

ARM Group Inc.

Engineers and Scientists

July 1, 2019

Ms. Barbara Brown
Project Coordinator
Maryland Department of the Environment
1800 Washington Boulevard
Baltimore, MD 21230

Re: Interim Use Work Plan:

Marketing Center

Area B: Sub-Parcel B6-2 (Retail Area)

Tradepoint Atlantic

Sparrows Point, MD 21219

Dear Ms. Brown:

On behalf of EnviroAnalytics Group, LLC (EAG), ARM Group Inc. (ARM) is submitting this Interim Use Work Plan to the Maryland Department of the Environment (MDE) and United States Environmental Protection Agency (USEPA) to facilitate improvements on an area within Sub-Parcel B6-2 (the Site) designated as the Marketing Center and surrounding roadways.

Project Background

The proposed major grading and utility installation tasks for the Site were covered by the agency-approved Sub-Parcel B6-2 Response and Development Work Plan (RADWP) Revision 1 dated January 24, 2018. The RADWP is the primary guidance document for all future development activities associated with the retail area. The RADWP also provided a Screening Level Risk Assessment (SLRA) for the entire Site to evaluate potential risks to Composite Workers and Construction Workers. The SLRA concluded that a capping remedy would adequately protect Composite Workers (and site visitors) from potential exposures to impacted materials left in place at the Site. Subsequent to the approval of the RADWP, an Addendum (Revision 2 dated May 22, 2018) was approved by the MDE and USEPA to facilitate the upcoming construction of a Royal Farms station designated as Retail Area #1, as well as ingress and egress roads surrounding the lot. The cap thicknesses proposed for the Retail Area #1 and associated roads meet the requirements specified by the RADWP to act as the final remedy.

The Marketing Center does not represent a permanent use of this area of the Site. The Marketing Center consists of an existing 2-story building which is currently surrounded by graded slag aggregate. As part of the upcoming development of Retail Area #1, the Marketing Center will be enclosed by portions of the ingress and egress roads (which were also approved for construction under the RADWP Addendum referenced above). This Interim Use Work Plan is being

submitted to facilitate site improvements at the Marketing Center including a temporary capping remedy surrounding the existing building. In addition, lighting improvements are proposed along the ingress and egress roads to be constructed by Baltimore Gas & Electric (BGE). This work is not intended to be the basis for the issuance of a No Further Action Letter or a Certificate of Completion. While a RADWP Addendum is not warranted (because the use of the Marketing Center is not permanent), the scope of work will be subject to many of the requirements specified by the Sub-Parcel B6-2 RADWP.

Project Description

Development drawings for the proposed Marketing Center and lighting improvements are provided as **Attachment 1** and **Attachment 2**. These drawings also show the ingress and egress roads associated with the Retail Area #1 (Royal Farms), which have already been approved for construction under the existing RADWP Addendum. As indicated in the drawings, the proposed Marketing Center will include the existing 2-story metal frame building, to be surrounded by landscaped areas (with trees) and paved sidewalks. Cross sections for the landscaped areas, tree plantings, and paved sidewalks are provided in the drawings. Although these cap installations are considered to be interim remedies (because the Marketing Center is not permanent), the cross sections for each type of proposed cap meet the minimum thicknesses given in the Sub-Parcel B6-2 RADWP.

The drawings in **Attachment 1** also show the locations of proposed lighting improvements along the ingress and egress roads, including in the immediate vicinity of the Marketing Center. Although the construction of the roads is covered by the existing RADWP Addendum, the lighting improvements were not included at that time. **Attachment 2** provides the approximate alignments of the proposed duct routes for electrical connections, as provided by BGE.

Work Requirements

The construction of the Marketing Center (and the lighting improvements) will remain subject to the implementation protocols outlined in the Sub-Parcel B6-2 RADWP, including but not limited to the following:

- Oversight will be provided by an Environmental Professional (EP) during interim remedy installation, as well as intrusive construction activities.
- Development activities will be conducted under a Health and Safety Plan (HASP).
- Soil screening requirements will be implemented as required.
- Erosion and sediment controls will be installed as required.
- Dust monitoring will be implemented as required.
- If dewatering is necessary, sampling and disposal will be conducted as required.



Upgraded Personal Protective Equipment (PPE) beyond standard Level D protection will be used for the entire scope of work covered by this Interim Use Work Plan as a protective measure to ensure that there are no unacceptable exposures for Construction Workers during project implementation. The modified Level D PPE requirements which will be applied during this project, including specific PPE details, planning, tracking/supervision, enforcement, and documentation, are outlined in the PPE Standard Operational Procedure (SOP) provided as **Attachment 3**.

A pre-construction meeting shall be held to address proper operating procedures for working onsite and monitoring excavations and trenching in potentially contaminated material. This meeting shall consist of the EP and the construction manager. The HASP and the PPE SOP shall be reviewed during the pre-construction meeting.

Any excavated soil must be staged and stockpiled in accordance with agency-approved best management practices. In most cases, excavated soil is expected to be suitable for placement below the permanent capping remedies proposed for installation within the Retail Area #1 or below the surrounding ingress and egress roads. Any excavated soil that is generated from trenching or excavation activities that is not proposed (or suitable) for reuse will be subject to review and approval by the MDE prior to final disposal. A sampling plan must be approved by the MDE and the results reviewed prior to reuse or removal of the material to another area of the property or an off-site location.

Utility backfill materials must be approved by the MDE Voluntary Cleanup Program (VCP). MDE VCP clean fill approved for commercial land use will be required at depths and alignments where the utility trench could be considered to be part of a landscaped cap (i.e., depths less than or equal to 2 feet). Slag or other approved backfill soil not meeting the MDE VCP definition of clean fill may be used in areas where the utility trench will be covered by an additional cap. Soil removed from utility trenches cannot be used as fill within the utility trenches unless such materials are approved for this use by the VCP.

TPA will coordinate with the EP to ensure that all intrusive work is monitored. Any notable or non-standard conditions, including but not limited to staining, strong odors, discoloration, evidence of non-aqueous phase liquid (NAPL), or other evidence of contamination which has not previously been characterized, will be reported to the MDE within 24 hours. If evidence of petroleum is encountered, preventive measures will be implemented to prevent the discharge to, or migration of, petroleum product along a utility conduit. NAPL has not been encountered in the direct vicinity of this project; however, the past investigation results cannot guarantee that NAPL will not be encountered during the proposed work. The Utility Excavation NAPL Contingency Plan (provided in the RADWP) provides protocols to be followed if product is encountered during construction activities. Preventative measures to inhibit the spread of petroleum product will be conducted in accordance with this plan.



Summary of Soil and Groundwater Conditions

The soil boring locations completed in the vicinity of this project during preceding Phase II Investigations are shown on **Figure 1**, along with a summary of the soil sample results that exceeded the Project Action Limits (PALs). PAL exceedances in the soil samples relevant for the proposed project were limited to four inorganics (arsenic, manganese, lead, and thallium) and one semi-volatile organic compound (SVOC) (benzo[a]pyrene).

The shallow groundwater sample locations in the vicinity of this project are shown on **Figure 2**, along with a summary of the shallow groundwater results that exceeded the PALs. Shallow groundwater PAL exceedances in the vicinity of the project consisted of six inorganics (cobalt, iron, manganese, nickel, thallium, and vanadium), three SVOCs (benz[a]anthracene, naphthalene, and pentachlorophenol), and total petroleum hydrocarbons diesel range organics (TPH-DRO).

Inspection and Maintenance

Inspections will be required to verify that there are no potential exposure risks for Composite Workers or visitors caused by deficiencies in the interim measures. Given that the proposed cap thicknesses meet the standards specified in the RADWP for permanent caps, inspections of the interim measures will be completed at a minimum frequency of annually. The MDE will be notified of any deficiencies. Tradepoint Atlantic personnel (the responsible party) or their designated agent will perform inspections, perform maintenance of the interim measures, and retain inspection records.

If a corrective action is required, the MDE notification will include documentation of the observed conditions and the location of any repairs. In addition, the MDE and USEPA will be provided with a written notice at least 30 days prior to any planned removal or modification to the proposed interim measures once they have been installed.

Schedule

At this time, EAG is requesting approval for Tradepoint Atlantic to proceed with the proposed work. Tradepoint Atlantic intends to commence work on the Site in mid-July 2019, and anticipates that the full scope of work will be completed by September 2019.

Reporting

A brief Completion Letter Report will be submitted to the MDE upon finishing the project to document the installation of the interim capping remedy at the Marketing Center. The construction of the lighting improvements along the ingress and egress roads (and the roads themselves) will be documented within the Development Completion Report for the Royal Farms station designated as Retail Area #1.

ARM Group Inc

If you have any questions, or if we can provide any additional information at this time, please do not hesitate to contact ARM Group Inc. at 410-290-7775.

Respectfully submitted,

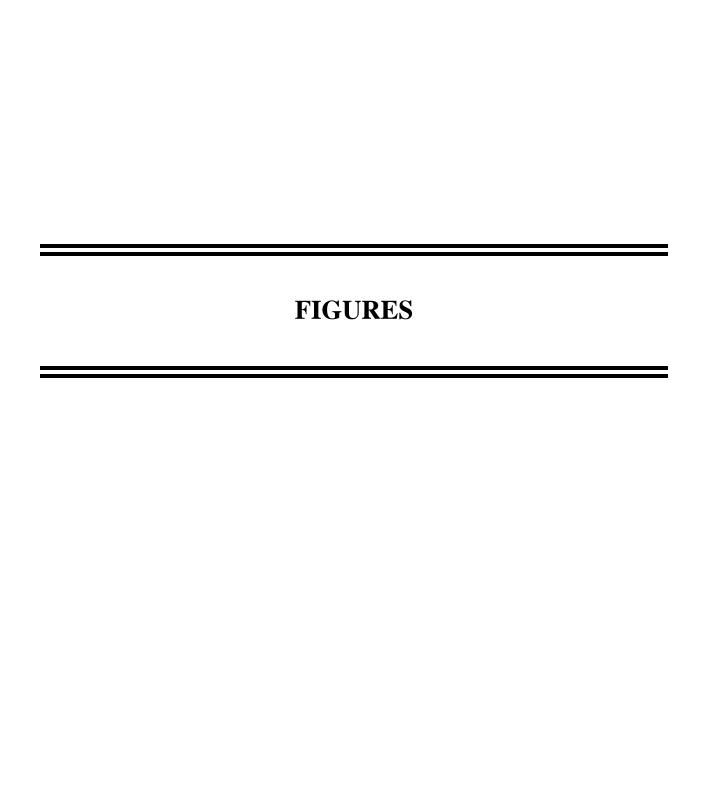
ARM Group Inc.

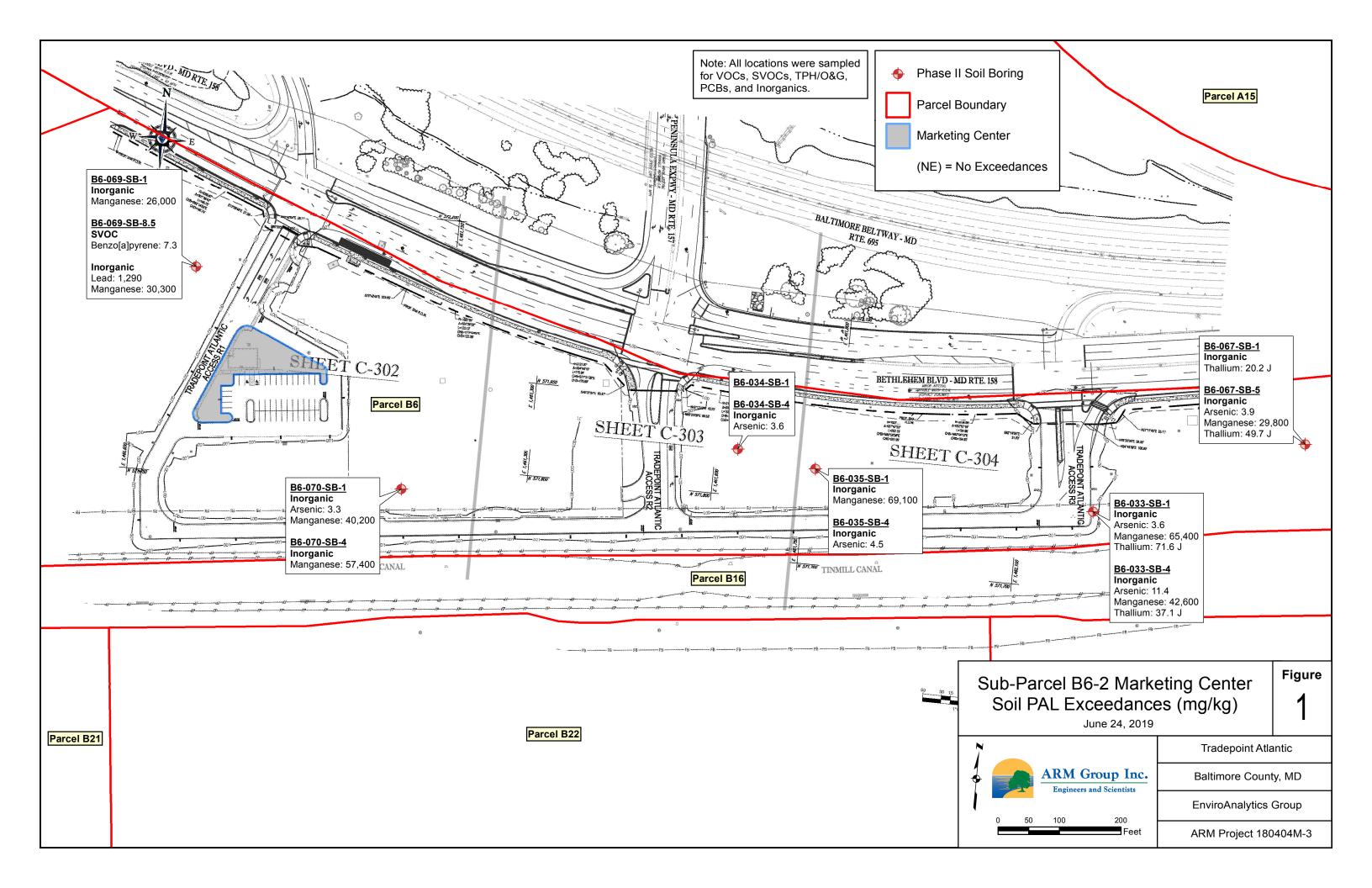
Taylor R. Smith, P.E.

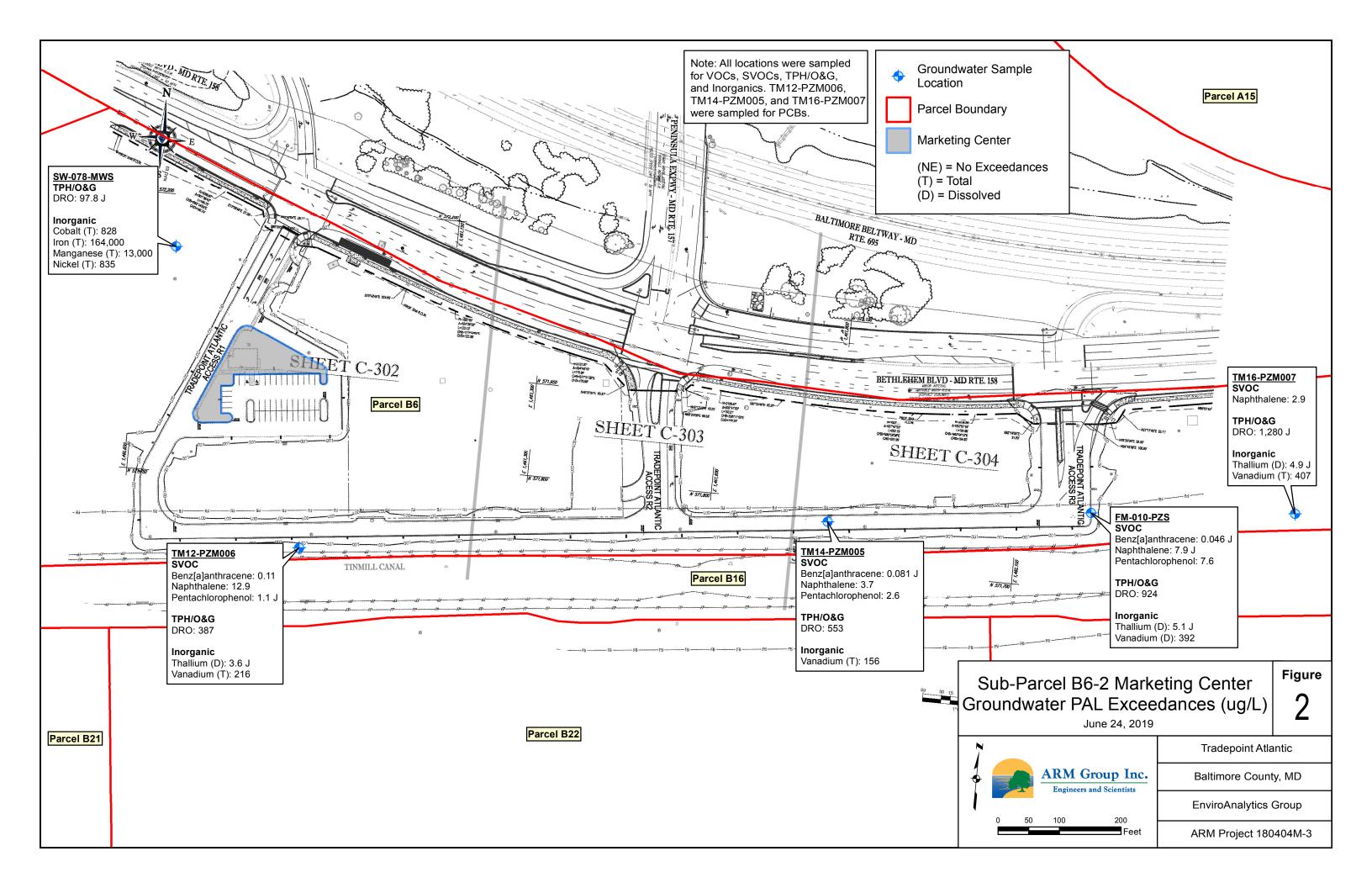
Project Engineer

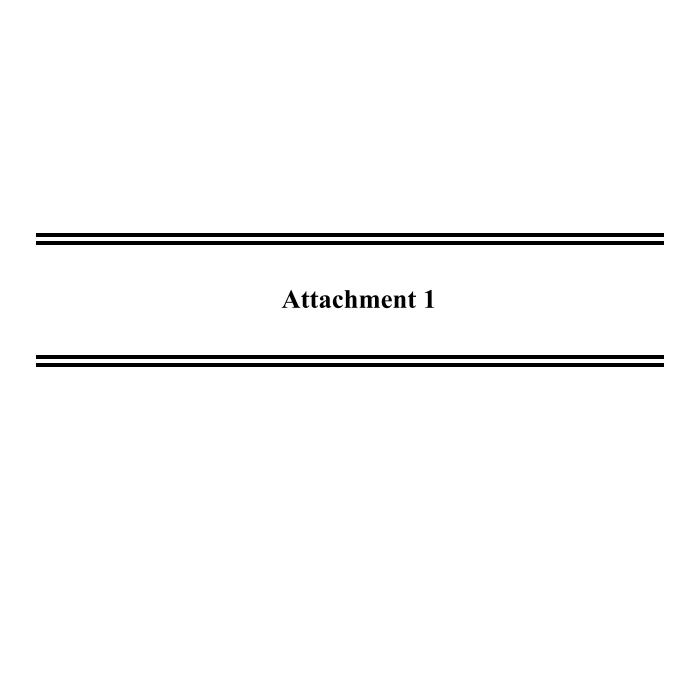
T. Neil Peters, P.E. Senior Vice President











STANDARD DRAWING LEGEND STANDARD FOR ENTIRE PLAN SET **ABBREVIATIONS** LIMIT OF WORK FOR ENTIRE PLAN SET LIMIT OF DISTURBANCE ACRES AMERICANS WITH DISABILITY ACT TYPICAL NOTE TEXT PROPOSED NOTE EXISTING NOTE ARCHITECTURAL ARCH ONSITE PROPERTY LINE / R.O.W. LINE **BOTTOM OF CURB** NEIGHBORING BASEMENT FLOOR PROPERTY LINE INTERIOR PARCEL LIN BASELINE BLDG BUILDING SETBACK BUILDING BENCHMARK **BUILDING RESTRICTION LINE** CUBIC FEET CENTERLINE CURB AND GUTTER CMP CORRUGATED METAL PIPE CONN **CONCRETE CURB 8** CONC CONCRETE CPP CORRUGATED PLASTIC PIPE CY CUBIC YARDS UTILITY POLE DEC DECORATIVE WITHLIGHT DEP DEPRESSED DIP **DUCTILE IRON PIPE** DOM DOMESTIC TRAFFIC ELEC ELECTRIC ELEV **ELEVATION** EP EDGE OF PAVEMENT EDGE OF SHOULDER EW END WALL \Diamond **EXISTING TYPICAL** FLARED END SECTION ___ FINISHED FLOOR PARKING FIRE HYDRANT COUNTS FINISHED GRADE GARAGE FLOOR (AT DOOR) — *— 170*— — – GRADE HIGHER SIDE OF WALL GRADE LOWER SIDE OF WALL TC 516.4 OR 516.4 **ELEVATIONS** GRT HIGH DENSITY POLYETHYLENE PIPE SANITARY LABEL HIGH POINT HOR HORIZONTAL LABEL HW HEADWALL SANITARY SEWER INTERSECTION INVERT LINEAR FOOT LOC LIMITS OF CLEARING **UNDERGROUND** ELECTRIC LINE UNDERGROUND LINE OF SIGHT LOW POINT **OVERHEAD** LANDSCAPE L/S MAXIMUM **UNDERGROUND** MINIMUM **TELEPHONE LINE** MANHOLE UNDERGROUND CABLE LINE MECHANICAL JOINT ON CENTER SEWER POINT OF ANALYSIS POINT CURVATURE SEWER MAIN POINT OF COMPOUND **HYDRANT** CURVATURE, CURB RETURN POINT OF INTERSECTION POINT OF GRADE PROP PROPOSED MANHOLE POINT OF TANGENCY POINT OF TANGENCY PTCR METER CURB RETURN POLYVINYL CHLORIDE PIPE POINT OF VERTICAL INTERSECTION VALVE POINT OF VERTICAL TANGENCY \boxtimes \boxtimes METER RCP REINFORCED CONCRETE PIPE TYPICAL END RETAINING WALL RIGHT OF WAY R/W HEADWALL OR SLOPE SANITARY SEWER SQUARE FEET STA STATION O STM STORM S/W SIDEWALK TO BE REMOVED MANHOLE TBRL TO BE RELOCATED TOP OF CURB **TELEPHONE** (7) (T)TELE TELEPHONE ELECTRIC TREE PROTECTION FENCE TOP OF WALL **ELECTRIC** TYP TYPICAL PEDESTAL UNDERGROUND UTILITY POLE WIDE MONITORING WATER LINE WATER METER PLUS OR MINUS BENCHMARK DIAMETER NUMBER

RETAIL DEVELOPMENT ACCESS ROADS

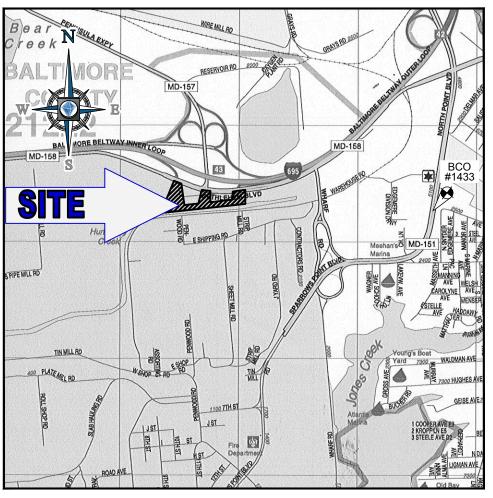


PHASE II PLANS

LOCATION OF SITE

SOUTHWEST CORNER OF BETHELHEM BOULEVARD AT WHARF ROAD TAX MAP 111, GRID 14, PARCEL 318 BALTIMORE, MD 21219 **BALTIMORE COUNTY** DISTRICT: 07 DRC#: 010918E

TRACKING #: DRC-2017-00196



LOCATION MAP COPYRIGHT ADC THE MAP PEOPLE PERMIT USE NO. 20602153-5 SCALE: 1"=2000'

OWNER TRADEPOINT ATLANTIC, LL 600 SPARROWS POINT BLVI BALTIMORE, MD 21219 CONTACT: JUSTIN DUNN PHONE: 410-709-1318

ISSUED FOR

CONSTRUCTION

THIS DOCUMENT IS NOT ISSUED BY BOHLER ENGINEERING

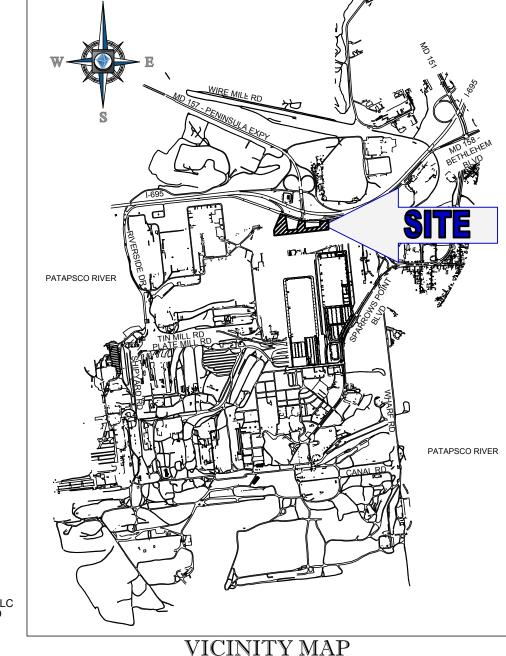
FOR CONSTRUCTION WITHOUT THREE (3) SIGNATURES

PROJECT #:

REVISION DATE

DATE SIGNATURE

DEVELOPER



901 DULANEY VALLEY ROAD, SUITE 801 **TOWSON, MARYLAND 21204**

(410) 821-7900 (410) 821-7987 MD@BohlerEng.com CONTACT: ANDREW G. STINE, P.E. REFERENCES

♦ EXISTING CONDITIONS CAD FILES PROVIDED BY TRADEPOINT ATLANTIC ENTITLED: "BASE - UTILITIES", "BASE - TOPO", "BASE -

EXISTING SANITARY SEWER WHITMAN, REQUARDT & ASSOCIATES, LLP ENTITLED: "TRADE POINT ATLANTIC PRIVATE ONSITE SANITARY SEWER SYSTEM (NORTHERN CAMPUS)" TRADEPOINT ATLANTIC, LLC 1600 SPARROWS POINT BLVD. BALTIMORE, MARYLAND 21219 DATED: OCTOBER 2017

MASS GRADING PLANS BOHLER ENGINEERING

BOHLER ENGINEERING

OF PUBLIC WORKS

TOWSON, MD 21204

CONTACT: STEVE WALSH

ENTITLED: "MASS GRADING PLANS FOR TRADEPOINT ATLANTIC: RETAIL AREA: BETHLEHEM BLVD (MD RTE. 158): TAX MAP 111. PARCEL 318; BALTIMORE MD, 21219; BALTIMORE COUNTY" PROJECT NO.: MD1620661 DATED: 7/27/17, LAST REVISED: 5/4/18

PROJECT NO.: MD1620661 DATED: 4/10/18, LAST REVISED 6/15/18

ENTITLED: "FOREST BUFFER EASEMENT PLAN"

GOVERNING AGENCIES ♦ BALTIMORE COUNTY DEPARTMENT

PHONE: (410) 887-3306 MARYLAND DEPARTMENT OF THE **ENVIRONMENT**

111 WEST CHESAPEAKE AVENUE

1800 WASHINGTON BOULEVARD BALTIMORE, MD 21230 CONTACT: JENNIFER SMITH PHONE: (410) 537-4311

CONTACT: JIM MARKLE

ENVIRONMENTAL PROTECTION AND SUSTAINABILITY TOWSON, MD 21204

PHONE: (410) 887-4488 BALTIMORE COUNTY DEPARTMENT OF DEVELOPMENT MANAGEMENT 111 WEST CHESAPEAKE AVENUE

TOWSON, MD 21204 CONTACT: JAN COOK PHONE: (410) 887-332

CONTROL POINT ASSOCIATES, INC. ENTITLED: "PARTIAL TOPOGRAPHIC & LOCATION SURVEY; TRADEPOINT ATLANTIC; SPARROWS POINT BOULEVARD & TRADEPOINT AVENUE; PART OF MAP 111, GRID 14, PARCEL 318 CITY & COUNTY OF BALTIMORE; STATE OF MARYLAND" FILE NO.: 02-160385-00

BOHLER ENGINEERING ENTITLED: "SHA ACCESS PERMIT PLANS FOR TRADEPOINT ATLANTIC; BETHLEHEM BLVD (MD ROUTE 158) FROM STA. 2664+50 TO 2700+50; PENINSULA EXPRESSWAY (MD ROUTE 1 FROM STA. 0+00 TO STA. 8+25.17; INTERSTATE 695 RAMP B (FROM STA. 0+00 TO STA. 9+32.47) AND RAMP D; WHARF ROAD FROM STA. 0+00 PROJECT NO.: MD1620661

UTILITY CONTACTS

BALTIMORE COUNTY DEPARTMENT OF PUBLIC WORKS 111 WEST CHESAPEAKE AVENUE TOWSON, MD 21204 CONTACT: STEVE WALSH PHONE: (410) 887-3306

1068 N. FRONT ST. ROOM 401 BALTIMORE, MD 21202 PHONE: (410) 850-4620

COMCAST BUSINESS SERVICES

5001 METRO DRIVE BALTIMORE, MD 21215 PHONE: (800) 391-3000

99 SHAWAN ROAD COCKEYSVILLE, MD 21030

BALTIMORE COUNTY DEPARTMENT OF PUBLIC 111 WEST CHESAPEAKE AVENUE CONTACT: STEVE WALSH PHONE: (410) 887-3306

| SHEET INDEX | |
|---|---------------------------------------|
| SHEET TITLE | SHEET NUMBER |
| COVER SHEET | C-101 (E&S 1 OF 9) |
| GENERAL NOTES | C-102 |
| OVERALL EXISTING CONDITIONS AND DEMOLITION PLAN | C-201 |
| EXISTING CONDITIONS AND DEMOLITION PLAN | C-202 - C-204 |
| OVERALL SITE PLAN | C-301 |
| SITE PLAN | C-302 - C-304 |
| OVERALL FINAL GRADING PLAN | C-401 (GRADING 1 OF 4) |
| FINAL GRADING PLAN | C-402 - C-404 (GRADING 2 - 4 OF 4) |
| OVERALL EROSION AND SEDIMENT CONTROL PLAN | C-601 (E&S 2 OF 9) |
| EROSION AND SEDIMENT CONTROL PLAN | C-602 - C-604 (E&S 3 - 5 OF 9 |
| PHASE I EROSION AND SEDIMENT CONTROL DRAINAGE AREA MAP | C-605 (E&S 6 OF 9) |
| PHASE II EROSION AND SEDIMENT CONTROL DRAINAGE AREA MAP | C-606 (E&S 7 OF 9) |
| EROSION AND SEDIMENT CONTROL NOTES AND DETAILS | C-607 - C-608 (E&S 8 - 9 OF 9 |
| OVERALL FINAL LANDSCAPE PLAN | C-701 |
| FINAL LANDSCAPE PLAN | C-702 - C-704 |
| FINAL LANDSCAPE NOTES AND DETAILS | C-705 |
| OVERALL LIGHTING PLAN | C-706 |
| LIGHTING PLAN | C-707 - C-709 |
| IGHTING NOTES AND DETAILS | C-710 |
| SITE DETAILS | C-901 |

OWNER'S/DEVELOPER'S CERTIFICATIONS

I/WE HEREBY CERTIFY THAT ANY CLEARING, GRADING, CONSTRUCTION AND/OR DEVELOPMENT WILL BE DONE PURSUANT TO THIS PLAN AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THIS CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A MARYLAND DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I/WE ALSO CERTIFY THAT THE SITE WILL BE INSPECTED AT THE END OF EACH WORKING DAY, AND THAT ANY NEEDED MAINTENANCE WILL BE COMPLETED SO AS TO INSURE THAT ALL SEDIMENT CONTROL PRACTICES ARE LEFT IN OPERATIONAL CONDITION. I/WE AUTHORIZE THE RIGHT OF ENTRY FOR PERIODIC ON-SITE EVALUATION BY THE BALTIMORE COUNTY SOIL CONSERVATION DISTRICT BOARD OF SUPERVISORS

OR THEIR AUTHORIZED AGENTS SIGNATURE OWNER/DEVELOPER CONSULTANT'S CERTIFICATION: I CERTIFY THAT THIS PLAN OF EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE, AND THAT THIS PLAN WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE BALTIMORE COUNTY SOIL CONSERVATION DISTRICT AND THE CURRENT STATE OF MARYLAND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL. I HAVE REVIEWED THIS EROSION AND SEDIMENT CONTROL PLAN WITH THE

| SIGNATURE CONSULTANT |
|-----------------------|
| ANDREW G. STINE, P.E. |
| DDINT NAME |

REVIEWED AND APPROVED FOR SEDIMENT

CONTROL UNDER SECTION 4-105

MARYLAND DEPARTMENT OF THE ENVIRONMENT

MD LICENSE NUMBER

E&S 1 OF 9

ELEVATIONS BASED ON NAVD 88, COORDINATES AND MERIDIAN ARE BASED ON THE MARYLAND COORDINATE SYSTEM (MCS) PER MONUMENTS BCO #1433 AND GIS 2

REVISIONS COMMENT 8/10/18 | REVISIONS PER MDE REVISED PER COUNTY COMMENTS ISSUED FOR CONSTRUCTION



APPROVED FOR CONSTRUCTION

It's fast. It's free. It's the law

DRAWN BY: AS NOTED

> DEVELOPMENT ACCESS ROADS



LOCATION OF SITE SOUTHWEST CORNER OF BETHELHEM BOULEVARD AT WHARF ROAD TAX MAP 111, GRID 14, PARCEL 318 BALTIMORE, MD 21289 **BALTIMORE COUNTY** DISTRICT: 07 DRC#: 010918E



901 DULANEY VALLEY ROAD, SUITE 80 **TOWSON, MARYLAND 21204** Phone: (410) 821-7900 (410) 821-7987 MD@BohlerEng.com

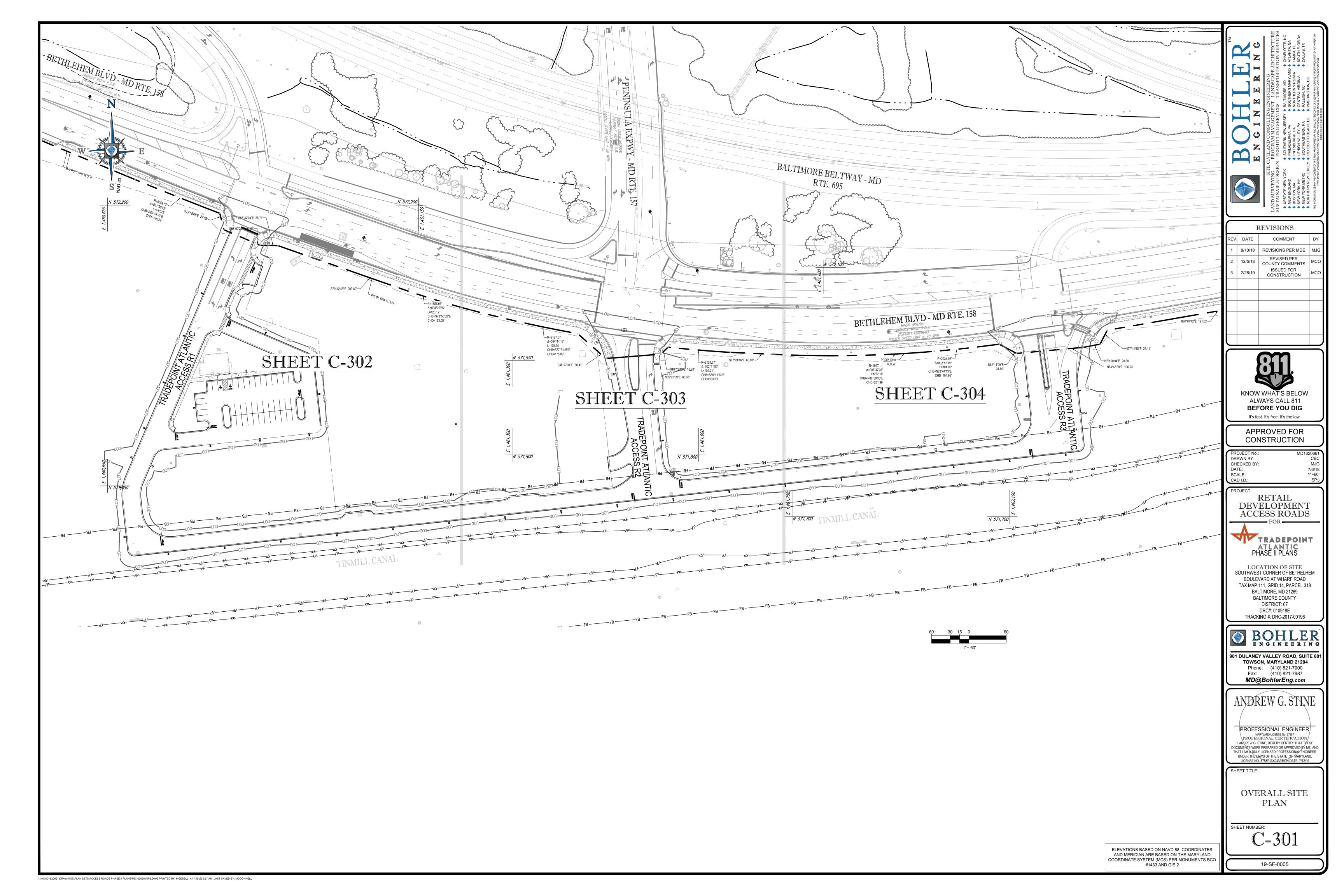
ANDREW G. STINE

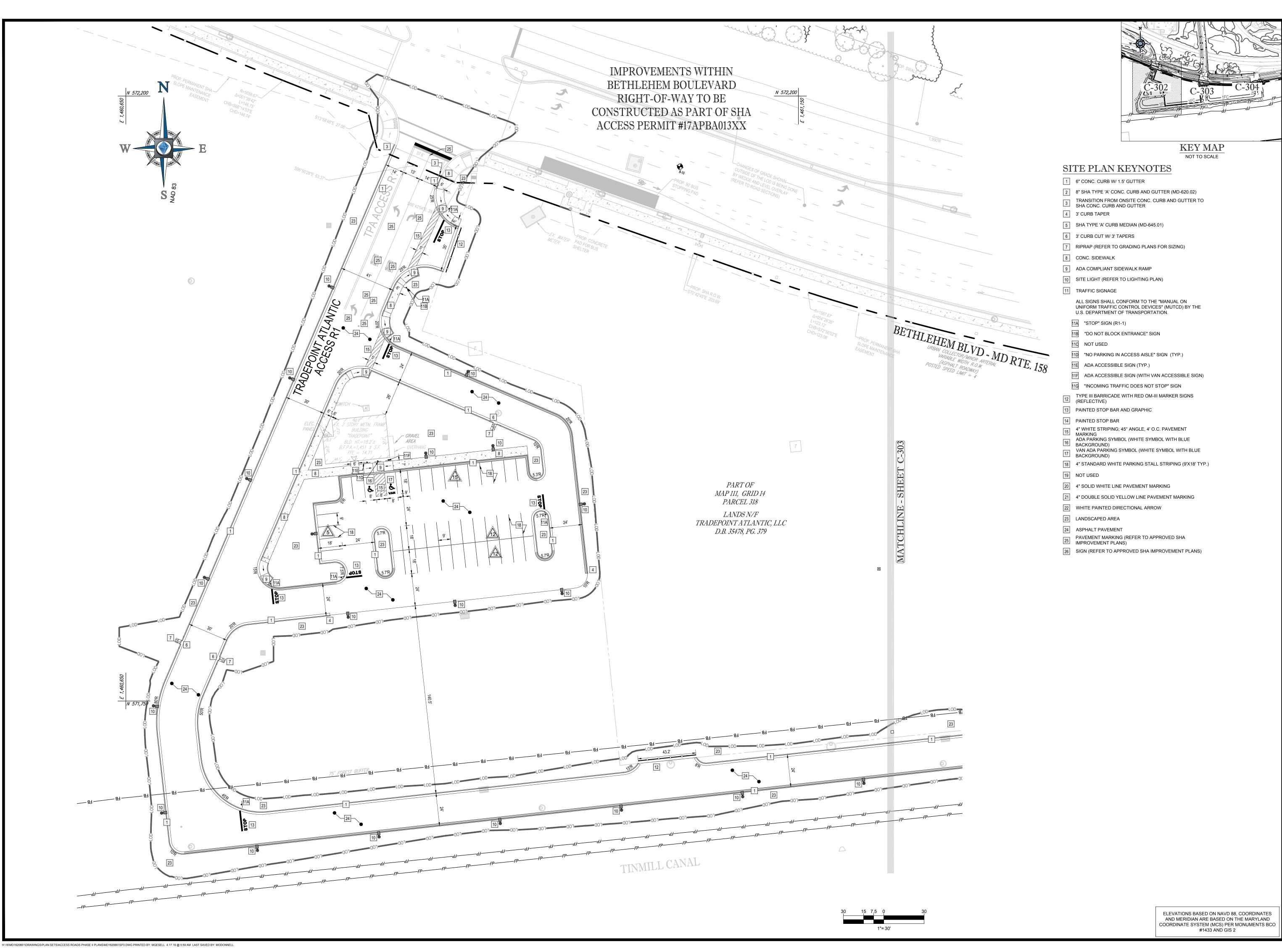
PROFESSIONAL ENGINEER PROFESSIONAL CERTIFICATION I ANDREW G STINE HEREBY CERTIFY THAT THESE OCUMENTS WERE PREPARED OR APPROVED BY ME. AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND,

COVER SHEET

19-SF-0005

H:\16\MD1620661\DRAWINGS\PLAN SETS\ACCESS ROADS PHASE II PLANS\MD1620661SD3.DWG PRINTED BY: MGESELL 4.16.19 @ 3:00 PM LAST SAVED BY: MODONNEL





REVISIONS COMMENT 8/10/18 | REVISIONS PER MDE REVISED PER COUNTY COMMENTS ISSUED FOR CONSTRUCTION 2/26/19



It's fast. It's free. It's the law.

APPROVED FOR CONSTRUCTION

DRAWN BY: 7/6/18 AS NOTED SCALE: CAD I.D.

DEVELOPMENT ACCESS ROADS



LOCATION OF SITE SOUTHWEST CORNER OF BETHELHEM BOULEVARD AT WHARF ROAD TAX MAP 111, GRID 14, PARCEL 318 BALTIMORE, MD 21289 BALTIMORE COUNTY DISTRICT: 07 DRC#: 010918E

ENGINEERIN

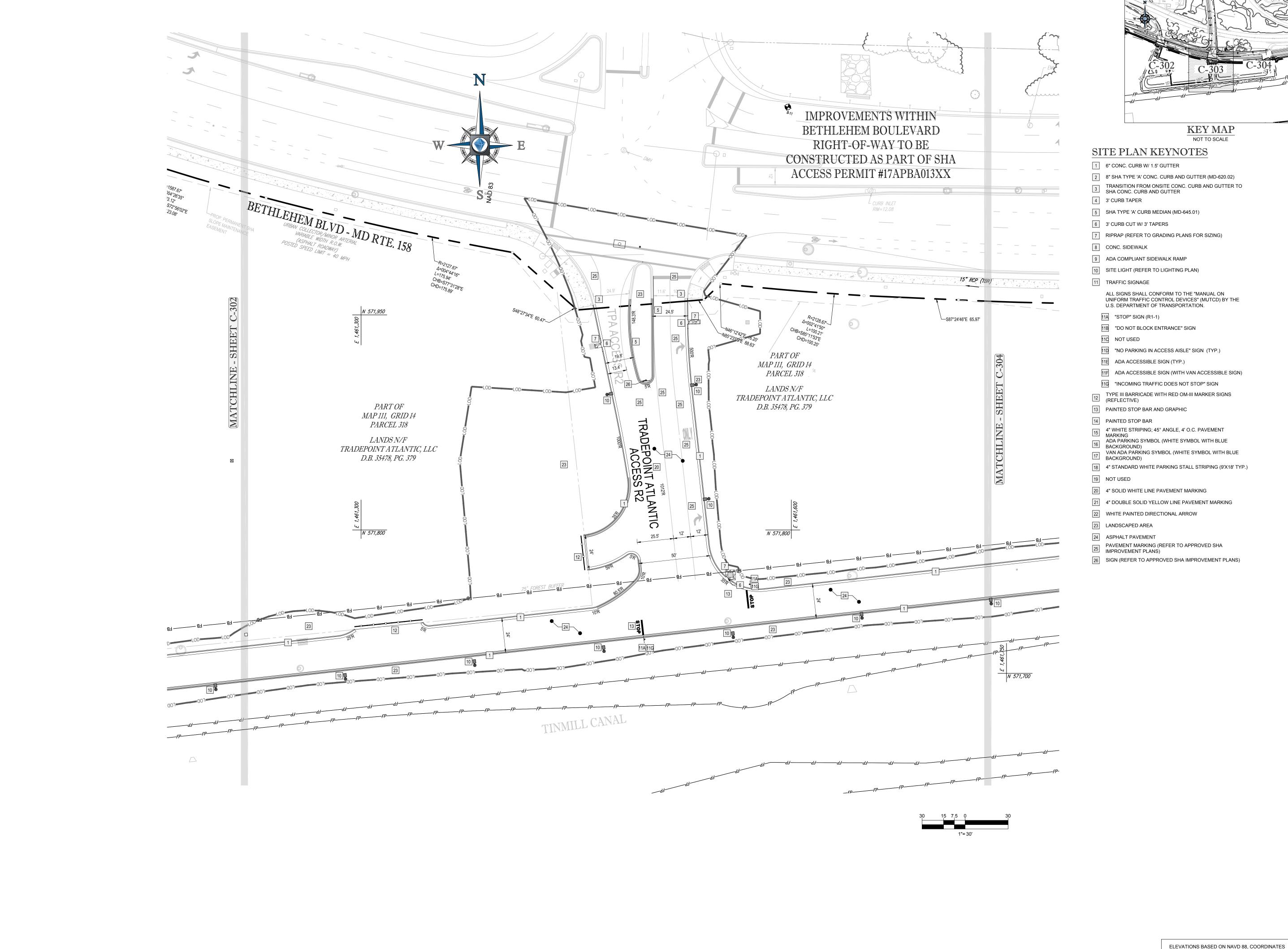
TRACKING #: DRC-2017-00196

901 DULANEY VALLEY ROAD, SUITE 80 **TOWSON, MARYLAND 21204** Phone: (410) 821-7900 Fax: (410) 821-7987 MD@BohlerEng.com

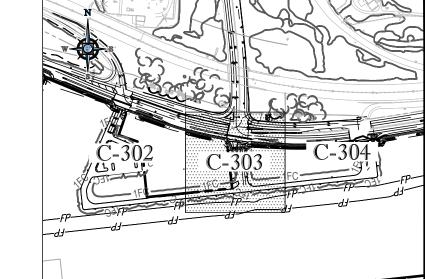
ANDREW G. STINE

PROFESSIONAL ENGINEER MARYLAND LICENSE No. 37687
PROFESSIONAL CERTIFICATION
I, ANDREW G. STINE, HEREBY CERTIFY THAT THESE
DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 37687, EXPIRATION DATE: 7/12/19

SITE PLAN



H:\16\MD1620661\DRAWINGS\PLAN SETS\ACCESS ROADS PHASE II PLANS\MD1620661SP3.DWG PRINTED BY: MGESELL 4.17.19 @ 6:02 AM LAST SAVED BY: MODONNELL





| | | = |
|---------|--------------------------------|-----|
| F | REVISIONS | |
| DATE | COMMENT | BY |
| 8/10/18 | REVISIONS PER MDE | MJG |
| 12/5/18 | REVISED PER COUNTY COMMENTS | мсо |
| 2/26/19 | ISSUED FOR CONSTRUCTION | мсо |
| | | |
| | | |
| | | |



APPROVED FOR CONSTRUCTION

It's fast. It's free. It's the law.

DRAWN BY: 7/6/18 AS NOTED SCALE:

RETAIL DEVELOPMENT



ATLANTIC PHASE II PLANS LOCATION OF SITE SOUTHWEST CORNER OF BETHELHEM

TAX MAP 111, GRID 14, PARCEL 318 BALTIMORE, MD 21289 BALTIMORE COUNTY DISTRICT: 07 DRC#: 010918E TRACKING #: DRC-2017-00196

BOULEVARD AT WHARF ROAD



901 DULANEY VALLEY ROAD, SUITE 80 **TOWSON, MARYLAND 21204** Phone: (410) 821-7900 Fax: (410) 821-7987 MD@BohlerEng.com

ANDREW G. STINE

PROFESSIONAL ENGINEER MARYLAND LICENSE No. 37687
PROFESSIONAL CERTIFICATION
I, ANDREW G. STINE, HEREBY CERTIFY THAT THESE
DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER

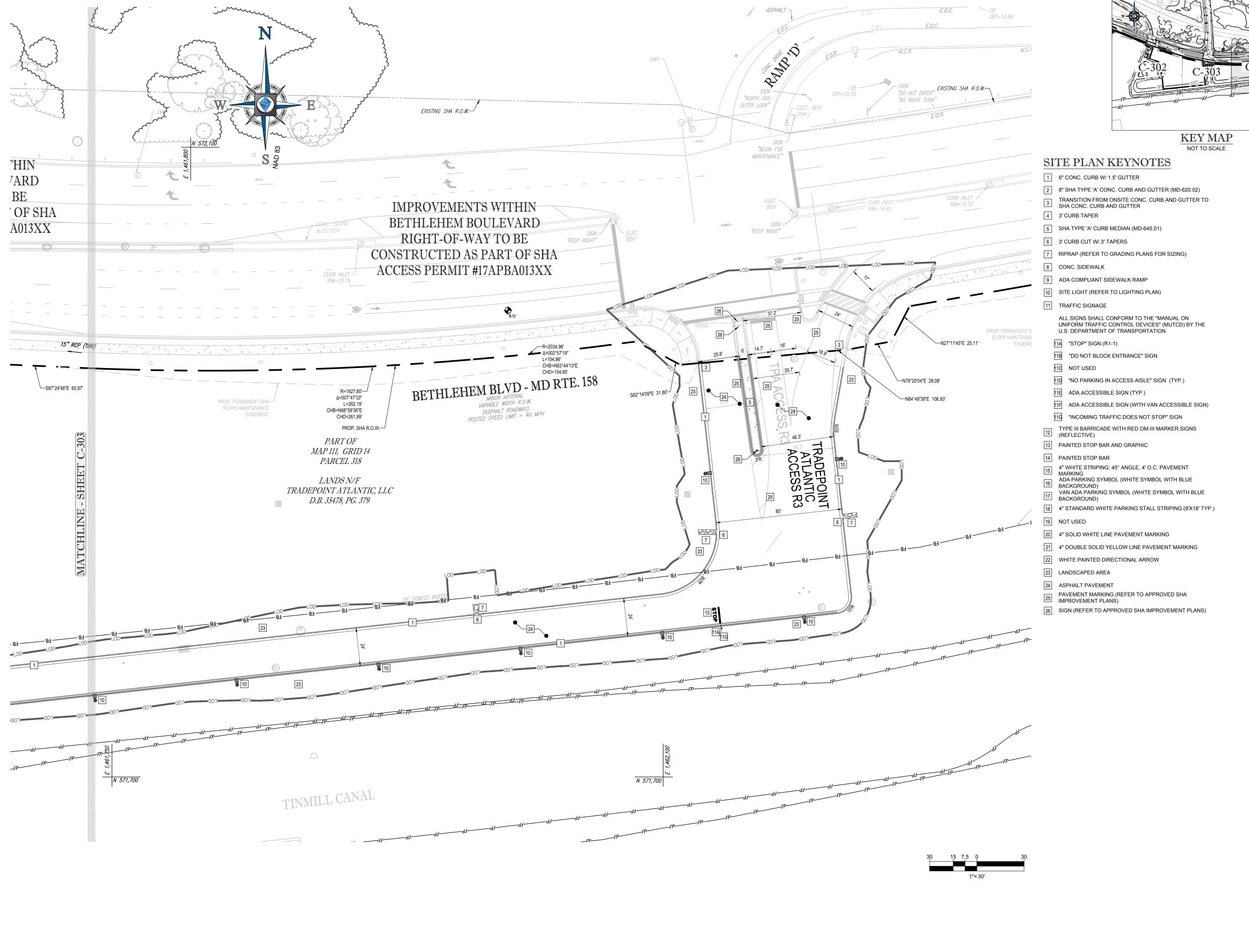
UNDER THE LAWS OF THE STATE OF MARYLAND,

LICENSE NO. 37687, EXPIRATION DATE: 7/12/19

AND MERIDIAN ARE BASED ON THE MARYLAND COORDINATE SYSTEM (MCS) PER MONUMENTS BCO

#1433 AND GIS 2

SITE PLAN



H:\16\MD1620661\DRAWINGS\PLAN SETS\ACCESS ROADS PHASE II PLANS\MD1620661SP3.DWG PRINTED BY: MGESELL 4.17.19 @ 6:04 AM LAST SAVED BY: MODONNELL

RETAIL DEVELOPMENT ACCESS ROADS

DRAWN BY:

SCALE: CAD I.D.

REVISIONS

8/10/18 REVISIONS PER MDE

KNOW WHAT'S BELOW

ALWAYS CALL 811

BEFORE YOU DIG

APPROVED FOR

CONSTRUCTION

7/6/18 AS NOTED

It's fast. It's free. It's the law.

REV DATE

2/26/19

COMMENT

REVISED PER

COUNTY COMMENTS ISSUED FOR CONSTRUCTION



LOCATION OF SITE SOUTHWEST CORNER OF BETHELHEM BOULEVARD AT WHARF ROAD TAX MAP 111, GRID 14, PARCEL 318 BALTIMORE, MD 21289 BALTIMORE COUNTY DISTRICT: 07 DRC#: 010918E

BOHLER BOHLER

TRACKING #: DRC-2017-00196

901 DULANEY VALLEY ROAD, SUITE 80 **TOWSON, MARYLAND 21204** Phone: (410) 821-7900 Fax: (410) 821-7987 MD@BohlerEng.com

ANDREW G. STINE

PROFESSIONAL ENGINEER MARYLAND LICENSE No. 37687
PROFESSIONAL CERTIFICATION

I, ANDREW G. STINE, HEREBY CERTIFY THAT THESE
DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER

UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 37687, EXPIRATION DATE: 7/12/19

SITE PLAN

19-SF-0005

ELEVATIONS BASED ON NAVD 88, COORDINATES AND MERIDIAN ARE BASED ON THE MARYLAND COORDINATE SYSTEM (MCS) PER MONUMENTS BCO #1433 AND GIS 2

LANDSCAPE SPECIFICATIONS

HE LANDSCAPE CONTRACTOR SHALL BE REQUIRED TO PERFORM ALL CLEARING, FINISHED GRADING, SOIL PREPARATION, PERMANENT SEEDING OR SODDING, PLANTING AND MULCHING INCLUDING ALL LABOR, MATERIALS, OOLS AND EQUIPMENT NECESSARY FOR THE COMPLETION OF THIS PROJECT, UNLESS OTHERWISE CONTRACTED BY THE GENERAL CONTRACTOR.

I. SCOPE OF WORK:

A. GENERAL - ALL HARDSCAPE MATERIALS SHALL MEET OR EXCEED SPECIFICATIONS AS OUTLINED IN THE STATE DEPARTMENT OF TRANSPORTATION'S SPECIFICATIONS.

- B. TOPSOIL NATURAL. FRIABLE. LOAMY SILT SOIL HAVING AN ORGANIC CONTENT NOT LESS THAN 5%. A PH RANGE BETWEEN 4.5-7.0. IT SHALL BE FREE OF DEBRIS, ROCKS LARGER THAN ONE INCH (1"), WOOD, ROOTS, VEGETABLE
- : I AWN ALL DISTURBED AREAS ARE TO BE TREATED WITH A MINIMUM SIX INCH (6") THICK LAYER OF TOPSOIL OR AS DIRECTED BY THE LOCAL ORDINANCE OR CLIENT, AND SEEDED OR SODDED IN ACCORDANCE WITH THE PERMANENT STABILIZATION METHODS INDICATED WITHIN THE SOIL EROSION AND SEDIMENT CONTROL NOTES. 1.1. LAWN SEED MIXTURE SHALL BE FRESH, CLEAN NEW CROP SEED.
- 1.2 SOD SHALL BE STRONGLY ROOTED, WEED AND DISEASE/PEST FREE WITH A LINIFORM THICKNESS 1.3. SOD INSTALLED ON SLOPES GREATER THAN 4:1 SHALL BE PEGGED TO HOLD SOD IN PLACE.
- . MULCH THE MULCH AROUND THE PERIMETER OF THE BUILDING SHALL BE A 3" LAYER OF DOUBLE SHREDDED BLACK CEDAR MULCH ONLY. ALL OTHER AREAS SHALL BE MULCHED WITH A 3" LAYER OF DOUBLE SHREDDED DARK BROWN HARDWOOD BARK MULCH, UNLESS OTHERWISE STATED ON THE LANDSCAPE PLAN.
- E. FERTILIZER 1.1. FERTILIZER SHALL BE DELIVERED TO THE SITE MIXED AS SPECIFIED IN THE ORIGINAL UNOPENED STANDARD BAGS SHOWING WEIGHT, ANALYSIS AND NAME OF MANUFACTURER. FERTILIZER SHALL BE STORED IN A
- WEATHERPROOF PLACE SO THAT IT CAN BE KEPT DRY PRIOR TO USE 1.2. FOR THE PURPOSE OF BIDDING, ASSUME THAT FERTILIZER SHALL BE 10% NITROGEN, 6% PHOSPHORUS AND 4% POTASSIUM BY WEIGHT. A FERTILIZER SHOULD NOT BE SELECTED WITHOUT A SOIL TEST PERFORMED BY A CERTIFIED SOIL LABORATORY.

PLANT MATERIA

- 1.1. ALL PLANTS SHALL IN ALL CASES CONFORM TO THE REQUIREMENTS OF THE "AMERICAN STANDARD FOR NURSERY STOCK" (ANSI Z60.1), LATEST EDITION, AS PUBLISHED BY THE AMERICAN NURSERY & LANDSCAPE ASSOCIATION
- 1.2. IN ALL CASES, BOTANICAL NAMES SHALL TAKE PRECEDENCE OVER COMMON NAMES FOR ANY AND ALL
- 1.3. PLANTS SHALL BE LEGIBLY TAGGED WITH THE PROPER NAME AND SIZE. TAGS ARE TO REMAIN ON AT LEAST ONE PLANT OF EACH SPECIES FOR VERIFICATION PURPOSES DURING THE FINAL INSPECTION.
- 1.4. TREES WITH ABRASION OF THE BARK, SUN SCALDS. DISFIGURATION OR FRESH CUTS OF LIMBS OVER 11/4". WHICH HAVE NOT BEEN COMPLETELY CALLUSED, SHALL BE REJECTED.PLANTS SHALL NOT BE BOUND WITH WIRE OR ROPE AT ANY TIME SO AS TO DAMAGE THE BARK OR BREAK BRANCHES. 1.5. ALL PLANTS SHALL BE TYPICAL OF THEIR SPECIES OR VARIETY AND SHALL HAVE A NORMAL HABIT OF
- GROWTH: WELL DEVELOPED BRANCHES. DENSELY FOLIATED, VIGOROUS ROOT SYSTEMS AND BE FREE OF DISEASE INSECTS PESTS EGGS OR LARVAE I.6. CALIPER MEASUREMENTS OF NURSERY GROWN TREES SHALL BE TAKEN AT A POINT ON THE TRUNK SIX
- INCHES (6") ABOVE THE NATURAL GRADE FOR TREES UP TO AND INCLUDING A FOUR INCH (4") CALIPER SIZE. IF THE CALIPER AT SIX INCHES (6") ABOVE THE GROUND EXCEEDS FOUR INCHES (4") IN CALIPER, THE CALIPER SHOULD BE MEASURED AT A POINT 12" ABOVE THE NATURAL GRADE.
- 1.7. SHRUBS SHALL BE MEASURED TO THE AVERAGE HEIGHT OR SPREAD OF THE SHRUB, AND NOT TO THE LONGEST BRANCH.
- 1.8. TREES AND SHRUBS SHALL BE HANDLED WITH CARE BY THE ROOT BALL

.. CONTRACTOR TO UTILIZE WORKMANLIKE INDUSTRY STANDARDS IN PERFORMING ALL LANDSCAPE CONSTRUCTION. THE SITE IS TO BE LEFT IN A CLEAN STATE AT THE END OF EACH WORKDAY. ALL DEBRIS. MATERIALS AND TOOLS SHALL BE PROPERLY STORED. STOCKPILED OR DISPOSED OF

B. WASTE MATERIALS AND DEBRIS SHALL BE COMPLETELY DISPOSED OF AT THE CONTRACTOR'S EXPENSE. DEBRIS SHALL NOT BE BURIED, INCLUDING ORGANIC MATERIALS, BUT SHALL BE REMOVED COMPLETELY FROM THE SITE.

- . BEFORE AND DURING PRELIMINARY GRADING AND FINISHED GRADING, ALL WEEDS AND GRASSES SHALL BE DUG OUT BY THE ROOTS AND DISPOSED OF IN ACCORDANCE WITH GENERAL WORK PROCEDURES OUTLINED HEREIN.
- . ALL EXISTING TREES TO REMAIN SHALL BE PRUNED TO REMOVE ANY DAMAGED BRANCHES. THE ENTIRE LIMB OF ANY DAMAGED BRANCH SHALL BE CUT OFF AT THE TRUNK. CONTRACTOR SHALL ENSURE THAT CUTS ARE SMOOTH AND STRAIGHT. ANY EXPOSED ROOTS SHALL BE CUT BACK WITH CLEAN, SHARP TOOLS AND TOPSOIL SHALL BE PLACED AROUND THE REMAINDER OF THE ROOTS. EXISTING TREES SHALL BE MONITORED ON A REGULAR BASIS FOR ADDITIONAL ROOT OR BRANCH DAMAGE AS A RESULT OF CONSTRUCTION. ROOTS SHALL NOT BE LEFT EXPOSED FOR MORE THAN ONE (1) DAY. CONTRACTOR SHALL WATER EXISTING TREES AS NEEDED TO PREVENT SHOCK OR DECLINE
- CONTRACTOR SHALL ARRANGE TO HAVE A UTILITY STAKE-OUT TO LOCATE ALL UNDERGROUND UTILITIES PRIOR TO INSTALLATION OF ANY LANDSCAPE MATERIAL. UTILITY COMPANIES SHALL BE CONTACTED THREE (3) DAYS PRIOR TO THE BEGINNING OF WORK.

- CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL EXISTING TREES TO REMAIN. A TREE PROTECTION ZONE SHALL BE ESTABLISHED AT THE DRIP LINE OR 15 FEET FROM THE TRUNK OR AT THE LIMIT OF CONSTRUCTION DISTURBANCE, WHICHEVER IS GREATER. LOCAL STANDARDS THAT MAY REQUIRE A MORE STRICT TREE PROTECTION ZONE SHALL BE HONORED.
- 3. A FORTY-EIGHT INCH (48") HIGH WOODEN SNOW FENCE OR ORANGE COLORED HIGH-DENSITY 'VISI-FENCE'. OR APPROVED EQUAL, MOUNTED ON STEEL POSTS SHALL BE PLACED ALONG THE BOUNDARY OF THE TREE PROTECTION ZONE. POSTS SHALL BE LOCATED AT A MAXIMUM OF EIGHT FEET (8') ON CENTER OR AS INDICATED WITHIN THE TREE PROTECTION DETAIL
- WHEN THE TREE PROTECTION FENCING HAS BEEN INSTALLED, IT SHALL BE INSPECTED BY THE APPROVING AGENCY PRIOR TO DEMOLITION, GRADING, TREE CLEARING OR ANY OTHER CONSTRUCTION. THE FENCING ALONG THE TREE PROTECTION ZONE SHALL BE REGULARLY INSPECTED BY THE LANDSCAPE CONTRACTOR AND MAINTAINED UNTIL ALL CONSTRUCTION ACTIVITY HAS BEEN COMPLETED
- D. AT NO TIME SHALL MACHINERY, DEBRIS, FALLEN TREES OR OTHER MATERIALS BE PLACED, STOCKPILED OR LEFT STANDING IN THE TREE PROTECTION ZONE.

6. SOIL MODIFICATIONS

- A. CONTRACTOR SHALL ATTAIN A SOIL TEST FOR ALL AREAS OF THE SITE PRIOR TO CONDUCTING ANY PLANTING. SOIL TESTS SHALL BE PERFORMED BY A CERTIFIED SOIL LABORATORY.
- B. LANDSCAPE CONTRACTOR SHALL REPORT ANY SOIL OR DRAINAGE CONDITIONS CONSIDERED DETRIMENTAL TO THE GROWTH OF PLANT MATERIAL. SOIL MODIFICATIONS, AS SPECIFIED HEREIN, MAY NEED TO BE CONDUCTED BY THE LANDSCAPE CONTRACTOR DEPENDING ON SITE CONDITIONS.
- THE FOLLOWING AMENDMENTS AND QUANTITIES ARE APPROXIMATE AND ARE FOR BIDDING PURPOSES ONLY. COMPOSITION OF AMENDMENTS SHOULD BE REVISED DEPENDING ON THE OUTCOME OF A TOPSOIL ANALYSIS
- PERFORMED BY A CERTIFIED SOIL LABORATORY. 1.1. TO INCREASE A SANDY SOIL'S ABILITY TO RETAIN WATER AND NUTRIENTS, THOROUGHLY TILL ORGANIC MATTER INTO THE TOP 6-12". USE COMPOSTED BARK, COMPOSTED LEAF MULCH OR PEAT MOSS. ALL PRODUCTS SHOULD BE COMPOSTED TO A DARK COLOR AND BE FREE OF PIECES WITH IDENTIFIABLE LEAF OR WOOD STRUCTURE. AVOID MATERIAL WITH A PH HIGHER THAN 7.5.
- 1.2. TO INCREASE DRAINAGE, MODIFY HEAVY CLAY OR SILT (MORE THAN 40% CLAY OR SILT) BY ADDING COMPOSTED PINE BARK (UP TO 30% BY VOLUME) AND/OR AGRICULTURAL GYPSUM. COARSE SAND MAY BE USED IF ENOUGH IS ADDED TO BRING THE SAND CONTENT TO MORE THAN 60% OF THE TOTAL MIX.
- SUBSURFACE DRAINAGE LINES MAY NEED TO BE ADDED TO INCREASE DRAINAGE 1.3. MODIFY EXTREMELY SANDY SOILS (MORE THAN 85%) BY ADDING ORGANIC MATTER AND/OR DRY, SHREDDED CLAY LOAM UP TO 30% OF THE TOTAL MIX.

FINISHED GRADING

- A. UNLESS OTHERWISE CONTRACTED, THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION OF TOPSOIL AND THE ESTABLISHMENT OF FINE-GRADING WITHIN THE DISTURBANCE AREA OF THE
- ESTABLISHED. THE SUBGRADE OF THE SITE MUST MEET THE FINISHED GRADE LESS THE REQUIRED TOPSOIL . ALL LAWN AND PLANTING AREAS SHALL BE GRADED TO A SMOOTH, EVEN AND UNIFORM PLANE WITH NO ABRUPT

CHANGE OF SURFACE AS DEPICTED WITHIN THIS SET OF CONSTRUCTION PLANS, UNLESS OTHERWISE DIRECTED

B. LANDSCAPE CONTRACTOR SHALL VERIFY THAT SUBGRADE FOR INSTALLATION OF TOPSOIL HAS BEEN

BY THE PROJECT ENGINEER OR LANDSCAPE ARCHITECT. D. ALL PLANTING AREAS SHALL BE GRADED AND MAINTAINED TO ALLOW FREE FLOW OF SURFACE WATER IN AND

AROUND THE PLANTING BEDS. STANDING WATER SHALL NOT BE PERMITTED IN PLANTING BEDS.

- . CONTRACTOR SHALL PROVIDE A SIX INCH (6") THICK MINIMUM LAYER OF TOPSOIL. OR AS DIRECTED BY THE LOCAL ORDINANCE OR CLIENT, IN ALL PLANTING AREAS. TOPSOIL SHOULD BE SPREAD OVER A PREPARED SURFACE IN A UNIFORM LAYER TO ACHIEVE THE DESIRED COMPACTED THICKNESS
- B. ON-SITE TOPSOIL MAY BE USED TO SUPPLEMENT THE TOTAL AMOUNT REQUIRED. TOPSOIL FROM THE SITE MAY BE REJECTED IF IT HAS NOT BEEN PROPERLY REMOVED. STORED AND PROTECTED PRIOR TO CONSTRUCTION.
- CONTRACTOR SHALL FURNISH TO THE APPROVING AGENCY AN ANALYSIS OF BOTH IMPORTED AND ON-SITE TOPSOIL TO BE UTILIZED IN ALL PLANTING AREAS. THE PH AND NUTRIENT LEVELS MAY NEED TO BE ADJUSTED THROUGH SOIL MODIFICATIONS AS NEEDED TO ACHIEVE THE REQUIRED LEVELS AS SPECIFIED IN THE MATERIALS SECTION ABOVE
- ALL PLANTING AND LAWN AREAS ARE TO BE CULTIVATED TO A DEPTH OF SIX INCHES (6"). ALL DEBRIS EXPOSED FROM EXCAVATION AND CUI TIVATION SHALL BE DISPOSED OF IN ACCORDANCE WITH GENERAL WORK PROCEDURES SECTION ABOVE. THE FOLLOWING SHALL BE TILLED INTO THE TOP FOUR INCHES (4") IN TWO DIRECTIONS (QUANTITIES BASED ON A 1,000 SQUARE FOOT AREA): 1.1. 20 POUNDS 'GROW POWER' OR APPROVED FOUAL
- 1.2. 20 POUNDS NITRO-FORM (COURSE) 38-0-0 BLUE CHIP
- E. THE SPREADING OF TOPSOIL SHALL NOT BE CONDUCTED UNDER MUDDY OR FROZEN CONDITIONS

A. INSOFAR THAT IT IS FEASIBLE, PLANT MATERIAL SHALL BE PLANTED ON THE DAY OF DELIVERY. IN THE EVENT THAT THIS IS NOT POSSIBLE, LANDSCAPE CONTRACTOR SHALL PROTECT UNINSTALLED PLANT MATERIAL. PLANTS SHALL NOT REMAIN UNPLANTED FOR LONGER THAN A THREE DAY PERIOD AFTER DELIVERY. PLANTS THAT WILL NOT BE PLANTED FOR A PERIOD OF TIME GREATER THAN THREE DAYS SHALL BE HEALED IN WITH TOPSOIL OR MULCH TO HELP PRESERVE ROOT MOISTURE.

- B. PLANTING OPERATIONS SHALL BE PERFORMED DURING PERIODS WITHIN THE PLANTING SEASON WHEN WEATHER AND SOIL CONDITIONS ARE SUITABLE AND IN ACCORDANCE WITH ACCEPTED LOCAL PRACTICE. PLANTS SHALL NOT BE INSTALLED IN TOPSOIL THAT IS IN A MUDDY OR FROZEN CONDITION.
- C. ANY INJURED ROOTS OR BRANCHES SHALL BE PRUNED TO MAKE CLEAN-CUT ENDS PRIOR TO PLANTING UTILIZING CLEAN, SHARP TOOLS. ONLY INJURED OR DISEASED BRANCHING SHALL BE REMOVED.
- D. ALL PLANTING CONTAINERS AND NON-BIODEGRADABLE MATERIALS SHALL BE REMOVED FROM ROOT BALLS DURING PLANTING. NATURAL FIBER BURLAP MUST BE CUT FROM AROUND THE TRUNK OF THE TREE AND FOLDED DOWN AGAINST THE ROOT BALL PRIOR TO BACKFILLING.
- E. POSITION TREES AND SHRUBS AT THEIR INTENDED LOCATIONS AS PER THE PLANS AND SECURE THE APPROVAL OF THE LANDSCAPE ARCHITECT PRIOR TO EXCAVATING PITS, MAKING NECESSARY ADJUSTMENTS AS DIRECTED
- . PRIOR TO THE ISSUANCE OF ANY CERTIFICATE OF OCCUPANCY, THE PROPOSED LANDSCAPE, AS SHOWN ON THI APPROVED LANDSCAPE PLAN, MUST BE INSTALLED, INSPECTED AND APPROVED BY THE APPROVING AGENCY. THE APPROVING AGENCY SHALL TAKE INTO ACCOUNT SEASONAL CONSIDERATIONS IN THIS REGARD AS FOLLOWS. THE PLANTING OF TREES, SHRUBS, VINES OR GROUND COVER SHALL OCCUR ONLY DURING THE FOLLOWING PLANTING SEASONS:
- 1.1. PLANTS: MARCH 15 TO DECEMBER 15 1.2. LAWN: MARCH 15 TO JUNE 15 OR SEPT. 1 TO DECEMBER 1
- G. PLANTINGS REQUIRED FOR A CERTIFICATE OF OCCUPANCY SHALL BE PROVIDED DURING THE NEXT APPROPRIATE SEASON AT THE MUNICIPALITY'S DISCRETION. CONTRACTOR SHOULD CONTACT APPROVING AGENCY FOR POTENTIAL SUBSTITUTIONS
- H. FURTHERMORE, THE FOLLOWING TREE VARIETIES ARE UNUSUALLY SUSCEPTIBLE TO WINTER DAMAGE. WITH TRANSPLANT SHOCK AND THE SEASONAL LACK OF NITROGEN AVAILABILITY, THE RISK OF PLANT DEATH IS GREATLY INCREASED. IT IS NOT RECOMMENDED THAT THESE SPECIES BE PLANTED DURING THE FALL PLANTING SEASON
- ACFR RUBRUM PLATANUS X ACERIFOLIA **BETULA VARIETIES** POPULOUS VARIETIES CARPINUS VARIETIES PRUNUS VARIETIES CRATAFGUS VARIETIES PYRUS VARIFTIES KOELREUTERIA QUERCUS VARIETIES LIQUIDAMBER STYRACIFLUA TILIA TOMENTOSA LIRIODENDRON TULIPIFERA ZELKOVA VARIETIES
- . PLANTING PITS SHALL BE DUG WITH LEVEL BOTTOMS, WITH THE WIDTH TWICE THE DIAMETER OF ROOT BALL. THE ROOT BALL SHALL REST ON UNDISTURBED GRADE. EACH PLANT PIT SHALL BE BACKFILLED IN LAYERS WITH THE FOLLOWING PREPARED SOIL MIXED THOROUGHLY:
- 1 PART PEAT MOSS
- 1 PART COMPOSTED COW MANURE BY VOLUME • 3 PARTS TOPSOIL BY VOLUME
- 21 GRAMS 'AGRIFORM' PLANTING TABLETS (OR APPROVED EQUAL) AS FOLLOWS: A) 2 TABLETS PER 1 GALLON PLANT
- B) 3 TABLETS PER 5 GALLON PLANT C) 4 TABLETS PER 15 GALLON PLANT
- D) LARGER PLANTS: 2 TABLETS PER 1/2" CALIPER OF TRUNK

TO A MINIMUM BRANCHING HEIGHT OF 7' FROM GRADE.

- J. FILL PREPARED SOIL AROUND BALL OF PLANT HALF-WAY AND INSERT PLANT TABLETS. COMPLETE BACKFILL AND WATER THOROUGHLY
- K. ALL PLANTS SHALL BE PLANTED SO THAT THE TOP OF THE ROOT BALL, THE POINT AT WHICH THE ROOT FLARE BEGINS, IS SET AT GROUND LEVEL AND IN THE CENTER OF THE PIT. NO SOIL IS TO BE PLACED DIRECTLY ON TOP OF THE ROOT BALL
- L. ALL PROPOSED TREES DIRECTLY ADJACENT TO WALKWAYS OR DRIVEWAYS SHALL BE PRUNED AND MAINTAINED
- M. GROUND COVER AREAS SHALL RECEIVE A 1/4" LAYER OF HUMUS RAKED INTO THE TOP 1" OF PREPARED SOIL PRIOR TO PLANTING. ALL GROUND COVER AREAS SHALL BE WEEDED AND TREATED WITH A PRE-EMERGENT CHEMICAL AS PER MANUFACTURER'S RECOMMENDATION.
- N. NO PLANT, EXCEPT GROUND COVERS, GRASSES OR VINES, SHALL BE PLANTED LESS THAN TWO FEET (2') FROM EXISTING STRUCTURES AND SIDEWALKS.
- O. ALL PLANTING AREAS AND PLANTING PITS SHALL BE MULCHED AS SPECIFIED HEREIN TO FILL THE ENTIRE BED AREA OR SAUCER. NO MULCH IS TO TOUCH THE TRUNK OF THE TREE OR SHRUB.
- P. ALL PLANTING AREAS SHALL BE WATERED IMMEDIATELY UPON INSTALLATION IN ACCORDANCE WITH THE WATERING SPECIFICATIONS AS LISTED HEREIN.

10. TRANSPLANTING (WHEN REQUIRED)

- A. ALL TRANSPLANTS SHALL BE DUG WITH INTACT ROOT BALLS CAPABLE OF SUSTAINING THE PLANT. B. IF PLANTS ARE TO BE STOCKPILED BEFORE REPLANTING, THEY SHALL BE HEALED IN WITH MULCH OR SOIL,
- C. PLANTS SHALL NOT BE DUG FOR TRANSPLANTING BETWEEN APRIL 10 AND JUNE 30
- D. UPON REPLANTING, BACKFILL SOIL SHALL BE AMENDED WITH FERTILIZER AND ROOT GROWTH HORMONE.
- E. TRANSPLANTS SHALL BE GUARANTEED FOR THE LENGTH OF THE GUARANTEE PERIOD SPECIFIED HEREIN
- F. IF TRANSPLANTS DIE, SHRUBS AND TREES LESS THAN SIX INCHES (6") DBH SHALL BE REPLACED IN KIND. TREES GREATER THAN SIX INCHES (6") DBH MAY BE REQUIRED TO BE REPLACED IN ACCORDANCE WITH THE MUNICIPALITY'S TREE REPLACEMENT GUIDELINES.

- A. NEW PLANTINGS OR LAWN AREAS SHALL BE ADEQUATELY IRRIGATED BEGINNING IMMEDIATELY AFTER PLANTING. WATER SHALL BE APPLIED TO EACH TREE AND SHRUB IN SUCH MANNER AS NOT TO DISTURB BACKFILL AND TO THE EXTENT THAT ALL MATERIALS IN THE PLANTING HOLE ARE THOROUGHLY SATURATED. WATERING SHALL CONTINUE AT LEAST UNTIL PLANTS ARE ESTABLISHED.
- B. SITE OWNER SHALL PROVIDE WATER IF AVAILABLE ON SITE AT TIME OF PLANTING. IF WATER IS NOT AVAILABLE ON SITE. CONTRACTOR SHALL SUPPLY ALL NECESSARY WATER. THE USE OF WATERING BAGS IS RECOMMENDED FOR ALL NEWLY PLANTED TREES.
- C. IF AN IRRIGATION SYSTEM HAS BEEN INSTALLED ON THE SITE, IT SHALL BE USED TO WATER PROPOSED PLANT MATERIAL, BUT ANY FAILURE OF THE SYSTEM DOES NOT ELIMINATE THE CONTRACTOR'S RESPONSIBILITY OF MAINTAINING THE DESIRED MOISTURE LEVEL FOR VIGOROUS, HEALTHY GROWTH

12. GUARANTEE

- A. THE LANDSCAPE CONTRACTOR SHALL GUARANTEE ALL PLANTS FOR A PERIOD OF ONE (1) YEAR FROM APPROVAL OF LANDSCAPE INSTALLATION BY THE APPROVING AGENCY. CONTRACTOR SHALL SUPPLY THE OWNER WITH A MAINTENANCE BOND FOR TEN PERCENT (10%) OF THE VALUE OF THE LANDSCAPE INSTALLATION WHICH WILL BE RELEASED AT THE CONCLUSION OF THE GUARANTEE PERIOD AND WHEN A FINAL INSPECTION HAS BEEN COMPLETED AND APPROVED BY THE OWNER OR AUTHORIZED REPRESENTATIVE.
- B. ANY DEAD OR DYING PLANT MATERIAL SHALL BE REPLACED FOR THE LENGTH OF THE GUARANTEE PERIOD. REPLACEMENT OF PLANT MATERIAL SHALL BE CONDUCTED AT THE FIRST SUCCEEDING PLANTING SEASON. ANY DEBRIS SHALL BE DISPOSED OF OFF-SITE, WITHOUT EXCEPTION.
- C. TREES AND SHRUBS SHALL BE MAINTAINED BY THE CONTRACTOR DURING CONSTRUCTION AND THROUGHOUT THE 90 DAY MAINTENANCE PERIOD AS SPECIFIED HEREIN. CULTIVATION, WEEDING, WATERING AND THE PREVENTATIVE TREATMENTS SHALL BE PERFORMED AS NECESSARY TO KEEP PLANT MATERIAL IN GOOD CONDITION AND FREE OF INSECTS AND DISEASE.
- D. LAWNS SHALL BE MAINTAINED THROUGH WATERING, FERTILIZING, WEEDING, MOWING, TRIMMING AND OTHER OPERATIONS SUCH AS ROLLING, REGARDING AND REPLANTING AS REQUIRED TO ESTABLISH A SMOOTH, ACCEPTABLE LAWN, FREE OF ERODED OR BARE AREAS.

A. UPON THE COMPLETION OF ALL LANDSCAPE INSTALLATION AND BEFORE THE FINAL ACCEPTANCE, THE

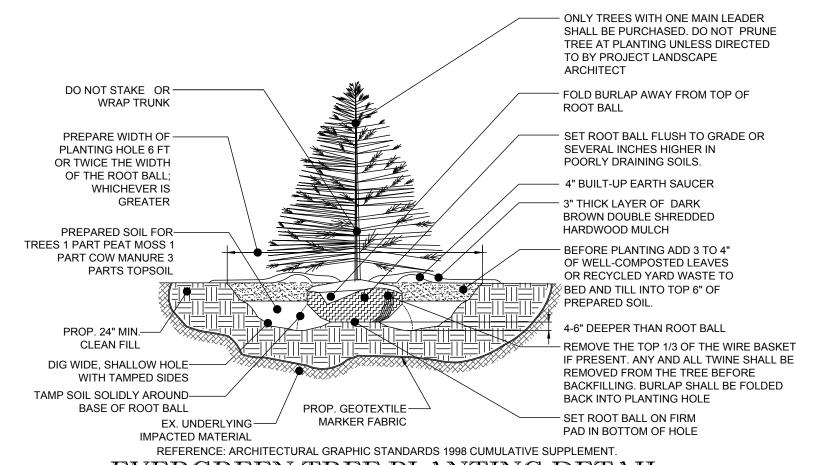
- CONTRACTOR SHALL REMOVE ALL UNUSED MATERIALS, EQUIPMENT AND DEBRIS FROM THE SITE. ALL PAVED AREAS ARE TO BE CLEANED
- B. THE SITE SHALL BE CLEANED AND LEFT IN A NEAT AND ACCEPTABLE CONDITION AS APPROVED BY THE OWNER OR AUTHORIZED REPRESENTATIVE.

SEEDING SPECIFICATIONS

- PRIOR TO SEEDING, AREA IS TO BE TOPSOILED, FINE GRADED, AND RAKED OF ALL DEBRIS LARGER THAN 2" DIAMETER.
- PRIOR TO SEEDING, CONSULT MANUFACTURER'S RECOMMENDATIONS AND INSTRUCTIONS
- SEEDING RATES:
 - PERENNIAL RYEGRASS KENTUCKY BLUEGRASS RED FESCUE SPREADING FESCUE FERTILIZER (20:10:10)

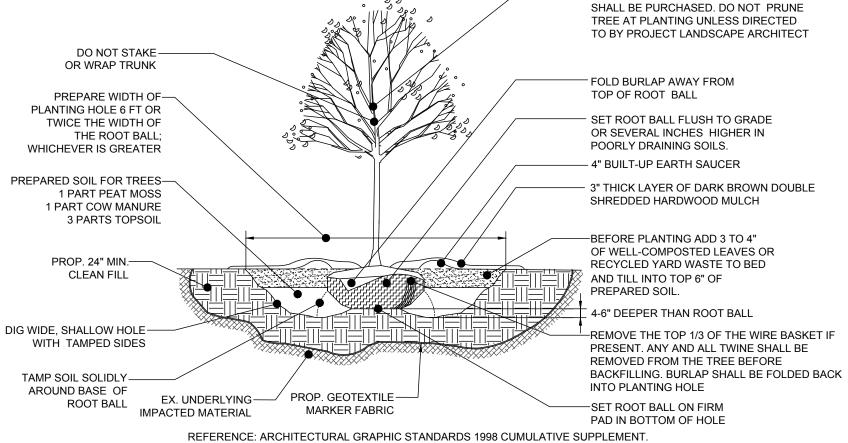
MULCH

- 1/2 LB/1,000 SQ FT 1 LB/1,000 SQ FT 1 1/2 LBS/1.000 SQ F 1 1/2 LBS/1,000 SQ FT 14 LBS/1,000 SQ FT 90 LBS/1.000 SQ FT
- GERMINATION RATES WILL VARY AS TO TIME OF YEAR FOR SOWING. CONTRACTOR TO IRRIGATE SEEDED AREA UNTIL AN ACCEPTABLE STAND OF COVER IS ESTABLISHED BY OWNER.

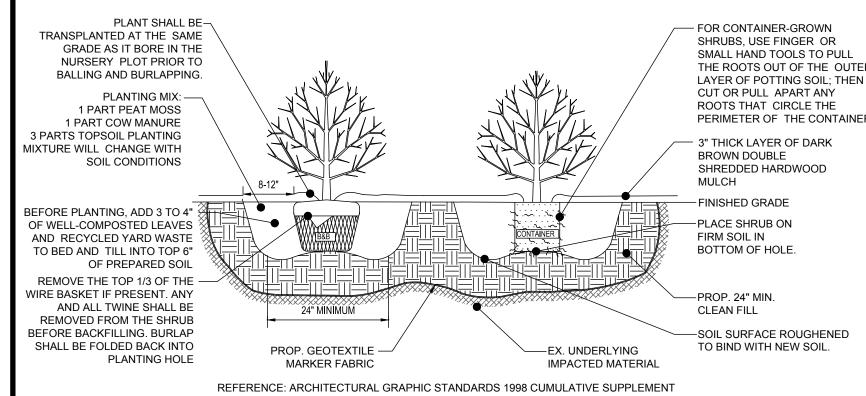


EVERGREEN TREE PLANTING DETAIL

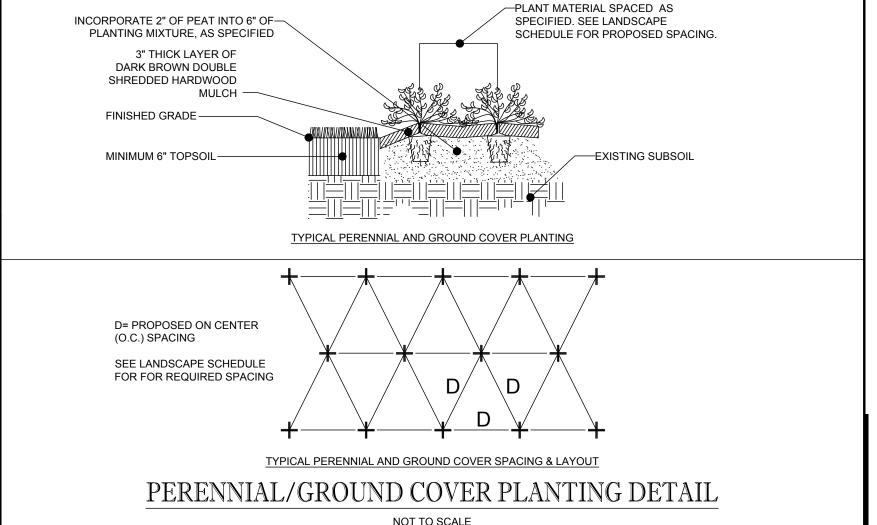
ONLY TREES WITH ONE MAIN LEADER



DECIDUOUS TREE PLANTING DETAIL



DECIDUOUS AND EVERGREEN SHRUB PLANTING DETAIL NOT TO SCALE



TREE PLANTING ON SLOPE DETAIL NOT TO SCALE

OWNER MAINTENANCE RESPONSIBILITIES

-PROP GEOTEXTILE

MARKER FABRIC

EX. UNDERLYING-

IMPACTED MATERIAL

NOTE: TREE STAKING TO BE REMOVED

DO NOT WRAP TRUNK

(1/2" DIA.)

2 PER TREE

EXISTING GRADE

1 PART PEAT MOSS

3 PARTS TOPSOIL

PROP. 24" MIN.-

CLEAN FILL

1 PART COW MANURE

REINFORCED RUBBER HOSE-

PREPARED SOIL FOR TREES-

TAMP SOIL SOLIDLY AROUND—

BASE OF ROOT BALL

12 GAUGE GALVANIZED WIRE GUYS TWISTED-

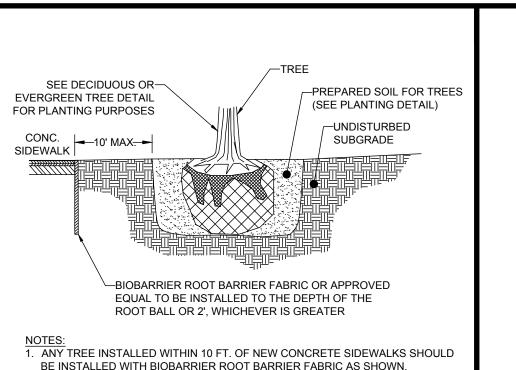
2" DIA. HARDWOOD STAKES 2/3 TREE HT.-

AFTER 2 GROWING SEASONS

UPON OWNER'S (OR OWNER CONTRACTOR'S) COMPLETION OF LANDSCAPING WORK. THE OWNER IS FULLY RESPONSIBLE FOR ALL FUTURE MAINTENANCE, CARE, UPKEEP, WATERING, AND TRIMMING OF ALL INSTALLED VEGETATION, PLANTS, TREE, BUSHES, SHRUBS, GRASSES, GRASS, ORNAMENTAL PLANTS ANI FLOWERS, FLOWERS, GROUND COVER, AND LANDSCAPING, INCLUDING ALL LANDSCAPE ISLANDS AND AREAS ADJACENT OR PART OF THE LANDSCAPED AREAS. THIS RESPONSIBILITY INCLUDES, BUT IS NOT LIMITED TO. THE FOLLOWING:

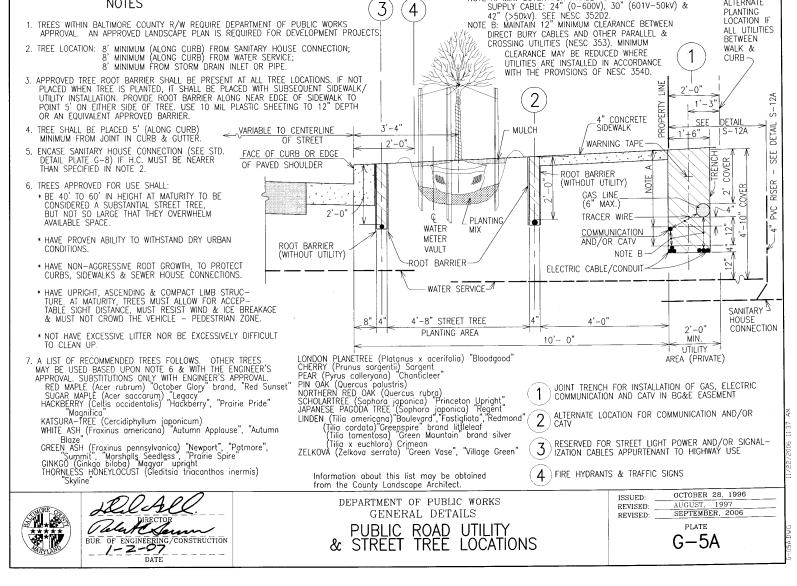
- TREES ADJACENT TO WALKWAYS AND AREAS OF PEDESTRIAN TRAFFIC MUST BE MAINTAINED TO ASSURE THAT ANY BRANCHES MUST BE LIMBED UP TO A CLEARANCE HEIGHT OF 7 FT. (FROM ALL PEDESTRIAN SURFACES) OR PRUNED BACK TO AVOID ANY INTERFERENCE WITH THE TYPICAL PATH
- TREES WITHIN VEHICULAR SIGHT LINES, AS ILLUSTRATED ON THE LANDSCAPE PLAN, ARE TO BE TRIMMED TO A CLEARANCE HEIGHT OF 7 FT. (FROM ALL PAVED, TRAVELED SURFACES), OR AS OTHERWISE INDICATED ON THE PLANS.
- VEGETATIVE GROUND COVER, SHRUBS AND ORNAMENTAL PLANTS AND GRASSES MUST BE TRIMMED SO THAT NO PORTION OF THE PLANT EXCEEDS 30 INCHES ABOVE GRADE (OF ALL PAVED, TRAVEL SURFACES) ALONG AND WITHIN THE SIGHT LINES OF PARKING LOTS AND INGRESS-EGRESS WAYS.
- FALLEN PLANT FLOWERS, FRUIT, SEEDS AND DEBRIS DROPPINGS ARE TO BE REMOVED IMMEDIATELY FROM VEHICULAR AND PEDESTRIAN TRAFFIC AREAS TO PREVENT TRIPPING, SLIPPING OR ANY OTHER HAZARDS

THESE REQUIREMENTS DO NOT AFFECT THE PLANT LIFE GUARANTEES THE LANDSCAPE CONTRACTOR IS REQUIRED TO PROVIDE.



ROOT BARRIER DETAIL NOT TO SCALE

. TREES SHALL BE INSTALLED ACCORDING TO THE APPROPRIATE PLANTING



ELEVATIONS BASED ON NAVD 88, COORDINATES AND MERIDIAN ARE BASED ON THE MARYLAND COORDINATE SYSTEM (MCS) PER MONUMENTS BCC #1433 AND GIS 2

WELL-COMPOSTED LEAVES OR RECYCLED YARD WASTE TO BED AND TILL INTO TOP 6 -REMOVE THE TOP 1/3 OF THE WIRE BASKET

-ONLY TREES WITH ONE MAIN LEADER

SHALL BE PURCHASED. DO NOT PRUNE

TO BY PROJECT LANDSCAPE ARCHITECT

TREE AT PLANTING UNLESS DIRECTED

-SET ROOT BALL FLUSH TO GRADE

OR SEVERAL INCHES HIGHER IN

POORLY DRAINING SOILS.

-3" THICK LAYER OF DARK

HARDWOOD MULCH

OF PREPARED SOIL.

BROWN DOUBLE SHREDDED

-4" BUILT-UP EARTH SAUCER

-BEFORE PLANTING ADD 3 TO 4" OF

REMOVED FROM THE TREE BEFORE

BACK INTO PLANTING HOLE

-SET ROOT BALL ON FIRM

PAD IN BOTTOM OF HOLE

IF PRESENT. ANY AND ALL TWINE SHALL BE

BACKFILLING. BURLAP SHALL BE FOLDED

REVISIONS DATE COMMENT 8/10/18 REVISIONS PER MDE RERISEDURER 12/8/18 ISSUED FOR 2/26/19 CONSTRUCTION



APPROVED FOR CONSTRUCTION

DRAWN BY: NOT TO SCALE SCALE: CADID

DEVELOPMENT ACCESS ROADS



LOCATION OF SITE SOUTHWEST CORNER OF BETHELHEM BOULEVARD AT WHARF ROAD TAX MAP 111, GRID 14, PARCEL 318 BALTIMORE, MD 21289 BALTIMORE COUNTY DISTRICT: 07 DRC#: 010918E

TRACKING #: DRC-2017-00196



901 DULANEY VALLEY ROAD, SUITE 80 **TOWSON, MARYLAND 21204** Phone: (410) 821-7900 (410) 821-7987 MD@BohlerEng.com

E.R. McWILLIAMS

REGISTERED LANDSCAPE ARCHITECT MARYLAND LICENSE No. 3697 PROFESSIONAL CERTIFICATION LERIC R McWILLIAMS HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME. AND THAT I AM A DULY LICENSED LANDSCAPE ARCHITECT

UNDER THE LAWS OF THE STATE OF MARYLAND.

LICENSE NO. 3697, EXPIRATION DATE: 9/20/18 SHEET TITLE:

> FINAL LANDSCAPE NOTES AND DETAILS

19-SF-0005

H:\16\MD1620661\DRAWINGS\PLAN SETS\ACCESS ROADS PHASE II PLANS\MD1620661LP3.DWG PRINTED BY: MGESELL 4.17.19 @ 6:50 AM LAST SAVED BY: JCAMPBELI



allowable loading of the specified pole in its installed geographic location

BASE COVER: Two-piece square aluminum base cover included standard

Galvanized hardware with two washers and two nuts per bolt for leveling

Durable thermoset polyester powder coat paint finish with nominal 3.0 mil thickness

BASE DETAIL

1 Single arm mount

B Tenon (2.875" OD)

TC Tenon (3.5" OD)

TR¹ Removable Tenon

(2.375 x 4.25)

T No drilling (in-

Base Plate —

GYS Gray Smooth

Textured

OWI Old World Iron

WHT White Textured

CC Custom Color

Grout with drain

APPLICATIONS

Height 10' - 40'

ORDERING INFORMATION

MOUNTING ORIENTATION

ACCESSORIES - Order Separately

BEACON design . performance . technology

ORDERING EXAMPLE:

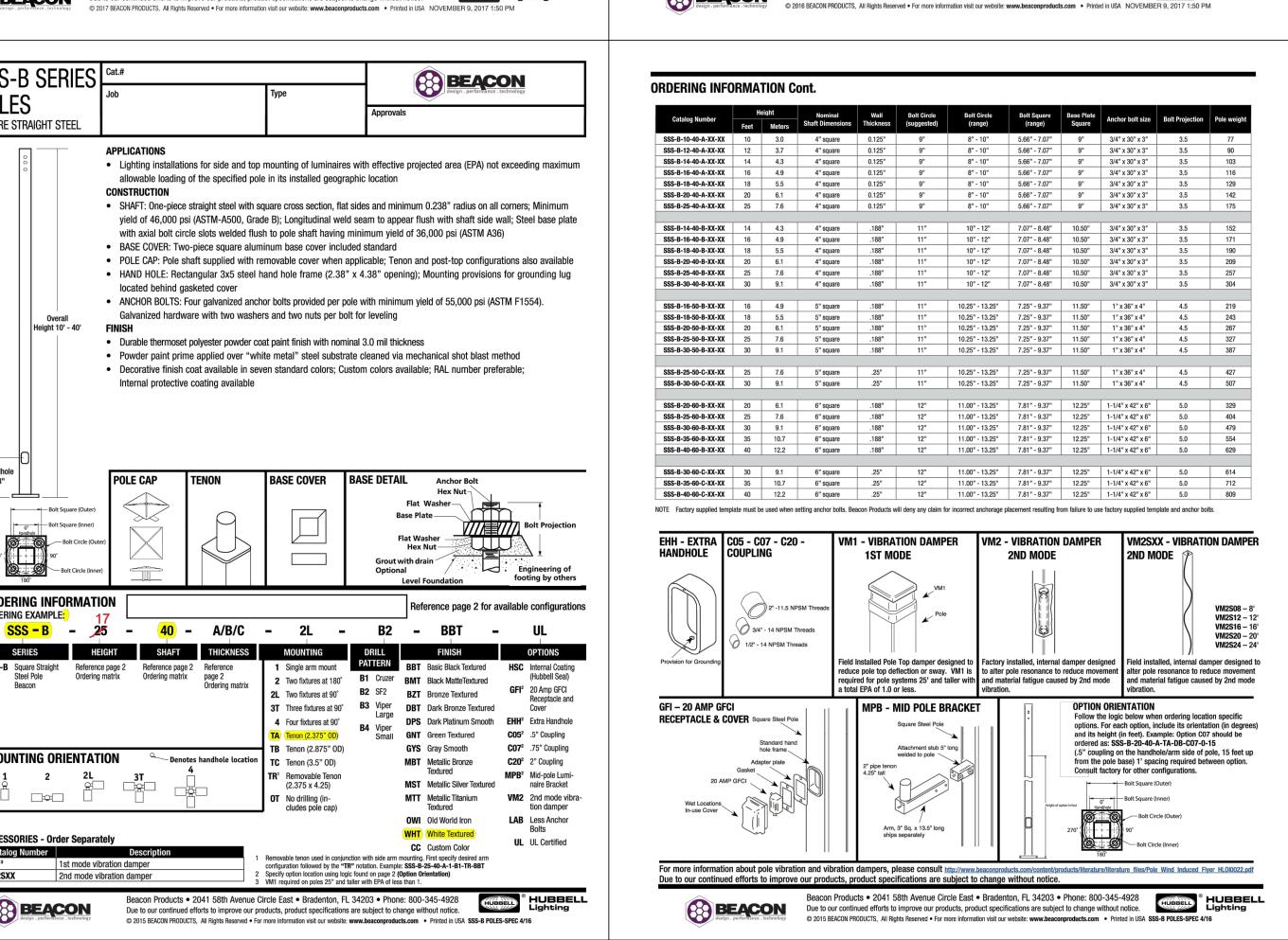
located behind gasketed cover

Internal protective coating available

HEIGHT SHAFT THICKNESS

SSS-B Square Straight Steel Pole Reference page 2 Ordering matrix Reference page 2 Ordering matrix Reference page 2 Reference page 2 Reference page 2 Page 2

1st mode vibration damper 2nd mode vibration damper



ORDERING INFORMATION ORDERING EXAMPLE: VP-L/96NB-280/4K/T4/UNV/PCR-TL/BLC/RA/BBT

ENGINE-WATTS LED COLOR® VOLTAGE ELECTRICAL OPTIONS

LEFT RIGHT OPTICS4

T1R Type 1 right

T2L Type 2 left

T2R Type 2 right

T3L Type 3 left

FRR Front row right

80NB-180 180W LED array **4K** 4000K **347V** 347K

80NB-235 235W LED array **5K** 5000K

T5QM Type V, square medium T3R Type 3 right

T5W Type V, round wide T4L Type 4 left

HOUSE SIDE SHIELD ACCESSORIES

HSS/VP-L/90-FB/XXX 90° shield front or back

HSS/VP-L/90-LR/XXX 90° shield left or right

HSS/VP-L/270-LR/XXX 270° shield left or right

RECOMMISSIONED SITESYNC ORDERING INFORMATION: When ordering a fixture with the SiteSync lighting

control option, additional information will be required to complete the order. The SiteSync Commissioning Form or alternate schedule information must be completed. This form includes Project location, Group information, and

erating schedules. For more detailed information please visit www.HubbellLighting.com/products/sitesync or

iteSync fixtures with Motion control (SWPM) require the mounting height of the fixture for selection of the lens.

1 Must specify group and zone information at time of order. See www.hubbelllighting.com/sitesync for further details
2 Specify mounting height.
3 T4 optic only
4 To rotate optics left or right 90 degrees, specify L or R after the optical distribution example T4L.
5 Not available with other control or sensor options.
6 When ordering Energeni, specify the routine setting code (example GENI-04). See Energeni brochure and instructions for setting table and options. Not available with sensor options.
7 Not available for 347V or 480V input.
9 Order at least one SCP-EMOTE per project location to program and control.
9 This product is approved by the Florida Fish and Wildlife Conservation Commission. Separate spec available at: http://doi.beacomproducis.com/content/producis/specs/specs_files/Viper_Large_LFD_hurlis_spac_sheat.pdf

| Must | Must

VP-S/80NB-235/5K/T3/UNV/SWPM-20F/RA/DBT SiteSync with Motion Control

Must specify group and zone information at time of order. See www.hubbelllighting.com/sitesync for further details

SiteSync Lighting Control is available from

award-winning product families.

our most popular brands in a broad range of

HSS/VP-L/360/XXX Full shield

(Replace XXX with notation for desired finish color) (Refer to page 5 for shield images)

HSS/VP-L/270-FB/XXX 270° shield front or back

FR Front row auto optic T4R Type 4 right

receptacle with

photo control

shorting cap

2PF7 dual power feed

PCRU 7 pin twist lock

CONTROL OPTIONS

SWF⁵ SiteSync Field Commission

SWFM^{2,5} SiteSync Field Commission

with Motion Sensor

SWP1,5 SiteSync Wireless Pre-Com-

mission w/ Motion Detection

Sensor w/ daylight control

Accessories and Services (Ordered Separately)

talog Number Description

+ If needed, an additional Bridge Node can be ordered.

Hubbell Control Solutions - Accessories (sold separately)

integrated sensor, please view specification sheet ordering information table for details.

Beacon Products • 2041 58th Avenue Circle East Bradenton, FL 34203 • Phone: 800-345-4928

Due to our continued efforts to improve our products, product specifications are subject to change without notice.

SiteSync Windows Tablet

SiteSync Wireless Bridge Node

project to program and control

*When ordering with SiteSync, one of the interface options must be chosen and ordered

Consult DLC website for more details

On-fixture Module (7-pin), On / Off / Dim, Daylight Sensor NX Distributed with HubbNET Radio and Bluetooth® Radio, 120-480VAC Intelligence™

On-fixture Module (7-pin or 5-pin), On / Off / Dim, Daylight wiSCAPE™

Sensor with wiSCAPE Radio, 110-480VAC

For additional information related to these accessories please visit $\underline{www.hubbellcontrolsolutions.com}$. Options provided for use with

separately. Each option contains the SiteSync License, GUI and Bridge Node.

mission

SCP/ F2,5,8 Programmable Occupancy

GENI-XX⁶ Energeni

FRL Front row left SWPM1,2,5 SiteSync Wireless Pre-Com-

PRC-SC 7 pin twist lock

FINISH

BMT Black Matte

WHT White Textured

MBT Metallic Bronze

BZT Bronze Textured

DBT Dark Bronze

GYS Gray Smooth

GNT Green Textured

OWI Old World Iron

HCS System

HUBBELL Lighting

square pole mount. Round DPS Dark Platinum

PK2 2 3/8" adjustable knuckle MST Metallic Silver

WB wall bracket (use with SF2 or PK2) SF2 standard MTT Metallic Titanium

SiteSync loaded on USB flash drive (Windows based only

Remote Control for SCP/_F option. Order at least one per

BIRD DETERRENT

RA rectangular arm for round or

SF2 2 3/8" OD slip-fitter

or PK2), SF2 standard

OPTIONS

BLC³ Backlight Control

VP-L

VP-L Viper 64NB-135 135W LED array 3K 3000K

96NB-220 220W LED array

96NB-280 280W LED array

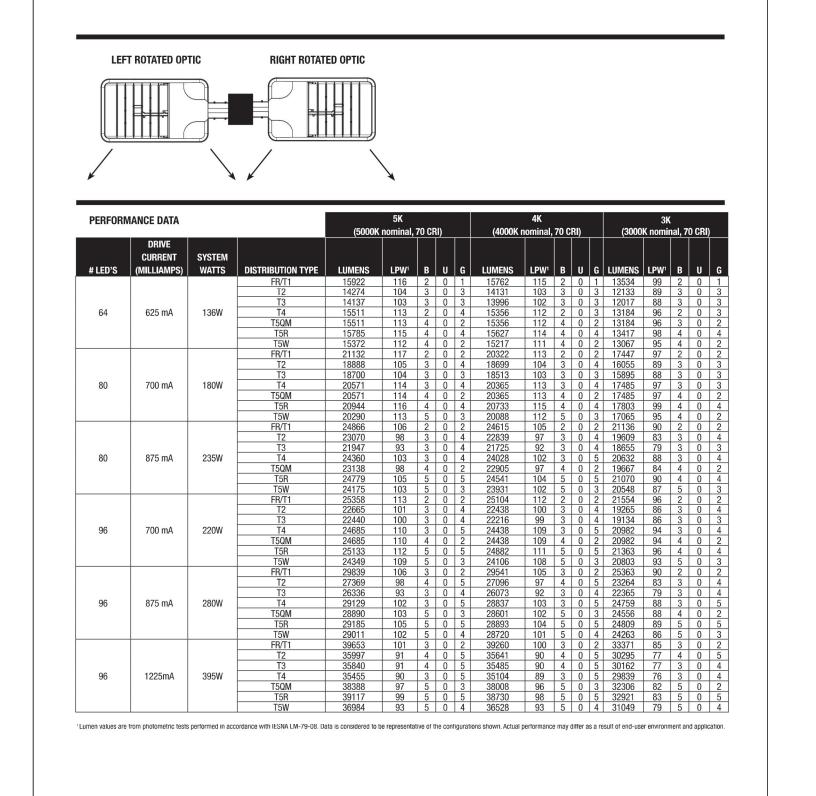
96NB-395 395W LED array

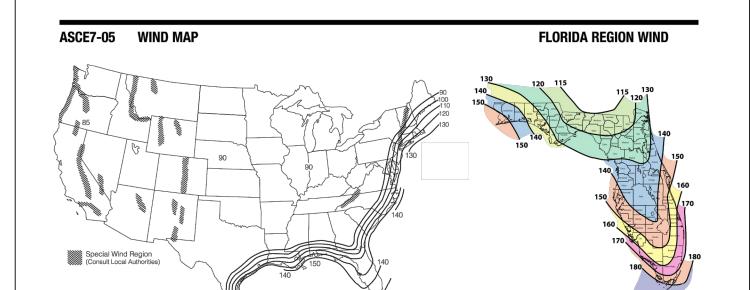
OPTICS⁴

T2 Type II

T3 Type III

T4 Type IV





Beacon Products • 2041 58th Avenue Circle East Bradenton, FL 34203 • Phone: 800-345-4928

Due to our continued efforts to improve our products, product specifications are subject to change without notice.

© 2016 BEACON PRODUCTS, All Rights Reserved • For more information visit our website: www.beaconproducts.com • Printed in USA NOVEMBER 1.00 NOVEMBER 2016 BEACON PRODUCTS, All Rights Reserved • For more information visit our website: www.beaconproducts.com • Printed in USA NOVEMBER 2016 BEACON PRODUCTS, All Rights Reserved • For more information visit our website: www.beaconproducts.com • Printed in USA NOVEMBER 2016 BEACON PRODUCTS, All Rights Reserved • For more information visit our website: www.beaconproducts.com

HAWAII - 105 mph **PUERTO RIO**

| ASCE 7-05 v | vind map | EPA Load | Rating - | 3 second | l gust wir | nd speed: | S |
|---------------|----------|----------|----------|----------|------------|-----------|------|
| atalog Number | 85 | 90 | 100 | 110 | 120 | 105 | 145 |
| SSS-B-10-40-A | 25.0 | 25.0 | 25.0 | 20.6 | 17.0 | 22.8 | 11.0 |
| SSS-B-12-40-A | 25.0 | 25.0 | 20.0 | 16.1 | 13.2 | 18.0 | 8.1 |
| SSS-B-14-40-A | 23.1 | 20.4 | 16.1 | 12.8 | 10.2 | 14.3 | 5.9 |
| SSS-B-16-40-A | 19.0 | 16.7 | 13.0 | 10.1 | 7.9 | 11.5 | 4.1 |
| SSS-B-18-40-A | 15.6 | 13.6 | 10.0 | 7.8 | 5.9 | 9.0 | 2.6 |
| SSS-B-20-40-A | 12.7 | 10.9 | 7.9 | 5.9 | 4.2 | 6.9 | 1.3 |
| SSS-B-25-40-A | 7.3 | 5.9 | 3.8 | 2.1 | 0.8 | 2.9 | NR |
| | | | | | | | |
| SSS-B-14-40-B | 25.0 | 25.0 | 23.3 | 18.6 | 15.1 | 20.8 | 9.2 |
| SSS-B-16-40-B | 25.0 | 24.9 | 19.4 | 15.4 | 12.3 | 17.3 | 7.2 |
| SSS-B-18-40-B | 24.0 | 20.8 | 16.1 | 12.5 | 9.8 | 14.2 | 5.3 |
| SSS-B-20-40-B | 20.2 | 17.5 | 13.2 | 10.1 | 7.7 | 11.6 | 3.8 |
| SSS-B-25-40-B | 12.8 | 11.0 | 7.9 | 5.5 | 3.7 | 6.7 | 0.7 |
| SSS-B-30-40-B | 8.0 | 6.6 | 4.1 | 2.2 | 0.8 | 3.1 | NR |
| | | | | | | | |
| SSS-B-16-50-B | 25.0 | 25.0 | 25.0 | 24.8 | 20.1 | 25.0 | 12.3 |
| SSS-B-18-50-B | 25.0 | 25.0 | 25.0 | 20.4 | 16.4 | 22.9 | 9.6 |
| SSS-B-20-50-B | 25.0 | 25.0 | 21.3 | 16.7 | 13.2 | 18.9 | 7.2 |
| SSS-B-25-50-B | 20.7 | 17.8 | 13.3 | 9.8 | 7.2 | 11.5 | 2.6 |
| SSS-B-30-50-B | 13.5 | 11.3 | 7.7 | 4.9 | 2.8 | 6.2 | NR |
| SSS-B-25-50-C | 25.0 | 25.0 | 19.4 | 15.1 | 11.7 | 17.1 | 6.0 |
| SSS-B-30-50-C | 20.1 | 17.3 | 12.7 | 9.3 | 6.6 | 10.9 | 2.1 |
| | | | | | | | |
| SSS-B-20-60-B | 25.0 | 25.0 | 25.0 | 25.0 | 20.2 | 25.0 | 11.5 |
| SSS-B-25-60-B | 25.0 | 25.0 | 20.6 | 15.6 | 11.8 | 18.0 | 5.2 |
| SSS-B-30-60-B | 21.4 | 18.1 | 12.9 | 8.8 | 5.7 | 10.7 | NR |
| SSS-B-35-60-B | 14.0 | 11.3 | 6.9 | 3.6 | 1.0 | 5.2 | NR |
| SSS-B-40-60-B | 8.1 | 5.8 | 2.2 | NR | NR | NR | NR |
| SSS-B-30-60-C | 24.3 | 20.5 | 14.6 | 10.2 | 6.8 | 12.2 | 1.3 |
| SSS-B-35-60-C | 16.6 | 13.5 | 8.6 | 4.9 | 2.1 | 6.6 | NR |
| SSS-B-40-60-C | 10.6 | 7.9 | 3.7 | 0.6 | NR | 2.1 | NR |

Florida region wind map above is based upon 3-second

Beacon Products • 2041 58th Avenue Circle East • Bradenton, FL 34203 • Phone: 800-345-4928

Due to our continued efforts to improve our products, product specifications are subject to change without notice. Beacon Products • 2041 58th Avenue Circle East • Bradenton, FL 34203 • Phone: 800-345-4928 © 2015 BEACON PRODUCTS, All Rights Reserved • For more information visit our website: www.beaconproducts.com • Printed in USA SSS:

NOTES

Hubbell Lighting has no connection to the linked website and makes no representations as to its accuracy. While the information presented on this third-party website provides a useful starting point for analyzing wind conditions, Hubbell Lighting has not verified any of the information on this third party website and assumes no responsibility or liability for its accuracy. The material presented in the windspeed website should not be used or relied upon for any specific application without competent examination and verification of its accuracy, suitability and applicability by engineers or other licensed professionals. Hubbell Lighting Inc. does not intend that the use of this information replace the sound judgment of such competent professionals, having experience and knowledge in the field of practice, nor to substitute for the standard of care required of such professionals in interpreting and applying the results of the windspeed report provided by this website. Users of the information from this third party website assume all liability arising from such use. Use of the output of these reference websites do not imply approval by the governing building code bodies responsible for building code approval and interpretation for the building site described by latitude/longitude

- Allowable EPA, to determine max pole loading weight, multiply allowable EPA by 30 lbs. • The tables for allowable pole EPA are based on the ASCE 7-05 Wind Map or the Florida Region Wind Map for the 2010 Florida Building Code. The Wind Maps are intended only as a general guide and
- cannot be used in conjunction with other maps. Always consult local authorities to determine maximum wind velocities, gusting and unique wind conditions for each specific application Allowable pole EPA for jobsite wind conditions must be equal to or greater than the total EPA for fixtures, arms, and accessories to be assembled to the pole. Responsibility lies with the specifier for Wind speeds and listed EPAs are for ground mounted installations. Poles mounted on structures (such as bridges and buildings) must consider vibration and coefficient of height factors beyond this general guide; Consult local and federal standards
- Wind Induced Vibration brought on by steady, unidirectional winds and other unpredictable aerodynamic forces are not included in wind velocity ratings. Consult Hubbell Lighting's Pole Vibration Application Guide for environmental risk factors and design considerations. http://www.beaconproducts.com/content/products/literature/literature/literature/files/Pole_Wind_Induced_Flyer_HL010022.pdf Extreme Wind Events like, Hurricanes, Typhoons, Cyclones, or Tornadoes may expose poles to flying debris, wind shear or other detrimental effects not included in wind velocity ratings

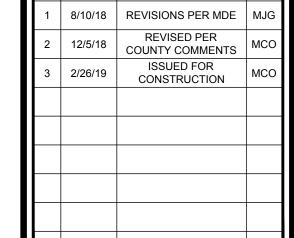
Beacon Products • 2041 58th Avenue Circle East • Bradenton, FL 34203 • Phone: 800-345-4928

© 2015 BEACON PRODUCTS, All Rights Reserved • For more information visit our website: www.beaconproducts.com • Printed in USA RSS-B POLES-SPEC 4/16

BEACON

Due to our continued efforts to improve our products, product specifications are subject to change without notice.

Due to our continued efforts to improve our products, product specifications are subject to change without notice.



REVISIONS

REV DATE

COMMENT



APPROVED FOR

CONSTRUCTION DRAWN BY: CHECKED BY:

NOT TO SCALE SCALE: CADID

DEVELOPMENT ACCESS ROADS



LOCATION OF SITE SOUTHWEST CORNER OF BETHELHEM BOULEVARD AT WHARF ROAD TAX MAP 111, GRID 14, PARCEL 318 BALTIMORE, MD 21289 BALTIMORE COUNTY DISTRICT: 07

TRACKING #: DRC-2017-00196 BOHLER ENGINEERIN(

DRC#: 010918E

901 DULANEY VALLEY ROAD, SUITE 80 **TOWSON, MARYLAND 21204** Phone: (410) 821-7900 Fax: (410) 821-7987 MD@BohlerEng.com

E.R. McWILLIAMS

REGISTERED LANDSCAPE ARCHITECT PROFESSIONAL CERTIFICATION LERIC R McWILLIAMS HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME. AND THAT I AM A DULY LICENSED LANDSCAPE ARCHITECT

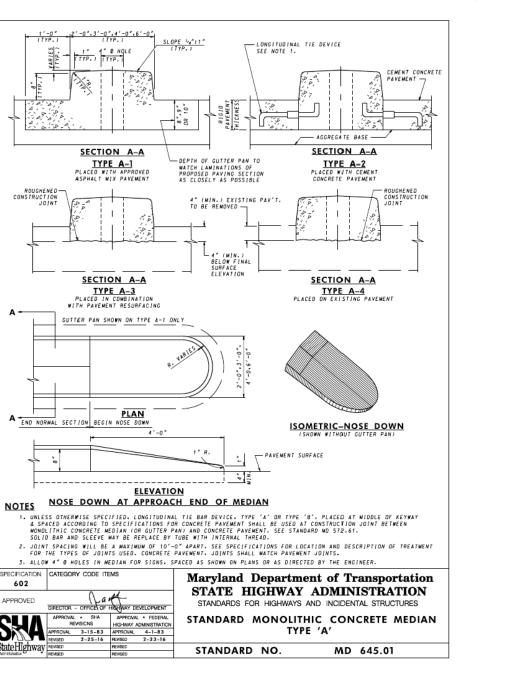
UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 3697, EXPIRATION DATE: 9/20/20

LIGHTING NOTES AND DETAILS

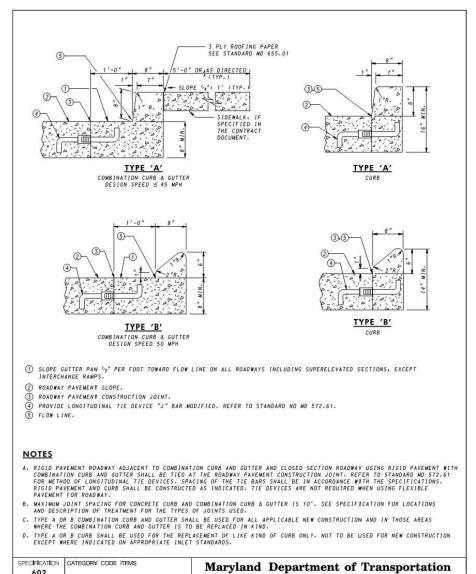
19-SF-0005

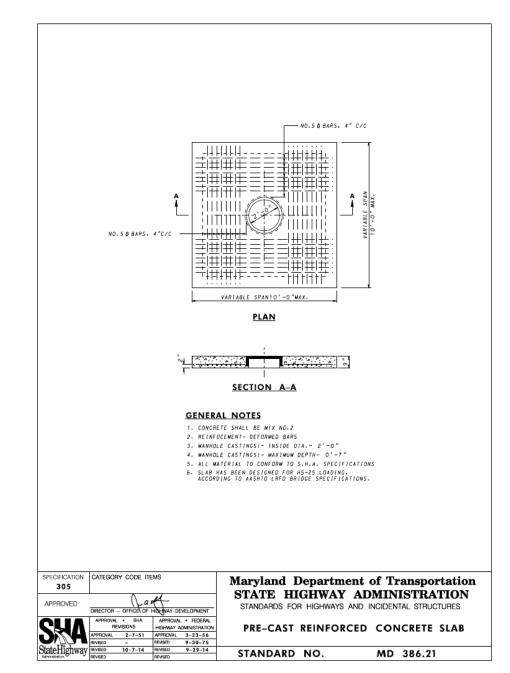
ELEVATIONS BASED ON NAVD 88, COORDINATES AND MERIDIAN ARE BASED ON THE MARYLAND COORDINATE SYSTEM (MCS) PER MONUMENTS BCO #1433 AND GIS 2

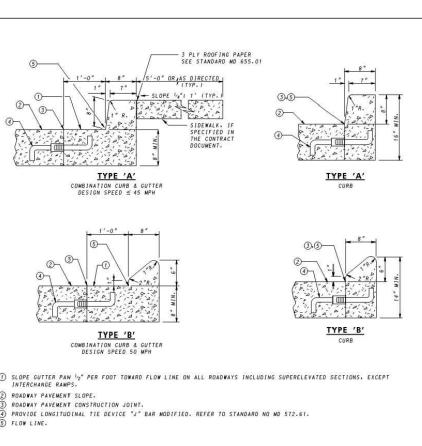
HUBBELL Lighting



H:\16\MD1620661\DRAWINGS\PLAN SETS\ACCESS ROADS PHASE II PLANS\MD1620661SD3.DWG PRINTED BY: MGESELL 4.17.19 @ 6:56 AM LAST SAVED BY: MODONNELL







STATE HIGHWAY ADMINISTRATION STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES STANDARD TYPES A & B CONCRETE CURB AND COMBINATION CONCRETE CURB & GUTTER MD 620.02

GEOTEX® 801 GEOTEX® 801 is a polypropylene, staple fiber, needle-punched nonwoven geotextile produced by Propex, and will meet the following Minimum Average Roll Values (MARV) when tested in accordance with the methods listed below. The fibers are needled to form a stable network that retains dimensional stability relative to each other.

Product Data

GEOTEX® 801 conforms to the property values listed below¹. Propex performs internal Manufacturing Quality Control (MQC) tests that have been accredited by the Geosynthetic Accreditation Institute - Laboratory

Accreditation Program (GAI-LAP). This product is NTPEP approved for AASHTO standards.

The geotextile is resistant to ultraviolet degradation and to biological and chemical environments normally found in

| | | 110/113 | | | |
|--|-------------|-----------------------|-----------------------|--|--|
| PROPERTY | TEST METHOD | ENGLISH | METRIC | | |
| ORIGIN OF MATERIALS | • | • | • | | |
| % U.S. Manufactured | | 100% | 100% | | |
| MECHANICAL | | | • | | |
| Grab Tensile Strength | ASTM D-4632 | 205 lbs | 912 N | | |
| Grab Elongation | ASTM D-4632 | 50% | 50% | | |
| CBR Puncture | ASTM D-6241 | 535 lbs | 2380 N | | |
| Trapezoidal Tear | ASTM D-4533 | 80 lbs | 356 N | | |
| ENDURANCE | • | | | | |
| UV Resistance at 500 hrs | ASTM D-4355 | 70% | 70% | | |
| HYDRAULIC | • | • | • | | |
| Apparent Opening Size (AOS) ³ | ASTM D-4751 | 80 US Std. Sieve | 0.180 mm | | |
| Permittivity | ASTM D-4491 | 1.4 sec ⁻¹ | 1.4 sec ⁻¹ | | |
| Water Flow Rate | ASTM D-4491 | 100 gpm/ft² | 4074 l/min/m² | | |
| | • | • | • | | |
| ROLL SIZES ⁴ | | 12.5 ft x 360 ft | 3.81 m x 109.8 m | | |
| NOLE GIZEG | | 15 ft x 300 ft | 4.57 m x 91.5 m | | |

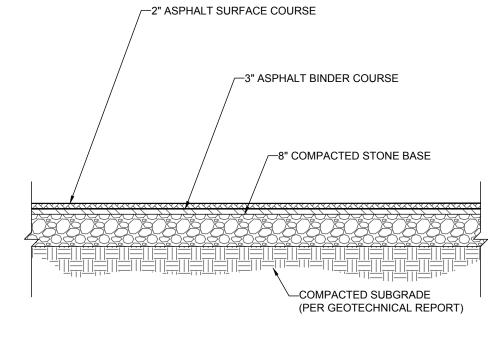
1. The property values listed above are effective 04/03/2017 and are subject to change without notice.

2. Values shown are in weaker principal direction. Minimum average roll values (MARV) are calculated as the typical minus two standard deviations. Statistically, it yields a 97.7% degree of confidence that any samples taken from quality assurance testing will exceed the value reported.

3. Maximum average roll value. 4. Contact your local Territory Business Manager (TBM) for custom widths and colors. Lead times may vary depending on customer requirements and volume

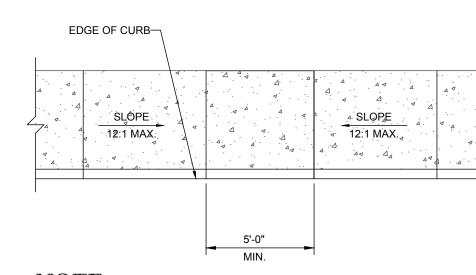
ENGINEERED EARTH SOLUTIONS™

 $\textbf{Propex Operating Company, LLC} \cdot 4019 \text{ Industry Drive Chattanooga, TN } 37416 \cdot \text{ ph } 8006211273 \cdot \text{ph } 4238551466$ ARMORMAX®, PYRAMAT®, LANDLOK®, X3®, GEOTEX®, PETROMAT®, PETROTAC®, REFLECTEX®, and GRIDPROTM are registered trademarks of Propex Operating Company, L © 2017 Propex Operating Company, LLC

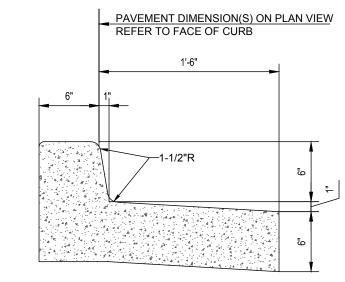


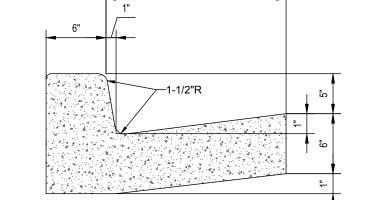
1. SECTION SHOWN WAS PREPARED WITHOUT THE BENEFIT OF A GEOTECHNICAL REPORT. FINAL DESIGN TO BE PROVIDED BY GEOTECHNICAL ENGINEER ONCE FINAL CBR'S ARE AVAILABLE ON COMPACTED SUB-BASE.

STANDARD DUTY ASPHALT PAVEMENT SECTION



NOTE: ADA ACCESSIBLE RAMP CONSTRUCTION SHALL CONFORM TO CURRENT ADA ACCESSIBLE GUIDELINES.





ADA ACCESSIBLE RAMP DETAIL

PAVEMENT DIMENSION(S) ON PLAN

VIEW REFER TO FACE OF CURB

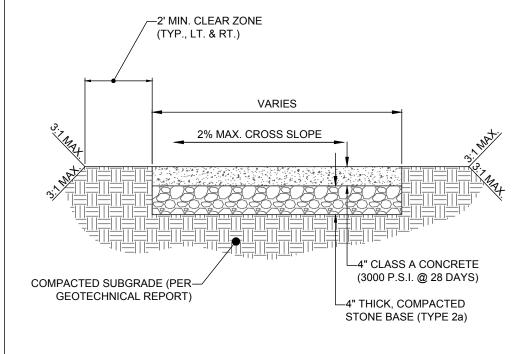
SPILL CURB & GUTTER

COLLECTOR CURB & GUTTER

NOTES: 1. CONCRETE FOR CURBING SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 3,000 P.S.I. @ 28 DAYS.
2. CONSTRUCTION STAKING FOR CURB INSTALLATION SHALL BE REFERENCED (CUT OR FILL) TO THE TOP OF CURB.

3. AT CONTRACTOR'S OPTION, THE GUTTER THICKNESS MAY BE INCREASED AT THE EDGE OF PAVEMENT TO MAKE BOTTOM OF GUTTER CONTIGUOUS WITH BOTTOM OF ASPHALT PAVEMENT. 4. CONTRACTION JOINTS SHALL BE PLACED @ 10'-0" O.C. TOOLED 1/4" (±1/16") WIDE, 1" DEEP. EXPANSION JOINTS SHALL BE PLACED @ 40'-0" INTERVALS, MAXIMUM, AND ALL P.C.'S. 5. GUTTER PAN SLOPE TO BE ADJUSTED WITHIN ACCESSIBLE PARKING SPACES TO MATCH SLOPE BETWEEN SPOT ELEVATIONS.

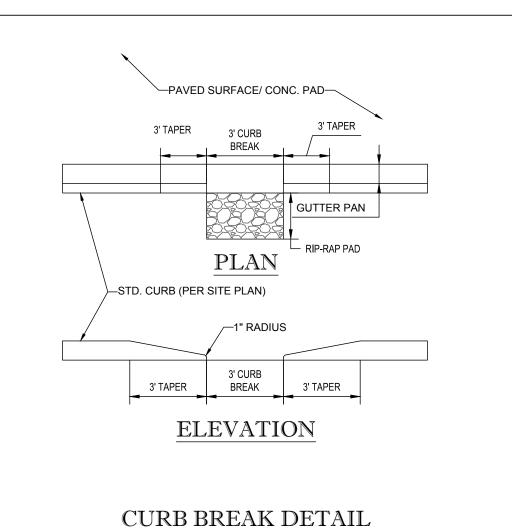
CONCRETE CURB & GUTTER DETAIL



NOTE:

1. EXPANSION JOINTS 1/2" WIDE PREMOLDED BIT. MATERIAL SHALL BE INSTALLED AT 30' INTERVALS, CRACK CONTROL JOINTS TO BE SPACED AT INTERVALS EQUAL TO SIDEWALK WIDTH.

CONCRETE SIDEWALK DETAIL NOT TO SCALE

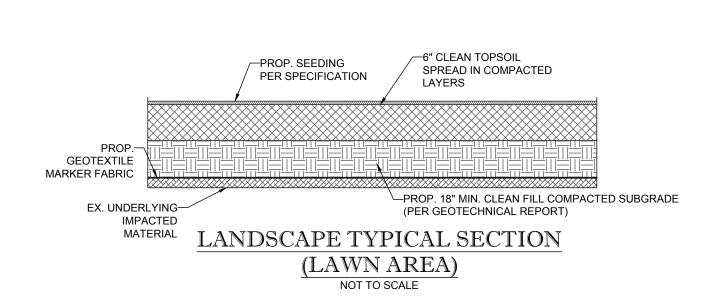


NOT TO SCALE

3' CURB TAPER FULL HEIGHT CURB -1" RADIUS PAVEMENT SURFACE—

CURB TAPER DETAIL

NOT TO SCALE



ELEVATIONS BASED ON NAVD 88, COORDINATES AND MERIDIAN ARE BASED ON THE MARYLAND COORDINATE SYSTEM (MCS) PER MONUMENTS BCO #1433 AND GIS 2

REVISIONS REV DATE COMMENT 8/10/18 | REVISIONS PER MDE REVISED PER 12/5/18 COUNTY COMMENTS ISSUED FOR 2/26/19 CONSTRUCTION



APPROVED FOR CONSTRUCTION

DRAWN BY: 7/6/18 NOT TO SCALE SCALE: CAD I.D.:

DEVELOPMENT ACCESS ROADS



LOCATION OF SITE SOUTHWEST CORNER OF BETHELHEM BOULEVARD AT WHARF ROAD TAX MAP 111, GRID 14, PARCEL 318 BALTIMORE, MD 21289 BALTIMORE COUNTY DISTRICT: 07 DRC#: 010918E



TRACKING #: DRC-2017-00196

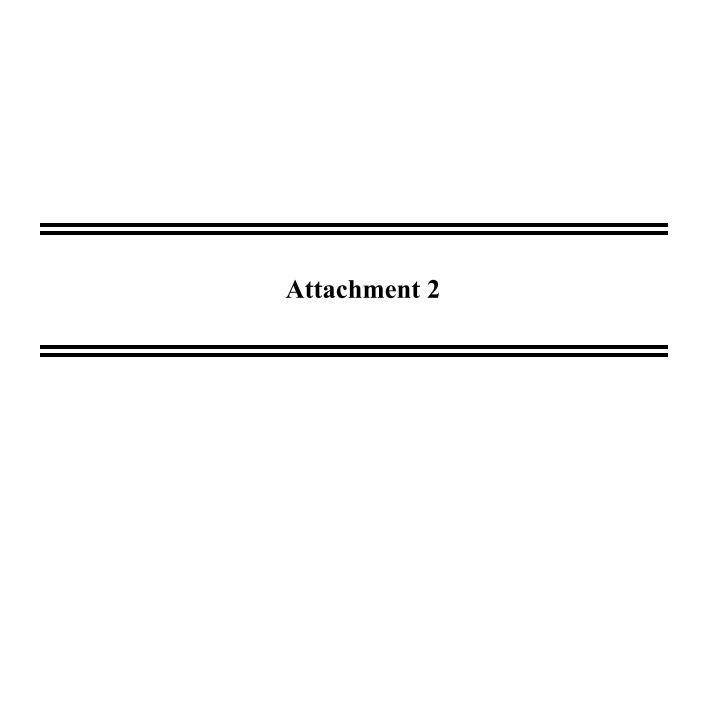
901 DULANEY VALLEY ROAD, SUITE 80 **TOWSON, MARYLAND 21204** Phone: (410) 821-7900 Fax: (410) 821-7987 MD@BohlerEng.com

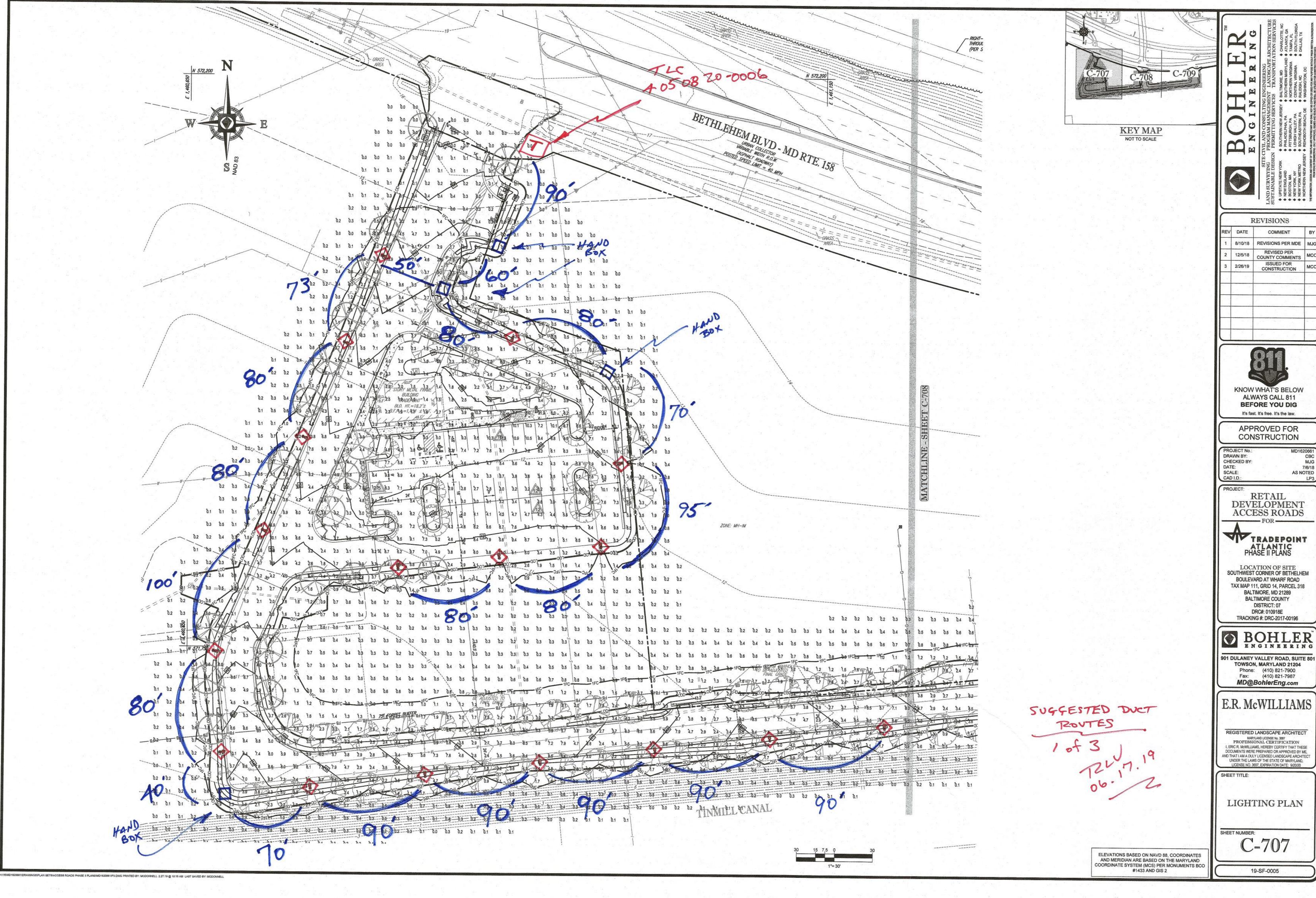
ANDREW G. STINE

PROFESSIONAL ENGINEER \PROFESSIONAL CERTIFICATION I, ANDREW G. STINE, HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND,

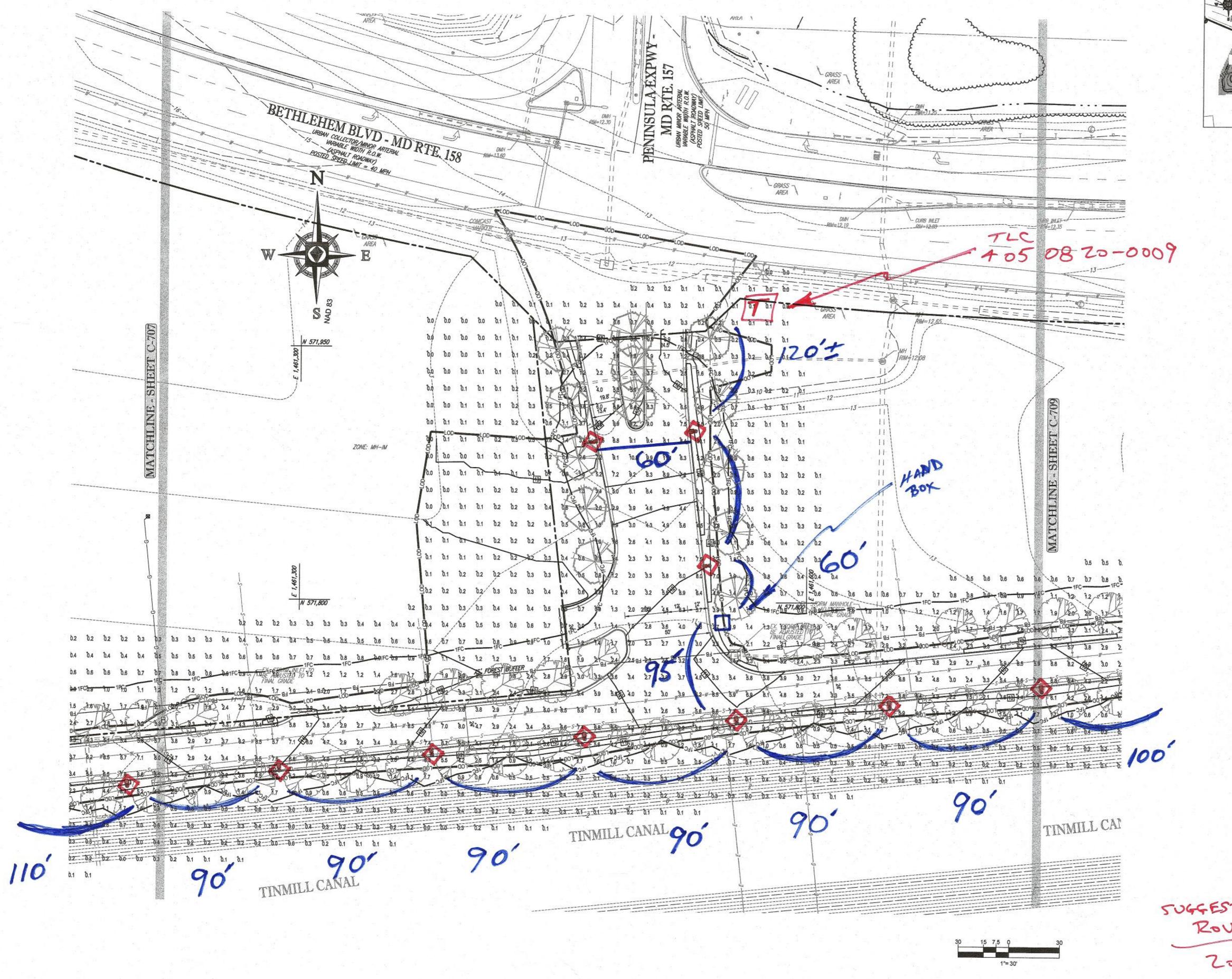
LICENSE NO. 37687, EXPIRATION DATE: 7/12/19

SITE DETAILS





| REV | DATE | COMMENT | BY |
|-----|---------|--------------------------------|-----|
| 1 | 8/10/18 | REVISIONS PER MDE | MJG |
| 2 | 12/5/18 | REVISED PER COUNTY COMMENTS | мсо |
| 3 | 2/26/19 | ISSUED FOR CONSTRUCTION | мсо |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | - |



H/16WID1620861/DRAWINGS/PLAN SETS/ACCESS ROADS PHASE II PLANS/MD1620881IP3.DWG PRINTED BY: MODOWNELL 2.27.19 @ 10:19 AM LAST SAVED BY: MODOWNELL

C-707 C-708 C-709

KEY MAP NOT TO SCALE OHLERI

E N

STIRVEYING

BECCEPIL AND

SITE

LAND SURVEYING

SUSTAINABLE DESIGI

OUSTATE NEW YORK

NEW FORLAND

OUT OF THE NEW YORK

NEW YORK MY

NE

REVISIONS

REV DATE COMMENT BY

1 8/10/18 REVISIONS PER MDE MJG

2 12/5/18 REVISED PER COUNTY COMMENTS MCO

3 2/26/19 ISSUED FOR CONSTRUCTION MCO



APPROVED FOR CONSTRUCTION

BEFORE YOU DIG

PROJECT No.:
DRAWN BY:
CHECKED BY:
DATE:
SCALE:
CAD I.D.:

RETAIL
DEVELOPMENT
ACCESS ROADS

TRADEPOINT ATLANTIC PHASE II PLANS

LOCATION OF SITE
SOUTHWEST CORNER OF BETHELHEM
BOULEVARD AT WHARF ROAD
TAX MAP 111, GRID 14, PARCEL 318
BALTIMORE, MD 21289
BALTIMORE COUNTY
DISTRICT: 07
DRC#: 010918E

BOHLER

TRACKING #: DRC-2017-00196

901 DULANEY VALLEY ROAD, SUITE 801
TOWSON, MARYLAND 21204
Phone: (410) 821-7900
Fax: (410) 821-7987
MD@BohlerEng.com

E.R. McWILLIAMS

REGISTERED LANDSCAPE ARCHITECT

MARYLAND LICENSE NO. 3897

PROFESSIONAL CERTIFICATION

I, ERIC R. McWILLIAMS, HEREBY CERTIFY THAT THESE
DOCUMENTS WERE PREPARED OR APPROVED BY ME,
AND THAT I AM A DULY LICENSED LANDSCAPE ARCHITECT
UNDER THE LAWS OF THE STATE OF MARYLAND,
LICENSE NO. 3697, EXPIRATION DATE: 9/20/20

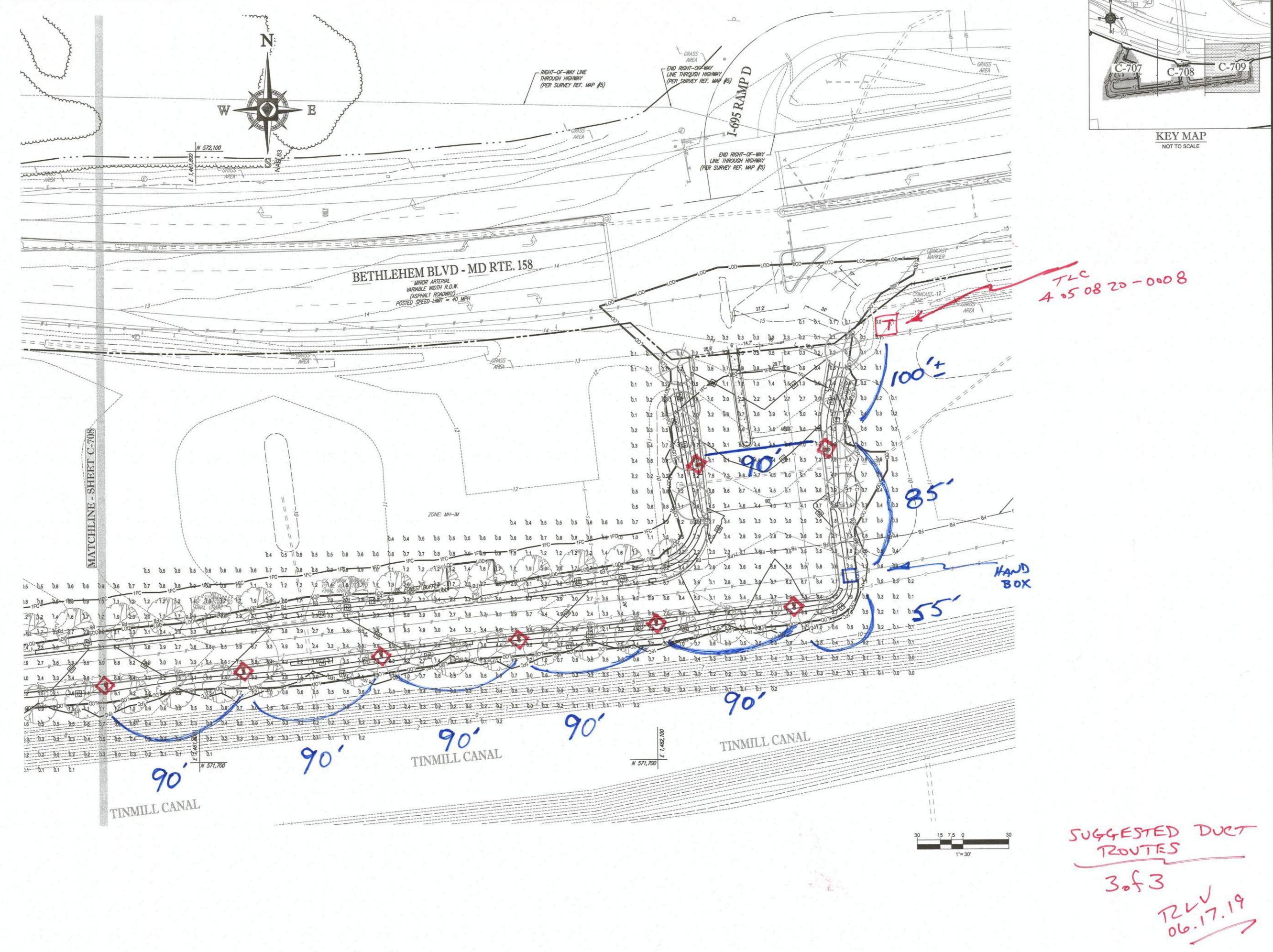
EET TITLE:

LIGHTING PLAN

C-708

19-SF-0005

ELEVATIONS BASED ON NAVD 88, COORDINATES AND MERIDIAN ARE BASED ON THE MARYLAND COORDINATE SYSTEM (MCS) PER MONUMENTS BCO #1433 AND GIS 2



H316WID1620861'DRAWINGSIPLAN SETSIACCESS ROADS PHASE II PLANSWID1620861IP3.DWG PRINTED BY: MODONNELL 2.27.19 @ 10:21 AM LAST SAVED BY: MODONNELL

ENGRAM MANAGEMENT LANDSCAPE ARCHITECTURE
RVEYING PROGRAM MANAGEMENT LANDSCAPE ARCHITECTURE
RVEYING PROGRAM MANAGEMENT LANDSCAPE ARCHITECTURE
RVEYING PROGRAM MANAGEMENT LANDSCAPE ARCHITECTURE
RELE DESIGN PERMITTING SERVICES TRANSPORTATION SERVICES
FEN NEW YORK + SOUTHERN NEW JERSEY + BALTIMORE, MD + CHARLOTTE, NC
19 MA
1, MA
1, MA
1, MA
1, EHIGH VALLEY, PA
1, EHIGH VALLEY, PA
1, MA
1, EHIGH VALLEY, PA
1, MA
1, MA
1, MA
1, EHIGH VALLEY, PA
1, MA
1,

REVISIONS

REV DATE COMMENT BY

1 8/10/18 REVISIONS PER MDE MJG

2 12/5/18 REVISED PER COUNTY COMMENTS MCO

3 2/26/19 ISSUED FOR CONSTRUCTION MCO



APPROVED FOR CONSTRUCTION

MD1620661 CBC MJG 7/6/18 AS NOTED

PROJECT No.:
DRAWN BY:
CHECKED BY:
DATE:
SCALE:
CAD LD:

RETAIL
DEVELOPMENT
ACCESS ROADS

TRADEPOINT ATLANTIC PHASE II PLANS

LOCATION OF SITE
SOUTHWEST CORNER OF BETHELHEM
BOULEVARD AT WHARF ROAD
TAX MAP 111, GRID 14, PARCEL 318
BALTIMORE, MD 21289
BALTIMORE COUNTY
DISTRICT: 07
DRC#: 010918E

BOHLER ENGINEERING

901 DULANEY VALLEY ROAD, SUITE 801 TOWSON, MARYLAND 21204 Phone: (410) 821-7900 Fax: (410) 821-7987 MD@BohlerEng.com

E.R. McWILLIAMS

REGISTERED LANDSCAPE ARCHITECT

MARYLAND LICENSE NO. 3697

PROFESSIONAL CERTIFICATION

I, ERIC R. McWILLIAMS, HEREBY CERTIFY THAT THESE
DOCUMENTS WERE PREPARED OR APPROVED BY ME,
AND THAT I AM A DULY LICENSED LANDSCAPE ARCHITECT
UNDER THE LAWS OF THE STATE OF MARYLAND,
LICENSE NO. 3697, EXPIRATION DATE: 9/20/20

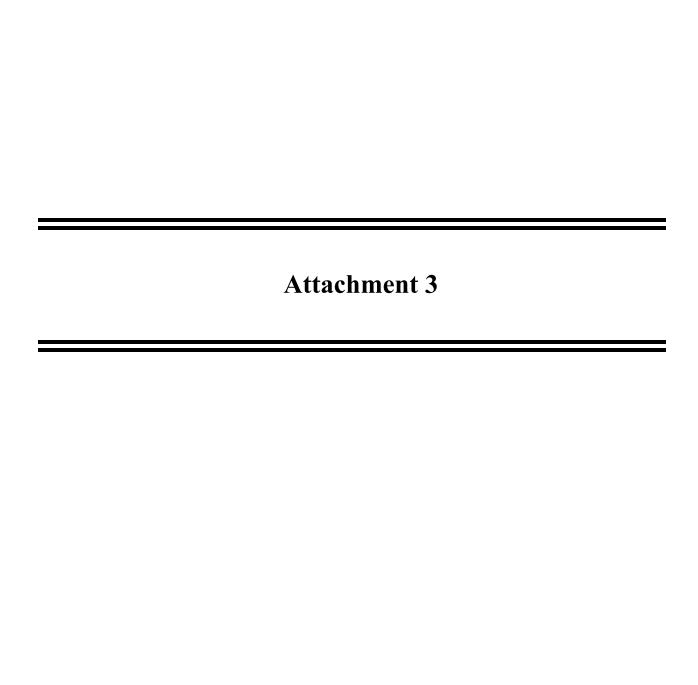
SHEET TITLE:

ELEVATIONS BASED ON NAVD 88, COORDINATES AND MERIDIAN ARE BASED ON THE MARYLAND COORDINATE SYSTEM (MCS) PER MONUMENTS BCO

#1433 AND GIS 2

LIGHTING PLAN

SHEET NUMBER:



<u>Sparrows Point Development - PPE Standard</u> <u>Operational Procedure, Revision 3</u>

Planning, Tracking/Supervision, Enforcement, and Documentation

Planning

- Response and Development Work Plan (RDWP) for each individual redevelopment subparcel identifies and documents site conditions.
- RDWP is reviewed and approved by regulators.
- Contractor HASP to address site-specific conditions and PPE requirements:
 - Contractor H&S professional to sign-off on PPE requirements for site workers;
 - Job Safety Analysis (JSA) to be performed for ground intrusive work.
- Project Environmental Professional (EP) assigned to each construction project –
 monitors project during environmentally sensitive project phases and is available to
 construction contractor on an as needed basis. EP responsibilities include the following:
 - Dust monitoring
 - Routine ground intrusive breathing space air monitoring
 - Soil tracking
 - Water handling oversight
 - Ground intrusive work observation
 - Notification for unexpected conditions
- Pre-construction meeting identifies EP roles and responsibilities and reviews site conditions.
- Contractor to perform job-site HazCom. HazCom to be addressed in Contractor HASP and include:
 - o PPE requirements,
 - Exposure time limits,
 - Identification of chemicals of concern and potential effects of over-exposure (adverse reactions),
 - Methods and routes of potential exposure.
- All personnel that will be performing ground intrusive work within impacted soils shall sign-off on HazCom.
- If, based on a thorough review of Site conditions, it is expected that construction workers
 will have the potential to encounter materials considered hazardous waste under RCRA
 or DOT regulations, HAZWOPER-trained personnel will be utilized.

Tracking/Supervision

- Contractor to record any day that there is ground intrusive work and confirm that proper PPE is being worn.
- EP will note ground intrusive work on daily work sheets and perform at least one spot check per day.
- EP will log on daily work sheets PPE compliance for all intrusive work areas at least once per day.

• EP to take example photos of Exclusion Zones/Contamination Reduction Zones periodically.

Work Zones Delineation

- Exclusion Zone The Exclusion Zones will include the areas proposed for excavation or with active trenches, excavations, or ground intrusive work, at a minimum. Personnel working within the exclusion zone will be required to wear Modified Level D PPE as described in this SOP. EP to take example photos of Exclusion Zones/Contamination Reduction Zones periodically. The Exclusion Zones will be identified each work day.
- Contamination Reduction Zone This work zone is located outside of the exclusion zone, but inside of the limits of development (LOD). The Contamination Reduction Zone will be located adjacent to the Exclusion Zone, and all personal decontamination including removal of all disposable PPE/removal of soil from boots will be completed in the Contamination Reduction Zone.

Documentation

- Contractor HASP and HazCom.
- Contractor ground intrusive tracking record.
- HASP and HazCom sign-in sheets.
- EP pre-con memos.
- EP daily work sheets.
- Records documenting intrusive work and proper PPE use to be provided in completion report.

Enforcement

• Non-compliance of PPE requirements will result in disciplinary action up to and including prohibition from working on Sparrows Point.

Unknown and/or Unexpected Conditions

If unknown and/or unexpected conditions are encountered during the project that the EP determines to have a reasonable potential to significantly impact construction worker health and safety, the following will be initiated:

- 1. Job stoppage,
- 2. TPA and MDE notification.
- 3. Re-assessment of conditions.

Work will not continue until EP has cleared the area. If hazardous waste is identified, a HAZWOPER contractor will be brought in to address. The approved contingency plan will be implemented, where appropriate.

Modified Level D PPE

Modified Level D PPE will include, at a minimum, overalls such as polyethylene-coated Tyvek or clean washable cloth overalls, latex (or similar) disposable gloves (when working in wet/chemical surroundings) or work gloves, steel-toe/steel-shank high ankle work boots with taped chemical-protective over-boots (as necessary), dust mask, hard hat, safety glasses with

side shields, and hearing protection (as necessary). If chemical-protective over-boots create increased slip/trip/fall hazardous, then standard leather or rubber work boots could be used, but visible soils from the sides and bottoms of the boots must be removed upon exiting the Exclusion Zone.

SP Development PPE Procedure 4-3-19