__

**AN ORDINANCE AMENDING THE 2013 COMPREHENSIVE PLAN
BY REVISING THE RECOMMENDATIONS FOR RESIDENTIAL USE
ALONG SOUTH ENGLAND STREET
(PCR #15-014)**

WHEREAS, the *2013 Williamsburg Comprehensive Plan*, adopted on January 10, 2013, identifies areas for future residential development along South England Street (*Low Density Single-Family Detached Residential* land use); and

WHEREAS, it is desired to clarify that residential use in Corridor Commercial land use areas is to be allowed only for new development or major redevelopment in order to preserve and encourage commercial development and redevelopment on the limited amount of high visibility commercial sites that are available.

NOW, THEREFORE BE IT ORDAINED that the following sections of the 2013 Comprehensive Plan be amended, in accordance with the attached pages:

1. Chapter 8 – Neighborhoods and Housing, Other Residential Areas – South England Street, page 8-23 (remove residential shading from Map 8-9 for approximately 46 acres on the west side of South England Street north of Route 199) and page 8-24 (reduce net acreage for Area 1 and 2 from 42 to 21 net developable acres and potential houses from 127 to 64).
2. Future Land Use Map (change Future Land Use for approximately 46 acres on the west side of South England Street north of Route 199 from *Low Density Single-Family Detached Residential* land use to *Museum Support* land use).

EXCEPT, as here amended, the *2013 Williamsburg Comprehensive Plan* shall remain unchanged.

Adopted: _____

Clyde A. Haulman, Mayor

Attest: _____
Gerry S. Walton, Deputy Clerk

connector street, extends from New Hope Road to Ironbound Road, and residential uses are west of this street. A major stormwater management facility is located on the southern end of the property, and serves as both an environmental and visual amenity for the development. A trail was constructed along the southern edge of the pond, connecting sidewalks on Middle Street and Treyburn Drive. These features both protect and utilize the sensitive environmental features which are part of the City's Chesapeake Bay Preservation Areas, and which provide a natural counterpoint to this urban development.

Recommendation. The existing *Economic Development* land use should be continued for this area, implemented by the ED-2 Economic Development District.

OTHER RESIDENTIAL AREAS

The remaining residential areas in the City are described in this section. The *Neighborhoods* map on page 8-10 details neighborhood boundaries, and the accompanying table on page 8-11 provides information on owner and renter occupancy for all of the City's neighborhoods.

South England Street

This area extends south along South England Street from Newport Avenue to Route 199, and begins with an historic neighborhood that is included in the Architectural Preservation District (see Chapter 5 - Community Character).

The *Colonial Extension Subdivision* was developed following the extension of South England Street. The Colonial Extension Company, Inc. purchased the 299-acre Tazewell Hall property in 1906, and the original subdivision plat had one street parallel to South England Street to the west (Colonial Street, later renamed Tyler Street), five cross streets (Tazewell Hall Avenue, later renamed Newport Avenue, Williamsburg Avenue, Pocahontas Avenue, Powhatan Avenue, and Park Avenue) and a park at the southern end of the subdivision. A few small, vernacular and builder-catalog style houses from this early 1910 development era survive. Much of the area below Williamsburg Avenue was developed with small Colonial Revival style houses in the 1930s and 1940s. Two eighteenth-century houses were relocated to this subdivision from the Historic Area: the Powell-Hallam House at 410 Tyler Street and the Galt James Cottage at 420 Tyler Street.



Recommendation. The existing *Low Density Single Family Detached Residential* land use (3 dwelling units/net acre) should be continued, implemented by the RS-2 Single Family Dwelling District. The existing *Medium Density Multifamily Residential* land use (8 units/net acre) should be continued for the Tyler Court Townhouses, implemented by the PUD Planned Unit Development District.

Further south and separated from the Colonial Extension subdivision by the Governor Spotswood Golf Course are two developable areas. Area 1 is located between South England Street and the Colonial Parkway. Area 2 is located on the east side of South England Street between the Golden Horseshoe

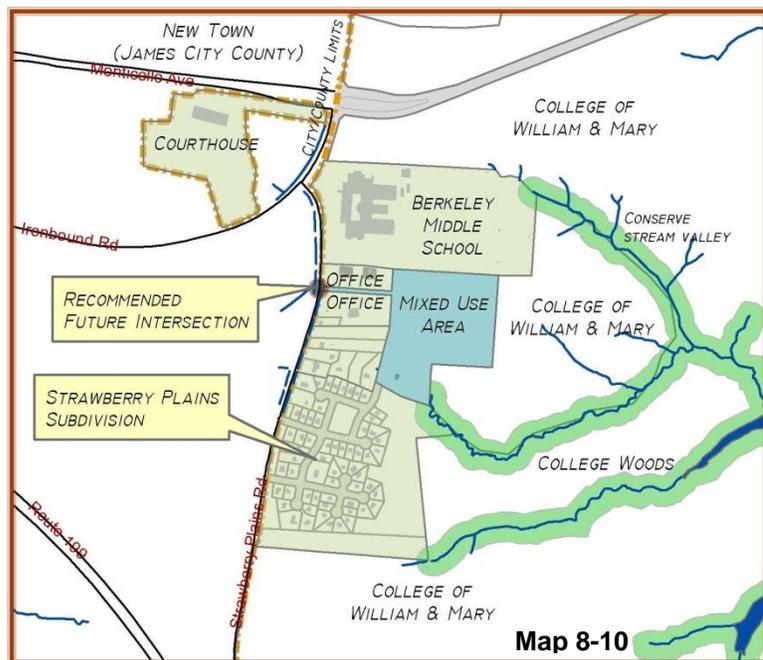
Green Course and Route 199, adjoining the wetlands of Tutter's Creek. Together, these two areas have ~~42~~ 21 net developable acres with a potential for ~~127~~ 64 houses at a residential density of three dwelling units/net acre.

Each of these areas has severe topographical constraints that limit the density of uses, and future development must be sympathetic to the surrounding natural areas and the natural settings of the Colonial Parkway and South England Street. The sensitive environmental land located outside of the developable areas must be maintained as permanent open space to maintain the natural beauty of the area. Another limitation is the fact that South England Street south of the Colonial Extension Subdivision is not a public street, and the City's Zoning Ordinance requires that lots front on public streets. The solution to this problem is to dedicate the roadway as a public street in order to allow the development of these areas into single-family lots, or to utilize the PDR Planned Development Residential district which allows residential development on private streets that meet City construction standards. The PDR District gives the developer the ability to use a variety of housing types that will help the design respond to the difficult topography of this area.

Recommendation. The existing *Low Density Single Family Detached Residential* land use (3 dwelling units/net acre) should be continued for this area, implemented by the RS-1 Single Family Dwelling District. The PDR Planned Development Residential District could be utilized if an acceptable master plan can be developed.

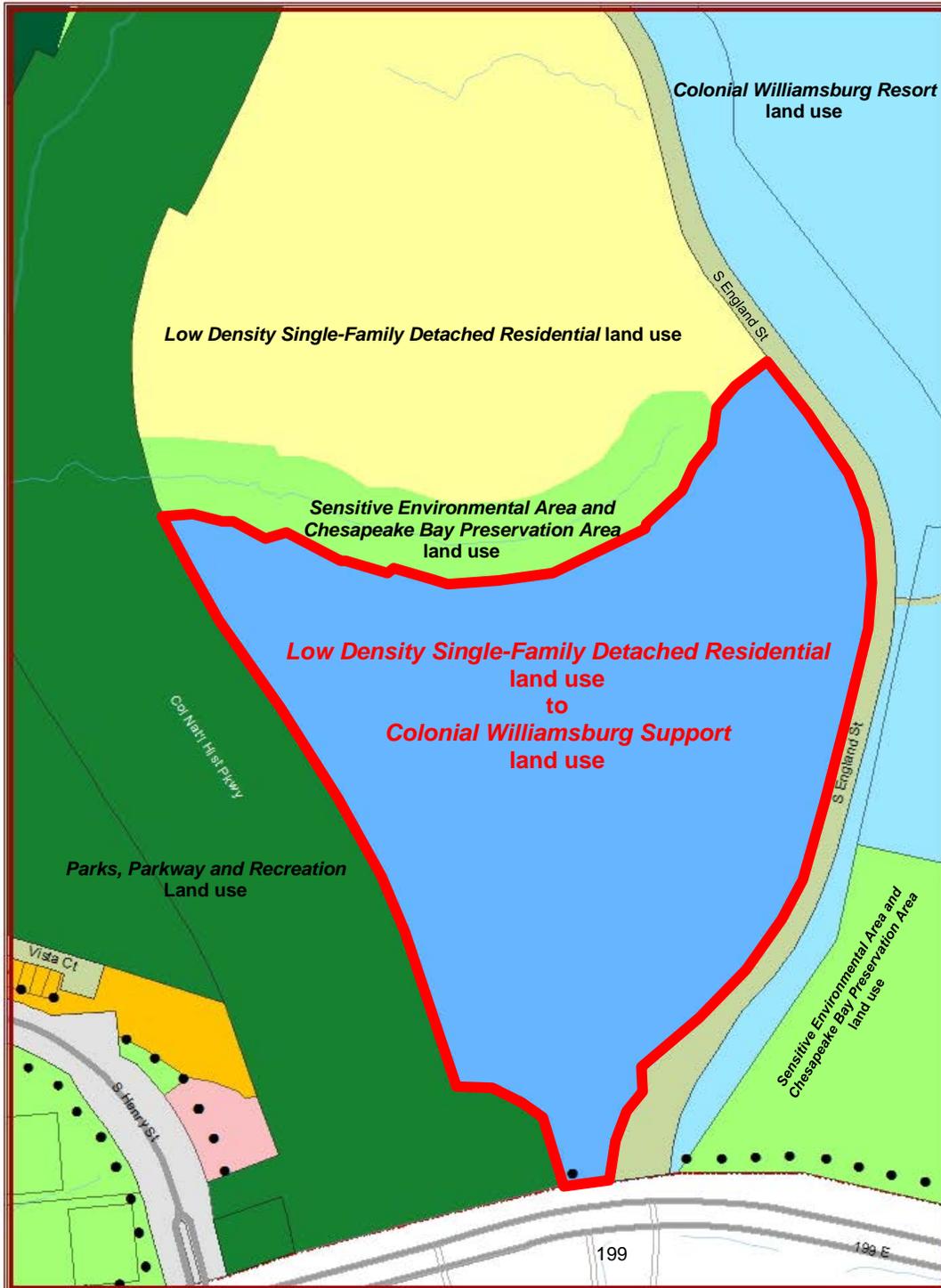
Strawberry Plains Road

Mixed Use Area. This area is located south of Berkeley School, and borders the office uses fronting on Strawberry Plains Road on the east, existing residential lots on the south, and property owned by the College of William & Mary on the east. This land is suitable for mixed use development with an emphasis on office and institutional land use. The residential component of the mixed use development could be in several different forms: an extension of the Strawberry Plains Subdivision discussed below, providing additional affordable housing in a single-family and/or multifamily format. College student housing and senior housing could also be a component of this development. At a density range of eight to 14 dwelling units/net acre, this 10 net acre site could support up to 140 dwelling units, which could be integrated with office and/or institutional uses. Care should be taken in planning for the development because of its proximity to Lake Matoaka and the surrounding environmentally sensitive lands, and no rezoning should be approved until an acceptable master plan has been submitted. The major access to the site will be across an 80 foot strip of land between the existing office buildings on Strawberry Plains Road with an opportunity to connect to the street system of the Strawberry Plains Subdivision as a secondary access. Stormwater management will be provided by the existing retention basin.



Recommendation. The existing *Mixed Use* land use should be continued, implemented by the LB-2 Limited Business Neighborhood District (base density of 8 dwelling units/net acre, and up to 14

**PCR #15-014: COLONIAL WILLIAMSBURG COMPREHENSIVE PLAN AMENDMENT
FUTURE LAND USE MAP
PORTION OF 640 SOUTH ENGLAND STREET**



ORDINANCE #15-__
PROPOSED ORDINANCE #15-__

**AN ORDINANCE AMENDING CHAPTER 21, ZONING,
ARTICLE III. DISTRICT REGULATIONS,
DIVISION 13. MUSEUM SUPPORT DISTRICT MS, SEC. 21-434,
TO ALLOW SHOOTING GALLERIES FOR 18TH CENTURY FIREARMS AS A
SPECIAL USE PERMIT USE
(PCR #15-015)**

These revisions to Chapter 21, Zoning, are intended to promote the health, safety and general welfare of the public, and to carry out the purpose and intent of Chapter 21 as stated in Sec. 21-1.

BE IT ORDAINED that Chapter 21, Zoning, Article III. District Regulations, Division 13. Museum Support District MS, Sec. 21-434. Uses permitted with a special use permit, shall be amended to read as follows:

ARTICLE III. DISTRICT REGULATIONS

DIVISION 13. MUSEUM SUPPORT DISTRICT MS

Sec. 21-434. Uses permitted with special use permit.

Uses permitted in the museum support district MS with a special use permit approved by the city council in accordance with article II, division 2, are as follows:

- (1) Golf courses, including clubhouses and maintenance facilities, but excluding miniature golf courses or driving ranges that are not accessory to a golf course.
- (2) Hotels/motels and timeshare units, and associated meeting facilities.
 - (2.1) Lighted athletic fields owned and/or operated by the City of Williamsburg.
- (3) Parking garages.
- (4) [*Reserved.*]
- (5) Restaurants.
 - (5.1) Radio and cellular communications towers and antennae that are part of a distributed antenna system (DAS), provided that the height of the tower shall not exceed 50 feet.

- (6) Support facilities for the Colonial Williamsburg historic area, as follows:
- a. Bakeries.
 - b. Building and landscape maintenance facilities.
 - c. Commissaries.
 - d. Laundries.
 - e. Plant nurseries and greenhouses.
 - f. Parking lots with more than 25 spaces as a principal use.
 - g. Recycling operations including the storage and handling of glass, paper and aluminum products.
 - h. Service stations, provided that repair of vehicles takes place in a fully enclosed building.
 - i. Shooting ranges for 18th Century firearms.
 - ~~h.~~ j. Stables.
 - ~~j.~~ k. Storage buildings and warehouses.
 - ~~k.~~ l. Storage yards for materials and equipment.
 - ~~l.~~ m. Vehicle maintenance facilities, which may include tour bus parking, fueling facilities, bus driver lounges, truck and trailer rental with storage of vehicles on premises, and related facilities.
 - ~~m.~~ n. Visitor reception centers.

EXCEPT, as here amended, the Williamsburg Code shall remain unchanged.

Adopted: _____

Clyde A. Haulman, Mayor

Gerry S. Walton, Deputy Clerk

ORDINANCE #15-__
PROPOSED ORDINANCE #15-__

**AN ORDINANCE TO REZONE APPROXIMATELY 46 ACRES AT
640 SOUTH ENGLAND STREET FROM RS-1 TO MS
(PCR #15-016)**

WHEREAS, it has been determined by City Council that the general welfare of the City of Williamsburg would be served by rezoning the property located at 640 South England Street from RS-1 Single Family Dwelling District to MS Museum Support District.

NOW, THEREFORE, BE IT ORDAINED by the Council of the City of Williamsburg that the Official Zoning Map of the City of Williamsburg, Virginia be amended by rezoning approximately 46 acres located at 640 South England Street from RS-1 Single Family Dwelling District to MS Museum Support District. This property is listed as a portion of Williamsburg Tax Map Number 557-0A-00-001, and is further described by the attached Exhibit A.

Adopted: _____

Clyde A. Haulman, Mayor

Gerry S. Walton, Deputy Clerk

PCR #15-016: COLONIAL WILLIAMSBURG REZONING – RS-2 TO MS
Portion of 640 South England Street

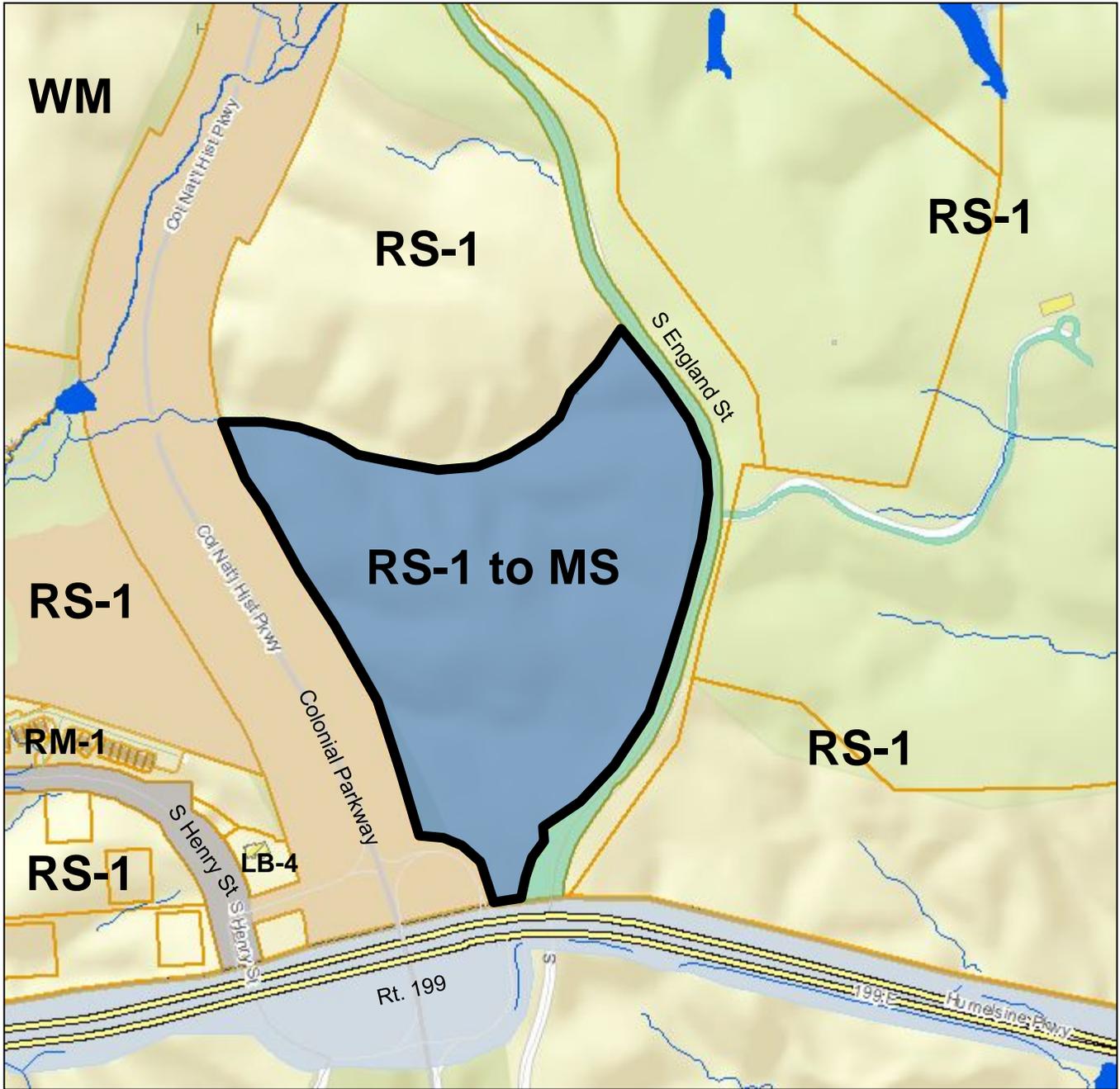


EXHIBIT A



The Colonial Williamsburg Foundation

“ THAT THE FUTURE MAY LEARN FROM THE PAST ”

May 22, 2015

Mr. Reed T. Nester
Planning Director
City of Williamsburg
401 Lafayette Street
Williamsburg, Virginia 23185-3617

Re: Colonial Williamsburg's Musket Firing Range

Dear Mr. Nester:

Thank you for working with The Colonial Williamsburg Foundation (Foundation) in planning for its musket firing range initiative. I am submitting with this letter the Rezoning Application, Zoning Text Change form, and Application for a Special Use Permit that you specified are required for the City's review and approval process. Also being submitted are the conceptual site plan, enlarged conceptual site plan, conceptual site cross-section, photograph of a similar pole structure, draft operations plan, and information on three 18th-century firearms similar to those that may be used.

Over the past decade visitation to the Foundation's Historic Area has declined, impacting the Foundation and local businesses in the community. In an effort to reverse this trend the Foundation is implementing new initiatives to draw new guests to the area and to improve the guest experience, enticing longer stays. The musket firing range is one such initiative.

Providing unique experiences and attractions that draw guests to Williamsburg is critical to the financial health and well-being of the Foundation and our community. This is especially true in today's competitive market for people's vacation time and discretionary income.

The 18th-century musket firing range experience is intended to be both an engaging guest attraction and an immersive education about the role of firearms in 18th-century American life. Firearms were an important part of life for 18th-century colonists. As such, offering a hands-on experience to educate guests on the construction and uses of period muskets will be an exciting addition to the living history museum. It will be a natural extension of two existing offerings in the Historic Area: The Revolutionary City reenactment programs and the trades currently being practiced and interpreted at the blacksmith and gunsmith shops.

Mr. Reed Nester

May 22, 2015

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The core of the experience will comprise personalized education about an assortment of replica firearms, followed by the opportunity to fire each weapon a few times. Each guest will be transported to the range from the Williamsburg Lodge where they will be met by a range officer, who will be both a licensed range safety officer and an historic interpreter. There will be a sufficient number of instructors to provide the guests a safe and enjoyable experience. The instructors will introduce the guest to each weapon, explain its purpose, load it for the guest, and answer any questions he or she may have before handing the weapon to the guest to be fired at a target. This process will be repeated for the firing of each weapon. At the end of the educational experience, guests will be brought back to the Williamsburg Lodge.

Safety and being a good neighbor are priorities of the Foundation. All instructors will go through a firing range class offered by a nationally recognized organization. The number of instructors present during operating hours and the training the instructors will receive provides an increase level of safety. Noise checks have been performed, although not measured, and a second round of tests will be scheduled.

Your consideration of this initiative is appreciated. If you have any questions or concerns, please feel free to contact me by telephone at 757-220-7408 or by email at runderwood@cwf.org.

Sincerely,



Robert W. Underwood
Interim Vice President, Operations

Musket Firing Range Plan-DRAFT
May 20, 2015
Tim Sutphin
Director, Revolutionary City

Equipment

- Eighteenth-century firearms being considered for use at the range are Brown Bess, smooth bore musket, civilian rifle bored gun, and an eighteenth-century blunderbuss (closely related to a modern shotgun). Firearms will be transported to the range site on a daily basis from a secure storage area.
- Black powder in the form of prepared cartridges will be transported to the range site on a daily basis from Colonial Williamsburg's black powder storage facility in accordance with procedures established with the Williamsburg Fire Department that are currently in place. No more than 50 pounds of powder are permitted to be transported at one time on roads and streets.
- When not in use during range hours, firearms and powder will be stored in the 8' X 6' building on site. The powder will be kept in a special transport and storage box for black powder.

Experience

- Guests will have a sufficient number of instructors with them at all times during the 1 to 1 ½ hour experience. The range will consist of 6-8 lanes.
- A history of each firearm will be presented to each guest.
- Each guest will be briefed on firearms safety before any firearm is handled.
- Each guest will be stationed in his or her own lane for the duration of the experience. Instructors will first explain and then demonstrate the firing method of each weapon to the guest. Once the instructor determines that the guest has a clear understanding of the weapon, the guest will have the opportunity to fire the weapon before the next weapon is presented.
- After each firing of the weapon the instructor will confirm that the weapon has been fired and that it is clear of any charges.

Staff; Instructors

- Colonial Williamsburg has 4 staff members who have successfully completed the National Park Service Black Powder Safety Course on historical weapons.
- Tim Sutphin, Director of the Revolutionary City, is the contact with ATF in all matters concerning black powder storage and usage on Colonial Williamsburg property. He has worked for Colonial Williamsburg for over 25 years and has always worked with the black powder program.
- Colonial Williamsburg has on staff over 150 years' experience in the firing of black powder weapons. The staff fires those weapons on a daily basis throughout the year.
- Pending approval of the range plan, all instructors will attend a firing range class offered by a nationally recognized organization.
- Guests will be accompanied by a sufficient number of instructors for the duration of his or her experience to ensure a safe and enjoyable experience. A range officer will be present all times.

Operation of the Range

- Safety is of the utmost importance. Sufficient numbers of trained instructors will be present.
- The range will operate daily from 9:00 a.m. – 4:00 p.m.
- Guests will be transported to the range and will be brought back after their experience.
- Powder and firearms will not be stored overnight at the range.

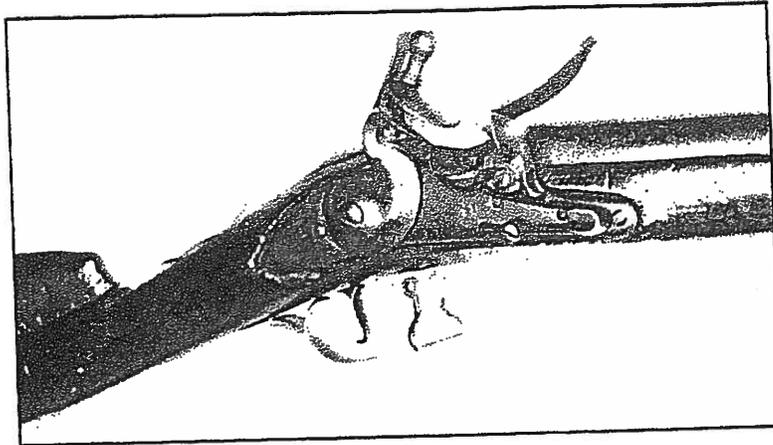
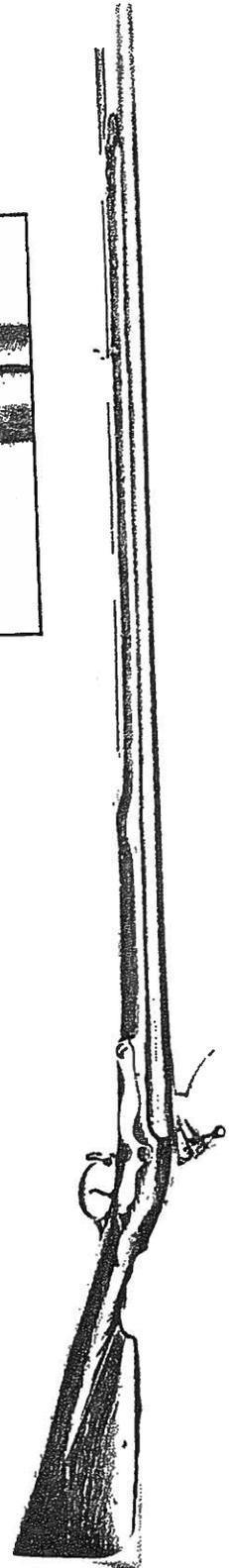
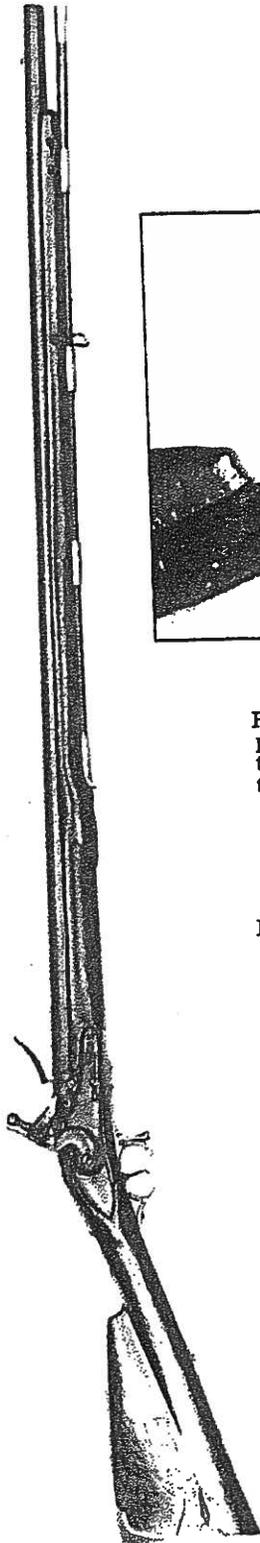


Fig. 8 Lock of the Short Land Pattern musket. The plate is marked with the ↑ the ⚔ over GR and at the tail, *Willels, 1747*. The bridle has been ground off and the steel spring is an early replacement.

Fig. 9-10 *Short Land Pattern Musket*, Calibre: .75, Barrel length: 42 inches.

This pattern, identical to the Long Land Service musket except for the shorter barrel length, was the standard shoulder arm for Dragoon regiments. In 1770, dragoons were issued carbines.



ARMS AND ARMOR IN COLONIAL AMERICA

Total length reduced to 62 inches. Otherwise similar to the preceding model.

Musket, Model 1754

Same as the preceding except that the bridle is returned to the pan, the upper band is lengthened again, and the sling swivels are moved underneath the gun.

Musket, Model 1763

Barrel $44\frac{1}{2}$ inches long with two short flat faces, one on either side at the breech. Mountings similar to the preceding except that the upper

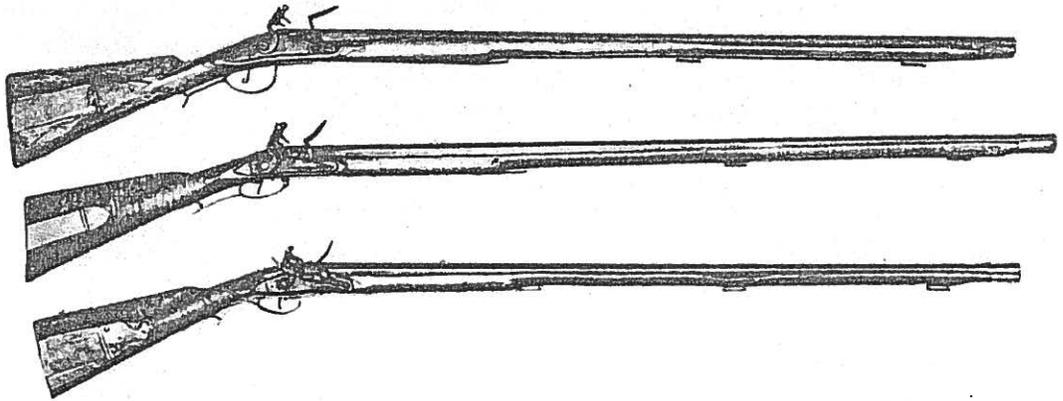


Plate 188. American rifles of the type used in the Revolution. The top specimen is mounted in iron. *Joe Kindig, Jr. Collection*

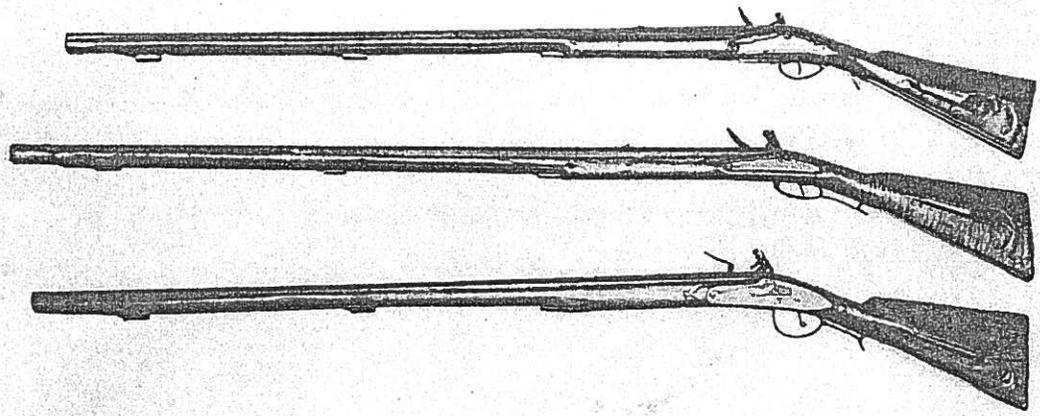


Plate 189. Reverse side of the rifles in the previous illustration. Note that the rifles have been reversed in order from top to bottom. *Joe Kindig, Jr. Collection*

The brass furniture consists of a noscap without lip, a single medium-length trumpet pipe and a rounded buttplate with a plain rounded tang. A short recurved sling-bar and ring (sometimes two rings) are mounted on the left side, secured by the two sidenails.

There is uncertainty as to whether any of the three mounted light cavalry regiments that served in North America carried this very new carbine, which was not produced in any quantity until mid-1812.

B. Sea Service

PATTERN

DATE CHARACTERISTIC FEATURES

1704 Musketoon. No examples available at the time of writing.

1715 Musketoon. 28 $\frac{1}{16}$ -inch round, heavy-walled brass or iron barrel of 2 $\frac{1}{8}$ -inch (1-75) bore diameter, with cannon-shaped muzzle reinforcement, raised ring or collar cast integral at the breech to act as a backsight. Secured by two pins and tang screw which enters from underneath just ahead of the trigger. The example examined used Charles II-proved barrel. Wooden rammer.

Pattern 1703 doglock or Pattern 1718 musket lock depending on date of manufacture. Flat lockplate with narrow bevel measures 7 $\frac{1}{16}$ x 1 $\frac{1}{4}$ inches.

Walnut stock to 2 $\frac{1}{16}$ inches of muzzle. Oval barrel-tang apron, no handrail effect on butt.

Brass furniture consisting of one cylindrical and collared rammer pipe 1 $\frac{5}{8}$ inches long; hollow-cast trigger guard 11 $\frac{1}{2}$ inches long, very similar to the familiar Sea Service design but with flats filed around the borders of the rounded front finial, very thin bow 1 $\frac{3}{16}$ inches at widest point held by two screws, one either side of the bow; flat brass buttplate measures 5 $\frac{5}{16}$ x 2 $\frac{3}{4}$ inches with a tapering two-step tang 5 $\frac{1}{8}$ inches long.

1738 Musketoon. No information available beyond their setting up by the two principal contractors of the time, Barbar and Pickfatt. A table of ca.1753-6 gives a few basic details of the iron-barreled version then in issue: 23 $\frac{1}{2}$ -inch iron barrel of .76 calibre at the breech and 2 inches across at the muzzle. Weight 12 lbs., 7 $\frac{1}{2}$ ozs.

1757 Musketoon. Set up by contractor John Hirst 1757-60. None located at time of writing.

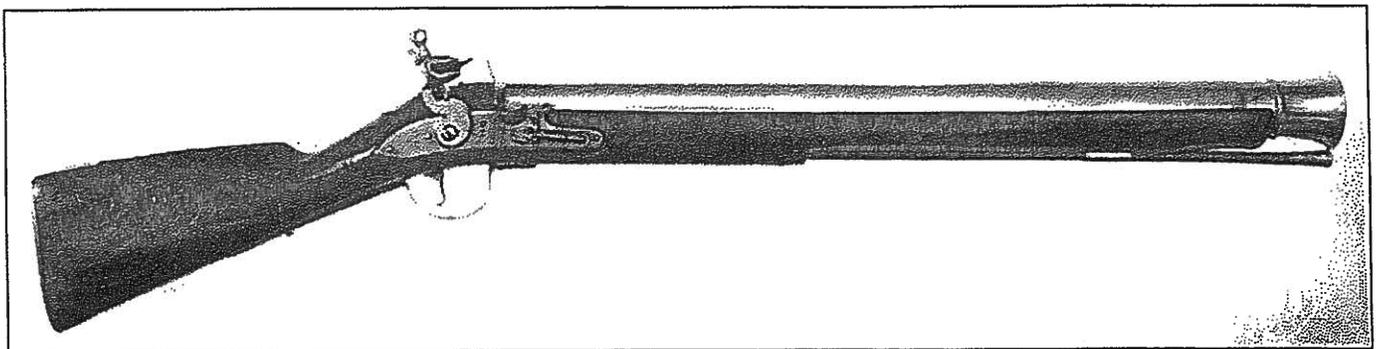


PLATE 1-75 — Above • Pattern 1715 Musketoon. Made with both brass (the most common) and iron barrels, and used for ship defence as well as small boat assaults. Loaded with pistol balls to be used as a large shotgun. — *Courtesy of the Trustees of the Royal Armouries Museum, Leeds*

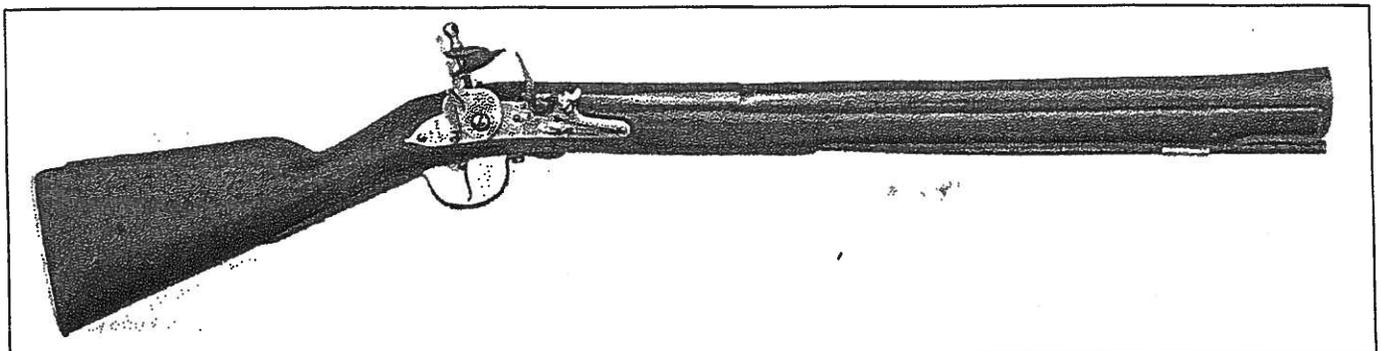


PLATE 1-76 — Pattern 1715 Blunderbuss. A shorter, lighter, more mobile "shotgun" the flared barrel allowed easier loading from a moving surface such as a ship's deck, small boat or the fighting tops. The wide muzzle had no effect on spreading the pistol balls with which it was loaded. — *Courtesy of the Trustees of the Royal Armouries Museum, Leeds*