

Agenda

Huntington Planning Commission Monday, April 1st, 2024 – 5:30pm

- 1. Preliminaries
- 2. Call to Order
- 3. Roll Call
- 4. Approval of the January 2024 Minutes
- 5. Old Business
- 6. New Business

PC 24-03

Issue: Plan review of a proposal to redevelop 4514 Waverly Road on a property that is approximately 1.03 acres into a commercial retail establishment (Dollar General Market). The property is located at the northwest corner of the intersection of Waverly Road and Burlington Road in the Westmoreland neighborhood and is zoned C-2 Highway Commercial District.

Owner/Petitioner: DG BTS Huntington, LLC, 2525 Broad Street, Chattanooga, TN 37408

- 7. Other Business or Announcements
 - Site visit to 111 Kings Highway (PC 24-02)
- 8. Good and Welfare
- 9. Adjournment

Minutes Huntington Planning Commission January 2, 2024

A meeting of the City of Huntington Planning Commission was held on January 2, 2024 at 5:30 p.m. in the City Hall Council Chambers. Mr. Gallagher called the meeting to order.

Members Present: Brian Gallagher, Mayor Steve Williams, Holly Smith Mount, Sarah Walling, Carl Eastham,

Charles Shaw

Members Absent: Stephanie Vlahos Bryant & Ursulette Ward

Staff Present: Bre Shell, Planning Director

Ericka Hernandez, Assistant City Attorney

Steve Curry, Planner II Cade Williams, Planner II

Ms. Mount made a motion to adopt December 5, 2023 Minutes. Ms. Walling seconded motion. Mr. Gallagher mentioned an error with Minutes. All were in favor, amendment to Minutes was approved: all were in favor, Minutes were approved.

Mr. Gallagher opened the floor for Chair and Vice Chair nominations. Ms. Walling nominated Mr. Gallagher as Chair. Ms. Mount seconded nomination. All were in favor, Mr. Gallagher was reelected as Chair. Ms. Mount nominated Ms. Walling for Vice Chair. Mr. Eastham seconded nomination. All were in favor, Ms. Walling was reelected as Vice Chair.

New Business

PC 24-01

A petition to rezone property from C-1 Commercial District to C-2 Highway Commercial District. This property is located on the southwestern block at 8th Street and 8th Avenue, between 7th Street and 8th Street and 8th Avenue and 8 1/2 alley.

Petitioners:

Matt Casto, 6 Brighton Way, Huntington, WV 25705 Mike Woelfel, 604 Ridgewood Rd., Huntington, WV 25701 Huntington Wholesale Furniture Co., 740 8th Ave., Huntington WV 25701 Robert Harrison, 705 8th Ave., Huntington, WV 25701

Ms. Shell read the Staff Report.

Ms. Mount mentioned Motel and Firearm Sales would be permitted by right with this rezoning. Additionally, she stated Adult Use and Pawn Shops would be conditional uses under this rezoning. She expressed concern regarding this petition. Ms. Walling agreed with Ms. Mount's opinion. She reiterated the concerning question if this rezoning is appropriate for the impacted block.

Matt Casto, President of Casto Land Inc., explained he purchased the property he wants to convert into an Indoor Self-Storage Development (this is the reason a rezoning is needed, Indoor Self-Storage Developments are permitted by right in the C-2 Highway Commercial District) six years ago as a fully occupied apartment building. He stated he plans on converting this building into a sixty-unit, climate controlled development. Mr. Casto proclaimed demographics and economy have changed within the last decade. Additionally, he added the City's comprehensive plan, Plan2025, in his opinion, does not reflect the landscape of the city as it is out-of-date. With recent regional economic development and the effects of COVID-19, new residents will need places to store

items. He wants to adhere to the guidelines the City has set forth, but he can't as the current zoning on this block restricts his desired use. This has led him to request a petition to rezone.

Russell Rice, a Certified Real Estate Appraiser in the State of West Virginia, spoke in support of this petition. He stated Mr. Casto's original plan was to develop an apartment building. However, Mr. Casto had to explore his second idea, a self-storage development, as developing apartments did not have the expected outcome. Mr. Rice had recommended his client to ask for an use variance but his client instead had to petition for a rezoning. Mr. Rice explained the first attempt of Mr. Casto petitioning was to rezone to I-1 Light Industrial/Commercial District. Then, Mr. Rice referenced Mr. Casto's second attempt to petition to rezone to C-2 Highway Commercial District. He acknowledged areas with spots of commercial zoning surrounded by residential zoning. Lastly, he brought up the issues with using Plan2025 and hopes for the creation of a new comprehensive plan.

Ms. Mount explained the petition would rezone the whole block Mr. Casto wants to build on and explained why the City rezoned a parcel to a commercial designation that is surrounded by residential zoning.

Ms. Walling recommended Mr. Rice to familiarize himself with the strategic planning process in correlation to developing a comprehensive plan. She specified the City has been in the process of developing this document for at least a year.

Mayor Steve Williams expressed interest upon the City for new business. However, he is concerned what would happen if the self-storage development fails. He does not want the neighborhood to absorb the pitfall if this business does not succeed.

Mr. Rice acknowledges *Mayor Steve Williams*' concern. He acknowledged this is the reason he wanted to do a zoning use variance. Additionally, he included a dwelling unit in the plans to be able to have an on premise manager 24-7. He confirms with *Mayor Steve Williams* the development will be 3 stories and include an elevator.

Ms. Hernandez and Ms. Shell confirmed zoning use variances are not allowed within the State of West Virginia. Mr. Rice explains the logic behind petitioning to rezone to the C-2 Highway Commercial District and the potential it could be for Adult Uses or Firearm Establishments if Mr. Casto's business fails. Additionally, he adds this rezoning would give Mr. Casto some more options to pursue if his self-storage development does not succeed.

Ms. Walling agreed with Mayor Steve Williams' concerns. She questioned Mr. Casto about his plans if the apartment complex he wants to convert to a self-storage development becomes financially unviable. Mr. Casto explained when he bought the building 7 years ago it was occupied and remained at this status until two years had passed. At this point the City had deemed the building unsafe. He explained just repairing windows would be \$100,000.00 and believes he would not get ROI (return-on-investment) if he keeps the building as an apartment complex. He reiterated the cost of improvements by stating it would cost him over a million dollars to put in new units: the self-storage development would be a low cost option for him to pursue. Overall, he has explored numerous options and thinks the self-storage development would be the best option to pursue.

Ms. Walling appreciated the idea for investment in the Southside neighborhood, but still was concerned with his business idea. Additionally, Ms. Walling questioned why this building has set vacant for around 5 years when the self-storage development was Mr. Casto's backup business idea for this location. Mr. Casto claimed the City would not grant building permits for this property. Ms. Hernandez explained there was a disagreement between Mr. Casto and the Fire Marshal with plan details.

Ms. Walling questioned if Mr. Casto had checked with nearby self-storage developments on their occupancy rates. Mr. Casto confirmed Tri-State storage is at 75%, he stated the industry standard for expansion is 80%.

Mayor Steve Williams questioned the essence of a new plan. Mr. Casto alluded a full set of plans are not available as the ideas he has aren't set in stone.

Mayor Steve Williams alluded the City needs to be flexible for new business, including with making variances. He ended the comment by expressing when making a determination the Commission needs to examine if allowing the rezoning would broaden opportunity.

Ms. Walling questioned the size of the lot. Mr. Casto explained the lot is approximately 60 or 70 feet in length and 100 feet wide. Ms. Walling explained if a property is an acre or more in size a proposal must come back to Planning Commission once official plans are submitted. Mr. Casto explained he desires having a provision to allow the Commission to reverse their decision if the property becomes a public nuisance. Ms. Walling explained City Council passed an ordinance that makes it harder to declare something a public nuisance. Additionally, Ms. Walling questioned if from a legal stance there is anything the Commission is able to do. Mayor Steve Williams believed at some point we must make a decision and trust the market as well as the petitioner.

Mr. Shaw questioned if this petition could be laid over to the next meeting. *Mr. Gallagher* stated at the appropriate time that would be possible. Additionally, *Ms. Walling* acknowledged the decision made at this meeting would be as an advisement for City Council regarding this petition and explained the general process for this petition to be either approved or denied.

Ms. Walling and Mr. Gallagher temporarily swapped positions for Mr. Gallagher to voice his viewpoint.

Mr. Gallagher stated he hasn't heard from dialogue during this meeting how this petition would impact the affected area in terms of the criteria needed to be evaluated for the Commission to make a decision. This includes economical, physical, and social factors. Additionally, *Mr. Gallagher* expressed the objective concern the Commission has towards the result of rezoning this portion of the City to the C-2 Highway Commercial District. Mr. Casto explained the impact of COVID-19. *Mr. Gallagher* reiterated the Commission needs to know how his plan impacts the variables described by Ms. Shell and himself for the Commission to evaluate.

Ms. Walling and Mr. Gallagher assumed their regular positions on the Commission.

Mayor Steve Williams made a motion to move this petition to City Council with a favorable recommendation. Mr. Eastham seconded motion.

Planning Commission Roll Call: Mr. Shaw, Yes; Ms. Mount, No; Mr. Eastham, Yes; Mayor Steve Williams, Yes; Ms. Walling, No; Mr. Gallagher, No.

The petition to rezone was sent to City Council with an unfavorable recommendation with a vote 3 Yes to 3 No.

Other Business or Announcements

Meeting adjourned at 6:58 P.M.

Ms. Shell noted Commission Member *Mr. Holley* has submitted his resignation to vacate his position on the Commission. Additionally, Ms. Shell stated a sheet will be passed around to update contact information for Commission Members and there will be another Steering Committee meeting for the Comprehensive Plan update and wished everyone a Happy New Year.

Ms. Walling and Mr. Eastham motioned to adjourn the meeting. Ms. Mount and Ms. Walling seconded motion. All were in favor, the meeting was adjourned.

Date approved: _			
Chairperson:	Brian Gallagher, Chair	Prepared by:	Cade Williams, Planner II

City of Huntington Planning Commission

Staff Report: Public Hearing for Preliminary Site Plan Review.

PC 24-03

Issue: Plan review of a proposal to redevelop 4514 Waverly Road on a property that is approximately 1.03 acres into a commercial retail establishment (Dollar General Market). The property is located at the northwest corner of the intersection of Waverly Road and Burlington Road in the Westmoreland neighborhood and is zoned C-2 Highway Commercial District.

Property Owner: Paul Rutherford, 104 Briarwood Dr., Huntington, WV 25704 Petitioner: DG BTS Huntington, LLC, 2525 Broad Street, Chattanooga, TN 37408

Planning Commission Role

PC 24-03 is the public hearing for a preliminary site plan review. Because the site is over 1 acre, the plan must be approved through a public hearing of the Planning Commission. The Planning Commission's responsibility includes:

- 1. Receiving recommendations from staff and responding agencies and utilities.
- 2. Reviewing the design of future developments early in its design.
- 3. Ensuring that the requirements of the development design standards in the development ordinance are met.
- 4. Conformity with the Comprehensive Plan.
- 5. Reviewing waiver requests, when applicable.

Planning Commission Duties

Upon presentation of the preliminary plan at the public hearing, the Planning Commission will review recommendations from staff, other agencies, and experts, if used, and then approve, disapprove, or require that the developer provide more information about the preliminary plans.

April 1, 2024

Planning Commission provides the final decision and the item will not go before City Council. If approved by the Planning Commission, full plan sets can be submitted for review for building permit applications, and no City Council action or approval.

Public Notification

- Property owners and tenants within a 400 ft. radius of this property were notified of the project and hearing via letter.
- A legal ad was posted in the Herald Dispatch.

Introduction to the Petition

DG BTS Huntington LLC, is proposing to redevelop a property at 4514 Waverly Rd, approximately 1.03 acres into a commercial retail business (Dollar General Market).

Existing Conditions/Background

This property, and properties to the east and west on Waverly Road and to the north on Burlington Road are zoned C-2 Highway Commercial, which permits the proposed use. These properties include a mix of varying small businesses and single-family residences.

Properties to the south across Waverly Road are in the B&O Right-of-Way zone which in the vicinity of the proposed site, include single family residences and a carwash. Properties farther to the north, south, and east of are zoned R-2 single-family residential.

PC 24-03 Staff Report

This property is 1.03 acres and was formally the Queen's Auto dealership. The lot currently features two buildings that make up the old dealership and six foot chain-link fencing around the western side of the western building. The main structure is currently used by the owner to store personal vehicles. Currently, the property is owned by Paul Rutherford of Huntington who has a tentative agreement with DG BTS Huntington LLC in that ownership of the parcel will not change unless permission is granted by the city to redevelop the parcel.

This property is well connected via a sidewalk network, nearby commercial uses including another dollar store (Family Dollar), a car wash, storage units and a bar.

Because this site is over 1 acre, plans need to be approved by Planning Commission through a public hearing process before applying for a building permit.

Proposed Conditions

The petitioner is proposing to build a new Dollar General Market location, a national chain of dollar stores that feature a larger selection of grocery and produce items than typical Dollar General stores.

In addition the petitioner has requested a waiver for the maximum front yard setback requirement. The maximum front yard setback in a C-2 Highway Commercial District is 75 feet with the proposed front façade facing Burlington Road having a setback of roughly 145 feet.

In addition to the store, the redevelopment will include a small parking lot in the front, a drive lane on the north side for trucks to load/unload, spaces for dumpsters, and landscaping.

There will be two new access points made; one on Waverly Road and one on Burlington Road. Please seen attached site and elevation plan.

Development Ordinance

The Development Ordinance designates any commercial development of over one acre or more as a major development, triggering special requirements and review.

Factors to consider when reviewing this type of development also includes:

- suitability of the land for development due to natural condition, such as flooding, drainage, and topography
- public installations such as location of schools or transportation facilities
- conditions which may endanger health, life, or property
- conformity with the zoning district requirements
- conformity with the comprehensive plan

The Planning Commission may only consider evidence presented for the record which is relevant to authorized grounds for approval.¹

If applicant meets all requirements, the Commission is required to approve the plat.²

² *Id.* at Syl. Pt. 8.

¹ Kaufman v. Planning & Zoning Comm. Of Fairmont, Syl Pt. 5, 298 SE2d 148 (W.Va. 1982).

PC 24-03 Staff Report Pictures



View of the site looking in a northern direction from Waverly Road.



View of the site from the intersection of Waverly Road and Burlington Road looking in a westerly direction, showing both of the existing structures on the lot.

Comprehensive Plan/ Plan2025

Staff review finds that the proposed development is in conformity with the Future Land Use map of the comprehensive plan, Plan2025. Plan2025 designates this area as Convenience Commercial, which is designed for higher intensity commercial uses that are primarily accessed by cars.

Department/Agency Comments

- Cabell Huntington Health Department: Not applicable because municipal sewer is present.
- Huntington Stormwater Utility: requires any run-off generated would be required

- to be captured on-site before going into the municipal system.
- Mountaineer Gas: Initially disapproved, but Petitioner amended the plan to conform to MG requirements.
- Public Works: No comment
- Appalachean Power (AEP) : No comment
- West Virginia American Water (WVAW): No comment
- Huntington Sanitary Board: No comment

Staff Comments

In considering plans for new development, the Planning Commission and staff must consider compatibility with surrounding uses; impact on vehicular, freight, bicycle, and pedestrian traffic; capacity of existing utilities and city services, and zoning.

This site was previously a car dealership and has been mostly vacant and underutilized for many years. The proposed re-development demolishes the existing buildings and concentrates parking in the front yard with trucks utilizing the driveway on the north side.

The C-2 Highway Commercial zoning district is designed for high-intensity uses, and this use is permitted by right. Because the proposed development conforms to the zoning district, Staff does not anticipate that this development design would cause many negative or unintended consequences for the nearby residential. In fact, with the Stormwater Utility's requirement that any run-off generated be required to be captured on-site, the new development may actually reduce the impact of the existing site on the stormwater infrastructure. Ample parking is available on-site for the proposed use, so

PC 24-03 Staff Report

parking is unlikely to spill over into the neighborhood.

Five-percent landscaping is required by the ordinance but is not reflected in the site plan presented. Staff recommends that the Commission require landscaping be included, possibly to buffer the parking on Waverly.

Redevelopment of former vacant commercial property into a new retail store generates more opportunities for jobs, tax revenue, and sustainability for this redevelopment and for the Westmoreland Neighborhood. Furthermore, this project adds a more convenient location for residents to obtain affordable produce and everyday items, something that has been lacking in the Westmoreland Neighborhood. Staff does not anticipate that development of this type will strain existing public resources, rather, it will contribute to the tax base and vibrancy of this location.

STAFF RECOMMENDATION: Approve with the condition that 5-percent landscaping be added.

Attachments

- Application
- Aerial Map
- Zoning Map
- Future Land Use Map
- Site Plan
- Elevation Plan and study
- Geotechnical Report
- Window and door plans



Application for New Development Review City of Huntington

Site Address/Tax Map, Parcel Number: 4514 Waverly Rd., Huntington, WV (50-06-0001-0223-000)
Acreage of Site: 1.038 AC
Proposed Use: Commercial Retail
Number and Acreage of Proposed Parcels (Subdivision Only): NA
Property Owner Name & Address: <u>DG BTS Huntington, LLC. 2525 Broad Street, Chattanooga,</u> TN 3740
Petitioner: Francis Stanley
Petitioner Email: <u>fstanley@berryconstruction.net</u> Petitioner Phone: <u>662-665-1195</u>
Petitioner Address: 2525 Broad Street, Chattanooga, TN 37408
Supporting Items: Site plan and survey & legal description have not changed from original submittal sent to Kim Estep on 12/21/23.
<u>NA</u> Survey & Legal Description (required for Major Subdivision)
\$100 processing fee
FOR INTERNAL USE ONLY
Date Received:
Staff Initials:
Petition Number:
Proposed Use:

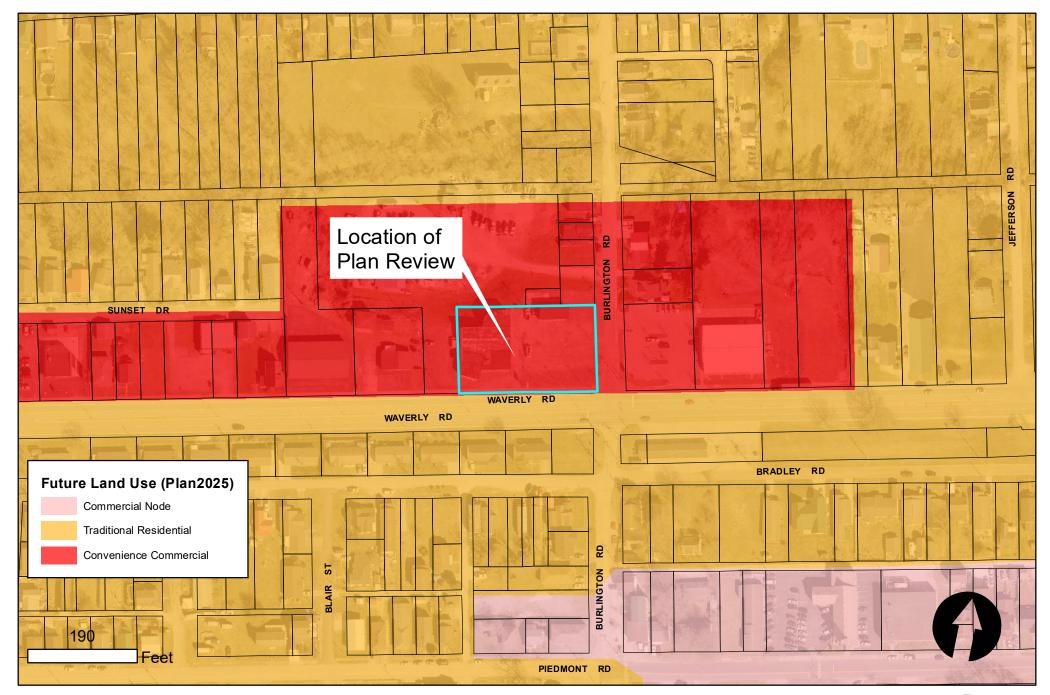
 $Planning \ \& \ Zoning \ Office \ | \ City \ of \ Huntington \ | \ 304-696-5540 \ opt. \ 3 \ | \ planning dept @huntingtonwv.gov$



4514 Waverly Road Wayne County Tax District 6, Map 1, Parcels 223 PC 23-03



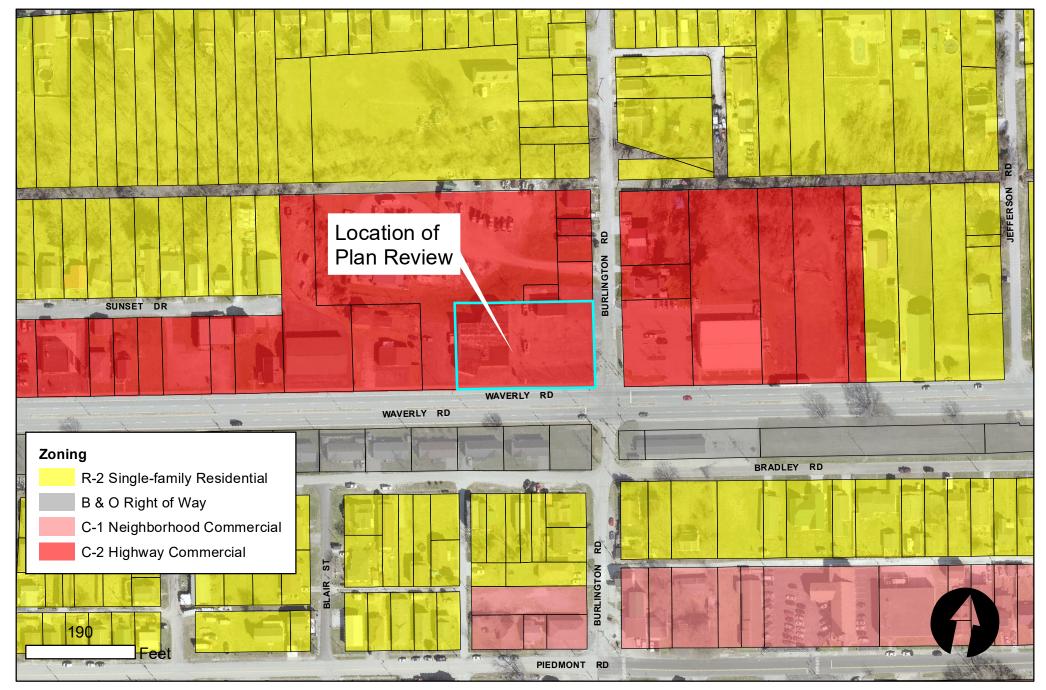
Plan Review for a development over an acre in the C-2 Highway Commercial District.



4514 Waverly Road Wayne County Tax District 6, Map 1, Parcels 223 PC 23-03



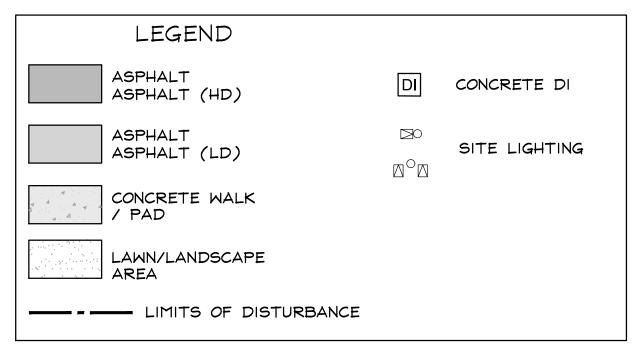
Plan Review for a development over an acre in the C-2 Highway Commercial District.



4514 Waverly Road
Wayne County Tax District 6, Map 1,
Parcels 223
PC 23-03



Plan Review for a development over an acre in the C-2 Highway Commercial District.



GENERAL UTILITY NOTES:

1. THE LOCATIONS OF ALL KNOWN UTILITIES ARE SHOWN ON THE CONTRACT PLANS BASED ON THE BEST AVAILABLE INFORMATION FROM EXISTING PLANS AND FIELD INFORMATION. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ASCERTAIN THE STATUS AND LOCATION OF EACH UTILITY WHEN PERFORMING WORK WHICH MAY AFFECT THESE FACILITIES INCLUDING PROBING, EXCAVATION OR ANY OTHER PRECAUTION REQUIRED TO CONFIRM LOCATION. THE CONTRACTOR WILL BE RESPONSIBLE FOR ANY DAMAGE OR DISRUPTION TO UTILITY LINES WHICH ARE KNOWN ACTIVE AND ARE TO REMAIN IN OPERATION. THE CONTRACTOR SHALL CALL WEST VIRGINIA CALL BEFORE YOU DIG ENTITY PLUS ANY UTILITY COMPANIES NOT COVERED, AND HAVE ALL EXISTING UTILITIES FIELD LOCATED PRIOR TO CONSTRUCTION. IN THE EVENT OF DAMAGE OR DISRUPTION TO UTILITIES WHICH ARE ACTIVE AND ARE TO REMAIN IN SERVICE, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY AN OFFICIAL OF THE AFFECTED UTILITY AND LEND ALL POSSIBLE ASSISTANCE IN RESTORING SERVICE. THE CONTRACTOR SHALL ASSUME ALL COST ASSOCIATED WITH THE REPAIR AND INTERRUPTION OF SUCH SERVICES

- 2. ALL WATERLINES AND APPURTENANCES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE STANDARDS AND SPECIFICATIONS ESTABLISHED BY THE LOCAL UTILITIES DEPARTMENT HAVING JURISDICTION.
- 3. THE CONTRACTOR SHALL SUPPLY A TEMPORARY SAFE WATER SERVICE TO ANY BUSINESS THAT WILL HAVE ITS WATER SERVICE INTERRUPTED BY THIS CONSTRUCTION.
- 4. ANY EXISTING HYDRANTS, VALVES, VALVE BOXES, METER PITS, SERVICE LINES, CURB BOXES OR WATER MAIN THAT ARE DAMAGED OR MUST BE ADJUSTED AND/OR MOVED, MUST BE REPAIRED, ADJUSTED, MOVED AND/ OR REPLACED AT CONTRACTOR'S EXPENSE.
- 5. CONTRACTOR IS RESPONSIBLE FOR COORDINATION OF ALL UTILITIES. CONTRACTOR IS RESPONSIBLE FOR ALL TAP AND OTHER ASSOCIATED FEES.
- 6. ALL NECESSARY UTILITY PERMITS AND FEES BY CONTRACTOR.
- 7. ALL PVC SANITARY SEWER PIPES SHALL BE TYPE SDR35.

UTILITY CONTACTS:

ELECTRIC COMPANY: AEP

JEREMY BLACKSHIRE

304-696-1215,(C) 304-681-219-6105 PHONE NUMBER-

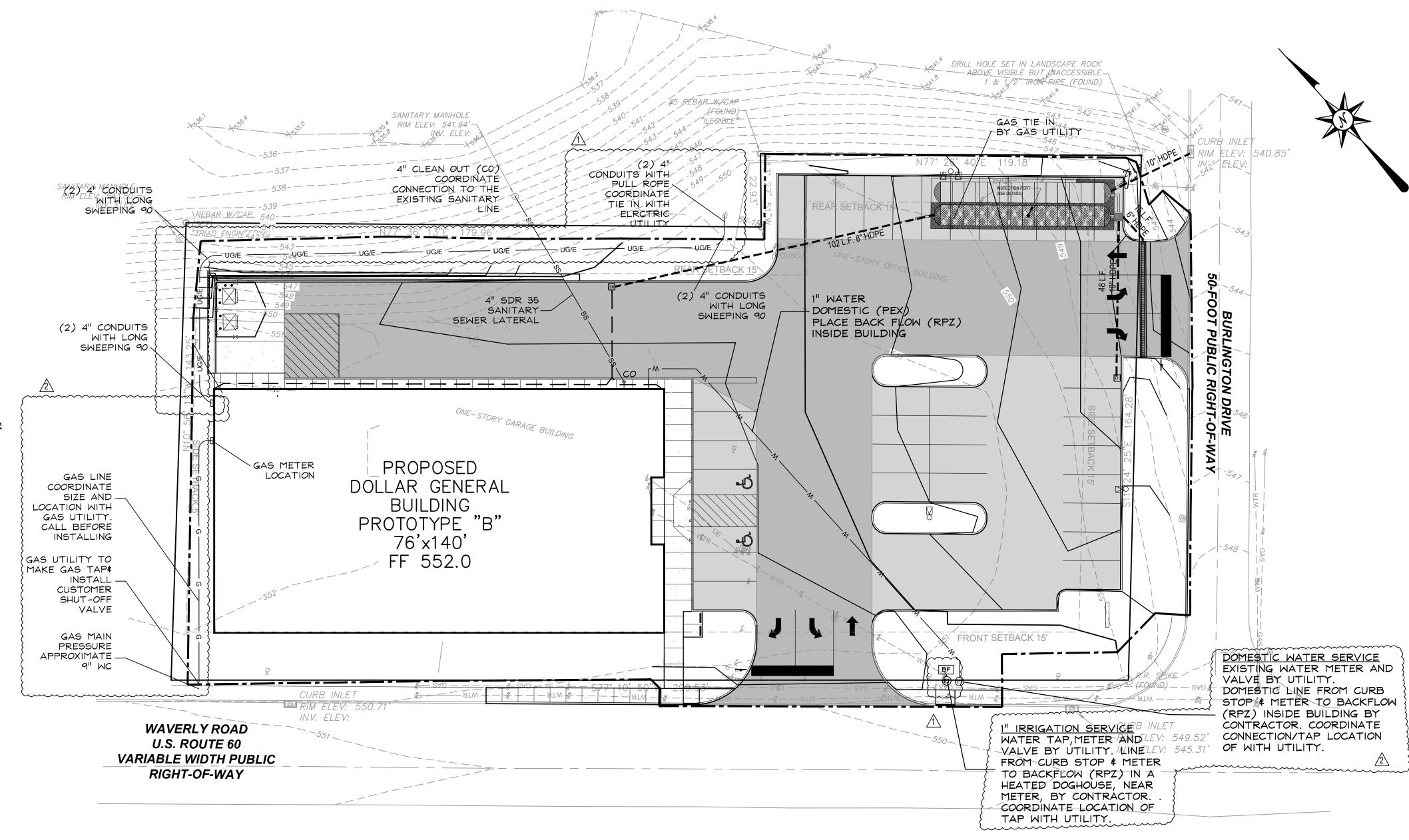
WEST VIRGINIA AMERICAN WATER HENRY PERKINS (WVAWC)

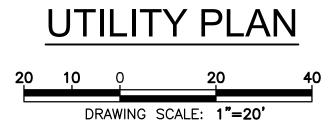
PHONE NUMBER-304-340-2986

HUNTINGTON SANITARY BOARD SEWER PROVIDER: PHONE NUMBER-304-696-4437

GAS COMPANY: **MOUNTAINEER GAS**

MICHAEL PLYMALE PHONE NUMBER-800-834-2070







www.triadeng.com SHEET NUMBER: C500

PROJECT No.: 04-23-0376

BTS HUNTINGTON, LLC GTON, WAYNE COUNTY

DG I HUNTING

3-05-24

CONSTRUCTION DRAWINGS FOR DG BTS HUNTINGTON, LLC HUNTINGTON, WEST VIRGINIA

SHEET INDEX:

SHEET DESCRIPTION	SHEET NUMBI
COVER SHEET	C100
EXISTING CONDITIONS	C200
DEMOLITION PLAN	C300
SITE PLAN	C400
LAYOUT PLAN	C401
UTILITY PLAN	C500
GRADING, DRAINAGE AND PAVING PLAN	C600
LANDSCAPE PLAN	C700
EROSION AND SEDIMENT CONTROL PLAN	C800
DETAILS	C900
DETAILS	C901
DETAILS	C902
DETAILS	C903
CHI TEC STORM DETENTION DI ANS	1 5

PROJECT INFORMATION:

DESCRIPTION: COMMERCIAL BUILDING

APPROXIMATELY 1.03 ACRES TOTAL ACREAGE:

ZONING:

10,640 BLDG / 8,838 SALE SF **BUILDING SF:**

18' FEET **BUILDING HEIGHT:** 30 SPACES TOTAL # OF PARKING REQUIRED: 35 SPACES TOTAL # OF PARKING SPACES:

TOTAL # OF HANDICAP SPACES: 2 HANDICAP SPACES SF OF IMPERVIOUS SURFACE 34505 SF (76%)

42388 SF (24%) TOTAL SITE 1.03 AC (45111 SF)(EXIST. 100% PAVED) SF OF PERVIOUS SURFACE INTERIOR GREEN SPACE 21522 TOTAL PAVED (5%) 1076 PROVIDED 1102 SF

PHYSICAL ADDRESS: 4514 WAVERLY ROAD PARCEL# 50-06-001-0223-0000

PROJECT CONTACTS:

DG BTS HUNTINGTON, LLC DEVELOPER/OWNER 2525 BROAD STREET

CHATTANOOGA, TN 37408 PHONE NUMBER-662-665-1195

TRIAD ENGINEERING 10541 TEAYS VALLEY ROAD SCOTT DEPOT, WV 25560 PHONE NUMBER-

TRIAD ENGINEERING 10541 TEAYS VALLEY ROAD SCOTT DEPOT, WV 25560 PHONE NUMBER- 304-755-0721

THIS PROJECT ACCURATELY DEPICTS THE PROPOSED

PROJECT

VICINITY MAP:



LOCATION MAP:



SCALE: NTS

DG BTS HUNTINGTON, LLC HUNTINGTON, WAYNE COUNTY

www.triadeng.com SHEET NUMBER:

TAX PARCEL: PAR.

AMERICAN DISABILITIES ACT: A.D.A.

IRON PIPE OR PIN FOUND (AS NOTED)

COMPUTED CORNER (NOT SET)

SANITARY MANHOLE RIM ELEV: 543.50'-

MAG SPIKE & TRIAD BACKING PLATE (SET)

ASPHAL

ASPHALT

WAVERLY ROAD

U.S. ROUTE 60

BOLLARD •

SANITARY MANHOLE RIM ELEV: 541.94'-

INV. ELEV:

ONE-STORY GARAGE BUILDING

MAPPING SYMBOLS:

(FOUND)-

WATER LINE — — — — — WTR — — — — WTR — — — — WTR —

(FOUND) \

LEGEND

DRILL HOLE SET IN LANDSCAPE ROCK ABOVE VISIBLE BUT INACCESSIBLE-1 & 1/2" IRON PIRE (FOUND)

ASPHALT

BEARINGS SHOWN HEREON ARE ORIENTED TO GRID NORTH.

THE DIFFERENCE BETWEEN GRID NORTH AND TRUE NORTH (CONVERGENCE) IS 0° 44' 30" WEST. THE VERTICAL DATUM FOR THIS SURVEY IS THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88). THE MAGNETIC DECLINATION AT TIME OF SURVEY WAS COMPUTED AS 7° 34' W ± 0° 22' BY THE NATIONAL CENTER OF ENVIRONMENTAL INFORMATION ONLINE DECLINATION CALCULATOR.

DRAWING SCALE:

LEGAL DESCRIPTION

SCHEDULE A - COMMITMENT FILE NO.: 281250.0072

(VERBATIM COPY FROM DOCUMENT)

All that certain lot, tract or parcel of land, together with the easements, rights of way and appurtenances thereunto belonging with the buildings and improvements thereon, and being more particularly bounded and described as follows:

TRACT NUMBER ONE (1):

All that certain lot or parcel of real estate situate in the City of Huntington, Huntington Independent District, Wayne County, West Virginia, known and

designated on a Revised Map of Dupont Place, a copy of which map is recorded in the Office of the Clerk of the County Commission of Wayne County, West Virginia on October 11, 1911, in Deed Book 103, at page 395, as part of BLOCK NUMBER NINE (9), of said Dupont Place, and being more particularly described as follows:

Beginning at a point which is the northwest corner of the intersection of Waverly Road with Burlington Road; thence in a westerly direction along the northerly line of Waverly Road, being the southerly line of Lots 9, 10, 11, 12 and 13 of said Block 9, 300 feet to a point; thence with the westerly line of said Lot 13, 150 feet to a point; thence easterly, parallel to the northerly line of Waverly Road and crossing Lots Nos. 13, 12 and 11, 180 feet to a point in the westerly line of Lot 10; thence in a northerly direction with said line, 30 feet to a point; thence easterly, parallel to the northerly line of Waverly Road and crossing Lot 10, 60 feet to a point in the westerly line of Lot 9; thence with said line, in a northerly direction 80 feet to a point; thence easterly, parallel to the northerly line of Waverly Road, crossing Lot 9, 60 feet to a point in the westerly line of Burlington Road; thence with the westerly line of Burlington Road; being the easterly line of Lot 9 (and also the easterly line of Lots 1, 2, 3, 4, 5, 6, 7, 8 and the southerly 5 feet of Lot 9 of the W.A. Lucas Subdivision" 258.46 feet to the point of beginning.

EXCEPTING THEREFROM, the southerly 10.8 feet of Lots 9 (Lot No. 1 of the Lucas Subdivision), 10, 11, 12, and 13, Block 9, Dupont Place, heretofore conveyed to the State Road Commission.

AND FURTHER EXCEPTION that certain 0.130 Acres conveyed in Corrective Deed dated December 17, 2009, by and between Paul E. Rutherford, Jr. and James Hatfield, of record in Deed Book 667, at page 808.

plastic identification cap marked "Triad Engineering" set in said common line;

BOUNDARY DESCRIPTION

AS SURVEYED

All that certain lot or parcel of real estate situate in the City of Huntington, in the Westmoreland District of Wayne County, West Virginia, known and designated on a Revised Map of Dupont Place, a copy of which map is recorded in the Office of the Clerk of the County Commission of Wayne County, West Virginia on October 11, 1911, in Deed Book 103, at page 395, as part of Block 8 and Block 9 of said Dupont Place, and being more particularly described as follows:

BEGINNING at railroad spike found in asphalt pavement at the intersection of the northerly right-of-way line of Waverly Road (U.S. Route 60) with the westerly right-of-way line of Burlington Street, said point being the southeast corner of Lot 9 of Block 9 of said DuPont Place;

THENCE, With and as the northerly right-of-way line of Waverly Road, S 77° 10' 50" W for a distance of 299.53 feet to an 8-foot galvanized fence post found in said right-of-way line at the common southerly corner of Lot 13 and Lot 14 of said DuPont Place; THENCE with and as the common line of Lots 13 and 14, N 10° 56' 12" W for a distance of 143.25 feet to a 5/8-inch rebar with a

THENCE leaving the common line of Lots 13 and 14 and crossing Lots 13, 12, and 11, N 77° 36' 13" E for a distance of 179.96 feet to a bare 1/2-inch rebar found at a point in the common line of Lots 11 and 10;

THENCE with and as the common line of Lots 11 and 10, N 13° 27' 51" W for a distance of 22.93 feet to a 5/8-inch rebar with an illegible plastic identification cap found in said common line;

THENCE leaving the common line of Lots 11 and 10 and crossing Lots 10 and 9, N 77° 26' 40" E for a distance of 119.18 feet to a to a hole drilled in a landscaping rock above a visible but inaccessible 1 and 1/2-inch iron pipe found at the northeastern corner of said Lot 9, being also a point in the westerly right-of-way line of the aforementioned Burlington Drive,

THENCE with and as the westerly right-of-way line of Burlington Drive, S 11° 24′ 25″ E for a distance of 164.28 feet to the point of beginning, and thus containing 42,215.09 square feet, or 1.038 acres, as surveyed and depicted hereon, and being all of that property described in a deed and shown on a plat of survey recorded in Deed Book 768 at Page 595, of record in the offices of the County Clerk of Wayne County, West Virginia.

SITE SURVEY NOTES:

THE PURPOSE OF THIS PLAT IS TO SHOW THE RESULTS OF A RETRACEMENT SURVEY OF THE BOUNDARY LINES OF AN EXISTING PARCEL OF LAND TO ESTABLISH A BASIS FOR THE SUBDIVISION AND FUTURE CONVEYANCE OF THE PROPOSED NEW PARCEL AS

PROPERTY DATA AS SHOWN HEREON IS COMPILED FROM EVIDENCE COLLECTED FROM AN ACTUAL FIELD SURVEY COMBINED WITH DATA OF PUBLIC RECORD AS REFERENCED HEREON.

ALL PUBLIC RECORD DOCUMENTS REFERENCED HEREON, ARE RECORDED IN THE OFFICE OF THE COUNTY CLERK OF WAYNE COUNTY, WEST VIRGINIA.

THERE WERE NO ENCROACHMENTS OR GAPS DISCOVERED BY THIS SURVEY.

UTILITIES AS SHOWN HEREON WERE LOCATED BY OBSERVED FIELD EVIDENCE OF STRUCTURES OR APPURTENANCES ACCESSIBLE AT THE SURFACE AND/OR BY SUBSURFACE UTILITIES DESIGNATION PAINT RECOVERED AT TIME OF SURVEY (IF OBSERVABLE AT TIME OF SURVEY) AND AS PLACED BY OTHERS. TRIAD WARRANTS ONLY THE ACCURACY OF THE FIELD LOCATION OF ANY DESIGNATION MARKS AS RECOVERED ON-SITE AND MAKES NO CLAIM AS TO THE ACCURACY OF THE MARKS IN RELATION TO THE ACTUAL POSITION OF THE UTILITY DESIGNATED. NO SUBSURFACE OR "DOWN-HOLE" INVESTIGATION REQUESTED OR PROVIDED AS PART OF THIS SURVEY.

TRIAD ENGINEERING WARRANTS ONLY THE COMPLETENESS OF LOCATION OF AVAILABLE UTILITY EVIDENCE AND CANNOT WARRANT THAT NO OTHER UTILITIES EXIST ON THIS SITE. THE UTILITY DATA SHOWN IS REPRESENTATIONAL ONLY AND SHOULD NOT SUBSTITUTE FOR SUBSURFACE UTILITIES INVESTIGATION PERFORMED PRIOR TO THE START OF ANY CONSTRUCTION OR EXCAVATION ON-SITE.

THE SUBJECT PROPERTY CAN BE ACCESSED BY AUTOMOBILE TRAFFIC FROM WINFIELD ROAD (WV ROUTE 817), A PUBLIC ROAD RIGHT-OF-WAY; HOWEVER, A DRIVEWAY ACCESS PERMIT WILL BE REQUIRED BY THE WEST VIRGINIA DEPARTMENT OF TRANSPORTATION FOR ANY FUTURE DEVELOPMENT ON THE SUBJECT PROPERTY.

THE PROPERTY SURVEYED AND DEPICTED HEREIN IS THAT PROPERTY IDENTIFIED IN TITLE COMMITMENT FILE NO. : 281250.0072 PREPARED FOR THE SUBJECT PROPERTY BY FIDELITY NATIONAL TITLE INSURANCE COMPANY, WITH AN EFFECTIVE DATE OF APRIL 5, 2023.

THIS PLAT IS NOT PREPARED AS A STAND-ALONE DOCUMENT AND IS PART OF A SET OF DRAWINGS. SEE SHEET S-1 (COVER SHEET) FOR SCHEDULE B-II COMMENTARY, BOUNDARY DESCRIPTIONS, AND SURVEYOR'S CERTIFICATION.

FLOOD HAZARD STATEMENT

THE SUBJECT PROPERTY DEPICTED HEREON LIES WITHIN A FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) DESIGNATED FLOOD HAZARD AREA IDENTIFIED AS "ZONE X (SHADED - LEVEE PROTECTED)" AS INDICATED BY NATIONAL FLOOD INSURANCE RATE MAP (FIRM) NUMBER 54011C0094E WITH AN EFFECTIVE DATE OF FEBRUARY19, 2014.

FEMA DEFINES "ZONE X (SHADED)" AS AN AREA OF 0.2% ANNUAL FLOODING OR AN AREA OF 1% ANNUAL CHANCE FLOOD WITH AVERAGE DEPTHS OF LESS THAN 1 FOOT. ALTHOUGH THIS PROPERTY DOES NOT LINE WITHIN A SPECIAL FLOOD HAZARD AREA, THIS DETERMINATION DOES NOT MEAN THAT FLOODING CANNOT OCCUR ON THIS SITE.

THIS DETERMINATION IS MADE BY GRAPHICAL PLOTTING OF THE SITE IN REFERENCE TO THE ABOVE NOTED FIRM. A F.E.M.A. ELEVATION CERTIFICATE WOULD BE REQUIRED TO MAKE A MORE DEFINITIVE DETERMINATION FOR THIS SITE; HOWEVER, AN ELEVATION CERTIFICATE WOULD NOT PROVIDE A WAIVER OF REQUIREMENT FOR THE PURCHASE OF FLOOD INSURANCE. ONLY A LOMA OR LOMR-F CAN AMEND THE FIRM AND REMOVE THE FEDERAL MANDATE FOR A LENDING INSTITUTION TO REQUIRE THE PURCHASE OF FLOOD INSURANCE.

Monuments placed shown hereon as required by WV Regulatory law.

ONE-STORY OFFICE BUILDING

- Surveyed property located at 4514 Waverly Road, Huntington, WV 25704. See cover sheet and plat for Flood Hazard Statement
- Gross land area: 45,215.09 SQUARE FEET OR 1.038 ACRES SEE PLAT
- Vertical relief shown hereon derived from terrain-based 3-d measurements. Vertical datum tied by GNSS observations (NAVD 88 - GEOID 12B).
- Subject property is located Wayne County but in an area of the City of Huntington that is regulated by a zoning ordinance and is zoned C-2 Highway Commercial. However, a building permit will be required prior to the start of any construction on-site.
 - Setback Requirements
 - Front Yard Min/Max: 15 / 75 Feet
 - Side Yard: 5 Feet Side Yard Adjoining Residential: 15 Feet
 - Rear Yard: 15 Feet Maximum Building Height: 10 stories / 150 Feet
- (a) Exterior dimensions of all buildings at ground level. (SEE PLAT)
- (b) Square footage of:
- (1) exterior footprint of all buildings at ground level. (SEE PLAT) (2) other areas as specified by the client. (NOT SPECIFIED BY CLIENT) (c) Measured height of all buildings above grade. (NOT SPECIFIED BY CLIENT)

- (Substantial features observed in the process of conducting the fieldwork (SEE PLAT).
- Number and type of clearly identifiable parking spaces...(NO PARKING SPACES ON SUBJECT PARCEL). (a) ...division or party walls with respect to adjoining properties...(NOT SPECIFIED BY CLIENT)

(b) ...determination of whether certain walls are plumb...(NOT SPECIFIED BY CLIENT).

PRELIMINARY PROGRESS DRAWING

FOR REVIEW AND COMMENATARY PURPOSES ONLY

NOT INTENDED FOR RECORDATION OR CONVEYANCE

THIS IS NOT A CERTIFIED DOCUMENT

- Location of utilities existing on or serving the surveyed property (SEE PLAT)
- As specified by the client, Governmental Agency survey-related requirements (NOT SPECIFIED BY
- Names of adjoining owners according to current tax records....(AS REQUIRED BY WV LAW SEE PLAT) As specified by the client, distance to the nearest intersecting street.(SEE PLAT SHEET S-3).
- Rectified orthophotography... (NOT SPECIFIED BY THE CLIENT).
- Evidence of recent earth moving work, building construction, or building additions observed in the process of conducting the fieldwork. (NONE APPARENT)
- Proposed changes in street right of way lines, if such information is made available to the surveyor by the
- controlling jurisdiction. Evidence of recent street or sidewalk construction or repairs observed in the process of conducting the fieldwork. (NONE APPARENT BASED ON BEST AVAILABLE PUBLIC
- Plottable off-site (appurtenant) easements (NOT SPECIFIED BY CLIENT)
- (NOT SPECIFIED BY CLIENT)

OPTIONAL SURVEY RESPONSIBILITIES AND SPECIFICATIONS

NO CEMETERIES WERE OBSERVED ON-SITE WHILE CONDUCTING THE SURVEY.

TON, LLC COUNTY IS HUNTINGTO ض <u>ش</u> DG IN

PROPERTY DATA CURRENT OWNER: PAUL E. RUTJHERFORD JR. 104 BRIARWOOD DRIVE HUNTINGTON, WV 25704 APPARENT SOURCE OF TITLE: DEED BOOK 667 PAGE 149 DEED BOOK 768 PAGE 595 1.048 DEEDED ACRES 45,215.09 SQUARE FEET OR 1.038 ACRES, AS SURVEYED

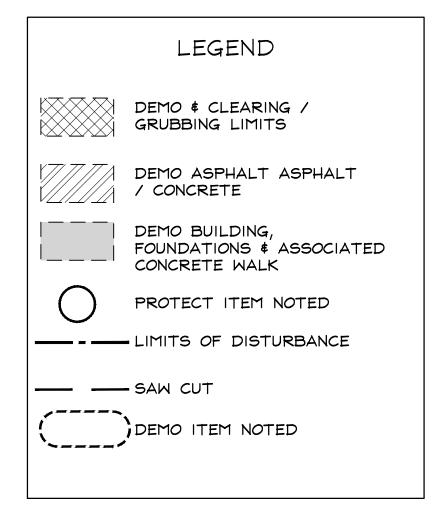
ROJECT No.: 04-23-037

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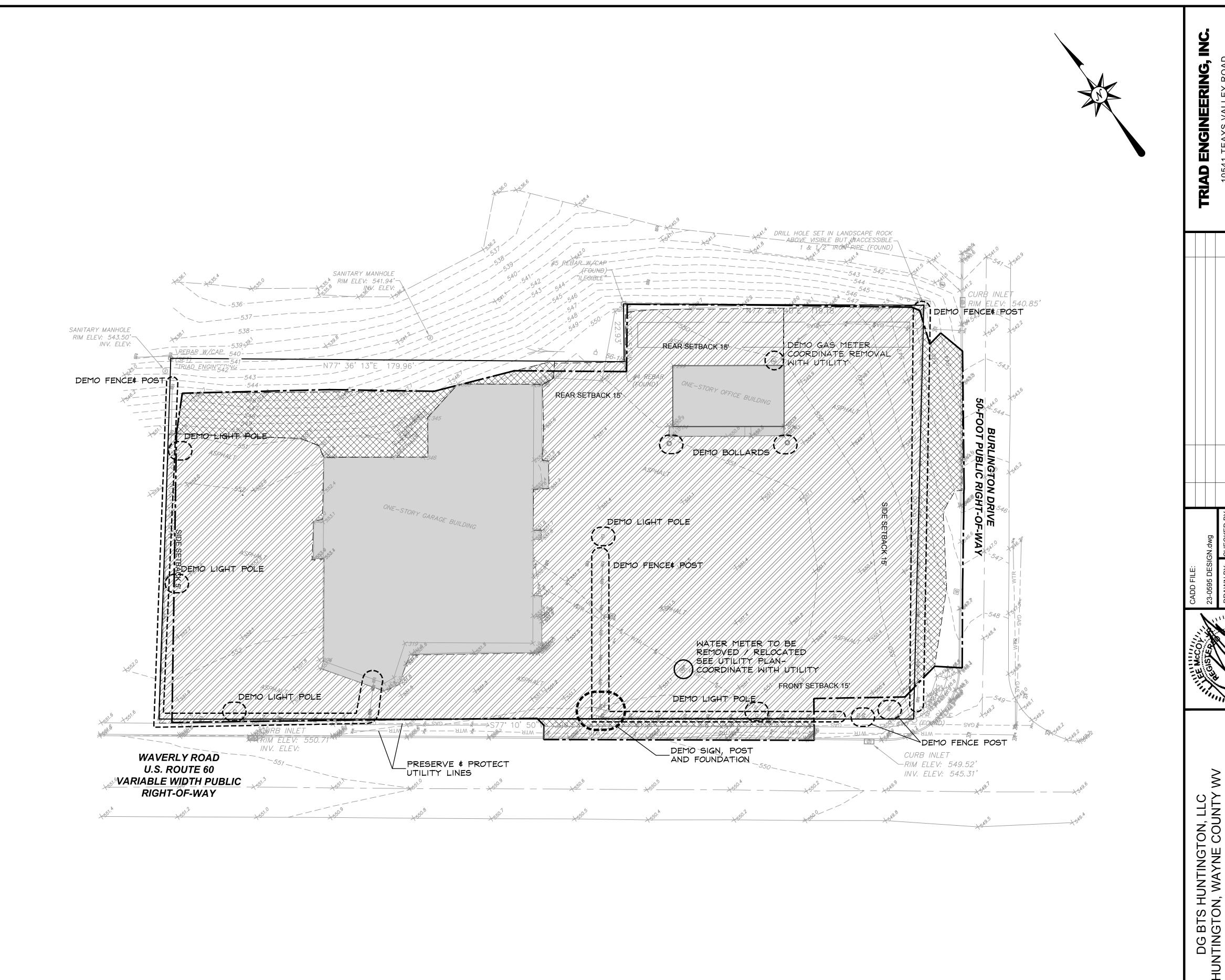
SHEET NUMBER:

GENERAL DEMOLITION NOTES:

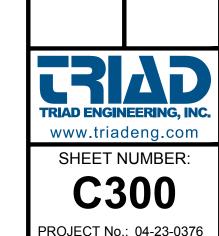
- 1. COORDINATE DEMOLITION OF ANY EXISTING UTILITIES WITH APPROPRIATE UTILITY COMPANY. REMOVE/ABANDON EXISTING UTILITIES/SERVICES/SITE FEATURES AS INDICATED.
- 2. CONTRACTOR IS RESPONSIBLE FOR FIELD LOCATING ALL EXISTING UTILITIES WITHIN THE PROJECT AREA. EXISTING APPURTENANCES SUCH AS UTILITY POLES, VALVE BOXES, ETC., ARE TO BE HELD BY THE CONTRACTOR DURING CONSTRUCTION. PROTECT UTILITIES AND APPURTENANCES NOT BEING REMOVED OR RELOCATED.
- 3. CALL WV UNDERGROUND PROTECTION SERVICE BEFORE DIGGING (8-1-1) OR (1-800-245-4848).
- 4. WHERE EXISTING ASPHALT CONCRETE OR CONCRETE ABUTS PROPOSED ASPHALT CONCRETE OR CONCRETE, THE CONTRACTOR SHALL SAWCUT EDGES.
- 5. REMOVE EXISTING ASPHALT IN ALL AREAS RECEIVING NEW ASPHALT. REMOVE/REPLACE/ADD AGGREGATE BASE AS REQUIRED TO PERFORM RE-PAVING OPERATION. IN LAWN AREAS, REMOVE ENTIRE BASE TO SUBGRADE.
- 6. CONTRACTOR SHALL DISPOSE OF ALL ASPHALT AND OTHER DEMOLISHED MATERIAL IN ACCORDANCE WITH ALL APPLICABLE LOCAL, STATE AND FEDERAL LAWS.
- 7. REFER TO SITE UTILITY PLAN FOR PROPOSED UTILITY LOCATIONS.
- 8. PROPERTY CORNERS DISTURBED DURING CONSTRUCTION INCLUDING CLEARING AND GRUBBING SHALL BE REPLACED BY A SURVEYOR LICENSED IN THE STATE OF WV AT THE COST OF THE CONTRACTOR.
- 9. REMOVE CONCRETE SLABS WITHIN LIMITS.
 REMOVE EXISTING FOUNDATIONS TO AT LEAST 2 FEET BELOW PROPOSED FEATURES.

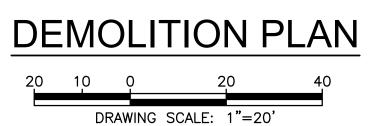


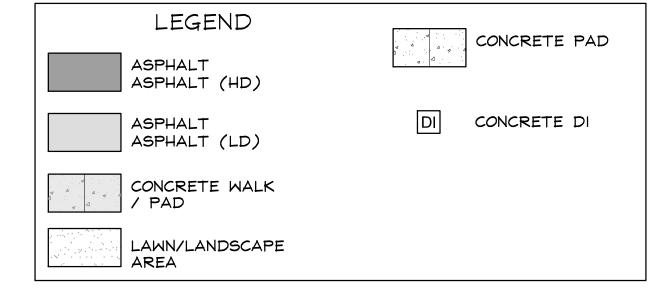
NOTE:
THE DEMOLITION PLAN IS A GRAPHIC
REPRESENTATION OF WHAT SHOULD BE
REMOVED. THE CONTRACTOR IS TO USE
GRADING PLANS, LAYOUT PLANS AND
UTILITY PLANS TO ACCURATELY DETERMINE
LIMITS AND MATERIALS TO BE REMOVED.







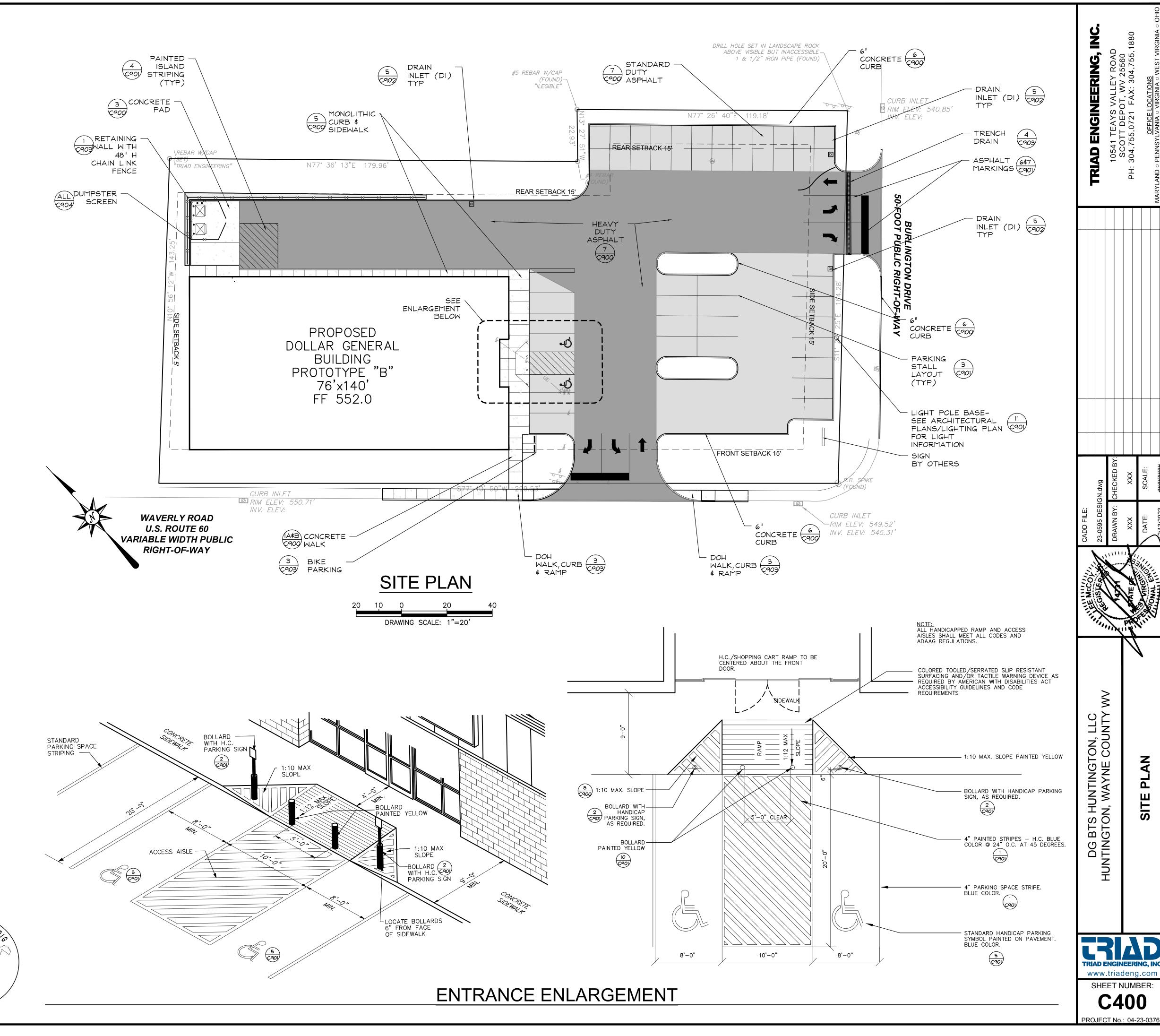




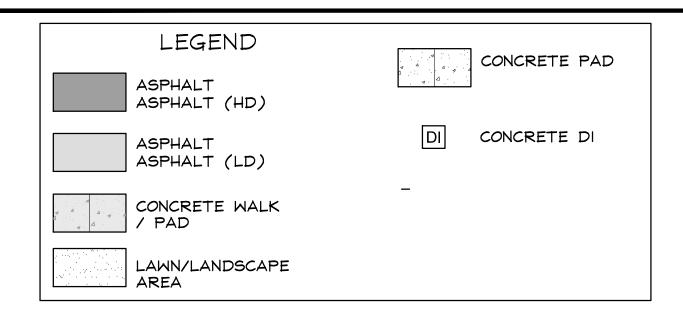
GENERAL NOTES:

- I. GENERAL CONTRACTOR (G.C.) IS RESPONSIBLE FOR ALL FEES AND PAPERWORK REQUIRED FOR PERMITS AND APPROVALS, INCLUDING EROSION AND SEDIMENT, BUILDING, UTILITY, SIGNAGE, DRIVEWAYS, ETC. PRIOR TO CONSTRUCTION VERIFY WITH ENGINEER ANY PERMITS THAT ALREADY HAVE BEEN OBTAINED.
- 2. UTILITY, TOPOGRAPHICAL, AND BOUNDARY SURVEY INFORMATION PROVIDED BY TRIAD ENGINEERING, INC. PHONE: 304.755.0721.
- 3. G.C. TO VISIT THE SITE AND ACCEPT THE SITE CONDITIONS AFTER REVIEWING DESIGN DOCUMENTS AND PRIOR TO BIDDING.
- 4. G.C. IS RESPONSIBLE FOR CHECKING ALL DIMENSIONS AND VERIFY DIMENSIONS NOTED ON PLANS. ANY DISCREPANCIES SHALL BE REPORTED TO THE OWNERS REPRESENTATIVE IN WRITING PRIOR TO FURTHER CONSTRUCTION.
- 5. G.C. IS RESPONSIBLE FOR OBTAINING PROPER APPROVALS AND OR PERMITS FOR WORK IN THE R.O.W., PRIVATE PROPERTY OR PRIVATE / PUBLIC EASEMENTS.
- 6. G.C. IS RESPONSIBLE FOR LOCATING AND AVOIDING ALL UNDERGROUND UTILITIES. UTILITIES SHOWN ON SITE PLAN ARE BASED ON THE BEST INFORMATION AVAILABLE AT THE TIME OF THE SURVEY, AND MAY NOT BE ALL INCLUSIVE. CONTACT A UTILITY LOCATION SERVICE FOR UTILITY IDENTIFICATION PRIOR TO ANY WORK.
- 7. G.C. IS RESPONSIBLE FOR KEEPING ALL PLANTING AREAS FREE OF CONSTRUCTION DEBRIS, STONE, CONCRETE ETC..
- 8. G.C. TO SAW CUT AND PATCH / REPAIR EXISTING ASPHALT THAT HAS BEEN DAMAGED FOLLOWING SITE IMPROVEMENTS.
- 9. G.C. TO COORDINATE WITH PLUMBING AND ELECTRICAL CONTRACTOR FOR UTILITIES INSTALLATION, MATERIALS, AND FOR ALL UTILITY PERMITS AND APPROVALS.
- 10. G.C. TO OBTAIN ANY APPROVALS BY JURISDICTIONAL AUTHORITIES NECESSARY FOR MODIFICATIONS TO APPROVED PLANS.
- II. G.C. AND LANDSCAPE CONTRACTOR TO REFER TO LANDSCAPE PLANS AND DETAILS FOR PLANTING NOTES, PLANT SCHEDULE AND PLANTING DETAILS.
- 12. G.C. TO ENSURE THAT UTILITIES TO ADJACENT PROPERTIES/USES REMAIN OPERATIONAL DURING CONSTRUCTION.
- 13. A LICENSED SURVEYOR SHALL STAKE OUT ALL PARING, CURBING, ETC.., AND SHALL BE REVIEWED BY THE OWNERS REPRESENTATIVE PRIOR TO ANY CONSTRUCTION.
- 14. ALL LOT STRIPING, DIRECTIONAL ARROWS, AND STOP BARS TO BE WHITE REFLECTING PAINT AND SHALL CONFORM TO WVDOH MATERIAL SPECIFICATIONS AND THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES. PARKING LOT STRIPES TO BE 4" WIDE.
- 15. CONSTRUCTION EQUIPMENT AND/OR MATERIALS SHALL NOT BE STORED/PARKED WITHIN THE R.O.W. OR WITH IN THE DRIP-LINE OF ANY
- 16. ALL SITE UTILITIES SHALL BE RAISED OR LOWERED TO ACCOMMODATE NEW FINISH GRADES AS NEEDED.
- 17. ALL EXPANSION JOINTS ADJOINING BUILDINGS AND OTHER NON-BITUMINOUS ASPHALTS SHALL CONTAIN $\frac{1}{2}$ INCH EXPANSION MATERIAL.
- CREATE A TIGHT JOINT WHERE OLD ASPHALT ABUTS NEW ASPHALT.

 18. ALL EXPANSION AND CONSTRUCTION JOINS PERPENDICULAR TO CURB AND BUILDINGS SHALL BE LAID OUT AT 90° TO CURB UNLESS OTHERWISE







LAYOUT NOTES:

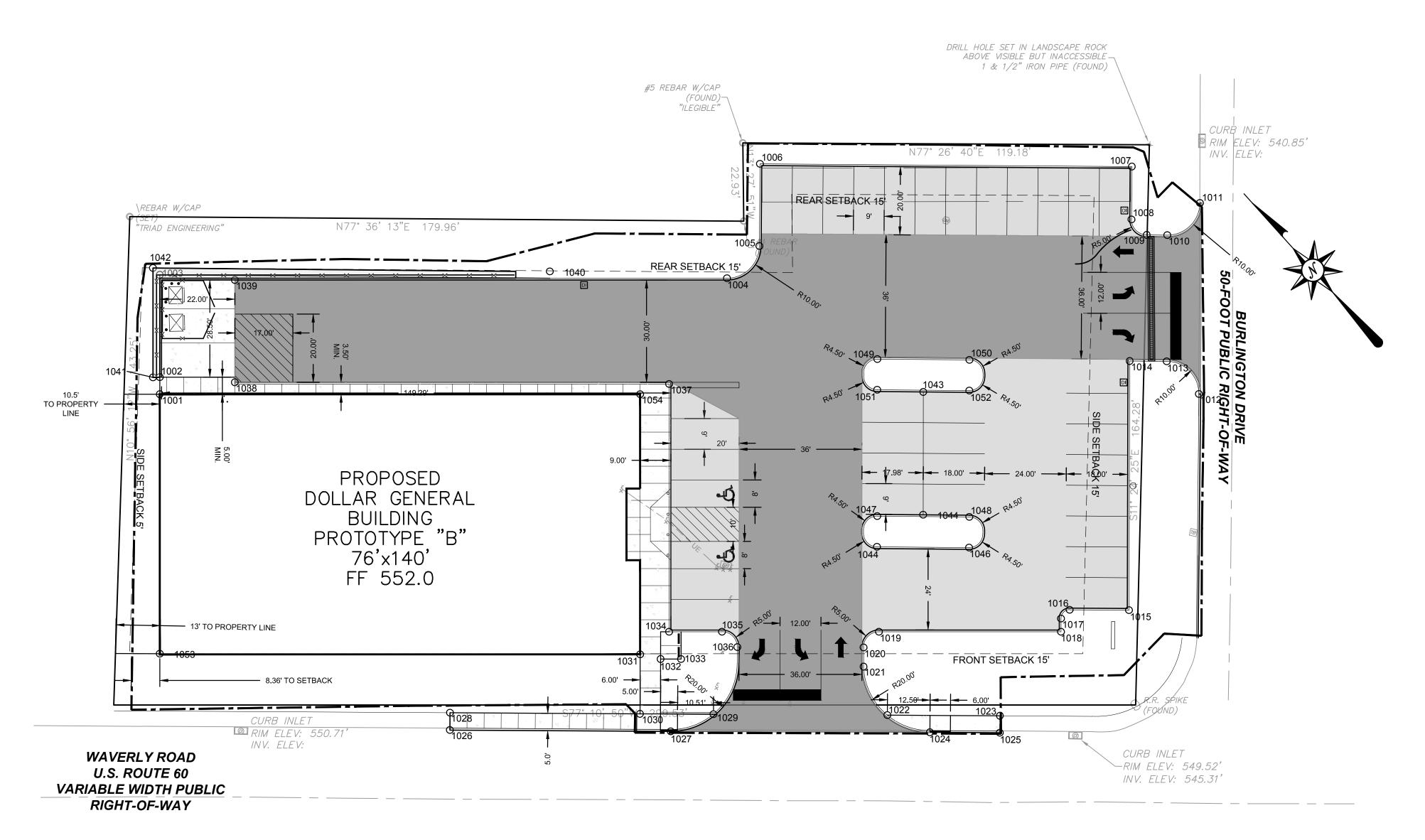
- 1. ALL MEASUREMENTS ARE TO BE FIELD VERIFIED.
- 2. ALL EXPANSION AND CONTRACTION JOINTS PERPENDICULAR TO CURB AND BUILDING SHALL BE LAID OUT AT 90° TO CURB UNLESS OTHERWISE NOTED.
- 3. DO NOT SCALE FROM THIS DRAWING. ALL WRITTEN DIMENSIONS SHALL GOVERN. ALL ANGLES ARE 90° UNLESS OTHERWISE NOTED.
- 4. ALL DIMENSIONS SHOWN ON THE PLANS ARE FROM THE FACE OF CURB. ALL LAYOUT POINTS ARE TO THE BACK OF THE CURB OR AS NOTED.
- 5. DI AND YD POINTS ARE AT CENTER OF DRAIN TYPICAL.

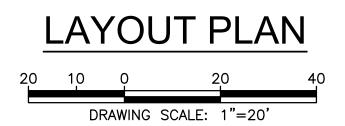
BUILDING: THE BUILDING LOCATION POINTS GIVEN HERE ARE FOR ROUGH GRADING ONLY. FOR ACTUAL BUILDING DIMENSIONS REFER TO ARCHITECT'S PLANS.

Point Table							
Point #	Northing	Easting	Description				
1001	512930.1226	1532699.4137	1001				
1002	512934.9980	1532698.3043	1002				
1003	512964.2502	1532691.6479	1003				
1004	513000.1665	1532853.9929	1004				
1005	513011.4686	1532861.1637	1005				
1006	513035.0239	1532855.9878	1006				
1007	513058.4167	1532962.4480	1007				
1008	513043.2778	1532965.7745	1008				
1009	513039.8486	1532971.1360	1009				
1010	513041.1362	1532977.0276	1010				
1011	513052.4454	1532984.2803	1011				
1012	512997.7799	1532996.4028	1012				
1013	513005.0302	1532985.0831	1013				
1014	513002.6945	1532974.4531	1014				
1015	512931.4299	1532990.4631	1015				
1016	512927.6989	1532973.4831	1016				
1017	512924.6270	1532971.6004	1017				
1018	512920.8502	1532972.4598	1018				
1019	512909.0036	1532920.3988	1019				
1020	512903.5183	1532917.0320	1020				
1021	512898.0160	1532918.2909	1021				
1022	512885.7154	1532928.2347	1022				
1023	512892.8552	1532960.4617	1023				
1024	512883.5866	1532941.5094	1024				
1025	512888.0226	1532961.5324	1025				
1026	512853.0052	1532804.1745	1026				
1027	512866.9877	1532867.3666	1027				
1028	512857.9745	1532803.0760	1028				
1029	512874.6892	1532878.4660	1029				

1030 | 512870.0023 | 1532857.4692

	Po	int Table	
Point #	Northing	Easting	Description
1031	512887.0122	1532853.6137	1031
1032	512887.0028	1532859.7693	1032
1033	512888.3340	1532865.6197	1033
1034	512895.3580	1532860.4319	1034
1035	512898.7972	1532875.5455	1035
1036	512895.4078	1532880.9317	1036
1037	512966.1725	1532844.3179	1037
1038	512938.4167	1532720.0887	1038
1039	512967.6689	1532713.4323	1039
1040	512990.5918	1532802.9018	1040
1041	512934.4850	1532696.3699	1041
1042	512965.7737	1532689.2501	1042
1043	512980.4472	1532917.4706	1043
1044	512945.3247	1532925.4352	1044
1045	512933.1699	1532914.3221	1044
1046	512938.9383	1532940.6991	1046
1047	512941.9586	1532912.3833	1047
1048	512947.7270	1532938.7603	1048
1049	512986.8400	1532902.2359	1049
1050	512992.6084	1532928.6130	1050
1051	512978.0513	1532904.1747	1051
1052	512983.8198	1532930.5518	1052
1053	512855.9575	1532716.2901	1053
1054	512961.3613	1532836.6955	1054





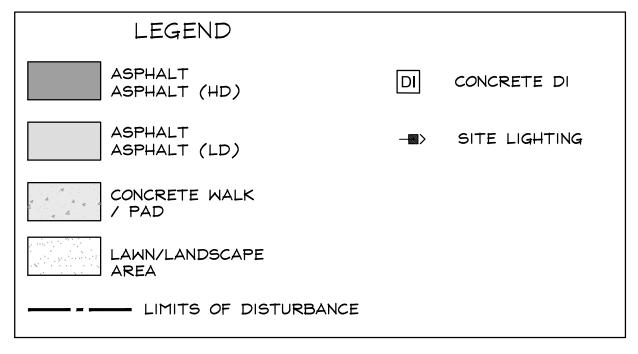




DG BTS HUNTINGTON, LLC HUNTINGTON, WAYNE COUNTY WV

AD

ted by: jyoung ∧_sa_04\2023_5__\04-23-0595 dg bts huntington civil\civil\cadd\23-0595 design.dwg



GENERAL UTILITY NOTES:

1. THE LOCATIONS OF ALL KNOWN UTILITIES ARE SHOWN ON THE CONTRACT PLANS BASED ON THE BEST AVAILABLE INFORMATION FROM EXISTING PLANS AND FIELD INFORMATION. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ASCERTAIN THE STATUS AND LOCATION OF EACH UTILITY WHEN PERFORMING WORK WHICH MAY AFFECT THESE FACILITIES INCLUDING PROBING, EXCAVATION OR ANY OTHER PRECAUTION REQUIRED TO CONFIRM LOCATION. THE CONTRACTOR WILL BE RESPONSIBLE FOR ANY DAMAGE OR DISRUPTION TO UTILITY LINES WHICH ARE KNOWN ACTIVE AND ARE TO REMAIN IN OPERATION. THE CONTRACTOR SHALL CALL WEST VIRGINIA CALL BEFORE YOU DIG ENTITY PLUS ANY UTILITY COMPANIES NOT COVERED, AND HAVE ALL EXISTING UTILITIES FIELD LOCATED PRIOR TO CONSTRUCTION. IN THE EVENT OF DAMAGE OR DISRUPTION TO UTILITIES WHICH ARE ACTIVE AND ARE TO REMAIN IN SERVICE, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY AN OFFICIAL OF THE AFFECTED UTILITY AND LEND ALL POSSIBLE ASSISTANCE IN RESTORING SERVICE. THE CONTRACTOR SHALL ASSUME ALL COST ASSOCIATED WITH THE REPAIR AND INTERRUPTION OF SUCH SERVICES

- 2. ALL WATERLINES AND APPURTENANCES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE STANDARDS AND SPECIFICATIONS ESTABLISHED BY THE LOCAL UTILITIES DEPARTMENT HAVING JURISDICTION.
- 3. THE CONTRACTOR SHALL SUPPLY A TEMPORARY SAFE WATER SERVICE TO ANY BUSINESS THAT WILL HAVE ITS WATER SERVICE INTERRUPTED BY THIS CONSTRUCTION.
- 4. ANY EXISTING HYDRANTS, VALVES, VALVE BOXES, METER PITS, SERVICE LINES, CURB BOXES OR WATER MAIN THAT ARE DAMAGED OR MUST BE ADJUSTED AND/OR MOVED, MUST BE REPAIRED, ADJUSTED, MOVED AND/ OR REPLACED AT CONTRACTOR'S EXPENSE.
- 5. CONTRACTOR IS RESPONSIBLE FOR COORDINATION OF ALL UTILITIES. CONTRACTOR IS RESPONSIBLE FOR ALL TAP AND OTHER ASSOCIATED FEES.
- 6. ALL NECESSARY UTILITY PERMITS AND FEES BY CONTRACTOR.
- 7. ALL PVC SANITARY SEWER PIPES SHALL BE TYPE SDR35.

UTILITY CONTACTS:

ELECTRIC COMPANY: AEP

JEREMY WESTFALL 304-541-3306 PHONE NUMBER-

WEST VIRGINIA AMERICAN WATER (WVAWC)

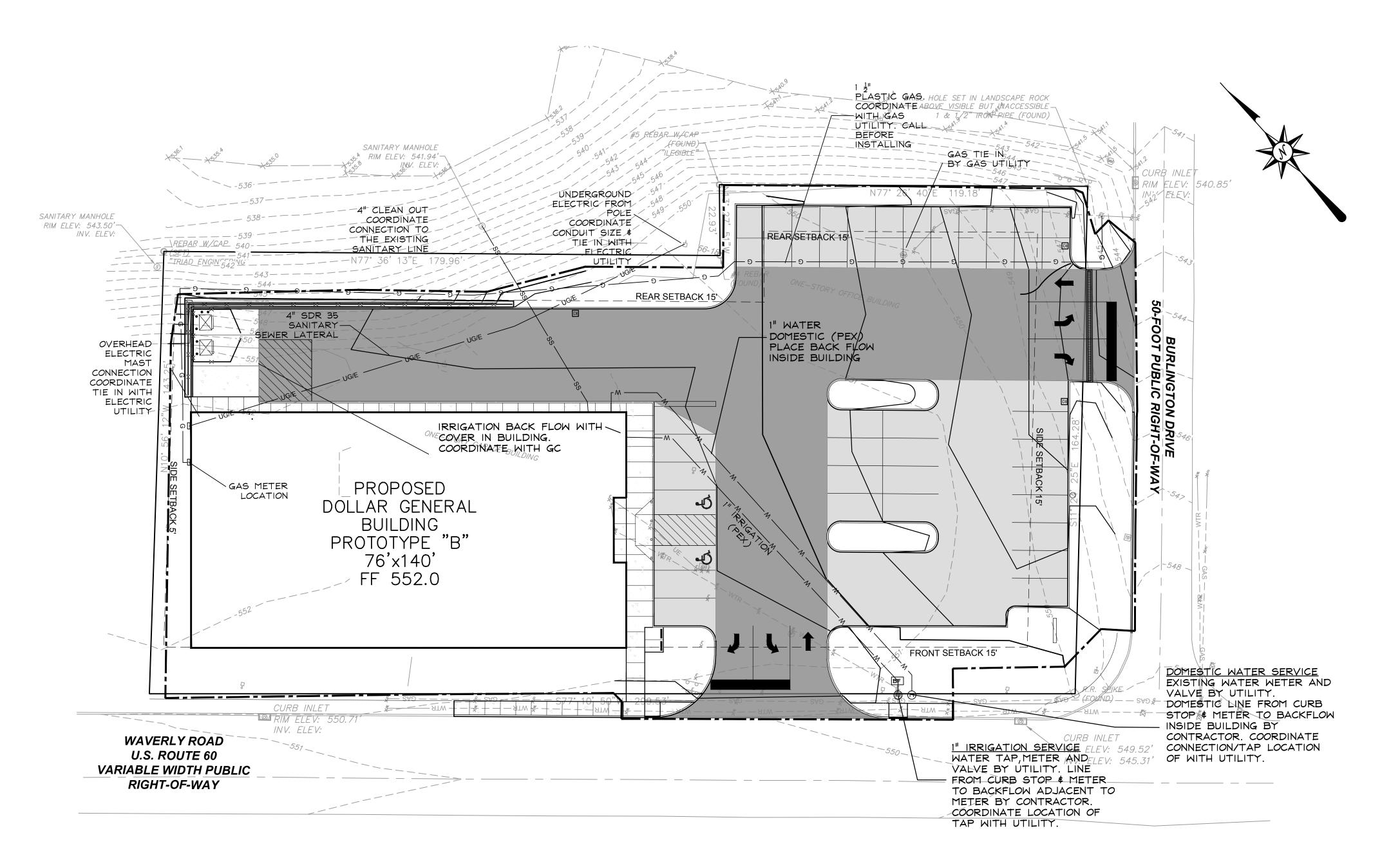
HENRY PERKINS PHONE NUMBER-304-340-2986

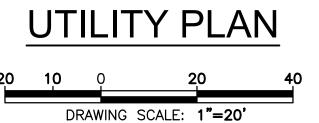
PUTNAM PUBLIC SERVICE DISTRICT

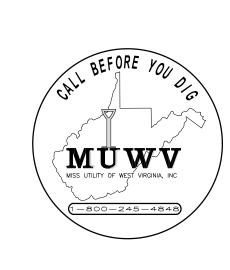
TODD PAULEY PHONE NUMBER-304-757-6551

GAS COMPANY: MOUNTAINEER GAS MICHAEL PLYMALE

PHONE NUMBER-800-834-2070





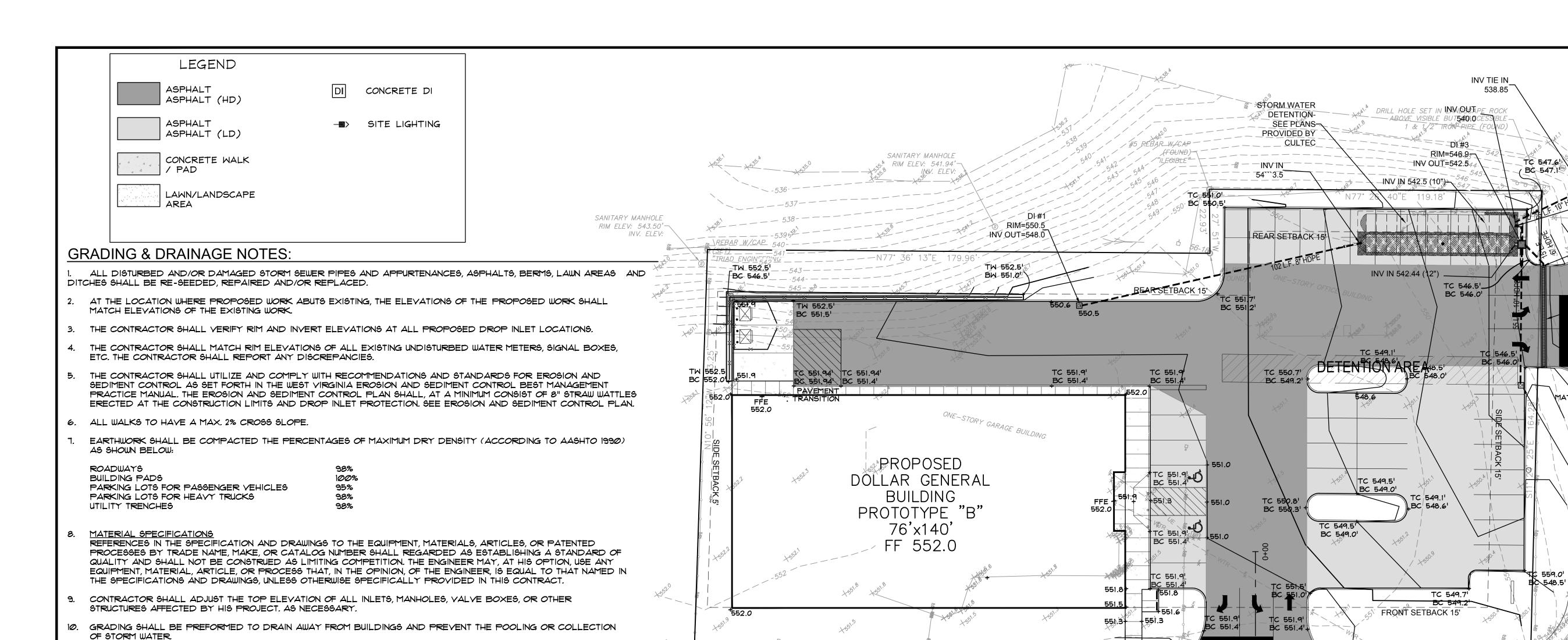


www.triadeng.com SHEET NUMBER: C500

PROJECT No.: 04-23-0376

BTS HUNTINGTON, LLC GTON, WAYNE COUNTY

DG I HUNTING



WAVERLY ROAD

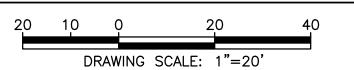
U.S. ROUTE 60

VARIABLE WIDTH PUBLIC

RIGHT-OF-WAY

GRADING, DRAINAGE & PAVING PLAN

BC MATCH



BC MATCH TC +6"

84 + - ATW 14 + - 195 + - 19TM -

BC MATCH



TRENCH DRAIN

RIM=545.2

INV =544.2

∕DI #2

∼RIM ELEV: 549.52' INV. ELEV: 545.31'

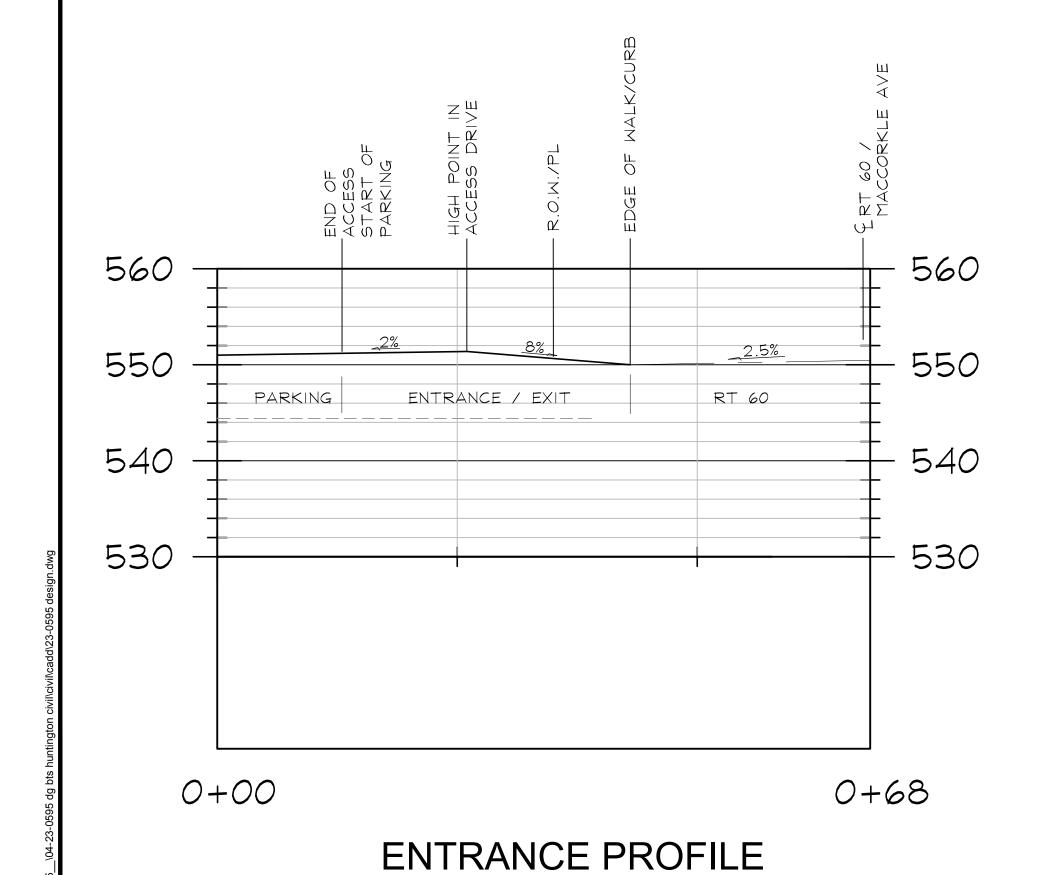
BC MATCH

BC MATCH

RIM=545.9

INV OUT=543.2





V & H DRAWING SCALE: 1"=10"

GENERAL LANDSCAPE NOTES:

A. GRADING NOTES:

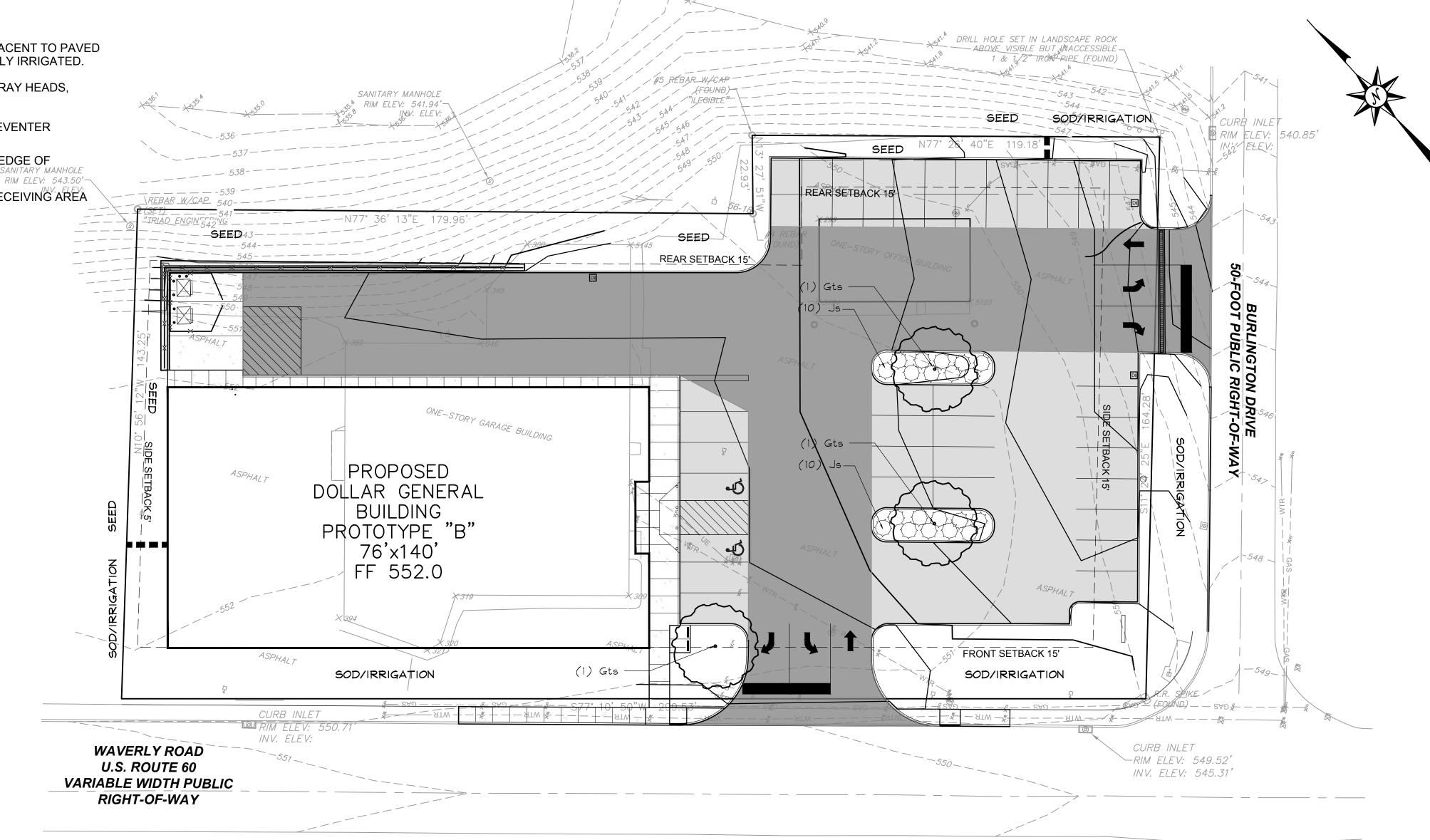
- CONTRACTOR TO GRADE ALL AREAS SHADED IN THE PLAN, INCLUDING ROW.
- TOP SOIL SHALL BE STRIPPED FROM ALL CUT AND FILL AREAS, STOCKPILED AND REDISTRIBUTED OVER GRADED AREAS. PROVIDE EROSION AND SEDIMENTATION CONTROLS AROUND STOCKPILES DURING CONSTRUCTION.
- 3. TILL SOIL TO A DEPTH OF 4" MINIMUM.
- REMOVE ALL ROCKS LARGER THAN 1" MEASURED IN LARGEST DIRECTION.
- GRADE ALL AREAS TO MAINTAIN POSITIVE SLOPE AWAY FROM BUILDING.
- ALL GRADED AREAS TO RECEIVE SEED OR SOD, TOP SOIL, STRAW AND WATER UNTIL A HEALTHY STAND OF GRASS IS OBTAINED.

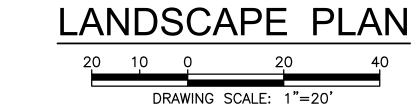
B. LAWN SEEDING AND SODDING NOTES:

- ALL LAWNS FROM FACE OF THE BUILDING AND ON THE SIDE WHERE THERE IS PARKING OR A STREET ARE REQUIRED TO BE FULLY SODDED. ALL OTHER LANDSCAPE AREAS TO RECEIVE SEED.
- AREAS TO RECEIVE SEED OR SOD SHALL BE CLEAN OF DEBRIS AND FREE OF WEEDS.
- SEED MIX TO BE DROUGHT TOLERANCE FESCUE OR REGIONAL SPECIFIC BLEND. $\frac{1}{4}$ TO $\frac{1}{3}$ OF THE SEED MIXTURE TO BE ANNUAL RYE TO AIDE IN LIMITING EROSION OF PERENNIAL SEED DURING GERMINATION.
- STRAW SHALL BE THRESHED STRAW OF HAY, OATS, WHEAT, BARLEY, OR RYE. SPREAD AT A RATE OF 2 1/2 TONS PER ACRE. STRAW, NETTING, AND OTHER ANTI-EROSION MATERIALS TO BE REMOVED AFTER ESTABLISHED LAWN.
- MAINTENANCE SHALL BEGIN IMMEDIATELY AFTER SEEDING. WATER REGULARLY TO KEEP LAWN AREAS MOIST TO MAXIMIZE GERMINATION AND MAINTAIN OPTIMUM GROWTH AND SURVIVAL TO ACHIEVE AN ACCEPTABLE STAND OF ESTABLISHED LAWN PRIOR TO THE STORE POSSESSION DATE, FREE OF ERODED OR BARE AREAS.

D. IRRIGATION NOTES:

- 1. ALL LANDSCAPE AREAS AND LAWNS ADJACENT TO PAVED AREAS AND/OR STREETS ARE TO BE FULLY IRRIGATED.
- 2. IRRIGATION SYSTEM TO INCLUDE ALL SPRAY HEADS, VALVES AND CONTROLLERS.
- 3. A SEPARATE METER AND BACKFLOW PREVENTER WILL BE REQUIRED.
- 4. LOCATE HEAD A MINIMUM OF 2'-0" FROM EDGE OF ASPHALT/CURB.
- LOCATE RAINBIRD CONTROL PANEL IN RECEIVING AREA NEXT TO ELECTRICAL PANELS.





QTY. Total	KEY	BOTANICAL NAME	COMMON NAME	SIZE	COMMENT
3	Gts	Gledirsia tricantohos inermis 'Skycole Skyline"	Skyline Honeylocust	2.0" CAL.,B&B	
20	Js	Juniperous sabina 'Buffalo'	Buffalo Juniper	#3 CONT.	SPACING(AS SHOWN ON PLAN)





UNLESS OTHERWISE INDICATED, ALL VEGETATIVE AND STRUCTURAL EROSION AND SEDIMENT CONTROL PRACTICES WILL BE CONSTRUCTED AND MAINTAINED ACCORDING TO THE STANDARDS AND SPECIFICATIONS OF THE WEST VIRGINIA EROSION AND SEDIMENT CONTROL BMP MANUAL. THE PLAN APPROVING AUTHORITY MUST BE NOTIFIED ONE WEEK PRIOR TO THE PRE-CONSTRUCTION CONFERENCE, ONE WEEK PRIOR TO THE FINAL INSPECTION. ALL EROSION AND SEDIMENT CONTROL MEASURES ARE TO BE PLACED PRIOR TO OR AS THE FIRST STEP IN CLEARING. A COPY OF THE APPROVED EROSION AND SEDIMENT CONTROL PLAN SHALL BE MAINTAINED AT THE SITE AT ALL TIMES. PRIOR TO COMMENCING LAND DISTURBING ACTIVITIES IN AREAS OTHER THAN INDICATED ON THESE PLANS (INCLUDING, BUT NOT LIMITED TO, OFF-SITE BORROW OR WASTE AREAS), THE CONTRACTOR SHALL SUBMIT A SUPPLEMENTARY EROSION CONTROL PLAN TO THE OWNER FOR REVIEW AND APPROVAL BY THE PLAN APPROVING AUTHORITY. THE CONTRACTOR IS RESPONSIBLE FOR INSTALLATION OF ANY ADDITIONAL EROSION CONTROL MEASURES NECESSARY TO PREVENT EROSION SEDIMENTATION AS DETERMINED BY THE PLAN APPROVING AUTHORITY.

SITE GRADING IS TO DRAIN TO THE SEDIMENT TRAPPING DEVICES AT ALL TIMES DURING LAND DISTURBING ACTIVITIES AND DURING SITE DEVELOPMENT UNTIL FINAL STABILIZATION IS ACHIEVED. ALL EROSION AND CONTROL STRUCTURES MUST BE INSPECTED AT LEAST ONCE EVERY FOUR CALENDAR DAYS AND AFTER EVERY STORM EVENT OF 0.25 INCHES OR GREATER. ANY NECESSARY REPAIRS OR CLEANUP TO MAINTAIN THE EFFECTIVENESS OF THE EROSION CONTROL DEVICES SHALL BE MADE IMMEDIATELY. INITIAL EFFORTS SHOULD BE TO LIMIT THE AMOUNT OF AREA DISTURBED BY MAINTAINING AS MUCH OF THE ORIGINAL VEGETATIVE COVER AS POSSIBLE. SEDIMENT CONTROL MEASURES SHALL REMAIN ACTIVE UNTIL ALL DISTURBED AREAS HAVE BEEN SATISFACTORY STABILIZED. ALL STATE AND LOCAL REQUIREMENTS SHALL BE MET CONCERNING FENCING AND SIGNS WARNING THE PUBLIC OF THE HAZARDS OF SOFT, SATURATED SEDIMENT AND FLOOD WATERS. ALL DISTURBED AREAS SHALL BE STABILIZED WITHIN 4 DAYS OF REACHING FINAL GRADE, AND IF A DISTURBED PART OF THE PROJECT WILL NOT BE WORKED FOR 14 DAYS OR MORE, THAT AREA SHALL BE STABILIZED WITHIN 4 DAYS AFTER CONSTRÚCTION ACTIVITIES HAVE TEMPORARILY CEASED.

THE CONTRACTOR SHALL PROVIDE A DETAILED PLAN AND SCHEDULE FOR ALL ELEMENTS OF THE EROSION CONTROL PLAN. THE PLAN SHOULD BE POSTED AT THE JOB SITE AND STRICTLY FOLLOWED. THE MINIMUM STANDARD OF PERFORMANCE WILL BE A PLAN THAT REQUIRES THAT AN INSPECTION OF ALL PLAN ELEMENTS BE CONDUCTED AT LEAST ONCE EVERY FOUR DAYS, UPON REPORT OF AN OBSERVED FAILURE, OR WITHIN 24 HOURS AFTER ANY STORM EVENT GREATER THAN 0.25 INCHES OF RAIN PER 24 HOUR PERIOD. SPECIAL ATTENTION SHOULD BE GIVEN TO AREAS OF EQUIPMENT FUELING AND CLEANING. MITIGATION MEASURES SUCH AS WATER DIVERSION AND CONTAINMENT, ETC. SHOULD BE EMPLOYED TO MINIMIZE THE POTENTIAL FOR CONTAMINANTS TO REACH SURFACE WATERS.

A. VEGETATIVE CONTROL

TEMPORARY VEGETATIVE CONTROL MEASURES SHALL BE IN ACCORDANCE WITH THE WEST VIRGINIA EROSION AND SEDIMENT CONTROL BMP MANUAL PERMANENT VEGETATIVE CONTROL SHALL BE PROVIDED AS STATED IN PROJECT SPECIFICATIONS, SECTION 329200, TURF AND GRASSES.

B. STRUCTURAL CONTROL

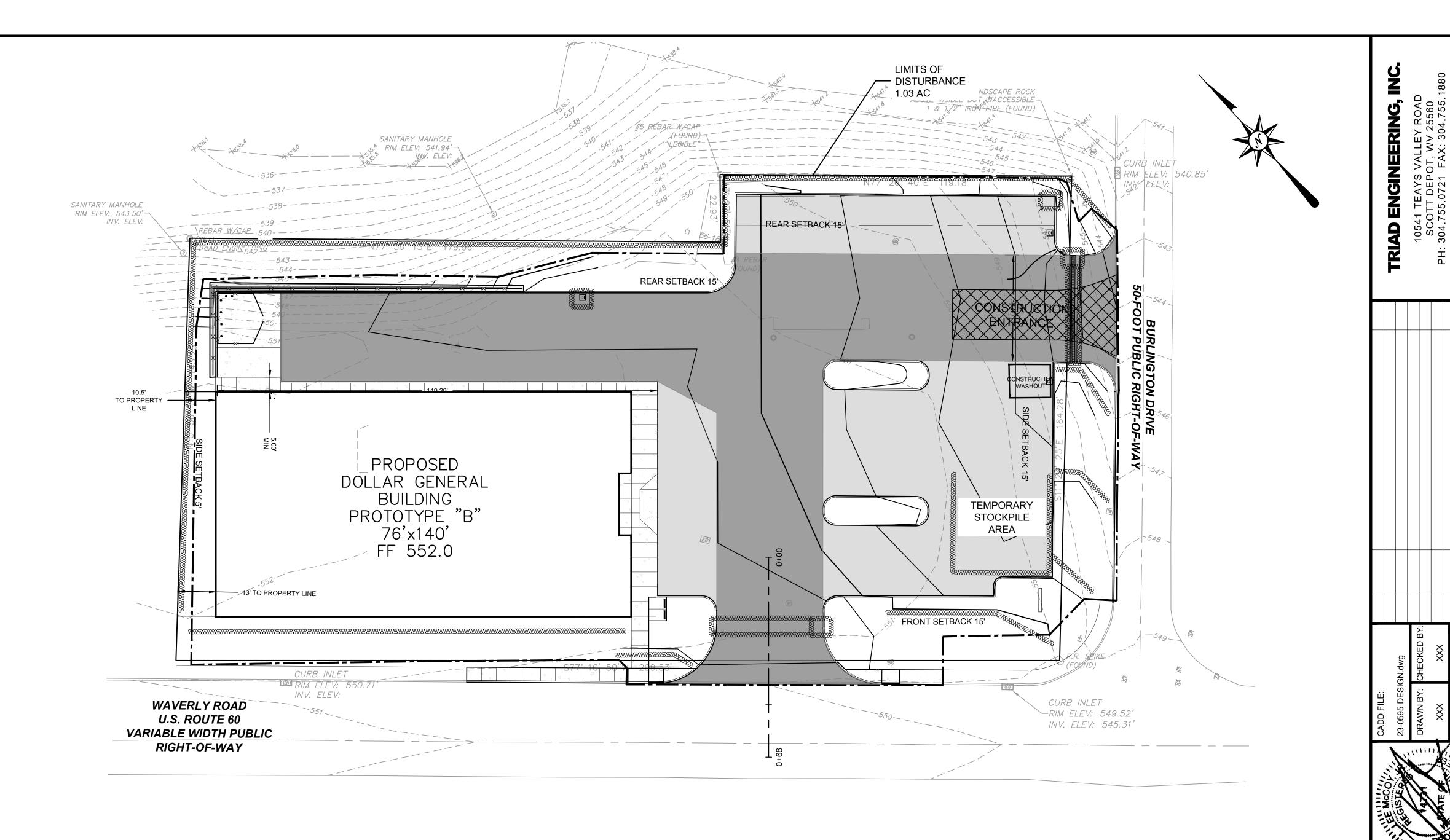
TEMPORARY STRUCTURAL CONTROL IS PROVIDED BY INSTALLING COMPOST FILTER SOCK AS CUT/FILL PROGRESSES, THE CONTRACTOR SHALL MAINTAIN POSITIVE SLOPE TO SEDIMENT TRAPPING DEVICES. ALL SEDIMENT LADEN WATER SHALL PASS THROUGH AN APPROPRIATE SEDIMENT TRAPPING DEVICE.

TEMPORARY STONE CONSTRUCTION ENTRANCE- THE AREA OF THE ENTRANCE MUST BE EXCAVATED TO A MINIMUM OF 3 INCHES AND MUST BE CLEARED OF ALL VEGETATION, ROOTS, AND OTHER OBJECTIONABLE MATERIAL. THE FILTER FABRIC UNDERLINER WILL THEN BE PLACED THE FULL WIDTH AND LENGTH OF THE ENTRANCE. FOLLOWING THE INSTALLATION OF THE FILTER CLOTH, THE STONE SHALL BE PLACED TO THE SPECIFIED DIMENSIONS. THE FILTER CLOTH UTILIZED SHALL BE WOVEN OR NONWOVEN FABRIC CONSISTING OF CONTINUOUS CHAIN POLYMERIC FILAMENTS OR YARNS OF POLYESTER. THE FABRIC SHALL BE INERT TO COMMONLY ENCOUNTERED CHEMICALS AND HYDROCARBONS, BE MILDEW AND ROT RESISTANT, AND CONFORM TO THE PHYSICAL PROPERTIES NOTED IN THE CONSTRUCTION SPECIFICATIONS.

COMPOST FILTER SOCK ARE TO BE PERPENDICULAR TO THE FLOW DIRECTION AND PARALLEL TO THE SLOPE CONTOUR. NARROW TRENCHES SHOULD BE DUG ACROSS THE SLOPE TO A DEPTH OF 3 TO 5 INCHES. INSTALL THE WATTLES SNUGLY INTO THE TRENCHES AND ABUT TIGHTLY END-TO-END. DO NOT OVERLAP THE ENDS. INSTALL STAKES AT EACH END OF THE WATTLE, AND AT 4-FOOT CENTERS ALONG THE ENTIRE LENGTH OF THE WATTLE. AT A MINIMUM, WOODEN STAKES SHOULD BE APPROXIMATELY \$\frac{3}{4}\text{X}^3\text{\frac{2}{4}}\text{24} INCHES. WILLOW CUTTINGS OR 3/8-INCH REBAR CAN BE USED FOR STAKES. STAKES SHOULD BE DRIVEN THROUGH THE MIDDLE OF THE WATTLE, LEAVING 2 TO 3 INCHES OF THE STAKE PROTRUDING ABOVE THE WATTLE.

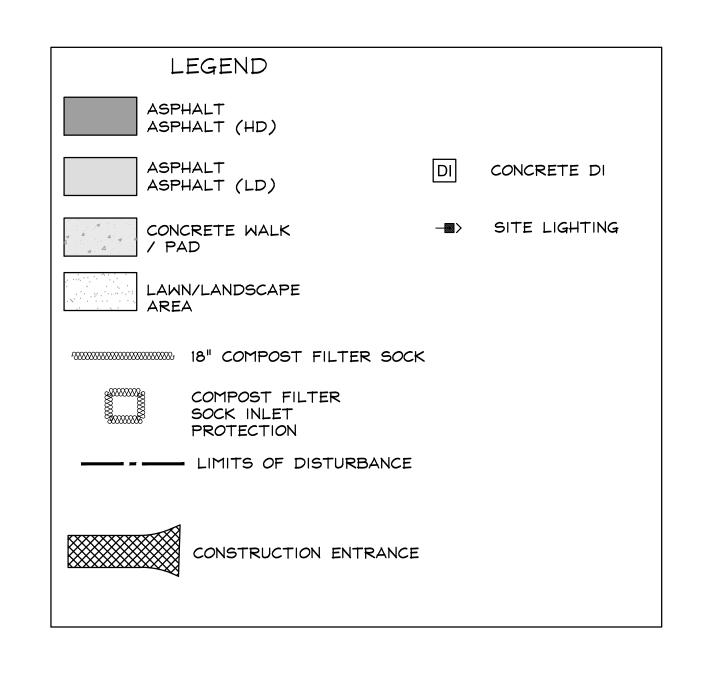
SEQUENCE OF CONSTRUCTION

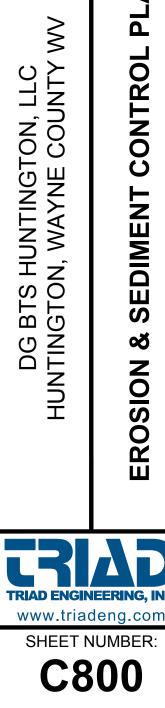
- INSTALL TEMPORARY SEDIMENT CONTROL PERIMETER COMPOST FILTER SOCK.
- INSTALL TEMPORARY CONSTRUCTION ENTRANCE.
- GRADE PROPOSED STOCKPILE AREA AND CONCRETE WASHOUT PAD AREA TO LESS THAN 5% GRADE.
- ESTABLISH STOCKPILE AREA WITH EROSION CONTROL.
- CLEAR AND GRUB SITE. SEGREGATE THE TOP SOIL WHERE APPLICABLE.
- ROUGH GRADE SITE EXCEPT FOR STOCK PILE AND CONCRETE WASHOUT AREAS.
- EXCAVATE FOR UTILITIES, STORM WATER SYSTEM AND BUILDING FOOTERS.
- INSTALL PERMANENT STORM WATER SYSTEM WITH INLET PROTECTION.
- INSTALL CONCRETE WASHOUT PAD.
- ASPHALTING AND SIDEWALK CONSTRUCTION.
- BACKFILL NECESSARY LOCATIONS WITH SUBSOIL MATERIAL REMOVED DURING EXCAVATION.
- FINE GRADE SITE (EXCEPT FOR STOCK PILE AND CONCRETE WASHOUT AREAS), REPLACING SEGREGATED TOPSOIL.
- REMOVE STOCK PILE AND CONCRETE WASHOUT AREAS. ROUGH AND FINE GRADE THESE AREAS.
- INSTALL ASPHALT.
- LANDSCAPE, SEED AND MULCH.
- REMOVE EROSION CONTROL MEASURES AFTER STABILIZATION HAS BEEN ESTABLISHED.

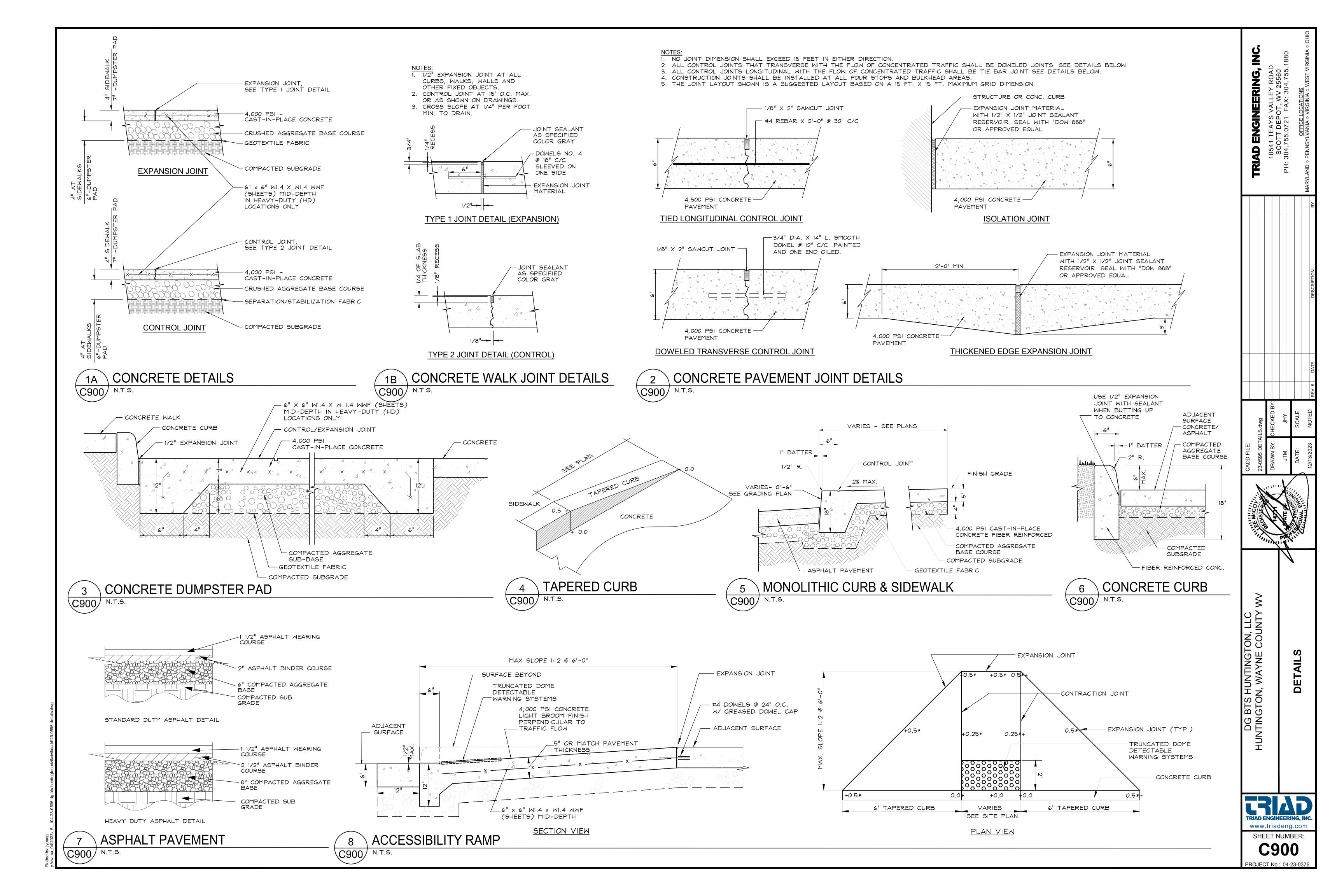


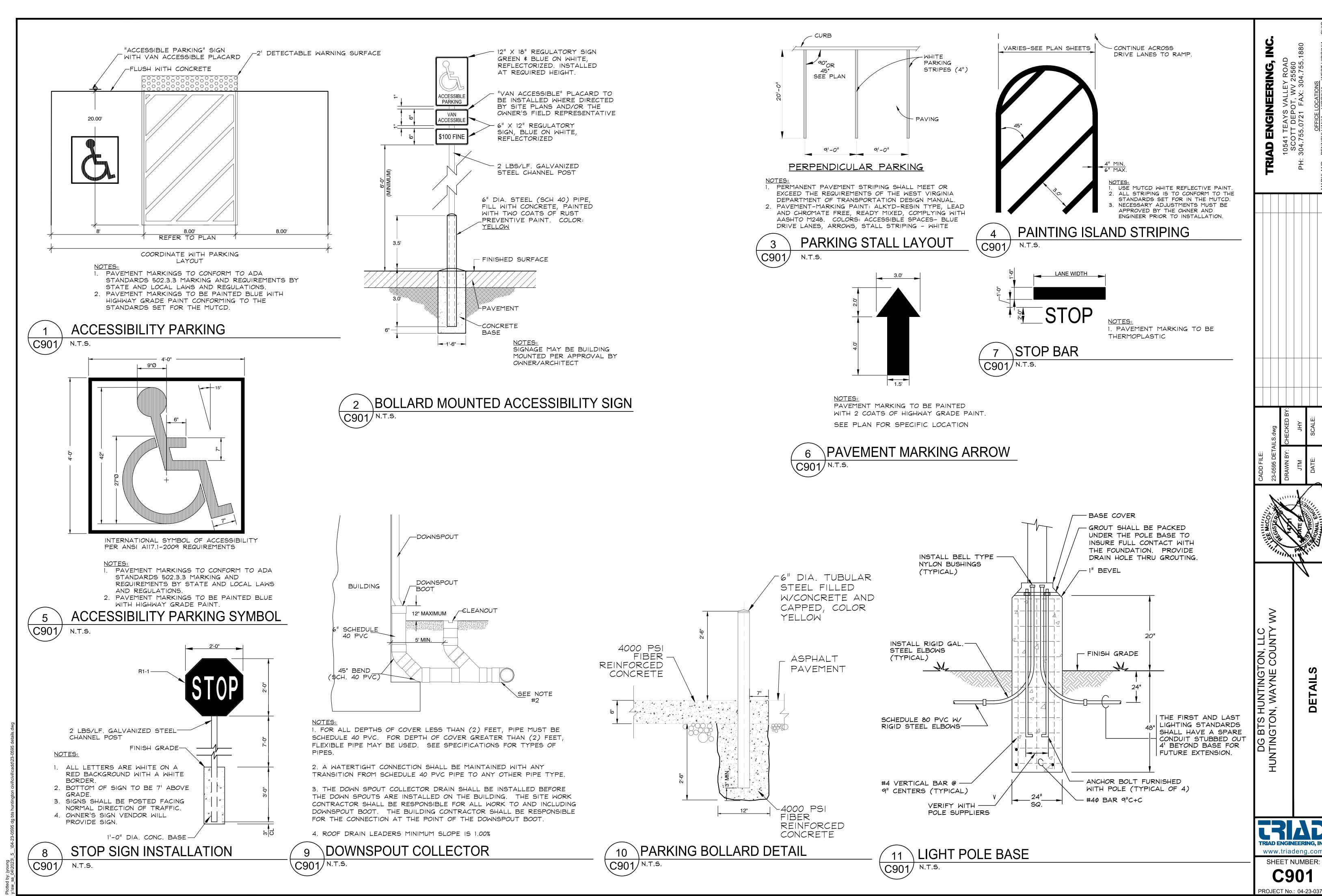
EROSION CONTROL PLAN

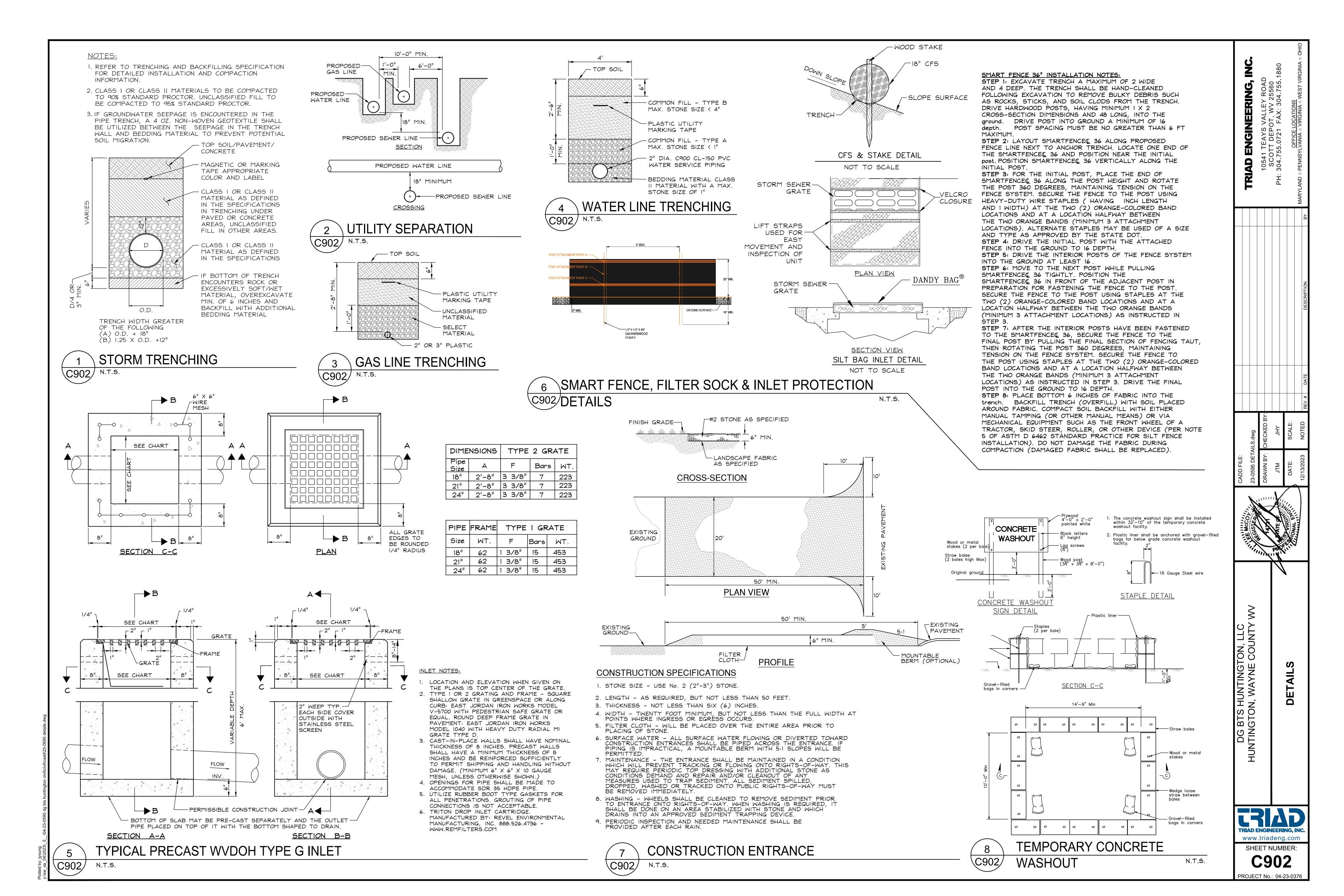


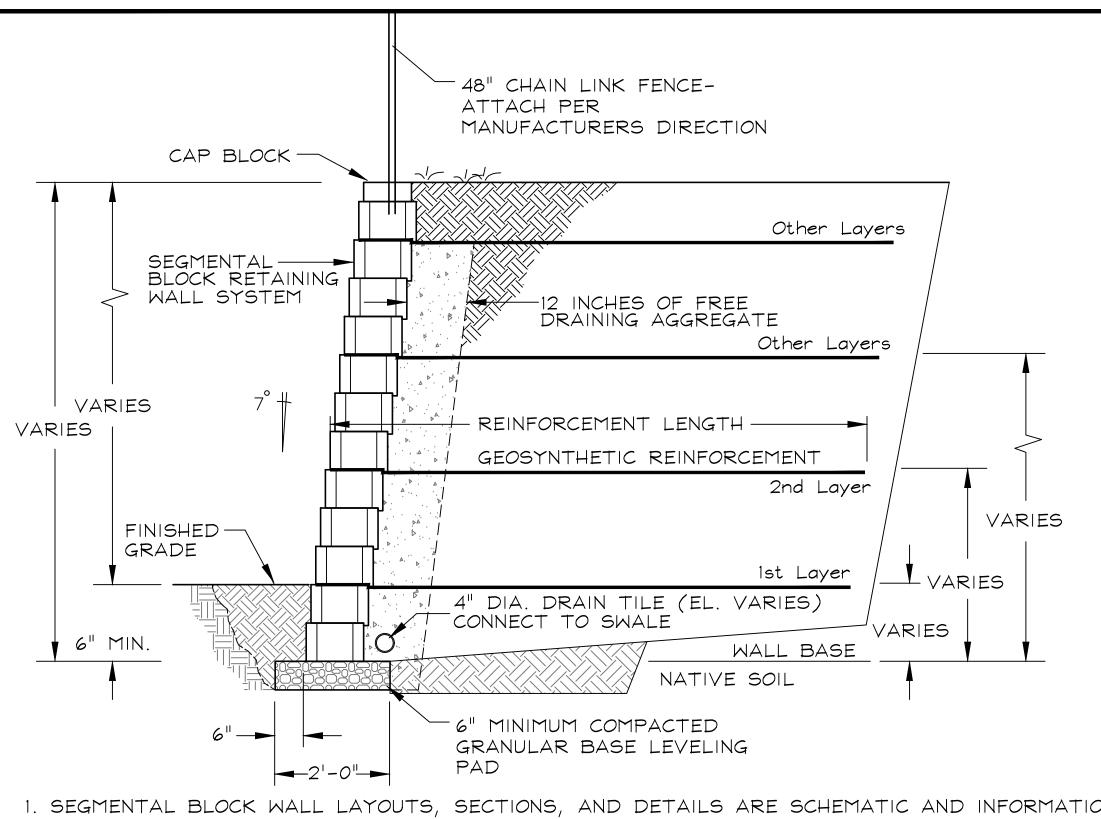












1. SEGMENTAL BLOCK WALL LAYOUTS, SECTIONS, AND DETAILS ARE SCHEMATIC AND INFORMATIONAL ONLY. THE CONTRACTOR SHALL SELECT AND SUBMIT FOR APPROVAL A RETAINING WALL BLOCK SYSTEM FROM RED ROCK. ENGINEERED DESIGN OF THIS WALL SHALL BE PROVIDED BY MANUFACTURE OF THE WALL AND STAMPED BY A WEST VIRGINIA ENGINEER.

- CONTROL JOINT

- FINISH GRADE

3'-2" 2.375" OD SCHEDULE 40 GALVANIZED STEEL PIPE COLOR BY OWNER SURFACE MOUNT WITH (4) ANCHOR BOLTS PER FOOT OR EMBED INTO CONCRETE BASE MANUFACTURED BY:

THE PARK CATALOG-

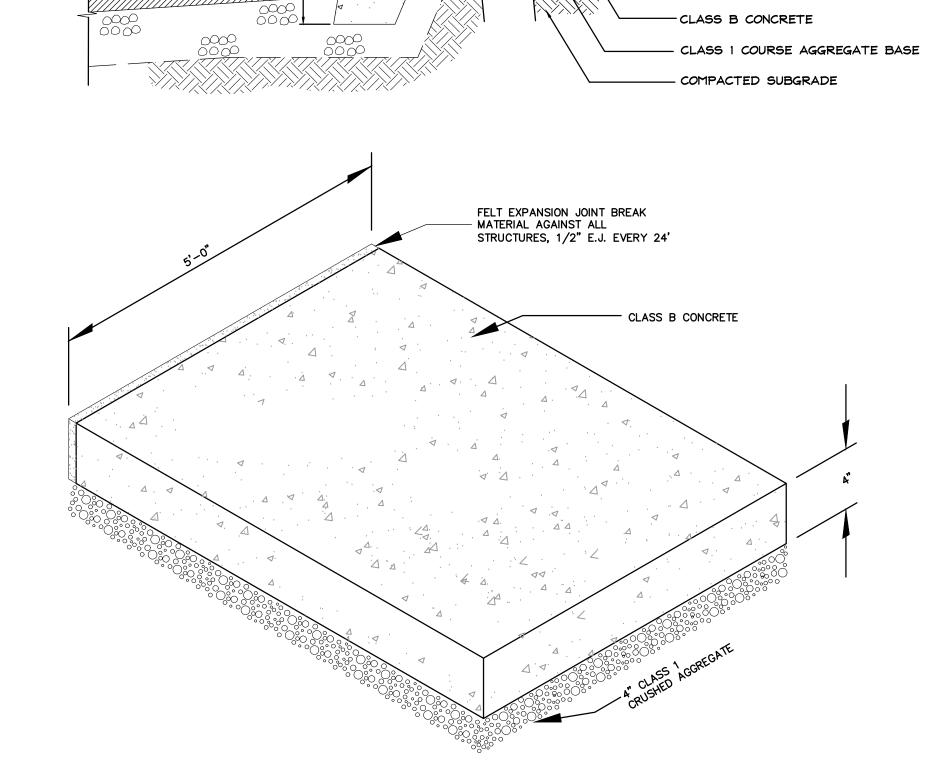
866-293-8528

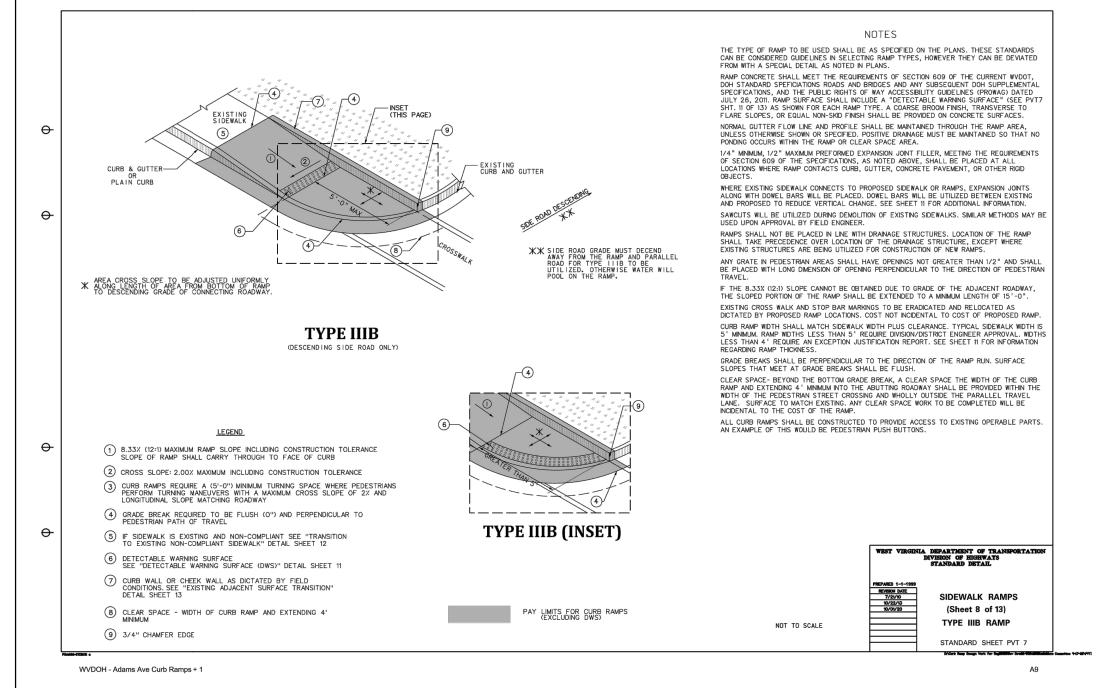
2 BIKE RACK C903 N.T.S.

1 SEGMENTED BLOCK RETAINING WALL C903 N.T.S.

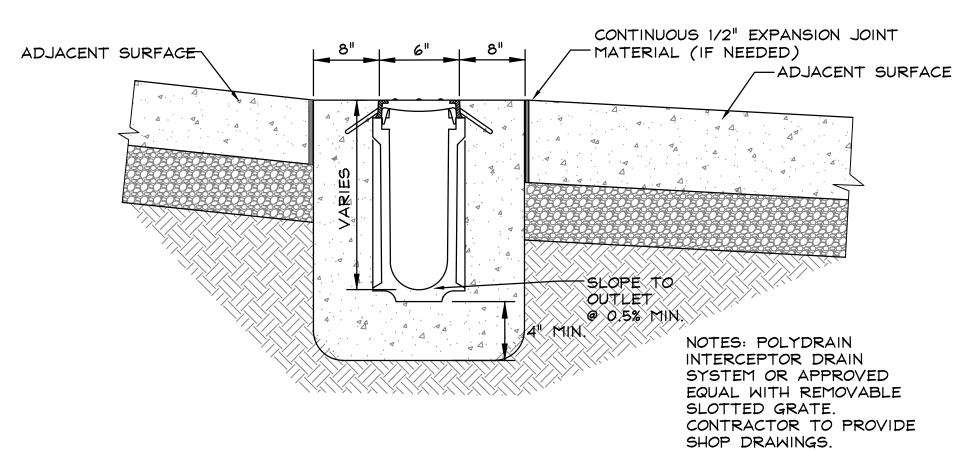
1" BATTER

ASPHALT PAVEMENT-





NOTES:
CONCRETE FOR CONSTRUCTING THE INLET
SHALL HAVE MIX PROPORTIONS IN
ACCORDANCE WITH SECTION 605 OF THE
SPECIFICATIONS; HOWEVER, TESTING WILL
NOT BE REQUIRED. ALL WORK, INCLUDING
PIPE EXTENSIONS IF CALLED FOR ON THE
PLANS, IS TO BE INCLUDED IN THE COST OF
INLET.



POLYDRAIN W/SLOTTED GRATE SYSTEM C903 N.T.S.

TRIAD ENGINEERING, INC.

www.triadeng.com

SHEET NUMBER:

C903

PROJECT No.: 04-23-0376

TRIAD ENGINEERING, INC

sa_04\2023_5_\04-23-06

DOH CONCRETE WALK CURB AND RAMP DETAILS



- B DIMENSIONS ARE TO ROUGH FACE OF CONCRETE, FRAMING, OR CENTER LINE OF STRUCTURE UNLESS OTHERWISE INDICATED.
- © REFER TO CIVIL DRAWINGS FOR ADDITIONAL REQUIREMENTS.

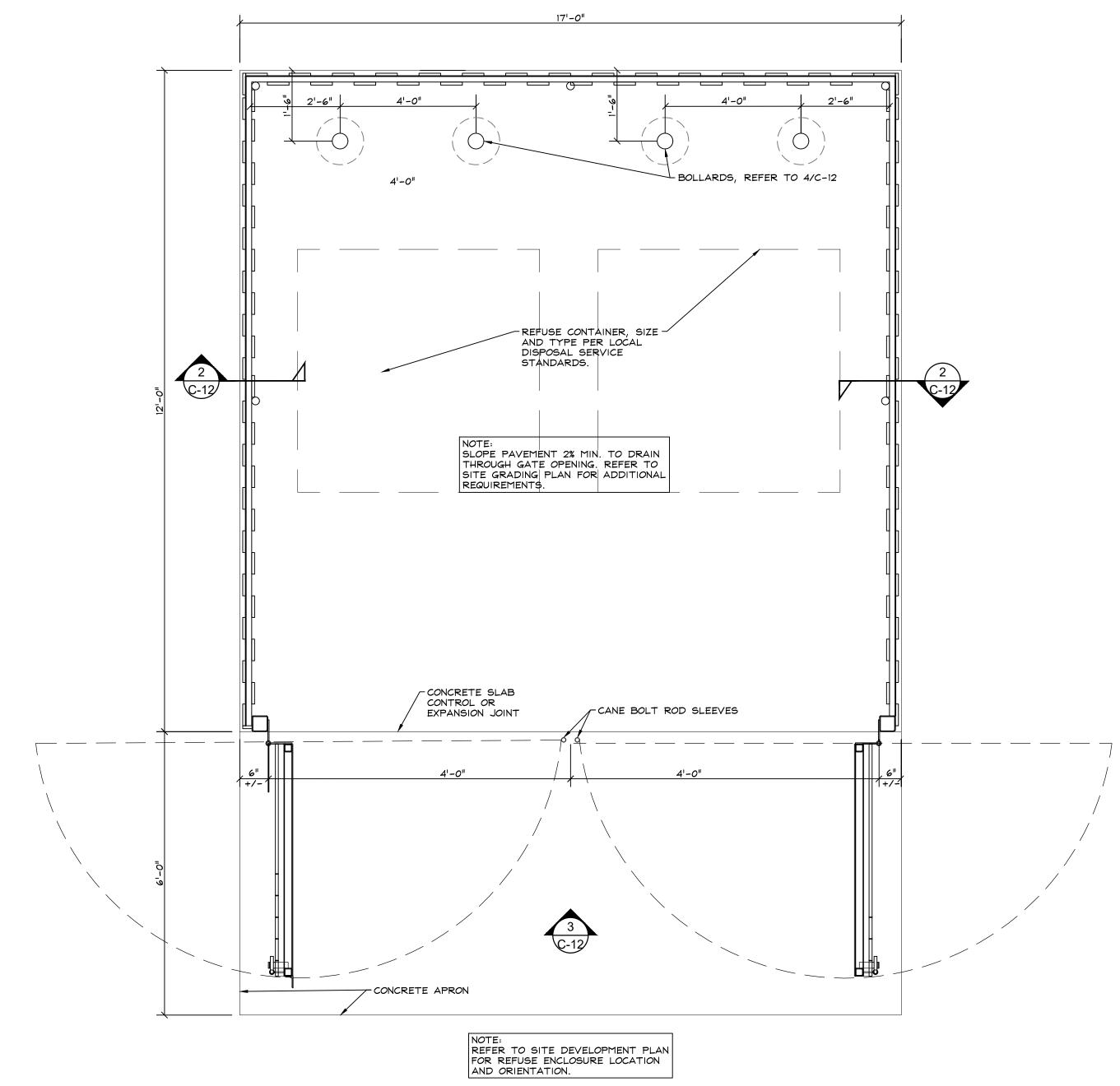
 © REFER TO ARCHITECTURAL EXTERIOR FINISH SCHEDULE FOR MATERIAL TYPES, COLORS, AND FINISHES. UNLESS OTHERWISE

INDICATED PROVIDE FINISHES AS FOLLOWS:

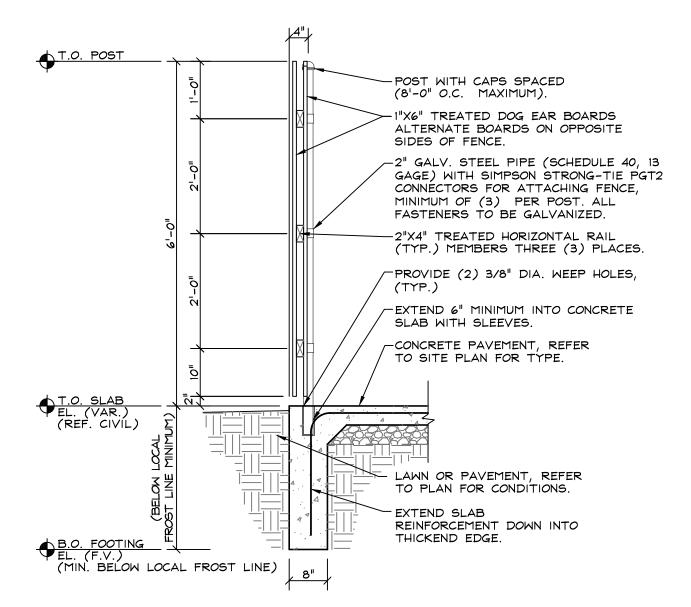
COLOR TO MATCH BUILDING.

ALL METAL PARTS TO BE PRIMED AND PAINTED (2) COATS SHERWIN WILLIAMS SW6258 "TRICON BLACK".

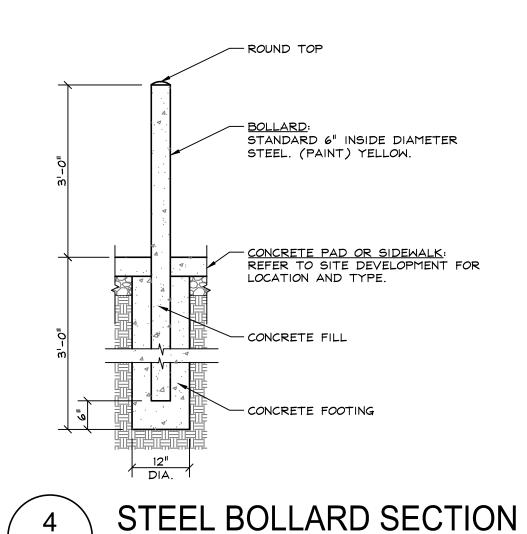
EXPOSED WOOD TO BE PRIMED AND PAINTED (2) COATS OF



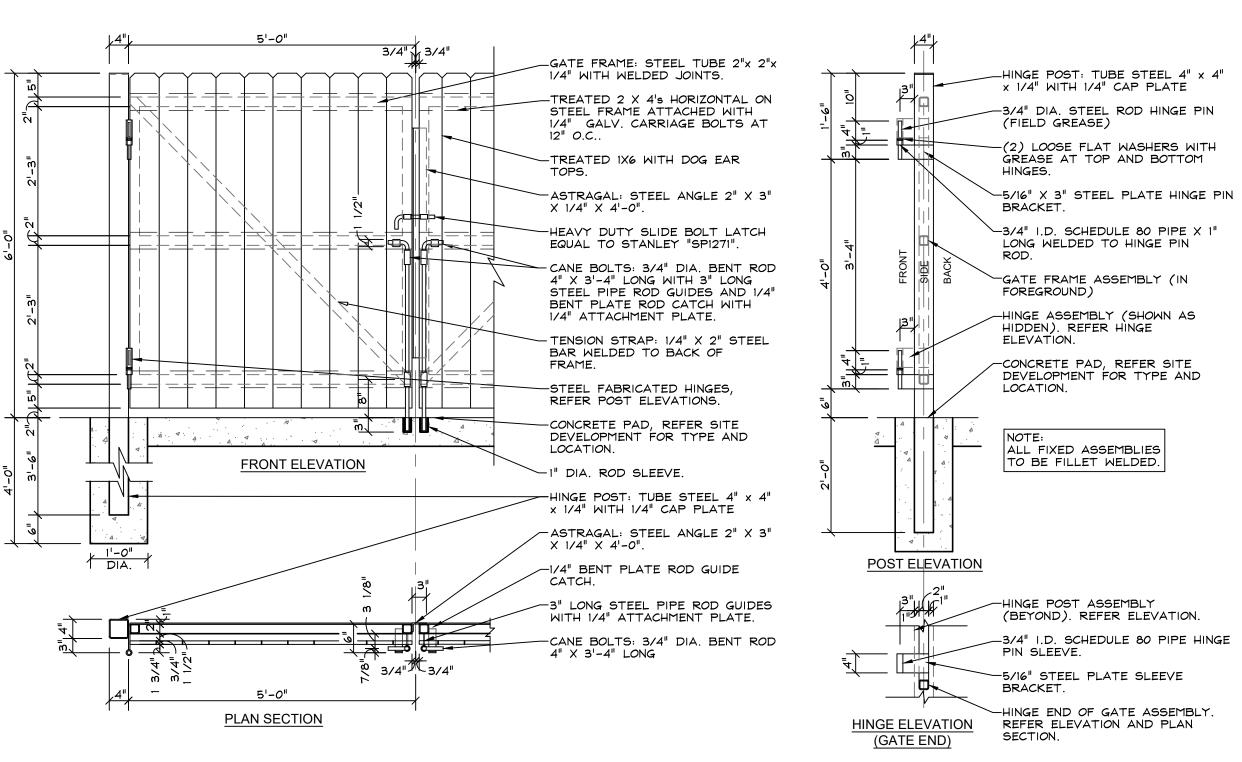
WOOD SCREEN FENCE REFUSE ENCLOSURE PLAN
304 N.T.S.







N.T.S.





N.T.S.

SCREEN FENCE GATE DETAILS

DG BTS HUNTINGT HUNTINGTON, WAYNE www.triadeng.com SHEET NUMBER: C904

IRIAD ENGINEERING,

DOLLAR GENERAL US ROUTE 60 HUNTINGTON, WV

DRAWING INDEX

TITLE	SHEET NO.
COVED SHEET	1.05.5
COVER SHEET	1 OF 5
SYSTEM CALCULATION CUEFT	2 OF 5
SYSTEM CALCULATION SHEET	3 OF 5
SYSTEM OVERLAY SHEET	4 OF 5
902HD DETAIL SHEET	5 OF 5

				PROJECT INFORMATION				
PROJECT NO:	23-1534							
CULTEC SALES REP:	RYAN THURLING 475-289-7068 RYAN.THURLING@C	ULTEC.COM						
CULTEC TECHNICAL SALES ENGINEER:	CHRIS BUCCI 484-636-7384 CHRISTOPHER.BUCG	CI@CULTEC.COM						
CULTEC PROJECT COORDINATOR:	JILL GORNEAU 203-973-7033 JILL.GORNEAU@CUL							
ENGINEER OF RECORD	TRIAD ENGINEERING	3						
	ITERATION	DATE	BY	COMMENTS	EOR SHEET REFERENCE	DATE		
	00	12/8/2023	JIG	SUBMITTAL DRAWINGS	C600 GRADING AND DRAINAGE PLAN	12/1/2023		
REVISIONS:								



CULTEC

Subsurface Stormwater Management Systems

P.O. Box 280 878 Federal Road Brookfield, CT 06804 www.cultec.com PH: 1(203) 775-4416 PH: 1(800) 4-CULTEC CT-tech@cultec.com NOTE: THESE SHOP DRAWINGS MAY CONTAIN COMPONENTS INCLUDING BUT NOT LIMITED TO MANHOLES, CATCH BASINS, STORM PIPES AND FITTINGS, MANIFOLDS, CASTINGS AND OTHER NECESSARY APPURTENANCES THAT MAY NOT BE SUPPLIED BY CULTEC, INC. IT IS THE RESPONSIBILITY OF THE CONTRACTOR AND/OR SUPPLIER TO CONFIRM WITH CULTEC THE MATERIALS PROVIDED.

BEFORE YOU BEGIN - REQUIRED MATERIALS AND EQUIPMENT

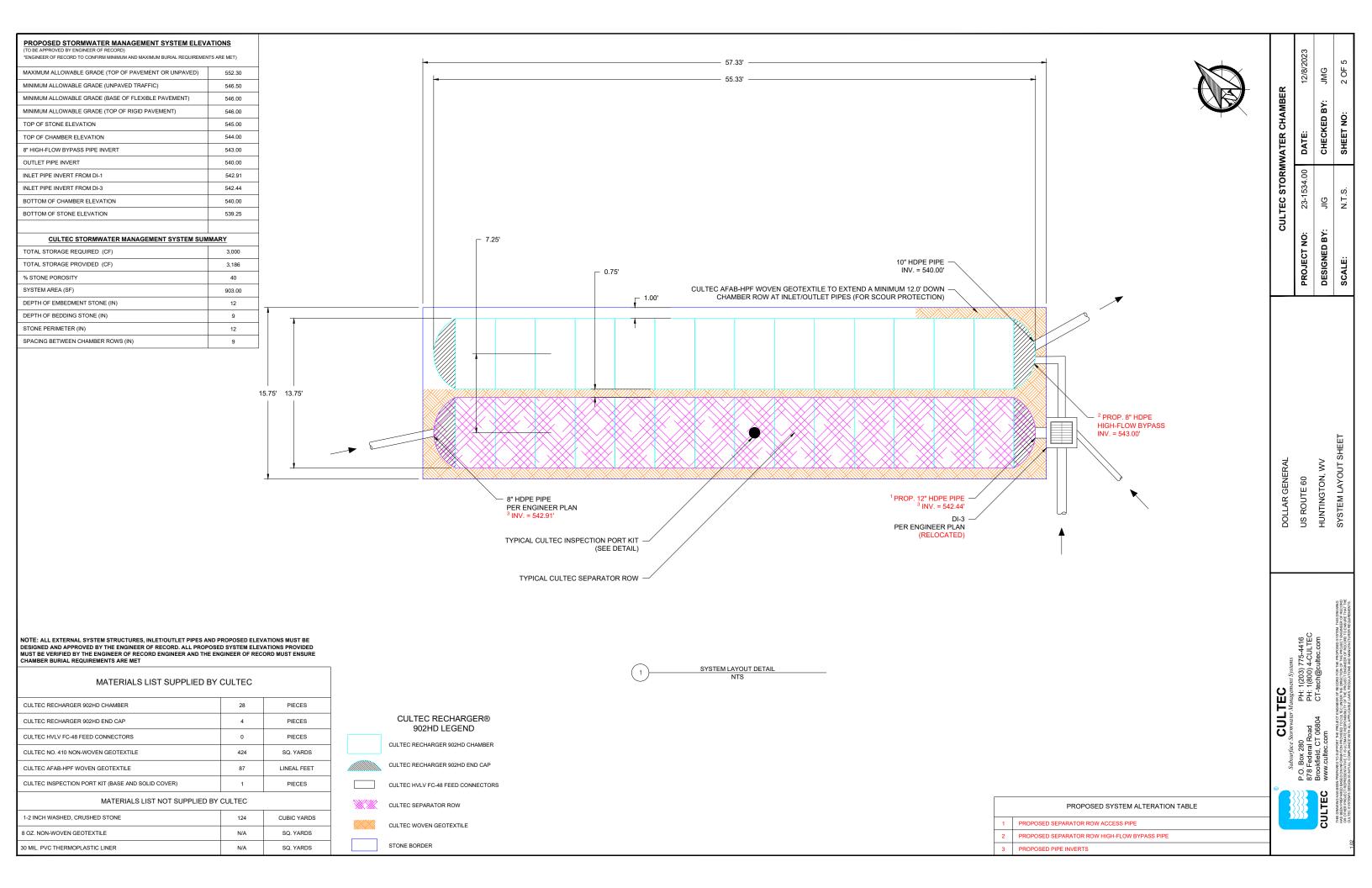
- PROPER GEOTECHNICAL SOIL EVALUATION BY A QUALIFIED ENGINEER OR SOIL SCIENTIST TO DETERMINE SUITABILITY OF STRUCTURAL INSTALLATION
- 2. OSHA COMPLIANCE
- 3. CULTEC WARNING TAPE, OR EQUIVALENT
- 1. ASSURANCES FROM LOCAL UTILITIES THAT NO UNDERGROUND GAS, ELECTRICAL OR OTHER POTENTIALLY DANGEROUS PIPELINES OR CONDUITS ARE ALREADY BURIED AT THE SITE
- 5. ACCEPTABLE 1- 2 INCH (25 51 mm) WASHED, CRUSHED STONE AS DETAILED IN CULTEC'S INSTALLATION INSTRUCTIONS. CLEANLINESS OF STONE TO BE VERIFIED BY ENGINEER.
- 6. ACCEPTABLE FILL MATERIAL AS SHOWN IN CULTEC'S INSTALLATION INSTRUCTIONS.
- 7. ALL CULTEC CHAMBERS AND ACCESSORIES AS SPECIFIED IN THE ENGINEER'S PLANS INCLUDING CULTEC NO. 410 NON-WOVEN GEOTEXTILE, CULTEC STORMFILTER AND CULTEC NO. 4800 WOVEN GEOTEXTILE, WHERE APPLICABLE.
- 8. RECIPROCATING SAW OR ROUTER
- 9. STONE BUCKET
- 10. STONE CONVEYOR AND/OR TRACKED EXCAVATOR
- 11. TRANSIT OR LASER LEVEL MEASURING DEVICE
- 12. COMPACTION EQUIPMENT WITH MAXIMUM GROSS VEHICLE WEIGHT OF 12,000 LBS (5,440 KGS). VIBRATORY ROLLERS MAY ONLY BE USED ON THE STONE BASE PRIOR TO THE INSTALLATION OF CHAMBERS.
- 13. CHECK CULTEC CHAMBERS FOR DAMAGE PRIOR TO INSTALLATION. DO NOT USE DAMAGED CULTEC CHAMBERS, CONTACT YOUR SUPPLIER IMMEDIATELY TO REPORT DAMAGE OR PACKING-LIST DISCREPANCIES.

REQUIREMENTS FOR CULTEC CHAMBER SYSTEM INSTALLATIONS

- INSTALLING CONTRACTORS ARE EXPECTED TO COMPREHEND AND USE THE MOST CURRENT INSTALLATION INSTRUCTIONS
 PRIOR TO BEGINNING A SYSTEM INSTALLATION. IF THERE IS ANY QUESTION AS TO WHETHER YOU POSSESS THE MOST
 CURRENT INSTRUCTIONS, CONTACT CULTEC AT (203) 775-4416 OR VISIT WWW.CULTEC.COM.
- 2. CONTACT CULTEC AT LEAST THIRTY DAYS PRIOR TO SYSTEM INSTALLATION TO ARRANGE FOR A PRE-CONSTRUCTION MEETING.
- 3. ALL CULTEC SYSTEM DESIGNS MUST BE CERTIFIED BY A REGISTERED PROFESSIONAL ENGINEER.
- 4. USE CULTEC INSTALLATION INSTRUCTIONS AS A GUIDELINE ONLY FOR MINIMUM/MAXIMUM REQUIREMENTS. ACTUAL DESIGN MAY VARY. REFER TO APPROVED CONSTRUCTION DRAWINGS FOR JOB-SPECIFIC DETAILS. BE SURE TO FOLLOW THE ENGINEER'S DRAWINGS AS YOUR PRIMARY GUIDE.
- 5. THE FOUNDATION STONE SHALL BE LEVEL AND COMPACTED PRIOR TO CHAMBER INSTALLATION.
- $6. \quad \text{OVERLAPPING RIB CONNECTIONS OF CHAMBERS SHALL BE FULLY SHOULDERED PRIOR TO STONE PLACEMENT. } \\$
- 7. CENTER-TO-CENTER SPACING SHALL BE CHECKED AND MAINTAINED THROUGHOUT INSTALLATION PROCESS.
- 8. ANY DISCREPANCIES WITH THE SYSTEM SUB-GRADE SOIL'S BEARING CAPACITY MUST BE REPORTED TO THE DESIGN ENGINEER.
- 9. NON-WOVEN GEOTEXTILE MUST BE USED AS SPECIFIED IN THE ENGINEER'S DRAWINGS.
- 10. CULTEC REQUIRES THE CONTRACTOR TO REFER TO CULTEC'S INSTALLATION INSTRUCTIONS CONCERNING VEHICULAR TRAFFIC. RESPONSIBILITY FOR PREVENTING VEHICLES THAT EXCEED CULTEC'S REQUIREMENTS FROM TRAVELING ACROSS OR PARKING OVER THE CHAMBER SYSTEM LIES SOLELY WITH THE CONTRACTOR THROUGHOUT THE ENTIRE SITE CONSTRUCTION PROCESS. THE PLACEMENT OF WARNING TAPE, TEMPORARY FENCING, AND/OR APPROPRIATELY LOCATED SIGNS IS HIGHLY RECOMMENDED. IMPRINTED WARNING TAPE IS AVAILABLE FROM CULTEC. FOR ACCEPTABLE VEHICLE LOAD INFORMATION. REFER TO CULTEC INSTALLATION INSTRUCTIONS.
- 11. TRAFFIC OF INSTALLATION EQUIPMENT OR OTHER VEHICULAR TRAFFIC OVER TOP OF THE CULTEC STORMWATER SYSTEM IS STRICTLY RESTRICTED AND PROHIBITED UNTIL SATISFACTORY COVER AND COMPACTION IS ACHIEVED ACCORDING TO CULTEC'S MANUFACTURER INSTALLATION INSTRUCTIONS.
- 12. EROSION AND SEDIMENT-CONTROL MEASURES MUST MEET LOCAL CODES AND THE DESIGN ENGINEER'S SPECIFICATIONS THROUGHOUT THE ENTIRE SITE CONSTRUCTION PROCESS.
- 13. CULTEC SYSTEMS MUST BE DESIGNED AND INSTALLED IN ACCORDANCE WITH CULTEC'S MINIMUM REQUIREMENTS. FAILURE TO DO SO WILL VOID THE LIMITED WARRANTY.
- 14. CONTACT CULTEC, INC. AT 203-775-4416 WITH ANY QUESTIONS OR FURTHER CLARIFICATION OF REQUIREMENTS.
- 15. PLACEMENT OF EMBEDMENT STONE MUST BE IN ACCORDANCE WITH CULTEC'S INSTALLATION INSTRUCTIONS. STONE COLUMN HEIGHT DEFERENTIAL MUST NEVER EXCEED 12" (305 mm) BETWEEN CHAMBER ROWS, ADJACENT CHAMBERS OR STONE PERIMETER. STONE MUST BE PLACED OVER THE CROWN OF THE CHAMBERS TO ANCHOR THE CHAMBERS IN PLACE AND MAINTAIN ROW SPACING.
- 16. EMBEDMENT STONE MUST ONLY BE PLACED BY EXCAVATOR OR TELESCOPING CONVEYOR BOOM. PLACEMENT OF EMBEDMENT STONE WITH BULLDOZER IS NOT AN ACCEPTABLE METHOD OF INSTALLATION AND MAY CAUSE DAMAGE TO THE CHAMBERS. ANY CHAMBERS DAMAGED USING AN UNACCEPTABLE METHOD OF BACKFILL ARE NOT COVERED UNDER THE CULTEC LIMITED WARRANTY.

THIS DRAWING HAS BEEN PREPARED TO SUPPORT THE PROJECT ENGINEER OF RECORD FOR THE PROPOSED SYSTEM. THIS DRAWING HAS BEEN PREPARED BASED ON INFORMATION PROVIDED TO CULTEC UNDER THE DIRECTION OF THE PROJECT ENGINEER OF RECORD OR OTHER PROJECT REPRESENTATIVE. IT IS ULTIMATE RESPONSIBILITY OF THE PROJECT ENGINEER OF RECORD TO ENSURE THAT THE CULTEC SYSTEM'S DESIGN IS IN FULL COMPLIANCE WITH ALL APPLICABLE LAWS, REGULATIONS AND MANUFACTURER REQUIREMENTS.

1.02





CULTEC Recharger 902HD Stormwater System Calculations

Consulting Engineer:	
Triad Scott Depot	
Calculations Performed By:	
Johnny Gonzalez	
CULTEC	
878 Federal Rd.	
Brookfield, CT 06804	

Dollar General	
Huntington, WV	
Date:	

	Sysi	tem Information			
Rectangular Bed Inputs No. of Ro	ows 2	No. of Chambe	rs/Rov	w 14	_
Given:					
Storage required	3,000 CF	m ³			
Number of Inlet/Outlet Pipes (Do Not Include Separator Row	s) 2				
Stone Base	9 inches	229 mm		Discount stone base from total storage provided (If Applicable)	
Stone Above	12 inches	305 mm		Discount stone above from total storage provided (If Applicable)	
Spacing Between Rows	9 inches	229 mm			
12" PVC Universal Inline Drain Body Only - Kit	1 units				
12" Ductile Iron Square Solid Drain Base Cover	1 units				
				Maximum Finished Grade Elevation:	552.30
Stone Porosity	40 %			Minimum Finished Grade Elevation (Unpaved):	546.50
Stone Border Width	12 inches	305 mm		Minimum Finished Grade Elevation (Base of Flexible Pavement):	546.00
Other Parameters:				Minimum Finished Grade Elevation (Top of Rigid Pavement):	546.00
Length of Separator Row	55 feet	16.865 m		Top of Stone Elevation:	545.00
Type of Lining	None			Top of Chamber Elevation:	544.00
Sand Filter Depth (If Applicable)	feet	0.000 m		Bottom of Chamber Elevation:	540.00
☐ Sloped Sides (1:1) (If Applicable)				Bottom of Stone Elevation:	539.25

Assumptions									
Model Name		Chamber Height	Design Unit Height	Chamber Width	Chamber Spacing	Design Unit Width	Chamber Volume per Linear Foot	Design Unit Volume	Installed Chamber Length
		inches	feet	inches	inches	feet	cu. ft/ft	cu. ft/ft	feet
		mm	m	mm	mm	m	cu. m/m	cu. m/m	
Recharger® 902HD Chamber	English	48	5.750	78	9	7.25	17.31	27.061	3.667
Recharger & 902110 Chamber	Metric	1219	1.753	1981	229	2.21	1.608	2.514	1.118
Recharger® 902HD End Cap	English	48.5	5.750	78	9	7.25	9.010	22.081	2.000
Recharger & 902HD End Cap	Metric	1232	1.753	1981	229	2.21	0.837	2.051	0.610
HVLV™ FC-48 Feed Connectors	English	12	n/a	16	n/a	n/a	0.913	n/a	0.750
HVLV FC-48 Feed Connectors	Makaia	205	-/-	400	- /-	-1-	0.005	_ /_	0.220

Storage Provided within (arger 902HD Stom ernal Manifold Syst			FC-48 Feed Connector
Number of Recharger 902HD chambers b	y design		=	28 pcs	
28	pcs x	3.667	=	102.67 feet	31.29 m
Number of Recharger 902HD end caps			=	4 pcs	
4	pcs x	2.000	-	8.00 feet	2.44 m
Number of HVLV FC-48 Feed Connectors			=	0 pcs	
0	pcs x	0.750	=	0.00 feet	0.00 m
Total footage of Recharger 902HD chaml	pers		-	102.67 feet	31.29 m
Total footage of Recharger 902HD end o	aps		=	8.00 feet	
Total footage of HVLV FC-48 Feed Conne	ectors		=	0.00 feet	0.00 m
Storage provided within Recharger 902H	D chambers		-	1777.16 CF	50.33 m ³
Storage provided within Recharger 902H	D end caps			72.08 CF	2.04 m ³
Storage provided within HVLV FC-48 Fee	d Connectors		=	0.00 CF	0.00 m ³
Total Storage within Recharger 902	HD chambers an	d feed connectors	=	1849.24 CF	52.37 m ³

Storage Provided within Entire CULTE	C Stormwater System - including stone	
Storage Provided Within Endre Coere	15.75 feet	4.80 m
Bed length	57.33 feet	17.48 m
Bed Depth	5.75 feet	1.75 m
Total Area	903.00 sq. ft.	83.89 m ²
Volume of Effective Excavation (not including additional cover)	5192.25 CF	147.04 m ³
Perimeter of Bed	146.17 feet	44.55 m
Total Storage within chambers, end caps and feed connectors	1849.24 CF	52.37 m ³
Total Stone Required	3343.01 CF	94.67 m ³
	124 CY	
	173 tons	
Storage provided within stone	1337.20 CF	37.87 m ³
Total Storage within CULTEC Stormwater System	= 3186 CF	90 m ³

Req. storage attained.

	CULTEC MATERIALS LIS	ST				
Model	Model #	Quantity	Unit of Measure	Quantity	Unit of Measure	
Recharger 902HD Heavy Duty Chamber	902HD	28	pcs			
Recharger 902HD End Cap	902HD EC	4	pcs			
HVLV FC-48 Feed Connectors	FC-48	0	pcs			
CULTEC No. 410 Non-Woven Geotextile	NWG410	424	Sq. Yards	355	m2	
CULTEC AFAB-HPF Woven Geotextile 7.5' x 100'	75WGHPF	87	feet	27	m	
12" PVC Universal Inline Drain Body Only - Kit	2712AGSB	1	pcs			
12" Ductile Iron Square Solid Drain Base Cover	1299CGC	1				
Total Stone		124	cubic yards	95	cubic meters	

CHITEC

CULTEC Recharger 902HD Stormwater Incremental Storage

CULTEC STORMWATER CHAMBER

DATE: CHECKED BY: SHEET NO:

23-1534.00 JIG N.T.S.

PROJECT NO:
DESIGNED BY:
SCALE:

US ROUTE 60

Project Information

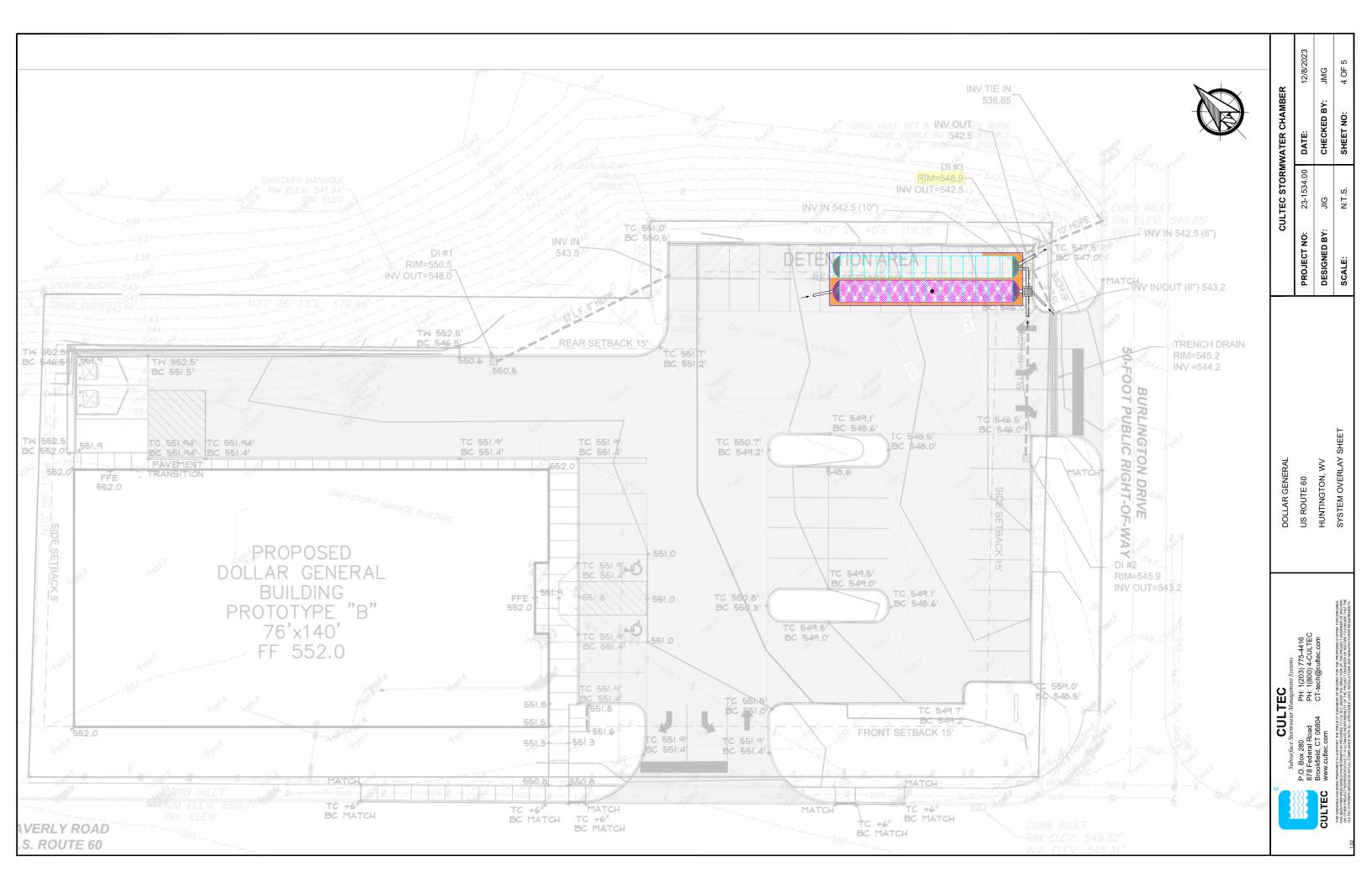
Dollar General
Huntington, WV

Project 23-1

Base of Stone Elevation-

539.25

1						ULTEC	Rechar	ger 902	zHD Inc	rement	al Stora	ige Vol	umes						
75	eight of System End Cap Volume		ad Cap Volume Chamber Volum		hamber Volume Connec		ector	or Stone Volume						Stage/Area		Elevation			
272 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0	in	mm	ft³	m³	ft³	m³			ft³	m³	ft³	m ³	ft³	m ³	ft²	m²		m	
0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	9.00	1753																	Top of Stone Elevation
0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	3.00 7.00	1702												88.53					
0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	5.00	1676																	
000 0.00 0.00 0.00 0.00 0.00 0.00 0.00	5.00	1651																	
575 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0	1.00	1626																	
549 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.	3.00 2.00	1575																	
999 0.00 0.00 0.00 0.00 0.00 0.00 0.00	1.00	1549																	
173 0.00 0.0	0.00	1524																	
Add	3.00																		
422 0.12 0.00 5.13 0.15 0.00 0.00 28.00 0.09 37.07 33.522 0.94 2794 79.11 949.02 37.07 543.92 640.67 543.92 540.65 540.00 0.00 1.00 1.00 0.00 1.00 0.00 1.00 0.00 1.00 0.00 1.00 0.00 1.00 0.00 0.00 1.00 0.00	7.00	1448																	Top of Chamber Elevation
372 0.20 0.01 12.32 0.35 0.00 0.00 25.09 0.71 37.612 1.07 2726 77.19 451.34 41.78 52.75 540.62 43.06 0.00 0.00 0.00 0.00 0.00 0.00 0.00	5.00	1422	0.12	0.00	5.13	0.15	0.00	0.00	28.00	0.79	33.252	0.94	2794	79.11	399.02	37.07	543.92	540.67	
3240 0.24 0.01	5.00	1397																	
221 0.32 0.01 20.53 0.58 0.00 0.00 21.76 0.62 42.76 0.62 40.02 20.07 1.05 46.14 1.22 2606 73.79 511.34 47.50 540.55 540.5	1.00 3.00	13/2																	
295 0.40 0.01 22.59 0.64 0.00 0.00 20.91 0.59 43.892 1.24 2506 73.79 526.70 48.93 543.65 540.55 2770 0.44 0.01 24.64 0.70 0.00 0.00 0.00 18.80 0.53 47.66 1.33 251.77 1.27 545.73 50.33 543.42 540.52 2784 0.52 0.01 27.72 0.78 0.00 0.00 18.80 0.53 47.664 1.33 251.77 1.27 545.53 53.44 543.35 540.44 2784 1.38 1.39 1.39 1.39 1.39 1.39 1.39 1.39 1.39	2.00	1321															543.58		
245 0.52 0.01 27.72 0.78 0.00 0.00 18.80 0.53 47.044 1.33 2517 71.27 564.53 52.44 543.33 540.49 1940 0.64 0.02 29.77 0.78 0.00 0.00 18.79 0.53 47.068 1.33 2470 69.33 540.68 1.37 1.27 540.44 1941 0.64 0.02 29.77 0.78 0.00 0.00 17.93 0.51 48.348 1.37 2423 68.00 580.18 53.00 543.17 540.44 1940 0.64 0.02 30.80 0.07 0.00 0.00 17.93 0.51 48.348 1.37 2423 68.00 580.18 53.00 543.17 540.44 1940 0.64 0.02 33.88 0.96 0.00 0.00 1.5.21 0.46 68.88 1.37 2425 68.04 118 0.84 0.72 33.88 0.96 0.00 0.00 15.21 0.46 59.032 1.44 2255 63.04 118 0.84 0.02 33.89 0.96 0.00 0.00 15.21 0.46 59.032 1.44 2255 63.04 1067 1.04 0.03 35.93 1.02 0.00 0.00 15.28 0.43 52.392 1.46 2255 63.05 69.15 57.25 540.34 107 1.04 0.03 35.93 1.02 0.00 0.00 15.28 0.43 52.392 1.48 2121 60.05 69.15 57.52 540.34 108 1.20 0.03 35.93 1.02 0.00 0.00 15.28 0.43 52.392 1.48 2121 60.05 69.15 57.52 540.32 109 1.20 0.03 36.96 1.05 0.00 0.00 13.434 0.42 52.996 1.50 2068 88.77 635.5 59.08 542.58 540.29 1016 1.20 0.03 35.99 1.02 0.00 0.00 13.42 0.43 69.29 1.52 0.00 69.00 13.42 0.43 69.29 1.00 69.00 13.42 0.43 69.29 1.00 69.00 13.42 0.43 69.29 1.00 69.00 13.42 0.43 69.29 1.00 69.00 13.42 0.43 69.29 1.00 69.00 13.42 0.43 69.29 1.00 69.00 13.52 0.43 59.50 1.50 2.068 88.77 635.5 59.08 542.58 540.29 1.00 69.00 13.52 0.43 59.50 1.00 69.00 13.52 0.38 54.58 61.02 59.50 1.00 69.00 13.52 0.38 54.58 61.02 59.50 1.00 69.00 13.52 0.38 54.58 61.02 59.50 1.00 69.00 13.00 1	1.00	1295	0.40	0.01			0.00	0.00	20.91	0.59	43.892	1.24	2606	73.79	526.70	48.93	543.50		
2199 0.56 0.02 27.72 0.78 0.00 0.00 18.79 0.53 47.068 1.33 2470 69.93 594.02 52.47 543.25 540.47 1940 1940 0.00 0.00 17.93 0.51 48.348 1.37 2423 68.06 580.18 53.05 543.17 540.44 143 0.75 0.00 18.89 0.00 0.00 17.51 0.50 48.988 1.39 2374 67.23 58.76 54.61 54.08 540.42 144 0.75 0.75 0.00 18.79 0.00 0.00 17.79 0.46 59.58 1.35 5.61 0.50 580.18 53.55 543.00 540.37 540.44 143 0.75 0.75 0.00 18.79 0.00 0.00 16.77 0.46 59.58 1.35 5.64 0.65 56.04 595.02 540.25 540.25 140.24 140.25 56.00 140.25 140	9.00	1270																	
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1.52	7.00	940																	
1.56	5.00	914																	
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1,84	1.00	787																	
7.11	9.00	737																	
560	3.00	711																	
1.2	7.00	686																	
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533 2,24 0.06 46.20 1.31 0.00 0.00 10.72 0.30 59.164 1.68 995 28.18 709.97 65.96 541.00 539.78 508 2.28 0.06 46.20 1.31 0.00 0.00 10.71 0.30 59.188 1.68 936 26.51 710.26 65.98 540.02 539.76 457 2.40 0.07 47.23 1.34 0.00 0.00 10.25 0.29 59.856 1.70 817 23.14 718.51 66.75 540.83 539.73 406 2.52 0.07 47.23 1.34 0.00 0.00 10.20 0.29 59.985 1.70 657 21.44 718.09 66.08 540.67 539.68 406 2.52 0.07 47.23 1.34 0.00 0.00 9.77 0.28 60.588 1.72 637 18.05 727.06 67.54 540.58 539.63 381	3.00	584	2.16	0.06		1.31	0.00	0.00	10.76		59.116	1.67	1114	31.53	709.39	65.90	541.17	539.83	
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406	3.00	457																	
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2.64	1.00	356	2.60	0.07	48.25	1.37	0.00	0.00	9.76	0.28	60.612	1.72	577	16.33	727.34	67.57	540.42	539.61	
279	2.00	330																	
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178	.00	229																	Bottom of Chamber Elevat
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	.00	25																	
	.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.000	0.00			0.00	0.00			Bottom of Stone Elevation
		- 1																	



CULTEC RECHARGER 8902HD SPECIFICATIONS CULTEC RECHARGER® 902HD CHAMBERS ARE DESIGNED FOR UNDERGROUND STORMWATER MANAGEMENT, THE CHAMBERS MAY BE USED FOR RETENTION RECHARGING, DETENTION OR CONTROLLING THE FLOW OF ON-SITE STORMWATER 1. THE CHAMBERS SHALL BE MANUFACTURED IN THE U.S.A. OR CANADA BY CULTEC OF BROOKFIELD, CT (CULTEC.COM, 203-775-4416) 2. THE CHAMBERS SHALL BE DESIGNED AND TESTED IN ACCORDANCE WITH ASTM F2787 "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS". THE LOAD CONFIGURATION SHALL INCLUDE: A.INSTANTANEOUS AASHTO DESIGN TRUCK LIVE LOAD AT MINIMUM COVER B.MAXIMUM PERMANENT (50-YEAR) COVER LOAD C.1-WEEK PARKED AASHTO DESIGN TRUCK LOAD STORMWAICE OUTLIEL TION CHAMBER. 4. THE INSTALLED CHAMBER SYSTEM SHALL PROVIDE RESISTANCE TO THE LOADS AND LOAD FACTORS AS DEFINED IN THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS SECTION 12.12, WHEN INSTALLED ACCORDING TO CULTEC'S RECOMMENDED INSTALLATION INSTRUCTIONS. THE STRUCTURAL DESIGN OF THE CHAMBERS SHALL INCLUDE THE FOLLOWING: A.THE CREEP MODULUS SHALL BE 50-YEAR AS SPECIFIED IN ASTM F3430 B. THE MINIMUM SAFETY FACTOR FOR LIVE LOADS SHALL BE 1.75 C.THE MINIMUM SAFETY FACTOR FOR DEAD LOADS SHALL BE 1.95

3. THE CHAMBERS SHALL MEET THE REQUIREMENTS OF ASTM F3430-20 "STANDARD SPECIFICATION FOR CELLULAR POLYPROPYLENE (PP) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".

- 5. THE CHAMBER SHALL BE STRUCTURAL FOAM INJECTION MOLDED OF BLUE VIRGIN HIGH MOLECULAR WEIGHT IMPACT-MODIFIED POLYPROPYLENE.
- 6. THE CHAMBER SHALL BE ARCHED IN SHAPE.
- 7. THE CHAMBER SHALL BE OPEN-BOTTOMED.
- THE CHAMBER SHALL BE JOINED USING AN INTERLOCKING OVERLAPPING RIB
 METHOD. CONNECTIONS MUST BE FULLY SHOULDERED OVERLAPPING RIBS, HAVING NO SEPARATE COUPLINGS.
- 9. THE NOMINAL CHAMBER DIMENSIONS OF THE CULTEC RECHARGER® 902HD SHALL BE 48 INCHES (1219 MM) TALL, 78 INCHES (1981 MM) WIDE AND 4.25 FEET (1.30 M) LONG. THE INSTALLED LENGTH OF A JOINED RECHARGER 902HD SHALL BE 3.67 FEET (1.12 M).
- 10. MULTIPLE CHAMBERS MAY BE CONNECTED TO FORM DIFFERENT LENGTH ROWS. EACH ROW SHALL BEGIN AND END WITH A SEPARATELY FORMED CULTED RECHARGER® 902HD END CAP. MAXIMUM INLET OPENING ON THE END CAP IS 30 INCHES (750 MM) HDPE OR 36 INCHES (900 MM) PVC.
- 11. THE CHAMBER SHALL HAVE TWO SIDE PORTALS TO ACCEPT CULTEC HVLV™ FC-48 FEED CONNECTORS TO CREATE AN INTERNAL MANIFOLD. MAXIMUM ALLOWABLE PIPE SIZE IN THE SIDE PORTAL IS 10 INCHES (250 MM) HDPE AND 12 INCHES (300 MM)
- 12. THE NOMINAL CHAMBER DIMENSIONS OF THE CULTEC HVLV'" FC-48 FEED CONNECTOR SHALL BE 12 INCHES (305 MM) TALL, 16 INCHES (406 MM) WIDE AND 49 INCHES (1245 MM) LONG.
- 13. THE NOMINAL STORAGE VOLUME OF THE RECHARGER 902HD CHAMBER SHALL BE 17.31 FT 3 / FT (1.61 M 3 / M) - WITHOUT STONE. THE NOMINAL STORAGE VOLUME OF A JOINED RECHARGER 902HD SHALL BE 63.47 FT 3 / UNIT (1.80 M 3 / UNIT) -WITHOUT STONE.
- 14. THE NOMINAL STORAGE VOLUME OF THE HVLV™ FC-48 FEED CONNECTOR SHALL BE 0.913 FT3 / FT (0.085 M3 / M) - WITHOUT STONE.
- 15. THE RECHARGER 902HD CHAMBER SHALL HAVE 5 CORRUGATIONS.
 16. THE CHAMBER SHALL BE CAPABLE OF ACCEPTING A 6 INCH (150 MM) INSPECTION PORT OPENING AT THE TOP CENTER OF EACH CHAMBER, CENTERED ON THE CORRUGATION CREST.
- 17. THE CHAMBER SHALL BE MANUFACTURED IN A FACILITY EMPLOYING CULTEC'S QUALITY CONTROL AND ASSURANCE PROCEDURES.
- 18. MAXIMUM ALLOWABLE COVER OVER THE TOP OF THE CHAMBER SHALL BE 8.3 FEET (2.53 M).

END CAP PARAMETERS

- MANUFACTURED IN THE U.S.A. BY CULTEC OF BROOKFIELD, CT (CULTEC.COM, 203-775-4416).
- 2. THE END CAP SHALL BE STRUCTURAL FOAM INJECTION MOLDED OF BLUE VIRGIN HIGH MOLECULAR WEIGHT IMPACT-MODIFIED POLYPROPYLENE.
- 3. THE END CAP SHALL BE ARCHED IN SHAPE.
- THE END CAP SHALL BE JOINED AT THE BEGINNING AND END OF EACH ROW OF CHAMBERS USING AN INTERLOCKING OVERLAPPING RIB METHOD. CONNECTIONS MUST BE FULLY SHOULDERED OVERLAPPING RIBS, HAVING NO SEPARATE COUPLINGS. 5. THE END CAP SHALL HAVE 5 CORRUGATIONS.
- 6. THE NOMINAL DIMENSIONS OF THE END CAP SHALL BE 48.5 INCHES (1231 mm) TALL, 78 INCHES (1982 mm) WIDE AND 28.0 INCHES (711 mm) LONG. WHEN JOINED WITH A RECHARGER 902HD CHAMBER, THE INSTALLED LENGTH OF THE END CAP SHALL BE 24.0 INCHES (610 mm).
- 24.0 MORIOLO (10 MINIAL STORAGE VOLUME OF THE END CAP SHALL BE 9.01 FT3 / FT (0.83 m3 / m) WITHOUT STONE. THE NOMINAL STORAGE VOLUME OF AN INTERLOCKED END CAP SHALL BE 18.02 FT3 / UNIT (0.51 m3 / UNIT) WITHOUT STONE.
- 8. MAXIMUM INLET OPENING ON THE END CAP IS 30 INCHES (750 mm) HDPE OR 36 INCHES (900 mm) PVC
- 9. THE END CAP SHALL PROVIDE RESISTANCE TO THE LOADS AND LOAD FACTORS AS DEFINED IN THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS SECTION 12.12.

CULTEC HVLV FC-48 FEED CONNECTOR PRODUCT SPECIFICATIONS

CULTEC HYLV FC-48 FEED CONNECTORS ARE DESIGNED TO CREATE AN INTERNAL MANIFOLD FOR CULTEC RECHARGER MODEL 902HD STORMWATER CHAMBERS.

- THE FEED CONNECTOR SHALL BE VACUUM THERMOFORMED OF BLACK HIGH MOLECULAR WEIGHT HIGH DENSITY POLYETHYLENE (HMWHDPE)
- 3. THE FEED CONNECTOR SHALL BE ARCHED IN SHAPE

- THE NOMINAL DIMENSIONS OF THE CULTEC HVLV FC-48 FEED CONNECTOR SHALL BE 12 INCHES (305 mm) TALL, 16 INCHES (406 mm) WIDE AND 49 INCHES (1245 mm) LONG.
- 6. THE NOMINAL STORAGE VOLUME OF THE HVLV FC-48 FEED CONNECTOR SHALL BE 0.913 FT $^{\rm a}$ / FT (0.085 m $^{\rm b}$ / m) WITHOUT STONE.
- THE HVLV FC-48 FEED CONNECTOR MUST BE FORMED AS A WHOLE UNIT HAVING TWO OP END WALLS AND HAVING NO SEPARATE END PLATES OR SEPARATE END WALLS. THE UNIT SHALL FIT INTO THE SIDE PORTIALS OF THE CULTEC RECHARGER STORMWATER CHAMBE AND ACT AS CROSS FEED CONNECTIONS CREATING AN INTERNAL MANIFOLD.
- THE FEED CONNECTOR SHALL BE DESIGNED TO WITHSTAND AASHTO HS-25 DEFINED LOADS WHEN INSTALLED ACCORDING TO CULTEC'S RECOMMENDED INSTALLATION INSTRUCTIONS.

CULTEC NO. 410™ NON-WOVEN GEOTEXTILE

LITEC NO. 4101** NON-WOVEN GEOTEXTILE MAY BE USED WITH CULTEC CONTACTOR® ID RECHARGER® STORMWATER INSTALLATIONS TO PROVIDE A BARRIER THAT EVENTS SOIL INTRUSION INTO THE STONE.

- THE GEOTEXTILE SHALL BE PROVIDED BY CULTEC OF BROOKFIELD, CT. (203-775-4416 OR 1-800-428-5832)
- THE GEOTEXTILE SHALL BE BLACK IN APPEARANCE
- THE GEOTEXTILE SHALL HAVE A TYPICAL WEIGHT OF 4.5 OZ/SY (142 G/M)
- THE GEOTEXTILE SHALL HAVE A TENSILE STRENGTH VALUE OF 120 LBS (533 N) PER ASTM D4632 TESTING METHOD.
- THE GEOTEXTILE SHALL HAVE AN ELONGATION @ BREAK VALUE OF 50% PER ASTM D4632 TESTING METHOD.
- THE GEOTEXTILE SHALL HAVE A MULLEN BURST VALUE OF 225 PSI (1551 KPA) PER ASTM D3786 TESTING METHOD.
- 7. THE GEOTEXTILE SHALL HAVE A PUNCTURE STRENGTH VALUE OF 65 LBS (289 N) PER
- ASTM D4833 TESTING METHOD. THE GEOTEXTILE SHALL HAVE A CBR PUNCTURE VALUE OF 340 LBS (1513 N) PER ASTM D6241 TESTING METHOD.
- 9. THE GEOTEXTILE SHALL HAVE A TRAPEZOID TEAR VALUE OF 50 LBS (222 N) PER ASTM D4533 TESTING METHOD.
- 10. THE GEOTEXTILE SHALL HAVE A AOS VALUE OF 70 U.S. SIEVE (0.212 MM) PER ASTM D4751 TESTING METHOD.
- 11. THE GEOTEXTILE SHALL HAVE A PERMITTIVITY VALUE OF 1.7 SEC-1 PER ASTM D4491 TESTING METHOD.
- THE GEOTEXTILE SHALL HAVE A WATER FLOW RATE VALUE OF 135 GAL/MIN/SF (5500 L/MIN/SM) PER ASTM D4491 TESTING METHOD.
- 13. THE GEOTEXTILE SHALL HAVE A UV STABILITY @ 500 HOURS VALUE OF 70% PER ASTM D4355 TESTING METHOD.

CULTEC AFAB-HPF™ WOVEN GEOTEXTILE

CULTEC AFAB-HPF WOVEN GEOTEXTILE IS DESIGNED AS A UNDERLAYMENT TO PREVENT SCOURING CAUSED BY WATER MOVEMENT WITHIN THE CULTEC CHAMBERS AND FEED CONNECTORS UTILIZING THE CULTEC MANIFOLD FEATURE. IT MAY ALSO BE USED AS A COMPONENT OF THE CULTEC SEPARATOR ROW TO ACT AS A BARRIER TO PREVENT SOIL/CONTAMINANT INTUITISION INTO THE STONE WHILE ALL OWING FOR MAINTENANCE.

GEOTEXTILE PARAMETERS

- THE GOTOSTILE SHALL BE PROVIDED BY CULTEC OF BROOKFIELD, CT. (203-775-4416 OR 1800-428-5832)
 THE GEOTESTILE SHALL BE BLACK IN APPEARANCE.
 THE GEOTESTILE SHALL HAVE A TENSILE STRENGTH OF 320 X 320 LBS (1,420 X 1,420 N) PER ASTIT D632 TESTIMO METHOD.
- 1,420 N) PER ASIM D4632 TESTING METHOD.

 THE GEOTESTILE SHALL HAVE A ELONGATION @ BREAK RESISTANCE OF 15 X 15% PER ASTM D4632 TESTING METHOD.

 THE GEOTESTILE SHALL HAVE A WIDE WIDTH TENSILE RESISTANCE OF 3,563 X 3,563 LBS/FT (52 X 52 KIVM) PER ASTM D4595 TESTING METHOD.

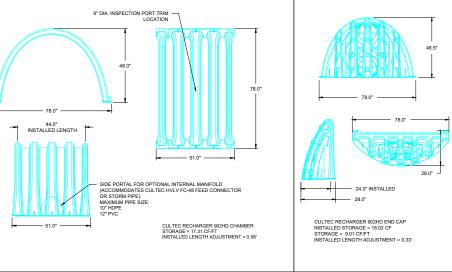
- THE GEOTEXTILE SHALL HAVE A CBR PUNCTURE RESISTANCE OF 1,500 LBS (6,670 N) PER ASTM D6241 TESTING METHOD.
- THE GEOTEXTILE SHALL HAVE A TRAPEZOIDAL TEAR RESISTANCE OF 120 X 120 LBS (540 X 540 N) PER ASTM D4533 TESTING METHOD.
- THE GEOTEXTILE SHALL HAVE AN APPARENT OPENING SIZE OF 30 US STD. SIEVE
- (0.60 MM) PER ASTM D4751 TESTING METHOD.
- THE GEOTEXTILE SHALL HAVE A PERMITTIVITY RATING OF 0.2 SEC-1 PER ASTM
- THE GEOTEXTILE SHALL HAVE A WATER FLOW RATING OF 22 GPM/FT2 (900 LPM/M2) PER ASTM D4491 TESTING METHOD. 11. THE GEOTEXTILE SHALL HAVE A UV RESISTANCE OF 70% @ 500 HRS. PER ASTM D4355 TESTING METHOD.

DUCTILE IRON FRAME - HINGE FOR EASY ACCESS HINGE FOR EASY ACCESS RT NOT PROVIDED BY CULTEC **PVC BODY PLAN VIEW** PVC BODY ELEVATION VIEW SDR-35 BELL END INSERTED

SOLID COVER OPTION

INSTALLED LENGTH 6" SDR-35 RISER PIPE 3.2" PVC BODY CAN BE TRIMMED IN FIELD

SLOTTED COVER OPTION



CULTEC RECHARGER 902HD HEAVY DUTY THREE VIEW

JMG PF

ΒΥ:

снескер і

JIG

DESIGNED P

SE

DETAIL

902HD

ROUTE 60

NS

F. F. F.

Road T 06804

DATE

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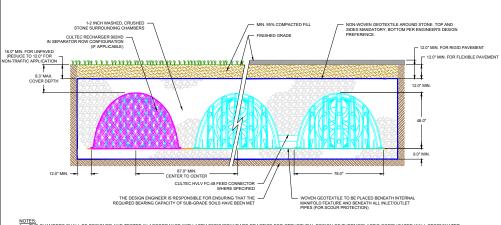
PROJECT

CHAMBER

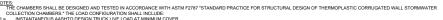
STORMWATER

CULTEC

CULTEC RECHARGER 902HD HEAVY DUTY END CAP THREE VIEW



CULTEC UNIVERSAL INSPECTION PORT KIT DETAIL



CULTEC RECHARGER 902HD CROSS SECTION

FINAL ASSEMBLY

CULTEC CHAMBER

- NOTES:

 THE CHAMBERS SHALL BE DESIGNED AND TESTED IN ACCORDANCE WITH ASTM F2787 "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER OLD CLIECTION CHAMBERS." THE LOAD CONFIGURATION SHALL INCLUDE:

 1a. INSTANTANCIOUS ASHITO DESIGN TRUCK LUE LOAD AT MINIMUM COVER

 1b. MAXIMUM PERMANENT (50-YEAR) COVER LOAD

 1c. 1-MERE ARRICED ASHITO DESIGN TRUCK LUC ADA TA MINIMUM COVER

 1c. 1-MERE ARRICED ASHITO DESIGN TRUCK LOAD

 2. THE CHAMBERS SHALL MEET THE REQUIREMENTS OF ASTM F43323." STANDARD SPECIFICATION FOR CELLULAR POLYPROPILENE (PP) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS

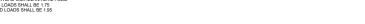
 THE INSTALL OF MARKED ASHITO DESIGN ASHIT F4332." STANDARD SPECIFICATION FOR CELLULAR POLYPROPILENE (PP) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS

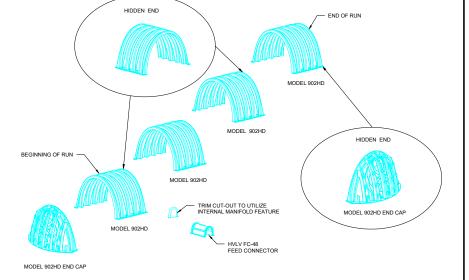
 THE INSTALL OF MARKED ASHITO DESIGN SPECIFICATIONS SECTION 12.12, WHEN INSTALL STORMWATER COLLECTION CHAMBERS SHALL INCLUDE THE FOLLOWING:

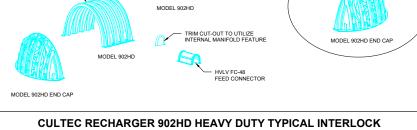
 3.8 THE CREEP MODULUS SHALL BE SO/YEAR AS SPECIFIED IN ASTM F4330.

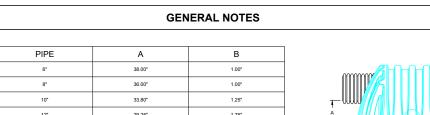
 THE CREEP MODULUS SHALL BE SO/YEAR AS SPECIFIED IN ASTM F4330.

 THE CREEP MODULUS SHALL BE SO/YEAR AS SPECIFIED IN ASTM F4330.

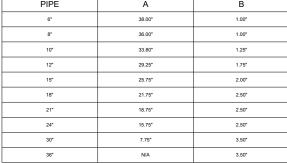




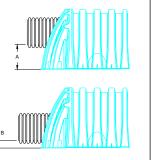


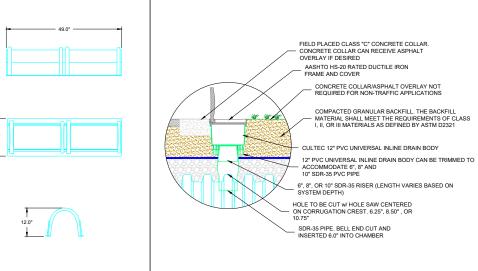


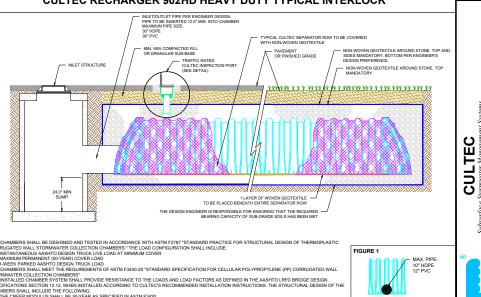
CULTEC RECHARGER 902HD TYPICAL PIPE INVERTS



*THE TYPICAL INVERT TABLE ABOVE IS BASED ON THE INSIDE DIAMETER OF STANDARD CORRUGATED PLASTIC PIPE. THE HEAVY DUTY END CAP HAS PRE-MARKED TRIM LINES FOR PIPE DIAMETERS 12". 15". 18" AND 24". PIPES OF ANY SIZE AND MATERIAL UP TO 24" MAY BE PLACED AT CUSTOM LOCATIONS AND CUSTOM INVERTS. THE CROWN OF THE PIPE MUST REMAIN A MINIMUM OF 4" FROM THE EDGE OF THE HEAVY DUTY END CAP.



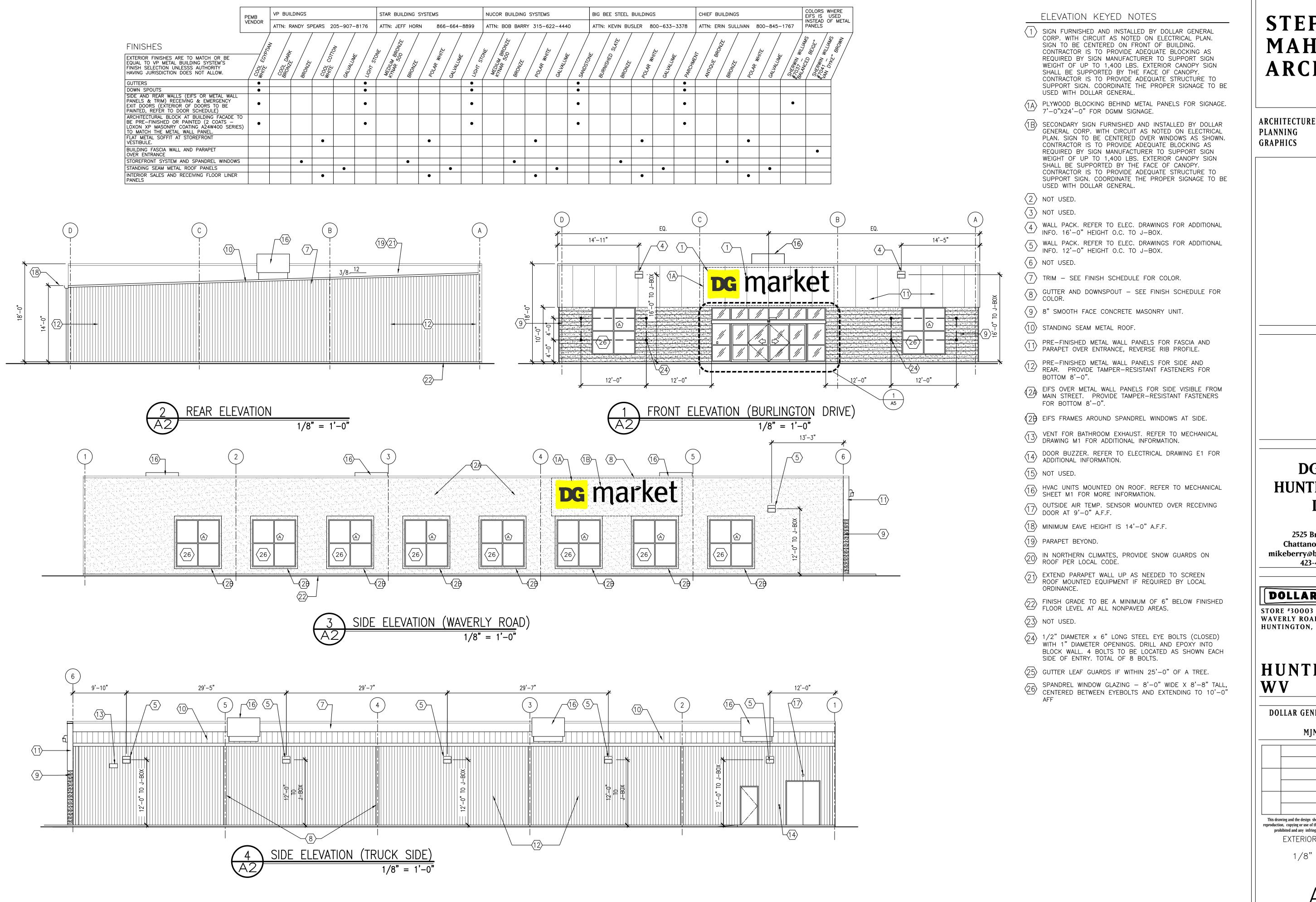






CULTEC HVLV FC-48 OPTIONAL CULTEC INSPECTION PORT - ZOOM DETAIL FEED CONNECTOR THREE VIEW

CULTEC SEPARATOR ROW - CULTEC INSPECTION PORT DETAIL (IF APPLICABLE)



STEPHEN P. MAHER, **ARCHITECT**

> 2948 SIDCO DRIVE NASHVILLE, TN 37204 (p) 615.244.8170 (f) 615.244.8141 www.mjmarch.com

DG BTS HUNTINGTON, LLC

2525 Broad Street Chattanooga TN 37408 mikeberry@berryconstruction 423-488-4053

DOLLAR GENERAL

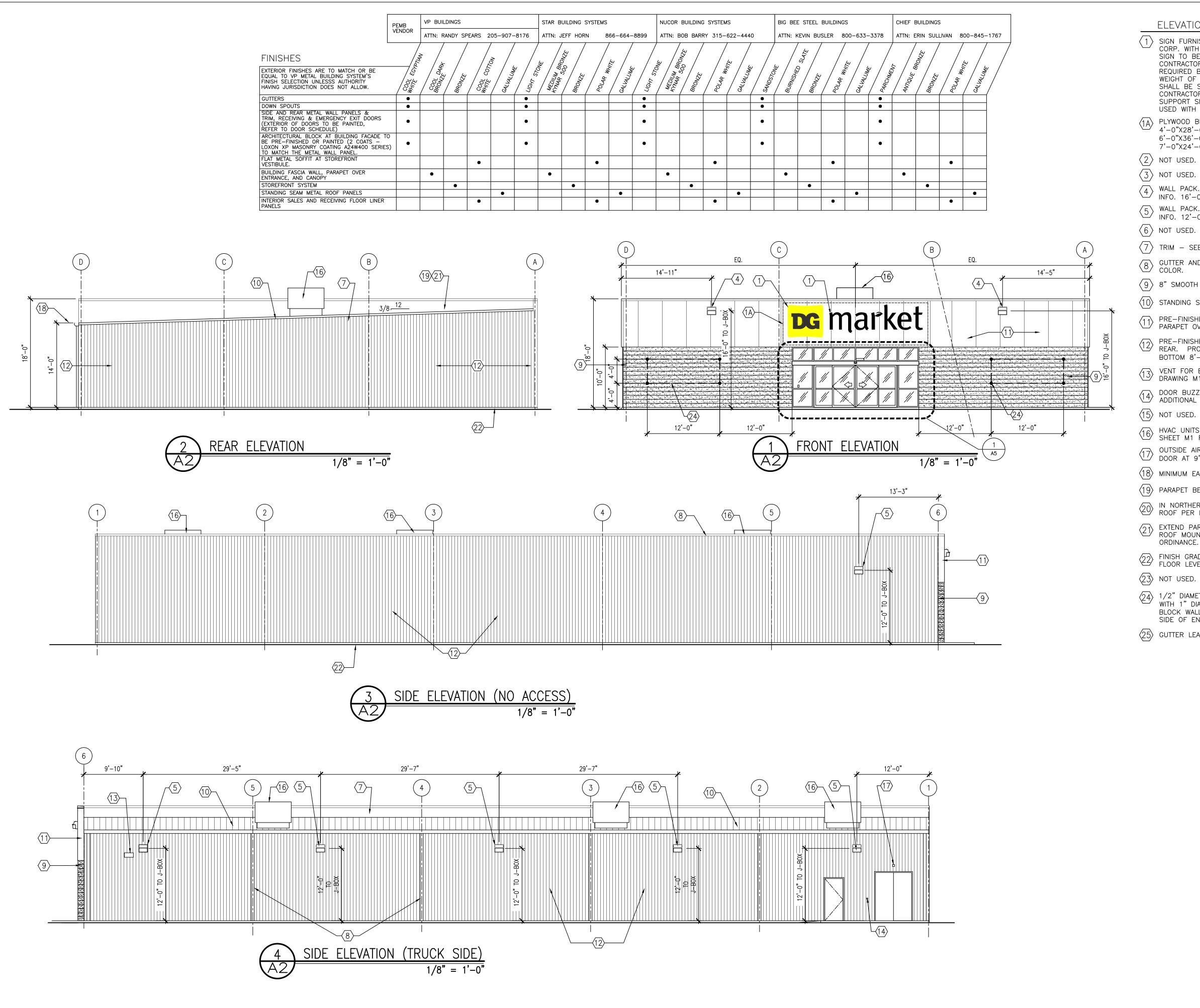
WAVERLY ROAD HUNTINGTON, WV 25704

HUNTINGTON,

DOLLAR GENERAL PERMIT SET MJM #23481

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1/8" = 1'-0"



ELEVATION KEYED NOTES

- 1 SIGN FURNISHED AND INSTALLED BY DOLLAR GENERAL CORP. WITH CIRCUIT AS NOTED ON ELECTRICAL PLAN. SIGN TO BE CENTERED ON FRONT OF BUILDING. CONTRACTOR IS TO PROVIDE ADEQUATE BLOCKING AS REQUIRED BY SIGN MANUFACTURER TO SUPPORT SIGN WEIGHT OF UP TO 1,400 LBS. EXTERIOR CANOPY SIGN SHALL BE SUPPORTED BY THE FACE OF CANOPY. CONTRACTOR IS TO PROVIDE ADEQUATE STRUCTURE TO SUPPORT SIGN. COORDINATE THE PROPER SIGNAGE TO BE USED WITH DOLLAR GENERAL.
- PLYWOOD BLOCKING BEHIND METAL PANELS FOR SIGNAGE. 4'-0"X28'-0" FOR DGP A/B/E/F LAYOUTS. 6'-0"X36'-0" FOR DGP A/B/E/F LAYOUTS. 7'-0"X24'-0" FOR ALL DGMM LAYOUTS.
- 2 NOT USED.
- WALL PACK. REFER TO ELEC. DRAWINGS FOR ADDITIONAL INFO. 16'-0" HEIGHT O.C. TO J-BOX.
- WALL PACK. REFER TO ELEC. DRAWINGS FOR ADDITIONAL INFO. 12'-0" HEIGHT O.C. TO J-BOX.
- $\langle 7 \rangle$ TRIM SEE FINISH SCHEDULE FOR COLOR.
- 8 GUTTER AND DOWNSPOUT SEE FINISH SCHEDULE FOR COLOR.
- 9 8" SMOOTH FACE CONCRETE MASONRY UNIT.
- (10) STANDING SEAM METAL ROOF.
- PRE-FINISHED METAL WALL PANELS FOR FASCIA AND PARAPET OVER ENTRANCE, REVERSE RIB PROFILE.
- PRE-FINISHED METAL WALL PANELS FOR SIDE AND REAR. PROVIDE TAMPER-RESISTANT FASTENERS FOR BOTTOM 8'-0".
- VENT FOR BATHROOM EXHAUST. REFER TO MECHANICAL DRAWING M1 FOR ADDITIONAL INFORMATION.
- DOOR BUZZER. REFER TO ELECTRICAL DRAWING E1 FOR ADDITIONAL INFORMATION.
- 15 NOT USED.
- HVAC UNITS MOUNTED ON ROOF. REFER TO MECHANICAL SHEET M1 FOR MORE INFORMATION.
- OUTSIDE AIR TEMP. SENSOR MOUNTED OVER RECEIVING DOOR AT 9'-0" A.F.F.
- (18) MINIMUM EAVE HEIGHT IS 14'-0" A.F.F.
- (19) PARAPET BEYOND.
- IN NORTHERN CLIMATES, PROVIDE SNOW GUARDS ON ROOF PER LOCAL CODE.
- (21) EXTEND PARAPET WALL UP AS NEEDED TO SCREEN ROOF MOUNTED EQUIPMENT IF REQUIRED BY LOCAL ORDINANCE.
- FINISH GRADE TO BE A MINIMUM OF 6" BELOW FINISHED FLOOR LEVEL AT ALL NONPAVED AREAS.
- 1/2" DIAMETER x 6" LONG STEEL EYE BOLTS (CLOSED) WITH 1" DIAMETER OPENINGS. DRILL AND EPOXY INTO BLOCK WALL. 4 BOLTS TO BE LOCATED AS SHOWN EACH SIDE OF ENTRY. TOTAL OF 8 BOLTS.
- $\langle 25 \rangle$ GUTTER LEAF GUARDS IF WITHIN 25'-0" OF A TREE.

STEPHEN P. MAHER, **ARCHITECT**

ARCHITECTURE **PLANNING** GRAPHICS

NASHVILLE, TN 37204 (p) 615.244.8170 (f) 615.244.8141 www.mjmarch.com

2948 SIDCO DRIVE



DG BTS HUNTINGTON, LLC

2525 Broad Street Chattanooga TN 37408 mikeberry@berryconstruction 423-488-4053

DOLLAR GENERAL

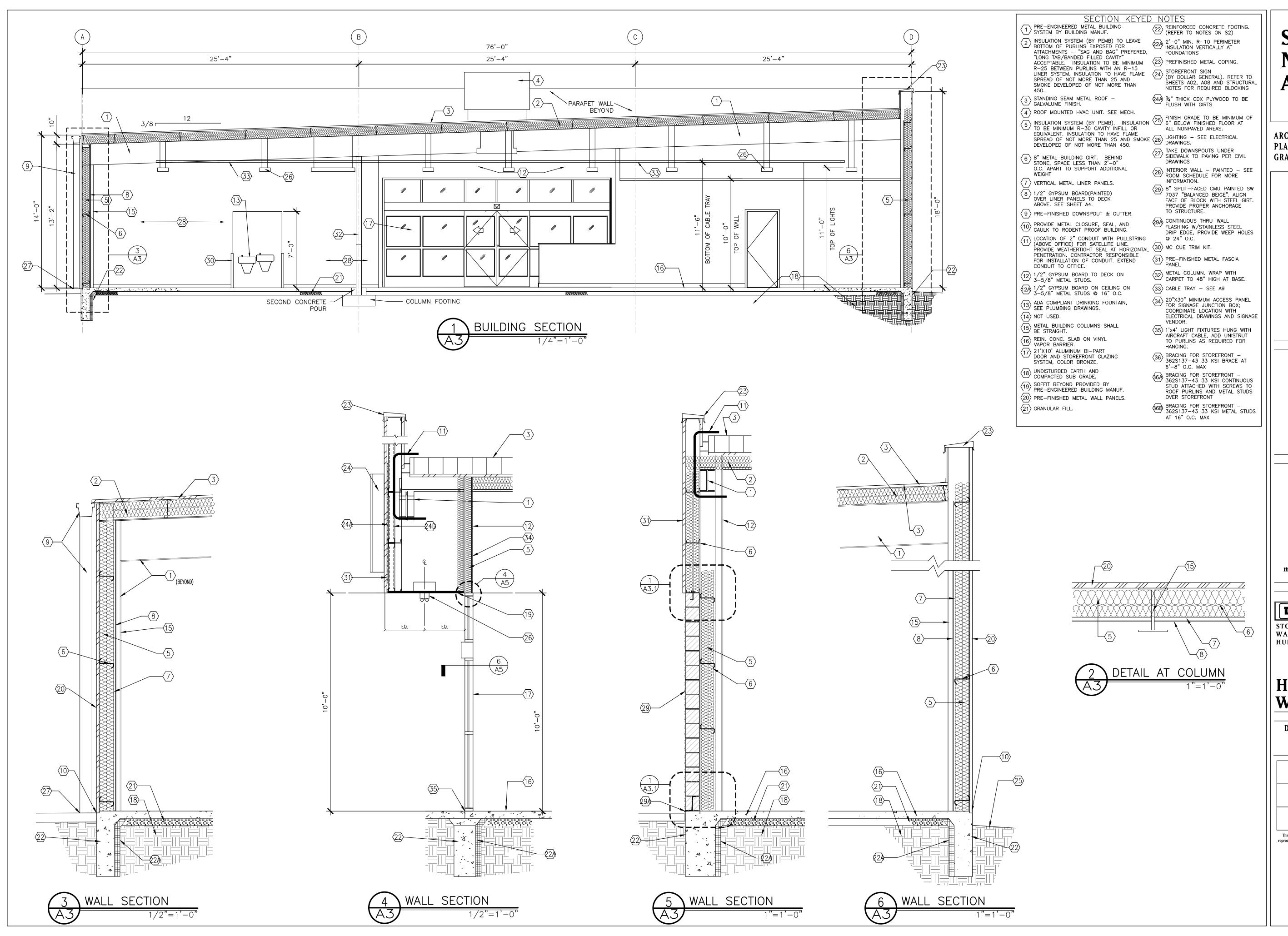
STORE #30003 WAVERLY ROAD HUNTINGTON, WV 25704

HUNTINGTON, WV

DOLLAR GENERAL PERMIT SET 1.9.24 MJM #23481

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1/8" = 1'-0"



STEPHEN P. MAHER, ARCHITECT

ARCHITECTURE PLANNING GRAPHICS

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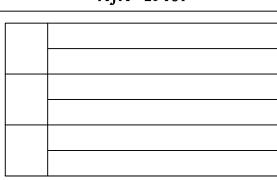
2525 Broad Street Chattanooga TN 37408 mikeberry@berryconstruction 423-488-4053

DOLLAR GENERAL

STORE #30003
WAVERLY ROAD
HUNTINGTON, WV 25704

HUNTINGTON, O

DOLLAR GENERAL PERMIT SET
1.9.24
MJM #23481



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SECTIONS/DETAILS

AS NOTED

A3

HEET

REPORT OF GEOTECHNICAL EXPLORATION

DOLLAR GENERAL - WAVERLY ROAD HUNTINGTON, WEST VIRGINIA

TRIAD PROJECT No. 04-23-0289

PREPARED FOR:

DG BTS HUNTINGTON, LLC ATTN: MR. FRANCIS STANLEY 2525 BROAD STREET CHATTANOOGA, TN 37408

PREPARED BY:



10541 TEAYS VALLEY ROAD SCOTT DEPOT, WV 25560 WWW.TRIADENG.COM

OCTOBER 31, 2023



October 31, 2023

DG BTS Huntington, LLC Attn: Mr. Francis Stanley 2525 Broad Street Chattanooga, TN 37408

Report of Geotechnical Exploration

Dollar General - Waverly Road Huntington, West Virginia Triad Project No. 04-23-0289

Dear Mr. Stanley:

In accordance with your request, we have completed a geotechnical exploration for the proposed Dollar General in Huntington, Wayne County, West Virginia. Authorization to proceed with this project was provided by receipt of Professional Services Agreement dated September 1, 2023. The subsurface exploration was performed to evaluate the subsurface conditions encountered at the proposed Dollar General for the limited purposes of preparing design and construction recommendations for geotechnical aspects of the project. It is emphasized that subsurface conditions may vary dramatically between borings, and Triad makes no representations as to subsurface conditions other than those encountered at the specific boring locations.

This report has been prepared for the exclusive use of DG BTS Huntington, LLC for specific application to the design of the proposed Dollar General in Huntington, Wayne County, West Virginia. Triad's responsibilities and liabilities are limited to our Client and apply only to their use of our report for the purposes described above. To observe compliance with design concepts and specifications, and to facilitate design changes in the event that subsurface conditions differ from those anticipated prior to construction, it is recommended that Triad be retained to provide continuous engineering and testing services during the earthwork and foundation construction phases of the work.

We appreciate the opportunity to assist you on this project and trust this report satisfies your needs at this time. Please feel free to contact us if you have questions concerning this report, or if we can provide further assistance.

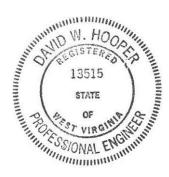
Sincerely,

TRIAD ENGINEERING, INC.

Maria af Rolén, P.G. Senior Geologist

David W. Hooper, P.E Principal Engineer

avil W. Wooper



Report of Geotechnical Exploration

Dollar General – Waverly Road Huntington, West Virginia

TABLE OF CONTENTS

<u>item</u>	<u>Page</u>
SITE AND PROJECT DESCRIPTION	
GEOLOGY	
Surficial Geology	
Bedrock Geology	
Coal Resources	2
SUBSURFACE EXPLORATION	2
SUBSURFACE CONDITIONS	2
LABORATORY TESTING	3
DISCUSSION	3
DESIGN RECOMMENDATIONS	5
Spread Foundations	5
Settlement Considerations	6
Floor Slab Recommendations	6
Seismic Site Classification	6
Pavement Design	7
CONSTRUCTION RECOMMENDATIONS	8
Site Preparation	8
Site Excavations	8
Suitable Fill Material	9
Fill Placement and Compaction	9
Foundation Construction	10
Pavement Construction	
Groundwater and Surface Runoff Control	
Quality Assurance and Control	11
LIMITATIONS	12

APPENDICES

Appendix A – Figures

Appendix B – Field Exploration

Appendix C – Laboratory Testing

Appendix D – Seismic Information

Report of Geotechnical Exploration

Dollar General – Waverly Road Huntington, West Virginia

SITE AND PROJECT DESCRIPTION

The project site is located northwest of the intersection of Waverly Road (US Route 60) and Burlington Road in Huntington, Wayne County, West Virginia. It is comprised of Wayne County Tax Parcel 6-1-223. The site currently includes two existing structures and associated parking that are anticipated to be demolished as part of the new development. The approximate site location is illustrated on Figure A-1 in Appendix A.

We understand that the proposed development will include construction of a single story structure encompassing a gross footprint of approximately 10,640 square feet. We have assumed that the structure will include structural steel framing, composite walls, and concrete slabs supported at grade. Structural loading information has not been provided to us. However, we have assumed that maximum structural loads will be relatively light. Associated access points, a truck loading area, and parking to accommodate 35 parking spaces are also planned as part of the proposed development.

We have assumed that the finished floor elevation (FFE) will be near current grade. Considering the existing topography across the site, it is anticipated that minimal cuts and fills will be required to achieve desired site grades.

<u>GEOLOGY</u>

Surficial Geology

According to the Map of Wayne County Showing General and Economic Geology, published in 1913 by the West Virginia Geological and Economic Survey (WVGES), the subject site is mapped within the boundaries of a Quaternary alluvium deposit. Alluvium is generally described as detrital deposits made by streams on riverbeds and floodplains. These deposits typically consist of unconsolidated and stratified clay, silt, sand, gravel, cobbles, and boulders.

Bedrock Geology

Based upon our review of the *Geologic Map of West Virginia*, published by the WVGES in 1968, the alluvium at the project site is underlain by the Conemaugh Group of the Pennsylvanian Subperiod. The Conemaugh Group is primarily non-marine and consists of cyclic sequences of red and gray shale, siltstone, and sandstone, with thin limestones and coals. It extends from the base of the Pittsburgh coal to the top of the Upper

Freeport coal—both of which are economically important and heavily mined coal beds. The unit includes the Elk Lick, Harlem, Bakerstown, and Mahoning coals, as well as the Ames Limestone. The contact between the Harlem coal and the Ames limestone and shale sequence forms a widespread stratigraphic marker extending across the Appalachian Basin to the Ohio River and beyond.

Coal Resources

We researched available mine maps provided by the WVGES to ascertain what minable coal beds are present below the site and to determine if past surface or underground mining operations have been conducted. In performing this evaluation, we could not identify any documented surface or underground mining at or beneath the project site.

It should be noted that the WVGES mine mapping database may be incomplete due to the limited number of years requiring permitting and mapping. As such, the lack of identified mines at the subject site does not constitute a guarantee of a mine free area.

SUBSURFACE EXPLORATION

As requested, ten (10) test borings were drilled at the project site on October 5 and 6, 2023. The boring locations were determined by Triad on site by measuring distances from existing site features. Surface elevations of the borings were estimated from Google Earth digital elevation model (DEM) data. Figure A-2 in Appendix A depicts the approximate locations of the test borings drilled for the project.

A representative of Triad was present full time during the drilling to direct the drilling crew, log all recovered soil samples, and observe groundwater and rock conditions. The recovered soil samples were transported to our laboratory for further testing. Detailed descriptions of materials encountered in the test borings are contained on the boring logs in Appendix B. Figure B-1 in Appendix B contains a description of the classification system and terminology utilized.

SUBSURFACE CONDITIONS

The materials encountered in the borings are generally described below. Stratification lines indicated on the logs represent the approximate boundaries between material types, and the actual transitions between boring locations may be gradual.

Asphalt and Subbase: Borings B-1 through B-9 encountered approximately 0.2 to 0.5 feet of asphalt at the surface, underlain by subbase material comprised of gravel and sand. These materials extended to a combined depth ranging from 0.5 to 1.5 feet. In boring B-10, approximately 0.3 feet of asphalt was encountered at the surface and was underlain by approximately 0.7 feet of concrete.

<u>Fill</u>: Fill was encountered beneath the subbase in borings B-1, B-2, B-3, and B-8. The fill consisted primarily of clay with varying amounts of gravel and sand. Pocket penetrometer values obtained within this fill material indicated a very stiff consistency. The fill material extended to depths ranging from 1 to 2.5 feet below the ground surface.

<u>Alluvium</u>: Underlying the fill, alluvial soils were encountered. The alluvial soils consisted of clay, silt, sand, and gravel. Pocket penetrometer values obtained within the finer grained alluvium indicated consistencies ranging from very soft to very stiff. Standard Penetration Test (SPT) N-values obtained within the coarser grained alluvium indicated a very loose to loose relative density. The borings, which were advanced to depths ranging from 11.5 to 21.5 feet, were all terminated in alluvial soils.

<u>Groundwater</u>: Groundwater levels were measured both during and after drilling operations and are documented on the boring logs in Appendix B. Each boring was dry upon completion of drilling operations, and groundwater was not encountered during drilling operations.

It is emphasized that fluctuations in true groundwater levels can occur due to variations in seasonal, climatic and environmental conditions which may not have been evident at the time of the field exploration. Consequently, groundwater levels can vary significantly from those recorded at the time measurements were taken.

LABORATORY TESTING

Laboratory tests were performed on selected soil and rock samples to aid in classification and provide a basis for estimating their engineering properties. The laboratory tests were performed in accordance with ASTM standard test methods. Detailed results are contained in Appendix C, and the results are summarized in the following table:

TEST TYPE	TEST RESULTS	
Moisture Content	16.4 to 22.1%	
Atterberg Limits	Liquid Limit: 19 to 23 Plasticity Index: 3 to 7	
Percent Passing No. 200 Sieve	44 to 55%	
USCS Classification	CL-ML and SM	

DISCUSSION

Based on the results of the subsurface exploration, the project site is underlain by approximately 1 to 2.5 feet of old fill material. Alluvial soils consisting of clay, silt, sand,

and gravel of varying consistency and density extended to the termination depths in each boring. Although the alluvial soils encountered in the borings are generally acceptable for support of the proposed structure, the follow design issues on the project remain:

- The borings encountered 1 to 2.5 feet of old fill material. We are unaware of any available records relating to the placement of the fill (i.e. compaction testing). We believe that over-excavation of the existing fill is warranted to densify the bearing materials and reduce the potential for total and differential settlement.
- Concrete remnants were encountered below the asphalt in boring B-10. Any
 deleterious materials from the existing site structures should be removed and
 replaced with controlled, compacted fill. Any concrete obstructions should also be
 removed. When the existing building are razed, foundations should be removed
 in their entirety. Any below grade slabs should be broken up in place if more than
 5 feet lower than grade or should be removed in their entirety.
- The side walls of excavation, particularly deeper excavations, may be impacted by loose site soils. As there are no permanent cut slopes on the project, these conditions will be temporary during construction. Recommendations regarding excavation are provided in this report.

It is recommended that all foundations be undercut to a minimum depth of 3 feet below the bottom of foundation to remove existing fill material. Where the building slab subgrade is located in cut, it should be undercut a minimum of 1 foot below slab subgrade. If after over excavating a soft subgrade or other unacceptable condition exist, additional over-excavation will likely be required. If additional over-excavation cannot be performed, Triad should be contacted to evaluate options to undercutting which are likely to include the use of geogrids or other materials to further distribute the loads.

Although other options to address the soft and loose near surface soils were considered, it is not anticipated that they will be economically feasible for support of this structure. If desired, Triad is available to discuss these options.

The finer grained soils encountered at some of the borings can be sensitive to moisture fluctuations. These materials can become unstable under construction traffic traversing the site, especially by rubber-tired equipment. Therefore, site grading should be performed during drier months, if possible.

The following sections of this report include recommendations for design and construction of the geotechnical elements of the project. Provided that these recommendations are followed, it is our opinion that the site is generally suitable for the proposed construction.

DESIGN RECOMMENDATIONS

The geotechnical engineering evaluation of the site and subsurface conditions at the property, as well as the recommendations for site preparation and foundation support, are based on our site observations, the field data obtained and our understanding of the project information as presented in this report.

Spread Foundations

Based on the results of the test borings, newly placed backfill undercut and the alluvial soils should be suitable for support of the proposed structure on a shallow spread foundation system. We recommend that conventional spread foundations bearing on natural soil be designed using a maximum allowable bearing pressure of 1,500 pounds per square foot (psf). The bearing capacity should be verified at the time of construction by our geotechnical engineer. If zones within the foundation subgrade cannot provide an allowable bearing pressure of 1,500 psf, undercuts may be necessary to achieve the desired bearing capacity.

Exterior foundations should be constructed to bear at a minimum depth of 36 inches below the final exterior grade to achieve the recommended allowable bearing pressure and provide adequate frost protection. Interior foundations in permanently heated areas can bear at a nominal depth below the floor slab. Foundations should be designed for minimum widths of 24 and 36 inches for continuous wall and individual column footings, respectively. Although these dimensions may not fully utilize the recommended bearing pressure, they should be maintained to reduce the potential for a local shear or "punching" type bearing failure.

Prior to foundation construction, we recommend the minimum undercuts described in the DISCUSSION section of this report be performed. Alternatively the building footprint may be over-excavated to a depth of 3 feet below the design foundation bearing level. The over-excavation should extend a minimum of 5 feet beyond the building perimeter on all sides. The bottom of the excavation should be heavily proof-rolled and recompacted with appropriate compaction equipment. New controlled fill should then be placed up to design foundation levels in accordance with the recommendations outlined in the CONSTRUCTION RECOMMENDATIONS section of this report. The over-excavated fill may be re-used for controlled fill, as long as organics or other deleterious materials are completely removed and properly discarded prior to placement.

The final grading around the proposed building should be sloped away from these structures at a minimum 2% grade for a distance of at least 10 feet. Utility trenches that enter the footprint of the proposed building also should be graded at a minimum 2% grade away from the building.

The soil bearing materials are susceptible to softening if left exposed to air and/or standing water for an extended period of time. Therefore, footing concrete should be placed as soon as possible after the excavations are completed. We recommend that all

foundation excavations be examined by our geotechnical engineer prior to placing footing concrete to verify that the bearing materials are suitable for the design bearing pressure. Testing should be accomplished using a dynamic cone penetrometer (DCP), proving ring cone penetrometer or similar equipment.

Settlement Considerations

Settlements due to structural loading were estimated based on the results of the test borings, the recommended allowable bearing pressure of 1,500 psf, laboratory test results and our past experience with similar conditions. Based on this information, we estimate that foundation settlement for the proposed structure could be on the order of 1 inch. Differential settlement which could occur along continuous walls or between individual similarly loaded column foundations is estimated to be on the order of approximately ½ inch. If structural loads require foundations larger than the minimum widths for continuous wall and individual column footings recommended in this report, we should be contacted to re-evaluate our settlement estimates using the actual structural loads and proposed foundation dimensions.

Floor Slab Recommendations

Based on the information provided and the recommendations in this report, concrete slabs for the structure may be designed as slabs-on-grade. For slabs supported at grade on undercut backfill and/or new controlled fill, it is our opinion that a modulus of subgrade reaction, "k," of 100 pci can be utilized for design. A minimum 4-inch thick layer of ASTM No. 57 coarse aggregate should be placed under all concrete slabs to serve as a capillary water barrier and a leveling surface. A six-mil thick polyethylene vapor barrier should be placed between the stone and concrete as specified by the structural designer. Joints in the floor slabs should be provided in accordance with the guidelines specified by the Portland Cement Association (PCA) or American Concrete Institute (ACI).

Seismic Site Classification

The site soils were evaluated and classified according to the <u>2015 International Building Code Section 1613 - Earthquake Loads - Site Ground Motion</u>. This building code establishes the criteria for project site evaluation. <u>Section 1613.3.2</u> and 2010 ASCE-7 Standard-Table 20.3-1 defines the parameters for determining the seismic site class based on N-values. The seismic site class may be determined by calculating an average N-value of subsurface materials to a depth of 100 feet. For the determination, the N-values recorded in test borings are used for overburden soil, and then, typically, materials below the depth that auger refusal or hard rock is encountered (to a depth of 100 feet) are assigned an N-value of 100. Based on the results of the test borings, the site has an average N-value of 5. Using this information along with knowledge of the site geologic setting, the seismic site class and additional seismic information is as follows:

PARAMETER DESCRIPTION	SEISMIC RESULT	
Seismic Site Class	E	
Soil Profile Name	Soft Soil	
Site Amplification Factor at 0.2 second, Fa	2.5	
Site Amplification Factor at 1.0 second, F _∨	3.5	
MCER _R Ground Motion (0.2 second period), S _s	0.151	
MCER _R Ground Motion (1.0 second period), S ₁	0.073	

Based on results from the test borings, published regional geologic information and the probable maximum strength of earthquake, it is our opinion that liquefaction potential for the on-site soils during seismic activity is minimal. Seismic coefficients and other seismic information to be considered for structural design of the project are provided in Appendix D of this report.

Pavement Design

For flexible pavement design, a California Bearing Ratio (CBR) of 3 was assigned to existing site soils or newly placed, properly compacted structural fill. For rigid pavement design, we assumed a modulus of subgrade reaction, "k", equal to 90 pci. These values were based on our experience with similar site soils. The soil subgrade should be crowned or properly sloped to provide drainage of base course aggregate.

A design life of 10 years was selected for the pavement section but overlay repairs may be required before the design life of 10 years due to weathering of the flexible pavement. The listed materials shall adhere to the West Virginia Department of Highways Design Specifications, Roads and Bridges, 2010 Publication. Our recommended pavement sections for the project are tabulated below.

RECOMMENDED FLEXIBLE PAVEMENT SECTIONS					
MATERIAL Standard Duty (in.) Heavy Duty (in.)					
Wearing I	1.5	1.5			
Base II	2.0	2.5			
Class 8 Aggregate	6.0	8.0			

RECOMMENDED RIGID (CONCRETE) PAVEMENT SECTION			
Material k = 100 pci			
Heavy Duty Rigid 10-yr.	5.0" Concrete (4,000 psi) #4's @ 12" c-c, E.W. 18" x 5%" dowels @ 12" c-c 4.0" WVDOH Class 8 Aggregate		

All exterior rigid pavements, including truck aprons, sidewalks and curb/gutter, should be constructed with Type IA Portland cement. Drainage ditches and/or inlets should be designed for the pavement areas to maintain drainage and divert runoff away from the pavement subgrade. The final subgrade should be properly sloped or crowned. If any heavy-duty pavement sections are generally located adjacent to light duty pavement sections, we recommend the use of parking bollards and signage to prevent damage to the adjacent light duty pavement sections.

Although static groundwater at shallow depths is not typically a concern on this site, adequate sub-drainage of the pavement section should be incorporated into the design to maintain long-term performance. "Finger" drains, or shallow subsurface interceptor drains, should be provided beneath large areas of pavement to capture and remove water which may accumulate in the pavement base course. These drains should be routed to discharge into appropriate stormwater basins or drop inlets. The spacing of the drains can be determined after grading plans have been developed further.

CONSTRUCTION RECOMMENDATIONS

Site Preparation

Initial preparation of the site for construction should include installation of sediment and erosion control measures and any upslope diversion ditching or berms that are required. Existing utilities that conflict with proposed foundations and/or new utility alignments should be relocated as necessary. The existing asphalt should be either completely removed or sufficiently perforated such that water is not allowed to pond on the asphalt surface.

Site Excavations

It is anticipated that most of the on-site soils can be effectively removed with conventional earth-moving equipment such as backhoes and dozers. It is assumed that excavations required for the project will likely not extend to depths sufficient to encounter weather or hard bedrock. The means necessary to perform the excavation are a function of the consistency/hardness of the material, the type/size of excavation equipment utilized and the effort the contractor is willing to apply. For bidding purposes, potential contractors should be instructed to perform their own investigations as to measures necessary to excavate materials encountered.

Removal of the existing foundation and building remnants needs to be considered carefully by the contractor. Some specialty equipment may be necessary to complete that task.

Excavated materials should not be stockpiled and construction equipment should not be positioned beside open excavations, since the added load may cause a sudden

collapse of the excavation side walls. The design and construction of all excavations should comply with applicable local, state, and federal safety regulations, including the current requirements of the Occupational Safety and Health Administration (OSHA). In no case should slope height, slope inclination, or excavation depth exceed those specified by OSHA or any other regulatory agencies or local authorities having jurisdiction at the construction site.

Controlled Fill

Suitable Fill Material

Fill required to attain design grades should be placed as controlled, compacted fill. Satisfactory fill includes approved on-site excavated materials, off-site borrow material, residual soils, soil/rock mixtures, and soft weathered rock, or a well-graded commercial stone such as crusher run aggregate. The fill should be free of trash, wood, coal, topsoil, organics, pyritic material with greater than 0.1 percent by weight of pyritic sulfur, frozen material, and pieces of rock greater than 4 inches in any dimension for lift thicknesses of 9 inches or 1½ inches in any dimension for lift thicknesses of 4 inches. Materials classified as MH, CH, OH, OL and Pt based on the Unified Soil Classification System (USCS) are not considered suitable for use as new fill. All fill should be tested and approved prior to placement and compaction.

Fill Placement and Compaction

Before initiating fill placement, the asphalt surface and other surficial material should be removed. The subgrade surface should be proof-rolled with appropriate rubber-tired construction equipment and/or visually evaluated to locate any soft spots or areas of excessive "pumping." Any such areas should be over-excavated to a firm subgrade and replaced with new, controlled fill material. The engineer should be contacted if excessive over-excavation is required.

During placement, moisten or aerate each layer of fill, as necessary, to obtain the required compaction. Fill should not be placed on surfaces that are muddy, frozen or have not been approved by prior testing and/or proof-rolling. Free water should be prevented from appearing on the surface during or after compaction operations. Fill placed on sloping areas should be properly benched or "notched" into the slope face such that a smooth transition between the new fill and existing slope face is not present.

Soil material which is removed because it is too wet to permit proper compaction may be spread and allowed to dry. Drying can be facilitated by discing, harrowing, or by pulverizing until the moisture content is reduced to an acceptable level. When the soil is too dry, water may be uniformly applied to the subgrade surface or to the layer to be compacted.

Fill material compacted by heavy compaction equipment should be placed in loose layers not exceeding 9 inches in thickness. Fill compacted with lightweight equipment, such as hand-operated tampers or walk-behind rollers, should be placed in loose layers

not exceeding 4 inches in thickness. The compaction equipment utilized should be suitable for the type of material being compacted. Vibratory rollers are best suited to coarse-grained soils, while pad foot (often called sheepsfoot) rollers are appropriate for fine-grained materials. Fill placed adjacent to foundation walls should be compacted using lightweight equipment.

New fill placed within the structure footprint and extending at least five (5) feet beyond its perimeter, or to that extent possible, should be compacted to at least 98 percent of the laboratory maximum dry density as determined by the Standard Proctor method (ASTM D 698). Fill placed outside of these areas should be compacted to at least 95 percent of the maximum dry density as determined by the same standard. The placement moisture content of fill material should be within ±3 percentage points of the optimum moisture content as determined by ASTM D 698, except the structural areas where the moisture content should be within ±2 percent of the optimum moisture content. Granular materials, such as clean sand or aggregate, should be compacted to at least 85% of its relative density, as determined by ASTM D 4253 and D 4254 test methods.

Subgrade of the floor slab area should be compacted and tested to at least 98 percent of the laboratory maximum dry density as determined by the Standard Proctor method (ASTM D 698), prior to placement of the four-inch layer of crushed stone such as ASTM No. 57 coarse aggregate. The moisture content of the subgrade should be within ±2 percent of the optimum moisture content.

Foundation Construction

Foundation excavations should be cleaned of all loose or otherwise disturbed materials present in the base of the excavations. The excavations should be observed and tested by a qualified geotechnical engineer, or his/her representative, prior to concrete placement to verify that materials capable of providing the recommended bearing capacity are present. Materials exposed in the foundation excavations will be susceptible to softening and/or degradation if exposed to precipitation or surface water runoff. In addition, some foundation excavations could be relatively deep. Consequently, foundation concrete should be placed in the excavations as soon as possible once the excavations have been observed and approved, and only that amount of foundation excavation which can be backfilled with concrete should be opened up on any given day. Once foundation walls have been constructed up to final exterior grades, we recommend that the foundation excavations be backfilled with compacted soil fill to prevent ponding of water adjacent to foundations.

Pavement Construction

All subgrade areas approved during rough grading should be re-evaluated prior to placement of the base stone. Any wet and/or unstable soils present at the subgrade level during fine grading operations should be either scarified, aerated and recompacted or should be removed and replaced with suitable fill material. Any unsuitable

subgrade soils should be corrected immediately prior to placement of base stone and pavement material.

It will be very important that the final soil subgrade be properly sloped or crowned to promote drainage of surface water from precipitation. Also, it will be very important that adequate ditches be constructed along cut sections to effectively remove surface runoff. It is very important that both the base stone and pavement section be placed immediately after acceptable subgrade conditions have been achieved due to the potential for subgrade softening from adverse weather conditions. In addition, heavy construction traffic should be limited from traveling across approved final subgrade areas that have been exposed to precipitation to help maintain a stable subgrade prior to pavement construction. If base stone and pavement sections cannot be placed immediately after acceptable subgrade conditions have been achieved, we recommend stabilizing the soil subgrade with either lime or Portland cement to reduce the potential for subgrade softening from adverse weather conditions. All base stone and asphaltic concrete placement and testing should be performed in accordance with WVDOH criteria.

Groundwater and Surface Runoff Control

The contractor should be prepared to implement temporary and/or permanent dewatering measures since groundwater conditions can change. We anticipate that sources of subsurface water which may develop during construction can probably be managed and removed by a gravity drainage system, sump pits and pumps or other minor dewatering procedures.

Surface water runoff should be prevented from flowing through the construction area. If necessary, diversion ditches or berms should be installed upslope of the construction area. Ditches should be protected from excessive erosion through the use of riprap, erosion control matting, or vegetation.

Quality Assurance and Control

We recommend that the geotechnical engineer-of-record, Triad, be retained to monitor the construction activities to verify that the field conditions are consistent with the findings of our exploration. If significant variations are encountered, or if the design is altered, we should be notified.

The geotechnical engineer should provide personnel full-time and/or intermittently to:

- Observe and document installation of the drainage features and verify initial subgrade conditions prior to fill placement.
- Observe undercut subgrade conditions to determine if additional overexcavation is necessary.
- Observe and test material compaction during fill construction. Field density tests should be performed in accordance with ASTM D 6938 (nuclear method). At

least three (3) field density tests should be performed for each lift or at a frequency determined by the geotechnical engineer to be sufficient for the size of the fill area to verify the required soil compaction.

- Examine all subgrade bearing levels to confirm compliance with our recommendations and verify that adequate support is available.
- Test fresh structural concrete placed for the project.

LIMITATIONS

This report has been prepared for the exclusive use of DG BTS Huntington, LLC for specific application to the design of the proposed Dollar General in Huntington, Wayne County, West Virginia. The work has been performed in accordance with generally accepted geotechnical engineering practices. No other warranty, expressed or implied, is made.

This report should not be used for estimation of construction quantities and/or costs, and contractors should conduct their own investigation of site conditions for these purposes. Please note that Triad is not responsible for any claims, damages or liability associated with any other party's interpretation of the data or reuse of these data or engineering analyses without the express written authorization of Triad. Additionally, this report must be read in its entirety. Individual sections of this report may cause the reader to draw incorrect conclusions if considered in isolation from each other.

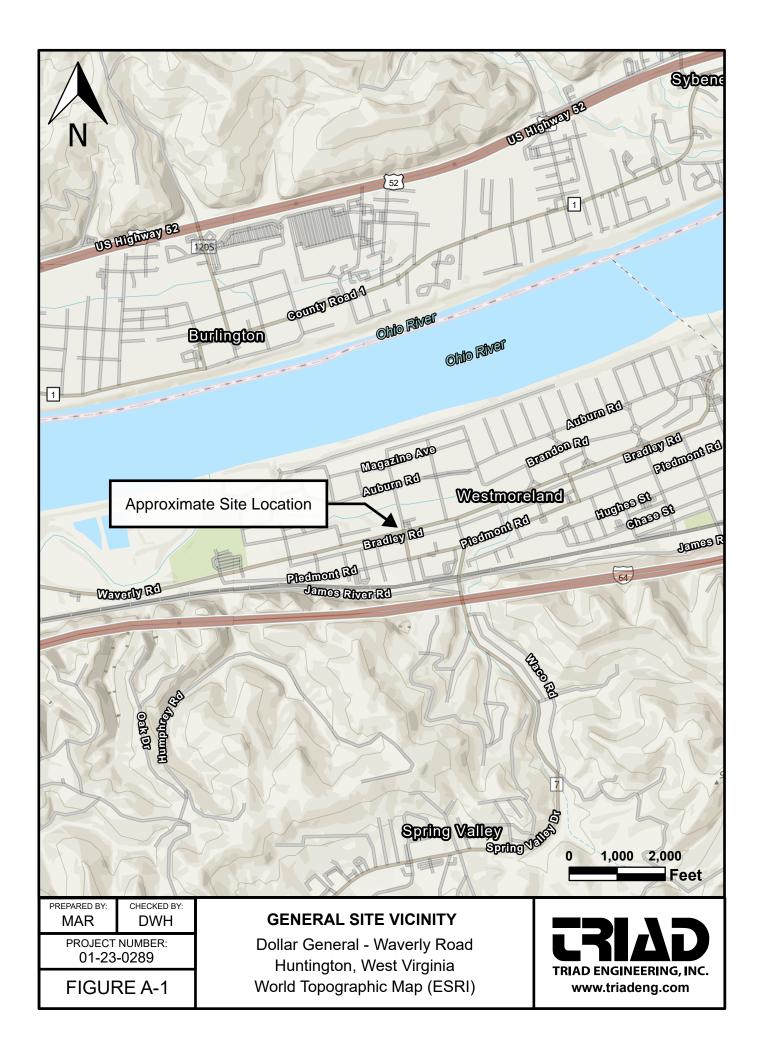
The conclusions and recommendations contained in this report are based, in part, upon our field observations and data obtained from the borings at the site. The nature and extent of variations may not become evident until construction. If variations then appear evident, it may be necessary to re-evaluate the recommendations presented herein. Similarly, in the event that any changes in the nature, design, or location of the facilities are planned, the conclusions and recommendations contained herein shall not be considered valid unless the changes are reviewed and the conclusions are modified or verified in writing by Triad.

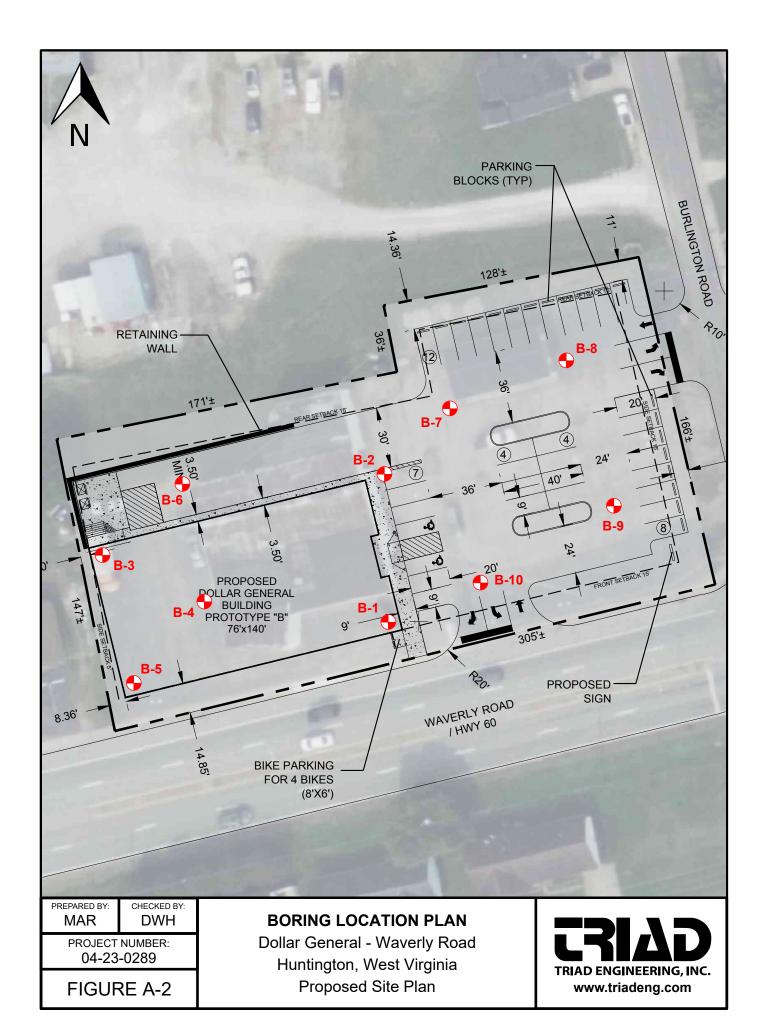
It is recommended that we be provided the opportunity to review the final grading plan, overall foundation design, and specifications so that earthwork and foundation recommendations may be properly interpreted and implemented. If we are not afforded the privilege of making this review, we will not assume responsibility for misinterpretation of our recommendations, as our recommendations are strictly limited to conditions represented to Triad at the time this report was issued.



APPENDIX A

Figures







APPENDIX B

Field Exploration

Triad Engineering, Inc.

Field Exploration

A representative of Triad was present to direct the drill crew, log recovered samples and observe groundwater conditions. The borings were drilled utilizing a CME-55 rotary auger drill rig. Samples of in-situ soil and weathered bedrock were obtained using a split-barrel sampler while performing Standard Penetration Tests (ASTM D 1586). The results of these tests (N-values) are commonly interpreted to provide an index to strength, consistency or relative density of the sampled materials and their ability to support foundations.

Groundwater levels were checked both during and after drilling operations and are recorded on the individual logs if applicable. It is emphasized that groundwater levels typically vary and are dependent upon climatic conditions and other environmental factors.

It is also emphasized that the lines shown on the logs are estimates of the changes in material. Actual changes may be gradual and may vary from those indicated on the logs, and the subsurface conditions between the borings may differ from those depicted on the logs. The boreholes were backfilled upon completion of the drilling with auger cuttings. Samples were transported to our office for temporary storage and additional analysis. The samples will be discarded after a period of 60 days unless other arrangements are made.

KEY TO IDENTIFICATION OF SOIL AND WEATHERED BEDROCK SAMPLES

De	scriptor Sequence
1	Color
2	Primary
2 Component	
3	Fractions
4	Moisture
5	Descriptors
6	Plasticity
7	Consistency/
	Relative Density
8	Deposition Type

1. Color				
Gr	ay	Tan		
Bro	wn	Black		
Ora	nge	Red		
Gre	en	Yellow		
Pur	ple	Blue		
	Modifiers			
Light	Lighter si	de of color range		
Dark	Darker side of color range			
Mottled	Irregularly marked with spots of different colors			
Banded	Alternating shades or colors			

2. Primary Component			
Component	Grain Size		
Boulders	≥ 12 inches		
Cobbles	3 to 12 inches		
Coarse Gravel	1 to 3 inches		
Medium Gravel	³ / ₈ to 1 inch		
Fine Gravel	⁵ / ₆₄ to ³ / ₈ inch		
Coarse Sand	#40 to #10		
Fine Sand	#200 to #40		
Silt/Clay	≤ #200		

3. Fractions			
And	≥ 35%		
Some	20 to 35%		
Little	10 to 20%		
Trace	< 10%		

4. Moisture			
Dry	Dry to touch		
Damp	Slightly moist		
Moist	No visible free water		
Wet	Visible free water		

5. Descriptors			
Fissile	Splits easily along closely spaced parallel planes (breaks into plates)		
Hackly	Jagged or irregular fracture planes		
Slickenside	Polished and striated surface that results from friction along a fault plane		
Laminated	Alternating thin layers of varying material or colors less than ¼" thick		
Lensed	Inclusion of small pockets of different soils		
Saprolitic	Completely weathered rock that retains the appearance of the original rock structure but has only a trace of the original bond strength		
Micaceous	Containing mica minerals		
Varved	Laminated sediment consisting of alternating layers of fine sand and silt or clay deposited in still water		

6. Plasticity of Fine-Grained Soils					
Fine-Grained Component	Plasticity	Estimated Plasticity Index (PI)	Smallest Thread Diameter	Thread Characteristics	Dilatancy
Silt More Predominately Silt	Non- Plastic	0 - 2%	Ball cracks	Dries rapidly; a 1/8-inch thread cannot be rolled at any water content	Moist ball sheds water when shaken giving a glossy appearance
rina Silt Lov Plasti	Low Plasticity	3 - 10%	¹ / ₈ to ¹ / ₄ inch	Feels powdery when drying out during rolling; thread can barely be rolled	Moist ball retains water or sheds water slowly when shaken
Predon More	Medium Plasticity	> 10 - 20%	¹ / ₁₆ inch	Thread cannot be rerolled after reaching plastic limit	
→ More Clay Predominately Clay	Highly Plastic	> 20%	¹ / ₃₂ inch	Thread can be rerolled after reaching plastic limit	Moist ball retains water when shaken
7h Consistency of Fine Cusined Sails					

		e Density of e-Grained Soils
	Descriptor	N-Value
	Very Loose	≤ 4
	Loose	5 - 10
	Medium Dense	11 - 30
_	Dense	31 - 50
	Very Dense	> 50

7b. Consistency of Fine-Grained Soils					
Descriptor	Pocket Penetrometer (tons/ft²)	N-Value			
Very Soft	≤ 0.25	≤ 2			
Soft	≥ 0.25 - 0.5	3 - 4			
Medium Stiff	> 0.5 - 1.0	5 - 8			
Stiff	> 1.0 - 2.0	9 - 15			
Very Stiff	> 2.0 - 4.0	16 - 30			
Hard	> 4	≥31			

8. Type of Deposit				
Alluvium	Sediment deposited by moving water			
Colluvium	Sediment deposited by gravity			
Fill	Manmade deposit			
Fluviomarine	Stratified materials formed by the combined action of			
riuvioinarine	river and sea processes			
Glacial Outwash	Sediment deposited by glacial meltwater; commonly			
Glacial Outwasii	sand and gravel			
Glacial Till	Unsorted sediment deposited by glacier			
Glacial Lake Deposit	Sediment deposited in glacial lake; commonly silt and			
Glacial Lake Deposit	clay			
Residuum	Insoluble material remaining from weathered rock			
Weathered Bedrock	Bedrock that has been weathered			

TEST BORING LOG Sheet <u>1</u> of <u>1</u> Project Number: 04-23-0289 Project Name: **Dollar General - Waverly Road** Boring No.: **B-1** Boring Location: See Boring Location Plan Logger: RKH 10/5/23 CME-55 Date Started: Drill/Method: Driller: HL (TRIAD) Ground Elev.: 550 Date Completed: 10/5/23 Shelby Strata Depth (ft) Standard Sample Type Recovery (%) RQD (Strata) Graphic Log Depth (feet) RQD (RUN) Sample No. Water Level Tube Strata Elevation Split Spoon Blow Core Auger Sample Counts Probe MATERIAL DESCRIPTION 0.3 0.5 549.7 **ASPHALT** Gray GRAVEL, some sand, dry, subbase **▲** 100% S-1 2-3-4 Brown **CLAY**, little sand, trace gravel, damp, medium PP: 3.5 plasticity, very stiff, fill 2.5 547.5 Brown CLAY and SAND, moist, medium plasticity, stiff, S-2 2-3-3 100% alluvium PP: 1.5 5.0 S-3 1-3-2 00% PP: 1.5 7.5 542.5 Brown **SAND** and **SILTY CLAY**, moist, loose, **alluvium** S-4 1-2-3 100% _10.0_ - From 10.0 to 16.5 feet: W=16.4%, LL=19, PL=16, PI=3, S-5 1-3-2 100% Gravel=0%, Sand=56%, Fines=44%, SM _15.0_ 1-2-3 S-6 100% _20.0_ A S-7 3-4-3 100% V 528.5 21.5 Boring Terminated at 21.5 feet.



RIAD_C 04-23-0289 BORING LOGS.GPJ TRIAD 3.GDT 10/22/23

10541 Teays Valley Road Scott Depot, WV 25560 Phone: 304.755.0721 Fax: 304.755.1880

Boring dry upon completion. Elevation estimated Remarks:

from Google Earth DEM data.

TEST BORING LOG Sheet <u>1</u> of <u>1</u> Project Number: 04-23-0289 Project Name: **Dollar General - Waverly Road** Boring No.: **B-2** Boring Location: See Boring Location Plan Logger: RKH 10/6/23 CME-55 Date Started: Drill/Method: Date Completed: 10/6/23 Driller: HL (TRIAD) Ground Elev.: 549 Shelby Strata Depth (ft) Standard Sample Type Recovery (%) RQD (Strata) Graphic Log Depth (feet) RQD (RUN) Sample No. Water Level Tube Strata Elevation Split Spoon Blow Core Sample Auger Counts Probe MATERIAL DESCRIPTION 0.4 548.6 **ASPHALT** 548.2 8.0 100% Gray GRAVEL, some sand, dry, subbase 1-2-5 S-1 1.8 Gray and brown CLAY, some gravel, little sand, damp, 547.2 PP: 2.0 medium plasticity, stiff, fill Brown CLAY, some sand, moist, medium plasticity, stiff S-2 3-4-5 100% to very stiff, alluvium PP: 2<u>.5</u> - From 2.5 to 4.0 feet: W=16.5% 544.0 5.0 5.0 Brown CLAY and SAND, moist, medium plasticity, very S-3 3-4-4 100% stiff, alluvium PP: 2.5 7.5 541.5 Brown SAND, little to some clay, moist, loose, alluvium S-4 2-3-4 100% _10.0_ S-5 2-2-3 100% _15.0_ 1-2-3 S-6 100% _20.0_ A S-7 1-3-3 100% ٧ 527.5 21.5 Boring Terminated at 21.5 feet.



RIAD_C 04-23-0289 BORING LOGS.GPJ TRIAD 3.GDT 10/22/23

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TEST BORING LOG Sheet <u>1</u> of <u>1</u> Project Number: 04-23-0289 Project Name: **Dollar General - Waverly Road** Boring No.: **B-3** Boring Location: See Boring Location Plan Logger: RKH 10/6/23 CME-55 Date Started: Drill/Method: Date Completed: 10/6/23 Driller: HL (TRIAD) Ground Elev.: 548 Shelby Strata Depth (ft) Standard Sample Type Recovery (%) RQD (Strata) Graphic Log Depth (feet) RQD (RUN) Sample No. Water Level Tube Split Spoon Strata Elevation Blow Core Sample Auger Counts Probe MATERIAL DESCRIPTION 0.2 547.8 547.4 **ASPHALT** 547.0 Gray GRAVEL, some sand, dry, subbase 100% S-1 Brown and gray **CLAY**, some sand, little gravel, damp, PP: 3.5 medium plasticity, very stiff, fill Brown **CLAY**, some sand, damp, medium plasticity, very S-2 2-2-3 100% stiff, alluvium PP: 2<u>.5</u> 5.0 5.0 543.0 Brown **SAND**, some clay, moist, very loose, **alluvium** S-3 1-2-2 00% - From 7.5 to 9.0 feet: W=20.0% S-4 2-1-2 100% _10.0_ 10.0 538.0 Brown **SAND**, trace to little clay, moist, very loose to S-5 1-2-2 100% loose, alluvium _15.0_ 1-2-3 S-6 100% _20.0_ **▲** 100% S-7 2-2-2 526.5 21.5 Boring Terminated at 21.5 feet.



RIAD_C 04-23-0289 BORING LOGS.GPJ TRIAD 3.GDT 10/22/23

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TEST BORING LOG Sheet $\underline{1}$ of $\underline{1}$ Project Number: 04-23-0289 Project Name: **Dollar General - Waverly Road** Boring No.: **B-4** Boring Location: See Boring Location Plan Logger: RKH Date Started: 10/6/23 Drill/Method: CME-55 Driller: HL (TRIAD) Ground Elev.: 549 Date Completed: 10/6/23 Shelby Strata Depth (ft) Standard Sample Type Recovery (%) RQD (Strata) Graphic Log Depth (feet) RQD (RUN) Sample No. Water Level Strata Elevation Tube Split Spoon Blow Core Sample Auger Counts Probe MATERIAL DESCRIPTION 0.3 0.5 548.7 548.5 **ASPHALT** Gray GRAVEL, some sand, dry, subbase 100% S-1 2-2-4 Brown CLAY, some sand, moist, medium plasticity, stiff PP: 3.0 V to very stiff, alluvium A - From 2.5 to 4.0 feet: W=18.6% 100% S-2 2-3-3 PP: 3.5 5.0 S-3 1-2-4 00% PP: 1.5 7.5 541.5 Brown SAND, little to some clay, moist, very loose to S-4 1-1-2 100% loose, alluvium _10.0_ S-5 1-1-3 100% _15.0_ 100% 1-2-3 S-6 _20.0_ 20.0 529.0 **▲** 100% Brown SAND, trace clay, moist, very loose, alluvium S-7 1-2-1 V 21.5 527.5 Boring Terminated at 21.5 feet.



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TEST BORING LOG Sheet <u>1</u> of <u>1</u> Project Number: 04-23-0289 Project Name: **Dollar General - Waverly Road** Boring No.: **B-5** Boring Location: See Boring Location Plan Logger: RKH Date Started: 10/6/23 Drill/Method: CME-55 Driller: HL (TRIAD) Ground Elev.: 550 Date Completed: 10/6/23 Shelby Strata Depth (ft) Standard Sample Type Recovery (%) RQD (Strata) Graphic Log Depth (feet) RQD (RUN) Sample No. Water Level Tube Strata Elevation Split Spoon Blow Core Sample Auger Counts Probe MATERIAL DESCRIPTION 0.4 549.6 549.3 **ASPHALT** Gray GRAVEL, some sand, damp, alluvium A S-1 3-3-3 100% Brown CLAY, some sand, damp, medium plasticity, very PP: 3.0 stiff, alluvium S-2 100% 4-4-4 PP: 3.0 5.0 S-3 1-2-3 PP: 2.0 7.5 542.5 Brown **SAND**, some clay, moist, very loose to loose, S-4 1-1-3 100% alluvium PP: 2.0 _10.0_ - From 10.0 to 11.5 feet: W=21.1% S-5 1-1-2 100% _15.0_ 15.0 535.0 **▲** 100% Brown SAND, moist, loose, alluvium 4-4-4 S-6 _20.0_ **▲** 100% S-7 2-2-2 528.5 21.5 Boring Terminated at 21.5 feet.



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TEST BORING LOG Sheet <u>1</u> of <u>1</u> Project Number: 04-23-0289 Project Name: **Dollar General - Waverly Road** Boring No.: **B-6** Boring Location: See Boring Location Plan Logger: RKH Date Started: 10/6/23 CME-55 Drill/Method: Date Completed: 10/6/23 Driller: HL (TRIAD) Ground Elev.: 548 Strata Depth (ft) Shelby Standard Sample Type Recovery (%) RQD (Strata) Graphic Log Depth (feet) RQD (RUN) Water Level Sample No. Strata Elevation Tube Split Spoon Blow Core Sample Auger Counts MATERIAL DESCRIPTION 0.3 547.7 **ASPHALT** 10-1-1 S-1 53% 1.0 547.0 Gray SAND and GRAVEL, little clay, damp, subbase V Brown SILTY CLAY and SAND, moist, low plasticity, very soft, alluvium 0% S-2 1-1-1 5.0 - From 5.0 to 6.5 feet: W=21.7%, LL=23, PL=16, PI=7, S-3 0-0-0 Gravel=0%, Sand=45%, Fines=55%, CL-ML PP: 0.5 540.5 7.5 Brown **SAND**, little to some clay, moist, very loose, S-4 1-1-2 1.5% alluvium _10.0_ S-5 1-2-3 1.5% V 11.5 536.5 Boring Terminated at 11.5 feet. _15.0_ _20.0_



RIAD_C 04-23-0289 BORING LOGS.GPJ TRIAD 3.GDT 10/22/23

Boring dry upon completion. Elevation estimated Remarks:

from Google Earth DEM data.

TEST BORING LOG Sheet <u>1</u> of <u>1</u> Project Number: 04-23-0289 Project Name: **Dollar General - Waverly Road** Boring No.: **B-7** Boring Location: See Boring Location Plan Logger: RKH Date Started: 10/6/23 CME-55 Drill/Method: Driller: HL (TRIAD) Ground Elev.: 547 Date Completed: 10/6/23 Shelby Strata Depth (ft) Standard Sample Type Recovery (%) RQD (Strata) Graphic Log Depth (feet) RQD (RUN) Sample No. Water Level Tube Split Spoon Strata Elevation Blow Core Sample Auger Counts Probe MATERIAL DESCRIPTION **ASPHALT** 0.5 546.5 Gray CLAY, some gravel, little sand, damp, medium **▲** 100% 545.5 plasticity, stiff, subbase S-1 1-2-3 PP: 2.0 Brown **CLAY**, some sand, moist, medium plasticity, very stiff, alluvium S-2 4-4-6 100% PP: 2.5-4.0 5.0 - From 5.0 to 6.5 feet: W=18.9% S-3 2-3-4 100% PP: 1.5 7.5 539.5 Brown CLAY and SAND, moist, medium plasticity, stiff, S-4 1-2-3 100% alluvium PP: 1.5 _10.0_ S-5 2-2-3 100% V PP: 1.5 11.5 535.5 Boring Terminated at 11.5 feet. _15.0_ _20.0_



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TEST BORING LOG Sheet <u>1</u> of <u>1</u> Project Number: 04-23-0289 Project Name: **Dollar General - Waverly Road** Boring No.: **B-8** Boring Location: See Boring Location Plan Logger: RKH Date Started: 10/5/23 CME-55 Drill/Method: Driller: HL (TRIAD) Ground Elev.: 545 Date Completed: 10/5/23 Shelby Strata Depth (ft) Standard Sample Type Recovery (%) RQD (Strata) Graphic Log Depth (feet) RQD (RUN) Sample No. Water Level Tube Split Spoon Strata Elevation Blow Core Sample Auger Counts Probe MATERIAL DESCRIPTION **ASPHALT** 0.5 544.5 0.9 544.1 Gray GRAVEL, some sand, dry, subbase **▲** 100% S-1 2-3-3 Brown CLAY, some sand, trace gravel, damp, medium 2.0 543.0 PP: 3.0 plasticity, very stiff, fill Brown **CLAY**, some sand, moist, medium plasticity, very S-2 2-2-4 100% stiff, alluvium PP: 2.5 5.0 S-3 2-2-3 PP: 2.5 - From 7.5 to 9.0 feet: W=21.3% S-4 1-3-3 100% PP: 2.5 _10.0_ 10.0 535.0 Brown CLAY and SAND, moist, medium plasticity, stiff S-5 1-1-2 100% to very stiff, alluvium V PP: 2.0 11.5 533.5 Boring Terminated at 11.5 feet. _15.0_ _20.0_



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TEST BORING LOG Sheet <u>1</u> of <u>1</u> Project Number: 04-23-0289 Project Name: **Dollar General - Waverly Road** Boring No.: **B-9** Boring Location: See Boring Location Plan Logger: RKH 10/5/23 CME-55 Date Started: Drill/Method: Driller: HL (TRIAD) Ground Elev.: 547 Date Completed: 10/5/23 Shelby Strata Depth (ft) Standard Sample Type Recovery (%) RQD (Strata) Graphic Log Depth (feet) RQD (RUN) Sample No. Water Level Tube Split Spoon Strata Elevation Blow Core Auger Sample Counts Probe MATERIAL DESCRIPTION **ASPHALT** 0.5 546.5 0.9 546.1 Gray GRAVEL, some sand, dry, subbase **▲** 100% S-1 2-3-4 Brown CLAY, some sand, trace gravel, damp, medium 545.0 2.0 PP: 3.0 plasticity, very stiff, fill Brown CLAY, little to some sand, moist, medium S-2 2-2-3 100% plasticity, stiff to very stiff, alluvium PP: 1<u>.5</u> 5.0 S-3 1-3-4 00% PP: 2.5 7.5 539.5 Brown CLAY and SAND, moist, medium plasticity, stiff, S-4 1-1-3 100% alluvium PP: 1.5 _10.0_ - From 10.0 to 11.5 feet: W=22.1% S-5 1-1-3 100% V PP: 1.5 11.5 535.5 Boring Terminated at 11.5 feet. _15.0_ _20.0_



RIAD_C 04-23-0289 BORING LOGS.GPJ TRIAD 3.GDT 10/22/23

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TEST BORING LOG Sheet $\underline{1}$ of $\underline{1}$ Project Number: 04-23-0289 Project Name: **Dollar General - Waverly Road** Boring No.: **B-10** Boring Location: See Boring Location Plan Logger: RKH Date Started: 10/6/23 Drill/Method: CME-55 Driller: HL (TRIAD) Ground Elev.: 549 Date Completed: 10/6/23 Shelby Strata Depth (ft) Standard Sample Type Recovery (%) RQD (Strata) Graphic Log RQD (RUN) Depth (feet) Water Level Sample No. Strata Elevation Tube Split Spoon Blow Core Sample Auger Counts Probe MATERIAL DESCRIPTION 548.7 0.3 **ASHPALT** 548.0 1.0 CONCRETE Brown CLAY, some sand, moist, medium plasticity, very S-1 2-1-3 100% stiff, alluvium PP: 2.0 - From 2.5 to 4.0 feet: W=18.2% S-2 3-6-6 100% PP: 2<u>.5</u> 5.0 S-3 3-4-5 PP: 2.5 7.5 541.5 Brown CLAY and SAND, moist, medium plasticity, soft, S-4 0-2-5 100% alluvium PP: 0.5 _10.0_ S-5 100% 0-1-1 V PP: 0.5 11.5 537.5 Boring Terminated at 11.5 feet. _15.0_ _20.0_



RIAD_C 04-23-0289 BORING LOGS.GPJ TRIAD 3.GDT 10/22/23

Boring dry upon completion. Elevation estimated Remarks:

from Google Earth DEM data.



APPENDIX C Laboratory Testing

Triad Engineering, Inc.

Laboratory Testing

The samples obtained from the test borings were visually classified in the field by geotechnical engineering personnel from Triad. The recovered soils were further evaluated by laboratory testing. Laboratory soils tests were conducted in accordance with applicable ASTM Standards as listed below:

- Moisture content tests were performed in accordance with ASTM D 2216.
- 2. Atterberg Limits tests, consisting of the liquid limit, plastic limit, and plasticity index, were performed in accordance with ASTM D 4318.
- 3. Sieve analyses with washed No. 200 sieve tests were performed in accordance with ASTM D 1140.

A summary and details of the laboratory test results are included on the following pages of this appendix.

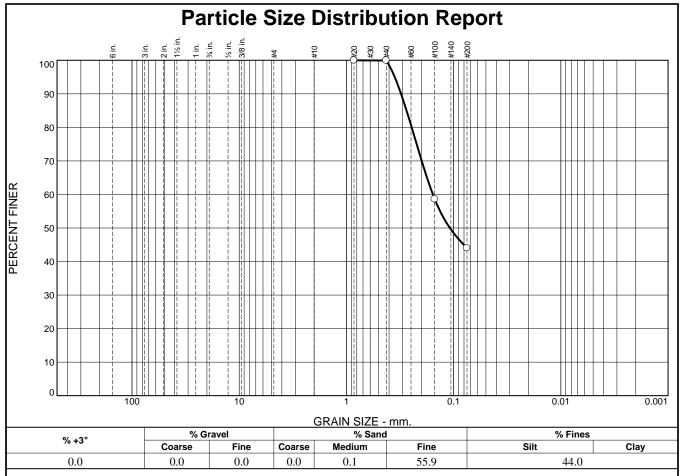
TRIAD ENGINEERING, INC.

LABORATORY DATA SUMMARY

BORING NO.	SAMPLE DEPTH (ft)	SAMPLE TYPE	NATURAL MOISTURE	ATTE	RBERG	LIMITS		GRADATIO	ON	USCS SOIL CLASS.	ADDITIONAL TESTS	CONDUCTED
	(,		(%)	LL	PL	PI	% GRAVEL	% SAND	% FINES]		
B-1	10.0 - 16.5	SS	16.4	19	16	3	0	56	44	SM		
B-2	2.5 - 4.0	SS	16.5									
B-3	7.5 - 9.0	SS	20.0									
B-4	2.5 - 4.0	SS	18.6									
B-5	10.0 - 11.5	SS	21.1									
B-6	5.0 - 6.5	SS	21.7	23	16	7	0	45	55	CL-ML		
B-7	5.0 - 6.5	SS	18.9									
B-8	7.5 - 9.0	SS	21.3									
B-9	10.0 - 11.5	SS	22.1									
B-10	2.5 - 4.0	SS	18.2									
	NGINEERI		Notes:	1) Soil tests performed in accordance with recognized ASTM testing standards. 2) SS = Split Spoon; UD = Undisturbed RC = Rock Core 3) NV = Non Viscous; NP = Non Plastic			PROJECT NUMBER: 04-23-0289 PROJECT NAME: Dollar General - Waverly Road LOCATION: Huntington, West Virginia FIGURE		FIGURE C-1			

NP = Non Plastic

3) NV = Non Viscous;



SIEVE	PERCENT	SPEC.*	PASS?
SIZE	FINER	PERCENT	(X=NO)
#20	100.0		
#40	99.9		
#100	58.6		
#200	44.0		
* (no en	ecification provided)	

Material Description medium brown silty sand					
PL= 16	Atterberg Limits LL= 19	PI= 3			
D ₉₀ = 0.3093 D ₅₀ = 0.1085 D ₁₀ =	Coefficients D ₈₅ = 0.2750 D ₃₀ = C _u =	D ₆₀ = 0.1561 D ₁₅ = C _c =			
USCS= SM	Classification AASHT	O= A-4(0)			
	<u>Remarks</u>				

(no specification provided)

Source of Sample: B-1 **Sample Number:** S-5/S-6

Depth: 10.0'-16.5'

Date: 10/12/2023

Triad Engineering, Inc.

Client: Berry Construction

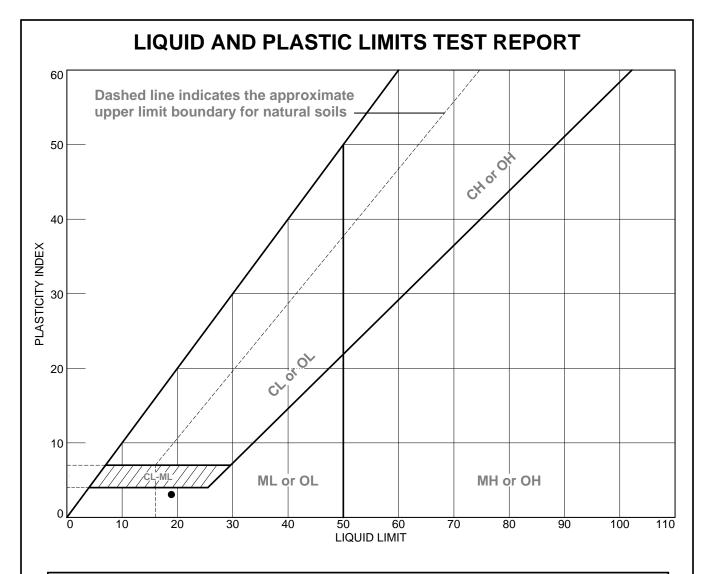
Project: Dollar General-Waverly Road

Morgantown, WV

Project No: 04-23-0289

Figure C-2

Tested By: DTB Checked By: JKM



	SOIL DATA							
SYMBOL	SOURCE	SAMPLE NO.	DEPTH	NATURAL WATER CONTENT (%)	PLASTIC LIMIT (%)	LIQUID LIMIT (%)	PLASTICITY INDEX (%)	uscs
•	B-1	S-5/S-6	10.0'-16.5'	16.4	16	19	3	SM

Triad Engineering, Inc.

Client: Berry Construction

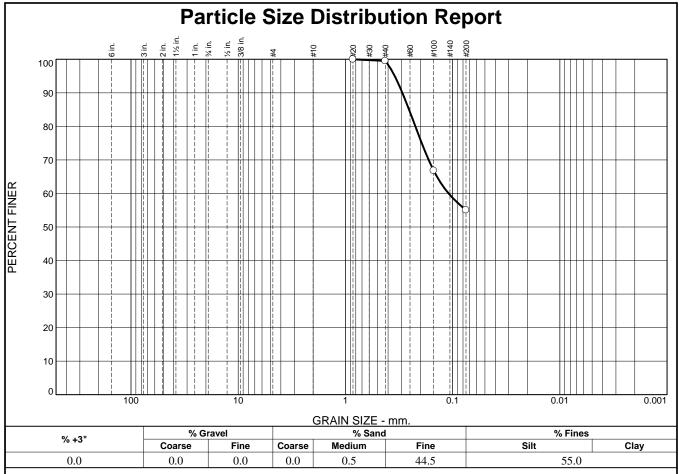
Project: Dollar General-Waverly Road

Figure C-3

Morgantown, WV

Project No.: 04-23-0289

Tested By: LMC Checked By: JKM



SIEVE	PERCENT	SPEC.*	PASS?
SIZE	FINER	PERCENT	(X=NO)
#20	100.0		
#40	99.5		
#100	66.8		
#200	55.0		
*			

Material Description medium brown sandy silty clay					
PL= 16	Atterberg Limits LL= 23	PI= 7			
D ₉₀ = 0.2945 D ₅₀ = D ₁₀ =	Coefficients D85= 0.2552 D30= Cu=	D ₆₀ = 0.1090 D ₁₅ = C _c =			
USCS= CL-ML	Classification AASHTO=	A-4(1)			
	<u>Remarks</u>				

(no specification provided)

Source of Sample: B-6 **Sample Number:** S-3

Tested By: DTB

Depth: 5.0'-6.5'

Date: 10/12/2023

Figure C-4

Triad Engineering, Inc.

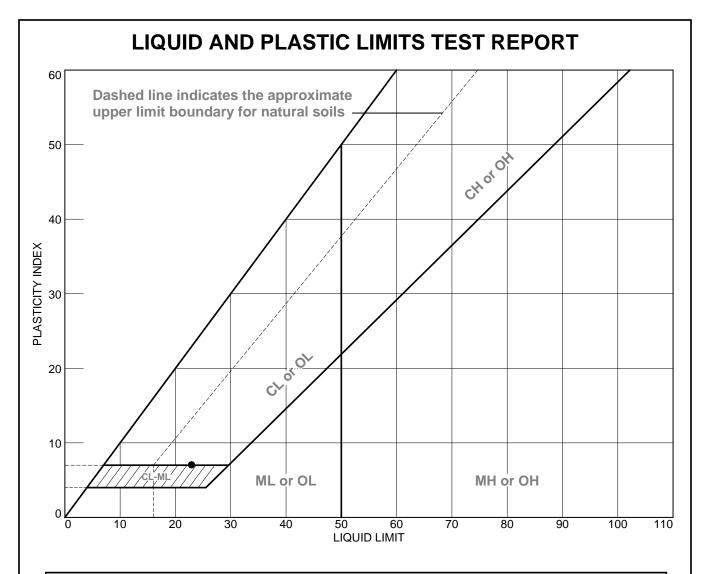
Client: Berry Construction

Project: Dollar General-Waverly Road

Morgantown, WV

Project No: 04-23-0289

Checked By: JKM



	SOIL DATA							
SYMBOL	SOURCE	SAMPLE NO.	DEPTH	NATURAL WATER CONTENT (%)	PLASTIC LIMIT (%)	LIQUID LIMIT (%)	PLASTICITY INDEX (%)	uscs
•	B-6	S-3	5.0'-6.5'	21.7	16	23	7	CL-ML

Triad Engineering, Inc.

Client: Berry Construction

Project: Dollar General-Waverly Road

Figure C-5

Morgantown, WV

Project No.: 04-23-0289

Tested By: LMC Checked By: JKM



APPENDIX D

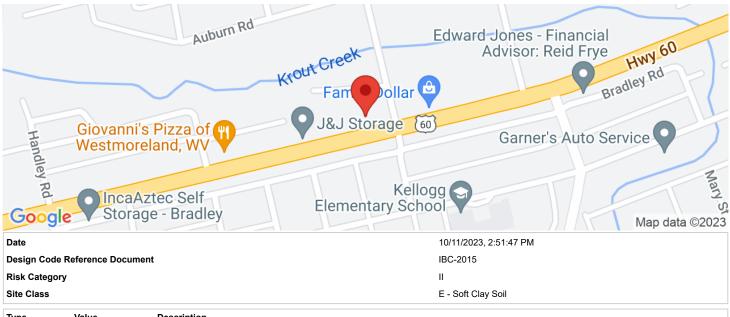
Seismic Information





Dollar General - Waverly Road

Latitude, Longitude: 38.398820, -82.520198

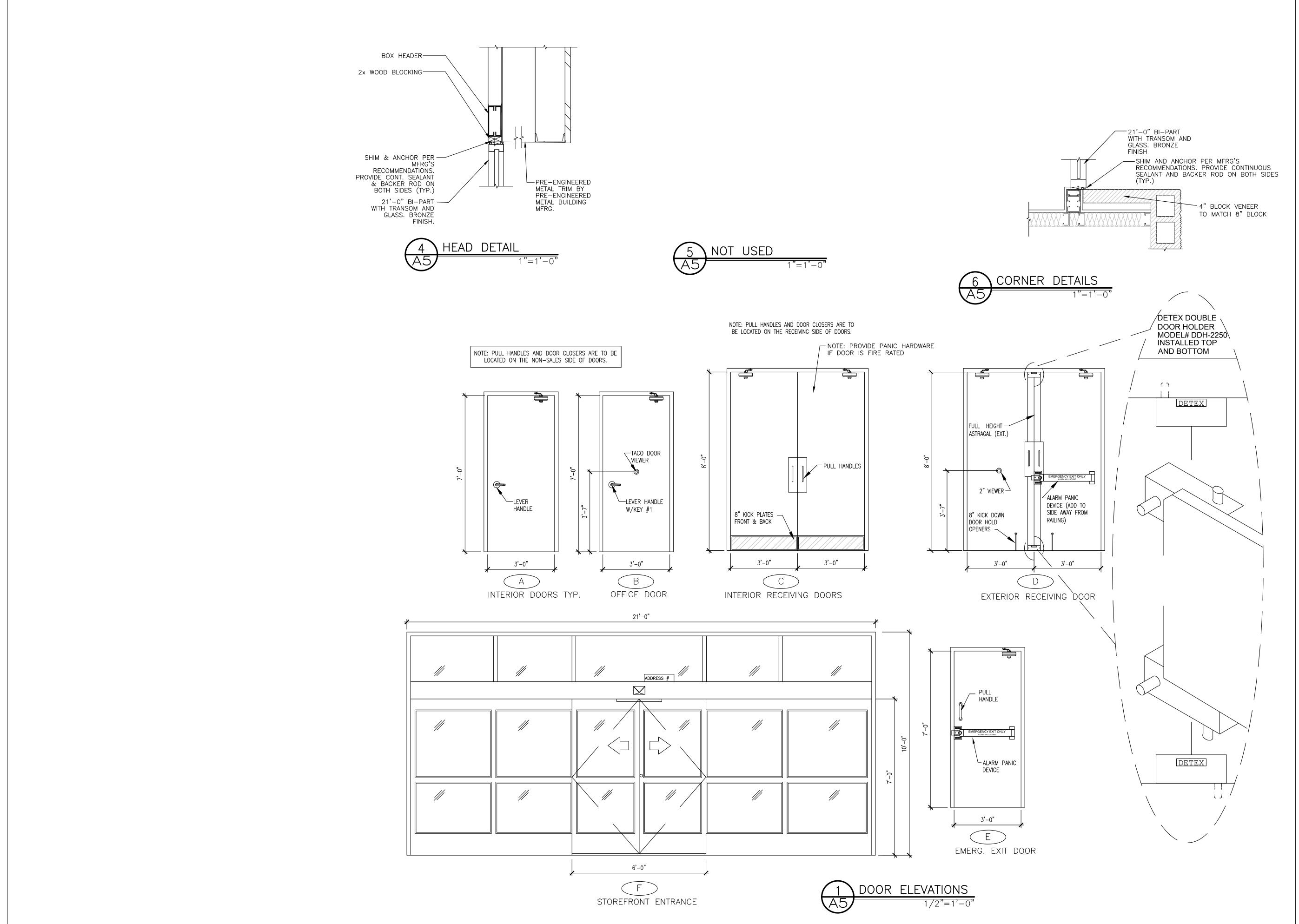


Туре	Value	Description
S _S	0.151	MCE _R ground motion. (for 0.2 second period)
S ₁	0.073	MCE _R ground motion. (for 1.0s period)
S _{MS}	0.379	Site-modified spectral acceleration value
S _{M1}	0.256	Site-modified spectral acceleration value
S _{DS}	0.252	Numeric seismic design value at 0.2 second SA
S _{D1}	0.171	Numeric seismic design value at 1.0 second SA

Туре	Value	Description
SDC	С	Seismic design category
Fa	2.5	Site amplification factor at 0.2 second
F _v	3.5	Site amplification factor at 1.0 second
PGA	0.071	MCE _G peak ground acceleration
F _{PGA}	2.5	Site amplification factor at PGA
PGA _M	0.178	Site modified peak ground acceleration
TL	12	Long-period transition period in seconds
SsRT	0.151	Probabilistic risk-targeted ground motion. (0.2 second)
SsUH	0.164	Factored uniform-hazard (2% probability of exceedance in 50 years) spectral acceleration
SsD	1.5	Factored deterministic acceleration value. (0.2 second)
S1RT	0.073	Probabilistic risk-targeted ground motion. (1.0 second)
S1UH	0.081	Factored uniform-hazard (2% probability of exceedance in 50 years) spectral acceleration.
S1D	0.6	Factored deterministic acceleration value. (1.0 second)
PGAd	0.6	Factored deterministic acceleration value. (Peak Ground Acceleration)
PGA _{UH}	0.071	Uniform-hazard (2% probability of exceedance in 50 years) Peak Ground Acceleration
C _{RS}	0.923	Mapped value of the risk coefficient at short periods
C _{R1}	0.905	Mapped value of the risk coefficient at a period of 1 s
C_V		Vertical coefficient

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STEPHEN P. MAHER, ARCHITECT

ARCHITECTURE PLANNING GRAPHICS

2948 SIDCO DRIVE NASHVILLE, TN 37204 (p) 615.244.8170 (f) 615.244.8141 www.mjmarch.com



DG BTS HUNTINGTON, LLC

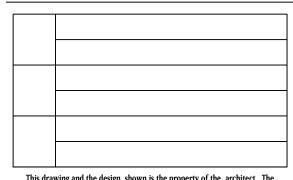
2525 Broad Street Chattanooga TN 37408 mikeberry@berryconstruction 423-488-4053

DOLLAR GENERAL

STORE #30003
WAVERLY ROAD
HUNTINGTON, WV 25704

HUNTINGTON, O

DOLLAR GENERAL PERMIT SET
1.9.24
MJM #23481



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DOOR DETAILS

AS NOTED

A5

naster/zs48i-Wilson Pike Dev-Huntington, WV-DG/U4 CDS/IS-A>_DG_HuntingtonWV-b-DGMM, GWg Dec 2U, 2U2s - 5