



MORGANTOWN BOARD OF ZONING APPEALS

July 20, 2016
6:30 PM
City Council Chambers

Board Members:

Bill Burton,
Chair

George Papandreas,
Vice-Chair

Linda Herbst

Jim Shaffer

Colin Wattleworth

COMBINED STAFF REPORT

CASE NO: V16-19 and V16-20 / Sabraton Properties, LLC / 1589 Earl Core Road

REQUEST and LOCATION:

Request by Michael J. Saab on behalf of Sabraton Properties, LLC, for variance relief from Article 1347.04 as it relates to setback encroachments and from Article 1347.06 as it relates to parking at 1589 Earl Core Road.

TAX MAP NUMBER(s) and ZONING DESCRIPTION:

Tax Map 31, Parcels 105.1, 108, 111, and 149.2; B-2, Service Business District

SURROUNDING ZONING:

B-2, Service Business District

BACKGROUND and ANALYSIS:

The petitioner seeks to construct a fast-food restaurant at 1589 Earl Core Road. Addendum A of this report illustrates the location of the subject site.

Case No. V16-19 Maximum front setback variance

Article 1347.04(A)(2) provides a maximum front setback requirement of thirty (30) feet in the B-2 District. The proposed front setback of the fast-food restaurant building is 58.45 feet +/-, which requires a 28.45-foot variance.

Case No. V16-20 Parking between the front façade and street right-of-way

Article 1347.06(B) provides that no parking spaces shall be permitted between the front façade of a building and any street right-of-way. A total of nine (9) parking spaces are currently proposed to be placed between the front façade and Earl Core Road, the fronting street for the fast-food restaurant.

Concerning both variance requests, an access drive that is approximately twenty-three (23) feet in width, is located between the proposed frontage parking area and the fast-food restaurant. This access drive will link parcels to the east and west, and presents a mobility option desired by the Planning and Zoning Code [see Article 1365.09(B)(3)], but impacts site design.

Staff recommends that the Board, without objection from members of the Board, the petitioner, or the public, combine the public hearings for the two (2) variance petitions addressed herein. However, each respective petition must be considered and acted upon by the Board separately.

Development Services

Christopher Fletcher, AICP
Director

John Whitmore, AICP
Planner III

Planning Division

389 Spruce Street
Morgantown, WV 26505
304.284.7431



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STAFF RECOMMENDATION:

The Board of Zoning Appeals must determine whether the proposed requests meet the standard criteria for a variance by reaching a positive determination for *each* of the "Findings of Fact" submitted by the petitioner. If the Board disagrees with the petitioner's "Findings of Fact" and determines one or both of the proposed requests do not meet the standard criteria for a variance, then the Board must state findings of fact and conclusions of law on which it bases its decision(s) to deny the subject variance petition(s). [See WV State Code 8A-8-11(e) and 8A-7-11(b)].

Again, each respective variance petition must be considered and acted upon by the Board separately.

Addendum B of this report provides Staff recommended revisions to the petitioner's "Findings of Fact" responses and serve only to remove narrative that is clearly inapplicable. Staff recommended revisions should not be considered or construed as supporting or opposing the merits of the petitioner's "Findings of Fact" responses (deleted matter struck through; new matter underlined).

Staff recommends that a variance of 28.45 feet +/- be granted from the maximum front yard setback standard set forth under Article 1347.04(A)(2) for Case No. V16-19 as requested without conditions.

Staff recommends that a variance from Article 1347.06(B) to permit the development of parking spaces between the front façade of the building and Earl Core Road for Case No. V16-20 be granted as requested without conditions.

Enclosures: Application and accompanying exhibits

Development Services

Christopher Fletcher, AICP
Director

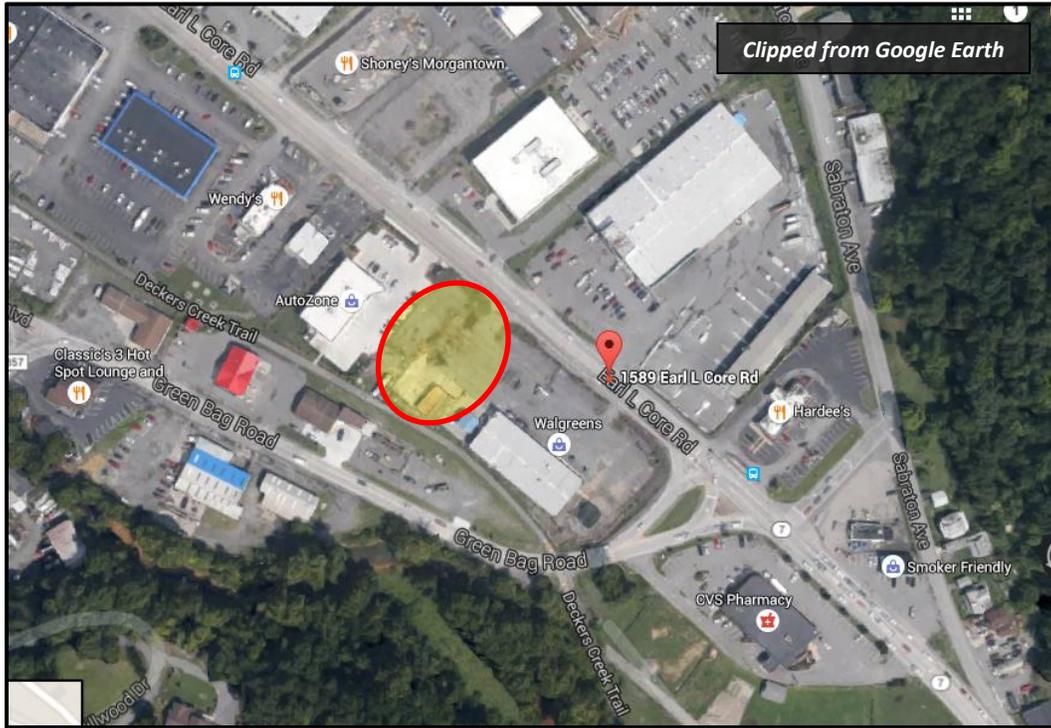
John Whitmore, AICP
Planner III

Planning Division

389 Spruce Street
Morgantown, WV 26505
304.284.7431

STAFF REPORT ADDENDUM A

V16-19 & V16-20 / Sabraton Properties, LLC / 1589 Earl Core Road



STAFF REPORT ADDENDUM B

V16-19 & V16-20 / Sabraton Properties, LLC / 1589 Earl Core Road

Staff recommends the following revisions to the petitioner's Findings of Fact responses (deleted matter struck through; new matter underlined). Staff recommended revisions serve only to remove narrative that is clearly inapplicable. Recommended revisions should not be considered or construed as supporting or opposing the merits of the petitioner's "Findings of Fact" responses.

V16-19 Maximum Front Yard Setback

Finding of Fact No. 1 – The variance will not adversely affect the public health, safety or welfare, or the rights of adjacent property owners or residents, because:

This situation exists on each side of this property by adjoining AutoZone and Walgreens businesses, which do not appear to harm general public welfare or neighboring property rights.

Finding of Fact No. 2 – The variance arises from special conditions or attributes which pertain to the property for which a variance is sought and which were not created by the person seeking the variance, because:

With the ~~adjoining entrances with~~ existing cross access drive connections for each business on either side of the petitioner's site, staff the Planning Office thought it to be appropriate to approve continued access maintain the connection and its alignment advancing best access management practices desired under Article 1365.09(B)(3), which requires the proposed building to be set back further from Earl Core Road than the maximum front setback standard.

Finding of Fact No. 3 – The variance will eliminate an unnecessary hardship and permit a reasonable use of the land, because:

Approving this variance will allow for cross access from neighboring businesses as desired under Article 1365.09(B)(3).

Finding of Fact No. 4 – The variance will allow the intent of the zoning ordinance to be observed and substantial justice done, because:

The setback is consistent with setbacks on each side of petitioner's property.

V16-20 Parking between the front façade and street right-of-way

Finding of Fact No. 1 – The variance will not adversely affect the public health, safety or welfare, or the rights of adjacent property owners or residents, because:

This situation exists by the neighboring AutoZone and Walgreens businesses on each side, which do not appear to harm general public welfare or neighboring property rights.

Finding of Fact No. 2 – The variance arises from special conditions or attributes which pertain to the property for which a variance is sought and which were not created by the person seeking the variance, because:

N/A Maintaining the location and alignment of the existing cross access drive connections for each business on either side of the petitioner’s site as desired under Article 1365.09(B)(3) consumes potential parking development at the rear of the site. To meet minimum parking requirements for the proposed fast food restaurant, it appears necessary to utilize the area between the front property boundary and the cross access drive to develop requisite parking spaces.

Finding of Fact No. 3 – The variance will eliminate an unnecessary hardship and permit a reasonable use of the land, because:

This allows applicant to obtain the required amount of parking while maintaining cross access connections between adjoining parking lots as desired under Article 1365.09(B)(3).

Finding of Fact No. 4 – The variance will allow the intent of the zoning ordinance to be observed and substantial justice done, because:

Neighboring business have both been approved for this variance request and the granting of the petitioner’s request advances best access management practices desired under Article 1365.09(B)(3).



City of Morgantown, West Virginia

APPLICATION FOR VARIANCE PETITION

OFFICE USE	
CASE NO.	V16-19
RECEIVED:	

VISA

(PLEASE TYPE OR PRINT IN BLACK INK)

Fee: \$75

I. APPLICANT		Name:	SABRATON Properties, LLC.			
Mailing Address:	Street	6 CANYON ROAD SUITE 300		Phone:	304-599-3369	
	City	MORGANTOWN	State	WV	Zip	26508
	Mobile:	304-692-6503				
		Email:	msaab@glenmideholding.com			
II. PROPERTY		Street Address:	1589 EARL COATE ROAD			
Owner:	SABRATON Properties, LLC		Zoning:	B-2		
Mailing Address:	Street	6 CANYON ROAD SUITE 300		Tax Map No:	31	
	City	MORGANTOWN	State	WV	Zip	26508
	Parcel No:	105.1, 108, 111, 149.2				
		Phone:				

III. NARRATIVE	Please describe the nature and extent of your variance request(s).
<p>THE STRUCTURE EXCEEDS the maximum front yard setback by 30 feet +/-.</p> <p>1347.04 (A)(2)</p>	

V. ATTEST		
<p>I hereby certify that I am the owner of record of the named property, or that this application is authorized by the owner of record and that I have been authorized by the owner to make this application as his/her authorized agent. I agree to conform to all applicable laws of this jurisdiction. The granting of a variance does not presume to give authority to violate or cancel the provisions of any other federal, state, or local law regulating construction or the performance of construction. I certify that the information submitted herein and attached hereto is true and accurate and understand that if found otherwise may result in the denial of this request or subsequent revocation of any and all related approvals. The undersigned has the power to authorize and does hereby authorize City of Morgantown representatives on official business to enter the subject property as necessary to process the application and enforce related approvals and conditions. I hereby authorize the Development Services Department to erect a notification sign on the subject property approximately 15 days prior to the BZA hearing. I further agree to maintain said signage and hereby accept responsibility in case of destruction or removal.</p>		
Michael J. SAAB		6-14-16
Type/Print Name of Applicant/Agent	Signature of Applicant/Agent	Date

PAID PAID JUN 14 2016

You or a representative MUST be present at the scheduled hearing to present the request and answer questions. Failure to appear at the hearing will result in your request being tabled.



City of Morgantown, West Virginia

APPLICATION FOR VARIANCE PETITION

OFFICE USE	
CASE NO.	V16-19
RECEIVED:	

VI. SUPPLEMENTAL INFORMATION

Depending on the type of variance request and the scale and scope of the development proposal, supplemental information may be needed to assist the Board of Zoning Appeals in rendering a variance decision. Staff will check the appropriate boxes below that must be addressed.

Land Use Characteristics (complete only those that apply)

- Residential
- Single-Family Dwelling
- Townhouse Dwelling
- Two-Family Dwelling
- Multi-Family Dwelling
- Non-Residential or Mixed (please explain)

Structure Characteristics (complete only those that apply)

Total number of buildings: 1 Gross floor area of each building: 3149
 Estimated number of employees: 12(max) No. of dwelling units: _____ No. of bedrooms: _____
 Additional structure-related details:

Additional Information (as required by Staff):

Site Plan. A scaled site plan may be required to assist the Board in rendering a variance decision. The following features must be represented, as required by Staff.

- Location, shape, exterior dimensions, and number of stories of each building on the site.
- Standard yard setbacks for the applicable zoning district
- Location, grade, and dimensions of paved surfaces, and all abutting streets
- Existing and proposed contours, at an interval of at least two (2) feet
- Complete traffic circulation plan showing dimensions, entrance/exit drives, planters, and similar improvements
- Location of landscaped areas (to be detailed on landscape plan), fences, walls, and other screen required



APPLICATION FOR VARIANCE PETITION

OFFICE USE	
CASE NO.	V16-19
RECEIVED:	

VII. FINDINGS OF FACT	COMPLETE THE FOLLOWING STATEMENTS IN THIRD PERSON.
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The Board of Zoning Appeals may grant a variance request only if each of the following "Findings of Fact" criteria is determined to be in the positive. Applicants must give their own responses to the following criteria statements.

1. The variance will not adversely affect the public health, safety or welfare, or the rights of adjacent property owners or residents, because:

This situation exists on each side of this property by adjoining businesses.

2. The variance arises from special conditions or attributes which pertain to the property for which a variance is sought and which were not created by the person seeking the variance, because:

With the adjoining entrances with each business on either side, staff thought it to be appropriate to continued access.



City of Morgantown, West Virginia

**APPLICATION FOR
VARIANCE PETITION**

OFFICE USE	
CASE NO.	V16-19
RECEIVED:	

VII. FINDINGS OF FACT

COMPLETE THE FOLLOWING STATEMENTS IN THIRD PERSON.

3. The variance will eliminate an unnecessary hardship and permit a reasonable use of the land, because:

Approving this variance will allow for cross access from neighboring businesses.

4. The variance will allow the intent of the zoning ordinance to be observed and substantial justice done, because:

THE setback is consistent with setbacks on each side of property.



City of Morgantown, West Virginia

APPLICATION FOR VARIANCE PETITION

OFFICE USE	
CASE NO.	V16-20
RECEIVED:	

VISA

(PLEASE TYPE OR PRINT IN BLACK INK)

Fee: \$75

I. APPLICANT		Name:	SABRATON Properties, LLC.		
Mailing Address:	Street	6 CANYON ROAD SUITE 300		Phone:	304-599-3369
	City	Morgantown	State	WV	Zip
				Mobile:	304-692-6503
				Email:	msaab@glenmacleholding.com
II. PROPERTY		Street Address:	1589 EARL COVE ROAD		
Owner:	SABRATON Properties, LLC		Zoning:	B-2	
Mailing Address:	Street	6 CANYON ROAD SUITE 300		Tax Map No:	31
	City	Morgantown	State	WV	Zip
				Parcel No:	105.1, 108, 111, 149.2
				Phone:	
III. NARRATIVE		Please describe the nature and extent of your variance request(s).			
<p>Parking spaces are not permitted to be between the front facade of the building and the street right of way. 1347.06(B)</p>					
V. ATTEST		BY: _____			
<p>I hereby certify that I am the owner of record of the named property, or that this application is authorized by the owner of record and that I have been authorized by the owner to make this application as his/her authorized agent. I agree to conform to all applicable laws of this jurisdiction. The granting of a variance does not presume to give authority to violate or cancel the provisions of any other federal, state, or local law regulating construction or the performance of construction. I certify that the information submitted herein and attached hereto is true and accurate and understand that if found otherwise may result in the denial of this request or subsequent revocation of any and all related approvals. The undersigned has the power to authorize and does hereby authorize City of Morgantown representatives on official business to enter the subject property as necessary to process the application and enforce related approvals and conditions. I hereby authorize the Development Services Department to erect a notification sign on the subject property approximately 15 days prior to the BZA hearing. I further agree to maintain said signage and hereby accept responsibility in case of destruction or removal.</p>					
Michael J. Saab		[Signature]		6-14-16	
Type/Print Name of Applicant/Agent		Signature of Applicant/Agent		Date	

PAID PAID JUN 14 2016 PAID

You or a representative MUST be present at the scheduled hearing to present the request and answer questions. Failure to appear at the hearing will result in your request being tabled.



City of Morgantown, West Virginia

APPLICATION FOR VARIANCE PETITION

OFFICE USE	
CASE NO.	V16-20
RECEIVED:	

VI. SUPPLEMENTAL INFORMATION

Depending on the type of variance request and the scale and scope of the development proposal, supplemental information may be needed to assist the Board of Zoning Appeals in rendering a variance decision. Staff will check the appropriate boxes below that must be addressed.

Land Use Characteristics (complete only those that apply)

- Residential
- Single-Family Dwelling
- Townhouse Dwelling
- Two-Family Dwelling
- Multi-Family Dwelling
- Non-Residential or Mixed (please explain)

Structure Characteristics (complete only those that apply)

Total number of buildings: 1 Gross floor area of each building: 3149
 Estimated number of employees: 12(max) No. of dwelling units: _____ No. of bedrooms: _____
 Additional structure-related details:

Additional Information (as required by Staff):

Site Plan. A scaled site plan may be required to assist the Board in rendering a variance decision. The following features must be represented, as required by Staff.

- Location, shape, exterior dimensions, and number of stories of each building on the site.
- Standard yard setbacks for the applicable zoning district
- Location, grade, and dimensions of paved surfaces, and all abutting streets
- Existing and proposed contours, at an interval of at least two (2) feet
- Complete traffic circulation plan showing dimensions, entrance/exit drives, planters, and similar improvements
- Location of landscaped areas (to be detailed on landscape plan), fences, walls, and other screen required



City of Morgantown, West Virginia

**APPLICATION FOR
VARIANCE PETITION**

OFFICE USE	
CASE NO.	V110-20
RECEIVED:	

VII. FINDINGS OF FACT

COMPLETE THE FOLLOWING STATEMENTS IN THIRD PERSON.

The Board of Zoning Appeals may grant a variance request only if each of the following "Findings of Fact" criteria is determined to be in the positive. Applicants must give their own responses to the following criteria statements.

1. The variance will not adversely affect the public health, safety or welfare, or the rights of adjacent property owners or residents, because:

*This situation exists by the neighboring
businesses on each side.*

2. The variance arises from special conditions or attributes which pertain to the property for which a variance is sought and which were not created by the person seeking the variance, because:

N/A



City of Morgantown, West Virginia

**APPLICATION FOR
VARIANCE PETITION**

OFFICE USE	
CASE NO.	1116-20
RECEIVED:	

VII. FINDINGS OF FACT

COMPLETE THE FOLLOWING STATEMENTS IN THIRD PERSON.

3. The variance will eliminate an unnecessary hardship and permit a reasonable use of the land, because:

THIS allows applicant to obtain the required amount of parking.

4. The variance will allow the intent of the zoning ordinance to be observed and substantial justice done, because:

Neighboring businesses have both been approved for this variance request.

GLENMARK POPEYES

Sabraton, WV

DATE: June 7, 2016

OWNER/DEVELOPER _____

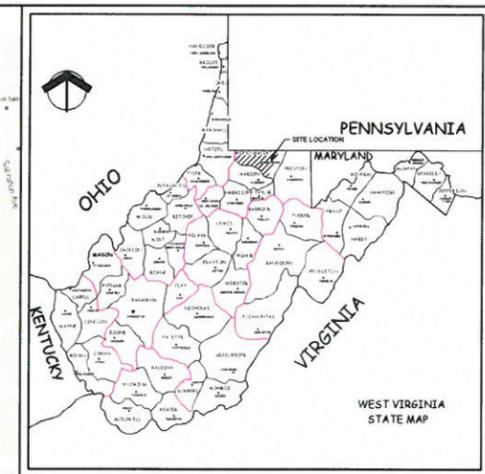
GLENMARK HOLDING LLC
6 CANYON ROAD, SUITE 300
MORGANTOWN, WV - 26508-

ENGINEERS _____

CTL CTL ENGINEERING OF WEST VIRGINIA, INC.
1091 Chaplin Road
Morgantown, WV 26501
Phone: 304/292-1135
Fax: 304/296-9302
TESTING & CONSTRUCTION OBSERVATION * LABORATORY * ENVIRONMENTAL * MINING *
* GEOTECHNICAL * CIVIL & SITE PLANNING * SURVEYING & MAPPING *



VICINITY MAP



LOCATION MAP

SHEET INDEX

- 1 EXISTING CONDITIONS
- 2 PROPOSED SEDIMENT AND EROSION PLAN
- 3 PROPOSED GRADING PLAN
- 4 PROPOSED GRADING PROFILES
- 5 PROPOSED SITE PLAN
- 6 PROPOSED UTILITY PLAN
- 7 PROPOSED STORMWATER PLAN
- 8-10 DETAIL SHEET

EROSION CONTROL NOTES:

1. MAXIMUM CUT/FILL SLOPES = 2.0 HOR. TO 1.0 VERT.
2. SILT FENCE SHALL MEET THE REQUIREMENTS OF THE "WEST VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK FOR DEVELOPING AREAS" PUBLISHED BY THE SOIL CONSERVATION SERVICE.
3. EROSION CONTROL MEASURES WILL BE INSPECTED AT LEAST DAILY AND AFTER EACH RAIN, AND REPAIRED BY GENERAL CONTRACTOR.
4. ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES WILL BE INSTALLED IF DEEMED NECESSARY BY ON-SITE INSPECTION AT NO ADDITIONAL COST TO THE OWNER.

GENERAL NOTES:

1. TOTAL DEVELOPMENT ACREAGE = APPROX. 0.84 AC.
2. BOUNDARY INFORMATION BY:
 CTL ENGINEERING OF WEST VIRGINIA, INC.
1091 Chaplin Road
Morgantown, WV 26501
Phone: 304/292-1135
Fax: 304/296-9302
TESTING & CONSTRUCTION OBSERVATION * LABORATORY * ENVIRONMENTAL * MINING *
* GEOTECHNICAL * CIVIL & SITE PLANNING * SURVEYING & MAPPING *
3. ALL DIMENSIONS ARE TO OR FROM THE FACE OF CURB UNLESS OTHERWISE NOTED.
4. ALL UTILITIES IN AREAS OF CONSTRUCTION TO BE FIELD-LOCATED AND VERIFIED PRIOR TO BEGINNING CONSTRUCTION.
5. DETENTION FACILITIES AND EROSION CONTROL MEASURES ARE TO BE INSTALLED PRIOR TO ANY OTHER CONSTRUCTION ON THE SITE AND SHALL BE MAINTAINED UNTIL PERMANENT GROUND COVER IS ESTABLISHED.
6. ALL DEMOLITION OF EXISTING STRUCTURES SHALL BE PERFORMED BY THE SITE CONTRACTOR.

UTILITY CONTACTS:

WATER	MORGANTOWN UTILITY BOARD (MUB) 278 GREENBAG ROAD MORGANTOWN, W.V. 26505 (304) 292-8443
SEWER	MORGANTOWN UTILITY BOARD (MUB) 278 GREENBAG ROAD MORGANTOWN, W.V. 26505 (304) 292-8443
POWER	FIRST ENERGY 237 HARTMAN RUN ROAD MORGANTOWN, WV 26505 1-800-255-3443
TELEPHONE	FRONTIER COMMUNICATIONS 145 FAYETTE ST MORGANTOWN, WV 26505 (304) 935-3122
GAS	DOMINION HOPE 2800 MORGANTOWN INDUSTRIAL PARK ROAD MORGANTOWN, WV 26501 (304) 581-5836

WEST VIRGINIA MISS UTILITY
1-800-245-4848



THE LOCATION OF ALL UTILITIES (ABOVE OR BELOW GROUND) SHOWN ON THIS DRAWING ARE APPROXIMATE & WERE OBTAINED FROM OBSERVATIONS AT THE SITE AND/OR FROM THE UTILITY OWNERS. CTL ENGINEERING OF WV, INC. DOES NOT GUARANTEE THAT LOCATIONS SHOWN ARE CORRECT. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO DETERMINE LOCATIONS OF EXISTING UTILITIES (ABOVE OR BELOW GROUND) & TO NOTIFY THE RESPECTIVE UTILITY OWNERS BEFORE BEGINNING ANY CONSTRUCTION.

PROPOSED SEDIMENT & EROSION PLAN

Note: All Sediment & Erosion Controls Measures should be in place before any Tree Removal, Grubbing, and Grading Operations begin.

LEGEND

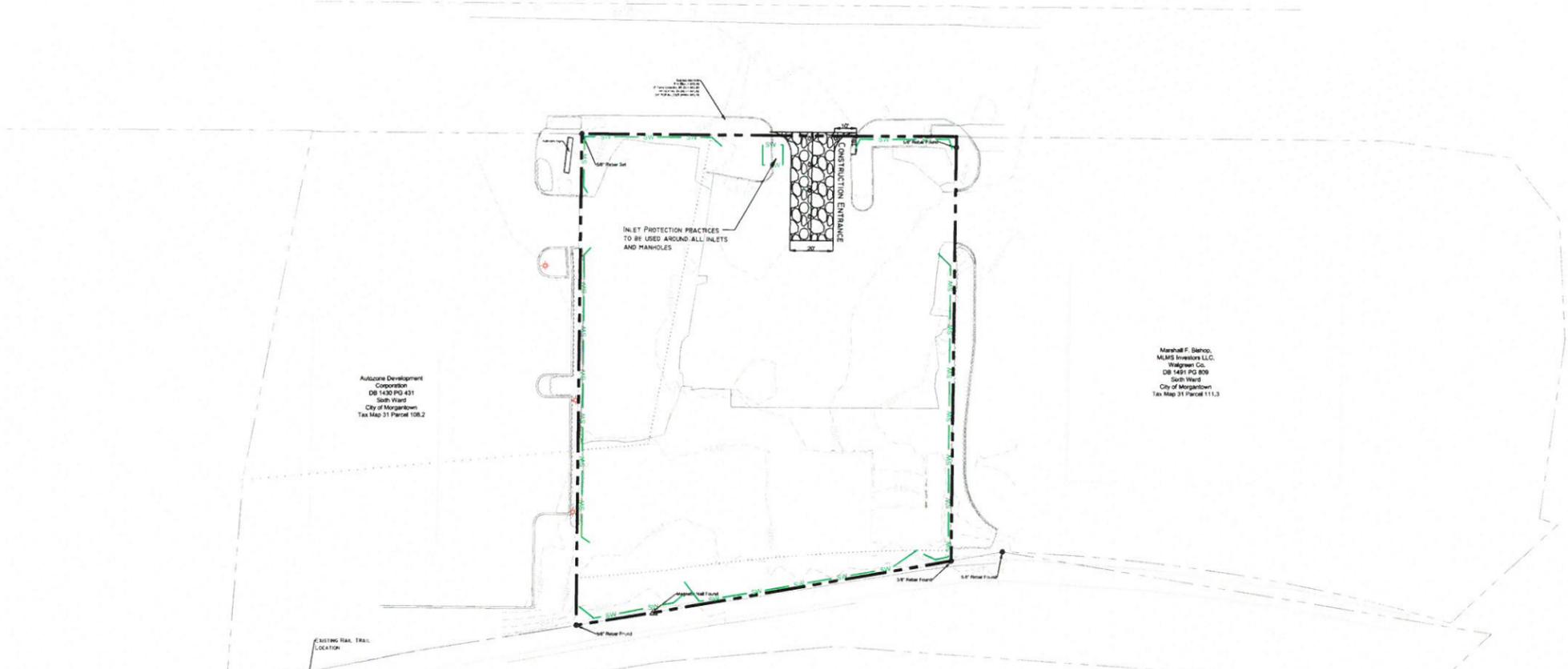
- Subject Property Line
- Adjacent Property Line
- Tax Parcel Line
- Landscape Area
- Storm Line
- Sanitary Line
- Water Line
- Overhead Utility Line
- Gas Line
- Major 5' Contour
- Minor 1' Contour
- Light Pole
- Sanitary Manhole
- Cleanout
- Drop Inlet
- Power Pole
- Straw Wattle

CTL Engineering of West Virginia, Inc.

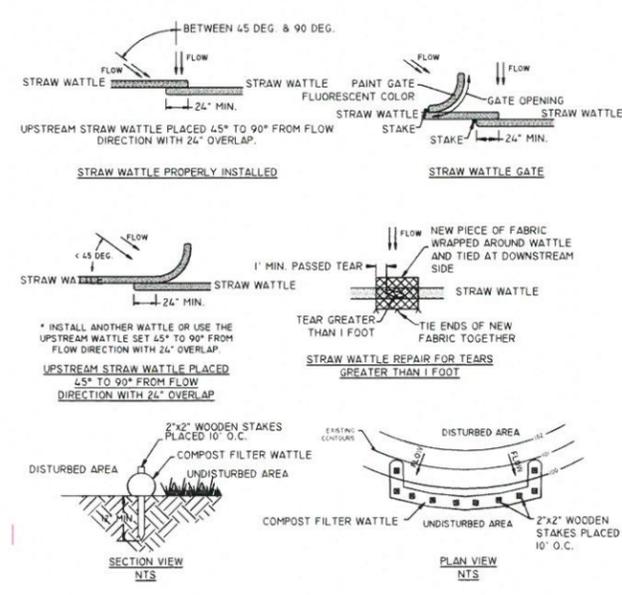
Corporate Office
1007 Chapel Road
Martinsburg, WV 26101
Phone: 304.296.9302 Fax: 610.778.4377

Project Office
2807 Fisher Road
Martinsburg, WV 26101
Phone: 304.296.9302 Fax: 610.778.4377

CTL SITE PLANNING - SURVEYING & ENGINEERING
AN AFFILIATE OF CTL ENGINEERING OF WEST VIRGINIA, INC.
CONSTRUCTION OBSERVATION LABORATORY



Note
The Straw Wattles, Silt Fence or Equivalent Shall be Installed to Follow The Contours Where Feasible.

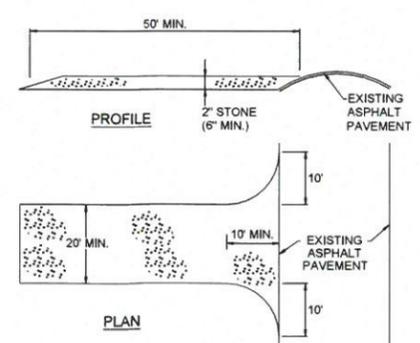


COMPOST FILTER WATTLE NOTES

- COMPOST FILTER WATTLE SHALL BE PLACED AT EXISTING LEVEL GRADE. BOTH ENDS OF THE WATTLE SHALL BE EXTENDED AT LEAST 8 FEET UP SLOPE AT 45 DEGREES TO THE MAIN WATTLE ALIGNMENT. MAXIMUM SLOPE LENGTH ABOVE ANY 18" DIAMETER WATTLE SHALL NOT EXCEED THAT SHOWN ON ABOVE TABLE FOR REINFORCED STRAW FENCE. MAXIMUM SLOPE LENGTH FOR A 24" DIAMETER WATTLE SHALL NOT EXCEED THAT FOR SUPER STRAW FENCE.
- TRAFFIC SHALL NOT BE PERMITTED TO CROSS FILTER WATTLES.
- ACCUMULATED SEDIMENT SHALL BE REMOVED WHEN IT REACHES THE ABOVE GROUND HEIGHT OF THE WATTLE AND DISPOSED IN THE MANNER DESCRIBED ELSEWHERE IN THE PLAN.
- WATTLES SHALL BE INSPECTED WEEKLY AND AFTER EACH RAINFALL EVENT. DAMAGED WATTLES SHALL BE REPAIRED ACCORDING TO MANUFACTURER'S SPECIFICATIONS OR REPLACED WITHIN 24 HOURS OF INSPECTION.
- BIODEGRADABLE FILTER WATTLE SHALL BE REPLACED AFTER 6 MONTHS. PHOTOGRADABLE WATTLES AFTER 1 YEAR. POLYPROPYLENE WATTLES SHALL BE REPLACED ACCORDING TO THE MANUFACTURER'S RECOMMENDATIONS.
- UPON STABILIZATION OF THE AREA TRIBUTARY TO THE WATTLE, STAKES SHALL BE REMOVED. THE WATTLE MAY BE LEFT IN PLACE AND VEGETATED OR REMOVED. IN THE LATTER CASE, THE MESH SHALL BE CUT OPEN AND THE MESH SPREAD AS A SOIL SUPPLEMENT.

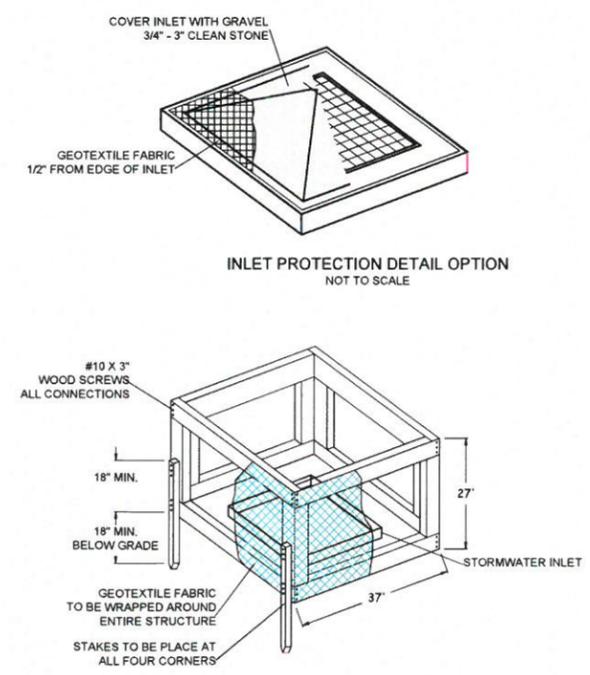
COMPOST SHALL MEET THE FOLLOWING STANDARDS:	
ORGANIC MATTER CONTENT	80% - 100% (Dry Weight Basis)
ORGANIC FIBRATION	FIBROUS & ELONGATED
pH	5.0 - 8.0
MOISTURE CONTENT	LESS THAN 60%
PARTICLE SIZE	100% PASS THROUGH 2" SCREEN & MINIMUM OF 70% > 3/8" SIEVE
SOLUBLE SALT CONCENTRATION	5.0 GS MAXIMUM

18" & 24" COMPOST FILTER WATTLE SLOPE LENGTH CHART		
SLOPE %	18" DIA.	24" DIA.
2 (OR LESS)	150'	1000'
5	100'	500'
10	50'	300'
15	35'	250'
20	25'	200'
25	20'	150'
30	15'	100'
35	15'	87.5'
40	15'	75'
45	10'	62.5'
50	10'	50'



STABILIZED CONSTRUCTION ENTRANCE NOTES

- CONSTRUCTION ENTRANCE TO BE CONSTRUCTED FOLLOWING THE REMOVAL OF ASPHALT FROM THE PARKING LOT.
- INSTALL CONSTRUCTION ENTRANCE AT THE ENTRANCE OF THE DISPOSAL AREA PRIOR TO LOGISTICS OF DISPOSAL MATERIAL.



SABRATON ABULABAN SITE

GLENMARK HOLDING, LLC
5 CANYON ROAD, SUITE 300, MORGANTOWN, WEST VIRGINIA 26508

Sediment & Erosion Control Plan

SABRATON, MORGANTOWN, WEST VIRGINIA

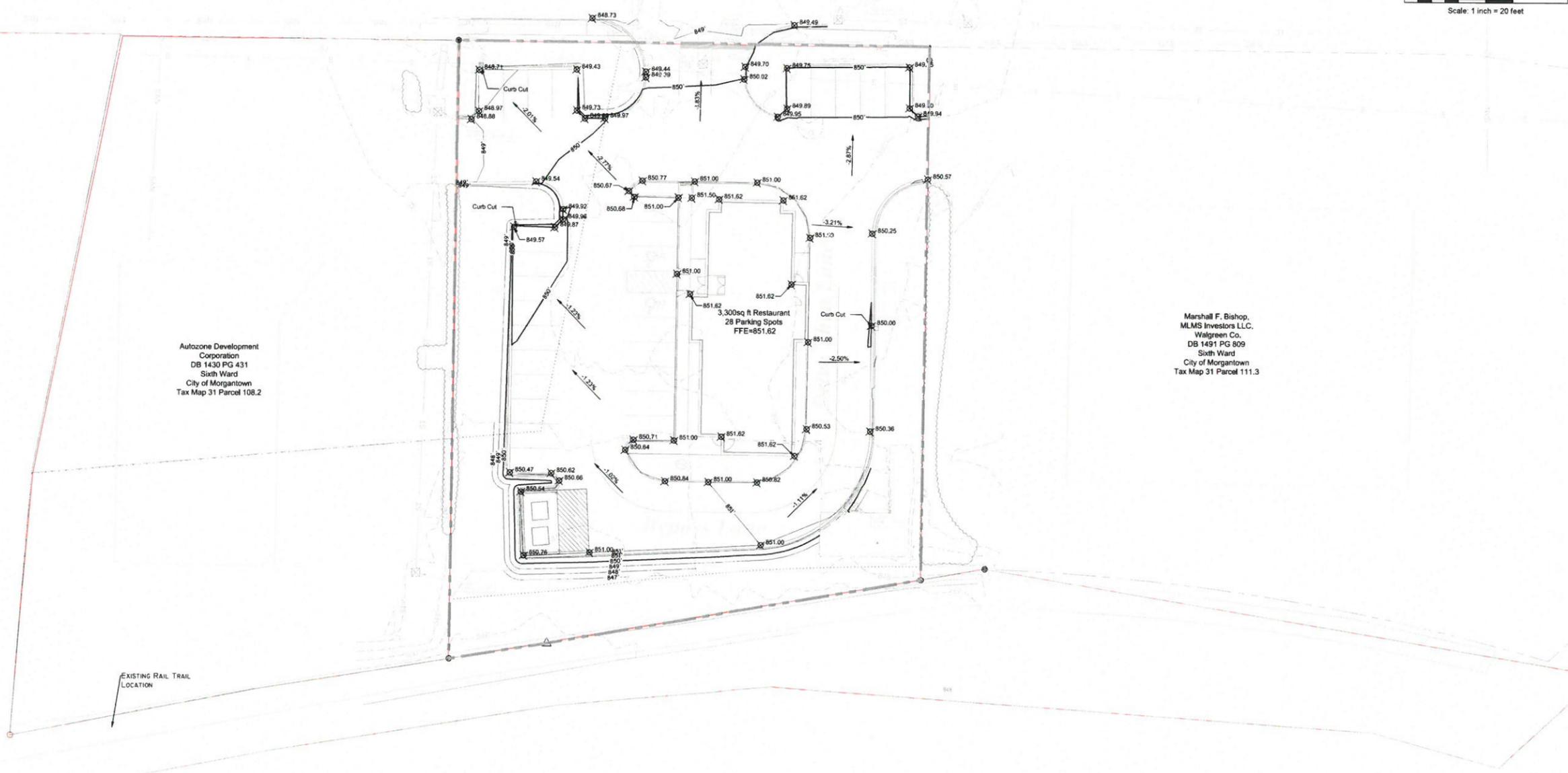
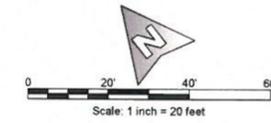
REVISIONS	Description	Approved	Date

Drawn By: MLN
Approved By: TAD
Date: 06/07/2016
Scale: 1" = 30'
Project No: 16100041MOR
Drawing Name: Civil Site Design Plans
Sheet No: 2

Note: All Proposed Contours and Spot Elevations are to Finish Grade.

LEGEND

- Subject Property Line
- Adjacent Property Line
- Tax Parcel Line
- Landscape Area
- Storm Line
- Sanitary Line
- Water Line
- Overhead Utility Line
- Gas Line
- Major 5' Contour = 850'
- Minor 1' Contour = 849'
- Light Pole
- Sanitary Manhole
- Cleanout
- Drop Inlet
- Power Pole
- Spot Elevation = 848.59



Autozone Development Corporation
DB 1430 PG 431
Sixth Ward
City of Morgantown
Tax Map 31 Parcel 108.2

Marshall F. Bishop,
MLMS Investors LLC,
Walgreen Co.
DB 1491 PG 809
Sixth Ward
City of Morgantown
Tax Map 31 Parcel 111.3

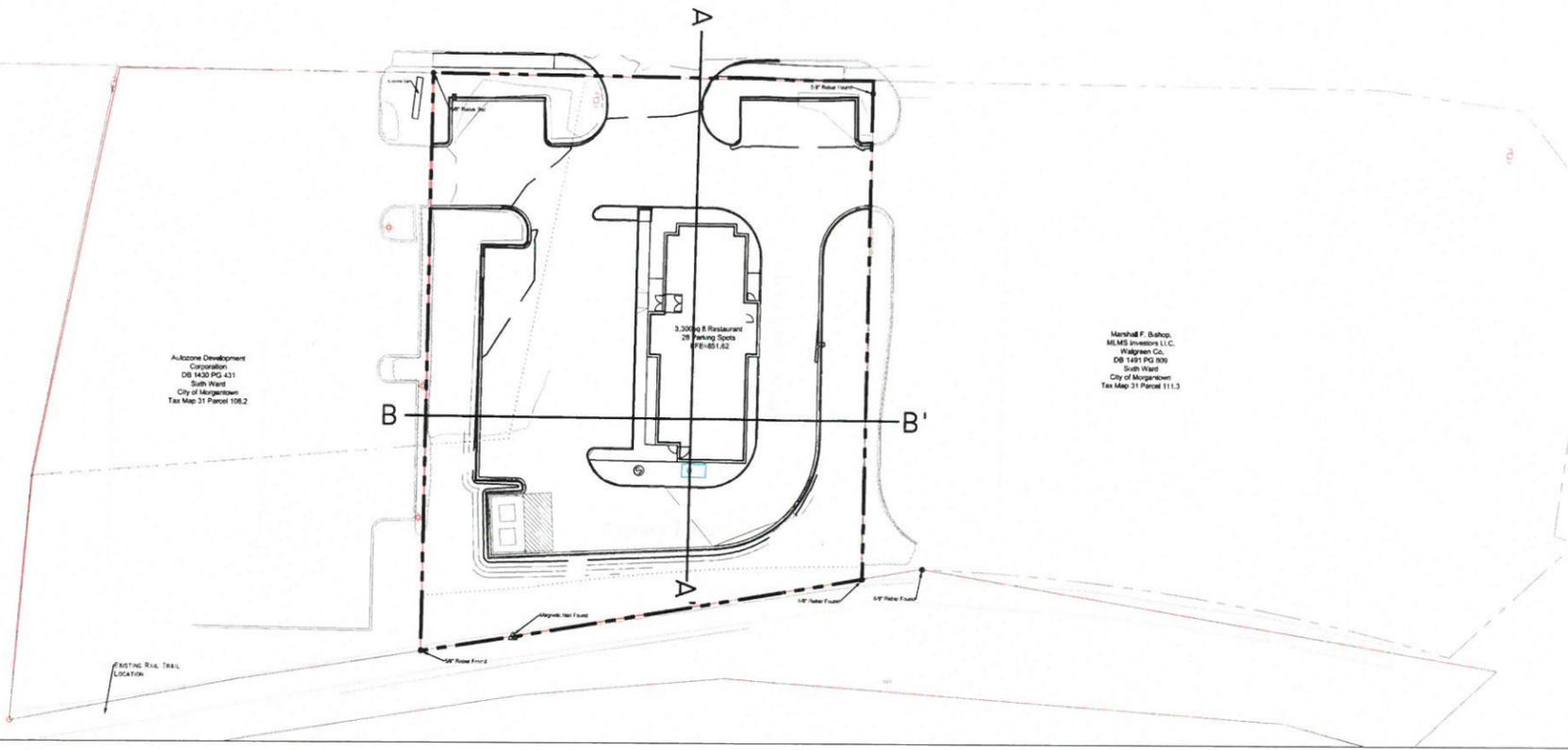
CTL Engineering of West Virginia, Inc.
Corporate Office: 2867 Fisher Road, Charleston, WV 25301
Morgantown Office: 1091 Chapel Road, Morgantown, WV 26505
Phone: 304.295.1185 Fax: 304.276.9322
CITY & SITE PLANNING • SURVEYING • ASSESSING • ENVIRONMENTAL • MINING • CONSTRUCTION OBSERVATION • LABORATORY

SABRATON ABULABAN SITE
GLENMARK HOLDING, LLC
5 CANYON ROAD, SUITE 300, MORGANTOWN, WEST VIRGINIA 26508
PROPOSED GRADING PLAN
SABRATON, MORGANTOWN, WEST VIRGINIA

REVISIONS	
Date	Description

Drawn By: MLN
Approved By: TAD
Date: 06/07/2016
Scale: 1" = 20'
Project No. 16100041MOR
Drawing Name Civil Site Design Plans
Sheet No. 3

PROPOSED GRADING PROFILES



Arizona Development Corporation
DB 1430 PG 431
Sub Ward
City of Morgantown
Tax Map 31 Parcel 108.2

Marshall F. Bishop, M.M.S. Engineers, L.L.C., Waldgreen Co. DB 1491 PG 509 Sub Ward City of Morgantown Tax Map 31 Parcel 111.3

LEGEND

- Subject Property Line
- Adjacent Property Line
- Tax Parcel Line
- Landscape Area
- Storm Line
- Sanitary Line
- Water Line
- Overhead Utility Line
- Gas Line
- Major 5' Contour = 850'
- Minor 1' Contour = 849'
- Light Pole
- Sanitary Manhole
- Cleanout
- Drop Inlet
- Power Pole
- Spot Elevation = 848.59

Scale: 1 inch = 30 feet

CTL ENGINEERING

CTL Engineering of West Virginia, Inc.

Corporate Office: 2860 Fisher Road, Columbus, OH 43204
 Morgantown Office: 1097 Chapel Road, Morgantown, WV 26505
 Phone: 304.296.4100 Fax: 304.279.4377

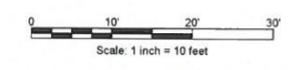
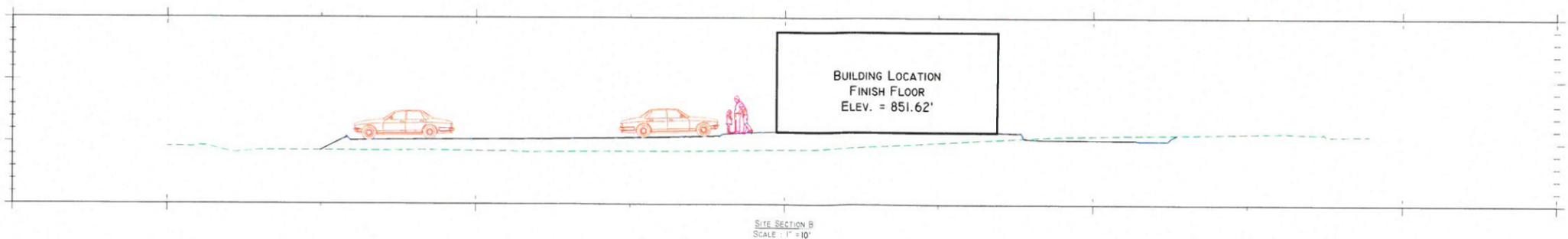
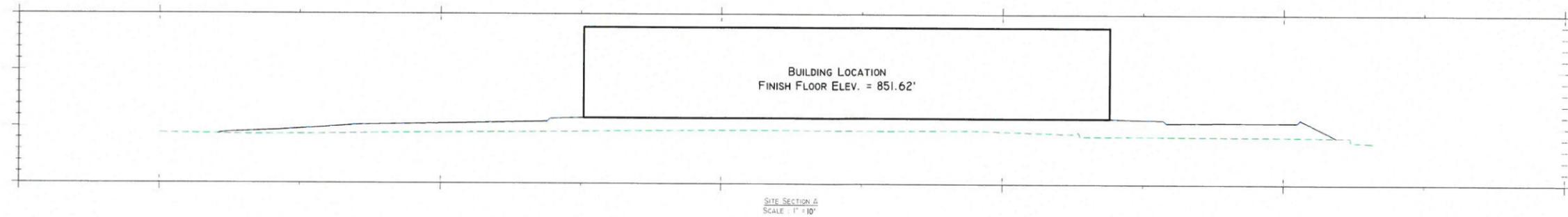
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SABRATON ABULABAN SITE

GLENMARK HOLDING, LLC
 5 CANYON ROAD, SUITE 300, MORGANTOWN, WEST VIRGINIA 26508

PROPOSED GRADING PROFILES

SABRATON, MORGANTOWN, WEST VIRGINIA



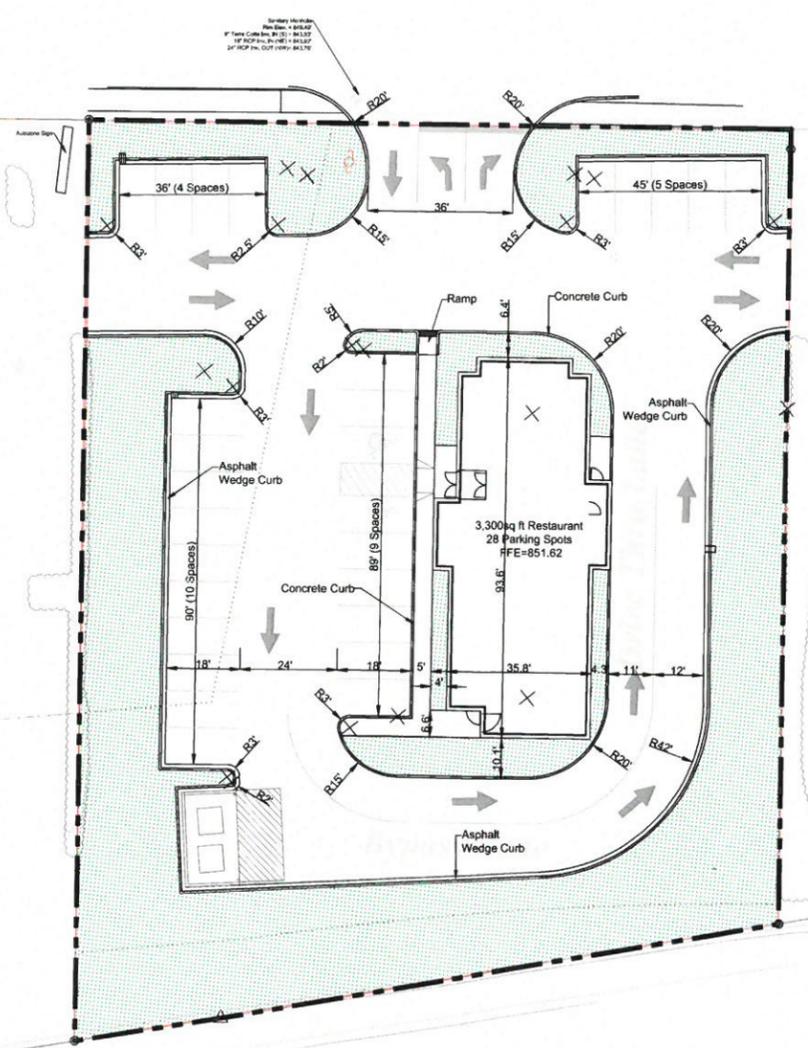
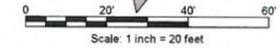
REVISIONS	
Date	Description

Drawn By: MLN
 Approved By: TAD
 Date: 06/07/2016
 Scale: 1" = 20'
 Project No. 16100041MOR
 Drawing Name Civil Site Design Plans
 Sheet No. 4

PROPOSED SITE PLAN

LEGEND

- Subject Property Line
- Adjacent Property Line
- Tax Parcel Line
- Landscape Area
- Storm Line
- Sanitary Line
- Water Line
- Overhead Utility Line
- Gas Line
- Major 5' Contour
- Minor 1' Contour
- Light Pole
- Sanitary Manhole
- Cleanout
- Drop Inlet
- Power Pole
- Grass Area



Autozone Development Corporation
DB 1430 PG 431
Sixth Ward
City of Morgantown
Tax Map 31 Parcel 108.2

Marshall F. Bishop,
MLMS Investors LLC,
Walgreen Co.
DB 1491 PG 809
Sixth Ward
City of Morgantown
Tax Map 31 Parcel 111.3

EXISTING RAIL TRAIL LOCATION



CTL Engineering of West Virginia, Inc.
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2007 Chapel Road
Morgantown, WV 26501
Phone: 304.296.9332
Fax: 304.296.9337
www.ctleng.com
CTLE, A SITE PLANNING, SURVEYING & MAPPING, ENVIRONMENTAL, MINING & CONSTRUCTION OBSERVATION LABORATORY.

SABRATON ABULABAN SITE
GLENMARK HOLDING, LLC
5 CANYON ROAD, SUITE 300, MORGANTOWN, WEST VIRGINIA 26508
PROPOSED SITE PLAN
SABRATON, MORGANTOWN, WEST VIRGINIA

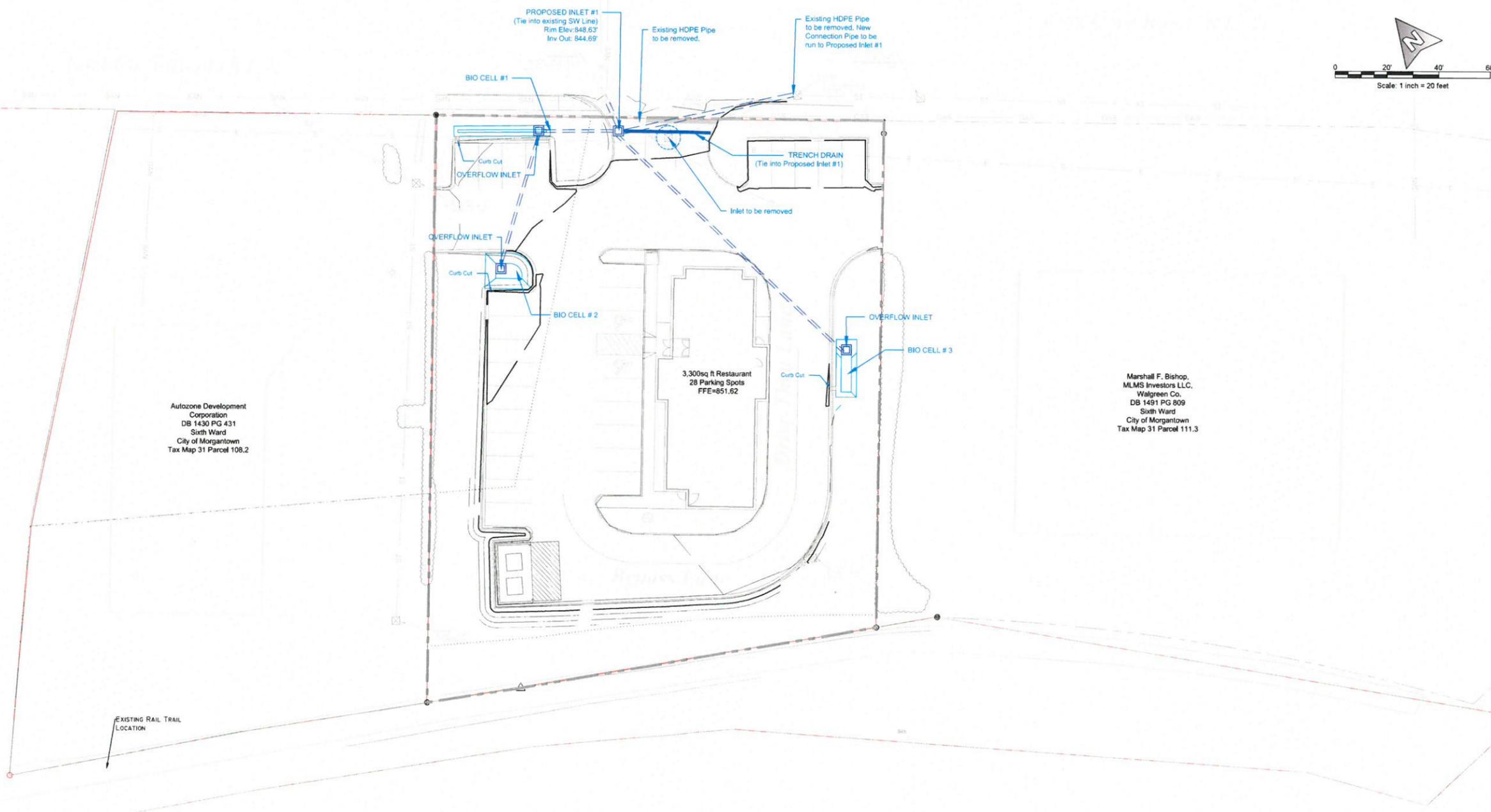
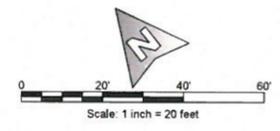
REVISIONS	
Date	Description

Drawn By: MLN
Approved By: TAD
Date: 06/07/2016
Scale: 1" = 20'
Project No. 16100041MOR
Drawing Name Civil Site Design Plans
Sheet No. 5

Note: All Proposed Contours and Spot Elevations are to Finish Grade.

LEGEND

Subject Property Line	
Adjacent Property Line	
Tax Parcel Line	
Landscape Area	
Storm Line	
Sanitary Line	
Water Line	
Overhead Utility Line	
Gas Line	
Major 5' Contour	850'
Minor 1' Contour	849'
Light Pole	
Sanitary Manhole	
Cleanout	
Drop Inlet	
Power Pole	
Spot Elevation	± 848.59



Autozone Development Corporation
DB 1430 PG 431
Sixth Ward
City of Morgantown
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Sixth Ward
City of Morgantown
Tax Map 31 Parcel 111.3

Bioretention Rain Garden Outparcel

Area Name	Impervious Area (ft ²)	Reduction for 1" Capture (Up to a Maximum of 0.75")				Mixed Use and Transit-Oriented Development	Bioretention Volume Needed (ft ³)	Length (ft)	Width (ft)	Depth (ft)	Bottom Width (ft)	Surface Area (ft ²)	Number of StormTech SC-160LP	Bioretention Volume (ft ³)
		Impervious Redevelopment	Impervious Brownfield	Development	High Density Vertical Density									
Biocell # 1	2,291	0.2	0.0	0.2	0.0	0.2	76	37	4	4.5	7.0	148	0	873
Biocell # 2	8,600	0.2	0.0	0.2	0.0	0.2	287	18	14	4.5	14.0	236	0	1,296
Biocell # 3	6,750	0.2	0.0	0.2	0.0	0.2	225	22	8	4.5	14.0	176	0	1,007

Rain Garden Under Drain Table Outparcel

Area Name	Impervious Volume Needed (ft3)	Bioretention Volume (ft3)	Number of StormTech SC-160LP	Number of 3/8" dia. Orifaces
Biocell # 2	287	1,296	0	7
Biocell # 3	225	1,007	0	5

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 Phone: 304.292.1235 Fax: 304.278.3124
 CTL & SITE PLANNING - SURVEYING & ASSESSMENT - CIVIL ENGINEERING - CONSTRUCTION OBSERVATION - LABORATORY

SABRATON ABULABAN SITE
 GLENMARK HOLDING, LLC
 5 CANYON ROAD, SUITE 300, MORGANTOWN, WEST VIRGINIA 26508
PROPOSED STORMWATER PLAN
 SABRATON, MORGANTOWN, WEST VIRGINIA

REVISIONS	Description	Approved
		Date

Drawn By: MLN
 Approved By: TAD
 Date: 06/07/2016
 Scale: 1" = 20'
 Project No. 16100041MOR
 Drawing Name Civil Site Design Plans
 Sheet No. 7

SEEDING SPECIFICATIONS

1.1 SEED MIXTURE

- A. SUPPLIERS:
 1. LOWE'S
 2. SUBSTITUTIONS: PERMITTED
- B. FURNISH MATERIALS IN ACCORDANCE WITH CITY OF MORGANTOWN STANDARDS.
- C. SEED MIXTURE:
 1. YARDS USE: SCOTTS KENTUCKY BLUE GRASS
 2. FIELDS USE: SEED MEETING THE FOLLOWING:
 - FALL FESCUE 10 LBS/ACRE
 - TIMOTHY 12 LBS/ACRE
 - RED CLOVER 6 LBS/ACRE
 - WHEAT/OATS 3 LBS/ACRE
 3. TEMPORARY SEEDING: USE ANNUAL RYE 50 LBS/ACRE

1.2 SOIL MATERIALS

- A. TOPSOIL: FERTILE, AGRICULTURAL SOIL, TYPICAL FOR LOCALITY, CAPABLE OF SUSTAINING VIGOROUS PLANT GROWTH, TAKEN FROM DRAINED SITE, FREE OF SUBSOIL, CLAY OR IMPURITIES, PLANTS, WEEDS AND ROOTS, PH VALUE OF MINIMUM 5.5 AND MAXIMUM 7.0.
 - B. TOPSOIL: EXCAVATED FROM SITE AND FREE OF WEEDS.
- ACCESSORIES**
- C. MULCHING MATERIAL: OAT, HAY, OR WHEAT STRAW, FREE FROM WEEDS, FOREIGN MATTER DETRIMENTAL TO PLANT LIFE, AND DRY.
 - D. FERTILIZER: COMMERCIAL GRADE, RECOMMENDED FOR GRASS, OF PROPORTION NECESSARY TO ELIMINATE DEFICIENCIES OF TOPSOIL, AS INDICATED IN ANALYSIS.
 - E. LIME: ASTM C602, AGRICULTURAL LIMESTONE CONTAINING A MINIMUM 80 PERCENT CALCIUM CARBONATE EQUIVALENT.
 - F. WATER: CLEAN, FRESH AND FREE OF SUBSTANCES OR MATTER CAPABLE OF INHIBITING VIGOROUS GROWTH OF GRASS.

PART 2 EXECUTION

2.1 PREPARATION OF SUBSOIL

- A. PREPARE SUBSOIL TO ELIMINATE UNEVEN AREAS AND LOW SPOTS. MAINTAIN LINES, LEVELS, PROFILES AND CONTOURS. MAKE CHANGES IN GRADE GRADUAL. BLEND SLOPES INTO LEVEL AREAS.
- B. REMOVE FOREIGN MATERIALS, WEEDS AND UNDESIRABLE PLANTS AND THEIR ROOTS. REMOVE CONTAMINATED SUBSOIL.
- C. SCARIFY SUBSOIL TO DEPTH OF 3 INCHES WHERE TOPSOIL IS TO BE PLACED. REPEAT CULTIVATION IN AREAS WHERE EQUIPMENT, USED FOR HAULING AND SPREADING TOPSOIL, HAS COMPACTED SUBSOIL.

2.2 PLACING TOPSOIL

- A. SPREAD TOPSOIL TO MINIMUM DEPTH OF 4 INCHES OVER AREA TO BE SEEDDED, RAKE UNTIL SMOOTH.
- B. PLACE TOPSOIL DURING DRY WEATHER AND ON DRY UNFROZEN SUBGRADE.
- C. REMOVE VEGETABLE MATTER AND FOREIGN NON-ORGANIC MATERIAL FROM TOPSOIL WHILE SPREADING.
- D. GRADE TOPSOIL TO ELIMINATE ROUGH, LOW OR SOFT AREAS, AND TO ENSURE POSITIVE DRAINAGE.
- E. INSTALL EDGING AT PERIPHERY OF SEEDED AREAS IN STRAIGHT LINES TO CONSISTENT DEPTH.

2.3 FERTILIZING

- A. APPLY LIME AT APPLICATION RATE RECOMMENDED BY SOIL ANALYSIS TO RAISE THE PH ABOVE 5.5. WORK LIME INTO TOP 6 INCHES OF SOIL.
- B. APPLY FERTILIZER AT APPLICATION RATE OF 600 LBS/ACRE OF 10-20-10 FERTILIZER OR AS RECOMMENDED BY SOIL ANALYSIS.
- C. APPLY AFTER SMOOTH RAKING OF TOPSOIL AND PRIOR TO ROLLER COMPACTION.
- D. DO NOT APPLY FERTILIZER AT SAME TIME OR WITH SAME MACHINE USED TO APPLY SEED.
- E. MIX FERTILIZER THOROUGHLY INTO UPPER 2 INCHES OF TOPSOIL.
- F. LIGHTLY WATER SOIL TO AID DISSIPATION OF FERTILIZER. IRRIGATE TOP LEVEL OF SOIL UNIFORMLY.

2.4 SEEDING

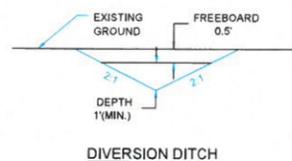
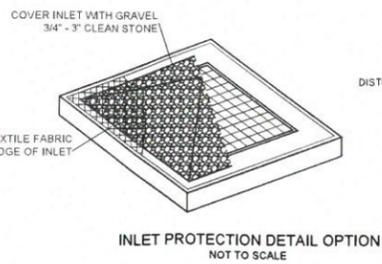
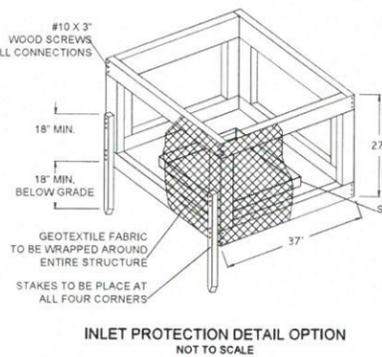
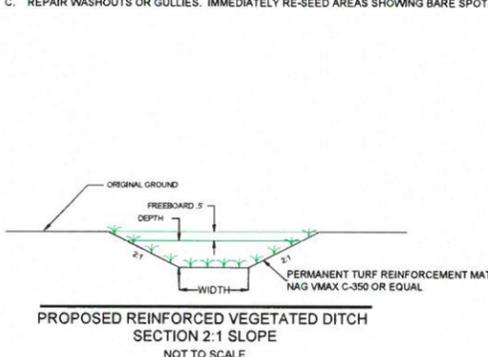
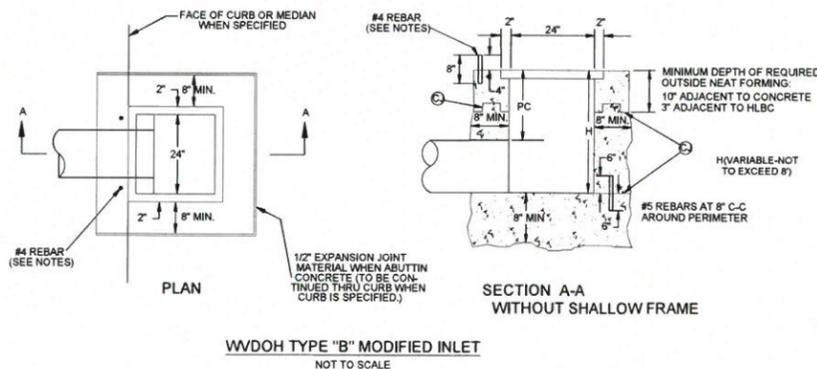
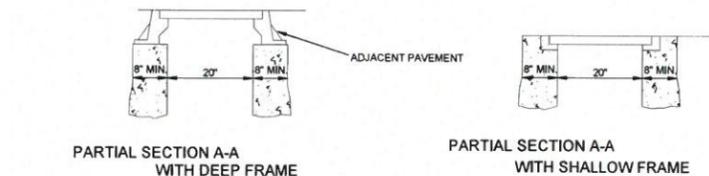
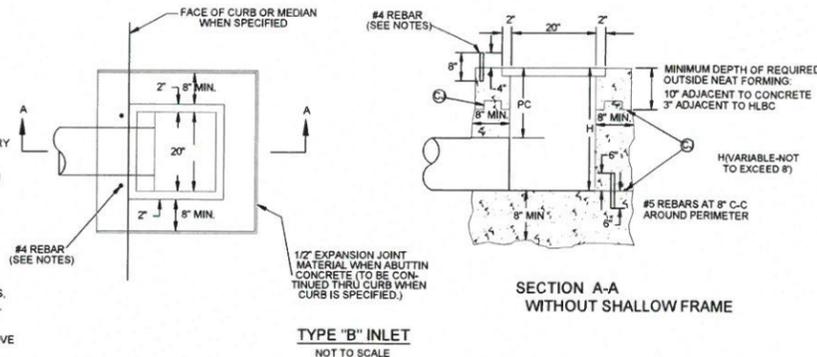
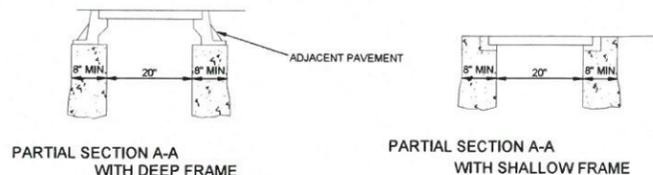
- A. APPLY SEED AT RATE RECOMMENDED BY SUPPLIER EVENLY IN TWO INTERSECTING DIRECTIONS. RAKE IN LIGHTLY.
- B. DO NOT SEED AREAS IN EXCESS OF THAT WHICH CAN BE MULCHED ON SAME DAY.
- C. PLANTING SEASON SHALL BE BETWEEN MARCH 1 AND JUNE 15 OR BETWEEN AUGUST 1 AND OCTOBER 15.
- D. DO NOT SOW IMMEDIATELY FOLLOWING RAIN, WHEN GROUND IS TOO DRY, OR WHEN WINDS ARE OVER 12 MPH.
- E. ROLL SEEDED AREA WITH ROLLER NOT EXCEEDING 112 LBS/LINEAR FOOT.
- F. IMMEDIATELY FOLLOWING SEEDING (AND COMPACTING), APPLY MULCH TO THICKNESS OF 1/8 INCHES. MAINTAIN CLEAR OF SHRUBS AND TREES.
- G. APPLY WATER WITH FINE SPRAY IMMEDIATELY AFTER EACH AREA HAS BEEN MULCHED. SATURATE TO 4 INCHES OF SOIL.

2.5 HYDROSEEDING

- A. APPLY FERTILIZER, MULCH AND SEEDED SLURRY WITH HYDRAULIC SEEDER AT RATE DETERMINED BY SOIL TESTING APPLYING IT EVENLY IN ONE PASS.
- B. AFTER APPLICATION, APPLY WATER WITH FINE SPRAY IMMEDIATELY AFTER EACH AREA HAS BEEN HYDROSEEDDED. SATURATE TO 4 INCHES OF SOIL AND MAINTAIN MOISTURE LEVELS TWO TO FOUR INCHES.

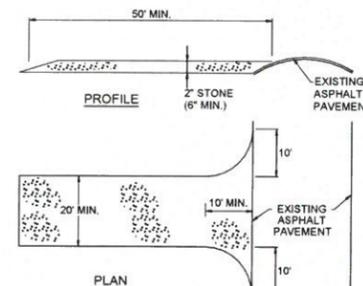
2.6 MAINTENANCE

- A. WATER TO PREVENT GRASS AND SOIL FROM DRYING OUT.
- B. SEEDING SHALL BE MAINTAINED BY THE CONTRACTOR UNTIL GRASS IS WELL ESTABLISHED. GRASS IS WELL ESTABLISHED WHEN IT COVERS THE ENTIRE SEEDED AREAS TO A HEIGHT OF 2 INCHES.
- C. REPAIR WASHOUTS OR GULLIES. IMMEDIATELY RE-SEED AREAS SHOWING BARE SPOTS.



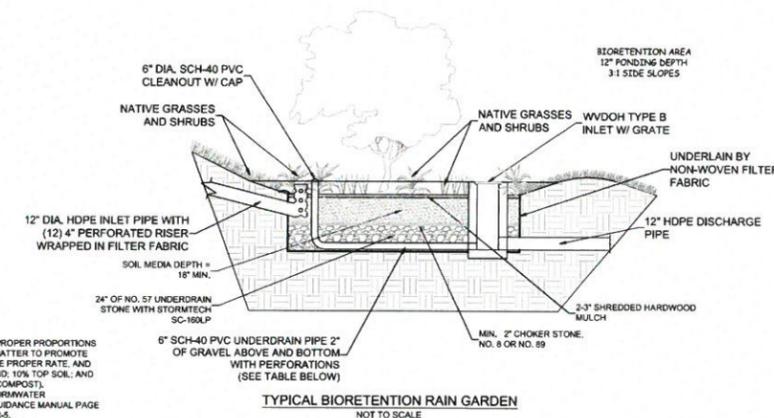
DIVERSION DITCH NOTES

1. CONTRACTOR SHALL INSTALL DIVERSION DITCHES ALONG THE PERIMETER OF THE PROJECT AREA AND DISPOSAL AREA. DIVERSION DITCHES SHALL BE DIRECTED TOWARDS SUMPS ACCORDINGLY.
2. CONTRACTOR SHALL INSTALL DIVERSION DITCHES AS EXCAVATION PROGRESSES. CONTRACTOR SHALL FIELD LOCATE AS NECESSARY TO DIRECT STORM WATER TOWARDS SUMPS AND AWAY FROM THE CONSTRUCTION AREAS.
3. IT WILL BE THE CONTRACTORS RESPONSIBILITY TO INSTALL ADDITIONAL DIVERSION DITCHES AS REQUIRED TO CONTROL SURFACE DISCHARGES.
4. DIVERSION DITCHES SHALL BE LOCATED IN AREAS THAT WILL NOT INTERFERE WITH WORK IN PROGRESS.
5. THE CONTRACTOR WILL BE RESPONSIBLE FOR REPAIRING, REPLACING, OR RELOCATING DIVERSION DITCHES AS WORK PROGRESSES.

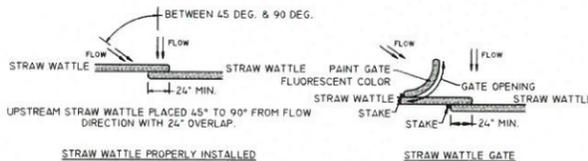


STABILIZED CONSTRUCTION ENTRANCE NOTES

1. CONSTRUCTION ENTRANCE TO BE CONSTRUCTED FOLLOWING THE REMOVAL OF ASPHALT FROM THE PARKING LOT.
2. INSTALL CONSTRUCTION ENTRANCE AT THE ENTRANCE OF THE DISPOSAL AREA PRIOR TO LOGISTICS OF DISPOSAL MATERIAL.



NOTE: SOIL MEDIA MUST HAVE THE PROPER PROPORTIONS SAND, FINES, AND ORGANIC MATTER TO PROMOTE PLANT GROWTH, DRAIN AT THE PROPER RATE, AND FILTER POLLUTANTS: 80% SAND; 10% TOP SOIL; AND 5% ORGANIC MATTER (AGED COMPOST). REFER TO WEST VIRGINIA STORMWATER MANAGEMENT AND DESIGN GUIDANCE MANUAL PAGE 4.2.3 BIORETENTION TABLE B-1A.



COMPOST FILTER WATTLE NOTES

1. COMPOST FILTER WATTLE SHALL BE PLACED AT EXISTING LEVEL UNLESS BOTH ENDS OF THE WATTLE SHALL BE EXTENDED AT LEAST 8 FEET UP SLOPE AT 45 DEGREES TO THE HORIZONTAL. WATTLE SHALL BE PLACED AT LEAST 18" ABOVE ANY 18" DIAMETER WATTLE SHALL NOT EXCEED THAT SHOWN ON ABOVE TABLE FOR PERFORATED STRAW FENCE. HORIZONTAL SLOPE LENGTH FOR A 24" DIAMETER WATTLE SHALL NOT EXCEED 18" FOR DEEP STAKE FENCE.
2. TRAFFIC SHALL NOT BE PERMITTED TO CROSS FILTER WATTLES.
3. ACCUMULATED SEDIMENT SHALL BE REMOVED WHEN IT REACHES THE ABOVE-GROUND HEIGHT OF THE WATTLE AND DISPOSED IN THE MANNER DESCRIBED ELSEWHERE IN THE PLAN.
4. WATTLES SHALL BE INSPECTED HEAVILY 24 HOURS AFTER EACH RAINFALL EVENT. DAMAGED WATTLES SHALL BE REPAIRED ACCORDING TO MANUFACTURER'S SPECIFICATIONS OR REPLACED WITHIN 24 HOURS OF INSPECTION.
5. BIODEGRADABLE FILTER WATTLE SHALL BE REPLACED AFTER 6 MONTHS. PHOTOGRADABLE WATTLES AFTER 1 YEAR. POLYPROPYLENE WATTLES SHALL BE REPLACED ACCORDING TO THE MANUFACTURER'S RECOMMENDATIONS.
6. UPON STABILIZATION OF THE AREA TRIBUTARY TO THE WATTLE, STAKES SHALL BE REMOVED. THE WATTLE SHALL BE LEFT IN PLACE AND REJECTED OR REMOVED. IN THE LATTER CASE, THE MESH SHALL BE CUT OPEN AND THE HOLE SPREAD AS A SOIL SUPPLEMENT.

COMPOST SHALL MEET THE FOLLOWING STANDARDS:	
ORGANIC MATTER CONTENT	80% - 100% (DRY WEIGHT BASIS)
ORGANIC PORTION	FIBROUS & ELONGATED
PH	5.0 - 8.0
MOISTURE CONTENT	LESS THAN 60%
PARTICLE SIZE	100% PASS THROUGH 2" SCREEN & MINIMUM OF 20% > 3/4" SIEVE
SOLUBLE SALT CONCENTRATION	5.0 DS MAXIMUM

18" & 24" COMPOST FILTER WATTLE SLOPE LENGTH CHART		
SLOPE	MAX. SLOPE LENGTH ABOVE FENCE	
%	18" DIA.	24" DIA.
2 (ON LESS)	150'	1000'
5	100'	500'
10	50'	250'
15	35'	250'
20	25'	200'
25	20'	150'
30	15'	100'
35	15'	75'
40	15'	75'
45	10'	62.5'
50	10'	50'

REVISIONS	Description	Approved	Date

THRUST BLOCKING
The thrust blocking must be formed against a solid trench wall and these fitting areas must be excavated by hand because mechanical equipment will damage the bearing surface of the trench wall. The size and type of thrust block depends on the pipe size, line pressure type of fitting, degree of bend and type of soil. In most cases, the size and type of thrust block will be determined by the engineer. Thrust block size may be calculated by the procedures shown at right.

THRUSTS IN SOFT UNSTABLE SOIL

In soft, unstable soils such as much or peat, thrusts are resisted by running corrosion-resistant tie-rods to solid foundations or by removing the soft material and replacing it with ballast of sufficient size and weight to resist thrusts developed.

UPWARD THRUSTS AT FITTING

Where a fitting is used to make a vertical bend, anchor the fitting to a thrust block braced against the undisturbed soil. The thrust block should have enough resistance to withstand upward and outward thrusts at the fitting, the coupling itself.

SIDE THRUST ON CURVES

An outward pressure exists on all deflections from a straight line. Good soil, properly tamped, is sufficient to hold side thrust unless soil conditions are unstable. In that case, to anchor against this side thrust, the blocking should be placed against the pipe on each side of the coupling. Do not thrust block the coupling itself.

SIDE THRUST

Pipe Size Inches	Side Thrust Pounds per Degree
1 1/2"	5.1
2"	7.9
2 1/2"	11.6
3"	17.1
3 1/2"	22.4
4"	28.3
5"	43.1
6"	69.8
8"	103.0
10"	160.0
12"	225.0

Based on side thrust per 100 lb per sq in pressure per degree of deflection.

NOTE: Multiply side thrust pounds by degree of deflection times pounds of pressure divided by 100 to obtain total side thrust in pounds.

STEP 1: Multiply the pressure level desired for testing by the appropriate value shown in the following table:

Pipe Size	Dead End	90° Elbow	45° Elbow	22 1/2° Elbow
1 1/2"	2.94	4.16	2.25	1.15
2"	4.56	6.45	3.50	1.78
2 1/2"	6.65	9.40	5.10	2.60
3"	9.80	13.90	7.51	3.82
3 1/2"	12.80	18.10	9.81	4.99
4"	16.2	23.00	12.40	6.31
5"	24.7	35.00	18.90	9.63
6"	34.8	49.20	26.70	13.60
8"	59.0	83.50	45.20	23.00
10"	91.5	130.00	70.00	35.80
12"	129.0	180.00	98.50	50.30

Based on pounds thrust per psi working pressure.

STEP 2: Determine the bearing strength of the soil from the table below.

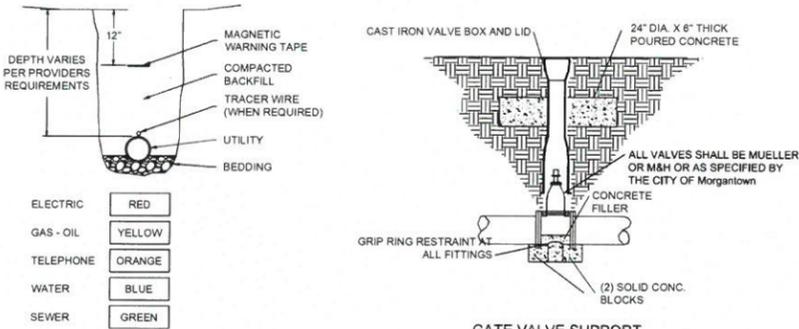
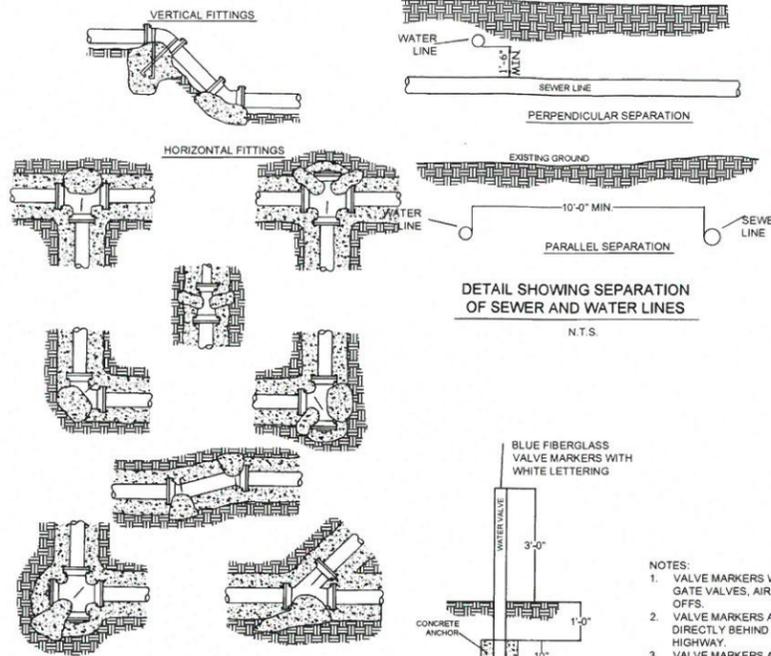
Soils and Safe Bearing Ground State	Lbs. Sq. Ft. 10,000
Cemented Gravel and Sand Difficult to pick	4,000
Coarse & Fine Compact Sand	3,000
Medium Clay Can be tamped	2,000
Soft Clay	1,000
Muck	0

STEP 3: Divide the total thrust obtained in Step 1 by the bearing strength of the soil; this gives the square feet of area needed.

NOTE: ALL CONCRETE THRUST BLOCKING TO MEET 3000 PSI CRUSH TEST

NOTE: ALL FITTINGS TO BE WRAPPED WITH 4 MIL PLASTIC WRAP PRIOR TO PLACING CONCRETE THRUST BLOCKING

THRUST BLOCKING DETAILS
N.T.S.



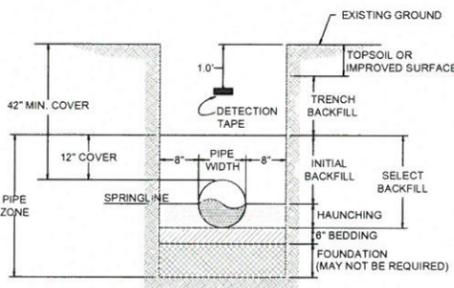
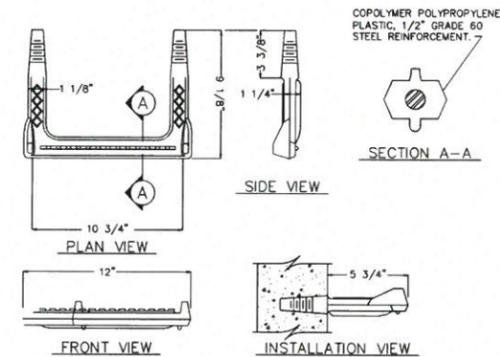
NOTE: UTILITY INSTALLATION SHALL BE IN ACCORDANCE WITH PROVIDER'S SPECIFICATIONS. CONSULT WITH PROVIDER FOR REQUIREMENTS AND REGULATIONS. CONSULT WITH ALL PROVIDERS WHEN MULTIPLE CONDUITS OR UTILITIES ARE LOCATED WITHIN THE SAME TRENCH.



FITTINGS:
ALL FITTINGS MECHANICAL JOINT DUCTILE IRON
PVC PIPE - GRIP RING RESTRAINT AT ALL FITTINGS
DIP PIPE - MEGALUG, OR GRIP RING, RESTRAINT AT ALL FITTINGS
ALL FITTINGS THRUST BLOCKED

MATERIALS OF CONSTRUCTION

- RUBBER GASKET JOINTS SHALL CONFORM TO AWWA C111. FITTINGS SHALL CONFORM TO AWWA C110 OR C153. PIP SHALL BE CEMENT-MORTAR LINED IN ACCORDANCE WITH AWWA C104.
- PVC SANITARY SEWERS SHALL CONFORM TO ASTM D3034, SDR 35.



TRACER WIRE:
ALL TRACER WIRE SPICES AND CONNECTIONS SHALL BE WATER TIGHT.
SPICES:
SPICES WILL MADE USING DBY-8 DIRECT BURY SPICE MANUFACTURED BY 3M.

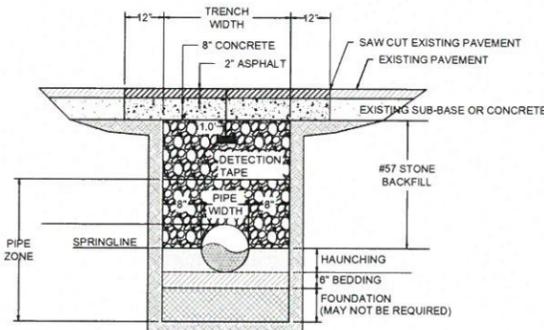
FITTINGS:
ALL FITTINGS MECHANICAL JOINT DUCTILE IRON
PVC PIPE - GRIP RING RESTRAINT AT ALL FITTINGS
DIP PIPE - MEGALUG, OR GRIP RING, RESTRAINT AT ALL FITTINGS
ALL FITTINGS THRUST BLOCKED

NOTES:

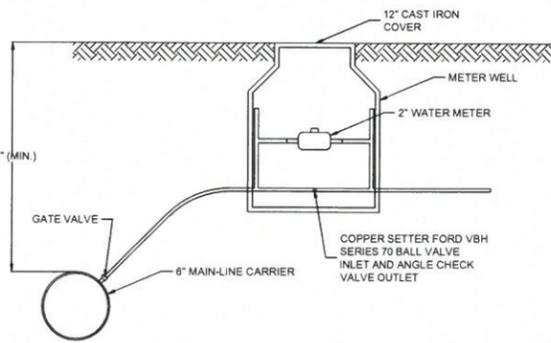
- THE RECOMMENDED TRENCH WIDTH AT THE SPRINGLINE SHALL BE THE PIPE WIDTH PLUS 16 INCHES.
- MINIMUM PIPE COVER SHALL BE 4.0 FEET.
- WHERE OPEN CUTS ARE LOCATED IN STATE ROADS, COUNTY ROADS, DRIVEWAYS, SHOULDERS, ALLEYS, PARKING LOTS, OR IN ANY IMPROVED SURFACE SUBJECT TO VEHICULAR TRAFFIC, THE ENTIRE TRENCH BACKFILL SHALL CONSIST OF CRUSHER RUN COMPACTED TO 95% OF THE MAXIMUM DRY DENSITY.
- FOR NON-TRAFFIC AREAS:
A. SELECT BACKFILL SHALL HAVE NO ROCKS OR GRAVEL PARTICLES LARGER THAN 1.5 INCHES IN ITS LARGEST DIMENSION.
B. TRENCH BACKFILL MAY CONTAIN ROCK NOT LARGER THAN 8 INCHES IN ITS LARGEST DIMENSION AND IN AN AMOUNT NOT TO EXCEED 20 PERCENT OF THE BACKFILL VOLUME.
- PIPE BEDDING AND SELECT BACKFILL: WATER AND/OR PRESSURE SEWER PIPELINES IN DRY LOCATIONS, #10 STONE (DUST) SHALL BE INSTALLED AS PIPE BEDDING AND SELECT BACKFILL.

IN WET, YIELDING MUCKY LOCATIONS, #8 WASHED STONE SHALL BE INSTALLED AS A FOUNDATION AGGREGATE AND UP TO THE SPRING LINE OF THE PIPE. #10 STONE (DUST) SHALL BE INSTALLED FOR THE REMAINDER OF THE SELECT BACKFILL.

WATERLINE TRENCH DETAIL
N.T.S.

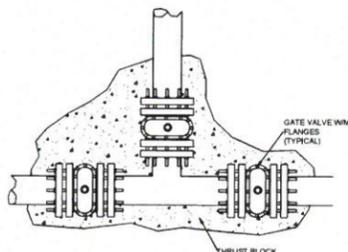


NOTE: ASPHALT TRENCH REPAIR DETAIL APPLIES TO ALL TRENCHES LOCATED WITHIN EXISTING PAVEMENT AREAS.



NOTES:

- INSTALLATION OF WATER MAINS SHALL BE COORDINATED WITH THE CITY OF Morgantown INSTALLATION OF SERVICE LINES AND METER WELLS. METER WELL LOCATIONS SHALL BE DETERMINED BY THE CITY. FINAL GRADE ELEVATIONS SHALL BE PROVIDED AT METER WELL LOCATIONS.
- VALVES SHOWN ON CONSTRUCTION PLANS ARE FOR APPROXIMATE LOCATION. VALVES, FITTINGS & TEES WILL BE MECHANICALLY FASTENED AS SHOWN.
- ALL FITTINGS, INCLUDING VALVES AND HYDRANTS, SHALL BE DUCTILE IRON MECHANICAL RESTRAINT JOINTS.



CTL Engineering of West Virginia, Inc.
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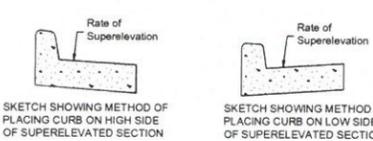
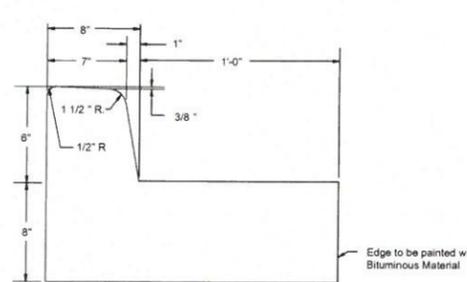
SABRATON ABULABAN SITE
GLENMARK HOLDING, LLC
5 CANYON ROAD, SUITE 300, MORGANTOWN, WEST VIRGINIA 26508

Details Sheet

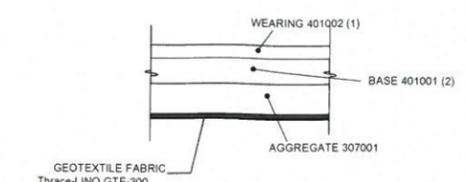
Revisions	Description	Date
Approved		

Drawn By: MLN
Approved By: TAD
Date: 06/07/2016
Scale: NTS
Project No. 16100041MOR
Drawing Name Civil Site Design Plans
Sheet No. 9

STANDARD MANHOLE
NOT TO SCALE

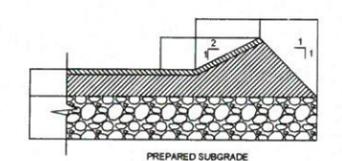


- NOTES**
- FOR ALL CONCRETE CURBING, THE FACE OF THE CURBING SHALL BE OFFSET A MINIMUM OF TWO FEET FROM THE EDGE OF TRAFFIC LANE, UNLESS OTHERWISE SHOWN ON THE PLANS.
 - CONSTRUCTION OF CONCRETE CURBING SHALL BE BY THE "SEPARATE METHOD" WHEN SAWED JOINTS ARE CONSTRUCTED IN THE PAVEMENT.
 - ALL CURB JOINTS SHALL BE MADE BY ACCEPTABLE FORMING METHODS.
 - FOR COMBINATION CONCRETE CURBS AND GUTTERS, THE SLOPE OF THE 1'-0" WIDE CONCRETE GUTTER SHALL CONFORM TO THE PAVEMENT SLOPE OR AS OTHERWISE SPECIFIED ON THE PLANS. FOR INTEGRAL AND PLAIN CONCRETE CURBING, THE SLOPE OF THE CONCRETE OR BITUMINOUS SURFACE ABUTTING THE RAISED PORTION OF THE CURB SHALL BE AS SPECIFIED ON THE PLANS.
 - CONCRETE WORK SHALL CONFORM TO THE WV DOH SPECIFICATIONS LATEST EDITION.



TYPE MATERIAL	HEAVY PAVING	LIGHT PAVING	
401002 (1) WEARING	2 IN.	2	2 IN.
401001 (2) BASE	4 IN.	4 IN.	3 IN.
307001 AGGREGATE	10 IN.	12 IN.	8 IN.
GEOTEXTILE FABRIC	Thrace-LINQ GTF-300	N/A	Thrace-LINQ GTF-300

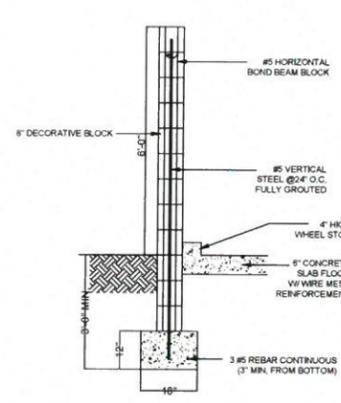
COMBINATION CONCRETE CURB AND GUTTER



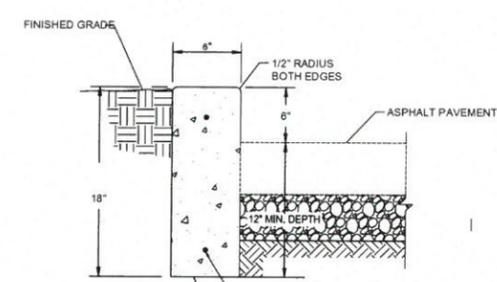
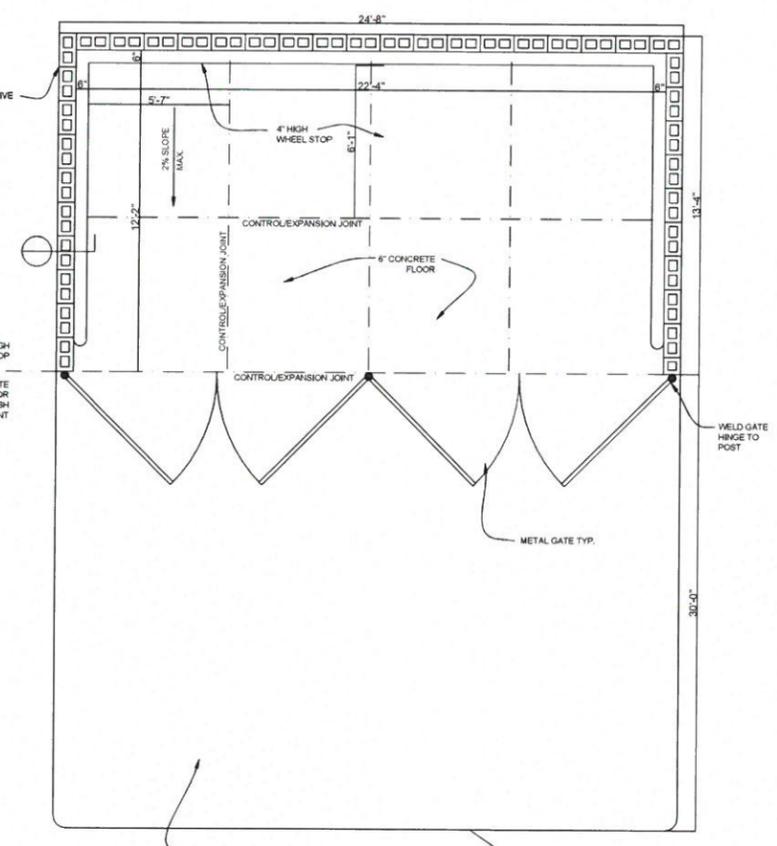
TYPE MATERIAL	PAVING
401-2 (1) WEARING	1 IN.
401-1 (2) BASE	4 IN.
307-01 AGGREGATE	8 IN.

TYPICAL ASPHALT WEDGE CURB DETAIL
N.T.S.

PAVING DETAIL



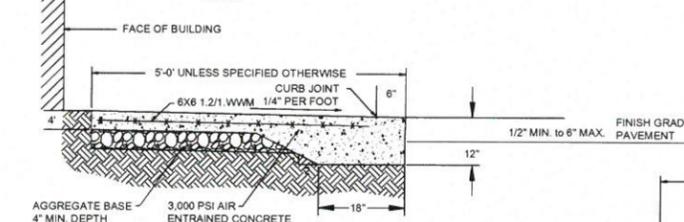
SECTION A-I TRASH ENCLOSURE
N.T.S.



CAST IN PLACE CONCRETE CURB. PLACE CONTRACTION JOINTS IN CURBING TO FORM INCREMENTS NOT EXCEEDING 25 LIN. FT. AND EXPANSION JOINTS THROUGH CURBING TO FORM INCREMENTS NOT EXCEEDING 75 LIN. FT.

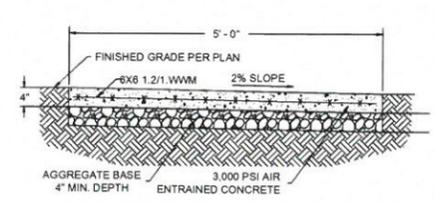
(2)#4 REINFORCING BARS TO BE DISCONTINUOUS AT EXPANSION JOINTS WITH ONE END WRAPPED AND GREASED. (SEE SPECS.)

CONCRETE CURB DETAIL
N.T.S.

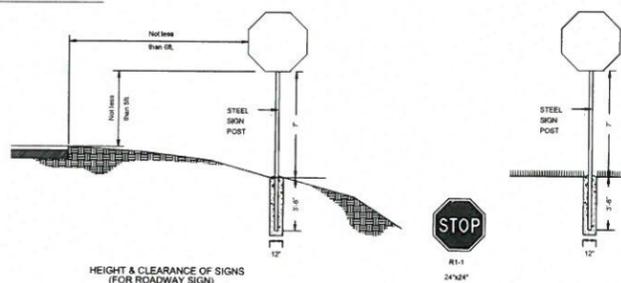


- NOTES**
- CONTRACTION JOINTS SHALL BE PLACED AT 5' SPACING AND ANY LOCATION THAT THE CONCRETE FORMS A CORNER. FIELD ADJUST AS REQUIRED TO PROVIDE EQUAL JOINT SPACING.
 - EXPANSION JOINTS SHALL BE PLACED AT 15' SPACING AND ABUTTING UP TO EXISTING STRUCTURES.
 - COLD JOINTS IN CONCRETE SHALL NOT BE ACCEPTED. CONTRACTOR SHALL POUR CONTINUOUS TO THE NEXT EXPANSION JOINT. IF THE EXPANSION JOINT CAN NOT BE REACHED, THE CONTRACTOR WILL REMOVE MATERIAL BACK TO THE LOCATION OF THE NEAREST IN PLACED CONTRACTION JOINT AND PLACE AN EXPANSION JOINT.
 - SURFACE SHALL BE FINISHED TO A NON-SLIP FINISH MATCHING THE TEXTURE OF THE EXISTING SIDEWALKS LOCATED ALONG UNIVERSITY AVENUE.
 - ALL EXPOSED EDGES SHALL BE FORMED AND DONE BY APPROVED METHODS. FORMS SHALL BE INSPECTED AND APPROVED PRIOR TO THE PLACEMENT OF CONCRETE.
 - CONCRETE WORK SHALL CONFORM TO THE WV DOH SPECIFICATIONS LATEST EDITION.

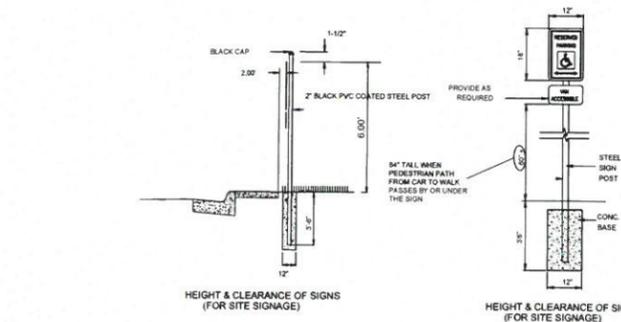
CONCRETE SIDEWALK WITH INTEGRATED CURB



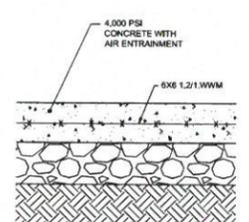
CONCRETE SIDEWALK
N.T.S.



STOP SIGN DETAIL
N.T.S.

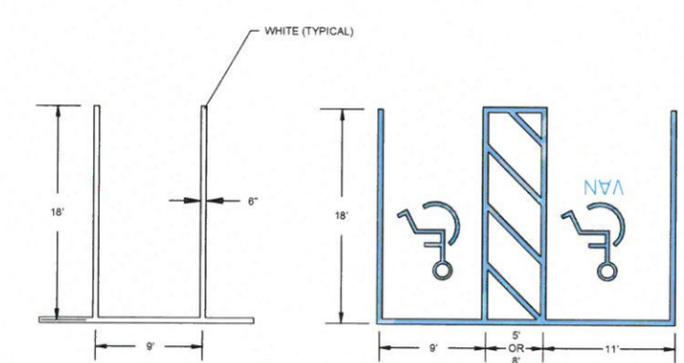


HANDICAP PARKING SIGN DETAIL
N.T.S.



TYPE MATERIAL	THICKNESS
4,000 PSI CONCRETE WITH AIR ENTRAINMENT	8 IN.
307-01 AGGREGATE	4 1/2 IN.

CONCRETE DUMPSTER PAD AND GARBAGE TRUCK PAD
N.T.S.



PARKING SPACE DETAIL
N.T.S.

REVISIONS	Description	Date	Approved

Drawn By: MLN
Approved By: TAB
Date: 06/07/2016
Scale: NTS
Project No: 16100041MOR
Drawing Name: Civil Site Design Plans
Sheet No: 10