

Prepared By: Montgomery County DEP/DSWS
Date Finalized: 6/30/2020

GUDE LANDFILL REMEDIATION
GLCC/DEP MONTHLY MEETING NO. 59

DATE: Thursday, June 4, 2020
TIME: 4:00 PM to 6:00 PM
LOCATION: Video Conference Call (via Microsoft Team Meeting)

ATTENDANCE:

<u>Name</u>	<u>Organization</u>	<u>Designation</u>
Laszlo Harsanyi	Gude Landfill Concerned Citizens (GLCC)	Member
Dave Peterson	Gude Landfill Concerned Citizens (GLCC)	Member
Nick Radonic	Gude Landfill Concerned Citizens (GLCC)	Member
George Wolohojian	Gude Landfill Concerned Citizens (GLCC)	Member
Keith Ligon	Gude Landfill Concerned Citizens (GLCC)	Member
Jamie Foster	Montgomery County Dept. of Env. Protection (DEP)	Senior Engineer
Megan Maffeo	Floura Teeter Landscape Architects (FTLA)	EA Subconsultant
Joe Ignatus	Floura Teeter Landscape Architects (FTLA)	EA Subconsultant
Mark Gutberlet	EA Engineering, Science, and Technology, Inc., PBC (EA)	DEP Consultant
Claire Husselbee	EA Engineering, Science, and Technology, Inc., PBC (EA)	DEP Consultant
Laura Oakes	EA Engineering, Science, and Technology, Inc., PBC (EA)	DEP Consultant
Stephen Lezinski	Barton & Loguidice, D.P.C. (B&L)	DEP Consultant

The Meeting Sign-in Sheet for attendees is included as Attachment 1.

The Meeting Agenda is included as Attachment 2.

The EA / FTLA Derwood Station Landscape Plan is included as Attachment 3.

The EA / FTLA Signage Exhibits Plan is included as Attachment 4.

The Pergola Seat Option Diagram is included as Attachment 5.

The Derwood Station Landscaping Plan and the Invasive Species Management Plan is included as Post-Meeting Correspondence under Attachment 6.

1. WELCOME AND OPENING REMARKS

- a. Stephen Lezinski opened the meeting by welcoming the participants for attending.

2. GLCC/DEP MEETING MINUTES – REVIEW AND APPROVAL

- a. Mr. Lezinski noted that the draft minutes from GLCC/DEP Meeting No. 58 were distributed to GLCC via email on 2/26/2020 by the County.
- b. Dave Peterson of GLCC indicated via email to Jamie Foster on 2/26/2020 that the Minutes were acceptable as distributed. GLCC attendees provided concurrence.

3. LANDFILL PROGRAM UPDATE

- a. Mr. Lezinski reviewed the landfill program update.
- b. Soil Stockpile – the Purple Line stopped hauling soil in April 2020. Activities to maintain erosion and sedimentation controls and final ground cover stabilization are on-going. Once final ground cover stabilization is achieved, the permit for the project will be closed out with County DPS. Jamie Foster noted approximately 100,000 CY of soil were delivered by the Purple Line project and additional off-site soil will be needed for the remediation project.

- c. Groundwater Monitoring – Mr. Lezinski reported that the Spring 2020 semi-annual report will be completed and submitted to MDE in June 2020. Mr. Harsanyi asked if there were any significant results that differed from past reports. Ms. Oakes indicated that monitoring results were similar to historical trends.
- d. Landfill Flare Station – Flare No. 1 is in operational status. Flare No. 2 is on stand-by.
- e. Landfill Gas Monitoring – intermittent methane exceedances were noted along W/NE/SW areas of site over last few months that have been addressed by increasing vacuum and well field adjustments by the County’s landfill gas contractor. Mr. Harsanyi inquired as to how the gas monitoring is performed. Mr. Lezinski explained the general process for monitoring landfill gas within the perimeter probes located along the property boundary of the Landfill.

4. GUDE LANDFILL REMEDIATION – DESIGN ENGINEER PROJECT UPDATE

- a. Mr. Lezinski noted the following Design Engineer update:
 - Revised 60% Design Comments received from County, GLCC, and MDE.
 - County is still awaiting DPS Comments on the Revised 60% Design.
 - Remediation 90% Design is being prepared by EA for completion by 7/2/2020. Will be submitted to County, DPS, MDE, and GLCC.
 - 100% Design completion is estimated for the end of October 2020.
 - Construction is estimated to start July-September 2021.

5. GUDE LANDFILL REMEDIATION – PASSIVE LAND USE CONCEPTS

- a. Mr. Lezinski noted that GLCC submitted questions regarding the passive land uses and that the County provided responses.
 - GLCC submitted questions to the County via email on 4/3/2020 for the Passive Land Use 60% Design. The County provided responses to these GLCC questions on 5/7/2020 via email.
 - GLCC submitted supplemental questions via email on 5/31/2020 to the County on the passive land uses and remediation design project. The County provided responses to these GLCC questions on 6/1/2020 via email.
 - Mr. Foster noted that GLCC comments have been incorporated into the passive land uses. He also noted to GLCC that today’s meeting is the last opportunity to comment on the passive land uses before the 90% design is finalized is finalized by EA/FTLA.
- b. Megan Maffeo presented 60% passive land use plan including the Derwood Station Landscaping Plan and the Signage Exhibits Plan.
 - There will be two public access/entry points to the Landfill Site and New Trail Network at the West and North end of the Landfill (along the existing M-NCPPC trail within the existing Gas Right-of-Way). There will be approximately 5 miles of New Trails on the Landfill site (a mix of the gravel access roads and grassed pathways).
- c. Keith Ligon asked if native plants and pollinator-friendly plants would be included in the passive land uses. Ms. Maffeo stated that the design proposes 100% native species, with a mix of 20-30 native species in the meadow mix. There are no trees or shrubs proposed on the Landfill itself where the Toupee Cap is located. However, Ms. Maffeo noted that there are proposed art installations and owl boxes to help offset the lack of trees to offer perching points for birds to survey the open space. .
- d. Mr. Ligon asked if there was a management plan for deer and geese as well as if there was a budget to replacing any damaged plants. Ms. Maffeo noted that deer protection fencing will be installed around the proposed trees along the W/NW slope. The proposed tree species have also been selected in a manner to target deer-tolerant species that are not expected to be browsed by the deer. The W/NW slope that borders the Right-of-Way is also proposed to have canopy or shade trees (evergreens, deciduous, over story and understory trees, shrubs, etc.).

- Mr. Ligon asked if deer will be excluded from entering the Landfill site with a fence. Ms. Maffeo and Mark Gutberlet noted the current plan is to replace the fencing along the W/NW slope; however, the remainder of the site was anticipated to remain open.
 - Mr. Foster stated that the County has evaluated the fence around the Landfill for security. The deer have been known to jump over the fencing, but have occasionally gotten caught within the fencing. The topic of fencing will need to be revisited in the 90% design.
- e. Mr. Peterson asked about watering of the meadow mix. Ms. Maffeo noted the species are fairly resilient and drought-tolerant and can be watered by water trucks if needed. Mr. Lezinski noted that there will be a plan for implementation by the construction contractor to maintain the trees and meadows during the construction. Ms. Maffeo concurred that provisions will be included in the design/construction documents.
- f. George Wolohojian asked if the meadow would be planted in phases as the project is completed. Ms. Maffeo indicated that the meadow and other plantings would be completed in phases, and that the intent is to use the meadow as a final stabilizing ground cover.
- g. Mr. Wolohojian asked about providing any shade on top of the Landfill or along any of the trails. Ms. Maffeo noted that no trees can be planted on areas where the Toupee Cap would be installed. Mr. Foster noted that the depth of the roots of trees and shrubs could jeopardize the integrity of the capping system.
- h. Mr. Wolohojian then inquired about small structures that could provide some level of sun screening for the child play areas or dog park, such as a lattice roof, or something similar. Mr. Foster said that wind loads on a larger structure would be difficult to manage within the cap section. Mr. Wolohojian noted that a lattice-type structure could provide some shade without too much weight or wind load. It would not have sides and would have an angled roof to break up the direct sun. Mr. Ligon suggested structures with a similar foundation to the signage or fencing, and also asked the County to consider the option to install this. Mr. Foster asked EA/FTLA to consider these options in the design.
- In the Video Conference chat feature, Ms. Oakes provided an example of a shade structure. Mr. Foster asked FTLA to include this type of structures in the passive land uses at the main destination points.
- i. Ms. Maffeo clarified the location of the potential future solar field; a 20-acre area within the SW area of the Landfill.
- j. Mr. Wolohojian asked about maintenance of the meadow areas. Ms. Maffeo noted that they are typically mowed once per year. The first 1-3 years will allow the plants to stabilize and will require the removal of any invasive species.
- k. Ms. Maffeo and Mr. Gutberlet described the existing Pond 3; that it will be a sediment basin during construction and returned to a dry pond after construction that will not hold water.
- l. Ms. Maffeo described the plan for signage at the site (informational, trail marking, educational, etc.). She described that signage related to bird species were selected based on local native species that are expected at the Landfill site and that signage related to plant species were selected based on the proposed plantings for the project.
- m. Mr. Ligon asked about proposed plantings at the W/NW Slope along the Derwood Trail. Ms. Maffeo described that there will be primarily a single line of plantings but there will be a variety of species and sizes along the Landfill's border with the Right-of-Way (proposed to have canopy or shade trees (evergreens, deciduous, over story and understory trees, shrubs, etc.).
- n. Mr. Peterson asked about parking at the Landfill site. Mr. Foster indicated that DEP will not be providing parking, but there is some existing parking that is coordinated by M-NCPPC at the Gude Trail head (e.g. near the Metro Office Building Complex). S.Lezinski noted this is consistent with earlier project discussions during 30% design stage.

- o. Mr. Wolohojian asked about the potential use of the 600 E. Gude campus for parking. Mr. Foster noted that the former Men’s Shelter will not be using the property in the future. He is working with NMWDA to fully decommission/remove the Landfill Gas-to-Energy Facility and storage building, to allow for an administrative staging area during the remediation project.
- p. Mr. Foster also noted there will be a new tenant at the 600 E. Gude campus – CASA de Maryland is the proposed tenant. Mr. Foster does not know how CASA de Maryland will use the campus. Nick Radonic asked if the campus was safe to use after the experience that MCCH described based on the resonance/vibrations from the Flares. CASA reportedly does not have any concerns at the moment.

6. VEGETATIVE SCREENING IMPLEMENTATION

- a. EA / Floura Teeter requested and reviewed quotes from Landscape Contractors to remove invasive species and install new vegetative plantings on M-NCPPC Property that is located adjacent to the natural gas right-of-ways. Plantings are estimated for Fall 2020, limited to the North side of the site.
- b. Ms. Maffeo presented updated vegetative screening plans and noted that the permits are in process; however, have not been approved yet by M-NCPPC.
- c. Ms. Maffeo indicated that trees that are in good health and will be saved, and described that the trees that are not in good health will be removed. Invasive species and vines will be removed as well. Ms. Maffeo described the areas where plantings will be performed and that the planting area is limited by the utility gas pipelines.
- d. Mr. Harsanyi asked that we resend the vegetative screening plan. Mr. Foster will send it to GLCC.
- e. Mr. Foster noted he would relay any comments from regulatory agencies to GLCC if it would impact the passive reuse elements.

7. REMEDATION PROJECT/PASSIVE LAND USE PUBLIC MEETING

- a. GLCC recommends that the meeting be held in September.
- b. The County and EA concurred with this estimated timeframe given the current schedule of the remediation design.

8. SUMMARY OF NEW ACTION ITEMS FROM THE MEETING

- a. Mr. Foster will resend the vegetative screening plan email to GLCC.

9. NEXT MEETING

- a. The next GLCC/DEP Monthly Meeting No. 60 is tentatively scheduled for September 17, 2020. The County will provide periodic updates as necessary to GLCC on the progress of the remediation project.

10. POST-MEETING CORRESPONDENCE

- a. Based on discussions during GLCC/DEP Meeting No. 59, Mr. Foster provided the Derwood Station Landscaping Plan and the Invasive Species Management Plan to GLCC via email on 6/4/2020.

Date	June 4, 2020
Time	4:00 PM - 6:00 PM Video Conference Call (via Microsoft Team Meeting)
Meeting	Gude Landfill Remediation: GLCC/DEP Meeting No. 59

Name	Initial if Present	Affiliation	Phone	Email	Address
Jamie Foster	X	DEP/RRMD	240-777-6574	jamie.foster@montgomerycountymd.gov	16101 Frederick Road Derwood, MD 20855
Dave Peterson	X	GLCC/DS1 HOA	301-921-6357	kmpdhp@comcast.net	7612 Anamosa Way Derwood, MD 20855
Keith Ligon	X	GLCC	301-340-3358	keligon56@gmail.com	15501 Moravia Court Derwood, MD 20855
Julia Tillery		GLCC	202-329-8740	Julia@tilleryoffice.com	15461 Indianola Drive Derwood, MD 20855
Laszlo Harsanyi	X	GLCC/DS2 HOA	301-840-3822	LaszloH@comcast.net	7228 Titonka Way Derwood, MD 20855
Nick Radonic	X	GLCC/DSS HOA	301-294-9124	BigRad@gmail.com	15408 Indianola Drive Derwood, MD 20855
George Wolohojian	X	GLCC/DSS HOA	301-738-7148	gwolohojian@aol.com	15448 Indianola Drive Derwood, MD 20855
Charles Regan		GLCC/DSS HOA	202-510-1363	cregan520@gmail.com	15532 Grinnell Terrace Derwood, MD 20855
David Minier		DSS HOA	301-340-7534	d_minier@comcast.net	15524 Indianola Drive Derwood, MD 20855
Other Meeting Attendees					
Dom Perez		Capital Area Soaring Assoc	301-910-3424	domcperez@gmail.com	---
Stephen T. Lezinski	X	Barton & Loguidice, D.P.C	717-571-1092	slezinski@bartonandloguidice.com	116 Defense Highway, Suite 309 Annapolis, MD 21401
Mark Gutberlet	X	EA Engineering	410-584-7000	mgutberlet@eaest.com	225 Schilling Circle, Suite 400 Hunt Valley, MD 21031
Laura Oakes	X	EA Engineering	410-584-7000	loakes@eaest.com	225 Schilling Circle, Suite 400 Hunt Valley, MD 21031
Megan V. Maffeo	X	Floura Teeter	410-528-8395	MMaffeo@flourateeter.com	---
Jeff Camera		DEP/RRMD	240-777-6569	jeffrey.camera@montgomerycountymd.gov	16101 Frederick Road Derwood, MD 20855
Susie-Sinclair Smith		MCCH	240-370-9213	Susie@mcch.net	---
Victoria Buckland		HHS	240-777-1211	victoria.buckland@montgomerycountymd.gov	---
Ilana Branda		HHS	---	Ilana.Branda@montgomerycountymd.gov	---
Patrice Bubar		DEP	---	Patrice.Bubar@montgomerycountymd.gov	---
Willie Wainer		DEP/RRMD	---	Willie.Wainer@montgomerycountymd.gov	---
Andrew Kays		NMWDA	410-333-2730	akays@nmwda.org	---
<i>Claire Huske Bee</i>	X				
<i>Joe Ignatius</i>	X				

**Gude Landfill Remediation
Gude Landfill Concerned Citizens
Monthly Meeting No. 59**

Meeting Agenda

June 4, 2020

4:00 PM – 6:00 PM

1. Meeting Sign-In

- a. The County will maintain a list of meeting attendees from the video conference call.

2. GLCC/DEP Meeting Minutes (Meeting No. 58 held on 1/16/20)

- a. Meeting Minutes were distributed by the County via email to GLCC on 2/26/20.
- b. Dave Peterson of GLCC indicated via email to Jamie Foster on 2/26/20 that the Minutes were acceptable as distributed.

3. Landfill Program Update

- a. Soil Stockpile – the Purple Line stopped hauling soil in April 2020. Activities to maintain erosion and sedimentation controls and final ground cover stabilization are on-going. Once final ground cover stabilization is achieved, the permit for the project will be closed out with DPS.
- b. Groundwater Monitoring – the Spring 2020 semi-annual report will be submitted to MDE in June 2020.
- c. Landfill Flare Station – Flare No. 1 is in operational status. Flare No. 2 is on stand-by.
- d. Landfill Gas Monitoring – intermittent methane exceedances were noted along W/NE/SW areas of site over last few months have been addressed by increasing vacuum and well field adjustments by the County's landfill gas contractor.

4. Gude Landfill Remediation – Design Engineer Update

- a. Revised 60% Design Comments received from County, GLCC, and MDE.
- b. County is still awaiting DPS Comments on the Revised 60% Design.
- c. Remediation 90% Design is being prepared by EA for completion by 7/2/2020. Will be submitted to County, DPS, MDE, and GLCC.
- d. 100% Design completion is estimated for the end of October 2020.
- e. Construction is estimated to start July-September 2021.

5. Gude Landfill Remediation and Passive Land Use – GLCC Questions to the County

- a. GLCC submitted questions to the County via email on 4/3/2020 for the Passive Land Use 60% Design.
- b. The County provided responses to these GLCC questions on 5/7/2020 via email.
- c. GLCC submitted supplemental questions via email on 5/31/2020 to the County on the passive land uses and remediation design project.
- d. The County provided responses to these GLCC questions on 6/1/2020 via email.
- e. EA / Floura Teeter to review 60% passive land use drawings.

6. Gude Landfill Remediation – Vegetative Screening Plan

- a. EA / Floura Teeter requested and reviewed quotes from Landscape Contractors to remove invasive species and install new vegetative plantings on M-NCPPC Property that is located adjacent to the natural gas right-of-ways. Plantings estimated for Fall 2020.

**Gude Landfill Remediation
Gude Landfill Concerned Citizens
Monthly Meeting No. 59**

Meeting Agenda

**June 4, 2020
4:00 PM – 6:00 PM**

- 7. Summarize New Action Items from the Meeting**

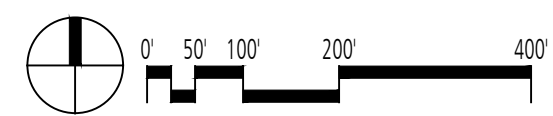
- 8. Monthly GLCC Meetings and On-going Communication with the Community**
 - a. Date: Monthly Meetings held on 3rd Thursday at the Transfer Station or another alternate location.
 - b. Time: 4:00 PM – 6:00 PM.

- 9. Next Meeting or Site Visit**
 - a. Schedule Public Meeting after 90% Design completion. Target for August/September 2020.
 - b. GLCC input on meeting schedule.



TRAIL LEGEND

- DERWOOD TRAIL
- VISTA TRAIL
- BIRDWATCHER WAY TRAIL
- POLLINATOR LOOP TRAIL
- SHORTCUT TRAIL
- PUBLIC ACCESS POINT



1 KEY SHEET
PLAN


SCALE: 1" = 200'

DESIGN INFORMATION		REVISIONS	
DESIGNED BY:	MM	NO.	DATE
DRAWN BY:	JCI	BY	DESCRIPTION
CHECKED BY:	MM		
PROJECT MANAGER:	M/G		

PROFESSIONAL CERTIFICATION: I 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. 1099 EXPIRATION DATE: 07/26/2020

GUIDE LANDFILL REMEDIATION DESIGN
NORTHEAST MARYLAND WASTE DISPOSAL AUTHORITY
MONTGOMERY COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION
 MONTGOMERY COUNTY, MARYLAND
LANDSCAPE PLAN - KEY SHEET

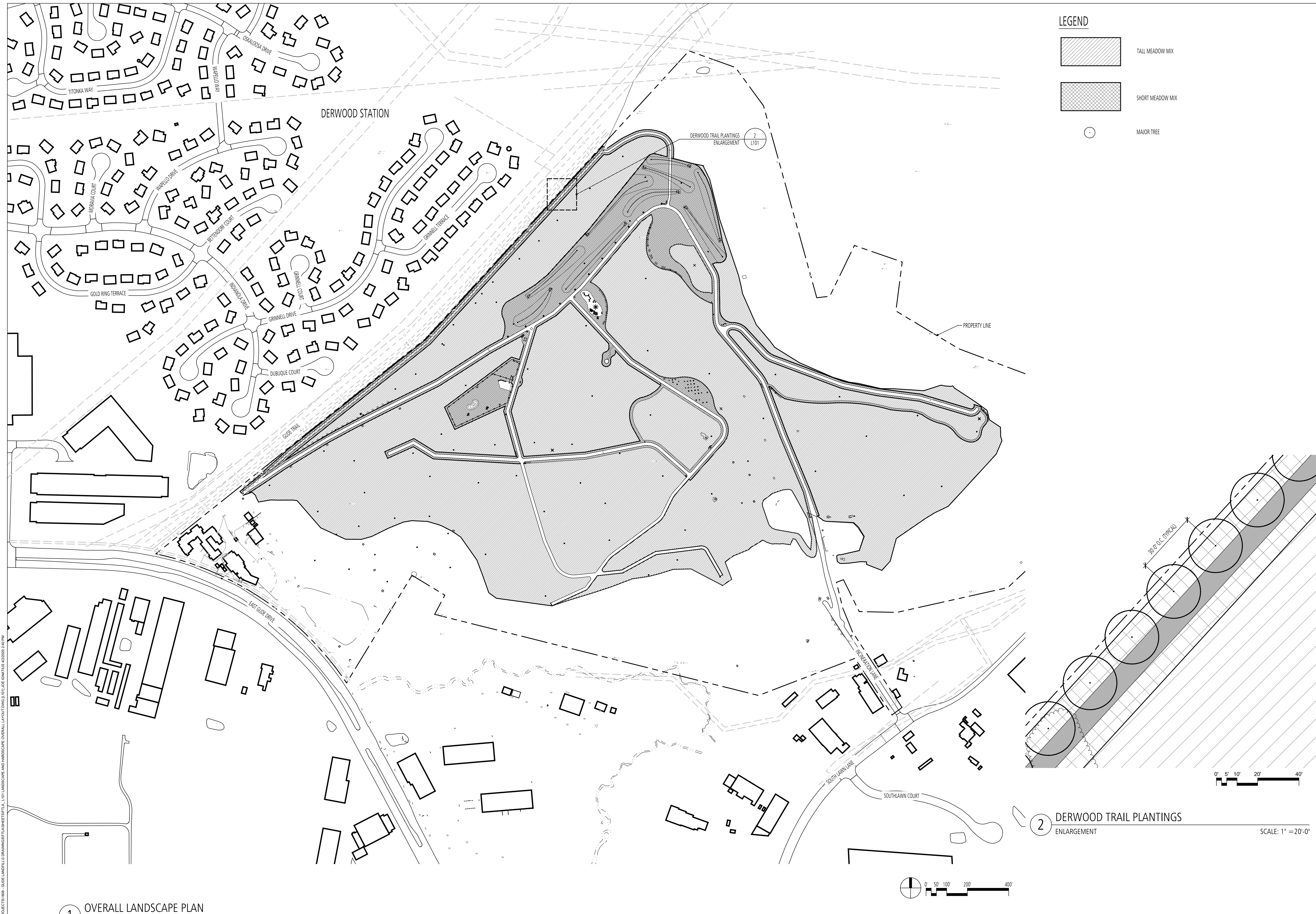

FLOURA TEETER
 landscape architects
 800 North Charles St. Ste. 300
 Baltimore, Maryland 21201
 Phone: 410.528.8395
 Fax: 410.528.8425


EA Engineering, Science, and Technology, Inc., PBC
 Hunt Valley Center
 225 Schilling Circle, Suite 400
 Hunt Valley, Maryland 21031
 (410) 584-7000

DATE: MARCH 2020
 PROJECT NUMBER: 1564601
L100
 SHEET: 1 OF 12

FILE PATH: P:\P\PROJECTS\1888 - GIDE LANDFILL REMEDIATION\DESIGN\LANDSCAPE\KEY SHEET.DWG & 3D MODEL\3D\3D0203-101.PIA

60% CONSTRUCTION DOCUMENTS - NOT FOR CONSTRUCTION

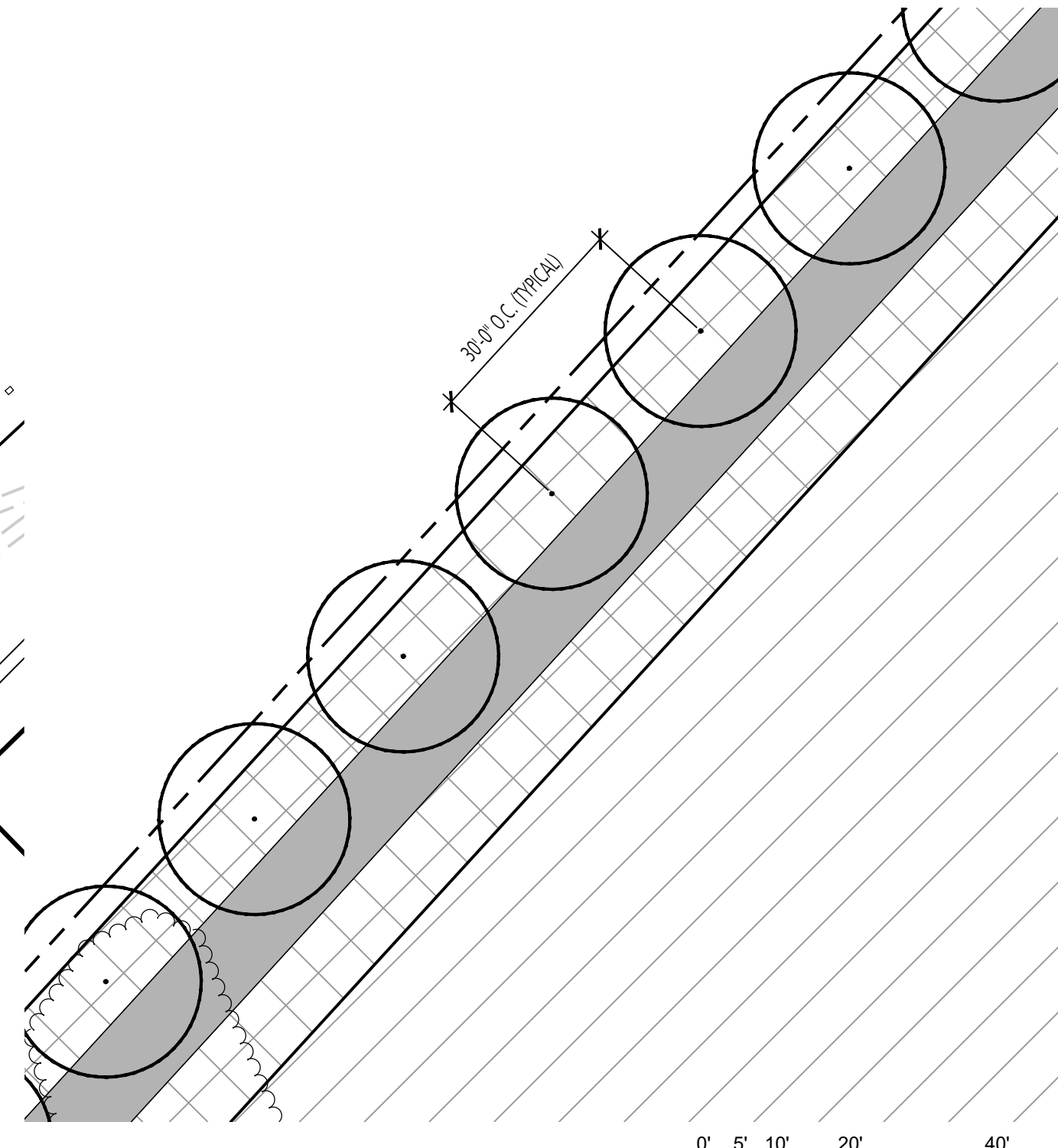


LEGEND

	TALL MEADOW MIX
	SHORT MEADOW MIX
	MAJOR TREE

1 OVERALL LANDSCAPE PLAN
PLAN

2 DERWOOD TRAIL PLANTINGS
ENLARGEMENT



DESIGN INFORMATION		REVISIONS	
DESIGNED BY:	MM	NO.	DATE
DRAWN BY:	JCI	BY	DESCRIPTION
CHECKED BY:	MM		
PROJECT MANAGER:	M/G		

PROFESSIONAL CERTIFICATION: I 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. 1093 EXPIRATION DATE: 07/26/2020

GUIDE LANDFILL REMEDIATION DESIGN
NORTHEAST MARYLAND WASTE DISPOSAL AUTHORITY
MONTGOMERY COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION
 MONTGOMERY COUNTY, MARYLAND

OVERALL LANDSCAPE PLAN

FLOURA TEETER
 landscape architects
 800 North Charles St. Ste. 300
 Baltimore, Maryland 21201
 Phone: 410.528.8395
 Fax: 410.528.8425

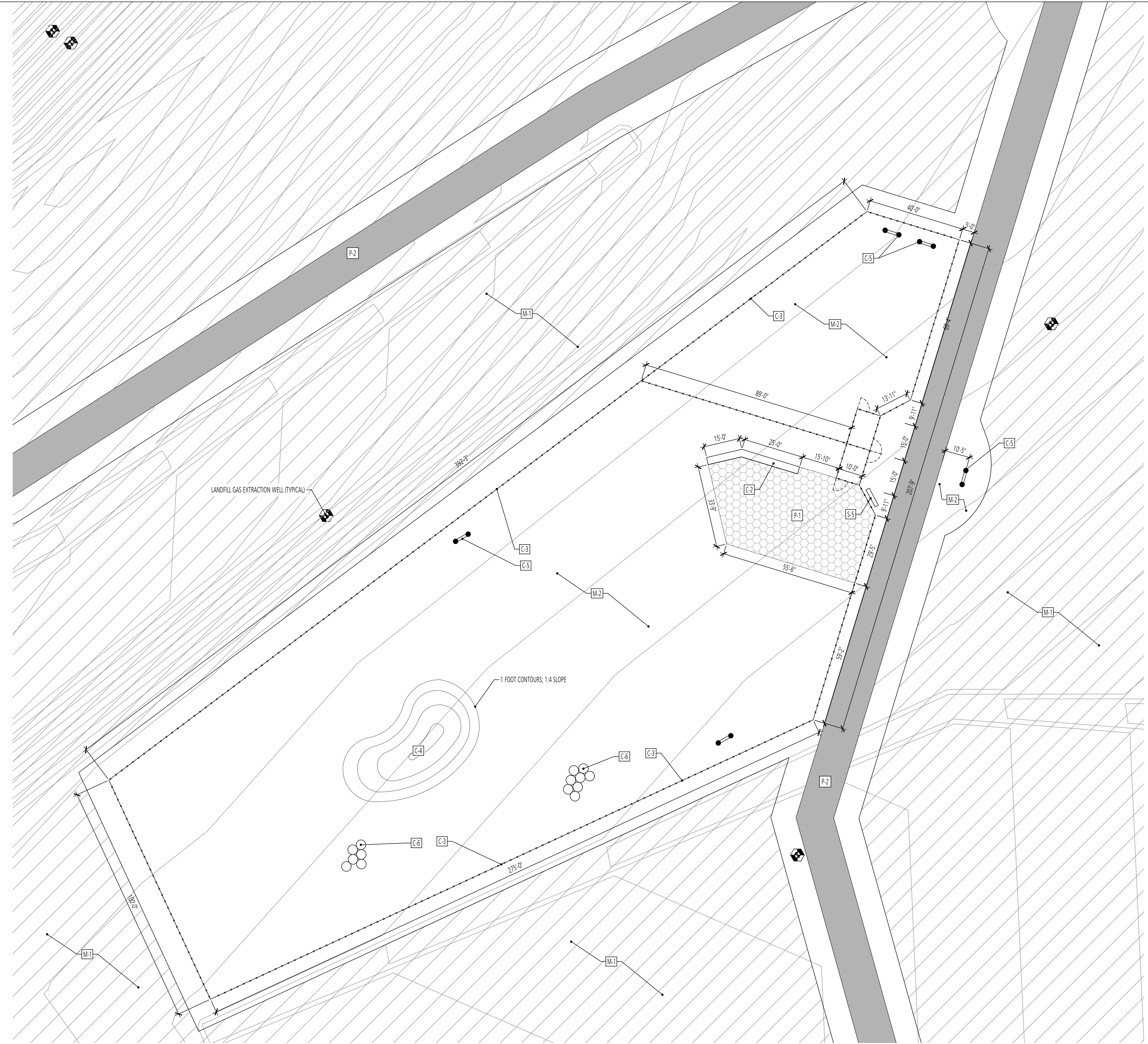
EA
EA Engineering, Science, and Technology, Inc., PBC
 Hunt Valley Center
 225 Schilling Circle, Suite 400
 Hunt Valley, Maryland 21031
 (410) 584-7000

DATE: MARCH 2020
 PROJECT NUMBER: 1564601
L101
 SHEET: 2 OF 12

FILE PATH: P:\P\PROJECTS\1886 - GIDE LANDFILL DRAWINGS\FUNDAMENTAL_L101 LANDSCAPE AND HARDSCAPE OVERALL LAYOUTS\DWG L101.DWG (DATE: 4/25/2020 2:45 PM)

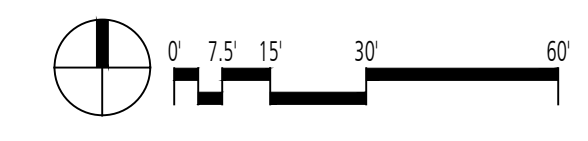
60% CONSTRUCTION DOCUMENTS - NOT FOR CONSTRUCTION

FILE PATH: P:\PLT PROJECTS\1808 - GIDE LANDFILL DOMAINS\FTLA_L201 DOG PLAY ENLARGEMENT.dwg (201) LOC: 0/0/0/0 4/20/20 2:41 PM



1 DOG PLAY PLAN

FTLA_L201 Dog Park Enlargement.dwg
SCALE: 1" = 30'-0"



CONSTRUCTION NOTES			
SYMBOL	ITEM TYPE	NOTES	REFERENCE
C-1	WEATHER STATION		
C-2	TERRACED BOULDER SEATING		7/L302
C-3	DOG PLAY FENCE		1-2/L302
C-4	EARTH MOUND		
C-5	PARK BENCH		7/L303
C-6	STUMP GROUPING		4/L303
C-7	ART INSTALLATION		2/L204
C-8	BIRDS NEST SEATING PLATFORM		2/L202
C-9	STUMP CLIMB		4-5/L303
C-10	TUNNEL		3/L202
C-11	BALANCE STAR		4/L202
C-12	BOULDER		6/L302
C-13	TEETER TOTTER		9/L303
C-14	BUTTERFLY BOX		4/L300
C-15	MAGNIFYING LENS POST		2/L300
C-16	TRASH RECEPTACLE		5/L300
C-17	WOODEN GUARDRAIL		4-5/L302
C-18	OWL NESTING BOX		3/L300
C-19	DISC GOLF TEE BOX		1-3/L301
C-20	DISC GOLF BASKET TARGET		4/L301
C-21	SLOPED CHASE LOUNGE CHAIR		1/L300
C-22	TIC TAC TOE		3/L400

PAVEMENT NOTES			
SYMBOL	PAVEMENT TYPE	NOTES	REFERENCE
P-1	MULCH BED		2/L400
P-2	ACCESS ROAD	REFER TO CIVIL PLAN	
M-1	TALL MEADOW		
M-2	SHORT MEADOW		

SIGNAGE NOTES			
SYMBOL	SIGN TYPE	NOTES	REFERENCE
S-1	TRAIL MARKER		1/L303
S-2	EDUCATIONAL POST		6/L303
S-3	INFORMATION SIGN (SMALL)		3/L303
S-4	DIRECTIONAL SIGN POST		2/L303
S-5	INFORMATION SIGN (LARGE)		8/L303
S-6	DISC GOLF TEE POST		5/L301

DESIGN INFORMATION		REVISIONS	
DESIGNED BY:	MM	NO.	DESCRIPTION
DRAWN BY:	JCI		
CHECKED BY:	MM		
PROJECT MANAGER:	M/G		

PROFESSIONAL CERTIFICATION: I 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. 1093 EXPIRATION DATE: 07/26/2020

SEAL

GIDE LANDFILL REMEDIATION DESIGN
NORTHEAST MARYLAND WASTE DISPOSAL AUTHORITY
MONTGOMERY COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION
MONTGOMERY COUNTY, MARYLAND
DOG PLAY ENLARGEMENT PLAN

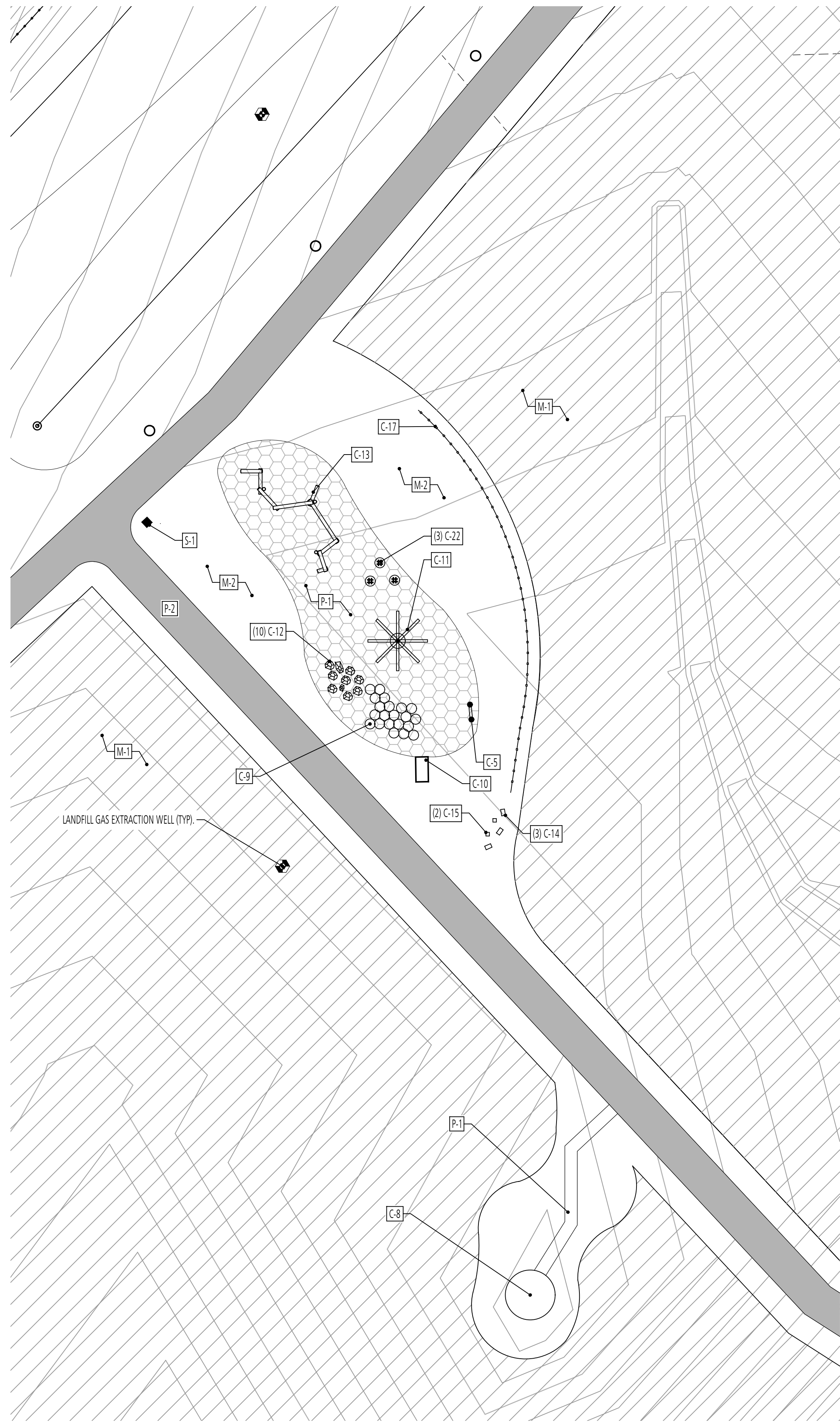
FLOURA TEETER
landscape architects
800 North Charles St. Ste. 300
Baltimore, Maryland 21201
Phone: 410.528.8395
Fax: 410.528.8425

EA
EA Engineering, Science,
and Technology, Inc., PBC
Hunt Valley Center
225 Schilling Circle, Suite 400
Hunt Valley, Maryland 21031
(410) 584-7000

DATE: MARCH 2020
PROJECT NUMBER: 1564601
L201
SHEET: 3 OF 12

60% CONSTRUCTION DOCUMENTS - NOT FOR CONSTRUCTION

FILE PATH: P:\PLT\PROJECTS\1888 - GIDE LANDFILL DOMESTIC FLUMES\STLA_L202 CHILDREN'S NATURE PLAY ENLARGEMENT.dwg; USER: GJANTUS; DATE: 2020/03/14 PM

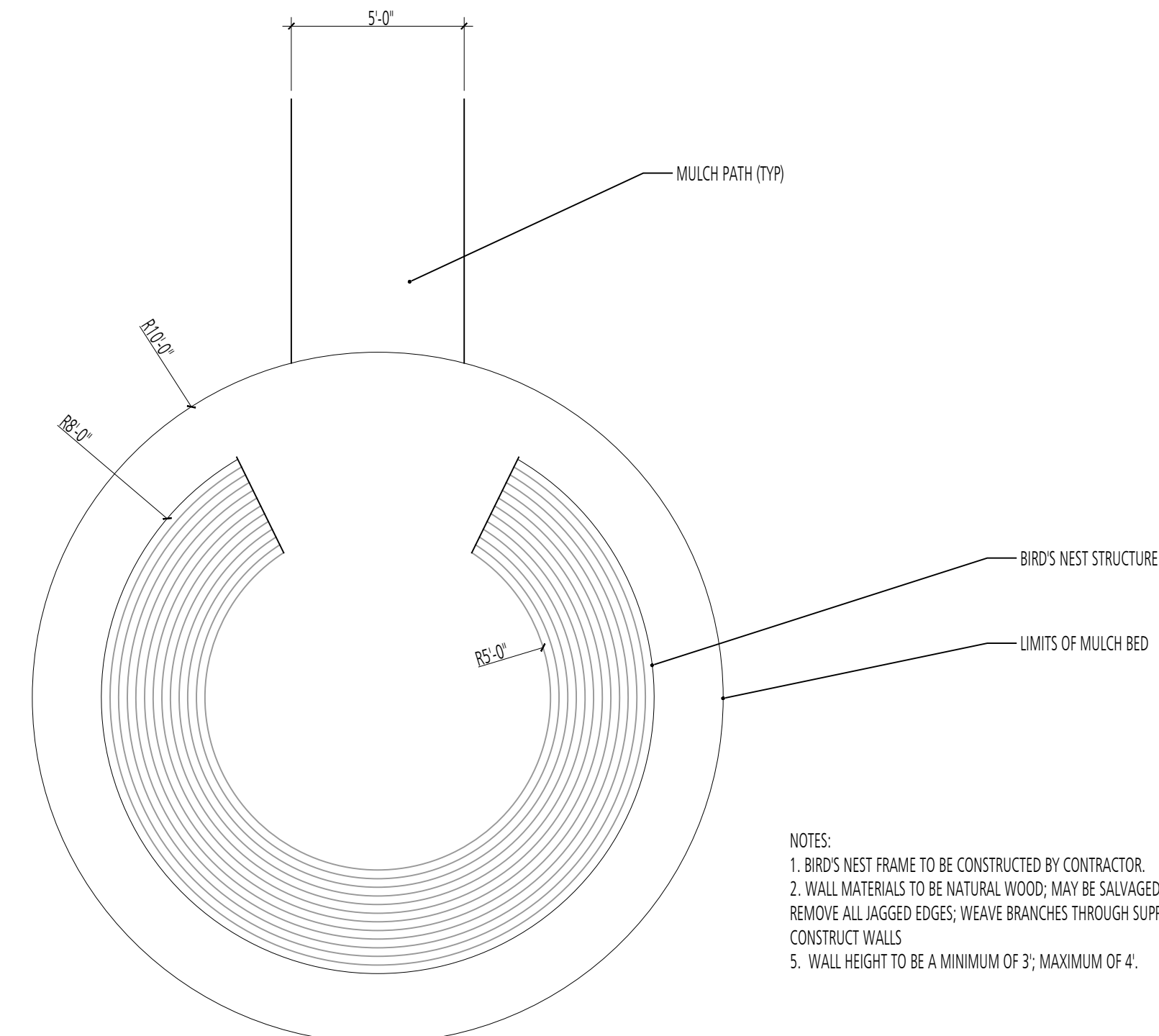
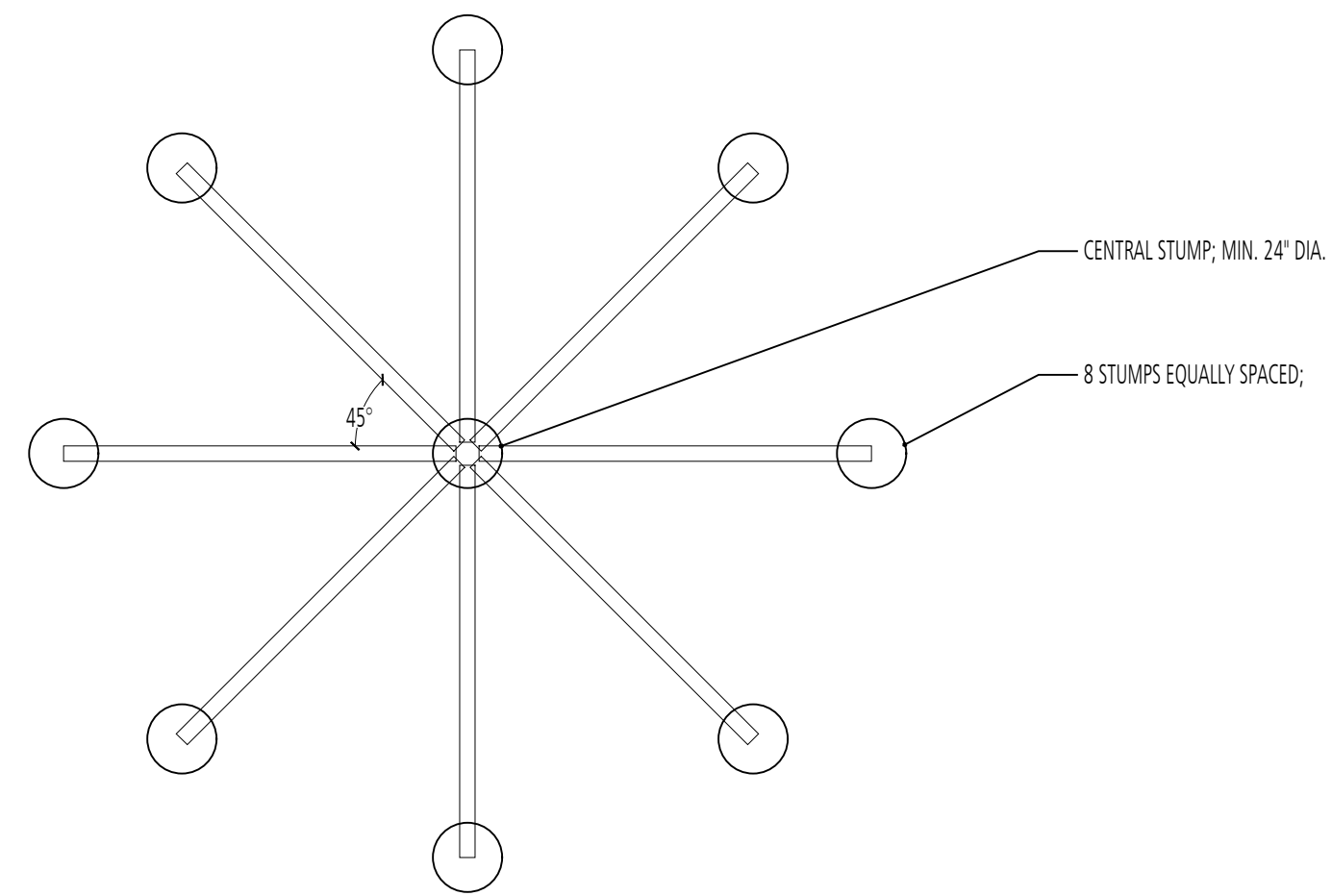


CONSTRUCTION NOTES			
SYMBOL	ITEM TYPE	NOTES	REFERENCE
C-1	WEATHER STATION		
C-2	TERRACED BOULDER SEATING		7/L302
C-3	DOG PLAY FENCE		1-2/L302
C-4	EARTH MOUND		
C-5	PARK BENCH		7/L303
C-6	STUMP GROUPING		4/L303
C-7	ART INSTALLATION		2/L204
C-8	BIRDS NEST SEATING PLATFORM		2/L202
C-9	STUMP CLIMB		4-5/L303
C-10	TUNNEL		3/L202
C-11	BALANCE STAR		4/L202
C-12	BOULDER		6/L302
C-13	TEETER TOTTER		9/L303
C-14	BUTTERFLY BOX		4/L300
C-15	MAGNIFYING LENS POST		2/L300
C-16	TRASH RECEPTACLE		5/L300
C-17	WOODEN GUARDRAIL		4-5/L302
C-18	OWL NESTING BOX		3/L300
C-19	DISC GOLF TEE BOX		1-3/L301
C-20	DISC GOLF BASKET TARGET		4/L301
C-21	SLOPED CHASE LOUNGE CHAIR		1/L300
C-22	TIC TAC TOE		3/L400

PAVEMENT NOTES			
SYMBOL	PAVEMENT TYPE	NOTES	REFERENCE
P-1	MULCH BED		2/L400
P-2	ACCESS ROAD	REFER TO CIVIL PLAN	
M-1	TALL MEADOW		
M-2	SHORT MEADOW		

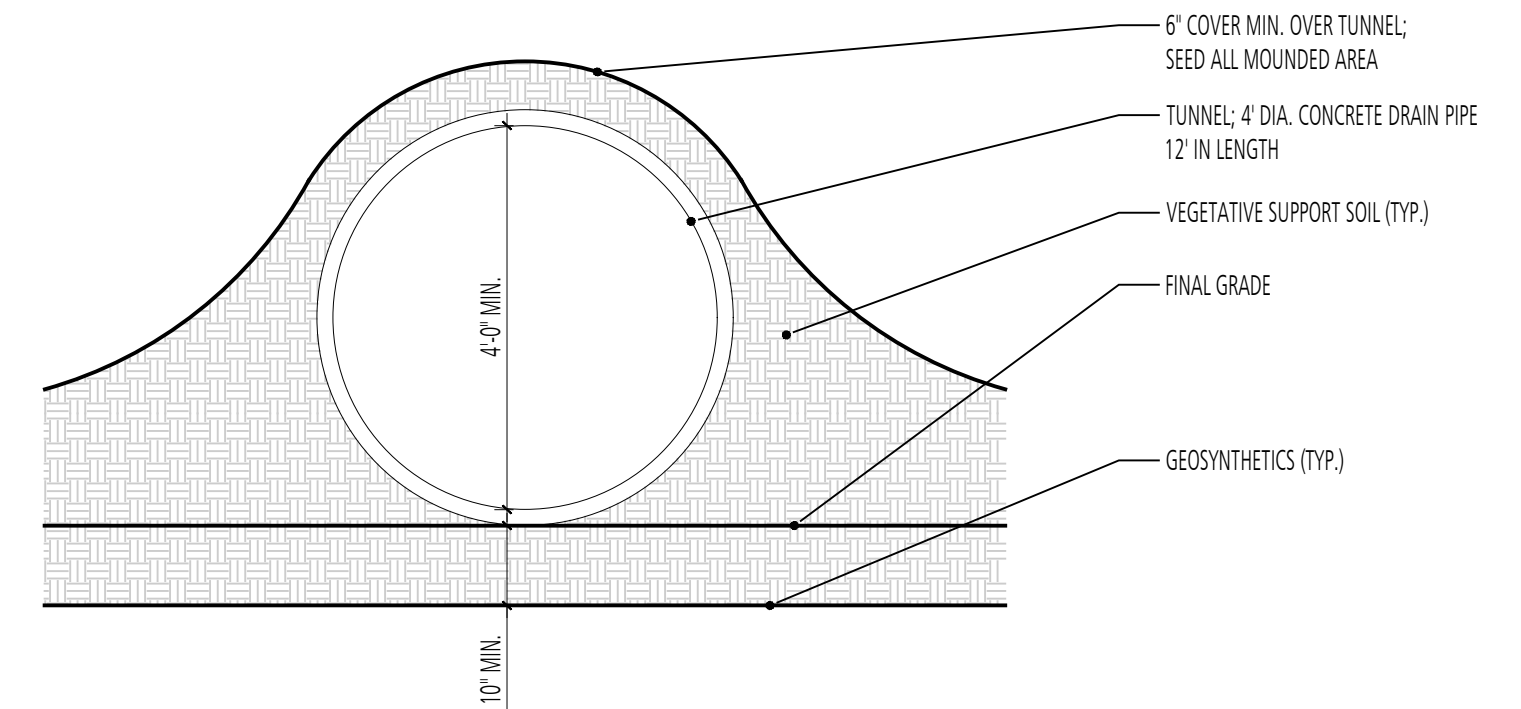
SIGNAGE NOTES			
SYMBOL	SIGN TYPE	NOTES	REFERENCE
S-1	TRAIL MARKER		1/L303
S-2	EDUCATIONAL POST		6/L303
S-3	INFORMATION SIGN (SMALL)		3/L303
S-4	DIRECTIONAL SIGN POST		2/L303
S-5	INFORMATION SIGN (LARGE)		8/L303
S-6	DISC GOLF TEE POST		5/L301

4 BALANCE STAR
PLAN & SECTION

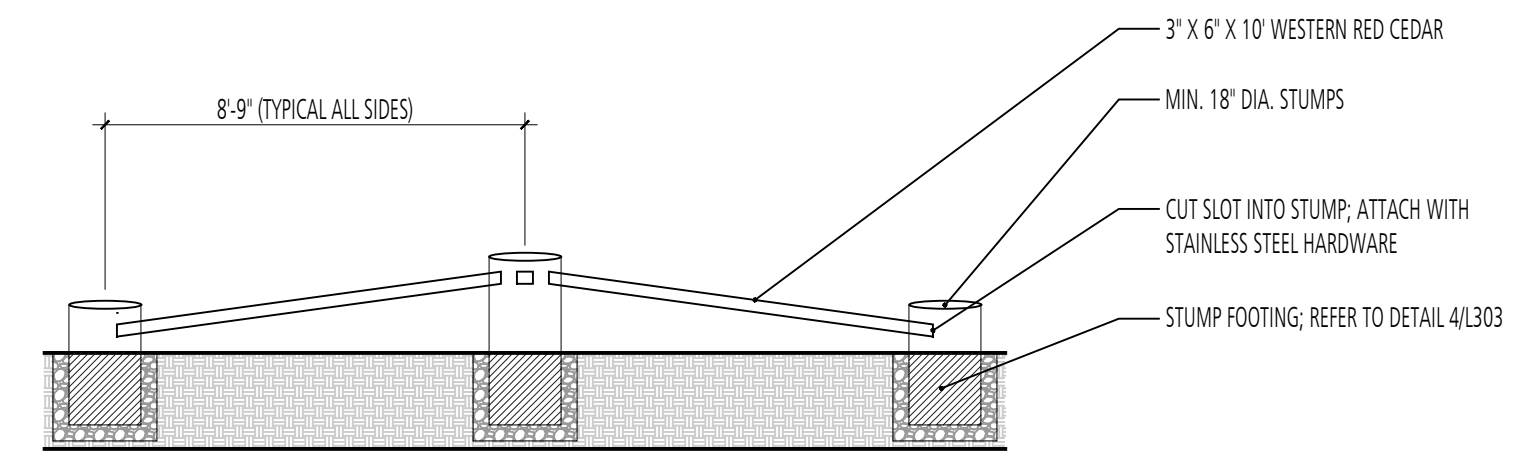


2 BIRDS NEST SEATING PLATFORM
PLAN SCALE: 1/4" = 1'-0"

NOTES:
1. BIRDS NEST FRAME TO BE CONSTRUCTED BY CONTRACTOR.
2. WALL MATERIALS TO BE NATURAL WOOD; MAY BE SALVAGED MATERIAL ON SITE; REMOVE ALL JAGGED EDGES; WEAVE BRANCHES THROUGH SUPPORT STRUCTURE TO CONSTRUCT WALLS.
3. WALL HEIGHT TO BE A MINIMUM OF 3'; MAXIMUM OF 4'.



3 TUNNEL
SECTION SCALE: 1/2" = 1'-0"



SCALE: 1/4" = 1'-0"

REVISIONS		DESCRIPTION	
NO.	DATE	BY	

DESIGN INFORMATION		DESIGNED BY:		DRAWN BY:		CHECKED BY:		PROJECT MANAGER:	
MM	JCI	MM	JCI	MM	JCI	MM	JCI	MM	JCI

PROFESSIONAL CERTIFICATION: I 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. 10993 EXPIRATION DATE: 07/26/2020

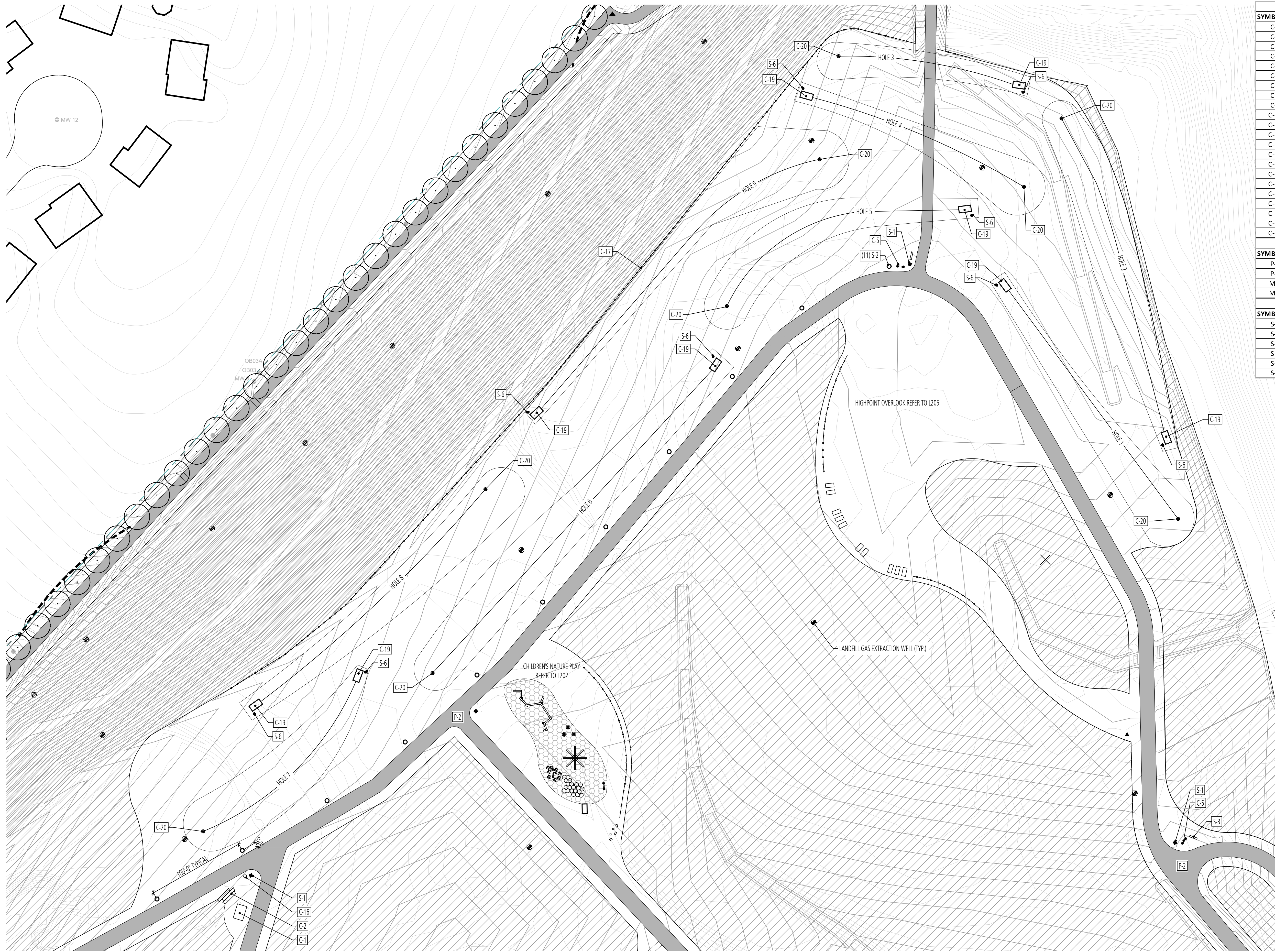
GIDE LANDFILL REMEDIATION DESIGN
NORTHEAST MARYLAND WASTE DISPOSAL AUTHORITY
MONTGOMERY COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION
MONTGOMERY COUNTY, MARYLAND
CHILDREN'S NATURE PLAY ENLARGEMENT PLAN AND DETAILS

FLOURA TEETER
landscape architects
800 North Charles St. Ste. 300
Baltimore, Maryland 21201
Phone: 410.528.8395
Fax: 410.528.8425

EA
EA Engineering, Science, and Technology, Inc., PBC
Hunt Valley Center
225 Schilling Circle, Suite 400
Hunt Valley, Maryland 21031
(410) 584-7000

DATE: MARCH 2020
PROJECT NUMBER: 1564601
L202
SHEET: 4 OF 12

60% CONSTRUCTION DOCUMENTS - NOT FOR CONSTRUCTION



CONSTRUCTION NOTES			
SYMBOL	ITEM TYPE	NOTES	REFERENCE
C-1	WEATHER STATION		
C-2	TERRACED BOULDER SEATING		7/L302
C-3	DOG PLAY FENCE		1-2/L302
C-4	EARTH MOUND		
C-5	PARK BENCH		7/L303
C-6	STUMP GROUPING		4/L303
C-7	ART INSTALLATION		2/L204
C-8	BIRDS NEST SEATING PLATFORM		2/L202
C-9	STUMP CLIMB		4-5/L303
C-10	TUNNEL		3/L202
C-11	BALANCE STAR		4/L202
C-12	BOULDER		6/L302
C-13	TEETER TOTTER		9/L303
C-14	BUTTERFLY BOX		4/L300
C-15	MAGNIFYING LENS POST		2/L300
C-16	TRASH RECEPTACLE		5/L300
C-17	WOODEN GUARDRAIL		4-5/L302
C-18	OWL NESTING BOX		3/L300
C-19	DISC GOLF TEE BOX		1-3/L301
C-20	DISC GOLF BASKET TARGET		4/L301
C-21	SLOPED CHASE LOUNGE CHAIR		1/L300
C-22	TIC TAC TOE		3/L400

PAVEMENT NOTES			
SYMBOL	PAVEMENT TYPE	NOTES	REFERENCE
P-1	MULCH BED		2/L400
P-2	ACCESS ROAD	REFER TO CIVIL PLAN	
M-1	TALL MEADOW		
M-2	SHORT MEADOW		

SIGNAGE NOTES			
SYMBOL	SIGN TYPE	NOTES	REFERENCE
S-1	TRAIL MARKER		1/L303
S-2	EDUCATIONAL POST		6/L303
S-3	INFORMATION SIGN (SMALL)		3/L303
S-4	DIRECTIONAL SIGN POST		2/L303
S-5	INFORMATION SIGN (LARGE)		8/L303
S-6	DISC GOLF TEE POST		5/L301

DESIGN INFORMATION		DESIGNED BY		DRAWN BY		CHECKED BY		PROJECT MANAGER	
NO.	DATE	NO.	DATE	NO.	DATE	NO.	DATE	NO.	DATE

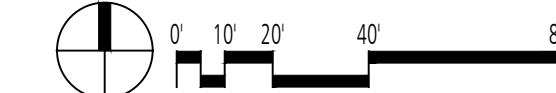
GUIDE LANDFILL REMEDIATION DESIGN
NORTHEAST MARYLAND WASTE DISPOSAL AUTHORITY
MONTGOMERY COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION
 MONTGOMERY COUNTY, MARYLAND
DISC GOLF COURSE ENLARGEMENT PLAN

FLOURA TEETER
 landscape architects
 800 North Charles St. Ste. 300
 Baltimore, Maryland 21201
 Phone: 410.528.8395
 Fax: 410.528.8425

EA Engineering, Science, and Technology, Inc., PBC
 Hunt Valley Center
 225 Schilling Circle, Suite 400
 Hunt Valley, Maryland 21031
 (410) 584-7000

1 DISC GOLF COURSE PLAN

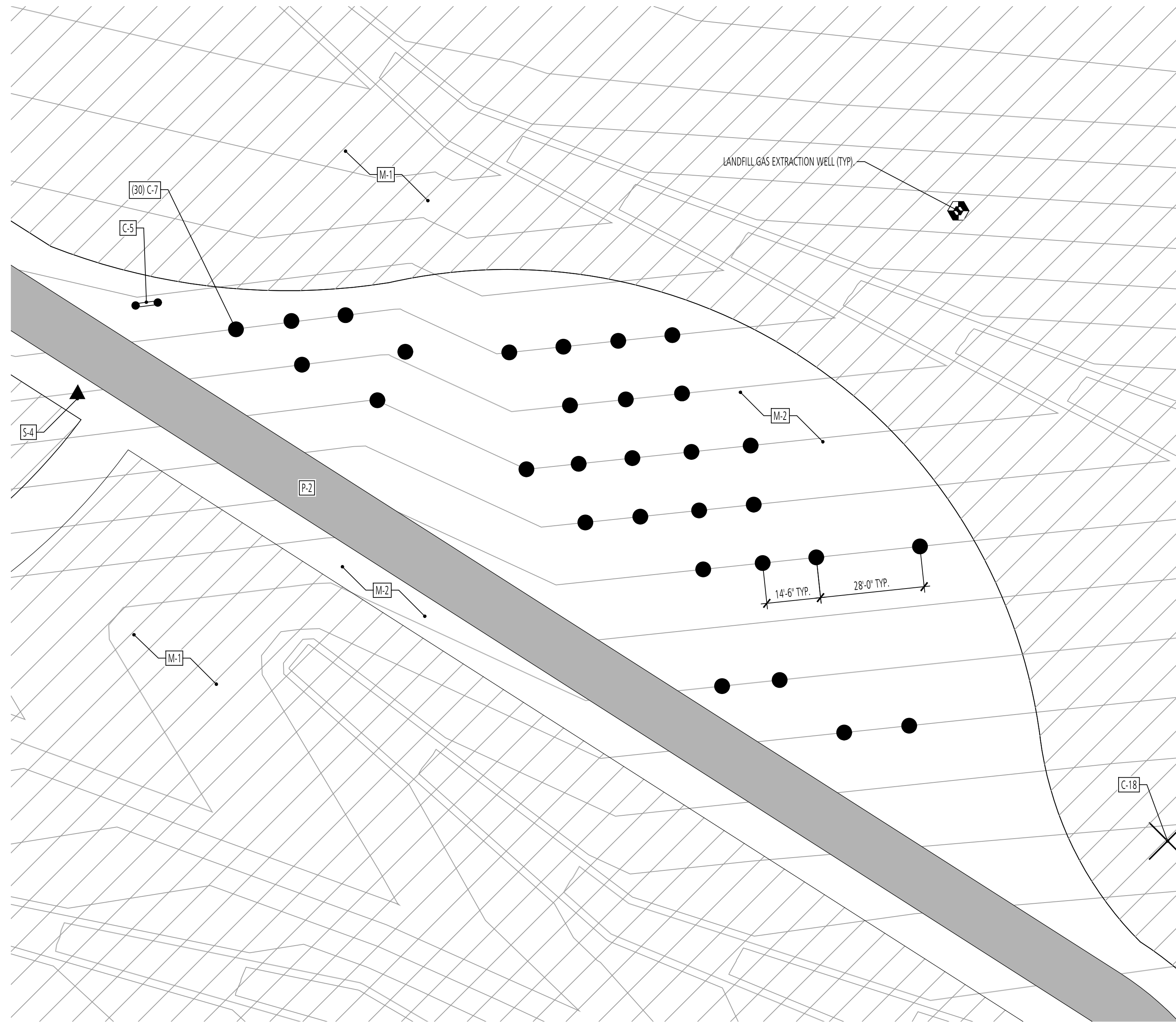
SCALE: 1" = 40'-0"



DATE: MARCH 2020
 PROJECT NUMBER: 1564601
L203
 SHEET: 5 OF 12

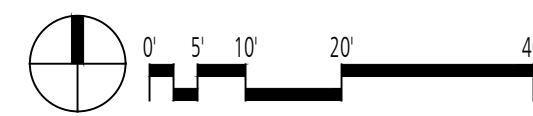
FILE PATH: P:\P\PROJECTS\1808 - GOLF COURSE ENLARGEMENT PLAN\1808 - GOLF COURSE ENLARGEMENT PLAN.dwg DATE: 03/20/20 2:41 PM

60% CONSTRUCTION DOCUMENTS - NOT FOR CONSTRUCTION



1 ART INSTALLATION
PLAN

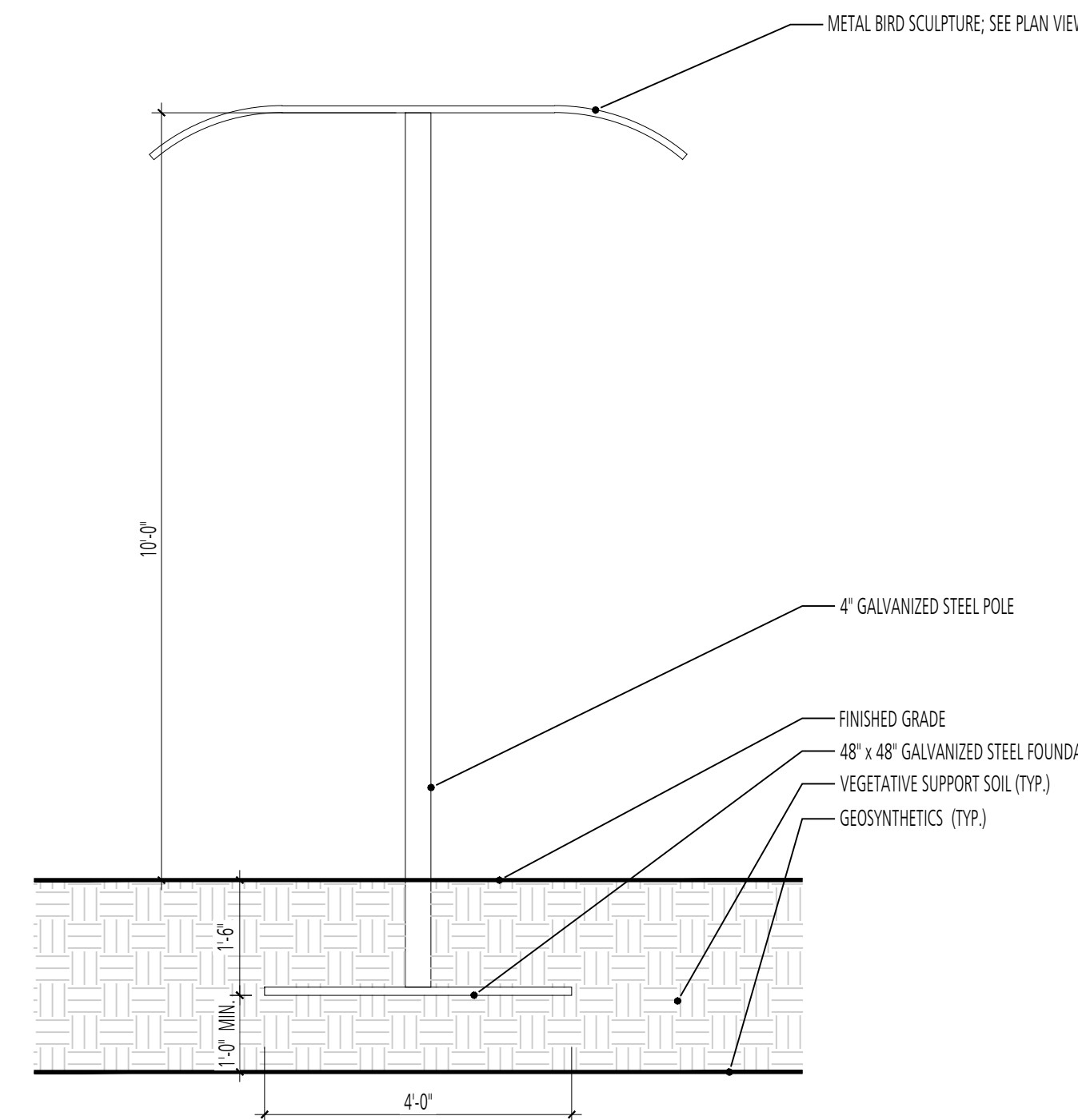
FTLA_L204 Wayfinding Station Enlargments.dwg
SCALE: 1" = 20'-0"



CONSTRUCTION NOTES			
SYMBOL	ITEM TYPE	NOTES	REFERENCE
C-1	WEATHER STATION		
C-2	TERRACED BOULDER SEATING		7/L302
C-3	DOG PLAY FENCE		1-2/L302
C-4	EARTH MOUND		
C-5	PARK BENCH		7/L303
C-6	STUMP GROUPING		4/L303
C-7	ART INSTALLATION		2/L204
C-8	BIRDS NEST SEATING PLATFORM		2/L202
C-9	STUMP CLIMB		4-5/L303
C-10	TUNNEL		3/L202
C-11	BALANCE STAR		4/L202
C-12	BOULDER		6/L302
C-13	TEETER TOTTER		9/L303
C-14	BUTTERFLY BOX		4/L300
C-15	MAGNIFYING LENS POST		2/L300
C-16	TRASH RECEPTACLE		5/L300
C-17	WOODEN GUARDRAIL		4-5/L302
C-18	OWL NESTING BOX		3/L300
C-19	DISC GOLF TEE BOX		1-3/L301
C-20	DISC GOLF BASKET TARGET		4/L301
C-21	SLOPED CHASE LOUNGE CHAIR		1/L300
C-22	TIC TAC TOE		3/L400

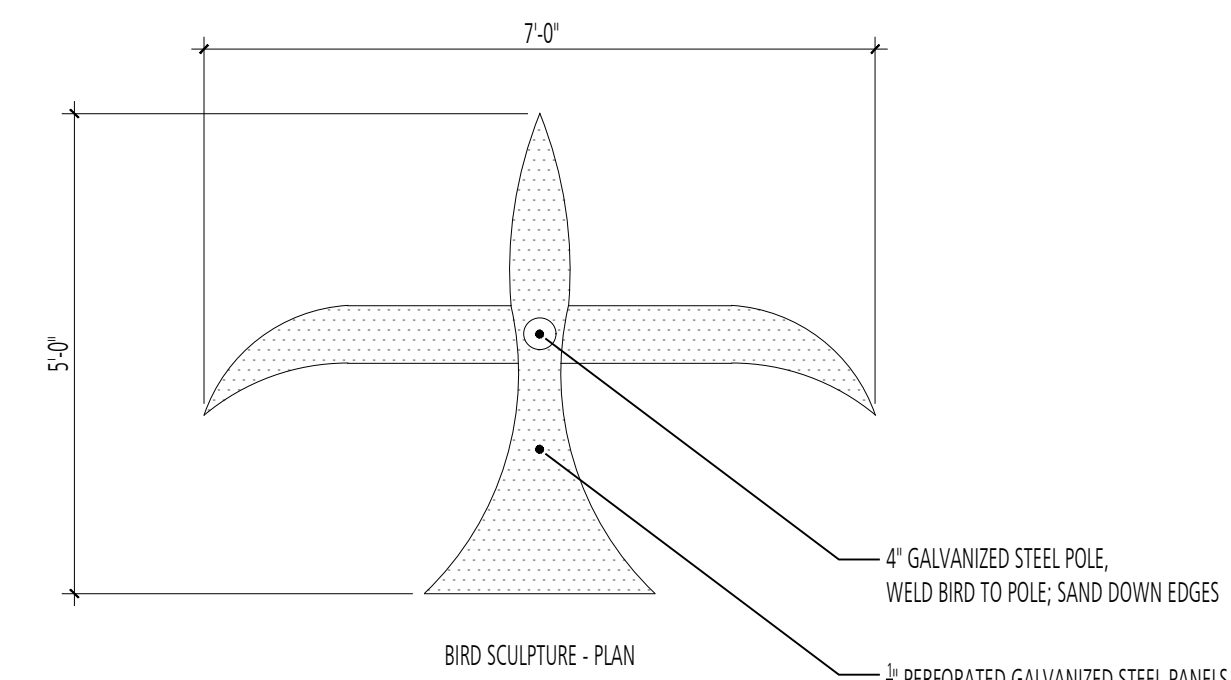
PAVEMENT NOTES			
SYMBOL	PAVEMENT TYPE	NOTES	REFERENCE
P-1	MULCH BED		2/L400
P-2	ACCESS ROAD	REFER TO CIVIL PLAN	
M-1	TALL MEADOW		
M-2	SHORT MEADOW		

SIGNAGE NOTES			
SYMBOL	SIGN TYPE	NOTES	REFERENCE
S-1	TRAIL MARKER		1/L303
S-2	EDUCATIONAL POST		6/L303
S-3	INFORMATION SIGN (SMALL)		3/L303
S-4	DIRECTIONAL SIGN POST		2/L303
S-5	INFORMATION SIGN (LARGE)		8/L303
S-6	DISC GOLF TEE POST		5/L301

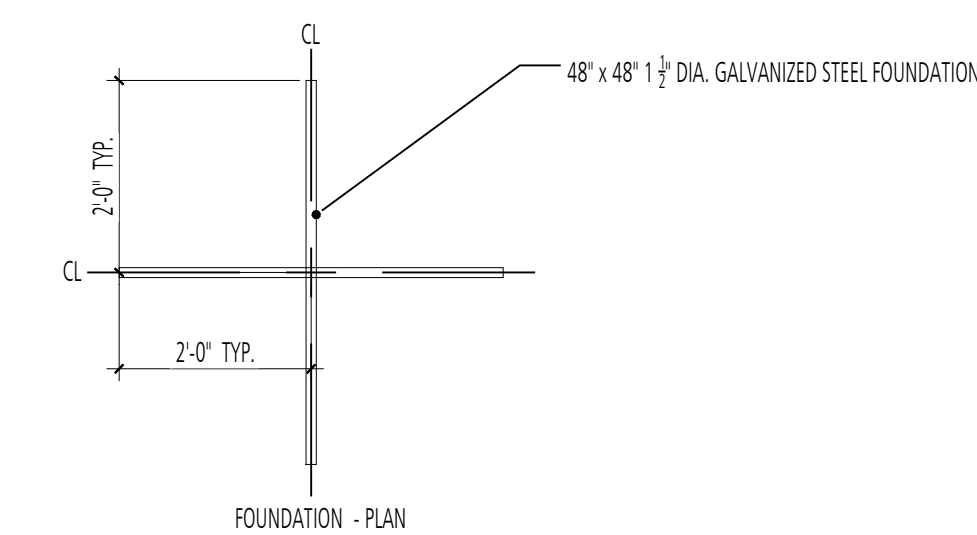


2 ART INSTALLATION
SECTION & PLAN

SCALE: 1/2" = 1'-0"



NOTES:
1. POLE AND BIRD POWDER COAT RED FINISH.
2. ALL CONNECTIONS TO BE WELDED SMOOTH



DESIGN INFORMATION		REVISIONS	
DESIGNED BY:	MM	NO.	DATE
DRAWN BY:	JCI		
CHECKED BY:	MM		
PROJECT MANAGER:	M/G		

PROFESSIONAL CERTIFICATION: I 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. 1093 EXPIRATION DATE: 07/26/2020

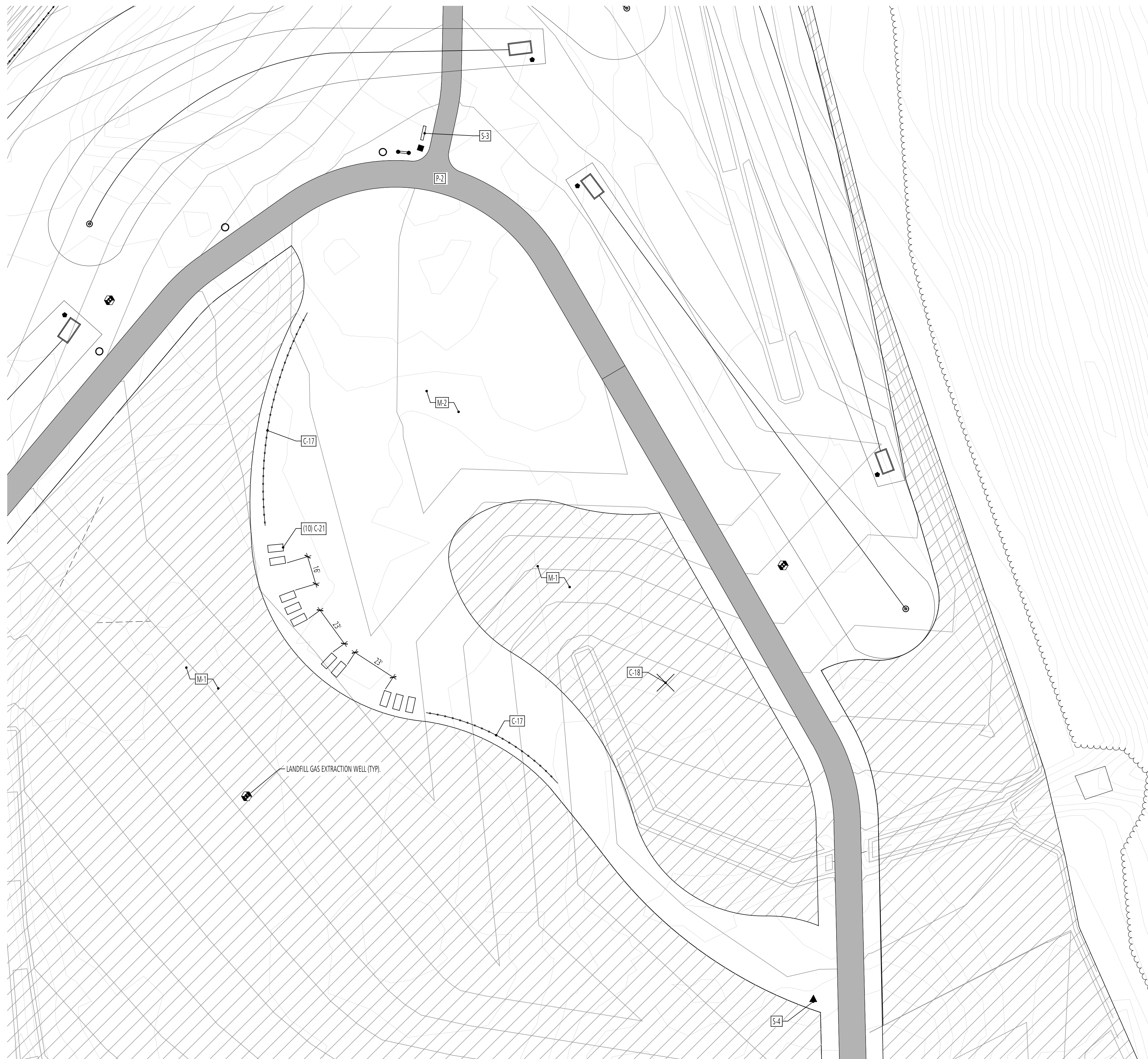
FLORA TEETER
landscape architects
800 North Charles St. Ste. 300
Baltimore, Maryland 21201
Phone: 410.528.8395
Fax: 410.528.8425

EA
EA Engineering, Science,
and Technology, Inc., PBC
Hunt Valley Center
225 Schilling Circle, Suite 400
Hunt Valley, Maryland 21031
(410) 584-7000

DATE: MARCH 2020
PROJECT NUMBER: 1564601
SHEET: 6 OF 12

GUDE LANDFILL REMEDIATION DESIGN
NORTHEAST MARYLAND WASTE DISPOSAL AUTHORITY
MONTGOMERY COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION
MONTGOMERY COUNTY, MARYLAND
ART INSTALLATION ENLARGEMENT PLAN

FILE PATH: P:\PLT PROJECTS\1808 - GUDE LANDFILL DOMAINS\FTLA_L205\HIGHPOINT_LOOKOVSZ ENLARGEMENT.dwg (USER: JGANTON, 02/28/20 2:51 PM)



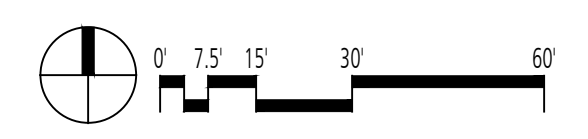
CONSTRUCTION NOTES			
SYMBOL	ITEM TYPE	NOTES	REFERENCE
C-1	WEATHER STATION		
C-2	TERRACED BOULDER SEATING		7/L302
C-3	DOG PLAY FENCE		1-2/L302
C-4	EARTH MOUND		
C-5	PARK BENCH		7/L303
C-6	STUMP GROUPING		4/L303
C-7	ART INSTALLATION		2/L204
C-8	BIRDS NEST SEATING PLATFORM		2/L202
C-9	STUMP CLIMB		4-5/L303
C-10	TUNNEL		3/L202
C-11	BALANCE STAR		4/L202
C-12	BOULDER		6/L302
C-13	TEETER TOTTER		9/L303
C-14	BUTTERFLY BOX		4/L300
C-15	MAGNIFYING LENS POST		2/L300
C-16	TRASH RECEPTACLE		5/L300
C-17	WOODEN GUARDRAIL		4-5/L302
C-18	OWL NESTING BOX		3/L300
C-19	DISC GOLF TEE BOX		1-3/L301
C-20	DISC GOLF BASKET TARGET		4/L301
C-21	SLOPED CHASE LOUNGE CHAIR		1/L300
C-22	TIC TAC TOE		3/L400

PAVEMENT NOTES			
SYMBOL	PAVEMENT TYPE	NOTES	REFERENCE
P-1	MULCH BED		2/L400
P-2	ACCESS ROAD	REFER TO CIVIL PLAN	
M-1	TALL MEADOW		
M-2	SHORT MEADOW		

SIGNAGE NOTES			
SYMBOL	SIGN TYPE	NOTES	REFERENCE
S-1	TRAIL MARKER		1/L303
S-2	EDUCATIONAL POST		6/L303
S-3	INFORMATION SIGN (SMALL)		3/L303
S-4	DIRECTIONAL SIGN POST		2/L303
S-5	INFORMATION SIGN (LARGE)		8/L303
S-6	DISC GOLF TEE POST		5/L301

3 HIGHPOINT OVERLOOK
PLAN

FTLA_L205 Overlook Enlargment.dwg
SCALE: 1" = 30'-0"



GUDE LANDFILL REMEDIATION DESIGN
 NORTHEAST MARYLAND WASTE DISPOSAL AUTHORITY
 MONTGOMERY COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION
 MONTGOMERY COUNTY, MARYLAND
 HIGHPOINT OVERLOOK ENLARGEMENT PLAN

FLOURA TEETER
landscape architects
800 North Charles St. Ste. 300
Baltimore, Maryland 21201
Phone: 410.528.8395
Fax: 410.528.8425

EA
EA Engineering, Science,
and Technology, Inc., PBC
Hunt Valley Center
225 Schilling Circle, Suite 400
Hunt Valley, Maryland 21031
(410) 584-7000

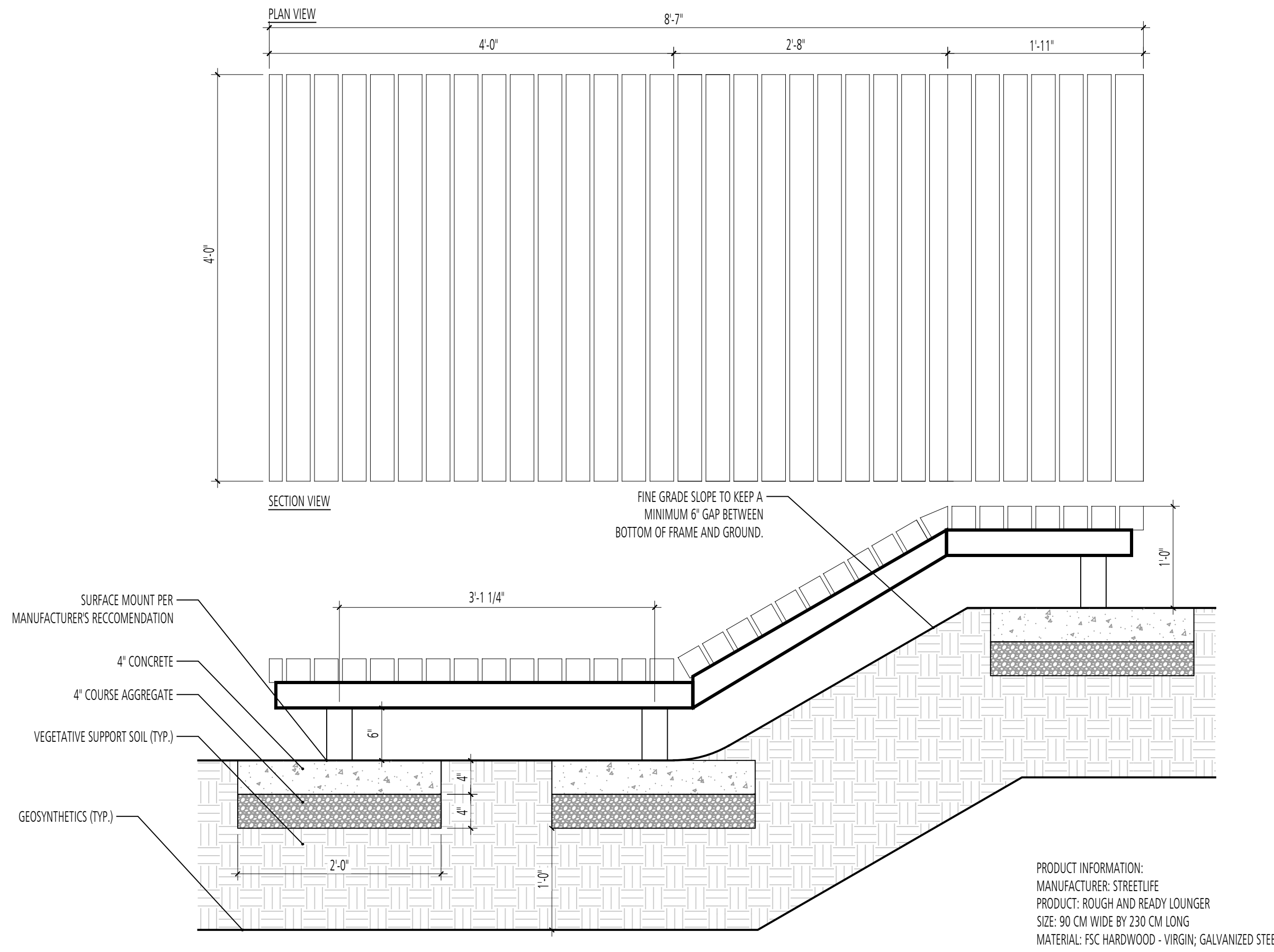
DATE: MARCH 2020
PROJECT NUMBER: 1564601

L205
SHEET: 7 OF 12

DESIGN INFORMATION		REVISIONS	
DESIGNED BY:	MM	NO.	DATE
DRAWN BY:	JCI	BY	DESCRIPTION
CHECKED BY:	MM		
PROJECT MANAGER:	M/G		

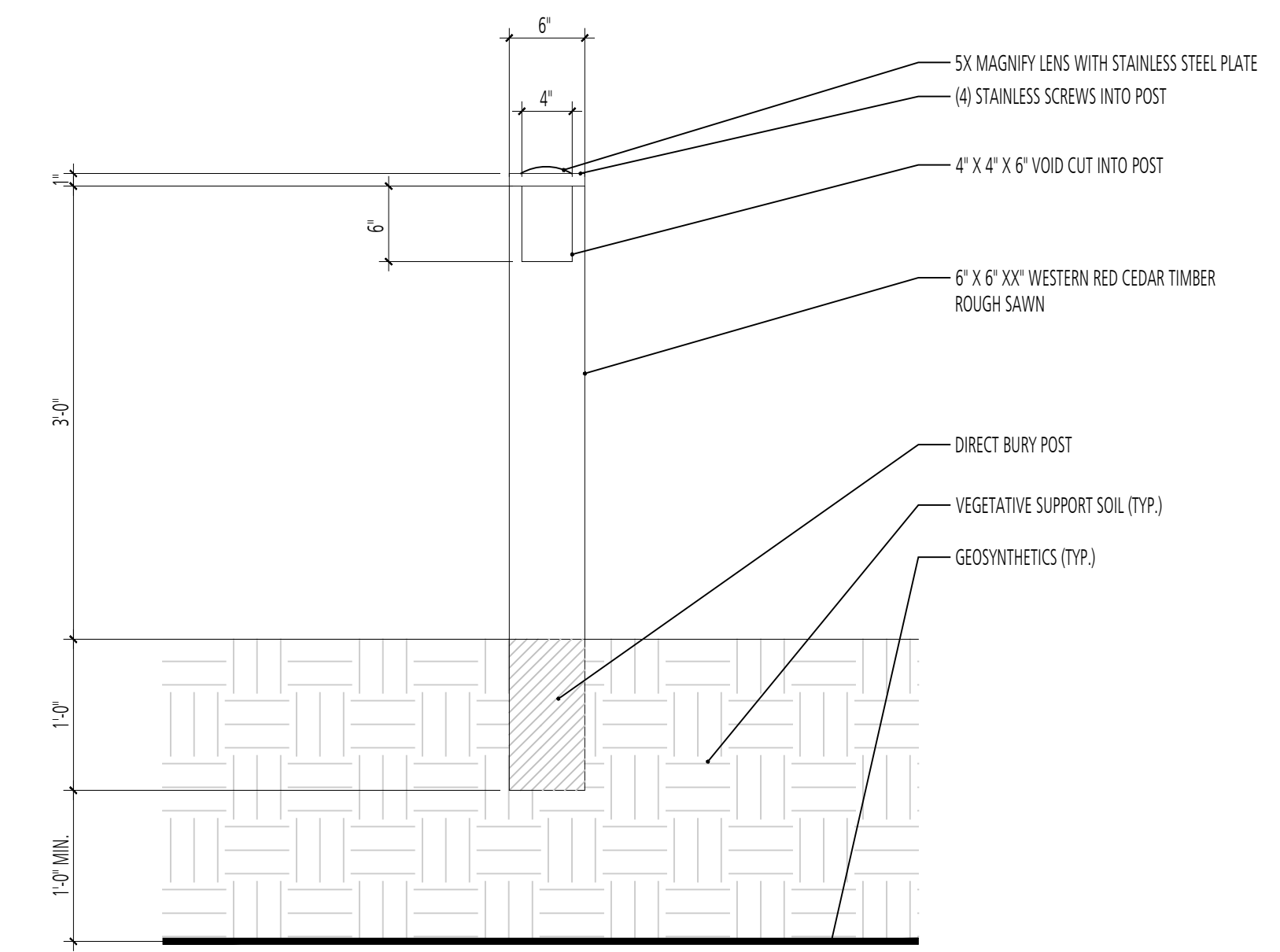
PROFESSIONAL CERTIFICATION: I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED LANDSCAPE ARCHITECT UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 1093 EXPIRATION DATE: 07/26/2020

60% CONSTRUCTION DOCUMENTS - NOT FOR CONSTRUCTION



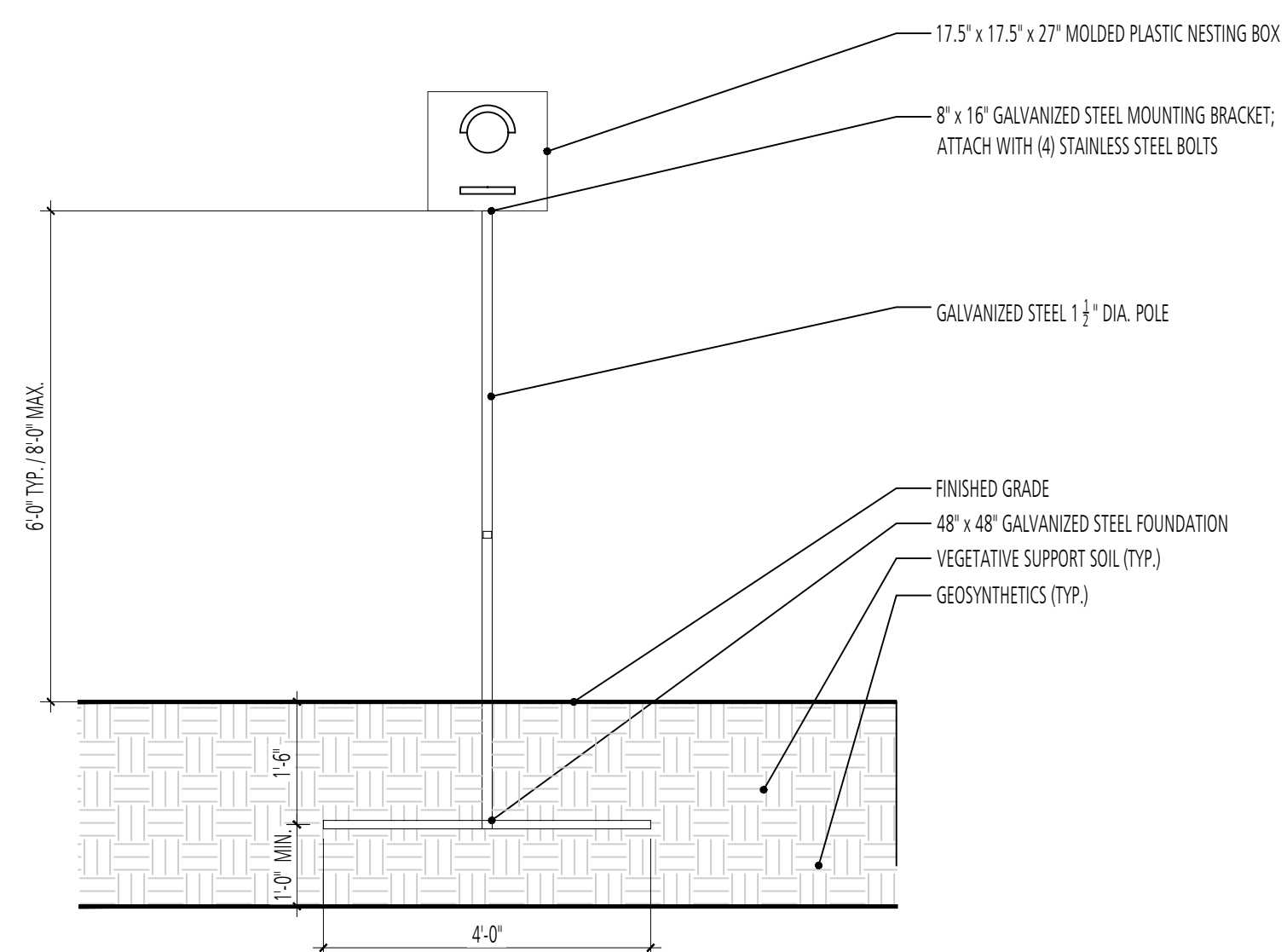
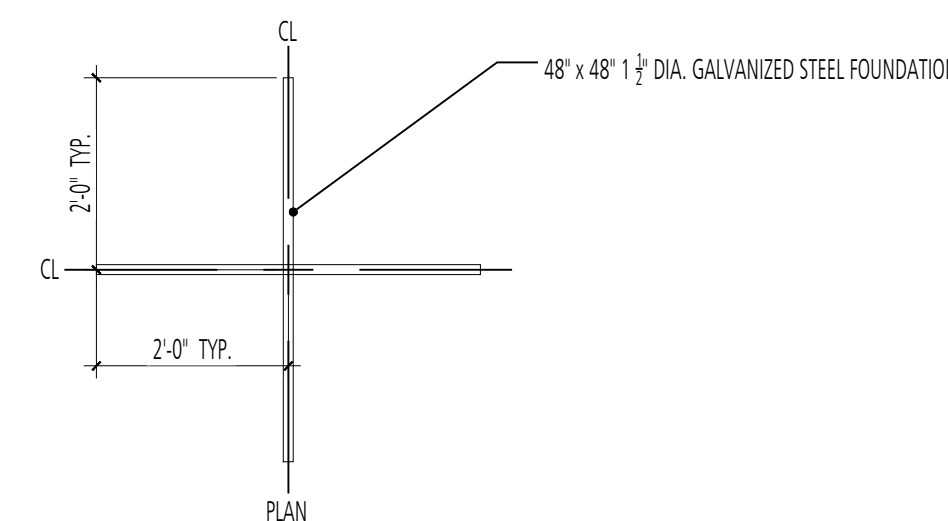
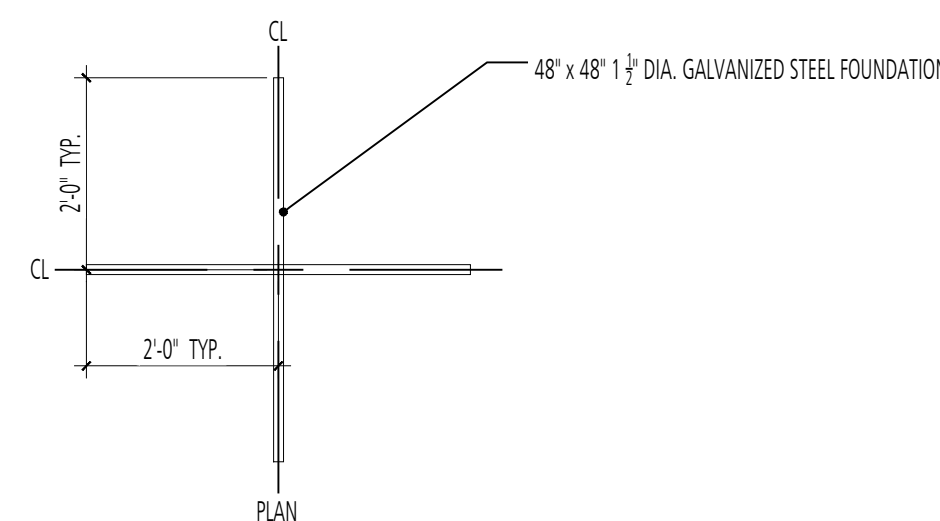
1 SLOPED CHAISE LOUNGE CHAIR
PLAN & SECTION

SCALE: 1" = 1'-0"



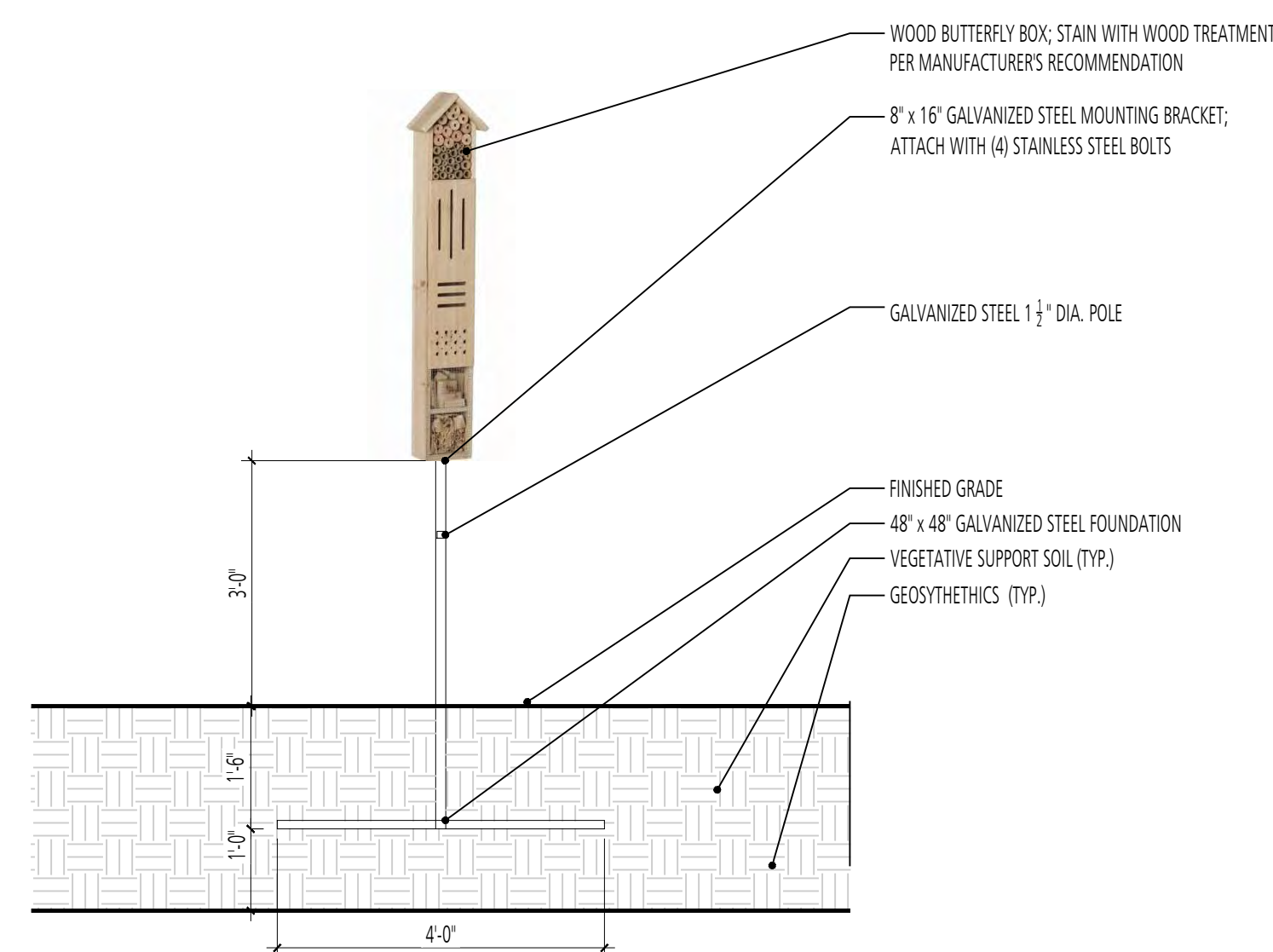
2 MAGNIFYING LENS POST
SECTION

SCALE: 1" = 1'-0"



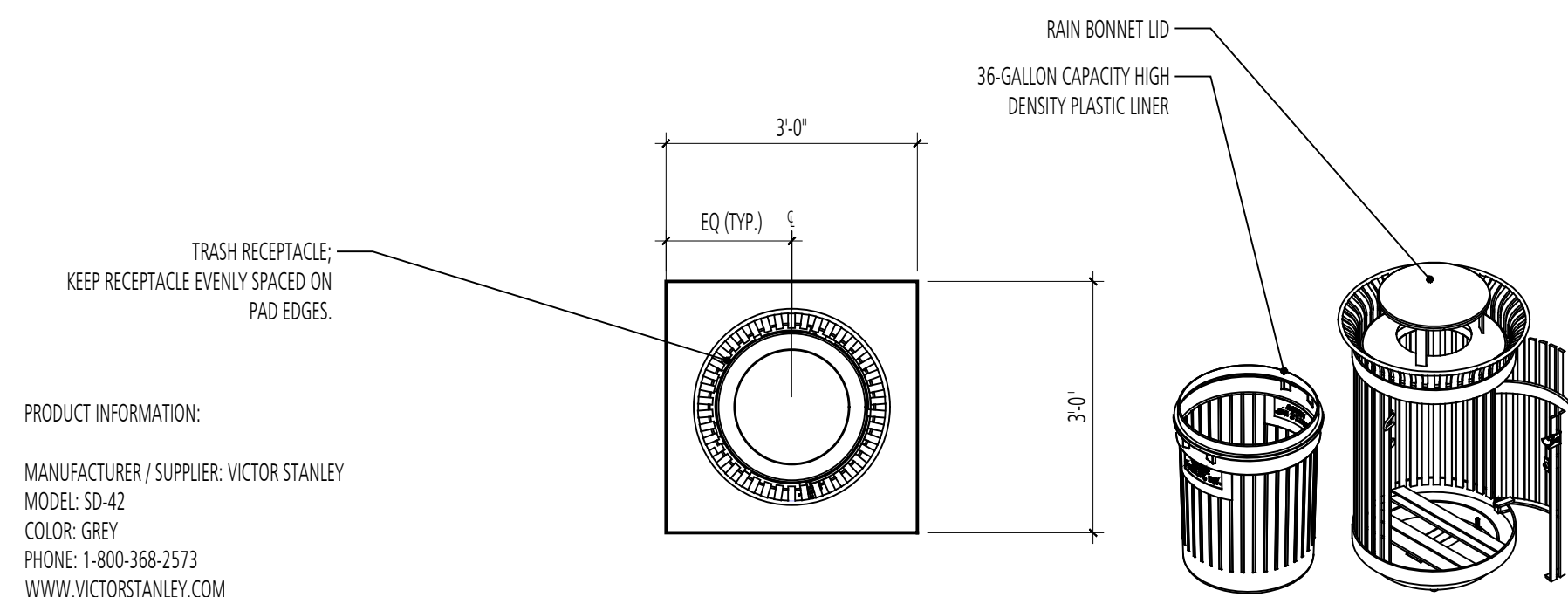
3 OWL NESTING BOX
SECTION

SCALE: 1/2" = 1'-0"



4 BUTTERFLY BOX
SECTION

SCALE: 1/2" = 1'-0"



PRODUCT INFORMATION:
MANUFACTURER / SUPPLIER: VICTOR STANLEY
MODEL: SD-42
COLOR: GREY
PHONE: 1-800-368-2573
WWW.VICTORSTANLEY.COM

5 TRASH RECEPTACLE
SECTION

d-trash.dwg
SCALE: N.T.S.

REVISIONS		DESCRIPTION	
NO.	DATE	BY	

DESIGN INFORMATION	
DESIGNED BY:	MM
DRAWN BY:	JCI
CHECKED BY:	MM
PROJECT MANAGER:	MJG

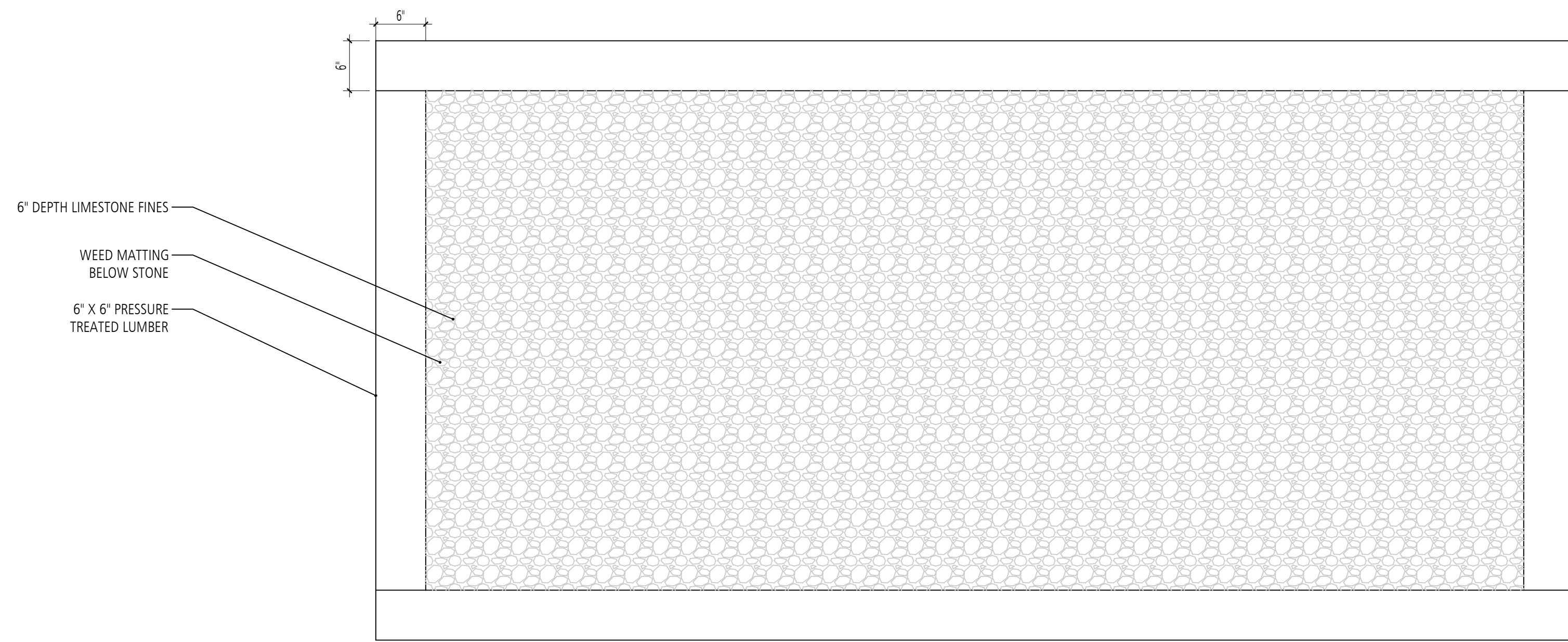
PROFESSIONAL CERTIFICATION: I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED LANDSCAPE ARCHITECT UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 1093 EXPIRATION DATE: 07/26/2020

GUIDE LANDFILL REMEDIATION DESIGN
NORTHEAST MARYLAND WASTE DISPOSAL AUTHORITY
MONTGOMERY COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION
 MONTGOMERY COUNTY, MARYLAND
SITE DETAILS

FLOURA TEETER
landscape architects
800 North Charles St. Ste. 300
Baltimore, Maryland 21201
Phone: 410.528.8395
Fax: 410.528.8425

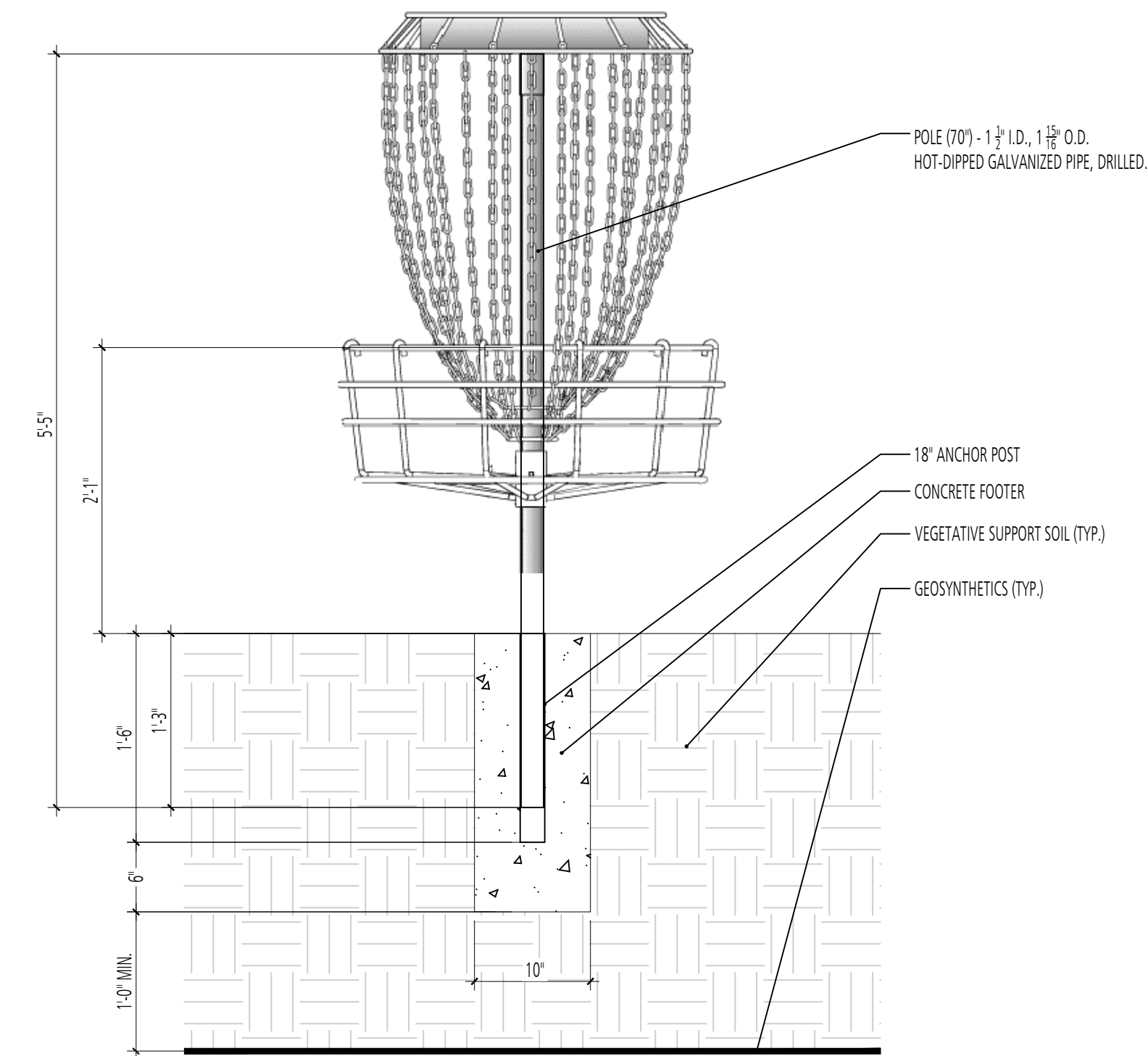
EA
EA Engineering, Science,
and Technology, Inc., PBC
Hunt Valley Center
225 Schilling Circle, Suite 400
Hunt Valley, Maryland 21031
(410) 584-7000

DATE: MARCH 2020
PROJECT NUMBER: 1564601
L300
SHEET: 8 OF 12



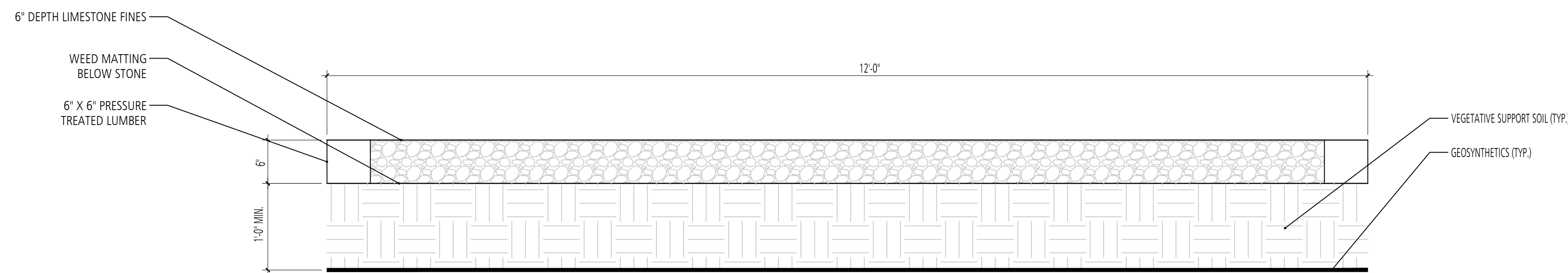
1 DISC GOLF TEE BOX
PLAN

d-tee box.dwg
SCALE: 1"=1'-0"



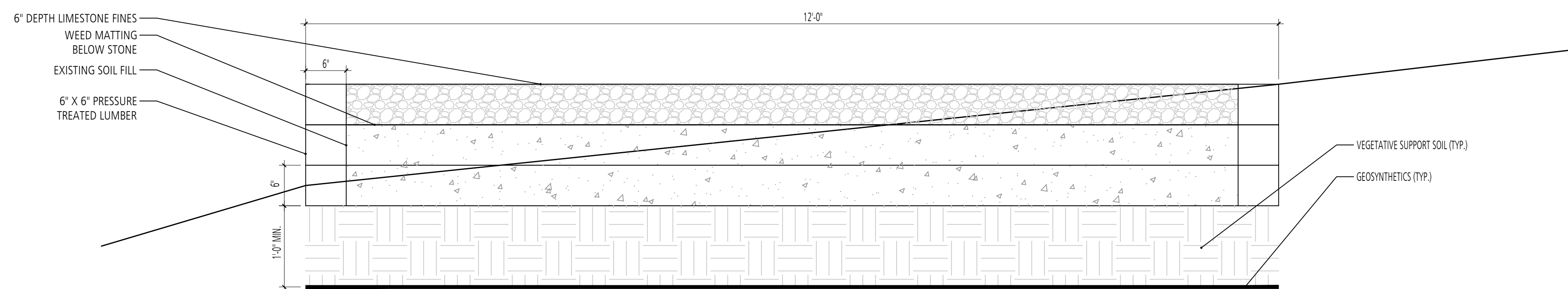
4 DISC GOLF TARGET BASKET
SECTION

SCALE: 1"=1'-0"



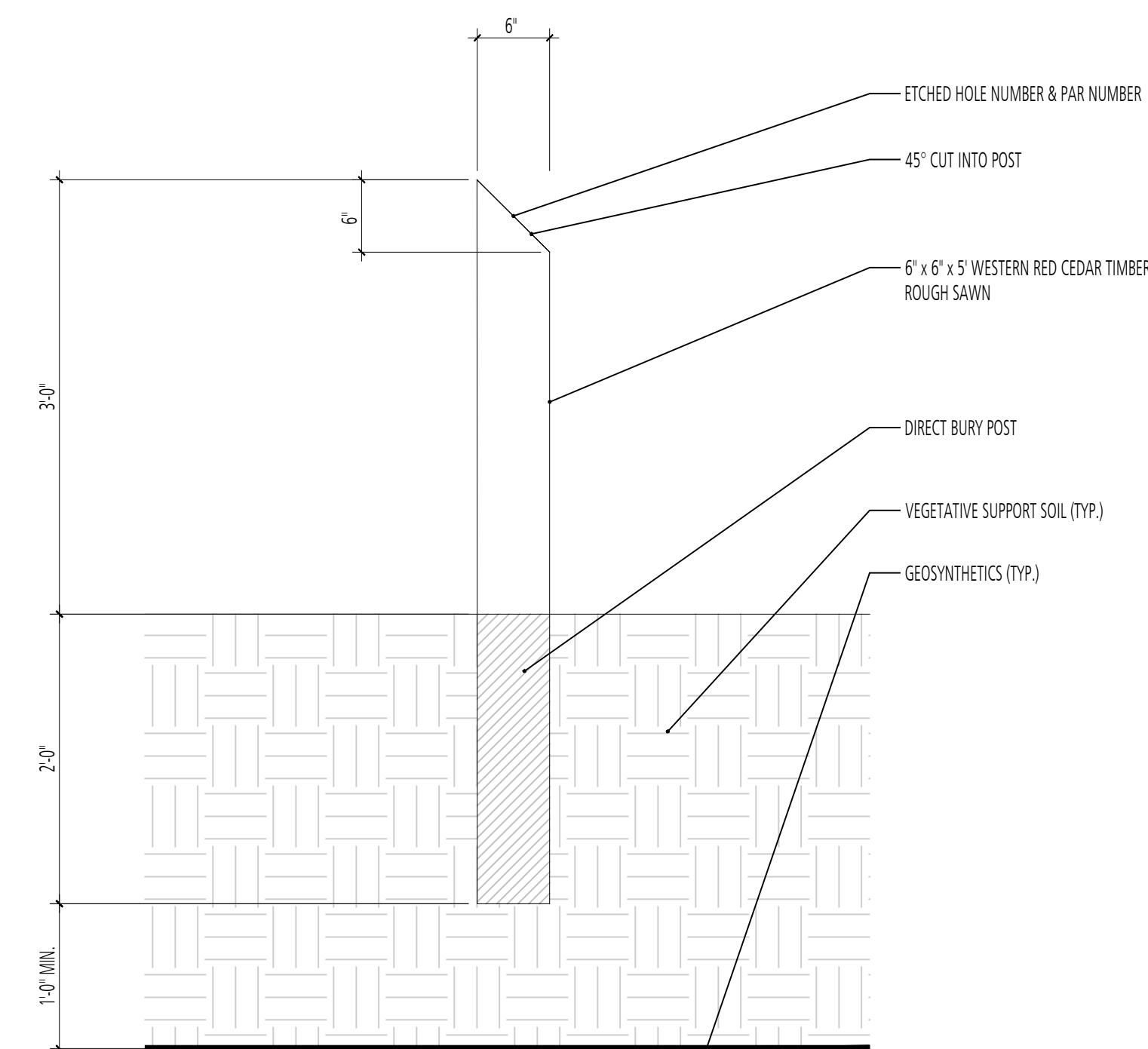
2 DISC GOLF TEE BOX - FLAT GRADE
SECTION

d-tee box.dwg
SCALE: 1"=1'-0"



3 DISC GOLF TEE BOX - SLOPED GRADE
SECTION

d-tee box.dwg
SCALE: 1"=1'-0"



5 DISC GOLF TEE POST
SECTION

d-magnify lens.dwg
SCALE: 1"=1'-0"

DESIGN INFORMATION		REVISIONS	
DESIGNED BY:	MM	NO.	DATE
DRAWN BY:	JCI		
CHECKED BY:	MM		
PROJECT MANAGER:	MJG		

PROFESSIONAL CERTIFICATION: I 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. 1093 EXPIRATION DATE: 07/26/2020

GUDE LANDFILL REMEDIATION DESIGN
NORTHEAST MARYLAND WASTE DISPOSAL AUTHORITY
MONTGOMERY COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION
 MONTGOMERY COUNTY, MARYLAND
SITE DETAILS

FLOURA TEETER
 landscape architects
 800 North Charles St. Ste. 300
 Baltimore, Maryland 21201
 Phone: 410.528.8395
 Fax: 410.528.8425

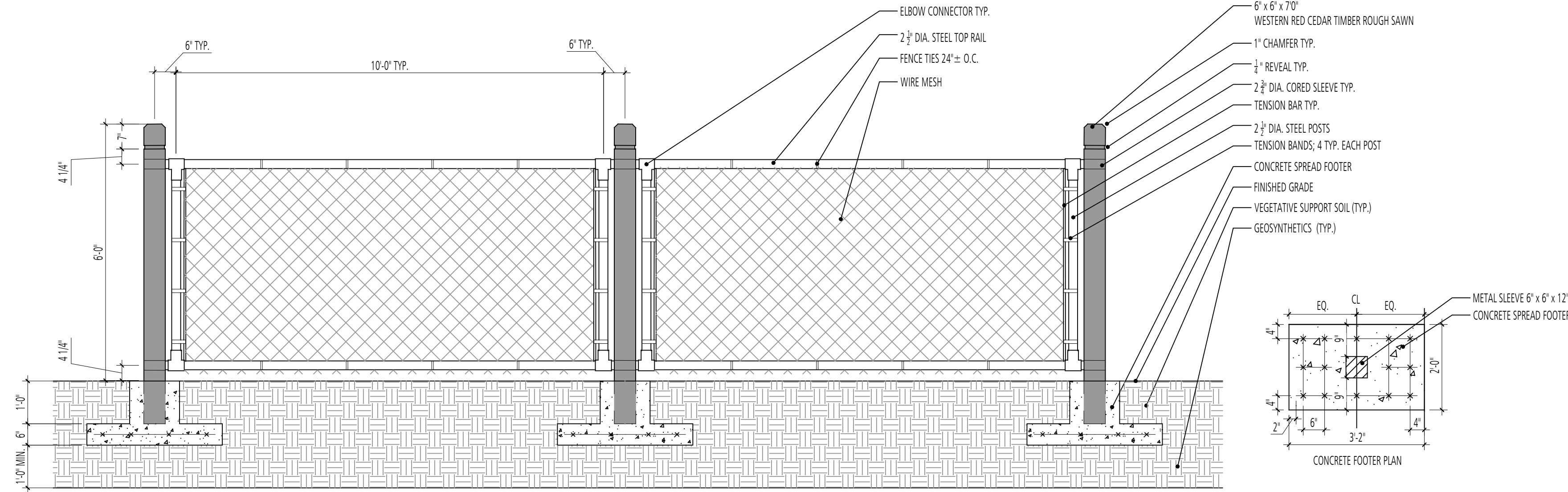
EA
EA Engineering, Science, and Technology, Inc., PBC
 Hunt Valley Center
 225 Schilling Circle, Suite 400
 Hunt Valley, Maryland 21031
 (410) 584-7000

DATE: MARCH 2020
 PROJECT NUMBER: 1564601

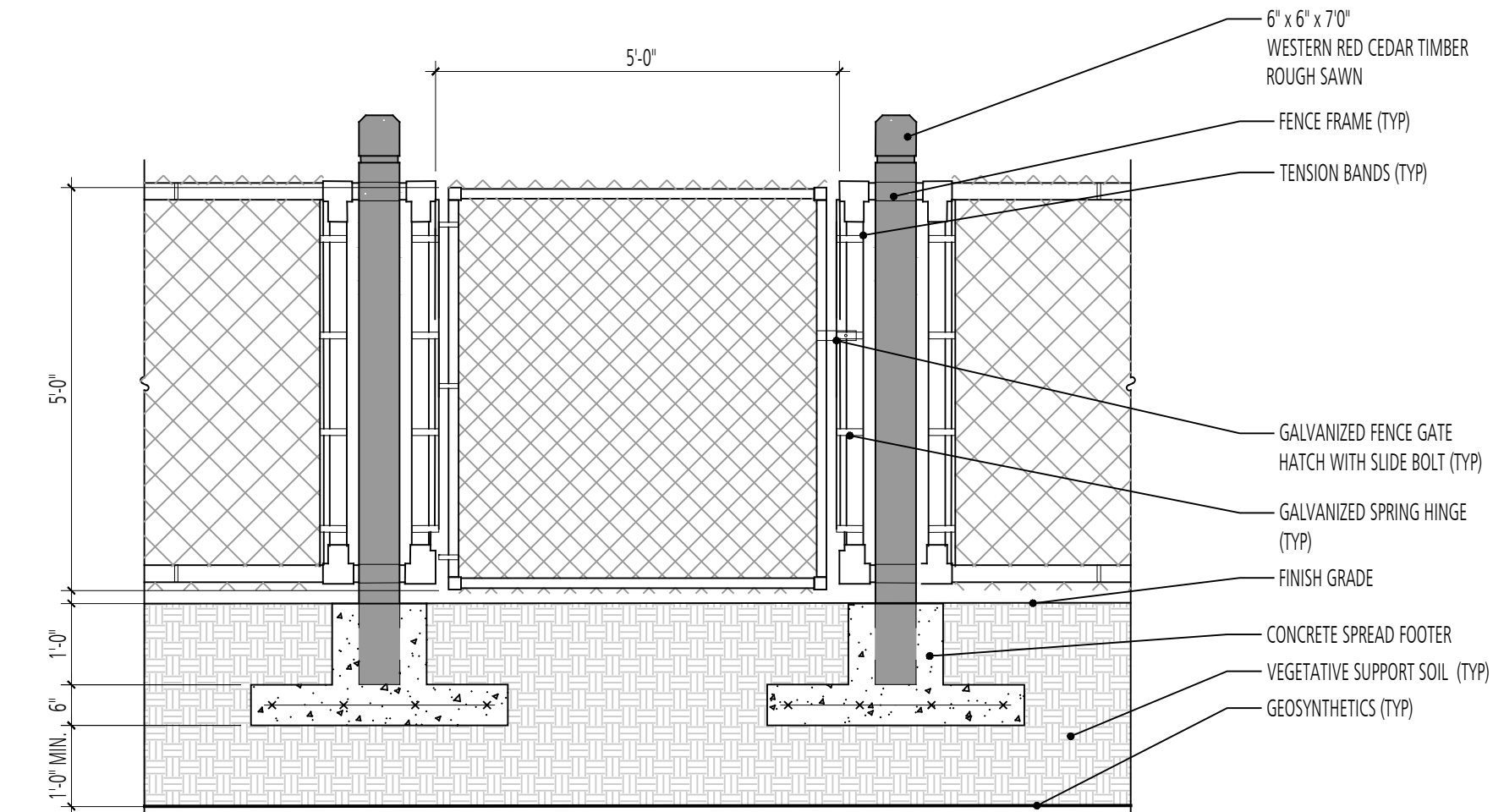
L301
 SHEET: 9 OF 12

FILE PATH: P:\PLT\PROJECTS\1888 - GUDE LANDFILL\DRAWINGS\FLORATEETER\STA_L301 SITE DETAILS.DWG (DATE: 04/20/20 2:41 PM)

60% CONSTRUCTION DOCUMENTS - NOT FOR CONSTRUCTION

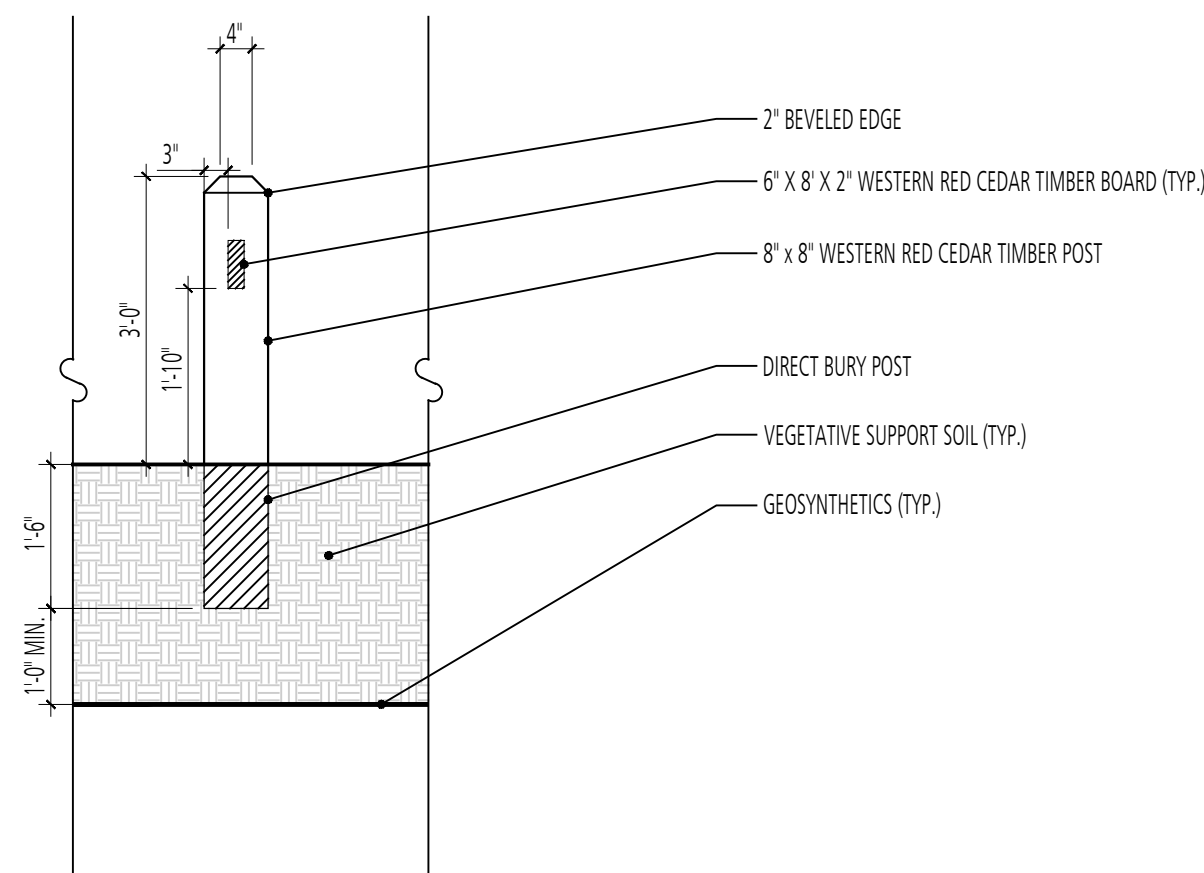


- NOTES:
1. THE CONTRACTOR SHALL PROVIDE SHOP DRAWINGS FOR APPROVAL BY THE LANDSCAPE ARCHITECT PRIOR TO ORDERING SUPPLIES OR BEGINNING WORK.
 2. CONTRACTOR SHALL STAKE OR OTHERWISE LAYOUT LIMITS OF FENCING, INCLUDING GATE AND POST LOCATIONS, IN THE FIELD FOR APPROVAL PRIOR TO BEGINNING WORK.



- NOTES:
1. NEW FENCING SHALL BE COORDINATED TO MINIMIZE THE NUMBER OF POSTS REQUIRED.
 2. THE CONTRACTOR SHALL PROVIDE SHOP DRAWINGS, SIGNED BY A STRUCTURAL ENGINEER, FOR APPROVAL BY THE LANDSCAPE ARCHITECT PRIOR TO ORDERING SUPPLIES OR BEGINNING WORK.
 3. CONTRACTOR SHALL STAKE OR OTHERWISE LAYOUT LIMITS OF NEW FENCING, INCLUDING GATE AND POST LOCATIONS, IN THE FIELD FOR APPROVAL PRIOR TO BEGINNING WORK.

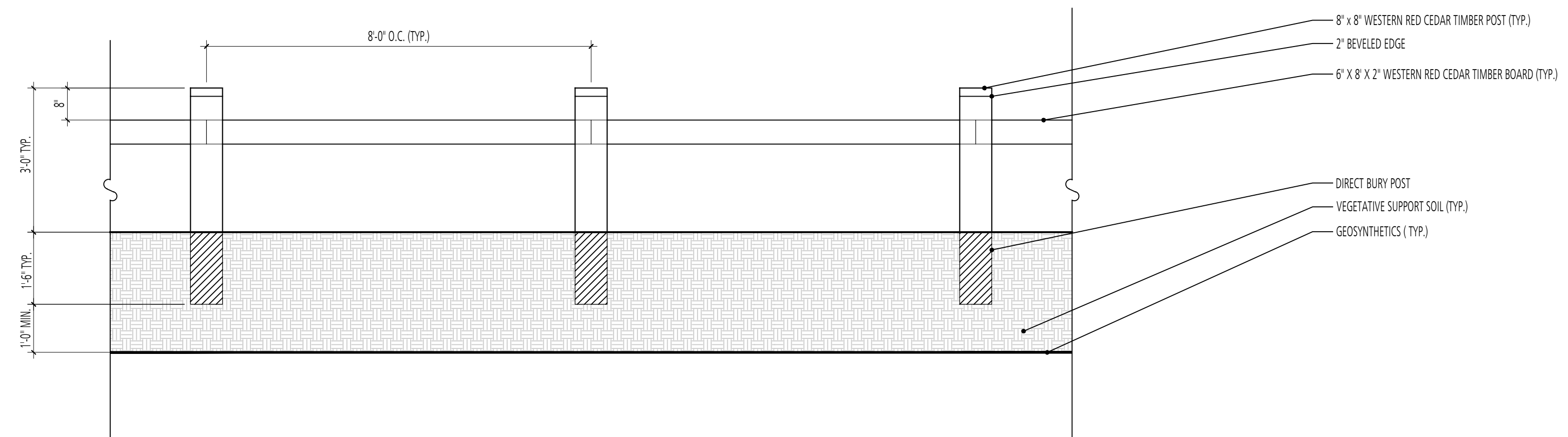
1 DOG PLAY FENCE
ELEVATION



4 WOODEN GUARDRAIL
SECTION

d-guardrail fence.dwg
SCALE: 1/2" = 1'-0"

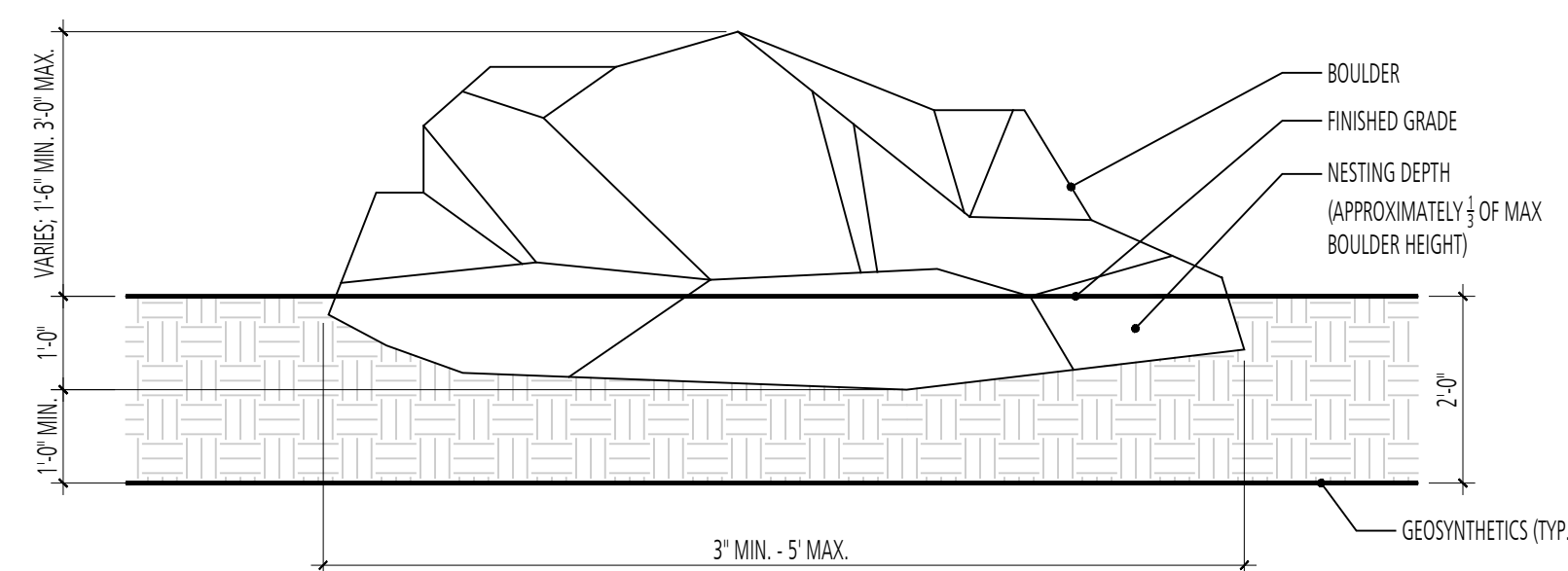
2 DOG PLAY SWING GATE
ELEVATION



d-chain link fence gate.dwg
SCALE: 1/2" = 1'-0"

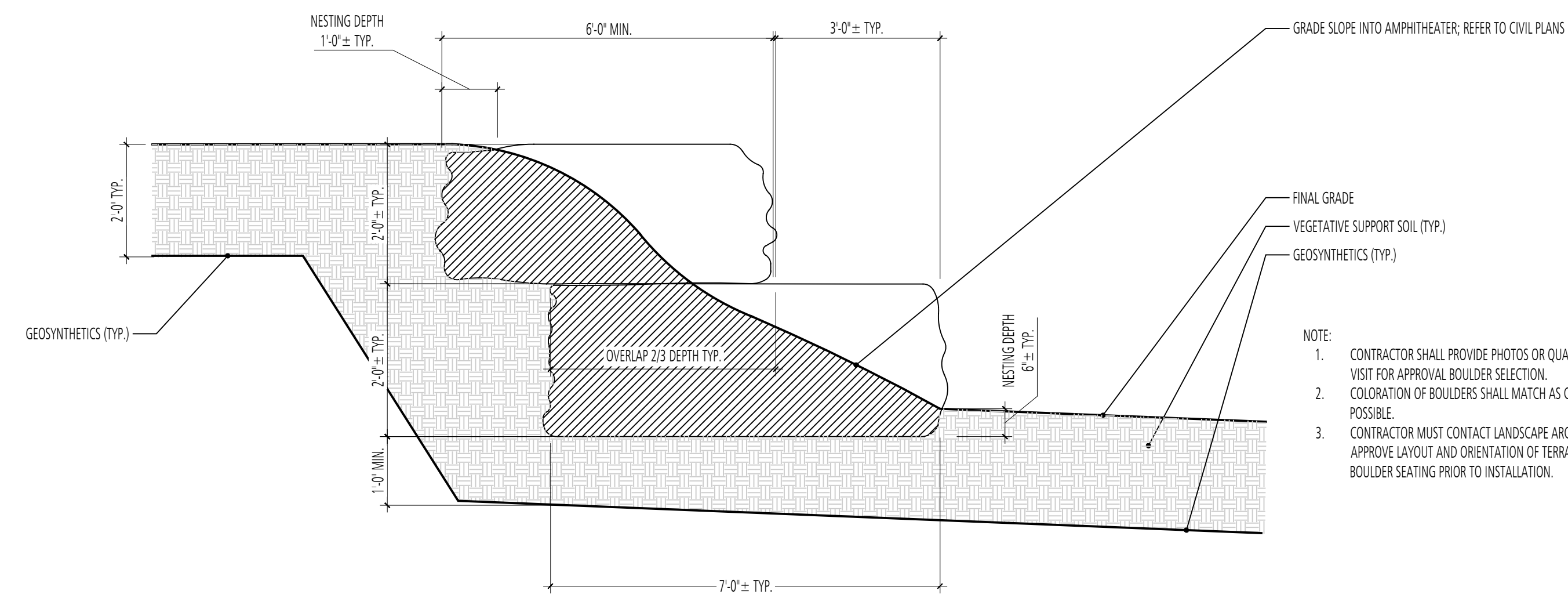
5 WOODEN GUARDRAIL
ELEVATION

d-guardrail fence.dwg
SCALE: 1/2" = 1'-0"



6 BOULDER
SECTION

SCALE: 1/2" = 1'-0"



- NOTE:
1. CONTRACTOR SHALL PROVIDE PHOTOS OR QUARRY SITE VISIT FOR APPROVAL BOULDER SELECTION. COLORATION OF BOULDERS SHALL MATCH AS CLOSELY AS POSSIBLE.
 2. CONTRACTOR MUST CONTACT LANDSCAPE ARCHITECT TO APPROVE LAYOUT AND ORIENTATION OF TERRACED BOULDER SEATING PRIOR TO INSTALLATION.

7 TERRACED BOULDER SEATING
SECTION

SCALE: 1/2" = 1'-0"

GIDE LANDFILL REMEDIATION DESIGN
 NORTHEAST MARYLAND WASTE DISPOSAL AUTHORITY
 MONTGOMERY COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION
 MONTGOMERY COUNTY, MARYLAND
 SITE DETAILS

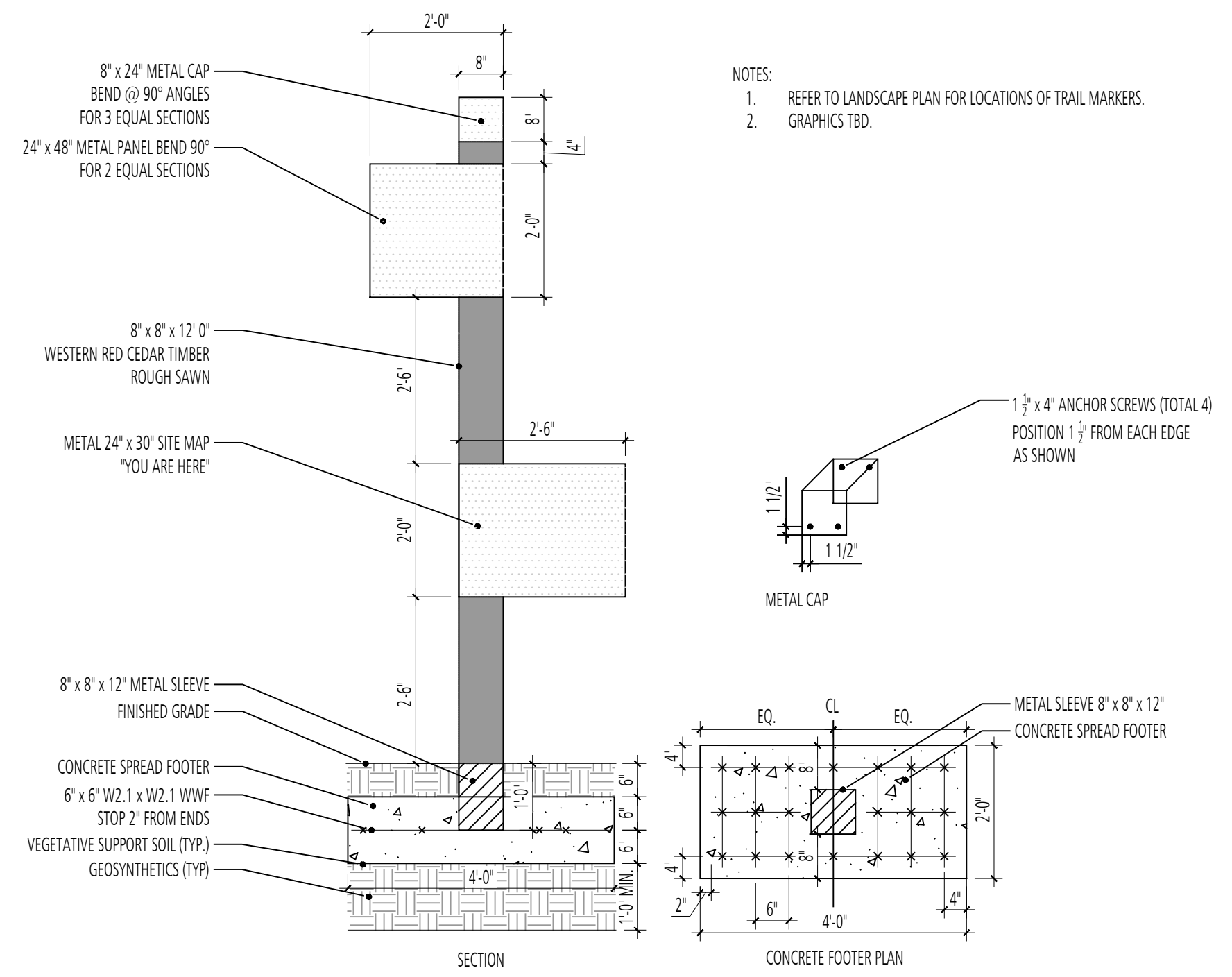
FLOURA TEETER
 landscape architects
 800 North Charles St. Ste. 300
 Baltimore, Maryland 21201
 Phone: 410.528.8395
 Fax: 410.528.8425

EA
EA Engineering, Science, and Technology, Inc., PBC
 Hunt Valley Center
 225 Schilling Circle, Suite 400
 Hunt Valley, Maryland 21031
 (410) 584-7000

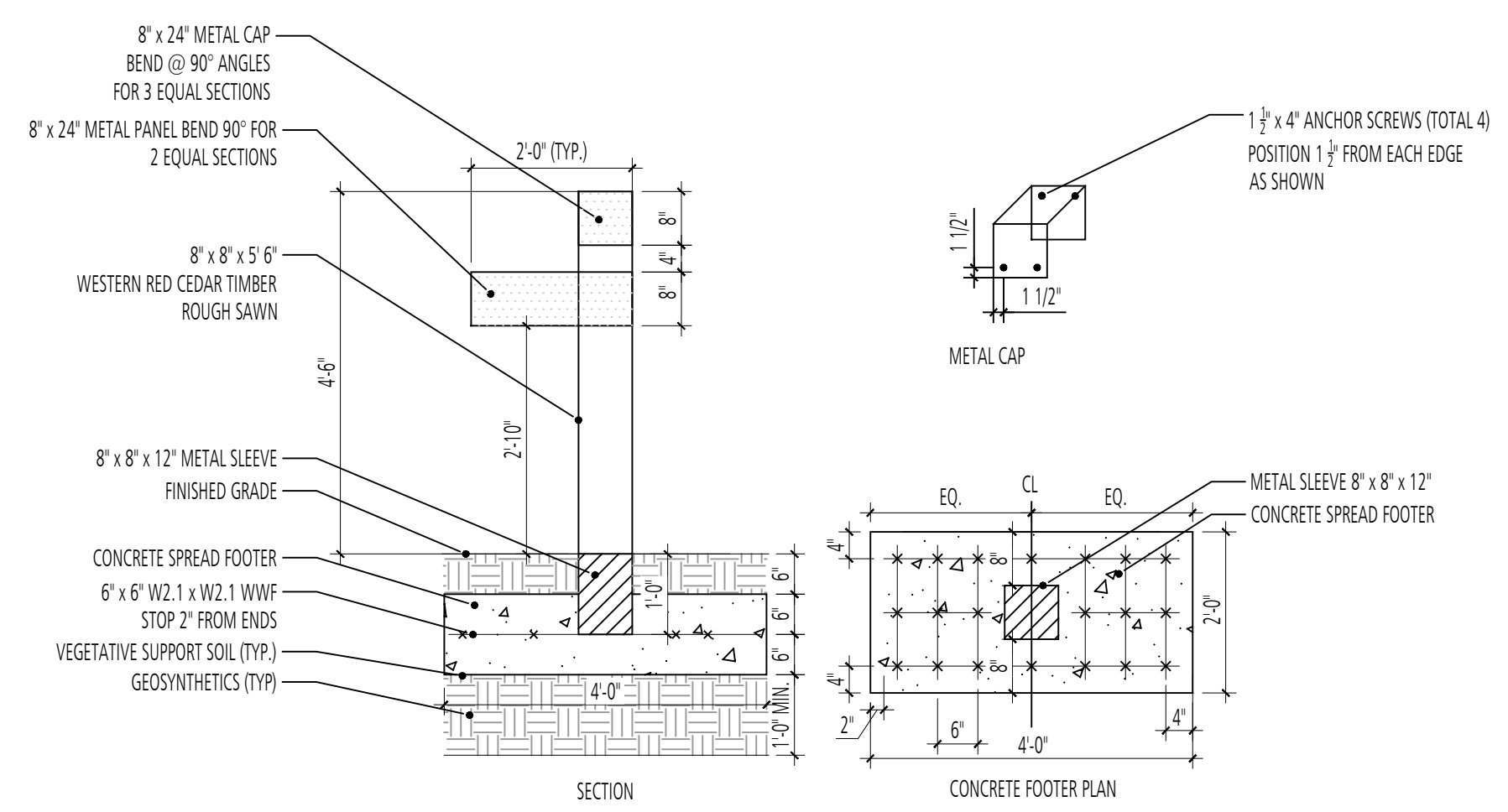
DATE: MARCH 2020
 PROJECT NUMBER: 1564601
L302
 SHEET: 10 OF 12

FILE PATH: P:\PLT\PROJECTS\1888 - GIDE LANDFILL REMEDIATION DESIGN\DETAILS\DWG\L302.DWG (DATE: 03/20/20 2:41 PM)

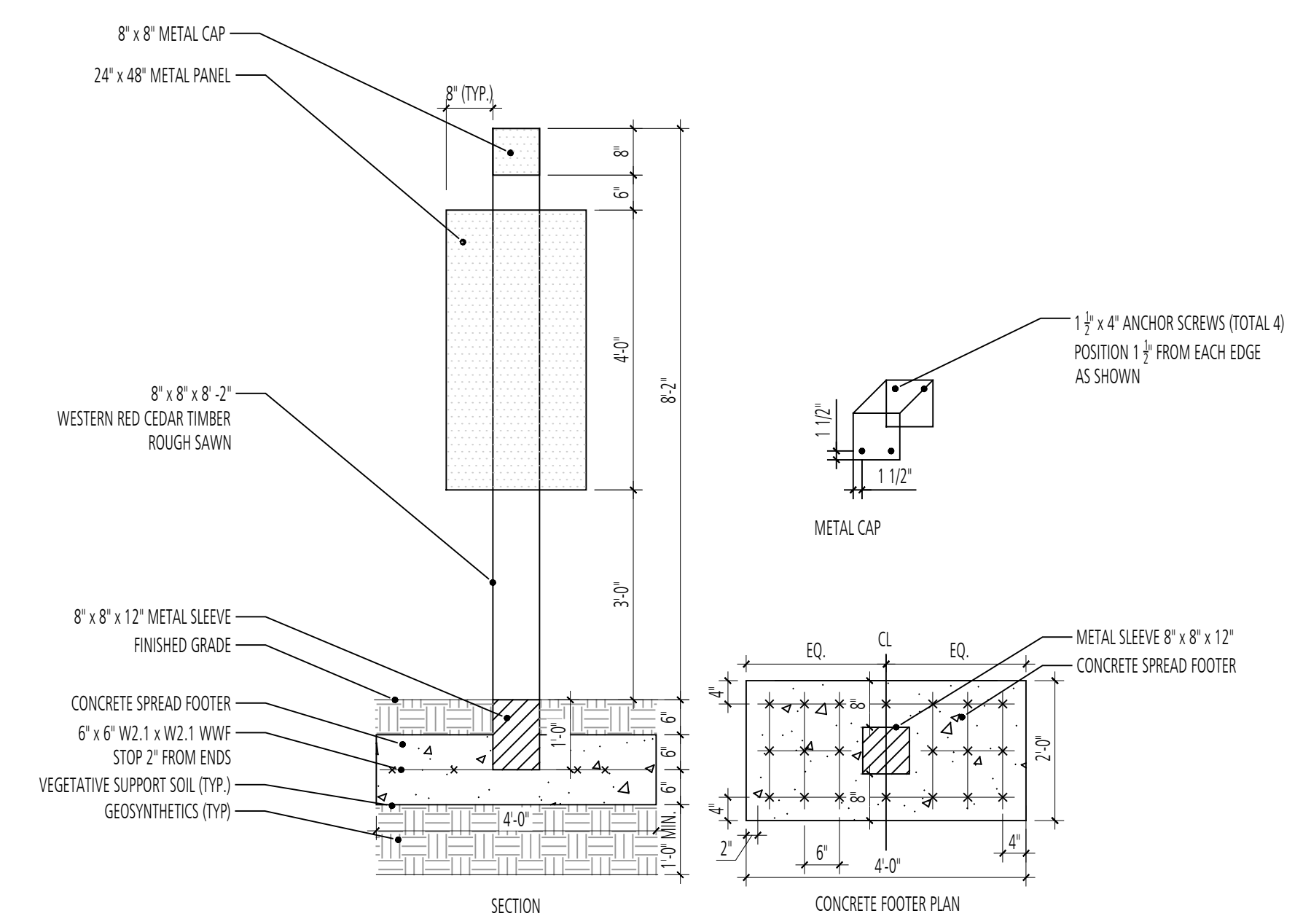
60% CONSTRUCTION DOCUMENTS - NOT FOR CONSTRUCTION



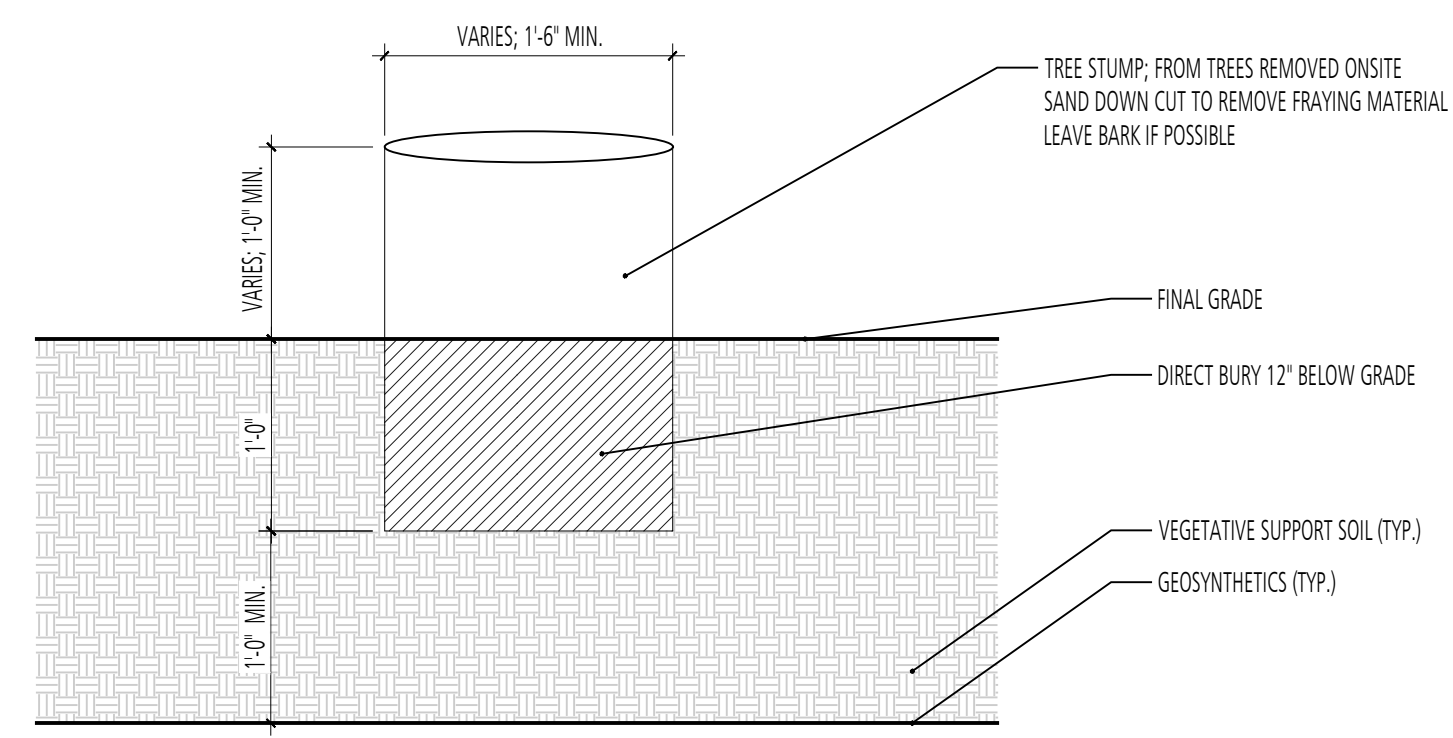
1 TRAIL MARKER SECTION SCALE: 1/2" = 1'-0"



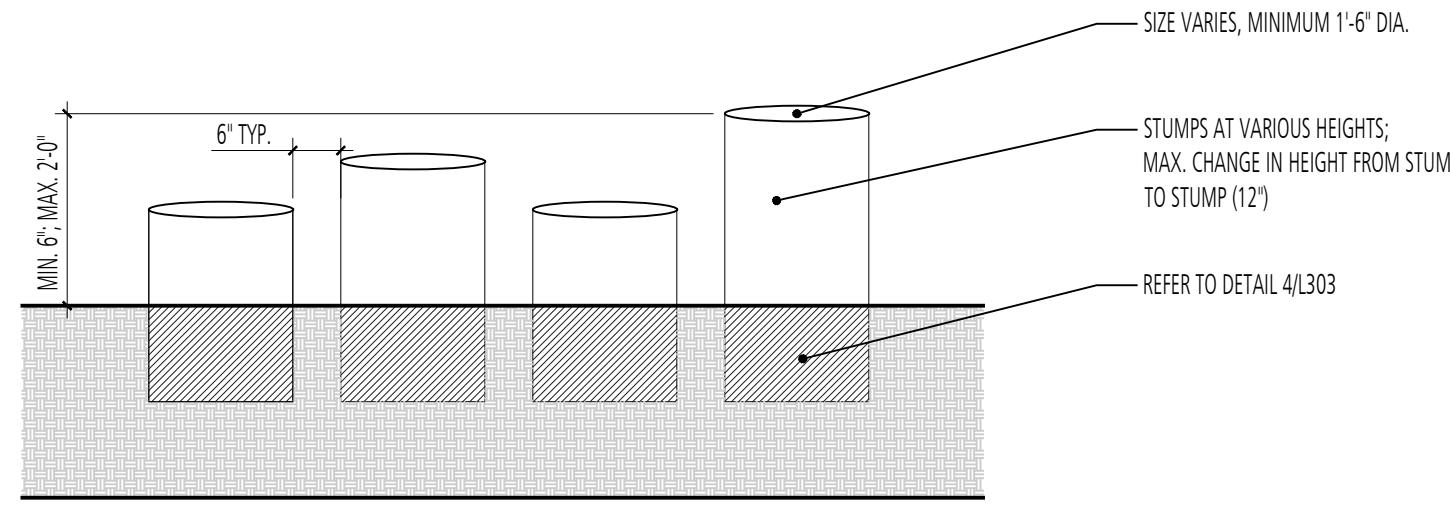
2 DIRECTIONAL SIGN POST SECTION & PLAN SCALE: 1/2" = 1'-0"



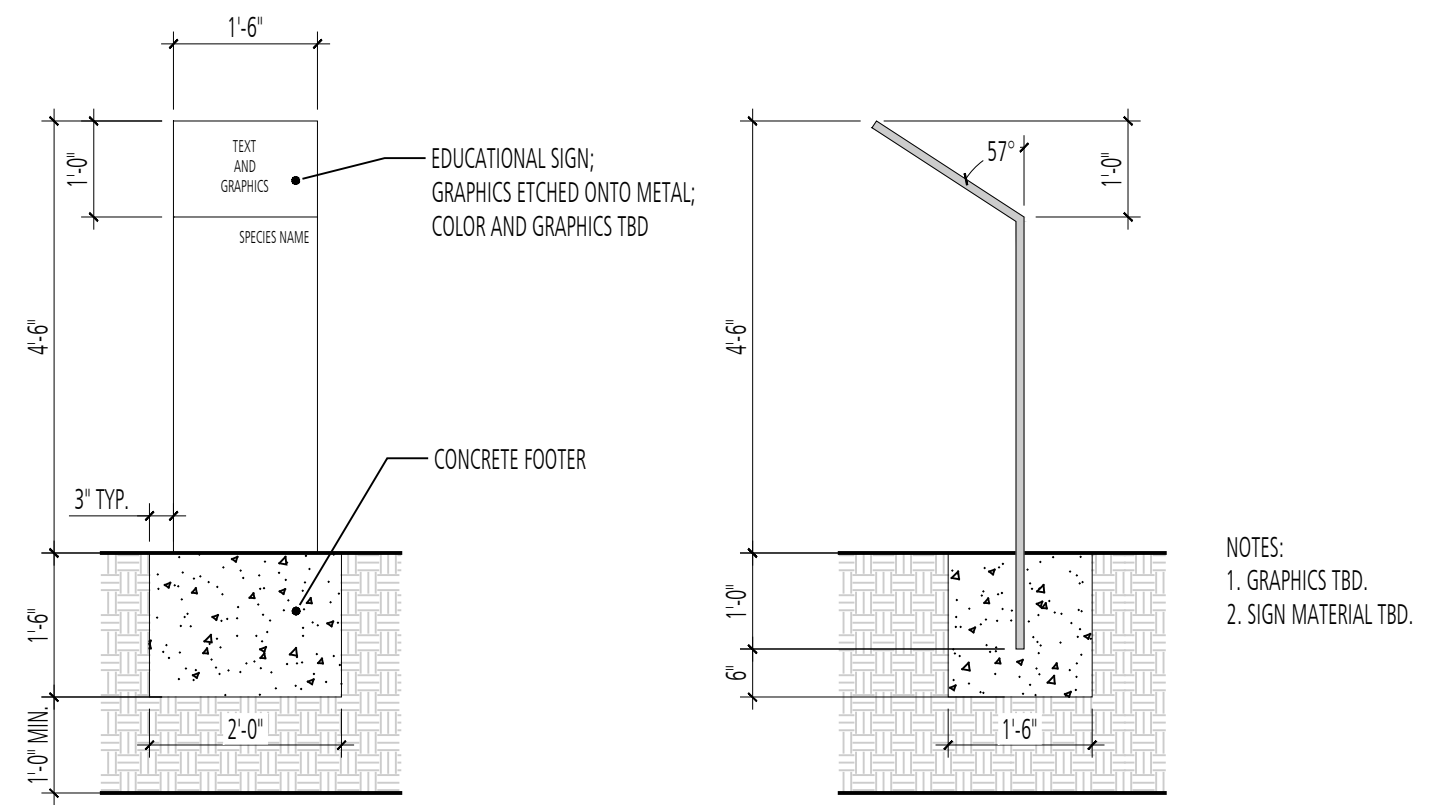
3 INFORMATION SIGN (SMALL) SECTION SCALE: 1/2" = 1'-0"



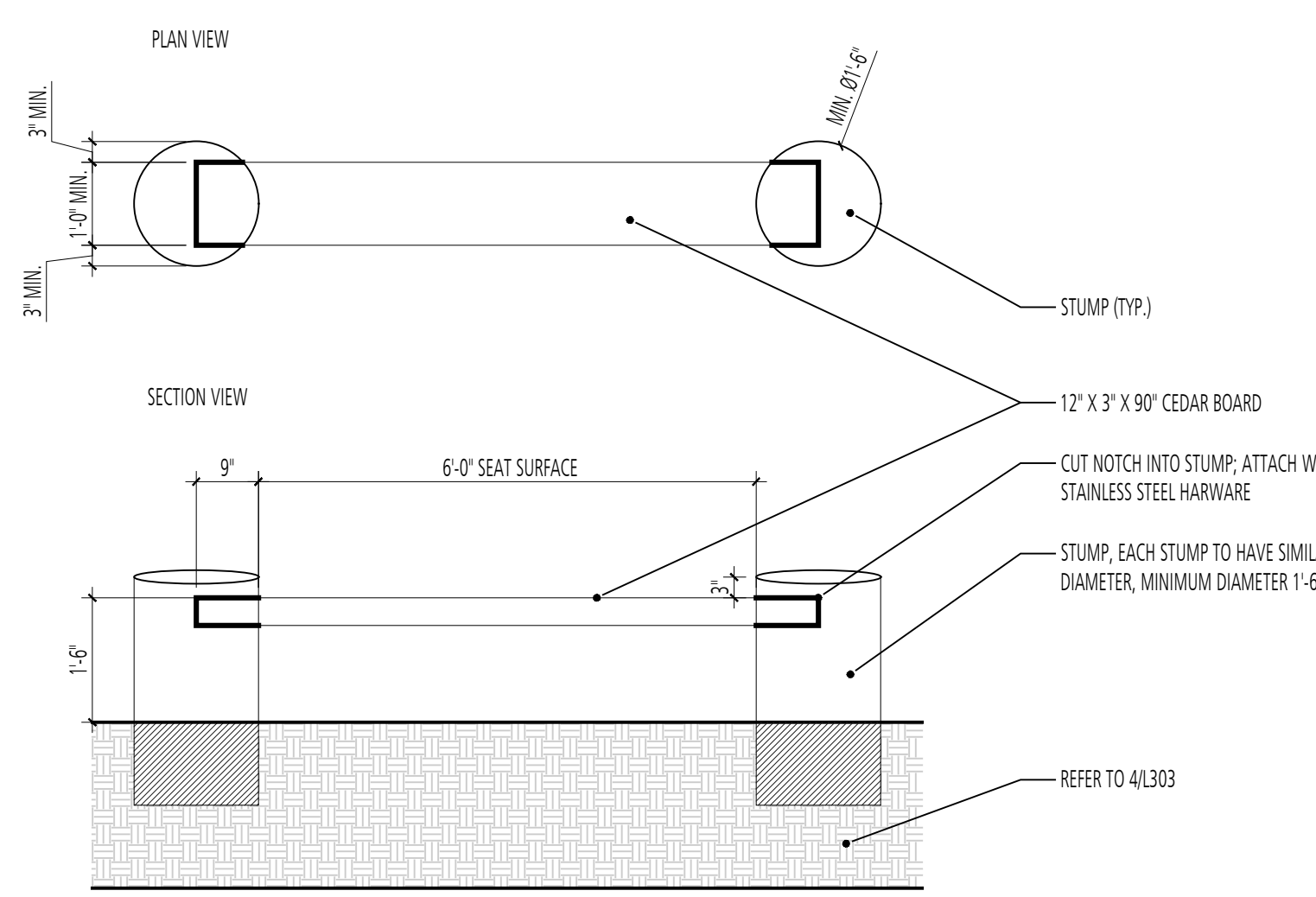
4 STUMP - FOOTER SECTION SCALE: 1" = 1'-0"



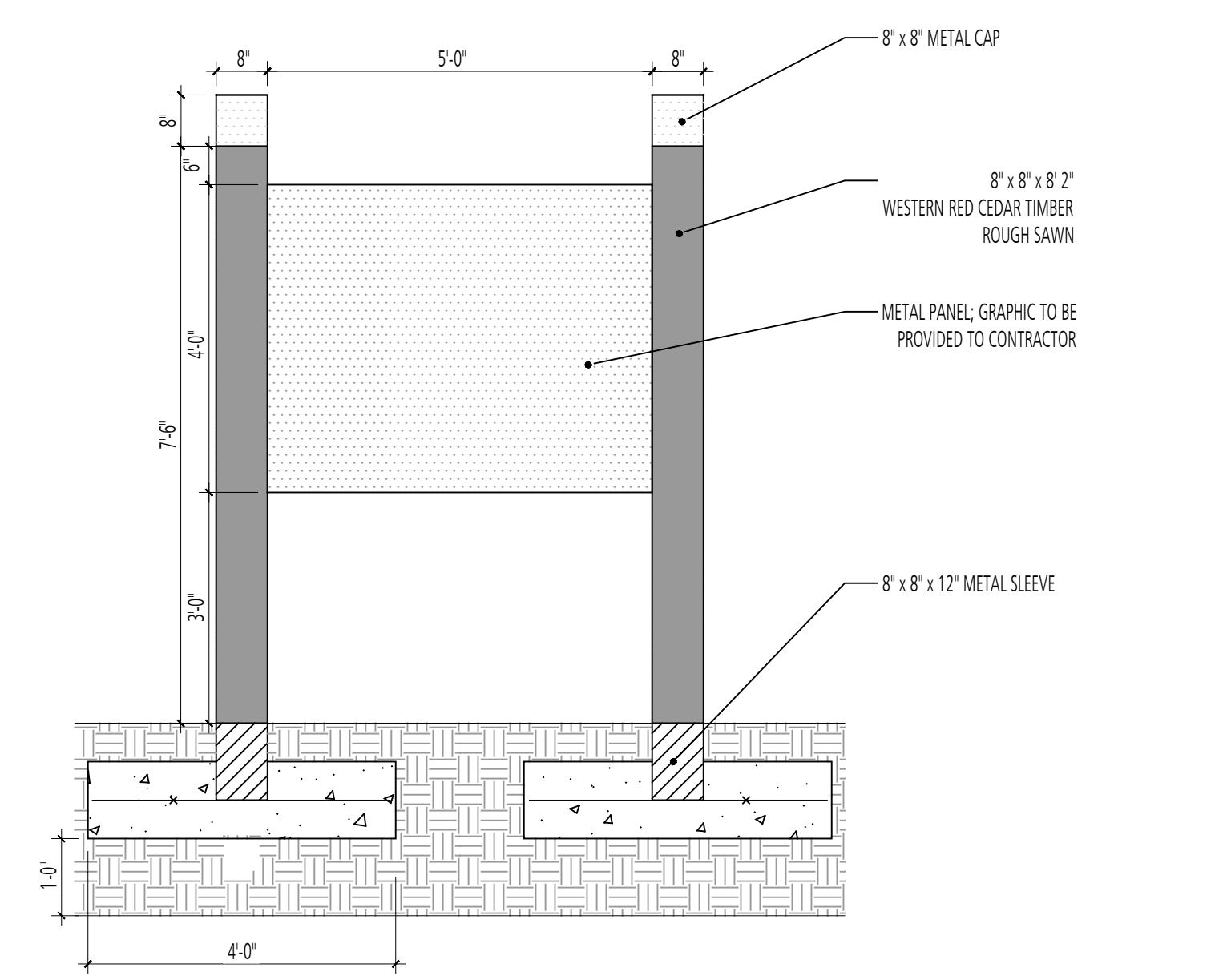
5 STUMP CLIMB SECTION SCALE: 1/2" = 1'-0"



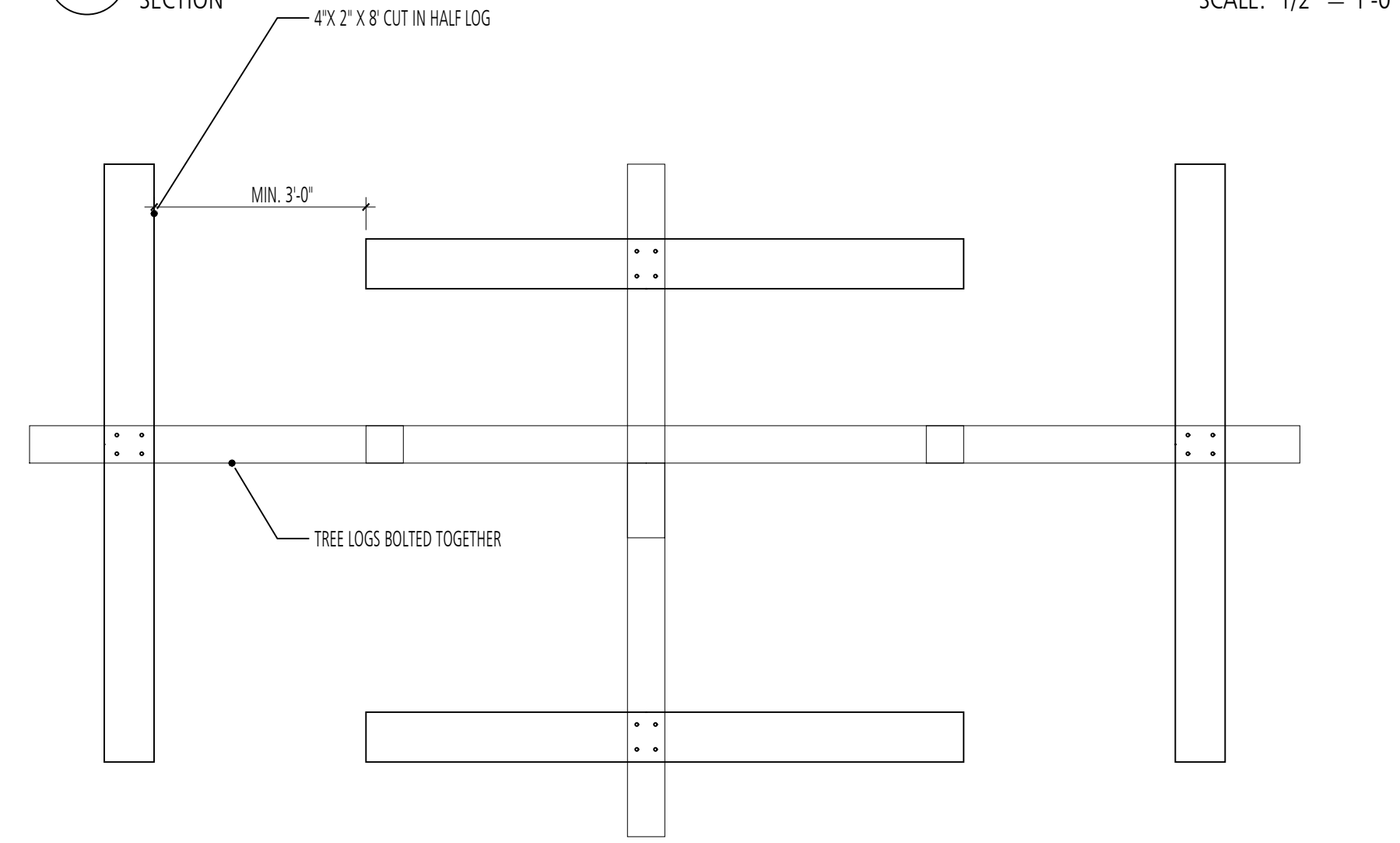
6 EDUCATIONAL POST SECTION SCALE: 1/2" = 1'-0"



7 PARK BENCH PLAN & SECTION SCALE: 1/2" = 1'-0"



8 INFORMATIONAL SIGN (LARGE) SECTION & PLAN SCALE: 1/2" = 1'-0"



9 TEETER TOTTER PLAN SCALE: 1/2" = 1'-0"

REVISIONS		DESCRIPTION	
NO.	DATE	BY	

DESIGN INFORMATION		DESIGNED BY:		DRAWN BY:		CHECKED BY:		PROJECT MANAGER:	
		MM	JCI	MM	MM	MM	MM	MM	MM

PROFESSIONAL CERTIFICATION: I 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. 1099 EXPIRATION DATE: 07/26/2020

GUIDE LANDFILL REMEDIATION DESIGN
NORTHEAST MARYLAND WASTE DISPOSAL AUTHORITY
MONTGOMERY COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION
MONTGOMERY COUNTY, MARYLAND

SITE DETAILS

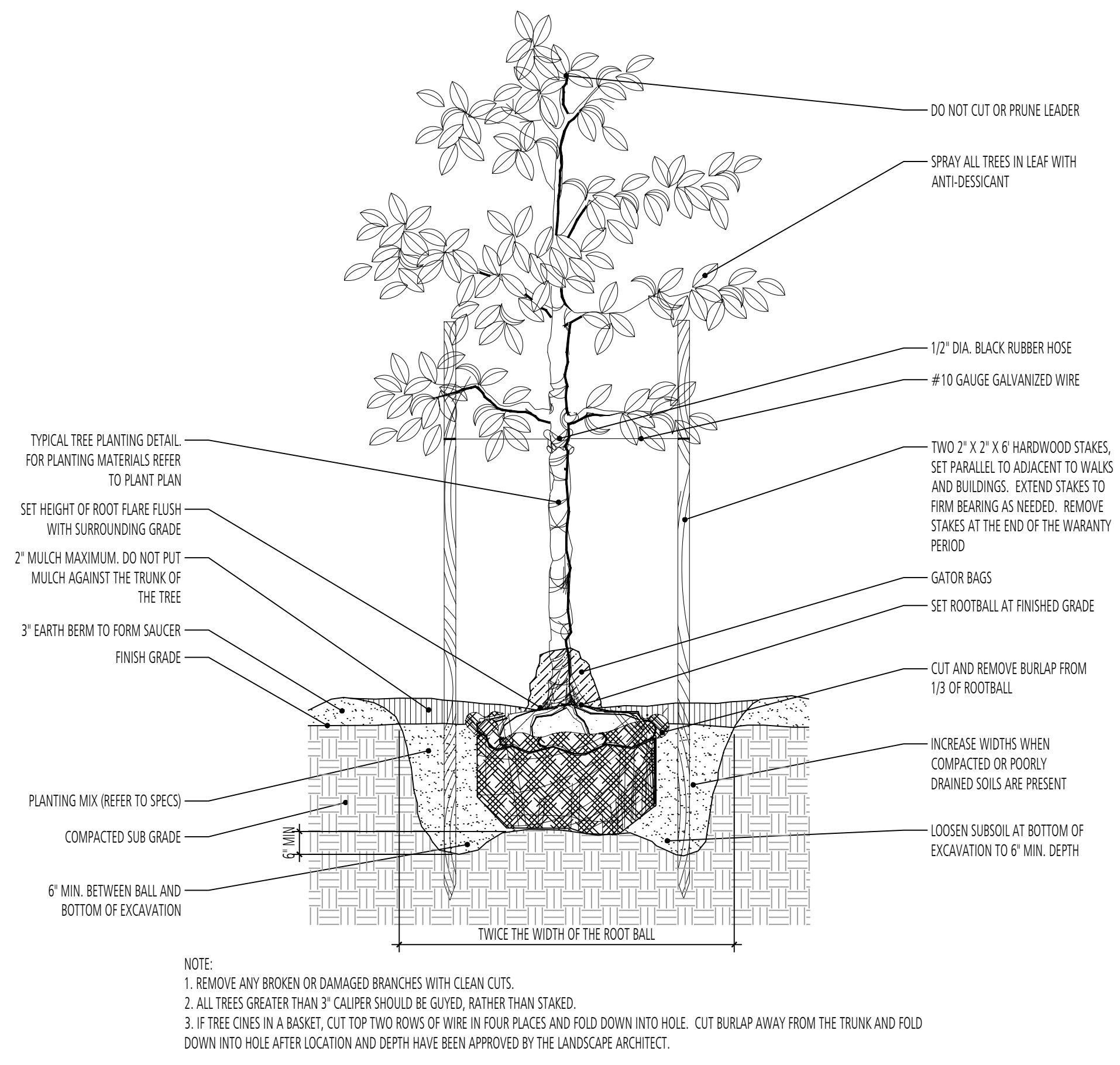
FLOURA TEETER
landscape architects
800 North Charles St. Ste. 300
Baltimore, Maryland 21201
Phone: 410.528.8395
Fax: 410.528.8425

EA
Engineering, Science,
and Technology, Inc., PBC
Hunt Valley Center
225 Schilling Circle, Suite 400
Hunt Valley, Maryland 21031
(410) 584-7000

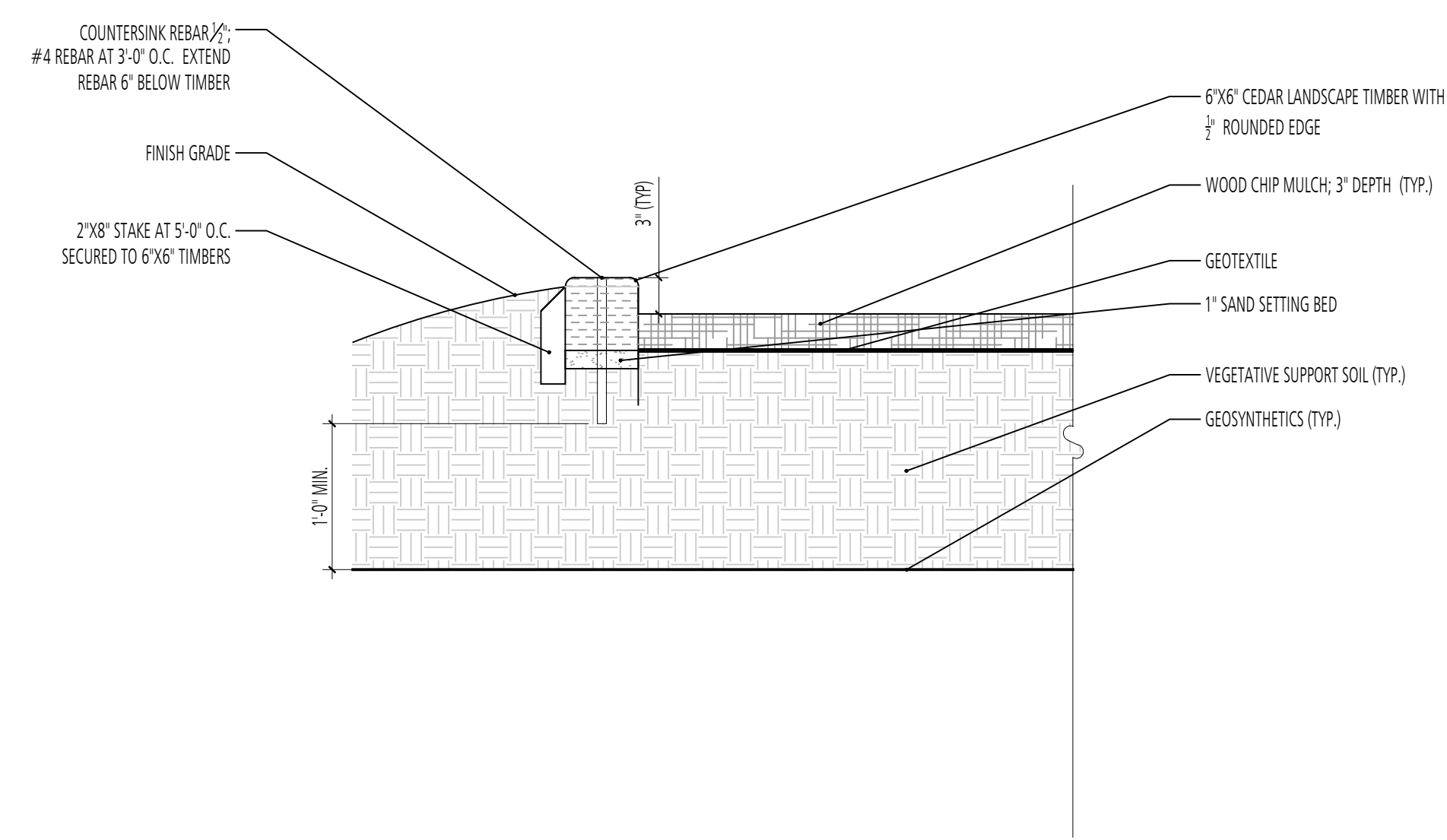
DATE: MARCH 2020
PROJECT NUMBER: 1564601
L303
SHEET: 11 OF 12

FILE PATH: P:\PROJECTS\1808 - GUIDE LANDFILL REMEDIATION DESIGN\DETAILS\DWG\L303 SITE DETAILS.dwg (L303) DATE: 03/20/20 2:42 PM

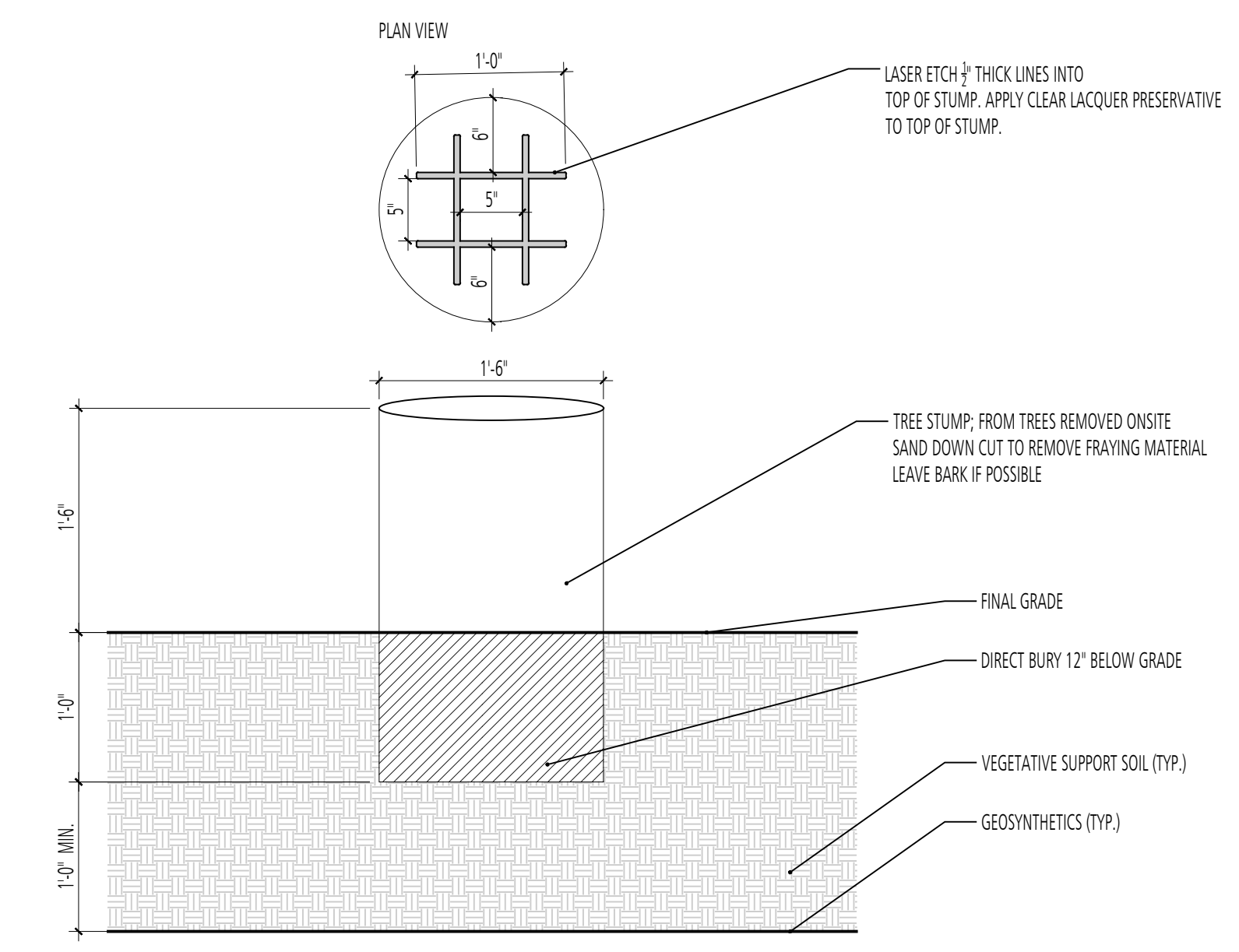
60% CONSTRUCTION DOCUMENTS - NOT FOR CONSTRUCTION



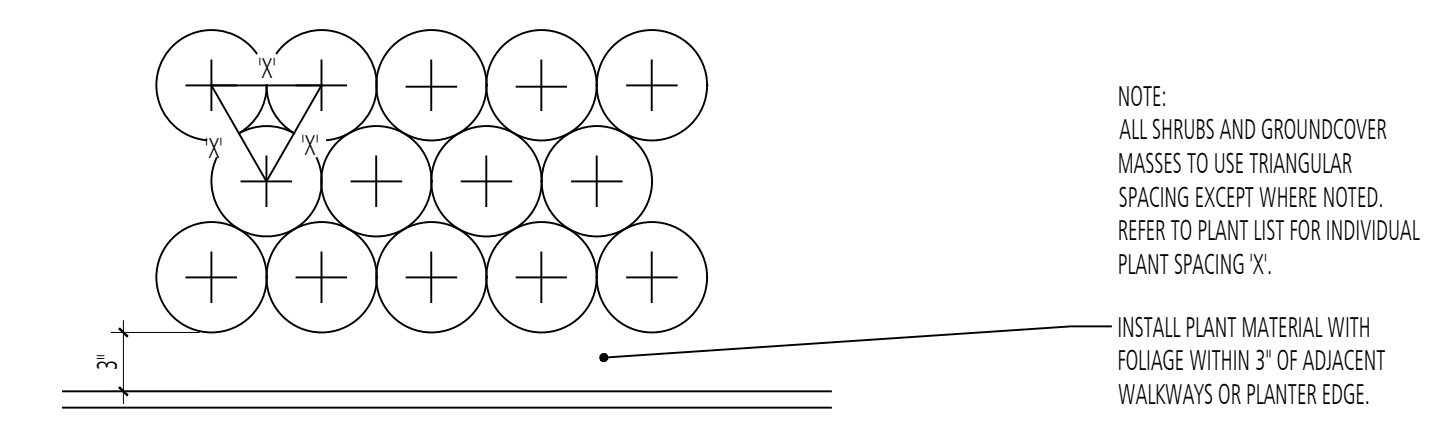
1 TREE PLANTING DETAIL
SECTION
d-tree_planting.dwg
SCALE: 1/2" = 1'-0"



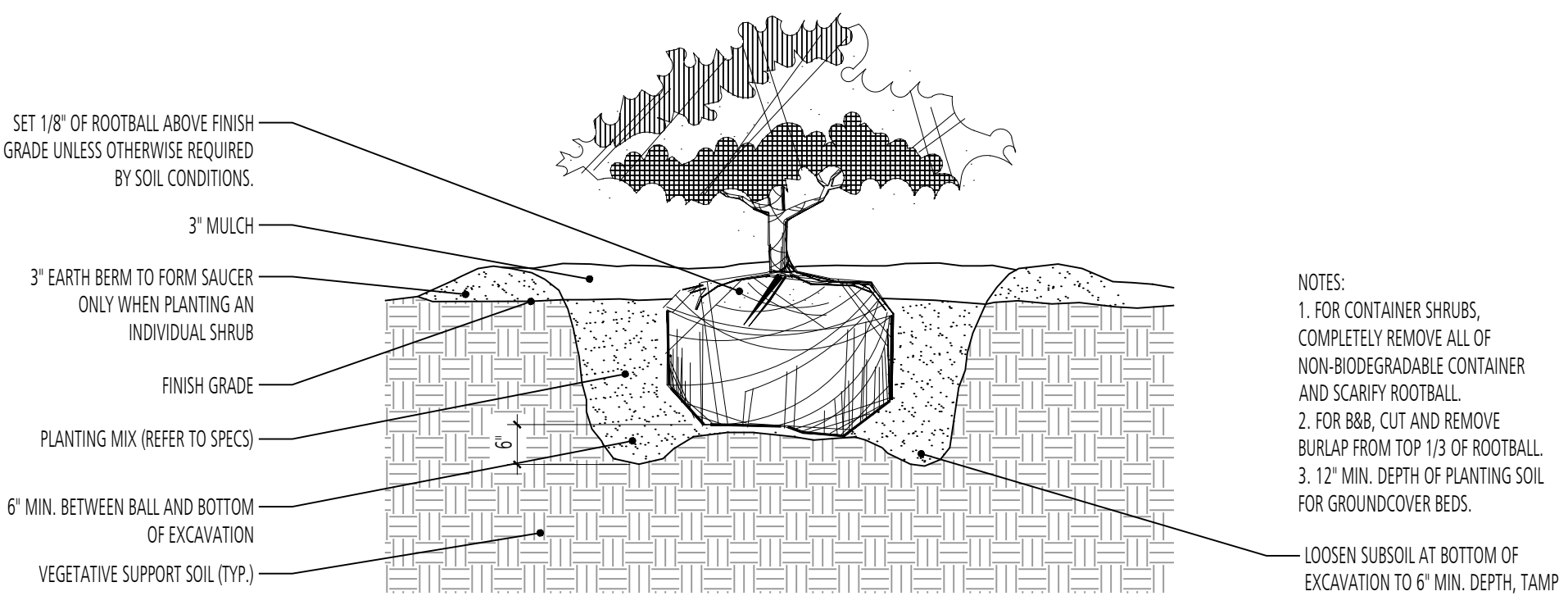
2 MULCH BORDER
SECTION
d-timber_border.dwg
SCALE: 1" = 1'-0"



3 TIC TAC TOE
SECTION
SCALE: 1" = 1'-0"



4 SHRUB AND GROUNDCOVER SPACING DETAIL
PLAN
d-10-26_shrub_planting.dwg
SCALE: 1/2" = 1'-0"



5 SHRUB PLANTING DETAIL
SECTION
d-10-26_shrub_planting.dwg
SCALE: 1/2" = 1'-0"

REVISIONS		DESCRIPTION	
NO.	DATE	BY	

DESIGNED BY:	MM	DRAWN BY:	JCI	CHECKED BY:	MM	PROJECT MANAGER:	MJG
--------------	----	-----------	-----	-------------	----	------------------	-----

PROFESSIONAL CERTIFICATION: I 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. 10993 EXPIRATION DATE: 07/26/2020

GUIDE LANDFILL REMEDIATION DESIGN
NORTHEAST MARYLAND WASTE DISPOSAL AUTHORITY
MONTGOMERY COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION
MONTGOMERY COUNTY, MARYLAND

SITE AND PLANTING DETAILS

FLOURA TEETER
landscape architects
800 North Charles St. Ste. 300
Baltimore, Maryland 21201
Phone: 410.528.8395
Fax: 410.528.8425

EA
EA Engineering, Science, and Technology, Inc., PBC
Hunt Valley Center
225 Schilling Circle, Suite 400
Hunt Valley, Maryland 21031
(410) 584-7000

DATE: MARCH 2020
PROJECT NUMBER: 1564601

L400
SHEET: 12 OF 12

FILE PATH: P:\P\DC\PROJECTS\1888 - GUIDE LANDFILL REMEDIATION DESIGN\DETAILS\DWG\L400-PLANTING DETAILS.DWG (DATE: 03/20/20 9:42 AM)

60% CONSTRUCTION DOCUMENTS - NOT FOR CONSTRUCTION



DISC GOLF TEE POST

EDUCATION POST

DIRECTIONAL SIGN POST

INFORMATION SIGN (SMALL)

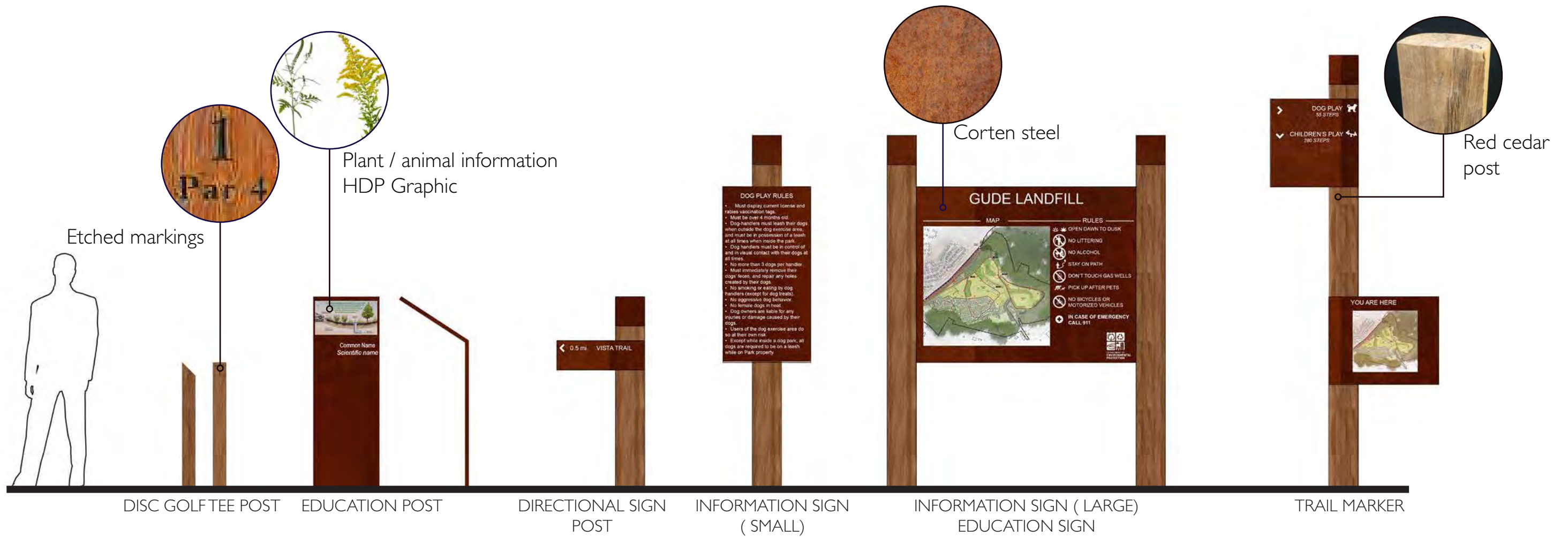
INFORMATION SIGN (LARGE) EDUCATION SIGN

TRAIL MARKER

Gude Landfill Signage

Rockville, Maryland

SIGNAGE TYPOLOGY



Gude Landfill Signage

Rockville, Maryland

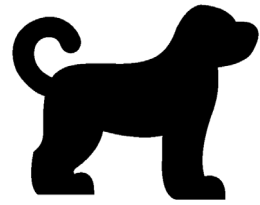
SIGNAGE MATERIALS

**ADELL SANS BOLD
FONT 18 POINT**

**ABCDEFGHIJKLMNOPQRSTUVWXYZ
0123456789**

ADELL SANS ULTRA THIN
FONT 18 POINT

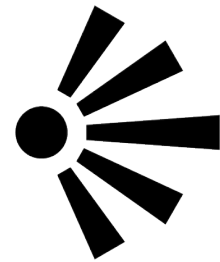
Aa Bb Cc Dd Ee Ff Gg Hh Ii Jj Kk Ll Mm Nn Oo Pp Qq Rr Ss Tt Uu Vv Ww Xx Yy Zz
0 1 2 3 4 5 6 7 8 9



DOG PLAY



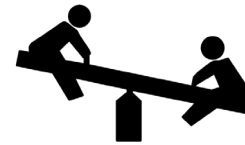
WAYSTATION



OVERLOOK



DISC GOLF



CHILDREN'S PLAY



RIGHT



STRAIGHT



LEFT



BACK



SIGN 1
Barn Owl (*Tyto alba*)



SIGN 2
Bald Eagle (*Haliaeetus leucocephalus*)



SIGN 3
Red-shouldered Hawk (*Buteo lineatus*)



SIGN 4
Cedar waxwing (*Bombycilla cedrorum*)



SIGN 5
American Kestrel (*Falco sparverius*)



SIGN 6
Field Sparrow (*Spizella pusilla*)



SIGN 7
Goldenrod (*Solidago rugosa*)



SIGN 8
Big Bluestem (*Andropogon virginicus*)



SIGN 9
Blackeyed Susan (*Rudbeckia fulgida*)



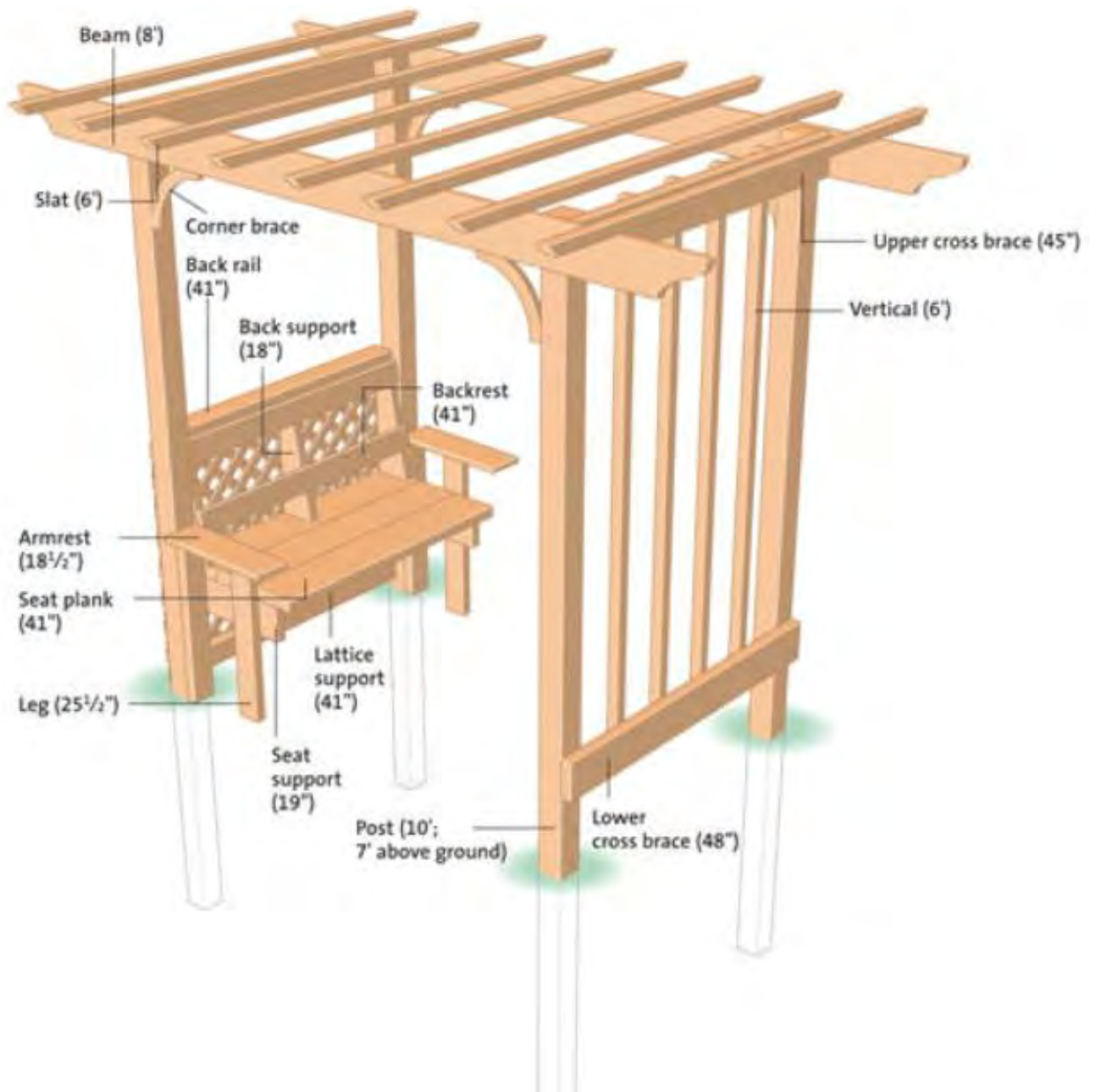
SIGN 10
Common Milkweed (*Asclepias syriaca*)

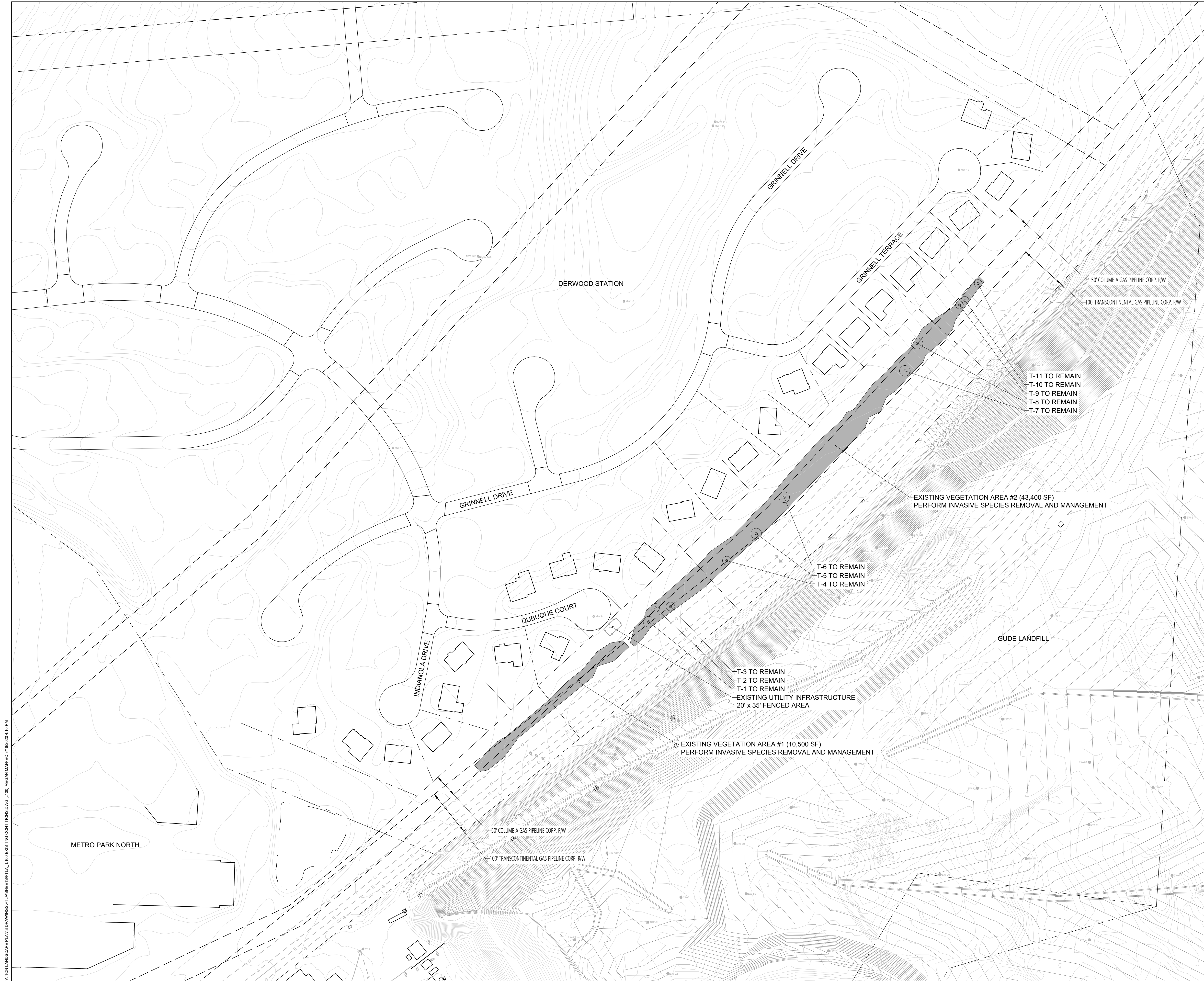


SIGN 11
Virginia Wild Rye (*Elymus virginicus*)



SIGN 12
Tall Boneset (*Eupatorium seratinum*)





EXISTING TREES TO REMAIN (PROTECT IN PLACE)					
SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE (\" DBH)	CONDITION	COMMENTS
T1	<i>Prunus spp.</i>	Cherry	13"	Fair	
T2	<i>Prunus spp.</i>	Cherry	12"	Fair	multi-trunk (2)
T3	<i>Diospyros virginiana</i>	Persimmon	8"	Fair	multi-trunk (2)
T4	<i>Juniperus virginiana</i>	Eastern Red Cedar	14"	Good	
T5	<i>Acer rubrum</i>	Red Maple	11"	Fair	
T6	<i>Ulmus sp.</i>	Elm	20"	Good	
T7	<i>Diospyros virginiana</i>	Persimmon	8"	Fair	
T8	<i>Prunus spp.</i>	Cherry	19"	Fair	
T9	<i>Diospyros virginiana</i>	Persimmon	12"	Good	
T10	<i>Diospyros virginiana</i>	Persimmon	6"	Good	
T11	<i>Diospyros virginiana</i>	Persimmon	6"	Good	

INVASIVE SPECIES REMOVAL AND MANAGEMENT NOTES:
 1. REFER TO THE DERWOOD STATION VEGETATIVE SCREENING INVASIVE SPECIES MANAGEMENT PLAN.

REVISIONS		DESCRIPTION	
NO.	DATE	BY	

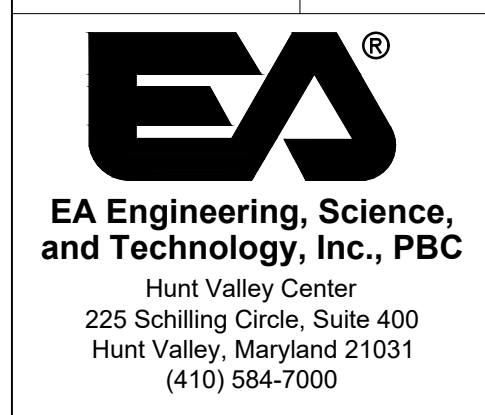
DESIGN INFORMATION

DESIGNED BY:	MM
DRAWN BY:	JCI
CHECKED BY:	MM
PROJECT MANAGER:	MIG

PROFESSIONAL CERTIFICATION: I 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. 1099 EXPIRATION DATE: 07/26/2020

SEAL

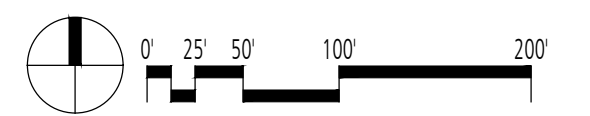
DERWOOD STATION VEGETATIVE SCREENING
 NORTHEAST MARYLAND WASTE DISPOSAL AUTHORITY
 MONTGOMERY COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION
 MONTGOMERY COUNTY, MARYLAND
 EXISTING CONDITIONS PLAN



DATE: MARCH 2020
 PROJECT NUMBER: 1564601

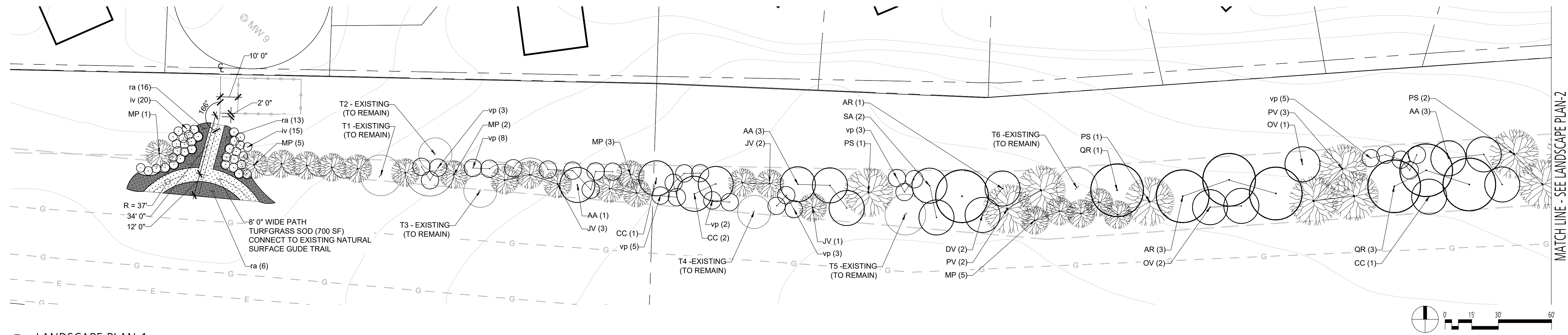
SHEET: 1 OF 3

1 EXISTING CONDITIONS PLAN
 PLAN



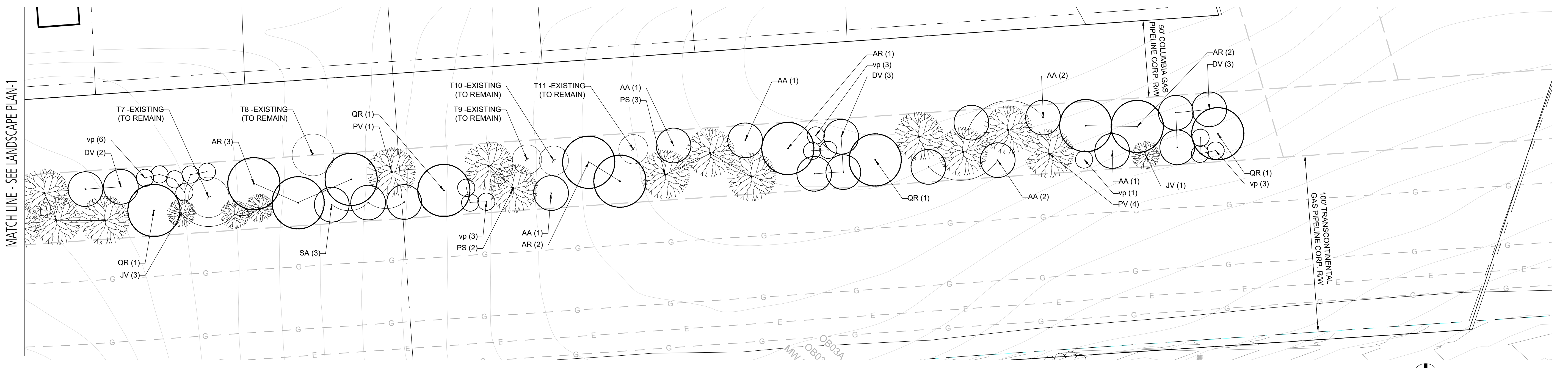
SCALE: 1" = 100'

FILE PATH: P:\PUD PROJECTS\1914 - DERWOOD STATION\LANDSCAPE PLANS\DRAWINGS\FLAME\REVISED\1914-10-19-2020.dwg



1 LANDSCAPE PLAN-1
PLAN

SCALE: 1" = 30'



2 LANDSCAPE PLAN-2
PLAN

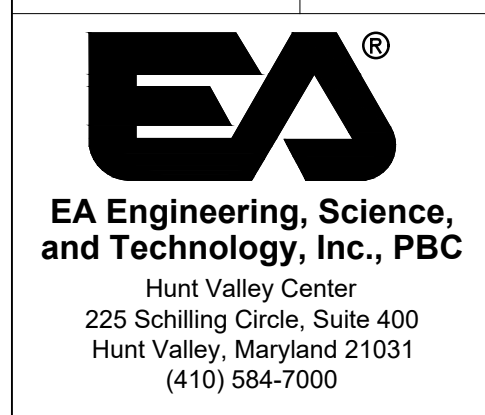
SCALE: 1" = 30'

PLANT SCHEDULE						
KEY	QTY	BOTANICAL NAME	COMMON NAME	SIZE	ROOT	REMARKS
CANOPY TREES						
AR	12	<i>Acer rubrum</i>	Red Maple	2" Cal.	B&B	
QR	8	<i>Quercus rubra</i>	Red Oak	2" Cal.	B&B	
UNDERSTORY TREES						
AA	15	<i>Amelanchier arborea</i>	Serviceberry	5' Ht.	B&B	
CC	4	<i>Cercis canadensis</i>	Redbud	5' Ht.	B&B	
DV	10	<i>Dispyros virginiana</i>	Persimmon	2" Cal.	B&B	
MP	16	<i>Myrica pensylvanica</i>	Northern Bayberry	5' Ht.	B&B	Plant 10% as matched male pollinator
OV	3	<i>Ostrya virginiana</i>	Ironwood	2" Cal.	B&B	
SA	5	<i>Sassafras albidum</i>	Sassafras	2" Cal.	B&B	
EVERGREEN TREES						
JV	10	<i>Juniperus virginiana</i>	Eastern Red Cedar	5' Ht.	B&B/Cont.	
PS	9	<i>Pinus strobus</i>	White Pine	5' Ht.	B&B/Cont.	
PV	10	<i>Pinus virginiana</i>	Virginia Pine	5' Ht.	B&B/Cont.	
SHRUBS						
iv	35	<i>Ilex verticillata</i>	Winterberry	36" Ht.	B&B/Cont.	5' O.C.
ra	35	<i>Rhus aromatica 'Low Grow'</i>	Low Grow Fragrant Sumac	36" Ht.	B&B/Cont.	5' O.C.
vp	45	<i>Viburnum prunifolium</i>	Blackhaw Viburnum	36" Ht.	B&B/Cont.	5' O.C.
MISC. ITEMS/SEED MIXES						
	700	Turfgrass Sod (SF)				

GENERAL PLANTING NOTES:

- A PARK PERMIT IS REQUIRED TO PERFORM THIS WORK.
- NOTICE SHALL BE PROVIDED TO M-NCPPC PARKS THREE-DAYS IN ADVANCE OF START OF ANY WORK.
- CONTRACTOR MUST CONTACT MISS UTILITY TO LOCATE ALL EXISTING UTILITIES AND PROVIDE PROOF AND WRITTEN CONFIRMATION FOR UTILITY LOCATION TO M-NCPPC. CONTRACTOR TO PROVIDE NOTICE TO UTILITY COMPANIES PRIOR TO BEGINNING ANY WORK.
- CONTRACTOR IS ONLY ALLOWED TO PROCEED WITH TREE AND SHRUB PLANTING AFTER INITIAL INVASIVE SPECIES REMOVAL AND MANAGEMENT HAS BEEN IMPLEMENTED WHICH INCLUDES HERBICIDE TREATMENT, DEBRIS REMOVAL, AND MOWING.
- PLANT MATERIAL TYPES AND SIZES MAY VARY DUE TO MARKET AVAILABILITY AT TIME OF CONSTRUCTION. ANY SUBSTITUTIONS ARE TO BE OF EQUIVALENT TYPE AND SIZE, AND MUST BE APPROVED IN WRITING BY THE LANDSCAPE ARCHITECT. FOR SHRUB CONTAINERIZED STOCK, B7B STOCK MAY BE SUBSTITUTED WITH WRITTEN APPROVAL BY THE LANDSCAPE ARCHITECT.
- WHERE THE CONDITION EXISTS THAT B&B TREES ARE DELIVERED IN WIRE BASKETS, THE WIRE BASKETS SHALL BE CUT DOWN THE SIDE OF EACH MESH AND PEELED AWAY FROM THE ROOTBALL OR REMOVED IN ENTIRETY. NO PORTION OF THE WIRE BASKET SHALL REMAIN INTACT AROUND THE SIDES OF THE ROOTBALL OR EXTEND ABOVE FINISHED GRADE.
- ALL WORK SHALL BE IN COMPLIANCE WITH MONTGOMERY COUNTY PARK DEVELOPMENT DIVISION STANDARD SPECIFICATIONS FOR CONSTRUCTION.
- M-NCPPC ESTABLISHED PLANTING SEASONS:
 - DECIDUOUS AND EVERGREEN TREES AND SHRUBS: OCTOBER 15 - APRIL 15
 - PERENNIAL PLANTS: MARCH 15 - JUNE 15 AND SEPTEMBER 15 - NOVEMBER 15
- CONTRACTOR TO STAKE OUT LIMIT OF WORK.
- DISTURBANCE SHALL BE LIMITED TO ONLY THE AREA OF WORK THAT CAN BE COMPLETED IN ONE DAY. NO EXPOSED PLANTING PITS SHALL BE EXPOSED OVERNIGHT.
- PLANTS SHALL BE IN ACCORDANCE WITH AMERICAN STANDARD FOR NURSERY STOCK ANSI Z60.1, LATEST EDITION, AMERICAN NURSERY & LANDSCAPE ASSOCIATION. PLANTS SHALL BE INSPECTED BY THE M-NCPPC CONSTRUCTION MANAGER FOR QUALITY AND COMPLIANCE PRIOR TO INSTALLATION.
- ALL INDIVIDUAL TREES SHALL RECEIVE A 2" LAYER OF SHREDDED HARDWOOD MULCH TO COVER THE ENTIRE EXCAVATED AREA OF THE PLANT PIT.
- PROVIDE DEER PROTECTION DEVICES FOR TREES AND SHRUBS.
- ALL PLANTINGS SHALL BE GUARANTEED BY THE CONTRACTOR FOR A TWO-YEAR MAINTENANCE PERIOD. INSPECTION BY M-NCPPC PARKS SHALL BE REQUESTED AT THE END OF THE TWO-YEAR MAINTENANCE PERIOD. FOR ANY REPLACEMENT PLANTS REQUIRED, A RE-INSPECTION WILL OCCUR AT THE END OF THE GROWING SEASON FOLLOWING REPLANTING. IF ADDITIONAL CORRECTIONS ARE REQUIRED AN ADDITIONAL MAINTENANCE PERIOD AND SUBSEQUENT INSPECTION WILL BE REQUIRED.
- INVASIVE SPECIES CONTROL IS A REQUIREMENT OF THE TWO-YEAR MAINTENANCE PERIOD. REFER TO THE DERWOOD STATION VEGETATIVE SCREENING INVASIVE SPECIES MANAGEMENT PLAN PREPARED FOR THIS SITE.
- ANY DAMAGE TO THE EXISTING UTILITIES, FENCES, PAVING, CURB, WALLS, TURFGRASS, OR VEGETATION (NOT DESIGNATED FOR REMOVAL ON THESE PLANS) SHALL BE REPAIRED TO PREVIOUS CONDITION OR REPLACED BY THE CONTRACTOR AT THEIR EXPENSE.
- ALL AREAS DISTURBED DURING CONSTRUCTION ARE TO BE SEEDDED UNLESS NOTED OTHERWISE.

DERWOOD STATION VEGETATIVE SCREENING
NORTH-EAST MARYLAND WASTE DISPOSAL AUTHORITY
MONTGOMERY COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION
MONTGOMERY COUNTY, MARYLAND
LANDSCAPE PLANS

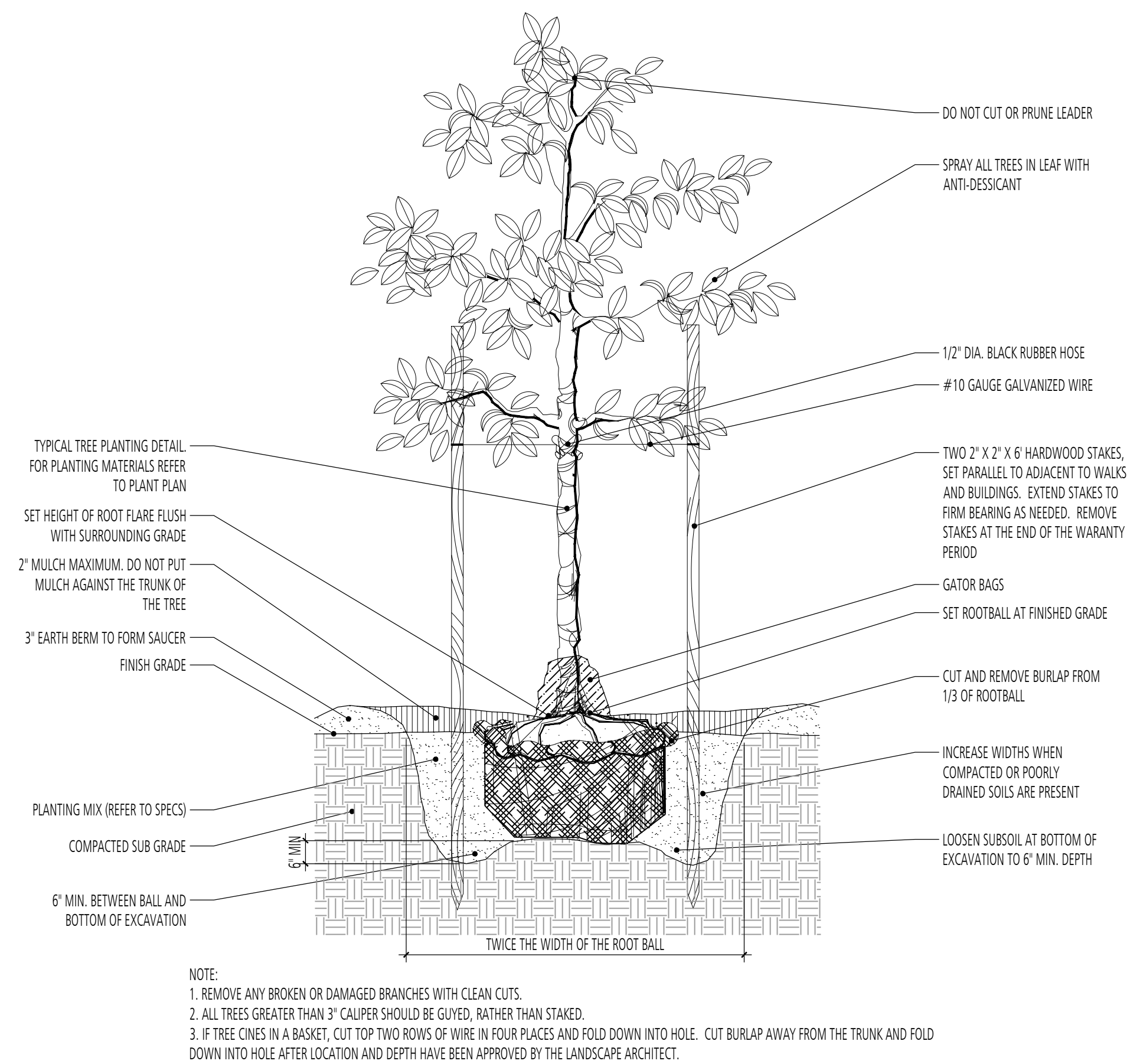


DATE: MARCH 2020
PROJECT NUMBER: 1564601

FILE PATH: P:\P\PROJECTS\1814 - DERWOOD STATION LANDSCAPE PLANS\DRAWINGS\PLANS\LANDSCAPE PLANS\LANDSCAPE PLAN-01.DWG (3/20/20) MONTGOMERY COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION

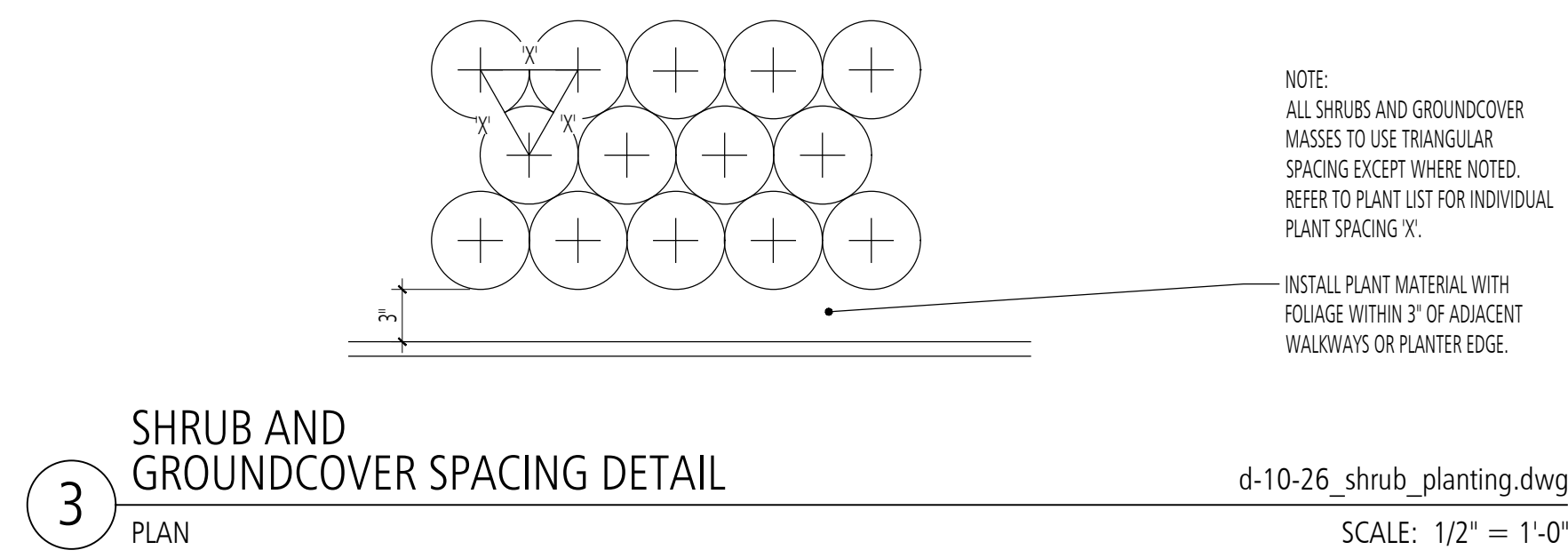
DESIGN INFORMATION		REVISIONS	
DESIGNED BY:	MM	NO.	DATE
DRAWN BY:	JCI	BY:	
CHECKED BY:	MM		
PROJECT MANAGER:	MJG		
PROFESSIONAL CERTIFICATION: I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A FULLY LICENSED LANDSCAPE ARCHITECT UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 1099 EXPIRATION DATE: 07/26/2020			

FILE PATH: P:\PLD\PROJECTS\1814 - DERWOOD STATION LANDSCAPE PLANS\DRAWINGS\PLANTING\DETAILS\1814-0111.dwg



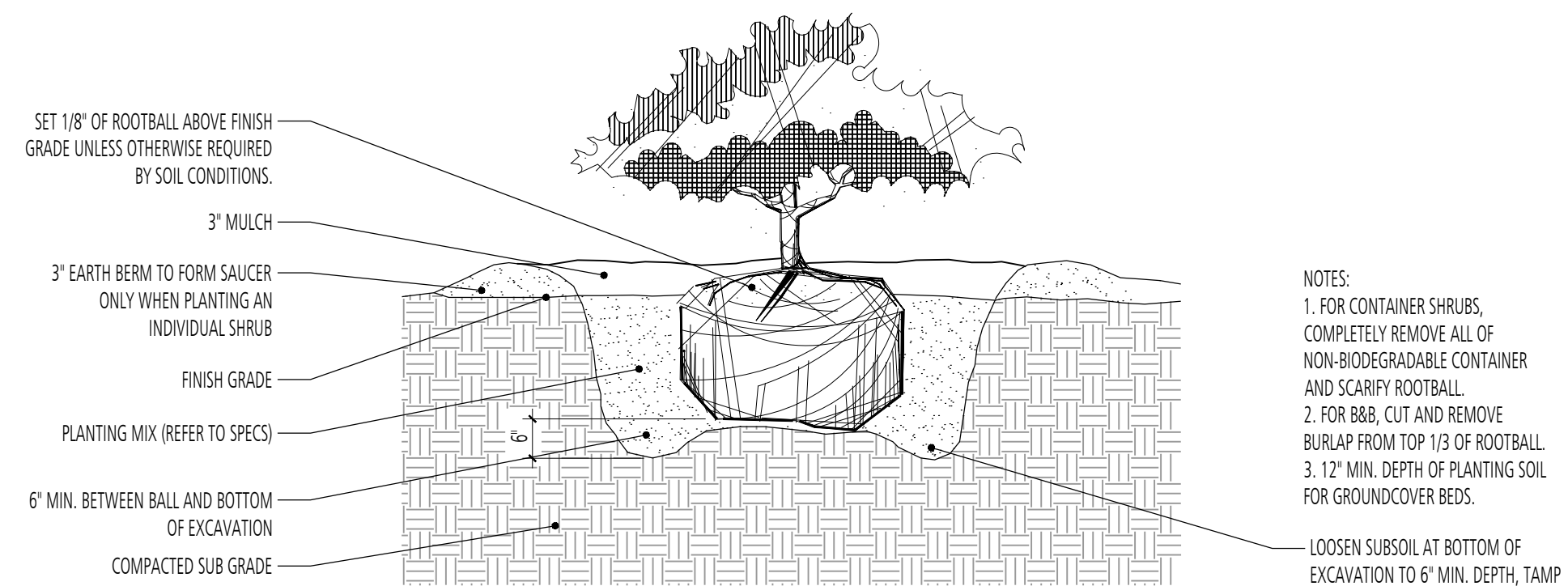
1 TREE PLANTING DETAIL SECTION

d-tree_planting.dwg
SCALE: 1/2" = 1'-0"



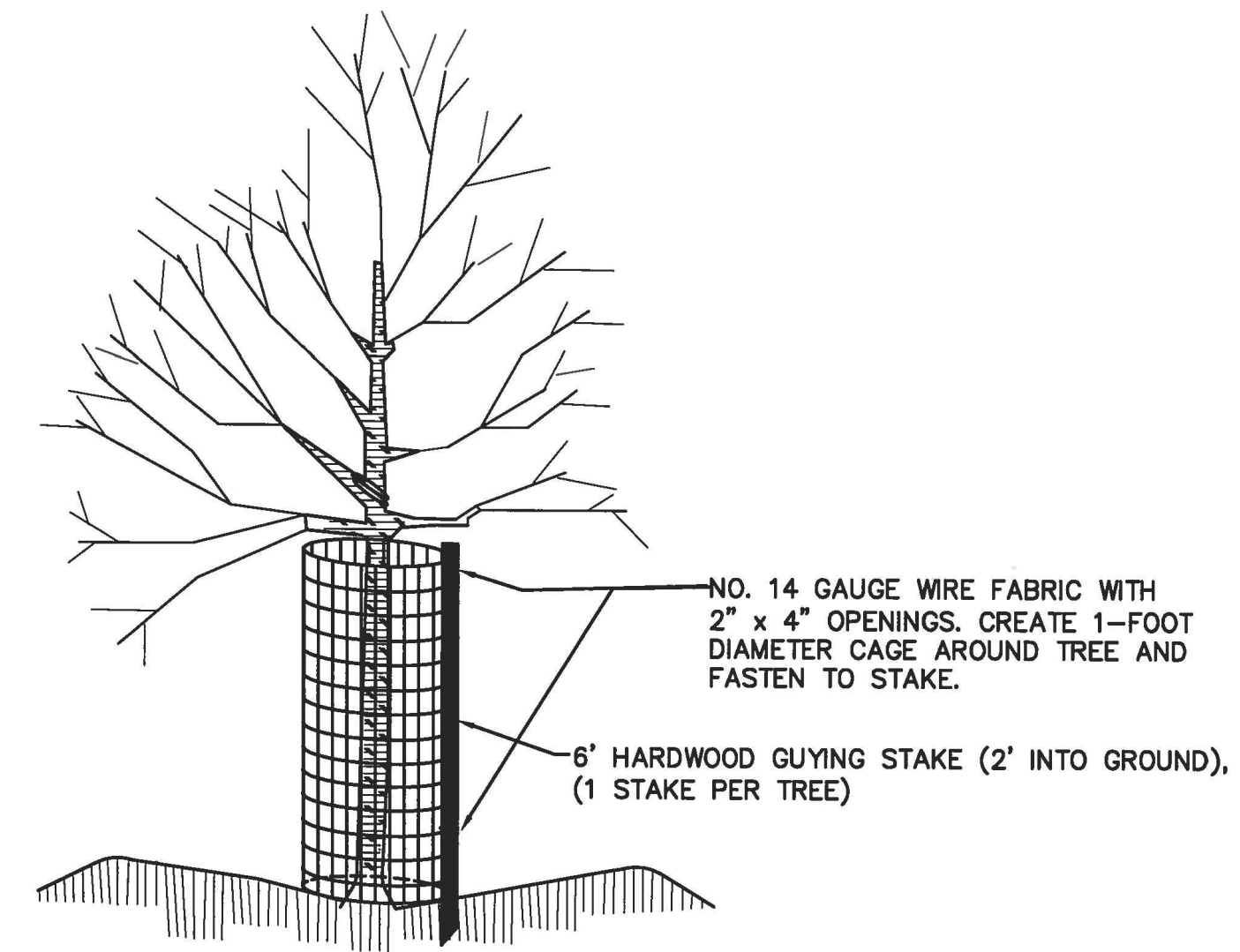
3 SHRUB AND GROUNDCOVER SPACING DETAIL PLAN

d-10-26_shrub_planting.dwg
SCALE: 1/2" = 1'-0"



4 SHRUB PLANTING DETAIL SECTION

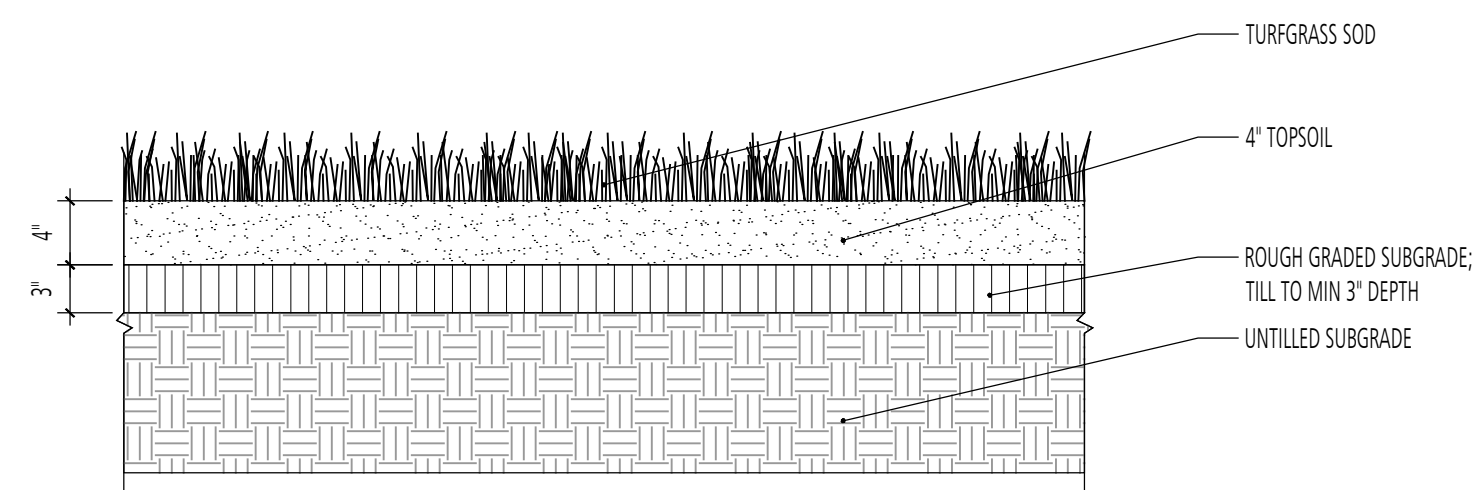
d-10-26_shrub_planting.dwg
SCALE: 1/2" = 1'-0"



6 DEER PROTECTION CAGE SECTION

d-grndcover_planting.dwg
SCALE: 1/2" = 1'-0"

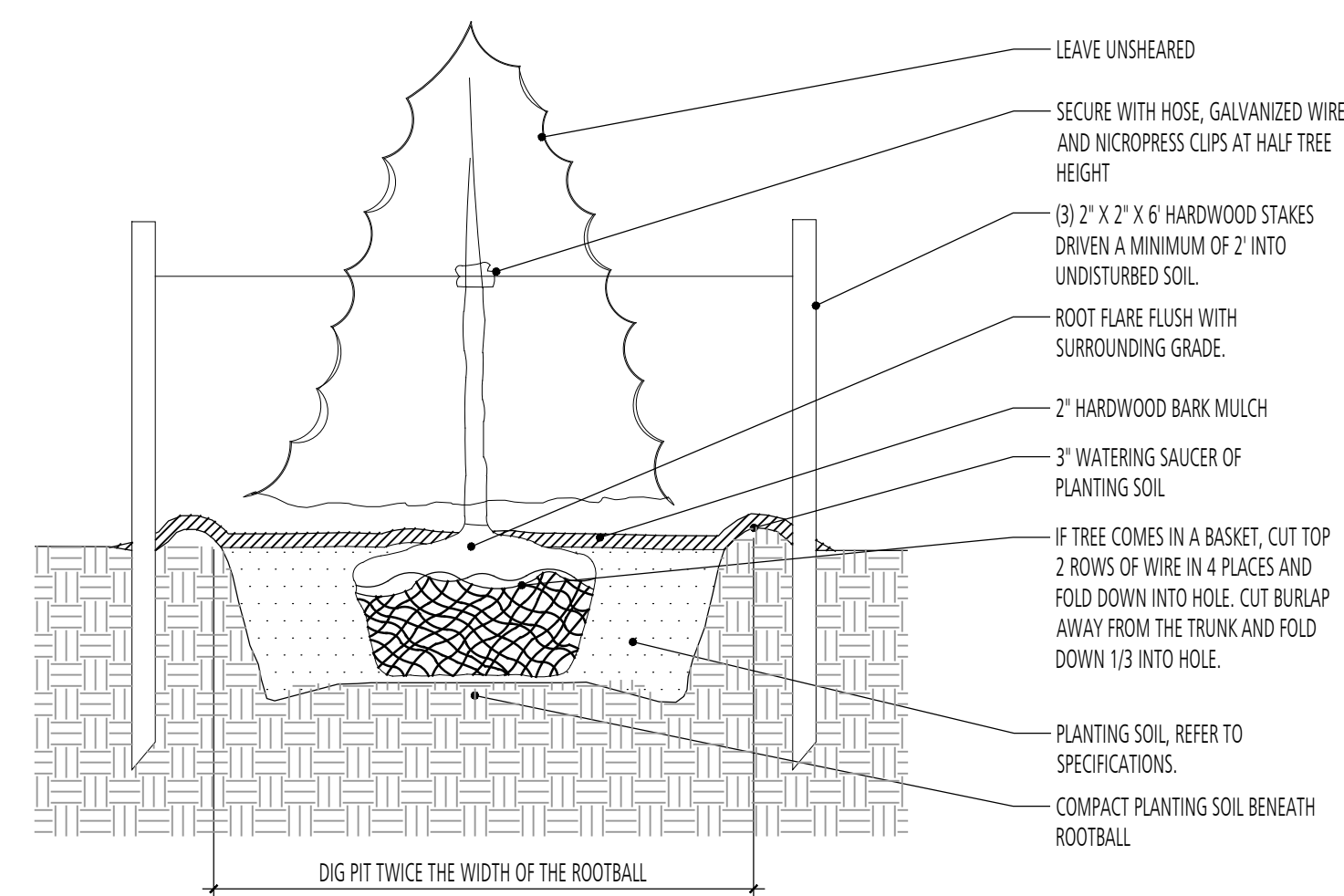
- NOTES:
- HEIGHT OF CAGE SHALL BE 4-FEET (MIN.)
 - CAGE SHALL BE FASTENED TO STAKE WITH TWO (MIN.) 11-INCH RELEASABLE CABLE TIES (ONE AT TOP AND ONE 6" (MIN.) ABOVE THE GROUND).
 - DO NOT DAMAGE TREE DURING INSTALLATION.
 - DEER BARK PROTECTORS (ITEM #bg48, BY A.M. LEONARD, OR EQUAL) MAY BE SUBSTITUTED FOR TREES GREATER THAN 3/4" CALIPER. ALL OTHER SUBSTITUTIONS MUST BE APPROVED BY FOREST ECOLOGIST.
 - CAGES TO BE REMOVED AT DIRECTION OF FOREST ECOLOGIST.
 - ENSURE CAGE IS SECURE TO GROUND TO PREVENT UPLIFT BY DEER.



5 LAWN DETAIL - SOD (TYP.) SECTION

d-lawn detail sod.dwg
SCALE: 1" = 1'-0"

- LAWN SEEDING PREPARATION NOTES:
- ROTOILL SUBGRADE TO A DEPTH OF 3 INCHES PRIOR TO PLACEMENT OF TOPSOIL.
 - FINE GRADE AREA PRIOR TO SOD INSTALLATION.
 - PROTECT SODDED AREAS FROM SUBSEQUENT CONSTRUCTION ACTIVITY.



2 EVERGREEN TREE PLANTING DETAIL SECTION

d-ever-tree.dwg
SCALE: 1/2" = 1'-0"

DERWOOD STATION VEGETATIVE SCREENING
NORTHEAST MARYLAND WASTE DISPOSAL AUTHORITY
MONTGOMERY COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION
MONTGOMERY COUNTY, MARYLAND

PLANTING DETAILS

EA
EA Engineering, Science,
and Technology, Inc., PBC
Hunt Valley Center
225 Schilling Circle, Suite 400
Hunt Valley, Maryland 21031
(410) 584-7000

DATE: MARCH 2020
PROJECT NUMBER: 1564601

REVISIONS		DESCRIPTION	
NO.	DATE	BY	
DESIGN INFORMATION			
DESIGNED BY:	MM		
DRAWN BY:	JCI		
CHECKED BY:	MM		
PROJECT MANAGER:	MM		
PROFESSIONAL CERTIFICATION: I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A FULLY LICENSED LANDSCAPE ARCHITECT UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 1099 EXPIRATION DATE: 07/26/2020			



Derwood Station Vegetative Screening Invasive Species Management Plan Montgomery County, Maryland

Prepared for

Department of Environmental Protection
Recycling and Resource Management Division
Montgomery County, Maryland

Prepared by

Floura Teeter Landscape Architects, Inc.
800 N. Charles Street, Suite 300
Baltimore, Maryland 21201
(410) 528-8395

Under Contract to

EA Engineering, Science, and Technology, Inc., PBC
225 Schilling Circle, Suite 400
Hunt Valley, Maryland 21031
(410) 584-7000

March 14, 2020
Version: DRAFT
EA Project No. 1556407

This page intentionally left blank

TABLE OF CONTENTS

	<u>Page</u>
LIST OF ACRONYMS AND ABBREVIATIONS	ii
1. INTRODUCTION	1
2. SURVEY METHODOLOGY	2
3. SURVEY FINDINGS	2
4. INVASIVE SPECIES CONTROL METHODS	3
4.1 MECHANICAL TREATMENT	3
4.2 CHEMICAL TREATMENT	4
5. INVASIVE SPECIES REMOVAL AND MANAGEMENT	5
5.1 SPECIAL CONSIDERATIONS & NOTIFICATIONS	5
5.2 SEQUENCE OF IMPLEMENTATION	6
5.3 IMPLEMENTATION SCHEDULE	9
APPENDIX A – EXISTING CONDITIONS PLAN	10
APPENDIX B – PHOTOGRAPHIC DOCUMENTATION	12
APPENDIX C – CONTACT INFORMATION	13

LIST OF ACRONYMS AND ABBREVIATIONS

the Authority	Northeast Maryland Waste Disposal Authority
the County	Montgomery County Department of Environmental Protection, Recycling and Resource Management Division
M-NCPPC	Maryland-National Capital Park and Planning Commission
DEP	Department of Environmental Protection
EA	EA Engineering, Science, and Technology, Inc., PBC
FTLA	Floura Teeter Landscape Architects, Inc.
GLCC	Gude Landfill Concerned Citizens
the Project Team	EA, FTLA, the County
the Design Team	EA, FTLA
the Landfill	Gude Landfill
the ISMP	Invasive Species Management Plan

1. INTRODUCTION

Study Area

The Montgomery County Department of Environmental Protection, Recycling and Resource Management Division (the County) has identified the open space corridor located between the Derwood Station residential community and Gude Landfill (the Landfill) as an opportunity to provide an enhanced vegetated buffer between the two land uses. The open space corridor adjacent to residential uses is approximately 190-feet in width and 2,000-feet in length. The corridor is encumbered by two gas utility easements and underground gas lines that are maintained through regular mowing to restrict woody vegetation growth. There is a variable width strip of land between the utility easements that is not maintained regularly where woody vegetation, including trees and shrubs, have established. In addition, invasive shrub and vine species dominate the unmaintained vegetated area. In order to proceed with implementation of new plantings to provide enhanced vegetative screening, management of invasive species is required.

Objective and Methodology

In support of this project, Floura Teeter Landscape Architects, Inc. (FTLA), under contract to EA Engineering, Science, and Technology, Inc., PBC (EA), has prepared this Invasive Species Management Plan (ISMP) to detail efforts to control and remove invasive plant species growth within the project corridor.

The objective of the ISMP is to provide detailed methods for controlling and removing invasive species in order to promote the success of the project's landscape plantings. The ISMP follows the best management practices outlined in the document, Best Management Practices for Control of Non-Native Invasives, January 2015, prepared by Montgomery-National Capital Park and Planning Commission (M-NCPPC).

The best management practice for managing invasive vegetation is using integrated vegetation management. Integrating multiple control methods, mechanical and chemical, has been found to successfully reduce invasive and undesirable vegetation and encourage the establishment of healthy vegetative communities. The general approach is to employ mechanical means as a first method and chemical means as a follow up method only when necessary and in the least amount and least harmful chemical necessary to accomplish the task. Additionally, targeting project specific species observed during site visits and timing best management practices for when they are most effective allows for greater success in achieving management goals.

2. SURVEY METHODOLOGY

FTLA conducted a visual survey of the corridor on two separate field visits in order to observe location, species, and density of invasive species through a full growing season. In addition, FTLA observed and recorded location, species, and condition of desired woody vegetation.

Invasive species targeted in the survey included plants recognized by the Maryland Department of Agriculture and Montgomery County, Maryland, as non-native and invasive.

3. SURVEY FINDINGS

Field visits were conducted on August 2, 2019 and March 13, 2020 to document location, species, and density of vegetation within the study area. An Existing Conditions Plan, **Appendix A**, identifies the location of invasive species within the study area. **Appendix B** provides photographic documentation illustrating typical infestation levels within the study area. The greatest concern is the abundance of native and non-native vines that have overtaken or are in the process of overtaking trees and shrubs. Existing conditions of trees and shrubs were overwhelmingly in poor condition due to the affects for vine growth. Vines growth was observed in the tree canopy in effect smothering woody vegetation by blocking access to sunlight, in addition, circumnutating causing tree girdling was observed from vine species that twist around tree trunks and branches. If removal and management is not implemented, continued degradation of existing trees may cause a hazard concern.

Table 1: Observed species #Species identified as an invasive species by Maryland Department of Agriculture and/or Montgomery County, Maryland	
Tree Species	
Common Name	Botanical Name
Callery Pear	<i>Pyrus calleryana</i> #
Wild Cherry	<i>Prunus avium</i>
Eastern Red Cedar	<i>Juniperus virginiana</i>
Scarlet Oak	<i>Quercus coccinea</i>
Slippery Elm	<i>Ulmus rubra</i>
Honeylocust	<i>Gleditsia triacanthos</i>
Persimmon	<i>Diospyros virginiana</i>
Red Maple	<i>Acer rubrum</i>
Dogwood	<i>Cornus florida</i>
Bush Honeysuckle	<i>Lonicera spp.</i> #
Vine Species	
Common Name	Botanical Name
Japanese Honeysuckle	<i>Lonicera japonica</i> #
Grapevine	<i>Vitis vinifera</i>

Poison Ivy	<i>Toxicodendron radicans</i>
Virginia Creeper	<i>Parthenocissus quinquefolia</i>
Porcelain Berry	<i>Ampelopsis brevipedunculata</i> #
Wisteria	<i>Wisteria sinensis</i>
English Ivy	<i>Hedera helix</i> #
Oriental Bittersweet	<i>Celastrus orbiculatus</i> #

Herbaceous Species	
Common Name	Botanical Name
Japanese Silvergrass	<i>Miscanthus sinensis</i> #
Chinese Bushclover	<i>Lespedeza cuneata</i>
Common Milkweed	<i>Asclepias syriaca</i>
Boneset	<i>Eupatorium perfoliatum</i>
Wineberry	<i>Rubus phoenicolasius</i> #
Wingstem	<i>Verbesina alternifolia</i>
Multiflora Rose	<i>Rosa multiflora</i> #

4. INVASIVE SPECIES CONTROL METHODS

The general approach is to employ mechanical means as a first method and chemical means as a follow up method only when necessary and in the least amount and least harmful chemical necessary to accomplish the task. Additionally, targeting project specific species observed during site visits and timing best management practices for when they are most effective allows for greater success in achieving management goals. To use the least amount of chemical necessary, timing (season, weather pattern, temperature, plant physiology) is critical; use chemicals only when they are most effective.

The extent and density of invasive vine growth within the study area imposes a need to proceed with invasive species management in advance of installation of new tree or shrub planting.

4.1 MECHANICAL TREATMENT

Mechanical removal techniques include the full range of vegetation control and removal activities using power tools and hand tools. Tools should be clean, properly maintained, and blades sharpened to ensure efficient operation.

Common power tools are mowers, including bush-hog type equipment; chain saws, power pruners, and power trimmers with various attachments. Hand tools (or non-power tools) include pole saws and pole pruners; a variety of handsaws; brush axes and brush hooks; machetes, bank blades and sling blades; mattocks, axes, and pulaski axes; shovels and spading forks; loppers, hand pruners, and hedge shears; and lever-based tools such as the now-out of manufacture, Weed Wrench.

Mowing/Bush-Hogging

This technique is useful as a way to control large areas where infestations spread horizontally forming monocultures in open fields and along forest edges. Where such infestations are accessible to bush-hogs, vines with stems up to 4 inches in diameter can be cut prior to follow-up treatment with herbicides or smaller tools. Use of bush-hogs or mowers can be appropriate where the vegetation is accessible to mowing equipment and use of the equipment would not damage desired vegetation or create unwanted disturbance.

Chain Saws, Power Pruners, Power Trimmers

Smaller or more sensitive natural areas need tools that allow for more precision. These are power tools that are carried by hand into treatment areas. In many cases, these tools are used to cut plant stems and then apply herbicide. Chain saws can be used to limit disturbance in dense undergrowth. A combination of hand tools (a rake) and power tools (chain saw) can treat a tangle of vines more effectively than either alone. Power pruners (or hedge trimmers) can cut vines much faster than several people with hand pruners or saws.

Reference to specific tools is included with the detailed recommendations for management of target invasive species included in the following section.

4.2 CHEMICAL TREATMENT

Chemical application of herbicide treatment is recommended only when necessary and in the least amount and least harmful chemical necessary to accomplish the task.

All chemical spot-treatments will be applied using low-volume back-pack sprayers. Care will be taken to avoid broadleaf landscape plantings and other desirable vegetation from direct spray, drift, and or volatilization of herbicides. Monitoring of temperature and wind speed and use of drift control adjuvants will be used as appropriate.

Cut Stem Treatments

Cut stem (or cut surface) treatments are useful for treating vines, shrubs, and trees. Cut stem treatments involve cutting woody stems and applying small volumes of concentrated herbicides directly to the exposed stem surface. Two methods are identified for this treatment cut stump method and the hack and squirt method, both can be performed year round as long as the ground is not frozen or snow-covered and air temperatures will be above 45°F during the middle of the day. Backpack sprayers or spray bottles are very effective for these methods.

Cut Stump/Cut Stem Method: Cut plant stems horizontally at or near ground level; all cuts should be level, smooth, and free of debris. Immediately (within 20 minutes) apply the herbicide to the cut surface. Delayed application may reduce the effectiveness of treatment.

Window Treatment Method: Cut climbing vines on trees near the base and several inches higher up to kill the upper portions of the vine. It is best to remove this small piece of vine if it can be done without removing the bark from the tree. Do not pull vines from trees. Uncut stems may

allow whole plant to survive cutting. Be careful to cut each stem. Portions of vines that stay rooted will remain alive and must later be treated with herbicide, pulled out, or cut repeatedly until no re-growth occurs.

Foliar Treatments

Foliar applications involve spraying the leaves of target species with a low concentration (dilute) mixture of herbicide in accordance with label instructions. If foliar treatment is being used in combination with mechanical treatment, allow enough time to pass after mechanical treatment for good leaf growth; without leaves, the herbicide will not be absorbed. Foliar treatments should be done during the active growing season, after full leaf expansion in the spring and before fall colors are visible. Foliar Spraying is most effective when temperatures are between 60 and 90°F, the air is humid, there is a light breeze (9 mph or less), and rain is not expected for 8 to 12 hours (these factors vary with type of herbicide and type of plant – follow label instructions).

Where waterway contamination is not an issue, use a nonionic surfactant such as Timberland 90 or Aqua Aid with all foliar spray herbicides that do not contain surfactant in the formulation (e.g., Rodeo or Aqua Neat), unless otherwise specified by the manufacturer's label. Equip your backpack sprayer, hand-operated pump sprayer, or spray bottle with a flat spray tip or adjustable cone nozzle. Apply herbicide to the leaves of target plants using a consistent motion. Cover foliage thoroughly, but not to the point of run-off. All recommended herbicides require complete foliar coverage to be effective. Applications must be made while walking backward to reduce the risk of the herbicide wicking onto the applicator's clothing. Foliar treatments should not be done where leaves of target plants are above applicator's shoulder height.

5. INVASIVE SPECIES REMOVAL AND MANAGEMENT

5.1 SPECIAL CONSIDERATIONS & NOTIFICATIONS

Refer to **Appendix C** for contact information of agencies and representatives requiring notice and coordination.

Advance notice to M-NCPPC representative is required prior to starting construction.

Advance notice to M-NCPPC representatives is required prior to application of herbicides.

Know before you dig, dial 811 3-days prior to starting construction.

Safety is paramount; contractor will wear personal protective gear and follow OSHA recommended protocol when using mechanical equipment.

Herbicide use will comply with all M-NCPPC Pesticide Application Policy for application and reporting, including using approved materials. For all chemical application of herbicide treatment methods the contractor will employ the following:

1. All chemical treatments will be completed by a certified pesticide applicator.
2. Always use the lowest herbicide concentration that proves effective.
3. Know the weather. Rain too soon after spraying can wash unabsorbed herbicide off of leaves making retreatment necessary. Spraying outside of recommend temperatures can be ineffective as the plant is not receptive to absorption, making retreatment necessary.
4. Add an EPA-approved blue marker dye (not food coloring) to foliar spray solutions in order to keep track of which plants have been treated.
5. Remember, the label is the law. Always apply herbicides in accordance with specific label instructions, which include personal protective equipment and storage requirements.
6. Each herbicide formulation has information about how close one can get to water. Care should be taken to be conservative and use water-safe formulas if there is ever any doubt.
7. “Double-spraying” or using higher concentrations of herbicide will kill leaves so quickly that chemical will not be moved to the root system negating the effect of the herbicide.
8. County required signage will be provided after herbicide applications.

Care will be taken to avoid any collateral damage to turfgrass and landscaping elements during all mechanical and combination treatments.

Care will be taken to avoid spreading unwanted vegetative fragments, fruits, or seeds that can reintroduce and spread invasive species through the study area via debris, topsoil and/or equipment.

5.2 SEQUENCE OF IMPLEMENTATION

1. Contractor to provide advance notice to all required agencies.
2. Coordinate with landscape architect or owner’s representative to identify woody vegetation intended for preservation, flag with fluorescent tape, prior to starting construction.
3. Cut Stem Treatment Method / Debris Removal: Implement for all vine and woody vegetation, including trees and shrubs, not identified for preservation. This method can be employed year round as long as temperatures are above 45°F. Make cuts at ground level to allow for future mowing as management. Remove all woody and vine debris from the project site and dispose of responsibly.

Species	Herbicide Application
Callery Pear <i>Pyrus calleryana</i>	<ul style="list-style-type: none"> • Cut down trees and treat stumps with a water-soluble triclopyr salt @ 25% (e.g., Garlon 3A in water)

	OR a glyphosate product (e.g., Roundup) at a 25% to 50% solution (32 to 64 ounces of herbicide per one-gallon mix).
Bush Honeysuckle <i>Lonicera spp.</i>	<ul style="list-style-type: none"> • Cut all stems to ground level and apply glyphosate @ 20% (e.g. Roundup Pro) OR the ready-to-use triclopyr product, Pathfinder II. • Perform prior to seed dispersal in late summer.
Vines: English Ivy <i>Hedera helix</i> Oriental Bittersweet <i>Celastrus orbiculatu</i> ; Porcelainberry <i>Ampelopsis brevipedunculata</i> Chinese Wisteria <i>Wisteria sinensis</i> Poison Ivy <i>Toxicodendron radicans</i> Japanese Honeysuckle <i>Lonicera japonica</i>	<ul style="list-style-type: none"> • Cut all stems to ground level and apply triclopyr salt @ 25% (e.g., Garlon 3A in water) OR triclopyr ester @ 20% (e.g., Garlon 4 in oil carrier—follow label instructions) OR ready-to-use triclopyr products such as Pathfinder II.

4. For non-invasive trees in poor condition not identified for preservation, no herbicide is needed. Cut at ground level to allow for future mowing as management. Remove all woody and vine debris from the project site and dispose of responsibly.
5. Cut Stem Window Treatment Method: Implement for vines that are growing in trees or shrubs identified for preservation.
6. Mowing /Bush-hogging: Initiate mowing schedule to occur every 3-months, April 15 through November 15, for the study area for the duration of the monitoring and maintenance period. Careful mowing around newly planted trees and shrubs and trees to remain will be required.
7. Re-application Foliar Method: Inspect study area for new seedlings and resprouts from stumps or ground. Implement foliar treatment if needed to manage seedlings and resprouts prior to second mowing of the year.

Species	Herbicide Application
Callery Pear <i>Pyrus calleryana</i>	<ul style="list-style-type: none"> • Thoroughly wet all leaves with a water-soluble triclopyr product (e.g., Garlon 3A) OR a glyphosate product (e.g., Roundup) @ 2%. • For Garlon 3A, or similar product, also add ½% non-ionic surfactant.

8. Re-application Cut Stump Treatment: Inspect study area for new seedlings and resprouts from ground. Implement cut stump treatment if needed to manage for seedlings and resprouts immediately after third mowing of the year.

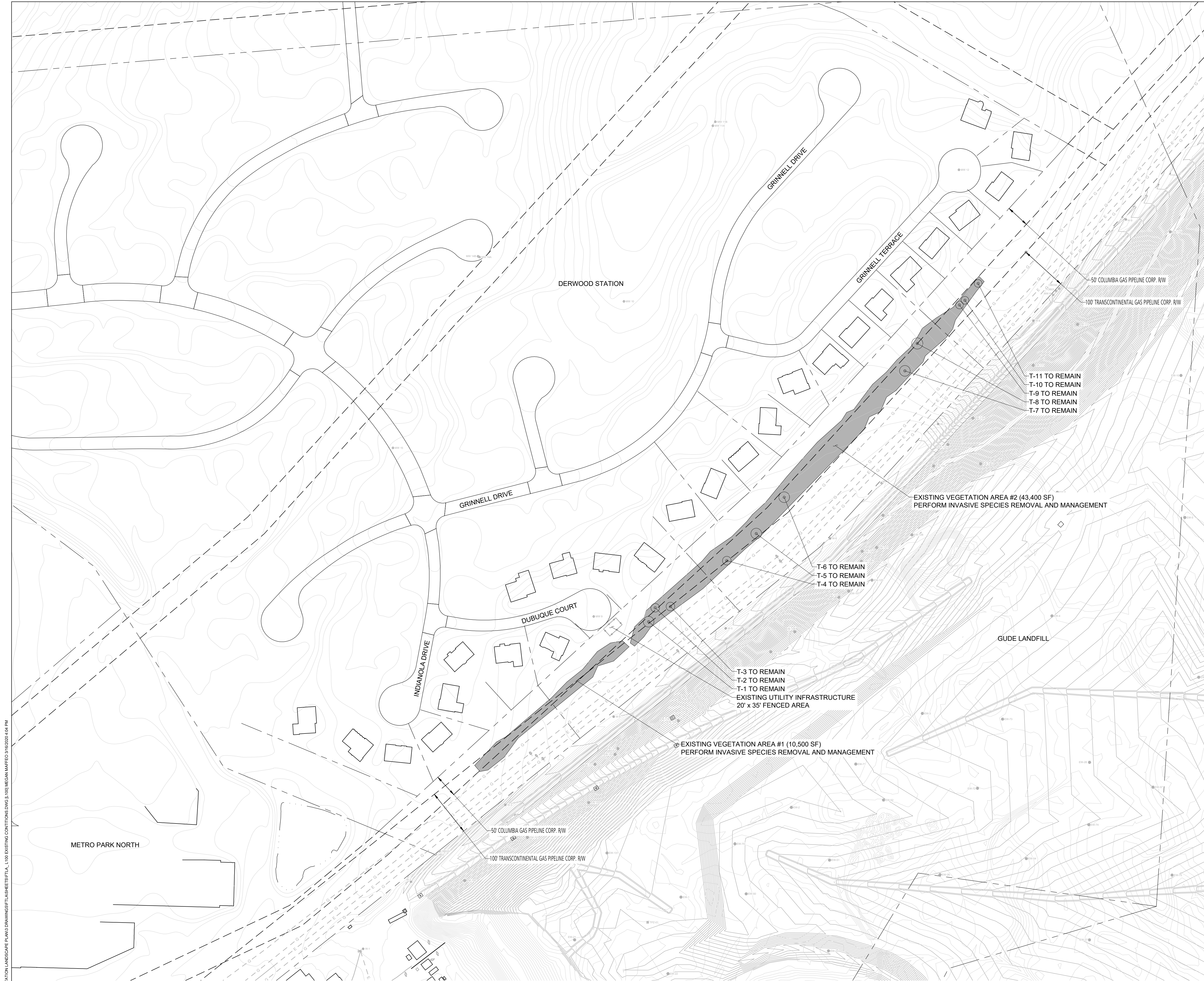
Table 4: Re-application Cut Stump Treatment by Species *Initial treatment for species is mowing/bush-hogging	
Species	Herbicide Application
Multiflora Rose <i>Rosa multiflora</i> *	<ul style="list-style-type: none"> Use glyphosate @ 25% (e.g., Roundup Pro) or triclopyr @ 25% (e.g., Garlon 3A in water) or the ready-to-use triclopyr product, Pathfinder II. This method is most effective if done late in the growing season or while plant is dormant.
Wineberry <i>Rubus phoenicolasius</i> *	<ul style="list-style-type: none"> Glyphosate products (e.g., Roundup Pro, or Rodeo in wet areas) at concentrations ranging from 0.5% to 2%. Use glyphosate during the growing season, but not later than September. Triclopyr products (e.g., Garlon 3A in water) @ 1% may be successful if applied in midsummer.
Bush Honeysuckle <i>Lonicera spp.</i>	<ul style="list-style-type: none"> Cut all stems to ground level and apply glyphosate @ 20% (e.g. Roundup Pro) OR the ready-to-use triclopyr product, Pathfinder II. Repeat every 6-months.
Vines: English Ivy <i>Hedera helix</i> Oriental Bittersweet <i>Celastrus orbiculatu</i> ; Porcelainberry <i>Ampelopsis brevipedunculata</i> Chinese Wisteria <i>Wisteria sinensis</i> Poison Ivy <i>Toxicodendron radicans</i> Japanese Honeysuckle <i>Lonicera japonica</i>	<ul style="list-style-type: none"> Use glyphosate @ 25% (e. g., Roundup Pro) on cut surfaces any time of the year when the temperature is above 45°F.

5.3 IMPLEMENTATION SCHEDULE

Sequence of implementation is outlined on the following annual schedule. Seasonality is important to the effectiveness of invasive species management. Management duration is 2-years from start of construction.

Table 5: Invasive Species Management Schedule												
Year One												
	Growing Season (April.15 –Nov. 15)											
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Cut Stem Treatment/ Debris Removal												
<i>Pyrus calleryana</i>												
<i>Lonicera spp.</i>												
<i>Vine Species</i>												
Mowing/Bush-Hogging												
<i>Study Area</i>												
Inspection/ Re-application Foliar Treatment												
<i>Pyrus calleryana</i>												
Inspection/ Re-application Cut Stem Treatment												
<i>Lonicera spp.</i>												
<i>Rosa multiflora</i>												
<i>Rubus phoenicolasius</i>												
<i>Vine Species</i>												
Year Two												
Mowing/Bush-Hogging												
<i>Study Area</i>												
Inspection/ Re-application Foliar Treatment												
<i>Pyrus calleryana</i>												
Inspection/ Re-application Cut Stem Treatment												
<i>Lonicera spp.</i>												
<i>Rosa multiflora</i>												
<i>Rubus phoenicolasius</i>												
<i>Vine Species</i>												

APPENDIX A – EXISTING CONDITIONS PLAN



EXISTING TREES TO REMAIN (PROTECT IN PLACE)					
SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE (\" DBH)	CONDITION	COMMENTS
T1	<i>Prunus spp.</i>	Cherry	13"	Fair	
T2	<i>Prunus spp.</i>	Cherry	12"	Fair	multi-trunk (2)
T3	<i>Diospyros virginiana</i>	Persimmon	8"	Fair	multi-trunk (2)
T4	<i>Juniperus virginiana</i>	Eastern Red Cedar	14"	Good	
T5	<i>Acer rubrum</i>	Red Maple	11"	Fair	
T6	<i>Ulmus sp.</i>	Elm	20"	Good	
T7	<i>Diospyros virginiana</i>	Persimmon	8"	Fair	
T8	<i>Prunus spp.</i>	Cherry	19"	Fair	
T9	<i>Diospyros virginiana</i>	Persimmon	12"	Good	
T10	<i>Diospyros virginiana</i>	Persimmon	6"	Good	
T11	<i>Diospyros virginiana</i>	Persimmon	6"	Good	

INVASIVE SPECIES REMOVAL AND MANAGEMENT NOTES:
 1. REFER TO THE DERWOOD STATION VEGETATIVE SCREENING INVASIVE SPECIES MANAGEMENT PLAN.

REVISIONS		DESCRIPTION	
NO.	DATE	BY	

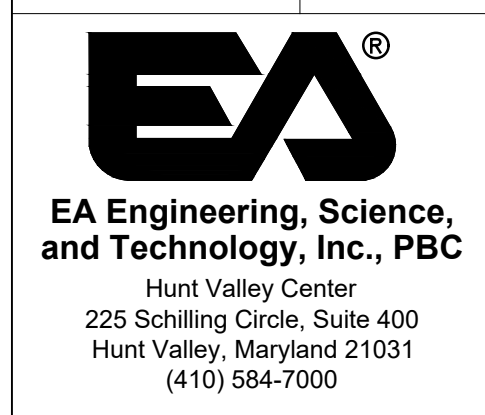
DESIGN INFORMATION

DESIGNED BY:	MM
DRAWN BY:	JCI
CHECKED BY:	MM
PROJECT MANAGER:	MIG

PROFESSIONAL CERTIFICATION: I 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. 1099 EXPIRATION DATE: 07/26/2020

SEAL

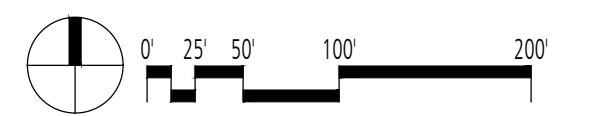
DERWOOD STATION VEGETATIVE SCREENING
 NORTHEAST MARYLAND WASTE DISPOSAL AUTHORITY
 MONTGOMERY COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION
 MONTGOMERY COUNTY, MARYLAND
 EXISTING CONDITIONS PLAN



DATE: MARCH 2020
 PROJECT NUMBER: 1564601

SHEET: 1 OF 1

1 EXISTING CONDITIONS PLAN



SCALE: 1" = 100'

FILE PATH: P:\P\PROJECTS\1814 - DERWOOD STATION\LANDSCAPE PLANS\DRAWINGS\FLAME\EXISTING CONDITIONS.DWG L:\001\MEGAN\MAPS\1814\1814001.dwg

APPENDIX B – PHOTOGRAPHIC DOCUMENTATION

Photo Date: 8/2/2019



Photo Date: 3/13/2020



APPENDIX C – CONTACT INFORMATION

1. Montgomery County Park Planning and Stewardship Division
Vegetation Ecology and Management
Program Manager: Ryan Colliton, ryan.colliton@montgomeryparks.org
9500 Brunett Avenue, Silver Sprin, Maryland 20901
301-962-1359
2. Maryland-National Capital Park & Planning Commission
8787 Georgia Ave, Silver Spring, MD 20910-3760
301-495-4568
3. Columbia Gas of Maryland / TransCanada Natural Gas Utility
Contact: Tony Redd, Antonio_redd@tcenergy.com
703-508-2135
4. Williams Natural Gas Utility
Contact: Rob Stair, rob.stair@williams.com
443-367-2502
Mike Harmon, mike.harmon@williams.com
443-826-1284

