



**ADVISORY NEIGHBORHOOD COMMISSION 3C**  
GOVERNMENT OF THE DISTRICT OF COLUMBIA  
*CATHEDRAL HEIGHTS • CLEVELAND PARK*  
*MASSACHUSETTS AVENUE HEIGHTS • MCLEAN GARDENS*  
*WOODLAND-NORMANSTONE • WOODLEY PARK*

Single Member District Commissioners  
01-Lee Brian Reba \* 02-Gwendolyn Bole \* 03-Jessica Wasserman  
04- Beau Finley \* 05- Emma Hersh \* 06-Angela Bradbery  
07- Maureen Kinlan Boucher \* 08-Malia N. Brink \* 09-Nancy MacWood

P.O. Box 4966  
Washington, DC 20008  
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**ANC3C Resolution 2017-026**  
**Regarding a Public Space Permit Application (#221221) for Retaining Wall Construction at 2939 Newark Street, NW**

WHEREAS, the owners of 2939 Newark Street NW have applied to District Department of Transportation for a Public Space Construction/Excavation Permit for the purpose of constructing retaining walls on public space directly adjacent to their property; and

WHEREAS, the 2939 Newark Street, NW property has existing retaining walls, built on public space during two respective periods (1906 and approximately 1980) on the western 50 feet of the front of the property; and

WHEREAS, following a severe thunderstorm on July 28, 2017, two trees on the 2939 Newark Street, NW property were toppled that further impacted four other trees on the property, thus necessitating removal of six trees and resulting in significant potential erosion on the southeastern portion of the property; and

WHEREAS, the owners of 2939 Newark Street, NW constructed emergency retaining walls to prevent potential erosion after the removal of said trees - one on private property (to the northeast) and one in public space (to the southeast), as well as a third six-foot connecting wall along the eastern edge of the Kopff property that is partially in public space to connect the two new walls; and

WHEREAS, the owners will demolish the 20-foot emergency retaining wall and the 6-foot connecting wall that were both built within public space and will replace them with a new 20-foot-long wall and a new 6-foot connecting wall in their place; and

WHEREAS, the owners propose that the new 20-foot long wall will align in height with the original retaining walls - 78 inches in height from cap to finished grade; and

WHEREAS, the owners propose that the new walls will have deep concrete footings reinforced with #5 rebars to ensure maximum stability and security; and

WHEREAS, the owners will use veneered fieldstone and stated their intent to ensure that the stone and grout blends with the existing walls; and

WHEREAS, a total of 19 neighbors on Newark and Macomb Streets, NW, including the owners of adjoining lots and cross street neighbors, have reviewed the plans and submitted to ANC 3C their expressions of support (18 of the 19) or neutrality (1 of the 19); and

WHEREAS, the owners have shared multiple iterations of plans for the retaining walls and revised said plans to meet concerns conveyed by neighbors and the Cleveland Park Historical Society's Architectural Review Committee to ANC 3C; and

WHEREAS, the project will be executed by LOFFT Construction Inc., registered in the District of Columbia, and will be personally managed by its President, Alex Sanguinetti (DC license #71101430 and winner of the Historic COTY full house residential award from the National Association of the Remodeling Industry for his home at 2922 Newark within the jurisdiction of ANC 3C);

THEREFORE, BE IT RESOLVED that ANC 3C supports the application, as embodied in the attached Architectural and Engineering plans;

BE IT FURTHER RESOLVED that ANC 3C urges the homeowners to install footings for the 20-foot wall deep enough so as to ensure that construction of the wall not be an impediment to any future sidewalk that might be built along Newark Street, NW at this location; and

FINALLY, BE IT RESOLVED that the Chair and Commissioner for ANC3C05, or their designees are authorized to represent the Commission regarding this resolution.

**Attested by**

A handwritten signature in black ink, appearing to read "Nancy J. MacWood". The signature is written in a cursive style with a large initial "N".

Nancy J. MacWood  
Chair, on November 13, 2017

*This resolution was approved by a voice vote on November 13, 2017 at a scheduled and noticed public meeting of ANC 3C at which a quorum (a minimum of 5 of 9 commissioners) was present.*

# **A&E PLANS**

## **KOPFF RETAINING WALL**

**November 13, 2017**  
**as attached to ANC-3C's**  
**Resolution of Support**

# KOPFF RESIDENCE - RETAINING WALL

2939 NEWARK STREET NW  
WASHINGTON, DC 20008

CONTRACTOR: LOFFT CONSTRUCTION, INC DC LICENSE 371101430

APPLICANTS: GARY & JUDY KOPFF

SCHEMATICS: CHRISTINA HAISLIP, LEED AP BD+C, DC LICENSE #ARC102870

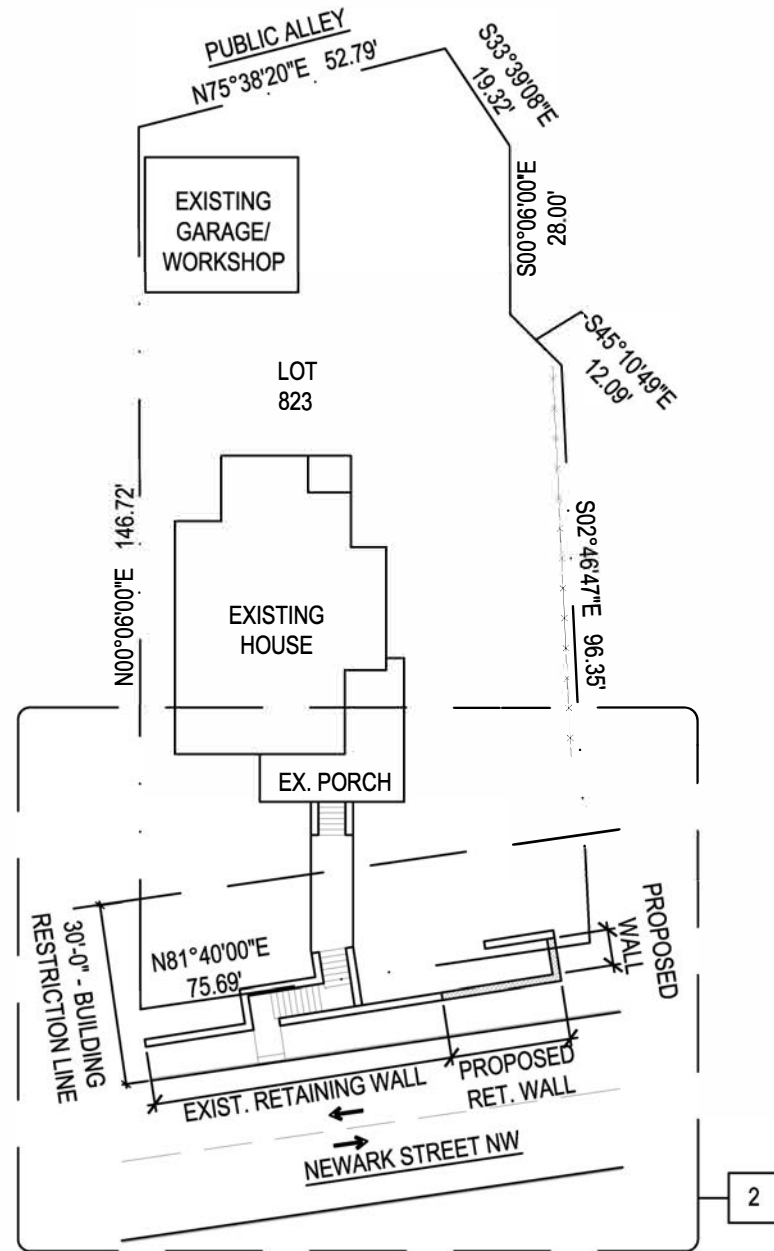
LOTS 48 AND 822; MERGED INTO LOT 823

DATE: November 13, 2017

DDOT/TOPS TRACKING #221221

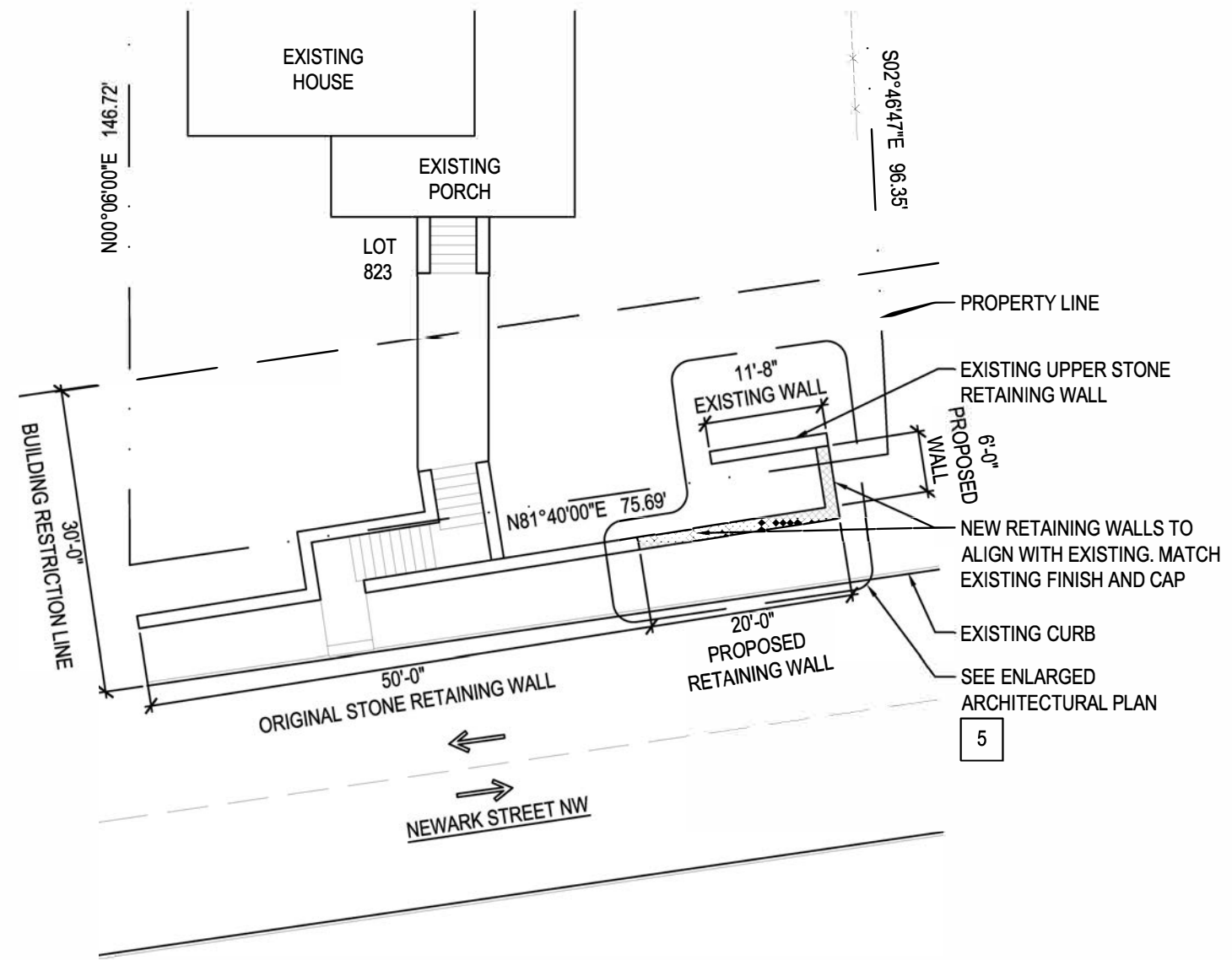
## DRAWING LEGEND:

- |                               |  |
|-------------------------------|--|
| 1 SITE PLAN                   | 7 PRIVATE / PUBLIC SPACE DIAGRAM                       |
| 2 PARTIAL SITE PLAN           | 8A SPLIT ZONING DIAGRAM                                |
| 3 FRONT ELEVATION             | 8B ENLARGED SPLIT ZONING DIAGRAM                       |
| 4 SIDE ELEVATION              | 9 DOCUMENTATION OF PUBLIC SPACE ALONG NEWARK STREET NW |
| 5 ENLARGED ARCHITECTURAL PLAN |  |
| 6 WALL SECTION OPTION         |  |



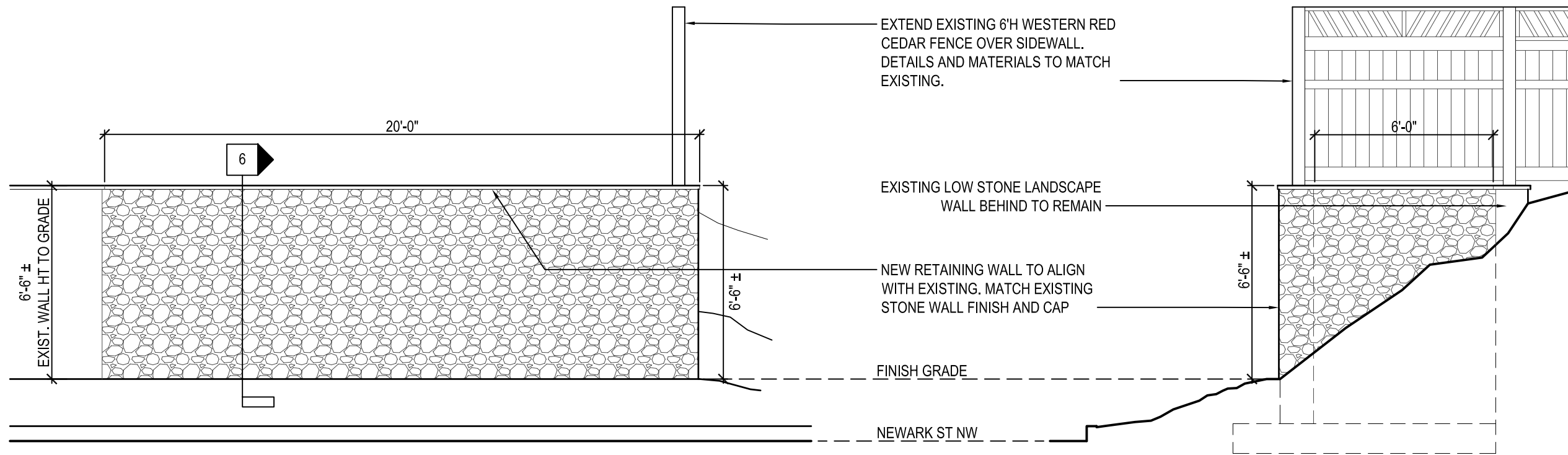
1 SITE PLAN

1/32"=1'-0"



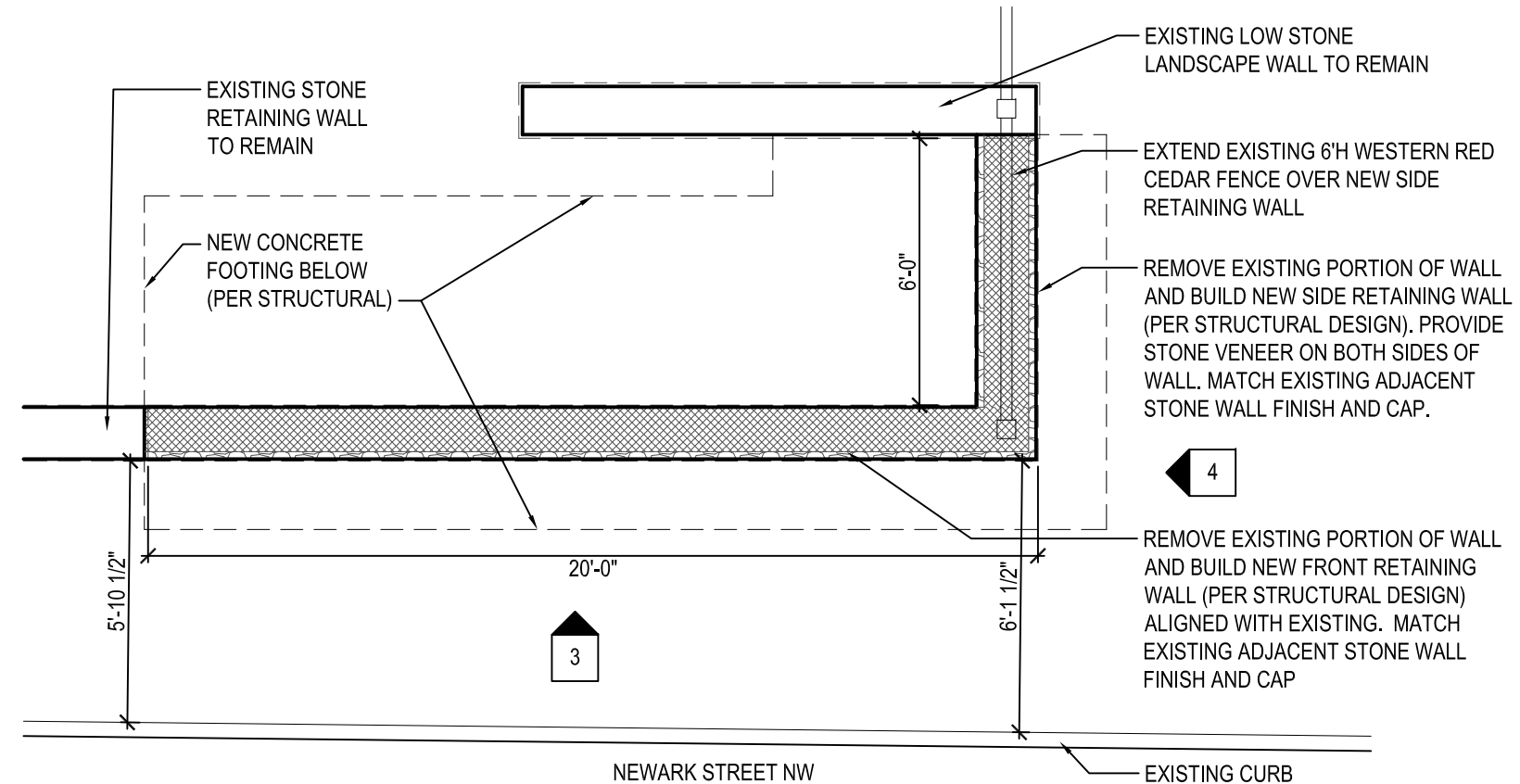
2 PARTIAL SITE PLAN

1/16"=1'-0"

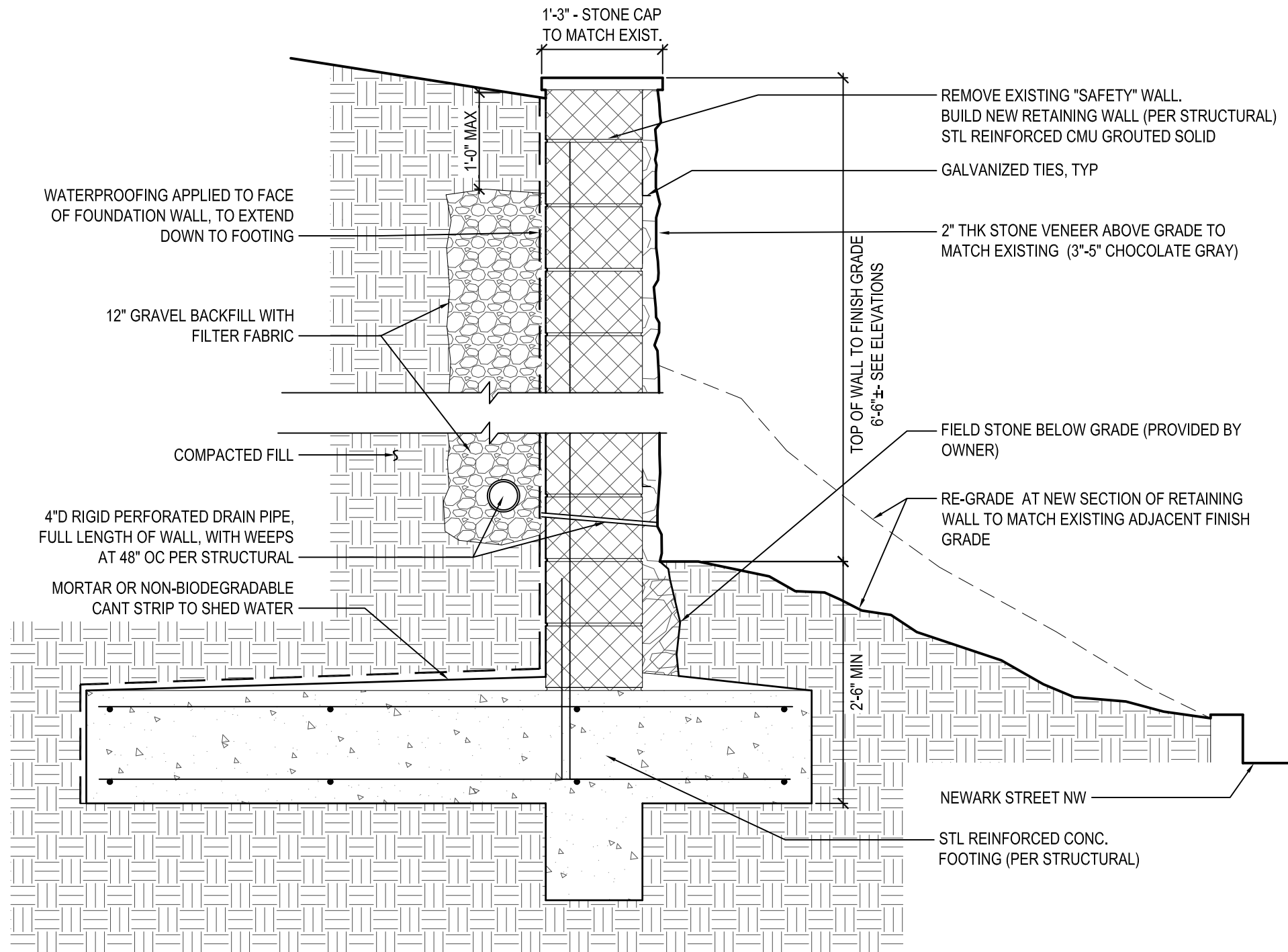


**3 FRONT ELEVATION** 1/4"=1'-0"

**4 SIDE ELEVATION** 1/4"=1'-0"



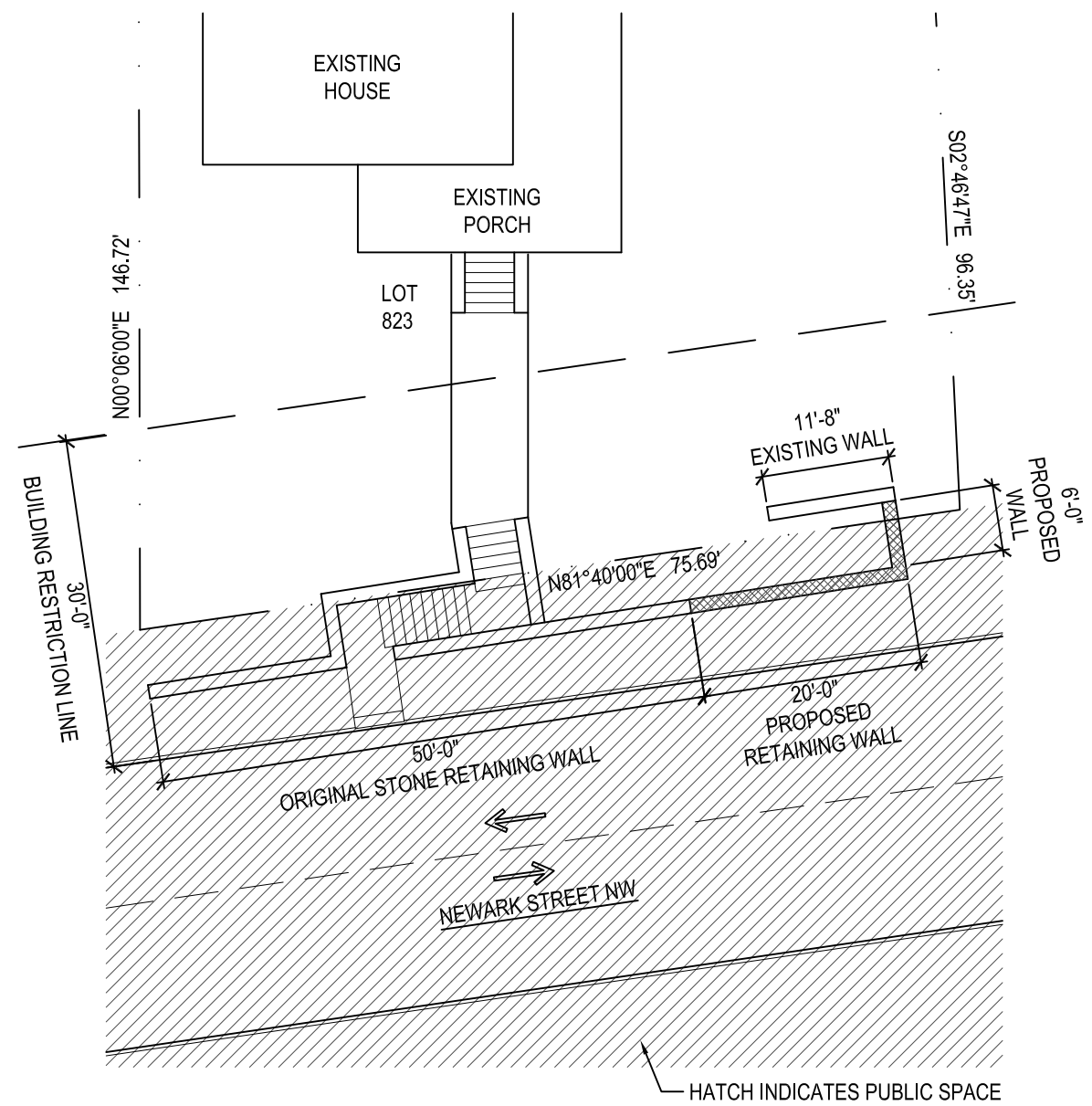
**5 ENLARGED ARCHITECTURAL PLAN** 1/4"=1'-0"



6

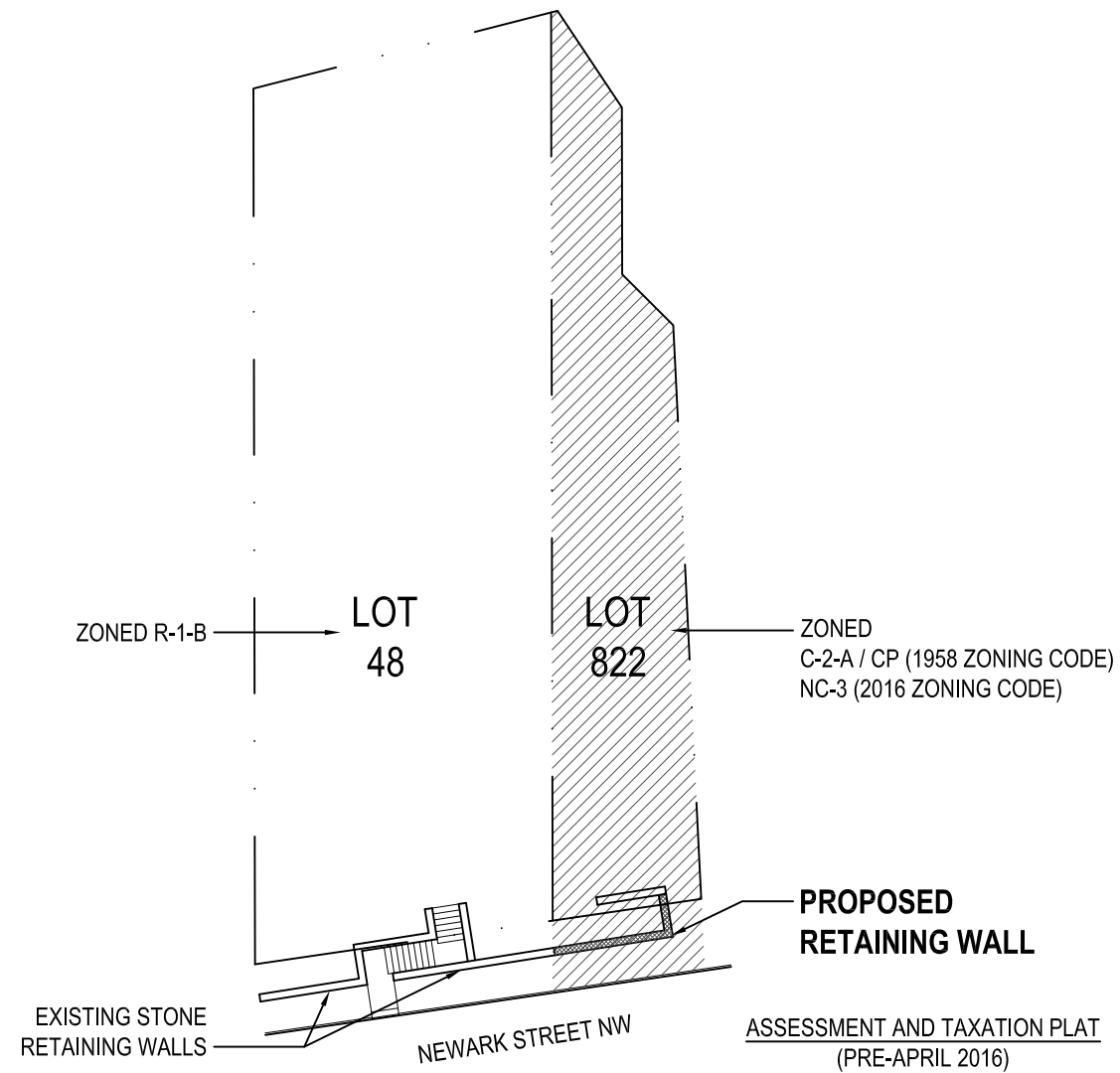
WALL SECTION AT NEW RETAINING WALL

3/4"=1'-0"



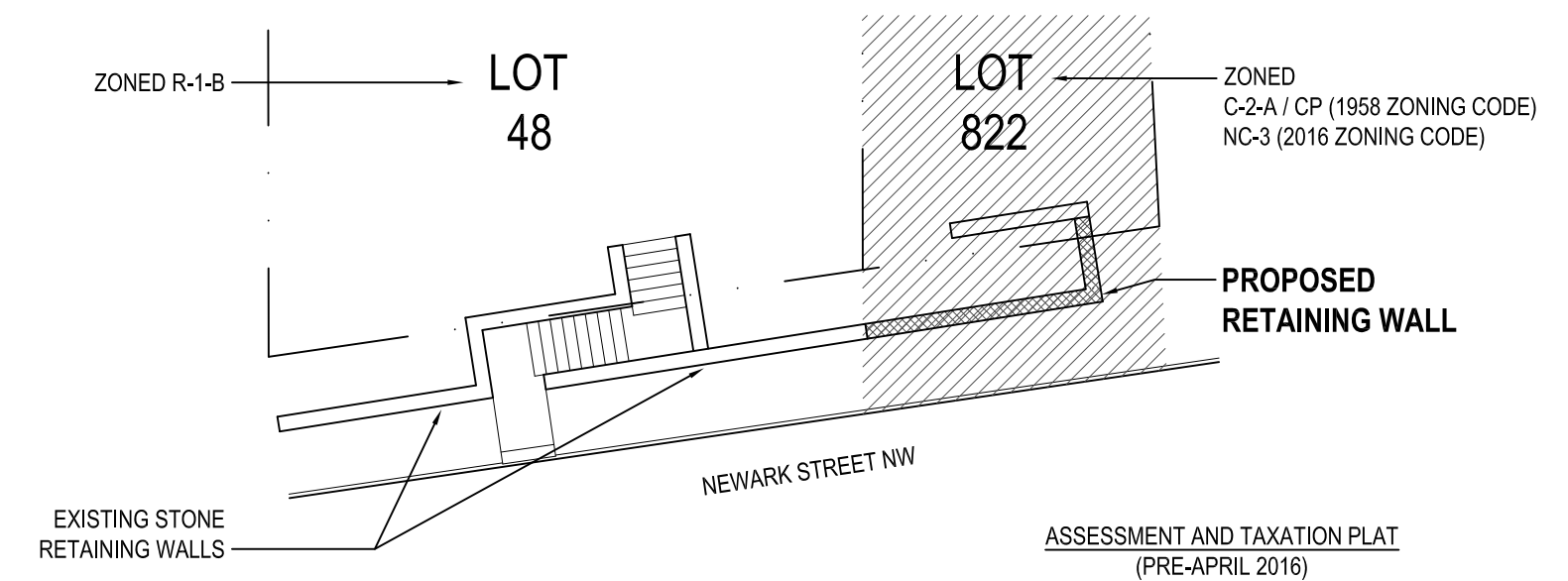
7 PRIVATE / PUBLIC SPACE DIAGRAM

1/16"=1'-0"



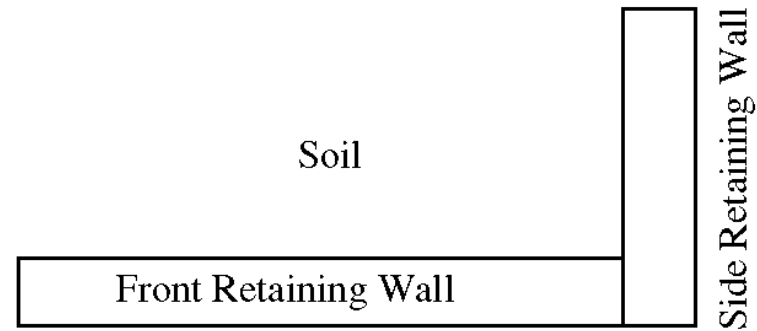
8A SPLIT ZONING DIAGRAM

1/32"=1'-0"

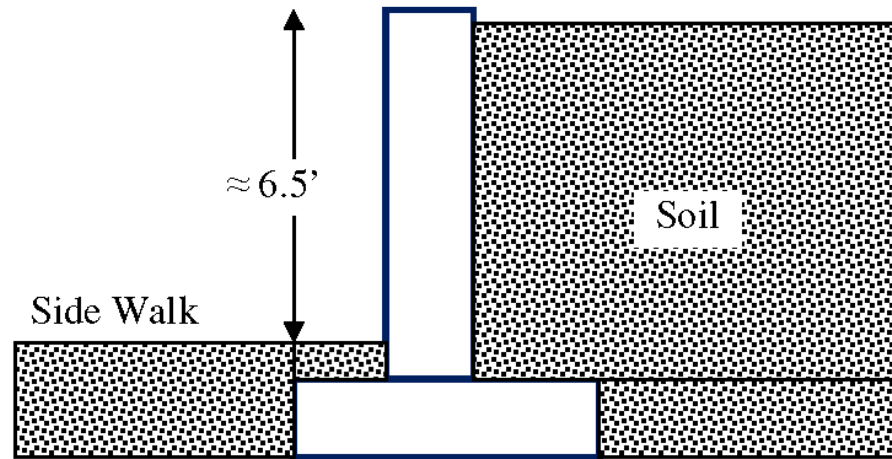


8B ENLARGED SPLIT ZONING DIAGRAM

1/16"=1'-0"



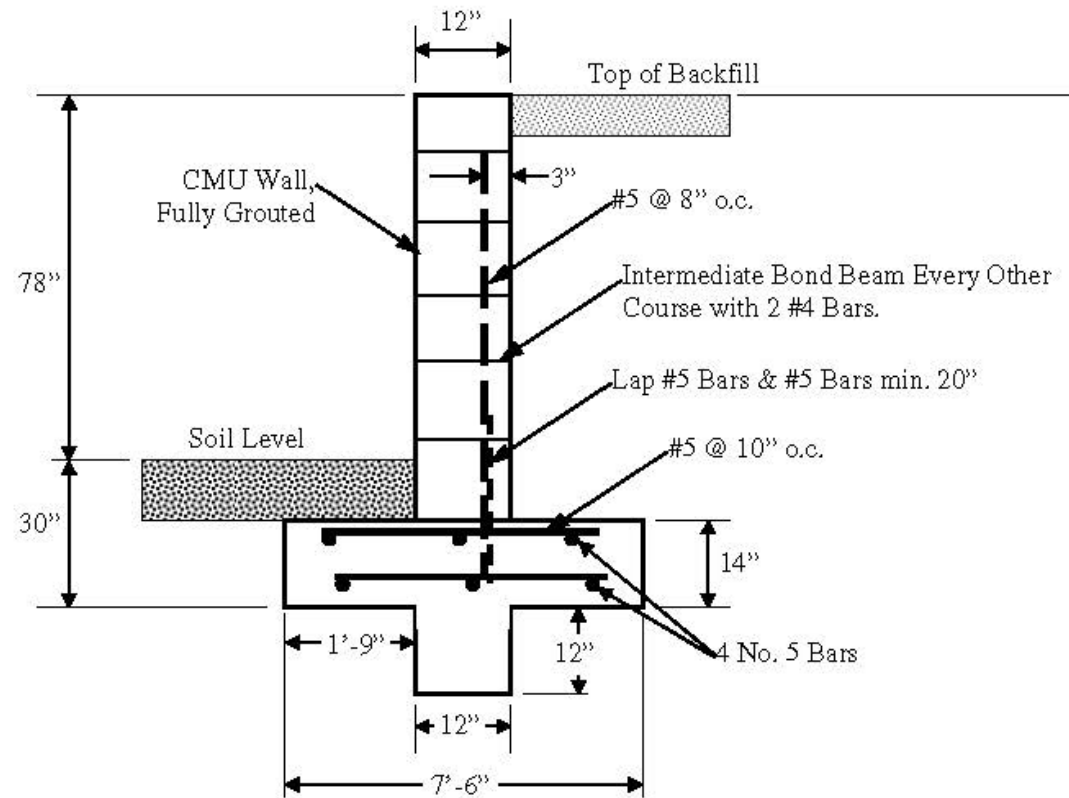
**Retaining Walls Plan Sketch**  
(NTS)



**Retaining Wall Elevation Sketch**  
(NTS)

Notes:

1. Sketch not to scale. Sketch for illustration only and may not depict actual retaining wall shape.
2. Not all walls, areas, framing elements, and dimensions shown.



**Retaining Wall Detail**  
(NTS)

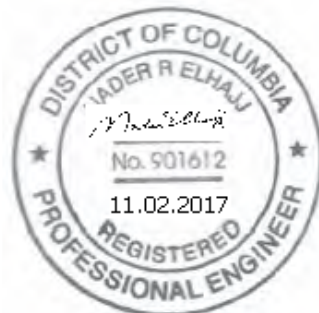
Notes:

1. Sketch not to scale. Sketch for illustration only and may not depict actual retaining wall shape.
2. Not all walls, areas, framing elements, and dimensions shown.



## Retaining Wall Construction Notes

1. Masonry walls shall have 9 Gauge galvanized Dur-o-wall (ladder) or truss type joint reinforcement at 16" o.c. vertically above grade and 8" o.c. vertically at below grade joints.
2. Provide at least 6" of solid masonry under concentrated loading conditions.
3. Mortar to conform to ASTM C270, Type N with minimum  $f_m = 1800$  psi.
4. Grout shall conform to ASTM C-476 and have minimum Compressive Strength Of 2000 psi.
5. Concrete Masonry Units (CMU) shall conform to ASTM C90 and have a minimum 28-day compressive strength of 1500 psi.
6. The min. 28-day compressive strength for concrete shall be 3000 psi.
7. Concrete work shall conform to all requirements of ACI-318, ACI 301 and ACI 332.
8. Reinforcing steel shall be deformed bars conforming to ASTM A-615. Welded wire fabric shall conform to ASTM A-185.
9. All steel reinforcement:  $F_y = 60$  KSI.
10. Footings shall extend a minimum of 30" below finished grade (frost line).
11. Where required, step footings to ratio of 2 horizontal to 1 vertical.
12. All footing excavations shall be inspected by the building official or an approved third party inspector prior to placing of any concrete.
13. Footings shall not be cast against frozen, wet, or loose ground.
14. Waterproof back face of retaining wall with 1/2" coating of cement plaster or two continuous coatings of hot bituminous materials applied at right angles to each other over a suitable prime coat.
15. Provide a 4" diameter rigid perforated drain pipe, full length of wall connects to suitable outlets beyond each end or weep holes at 4'-0" on center.
16. Provide a filter fabric, wrapped around 12" of gravel around drain pipe.
17. Gravel backfill to within one foot from top of wall and a minimum of 4" below drain pipe.
18. No concrete shall be placed until all reinforcing has been installed and inspected by the Building Inspector or an approved third party Inspector.
19. *Guards* shall be located along open-sided walking surfaces, including stairs, ramps and landings, that are located more than 30 inches measured vertically to the floor or *grade* below at any point within 36 inches horizontally to the edge of the open side.
20. Guards shall be not less than 36 inches high measured vertically above the adjacent walking surface.



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 nelhajj@yahoo.com

Title: 2939 Newark St. NW Job # 2017-11-02  
 Dsgnr: Nader Elhajj, P.E. Date: 4:30 PM, 02 NOV 17  
 Description: Retaining Wall Design

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## Cantilevered Retaining Wall Design

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**Scope:** Retaining Wall Design

Code Ref: ACI 318-11, 2012 IRC, 2015 IRC, 2009 IBC, 2012 IBC, 2015 IBC and 2003 NFPA 5000

**Description**

Retaining wall for 2939 Newark St. NW, Washington, DC 20008

Criteria	Soil Data	Footing Strength & Dimensions
Retained Height = 8.00 ft	Allow Soil Bearing = 1,500.0 psf	F'c = 3,500 psi      FY= 60,000 psi
Wall height above soil = 0.00 ft	Equivalent Fluid Pressure Method	Min. As % = 0.0014
Slope Behind Wall = 0.00:1	Heel Active Pressure = 60.0	Toe Width = 1.75 ft
Height of Soil over Toe = 18.00 in	Toe Active Pressure = 0.0	Heel Width = <u>5.75 ft</u>
Soil Density = 10.00 pcf	Passive Pressure = 250.0	Total Footing Width = 7.50
Wind on Stem = 0.0 psf	Water height over heel = 0.0 ft	Footing Thickness = 14.00 in
	Footing Soil Friction = 0.300	Key Width = 12.00 in
	Soil height to ignore for passive pressure = 0.00 in	Key Depth = 10.00 in
		Key Distance from Toe = 1.75 ft
		Cover @ Top = 3.00 in      @ Btm.= 3.00 in

**Design Summary**

Total Bearing Load = 7,746 lbs	...resultant ecc. = 2.57 in
Soil Pressure @ Toe = 1,210 psf OK	Soil Pressure @ Heel = 856 psf OK
Allowable = 1,500 psf	<b>Soil Pressure Less Than Allowable</b>
ACI Factored @ Toe = 1,524 psf	ACI Factored @ Heel = 1,078 psf
Footing Shear @ Toe = 13.8 psi OK	Footing Shear @ Heel = 66.1 psi OK
Allowable = 93.1 psi	

**Wall Stability Ratios**

Overturning = 4.56 OK
Sliding = 1.53 (Vert Co)

**Sliding Calcs (Vertical Component Used)**

Lateral Sliding Force = 2,520.8 lbs	Less 100% Passive Force= - 1,531.3 lbs	Assed Force Req'd = 0.0 lbs OK
	Less 100% Friction Force= - 2,323.8 lbs	... For 1.5 : 1 Stability = 0.0 lbs. OK

**Footing Design Results**

	<u>Toe</u>	<u>Heel</u>
Factored Pressure =	1,524	1,078 psf
Mu' : Upward =	2,969	0 ft-#
Mu' : Downward =	952	24,727 ft-#
Mu' : Design =	2,017	24,727 ft-#
Actual 1-Way Shear =	13.83	66.15 psi
Allow 1-Way Shear =	93.11	93.11 psi
Toe Reinforcing =	#5 @ 16.00 in.	
Heel Reinforcing =	#5 @ 10.00 in.	
Key Reinforcing =	None Spec'd	

**Stem Construction**

**Design height**

Design height = 0.00
Wall Material Above "Ht" = Masonry
Thickness = 12.00
Rebar Size = # 5
Rebar Spacing = 8.00
Rebar Placed at = Edge

**Design Data**

Fb/FB + fa/Fa = 0.782
Total Force @ Section lbs= 1,920.0
Moment .... Actual ft-# = 5,120.0
Moment .... Allowable ft-# = 6,548.8
Shear .... Actual psi= 20.2
Shear .... Allowable psi= 38.7
Bar Develop Above Ht in = 30.00
Bar Lap/Hook Below Ht in = 6.70
Wall Weight = 133.0
Rebar Depth 'd' in = 9.00

**Masonry Data**

f'm psi = 1,500
Fs psi = 24,000
Solid Grouting = Yes
Special Inspection = Yes
Modular Ratio 'n' = 25.78
Short Stem Factor = 0.00
Equiv. Solid Thick = 11.62
Masonry Block Type = Normal Weight

**Concrete Data**

f'c psi =
Fy psi =

**Other Acceptable Sizes & Spacings**  
 Toe: Not Req'd, None Spec'd  
 Heel: #5 @ 10.50 in, #6 @ 16.00 in.  
 Key: Not req'd, Mu < S\*Fr

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## Cantilevered Retaining Wall Design

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### Description

Retaining wall for 2939 Newark St. NW, Washington, DC 20008

### Summary of Overturning & Resisting Forces & Moments

Item	.... OVERTURNING....			Item	.... RESISTING....		
	Force lbs	Distance ft	Moment ft-#		Force lbs	Distance ft	Moment ft-#
Heel Active Pressure =	2,520.8	3.06	7,702.5	Soil Over Heel =	4,180.8	5.13	21,422.5
Toe Active Pressure =				Sloped Soil Over Heel =			
Surcharge Over Toe =				Surcharge Over Toe =			
Adjacent Footing Load =				Adjacent Footing Load =			
Added Lateral Load =				Axial Dead Load on Stem =		0.00	
Load @ Stem Above Soil =				Soil Over Toe =	288.8	0.88	252.7
Seismic Load =				Surcharge Over Toe =			
				Stem Weight(s) =	1,064.0	2.25	2,394.0
				Earth @ Stem Transitions =			
<b>Total</b> =	2,520.8	<b>O.T.M. =</b>	7,702.5	Footing Weight =	1,312.5	3.75	4,928.1
<b>Resisting/Overturning Ratio</b>		<b>= 4.56</b>		Key Weight =	125.0	2.25	281.2
Vertical Loads used for Soil Pressure =		7,746.1 lbs		Vert. Component =	775.8	7.50	5,818.8
				<b>Total</b> =	7,746.1 lbs	<b>R.M. =</b>	35,091.0 lbs

Vertical component of active pressure used for soil pressure

