



April 26, 2022
Medway Planning & Economic Development Board
Meeting

Public Hearing Continuation
Phytopia – 6 Industrial Park Road
Site Plan, Reduced Parking Special
Permit and Groundwater Protection
Special Permit

- Public Hearing continuation notice dated 4-13-22
- Letter dated 4-12-22 from project engineer Chris Sparges in response to Tetra Tech's review comments dated 10-27-21.
- Revised site plan dated 4-1-22 by Williams Sparges Engineers, Planners and Surveyors of Middleton, MA
- Tetra Tech review letter dated 4-22-22 on the revised site plan.

Board Members

Matthew J. Hayes, P.E., Chair
Robert Tucker, Vice Chair
Richard Di Iulio, Clerk
Jessica Chabot, Member
Sarah Raposa, A.I.C.P., Member
Thomas Gay, Associate Member



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Medway, MA 02053
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TOWN OF MEDWAY

COMMONWEALTH OF MASSACHUSETTS

PLANNING AND ECONOMIC DEVELOPMENT BOARD

RECEIVED TOWN CLERK
APR 13 '22 PM3:01

MEMORANDUM

April 13, 2022

TO: Stefany Ohannesian, Town Clerk
Town of Medway Departments, Boards and Committees

FROM: Susy Affleck-Childs, Planning and Economic Development Coordinator

RE: **Public Hearing Continuation for Phytopia, Inc -
Major Site Plan, Groundwater Protection Special Permit, and Reduced Parking
Special Permit
Continuation Date – Tuesday, April 26, 2022**



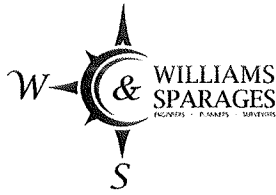
At its April 12, 2022 meeting, the Planning and Economic Development Board voted to continue the public hearing on the application of Phytopia, Inc. of Peabody, MA for approval of a major site plan, a groundwater protection district special permit, and a reduced parking special permit for its proposed development at 6 Industrial Park Road to the Board's meeting on Tuesday, April 26, 2022 at 8:00 p.m. at Medway Town Hall, 155 Village Street. The meeting will also be available via Zoom.

On November 30, 2021, the Board approved special permits to use the existing 53,128 sq. ft. industrial manufacturing building at 6 Industrial Park Road and construct a 66,238 sq. ft., 2-story addition to the existing building for the cultivation, manufacturing, processing, and packaging of marijuana for medical use and adult recreational use and the delivery of such products off site to retail marijuana establishments in other communities.


The planned scope of work for site plan approval and for the groundwater protection and reduced parking special permits includes interior renovations to the existing building, construction of the addition, improvements to the access/egress driveways, installation of curbing, parking area improvements, landscaping, lighting, and installation of and improvements to stormwater drainage facilities. The project is also before the Conservation Commission for an Order of Conditions and a Land Disturbance Permit.

We have received a revised site plan titled *Industrial Park Road*, last revised March 7, 2022 prepared by Williams & Sparages Engineers, Planners and Surveyors of Middleton, MA. It is posted at Board's page at the Town's web site at: <https://www.townofmedway.org/planning-economic-development-board/pages/phytopia-inc-6-industrial-park-road-marijuana-facility>. Please review the revised site plan and provide comments to us by April 21st.

Please do not hesitate to contact me if you have any questions at 508-533-3291. Thanks.



Project No. MEDW-0017

April 12, 2021 

Ms. Susan E. Affleck-Childs
Medway Planning and Economic Development Coordinator
Medway Town Hall
155 Village Street
Medway, MA 02053

**Subject: Response to October 27, 2021 review comments from Tetra Tech
Phytopia, Inc.
Major Site Plan Review
6 Industrial Park Road
Medway, Massachusetts**

Dear Ms. Affleck-Childs,

The purpose of this letter is to address the Major Site Plan Review update comments from Tetra Tech dated October 27, 2021. The numbered responses that follow correspond to the numbered comments in the review letter.

SITE PLAN REVIEW

1. A written Development Impact Statement was not provided. However, the Applicant is requesting a waiver from this requirement. (Ch. 200 §204-3.F)

No response necessary.

TT 10/27/21 Update: No further action required for this item until PEDB decision on waiver requests.

No response necessary.

2. A Stormwater Pollution Prevention Plan (SWPPP) was not provided. However, the Applicant acknowledged in the cover letter that one will be completed once the final scope of the Project is clearly defined and will file it at a later date. (Ch. 200 §204-3.G.3)

A SWPPP will be prepared at the time the EPA NOI application is submitted, prior to land disturbance activities.

TT 10/27/21 Update: We recommend a Condition requiring the Applicant provide proof of coverage under the NPDES CGP prior to construction.

We agree with Tetra Tech's recommendation.

3. A Construction Management Plan was not provided. However, the Applicant acknowledged in the cover letter that one will be provided once the final scope of the Project is clearly defined and will file it at a later date. (Ch. 200 §204-3.H)

See Land Disturbance Permit Application dated October 1, 2021.

TT 10/27/21 Update: Review of this item is being conducted by the Medway Conservation Commission. In our opinion, this item is resolved.

No response necessary.

4. Earthwork Calculations have not been provided. However, the Applicant acknowledged in the cover letter that one will be provided once the final scope of the Project is clearly defined and will file it at a later date. (Ch. 200 §204-3.I&J)

See attached earthwork calculations.

TT 10/27/21 Update: Earthwork on the Project is a net fill with approximately 1,685 cubic yards of import material expected. We recommend this information be provided on the Erosion and Sediment Control Plan.

This information has been added to the Erosion and Sediment Control Plan.

5. A copy of an Order of Resource Area Delineation (ORAD) was not provided. However, the Applicant has acknowledged in their cover letter that an NOI has been submitted with the Medway Conservation Commission. (Ch. 200 §204-3.K)

No response necessary.

TT 10/27/21 Update: Review of this item is being conducted by the Medway Conservation Commission. In our opinion, this item is resolved.

No response necessary.

6. Cover sheet has not been provided in the Plans. However, applicable cover sheet information is provided on the Site Context Sheet/Location Plan. A list of requested waivers should be added to the sheet once approved by the Board. (Ch. 200 §204-5.A)

A cover sheet with a list of waivers has been provided, see sheet 1 of 10.

TT 10/27/21 Update: The list of requested waivers has not been included on the Cover Sheet.

The list of requested waivers has been added to Sheet 1, the Cover Sheet.



7. The Locus Plan provided on the Location Plan is missing clearly labeled brooks, streams, wooded areas, protected open spaces, recreation fields, landmarks, and public facilities. (Ch. 200 §204-5.B.1)

A Site Context Plan has been provided, see sheet 2.

TT 10/27/21 Update: In our opinion, this comment is resolved.

No response necessary.

8. Dimensions of lot lines and easement areas (if applicable) have not been provided on the Site Context Sheet. Additionally, metes and bounds should be included on all plans. (Ch. 200 §204-5.B.3)

Dimensions of lot lines has been provided, see sheet 2.

TT 10/27/21 Update: In our opinion, this comment is resolved.

No response necessary.

9. The source of existing topography and the vertical datum reference have been provided. (Ch. 200 §204-5.B.4)

No response necessary.

TT 10/27/21 Update: In our opinion, this comment is resolved.

No response necessary.

10. An Erosion and Sediment Control Plan was not included in the plan set. However, the Applicant acknowledged in the cover letter that it will be completed and submitted to Medway Conservation Commission as part of the Land Disturbance Permit Application. (Ch. 200 §204-5.D.5)

See Land Disturbance Permit Application dated October 1, 2021.

TT 10/27/21 Update: Review of this item is being conducted by the Medway Conservation Commission. In our opinion, this item is resolved.

No response necessary.

11. A Building Elevations and Architectural Plan was not provided in the Plans. (Ch. 200 §204-5.D.9)

Refer to the architectural plans.

TT 10/27/21 Update: In our opinion, this comment is resolved.

No response necessary.

12. *Color Renderings were not provided in the Plans. (Ch. 200 §204-5.D.10)*

Refer to the architectural plans.

TT 10/27/21 Update: In our opinion, this comment is resolved.

No response necessary.

13. *A Building Layout or Floor Plan was not provided in the Plans. (Ch. 200 §204-5.D.11)*

Refer to the architectural plans.

TT 10/27/21 Update: In our opinion, this comment is resolved.

No response necessary.

14. *Entry and Exit locations to Structures were not provided in the Plans. (Ch. 200 §204-5.D.12)*

Entry and exit locations have been provided, see sheet 6.

TT 10/27/21 Update: In our opinion, this comment is resolved.

No response necessary.

15. *Site Amenities Details were not provided in the Plans. (Ch. 200 §204-5.D.13)*

Site amenity details have been provided, see sheet 10.

16. *A Master Signage Plan was not provided in the Plans. (Ch. 200 §204-5.D.14)*

Refer to architectural plans. The plans presented by the project architect to the PEDB and Design Review Committee included proposed signage.

TT 10/27/21 Update: In our opinion, this comment is resolved.

No response necessary.

17. *The Plans do not include horizontal sight distances for the public roads at any of the four curb cuts at the Site. The Applicant has acknowledged this will be completed and filed at a later date. (Ch. 200 §204-5.D.16)*

Horizontal site distances have been provided, see sheet 12.

TT 10/27/21 Update: In our opinion, this comment is resolved.

No response necessary.

18. Locations of proposed fire hydrants and emergency access lanes not provided on plans. A hydrant exists on Industrial Park Drive immediately across the street from the Project. We recommend Plans and supporting information be submitted to Medway Fire Department for review and comment. (Ch. 200 §204-5.D.18)

There are two existing fire hydrants along the Industrial Park Road and three existing fire hydrants along Jayar Road within close proximity to the subject property. It is our understanding that members of the development team have met with Police and Fire Department officials.

TT 10/27/21 Update: We recommend the Applicant provide written correspondence from the Medway Fire Department regarding their review of the Project.

It is our understanding that members of the development team have met with Police and Fire Department officials and have reviewed the site plans. We will follow up with the Fire Department and ask them to send along a written correspondence to the PEDB.

19. Sidewalks along the building in the west parking lot are proposed at 5-foot width but abut parking which requires width to be increased to seven feet to accommodate bumper overhang. (Ch. 200 §207-9.B.1)

Curb stops have been added to the parking spaces directly adjacent to sidewalks. Proposed sidewalks to remain at five feet in width.

We do not recommend use of wheel stops as they are a nuisance in winter months and are typically either removed by the tenant or by snowplows. They also effectively reduce the length of parking stalls.

We respectfully disagree. The use of wheel stops is a safety measure commonly used to help prevent vehicles from travelling beyond a marked parking space. In this case, it will prevent vehicular bumper overhang, which may impede foot traffic.

20. There is a total of four curb cuts proposed for the Project which we believe may be excessive for a Project of this size. We recommend the Applicant explore combining the parking areas along the west property line to help reduce the proposed curb cuts. We understand there are three existing curb cuts, but we believe the site can be designed to reduce this condition. The Regulations favor one curb cut per roadway at corner lots. (Ch. 200 §207-11.A.2)

The existing condition has three curb cuts and the proposal seeks to retain two while adding one and removing one for a total of three curb cuts as in the existing condition.

TT 10/27/21 Update: We believe the revised curb cuts are sufficient to serve the proposed parking and emergency access. However, we recommend the PEDB require the Applicant provide written correspondence from the Fire Department regarding their review of the Project.

It is our understanding that members of the development team have met with Police and Fire Department officials and have reviewed the site plans. We will follow up with the Fire Department and ask them to send along a written correspondence to the PEDB.

21. Bituminous berm is proposed for the entire curb length for the Project. Typically, curb cut radii are delineated with vertical granite curb which may transition to bituminous berm on the interior of the site is approved by the PEDB. (Ch. 200 §207-11.A.4)

The existing curbing on Industrial Park Road and Jayar Road is bituminous and the proposed curbing at site entrances are proposed to remain bituminous.

TT 10/27/21 Update: We recommend the Applicant coordinate with the PEDB regarding this item and provide a formal waiver request. Typically, vertical granite curbing is preferred at entrance radii, particularly within the public right of way.

We believe this item does not require a waiver. The proposal is to match the existing curbing within the industrial park, which is bituminous berm.

22. Portions of the proposed driveways discharge stormwater runoff to the right of way. Stormwater and land disturbance permit is being reviewed by the Medway Conservation Commission and we believe this comment will be addressed during that review. (Ch. 200 §207-11.A.15)

No response necessary.

TT 10/27/21 Update: Review of this item is being conducted by the Medway Conservation Commission. In our opinion, this item is resolved.

No response necessary.

23. Portions of the west and east parking lots are proposed within 15 feet of the property lines which does not comply with the Regulations. (Ch. 200 §207-12.G.3.b)

The east parking lot essentially follows the existing pavement line and is proposed to remain. The west parking field remains as shown on the civil drawings.

TT 10/27/21 Update: We recommend the Applicant coordinate with the PEDB regarding this item.

The proposed parking spaces located within the setback described in Ch. 200 §207-12.G.3.b do not impede proper traffic flow and follow similar parking layouts on other properties within the existing industrial park.

24. The Applicant has not supplied provisions for electric vehicle parking stations. (Ch. 200 §207-12.I)

Two spaces are designated for electric vehicles, see sheet 6.



TT 10/27/21 Update: In our opinion, this comment is resolved.

No response necessary.

25. It appears the existing electric connection will be extended to the proposed addition and no new connections are proposed. It should be noted that all proposed connections shall be located underground. (Ch. 200 §207-16.A)

Proposed transformer locations are shown. All underground electrical connections are proposed to be underground. A note is added to the plans that all proposed connections shall be underground, see sheet 5.

TT 10/27/21 Update: In our opinion, this comment is resolved.

No response necessary.

26. The Applicant has not proposed any screening of the existing dumpster location at the site. (Ch. 200 §207-17.C)

The proposed trash enclosure is a 40-yard roll-off container that will be accessed via a chute from inside the building. A chain-link security fence with slats and gates are proposed. A detail of the chain-link fencing has been provided, see sheet 10.

TT 10/27/21 Update: We recommend the Applicant provide written correspondence from the Medway Design Review Committee (DRC) regarding their review of this item.

We believe the Design Review Committee has previously submitted a positive recommendation for the proposed layout.

27. The Photometric Plan does not show any light levels beyond the property lines. We anticipate light trespass along the northwestern and northeastern and eastern property lines. (Ch. 200 §207-18)

The Photometric Plan has been revised to show light levels beyond the property line.

TT 10/27/21 Update: Light trespass occurs along each of the property lines to multiple abutters.

The lighting design has been revised to eliminate light trespass on abutting properties. Please see revised Photometric Plan.

28. The Applicant has not proposed any landscaping along the eastern property line to screen the Project. Existing tree line will remain along the northern and western portions of the site. We recommend the PEDB visit the site to determine if the extent of vegetation to remain conforms with the "spirit" of the Regulation. (Ch. 200 §207-18)

A six foot high opaque fence is proposed along the eastern property line, see sheet 10.

TT 10/27/21 Update: We recommend the Applicant provide written correspondence from the Medway Design Review Committee regarding their review of the Project.

We believe the Design Review Committee has previously submitted a positive recommendation for the proposed layout.

29. The Applicant has not proposed any internal landscape islands to break up the parking areas and provide shade. (Ch. 200 §207-19.C)

Additional trees and shrubs have added to the proposed landscape plan.

TT 10/27/21 Update: We recommend the Applicant coordinate with the PEDB and DRC regarding the scope of plantings for the Project.

The Design Review Committee reviewed the landscape plan and provided comments, which were addressed during our meetings with the committee.

30. The Applicant shall provide narrative and note on Plans to describe method for irrigating proposed landscaping at the site. Town water supply shall not be used for irrigation at the property. (Ch. 200 §207-19.K)

No irrigation system is proposed at the present time.

TT 10/27/21 Update: We anticipate an irrigation well or other means of irrigation will be required to ensure plantings remain viable at the site after Project completion.

No irrigation system is proposed at the present time.

GROUNDWATER PROTECTION DISTRICT REVIEW

31. A generator is proposed for the Project and are prohibited in the Groundwater Protection District unless required by statute. The Applicant shall provide narrative related to the generator and whether it is a statutory requirement of the business. (ZBL §5.6.3.E.2.b)

Please see application materials submitted to the PEDB in support of an application for a Groundwater Protection District Special Permit, dated August 4, 2021 and subsequent letter from attorney Cannon dated September 15, 2021.

TT 10/27/21 Update: The proposed generator was not referenced in the letter dated September 15, 2021, we do not have the August 4, 2021 letter on file.

935 CMR 500.110(5)(a)8. and 935 CMR 500.110(6)(a)8., require that marijuana establishments maintain the ability to remain open during a power outage in order to ensure security on the premises. A generator will be required to comply with these regulations.

32. *The Applicant shall provide a list of any hazardous materials that may be stored at the site and their method of containment. (ZBL §5.6.3.E.2.k)*

Please see application materials submitted to the PEDB in support of an application for a Groundwater Protection District Special Permit, dated August 4, 2021 and subsequent letter from attorney Cannon dated September 15, 2021.

TT 10/27/21 Update: The Applicant provided a letter dated September 15, 2021 regarding the Groundwater Special Permit which attests that the Project will not generate greater than 100kg/month of hazardous material (Very Small Quantity Generator) and that all hazardous materials will be stored in an acceptable manner on site, specifically ethanol which will be stored in a five gallon carboy in secondary containment. We recommend a Condition requiring the Applicant provide inventory of hazardous materials and manifest of its disposal to ensure ongoing compliance with the bylaw once the Project is in use.

We do not object to such a condition as it is already required by regulation.

33. *The Project proposes approximately 140,000 square feet of impervious coverage after the proposed expansion which triggers special permit review of the Project. Consequently, the Applicant has proposed groundwater recharge for the development, consistent with the bylaw, which is currently being reviewed by the Medway Conservation Commission. (ZBL §5.6.3.E.3.e)*

No response necessary.

TT 10/27/21 Update: Review of groundwater recharge is being conducted by the Medway Conservation Commission and is ongoing. In our opinion, this item is resolved.

No response necessary.

34. *We have concerns whether proposed groundwater recharge at the site is viable due to historic contamination at the site. The Medway Conservation Commission is currently reviewing the Stormwater and Massachusetts Contingency Plan (MCP) reporting for the Project. (ZBL §5.6.3.F.1.a)*

Please see response letter from Knoll Environmental dated September 15, 2021.

TT 10/27/21 Update: Review of groundwater recharge is being conducted by the Medway Conservation Commission and is ongoing. In our opinion, this item is resolved.

No response necessary.

GENERAL COMMENTS

35. The Applicant is proposing two additional water connections to the site for a total of four. We recommend the Applicant coordinate with Medway Department of Public Works (DPW) to determine if these connections should be consolidated as part of this Project.

The applicant has met with representatives from the DPW. The two existing water service lines will be cut and capped as shown on the site plan set.

TT 10/27/21 Update: We recommend the Applicant provide written correspondence from the Medway DPW regarding their review of the Project.

We have met with the Medway DPW on two separate occasions to review the project and discussed both existing and proposed utility connections. We will follow up with DPW and ask them to send along something in writing.

36. There are no additional sewer connections proposed for the Project other than the one existing. We recommend the Applicant provide narrative to determine if the existing connection is sufficient to serve to Project as it appears the size of the existing service is unknown.

When the DPW marked out the existing water and sewer service locations in the spring of 2019, we were informed that the existing sewer service is a 6-inch PVC pipe. The existing service is more than adequate to serve the needs of the proposed use. The applicant has also filed for and received an industrial discharge permit from the Charles River Pollution Control District.

TT 10/27/21 Update: In our opinion, this comment is resolved.

No response necessary.

37. Mulch sock should be depicted in the "Siltfence with Mulch Sock" detail on the Construction Details Plan.

Mulch sock is depicted on the Construction Details Plan, see sheet 9.

TT 10/27/21 Update: The detail does not appear to be correct as certain information is missing on the detail or is not showing up correctly when printed from CAD.

The detail has been corrected. See sheet 10 of the plan set.

38. The existing information on the Plans is difficult to read and should be updated in future submissions for ease of review.

The existing information has been updated to increase readability.



TT 10/27/21 Update: In our opinion, this comment is resolved.

No response necessary.

Please feel free to reach out to us if you or any of your staff have any questions, comments, or concerns.

Very truly yours,

Chris Sparages, P.E.
Principal

Enclosures

cc: Phytopia, Inc.
 Attorney Edward V. Cannon, Jr.

SHEET LIST TABLE		
SHEET TITLE	DRAWING	SHEET NUMBER
COVER PLAN	C1.1	1
SITE CONTEXT PLAN	C1.2	2
EXISTING CONDITION PLAN	C2.1	3
GRADING & DRAINAGE PLAN	C3.1	4
UTILITY PLAN	C4.1	5
SURVEY & LAYOUT PLAN	C5.1	6
PHOTOMETRIC PLAN	C6.1	7
LANDSCAPE PLAN	C7.1	8
EROSION & SEDIMENT CONTROL PLAN	C8.1	9
CONSTRUCTION DETAILS PLAN	C9.1	10
CONSTRUCTION DETAILS PLAN	C9.2	11
CONSTRUCTION DETAILS PLAN	C9.2	12
CONSTRUCTION DETAILS PLAN	C9.3	13
STOPPING SIGHT DISTANCE PLAN	C10.1	14

ZONING TABLE

ZONE: EAST INDUSTRIAL (EI)

CATEGORY	REQUIRED/ALLOWED	PROVIDED
MINIMUM LOT AREA	20,000 ft²	184,685 ft²
MINIMUM LOT FRONTAGE	100 ft.	895.94 ft.
MINIMUM FRONT SETBACK	30 ft.	53.0± ft.
MINIMUM SIDE SETBACK	20 ft.	24.9± ft.
MINIMUM REAR SETBACK	30 ft.	81.4 ft.
MAXIMUM BUILDING HEIGHT	60 ft.	<< 60 ft.
MAXIMUM LOT COVERAGE (BLDGS)	NA	NA
MAXIMUM IMPERVIOUS COVERAGE	80%	76.1%
MINIMUM OPEN SPACE	20%	23.9%

OWNER:
MEDWAY FLOWER, LLC
990 PARADISE ROAD
SWAMPSCOTT, MA 01907

APPLICANT:
PHYTOPIA, INC.
25 NEWBURY STREET
PEABODY, MA 01960

PARCEL INFORMATION:
ADDRESS: 6 INDUSTRIAL PARK ROAD, MEDWAY, MA 02053
PLAN: LOTS 13,14,15,16,17 & 18 ON PLAN NO. 242 OF 1967, PLAN BOOK 222
MEDWAY ASSESSOR'S: MAP 33, PARCEL 004

DEED REFERENCE:
BOOK 36836 PAGE 269

PLAN REFERENCES:
1. PLAN NO. 242 OF 1967, PLAN BOOK 222

PROJECT NOTES:
1. TOPOGRAPHIC INFORMATION SHOWN IS THE RESULT OF AN ACTUAL INSTRUMENT FIELD SURVEY CONDUCTED BY WILLIAMS & SPARAGES, LLC IN JULY 2018 THROUGH FEBRUARY 2021.
2. TOPOGRAPHIC INFORMATION SHOWN IS REFERENCED TO THE NATIONAL GEODETIC VERTICAL DATUM OF 1988 (NAVD88).
3. PROPERTY DOES NOT LIE WITHIN A SPECIAL FLOOD HAZARD AREA (ZONE A OR ZONE AE) AS SHOWN ON FLOOD INSURANCE RATE MAP NUMBER 25021C0142E, EFFECTIVE DATE: JULY 17, 2012.
4. PROPERTY LIES WITHIN THE GROUNDWATER PROTECTION DISTRICT.
5. PROPERTY LIES WITHIN THE MossDEP ZONE II WELLHEAD PROTECTION AREA.

LIST OF WAIVERS:

S.204-4.A PLAN SHALL BE STAMPED BY A REGISTERED LANDSCAPE ARCHITECT. WE REQUEST A WAIVER FROM THE REQUIREMENT OF HAVING A LANDSCAPE ARCHITECT ON THE TEAM. THE ENGINEERING AND SURVEY OFFICE OF WILLIAMS & SPARAGES LLC WILL SUBMIT A COMPREHENSIVE LANDSCAPE PLAN.

S.204-3.F DEVELOPMENT IMPACT STATEMENT. WE REQUEST A WAIVER FROM THE REQUIREMENT OF PROVIDING A DEVELOPMENT IMPACT STATEMENT AS THE INFORMATION REQUESTED WILL BE ADDRESSED THROUGHOUT THE HEARING.

MEDWAY PLANNING & ECONOMIC
DEVELOPMENT BOARD

DATE APPROVAL ISSUED:

PLAN ENDORSEMENT DATE:



WILLIAMS & SPARAGES
REGISTERED PROFESSIONAL ENGINEERS
300 NORTH MAIN STREET
MIDDLETON, MA 01949
PHONE 978-339-8088
WWW.WSENGINEERS.COM

Owner:
Medway Flower, LLC
990 Paradise Road
Swampscott, MA 01907

Applicant:
Phytopia, Inc.
25 Newbury Street
Peabody, MA 01960

Designed By: MEM
Drawn By: MEM
Reviewed By: CPS
Project Manager: CPS
Job File Number: MEDW-0017
Drawing File Folder: MEDW17

☒ Drawing Issued for Review
☒ Drawing Issued for Permit
☐ Drawing Issued for Construction

SEAL

COMMONWEALTH OF MASSACHUSETTS
REGISTERED PROFESSIONAL ENGINEER
WILLIAMS & SPARAGES
No. 40774
CIVIL
PHOTOGRAPHED
(4/1/22)

COVER PLAN
INDUSTRIAL PARK ROAD
6 INDUSTRIAL PARK ROAD, MEDWAY, MA

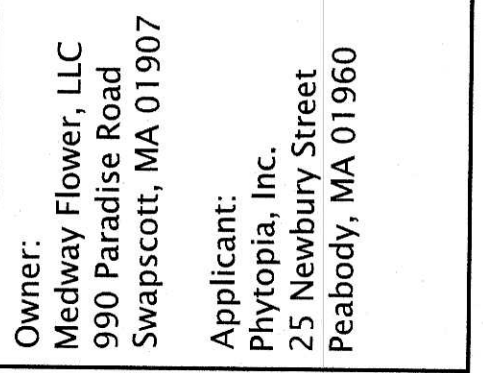
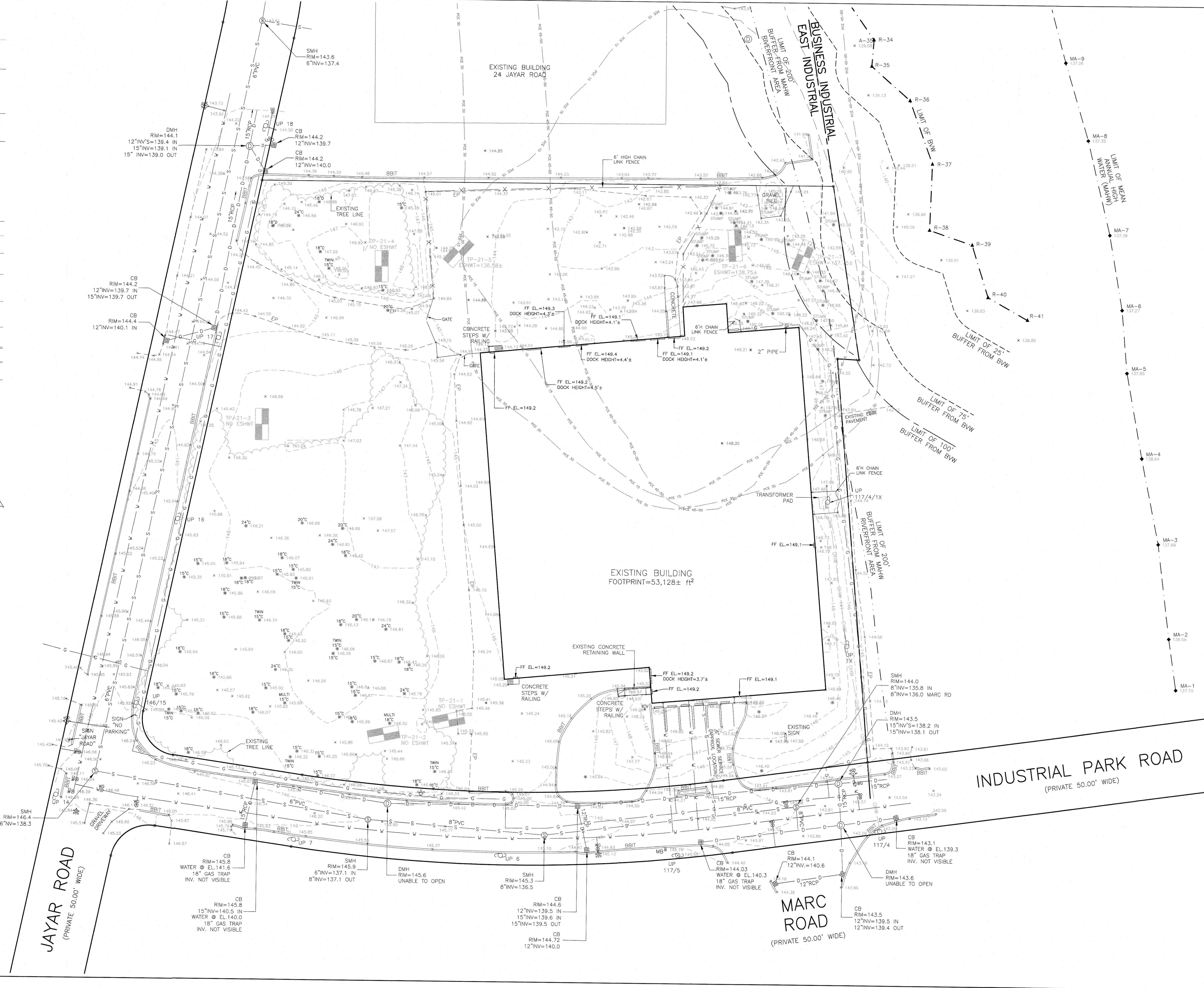
6	5	4	3	2	1
12	11	10	9	8	7
Town Comments / Peer Review			Town Comments / Peer Review		
3/7/2022			1/9/2022		
10/12/2021			7		

0' 100' 200' 400'
SCALE: 1"=200'
APRIL 1, 2021

DRAWING: C1.1

SHEET 1 OF 14

LEGEND OF SYMBOLS	
EXISTING CONTOUR	--- -144 ---
EXISTING SPOT ELEVATION	x 140.28
EXISTING DRAIN	— D — D — D —
EXISTING DRAIN MANHOLE	Ⓓ
EXISTING CATCH BASIN	⌘
EXISTING SEWER	— S — S — S —
EXISTING SEWER MANHOLE	Ⓢ
EXISTING WATER	— W — W — W —
EXISTING WATER GATE	WG ○
EXISTING HYDRANT	⦿
EXISTING UTILITY POLE	⌒
EXISTING IRRIGATION CONTROL VALVE	ICV
EXISTING PAINTED GAS	— G —
EXISTING OVERHEAD WIRES	— OHW — OHW —
EXTENT OF PCE GROUNDWATER PLUME 15'	— PCE 15 —
EXTENT OF PCE GROUNDWATER PLUME 30'	— PCE 30 —
EXTENT OF PCE GROUNDWATER PLUME 45'—50'	— PCE 45-50 —
EXTENT OF ESTIMATED PLUME	— — — — —
EXISTING CURB	=====BBIT=====
EXISTING FENCE	— X —
EXISTING EDGE OF PAVEMENT	--- EP ---

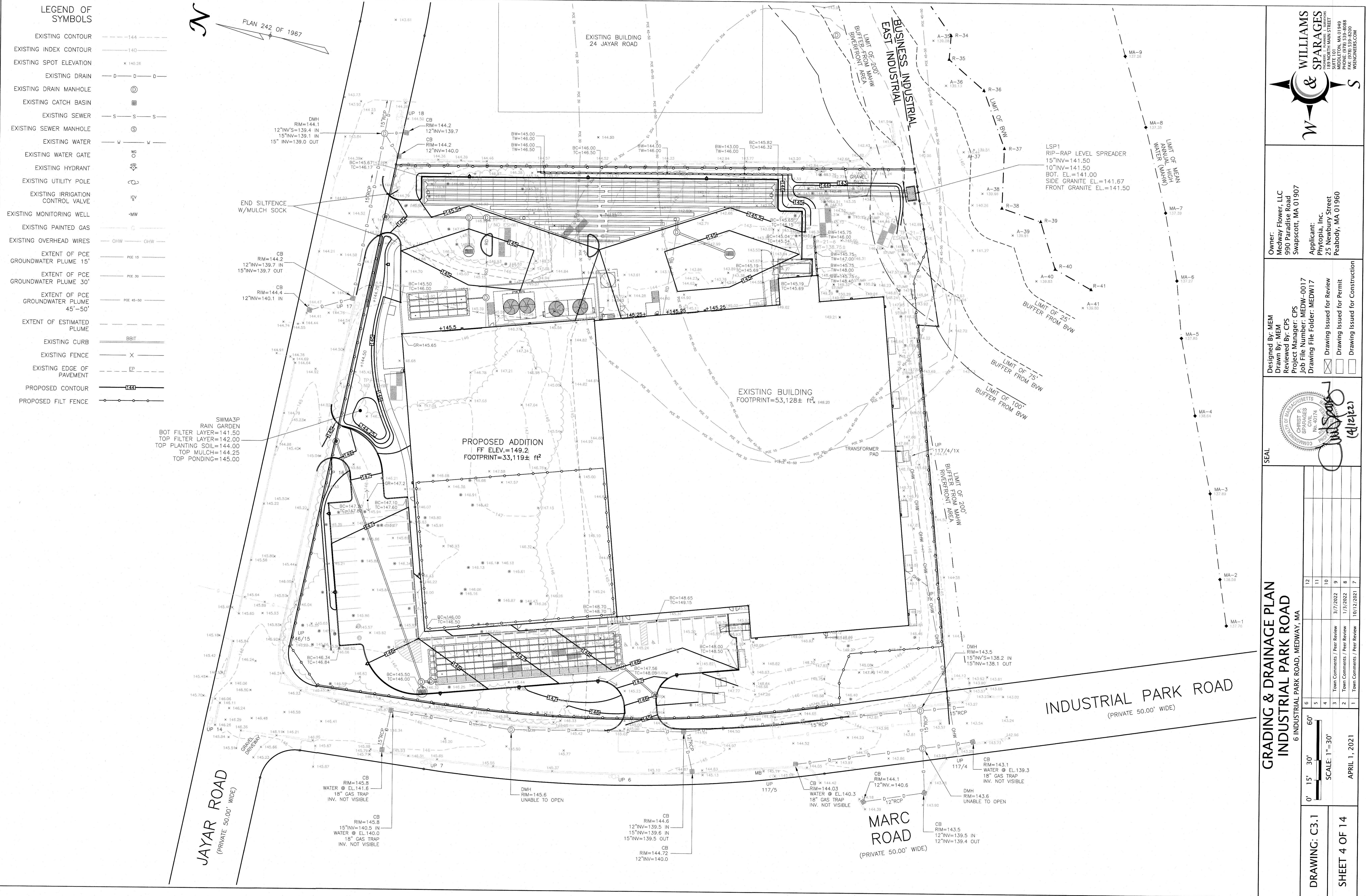


Designed By: MEM	<input checked="" type="checkbox"/>	Drawing Issued for Review
Drawn By: MEM	<input type="checkbox"/>	Drawing Issued for Permit
Reviewed By: CPS	<input type="checkbox"/>	Drawing Issued for Construction
Project Manager: CPS		
Job File Number: MEDW-0017		
Drawing File Folder: MEDW17		

[illegible]

DRAWING: C2.1

SHEET 3 OF 14



WILLIAMS & SPARGES
189 NORTH MAIN STREET
MIDDLETON, MA 01949
PHONE (978) 539-8888
FAX (978) 539-8889
WWW.WSENGINEERS.COM

Owner: Medway Flower, LLC
990 Paradise Road
Swampscott, MA 01907
Applicant: Phytopia, Inc.
25 Newbury Street
Peabody, MA 01960

Designed By: MEM
Drawn By: MEM
Reviewed By: CPS
Project Manager: CPS
Job File Number: MEDW-0017
Drawing File Folder: MEDW17
☒ Drawing Issued for Permit
☐ Drawing Issued for Construction

SEAL
CHRIST P. SPARGES
REGISTERED PROFESSIONAL ENGINEER
No. 40174
EXPIRATION DATE 12/31/2022
4/12/22

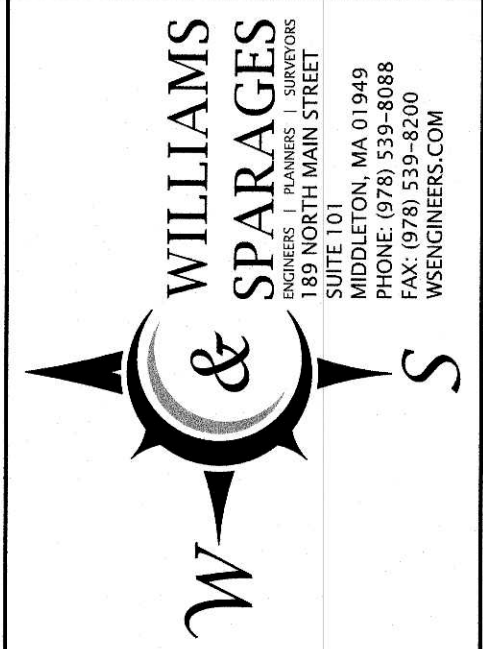
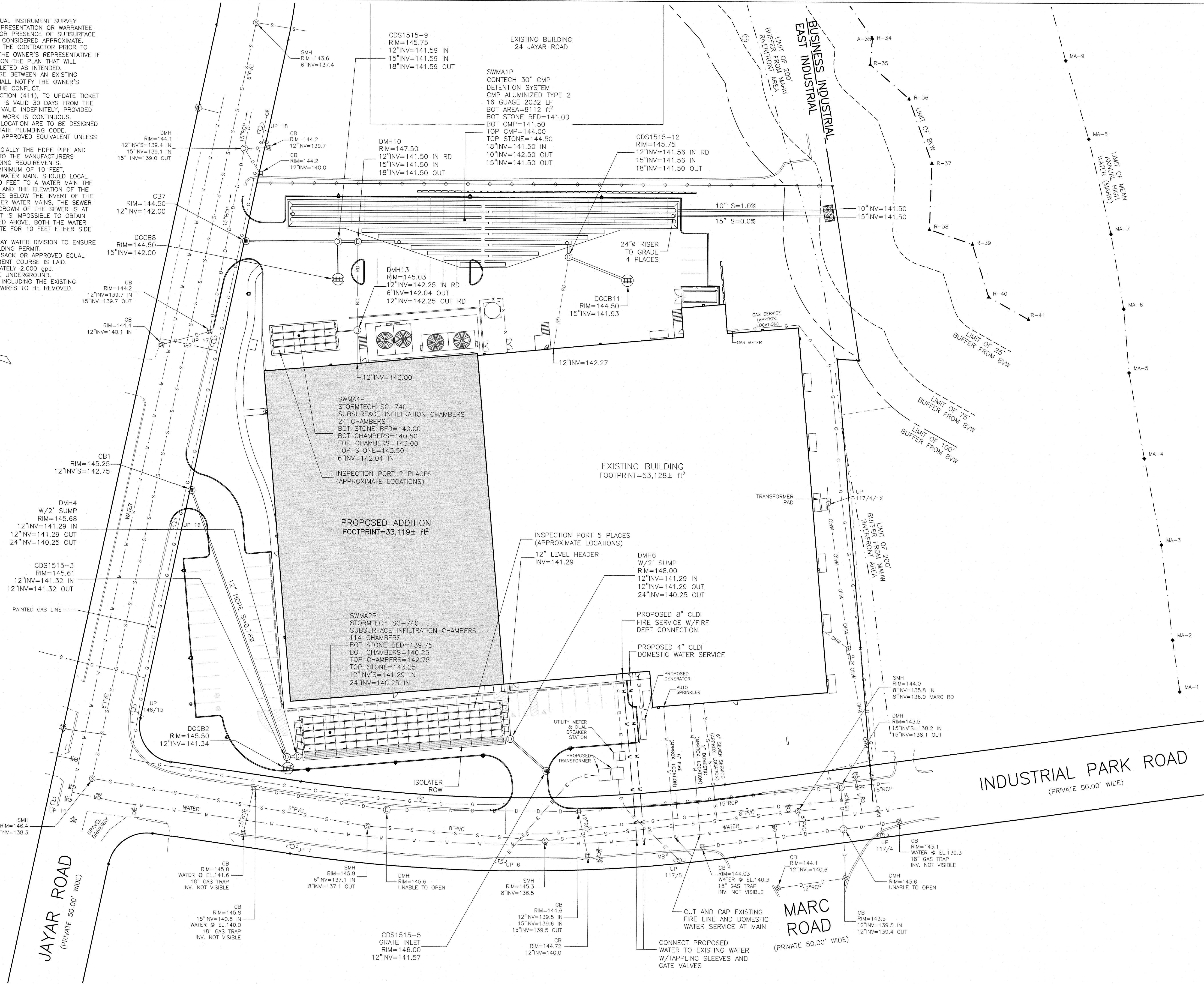
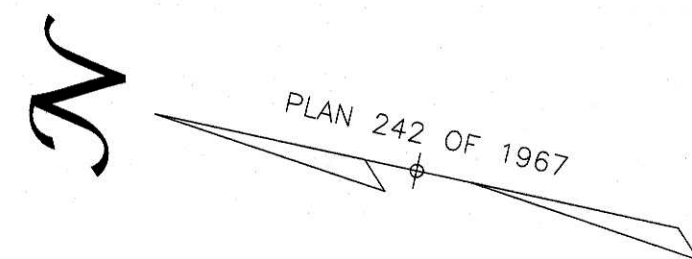
GRADING & DRAINAGE PLAN
INDUSTRIAL PARK ROAD
6 INDUSTRIAL PARK ROAD, MEDWAY, MA

12	11	10	9	8	7
6	5	4	3	2	1
Town Comments / Peer Review					
3/7/2022					
1/3/2022					
10/12/2021					

DRAWING: C3.1
SHEET 4 OF 14
APRIL 1, 2021
SCALE: 1"=30'

PROJECT NOTES:

1. THE UTILITIES SHOWN ARE THE RESULT OF AN ACTUAL INSTRUMENT SURVEY PERFORMED BY WILLIAMS & SPARGES, LLC. NO REPRESENTATION OR WARRANTY IS MADE AS TO THE ACCURACY OF THE LOCATION OR PRESENCE OF SUBSURFACE UTILITIES AND THOSE UTILITIES SHOWN SHOULD BE CONSIDERED APPROXIMATE.
2. ALL UTILITIES SHALL BE VERIFIED IN THE FIELD BY THE CONTRACTOR PRIOR TO THE START OF CONSTRUCTION AND SHALL NOTIFY THE OWNER'S REPRESENTATIVE IF EXISTING CONDITIONS DIFFER FROM THOSE SHOWN ON THE PLAN THAT WILL PREVENT THE PROPOSED WORK FROM BEING COMPLETED AS INTENDED.
3. IF DURING CONSTRUCTION A CONFLICT SHOULD ARISE BETWEEN AN EXISTING UTILITY AND PROPOSED WORK THE CONTRACTOR SHALL NOTIFY THE OWNER'S REPRESENTATIVE IN WRITING FOR RESOLUTION OF THE CONFLICT.
4. CONTRACTOR TO CALL DIGSAFE PRIOR TO CONSTRUCTION (411), TO UPDATE TICKET AND/OR VERIFY TICKET VALIDATION. DIGSAFE TICKET IS VALID 30 DAYS FROM THE DATE OF ISSUE. BEYOND THIS POINT, TICKETS ARE VALID INDEFINITELY, PROVIDED THAT 1) THE MARKS ARE MAINTAINED, AND 2) THE WORK IS CONTINUOUS.
5. THE PROPOSED WATER CONNECTION SIZE, TYPE & LOCATION ARE TO BE DESIGNED IN ACCORDANCE WITH 248 CMR 10.00, UNIFORM STATE PLUMBING CODE.
6. ALL PROPOSED DRAIN PIPES ARE TO BE HDPE OR APPROVED EQUIVALENT UNLESS OTHERWISE SPECIFIED.
7. THE INSTALLATION OF DRAINAGE STRUCTURES, ESPECIALLY THE HDPE PIPE AND SUBSURFACE CHAMBERS, SHALL ADHERE STRICTLY TO THE MANUFACTURERS INSTALLATION REQUIREMENTS TO MEET AASHTO LOADING REQUIREMENTS.
8. WHEREVER FEASIBLE, SEWERS WILL BE LAID AT A MINIMUM OF 10 FEET, HORIZONTALLY, FROM ANY EXISTING OR PROPOSED WATER MAIN. SHOULD LOCAL CONDITIONS PREVENT A LATERAL SEPARATION OF 10 FEET TO A WATER MAIN THE SEWER MAIN WILL BE LAID IN A SEPARATE TRENCH AND THE ELEVATION OF THE CROWN OF THE SEWER PLACED AT LEAST 18 INCHES BELOW THE INVERT OF THE WATER MAIN. WHENEVER SEWERS MUST CROSS UNDER WATER MAINS, THE SEWER SHALL BE LAID AT SUCH AN ELEVATION THAT THE CROWN OF THE SEWER IS AT LEAST 18 INCHES BELOW THE WATER MAIN. WHEN IT IS IMPOSSIBLE TO OBTAIN HORIZONTAL OR VERTICAL SEPARATION AS STIPULATED ABOVE, BOTH THE WATER MAIN AND SEWER SHOULD BE ENCASED IN CONCRETE FOR 10 FEET EITHER SIDE OF THE CROSSING.
9. THE APPLICANT SHALL COORDINATE WITH THE MEDWAY WATER DIVISION TO ENSURE PROPER DOMESTIC AND FIRE FLOWS PRIOR TO BUILDING PERMIT.
10. PROPOSED CATCH BASINS TO BE FITTED WITH SILT SACK OR APPROVED EQUAL WHEN INSTALLED AND REMOVED AFTER FINAL PAVEMENT COURSE IS LAID.
11. DAILY WATER USAGE IS EXPECTED TO BE APPROXIMATELY 2,000 gpd.
12. ALL PROPOSED ELECTRICAL CONNECTIONS SHALL BE UNDERGROUND.
13. EXISTING ON SITE ELECTRICAL SERVICE COMPONENTS, INCLUDING THE EXISTING TRANSFORMER PAD, UTILITY POLES AND OVERHEAD WIRES TO BE REMOVED.



Owner:
Medway Flower, LLC
950 Paradise Road
Swampscott, MA 01907

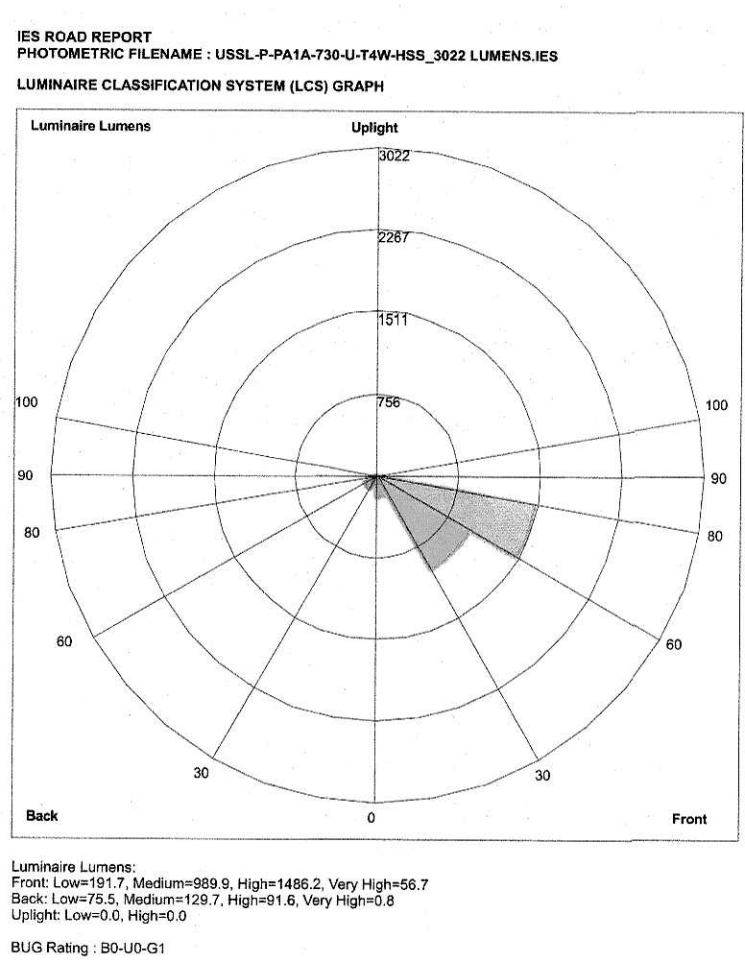
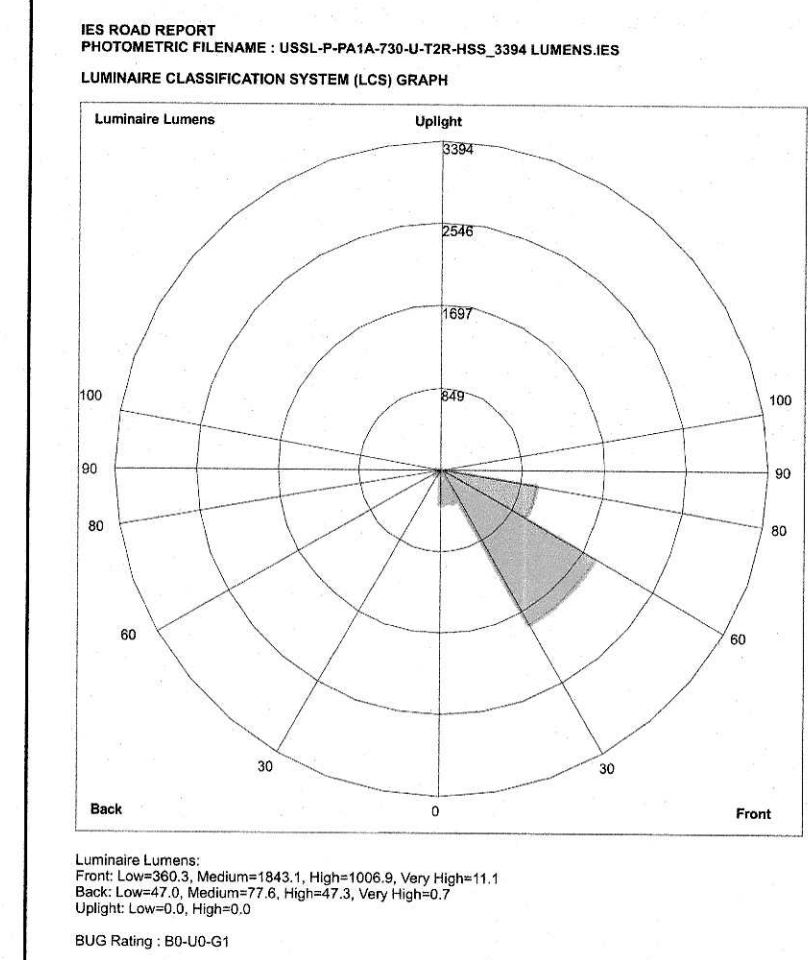
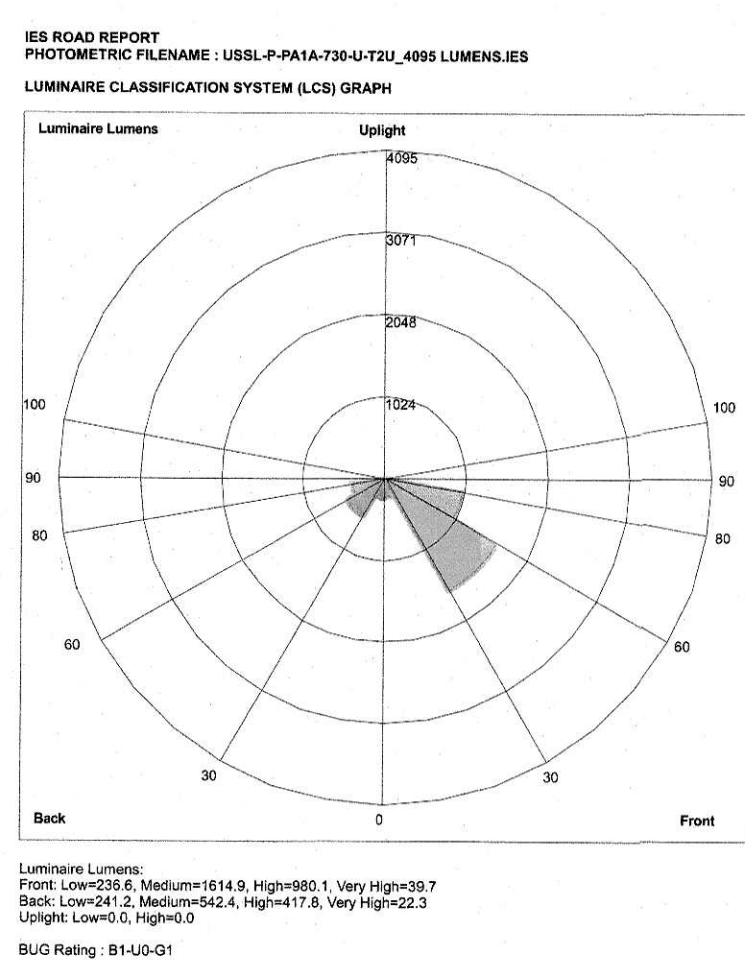
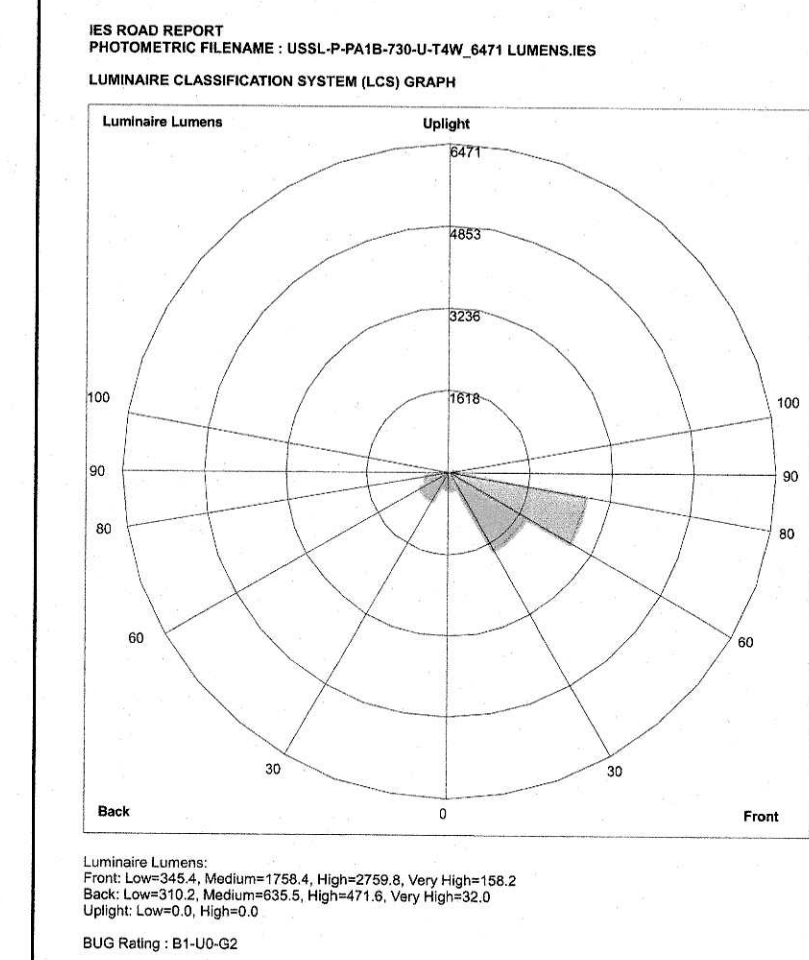
Applicant:
Phytocopia, Inc.
25 Newbury Street
Peabody, MA 01960

Designed By: MEM
Drawn By: MEM
Reviewed By: CPS
Project Manager: CPS
Job File Number: MEDW-0017
Drawing File Folder: MEDW17

☒ Drawing Issued for Review
☐ Drawing Issued for Permit
☐ Drawing Issued for Construction

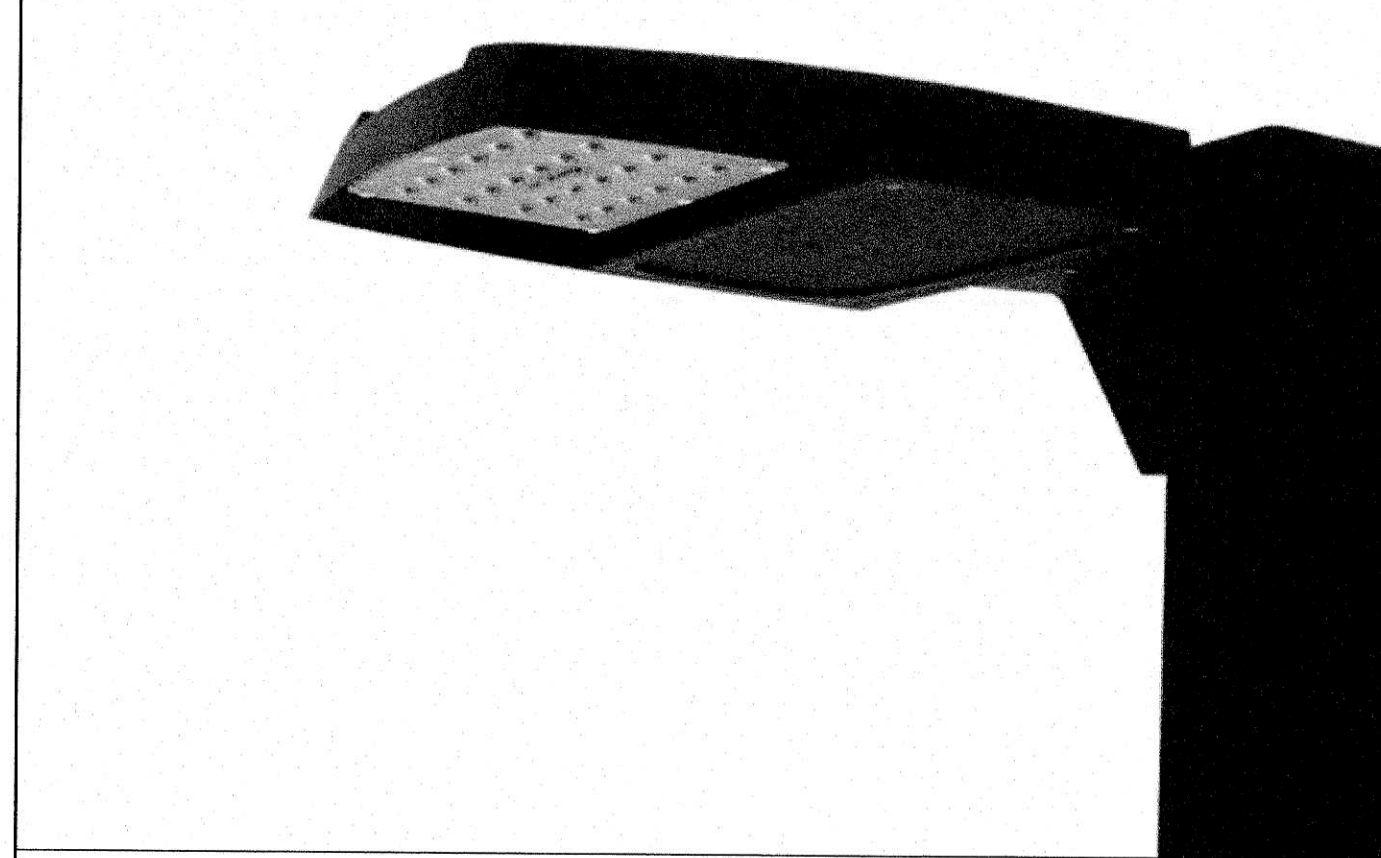


UTILITY PLAN		INDUSTRIAL PARK ROAD		6 INDUSTRIAL PARK ROAD, MEDWAY, MA				
DRAWING: C4.1	SHEET 5 OF 14	APRIL 1, 2021	SCALE: 1"=30'	0' 15' 30' 60'		6		12
						5		11
						4		10
						3	Town Comments / Peer Review	9
						2	Town Comments / Peer Review	8
			1	Town Comments / Peer Review	7			



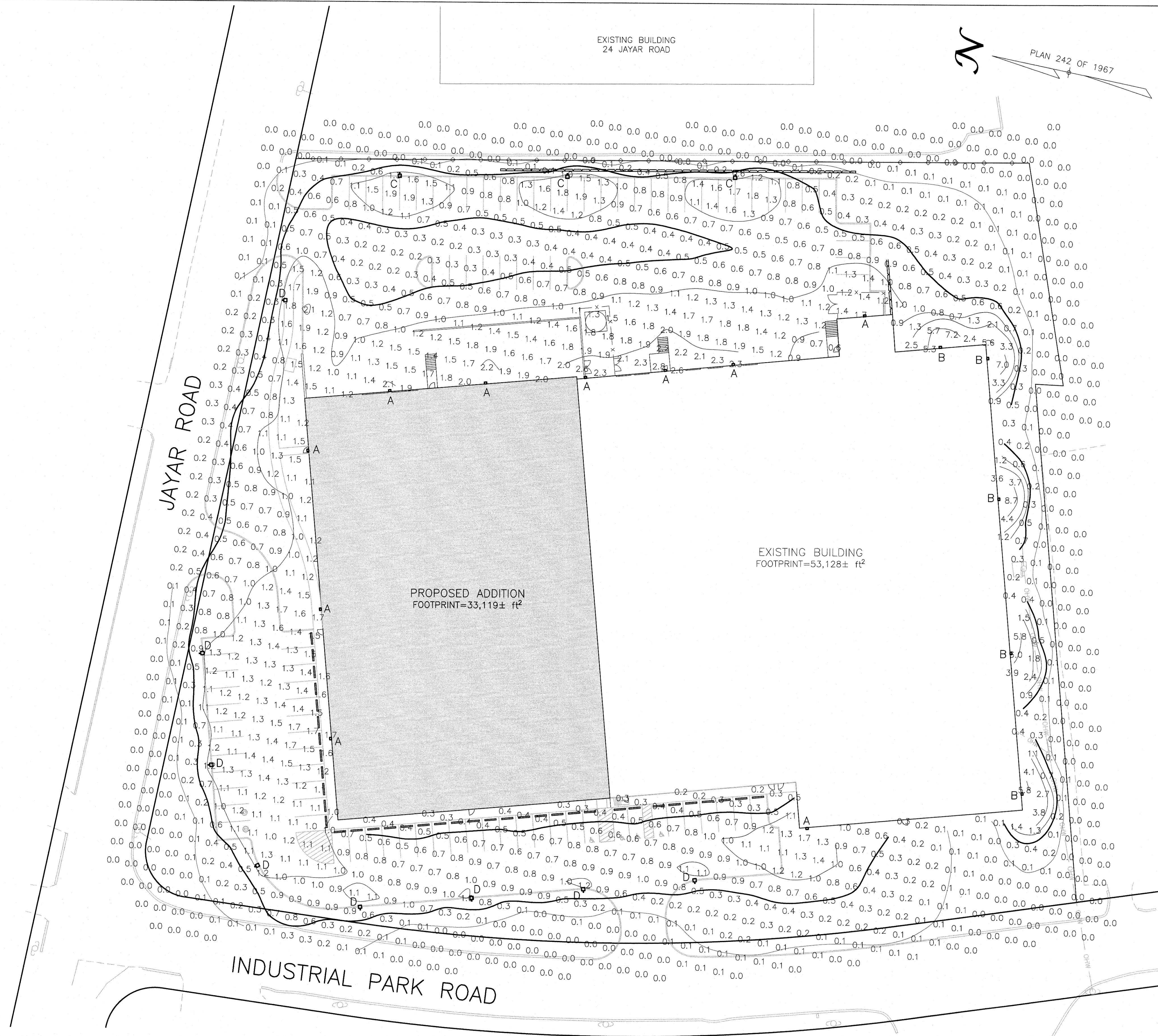
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Results derived from content of manufacturer photometric file.

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Results derived from content of manufacturer photometric file.



LUMINAIRE SCHEDULE								GENERAL PHOTOMETRIC SCHEDULE	
SYMBOL	LABEL	QUANTITY	CATALOG NUMBER COOPER LIGHTING	DESCRIPTION	LAMP	TILT	LLF	CANDELA FILE	
□	A	10	USSLP-PA1B-730-U-T4W (FINISH & ELECTRICAL TO BE SPECIFIED BY OTHERS)	TYPE IV WIDE OPTICS 20' MOUNTING HEIGHT (WALL MOUNTED)	3000K 6471 LUMENS PER LAMP	0°	0.85	USSLP-PA1B-730-U-T4W_6471 LUMENS.IES	AVERAGE FOOT-CANDLES 0.62
□	B	5	USSLP-PA1A-730-U-T2 (FINISH & ELECTRICAL TO BE SPECIFIED BY OTHERS)	TYPE 2 OPTICS 8' MOUNTING HEIGHT (WALL MOUNTED)	3000K 4095 LUMENS PER LAMP	0°	0.85	USSLP-PA1A-730-U-T2U_4095 LUMENS.IES	MAXIMUM FOOT-CANDLES 8.7
◻	C	3	USSLP-PA1A-730-U-T2R-HSS (FINISH & ELECTRICAL TO BE SPECIFIED BY OTHERS)	TYPE 2 OPTICS 20' MOUNTING HEIGHT (POLE MOUNTED)	3000K 3394 LUMENS PER LAMP	0°	0.85	USSLP-PA1A-730-U-T2R-HSS_3394 LUMENS.IES	MINIMUM FOOT-CANDLES 0.0
◻	D	8	USSLP-PA1A-730-U-T4W-HSS (FINISH & ELECTRICAL TO BE SPECIFIED BY OTHERS)	TYPE IV WIDE OPTICS 20' MOUNTING HEIGHT (POLE MOUNTED)	3000K 3022 LUMENS PER LAMP	0°	0.85	USSLP-PA1A-730-U-T4W-HSS_3022 LUMENS.IES	MINIMUM TO MAXIMUM FC RATIO 0.00
									MAXIMUM TO MINIMUM FC RATIO 8.65 / 0.00
									AVERAGE TO MINIMUM FC RATIO 0.62 / 0.00

NOTES:
1. SECURITY LIGHTING TO BE DETERMINED.
2. ILLUMINANCE VALUES CREATED FROM MANUFACTURERS PHOTOMETRIC DATA.
3. ILLUMINANCE VALUES SHOWN REPRESENT HORIZONTAL FOOTCANDLES AT GROUND LEVEL.
4. FOOT CANDLE VALUES SHOWN DO NOT ACCOUNT FOR LIGHT REFLECTION, EXISTING LIGHT SOURCES, SLOPING GRADE OR EXISTING OR PROPOSED THREE DIMENSIONAL OBJECTS.



WILLIAMS & SPARAGES
139 NORTH MAIN STREET
SUITE 101
PEABODY, MA 01960
PHONE: (978) 539-8088
FAX: (978) 539-8200
WWW.WSINC.COM

Owner:
Medway Flower, LLC
990 Paradise Road
Swampscott, MA 01907

Applicant:
Phytocopia, Inc.
25 Newbury Street
Peabody, MA 01960

Designed By: MEM
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SEAL

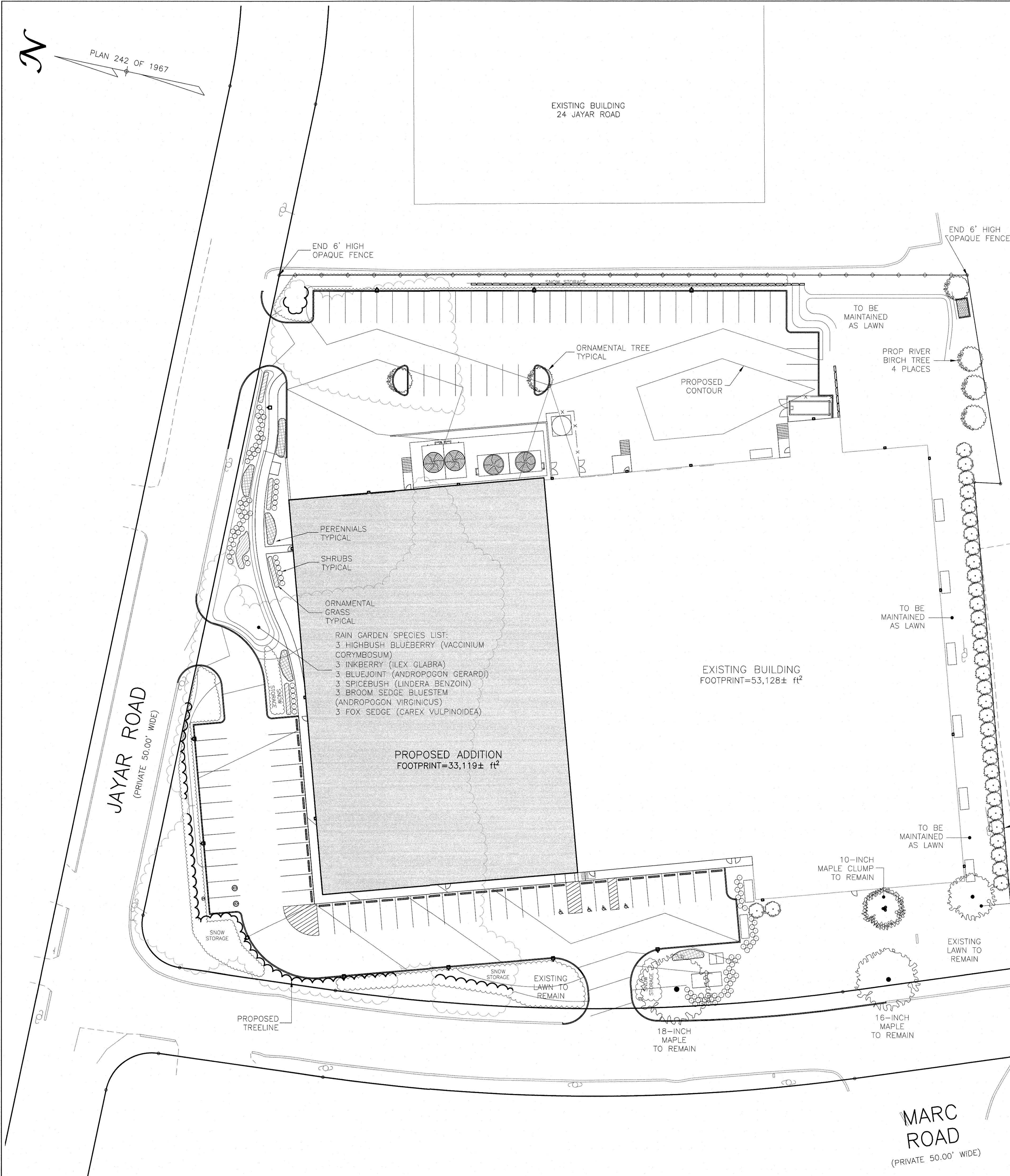
PHOTOMETRIC PLAN
INDUSTRIAL PARK ROAD
6 INDUSTRIAL PARK ROAD, MEDWAY, MA

12 11 10 9 8 7
6 5 4 3 2 1
Town Comments / Peer Review
Town Comments / Peer Review
Town Comments / Peer Review

10/12/2021
1/13/2022
3/7/2022

APRIL 1, 2021

DRAWING: C6.1
SHEET 7 OF 14



PLANT SCHEDULE

ORNAMENTAL TREES					
SYMBOL	QUANTITY	LATIN NAME	COMMON NAME	PLANTING SIZE	NOTES
RBC	TBD	BETULA NIGRA	RIVER BIRCH	10'-12' TALL	B&B, MULTI STEM
SBY	TBD	AMELANCHIER X GRANDIFLORA	SERVICEBERRY	8'-10' TALL	B&B, MULTI STEM
ERB	TBD	CERCIS CANADENSIS	EASTERN REDBUD	8'-10' TALL	B&B, SINGLE/MULTI STEM
SMA	TBD	MAGNOLIA STELLATA	STAR MAGNOLIA	8'-10' TALL	B&B, SPECIMEN
JFC	TBD	PRUNUS KANZAN	JAPANESE FLOWERING CHERRY	8'-10' TALL	B&B, SPECIMEN
SHRUBS					
SYMBOL	QUANTITY	LATIN NAME	COMMON NAME	PLANTING SIZE	NOTES
RTD	TBD	CORNUS SERICEA 'ARTIC FIRE'	RED TWIG DOGWOOD	3.5' TALL	B&B, PLANT 36" O.C.
INK	TBD	ILEX GLABRA	INKBERRY	3' TALL	B&B, PLANT 36" O.C.
DFG	TBD	FOTHERGILLA GARDENII	DWARF FOTHERGILLA	3.5' TALL	B&B, PLANT 36" O.C.
GLS	TBD	RHUS AROMATICA	GRO-LOW SUMAC	3 GALLON	B&B, PLANT 36" O.C.
QHD	TBD	HYDRANGEA QUERCIFOLIA	OAKLEAF HYDRANGEA	3' TALL	B&B, PLANT 36" O.C.
WBY	TBD	ILEX VERTICILLATA	WINTERBERRY	3' TALL	B&B, PLANT 36" O.C.
HYW	TBD	TAXUS X MEDIA 'HICKSII'	HICKS YEW	5 GALLON	B&B, PLANT 36" O.C.
PERENNIALS					
SYMBOL	QUANTITY	LATIN NAME	COMMON NAME	PLANTING SIZE	NOTES
PCF	TBD	ECHINACEA PURPUREA	PURPLE CONEFLOWER	1 GALLON	PLANT 18" O.C.
VHM	TBD	RUDBECKIA FULGIDA 'GOLDSTRUM'	BLACK-EYED SUSAN	1 GALLON	PLANT 18" O.C.
HRD	TBD	PEROVSKIA ATR. 'LITTLE SPIRE'	RUSSIAN SAGE	1 GALLON	PLANT 18" O.C.
ORNAMENTAL GRASS					
SYMBOL	QUANTITY	LATIN NAME	COMMON NAME	PLANTING SIZE	NOTES
SGR	TBD	PANICUM VIRGATUM 'SHENANDOAH'	SWITCH GRASS	2 GALLON	PLANT 36" O.C.
LBS	TBD	SCHIZACHYRIUM SCOPARIUM	LITTLE BLUESTEM	2 GALLON	PLANT 36" O.C.
FGR	TBD	PENNISETUM ALOPECUROIDES	FOUNTAIN GRASS	2 GALLON	PLANT 24" O.C.

- PLANTING NOTES
1. DURING CONSTRUCTION CONTRACTOR SHALL PROTECT AND SAVE ALL VEGETATION BEYOND THE LIMIT OF GRADING ACTIVITIES.
 2. ALL PROPOSED PLANTINGS SHALL BE ADJUSTED TO ACCOMMODATE UNDERGROUND UTILITIES.
 3. ALL PLANTING METHODS SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE AMERICAN ASSOCIATION OF NURSERYMEN.
 4. IN THE EVENT OF DISCREPANCIES BETWEEN THE QUANTITIES OF PLANTS IN THE PLANT LIST AND THE DRAWINGS, THE DEPICTION OF THE PLANTS ON THE DRAWINGS SHALL GOVERN.
 5. ALL TREES AND SHRUBS SHALL BE NURSERY GROWN WITHIN A U.S.D.A. PLANT HARDINESS ZONE WHICH IS THE SAME AS, OR COLDER THAN, THE ZONE IN WHICH THE PROJECT IS LOCATED.
 6. ALL PLANTS 3' OR GREATER IN HEIGHT OR SPREAD TO BE BALLED AND BURLAPED.
 7. ALL LOAM AREAS FOR PLANT BEDS SHALL BE UNIFORM IN COMPOSITION AND FREE FROM SUBSOIL, STONES LARGER THAN 1" AND NOXIOUS MATERIALS.
 8. ALL PLANT SHALL BE WATERED IMMEDIATELY AFTER PLANTING.
 9. ALL DISTURBED AREAS SHALL BE STABILIZED WITH LOAM AND SEED AND/OR BARK MULCH. BEGINNING AND ENDING POINTS OF GRASS AND MULCH TO BE DETERMINED IN FIELD WITH OWNER AUTHORIZATION.
 10. POSITIVE DRAINAGE SHALL BE MAINTAINED AWAY FROM AND AROUND BUILDING PER BUILDING CODE.
 11. ALL WORK TO COMPLY TO ORDER OF CONDITIONS ISSUED FOR PROJECT. SEE CONDITIONS PRIOR TO LANDSCAPE WORK.
 12. CONTRACTOR TO PROVIDE TWO YEAR GUARANTEE ON ALL PLANTING MATERIAL.
 13. NO PLANTING PRIOR TO APPROVAL OF FINISHED GRADE.
 14. PROVIDE SOIL DEPTH ACCORDING TO CONSTRUCTION DETAILS FOR TREES.
 15. PROVIDE 18" SOIL DEPTH FOR ALL SHRUBS AND PERENNIALS.
 16. PROVIDE 6" SOIL DEPTH FOR ALL GROUNDCOVER.
 17. PROVIDE 6" SOIL DEPTH FOR ALL SOD/SEED.
 18. ALL SPECIES WITHIN THE RAIN GARDEN SHALL BE PURCHASED FROM A NURSERY SPECIALIZING IN THE PROPOGATION OF PLANTS NATIVE TO MASSACHUSETTS. SPECIES SHALL BE SELECTED FROM THE PROPOSED SPECIES LIST FOR EACH AREA.
 19. CONTRACTOR SHALL REMOVE DEAD SCRUB BRUSH AND SHALL REMOVE SMALL DEAD TREES IN THE PROPOSED TREE SAVE AREAS. EXISTING TREES TO REMAIN SHALL ALSO BE PRUNED WITH THE ADVICE OF A LANDSCAPE CONTRACTOR TO REMOVE DEAD LIMBS TO IMPROVE THE HEALTH OF THE REMAINING TREES.

- PROJECT NOTES
1. STOCKPIILING OF SNOW AT DRIVEWAY/DRIVEWAY AND DRIVEWAY/STREET INTERSECTIONS SHALL NOT EXCEED 3 FEET IN HEIGHT.

WILLIAMS & SPARGES

SUITE 101
185 NORTH MAIN STREET
SWAPSCOTT, MA 01960
PHONE: (978) 538-8088
FAX: (978) 538-8080
WWW.WSMAINC.COM

Owner:
Medway Flower, LLC
990 Paradise Road
Swampscott, MA 01907

Applicant:
Phytotopia, Inc.
25 Newbury Street
Peabody, MA 01960

Designed By: MEM
Drawn By: MEM
Reviewed By: CPS
Project Manager: CPS
Job File Number: MEDW-0017
Drawing File Folder: MEDW17

☒ Drawing Issued for Review

☐ Drawing Issued for Permit

☐ Drawing Issued for Construction

SEAL

COMMONWEALTH OF MASSACHUSETTS
SHARBY P.
SPARGES
CIVIL
No. 40774
Professional Engineer

LANDSCAPE PLAN
INDUSTRIAL PARK ROAD
6 INDUSTRIAL PARK ROAD, MEDWAY, MA

12
11
10
9
8
7

6
5
4
3
2
1

0' 15' 30' 60'

SCALE: 1"=30'

APRIL 1, 2021

DRAWING: C7.1

SHEET 8 OF 14

EARTHWORK CALCULATIONS

PROPOSED ADDITION:
Volumes calculated to one foot below finished floor grade
Volumes by Triangulation (Prisms)
Existing Surface: P:\MEDW-0017(6 Industrial Park Road)\Drawings\EXISTING(210930).tin
Final Surface: P:\MEDW-0017(6 Industrial Park Road)\Drawings\PROPOSED_ADDITION(210930).tin
Cut volume: 0.0 C.F., 0.00 C.Y.
Fill volume: 65,678.5 C.F., 2,432.54 C.Y.

Area in Cut : 0.0 S.F., 0.00 Acres
Area in Fill: 33,118.9 S.F., 0.76 Acres
Total inclusion area: 33,118.9 S.F., 0.76 Acres

Average Fill Depth: 1.98 feet
Cut to Fill ratio: 0.00
Import Volume: 2,432.5 C.Y.
Elevation Change To Reach Balance: -1.983
Volume Change Per .1 ft: 122.7 C.Y.

Cut (C.Y.) / Area (acres): 0.00
Fill (C.Y.) / Area (acres): 3199.43

Max Fill: 3.761 at 5031.208,5798.474

PROPOSED PARKING AREAS:
Volumes calculated to one foot below finished pavement grade
Volumes by Triangulation (Prisms)
Existing Surface: P:\MEDW-0017(6 Industrial Park Road)\Drawings\EXISTING(210930).tin
Final Surface: P:\MEDW-0017(6 Industrial Park Road)\Drawings\PROPOSED_PARKING_BASE(211001).tin
Cut volume: 32,363.5 C.F., 1,198.65 C.Y.
Fill volume: 14,770.0 C.F., 547.04 C.Y.

Area in Cut : 31,791.1 S.F., 0.73 Acres
Area in Fill: 19,995.0 S.F., 0.46 Acres
Total inclusion area: 51,855.3 S.F., 1.19 Acres

Average Cut Depth: 1.02 feet
Average Fill Depth: 0.74 feet
Cut to Fill ratio: 2.19
Export Volume: 651.6 C.Y.
Elevation Change To Reach Balance: 0.339
Volume Change Per .1 ft: 192.1 C.Y.

Cut (C.Y.) / Area (acres): 1006.90
Fill (C.Y.) / Area (acres): 459.53

Max Cut: 5.609 at 5071.852,5663.121
Max Fill: 2.761 at 5031.208,5798.474

PROPOSED GRASS AREAS:
Volumes by Triangulation (Prisms)
Existing Surface: P:\MEDW-0017(6 Industrial Park Road)\Drawings\EXISTING(210930).tin
Final Surface: P:\MEDW-0017(6 Industrial Park Road)\Drawings\PROPOSED_GRASS(210930).tin
Cut volume: 16,703.8 C.F., 618.66 C.Y.
Fill volume: 14,113.6 C.F., 522.72 C.Y.

Area in Cut : 13,714.2 S.F., 0.31 Acres
Area in Fill: 20,144.6 S.F., 0.46 Acres
Area exactly in daylight: 7,595.5 S.F., 0.17 Acres
Total inclusion area: 41,454.3 S.F., 0.95 Acres
Total exclusion area: 138,102.4 S.F., 3.17 Acres

Average Cut Depth: 1.22 feet
Average Fill Depth: 0.70 feet
Cut to Fill ratio: 1.18
Export Volume: 95.9 C.Y.
Elevation Change To Reach Balance: 0.062
Volume Change Per .1 ft: 153.5 C.Y.

Cut (C.Y.) / Area (acres): 650.09
Fill (C.Y.) / Area (acres): 549.28

Max Cut: 5.424 at 5120.687,5593.986
Max Fill: 4.012 at 4815.741,5729.176

TOTAL EXPORT VOLUME:
0.00 C.Y. + 1,198.65 C.Y. + 618.66 C.Y. = 1,817 ± C.Y.

TOTAL IMPORT VOLUME:
2,432.54 C.Y. + 547.04 C.Y. + 522.72 C.Y. = 3,502 ± C.Y.

NET VOLUME:
3,502 C.Y. ± - 1,817 C.Y. ± = 1,685 C.Y. ± IMPORT

END SILTFENCE/LIMIT OF WORK W/MULCH SOCK (DISTURBED LAND AREA WITHIN LIMIT OF WORK=126,427 ft²)

END SILTFENCE W/MULCH SOCK

EXISTING CATCH BASIN TO BE FITTED WITH SILTSACK OR APPROVED EQUAL PRIOR TO CONSTRUCTION AND REMOVED AFTER FINAL PAVEMENT COURSE IS LAID.

SWMA3P
RAIN GARDEN
BOT FILTER LAYER=141.50
TOP FILTER LAYER=142.00
TOP PLANTING SOIL=144.00
TOP MULCH=144.25
TOP PONDING=145.00

ALL PROPOSED CATCH BASINS TO BE FITTED WITH SILTSACK OR APPROVED EQUAL AFTER INSTALLATION AND REMOVED AFTER FINAL PAVEMENT COURSE IS LAID (TYPICAL 4 PLACES)

PROPOSED CONSTRUCTION ENTRANCE

CONTRACTOR STAGING AREA

PROPOSED ADDITION
FF ELEV.=149.2
FOOTPRINT=33,119± ft²

STOCKPILE AREA W/SILT FENCE

EXISTING CATCH BASIN TO BE FITTED WITH SILTSACK OR APPROVED EQUAL PRIOR TO CONSTRUCTION AND REMOVED AFTER FINAL PAVEMENT COURSE IS LAID.

JAYAR ROAD
(PRIVATE 50.00' WIDE)

EXISTING BUILDING
24 JAYAR ROAD

EXISTING BUILDING
FOOTPRINT=53,128± ft²

MARC ROAD
(PRIVATE 50.00' WIDE)

INDUSTRIAL PARK ROAD
(PRIVATE 50.00' WIDE)

EROSION & SEDIMENT CONTROL PLAN

INDUSTRIAL PARK ROAD

6 INDUSTRIAL PARK ROAD, MEDWAY, MA

SCALE: 1"=30'

APRIL 1, 2021

DRAWING: C8.1

SHEET 9 OF 14

SEAL



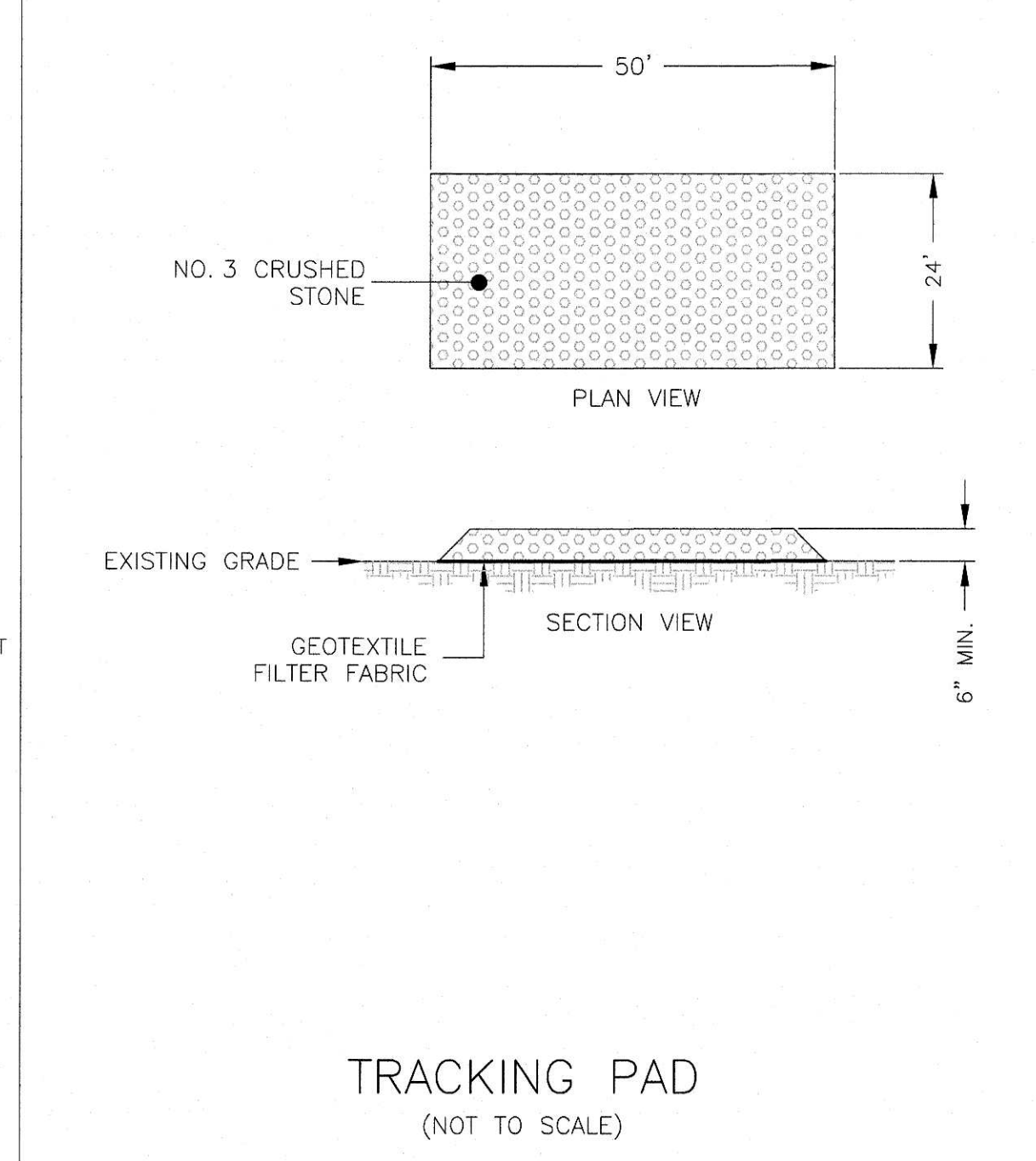
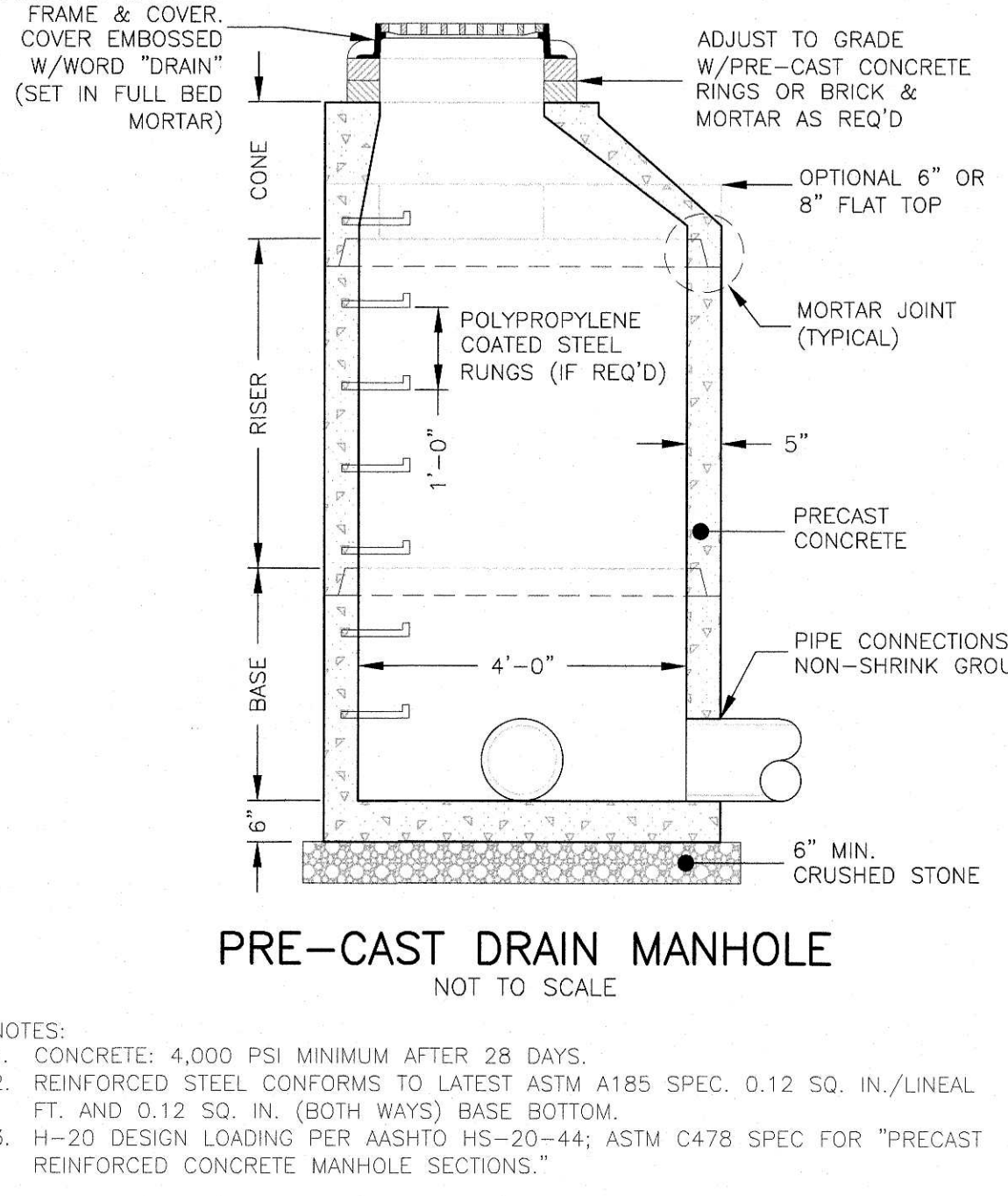
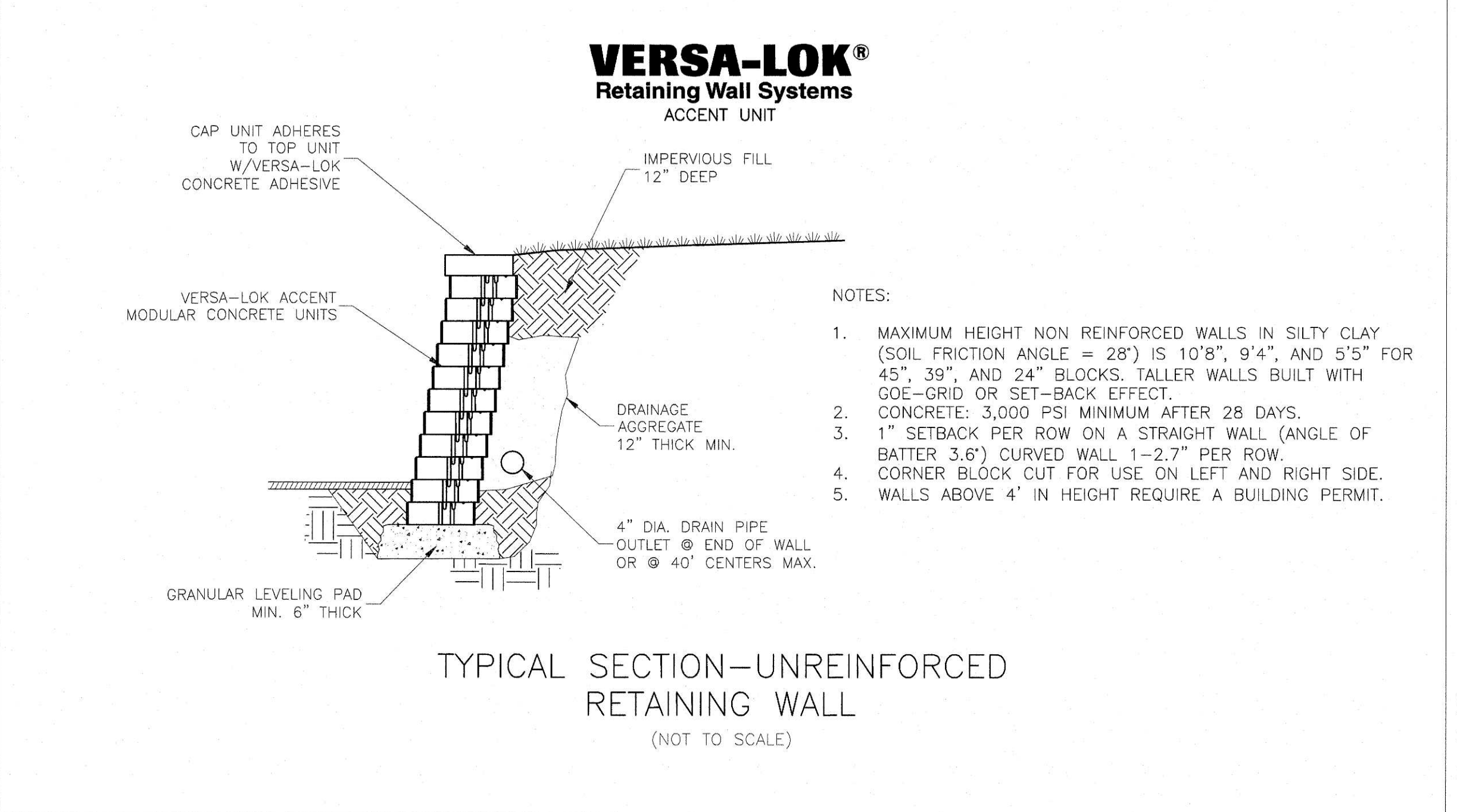
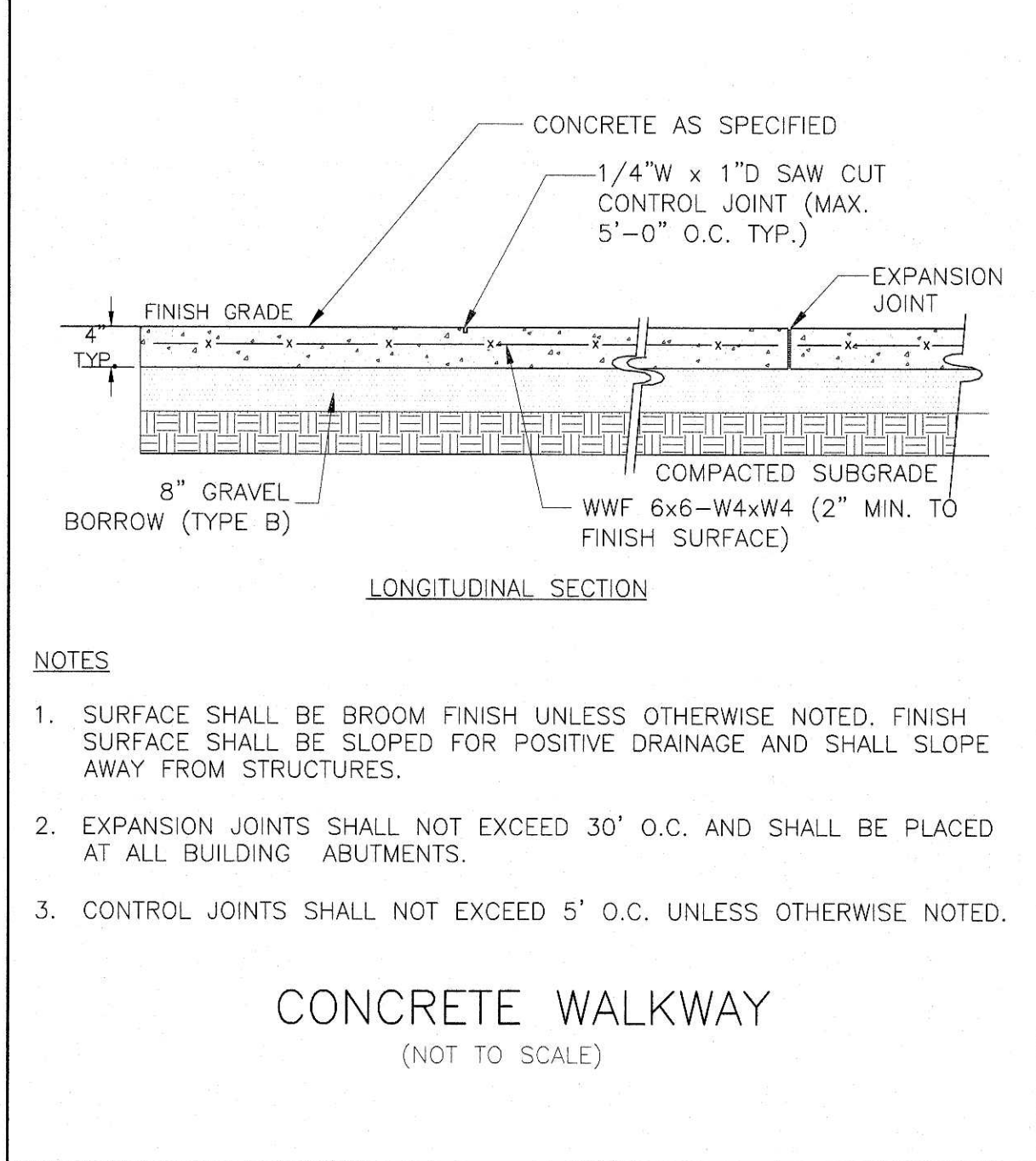
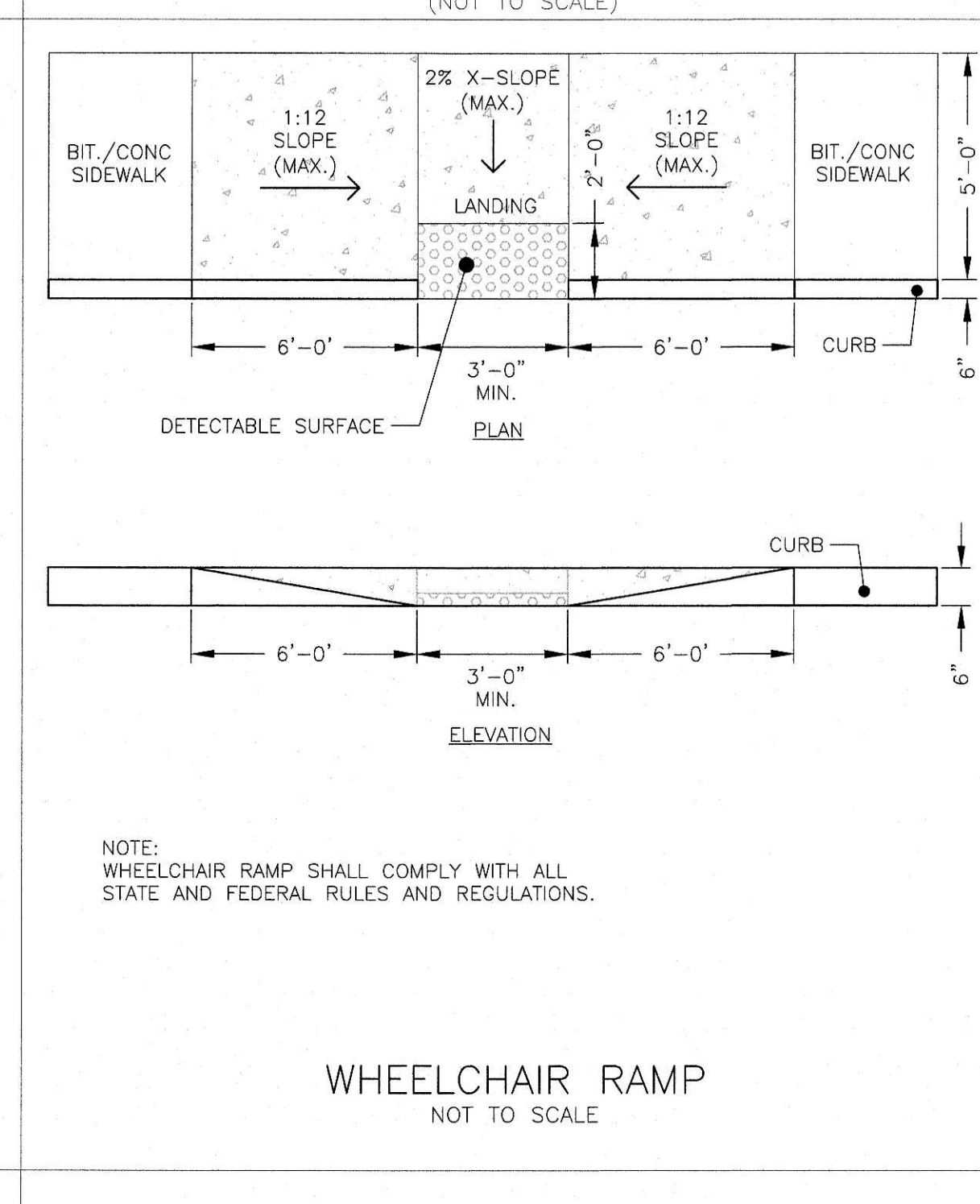
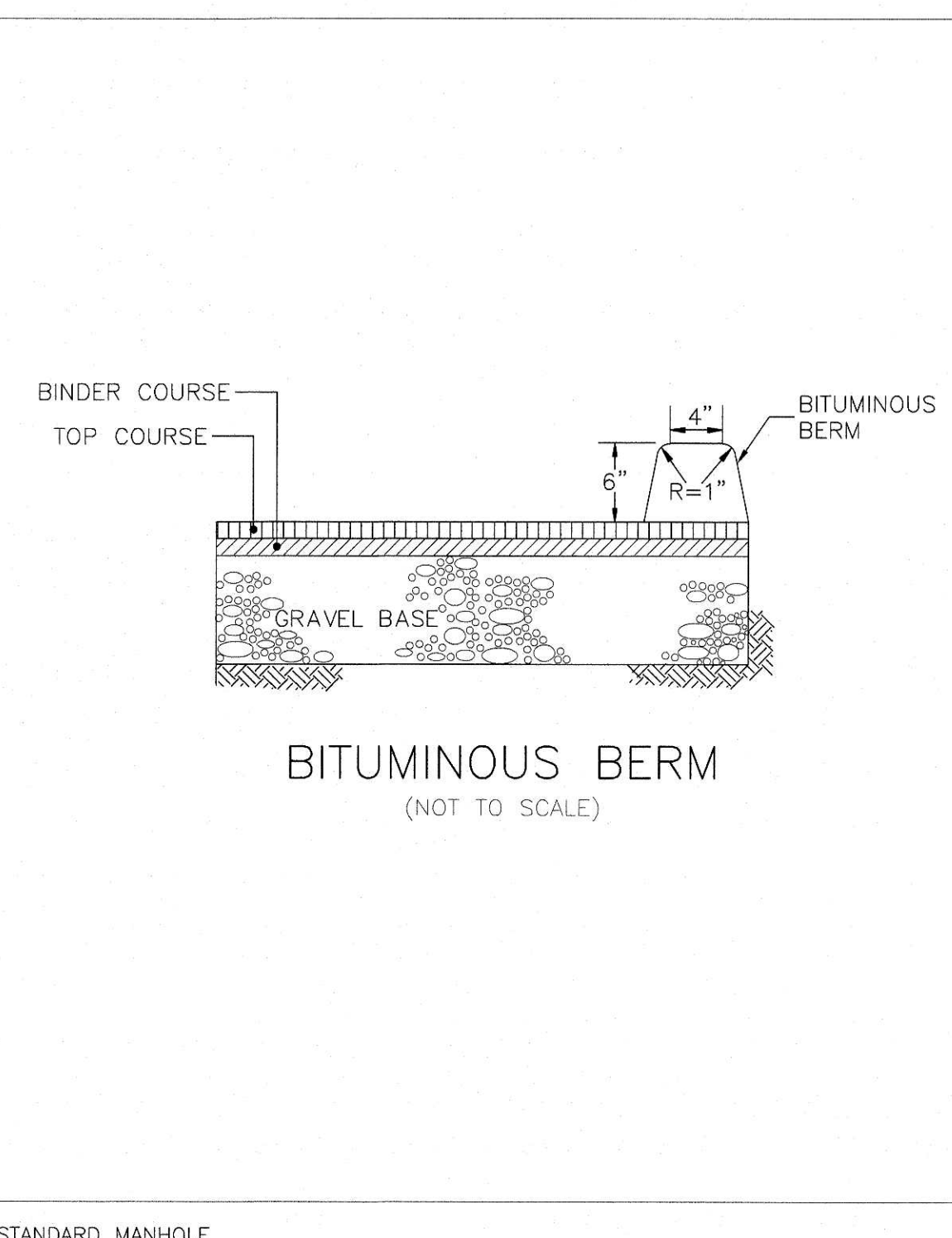
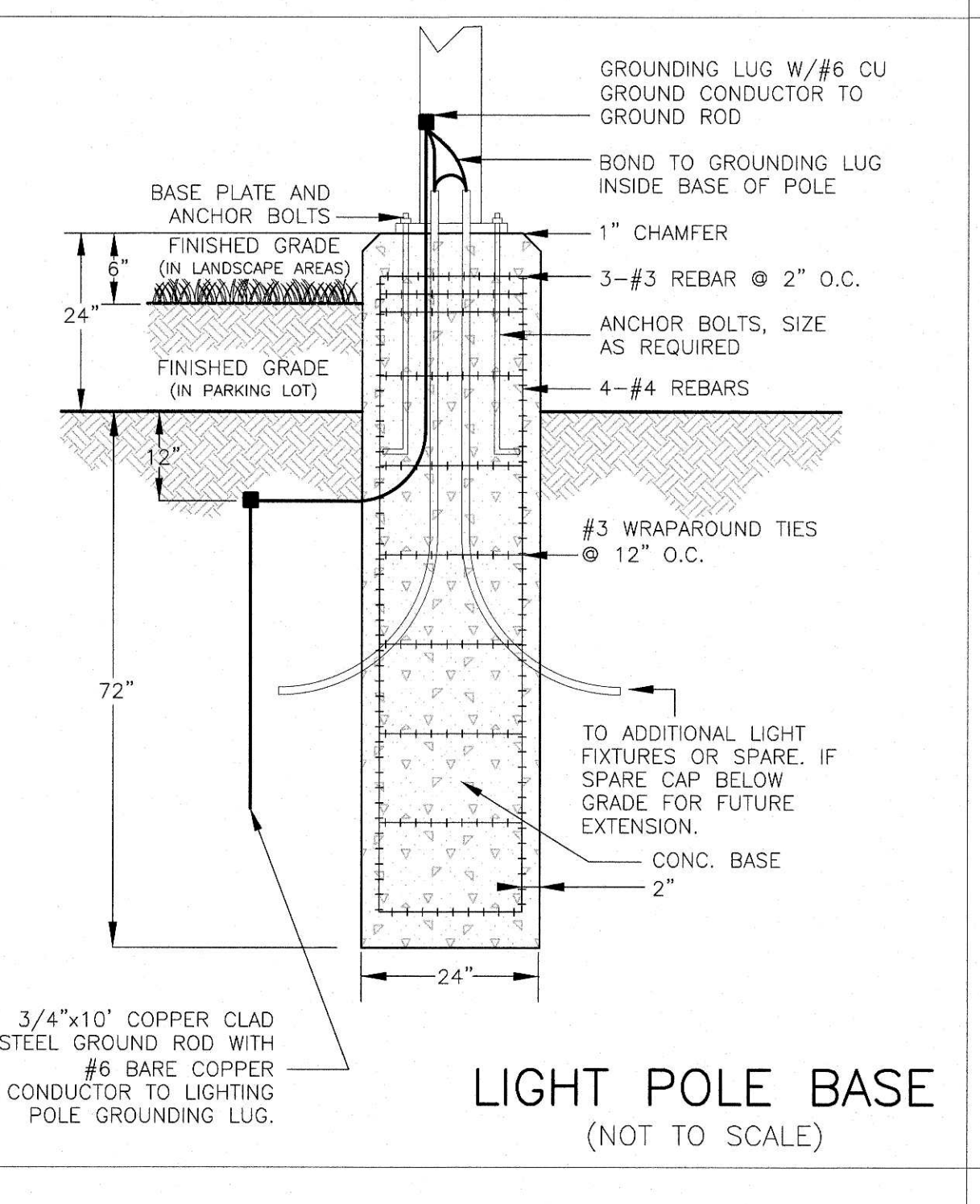
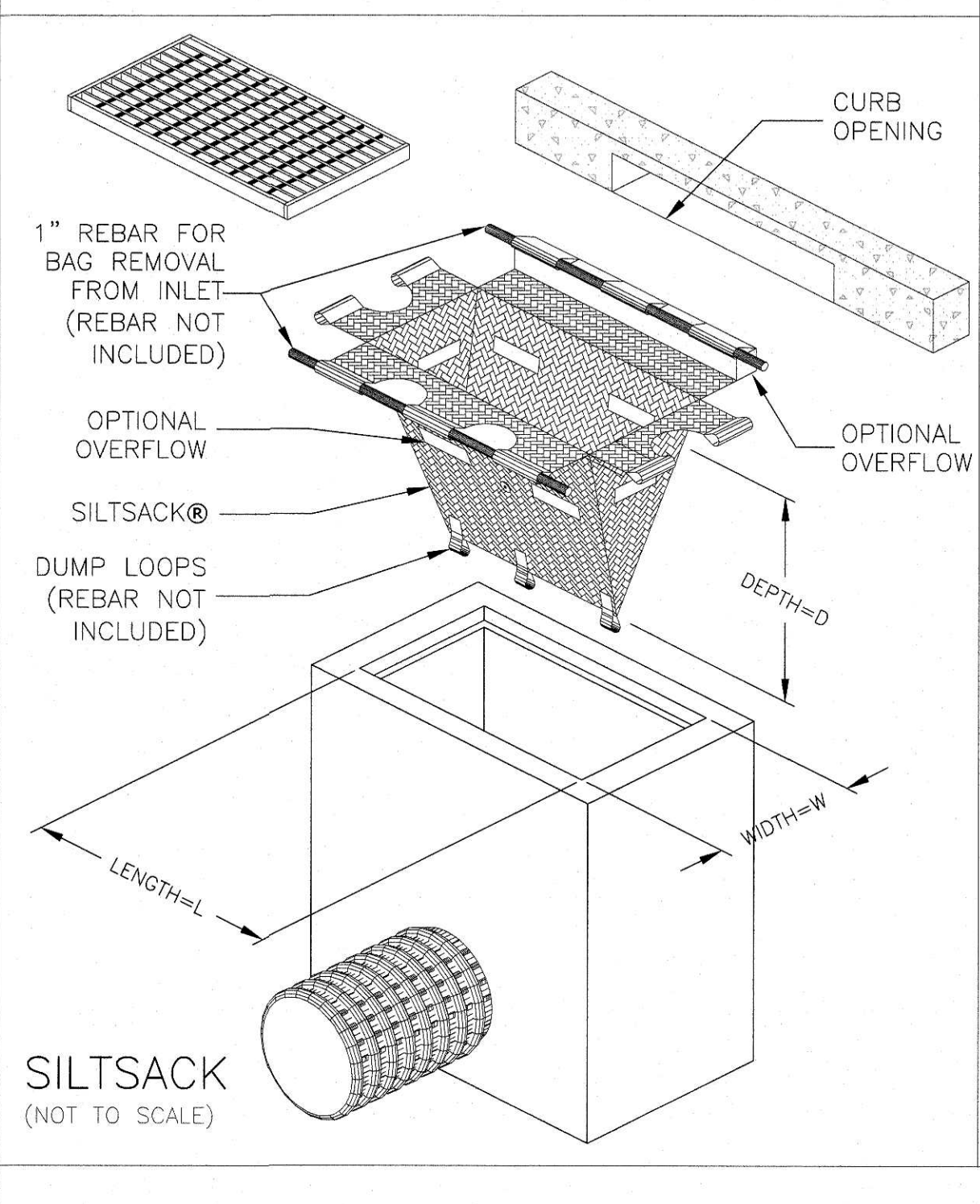
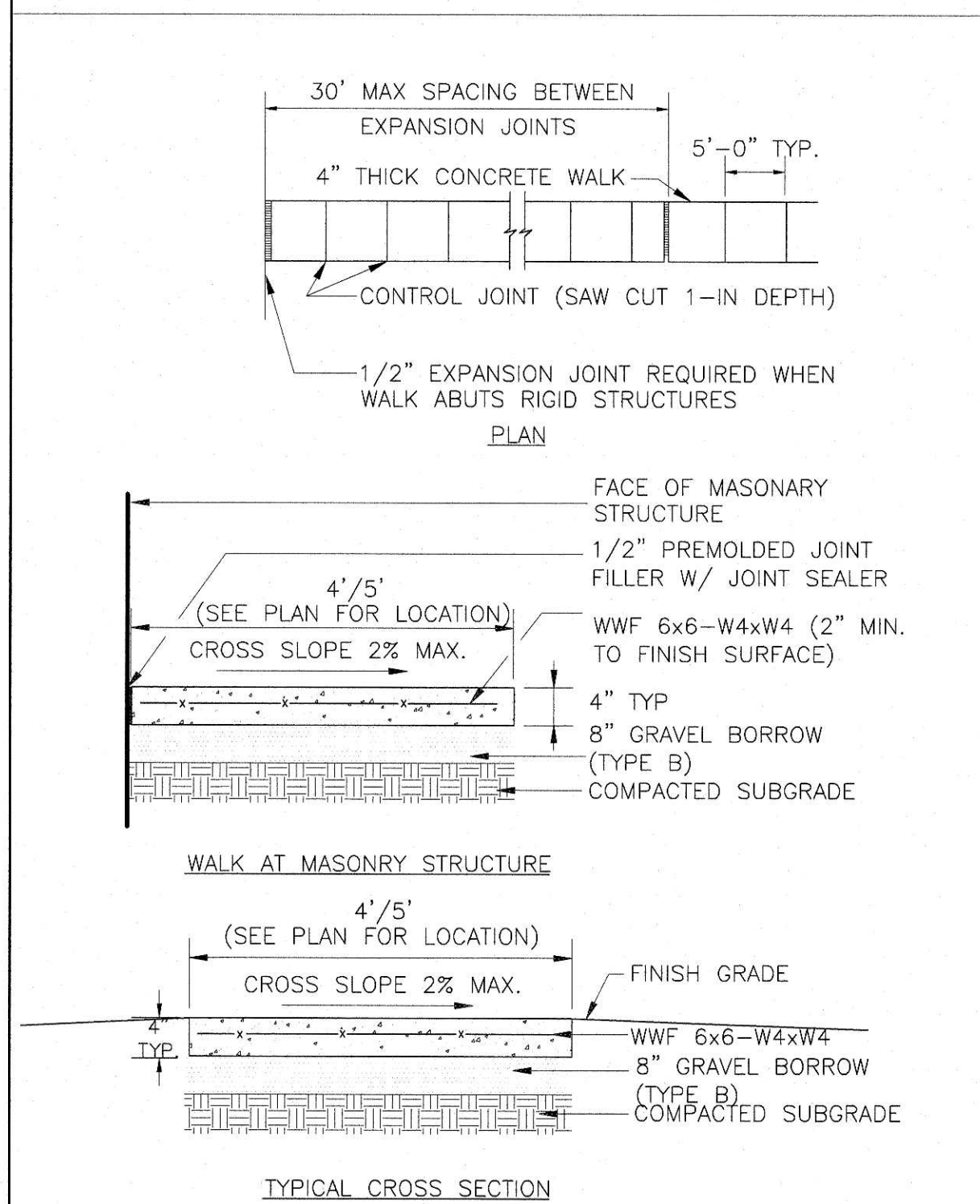
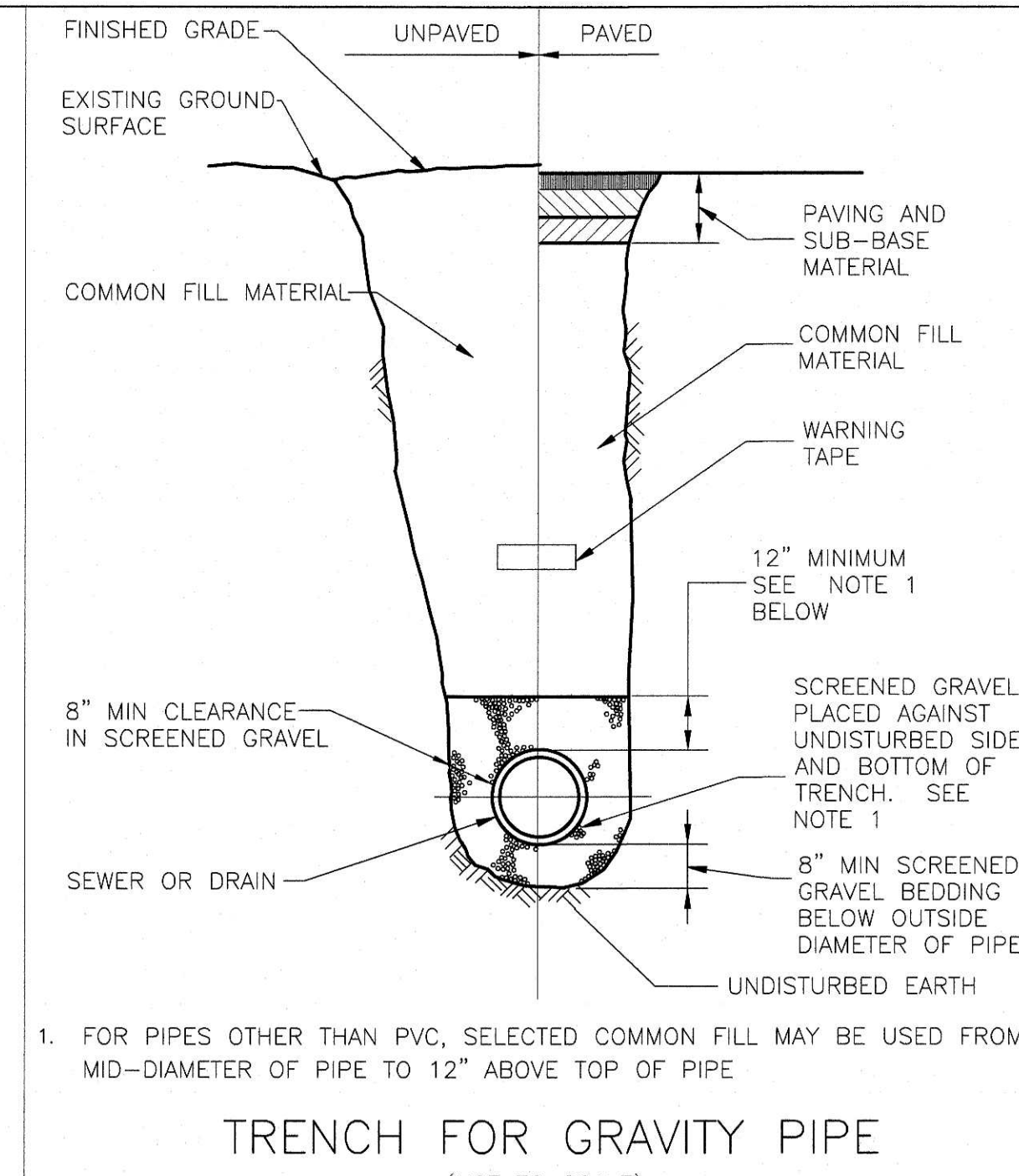
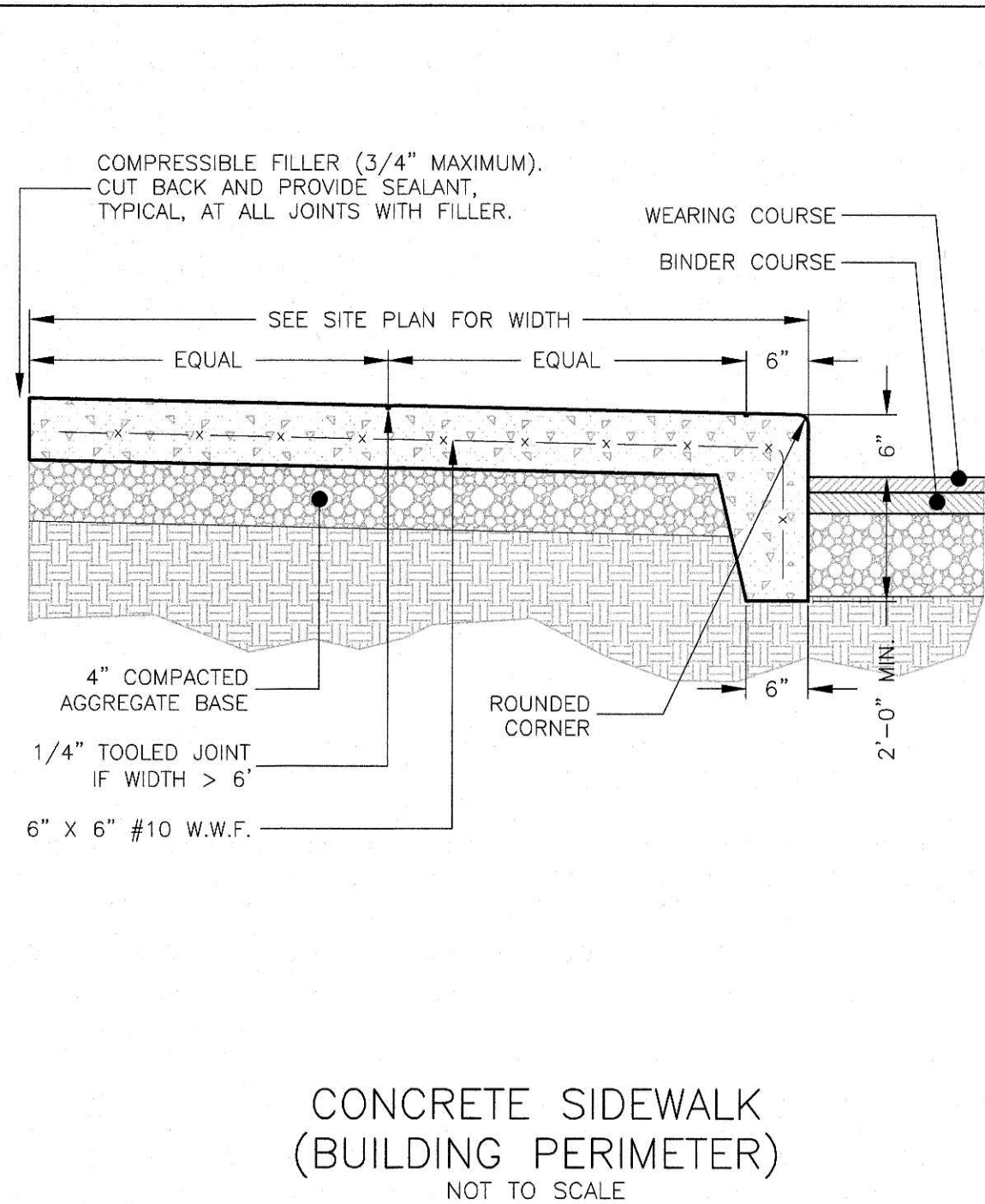
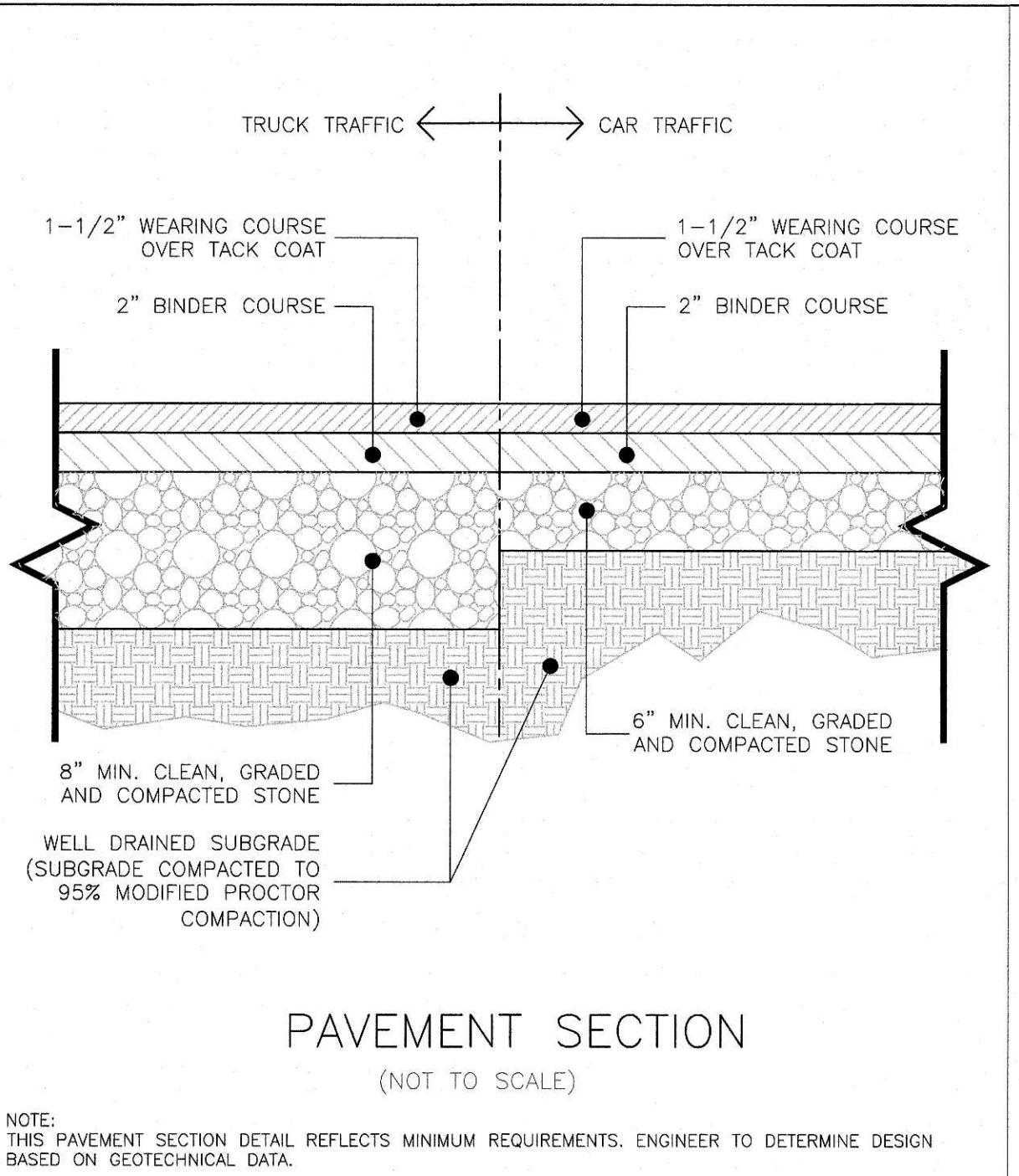
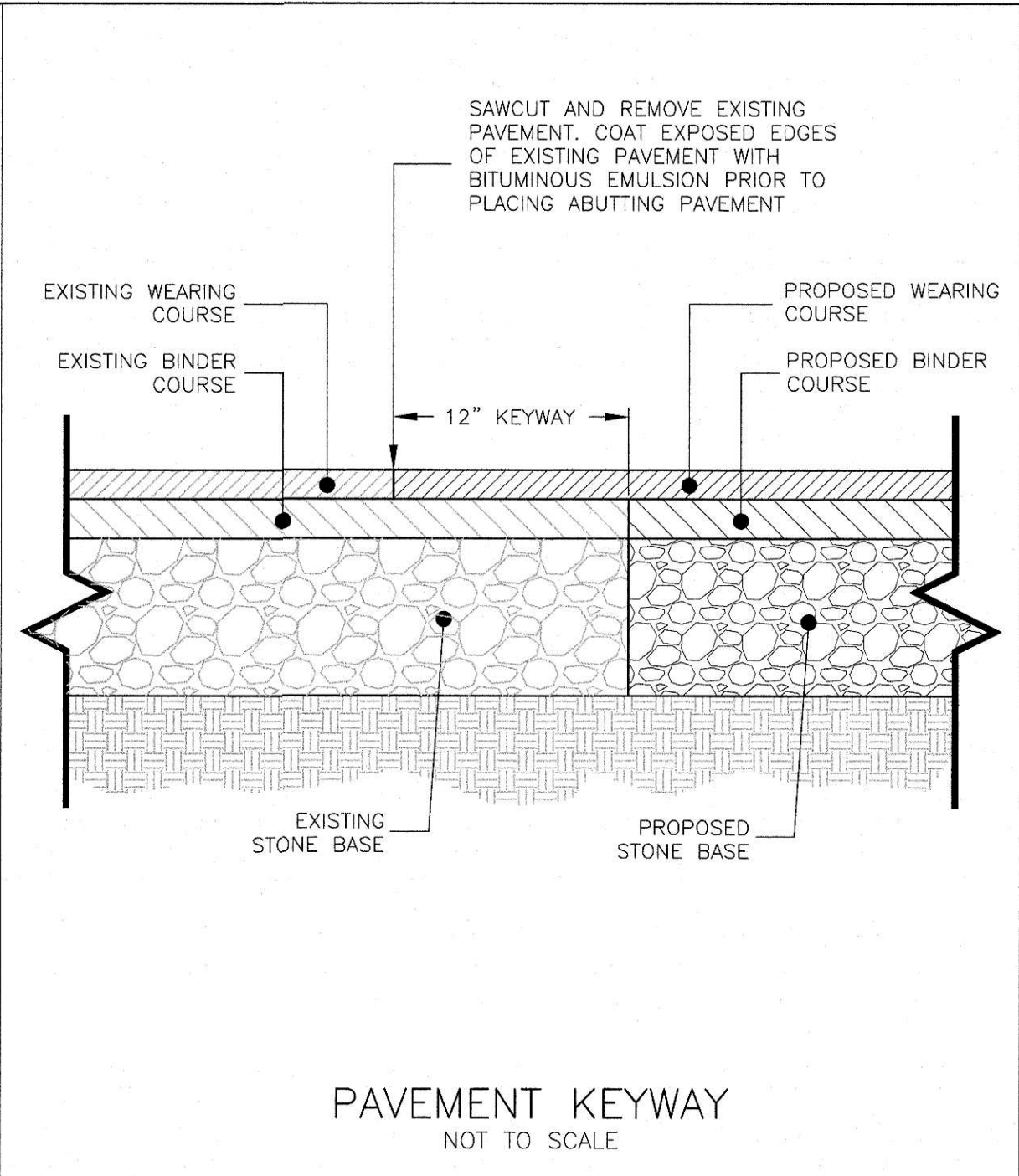
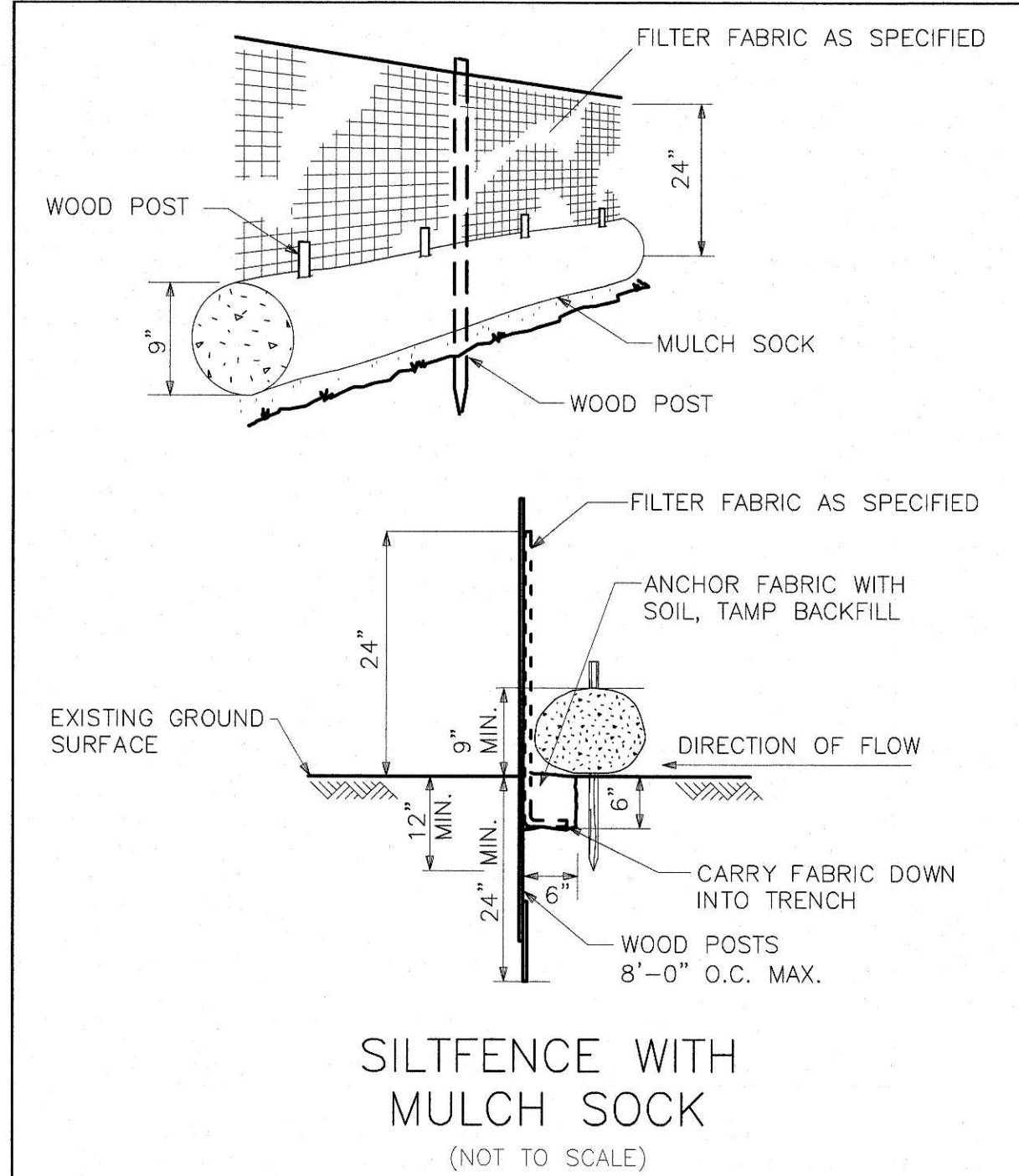
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Drawn By: MEM
Reviewed By: CPS
Project Manager: CPS
Job File Number: MEDW-0017
Drawing File Folder: MEDW17
☒ Drawing Issued for Review
☒ Drawing Issued for Permit
☐ Drawing Issued for Construction

Owner:
Medway Flower, LLC
990 Paradise Road
Swampscott, MA 01907

Applicant:
Phytopia, Inc.
25 Newbury Street
Peabody, MA 01960



WILLIAMS & SPARAGES
INCORPORATED
189 NORTH MAIN STREET
MEDFORD, MA 02155
PHONE: (978) 539-8088
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WWW.WSINCORP.COM



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189 NORTH MAIN STREET
PEABODY, MA 01960
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SEAL

CHRIST P. SPARAGES
No. 00174
COMMONWEALTH OF MASSACHUSETTS
REGISTERED PROFESSIONAL ENGINEER
EXPIRATION DATE 12/31/2024

4/12/22

CONSTRUCTION DETAILS PLAN
INDUSTRIAL PARK ROAD
6 INDUSTRIAL PARK ROAD, MEDWAY, MA

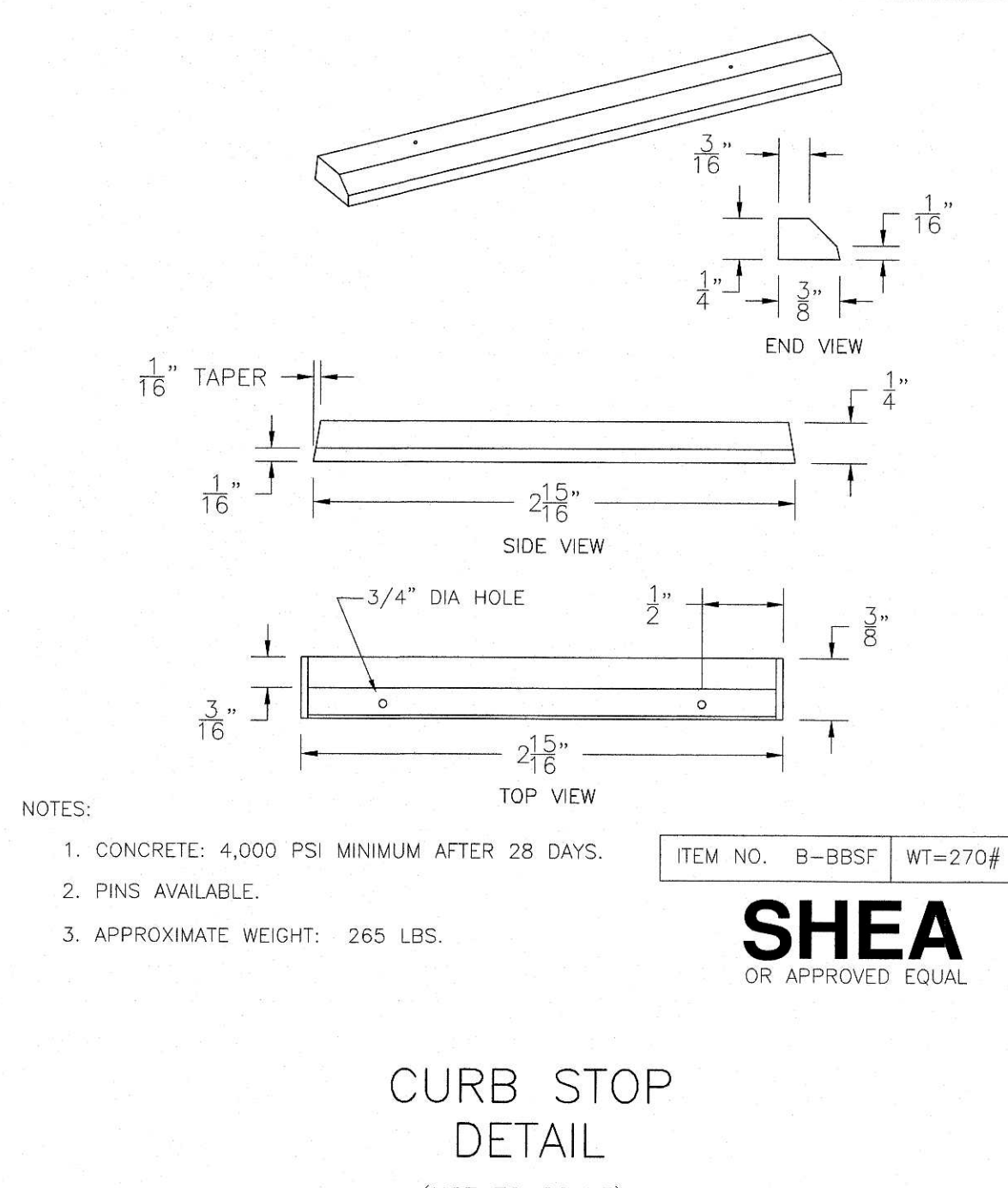
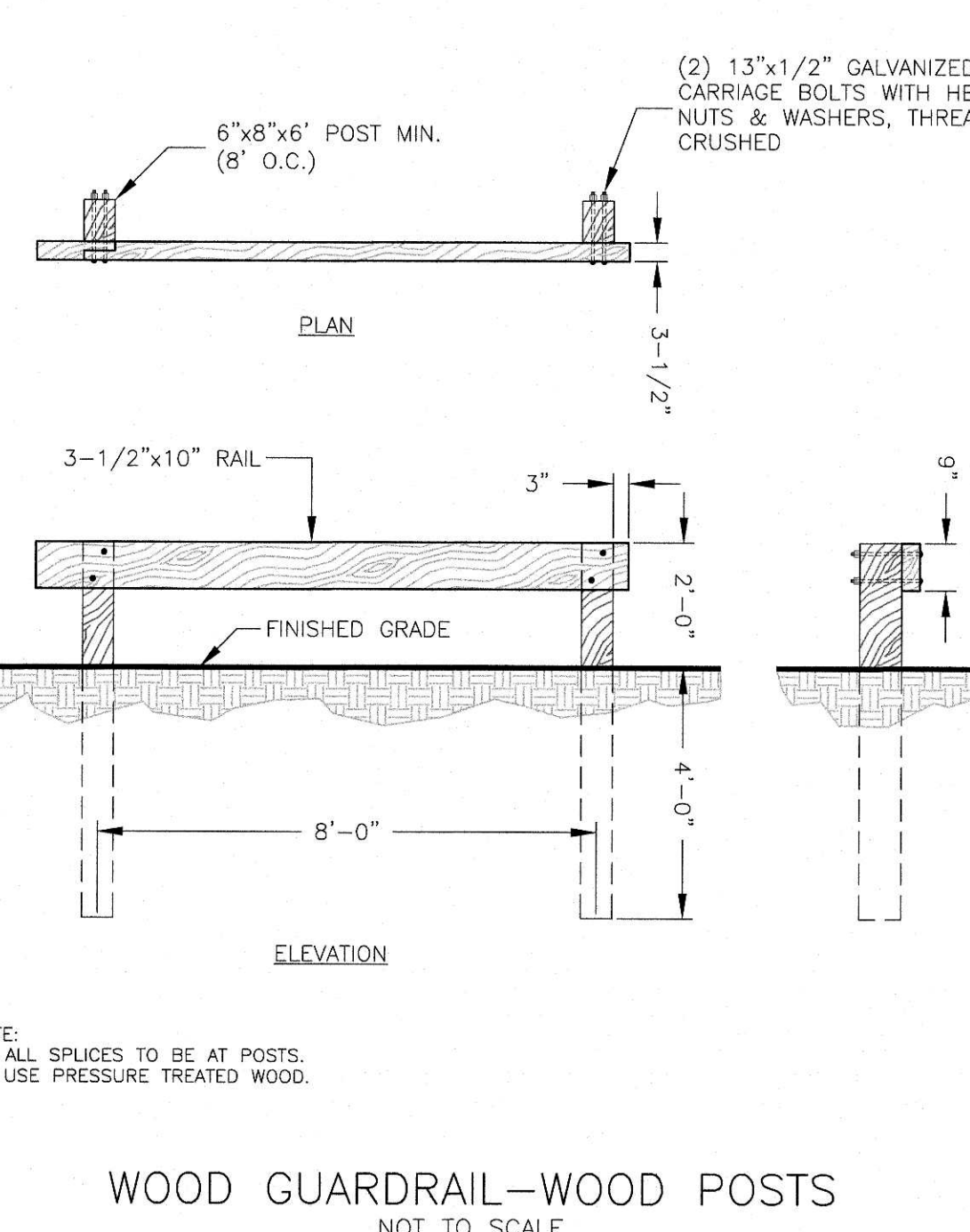
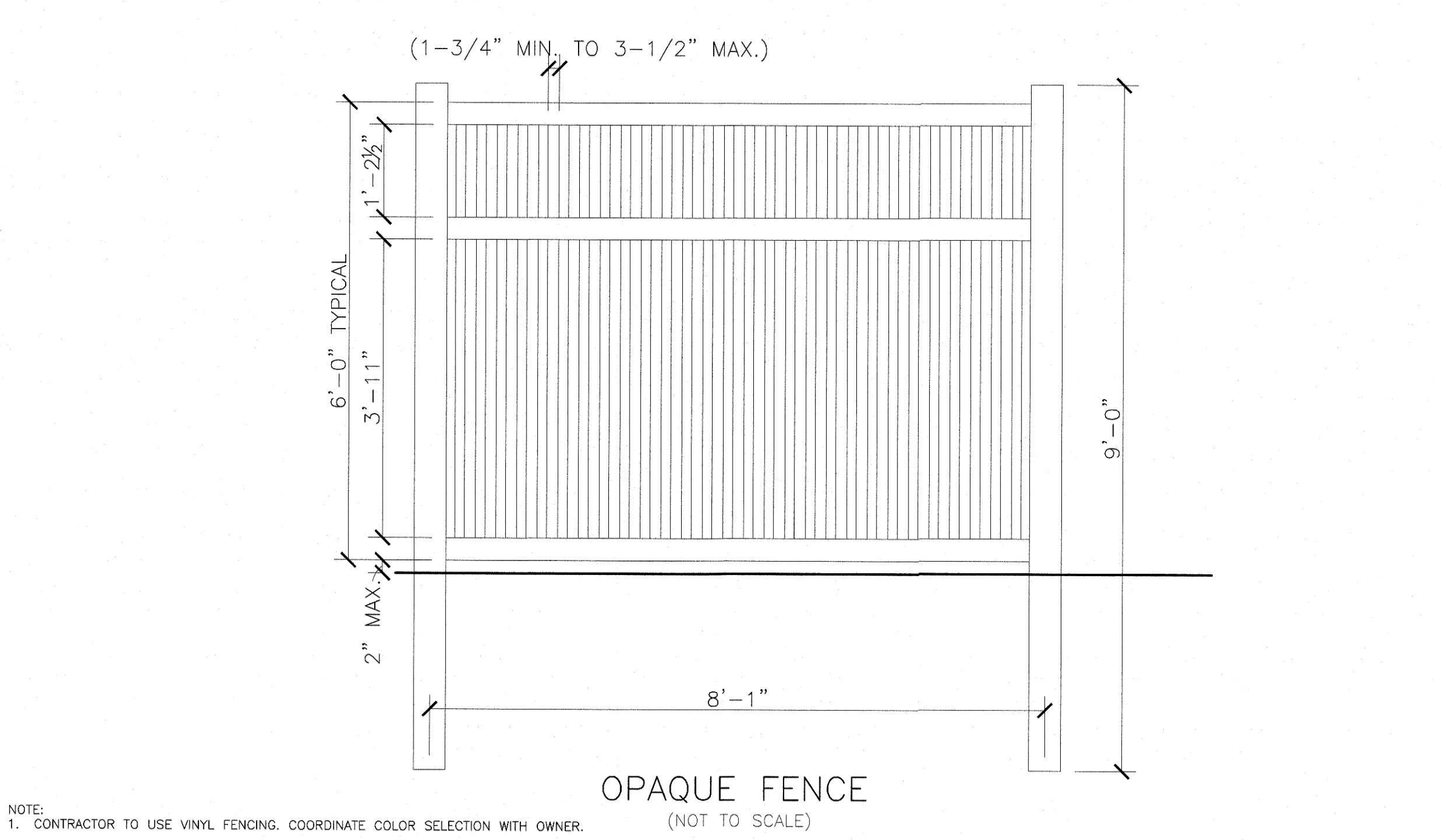
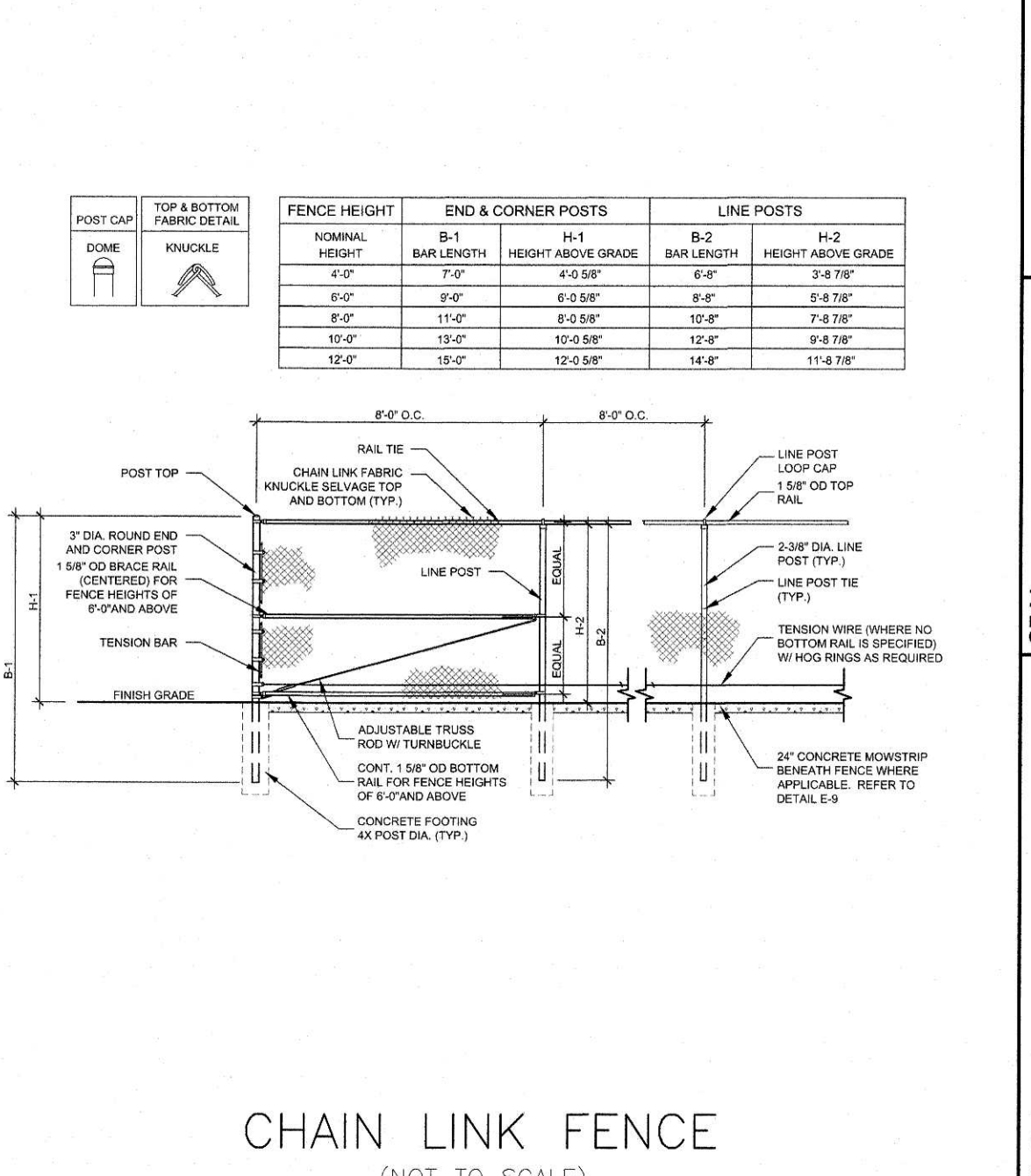
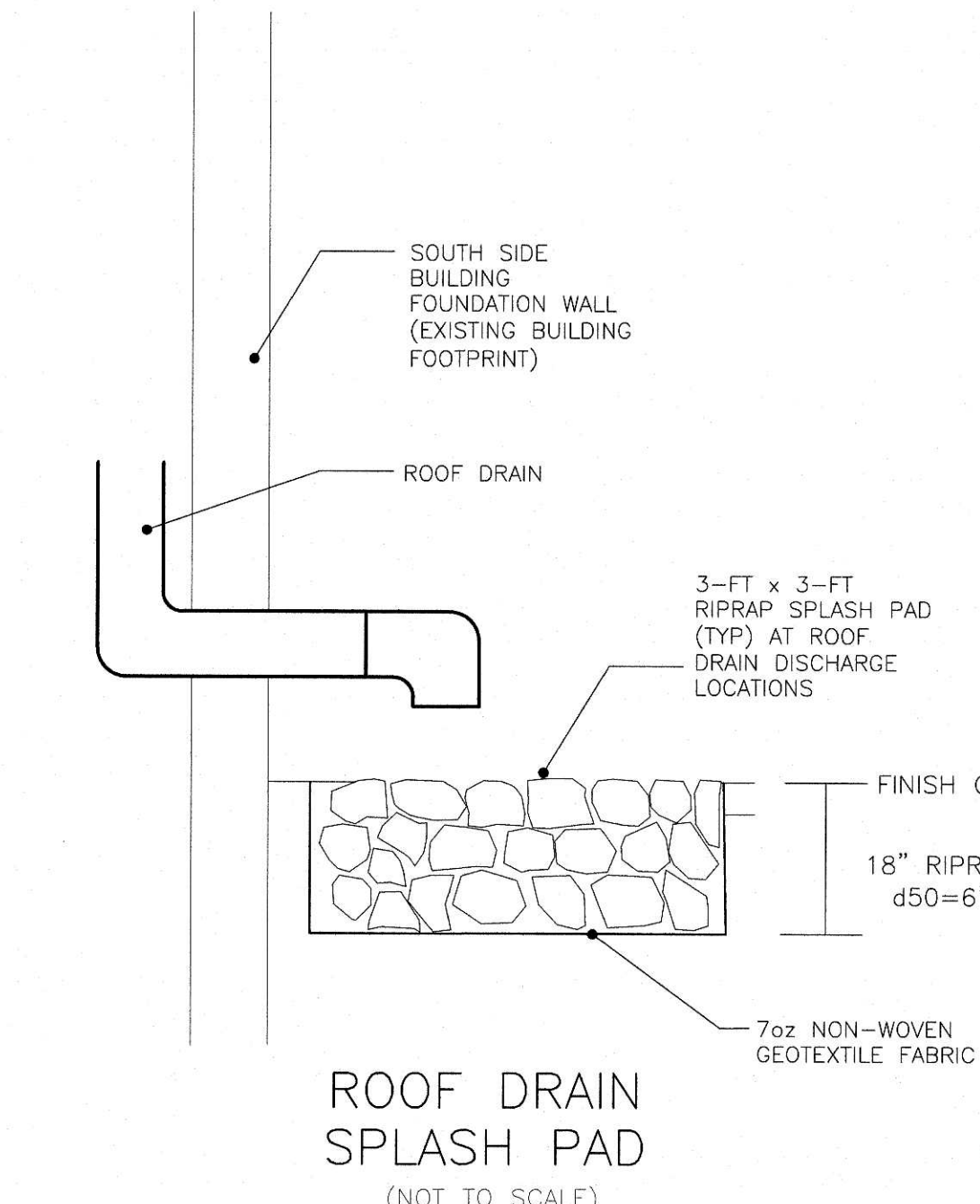
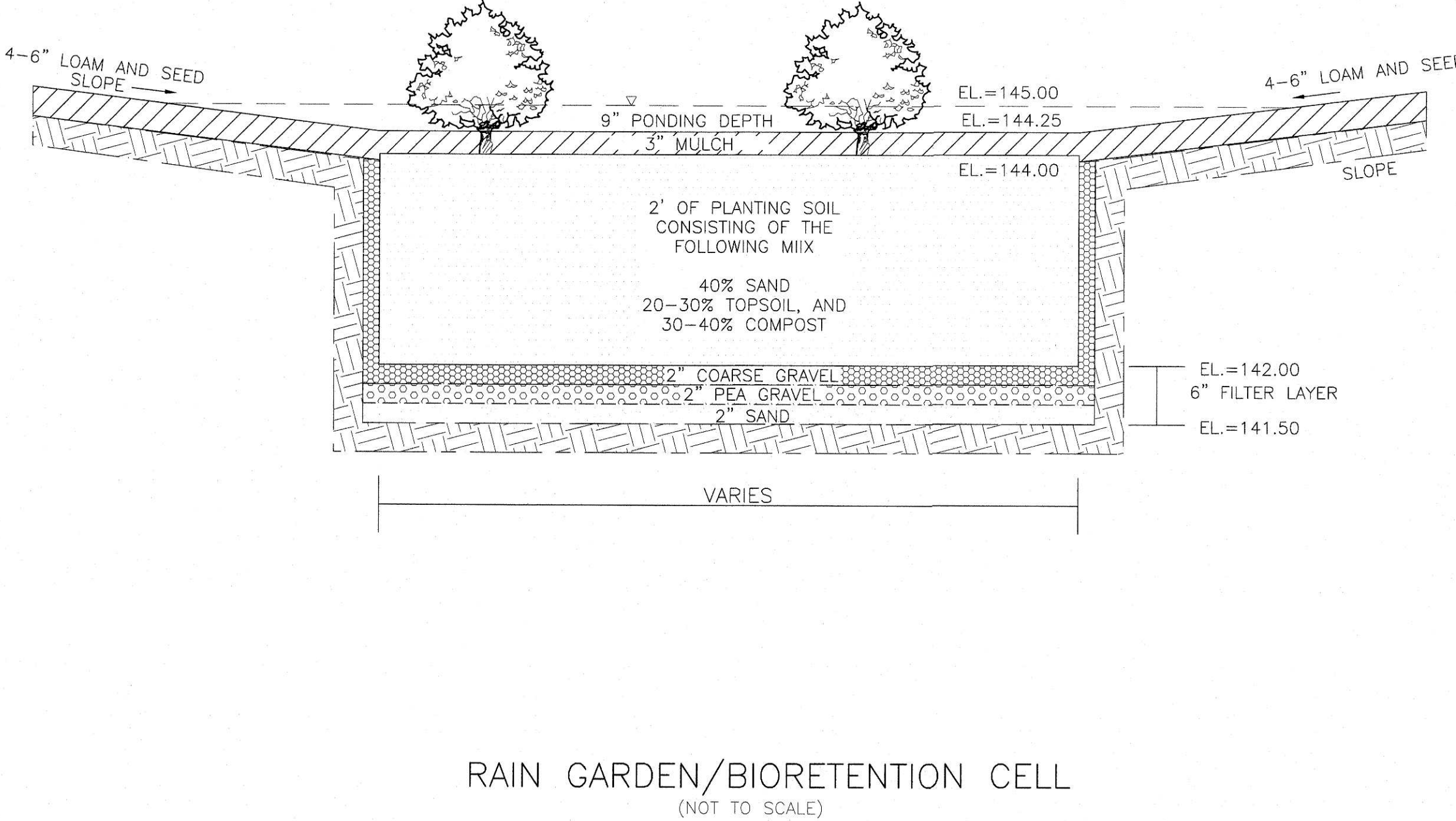
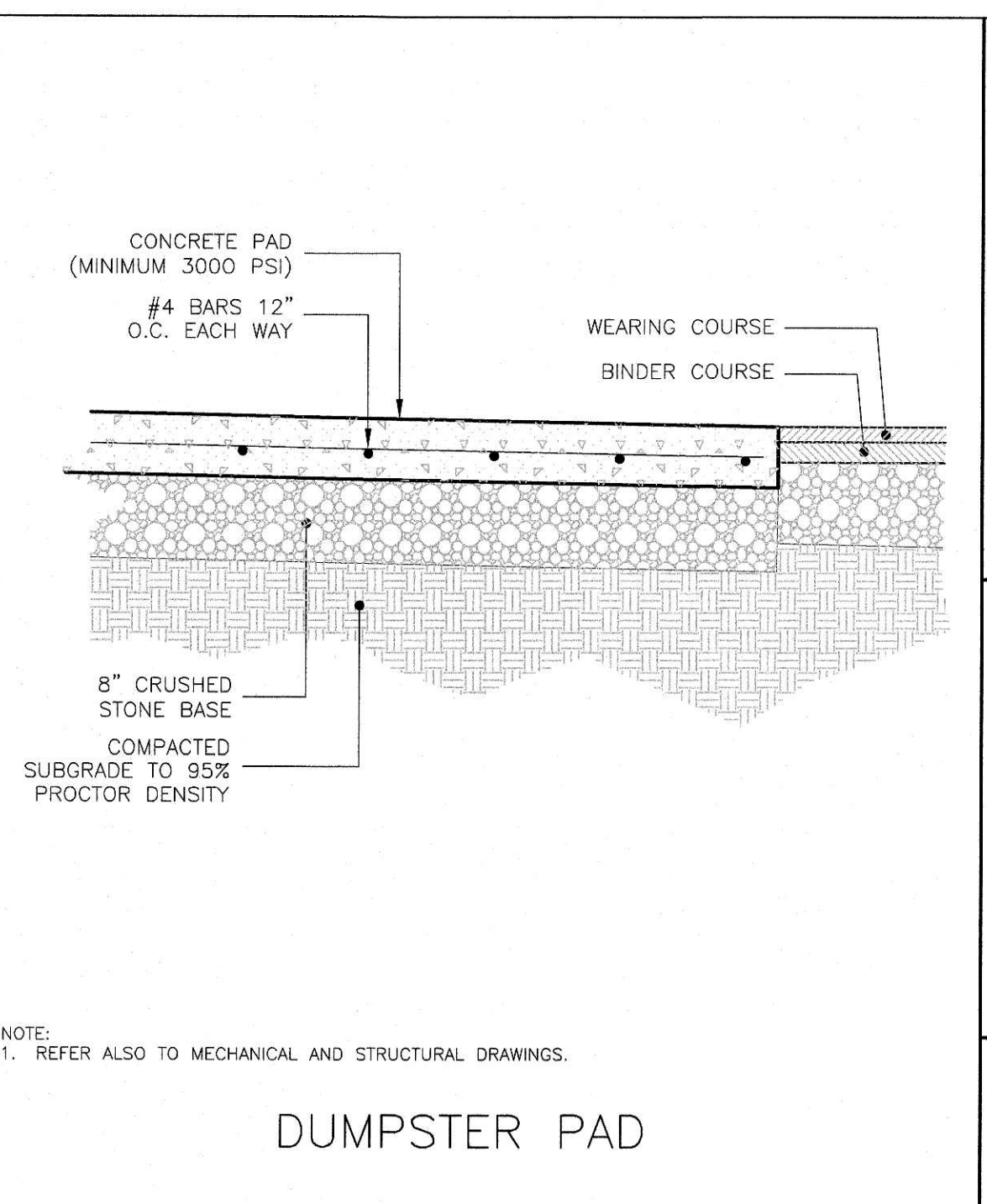
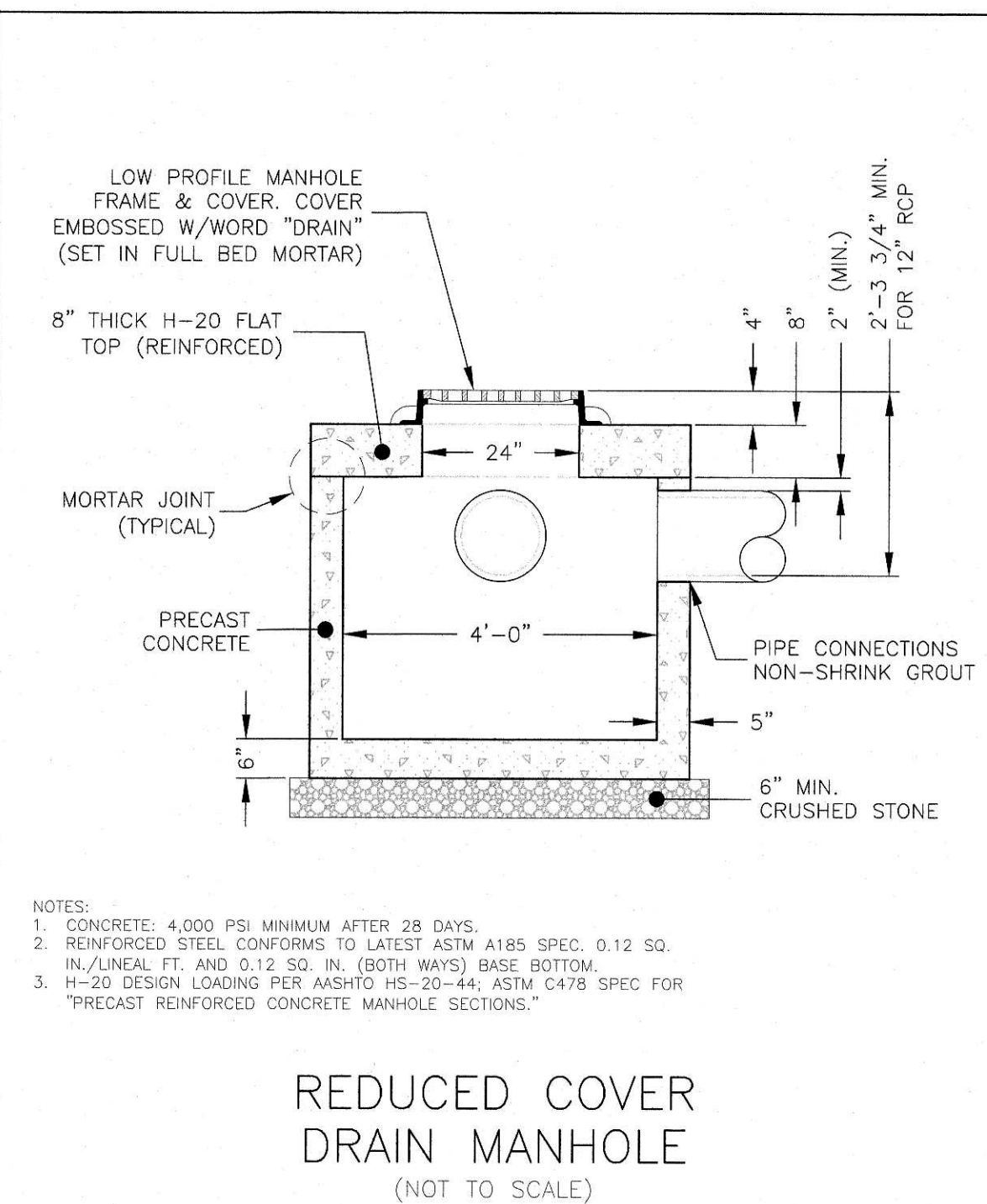
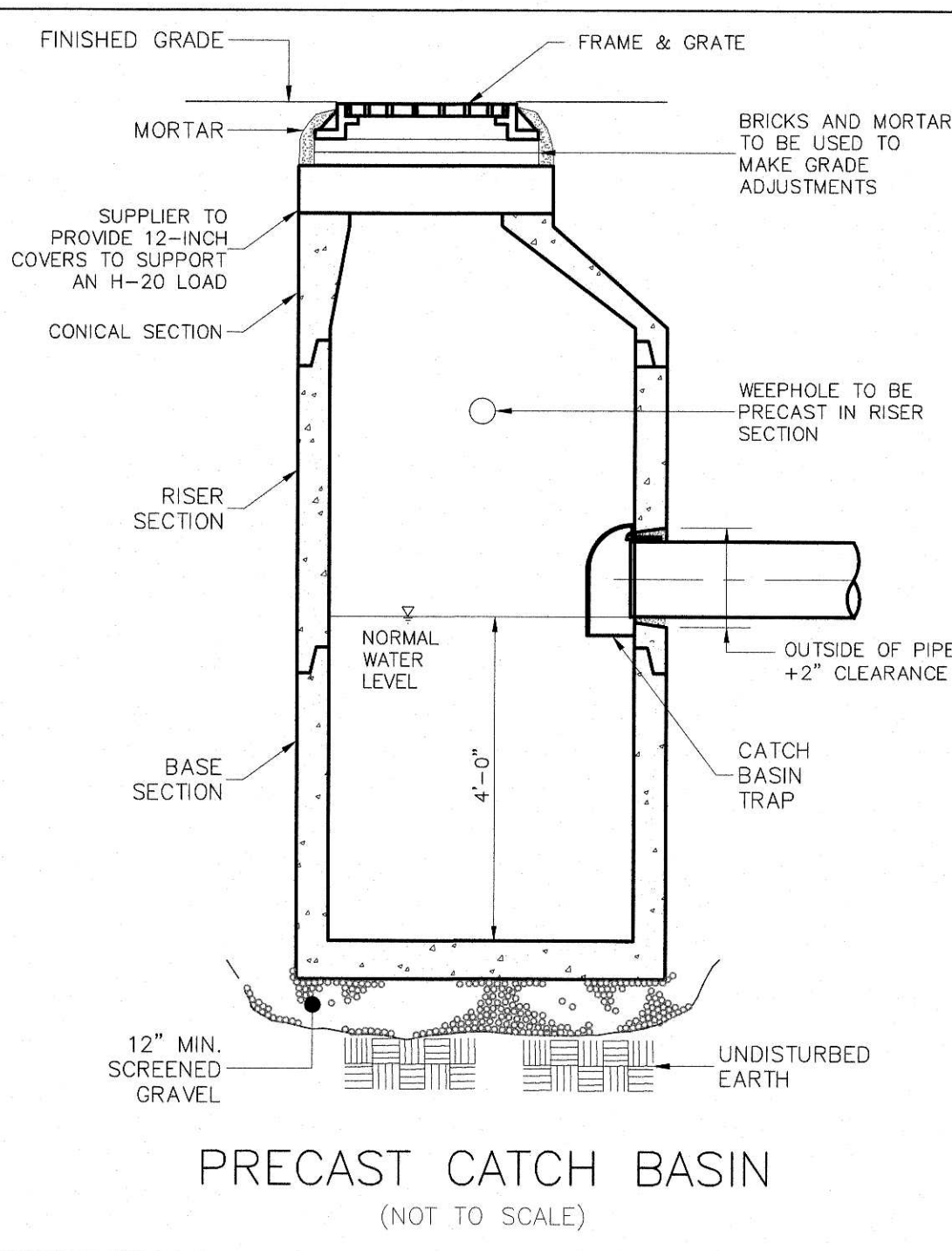
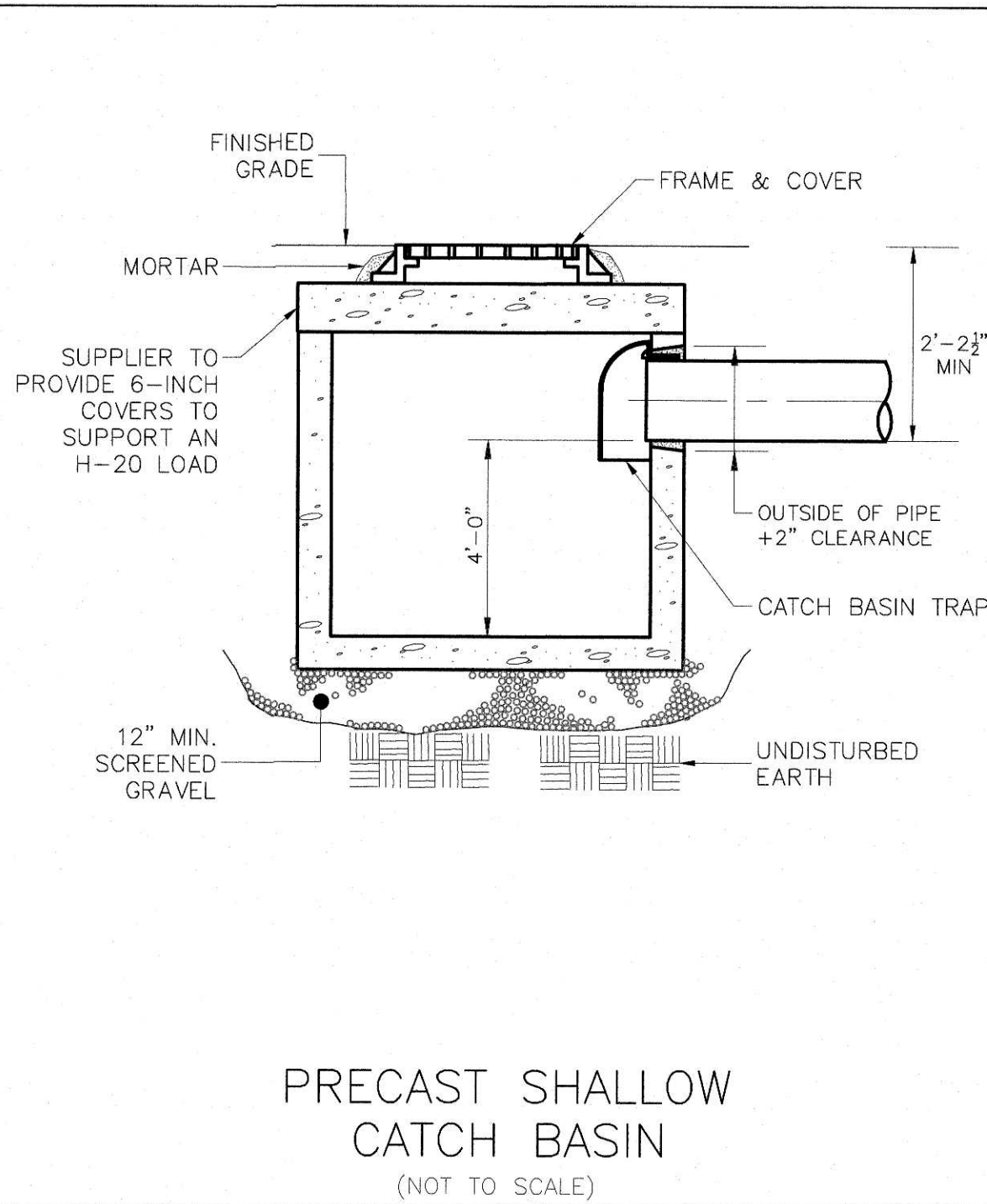
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SCALE: NONE

APRIL 1, 2021

DRAWING: C9.1

SHEET 10 OF 14



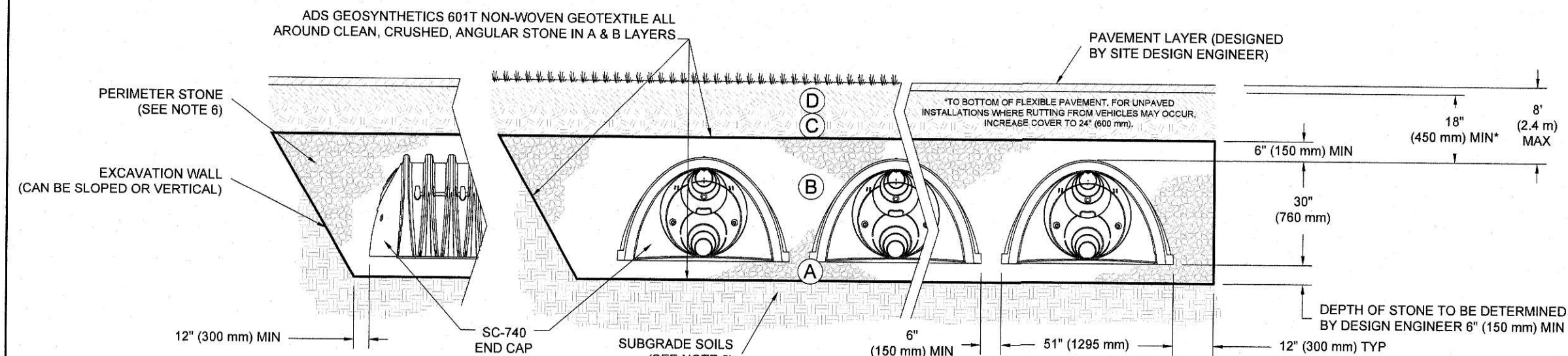
DRAWING: C9.2	CONSTRUCTION DETAILS PLAN									
	INDUSTRIAL PARK ROAD									
SHEET 11 OF 14	6 INDUSTRIAL PARK ROAD, MEDWAY, MA									
	SCALE: NONE									
	6				12					
	5				11					
	4				10					
	3	Town Comments / Peer Review			9					
	2	Town Comments / Peer Review			8					
	1	Town Comments / Peer Review			7					
APRIL 1, 2021										
<div><div><p>SEAL</p></div><div><p>Christy P. Williams Civil Engineer No. 40174</p></div><div><p>Owner: Medway Flower, LLC Drawn By: MEM Reviewed By: CPS Project Manager: CPS Job File Number: MEDW-0017 Drawing File Folder: MEDW17</p></div><div><p>Applicant: Phytopia, Inc. 25 Newbury Street Peabody, MA 01960</p></div><div><p>Designed By: MEM Drawn By: MEM Reviewed By: CPS Project Manager: CPS Job File Number: MEDW-0017 Drawing File Folder: MEDW17</p></div><div><p><input checked="" type="checkbox"/> Drawing Issued for Review <input type="checkbox"/> Drawing Issued for Permit <input type="checkbox"/> Drawing Issued for Construction</p></div></div>										
<div><p>WILLIAMS & SPARAGES S</p></div> <div><p>Suite 101 189 North Main Street Peabody, MA 01949 Phone: (978) 539-8088 Fax: (978) 539-8000 www.williams-sparages.com</p></div>										

ACCEPTABLE FILL MATERIALS: STORMTECH SC-740 CHAMBER SYSTEMS

MATERIAL LOCATION	DESCRIPTION	AASHTO MATERIAL CLASSIFICATIONS	COMPACTION / DENSITY REQUIREMENT
D FINAL FILL: FILL MATERIAL FOR LAYER 'D' STARTS FROM THE TOP OF THE 'C' LAYER TO THE BOTTOM OF FLEXIBLE PAVEMENT OR UNPAVED FINISHED GRADE ABOVE. NOTE THAT PAVEMENT SUBBASE MAY BE PART OF THE 'D' LAYER	ANY SOIL/ROCK MATERIALS, NATIVE SOILS, OR PER ENGINEER'S PLANS. CHECK PLANS FOR PAVEMENT SUBGRADE REQUIREMENTS.	N/A	PREPARE PER SITE DESIGN ENGINEER'S PLANS. PAVED INSTALLATIONS MAY HAVE STRINGENT MATERIAL AND PREPARATION REQUIREMENTS.
C INITIAL FILL: FILL MATERIAL FOR LAYER 'C' STARTS FROM THE TOP OF THE EMBEDMENT STONE ('B' LAYER) TO 18" (450 mm) ABOVE THE TOP OF THE CHAMBER. NOTE THAT PAVEMENT SUBBASE MAY BE PART OF THE 'C' LAYER.	GRANULAR WELL-GRADED SOIL/AGGREGATE MIXTURES, <35% FINES OR PROCESSED AGGREGATE. MOST PAVEMENT SUBBASE MATERIALS CAN BE USED IN LIEU OF THIS LAYER.	AASHTO M145* A-1, A-2-4, A-3 OR AASHTO M43* 3, 357, 4, 467, 5, 56, 57, 6, 67, 68, 7, 78, 8, 89, 9, 10	BEGIN COMPACTIONS AFTER 12" (300 mm) OF MATERIAL OVER THE CHAMBERS IS REACHED. COMPACT ADDITIONAL LAYERS IN 6" (150 mm) MAX LIFTS TO A MIN. 95% PROCTOR DENSITY FOR WELL GRADED MATERIAL AND 98% RELATIVE DENSITY FOR PROCESSED AGGREGATE MATERIALS. ROLLER GROSS VEHICLE WEIGHT NOT TO EXCEED 12,000 lbs (53 kN). DYNAMIC FORCE NOT TO EXCEED 20,000 lbs (89 kN).
B EMBEDMENT STONE: FILL SURROUNDING THE CHAMBERS FROM THE FOUNDATION STONE ('A' LAYER) TO THE 'C' LAYER ABOVE.	CLEAN, CRUSHED, ANGULAR STONE, NOMINAL SIZE DISTRIBUTION BETWEEN 3/4-2 INCH (20-50 mm)	AASHTO M43* 3, 357, 4, 467, 5, 56, 57	NO COMPACTION REQUIRED.
A FOUNDATION STONE: FILL BELOW CHAMBERS FROM THE SUBGRADE UP TO THE FOOT (BOTTOM) OF THE CHAMBER.	CLEAN, CRUSHED, ANGULAR STONE, NOMINAL SIZE DISTRIBUTION BETWEEN 3/4-2 INCH (20-50 mm)	AASHTO M43* 3, 357, 4, 467, 5, 56, 57	PLATE COMPACT OR ROLL TO ACHIEVE A FLAT SURFACE. **

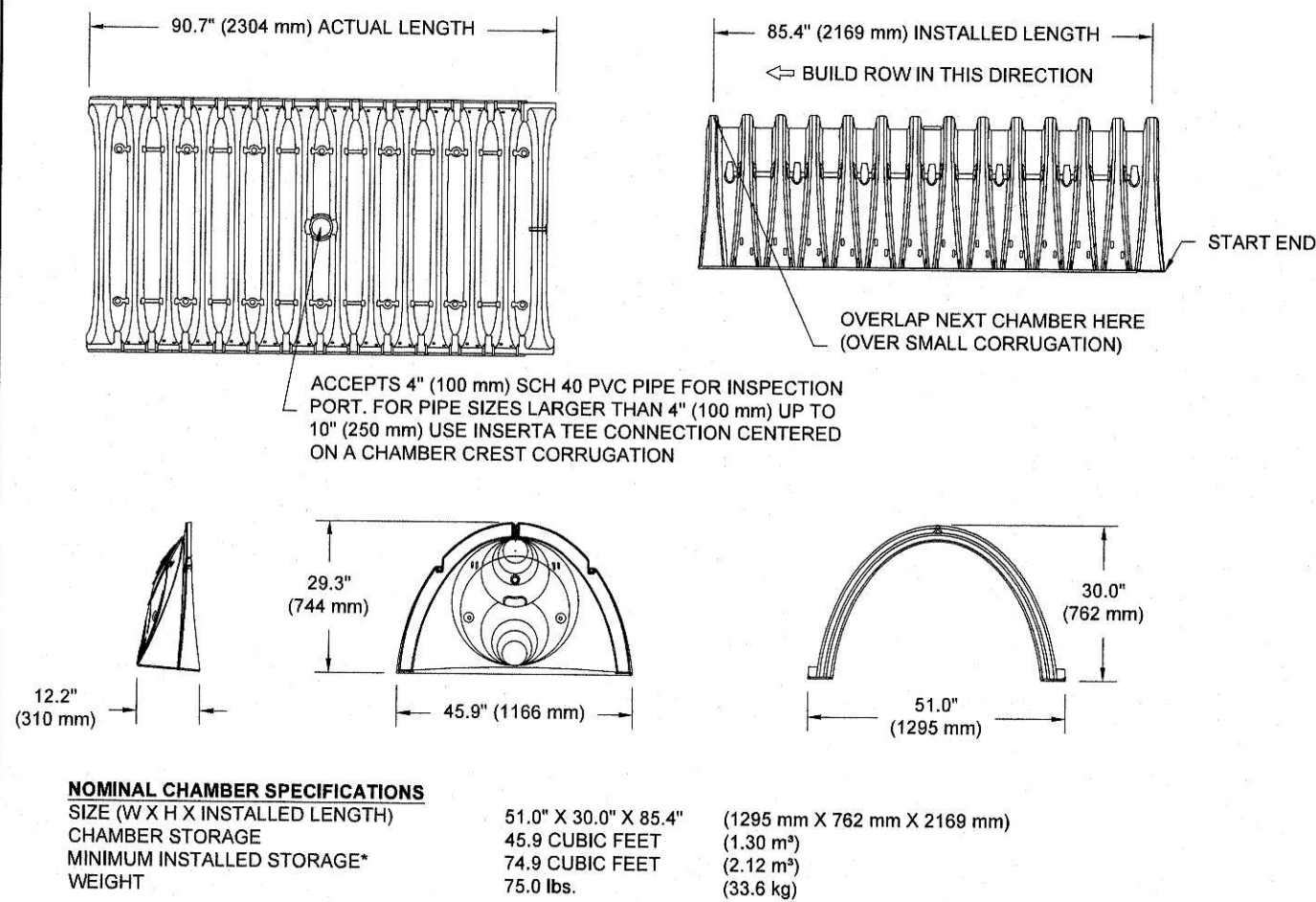
PLEASE NOTE:

- THE LISTED AASHTO DESIGNATIONS ARE FOR GRADATIONS ONLY. THE STONE MUST ALSO BE CLEAN, CRUSHED, ANGULAR NO. 4 (AASHTO M43) STONE.
- STORMTECH COMPACTION REQUIREMENTS ARE MET FOR 'A' LOCATION MATERIALS WHEN PLACED AND COMPACTED IN 6" (150 mm) (MAX) LIFTS USING TWO FULL COVERAGES WITH A VIBRATORY COMPACTOR.
- WHERE INFILTRATION SURFACES MAY BE COMPROMISED BY COMPACTION, FOR STANDARD DESIGN LOAD CONDITIONS, A FLAT SURFACE MAY BE ACHIEVED BY RAKING OR DRAGGING WITHOUT COMPACTION EQUIPMENT. FOR SPECIAL LOAD DESIGNS, CONTACT STORMTECH FOR COMPACTION REQUIREMENTS.



NOTES:

- SC-740 CHAMBERS SHALL CONFORM TO THE REQUIREMENTS OF ASTM F2418 "STANDARD SPECIFICATION FOR POLYPROPYLENE (PP) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS", OR ASTM F2922 "STANDARD SPECIFICATION FOR POLYETHYLENE (PE) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
- SC-740 CHAMBERS SHALL BE DESIGNED IN ACCORDANCE WITH ASTM F2787 "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
- "ACCEPTABLE FILL MATERIALS" TABLE ABOVE PROVIDES MATERIAL LOCATIONS, DESCRIPTIONS, GRADATIONS, AND COMPACTION REQUIREMENTS FOR FOUNDATION, EMBEDMENT, AND FILL MATERIALS.
- THE "SITE DESIGN ENGINEER" REFERS TO THE ENGINEER RESPONSIBLE FOR THE DESIGN AND LAYOUT OF THE STORMTECH CHAMBERS FOR THIS PROJECT.
- THE SITE DESIGN ENGINEER IS RESPONSIBLE FOR ASSESSING THE BEARING RESISTANCE (ALLOWABLE BEARING CAPACITY) OF THE SUBGRADE SOILS AND THE DEPTH OF FOUNDATION STONE WITH CONSIDERATION FOR THE RANGE OF EXPECTED SOIL MOISTURE CONDITIONS.
- PERIMETER STONE MUST BE EXTENDED HORIZONTALLY TO THE EXCAVATION WALL FOR BOTH VERTICAL AND SLOPED EXCAVATION WALLS.
- ONCE LAYER 'C' IS PLACED, ANY SOLID MATERIAL CAN BE PLACED IN LAYER 'D' UP TO THE FINISHED GRADE. MOST PAVEMENT SUBBASE SOILS CAN BE USED TO REPLACE THE MATERIAL REQUIREMENTS OF LAYER 'C' OR 'D' AT THE SITE DESIGN ENGINEER'S DISCRETION.

STORMTECH SC-740 CROSS SECTION
NOT TO SCALE

NOMINAL CHAMBER SPECIFICATIONS

SIZE (W X H X INSTALLED LENGTH)	51.0" X 30.0" X 85.4"	(1295 mm X 762 mm X 2169 mm)
CHAMBER STORAGE	45.9 CUBIC FEET	(1.30 m³)
MINIMUM INSTALLED STORAGE*	74.9 CUBIC FEET	(2.12 m³)
WEIGHT	75.0 lbs.	(33.6 kg)

*ASSUMES 6" (152 mm) STONE ABOVE, BELOW, AND BETWEEN CHAMBERS

PART #	STUB	A	B	C
SC740EPE067 / SC740EPE081PC	6" (150 mm)	10.9" (277 mm)	18.5" (470 mm)	—
SC740EPE088 / SC740EPE088PC	8" (200 mm)	12.2" (310 mm)	16.8" (419 mm)	0.5" (13 mm)
SC740EPE087 / SC740EPE087PC	8" (200 mm)	12.2" (310 mm)	16.8" (419 mm)	—
SC740EPE089 / SC740EPE089PC	10" (250 mm)	13.4" (340 mm)	14.8" (388 mm)	0.5" (13 mm)
SC740EPE107 / SC740EPE107PC	10" (250 mm)	13.4" (340 mm)	14.8" (388 mm)	0.7" (18 mm)
SC740EPE108 / SC740EPE108PC	12" (300 mm)	14.7" (373 mm)	12.5" (318 mm)	—
SC740EPE127 / SC740EPE127PC	12" (300 mm)	14.7" (373 mm)	12.5" (318 mm)	1.2" (30 mm)
SC740EPE157 / SC740EPE157PC	15" (375 mm)	18.4" (467 mm)	9.0" (229 mm)	—
SC740EPE158 / SC740EPE158PC	15" (375 mm)	18.4" (467 mm)	9.0" (229 mm)	1.3" (33 mm)
SC740EPE187 / SC740EPE187PC	18" (450 mm)	19.7" (500 mm)	5.0" (127 mm)	—
SC740EPE188 / SC740EPE188PC	18" (450 mm)	19.7" (500 mm)	5.0" (127 mm)	1.8" (41 mm)
SC740EPE248*	24" (600 mm)	18.5" (470 mm)	—	0.1" (3 mm)

ALL STUBS, EXCEPT FOR THE SC740EPE248 ARE PLACED AT BOTTOM OF END CAP SUCH THAT THE OUTSIDE DIAMETER OF THE STUB IS FLUSH WITH THE BOTTOM OF THE END CAP. FOR ADDITIONAL INFORMATION CONTACT STORMTECH AT 1-888-892-2694.

* FOR THE SC740EPE248 THE 24" (600 mm) STUB LIES BELOW THE BOTTOM OF THE END CAP APPROXIMATELY 1.75" (44 mm). BACKFILL MATERIAL SHOULD BE REMOVED FROM BELOW THE N-12 STUB SO THAT THE FITTING SITS LEVEL.

NOTE: ALL DIMENSIONS ARE NOMINAL

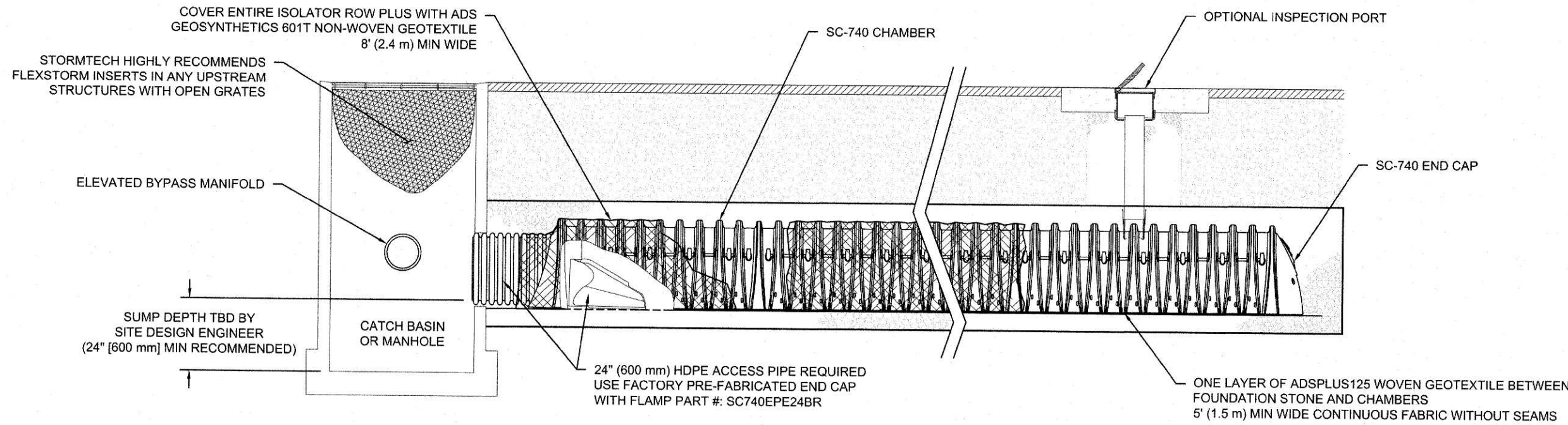
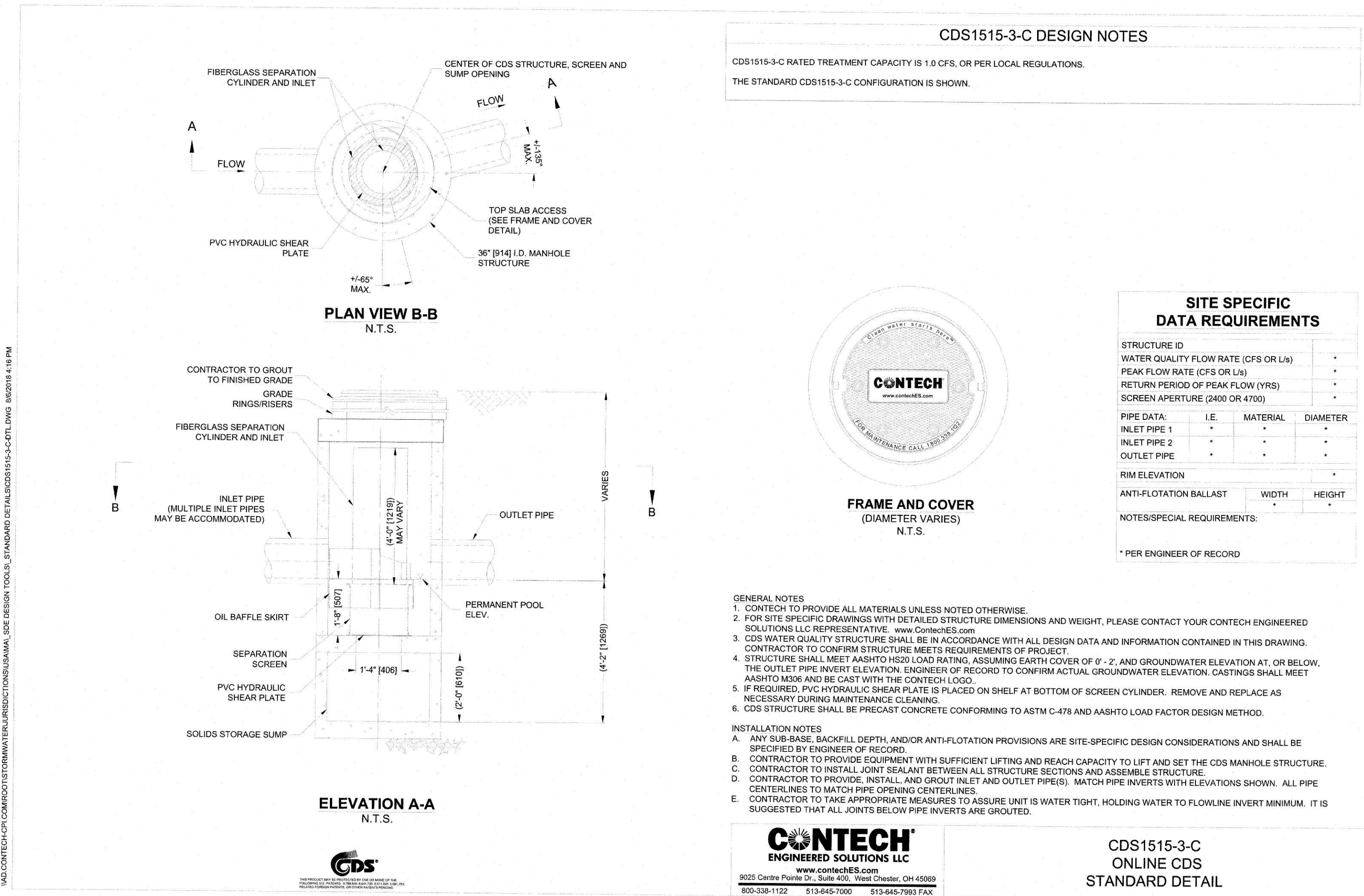
STORMTECH SC-740
TECHNICAL SPECIFICATIONS
NOT TO SCALE

INSPECTION & MAINTENANCE

- STEP 1) INSPECT ISOLATOR ROW PLUS FOR SEDIMENT
- A. INSPECTION PORTS (IF PRESENT)
- A.1. REMOVE/OPEN LID ON NYLOPLAST INLINE DRAIN
- A.2. REMOVE AND CLEAN FLEXSTORM FILTER IF INSTALLED
- A.3. USING A FLASHLIGHT AND STADIA ROD, MEASURE DEPTH OF SEDIMENT AND RECORD ON MAINTENANCE LOG
- A.4. LOWER A CAMERA INTO ISOLATOR ROW PLUS FOR VISUAL INSPECTION OF SEDIMENT LEVELS (OPTIONAL)
- A.5. IF SEDIMENT IS AT, OR ABOVE, 3" (80 mm) PROCEED TO STEP 2. IF NOT, PROCEED TO STEP 3.
- B. ALL ISOLATOR PLUS ROWS
- B.1. REMOVE COVER FROM STRUCTURE AT UPSTREAM END OF ISOLATOR ROW PLUS THROUGH OUTLET PIPE
- B.2. USING A FLASHLIGHT, INSPECT DOWN THE ISOLATOR ROW PLUS THROUGH OUTLET PIPE
- i) MIRRORS ON POLES OR CAMERAS MAY BE USED TO AVOID A CONFINED SPACE ENTRY
- ii) FOLLOW OSHA REGULATIONS FOR CONFINED SPACE ENTRY IF ENTERING MANHOLE
- B.3. IF SEDIMENT IS AT, OR ABOVE, 3" (80 mm) PROCEED TO STEP 2. IF NOT, PROCEED TO STEP 3.
- STEP 2) CLEAN OUT ISOLATOR ROW PLUS USING THE JETVAC PROCESS
- A. A FIXED CULVERT CLEANING NOZZLE WITH REAR FACING SPREAD OF 45° (1.1 m) OR MORE IS PREFERRED
- B. APPLY MULTIPLE PASSES OF JETVAC UNTIL BACKFLUSH WATER IS CLEAN
- C. VACUUM STRUCTURE SUMP AS REQUIRED
- STEP 3) REPLACE ALL COVERS, GRATES, FILTERS, AND LIDS; RECORD OBSERVATIONS AND ACTIONS.
- STEP 4) INSPECT AND CLEAN BASINS AND MANHOLES UPSTREAM OF THE STORMTECH SYSTEM.

NOTES

- INSPECT EVERY 6 MONTHS DURING THE FIRST YEAR OF OPERATION. ADJUST THE INSPECTION INTERVAL BASED ON PREVIOUS OBSERVATIONS OF SEDIMENT ACCUMULATION AND HIGH WATER ELEVATIONS.
- CONDUCT JETTING AND VACTORING ANNUALLY OR WHEN INSPECTION SHOWS THAT MAINTENANCE IS NECESSARY.

STORMTECH SC-740
ISOLATOR ROW
NOT TO SCALESTORMTECH SC-740
ISOLATOR ROW
NOT TO SCALE

CDS1515-3-C DESIGN NOTES

CDS1515-3-C RATED TREATMENT CAPACITY IS 1.0 CFS, OR PER LOCAL REGULATIONS.
THE STANDARD CDS1515-3-C CONFIGURATION IS SHOWN.

SITE SPECIFIC
DATA REQUIREMENTS

STRUCTURE ID				*
WATER QUALITY FLOW RATE (CFS OR L/s)				*
PEAK FLOW RATE (CFS OR L/s)				*
RETURN PERIOD OF PEAK FLOW (YRS)				*
SCREEN APERTURE (2400 OR 4700)				*
PIPE DATA:				
INLET PIPE 1		I.E.	MATERIAL	DIAMETER
INLET PIPE 2		*	*	*
OUTLET PIPE		*	*	*
RIM ELEVATION				*
ANTI-FLOTATION BALLAST		WIDTH	HEIGHT	
		*	*	
NOTES/SPECIAL REQUIREMENTS:				
* PER ENGINEER OF RECORD				

GENERAL NOTES

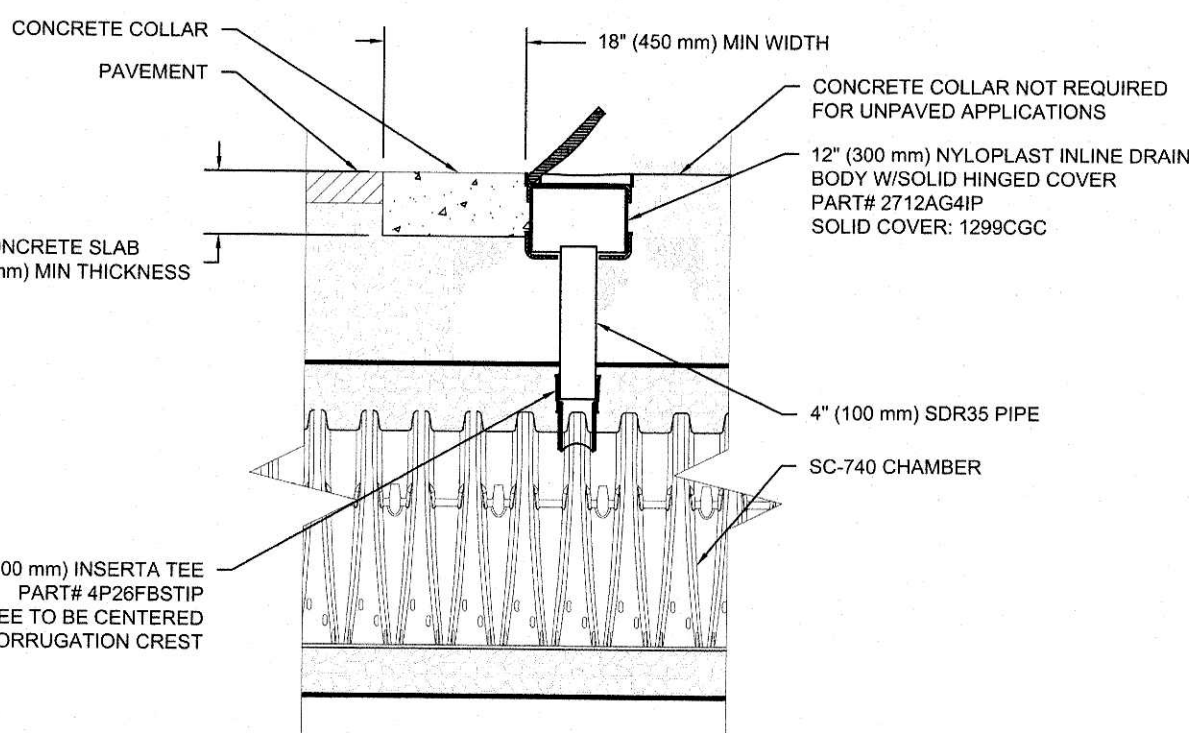
- CONTECH TO PROVIDE ALL MATERIALS UNLESS NOTED OTHERWISE.
- FOR SITE SPECIFIC DRAWINGS WITH DETAILED STRUCTURE DIMENSIONS AND WEIGHT, PLEASE CONTACT YOUR CONTECH ENGINEERED SOLUTIONS LLC REPRESENTATIVE. www.contechES.com
- CDS WATER QUALITY STRUCTURE SHALL BE IN ACCORDANCE WITH ALL DESIGN DATA AND INFORMATION CONTAINED IN THIS DRAWING. CONTRACTOR TO CONFIRM STRUCTURE MEETS REQUIREMENTS OF PROJECT.
- STRUCTURE SHALL MEET AASHTO H20.20 LOAD RATING, ASSUMING EARTH COVER OF 0' - 2', AND GROUNDWATER ELEVATION AT, OR BELOW, THE OUTLET PIPE INVERT ELEVATION. ENGINEER OF RECORD TO CONFIRM ACTUAL GROUNDWATER ELEVATION. CASTINGS SHALL MEET AASHTO M306 AND BE CAST WITH THE CONTECH LOGO.
- IF REQUIRED, PVC HYDRAULIC SHEAR PLATE IS PLACED ON SHELF AT BOTTOM OF SCREEN CYLINDER. REMOVE AND REPLACE AS NECESSARY DURING MAINTENANCE CLEANING.
- CDS STRUCTURE SHALL BE PRECAST CONCRETE CONFORMING TO ASTM C-478 AND AASHTO LOAD FACTOR DESIGN METHOD.

INSTALLATION NOTES

- A. ANY SUB-BASE, BACKFILL DEPTH, AND/OR ANTI-FLOTATION PROVISIONS ARE SITE-SPECIFIC DESIGN CONSIDERATIONS AND SHALL BE SPECIFIED BY ENGINEER OF RECORD.
- B. CONTRACTOR TO PROVIDE EQUIPMENT WITH SUFFICIENT LIFTING AND REACH CAPACITY TO LIFT AND SET THE CDS MANHOLE STRUCTURE.
- C. CONTRACTOR TO INSTALL JOINT SEALANT BETWEEN ALL STRUCTURE SECTIONS AND ASSEMBLE STRUCTURE.
- D. CONTRACTOR TO PROVIDE, INSTALL, AND GROUT INLET AND OUTLET PIPES). MATCH PIPE INVERTS WITH ELEVATIONS SHOWN. ALL PIPE CENTERLINES TO MATCH PIPE OPENING CENTERLINES.
- E. CONTRACTOR TO TAKE APPROPRIATE MEASURES TO ASSURE UNIT IS WATER TIGHT, HOLDING WATER TO FLOWLINE INVERT MINIMUM. IT IS SUGGESTED THAT ALL JOINTS BELOW PIPE INVERTS ARE GROUTED.

CONTECH
ENGINEERED SOLUTIONS LLC
www.contechES.com
9025 Centre Pointe Dr., Suite 400, West Chester, OH 45089
800-338-1122 513-645-7000 513-645-7993 FAX

CDS1515-3-C
ONLINE CDS
STANDARD DETAIL

STORMTECH SC-740
INSPECTION PORT
NOT TO SCALECONSTRUCTION DETAILS PLAN
INDUSTRIAL PARK ROAD

6 INDUSTRIAL PARK ROAD, MEDWAY, MA

SCALE: NONE

DRAWING: C9.3

SHEET 12 OF 14

APRIL 1, 2021

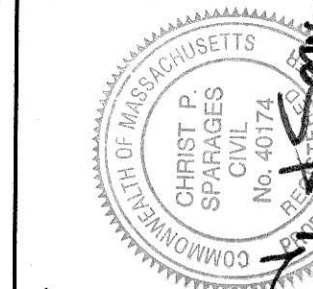


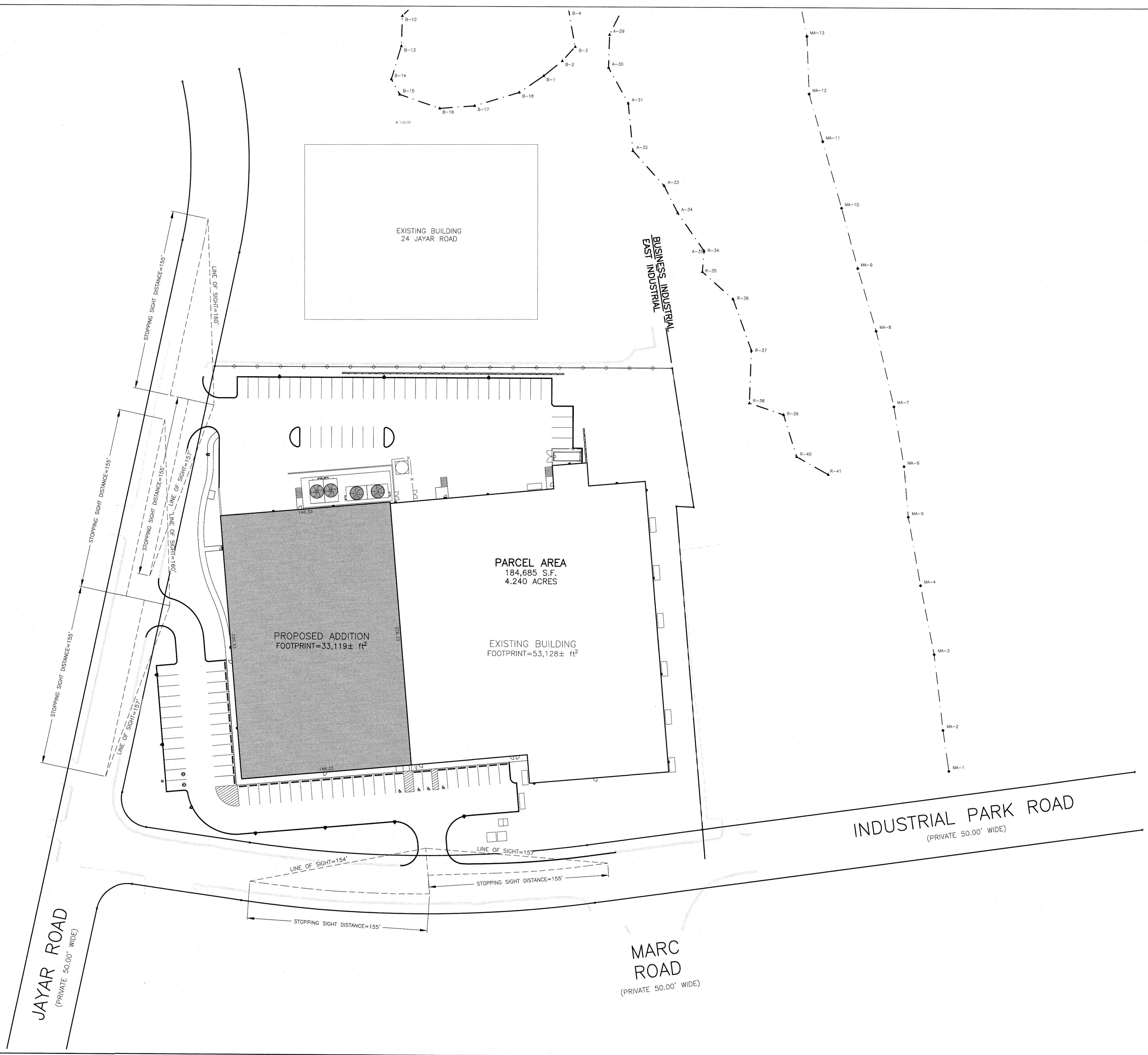
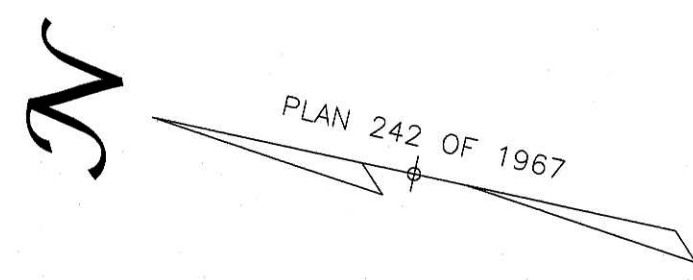
Owner: Medway Flower, LLC
990 Paradise Road
Swampscott, MA 01907

Applicant: Phytopia, Inc.
25 Newbury Street
Peabody, MA 01960

Designed By: MEM
Drawn By: MEM
Reviewed By: CPS
Project Manager: CPS
Job File Number: MEDW-0017
Drawing File Folder: MEDW17

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☐ Drawing Issued for Construction





STOPPING SIGHT DISTANCE PLAN
INDUSTRIAL PARK ROAD

6 INDUSTRIAL PARK ROAD, MEDWAY, MA

DRAWING: C10.1

SHEET 14 OF 14

0' 15' 30' 60'

SCALE: 1"=30'

OCTOBER 1, 2021

6	5	4	3	2	1
12	11	10	9	8	7
Town Comments / Peer Review					
3/7/2022					
Town Comments / Peer Review					
1/3/2022					
Town Comments / Peer Review					
10/12/2021					

SEAL

CHRIST P. SPARAGES
REGISTERED PROFESSIONAL ENGINEER
No. 40174
CIVIL

(412122)

Designed By: MEM
Drawn By: MEM
Reviewed By: CPS
Project Manager: CPS
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WILLIAMS & SPARAGES
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SUITE 101
PEABODY, MA 01960
PHONE: (978) 539-8088
FAX: (978) 539-8200
WSENGINEERS.COM



June 8, 2021
(revised October 27, 2021)
(revised April 22, 2022)

Ms. Susan E. Affleck-Childs
Medway Planning and Economic Development Coordinator
Medway Town Hall
155 Village Street
Medway, MA 02053

**Re: Phytopia Inc.
 Major Site Plan Review
 6 Industrial Park Road
 Medway, Massachusetts**

Dear Ms. Affleck-Childs:

Tetra Tech (TT) has performed a review of the proposed Site Plan for the above-mentioned Project at the request of the Town of Medway Planning and Economic Development Board (PEDB). The proposed Project is located at 6 Industrial Park Road in Medway, Massachusetts. The Project consists of redeveloping the vacant industrial building along with constructing a two-story addition for the purpose of growing and processing marijuana plants and byproducts. The scope of work also includes improving existing access driveways, curbing, 92 off-street parking spaces, landscaping, lighting, and installation of stormwater drainage facilities.

TT is in receipt of the following materials:

- A cover letter dated May 12, 2021, prepared by Edward V. Cannon, Jr.
- A plan (Plans) set titled "Industrial Park Road, 6 Industrial Park Road, Medway, MA" dated April 1, 2021, prepared by MEM.
- An Application for Major Site Plan Approval, dated April 30, 2021, prepared by Edward V. Cannon, Jr.
- An Application for Reduced Parking Special Permit Approval, dated May 1, 2021, prepared by Edward V. Cannon, Jr.
- An Application for Groundwater Protection District Special Permit Approval, dated May 1, 2021, prepared by Edward V. Cannon, Jr.
- A Marijuana Special Permit Application, dated April 30, 2021, prepared by Edward V. Cannon, Jr.

The Plans and accompanying materials were reviewed for conformance with Chapter 200 of the Town of Medway PEDB Rules and Regulations (Regulations) last amended October 8, 2019, Town of Medway Zoning Bylaw – Groundwater Protection District and good engineering practice. Review of the Project for zoning related matters, other than the Groundwater Protection District, is being conducted by the Town and is excluded from this review.

TT 10/27/21 Update

The Applicant has supplied TT with a revised submission addressing comments provided in our previous letter including the following documents:

- A Cover Letter dated October 12, 2021, prepared by WSE.
- A Response to Comments Letter dated October 12, 2021, prepared by WSE.
- A letter regarding Groundwater Special Permit, dated September 15, 2021, prepared by Edward V. Cannon, Jr.

- A plan (Plans) set titled "Industrial Park Road, 6 Industrial Park Road, Medway, MA", dated April 1, 2021, revised October 12, 2021, prepared by WSE.

The revised Plans and supporting information were reviewed against our previous comment letter (June 8, 2021) and comments have been tracked accordingly. Text shown in gray represents information contained in previous correspondence while new information is shown in black text.

TT 4/22/22 Update

The Applicant has supplied TT with a revised submission addressing comments provided in our previous letter including the following documents:

- A Response to Comments Letter dated April 12, 2022, prepared by WSE.
- A plan (Plans) set titled "Industrial Park Road, 6 Industrial Park Road, Medway, MA", dated April 1, 2021, revised March 7, 2022, prepared by WSE.

The revised Plans and supporting information were reviewed against our previous comment letter (October 27, 2021) and comments have been tracked accordingly. Text shown in gray represents information contained in previous correspondence while new information is shown in black text. Comments resolved or Conditions recommended in the previous letter have been removed from this correspondence to consolidate the document for ease of review.

SITE PLAN REVIEW

4. Earthwork Calculations have not been provided. However, the Applicant acknowledged in the cover letter that one will be provided once the final scope of the Project is clearly defined and will file it at a later date. (Ch. 200 §204-3.I&J)
 - *WSE 10/12/21 Response: See attached earthwork calculations.*
 - **TT 10/27/21 Update: Earthwork on the Project is a net fill with approximately 1,685 cubic yards of import material expected. We recommend this information be provided on the Erosion and Sediment Control Plan.**
 - *WSE 4/12/22 Response: This information has been added to the Erosion and Sediment Control Plan.*
 - **TT 4/22/22 Update: In our opinion, this comment is resolved.**
6. Cover sheet has not been provided in the Plans. However, applicable cover sheet information is provided on the Site Context Sheet/Location Plan. A list of requested waivers should be added to the sheet once approved by the Board. (Ch. 200 §204-5.A)
 - *WSE 10/12/21 Response: A cover sheet with a list of waivers has been provided, see sheet 1 of 10.*
 - **TT 10/27/21 Update: The list of requested waivers has not been included on the Cover Sheet.**
 - *WSE 4/12/22 Response: The list of requested waivers has been added to Sheet 1, the Cover Sheet.*
 - **TT 4/22/22 Update: In our opinion, this comment is resolved.**
8. Dimensions of lot lines and easement areas (if applicable) have not been provided on the Site Context Sheet. Additionally, metes and bounds should be included on all plans. (Ch. 200 §204-5.B.3)
 - *WSE 10/12/21 Response: Dimensions of lot lines has been provided, see sheet 2.*
 - **TT 10/27/21 Update: Lot line dimensions have been added to the Site Context Sheet, but metes and bounds have not been added to the remainder of the Plans.**
 - *WSE 4/12/22 Response: No response necessary.*
 - **TT 4/22/22 Update: The Applicant has added the metes and bounds to the Plans. In our opinion, this comment is resolved.**

18. Locations of proposed fire hydrants and emergency access lanes not provided on plans. A hydrant exists on Industrial Park Drive immediately across the street from the Project. We recommend Plans and supporting information be submitted to Medway Fire Department for review and comment. (Ch. 200 §204-5.D.18)
- *WSE 10/12/21 Response: There are two existing fire hydrants along the industrial Park Road and three existing fire hydrants along Jayar Road within close proximity to the subject property. It is our understanding that members of the development team have met with Police and Fire Department officials.*
 - **TT 10/27/21 Update: We recommend the Applicant provide written correspondence from the Medway Fire Department regarding their review of the Project.**
 - *WSE 4/12/22 Response: It is our understanding that members of the development team have met with Police and Fire Department officials and have reviewed the site plans. We will follow up with the Fire Department and ask them to send along a written correspondence to the PEDB.*
 - **TT 4/22/22 Update: We recommend a Condition requiring the Applicant provide the written correspondence prior to final plan approval by the PEDB.**
19. Sidewalks along the building in the west parking lot are proposed at 5-foot width but abut parking which requires width to be increased to seven feet to accommodate bumper overhang. (Ch. 200 §207-9.B.1)
- *WSE 10/12/21 Response: Curb stops have been added to the parking spaces directly adjacent to sidewalks. Propose sidewalks to remain five feet in width.*
 - **TT 10/27/21 Update: We do not recommend use of wheel stops as they are a nuisance in winter months and are typically either removed by the tenant or by snowplows. They also effectively reduce the length of parking stalls.**
 - *WSE 4/12/22 Response: We respectfully disagree. The use of wheel stops is a safety measure commonly used to help prevent vehicles from travelling beyond marked parking space. In this case, it will prevent vehicular bumper overhang, which may impede foot traffic.*
 - **TT 4/22/22 Update: We defer action on this item to the PEDB with discussion recommended at the next hearing.**
20. There is a total of four curb cuts proposed for the Project which we believe may be excessive for a Project of this size. We recommend the Applicant explore combining the parking areas along the west property line to help reduce the proposed curb cuts. We understand there are three existing curb cuts, but we believe the site can be designed to reduce this condition. The Regulations favor one curb cut per roadway at corner lots. (Ch. 200 §207-11.A.2)
- *WSE 10/12/21 Response: The existing condition has three curb cuts and the proposed seeks to retain two while adding one and removing one for a total of three curb cuts as in the existing condition.*
 - **TT 10/27/21 Update: We believe the revised curb cuts are sufficient to serve the proposed parking and emergency access. However, we recommend the PEDB require the Applicant provide written correspondence from the Fire Department regarding their review of the Project.**
 - *WSE 4/12/22 Response: It is our understanding that members of the development team have met with Police and Fire Department officials and have reviewed the site plans. We will follow up with the Fire Department and ask them to send along a written correspondence to the PEDB.*
 - **TT 4/22/22 Update: We recommend a Condition requiring the Applicant provide the written correspondence prior to final plan approval by the PEDB.**

21. Bituminous berm is proposed for the entire curb length for the Project. Typically, curb cut radii are delineated with vertical granite curb which may transition to bituminous berm on the interior of the site is approved by the PEDB. (Ch. 200 §207-11.A.4)
- *WSE 10/12/21 Response: The existing curbing on Industrial Park Road and Jayar Road is bituminous and the proposed curbing at site entrances are proposed to remain bituminous.*
 - **TT 10/27/21 Update: We recommend the Applicant coordinate with the PEDB regarding this item and provide a formal waiver request. Typically, vertical granite curbing is preferred at entrance radii, particularly within the public right of way.**
 - *WSE 4/12/22 Response: We believe this item does not require a waiver. The proposal is to match the existing curbing within the Industrial Park, which is bituminous berm.*
 - **TT 4/22/22 Update: We defer action on this item to the PEDB with discussion recommended at the next hearing.**
23. Portions of the west and east parking lots are proposed within 15 feet of the property lines which does not comply with the Regulations. (Ch. 200 §207-12.G.3.b)
- *WSE 10/12/21 Response: The east parking lot essentially follows the existing pavement line and is proposed to remain. The west parking field remains as shown on the civil drawings.*
 - **TT 10/27/21 Update: We recommend the Applicant coordinate with the PEDB regarding this item.**
 - *WSE 4/12/22 Response: The proposed parking spaces located within the setback described in Ch. 200 §207-12.G.3.b do not impede proper traffic flow and follow similar parking layouts on other properties within the existing industrial park.*
 - **TT 4/22/22 Update: We defer action on this item to the PEDB with discussion recommended at the next hearing.**
26. The Applicant has not proposed any screening of the existing dumpster location at the site. (Ch. 200 §207-17.C)
- *WSE 10/12/21 Response: The proposed trash enclosure is a 40-yard roll-off container that will be accessed via a chute from inside the building. A chain-link security fence with slats and gates are proposed. A detail of the chain-link fencing has been provided, see sheet 10.*
 - **TT 10/27/21 Update: We recommend the Applicant provide written correspondence from the Medway Design Review Committee (DRC) regarding their review of this item.**
 - *WSE 4/12/22 Response: We believe the Design Review Committee has previously submitted a positive recommending for the proposed layout.*
 - **TT 4/22/22 Update: We recommend a Condition requiring the Applicant provide the written correspondence prior to final plan approval by the PEDB.**
27. The Photometric Plan does not show any light levels beyond the property lines. We anticipate light trespass along the northwestern and northeastern and eastern property lines. (Ch. 200 §207-18)
- *WSE 10/12/21 Response: The Photometric Plan has been revised to show light levels beyond the property line.*
 - **TT 10/27/21 Update: Light trespass occurs along each of the property lines to multiple abutters.**
 - *WSE 4/12/22 Response: The lighting design has been revised to eliminate light trespass on abutting properties. Please see revised Photometric Plan.*
 - **TT 4/22/22 Update: Light trespass has been removed along the abutters to the south and east but remains along the right of way. We defer action on this item to the PEDB with discussion recommended at the next hearing.**

28. The Applicant has not proposed any landscaping along the eastern property line to screen the Project. Existing tree line will remain along the northern and western portions of the site. We recommend the PEDB visit the site to determine if the extent of vegetation to remain conforms with the “spirit” of the Regulation. (Ch. 200 §207-18)
- *WSE 10/12/21 Response: A six foot high opaque fence is proposed along the eastern property line, see sheet 10.*
 - **TT 10/27/21 Update: We recommend the Applicant provide written correspondence from the Medway Design Review Committee regarding their review of the Project.**
 - *WSE 4/12/22 Response: We believe the Design Review Committee has previously submitted a positive recommending for the proposed layout.*
 - **TT 4/22/22 Update: We recommend a Condition requiring the Applicant provide the written correspondence prior to final plan approval by the PEDB.**
29. The Applicant has not proposed any internal landscape islands to break up the parking areas and provide shade. (Ch. 200 §207-19.C)
- *WSE 10/12/21 Response: Additional trees and shrubs have been added to the landscape plan.*
 - **TT 10/27/21 Update: We recommend the Applicant coordinate with the PEDB and DRC regarding the scope of plantings for the Project.**
 - *WSE 4/12/22 Response: The Design Review Committee reviewed the landscape plan and provided comments, which were addressed during our meetings with the committee.*
 - **TT 4/22/22 Update: We recommend a Condition requiring the Applicant provide the written correspondence prior to final plan approval by the PEDB.**
30. The Applicant shall provide narrative and note on Plans to describe method for irrigating proposed landscaping at the site. Town water supply shall not be used for irrigation at the property. (Ch. 200 §207-19.K)
- *WSE 10/12/21 Response: No irrigation system is proposed at the present time.*
 - **TT 10/27/21 Update: We anticipate an irrigation well or other means of irrigation will be required to ensure plantings remain viable at the site after Project completion.**
 - *WSE 4/12/22 Response: No irrigation system is proposed at the present time.*
 - **TT 4/22/22 Update: We defer action on this item to the PEDB with discussion recommended at the next hearing.**

GROUNDWATER PROTECTION DISTRICT REVIEW

31. A generator is proposed for the Project and are prohibited in the Groundwater Protection District unless required by statute. The Applicant shall provide narrative related to the generator and whether it is a statutory requirement of the business. (ZBL §5.6.3.E.2.b)
- *WSE 10/12/21 Response: Please see application materials submitted to the PEDB in support of an application for a Groundwater Protection District Special Permit dated August 4, 2021 and subsequent letter from attorney Cannon dated September 15, 2021.*
 - **TT 10/27/21 Update: The proposed generator was not referenced in the letter dated September 15, 2021, we do not have the August 4, 2021 letter on file.**
 - *WSE 4/12/22 Response: 935 CMR 500.110(5)(a)8 and 935 CMR 500.110(6)(a)8, require that marijuana establishments maintain the ability to remain open during a power outage in order to ensure security on the premises. A generator will be required to comply with these regulations.*
 - **TT 4/22/22 Update: We defer action on this item to the PEDB with discussion recommended at the next hearing.**

GENERAL COMMENTS

35. The Applicant is proposing two additional water connections to the site for a total of four. We recommend the Applicant coordinate with Medway Department of Public Works (DPW) to determine if these connections should be consolidated as part of this Project.
- *WSE 10/12/21 Response: The applicant has met with representatives from the DPW. The two existing water service lines will be cut and capped as shown on the site plan set.*
 - **TT 10/27/21 Update: We recommend the Applicant provide written correspondence from the Medway DPW regarding their review of the Project.**
 - *WSE 4/12/22 Response: We have met with the Medway DPW on two separate occasions to review the project and discussed both existing and proposed utility connections. We will follow up with DPW and ask them to send along something in writing.*
 - **TT 4/22/22 Update: We recommend a Condition requiring the Applicant provide the written correspondence prior to final plan approval by the PEDB.**
37. Mulch sock should be depicted in the "Siltfence with Mulch Sock" detail on the Construction Details Plan.
- *WSE 10/12/21 Response: Mulch sock is depicted on the Construction Details Plan, see sheet 9.*
 - **TT 10/27/21 Update: The detail does not appear to be correct as certain information is missing on the detail or is not showing up correctly when printed from CAD.**
 - *WSE 4/12/22 Response: The detail has been corrected. See sheet 10 of the plan set.*
 - **TT 4/22/22 Update: In our opinion, this comment is resolved.**

These comments are offered as guides for use during the Town's review and additional comments may be generated during the course of review. The Applicant shall be advised that any absence of comment shall not relieve them of the responsibility to comply with all applicable local, state and federal regulations for the Project. If you have any questions or comments, please feel free to contact us at (508) 786-2200.

Very truly yours,



Steven M. Bouley, PE
Project Manager



Bradley M. Picard, EIT
Civil Engineer

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