

Burlington Conservation Board
645 Pine Street
Burlington, VT 05401
<http://www.burlingtonvt.gov/dpi>
Telephone: (802) 865-7188

Zoe Richards, Chair
Rebecca Roman
Don Meals
Miles Waite
Ryan Crehan
Hannah Brislin
Caryn Connolly
Kyle Tansley
Lina Swislocki
Elizabeth Cunningham, Student



Conservation Board Meeting Public Notice

Monday, July 1, 2024, 5:30 PM

Remote only via Zoom

Zoom: <https://zoom.us/j/95590052709?pwd=MlhQcTVTNmUydW5qeIBLeFUwZk9LZz09>

Webinar ID: 955 9005 2709

Password: 346560

Telephone: 1 929 205 6099

1. Annual Organizational Meeting

1.1. Nomination and election of Chair, Vice Chair, and Long Range Planning Committee representative.

2. Minutes

2.1. Accept minutes from June 3, 2024 meeting

3. Board Comment

4. Public Comment

5. Project Review

5.1. ZP-24-148; 49-55 Chase St (RL, Ward 1) Missa Aloisi / Chase St 49, LLC
Major impact review of proposed 4-lot subdivision and construction of multi-unit residential additions and one new 4-unit residential building.

5.2. ZP-24-263; 1074 Pine St (RCO-RG, Ward 5) Pomerleau / Champlain Housing Trust
Review of proposed stormwater infrastructure south of Shelburne Road Plaza.

6. Update & Discussion

6.1. Review of draft letter to the Mayor as to shoreline naturalization in the Urban Reserve.

7. Adjournment

8. Informational and Non-Discrimination Statements

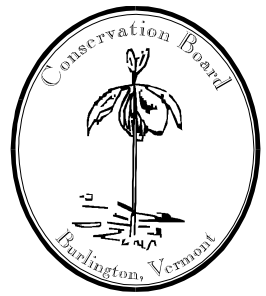
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Burlington Conservation Board

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Elizabeth Cunningham, Student*



Conservation Board Meeting Minutes

Monday, May 6, 2024 – 5:30 pm

Remote & In Person Meeting

Attendance

- **Board Members:** Zoe Richards (ZR), Miles Waite (MW), Hannah Brislin (HB), Caryn Connolly (CC), Rebecca Roman (RR), Don Meals (DM), Leslie Spencer (LS), Kyle Tansley (KT), Elizabeth Cunningham (EC), Ryan Crehan (RC)
- **Absent:**
- **Public:** Kate Kruesi
- **Staff:** Scott Gustin (Permitting & Inspections), Dan Cahill, Daniel Schmidt, Sophie Sauve, Cindi Wight (Parks & Rec)

ZR, chair, called the meeting to order at 5:31 p.m.

Minutes

May 6, 2024 minutes

A MOTION was made by RR and SECONDED by DM:

Approve the May 6 minutes as written.

Vote: 8-0-0, motion carried (no HB yet).

Board Comment

SG noted that a consultant has been selected for the Open Space Plan. The consultant is Agency Landscape + Planning from Cambridge, MA. They've done some consulting work with the city previously with Parks. The contract needs approval by the Board of Finance and City Council, scheduled for June 10. ZR noted 4 of 5 applications were very strong.

Public Comment

Kate Kruesi said she had some comments about tree cutting at Cambrian Rise.

Open Space Subcommittee

No meeting today.

Update & Discussion

1. **Urban Reserve**
Discussion with Ryan Crehan

The programs and services of the Dept. of Permitting & Inspections are accessible to people with disabilities. For accessibility information call 865-7188.

Ryan Crehan appeared for this item.

RC said he's working with US Fish & Wildlife on this potential project. The urban reserve is 45 acres north of the downtown waterfront. He's focused on the area where the fuel tanks were.

ZR, did much of the fill come from what's now Cambrian Rise? RC, does not know. He noted the recent gap analysis done by Stone Environmental and pointed out the forested patch at the north end next to the dog park.

RC has asked, is it possible to remove some of the berm and sheet piling to enhance the emerging floodplain forest, and he noted the conservation buffer on the property 100' in from the lake.

DM, the primary question is the level of soil contamination that may, or may not, be present. MW, Stone Environmental did a "paper" study in 2012. In 1999, there were a number of soil borings done. Mostly, contamination is petroleum which is not a huge concern at this point. DM, assumes if the sheet piling were removed, some sort of natural shoreline is contemplated.

MW, if the sheet piling could be removed from where its currently bowing out and northward, could it be removed without impacting the integrity of the remaining sheet piling? RC, some sort of bioengineering could be part of the solution.

ZR, is there cost to the city? RC, thinks there is money available for petroleum clean up in the urban reserve. ZR, does CEDO manage this land? RC, thinks it may be under Parks' jurisdiction. Cindi Wight said Parks is in charge of maintaining the land. City Planning & CEDO are to manage use of the property.

MW, if you can determine that there's contamination associated with a former tank, there may be coverage up to \$1M.

ZR, do we have a role as the Conservation Board to help reactivate the process? We could write a letter to Planning & CEDO: Demonstration value, clean-up value, etc. Cindi Wight, this would likely be an ask of the mayor.

DM, can the future of this particular piece be decided separately from the entirety of the urban reserve? Cindi Wight, last we heard from VHCB was that we need to get community input as to what they want.

RR, our ask to the mayor could be focused on something like a conversation with VHCB about whether we can focus on just this area or if it needs to be a bigger effort.

ZR, would the city's Land Steward be the point of contact with VHCB? Dan Cahill, yes. ZR, we could flesh out what the ask would be before approaching VHCB.

RR and RC will draft the ask to the mayor in consultation with MW and Dan Cahill.

Daniel Schmidt asked if there are small steps Parks can take to prepare the area, like invasive species management.

RR said we will aim to have letter drafted in time for July 1 meeting.

2. Cambrian Rise

Rec path construction

Dan Cahill and Cindi Wight appeared for this item.

ZR said she's had communications with a number of folks since our May meeting relative to the Kieslich Park tree cutting. ZR gave a brief overview of how Kieslich Park became the city's. DM thought perhaps some degree of stormwater infrastructure was included in the park as part of the Cambrian Rise project. ZR, the land is designated as an urban wild.

Cindi Wight said Cambrian Rise received a \$300K parks impact fee credit due to the park.

Dan Cahill noted the 2001 Charrette process. When the property went up for sale, the guiding values and practices were informed by the prior work relative to the property.

RC, would the path need permitting and Conservation Board review? SG, we've known about the path for a while, but final project plans have not been permitted. It likely needs permitting review prior to construction, but he will confirm.

Dan Cahill noted the stand of oaks along the bluff – probably the most notable natural feature on the property. In some ways, this project is uncharted territory – paving a path adjacent to a significant natural area such as this. We are hoping to establish clear protection standards for construction. We'll need a root zone analysis and will need to consider root zone protections. There's a lot to be excited about but also a little nervous.

RR, that's always been an aspect of this path. Dan Cahill, yes, but now's the time to be intentional about its installation.

Daniel Schmidt, the Conservation Board may want to consider the process for bringing forth concerns about construction while its under way. Cindi Wight said Parks' project manager will be situated at 311 North Ave.

ZR, what's the timeline for construction of the path? Cindi Wight, this coming fall.

Sophie Sauve, as to timeline, they are determined to install this year to comply with the development agreement. As for tree protection, the hired landscape architect has provided a root zone plan. They have a good understanding of Park's tree protection standards, such as no machinery within the root zone. The designers have identified as limited a disturbance area as possible.

DM, the fact that the developer needs to finish by year's end isn't necessarily a good thing. They may be in a hurry. DM is most interested in the execution of the construction by the contractor. Someone from the city needs to be onsite to ensure the construction is done properly.

RC, wants to focus on limits of disturbance and staging area. Its possible to do the work well.

Dan Cahill noted we needed to work really hard to get the path layout where it is now, and it still results in potential for 30% encroachment into the root zone.

ZR asked about permit review. SG said its large enough to need DRB review. It would need Conservation Board as part of that review. He will confirm whether additional review is needed or not.

Daniel Schmidt noted the need to consider invasive species management following soil disturbance.

RR asked if the folks doing the earthwork are actually involved in these project meetings. Cindi Wight, no, the project managers are present. The workers follow the plans. RR suggested that the folks doing the work be part of the pre-construction site visit. DM agrees with that but doubts we can get the machinery operators to attend a daylong meeting and site visit.

LS reiterated Daniel's original point about construction concerns. Cindi Wight, they would go to the Parks project manager.

Dan Cahill noted his lived experience with the property requires him to be cautious. The developer has been open about wanting views to the west. He thinks a training / orientation is a great idea before the work is done.

RC, there are a lot of good plantings proposed. He does not have a good idea of what's to be removed. For all the money for new plantings, a lot of effort will be needed to sustain them.

Kate Kruesi, the seed mix that is selected matters. She's concerned the "light green" zone (on the map) seed mix may not last long term. Wildflower meadows are not done commonly and don't look like much for the first few years.

Sophie Sauve said that the current drawings don't reflect Kate's input and they were shared with the designers. We hope to have her recommendations reflected in the next set of plans.

LS noted that about half of the species are non-native. Kate Kruesi appreciates that her recommendations will be considered.

3. Keislich Park

Follow up re: tree cutting

Cindi Wight appeared on behalf of this item.

Cindi Wight acknowledged the Board's prior action and was looking for support for the Parks' team.

Dan Cahill, there's the implementation and follow up, and then there's this body's role in policy and management of our natural areas. Are there any policy issues to think of for future consideration?

ZR, recapped that the Board supported implementation of Dr. Keeton's recommended restoration. Cindi Wight said the city attorney's office recommended taking the financial piece out of the Board's prior recommendation.

Dan Cahill noted the carbon storage capacity of trees. ZR noted I-Tree as a way to quantify tree benefits.

DM, there's no way we can un-do what was done. The policy considerations may need to include punitive damages.

RR noted consideration of maintenance costs to sustain the work over time.

Dan Cahill, while this effort is happening, this is also an opportunity for education. Take a deeper dive.

A MOTION was made by DM and SECONDED by RC:

- Restoration of the site should not just consider planting to address lost vegetation but also what is necessary to support those plantings until they reach a perpetual self-sustaining state.
- Loss of legacy values should be considered in computing any compensatory damages levied for this and any future events of this type.

Vote: 9-0-0, motion carried.

4. Conservation Legacy Fund

Discussion re: recommended changes for year two of grant program

RR noted the email received from Sharon Bushor about this item.

SG overviewed the changes to the grant process and also some items that are intentionally left in place, like allowing outside entities to apply as long as the benefit is within Burlington.

DM said that there needs to be some kind of metric to measure success – i.e. like number of trees planted. The scoring matrix should address the clarity of measures of success.

Daniel Schmidt, do you mean the applicant will have a quantitative measure of success or that we establish a threshold for determining success of a project? DM, looking for metrics rather than something like “we published a website.”

ZR noted that we discussed the potential for a project pitch meeting with the evaluation group.

RR likes DM’s suggestion about demonstrating a measure of success.

ZR we’ll tidy this up before making it final at an upcoming Open Space Subcommittee meeting.

Adjournment

7:30 PM.

49-55 Chase Street is a large lot (31,755 SF) located in the Old East End. The lot consists of 3 structures (49 Chase, 51-53 Chase and 55 Chase) with a total of 8 units. The units have a shared gravel parking lot, dumpsters and recycling containers. The newly adopted ordinance "[ZA-24-02 Neighborhood Code Part 1 as adopted 03-25-24](#)". This adopted code allows for further development at this site based on the following tables below.

Table 4.4.5-1. Lot Size, Frontage, Setback, and Lot Coverage Standards in Residential Districts

<u>District</u>	<u>Min. Lot Frontage^{2,3,4} ⁵ (linear feet)</u>	<u>Setbacks^{1,6,7,8,9}</u>			<u>Lot Coverage^{1,10}</u>
		<u>Front</u>	<u>Side</u>	<u>Rear</u>	
<u>Residential Low (RL)</u>	<u>30'</u>	<u>Min: Avg. of front setback 2 adjacent lots on both sides +/- 5 feet</u>	<u>Min: 10% of lot width or avg. of side setback of 2 adjacent lots on both sides</u>	<u>20 ft.</u>	<u>45%</u>
<u>Residential Medium (RM)</u>		<u>Max required: 25 ft</u>			<u>55%</u>
<u>Residential High (RH)</u>	<u>N/A</u>	<u>Min required: 5 ft</u> <u>Max permitted: 20 ft</u>	<u>Max required: 20 ft</u>	<u>15 ft.</u>	<u>80%</u>
<u>Residential Corridor (RC)</u>	<u>N/A</u>				<u>80%</u>

1. Details regarding the measurement of and exceptions to coverage and setback standards are found in Art 5.

2. The DRB may reduce the frontage requirements for lots fronting on cul-de-sacs, multiple streets, or corner lots to more closely reflect an existing neighborhood pattern.

3. Exceptions to frontage requirements for flag lots and small lot subdivisions are found in Sec. 5.2.2

4. For lots in RL or RM with more than two primary buildings, the minimum lot frontage shall be 45'.

5. Average setback for front and side setbacks are calculated based on 4 adjacent lots, two on each side within the same block and on lots with the same frontage requirements. For the purposes of determining the required front setback only, among the comparative sample of four neighboring properties, one may be removed from the averaging calculation.

6. Where there are fewer than 2 adjacent lots on both sides within the same block having the same street frontage, the average side yard setback shall be calculated from the fewer number of lots. Where there are no adjacent lots, the side setback shall be 10% of the lot width. Refer to Sec. 5.2.5 for additional details.

4-7. A 75 ft setback shall be required from the ordinary high water mark of Lake Champlain and the Winooski River. Additional setbacks from the lakeshore and other water features may be applicable per the requirements of Sec 4.5.3 Riparian and Littoral Conservation Overlay Zone.

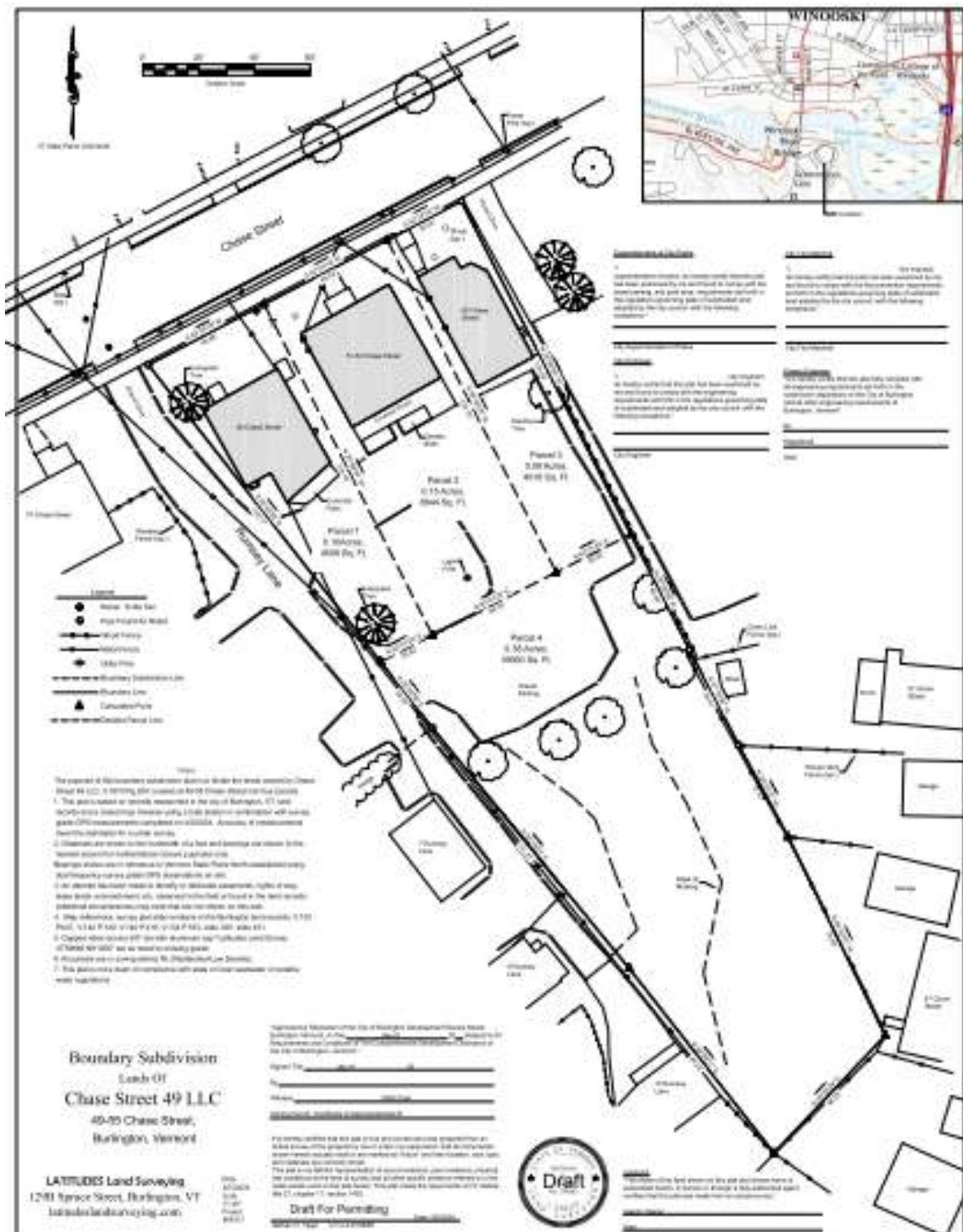
2-8. For properties in the RL and RM zones with frontage along Lake Champlain or the Winooski River, the front yard setback shall not be required to exceed 50 feet.

9. An additional ten per cent (10%) lot coverage may be permitted for accessory residential features per (d) ~~3A~~ 2C below.

Table 4.4.5-2. Principal & Secondary Structures Massing and Placement Standards in Residential Districts

District	Max Height & Stories ^{1,2}	Max Dwelling Units per Structure ^{2,3}	Max. Principal Structure Footprint ³	Max. Secondary Structure Footprint ³	Max Building face before providing offset ⁵	Min. Distance between Structures on same lot
Residential Low (RL)	35' 3 stories	4	1,800 sq.ft.	1,100 sq.ft.	50'	15'
Residential Medium (RM)	35' 3 stories	4	1,800 sq.ft.	900 sq.ft.		
Residential High (RH)	50' 4 stories	N/A	N/A	N/A		

We are proposing subdividing the lot to increase density of housing to the limits of the ordinance.



Each lot will have a min. of 30'-0" frontage along either Chase Street or Rumsey Lane. The following development is listed below for each individual site:

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49 Chase Street was built in 1920 and currently has vinyl siding and an asphalt and membrane roof. This property has existing connection to the city municipalities and by adding onto the structure there is no adverse effect based on the items listed in Article 3, Part 5 conditional use criteria and the major impact review standards. The size of the structure is consistent with existing adjacent structures. The entrances to the units are proposed to face Rumsey Lane so that this street is activated by the new porches. The shared parking lot is meant to provide the occupants with limited parking, while consolidating it to preserve open space so that any stormwater run off can be adequately handled by the site's non permeable surfaces. A side walk will be added to the shared entry to connect with Rumsey Lane. A large existing conifer tree will be protected during construction.

New Lot area: 4,509 S.F.

Existing units: 2

New units: 2

Midpoint of roof height: 32' - 8 3/4"

Total height: 37' - 3 1/2"

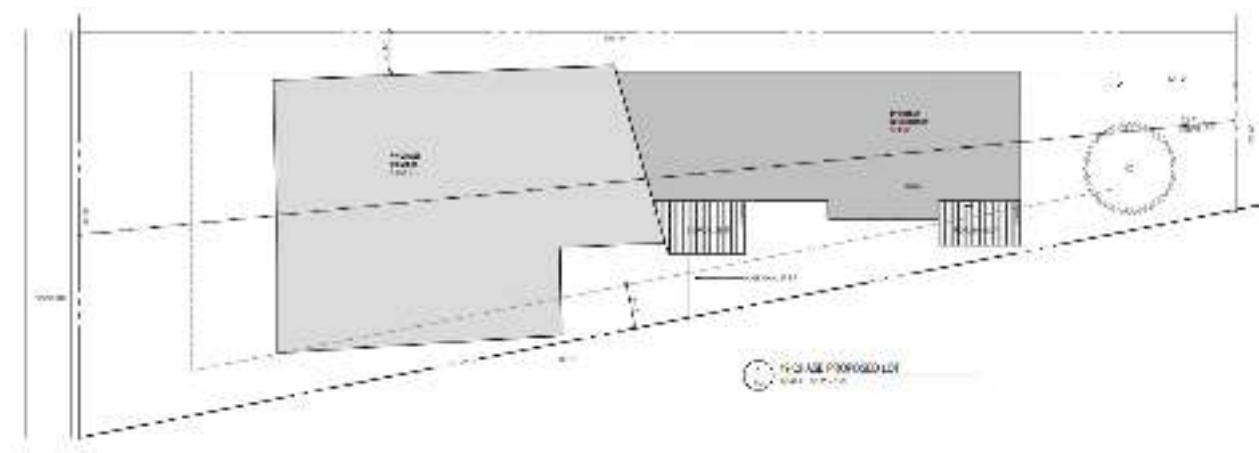


Image shows existing parking lot and South elevations of 49-55 chase street

HINGE

55 Chase Street was built in 1910 and currently has vinyl siding, slate shingles on the main structure and asphalt on the rear addition. The proposed development meets the criteria as defined in Article 4 zoning district RL, as well as meets the Special Uses and Performance Standards in Article 5. This property has existing connection to the city municipalities and by adding onto the structure there is no adverse effect based on the items listed in Article 3, Part 5 conditional use criteria and the major impact review standards. The size of the structure is consistent with existing adjacent structures. The shared parking lot is meant to provide the occupants with limited parking, while consolidating it to preserve open space so that any stormwater run off can be adequately handled by the site's non permeable surfaces. A side walk will be added to the entrance from the parking area. A single deciduous tree will need to be removed for the proposed project.

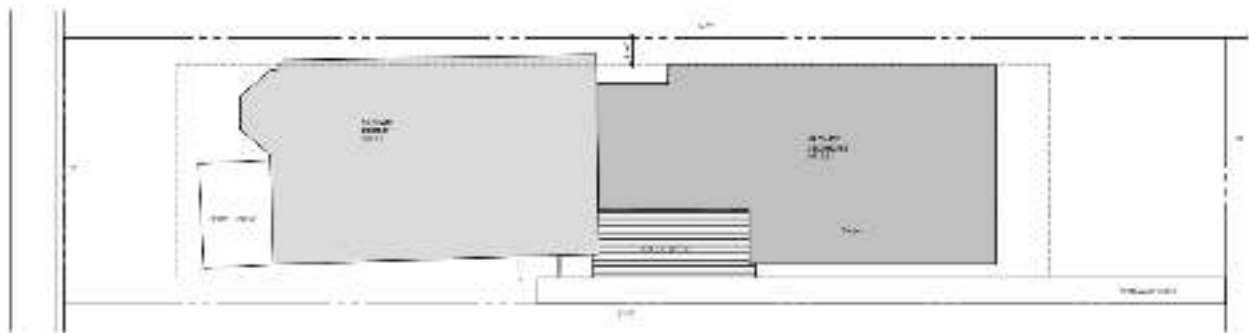
New Lot area: 4,016 S.F.

Existing units: 2

New units: 2

Midpoint of roof: 25'-0 1/4"

Total height: 30'-2 3/4"



Site Illustration by design

HINGE

Rumsey Lane Apartment

This will be a new lot with new construction. The size is limited to the restrictions of the ordinance. Orientation of the structure has been taken into account to maximize occupant safety and visibility towards Rumsey Lane. Municipalities will need to review capacity for this structure we think that this will not have an adverse effect on utilities, stormwater or neighborhood character. Current parking for 49-55 Chase street is accessed through Rumsey Lane. The new parking will exit along Rumsey Lane. Sidewalks will also be directed towards Rumsey Lane. Three deciduous trees will need to be removed. These trees will be replace with three new deciduous trees.

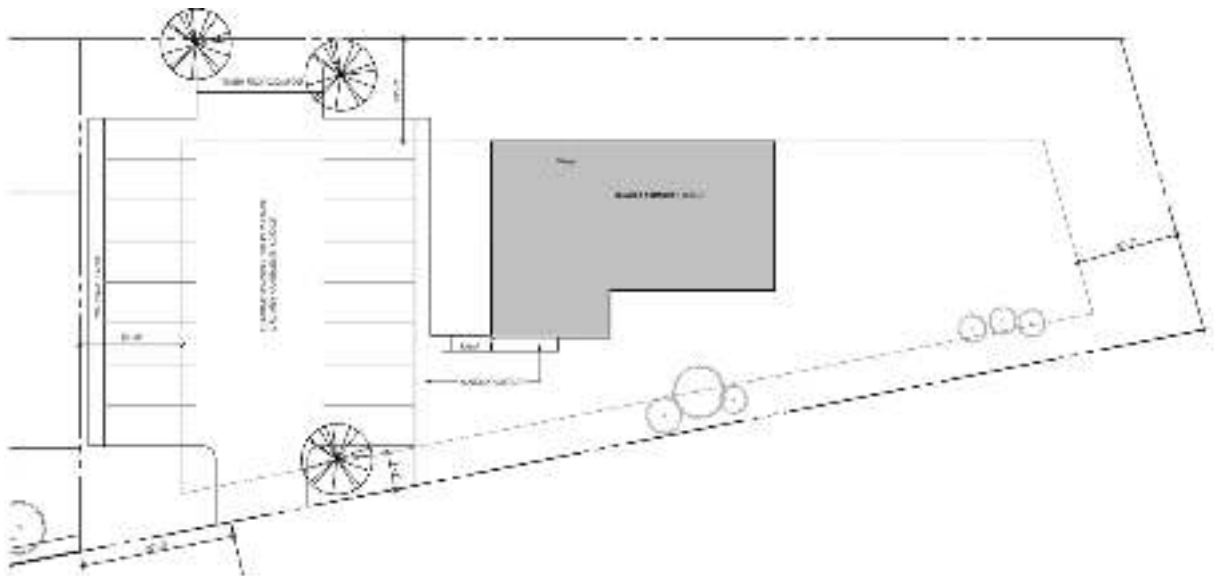
New Lot area: 4,016 S.F.

Existing units: 2

New units: 2

Midpoint of roof: 25'-0 1/4"

Total height: 30'-2 3/4"



View looking toward the end of Rumsey Lane. Open lawn to the left is the location of proposed development.

HINGE

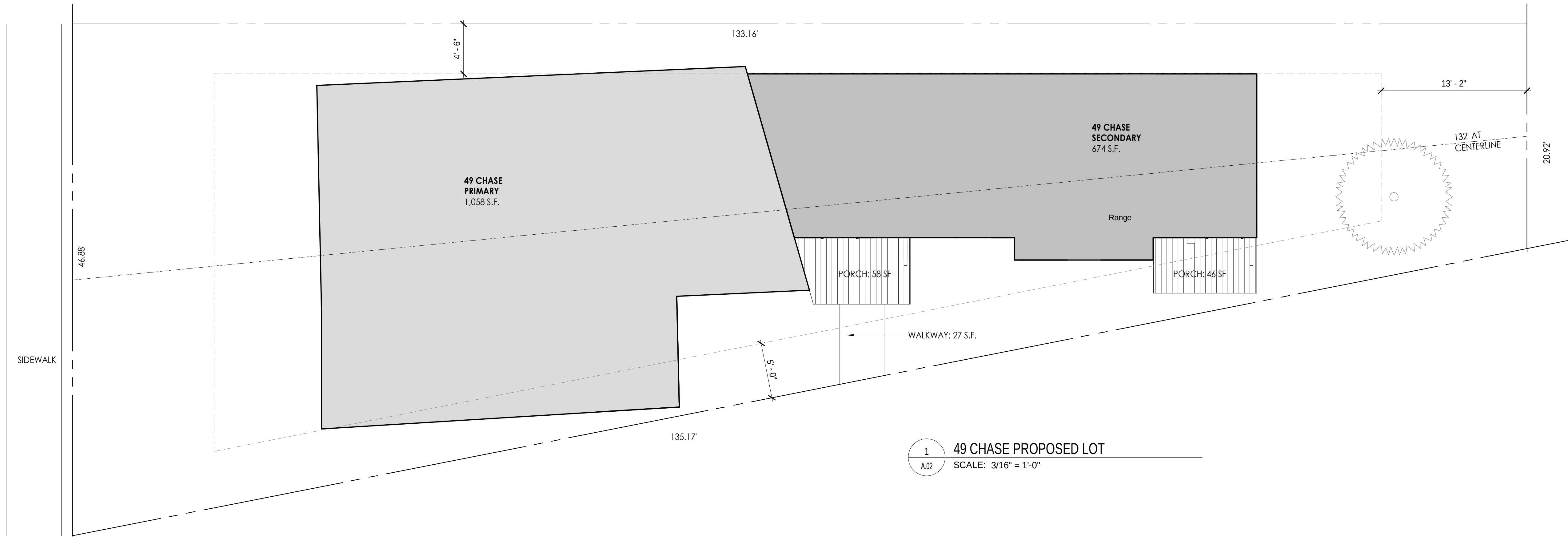
REVIEW CRITERIA (zoning ordinance Article 10.1.9.d)

- d. The review of a preliminary plat by the DRB shall address all issues pertaining to conformance with city plans; the capacity of municipal infrastructure; and overall site development and configuration including but not limited to the preservation of open spaces and natural resources, the layout of blocks and lots; streets, sidewalks pathways, and other access ways; stormwater management systems, water, sanitary sewage and other utility systems; and buffering of uses.

In its review of a Preliminary Plat, the DRB shall include consideration of the input of the Conservation Board, Design Advisory Board and city departments where offered. Such comments shall be considered by the DRB throughout the review process. Decisions by the DRB on a preliminary plat shall be based on the project's conformance with the following:

1. the requirements of the underlying zoning district(s) and all applicable overlay district(s) as set forth in Article 4;
2. the review criteria for Conditional Uses and Major Impact in Article 3, Part 5 where applicable;
3. the requirements of Article 5 with regard to Special Uses and Performance Standards as applicable; and,
4. the land division and site development principles and design standards in Article 6.

END OF NARRATIVE



ZONING DISTRICT: RL

MIN. LOT SIZE: N/A
MAX. LOT COVERAGE = 45%

FRONT: Max/Min: +/- 5-ft of ave. of
2 adjoining properties on both sides.
SIDE: Min: 10% or 5'
REAR: 20'

MAX FOOTPRINT: 1,800 S.F.
MAX UNITS: 4

LOT COVERAGE

PROPOSED LOT SIZE: 4,509 S.F.*
APARTMENT 2 UNITS: 1,058 S.F.
ADDITION 2 UNITS: 674 S.F.
PORCH(S): 104 S.F.
WALKWAY: 27 S.F.

PROPOSED LOT COVERAGE: 1,732 S.F. = 38%
WITHOUT PORCHES

WITH PORCHES/PATIOS: 1,863 S.F. = 41%

* lot area is based NEW SUB DIVISION BY
LATITUDES LAND SURVEYING

DRAWING KEY

- EXISTING STRUCTURE
- ADDITION
- PROPERTY LINE
- SETBACK LINE
- FENCE LINE

1
A.02
49 CHASE PROPOSED LOT
SCALE: 3/16" = 1'-0"

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BROSSEAU APARTMENTS

49-55 CHASE STREET, BURLINGTON, VT

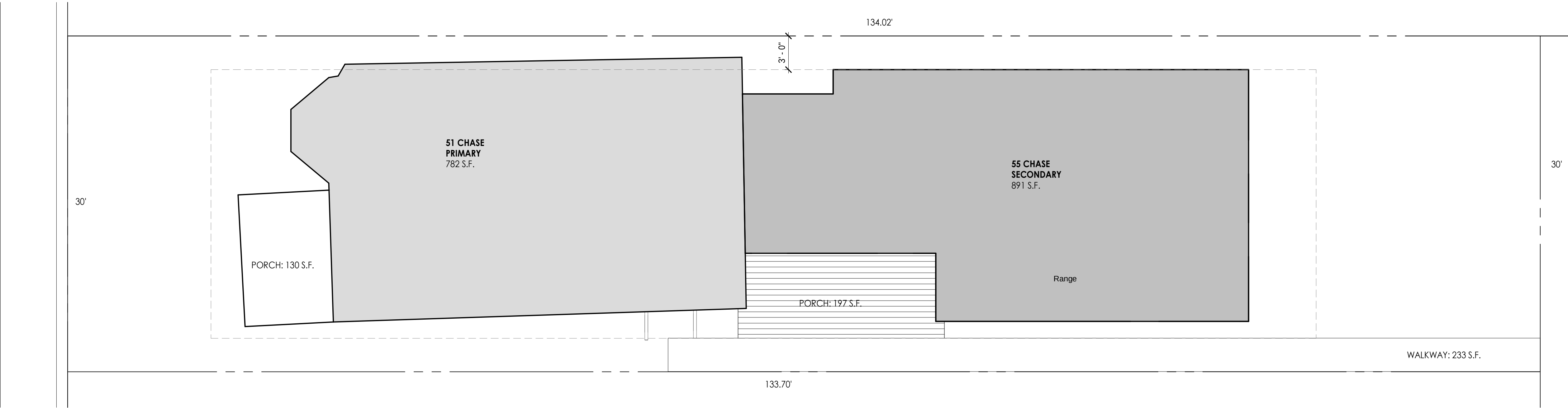
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architecture
431 Pine Street, Suite 314, Burlington, VT 05401
802.793.9840

FOR PERMIT ONLY

DATE: 03/15/24
SCALE: As indicated
DRAWN BY: MA
CHECKED BY: Designer
PHASE:

49 CHASE SITE PLAN- NEW

SHEET NO: **A.02**



ZONING DISTRICT: RL

MIN. LOT SIZE: N/A
MAX. LOT COVERAGE = 45%

FRONT: Max/Min: +/- 5-ft of ave. of
2 adjoining properties on both sides.
SIDE: Min: 10% or 5'
REAR: 20'

MAX FOOTPRINT: 1,800 S.F.
MAX UNITS: 4

LOT COVERAGE

PROPOSED LOT SIZE: 4,016 S.F.*

APARTMENT 2 UNITS: 782 S.F.
ADDITION 2 UNITS: 891 S.F.

PORCH(S): 327 S.F.
WALKWAY: 233 S.F.

PROPOSED LOT COVERAGE: 1,673 S.F. = 41%
WITHOUT PORCHES

WITH PORCHES/PATIOS: 2,233 S.F. = 47%

* lot area is based NEW SUB DIVISION BY
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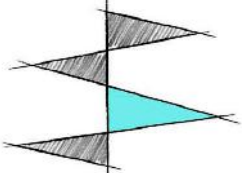
DRAWING KEY

- EXISTING STRUCTURE
- ADDITION
- PROPERTY LINE
- SETBACK LINE
- FENCE LINE

1
A.03
55 CHASE PROPOSED LOT
SCALE: 3/16" = 1'-0"

BROSSEAU APARTMENTS

49-55 CHASE STREET, BURLINGTON, VT



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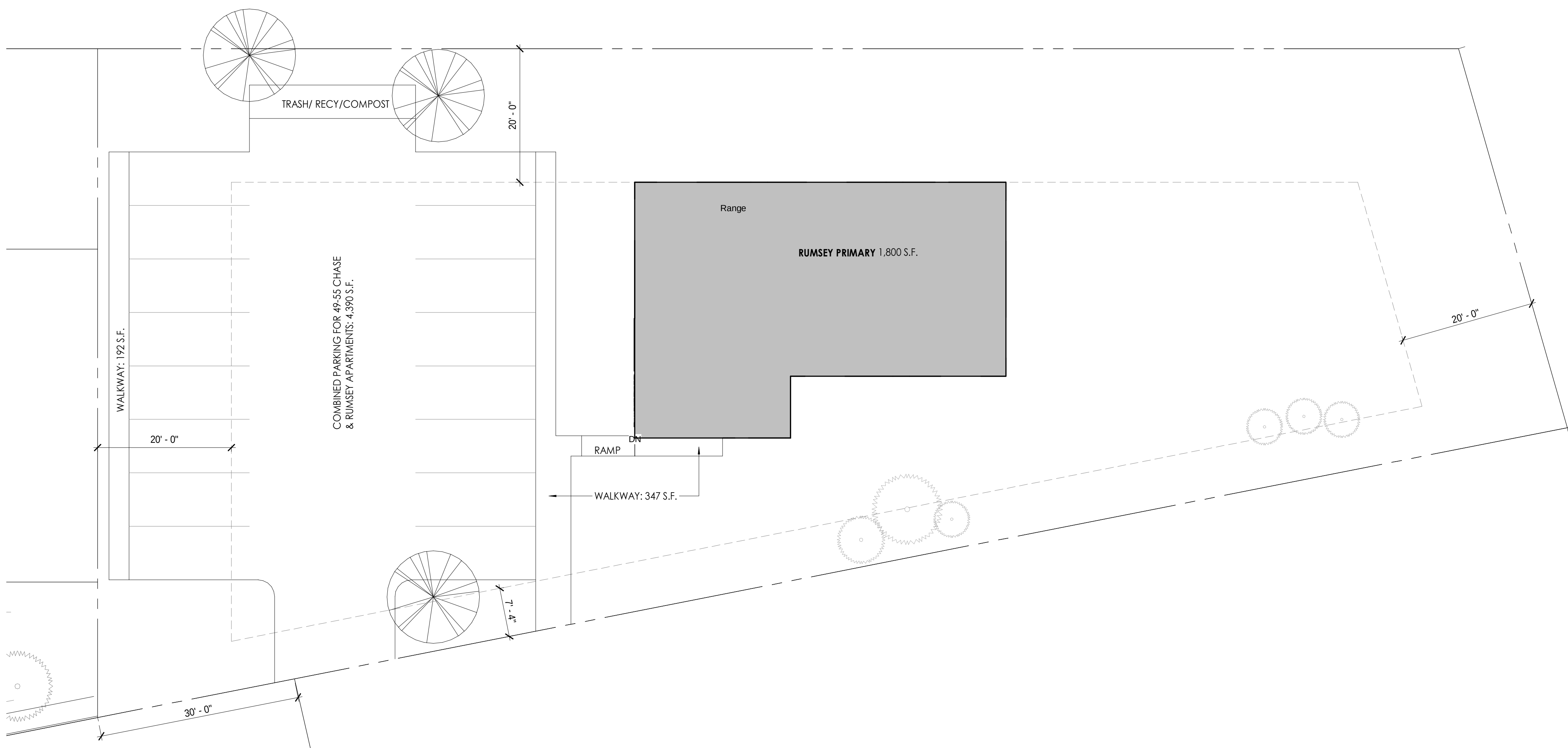
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DATE: 04/19/24
SCALE: As indicated
DRAWN BY: TS
CHECKED BY: MA
PHASE:

**55 CHASE LOT
COVERAGE**

SHEET NO:

A.03



ZONING DISTRICT: RL

MIN. LOT SIZE: N/A
MAX. LOT COVERAGE = 45%

FRONT: Max/Min: +/- 5-ft of ave. of 2 adjoining properties on both sides.
SIDE: Min: 10% or 5'
REAR: Min: 25% or 20'

MAX FOOTPRINT: 1,800 S.F.
MAX UNITS: 4

LOT COVERAGE

PROPOSED LOT SIZE: 16,660 S.F.*

APARTMENT 4 UNITS: 1,800 S.F.

DRIVEWAY: 4,390 S.F.
WALKWAY: 539 S.F.

PROPOSED LOT COVERAGE: 6,729 S.F. = 40%
(EVERYTHING)

* lot area is based NEW SUB DIVISION BY
LATITUDES LAND SURVEYING

DRAWING KEY

- EXISTING STRUCTURE
- ADDITION
- PROPERTY LINE
- SETBACK LINE
- FENCE LINE

1
A.04

RUMSEY PROPOSED LOT
SCALE: 1" = 10'-0"

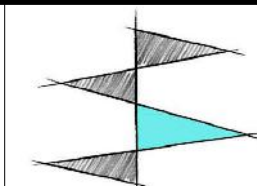
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BROSSEAU APARTMENTS

49-55 CHASE STREET, BURLINGTON, VT



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architecture

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802.793.9840

FOR PERMIT ONLY

DATE: 03/15/24

SCALE: As indicated

DRAWN BY: Author

CHECKED BY: Designer

PHASE:

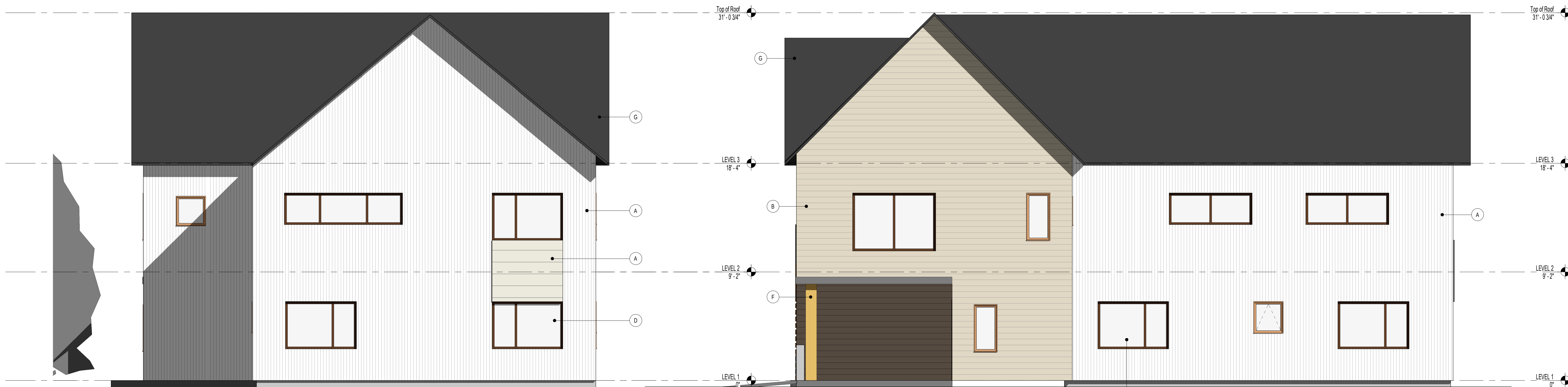
RUMSEY LOT
COVERAGE

SHEET NO:

A.04



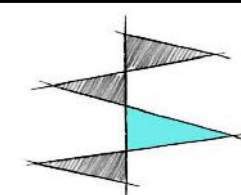
4 RUMSEY - NORTH
A.20 SCALE: 1/4" = 1'-0"



2 RUMSEY - WEST
A.20 SCALE: 1/4" = 1'-0"

49-55 CHASE STREET, BURLINGTON, VT

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DATE: 04/19/24
SCALE: 1/4" = 1'-0"
DRAWN BY: MA
CHECKED BY: MA
PHASE: FOR PRICING

**ELEVATIONS -
RUMSEY
APARTMENT**

SHEET NO: **A.20**



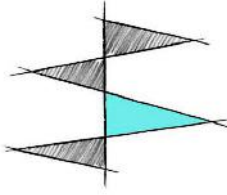
VIEW TOWARDS 49-55 CHASE SOUTH ELEVATIONS FROM NEW RUMSEY APARTMENT LOCATION



VIEW TOWARDS NEW RUMSEY APARTMENT LOCATION

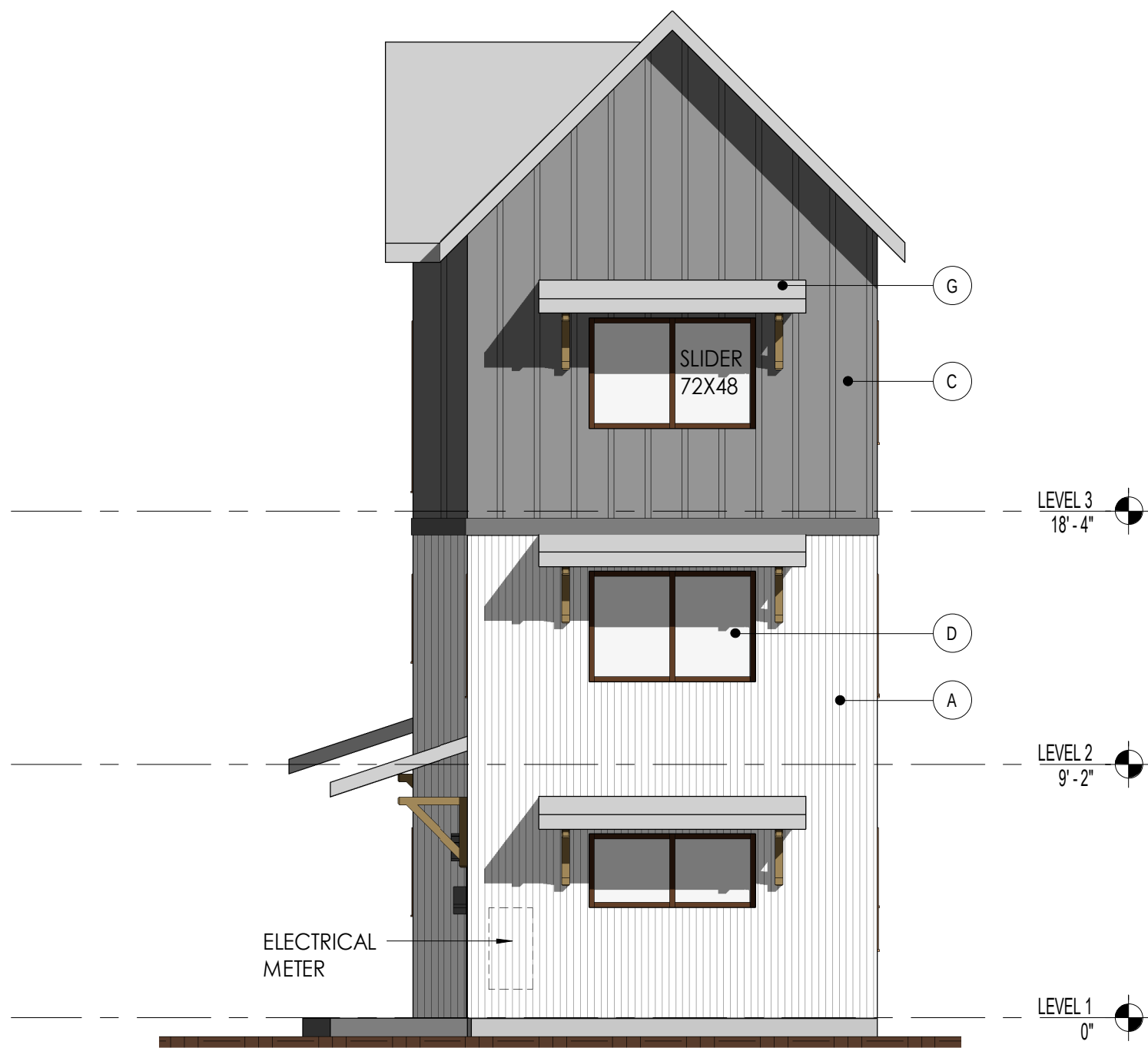
BROSSEAU APARTMENTS

49-55 CHASE STREET, BURLINGTON, VT



HINGE
architecture
431 Pine Street, Suite 314, Burlington, VT 05401
802.793.9840

DATE:	04/19/24	SITE IMAGES
SCALE:		
DRAWN BY:	MA	
CHECKED BY:	MA	
PHASE:	FOR PRICING	SHEET NO:
		A.21

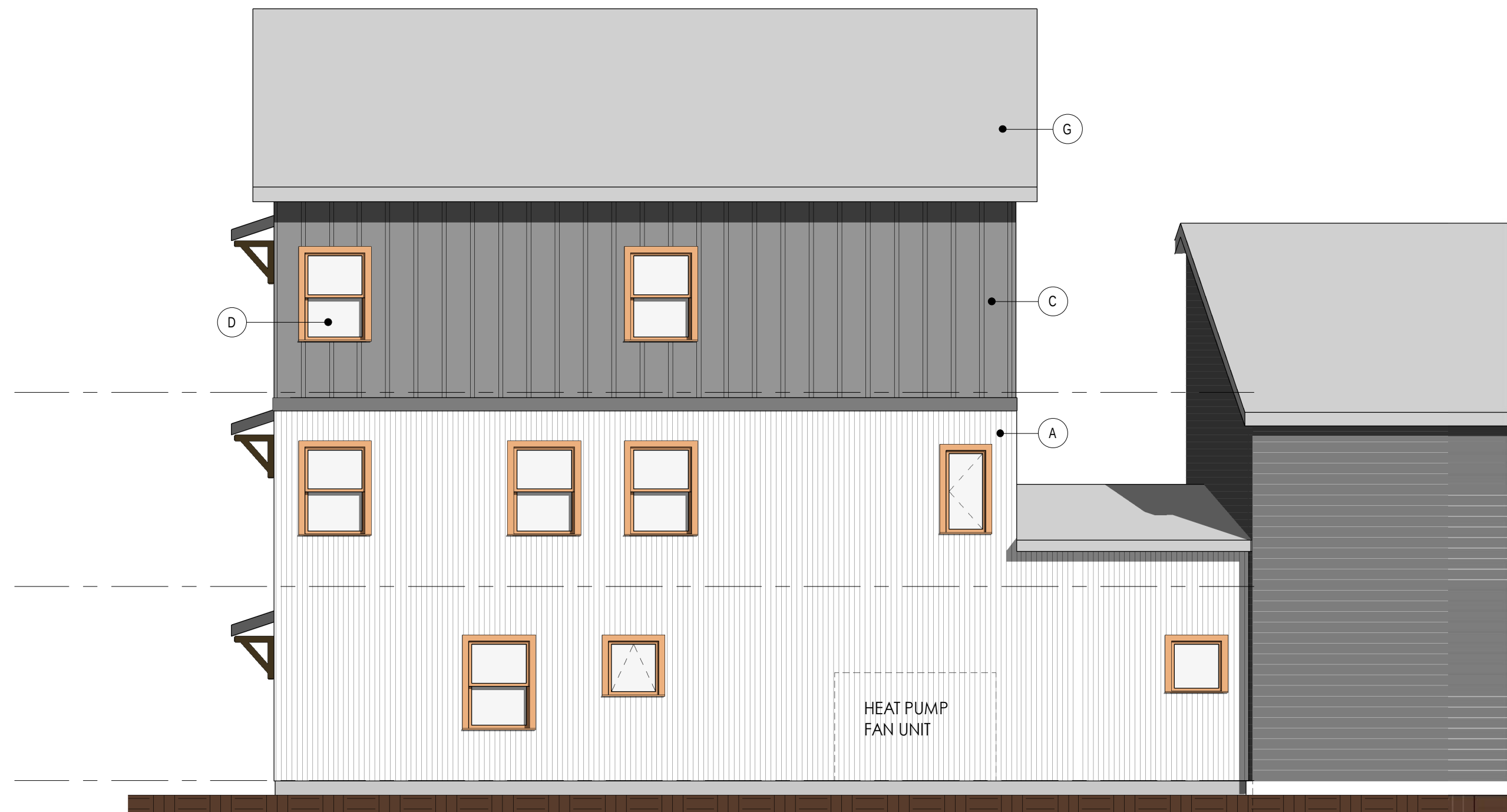


3 49 CHASE - SOUTH
A.22 SCALE: 3/16" = 1'-0"

EXTERIOR MATERIAL KEY	
Key Value	Keynote Text
A	METAL SIDING - VERTICAL
B	METAL SIDING - HORIZONTAL
C	BOARD AND BATTEN SIDING
D	VINYL CLAD WINDOW
E	ENTRY DOOR - ALUMINUM CLAD
F	STEEL POST
G	ASPHALT ROOF



4 49 CHASE - WEST
A.22 SCALE: 3/16" = 1'-0"



2 49 CHASE - EAST
A.22 SCALE: 3/16" = 1'-0"



FRONT (NORTH) VIEW OF 55 CHASE STREET



49-55 CHASE STREET UNITS

BROSSEAU APARTMENTS

49-55 CHASE STREET, BURLINGTON, VT

HINGE
architecture
431 Pine Street, Suite 314, Burlington, VT 05401
802.793.9840

DATE: 04/19/24
SCALE: 3/16" = 1'-0"
DRAWN BY: MA
CHECKED BY: MA
PHASE: FOR PRICING

ELEVATIONS - 49
CHASE
SHEET NO:
A.22



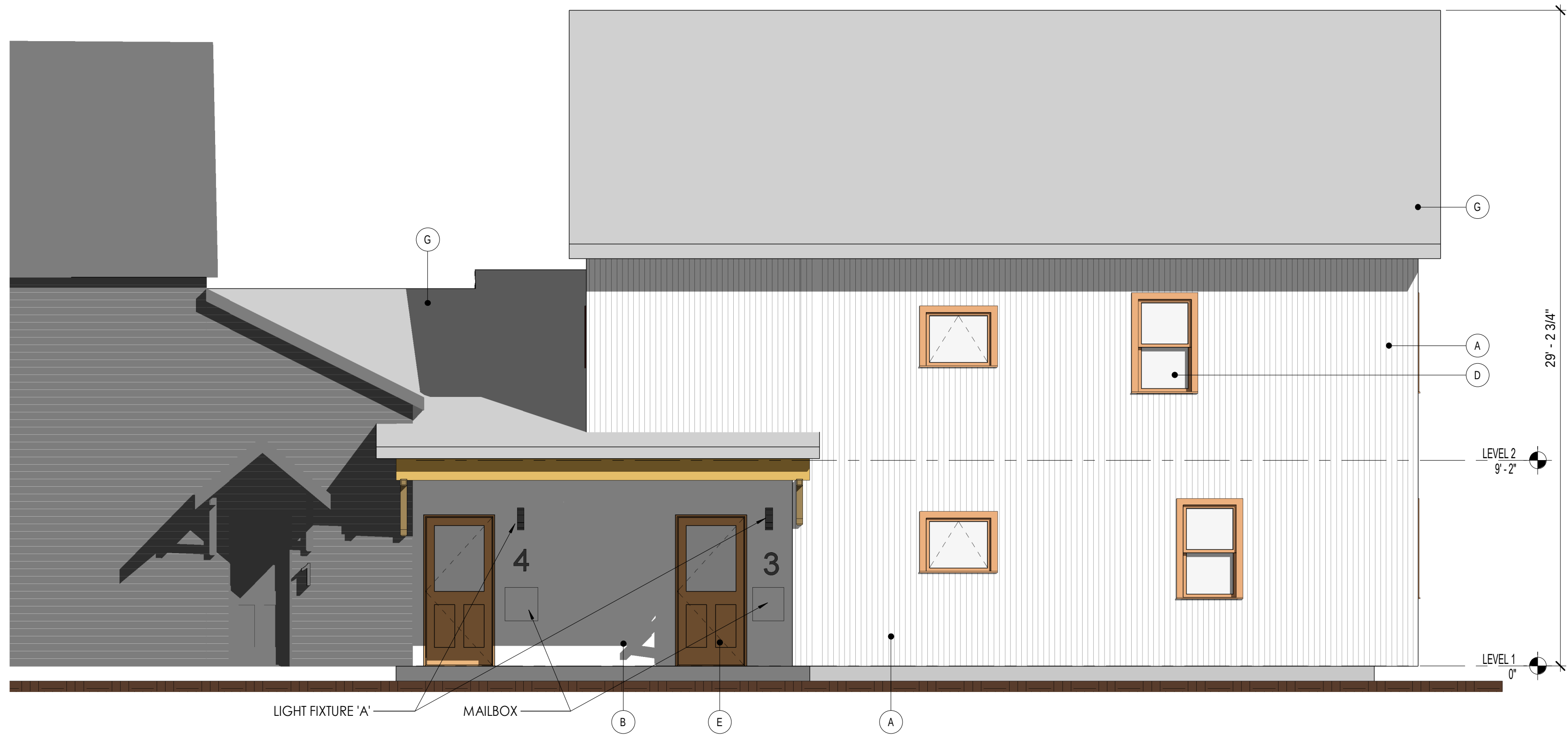
FRONT (NORTH) VIEW OF 55 CHASE STREET



49-55 CHASE STREET UNITS

EXTERIOR MATERIAL KEY	
Key Value	Keynote Text
A	METAL SIDING - VERTICAL
B	METAL SIDING - HORIZONTAL
C	BOARD AND BATTEN SIDING
D	VINYL CLAD WINDOW
E	ENTRY DOOR - ALUMINUM CLAD
F	STEEL POST
G	ASPHALT ROOF

2 55 CHASE - EAST
SCALE: 1/4" = 1'-0"



1 55 CHASE - WEST
SCALE: 1/4" = 1'-0"



4 55 CHASE - SOUTH
SCALE: 1/4" = 1'-0"

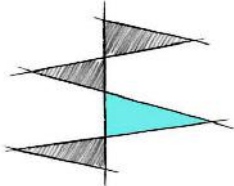
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BROSSEAU APARTMENTS

49-55 CHASE STREET, BURLINGTON, VT



HINGE

architecture

431 Pine Street, Suite 314, Burlington, VT 05401
802.793.9840

DATE: 04/17/24
SCALE: 1/4" = 1'-0"
DRAWN BY: Author
CHECKED BY: Author
PHASE: FOR PRICING

ELEVATIONS - 55
CHASE

SHEET NO:

A.24



PARKING LIGHT: NextGen II LED 20,000 LUMENS ON 15' HIGH POLE



5'-0" HIGH DUMPSTER FENCING

PLANT LIST

KEY	COMMON NAME	MATURE HEIGHT	SIZE	QUANTITY	COMMENTS
A	DOGWOOD - Cherokee Brave	15'-0"	3 CAL	5	
B	DWARF ALBERTA SPRUCE	6'-0"	48"	2	
C	CEDAR - Techny arborvitae	15'-0"	3 CAL	7	

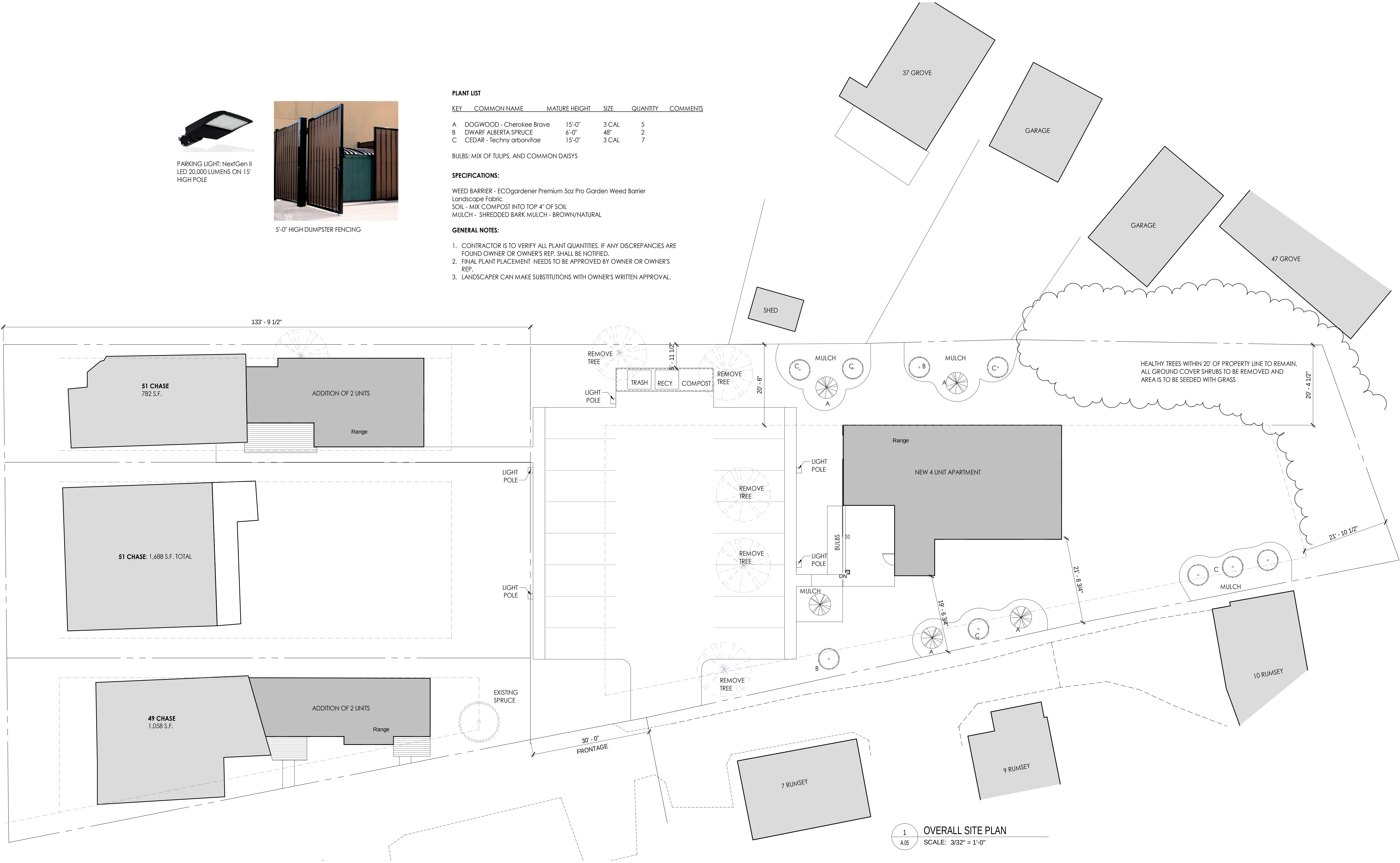
BULBS: MIX OF TULIPS, AND COMMON DAISYS

SPECIFICATIONS:

WEED BARRIER - ECOgardener Premium 5oz Pro Garden Weed Barrier
Landscape Fabric
SOIL - MIX COMPOST INTO TOP 4" OF SOIL
MULCH - SHREDDED BARK MULCH - BROWN/NATURAL

GENERAL NOTES:

- CONTRACTOR IS TO VERIFY ALL PLANT QUANTITIES. IF ANY DISCREPANCIES ARE FOUND OWNER OR OWNER'S REP. SHALL BE NOTIFIED.
- FINAL PLANT PLACEMENT NEEDS TO BE APPROVED BY OWNER OR OWNER'S REP.
- LANDSCAPER CAN MAKE SUBSTITUTIONS WITH OWNER'S WRITTEN APPROVAL.



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BROSSEAU APARTMENTS

49-55 CHASE STREET AND RUMSEY LANE, BURLINGTON, VT

HINGE
architecture
431 Pine Street, Suite 314, Burlington, VT 05401
802.793.9840

DATE:	06/05/24	OVERALL SITE
SCALE:	3/32" = 1'-0"	
DRAWN BY:	MA	
CHECKED BY:	MA	
PHASE:	FOR PRICING	SHEET NO: A.05

Hello Mr. King:

I own and reside at 10 Rumsey Ln with my wife and daughter. I understand you are the staff planner working on the Zoning Permit Application for 49-55 Chase St (ZP-24-148). In advance of the DRB meeting on July 2, 2024, I wanted to share (and put on record) some comments and concerns I have regarding this development application.

First, the application does not appear to contain all the necessary information and documentation required by Article 3 of the Burlington Comprehensive Development Ordinance and, thus, does not appear to be ripe for approval review by the DRB. For example --

The applicant did not identify the location of all existing and proposed utilities, including sewer, per Sec. 3.2.2(a)(3)(G).

With the exception of select trees, the applicant did not identify all existing natural features on the proposed development site per 3.2.2(a)(3)(G). For example, three trees on proposed parcel 4 that run parallel to Rumsey Ln between 7 and 9 Rumsey Ln, as well as the total space of the wooded area at the rear of proposed parcel 4 next to 10 Rumsey Ln, were not identified.

The applicant did not provide a “detailed plan” for new landscaping or a color-rendered perspective drawing of proposed buildings and landscaping after 5-7 years of growth per Sec. 3.2.2(d)(5) and 3.2.2(d)(4).

The applicant has not received written approval from the Department of Public Works for discharge to or connection with public sewers; submitted a stormwater management plan; completed small project erosion and sediment control plan approved in writing by the department of public works; or received written determination from the department of public works that the project for which a permit is requested complies with the city’s MS4 general permit, CS discharge permit and the Vermont Stormwater Manual design requirements. See Article III, Stormwater and Erosion Control, Sec. 26-97 (a)(1)-(4).

The applicant has not submitted a Development Plan specifying the time periods within which development of each phase will be started and completed per Article 11, Planned Development, Sec. 11.1.5(h).

Other concerns I have regarding the proposed development relate to its conformance with City Ordinances and the adverse impact it will have on the neighborhood, residents and environment of which include, but are not limited to, as follows:

The existing sewer line that runs down Rumsey Ln is old (clay pipe) and has been clogged more than once. Unclogging it has come at great expense to current residents on Rumsey Ln, including myself. The applicant intends to attach the 4-unit apartment building (8 bedrooms) to this sewer line, yet the line is not capable of supporting that many units. See Sec. 3.5.6(a)(1) (“the proposed conditional use and associated development shall not result in an undue adverse effect on each of the following general standards: 1. Existing or planned public utilities, facilities or services are capable of supporting the proposed use in addition to the existing uses in the area”).

Rumsey Ln is a gravel/dirt road and is already in a significantly deteriorated state due to the lack of maintenance and number of residents who currently use it to access off-street parking for 5 Chase Ln, 37 Chase St, 49-55 Chase St, 7 Rumsey Ln, 9 Rumsey Ln, and 10 Rumsey. At the most traveled area of Rumsey Ln between the parking lot behind 49-55 Chase St and its intersection with Chase St, there are numerous very large pot holes which persist throughout the year. The majority of the vehicles traveling on that portion of Rumsey Ln are 49-55 Chase St residents. The City has refused to maintain this portion of Rumsey Ln and, aside from a recent instance, the owner of 49-55 Chase St has not taken any steps to maintain it. The surface of Rumsey Ln will further deteriorate and get increasingly unsafe from the increase in vehicular traffic that an additional 8-units (17 bedrooms) at 49-55 Chase St will create. Furthermore, Rumsey Ln is a narrow one-way, dead-end road with no turnaround, no sidewalk and no traffic signs and the increase in traffic from the proposed development will create a safety hazard for pedestrians and residents on Rumsey Ln and interfere with residents, emergency services and utility services’ ability to safely and timely access Rumsey Ln. See Development Ordinance, 3.5.6(b)(5) (“the DRB must be satisfied, based on documentation provided by appropriate city agencies, experts, interested parties and/or the applicant that the proposed development shall: Not cause unreasonable congestion or unsafe conditions on ... streets, ... pedestrian pathways or other means of transportation, existing or proposed”).

It is my understanding the applicant intends to tear down several trees, including 5 contiguous trees, the 4-trees that run parallel to Rumsey Ln between 7 and 9 Rumsey Ln, and the majority of the wooded area at the rear of proposed parcel 4 (east of 10 Rumsey Ln). Please note that the trees and wooded area sought to be removed provide unique wildlife habitat including for several endangered and threatened birds such as the imperial woodpecker and/or red-cockaded woodpecker, warblers, and finches; provide significant privacy between properties on Rumsey Ln, Chase Ln and Grove St; and also provide noise absorption in a neighborhood that already experiences harmful noise levels from the airport and F-35s as it lies within the DNL 65 decibel contour. See Citywide General Regulations, Sec. 5.5.4(2) (tree removal may be denied if trees are

not to be “Providing a significant privacy or aesthetic buffer or barrier between properties” or “Provide unique wildlife habitat”); Development Ordinance, Sec. 3.5.6(a)(3)(“Approval shall be granted only if the DRB, after public notice and public hearing, determines that ... [t]he proposed use will not have nuisance impacts from noise, odor, dust, heat, and vibrations”).

Thank you for your consideration.

Stephanie Greenlees

VERMONT DEPARTMENT OF ENVIRONMENTAL CONSERVATION
AUTHORIZATION TO DISCHARGE UNDER
GENERAL PERMIT 3-9050

A determination has been made that the applicant(s):

Antonio B. Pomerleau, LLC
69 College Street
Burlington, VT 05401

And
South Meadow Upper Tier Condominium Association
88 King Street
Burlington, VT 05401

Impervious Area: 18.68 acres

meets the criteria necessary for inclusion under General Permit 3-9050. Hereinafter, the named applicant shall be referred to as the permittee. Subject to the conditions of General Permit No. 3-9050, the permittee is authorized to discharge stormwater as described herein:

Project Name: 555 Shelburne Road and South Meadow Apartments

Project Location: 555 Shelburne Road in Burlington, Vermont

Receiving Waters:

- Potash Brook
- Unnamed stream tributary of Lake Champlain

Replacing Permit #(s): 8488-9050, 8497-9050

Manner of Discharge: S/N 001: Runoff from building rooftops, parking areas, walkways, and driveways is conveyed via existing catchbasins and pipe systems to one of two swirl separators, then to a gravel wetland for treatment and extended detention. The gravel wetland then discharges via controlled outlet structure to Potash Brook.

S/N 002: Runoff from apartment buildings, a parking lot, and an access drive flows into a municipal stormwater system and is conveyed north to an outfall into an unnamed stream tributary of Lake Champlain.

S/N 003: Runoff from apartment building rooftops, parking areas, and parts of the access drives flow south via overland sheet flow into Potash Brook.

Design: This project shall be constructed and operated in accordance with the site plans and details designed by Watershed Consulting & Hoyle Tanner;

Sheet G0.1, "General Notes and Drawing Index," dated 12/18/2023, last revised 12/18/2023;
Sheet G0.2, "Construction Notes and Quantity Sheet," dated 12/18/2023, last revised 12/18/2023;
Sheet C1.1, "Existing Conditions Plan," dated 12/18/2023, last revised 12/18/2023;
Sheet C1.2, "Overall Proposed Plan," dated 12/18/2023, last revised 12/18/2023;
Sheet C1.3, "Gravel Wetland Site Plan," dated 12/18/2023, last revised 12/18/2023;
Sheet C1.4, "Proposed Profiles," dated 12/18/2023, last revised 12/18/2023;
Sheet C2.1, "Gravel Wetland Details," dated 12/18/2023, last revised 12/18/2023;
Sheet C2.2, "Drainage Details I," dated 12/18/2023, last revised 12/18/2023;
Sheet C2.3, "Drainage Details II," dated 12/18/2023, last revised 12/18/2023;
Sheet C2.4, "General Details," dated 12/18/2023, last revised 12/18/2023;
Sheet C2.5, "Erosion and Sediment Control Details," dated 12/18/2023, last revised 12/18/2023;
Sheet S1.1, "Plan & Elevation," dated 12/18/2023, last revised 12/18/2023;
Sheet S1.2, "Level Wall Details," dated 12/18/2023, last revised 12/18/2023;

Sheet S1.3, "Sloped Wall Details," dated 12/18/2023, last revised 12/18/2023;
 Sheet S1.4, "MSE Wall Details," dated 12/18/2023, last revised 12/18/2023;
 Sheet SQ-1, "Post Construction Conditions & Soil Quality Requirements," dated 12/11/2023, last revised 12/11/2023;
 Sheet OM.1, "Operations & Maintenance Plan," dated 12/12/2023, last revised 12/12/2023;
 Hydro International, "Operation and Maintenance Manual: First Defense High Capacity and First Defense Optimum," N.D.; and all supporting information.

By reference, the above noted plans are made part of this authorization.

Compliance with General Permit 3-9050 and this Authorization

The permittee shall comply with this authorization and all the terms and conditions of General Permit 3-9050, including the payment of annual operating fees to the Department. A billing statement for such fees will be sent to the permittee each year. An invoice for the first year's operating fee will be sent separately. Any permit non-compliance, including a failure to pay the annual operating fee, constitutes a violation of 10 V.S.A. Chapter 47 and may be grounds for an enforcement action or revocation of this authorization to discharge.

Construction of the Stormwater Management System:

The stormwater management system as described in the approved design above shall be installed prior to the discharge of stormwater from any new or redeveloped impervious surface covered by this authorization. Where stormwater from existing impervious surface is being treated pursuant to "Site Balancing", per the approved design, the stormwater system treating such areas shall be installed prior to the discharge of stormwater from new or redeveloped impervious surface.

For any existing impervious surface covered by this authorization, except for existing impervious surfaces used for Site Balancing, as noted above, the stormwater management system as described in the approved design above shall be installed no later than 2/26/2029.

Annual Inspection and Report

The stormwater management system shall be properly operated. The permittee shall submit an annual inspection report on the operation, maintenance and condition of the stormwater management system. The inspection report shall be submitted regardless of whether the project has been constructed. The inspection shall be conducted between the conclusion of spring snow melt and June 15th of each year and the inspection report shall be submitted to the Secretary by July 15th of each year, or by July 30th if performed by a utility or municipality pursuant to a duly adopted stormwater management ordinance. The inspection report shall note all problem areas and all measures taken to correct any problems and to prevent future problems. The online submittal system, ANR Online, can be accessed at <https://anronline.vermont.gov>.

Initial Statement of Compliance

An initial statement of compliance, signed by a designer, must be submitted to the Stormwater Management Program no later than 30 days following completion of construction of the stormwater management system. Forms for completing this requirement are available on the Stormwater Management Program's website. The online submittal system, ANR Online, can be accessed at <https://anronline.vermont.gov>.

Transferability

This authorization to discharge is not transferable to any person except in compliance with Part 8.4 of General Permit 3-9050. A copy of General Permit 3-9050 is available from the Department via the internet at https://dec.vermont.gov/sites/dec/files/wsm/stormwater/docs/2020_09_01%20Final%20GP%203-9050.pdf

Changes to Permitted Development

In accordance with Part 8.6. of General Permit 3-9050, the permittee shall notify the Department of any planned development or facility expansions or changes that may result in new or increased stormwater discharges. The Department shall determine the appropriateness of continued inclusion under General Permit 3-9050 by the modified development or facility.

Recording in Land Records

The permittee shall record in the local land records, within 30 days of issuance of this authorization, a one-page notice of permit coverage. A one-page notice form may be obtained from the Secretary. A copy of the recording shall be provided to the Secretary within 14 days of the permittee's receipt of a copy of the recording from the local land records. Permits for public linear transportation projects shall be exempt from this requirement provided the permit is retained by the permittee in the official project file.

Right to Appeal

(A) Pursuant to 10 V.S.A. Chapter 220, any appeal of this permit, except for appeal of a renewable energy plant as described in (B), must be filed with the clerk of the Environmental Division of the Superior Court within 30 days of the date of the decision. The notice of appeal must specify the parties taking the appeal and the statutory provision under which each party claims party status; must designate the act or decision appealed from; must name the Environmental Division; and must be signed by the appellant or the appellant's attorney. In addition, the appeal must give the address or location and description of the property, project, or facility with which the appeal is concerned and the name of the applicant or any permit involved in the appeal. The appellant must also serve a copy of the notice of appeal in accordance with Rule 5(b)(4)(B) of the Vermont Rules for Environmental Court Proceedings. For further information, see the Vermont Rules for Environmental Court Proceedings.

(B) If this permit relates to a renewable energy plant for which a certificate of public good is required under 30 V.S.A. § 248, any appeal of this decision must be filed with the Vermont Public Utility Commission pursuant to 10 V.S.A. § 8506. This section does not apply to a facility that is subject to 10 V.S.A. § 1004 (dams before the Federal Energy Regulatory Commission), 10 V.S.A. § 1006 (certification of hydroelectric projects), or 10 V.S.A. Chapter 43 (dams). Any appeal under this section must be filed with the clerk of the Public Utility Commission within 30 days of the date of this decision; the appellant must file with the clerk an original and six copies of its appeal. The appellant shall provide notice of the filing of an appeal in accordance with 10 V.S.A. § 8504(c)(2) and shall also serve a copy of the notice of appeal on the Vermont Public Service Department. For further information, see the Rules and General Orders of the Public Utility Commission.

Effective Date and Expiration Date of this Authorization

This authorization to discharge shall become effective on February 27, 2024 and shall expire on February 26, 2029. The permittee shall reapply for coverage prior to the expiration of this authorization.

Dated February 27, 2024.

Julia S. Moore, Secretary
Agency of Natural Resources

By:



Kevin Burke, Program Manager
Stormwater Management Program



VERMONT DEPARTMENT OF
ENVIRONMENTAL CONSERVATION
WATERSHED
MANAGEMENT DIVISION
STORMWATER PROGRAM

Town Recording of Permit Issued

FOR STORMWATER DISCHARGE PERMIT BY THE VERMONT DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Notice is hereby given that the Vermont Department of Environmental Conservation gives authorization to discharge pursuant to a general stormwater discharge permit that has been issued to Permittee(s) named herein for the discharge of stormwater runoff for the property identified below from impervious surfaces (e.g. roadways, rooftops, parking lots, walkways) pursuant to 10 V.S.A. 1264. The authorization requires treatment and control of stormwater runoff, long-term maintenance of the treatment and control structures and payment of yearly operational fees.

Permittee(s): **Antonio B. Pomerleau, LLC; South Meadow Upper Tier Condominium Association**

Permit/Authorization Number: **8497-9050.1**

911 Address of Property: **555 Shelburne Road, Burlington**

Name of association (if applicable): **South Meadow Upper Tier Condominium Association**

Printed Name of Permittee or Authorized Representative: _____

Signature of Permittee or Authorized Representative: _____ Date: _____

FOR TOWN CLERK USE ONLY:

Recorded under Book: _____ Page: _____

Date Recorded with Town: _____

Signature / Stamp: _____

Recording information for Municipal Clerks - please index this document listing the State of Vermont, Department of Environmental Conservation as "Grantee," and listing the above-named Permittee(s) as "Grantor(s)." Additionally, if this notice lists the name of a condominium, subdivision or planned community association, please list the named association as an additional "Grantor."

Can be Completed by Clerk or Permittee:

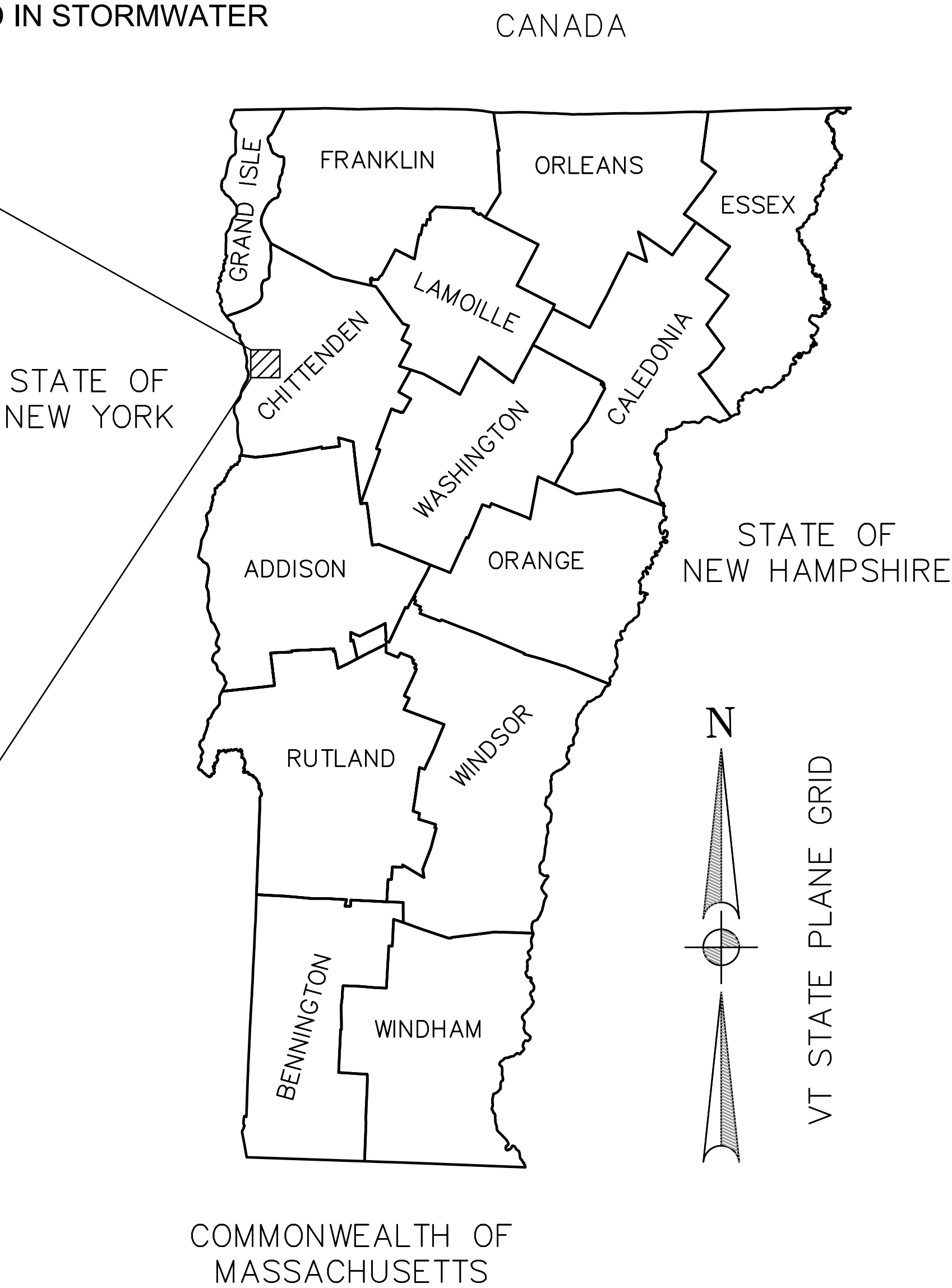
Please upload this completed form to ANR Online by visiting the following link
https://anronline.vermont.gov/?formtag=WS_Storm_TownRecording

POMERLEAU AND CHITTENDEN HOUSING TRUST

3-ACRE STORMWATER MANAGEMENT PROJECT

PROJECT LOCATION: THE PROPOSED PROJECT IS LOCATED TO THE REAR OF 84-90 SOUTH MEADOW DRIVE, BETWEEN THE PRICE CHOPPER SUPERMARKET PLAZA AND POTASH BROOK IN BURLINGTON, VERMONT.

PROJECT DESCRIPTION: INSTALLATION OF NEW DRAINAGE INFRASTRUCTURE AND GRAVEL WETLAND PRACTICE TO AID IN STORMWATER TREATMENT.



OWNERS:

POMERLEAU REAL ESTATE
29 COLLEGE STREET, BURLINGTON, VERMONT 05401

CHITTENDEN HOUSING TRUST
88 KING STREET, BURLINGTON VERMONT 05401

ENGINEER OF RECORD:

HOYLE, TANNER & ASSOCIATES, INC
125 COLLEGE STREET, BURLINGTON, VERMONT 05401

SURVEYOR:

VERMONT SURVEY AND ENGINEERING, INC
79 RIVER STREET, #201, MONTPELIER, VERMONT 05602

JANUARY 5, 2024

PREPARED BY:



125 COLLEGE STREET - 4TH FLOOR
BURLINGTON, VERMONT 05401



208 FLYNN AVE - #2H
BURLINGTON, VERMONT 05401

100% DESIGN
SUBMITTAL

GENERAL NOTES:

1. THESE GENERAL NOTES SHALL APPLY TO ALL DRAWNGS IN THIS CONTRACT AND TO THE WORK THEY CONVEY.
2. ALL MATERIALS AND CONSTRUCTION SHALL CONFORM TO THE STATE OF VERMONT AGENCY OF TRANSPORTATION (VTRANS) STANDARD SPECIFICATIONS FOR CONSTRUCTION DATED 2018, AND ITS LATEST REVISIONS.
3. LOCATION OF EXISTING BURIED UTILITIES, STRUCTURES, PIPING AND OTHER ITEMS AS SHOWN ON THESE DRAWINGS HAVE BEEN TAKEN FROM AS-BUILT RECORD DRAWINGS OBTAINED FROM THE CITY OF BURLINGTON AND FROM THE SURVEY COMPLETED BY VERMONT SURVEY AND ENGINEERING ON 12/9/2021. LOCATION OF THESE ITEMS SHALL BE CONSIDERED APPROXIMATE AND THE CONTRACTOR SHALL DIG TEST PITS AS REQUIRED TO VERIFY LOCATIONS. THE CONTRACTOR SHALL NOTIFY "DIG SAFE" PRIOR TO ANY EXCAVATION. THERE MAY BE OTHER BELOW-GRADE STRUCTURES NOT SHOWN WHICH WILL REQUIRE DEMOLITION AND/OR RELOCATING IN ORDER TO COMPLETE THE WORK OF THIS CONTRACT. THEREFORE, THE CONTRACTOR SHALL VERIFY THE LOCATIONS, ELEVATIONS, AND DIMENSIONS OF ALL EXISTING STRUCTURES, AND OTHER FEATURES AFFECTING THE WORK PRIOR TO CONSTRUCTION "PAID AS ITEM 204.22 TRENCH EXCAVATION OF EARTH, EXPLORATORY (NABI)". CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTION AND SUPPORT OF ALL EXISTING UTILITIES LOCATED WITHIN THE LIMITS OF WORK.
4. CONTRACTOR SHALL REMOVE OR ABANDON ALL EXISTING STRUCTURES, PIPING, AND OTHER ITEMS NECESSARY FOR THE CONSTRUCTION OF THE PROJECT AS SHOWN ON THE CONTRACT DRAWINGS. PAYMENT FOR REMOVAL OR ABANDONMENT OF EXISTING STRUCTURES, PIPING, AND OTHER ITEMS IS CONSIDERED INCIDENTAL TO THE WORK AND THERE SHALL BE NO ADDITIONAL PAYMENT.
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAKING ALL ARRANGEMENTS FOR ANCHORING, SUPPORTING, AND/OR RELOCATING AND PROTECTING ALL UTILITIES DURING CONSTRUCTION. ALL COSTS SHALL BE INCLUDED IN THE UNIT PRICES BID. IN THE CASE OF DAMAGE, THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE COST OF ALL REPAIRS.
6. THE CONTRACTOR IS RESPONSIBLE FOR PROTECTION OF THE EXISTING FEATURES AND STRUCTURES WITHIN AND ADJACENT TO THE WORK. IN THE CASE OF DAMAGE, THE REPAIRS OR REPLACEMENT SHALL BE COMPLETED AT THE CONTRACTOR'S EXPENSE AS APPROVED BY THE ENGINEER. THIS INCLUDES, BUT IS NOT LIMITED TO, THE REPLACEMENT/REPAIR OF EXISTING SIDEWALKS, PAVEMENT, CURBING, AND LANDSCAPING.
7. ALL WORK SHALL CONFORM TO ALL FEDERAL, STATE, AND LOCAL CODES, REGULATIONS AND STANDARDS. THE MORE STRINGENT SHALL APPLY.
8. ANY DISCREPANCY BETWEEN THESE DRAWINGS AND EXISTING CONDITIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER IN WRITING BEFORE PROCEEDING WITH THE WORK.
9. THESE DOCUMENTS DO NOT INCLUDE THE NECESSARY COMPONENTS FOR CONSTRUCTION SAFETY. CARE OF ADJACENT PROPERTIES DURING CONSTRUCTION AND COMPLIANCE WITH STATE AND FEDERAL REGULATIONS REGARDING SITE SAFETY SHALL SOLELY BE THE CONTRACTOR'S RESPONSIBILITY.
10. THE CONTRACTOR SHALL REMOVE AND DISPOSE OF ALL WASTE BUILDING MATERIAL, CONCRETE, MASONRY, TREES, SHRUBS, DEBRIS, EXCESS EXCAVATED MATERIAL AND OTHER MATERIALS NECESSARY FOR THE SATISFACTORY COMPLETION OF THE CONTRACT WORK AND AS REQUIRED BY THE OWNER. CONSTRUCTION DEBRIS SHALL BE DISPOSED OF IN STRICT ACCORDANCE WITH VERMONT LAW. ALL TREE STUMPS SHALL BE DISPOSED OF AT AN APPROVED OFFSITE LOCATION ACCOMPANIED BY A STATE-ISSUED INSIGNIFICANT WASTE MANAGEMENT EVENT APPROVAL. THE OWNER SHALL MAINTAIN OWNERSHIP OF ALL EXCESS TOPSOIL AND CLEAN EXCAVATED MATERIALS. ALL COSTS ASSOCIATED WITH THE REMOVAL AND DISPOSAL OF CONSTRUCTION DEBRIS INCLUDING HAULING SHALL BE INCIDENTAL TO THE WORK AND SHALL NOT BE PAID FOR SEPARATELY.
11. ALL AREAS DISTURBED BY THE CONTRACTOR DETERMINED NOT TO BE WITHIN THE LIMITS OF THE PROJECT, OR DETERMINED TO BE EXCESSIVE DISTURBANCE OF THE AREA FOR THE PROPOSED WORK, SHALL BE RESTORED AT NO ADDITIONAL COST TO THE OWNER.
12. BASED ON THE ANTICIPATED AREA OF DISTURBANCE (LESS THAN 1 ACRE) THE PROJECT IS CONSIDERED NON-JURISDICTIONAL FOR THE CONSTRUCTION GENERAL PERMIT. THE CONTRACTOR IS RESPONSIBLE FOR IMPLEMENTING AND MAINTAINING MEASURES FOR EROSION PREVENTION AND SEDIMENTATION CONTROL (EPSC) IN ACCORDANCE WITH THE VERMONT DEPARTMENT OF ENVIRONMENTAL CONSERVATION'S "LOW RISK SITE HANDBOOK FOR EROSION PREVENTION AND SEDIMENT CONTROL".
13. ALL DISTURBED AREAS SHALL BE LANDSCAPED AS REQUIRED BY THE ENGINEER/OWNER AND THE VERMONT STORMWATER MANAGEMENT MANUAL, VERMONT AGENCY OF NATURAL RESOURCES, LATEST EDITION.
14. ALL DRAINAGE OUTLETS SHALL BE LOCATED AND CONTRACTOR SHALL BE RESPONSIBLE FOR ALL APPROPRIATE EROSION PREVENTION AND SEDIMENT CONTROL MEASURES INSTALLED AS REQUIRED PRIOR TO CONSTRUCTION. CONTRACTOR SHALL SUBMIT AN EROSION PREVENTION AND SEDIMENTATION CONTROL PLAN AS REQUIRED PRIOR TO BEGINNING OF WORK. ALL DEWATERING AND OPERATIONS SHALL CONFORM TO ALL APPROPRIATE AGENCY REGULATIONS.
15. ALL STORMWATER TREATMENT PRACTICES AND PROCEDURES ARE REFERENCED FROM THE VERMONT STORMWATER MANAGEMENT MANUAL, ENVIRONMENTAL PROTECTION RULE CHAPTER 36, STORMWATER TREATMENT STANDARDS, BY THE VERMONT AGENCY OF NATURAL RESOURCES, DATED JULY 1, 2017.
16. THE CONTRACTOR SHALL PROVIDE FLOW DIVERSIONS TO EXISTING OUTFALLS DURING CONSTRUCTION, UNTIL SUCH TIME AS THE COLLECTION SYSTEM OR INFILTRATION CHAMBER IS COMPLETE AND READY TO ACCEPT FLOW. THERE WILL BE NO SEPARATE PAYMENT FOR BYPASS PUMPING AND DIVERSION OF FLOWS.
17. THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER FOR REVIEW AND APPROVAL, ALL BUOYANCY CALCULATIONS FOR UNDERGROUND STRUCTURES. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING THE NEED AND SIZE OF ANY ANCHORS OR OTHER MEANS OF ANCHORING TO PREVENT FLOATATION AND SHALL PROVIDE APPROVED ANCHORS IF REQUIRED. THE CONTRACTOR SHALL DESIGN AND PROVIDE THE REINFORCING STEEL REQUIRED IN CONCRETE ANCHORS. THE CONTRACTOR SHALL DESIGN THE STRUCTURAL CONNECTION BETWEEN STRUCTURES AND ANCHORS TO PREVENT FLOATATION. SHOP DRAWINGS SHALL BE STAMPED BY A VERMONT REGISTERED PROFESSIONAL ENGINEER AND SUBMITTED TO THE DESIGN ENGINEER FOR REVIEW.

18. ALL WORK BEING PERFORMED SHALL BE WITHIN LIMITS IDENTIFIED IN THE PLANS. WORK OUTSIDE OF THE LIMITS MUST BE APPROVED BY PROPERTY OWNERS AND PERMITS AMENDED AS NECESSARY. IF ADDITIONAL WORK IS REQUIRED OUTSIDE OF THE PAY LIMITS SHOWN ON THE PLANS TO COMPLETE THIS PROJECT, THIS WORK WILL NOT BE PAID SEPARATELY BUT WILL BE CONSIDERED INCIDENTAL TO ALL OTHER PAY ITEMS. THIS WORK INCLUDES BUT IS NOT LIMITED TO EXCAVATION, BACKFILL, UTILITIES, SUBBASE, PAVEMENT, CURB, SIDEWALK, TURF ESTABLISHMENT, AND LANDSCAPING.
19. CONTRACTOR SHALL TAKE MEASURES TO PREVENT THE SPREAD OF INVASIVE SPECIES, INCLUDING SELECTING WEED-FREE MATERIALS TO USE ONSITE.

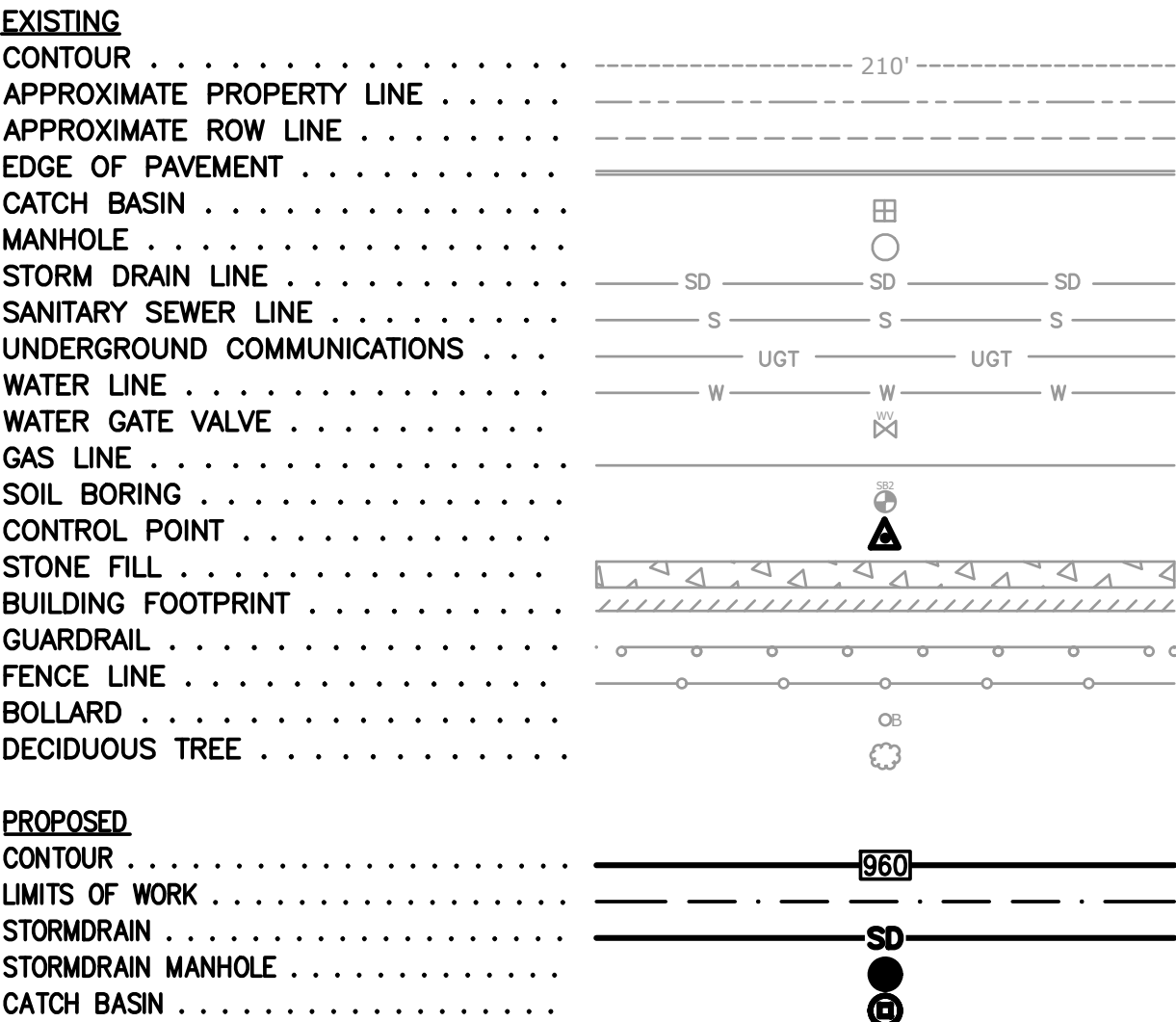
UTILITY COORDINATION NOTES:

1. THE CONTRACTOR SHALL PROPERLY SAFEGUARD ALL EXISTING UTILITIES AND SHALL RESTORE AND REPAIR ANY SUCH ITEMS OR FACILITIES DAMAGED BY HIS/HER OPERATIONS. RESTORATION AND REPAIR OF DAMAGED ITEMS SHALL BE DONE SOLELY AT THE CONTRACTOR'S OWN EXPENSE.
2. SHOULD THE CONTRACTOR DAMAGE ANY UTILITIES, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE OWNER OF THE UTILITY AND THE ENGINEER. ANY REPAIRS OR MODIFICATIONS TO EXISTING UTILITIES SHALL BE MADE WITH THE APPROVAL OF THE UTILITY OWNER AND SHALL BE INSPECTED BY THE UTILITY OWNER PRIOR TO BACKFILL.
3. CONTRACTOR TO COORDINATE WITH UTILITY COMPANIES TO RELOCATE UTILITIES CONFLICTING WITH THE PROPOSED WORK. THE UTILITIES ANTICIPATED IN THE AREA INCLUDE, BUT ARE NOT LIMITED TO GREEN MOUNTAIN POWER, CHAMPLAIN WATER DISTRICT, SOUTH BURLINGTON SEWER, AND VERMONT GAS SYSTEMS. CONTACT INFORMATION PROVIDED FOR CONTRACTOR'S CONVENIENCE AND ACCURACY CANNOT BE GUARANTEED.

VERMONT GAS SYSTEMS:
NAME: MATT ANDERSON
PHONE: 802-951-0327

CHAMPLAIN WATER DISTRICT:
NAME: MAXWELL MURRAY
EMAIL: MAX.MURRAY@CHAMPLAINWATER.ORG
PHONE: 802-864-7454

LEGEND



SURVEY DATA



VERMONT SURVEY AND ENGINEERING, INC
79 RIVER STREET, #201
MONTPELIER, VERMONT, 05602

HORIZONTAL DATUM:

STATE OF VERMONT
NAD 83 (2011) SPC (4400 VT) sFT

VERTICAL DATUM:

STATE OF VERMONT
NAVD 88 FT

100% DESIGN
SUBMITTAL

DRAWING INDEX

DWG#	SHEET#	DWG NAME
	1	COVER
G0.1	2	GENERAL NOTES AND DRAWING INDEX
G0.2	3	CONSTRUCTION NOTES
C1.1	4	EXISTING CONDITIONS PLAN
C1.2	5	OVERALL PROPOSED PLAN
C1.3	6	GRAVEL WETLAND PROPOSED SITE PLAN
C1.4	7	PROPOSED PROFILES
C2.1	8	GRAVEL WETLANDS DETAILS
C2.2	9	DRAINAGE DETAILS I
C2.3	10	DRAINAGE DETAILS II
C2.4	11	GENERAL DETAILS
C2.5	12	EROSION AND SEDIMENT CONTROL DETAILS
C2.6	13	EROSION AND SEDIMENT CONTROL PLAN I
C2.7	14	EROSION AND SEDIMENT CONTROL PLAN II
S1.1	15	PLAN AND ELEVATION
S1.2	16	LEVEL WALL DETAILS
S1.3	17	SLOPED WALL DETAILS
S1.4	18	MSE WALL DETAILS

VTRANS REFERENCE ITEMS

VTrans Pay Item #	Item Description
Construction	
Civil	
201.10	Clearing and Grubbing, Including Individual Trees and Stumps
203.15	Common Excavation
203.16	Solid Rock Excavation
203.20	Muck Excavation
203.30	Earth Borrow
203.31	Sand Borrow
204.20	Trench Excavation of Earth
204.22	Trench Excavation of Earth, Exploratory (N.A.B.I.)
301.15	Subbase of gravel
301.26	Subbase of crushed gravel, fine graded
406.25	Marshall Bituminous Concrete Pavement
541.25	Concrete Footer, Class B
601.2620	24" CPEP Pipe
601.2630	36" CPEP Pipe
604.21	Precast Reinforced Concrete Manhole with Cast Iron Cover - 6' Diameter
605.10	Underdrain Pipe, 6 Inch PVC Perforated
605.11	Underdrain Pipe, 8 Inch PVC Perforated
605.11	Underdrain Pipe, 8 Inch PVC Solid
613.10	Stone Fill, Type I
613.11	Stone Fill, Type II
616.28	Cast-In-Place Concrete Curb, Type B
618.10	Portland Cement Concrete Sidewalk, 5 inch
620.11	Chain-Link Fence, 4 Feet
620.15	6' Wide Access Gate
620.20	Removal and Reset Fence
622.10	Insulation Board
629.54	Crushed Stone Bedding
641.11	Traffic Control All-Inclusive
649.31	Geotextile Under Stone Fill
649.41	Geotextile for Underdrain Trench Lining
653.476	Silt Fence, Type II
651.15	Seed
651.35	Topsoil
653.01	EPSC Plan
653.03	Maintenance of EPSC (N.A.B.I.)
653.12	Straw Mulch
653.20	Rolled Erosion Control Product, Type I
653.45	Filter Bag
653.50	Barrier Fence
900.620	Special Provision - 24" HDPE Risers
900.620	Special Provision - 24" Flared End Section
900.620	Special Provision - 36" Flared End Section
900.620	Special Provision - Anti-Seep Collars
900.620	Special Provision - Stormwater Separator - 8' Diameter
900.620	Special Provision - Stormwater Separator - 10' Diameter
900.620	Special Provision - Precast Concrete Catch Basin - 6' Diameter w/ weir
900.620	Special Provision - Precast Concrete Outlet Structure - 7x11'
900.640	Special Provision - Magnetic Locating Tape
900.645	Special Provision - Gravel Wetland Facility
Structural	
Retaining Wall - West	
204.25	Structure Excavation
204.30	Granular Backfill for Structures
507.11	Reinforcing Steel, Level I
514.10	Water Repellant, Silane
541.30	Concrete, Class C
613.11	Stone Fill, Type II
900.608	Special Provision - Performance-Based Concrete, Class PCS
MSE Wall - North	
204.30	Granular Backfill for Structures
613.11	Stone Fill, Type II
620.11	Chain-Link Fence, 4 Feet
900.670	Special Provision - Mechanically Stabilized Earth Retaining Wall
Berm Wall	
507.11	Reinforcing Steel, Level I
514.10	Water Repellant, Silane
541.30	Concrete, Class C
635.11	Mobilization/Demobilization (5%)

125 College St, 4th Floor
Burlington, VT 05408
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www.hoyletanner.com

**HOYLE
TANNER**

APPLICANT
POWERLEAU AND CHITTENDEN HOUSING TRUST

PROJECT
POWERLEAU / CHT 3-ACRE STORMWATER
MANAGEMENT PROJECT
84 SOUTH MEADOW DRIVE
BURLINGTON, VT 05401

GENERAL NOTES
AND
DRAWING INDEX
G0.1

PROJECT NO. 120006

SHEET 2 OF 16

THIS DOCUMENT IS PREPARED AS AN INSTRUMENT OF SERVICE AND SHALL REMAIN THE PROPERTY OF HOYLE TANNER. IT MAY NOT BE USED, REPRODUCED, DISSEMINATED OR TRANSFERRED IN ANY MANNER, OR FOR ANY OTHER PURPOSE THAN THIS PROJECT, WITHOUT THE WRITTEN PERMISSION OF HOYLE TANNER.

CHECKED BY
KDW

DRAWN BY
TGB

DESIGNED BY
APS

DATE:
JANUARY 5, 2024

SCALE:
AS SHOWN

REVISION
DESCRIPTION

REV.

STOCKPILED MATERIAL NOTES:

1. ALL STOCKPILES SHALL BE COVERED PRIOR TO INCLEMENT WEATHER, GRADED TO SHED WATER, AND COVERED AT THE END OF EACH WORKDAY WITH A MINIMUM OF 20-MIL BLACK POLYETHYLENE. THE COVER SHALL BE WEIGHTED AND WILL BE MAINTAINED THROUGHOUT THE STOCKPILE PERIOD.
2. STOCKPILE AREAS WILL BE GRADED SUCH THAT STORMWATER IS DIVERTED FROM STOCKPILED MATERIALS. SILT FENCE WILL SURROUND ALL STOCKPILES. SLOPES ON STOCKPILES SHALL NOT BE STEEPER THAN 1:1.

LAYOUT OF WORK NOTES:

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LAYING OUT AND CONSTRUCTING THE WORK TO THE LINES AND GRADES INDICATED AND SPECIFIED. ALL LAYOUT AND SURVEY WORK SHALL BE DONE BY A COMPETENT AGENT OR EMPLOYEE OF THE CONTRACTOR AND SHALL BE SUBJECT TO THE APPROVAL OF THE ENGINEER. THE CONTRACTOR SHALL DO ALL LAYOUTS FROM ESTABLISHED POINTS TO PROPERLY COMPLETE THE CONTRACT WORK.
2. THE ENGINEER WILL FURNISH TO THE CONTRACTOR BASIC SURVEYS NECESSARY FOR THE LAYOUT OF THE WORK. THESE SURVEYS SHALL ESTABLISH CERTAIN REFERENCE POINTS AND BENCHMARKS IN THE IMMEDIATE VICINITY OF THE WORK AREAS. THE CONTRACTOR SHALL LAYOUT ALL ADDITIONAL LINES AND GRADES AND OTHERWISE DO ALL LAYOUT AND MEASUREMENT NECESSARY FOR THE PROPER COMPLETION OF THE WORK.
3. THE CONTRACTOR SHALL FURNISH ASSISTANCE TO THE ENGINEER AS REQUESTED TO CHECK THE LAYOUT OR OTHERWISE CONTROL THE WORK. SUCH ASSISTANCE SHALL BE UNDERSTOOD TO INCLUDE THE PROVISION OF SUITABLE MANPOWER TO ASSIST THE ENGINEER IN TAPING MEASUREMENTS, HOLDING A SURVEY ROD FOR CHECKING GRADES, AND THE LIKE.
4. THE ENGINEER RESERVES THE RIGHT TO INSPECT OR CHECK ANY OF THIS WORK, AND THE CONTRACTOR SHALL NOT CLAIM ADDED COMPENSATION FOR ANY DELAY OCCASIONED BY THE ENGINEER EXERCISING THIS RIGHT, NOR FOR ANY CORRECTIVE WORK WHICH IS REQUIRED AS A RESULT OF THE ENGINEER'S INSPECTIONS.

TOPSOIL AND SEEDING NOTES:

1. ALL AREAS OF EXPOSED SOIL SHALL GET TOPSOIL AND SEED. ROLLED EROSION CONTROL PRODUCT SHALL BE USED IN AREAS WITH GREATER THAN 3:1 SLOPES. NO ADDITIONAL PAYMENT WILL BE MADE FOR REPAIRING EXPOSED SOIL OUTSIDE THE LIMITS OF DISTURBANCE AS SHOWN ON THE PLANS.

CONSTRUCTION GUIDANCE

SEED MIX: VERMONT CONSERVATION SHADE SEED MIX SHALL NOT BE USED WITHIN ANY WATERS OF THE STATE OF VERMONT.

SEED MIX: VERMONT CONSERVATION SHADE SEED MIX SHALL BE USED IN ALL AREAS
DISTURBED DURING CONSTRUCTION.

SEED MIX: SHALL NOT HAVE A WEED CONTENT EXCEEDING 0.40% BY WEIGHT AND SHALL BE FREE OF ALL NOXIOUS SEED.

STRAW MULCH: TO BE PLACED AT CREST OF SLOPE AT THE RATE OF 2 TONS/ACRE, ACHIEVE 90% GROUND COVER OR AS DIRECTED BY THE ENGINEER. FOR SLOPES STEEPER THAN 3:1, BIODEGRADABLE EROSION CONTROL MATTING OR AN EQUIVALENT SHALL BE USED INSTEAD OF MULCH.

TOPSOIL: MIN. 4" TOPSOIL WITH SEED WHERE TURF IS TO BE RE-ESTABLISHED, OR AS DIRECTED BY THE ENGINEER.

TURF ESTABLISHMENT: PLACING SEED AND MULCH PRIOR TO SEPTEMBER 15 AND AFTER APRIL 15 CAN BETTER ENSURE A VIGOROUS GROWTH OF GRASS.

EXPOSED SOIL MUST BE STABILIZED WITHIN 48 HOURS OF REACHING FINAL GRADE.

GRAVEL WETLAND NOTES:

1. WETLAND SOIL:
 - 1.A. THE GRAVEL WETLAND SOIL LAYER ENSURES THAT RUNOFF DOES NOT INFILTRATE THROUGH THE SOIL TO THE SUBSURFACE GRAVEL WETLAND TREATMENT MEDIA. RUNOFF SHOULD PREDOMINANTLY ENTER THE GRAVEL WETLAND TREATMENT MEDIA THROUGH THE PERFORATED RISER PIPE(S) AND SECONDARY STONE INLET. THE SOIL LAYER SHALL HAVE A MINIMUM THICKNESS OF 8 INCHES AND SHALL BE LEVEL, CONSTRUCTED WITH A SURFACE SLOPE OF ZERO.
 - 1.A.1. THE SOIL MEDIA SHALL HAVE LOW SATURATED HYDRAULIC CONDUCTIVITY (KSAT) MEASURED BETWEEN 0.1–0.01 FT/DAY OR WITH A SOIL TEXTURE CONFORMING TO HYDROLOGIC SOIL GROUP D.
 - 1.A.2. SOIL PH SHOULD BE BETWEEN 6.0 AND 7.0.
 - 1.A.3. UTILIZATION OF ONSITE MATERIAL TO MANUFACTURE THE SOIL LAYER IS ENCOURAGED PROVIDED THE SOIL WILL MEET SPECIFICATIONS, EITHER AS A STANDALONE PRODUCT OR BY AMENDMENT WITH OUTSIDE MATERIAL.
 - 1.A.4. IN ALL CASES, THE GRAVEL WETLAND SOIL SHALL BE TESTED IN ACCORDANCE WITH THE P–TESTING PROCEDURE DESCRIBED BELOW.
 - 1.B. P TESTING IS REQUIRED FOR UPPER MEDIAL LAYER OF BIORETENTION SYSTEMS AND GRAVEL WETLAND SOIL LAYERS. FINAL MIXES MUST HAVE A PHOSPHORUS SATURATION RATIO (PSR) LESS THAN OR EQUAL TO 0.10. PSR IS TO BE DETERMINED USING THE FOLLOWING PROTOCOL:
 - 1.B.1. SAMPLES ARE TO BE AIR DRIED AND SIEVED THROUGH 2MM PRIOR TO TESTING
 - 1.B.2. AIR–DRIED, SIEVED SOIL SAMPLES ARE TO THEN BE EXTRACTED WITH THE MEHLICH–3 SOLUTION (0.2 M CH3COOH + 0.25 M NH4NO3 + 0.015 M NH4F + 0.013 M HNO3 + 0.001 M EDTA) BY SHAKING A SOIL–SOLUTION SUSPENSION FOR 5 MINUTES AT A 1:10 RATIO (SOIL MASS IN GRAMS: SOLUTION VOLUME IN ML), FOLLOWED BY FILTERING TO REMOVE PARTICLES (PORE SIZE OF 2 UM IS RECOMMENDED, MAX PORE SIZE = 8 UM).
 - 1.B.3. EXTRACTS FROM THE MEHLICH–3 PROCEDURE ARE TO BE ANALYZED FOR P, FE, AND AL BY ICP–OES.
 - 1.B.4. THE PHOSPHORUS SATURATION RATIO (PSR) IS THEN CALCULATED AS FOLLOWS: WHERE PM3 = MEHLICH–3 P IN MG M PER KG DRY SOIL; FEM3 = MEHLICH–3 FE IN MG FE PER KG DRY SOIL; ALM3 = MEHLICH–3 AL IN MG AL PER KG DRY SOIL

$$PSR = \frac{\left(\frac{P_{M3}}{31}\right)}{\left(\frac{Fe_{M3}}{56}\right) + \left(\frac{Al_{M3}}{27}\right)}$$

2. WETLAND SEED:
- | SUBMITTAL | |
|-----------|---|
| 2.A. | SEED MIX SHALL BE PURE LIVE SEED AND SHALL BE A WETLAND MIX COMPRISED OF NATIVE VERMONT AND NEW ENGLAND SPECIES. SUCH SEED MIX SHALL BE AS FOLLOWS: |
| 2.A.1. | AT BOTTOM OF GRAVEL WETLAND CELLS AND ALONG SIDE SLOPES UP TO 2 FEET ABOVE BOTTOM OF BASIN: MARSH, SWAMP & BOG SEED MIX, AS MANUFACTURED BY VERMONT WETLAND PLANT SUPPLY, APPLICATION RATE OF 18 LBS PER ACRE. |
| 2.A.2. | SIDE SLOPES ABOVE 2 FEET ABOVE BOTTOM OF BASIN TO GRAVEL WETLAND FACILITY EXTENTS SHOWN ON DRAWINGS: VERMONT WET MEADOW AND DETENTION BASIN MIX, AS MANUFACTURED BY VERMONT WETLAND PLANT SUPPLY, APPLICATION RATE OF 35 LBS. PER ACRE. |
| 2.A.3. | SIDE SLOPES ABOVE THE GRAVEL WETLAND FACILITY EXTENTS SHOWN ON DRAWINGS SHALL BE SEEDED WITH VERMONT CONSERVATION MIX. |

OSHA & VOSHA REQUIREMENT NOTES:

1. THE CONTRACTOR IS OBLIGATED TO MEET ALL OSHA AND VOSHA REQUIREMENTS FOR SAFE TRENCHING AND EXCAVATION PROCEDURES. THE CONTRACTOR IS HEREBY REFERRED TO THE LATEST REVISED OSHA STANDARDS AS PUBLISHED IN TITLE 29 OF THE CODE OF FEDERAL REGULATIONS (29 CFR), PART 1926 AND AS PUBLISHED IN THE FEDERAL REGISTER ON TUESDAY, OCTOBER 31, 1989. IN ADDITION, THE CONTRACTOR IS HEREBY REFERRED TO THE LATEST REVISED VOSHA STANDARDS AS PUBLISHED IN VERMONT STATUTE TITLE 21 – LABOR. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR COMPLIANCE WITH THE LATEST OSHA AND VOSHA STANDARDS FOR WORK ON THIS PROJECT.

TRAFFIC CONTROL NOTES:

1. CONTRACTOR SHALL ESTABLISH AND MAINTAIN TRAFFIC CONTROL MEASURES TO PROTECT THE TRAVELING PUBLIC (INCLUDING BICYCLISTS AND PEDESTRIANS), CONSTRUCTION OPERATIONS, AND ACCESS TO PROJECT SITE.
2. TRAFFIC CONTROL MEASURES SHALL CONFORM TO VTRANS SPECIFICATION SECTION 641 AND LATEST EDITION OF MUTCD.
3. CONTRACTOR SHALL PREPARE AND SUBMIT A TRAFFIC CONTROL PLAN FOR APPROVAL PRIOR TO COMMENCING WORK. TRAFFIC CONTROL PLAN SHALL BE PAID FOR UNDER PAY ITEM 641.11.
4. CARE SHOULD BE GIVEN TO MINIMIZE THE IMPACTS TO TRAFFIC FLOW DURING PEAK HOURS DUE TO CONSTRUCTION OF THE PROJECT.
5. CARE SHOULD BE GIVEN TO RESIDENTS AND BUSINESSES IMPACTED BY THE PROJECT AND ACCOMMODATIONS MUST BE MADE TO MAINTAIN ACCESS TO SUCH PLACES.
6. FLAGGERS AND UNIFORM TRAFFIC OFFICERS: ONLY CERTIFIED FLAGGERS WILL BE ALLOWED ON THIS PROJECT. FLAGGERS AND UNIFORM TRAFFIC OFFICERS WILL BE REQUIRED TO WEAR SAFETY APPAREL MEETING THE REQUIREMENTS OF THE AMERICAN NATIONAL STANDARD OF HIGH-VISIBILITY APPAREL.

CONCRETE NOTES:

1. LEVEL AND SLOPED WALL CONCRETE SHALL BE PERFORMANCE-BASED CONCRETE, CLASS PCS AND SHALL BE PAID FOR UNDER ITEM 900.608 "SPECIAL PROVISION (PERFORMANCE-BASED CONCRETE, CLASS PCS)".
2. BERM WALL CONCRETE SHALL BE ITEM 541.30, "CONCRETE CLASS C".
3. ITEM 514.10 "WATER REPELLENT, SILANE" SHALL BE APPLIED TO ALL EXPOSED CONCRETE SURFACES.
4. JOINTS AND SCORE MARKS IN THE CONCRETE SHALL BE CONSTRUCTED AS SHOWN IN THE PLANS OR AS DIRECTED BY THE ENGINEER.
5. ALL REINFORCING STEEL SHALL MEET THE REQUIREMENTS FOR AND BE PAID FOR AS ITEM 507.11 "REINFORCING STEEL, LEVEL I (BLACK)".
6. ALL EXPOSED CORNERS OF CONCRETE SHALL BE CHAMFERED 1" UNLESS OTHERWISE NOTED.

SUBSTRUCTURES ON BEDROCK NOTES:

1. THE FOOTING FOR THE CAST-IN-PLACE RETAINING WALL WILL BE FOUNDED ON BEDROCK AND SHALL BE PLACED ON CLEAN COMPETENT ROCK. ALL LOOSE ROCK AND DEBRIS SHALL BE REMOVED.
2. ONCE THE CONTRACTOR HAS EXCAVATED FOR THE FOOTING, THE RESIDENT ENGINEER WILL CONTACT THE PROJECT MANAGER TO DETERMINE IF THE BEDROCK IS COMPETENT. FIVE (5) WORKING DAYS FROM NOTIFICATION WILL BE ALLOWED TO MAKE THE INSPECTION AND THE DETERMINATION FOR THE COMPETENCY OF THE BEDROCK.
3. ANY BEDROCK THAT NEEDS TO BE REMOVED WILL BE PAID FOR WITH THE APPROPRIATE EXCAVATION ITEM INCLUDED IN THE CONTRACT. OVERBREAKAGE BEYOND THE AVERAGE MAXIMUM ALLOWANCE SPECIFIED IN 204.09(B) (1) AND THE CONCRETE USED TO FILL THE AREA OF ADDITIONAL OVERBREAKAGE WILL BE AT THE CONTRACTOR'S EXPENSE.
4. THE FOOTING HAS BEEN DESIGNED FOR THE FOOTING ELEVATIONS SHOWN ON THE PLANS. SUBFOOTINGS OF CONCRETE CLASS "C" SHALL BE USED IN AREAS WHERE THE BEDROCK IS MORE THAN 6 INCHES BELOW THE DESIGN BOTTOM OF FOOTING ELEVATIONS AND SHALL BE PAID FOR UNDER ITEM 541.30, "CONCRETE, CLASS C". AFTER THE BEDROCK HAS BEEN EXPOSED, ADJUSTMENT TO THE BOTTOM OF FOOTING ELEVATIONS MAY BE NECESSARY TO MINIMIZE THE BEDROCK REMOVAL AND/OR REDUCE THE AMOUNT OF SUBFOOTING CONCRETE. CONTACT THE PROJECT MANAGER FOR POSSIBLE REDESIGN IF THE BEDROCK PROFILES DIFFER FROM THOSE SHOWN ON THE PLANS. NO FURTHER WORK SHALL BE DONE ON THE FOOTINGS UNTIL A REPLY IS RECEIVED FROM THE ENGINEER. A TURN-AROUND TIME OF UP TO FIVE BUSINESS DAYS MAY BE EXPECTED.

MECHANICALLY STABILIZED EARTH RETAINING WALL NOTES:

1. THE CONTRACTOR SHALL DESIGN, DETAIL, AND CONSTRUCT A MECHANICALLY STABILIZED EARTH (MSE)

100% DESIGN SUBMITTAL

WALL IN ACCORDANCE WITH THESE PLANS, THE SPECIAL PROVISIONS, AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, AND MANUFACTURER RECOMMENDATIONS. WHERE GUARDRAIL OR GUARDRAIL APPROACH SECTION ARE LOCATED WITHIN THE LIMITS OF THE MSE WALLS, THE MSE WALL SHALL BE DESIGNED TO RESIST TRAFFIC BARRIER LOADS.

2. WHERE GUARDRAIL APPROACH SECTIONS ARE LOCATED WITHIN THE LIMITS OF THE MSE WALLS, THE MSE WALL SHALL BE DESIGNED TO RESIST HORIZONTAL LOADS FOR POST AND BEAM BARRIERS AS SPECIFIED IN AASHTO SECTION 11.10.10.2. ALL TEMPORARY CONSTRUCTION LOADS IMPOSED ON THE MSE WALL SHALL BE INCLUDED IN THE DESIGN OF THE MSE WALL.
3. ALL LAYOUT DIMENSIONS ARE TO THE OUTSIDE FACE OF THE WALL.
4. FOR FOUNDATION SOILS AND NOMINAL BEARING RESISTANCE INFORMATION SEE GEOTECHNICAL ENGINEERING SERVICES REPORT FROM OWNER.
5. IN THE EVENT THAT BEDROCK IS ENCOUNTERED SHALLOWER THAN THE RECOMMENDED MINIMUM MSE WALL EMBEDMENT DEPTH, THE SELECT GRANULAR BACKFILL SHALL BEAR ON A 6 INCH THICK LEVELING LAYER OF CRUSHED STONE OVERLYING THE BEDROCK SURFACE.
6. GIVEN THE VARIABILITY IN THE BEDROCK DEPTH, THERE IS THE POSSIBILITY THAT BEDROCK COULD RISE ABOVE THE TOP OF THE LEVELING PAD WITHIN THE REINFORCED ZONE. WHERE BEDROCK REMOVAL IS REQUIRED FOR WALL INSTALLATION, BEDROCK REMOVAL LIMITS WILL BE APPROVED BY THE ENGINEER AND WILL BE CONSIDERED INCIDENTAL TO ITEM 900.670, "SPECIAL PROVISION (MECHANICALLY STABILIZED EARTH RETAINING WALL)".
7. THE PANELS SHALL HAVE A NOMINAL SIZE OF 4.5 FT WIDE AND 4.5 TALL, OR GREATER. NO ARCHITECTURAL FINISH IS REQUIRED. THE CONTRACTOR SHALL DETERMINE THE LEVELING PAD ELEVATIONS AND LENGTHS.
8. CONCRETE FOR THE CAST-IN-PLACE COPING AND LEVELING SHALL BE PERFORMANCE-BASED CONCRETE, CLASS PCS IN ACCORDANCE WITH ITEM 900.608, "SPECIAL PROVISION (PERFORMANCE-BASED CONCRETE CLASS PCS)". REINFORCING STEEL SHALL BE LEVEL I, (BLACK) IN ACCORDANCE WITH SECTION 507. COSTS ASSOCIATED WITH FURNISHING AND INSTALLING REINFORCING STEEL AND CONCRETE FOR COPING AND LEVELING PADS WILL BE INCLUDED IN THE BID PRICE FOR ITEM 900.670, "SPECIAL PROVISION (MECHANICALLY STABILIZED EARTH RETAINING WALL)".
9. REINFORCING STEEL DOWELS EXTENDING FROM MSE WALL PANELS IN TO THE CAST-IN-PLACE COPING SHALL BE CAST INTEGRALLY WITH THE PANELS - DRILLING AND GROUTING OF REINFORCING DOWELS WILL NOT BE ALLOWED.
10. CONTRACTION JOINTS SHALL BE PROVIDED IN THE CAST-IN-PLACE CONCRETE COPING AT 20'-0" MAXIMUM SPACINGS AND SHALL ALIGN WITH JOINTS BETWEEN ADJACENT PANELS. REINFORCING STEEL WITHIN THE CAST-IN-PLACE COPING SHALL BE CONTINUOUS THROUGH CONTRACTION JOINTS.
11. A 30 MIL GEOMEMBRANE SHALL BE INSTALLED ON TOP OF THE SELECT FILL. THE GEOMEMBRANE SHALL SLOPE AWAY FROM THE MSE WALLS TO CONVEY WATER TO AN UNDERDRAIN PIPE. A 6 INCH FOLD OF GEOMEMBRANE SHALL BE ATTACHED TO THE BACK FACE OF THE MSE WALL WITH AN ADHESIVE. THE GEOMEMBRANE AND ADHESIVE SHALL MEET THE REQUIREMENTS OF THE MANUFACTURER. GEOMEMBRANE, ADHESIVE, AND ANY EQUIPMENT NECESSARY FOR INSTALLATION WILL BE INCLUDED IN ITEM 900.670, "SPECIAL PROVISION (MECHANICALLY STABILIZED EARTH RETAINING WALL)".
12. ANY WALL REINFORCING STRIPS LOCATED ABOVE THE GEOMEMBRANE SHALL HAVE A DESIGN LIFE OF 125 YEARS USING CORROSION RATES GIVEN IN AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS FOR NON-AGGRESSIVE SOIL.
13. UNDERDRAIN PIPES SHALL BE PERFORATED AND MEET THE REQUIREMENTS OF SUBSECTION 710.06. THE DRAINAGE AGGREGATE, FILTER FABRIC, AND PIPE AND ANY FITTINGS OR ADHESIVES NECESSARY FOR INSTALLATION WILL BE PAID UNDER ITEM 900.670, "SPECIAL PROVISION (MECHANICALLY STABILIZED EARTH RETAINING WALL)".
14. FILTER FABRIC SHALL MEET THE REQUIREMENTS OF SECTION 720 FOR GEOTEXTILE UNDER STONE FILL. FILTER FABRIC SHALL BE ADHERED TO THE BACK FACE OF THE MSE WALL PANELS AT ALL HORIZONTAL AND VERTICAL JOINTS BETWEEN PANELS. FILTER FABRIC SHALL NOMINALLY BE 18 INCHES WIDE AND CENTERED ON THE JOINTS.
15. THE CONTRACTOR SHALL PREPARE A MOCKUP OF THE CONCRETE FINISH TO THE ENGINEER AND OWNER FOR APPROVAL PRIOR TO CASTING.
 - 15.A. SMOOTH-FORMED FINISH: AS-CAST CONCRETE TEXTURE IMPARTED BY FORM-FACING MATERIAL, ARRANGED IN AN ORDERLY AND SYMMETRICAL MANNER WITH A MINIMUM F SEAMS. REPAIR AND PATCH TIE HOLES AND DEFECTS. REMOVE FINIS AND OTHER PROJECTIONS THAT EXCEED SPECIFIED LIMITS ON FORMED-SURFACE IRREGULARITIES.
 - 15.B. RUBBED FINISH: APPLY THE FOLLOWING TO SMOOTH-FORMED FINISHED AS-CAST CONCRETE WHERE INDICATED:
 - 15.B.1. SMOOTH RUBBED FINISH: NOT LATER THAN ONE DAY AFTER FORM REMOVAL, MOISTEN CONCRETE SURFACES AND RUB WITH CARBORUNDUM BRICK OR ANOTHER ABRASIVE UNTIL PRODUCING A UNIFORM COLOR AND TEXTURE. DON NOT APPLY CEMENT GROUT OTHER THAN THAT CREATED BY THE RUBBING PROCESS.
 - 15.B.2. GROUT-CLEANED FINISH: WET CONCRETE SURFACES AND APPLY GROUT OF A CONSISTENCY OF THICK PAINT TO COAT SURFACES AND FILL SMALL HOLES. MIX ONE PART PORTLAND CEMENT TO ONE AND ONE-HALF PARTS FINE SAND WITH A 1:1 MIXTURE OF BONDING ADMIXTURE AND WATER. ADD WHITE PORTLAND CEMENT IN AMOUNTS DETERMINED BY TRIAL PATCHES SO COLOR OF DRY GROUT WILL MATCH ADJACENT SURFACES. SCRUB GROUT INTO VOIDS AND REMOVE EXCESS GROUT. WHEN GROUT WHITENS, RUB SURFACE WITH CLEAN BURLAP AND KEEP SURFACE DAMP BY FOG SPRAY FOR AT LEAST 36 HOURS.
 - 15.B.3. CORKED-FLOATED FINISH: WET CONCRETE SURFACES AND APPLY A STIFF GROUT. MIX ONE PART PORTLAND CEMENT AND ONE PART FINE SAND WITH A 1:1 MIXTURE OF BONDING AGENT AND WATER. ADD WHITE PORTLAND CEMENT IN AMOUNTS DETERMINED BY TRIAL PATCHES SO COLOR OF DRY GROUT WILL MATCH ADJACENT SURFACES. COMPRESS GROUT INTO VOIDS BY GRINDING SURFACE. IN A SWIRLING MOTION, FINISH SURFACE WITH A CORK FLOAT.
 - 15.C. RELATED UNIFORM SURFACES: AT TOPS OF WALLS, HORIZONTAL OFFSETS, AND SIMILAR UNIFORMED SURFACES ADJACENT TO FORMED SURFACES, STRIKE OFF SMOOTH AND FINISH WITH A TEXTURE MATCHING ADJACENT FORMED SURFACES. CONTINUE FINAL SURFACE TREATMENT OF FORMED SURFACES UNIFORMLY ACROSS ADJACENT UNIFORMED SURFACES UNLESS OTHERWISE INDICATED.

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APPLICANT
POMERLEAU AND CHITTENDEN HOUSING TRUST

EAU / CHT 3-ACRE STORMWATER
MANAGEMENT PROJECT
84 SOUTH MEADOW DRIVE

CONSTRUCTION
NOTES

G0.2

PROJECT NO. 12000

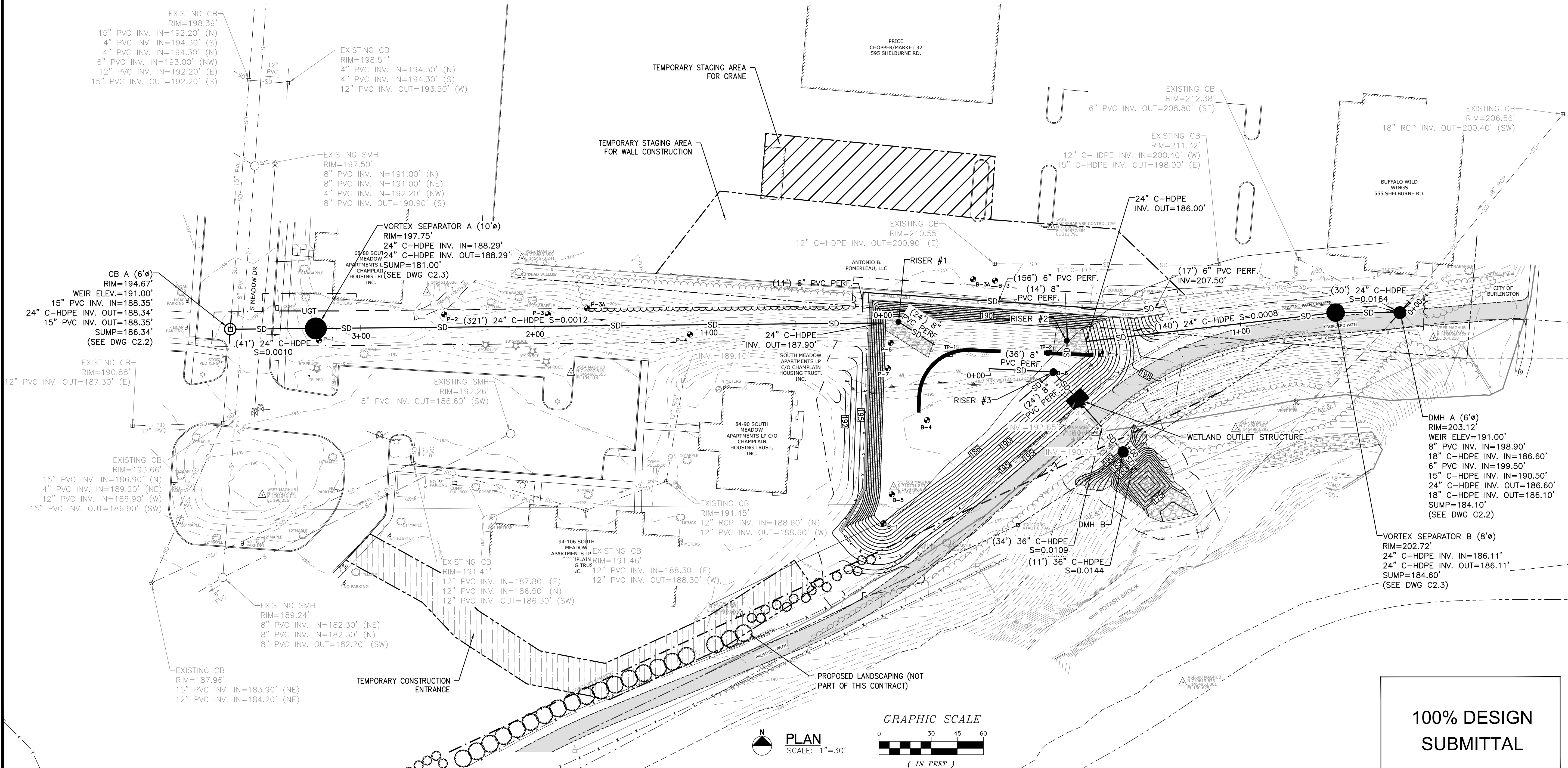
NOTES:

- EXISTING SURFACE FEATURES AND INFORMATION SHOWN ON THESE PLANS WERE OBTAINED FROM FIELD SURVEY. REFER TO DRAWING G-0.1 FOR SURVEY DATA REFERENCE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY ALL EXISTING CONDITIONS.
- CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTION AND SUPPORT OF ALL EXISTING UTILITIES LOCATED WITHIN THE LIMITS OF WORK, INCLUDING UTILITY POLES.
- THE LOCATION OF UTILITIES SHOWN ON THESE PLANS ARE APPROXIMATE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING WITH THE UTILITY COMPANIES INVOLVED AND VERIFY IN THE FIELD THE EXACT LOCATION OF MAINS AND SERVICES TO PREVENT DAMAGE; LOSS OF SERVICE DURING CONSTRUCTION; AND FOR REPLACEMENT OF SERVICES. THE CONTRACTOR SHALL NOTIFY "DIG SAFE" PRIOR TO ANY EXCAVATION. CONTRACTOR SHALL BE RESPONSIBLE FOR THE IDENTIFICATION AND LOCATION OF ALL UTILITIES PRIOR TO THE START OF WORK. CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY OF ANY CONFLICT BETWEEN THE PROPOSED WORK AND AN EXISTING UTILITY SUCH AS WATER, SEWER, GAS, ELECTRICAL OR TELECOMMUNICATIONS. CONTRACTOR SHALL RELOCATE CONFLICTING UTILITIES AS NEEDED. THERE SHALL BE NO SEPARATE PAYMENT
- CONTRACTOR SHALL REMOVE ALL TREES, BRUSH, AND STUMPS WITHIN THE LIMITS OF CLEARING. PAYMENT FOR CLEARING AND GRUBBING SHALL BE UNDER PAY ITEM 201.10.
- CONTRACTOR SHALL CONFINE CONSTRUCTION ACTIVITIES TO AREAS OWNED BY THE PROPERTY OWNER(S) AND AS SHOWN ON THE DRAWINGS.
- CONTRACTOR SHALL SECURE WORK AREA WITH FENCING. PAID AS ITEM 653.50 BARRIER FENCE.

- CONTRACTOR SHALL BE RESPONSIBLE FOR THE MAINTENANCE OF TRAFFIC AND TRAFFIC CONTROL.
- WHERE ADJACENT GROUND OUTSIDE OF THE LIMITS OF WORK IS DISTURBED OR DAMAGED DUE TO CONSTRUCTION ACTIVITIES, CONTRACTOR SHALL RESTORE TO ORIGINAL STATE, INCLUDING, BUT NOT LIMITED TO SIDEWALKS, PAVEMENT, GRASS AND LANDSCAPING, AT NO ADDITIONAL COST TO THE OWNER.
- ALL SLOPES 1:2 OR GREATER SHALL BE ARMORED WITH 18" OF 9" STONE RIP-RAP FILL (PAID AS ITEM 900.608 SPECIAL PROVISION (9" STONE)) OVER GEOTEXTILE UNDER STONE FILL (ITEM 649.31)
- CONTRACTOR SHALL BE RESPONSIBLE FOR THE DIVERSION OF STORMWATER FLOWS AND BYPASSING EXISTING POND DURING CONSTRUCTION UNTIL NEW GRAVEL WETLAND IS COMPLETE AND READY TO ACCEPT FLOW. (SUBSIDIARY)
- SEE SPECIAL PROVISION SPECIFICATION 900.645 (GRAVEL WETLAND FACILITY) FOR GRAVEL WETLAND PLANTS, SOIL AND MATERIAL REQUIREMENTS.
- SEE DRAWING NO. C-2.1 FOR POND GRAVEL WETLAND DETAILS.
- CONTRACTOR SHALL REMOVE AND RESET EXISTING PLAYGROUND EQUIPMENT AND FENCE AS NECESSARY FOR CONSTRUCTION OF WORK. REMOVAL AND RESETTING OF FENCE SHALL BE PAID FOR AS ITEM 620.50.
- CONTRACTOR SHALL USE SHEETING AND/OR SHORING AS REQUIRED FOR EARTH SUPPORT DURING INSTALLATION OF NEW PIPING, AND SHALL SUPPORT AND PREVENT UNDERMINING OF EXISTING 24" CWD MAIN.

CWD NOTES:

- CONTRACTOR TO COORDINATE ALL WORK AS REQUIRED TO MAINTAIN THE EXISTING CHAMPLAIN WATER DISTRICT (CWD) WATER MAIN, WITH CWD.
- CONTRACTOR SHALL SUBMIT A SEQUENCE OF OPERATIONS AND DETAILS ON MEANS AND METHOD FOR REVIEW AND APPROVAL BY CWD, OUTLINING HOW THE EXISTING CWD WATER MAIN WILL BE PROTECTED FROM DAMAGE. DAMAGE MAY INCLUDE BUT IS NOT LIMITED TO UNDERMINING AND SETTLEMENT. SUBMISSION SHALL BE REVIEWED AND APPROVED BY CWD.
- CONTRACTOR SHALL SUBMIT THE PROPOSED METHOD OF EARTH SUPPORT TO CWD FOR APPROVAL.
- SHOULD ROCK REMOVAL BE REQUIRED WITHIN 10 FEET OF THE CWD MAIN, METHODS FOR ROCK REMOVAL INCLUDING VIBRATION MONITORING AND VIBRATION LIMITS, SHALL BE SUBMITTED FOR REVIEW AND APPROVAL BY CWD.
- CONTRACTOR SHALL MAINTAIN A MINIMUM OF 10' UNDISTURBED SOIL BEHIND THE EXISTING THRUST BLOCK AT THE 45-DEGREE BEND. THE THRUST BLOCK IS INTENDED TO USE UNDISTURBED, NATIVE SOIL IN THE THRUST RESTRAINT.



REV.	DESCRIPTION	DATE

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DESIGNED BY: APS
DATE: JANUARY 5, 2024
CHECKED BY: KDW
DRAWN BY: TGB

APPLICANT
POWERLEAU AND CHITTENDEN HOUSING TRUST

PROJECT
POWERLEAU / CHT 3-ACRE STORMWATER
MANAGEMENT PROJECT
84 SOUTH MEADOW DRIVE
BURLINGTON, VT 05401

OVERALL PROPOSED
PLAN

C1.2

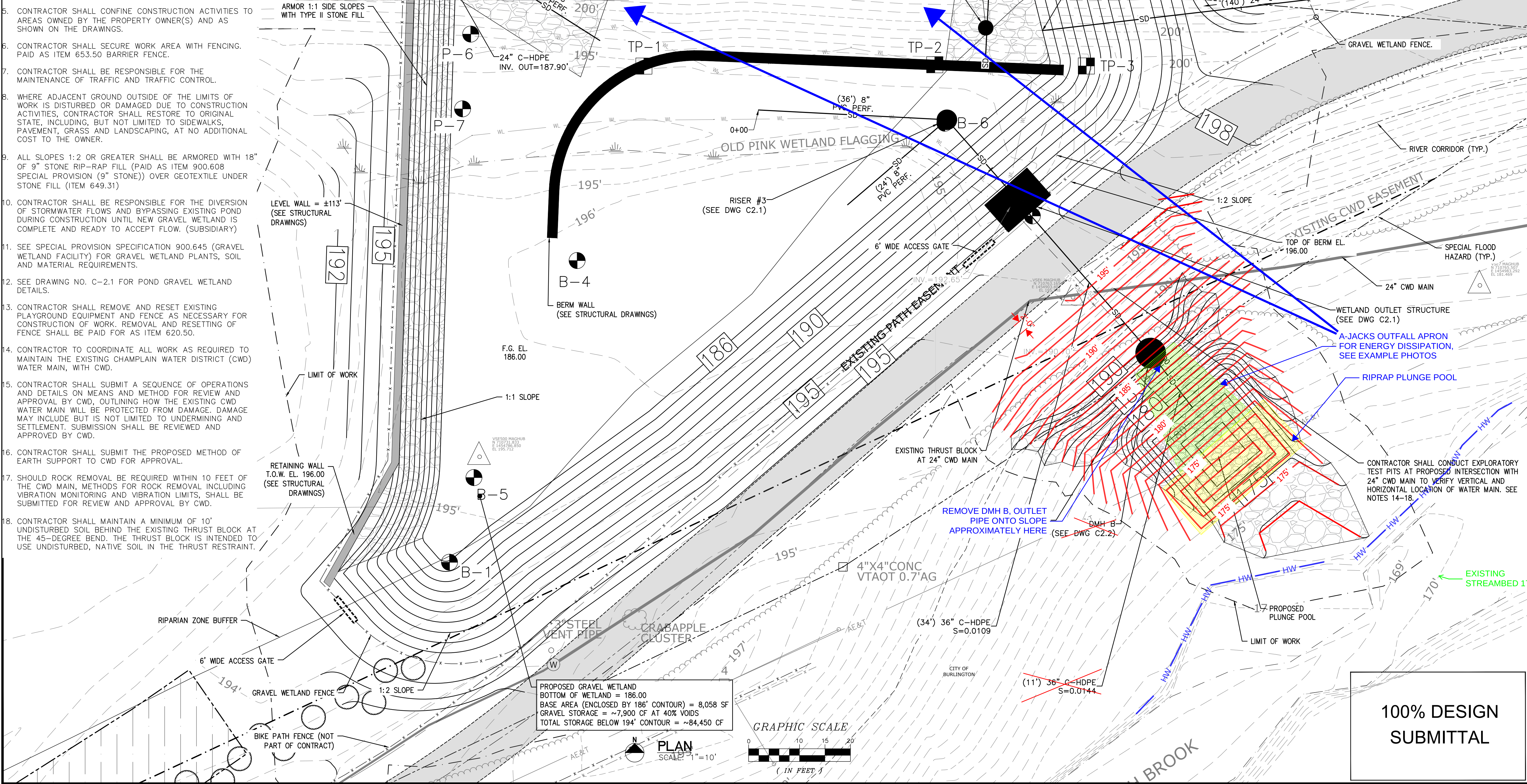
PROJECT NO. 120006
SHEET 5 OF 16

GENERAL NOTES:

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A-JACKS

OUTFALL INSTALLATION FOR ENERGY DISSIPATION



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POWERLEAU AND CHITTENDEN HOUSING TRUST

PROJECT
POWERLEAU / CHT 3-ACRE STORMWATER
MANAGEMENT PROJECT
84 SOUTH MEADOW DRIVE
BURLINGTON, VT 05401

APPLICANT

100% DESIGN
SUBMITTAL

C1.3

PROJECT NO. 120006
SHEET 6 OF 16

DATE: JANUARY 5, 2024

DESIGNED BY: APS

CHECKED BY: KDW

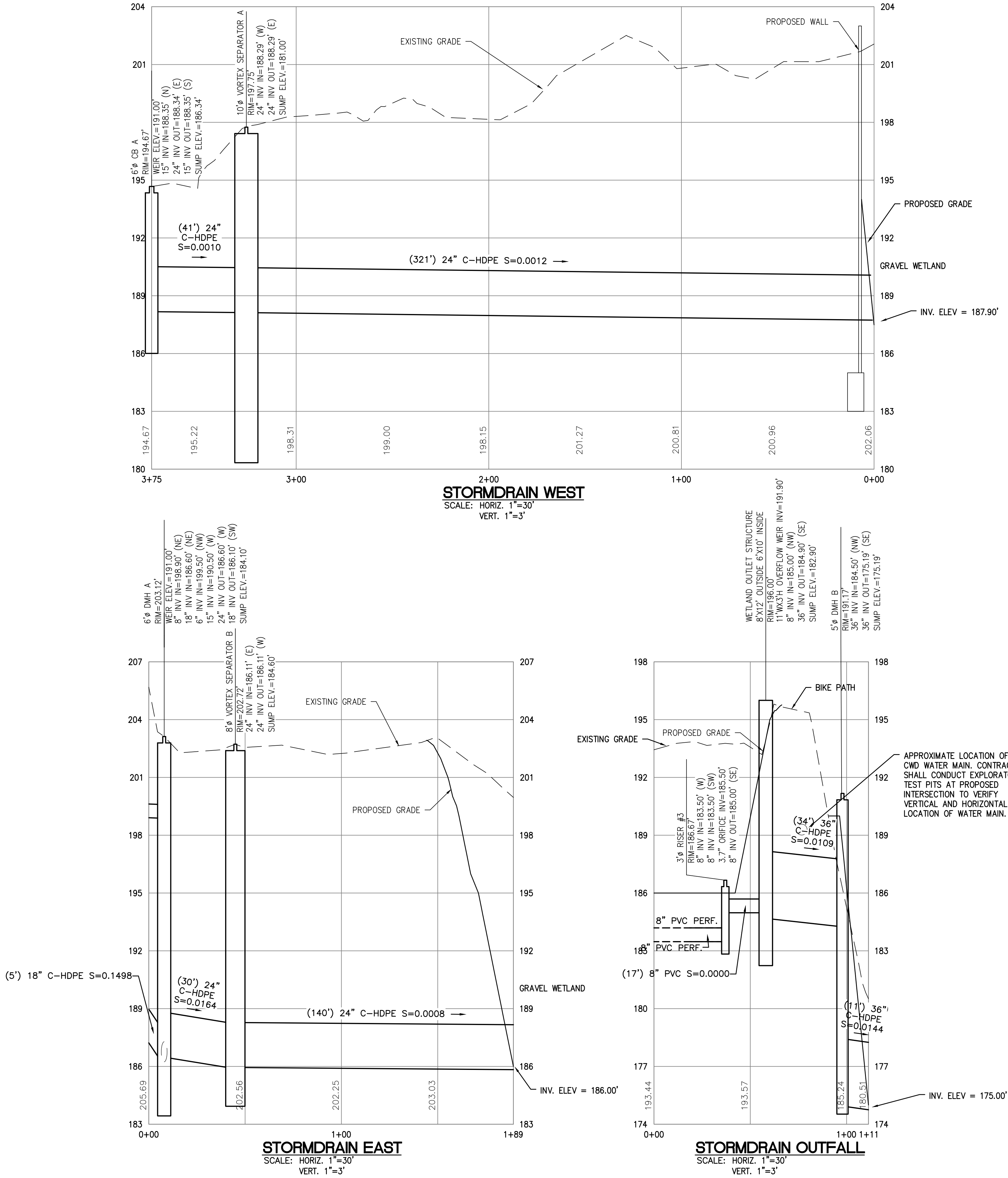
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REV.

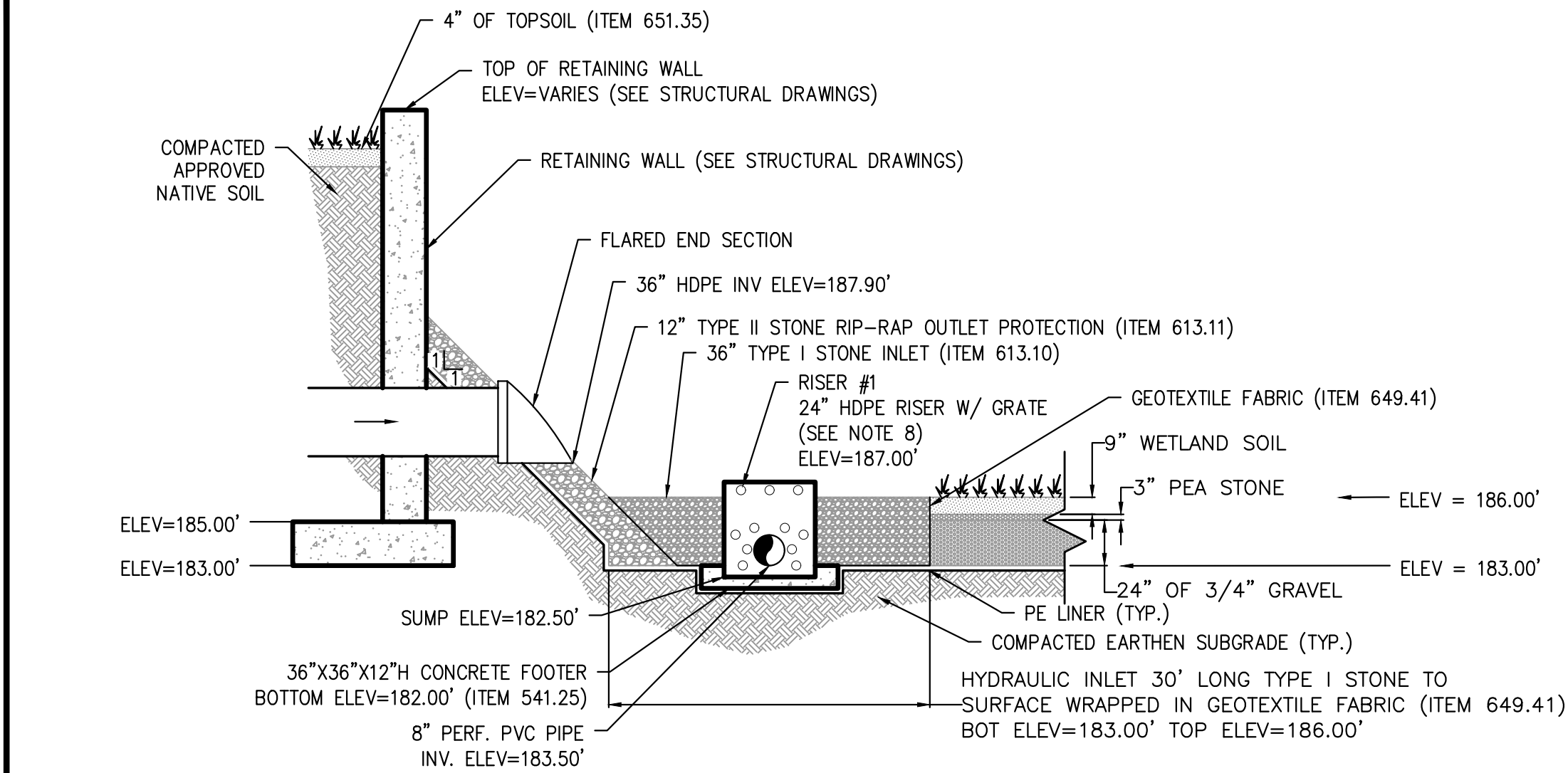
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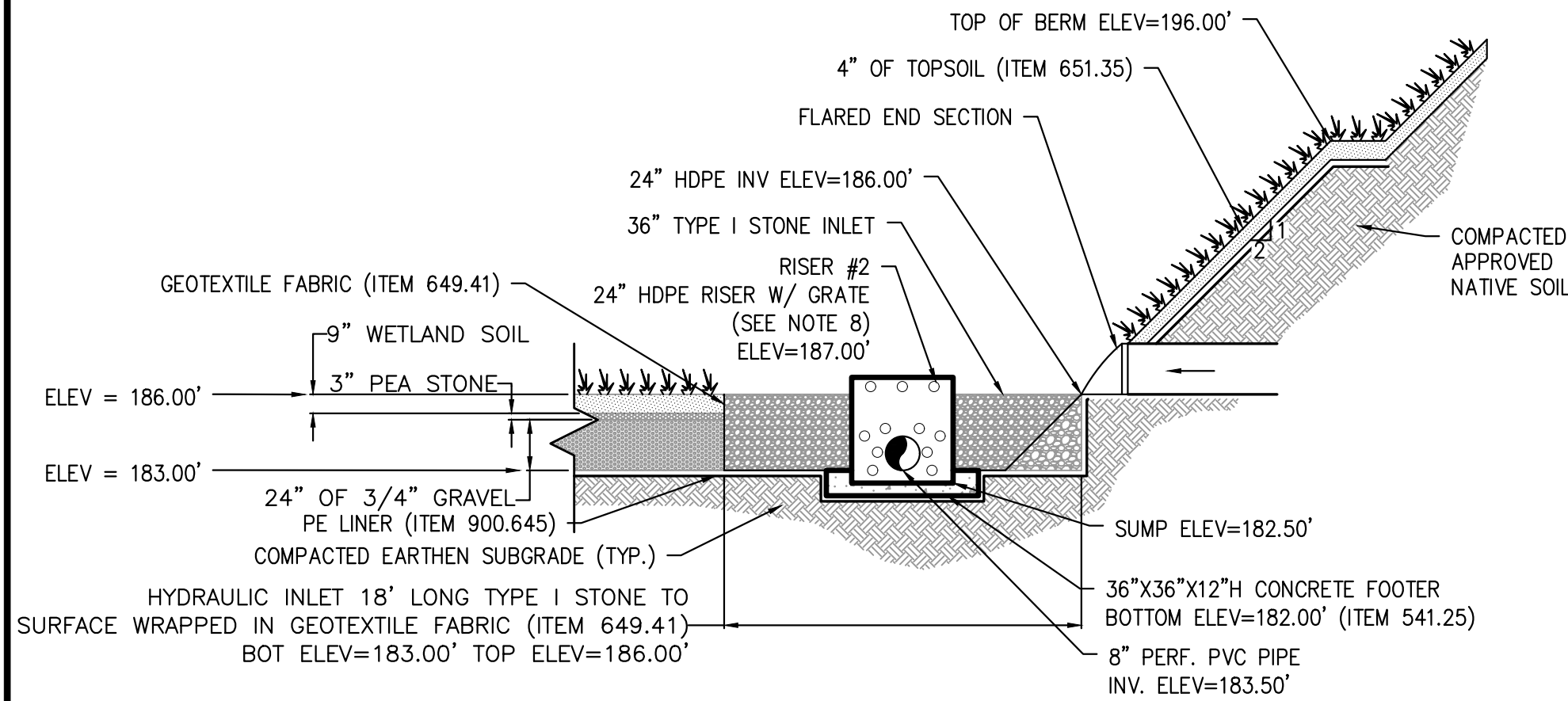
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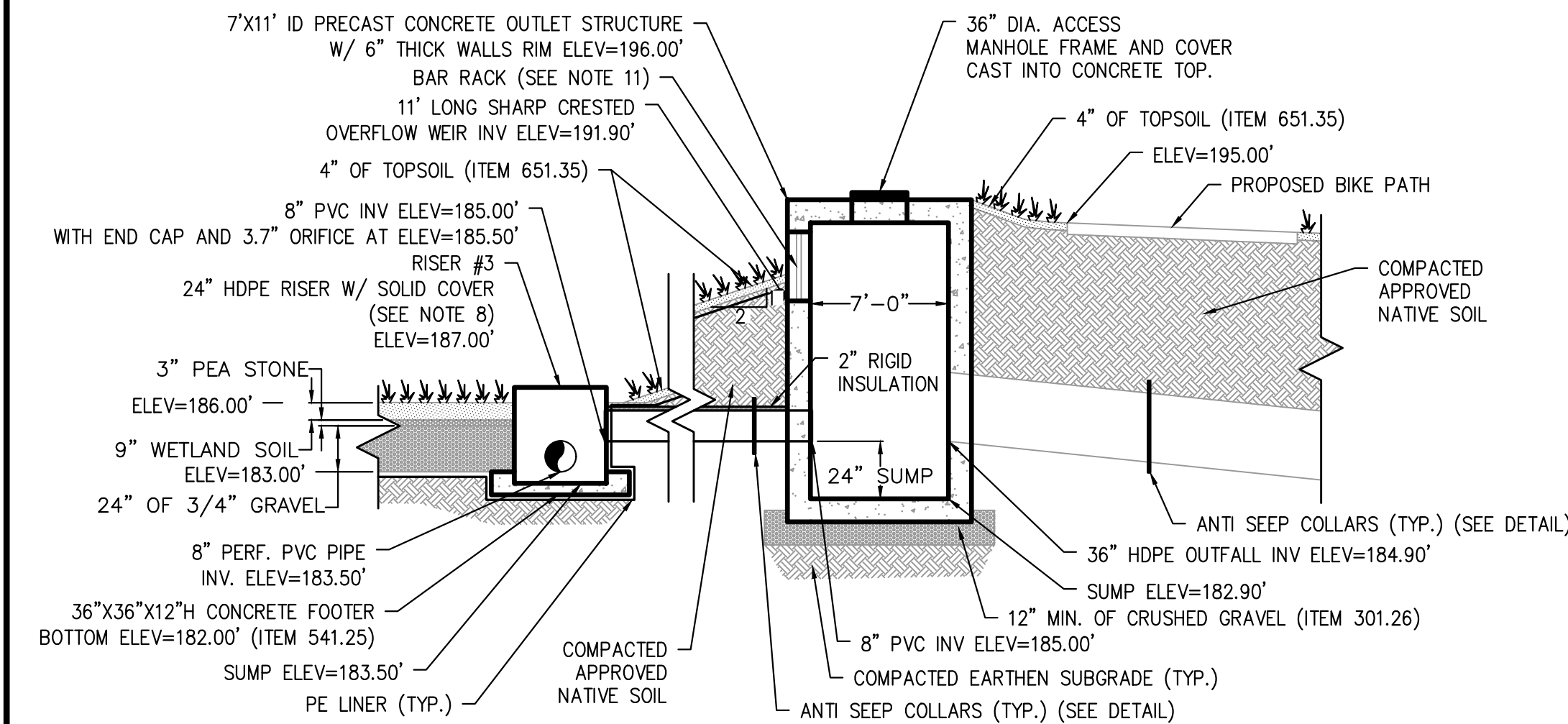
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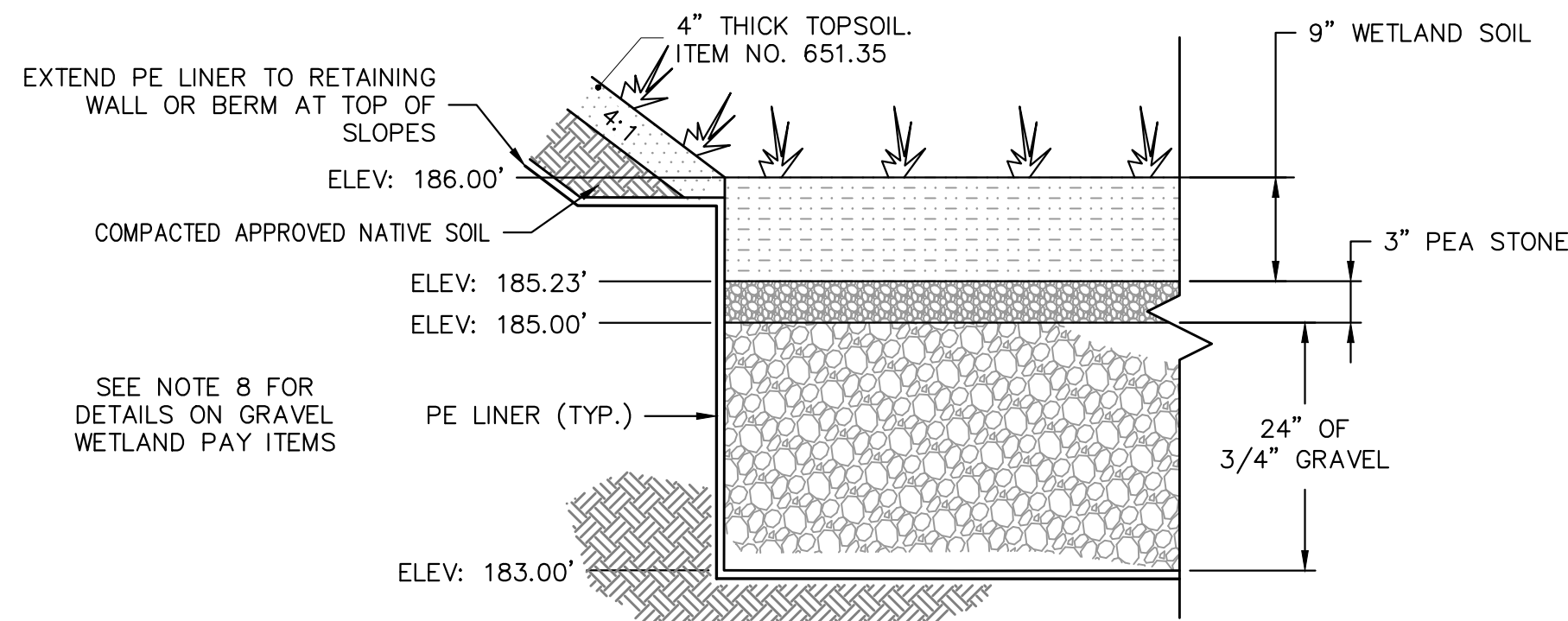
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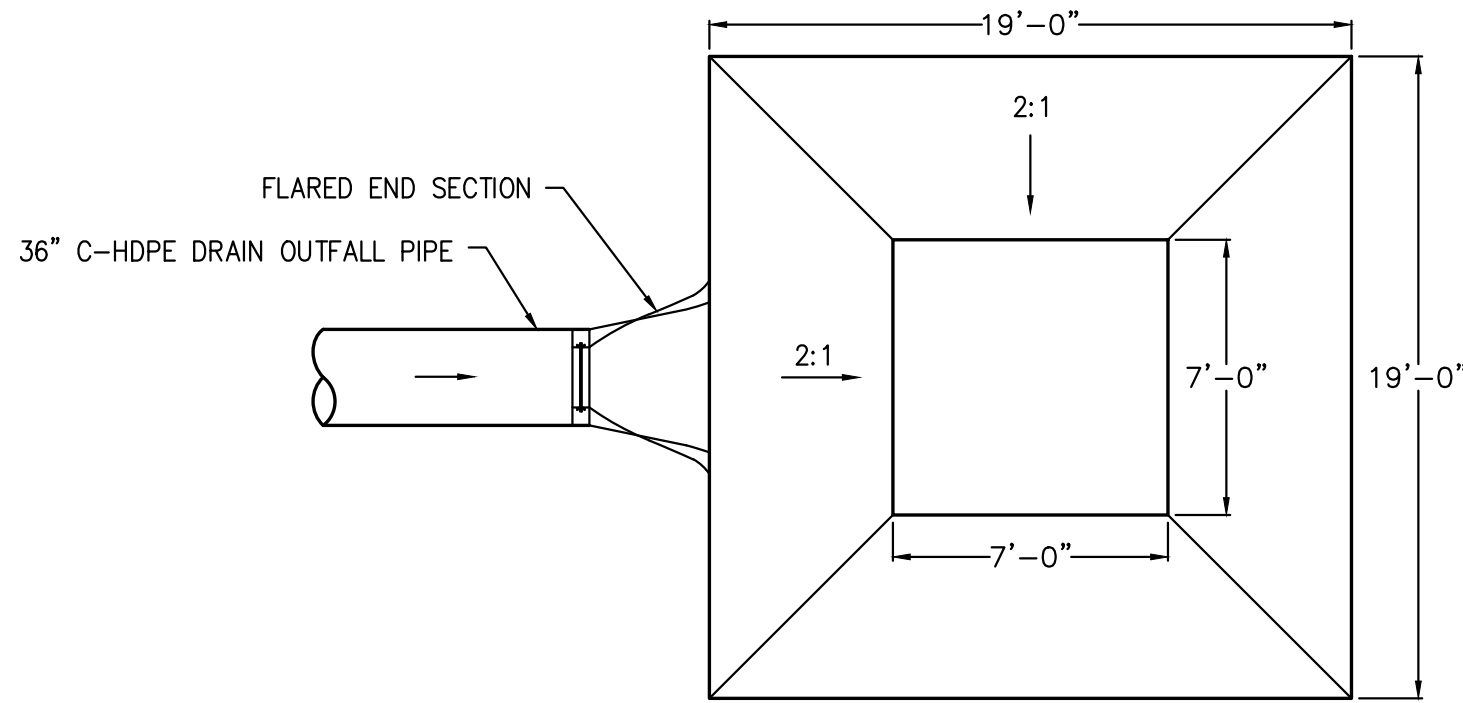
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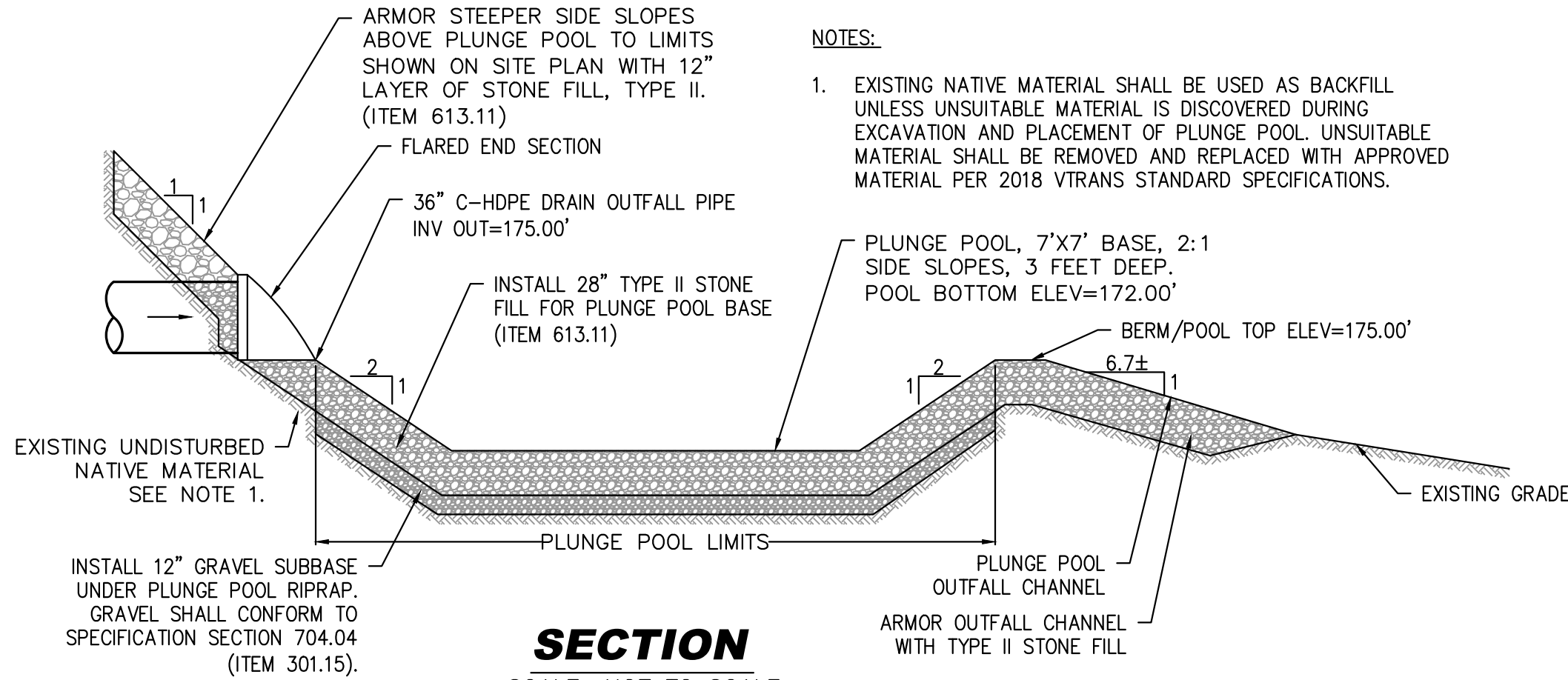
RISER #3 AND OUTLET STRUCTURE DETAIL
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GRAVEL WETLAND DETAIL
SCALE: NOT TO SCALE



PLAN VIEW
SCALE: NOT TO SCALE



**SECTION
PLUNGE POOL DETAIL**
SCALE: NOT TO SCALE

NOTES:

1. THE WETLAND BASIN AREA SHALL BE CLEARED OF ALL TREES, ROOTS, STUMPS, BOULDERS AND SOD TO A DEPTH OF 2' BELOW FINAL GRADE.
2. CONSTRUCT BERM USING EMBANKMENT MATERIAL FREE OF SOD, ROOTS, FROZEN MATERIAL. NO STONES LARGER THAN 6 INCHES OR OTHER OBJECTIONABLE MATERIAL. COMPACT AS PER SPECIFICATIONS.
3. OUTLET CONTROL STRUCTURE TO BE PRECAST WITH DIMENSIONS AS SHOWN. SEE ITEM 900.620 SPECIAL PROVISION (PRECAST DRAINAGE, DIVERSION & OUTLET AND DIVERSION STRUCTURES PAY ITEMS).
4. TOPSOIL AND SEED ALL EARTH SLOPES AS SOON AS POSSIBLE. STABILIZE OUTFALL AREAS WITH REQUIRED EROSION CONTROL.
5. REMOVE ACCUMULATED SEDIMENT FROM BMP AT COMPLETION OF PROJECT (SUBSIDIARY).
6. ANTI-SEEP COLLARS SHALL BE INSTALLED AS SHOWN TO RESIST FLOW ALONG THE OUTSIDE OF THE PIPE. COLLARS SHOULD BE PLACED A MINIMUM OF 5 FT. FROM THE PIPE. MAXIMUM SPACING OF COLLARS IS 28 FT. PAID AS ITEM 900.620 SPECIAL PROVISION (ANTI-SEEP COLLARS).
7. ALL PIPE CONNECTIONS SHALL HAVE FLEXIBLE WATERTIGHT GASKETS CONFORMING TO THE SPECIFICATIONS. PIPE TO OUTLET STRUCTURE CONNECTION SHALL BE WATERTIGHT WITH AN EMBEDDED FLEXIBLE RUBBER BOOT. SEE ITEM 900.620 SPECIAL PROVISION (PRECAST DRAINAGE, DIVERSION & OUTLET AND DIVERSION STRUCTURES).
8. FOR RISERS, SEE SPECIAL PROVISION SPECIFICATION 900.620 (RISERS).
9. FOR WETLAND PLANTS, SOIL AND MATERIALS INSIDE WETLAND, SEE SPECIAL PROVISION SPECIFICATION 900.645 (GRAVEL WETLAND FACILITY).
10. PROVIDE 8" SOLID-WALLED PVC (ITEM 605.11) CLEAN OUTS WITH CAP TO 1 FOOT ABOVE GRADE FOR ALL 8" PERF. PVC UNDERDRAIN PIPING.
11. CAST IN PLACE BAR RACK FOR OUTLET STRUCTURE SHALL HAVE 1" DIAMETER BARS AT 8" ON CENTER.

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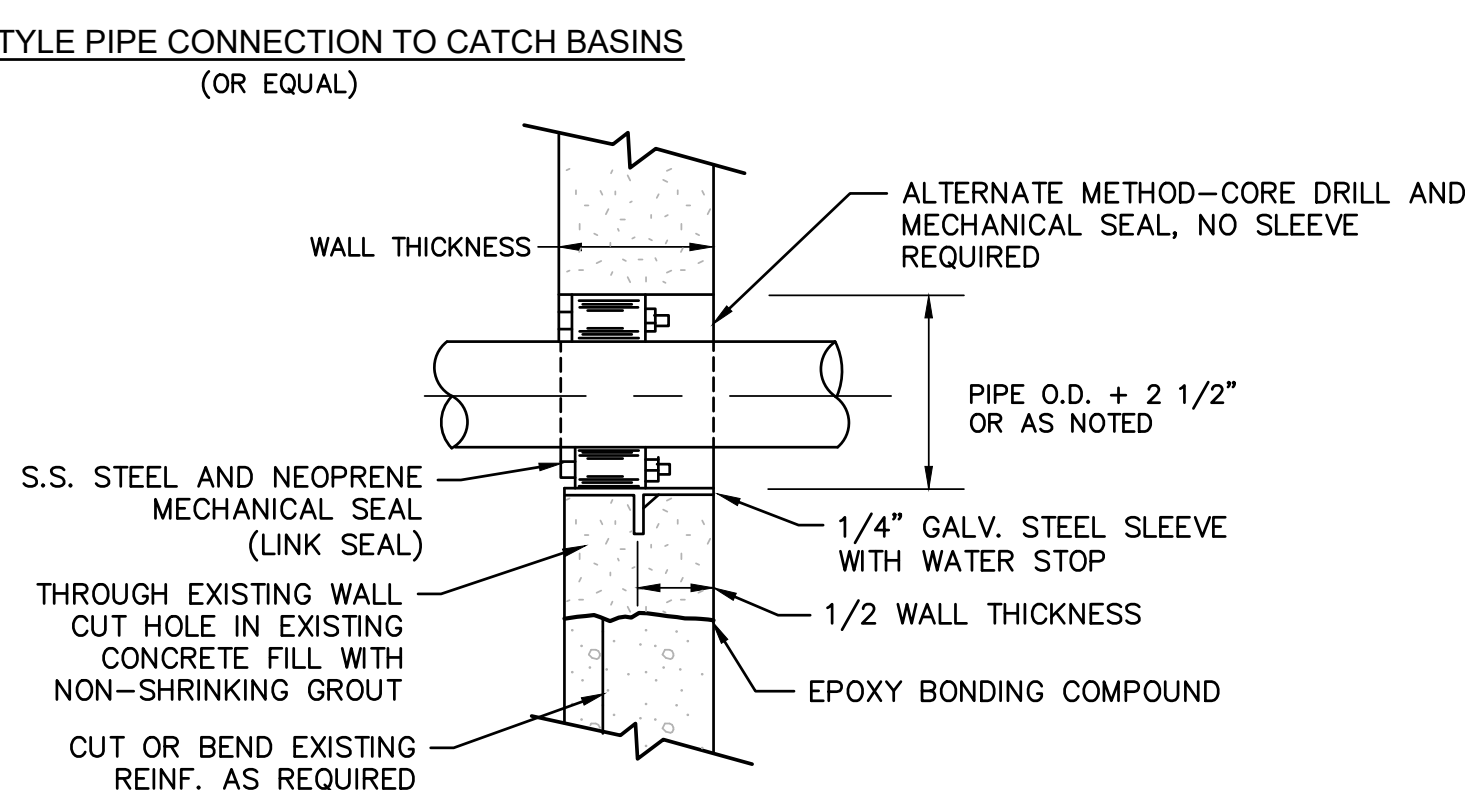
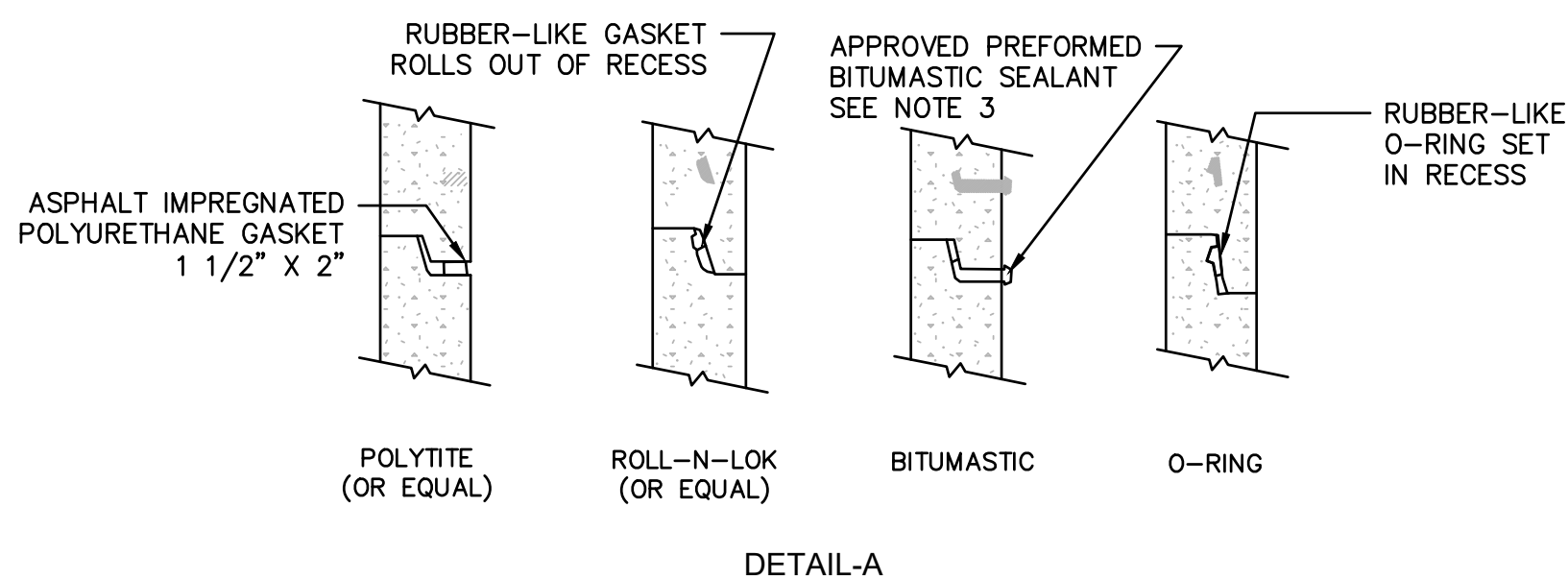
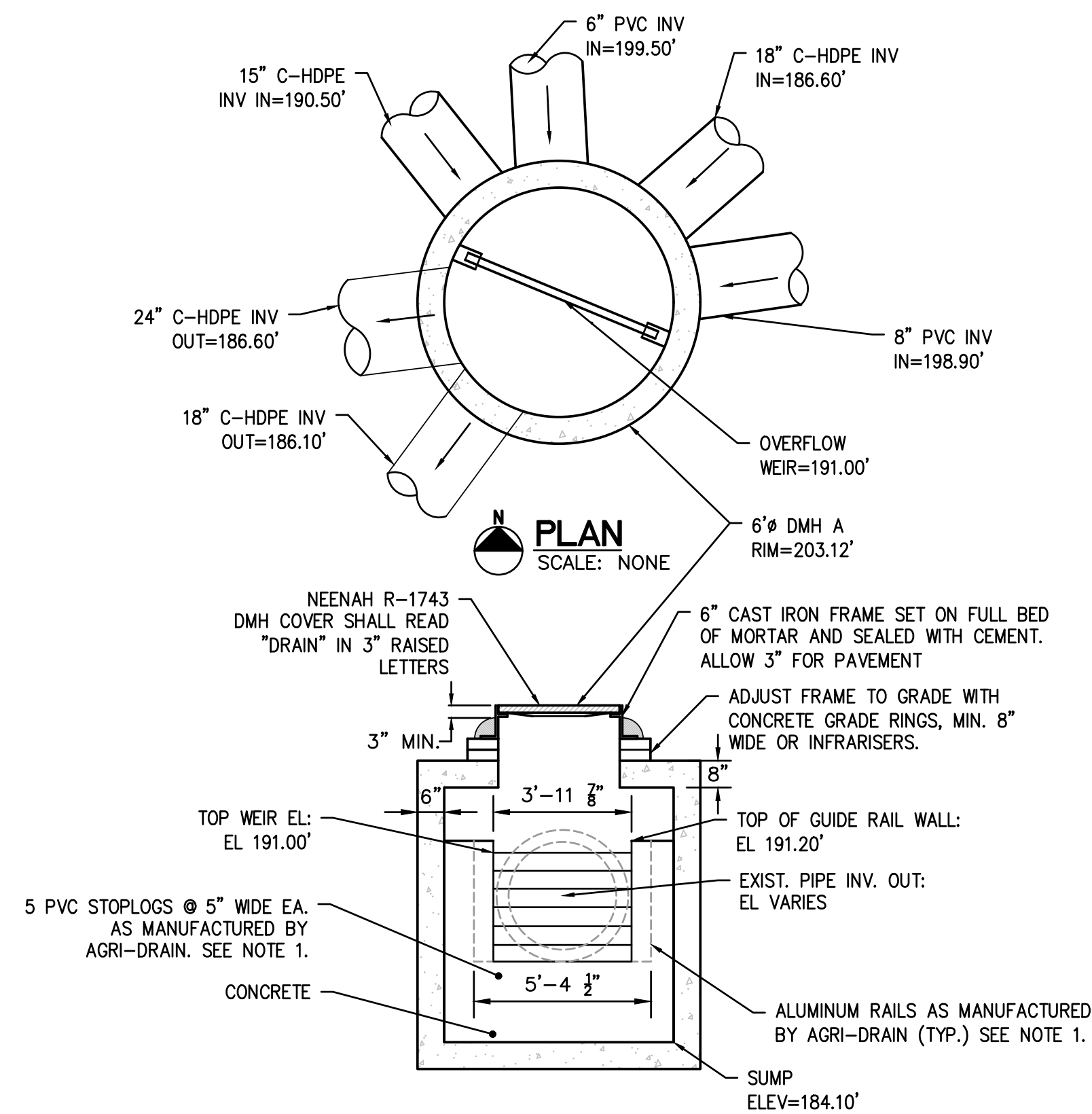
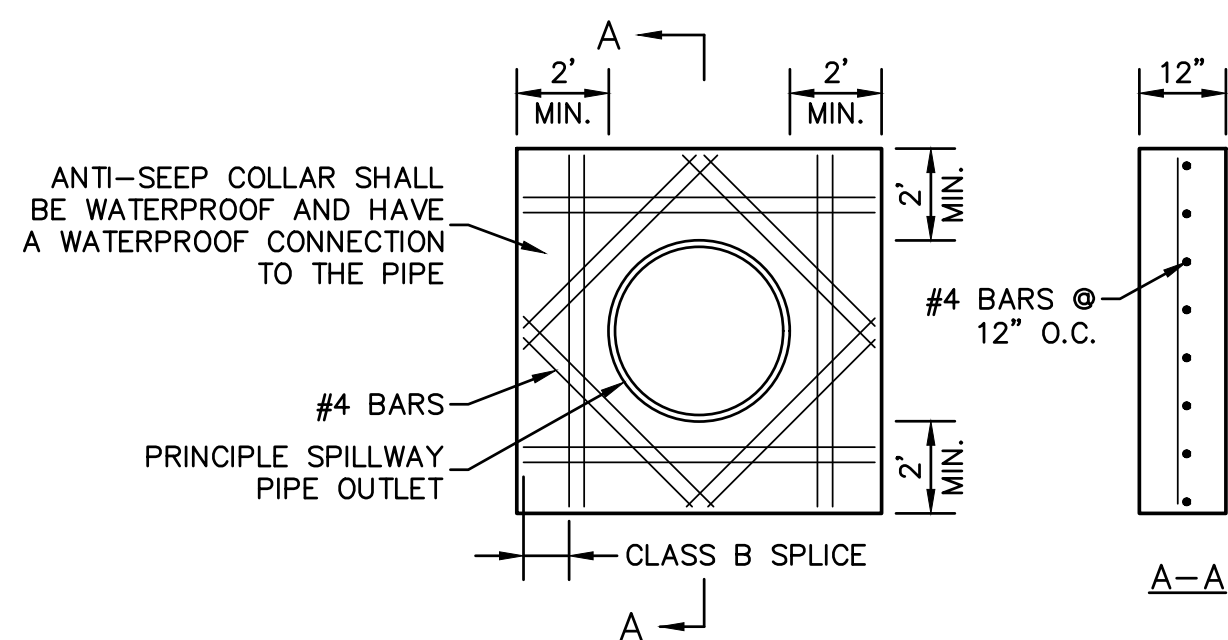
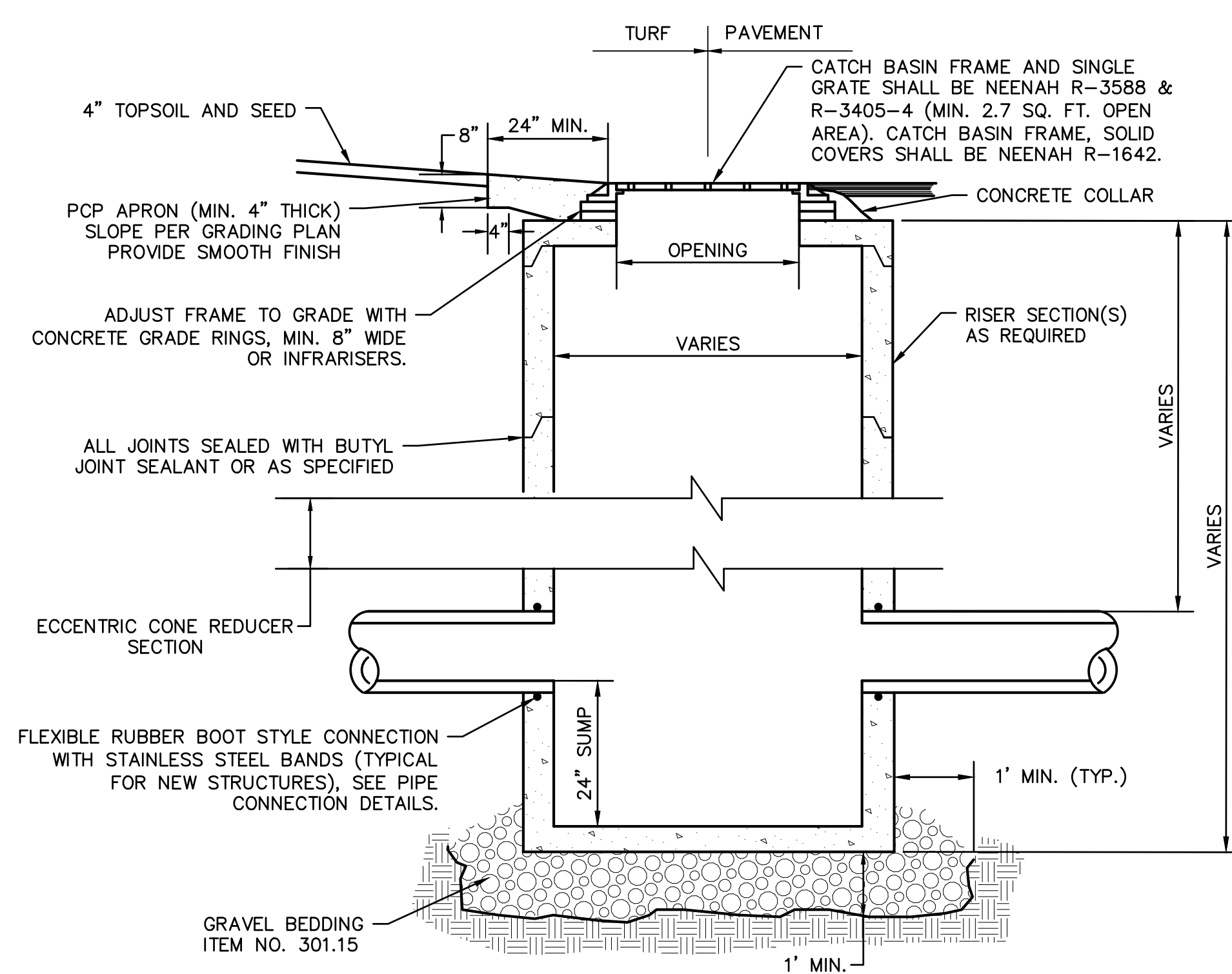
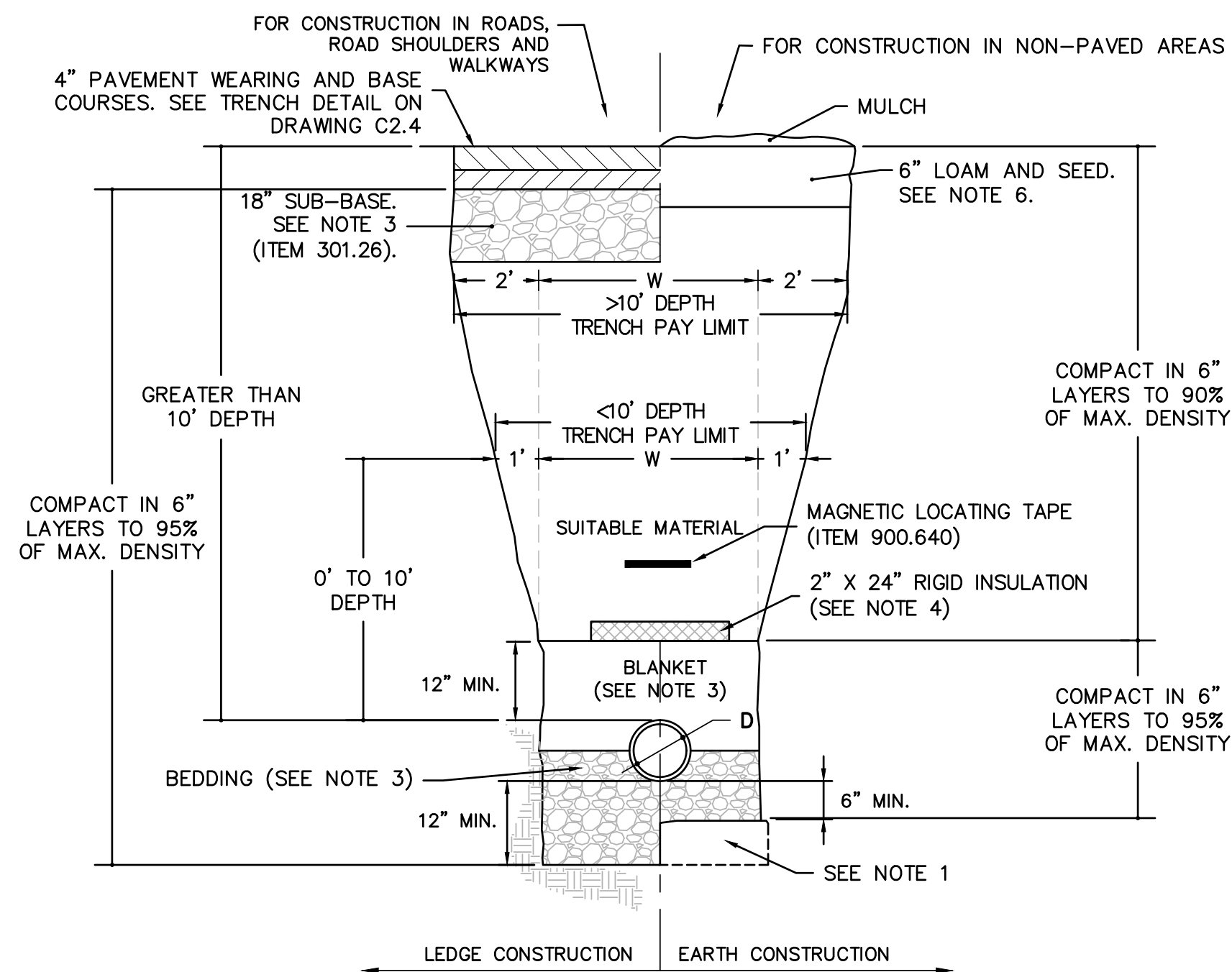
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**HOYLE
TANNER**

DESIGNED BY: APS
CHECKED BY: KDW
DRAWN BY: TGB
DATE: JANUARY 5, 2024

APPLICANT: POWERLEAU AND CHITTENDEN HOUSING TRUST
PROJECT: POWERLEAU / CHT 3-ACRE STORMWATER MANAGEMENT PROJECT
84 SOUTH MEADOW DRIVE
BURLINGTON, VT 05401

GRAVEL WETLANDS
DETAILS
C2.1
PROJECT NO. 120006
SHEET 8 OF 16



100% DESIGN
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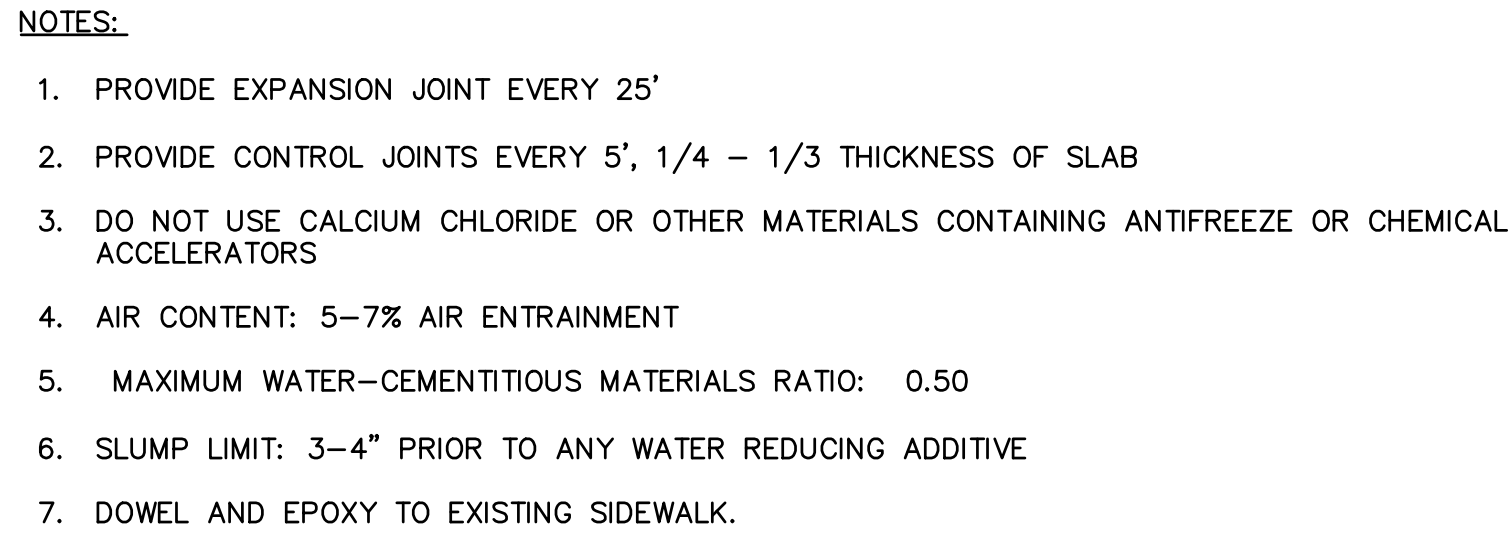


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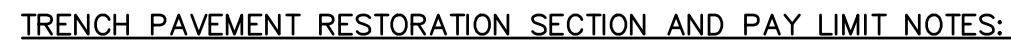


SHEET 10 OF 16

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1. PAVEMENT STANDARDS ARE FOR 1.5 INCH WEARING COURSE AND 2.5 INCH BASE COURSE, HOWEVER, CONTRACTOR SHALL MATCH EXISTING DEPTH OF BASE COURSE TO REPLACE ASPHALT TO EXISTING SURFACE.
2. ALL EXPOSED BITUMINOUS SURFACES SHALL BE COATED WITH EMULSIFIED ASPHALT PRIOR TO PLACEMENT OF NEW BITUMINOUS PAVEMENT.



1. MATERIALS SHOULD BE REPLACED IN-KIND, WITH MINIMUM THICKNESS AS SHOWN.
2. PAVEMENT REPAIR IN EXISTING ROADWAYS SHALL CONFORM TO STREET OPENING REQUIREMENTS.
3. ROADWAY CONSTRUCTION SHALL CONFORM TO VTRANS STANDARD SPECIFICATIONS.
4. NOT FOR WINTER CONSTRUCTION.

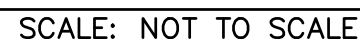
SCALE: NOT TO SCALE

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SCALE: NOT TO SCALE



SCALE: NOT TO SCALE



NOTES:

1. TO BE PAID UNDER ITEM 900.620 SPECIAL PROVISION (30" FLARED END SECTION)

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DESIGNED BY
APS

DATE: JANUARY 5, 2024

SCALE:
AS SHOWN

APPLICANT
POMERLEAU AND CHITTENDEN HOUSING TRUST

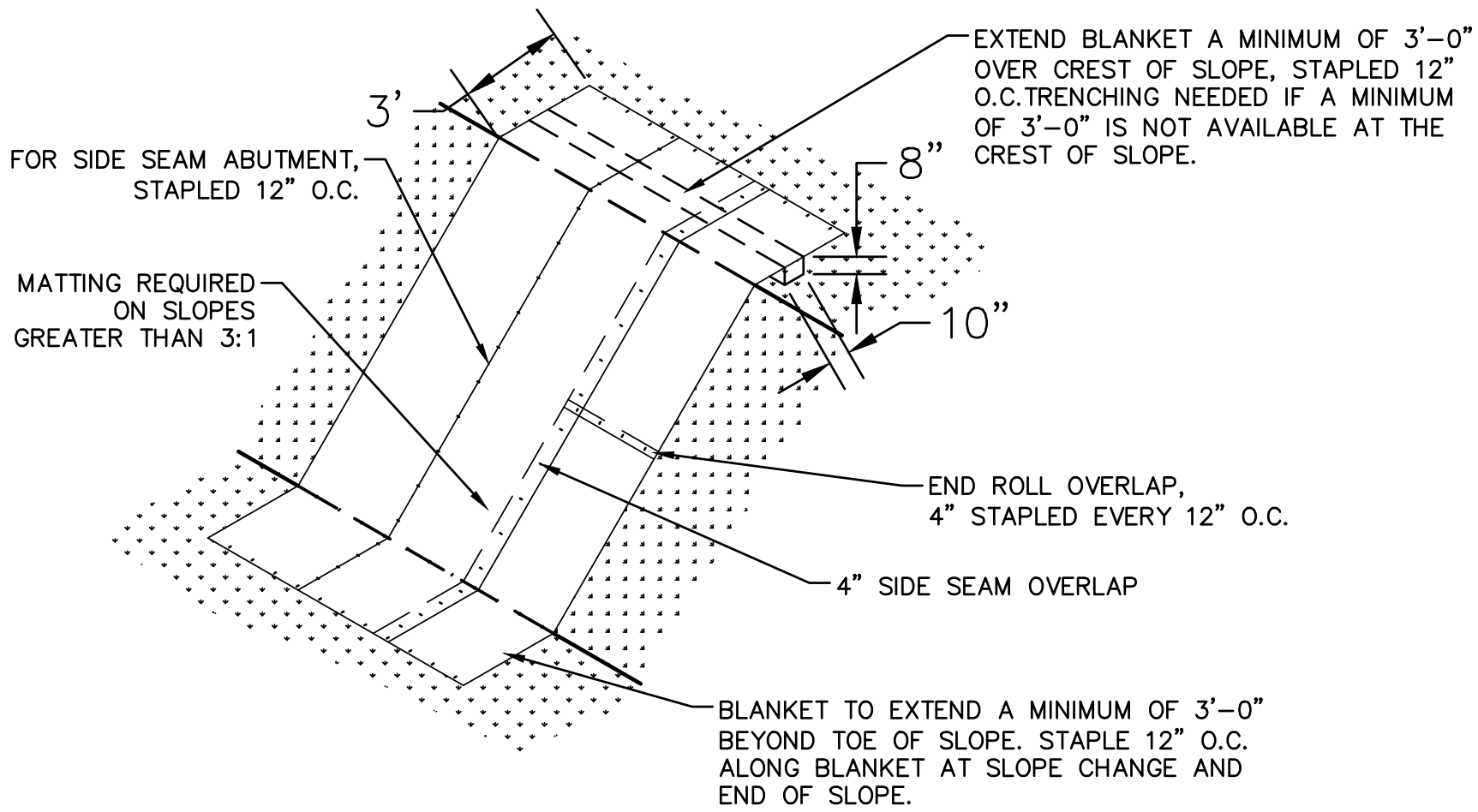
PROJECT
POMERLEAU / CHT 3-ACRE STORMWATER
MANAGEMENT PROJECT
84 SOUTH MEADOW DRIVE
BURLINGTON, VT 05401

GENERAL DETAILS

C2.4

PROJECT NO. 120006

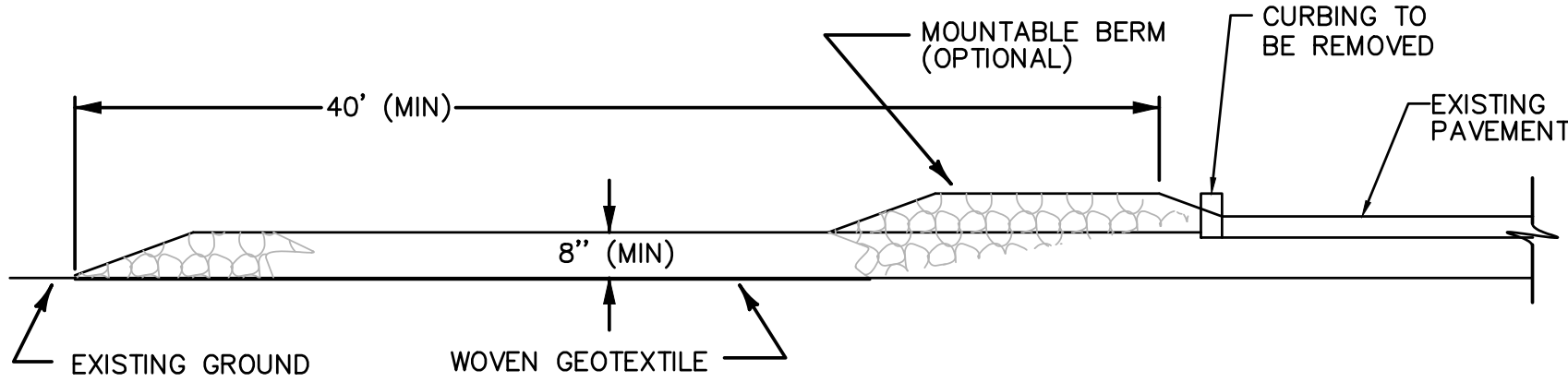
SHEET 11 OF 16



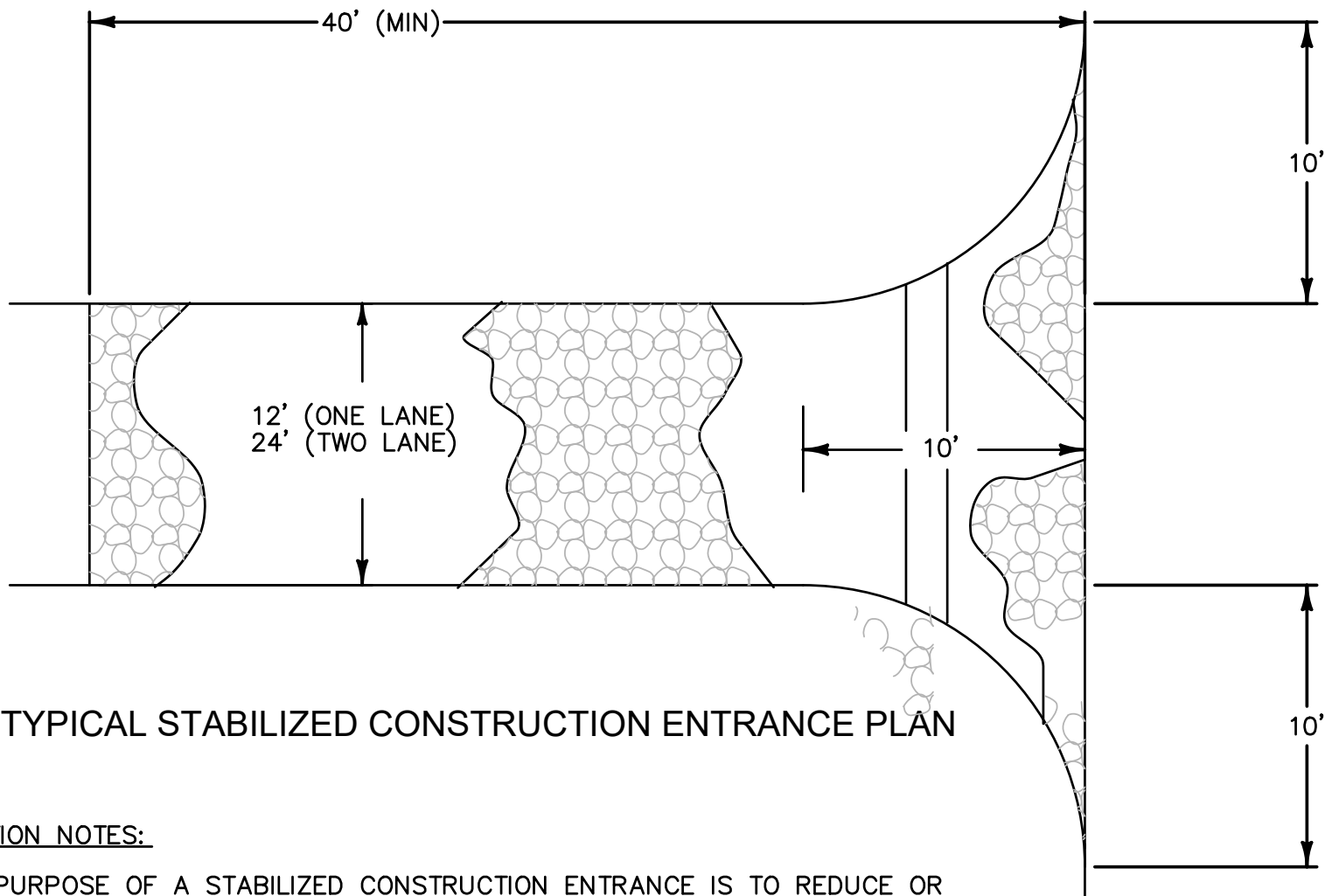
- NOTES:**
- MATting TO BE USED SHALL BE CURLEX® 01 MANUFACTURED BY AMERICAN EXCELSIOR COMPANY, OR APPROVED EQUAL
 - STAPLE PATTERNS ARE DEPENDENT ON SITE CONDITIONS.SEE CURLEX® STAPLE PATTERN GUIDE FOR DETAILS.

EROSION CONTROL MATTING SLOPE DETAIL

SCALE: NOT TO SCALE



TYPICAL CONSTRUCTION ENTRANCE PROFILE



TYPICAL STABILIZED CONSTRUCTION ENTRANCE PLAN

APPLICATION NOTES:

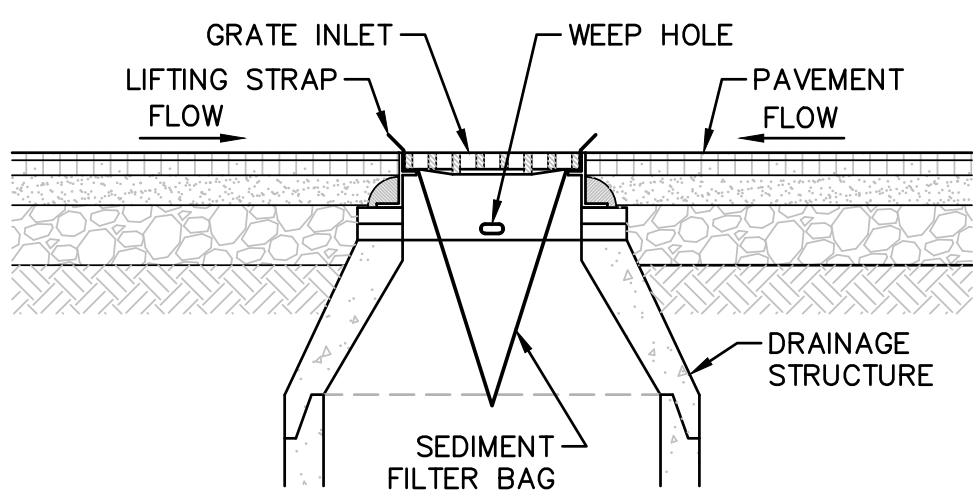
- THE PURPOSE OF A STABILIZED CONSTRUCTION ENTRANCE IS TO REDUCE OR ELIMINATE THE TRACKING OF SEDIMENT ONTO PUBLIC RIGHTS OF WAY OR STREETS.

GENERAL NOTES:

- STONE SIZE – USE CLEAN STONE WITH GRADATION BETWEEN 1 INCHES AND 4 INCHES.
- LENGTH – 40 FEET (MIN)
- THICKNESS – 18 INCHES (MIN)
- WIDTH – 12 FEET (MIN)
- GEOTEXTILE UNDER STONE WILL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING OF STONE.
- WHEN WASHING OF VEHICLE IS NECESSARY, IT SHALL BE DONE ON AN AREA STABILIZED WITH STONE WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.
- THE ENTRANCE SHALL BE INSPECTED EVERY SEVEN (7) CALENDAR DAYS AND WITHIN 24 HOURS OF A STORM EVENT.
- MAINTENANCE– THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. ALL SEDIMENT SPILLED, DROPPED, WASHED, OR TRACKED ONTO PUBLIC RIGHTS-OF-WAY MUST BE REMOVED IMMEDIATELY.
- AT THE TIME OF REMOVAL OF THE STABILIZED CONSTRUCTION ENTRANCE THE DISTURBED AREA SHALL BE REPAIRED AND STABILIZED.

CONSTRUCTION ENTRANCE DETAIL

SCALE: NOT TO SCALE

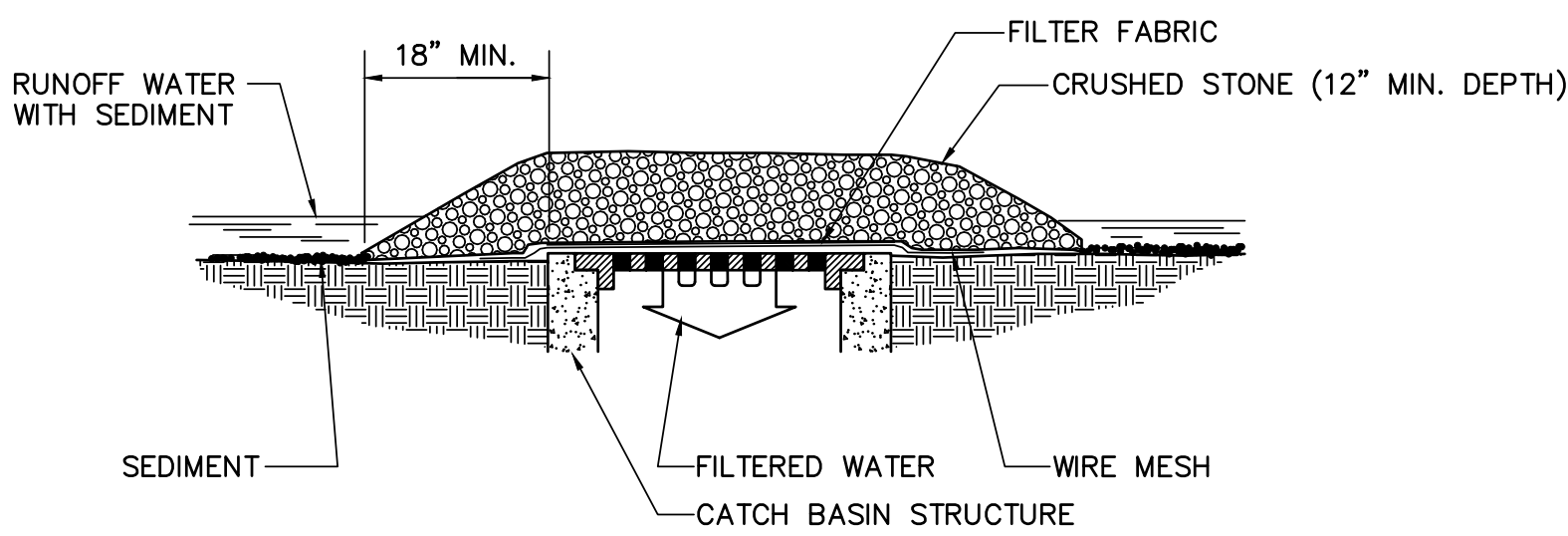


INLET PROTECTION NOTES:

- REMOVE DRAINAGE INLET GRATE AND PLACE SEDIMENT FILTER BAG AROUND THE FRAME, REPLACE GRATE AND SEDIMENT FILTER BAG IN POSITION OR FOLLOW MANUFACTURER'S RECOMMENDATIONS. LIFTING STRAPS SHALL BE EXPOSED AND READY FOR MAINTENANCE PROCEDURES.
- INSPECT SEDIMENT FILTER BAG WEEKLY AND AFTER EVERY RAINFALL EVENT.
- REPLACE, CLEAN OR REMOVE SEDIMENT FILTER BAG AS DIRECTED.
- INLET PROTECTION SHALL BE PROVIDED FOR ALL CATCHBASINS THAT WILL RECEIVE RUNOFF FROM DISTURBED AREAS.

SEDIMENTATION CONTROL AT CATCH BASIN

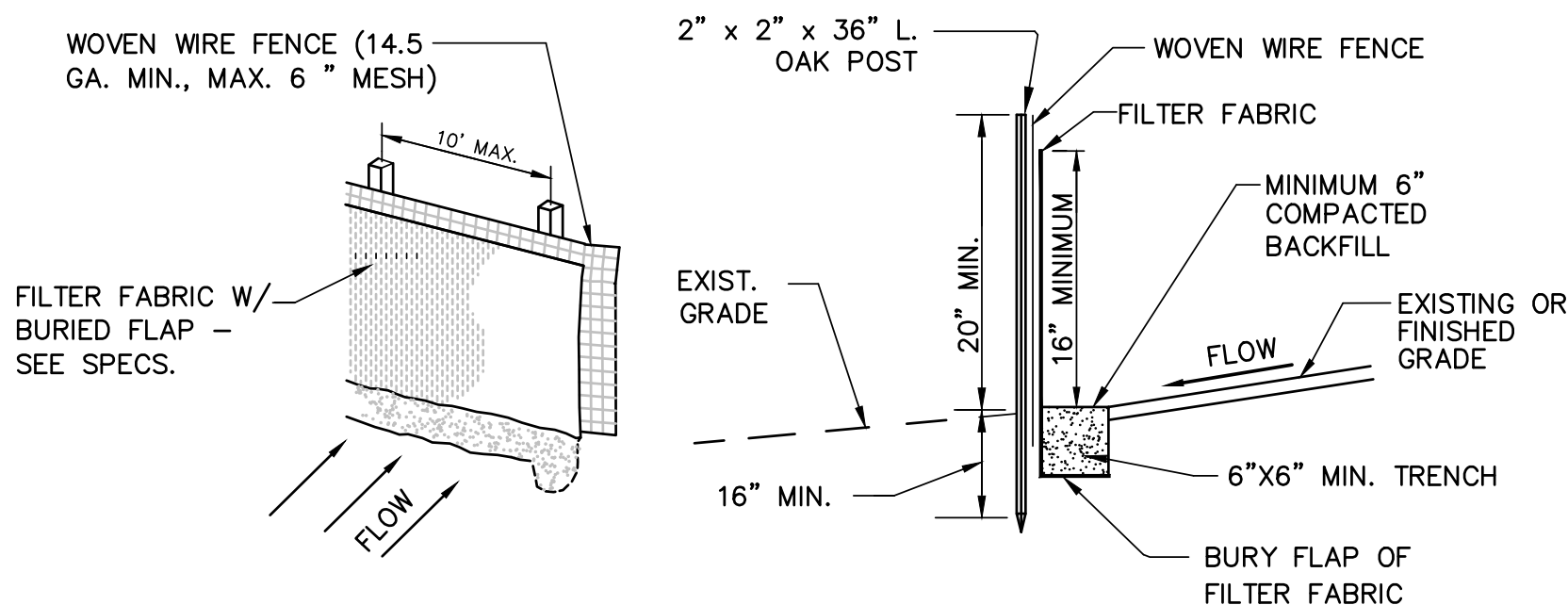
SCALE: NOT TO SCALE



- A WIRE MESH SHALL BE PLACED OVER THE DROP INLET OR CURB OPENING SO THAT THE ENTIRE OPENING AND A MINIMUM OF 12 INCHES AROUND THE OPENING ARE COVERED BY THE MESH. THE MESH MAY BE ORDINARY HARDWARE CLOTH OR WIRE MESH WITH OPENINGS UP TO 1/4 INCH.
- THE WIRE MESH SHALL BE COVERED WITH CLEAN COARSE AGGREGATE SUCH AS CRUSHED STONE FOR A MINIMUM DEPTH OF 12 INCHES. CRUSHED STONE SHALL BE BEDDING STONE FOR SEWERS (ASTM STONE SIZE NO. 67). SEE SPECIFICATIONS.
- THE COARSE AGGREGATE SHALL EXTEND AT LEAST 18 INCHES BEYOND ALL SIDES OF THE CATCH BASIN/DRAIN OPENING.
- THIS SEDIMENTATION CONTROL SHALL BE UTILIZED AT ALL CATCH BASINS ENCOUNTERED.

SEDIMENTATION CONTROL AT CATCH BASIN

SCALE: NOT TO SCALE



NOTES FOR SILT FENCE:

- SPACING OF WOOD FENCE POSTS NOT TO EXCEED 10'-0".
- SILT FENCE SHALL BE INSTALLED BEFORE ANY EARTH REMOVAL OR EXCAVATION TAKES PLACE
- WOVEN WIRE FENCE TO BE FASTENED SECURELY TO POSTS WITH WIRE TIES OR STAPLES AT TOP, MIDPOINT AND BOTTOM.
- FILTER FABRIC TO BE FASTENED SECURELY TO WOVEN WIRE FENCE.
- OVERLAP BY 6", FOLD AND STAPLE ADJOINING SECTIONS OF FILTER FABRIC.
- MAINTENANCE SHALL BE PERFORMED AS NEEDED, AND THE MATERIAL REMOVED WHEN "BULGES" DEVELOP. DO NOT DEPOSIT MATERIAL NEAR WETLANDS OR WATERCOURSES.
- FILTER FABRIC SHALL BE ENTRENCHED 6" MIN. BELOW EXISTING OR FINISHED GRADE.

SILT FENCE DETAIL

SCALE: NOT TO SCALE

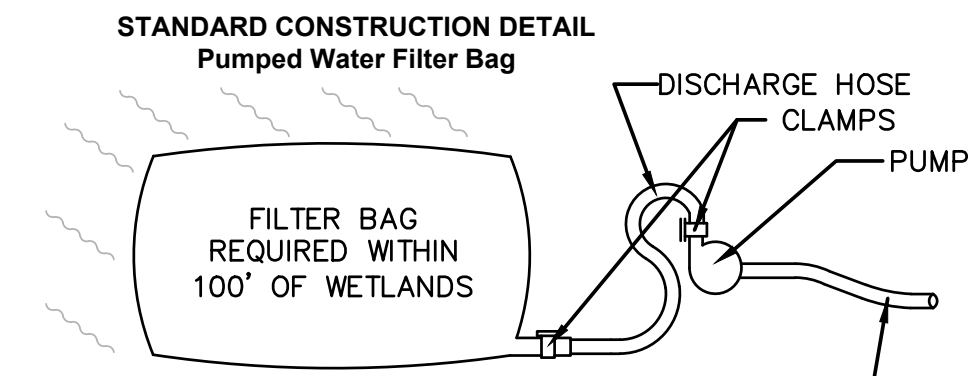
CONSTRUCTION DEWATERING NOTES:

- THE CONTRACTOR WILL PROVIDE DEWATERING EQUIPMENT (I.E. PUMPS, HOSES, ETC.,) CAPABLE OF CONTROLLING GROUNDWATER ENCOUNTERED IN THE EXCAVATIONS SUCH THAT ALL CAN BE PERFORMED "IN THE DRY." SEE SPECIAL PROVISION SPECIFICATION SECTION 900.645-02140 (DEWATERING).
- AS NEEDED, CONSTRUCTION DEWATERING DISCHARGED TO THE SUBSURFACE OR TO SURFACE WATER BODY/DRAINAGE SYSTEM SHALL BE PRETREATED FOR SEDIMENT REMOVAL BY RESIDING IN A FILTER BAG OR FRACTIONATION/SEDIMENTATION TANK PRIOR TO DISCHARGE. UNDER NO CIRCUMSTANCES IS WATER FROM THE SEDIMENTATION TANK TO BE DISCHARGED DIRECTLY TO A WETLAND RESOURCE AREA. WATER FROM THE SEDIMENTATION TANK MUST BE DISCHARGED THROUGH A CATCH BASIN WITH AN ADEQUATE AND FUNCTIONING SUMP OR THROUGH A SEDIMENTATION TRAP PRIOR TO ENTERING A WETLAND RESOURCE AREA OR RECEIVING WATER. THE OUTLET MUST BE INSPECTED DURING OPERATION TO CONFIRM THAT SEDIMENT IS NOT BEING DISCHARGED TO A WETLAND RESOURCE AREA.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING PROPER PERMITTING FOR CONSTRUCTION DEWATERING ACTIVITIES.

EROSION CONTROL NOTES:

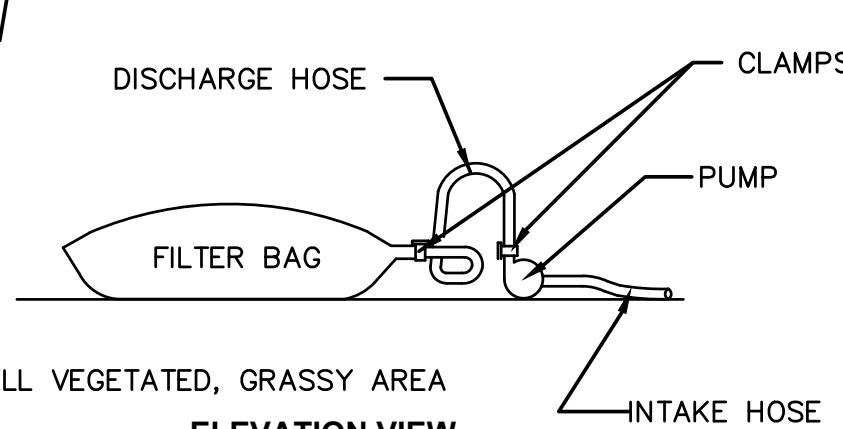
- ALL DRAINAGE OUTLETS SHALL BE LOCATED AND CONTRACTOR SHALL BE RESPONSIBLE FOR ALL APPROPRIATE EROSION PREVENTION AND SEDIMENT CONTROL MEASURES INSTALLED AS REQUIRED PRIOR TO CONSTRUCTION. CONTRACTOR SHALL SUBMIT A NOTICE OF INTENT (NOI) AND AN EROSION PREVENTION AND SEDIMENTATION CONTROL PLAN PRIOR TO BEGINNING OF WORK. ALL DEWATERING AND OPERATIONS SHALL CONFORM TO ALL APPROPRIATE AGENCY REGULATIONS. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL REQUIRED DISCHARGE SAMPLING AND TESTING AND SHALL BE INCIDENTAL TO THE DEWATERING OPERATIONS.
- THE CONTRACTOR SHALL TAKE ALL PRECAUTIONS NECESSARY TO PROVIDE EROSION PREVENTION AND SEDIMENT CONTROL.
- THE CONTRACTOR SHALL FULLY COMPLY WITH ALL LOCAL AND STATE REGULATIONS.
- THE CONTRACTOR SHALL FURNISH, INSTALL AND PERFORM ALL NECESSARY REQUIREMENTS TO COMPLY WITH THE VERMONT STANDARDS AND SPECIFICATIONS FOR EROSION PREVENTION AND SEDIMENT CONTROL AND THESE PLANS AND SPECIFICATIONS. THE MORE STRINGENT SHALL APPLY.
- THE CONTRACTOR SHALL PHASE CONSTRUCTION ACTIVITIES TO MINIMIZE THE TIME THAT SOIL IS LEFT DISTURBED.
- PROPERLY ENTRENCHED SILTATION FENCE SHALL BE INSTALLED IMMEDIATELY OUTSIDE OF THE PAVEMENT OR AS SHOWN ON THE PLANS.
- SILT FENCE INSTALLATIONS SHALL BE INSPECTED FOR THE FOLLOWING:
 - VISIBLE DAMAGE TO SILT FENCE INSTALLATIONS.
 - SEDIMENT ACCUMULATION: SEDIMENT REMOVAL SHALL OCCUR WHEN SEDIMENT HAS ACCUMULATED TO NO MORE THAN ONE THIRD THE HEIGHT OF THE FENCE.
 - SIGNS OF CHANNEL OR GULLY EROSION FORMATION PARALLEL TO THE FENCE.
 - SIGNS OF DETERIORATED OR CLOGGED GEOTEXTILE; REPLACE AS NEEDED.
 - SIGNS OF UNDER CUTTING OR PIPING.
 - STAKES SHALL BE SECURED TO THE GROUND.
- INSPECTIONS OF THE PROJECT SITE AND ALL EROSION CONTROL BARRIERS BY THE CONTRACTOR SHALL OCCUR DAILY AND AFTER EVERY SIGNIFICANT PRECIPITATION EVENT (EXCEEDING 1/2-INCH PRECIPITATION).
- IN ADDITION LIME SHALL BE ADDED TO THE TOPSOIL IN AMOUNTS AS NECESSARY TO ACHIEVE THE REQUIRED PH AS SPECIFIED.
- SHOULD SEASONAL LIMITATIONS MAKE ESTABLISHMENT OF GRASS ON AREAS TOPSOILED, SEEDED, AND MULCHED UNREALISTIC, SUCH AREAS SHALL BE TREATED WITH BONDED FIBER MULCH.
- ALL AREAS DISTURBED SHALL BE STABILIZED WITHIN 45 DAYS OF INITIAL DISTURBANCE.
- ALL CUT & FILL SLOPES SHALL BE LOAMED AND SEEDED WITHIN 72 HOURS OF ESTABLISHING FINISHED GRADE.
- IF THE PROJECT CONTINUES INTO THE WINTER THE FOLLOWING CRITERIA SHALL BE MET:

- ALL PROPOSED VEGETATED AREAS WHICH DO NOT EXHIBIT A MINIMUM OF 85% VEGETATIVE GROWTH BY OCTOBER 15TH, OR WHICH ARE DISTURBED AFTER OCTOBER 15TH, SHALL BE STABILIZED BY SEEING AND INSTALLING EROSION CONTROL BLANKETS ON SLOPES STEEPER THAN 3:1, AND SEEING AND PLACING 3 TO 4 TONS OF MULCH PER ACRE, SECURED WITH ANCHORED NETTING, ELSEWHERE. THE INSTALLATION OF EROSION CONTROL BLANKETS OR MULCH AND NETTING SHALL NOT OCCUR OVER ACCUMULATED SNOW OR ON FROZEN GROUND AND SHALL BE COMPLETED IN ADVANCE OF THAW OR SPRING MELT EVENTS.
- ALL DITCHES OR SWALES WHICH DO NOT EXHIBIT A MINIMUM OF 85% VEGETATIVE GROWTH BY OCTOBER 15TH, OR WHICH ARE DISTURBED AFTER OCTOBER 15TH, SHALL BE STABILIZED TEMPORARILY WITH STONE OR EROSION CONTROL BLANKETS APPROPRIATE FOR THE DESIGN FLOW CONDITIONS.



PLAN VIEW

100% DESIGN
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ELEVATION VIEW

FILTER BAG DISCHARGE DETAIL

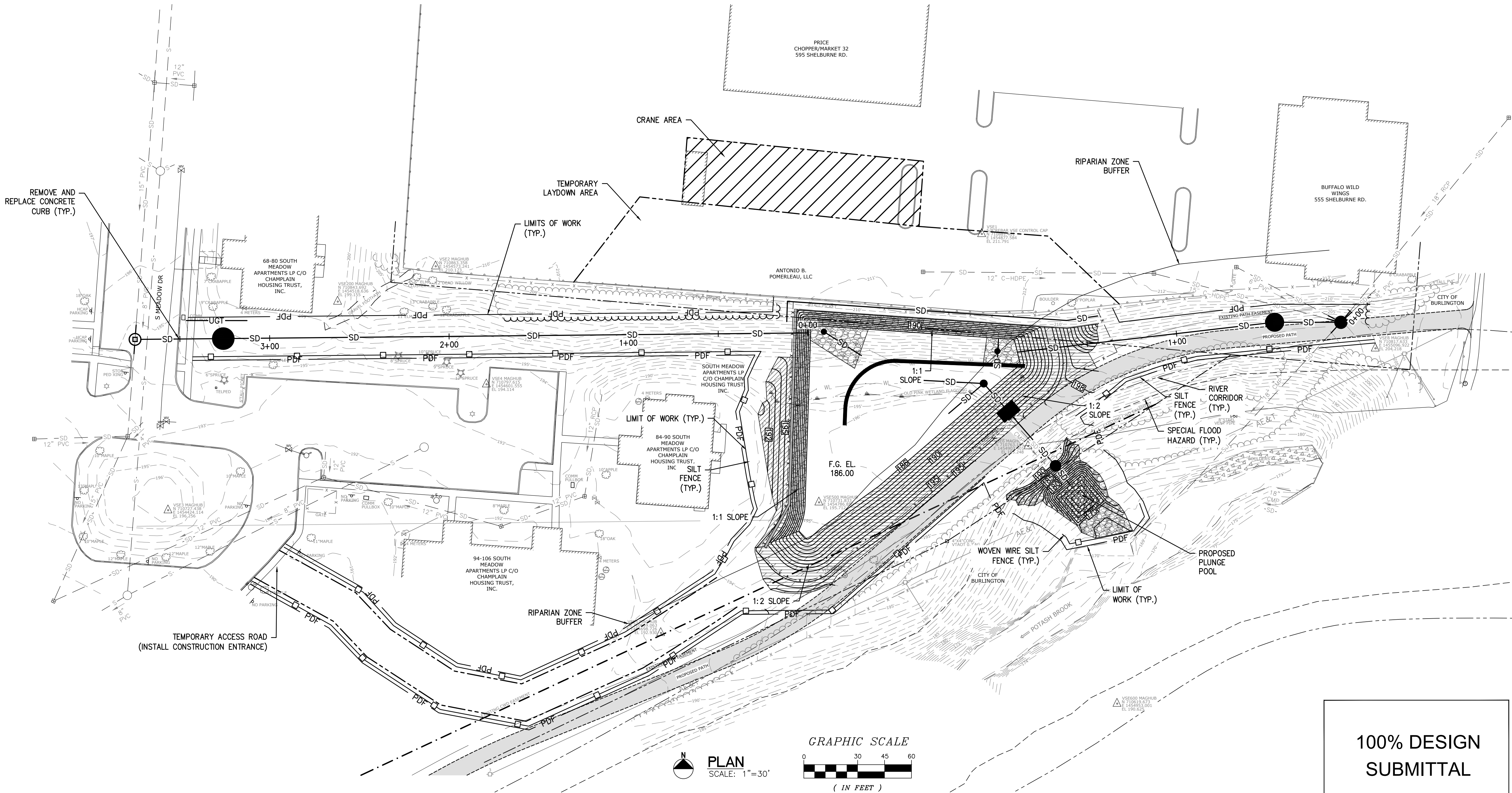
SCALE: NOT TO SCALE

		DATE	
		REVISION DESCRIPTION	
		REV.	
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		DRAWN BY	TGB
		DESIGNED BY	APS
		DATE:	JANUARY 5, 2024
		SCALE:	AS SHOWN
APPLICANT		PROJECT	
POMERLEAU AND CHITTENDEN HOUSING TRUST		POMERLEAU / CHT 3-ACRE STORMWATER MANAGEMENT PROJECT 84 SOUTH MEADOW DRIVE BURLINGTON, VT 05401	
		EROSION AND SEDIMENT CONTROL DETAILS	
		C2.5	
		PROJECT NO. 120006	
		SHEET 12 OF 16	

EROSION CONTROL NOTES:

1. CONTRACTOR SHALL REMOVE ALL TREES, BRUSH, AND STUMPS WITHIN THE LIMITS OF CLEARING. PAYMENT FOR CLEARING AND GRUBBING SHALL BE UNDER PAY ITEM 201.10.
2. CONTRACTOR SHALL CONFINE CONSTRUCTION ACTIVITIES TO AREAS OWNED BY THE PROPERTY OWNER(S) AND AS SHOWN ON THE DRAWINGS.
3. WHERE ADJACENT GROUND OUTSIDE OF THE LIMITS OF WORK IS DISTURBED OR DAMAGED DUE TO CONSTRUCTION ACTIVITIES, CONTRACTOR SHALL RESTORE TO ORIGINAL STATE, INCLUDING, BUT NOT LIMITED TO SIDEWALKS, PAVEMENT, GRASS AND LANDSCAPING, AT NO ADDITIONAL COST TO THE OWNER.
4. ALL SLOPES 1:2 OR GREATER SHALL BE ARMORED WITH 18" OF 9" STONE RIP-RAP FILL (PAID AS ITEM 900.608 SPECIAL PROVISION (9" STONE)) OVER GEOTEXTILE UNDER STONE FILL (ITEM 649.31)
5. CONTRACTOR SHALL BE RESPONSIBLE FOR THE DIVERSION OF STORMWATER FLOWS AND
6. TOPSOIL AND SEED ALL EARTH SLOPES AS SOON AS POSSIBLE. STABILIZE OUTFALL AREAS WITH REQUIRED EROSION CONTROL.
7. REMOVE ACCUMULATED SEDIMENT FROM BMP AT COMPLETION OF PROJECT (SUBSIDIARY).
8. SEEDING INSIDE GRAVEL WETLAND FACILITY SHALL BE AS PER THE REQUIREMENTS OF SPECIFICATION SPECIAL PROVISION 900.645 (GRAVEL WETLAND FACILITY).
9. ALL DISTURBED AREAS NOT OTHERWISE DESIGNATED, SHALL BE TILLED, TOPSOILED AND SEEDED WITH VERMONT CONSERVATION MIX (80 LBS PER ACRE APPLICATION RATE) IN ACCORDANCE WITH SECTION 651. SEE SOIL AND SEEDING NOTES ON DWG NO. G-0.2
10. STRAW MULCH AS PER NOTES ON G-0.2.

BYPASSING EXISTING POND DURING CONSTRUCTION UNTIL NEW GRAVEL WETLAND IS COMPLETE AND READY TO ACCEPT FLOW. (SUBSIDIARY)



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APPLICANT
POWERLEAU AND CHITTENDEN HOUSING TRUST
PROJECT
POWERLEAU / CHT 3-ACRE STORMWATER
MANAGEMENT PROJECT
84 SOUTH MEADOW DRIVE
BURLINGTON, VT 05401

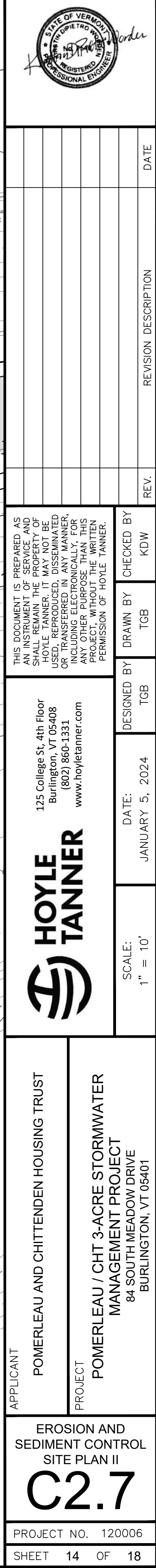
EROSION AND
SEDIMENT CONTROL
PLAN I

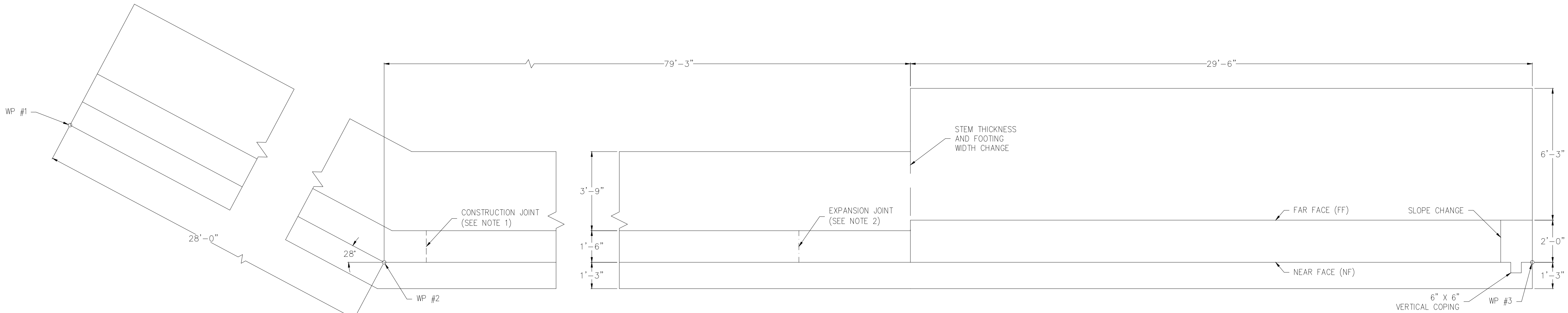
C2.6

PROJECT NO. 120006

SHEET 13 OF 18

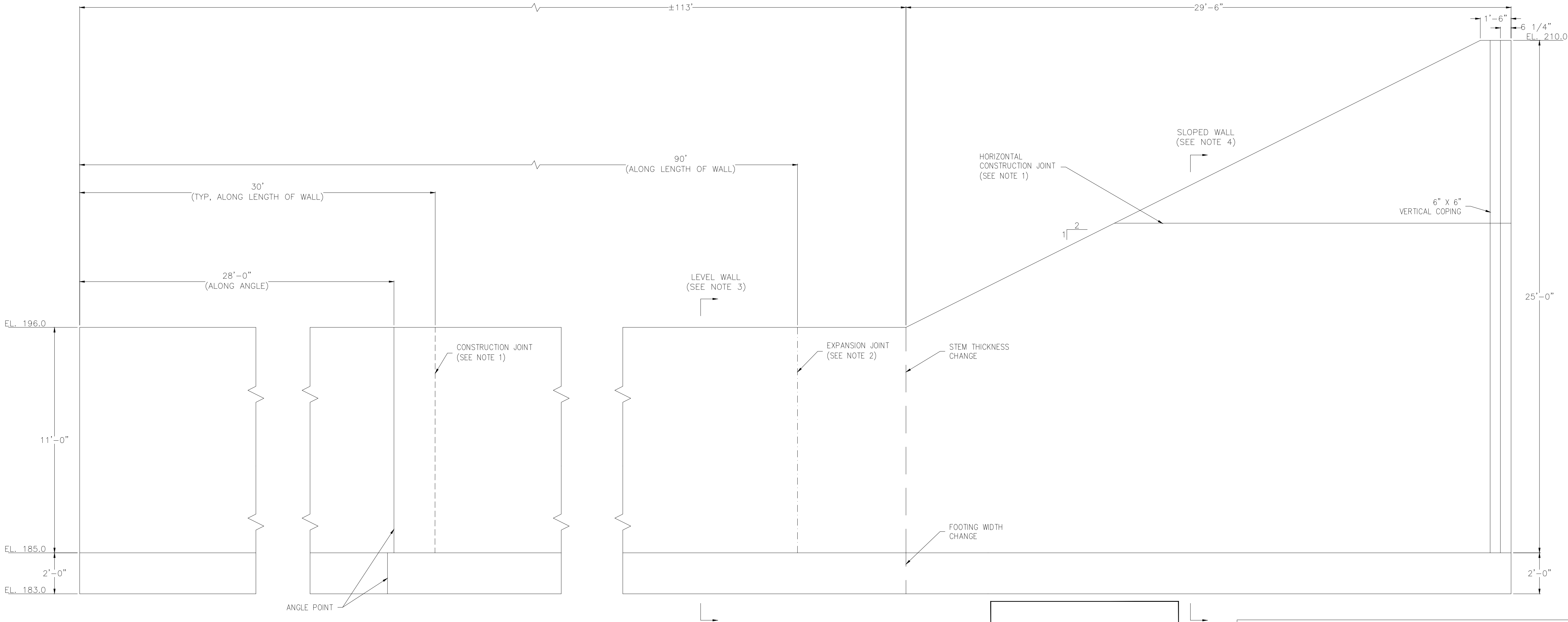
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5. CONTRACTOR SHALL BE RESPONSIBLE FOR THE DIVERSION OF STORMWATER FLOWS AND BYPASSING EXISTING POND DURING CONSTRUCTION UNTIL NEW GRAVEL WETLAND IS COMPLETE AND READY TO ACCEPT FLOW. (SUBSIDIARY)
6. TOPSOIL AND SEED ALL EARTH SLOPES AS SOON AS POSSIBLE. STABILIZE OUTFALL AREAS WITH REQUIRED EROSION CONTROL.
7. REMOVE ACCUMULATED SEDIMENT FROM BMP AT COMPLETION OF PROJECT (SUBSIDIARY).
8. SEEDING INSIDE GRAVEL WETLAND FACILITY SHALL BE AS PER THE REQUIREMENTS OF SPECIFICATION SPECIAL PROVISION 900.645 (GRAVEL WETLAND FACILITY).
9. ALL DISTURBED AREAS NOT OTHERWISE DESIGNATED, SHALL BE TILLED, TOPSOILED AND SEEDED WITH VERMONT CONSERVATION MIX (80 LBS PER ACRE APPLICATION RATE) IN ACCORDANCE WITH SECTION 651. SEE SOIL AND SEEDING NOTES ON DWG NO. G-02
10. STRAW MULCH AS PER NOTES ON G-02.





RETAINING WALL PLAN

SCALE: $\frac{3}{8}$ " = 1'-0"



NOTES:

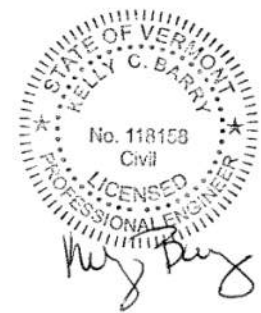
1. SEE CONSTRUCTION JOINT DETAILS. CONTRACTOR TO DETERMINE LOCATION OF HORIZONTAL CONSTRUCTION JOINT. VTRANS STANDARD S-500.
2. SEE VERTICAL EXPANSION JOINT DETAIL. VTRANS STANDARD S-500..
3. SEE LEVEL WALL SECTION DETAILS ON SHEET S-1.2.
4. SEE SLOPED WALL SECTION DETAILS ON SHEET S-1.3.

RETAINING WALL ELEVATION

100% DESIGN
SUBMITTAL

WORKING POINTS

WORKING POINT	NORTHING	EASTING
WP #1	710706.2796	1454757.3920
WP #2	710730.7200	1454771.0636
WP #3	710839.4690	1454774.5810



REV.	REVISION DESCRIPTION	DATE

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DATE:
JANUARY 5, 2024

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KCB

CITY OF BURLINGTON
149 CHURCH STREET
BURLINGTON, VT 05401

PROJECT
CCRPC POMERLEAU/CHT 3-ACRE SW
MANAGEMENT
84 SOUTH MEADOW DRIVE
BURLINGTON, VT 05401

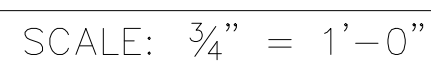
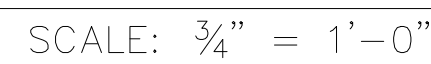
APPLICANT

PLAN & ELEVATION

S1.1

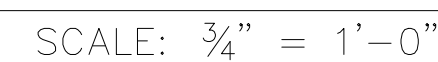
PROJECT NO. 120006

SHEET 15 OF 18

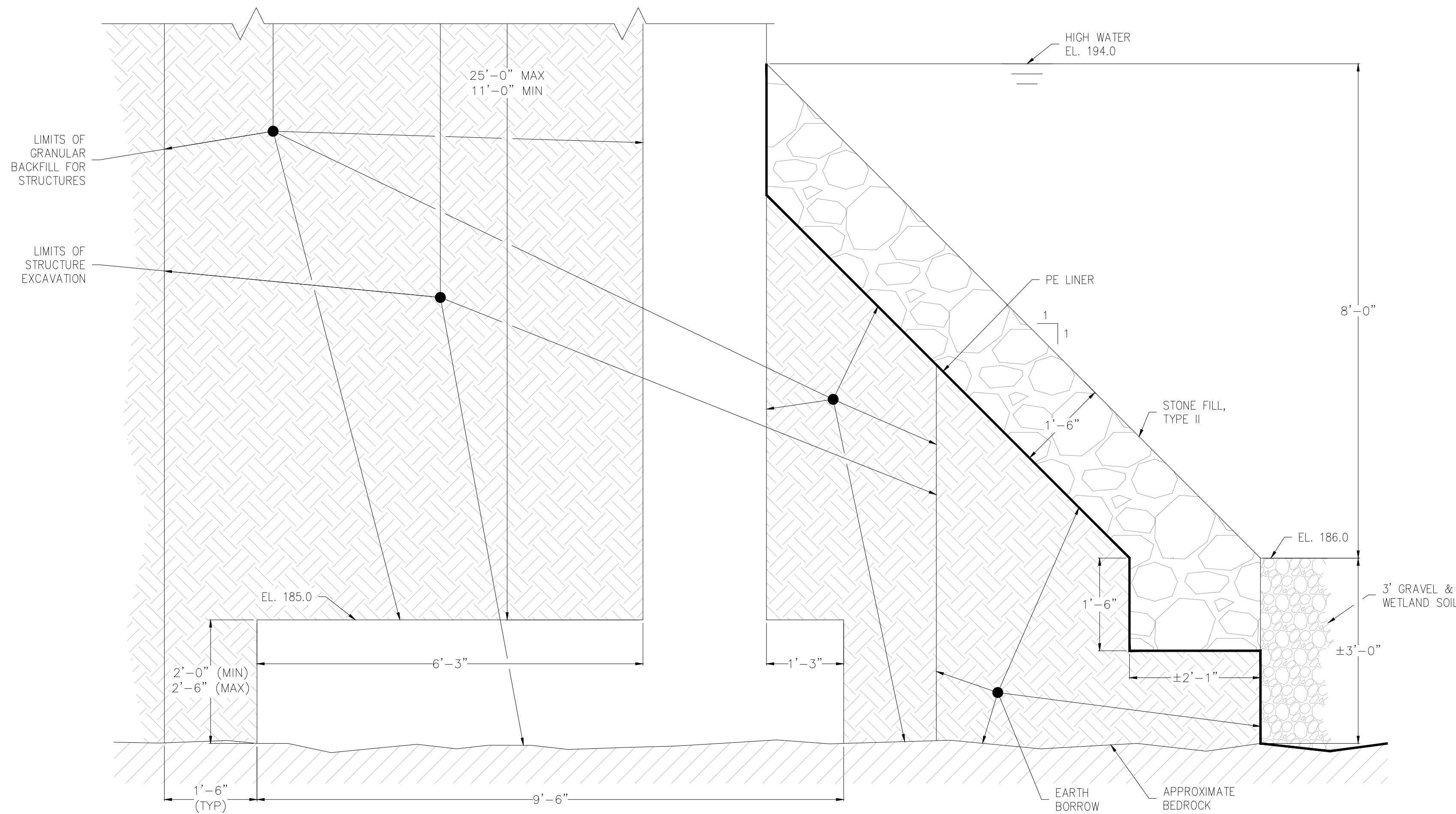
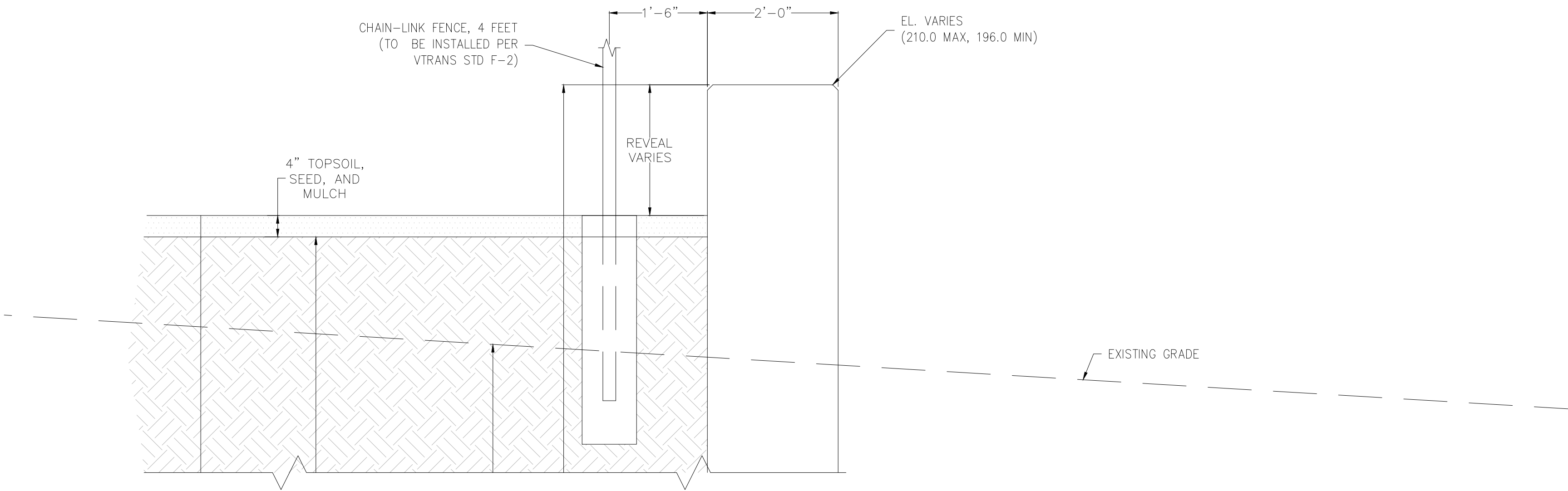


SEE SHEET S-0.1 STRUCTURAL NOTES AND DRAWING INDEX
FOR CONCRETE SUBFOOTING NOTES FOR AREAS WHERE
BEDROCK IS MORE THAN 6" BELOW FOOTING ELEVATIONS
SHOWN ON SHEETS S-1.1 PLAN AND ELEVATION.

NOTE:
 NF = NEAR FACE
 FF = FAR FACE
 EF = EACH FACE
 ▲ = CUT TO FIT IN FIELD
 3" CLEAR, UNLESS OTHERWISE
 SPECIFIED ON THE PLANS.
 2" - 9" BAR LAP UNLESS OTHERWISE
 SPECIFIED ON THE PLANS.



SHEET 16 OF 18

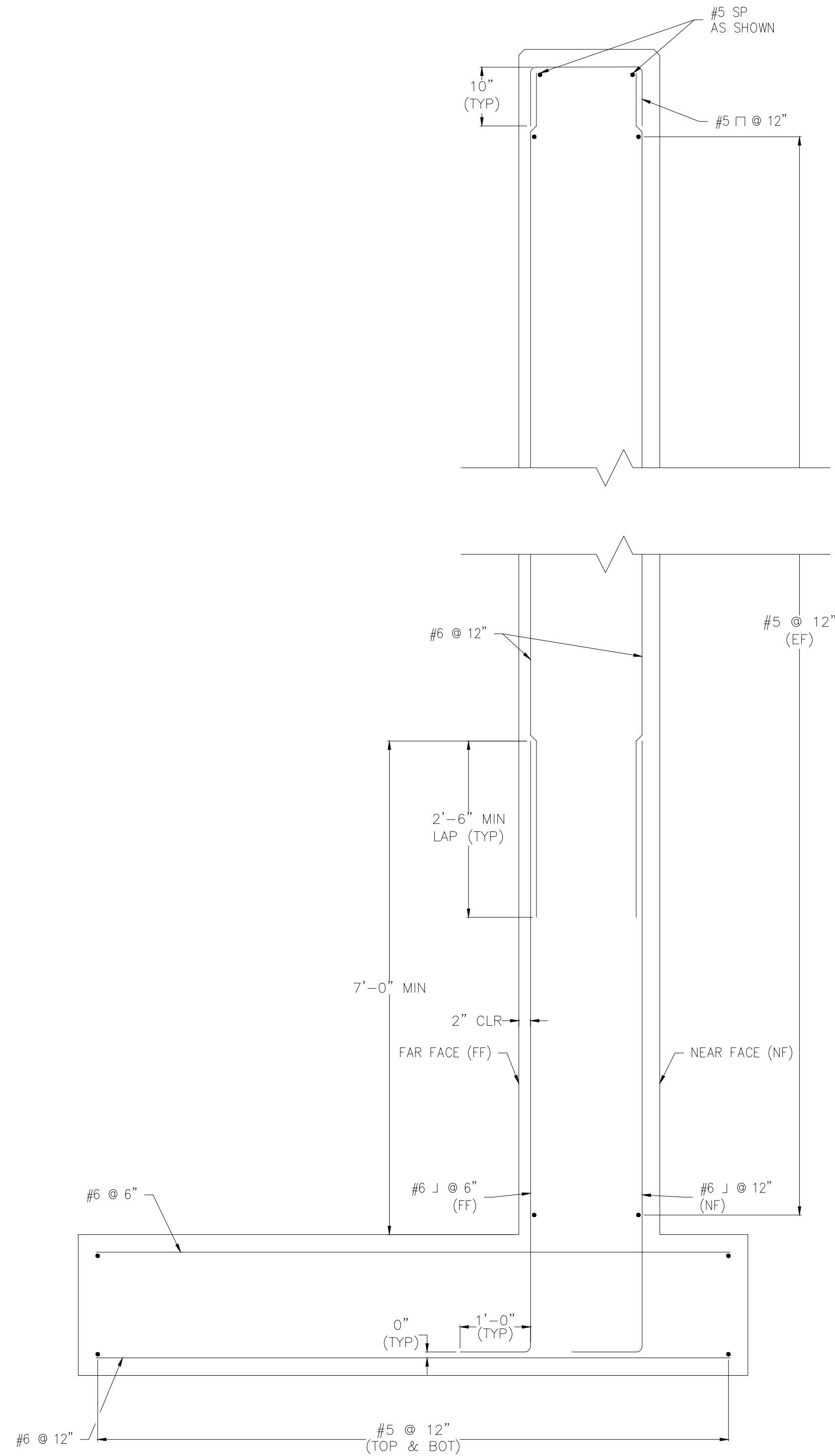


NOTE:
SEE S-1.4 MSE WALL DETAILS FOR EXCAVATION AND BACKFILL DETAILS FOR MSE WALL. ALL EXCAVATION AND BACKFILL ASSOCIATED WITH THE MSE WALL IS INCIDENTAL TO ITEM 900.670 "SPECIAL PROVISION (MECHANICALLY STABILIZED EARTH RETAINING WALL)", EXCEPT WHERE STRUCTURE EXCAVATION LIMITS AT SLOPED WALL CONFLICT. IN THAT LOCATION, STRUCTURE EXCAVATION TO THE LIMITS SHOWN ON THIS SHEET SHALL BE PAID.

SLOPED WALL SECTION

SCALE: $\frac{3}{4}$ " = 1'-0"

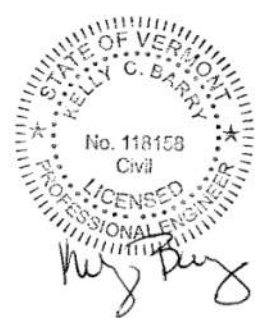
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SLOPED WALL REINFORCEMENT

SCALE: $\frac{3}{4}$ " = 1'-0"

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APPLICANT
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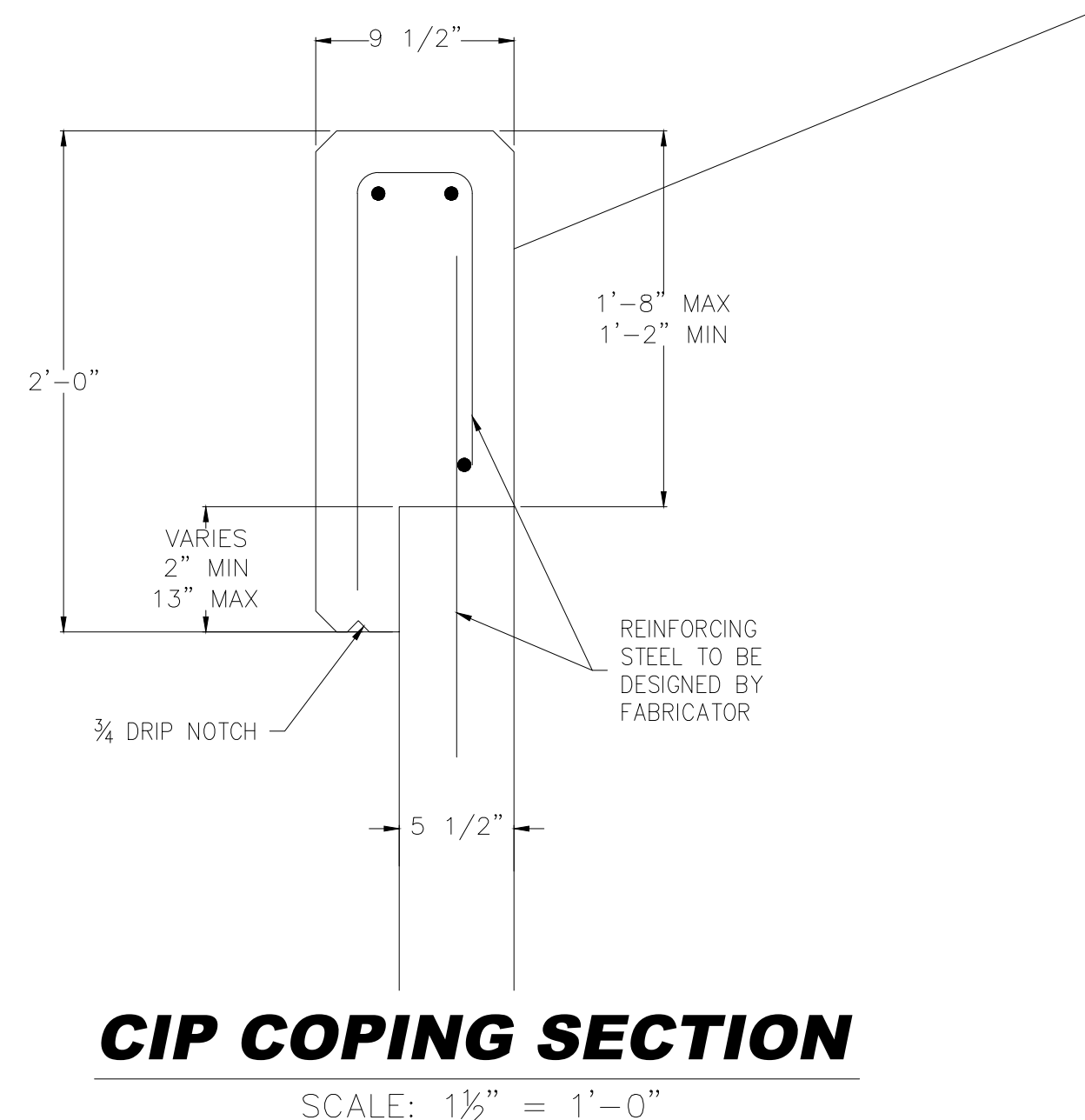
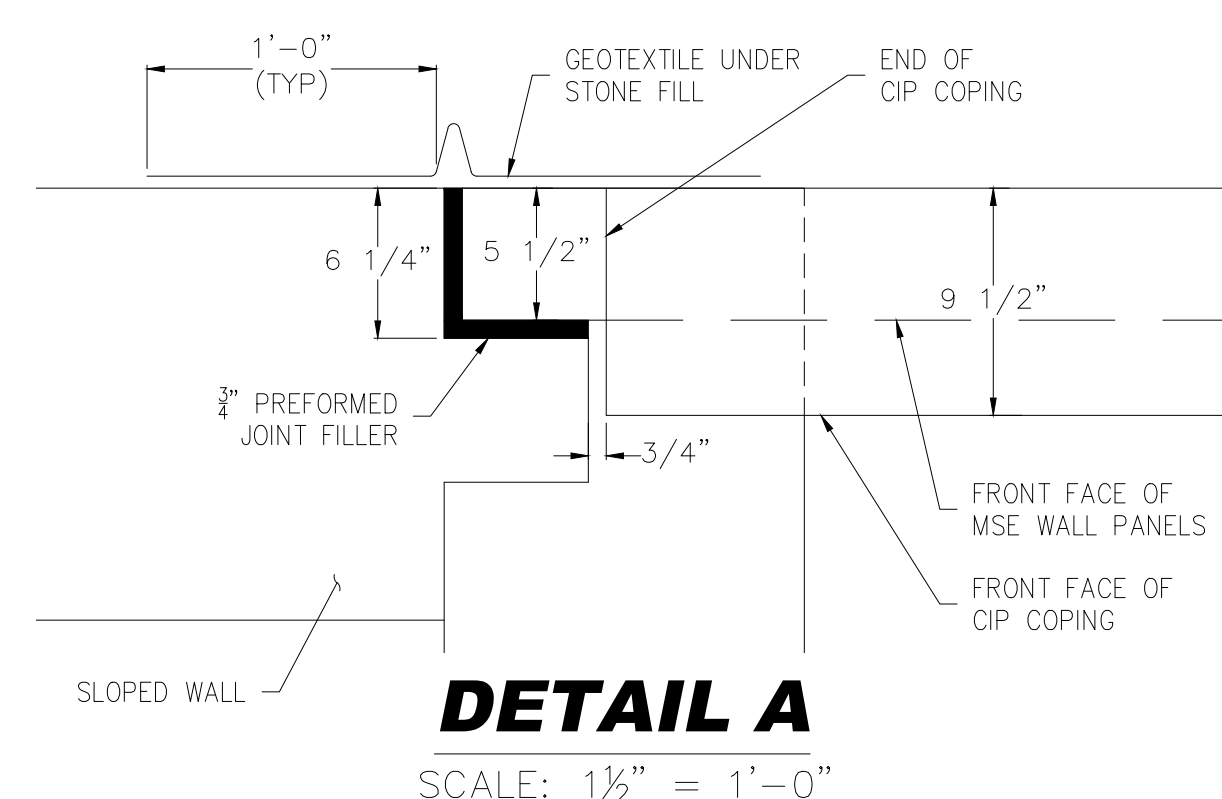
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MANAGEMENT
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SLOPED WALL DETAILS

S1.3

PROJECT NO. 120006

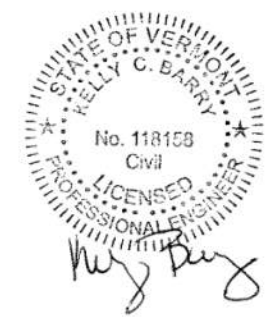
SHEET 17 OF 18



WORKING POINTS		
WORKING POINT	NORTHING	EASTING
WP #4	710839.0056	1454774.6284
WP #5	710828.7016	1454924.9646
WP #6	710831.2940	1454942.7805

- ## NOTES:
1. GEOTEXTILE UNDER STONE FILL SHALL BE ADHERED TO THE BACK FACE OF MSE WALL PANELS AND RETAINING WALL. PAYMENT WILL BE MADE UNDER ITEM 900.670, "SPECIAL PROVISION (MECHANICALLY STABILIZED EARTH RETAINING WALL)."
 2. ALL EXCAVATION AND BACKFILL ASSOCIATED WITH THE MSE WALL IS INCIDENTAL TO ITEM 900.670, "SPECIAL PROVISION (MECHANICALLY STABILIZED EARTH RETAINING WALL)," EXCEPT WHERE STRUCTURE EXCAVATION LIMITS AT SLOPED WALL CONFLICT. IN THAT LOCATION, STRUCTURE EXCAVATION TO THE LIMITS SHOWN ON SHEET S-1.3 SLOPED WALL DETAILS SHALL BE PAID.
 3. IN LOCATIONS WHERE SLOPED WALL FOOTING CONFLICTS WITH MSE WALL, MSE WALL SHALL BE STEPPED UP TO CLEAR THE SLOPED WALL FOOTING. 2" OF PREFORMED JOINT FILLER SHALL BE INSTALLED VERTICALLY AND HORIZONTALLY BETWEEN MSE WALL LEVELING PAD AND SLOPED WALL FOOTING. 3/4" OF PREFORMED JOINT FILLER SHALL BE INSTALLED BETWEEN THE VERTICAL FACED OF THE SLOPED WALL AND MSE WALL.
 4. MAINTAIN A 1% SLOPE MINIMUM FOR 6" UNDERDRAIN PIPE.
 5. MINIMUM STRIP LENGTH EQUAL TO 0.7 TIMES THE HEIGHT OF EXPOSED WALL.

100% DESIGN SUBMITTAL

[illegible]

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MANAGEMENT
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BURLINGTON, VT 05401

MSE WALL DETAILS

S1.4

PROJECT NO. 120006

SHEET 18 OF 18

Memorandum



To: Conservation Board, Burlington, VT

From: Watershed Consulting

Date: June 26, 2024

Re: ***Conservation Board Project Approval - 555 Shelburne Rd Stormwater Project***

ATTACHMENTS:

A - 555 Shelburne Road - Wetlands Memo

B - 555 Shelburne Road - Wetlands and Potash Buffer Plan

C - 555 Shelburne Road - Erosion and Sediment Control Plans

D - 555 Shelburne Road - Outfall Redesign Plan

Conservation Board Members,

Approval is requested for construction of a stormwater best management practice, a gravel wetland, referred to as the "555 Shelburne Rd Stormwater Project". This project is a Public-Private Partnership (P3) located in the stormwater impaired watershed of Potash Brook and involving Pomerleau Real Estate, the Champlain Housing Trust, and supported by the Chittenden County Regional Planning Commission. The Burlington Stormwater Department has been involved in the development of and is supportive of this project as it meets several of the City's water quality goals including Phosphorus reduction and compliance with the Potash Brook Flow Restoration Plan.

A large gravel wetland is proposed to collect stormwater runoff from 16.26 impervious acres, including the entirety of the runoff generated by the 555 Shelburne Road shopping plaza, and over half of the impervious from the Champlain Housing Trust (CHT) South Meadow apartments. It is located on property owned by CHT and outfalls to Potash Brook on City of Burlington property. The practice will provide water quality treatment for the full water quality volume (WQv) or the first inch of rainfall and detain and slowly release the channel protection volume (1-year storm event or 1.98 inches). The practice is estimated to remove 9.94 kg of Phosphorus annually.

There were no significant wetlands identified in the project location. There was one Class III non-jurisdictional wetland that was delineated, but this wetland was determined to have no significant wetland function. See Attachment A for a memo describing the wetlands evaluation completed by Gilman & Briggs Environmental. The location of the Class III wetland can be found in the attached plan (Attachment B). In addition, a 100 ft buffer from Potash Brook is included on the plan in Attachment B.

The project meets the Criteria for Review, A through O. The proposed gravel wetland is located in the only available location and will not impact any significant or jurisdictional wetlands. It will have no adverse impacts to fisheries or wildlife habitat. It provides water quality benefits, detains and slowly releases the

one-year storm event providing storage for stormwater, and has appropriate erosion and sediment controls in place. See Attachment C for the Erosion and Sediment Control Plan. Note that the design of the outfall stabilization was revised to improve constructability from the design provided in the Erosion and Sediment Control Plan. This redesign does not increase the area of disturbance and can be found in Attachment D.

Please let us know if any additional information is needed for approval via phone (802-497-2367) or email (andres@watershedca.com or kerrie@watershedca.com).

Sincerely,



Andres Torizzo
Principal



Kerrie Garvey
GIS Program Manager

Gilman & Briggs Environmental

1 Conti Circle, #5, Barre, VT 05641

Ph: 802-479-7480; team@gbvt.com

MEMORANDUM

To: Andres Torizzo, Watershed Consulting Associates

From: Patricia Greene-Swift

Date: October 13, 2022

Re: Wetland evaluation and search, south of the Price Chopper parking lot, South Burlington

Introduction:

On October 11th, 2022, I visited the area south of the Price Chopper parking lot in South Burlington planned for the installation of a new stormwater system with Andres Torizzo of Watershed Consulting Associates. The site visit involved walking all areas where there may be wetlands of concern.

The following potential wetland locations were evaluated and discussed on site:

A stormwater retention swale, located immediately north of 86 South Meadow Drive, south of the Price Chopper parking lot, is a manmade feature and not a wetland. Further, it is not contiguous to a wetland or stream. It serves its purpose being a small manmade stormwater swale providing stormwater infiltration for the surrounding housing development.

The proposed location of the stormwater outlet, along the slope down to Potash Brook was examined and was found to be upland. The plants were upland species – mostly raspberry (*Rubus idaeus*), the soil was a bright hue with no redoximorphic features present, and the hydrology was a slumped bank that had formed a concave depression along the slope with no other form of hydrology present. This area had no wetland present.

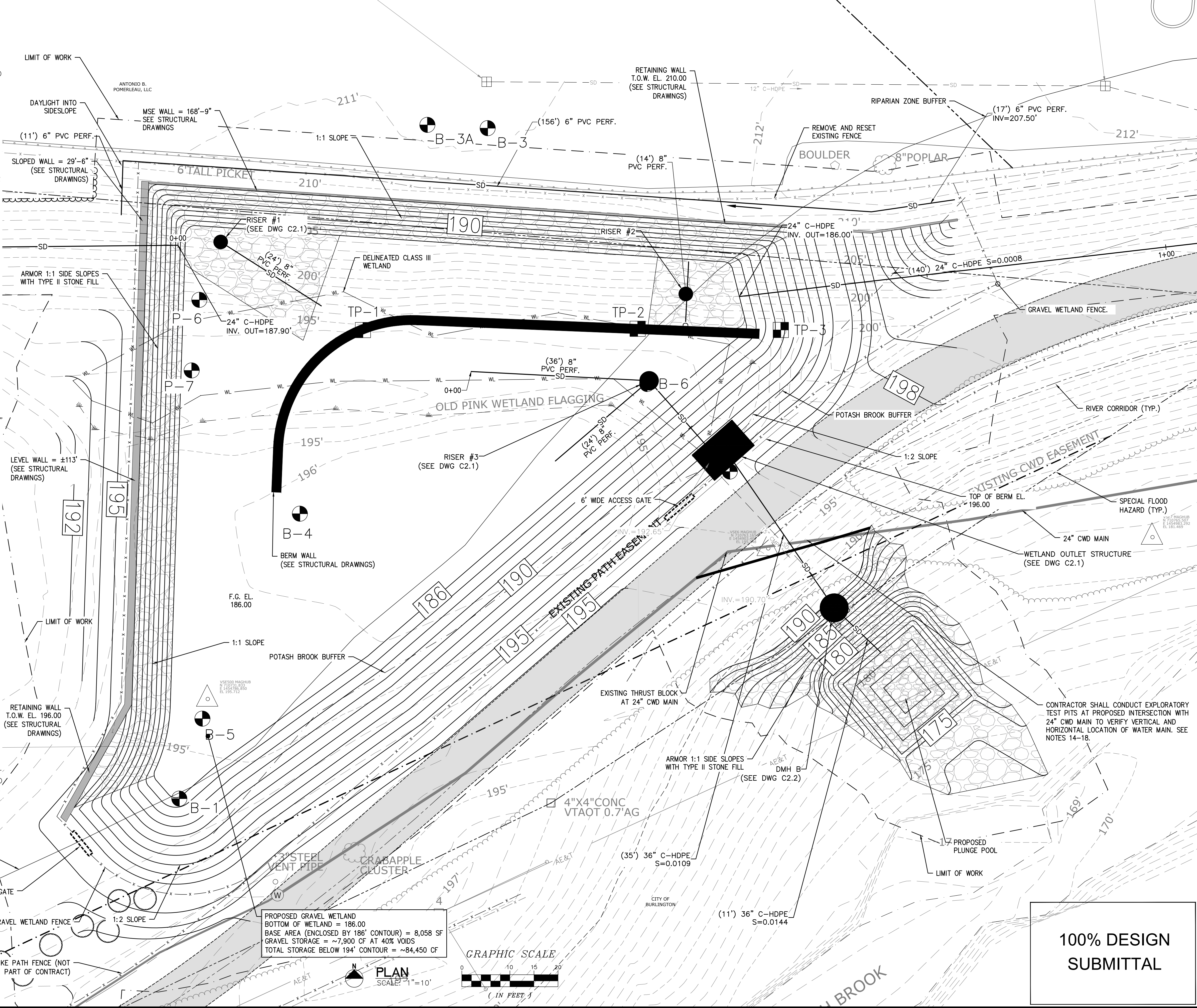
Another potential wetland location, where April Moulaert had delineated a wetland that was determined by the state of Vermont to be a small class 3 wetland, is a Vermont non-jurisdictional wetland due to its lack of wetland functions. This small wetland is in the northwest corner of the project. Depending upon the size of the wetland, the Army Corps may not require a Notice of Intent for construction that is under 5,000 square feet.

Thank you for your time and consideration of the natural environment.

Patricia Greene-Swift, Natural Resources Scientist
Gilman & Briggs Environmental

GENERAL NOTES:

- EXISTING SURFACE FEATURES AND INFORMATION SHOWN ON THESE PLANS WERE OBTAINED FROM FIELD SURVEY. REFER TO DRAWING G-0.1 FOR SURVEY DATA REFERENCE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY ALL EXISTING CONDITIONS.
- CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTION AND SUPPORT OF ALL EXISTING UTILITIES LOCATED WITHIN THE LIMITS OF WORK, INCLUDING UTILITY POLES.
- THE LOCATION OF UTILITIES SHOWN ON THESE PLANS ARE APPROXIMATE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING WITH THE UTILITY COMPANIES INVOLVED AND VERIFY IN THE FIELD THE EXACT LOCATION OF MAINS AND SERVICES TO PREVENT DAMAGE; LOSS OF SERVICE DURING CONSTRUCTION; AND FOR REPLACEMENT OF SERVICES. THE CONTRACTOR SHALL NOTIFY "DIG SAFE" PRIOR TO ANY EXCAVATION. CONTRACTOR SHALL BE RESPONSIBLE FOR THE IDENTIFICATION AND LOCATION OF ALL UTILITIES PRIOR TO THE START OF WORK. CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY OF ANY CONFLICT BETWEEN THE PROPOSED WORK AND AN EXISTING UTILITY SUCH AS WATER, SEWER, GAS, ELECTRICAL OR TELECOMMUNICATIONS. CONTRACTOR SHALL RELOCATE CONFLICTING UTILITIES AS NEEDED. THERE SHALL BE NO SEPARATE PAYMENT
- CONTRACTOR SHALL REMOVE ALL TREES, BRUSH, AND STUMPS WITHIN THE LIMITS OF CLEARING. PAYMENT FOR CLEARING AND GRUBBING SHALL BE UNDER PAY ITEM 201.10.
- CONTRACTOR SHALL CONFINE CONSTRUCTION ACTIVITIES TO AREAS OWNED BY THE PROPERTY OWNER(S) AND AS SHOWN ON THE DRAWINGS.
- CONTRACTOR SHALL SECURE WORK AREA WITH FENCING. PAID AS ITEM 653.50 BARRIER FENCE.
- CONTRACTOR SHALL BE RESPONSIBLE FOR THE MAINTENANCE OF TRAFFIC AND TRAFFIC CONTROL.
- WHERE ADJACENT GROUND OUTSIDE OF THE LIMITS OF WORK IS DISTURBED OR DAMAGED DUE TO CONSTRUCTION ACTIVITIES, CONTRACTOR SHALL RESTORE TO ORIGINAL STATE, INCLUDING, BUT NOT LIMITED TO SIDEWALKS, PAVEMENT, GRASS AND LANDSCAPING, AT NO ADDITIONAL COST TO THE OWNER.
- ALL SLOPES 1:2 OR GREATER SHALL BE ARMORED WITH 18" OF 9" STONE RIP-RAP FILL (PAID AS ITEM 900.608 SPECIAL PROVISION (9" STONE)) OVER GEOTEXTILE UNDER STONE FILL (ITEM 649.31)
- CONTRACTOR SHALL BE RESPONSIBLE FOR THE DIVERSION OF STORMWATER FLOWS AND BYPASSING EXISTING POND DURING CONSTRUCTION UNTIL NEW GRAVEL WETLAND IS COMPLETE AND READY TO ACCEPT FLOW. (SUBSIDIARY)
- SEE SPECIAL PROVISION SPECIFICATION 900.645 (GRAVEL WETLAND FACILITY) FOR GRAVEL WETLAND PLANTS, SOIL AND MATERIAL REQUIREMENTS.
- SEE DRAWING NO. C-2.1 FOR POND GRAVEL WETLAND DETAILS.
- CONTRACTOR SHALL REMOVE AND RESET EXISTING PLAYGROUND EQUIPMENT AND FENCE AS NECESSARY FOR CONSTRUCTION OF WORK. REMOVAL AND RESETTING OF FENCE SHALL BE PAID FOR AS ITEM 620.50.
- CONTRACTOR TO COORDINATE ALL WORK AS REQUIRED TO MAINTAIN THE EXISTING CHAMPLAIN WATER DISTRICT (CWD) WATER MAIN, WITH CWD.
- CONTRACTOR SHALL SUBMIT A SEQUENCE OF OPERATIONS AND DETAILS ON MEANS AND METHOD FOR REVIEW AND APPROVAL BY CWD, OUTLINING HOW THE EXISTING CWD WATER MAIN WILL BE PROTECTED FROM DAMAGE. DAMAGE MAY INCLUDE BUT IS NOT LIMITED TO UNDERMINING AND SETTLEMENT. SUBMISSION SHALL BE REVIEWED AND APPROVED BY CWD.
- CONTRACTOR SHALL SUBMIT THE PROPOSED METHOD OF EARTH SUPPORT TO CWD FOR APPROVAL.
- SHOULD ROCK REMOVAL BE REQUIRED WITHIN 10 FEET OF THE CWD MAIN, METHODS FOR ROCK REMOVAL INCLUDING VIBRATION MONITORING AND VIBRATION LIMITS, SHALL BE SUBMITTED FOR REVIEW AND APPROVAL BY CWD.
- CONTRACTOR SHALL MAINTAIN A MINIMUM OF 10' UNDISTURBED SOIL BEHIND THE EXISTING THRUST BLOCK AT THE 45-DEGREE BEND. THE THRUST BLOCK IS INTENDED TO USE UNDISTURBED, NATIVE SOIL IN THE THRUST RESTRAINT.



PROPOSED GRAVEL WETLAND
BOTTOM OF WETLAND = 186.00
BASE AREA (ENCLOSED BY 186' CONTOUR) = 8,058 SF
GRAVEL STORAGE = ~7,900 CF AT 40% VOIDS
TOTAL STORAGE BELOW 194' CONTOUR = ~84,450 CF

GRAPHIC SCALE
0 10 15 20
(IN FEET)

PLAN
SCALE: 1"=10'

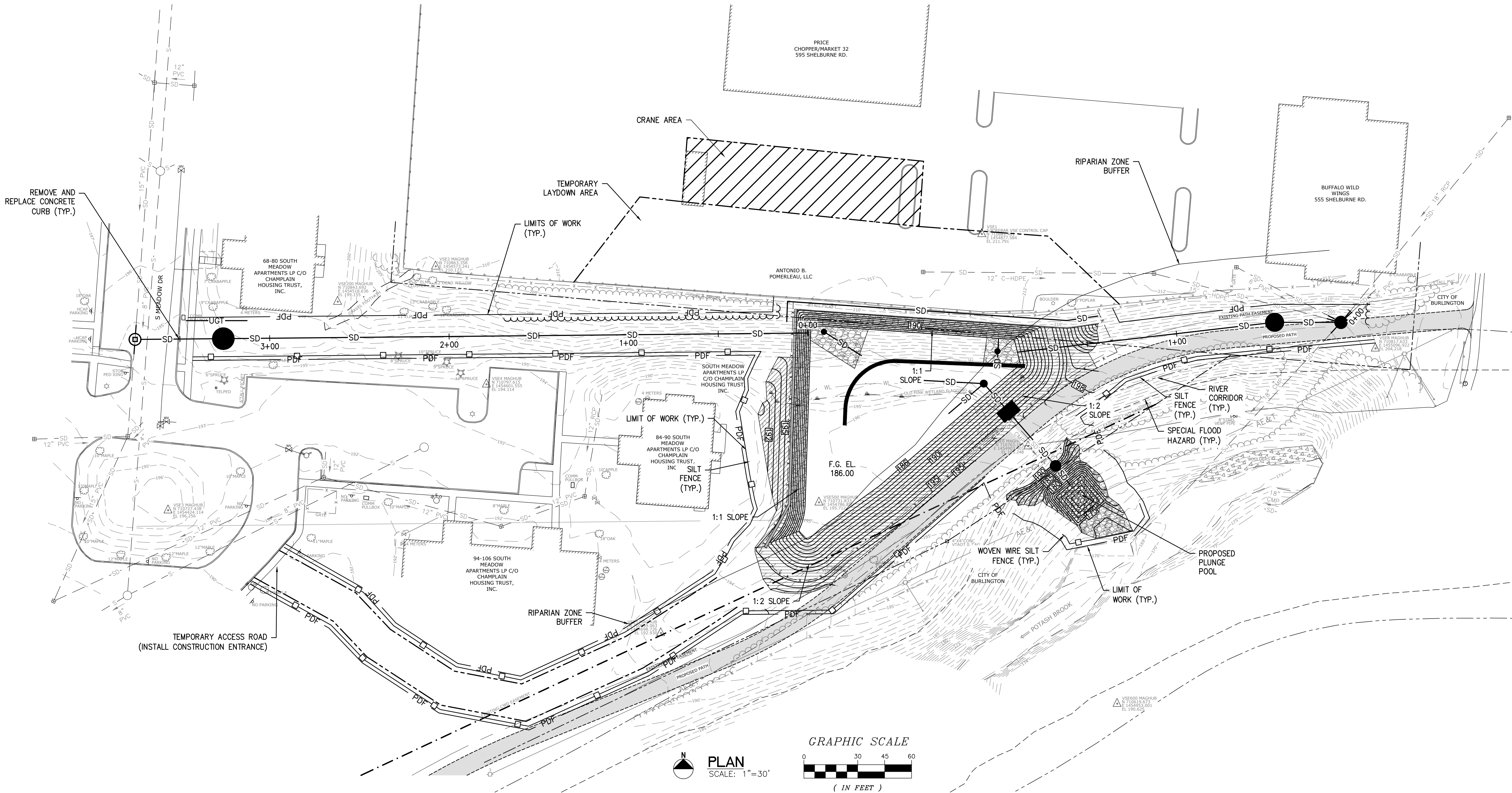
100% DESIGN
SUBMITTAL

REVISION		DESCRIPTION	DATE
REV. 1	6/6/2024	OUTFALL ALIGNMENT ADJUSTMENT	
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125 College St, 4th Floor Burlington, VT 05408 (802) 860-1331 www.hoyletanner.com		DRAWN BY	TGB
DATE:		DESIGNED BY	APS
SCALE:		DATE:	JUNE 6, 2024
PROJECT		APPLICANT	POWERLEAU AND CHITTENDEN HOUSING TRUST
PROJECT		PROJECT	POWERLEAU / CHT 3-ACRE STORMWATER MANAGEMENT PROJECT 84 SOUTH MEADOW DRIVE BURLINGTON, VT 05401
PROJECT NO.		120006	
SHEET		# OF 16	

EROSION CONTROL NOTES:

1. CONTRACTOR SHALL REMOVE ALL TREES, BRUSH, AND STUMPS WITHIN THE LIMITS OF CLEARING. PAYMENT FOR CLEARING AND GRUBBING SHALL BE UNDER PAY ITEM 201.10.
2. CONTRACTOR SHALL CONFINE CONSTRUCTION ACTIVITIES TO AREAS OWNED BY THE PROPERTY OWNER(S) AND AS SHOWN ON THE DRAWINGS.
3. WHERE ADJACENT GROUND OUTSIDE OF THE LIMITS OF WORK IS DISTURBED OR DAMAGED DUE TO CONSTRUCTION ACTIVITIES, CONTRACTOR SHALL RESTORE TO ORIGINAL STATE, INCLUDING, BUT NOT LIMITED TO SIDEWALKS, PAVEMENT, GRASS AND LANDSCAPING, AT NO ADDITIONAL COST TO THE OWNER.
4. ALL SLOPES 1:2 OR GREATER SHALL BE ARMORED WITH 18" OF 9" STONE RIP-RAP FILL (PAID AS ITEM 900.608 SPECIAL PROVISION (9" STONE)) OVER GEOTEXTILE UNDER STONE FILL (ITEM 649.31)
5. CONTRACTOR SHALL BE RESPONSIBLE FOR THE DIVERSION OF STORMWATER FLOWS AND

- BYPASSING EXISTING POND DURING CONSTRUCTION UNTIL NEW GRAVEL WETLAND IS COMPLETE AND READY TO ACCEPT FLOW. (SUBSIDIARY)
6. TOPSOIL AND SEED ALL EARTH SLOPES AS SOON AS POSSIBLE. STABILIZE OUTFALL AREAS WITH REQUIRED EROSION CONTROL.
 7. REMOVE ACCUMULATED SEDIMENT FROM BMP AT COMPLETION OF PROJECT (SUBSIDIARY).
 8. SEEDING INSIDE GRAVEL WETLAND FACILITY SHALL BE AS PER THE REQUIREMENTS OF SPECIFICATION SPECIAL PROVISION 900.645 (GRAVEL WETLAND FACILITY).
 9. ALL DISTURBED AREAS NOT OTHERWISE DESIGNATED, SHALL BE TILLED, TOPSOILED AND SEEDED WITH VERMONT CONSERVATION MIX (80 LBS PER ACRE APPLICATION RATE) IN ACCORDANCE WITH SECTION 651. SEE SOIL AND SEEDING NOTES ON DWG NO. G-0.2
 10. STRAW MULCH AS PER NOTES ON G-0.2.



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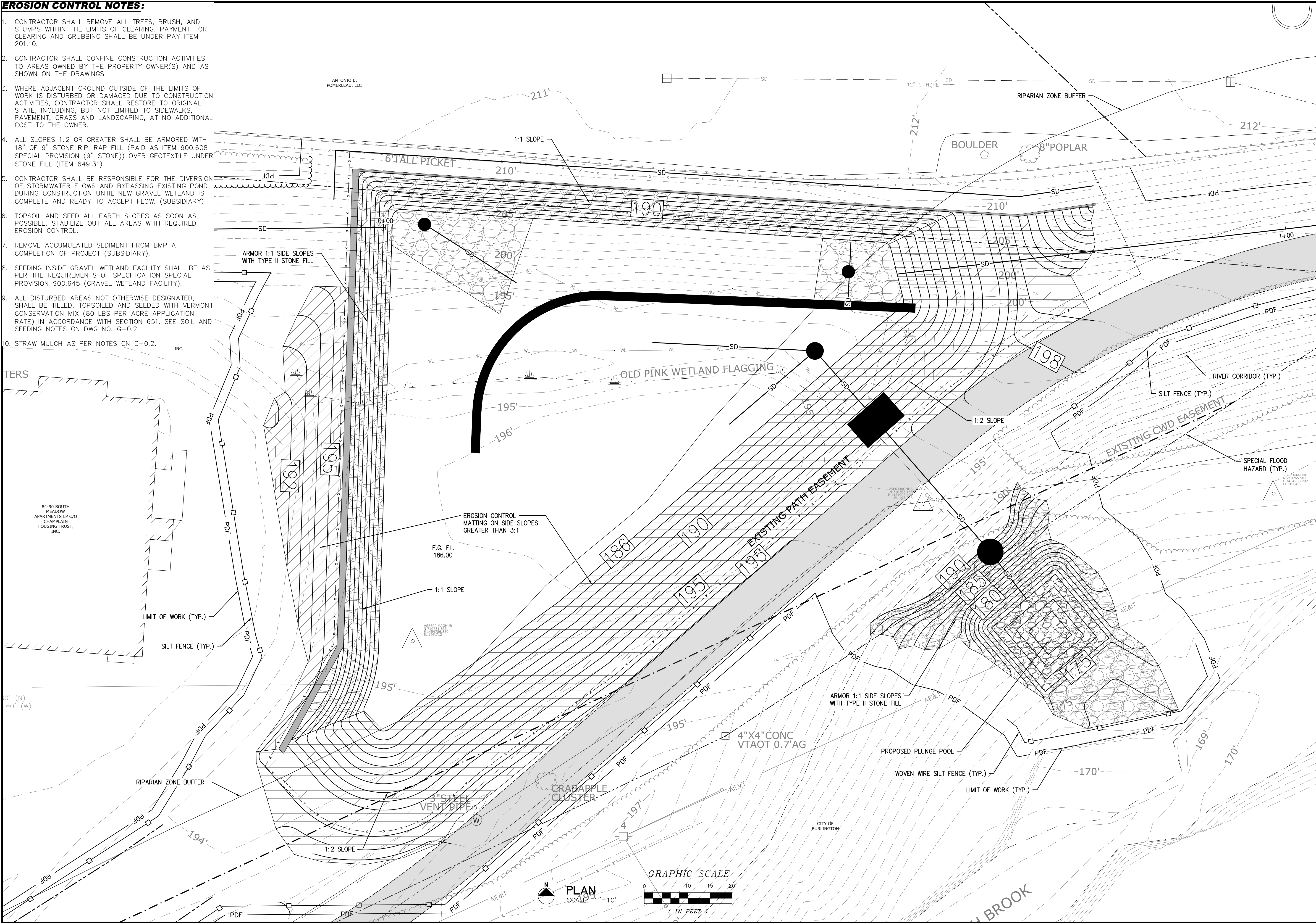
DESIGNED BY	TGB	CHECKED BY	KDW
DATE:	DECEMBER, 2023	SCALE:	1" = 30'

APPLICANT	POWERLEAU AND CHITTENDEN HOUSING TRUST
PROJECT	POWERLEAU / CHT 3-ACRE STORMWATER MANAGEMENT PROJECT 84 SOUTH MEADOW DRIVE BURLINGTON, VT 05401

EROSION AND SEDIMENT CONTROL PLAN
C2.6
PROJECT NO. 120006
SHEET 1 OF 2

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APPLICANT
POWERLEAU AND CHITTENDEN HOUSING TRUST

PROJECT
POWERLEAU / CHT 3-ACRE STORMWATER
MANAGEMENT PROJECT
84 SOUTH MEADOW DRIVE
BURLINGTON, VT 05401

EROSION AND
SEDIMENT CONTROL
SITE PLAN

C2.7

PROJECT NO. 120006

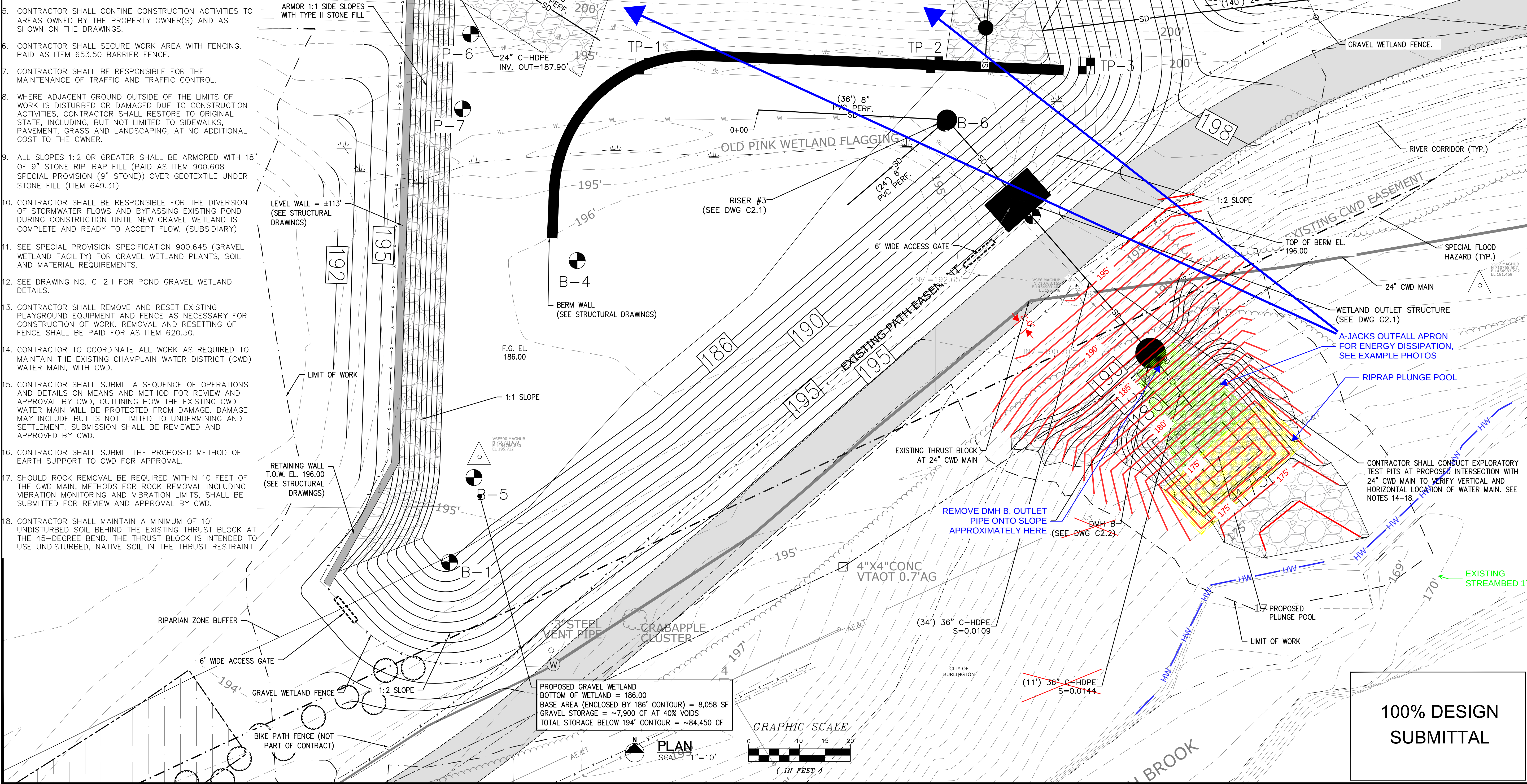
SHEET 2 OF 2

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A-JACKS

OUTFALL INSTALLATION FOR ENERGY DISSIPATION



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POWERLEAU AND CHITTENDEN HOUSING TRUST

PROJECT
POWERLEAU / CHT 3-ACRE STORMWATER
MANAGEMENT PROJECT
84 SOUTH MEADOW DRIVE
BURLINGTON, VT 05401

APPLICANT

100% DESIGN
SUBMITTAL

C1.3

PROJECT NO. 120006
SHEET 6 OF 16

DATE: JANUARY 5, 2024

SCALE: 1" = 10'

DESIGNED BY: APS

CHECKED BY: KDW

DRAWN BY: TGB

REVISION DESCRIPTION

REV.

DATE

21:120006.03-PROPOSED.DWG

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