# CITY OF CHARLES TOWN
## PLANNING COMMISSION
## AGENDA • NOVEMBER 27, 2023

**Commission/Board Meeting** **CITY HALL** **7:00 PM**

**101 E Washington Street, Charles Town, WV 25414**

**1. CALL TO ORDER - WORK SESSION**

**2. WORK SESSION**

2.1 : Work Session: Minor Subdivision requirements
1. Report.pdf

2.2 : Work Session: Neighborhood-Residential Use Changes
1. Report.pdf

**3. CALL TO ORDER - REGULAR SESSION**

**4. APPROVAL OF MINUTES**

**5. UNFINISHED BUSINESS**

**6. NEW BUSINESS**

6.1 : **Public Hearing**: *ZMA2023-02 Prospect Place* - Partial rezoning from General Commercial to Neighborhood Residential.
1. Staff Report.pdf
2. Application.pdf
3. Property location Map Exhibit.pdf
4. Rezoning Map Exhibit.pdf
5. Illustrative Exhibit.pdf
6. 2007 COA.pdf
7. 2007 Annexation Development Plan.pdf
8. 2008 Revised COA.pdf
9. Portions of 2021 City Market Study.pdf

6.2 : **Public Hearing:** *TXA2023-07 Commercial Pad Sites* - Commercial Pad Site preparation requirements
1. Report.pdf

6.3 : **Public Hearing**: *TXA 2023-10 Open Space* - Clarifying open space calculations
1. Report.pdf

6.4 : Commission Review: *SLD2023-09 Joan and Joe's Coffee* - Preliminary Plan
1. Staff Report.pdf
2. Preliminary Plan.pdf
3. Easement Maintenance Agreement.pdf
4. KH Review.pdf

6.5 : Commission Review: *BR2023-06: Alla Willa Drive Casino* - Bond Establishment

1. Staff Report.pdf
2. Application.pdf
3. Bond Estimate.pdf
4. KH Review.pdf

6.6 : Commission Review: *BR2023-04 Huntfield Phase 2B2* - Bond Reduction

1. Staff Report.pdf
2. Application.pdf
3. Bond Unit Cost Reduction.pdf
4. Huntfield Bond Parcel Inventory.pdf
5. Huntfield Phase 2B As-Builts.pdf
6. Applicant engineer review.pdf
7. KH Review.pdf

6.7 : Commission Review: *BR2023-05 Huntfield Phase 3A* - Bond Reduction

1. Staff Report.pdf
2. Application.pdf
3. Bond Unit Cost Reduction.pdf
4. Huntfield Bond Parcel Inventory.pdf
5. Huntfield Phase 3A AS-Builts.pdf
6. Applicant engineer review.pdf
7. KH Review.pdf

**7. ADJOURNMENT**

**8. NOTICE: The Public May View the Meeting Live by Clicking on the Event Link at:**

**https://www.charlestownwv.us/government/agendas-and-minutes/**

**Planning Commission**
101 East Washington Street
Charles Town, WV 25414

**SCHEDULED**

Meeting: 11/27/23
Department: Planning Commission
Category: Report
Initiator:

## AGENDA ITEM (ID # )

### Work Session: Minor Subdivision requirements

**ATTACHMENTS:**

- 1. Report.pdf

*Changes to Minor Subdivision Review*

**Date**: For the November 27, 2023 Planning Commission work session
**Report by**: James Newman, City Planner, Zoning/Subdivision Administrator.

## ISSUE

Current regulations regarding boundary line adjustment and property mergers create a burden on applicants by requiring that they either obtain Planning Commission approval or a waiver. Additionally, the language about constructing a single-family residential home not located within a platted subdivision is unclear and could be construed to require Planning Commission review. These processes can be handled via administrative review by City staff. The addition of duplexes to administrative review may allow for additional development opportunities that would not need to go through a full subdivision process, which takes additional time and funds.

## COUNCIL

This item has not been brought to Council.

## PLANNING COMMISSION

The Commission discussed this item at their October 23, 2023 work session. The Commission requested:

-Remove lot width language

-Look into easement requirements and ability to enforce

-Any potential negative for allowing mergers by multiple owners?

-Do research into zoning boundary adjustments when boundary lines are moved.

In response, I have removed the language about lot width, removed the language about easements, and added additional language for when boundary line adjustments cross zoning districts.

## CURRENT LANGUAGE

Minor Subdivision/Land Development. A Minor Subdivision/Land Development is a Subdivision or Land Development that will not require the development or extension of off-tract infrastructure or Improvements, municipal or other governmental facilities or Improvements, or Public Streets or Roads. Only the following shall be considered Minor Subdivisions/Land Developments:

a. **Division of One Parcel into Two Parcels.** The division of one (1) new parcel from an existing parent tract if, and only if, the new parcel and the residue parent tract will each:

(i) adjoin an existing Public Street or Road, and

(ii) satisfy the minimum lot size requirements for the Zoning District in which the land is located.

Only one (1) new parcel plus the residue parent tract may be created from a parent tract existing as of the effective date of this Ordinance pursuant to a Minor Subdivision/Land Development. Any further Subdivision or Development of the new parcel or the residue parent tract will not be a Minor Subdivision/Land Development and must be processed under the Major Subdivision/Land Development provisions of this Ordinance. Such division shall meet the standards of Section 1332.06.

b. **Minor Boundary Line Adjustments**. Minor boundary line adjustments, including transfer of parcels of land to achieve a boundary line settlement, where no new parcels are created. Adjustment of a boundary line in excess of twenty-five feet (25') will not be considered a Minor Subdivision/Land Development under this Subsection 1332.02(A)(1)(b) except upon waiver of such limit by the Planning Commission.

c. **Merger**. Merger or consolidation of the entirety of two or more contiguous parcels of land owned by the same Person. Once merged or consolidated, the new tract shall be a single parcel and any further Subdivision or Development of that tract must comply with this Ordinance.

d. **Residential Construction**. The construction, erection, installation or placement of one (1) single-family residence on a single parcel or Lot; provided that, such activity shall not be considered a Land Development subject to this Ordinance (excepting only the requirements herein for an Improvement Location/Land Disturbance Permit) if the subject Lot was specifically identified as a separate identical Lot on a Final Plat approved as part of a previously approved Final S/LD Application for a Subdivision/Land Development containing said Lot.

There are additional items classified as minor subdivisions but which I do not propose to change. Therefore, that language is not included in this report.

**PROPOSED LANGUAGE**

Proposed changes are in red.

a. **Division of One Parcel into Two Parcels**. The division of one (1) new parcel from an existing parent tract if, and only if, the new parcel and the residue parent tract will each:

(i) adjoin an existing Public Street or Road, and

(ii) satisfy the minimum lot size requirements for the Zoning District in which the land is located.

Only one (1) new parcel plus the residue parent tract may be created from a parent tract existing as of the effective date of this Ordinance pursuant to a Minor Subdivision/Land Development. Any further Subdivision or Development of the new parcel or the residue parent tract will not be a Minor Subdivision/Land Development and must be processed under the Major Subdivision/Land Development provisions of this Ordinance. Such division shall meet the standards of Section 1332.06.

b. ~~**Minor**~~ **Boundary Line Adjustments**. ~~Minor~~ boundary line adjustments, including transfer of parcels of land to achieve a boundary line settlement, where no new parcels are created. ~~Adjustment of a boundary line in excess of twenty-five feet (25') will not be considered a Minor Subdivision/Land Development under this Subsection 1332.02(A)(1)(b) except upon waiver~~

~~of such limit by the Planning Commission.~~

c. **Merger.** Merger or consolidation of the entirety of two or more contiguous parcels of land ~~owned by the same Person~~. Once merged or consolidated, the new tract shall be a single parcel and any further Subdivision or Development of that tract must comply with this Ordinance.

d. **Residential Construction.** The construction, erection, installation or placement of one (1) single-family residence on a single parcel or Lot; or the construction, erection, installation or placement of one (1) duplex upon two abutting Lots~~; provided that, such activity~~ shall not be considered a Land Development subject to this Ordinance (excepting only the requirements herein for an Improvement Location/Land Disturbance Permit) ~~if the subject Lot was specifically identified as a separate identical Lot on a Final Plat approved as part of a previously approved Final S/LD Application for a Subdivision/Land Development containing said Lot.~~

e. **Zoning Districts:** Boundary line adjustments which result in boundary lines crossing zoning districts must be approved by the Planning Commission.

**JURISDICTIONAL COMPARISON**

1. **Martinsburg:**

**Minor Subdivision.** A Minor Subdivision is a Subdivision that will not require the Development or extension of off-tract infrastructure or Improvements, municipal or other local governmental facilities or Improvements, or Public Streets or Roads. Only the following shall be considered Minor Subdivision:

A. Division of one parcel into a maximum of four (4) parcels. The division of one (1) existing parcel into a maximum of four (4) proposed parcels including the remaining parent tract if, and only if, the new parcels and the residue parent tract will each:

1. Adjoin an existing Public Street or Road, and

2. Satisfy the minimum Lot size requirements for the Zoning District in which the land is located.

B. Only three (3) new parcels plus the residue parent tract may be created from a parent tract existing as of the effective date of this Ordinance pursuant to a Minor Subdivision. Any further Subdivision or Development of the new parcel or the residue parent tract will not be a Minor Subdivision and must be processed under the Major Subdivision provisions of this Ordinance. Such division shall meet the standards of Section 1305.03 (c).

C. Minor Boundary Line Adjustments. Minor boundary line adjustments, including transfer of parcels of land to achieve a boundary line settlement, where no new parcels are created.

D. Merger. Merger or consolidation of the entirety of two or more contiguous parcels of land owned by the same Person. Once merged or consolidated, the new tract shall be a single parcel and any further Subdivision or Development of that tract must comply with this Ordinance.

E. Residential Construction. The construction, erection, installation or placement of one (1) single-family residence on a single parcel or Lot; provided that, such activity shall not be considered a Land Development subject to this Ordinance (excepting only the requirements

herein for a Land Disturbance Permit) if the subject Lot was specifically identified as a separate identical Lot on a Final Plat approved as part of a previously approved Final Subdivision and/or Land Development Application for a Subdivision containing said Lot.

…

**2. City of Leesburg VA**

Administrative review of boundary line adjustments if:
(a) Shall not result in the creation of additional buildable lots; and

(b) Shall represent the same general lot relationships as shown in the plat prior to the boundary line adjustment; and

(c) Shall not involve the relocation or alteration of streets, alleys, easements for public passage,
or other public areas; and
(d) Shall not relocate or alter any easements or utility right-of-way without the express written consent of all persons holding interest therein; and

(e) Shall result in lots, which conform to the requirements of the Leesburg Zoning Ordinance, or in the case of existing non-conforming lots, does not increase the extent of non- conformance (See Section 10.4.4.E. of the Leesburg Zoning Ordinance).

Administrative review of minor subdivisions if 5 or fewer lots are created and the following criteria are met:

(1) Full frontage improvements (i.e. curb, gutter, sidewalk, and storm sewer) exist across the frontage of the proposed lots.

(2) No water or sanitary sewer mains are needed or proposed.

(3) No underground storm sewers are needed or proposed, except for necessary surface drainage swales.

(4) The street right-of-way meets the requirements of these regulations, or dedication of required right-of-way is made as part of the proposed subdivision.

(5) No new streets are needed or proposed.

(6) No vacation of streets is needed or proposed.

(7) No pipestem lot can be created as part of the minor subdivision

**Planning Commission**
101 East Washington Street
Charles Town, WV 25414

**SCHEDULED**

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Department: Planning Commission
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## AGENDA ITEM (ID # )

# Work Session: Neighborhood-Residential Use Changes

**ATTACHMENTS:**

- 1. Report.pdf

*Neighborhood Residential Use Mix Review*

**Date:** For the November 27, 2023 Planning Commission Meeting
**Report by:** James Newman, City Planner, Zoning/Subdivision Administrator.

## ISSUE

While the NR zoning district allows for some recreational uses by-right (such as parks, tennis courts, gym), the only retail use permitted is a convenience store open 15-16 hours/day. That is the sole commercial use allowed at all, either by-right or with a special exception. Additionally, the only office use allowed at all is a government office building. The requirement for Neighborhood Commercial (NC) uses does not specify that such uses must be commercial in nature, and must be corrected.

## PURPOSE

The purpose of the NR District is to provide for a mix of housing types and related services and Uses, including Commercial Uses and office services. It is the intent of the zoning classification to allow mixed development on undeveloped land and, where applicable as may be further described in this Ordinance, the Redevelopment of specific parcels within the City.

The NR District applies to parcels or tracts larger than five (5) acres. The intent is to create a cohesive pattern of primarily residential development that allows a mix of Uses, including neighborhood servicing Commercial and office Uses and/or Commercial and office Uses that complement the primarily residential character of the neighborhood.

## CITY COUNCIL

On September 5, 2023, City Council unanimously voted to refer this item to the Planning Commission for discussion and eventual public hearing.

## PLANNING COMMISSION

The Planning Commission reviewed this item at their October 23, 203 work session. The Commission requested staff modify the language about NC Use requirements in NR zoning, and requested some modifications to permitted uses.

## POTENTIAL USES

The zoning use table is on the following pages and includes the current uses allowed, and proposed uses in red text.

Proposed use changes are based on the intent of the district.

**TABLE 1322.04, Zoning District Use Table**

| CHARLES TOWN ZONING ORDINANCE<br><br>DISTRICT USE TABLE<br><br>Key:<br>P – Permitted Use<br>S – Special Exception Use<br>PA – Permitted Accessory Use<br>SA – Special Exception Accessory Use | | ZONING DISTRICTS | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | Residential Low Density | Residential Medium-High Density | Neighborhood Residential | Neighborhood Commercial | General Commercial | Old Town Mixed Use Commercials | Old Town Residential |
| **ITE Code** | **Land Use** | **R-3** | **R-15** | **NR** | **NC** | **GC** | **OT-MUC** | **OT-R** |
| **PORT AND TERMINAL USES (ITE CODES 000 – 009)** | | | | | | | | |
| 090 | Park-and-Ride Lot | | | | P | P | P | |
| **RESIDENTIAL USES (ITE CODES 200 - 299)** | | | | | | | | |
| 210 | Single-Family Detached Housing | P | P | P | P | | P | P |
| * | Duplex | P | P | P | | | P | P |
| 220 | Apartment | | P | P | P | | P | S |
| 230 | Residential Condominium/Townhouse | | P | P | P | | P | S |
| 240 | Mobile Home Park | | S | | | | | |
| 251 | Senior Adult Housing – Detached | P | P | P | | | P | |
| 252 | Senior Adult Housing – Attached | | P | P | S | | P | |
| 253 | Congregate Care Facility | | | S | S | | | |
| 254 | Assisted Living | | | S | S | | | |
| 255 | Continuing Care Retirement Community | | | S | S | | | |
| * | Adult Day Care Center | | | S | S | P | | |
| * | Child Care Center | | | S | S | P | | |
| * | Detached Garage or carport, provided it does not exceed 500 sq. feet. | PA | PA | PA | PA | | PA | PA |
| | Guest Quarters | PA | PA | PA | PA | | | PA |
| | Group Home | | S | | | | | S |
| * | Home Occupation, Minor | PA | PA | PA | PA | | PA | PA |
| * | Home Occupation, Major | SA | SA | SA | SA | | SA | SA |
| * | Swimming Pool (Private) | PA | PA | PA | | | | PA |
| **LODGING USES (ITE CODES 300 – 399)** | | | | | | | | |
| 310 | Hotel | | | | | P | S | |
| 311 | All Suites Hotel | | | | | P | S | |
| 312 | Business Hotel | | | | | P | S | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 320 | Motel | | | | | P | S | |
| * | Bed and Breakfast Inns | SA | SA | SA | P | P | P | SA |

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| **RECREATIONAL USES (ITE CODES 400 – 499)** | | | | | | | | |
| 411 | City Park | P | P | P | P | P | P | P |
| 412 | County Park | P | P | P | P | P | P | |
| 413 | State Park | P | P | P | P | P | P | |
| 416 | Campground/Recreational Vehicle Park | | | | | S | | |
| 430 | Golf Course | | S | S | S | S | | |
| 431 | Miniature Golf Course | | | S | P | P | | |
| 432 | Golf Driving Range | | | | | S | | |
| 433 | Batting Cages | | | S | P | P | | |
| 438 | Billiard Hall | | | S | S | S | S | |
| 435 | Multipurpose Recreational Facility | | | S | | P | | |
| 437 | Bowling Alley | | | S | | P | | |
| 440 | Adult Cabaret (Adult Uses) | | | | | S | | |
| 441 | Live Theater | | | | P | P | P | |
| 443/444 | Movie Theater | | | | | P | P | |
| 445 | Multiplex Movie Theater | | | | | P | | |
| 460 | Arena | | | | | S | | |
| 464 | Roller Skating Rink | | | | | P | | |
| 465 | Ice Skating Rink | | | | | P | | |
| 473 | Casino/Video Lottery Establishment | | | | | S | | |
| 480 | Amusement Park | | | | | S | | |
| 488 | Soccer Complex | | S | S | S | P | | |
| 490 | Tennis Courts | | | P | P | P | | |
| 491 | Racquet/Tennis Club | | | S | S | P | | |
| 492 | Health/Fitness Club | | | P | P | P | P | |
| 493 | Athletic Club | | | P | P | P | | |
| 495 | Recreational Community Center | S | S | S | P | P | | |
| * | Swimming Pool Facility | | S | S | S | S | | S |
| **INSTITUTIONAL USES (ITE CODE 500 – 599)** | | | | | | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 520 | Elementary School | | | | P | P | P | P |
| 522 | Middle School/Junior High School | | | | P | P | P | P |

| CHARLES TOWN ZONING ORDINANCE<br>DISTRICT USE TABLE<br>Key:<br>P – Permitted Use<br>S – Special Exception Use<br>PA – Permitted Accessory Use<br>SA – Special Exception Accessory Use | | ZONING DISTRICTS | | | | | | |
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| **ITE Code** | **Land Use** | **R-3** | **R-15** | **NR** | **NC** | **GC** | **OT-MUC** | **OT-R** |
| 530 | High School | | | | P | P | P | |
| 534/536 | Private School (K-12) | | | | P | P | P | |
| 540 | Junior/Community College | | | | P | P | P | |
| 550 | University/College | | | | P | P | P | |
| * | Technical and Vocational School | | | | P | P | P | |
| * | Professional and Management Development Training Center | | | | P | P | P | S |
| 560/561 | Church/Synagogue | | | S | P | P | P | P |
| 565 | Day Care Center | | | ~~SA~~ P | P | P | P | |
| 566 | Cemetery | | | | P | P | P | |
| 571 | Prison | | | | | S | | |
| 580 | Museum | | | P | P | P | P | S |
| * | Cultural Center | | | ~~S~~ P | P | P | P | S |
| 590 | Library | | | P | P | P | P | |
| 591 | Lodge/Fraternal Organization | | | S | S | S | S | |
| **MEDICAL USES (ITE CODES 600 – 699)** | | | | | | | | |
| 610 | Hospital | | | | | P | | |
| 612 | (Outpatient) Surgery Center | | | | | P | S | |
| 620 | Nursing Home | | | | P | P | P | |
| 630 | Clinic | | | | P | P | P | |
| 640 | Animal Hospital/Veterinary Clinic | | | P | P | P | P | |
| * | Medical / Dental Lab | | | | P | P | P | |
| * | Heliport | | | | | SA | | |
| **OFFICE USES (ITE CODES 700 – 799)** | | | | | | | | |
| 710 | General Office Building | | | | P | P | P | |
| 714 | Corporate Headquarters Building | | | | P | P | P | |
| 715 | Single Tenant Building | | | P | P | P | P | |
| 720 | Medical-Dental Office Building | | | P | P | P | P | |
| 730 | Government Office Building | | | P | P | P | P | |
| 732 | United States Post Office | | | P | P | P | P | |
| 733 | Government Office Complex | | | | | P | P | |
| 735 | Judicial Complex | | | | | P | S | |
| 750 | Office Park | | | | P | P | P | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 760 | Research and Development Center | | | | | S | S | |
| 770 | Business Park | | | | | P | P | |

| CHARLES TOWN ZONING ORDINANCE<br>DISTRICT USE TABLE<br>Key:<br>P – Permitted Use<br>S – Special Exception Use<br>PA – Permitted Accessory Use<br>SA – Special Exception Accessory Use | | ZONING DISTRICTS | | | | | | |
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| **RETAIL USES (ITE CODES 800 – 899)** | | | | | | | | |
| 812 | Building Materials and Lumber Store | | | | | P | P | |
| 813 | Free-Standing Discount Superstore | | | | | P | | |
| 814 | Specialty Retail Center | | | P | | P | | |
| 815 | Free-Standing Discount Store | | | P | | P | | |
| 816 | Hardware/Paint Store | | | P | P | P | P | |
| 817 | Nursery/Garden Center | | | S | P | P | P | |
| 818 | Nursery (Wholesale) | | | | | P | | |
| 820 | Shopping Center | | | | P | P | | |
| 823 | Factory Outlet Center | | | | | P | | |
| 841 | Automobile Sales | | | | | P | P | |
| 843 | Automobile Parts Sales | | | | | P | | |
| 848 | Tire Store | | | | P | P | | |
| 849 | Tire Superstore | | | | | P | | |
| 850 | Supermarket | | | | P | P | P | |
| 851 | Convenience Market (Open 24 Hours) | | | | P | P | P | |
| 852 | Convenience Market (Open 15 – 16 Hours) | | | P | P | P | P | |
| 853 | Convenience Market with Gasoline Pumps | | | | S | P | S | |
| 854 | Discount Supermarket | | | S | P | P | P | |
| 857 | Discount Club | | | | | P | | |
| 859 | Liquor Store (including Beer Distributor) | | | | S | P | S | |
| 860 | Wholesale Market | | | | | P | P | |
| 861 | Sporting Goods Superstore | | | | | P | | |
| 862 | Home Improvement Superstore | | | | | P | | |
| 863 | Electronics Superstore | | | | | P | | |
| 864 | Toy/Children's Superstore | | | | | P | | |
| 865 | Baby Superstore | | | | | P | | |
| 866 | Pet Supply Superstore | | | | | P | | |
| 867 | Office Supply Superstore | | | | | P | | |
| 868 | Book Superstore | | | | | P | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 869 | Discount Home Furnishings Superstore | | | | | P | | |
| 870 | Apparel Store | | | | P | P | P | |
| 879 | Arts and Crafts Store | | | | P | P | P | |

| CHARLES TOWN ZONING ORDINANCE<br><br>DISTRICT USE TABLE<br><br>Key:<br>P – Permitted Use<br>S – Special Exception Use<br>PA – Permitted Accessory Use<br>SA – Special Exception Accessory Use | | ZONING DISTRICTS | | | | | | |
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| | | Residential Low Density | Residential Medium-High Density | Neighborhood Residential | Neighborhood Commercial | General Commercial | Old Town Mixed Use Commercials | Old Town Residential |
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| 880 | Pharmacy/Drugstore w/o Drive-Through Window | | | P | P | P | P | |
| 881 | Pharmacy/Drugstore w/Drive-Through Window | | | S | P | P | S | |
| 890 | Furniture Store | | | | P | P | P | |
| 892 | Carpet Store | | | | P | P | P | |
| 896 | Video Rental Store | | | | P | P | P | |
| * | Art Gallery | | | | P | P | P | |
| * | Gift shops and Boutiques | | | | P | P | P | |
| * | Farmers Market | | | | P | P | P | |
| * | Florist | | | P | P | P | P | |
| * | Photo / Camera Store | | | | P | P | P | |
| **SERVICE USES (ITE CODES 900 – 999)** | | | | | | | | |
| 911 | Walk-in Bank | | | P | P | P | P | |
| 912 | Drive-in Bank | | | S | P | P | P | |
| 918 | Hair Salon | | | P | P | P | P | |
| 931 | Quality Restaurant | | | | P | P | P | |
| 932 | High-Turnover (Sit-Down) Restaurant | | | | P | P | P | |
| 933 | Fast-Food Restaurant w/o Drive-Through Window | | | | P | P | P | |
| 934 | Fast-Food Restaurant with Drive-Through Window | | | | P | P | | |
| 935 | Fast-Food Restaurant with Drive-Through Window and No Indoor Seating | | | | P | P | | |
| 936 | Coffee/Donut Shop w/o Drive-Through Window | | | | P | P | P | |
| 937 | Coffee/Donut Shop with Drive-Through Window | | | | P | P | | |
| 938 | Coffee/Donut Shop with Drive-Through Window and No Indoor Seating | | | | P | P | | |
| 939 | Bread/Donut/Bagel Shop w/o Drive-Through Window | | | | P | P | P | |
| 940 | Bread/Donut/Bagel Shop with Drive-Through Window | | | | P | P | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 941 | Quick Lube Vehicle Shop | | | | | P | P | |
| 942 | Automobile Care Center | | | | | P | P | |
| 943 | Automobile Parts and Service Center | | | | | P | P | |

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|---|---|---|---|---|---|---|---|---|
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| **ITE Code** | **Land Use** | **R-3** | **R-15** | **NR** | **NC** | **GC** | **OT-MUC** | **OT-R** |
| 944 | Gasoline/Service Station | | | | P | P | P | |
| 945 | Gasoline/Service Station with Convenience Market | | | | P | P | P | |
| 946 | Gasoline/Service Station with Convenience Market and Car Wash | | | | P | P | P | |
| 947 | Self-Service Car Wash | | | | | P | P | |
| 948 | Automated Car Wash | | | | | P | P | |
| 960 | Dry Cleaners | | | S | P | P | P | |
| * | Funeral Home/Crematory | | | | P | P | P | |
| * | Kennel | | | | S | P | | |
| * | Tattoo Parlor | | | | S | P | P | |
| * | Self-Storage Facility | | | | S | P | | |
| * | Outdoor Café | | | | P | P | P | |
| **MISCELLANEOUS USES** | | | | | | | | |
| * | Parking Facility | | PA | PA | PA | P | P | PA |
| * | Wireless Telecommunication Facilities | S | S | S | S | S | S | |
| * | Essential Utilities and Equipment | P | P | P | P | P | P | |

…

Section 1322.08, Neighborhood Residential (NR) District

…

(B) Application:

…

3. The NR District must contain a mix of Uses compatible with surrounding Uses, particularly existing residential neighborhoods adjoining the proposed development or Redevelopment. At least fifty percent (50%) of the total area must be residential, ten percent (10%) of the total usable land area must be Open Space and not less than ten percent (10%) of the total area must be comprised of Neighborhood Commercial Recreational, Institutional, Medical, Office, Retail, or

Service Uses. A market assessment substantiating the proposed mix of residential, Commercial and Open Space Uses shall be submitted with the application;

**Planning Commission**
101 East Washington Street
Charles Town, WV 25414

Meeting: 11/27/23
Department: Planning Commission
Category: Report
Initiator:

**SCHEDULED**

## AGENDA ITEM (ID # )

### Public Hearing: *ZMA2023-02 Prospect Place* - Partial rezoning from General Commercial to Neighborhood Residential.

**ATTACHMENTS:**

- 1. Staff Report.pdf
- 2. Application.pdf
- 3. Property location Map Exhibit.pdf
- 4. Rezoning Map Exhibit.pdf
- 5. Illustrative Exhibit.pdf
- 6. 2007 COA.pdf
- 7. 2007 Annexation Development Plan.pdf
- 8. 2008 Revised COA.pdf
- 9. Portions of 2021 City Market Study.pdf

Rezoning Review

**ZMA2023-02**

**Date:** For the November 27, 2023 Planning Commission meeting

**Applicant**: Conduit Street Partners LLC

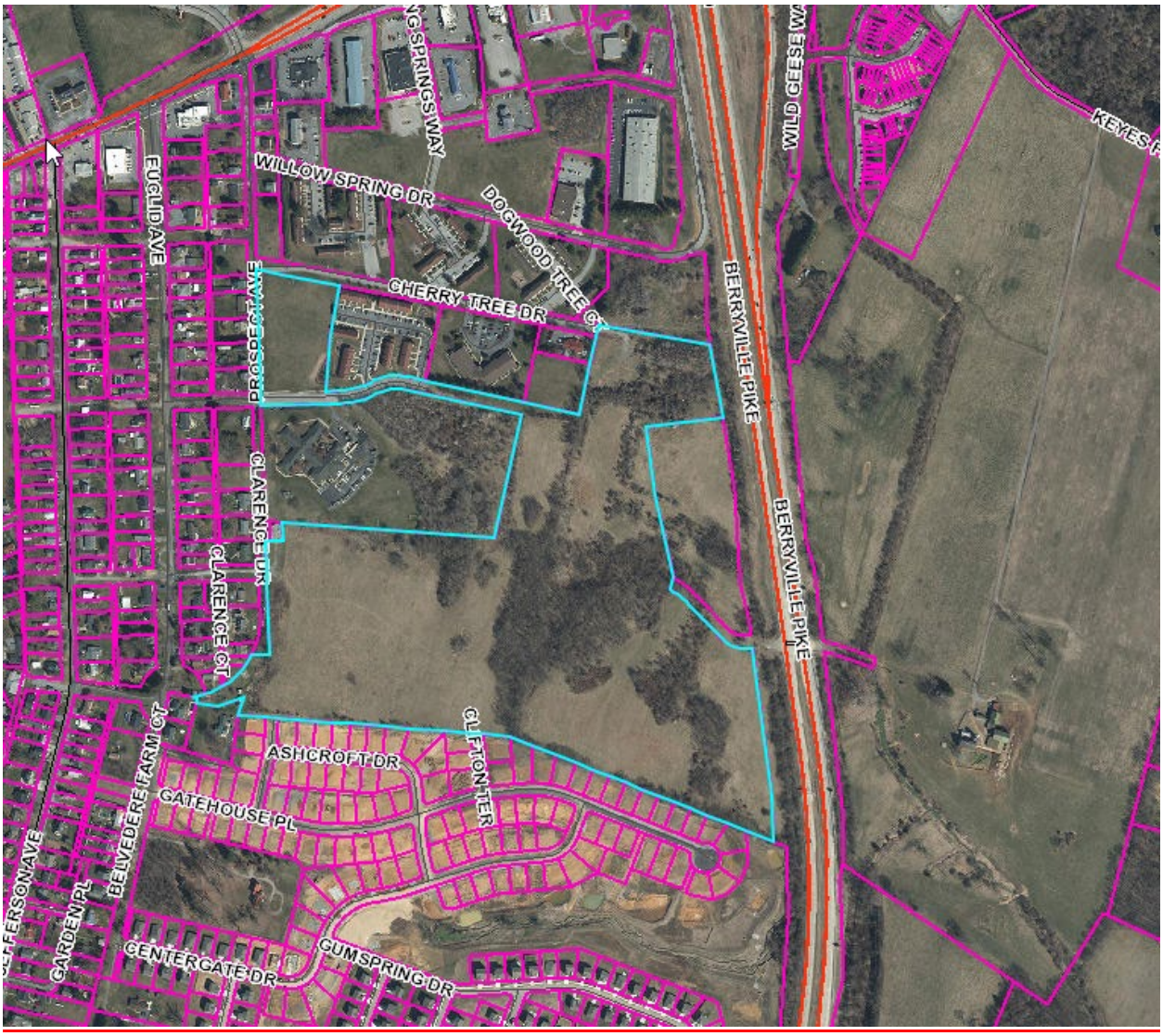
**Property Owner:** First Charles Town Group Inc.

**Report by**: James Newman, City Planner, Zoning/Subdivision Administrator.

**Proposal:** Partial Rezoning from General Commercial to Neighborhood Residential

**Property Location:** TD 03 / Map: 15 / Pcl 1.0006

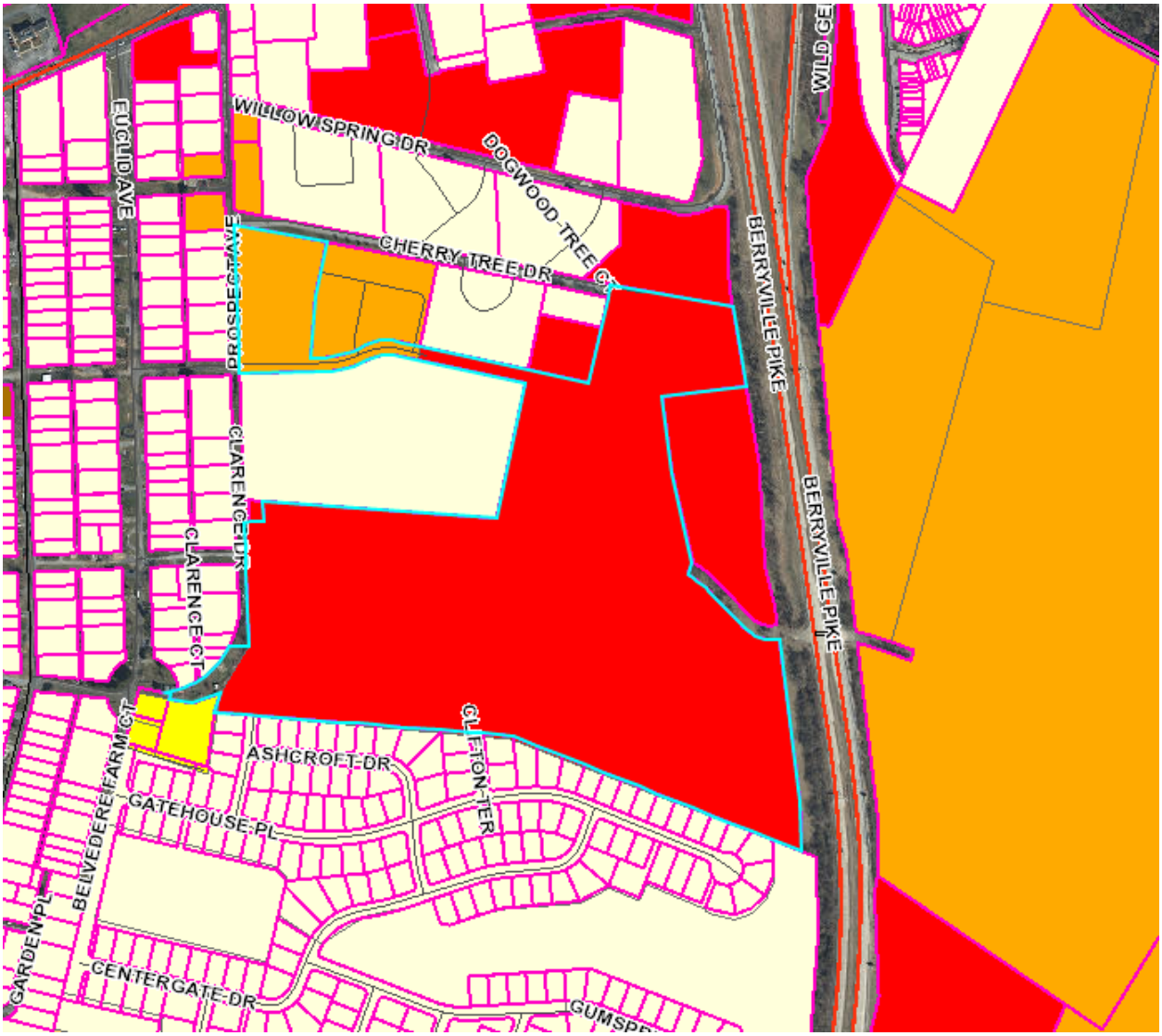
**Current Zoning:** General Commercial



**PROJECT OVERVIEW**

Request by Conduit Street LLC to rezone approximately 50 acres of land from General Commercial to Neighborhood Residential. The application seeks to build a mixture of commercial sites, single-family detached homes and townhomes.

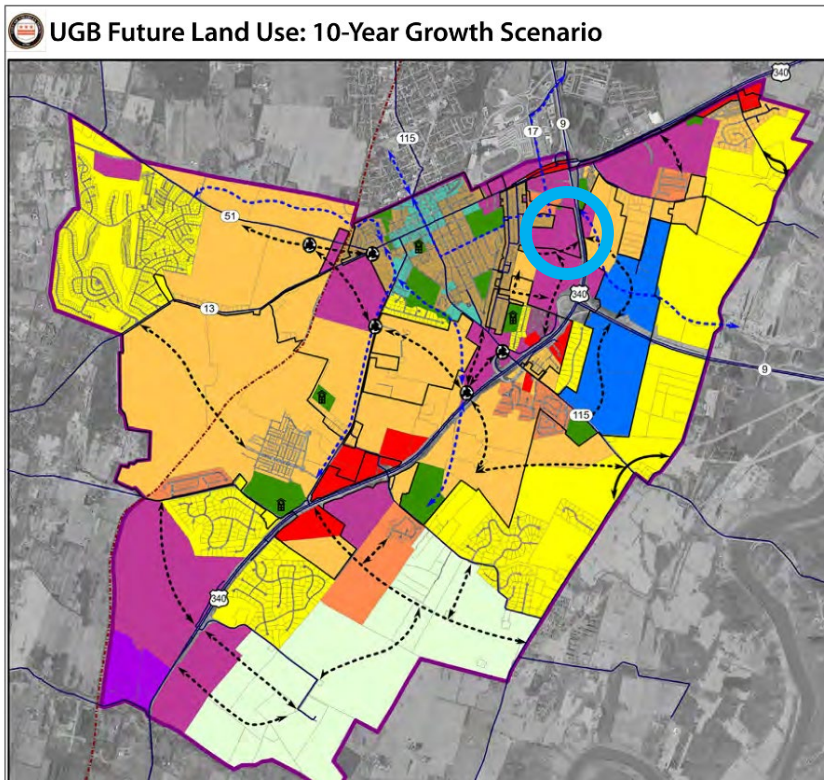
**CURRENT ZONING**

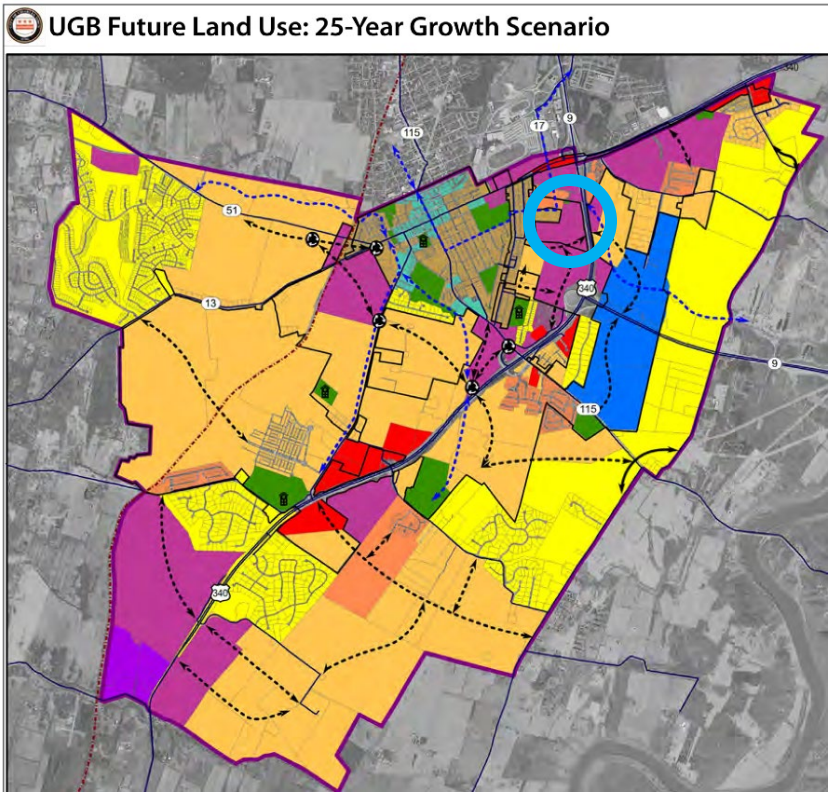



The property is split zoned between Neighborhood Residential and General Commercial, and is approximately 57 acres in size. They seek to rezone approximately 50 acres of that into Neighborhood Residential. Per the applicant, the portion currently zoned Neighborhood Commercial will be subdivided from the rest of the parcel if the rezoning and site development are approved.

**COMPREHENSIVE PLAN**

The 2040 Comprehensive Plan designates this property as Mixed-Use Commercial. The property is circled in blue below:



The current Comprehensive Plan was adopted in 2018. It defines Mixed-Use Commercial Future Land Use as:

> Mixed Use Commercial Future Land Use plans provide for **necessary commercial uses** of a convenient nature **within residential areas**. These plans encourage the formation and continuance of stable, healthy, and compatible environments that are located to provide nearby residential areas with **convenient shopping and service facilities**, reduce traffic congestion, and **avoid the development of strip malls.** The non-descript anywhere USA" look and feel of strip malls are not desired. This is similar with the Old Town Mixed Use which anticipates buildings pulled up to the front of the street and is a much more pedestrian centric environment. **Compatibility and integration with residential character of the area surrounding** the mixed use commercial zone **shall be of primary consideration**. The City prefers vertical mixed use commercial development over horizontal mixed use development. However, in situations where **horizontal mixed** use development is proposed, **greater attention to multimodal connectivity and accessibility will be imperative.**
>
> *-Comprehensive Plan page 74*

**ECONOMIC DEVELOPMENT**

City Council desires to enhance economic development opportunities. This is espoused in the *Vision and Goals* of the Comprehensive Plan, text amendments to allow for additional commercial uses in the NR zoning district, tax incentives, and text amendments to commercial pad site development requirements. The City's Economic Development team has identified a need for restaurants, retail space, and apartments.

The property is currently completely zoned General Commercial; the applicant's rezoning request would reduce the amount of land zoned General Commercial on the property to 6 acres, but is required to designate a minimum of 10% of the property Neighborhood Commercial uses.

**CONDITIONS OF ANNEXATION**

The property was subject to COA that anticipated a mixed-use development centered around a hospital complex. The original COA was signed off by then Mayor Smith in February 2007. Those conditions were revised in November 2008.

One of the revised Conditions required that "*a portion*" of the subject parcel be committed to commercial development and that the property be rezoned from Neighborhood Residential to General Commercial. The purpose of the Condition was to provide 57.8 acres of new employment opportunities and increase local property tax revenues through commercial zoning. The applicant seeks to rezone those 57.8 acres back to Neighborhood Residential.

**REZONING NARRATIVE**

Per the **applicant**:

> "Prospect Place was originally annexed into the City as Neighborhood Residential in 2006. A change in zoning to General Commercial was requested by the applicant and subsequently approved in 2008 to accommodate a specific retail user – Lowes Home Improvement Center. Lowes put the site under contract for a planned a big box center. Significant engineering was undertaken by the applicant to accommodate the use, but ultimately Lowes cancelled the contract. The recession of 2008 - 2010 had changed the retail landscape, but also the prohibitive cost of sitework made it infeasible to develop the site for big box users.
>
> There have been subsequent attempts to attract other large users such as Walmart as well as Great Wolf Lodge, but market conditions in the area as well as existing topography have turned away potential users.
>
> The applicant is proposing a change in zoning back to Neighborhood Residential, with a portion remaining General Commercial. This would restore Prospect Place to the same zoning category as was originally designated in the 2006 annexation agreement. Given the 15-year history with the site, the applicant believes the property as originally zoned was appropriate and is substantiated by the Lowes Home Improvement Center and other medium to large footprint users declining to move forward with the development on Prospect Place due principally to the challenging topography of the property."

The applicant will keep 6 acres of the site zoned as General Commercial, along with 11 acres of the site devoted to neighborhood Commercial uses (for a total of 19% of the site). The remainder of the site will be devoted to residential development.

**APPLICANT'S MARKET STUDY**

The applicant provided a market study. Key points from the study are:

-City population is approx. 6,000 people, and the median household income of Jefferson County is one of the highest in the State.

-Approximately 237 acres of underdeveloped/utilized Neighborhood and General Commercial zoned land along U.S. Route 340 and the 340/9 by-pass.

-This site is topographically challenging to develop, especially for mass grading required for a big-box store pad site.

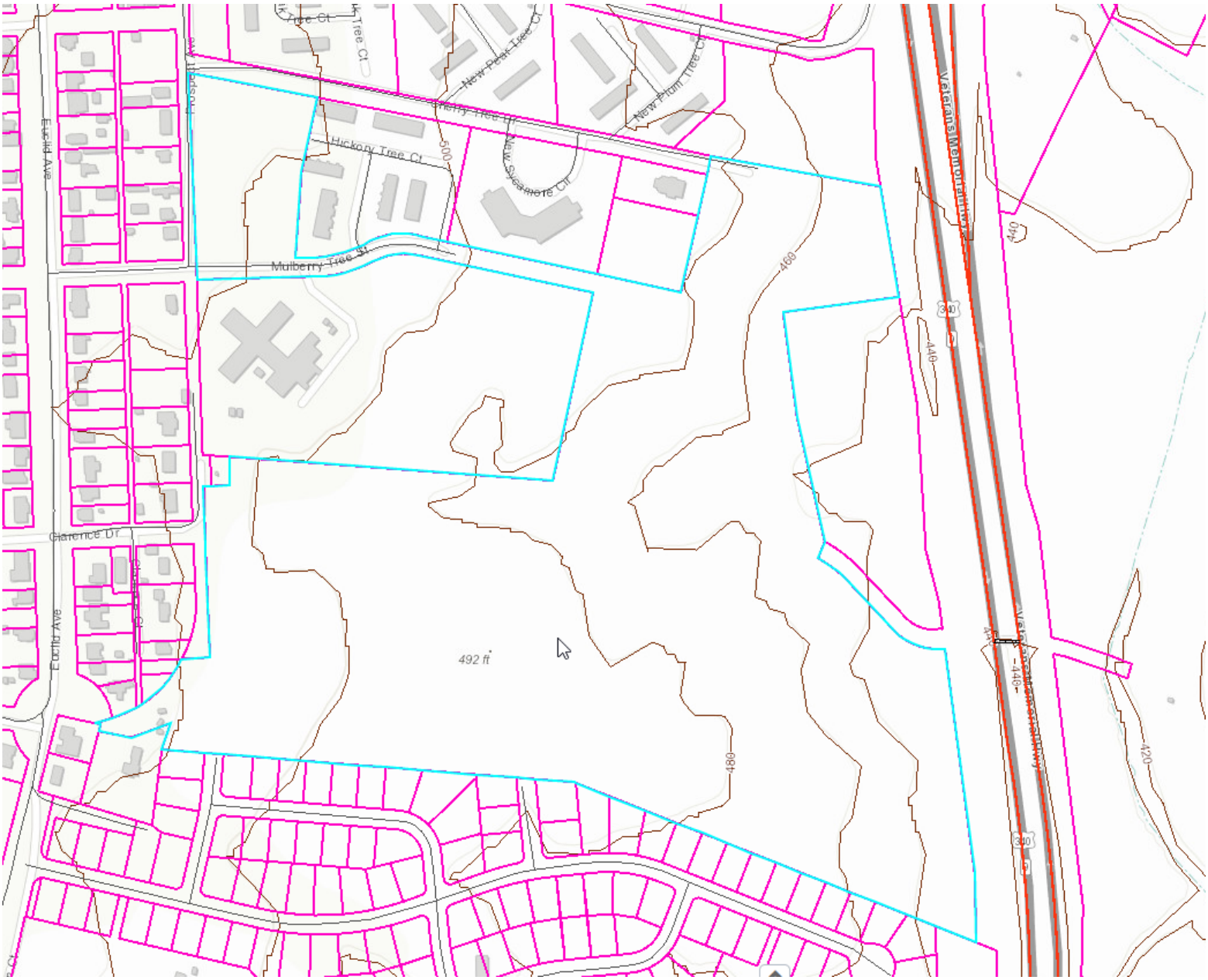
-WVDOH has not supported the creation of a traffic light at the proposed entrance onto Route 340. A lack of a traffic light will negatively impact commercial development as access will be limited.

-A growing population of commuters provides opportunities for residential growth and opportunities for select retail businesses.

-There is a lack of housing supply in Jefferson County (and nationally overall). Current supply is enough to last 1.6 months as opposed to a desired 6 month supply. Additional residential development is needed to meet high demand.

**TOPOGRAPHY**

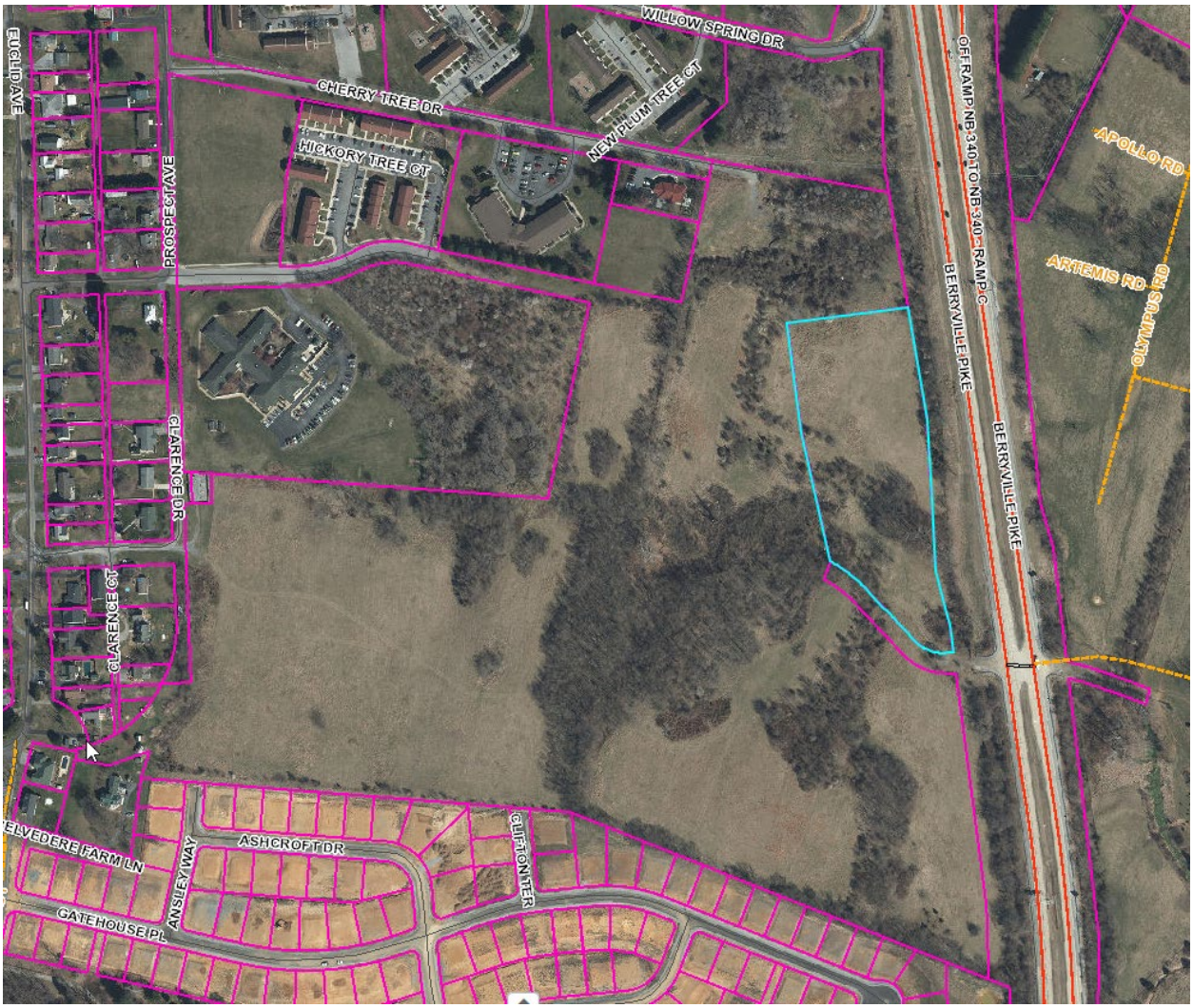
From the Jefferson County GIS site:



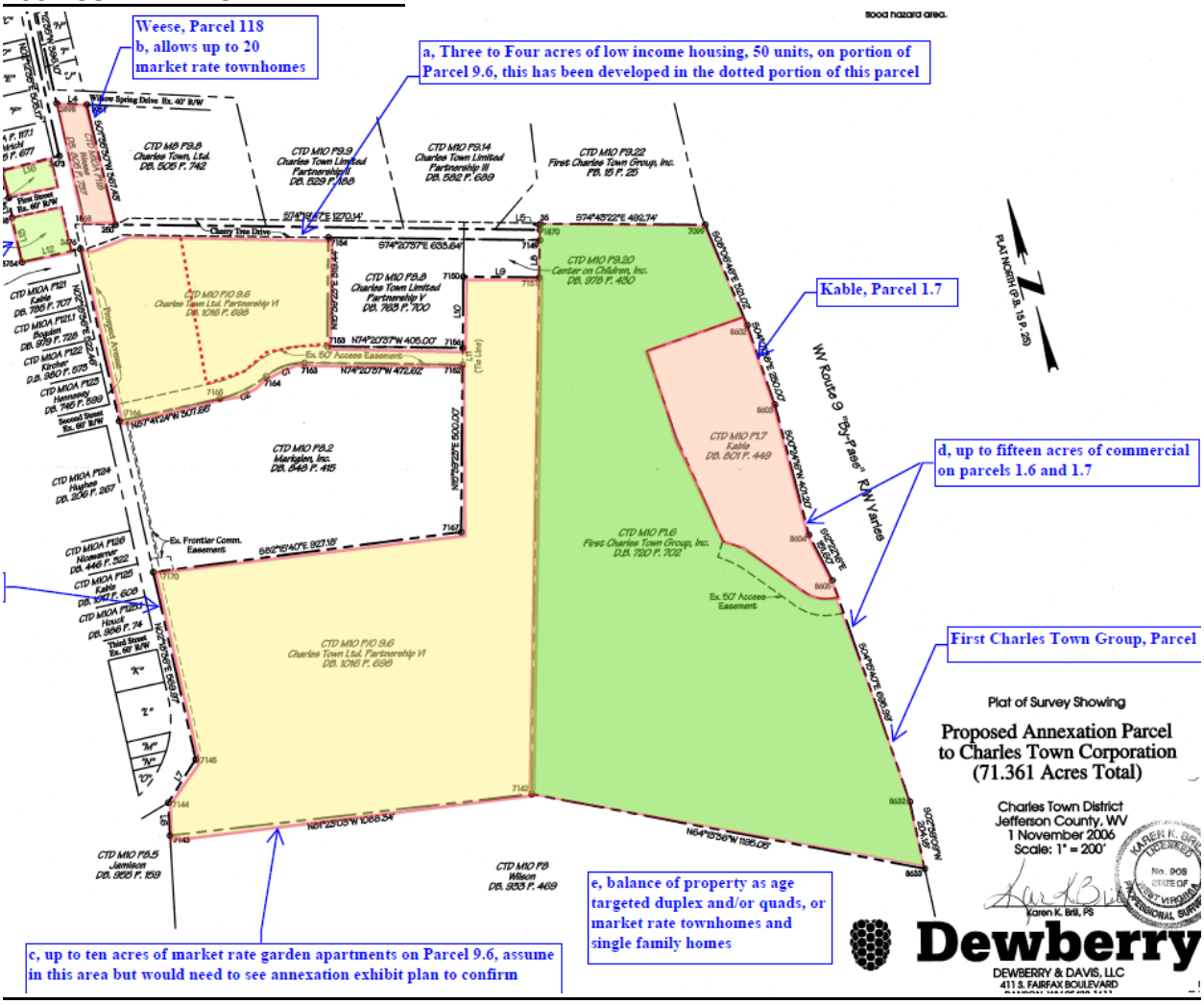

The site feature steep cliffs close to U.S. Route 340, and relatively flattens out the further it gets from that road.

**OVERALL SITE DEVLEOPMENT**

The applicant proposes to develop not only the subject parcel, but also the adjacent smaller parcel 1.0007 (highlighted in blue below), as part of their overall development plan. That parcel 1.0007 is zoned General Commercial and will not be changed as part of this rezoning request.



## 2007 COA DEVELOPMENT PLAN




The original 2007 Conditions of Annexation called for:

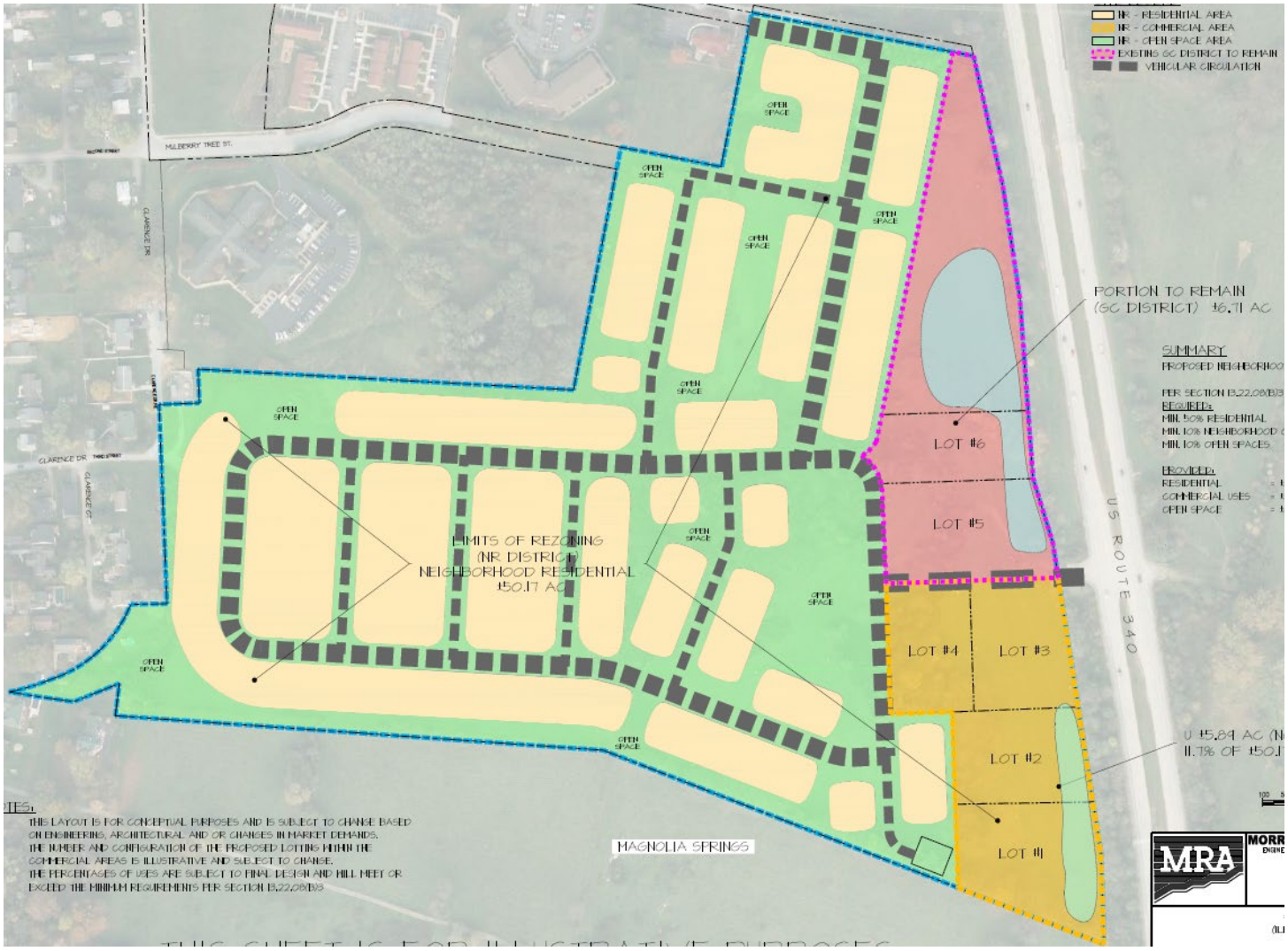
1. 3-4 acres of low-to-moderate income rental housing.
2. A maximum of 20 market rate townhomes.
3. Up to 10 acres of market rate garden-style apartments.
4. Up to 15 acres of commercial development.
5. The remainder of the property to be age—targeted duplexes/quadplexes, or a mix of market-rate townhomes and single family detached homes.

## 2008 COA REVISIONS

The amended 2008 Conditions of Annexation called for:

1. 3-4 acres of low-to-moderate income rental housing.
2. A maximum of 20 market rate townhomes.
3. All of parcel 10-1.7, and portions of parcels 10-9.6, 10-1.6 are to be committed to commercial development and rezoned to General Commercial.

**2023 REVISED DEVELOPMENT PLAN**




The proposed development under this rezoning request would provide:

1. 6 acres of General Commercial Zoning
2. 11 Acres of Neighborhood Commercial Uses
3. 50 acres of residential development.

The proposed commercial area is adjacent to US. Route 340, which provide visibility However, that is also the area most impacted by topographical challenges, and a large portion of the General Zoning would be occupied by stormwater management facilities, leaving limited room for commercial pad sites.

**REZONING CRITERIA**

Per Zoning Ordinance Section 1321.12, *Zoning Amendments*:

*City Council, with the advice of the Planning Commission, finds either that the amendment is consistent with the City's Comprehensive Plan, or that the amendment is not consistent with the Comprehensive Plan but that there have been major changes of an economic, physical, or social nature within the area involved that were not anticipated when the Comprehensive Plan was adopted and that such major changes have substantially altered the basic characteristics of the area.*

1. *Is the zoning amendment consistent with the Comprehensive Plan?*

   Partially. The applicant is proposing a predominantly residential zoning district in an area designated for vertically mixed development combining residential and commercial uses. For a horizontally mixed development, interconnectivity between uses and transportation routes is imperative.

2. *Have been major changes of an economic, physical, or social nature within the area involved that were not anticipated when the Comprehensive Plan was adopted and that such major changes have substantially altered the basic characteristics of the area?*

   Yes. The property was annexed into the City in 2007 subject to Conditions of Annexation, which were revised in 2008 to encourage more commercial development on site. According to the applicant, this was done with one particular user in mind, but the economic impacts of the Great Recession combined with the cost of sitework made that deal collapse. The applicant states that they have attempted to bring in other large commercial users but that the market conditions and site issues made that prohibitive.

   The applicant states that "*residents may choose to do their shopping in nearby cities like Winchester, Virginia, or Hagerstown, Maryland, where there may be more extensive retail options*." However, the original purpose of the rezoning of the property to General Commercial was to provide additional space for commercial development so residents do not have to travel far for varied shopping. The City's Economic Development coordinator has

**ZONING REVIEW**

The applicant is seeking Neighborhood Residential zoning, the purpose of which is:

*"…to provide for a mix of housing types and related services and Uses, including Commercial Uses and office services. It is the intent of the zoning classification to allow mixed development on undeveloped land and, where applicable as may be further described in this Ordinance, the Redevelopment of specific parcels within the City.*

*The NR District applies to parcels or tracts larger than five (5) acres. The intent is to create a cohesive pattern of primarily residential development that allows a mix of Uses, including neighborhood servicing Commercial and office Uses and/or Commercial and office Uses that complement the primarily residential character of the neighborhood."*

Requirements for this district are:

1. The area being rezoned must be at least 5 acres in size. - This criteria is met.
2. 50% of the site's total area must be residential,, 10% must be open space, and 10% must be comprised of Neighborhood Commercial uses. – Conceptually, the criteria is met. Further details will be worked out at the land development phase.
3. A market study substantiate the proposed mixture of uses must be submitted. - This criteria is met.

**DEVELOPMENT PROCESS**

A major subdivision/land development application will be required in order to develop this property. That application will entail additional staff review and public hearings sperate from the rezoning process.

**CONCLUSION**

The applicant is proposing to rezone approximately 50 acres of land to Neighborhood Residential, primarily for housing development. The Comprehensive Plan designates the property as mixed-use commercial. The original COA from 2007 completed an almost equal mix of land development between residential and commercial, and the revised 2008 COA focused heavily on commercial development. The applicant states that the commercial use aspect was based on economic conditions and potential user interest which are no longer applicable to the property.

City Council has expressed a desire to preserve existing commercially zoned land, yet a large portion of the General Commercial zoned property on site would be used for stormwater management facilities and contains difficult topography, yet is close to the road to provide visibility. The City's Economic Development team has identified a need for restaurants, retail space, and apartments.

**RECOMMENDATION**

**Table**. The property is subject to Conditions of Annexation which call for the property to be used primarily for commercial development. The applicant should work with City Staff on amending those Conditions of Annexation.

Following a Public Hearing, the Commission must, within 45 days, recommend to City Council either approval, approval in part, or denial.

Petition No._____

RECEIVED
OCT 2 2023
BY:_____

# PETITION FOR ZONING AMENDMENT

Fee: $400

**Zoning amendment petitions shall provide the following information:**

1. Date: October 2, 2023
2. APPLICANT'S NAME*: Conduit Street Partners, LLC
   - Address: 59 Franklin Street, Annapolis, MD 21401
   - Telephone Number: 410-703-0896 & 301-758-4541
   - Email Address: PZadoretzky@OAPartners.com; TBaum@laterrahomes. com
3. PROPERTY OWNER'S NAME: First Charles Town Group, Inc. and Larry R. Fritts, Sr., Harry M. Kable, Carol F. Kable
   - Address: 108 North George Street and 336 Rosemont Way, Charles Town, WV 25414
   - Telephone Number: 304-725-9797 & 304-283-8602
   - Email Address: PChakmakian@frontiernet.net and carolkable2465@gmail.com
4. LEGAL DESCRIPTION OF THE SUBJECT PROPERTY (list all parcels that apply)
   - Property Address: Cherry Tree Dr. / WV Route 340 BYP. Charles Town
   - Tax Map # and Parcel(s): TM 15 Parcel 1.6 / TM 15 Parcel 1.7
   - Deed Book and Page: DB 1044 PG 452 / DB 801 PG 449
   - Property Area in Square Feet or Acres: 57.07 AC / 5.16 AC Total = 62.33 AC

*Applicants include: Property owner(s), Engineer(s), Surveyor(s), or Consultant(s)

5. PROVIDE SCALED MAP, TO BE ATTACHED, OF THE PROPERTY CLEARLY SHOWING THE PROPERTY'S LOCATION AND PROPERTY AREA IN SQUARE FEET AND/OR ACRES:

Attached to this application.

6. DESCRIPTION OF APPLICANT'S INTEREST IN THE PROPERTY:

The Applicant is the contract purchaser of the property.

7. DESCRIPTION OF THE EXISTING (OR FORMER) USE(S) OF THE PROPERTY AND CURRENT ZONING:

Existing use is undeveloped property. Current Zoning is GC - General Commercial.

8. DESCRIPTION OF THE PROPOSED USE(S) OF THE PROPERTY AND REQUESTED ZONING DISTRICT:

The proposed use of the property is for a mixed use development with GC uses along the highway frontage and the balance of the site as a planned residential development. A portion of the site will remain zoned as GC and is proposed to meet the commercial requirements of the NR zone, the balance is requested to be rezoned to NR - Neighborhood Residential.

9. DESCRIBE HOW THE ZONING MAP AMENDMENT WILL BE CONSISTENT WITH THE OBJECTIVES AND POLICIES OF THE COMPREHENSIVE PLAN:

The 2040 Comprehensive Plan calls designates the future land use classification as Mixed Use Commercial. The proposed application is consistent with the Plan as its providing 20% for commercial area. The uses will be compatible and convenient for the residential areas which will have opportunities for multi-modal connectivity given its proximity to Route 340 In keeping with the Plan, the application will provided variety of housing opportunities that incorporates the desired commercial mixed uses.

10. TIME SCHEDULE FOR DEVELOPMENT: (AS APPLICABLE)

Upon approved rezoning, the applicant will develop a detailed site plan for the project and obtain entitlements for the same. This is estimated to take about one calendar year. Subsequent to entitlements, land development would commence and the proposed housing and commercial sites will follow.

11. PARCEL HISTORY (List all pending or previously approved applications on the subject parcels inventoried above, including previous site plan applications if this application is a site plan amendment)

| Application No. | Project Name and Phase | Status | Approval Date |
|---|---|---|---|
| 2008-21- Prospect Place Annexation Amendment - Approved - November 17, 2008 | | | |

NOTES

Additional exhibits may be required by the Zoning Administrator such as a lot location survey or site plan showing existing and if applicable, proposed structures, easements, watercourses, curb cuts and description of the uses of adjacent property that are necessary to describe existing or proposed conditions.

Any desire to amend or withdraw this petition must be submitted in writing to the Zoning Administrator. Also, if ownership of any part of or all of the real property subject to the petition shall change during the pendency of the petition, the Petitioner shall be required to immediately advise the Zoning Administrator in writing.

**Additional Owners Signatures:**

Larry R Fritts Sr

**Larry R. Fritts, Sr.**

Harry M. Kable

**Harry M. Kable**

Carol F. Kable

**Carol F. Kable**

**Date: October 2, 2023**

APPLICANT'S CERTIFICATION

I certify that, to the best of my knowledge, the submitted information and statements are true and correct. I also certify that I have received and read Section 1321.12 and relevant provisions of the Charles Town Zoning Ordinance outlining the Zoning Amendment procedures.

Signature of Applicant

_____ Date October 2, 2023

CONDUIT ST PARTNERS, LLC CONTRACT PURCHASER

Signature of Owner(s) (If different than Applicant)

Ketul Chalmalian, PRES Date October 2, 2023

First Charles Town Group, Inc

Please submit an original completed petition to the following:

Zoning Administrator
City of Charles Town
101 E. Washington Street
Charles Town, WV 25414

---

***FOR CITY USE ONLY***

Application Number:_____ Date Petition Received:_____

Fee: $_____ Check No._____ Receipt No._____

City Council Approval:_____ Date:_____

Comments:_____

_____

_____

_____

_____




AREA SUMMARY:

- PARCEL 1.6 .....± 2,485,969 SQ. FT., OR 57.07 AC.
- PARCEL 1.7 .....± 224,769 SQ. FT., OR 5.16 AC.
- TOTAL AREA .....2,710,738 SQ. FT., OR 62.23 AC.
- (AREA TABULATIONS ARE TAKEN FROM BOUNDARY SURVEY PREPARED BY: WILLIAM H. GORDON DATED 12/8/2008)

LINE TABLE

| LINE | BEARING | DISTANCE |
|---|---|---|
| L1 | N89°08'20"W | 24.35' |
| L2 | N44°57'58"W | 179.73' |
| L3 | N06°18'15"E | 97.35' |
| L4 | N43°14'18"E | 151.50' |
| L5 | N10°28'21"E | 10.00' |
| L6 | N79°31'39"W | 67.62' |
| L7 | S87°07'34"W | 49.20' |

CURVE TABLE

| CURVE | RADIUS | LENGTH | TANGENT | DELTA | CHORD BEARING | CHORD |
|---|---|---|---|---|---|---|
| C1 | 96.22' | 75.72' | 39.80' | 44°15'23" | N67°03'09"W | 73.84' |
| C2 | 352.22' | 114.00' | 57.50' | 18°32'41" | N54°14'18"W | 113.50' |
| C3 | 179.78' | 123.77' | 64.45' | 39°26'46" | S80°44'58"W | 121.34' |
| C4 | 341.74' | 155.87' | 79.21' | 26°05'59" | S74°04'34"W | 154.53' |
| C5 | 239.78' | 165.08' | 85.96' | 39°26'46" | S80°44'58"W | 161.84' |
| C6 | 281.74' | 128.34' | 65.30' | 26°05'59" | S74°04'34"W | 127.23' |


MORRIS & RITCHIE ASSOCIATES, INC.
ENGINEERS, PLANNERS, SURVEYORS AND LANDSCAPE ARCHITECTS
205 E. HIRST ROAD, STE 106
PURCELLVILLE, VA 20132
(703) 994-4047
MRAGTA.COM


PROSPECT PLACE
(PROPERTY LOCATION & AREA EXHIBIT)

CITY OF CHARLES TOWN
JEFFERSON COUNTY, WEST VIRGINIA
SCALE: 1"=100'
DATE: 10/02/23


L:\Projects\Prospect Place\VEZONING\Property location Map Exhibit-01.dwg, 10/2/2023 12:54:21 PM, CStephenson,
1:1, Copyright 2022 Morris & Ritchie Associates, Inc.

CHERRY TREE DRIVE

MULBERRY TREE ST.

CLARENCE DR

EUCLID AVE

CLARENCE DR

CLARENCE CT

N 78° 56' 00" W 47.36'

N 12° 42' 27" W 248.56'

N 08° 37' 19" W 250.00'

S 11° 04' 00" W 883.27'

PORTION TO REMAIN
(GC DISTRICT) ±6.71 AC

N 04° 11' 25" W 401.20'

S 40° 19' 32" W 26.55'

L=21.67'
R=25.00'

L=46.08'
R=92.28'

L=51.60'
R=97.97'

N 16° 57' 57" W 151.61'

S 02° 31' 09" E 206.71'

N 88° 03' 35" E 383.24'

N 08° 51' 21" W 77.43'

US ROUTE 340

LIMITS OF REZONING
(NR DISTRICT)
NEIGHBORHOOD RESIDENTIAL
±50.17 AC

MAGNOLIA SPRINGS

STONE SPRINGS

NORTH
NAD83

100 50 0 100 200 300

GRAPHICAL SCALE: 1" = 100'


**MORRIS & RITCHIE ASSOCIATES, INC.**
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PURCELLVILLE, VA 20132
(703) 994-4047

MRAGTA.COM


PROSPECT PLACE
(REZONING EXHIBIT)

CITY OF CHARLES TOWN
JEFFERSON COUNTY, WEST VIRGINIA
SCALE: 1"=100'
DATE: 10/02/23 / (REVISED 11/03/23)


L:\Projects\Prospect Place\REZONING\Rezoning Map Exhibit.dwg, 11/3/2023 10:53:00 AM, CStephenson,
1:1, Copyright 2022 Morris & Ritchie Associates, Inc.

CHERRY TREE DRIVE

ROUTE 340

MULBERRY TREE ST.

SECOND STREET

CLARENCE DR

EUCLID AVE

CLARENCE DRIVE

CLARENCE DR THIRD STREET

CLARENCE CT

US ROUTE 340

STONE SPRINGS

MAGNOLIA SPRINGS

OPEN SPACE

LIMITS OF REZONING
(NR DISTRICT)
NEIGHBORHOOD RESIDENTIAL
±50.17 AC

PORTION TO REMAIN
(GC DISTRICT) ±6.71 AC

LOT #6

LOT #5

LOT #4

LOT #3

LOT #2

LOT #1

U ±5.89 AC (NC USES) =
11.7% OF ±50.17 (NR DISTRICT)

## SITE LEGEND

- NR - RESIDENTIAL AREA
- NR - COMMERCIAL AREA
- NR - OPEN SPACE AREA
- EXISTING GC DISTRICT TO REMAIN
- VEHICULAR CIRCULATION

NORTH
NAD83

## SUMMARY

PROPOSED NEIGHBORHOOD RESIDENTIAL (NR) DISTRICT = ±50.17 AC

PER SECTION 13.22.08(B)3:

REQUIRED:

MIN. 50% RESIDENTIAL
MIN. 10% NEIGHBORHOOD COMMERCIAL USES
MIN. 10% OPEN SPACES

PROVIDED:

| | |
|---|---|
| RESIDENTIAL | = ±37.75 AC / 75.3% |
| COMMERCIAL USES | = ±5.89 AC / 11.7% |
| OPEN SPACE | = ±6.53 AC / 13% |

## NOTES:

- THIS LAYOUT IS FOR CONCEPTUAL PURPOSES AND IS SUBJECT TO CHANGE BASED ON ENGINEERING, ARCHITECTURAL AND OR CHANGES IN MARKET DEMANDS.
- THE NUMBER AND CONFIGURATION OF THE PROPOSED LOTTING WITHIN THE COMMERCIAL AREAS IS ILLUSTRATIVE AND SUBJECT TO CHANGE.
- THE PERCENTAGES OF USES ARE SUBJECT TO FINAL DESIGN AND WILL MEET OR EXCEED THE MINIMUM REQUIREMENTS PER SECTION 13.22.08(B)3

100 50 0 100 200 300

GRAPHICAL SCALE: 1" = 100'

THIS SHEET IS FOR ILLUSTRATIVE PURPOSES

MORRIS & RITCHIE ASSOCIATES, INC.
ENGINEERS, PLANNERS, SURVEYORS AND LANDSCAPE ARCHITECTS
205 E. HIRST ROAD, STE 106
PURCELLVILLE, VA 20132
(703) 994-4047
MRAGTA.COM

PROSPECT PLACE
(ILLUSTRATIVE EXHIBIT)

CITY OF CHARLES TOWN
JEFFERSON COUNTY, WEST VIRGINIA
SCALE: 1"=100'
DATE: 11/03/23

L:\Projects\Prospect Place\REZONING\Illustrative Exhibit.dwg, 11/3/2023 10:54:11 AM, CStephenson,
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# EXHIBIT I

As Attachment To Resolution # 2007-08

**CONDITIONS OF ANNEXATION FOR PROSPECT PLACE**

This annexation comprises the properties of Maria V. Weese and Richard W. Weese, wife and husband (Charles Town Magisterial District, Map 10A, Parcels 117, 118 and 119); Harry M. Kable and Carol F. Kable, husband and wife, and Larry R. Fritts, Sr. (Charles Town Magisterial District, Map 10, Parcel 1.7); Charles Town Limited Partnership VI, a West Virginia Limited Partnership (Charles Town Magisterial District, Map 10, Parcel 9.6); and First Charles Town Group, Inc., a West Virginia Corporation (Charles Town Magisterial District, Map 10, Parcel 1.6), hereinafter referred to as "the Property" or "the Annexed Territory". The titled owners of the Property agree for themselves, their successors, grantees and assigns, to the following conditions of annexation if the Property is annexed into and becomes a part of the Municipality of Charles Town, hereinafter referred to as "the City" or as "Charles Town." The Property will be developed into five separate and distinguishable sites of development:

a) Three to four acres are committed to low-to-moderate income rental housing units (50 units to be located on a portion of Tax Map 10, Parcel 9.6).

b) Not more than twenty town-house market rate residences are to be located on a portion of Tax Map 10A, Parcel 118.

c) Up to ten acres are to be committed to market rate garden type apartments to be located on a portion of Tax Map 10, Parcel 9.6.

d) Up to fifteen acres are to be committed to commercial development (office space and/or retail stores) to be located partially on Tax Map 10, Parcel 1.7 and a portion of Tax Map 10, Parcel 1.6.

e) The balance of the Property would be developed as age targeted duplex and/or quadraplex units; or a mix of market rate town-homes and single-family detached dwellings.

Impact statements pertaining to the City of Charles Town Annexation Policy Evaluation Criteria, and all proposed voluntary contributions, submitted as conditions of annexation, are as follows:

PLANNING & ZONING COMPLIANCE – EVALUATION CRITERIA #1:

Evaluation Criteria 1A – Comprehensive Plan

This annexation is consistent with the City of Charles Town Comprehensive Plan per the following:

Chapter 3 – Charles Town's Vision for the Future

- Commerce and Industry – As set forth above, the Property will have a commercial component of up to fifteen acres, which will provide for new employment opportunities and increased local property tax revenues. The two residential rental projects referred to above will also generate Business and Occupation Taxes for the City on all of the rental income collected.

- Safety and Walkability - The Petitioners plans for the Property will promote pedestrian access from neighboring residential communities, by way of sidewalks to be developed on the Property. The Property (each of the aforementioned projects) will have street lights in accordance with the City's requirements and for safety purposes.

- Affordable Living – As mentioned hereinabove, three to four acres of the Property are committed to 50 units of low-to-moderate income rental apartments. Eligibility of tenants in this project is limited to family units which earn 60% or less of median family income for Jefferson County, as revised semi-annually by the Secretary of Housing and Urban Development.

- Jobs – During the development of the property and the construction of individual units, the development of the Property will provide jobs in the local construction trades. Upon completion of the projects, the Property's commercial component will provide long-term employment opportunities.

- Infrastructure – The Petitioners are providing the infrastructure for the Project's development by building the necessary roads and storm water management facilities. Water service for the development of the Property is from the City of Charles Town Water Department.

- Beautification – In keeping with the City's beautification efforts, the Petitioners intend to install lampposts of the same type used in the City's center. Plans are to bury all utility wires and plant trees in the preserved open space.

- Parks, Trails, Greenspace, and Recreation – Each development within the Property will provide for open space and recreation designed in size and quality to meet the City's requirements for each such development.

Evaluation Criteria 1B – Urban Zoning

The following Charles Town zoning classification is requested with this annexation and is appropriate and will promote the desired development on the Property ensuring orderly future growth that is consistent with the Charles Town growth policy. NR – Neighborhood Residential.

Evaluation Criteria 1C – Contiguous Location

The Property satisfies the requirements of the West Virginia code and is contiguous to the existing corporate limits on East Washington Street. This annexation would annex into the city beginning at East Washington Street those portions of WV Route 51, and Prospect Avenue (WV 340/8) between the Property and the existing corporate limits.

Evaluation Criteria 1D – Transportation Planning

This annexation is compatible with the City's efforts to coordinate land use and transportation planning in order to avoid adverse traffic impacts on the community. To this end, the Petitioners agree to the following:

All non-state roads shall be accepted by the City to service the eventual users, residents and tenants of the road network.

Connectivity of any internal roads and/or parking lot facilities shall be provided between adjoining properties to the greatest extent feasible, as determined by the Planning Commission and the developers of the Property.

The developers of the Property will work with the applicable transit authority to provide appropriate bus stop designations within the development, if requested to do so by the applicable entity.

ECONOMIC GROWTH – EVALUATION CRITERIA #2:

This annexation increases the City's ability to create quality jobs and establish retail and commercial businesses. Commercial space to be developed within the designated 15 acre portion of this annexation will create significant taxes for the City.

AFFORDABLE HOUSING – EVALUATION CRITERIA #3

Within the Annexed Territory, as set forth hereinabove, there will be developed 50 units of low-to-moderate income housing. In addition, age targeted residential development of the balance of the Property will afford those qualified individuals (55 years of age or greater) another selection in their search for owner occupied housing stock in the City.

PROTECTION OF RESOURCES – EVALUATION CRITERIA #4

All known environmental features, including, but not limited to, sinkholes, floodplain, wetland, natural waterways, natural drainage ways, and woodlands shall be identified on individual site plans. Any disturbance of environmental features shall be limited unless it is demonstrated that all city, county, state, and federal regulations are complied with.

MUNICIPAL INFRASTRUCTURE AND SERVICES – EVALUATION CRITERIA #5

The Property will be served by the Charles Town Water Department (water) and Willow Spring Public Service Corporation (sewer).

FISCAL IMPACT – EVALUATION CRITERIA #6

This annexation will provide a positive fiscal impact from the future businesses that will locate within the Annexed Territory through substantial increased Business and Occupation tax collections. This will include the commercial development as well as the two planned multi-family projects, one market rate and one low-to-moderate income.

With regard to residential development, with the exception of the Weese parcel (town-house development) and the low-to-moderate income multi-family rental project (three to four acre parcel) the Petitioners agree to pay to the City amounts of contributions, as conditions of annexation, equal to the impact fees that the Petitioners would have had to pay to the Jefferson County Commission had the Petitioners' property not become annexed into the City. The City agrees not to assess any type of fee, assessment or other charge upon the Petitioners' property that would otherwise be due solely as a condition of annexation, such as Capital Cost Fee or Non-Capital Cost Fee. With regard to said townhouse parcel, the Weeses agree to pay the Capital Cost Fee ($948) and the Non-Capital Cost Fee ($4,500) per unit at the time a building permit is issued. With regard to the low-to-moderate income multi-family rental project, no voluntary contributions are made as part of these conditions for annexation. The parties acknowledge that there are cases currently pending in the state courts in which the imposition of county impact fees with municipal limits is in issue. The rulings in these cases may or may not affect the applicability of county impact fees to developments in the subject annexed territory, notwithstanding the conditions of annexation already provided herein. The parties acknowledge that the conditions of annexation required herein are not intended to result in a double payment by the Petitioners, their successors and assigns, of contributions, through both impact fees and conditions of annexation, to support services impacted by the uses to be developed in the subject territory. Accordingly, any funds paid to the City of Charles Town as a condition of this annexation shall be held in escrow until the cases now pending are resolved. If the rulings in the pending cases would result in the application of county impact fees to the subject territory, the funds paid to the City of Charles Town hereunder would be applied to such fees. Nothing contained herein is intended to relieve the Petitioners, their successors and assigns, of the obligation to pay applicable county impact fees for schools, which obligation both parties acknowledge is unaffected by the annexation conditions provided herein, and which obligation is specifically required by the Settlement Agreement dated October 1, 2004, in Civil Action No. 04-C-194 in the Circuit Court of Jefferson County. The Petitioners also will undertake a Traffic Impact Study within established guidelines of the City.

All of the above voluntary contributions offered in this document as conditions of this annexation shall be binding to all of the above-described property that is annexed into the City of Charles Town. The property owners shall ensure that these restrictions are conveyed with the property to all future assigns and/or transferees of all or any part of the subject property, excluding land given to the City of Charles Town, West Virginia Department of Transportation, or other local, state or federal government entity. These conditions of annexation shall be fully enforceable.

Dated this 10th day of February, 2007.

Petitioner – Maria V. Weese

City of Charles Town, Mayor

Petitioner – Richard W. Weese

Petitioner – Harry M. Kable

Petitioner – Carol F. Kable

Petitioner – Larry R. Fritts, Sr.

Petitioner - Charles Town Limited Partnership VI

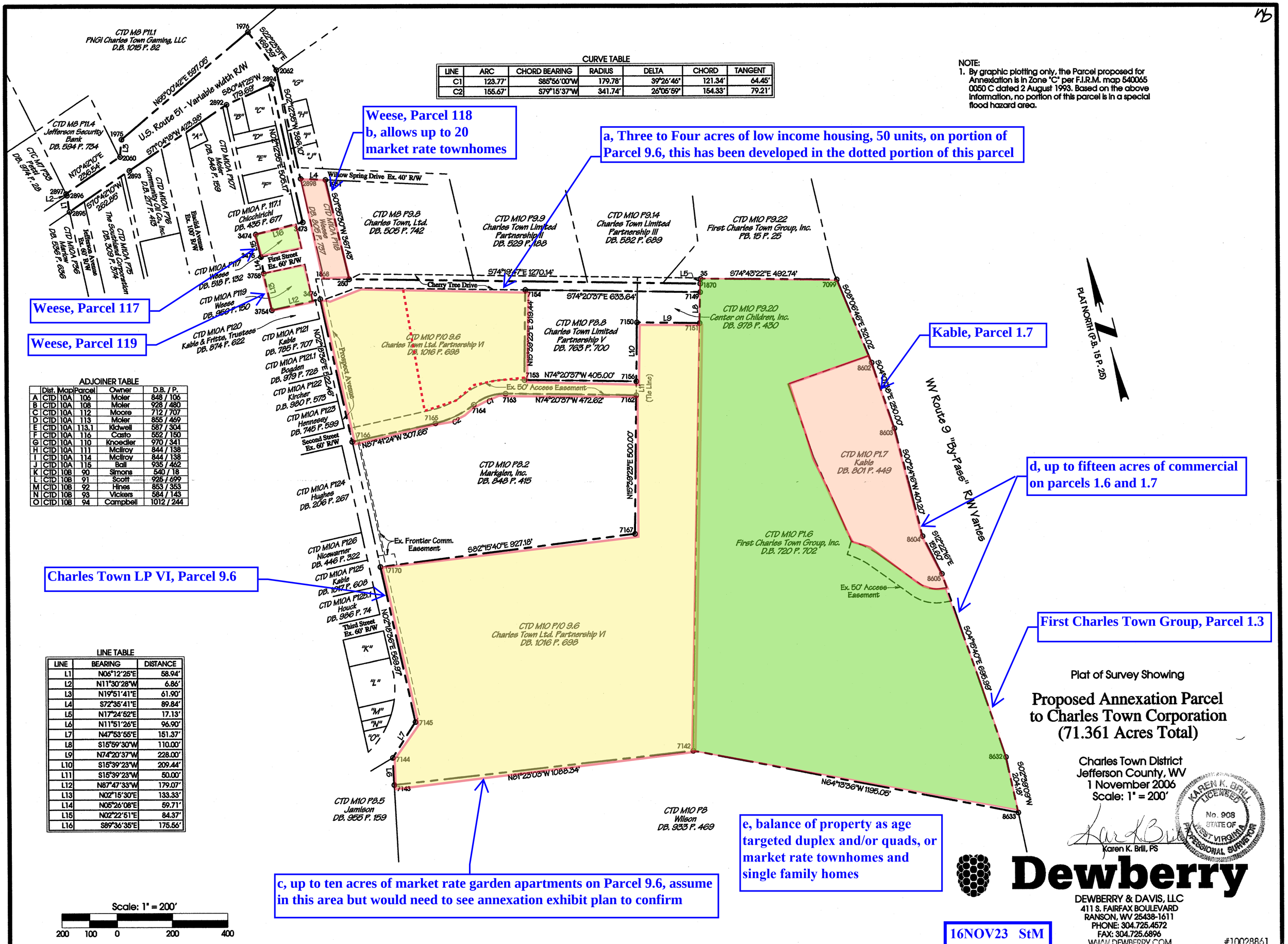
By:
General Partner

Petitioner - First Charles Town Group, Inc.

By::
Its President

ATTEST:

City Clerk




CURVE TABLE

| LINE | ARC | CHORD BEARING | RADIUS | DELTA | CHORD | TANGENT |
|---|---|---|---|---|---|---|
| C1 | 123.77' | S85°56'00"W | 179.78' | 39°26'46" | 121.34' | 64.45' |
| C2 | 155.67' | S79°15'37"W | 341.74' | 26°05'59" | 154.33' | 79.21' |

NOTE:
1. By graphic plotting only, the Parcel proposed for Annexation is in Zone "C" per F.I.R.M. map 540065 0050 C dated 2 August 1993. Based on the above information, no portion of this parcel is in a special flood hazard area.

Weese, Parcel 118
b, allows up to 20 market rate townhomes

a, Three to Four acres of low income housing, 50 units, on portion of Parcel 9.6, this has been developed in the dotted portion of this parcel

Weese, Parcel 117

Weese, Parcel 119

Kable, Parcel 1.7

d, up to fifteen acres of commercial on parcels 1.6 and 1.7

First Charles Town Group, Parcel 1.3

Charles Town LP VI, Parcel 9.6

c, up to ten acres of market rate garden apartments on Parcel 9.6, assume in this area but would need to see annexation exhibit plan to confirm

e, balance of property as age targeted duplex and/or quads, or market rate townhomes and single family homes

ADJOINER TABLE

| | Dist. Map | Parcel | Owner | D.B. / P. |
|---|---|---|---|---|
| A | CTD 10A | 106 | Moler | 848 / 106 |
| B | CTD 10A | 108 | Moler | 928 / 480 |
| C | CTD 10A | 112 | Moore | 712 / 707 |
| D | CTD 10A | 113 | Moler | 855 / 469 |
| E | CTD 10A | 113.1 | Kidwell | 587 / 304 |
| F | CTD 10A | 116 | Casto | 552 / 150 |
| G | CTD 10A | 110 | Knoedler | 970 / 341 |
| H | CTD 10A | 111 | McIlroy | 844 / 138 |
| I | CTD 10A | 114 | McIlroy | 844 / 138 |
| J | CTD 10A | 115 | Ball | 935 / 462 |
| K | CTD 10B | 90 | Simons | 540 / 18 |
| L | CTD 10B | 91 | Scott | 925 / 699 |
| M | CTD 10B | 92 | Hines | 853 / 353 |
| N | CTD 10B | 93 | Vickers | 584 / 143 |
| O | CTD 10B | 94 | Campbell | 1012 / 244 |

LINE TABLE

| LINE | BEARING | DISTANCE |
|---|---|---|
| L1 | N06°12'25"E | 58.94' |
| L2 | N11°30'28"W | 6.86' |
| L3 | N19°51'41"E | 61.90' |
| L4 | S72°35'41"E | 89.84' |
| L5 | N17°24'52"E | 17.13' |
| L6 | N11°51'26"E | 96.90' |
| L7 | N47°53'55"E | 151.37' |
| L8 | S15°59'30"W | 110.00' |
| L9 | N74°20'37"W | 228.00' |
| L10 | S15°39'23"W | 209.44' |
| L11 | S15°39'23"W | 50.00' |
| L12 | N87°47'33"W | 179.07' |
| L13 | N02°15'30"E | 133.33' |
| L14 | N05°26'08"E | 59.71' |
| L15 | N02°22'51"E | 84.37' |
| L16 | S89°36'35"E | 175.56' |

Scale: 1" = 200'
200 100 0 200 400

Plat of Survey Showing

# Proposed Annexation Parcel to Charles Town Corporation (71.361 Acres Total)

Charles Town District
Jefferson County, WV
1 November 2006
Scale: 1" = 200'

Karen K. Brill, PS

KAREN K. BRILL LICENSED No. 908 STATE OF WEST VIRGINIA PROFESSIONAL SURVEYOR


Dewberry
DEWBERRY & DAVIS, LLC
411 S. FAIRFAX BOULEVARD
RANSON, WV 25438-1611
PHONE: 304.725.4572
FAX: 304.725.6896
WWW.DEWBERRY.COM


#10028861

16NOV23 StM

# City of Charles Town

101 East Washington Street, P.O. Box 14, Charles Town, WV 25414
Phone: (304) 725-2311 ♦ Fax: (304) 725-1014 ♦ Web: www.charlestownwv.us



MAYOR

*Peggy A. Smith*

CITY COUNCIL

*Donald Clendening*

*MaryLois Gannon-Miller*

*Ruth McDaniel*

*Sandra Slusher McDonald*

*Ann Paonessa*

*Amy Schmitt*

*Michael Slover*

*Geraldine Willingham*

CITY MANAGER

*Gary Rawlings*

CITY CLERK

*Joe Cosentini*


## Resolution 2008-21

AN AMENDMENT TO THE CONDITIONS OF ANNEXATION FOR PROSPECT PLACE

WHEREAS, The City of Charles Town annexed property (71.361 acres) owned by Charles Town Limited Partnership, VI; First Charles Town Group, Inc.; Maria V. Weese and Richard W. Weese; Harry M. Kable and Carol F. Kable; and Larry R. Fritts, Sr. on February 20, 2007; and

WHEREAS, The City of Charles Town and Charles Town Limited Partnership VI, First Charles Town Group, INC., Richard W. Weese and Maria V. Weese, Harry M. Kable and Carol F. Kable and Larry R. Fritts, Sr. negotiated Conditions of Annexation; and

WHEREAS, The Developer has asked that the Conditions of Annexation be amended;

NOW, THEREFORE, BE IT RESOLVED, by the City Council of the City of Charles Town, West Virginia, to accept and approve amendments to the Conditions of Annexation for Prospect Place (attached hereto as Exhibit 1: AMENDED AND RESTATED CONDITIONS OF ANNEXATION FOR PROSPECT PLACE)

Dated: November 17, 2008

Peggy A. Smith, Mayor

Attest:

City Clerk

**EXHIBIT I**

As Attachment to Resolution #2008-21

**AMENDED AND RESTATED**
**CONDITIONS FOR ANNEXATION FOR PROSPECT PLACE**

This annexation comprises the properties of Maria V. Weese and Richard W. Weese, wife and husband (Charles Town Magisterial District, Map 10A, Parcels 117, 118 and 119); Harry M. Kable and Carol F. Kable, husband and wife, and Larry R. Fritts, Sr. (Charles Town Magisterial District, Map 10, Parcel 1.7); Charles Town Limited Partnership VI, a West Virginia Limited Partnership (Charles Town Magisterial District, Map 10, Parcel 9.6); and First Charles Town Group, Inc., a West Virginia Corporation (Charles Town Magisterial District Map 10, Parcel 1.6), hereinafter referred to as "the Property" or "the Annexed Territory". The titled owners of the Property agree for themselves, their successors, grantees and assigns, to the following amended and restated conditions of annexation if the Property is annexed into and becomes a part of the Municipality of Charles Town, (the property has already been annexed into the City of Charles Town) hereinafter referred to as "the City" or as "Charles Town." The Property will be developed into three separate and distinguishable sites of development:

a) Three to four acres are committed to low-to-moderate income rental housing units (50 units to be located on a portion of Tax Map 10, Parcel 9.6).

b) Not more than twenty town-house market rate residences are to be located on a portion of Tax Map 10A, Parcel 118.

c) All of the parcel identified as Tax Map 10, Parcel 1.7 and a portion of Tax Map 10, Parcel 9.6, and a portion of the parcel identified as Tax Map 10, Parcel 1.6 are committed to commercial development; a modification and/or reclassification of the official zoning map of Charles Town will be requested to change the zoning classification from NR (neighborhood residential) to GC (general commercial).

Impact statements pertaining to the City of Charles Town Annexation Policy Evaluation Criteria, and all proposed voluntary contributions, submitted as conditions of annexation, are as follows:

PLANNING & ZONING COMPLIANCE – EVALUATION CRITERIA #1:

Evaluation Criteria 1A – Comprehensive Plan

This annexation is consistent with the City of Charles Town Comprehensive Plan per the following:

Chapter 3 – Charles Town's Vision for the Future

- Commerce and Industry – As set forth above, the Property will have a commercial component of up to approximately 57.8 acres, which will provide for new employment opportunities and increased local property tax revenues. One residential rental project referred to above will also generate Business and Occupation Taxes for the City on all of the rental income collected.

- Safety and Walkability – The Petitioner's current plans for the Property will promote pedestrian access from neighboring residential communities, by way of sidewalks to be developed on the Property. Within the 57.8 acres of General Commercial (GC), the Petitioner will develop an integrated pedestrian network between groups of building on the site where practical and attempt to provide pedestrian connectivity to adjoining properties. The layout of this network will be subject to the safety and security requirements of the overall development and the anchor tenants within the project.

- Affordable Living – As mentioned hereinabove, three to four acres of the Property are committed to 50 units of low-to-moderate income rental apartments. Eligibility of tenants in this project is limited to family units which earn 60% or less of the median family income for Jefferson County, as revised semi-annually by the Secretary of Housing and Urban Development.

- Jobs – During development of the property and the construction of buildings and individual units, the development of the Property will provide jobs in the local construction trades. Upon completion of the projects, the Property's commercial component will provide long-term employment opportunities.

- Infrastructure – The Petitioners are providing the infrastructure for the Property's development by building the necessary roads and storm water management facilities. Water service for the development of the Property will be from the City of Charles Town Water Department; sewer service for the development of the Property will be from the City of Charles Town or the Willow Spring Public Service Corporation.

- Beautification – Plans are to bury all utility wires and to landscape, including the planting of trees where appropriate, in the preserved open space. If the development of the 57.8 acres of General Commercial requires any off site road extensions to be constructed, the Petitioner will, if required, provide street lighting for and along such road extensions in accordance with the City requirements.

- Parks, Trails, Greenspace, and Recreation – Each development within the Property will provide for open space and recreation designed to confirm to the requirements of the NR zoning classification of the City, as applicable. Within the 57.8 acres of GC, the Petitioner will use reasonable efforts to maximize the amount of open space on the property where practical. If possible and where practical the Petitioner will also look for reasonable opportunities to create usable recreational space that is compatible with project uses.

Evaluation Criteria 1B – Urban Zoning

The following Charles Town zoning classification is requested with this annexation and is appropriate and will promote urban development on the Property ensuring orderly future growth that is consistent with the Charles Town growth policy. GC General Commercial and NR Neighborhood Residential. The Petitioner understands that the City of Charles Town zoning ordinance is currently being updated. The Petitioner will work in good faith with City staff to utilize applicable portions of the General Commercial District section of the draft version in place as of the effective date of this document until such time as a final Charles Town ordinance is adopted. In regards to stormwater management the petitioner will use State of Virginia regulations as is the common engineering practice as of the effective date of this document.

Evaluation Criteria 1C – Contiguous Location

The Property satisfies the requirements of the West Virginia Code and is contiguous to the existing corporate limits on East Washington Street. This annexation would annex into the city beginning at East Washington Street those portions of WV Route 51, and Prospect Avenue (WV

340/8) between the Property and the existing corporate limits. (The property is already annexed into the City)

Evaluation Criteria 1D – Transportation Planning

This annexation is compatible with the City's efforts to coordinate land use and transportation planning and to avoid adverse traffic impacts on the community. To this end, the Petitioners agree to the following:

Prior to the submission of a site plan for the 57.8 acres of GC for review by the Charles Town Planning Commission, the Petitioner will prepare and submit a traffic impact study to the WV DOT with a copy to the City of Charles Town planning staff. The study will be used to obtain the requisite State Route 340 Bypass entrance permits for the proposed 57.8 acre GC development and the Petitioner will be responsible for all necessary roadway improvements as required by WV DOT as part of the entrance permit requirements. For the 57.8 acres of GC, the site plan shall provide for no less than two points of vehicular access to the property from either private or public roads, one of which shall be the intersection at Route 340 at the current median break. The second vehicular access point shall be on the north or west side of the property.

All non-state roads shall be accepted by the City to service the eventual users, residents and tenants of the road network.

Connectivity of any internal roads and/or parking lot facilities shall be provided between adjoining properties to the greatest extent feasible, as determined by the Planning Commission and the developers of the Property.

The developers of the Property will work with the applicable transit authority to provide appropriate bus stop designations within the development, if requested to do so by the applicable entity.

ECONOMIC GROWTH – EVALUATION CRITERIA #2:

This annexation increases the City's ability to create quality jobs and establish retail and commercial businesses. Commercial space to be developed within the designated 57.8 acre portion of this annexation will create significant taxes for the City.

AFFORDABLE HOUSING – EVALUATION CRITERIA #3:

Within the Annexed Territory, as set forth hereinabove, there will be developed 50 units of low-to-moderate income housing.

PROTECTION OF RESOURCES – EVALUATION CRITERIA #4:

All known environmental features, including, but not limited to, sinkholes, floodplain, wetland, natural waterways, natural drainage ways, and woodlands shall be identified on individual site plans. Any disturbance of environmental features shall be limited unless it is demonstrated that all city, county, state and federal regulations are complied with.

With the Petitioner's initial Site Plan submittal for the 57.8 acres of GC, the Petitioner will provide a copy of the U.S. Army Corps of Engineers Jurisdictional Determination for the property as well as a statement as to the status and location of any other regulated environmentally sensitive areas on the property, if any, and how these, and any Jurisdictional Areas (if any) will be addressed by the proposed development of the project.

MUNICIPAL INFRASTRUCTURE AND SERVICES – EVALUATION CRITERIA #5:

The Property will be served by the Charles Town Water Department (water) and Willow Spring Public Service Corporation (sewer) or the Charles Town Sewer Department.

FISCAL IMPACT – EVALUATION CRITERIA #6:

This annexation will provide a positive fiscal impact from the future businesses that will locate within the Annexed Area through substantial increased Business and Occupation tax collections. This will include the commercial development as well as the one planned multi-family project for persons of low-to-moderate family income levels.

With regard to said townhouse parcel, the Weeses agree to pay the Capital Cost Fee ($948) and the Non-Capital Cost Fee ($4,500) per unit at the time a building permit is issued. With regard to the low-to-moderate income multi-family rental project, no voluntary contributions are made as part of these amended and restated conditions for annexation. The parties acknowledge that there are cases currently pending in state courts in which the imposition of county impact fees within municipal limits is in issue. The rulings in these cases may or may not affect the applicability of county impact fees to developments in the subject Annexed Territory, notwithstanding the amended and restated conditions of annexation already provided herein. The parties acknowledge that the amended and restated conditions of annexation required herein are not intended to result in a double payment by the Petitioners, their successors and assigns, of contributions, through both impact fees and amended and restated conditions of annexation, to support services impacted by the uses to be developed in the subject territory. Accordingly, any funds paid to the City of Charles Town as a condition of this annexation shall be held in escrow until the cases now pending are resolved. If the rulings in the pending cases would result in the application of county impact fees to the subject territory, the funds paid to the City of Charles Town hereunder would be applied to such fees.

All of the above voluntary contributions offered in this document as amended and restated conditions of this annexation shall be binding to all of the above-described property that is annexed in to the City of Charles Town. The property owners shall ensure that these restrictions are conveyed with the property to all future assigns and/or transferees of all or any party of the subject property, excluding land given to the City of Charles Town, West Virginia Department of Transportation, or other local, state or federal government entity. These amended and restated conditions of annexation shall be fully enforceable.

Dated this 17th day of NOVEMBER 2008.

Petitioner – Maria V. Weese

City of Charles Town, Mayor

Petitioner – Richard W. Weese

Petitioner – Harry M. Kable

Petitioner – Carol F. Kable

Petitioner – Larry R. Fritts, Sr.

Petitioner – Charles Town Limited Partnership VI

By: _____
General Partner

Petitioner – First Charles Town Group, Inc.

By: _____
Its President

# Downtown Charles Town

## Charles Town, West Virginia




# Market Snapshot

Charles Town Now and community partners are taking a pro-active approach to planning for the future prosperity of Charles Town's traditional downtown business district.

Current and ongoing efforts are serving to heighten the appeal of Downtown Charles Town as a place to do business, work, visit, and live. A holistic approach to revitalization is reviving the community's historic city center as a local and regional attraction and economic engine.

This Market Snapshot, prepared in conjunction with technical assistance commissioned by Main Street West Virginia, summarizes and highlights key characteristics and trends in the marketplace. The information provides benchmarks and a market-driven basis for exploring opportunities and fine-tuning Downtown Charles Town real estate and business development strategies.

CHARLES TOWN NOW

LIVE · WORK · PLAY

### Charles Town is a Main Street West Virginia community.

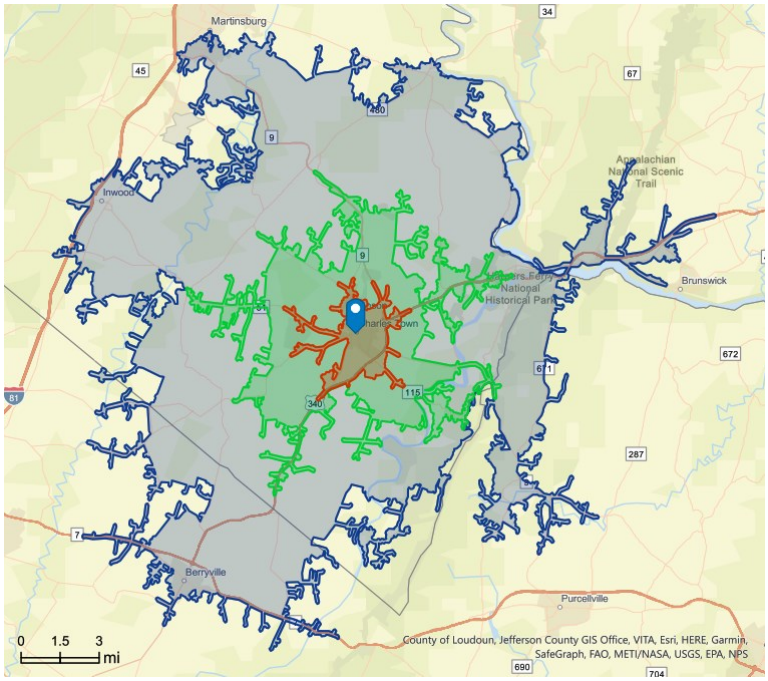
Main Street West Virginia and West Virginia ON TRAC are downtown revitalization programs that follow the National Main Street Center's community -based approach to preservation and development. A subsidiary of The National Trust for Historic Preservation, Main Street is a successful community development model used in thousands of communities across the country.

west virginia CaD ON TRAC / MainStreet

Downtown Charles Town Drive Time Market

# Demographic Fast Facts

Esri 2021




| Population | 5 Minutes | 10 Minutes | 20 Minutes |
|---|---|---|---|
| 2010 Total | 10,550 | 22,896 | 80,159 |
| 2021 Estimate | 11,657 | 26,176 | 92,182 |
| 2026 Projection | 12,776 | 30,260 | 102,120 |
| Growth (2021-26) | 9.6% | 15.6% | 10.8% |
| Projected State Population Growth (2021-26) | | | 0.0% |

| 2021 Daytime Pop | 5 Minutes | 10 Minutes | 20 Minutes |
|---|---|---|---|
| Total Daytime Population | 13,206 | 26,291 | 81,666 |
| Workers | 7,621 | 13,869 | 35,887 |
| Residents | 5,585 | 12,422 | 45,779 |
| Daytime Change | 13.3% | 0.4% | -11.4% |

| Households | 5 Minutes | 10 Minutes | 20 Minutes |
|---|---|---|---|
| 2010 Census | 4,175 | 8,675 | 29,813 |
| 2021 Estimate | 4,608 | 9,925 | 34,316 |
| 2026 Projection | 5,031 | 11,456 | 38,014 |
| Growth (2021-26) | 9.2% | 15.4% | 10.8% |
| Projected State Households Growth (2021-26) | | | 0.0% |

| Median HH Income | 5 Minutes | 10 Minutes | 20 Minutes |
|---|---|---|---|
| 2021 Estimate | $66,387 | $80,673 | $75,468 |
| 2026 Projection | $73,960 | $89,162 | $82,394 |
| Growth (2021-26) | 11.4% | 10.5% | 9.2% |
| 2021 State Median HH: $48,509 | | | 2021-26 Growth: 8.8% |

Source: Esri Market Profile | 08.21

# MARKET TRAITS ESRI 2021

| HOUSING UNITS | 5 Minutes | 10 Minutes | 20 Minutes |
|---|---|---|---|
| 2021 Estimate | 5,215 | 10,935 | 37,739 |
| - Owner Occupied | 55.8% | 65.7% | 69.6% |
| - Renter Occupied | 32.6% | 25.1% | 21.3% |
| - Vacant | 11.6% | 9.2% | 9.1% |
| Estimated State Percent Vacant (2021) | | | 15.3% |

## POPULATION BY RACE/ETHNICITY—DIVERSITY

| Diversity Index | 5 Minutes | 10 Minutes | 20 Minutes |
|---|---|---|---|
| 2010 | 46.2 | 39.5 | 29.9 |
| 2021 | 53.2 | 46.1 | 36.3 |
| 2026 | 56.0 | 49.0 | 39.5 |

State Diversity Index **2021**: 17.0 **2026**: 18.8

*The Diversity Index summarizes racial and ethnic diversity. The index shows the likelihood that two persons, chosen at random from the same area, belong to different race or ethnic groups. The index ranges from 0 (no diversity) to 100 (complete diversity).*

## 2021 POPULATION 25+ BY EDUCATIONAL ATTAINMENT

| Education | 5 Minutes | 10 Minutes | 20 Minutes |
|---|---|---|---|
| No HS Diploma | 11.5% | 10.0% | 10.4% |
| HS Grad/GED | 34.7% | 33.1% | 32.4% |
| Some College/Assoc | 25.3% | 26.1% | 28.9% |
| Bachelor/Grad/Prof | 28.4% | 30.8% | 28.2% |

### PER CAPITA INCOME
2021 ESTIMATE

| | |
|---|---|
| 5 Minutes | $36,663 |
| 10 Minutes | $39,785 |
| 20 Minutes | $36,654 |
| State | $27,523 |

### MEDIAN AGE
2021 ESTIMATE

| | |
|---|---|
| 5 Minutes | 39.8 |
| 10 Minutes | 39.2 |
| 20 Minutes | 40.4 |
| State | 43.8 |

### 2021 EMPLOYED
CIVILIAN POPULATION 16+

| | |
|---|---|
| 5 Minutes | 91.6% |
| 10 Minutes | 92.3% |
| 20 Minutes | 93.2% |
| State | 93.5% |

## 2021 EMPLOYMENT BY OCCUPATION

| 2021 Employed 16+ | 5 Minutes | 10 Minutes | 20 Minutes |
|---|---|---|---|
| Total Estimate | 6,045 | 13,785 | 46,607 |
| - White Collar | 61.1% | 64.5% | 63.3% |
| - Services | 18.4% | 17.2% | 15.4% |
| - Blue Collar | 20.5% | 18.3% | 21.3% |

Source: Esri Market Profile | 08.21



# LIFESTYLE PROFILE ESRI 2021

Esri's Community Tapestry is a geodemographic segmentation system that integrates consumer traits with residential characteristics to identify markets and classify U.S. neighborhoods. Tapestry Segmentation combines the "who" of lifestyle demography with the "where" of local geography to create a classification with 67 distinct behavioral market segments (Tapestry Segments), each belonging to one of fourteen LifeMode Groups.

### Top Drive Time Area Esri Tapestry LifeMode Groups

Tapestry LifeMode groups represent markets that share a common experience—born in the same generation or immigration from another country—or a significant demographic trait, like affluence. The Family Landscapes and GenXurban LifeMode Groups are among those most prevalent in the drive time areas.



## Family Landscapes (LM4) | #1 in All Drives

| 5 Minutes | | 10 Minutes | | 20 Minutes | |
|---|---|---|---|---|---|
| HHs | Percent | HHs | Percent | HHs | Percent |
| 1,952 | 42.4% | 6,385 | 64.3% | 16,975 | 49.5% |

- Successful young families in their first homes
- Non-diverse, prosperous married-couple families, residing in suburban or semirural areas with a low vacancy rate (second lowest)
- Homeowners (79%) with mortgages (second highest %), living in newer single-family homes, with median home value slightly higher than the U.S.
- Two workers in the family, contributing to the second highest labor force participation rate, as well as low unemployment
- Do-it-yourselfers, who work on home improvement projects, as well as their lawns and gardens
- Sports enthusiasts, typically owning newer sedans or SUVs, dogs, and savings accounts/plans, comfortable with the latest technology
- Eat out frequently at fast food or family restaurants to accommodate their busy lifestyle
- Especially enjoy bowling, swimming, playing golf, playing video games, watching movies rented via Redbox, and taking trips to a zoo or theme park



## GenXurban (LM 5) | #2 in 10 and 20 Minutes

| 5 Minutes | | 10 Minutes | | 20 Minutes | |
|---|---|---|---|---|---|
| HHs | Percent | HHs | Percent | HHs | Percent |
| 1,126 | 24.4% | 1,677 | 16.9% | 5,642 | 16.4% |

- Gen X in middle age; families with fewer kids and a mortgage
- Second largest Tapestry group, comprised of Gen X married couples, and a growing population of retirees
- About a fifth of residents are 65 or older; about a fourth of households have retirement income
- Own older single-family homes in urban areas, with 1 or 2 vehicles
- Live and work in the same county, creating shorter commute times
- Invest wisely, well-insured, comfortable banking online or in person
- News junkies (read a daily newspaper, watch news on TV, and go online for news)
- Enjoy reading, renting movies, playing board games and cards, doing crossword puzzles, going to museums and rock concerts, dining out, and walking for exercise

*Information on Esri Tapestry methodology and applications, along with descriptions for Tapestry's 67 segments, are available from the Esri website at:*
*http://doc.arcgis.com/en/esri-demographics/data/tapestry-segmentation.htm*

Source: Esri Community Tapestry Segmentation | 08.21

# RETAIL VIEW ESRI 2017 RETAIL MARKETPLACE DATA

Esri's Retail MarketPlace data provides a direct comparison between retail sales and consumer spending by industry. To capture a snapshot of an area's retail market place, a sales surplus or leakage, expressed in current dollars, is calculated to summarize the relationship between supply (retail sales by businesses) and demand (consumer spending by household). Deviations from potential sales, or demand, may reveal areas of opportunity in the trade area's retail sectors, keeping in mind any extenuating circumstances that may be driving the results.

DOWNTOWN CHARLES TOWN DRIVE TIME MARKET

## SALES SURPLUS AND LEAKAGE ESTIMATES | ($MM)

| Total Retail Trade (NAICS 44 – 45) | 5 Minutes | 10 Minutes | 20 Minutes |
|---|---|---|---|
| - Est. Sales (Supply) | $141.6M | $295.5M | $669.8M |
| - Potential Sales (Demand) | $138.2M | $332.8M | $1120.8M |
| - Est. Surplus/(Leakage) | $3.4M | ($37.3M) | ($451.0M) |
| | | | |
| Total Food and Drink (NAICS 722) | 5 Minutes | 10 Minutes | 20 Minutes |
| - Est. Sales (Supply) | $24.5M | $41.5M | $76.6M |
| - Potential Sales (Demand) | $14.8M | $35.8M | $118.9M |
| - Est. Surplus/(Leakage) | $9.6M | $5.7M | ($42.3M) |
| | | | |
| Total Retail, Food and Drink (NAICS 44 – 45, 722) | 5 Minutes | 10 Minutes | 20 Minutes |
| - Est. Sales (Supply) | $166.1M | $337.0M | $746.4M |
| - Potential Sales (Demand) | $153.1M | $368.6M | $1239.7M |
| - Est. Surplus/(Leakage) | $13.0M | ($31.6M) | ($493.3M) |

Estimates rounded to nearest one hundred thousand dollars.

Esri estimates of actual sales reflect current dollars derived from receipts of businesses primarily engaged in selling merchandise. Potential sales is estimated by using Esri's consumer spending data, which provides estimated expenditures for more than 700 products and services that are consumed by U.S. households. The estimate of an area's demand is based upon estimated expenditures by households within the defined geography.

Source: Esri and Data Axle. Esri 2021 Updated Demographics. Esri 2017 Retail MarketPlace.

Date Note 1: The Esri Retail MarketPlace database is in mature status. While the data are presented in current year geography, all supply- and demand-related estimates remain vintage 2017.

Data Note 2: The polarity of surplus/leakage estimates shown in this document (as compared to those shown in source Esri reports) have been reversed to show surplus as a positive value, and to show leakage as a negative value. The Retail Gap (Sales Surplus/ Leakage) represents the difference between Retail Potential and Retail Sales. A positive value represents a surplus in retail sales, often indicating a market where customers are drawn in from outside the defined trade area.

Esri uses the North American Industry Classification System (NAICS) to classify businesses by their primary type of economic activity. Retail establishments are classified into 27 industry groups in the Retail Trade sector, as well as three industry groups within the Food Services & Drinking Places subsector. For more information on Retail MarketPlace data and to download the methodology statement visit:
http://doc.arcgis.com/en/esri-demographics/data/retail-marketplace.htm

# TOTAL SALES

[Retail Trade (NAICS 44—45) + Food & Drink (NAICS 722] | Esri 2017 Retail Data

| $166 Million | $337 Million | $746 Million |
|---|---|---|
| 5 Minutes | 10 Minutes | 20 Minutes |

## PERFORMANCE BY CATEGORY

Sales gap factors provide a quick-look means of assessing the relative strength of retail categories for a defined geography. The factor is a measure of the relationship between supply and demand that ranges from +100 (total surplus) to -100 (total leakage). A positive value represents a surplus of retail sales and can be indicative of a market where customers are drawn from outside the defined area. Categories showing the highest surplus factors might signal opportunities for expansion or the introduction of complementary products and services to build on market strengths or niches. Likewise, categories with negative factors might offer an indication of gaps in the business mix and potential for re-positioning, expansion or recruitment.

## SALES GAP FACTORS | DOWNTOWN DRIVE TIME MARKET

| Category—Factor | 5 Minutes | 10 Minutes | 20 Minutes |
|---|---|---|---|
| Motor Vehicle and Parts Dealers | (50.2) | (59.4) | (66.3) |
| Furniture and Home Furnishings Stores | 1.0 | (13.3) | (45.8) |
| Electronics and Appliance Stores | (9.4) | (15.7) | 20.5 |
| Building Materials, Garden & Supply | (13.8) | 1.6 | 31.0 |
| Food and Beverage Stores | 23.8 | 20.2 | (4.3) |
| Health and Personal Care Stores | 49.0 | 32.6 | (9.8) |
| Gasoline Stations | (31.3) | (55.7) | (49.0) |
| Clothing and Clothing Accessories | (29.2) | (50.2) | (66.2) |
| Sporting Goods, Hobby, Book, Music | (42.1) | (35.6) | (53.7) |
| General Merchandise Stores | (12.6) | (1.8) | (47.6) |
| Miscellaneous Store Retailers | 21.1 | 17.8 | (16.1) |
| Nonstore Retailers | 68.5 | 47.6 | 1.0 |
| Food Services and Drinking Places | 24.5 | 7.4 | (21.7) |

Source: Esri and Data Axle. Esri 2021 Updated Demographics. Esri 2017 Retail MarketPlace.

**Limitations and Disclaimers**

Retail market analyses, their components (such as retail sales gap analyses) and derivative business development plans provide important guidance on how a commercial area should, theoretically, be able to perform and on the sales levels businesses should be able to achieve. However, many factors affect the actual performance of businesses and commercial areas, including the skills of the business operator, level of business capitalization, the quality of the physical environment, changes in overall economic conditions, the effectiveness of business and district marketing programs, and other variables. The information in this document is intended to provide a foundation of information for making business development decisions, but it does not and cannot ensure business success.

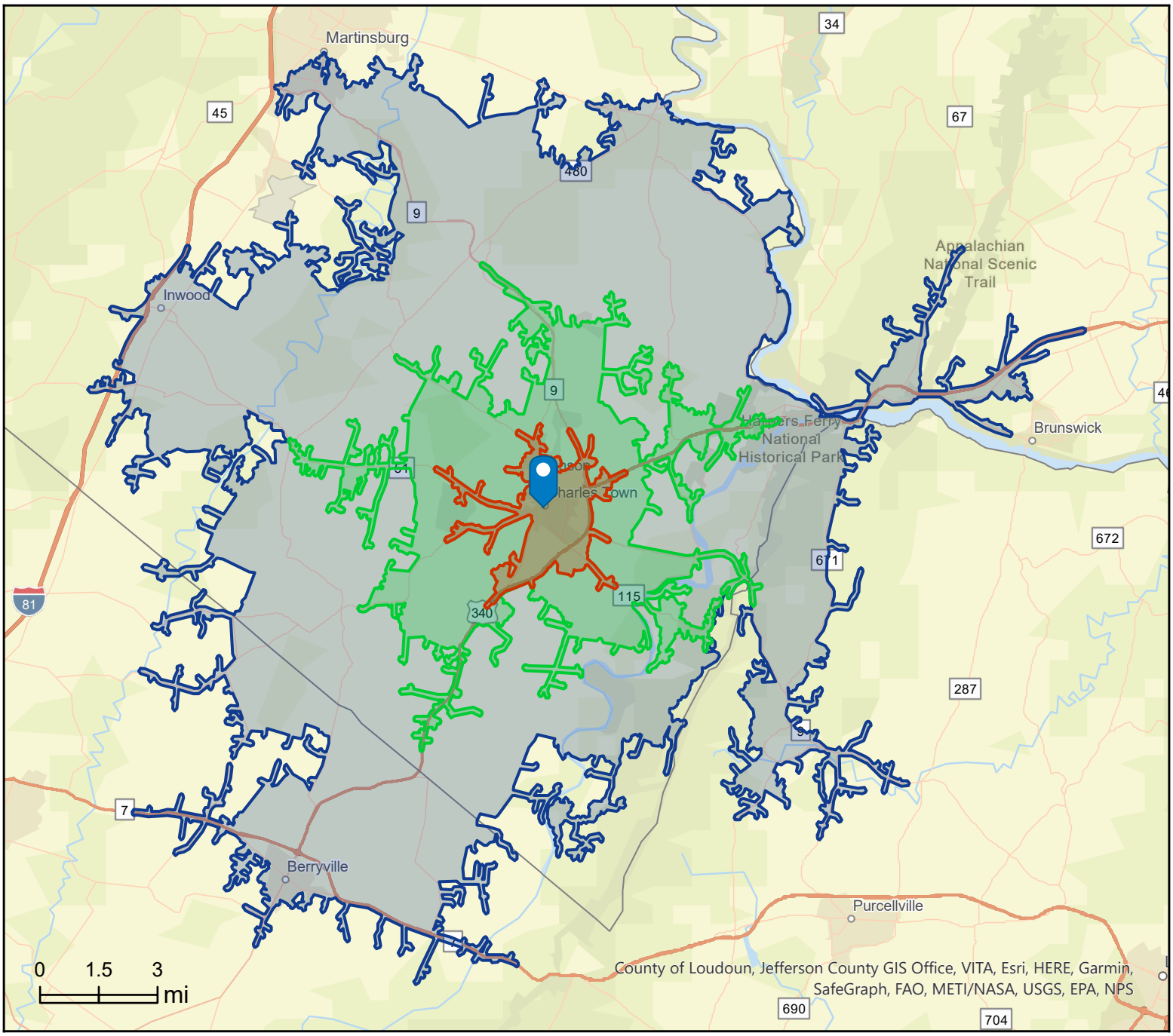
As is true of all demographic, economic and market studies, our analysis' reliability is limited to the reliability and quality of the data available. Our research assumes that all data made available by and procured from federal, state, city, primary and third party sources is accurate and reliable.

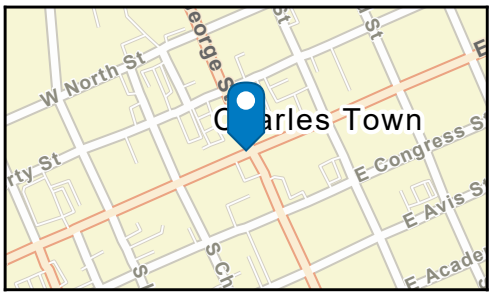
Because market conditions change rapidly and sometimes without warning, the information and opinions expressed here represent a snapshot in time and cannot predict or gauge future changes or results.

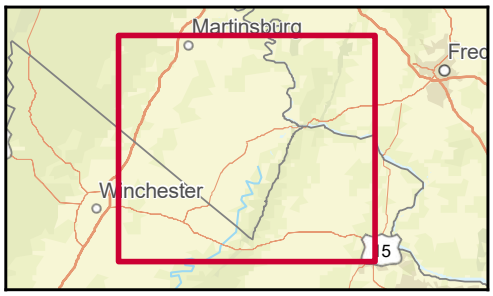
# Site Map

Downtown Charles Town, WV
100 WV-51, Charles Town, West Virginia, 25414
Drive Time: 5, 10, 20 minute radii

Prepared by DPN
Latitude: 39.28911
Longitude: -77.86004




August 30, 2021

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# Downtown Charles Town

Charles Town, West Virginia

2021 Main Street West Virginia Market Study Services

## Next Steps | Action Agenda Planning Guide

CHARLES TOWN NOW

LIVE · WORK · PLAY

## Moving Forward

Market data and 2021 Top Prospects Survey findings provide a market-driven basis and foundation for business development strategies designed to help businesses sustain and grow, and to invite new entrepreneurs and businesses to join the mix. Other data points can be used to benchmark and track activities, progress, and changes in the marketplace.

Next steps presented in this document are posed as potential strategies and actions, and are framed in a quick-look format to serve as a good starting point and guide for discussion, planning, and moving forward. The list of ideas and proposed actions is not prescriptive nor exhaustive. In the short term, other ideas and activities are likely to grow out of the market study's findings as local team members and economic development partners take time to interpret and discuss the full breadth of the study's findings and implications for Downtown Charles Town. So, too, the scope and nature of local downtown business development efforts will undoubtedly change over time as implementation steps are taken, and as new opportunities emerge.

### Additional Resources

**DPN Main Street West Virginia Market Study Resource Center**

downtownpros.com/wvprospects

*The online resource center provides access to planning guides, including those listed below, and a wide variety of examples, including collateral materials from other communities.*

**Michigan Main Street Business Development Toolkit**

*The toolkit, developed by Downtown Professionals Network (DPN) in a joint venture with Michigan Main Street, frames a holistic approach to business development, the roles of Main Street organization staff, board and committee members, best practices, and checklists for areas that include business support and retention, business recruitment, and real estate development.*

**DPN Ready to Recruit (R2R) Guide**

*The resource offers practical, how-to guidance for local business recruitment efforts, including tips for assembling a recruitment team, gathering essential information, designing collateral, prospecting and generating leads, and hosting site visits.*

DOWNTOWN PROFESSIONALS NETWORK

(615) 236-6082 | connect@downtownpros.com

www.downtownpros.com

# Next Steps

## 94 Potential Prospects

Follow-up with prospects and begin putting systems in place to track communications; and consider ways to connect with other prospects who expressed interest in downtown business opportunities.

- ☐ Initiate contact with **23 prospects** who provided information via the Top Prospects survey to discuss interests, business concepts, needs, timeline, etc.
- ☐ Develop a form or system for tracking prospects (see example of tracking form in DPN's R2R Guide).
- ☐ Host a forum, with a special appeal extended to prospects who did not identify themselves in the survey, to share survey results and to promote technical assistance providers and resources.

## 1,478 Survey Respondents

Those who completed the Top Prospects Survey, and others, will be genuinely interested in learning of the results. Survey findings can be especially valuable to existing businesses contemplating expansion or repositioning strategies.

- ☐ Share survey results with the public:
  - ☐ Make the at-a-glance version available for download and distribution.
  - ☐ Post snippets and factoids on social media and invite recipients, including potential prospects, to learn more.
- ☐ Share survey results with the existing businesses and partners:
  - ☐ Make business visits to share survey results, with special attention directed toward businesses that could be expansion or repositioning candidates .
  - ☐ Take advantage of opportunities to share results with property owners, local government, economic development partners, real estate professionals, business groups, civic organizations, and others who share a special interest, and play a role, in promoting downtown business opportunities.

## Build Your Toolkit

Assemble information and design first generation collaterals materials, in online and print-on-demand formats, to share with prospects and to promote downtown business and investment opportunities. Examples include:

- ☐ Community and downtown profile or fact sheet
- ☐ List and map of available properties and space
- ☐ Property profile or cut sheets
- ☐ Starting a business guide or checklist
- ☐ Business resources guide

ⓘ *Find examples of these and more at the online resource center.*




## Promote Available Properties, Spaces, and Investment Opportunities

Work with property owners, brokers and agents to showcase business, property and investment opportunities using traditional, on the street, and interactive marketing techniques.

- ☐ Maintain a current list of available properties and spaces, and share with local real estate professionals on a monthly or more frequent basis.
- ☐ Feature a "Property of the Month" in social media, newsletters, etc.
- ☐ Use window treatments (e.g. "This space is not empty, it's full of opportunity!" posters) to highlight spaces and change the narrative.
- ☐ Host periodic (e.g. quarterly) downtown open house-style property tours.
- ☐ Host business events and mixers in unoccupied spaces.
- ☐ Host a workshop providing hints and tips for building owners to prepare and fill spaces, including examples of funding sources, technical assistance, and commercial leasing practices and options.
- ☐ Work with property owners and representatives to get properties show-ready with small improvements (e.g. cleaning, a fresh coat of paint, removing items specific to former occupants, etc.) to make spaces more attractive to a larger group of potential tenants.

## Rethink Spaces

Rethinking spaces could spell opportunities for property owners to maximize leasable floor space, and for existing businesses, start-ups, and entrepreneurs to leverage traffic and activity.

- ☐ Promote and work with property owners and agents to retrofit appropriate sites for pop-up shops, kiosks, or other shared space or co-working arrangements.
- ☐ Work with property owners and economic development partners to explore interest and resources that could help underwrite limited-term or rent-reduced spaces for new entrepreneurs or as an award for business plan or pitch contest winners.
- ☐ Identify and promote opportunities for appropriately scaled production and light manufacturing uses that could also benefit from a storefront or showroom presence.

## 43% Would or might be interested in living downtown.

A populated downtown is a more vibrant downtown. Work with partners to promote and catalyze downtown housing development opportunities.

- ☐ Share survey findings on residential interest with property owners, real estate professionals, and potential investors.
- ☐ Maintain an inventory of existing and potential downtown housing units and gather information on occupancy, size, square foot rental rates, etc.
- ☐ Work with local government and building officials to interpret codes and identify adaptive measures for the rehabilitation of historic buildings' upper levels to accommodate housing and live-work uses.
- ☐ Research, pursue, and promote programs, resources, incentives (e.g. historic tax credits, tax increment financing, community development block grants, etc.), and technical assistance to help catalyze downtown housing rehabilitation and development projects.

## 45% Described trends in Downtown Charles Town as "Improving or Making Progress."

Positive takes on recent trends in Downtown Charles Town bode well for business and investor recruitment efforts. It can also serve as a benchmark for gauging community awareness and the impacts of revitalization efforts.

- ☐ Conduct simple, periodic (e.g. semi-annually or annually) social media polls to track public sentiment and the level of community awareness surrounding downtown initiatives and trends.
- ☐ Gather images and testimonials that highlight successful businesses, positive changes, investments, progress, and reasons to do business and invest in Downtown Charles Town.
- ☐ Incorporate images and testimonials in business development collateral materials and in ongoing marketing and public awareness campaigns.
- ☐ Help organize and promote small-scale events that celebrate success (e.g. new or expanded business ribbon cutting or open house, business anniversary or milestone event celebration, etc.) and that shine the spotlight on the faces and places that are making a difference in Downtown Charles Town.

### Charles Town is a Main Street West Virginia community.

Main Street West Virginia and West Virginia ON TRAC are downtown revitalization programs that follow the National Main Street Center's community -based approach to preservation and development. A subsidiary of The National Trust for Historic Preservation, Main Street is a successful community development model used in thousands of communities across the country.

west virginia CaD
ON TRAC / MainStreet

# Site Map

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100 WV-51, Charles Town, West Virginia, 25414
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Prepared by DPN
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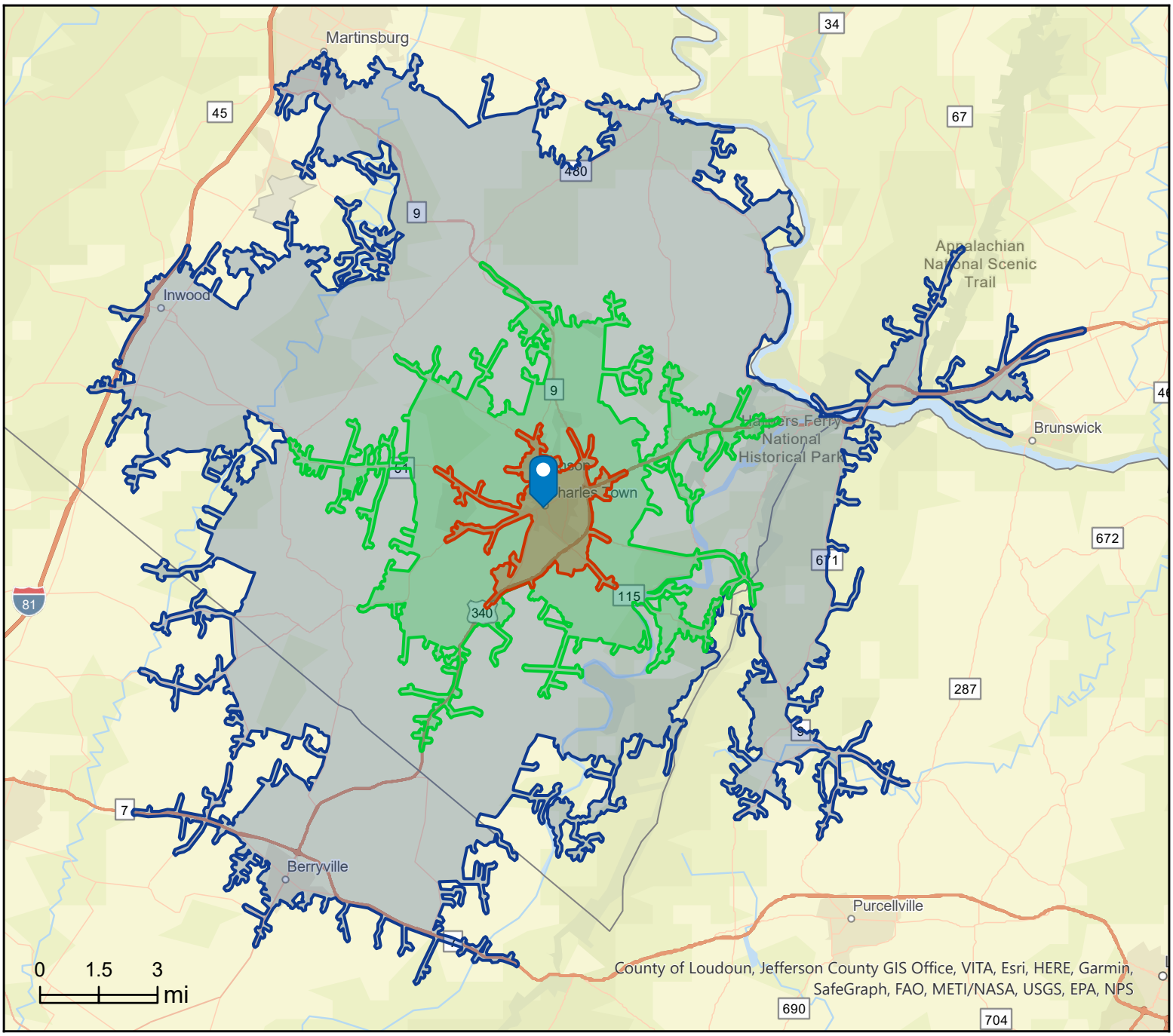


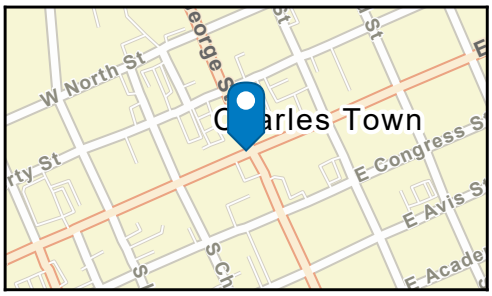


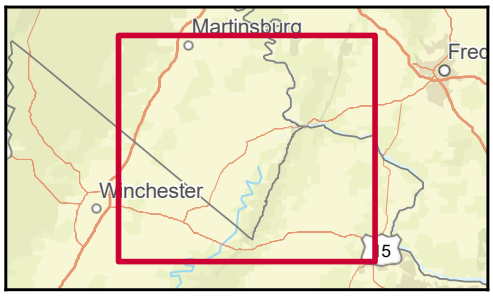


August 30, 2021

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CHARLES TOWN NOW

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# At-a-Glance

## 2021 Top Prospects Survey Results

**1,478** Survey Sample

| | |
|---|---|
| Charles Town city resident | 47.4% |
| Live within 20 miles of Charles Town | 50.4% |
| Live 20+ miles from Charles Town | 2.2% |

**78%** Female

**13%** Work Downtown

## Traffic Generators

**Businesses and Places Visited Most Often | Top 5**

| | |
|---|---|
| 1. Ortega's | 12.8% |
| 2. Sumittra Thai Kitchen & Bar | 8.2% |
| 3. Sibling Coffee Roasters | 7.4% |
| 4. Abolitionist Ale Works | 5.6% |
| 5. Inkwell's Tavern | 5.4% |

**45%**

Described trends in Downtown Charles Town as, "Improving or making progress."

## Trends

**Describe trends in Downtown Charles Town:**

| | |
|---|---|
| Improving or making progress | 44.5% |
| Steady or holding its own | 40.6% |
| Declining or losing ground | 15.0% |

## Opportunities Ahead

### Eating & Drinking Places

Top 4 prospects for expansion and recruitment as determined by survey respondents

| Specialty Cuisine | Upscale Dining | Bakery | Dog Bar |
|---|---|---|---|
| Top Choice: **22.2%** | Top Choice: **21.9%** | Top Choice: **15.4%** | Top Choice: **11.1%** |
| **Top Features:** | **Top Features:** | **Top Features:** | **Top Features:** |
| Indian | Steaks | Donuts and Pastries | Enclosed green space |
| Sushi | Farm to table fare | Fresh breads | Pub-style food |
| Seafood | Seafood | Cupcakes | Beer |
| Pho | Outdoor seating | Made-to-order cakes | Attended space for dogs |
| Korean BBQ | Pasta | Homemade Pies | Dog bathing area |
| **Survey Demo: Age** | **Survey Demo: Age** | **Survey Demo: Age** | **Survey Demo: Age** |
| 25 to 44: **49%** | 25 to 44: **47%** | 25 to 44: **42%** | 25 to 44: **50%** |
| 45 to 64: **37%** | 45 to 64: **36%** | 45 to 64: **43%** | 45 to 64: **34%** |
| **Survey Demo: HH $$** | **Survey Demo: HH $$** | **Survey Demo: HH $$** | **Survey Demo: HH $$** |
| $50K to $100K: **29%** | $50K to $100K: **22%** | $50K to $100K: **32%** | $50K to $100K: **33%** |
| $100K to $150K: **30%** | $100K to $150K: **29%** | $100K to $150K: **24%** | $100K to $150K: **23%** |
| $150K+: **29%** | $150K+: **39%** | $150K+: **28%** | $150K+: **22%** |

## Potential Market Traction



### Eating & Drinking Establishments

**Question:**

How likely would you be to patronize the following types of expanded or new Downtown Charles Town eating and drinking establishments on a consistent basis?

| | |
|---|---|
| 1. Specialty Cuisine Restaurant | 4.027 |
| 2. Bakery | 3.893 |
| 3. Upscale Dining | 3.770 |
| 4. Brewery | 3.321 |
| 5. Tea House | 2.987 |
| 6. Dog Bar | 2.671 |

Weighted Average Scale: 1 = Definitely would not | 5 = Definitely would

# At-a-Glance
2021 Top Prospects Survey Results

# Downtown Charles Town
Charles Town, West Virginia

## Opportunities Ahead
### Retail Establishments

Top 4 prospects for expansion and recruitment as determined by survey respondents

| Gourmet Foods | Clothing Boutique | Floral and Plants | Toy Store |
|---|---|---|---|
| Top Choice: **33.9%** | Top Choice: **16.1%** | Top Choice: **12.3%** | Top Choice: **11.3%** |
| **Top Features:** | **Top Features:** | **Top Features:** | **Top Features:** |
| Specialty cheeses & meats | Women's casual | Ready to go bouquets | Educational toys |
| Large variety of wines | Men's casual | Made to order bouquets | Creative toys |
| Local breads | Children's clothing | House plants | Games |
| Tastings | Bohemian styles | Flower arranging classes | Books |
| Ice Cream/Gelato | Sporty women's fashions | Local delivery | Parent and Me classes |
| **Survey Demo: Age** | **Survey Demo: Age** | **Survey Demo: Age** | **Survey Demo: Age** |
| 25 to 44: **45%** | 25 to 44: **36%** | 25 to 44: **43%** | 25 to 44: **69%** |
| 45 to 64: **42%** | 45 to 64: **46%** | 45 to 64: **39%** | 45 to 64: **24%** |
| **Survey Demo: HH $$** | **Survey Demo: HH $$** | **Survey Demo: HH $$** | **Survey Demo: HH $$** |
| $50K to $100K: **25%** | $50K to $100K: **33%** | $50K to $100K: **31%** | $50K to $100K: **31%** |
| $100K to $150K: **30%** | $100K to $150K: **28%** | $100K to $150K: **33%** | $100K to $150K: **28%** |
| $150K+: **36%** | $150K+: **28%** | $150K+: **25%** | $150K+: **22%** |

### Potential Market Traction



#### Retail Establishments

**Question:**

How likely would you be to patronize the following types of expanded or new Downtown Charles Town retail establishments on a consistent basis?

| | |
|---|---|
| 1. Gourmet Foods and Wines Shop | 3.776 |
| 2. Clothing Boutique | 3.291 |
| 3. Full Service and DIY Floral and Plants | 3.273 |
| 4. Pet Store | 3.244 |
| 5. Toy Store | 3.040 |
| 6. Metaphysical Supply Store | 2.583 |

Weighted Average Scale: 1 = Definitely would not | 5 = Definitely would

# 94 POTENTIAL PROSPECTS



**Are you interested in moving your business to, or opening a new business in, Downtown Charles Town?**

| | |
|---|---|
| Interested in moving a business to downtown | 18 |
| Interested in opening a new business in downtown | 76 |

7.9% of Responding Survey Sample

## Downtown Housing Opportunities



# 43%

**Would or might be interested in living in Downtown Charles Town.**

| Top Housing Styles Considered: | |
|---|---|
| 2 Bedroom Townhome | 42% |
| 2 Bedroom Condo | 28% |
| 2 Bedroom Apartment | 22% |
| Loft | 14% |

| Mortgage or rent payment: | |
|---|---|
| Less than $800 | 16% |
| $800 to $1,000 | 20% |
| $1,000 to $1,200 | 21% |
| $1,200 or more | 42% |

CHARLES TOWN NOW
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**City of Charles Town**
101 E. Washington Street, PO Box 14, Charles Town, WV 25414
(304) 724-3256 | ecook@charlestownwv.us

Charles Town is a Main Street West Virginia Community

# Market Profile

Downtown Charles Town, WV
100 WV-51, Charles Town, West Virginia, 25414
Drive Time: 5, 10, 20 minute radii

Prepared by DPN
Latitude: 39.28911
Longitude: -77.86004

| | 5 minutes | 10 minutes | 20 minutes |
|---|---|---|---|
| **Population Summary** | | | |
| 2000 Total Population | 8,781 | 16,195 | 59,666 |
| 2010 Total Population | 10,550 | 22,896 | 80,159 |
| 2021 Total Population | 11,657 | 26,176 | 92,182 |
| 2021 Group Quarters | 95 | 122 | 1,323 |
| 2026 Total Population | 12,776 | 30,260 | 102,120 |
| 2021-2026 Annual Rate | 1.85% | 2.94% | 2.07% |
| 2021 Total Daytime Population | 13,206 | 26,291 | 81,666 |
| Workers | 7,621 | 13,869 | 35,887 |
| Residents | 5,585 | 12,422 | 45,779 |
| **Household Summary** | | | |
| 2000 Households | 3,642 | 6,505 | 22,949 |
| 2000 Average Household Size | 2.38 | 2.47 | 2.54 |
| 2010 Households | 4,175 | 8,675 | 29,813 |
| 2010 Average Household Size | 2.50 | 2.62 | 2.64 |
| 2021 Households | 4,608 | 9,925 | 34,316 |
| 2021 Average Household Size | 2.51 | 2.63 | 2.65 |
| 2026 Households | 5,031 | 11,456 | 38,014 |
| 2026 Average Household Size | 2.52 | 2.63 | 2.65 |
| 2021-2026 Annual Rate | 1.77% | 2.91% | 2.07% |
| 2010 Families | 2,688 | 5,991 | 20,922 |
| 2010 Average Family Size | 3.06 | 3.12 | 3.10 |
| 2021 Families | 2,918 | 6,764 | 23,676 |
| 2021 Average Family Size | 3.09 | 3.13 | 3.13 |
| 2026 Families | 3,178 | 7,800 | 26,113 |
| 2026 Average Family Size | 3.11 | 3.14 | 3.14 |
| 2021-2026 Annual Rate | 1.72% | 2.89% | 1.98% |
| **Housing Unit Summary** | | | |
| 2000 Housing Units | 3,927 | 6,928 | 24,781 |
| Owner Occupied Housing Units | 55.5% | 63.4% | 69.6% |
| Renter Occupied Housing Units | 37.3% | 30.5% | 23.0% |
| Vacant Housing Units | 7.3% | 6.1% | 7.4% |
| 2010 Housing Units | 4,731 | 9,527 | 32,745 |
| Owner Occupied Housing Units | 54.9% | 65.3% | 69.2% |
| Renter Occupied Housing Units | 33.3% | 25.8% | 21.9% |
| Vacant Housing Units | 11.8% | 8.9% | 9.0% |
| 2021 Housing Units | 5,215 | 10,935 | 37,739 |
| Owner Occupied Housing Units | 55.8% | 65.7% | 69.6% |
| Renter Occupied Housing Units | 32.6% | 25.1% | 21.3% |
| Vacant Housing Units | 11.6% | 9.2% | 9.1% |
| 2026 Housing Units | 5,766 | 12,706 | 42,227 |
| Owner Occupied Housing Units | 57.5% | 68.1% | 70.5% |
| Renter Occupied Housing Units | 29.8% | 22.0% | 19.6% |
| Vacant Housing Units | 12.7% | 9.8% | 10.0% |
| **Median Household Income** | | | |
| 2021 | $66,387 | $80,673 | $75,468 |
| 2026 | $73,960 | $89,162 | $82,394 |
| **Median Home Value** | | | |
| 2021 | $231,929 | $253,402 | $233,409 |
| 2026 | $262,231 | $275,816 | $254,926 |
| **Per Capita Income** | | | |
| 2021 | $36,663 | $39,785 | $36,654 |
| 2026 | $40,891 | $44,345 | $40,578 |
| **Median Age** | | | |
| 2010 | 38.5 | 37.6 | 38.3 |
| 2021 | 39.8 | 39.2 | 40.4 |
| 2026 | 39.8 | 39.4 | 40.6 |

**Data Note:** Household population includes persons not residing in group quarters. Average Household Size is the household population divided by total households. Persons in families include the householder and persons related to the householder by birth, marriage, or adoption. Per Capita Income represents the income received by all persons aged 15 years and over divided by the total population.

**Source:** U.S. Census Bureau, Census 2010 Summary File 1. Esri forecasts for 2021 and 2026 Esri converted Census 2000 data into 2010 geography.

August 30, 2021



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# Market Profile

Downtown Charles Town, WV
100 WV-51, Charles Town, West Virginia, 25414
Drive Time: 5, 10, 20 minute radii

Prepared by DPN
Latitude: 39.28911
Longitude: -77.86004

| | 5 minutes | 10 minutes | 20 minutes |
|---|---|---|---|
| **2021 Households by Income** | | | |
| Household Income Base | 4,608 | 9,925 | 34,316 |
| <$15,000 | 11.7% | 7.8% | 7.9% |
| $15,000 - $24,999 | 10.5% | 7.4% | 5.7% |
| $25,000 - $34,999 | 7.4% | 5.5% | 6.9% |
| $35,000 - $49,999 | 8.9% | 8.8% | 10.0% |
| $50,000 - $74,999 | 15.9% | 16.6% | 19.1% |
| $75,000 - $99,999 | 12.8% | 13.6% | 13.4% |
| $100,000 - $149,999 | 17.6% | 20.8% | 20.8% |
| $150,000 - $199,999 | 5.9% | 8.0% | 7.2% |
| $200,000+ | 9.5% | 11.4% | 8.9% |
| Average Household Income | $91,980 | $104,852 | $97,554 |
| **2026 Households by Income** | | | |
| Household Income Base | 5,031 | 11,456 | 38,014 |
| <$15,000 | 10.3% | 6.7% | 6.9% |
| $15,000 - $24,999 | 8.5% | 5.8% | 4.6% |
| $25,000 - $34,999 | 6.9% | 4.9% | 6.4% |
| $35,000 - $49,999 | 8.9% | 8.3% | 9.3% |
| $50,000 - $74,999 | 15.9% | 15.8% | 18.0% |
| $75,000 - $99,999 | 12.7% | 13.4% | 13.7% |
| $100,000 - $149,999 | 18.9% | 22.5% | 22.7% |
| $150,000 - $199,999 | 7.2% | 9.8% | 8.6% |
| $200,000+ | 10.7% | 12.8% | 9.9% |
| Average Household Income | $102,720 | $117,094 | $108,033 |
| **2021 Owner Occupied Housing Units by Value** | | | |
| Total | 2,909 | 7,183 | 26,267 |
| <$50,000 | 4.2% | 4.6% | 5.2% |
| $50,000 - $99,999 | 3.3% | 3.2% | 5.1% |
| $100,000 - $149,999 | 16.5% | 11.5% | 10.6% |
| $150,000 - $199,999 | 17.9% | 16.3% | 19.3% |
| $200,000 - $249,999 | 12.7% | 13.4% | 14.8% |
| $250,000 - $299,999 | 10.5% | 14.6% | 13.3% |
| $300,000 - $399,999 | 23.1% | 25.6% | 18.1% |
| $400,000 - $499,999 | 7.4% | 6.4% | 7.2% |
| $500,000 - $749,999 | 3.9% | 3.4% | 4.7% |
| $750,000 - $999,999 | 0.3% | 0.4% | 1.2% |
| $1,000,000 - $1,499,999 | 0.1% | 0.5% | 0.6% |
| $1,500,000 - $1,999,999 | 0.0% | 0.0% | 0.0% |
| $2,000,000 + | 0.2% | 0.1% | 0.0% |
| Average Home Value | $259,399 | $268,514 | $265,767 |
| **2026 Owner Occupied Housing Units by Value** | | | |
| Total | 3,313 | 8,657 | 29,751 |
| <$50,000 | 3.0% | 3.2% | 3.8% |
| $50,000 - $99,999 | 2.6% | 2.3% | 3.9% |
| $100,000 - $149,999 | 13.6% | 9.0% | 8.5% |
| $150,000 - $199,999 | 15.9% | 14.4% | 17.7% |
| $200,000 - $249,999 | 12.2% | 13.0% | 14.7% |
| $250,000 - $299,999 | 11.2% | 15.6% | 14.1% |
| $300,000 - $399,999 | 26.6% | 29.5% | 20.3% |
| $400,000 - $499,999 | 9.1% | 7.5% | 8.6% |
| $500,000 - $749,999 | 5.1% | 4.2% | 6.0% |
| $750,000 - $999,999 | 0.4% | 0.5% | 1.6% |
| $1,000,000 - $1,499,999 | 0.2% | 0.7% | 0.7% |
| $1,500,000 - $1,999,999 | 0.0% | 0.0% | 0.0% |
| $2,000,000 + | 0.2% | 0.1% | 0.0% |
| Average Home Value | $280,997 | $288,877 | $288,912 |

**Data Note:** Income represents the preceding year, expressed in current dollars. Household income includes wage and salary earnings, interest dividends, net rents, pensions, SSI and welfare payments, child support, and alimony.
**Source:** U.S. Census Bureau, Census 2010 Summary File 1. Esri forecasts for 2021 and 2026 Esri converted Census 2000 data into 2010 geography.

August 30, 2021

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# Market Profile

Downtown Charles Town, WV
100 WV-51, Charles Town, West Virginia, 25414
Drive Time: 5, 10, 20 minute radii

Prepared by DPN
Latitude: 39.28911
Longitude: -77.86004

| | 5 minutes | 10 minutes | 20 minutes |
|---|---|---|---|
| **2010 Population by Age** | | | |
| Total | 10,549 | 22,892 | 80,159 |
| 0 - 4 | 7.0% | 7.5% | 6.7% |
| 5 - 9 | 7.1% | 7.7% | 7.3% |
| 10 - 14 | 6.4% | 6.7% | 6.9% |
| 15 - 24 | 11.7% | 11.1% | 12.2% |
| 25 - 34 | 13.2% | 13.0% | 12.2% |
| 35 - 44 | 14.1% | 15.3% | 14.9% |
| 45 - 54 | 14.8% | 14.9% | 15.6% |
| 55 - 64 | 12.1% | 11.8% | 12.4% |
| 65 - 74 | 7.5% | 6.8% | 7.0% |
| 75 - 84 | 4.5% | 3.6% | 3.5% |
| 85 + | 1.8% | 1.4% | 1.3% |
| 18 + | 75.8% | 74.2% | 75.0% |
| **2021 Population by Age** | | | |
| Total | 11,658 | 26,177 | 92,182 |
| 0 - 4 | 6.3% | 6.6% | 5.9% |
| 5 - 9 | 6.6% | 7.1% | 6.5% |
| 10 - 14 | 6.4% | 6.9% | 6.6% |
| 15 - 24 | 11.0% | 10.5% | 11.3% |
| 25 - 34 | 13.3% | 12.8% | 12.3% |
| 35 - 44 | 13.2% | 14.1% | 13.5% |
| 45 - 54 | 12.7% | 13.0% | 13.4% |
| 55 - 64 | 13.3% | 13.3% | 13.8% |
| 65 - 74 | 10.2% | 9.8% | 10.4% |
| 75 - 84 | 5.1% | 4.4% | 4.7% |
| 85 + | 2.0% | 1.5% | 1.5% |
| 18 + | 77.2% | 75.8% | 77.2% |
| **2026 Population by Age** | | | |
| Total | 12,776 | 30,262 | 102,120 |
| 0 - 4 | 6.4% | 6.7% | 6.0% |
| 5 - 9 | 6.6% | 7.1% | 6.5% |
| 10 - 14 | 6.4% | 6.8% | 6.7% |
| 15 - 24 | 10.8% | 10.5% | 11.1% |
| 25 - 34 | 12.9% | 12.2% | 12.0% |
| 35 - 44 | 13.9% | 14.8% | 13.8% |
| 45 - 54 | 11.9% | 12.0% | 12.6% |
| 55 - 64 | 12.6% | 12.6% | 13.0% |
| 65 - 74 | 10.3% | 10.1% | 10.8% |
| 75 - 84 | 6.1% | 5.5% | 6.0% |
| 85 + | 2.0% | 1.6% | 1.7% |
| 18 + | 77.0% | 75.6% | 77.1% |
| **2010 Population by Sex** | | | |
| Males | 5,110 | 11,143 | 39,758 |
| Females | 5,440 | 11,753 | 40,401 |
| **2021 Population by Sex** | | | |
| Males | 5,670 | 12,768 | 45,645 |
| Females | 5,987 | 13,409 | 46,537 |
| **2026 Population by Sex** | | | |
| Males | 6,223 | 14,781 | 50,522 |
| Females | 6,554 | 15,479 | 51,597 |

**Source:** U.S. Census Bureau, Census 2010 Summary File 1. Esri forecasts for 2021 and 2026 Esri converted Census 2000 data into 2010 geography.

August 30, 2021

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100 WV-51, Charles Town, West Virginia, 25414
Drive Time: 5, 10, 20 minute radii

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Longitude: -77.86004

| | 5 minutes | 10 minutes | 20 minutes |
|---|---|---|---|
| **2010 Population by Race/Ethnicity** | | | |
| Total | 10,550 | 22,896 | 80,159 |
| White Alone | 79.1% | 82.9% | 87.3% |
| Black Alone | 11.8% | 9.4% | 7.0% |
| American Indian Alone | 0.3% | 0.3% | 0.3% |
| Asian Alone | 1.4% | 1.4% | 1.0% |
| Pacific Islander Alone | 0.1% | 0.1% | 0.1% |
| Some Other Race Alone | 4.1% | 2.9% | 1.7% |
| Two or More Races | 3.2% | 3.0% | 2.7% |
| Hispanic Origin | 8.7% | 7.1% | 4.6% |
| Diversity Index | 46.2 | 39.5 | 29.9 |
| **2021 Population by Race/Ethnicity** | | | |
| Total | 11,659 | 26,176 | 92,182 |
| White Alone | 76.8% | 80.9% | 85.1% |
| Black Alone | 10.7% | 8.5% | 7.0% |
| American Indian Alone | 0.4% | 0.5% | 0.3% |
| Asian Alone | 2.0% | 2.0% | 1.5% |
| Pacific Islander Alone | 0.1% | 0.1% | 0.1% |
| Some Other Race Alone | 5.8% | 4.0% | 2.4% |
| Two or More Races | 4.2% | 4.0% | 3.7% |
| Hispanic Origin | 12.7% | 10.4% | 6.8% |
| Diversity Index | 53.2 | 46.1 | 36.3 |
| **2026 Population by Race/Ethnicity** | | | |
| Total | 12,777 | 30,261 | 102,120 |
| White Alone | 75.6% | 79.8% | 83.9% |
| Black Alone | 10.2% | 8.2% | 7.1% |
| American Indian Alone | 0.5% | 0.5% | 0.4% |
| Asian Alone | 2.3% | 2.4% | 1.8% |
| Pacific Islander Alone | 0.1% | 0.1% | 0.1% |
| Some Other Race Alone | 6.5% | 4.5% | 2.7% |
| Two or More Races | 4.8% | 4.5% | 4.2% |
| Hispanic Origin | 14.4% | 11.9% | 7.9% |
| Diversity Index | 56.0 | 49.0 | 39.5 |
| **2010 Population by Relationship and Household Type** | | | |
| Total | 10,550 | 22,896 | 80,159 |
| In Households | 98.9% | 99.3% | 98.1% |
| In Family Households | 81.4% | 84.5% | 83.7% |
| Householder | 25.6% | 26.3% | 26.2% |
| Spouse | 17.8% | 19.7% | 20.1% |
| Child | 30.5% | 32.0% | 31.3% |
| Other relative | 4.1% | 3.7% | 3.4% |
| Nonrelative | 3.3% | 2.9% | 2.8% |
| In Nonfamily Households | 17.5% | 14.8% | 14.3% |
| In Group Quarters | 1.1% | 0.7% | 1.9% |
| Institutionalized Population | 1.1% | 0.7% | 1.0% |
| Noninstitutionalized Population | 0.0% | 0.0% | 0.9% |

**Data Note:** Persons of Hispanic Origin may be of any race. The Diversity Index measures the probability that two people from the same area will be from different race/ethnic groups.
**Source:** U.S. Census Bureau, Census 2010 Summary File 1. Esri forecasts for 2021 and 2026 Esri converted Census 2000 data into 2010 geography.


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Downtown Charles Town, WV
100 WV-51, Charles Town, West Virginia, 25414
Drive Time: 5, 10, 20 minute radii

Prepared by DPN
Latitude: 39.28911
Longitude: -77.86004

| | 5 minutes | 10 minutes | 20 minutes |
|---|---|---|---|
| **2021 Population 25+ by Educational Attainment** | | | |
| Total | 8,136 | 18,030 | 64,124 |
| Less than 9th Grade | 4.4% | 3.4% | 3.5% |
| 9th - 12th Grade, No Diploma | 7.1% | 6.6% | 6.9% |
| High School Graduate | 28.9% | 27.8% | 26.4% |
| GED/Alternative Credential | 5.8% | 5.3% | 6.0% |
| Some College, No Degree | 20.0% | 19.2% | 20.0% |
| Associate Degree | 5.3% | 6.9% | 8.9% |
| Bachelor's Degree | 17.6% | 19.6% | 17.2% |
| Graduate/Professional Degree | 10.8% | 11.2% | 11.0% |
| **2021 Population 15+ by Marital Status** | | | |
| Total | 9,414 | 20,791 | 74,574 |
| Never Married | 28.1% | 27.5% | 27.2% |
| Married | 53.2% | 55.0% | 56.0% |
| Widowed | 6.7% | 6.3% | 5.8% |
| Divorced | 12.0% | 11.1% | 10.9% |
| **2021 Civilian Population 16+ in Labor Force** | | | |
| Civilian Population 16+ | 6,599 | 14,942 | 49,993 |
| Population 16+ Employed | 91.6% | 92.3% | 93.2% |
| Population 16+ Unemployment rate | 8.4% | 7.7% | 6.8% |
| Population 16-24 Employed | 11.4% | 10.8% | 11.3% |
| Population 16-24 Unemployment rate | 8.1% | 10.2% | 12.9% |
| Population 25-54 Employed | 61.6% | 62.1% | 62.1% |
| Population 25-54 Unemployment rate | 8.8% | 8.4% | 6.5% |
| Population 55-64 Employed | 17.5% | 18.6% | 18.4% |
| Population 55-64 Unemployment rate | 4.8% | 3.9% | 4.1% |
| Population 65+ Employed | 9.4% | 8.6% | 8.3% |
| Population 65+ Unemployment rate | 12.2% | 8.3% | 5.4% |
| **2021 Employed Population 16+ by Industry** | | | |
| Total | 6,046 | 13,784 | 46,607 |
| Agriculture/Mining | 0.3% | 0.8% | 1.1% |
| Construction | 5.0% | 5.9% | 8.4% |
| Manufacturing | 8.3% | 6.7% | 7.6% |
| Wholesale Trade | 0.8% | 0.9% | 1.5% |
| Retail Trade | 9.2% | 9.9% | 11.0% |
| Transportation/Utilities | 8.2% | 7.0% | 5.5% |
| Information | 1.2% | 1.7% | 1.8% |
| Finance/Insurance/Real Estate | 4.5% | 3.3% | 4.5% |
| Services | 51.1% | 49.4% | 46.3% |
| Public Administration | 11.5% | 14.4% | 12.2% |
| **2021 Employed Population 16+ by Occupation** | | | |
| Total | 6,045 | 13,785 | 46,607 |
| White Collar | 61.0% | 64.6% | 63.3% |
| Management/Business/Financial | 18.7% | 20.5% | 16.7% |
| Professional | 22.8% | 25.2% | 25.7% |
| Sales | 7.5% | 8.0% | 8.8% |
| Administrative Support | 12.1% | 10.8% | 12.1% |
| Services | 18.4% | 17.2% | 15.4% |
| Blue Collar | 20.5% | 18.3% | 21.3% |
| Farming/Forestry/Fishing | 0.1% | 0.4% | 0.6% |
| Construction/Extraction | 3.4% | 3.4% | 5.5% |
| Installation/Maintenance/Repair | 5.1% | 4.5% | 4.0% |
| Production | 4.3% | 3.3% | 4.0% |
| Transportation/Material Moving | 7.6% | 6.7% | 7.2% |

**Source:** U.S. Census Bureau, Census 2010 Summary File 1. Esri forecasts for 2021 and 2026 Esri converted Census 2000 data into 2010 geography.

# Market Profile

Downtown Charles Town, WV
100 WV-51, Charles Town, West Virginia, 25414
Drive Time: 5, 10, 20 minute radii

Prepared by DPN
Latitude: 39.28911
Longitude: -77.86004

| | 5 minutes | 10 minutes | 20 minutes |
|---|---|---|---|
| **2010 Households by Type** | | | |
| Total | 4,175 | 8,674 | 29,813 |
| Households with 1 Person | 28.8% | 24.6% | 23.2% |
| Households with 2+ People | 71.2% | 75.4% | 76.8% |
| Family Households | 64.4% | 69.1% | 70.2% |
| Husband-wife Families | 44.5% | 51.6% | 53.7% |
| With Related Children | 20.2% | 24.8% | 24.8% |
| Other Family (No Spouse Present) | 19.9% | 17.5% | 16.5% |
| Other Family with Male Householder | 5.8% | 5.2% | 5.3% |
| With Related Children | 3.3% | 3.1% | 3.3% |
| Other Family with Female Householder | 14.1% | 12.2% | 11.2% |
| With Related Children | 9.4% | 8.2% | 7.3% |
| Nonfamily Households | 6.9% | 6.3% | 6.6% |
| | | | |
| All Households with Children | 33.7% | 36.8% | 36.1% |
| | | | |
| Multigenerational Households | 4.0% | 4.2% | 4.5% |
| Unmarried Partner Households | 8.9% | 8.4% | 8.3% |
| Male-female | 8.2% | 7.6% | 7.4% |
| Same-sex | 0.7% | 0.7% | 0.9% |
| **2010 Households by Size** | | | |
| Total | 4,175 | 8,674 | 29,813 |
| 1 Person Household | 28.8% | 24.6% | 23.2% |
| 2 Person Household | 32.6% | 32.9% | 34.3% |
| 3 Person Household | 16.0% | 17.1% | 17.3% |
| 4 Person Household | 13.1% | 14.7% | 14.5% |
| 5 Person Household | 5.7% | 6.5% | 6.5% |
| 6 Person Household | 2.2% | 2.7% | 2.5% |
| 7 + Person Household | 1.6% | 1.6% | 1.6% |
| **2010 Households by Tenure and Mortgage Status** | | | |
| Total | 4,175 | 8,675 | 29,813 |
| Owner Occupied | 62.3% | 71.7% | 76.0% |
| Owned with a Mortgage/Loan | 47.1% | 56.8% | 58.5% |
| Owned Free and Clear | 15.2% | 14.9% | 17.5% |
| Renter Occupied | 37.7% | 28.3% | 24.0% |
| **2021 Affordability, Mortgage and Wealth** | | | |
| Housing Affordability Index | 165 | 184 | 187 |
| Percent of Income for Mortgage | 14.7% | 13.2% | 13.0% |
| Wealth Index | 100 | 121 | 112 |
| **2010 Housing Units By Urban/ Rural Status** | | | |
| Total Housing Units | 4,731 | 9,527 | 32,745 |
| Housing Units Inside Urbanized Area | 0.0% | 0.1% | 25.2% |
| Housing Units Inside Urbanized Cluster | 89.0% | 82.2% | 36.9% |
| Rural Housing Units | 11.0% | 17.7% | 37.9% |
| **2010 Population By Urban/ Rural Status** | | | |
| Total Population | 10,550 | 22,896 | 80,159 |
| Population Inside Urbanized Area | 0.0% | 0.1% | 25.7% |
| Population Inside Urbanized Cluster | 88.0% | 81.8% | 37.0% |
| Rural Population | 12.0% | 18.2% | 37.4% |

**Data Note:** Households with children include any households with people under age 18, related or not. Multigenerational households are families with 3 or more parent-child relationships. Unmarried partner households are usually classified as nonfamily households unless there is another member of the household related to the householder. Multigenerational and unmarried partner households are reported only to the tract level. Esri estimated block group data, which is used to estimate polygons or non-standard geography.
**Source:** U.S. Census Bureau, Census 2010 Summary File 1. Esri forecasts for 2021 and 2026 Esri converted Census 2000 data into 2010 geography.

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| | 5 minutes | 10 minutes | 20 minutes |
|---|---|---|---|
| **Top 3 Tapestry Segments** | | | |
| **1.** | Middleburg (4C) | Middleburg (4C) | Middleburg (4C) |
| **2.** | Front Porches (8E) | Workday Drive (4A) | Workday Drive (4A) |
| **3.** | Comfortable Empty Nesters (5A) | Front Porches (8E) | Parks and Rec (5C) |
| **2021 Consumer Spending** | | | |
| Apparel & Services: Total $ | $9,722,275 | $23,735,834 | $75,959,183 |
| Average Spent | $2,109.87 | $2,391.52 | $2,213.52 |
| Spending Potential Index | 100 | 113 | 104 |
| Education: Total $ | $7,896,643 | $18,766,809 | $59,490,089 |
| Average Spent | $1,713.68 | $1,890.86 | $1,733.60 |
| Spending Potential Index | 99 | 110 | 100 |
| Entertainment/Recreation: Total $ | $14,794,042 | $36,397,395 | $118,041,461 |
| Average Spent | $3,210.51 | $3,667.24 | $3,439.84 |
| Spending Potential Index | 99 | 114 | 106 |
| Food at Home: Total $ | $24,822,855 | $60,244,437 | $195,353,760 |
| Average Spent | $5,386.90 | $6,069.97 | $5,692.79 |
| Spending Potential Index | 99 | 111 | 104 |
| Food Away from Home: Total $ | $17,308,872 | $42,295,913 | $135,856,719 |
| Average Spent | $3,756.27 | $4,261.55 | $3,958.99 |
| Spending Potential Index | 99 | 112 | 104 |
| Health Care: Total $ | $28,849,278 | $70,950,342 | $231,842,686 |
| Average Spent | $6,260.69 | $7,148.65 | $6,756.11 |
| Spending Potential Index | 100 | 115 | 108 |
| HH Furnishings & Equipment: Total $ | $10,435,717 | $25,872,535 | $83,391,006 |
| Average Spent | $2,264.70 | $2,606.80 | $2,430.09 |
| Spending Potential Index | 100 | 116 | 108 |
| Personal Care Products & Services: Total $ | $4,157,488 | $10,137,214 | $32,496,118 |
| Average Spent | $902.23 | $1,021.38 | $946.97 |
| Spending Potential Index | 101 | 114 | 106 |
| Shelter: Total $ | $92,334,324 | $222,404,459 | $710,668,798 |
| Average Spent | $20,037.83 | $22,408.51 | $20,709.55 |
| Spending Potential Index | 99 | 111 | 103 |
| Support Payments/Cash Contributions/Gifts in Kind: Total $ | $10,974,410 | $27,576,553 | $90,354,040 |
| Average Spent | $2,381.60 | $2,778.49 | $2,633.00 |
| Spending Potential Index | 100 | 116 | 110 |
| Travel: Total $ | $11,688,086 | $28,978,049 | $92,862,183 |
| Average Spent | $2,536.48 | $2,919.70 | $2,706.09 |
| Spending Potential Index | 100 | 115 | 107 |
| Vehicle Maintenance & Repairs: Total $ | $5,102,937 | $12,556,072 | $40,876,322 |
| Average Spent | $1,107.41 | $1,265.10 | $1,191.17 |
| Spending Potential Index | 100 | 114 | 107 |

**Data Note:** Consumer spending shows the amount spent on a variety of goods and services by households that reside in the area. Expenditures are shown by broad budget categories that are not mutually exclusive. Consumer spending does not equal business revenue. Total and Average Amount Spent Per Household represent annual figures. The Spending Potential Index represents the amount spent in the area relative to a national average of 100.
**Source:** Consumer Spending data are derived from the 2018 and 2019 Consumer Expenditure Surveys, Bureau of Labor Statistics. Esri.
**Source:** U.S. Census Bureau, Census 2010 Summary File 1. Esri forecasts for 2021 and 2026 Esri converted Census 2000 data into 2010 geography.

**Planning Commission**
101 East Washington Street
Charles Town, WV 25414

**SCHEDULED**

Meeting: 11/27/23
Department: Planning Commission
Category: Report
Initiator:

## AGENDA ITEM (ID # )

**Public Hearing: *TXA2023-07 Commercial Pad Sites* - Commercial Pad Site preparation requirements**

**ATTACHMENTS:**

- 1. Report.pdf

Text Amendment Staff Report

*TXA2023-07 Commercial Pad Site Preparation*

**Date:** For the November 27, 2023 Planning Commission meeting
**Report by:** James Newman, City Planner, Zoning/Subdivision Administrator.

## ISSUE

A text amendment to clarify the City's Ordinances requiring residential developments that have a required commercial component to have the pad sites graded and utilities made available. This is to be done by the completion of a certain amount of residential units.

## BACKGROUND

This issue arose during meetings for revisions to the Fairview/Dailey Farm Conditions of annexation. These conditions require that:

> To incentivize and attract commercial development within the City, all commercial lots associated with the land shall be prepared in a way that includes grading and utility installation. All commercial lots shall have all pad sites graded with utility installation (stubbed to the property line) completed during the initial start-up of Project Phase 1. Specifically, if Phase 1 includes more than 100 residential units, to include both townhomes and single-family homes, all commercial pad site preparation shall run concurrently with the construction of the first (10) ten residential units. No more than (10) ten residential units shall be constructed until all commercial lots are completed with the above requirements.

## COUNCIL ACTION

On August 7, 2023, City Council reviewed this item and referred it to Planning Commission.

## PLANNING COMMISSION

The Planning Commission discussed this item at their September 25, 2023 work session.

The Planning Commission held a public hearing for this item on October 23, 2023. There was no public comment. The Commission voted to table action on this item until they received direction from Council.

## COUNCIL ACTION

On November 6, 2023, City Council discussed this issue. The Council voted to grant the Commission flexibility in considering what percentage or amount is to be used as the cut-off.

## CHANGES

Based on discussion at the Council meeting on Nov. 6, I have lowered the requirement from 40% to 25%. This lower % should not be a burden to developers, as they will already have machinery and equipment on-site to grade for residential development, and the Code requirement would only require grading and utility stub installations.

**ZONING DISTRICT COMPARISON TABLE**

| *Zoning District* | *Commercial Space Requirement* |
|---|---|
| Residential Low Density (R3) | No requirement |
| Residential Medium-High Density (R15) | No requirement |
| Neighborhood Residential (NR) | 10% of total area must be Neighborhood Commercial uses. **Note:** *Does not specify that such uses must be commercial in nature.* |
| Neighborhood Commercial (NC) | No requirement |
| General Commercial (GC) | No requirement |
| Old Town Residential (OT-R) | No requirement |
| Old Town Mixed-Use Commercial (OT-MUC) | No requirement |

**ZONING DISTRICTS AFFECTED**

This first draft of the text amendment will affect:

**Neighborhood Residential** (*The purpose of the NR District is to provide for a mix of housing types and related services and Uses, including Commercial Uses and office services*)

**Neighborhood Commercial** (*The purpose of the NC District is to provide for necessary Commercial Uses of a convenient nature within residential areas.*)

The other districts are either solely for residential development (*Residential Low Density, Residential Medium High Density*); designed for predominantly commercial use with little to no residential (*General Commercial*), or cover areas of the City not conducive to brand-new large scale mixed-use development (*Old Town Mixed Use Commercial, Old Town Residential*).

**PROPOSED TEXT**

*Section 1322.08, Neighborhood Residential (NR) District*

(a new subsection would be created)

*F. **Commercial Pad Sites.** To incentivize and attract commercial development within the City, all commercially zoned areas associated with the land development shall be prepared in a way that includes grading and utility installation. No more than 25% of residential dwelling units shall be built prior to the grading and utility installation of the commercial sites.*

*Section 1322.09, Neighborhood Commercial (NC) District*

(a new subsection would be created)

*E. **Commercial Pad Sites.** To incentivize and attract commercial development within the City, all commercially zoned areas associated with the land development shall be prepared in a way that includes grading and utility installation. No more than 25% of residential dwelling units shall be built prior to the grading and utility installation of the commercial sites.*

**JURISDICTIONAL COMPARISON**

Neither Martinsburg WV nor Jefferson County WV have similar regulations to what is proposed.

**Leesburg VA**
(https://www.leesburgva.gov/home/showpublisheddocument/9925/638282313544500000)

*Development Phasing*. Requests for (Mixed Use Business District) zoning or site plan approval for development in the (Mixed-Use) District shall be accompanied by a phasing plan that identifies the stages of development build-out. The phasing plan shall identify the sequence of development for all proposed land uses and include information regarding the phasing of internal and external traffic circulation systems, amenities, and utility improvements that will be constructed to support the proposed development.

**The applicant shall provide assurances** that all the use categories will be constructed and that the project will, in fact, result in the type of multi-use development proposed. The Town Council may require performance guarantees or such other measures, as it deems reasonable and necessary to assure the proper phasing of development and to assure the provision of public amenities and public facilities upon completion of each phase or upon full development. At no time shall the number of residential uses exceed the maximum ratio established in Sec. [1]-A.

(Emphasis added)

**City of Frederick MD** (https://www.cityoffrederickmd.gov/DocumentCenter/View/428/-Land-Management-Code---ARTICLE-4-Zoning---Section-423?bidId=)

Mixed Use Districts (MU1, MU2)

(d) *Phasing*

Construction of the MU project must be phased such that:

(1) Building permits for no more than 75% of the residential dwelling units may be issued until at least 25% of the non-residential floor area is constructed; and

(2) Building permits for no more than 75% of the non-residential floor area may be issued until record plats for at least 25% of the dwelling units have been recorded among the Land Records of Frederick County. For the residential units on a multifamily lot to be counted toward the 25% minimum, a site plan for those units must be unconditionally approved.

**Charleston WV**

"*Most of our code for mixed use development revolves around commercial and residential in the same building. We incentive it through lower on-site parking requirements or no on-site parking requirements depending on the district."* Dan Vriendt, Planning Director

**Planning Commission**
101 East Washington Street
Charles Town, WV 25414

**SCHEDULED**

Meeting: 11/27/23
Department: Planning Commission
Category: Report
Initiator:

**AGENDA ITEM (ID # )**

## Public Hearing: *TXA 2023-10 Open Space* - Clarifying open space calculations

**ATTACHMENTS:**

- 1. Report.pdf

*TXA2023-10 Open Space Requirements*

**Date:** For the November 27, 2023 Planning Commission work session
**Report by:** James Newman, City Planner, Zoning/Subdivision Administrator.

## ISSUE

How to reconcile open space requirements when a particular use and a particular zoning district may have differing open space requirements.

## COUNCIL ACTION

A request on the City Council August 7, 2023 agenda for a referral to Planning Commission for clarification on the City's Ordinances for Open Space in mixed (SFH/TH) residential developments.

## PLANNING COMMISSION

The Planning Commission reviewed this item on October 23, 2023 as a public hearing item. The Commission voted to recommend approval of the text amendment, subject to the condition that staff add example language to the proposed text.

In order to ensure a uniform understanding of the proposed language, this item has been set for a new public hearing on Nov. 27, with the example language included.

## ZONING DISTRICT COMPARISON TABLE

| *Zoning District* | *Minimum Open Space Requirement* |
|---|---|
| Residential Low Density (R3) | No requirement. Maximum lot coverage is 40% |
| Residential Medium-High Density (R15) | 30% Open Space is required for Mobile Home Parks. 10% Open Space is required for all other Uses in the R-15 District. |
| Neighborhood Residential (NR) | 10% |
| Neighborhood Commercial (NC) | No requirement. Maximum lot coverage is 90% |
| General Commercial (GC) | No requirement. Maximum lot coverage is 90% |
| Old Town Residential (OT-R) | No requirement. Maximum lot coverage is 70% |
| Old Town Mixed-Use Commercial (OT-MUC) | No requirement. Maximum lot coverage is 90% |

## PLANNED UNIT DEVELOPMENT

The purpose of Planned Unit Development (PUD) regulations is to encourage and allow more creative and imaginative design of land developments than is possible under district zoning regulations. Planned Unit Developments are intended to allow substantial flexibility in planning and designing a proposal.

…

*Required Common Open Space.* A minimum of twenty percent (20%) of the total usable land in residential Use in each phase shall be set aside for permanent common Open Space as defined herein.

**MOBILE HOME PARKS**

All Mobile Home Parks shall provide, and so indicate on the Plat of the Mobile Home Park, suitable areas for recreation and open space uses of at least 20% of the total area of the Mobile Home Park, of which one-half (0.5) of the area shall be in one place. The remainder may be used to provide pedestrian connecting links to the recreation areas.

**SINGLE FAMILY DETACHED REQUIREMENTS**

There is no use standard for single-family detached housing that requires a certain percentage of open space when being built.

**TOWNHOME REQUIREMENTS**

Section 1333.20, Townhouse Development Standards

*B. Land Area*

*The Net Buildable Land Area (as such term is defined in the Zoning Ordinance) of a townhouse Development shall equal at least 3,500 square feet for each dwelling unit. Each dwelling unit shall have a minimum lot size of 2,000 square feet. The difference between the Net Buildable Land Area and the total area of the dwelling unit Lots shall be allocated to open space common area.*

…

*O. Required Open Space.*

*1. The difference between the Net Buildable Land Area of a townhouse Development and the total area of the dwelling unit Lots shall be allocated to open space common area as specified in Section 1333.20(B) above.*

*2. In the event that the Planning Commission, by waiver, permits dwelling unit Lots of less than the 2,000 square foot minimum specified in Section 1333.20(B), compensating open space must be established and provided within the project site equal to the aggregate area by which such Lots are under the 2,000 square foot minimum.*

*3. In a townhouse Development, open space for the Subdivision/Land Development must at least equal 30 percent of the Net Buildable Land Area of the Subdivision/Land Development.*

**DEFINITIONS**

***NET BUILDABLE LAND AREA*** – When determining the allowed density for any given Lot in the City, the Net Buildable Land Area of the Site is used. Net Buildable Land Area, for the purpose of determining the allowed Dwelling Units for a Site, shall be calculated by subtracting areas here building is prohibited or subject to significant restrictions from the gross Lot area. The area remaining after these exclusions from the gross Lot area represents the Net Buildable Land Area. The following shall be deducted from the gross Lot area to determine Net Buildable Land Area:

1. Sensitive areas including: Type I, II, III and IV wetlands, Riparian Buffers,

floodplain area, and Sinkholes

2. Public right-of-ways and public easements, and private Streets and access corridors;

3. Areas dedicated to stormwater management

***OPEN SPACE*** – One or more areas of land and/or bodies of water within a development intended for the use and enjoyment of the residents living within the development. No more than 50% of the required Open Space may be a water body or impervious area. Open Space is calculated as a percentage of the total usable area of land in the development, with the following items excluded in such calculation from both Open Space and the total usable land: Buffer Areas, Streets, Sidewalks, off-Street parking areas, areas dedicated for public use, traditional stormwater management areas, such as stormwater ponds (but stormwater management areas of low impact design, such as bioretention basins (rain gardens) shall be included), and other areas not practically usable by residents.

**PROPOSED LANGAUGE:**

Proposed language is in red:

*Section 1333.17, Park, Recreation and Open Space Amenity Standards*

Creation of a new subsection*:*

*J. Open Space- General Requirements*

*1.* Pro-Rata Share. When there is a difference in open space requirements between a zoning district and a particular use, open space shall be established on a pro-rata basis.

*Example:* A development with 10 acres of net buildable area has townhomes and single-family homes. The zoning district requires 10% open space, while townhome developments require 30% open space.

In this development, 3 of the 10 acres are designated for townhomes, and the other 7 acres are for single-family homes. The pro-rata share of opens space would be:

30% of 3 acres for townhomes: 39,204 sq. ft./ 0.9 acres of open space required.

10% of 7 acres for single-family: 30,492 sq. ft./0.7 acres of open space required.

Explanation of calculation: 43,560 x # of acres, / % required open space.

…

*Section 1333.20 Townhouse Development Standards*

(O) Required Open Space.

1. The difference between the Net Buildable Land Area of a townhouse Development and the total area of the dwelling unit Lots shall be allocated to open space common area as specified in Section 1333.20(B) above.

2. In the event that the Planning Commission, by waiver, permits dwelling unit Lots of less than the 2,000 square foot minimum specified in Section 1333.20(B), compensating open space must be established and provided within the project site equal to the aggregate area by which such Lots are under the 2,000 square foot minimum.

3. In a townhouse Development, open space for the Subdivision/Land Development must at least equal 30 percent of the Net Buildable Land Area of the Subdivision/Land Development. To the fullest extent possible, open space for townhomes must be located near the townhomes.

**JURISDICTIONAL COMPARISON**

Leesburg (https://www.leesburgva.gov/Home/ShowDocument?id=4540)

*Except as otherwise specifically provided in this Zoning Ordinance, the open space requirements for a given zoning district shall be considered as a minimum and shall be located on the same lot as the principal use of the property.*

*In mixed developments having both multi-family and single-family attached (townhouse) sections, density and any resulting active recreation facility requirements may be calculated separately for each respective dwelling category*

No other jurisdiction searched (City of Frederick MD, Charleston WV, Morgantown WV, Martinsburg WV) had language similar to what the City is looking to implement.

**Planning Commission**
101 East Washington Street
Charles Town, WV 25414

**SCHEDULED**

Meeting: 11/27/23
Department: Planning Commission
Category: Report
Initiator:

## AGENDA ITEM (ID # )

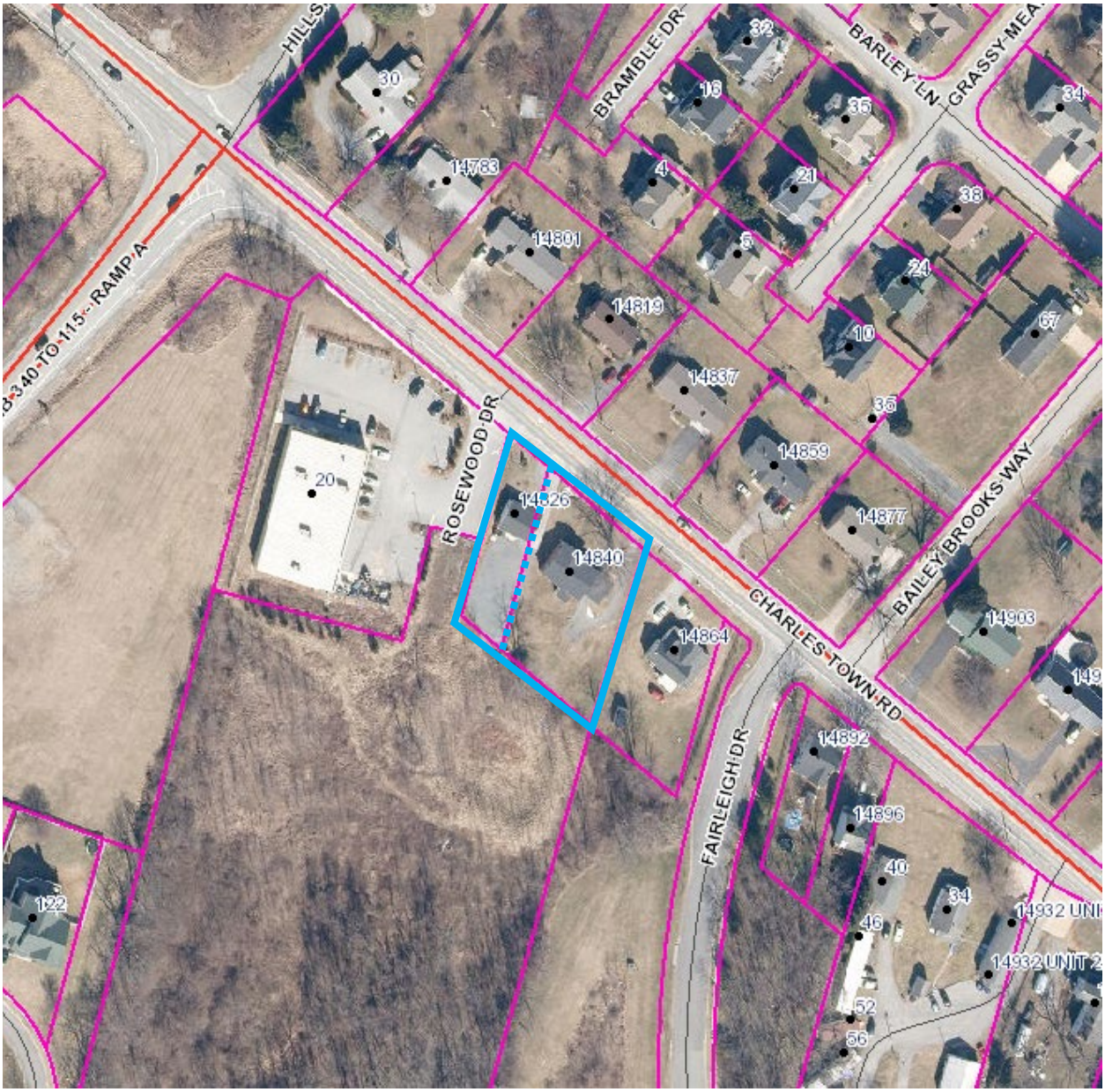
### Commission Review: *SLD2023-09 Joan and Joe's Coffee* - Preliminary Plan

**ATTACHMENTS:**

- 1. Staff Report.pdf
- 2. Preliminary Plan.pdf
- 3. Easement Maintenance Agreement.pdf
- 4. KH Review.pdf

Preliminary Plan Review
**SLD2023-09**

**Date:** For the November 27, 2023 Planning Commission meeting
**Applicant**: Joan and Joe's Coffee
**Property Owner:** VERITAS PROPERTIES LLC
**Report by**: James Newman, City Planner, Zoning/Subdivision Administrator.
**Proposal:** Development of a parking lot
**Property Location:** 14826 & 14840 Charles Town Road/ Tax District 3, Map 12, Parcel 12.0001 & Tax District 2, Map 17, Parcel 12.0003
**Zoning District**: General Commercial (GC).



**PROJECT OVERVIEW**

The applicant is seeking to expand their parking lot and access drive.

**SKETCH PLAN**

The Planning Commission approved the sketch plan on October 23, 2023.

**WAIVER**

The Planning Commission approved a waiver from the requirement to provide curb and gutter in the parking lot, on September 28, 2023.

*Setbacks*

Setbacks for parking lot require that parking spaces be at least 5 ft. from adjacent right-of-way. That requirement is met.

*Density*

Not applicable.

*Lot coverage*

Up to 90% of the lot may be developed. There is no open space requirement.

*Parking*

Required parking for either a coffee/doughnut shop or fast food restaurant is 1parking space per every 3 seats. With 21 seats, the applicant is required to provide a minimum of 7 parking spaces, but will actually be providing 21 spaces, including 2 handicapped spaces.

*Sidewalks*

The applicant filled for a waiver from sidewalk requirements, which the Planning Commission denied. The applicant has provided a 5 ft. wide sidewalk along the entire frontage of the property. The sidewalk is required by Code Section 133.09.F to be separated from the curb a distance of 6 ft. This criteria is met.

*Street Connections*

There is an existing entrance onto Charles Town Road. That existing entrance would stay as an entrance lane, and a new exit lane would be built, also connecting to Charles Town Road. There are 7 access drive standards in the Subdivision Ordinance:

1. *The horizontal alignment of Access Drives shall conform to the requirement for Streets, as stated in Section 1333.02 of this Ordinance.*

   The City's Engineering firm Kimley-Horn had no comments on this matter.

2. *The horizontal alignment of Access Drives shall be measured along the centerline. Horizontal curves shall be used at all angle changes in excess of two (2) degrees. All curves shall be tangential arcs. The minimum horizontal curve radius shall be seventy five (75) feet.*

   Kimley-Horn had no comments on this matter.

3. *There shall be no more than two (2) entrances to the same property. Two (2) entrances to the same property must be located a minimum of 150 feet apart, measured from centerline to centerline.*

   This requirement is **not** met. There will be only two access drives for the property. They are approximately 100 ft. from each other, as measured from center line to centerline. There is no additional room on site to move the prosed exit lane any further from the entrance lane, as each access lane abuts side property lines.

4. *No Access Drive shall be constructed closer than 100 feet to the nearest intersection.*

   This requirement is met. The new access drive is more than 100 ft. from the nearest intersection.

5. *Access Drives shall not be located less than fifteen (15) feet from an adjoining property unless used as a shared Access Drive between the two abutting properties. Property owners must record an easement allowing cross access to and from the properties served by the shared Access Drive. The easement must include a joint maintenance agreement defining the responsibilities of the property owners.*

   This requirement is **not** met. The new access drive is less than 15 feet from the nearest adjacent property lines.

6. *Access Drives travel lanes shall have a minimum width of twenty-four (24) feet; however, sufficient design information must be submitted to indicate that the number of travel lanes and width proposed have been designed to accommodate the anticipated traffic to and from the development.*

   This requirements is **not** met. The road width is 15 feet. However, the new access drive will be an exit only, while the existing access drive will be an entrance only road. The 24 ft. width requirement assumes that the drive will be used for both entrance and exit traffic. The typical roadway section used for this type of road and described in Subdivision Ordinance appendix A calls for a road width of 10 ft per lane, including curb and gutter. Therefore, the 15 ft. width is sufficient for the purpose of the new access road.

7. *The maximum slope of embankments adjacent to Access Drives shall not exceed 1V:3H unless a retaining wall is used to ensure that the earth is stabilized.*

   Kimley-Horn had no comments on this matter.

*Easement*

The applicant has provided an access easement which covers the entirety of the access drives and the parking areas. Maintenance costs will be split equally between the owners of the two parcels, should they come under separate ownership.

*Buffers*

An opaque buffer at least 6 ft. in height is required between non-residential and residential uses. A 6ft. tall fence is shown along the east/right side of the structure as the required buffer. To the rear of the property is wooded property. The landscaping criteria is met.

*Parking Lot Landscaping*

There must be one tree for every 2,000 sq. ft. of parking lot surface area. The parking lot area is 8,300 sq. ft. The application is providing four trees and four shrubs around the parking area, which complies with the requirements of the Ordinance.

*Lighting*

Lighting will be on black poles with acorn style tops, and meets design requirements of the Ordinance. Lighting must not exceed a maximum average of 3 footcandle nor go below a minimum average of one footcandle. The proposed average is 1.1 footcandles, meeting Ordinance requirements.

*Stormwater*

Kimley-Horn has reviewed the plans and found them satisfactory.

**CONCLUSION**

The application and design are generally in conformance with Code requirements. The applicant has adhered to the access drive requirements as much as is practical for this site. The applicant has provided an access easement and maintenance agreement should the properties come under separate ownership.

**RECOMMENDATION**

**Approval**.

SITE PLAN FOR

# JOAN AND JOE'S COFFEE

CHARLES TOWN, JEFFERSON COUNTY
WEST VIRGINIA
TAX MAP 17 PARCEL 12.3
DEED BOOK 1275 PG 458


**OWNER/DEVELOPER**
ROBERT MEAD
14826 CHARLES TOWN ROAD
CHARLES TOWN, WV 25414, 681-252-1033

**ENGINEER/SURVEYOR**
JHA COMPANIES
362 W BURR BLVD.
SUITE 3
KEARNEYSVILLE, WV 25430


**SITE DATA**

| | |
|---|---|
| TOTAL SITE AREA: | 0.53 ACRES |
| EXISTING LAND USE: | COFFEE SHOP |
| ZONING: | GENERAL COMMERCIAL |
| WATER SUPPLY: | PUBLIC WATER |
| SEWAGE DISPOSAL: | PUBLIC SEWER |
| DEED REFERENCE: | DEED BOOK 1255, PAGE 466 & DEED BOOK 1275, PAGE 458 |
| PLAT REFERENCE: | PLAT BOOK 25, PAGE 15 |
| TAX PARCEL REFERENCE: | TAX MAP 12 PARCEL 12.1 & TAX MAP 17 PARCEL 12.3 |
| FLOOD PLAIN: | ENTIRELY WITHIN ZONE X |

**PROPOSED LOT REQUIREMENTS**

| | |
|---|---|
| ZONING: | |
| GENERAL COMMERCIAL | |
| MINIMUM LOT SIZE | N/A |
| MIN. WIDTH | N/A |
| MAX BUILDING HEIGHT | 55 FEET |
| BUILDING SETBACKS: | |
| FRONT YARD | 40 FEET |
| SIDE YARD | 10 FEET |
| REAR YARD | 30 FEET |
| PARKING AND ACCESS DRIVE SETBACKS: | |
| FRONT YARD | 15 FEET |
| SIDE YARD | 20 FEET |
| REAR YARD | 15 FEET |
| BUFFERS: | |
| FRONT YARD | 20 FEET |
| SIDE YARD | 20 FEET |
| REAR YARD | 20 FEET |

**BOUNDARY NOTE:**
BOUNDARY AND TOPOGRAPHY SHOWN HEREON IS FROM FIELD SURVEYS BY ROBERTS LAND SURVEYING.

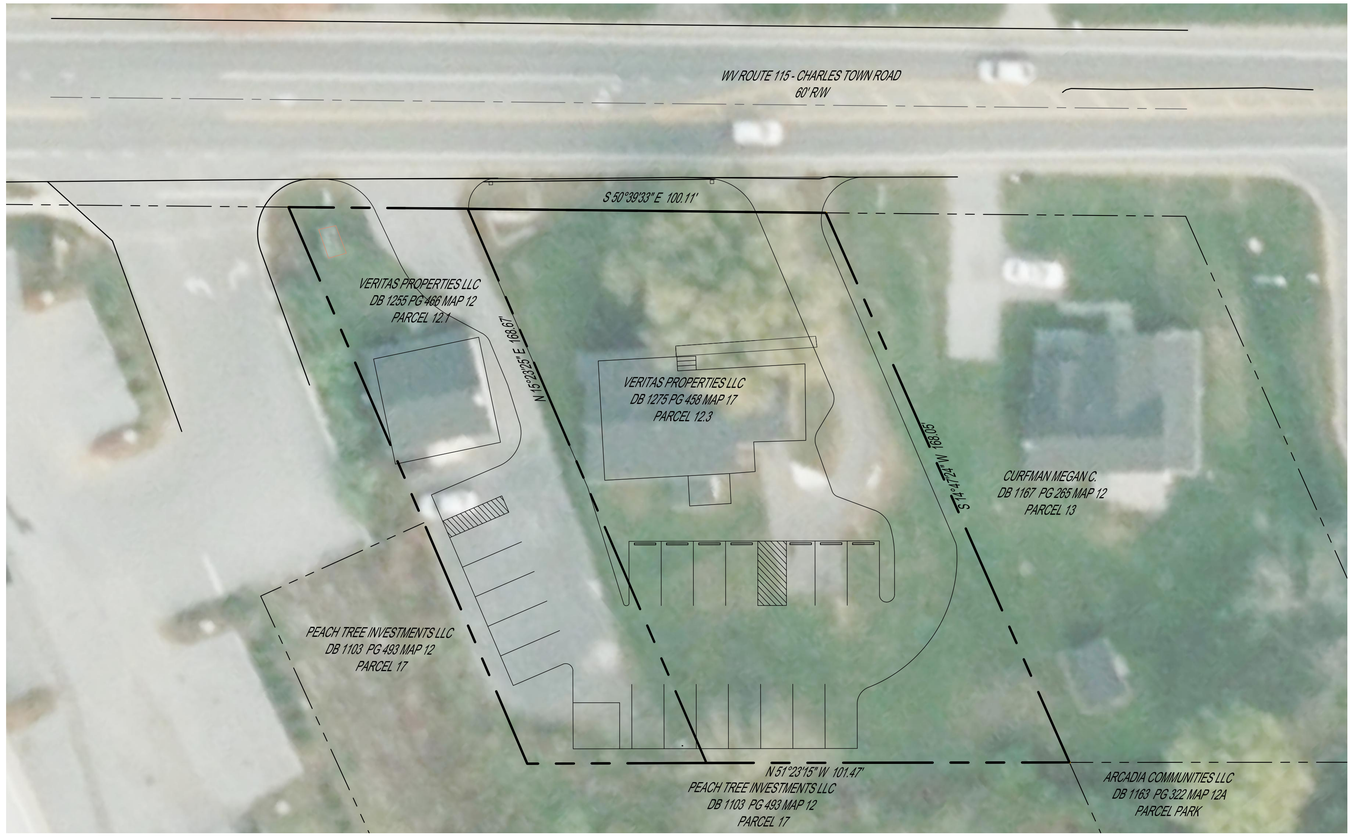
**MONUMENT / MARKER NOTE:**
CORNERS FOUND / SET / TO BE SET BY ROBERTS LAND SURVEYING

**GENERAL NOTES:**
1. NO PROPOSED ROADS, EASEMENTS, AND RIGHT-OF-WAYS.
2. THERE ARE NO FUTURE OR EXISTING EASEMENTS EXCEPT AS SHOWN.
3. PUBLIC WATER WILL BE USED TO SUPPLY THE COFFEE SHOP WITH WATER.
4. PARKING REQUIREMENTS:
   1 SPACE / 3 EVERY SEATS AVAILABLE FOR CUSTOMERS: 7 PARKING SPACES REQUIRED (21 AVAILABLE SEATS)
   TOTAL PARKING PROVIDED = 21 SPACES ( INCLUDES 2 HANDICAPPED SPACES

**FLOOD PLAIN**
THIS SITE IS ENTIRELY LOCATED IN ZONE X - AREAS DETERMINED TO BE OUTSIDE 0.2% ANNUAL CHANCE FLOODPLAIN, AS DELINEATED ON THE NATIONAL FLOOD INSURANCE PROGRAM FLOOD INSURANCE RATE MAP COMMUNITY PANEL NUMBER 54037C0138E DATED DECEMBER 18, 2009 FOR JEFFERSON COUNTY, WEST VIRGINIA BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY.

**WETLANDS**
NO ACTUAL FIELD DELINEATION OF WETLANDS WAS PERFORMED ON THIS SITE, HOWEVER THERE ARE NO WETLANDS PRESENT PER THE NATIONAL WETLANDS INVENTORY MAP.

| COMPUTATIONAL BREAKDOWN | |
|---|---|
| TOTAL ACRES | 0.534 ACRES |
| OPEN SPACE | 0.25 ACRES |
| CONSERVATION EASEMENTS OR OTHER RESTRICTIVE EASEMENTS | N/A |
| STORMWATER MANAGEMENT AREAS | 0.39 ACRES |
| REMAINING ACREAGE | 0.144 ACRES |
| TABLE OF LOT AREAS | PARCEL 12: 7,768 SF<br>PARCEL 12.3: 15,515 SF |
| DENSITY | 3.74 UNITS/ACRE |
| RIGHT-OF-WAYS & EASEMENTS | N/A |




GRAPHIC SCALE: 1" = 20'
20 0 20 40

| WAIVER REQUESTS / PRIOR APPROVALS | | | |
|---|---|---|---|
| ORDINANCE | SECTION OF ORDINANCE | DESCRIPTION OF WAVIER OR VARIANCE | DATE GRANTED |
| SALDO | 1333.23.C.2 | CURB AND GUTTER | 09/28/2023 |
| | | | |
| | | | |
| | | | |
| | | | |

THIS PLAT WAS APPROVED FOR RECORDATION BY THE CITY OF CHARLES TOWN, ON THE _____ DAY OF _____, 20_____, SUBJECT TO ANY CONDITIONS SPECIFIED HEREON.

ALL EXPENSES INCURRED WITH RESPECT TO IMPROVEMENTS FOR UTILITY SERVICES, PAVING, GRADING, LANDSCAPING, CURBS, GUTTERS, SIDEWALKS, ROAD LIGHTING, ROAD SIGNS, FLOOD PROTECTION DEVICES, DRAINAGE STRUCTURES AND ALL OTHER IMPROVEMENTS THAT MAY BE REQUIRED SHALL BE THE RESPONSIBILITY OF THE SUBDIVIDER AND NOT THE CITY.

_____ _____
SECRETARY OF THE PLANNING COMMISSION DATE

**STATEMENT OF ACCURACY**
THE ENGINEER AND/OR SURVEYOR, IN SIGNING THIS PLAT/PLAN, ATTESTS TO THE BEST OF HIS OR HER KNOWLEDGE, IS PLAN IS COMPLETE AND ACCURATE.

Joseph D Hayne 11-15-23
ENGINEER / SURVEYOR DATE

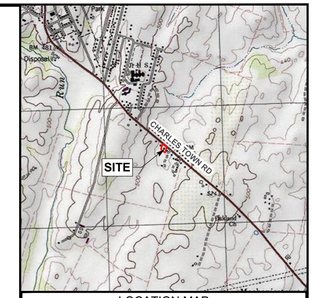
**STATEMENT OF ACCEPTANCE**
THE DEVELOPER, IN SIGNING THIS PLAT, AGREES TO ABIDE BY ALL CONDITIONS, TERMS AND SPECIFICATIONS PROVIDED HEREON; AND TO COMPLETE ALL THE IMPROVEMENTS REQUIRED BY THE PRELIMINARY PLAT OR SITE PLAN

_____ _____
OWNER / DEVELOPER DATE

**PLAN CERTIFICATION**
THE PROFESSIONAL ENGINEER OR LAND SURVEYOR, IN SIGNING THIS PLAT REPRESENTS A SURVEY MADE BY HIM/HER; ALL MONUMENTS AND IMPROVEMENTS INDICATED THEREON ACTUALLY EXIST, AND THAT THEIR LOCATION, SIZE, AND MATERIAL ARE CORRECTLY SHOWN; HE/SHE IS FAMILIAR WITH ALL REQUIREMENTS OF THIS ORDIANACE; AND, TO HIS/HER BEST KNOWLEDGE AND BELIEF, ALL REQUIREMENTS OF THIS ORDINANCE HAVE BEEN FULLY COMPLIED THEREWITH.

Joseph D Hayne 11-15-23
ENGINEER / SURVEYOR DATE

| Sheet List Table | |
|---|---|
| Sheet Number | Sheet Title |
| C-0.01 | COVER SHEET |
| C-1.00 | EXISITING CONDITIONS PLAN |
| C-2.00 | SITE PLAN |
| C-2.01 | EASEMENT PLAN |
| C-2.02 | SITE DETAILS |
| C-2.03 | SITE DETAILS 2 |
| C-3.00 | STORMWATER MANAGEMENT PLAN |
| C-3.01 | STORMWATER MANAGEMENT DETAILS |
| C-4.00 | EROSION AND SEDIMENT CONTROL PLAN |
| C-4.01 | EROSION AND SEDIMENT CONTROL DETAILS |
| C-5.00 | LIGHTING PLAN |
| C-5.01 | LIGHTING DETAILS |




LOCATION MAP
SCALE: 1" = 2000'

| NO. | DATE | DESCRIPTION | INT. |
|---|---|---|---|
| 0 | 2023-07-07 | FOR SUBMISSION | DMJ |
| 1 | 2023-09-15 | PER CITY ENGINEER COMMENTS | DMJ |
| 2 | 2023-10-04 | PER CITY ENGINEER COMMENTS | DMJ |
| 3 | 2023-10-20 | PER CITY ENGINEER COMMENTS | JAB |
| 4 | 2023-11-15 | PER CITY ENGINEER COMMENTS | DMJ |

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26756
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362 W. BURR BLVD. STE 3
KEARNEYSVILLE, WV 25430
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| | |
|---|---|
| PROJECT ID: 2022-1685 | DRAWN: DMJ |
| DATE: 2023-07-07 | DESIGN: JAB |
| SCALE: NOTED | CHECKED: JDH |

SITE PLAN
FOR
JOAN AND JOE'S COFFEE
LOCATED IN
CHARLES TOWN,
JEFFERSON COUNTY,
WEST VIRGINIA

TITLE:
COVER SHEET

| PLAN STATUS: | SHEET NO. |
|---|---|
| SITE PLAN | C-0.01 |

Nov 15, 2023 10:09am Dlampier R:\Projects\2022\2022-1685 Joes and Joe's Coffee - Site Plan\CAD\SHEET FILES\COVER SHEET (2022-1685) 24X36.dwg
Layout: C-0.01 COVER SHEET


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WV ROUTE 115 - CHARLES TOWN ROAD
60' R/W

INLET
TOP=472.8
18" RCP
24" RCP

OHE

EXISTING
CONCRETE SWALE

REBAR FOUND

CORNER BOUNDARY FOUND

EXISTING
MAILBOX

EXISTING
MAILBOX

S 50°39'33" E 100.11'

EXISTING
COFFEE SHOP SIGN

EXISTING
MANHOLE
INV. 472.62

INLET
TOP=469.9
18" CMP 466.5
18" RCP 466.3

INLET
TOP=471.5
18" CMP

EXISTING
STORM MANHOLE

EXISTING 18" BPB 468.5
EXISTING CONCRETE HEADWALL STRUCTURE

VERITAS PROPERTIES LLC
DB 1255 PG 466 MAP 12
PARCEL 12.1

EXISTING COFFEE SHOP
900 SF

N 15°32'52" E 168.69'

VERITAS PROPERTIES LLC
DB 1275 PG 458 MAP 17
PARCEL 12.3

EXISTING HOUSE TO BE RENOVATED INTO
PROPOSED COFFEE SHOP
1745 SF

#16840 1 STORY
BRICK FF=476.45
GAR=474.53

EXISTING
GRAVEL
DRIVEWAY

S 14°42'41" W 168.61'

CURFMAN MEGAN C.
DB 1167 PG 265 MAP 12
PARCEL 13

EXISTING
GRAVEL
PARKING

PmB

PEACH TREE INVESTMENTS LLC
DB 1103 PG 493 MAP 12
PARCEL 17

EXISTING
CLEANOUT

BENT REBAR FOUND

IRON PIN IN CONCRETE FOUND

N 51°23'15" W 101.47'

PEACH TREE INVESTMENTS LLC
DB 1103 PG 493 MAP 12
PARCEL 17

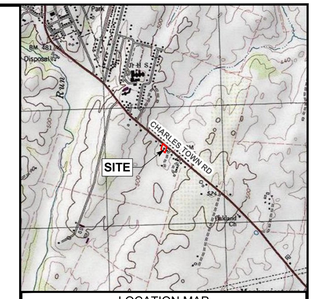
ARCADIA COMMUNITIES LLC
DB 1163 PG 322 MAP 12A
PARCEL PARK

**SOIL DATA:**
PmB POPLIMENTO SILT LOAM, 3 TO 8 PERCENT SLOPES, HSG 'B'

**BOUNDARY NOTE:**
BOUNDARY AND TOPOGRAPHY SHOWN HEREON IS FROM FIELD SURVEYS BY ROBERTS LAND SURVEYING.

**MONUMENT / MARKER NOTE:**
CORNERS FOUND / SET / TO BE SET BY ROBERTS LAND SURVEYING

GRAPHIC SCALE: 1" = 10'
10 0 10 20




LOCATION MAP
SCALE: 1" = 2000'

| NO. | DATE | DESCRIPTION | INT. |
|---|---|---|---|
| 0 | 2023-07-07 | FOR SUBMISSION | DMJ |
| 1 | 2023-08-15 | PER CITY ENGINEER COMMENTS | DMJ |
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| 4 | 2023-11-15 | PER CITY ENGINEER COMMENTS | DMJ |

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SERIAL NO.

SEAL

JOSEPH DANIEL HAGUE
REGISTERED
28756
STATE OF
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PROFESSIONAL ENGINEER

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| PROJECT ID: | DRAWN: |
|---|---|
| 2022-1685 | DMJ |
| DATE: | DESIGN: |
| 2023-07-07 | JAB |
| SCALE: | CHECKED: |
| NOTED | JDH |

SITE PLAN
FOR
JOAN AND JOE'S COFFEE
LOCATED IN
CHARLES TOWN,
JEFFERSON COUNTY,
WEST VIRGINIA

TITLE:
EXISITING CONDITIONS PLAN

| PLAN STATUS: | SHEET NO. |
|---|---|
| SITE PLAN | C-1.00 |

Nov 15, 2023, 10:09am Dlumper R:\Projects\2022\2022-1685 Joan and Joe's Coffee - Site Plan\LOADD\SHEET FILES\EXISTING CONDITIONS PLAN (2022-1685) 24X36.dwg
Layout: C-1.00 EXISTING CONDITIONS PLAN

THESE DRAWINGS SHALL NOT BE UTILIZED BY ANY PERSON FIRM OR CORPORATION WITHOUT THE SPECIFIC WRITTEN PERMISSION OF JHA COMPANIES

WV ROUTE 115 - CHARLES TOWN ROAD
60' R/W

CENTERLINE WV ROUTE 115- CHARLES TOWN ROAD

EXISTING EDGE OF PAVEMENT

INLET
TOP=472.8
15" RCP
24" RCP

POSTED SPEED LIMIT 45MPH

EXISTING SIGHT DISTANCE 528FT.

3.8% SLOPE DOWN
REQUIRED SIGHT DISTANCE 344FT.

EXISTING SIGHT DISTANCE 618FT+

2.1% SLOPE UP
REQUIRED SIGHT DISTANCE 378FT.

PROPOSED SIDEWALK AND WALL TO TIE INTO EXISTING CONCRETE HEADWALL

5 FOOT X 7 FOOT 8 INCH GALVANIZED DIAMOND NON-SLIP TREAD STEEL PLATE WITH 2 INCH LIP ON SOUTH SIDE WITH 4 INCH OVERLAP OVER CONCRETE SWALE TO MAINTAIN FLUSH WITH SIDEWALK

EXISTING CONCRETE SWALE

PROPOSED 5FT. CONCRETE SIDEWALK

10 LF 34" HIGH HANDRAIL

30 LF 34" HIGH HANDRAIL

PROPOSED ONE WAY SIGN

EXISTING MAILBOX

RIGHT OF WAY LINE

EXISTING COFFEE SHOP SIGN

EXISTING ENTRANCE TO BE UPDATED WITH CROSSWALK REPAVING

EXISTING MANHOLE INV: 472.62

EXISTING STORM MANHOLE

EXISTING 18" BPB 469.5
EXISTING CONCRETE HEADWALL STRUCTURE

INLET
TOP=469.9
18" CMP 466.5
18" RCP 466.3

PROPOSED RETAINING WALL

VERITAS PROPERTIES LLC
DB 1255 PG 466 MAP 12
PARCEL 12.1

SAWCUT EXISTING PAVEMENT

PROPOSED DO NOT ENTER SIGN

EXISTING DO NOT ENTER SIGN

PROPOSED STOP BAR 12" WHITE TYPE V THERMO

TIE INTO EXISTING CONCRETE SWALE

PROPOSED DO NOT ENTER SIGN

SIGHT DISTANCE LINE
10' FROM EDGE OF PAVEMENT,
5' BEHIND STOP BAR

PROPOSED 5 FT. WIDE CONCRETE SIDEWALK

UPGRADE EXISTING ENTRANCE

EMERGENCY SPILLWAY ELEV: 472.00

PROPOSED DRIVEWAY PAVING

15.00' WIDE DRIVEWAY

INLET
TOP=471.5
18" CMP

PROPOSED 30" STOP SIGN

BIORETENTION 2
BOTTOM: 470.0
TOP: 472.5

TIE INTO PROPOSED DRIVEWAY

PROPOSED WOODEN LANDSCAPING FENCE
4' - 6' TALL

VERITAS PROPERTIES LLC
DB 1275 PG 458 MAP 17
PARCEL 12.3

PROPOSED CONCRETE SIDEWALK

TRAFFIC ARROW (TYP)

CURB STOP TYP.

DUMPSTER ENCLOSURE

EXISTING CLEANOUT

BIORETENTION 1
BOTTOM: 470.0
TOP: 472.5

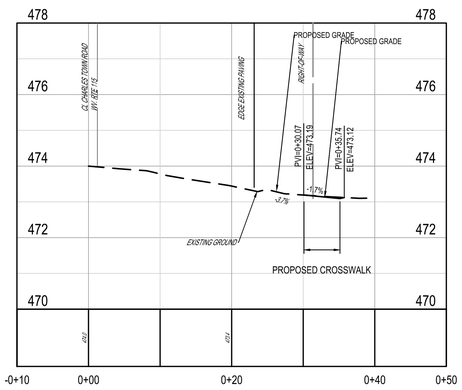
EMERGENCY SPILLWAY ELEV: 472.00

PEACH TREE INVESTMENTS LLC
DB 1103 PG 493 MAP 12
PARCEL 17

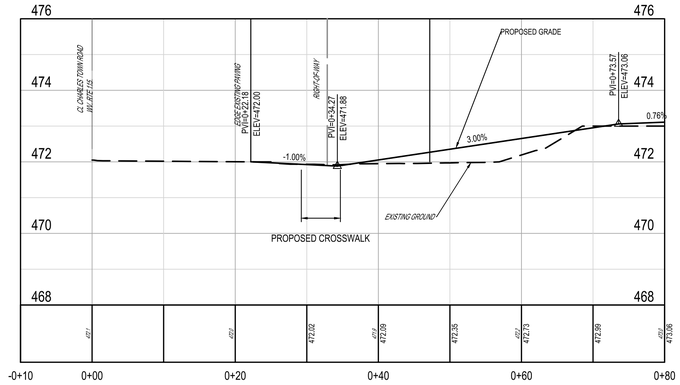
PEACH TREE INVESTMENTS LLC
DB 1103 PG 493 MAP 12
PARCEL 17

CURFMAN MEGAN C.
DB 1167 PG 265 MAP 12
PARCEL 13

ARCADIA COMMUNITIES LLC
DB 1163 PG 322 MAP 12A
PARCEL PARK




ENTRANCE
HORIZONTAL SCALE - 1:10
VERTICAL SCALE - 1:2

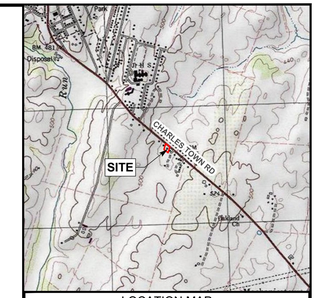



EXIT
HORIZONTAL SCALE - 1:10
VERTICAL SCALE - 1:2

LEGEND:

PROPOSED TREE

GRAPHIC SCALE: 1" = 10'
10 0 10 20




LOCATION MAP
SCALE: 1" = 2000'

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| 4 | 2023-11-15 | PER CITY ENGINEER COMMENTS | DMJ |

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| PROJECT ID: | DRAWN: |
|---|---|
| 2022-1685 | DMJ |
| DATE: | DESIGN: |
| 2023-07-07 | JAB |
| SCALE: | CHECKED: |
| NOTED | JDH |

# SITE PLAN
FOR
# JOAN AND JOE'S COFFEE
LOCATED IN
CHARLES TOWN,
JEFFERSON COUNTY,
WEST VIRGINIA

TITLE:
SITE PLAN

PLAN STATUS: SITE PLAN

SHEET NO. C-2.00

Nov 15, 2023 10:09am DJumper K:\Projects\2022\2022-1685 Joan and Joe's Coffee – Site Plan\CAD\SHEET FILES\SITE PLAN (2022-1685) 24X36.dwg
Layout: C-2.00 SITE PLAN

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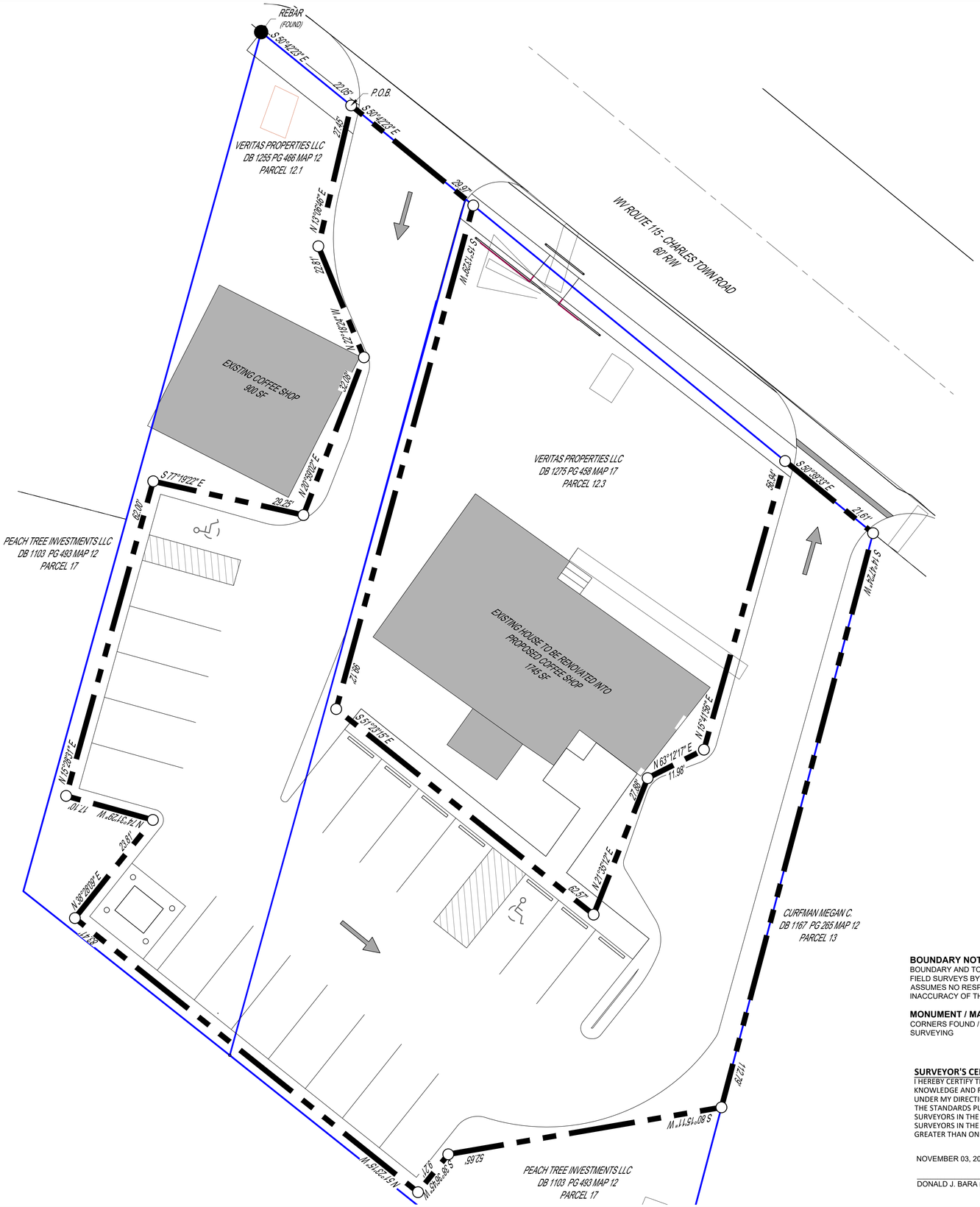
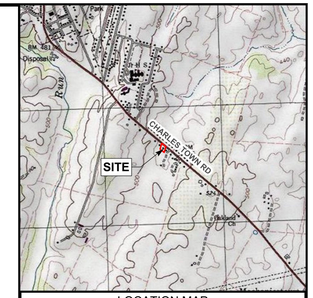



WEST VIRGINIA STATE PLANE NORTH ZONE NAD 83




LOCATION MAP
SCALE: 1" = 2000'

| NO. | DATE | DESCRIPTION | INT. |
|---|---|---|---|
| 0 | 2023-07-07 | FOR SUBMISSION | DMJ |
| 1 | 2023-08-15 | PER CITY ENGINEER COMMENTS | DMJ |
| 2 | 2023-10-04 | PER CITY ENGINEER COMMENTS | DMJ |
| 3 | 2023-10-26 | PER CITY ENGINEER COMMENTS | JAB |

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SERIAL NO.

**BOUNDARY NOTE:**
BOUNDARY AND TOPOGRAPHY SHOWN HEREON IS FROM FIELD SURVEYS BY ROBERTS LAND SURVEYING. JHA ASSUMES NO RESPONSIBILITY FOR THE ACCURACY OR INACCURACY OF THE BOUNDARY AS SHOWN.

**MONUMENT / MARKER NOTE:**
CORNERS FOUND / SET / TO BE SET BY ROBERTS LAND SURVEYING

**SURVEYOR'S CERTIFICATION**
I HEREBY CERTIFY THAT THIS PLAN IS TRUE AND ACCURATE TO THE BEST OF MY KNOWLEDGE AND REPRESENTS THE FINDINGS OF A BOUNDARY SURVEY PERFORMED UNDER MY DIRECTION AND THAT THE WORK HAS BEEN DONE IN ACCORDANCE WITH THE STANDARDS PUBLISHED BY THE WEST VIRGINIA SOCIETY OF PROFESSIONAL SURVEYORS IN THE MOST CURRENT OF ITS "MANUAL OF PRACTICE FOR PROFESSIONAL SURVEYORS IN THE STATE OF WEST VIRGINIA" WITH AN ERROR OF CLOSURE NO GREATER THAN ONE FOOT IN TEN THOUSAND FEET.

NOVEMBER 03, 2023

DONALD J. BARA #2450

DONALD BARA LICENSED No. 2450 STATE OF WEST VIRGINIA PROFESSIONAL SURVEYOR

LEGEND
PROPERTY LINE
ADJOINER PARCEL LINE
EASEMENT LINE
POINT
MONUMENT FOUND AS NOTED

10 0 10 20
SCALE IN FEET

SEAL

JOSEPH DANIEL TOUPE REGISTERED 2806 STATE OF WEST VIRGINIA PROFESSIONAL ENGINEER


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| PROJECT ID: | DRAWN: |
|---|---|
| 2022-1685 | BMH |
| DATE: | DESIGN: |
| 2023-11-02 | |
| SCALE: | CHECKED: |
| 1" = 10' | DJB |

# SITE PLAN
FOR
# JOAN AND JOE'S COFFEE
LOCATED IN
CHARLES TOWN,
JEFFERSON COUNTY,
WEST VIRGINIA

TITLE:
## EASEMENT PLAN

| PLAN STATUS: | SHEET NO. |
|---|---|
| SITE PLAN | C-2.01 |

Nov 03, 2023 12:26pm Bhenry R:\Projects\2022\2022-1685 Joon and Joe's Coffee - Site Plan\CAD\SHEET FILES\EASEMENT PLAN.dwg
Layout: 1 PLAN TYPE

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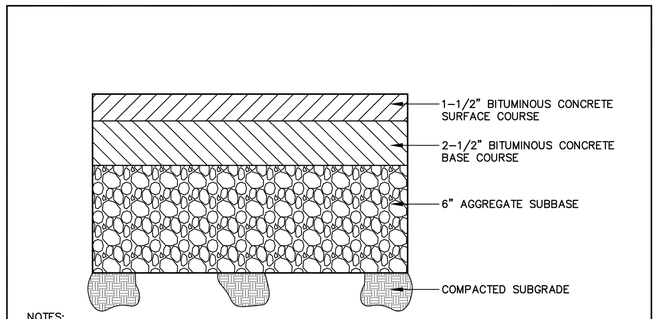
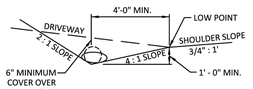


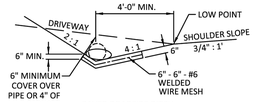

NOTES:

1. ALL BASE AND SUBGRADE MATERIAL SHALL BE COMPACTED TO 95% THEORETICAL MAXIMUM DENSITY AS DETERMINED BY AASHTO T-99 METHOD A, WITHIN A ±2% OF OPTIMUM MOISTURE.

| | STANDARD DETAIL | STANDARD NUMBER |
|---|---|---|
| | TYPICAL DRIVEWAY/PARKING PAVING SECTION | K-1 |

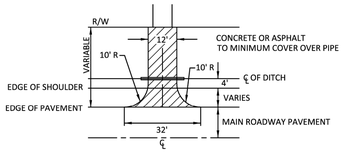



UNPAVED ROADSIDE DITCH




PAVED ROADSIDE DITCH

A PAVED DITCH IS REQUIRED WHERE SOIL CONDITIONS AND RUNOFF VELOCITIES WILL CAUSE EROSION.

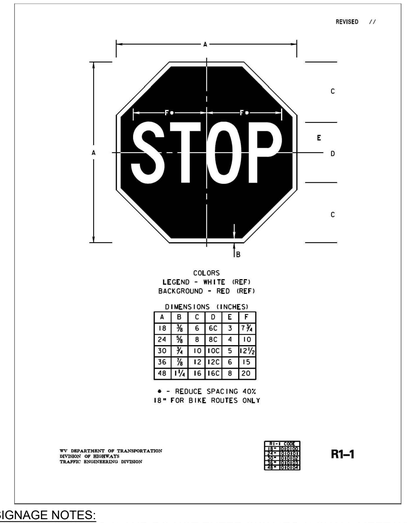



NOTES:

1. ALL CULVERTS SHALL BE SIZED IN ACCORDANCE WITH THE WVDOH DRAINAGE MANUAL - CURRENT EDITION.
2. DRIVEWAYS SHALL BE SURFACED FROM THE EDGE OF PAVEMENT TO THE PROPERTY LINE WITH THE SAME TYPE OF SURFACING USED ON THE STREET.
3. ALL DRIVEWAY GRADES SHALL START BACK OF THE SHOULDER LINE.
4. IN CUT SECTIONS, SIDES OF THE DRIVEWAY SHALL BE GRADED TO A MAXIMUM 3:1 SLOPE.
5. THE DITCH LINE MAY BE MOVED BACK TO PROVIDE REQUIRED COVER. THE TRANSITION OF THE DITCH LINE SHALL BE SMOOTH WITH A MINIMUM TRANSITION LENGTH OF 10 FEET.

NOT TO SCALE

| | DRIVEWAY ENTRANCE WITH NO CURB AND GUTTER<br>City of Charles Town | DE-1 |
|---|---|---|




COLORS
LEGEND - WHITE (REF)
BACKGROUND - RED (REF)

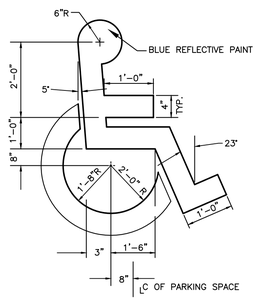
DIMENSIONS (INCHES)

| A | B | C | D | E | F |
|---|---|---|---|---|---|
| 18 | 7/8 | 6 | 6C | 3 | 7 7/8 |
| 24 | 7/8 | 8 | 8C | 4 | 10 |
| 30 | 3/4 | 10 | 10C | 5 | 12 1/2 |
| 36 | 7/8 | 12 | 12C | 6 | 15 |
| 48 | 1 1/4 | 16 | 16C | 8 | 20 |

* - REDUCE SPACING 40% IB* FOR BIKE ROUTES ONLY

WV DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
TRAFFIC ENGINEERING DIVISION

R1-1



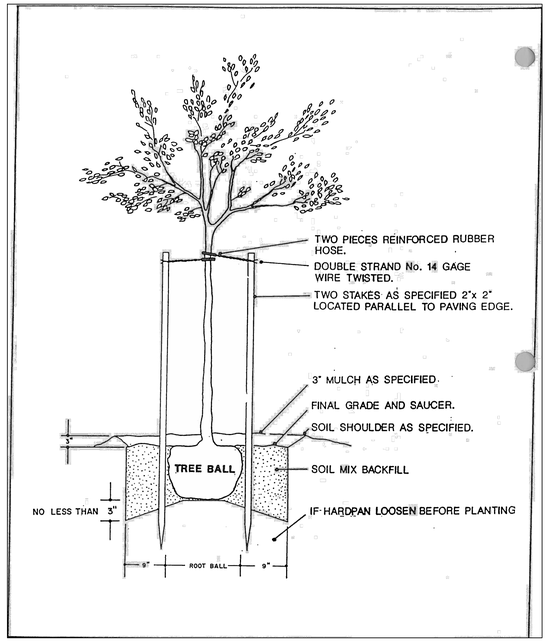

## INTERNATIONAL HANDICAP SYMBOL

NOT TO SCALE
NOT FOR USE IN R.O.W.

ANSI 117.1 REQUIREMENTS-ACCESSIBLE PARKING SPACES AND PASSENGER LOADINGS ZONES

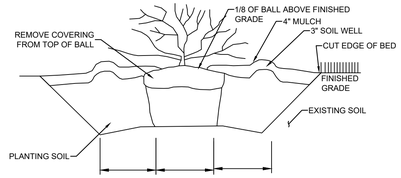
1. SIGNAGE: ACCESSIBLE PARKING SPACES SHALL BE DESIGNATED AS RESERVED BY A SIGN SHOWING THE SYMBOL OF ACCESSIBILITY. VAN ACCESSIBLE SPACES SHALL HAVE AN ADDITIONAL SIGN "VAN-ACCESSIBLE" MOUNTED BELOW THE SYMBOL OF ACCESSIBILITY. SUCH SIGNS SHALL BE LOCATED SO THEY CONNOT BE OBSCURED BY A VEHICLE IN THE SPACE.
2. ACCESSIBLE PARKING SPACES SERVING A PARTICULAR BUILDING SHALL BE LOCATED ON THE SHORTEST ACCESSIBLE OF TRAVEL FROM ADJACENT PARKING TO AN ACCESSIBLE ENTRANCE.
3. ACCESSIBLE PARKING SPACES SHALL BE AT LEAST 96 INCHES WIDE. PARKING ACCESS AISLES SHALL BE A MINIMUM OF 60 INCHES WIDE AND MUST BE PART OF AN ACCESSIBLE ROUTE TO THE BUILDING OR FACILITY ENTRANCE. TWO ACCESSIBLE PARKING SPACES MAY SHARE A COMMON ACCESS AISLE. PARKING SPACES AND ACCESS AISLES SHALL BE LEVEL SURFACE SLOPES NOT EXCEEDING 1:50 (2%) IN ALL DIRECTIONS. VAN ACCESSIBILITY SPACES MUST BE AT LEAST 96 INCHES WIDE WITH AN AISLE WIDTH OF 60 INCHES MIN. VAN PARKING SPACES SHALL BE 132" MINIMUM IN WIDTH WITH A 60" ACCESS AISLE OR 96" IN WIDTH WITH A 96" ACCESS AISLE.

SIGNAGE NOTES:
ONE WAY SIGN (R6-1) AND DO NOT ENTER SIGN (R5-1) SHALL MEET WVDOH REQUIREMENTS.



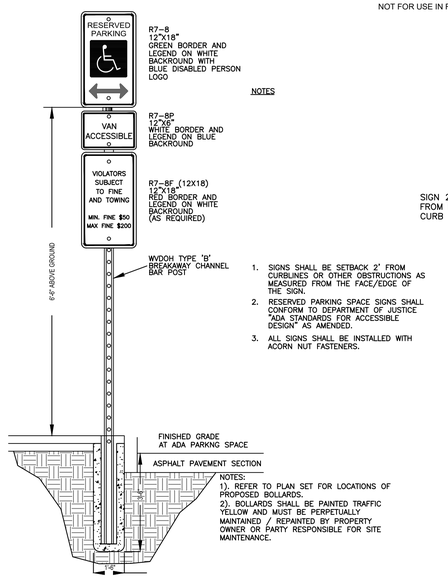

## TREE PLANTING DETAIL

NOT TO SCALE
NOT FOR USE IN R.O.W.




## SHRUB/PERENNIAL PLANTING DETAIL

NOT TO SCALE
NOT FOR USE IN R.O.W.




NOTES

1. SIGNS SHALL BE SETBACK 2' FROM CURBLINES OR OTHER OBSTRUCTIONS AS MEASURED FROM THE FACE/EDGE OF THE SIGN.
2. RESERVED PARKING SPACE SIGNS SHALL CONFORM TO DEPARTMENT OF JUSTICE "ADA STANDARDS FOR ACCESSIBLE DESIGN" AS AMENDED.
3. ALL SIGNS SHALL BE INSTALLED WITH ACORN NUT FASTENERS.

NOTES:
1). REFER TO PLAN SET FOR LOCATIONS OF PROPOSED BOLLARDS.
2). BOLLARDS SHALL BE PAINTED TRAFFIC YELLOW AND MUST BE PERPETUALLY MAINTAINED / REPAINTED BY PROPERTY OWNER OR PARTY RESPONSIBLE FOR SITE MAINTENANCE.

## HANDICAP PARKING SIGN DETAIL

NOT TO SCALE
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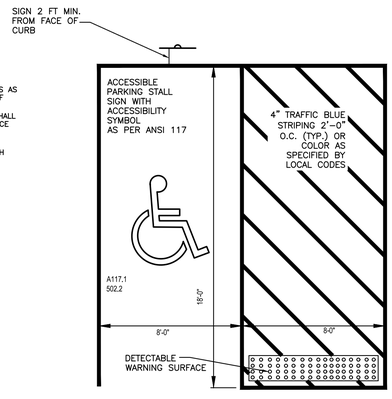


## STANDARD HANDICAP PARKING DETAILS

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LANDSCAPING PLANTING PROCEDURE:

1. ALL REQUIRED TREES AND SHRUBS SHALL BE PLANTED IN ACCORDANCE WITH THE SPECIFICATIONS OF THE ANSI (AMERICAN NATIONAL STANDARDS INSTITUTE) A300 BEST MANAGEMENT PRACTICES.
2. ALL TREES SHALL BE PLANTED NO CLOSURE THAN THREE (3) FEET TO THE EDGE OF SIDEWALKS, CURBS, OR OTHER PAVEMENT.
3. EVERGREEN TREES SHALL BE A MINIMUM OF SIX (6) FEET IN HEIGHT AT THE TIME OF PLANTING.
4. SHRUBS SHALL BE A MINIMUM THREE (3) GALLON CONTAINER AT THE TIME OF PLANTING.
5. ALL PLANTINGS SHALL MAINTAIN A MINIMUM OF 18" AT THE TIME OF PLANTING.
6. ALL SHRUB MATERIAL SHALL BE A MINIMUM OF 3' AT MATURITY.

LANDSCAPING MAINTENANCE:

1. THE OWNER, DEVELOPER, AND/OR BUILDER WHO IS RESPONSIBLE FOR PLANTING REQUIRED LANDSCAPING SHALL BE RESPONSIBLE FOR MAINTAINING THE LANDSCAPING IN A STATE OF GOOD HEALTH FOR ONE (1) YEAR AFTER A DEVELOPMENT COMPLETION PERMIT IS ISSUED OR, IF SUCH A PERMIT IS NOT APPLICABLE, ONE (1) YEAR AFTER THE INSTALLED AND COMPLETED LANDSCAPING IS APPROVED BY THE SUBDIVISION ADMINISTRATOR FOLLOWING INSPECTION.
2. LANDSCAPING WILL BE INSPECTED INSPECTED AT THE TIME OF BOND RELEASE AND, IN CASE OF MATERIALS THAT HAVE NOT BEEN PLANTED AND ESTABLISHED IN GOOD CONDITION, THE RESPONSIBLE PERSON WILL BE REQUIRED TO POST A MAINTENANCE BOND FOR ONE YEAR TO GUARANTEE THE SURVIVAL OF MATERIALS.
3. APPROVED LANDSCAPING SHALL BE MAINTAINED IN A HEALTHY CONDITION WITH ADEQUATE WATERING, FERTILIZATION, AND GROOMING IN ACCORDANCE WITH INDUSTRY STANDARDS.

PROHIBITED SPECIES:
CERTAIN PLANT MATERIAL SPECIES IS PROHIBITED DUE TO INVASIVENESS, HARDINESS, MAINTENANCE, OR OTHER NUISANCE FEATURES. PLEASE SEE THE LIST OF PROHIBITED SPECIES LISTED BELOW OR IN APPENDIX C OF THE SUBDIVISION AND LAND DEVELOPMENT ORDINANCE OF THE CITY OF CHARLES TOWN, WV.

**Prohibited Species**

The following plants are prohibited from being used to meet these requirements due to problems with hardiness, maintenance, or nuisance:

| Prohibited Species | |
|---|---|
| Kudzu Vine | Garlic Mustard |
| Purple Loosestrife | Paulownia |
| Japanese Honeysuckle | Multiflora Rose |
| Shrub Honeysuckle | Siberian Elm |
| Autumn Olive | Silver Popular |
| Common Privet | Mimosa |
| Tree of Heaven | Mulberry |
| Lespedeza | Silver Maple |
| Bradford Pear | Norway Maple |
| Elm | Box Elder |
| All Varity of Ash Trees | Bamboo |

Any plant material not permitted by the West Virginia Invasive Species Strategic Plan and Voluntary Guidelines 2014, or as amended.



## PROPOSED LANDSCAPE FENCE

NOT TO SCALE
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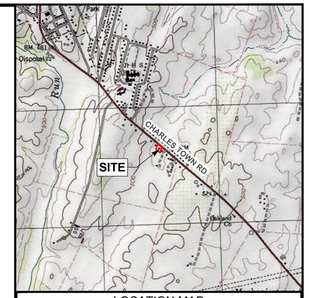


LOCATION MAP
SCALE: 1" = 2000'

| NO. | DATE | DESCRIPTION | INT. |
|---|---|---|---|
| 0 | 2023-07-07 | FOR SUBMISSION | DMJ |
| 1 | 2023-08-15 | PER CITY ENGINEER COMMENTS | DMJ |
| 2 | 2023-10-04 | PER CITY ENGINEER COMMENTS | DMJ |
| 3 | 2023-10-20 | PER CITY ENGINEER COMMENTS | JAB |
| 4 | 2023-11-15 | PER CITY ENGINEER COMMENTS | DMJ |

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| PROJECT ID: 2022-1685 | DRAWN: DMJ |
|---|---|
| DATE: 2023-07-07 | DESIGN: JAB |
| SCALE: NOTED | CHECKED: JDH |

SITE PLAN
FOR
JOAN AND JOE'S COFFEE
LOCATED IN
CHARLES TOWN,
JEFFERSON COUNTY,
WEST VIRGINIA

TITLE: SITE DETAILS

| PLAN STATUS: SITE PLAN | SHEET NO. C-2.02 |
|---|---|

Nov 15, 2023 10:10am JLanger R:\Projects\2022\2022-1685 Joan and Joe's Coffee - Site Plan\CAD\SHEET FILES\DETAILS (2022-1685) 24X36.dwg
Layout: SITE DETAILS

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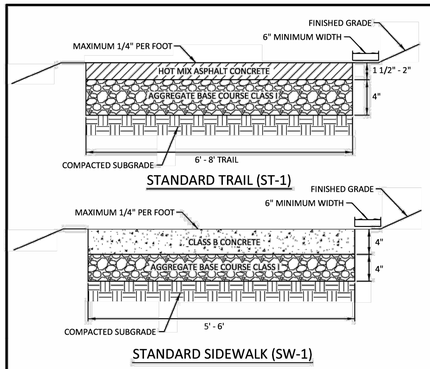


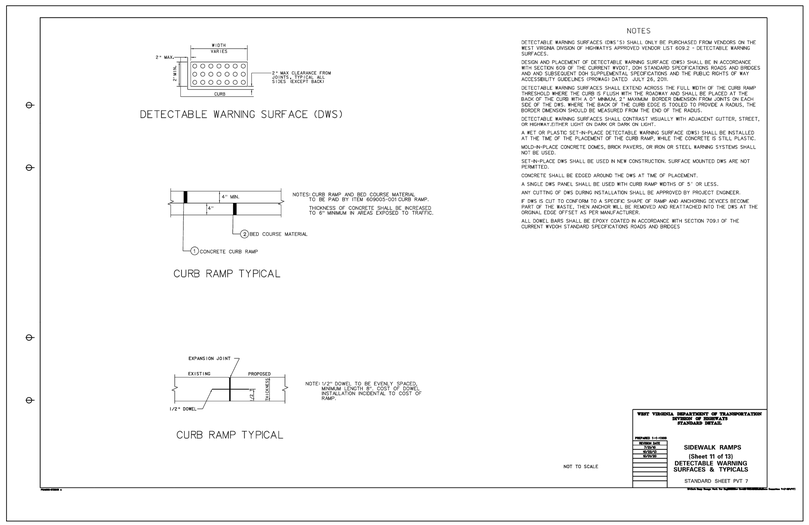

NOTES:

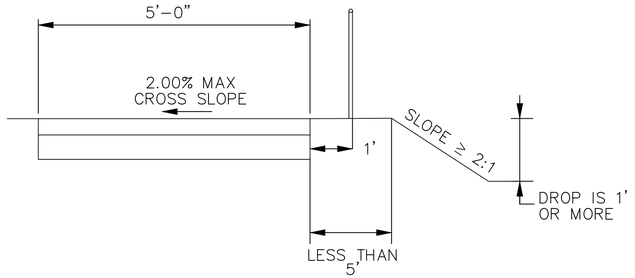
1. ALL PEDESTRIAN AND BIKE TRAILS LOCATED OUTSIDE OF CITY OF CHARLESTOWN RIGHT OF WAY SHALL BE A MINIMUM OF 5' IN WIDTH FOR SIDEWALKS, 6' FOR ALL PEDESTRIAN TRAILS, AND 8' FOR ALL BIKE TRAILS.
2. A PRIVATE ACCESS EASEMENT SHALL BE PROVIDED FOR ALL SIDEWALKS AND TRAILS OUTSIDE OF CITY OF CHARLES TOWN RIGHT OF WAY AND SHALL INCLUDE A MINIMUM OF 3' OF WIDTH ON BOTH SIDES OF THE TRAIL OR SIDEWALK.
3. THE MAXIMUM GRADE FOR ALL PEDESTRIAN TRAILS SHALL BE 10%.
4. THE MAXIMUM GRADE FOR ALL BIKE TRAILS SHALL BE 8%, EXCEPT UP TO 15% IS ALLOWED FOR DISTANCES OF LESS THAN 150 FEET.
5. APPROPRIATE LIGHTING AND SIGNAGE, LANDSCAPING, BUFFERING AND DRAINAGE MEASURES, ALONG WITH CONSIDERATIONS FOR SECURITY SHALL BE INCORPORATED IN THE DESIGN OF THESE FACILITIES.

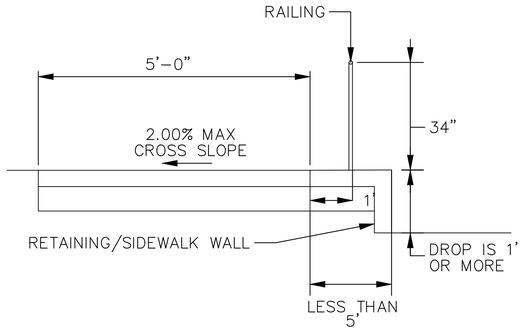
NOT TO SCALE

# TRAIL AND TYPICAL SIDEWALK
City of Charles Town

ST-1
SW-1

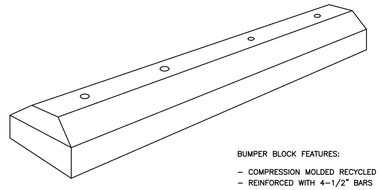



SIDEWALK / HANDRAIL
TYPICAL SECTION

NOT TO SCALE



BUMPER BLOCK FEATURES:

- COMPRESSION MOLDED RECYCLED RUBBER COMPOSITE
- REINFORCED WITH 4-1/2" BARS
- BLACK WITH YELLOW REFLECTIVE STRIPES

BUMPER BLOCK SPECIFIED:

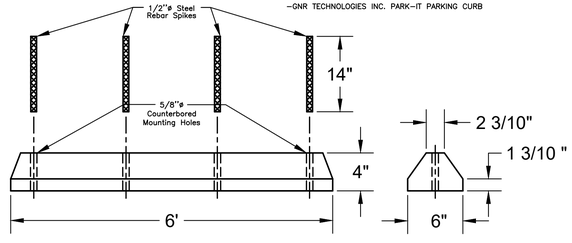
-GNR TECHNOLOGIES INC. PARK-IT PARKING CURB

Bumper Block Features:

- Compression Molded Recycled Rubber Composite
- Reinforced with 4-1/2" Bars
- Black with Yellow Reflective Stripes

Bumper Block Specified:

- GNR Technologies Inc. Park-It Parking Curb




RUBBER BUMPER BLOCK

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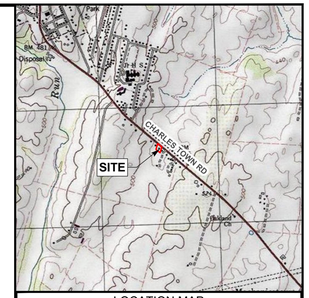


LOCATION MAP
SCALE: 1" = 2000'

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| PROJECT ID: | DRAWN: |
|---|---|
| 2022-1685 | DMJ |
| DATE: | DESIGN: |
| 2023-07-07 | JAB |
| SCALE: | CHECKED: |
| NOTED | JDH |

SITE PLAN
FOR
JOAN AND JOE'S COFFEE
LOCATED IN
CHARLES TOWN,
JEFFERSON COUNTY,
WEST VIRGINIA

TITLE:
SITE DETAILS 2

| PLAN STATUS: | SHEET NO. |
|---|---|
| SITE PLAN | C-2.03 |

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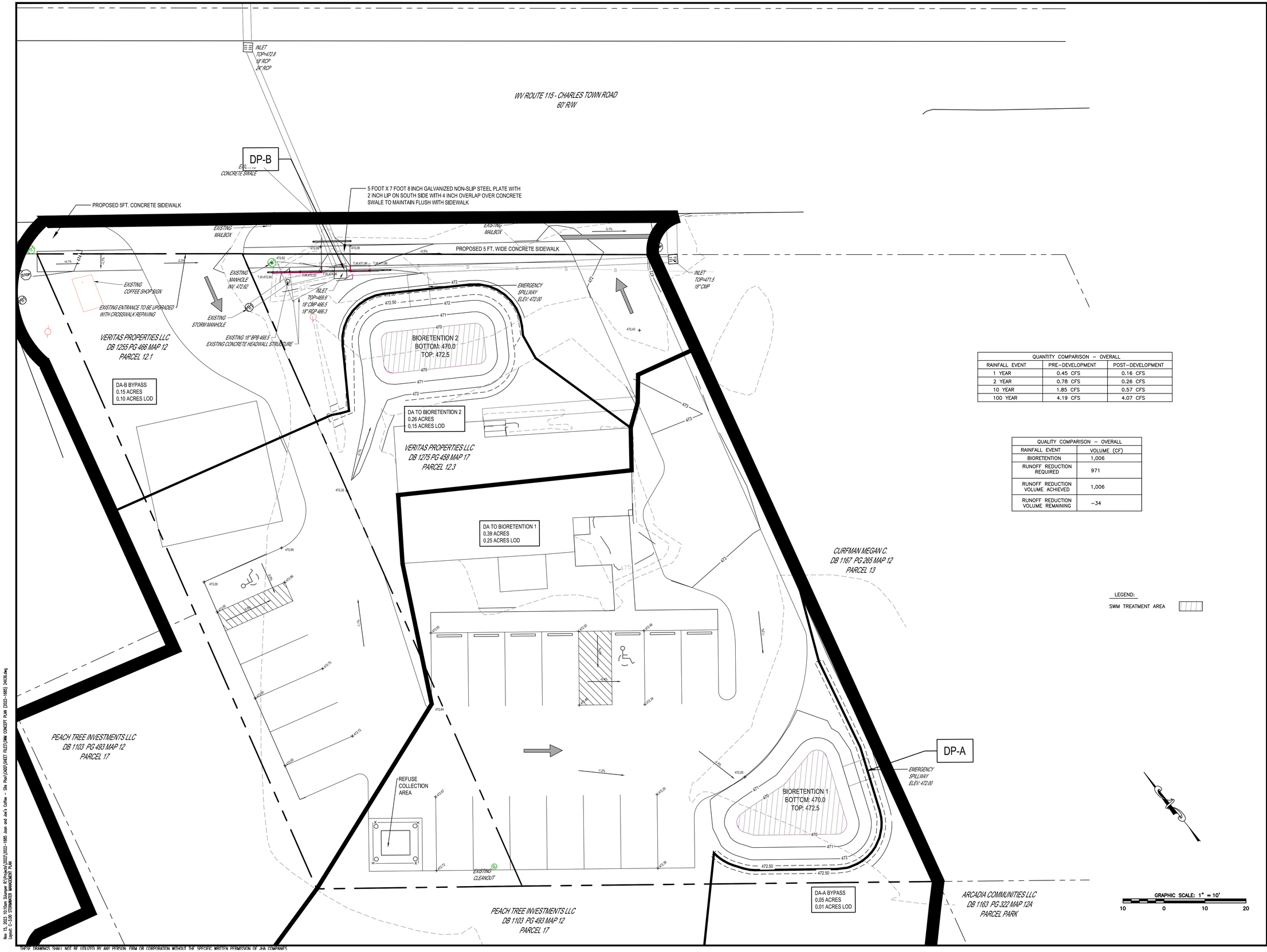
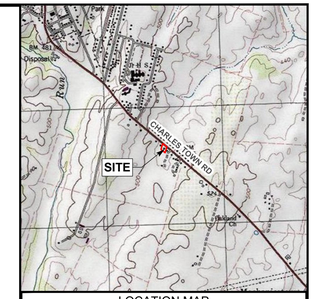



| QUANTITY COMPARISON – OVERALL | | |
|---|---|---|
| RAINFALL EVENT | PRE–DEVELOPMENT | POST–DEVELOPMENT |
| 1 YEAR | 0.45 CFS | 0.16 CFS |
| 2 YEAR | 0.78 CFS | 0.26 CFS |
| 10 YEAR | 1.85 CFS | 0.57 CFS |
| 100 YEAR | 4.19 CFS | 4.07 CFS |

| QUALITY COMPARISON – OVERALL | |
|---|---|
| RAINFALL EVENT | VOLUME (CF) |
| BIORETENTION | 1,006 |
| RUNOFF REDUCTION REQUIRED | 971 |
| RUNOFF REDUCTION VOLUME ACHIEVED | 1,006 |
| RUNOFF REDUCTION VOLUME REMAINING | –34 |




LOCATION MAP
SCALE: 1" = 2000'

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| 2022-1685 | DMJ |
| DATE: | DESIGN: |
| 2023-07-07 | JAB |
| SCALE: | CHECKED: |
| NOTED | JDH |

SITE PLAN
FOR
JOAN AND JOE'S COFFEE
LOCATED IN
CHARLES TOWN,
JEFFERSON COUNTY,
WEST VIRGINIA

TITLE:
STORMWATER MANAGEMENT PLAN

PLAN STATUS: SITE PLAN
SHEET NO. C-3.00

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Layout: C-3.00 STORMWATER MANAGEMENT PLAN

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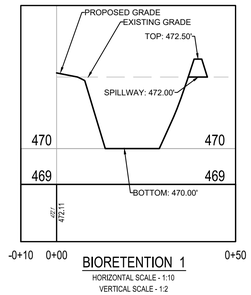
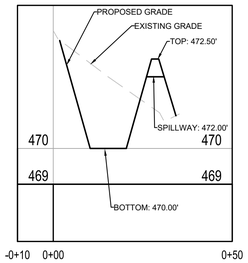



BIORETENTION 1

HORIZONTAL SCALE - 1:10
VERTICAL SCALE - 1:2




BIORETENTION 2

HORIZONTAL SCALE - 1:10
VERTICAL SCALE - 1:2

| BIORETENTION 1 QUANTITY ANALYSIS | | | |
|---|---|---|---|
| STORM EVENT | INFLOW | OVERFLOW | WATER SURFACE ELEVATION |
| 2 YEAR | 0.58 CFS | 0.00 CFS | 471.89' |
| 10 YEAR | 1.15 CFS | 0.45 CFS | 472.11' |
| 100 YEAR | 2.32 CFS | 2.24 CFS | 472.31' |

| BIORETENTION 1 QUALITY ANALYSIS | |
|---|---|
| RAINFALL EVENT | VOLUME (CF) |
| BIORETENTION | 672 CF |
| RUNOFF REDUCTION REQUIRED | 543 CF |
| RUNOFF REDUCTION ACHIEVED | 672 CF |
| RUNOFF REDUCTION VOLUME REMAINING | -129 CF |

| BIORETENTION 2 QUANTITY ANALYSIS | | | |
|---|---|---|---|
| STORM EVENT | INFLOW | OVERFLOW | WATER SURFACE ELEVATION |
| 2 YEAR | 0.30 CFS | 0.00 CFS | 471.39' |
| 10 YEAR | 0.65 CFS | 0.04 CFS | 472.02' |
| 100 YEAR | 1.40 CFS | 1.29 CFS | 472.21' |

| BIORETENTION 2 QUALITY ANALYSIS | |
|---|---|
| RAINFALL EVENT | VOLUME (CF) |
| BIORETENTION | 334 CF |
| RUNOFF REDUCTION REQUIRED | 428 CF |
| RUNOFF REDUCTION ACHIEVED | 334 CF |
| RUNOFF REDUCTION VOLUME REMAINING | 94 CF |

SOIL MEDIA MIXTURE:

THE SOIL MEDIA IS PERHAPS THE MOST IMPORTANT ELEMENT OF A BIORETENTION FACILITY IN TERMS OF LONG-TERM PERFORMANCE. THE FOLLOWING ARE KEY FACTORS TO CONSIDER IN DETERMINING AN ACCEPTABLE SOIL MEDIA MIXTURE.

- GENERAL SOIL MEDIA COMPOSITION
1. 70% TO 88% SAND
2. 8% TO 26% TOPSOIL; AND
3. 3% TO 5% ORGANIC MATTER (AGED COMPOST)

Table BR-5. Soil Media Criteria and Testing for Bioretention

| Soil Media Criterion | Description | Standard(s) | | |
|---|---|---|---|---|
| General Composition | Soil media must have the proper proportions sand, fines, and organic matter to promote plant growth, drain at the proper rate, and filter pollutants | 70% to 88% sand;<br>8% to 26% top soil and<br>3% to 5% organic matter (aged compost) | | |
| Sand | Silica based coarse aggregate[1]<br><br>Locally-approved pulverized glass may be substituted if the local authority undertakes testing to verify compliance with the specification and also lack of heavy metals | Sieve<br>3/8 in<br>No. 4<br>No. 8<br>No. 16<br>No. 30<br>No. 50<br>No. 100 | Size<br>9.50 mm<br>4.75 mm 2.36 mm 1.18 mm<br>0.6 mm<br>0.3 mm<br>0.15 mm | % Passing<br>100<br>95 to 100<br>80 to 100<br>45 to 85<br>15 to 60<br>3 to 15<br>0 to 4 |
| | | Effective Particle size (D10) > 0.3mm<br>Uniformity Coefficient (D60/D10) < 4.0 | | |
| Top Soil | Loamy sand or Sandy Loam | USDA Textural Triangle | | |
| Organic Matter | Well aged, clean compost | Appendix D | | |
| P-Index or Phosphorus (P) content | Soil media with high P levels will export P through the media and potentially to downstream conveyances or receiving waters | P content = 7 to 23 mg/kg | | |
| Cation Exchange Capacity (CEC) | The CEC is determined by the amount of humus or organic matter. Higher CEC will promote pollutant removal | CEC > 10 milliequivalents per 100 grams | | |
| Infiltration Rate | This refers to the infiltration rate of the soil media, and not the underlying soil A minimum rate is required to allow the soil media to properly drain | Minimum Infiltration Rate = 1 – 2 inches/hour (most soil media will have much higher rates) | | |
| Soil Media Depth | The depth of soil media for various applications | Soil media depths for Level 1 and Level 2 design are specified in Table BR-1.<br><br>If trees are included in the bioretention planting plan, tree planting holes in the filter bed must be at least 4 feet deep to provide enough soil volume for the root structure of mature trees. In addition, higher proportions of topsoil (30%) and aged compost (20%) should be added to these planting holes compared to the rest of the soil media.<br><br>Turf, perennials or shrubs should be used instead of trees to landscape shallower filter beds. | | |

*[1] Many specifications for sand refer to ASTM C-33.The ASTM C-33 specification allows a particle size distribution that contains a large fraction of fines (silt and clay sized particles - < 0.05 mm). The smaller fines fill the voids between the larger sand sized particles, resulting in smaller and more convoluted pore spaces. While this condition provides a high degree of treatment, it also encourages clogging of the remaining void spaces with suspended solids and biological growth, resulting in a greater chance of a restrictive biomat forming. By limiting the fine particles allowed in the sand component, the combined media recipe of sand and the fines associated with the soil and organic material will be less prone to clogging while also providing an adequate level of filtration and retention.*

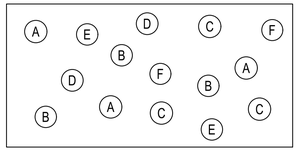
BIORETENTION INSTALLATION:

THE FOLLOWING IS A TYPICAL CONSTRUCTION SEQUENCE TO PROPERLY INSTALL A BIORETENTION BASIN. THE CONSTRUCTION SEQUENCE FOR RESIDENTIAL RAIN GARDENS (SEE SUPPLEMENT 4.2.3.C) IS MORE SIMPLIFIED. THESE STEPS MAY BE MODIFIED TO REFLECT DIFFERENT BIORETENTION APPLICATIONS OR EXPECTED SITE CONDITIONS:

1. CONSTRUCTION OF THE BIORETENTION AREA MAY ONLY BEGIN AFTER THE ENTIRE CDA HAS BEEN STABILIZED WITH VEGETATION. IT MAY BE NECESSARY TO BLOCK CERTAIN CURB OR OTHER INLETS WHILE THE BIORETENTION AREA IS BEING CONSTRUCTED. THE PROPOSED SITE SHOULD BE CHECKED FOR EXISTING UTILITIES PRIOR TO ANY EXCAVATION
2. THE DESIGNER AND THE INSTALLER SHOULD HAVE A PRECONSTRUCTION MEETING, CHECKING THE BOUNDARIES OF THE CDA AND THE ACTUAL INLET ELEVATIONS TO ENSURE THEY CONFORM TO ORIGINAL DESIGN. SINCE OTHER CONTRACTORS MAY BE RESPONSIBLE FOR CONSTRUCTING PORTIONS OF THE SITE, IT IS QUITE COMMON TO FIND SUBTLE DIFFERENCES IN SITE GRADING, DRAINAGE AND PAVING ELEVATIONS THAT CAN PRODUCE HYDRAULICALLY IMPORTANT DIFFERENCES FOR THE PROPOSED BIORETENTION AREA. THE DESIGNER SHOULD CLEARLY COMMUNICATE, IN WRITING, ANY PROJECT CHANGES DETERMINED DURING THE PRECONSTRUCTION MEETING TO THE INSTALLER AND THE PLAN REVIEW/INSPECTION AUTHORITY.
3. TEMPORARY APPROVED EROSION AND SEDIMENT CONTROLS ARE NEEDED DURING CONSTRUCTION OF THE BIORETENTION AREA TO DIVERT STORMWATER AWAY FROM THE BIORETENTION AREA UNTIL IT IS COMPLETED. SPECIAL PROTECTION MEASURES SUCH AS EROSION CONTROL FABRICS MAY BE NEEDED TO PROTECT VULNERABLE SIDE SLOPES FROM EROSION DURING THE CONSTRUCTION PROCESS. IN CASES WHERE THE BIORETENTION IS CO-LOCATED WITH EROSION AND SEDIMENT CONTROL PRACTICES (E.G., SEDIMENT TRAPS), THE CONDITIONS NOTED IN SECTION BR-7.1 MUST BE FOLLOWED.
4. ANY PRE-TREATMENT CELLS SHOULD BE EXCAVATED FIRST AND THEN SEALED TO TRAP SEDIMENTS
5. EXCAVATORS OR BACKHOES SHOULD WORK FROM THE SIDES TO EXCAVATE THE BIORETENTION AREA TO ITS APPROPRIATE DESIGN DEPTH AND DIMENSIONS. EXCAVATING EQUIPMENT SHOULD HAVE SCOOPS WITH ADEQUATE REACH SO THEY DO NOT HAVE TO SIT INSIDE THE FOOTPRINT OF THE BIORETENTION AREA. CONTRACTORS SHOULD USE A CELL CONSTRUCTION APPROACH IN LARGER BIORETENTION BASINS, WHEREBY THE BASIN IS SPLIT INTO 500 TO 1,000 SQ. FT. TEMPORARY CELLS WITH A 10-15 FOOT EARTH BRIDGE IN BETWEEN, SO THAT CELLS CAN BE EXCAVATED FROM THE SIDE.
6. IT MAY BE NECESSARY TO RIP THE BOTTOM SOILS TO A DEPTH OF 6 TO 12 INCHES TO PROMOTE GREATER INFILTRATION.
7. IF USING A FILTER FABRIC, PLACE THE FABRIC ON THE SIDES OF THE BIORETENTION AREA WITH A 6-INCH OVERLAP ON THE SIDES. IF AN UNDERDRAIN STONE STORAGE LAYER WILL BE USED, PLACE THE APPROPRIATE DEPTH OF NO.57 STONE ON THE BOTTOM, INSTALL THE PERFORATED UNDERDRAIN PIPE, PACK NO.57 STONE TO 3 INCHES ABOVE THE UNDERDRAIN PIPE. ON TOP OF THE NO.57 STONE, ADD 2 INCHES OF CHOKER STONE (NO.8 OR NO.89 STONE) AND THEN 2 TO 4 INCHES OF CONSTRUCTION SAND AS A FILTER BETWEEN THE UNDERDRAIN AND THE SOIL MEDIA LAYER. IF NO STONE STORAGE LAYER IS USED, START WITH 6 INCHES OF NO.57 STONE ON THE BOTTOM, AND PROCEED WITH THE LAYERING AS DESCRIBED ABOVE.
8. DELIVER THE SOIL MEDIA FROM AN APPROVED VENDOR, AND STORE IT ON AN ADJACENT IMPERVIOUS AREA OR PLASTIC SHEETING. APPLY THE MEDIA IN 12-INCH LIFTS UNTIL THE DESIRED TOP ELEVATION OF THE BIORETENTION AREA IS ACHIEVED. WAIT A FEW DAYS TO CHECK FOR SETTLEMENT, AND ADD ADDITIONAL MEDIA, AS NEEDED, TO ACHIEVE THE DESIGN ELEVATION.
9. PREPARE PLANTING HOLES FOR ANY TREES AND SHRUBS, INSTALL THE VEGETATION, AND WATER ACCORDINGLY. INSTALL ANY TEMPORARY IRRIGATION.
10. PLACE THE SURFACE COVER IN BOTH CELLS (MULCH, RIVER STONE OR TURF), DEPENDING ON THE DESIGN. IF COIR OR JUTE MATTING WILL BE USED IN LIEU OF MULCH, THE MATTING WILL NEED TO BE INSTALLED PRIOR TO PLANTING (STEP 9), AND HOLES OR SLITS WILL HAVE TO BE CUT IN THE MATTING TO INSTALL THE PLANTS.
11. INSTALL THE PLANT MATERIALS AS SHOWN IN THE LANDSCAPING PLAN, AND WATER THEM DURING WEEKS OF NO RAIN FOR THE FIRST TWO MONTHS.
12. IF CURB CUTS OR INLETS ARE BLOCKED DURING BIORETENTION INSTALLATION, UNBLOCK THESE AFTER THE DRAINAGE AREA AND SIDE SLOPES HAVE GOOD VEGETATIVE COVER. IT IS RECOMMENDED THAT UNBLOCKING CURB CUTS AND INLETS TAKE PLACE AFTER TWO TO THREE STORM EVENTS IF THE DRAINAGE AREA INCLUDES NEWLY INSTALLED ASPHALT, SINCE NEW ASPHALT TENDS TO PRODUCE A LOT OF FINES AND GRIT DURING THE FIRST SEVERAL STORMS.
13. CONDUCT THE FINAL CONSTRUCTION INSPECTION (SEE BELOW), THEN LOG THE GPS COORDINATES FOR EACH BIORETENTION FACILITY AND SUBMIT THEM FOR ENTRY INTO THE LOCAL MAINTENANCE TRACKING DATABASE.

| LIST OF PLANTS FOR BIORETENTION AREA | | |
|---|---|---|
| | NAME | QUANTITY |
| A | SWITCHGRASS - *PANICUM VIRGATUM* | 3 PER 200 SF |
| B | HIGHBUSH BLUEBERRY - *VACCINIUM CORYMBOSUM* | 3 PER 200 SF |
| C | INKBERRY - *ILEX GLABRA* | 3 PER 200 SF |
| D | WINTERBERRY - *ILEX VERTICILLATA* | 2 PER 200 SF |
| E | SPICEBUSH - *LINDERA BENZOIN* | 2 PER 200 SF |
| F | PURPLE CONEFLOWER - *ECHINACEA PURPUREA* | 2 PER 200 SF |

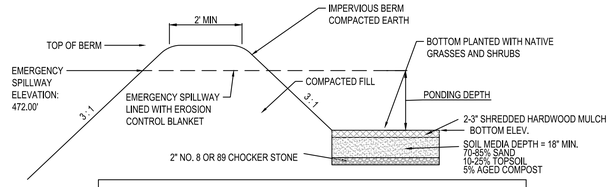
NOTE:
LOCATION AND QUANTITY OF PLANTINGS IS SHOW FOR COMPLIANCE PURPOSES.
ACTUAL ORGANIZATION AND POSITIONING MAY BE VARIED WITH THE APPROVAL OF OWNER AND ENGINEER.




PLANTING PLAN - TYPICAL
BIORETENTION BERM BOTTOM

1"=5'

GRAPHIC SCALE:




| BIORETENTION BERM INFORMATION | | | |
|---|---|---|---|
| | BIORETENTION BERM 1 | | BIORETENTION BERM 2 |
| TOP OF BERM | 472.50 | TOP OF BERM | 472.50 |
| BOTTOM ELEVATION | 470.00 | BOTTOM ELEVATION | 470.00 |
| EMERGENCY SPILLWAY | 472.00 | EMERGENCY SPILLWAY | 472.00 |
| PONDING DEPTH | 2.00' | PONDING DEPTH | 2.00' |
| LINING | NAG S200 STAPLE PATTERN E | LINING | NAG S200 STAPLE PATTERN E |

BIORETENTION AREA MAINTENANCE NOTES

1. THE INFILTRATION AREA IS TO BE CHECKED REGULARLY FOR ANY SIGNS OF SETTLEMENT AND/OR EROSION AND TO ENSURE INFILTRATION.
2. THE INFILTRATION AREA IS TO BE CLEARED OF ANY TRASH, DEBRIS, INVASIVE SPECIES AND/OR WOODY VEGETATION.
3. THE INFILTRATION AREA IS TO BE FREE OF SILT AND HAVE PROPER VEGETATION.
4. THE INFILTRATION AREA IS TO BE INSPECTED FOR SIGNS OF FLOW CHANNELIZATION.
5. THE INFILTRATION AREA IS TO BE RESTORED TO A LEVEL GRADIENT IMMEDIATELY AFTER DEFICIENCIES ARE OBSERVED.

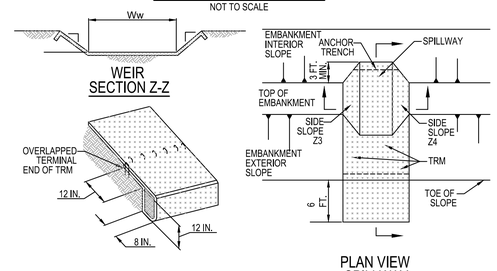
BIORETENTION AREA INSTALLATION NOTES

1. EXCAVATE AREA WITH TRACKED VEHICLES TO PREVENT SOIL COMPACTION.
2. SCARIFY BOTTOM OF INFILTRATION AREA.
3. IN CONDITIONS WHERE THE LIMITING ZONE IS ENCOUNTERED, THE CONTRACTOR SHALL OVER EXCAVATE THE INFILTRATION AREA AND ADD 24" OF CLEAN, NON-COMPACTED TOPSOIL UNDER THE BASIN BOTTOM.
4. SIDE SLOPES TO BE LINED WITH EROSION CONTROL BLANKET (NORTH AMERICAN GREEN S75 OR APPROVED)

NOTES:
1. BERM TO BE MECHANICALLY COMPACTED IN 8" LIFTS TO A MAXIMUM DRY WEIGHT DENSITY OF 98% OF THE FULL MATERIAL.
2. TOPSOIL SHALL BE REMOVED AND SURFACE SCARIFIED PRIOR TO PLACEMENT OF BERM FILL.
3. A SOILS EVALUATION TO DETERMINE SOIL SUITABILITY FOR THE PROPOSED INFILTRATION FACILITY SHALL BE PERFORMED DURING CONSTRUCTION MEETING TOWNSHIP ORDINANCE REQUIREMENTS. RESULTS OF THE SOIL TESTING SHALL BE SENT TO THE TOWNSHIP AND DESIGN ENGINEERS FOR REVIEW.

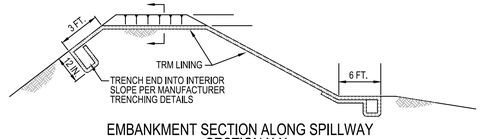
BIORETENTION BERM

NOT TO SCALE




TOE OF SLOPE OF SPILLWAY

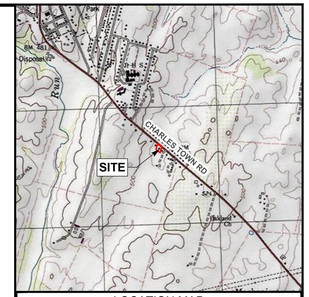
PLAN VIEW
SPILLWAY




EMBANKMENT SECTION ALONG SPILLWAY
SECTION X-X

| | WEIR | | | | | LINING | |
|---|---|---|---|---|---|---|---|
| | Z3 (FT) | Z4 (FT | TOP ELEV WTE (FT) | CREST ELEV WCE (FT) | WIDTH Ww (FT) | TYPE | STAPLE PATTERN |
| BERM 1 | 3 | 3 | 472.5 | 472.0 | 5 | S200 | E |
| BERM 2 | 3 | 3 | 472.50 | 472.0 | 5 | S200 | E |

BIORETENTION SPILLWAY WITH TRM LINING




LOCATION MAP
SCALE: 1" = 2000'

| NO. | DATE | DESCRIPTION | INT. |
|---|---|---|---|
| 0 | 2023-07-07 | FOR SUBMISSION | DMJ |
| 1 | 2023-08-15 | PER CITY ENGINEER COMMENTS | DMJ |
| 2 | 2023-10-04 | PER CITY ENGINEER COMMENTS | DMJ |
| 3 | 2023-10-20 | PER CITY ENGINEER COMMENTS | JAB |
| 4 | 2023-11-15 | PER CITY ENGINEER COMMENTS | DMJ |

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| PROJECT ID: | DRAWN: |
|---|---|
| 2022-1685 | DMJ |
| DATE: | DESIGN: |
| 2023-07-07 | JAB |
| SCALE: | CHECKED: |
| NOTED | JDH |

SITE PLAN
FOR
JOAN AND JOE'S COFFEE
LOCATED IN
CHARLES TOWN,
JEFFERSON COUNTY,
WEST VIRGINIA

TITLE:
STORMWATER
MANAGEMENT DETAILS

| PLAN STATUS: | SHEET NO. |
|---|---|
| SITE PLAN | C-3.01 |

Nov 15, 2023 10:10am Dustmer R:\Projects\2022\2022-1685 Joan and Joe's Coffee - Site Plan\LAND\SHEET FILES\PCSM DETAILS (2022-1685) JAK04.dwg
Layout: C-3.01 STORMWATER MANAGEMENT DETAILS


THESE DRAWINGS SHALL NOT BE UTILIZED BY ANY PERSON, FIRM OR CORPORATION WITHOUT THE SPECIFIC WRITTEN PERMISSION OF JHA COMPANIES

WV ROUTE 115 - CHARLES TOWN ROAD
60' R/W

INLET
TOP=472.8
15" RCP
24" RCP

EXISTING
CONCRETE SWALE

SAWCUT EXISTING PAVEMENT

PROPOSED STOP BAR 12"
WHITE TYPE V THERMO

SIGHT DISTANCE LINE
10' FROM EDGE OF PAVEMENT,
5' BEHIND STOP BAR

EXISTING
MAILBOX

EXISTING
MAILBOX

INLET PROTECTION

UPGRADE EXISTING ENTRANCE

EXISTING
MANHOLE
INV. 472.62

EXISTING
COFFEE SHOP SIGN

EXISTING ENTRANCE TO BE UPGRADED
WITH CROSSWALK REPAVING

EXISTING
STORM MANHOLE

INLET
TOP=469.9
18" CMP 466.5
18" RCP 466.3

EXISTING 18" BPB 468.5
EXISTING CONCRETE HEADWALL STRUCTURE

EMERGENCY
SPILLWAY
ELEV 472.00

PROPOSED DRIVEWAY PAVING

INLET
TOP=471.5
18" CMP

PROPOSED
30" STOP SIGN

SSF-1

VERITAS PROPERTIES LLC
DB 1255 PG 466 MAP 12
PARCEL 12.1

BIORETENTION 2
BOTTOM: 470.0
TOP: 472.5

ROCK CONSTRUCTION
ENTRANCE

LIMIT OF DISTURBANCE
0.51 ACRES

VERITAS PROPERTIES LLC
DB 1275 PG 458 MAP 17
PARCEL 12.3

EXISTING
GRAVEL
DRIVEWAY

SF-2

EXISTING COFFEE SHOP
900 SF

EXISTING HOUSE TO BE RENOVATED INTO
PROPOSED COFFEE SHOP
1745 SF

#14840 1 STORY
BRICK FF=476.45
GAR=474.53

CURFMAN MEGAN C.
DB 1167 PG 265 MAP 12
PARCEL 13

EXISTING
GRAVEL
PARKING

ROCK CONSTRUCTION
ENTRANCE

EMERGENCY
SPILLWAY
ELEV 472.00

SF-1

BIORETENTION 1
BOTTOM: 470.0
TOP: 472.5

REFUSE
COLLECTION
AREA

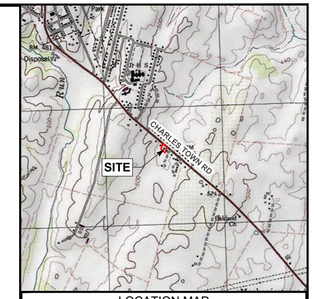
EXISTING
CLEANOUT

PEACH TREE INVESTMENTS LLC
DB 1103 PG 493 MAP 12
PARCEL 17

PEACH TREE INVESTMENTS LLC
DB 1103 PG 493 MAP 12
PARCEL 17

ARCADIA COMMUNITIES LLC
DB 1163 PG 322 MAP 12A
PARCEL PARK

GRAPHIC SCALE: 1" = 10'
10 0 10 20




LOCATION MAP
SCALE: 1" = 2000'

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| PROJECT ID: | DRAWN: |
|---|---|
| 2022-1685 | DMJ |
| DATE: | DESIGN: |
| 2023-07-07 | JAB |
| SCALE: | CHECKED: |
| NOTED | JDH |

# SITE PLAN
FOR
JOAN AND JOE'S COFFEE
LOCATED IN
CHARLES TOWN,
JEFFERSON COUNTY,
WEST VIRGINIA

TITLE:
EROSION AND SEDIMENT CONTROL PLAN

PLAN STATUS: SITE PLAN

SHEET NO. C-4.00

Nov 15, 2023, 10:11am, Dustmer R:\Projects\2022\2022-1685 Joan and Joe's Coffee - Site Plan\LOADD\SHEET FILES\ESC PLAN (2022-1685) X-KA36 - Copy.dwg
Layout: C-4.00 EROSION AND SEDIMENT CONTROL PLAN

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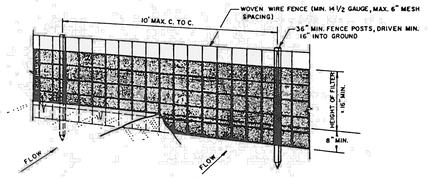
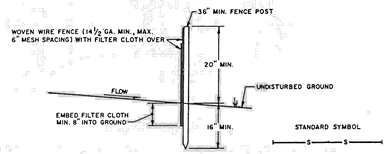
## SILT FENCE




PERSPECTIVE VIEW




SECTION

### CONSTRUCTION NOTES FOR FABRICATED SILT FENCE

1. WOVEN WIRE FENCE TO BE FASTENED SECURELY TO FENCE POSTS WITH WIRE TIES OR STAPLES.
2. FILTER CLOTH TO BE FASTENED SECURELY TO WOVEN WIRE FENCE WITH TIES SPACED EVERY 24" AT TOP AND MID SECTION.
3. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER THEY SHALL BE OVER-LAPPED BY SIX INCHES AND FOLDED.
4. MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIAL REMOVED WHEN "BULGES" DEVELOP IN THE SILT FENCE.

POSTS: STEEL EITHER T OR U TYPE OR 2" HARDWOOD.

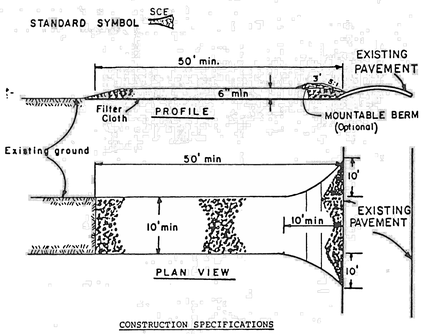
FENCE: WOVEN WIRE, 14 Ga., 6" Max. MESH OPENING.

FILTER CLOTH: FILTER X, MIRAFI 100X, STABI-LINKA T140N OR APPROVED EQUAL.

PREFABRICATED UNIT: GEOFAB, ENVIROFENCE, OR APPROVED EQUAL.

| JEFFERSON COUNTY, WEST VIRGINIA | APPROVED: March 10, 1989 COUNTY ENGINEER | SILT FENCE | REVISIONS | DETAIL No. SC-11 |
|---|---|---|---|---|

## STABILIZED CONSTRUCTION ENTRANCE
not to scale




### CONSTRUCTION SPECIFICATIONS

1. Stone Size - Use 2" stone, or reclaimed or recycled concrete equivalent.
2. Length - As required, but not less than 50 feet (except on a single residence lot where a 30 foot minimum length would apply).
3. Thickness - Not less than six (6) inches.
4. Width - Ten (10) foot minimum, but not less than the full width at points where ingress or egress occurs.
5. Filter Cloth - Will be placed over the entire area prior to placing of stone. Filter will not be required on a single family residence lot.
6. Surface Water - All surface water flowing or diverted toward construction entrances shall be piped across the entrance. If piping is impractical, a mountable berm with 5:1 slopes will be permitted.
7. Maintenance - The entrance shall be maintained in a condition which will prevent tracking or flowing of sediment onto public rights-of-way. This may require periodic top dressing with additional stone as conditions demand and repair and/or cleanout of any measures used to trap sediment. All sediment spilled, dropped, washed or tracked onto public rights-of-way must be removed immediately.
8. Washing - Wheels shall be cleaned to remove sediment prior to entrance onto public rights-of-way. When washing is required, it shall be done on an area stabilized with stone and which drains into an approved sediment trapping device.
9. Periodic inspection and needed maintenance shall be provided after each rain.

| JEFFERSON COUNTY, WEST VIRGINIA | APPROVED: March 10, 1989 COUNTY ENGINEER | STABILIZED CONSTRUCTION ENTRANCE | REVISIONS: | DETAIL No. SC-10 |
|---|---|---|---|---|

### EROSION AND SEDIMENT CONTROL GENERAL NOTES

1. ANY AREA OF EXPOSED SOIL WHERE NO CONSTRUCTION ACTIVITY IS ANTICIPATED FOR A PERIOD OF IONGER THAN THREE WEEKS OR WHERE CONSTRUCTION ACTIVITY HAS STOPPED FOR THREE WEEKS SHALL BE TEMPORARILY STABILIZED.
2. FOLLOWING INITIAL SOIL DISTURBANCE OR RE-DISTURBANCE, PERMANENT STABILIZATION SHALL BE COMPLETED WITHIN SEVEN CALENDAR DAYS AFTER COMPLETION OF ALL PERIMETER DIKES, SWALES, DITCHES, PERIMETER SLOPES, AND ALL SLOPES GREATER THAN 3 HORIZONTAL TO 1 VERTICAL (3:1); AND SEVEN CALENDAR DAYS AFTER REACHING FINAL GRADE FOR ALL OTHER DISTURBED OR GRADED AREAS.
   THESE PROVISIONS DO NOT APPLY TO THOSE AREAS THAT ARE SHOWN ON THE PLAN FOR MATERIAL STORAGE OR FOR THOSE AREAS ON WHICH ACTUAL CONSTRUCTION ACTIVITIES ARE CURRENTLY BEING PERFORMED.
   THESE TIME REQUIREMENTS MAY BE EXTENDED, AS DEEMED NECESSARY BY THE JEFFERSON COUNTY ENGINEER IN THE EVENT THAT ADVERSE CONDITIONS PREVENT COMPLIANCE WITH THE STATED TIME LIMITATIONS FOR THE COMPLETION OF PERMANENT OR TEMPORARY STABILIZATION.
3. STABILIZATION WILL BE CONSIDERED ADEQUATE WHEN THE FOLLOWING CONDITIONS ARE MET:
   a. WATER COURSES, STREAM BANKS, AND DRAINAGE EASEMENTS SHALL BE 100% STABILIZED AND FREE FROM EROSION AND DEPOSITION.
   b. SLOPES STEEPER THAN 10% SHALL HAVE AT LEAST 98% STABLE GROUND COVER, AS DETERMINED BY THE JEFFERSON COUNTY ENGINEER.
   c. ALL OTHER AREAS SHALL HAVE AT LEAST 85% STABLE GROUND COVER, AS DETERMINED BY THE JEFFERSON COUNTY ENGINEER.
   d. GRASS VEGETATION SHALL HAVE REACHED A MINIMUM OF 3 INCHES OF HEIGHT OR HAVE BEEN MOWED BACK TO A MINIMUM OF 2 INCHES OF HEIGHT.
4. FOR ALL PROJECTS ADJACENT TO OR WITHIN 500 FEET OF A CONTINUOUSLY FLOWING STREAM, NO GRADING, EXCAVATING, REMOVAL, OR DESTRUCTION OF TOPSOIL, TREES, OR OTHER VEGETATIVE COVER, OR CONSTRUCTION ACTIVITY SHALL RESULT IN POINT OR NON-POINT LOADING OF SUSPENDED MATTER SUCH THAT TURBIDITY STANDARDS SPELLED OUT IN THE WATER RESOURCES BOARD LEGISLATIVE RULES ARE VIOLATED. SAID STANDARDS STATE THAT TURBIDITY SHALL NOT EXCEED 10 NTUS OVER BACKGROUND TURBIDITY WHEN THE BACKGROUND IS 50 NTUS OR LESS, OR HAVE MORE THAN A 10% INCREASE IN TURBIDITY (PLUS 10 NTUS MINIMUM) WHEN THE BACKGROUND TURBIDITY IS MORE THAN 50 NTUS.
5. INDICATION WHETHER AN OFF-SITE BORROW PIT IS (OR IS NOT) PROPOSED FOR THIS PROJECT.
6. MAINTENANCE SHALL BE PERFORMED AS NECESSARY TO ENSURE THAT ALL EROSION AND SEDIMENT CONTROL MEASURES ARE PERFORMING AS DESIGNED. THE JEFFERSON COUNTY ENGINEER MAY REQUIRE MODIFICATIONS TO AN APPROVED PLAN, REQUIRE ADDITIONAL SEDIMENT AND EROSION CONTROL MEASURES, OR CAUSE NEW PLANS TO BE SUBMITTED AS A RESULT OF FIELD INSPECTION REVEALING THE APPROVED PLANS DO NOT PROVIDE ADEQUATE PROTECTION.
7. ALL RESIDENTIAL AND COMMERCIAL/INDUSTRIAL BUILDING LOTS SHALL HAVE A STABILIZED CONSTRUCTION ENTRANCE INSTALLED PRIOR TO BEGINNING CONSTRUCTION ON THE LOT.
8. THE DEVELOPMENT IS RESPONSIBLE FOR ENSURING THAT ALL CLEARING, GRADING, DRAINAGE, CONSTRUCTION, AND DEVELOPMENT IS CONDUCTED IN ACCORDANCE WITH THE EROSION AND SEDIMENT CONTROL PLAN.

### LIMITS OF EARTH DISTURBANCE LINES

THE LIMITS OF EARTH DISTURBANCE LINES ON THIS PLAN ARE SHOWN TO CLEARLY INDICATE THE APPROXIMATE LIMITS OF CONSTRUCTION ON THIS SITE. HOWEVER, THE LIMITS OF EARTH DISTURBANCE LINES MAY BE SHOWN OUTSIDE OF THE OVERALL PROPERTY BOUNDARY FOR CLARITY PURPOSES ONLY. NO CONSTRUCTION SHALL TAKE PLACE OUTSIDE OF THE PROPERTY BOUNDARY AS SHOWN ON THIS PLAN.

### GENERAL EROSION AND SEDIMENTATION CONTROL MEASURES

1. THE PROPER IMPLEMENTATION AND MAINTENANCE OF THE EROSION AND SEDIMENTATION CONTROL MEASURES SHOWN ON THESE PLANS AND THE SUPPORTING DOCUMENTS SHALL BE THE SOLE RESPONSIBILITY OF THE DEVELOPER/OWNER.
2. UPON COMPLETION OF AN EARTH DISTURBANCE ACTIVITY OR ANY STAGE OR PHASE OF AN ACTIVITY, THE OPERATOR SHALL STABILIZE IMMEDIATELY THE DISTURBED AREAS TO PROTECT FROM ACCELERATED EROSION.
3. IN THOSE AREAS WHERE SEEDING IS TEMPORARY IN NATURE, PRIOR TO THE NEXT PHASE OF CONSTRUCTION, ANNUAL RYE GRASS SHOULD BE USED AT AN APPLICATION RATE OF 1 LB/1,000 SQ. FT. AND FERTILIZED ACCORDING TO SOILS TESTS.
4. ALL EXPOSED AREAS NOT SEEDED PRIOR TO SEPTEMBER 15 OR EXPOSED AFTER THAT DATE WILL BE MULCHED UNTIL SEEDING CAN BE PERFORMED IN THE SPRING.
5. AN EROSION CONTROL BLANKET MUST BE INSTALLED ON ALL DISTURBED SLOPES STEEPER THAN 3:1, ALL AREAS OF CONCENTRATED FLOWS, AND DISTURBED AREAS WITHIN 50' OF STREAMS.
6. TEMPORARY "FILTER FABRIC FENCE" SHALL BE PLACED ON THE LOW SIDE OF ALL EXPOSED SOILS.
7. PERMANENT STABILIZATION IS DEFINED AS A MINIMUM UNIFORM 70% PERENNIAL VEGETATIVE COVER OR OTHER PERMANENT NON-VEGETATIVE COVER WITH A DENSITY SUFFICIENT TO RESIST ACCELERATED SURFACE EROSION AND SUBSURFACE CHARACTERISTICS SUFFICIENT TO RESIST SLIDING OR OTHER MOVEMENTS.
8. IMMEDIATELY UPON DISCOVERING UNFORESEEN CIRCUMSTANCE POSING THE POTENTIAL FOR ACCELERATED EROSION AND/OR SEDIMENT POLLUTION, THE OPERATOR SHALL IMPLEMENT APPROPRIATE BEST MANAGEMENT PRACTICES TO ELIMINATE POTENTIAL FOR ACCELERATED EROSION AND/OR SEDIMENT POLLUTION.
9. ALL PUMPING OF SEDIMENT LADEN WATER SHALL BE THROUGH A SEDIMENT CONTROL BMP, SUCH AS A PUMPED WATER FILTER BAG OR EQUIVALENT SEDIMENT REMOVAL FACILITY, OVER UNDISTURBED VEGETATED AREAS.
10. ANY SEDIMENT REMOVED FROM BMPS DURING CONSTRUCTION WILL BE RETURNED TO UPLAND AREAS ON SITE AND INCORPORATED INTO THE SITE GRADING.
11. BEFORE INITIATING ANY REVISIONS TO THE APPROVED EROSION AND SEDIMENT CONTROL PLAN OR REVISIONS TO OTHER PLANS WHICH MAY AFFECT THE EFFECTIVENESS OF THE APPROVED E & S CONTROL PLAN, THE OPERATOR MUST RECEIVE APPROVAL OR THE REVISIONS FROM THE APPROPRIATE EROSION AND SEDIMENT CONTROL DIRECTOR.
12. THE OPERATOR SHALL REMOVE FROM THE SITE, RECYCLE, OR DISPOSE OF ALL BUILDING MATERIALS AND WASTES. NO CONSTRUCTION MATERIAL OR WASTE OR UNUSED CONSTRUCTION MATERIAL SHALL BE BURNED, BURIED, DUMPED, OR DISCHARGED AT THE SITE.
13. THE CONTRACTOR WILL BE RESPONSIBLE FOR THE REMOVAL OF ANY EXCESS MATERIAL AND MAKE SURE THE SITE(S) RECEIVING THE EXCESS MATERIAL HAS AN APPROVED EROSION AND SEDIMENT CONTROL PLAN THAT MEETS THE CONDITIONS OF LOCAL AND/OR OTHER STATE AND FEDERAL REGULATIONS.
14. AN EROSION AND SEDIMENT CONTROL PLAN SHALL BE PREPARED, DEVELOPED, APPROVED BY THE APPROPRIATE EROSION AND SEDIMENT CONTROL DIRECTOR AND IMPLEMENTED FOR ALL SPOIL AND BORROW AREAS, REGARDLESS OF THEIR LOCATION.

### INSTALLATION AND MAINTENANCE RESPONSIBILITIES

1. THE PROPER IMPLEMENTATION AND MAINTENANCE OF THE EROSION AND SEDIMENTATION CONTROL MEASURES SHOWN ON THESE PLANS AND IN THE SUPPORTING DOCUMENTS SHALL BE THE SOLE RESPONSIBILITY OF THE DEVELOPER/OWNER.
2. ALL PERMANENT STORMWATER MANAGEMENT FACILITIES INCLUDING PIPES, CHANNELS, INLETS, AND DETENTION BASINS ON INDIVIDUAL LOTS ARE TO BE INSTALLED BY THE DEVELOPER AND MAINTAINED BY THE OWNER. THE COUNTY SHALL HAVE THE RIGHT TO ENTER PROPERTY TO INSPECT THE FACILITIES AND, IF NECESSARY, TO MAINTAIN AND REPAIR THE FACILITY. THESE FACILITIES ARE TO BE MAINTAINED AT THE GRADES AND BY THE PROCEDURES SHOWN ON THESE PLANS.

### EXCESS FILL MATERIAL

ALL EXCESS FILL MATERIAL GENERATED BY CONSTRUCTION MUST BE STOCKPILED ON THIS SITE. ALSO FILTER FABRIC FENCE OR APPROVED EQUIVALENT MUST BE INSTALLED ON THE LOW SIDE OF ALL STOCKPILED MATERIALS.

### INSTALLATION, OWNERSHIP, AND MAINTENANCE RESPONSIBILITIES

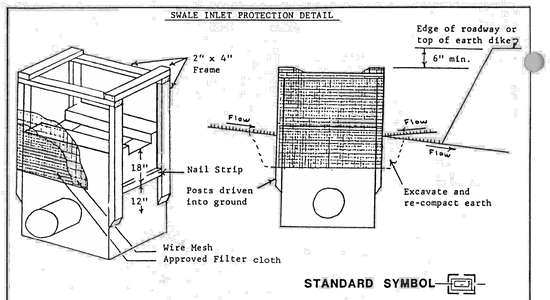
ALL PERMANENT STORMWATER MANAGEMENT FACILITIES INCLUDING STORMWATER BIORETENTION BERMS, INLETS, AND PIPES WILL BE INSTALLED BY THE OWNER / DEVELOPER. SINCE ALL FACILITIES WILL BE CONSTRUCTED ON LANDS OF THE OWNER / DEVELOPER AND THEREFORE OUTSIDE OF THE PUBLIC STREET RIGHT-OF-WAYS, THE FACILITIES SHALL BE INSTALLED, OWNED AND MAINTAINED BY THE OWNER / DEVELOPER. THE OWNER / DEVELOPER SHALL BE SOLELY RESPONSIBLE FOR KEEPING ALL STORMWATER MANAGEMENT FACILITIES FREE OF DEBRIS. THESE FACILITIES ARE TO BE MAINTAINED AT THE GRADES AND BY THE PROCEDURES SHOWN ON THESE PLANS.

1. THE PROPER IMPLEMENTATION AND MAINTENANCE OF THE EROSION AND SEDIMENTATION CONTROL MEASURES SHOWN ON THESE PLANS AND IN THE SUPPORTING DOCUMENTS SHALL BE THE SOLE RESPONSIBILITY OF THE DEVELOPER / OWNER.
2. ALL PERMANENT STORMWATER MANAGEMENT FACILITIES OUTSIDE OF PUBLIC RIGHT OF WAY (INCLUDING PIPES, CHANNELS, INLETS AND BIORETENTION BERMS) WITHIN THE DEVELOPMENT ARE TO BE INSTALLED AND MAINTAINED BY THE DEVELOPER. THESE FACILITIES ARE TO BE MAINTAINED AT THE GRADES AND BY THE PROCEDURES SHOWN ON THESE PLANS.
3. THE BIORETENTION BERMS REQUIRE THAT THE SITE BE STABILIZED ACCORDING TO THE APPROVED E&SC PLAN BEFORE INSTALLATION.

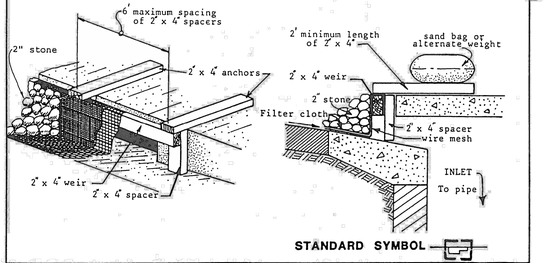
### CONSTRUCTION SEQUENCE

1. INSTALL SILT FENCING AS SPECIFIED ON THE PLAN.
2. INSTALL CONSTRUCTION ENTRANCE AS THE FIRST STEP IN GRADING ACTIVITIES.
3. BEGIN CLEARING AND GRUBBING AREA WITHIN THE LIMIT OF DISTURBANCE.
4. STRIP TOPSOIL AND PLACE INTO STOCKPILES AS SHOWN ON THE PLAN.
5. EXCAVATE AND GRADE THE BUILDING ADDITION AND PARKING AREA. PLACE EXCESS MATERIAL INTO STOCKPILES AS SHOWN ON THE PLAN.
6. TOPSOIL, SEED, AND MULCH ALL EXPOSED SOILS.
7. ONCE THE CONTRIBUTING DRAINAGE AREA TO BIORETENTION STABILIZES, INSTALL BIORETENTION AREAS.
   A. FOLLOW THE INSTALLATION AS SPECIFIED IN THE WEST VIRGINIA STORMWATER MANAGEMENT & DESIGN GUIDANCE MANUAL.
   B. EXCAVATE SUBSURFACE AREA. RIPPING BOTTOM IS ENCOURAGED TO PROMOTE INFILTRATION.
   C. INSTALL REQUIRED LINER STONE.
   D. INSTALL SOIL MEDIA.
   E. CONSTRUCT THE BERM WITH SUITABLE FILL.
   F. INSTALL PLANTINGS AS SPECIFIED ON PLAN IN ACCORDANCE WITH THE WVSM&DGM.
   G. APPLY MULCH ON THE SURFACE.
10. ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE REMOVED WITHIN 30 DAYS AFTER FINAL SITE STABILIZATION IN THE OPINION OF THE LOCAL EROSION AND SEDIMENT CONTROL ADMINISTRATOR.

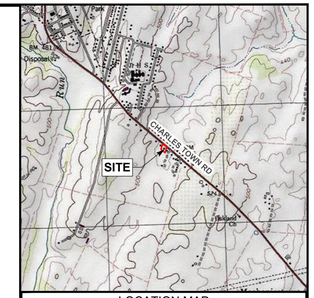
## SWALE INLET PROTECTION DETAIL




## CURB INLET PROTECTION DETAIL




| JEFFERSON COUNTY, WEST VIRGINIA | APPROVED: March 10, 1989 COUNTY ENGINEER | INLET PROTECTION DETAIL | REVISIONS: | DETAIL No. SC-13 |
|---|---|---|---|---|




LOCATION MAP
SCALE: 1" = 2000'

| NO. | DATE | DESCRIPTION | INT. |
|---|---|---|---|
| 0 | 2023-07-07 | FOR SUBMISSION | DMJ |
| 1 | 2023-08-15 | PER CITY ENGINEER COMMENTS | DMJ |
| 2 | 2023-10-04 | PER CITY ENGINEER COMMENTS | DMJ |
| 3 | 2023-10-20 | PER CITY ENGINEER COMMENTS | JAB |
| 4 | 2023-11-15 | PER CITY ENGINEER COMMENTS | DMJ |

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AND
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SERIAL NO.

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KEARNEYSVILLE, WV 25430
PA • OH • NY • WV • VA • MD


| PROJECT ID: 2022-1685 | DRAWN: DMJ |
|---|---|
| DATE: 2023-07-07 | DESIGN: JAB |
| SCALE: NOTED | CHECKED: JDH |

SITE PLAN
FOR
JOAN AND JOE'S COFFEE
LOCATED IN
CHARLES TOWN,
JEFFERSON COUNTY,
WEST VIRGINIA

TITLE: EROSION AND SEDIMENT CONTROL DETAILS

| PLAN STATUS: SITE PLAN | SHEET NO. C-4.01 |
|---|---|

Nov. 15, 2023 10:11am Dunmyer R:\Projects\2022\2022-1685 Joan and Joe's Coffee - Site Plan\CAD\SHEET FILES\ESC DETAILS (2022-1685) 24X36.dwg
Layout: C-4.01 EROSION AND SEDIMENT CONTROL DETAILS

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WV ROUTE 115 - CHARLES TOWN ROAD
60' R/W

VERITAS PROPERTIES LLC
DB 1255 PG 486 MAP 12
PARCEL 12.1

VERITAS PROPERTIES LLC
DB 1275 PG 468 MAP 17
PARCEL 12.3

CURFMAN MEGAN C.
DB 1167 PG 265 MAP 12
PARCEL 13

PEACH TREE INVESTMENTS LLC
DB 1103 PG 493 MAP 12
PARCEL 17

PEACH TREE INVESTMENTS LLC
DB 1103 PG 493 MAP 12
PARCEL 17

ARCADIA COMMUNITIES LLC
DB 1163 PG 322 MAP 12A
PARCEL PARK

Schedule

| Symbol | Label | QTY | Manufacturer | Catalog | Description | Number Lamps | Lamp Output | LLF | Input Power |
|---|---|---|---|---|---|---|---|---|---|
| | A | 5 | Amerlux LLC | D13x/AO25DR-CL/AVI-G3-SY-30-P3 | Cast aluminum housing, plastic patterned lens enclosure | 1 | 7113 | 0.9 | 61 |
| | B | 1 | | | D13x / AO21PC-CL /L5 | 1 | 16000 | 0.75 | 170 |

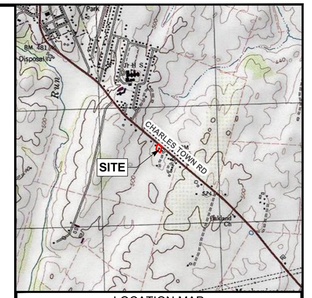
Statistics

| Description | Symbol | Avg | Max | Min | Max/Min | Avg/Min |
|---|---|---|---|---|---|---|
| Paved Areas | + | 1.1 fc | 2.7 fc | 0.2 fc | 13.5:1 | 5.5:1 |

Note
1. Fixtures Mounted at 12'
2. Calculations Taken at Grade
3. Calculations are estimations based on the information provided and may vary with actual conditions

illuminations

GRAPHIC SCALE: 1" = 10'
10 0 10 20




LOCATION MAP
SCALE: 1" = 2000'

| NO. | DATE | DESCRIPTION | INT. |
|---|---|---|---|
| 0 | 2023-07-07 | FOR SUBMISSION | DMJ |
| 1 | 2023-08-15 | PER CITY ENGINEER COMMENTS | DMJ |
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| PROJECT ID: | DRAWN: |
|---|---|
| 2022-1685 | DMJ |
| DATE: | DESIGN: |
| 2023-07-07 | JAB |
| SCALE: | CHECKED: |
| NOTED | JDH |

# SITE PLAN
FOR
## JOAN AND JOE'S COFFEE
LOCATED IN
CHARLES TOWN,
JEFFERSON COUNTY,
WEST VIRGINIA

TITLE:
## LIGHTING PLAN

| PLAN STATUS: | SHEET NO. |
|---|---|
| SITE PLAN | C-5.00 |

Nov 15, 2023, 10:28am Dunmer (K:\Projects\2022\2022-1685 Joan and Joe's Coffee - Site Plan\LOAD\SHEET FILES\LIGHTING PLAN (2022-1685) JAB36.dwg
Layout: C-5.00 LIGHTING PLAN

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# AO21 Series
LED Luminaire

amerlux
A Delta Group Company

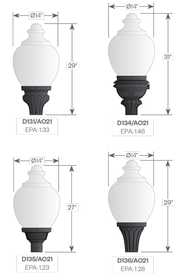
AO21 LED Series Luminaire



## Features
Lighting for exterior retail, commercial and hospitality environments. The AO21 Series consists of a decorative acorn combined with one of several styles of cast aluminum fitters. Powered by the Amerlux patented AVISTA® LED system with options for intensity, distribution and color. An optional Smartsite wireless lighting controller is available.

## Product Overview
| | |
|---|---|
| Wattage: | up to 86W |
| Lumen Output : | up to 10,843 lm; up to 143 lm/W |
| Color Temp: | 2700K, 3000K, 4000K |
| Dimming: | 0-10V dimming<br>Manual onboard dimming option available |

**PROJECT:** **TYPE:**




5 year limited warranty

POWDER COATED TOUGH

**Installation:**
The luminaire will mount to a 3" OD post or tenon with 5/16" black oxide coated stainless steel set screws to ensure a solid connection. The diffuser will be held to the fitter by (4) 5/16"-18 black oxide coated stainless steel set screws.

**Electrical:**
- Over voltage and short circuit protected driver
- Series connected 10kV/20kA surge protector
- Automatic AC incoming voltage sensing (120V-277V)
- 347V-480V option consult factory
- 0-10V dimming

**Diffuser Choices:**
- Clear Textured Polycarbonate (**PC-CL**)
- White Textured Acrylic (**AC-WH**)
- Clear Textured DR Acrylic (**DR-CL**)

**Distribution:**
- Symmetric (**SY**)
- Asymmetric (**AS**)
- Street Optic (**SO**)

**ETL listed, suitable for wet locations.**

**CCT:**
- 2,700K (**27**)
- 3,000K (**30**)
- 4,000K (**40**)

**Power Level:**
(see performance chart for output)
- **P1** (30W)
- **P2** (44W)
- **P3** (60W)
- **P4** (86W)

**L70:**
72,000+ hrs.

**Finish:**
Durable thermoset polyester powdercoat finish in the following:
- Satin Black (**BLK**)
- Classic Bronze (**CLB**)
- Gloss Textured Bronze (**GBZ**)
- Green (**GRN**)
- Gloss Textured Black (**GTB**)
- Textured Black (**TBK**)
- Gloss Textured Green (**TGR**)

**Accessories:**
- Cast aluminum Finial (**CFIN**)
- Dusk-to-dawn button type photocell (**POL**)
- Controls Capable Harness (**CCH**)
- Wireless control option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# AO21 Series
LED Luminaire

amerlux
A Delta Group Company

AO21 LED Series Luminaire

**PROJECT:** **TYPE:**

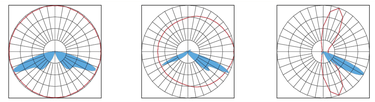
**Performance** ALL IES files supplied are 3000K. For 2700K use a 0.905 multiplier; For 4000K use a 1.05 multiplier.



| Model | Distribution | CCT | Power Level | System Watts | LED Engine Lumens | LED Engine LPW | Lumens w/DLC Acorn | LPW DLC* Acorn | BUG Rating |
|---|---|---|---|---|---|---|---|---|---|
| AVI-G3 | SY | 27 | P1 | 30 | 3661 | 122.9 | 3345 | **112.6** | 2-3-2 |
| | | 30 | | | 4034 | 135.8 | 3695 | **124.4** | 2-3-2 |
| | | 40 | | | 4246 | 143.0 | 3890 | **131.0** | 2-3-2 |
| | AS | 27 | | | 3505 | 118.0 | 3197 | **107.6** | 1-3-2 |
| | | 30 | | | 3872 | 130.4 | 3531 | **118.9** | 1-3-2 |
| | | 40 | | | 4076 | 137.2 | 3717 | **125.2** | 1-3-2 |
| | SO | 27 | | | 3296 | 111.0 | 2976 | **100.2** | 1-3-1 |
| | | 30 | | | 3679 | 120.5 | 3232 | **108.8** | 1-3-1 |
| | | 40 | | | 3883 | 130.7 | 3506 | **118.0** | 1-3-1 |
| | SY | 27 | P2 | 44 | 5245 | 119.2 | 4805 | **109.2** | 2-3-2 |
| | | 30 | | | 5794 | 131.7 | 5308 | **120.6** | 2-3-2 |
| | | 40 | | | 6099 | 138.6 | 5587 | **127.0** | 2-3-2 |
| | AS | 27 | | | 5035 | 114.4 | 4592 | **104.4** | 2-3-2 |
| | | 30 | | | 5562 | 126.4 | 5073 | **115.3** | 2-3-2 |
| | | 40 | | | 5855 | 133.1 | 5340 | **121.4** | 2-3-2 |
| | SO | 27 | | | 4664 | 105.8 | 4203 | 95.5 | 1-3-2 |
| | | 30 | | | 5141 | 116.8 | 4642 | **105.5** | 1-3-2 |
| | | 40 | | | 5412 | 123.0 | 4887 | **111.1** | 1-3-2 |
| | SY | 27 | P3 | 60 | 7026 | 116.1 | 6437 | **106.4** | 2-3-3 |
| | | 30 | | | 7762 | 128.3 | 7111 | **117.5** | 2-3-3 |
| | | 40 | | | 8170 | 135.0 | 7485 | **123.7** | 2-3-3 |
| | AS | 27 | | | 6745 | 111.5 | 6182 | **101.7** | 2-3-2 |
| | | 30 | | | 7451 | 123.2 | 6796 | **112.3** | 2-3-2 |
| | | 40 | | | 7843 | 129.6 | 7153 | **118.2** | 2-3-2 |
| | SO | 27 | | | 6235 | 103.1 | 5630 | 93.1 | 2-3-3 |
| | | 30 | | | 6887 | 113.8 | 6219 | **102.8** | 2-3-3 |
| | | 40 | | | 7249 | 119.8 | 6546 | **108.2** | 2-3-3 |
| | SY | 27 | P4 | 86 | 9411 | 109.4 | 8622 | **100.3** | 2-3-3 |
| | | 30 | | | 10394 | 120.9 | 9524 | **110.7** | 2-3-3 |
| | | 40 | | | 10943 | 127.2 | 10025 | **116.6** | 3-3-3 |
| | AS | 27 | | | 9035 | 105.1 | 8240 | 95.8 | 2-3-2 |
| | | 30 | | | 9980 | 116.0 | 9102 | **105.8** | 2-3-2 |
| | | 40 | | | 10506 | 122.2 | 9581 | **111.4** | 2-3-2 |
| | SO | 27 | | | 8595 | 99.9 | 7761 | 90.2 | 2-3-3 |
| | | 30 | | | 9494 | 110.4 | 8573 | **99.7** | 2-3-3 |
| | | 40 | | | 9994 | 116.2 | 9024 | **104.9** | 2-3-3 |

* Numbers in **BOLD** indicate that the configuration meets DLC standards.

**Light Distribution Types**





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# APQ330 Series

amerlux
A Delta Group Company

APQ330 Series

**PROJECT:** **TYPE:**

**Pole Ordering Information**

1 ____ 2 ____ 3 ____ 4 ____

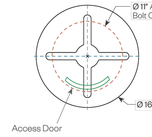
| 1 Model | 2 Pole Height | 3 Finish | 4 Options |
|---|---|---|---|
| **APQ333** 4" O.D. fluted pole, 0.125 wall | **08** 7'-8" | **BLK** satin black | (3" O.D. x 3" tall tenon standard) |
| **APQ334** 4" O.D. smooth pole, 0.125 wall | **10** 9'-8" | **CLB** classic bronze | **LT** less tenon |
| **APQ335** 5" O.D. fluted pole, 0.156 wall | **12** 11'-8" | **GRN** green | **GFCI-TOP** ground fault circuit protected outlet, placed 6" from the top of pole |
| | **14** 13'-8" | **TBK** textured black | **GFCI-BTM** ground fault circuit protected outlet, placed 6" above the base |

**Anchor Bolt Ordering Information** (Ordered separately, can be pre-shipped upon request)

1 ____

| 1 Model | |
|---|---|
| **APQ330-555-0004** | 1/2" x 18" anchor bolts |

**Bolt Circle Detail**




**Anchor Details**




**Accessories**

**GFCI** - provision for Ground Fault Circuit Interrupter outlet with NEC required wet location while in use type cover (WUC). The cover is made of die-cast aluminum and will be painted to match.

**GFCI ORIENTATION** is stated as degrees from access door and GFCI Placement on shaft must be specified in ordering guide.
TOP - placement will be 6" from top of pole.
BTM - placement will be 6" above the base.





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# AO21 Series
LED Luminaire

amerlux
A Delta Group Company

AO21 LED Series Luminaire

**PROJECT:** **TYPE:**

**Ordering Information**

1 ____ 2 ____ 3 ____ 4 ____ 5 ____ 6 ____ 7 ____ 8 ____

Add additional accessories as needed

**1** Model
**D131/AO21**
**D134/AO21**
**D135/AO21**
**D136/AO21**

**2** Diffuser Material-Color
**PC-CL** - Clear Textured Polycarbonate
**AC-WH** - White Textured Acrylic
**DR-CL** - Clear Textured DR Acrylic

**3** LED System
**AVI-G3** - Avista light engine, standard model

**4** Light Distribution
**SY** - Symmetric
**AS** - Asymmetric
**SO** - Street Optic

**5** CCT
**27** - 2700K
**30** - 3000K
**40** - 4000K

**6** Power Level
**P1** - (30W)
**P2** - (44W)
**P3** - (60W)
**P4** - (86W)

**120V-277V auto-sensing driver is standard.**
**Consult factory for 347V/480V option.**

**7** Finish
**BLK** - Satin Black
**CLB** - Classic Bronze
**GBZ** - Gloss Textured Bronze
**GRN** - Green
**GTB** - Gloss Textured Black
**TBK** - Textured Black
**TGR** - Gloss Textured Green
**OSTM** - Custom

**8** Options/Accessories
**CFIN** - Cast Aluminum Finial
**PCL** - Dusk-to-Dawn Button Type Photocell (not available for use with CCH)
**CCH** - Controls Capable Harness (not available for use with POL)

**Consult Factory for SmartSite integrated wireless control option (SSINT-1)**


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# APQ330 Series

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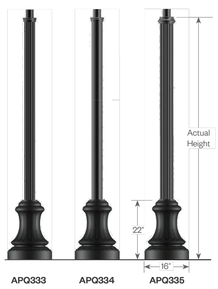
APQ330 Series



**PROJECT:** **TYPE:**

**Features**
- Strong, lightweight and easy to install
- Extruded aluminum shaft welded to a decorative cast aluminum base
- 3" O.D. x 3" tall tenon included for luminaire mounting
- Access door for wiring secured with stainless steel screws
- Ground lug included inside base
- Durable powder coat finish




POWDER COATED TOUGH

See pg.3 for more details.

**Materials:**
- Base - Cast aluminum (A356)
- Shaft - Extruded Aluminum (6061-T6)
- Tenon - Cast Aluminum (A356)
- Anchor Bolts - Hot dipped galvanized
- Hardware - Stainless Steel

**Finish:**
The post will be finished with an electrostatically applied polyester powder coat suitable for exterior use. The poles are pretreated using industry standard enviromentally responsible processes for a long lasting and durable finish.

**Anchorage:**
- 1/2" x 18" x 3" Hot-dipped galvanized steel L-type anchor bolts (ordered separately)


Amerlux reserves the right to change details that do not affect overall function and performance.
Amerlux®, LLC - 178 Bauer Drive, Oakland, NJ 07436 - P: 973-882-5010 F: 973-882-2605 - amerlux.com

# APQ330 Series

amerlux
A Delta Group Company

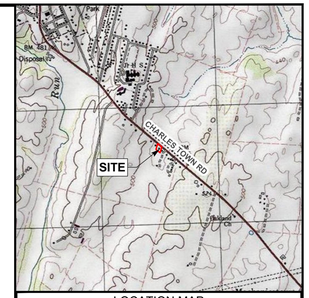
APQ330 Series

**PROJECT:** **TYPE:**




| APQ333-xx | APQ334-xx | APQ335-xx | Actual Height |
|---|---|---|---|
| APQ333-08 | APQ334-08 | APQ335-08 | 7'-8" |
| APQ333-10 | APQ334-10 | APQ335-10 | 9'-8" |
| APQ333-12 | APQ334-12 | APQ335-12 | 11'-8" |
| APQ333-14 | APQ334-14 | APQ335-14 | 13'-8" |


Amerlux reserves the right to change details that do not affect overall function and performance.
Amerlux®, LLC - 178 Bauer Drive, Oakland, NJ 07436 - P: 973-882-5010 F: 973-882-2605 - amerlux.com




LOCATION MAP
SCALE: 1" = 2000'

| NO. | DATE | DESCRIPTION | INT. |
|---|---|---|---|
| 0 | 2023-07-07 | FOR SUBMISSION | DMJ |
| 1 | 2023-08-15 | PER CITY ENGINEER COMMENTS | DMJ |
| 2 | 2023-10-04 | PER CITY ENGINEER COMMENTS | DMJ |
| 3 | 2023-10-20 | PER CITY ENGINEER COMMENTS | JAB |
| 4 | 2023-11-15 | PER CITY ENGINEER COMMENTS | DMJ |

CALL BEFORE YOU DIG!
WEST VIRGINIA LAW REQUIRES:
3 WORKING DAYS NOTICE FOR CONSTRUCTION PHASE
AND
10 WORKING DAYS IN DESIGN STATE
– STOP CALL
West Virginia One Call System, Inc
WEST VIRGINIA 811
CALL BEFORE YOU DIG! Dial 811 or 800.245.4848
www.WV811.com
SERIAL NO.

SEAL




JHA Companies
ENGINEERS
SURVEYORS
ENVIRONMENTAL
GIS MAPPING
www.jhacompanies.com
844-542-4757
362 W. BURR BLVD. STE 3
KEARNEYSVILLE, WV 25430
PA • OH • NY • WV • VA • MD

| PROJECT ID: | DRAWN: |
|---|---|
| 2022-1685 | DMJ |
| DATE: | DESIGN: |
| 2023-07-07 | JAB |
| SCALE: | CHECKED: |
| NOTED | JDH |

SITE PLAN
FOR
JOAN AND JOE'S COFFEE
LOCATED IN
CHARLES TOWN,
JEFFERSON COUNTY,
WEST VIRGINIA

TITLE:
LIGHTING DETAILS

| PLAN STATUS: | SHEET NO. |
|---|---|
| SITE PLAN | C-5.01 |

Nov 15, 2023 10:12am JLuenger R:\Projects\2022\2022-1685 Joan and Joe's Coffee - Site Plan\CAD\SHEET FILES\LIGHTING DETAILS (2022-1685) 24X36.dwg
Layout: LIGHTING DETAILS

THESE DRAWINGS SHALL NOT BE UTILIZED BY ANY PERSON, FIRM OR CORPORATION WITHOUT THE SPECIFIC WRITTEN PERMISSION OF JHA COMPANIES

**Prepared for:** **Veritas Properties, LLC**
**14826 Charles Town Road**
**Charles Town, WV 25414**

**Return to:** **Veritas Properties, LLC**
**14826 Charles Town Road**
**Charles Town, WV 25414**

**UPI No.:** **03-12001200010000**
**03-12001200030000**

# SHARED USE ACCESS AND PARKING EASEMENT AND MAINTENANCE AGREEMENT

**THIS AGREEMENT** ("Agreement"), is made this _____ day of _____, 20__, by and between:

**Veritas Properties, LLC,** of **9010 Glenbrook Road, Fairfax, VA, 22031** ("Grantors");

**AND**

**Veritas Properties, LLC,** of **9010 Glenbrook Road, Fairfax, VA, 22031** ("Grantees").

**WITNESSETH:**

**WHEREAS,** Grantors are the owners of real property located at **14826 Charles Town Road Charles Town, WV 25414** (Tax parcel ID **03-12001200010000 & 03-12001200030000** and more particularly described on a Site Plan for Joan and Joe's Coffee dated the 7th day of August 2023, revised the **XX** day of **XXXXXXXX XX**, and duly recorded in Jefferson County Recorder of Deeds at Plat Book Volume **XXXX** Page **XXX**) (the "Grantor's Property"); and

**WHEREAS,** Grantees are the owners of real property located at **14826 Charles Town Road Charles Town, WV 25414** (Tax parcel ID **03-12001200010000 & 03-12001200030000** and more particularly described on a Site Plan for Joan and Joe's Coffee dated the 7th day of August 2023, revised the **XX** day of **XXXXXXXX XX**, and duly recorded in Jefferson County at Plat Book Volume **XXXX** Page **XXX** (the "Plan") (the "Grantee's Property"); and

**WHEREAS**, Grantors and Grantees are desirous of memorializing their understanding regarding the establishment, use, and ongoing maintenance of a shared use access extending across the Grantor's Property from Charles Town Road (WV RTE 115) through the Grantee's

Property back to Charles Town Road (WV RTE 115) to establish a one way circular traffic pattern and shared parking though the Grantor & Grantee's property. A true and accurate copy of the proposed Easement is shown on the Plan; and

**WHEREAS**, Charles Town, Jefferson County, West Virginia approved the Plan on _____, 202__, creating Easement that crosses the Grantor's Property; and

**WHEREAS,** Parcel 03-12001200010000 as shown on the Plan has access to Charles Town Road as an entrance via the Easement identified on the Plan and Parcel 03-12001200030000 as shown on the plan has access Charles Town Road as an exit via the Easement identified on the Plan

**NOW THEREFORE,** the parties hereto agree, being owners of certain tracts of land in Charles Town, Jefferson County, West Virginia, that utilize a certain access easement, acknowledge the establishment of said Easement and that the same shall be subject to the following:

1. All of the foregoing recitals as stated above shall be deemed to be an integral part of this Agreement as though the same were fully set forth below and are therefore incorporated by this reference.

2. The width of said Easement as shown on the Plan shall be variable as shown on the plan and remain the same. Such width shall not be significantly changed or altered without the written consent of the undersigned, or their heirs, assigns, personal representatives and successors in title.

3. The Easement shall serve as the exclusive means of ingress, egress and regress to and from Charles Town Road.

4. Grantor and Grantee shall be equally responsible for the costs to maintain the Easement, including but not limited to cleaning, pothole repair, mowing, and general maintenance and repairs.

5. To the extent that either owner desires to make specific improvements (that are not necessary repair or maintenance), the costs of such improvement to the Easement shall be the sole responsibility of the owner wishing to make such improvements.

6. Mention of this Agreement shall be made on all subsequent deeds for Parcel 03-12001200010000 & 03-12001200030000.

7. Said Easement has not been accepted for maintenance by any municipality as a public road.

8. No parking shall be permitted on said Easement at any time with the exception of spaces provided and shown on the plan. No blocking of the Easement shall be permitted.

9. The provisions and obligations of this Agreement shall run with the land and be binding on subsequent purchasers of the lots, their heirs and assigns, to the same extent as if they had been an actual party to this Agreement, and reference to this Agreement is to be made in all subsequent deeds therefore.

10. The parties hereto agree to cooperate with the intent of this Agreement and use their good faith efforts to ensure reasonable and open access across said Easement and to ensure compliance with the terms herein. In the event that access to the Easement is prohibited or curtailed by virtue of official written notification from any agency or subdivision of a governing local, state or federal authority, the parties hereto mutually agree to equitably share any expense resulting therefrom and cooperate to ensure that reasonable and open access to the Grantor's and Grantee's properties is provided.

11. It is contemplated that this Agreement shall be placed of record within Jefferson County, West Virginia, the costs of which shall be paid by Grantor.

**IN WITNESS WHEREOF,** the parties hereto, in consideration of One and no/100 ($1.00) Dollar, receipt whereof is hereby acknowledged, and intending to legally bind themselves, their heirs, executors, administrators, agents, assigns, and successors in title, affix their hands and seals hereto on this date set forth above.

**WITNESS:**

**GRANTORS/GRANTEES:**

_____ _____**(SEAL)**
**Robert Mead**

_____ _____**(SEAL)**
**Robert Mead**

**STATE OF WEST VIRGINIA:**

**: SS.**

**COUNTY OF JEFFERSON :**

On this the _____ day of _____, 202__, before me, the undersigned officer, personally appeared **Robert Mead,** known to me (or satisfactorily proven) to be the persons whose names are subscribed to the within instrument, and acknowledged that he executed same for the purposes therein contained.

IN WITNESS WHEREOF, I have hereunto set my hand and official seal.

_____(SEAL)
Notary Public

**STATE OF WEST VIRGINIA:**

**: SS.**

**COUNTY OF JEFFERSON :**

On this the _____ day of _____, 202__, before me, the undersigned officer, personally appeared **Robert Mead,** known to me (or satisfactorily proven) to be the person whose name is subscribed to the within instrument, and acknowledged that she executed same for the purposes therein contained.

IN WITNESS WHEREOF, I have hereunto set my hand and official seal.

_____(SEAL)
Notary Public

Kimley»Horn

# Memorandum

To: Joseph Hunt, P.E.
Project Manager
JHA Companies
362 W Burr Blvd, Suite 3
Kearneysville, WV 25430

From: Mark Phillips, P.E.

Through: Mr. James Newman, AICP
City Planner, Zoning/Subdivision Administrator
City of Charles Town
101 E Washington Street
Charles Town, WV 25414

Date: November 16, 2023

**Subject: Joan and Joe's Coffee Shop Site Plan Review – 3rd Submission**

This memorandum summarizes our review of the Site Plan for the entrance and parking improvements to the Joan and Joe's Coffee establishment (dated November 15, 2023 prepared by JHA Companies) for a proposed parking lot and ingress/egress improvement for the existing Joan and Joe's Coffee. The site is currently zoned General Commercial per the City of Charles Town Zoning Ordinance dated June 18, 2012 (Rev. July 6, 2020). This application proposes a by-right development of the approximate 0.53-acre property.

Kimley-Horn's review of this application is limited to the Site Plan Application provided. Based upon our review all prior comments have been addressed. Kimley-Horn has no further comments.

Thank you for the opportunity to review this Site Plan. Please feel free to contact us at 703-870-3631 should you have any questions.

**KIMLEY-HORN & ASSOCIATES, INC.**



Mark Phillips, P.E.
Project Manager
Associate

**Planning Commission**
101 East Washington Street
Charles Town, WV 25414

**SCHEDULED**

Meeting: 11/27/23
Department: Planning Commission
Category: Report
Initiator:

## AGENDA ITEM (ID # )

### Commission Review: *BR2023-06: Alla Willa Drive Casino* - Bond Establishment

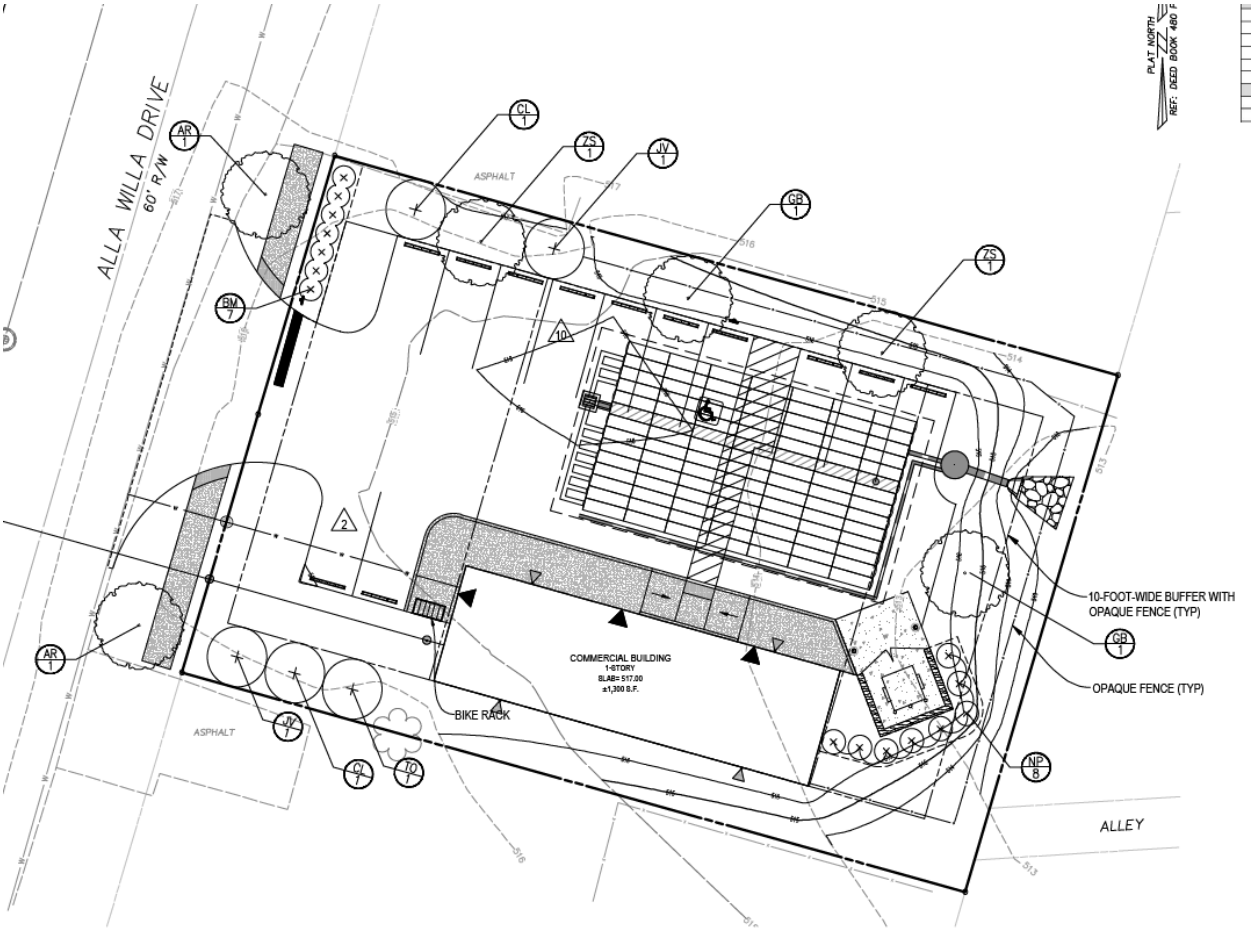
**ATTACHMENTS:**

- 1. Staff Report.pdf
- 2. Application.pdf
- 3. Bond Estimate.pdf
- 4. KH Review.pdf

**Bond Establishment Request**
**BR2023-06**

**Date:** For the November 27, 2023 Planning Commission meeting
**Applicant:** IRIS Property LLC
**Report by:** James Newman, City Planner, Zoning/Subdivision Administrator.
**Proposal:** A bond establishment of $148,436.11

**Alla Willa Casino**




**BACKGROUND**
The applicant, IRIS Property LLC, has submitted a bond establishment request for the development of a small, one-story casino with 7-10 gambling machines. The applicant is requesting a bond establishment of the **performance and land disturbance bond** in the amount of $148,436.11

Upon review of the request the City Engineer, Kimley-Horn, has determined that the bond amount is a reasonable assessment of the cost of the project.

**BOND COMMITTEE**
The Bond Committee reviewed this item at their November 16, 2023 meeting. The Committee recommended approval of the bond reduction request.

**STAFF RECOMMENDATION**
The City Engineer and City Staff have reviewed the bond reduction request and recommends the bond reduction request be **approved**.

**Bond Request No.**_____

# BOND REQUEST AND REDUCTION

**To assist the Subdivision Administrator in the review of a Bond Request Application, the Applicant must utilize this form to supply the City with the information prescribed under Article 1335 and Section 1332 of the Subdivision and Land Development Ordinance. The submission of this form, along with the prescribed information and required fees, shall serve as the Applicant's Bond Request Application as required by Ordinance Article 1335.**

1. DATE October, 20 23

2. APPLICATION TYPE ☒ Bond | Initiation ☐ Bond | Reduction

☐ Bond | Reallocation ☐ Bond | Release**

3. PROJECT NAME ALLA WILLA COMMERCIAL

Address ALLA WILLA DRIVE, CHARLES TOWN, WV 25414

4. APPLICANT'S NAME* IRIS PROPERTY LLC

Address 1927 Rock Cliff Drive, Martinsburg, WV 25401

Telephone Number (304)279-4747 Fax Number (___)

Email Address hadavand1979@gmail.com

5. PROPERTY OWNER'S NAME Shirley Rockwell

Address 1927 Rock Cliff Drive, Martinsburg, WV 25401

Telephone Number (304)279-4747 Fax Number (___)

Email Address hadavand1979@gmail.com

*Applicants include: Property owner(s), Engineer(s), Surveyor(s), or Consultant(s)

**Requires a Public Hearing and landscaping surety for one year after release

**Bond Request No.**_____

6. DESCRIPTION OF REQUETED INITIATION, REDUCTION, OR RELEASE:
THE REQUESTED BOND INITIATION IS FOR THE PROPOSED SITE IMPROVEMENTS FOR 'ALLA WILLA COMMERCIAL' WHICH INCLUDE, BUT ARE NOT LIMITED TO, THE CONSTRUCTION OF A COMMERCIAL BUILDING, DRIVE AISLES, AND PARKING AREAS WITH ASSOCIATED DRAINAGE STRUCTURES, AN UNDERGROUND SWM FACILITY, AND PRIVATE UTILITIES.

7. A) CURRENT BOND AMOUNT N/A

B) PROPOSED BOND AMOUNT $148,436.11

8. PARCEL INVENTORY: (List all parcels that are part of this application):

| Tax Map No. | Parcel No. | Deed Book | Page No. | Zoning District |
|---|---|---|---|---|
| 7 | 12 | 1301 | 254 | GENERAL COMMERCIAL |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |

9. PARCEL HISTORY: (List all pending or previously approved applications on the subject parcels inventoried above, including previous plat applications if this application is an amendment)

| Application No. | Project Name and Phase | Status | Approval Date |
|---|---|---|---|
| SLD2023-03/200403 | ALLA WALL COMMERCIAL SKETCH PLAN | APPROVED | 5/27/23 |
| | | | |
| BA-2023-01 | PARKING VARIANCE | APPROVED | 4/18/23 |
| | | | |
| | | | |
| | | | |
| | | | |

10. BOND RELEASE ATTACHMENTS.

The following shall be included with this request:

A. To the extent not previously submitted pursuant to bond reduction request, copies of inspection and test reports if work was inspected and tested by a third-party inspector.

B. Certification that all bonded Improvements, other than Improvements accepted by West Virginia Department of Highways (WVDOH), have been completed in accordance with the approved plans, profiles, and specifications and the requirements of any applicable manual. For Improvements to be accepted for maintenance by WVDOH, such Certification shall state that the Improvements have been installed and inspected in accordance with WVDOH's requirements.

C. A copy of the City-approved As-Built Drawings as required for facilities within public rights-of-way or Easements submitted pursuant to Section 1332.10 of this Ordinance.

Date of As-Builts _____ Prepared By _____

D. A letter from a Professional Engineer or Professional Land Surveyor certifying that property corners and Monuments have been set as required under this Ordinance.

E. Documentation of acceptance by WVDOH for public roadways and rights-of-way, or a maintenance and indemnification agreement and bond approved by the Planning Commission for public roadways that have been completed in accordance with WVDOH standards but which, due to factors other than their quality of construction, are not eligible for acceptance by WVDOH.

F. For private roadways, a letter of acceptance by the entity responsible for maintenance and a Latent Defects Indemnification Agreement and Bond in accordance with this Section.

G. Private Roadway Maintenance Bonds. Before a Performance Agreement and surety for private roadway construction shall be released, a Latent Defects Indemnification Agreement and Bond shall be provided by the applicant/Developer and approved by the Planning Commission. The guarantee provided by such Agreement and Bond must be for a period of two (2) years following the date of performance bond release, and must be in an amount equal to no less than 5% of the original performance bond estimate in accordance with Section 1335.07 (F) of the Subdivision Ordinance.

H. Landscaping Surety. Surety is required to ensure the landscaping shown on the Major S/LD plans is maintained for one (1) year. The one (1) year shall start from the date at which the surety for the site has been released, with the exception of this landscaping surety. The landscaping surety amount shall not be less than $5,000.00 or 10% of the total landscaping cost for the project, which every is greater.

**Bond Request No._____**

APPLICANT CERTIFICATION

I certify that, to the best of my knowledge, the submitted information and statements are true and correct. I also certify that I have received and read Article 1335 of the S/LD Ordinance.

Signature of Applicant

_____ Date 10/25/2023

Signature of Property Owner (If different than Applicant)

_____ Date 10/25/2023

Please submit an original completed Application, 1 digital copy and 1 paper copy of the As-Built Plans (if applicable) to the following:

Subdivision Administrator
City of Charles Town
101 E. Washington Street
Charles Town, WV 25414

Please also send a copy of the completed Application as well as the As-Builts to the following:

Hatch/Chester Engineers
Attn: Elizabeth Adamowicz
705 Quince Orchard Road, Suite 310
Gaithersburg, MD 20878

***FOR CITY USE ONLY***

Application Number:_____ Date Application Received:_____

Fee: $_____ Check No._____

Receipt No._____

Site Inspection Date:_____ Inspector:_____

Subdivision Administrator Approval:_____ Date:_____

Engineer Approval:_____ Date:_____

Planning Commission Approval:_____ Date:_____

City Council Approval:_____ Date:_____

Comments:_____

_____

_____

_____

_____

**CITY OF CHARLES TOWN**
**PUBLIC IMPROVEMENT BOND UNIT COST LIST AND BOND REDUCTION FORM**

PROJECT NAME:Alla Willa | PROJECT NUMBER: 5051-0101

PREPARED BY: Chris Weitnauer | FIRM: Integrity Federal Services | DATE: 09/26/2023

| | | BOND ESTIMATE | | | BOND REDUCTION | | |
|---|---|---|---|---|---|---|---|
| ITEM | UNIT | UNIT COST | QUANTITY | EXTENSION | QUANTITY | EXTENSION | %COMPLETE |
| **MOBILIZATION GENERAL** | | | | | | | |
| Mobilization | LS | $6,250.00 | 1 | $6,250.00 | | | |
| Field Office | EA | $3,000.00 | | | | | |
| Job Sign | EA | $1,150.00 | | | | | |
| **SURVEYING** | | | | | | | |
| Steel Pipe Property Corner Marker Incl. Survey | EA | $275.00 | | | | | |
| **R.O.W. Monuments Surveyed In Place** | | | | | | | |
| RM -- 1 | EA | $825.00 | | | | | |
| RM -- 2 | EA | $575.00 | | | | | |
| **EARTHWORK EXCAVATION** | | | | | | | |
| Regular Bulk used as Fill | CY | $3.86 | | | | | |
| Rock, Rip | CY | $17.30 | | | | | |
| Rock, Blast | CY | $38.48 | | | | | |
| **BORROW MATERIAL** | | | | | | | |
| Buy, Load, Haul 10 Mi. Select | CY | $28.90 | 736 | $21,270.40 | | | |
| Fill and Compaction of On-site Borrow | CY | $5.95 | 2 | $11.90 | | | |
| **UNSUITABLE MATERIAL** | | | | | | | |
| Load and Haul, 20 mi R/T | CY | $21.95 | | | | | |
| Dump Charge | CY | $37.50 | | | | | |
| Site Grading | SY | $0.75 | | | | | |
| **CLEAR & GRUB** | | | | | | | |
| Light | AC | $6,675.00 | 0.26 | $1,735.50 | | | |
| Moderate | AC | $9,750.00 | | | | | |
| Heavy | AC | $12,250.00 | 0.05 | $612.50 | | | |
| Very Heavy | AC | $14,250.00 | | | | | |
| **LANDSCAPING** | | | | | | | |
| Seeding | SY | $0.77 | 614 | $472.78 | | | |

| | | BOND ESTIMATE | | | BOND REDUCTION | | |
|---|---|---|---|---|---|---|---|
| ITEM | UNIT | UNIT COST | QUANTITY | EXTENSION | QUANTITY | EXTENSION | %COMPLETE |
| Sodding | SY | $3.64 | | | | | |
| **PLANTING SHRUBS** | | | | | | | |
| 18” | EA | $40.00 | 15 | $600.00 | | | |
| 24” | EA | $70.00 | | | | | |
| **TREES** | | | | | | | |
| 6’ – 8’ (1-2 in. Caliper) | EA | $400.00 | 11 | $4,400.00 | | | |
| 8’ – 10’ (2.5-3 in. Caliper) | EA | $700.00 | | | | | |
| Tree Protection | LF | $9.00 | | | | | |
| **MISCELLANEOUS SITE IMPROVEMENTS** | | | | | | | |
| **Retaining Walls** | | | | | | | |
| Timber Wall (Less Than 6 ft) | LF | $325.00 | | | | | |
| Dry Rubble RW-1 (H=6') | LF | $450.00 | | | | | |
| Mortared Rubble RW-1A (H=6') | LF | $535.00 | | | | | |
| Concrete Gravity RW-2 (H=6') | LF | $339.00 | | | | | |
| Concrete Gravity RW-3 (H=6') | LF | $378.00 | | | | | |
| **FENCING** | | | | | | | |
| Std. Fence (H=5’) FR-5 | LF | $9.31 | | | | | |
| Farm Fence (H=5’) FR-3A | LF | $10.90 | | | | | |
| Chain Link Fence (H=6’)FR 2-B | LF | $14.52 | 184 | $2,671.68 | | | |
| Board Fence (H=6’) | LF | $19.35 | | | | | |
| **TOT LOTS** | | | | | | | |
| Tot Lot | EA | $16,495.00 | | | | | |
| **STORM DRAINAGE** | | | | | | | |
| **STORM SEWER** | | | | | | | |
| **NOTE: All pipe unit prices include trench, excavation, bedding, pipe, & backfill** | | | | | | | |
| **Rock Excavation for All Pipe Types** | | | | | | | |
| Less than 1,500 CY (Blasting) | CY | $110.00 | | | | | |
| More than 1,500 CY (Blasting) | CY | $90.00 | | | | | |
| Less than 1,500 CY (Hoe Ram) | CY | $135.00 | | | | | |
| More than 1,500 CY (Hoe Ram) | CY | $110.00 | | | | | |

| | | BOND ESTIMATE | | | BOND REDUCTION | | |
|---|---|---|---|---|---|---|---|
| ITEM | UNIT | UNIT COST | QUANTITY | EXTENSION | QUANTITY | EXTENSION | %COMPLETE |
| **Trench De-watering** | | | | | | | |
| Trench De-watering | LF | $2.95 | | | | | |
| **RCP CLASS III ROUND T & G W/MASTIC** | | | | | | | |
| **12" Pipe (RCP III)** | | | | | | | |
| 0' – 8' Cut | LF | $44.50 | | | | | |
| 8' – 14' Cut | LF | $62.50 | | | | | |
| Add cost for Class IV | LF | $0.85 | | | | | |
| O-Ring | LF | $5.50 | | | | | |
| **15" Pipe (RCP III)** | | | | | | | |
| 0' – 10' Cut | LF | $49.75 | | | | | |
| 10' – 16' | LF | $77.50 | | | | | |
| Add Cost for Class IV | LF | $0.95 | | | | | |
| O-Ring | LF | $5.50 | | | | | |
| **18" Pipe (RCP III)** | | | | | | | |
| 0' – 10' Cut | LF | $50.00 | | | | | |
| 10' – 16' Cut | LF | $80.00 | | | | | |
| Add Cost for Class IV | LF | $2.00 | | | | | |
| O-Ring | LF | $7.00 | | | | | |
| **21" Pipe (RCP III)** | | | | | | | |
| 0' – 10' Cut | LF | $57.50 | | | | | |
| 10' – 16' Cut | LF | $87.50 | | | | | |
| Add Cost for Class IV | LF | $2.75 | | | | | |
| O-Ring | LF | $13.00 | | | | | |
| **24" Pipe (RCP III)** | | | | | | | |
| 0' – 10' Cut | LF | $67.50 | | | | | |
| 10' – 16' Cut | LF | $95.00 | | | | | |
| Add Cost for Class IV | LF | $3.15 | | | | | |
| O-Ring | LF | $14.00 | | | | | |
| **27" Pipe (RCP III)** | | | | | | | |
| 0' – 10' Cut | LF | $60.00 | | | | | |
| 10' – 16' Cut | LF | $95.00 | | | | | |
| Add Cost for Class IV | LF | $4.00 | | | | | |
| O-Ring | LF | $15.00 | | | | | |
| **30" Pipe (RCP III)** | | | | | | | |
| 0' – 10' Cut | LF | $82.50 | | | | | |
| 10' – 16' Cut | LF | $125.00 | | | | | |
| Add Cost for Class IV | LF | $6.00 | | | | | |

| | | BOND ESTIMATE | | | BOND REDUCTION | | |
|---|---|---|---|---|---|---|---|
| ITEM | UNIT | UNIT COST | QUANTITY | EXTENSION | QUANTITY | EXTENSION | %COMPLETE |
| O-Ring | LF | $17.25 | | | | | |
| **33" Pipe (RCP III)** | | | | | | | |
| 0' – 12' Cut | LF | $115.00 | | | | | |
| 10' – 18' Cut | LF | $160.00 | | | | | |
| Add Cost for Class IV | LF | $6.50 | | | | | |
| O-Ring | LF | $21.95 | | | | | |
| **36" Pipe (RCP III)** | | | | | | | |
| 0' – 12' Cut | LF | $120.00 | | | | | |
| 12' – 18' Cut | LF | $175.00 | | | | | |
| Add Cost for Class IV | LF | $7.75 | | | | | |
| O-Ring | LF | $22.75 | | | | | |
| **42" Pipe (RCP III)** | | | | | | | |
| 0' – 12' Cut | LF | $140.00 | | | | | |
| 12' – 18' Cut | LF | $200.00 | | | | | |
| Add Cost for Class IV | LF | $12.00 | | | | | |
| O-Ring | LF | $35.45 | | | | | |
| **48" Pipe (RCP III)** | | | | | | | |
| 0' – 12' Cut | LF | $155.00 | | | | | |
| 12' – 18' Cut | LF | $215.00 | | | | | |
| Add Cost for Class IV | LF | $12.50 | | | | | |
| O-Ring | LF | $43.35 | | | | | |
| **54" Pipe (RCP III)** | | | | | | | |
| 0' – 12' Cut | LF | $190.00 | | | | | |
| 12' – 18' Cut | LF | $275.00 | | | | | |
| Add Cost for Class IV | LF | $18.75 | | | | | |
| O-Ring | LF | $44.45 | | | | | |
| **60" Pipe (RCP III)** | | | | | | | |
| 0' – 12' Cut | LF | $225.00 | | | | | |
| 12' – 18' Cut | LF | $335.00 | | | | | |
| Add Cost for Class IV | LF | $22.50 | | | | | |
| O-Ring | LF | $48.65 | | | | | |
| **ELLIPTICAL PIPE – RCP CLASS III** | | | | | | | |
| **23" X 14" (18" Equiv-RCP III)** | | | | | | | |
| 0' – 10' Cut | LF | $75.00 | | | | | |
| 10' – 16' Cut | LF | $110.00 | | | | | |
| Add Cost for Class IV | LF | $16.45 | | | | | |
| O-Ring | LF | $43.35 | | | | | |

| | | BOND ESTIMATE | | | BOND REDUCTION | | |
|---|---|---|---|---|---|---|---|
| ITEM | UNIT | UNIT COST | QUANTITY | EXTENSION | QUANTITY | EXTENSION | %COMPLETE |
| **30" X 19" (24" Equiv-RCP III)** | | | | | | | |
| 0' – 10' Cut | LF | $90.00 | | | | | |
| 10' – 16' Cut | LF | $130.00 | | | | | |
| Add Cost for Class IV | LF | $5.95 | | | | | |
| O-Ring | LF | $43.35 | | | | | |
| **38" X 24" (30" Equiv-RCP III)** | | | | | | | |
| 0' – 10' Cut | LF | $120.00 | | | | | |
| 10' – 16' Cut | LF | $167.50 | | | | | |
| Add Cost for Class IV | LF | $8.45 | | | | | |
| O-Ring | LF | $51.35 | | | | | |
| **45" X 29" (36" Equiv-RCP III)** | | | | | | | |
| 0' – 10' Cut | LF | $165.00 | | | | | |
| 10' – 16' Cut | LF | $235.00 | | | | | |
| Add Cost for Class IV | LF | $11.35 | | | | | |
| O-Ring | LF | $53.35 | | | | | |
| **53" X 34" (42" Equiv-RCP III)** | | | | | | | |
| 0' – 12' Cut | LF | $210.00 | | | | | |
| 10' – 18' Cut | LF | $300.00 | | | | | |
| Add Cost for Class IV | LF | $15.35 | | | | | |
| O-Ring | LF | $58.95 | | | | | |
| **60" X 38" (48" Equiv-RCP III)** | | | | | | | |
| 0' – 12' Cut | LF | $255.00 | | | | | |
| 10' – 18' Cut | LF | $375.00 | | | | | |
| Add Cost for Class IV | LF | $18.35 | | | | | |
| O-Ring | LF | $69.95 | | | | | |
| **HDPE PIPE** | | | | | | | |
| **8" Pipe** | | | | | | | |
| 0'-8' Cut | LF | $28.65 | | | | | |
| 8'-14' Cut | LF | $43.15 | | | | | |
| **12" Pipe** | | | | | | | |
| 0'-8' Cut | LF | $38.95 | | | | | |
| 8'-14' Cut | LF | $57.75 | | | | | |
| **15" Pipe** | | | | | | | |
| 0'-8' Cut | LF | $50.25 | 15 | $753.75 | | | |
| 8'-16' Cut | LF | $74.85 | | | | | |
| **18" Pipe** | | | | | | | |
| 0'-8' Cut | LF | $66.00 | | | | | |

| | | BOND ESTIMATE | | | BOND REDUCTION | | |
|---|---|---|---|---|---|---|---|
| ITEM | UNIT | UNIT COST | QUANTITY | EXTENSION | QUANTITY | EXTENSION | %COMPLETE |
| 8'-16' Cut | LF | $98.55 | | | | | |
| **24" Pipe** | | | | | | | |
| 0'-8' Cut | LF | $76.90 | | | | | |
| 8'-16' Cut | LF | $115.25 | | | | | |
| **30" Pipe** | | | | | | | |
| 0'-8' Cut | LF | $91.33 | | | | | |
| 8'-16' Cut | LF | $137.27 | | | | | |
| **36" Pipe** | | | | | | | |
| 0'-8' Cut | LF | $101.68 | | | | | |
| 8'-16' Cut | LF | $152.33 | | | | | |
| **42" Pipe** | | | | | | | |
| 0'-8' Cut | LF | $113.99 | | | | | |
| 8'-16' Cut | LF | $171.00 | | | | | |
| **48" Pipe** | | | | | | | |
| 0'-8' Cut | LF | $129.55 | | | | | |
| 8'-16' Cut | LF | $195.66 | | | | | |
| **STORM STRUCTURES** | | | | | | | |
| **END SECTIONS** | | | | | | | |
| **End Section (ES-1), Concrete Pipe Size** | | | | | | | |
| 15” | EA | $485.00 | 1 | $485.00 | | | |
| 18” | EA | $565.00 | | | | | |
| 21” | EA | $645.00 | | | | | |
| 24” | EA | $755.00 | | | | | |
| 27” | EA | $1,065.00 | | | | | |
| 30” | EA | $1,195.00 | | | | | |
| 36” | EA | $1,765.00 | | | | | |
| 42” | EA | $1,795.00 | | | | | |
| 48” | EA | $2,135.00 | | | | | |
| 54” | EA | $2,795.00 | | | | | |
| 60” | EA | $3,455.00 | | | | | |
| **ENDWALLS** | | | | | | | |
| **EW-1(Pre-cast) Round Pipe Size** | | | | | | | |
| 15” | EA | $800.00 | | | | | |
| 18” | EA | $1,337.00 | | | | | |
| 24” | EA | $2,021.00 | | | | | |

| | | BOND ESTIMATE | | | BOND REDUCTION | | |
|---|---|---|---|---|---|---|---|
| ITEM | UNIT | UNIT COST | QUANTITY | EXTENSION | QUANTITY | EXTENSION | %COMPLETE |
| 30” | EA | $2,133.00 | | | | | |
| 36” | EA | $2,366.00 | | | | | |
| **EW-1 Cast in Place [Round Pipe Size]** | | | | | | | |
| 15” | EA | $852.00 | | | | | |
| 18” | EA | $1,053.00 | | | | | |
| 24” | EA | $1,495.00 | | | | | |
| 30” | EA | $2,144.00 | | | | | |
| 36” | EA | $2,383.00 | | | | | |
| **EW-1A (Pre-Cast) Elliptical Pipe Size** | | | | | | | |
| 23” X 14” (18”) | EA | $695.00 | | | | | |
| 30” X 19” (24”) | EA | $969.00 | | | | | |
| 38” X 24” (30”) | EA | $1,165.00 | | | | | |
| 45” X 29” (36”) | EA | $1,445.00 | | | | | |
| 53” X 34” (42”) | EA | $1,840.00 | | | | | |
| **EW-1A (Cast in Place) Elliptical Pipe Size** | | | | | | | |
| 23” X 14” (18”) | EA | $667.00 | | | | | |
| 30” X 19” (24”) | EA | $939.00 | | | | | |
| 38” X 24” (30”) | EA | $1,247.00 | | | | | |
| 45” X 29” (36”) | EA | $1,618.00 | | | | | |
| 53” X 34” (42”) | EA | $2,109.00 | | | | | |
| **EW-2 (PreCast) Round Pipe Size** | | | | | | | |
| 42” | EA | $5,445.00 | | | | | |
| 48” | EA | $5,695.00 | | | | | |
| 54” | EA | $6,660.00 | | | | | |
| 60” | EA | $7,140.00 | | | | | |
| 72” | EA | $7,990.00 | | | | | |
| 84” | EA | $9,490.00 | | | | | |
| **EW-2 (Cast in Place) Round Pipe Size** | | | | | | | |
| 42” | EA | $4,723.00 | | | | | |
| 48” | EA | $6,039.00 | | | | | |
| 54” | EA | $6,972.00 | | | | | |
| 60” | EA | $8,179.00 | | | | | |

| | | BOND ESTIMATE | | | BOND REDUCTION | | |
|---|---|---|---|---|---|---|---|
| ITEM | UNIT | UNIT COST | QUANTITY | EXTENSION | QUANTITY | EXTENSION | %COMPLETE |
| 72” | EA | $10,713.00 | | | | | |
| 84” | EA | $12,288.00 | | | | | |
| **(EW-6PC) [Double Pipe] Pipe Size** | | | | | | | |
| 2-15” | EA | $999.00 | | | | | |
| 2-18” | EA | $1,235.00 | | | | | |
| 2-24” | EA | $1,510.00 | | | | | |
| 2-30” | EA | $2,165.00 | | | | | |
| 2-36” | EA | $2,647.00 | | | | | |
| **MANHOLES** | | | | | | | |
| **Standard Brick Manhole Std Frame & Cover (MH-1)** | | | | | | | |
| 6’ Depth | EA | $3,750.00 | 1 | $3,750.00 | | | |
| Depth below 6’ | VF | $163.00 | | | | | |
| **Standard Precast Manhole Std Frame & Cover (MH-2)** | | | | | | | |
| 6’ Depth | EA | $3,100.00 | | | | | |
| Depth below 6’ | VF | $177.00 | | | | | |
| **Additional Cost (Amounts in parentheses to be added to the above unit costs)** | | | | | | | |
| Watertight Fr/Cover (Add 110) | EA | $579.00 | | | | | |
| Heavy Duty Fr/Cover (Add 82) | EA | $599.00 | | | | | |
| **DROP INLETS** | | | | | | | |
| **Cast in Place 48”** | | | | | | | |
| Drop Inlet (DI-1) 12” – 24” Pipe 0-10 VF | EA | $3,697.00 | 1 | $3,697.00 | | | |
| Drop Inlet (DI-1A) 12” – 24” Pipe 10-20 VF | EA | $5,593.00 | | | | | |
| Drop Inlet (DI-2) 12” – 24” Pipe 0-10 VF, 10’ throat | EA | $6,911.00 | | | | | |
| Drop Inlet (DI-2A) 12” – 24” Pipe 10-20 VF, 10’ throat | EA | $8,833.00 | | | | | |
| **CURB DROP INLETS** | | | | | | | |
| **Curb Drop Inlet (DI-3A)** | | | | | | | |
| 12”-30” Pipe (Invert Depth (H) =0’-8’) Inlet Length 2’-6” | EA | $4,088.00 | | | | | |

| | | BOND ESTIMATE | | | BOND REDUCTION | | |
|---|---|---|---|---|---|---|---|
| ITEM | UNIT | UNIT COST | QUANTITY | EXTENSION | QUANTITY | EXTENSION | %COMPLETE |
| **Curb Drop Inlet (DI-3AA)** | | | | | | | |
| 12”-30” Pipe (Invert Depth (H) =8’-20’) Inlet Length 2’-6” | EA | $5,357.00 | | | | | |
| **Curb Drop Inlet (DI-3B & DI-12) 12”-30” Pipe (Invert Depth (H) =0’-8’) Inlet Length** | | | | | | | |
| 4’ | EA | $4,279.00 | | | | | |
| 6’ | EA | $4,573.00 | | | | | |
| 8’ | EA | $4,889.00 | | | | | |
| 10' | EA | $5,052.00 | | | | | |
| 12’ | EA | $5,227.00 | | | | | |
| 16’ | EA | $5,543.00 | | | | | |
| 20’ | EA | $5,859.00 | | | | | |
| **Curb Drop Inlet (DI-3BB) 12”-30” Pipe (Invert Depth (H) =8’-20’) Inlet Length** | | | | | | | |
| 4’ | EA | $4,276.00 | | | | | |
| 6’ | EA | $4,848.00 | | | | | |
| 8’ | EA | $5,429.00 | | | | | |
| 10' | EA | $5,732.00 | | | | | |
| 12’ | EA | $6,011.00 | | | | | |
| 16’ | EA | $6,296.00 | | | | | |
| 20’ | EA | $6,599.00 | | | | | |
| **Curb Drop Inlet (DI-3C) 12”-30” Pipe (Invert Depth (H) =0’-8’) Inlet Length** | | | | | | | |
| 6’ | EA | $4,013.00 | | | | | |
| 8’ | EA | $4,588.00 | | | | | |
| 10' | EA | $4,893.00 | | | | | |
| 12’ | EA | $5,178.00 | | | | | |
| 16’ | EA | $5,766.00 | | | | | |
| 20’ | EA | $6,339.00 | | | | | |
| **Curb Drop Inlet (DI-3CC) 12”-30” Pipe (Invert Depth (H) =8’-20’) Inlet Length** | | | | | | | |
| 6’ | EA | $4,746.00 | | | | | |
| 8’ | EA | $5,293.00 | | | | | |

| | | BOND ESTIMATE | | | BOND REDUCTION | | |
|---|---|---|---|---|---|---|---|
| ITEM | UNIT | UNIT COST | QUANTITY | EXTENSION | QUANTITY | EXTENSION | %COMPLETE |
| 10' | EA | $5,627.00 | | | | | |
| 12’ | EA | $5,988.00 | | | | | |
| 16’ | EA | $6,772.00 | | | | | |
| 20’ | EA | $7,465.00 | | | | | |
| **Curb Drop Inlet (DI-3D)** | | | | | | | |
| 12”-30” Pipe (Invert Depth (H) =0’-8’) Inlet Length 2’-6” | EA | $3,633.00 | | | | | |
| **Curb Drop Inlet (DI-3DD)** | | | | | | | |
| 12”-30” Pipe (Invert Depth (H) =8’-20’) Inlet Length 2’-6” | EA | $4,367.00 | | | | | |
| **Curb Drop Inlet (DI-3E) 12”-30” Pipe (Invert Depth (H) =0’-8’) Inlet Length** | | | | | | | |
| 4’ | EA | $4,093.00 | | | | | |
| 8’ | EA | $4,756.00 | | | | | |
| 10' | EA | $5,724.00 | | | | | |
| 12' | EA | $5,833.00 | | | | | |
| 16’ | EA | $6,072.00 | | | | | |
| 20’ | EA | $6,709.00 | | | | | |
| **Curb Drop Inlet (DI-3EE) 12”-30” Pipe (Invert Depth (H) =8’-20’) Inlet Length** | | | | | | | |
| 6’ | EA | $7,562.00 | | | | | |
| 8’ | EA | $7,869.00 | | | | | |
| 10' | EA | $7,999.00 | | | | | |
| 12’ | EA | $8,166.00 | | | | | |
| 16’ | EA | $8,471.00 | | | | | |
| 20’ | EA | $8,767.00 | | | | | |
| **Curb Drop Inlet (DI-3F) 12”-30” Pipe Inlet Length (Invert Depth (H)=0’-8’)** | | | | | | | |
| 6’ | EA | $3,765.00 | | | | | |
| 8’ | EA | $4,419.00 | | | | | |
| 10' | EA | $4,749.00 | | | | | |
| 12’ | EA | $5,085.00 | | | | | |
| 16’ | EA | $5,742.00 | | | | | |
| 20’ | EA | $6,395.00 | | | | | |

| | | BOND ESTIMATE | | | BOND REDUCTION | | |
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| ITEM | UNIT | UNIT COST | QUANTITY | EXTENSION | QUANTITY | EXTENSION | %COMPLETE |
| **Curb Drop Inlet (DI-3FF) 12"-30" Pipe (Invert Depth (H) =8'-20') Inlet Length** | | | | | | | |
| 6' | EA | $8,077.00 | | | | | |
| 8' | EA | $8,288.00 | | | | | |
| 10' | EA | $8,480.00 | | | | | |
| 12' | EA | $8,669.00 | | | | | |
| 16' | EA | $9,047.00 | | | | | |
| 20' | EA | $9,446.00 | | | | | |
| **Curb Drop Inlet (DI-4A) 36"–48" Pipe (Invert Depth (H)=0'-8') Inlet Length** | | | | | | | |
| 4' | EA | $4,868.00 | | | | | |
| **Curb Drop Inlet (DI-4AA) 36"–48" Pipe (Invert Depth (H)=0'-8') Inlet Length** | | | | | | | |
| 4' | EA | $6,817.00 | | | | | |
| **Curb Drop Inlet (DI-4B) 36"-48" Pipe (Invert Depth (H) =0'-8') Inlet Length** | | | | | | | |
| 6' | EA | $5,172.00 | | | | | |
| 8' | EA | $5,499.00 | | | | | |
| 10' | EA | $5,698.00 | | | | | |
| 12' | EA | $5,870.00 | | | | | |
| 16' | EA | $6,221.00 | | | | | |
| 20' | EA | $6,571.00 | | | | | |
| **Curb Drop Inlet (DI-4BB) 36"-48" Pipe (Invert Depth (H) =8'-20') Inlet Length** | | | | | | | |
| 6' | EA | $10,292.00 | | | | | |
| 8' | EA | $10,643.00 | | | | | |
| 10' | EA | $10,810.00 | | | | | |
| 12' | EA | $10,974.00 | | | | | |
| 16' | EA | $11,309.00 | | | | | |
| 20' | EA | $11,669.00 | | | | | |

| | | BOND ESTIMATE | | | BOND REDUCTION | | |
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| ITEM | UNIT | UNIT COST | QUANTITY | EXTENSION | QUANTITY | EXTENSION | %COMPLETE |
| **Curb Drop Inlet (DI-4C) 36"-48" Pipe (Invert Depth (H) =0'-8') Inlet Length** | | | | | | | |
| 8' | EA | $5,612.00 | | | | | |
| 10' | EA | $5,794.00 | | | | | |
| 12' | EA | $5,968.00 | | | | | |
| 16' | EA | $6,315.00 | | | | | |
| 20' | EA | $6,657.00 | | | | | |
| **Curb Drop Inlet (DI-4CC) 36"-48" Pipe (Invert Depth (H) =8'-20') Inlet Length** | | | | | | | |
| 8' | EA | $13,371.00 | | | | | |
| 10' | EA | $13,693.00 | | | | | |
| 12' | EA | $14,097.00 | | | | | |
| 16' | EA | $14,712.00 | | | | | |
| 20' | EA | $15,365.00 | | | | | |
| **Curb Drop Inlet (DI-4D)** | | | | | | | |
| 36"-48" Pipe (Invert Depth (H) =0'-8') Inlet Length 4' | EA | $4,933.00 | | | | | |
| **Curb Drop Inlet (DI-4DD)** | | | | | | | |
| 36"-48" Pipe (Invert Depth (H) =8'-16') Inlet Length 4' | EA | $9,455.00 | | | | | |
| **Curb Drop Inlet (DI-4E) 36"-48" Pipe (Invert Depth (H) =0'-8') Inlet Length** | | | | | | | |
| 6' | EA | $5,267.00 | | | | | |
| 8' | EA | $5,605.00 | | | | | |
| 10' | EA | $5,896.00 | | | | | |
| 12' | EA | $6,233.00 | | | | | |
| 16' | EA | $6,996.00 | | | | | |
| 20' | EA | $7,695.00 | | | | | |
| **Curb Drop Inlet (DI-4EE) 36"-48" Pipe (Invert Depth (H) =8'-16') Inlet Length** | | | | | | | |
| 6' | EA | $9,165.00 | | | | | |
| 8' | EA | $9,495.00 | | | | | |
| 10' | EA | $9,839.00 | | | | | |

| | | BOND ESTIMATE | | | BOND REDUCTION | | |
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| ITEM | UNIT | UNIT COST | QUANTITY | EXTENSION | QUANTITY | EXTENSION | %COMPLETE |
| 12’ | EA | $10,167.00 | | | | | |
| 16’ | EA | $10,838.00 | | | | | |
| 20’ | EA | $11,483.00 | | | | | |
| **Curb Drop Inlet (DI-4F) 36”-48" Pipe Inlet Length (Invert Depth (H)=0’-8’)** | | | | | | | |
| 8’ | EA | $5,877.00 | | | | | |
| 10' | EA | $6,209.00 | | | | | |
| 12’ | EA | $6,568.00 | | | | | |
| 16’ | EA | $7,259.00 | | | | | |
| 20’ | EA | $7,963.00 | | | | | |
| **Curb Drop Inlet (DI-4FF) 36”-48” Pipe (Invert Depth (H) =8’-16’) Inlet Length** | | | | | | | |
| 8’ | EA | $8,866.00 | | | | | |
| 10' | EA | $9,147.00 | | | | | |
| 12’ | EA | $9,435.00 | | | | | |
| 16’ | EA | $9,997.00 | | | | | |
| 20’ | EA | $10,584.00 | | | | | |
| **Median Drop Inlets - CIP** | | | | | | | |
| Median Drop Inlet **(DI-6A)** 12”-24” Pipe Inlet (H=8’) | EA | $4,205.00 | | | | | |
| Median Drop Inlet **(DI-6B)** 12”-24” Pipe Inlet (H=8’) | EA | $4,267.00 | | | | | |
| Median Drop Inlet **(DI-6C)** 30”-48” Pipe Inlet (H=10’) | EA | $5,589.00 | | | | | |
| Median Drop Inlet **(DI-6D)** 30”-48” Pipe Inlet (H=10’) | EA | $5,692.00 | | | | | |
| Median Drop Inlet **(DI-7)** Type III Top 12”-42” Pipe Inlet (H=10’) | EA | $5,748.00 | | | | | |
| Median Drop Inlet **(DI-7A)** Type III Top 12”-42” Pipe Inlet (H=10’) | EA | $6,338.00 | | | | | |
| Median Drop Inlet **(DI-7B)** Type III Top 12”-42” Pipe Inlet (H=10’) | EA | $6,797.00 | | | | | |

| | | BOND ESTIMATE | | | BOND REDUCTION | | |
|---|---|---|---|---|---|---|---|
| ITEM | UNIT | UNIT COST | QUANTITY | EXTENSION | QUANTITY | EXTENSION | %COMPLETE |
| **MISCELLANEOUS INLETS** | | | | | | | |
| Ditch Drop Inlet, **(DI-5)** Type III Tip 12"-42" Pipe Inlet (H=8') | EA | $5,226.00 | | | | | |
| Standard Yard Inlet **(YI-1)** 12"-48" Pipe (Invert Depth (H)=0'-8') Inlet Length 4'(No Aprons) | EA | $4,749.00 | | | | | |
| Add Yard Inlet Apron | THROAT | $255.00 | | | | | |
| Standard Yard Inlet **(YI-3)** 12"-48" Pipe (Invert Depth (H)=0'-8') Inlet Length 4'(No Aprons) | EA | $5,127.00 | | | | | |
| Add Yard Inlet Apron | THROAT | $255.00 | | | | | |
| **CULVERTS** | | | | | | | |
| **Single Box Culvert (BC-1A) Fills to 25'** | | | | | | | |
| 4' X 4' | LF | $336.00 | | | | | |
| 5' x 5" | LF | $410.00 | | | | | |
| 6' X 6' | LF | $498.00 | | | | | |
| 8' X 8' | LF | $699.00 | | | | | |
| 10' X 10' | LF | $845.00 | | | | | |
| **Double Box Culvert (BC-2b) Fills to 25'** | | | | | | | |
| 4' X 4' | LF | $566.00 | | | | | |
| 5' x 5" | LF | $705.00 | | | | | |
| 6' X 6' | LF | $854.00 | | | | | |
| 8' X 8' | LF | $1,148.00 | | | | | |
| 10' X 10' | LF | $1,411.00 | | | | | |
| **Oversized Single Box Culvert (BBC-1) Fills to 25'** | | | | | | | |
| 12' X 6' | LF | $1,026.00 | | | | | |
| 12' X 8' | LF | $1,144.00 | | | | | |
| 12' X 10' | LF | $1,239.00 | | | | | |
| 12' X 12' | LF | $1,348.00 | | | | | |
| **Triple Box Culvert (BC-3B) Fills to 25'** | | | | | | | |

| | | BOND ESTIMATE | | | BOND REDUCTION | | |
|---|---|---|---|---|---|---|---|
| ITEM | UNIT | UNIT COST | QUANTITY | EXTENSION | QUANTITY | EXTENSION | %COMPLETE |
| 4' X 4' | LF | $779.00 | | | | | |
| 5' x 5" | LF | $965.00 | | | | | |
| 6' X 6' | LF | $1,211.00 | | | | | |
| 8' X 8' | LF | $1,633.00 | | | | | |
| 10' X 10' | LF | $2,488.00 | | | | | |
| **Quadruple Box Culvert (BC-4B) Fills to 25'** | | | | | | | |
| 4' X 4' | LF | $987.00 | | | | | |
| 5' x 5" | LF | $1,225.00 | | | | | |
| 6' X 6' | LF | $1,523.00 | | | | | |
| 8' X 8' | LF | $1,497.00 | | | | | |
| 10' X 10' | LF | $2,835.00 | | | | | |
| **Standard Wing for Box Culvert (1 Side Only) Height of Box** | | | | | | | |
| 4' | EA | $675.00 | | | | | |
| 5' | EA | $995.00 | | | | | |
| 6' | EA | $1,337.00 | | | | | |
| 8' | EA | $2,489.00 | | | | | |
| 10' | EA | $3,315.00 | | | | | |
| **Standard Wing for Oversized Box Culvert(BBC-W) Height of Box** | | | | | | | |
| 6' | EA | $1,351.00 | | | | | |
| 8' | EA | $2,189.00 | | | | | |
| 10' | EA | $3,269.00 | | | | | |
| 12' | EA | $4,763.00 | | | | | |
| **MISCELLANEOUS STORM** | | | | | | | |
| **Connection to Existing Structure** | | | | | | | |
| 15"-36" Pipe | EA | $735.00 | | | | | |
| 42"- 60" Pipe | EA | $1,125.00 | | | | | |
| **Casing Pipe, Bore and Jack (3/8" wall)** | | | | | | | |
| 22" ID (6"-8" Carrier Pipe) | LF | $411.00 | | | | | |
| 24" ID (10" Carrier Pipe) | LF | $451.00 | | | | | |
| 30" ID (12" Carrier Pipe) | LF | $569.00 | | | | | |
| **Plug Pipe** | | | | | | | |

| | | BOND ESTIMATE | | | BOND REDUCTION | | |
|---|---|---|---|---|---|---|---|
| ITEM | UNIT | UNIT COST | QUANTITY | EXTENSION | QUANTITY | EXTENSION | %COMPLETE |
| 6" –12" Pipe | EA | $142.00 | | | | | |
| 15"-36" Pipe | EA | $323.00 | | | | | |
| 42"- 60" Pipe | EA | $522.00 | | | | | |
| **Pavement Edge Pipe** | | | | | | | |
| Standard Pipe Underdrain | LF | $19.00 | | | | | |
| **Riprap** | | | | | | | |
| Dry, Class I, 18" | SY | $47.87 | 6 | $287.22 | | | |
| Dry, Class II, 18" | SY | $51.46 | | | | | |
| Grouted, Class I, 18" | SY | $69.97 | | | | | |
| **Filter Fabric** | | | | | | | |
| Class I | SY | $3.50 | | | | | |
| Class II | SY | $3.00 | | | | | |
| Class III | SY | $2.25 | | | | | |
| **Gabions (No excavation)** | | | | | | | |
| Mattress | CY | $130.00 | | | | | |
| Revetment | CY | $164.33 | | | | | |
| Wall | CY | $212.25 | | | | | |
| **Paved Ditch (4" Thick)** | | | | | | | |
| Concrete (Non-reinforced) | SY | $62.00 | | | | | |
| Bituminous Concrete(4") | SY | $30.00 | | | | | |
| **Sodded Ditch** | | | | | | | |
| Sodded Ditch (Incl Fine Grading) | SY | $9.86 | | | | | |
| **STREET CONSTRUCTION** | | | | | | | |
| **ROADS AND PARKING** | | | | | | | |
| **Soil Stabilization** | **Inches** | | | | | | |
| Cement 6% | SY/Inch Depth | $2.70 | | | | | |
| Depth (in Inches): | | | | | | | |
| Lime 6% | SY/Inch Depth | $1.89 | | | | | |
| Depth (in Inches): | | | | | | | |
| **Subbase, Aggregated Material** | | | | | | | |
| Base Type I | SY/Inch Depth | $1.75 | 537 | $5,638.50 | | | |
| Depth (in Inches): | 6 | | | | | | |
| Base Type I | SY/Inch Depth | $1.75 | 101 | $707.00 | | | |

PROJECT NAME:Alla Willa PROJECT NUMBER: 5051-0101

PREPARED BY: Chris Weitnauer FIRM: Integrity Federal Services DATE: 09/26/2023

| | | BOND ESTIMATE | | | BOND REDUCTION | | |
|---|---|---|---|---|---|---|---|
| ITEM | UNIT | UNIT COST | QUANTITY | EXTENSION | QUANTITY | EXTENSION | %COMPLETE |
| Depth (in Inches): | 4 | | | | | | |
| **Bituminous Concrete** | | | | | | | |
| Base Course | SY/Inch Depth | $5.59 | 537 | $7,504.58 | | | |
| Depth (in Inches): | 2.5 | | | | | | |
| Intermediate Course | SY/Inch Depth | $5.49 | | | | | |
| Depth (in Inches): | | | | | | | |
| Top Course | SY/Inch Depth | $5.49 | 537 | $4,422.20 | | | |
| Depth (in Inches): | 1.5 | | | | | | |
| Prime Coat | SY | $1.10 | | | | | |
| Tack Coat | SY | $1.10 | | | | | |
| **Driveway Restoration** | | | | | | | |
| 4” Concrete & 4” Gravel | SY | $79.95 | | | | | |
| 2” S-5 & 7 6” Gravel | SY | $31.96 | | | | | |
| **Shoulders, Type I** | | | | | | | |
| Aggregated Base, 4” | SY | $11.50 | | | | | |
| **Concrete Curbing** | | | | | | | |
| Curb & Gutter CG6 & CG7 | LF | $22.50 | | | | | |
| Curb Cut, CG-12 Detectable Surf. | EA | $569.00 | 3 | $1,707.00 | | | |
| **Entrances/Driveways** | | | | | | | |
| Commercial Entrance CG-11 | SY | $52.88 | 77 | $4,071.76 | | | |
| Commercial Entrance CG-13 | SY | $64.67 | | | | | |
| Residential Driveway Apron | SY | $51.79 | | | | | |
| **Guardrails** | | | | | | | |
| Std. Blocked-out W beam (GR2) | LF | $42.50 | | | | | |
| Std. W beam, Weak Post GR8 | LF | $28.50 | | | | | |
| Terminal, GR-6 (L=12’-6”) | EA | $2,929.00 | | | | | |
| Terminal, GR-7 (L=6’-3”) | EA | $2,659.00 | | | | | |
| Type I, GR-8 Terminal (L=25’) | EA | $1,399.00 | | | | | |
| Type II, GR-8 Terminal (L=13’-6”) | EA | $695.00 | | | | | |
| Terminal, MB-4 (L=37’-6”) | EA | $3,495.00 | | | | | |
| Type I, MB-5 Terminal (L=27’-1) | EA | $2,925.00 | | | | | |
| Type II, MB-5 Terminal (L=13’-6) | EA | $1,675.00 | | | | | |
| **Miscellaneous** | | | | | | | |
| Trash enclosure - Brick 6' high | LF | $325.00 | | | | | |

PROJECT NAME:Alla Willa PROJECT NUMBER: 5051-0101

PREPARED BY: Chris Weitnauer FIRM: Integrity Federal Services DATE: 09/26/2023

| | | BOND ESTIMATE | | | BOND REDUCTION | | |
|---|---|---|---|---|---|---|---|
| ITEM | UNIT | UNIT COST | QUANTITY | EXTENSION | QUANTITY | EXTENSION | %COMPLETE |
| Reinforced Concrete Pad 6" to 8" | SY | $62.00 | 27 | $1,674.00 | | | |
| Striping 4" width (VDOT Type B) | LF | $2.25 | | | | | |
| Concrete Wheel Stops | EA | $70.00 | 12 | $840.00 | | | |
| Parking Lot Striping | EA | $50.00 | 12 | $600.00 | | | |
| Sign Island | EA | $850.00 | | | | | |
| Traffic Barricade | LF | $43.45 | | | | | |
| Street Name Signs | EA | $435.00 | | | | | |
| Traffic Control Signs | EA | $375.00 | | | | | |
| Street Light (pole, bracket, light) | EA | $4,285.00 | 4 | $17,140.00 | | | |
| **SIDEWALKS AND TRAILS** | | | | | | | |
| **Sidewalk** | | | | | | | |
| Concrete 4” w/WWF, No base | SY | $45.23 | | | | | |
| Bitum. Conc, 2” w/4” Base | SY | $30.00 | | | | | |
| 4” Conc, No Reinf., No Base | SY | $41.00 | 101 | $4,141.00 | | | |
| **HANDRAIL** | | | | | | | |
| Handrail 3 Rail 1-1/4” #4 Finish | LF | $96.50 | | | | | |
| **Wood Chip Trail** | | | | | | | |
| Trails(Incl Excavation & Grading) Wood chip, 4’ wide | SY | $17.69 | | | | | |
| **Bituminous Trail** | | | | | | | |
| 6’ to 10' wide | SY | $49.25 | | | | | |
| **CRITICAL SLOPE STABILIZATION** | | | | | | | |
| Paved Flume | SY | $67.00 | | | | | |
| Stmwtr Conc Channel-Excav | SY | $7.75 | | | | | |
| ADD Grass Lined-seeded | SY | $5.37 | | | | | |
| ADD Grass Lined-sodded | SY | $10.89 | | | | | |
| **Outlet Protection** | | | | | | | |
| Non-grouted Riprap 18” | SY | $52.00 | | | | | |
| Concrete 4” | SY | $53.50 | | | | | |
| Level Spreader | SY | $4.44 | | | | | |
| **Struc Streambank Protection** | | | | | | | |
| Non-grouted Riprap 18” | SY | $58.00 | | | | | |
| Gabions | CY | $147.00 | | | | | |
| **Vegetative Erosion Control** | | | | | | | |
| Sodding incl Fertilizing – Banks | SY | $7.77 | | | | | |
| Sodding incl Fertilizing – Flat | SY | $5.36 | | | | | |
| Seeding incl Fertilizing | SY | $2.44 | 614 | $1,498.16 | | | |

PROJECT NAME:Alla Willa | PROJECT NUMBER: 5051-0101

PREPARED BY: Chris Weitnauer | FIRM: Integrity Federal Services | DATE: 09/26/2023

| | | BOND ESTIMATE | | | BOND REDUCTION | | |
|---|---|---|---|---|---|---|---|
| ITEM | UNIT | UNIT COST | QUANTITY | EXTENSION | QUANTITY | EXTENSION | %COMPLETE |
| Soding W/Soil Treat & Watering | SY | $3.25 | | | | | |
| Seeding W/Soil Treat & Watering | SY | $6.46 | | | | | |
| Straw Mulch w/Tack | SY | $1.40 | | | | | |
| Jute Mesh | SY | $1.77 | | | | | |
| **Special Items** | | | | | | | |
| FEMA Processing LOMR/CLOMR | EA | $7,500.00 | | | | | |
| As Built (Record Drawings) | EA | $9,500.00 | 1 | $9,500.00 | | | |
| SWM/BMP POND | LS | See Note 1 | 1 | $28,500.00 | | | |
| SIGNALIZATION | LS | See Note 2 | | | | | |
| **Subtotal** | | | | $134,941.92 | | | |

TOTAL ESTIMATE OF COMPLETED WORK:

| | |
|---|---|
| TOTAL: | $134,941.92 |
| + 10% CONTINGENCIES: | $13,494.19 |
| GRAND TOTAL: | $148,436.11 |

Kimley»Horn

# Memorandum

To: Ryan Perks
Integrity Federal Services
148 S. Queen Street, Suite 201
Martinsburg, WV 25401

From: Mark Phillips, P.E.
Austin Williams, P.E.

Through: Mr. James Newman, AICP
City of Charles Town
101 E Washington Street
Charles Town, WV 25414

Date: October 20, 2023

**Subject: Alla Willa Commercial Performance Bond Review**

This memorandum summarizes our review of the Performance Bond for Alla Willa Commercial (prepared by Integrity Federal Services) for a proposed building that will serve as a casino on approximately 0.28 acres. The site is currently zoned General Commercial per the City of Charles Town Zoning Ordinance dated June 18, 2012 (Rev. July 6, 2020).

Kimley-Horn's review of this application is limited to the Performance Bond provided. Based upon our review we have no comments.

Thank you for the opportunity to review this Bond. In the meantime, please feel free to contact us at 703-870-3631 should you have any questions.

**KIMLEY-HORN & ASSOCIATES, INC.**



Mark Phillips, P.E.
Project Manager
Associate

**Planning Commission**
101 East Washington Street
Charles Town, WV 25414

Meeting: 11/27/23
Department: Planning Commission
Category: Report
Initiator:

**SCHEDULED**

**AGENDA ITEM (ID # )**

## Commission Review: *BR2023-04 Huntfield Phase 2B2* - Bond Reduction

**ATTACHMENTS:**

- 1. Staff Report.pdf
- 2. Application.pdf
- 3. Bond Unit Cost Reduction.pdf
- 4. Huntfield Bond Parcel Inventory.pdf
- 5. Huntfield Phase 2B As-Builts.pdf
- 6. Applicant engineer review.pdf
- 7. KH Review.pdf

**Bond Reduction Request**
**BR2023-04**

**Date:** For the November 27, 2023 Planning Commission meeting
**Applicant:** DR Acquisitions LLC
**Report by:** James Newman, City Planner, Zoning/Subdivision Administrator.
**Proposal:** A bond reduction of $604,463.65

**Huntfield – Phase 2B-2**



**CURRENT BOND**
Combined performance and land disturbance bond amount of $873,056.54

**BACKGROUND**
The applicant, DR Acquisitions LLC., has submitted a bond reduction request for the Huntfield Subdivision – Phase 2B-2. The applicant is requesting a reduction of the **performance and land disturbance bond** amount from $ 873,056.54 to $**268,592.89** a reduction of $604,463.65

Upon review of the request the City Engineer, Kimley-Horn, has determined that the bond reduction amount is a reasonable representation of the work completed in the field and shown in the as-built drawings.

**BOND COMMITTEE**
The Bond Committee reviewed this item at their November 16, 2023 meeting. The Committee recommended approval of the bond reduction request.

**STAFF RECOMMENDATION**
The City Engineer and City Staff have reviewed the bond reduction request and recommends the bond reduction request be **approved**.

RECEIVED
SEP 29 2023
BY:

Bond Request No._____

# BOND REQUEST AND REDUCTION

**To assist the Subdivision Administrator in the review of a Bond Request Application, the Applicant must utilize this form to supply the City with the information prescribed under Article 1335 and Section 1332 of the Subdivision and Land Development Ordinance. The submission of this form, along with the prescribed information and required fees, shall serve as the Applicant's Bond Request Application as required by Ordinance Article 1335.**

1. DATE September 29, 2023

2. APPLICATION TYPE ☐ Bond | Initiation ☑ Bond | Reduction 2-B-2

☐ Bond | Reallocation ☐ Bond | Release**

3. PROJECT NAME Huntfield

Address Charles Town, Jeff. Co., WV

4. APPLICANT'S NAME* DR Acquisitions, LLC

Address 7945 Worman's Mill Rd. Frederick MD 21701

Telephone Number 304.433.1718 Fax Number ( )

Email Address awolf@dmrdev.com

5. PROPERTY OWNER'S NAME DR Acquisitions, LLC

Address 7945 Worman's Mill Rd., Frederick MD 21701

Telephone Number 304.433.1718 Fax Number ( )

Email Address awolf@dmrdev.com.

*Applicants include: Property owner(s), Engineer(s), Surveyor(s), or Consultant(s)

**Requires a Public Hearing and landscaping surety for one year after release

**Bond Request No.**_____

6. DESCRIPTION OF REQUETED INITIATION, REDUCTION, OR RELEASE:

Huntfield Phases 2B-2 Reduction

7. A) CURRENT BOND AMOUNT $873,056.54

B) PROPOSED BOND AMOUNT $268,592.89

8. PARCEL INVENTORY: (List all parcels that are part of this application):

| Tax Map No. | Parcel No. | Deed Book | Page No. | Zoning District |
|---|---|---|---|---|
| See Attached Parcel Inventory | | | | |

9. PARCEL HISTORY: (List all pending or previously approved applications on the subject parcels inventoried above, including previous plat applications if this application is an amendment)

| Application No. | Project Name and Phase | Status | Approval Date |
|---|---|---|---|
| | | | |

**Bond Request No.**_____

10. BOND RELEASE ATTACHMENTS.

The following shall be included with this request:

A. To the extent not previously submitted pursuant to bond reduction request, copies of inspection and test reports if work was inspected and tested by a third-party inspector.

B. Certification that all bonded Improvements, other than Improvements accepted by West Virginia Department of Highways (WVDOH), have been completed in accordance with the approved plans, profiles, and specifications and the requirements of any applicable manual. For Improvements to be accepted for maintenance by WVDOH, such Certification shall state that the Improvements have been installed and inspected in accordance with WVDOH's requirements.

C. A copy of the City-approved As-Built Drawings as required for facilities within public rights-of-way or Easements submitted pursuant to Section 1332.10 of this Ordinance.

Date of As-Built: June 6, 23 Prepared By: Morris & Ritchie

D. A letter from a Professional Engineer or Professional Land Surveyor certifying that property corners and Monuments have been set as required under this Ordinance.

E. Documentation of acceptance by WVDOH for public roadways and rights-of-way, or a maintenance and indemnification agreement and bond approved by the Planning Commission for public roadways that have been completed in accordance with WVDOH standards but which, due to factors other than their quality of construction, are not eligible for acceptance by WVDOH.

F. For private roadways, a letter of acceptance by the entity responsible for maintenance and a Latent Defects Indemnification Agreement and Bond in accordance with this Section.

G. Private Roadway Maintenance Bonds. Before a Performance Agreement and surety for private roadway construction shall be released, a Latent Defects Indemnification Agreement and Bond shall be provided by the applicant/Developer and approved by the Planning Commission. The guarantee provided by such Agreement and Bond must be for a period of two (2) years following the date of performance bond release, and must be in an amount equal to no less than 5% of the original performance bond estimate in accordance with Section 1335.07 (F) of the Subdivision Ordinance.

H. Landscaping Surety. Surety is required to ensure the landscaping shown on the Major S/LD plans is maintained for one (1) year. The one (1) year shall start from the date at which the surety for the site has been released, with the exception of this landscaping surety. The landscaping surety amount shall not be less than $5,000.00 or 10% of the total landscaping cost for the project, which every is greater.

**Bond Request No.**_____

APPLICANT CERTIFICATION

I certify that, to the best of my knowledge, the submitted information and statements are true and correct. I also certify that I have received and read Article 1335 of the S/LD Ordinance.

Signature of Applicant

_____ Date 9/24/23

Signature of Property Owner (If different than Applicant)

_____ Date _____

Please submit an original completed Application, 1 digital copy and 1 paper copy of the As-Built Plans (if applicable) to the following:

Subdivision Administrator
City of Charles Town
101 E. Washington Street
Charles Town, WV 25414

Please also send a copy of the completed Application as well as the As-Builts to the following:

Hatch/Chester Engineers
Attn: Elizabeth Adamowicz
705 Quince Orchard Road, Suite 310
Gaithersburg, MD 20878

***FOR CITY USE ONLY***

Application Number:_____ Date Application Received:_____

Fee: $_____ Check No._____

Receipt No._____

Site Inspection Date:_____ Inspector:_____

Subdivision Administrator Approval:_____ Date:_____

Engineer Approval:_____ Date:_____

Planning Commission Approval:_____ Date:_____

City Council Approval:_____ Date:_____

Comments:_____

| Item Description | BOND ESTIMATE QUANTITY | UNIT | UNIT COST | TOTAL | Bond Unit Cost Reduction QUANTITY | UNIT | TOTAL | % COMPLETE |
|---|---|---|---|---|---|---|---|---|
| **EROSION AND SEDIMENT CONTROL** | | | | | | | | |
| Earth Dike | | | | | | | | |
| A-1 | | L.F. | $3.85 | $0.00 | 0.00 | L.F. | $0.00 | |
| A-2,B-1 | 1613.00 | L.F. | $4.50 | $7,258.50 | 0.00 | L.F. | $0.00 | 100.00% |
| A-3,8-2 | | L.F. | $5.00 | $0.00 | 0.00 | L.F. | $0.00 | |
| B-3 | | L.F. | $5.50 | $0.00 | 0.00 | L.F. | $0.00 | |
| Silt fence | | L.F. | $3.30 | $0.00 | 0.00 | L.F. | $0.00 | |
| Super Silt Fence | | L.F. | $16.50 | $0.00 | 0.00 | L.F. | $0.00 | |
| Stabalized Construction Entrance | 1.00 | Each | $550.00 | $550.00 | 1.00 | Each | $550.00 | 100.00% |
| Straw Bale Dike | | L.F. | $2.00 | $0.00 | 0.00 | L.F. | $0.00 | |
| Stone Check Dams | | Each | $50.00 | $0.00 | 0.00 | Each | $0.00 | |
| Inlet Protection Devices | 22.00 | Each | $110.00 | $2,420.00 | 0.00 | Each | $0.00 | |
| Sediment Trap Excavation | 700.00 | C.Y. | $9.00 | $6,300.00 | 0.00 | C.Y. | $0.00 | |
| Stone / riprap Trap Outlet | | C.Y. | $27.00 | $0.00 | 0.00 | C.Y. | $0.00 | |
| Horizontal Dewatering Device | 2.00 | Each | $330.00 | $660.00 | 0.00 | Each | $0.00 | |
| Vertical Dewatering Device | 2.00 | Each | $550.00 | $1,100.00 | 0.00 | Each | $0.00 | |
| Dewatering Basin | | Each | $55.00 | $0.00 | 0.00 | Each | $0.00 | |
| Grassed Waterway | | L.F. | $7.00 | $0.00 | 0.00 | L.F. | $0.00 | |
| | | | | $18,288.50 | | | $550.00 | |
| E&S Maintenance {throughout project) | | | | | | | | |
| | | + 6% inflation rate | | $19,385.81 | | | | |
| **SITE STABILIZATION** | | | | | | | | |
| Basic Seeding w/ Straw | | S.F. | $0.04 | $0.00 | 0.00 | S.F. | $0.00 | |
| | 9.45 | Acre | $1,925.00 | $18,191.25 | 4.00 | Acre | $7,700.00 | |
| Fabric/ Jute/ Fiber Linings/ Matting | | S.F. | $0.11 | $0.00 | 0.00 | S.F. | $0.00 | |
| Jute | | S.F. | $0.11 | $0.00 | 0.00 | S.F. | $0.00 | |
| Mattinq | | S.F. | $0.11 | $0.00 | 0.00 | S.F. | $0.00 | |
| Sod | | S.F. | $0.38 | $0.00 | 0.00 | S.F. | $0.00 | |
| Temporary Class I Riprap | | C.Y. | $33.00 | $0.00 | 0.00 | C.Y. | $0.00 | |
| | | | | $18,191.25 | | | $7,700.00 | |
| | | + 6% inflation rate | | $19,282.73 | | | | |
| | | from 6/03 to 6/05 | | | | | | |

| Item Description | QUANTITY | BOND ESTIMATE UNIT | COST | TOTAL | Bond Unit Cost Reduction QUANTITY | UNIT | TOTAL | % COMPLETE |
|---|---|---|---|---|---|---|---|---|
| **SITE PREPARATION** | | | | | | | | |
| Demolish Buildings | | Each | | $0.00 | 0.00 | Each | $0.00 | |
| Demolish Buildings | | Each | | $0.00 | 0.00 | Each | $0.00 | |
| Remove Asphalt Paving | | **S.Y.** | $0.55 | $0.00 | 0.00 | S.Y. | $0.00 | |
| Remove Power Pole | | Each | $5,500.00 | $0.00 | 0.00 | Each | $0.00 | |
| Remove Fences | | L.F. | $3.85 | $0.00 | 0.00 | L.F. | $0.00 | |
| Clearing And Grubbing | | | Varies | | | | | |
| Light | 0.00 | Acres | $5,865.00 | $0.00 | 0.00 | Acres | $0.00 | |
| Moderate | | Acres | $8,798.00 | $0.00 | 0.00 | Acres | $0.00 | |
| Heavy | | Acres | $11,098.00 | $0.00 | 0.00 | Acres | $0.00 | |
| | | | | $0.00 | | | $0.00 | |
| | | + 6% inflation rate | | $0.00 | | | | |
| | | from 6/03 to 6/05 | | | | | | |
| **EARTHWORK** | | | | | | | | |
| Strip Topsoil | | C.Y. | $3.30 | $0.00 | 0.00 | C.Y. | $0.00 | |
| 8" Depth | | | | | | | | |
| Common Excavation | 0.00 | C.Y. | $1.65 | $0.00 | 0.00 | C.Y. | $0.00 | |
| 5' Depth | | | | | | | | |
| Borrow Excavation (on-site) | 0.00 | C.Y. | $2.75 | $0.00 | 0.00 | C.Y. | $0.00 | |
| Borrow Excavation (imported) | | C.Y. | $11.00 | $0.00 | 0.00 | C.Y. | $0.00 | |
| Rock Excavation (non-trench) | | C.Y. | $11.00 | $0.00 | 0.00 | C.Y. | $0.00 | |
| Rock Excavation (trench) | | C.Y. | $55.00 | $0.00 | 0.00 | C.Y. | $0.00 | |
| Replace Topsoil | | C.Y. | $3.85 | $0.00 | 0.00 | C.Y. | $0.00 | |
| Ditch Construction (if not part of exc.) | | L.F. | $3.30 | $0.00 | 0.00 | L.F. | $0.00 | |
| | | | | $0.00 | | | $0.00 | |
| | | + 6% inflation rate | | $0.00 | | | $0.00 | |
| | | from 6/03 to 6/05 | | | | | | |
| **PAVING** | | | | | | | | |
| Crushed Stone/Gravel Base 4"thick | | S.Y. | $3.85 | $0.00 | 0.00 | S.Y. | $0.00 | |
| 5"thick | 2973.20 | S.Y. | $4.70 | $13,974.04 | 0.00 | S.Y. | $0.00 | 100.00% |
| 6"thick | | S.Y. | $6.00 | $0.00 | 0.00 | S.Y. | $0.00 | |
| 9"thick | 8562.00 | S.Y. | $8.00 | $68,496.00 | 0.00 | S.Y. | $0.00 | 100.00% |
| Asphalt Base 3"thic | 8562.00 | S.Y. | $6.50 | $55,653.00 | 0.00 | S.Y. | $0.00 | 100.00% |
| Asphalt Base 3.5"thic | 5142.20 | S.Y. | $7.00 | $35,995.40 | 0.00 | S.Y. | $0.00 | 100.00% |
| 4"thick | | S.Y. | $8.00 | $0.00 | 0.00 | S.Y. | $0.00 | |
| Asphalt Surface Course 1 1/2"thi | 30122.00 | S.Y. | $3.30 | $99,402.60 | 9800.00 | S.Y. | 32,340.00 | 100.00% |
| Geotextile Underlavment | | L.F. OF CL. | $1.60 | $0.00 | 0.00 | L.F. OF CL. | $0.00 | |



| Item Description | QUANTITY | BOND ESTIMATE UNIT | COST | TOTAL | Bond Unit Cost Reduction QUANTITY | UNIT | TOTAL | % COMPLETE |
|---|---|---|---|---|---|---|---|---|
| Subgrade Repair Contingency | | L.F. OF CL. | $5.00 | $0.00 | 0.00 | L.F. OF CL. | $0.00 | |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | $273,521.04 | | | $32,340.00 | | | | |
| | | | + 6% inflation rate | | $289,932.30 | | | | | | | |
| | | | from 6/03 to 6/05 | | | | | | | | | |
| | | | | | | | | | | | | |
| **STORM DRAIN PIPES** | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| **CMP** | | | | | | | | | | | | |
| | 15" | 370.00 | L.F. | $20.00 | $7,400.00 | 0.00 | L.F. | $0.00 | 100.00% | | | |
| | 18" | 788.00 | L.F. | $23.00 | $18,124.00 | 0.00 | L.F. | $0.00 | 100.00% | | | |
| | **21"** | 0.00 | L.F. | $25.00 | $0.00 | 0.00 | L.F. | $0.00 | | | | |
| | **24"** | 205.00 | L.F. | $30.00 | $6,150.00 | 0.00 | L.F. | $0.00 | 100.00% | | | |
| | 27" | | L.F. | $33.00 | $0.00 | 0.00 | L.F. | $0.00 | | | | |
| | 30" | 0.00 | L.F. | $37.00 | $0.00 | 0.00 | L.F. | $0.00 | | | | |
| | 33" | | L.F. | $44.00 | $0.00 | 0.00 | L.F. | $0.00 | | | | |
| | 36" | | L.F. | $53.00 | $0.00 | 0.00 | L.F. | $0.00 | | | | |
| | **42"** | | L.F. | $57.00 | $0.00 | 0.00 | L.F. | $0.00 | | | | |
| | **48"** | | L.F. | $66.00 | $0.00 | 0.00 | L.F. | $0.00 | | | | |
| | 54" | | L.F. | $71.00 | $0.00 | 0.00 | L.F. | $0.00 | | | | |
| | 60" | | L.F. | $82.00 | $0.00 | 0.00 | L.F. | $0.00 | | | | |
| | 66" | | L.F. | $95.00 | $0.00 | 0.00 | L.F. | $0.00 | | | | |
| | **72"** | | L.F. | $110.00 | $0.00 | 0.00 | L.F. | $0.00 | | | | |
| | 78" | | L.F. | $127.00 | $0.00 | 0.00 | L.F. | $0.00 | | | | |
| | **84"** | | L.F. | $143.00 | $0.00 | 0.00 | L.F. | $0.00 | | | | |
| | Box Culverts | | L.F. | $835.00 | $0.00 | 0.00 | L.F. | $0.00 | | | | |
| | | | | | $31,674.00 | | | $0.00 | | | | |
| | | | + 6% inflation rate | | $33,574.44 | | | **$0.00** | | | | |
| | | | from 6/03 to 6/05 | | | | | | | | | |
| | | | | | | | | | | | | |
| **STORM DRAIN PIPE ARCHES (SQUASH PIPES)** | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| CMP | | | | | | | | | | | | |
| 13"X17" | | | Each | $22.00 | $0.00 | 0.00 | Each | $0.00 | | | | |
| 15"X21" | | | Each | $26.00 | $0.00 | 0.00 | Each | $0.00 | | | | |
| 18"X24" | | | Each | $30.00 | $0.00 | 0.00 | Each | $0.00 | | | | |
| 20"X28" | | | Each | $33.00 | $0.00 | 0.00 | Each | $0.00 | | | | |
| 24"X35" | | | Each | $36.00 | $0.00 | 0.00 | Each | $0.00 | | | | |
| 29"X42" | | | Each | $42.00 | $0.00 | 0.00 | Each | $0.00 | | | | |
| 33"X49" | | | Each | $53.00 | $0.00 | 0.00 | Each | $0.00 | | | | |
| 38"X57" | | | Each | $66.00 | $0.00 | 0.00 | Each | $0.00 | | | | |
| 42"X64" | | | Each | $79.00 | $0.00 | 0.00 | Each | $0.00 | | | | |
| 46"X71" | | | Each | $93.00 | $0.00 | 0.00 | Each | $0.00 | | | | |
| | | | | | | | | | | | | |



| | | | BOND ESTIMATE | | | Bond Unit Cost Reduction | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | UNIT | | | | | % | | | |
| Item Description | | QUANTITY | UNIT | COST | TOTAL | QUANTITY | UNIT | TOTAL | COMPLETE | | | |
| RCP | | | | | | | | | | | | |
| 13"X17" | | | Each | $31.00 | $0.00 | 0.00 | Each | $0.00 | | | | |
| 15"X21" | | | Each | $35.00 | $0.00 | 0.00 | Each | $0.00 | | | | |
| 18"X24" | | | Each | $41.00 | $0.00 | 0.00 | Each | $0.00 | | | | |
| 20"X28" | | | Each | $47.00 | $0.00 | 0.00 | Each | $0.00 | | | | |
| 24"X35" | | | Each | $52.00 | $0.00 | 0.00 | Each | $0.00 | | | | |
| 29"X42" | | | Each | $57.00 | $0.00 | 0.00 | Each | $0.00 | | | | |

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 33"X49" | | Each | $68.00 | $0.00 | 0.00 | Each | $0.00 | | | | |
| 38"X57" | | Each | $101.00 | $0.00 | 0.00 | Each | $0.00 | | | | |
| 42"X64" | | Each | $148.00 | $0.00 | 0.00 | Each | $0.00 | | | | |
| 46"X71" | | Each | $183.00 | $0.00 | 0.00 | Each | $0.00 | | | | |
| | | | | $0.00 | | | $0.00 | | | | |
| | | | + 6% inflation rate | $0.00 | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| **STORM DRAIN END SECTIONS (ROUND)** | | | | | | | | | | | |
| | | | | | | | | | | | |
| **CMP** | | | | | | | | | | | |
| 15" | | Each | $100.00 | $0.00 | 0.00 | Each | $0.00 | | | | |
| 18" | | Each | $165.00 | $0.00 | 0.00 | Each | $0.00 | | | | |
| 21" | | Each | $220.00 | $0.00 | 0.00 | Each | $0.00 | | | | |
| **24"** | | Each | $275.00 | $0.00 | 0.00 | Each | $0.00 | | | | |
| 27" | | Each | $300.00 | $0.00 | 0.00 | Each | $0.00 | | | | |
| 30" | | Each | $330.00 | $0.00 | 0.00 | Each | $0.00 | | | | |
| 36" | | Each | $395.00 | $0.00 | 0.00 | Each | $0.00 | | | | |
| **42"** | | Each | $585.00 | $0.00 | 0.00 | Each | $0.00 | | | | |
| **48"** | | Each | $770.00 | $0.00 | 0.00 | Each | $0.00 | | | | |
| 54" | | Each | $825.00 | $0.00 | 0.00 | Each | $0.00 | | | | |
| | | | | | | | | | | | |
| 13"X17" (Equiv. 15) | | Each | $132.00 | $0.00 | 0.00 | Each | $0.00 | | | | |
| 15"X21" (Equiv. 18) | | Each | $155.00 | $0.00 | 0.00 | Each | $0.00 | | | | |
| 18"X24" (Equiv. 21) | | Each | $175.00 | $0.00 | 0.00 | Each | $0.00 | | | | |
| 20"X28" (Equiv. 24} | | Each | $190.00 | $0.00 | 0.00 | Each | $0.00 | | | | |
| 24"X35" (Equiv. 30} | | Each | $255.00 | $0.00 | 0.00 | Each | $0.00 | | | | |
| 29"X42" (Equiv. 36} | | Each | $385.00 | $0.00 | 0.00 | Each | $0.00 | | | | |
| 33"X49" (Equiv. 42} | | Each | $465.00 | $0.00 | 0.00 | Each | $0.00 | | | | |
| 38"X57" (Equiv. 48} | | Each | $550.00 | $0.00 | 0.00 | Each | $0.00 | | | | |
| | | | | $0.00 | | | $0.00 | | | | |
| | | | + 6% inflation rate | $0.00 | | | | | | | |
| | | | from 6/03 to 6/05 | | | | | | | | |
| | | | | | | | | | | | |
| **STORM DRAIN STRUCTURES** | | | | | | | | | | | |
| | | | | | | | | | | | |



| | | BOND ESTIMATE | | | Bond Unit Cost Reduction | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | UNIT | | | | | % | | |
| Item Description | QUANTITY | UNIT | COST | TOTAL | QUANTITY | UNIT | TOTAL | COMPLETE | | |
| Single Drop Opening Inlet | | Each | $1,500.00 | $0.00 | 0.00 | Each | $0.00 | | | |
| Double Drop Opening Inlet | | Each | $2,000.00 | $0.00 | 0.00 | Each | $0.00 | | | |
| Triple Drop Opening Inlet | | Each | $2,400.00 | $0.00 | 0.00 | Each | $0.00 | | | |
| 4' Curb OpeninQ | | Each | $2,000.00 | $0.00 | 0.00 | Each | $0.00 | | | |
| 5' Curb Opening | | Each | $2,000.00 | $0.00 | 0.00 | Each | $0.00 | | | |
| 6' Curb Opening | 2.00 | Each | $2,080.00 | $4,160.00 | 0.00 | Each | $0.00 | 100.00% | | |
| 8' Curb Opening | 3.00 | Each | $2,240.00 | $6,720.00 | 0.00 | Each | $0.00 | 100.00% | | |
| 10' Curb Opening | 3.00 | Each | $2,400.00 | $7,200.00 | 0.00 | Each | $0.00 | 100.00% | | |
| 12' Curb Opening | 1.00 | Each | $2,600.00 | $2,600.00 | 0.00 | Each | $0.00 | 100.00% | | |
| 14' Curb Opening | 2.00 | Each | $2,800.00 | $5,600.00 | 0.00 | Each | $0.00 | 100.00% | | |
| 15' Curb Opening | | Each | $2,900.00 | $0.00 | 0.00 | Each | $0.00 | | | |
| 16' Curb Opening | | Each | $2,980.00 | $0.00 | 0.00 | Each | $0.00 | | | |
| 18' Curb Opening | | Each | $3,140.00 | $0.00 | 0.00 | Each | $0.00 | | | |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 20' Curb Opening | 0.00 | Each | $3,300.00 | $0.00 | 0.00 | Each | $0.00 | | | | |
| Grate Inlet | 10.00 | Each | $3,000.00 | $30,000.00 | 0.00 | Each | $0.00 | 100.00% | | | |
| Manhole | 3.00 | Each | $2,700.00 | $8,100.00 | 0.00 | Each | $0.00 | 100.00% | | | |
| | 60.00 | | | $64,380.00 | 24.00 | | $0.00 | | | | |
| | | + 6% inflation rate | | $68,242.80 | | | $0.00 | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| **OUTFALL AND CHANNEL PROTECTION** | | | | | | | | | | | |
| | | | | | | | | | | | |
| Filter Stone | | C.Y. | $27.00 | $0.00 | 0.00 | C.Y. | $0.00 | | | | |
| Riprap, Class I | 3.30 | C.Y. | $44.00 | $145.20 | 0.00 | C.Y. | $0.00 | | | | |
| Riprap, Class II | | C.Y. | $50.00 | $0.00 | 0.00 | C.Y. | $0.00 | | | | |
| Riprap, Class 111 | | C.Y. | $55.00 | $0.00 | 0.00 | C.Y. | $0.00 | | | | |
| Gabion Basket Structures | | C.Y. | $165.00 | $0.00 | 0.00 | C.Y. | $0.00 | | | | |
| Sand | | C.Y. | $77.00 | $0.00 | 0.00 | C.Y. | $0.00 | | | | |
| | | | | $145.20 | | | $0.00 | | | | |
| | | + 6% inflation rate | | $153.91 | | | $0.00 | | | | |
| | | from 6/03 to 6/05 | | | | | | | | | |
| | | | | | | | | | | | |
| **STORMWATER MANAGEMENT** | | | | | | | | | | | |
| | | | | | | | | | | | |
| Excavation Basin Only | | C.Y. | $4.50 | $0.00 | 0.00 | C.Y. | $0.00 | | | | |
| Core Trench | | C.Y. | $3.00 | $0.00 | 0.00 | C.Y. | $0.00 | | | | |
| Embankment {Temp. Sed. Basin) Site Mate | 40.90 | C.Y. | $13.00 | $531.70 | 0.00 | C.Y. | $0.00 | | | | |
| Imported Material | | C.Y. | $22.00 | $0.00 | 0.00 | C.Y. | $0.00 | | | | |
| Concrete Control Structures | | | | | | | | | | | |
| Under 180 cubic feet | | Each | $2,200.00 | $0.00 | 0.00 | Each | $0.00 | | | | |
| 181 to 300 cubic feet | | Each | $2,700.00 | $0.00 | 0.00 | Each | $0.00 | | | | |
| 301 to 450 cubic feet | | Each | $3,300.00 | $0.00 | 0.00 | Each | $0.00 | | | | |
| Over 450 cubic feet | | C.F. | $9.00 | $0.00 | | | $0.00 | | | | |



| | BOND ESTIMATE | | | Bond Unit Cost Reduction | | | | |
|---|---|---|---|---|---|---|---|---|
| | | UNIT | | | | | % | |
| Item Description | QUANTITY | UNIT | COST | TOTAL | QUANTITY | UNIT | TOTAL | COMPLETE |
| Reinforced Concrete Cradle | | C.Y. | $275.00 | $0.00 | 0.00 | C.Y. | $0.00 | |
| Other Reinforced Concrete Structures | | C.Y. | $500.00 | $0.00 | 0.00 | C.Y. | $0.00 | |
| CMP Control Structures | | | | | | | | |
| Riser Pipe | | See Storm Drain Pipes | | | | | | |
| Barrel/Riser Fabrication | | Inch of Dia. | $5.50 | $0.00 | 0.00 | Inch of Dia. | $0.00 | |
| Antiseep Collar | | Ft. of Width | $55.00 | $0.00 | 0.00 | Ft. of Width | $0.00 | |
| Trash Rack | | Inch of Dia. | $22.00 | $0.00 | 0.00 | Inch of Dia. | $0.00 | |
| Water Tight Bands | | Inch of Dia. | $5.50 | $0.00 | 0.00 | Inch of Dia. | $0.00 | |
| Plastic Infiltration Modules | | Each | $130.00 | $0.00 | 0.00 | Each | $0.00 | |
| Stone Check Dams | | Each | $33.00 | $0.00 | 0.00 | Each | $0.00 | |
| Settlement Routing Baffle | | L.F. | $3.30 | $0.00 | 0.00 | L.F. | $0.00 | |
| Sand Bags | | Each | $5.00 | $0.00 | 0.00 | Each | $0.00 | |
| | | | | $531.70 | | | $0.00 | |
| | | + 6% inflation rate | | $563.60 | | | $0.00 | |
| | | | | | | | | |
| | | | | | | | | |

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **PVC SLOTTED/ PERFORATED** | | | | | | | | | | | |
| 4" Diameter | | L.F. | | $0.00 | 0.00 | L.F. | $0.00 | | | | |
| 6" Diameter | | L.F. | | $0.00 | 0.00 | L.F. | $0.00 | | | | |
| 8" Diameter | | L.F. | $17.50 | $0.00 | 0.00 | L.F. | $0.00 | | | | |
| 12" Diameter | | L.F. | $20.00 | $0.00 | 0.00 | L.F. | $0.00 | | | | |
| 15" Diameter | | L.F. | $22.00 | $0.00 | 0.00 | L.F. | $0.00 | | | | |
| 18" Diameter | | L.F. | $26.00 | $0.00 | 0.00 | L.F. | $0.00 | | | | |
| 24" Diameter | | L.F. | $36.00 | $0.00 | 0.00 | L.F. | $0.00 | | | | |
| | | | | $0.00 | | | $0.00 | | | | |
| | | + 6% inflation rate | | $0.00 | | | $0.00 | | | | |
| | | from 6/03 to 6/05 | | | | | | | | | |
| **WATER** | | | | | | | | | | | |
| 1" Copper Line | | L.F. | $22.00 | $0.00 | 0.00 | L.F. | $0.00 | | | | |
| 2" Copper Line | | L.F. | $33.00 | $0.00 | 0.00 | L.F. | $0.00 | | | | |
| 4" PVC Pipe | | L.F. | $16.00 | $0.00 | 0.00 | L.F. | $0.00 | | | | |
| 6" PVC Pipe | | L.F. | $22.00 | $0.00 | 0.00 | L.F. | $0.00 | | | | |
| 8" PVC Pipe | 856.00 | L.F. | $29.00 | $24,824.00 | 0.00 | L.F. | $0.00 | | | | |
| 10" PVC Pipe | 0.00 | L.F. | $34.00 | $0.00 | 0.00 | L.F. | $0.00 | | | | |
| 12" PVC Pipe | | L.F. | $40.00 | $0.00 | 0.00 | L.F. | $0.00 | | | | |
| Fire Hydrant Setting | 1.00 | Each | $2,200.00 | $2,200.00 | 0.00 | Each | $0.00 | | | | |
| 4" Gate Valve | | Each | $410.00 | $0.00 | 0.00 | Each | $0.00 | | | | |
| 6" Gate Valve | 1.00 | Each | $550.00 | $550.00 | 0.00 | Each | $0.00 | | | | |
| 8" Gate Valve | 4.00 | Each | $770.00 | $3,080.00 | 0.00 | Each | $0.00 | | | | |
| 1O" Gate Valve | 0.00 | Each | $1,045.00 | $0.00 | 0.00 | Each | $0.00 | | | | |
| | | | | | | | | | | | |
| | | BOND ESTIMATE | | | | | | | | | |
| | | | UNIT | | | | | % | Page 7 of 9 | | |
| Item Description | QUANTITY | UNIT | COST | TOTAL | QUANTITY | UNIT | TOTAL | COMPLETE | | | |
| 12" Gate Valve | | Each | $1,400.00 | $0.00 | 0.00 | Each | $0.00 | | | | |
| Water Meter Settings | 15.00 | Each | $960.00 | $14,400.00 | 0.00 | Each | $0.00 | | | | |
| Tapping Sleeve and Valve | | Each | | $0.00 | 0.00 | Each | $0.00 | | | | |
| | | | | $45,054.00 | | | $0.00 | | | | |
| | | + 6% inflation rate | | $47,757.24 | | | $0.00 | | | | |
| | | from 6/03 to 6/05 | | | | | | | | | |
| **SANITARY SEWER** | | | | | | | | | | | |
| To be bonded by the P.S.D. | | | | $0.00 | 0.00 | 0 | $0.00 | | | | |
| | | + 6% inflation rate | | $0.00 | | | | | | | |
| | | from 6/03 to 6/05 | | | | | | | | | |
| **ENTRANCES** | | | | | | | | | | | |
| Residential (asphalt} | 19.00 | Each | $825.00 | $15,675.00 | 0.00 | Each | $0.00 | | | | |
| Commercial (p.c. concrete) | | Each | $3,300.00 | $0.00 | 0.00 | Each | $0.00 | | | | |
| | | | | $15,675.00 | | | $0.00 | | | | |
| | | + 6% inflation rate | | $16,615.50 | | | $0.00 | | | | |
| | | from 6/03 to 6/05 | | | | | | | | | |
| **CURBS, GUTTERS, SIDEWALKS** | | | | | | | | | | | |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| P.C. Concrete Curb with Gutter | 6158.00 | L.F. | $12.00 | $73,896.00 | 0.00 | L.F. | $0.00 | | | | |
| P.C. Concrete Curb with no Gutter | 63.00 | L.F. | $10.00 | $630.00 | 0.00 | L.F. | $0.00 | | | | |
| P.C. Concrete Sidewalk | | S.Y. | $20.00 | $0.00 | 0.00 | S.Y. | $0.00 | | | | |
| 3'Wide | | L.F. | $6.50 | $0.00 | 0.00 | L.F. | $0.00 | | | | |
| 4'Wide | | L.F. | $9.00 | $0.00 | 0.00 | L.F. | $0.00 | | | | |
| 5'Wide | 9707.00 | L.F. | $11.25 | $109,203.75 | 9707.00 | L.F. | $109,203.75 | | | | |
| 6'Wide | 675.00 | L.F. | $13.50 | $9,112.50 | 675.00 | L.F. | $9,112.50 | | | | |
| Asphalt Sidewalk | | S.Y. | $11.00 | $0.00 | 0.00 | S.Y. | $0.00 | | | | |
| Concrete Wheel Stops | | L.F. | $33.00 | $0.00 | 0.00 | L.F. | $0.00 | | | | |
| Curb Ramps | 28.00 | Each | $500.00 | $14,000.00 | 28.00 | Each | $14,000.00 | | | | |
| | | | | $206,842.25 | | | $132,316.25 | | | | |
| | | + 6% inflation rate | | $219,252.79 | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| **SIGNS, FENCE, LIGHTS** | | | | | | | | | | | |
| | | | | | | | | | | | |
| Arrows on Pavement | | Each | $27.00 | $0.00 | 0.00 | Each | $0.00 | | | | |
| Letters on Pavement | | Each | $16.00 | $0.00 | 0.00 | Each | $0.00 | | | | |
| Line Painting | 5007.00 | L.F. | $0.30 | $1,502.10 | 5007.00 | L.F. | $1,502.10 | | | | |

LOCATION FROM 2B- 4-08



| | | BOND ESTIMATE | | | Bond Unit Cost Reduction | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | UNIT | | | | | % | | |
| Item Description | QUANTITY | UNIT | COST | TOTAL | QUANTITY | UNIT | TOTAL | COMPLETE | | |
| Handicap Symbols | | Each | $16.00 | $0.00 | 0.00 | Each | $0.00 | | | |
| Handicap Signs | | Each | $165.00 | $0.00 | 0.00 | Each | $0.00 | | | |
| Traffic Signs | 8.00 | Each | $275.00 | $2,200.00 | 0.00 | Each | $0.00 | | | |
| Street Signs | 9.00 | Each | $110.00 | $990.00 | 0.00 | Each | $0.00 | | | |
| Guard Rail-Steel Beam | | L.F. | $22.00 | $0.00 | 0.00 | L.F. | $0.00 | | | |
| Chainlink Fence | | L.F. | $11.00 | $0.00 | 0.00 | L.F. | $0.00 | | | |
| Street Lights | 10.00 | Each | 3500.00 | 35000.00 | 10.00 | Each | $35,000.00 | | | |
| Parking Lot Lighting | | Each | | | | Each | | | | |
| | | | | $39,692.10 | | | $36,502.10 | | | |
| | | + 6% inflation rate | | $42,073.63 | | | | | | |
| | | from 6/03 to 6/05 | | | | | | | | |
| | | | | | | | | | | |
| **LANDSCAPING** | | | | | | | | | | |
| | | | | | | | | | | |
| Transplanting tree/shrub | | Each | $22.00 | $0.00 | 0.00 | Each | $0.00 | | | |
| Backfill planting pit | | C.Y. | $26.00 | $0.00 | 0.00 | C.Y. | $0.00 | | | |
| Excavate planting pit | | C.Y. | $30.00 | $0.00 | 0.00 | C.Y. | $0.00 | | | |
| Ground cover plants | | 100 Plants | $88.00 | $0.00 | 0.00 | 100 Plants | $0.00 | | | |
| Wetland plants | | 100 Plugs | | | | | | | | |
| Shrubs (everQreen) | 45.00 | Each | $27.00 | $1,215.00 | 45.00 | Each | $1,215.00 | | | |
| Shrubs (deciduous) | 139.00 | Each | $38.00 | $5,282.00 | 139.00 | Each | $5,282.00 | | | |
| Flowering trees (minor) | | Each | $72.00 | $0.00 | 0.00 | Each | $0.00 | | | |
| Screen trees | | Each | $55.00 | $0.00 | 0.00 | Each | $0.00 | | | |
| Street and shade trees | 53.00 | Each | $110.00 | $5,830.00 | 53.00 | Each | $5,830.00 | | | |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | $12,327.00 | | | $12,327.00 | | | | |
| | | | + 6% inflation rate | | $13,066.62 | | | | | | | |
| | | | from 6/03 to 6/05 | | | | | | | | | |
| **MISCELLANEOUS** | | | | | | | | | | | | |
| Bollards | | | Each | $440.00 | $0.00 | 0.00 | Each | $0.00 | | | | |
| Filter Fabric | | | S.F. | $0.25 | $0.00 | 0.00 | S.F. | $0.00 | | | | |
| Elec./Comm. Conduit | | | L.F. | $3.30 | $0.00 | 0.00 | L.F. | $0.00 | | | | |
| Set Lot Corners | | 102.00 | Per Lot | $220.00 | $22,440.00 | 102.00 | Per Lot | $22,440.00 | | | | |
| | | | | | $22,440.00 | | | $22,440.00 | | | | |
| | | | + 6% inflation rate | | $23,786.40 | | | | | | | |
| **MOBILIZATION (GENERAL)** | | | | | | | | | | | | |
| Mobilization | | 0.00 | Each | $5,687.20 | $0.00 | 0.00 | Each | $0.00 | | | | |
| Field Office | | 0.00 | Each | $2,743.75 | $0.00 | 0.00 | Each | $0.00 | | | | |
| Job Sign | | 0.00 | Each | $1,113.75 | $0.00 | 0.00 | Each | $0.00 | | | | |
| | | | BOND ESTIMATE | | | | | | | | | |
| | | | | UNIT | | | | | | Page 9 of 9 | | |
| Item Description | | QUANTITY | UNIT | COST | TOTAL | QUANTITY | UNIT | TOTAL | COMPLETE | | | |
| | | | | | $9,544.70 | | | $0.00 | | | | |
| NOTE: Inflation factor not shown because | | | | | | | | | | | | |
| numbers are taken directly from the County of | | | | | | | | | | | | |
| Loudoun Public Improvement Bond Unit Cost | | | | | | | | | | | | |
| List | | | | | | | | | | | | |
| | SUBTOTAL | | | | $793,687.76 | | | $244,175.35 | | | | |
| | + 10% CONTINGENCY FEE | | | | $79,368.78 | | | $24,417.54 | | | | |
| | **TOTAL** | | | | **$873,056.54** | **New Amount** | | **$268,592.89** | | | | |
| Unit Cost taken from Loudoun County Bond Estimate | | | | | | | | | | | | |

# HUNTFIELD BOND PARCEL INVENTORY

| Phase 2A-3 | | |
|---|---|---|
| Tax District | Map# | Parcel |
| 03 | 11E | 904 |
| 03 | 11E | 903 |
| 03 | 11E | 902 |
| 03 | 11E | 901 |
| 03 | 11E | 900 |
| 03 | 11E | 899 |
| 03 | 11E | 898 |
| 03 | 11E | 897 |
| 03 | 11E | 896 |
| 03 | 11E | 895 |
| 03 | 11E | 894 |
| 03 | 11E | 893 |
| 03 | 11E | 891 |
| 03 | 11E | 890 |
| 03 | 11E | 889 |
| 03 | 11E | 888 |
| 03 | 11E | 887 |
| 03 | 11E | 886 |
| 03 | 11E | 885 |
| 03 | 11E | 884 |
| 03 | 11E | 882 |
| 03 | 11E | 881 |
| 03 | 11E | 880 |
| 03 | 11E | 879 |
| 03 | 11E | 878 |
| 03 | 11E | 877 |
| 03 | 11E | 876 |
| 03 | 11E | 875 |
| 03 | 11E | 874 |
| 03 | 11E | 873 |
| 03 | 11E | 872 |
| 03 | 11E | 871 |
| 03 | 11E | 870 |
| 03 | 11E | 869 |
| 03 | 11E | 868 |
| 03 | 11E | 867 |
| 03 | 11E | 866 |
| 03 | 11E | 865 |
| 03 | 11E | 864 |
| 03 | 11E | 863 |
| 03 | 11E | 862 |
| 03 | 11E | 861 |
| 03 | 11E | 860 |
| 03 | 11E | 859 |
| 03 | 11E | 858 |

| Phase 5 A | | |
|---|---|---|
| Tax District | Map# | Parcel |
| 03 | 11A | 614 |
| 03 | 11A | 615 |
| 03 | 11A | 622 |
| 03 | 11A | 623 |
| 03 | 11A | 624 |
| 03 | 11A | 625 |
| 03 | 11A | 626 |

| Phase 3A | | |
|---|---|---|
| Tax District | Map# | Parcel |
| 03 | 11C | 437 |
| 03 | 11C | 438 |
| 03 | 11C | 439 |
| 03 | 11C | 440 |
| 03 | 11C | 441 |
| 03 | 11C | 442 |
| 03 | 11C | 443 |
| 03 | 11C | 444 |
| 03 | 11C | 445 |
| 03 | 11C | 446 |
| 03 | 11C | 447 |
| 03 | 11C | 448 |
| 03 | 11C | 449 |
| 03 | 11C | 450 |
| 03 | 11C | 451 |
| 03 | 11C | 452 |
| 03 | 11C | 453 |
| 03 | 11C | 454 |
| 03 | 11C | 455 |
| 03 | 11C | 456 |
| 03 | 11C | 457 |
| 03 | 11C | 458 |
| 03 | 11C | 459 |
| 03 | 11C | 460 |
| 03 | 11C | 466 |
| 03 | 11C | 467 |
| 03 | 11C | 468 |
| 03 | 11C | 469 |
| 03 | 11C | 470 |
| 03 | 11C | 471 |
| 03 | 11C | 472 |

| Phase 3A Storm Water Basin | | |
|---|---|---|
| Tax District | Map# | Parcel |
| 03 | 11 | 0001 |

| Phase 2B-2 | | |
|---|---|---|
| Tax District | Map# | Parcel |
| 03 | 11B | 286 |
| 03 | 11B | 300 |
| 03 | 11B | 322 |
| 03 | 11B | 323 |
| 03 | 11B | 324 |
| 03 | 11B | 325 |
| 03 | 11B | 326 |
| 03 | 11B | 327 |
| 03 | 11B | 327A |
| 03 | 11B | 328 |
| 03 | 11B | 342 |
| 03 | 11B | 343 |
| 03 | 11B | 344 |
| 03 | 11B | 345 |
| 03 | 11B | 346 |
| 03 | 11B | 347 |
| 03 | 11B | 347A |
| 03 | 11B | 348 |
| 03 | 11B | 357 |
| 03 | 11B | 358 |
| 03 | 11B | 359 |
| 03 | 11B | 360 |
| 03 | 11B | 361 |
| 03 | 11B | 362 |
| 03 | 11B | 363 |
| 03 | 11B | 364 |
| 03 | 11B | 365 |
| 03 | 11B | 366 |
| 03 | 11B | 366A |
| 03 | 11B | 367 |
| 03 | 11B | 372 |
| 03 | 11B | 373 |
| 03 | 11B | 374 |
| 03 | 11B | 375 |
| 03 | 11B | 376 |
| 03 | 11B | 377 |
| 03 | 11B | 378 |

| Rec Center | | |
|---|---|---|
| Tax District | Map# | Parcel |
| 03 | 11B | REC |

# CONSTRUCTION PLANS AND PROFILES

## SITE PLAN STPL 2003-0006

## LOTS 191-253, 255-378, 311A, 366A - HUNTFIELD PHASE 2B

## CHARLES TOWN CORPORATION

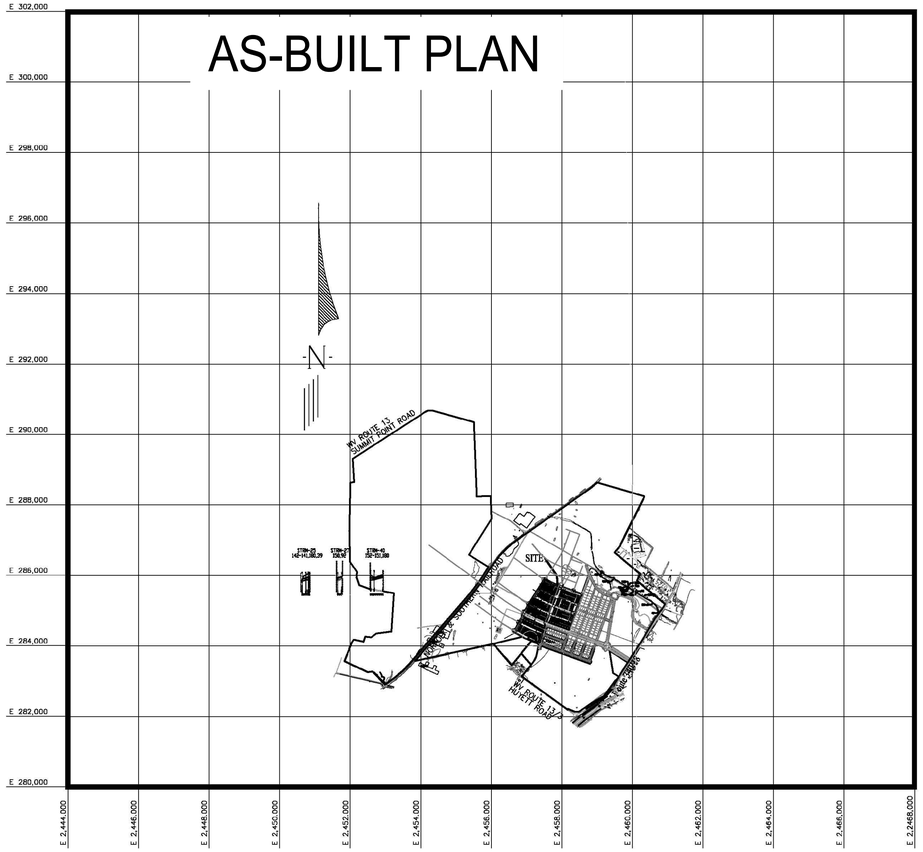
## JEFFERSON COUNTY, WV

### GENERAL NOTES

1. THIS SET OF DRAWINGS PERTAINS TO PHASE 2B OF HUNTFIELD, WHICH CONSISTS OF A TOTAL SITE AREA OF 58.9 ACRES. PHASE 2B CONTAINS 174 SFD LOTS, 1 COMMERCIAL LOT, AND 14 SFA LOTS FOR AN OVERALL LOT TOTAL OF 189. A TOTAL OF 6.5 ACRES OF COMMERCIAL AREA WILL BE PROVIDED FOR PHASE 2B AND 11 ACRES OF OPEN SPACE. REFERENCE WAS MADE TO THE SCHEMATIC PLAN "HUNTFIELD COMPOSITE SCHEMATIC I" (SCHM 2003-0003) APPROVED MAY 28, 2003. NOTE THAT THE "HUNTFIELD COMPOSITE SCHEMATIC" IS COMPOSED OF SEVERAL SITE PLANS. THIS SET OF PLANS PERTAINS TO A SMALL SECTION OF THE SCHEMATIC. THESE PLANS SHALL BE IN CONFORMANCE WITH THE APPROVED SCHEMATIC PLAN & ALL ZONING REQUIREMENTS INCLUDING THOSE MODIFIED IN THE HUNTFIELD PROFFERS. ALL OPEN SPACE, RESIDENTIAL, AND COMMERCIAL REQUIREMENTS SHALL CORRESPOND TO THOSE SET FORTH IN THE SCHEMATIC. NOTE THAT LOTS 253 & 254 PROVIDE 0.28 ACRES (12,360 SF) OF COMMERCIAL AREA, AND ARE THE ONLY COMMERCIAL AREAS CONTAINED IN THIS SITE PLAN. THE ADDITIONAL 6.22 ACRES OF COMMERCIAL AREA ASSOCIATED WITH PHASE 2B ARE NOT SHOWN IN THIS SITE PLAN, AND SHALL BE RECORDED AND DEVELOPED UNDER SEPARATE SITE PLAN(S) AND RECORD PLAT(S).
2. THE PROPERTY DELINEATED HEREON IS A PORTION OF PARCEL 1, AS SHOWN ON CHARLES TOWN CORPORATION TAX ASSESSMENT MAP 11, DEED BOOK 949, PAGE 203, WHICH IS LOCATED AMONG THE LAND RECORDS OF JEFFERSON COUNTY
3. BOUNDARY INFORMATION, SHOWN HEREON, WAS OBTAINED FROM A PLAT SHOWING HUNTFIELD, LC PROPERTY AS RECORDED IN THE OFFICE OF THE CLERK OF THE COUNTY COMMISSION OF JEFFERSON COUNTY, WEST VIRGINIA, IN PLAT BOOK 19, PAGE 49.
4. TOPOGRAPHIC INFORMATION WAS OBTAINED FROM APPALACHIA SURVEY OF WEST VIRGINIA, LLC. BASIS FOR SURVEY WAS NAD'27-NAVD'88.
5. THE PROPERTY SHOWN HEREON WAS ACQUIRED BY HUNT FIELD. AS RECORDED IN THE OFFICE OF THE CLERK OF THE COMMISSION OF JEFFERSON COUNTY, WEST VIRGINIA IN DEED BOOK 949, PAGE 203.
6. THE HOMEOWNER'S ASSOCIATION INC. WILL BE RESPONSIBLE FOR THE MAINTENANCE OF STORM WATER DETENTION/DRAINAGE FACILITIES AND EASEMENTS. IN ADDITION THEY SHALL BE RESPONSIBLE FOR MAINTENANCE OF SIDEWALKS & STREET LIGHTS. THE WEST VIRGINIA DEPARTMENT OF HIGHWAY IS NOT RESPONSIBLE FOR MAINTENANCE OF SIDEWALKS AND STREET LIGHTS.
7. ALL CONSTRUCTION SHALL CONFORM TO CURRENT CITY OF CHARLES TOWN, WVDOH, WVDEP, WVSHPO, AND SANITATION AUTHORITY STANDARDS AND SPECIFICATIONS.
8. EROSION AND SEDIMENT CONTROL MEASURES SHALL BE PROVIDED IN ACCORDANCE WITH THE 1993 "WEST VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK FOR DEVELOPING AREAS" & WVDEP REQUIREMENTS AND ASSOCIATED PERMITS.
9. THE APPROVAL OF THESE PLANS SHALL IN NO WAY RELIEVE THE DEVELOPER OR HIS AGENT OF ANY LEGAL RESPONSIBILITY WHICH MAY BE REQUIRED BY THE CODE OF WEST VIRGINIA OR ANY OTHER ORDINANCE ENACTED BY THE CITY OF CHARLES TOWN.
10. STANDARD GUARDRAILS AND HANDRAILS SHALL BE INSTALLED AT HAZARDOUS LOCATIONS AS DETERMINED DURING FINAL FIELD INSPECTION BY CITY OF CHARLES TOWN AND\OR WVDOH.
11. ALL UNDERGROUND UTILITIES WITHIN STREET RIGHT-OF-WAYS SHALL BE INSTALLED TO THE REQUIRED DISTANCE BEYOND THE RIGHT-OF-WAY LINE PRIOR TO THE INSTALLATION OF ANY SUBBASE MATERIAL, CURB AND GUTTER, OR SIDEWALK.
12. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION OF UTILITY OVERBLASTING FOR FUTURE EXTENSIONS WITH ALL ADJACENT SECTIONS.
13. THESE PLANS MAKE NO REPRESENTATION AS TO SUBSURFACE CONDITIONS AND THE PRESENCE OF SUBSURFACE WATER OR THE NEED FOR SUBSURFACE DRAINAGE FACILITIES.
14. ANY WELLS OR SEPTIC FIELDS WITHIN THE LIMITS OF THE SITE WILL BE ABANDONED IN ACCORDANCE WITH STATE AND LOCAL HEALTH DEPARTMENT REQUIREMENTS AND REGULATIONS PRIOR TO RECORD PLAT APPROVAL.
15. THE SECTION DELINEATED HEREON CONTAINS NO KNOWN ARCHEOLOGICAL OR HISTORICAL LANDMARKS.
16. CONTRACTORS SHALL ARRANGE FOR THE LOCATION OF ALL UNDERGROUND FACILITIES PRIOR TO THE CONSTRUCTION INCLUDING TEST HOLES TO PHYSICALLY LOCATE UNDERGROUND UTILITIES AS NECESSARY.
17. STREET SIGNS AND STOP SIGNS SHALL BE INSTALLED AT ALL INTERSECTIONS AND BE IN COMPLIANCE WITH ALL APPLICABLE ZONING AND CODIFIED ORDINANCE FOR THE CITY OF CHARLES TOWN.
18. FINAL HOUSE AND ACCESSORY LOCATIONS ARE SUBJECT TO APPROVAL AT BUILDING PERMIT SUBMISSION.
19. PARKING FOR THIS SITE PLAN WILL BE IN COMPLIANCE WITH ALL REQUIRED REGULATIONS.
20. WETLAND INFORMATION OBTAINED FROM WETLAND DELINEATION REPORT PREPARED BY GREENHORNE AND O'MARA, INC. DATED JULY 14, 2000.

| APPLICATION # | ASSOCIATED PROJECT | STATUS | APPROVAL DATE |
|---|---|---|---|
| | HUNTFIELD, PHASE I | APPROVED | 6/24/2002 |
| | HUNTFIELD, PHASE I SCHEMATIC | APPROVED | 2/11/2002 |
| | HUNTFIELD, PHASE I RECORD PLAT | APPROVED | 7/29/2002 |
| | HUNTFIELD, REVISED PHASE 1&2A SCHEMATIC | APPROVED | 10/22/2002 |
| SPAM 2003-001 | HUNTFIELD, PHASE 1 REVISION | APPROVED | 5/28/2003 |
| STPL 2003-0001 | HUNTFIELD, PHASE 2A | APPROVED | 5/28/2003 |
| | HUNTFIELD, PHASE 2A RECORD PLAT | IN REVIEW | |
| SCHM 2003-0001 | HUNTFIELD, PHASE 2B SCHEMATIC | APPROVED | 2/24/2003 |
| SCHM 2003-0003 | HUNTFIELD, COMPOSITE SCHEMATIC 1 | APPROVED | 5/28/2003 |
| SPAM 2003-002 | HUNTFIELD, PHASE 1 BLOCK 1 REVISION | IN REVIEW | |
| STPL 2003- | HUNTFIELD, SECTION 3 | IN REVIEW | |

NOTE: HUNTFIELD COMPOSITE SCHEMATIC 1 (SCHM 2003-0003) REPLACED PREVIOUSLY APPROVED HUNTFIELD SCHEMATICS.




### VICINITY MAP

SCALE : 1" = 2000'

### SHEET INDEX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2. PLAN STATUS AND MISCELLANEOUS DETAILS
3. GRADING PLAN OVERALL
4. GRADING PLAN
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AS-BUILT 6. GRADING PLAN [6]
AS-BUILT 7. GRADING PLAN [7]
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12. PLAN & PROFILES - Colonial Drive
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26. PLAN & PROFILES - ALLEYS
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30. PLAN & PROFILES - ALLEYS
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39. STORM DRAIN COMPUTATIONS
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48. PRELIMINARY RECORD PLAT
49. PRELIMINARY RECORD PLAT
50. PRELIMINARY RECORD PLAT
51. MISC. DETAILS
52. MISC DETAILS
53. LANDSCAPE PLAN


### OWNER / DEVELOPER

HUNTFIELD, L.C.
8614 WESTWOOD CENTER DRIVE, SUITE 900
VIENNA, VIRGINIA 22182
703-442-8992


MORRIS & RITCHIE ASSOCIATES, INC.
ENGINEERS, PLANNERS, SURVEYORS AND LANDSCAPE ARCHITECTS
205 EAST HIRST ROAD, SUITE 108
PURCELLVILLE, VA 20132
PHONE: (703) 994-4047
MRAGTA.COM

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CONTACT "MISS UTILITY" AT
1-800-245-4848
BEFORE ANY CONSTRUCTION PER CITY OF CHARLES TOWN WATER DEPARTMENT ORDINANCE

**SURVEYOR'S CERTIFICATION**

THE PERIMETER AND ALL LOT BOUNDARIES SHOWN HERON HAVE BEEN ESTABLISHED BY A NETWORK OF TRAVERSE CONTROL HAVING A RELATIVE ERROR OR CLOSURE OF 1 : 7,500 OR BETTER.

DAVID E. LELLOCK, P.S.
URBAN ENGINEERING & ASSOCIATES, INC.

**STATEMENT OF ACCEPTANCE**

THE DEVELOPER, IN SIGNING THIS PLAT, AGREES TO ABIDE BY ALL CONDITIONS, TERMS, AND SPECIFICATIONS PROVIDED HEREON.

DAVID K. ULERICK V.P. FOR LAND DEVELOPMENT FOR HUNTFIELD, LC
8614 WESTWOOD CENTER DRIVE SUITE 900
VIENNA, VA 22182
703-442-8992

**ENGINEER'S CERTIFICATION**

I HEREBY CERTIFY THAT THESE SEALED PLANS REASONABLY MEET OR EXCEED MINIMUM ACCEPTABLE ENGINEERING STANDARDS AND THOSE STATE AND COUNTY CODE PROVISIONS APPLICABLE ON SAID DATE.

DAVID E. LELLOCK, PE
URBAN ENGINEERING & ASSOCIATES, INC.

**SITE PLAN APPROVED**

DATE: _____

CITY OF CHARLES TOWN

**AS-BUILT CERTIFICATION**

I, JON K. ERICKSON, DO HEREBY CERTIFY THAT THIS AS-BUILT CONFORMS TO THE APPROVED PLANS, EXCEPT AS SHOWN, WHICH REPRESENTS ACTUAL CONDITIONS ON THIS SITE AS OF THIS DATE

JON K. ERICKSON — WVPS#2302 — JUNE 16, 2023

JON K. ERICKSON 04/19/23

REVISIONS

| No. | DATE | DESCRIPTION |
|---|---|---|
| | | |

PLAN DATE: 6/18/03; 9/11/03; 10/31/03; 12/05/03


Urban Engineering & Associates, Inc.
CIVIL ENGINEERS • LANDSCAPE ARCHITECTS • LAND SURVEYORS
PEGASUS BUSINESS CENTER
600 PEGASUS COURT - SUITE 101 WINCHESTER, VIRGINIA 22602
PHONE (540) 450-0211 FAX (540) 450-0210


DAVID E. LELLOCK REGISTERED LAND SURVEYOR NO. 4513 STATE OF WEST VIRGINIA PROFESSIONAL

Cover Sheet
HUNTFIELD
Phase 2B
CHARLES TOWN CORPORATION
JEFFERSON COUNTY, WEST VIRGINIA

DATE: JUNE 2003
C.I. N/A
SCALE: AS SHOWN

SHEET 1 OF 53

PP-20022

## LEGEND:

- PROPOSED STORM DRAIN
- EXISTING STORM DRAIN
- EXISTING CONTOUR
- PROPOSED CONTOUR
- EXISTING SANITARY SEWER
- PROPOSED SANITARY SEWER
- EXISTING WATER LINE
- PROPOSED WATER LINE
- EXISTING TREE LINE
- PROPOSED LIMITS OF CLEARING & GRADING (LOC)
- WATER METER CROCK
- PROPOSED FIRE HYDRANT
- CG-6 CURB & GUTTER
- ROLL CURB
- ALLEY PAVEMENT
- EXISTING TREE
- RIPRAP
- TRAFFIC BARRICADE
- UTILITY PREBLAST
- PROPOSED SIDEWALK
- PROPOSED HANDICAP RAMP
- STREET LIGHT
- STREET SIGN
- STOP SIGN

(#) FOR WATERMAIN FITTINGS SEE SHEET 9

**STANDARD MINIMUM STORM DRAIN EASEMENT WIDTHS**

| PIPE SIZE | MINIMUM STORM DRAIN EASEMENT WIDTH |
|---|---|
| 12-18 INCHES | 10 FEET |
| 21-33 INCHES | 15 FEET |
| 36-48 INCHES | 20 FEET |
| 54-72 INCHES | 24 FEET |

GRAPHIC SCALE

30 0 15 30 60 120

( IN FEET )
1 inch = 30 ft.

STATE GRID NORTH
WEST VIRGINIA
NAD 27

CHADWICK DRIVE
BATTLEFIELD DRIVE
PROSPECT HILL BOULEVARD
NEWBURY STREET
LORD FAIRFAX STREET
ALLEY 2B21
ALLEY 2B22
ALLEY 2B20
ALLEY 2C21

349 FF=546.60 BF=537.60
350 FF=545.50 BF=536.50
351 FF=544.75 BF=535.75
352 FF=543.95 BF=534.95
353 FF=541.35 BF=532.35
341 FF=547.35 BF=538.35
340 FF=547.35 BF=538.35
339 FF=546.75 BF=537.75
338 FF=546.05 BF=537.05
337 FF=545.50 BF=536.50
336 FF=546.50 BF=537.54
335 FF=548.00 BF=539.04
334 FF=547.00 BF=538.04
321 FF=554.20 BF=545.20
320 FF=552.95 BF=543.95
319 FF=551.75 BF=542.75
318 FF=550.75 BF=541.75
317 FF=549.50 BF=540.50
316 FF=548.35 BF=539.35
315 FF=545.65 BF=536.65
314
313
312
311A
311
310
309

AS-BUILT

SEE SHEET 06 FOR MATCHLINE

SEE SHEET 2 FOR SIGN DETAILS
NO PARKING ZONE

EMERGENCY ACCESS GRASS PAVE (SEE DETAIL ON SHEET 2)

FUT. 8" SAN. SEW. LINE TO BE CAPPED

12" W/L TO BE REMOVED

EX. 12" W/L TO BE REMOVED

EX. 24" CMP TO BE REMOVED & EASEMENT ABANDONED

EX. 10" W/M

SEE SHEET 04 FOR MATCHLINE

| No. | DATE | DESCRIPTION |
|---|---|---|
| | | REVISIONS |

PLAN DATE
6/18/03
9/17/03
12/05/03


Urban Engineering & Associates, Inc.
CIVIL ENGINEERS • LANDSCAPE ARCHITECTS • LAND SURVEYORS
PEGASUS BUSINESS CENTER
600 PEGASUS COURT - SUITE 101 WINCHESTER, VIRGINIA 22602
PHONE (540) 450-0211 FAX (540) 450-0210


LEE L. LOCK
REGISTERED
LAND SURVEYOR
#9513
STATE OF
WEST VIRGINIA
PROFESSIONAL
04/14/23

Grading Plan
HUNTFIELD
Phase 2B
CHARLES TOWN CORPORATION
JEFFERSON COUNTY, WEST VIRGINIA
DATE: JUNE 2003
SCALE: 1"=30' C.I. = 2'

SHEET 5 OF 53

PP-20022


MRA
MORRIS & RITCHIE ASSOCIATES, INC.
ENGINEERS, PLANNERS, SURVEYORS AND LANDSCAPE ARCHITECTS
205 EAST HIRST ROAD, SUITE 108
PURCELLVILLE, VA 20132
PHONE: (703) 994-4047
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SHEET 5 OF 31

## LEGEND:

- PROPOSED STORM DRAIN
- EXISTING STORM DRAIN
- EXISTING CONTOUR
- PROPOSED CONTOUR
- EXISTING SANITARY SEWER
- PROPOSED SANITARY SEWER
- EXISTING WATER LINE
- PROPOSED WATER LINE
- EXISTING TREE LINE
- PROPOSED LIMITS OF CLEARING & GRADING (LOC)
- WATER METER CROCK
- PROPOSED FIRE HYDRANT
- CG-6 CURB & GUTTER
- ROLL CURB
- ALLEY PAVEMENT
- EXISTING TREE
- RIPRAP
- TRAFFIC BARRICADE
- UTILITY PREBLAST
- PROPOSED SIDEWALK
- PROPOSED HANDICAP RAMP
- STREET LIGHT
- STREET SIGN
- STOP SIGN

(#) FOR WATERMAIN FITTINGS SEE SHEET 9

**STANDARD MINIMUM STORM DRAIN EASEMENT WIDTHS**

| PIPE SIZE | MINIMUM STORM DRAIN EASEMENT WIDTH |
|---|---|
| 12-18 INCHES | 10 FEET |
| 21-33 INCHES | 15 FEET |
| 36-48 INCHES | 20 FEET |
| 54-72 INCHES | 24 FEET |

STATE GRID NORTH
WEST VIRGINIA
NAD 27

GRAPHIC SCALE
30 0 15 30 60 120
( IN FEET )
1 inch = 30 ft.

AS-BUILT

HOLLY SPRINGS DRIVE
NEWBURY STREET
LORD FAIRFAX STREET
SILVERLEAF DRIVE
CHADWICK DRIVE
ALLEY 2A23
ALLEY 2B23
ALLEY 2A22
ALLEY 2B22
FUT. 8" SAN. LINE TO BE CAPPED
8" SAN. SEW.
8" W/M
10" W/M
15" CMP
18" CMP
24" CMP
30" CMP
56' ROW
66' ROW

| No. | DATE | DESCRIPTION |
|---|---|---|
| | | REVISIONS |

PLAN DATE: 6/18/03, 10/31/03, 12/05/03


Urban Engineering & Associates, Inc.
CIVIL ENGINEERS • LANDSCAPE ARCHITECTS • LAND SURVEYORS
PEGASUS BUSINESS CENTER
600 PEGASUS COURT - SUITE 101 WINCHESTER, VIRGINIA 22602
PHONE (540) 450-0211 FAX (540) 450-0210


LELAND K. CHADWICK
LICENSED
No. 15137
PROFESSIONAL ENGINEER
COMMONWEALTH OF VIRGINIA
04/14/23

Grading Plan
HUNTFIELD
Phase 2B
CHARLES TOWN CORPORATION
JEFFERSON COUNTY, WEST VIRGINIA
DATE: JUNE 2003
SCALE: 1"=30' C.I. = 2'

SHEET 6 OF 53


MORRIS & RITCHIE ASSOCIATES, INC.
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SHEET 6 OF 31

PP-20022

## LEGEND:

- PROPOSED STORM DRAIN
- EXISTING STORM DRAIN
- EXISTING CONTOUR
- PROPOSED CONTOUR
- EXISTING SANITARY SEWER
- PROPOSED SANITARY SEWER
- EXISTING WATER LINE
- PROPOSED WATER LINE
- EXISTING TREE LINE
- PROPOSED LIMITS OF CLEARING & GRADING (LOC)
- WATER METER CROCK
- PROPOSED FIRE HYDRANT
- CG-6 CURB & GUTTER
- ROLL CURB
- ALLEY PAVEMENT
- EXISTING TREE
- RIPRAP
- TRAFFIC BARRICADE
- UTILITY PREBLAST
- PROPOSED SIDEWALK
- PROPOSED HANDICAP RAMP
- STREET LIGHT
- STREET SIGN
- STOP SIGN

(#) FOR WATERMAIN FITTINGS SEE SHEET 9

**STANDARD MINIMUM STORM DRAIN EASEMENT WIDTHS**

| PIPE SIZE | MINIMUM STORM DRAIN EASEMENT WIDTH |
|---|---|
| 12-18 INCHES | 10 FEET |
| 21-33 INCHES | 15 FEET |
| 36-48 INCHES | 20 FEET |
| 54-72 INCHES | 24 FEET |

STATE GRID NORTH
WEST VIRGINIA
NAD 27

GRAPHIC SCALE
30 0 15 30 60 120
( IN FEET )
1 inch = 30 ft.

AS-BUILT

HOLLY SPRINGS DRIVE
SILVERLEAF DRIVE
CHADWICK DRIVE
LORD FAIRFAX STREET
EX. DAVIS STREET
ALLEY 2B17
ALLEY 2C17
ALLEY 2A16
ALLEY 2B16
Green Space
253A
254 255 256 257 258 259 260 261 262 263 264 265
252 251 250 249 248 247 246 245 244 243 242 227 226
237 238 239 240 241
232 231 230 229 228
236 235 234 233
371 370 369 368 356 355 354 353
SEE SHEET 08 FOR MATCHLINE
SEE SHEET 06 FOR MATCHLINE

| No. | DATE | DESCRIPTION |
|---|---|---|
| | | REVISIONS |

PLAN DATE
6/18/03
8/15/03
10/31/03
12/05/03


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PHONE (540) 450-0211 FAX (540) 450-0210


DISTRICT OF COLUMBIA
ERIC L. LOCKHART
#15137
REGISTERED
LAND SURVEYOR
PROFESSIONAL
04/19/23

Grading Plan
HUNTFIELD
Phase 2B
CHARLES TOWN CORPORATION
JEFFERSON COUNTY, WEST VIRGINIA
DATE: JUNE 2003
C.I. = 2'
SCALE: 1"=30'


MORRIS & RITCHIE ASSOCIATES, INC.
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SHEET 7 OF 53
PP-20022

# SANITARY LATERAL COMPUTATIONS

| Section | Lot | Station | DS MH / US MH | Slope (%) | Overall Length (FT.) | Invert @ Main | Invert of Lateral @ Main | Riser Height | End Riser Station | Inv. @ End of Riser | Vertical Bend Station | Inv @ Bottom Vert. Bend | Stack Height | Inv @ Top Vert Bend | Inv @ End of Lateral | Finished Grade @ End Lat | Basement Elevation (FT.) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2.2 | 307 | 1+14.12 | 2.1U /2.2AE | 2.08% | 43.1 | 526.38 | 527.13 | N/A | | | 0+38.1 | 527.92 | 6.00 | 533.92 | 534.03 | | 539.00 |
| 2.2 | 309 | 1+20.12 | 2.1U /2.2AE | 2.08% | 98.7 | 526.58 | 527.33 | N/A | | | 0+93.7 | 529.28 | 1.00 | 530.28 | 530.39 | | 535.05 |
| 2.2 | 306 | 1+92.77 | 2.1U /2.2AE | 2.08% | 44.6 | 529.05 | 529.80 | N/A | | | 0+39.6 | 530.63 | 5.00 | 535.63 | 535.73 | | 540.80 |
| 2.2 | 310 | 1+98.77 | 2.1U /2.2AE | 2.08% | 97.4 | 529.26 | 530.01 | N/A | | | 0+92.4 | 531.93 | N/A | | 532.03 | | 536.60 |
| 2.2 | 311 | 1+98.77 | 2.1U /2.2AE | 2.08% | 97.4 | 529.26 | 530.01 | N/A | | | 0+92.4 | 531.93 | 2.00 | 533.93 | 534.03 | | 538.72 |
| 2.2 | 305 | 2+71.44 | 2.1U /2.2AE | 2.08% | 45.0 | 531.73 | 532.48 | N/A | | | 0+40.0 | 533.31 | 6.00 | 539.31 | 539.41 | | 543.90 |
| 2.2 | 312 | 3+50.11 | (M)H 2.2AE | 2.08% | 97.9 | 533.98 | 534.73 | N/A | | | 0+92.9 | 536.67 | N/A | | 536.77 | | 540.59 |
| 2.2 | 304 | 0+05.11 | 2.2AE /2.2AF | 2.08% | 45.0 | 534.58 | 535.33 | N/A | | | 0+40.0 | 536.16 | 5.00 | 541.16 | 541.27 | | 546.00 |
| 2.2 | 303 | 0+77.53 | 2.2AE /2.2AF | 2.08% | 45.0 | 535.72 | 536.47 | N/A | | | 0+40.0 | 537.31 | 4.00 | 541.31 | 541.41 | | 546.80 |
| 2.2 | 313 | 0+83.53 | 2.2AE /2.2AF | 2.08% | 97.0 | 535.82 | 536.57 | N/A | | | 0+92.0 | 538.48 | N/A | | 538.59 | | 542.58 |
| 2.2 | 302 | 1+56.20 | 2.2AE /2.2AF | 2.08% | 44.6 | 536.97 | 537.72 | N/A | | | 0+39.6 | 538.54 | 4.00 | 542.54 | 542.65 | | 547.60 |
| 2.2 | 314 | 1+62.20 | 2.2AE /2.2AF | 2.08% | 97.4 | 537.06 | 537.81 | N/A | | | 0+92.4 | 539.73 | N/A | | 539.84 | | 544.41 |
| 2.2 | 322 | 2+40.86 | 2.2AE /2.2AF | 2.08% | 98.9 | 538.31 | 539.06 | N/A | | | 0+93.9 | 541.01 | N/A | | 541.11 | | 546.44 |

## CENTER LINE GEOMETRY
## PROSPECT BLVD.

PI 17+06.85 282029.0619 2459170.0654
Length: 2308.08 Course: N 69-58-24 W

PI 40+14.93 282819.4802 2457001.5424
Length: 3441.82 Course: N 53-41-08 W
Delta: 16-17-16

Tangent Data
17+06.85 282029.0619 2459170.0654
32+06.41 282542.5945 2457761.1819
Length: 1499.56 Course: N 69-58-24 W

Circular Curve Data
PC 32+06.41 282542.5945 2457761.1819
RP 287850.9601 2459696.0605
PT 48+12.56 283298.3025 2456350.0465
Delta: 16-17-16 Type: RIGHT
Radius: 5650.00 DOC: 01-00-51
Length: 1606.15 Tangent: 808.53
Mid-Ord: 56.98 External: 57.56
Chord: 1600.75 Course: N 61-49-46 W
Es: 57.56

PI 74+45.85 284857.7749 2454228.1954

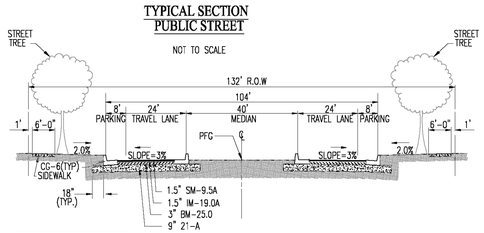
Tangent Data
48+12.56 283298.3025 2456350.0465
74+45.85 284857.7749 2454228.1954
Length: 2633.29 Course: N 53-41-08 W

## WATERLINE FITTINGS TABLE

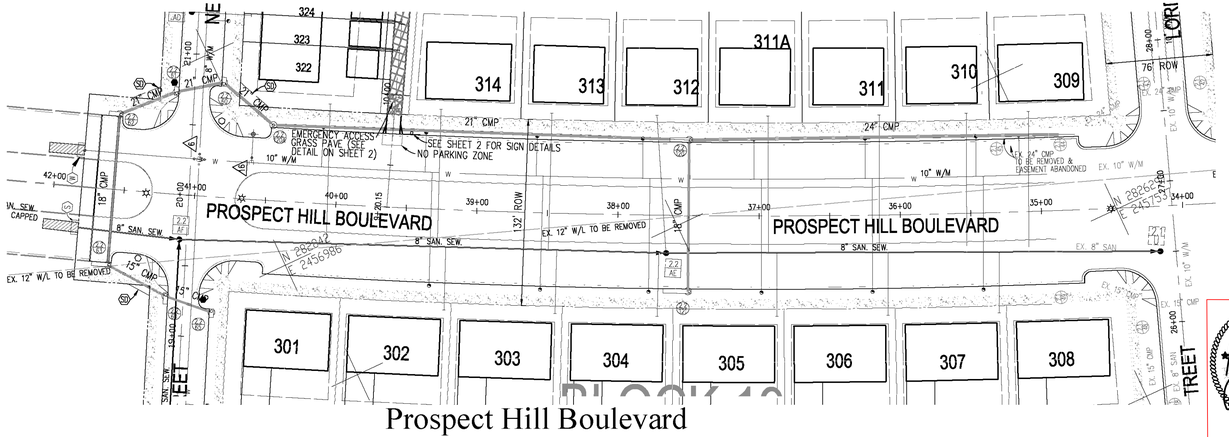
| SYMBOL | DESCRIPTION | STATION |
|---|---|---|
| 1 | 1-10"X8" CROSS, 2-8" VALVES, 2-10" VALVES | 29+69.96 ROAD 07 |
| 2 | 1-10"X8" CROSS, 2-8" VALVES, 2-10" VALVES | 32+30.14 ROAD 07 |
| 3 | 1-10"X8" CROSS, 2-8" VALVES, 2-10" VALVES | 35+02.59 ROAD 07 |
| 4 | 1-10"X8" CROSS, 2-8" VALVES, 2-10" VALVES | 37+82.90 ROAD 07 |
| 5 | 1-12"X12" CROSS, 3-12" VALVES, 1-8" REDUCER, 1-8" VALVE | 16+92.42 ROAD 14 |
| 6 | 1-10"X8" CROSS, 2-10" VALVES, 2-8" VALVES | 20+25.91 ROAD 14 |
| 7 | 1-8"X8" CROSS, 4-8" VALVES | 22+88.28 ROAD 14 |
| 8 | 1-8"X8" TEE, 3-8" VALVES | 25+49.06 ROAD 14 |
| 9 | 1-8"X8" TEE, 3-8" VALVES | 28+16.07 ROAD 14 |
| 10 | 1-8"X8" CROSS, 4-8" VALVES | 30+97.08 ROAD 14 |
| 11 | 1- 10" X 6"TEE, 1-6" VALVE, 1 FH | 29+39.64 ROAD 07 |
| 12 | 1- 10" X 6"TEE, 1-6" VALVE, 1 FH | 31+99.81 ROAD 07 |
| 13 | 1- 10" X 6"TEE, 1-6" VALVE, 1 FH | 34+72.34 ROAD 07 |
| 14 | 1- 10" X 6"TEE, 1-6" VALVE, 1 FH | 37+82.90 ROAD 07 |
| 15 | 1- 8" X 6"TEE, 1-6" VALVE, 1 FH | 25+62.08 ROAD 09 |
| 16 | 1- 10" X 6"TEE, 1-6" VALVE, 1 FH | 40+61.56 ROAD 06 |
| 17 | 1- 8" X 6"TEE, 1-6" VALVE, 1 FH | 27+24.78 ROAD 10 |
| 18 | 1- 8" X 6"TEE, 1-6" VALVE, 1 FH | 27+81.75 ROAD 11 |
| 19 | 1- 8" X 6"TEE, 1-6" VALVE, 1 FH | 27+85.94 ROAD 14 |
| 20 | 1- 8" X 6"TEE, 1-6" VALVE, 1 FH | 30+67.74 ROAD 14 |
| 21 | 1- 8" X 8"TEE, 3-8" VALVES | 37+29.00 ROAD 13 |
| 22 | 1- 8" X 6"TEE, 1-6" VALVE, 1 FH | 10+43.46 ROAD 25 |

## TYPICAL SECTION
## PUBLIC STREET

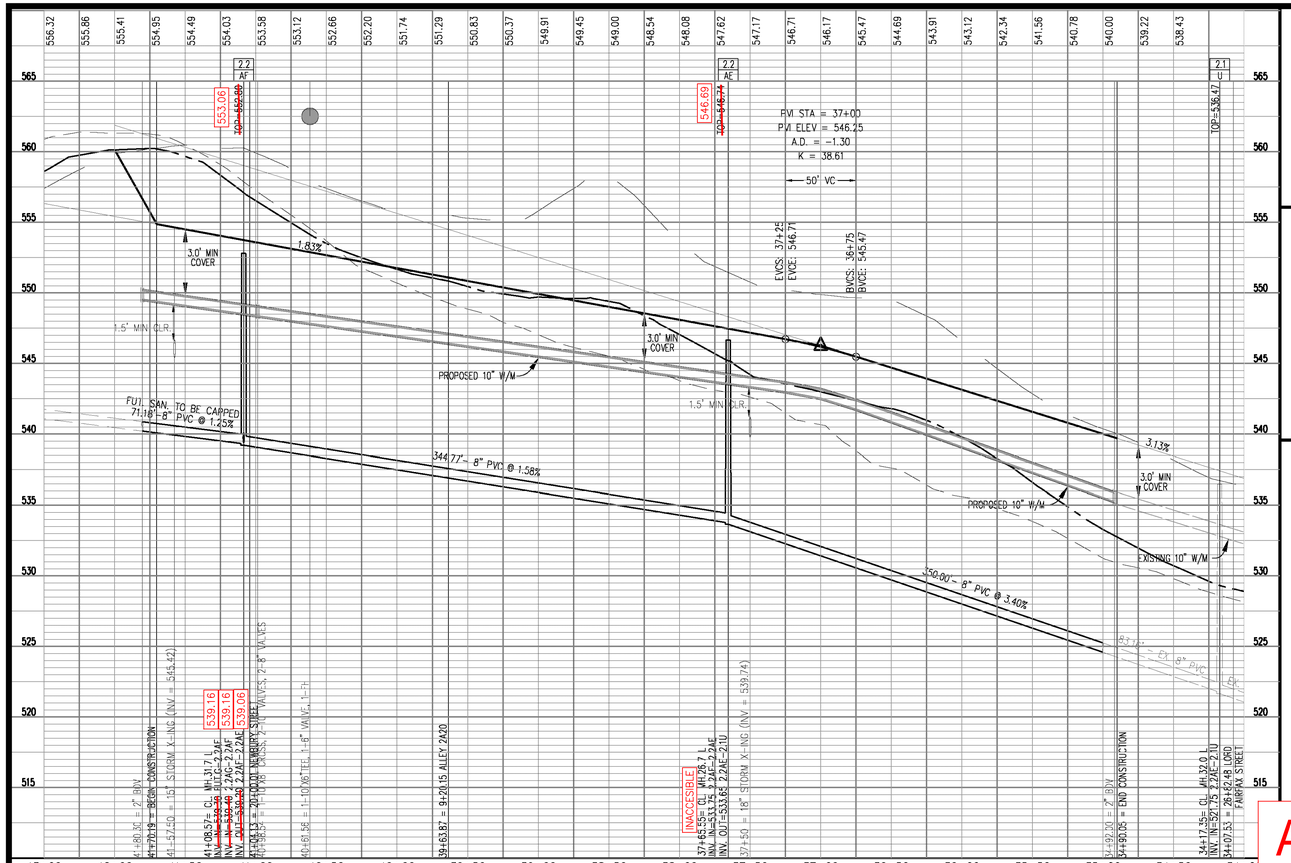
NOT TO SCALE




NOTE:
FOR FC TO FC = 32'
T.C. LEFT = PFG - 0.46'
T.C. RIGHT = PFG - 0.46'




## Prospect Hill Boulevard




## EASEMENT LEGEND

- (S) DENOTES COMMON SHARED EASEMENT
- (PA) DENOTES PUBLIC ACCESS EASEMENT
- (E) DENOTES INGRESS-EGRESS EASEMENT
- (SS) DENOTES SIGHT DISTANCE EASEMENT
- (SD) DENOTES STORM DRAIN EASEMENT
- (SS) DENOTES SANITARY SEWER EASEMENT 10' WIDE UNLESS OTHERWISE NOTED
- (W) DENOTES WATER MAIN EASEMENT 10' WIDE UNLESS OTHERWISE NOTED

## LEGEND
## EXISTING EASEMENT

- (S) DENOTES COMMON SHARED EASEMENT
- (PA) DENOTES PUBLIC ACCESS EASEMENT
- (E) DENOTES INGRESS-EGRESS EASEMENT
- (SS) DENOTES SIGHT DISTANCE EASEMENT
- (SD) DENOTES STORM DRAIN EASEMENT
- (SS) DENOTES SANITARY SEWER EASEMENT 10' WIDE UNLESS OTHERWISE NOTED
- (W) DENOTES WATER MAIN EASEMENT 10' WIDE UNLESS OTHERWISE NOTED

## LEGEND:

- PROPOSED CURB
- PROPOSED ROLL CURB
- PROPOSED HANDICAP RAMP
- PRE-BLAST FOR FUTURE UTILITIES
- WATER METER
- STREET LIGHT
- STREET SIGN
- STOP SIGN
- ALLEY PAVEMENT
- (2) NO PARKING
- (3) PRIVATE DRIVE
- (A) FIRE LANE "A"
- (B) FIRE LANE "B"
- (C) FIRE LANE "C"

LEGEND

AS-BUILT

MORRIS & RITCHIE ASSOCIATES, INC.
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STATE GRID NORTH
WEST VIRGINIA
NAD 27

| No. | DATE | DESCRIPTION |
|---|---|---|
| | | REVISIONS |

PLAN DATE
6/18/03
9/11/03
10/31/03
12/05/03

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PHONE (540) 450-0211 FAX (540) 450-0210

04/04/23

Plan & Profile - Prospect Hill Blvd.

HUNTFIELD
Phase 2B
CHARLES TOWN CORPORATION
JEFFERSON COUNTY, WEST VIRGINIA

**SCALE:** (H) 1"=50' (V) 1"=5' **C.I.** = N/A **DATE:** JUNE 2003

**SHEET** 09 **OF** 53

PP-20022

## CENTER LINE GEMOETRY
## LORD FAIRFAX STREET

PI 21+30.53 282095.88 2457384.33
Length: 3345.48 Course: N 20-01-36 E
Delta: 10-19-29

18+
20+
L

PC 20
RP
PT 22

Radius: 800.00 DOC: 07-09-43
Length: 144.16 Tangent: 72.28
Mid-Ord: 3.25 External: 3.26
Chord: 143.97 Course: N 14-51-51 E
Es: 3.26

PI 54+75.62 285239.07 2458530.01

Tangent Data
22+02.42 282163.78 2457409.08
54+75.62 285239.07 2458530.01
Length: 3273.21 Course: N 20-01-36 E

| SYMBOL | DESCRIPTION | STATION |
|---|---|---|
| 1 | 1-10"X8" CROSS, 2-8" VALVES, 2-10" VALVES | 29+69.96 ROAD 07 |
| 2 | 1-10"X8" CROSS, 2-8" VALVES, 2-10" VALVES | 33+30.14 ROAD 07 |
| 3 | 1-10"X8" CROSS, 2-8" VALVES, 2-10" VALVES | 35+02.59 ROAD 07 |
| 4 | 1-10"X8" CROSS, 2-8" VALVES, 2-10" VALVES | 37+82.90 ROAD 07 |
| 5 | 1-12"X12" CROSS, 3-12" VALVES, 1-8" REDUCER, 1-8" VALVE | 16+82.47 ROAD 14 |
| 6 | 1-10"X8" CROSS, 2-10" VALVES, 2-8" VALVES | 20+25.01 ROAD 14 |
| 7 | 1-8"X8" CROSS, 4-8" VALVES | 22+88.28 ROAD 14 |

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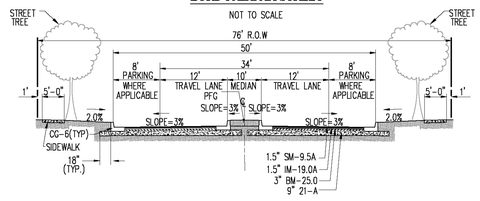
## TYPICAL SECTION
## LORD FAIRFAX STREET

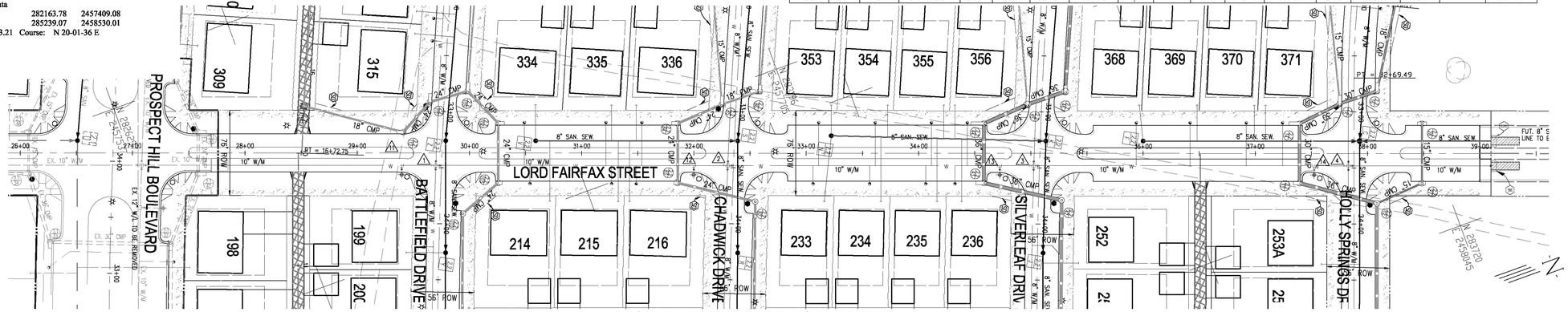
NOT TO SCALE



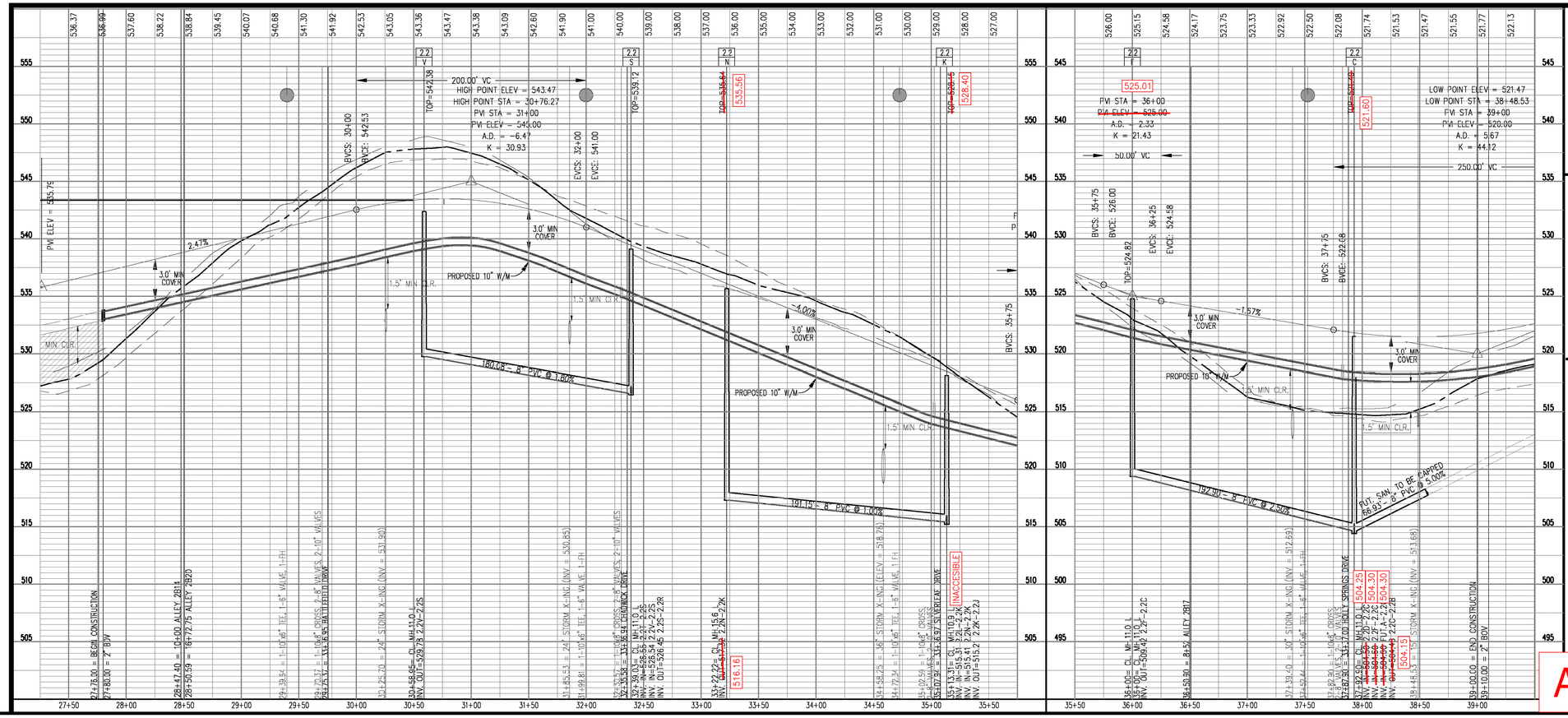

NOTE:
FOR FC TO FC = 12'
T.C. LEFT = PFG - 0.01'
T.C. RIGHT = PFG - 0.01'
FOR FC TO FC = 20'
T.C. LEFT = PFG - 0.25'
T.C. RIGHT = PFG - 0.25'

## SANITARY LATERAL COMPUTATIONS

| Section | Lot | Station | DS MH | US MH | Slope (%) | Overall Length (FT.) | Invert @ Main | Invert of Lateral @ Main | Riser Height | End Riser Station | Inv. @ End of Riser | Vertical Bend Station | Inv @ Bottom Vert Bend | Stack Height | Inv @ Top Vert Bend | Inv @ End of Lateral | Finished Grade @ End Lat | Basement Elevation (FT.) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2.2 | 371 | 0+83.79 | 2.2C | /2.2F | 2.08% | 32.0 | 507.44 | 508.19 | N/A | | | 0+27.0 | 508.76 | 7.00 | 515.76 | 515.86 | | 520.75 |
| 2.2 | 370 | 0+93.80 | 2.2C | /2.2F | 2.08% | 32.0 | 507.70 | 508.45 | N/A | | | 0+27.0 | 509.01 | 8.00 | 517.01 | 517.11 | | 521.65 |
| 2.2 | 369 | 1+44.80 | 2.2C | /2.2F | 2.08% | 32.0 | 508.97 | 509.72 | N/A | | | 0+27.0 | 510.28 | 7.00 | 517.28 | 517.39 | | 522.75 |
| 2.2 | 368 | 1+92.90 | @MH | 2.2F | 2.08% | 32.2 | 509.76 | 510.51 | N/A | | | 0+27.2 | 511.07 | 7.00 | 518.07 | 518.18 | | 523.25 |
| 2.2 | 353 | 1+91.15 | @MH | 2.2N | 2.08% | 27.4 | 517.65 | 518.40 | N/A | | | 0+22.4 | 518.87 | 8.00 | 526.87 | 526.97 | | 532.35 |
| 2.2 | 354 | 1+41.05 | 2.2K | /2.2N | 2.08% | 28.6 | 517.57 | 518.32 | N/A | | | 0+23.6 | 518.81 | 9.00 | 527.81 | 527.91 | | 532.35 |
| 2.2 | 356 | 0+74.94 | 2.2K | /2.2N | 2.08% | 30.1 | 516.91 | 517.66 | N/A | | | 0+25.1 | 518.18 | 5.00 | 523.18 | 523.28 | | 528.25 |
| 2.2 | 236 | 0+74.94 | 2.2K | /2.2N | 2.08% | 55.8 | 516.91 | 517.66 | N/A | | | 0+50.8 | 518.71 | 2.00 | 520.71 | 520.82 | | 525.65 |
| 2.2 | 355 | 0+90.96 | 2.2K | /2.2N | 2.08% | 29.9 | 517.07 | 517.82 | N/A | | | 0+24.9 | 518.33 | 7.00 | 525.33 | 525.44 | | 530.35 |
| 2.2 | 235 | 0+96.96 | 2.2K | /2.2N | 2.08% | 56.3 | 517.13 | 517.88 | N/A | | | 0+51.3 | 518.94 | 4.00 | 522.94 | 523.05 | | 527.65 |
| 2.2 | 234 | 1+47.05 | 2.2K | /2.2N | 2.08% | 57.5 | 517.63 | 518.38 | N/A | | | 0+52.5 | 519.47 | 5.00 | 524.47 | 524.57 | | 529.65 |
| 2.2 | 233 | 1+91.15 | @MH | 2.2N | 2.08% | 58.9 | 517.65 | 518.40 | N/A | | | 0+53.9 | 519.52 | 7.00 | 526.52 | 526.63 | | 531.05 |
| 2.2 | 336 | 0+90.35 | @MH | 2.2V | 2.08% | 32.0 | 529.27 | 530.02 | N/A | | | 0+27.0 | 530.59 | 1.00 | 531.59 | 531.69 | | 536.85 |
| 2.2 | 216 | 0+96.35 | @MH | 2.2V | 2.08% | 54.0 | 529.27 | 530.02 | N/A | | | 0+49.0 | 531.04 | N/A | | 531.15 | | 536.00 |
| 2.2 | 215 | 1+06.35 | @MH | 2.2V | 2.08% | 54.0 | 529.27 | 530.02 | N/A | | | 0+49.0 | 531.04 | N/A | | 531.15 | | 536.50 |
| 2.2 | 335 | 1+12.35 | @MH | 2.2V | 2.08% | 32.0 | 529.27 | 530.02 | N/A | | | 0+27.0 | 530.59 | 2.00 | 532.59 | 532.69 | | 537.35 |
| 2.2 | 214 | 1+67.38 | @MH | 2.2V | 2.08% | 53.8 | 529.27 | 530.02 | N/A | | | 0+48.8 | 531.04 | N/A | | 531.14 | | 536.50 |
| 2.2 | 334 | 1+80.08 | @MH | 2.2V | 2.08% | 32.0 | 529.27 | 530.02 | N/A | | | 0+27.0 | 530.59 | 2.00 | 532.59 | 532.69 | | 537.35 |




## LORD FAIRFAX STREET




### EASEMENT LEGEND

- (S) DENOTES COMMON SHARED EASEMENT
- (P) DENOTES PUBLIC ACCESS EASEMENT
- (E) DENOTES INGRESS-EGRESS EASEMENT
- (S) DENOTES SIGHT DISTANCE EASEMENT
- (SD) DENOTES STORM DRAIN EASEMENT
- (SS) DENOTES SANITARY SEWER EASEMENT 10' WIDE UNLESS OTHERWISE NOTED
- (W) DENOTES WATER MAIN EASEMENT 10' WIDE UNLESS OTHERWISE NOTED

### LEGEND
### EXISTING EASEMENT

- (S) DENOTES COMMON SHARED EASEMENT
- (P) DENOTES PUBLIC ACCESS EASEMENT
- (E) DENOTES INGRESS-EGRESS EASEMENT
- (S) DENOTES SIGHT DISTANCE EASEMENT
- (SD) DENOTES STORM DRAIN EASEMENT
- (SS) DENOTES SANITARY SEWER EASEMENT 10' WIDE UNLESS OTHERWISE NOTED
- (W) DENOTES WATER MAIN EASEMENT 10' WIDE UNLESS OTHERWISE NOTED

### LEGEND:

- PROPOSED CURB
- PROPOSED ROLL CURB
- PROPOSED HANDICAP RAMP
- PRE-BLAST FOR FUTURE UTILITIES
- WATER METER
- STREET LIGHT
- STREET SIGN
- STOP SIGN
- ALLEY PAVEMENT
- (2) NO PARKING
- (3) PRIVATE DRIVE
- (A) FIRE LANE "A"
- (B) FIRE LANE "B"
- (C) FIRE LANE "C"

LEGEND

AS-BUILT

| No. | DATE | DESCRIPTION |
|---|---|---|
| | | REVISIONS |

PLAN DATE
6/18/03
9/15/03
10/31/03
12/05/03

Urban Engineering & Associates, Inc.
CIVIL ENGINEERS - LANDSCAPE ARCHITECTS - LAND SURVEYORS
PEGASUS BUSINESS CENTER
660 PEGASUS COURT - SUITE 101 WINCHESTER, VIRGINIA 22602
PHONE (540) 450-0211 FAX (540) 450-0210

04/19/23

Plan & Profile - LORD FAIRFAX STREET
HUNTFIELD
Phase 2B
CHARLES TOWN CORPORATION
JEFFERSON COUNTY, WEST VIRGINIA
DATE: JUNE 2003
SCALE: (H) 1"=50' (V) 1"=5' C.I. = N/A

SHEET 10 OF 53

PP-20022

SHEET 13 OF 31

## CENTERLINE GEOMETRY
## BATTLEFIELD DRIVE

PI 24+80.90 283272.5109 2456908.5978
Length: 632.72 Course: S 60-45-35 E
Delta: 7-04-27

Tangent Data
15+24.21 283839.0783 2456137.7143
24+34.54 283299.9654 2456871.2427
Length: 910.33 Course: S 53-41-08 E

Circular Curve Data
PC 24+34.54 283299.9654 2456871.2427
RP 283904.3005 2457315.4038
PT 25+27.14 283249.8658 2456949.0498
Delta: 07-04-27 Type: LEFT
Radius: 750.00 DOC: 07-38-22
Length: 92.60 Tangent: 46.36
Mid-Ord: 1.43 External: 1.43
Chord: 92.54 Course: S 57-13-22 E
Es: 1.43

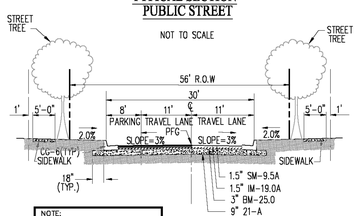
PI 31+13.50 282963.4451 2457460.6959
Length: 888.35 Course: S 69-58-24 E
Delta: 9-12-49

Tangent Data
25+27.14 283249.8658 2456949.0498
26+81.93 283174.2567 2457084.1138
Length: 154.79 Course: S 60-45-35 E

Circular Curve Data
PC 26+81.93 283174.2567 2457084.1138
RP 287847.7927 2459700.3701
PT 35+43.22 282815.6501 2457866.1736
Delta: 09-12-49 Type: LEFT
Radius: 5356.00 DOC: 01-04-11
Length: 861.29 Tangent: 431.57
Mid-Ord: 17.30 External: 17.36
Chord: 860.36 Course: S 65-22-00 E
Es: 17.36

## TYPICAL SECTION
## PUBLIC STREET

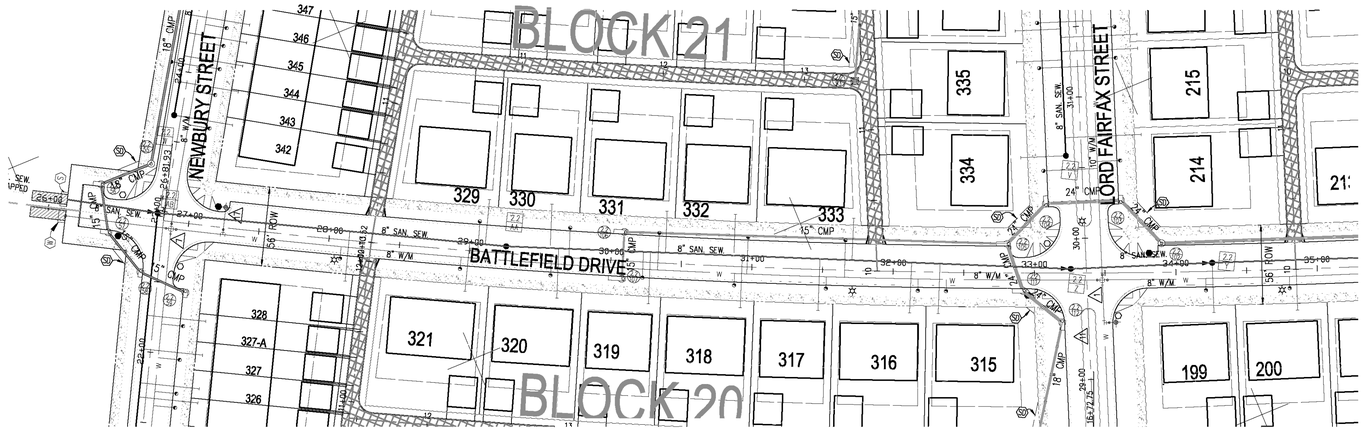
NOT TO SCALE



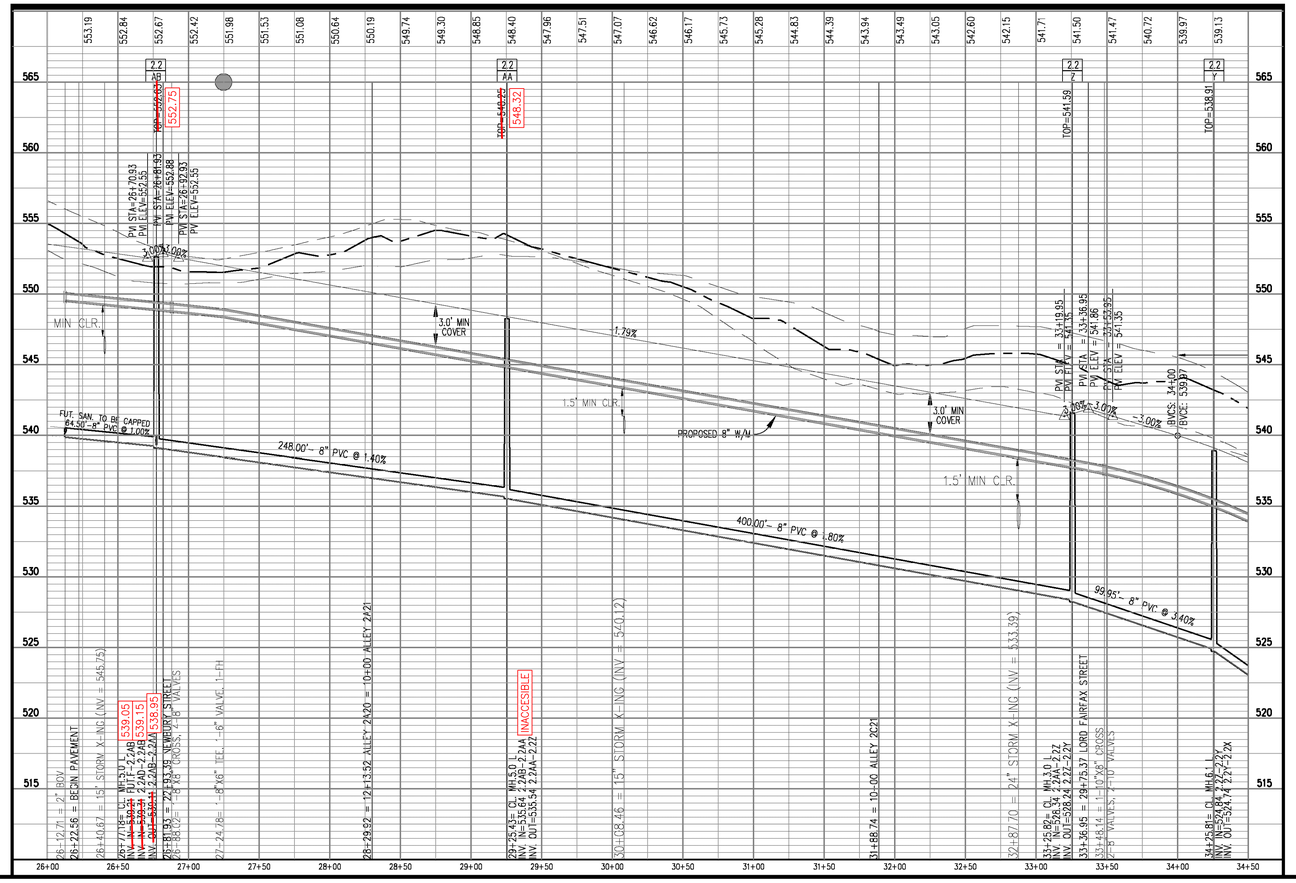

NOTE:
FOR FC TO FC = 30'
T.C. LEFT = PFG - 0.07'
T.C. RIGHT = PFG + 0.17'

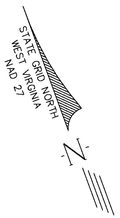
## SANITARY LATERAL COMPUTATIONS

| Section | Lot | Station | DS MH / US MH | Slope (%) | Overall Length (FT.) | Invert @ Main | Invert of Lateral @ Main | Riser Height | End Riser Station | Inv. @ End of Riser | Vertical Bend Station | Inv @ Bottom Vert. Bend | Stack Height | Inv @ Top Vert. Bend | Inv @ End of Lateral | Finished Grade @ End Lat. | Basement Elevation (FT.) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2.2 | 200 | 2+08.76 | 2.2X /2.2Y | 2.08% | 35.6 | 521.34 | 522.09 | N/A | | | 0+30.6 | 522.73 | 5.00 | 527.73 | 527.83 | | 532.30 |
| 2.2 | 199 | 2+68.06 | @MH 2.2Y | 2.08% | 35.1 | 525.08 | 525.83 | N/A | | | 0+30.1 | 526.45 | 3.00 | 529.45 | 529.56 | | 534.75 |
| 2.2 | 315 | 0+92.58 | 2.2Z /2.2AA | 2.08% | 35.2 | 530.76 | 531.51 | N/A | | | 0+30.2 | 532.14 | N/A | | 532.24 | | 536.65 |
| 2.2 | 316 | 1+12.75 | 2.2Z /2.2AA | 2.08% | 35.6 | 531.12 | 531.87 | N/A | | | 0+30.6 | 532.51 | 2.00 | 534.51 | 534.61 | | 539.35 |
| 2.2 | 333 | 1+54.98 | 2.2Z /2.2AA | 2.08% | 29.8 | 531.88 | 532.63 | N/A | | | 0+24.8 | 533.15 | 1.00 | 534.15 | 534.25 | | 538.75 |
| 2.2 | 317 | 1+77.66 | 2.2Z /2.2AA | 2.08% | 36.6 | 532.29 | 533.04 | N/A | | | 0+31.6 | 533.70 | 2.00 | 535.70 | 535.80 | | 540.50 |
| 2.2 | 332 | 2+38.72 | 2.2Z /2.2AA | 2.08% | 29.2 | 533.39 | 534.14 | N/A | | | 0+24.2 | 534.64 | N/A | | 534.75 | | 539.85 |
| 2.2 | 318 | 2+32.72 | 2.2Z /2.2AA | 2.08% | 36.8 | 533.28 | 534.03 | N/A | | | 0+31.8 | 534.69 | 2.00 | 536.69 | 536.80 | | 541.75 |
| 2.2 | 319 | 2+97.78 | 2.2Z /2.2AA | 2.08% | 36.4 | 534.45 | 535.20 | N/A | | | 0+31.4 | 535.86 | 2.00 | 537.86 | 537.96 | | 542.75 |
| 2.2 | 330 | 3+68.83 | 2.2Z /2.2AA | 2.08% | 31.1 | 535.73 | 536.48 | N/A | | | 0+26.1 | 537.02 | N/A | | 537.13 | | 542.15 |
| 2.2 | 331 | 3+50.25 | 2.2Z /2.2AA | 2.08% | 30.6 | 535.40 | 536.15 | N/A | | | 0+25.6 | 536.68 | N/A | | 536.78 | | 540.95 |
| 2.2 | 320 | 3+62.83 | 2.2Z /2.2AA | 2.08% | 35.2 | 535.62 | 536.37 | N/A | | | 0+30.2 | 537.00 | 2.00 | 539.00 | 539.11 | | 543.95 |
| 2.2 | 329 | 0+14.92 | 2.2AA /2.2AB | 2.08% | 26.7 | 536.60 | 537.35 | N/A | | | 0+21.7 | 537.80 | 1.00 | 538.80 | 538.91 | | 543.75 |
| 2.2 | 321 | 0+25.98 | 2.2AA /2.2AB | 2.08% | 34.5 | 536.76 | 537.51 | N/A | | | 0+29.5 | 538.12 | 2.00 | 540.12 | 540.22 | | 545.20 |




## BATTLEFIELD DRIVE




## EASEMENT LEGEND

(S) DENOTES COMMON SHARED EASEMENT
(PA) DENOTES PUBLIC ACCESS EASEMENT
(E) DENOTES INGRESS-EGRESS EASEMENT
(S) DENOTES SIGHT DISTANCE EASEMENT
(SD) DENOTES STORM DRAIN EASEMENT
(SS) DENOTES SANITARY SEWER EASEMENT 10' WIDE UNLESS OTHERWISE NOTED
(W) DENOTES WATER MAIN EASEMENT 10' WIDE UNLESS OTHERWISE NOTED

## LEGEND
### EXISTING EASEMENT

(S) DENOTES COMMON SHARED EASEMENT
(PA) DENOTES PUBLIC ACCESS EASEMENT
(E) DENOTES INGRESS-EGRESS EASEMENT
(S) DENOTES SIGHT DISTANCE EASEMENT
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(SS) DENOTES SANITARY SEWER EASEMENT 10' WIDE UNLESS OTHERWISE NOTED
(W) DENOTES WATER MAIN EASEMENT 10' WIDE UNLESS OTHERWISE NOTED

## LEGEND:

PROPOSED CURB
PROPOSED ROLL CURB
PROPOSED HANDICAP RAMP
PRE-BLAST FOR FUTURE UTILITIES
WATER METER
STREET LIGHT
STREET SIGN
STOP SIGN
ALLEY PAVEMENT
(2) NO PARKING
(L) PRIVATE DRIVE
(A) FIRE LANE "A"
(B) FIRE LANE "B"
(C) FIRE LANE "C"

LEGEND

**AS-BUILT**

MORRIS & RITCHIE ASSOCIATES, INC.
ENGINEERS, PLANNERS, SURVEYORS AND LANDSCAPE ARCHITECTS
205 EAST HIRST ROAD, SUITE 108
PURCELLVILLE, VA 20132
PHONE: (703) 994-4047
MRAGTA.COM
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04/19/23

| No. | DATE | DESCRIPTION |
|---|---|---|
| | | REVISIONS |

PLAN DATE
6/18/03
9/01/03
10/31/03
12/05/03

Urban Engineering & Associates, Inc.
CIVIL ENGINEERS • LANDSCAPE ARCHITECTS • LAND SURVEYORS
PEGASUS BUSINESS CENTER
600 PEGASUS COURT - SUITE 101 WINCHESTER, VIRGINIA 22602
PHONE (540) 450-0211 FAX (540) 450-0210

LICENSED LAND SURVEYOR
REGISTERED
#1537
STATE OF WEST VIRGINIA
PROFESSIONAL

Plan & Profile - BATTLEFIELD DRIVE

# HUNTFIELD
## Phase 2B

CHARLES TOWN CORPORATION
JEFFERSON COUNTY, WEST VIRGINIA

*DATE:* JUNE 2003
*SCALE:* 1"=5'(V), 1"=50'(H) *C.I.* N/A

*SHEET* 13 *OF* 53

PP-20022

SHEET 14 OF 31

## CENTERLINE GEOMETRY
## CHADWICK DRIVE

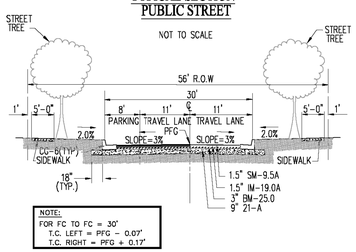
PI 28+23.80 283309.6650 2457270.0578
Length: 1186.03 Course: S 69-58-24 E
Delta: 16-17-16

**Tangent Data**
14+77.95 284106.6989 2456185.5966
20+94.55 283741.5373 2456682.4432
Length: 616.60 Course: S 53-41-08 E

**Circular Curve Data**
PC 20+94.55 283741.5373 2456682.4432
RP 287847.7927 2459700.3701
PT 35+43.22 283059.9288 2457955.2123
Delta: 16-17-16 Type: LEFT
Radius: 5096.00 DOC: 01-07-28
Length: 1448.66 Tangent: 729.25
Mid-Ord: 51.39 External: 51.91
Chord: 1443.79 Course: S 61-49-46 E
Es: 51.91

## TYPICAL SECTION
## PUBLIC STREET

NOT TO SCALE




NOTE:
FOR FC TO FC = 30'
T.C. LEFT = PFG - 0.07'
T.C. RIGHT = PFG + 0.17'

**MORRIS & RITCHIE ASSOCIATES, INC.**
ENGINEERS, PLANNERS, SURVEYORS AND LANDSCAPE ARCHITECTS
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PURCELLVILLE, VA 20132
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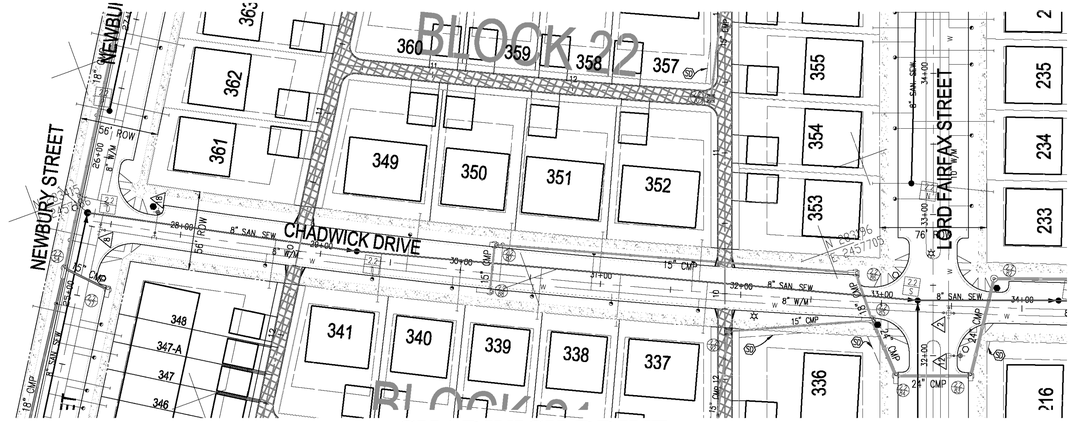
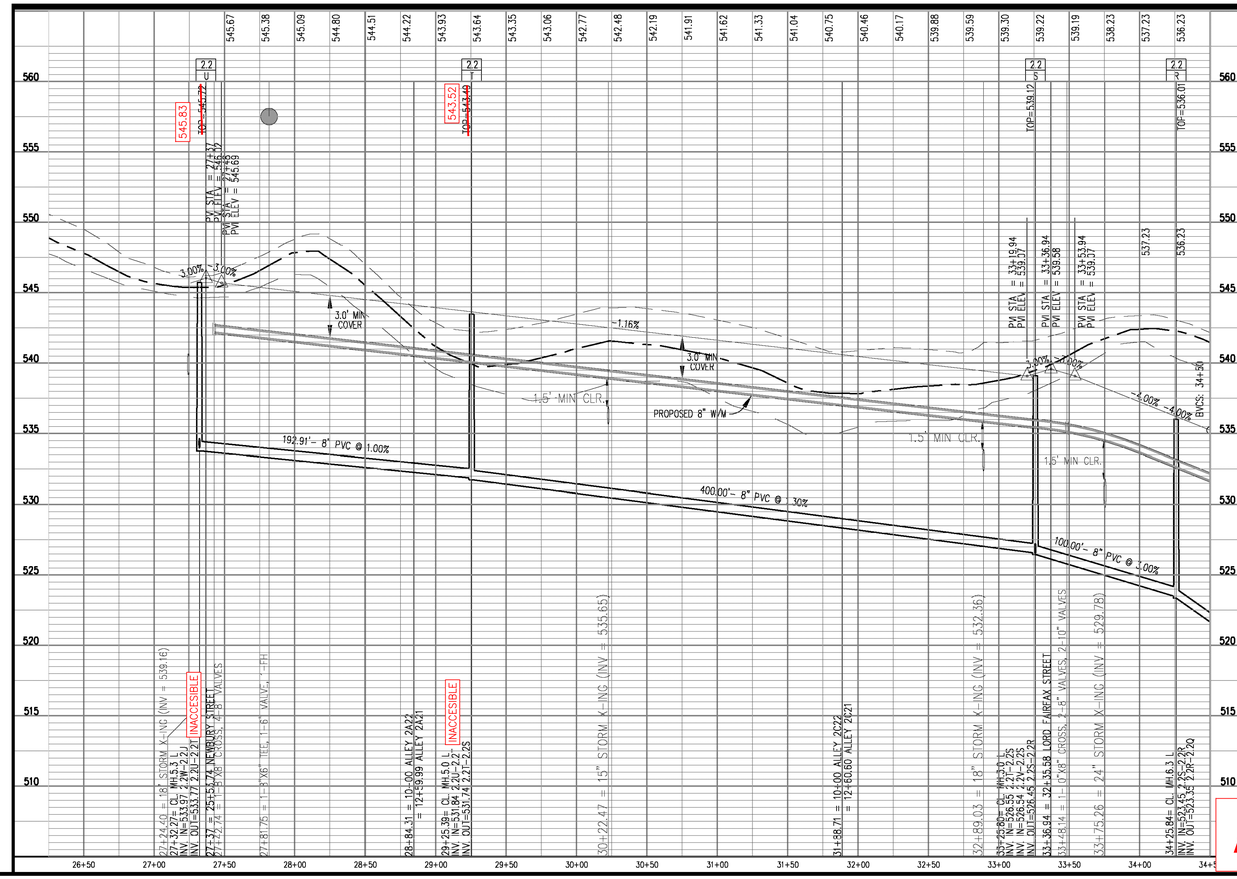
# SANITARY LATERAL COMPUTATIONS

| Section | Lot | Station | DS MH / US MH | Slope (%) | Overall Length (FT.) | Invert @ Main | Invert of Lateral @ Main | Riser Height | End Riser Station | Inv. @ End of Riser | Vertical Bend Station | Inv @ Bottom Vert. Bend | Stack Height | Inv @ Top Vert. Bend | Inv @ End of Lateral | Finished Grade @ End Lat. | Basement Elevation (FT.) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2.2 | 337 | 1+49.84 | 2.2S /2.2T | 2.08% | 36.4 | 531.64 | 532.39 | N/A | | | 0+31.4 | 533.04 | N/A | | 533.15 | | 536.50 |
| 2.2 | 352 | 1+55.84 | 2.2S /2.2T | 2.08% | 29.5 | 531.72 | 532.47 | N/A | | | 0+24.5 | 532.98 | N/A | | 533.08 | | 534.95 |
| 2.2 | 338 | 2+11.82 | 2.2S /2.2T | 2.08% | 37.0 | 532.44 | 533.19 | N/A | | | 0+32.0 | 533.86 | N/A | | 533.96 | | 537.05 |
| 2.2 | 351 | 2+26.95 | 2.2S /2.2T | 2.08% | 29.0 | 532.64 | 533.39 | N/A | | | 0+24.0 | 533.89 | N/A | | 533.99 | | 535.75 |
| 2.2 | 339 | 2+68.19 | 2.2S /2.2T | 2.08% | 36.8 | 533.18 | 533.93 | N/A | | | 0+31.8 | 534.59 | N/A | | 534.69 | | 537.75 |
| 2.2 | 350 | 2+92.10 | 2.2S /2.2T | 2.08% | 29.4 | 533.49 | 534.24 | N/A | | | 0+24.4 | 534.75 | N/A | | 534.85 | | 536.50 |
| 2.2 | 340 | 3+25.28 | 2.2S /2.2T | 2.08% | 35.8 | 533.92 | 534.67 | N/A | | | 0+30.8 | 535.31 | N/A | | 535.41 | | 538.35 |
| 2.2 | 349 | 3+58.62 | 2.2S /2.2T | 2.08% | 30.8 | 534.35 | 535.10 | N/A | | | 0+25.8 | 535.64 | N/A | | 535.74 | | 537.60 |
| 2.2 | 341 | 3+82.32 | 2.2S /2.2T | 2.08% | 34.6 | 534.66 | 535.41 | N/A | | | 0+29.6 | 536.03 | N/A | | 536.13 | | 538.35 |




## CHADWICK DRIVE




## EASEMENT LEGEND

- (CS) DENOTES COMMON SHARED EASEMENT
- (PA) DENOTES PUBLIC ACCESS EASEMENT
- (E) DENOTES INGRESS-EGRESS EASEMENT
- (S) DENOTES SIGHT DISTANCE EASEMENT
- (SD) DENOTES STORM DRAIN EASEMENT
- (SS) DENOTES SANITARY SEWER EASEMENT 10' WIDE UNLESS OTHERWISE NOTED
- (W) DENOTES WATER MAIN EASEMENT 10' WIDE UNLESS OTHERWISE NOTED

## LEGEND
## EXISTING EASEMENT

- (CS) DENOTES COMMON SHARED EASEMENT
- (PA) DENOTES PUBLIC ACCESS EASEMENT
- (E) DENOTES INGRESS-EGRESS EASEMENT
- (S) DENOTES SIGHT DISTANCE EASEMENT
- (SD) DENOTES STORM DRAIN EASEMENT
- (SS) DENOTES SANITARY SEWER EASEMENT 10' WIDE UNLESS OTHERWISE NOTED
- (W) DENOTES WATER MAIN EASEMENT 10' WIDE UNLESS OTHERWISE NOTED

## LEGEND:

- PROPOSED CURB
- PROPOSED ROLL CURB
- PROPOSED HANDICAP RAMP
- PRE-BLAST FOR FUTURE UTILITIES
- WATER METER
- STREET LIGHT
- STREET SIGN
- STOP SIGN
- ALLEY PAVEMENT
- (2) NO PARKING

LEGEND

STATE GRID NORTH
WEST VIRGINIA NORTH
NAD 27

AS-BUILT

| No. | DATE | DESCRIPTION |
|---|---|---|
| | | REVISIONS |

PLAN DATE
6/18/03
9/11/03
10/31/03
12/05/03

04/14/23

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Plan & Profile - CHADWICK DRIVE
# HUNTFIELD
## Phase 2B
CHARLES TOWN CORPORATION
JEFFERSON COUNTY, WEST VIRGINIA

SCALE: 1"=5'(V), 1"=50'(H) C.I. N/A DATE: JUNE 2003

SHEET 15 OF 53

PP-20022

SHEET 15 OF 31

## CENTERLINE GEOMETRY
## SILVERLEAF DRIVE

PI 28+12.57 283570.7642 2457353.8306
Length: 1196.74 Course: S 69-58-24 E
Delta: 16-17-16

**Tangent Data**

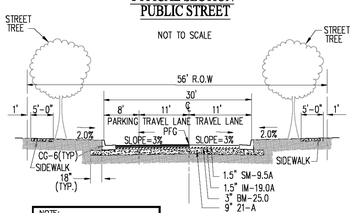
15+46.93 284320.2935 2456334.0051
21+22.53 283979.4157 2456797.8106
Length: 575.60 Course: S 53-41-08 E

**Circular Curve Data**

PC 21+22.53 283979.4157 2456797.8106
RP 287864.8874 2459653.4707
PT 34+93.30 283334.4557 2458002.1459
Delta: 16-17-16 Type: LEFT
Radius: 4822.00 DOC: 01-11-18
Length: 1370.77 Tangent: 690.04
Mid-Ord: 48.63 External: 49.12
Chord: 1366.16 Course: S 61-49-46 E
Es: 49.12

## TYPICAL SECTION
## PUBLIC STREET

NOT TO SCALE




NOTE:
FOR FC TO FC = 30'
T.C. LEFT = PFG - 0.07'
T.C. RIGHT = PFG + 0.17'

**MORRIS & RITCHIE ASSOCIATES, INC.**
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PURCELLVILLE, VA 20132
PHONE: (703) 994-4047
MRAGTA.COM
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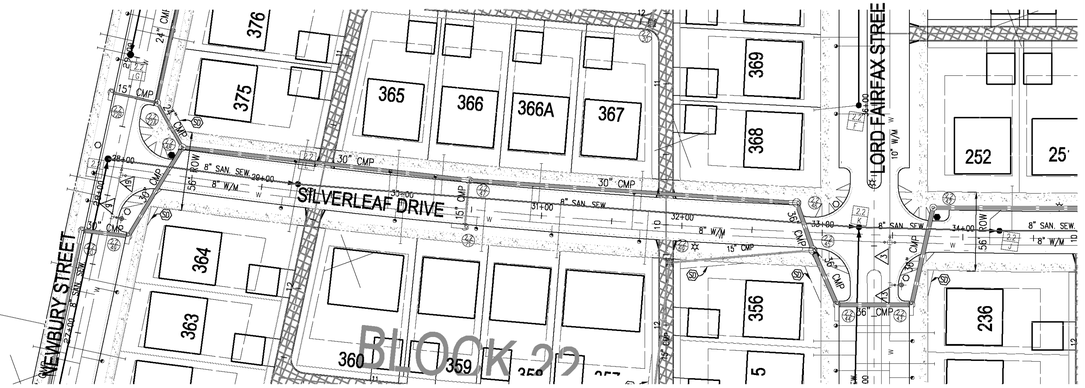
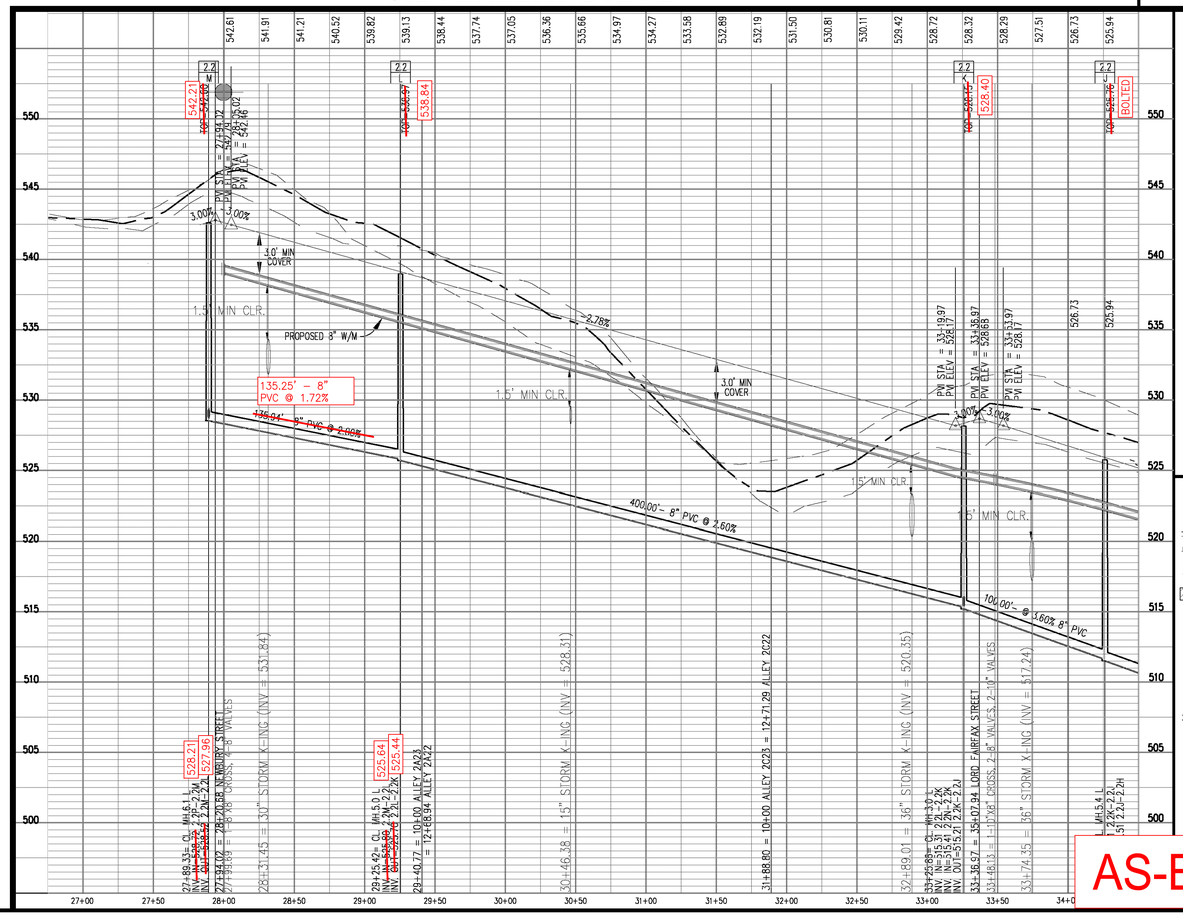
# SANITARY LATERAL COMPUTATIONS

| Section | Lot | Station | DS MH / US MH | Slope (%) | Overall Length (FT.) | Invert @ Main | Invert of Lateral @ Main | Riser Height | End Riser Station | Inv. @ End of Riser | Vertical Bend Station | Inv @ Bottom Vert. Bend | Stack Height | Inv @ Top Vert. Bend | Inv @ End of Lateral | Finished Grade @ End Lat. | Basement Elevation (FT.) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2.2 | 357 | 1+49.99 | 2.2K /2.2L | 2.08% | 37.9 | 519.96 | 520.71 | N/A | | | 0+32.9 | 521.39 | 3.00 | 524.39 | 524.49 | | 529.50 |
| 2.2 | 358 | 2+12.49 | 2.2K /2.2L | 2.08% | 38.1 | 521.58 | 522.33 | N/A | | | 0+33.1 | 523.02 | 2.00 | 525.02 | 525.12 | | 530.35 |
| 2.2 | 359 | 2+66.17 | 2.2K /2.2L | 2.08% | 37.7 | 522.98 | 523.73 | N/A | | | 0+32.7 | 524.41 | 3.00 | 527.41 | 527.51 | | 532.25 |
| 2.2 | 360 | 3+24.10 | 2.2K /2.2L | 2.08% | 36.6 | 524.48 | 525.23 | N/A | | | 0+31.6 | 525.89 | 2.00 | 527.89 | 527.99 | | 532.75 |
| 2.2 | 367 | 1+55.99 | 2.2K /2.2L | 2.08% | 28.1 | 520.11 | 520.86 | N/A | | | 0+23.1 | 521.34 | 1.00 | 522.34 | 522.45 | | 527.65 |
| 2.2 | 366A | 2+28.43 | 2.2K /2.2L | 2.08% | 27.9 | 522.00 | 522.75 | N/A | | | 0+22.9 | 523.22 | 1.00 | 524.22 | 524.33 | | 529.65 |
| 2.2 | 366 | 2+97.98 | 2.2K /2.2L | 2.08% | 28.9 | 523.80 | 524.55 | N/A | | | 0+23.9 | 525.05 | 1.00 | 526.05 | 526.15 | | 531.40 |
| 2.2 | 365 | 3+30.10 | 2.2K /2.2L | 2.08% | 29.6 | 524.64 | 525.39 | N/A | | | 0+24.6 | 525.90 | 2.00 | 527.90 | 528.01 | | 532.60 |
| 2.2 | 364 | 3+99.91 | @MH 2.2L | 2.08% | 34.3 | 526.04 | 526.79 | N/A | | | 0+29.3 | 527.40 | 5.00 | 532.40 | 532.50 | | 537.35 |




## SILVERLEAF DRIVE




## EASEMENT LEGEND

- DENOTES COMMON SHARED EASEMENT
- DENOTES PUBLIC ACCESS EASEMENT
- DENOTES INGRESS-EGRESS EASEMENT
- DENOTES SIGHT DISTANCE EASEMENT
- DENOTES STORM DRAIN EASEMENT
- DENOTES SANITARY SEWER EASEMENT 10' WIDE UNLESS OTHERWISE NOTED
- DENOTES WATER MAIN EASEMENT 10' WIDE UNLESS OTHERWISE NOTED

## LEGEND
## EXISTING EASEMENT

- DENOTES COMMON SHARED EASEMENT
- DENOTES PUBLIC ACCESS EASEMENT
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- DENOTES SIGHT DISTANCE EASEMENT
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## LEGEND:

- PROPOSED CURB
- PROPOSED ROLL CURB
- PROPOSED HANDICAP RAMP
- PRE-BLAST FOR FUTURE UTILITIES
- WATER METER
- STREET LIGHT
- STREET SIGN
- STOP SIGN
- ALLEY PAVEMENT
- (2) NO PARKING
- (3) PRIVATE DRIVE
- (A) FIRE LANE "A"
- (B) FIRE LANE "B"
- (C) FIRE LANE "C"

LEGEND

AS-BUILT

| No. | DATE | DESCRIPTION |
|---|---|---|
| | | REVISIONS |

PLAN DATE: 6/18/03, 9/11/03, 10/31/03, 12/05/03

Urban Engineering & Associates, Inc.
CIVIL ENGINEERS • LANDSCAPE ARCHITECTS • LAND SURVEYORS
PEGASUS BUSINESS CENTER
600 PEGASUS COURT - SUITE 101 WINCHESTER, VIRGINIA 22602
PHONE (540) 450-0211 FAX (540) 450-0210

04/14/23

Plan & Profile - SILVERLEAF DRIVE

# HUNTFIELD
## Phase 2B

CHARLES TOWN CORPORATION
JEFFERSON COUNTY, WEST VIRGINIA

*SCALE:* 1"=5'(V), 1"=50'(H) *C.I.* N/A *DATE:* JUNE 2003

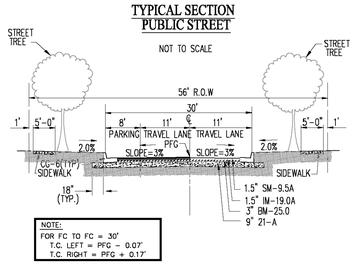
*SHEET* 17 *OF* 53

PP-20022

SHEET 16 OF 31

# SANITARY LATERAL COMPUTATIONS

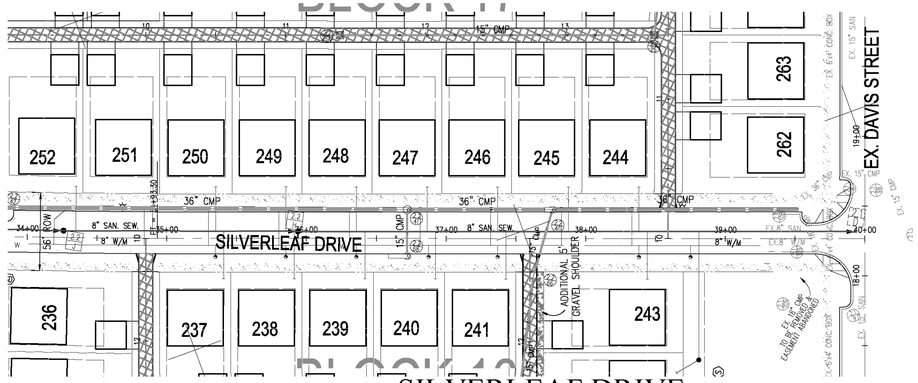
| Section | Lot | Station | DS MH | US MH | Slope (%) | Overall Length (FT.) | Invert @ Main | Invert of Lateral @ Main | Riser Height | End Riser Station | Inv. @ End of Riser | Vertical Bend Station | Inv @ Bottom Vert. Bend | Stack Height | Inv @ Top Vert Bend | Inv @ End of Lateral | Finished Grade @ End Lot | Basement Elevation (FT.) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2.2 | 243 | 1+50.00 | 2.1D | 2.2H | 2.08% | 34.0 | 493.73 | 494.48 | N/A | | | 0+29.0 | 495.09 | 5.00 | 500.09 | 500.19 | | 505.40 |
| 2.2 | 244 | 1+56.00 | 2.1D | 2.2H | 2.08% | 32.0 | 494.03 | 494.78 | N/A | | | 0+27.0 | 495.34 | 3.00 | 498.34 | 498.45 | | 503.35 |
| 2.2 | 245 | 2+06.55 | 2.1D | 2.2H | 2.08% | 32.0 | 496.53 | 497.28 | N/A | | | 0+27.0 | 497.85 | 3.00 | 500.85 | 500.95 | | 506.05 |
| 2.2 | 241 | 2+51.10 | 2.1D | 2.2H | 2.08% | 34.0 | 498.74 | 499.49 | N/A | | | 0+29.0 | 500.09 | 5.00 | 505.09 | 505.20 | | 509.65 |
| 2.2 | 246 | 2+59.00 | 2.1D | 2.2H | 2.08% | 32.0 | 499.13 | 499.88 | N/A | | | 0+27.0 | 500.44 | 3.00 | 503.44 | 503.55 | | 508.85 |
| 2.2 | 240 | 3+01.65 | 2.1D | 2.2H | 2.08% | 34.0 | 501.24 | 501.99 | N/A | | | 0+29.0 | 502.59 | 5.00 | 507.59 | 507.70 | | 512.65 |
| 2.2 | 247 | 3+07.65 | 2.1D | 2.2H | 2.08% | 32.0 | 501.54 | 502.29 | N/A | | | 0+27.0 | 502.85 | 4.00 | 506.85 | 506.95 | | 511.65 |
| 2.2 | 239 | 3+52.20 | 2.1D | 2.2H | 2.08% | 34.0 | 503.74 | 504.49 | N/A | | | 0+29.0 | 505.10 | 5.00 | 510.10 | 510.20 | | 515.15 |
| 2.2 | 248 | 3+58.20 | 2.1D | 2.2H | 2.08% | 32.0 | 504.04 | 504.79 | N/A | | | 0+27.0 | 505.35 | 4.00 | 509.35 | 509.46 | | 514.30 |
| 2.2 | 238 | 0+02.75 | GMH | 2.2H | 2.08% | 34.0 | 506.31 | 507.06 | N/A | | | 0+29.0 | 507.66 | 4.00 | 511.66 | 511.77 | | 517.05 |
| 2.2 | 249 | 0+08.75 | 2.2H | 2.2J | 2.08% | 32.0 | 506.52 | 507.27 | N/A | | | 0+27.0 | 507.84 | 3.00 | 510.84 | 510.94 | | 516.10 |
| 2.2 | 237 | 0+53.14 | 2.2H | 2.2J | 2.08% | 34.2 | 508.12 | 508.87 | N/A | | | 0+29.2 | 509.48 | 6.00 | 515.48 | 515.58 | | 520.25 |
| 2.2 | 250 | 0+59.14 | 2.2H | 2.2J | 2.08% | 31.7 | 508.34 | 509.09 | N/A | | | 0+26.7 | 509.64 | 3.00 | 512.64 | 512.75 | | 517.80 |
| 2.2 | 251 | 1+04.17 | 2.2H | 2.2J | 2.08% | 31.4 | 509.96 | 510.71 | N/A | | | 0+26.4 | 511.26 | 4.00 | 515.26 | 515.36 | | 519.80 |
| 2.2 | 252 | 1+59.17 | 2.2H | 2.2J | 2.08% | 31.5 | 511.94 | 512.69 | N/A | | | 0+26.5 | 513.24 | 2.00 | 515.24 | 515.35 | | 520.00 |



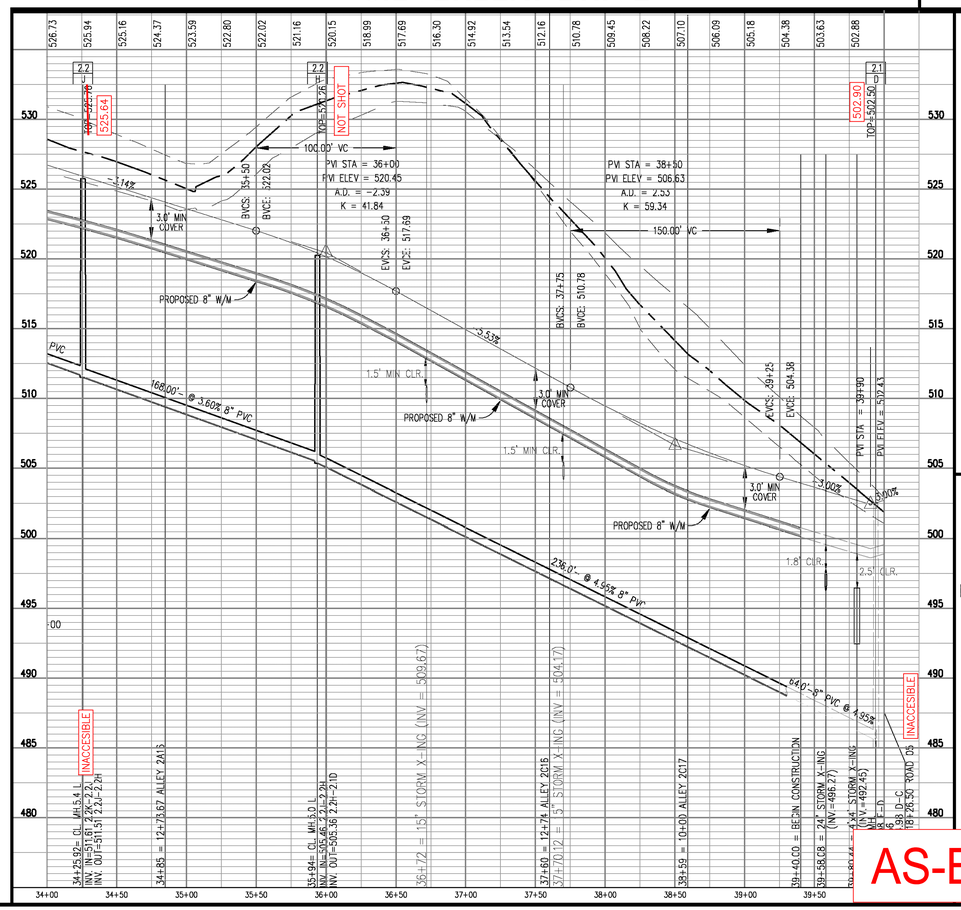

## CENTERLINE GEOMETRY
## SILVERLEAF DRIVE

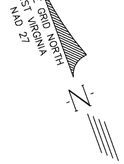
**Circular Curve Data**

| | | | | |
|---|---|---|---|---|
| PC | 21+22.53 | | 283979.4157 | 2456797.8106 |
| RP | | | 287864.8874 | 2459653.4707 |
| PT | 34+93.30 | | 283334.4557 | 2458002.1459 |
| Delta: | 16-17-16 | Type: | LEFT | |
| Radius: | 4822.00 | DOC: | 01-11-18 | |
| Length: | 1370.77 | Tangent: | 690.04 | |
| Mid-Ord: | 48.63 | External: | 49.12 | |
| Chord: | 1366.16 | Course: | S 61-49-46 E | |
| Es: | 49.12 | | | |
| PI | 40+00 | | 283160.9335 | 2458478.2064 |




## SILVERLEAF DRIVE




## EASEMENT LEGEND

- (CS) DENOTES COMMON SHARED EASEMENT
- (PA) DENOTES PUBLIC ACCESS EASEMENT
- (E) DENOTES INGRESS-EGRESS EASEMENT
- (SD) DENOTES SIGHT DISTANCE EASEMENT
- (SD) DENOTES STORM DRAIN EASEMENT
- (SS) DENOTES SANITARY SEWER EASEMENT 10' WIDE UNLESS OTHERWISE NOTED
- (W) DENOTES WATER MAIN EASEMENT 10' WIDE UNLESS OTHERWISE NOTED

## LEGEND
## EXISTING EASEMENT

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## LEGEND:

- PROPOSED CURB
- PROPOSED ROLL CURB
- PROPOSED HANDICAP RAMP
- PRE-BLAST FOR FUTURE UTILITIES
- WATER METER
- STREET LIGHT
- STREET SIGN
- STOP SIGN
- ALLEY PAVEMENT
- (2) NO PARKING
- (3) PRIVATE DRIVE
- (A) FIRE LANE "A"
- (B) FIRE LANE "B"
- (C) FIRE LANE "C"

LEGEND

**AS-BUILT**

**MORRIS & RITCHIE ASSOCIATES, INC.**
ENGINEERS, PLANNERS, SURVEYORS AND LANDSCAPE ARCHITECTS
205 EAST HIRST ROAD, SUITE 108
PURCELLVILLE, VA 20132
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| No. | DATE | DESCRIPTION |
|---|---|---|
| | | REVISIONS |

PLAN DATE: 6/18/03, 9/11/03, 10/31/03, 12/05/03

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04/14/23

Plan & Profile - SILVERLEAF DRIVE

# HUNTFIELD
## Phase 2B
CHARLES TOWN CORPORATION
JEFFERSON COUNTY, WEST VIRGINIA

SCALE: 1"=5'(V), 1"=50'(H) C.I. N/A DATE: JUNE 2003

SHEET 18 OF 53

PP-20022

SHEET 17 OF 31

## CENTERLINE GEOMETRY
## HOLLY SPRINGS DRIVE

PI 28+84.54 283837.4142 2457538.1196
Length: 352.60 Course: S 64-54-25 E
Delta: 11-13-17

Tangent Data
17+70.47 284497.1859 2456640.4204
27+61.75 283910.1375 2457439.1708
Length: 991.28 Course: S 53-41-08 E

Circular Curve Data
PC 27+61.75 283910.1375 2457439.1708
RP 284917.3626 2458179.4394
PT 30+06.56 283785.3367 2457649.3287
Delta: 11-13-17 Type: LEFT
Radius: 1250.00 DOC: 04-35-01
Length: 244.81 Tangent: 122.80
Mid-Ord: 5.99 External: 6.02
Chord: 244.42 Course: S 59-17-47 E
Es: 6.02

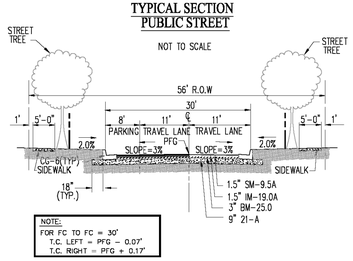
PI 32+36.35 283687.8824 2457857.4375
Length: 763.69 Course: S 69-58-24 E
Delta: 5-03-59

Tangent Data
30+06.56 283785.3367 2457649.3287
32+03.17 283701.9541 2457827.3881
Length: 196.62 Course: S 64-54-25 E

Circular Curve Data
PC 32+03.17 283701.9541 2457827.3881
RP 284381.1697 2458145.4545
PT 32+69.49 283676.5194 2457888.6122
Delta: 05-03-59 Type: LEFT
Radius: 750.00 DOC: 07-38-22
Length: 66.32 Tangent: 33.18
Mid-Ord: 0.73 External: 0.73
Chord: 66.30 Course: S 67-26-25 E
Es: 0.73

## TYPICAL SECTION
## PUBLIC STREET

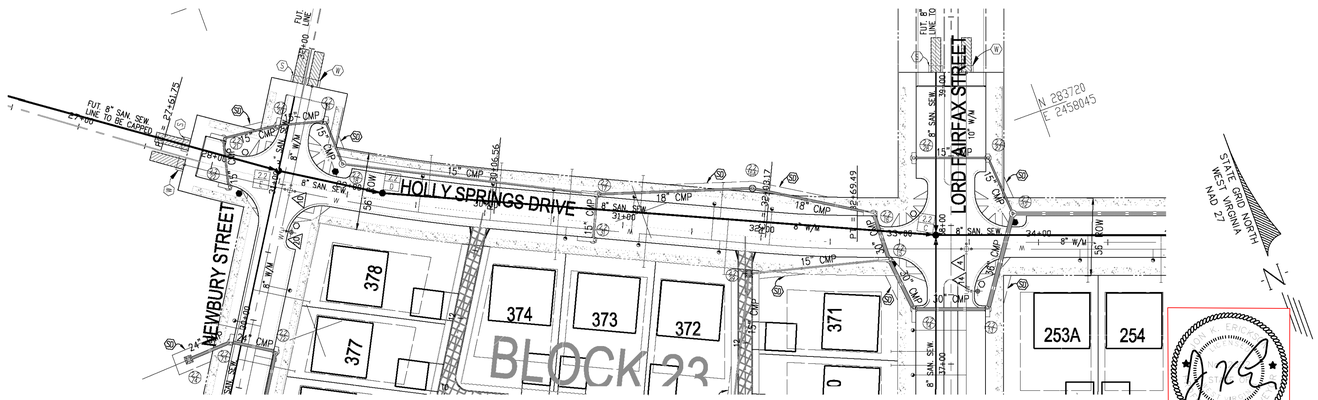
NOT TO SCALE



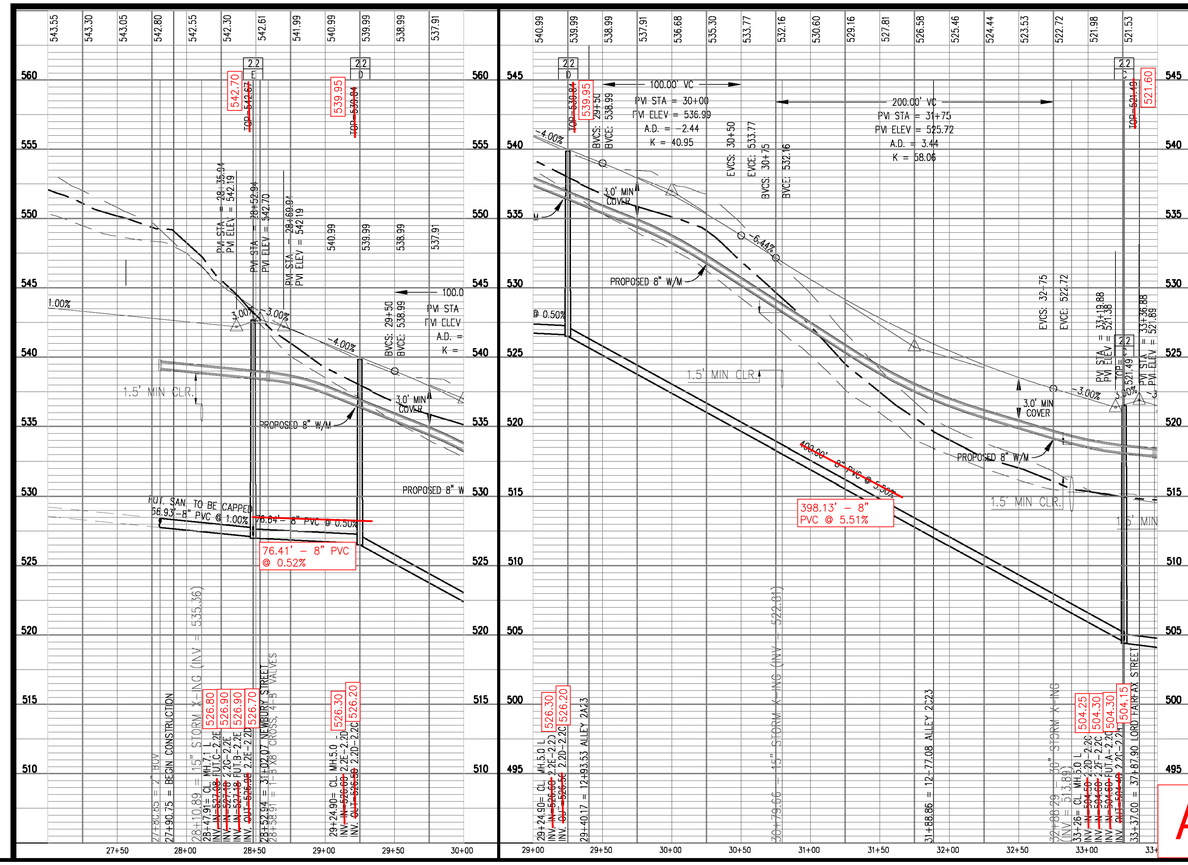

NOTE:
FOR FC TO FC = 30'
T.C. LEFT = PFG - 0.07'
T.C. RIGHT = PFG + 0.13'

## SANITARY LATERAL COMPUTATIONS

| Section | Lot | Station | DS MH / US MH | Slope (%) | Overall Length (FT.) | Invert @ Main | Invert of Lateral @ Main | Riser Height | End Riser Station | Inv. @ End of Riser | Vertical Bend Station | Inv @ Bottom Vert. Bend | Stack Height | Inv @ Top Vert. Bend | Inv @ End of Lateral | Finished Grade @ End Lat. | Basement Elevation (FT.) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2.2 | Lot 9 | 1+23.94 | 2.2C /2.2D | 2.08% | 25.7 | 512.07 | 512.82 | N/A | | | 0+20.7 | 513.25 | 2.00 | 515.25 | 515.35 | | 520.00 |
| 2.2 | 372 | 1+49.79 | 2.2C /2.2D | 2.08% | 40.0 | 513.49 | 514.24 | N/A | | | 0+35.0 | 514.97 | 4.00 | 518.97 | 519.07 | | 523.70 |
| 2.2 | Lot 10 | 1+55.79 | 2.2C /2.2D | 2.08% | 26.1 | 513.82 | 514.57 | N/A | | | 0+21.1 | 515.01 | 4.00 | 519.01 | 519.11 | | 524.00 |
| 2.2 | 373 | 2+07.71 | 2.2C /2.2D | 2.08% | 39.2 | 516.67 | 517.42 | N/A | | | 0+34.2 | 518.14 | 5.00 | 523.14 | 523.24 | | 527.70 |
| 2.2 | Lot 11 | 2+13.71 | 2.2C /2.2D | 2.08% | 26.9 | 517.00 | 517.75 | N/A | | | 0+21.9 | 518.21 | 4.00 | 522.21 | 522.31 | | 527.50 |
| 2.2 | Lot 12 | 2+64.87 | 2.2C /2.2D | 2.08% | 27.5 | 519.82 | 520.57 | N/A | | | 0+22.5 | 521.04 | 4.00 | 525.04 | 525.14 | | 530.00 |
| 2.2 | 374 | 2+72.21 | 2.2C /2.2D | 2.08% | 38.5 | 520.22 | 520.97 | N/A | | | 0+33.5 | 521.57 | 4.00 | 525.67 | 525.77 | | 530.90 |
| 2.2 | Lot 13 | 3+15.86 | 2.2C /2.2D | 2.08% | 28.2 | 522.62 | 523.37 | N/A | | | 0+23.2 | 523.85 | 1.00 | 524.85 | 524.96 | | 530.00 |
| 2.2 | Lot 14 | 3+66.86 | 2.2C /2.2D | 2.08% | 29.8 | 525.43 | 526.18 | N/A | | | 0+24.8 | 526.69 | 3.00 | 529.69 | 529.80 | | 535.00 |




## HOLLY SPRINGS DRIVE

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### LEGEND
### EXISTING EASEMENT

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### LEGEND:

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- PROPOSED ROLL CURB
- PROPOSED HANDICAP RAMP
- PRE-BLAST FOR FUTURE UTILITIES
- WATER METER
- STREET LIGHT
- STREET SIGN
- STOP SIGN
- ALLEY PAVEMENT

(2) NO PARKING
(3) PRIVATE DRIVE
(A) FIRE LANE "A"
(B) FIRE LANE "B"
FIRE LANE "C"

### LEGEND

- EX. GRADE 35' LEFT
- EX. GRADE @ ℄
- EX. GRADE 35' RIGHT

AS-BUILT

| No. | DATE | DESCRIPTION |
|---|---|---|
| | | REVISIONS |

PLAN DATE
6/18/03
9/10/03
10/31/03
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Plan & Profile - HOLLY SPRINGS DRIVE
HUNTFIELD
Phase 2B
CHARLES TOWN CORPORATION
JEFFERSON COUNTY, WEST VIRGINIA
DATE: JUNE 2003
SCALE: 1"=5'(V), 1"=50'(H) C.I. N/A

SHEET 19 OF 53

PP-20022

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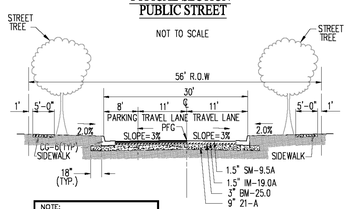
SHEET 18 OF 31

## TYPICAL SECTION
## PUBLIC STREET

NOT TO SCALE




NOTE:
FOR FC TO FC = 30'
T.C. LEFT = PFG - 0.07'
T.C. RIGHT = PFG + 0.17'

## CENTERLINE GEOMETRY
## HOLLY SPRINGS DRIVE

| | | | |
|---|---|---|---|
| PI | 40+00 | 283426.3518 | 2458574.9504 |

Tangent Data

| | | | |
|---|---|---|---|
| 32+69.49 | | 283676.5194 | 2457888.6122 |
| 40+00 | | 283426.3518 | 2458574.9504 |
| Length: | 730.51 | Course: | S 69-58-24 E |

# SANITARY LATERAL COMPUTATIONS

| Section | Lot | Station | DS MH / US MH | Slope (%) | Overall Length (FT.) | Invert @ Main | Invert of Lateral @ Main | Riser Height | End Riser Station | Inv. @ End of Riser | Vertical Bend | Inv @ Bottom Vert. Bend | Stack Height | Inv @ Top Vert. Bend | Inv @ End of Lateral | Finished Grade @ End Lat. | Basement Elevation (FT.) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2.2 | 259 | 0+00.00 | @MH 2.1C | 2.08% | 34.0 | 483.53 | 484.28 | N/A | | | 0+29.0 | 484.89 | 17.00 | 501.89 | 501.99 | | 506.45 |
| 2.2 | 261 | 1+50.00 | 2.1C /2.2A | 2.08% | 34.0 | 489.95 | 490.70 | N/A | | | 0+29.0 | 491.30 | 5.00 | 496.30 | 496.41 | | 501.35 |
| 2.2 | 260 | 2+02.00 | 2.1C /2.2A | 2.08% | 34.0 | 492.03 | 492.78 | N/A | | | 0+29.0 | 493.38 | 6.00 | 499.38 | 499.49 | | 503.95 |
| 2.2 | Lot 2 | 2+08.00 | 2.1C /2.2A | 2.08% | 32.0 | 492.27 | 493.02 | N/A | | | 0+27.0 | 493.58 | 5.00 | 498.58 | 498.68 | | 503.95 |
| 2.2 | 258 | 0+90.00 | 2.2A /2.2B | 2.08% | 31.3 | 498.25 | 499.00 | N/A | | | 0+26.3 | 499.55 | 4.00 | 503.55 | 503.65 | | 508.45 |
| 2.2 | 257 | 1+00.00 | 2.2A /2.2B | 2.08% | 34.0 | 498.65 | 499.40 | N/A | | | 0+29.0 | 500.00 | 5.00 | 505.00 | 505.11 | | 510.20 |
| 2.2 | 256 | 1+48.00 | 2.2A /2.2B | 2.08% | 34.0 | 500.57 | 501.32 | N/A | | | 0+29.0 | 501.92 | 5.00 | 506.92 | 507.03 | | 511.50 |
| 2.2 | 255 | 1+99.15 | @MH 2.2B | 2.08% | 33.9 | 502.03 | 502.78 | N/A | | | 0+28.9 | 503.38 | 5.00 | 508.38 | 508.49 | | 512.90 |
| 2.2 | 254 | 0+45.64 | 2.2B /2.2C | 2.08% | 34.0 | 502.70 | 503.03 | N/A | | | 0+29.0 | 503.63 | 4.00 | 507.63 | 507.74 | | 512.80 |
| 2.2 | 253A | 0+98.32 | 2.2B /2.2C | 2.08% | 34.0 | 503.36 | 503.69 | N/A | | | 0+29.0 | 504.29 | 5.00 | 509.29 | 509.40 | | 513.85 |

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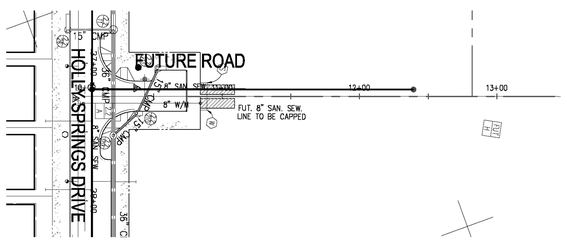
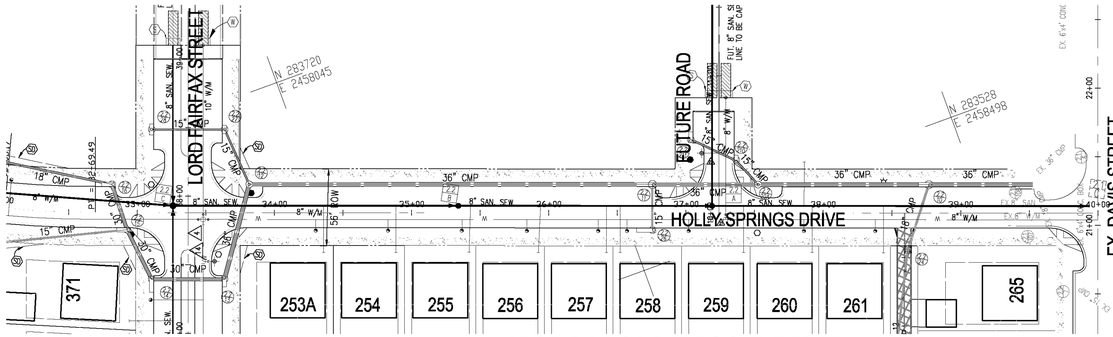
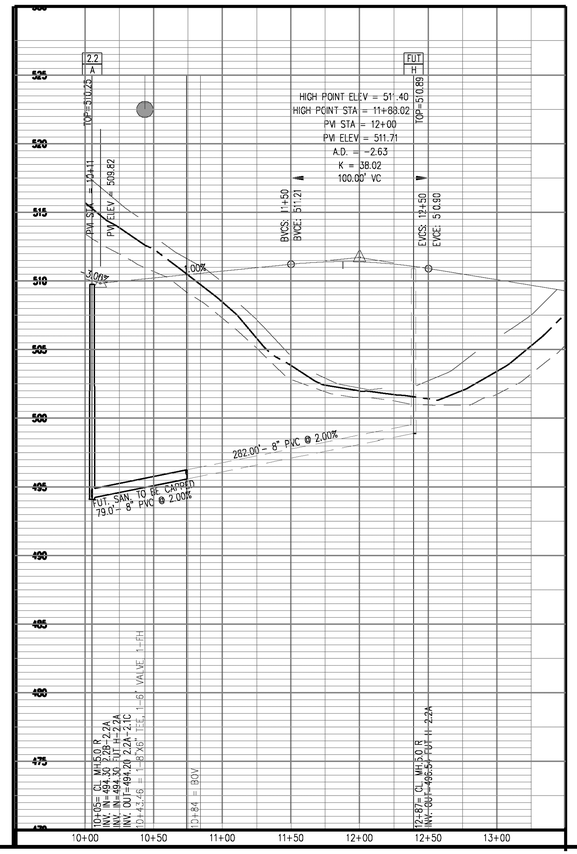


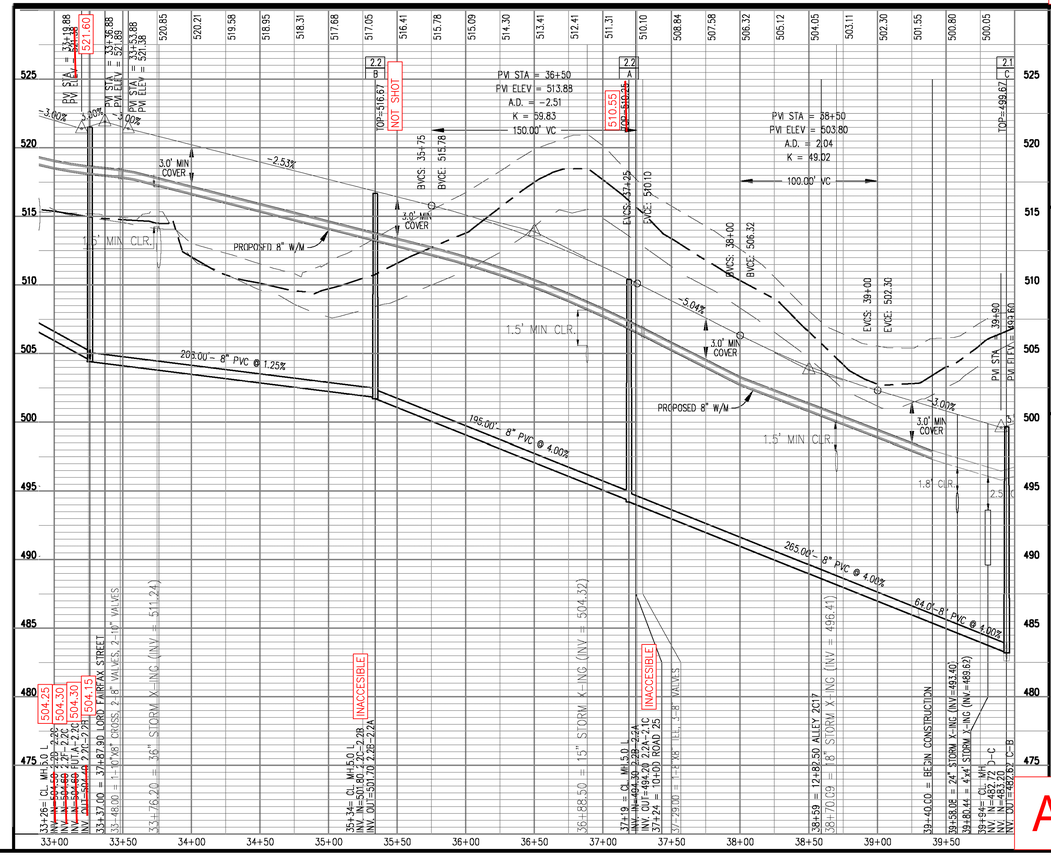

STATE GRID NORTH
WEST VIRGINIA
NAD 27'

04/19/23

## FUTURE ROAD




## HOLLY SPRINGS DRIVE




## EASEMENT LEGEND

- (SS) DENOTES COMMON SHARED EASEMENT
- (PA) DENOTES PUBLIC ACCESS EASEMENT
- (E) DENOTES INGRESS-EGRESS EASEMENT
- (SI) DENOTES SIGHT DISTANCE EASEMENT
- (SD) DENOTES STORM DRAIN EASEMENT
- (SS) DENOTES SANITARY SEWER EASEMENT 10' WIDE UNLESS OTHERWISE NOTED
- (W) DENOTES WATER MAIN EASEMENT 10' WIDE UNLESS OTHERWISE NOTED

## LEGEND
### EXISTING EASEMENT

- (SS) DENOTES COMMON SHARED EASEMENT
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## LEGEND:

- PROPOSED CURB
- PROPOSED ROLL CURB
- PROPOSED HANDICAP RAMP
- PRE-BLAST FOR FUTURE UTILITIES
- WATER METER
- STREET LIGHT
- STREET SIGN
- STOP SIGN
- ALLEY PAVEMENT

- (2) NO PARKING
- (3) PRIVATE DRIVE
- (A) FIRE LANE "A"
- (B) FIRE LANE "B"
- FIRE LANE "C"

LEGEND
- EX. GRADE 35' LEFT
- EX. GRADE @ ℄
- EX. GRADE 35' RIGHT

AS-BUILT

| No. | DATE | DESCRIPTION |
|---|---|---|
| | | REVISIONS |

PLAN DATE
6/18/03
9/11/03
10/31/03
12/05/03

Urban Engineering & Associates, Inc.
CIVIL ENGINEERS · LANDSCAPE ARCHITECTS · LAND SURVEYORS
PEGASUS BUSINESS CENTER
600 PEGASUS COURT - SUITE 101 WINCHESTER, VIRGINIA 22602
PHONE (540) 450-0211 FAX (540) 450-0210

COMMONWEALTH OF VIRGINIA
KEVIN E. LEE CLOCK
LICENSED PROFESSIONAL ENGINEER
NO. 019139
04/19/23

Plan & Profile - HOLLY SPRINGS DRIVE

# HUNTFIELD
## Phase 2B
CHARLES TOWN CORPORATION
JEFFERSON COUNTY, WEST VIRGINIA

SCALE: 1"=5'(V), 1"=50'(H) C.I. N/A DATE: JUNE 2003

SHEET
20
OF
53

PP-20022

SHEET 19 OF 31

## CENTER LINE GEOMETRY
## NEWBURY STREET

PI 14+30.13 282413.1752 2456676.7194
Length: 863.26 Course: N 28-09-34 E

PI 22+93.39 283174.2567 2457084.1138
Length: 1719.29 Course: N 32-09-34 E
Delta: 4-00-00

Tangent Data
14+30.13 282413.1752 2456676.7194
22+93.39 283174.2567 2457084.1138
Length: 863.26 Course: N 28-09-34 E

## SANITARY LATERAL COMPUTATIONS

| Section | Lot | Station | DS MH / US MH | Slope (%) | Overall Length (FT.) | Invert @ Main | Invert of Lateral @ Main | Riser Height | End Riser Station | Inv. @ End of Riser | Vertical Bend Station | Inv @ Bottom Vert. Bend | Stack Height | Inv @ Top Vert. Bend | Inv @ End of Lateral | Finished Grade @ End Lat. | Basement Elevation (FT.) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2.2 | Lot 41 | 0+16.64 | 2.2U /2.2W | 2.08% | 24.0 | 537.40 | 538.15 | N/A | | | 0+19.0 | 538.55 | N/A | | 538.65 | | 541.00 |
| 2.2 | Lot 23 | 0+72.89 | 2.2U /2.2W | 2.08% | 24.0 | 538.36 | 539.11 | N/A | | | 0+19.0 | 539.50 | N/A | | 539.61 | | 541.50 |
| 2.2 | 347 | 0+80.45 | 2.2U /2.2W | 2.08% | 42.0 | 538.49 | 539.24 | N/A | | | 0+37.0 | 540.01 | N/A | | 540.11 | | 541.94 |
| 2.2 | 346 | 0+94.46 | 2.2U /2.2W | 2.08% | 42.0 | 538.73 | 539.48 | N/A | | | 0+37.0 | 540.24 | N/A | | 540.35 | | 542.61 |
| 2.2 | 345 | 1+18.45 | 2.2U /2.2W | 2.08% | 42.0 | 539.13 | 539.88 | N/A | | | 0+37.0 | 540.65 | N/A | | 540.76 | | 543.94 |
| 2.2 | 344 | 1+42.46 | 2.2U /2.2W | 2.08% | 42.0 | 539.54 | 540.29 | N/A | | | 0+37.0 | 541.06 | N/A | | 541.16 | | 544.61 |
| 2.2 | Lot 24 | 1+48.46 | 2.2U /2.2W | 2.08% | 24.0 | 539.64 | 540.39 | N/A | | | 0+19.0 | 540.79 | N/A | | 540.89 | | 544.50 |
| 2.2 | 343 | 1+66.45 | 2.2U /2.2W | 2.08% | 42.0 | 539.95 | 540.70 | N/A | | | 0+37.0 | 541.47 | N/A | | 541.57 | | 545.28 |
| 2.2 | 342 | 1+90.45 | @MH 2.2W | 2.08% | 42.0 | 539.94 | 540.69 | N/A | | | 0+37.0 | 541.46 | N/A | | 541.56 | | 545.95 |
| 2.2 | 327 | 0+72.83 | 2.2AB /2.2AD | 2.08% | 41.8 | 540.79 | 541.54 | N/A | | | 0+36.8 | 542.31 | 1.00 | 543.31 | 543.41 | | 548.45 |
| 2.2 | 326 | 0+96.83 | 2.2AB /2.2AD | 2.08% | 41.8 | 541.03 | 541.78 | N/A | | | 0+36.8 | 542.55 | 2.00 | 544.55 | 544.65 | | 549.12 |
| 2.2 | 325 | 1+20.83 | 2.2AB /2.2AD | 2.08% | 41.9 | 541.27 | 542.02 | N/A | | | 0+36.9 | 542.79 | 1.00 | 543.79 | 543.89 | | 548.45 |
| 2.2 | 324 | 1+44.83 | 2.2AB /2.2AD | 2.08% | 41.9 | 541.51 | 542.26 | N/A | | | 0+36.9 | 543.03 | N/A | | 543.14 | | 547.78 |
| 2.2 | 323 | 1+68.92 | @MH 2.2AD | 2.08% | 42.0 | 541.34 | 542.09 | N/A | | | 0+37.0 | 542.86 | N/A | | 542.96 | | 547.11 |

## SANITARY LATERAL COMPUTATIONS

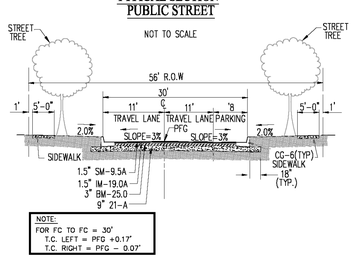
| Section | Lot | Station | DS MH / US MH | Slope (%) | Overall Length (FT.) | Invert @ Main | Invert of Lateral @ Main | Riser Height | End Riser Station | Inv. @ End of Riser | Vertical Bend Station | Inv @ Bottom Vert. Bend | Stack Height | Inv @ Top Vert. Bend | Inv @ End of Lateral | Finished Grade @ End Lat. | Basement Elevation (FT.) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2.2 | Lot 26 | 1+16.32 | 2.2AF /2.2AG | 2.08% | 24.0 | 542.59 | 543.34 | N/A | | | 0+19.0 | 543.74 | N/A | | 543.84 | | 548.00 |
| 2.2 | 301 | 1+22.32 | 2.2AF /2.2AG | 2.08% | 42.0 | 542.72 | 543.47 | N/A | | | 0+37.0 | 544.24 | N/A | | 544.34 | | 548.40 |
| 2.2 | 300 | 1+52.32 | 2.2AF /2.2AG | 2.08% | 42.0 | 543.35 | 544.10 | N/A | | | 0+37.0 | 544.87 | 3.00 | 547.87 | 547.97 | | 552.50 |
| 2.2 | Lot 27 | 1+58.32 | 2.2AF /2.2AG | 2.08% | 24.0 | 543.47 | 544.22 | N/A | | | 0+19.0 | 544.62 | 2.00 | 546.62 | 546.72 | | 552.00 |
| 2.2 | Lot 31 | 0+70.01 | 2.2AM /2.2AN | 2.08% | 24.0 | 544.38 | 545.13 | N/A | | | 0+19.0 | 545.52 | N/A | | 545.63 | | 550.40 |
| 2.2 | Lot 30 | 0+92.01 | 2.2AM /2.2AN | 2.08% | 24.0 | 544.93 | 545.68 | N/A | | | 0+19.0 | 546.07 | N/A | | 546.18 | | 551.30 |
| 2.2 | Lot 29 | 1+43.01 | 2.2AM /2.2AN | 2.08% | 24.0 | 546.20 | 546.95 | N/A | | | 0+19.0 | 547.35 | N/A | | 547.45 | | 552.20 |
| 2.2 | Lot 28 | 1+88.01 | 2.2AM /2.2AN | 2.08% | 24.0 | 547.33 | 548.08 | N/A | | | 0+19.0 | 548.47 | N/A | | 548.58 | | 552.50 |

STATE GRID NORTH
WEST VIRGINIA
NAD 27

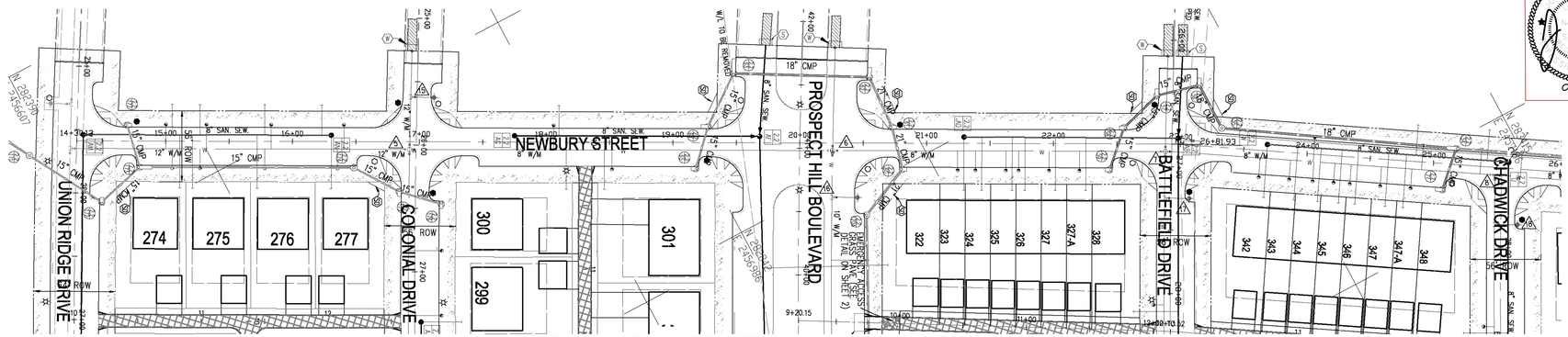
04/9/23

## TYPICAL SECTION
## PUBLIC STREET

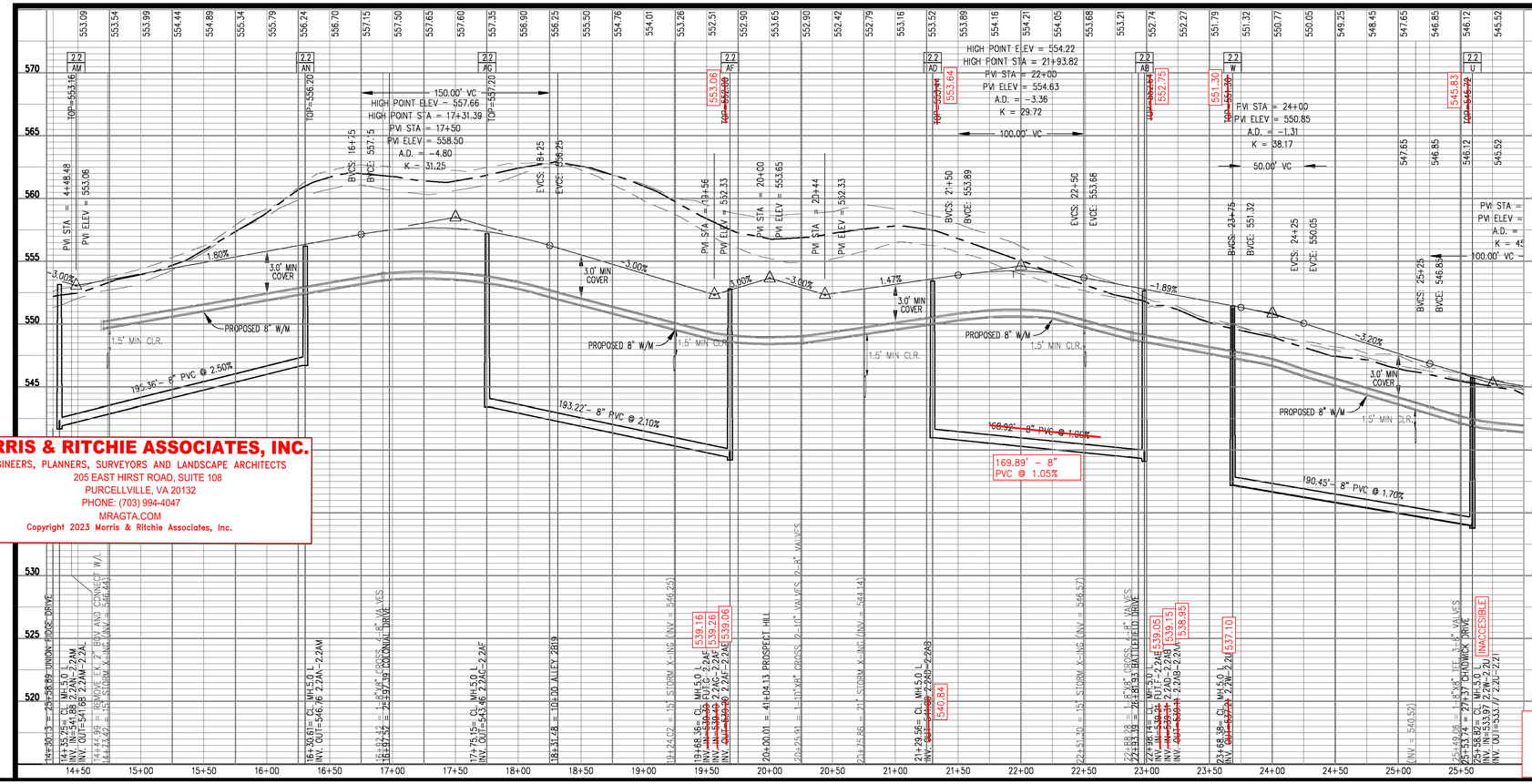
NOT TO SCALE




NOTE:
FOR FC TO FC = 30'
T.C. LEFT = PFG +0.17'
T.C. RIGHT = PFG - 0.07'




## NEWBURY STREET




## EASEMENT LEGEND

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- (2) NO PARKING
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- (A) FIRE LANE "A"
- (B) FIRE LANE "B"
- (C) FIRE LANE "C"

LEGEND

AS-BUILT

MORRIS & RITCHIE ASSOCIATES, INC.
ENGINEERS, PLANNERS, SURVEYORS AND LANDSCAPE ARCHITECTS
205 EAST HIRST ROAD, SUITE 108
PURCELLVILLE, VA 20132
PHONE: (703) 994-4047
MRAGTA.COM
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| No. | DATE | DESCRIPTION |
|---|---|---|
| | | REVISIONS |

PLAN DATE
6/18/03
9/11/03
10/31/03
12/05/03

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Plan & Profile - Newbury Street

# HUNTFIELD
## Phase 2B

CHARLES TOWN CORPORATION
JEFFERSON COUNTY, WEST VIRGINIA

*DATE:* JUNE 2003

*SCALE:* (H) 1"=50' (V) 1"=5' *C.I.* = N/A

*SHEET* 21 *OF* 53

PP-20022

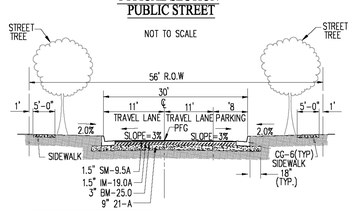
SHEET 20 OF 31

# SANITARY LATERAL COMPUTATIONS

| Section | Lot | Station | DS MH / US MH | Slope (%) | Overall Length (FT.) | Invert @ Main | Invert of Lateral @ Main | Riser Height | End Riser Station | Inv. @ End of Riser | Vertical Bend Station | Inv @ Bottom Vert. Bend | Stack Height | Inv @ Top Vert. Bend | Inv @ End of Lateral | Finished Grade @ End Lot | Basement Elevation (FT.) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2.2 | 378 | 0+87.75 | 2.2E /2.2G | 2.08% | 42.0 | 528.81 | 529.56 | N/A | | | 0+37.0 | 530.33 | N/A | | 530.43 | | 535.50 |
| 2.2 | Lot 15 | 1+17.40 | 2.2E /2.2G | 2.08% | 24.0 | 529.11 | 529.86 | N/A | | | 0+19.0 | 530.25 | N/A | | 530.36 | | 535.00 |
| 2.2 | 377 | 1+38.93 | 2.2E /2.2G | 2.08% | 42.0 | 529.32 | 530.07 | N/A | | | 0+37.0 | 530.84 | N/A | | 530.95 | | 535.50 |
| 2.2 | 376 | 1+90.12 | 2.2E /2.2G | 2.08% | 42.0 | 529.83 | 530.58 | N/A | | | 0+37.0 | 531.35 | N/A | | 531.46 | | 535.75 |
| 2.2 | Lot 16 | 1+98.22 | 2.2E /2.2G | 2.08% | 24.0 | 529.92 | 530.67 | N/A | | | 0+19.0 | 531.06 | N/A | | 531.16 | | 535.50 |
| 2.2 | Lot 17 | 2+08.22 | GMH 2.2G | 2.08% | 24.0 | 529.60 | 530.35 | N/A | | | 0+19.0 | 530.74 | N/A | | 530.85 | | 535.50 |
| 2.2 | 363 | 0+86.25 | GMH 2.2P | 2.08% | 42.0 | 530.19 | 530.94 | N/A | | | 0+37.0 | 531.71 | 1.00 | 532.71 | 532.81 | | 537.90 |
| 2.2 | 362 | 1+36.40 | GMH 2.2P | 2.08% | 42.0 | 530.19 | 530.94 | N/A | | | 0+37.0 | 531.71 | 2.00 | 533.71 | 533.81 | | 538.45 |
| 2.2 | 361 | 1+86.57 | GMH 2.2P | 2.08% | 42.0 | 530.19 | 530.94 | N/A | | | 0+37.0 | 531.71 | 2.00 | 533.71 | 533.81 | | 538.75 |
| 2.2 | Lot 18 | 0+16.92 | GMH 2.2P | 2.08% | 24.0 | 530.19 | 530.94 | N/A | | | 0+19.0 | 531.33 | 1.00 | 532.33 | 532.44 | | 537.00 |
| 2.2 | Lot 19 | 0+26.92 | GMH 2.2P | 2.08% | 24.0 | 530.19 | 530.94 | N/A | | | 0+19.0 | 531.33 | 1.00 | 532.33 | 532.44 | | 537.00 |
| 2.2 | Lot 20 | 0+80.25 | GMH 2.2P | 2.08% | 24.0 | 530.19 | 530.94 | N/A | | | 0+19.0 | 531.33 | 1.00 | 532.33 | 532.44 | | 537.50 |
| 2.2 | Lot 21 | 1+41.40 | GMH 2.2P | 2.08% | 24.0 | 530.19 | 530.94 | N/A | | | 0+19.0 | 531.33 | 2.00 | 533.33 | 533.44 | | 538.00 |
| 2.2 | Lot 22 | 1+92.57 | GMH 2.2P | 2.08% | 24.0 | 530.19 | 530.94 | N/A | | | 0+19.0 | 531.33 | 2.00 | 533.33 | 533.44 | | 538.50 |

## TYPICAL SECTION
## PUBLIC STREET

NOT TO SCALE

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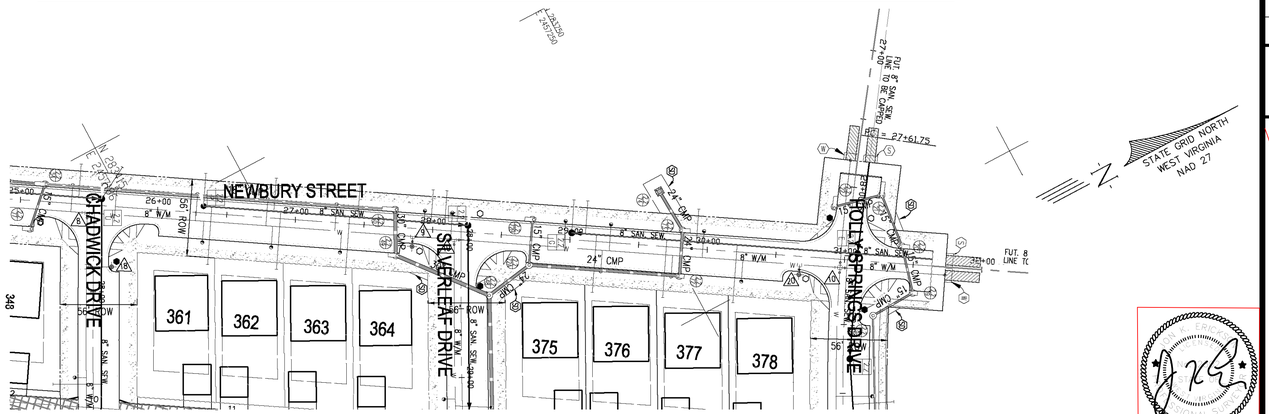
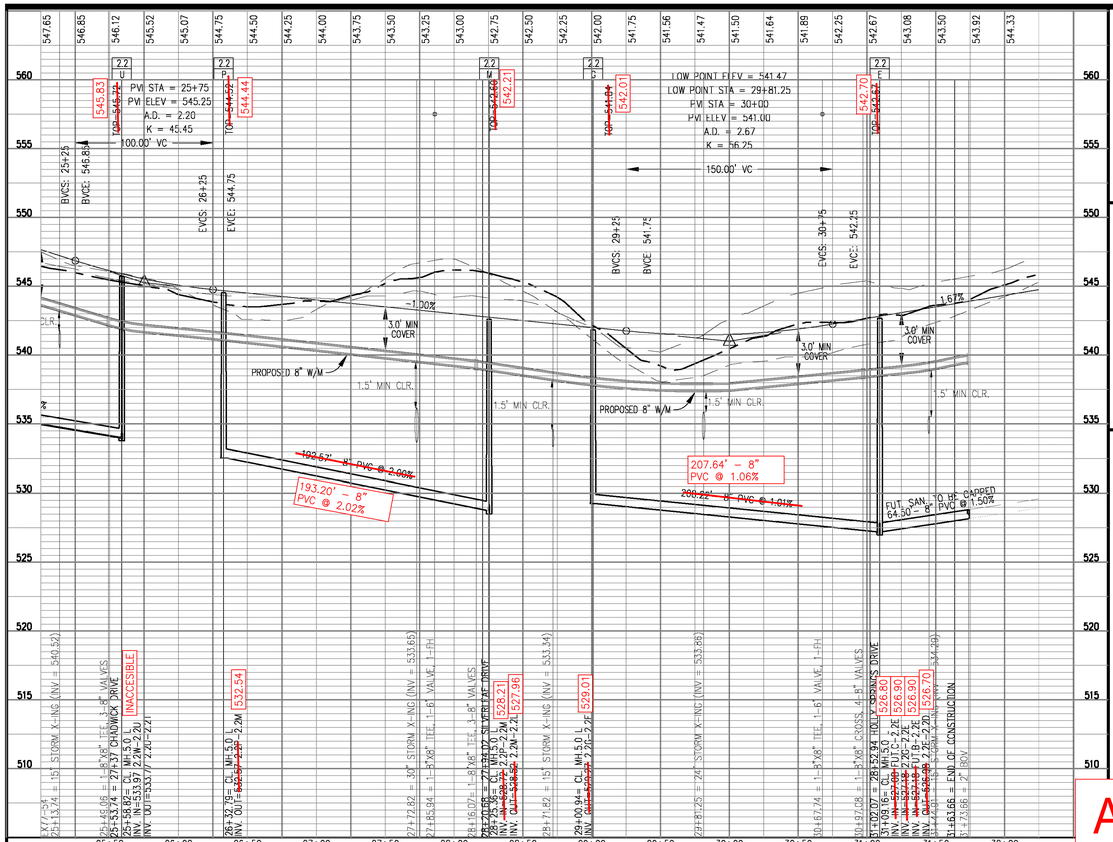
T.C. RIGHT = PFG - 0.07'




## NEWBURY STREET




## EASEMENT LEGEND

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## LEGEND
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- (3) PRIVATE DRIVE
- (A) FIRE LANE "A"
- (B) FIRE LANE "B"
- (C) FIRE LANE "C"

LEGEND

AS-BUILT

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205 EAST HIRST ROAD, SUITE 108
PURCELLVILLE, VA 20132
PHONE: (703) 994-4047
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04/14/23

| NO. | DATE | DESCRIPTION |
|---|---|---|
| | | REVISIONS |

PLAN DATE: 6/18/03, 9/11/03, 11/21/03, 12/05/03

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Plan & Profile - Newbury Street

HUNTFIELD
Phase 2B
CHARLESTOWN CORPORATION
JEFFERSON COUNTY, WEST VIRGINIA

*DATE:* JUNE 2003

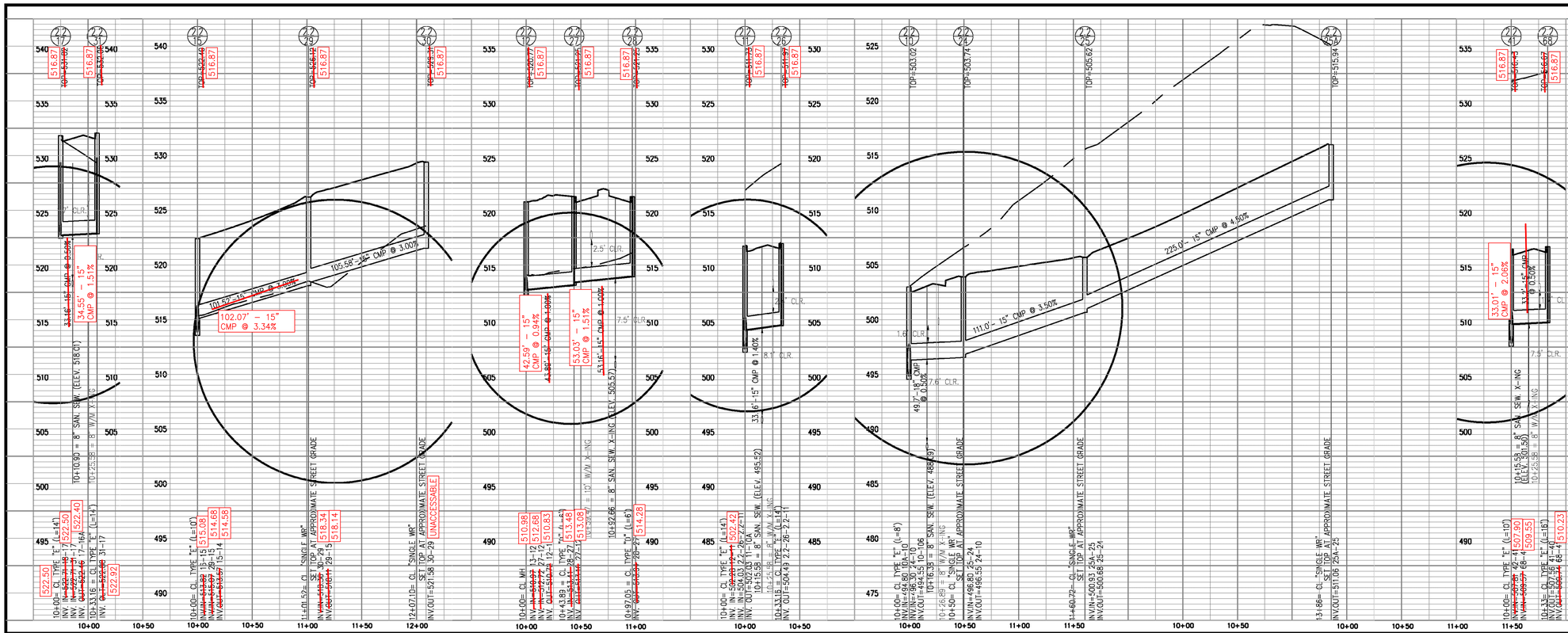
*SCALE:* (H) 1"=50' (V) 1"=5' *C.I.* = N/A

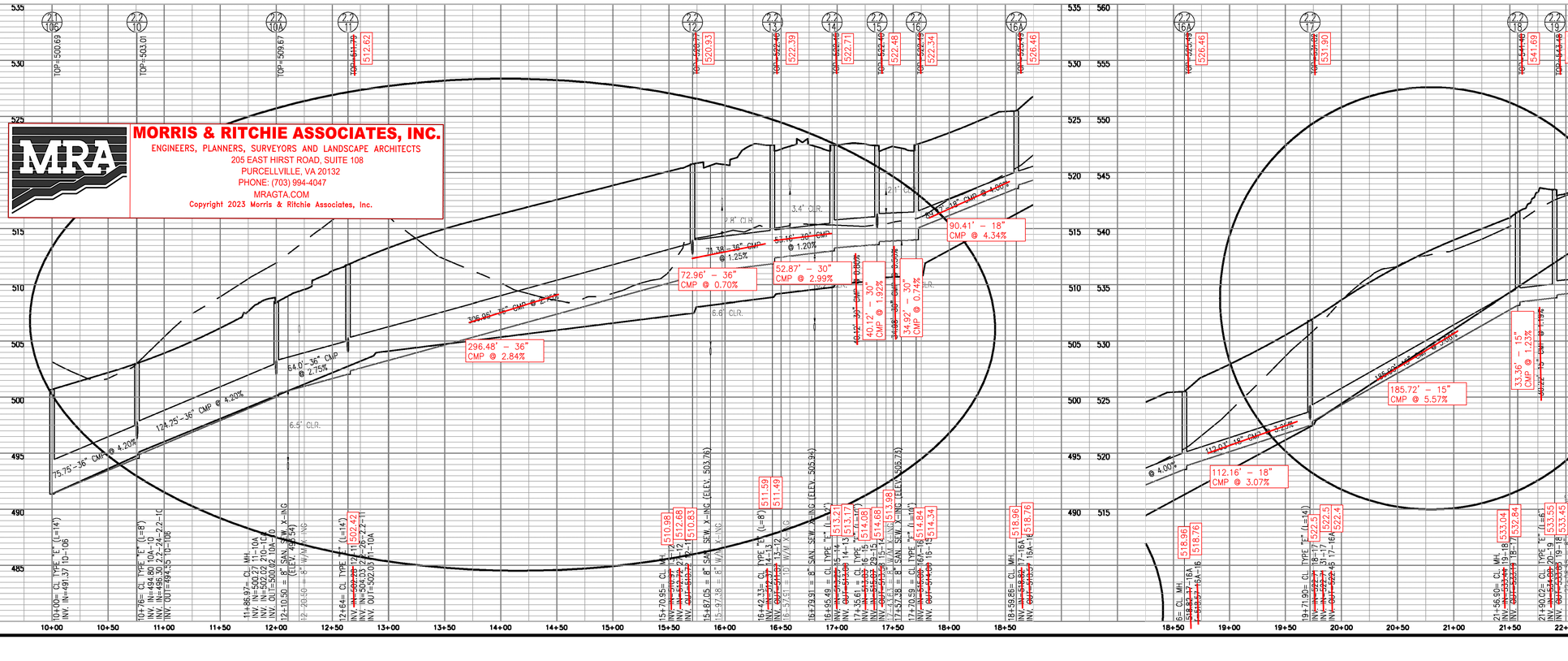
*SHEET* 22 *OF* 53

PP-20022

SHEET 21 OF 31

AS-BUILT




| No. | DATE | DESCRIPTION |
|---|---|---|
| 1. | 01/27/06 | AMENDED STM PRF 2.2-17, 2.2-31 |

REVISIONS

PLAN DATE
6/18/03
9/11/03
10/31/03
12/05/03

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PEGASUS BUSINESS CENTER
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PHONE (540) 450-0211 FAX (540) 450-0210

Storm Profiles

HUNTFIELD
Phase 2B
CHARLES TOWN CORPORATION
JEFFERSON COUNTY, WEST VIRGINIA

SCALE: (H) 1"=50' (V) 1"=5' C.I. = N/A DATE: JUNE 2003

SHEET 33 OF 53

PP-20022

SHEET 22 OF 31

**MORRIS & RITCHIE ASSOCIATES, INC.**
ENGINEERS, PLANNERS, SURVEYORS AND LANDSCAPE ARCHITECTS
205 EAST HIRST ROAD, SUITE 108
PURCELLVILLE, VA 20132
PHONE: (703) 994-4047
MRAGTA.COM
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292.94' – 36" CMP @ 3.01%
72.35' – 36" CMP @ 1.09%
53.27' – 36" CMP @ 2.38%
42.08' – 36" CMP @ 1.51%
205.15'–30" CMP @ 2.00%
233.50'–30" CMP @ 2.40%
73.91'–30" CMP @ 2.59%
33.20' – 30" CMP @ 0.90%
254.11' – 18" CMP @ 2.20%
186.52' – 18" CMP @ 2.70%
38.36' – 18" CMP @ 2.06%
35.89' – 15" CMP @ 0.86%
36.73' – 15" CMP @ 0.60%
34.39' – 15" CMP @ 0.90%
34.26' – 15" CMP @ 1.45%
109.08' – 24" CMP @ 1.05%
33.80' – 15" CMP @ 2.81%
35.60' – 24" CMP @ 2.00%
33.03' – 24" CMP @ 1.09%
33.02 – 24" CMP @ 0.50%

LEGEND
PROP. GRADE @ ℄ PIPE
EX. GRADE @ ℄ PIPE

AS-BUILT

| No. | DATE | DESCRIPTION |
|---|---|---|
| | | REVISIONS |

PLAN DATE
6/18/03
9/11/03
10/31/03
12/05/03

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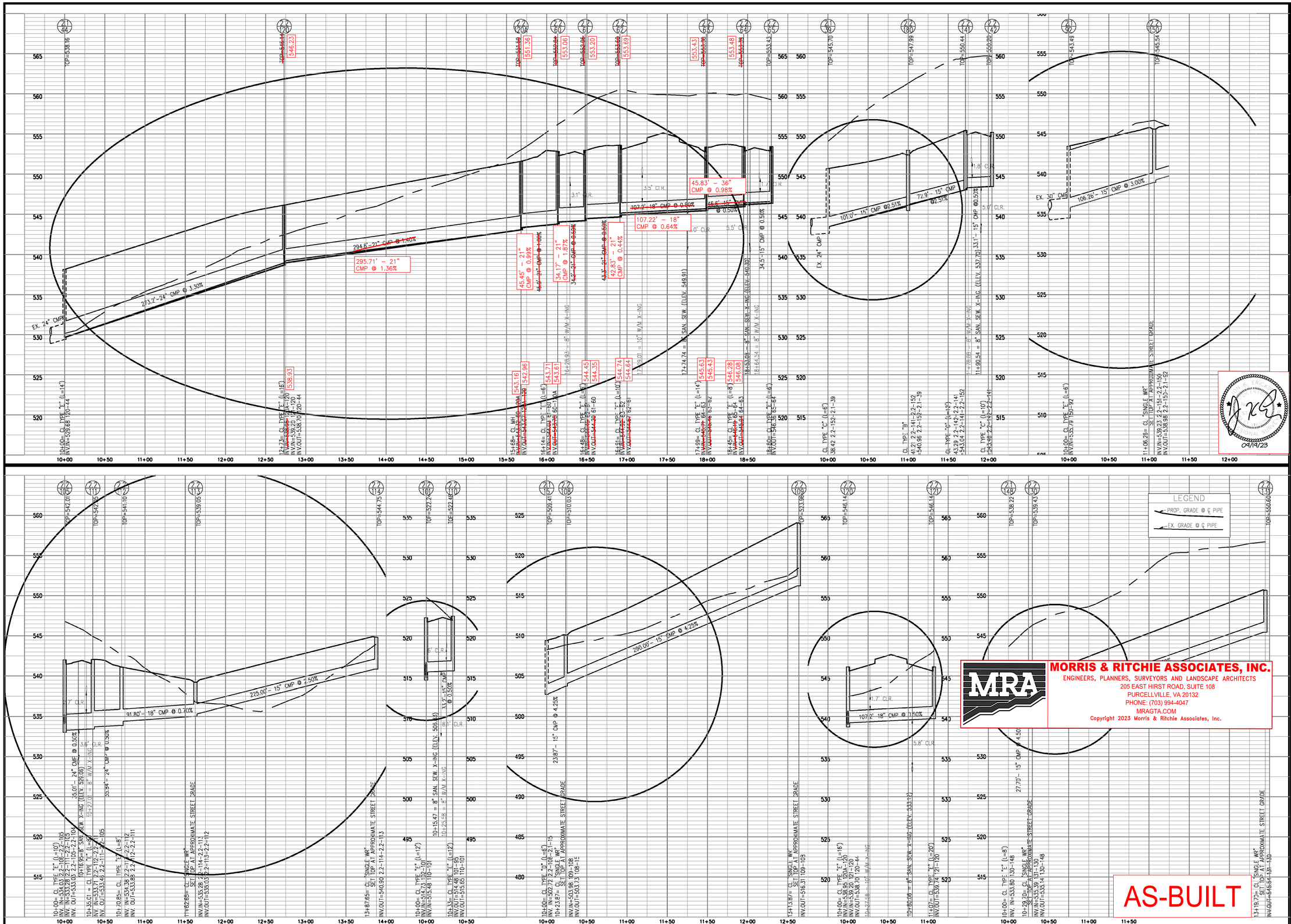
COMMONWEALTH OF VIRGINIA
DEREK L. ELLCOCK
LICENSED
No. 041537
PROFESSIONAL ENGINEER
04/19/23

Storm Profiles
HUNTFIELD
Phase 2B
CHARLES TOWN CORPORATION
JEFFERSON COUNTY, WEST VIRGINIA
*SCALE:* (H) 1" = 50' (V) 1" = 5' *C.I.* = N/A *DATE:* JUNE 2003

*SHEET* 34 *OF* 53

PP-20022

SHEET 23 OF 31




| No. | DATE | DESCRIPTION |
|---|---|---|
| | | REVISIONS |

PLAN DATE
6/18/03
9/03/03
10/31/03
12/05/03

Urban Engineering & Associates, Inc.
CIVIL ENGINEERS • LANDSCAPE ARCHITECTS • LAND SURVEYORS
PEGASUS BUSINESS CENTER
600 PEGASUS COURT - SUITE 101 WINCHESTER, VIRGINIA 22602
PHONE (540) 450-0211 FAX (540) 450-0210

09/19/23

MORRIS & RITCHIE ASSOCIATES, INC.
ENGINEERS, PLANNERS, SURVEYORS AND LANDSCAPE ARCHITECTS
205 EAST HIRST ROAD, SUITE 108
PURCELLVILLE, VA 20132
PHONE: (703) 994-4047
MRAGTA.COM
Copyright 2023 Morris & Ritchie Associates, Inc.

Storm Profiles
HUNTFIELD
Phase 2B
CHARLES TOWN CORPORATION
JEFFERSON COUNTY, WEST VIRGINIA

*SCALE:* (H) 1"=50' (V) 1"=5' *C.I.* = N/A *DATE:* JUNE 2003

*SHEET*
36
*OF*
53

PP-20022

ECS MID-ATLANTIC, LLC
"One Firm. One Mission."
Geotechnical • Construction Materials • Environmental • Facilities

May 4, 2023

Mr. Matthew Stare
Director of Land
DR Acquisitions, LLC
7945 Wormans Mill Road
Frederick, MD 21701

ECS Project No. 01: 31371

Reference: Subdivision Infrastructure and Site Grading, Roadway Construction/Infrastructure and Single Family House Building Pads Completion Letter for the following Phases
Phase 2B Lots 375 to 378;
Phase 3A Lots 457 to 460;
Phase 3B Lots 467, 468 to 472 and 543 to 548;
Phase 3E Lots 778 to 787 and 790 to 794;
Huntfield Subdivision, Jefferson County, West Virginia

Dear Mr. Stare:

ECS Mid-Atlantic, LLC (ECS) was retained by DR Acquisitions, LLC to monitor site construction operations for the above referenced project. The following completion letter relates to work performed under the observation of ECS on the referenced single-family house building pads along with roadway construction and infrastructure within the Huntfield Subdivision. Our services were performed in accordance with our contract/agreement dated December 13, 2021, on an as requested basis from December 13, 2021, through January 20, 2023, corresponding to ECS Daily Field Report Nos. 1 through 101, previously submitted as work progressed. Our scope of work included:

- Observation of proofrolling of subgrade for single family building pads;
- Observation and testing of fill for single family building pads listed above;
- Observation of proofrolling of pavement subgrade;
- Observation and testing of the compaction of stone base prior to asphalt pavement;
- Observation and testing of the compaction of asphalt pavements.

We have performed a review of ECS activities on the referenced project. According to our field and laboratory test reports and records, the tests were performed in accordance with ASTM, AWS, and appropriate industry standards and indicate that the construction appeared to be in conformance with the approved plans. Where discrepancies were observed, corrections or modifications were made and/or redesign accomplished and reviewed and/or approved by the design engineer.

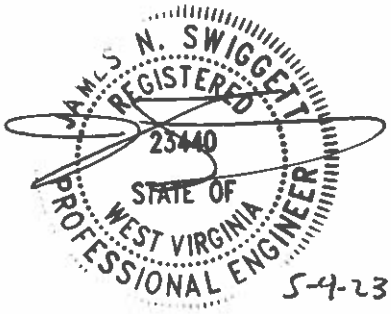
The professional services detailed herein were provided in accordance with generally accepted geotechnical engineering and materials testing practices. No warranties have been expressed or implied, are given regarding the services provided for this project. If you have any questions, or if we can be of further service to you, please do not hesitate to contact us.

Respectfully,

**ECS MID-ATLANTIC, LLC**



Darin E. Shick, CWI
Construction Materials Project Manager




James N. Swiggett, P.E.
Senior Project Engineer



R. Drew Thomas, C.P.G.
Principal Engineering Geologist

Kimley»Horn

## Memorandum

To: Mathew Stare
Director of Land
Dr Acquisitions, LLC
7945 Wormans Mill Road
Frederick, MD 21701

From: Mark Phillips, P.E.

Through: James Newman
City of Charles town
101 E Washington Street
Charles Town, WV 25414

Date: October 11, 2023

**Subject: Huntfield Phase 2B-2 Bond Reduction Request Review**

This memorandum summarizes our review of the Bond Reduction Request for the Huntfield Phase 2B-2 Bond Reduction application (dated September 29, 2023, prepared by Dr Acquisitions, LLC) for a reduction of $604,463.65 to the proposed bond amount (Performance and Land Disturbance) of $268,592.89. Using the Construction Plans and Profiles As-Builts dated September 19, 2023, Huntfield 2B-2 Bond Unit Cost Reduction, and the Huntfield Phase 2B, 3A, 3B, 3E Combined Cert Letter dated May 4, 2023, it is our opinion that the quantities of work that have been presented on the bond reduction are a reasonable representation of the work completed in the field.

Thank you for the opportunity to review this Bond Reduction Request. In the meantime, please feel free to contact us at 703-870-3631 should you have any questions.

**KIMLEY-HORN & ASSOCIATES, INC.**



Mark Phillips, P.E.
Project Manager
Associate

**Planning Commission**
101 East Washington Street
Charles Town, WV 25414

**SCHEDULED**

Meeting: 11/27/23
Department: Planning Commission
Category: Report
Initiator:

## AGENDA ITEM (ID # )

### Commission Review: *BR2023-05 Huntfield Phase 3A* - Bond Reduction

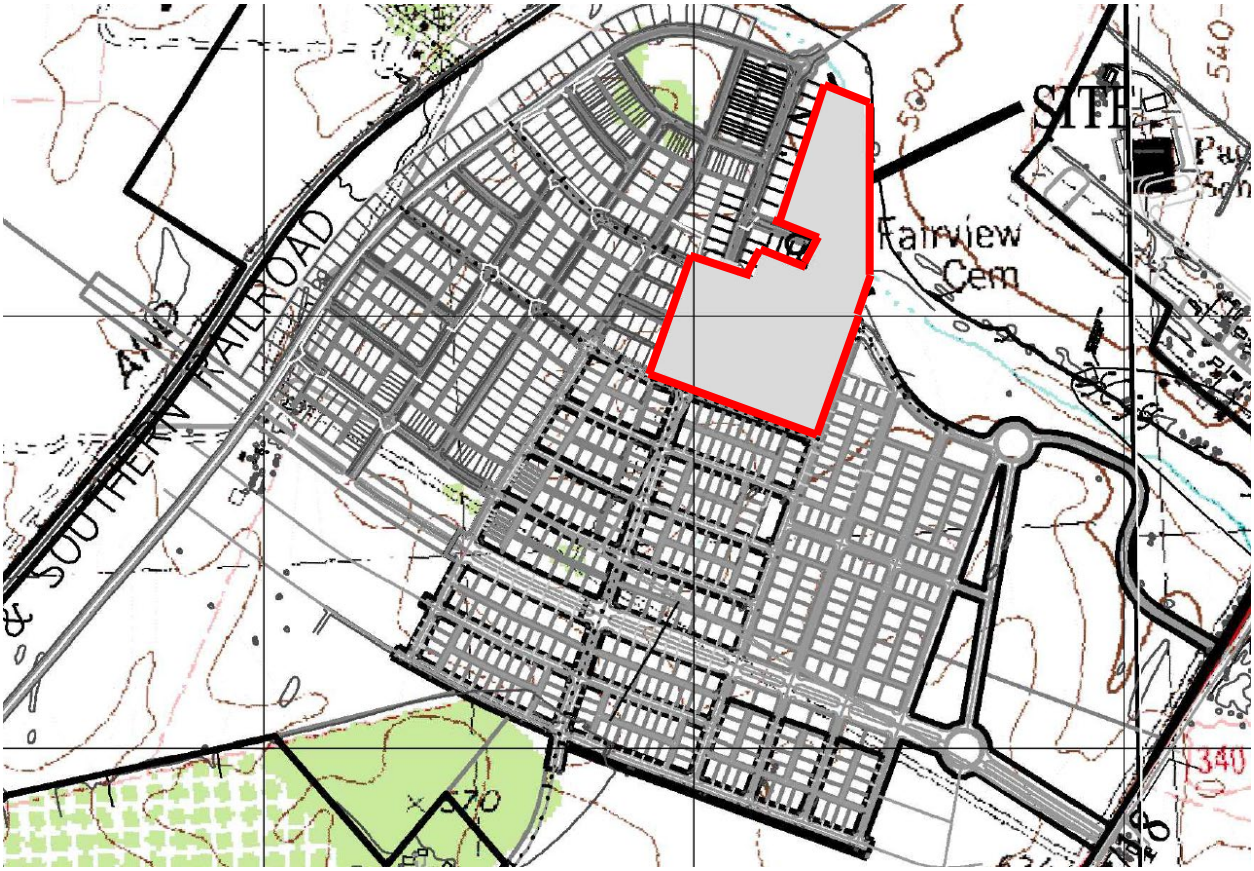
**ATTACHMENTS:**

- 1. Staff Report.pdf
- 2. Application.pdf
- 3. Bond Unit Cost Reduction.pdf
- 4. Huntfield Bond Parcel Inventory.pdf
- 5. Huntfield Phase 3A AS-Builts.pdf
- 6. Applicant engineer review.pdf
- 7. KH Review.pdf

**Bond Reduction Request**
**BR2023-05**

**Date:** For the November 27, 2023 Planning Commission meeting
**Applicant:** DR Acquisitions LLC
**Report by:** James Newman, City Planner, Zoning/Subdivision Administrator.
**Proposal:** A bond reduction of $161,716.34

**Huntfield – Phase 3A**




**CURRENT BOND**
Combined performance and land disturbance bond amount of $287,720.35

**BACKGROUND**
The applicant, DR Acquisitions LLC., has submitted a bond reduction request for the Huntfield Subdivision – Phase 3A. The applicant is requesting a reduction of the **performance and land disturbance bond** amount from $287,720.35 to $**126,004.01** a reduction of $161,716.34

Upon review of the request the City Engineer, Kimley-Horn, has determined that the bond reduction amount is a reasonable representation of the work completed in the field and shown in the as-built drawings.

**BOND COMMITTEE**
The Bond Committee reviewed this item at their November 16, 2023 meeting. The Committee recommended approval of the bond reduction request.

**STAFF RECOMMENDATION**
The City Engineer and City Staff have reviewed the bond reduction request and recommends the bond reduction request be **approved**.

**Bond Request No.**_____

# BOND REQUEST AND REDUCTION

**To assist the Subdivision Administrator in the review of a Bond Request Application, the Applicant must utilize this form to supply the City with the information prescribed under Article 1335 and Section 1332 of the Subdivision and Land Development Ordinance. The submission of this form, along with the prescribed information and required fees, shall serve as the Applicant's Bond Request Application as required by Ordinance Article 1335.**

1. DATE September 29, 2023

2. APPLICATION TYPE ☐ Bond | Initiation ☑ Bond | Reduction

☐ Bond | Reallocation ☐ Bond | Release**

3. PROJECT NAME Huntfield

Address Charles Town, Jeff Co., West Virginia

4. APPLICANT'S NAME* DR Acquisitions, LLC

Address 7945 Worman's Mill Rd, Frederick MD 21701

Telephone Number 304.433.1718 Fax Number (  )

Email Address awolf@dmrdev.com

5. PROPERTY OWNER'S NAME DR Acquisitions, LLC

Address 7945 Worman's Mill Rd, Frederick MD 21701

Telephone Number 304.433.1718 Fax Number (  )

Email Address awolf@dmrdev.com

*Applicants include: Property owner(s), Engineer(s), Surveyor(s), or Consultant(s)

**Requires a Public Hearing and landscaping surety for one year after release

**Bond Request No.**_____

6. DESCRIPTION OF REQUETED INITIATION, REDUCTION, OR RELEASE:

Huntfield Phase 3A Reduction

7. A) CURRENT BOND AMOUNT $287,720.35

B) PROPOSED BOND AMOUNT $126,004.01

8. PARCEL INVENTORY: (List all parcels that are part of this application):

| Tax Map No. | Parcel No. | Deed Book | Page No. | Zoning District |
|---|---|---|---|---|
| See attached parcel Inventory. | | | | |

9. PARCEL HISTORY: (List all pending or previously approved applications on the subject parcels inventoried above, including previous plat applications if this application is an amendment)

| Application No. | Project Name and Phase | Status | Approval Date |
|---|---|---|---|
| | | | |

**Bond Request No.**_____

10. BOND RELEASE ATTACHMENTS.

The following shall be included with this request:

A. To the extent not previously submitted pursuant to bond reduction request, copies of inspection and test reports if work was inspected and tested by a third-party inspector.

B. Certification that all bonded Improvements, other than Improvements accepted by West Virginia Department of Highways (WVDOH), have been completed in accordance with the approved plans, profiles, and specifications and the requirements of any applicable manual. For Improvements to be accepted for maintenance by WVDOH, such Certification shall state that the Improvements have been installed and inspected in accordance with WVDOH's requirements.

C. A copy of the City-approved As-Built Drawings as required for facilities within public rights-of-way or Easements submitted pursuant to Section 1332.10 of this Ordinance.

Date of As-Builts 9/19/23 · Prepared By Morris & Ritchie

D. A letter from a Professional Engineer or Professional Land Surveyor certifying that property corners and Monuments have been set as required under this Ordinance.

E. Documentation of acceptance by WVDOH for public roadways and rights-of-way, or a maintenance and indemnification agreement and bond approved by the Planning Commission for public roadways that have been completed in accordance with WVDOH standards but which, due to factors other than their quality of construction, are not eligible for acceptance by WVDOH.

F. For private roadways, a letter of acceptance by the entity responsible for maintenance and a Latent Defects Indemnification Agreement and Bond in accordance with this Section.

G. Private Roadway Maintenance Bonds. Before a Performance Agreement and surety for private roadway construction shall be released, a Latent Defects Indemnification Agreement and Bond shall be provided by the applicant/Developer and approved by the Planning Commission. The guarantee provided by such Agreement and Bond must be for a period of two (2) years following the date of performance bond release, and must be in an amount equal to no less than 5% of the original performance bond estimate in accordance with Section 1335.07 (F) of the Subdivision Ordinance.

H. Landscaping Surety. Surety is required to ensure the landscaping shown on the Major S/LD plans is maintained for one (1) year. The one (1) year shall start from the date at which the surety for the site has been released, with the exception of this landscaping surety. The landscaping surety amount shall not be less than $5,000.00 or 10% of the total landscaping cost for the project, which every is greater.

**Bond Request No.**_____

APPLICANT CERTIFICATION

I certify that, to the best of my knowledge, the submitted information and statements are true and correct. I also certify that I have received and read Article 1335 of the S/LD Ordinance.

Signature of Applicant

_____ Date 9/29/23

Signature of Property Owner (If different than Applicant)

_____ Date _____

Please submit an original completed Application, 1 digital copy and 1 paper copy of the As-Built Plans (if applicable) to the following:

Subdivision Administrator
City of Charles Town
101 E. Washington Street
Charles Town, WV 25414

Please also send a copy of the completed Application as well as the As-Builts to the following:

Hatch/Chester Engineers
Attn: Elizabeth Adamowicz
705 Quince Orchard Road, Suite 310
Gaithersburg, MD 20878

***FOR CITY USE ONLY***

Application Number:_____ Date Application Received:_____

Fee: $_____ Check No._____

Receipt No._____

Site Inspection Date:_____ Inspector:_____

Subdivision Administrator Approval:_____ Date:_____

Engineer Approval:_____ Date:_____

Planning Commission Approval:_____ Date:_____

City Council Approval:_____ Date:_____

Comments:_____

_____

_____

_____

_____

| Item Description | QUANTITY | BOND ESTIMATE UNIT | UNIT COST | TOTAL | Bond Unit Cost Reduction QUANTITY | UNIT | TOTAL | % COMPLETE |
|---|---|---|---|---|---|---|---|---|
| **EROSION AND SEDIMENT CONTROL** | | | | | | | | |
| Earth Dike | | | | | | | | |
| A-1 | | L.F. | $3.85 | $0.00 | 0.00 | L.F. | $0.00 | |
| A-2,B-1 | | L.F. | $4.50 | $0.00 | 0.00 | L.F. | $0.00 | |
| A-3,8-2 | | L.F. | $5.00 | $0.00 | 0.00 | L.F. | $0.00 | |
| B-3 | | L.F. | $5.50 | $0.00 | 0.00 | L.F. | $0.00 | |
| Silt fence | | L.F. | $3.30 | $0.00 | 0.00 | L.F. | $0.00 | |
| Super Silt Fence | | L.F. | $16.50 | $0.00 | 0.00 | L.F. | $0.00 | |
| Stabalized Construction Entrance | | Each | $550.00 | $0.00 | 0.00 | Each | $0.00 | |
| Straw Bale Dike | | L.F. | $2.00 | $0.00 | 0.00 | L.F. | $0.00 | |
| Stone Check Dams | | Each | $50.00 | $0.00 | 0.00 | Each | $0.00 | |
| Inlet Protection Devices | 16.00 | Each | $110.00 | $1,760.00 | 0.00 | Each | $0.00 | |
| Sediment Trap Excavation | | C.Y. | $9.00 | $0.00 | 0.00 | C.Y. | $0.00 | |
| Stone / riprap Trap Outlet | | C.Y. | $27.00 | $0.00 | 0.00 | C.Y. | $0.00 | |
| Horizontal Dewatering Device | | Each | $330.00 | $0.00 | 0.00 | Each | $0.00 | |
| Vertical Dewatering Device | | Each | $550.00 | $0.00 | 0.00 | Each | $0.00 | |
| Dewatering Basin | | Each | $55.00 | $0.00 | 0.00 | Each | $0.00 | |
| Grassed Waterway | | L.F. | $7.00 | $0.00 | 0.00 | L.F. | $0.00 | |
| | | | | $1,760.00 | | | $0.00 | |
| E&S Maintenance {throughout project) | | | | | | | | |
| | | | | | | | $0.00 | |
| **SITE STABILIZATION** | | | | | | | | |
| Basic Seeding w/ Straw | | S.F. | $0.04 | $0.00 | 0.00 | S.F. | $0.00 | |
| | | Acre | $1,925.00 | $0.00 | 0.00 | Acre | $0.00 | |
| Fabric/ Jute/ Fiber Linings/ Matting | | S.F. | $0.11 | $0.00 | 0.00 | S.F. | $0.00 | |
| Jute | | S.F. | $0.11 | $0.00 | 0.00 | S.F. | $0.00 | |
| Mattinq | | S.F. | $0.11 | $0.00 | 0.00 | S.F. | $0.00 | |
| Sod | | S.F. | $0.38 | $0.00 | 0.00 | S.F. | $0.00 | |
| Temporary Class I Riprap | | C.Y. | $33.00 | $0.00 | 0.00 | C.Y. | $0.00 | |
| | | | | $0.00 | | | $0.00 | |
| | | | | | | | $0.00 | |

| Item Description | QUANTITY | BOND ESTIMATE UNIT | COST | TOTAL | Bond Unit Cost Reduction QUANTITY | UNIT | TOTAL | % COMPLETE |
|---|---|---|---|---|---|---|---|---|
| **SITE PREPARATION** | | | | | | | | |
| Demolish Buildings | | Each | | $0.00 | 0.00 | Each | $0.00 | |
| Demolish Buildings | | Each | | $0.00 | 0.00 | Each | $0.00 | |
| Remove Asphalt Paving | | **S.Y.** | $0.55 | $0.00 | 0.00 | S.Y. | $0.00 | |
| Remove Power Pole | | Each | $5,500.00 | $0.00 | 0.00 | Each | $0.00 | |
| Remove Fences | | L.F. | $3.85 | $0.00 | 0.00 | L.F. | $0.00 | |
| Clearing And Grubbing | | | Varies | | | | | |
| Light | 0.00 | Acres | $5,865.00 | $0.00 | 0.00 | Acres | $0.00 | |
| Moderate | | Acres | $8,798.00 | $0.00 | 0.00 | Acres | $0.00 | |
| Heavy | | Acres | $11,098.00 | $0.00 | 0.00 | Acres | $0.00 | |
| | | | | $0.00 | | | $0.00 | |
| | | | | | | | $0.00 | |
| **EARTHWORK** | | | | | | | | |
| Strip Topsoil | | C.Y. | $3.30 | $0.00 | 0.00 | C.Y. | $0.00 | |
| 8" Depth | | | | | | | | |
| Common Excavation | 0.00 | C.Y. | $1.65 | $0.00 | 0.00 | C.Y. | $0.00 | |
| 5' Depth | | | | | | | | |
| Borrow Excavation (on-site) | 0.00 | C.Y. | $2.75 | $0.00 | 0.00 | C.Y. | $0.00 | |
| Borrow Excavation (imported) | | C.Y. | $11.00 | $0.00 | 0.00 | C.Y. | $0.00 | |
| Rock Excavation (non-trench) | | C.Y. | $11.00 | $0.00 | 0.00 | C.Y. | $0.00 | |
| Rock Excavation (trench) | | C.Y. | $55.00 | $0.00 | 0.00 | C.Y. | $0.00 | |
| Replace Topsoil | | C.Y. | $3.85 | $0.00 | 0.00 | C.Y. | $0.00 | |
| Ditch Construction (if not part of exc.) | | L.F. | $3.30 | $0.00 | 0.00 | L.F. | $0.00 | |
| | | | | $0.00 | | | $0.00 | |
| | | | | | | | $0.00 | |
| **PAVING** | | | | | | | | |
| Crushed Stone/Gravel Base 4"thick | | S.Y. | $3.85 | $0.00 | 0.00 | S.Y. | $0.00 | |
| 5"thick | | S.Y. | $4.70 | $0.00 | 0.00 | S.Y. | $0.00 | |
| 6"thick | | S.Y. | $6.00 | $0.00 | 0.00 | S.Y. | $0.00 | |
| 9"thick | 1967.00 | S.Y. | $8.00 | $15,736.00 | 0.00 | S.Y. | $0.00 | 100.00% |
| Asphalt Base 3"thic | | S.Y. | $6.50 | $0.00 | 0.00 | S.Y. | $0.00 | |
| Asphalt Base 3.5"thic | | S.Y. | $7.00 | $0.00 | 0.00 | S.Y. | $0.00 | |
| 4"thick | 1967.00 | S.Y. | $8.00 | $15736.00 | 0.00 | S.Y. | $0.00 | 100.00% |
| Asphalt Surface Course 1 1/2"thi | 10703.00 | S.Y. | $3.30 | $35,319.90 | 9800.00 | S.Y. | 32,340.00 | |
| Geotextile Underlavment | | L.F. OF CL. | $1.60 | $0.00 | 0.00 | L.F. OF CL. | $0.00 | |



| Item Description | QUANTITY | BOND ESTIMATE UNIT | COST | TOTAL | Bond Unit Cost Reduction QUANTITY | UNIT | TOTAL | % COMPLETE |
|---|---|---|---|---|---|---|---|---|
| Subgrade Repair Contingency | | L.F. OF CL. | $5.00 | $0.00 | 0.00 | L.F. OF CL. | $0.00 | |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | $66,791.90 | | | $32,340.00 | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| **STORM DRAIN PIPES** | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| **CMP** | | | | | | | | | | | | |
| | 15" | 110.00 | L.F. | $20.00 | $2,200.00 | 0.00 | L.F. | $0.00 | 100.00% | | | |
| | 18" | | L.F. | $23.00 | $0.00 | 0.00 | L.F. | $0.00 | 100.00% | | | |
| | **21"** | | L.F. | $25.00 | $0.00 | 0.00 | L.F. | $0.00 | | | | |
| | **24"** | 30.00 | L.F. | $30.00 | $900.00 | 0.00 | L.F. | $0.00 | 100.00% | | | |
| | 27" | | L.F. | $33.00 | $0.00 | 0.00 | L.F. | $0.00 | | | | |
| | 30" | 457.00 | L.F. | $37.00 | $16,909.00 | 0.00 | L.F. | $0.00 | 100.00% | | | |
| | 33" | | L.F. | $44.00 | $0.00 | 0.00 | L.F. | $0.00 | | | | |
| | 36" | | L.F. | $53.00 | $0.00 | 0.00 | L.F. | $0.00 | | | | |
| | **42"** | | L.F. | $57.00 | $0.00 | 0.00 | L.F. | $0.00 | | | | |
| | **48"** | | L.F. | $66.00 | $0.00 | 0.00 | L.F. | $0.00 | | | | |
| | 54" | | L.F. | $71.00 | $0.00 | 0.00 | L.F. | $0.00 | | | | |
| | 60" | | L.F. | $82.00 | $0.00 | 0.00 | L.F. | $0.00 | | | | |
| | 66" | | L.F. | $95.00 | $0.00 | 0.00 | L.F. | $0.00 | | | | |
| | **72"** | | L.F. | $110.00 | $0.00 | 0.00 | L.F. | $0.00 | | | | |
| | 78" | | L.F. | $127.00 | $0.00 | 0.00 | L.F. | $0.00 | | | | |
| | **84"** | | L.F. | $143.00 | $0.00 | 0.00 | L.F. | $0.00 | | | | |
| | Box Culverts | | L.F. | $835.00 | $0.00 | 0.00 | L.F. | $0.00 | | | | |
| | | | | | $20,009.00 | | | $0.00 | | | | |
| | | | | | | | | $0.00 | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| **STORM DRAIN PIPE ARCHES (SQUASH PIPES)** | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| CMP | | | | | | | | | | | | |
| 13"X17" | | | Each | $22.00 | $0.00 | 0.00 | Each | $0.00 | | | | |
| 15"X21" | | | Each | $26.00 | $0.00 | 0.00 | Each | $0.00 | | | | |
| 18"X24" | | | Each | $30.00 | $0.00 | 0.00 | Each | $0.00 | | | | |
| 20"X28" | | | Each | $33.00 | $0.00 | 0.00 | Each | $0.00 | | | | |
| 24"X35" | | | Each | $36.00 | $0.00 | 0.00 | Each | $0.00 | | | | |
| 29"X42" | | | Each | $42.00 | $0.00 | 0.00 | Each | $0.00 | | | | |
| 33"X49" | | | Each | $53.00 | $0.00 | 0.00 | Each | $0.00 | | | | |
| 38"X57" | | | Each | $66.00 | $0.00 | 0.00 | Each | $0.00 | | | | |
| 42"X64" | | | Each | $79.00 | $0.00 | 0.00 | Each | $0.00 | | | | |
| 46"X71" | | | Each | $93.00 | $0.00 | 0.00 | Each | $0.00 | | | | |
| | | | | | | | | | | | | |



| | | | BOND ESTIMATE | | | Bond Unit Cost Reduction | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | UNIT | | | | | % | | | |
| Item Description | | QUANTITY | UNIT | COST | TOTAL | QUANTITY | UNIT | TOTAL | COMPLETE | | | |
| RCP | | | | | | | | | | | | |
| 13"X17" | | | Each | $31.00 | $0.00 | 0.00 | Each | $0.00 | | | | |
| 15"X21" | | | Each | $35.00 | $0.00 | 0.00 | Each | $0.00 | | | | |
| 18"X24" | | | Each | $41.00 | $0.00 | 0.00 | Each | $0.00 | | | | |
| 20"X28" | | | Each | $47.00 | $0.00 | 0.00 | Each | $0.00 | | | | |
| 24"X35" | | | Each | $52.00 | $0.00 | 0.00 | Each | $0.00 | | | | |
| 29"X42" | | | Each | $57.00 | $0.00 | 0.00 | Each | $0.00 | | | | |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 33"X49" | | Each | $68.00 | $0.00 | 0.00 | Each | $0.00 | | | | |
| 38"X57" | | Each | $101.00 | $0.00 | 0.00 | Each | $0.00 | | | | |
| 42"X64" | | Each | $148.00 | $0.00 | 0.00 | Each | $0.00 | | | | |
| 46"X71" | | Each | $183.00 | $0.00 | 0.00 | Each | $0.00 | | | | |
| | | | | $0.00 | | | $0.00 | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| **STORM DRAIN END SECTIONS (ROUND)** | | | | | | | | | | | |
| | | | | | | | | | | | |
| **CMP** | | | | | | | | | | | |
| 15" | | Each | $100.00 | $0.00 | 0.00 | Each | $0.00 | | | | |
| 18" | | Each | $165.00 | $0.00 | 0.00 | Each | $0.00 | | | | |
| 21" | | Each | $220.00 | $0.00 | 0.00 | Each | $0.00 | | | | |
| **24"** | | Each | $275.00 | $0.00 | 0.00 | Each | $0.00 | | | | |
| 27" | | Each | $300.00 | $0.00 | 0.00 | Each | $0.00 | | | | |
| 30" | | Each | $330.00 | $0.00 | 0.00 | Each | $0.00 | | | | |
| 36" | | Each | $395.00 | $0.00 | 0.00 | Each | $0.00 | | | | |
| **42"** | | Each | $585.00 | $0.00 | 0.00 | Each | $0.00 | | | | |
| **48"** | | Each | $770.00 | $0.00 | 0.00 | Each | $0.00 | | | | |
| 54" | | Each | $825.00 | $0.00 | 0.00 | Each | $0.00 | | | | |
| | | | | | | | | | | | |
| 13"X17" (Equiv. 15) | | Each | $132.00 | $0.00 | 0.00 | Each | $0.00 | | | | |
| 15"X21" (Equiv. 18) | | Each | $155.00 | $0.00 | 0.00 | Each | $0.00 | | | | |
| 18"X24" (Equiv. 21) | | Each | $175.00 | $0.00 | 0.00 | Each | $0.00 | | | | |
| 20"X28" (Equiv. 24} | | Each | $190.00 | $0.00 | 0.00 | Each | $0.00 | | | | |
| 24"X35" (Equiv. 30} | | Each | $255.00 | $0.00 | 0.00 | Each | $0.00 | | | | |
| 29"X42" (Equiv. 36} | | Each | $385.00 | $0.00 | 0.00 | Each | $0.00 | | | | |
| 33"X49" (Equiv. 42} | | Each | $465.00 | $0.00 | 0.00 | Each | $0.00 | | | | |
| 38"X57" (Equiv. 48} | | Each | $550.00 | $0.00 | 0.00 | Each | $0.00 | | | | |
| | | | | $0.00 | | | $0.00 | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| **STORM DRAIN STRUCTURES** | | | | | | | | | | | |
| | | | | | | | | | | | |



| | | BOND ESTIMATE | | | Bond Unit Cost Reduction | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | UNIT | | | | | % | | |
| Item Description | QUANTITY | UNIT | COST | TOTAL | QUANTITY | UNIT | TOTAL | COMPLETE | | |
| Single Drop Opening Inlet | | Each | $1,500.00 | $0.00 | 0.00 | Each | $0.00 | | | |
| Double Drop Opening Inlet | | Each | $2,000.00 | $0.00 | 0.00 | Each | $0.00 | | | |
| Triple Drop Opening Inlet | | Each | $2,400.00 | $0.00 | 0.00 | Each | $0.00 | | | |
| 4' Curb OpeninQ | | Each | $2,000.00 | $0.00 | 0.00 | Each | $0.00 | | | |
| 5' Curb Opening | | Each | $2,000.00 | $0.00 | 0.00 | Each | $0.00 | | | |
| 6' Curb Opening | 1.00 | Each | $2,080.00 | $2,080.00 | 0.00 | Each | $0.00 | 100.00% | | |
| 8' Curb Opening | | Each | $2,240.00 | $0.00 | 0.00 | Each | $0.00 | 100.00% | | |
| 10' Curb Opening | 1.00 | Each | $2,400.00 | $2,400.00 | 0.00 | Each | $0.00 | 100.00% | | |
| 12' Curb Opening | | Each | $2,600.00 | $0.00 | 0.00 | Each | $0.00 | 100.00% | | |
| 14' Curb Opening | 1.00 | Each | $2,800.00 | $2,800.00 | 0.00 | Each | $0.00 | 100.00% | | |
| 15' Curb Opening | | Each | $2,900.00 | $0.00 | 0.00 | Each | $0.00 | | | |
| 16' Curb Opening | 1.00 | Each | $2,980.00 | $2980.00 | 0.00 | Each | $0.00 | | | |
| 18' Curb Opening | 1.00 | Each | $3,140.00 | $3140.00 | 0.00 | Each | $0.00 | | | |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 20' Curb Opening | 1.00 | Each | $3,300.00 | $3,300.00 | 0.00 | Each | $0.00 | | | | |
| Grate Inlet | 1.00 | Each | $3,000.00 | $3,000.00 | 0.00 | Each | $0.00 | 100.00% | | | |
| Manhole | 1.00 | Each | $2,700.00 | $2,700.00 | 0.00 | Each | $0.00 | 100.00% | | | |
| | | | | $22,400.00 | | | $0.00 | | | | |
| | | | | | | | $0.00 | | | | |
| **OUTFALL AND CHANNEL PROTECTION** | | | | | | | | | | | |
| Filter Stone | | C.Y. | $27.00 | $0.00 | 0.00 | C.Y. | $0.00 | | | | |
| Riprap, Class I | | C.Y. | $44.00 | $0.00 | 0.00 | C.Y. | $0.00 | | | | |
| Riprap, Class II | | C.Y. | $50.00 | $0.00 | 0.00 | C.Y. | $0.00 | | | | |
| Riprap, Class 111 | | C.Y. | $55.00 | $0.00 | 0.00 | C.Y. | $0.00 | | | | |
| Gabion Basket Structures | | C.Y. | $165.00 | $0.00 | 0.00 | C.Y. | $0.00 | | | | |
| Sand | | C.Y. | $77.00 | $0.00 | 0.00 | C.Y. | $0.00 | | | | |
| | | | | $0.00 | | | $0.00 | | | | |
| **STORMWATER MANAGEMENT** | | | | | | | | | | | |
| Excavation Basin Only | | C.Y. | $4.50 | $0.00 | 0.00 | C.Y. | $0.00 | | | | |
| Core Trench | | C.Y. | $3.00 | $0.00 | 0.00 | C.Y. | $0.00 | | | | |
| Embankment {Temp. Sed. Basin) Site Mate | | C.Y. | $13.00 | $0.00 | 0.00 | C.Y. | $0.00 | | | | |
| Imported Material | | C.Y. | $22.00 | $0.00 | 0.00 | C.Y. | $0.00 | | | | |
| Concrete Control Structures | | | | | | | | | | | |
| Under 180 cubic feet | | Each | $2,200.00 | $0.00 | 0.00 | Each | $0.00 | | | | |
| 181 to 300 cubic feet | | Each | $2,700.00 | $0.00 | 0.00 | Each | $0.00 | | | | |
| 301 to 450 cubic feet | | Each | $3,300.00 | $0.00 | 0.00 | Each | $0.00 | | | | |
| Over 450 cubic feet | | C.F. | $9.00 | $0.00 | | | $0.00 | | | | |



| | BOND ESTIMATE | | | Bond Unit Cost Reduction | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | UNIT | | | | | % | | |
| Item Description | QUANTITY | UNIT | COST | TOTAL | QUANTITY | UNIT | TOTAL | COMPLETE | | | |
| Reinforced Concrete Cradle | | C.Y. | $275.00 | $0.00 | 0.00 | C.Y. | $0.00 | | | | |
| Other Reinforced Concrete Structures | | C.Y. | $500.00 | $0.00 | 0.00 | C.Y. | $0.00 | | | | |
| CMP Control Structures | | | | | | | | | | | |
| Riser Pipe | | See Storm Drain Pipes | | | | | | | | | |
| Barrel/Riser Fabrication | | Inch of Dia. | $5.50 | $0.00 | 0.00 | Inch of Dia. | $0.00 | | | | |
| Antiseep Collar | | Ft. of Width | $55.00 | $0.00 | 0.00 | Ft. of Width | $0.00 | | | | |
| Trash Rack | | Inch of Dia. | $22.00 | $0.00 | 0.00 | Inch of Dia. | $0.00 | | | | |
| Water Tight Bands | | Inch of Dia. | $5.50 | $0.00 | 0.00 | Inch of Dia. | $0.00 | | | | |
| Plastic Infiltration Modules | | Each | $130.00 | $0.00 | 0.00 | Each | $0.00 | | | | |
| Stone Check Dams | | Each | $33.00 | $0.00 | 0.00 | Each | $0.00 | | | | |
| Settlement Routing Baffle | | L.F. | $3.30 | $0.00 | 0.00 | L.F. | $0.00 | | | | |
| Sand Bags | | Each | $5.00 | $0.00 | 0.00 | Each | $0.00 | | | | |
| | | | | $0.00 | | | $0.00 | | | | |

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **PVC SLOTTED/ PERFORATED** | | | | | | | | | | | |
| 4" Diameter | | L.F. | | $0.00 | 0.00 | L.F. | $0.00 | | | | |
| 6" Diameter | | L.F. | | $0.00 | 0.00 | L.F. | $0.00 | | | | |
| 8" Diameter | | L.F. | $17.50 | $0.00 | 0.00 | L.F. | $0.00 | | | | |
| 12" Diameter | | L.F. | $20.00 | $0.00 | 0.00 | L.F. | $0.00 | | | | |
| 15" Diameter | | L.F. | $22.00 | $0.00 | 0.00 | L.F. | $0.00 | | | | |
| 18" Diameter | | L.F. | $26.00 | $0.00 | 0.00 | L.F. | $0.00 | | | | |
| 24" Diameter | | L.F. | $36.00 | $0.00 | 0.00 | L.F. | $0.00 | | | | |
| | | | | $0.00 | | | $0.00 | | | | |
| | | | | | | | $0.00 | | | | |
| **WATER** | | | | | | | | | | | |
| 1" Copper Line | | L.F. | $22.00 | $0.00 | 0.00 | L.F. | $0.00 | | | | |
| 2" Copper Line | | L.F. | $33.00 | $0.00 | 0.00 | L.F. | $0.00 | | | | |
| 4" PVC Pipe | | L.F. | $16.00 | $0.00 | 0.00 | L.F. | $0.00 | | | | |
| 6" PVC Pipe | | L.F. | $22.00 | $0.00 | 0.00 | L.F. | $0.00 | | | | |
| 8" PVC Pipe | | L.F. | $29.00 | $0.00 | 0.00 | L.F. | $0.00 | | | | |
| 10" PVC Pipe | 680.00 | L.F. | $34.00 | $23,120.00 | 0.00 | L.F. | $0.00 | 100.00% | | | |
| 12" PVC Pipe | | L.F. | $40.00 | $0.00 | 0.00 | L.F. | $0.00 | | | | |
| Fire Hydrant Setting | 1.00 | Each | $2,200.00 | $2,200.00 | 0.00 | Each | $0.00 | 100.00% | | | |
| 4" Gate Valve | | Each | $410.00 | $0.00 | 0.00 | Each | $0.00 | | | | |
| 6" Gate Valve | 1.00 | Each | $550.00 | $550.00 | 0.00 | Each | $0.00 | 100.00% | | | |
| 8" Gate Valve | | Each | $770.00 | $0.00 | 0.00 | Each | $0.00 | | | | |
| 1O" Gate Valve | 4.00 | Each | $1,045.00 | $4,180.00 | 0.00 | Each | $0.00 | 100.00% | | | |
| | | | | | | | | | | | |
| | | BOND ESTIMATE | | | | | | | | | |
| | | | UNIT | | | | | % \| | Page 7 of 9 | | |
| Item Description | QUANTITY | UNIT | COST | TOTAL | QUANTITY | UNIT | TOTAL | COMPLETE | | | |
| 12" Gate Valve | | Each | $1,400.00 | $0.00 | 0.00 | Each | $0.00 | | | | |
| Water Meter Settings | 17.00 | Each | $960.00 | $16,320.00 | 0.00 | Each | $0.00 | 100.00% | | | |
| Tapping Sleeve and Valve | | Each | | $0.00 | 0.00 | Each | $0.00 | | | | |
| Blow -Off Valve Assembly | 1.00 | Each | $1,500.00 | $1,500.00 | | | $0.00 | 100.00% | | | |
| | | | | $47,870.00 | | | $0.00 | | | | |
| **SANITARY SEWER** | | | | | | | | | | | |
| To be bonded by the P.S.D. | | | | $0.00 | 0.00 | 0 | $0.00 | | | | |
| **ENTRANCES** | | | | | | | | | | | |
| Residential (asphalt} | 5.00 | Each | $825.00 | $4,125.00 | 0.00 | Each | $0.00 | 100.00% | | | |
| Commercial (p.c. concrete) | | Each | $3,300.00 | $0.00 | 0.00 | Each | $0.00 | | | | |
| | | | | $4,125.00 | | | $0.00 | | | | |
| | | | | | | | $0.00 | | | | |
| **CURBS, GUTTERS, SIDEWALKS** | | | | | | | | | | | |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| P.C. Concrete Curb with Gutter | 1868.00 | L.F. | $12.00 | $22,416.00 | 0.00 | L.F. | $0.00 | 100.00% | | | |
| P.C. Concrete Curb with no Gutter | 180.00 | L.F. | $10.00 | $1,800.00 | 0.00 | L.F. | $0.00 | 100.00% | | | |
| P.C. Concrete Sidewalk | | S.Y. | $20.00 | $0.00 | 0.00 | S.Y. | $0.00 | | | | |
| 3'Wide | | L.F. | $6.50 | $0.00 | 0.00 | L.F. | $0.00 | | | | |
| 4'Wide | | L.F. | $9.00 | $0.00 | 0.00 | L.F. | $0.00 | | | | |
| 5'Wide | 2495.00 | L.F. | $11.25 | $28,068.75 | 0.00 | L.F. | $0.00 | 100.00% | | | |
| 6'Wide | 0.00 | L.F. | $13.50 | $0.00 | 0 | L.F. | $0.00 | % | | | |
| Asphalt Sidewalk | | S.Y. | $11.00 | $0.00 | 0.00 | S.Y. | $0.00 | | | | |
| Concrete Wheel Stops | | L.F. | $33.00 | $0.00 | 0.00 | L.F. | $0.00 | | | | |
| Curb Ramps | 10.00 | Each | $500.00 | $5,000.00 | 28.00 | Each | $14,000.00 | | | | |
| | | | | $57,284.75 | | | $14,000.00 | | | | |
| **SIGNS, FENCE, LIGHTS** | | | | | | | | | | | |
| Arrows on Pavement | | Each | $27.00 | $0.00 | 0.00 | Each | $0.00 | | | | |
| Letters on Pavement | | Each | $16.00 | $0.00 | 0.00 | Each | $0.00 | | | | |
| Line Painting | 2861.00 | L.F. | $0.30 | $858.30 | 2861.00 | L.F. | $1,502.10 | | | | |



| | | BOND ESTIMATE | | | Bond Unit Cost Reduction | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | UNIT | | | | | % | | | |
| Item Description | QUANTITY | UNIT | COST | TOTAL | QUANTITY | UNIT | TOTAL | COMPLETE | | | |
| Handicap Symbols | | Each | $16.00 | $0.00 | 0.00 | Each | $0.00 | | | | |
| Handicap Signs | | Each | $165.00 | $0.00 | 0.00 | Each | $0.00 | | | | |
| Traffic Signs | 3.00 | Each | $275.00 | $825.00 | 0.00 | Each | $0.00 | | | | |
| Street Signs | 4.00 | Each | $110.00 | $440.00 | 4.00 | Each | $440.00 | | | | |
| Guard Rail-Steel Beam | | L.F. | $22.00 | $0.00 | 0.00 | L.F. | $0.00 | | | | |
| Chainlink Fence | | L.F. | $11.00 | $0.00 | 0.00 | L.F. | $0.00 | | | | |
| Street Lights | 9.00 | Each | 3500.00 | 31500.00 | 9.00 | Each | $31,500.00 | | | | |
| Parking Lot Lighting | | Each | | | | Each | | | | | |
| | | | | $33,623.30 | | | $33,442.10 | | | | |
| **LANDSCAPING** | | | | | | | | | | | |
| Transplanting tree/shrub | | Each | $22.00 | $0.00 | 0.00 | Each | $0.00 | | | | |
| Backfill planting pit | | C.Y. | $26.00 | $0.00 | 0.00 | C.Y. | $0.00 | | | | |
| Excavate planting pit | | C.Y. | $30.00 | $0.00 | 0.00 | C.Y. | $0.00 | | | | |
| Ground cover plants | | 100 Plants | $88.00 | $0.00 | 0.00 | 100 Plants | $0.00 | | | | |
| Wetland plants | | 100 Plugs | | | | | | | | | |
| Shrubs (everQreen) | | Each | $27.00 | $0.00 | 45.00 | Each | $1,215.00 | | | | |
| Shrubs (deciduous) | | Each | $38.00 | $0.00 | 139.00 | Each | $5,282.00 | | | | |
| Flowering trees (minor) | | Each | $72.00 | $0.00 | 0.00 | Each | $0.00 | | | | |
| Screen trees | | Each | $55.00 | $0.00 | 0.00 | Each | $0.00 | | | | |
| Street and shade trees | | Each | $110.00 | $0.00 | 53.00 | Each | $5,830.00 | | | | |

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|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | $0.00 | | | $12,327.00 | | | | |
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| | | | | | | | | | | | | |
| **MISCELLANEOUS** | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| Bollards | | | Each | $440.00 | $0.00 | 0.00 | Each | $0.00 | | | | |
| Filter Fabric | | | S.F. | $0.25 | $0.00 | 0.00 | S.F. | $0.00 | | | | |
| Elec./Comm. Conduit | | | L.F. | $3.30 | $0.00 | 0.00 | L.F. | $0.00 | | | | |
| Set Lot Corners | | 35.00 | Per Lot | $220.00 | $7,700.00 | 35.00 | Per Lot | $22,440.00 | | | | |
| | | | | | $7,700.00 | | | $22,440.00 | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| **MOBILIZATION (GENERAL)** | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| Mobilization | | 0.00 | Each | $5,687.20 | $0.00 | 0.00 | Each | $0.00 | | | | |
| Field Office | | 0.00 | Each | $2,743.75 | $0.00 | 0.00 | Each | $0.00 | | | | |
| Job Sign | | 0.00 | Each | $1,113.75 | $0.00 | 0.00 | Each | $0.00 | | | | |
| | | | | | | | | | | | | |
| | | | BOND ESTIMATE | | | | | | | | | |
| | | | | UNIT | | | | | | Page 9 of 9 | | |
| Item Description | | QUANTITY | UNIT | COST | TOTAL | QUANTITY | UNIT | TOTAL | COMPLETE | | | |
| | | | | | $9,544.70 | | | $0.00 | | | | |
| NOTE: Inflation factor not shown because | | | | | | | | | | | | |
| numbers are taken directly from the County of | | | | | | | | | | | | |
| Loudoun Public Improvement Bond Unit Cost | | | | | | | | | | | | |
| List | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | SUBTOTAL | | | | $261,563.95 | | | $114,549.10 | | | | |
| | | | | | | | | | | | | |
| | + 10% CONTINGENCY FEE | | | | $26,156.40 | | | $11,454.91 | | | | |
| | | | | | | | | | | | | |
| | **TOTAL** | | | | **$287,720.35** | **New Amount** | | **$126,004.01** | | | | |
| | | | | | | | | | | | | |
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# HUNTFIELD BOND PARCEL INVENTORY

| Phase 2A-3 | | |
|---|---|---|
| Tax District | Map# | Parcel |
| 03 | 11E | 904 |
| 03 | 11E | 903 |
| 03 | 11E | 902 |
| 03 | 11E | 901 |
| 03 | 11E | 900 |
| 03 | 11E | 899 |
| 03 | 11E | 898 |
| 03 | 11E | 897 |
| 03 | 11E | 896 |
| 03 | 11E | 895 |
| 03 | 11E | 894 |
| 03 | 11E | 893 |
| 03 | 11E | 891 |
| 03 | 11E | 890 |
| 03 | 11E | 889 |
| 03 | 11E | 888 |
| 03 | 11E | 887 |
| 03 | 11E | 886 |
| 03 | 11E | 885 |
| 03 | 11E | 884 |
| 03 | 11E | 882 |
| 03 | 11E | 881 |
| 03 | 11E | 880 |
| 03 | 11E | 879 |
| 03 | 11E | 878 |
| 03 | 11E | 877 |
| 03 | 11E | 876 |
| 03 | 11E | 875 |
| 03 | 11E | 874 |
| 03 | 11E | 873 |
| 03 | 11E | 872 |
| 03 | 11E | 871 |
| 03 | 11E | 870 |
| 03 | 11E | 869 |
| 03 | 11E | 868 |
| 03 | 11E | 867 |
| 03 | 11E | 866 |
| 03 | 11E | 865 |
| 03 | 11E | 864 |
| 03 | 11E | 863 |
| 03 | 11E | 862 |
| 03 | 11E | 861 |
| 03 | 11E | 860 |
| 03 | 11E | 859 |
| 03 | 11E | 858 |

| Phase 5 A | | |
|---|---|---|
| Tax District | Map# | Parcel |
| 03 | 11A | 614 |
| 03 | 11A | 615 |
| 03 | 11A | 622 |
| 03 | 11A | 623 |
| 03 | 11A | 624 |
| 03 | 11A | 625 |
| 03 | 11A | 626 |

| Phase 3A | | |
|---|---|---|
| Tax District | Map# | Parcel |
| 03 | 11C | 437 |
| 03 | 11C | 438 |
| 03 | 11C | 439 |
| 03 | 11C | 440 |
| 03 | 11C | 441 |
| 03 | 11C | 442 |
| 03 | 11C | 443 |
| 03 | 11C | 444 |
| 03 | 11C | 445 |
| 03 | 11C | 446 |
| 03 | 11C | 447 |
| 03 | 11C | 448 |
| 03 | 11C | 449 |
| 03 | 11C | 450 |
| 03 | 11C | 451 |
| 03 | 11C | 452 |
| 03 | 11C | 453 |
| 03 | 11C | 454 |
| 03 | 11C | 455 |
| 03 | 11C | 456 |
| 03 | 11C | 457 |
| 03 | 11C | 458 |
| 03 | 11C | 459 |
| 03 | 11C | 460 |
| 03 | 11C | 466 |
| 03 | 11C | 467 |
| 03 | 11C | 468 |
| 03 | 11C | 469 |
| 03 | 11C | 470 |
| 03 | 11C | 471 |
| 03 | 11C | 472 |

| Phase 3A Storm Water Basin | | |
|---|---|---|
| Tax District | Map# | Parcel |
| 03 | 11 | 0001 |

| Phase 2B-2 | | |
|---|---|---|
| Tax District | Map# | Parcel |
| 03 | 11B | 286 |
| 03 | 11B | 300 |
| 03 | 11B | 322 |
| 03 | 11B | 323 |
| 03 | 11B | 324 |
| 03 | 11B | 325 |
| 03 | 11B | 326 |
| 03 | 11B | 327 |
| 03 | 11B | 327A |
| 03 | 11B | 328 |
| 03 | 11B | 342 |
| 03 | 11B | 343 |
| 03 | 11B | 344 |
| 03 | 11B | 345 |
| 03 | 11B | 346 |
| 03 | 11B | 347 |
| 03 | 11B | 347A |
| 03 | 11B | 348 |
| 03 | 11B | 357 |
| 03 | 11B | 358 |
| 03 | 11B | 359 |
| 03 | 11B | 360 |
| 03 | 11B | 361 |
| 03 | 11B | 362 |
| 03 | 11B | 363 |
| 03 | 11B | 364 |
| 03 | 11B | 365 |
| 03 | 11B | 366 |
| 03 | 11B | 366A |
| 03 | 11B | 367 |
| 03 | 11B | 372 |
| 03 | 11B | 373 |
| 03 | 11B | 374 |
| 03 | 11B | 375 |
| 03 | 11B | 376 |
| 03 | 11B | 377 |
| 03 | 11B | 378 |

| Rec Center | | |
|---|---|---|
| Tax District | Map# | Parcel |
| 03 | 11B | REC |

# CONSTRUCTION PLANS AND PROFILES

## SITE PLAN STPL 2003-0009

## LOTS 379-466, HUNTFIELD PHASE 3A

## CHARLES TOWN CORPORATION

## JEFFERSON COUNTY, WV

### GENERAL NOTES

1. THIS SET OF DRAWINGS PERTAINS TO PHASE 3A OF HUNTFIELD, WHICH CONSISTS OF A TOTAL SITE AREA OF 11.9775 ACRES. PHASE 3A CONTAINS 10 SFD LOTS AND 78 SFA LOTS FOR TOTAL OF 88 LOTS. A TOTAL OF 1.7306 ACRES OF OPEN SPACE ARE PROVIDED WITHIN PHASE 3A. REFERENCE WAS MADE TO THE SCHEMATIC PLAN "HUNTFIELD COMPOSITE SCHEMATIC I" (SCHM 2003-0003) APPROVED MAY 28, 2003. NOTE THAT THE "HUNTFIELD COMPOSITE SCHEMATIC" IS COMPOSED OF SEVERAL SITE PLANS. THIS SET OF PLANS PERTAINS TO A SMALL SECTION OF THE SCHEMATIC . THESE PLANS SHALL BE IN GENERAL CONFORMANCE WITH THE APPROVED SCHEMATIC PLAN AND ALL ZONING REQUIREMENTS INCLUDING THOSE MODIFIED IN THE HUNTFIELD PROFFERS. OPEN SPACE, RESIDENTIAL, AND COMMERCIAL REQUIREMENTS SHALL CORRESPOND TO THOSE SET FORTH IN THE SCHEMATIC. NOTE THAT NO COMMERCIAL AREA IS CONTAINED WITHIN THIS SITE PLAN. REQUIREMENTS FOR COMMERCIAL AREA, OPEN SPACE, AND RESIDENTIAL AREA SHALL BE MET ON A SCHEMATIC BASIS AS OPPOSED TO WITH EACH INDIVIDUAL SITE PLAN. PLANS TO BE IN CONFORMANCE WITH THE WVDEP AND WVSHPO REQUIREMENTS.

2. THE PROPERTY DELINEATED HEREON IS A PORTION OF PARCEL 1, AS SHOWN ON CHARLES TOWN CORPORATION TAX ASSESSMENT MAP 11, DEED BOOK 949, PAGE 203, WHICH IS LOCATED AMONG THE LAND RECORDS OF JEFFERSON COUNTY. THE AFOREMENTIONED PARCEL IS ZONED NEIGHBORHOOD RESIDENTIAL. THE PROPOSED USE FOR THIS PARCEL IS FOR THE CONSTRUCTION OF SINGLE FAMILY DWELLINGS, TOWN HOMES, AND THE ASSOCIATED ROADS, PARKING AREAS, AND STORMWATER MANAGEMENT FACILITIES. THE EXISTING USE IS CROP PLANTING. ALL ADJOINING PROPERTY IS ZONED NEIGHBORHOOD RESIDENTIAL, IS OWNED BY HUNTFIELD, AND IS DELINEATED AS A PORTION OF PARCEL 1, AS SHOWN ON CHARLES TOWN CORPORATION TAX ASSESSMENT MAP 11, DEED BOOK 949, PAGE 203, WHICH IS LOCATED AMONG THE LAND RECORDS OF JEFFERSON COUNTY. REFERENCE E&S NARRATIVE FOR ADDITIONAL INFORMATION ON SURROUNDING PROPERTY AND EXISTING SITE CONDITIONS.

3. BOUNDARY INFORMATION, SHOWN HEREON, WAS OBTAINED FROM A PLAT SHOWING HUNTFIELD, LC PROPERTY AS RECORDED IN THE OFFICE OF THE CLERK OF THE COUNTY COMMISSION OF JEFFERSON COUNTY, WEST VIRGINIA, IN PLAT BOOK 19, PAGE 49.

4. TOPOGRAPHIC INFORMATION WAS OBTAINED FROM APPALACHIA SURVEY OF WEST VIRGINIA, LLC. BASIS FOR SURVEY WAS NAD'27-NAVD'88.

5. THE PROPERTY SHOWN HEREON WAS ACQUIRED BY HUNT FIELD. AS RECORDED IN THE OFFICE OF THE CLERK OF THE COMMISSION OF JEFFERSON COUNTY, WEST VIRGINIA IN DEED BOOK 949, PAGE 203.

6. THE HOMEOWNER'S ASSOCIATION INC. WILL BE RESPONSIBLE FOR THE MAINTENANCE OF STORM WATER DETENTION/DRAINAGE FACILITIES AND EASEMENTS. IN ADDITION THEY SHALL BE RESPONSIBLE FOR MAINTENANCE OF SIDEWALKS & STREET LIGHTS. THE WEST VIRGINIA DEPARTMENT OF HIGHWAY IS NOT RESPONSIBLE FOR MAINTENANCE OF SIDEWALKS AND STREET LIGHTS.

7. ALL CONSTRUCTION SHALL CONFORM TO CURRENT CITY OF CHARLES TOWN, WVDOH AND SANITATION AUTHORITY STANDARDS AND SPECIFICATIONS.

8. EROSION AND SEDIMENT CONTROL MEASURES SHALL BE PROVIDED IN ACCORDANCE WITH THE 1993 "WEST VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK FOR DEVELOPING AREAS".

9. THE APPROVAL OF THESE PLANS SHALL IN NO WAY RELIEVE THE DEVELOPER OR HIS AGENT OF ANY LEGAL RESPONSIBILITY WHICH MAY BE REQUIRED BY THE CODE OF WEST VIRGINIA OR ANY OTHER ORDINANCE ENACTED BY THE CITY OF CHARLES TOWN.

10. STANDARD GUARDRAILS AND HANDRAILS SHALL BE INSTALLED AT HAZARDOUS LOCATIONS AS DETERMINED DURING FINAL FIELD INSPECTION BY CITY OF CHARLES TOWN AND\OR WVDOH.

11. ALL UNDERGROUND UTILITIES WITHIN STREET RIGHT-OF-WAYS SHALL BE INSTALLED TO THE REQUIRED DISTANCE BEYOND THE RIGHT-OF-WAY LINE PRIOR TO THE INSTALLATION OF ANY SUBBASE MATERIAL, CURB AND GUTTER, OR SIDEWALK.

12. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION OF UTILITY OVERBLASTING FOR FUTURE EXTENSIONS WITH ALL ADJACENT SECTIONS.

13. THESE PLANS MAKE NO REPRESENTATION AS TO SUBSURFACE CONDITIONS AND THE PRESENCE OF SUBSURFACE WATER OR THE NEED FOR SUBSURFACE DRAINAGE FACILITIES.

14. ANY WELLS OR SEPTIC FIELDS WITHIN THE LIMITS OF THE SITE WILL BE ABANDONED IN ACCORDANCE WITH STATE AND LOCAL HEALTH DEPARTMENT REQUIREMENTS AND REGULATIONS PRIOR TO RECORD PLAT APPROVAL.

15. THE SECTION DELINEATED HEREON CONTAINS NO KNOWN ARCHEOLOGICAL OR HISTORICAL LANDMARKS.

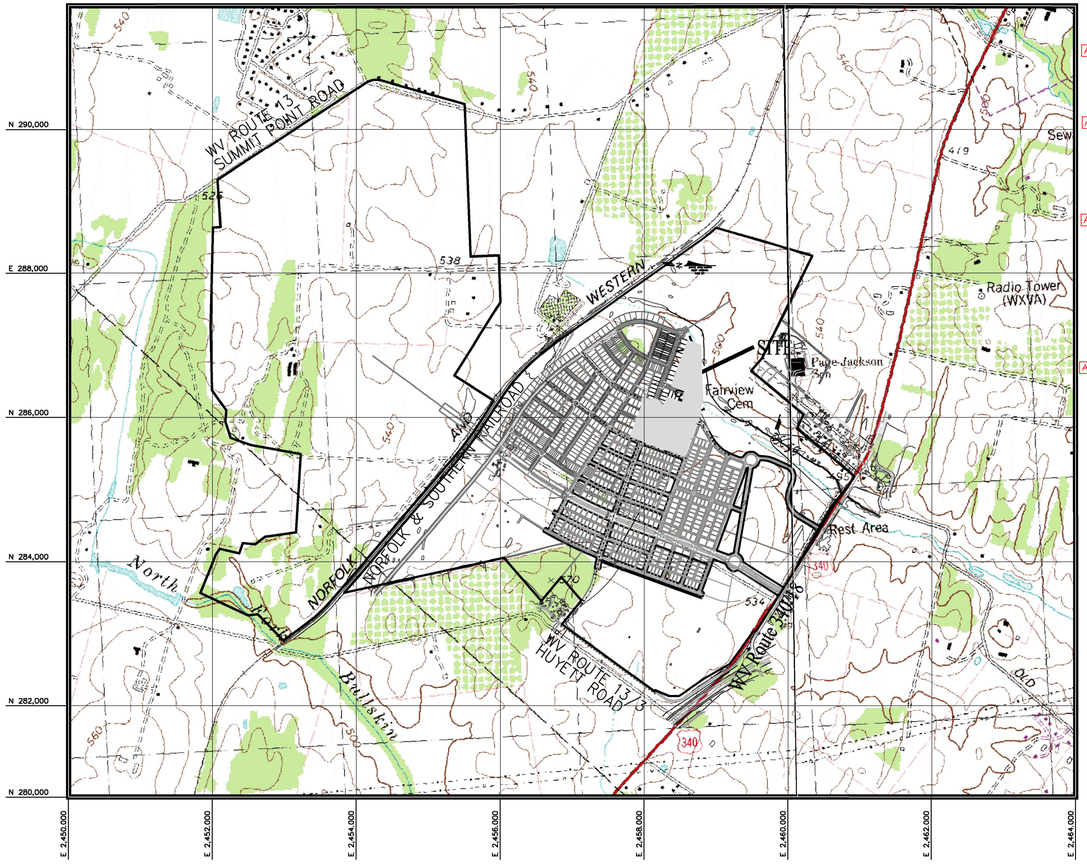
16. CONTRACTORS SHALL ARRANGE FOR THE LOCATION OF ALL UNDERGROUND FACILITIES PRIOR TO THE CONSTRUCTION INCLUDING TEST HOLES TO PHYSICALLY LOCATE UNDERGROUND UTILITIES AS NECESSARY.

17. STREET SIGNS AND STOP SIGNS SHALL BE INSTALLED AT ALL INTERSECTIONS AND BE IN COMPLIANCE WITH ALL APPLICABLE ZONING AND CODIFIED ORDINANCE FOR THE CITY OF CHARLES TOWN.

18. FINAL HOUSE AND ACCESSORY LOCATIONS ARE SUBJECT TO APPROVAL AT BUILDING PERMIT SUBMISSION.

19. PARKING FOR THIS SITE PLAN WILL BE IN COMPLIANCE WITH ALL REQUIRED REGULATIONS.

20. WETLAND INFORMATION OBTAINED FROM WETLAND DELINEATION REPORT PREPARED BY GREENHORNE AND O'MARA, INC. DATED JULY 14, 2000.




### VICINITY MAP

SCALE : 1"= 1000'

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6. PLAN & PROFILE - Lord Fairfax Street
7. PLAN & PROFILE - Payne Street
AS-BUILT 8. PLAN & PROFILE - Deerbrook Drive [26]
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10. PLAN & PROFILE - Alley 3C24 & 3C33
11. PLAN & PROFILE - Alley 3B26
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17. OVERALL DRAINAGE DIVIDES
18. EROSION & SEDIMENT CONTROL PLANS
19. E&S DETAILS
20. E&S DETAILS
21. POND Tc AND RUNOFF COMPUTATIONS
22. POND PROFILE AND DETAILS
23. POND INFLOW-OUTFLOW HYDROGRAPHS
24. POND INFLOW-OUTFLOW TABULATIONS & MISC. GRAPHS
25. POND INFLOW-OUTFLOW TABULATIONS
26. LANDSCAPE PLANS
27. PRELIMINARY RECORD PLAT
28. MISC. DETAILS
29. MISC. DETAILS


| APPLICATION # | ASSOCIATED PROJECT | STATUS | APPROVAL DATE |
|---|---|---|---|
| | HUNTFIELD, PHASE I SCHEMATIC | APPROVED | 2/11/2002 |
| STPL 2002-0001 | HUNTFIELD, PHASE I (SITE PLAN) | APPROVED | 6/24/2002 |
| SBRD 2002-0001 | HUNTFIELD, PHASE I RECORD PLAT | APPROVED | 7/29/2002 |
| RPOC 2003-0001 | HUNTFIELD, PHASE I (RECORD PLAT CORRECTION) | APPROVED | Recorded 9/9/03 |
| | HUNTFIELD, REVISED PHASE 1&2A SCHEMATIC | APPROVED | 10/22/2002 |
| SPAM 2003-001 | HUNTFIELD, PHASE 1 REVISED (SITE PLAN AMMENDMENT) | APPROVED | 5/28/2003 |
| SBDR 2003-0001/RPAM 2003-0001 | HUNTFIELD, PHASE 1 REVISED (RECORD PLAT AMMENDMENT) | APPROVED | 6/16/2003 |
| SCHM 2003-0003 | HUNTFIELD, COMPOSITE SCHEMATIC 1 | APPROVED | 5/28/2003 |
| SPAM 2003-0002 | HUNTFIELD, PHASE 1 BLOCK 1 REVISION (SITE PLAN AMMENDMENT) | APPROVED | 10/27/2003 |
| RPAM 2003-0002 | HUNTFIELD, PHASE 1 BLOCK 1 REVISION (RECORD PLAT AMMENDMENT) | APPROVED | 10/27/2003 |
| STPL 2003-0001 | HUNTFIELD, PHASE 2A (SITE PLAN) | APPROVED | 5/28/2003 |
| SBRD 2003-0002 | HUNTFIELD, PHASE 2A RECORD PLAT | APPROVED | 3/30/2004 |
| SCHM 2003-0001 | HUNTFIELD, PHASE 2B SCHEMATIC | APPROVED | 2/24/2003 |
| STPL 2003-0006 | HUNTFIELD, PHASE 2B (SITE PLAN) | PENDING | |
| SBRD 2004-0002 | HUNTFIELD, PHASE 2B RECORD PLAT | PENDING | |

NOTE: HUNTFIELD COMPOSITE SCHEMATIC 1 (SCHM 2003-0003) REPLACED PREVIOUSLY APPROVED HUNTFIELD SCHEMATICS.

### OWNER / DEVELOPER

HUNTFIELD, L.C.
8614 WESTWOOD CENTER DRIVE, SUITE 900
VIENNA, VIRGINIA 22182
703-442-8992


**MORRIS & RITCHIE ASSOCIATES, INC.**
ENGINEERS, PLANNERS, SURVEYORS AND LANDSCAPE ARCHITECTS
205 EAST HIRST ROAD, SUITE 108
PURCELLVILLE, VA 20132
PHONE: (703) 994-4047
MRAGTA.COM

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**SURVEYOR'S CERTIFICATION**

THE PERIMETER AND ALL LOT BOUNDARIES SHOWN HERON HAVE BEEN ESTABLISHED BY A NETWORK OF TRAVERSE CONTROL HAVING A RELATIVE ERROR OR CLOSURE OF 1 : 7,500 OR BETTER.

DAVID E. LELLOCK, P.S.
URBAN ENGINEERING & ASSOCIATES, INC.

**STATEMENT OF ACCEPTANCE**

THE DEVELOPER, IN SIGNING THIS PLAT, AGREES TO ABIDE BY ALL CONDITIONS, TERMS, AND SPECIFICATIONS PROVIDED HEREON.

DAVID K. ULERICK V.P. FOR LAND DEVELOPMENT FOR HUNTFIELD, LC
8614 WESTWOOD CENTER DRIVE SUITE 900
VIENNA, VA 22182
703-442-8992

**ENGINEER'S CERTIFICATION**

I HEREBY CERTIFY THAT THESE SEALED PLANS REASONABLY MEET OR EXCEED MINIMUM ACCEPTABLE ENGINEERING STANDARDS AND THOSE STATE AND COUNTY CODE PROVISIONS APPLICABLE ON SAID DATE.

DAVID E. LELLOCK, PE
URBAN ENGINEERING & ASSOCIATES, INC.

**SITE PLAN APPROVED**

DATE: _____

CITY OF CHARLES TOWN

AS-BUILT

CONTACT "MISS UTILITY" AT
1-800-245-4848
BEFORE ANY CONSTRUCTION PER CITY OF CHARLES TOWN WATER DEPARTMENT ORDINANCE

04/14/23

| No. | DATE | DESCRIPTION |
|---|---|---|
| | | REVISIONS |

PLAN DATE
09/12/03
02/12/04
04/14/04


Urban Engineering & Associates, Inc.
CIVIL ENGINEERS • LAND PLANNERS • LANDSCAPE ARCHITECTS • LAND SURVEYORS
PEGASUS BUSINESS CENTER
600 PEGASUS COURT - SUITE 101 WINCHESTER, VIRGINIA 22602
PHONE (540) 450-0211 FAX (540) 450-0210


DAVID E. LELLOCK — LICENSED PROFESSIONAL ENGINEER — 015157 — COMMONWEALTH OF VIRGINIA — 04/14/23

Cover Sheet
HUNTFIELD
Phase 3A
CHARLES TOWN CORPORATION
JEFFERSON COUNTY, WEST VIRGINIA

*DATE:* SEPTEMBER 2003
*C.I.* N/A
*SCALE:* AS SHOWN

*SHEET* 1 *OF* 29

PP-20039

SEE SHEET 05 FOR MATCHLINE

CUSTIS ROAD

DEERBROOK DRIVE

EX. HOLLY SPRINGS DRIVE

PAYNE STREET

ALLEY 3B28

ALLEY 3B26

ALLEY 3B33

ALLEY 3B24

BLOCK 28

BLOCK 25

BLOCK 26

BLOCK 24

4 PARKING SPACES

7 PARKING SPACES

8 PARKING SPACES

20 PARKING SPACES

8" SAN. SEW.

10" W/M

24" PAVEMENT

30' PAVEMENT

56' PAVEMENT

76' PAVEMENT

50' PAVEMENT

30" CMP

24" CMP

18" CMP

15" CMP

| | | | |
|---|---|---|---|
| 444 | FF=534.40 BF=515.78 | 445 | FF=534.20 BF=525.18 |
| 443 | FF=534.46 BF=524.44 | 446 | FF=532.87 BF=523.85 |
| 442 | FF=536.70 BF=527.11 | 447 | FF=532.20 BF=523.18 |
| 441 | FF=537.17 BF=527.78 | 448 | FF=530.67 BF=521.65 |
| 440 | FF=536.80 BF=527.78 | 449 | FF=530.20 BF=521.18 |
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| 399 | FF=513.80 BF=504.78 | | |
| 398 | FF=514.47 BF=505.45 | 397 | FF=508.60 BF=499.58 |

GAR= 520.90

GAR= 518.40

GAR= 515.50

GAR= 512.60

GAR= 501.13

GAR= 498.28

462

463

GRAPHIC SCALE

30 0 15 30 60 120

( IN FEET )

1 inch = 30 ft.

STANDARD MINIMUM STORM DRAIN EASEMENT WIDTHS

| PIPE SIZE | MINIMUM STORM DRAIN EASEMENT WIDTH |
|---|---|
| 12-18 INCHES | 10 FEET |
| 21-33 INCHES | 15 FEET |
| 36-48 INCHES | 20 FEET |
| 54-72 INCHES | 24 FEET |

LEGEND:

- PROPOSED STORM DRAIN
- EXISTING STORM DRAIN
- EXISTING CONTOUR
- PROPOSED CONTOUR
- EXISTING SANITARY SEWER
- PROPOSED SANITARY SEWER
- EXISTING WATER LINE
- PROPOSED WATER LINE
- EXISTING TREE LINE
- PROPOSED LIMITS OF CLEARING & GRADING (LOC)
- WATER METER CROCK
- PROPOSED FIRE HYDRANT
- CG-6 CURB & GUTTER
- ROLL CURB
- ALLEY PAVEMENT
- EXISTING TREE
- RIPRAP
- TRAFFIC BARRICADE
- UTILITY PREBLAST
- STOP SIGN
- # FOR WATERMAIN FITTINGS SEE SHEET 9
- PROPOSED SIDEWALK

AS-BUILT

| No. | DATE | DESCRIPTION |
|---|---|---|
| | | REVISIONS |

PLAN DATE
09/12/03
02/27/04
04/14/04


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PHONE (540) 450-0211 FAX (540) 450-0210


DAVID E. LELLOCK — LICENSED — 21537 — COMMONWEALTH OF VIRGINIA — PROFESSIONAL ENGINEER — 04/14/04

04/19/23

Grading Plan

HUNTFIELD
Phase 3A
CHARLES TOWN CORPORATION
JEFFERSON COUNTY, WEST VIRGINIA

SCALE: 1"=30' C.I. = 2' DATE: SEPTEMBER 2003


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SHEET 4 OF 29

PP-20039

SHEET 10 OF 31

180

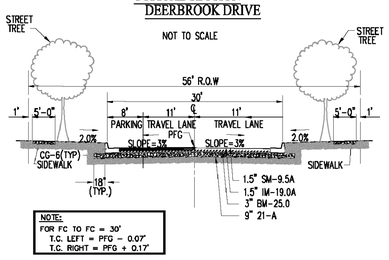
## CENTER LINE GEOMETRY
## DEERBROOK DRIVE

Project: HF-S3-proj
Horizontal Alignment Station and Curve Report.
Alignment: HF3-ROAD24
Desc:

| Desc | Station | Spiral/Curve Data | Northing | Easting |
|---|---|---|---|---|
| PI | 10+00 | | 283781.3643 | 2458424.4244 |
| | Length: | 465.53 Course: | N 69-58-24 W | |
| PI | 14+65.53 | | 283940.7888 | 2457987.0397 |
| | Length: | 359.11 Course: | N 64-54-25 W | |
| | Delta: | 5-03-59 | | |
| | Tangent Data | | | |
| | 10+00 | | 283781.3643 | 2458424.4244 |
| | 14+43.41 | | 283933.2133 | 2458007.8231 |
| | Length: | 443.41 Course: | N 69-58-24 W | |
| | Circular Curve Data | | | |
| PC | 14+43.41 | | 283933.2133 | 2458007.8231 |
| RP | | | 284402.9804 | 2458179.0508 |
| PT | 14+87.63 | | 283950.1700 | 2457967.0065 |
| | Delta: | 05-03-59 Type: | RIGHT | |
| | Radius: | 500.00 DOC: | 11-27-33 | |
| | Length: | 44.21 Tangent: | 22.12 | |
| | Mid-Ord: | 0.49 External: | 0.49 | |
| | Chord: | 44.20 Course: | N 67-26-25 W | |
| | Es: | 0.49 | | |
| PI | 18+24.62 | | 284093.0837 | 2457661.8213 |
| | Tangent Data | | | |
| | 14+87.63 | | 283950.1700 | 2457967.0065 |
| | 18+24.62 | | 284093.0837 | 2457661.8213 |
| | Length: | 336.99 Course: | N 64-54-25 W | |

## TYPICAL SECTION
## DEERBROOK DRIVE

NOT TO SCALE




NOTE:
FOR FC TO FC = 30'
T.C. LEFT = PFG - 0.07'
T.C. RIGHT = PFG + 0.17'

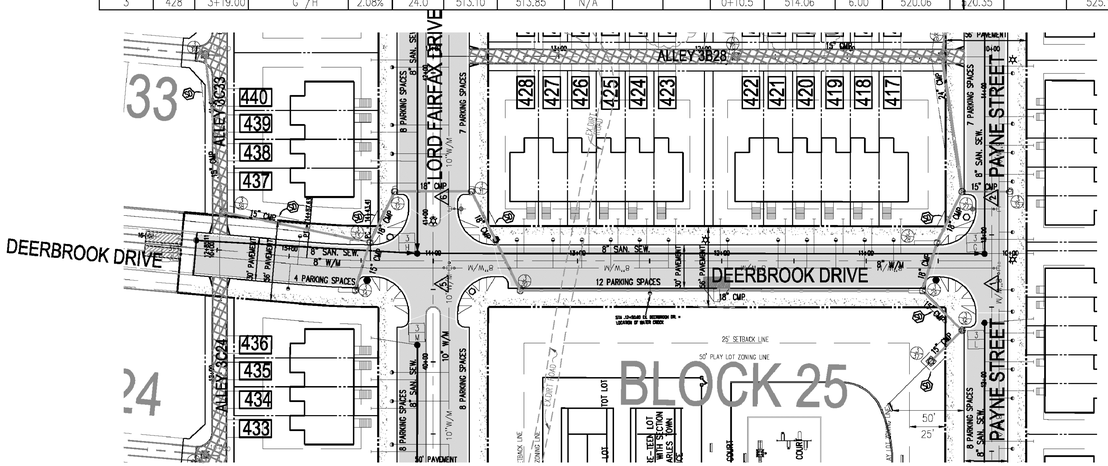
GRAPHIC SCALE

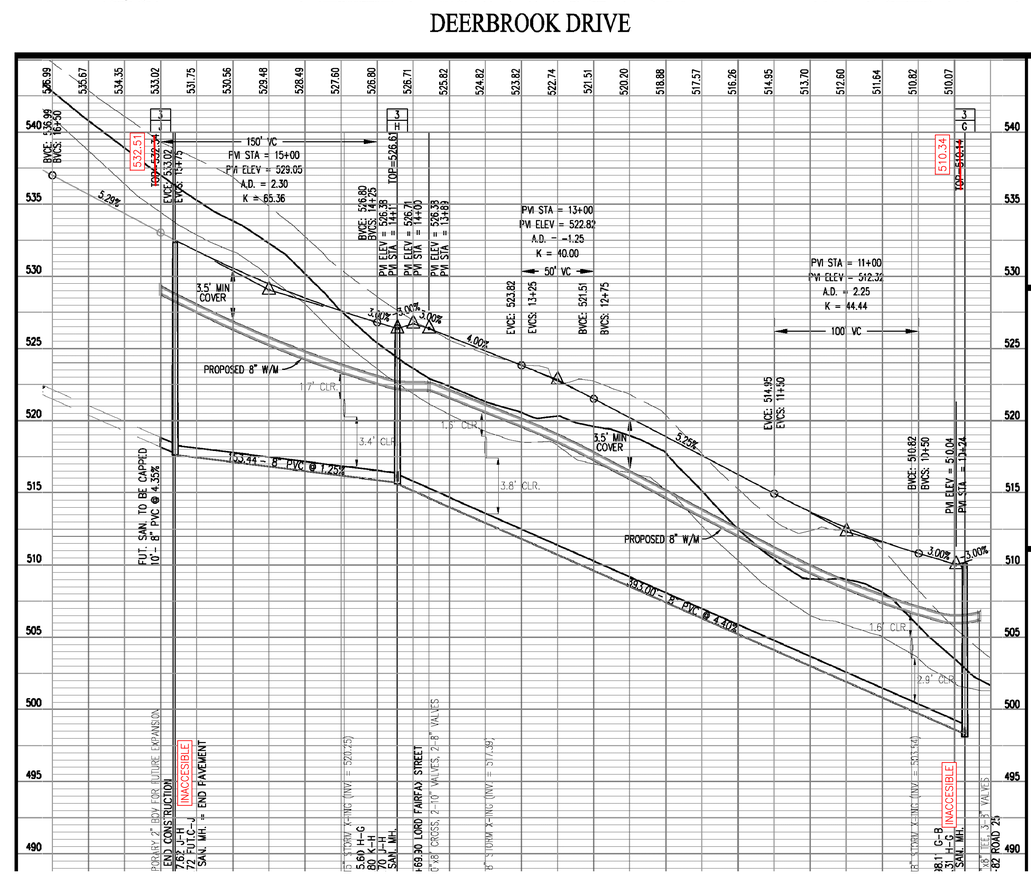
50 0 25 50 100 200

( IN FEET )
1 inch = 50 ft.

# SANITARY LATERAL COMPUTATIONS

| Section | Lot | Station | DS MH / US MH | Slope (%) | Overall Length (FT.) | Invert @ Main | Invert of Lateral @ Main | Riser Height | End Riser Station | Inv. @ End of Riser | Vertical Bend Station | Inv @ Bottom Vert. Bend | Stack Height | Inv @ Top Vert.Bend | Inv @ End of Lateral | Finished Grade @ End Lat. | Basement Elevation (FT.) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 3 | 417 | 0+58.00 | G /H | 2.08% | 24.0 | 501.61 | 502.36 | N/A | | | 0+10.5 | 502.58 | 5.00 | 507.58 | 507.86 | | 512.51 |
| 3 | 418 | 0+78.00 | G /H | 2.08% | 24.0 | 502.49 | 503.24 | N/A | | | 0+10.5 | 503.46 | 5.00 | 508.46 | 508.74 | | 513.18 |
| 3 | 419 | 0+98.00 | G /H | 2.08% | 24.0 | 503.37 | 504.12 | N/A | | | 0+10.5 | 504.34 | 4.00 | 508.34 | 508.62 | | 513.84 |
| 3 | 420 | 1+18.00 | G /H | 2.08% | 24.0 | 504.25 | 505.00 | N/A | | | 0+10.5 | 505.22 | 4.00 | 509.22 | 509.50 | | 514.51 |
| 3 | 421 | 1+38.00 | G /H | 2.08% | 24.0 | 505.13 | 505.88 | N/A | | | 0+10.5 | 506.10 | 4.00 | 510.10 | 510.38 | | 515.18 |
| 3 | 422 | 1+83.00 | G /H | 2.08% | 24.0 | 507.11 | 507.86 | N/A | | | 0+10.5 | 508.08 | 3.00 | 511.08 | 511.36 | | 516.51 |
| 3 | 423 | 2+14.00 | G /H | 2.08% | 24.0 | 508.48 | 509.23 | N/A | | | 0+10.5 | 509.44 | 5.00 | 514.44 | 514.73 | | 519.85 |
| 3 | 424 | 2+34.00 | G /H | 2.08% | 24.0 | 509.36 | 510.11 | N/A | | | 0+10.5 | 510.32 | 6.00 | 516.32 | 516.61 | | 521.18 |
| 3 | 425 | 2+54.00 | G /H | 2.08% | 24.0 | 510.24 | 510.99 | N/A | | | 0+10.5 | 511.20 | 6.00 | 517.20 | 517.49 | | 521.85 |
| 3 | 426 | 2+74.00 | G /H | 2.08% | 24.0 | 511.12 | 511.87 | N/A | | | 0+10.5 | 512.08 | 6.00 | 518.08 | 518.37 | | 523.18 |
| 3 | 427 | 2+94.00 | G /H | 2.08% | 24.0 | 512.00 | 512.75 | N/A | | | 0+10.5 | 512.96 | 6.00 | 518.96 | 519.25 | | 523.85 |
| 3 | 428 | 3+19.00 | G /H | 2.08% | 24.0 | 513.10 | 513.85 | N/A | | | 0+10.5 | 514.06 | 6.00 | 520.06 | 520.35 | | 525.18 |




## EASEMENT LEGEND

- DENOTES COMMON SHARED EASEMENT
- DENOTES PUBLIC ACCESS EASEMENT
- DENOTES INGRESS-EGRESS EASEMENT
- DENOTES SIGHT DISTANCE EASEMENT
- DENOTES STORM DRAIN EASEMENT
- DENOTES SANITARY SEWER EASEMENT 10' WIDE UNLESS OTHERWISE NOTED
- DENOTES WATER MAIN EASEMENT 10' WIDE UNLESS OTHERWISE NOTED

## LEGEND
## EXISTING EASEMENT

- DENOTES COMMON SHARED EASEMENT
- DENOTES PUBLIC ACCESS EASEMENT
- DENOTES INGRESS-EGRESS EASEMENT
- DENOTES SIGHT DISTANCE EASEMENT
- DENOTES STORM DRAIN EASEMENT
- DENOTES SANITARY SEWER EASEMENT 10' WIDE UNLESS OTHERWISE NOTED
- DENOTES WATER MAIN EASEMENT 10' WIDE UNLESS OTHERWISE NOTED

## LEGEND:

- PROPOSED CURB
- PROPOSED ROLL CURB
- PROPOSED HANDICAP RAMP
- PRE-BLAST FOR FUTURE UTILITIES
- WATER METER
- STREET LIGHT
- STREET SIGN
- STOP SIGN
- ALLEY PAVEMENT

② NO PARKING

LEGEND

04/19/23

STATE GRID NORTH
NAD 27

| No. | DATE | DESCRIPTION |
|---|---|---|
| | | REVISIONS |

PLAN DATE
09/12/03
02/27/04
04/14/04


Urban Engineering & Associates, Inc.
CIVIL ENGINEERS • LANDSCAPE ARCHITECTS • LAND SURVEYORS
PEGASUS BUSINESS CENTER
600 PEGASUS COURT - SUITE 101 WINCHESTER, VIRGINIA 22602
PHONE (540) 450-0211 FAX (540) 450-0210


REGISTERED LAND SURVEYOR
STATE OF WEST VIRGINIA
PROFESSIONAL ENGINEER
STATE OF WEST VIRGINIA
04/14/04

Plan & Profile - Deerbrook Drive

# HUNTFIELD
## Phase 3A

CHARLES TOWN COUNTY, WEST VIRGINIA
JEFFERSON COUNTY, WEST VIRGINIA

*DATE:* SEPTEMBER 2003
*C.I.* N/A
*SCALE:* 1"=5'(V), 1"=50'(H)

*SHEET*
8


MORRIS & RITCHIE ASSOCIATES, INC.
ENGINEERS, PLANNERS, SURVEYORS AND LANDSCAPE ARCHITECTS
205 EAST HIRST ROAD, SUITE 108
PURCELLVILLE, VA 20132
PHONE: (703) 994-4047
MRAGTA.COM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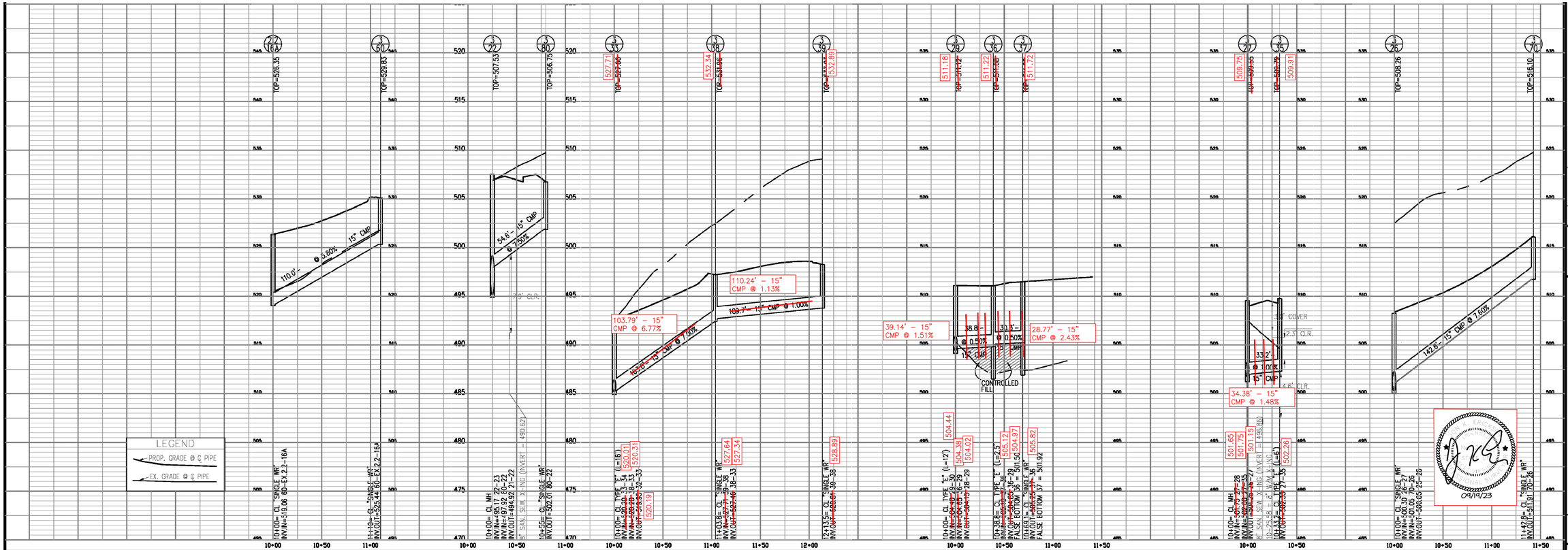
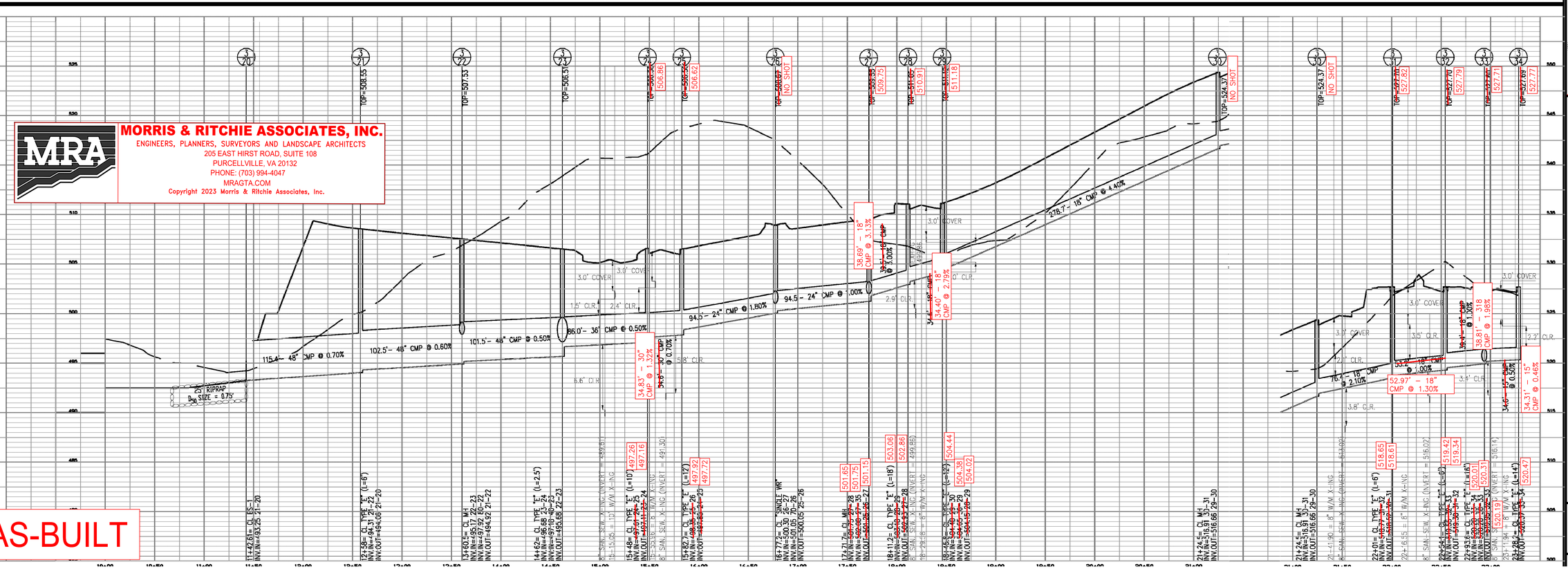
AS-BUILT




AS-BUILT

| No. | DATE | REVISIONS |
|---|---|---|
| | | DESCRIPTION |

PLAN DATE
09/12/03
02/27/04
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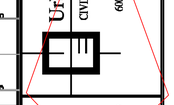
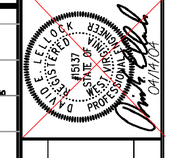



Storm Profiles

# HUNTFIELD
## Phase 3A
CHARLES TOWN CORPORATION
JEFFERSON COUNTY, WEST VIRGINIA

*SCALE:* (H) 1" = 50' (V) 1" = 5' *C.I.* = N/A *DATE:* SEPTEMBER 2003

*SHEET* 14 *OF* 29

PP-20039

ECS MID-ATLANTIC, LLC
"One Firm. One Mission."
Geotechnical • Construction Materials • Environmental • Facilities

May 4, 2023

Mr. Matthew Stare
Director of Land
DR Acquisitions, LLC
7945 Wormans Mill Road
Frederick, MD 21701

ECS Project No. 01: 31371

Reference: Subdivision Infrastructure and Site Grading, Roadway Construction/Infrastructure and Single Family House Building Pads Completion Letter for the following Phases
Phase 2B Lots 375 to 378;
Phase 3A Lots 457 to 460;
Phase 3B Lots 467, 468 to 472 and 543 to 548;
Phase 3E Lots 778 to 787 and 790 to 794;
Huntfield Subdivision, Jefferson County, West Virginia

Dear Mr. Stare:

ECS Mid-Atlantic, LLC (ECS) was retained by DR Acquisitions, LLC to monitor site construction operations for the above referenced project. The following completion letter relates to work performed under the observation of ECS on the referenced single-family house building pads along with roadway construction and infrastructure within the Huntfield Subdivision. Our services were performed in accordance with our contract/agreement dated December 13, 2021, on an as requested basis from December 13, 2021, through January 20, 2023, corresponding to ECS Daily Field Report Nos. 1 through 101, previously submitted as work progressed. Our scope of work included:

- Observation of proofrolling of subgrade for single family building pads;
- Observation and testing of fill for single family building pads listed above;
- Observation of proofrolling of pavement subgrade;
- Observation and testing of the compaction of stone base prior to asphalt pavement;
- Observation and testing of the compaction of asphalt pavements.

We have performed a review of ECS activities on the referenced project. According to our field and laboratory test reports and records, the tests were performed in accordance with ASTM, AWS, and appropriate industry standards and indicate that the construction appeared to be in conformance with the approved plans. Where discrepancies were observed, corrections or modifications were made and/or redesign accomplished and reviewed and/or approved by the design engineer.

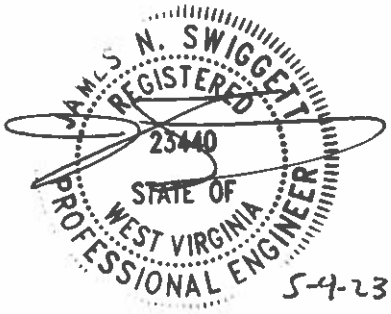
The professional services detailed herein were provided in accordance with generally accepted geotechnical engineering and materials testing practices. No warranties have been expressed or implied, are given regarding the services provided for this project. If you have any questions, or if we can be of further service to you, please do not hesitate to contact us.

Respectfully,

**ECS MID-ATLANTIC, LLC**



Darin E. Shick, CWI
Construction Materials Project Manager




James N. Swiggett, P.E.
Senior Project Engineer



R. Drew Thomas, C.P.G.
Principal Engineering Geologist

Kimley»Horn

## Memorandum

To: Mathew Stare
Director of Land
Dr Acquisitions, LLC
7945 Wormans Mill Road
Frederick, MD 21701

From: Mark Phillips, P.E.

Through: James Newman
City of Charles town
101 E Washington Street
Charles Town, WV 25414

Date: October 11, 2023

**Subject: Huntfield Phase 3A Bond Reduction Request Review**

This memorandum summarizes our review of the Bond Reduction Request for the Huntfield Phase 3A Bond Reduction application (dated September 29, 2023, prepared by Dr Acquisitions, LLC) for a reduction of $161,716.34 to the proposed bond amount (Performance and Land Disturbance) of $126,004.01. Using the Construction Plans and Profiles As-Builts dated September 19, 2023, Huntfield 3A Bond Unit Cost Reduction, and the Huntfield Phase 2B, 3A, 3B, 3E Combined Cert Letter dated May 4, 2023, it is our opinion that the quantities of work that have been presented on the bond reduction are a reasonable representation of the work completed in the field.

Thank you for the opportunity to review this Bond Reduction Request. In the meantime, please feel free to contact us at 703-870-3631 should you have any questions.

**KIMLEY-HORN & ASSOCIATES, INC.**

Mark Phillips, P.E.
Project Manager
Associate