## PLANS PREPARED FOR

# WASHINGTON'S HEADQUARTERS

VILLAGE OF DOBBS FERRY WESTCHESTER COUNTY, NEW YORK

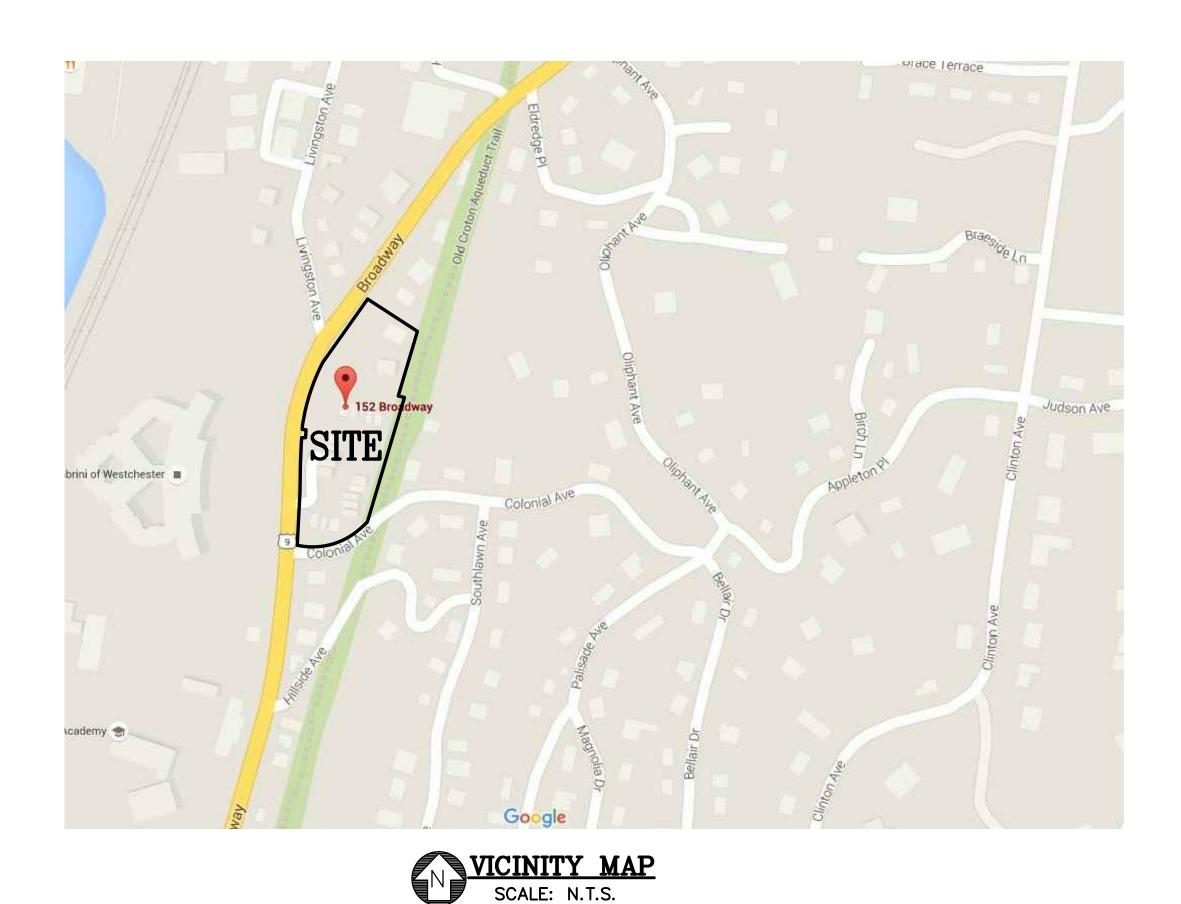
#### **OWNER:**

WASHINGTON'S HEADQUARTERS CONDOMINIUM ASSOCIATION 152 BROADWAY VILLAGE OF DOBBS FERRY TOWN OF GREENBURGH NEW YORK, NY 10522

#### LAND SURVEYOR:

BROOKER ENGINEERING P.L.L.C. 46 NORTH CENTRAL AVENUE RAMSEY, NEW JERSEY 07446 (201)-684-1211

STRUCTURAL/SITE ENGINEER: BROOKER ENGINEERING P.L.L.C. 74 LAFAYETTE AVENUE, SUITE 501 SUFFERN, NEW YORK 10901 (845) 357-4411



LIST OF DRAWINGS

TITLE PAGE

BOUNDARY & TOPOGRAPHIC SURVEY DRAINAGE MAINTENANCE PLAN

S-005 STRUCTURAL DETAILS (2 OF 2)

4 REVISED PER SCOPE REVIEW DATED 8/20/2018 PB 9/6/2018 3 RE-ISSUED FOR CONSTRUCTION AR 5/9/2018 2 ISSUED FOR CONSTRUCTION AR 5/16/2016 1 90% PROGRESS SET AR 3/4/2016 REV DESCRIPTION BY DATE

UNAUTHORIZED ALTERATION OR ADDITIONS TO THESE PLANS IS A VIOLATION OF THE N.Y.S. EDUCATION LAW, ARTICLE 145, SECTION 7209, SUBSECTION 2.



www.BrookerEngineering.com 74 Lafayette Avenue, Suite 501 46 N. Central Avenue Suffern, NY 10901 Ramsey, NJ 07446 (845) 357-4411 (201) 684-1221

WASHINGTON'S HEADQUARTERS VILLAGE OF DOBBS FERRY, TOWN OF GREENBURGH

WESTCHESTER COUNTY, NEW YORK

**PAGE** 

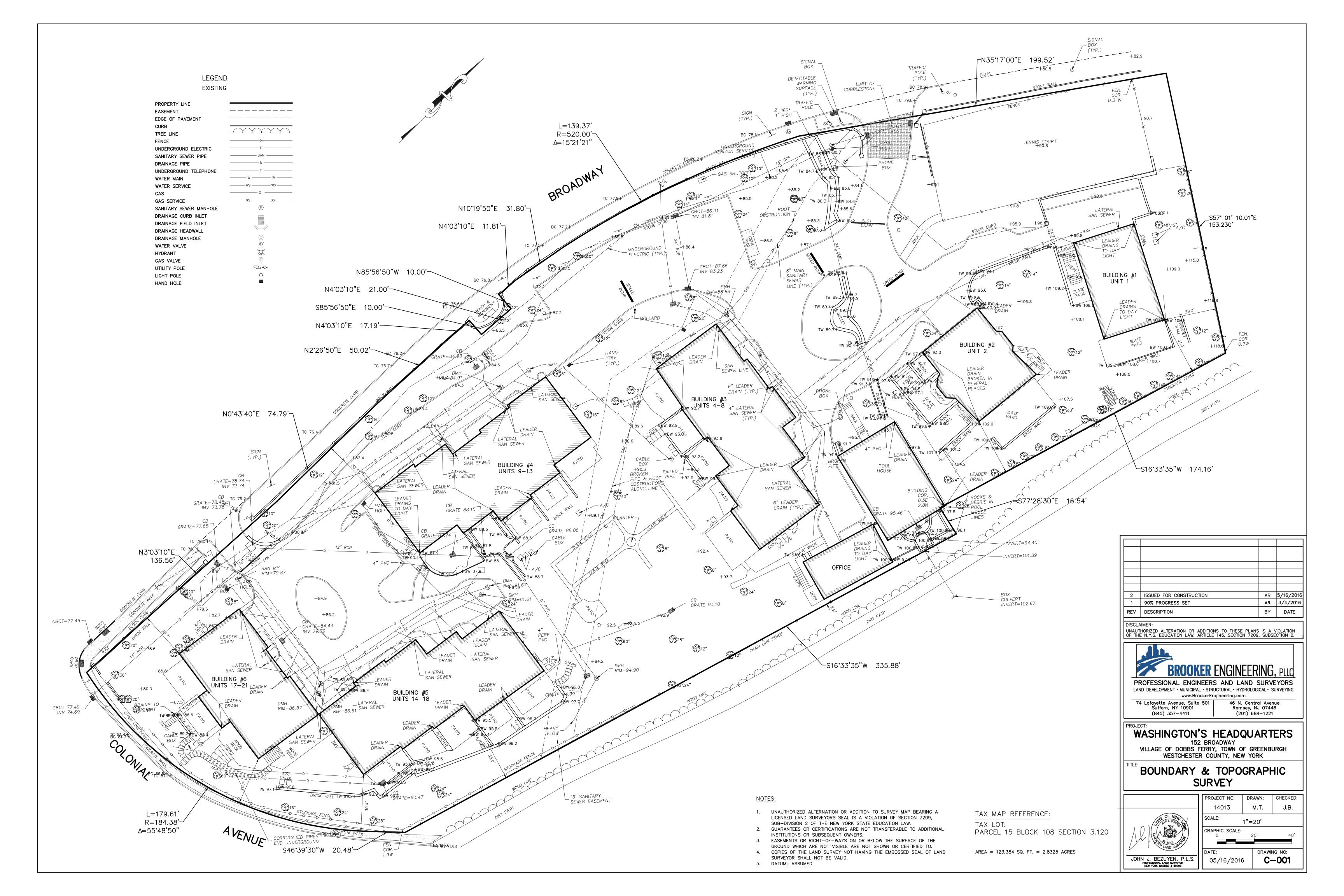


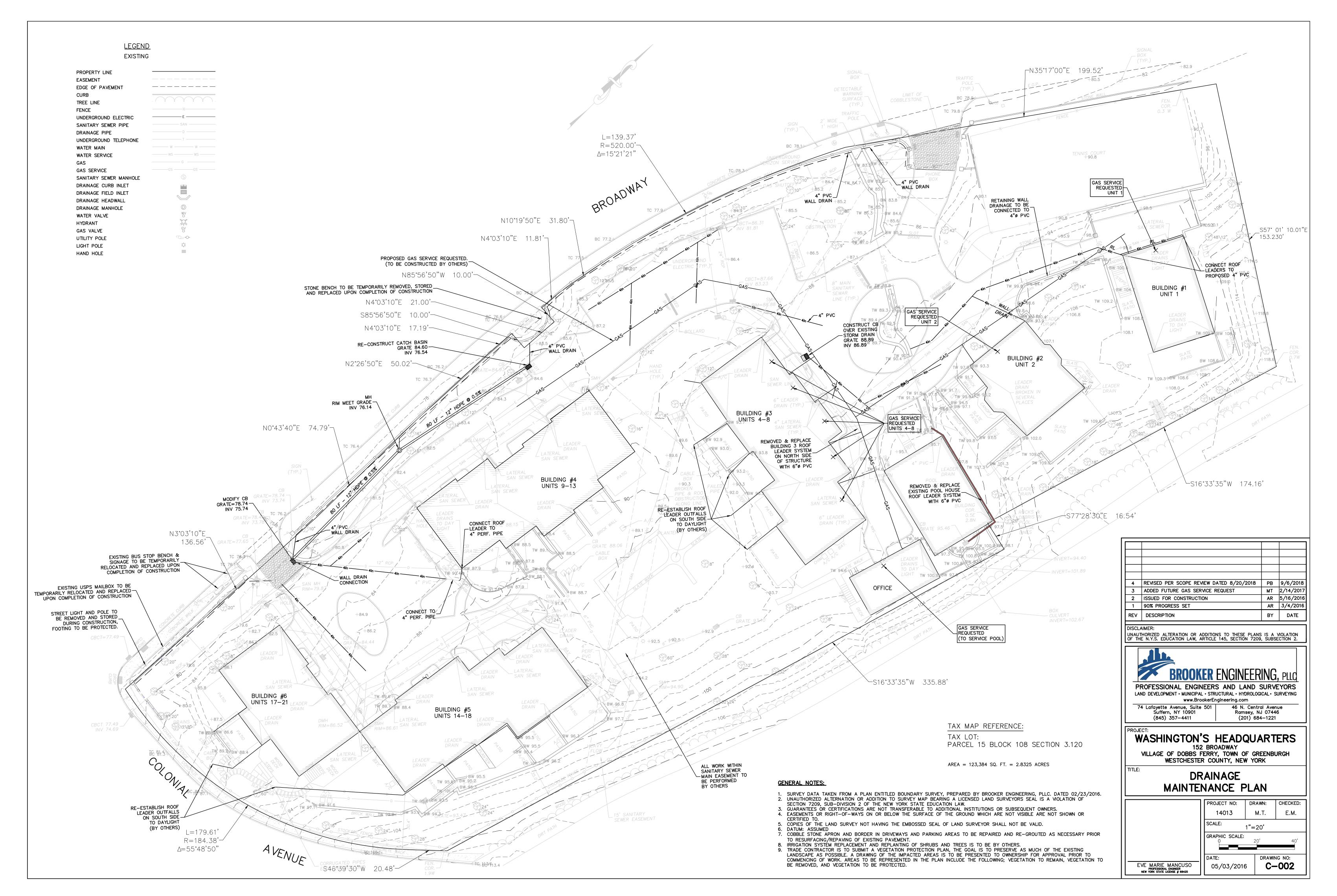
AS SHOWN

GRAPHIC SCALE: DRAWING NO: T-001 05/16/2016

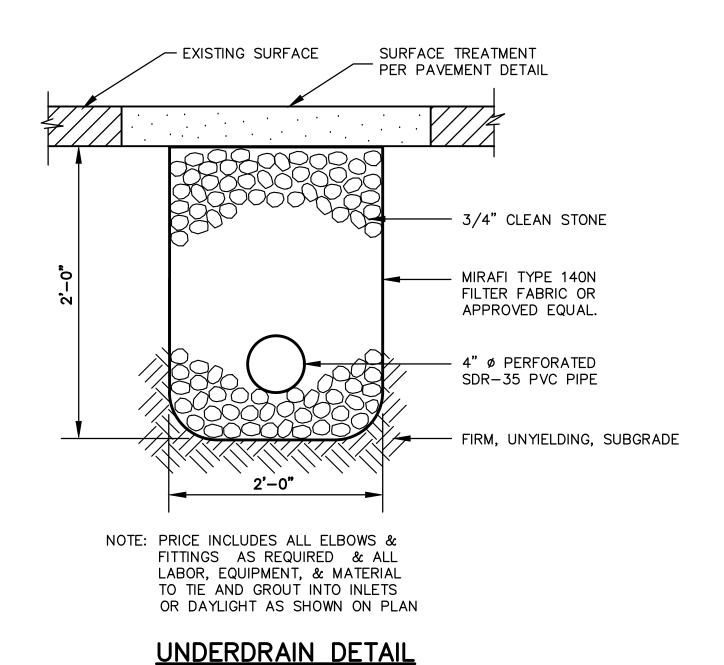
BROOKER ENGINEERING, PLLC

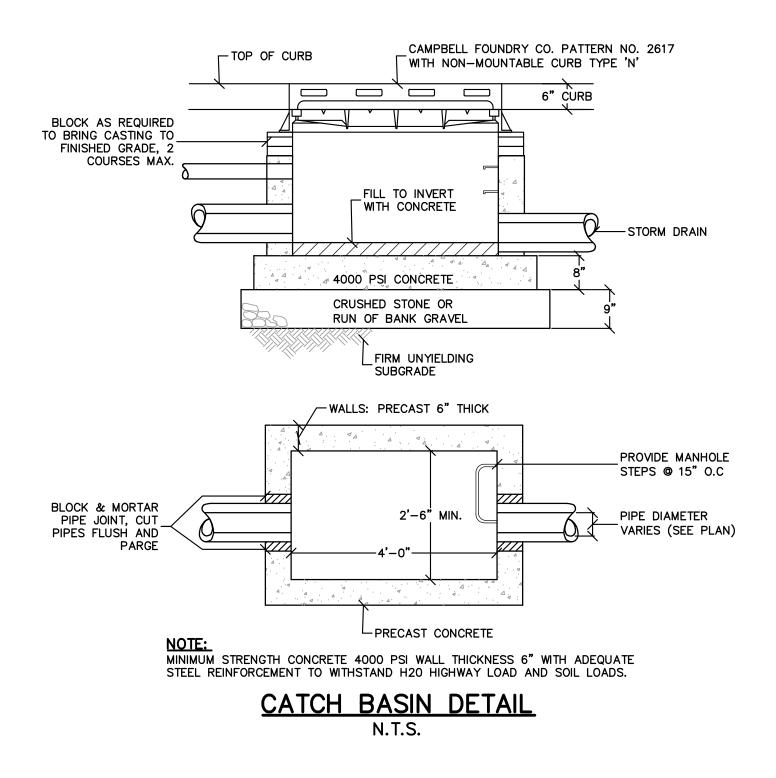
CONSULTING ENGINEERS LAND USE DEVELOPMENT · STRUCTURAL HYDROLOGICAL 74 LAFAYETTE AVENUE, SUITE 501, SUFFERN, NEW YORK 10901 phone: (845) 357-4411 fax: (845) 357-1896

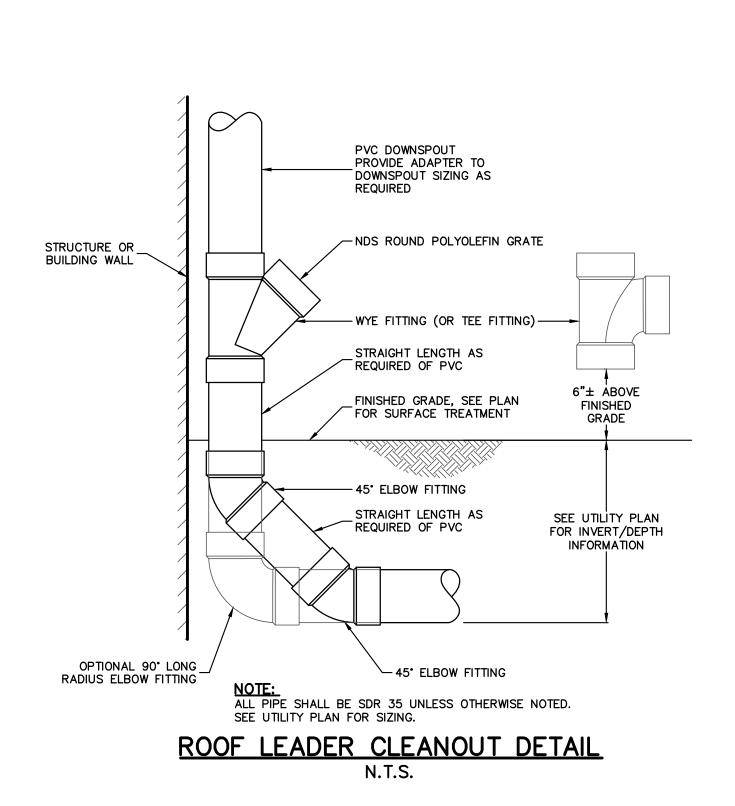


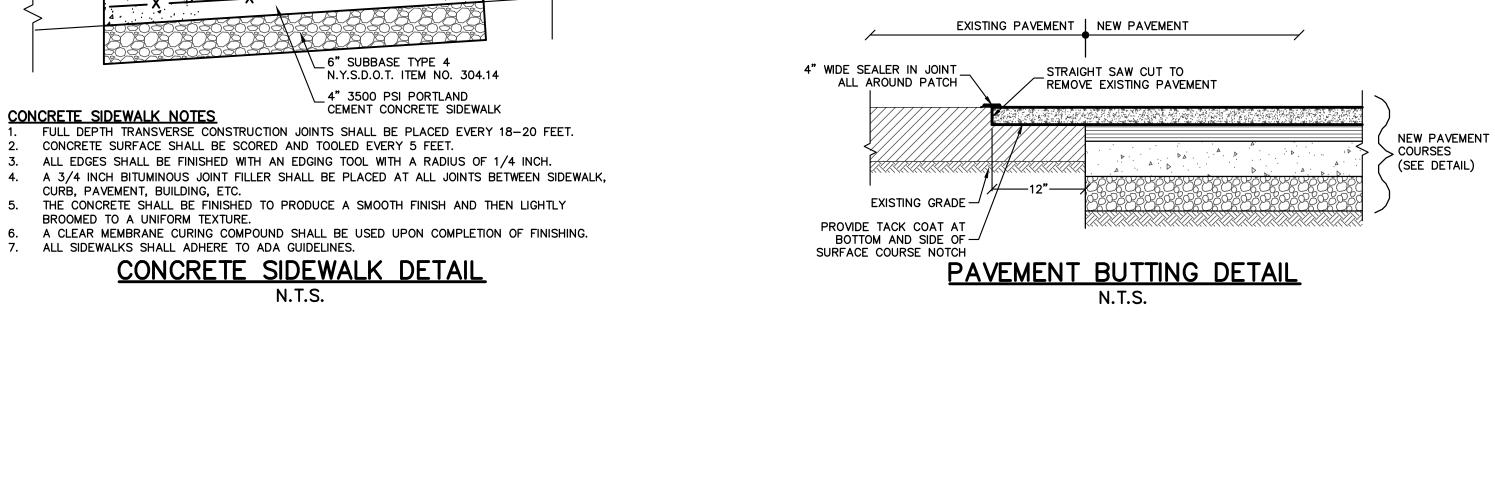


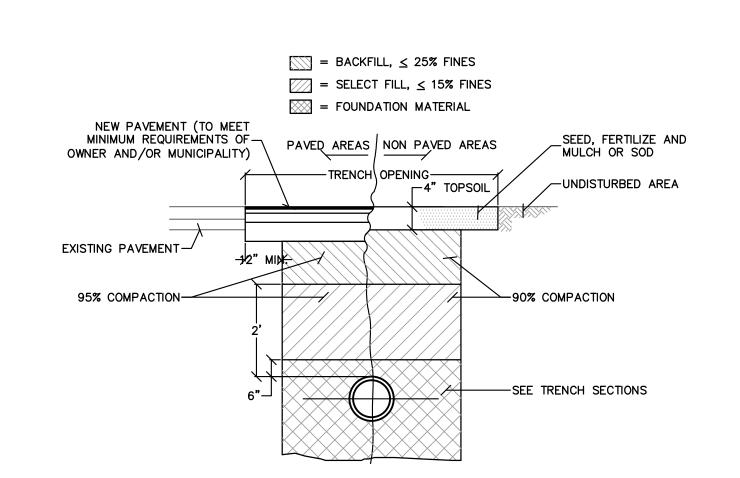
P:\BBE\14\14013\\_Dwg\CIVIL\Rev3 2-14-2017\Drainage Improvements.dwg, 9/5/2018 2:C





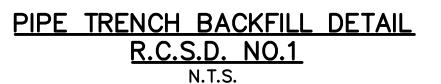


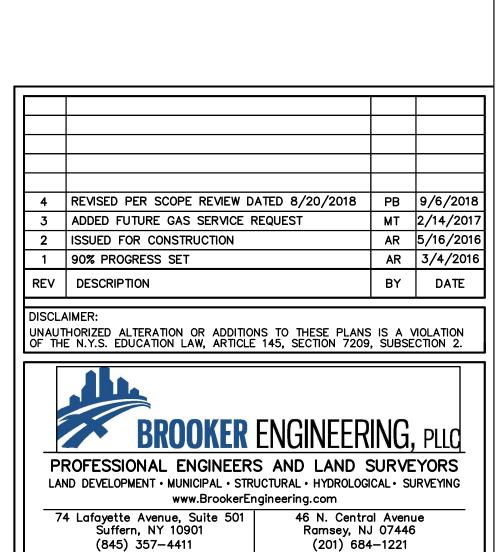




- BROOM FINISH (MATCH EXISTING IF APPLICABLE)

\_ 6X6X6 W.W.F.





1 1/2" OF N.Y.S.D.O.T. ITEM NO. 402.126101 12.5 F1 TOP COURSE

2 1/2" OF N.Y.S.D.O.T. ITEM NO. -402.256901 25 F9 BINDER COURSE

\_ 4" OF N.Y.S.D.O.T. ITEM NO. 304.11

HMA, 60 SERIES COMPACTION

HMA, 60 SERIES COMPACTION

FIRM, UNYIELDING SUBGRADE

STONE SUBBASE

PARKING LOT PAVEMENT SECTION

ROJECT:

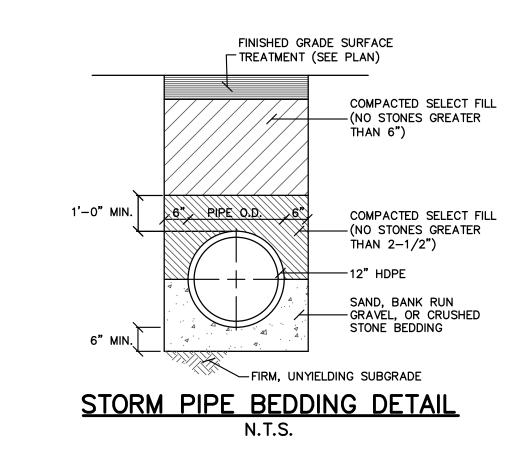
WASHINGTON'S HEADQUARTERS

152 BROADWAY

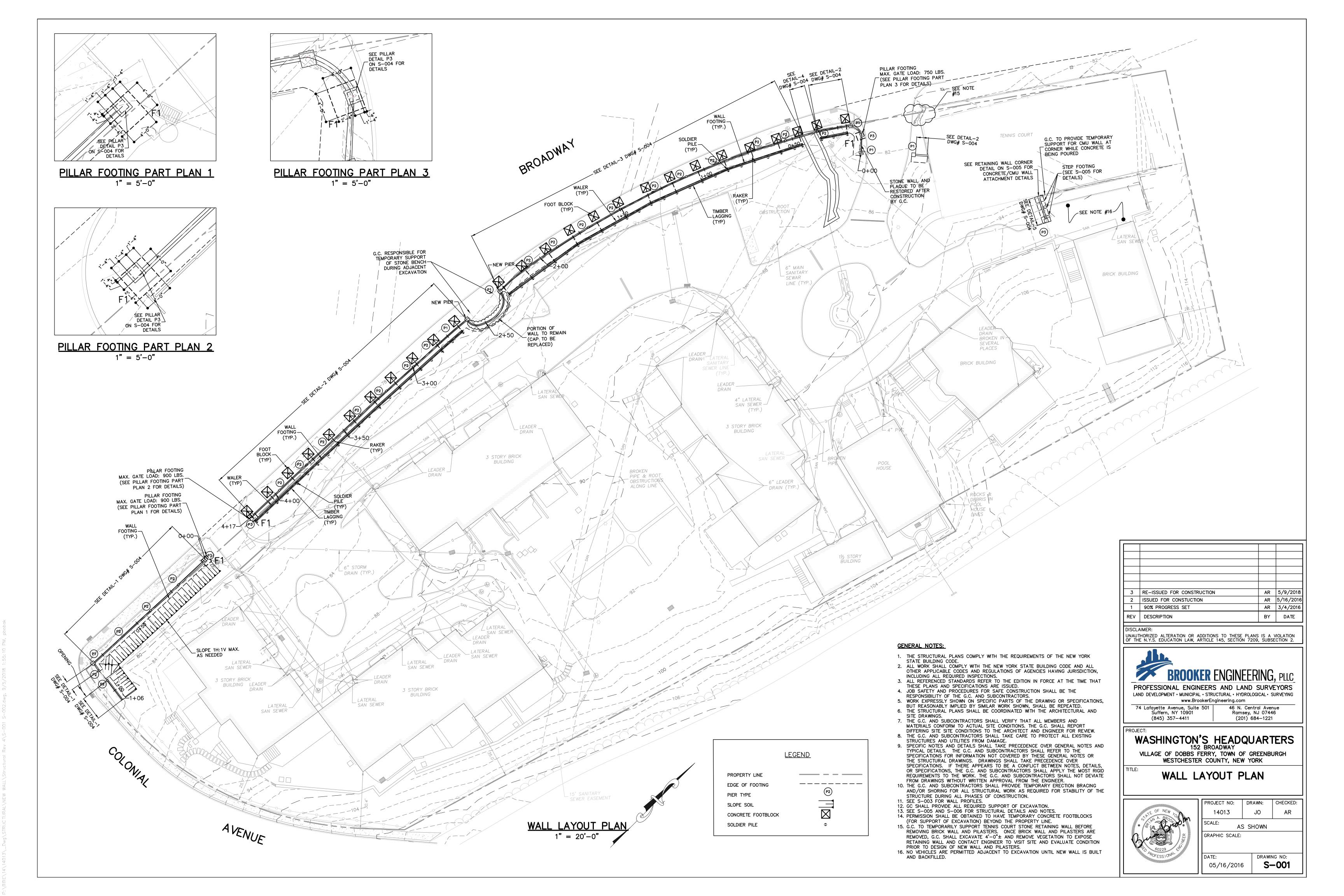
VILLAGE OF DOBBS FERRY, TOWN OF GREENBURGH
WESTCHESTER COUNTY, NEW YORK

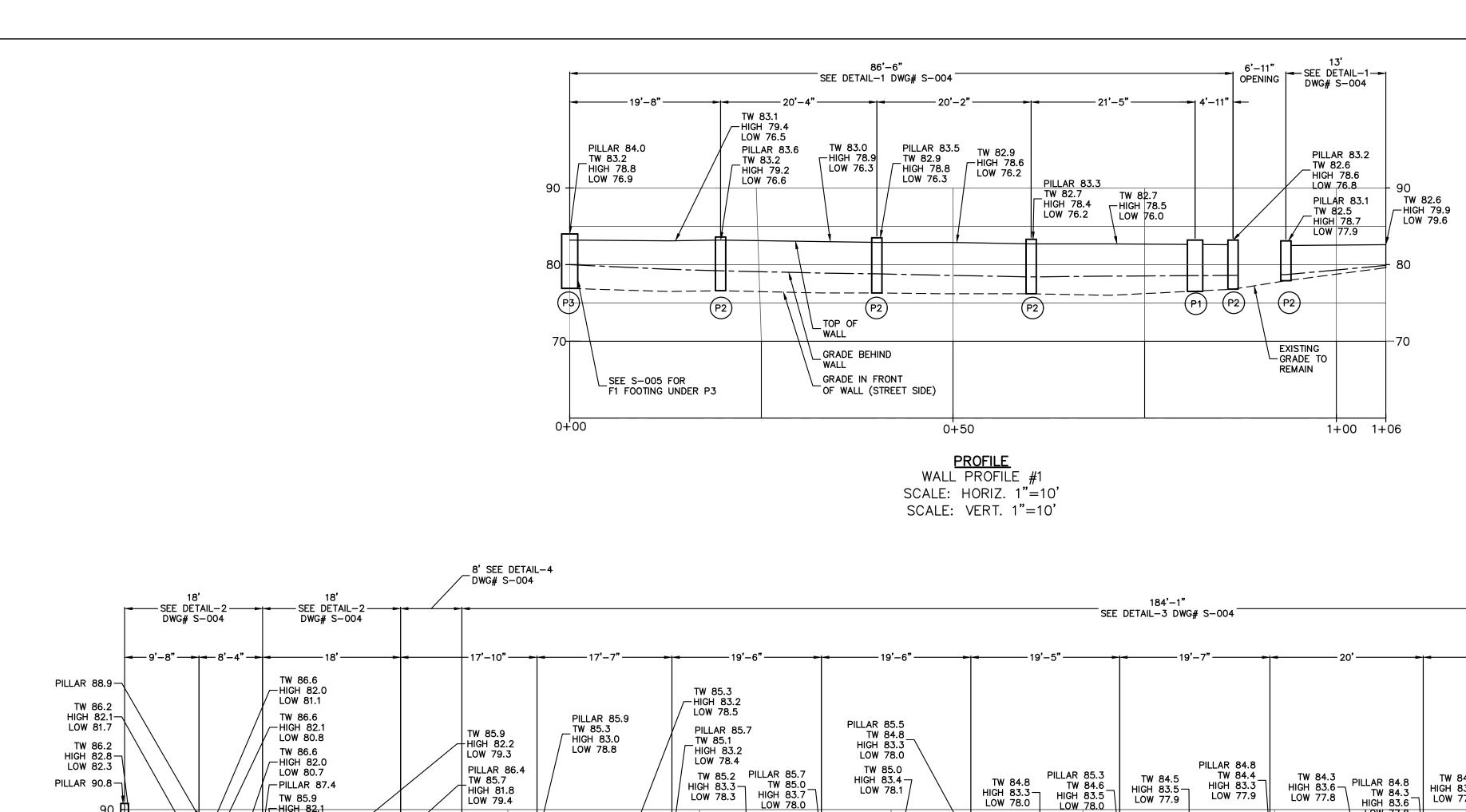
CONSTRUCTION DETAILS

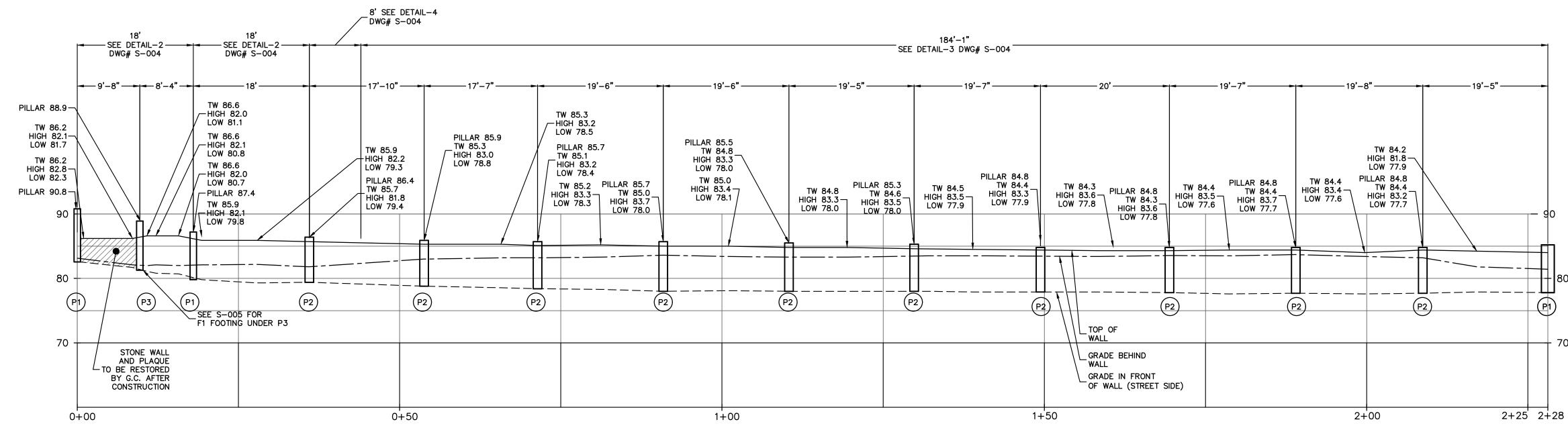
	PROJECT NO:	DRAWN:	CHECKED:
	14013	M.T.	E.M.
	SCALE: 1"=20'		
	GRAPHIC SCALE:  0 20' 40'		
EVE MARIE MANCUSO PROFESSIONAL ENGINEER NEW YORK STATE LICENSE # 68425	DATE: 05/03/2016	DRAWIN	IG NO: - <b>003</b>



N.T.S.







PROFILE (STA 0+00 TO STA 2+28.1)

WALL PROFILE #2

SCALE: HORIZ. 1"=10'

SCALE: VERT. 1"=10'

SEE DETAIL-2 DWG# S-004 PILLAR 85.2 TW 84.0 HIGH 81.5 LOW 77.8 WALL AND BENCH BETWEEN PILLAR 84.8 TW 84.2 \_ HIGH 80.6 LOW 77.3 PIERS TO REMAIN (CAP TO BE REPLACED) PILLAR 84.0 TW 83.4\_ PILLAR 85.1 TW 84.3 HIGH 80.2 LOW 77.6 HIGH 79.1 PILLAR 84.5 TW 84.0 PILLAR 84.0 TW 83.2 HIGH 78.9 LOW 76.9 TW 83.9 PILLAR 84.4
HIGH 80.1
LOW 76.9 HIGH 80.2
LOW 77.1 LOW 76.5 TW 83.3 HIGH 79.1 LOW 76.6 TW 83.7 HIGH 79.9 LOW 76.6 TW 83.8 PILLAR 84.3
HIGH 79.7 TW 83.7
LOW 76.4 HIGH 79.8
LOW 76.5 TW 84.3 HIGH 80.0 – LOW 77.4 TW 84.1 HIGH 80.5 LOW 76.8 PILLAR 84.4 TW 83.8\_ PILLAR 84.2 HIGH 80.2 LOW 77.0 HIGH 79.9 LOW 76.7 HIGH 79.4 ¬ LOW 76.4 90-P2 P2 MONUMENT\_ TO REMAIN \_TOP OF WALL \_\_GRADE\_BEHIND WALL SEE S-005 FOR\_ F1 FOOTING UNDER P3 GRADE IN FRONT OF WALL (STREET SIDE) 2÷28 2+50 3+00 3+50 4+00 4+17.3

PROFILE (STA STA 2+28.1) TO STA 4+19)

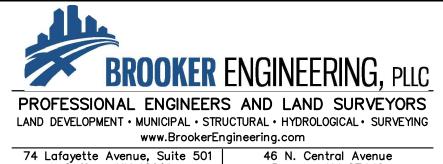
WALL PROFILE #2

SCALE: HORIZ. 1"=10'

SCALE: VERT. 1"=10'

3	RE-ISSUED FOR CONSTRUCTION	AR	5/9/20
2	ISSUED FOR CONSTRUCTION	AR	5/16/2
1	90% PROGRESS SET	AR	3/4/2
REV	DESCRIPTION	BY	DATE

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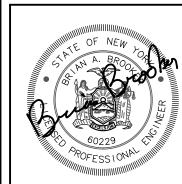


WASHINGTON'S HEADQUARTERS

152 BROADWAY

VILLAGE OF DOBBS FERRY, TOWN OF GREENBURGH WESTCHESTER COUNTY, NEW YORK

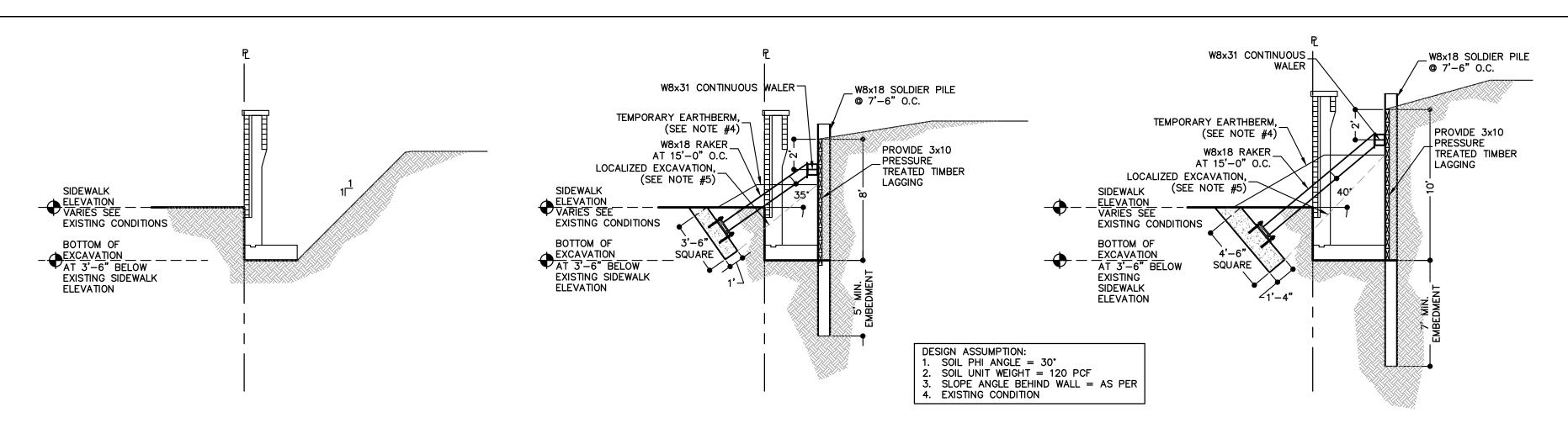
WALL PROFILES



PROJECT NO:	DRAWN:	CHECKED:		
14013	JO	AR		
SCALE:	SCALE: AS SHOWN			
GRAPHIC SCALE:				
DATE:	DRAWI	NG NO:		

05/16/2016

S-002



## DETAIL-A: SOE FOR 0' TO 2' RETAINING WALL

1. SLOPE SOIL AS NEED AT A MAXIMUM SLOPE OF 1H:1V.

## DETAIL-B: SOE FOR 2' TO 4' RETAINING WALL

1. G.C. TO OBTAIN PROPER PERMITS FROM DOT AND OTHER APPLICABLE

- AGENCIES FOR SIDEWALK CLOSURE. 2. G.C. TO RETURN SIDEWALK TO PRE CONSTRUCTION CONDITIONS OR AS PER EASEMENT AGREEMENT.
- 3. FRONT FLANGE OF SOLDIER PILE SHALL BE INSTALLED FLUSH WITH THE EDGE OF PROPOSED FOOTING. 4. TEMPORARY EARTHBERM SHALL BE CONSTRUCTED PRIOR TO RAKER AND FOOTBLOCK INSTALLATION. TEMPORARY EARTHBERM SHALL NOT BE INSTALLED MORE THAN 1' BELOW THE CENTER OF WALER LOCATION. EARTHBERM SHALL BE CONSTRUCTED WITH A 4' MIN. FLAT
- MAX SLOPE ON EARTHBERM IS 1H:1V. 5. A LOCALIZED TRENCH IS ALLOWED FOR RAKER AND FOOTBLOCK INSTALLATION ONLY AT LOCATIONS WHERE RAKERS NEED TO BE
- 6. SEE WALER CONNECTION DETAIL FOR INSTALLATION OF WALER TO

GRADE EXTENDING FROM FACE OF LAGGING WALL PRIOR TO SLOPING.

7. SEE FOOTBLOCK CONNECTION DETAIL FOR INSTALLATION OF RAKER TO

## DETAIL-C: SOE FOR 4' TO 6' RETAINING WALL

- 1. G.C. TO OBTAIN PROPER PERMITS FROM DOT AND OTHER APPLICABLE AGENCIES FOR SIDEWALK CLOSURE.
- 2. G.C. TO RETURN SIDEWALK TO PRE CONSTRUCTION CONDITIONS OR AS PER EASEMENT AGREEMENT.
- 3. FRONT FLANGE OF SOLDIER PILE SHALL BE INSTALLED FLUSH WITH THE EDGE OF PROPOSED FOOTING.
- 4. TEMPORARY EARTHBERM SHALL BE CONSTRUCTED PRIOR TO RAKER AND FOOTBLOCK INSTALLATION. TEMPORARY EARTHBERM SHALL NOT BE INSTALLED MORE THAN 1' BELOW THE CENTER OF WALER LOCATION. EARTHBERM SHALL BE CONSTRUCTED WITH A 4' MIN. FLAT GRADE EXTENDING FROM FACE OF LAGGING WALL PRIOR TO SLOPING.
- MAX SLOPE ON EARTHBERM IS 1H:1V. 5. A LOCALIZED TRENCH IS ALLOWED FOR RAKER AND FOOTBLOCK INSTALLATION ONLY AT LOCATIONS WHERE RAKERS NEED TO BE
- 6. SEE WALER CONNECTION DETAIL FOR INSTALLATION OF WALER TO
- 7. SEE FOOTBLOCK CONNECTION DETAIL FOR INSTALLATION OF RAKER TO

## SOLDIER PILE -BOTTOM OF EXCAVATION-ENCASE PILE IN CONCRETE FILLED HOLE MINIMUM ─ 20 TSF ROCK

## **ROCK SOCKET DETAIL**

1. DRILL THROUGH ROCK TO THE SPECIFIED DEPTH SHOWN

- 2. ROCK SOCKET SHALL BE COMPLETELY CLEAN OF ANY DEBRIS AND ROCK FRAGMENTS CREATED DURING DRILLING
- PROCESS PRIOR TO INSERTING SOLDIER PILE.
- 3. INSERT SOLDIER PILE INTO ROCK SOCKET. 4. FILL ENTIRE ROCK SOCKET WITH CONCRETE.

#### **MATERIAL NOTES:**

- 1. CONCRETE USED FOR FOOTBLOCK AND ROCK SOCKET SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 4,000
- PSI WITHIN 28 DAYS. 2. ALL DRY PACK SHALL BE A MIXTURE OF I PART CEMENT AND II PARTS DAMP SAND. WITH O SLUMP.
- . STEEL REBARS SHALL CONFORM TO ASTM A616 GRADE 60, Fy = 60 KSI. WELDING SHALL BE PERFORMED ACCORDING TO AWS D1.1 USING E70XX ELECTRODES BY CERTIFIED WELDERS.
- 5. ALL STRUCTURAL STEEL, EITHER HOT-ROLLED OR BUILT-UP WELDED SECTIONS SHALL BE DESIGNED, FABRICATED AND INSTALLED IN ACCORDANCE WITH AISC'S LATEST EDITION "SPECIFICATIONS FOR THE DESIGN, FABRICATION, AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS".
- WALES AND RAKERS SHALL CONFORM TO THE REQUIREMENTS OF ASTM A992, Fy = 50 KSI. 7. W AND HP SHAPE SOLDIER PILES SHALL CONFORM TO THE REQUIREMENTS OF ASTM A572 GRADE 50, Fy = 50 KSI.

  3. STEEL CHANNELS SHALL CONFORM TO THE REQUIREMENTS OF ASTM A36, Fy = 36 KSI.
- STRUCTURAL TUBING SHALL CONFORM TO THE REQUIREMENTS OF ASTM A500 GRADE B, Fy = 46 KSI. 10. STEEL BOLTS SHALL BE A325 BOLTS U.N.O.
- 11. ALL OTHER STEEL SHAPES SHALL HAVE A MINIMUM YIELD STRENGTH OF 36 KSI. 12. STEEL FILLER PLATES AND WEDGES SHALL BE PLACED TO PROVIDE FULL BEARING BETWEEN BASE PLATES AND
- 13. SPLICES OF STEEL SHALL DEVELOP THE FULL STRENGTH OF THE STRUCTURAL STEEL MEMBER.
- 14. LUMBER AND TIMBER SHALL BE NO.2 DOUGLAS FIR-LARCH OR EQUIVALENT. 15. CCA PRESSURE TREATED LUMBER SHALL BE USED FOR LAGGING WHEN THE LAGGING WILL NOT BE REMOVED.
- 16. TIMBER LAGGING SHALL BE VISUALLY GRADED DOUGLAS FIR LARCH DIMENSION LUMBER NO.2 DENSE OR OTHER GRADE WITH MINIMUM ALLOWABLE STRESSES OF:
- 16.1. BENDING Fb=1250 PSI. 16.2. SHEAR. Fv=135 PSI. 17. MEMBER SIZES SHOWN ON THE DRAWING ARE THE MINIMUM ALLOWED SUBSTITUTION WITH LARGER MEMBERS OR OF

#### SOLDIER PILE GENERAL NOTES:

- 1. ALL STRUCTURAL STEEL, EITHER HOT-ROLLED OR BUILT-UP WELDED SECTIONS SHALL BE DESIGNED, FABRICATED AND INSTALLED IN ACCORDANCE WITH AISC'S LATEST EDITION FOR THE DESIGN, FABRICATION AND ERECTION OF
- STRUCTURAL STEEL FOR BUILDINGS. ALL STRUCTURAL STEEL SHALL CONFORM TO THE REQUIREMENTS OF ASTM A572 GRADE 50. SPLICING OF STEEL PILES SHALL DEVELOP THE FULL CAPACITY OF STRUCTURAL MEMBER AND SHOULD BE APPROVED BY THE
- THE CONTRACTOR SHALL ATTACH SUITABLE BRACING OR SUPPORT TO MAINTAIN THE POSITION OF THE SOLDIER PILE WITHIN THE SHAFT EXCAVATION SUCH THAT THE FINAL LOCATION WILL SATISFY THE TOLERANCES AS
- THE BRACING OR SUPPORTS SHALL REMAIN IN PLACE UNTIL THE FOUNDATION CONCRETE HAS CURED FOR AT LEAST 7 DAYS.
- CONSTRUCTION TOLERANCES: THE SOLDIER PILES SHALL BE DRILLED AND LOCATED WITHIN THE EXCAVATION TO SATISFY THE FOLLOWING TOLERANCES:
- THE OUT OF VERTICAL PLUMBNESS OF THE SOLDIER PILE SHALL NOT EXCEED 1 PERCENT OF THE PILE LENGTH. 5.2. THE TOP OF THE SOLDIER PILE SHALL BE WITHIN 3" OF THE PLAN ELEVATION.
- WELDS SHALL BE MADE BY NYC LICENSED WELDERS. WELDING ELECTRODES SHALL CONFORM TO E70 SERIES A-233. ALL WELDING AND WELDING SYMBOLS ON
- DRAWINGS SHALL CONFORM TO A.W.S. STANDARD CODE FOR WELDING BUILDING CONSTRUCTION. PERFORM UTILITY IDENTIFICATION AND EXPLORATION AS NECESSARY BEFORE INSTALLING SOLDIER PILES.

#### SOLIDER PILE GENERAL PRE INSTALLATION NOTES:

- INSTALL VIBRATION MONITORING SYSTEM. PERFORM PRECONSTRUCTION SURVEY.
- PERFORM UTILITY IDENTIFICATION AND EXPLORATION AS NECESSARY.
- 5. ALL PILES SHALL BE INSTALLED IN THE LOCATION SHOWN ON THESE DRAWINGS.
- 6. ALL SOLDIER PILES THAT SHALL BE SOCKETED INTO ROCK SHALL BE DRILLED (G.C. TO MAKE A TEST PIT IN ORDER TO VERIFY SUBGRADE AND/OR ROCK CONDITION.)
- 7. MAX ALLOWABLE SLOPE FOR UN-RETAINED SOIL IS 1 HORIZONTAL TO 1.0 VERTICAL.

SIMILAR SIZED MEMBERS WITH HIGHER MATERIAL STRENGTH IS PERMITTED.

#### **LAGGING INSTALLATION PROCEDURE:**

THE BOTTOM OF EXCAVATION.

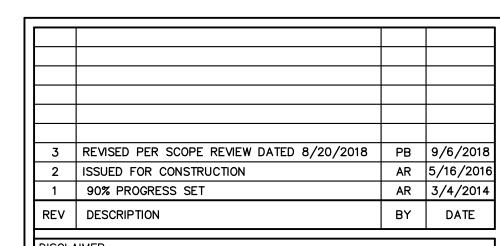
- PROVIDE FLAT SURFACE FOR TIMBER LAGGING TO BE SECURED IN PLACE TO SOLDIER PILES, INSTALL LAGGING HORIZONTALLY WITH A 2" GAP BETWEEN BOARDS.
- LAGGING SHALL BE INSTALLED AS THE EXCAVATION ADVANCES WITH A MAXIMUM DEPTH OF 2-FT PRIOR TO
- AS INSTALLATION PROGRESSES, BACKFILL VOIDS BETWEEN EXCAVATION FACE AND LAGGING WITH SAND OR SOIL RAMMED INTO PLACE. PROVIDE DRAINAGE MATTING OR BURLAP WHERE NECESSARY TO ALLOW DRAINAGE OF
- GROUNDWATER WITHOUT LOSS OF SOIL OR SAND PACKING. IF WALERS OR OTHER MEANS OF BRACING ARE REQUIRED, MAXIMUM EXCAVATION BELOW BRACING LEVEL IS 1-FT
- FOR WALERS AND RAKERS UNLESS NOTED ON DRAWING. IF UNSTABLE MATERIAL IS ENCOUNTERED DURING EXCAVATION, TAKE SUITABLE MEASURES TO CONTAIN SUCH
- MATERIAL IN PLACE AND TO PREVENT SOIL DISPLACEMENT. IF MATERIAL BEHIND LAGGING HAS BEEN LOST OR DISTURBED, LEAVE A 1-0 TO 1-1/2 INCH SPACE BETWEEN
- LAGGING BOARDS TO IMMEDIATELY BACKFILL OR GROUT. HAY OR FILTER FABRIC SHALL BE USED TO MINIMIZE MIGRATION OF FINES INTO THE EXCAVATION.

## WALER. RAKER. AND FOOTBLOCK INSTALLATION PROCEDURE:

- INSTALL SOLDIER PILE AS PER SOLDIER PILE INSTALLATION PROCEDURES
- PROCEED WITH LAGGING INSTALLATION DOWN TO WALER ELEVATION.
- 4. CONSTRUCT EARTH BERM BELOW WALER. EARTH BEARM TO START AT 1'-0" MAX BELOW WALER UNLESS NOTED OTHERWISE. PROVIDE 4'-0" MINIMUM OF HORIZONTAL SOIL FROM FACE OF LAGGING, THEN SLOPE 1V:1H MAX TO
- 5. IF EARTH BERM IS IN THE WAY OF INSTALLING RAKER, AND FOOTBLOCK. A LOCAL TRENCH TO INSTALL RAKER AND FOOTBLOCK IS PERMISSIBLE.
- 6. INSTALL RAKER AND FOOTBLOCK. RAKER CAN BE CAST INSIDE THE FOOTBLOCK OR CONNECTED TO FOOTBLOCK BY ANCHOR BOLTS AS SHOWN ON CONSTRUCTION DETAILS.
- 7. EARTH BERM CAN BE REMOVED ONCE SOLDIER PILE IS BRACED. PROCEED WITH EXCAVATION, AND LAGGING INSTALLATION.

#### **GENERAL NOTES:**

1. CONTRACTOR MAY PROVIDE AN ALTERNATE SOE DESIGN FOR THE WALL REPLACEMENT WORK, WITH A NEW YORK STATE LICENSED PE'S STAMP, FOR REVIEW AND ACCEPTANCE BY THE OWNER.



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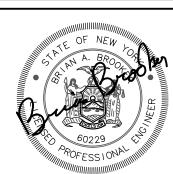


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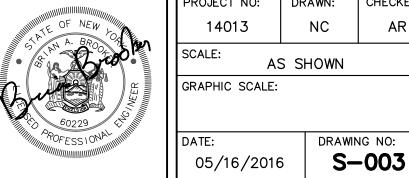
WASHINGTON'S HEADQUARTERS 152 BROADWAY

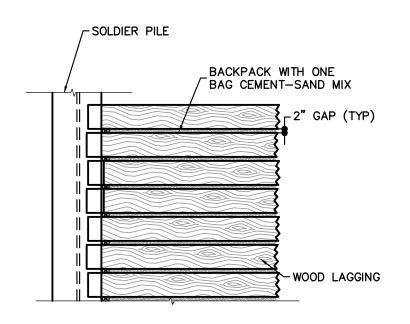
VILLAGE OF DOBBS FERRY, TOWN OF GREENBURGH WESTCHESTER COUNTY, NEW YORK

SUPPORT OF EXCAVATION **DETAILS & NOTES** 



PROJECT NO: DRAWN: | CHECKED: SCALE: AS SHOWN **GRAPHIC SCALE:** DRAWING NO:





## SOLDIER BEAM AND LAGGING DETAILS

€ OF RAKER

<sup>∠</sup>2" (TYP.i)

STEEL SHIM BELOW PLATE-

♠ OF RAKER



THE FACE MOVES TOWARDS THE EXCAVATION AREA.

HORIZONTAL TIMBER LAGGING

DOUGLAS FIR LARCH No.2 OR

APPROVED EQUAL

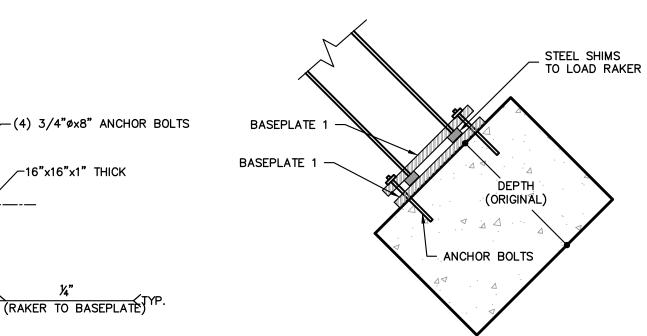
(2) 2x4 SHIMS BETWEEN

EACH LAGGING BOARD.

**EXCAVATE 2' MAX BEFORE INSTALLING** 

TIMBER LAGGING

(SEE NOTE)



## BASEPLATE '

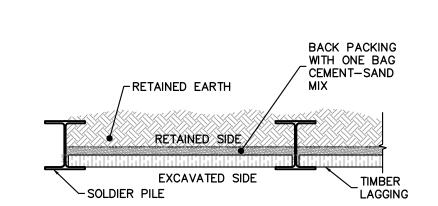
-16"x16"x1" THICK

(RAKER TO BASEPLATE)

# **FOOTBLOCK CONNECTION DETAIL**

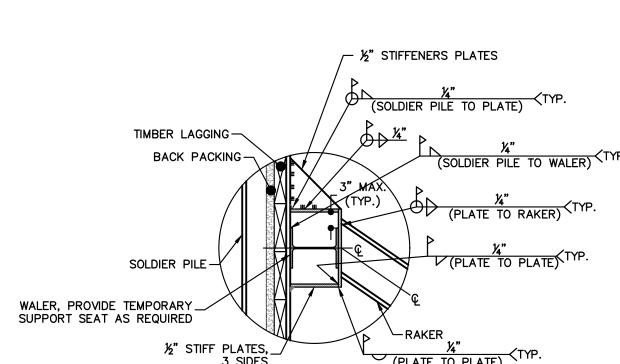
OF FOOTBLOCK SHALL INCREASE ENOUGH TO MAINTAIN ORIGINAL FOOTBLOCK DEPTH.

1. ALTERNATIVELY, BASEPLATE AND RAKER MAY BE CAST INTO THE CONCRETE FOOTBLOCK. IF SO, THE FOOTBLOCK DEPTH MEASURE FROM BOTTOM OF CAST IN PLACE BASEPLATE TO BOTTOM FACE 2. RAKERS MUST BE WEDGED TO PRE-LOAD PRIOR TO FULL EXCAVATION ALONG SOE SYSTEM.

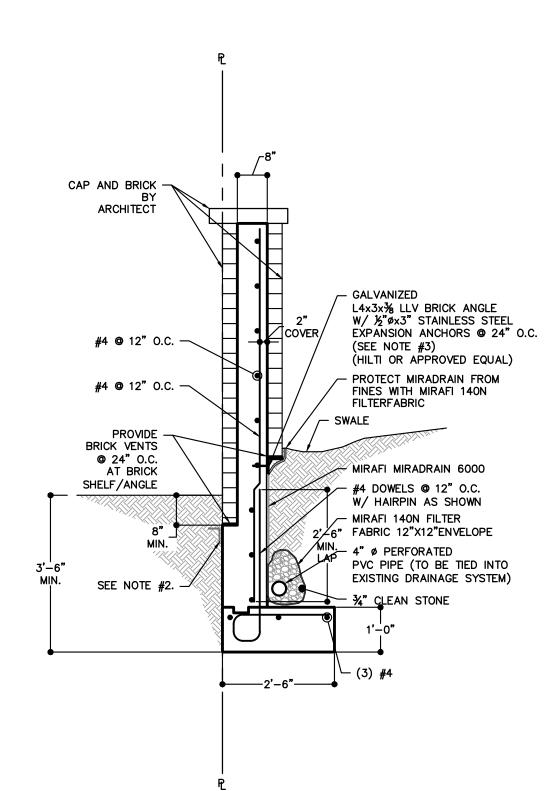


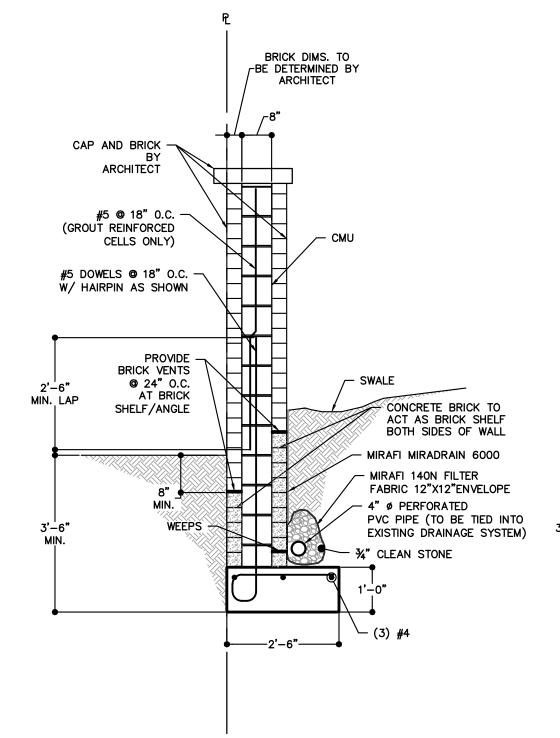
## PLAN VIEW-SOLDIER PILE

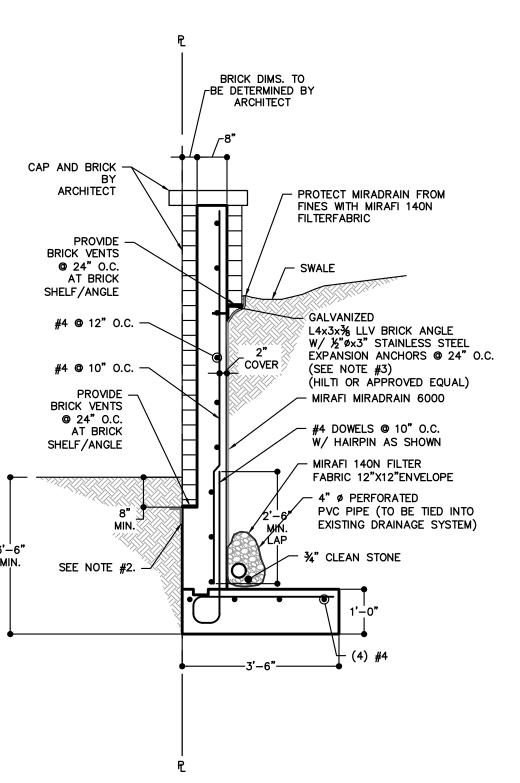
VOID BEHIND LAGGING SHALL BE FILLED WITH CONTROLLED LOW STRENGTH MATERIAL, 1 BAG CEMENT WITH 1 CY SAND (HAND WORKABLE RANGE 50-100PSI).

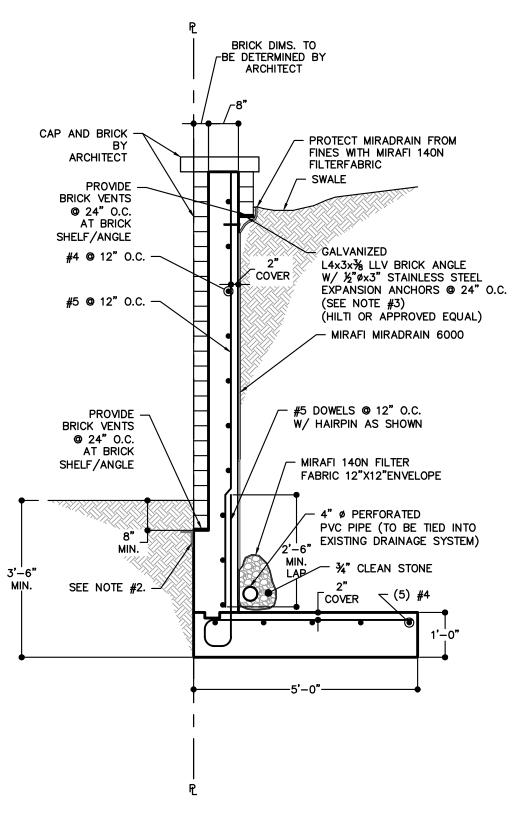


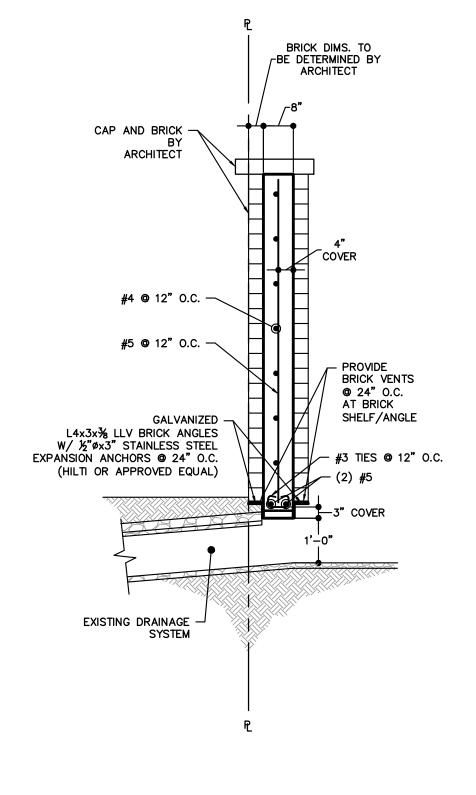
## WALER CONNECTION DETAIL

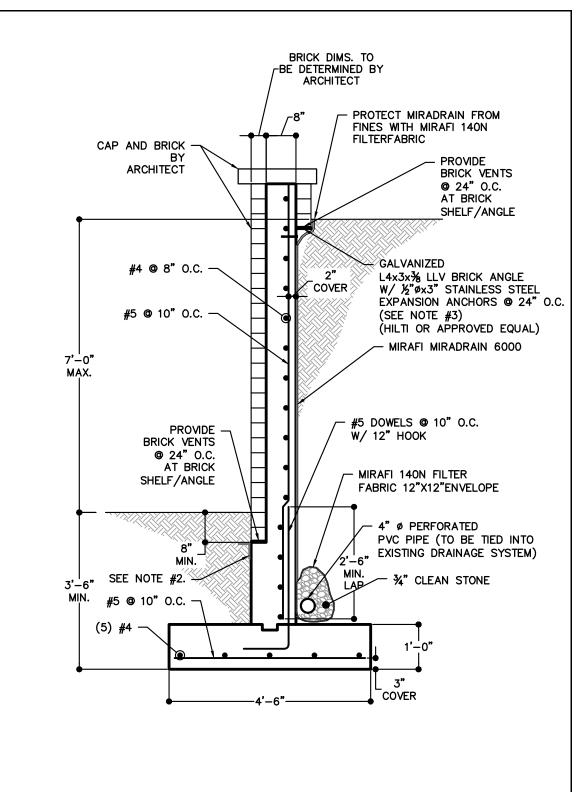












### DETAIL-1: 0' TO 2' RETAINING WALL

NOTES: WALL DESIGN IS BASED ON PRESUMPTIVE SOIL

PROPERTIES AS FOLLOWS:

 $\gamma = 120 \text{ PCF}$  $\Phi = 32^{\circ}$ BEARING CAPACITY = 4000 PSF

PROVIDE BRICK RELIEVING ANGLE FOR EXTRA BRICK AT PILLARS. AT PILLAR P1, PROVIDED L7x4x3/8" LLH WITH 1/2" Øx3" STAINLESS STEEL EXPANSION ANCHORS @ EACH END OF PILLAR.

### DETAIL-1: 0' TO 2' RETAINING WALL **ALTERNATIVE**

N.T.S.

 $\Phi = 32^{\circ}$ 

BEARING CAPACITY = 4000 PSF

WALL DESIGN IS BASED ON PRESUMPTIVE SOIL PROPERTIES AS FOLLOWS:  $\gamma$  = 120 PCF

PROVIDE BRICK RELIEVING ANGLE FOR EXTRA BRICK AT PILLARS. AT PILLAR P1, PROVIDED L7x4x¾" LLH WITH ½"øx3" STAINLESS STEEL EXPANSION ANCHORS @ EACH END OF PILLAR.

DETAIL-2: 2' TO 4' RETAINING WALL

 $\Phi = 32^{\circ}$ 

WITH 1/2" \$\psi x3" STAINLESS STEEL EXPANSION ANCHORS @ EACH END OF PILLAR.

WALL DESIGN IS BASED ON PRESUMPTIVE SOIL PROPERTIES AS FOLLOWS:  $\gamma = 120 \text{ PCF}$ 

BEARING CAPACITY = 4000 PSF PROVIDE BRICK RELIEVING ANGLE FOR EXTRA BRICK AT PILLARS. AT PILLAR P1, PROVIDED L7x4x¾" LLH

## DETAIL-3: 4' TO 6' RETAINING WALL

WALL DESIGN IS BASED ON PRESUMPTIVE SOIL PROPERTIES AS FOLLOWS:

 $\gamma = 120 \text{ PCF}$  $\Phi = 32^{\circ}$ BEARING CAPACITY = 4000 PSF

PROVIDE BRICK RELIEVING ANGLE FOR EXTRA BRICK AT PILLARS. AT PILLAR P1, PROVIDED L7x4x¾" LLH WITH 1/2" Øx3" STAINLESS STEEL EXPANSION ANCHORS @ EACH END OF PILLAR.

## DETAIL-4: STREAM OVERPASS DETAIL

#### DETAIL-5: 7' RETAINING WALL BEHIND TENNIS COURT

WALL DESIGN IS BASED ON PRESUMPTIVE SOIL PROPERTIES AS FOLLOWS:

> $\gamma = 120 \text{ PCF}$  $\Phi = 32^{\circ}$ BEARING CAPACITY = 4000 PSF

PROVIDE BRICK RELIEVING ANGLE FOR EXTRA BRICK AT PILLARS. AT PILLAR P1, PROVIDED L7x4x¾" LLH WITH 1/2" Øx3" STAINLESS STEEL EXPANSION ANCHORS @ EACH END OF PILLAR.

#### CONCRETE FOOTING -BELOW \_\_\_\_\_\_ SEE TYP. WALL SECTIONS - CONCRETE SEE NOTE #2-FOR REINFORCEMENT DETAILS SEE NOTE #2-/ SEE NOTE #1-

## PILLAR WIDTH AND DEPTH TO VARY BETWEEN 28" AND 26" BASED ON THE

PILLAR DETAIL P1

PLAN VIEW

CHOSEN BRICK LENGTH BY ARCHITECT. PILLAR PROTRUSION FROM WALL IS TO BE A MAXIMUM OF 8".

SEE ARCHITECTURAL DRAWINGS FOR ALL BRICK DIMENSIONS. BRICK PATTERN SHALL MATCH EXISTING CONDITIONS.

CONCRETE FOOTING -BELOW - CONCRETE WALL SECTIONS FOR REINFORCEMENT DETAILS SEE NOTE #1

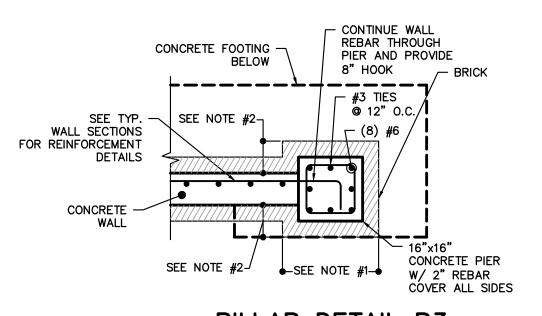
# PILLAR DETAIL P2

PILLAR WIDTH TO VARY BETWEEN 16" AND 18" BASED ON THE CHOSEN BRICK

LENGTH BY ARCHITECT. PILLAR PROTRUSION FROM WALL IS TO BE A MAXIMUM OF 8".

BRICK PATTERN SHALL MATCH EXISTING CONDITIONS.

SEE ARCHITECTURAL DRAWINGS FOR ALL BRICK DIMENSIONS.



# PILLAR DETAIL P3

PILLAR WIDTH AND DEPTH TO VARY BETWEEN 28" AND 26" BASED ON THE

CHOSEN BRICK LENGTH BY ARCHITECT. PILLAR PROTRUSION FROM WALL IS TO BE A MAXIMUM OF 8".

SEE ARCHITECTURAL DRAWINGS FOR ALL BRICK DIMENSIONS.

4. BRICK PATTERN SHALL MATCH EXISTING CONDITIONS.

3 | RE-ISSUED FOR CONSTRUCTION AR | 5/9/2018 AR 5/16/2016 2 ISSUED FOR CONSTRUCTION 1 90% PROGRESS SET AR 3/4/2016 REV DESCRIPTION BY DATE DISCLAIMER:

UNAUTHORIZED ALTERATION OR ADDITIONS TO THESE PLANS IS A VIOLATION OF THE N.Y.S. EDUCATION LAW, ARTICLE 145, SECTION 7209, SUBSECTION 2.



WASHINGTON'S HEADQUARTERS

152 BROADWAY VILLAGE OF DOBBS FERRY WESTCHESTER COUNTY, NEW YORK

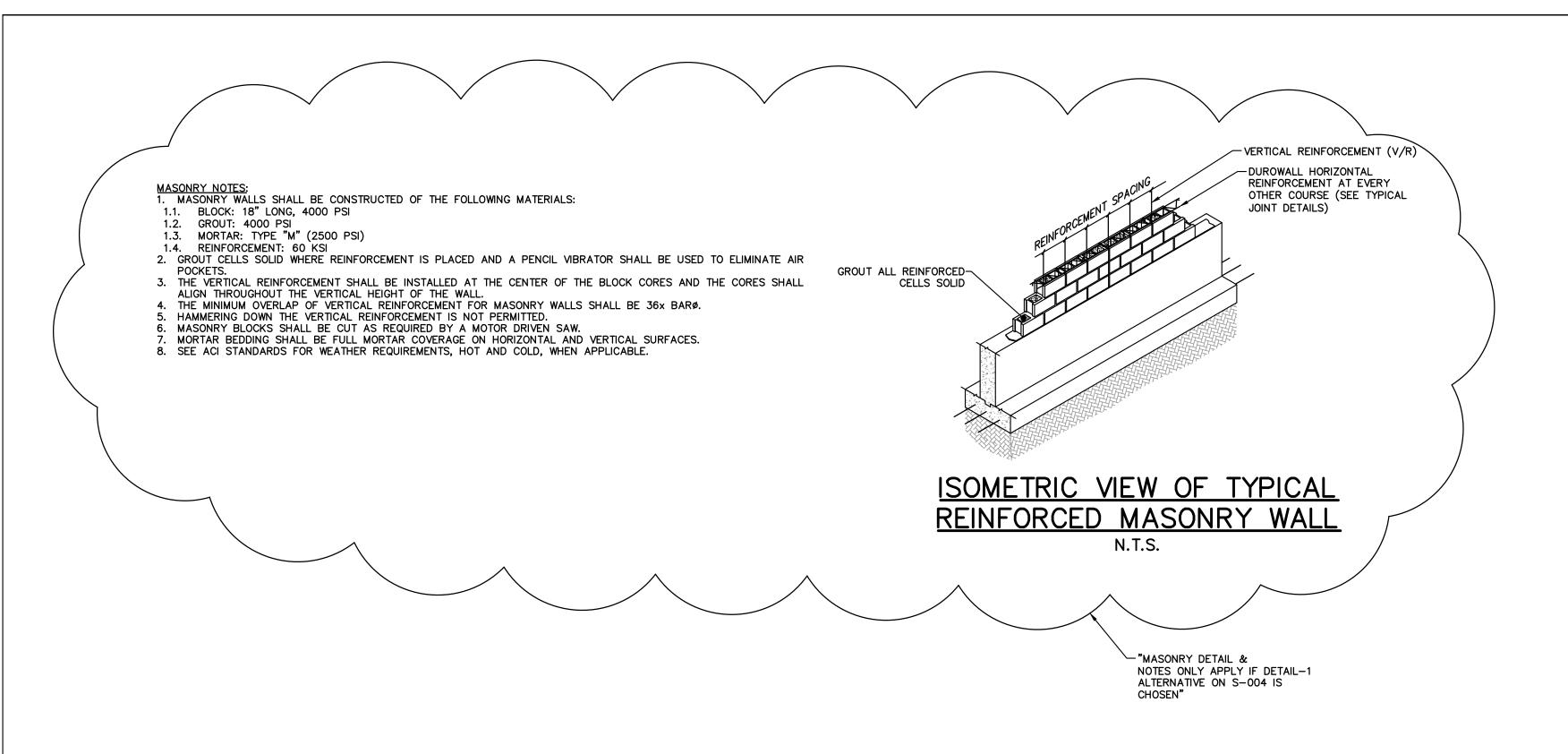
STRUCTURAL DETAILS (1 OF 2)

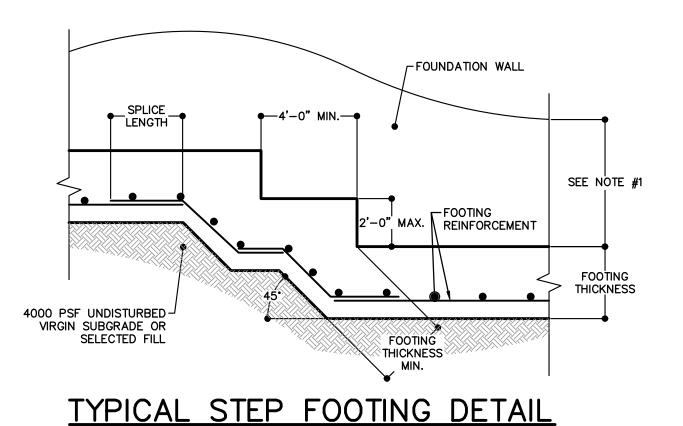


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05/16/2016

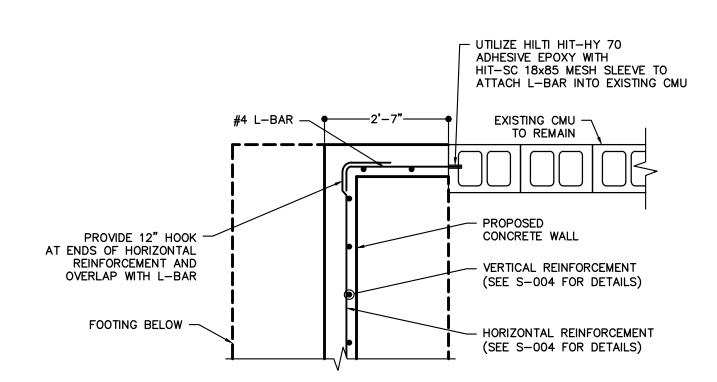
S-004





NOTES:

1. THE LOCATION OF THE STEPS ARE TO BE CONFIRMED IN THE FIELD BASED ON THE MINIMUM 3'-6" OF FROST PROTECTION AND UNDISTURBED SUBGRADE BENEATH. 2. SEE THE GEOTECHNICAL REPORT FOR REQUIREMENTS OF SELECTED FILL.



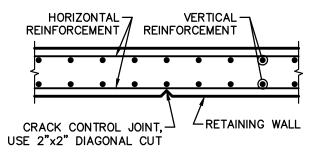
RETAINING WALL CORNER **DETAIL** 

#### FOUNDATION NOTES AND REQUIREMENTS:

- 1. ALL EXPOSED CONCRETE EDGES SHALL BE CHAMFERED. 2. WALL EXPANSION JOINTS AND CRACK CONTROL JOINTS SHALL BE PROVIDED AS SHOWN IN TYPICAL DETAIL. ALLOW 3 DAYS BETWEEN ADJACENT CONCRETE POURS. ADDITIONAL
- CONSTRUCTION JOINTS MAY BE PROVIDED IF REQUESTED BY THE CONTRACTOR. HORIZONTAL REINFORCING SHALL BE CONTINUOUS OR OVERLAPPED AS NEEDED ACROSS ALL CONSTRUCTION JOINTS.
- 4. BACKFILL MATERIAL SHALL BE CLEAN SAND OR GRAVEL CONTAINING NO MORE THAN 10% PASSING A NO. 200 SIEVE. BACKFILL SHALL BE COMPACTED TO A MINIMUM OF 95% (ASTM D1557) TO THE FINAL SUBGRADE IN LIFTS OF NO MORE THAN 8 INCH THICKNESS (LOOSE MEASURE) WITH A MECHANICAL COMPACTOR (MINIMUM OF THREE PASSES).
- 5. GENERAL CONTRACTOR/SUBCONTRACTOR SHALL OBTAIN ALL REQUIRED PERMITS, LICENSES AND NOTIFICATIONS PRIOR TO COMMENCING SITE WORK.
- 6. GENERAL CONTRACTOR/SUBCONTRACTOR SHALL REMOVE CONSTRUCTION MATERIAL AND DEBRIS FROM THE SITE DURING AND AT THE COMPLETION OF WORK. 7. BOTTOM OF FOOTING ELEVATION SHALL BE 3'-6" BELOW GRADE EXPOSED TO WEATHER AS PER REQUIREMENTS BY NYS FOR FROST PROTECTION, UNLESS FOOTING IS PINNED TO
- 8. OWNER TO PERFORM MAINTENANCE PROGRAM TO PROTECT STRUCTURE AGAINST WATER DAMAGE AND CORROSION.

### **CONCRETE AND REINFORCING NOTES:**

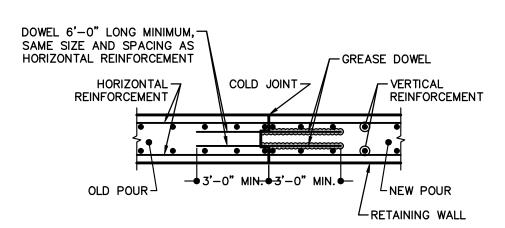
- ALL CONCRETE SHALL HAVE A MINIMUM 28 DAY COMPRESSIVE STRENGTH, F'C, OF 4000 PSI WITH 6% AIR-ENTRAINMENT AND A MAXIMUM SLUMP OF 4". 2. ALL CONCRETE SHALL BE REINFORCED AND ERECTED IN ACCORDANCE WITH THE NYS BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE AS ADOPTED BY ACI 318 AND
- LOCAL CODES.
- 3. ALL CONCRETE WORK SHALL CONFORM TO ACI 301 STANDARD SPECIFICATIONS FOR REINFORCED CONCRETE. 4. ALL CONCRETE SHALL USE PORTLAND CEMENT TYPE II. CONCRETE SHALL BE PROPORTIONED, BATCHED, AND MIXED BY METHOD I OR II OF THE NYS BUILDING CODE. SUBMIT
- MIX DESIGN AND COMPRESSION TEST RESULTS AS REQUIRED. CONCRETE SHALL CONFORM TO CONTROLLED INSPECTION REQUIREMENTS.
- 5. ALL REINFORCING STEEL SHALL BE DEFORMED HIGH BOND BARS ROLLED FROM NEW BILLET OR INTERMEDIATE GRADE STEEL TO MEET LATEST ASTM SPECIFICATIONS A-615, GRADE
- 6. SPLICES SHALL BE IN CONFORMANCE WITH ACI 318-95 AND SPLICE LENGTH TABLES. ACI 305R-99 SHALL BE FOLLOWED FOR HOT WEATHER CONCRETING AND ACI306R-88 SHALL BE FOLLOWED FOR COLD WEATHER CONCRETING WHEN APPLICABLE.
- 8. MINIMUM COVER SPACING: -CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH: 3"
  - -CONCRETE EXPOSED TO EARTH/WEATHER: 2" -CONCRETE NOT EXPOSED TO EARTH/WEATHER OR IN CONTACT WITH GROUND: 11/2"



## CRACK CONTROL JOINT DETAIL (FOR RETAINING WALL)

30'-0" O.C. MAXIMUM.

NOTE: CRACK CONTROL JOINTS SHALL BE LOCATED AT

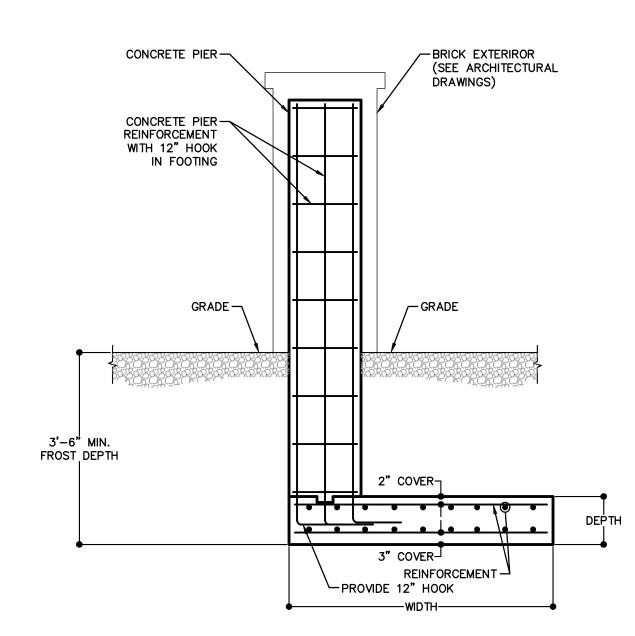


## **EXPANSION JOINT DETAIL** (FOR RETAINING WALL)

 EXPANSION JOINTS SHALL BE LOCATED AT 90'-0" O.C. MAXIMUM.
 CONSTRUCTION JOINT IS SIMILAR TO EXPANSION JOINT, EXCEPT DO NOT GREASE STEEL DOWEL.

## SPLICE LENGTH

BAR SIZE	MIN. SPLICE	
#3	1'-3"	
#4	1'-7"	
#5	2'-0"	
#6	2'-5"	
#7	3'-6"	
#8	4'-0"	
#9	4'-6"	
#10	5'-0"	



SPREAD FOOTING DETAIL

## SPREAD FOOTING SCHEDULE

NOTES:
ALL HORIZONTAL REINFORCEMENT IN ADJACENT WALLS TO EXTEND INTO PIER WITH 8" HOOK. PROVIDE ADEQUATE SPLICE FOR FOOTING REINFORCEMENT WITH ADJACENT FOOTING FOR WALL.

	LENGTH × WIDTH	DEPTH	REINFORCEMENT
F1	4'-0" x 4'-0"	1'-0"	#5 @ 8" O.C.E.W. BOTH WAYS TOP AND BOTTOM

3	RE-ISSUED FOR CONSTRUCTION	AR	5/9/2018
2	ISSUED FOR CONSTRUCTION	AR	5/16/2016
1	90% PROGRESS SET	AR	3/4/2016
REV	DESCRIPTION	BY	DATE
DISCLAIMER:			

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WASHINGTON'S HEADQUARTERS 152 BROADWAY

VILLAGE OF DOBBS FERRY, TOWN OF GREENBURGH WESTCHESTER COUNTY, NEW YORK

STRUCTURAL DETAILS (2 OF 2)



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