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**LOCAL HISTORIC DISTRICT:** Fourth Ward

**PROPERTY ADDRESS:** 214 North Graham Street

**SUMMARY OF REQUEST:** Retaining Wall

**APPLICANT:** Roger Stacks

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**Details of Proposed Request**

*Existing Conditions*

The existing site is a surface parking lot at the corner of North Graham Street and West 5<sup>th</sup> Street. The existing concrete block retaining wall is failing and needs to be replaced.

*Proposal*

The proposal is a new retaining wall constructed of modular concrete block. Retaining walls can be approved administratively if traditional materials are used.

**Policy & Design Guidelines – Landscape and Site Features, page 60**

1. Inspiration for the design of these structures should be drawn from similar historic structures found in the Local Historic District.
2. Not all landscape structures are appropriate for every lot in the Local Historic District; a retaining wall is not suitable for a flat lot.
3. Historic precedents indicate appropriate materials such as stone, brick and concrete.
4. Historic site features are considered integral parts of Local Historic District properties, and cannot be removed without the review of the HDC or its Staff.
5. Walks and walkways in front and side yards or those that are substantially visible from the street should follow the historic design precedents of their environment.
6. Certain modern materials for landscape and site features are not allowed without the approval of the Historic District Commission.
  - Interlocking concrete block
  - Treated landscaping timbers
  - Railroad ties
  - Pre-fabricated lattice

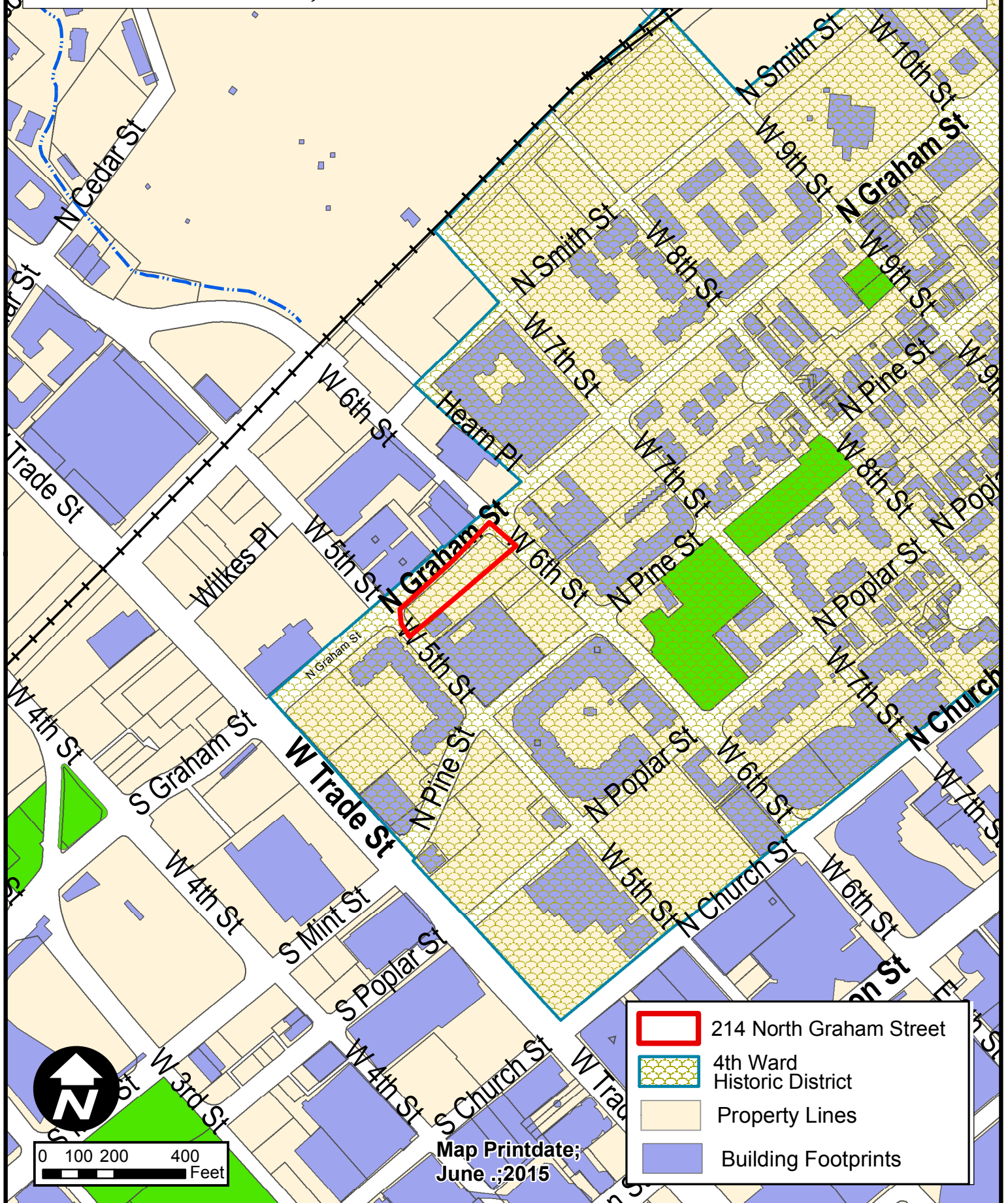
**Staff Analysis**

The Commission will determine if an exception is appropriate for this proposal.



# Charlotte Historic District Commission - Case 2015-092

## Historic District; 4th Ward





2012 APPENDIX B  
BUILDING CODE SUMMARY  
FOR ALL COMMERCIAL PROJECTS



Project Information – Retaining Wall at 5<sup>th</sup> & Graham

Name of Project: Retaining Wall at 5<sup>th</sup> & Graham  
Address: 420 West 5<sup>th</sup> Street, Charlotte, NC Zip Code 28202  
Proposed Use: Provide for elevation difference between two parking lots  
Owner/Authorized Agent: Preferred Parking Phone # (704) 375 - 0822 E-Mail info@preferredparking.com  
Owned By: ☐ City/County ☒ Private ☐ State  
Code Enforcement Jurisdiction: ☒ City Charlotte ☐ County ☐ State

Project Summary

Building description: Segmental block retaining wall. No building involved in scope of work.

Scope of work details: (If phased construction, please see [plan submittal guidelines](#) for submittal requirements.)  
Demolish and dispose of existing tops and retaining wall. Construct new segmental block retaining wall.

Does this project have air rights, easements, an assumed or deeded property line, no build easements or other circumstances similar to the aforementioned? Yes ☐ No ☐ If yes, please provide a copy of the official documents.

Renovation projects only: Not Applicable

Alternative Means of Compliance/Engineering Judgement: Not Applicable

☐ Industrial equipment with declaration document attached.

☐ RTAP (Revisions to approved plans.)

Design Professional Information

LEAD DESIGN PROFESSIONAL: Sheats Consulting PLLC

DESIGNER	FIRM	NAME	LICENSE #	TELEPHONE #	E-MAIL
Architectural	<u>None</u>			( )	
Civil	<u>None</u>			( )	
Electrical	<u>None</u>			( )	
Fire Alarm	<u>None</u>			( )	
Plumbing	<u>None</u>			( )	
Mechanical	<u>None</u>			( )	
Sprinkler-Standpipe	<u>None</u>			( )	
Structural	<u>Sheats Consulting PLLC</u>	<u>Gary W. Sheats</u>	<u>NC 12361</u>	<u>(704) 261-6311</u>	<u>gary.sheats@vshoo.com</u>
Retaining Walls >5' High Sheats Consulting PLLC	<u>Gary W. Sheats</u>	<u>NC 12361</u>	<u>(704) 261-6311</u>	<u>gary.sheats@vshoo.com</u>	
Other				( )	

Type of work being performed

What type of work is being performed?

☒ New Construction:

☐ Addition: (An Existing Building that is adding heated or unheated space. This could be an addition to the footprint or a vertical expansion)

☐ Upfit: (First Time Interior Completion)

The applicant must provide a copy of the approved shell)

☐ Alteration: (Previously Occupied Space) This includes Change of Use.

Code Information- NCSBC

Building Code: ☒ 2012 North Carolina State Building Code (NCSBC)  
☐ 2012 Chapter 34 (attach summary per section b)  
☐ 1995 Existing Building Code Vol. 9

New Building: ☐ New building ☐ Shell building  
☐ First time interior completion (upfit)  
☐ Addition

Existing Building: ☐ Change of use/occupancy  
☐ Building/tenant space interior completion (Alteration / Renovation)

Year of construction  Previous use

Alteration/Renovations projects: Not Applicable

Basic Building Data – Not Applicable

Construction Type: (Table 601)	<input type="checkbox"/> I-A	<input type="checkbox"/> II-A	<input type="checkbox"/> III-A	<input type="checkbox"/> IV	<input type="checkbox"/> V-A
(check all that apply)	<input type="checkbox"/> I-B	<input type="checkbox"/> II-B	<input type="checkbox"/> III-B	<input type="checkbox"/> V-B	
Sprinklers: (Chapter 9)	<input type="checkbox"/> No	<input type="checkbox"/> Partial	<input type="checkbox"/> Yes	<input type="checkbox"/> NFPA 13	<input type="checkbox"/> NFPA 13R <input type="checkbox"/> NFPA 13D
Standpipes: (Section 905)	<input type="checkbox"/> No	<input type="checkbox"/> Yes	Class <input type="checkbox"/> I <input type="checkbox"/> II <input type="checkbox"/> III <input type="checkbox"/> Wet <input type="checkbox"/> Dry		
Fire District: <a href="http://charmeck.org/city/charlotte/Fire/Pages/default.aspx">http://charmeck.org/city/charlotte/Fire/Pages/default.aspx</a>	<input type="checkbox"/> No	<input type="checkbox"/> Yes (Primary)			
Flood Hazard Area: (Appendix G)	<input type="checkbox"/> No	<input type="checkbox"/> Yes			
Building Height: (feet) <input type="text"/>	(Table 503)				
Gross Building Area:					
FLOOR	EXISTING (SQ FT)	NEW (SQ FT)	SUB-TOTAL		
6 <sup>th</sup> Floor					
5 <sup>th</sup> Floor					
4 <sup>th</sup> Floor					
3 <sup>rd</sup> Floor					
2 <sup>nd</sup> Floor					
Mezzanine					
1 <sup>st</sup> Floor					
Basement					
TOTAL					

Allowable Area / Occupancy Classification – Not Applicable

Occupancy: (Chapter 3)  
Assembly (303) ☐ A-1 ☐ A-2 ☐ A-3 ☐ A-4 ☐ A-5  
Business (304) ☐ B  
Educational (305) ☐ E  
Factory (306) ☐ F-1 Moderate ☐ F-2 Low  
Hazardous (307) ☐ H-1 Detonate ☐ H-2 Deflagrate ☐ H-3 Combust ☐ H-4 Health ☐ H-5 HPM  
Institutional (308) ☐ I-1 ☐ I-2 ☐ I-3 ☐ I-4  
I-3 Condition ☐ I ☐ 2 ☐ 3 ☐ 4 ☐ 5  
Mercantile (309) ☐ M  
Residential (310) ☐ R-1 ☐ R-2 ☐ R-3 ☐ R-4  
Storage (311) ☐ S-1 Moderate ☐ S-2 Low ☐ High-piled  
☐ Parking Garage ☐ Open ☐ Enclosed ☐ Repair Garage  
Utility and Miscellaneous (312) ☐ U

Allowable Height (Chapter 5) – Not Applicable

	ALLOWABLE (TABLE 503)	INCREASE FOR SPRINKLERS	SHOWN ON PLANS	CODE REFERENCE
Type of Construction	Type <input type="text"/>		Type <input type="text"/>	
Building Height in Feet		Feet = H + 20' = <input type="text"/>		
Building Height in Stories		Stories + 1 = <input type="text"/>		

Fire Protection Requirements (Chapter 7) – Not Required

BUILDING ELEMENT	FIRE SEPARATION DISTANCE (FEET)	REQ'D	RATING PROVIDED (W- + REDUCTION)	DETAIL # AND SHEET #	DESIGN # FOR RATED ASSEMBLY	DESIGN # FOR RATED PENETRATION	DESIGN # FOR RATED JOINTS
Structure Frame, including columns, girders, trusses							
Bearing Walls (see section k, (601 - 602) if needed)							
Exterior							
North							
East							
West							
South							
Interior							
Nonbearing Walls and Partitions- (see section k,(601 -602) if used)							
Exterior walls							
North							
East							
West							
South							
Interior walls and partitions							
Floor Construction including supporting beams and joists							
Roof Construction including supporting beams and joists							
Shaft Enclosures - Exit							
Shaft Enclosures - Other							
Corridor Separation							
Occupancy Separation							
Party/Fire Wall Separation							
Smoke Barrier Separation							
Tenant Separation							
Incidental Use Separation							

\* Indicate section number permitting reduction

Life Safety Systems

Emergency Lighting: (\$1006) ☒ No ☐ Yes  
Exit Signs: (\$1011) ☒ No ☐ Yes  
Fire Alarm: (\$907, NFPA 72-07) ☒ No ☐ Yes  
Smoke Detection Systems: (\$907) ☒ No ☐ Yes ☐ Partial   
Panic Hardware: (\$1008.1.10) ☒ No ☐ Yes

Structural Design

DESIGN LOADS:

Importance Factors: (ASCE/SEI 7-05- 11.5) Wind 1.0  
Snow 1.0  
Seismic 1.0  
Live Loads: Roof: (1603.1.2, 1607.1.1, 1611) n/a psf  
Floor: (1603.1.1, 1607.10, T 1607.10) n/a psf  
Live load Reductions: (1603.1.1, 1607.9.) n/a psf  
Ground Snow Load: (1608.2) 18 psf  
Wind Load: Basic Wind Speed: (1609.3) 90 mph (ASCE-7)  
Exposure Category (1609.4) B  
Wind Base Shears (for MWFRS)(Engineer Cal's) Vx =        Vy =       

SEISMIC DESIGN CATEGORY: (1613.1, 1613.5.6)

Provide the following Seismic Design Parameters:  
Occupancy Category: (Table 1604.5) ☐ A ☐ B ☐ C ☐ D  
Spectral Response Acceleration: (Engineer cal's) S<sub>a</sub>        %g S<sub>1</sub>        %g  
Site Classification (Table 1613.5.2) ☐ A ☐ B ☐ C ☒ D ☐ E ☐ F  
Data Source: ☐ Field Test ☒ Presumptive ☐ Historical Data  
Basic structural system (check one)  
☐ Bearing Wall ☐ Dual w/Special Moment Frame  
☐ Building Frame ☐ Dual w/Intermediate R/C or Special Steel  
☐ Moment Frame ☐ Inverted Pendulum  
Seismic base shear: (Engineer Cal's) V<sub>x</sub> =        V<sub>y</sub> =         
Analysis Procedure: ☐ Simplified ☐ Equivalent Lateral Force ☐ Dynamic  
Architectural, Mechanical, Components anchored? ☐ Yes ☐ No

LATERAL DESIGN CONTROL: Earthquake ☐ Wind ☐

SOIL BEARING CAPACITIES:  
Field Test (provide copy of test report as a reference document)        psf  
Presumptive Bearing capacity 2500 psf  
Pile size, type, and capacity       

SPECIAL INSPECTIONS REQUIRED: ☒ Yes ☐ No

Special Inspections

SCHEDULE OF SPECIAL INSPECTIONS  
☐ No special inspections required for this project ☒ Special inspections required

The following sheets comprise the required schedule of Special Inspections for this project. The construction divisions which require special inspections for this project are as follows:

☒ IT-1 Verification of Soils ☐ IT-10 Inspection of Structural Steel Fabricators  
☒ IT-2 Excavation and Fill ☐ IT-11 Structural Masonry

☐ IT-3 Piling and Drilling Piers  
☒ IT-4 Modular Retaining Walls  
☐ IT-5 Reinforced Concrete  
☐ IT-6 Post Tension Slab  
☐ IT-7 Pre-cast Concrete Erection  
☐ IT-8 Pre-stressed Concrete  
☐ IT-9 Inspection of Pre-Cast Fabricators  
☐ IT-12 Welding  
☐ IT-13 High Strength Bolts & Steel Framing Insp.  
☐ IT-14 Sprayed Fire-Resistance Materials  
☐ IT-15 Exterior Insulation and Finish system  
☐ IT-16 Seismic Resistance  
☐ IT-17 Smoke Control  
☐ IT-18 Detention Basin  
☐ IT-19 Special Cases

Check the above boxes for the special inspection required for this project and list below specific special inspections required under Chapter 17. For questions regarding Special Inspections please see [www.Meck-SI.com](#).

IT-1 VERIFICATION OF SOILS

CHECK IF REQUIRED	INSPECTION TASK (Standard & Code Reference)	CONTINUOUS INSPECTIONS	PERIODIC INSPECTIONS	SPECIAL INSPECTIONS FIRM	NOTES & SCOPE
<input checked="" type="checkbox"/>	Verification of Soils, 1704.7 & Chapter 18 NCSBC	<input type="checkbox"/>	<input checked="" type="checkbox"/>		Inspections not required for fills less than 12". Inspect site preparation, material compliance, lift thickness, and in-place density are in conformance with the geotech report and the contract documents.

IT-2 EXCAVATION AND FILLING

CHECK IF REQUIRED	INSPECTION TASK (Standard & Code Reference)	CONTINUOUS INSPECTIONS	PERIODIC INSPECTIONS	SPECIAL INSPECTIONS FIRM	NOTES & SCOPE
<input checked="" type="checkbox"/>	Excavation and Filling, NCSBC Section 1704.7 and 3304	<input type="checkbox"/>	<input checked="" type="checkbox"/>		Compact backfill soil to 95% Standard Proctor (ASTM D698), with the top foot of fill beneath walk slab compacted to 98% Standard Proctor. Test for compliance at first lift and at 32" intervals of depth in reinforced soil zone.

IT-4 MODULAR RETAINING WALLS

CHECK IF REQUIRED	INSPECTION TASK (Standard & Code Reference)	CONTINUOUS INSPECTIONS	PERIODIC INSPECTIONS	SPECIAL INSPECTIONS FIRM	NOTES & SCOPE
<input checked="" type="checkbox"/>	Modular Retaining Walls, NCSBC Section 1610 and 1704.13	<input type="checkbox"/>	<input checked="" type="checkbox"/>		Inspect joints and GEO fabric installation where wall height exceeds 5 feet.



[www.meck-si.com](#)

Statement of Special Inspections

Statement Date: October 13, 2014

Project Name: Retaining Wall for Preferred Parking

Building Permit Number:       

Project Address: 420 West 5<sup>th</sup> Street, Charlotte, NC

Registered Design Professional in Responsible Charge (RDP/IRC): Gary W. Sheats, PE

The following information is being submitted in accordance with the Special Inspection provisions of the North Carolina State Building Code. Attached is the Schedule of Special Inspections (SSI) required for this project. This completed form is required to be placed on the drawings for plan review. After permit issuance, a listing of the Special Inspection Firms (SIF) and the Designated Special Inspectors (DSI) for each inspection type will be attached to this form and uploaded to [www.meck-si.com](#) prior to scheduling the Pre-Construction Meeting with Mecklenburg County Code Enforcement. No work is permitted to be performed prior to the Special Inspections Pre-Construction Meeting (see the [meck-si.com](#) website for details).

This and all subsequent reports, logs, testing results, and other related SI documents shall be uploaded to the [meck-si.com](#) website within 10 business days of the event documented. Only documents that are prepared by Authorized Special Inspectors (ASI), and signed/sealed by Designated Special Inspectors (DSI) are valid and are permitted to be uploaded to the [meck-si.com](#) website. The DSI will notify the Department upon the discovery of information that would contravene the result of any information posted on [meck-si.com](#), and update said information within 10 days.

The DSI is responsible for verifying all information on each document prior to signing/sealing and uploading it. The DSI is responsible for verifying each document that is uploaded and stored on the [meck-si.com](#) website, is the correct document and it is associated with the correct attributes for storage in the database on [meck-si.com](#). The DSI is responsible for deleting any documents that have incorrect attributes or contain errors, and reloading the correct information or document onto [meck-si.com](#). The DSI is responsible for verifying all ASIs maintain current certifications during the course of the project, as failure to maintain current certifications may result in a voided document. At the conclusion of each individual Special Inspection type, the DSI will complete a Final Report and upload it to the [meck-si.com](#) website. The RDP/IRC is responsible for completing the RDP/IRC Letter at the conclusion of all Special Inspections.

The Special Inspection program outlined herein, does not relieve the Contractor or any other entity of any contractual duties, including quality control, quality assurance, or safety. The Contractor is solely responsible for construction means, methods, and job site safety. Failure to adhere to the SI program as outlined herein, and on [meck-si.com](#), may result in a stop work notice being issued by the Department.

Respectfully submitted,  
The Registered Design Professional in Responsible Charge,

Gary W. Sheats, PE

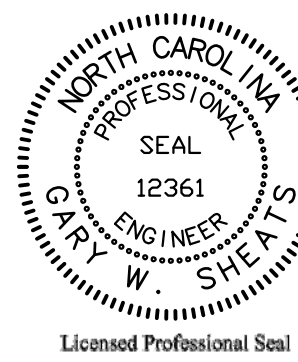
Typed Print Name

Gary W. Sheats

Signature

10/13/2014

Date



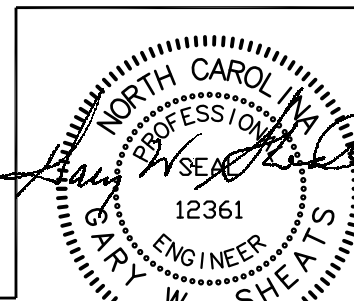
PEOPLE • PRIDE • PROGRESS •  
PARTNERSHIPS



INDEX OF DRAWINGS

CS01        COVER SHEET AND APPENDIX B CODE SUMMARY  
S01        RETAINING WALL PLAN AND DETAILS  
S02        STAIR AND RAILING DETAILS

1	ADD INDEX OF DRAWINGS	DD	GWS	3-30-15
0	APPROVED FOR CONSTRUCTION	DD	GWS	10-13-14
REV	DESCRIPTION	DRAWN	CHECKED	DATE
<b>SHEATS CONSULTING, PLLC</b> PROFESSIONAL ENGINEERING SERVICES PO BOX 470171 CHARLOTTE, NC 28247				
CLIENT	PREFERRED PARKING			
LOCATION	420 WEST 5th STREET/CHARLOTTE, NC			
DRAWN BY	DD	10-13-14	TITLE	APPENDIX B
CHECKED BY	G.W.SHEATS	3-30-15	STATEMENT OF SPECIAL INSPECTIONS	
APPROVED BY			SCALE: AS NOTED	DRAWING NUMBER
				CS01
				1

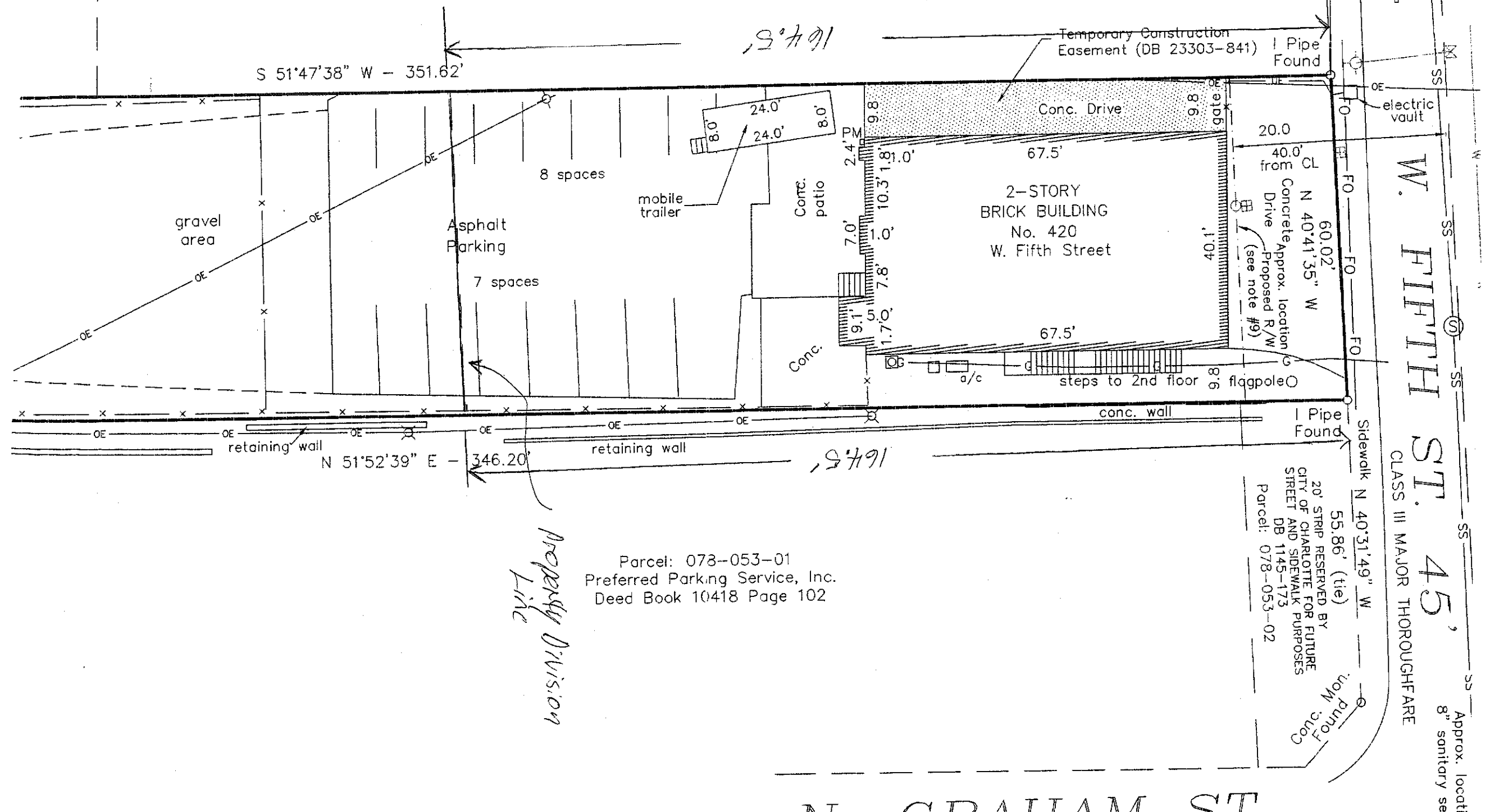


AUTHORIZATION LICENSE  
NUMBER P-1348

SEAL

3-30-15







FOR NOTES, SEE DRAWING S01

DESCRIPTIVE  
NORTH

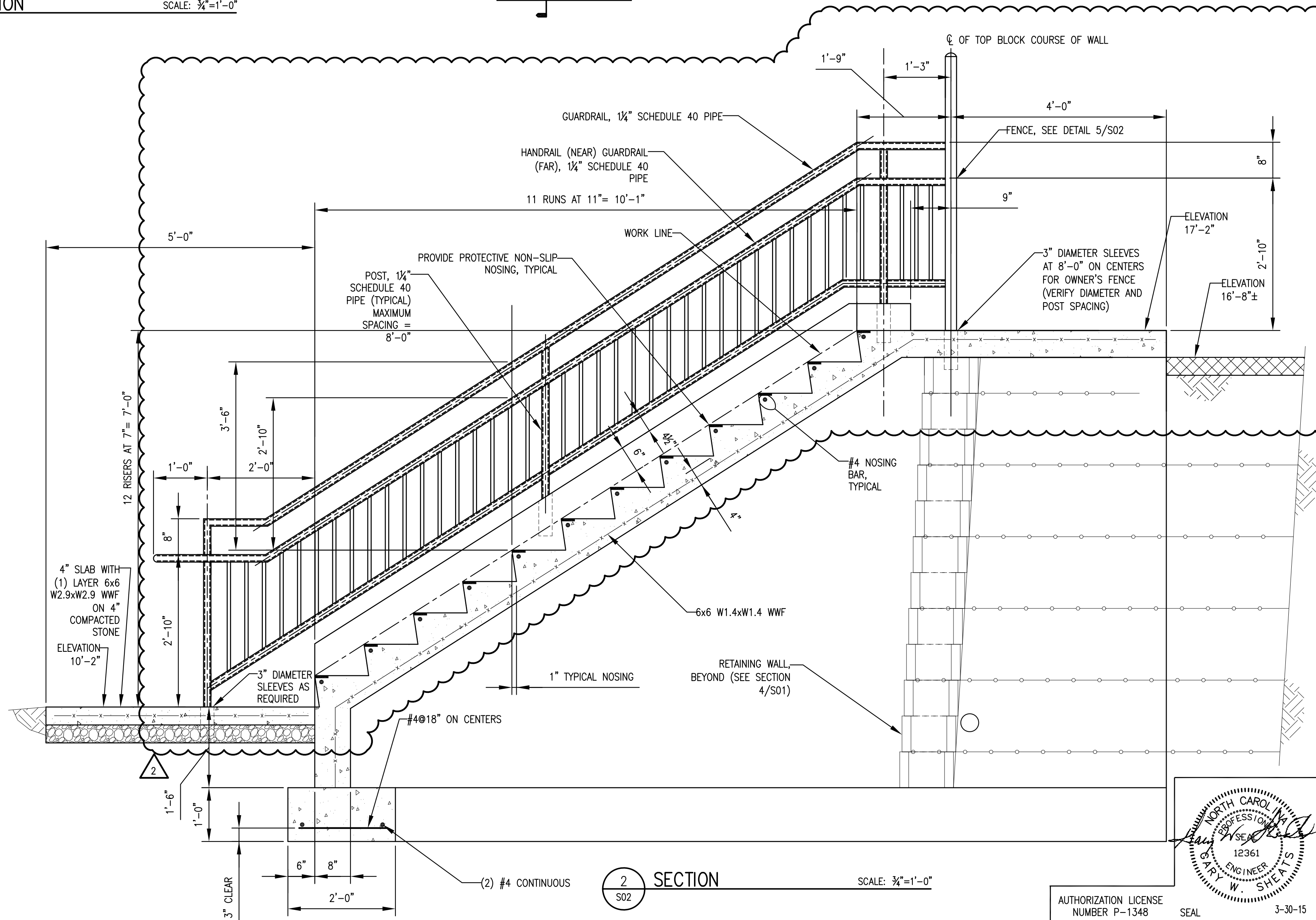
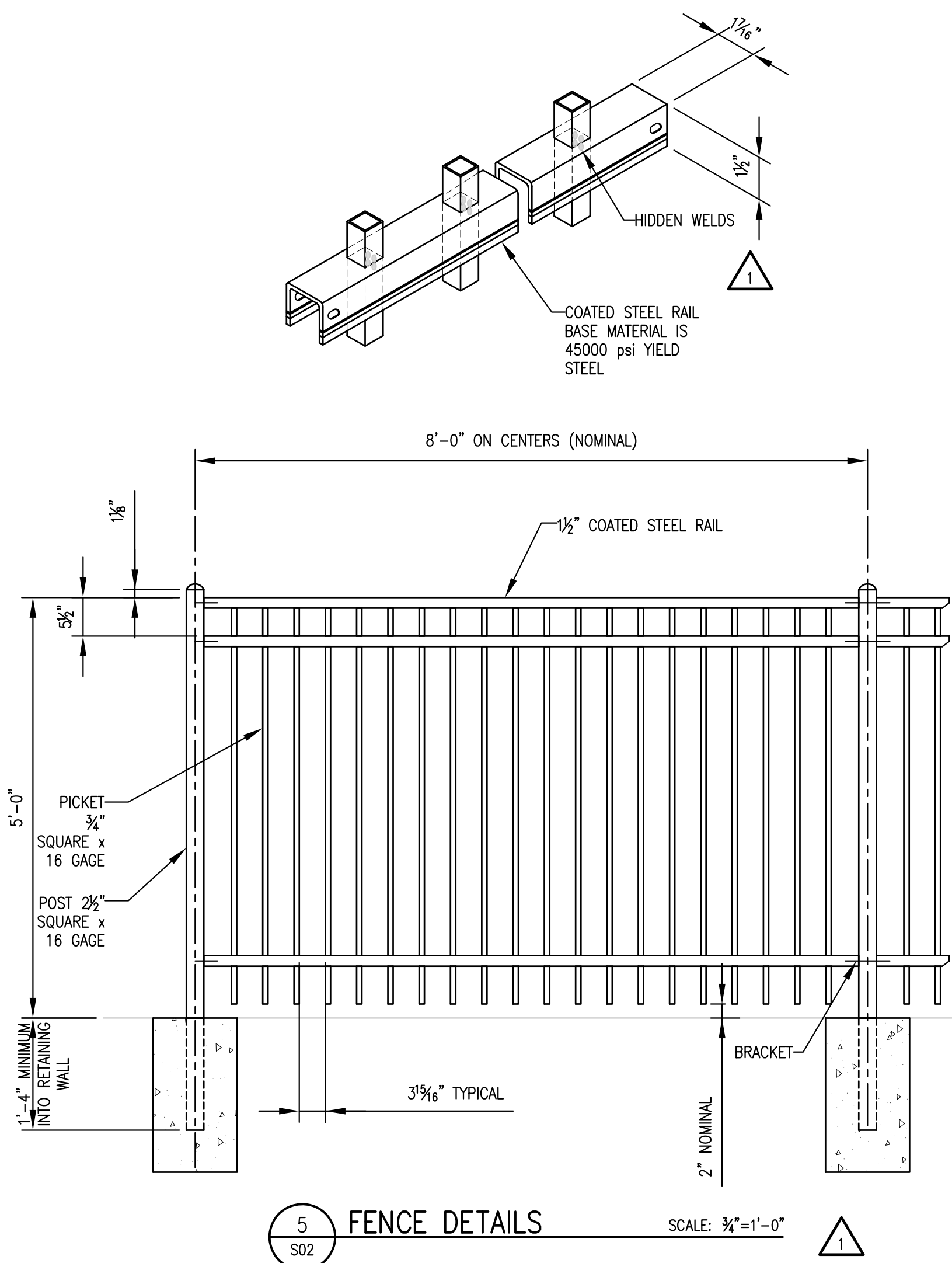
4 8" BOLLARD DETAIL SCALE:  $\frac{1}{2}"=1'-0"$

NOTES

1. CLEAN SURFACE PER SSPC-SP3 TO REMOVE RUST AND SCALE.
2. PRIMER SHALL BE RUST-OLEUM INDUSTRIAL CHOICE 340 VOC ALKYD ENAMEL PRIMER (OR APPROVED EQUAL).
3. FINISHED COAT SHALL BE RUST-OLEUM INDUSTRIAL CHOICE 340 VOC ALKYD ENAMEL (OR APPROVED EQUAL) SAFETY YELLOW.

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

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



6 HANDRAIL/GUARDRAIL DETAIL SCALE:  $\frac{3}{8}"=1'-0"$

2	REVISE SECTION 2 ADDING GUARDRAIL/HANDRAIL DETAILS, ADD DETAIL 6	DD	GWS	3-30-15
1	ADD FENCE DETAILS	DD	GWS	3-19-15
0	APPROVED FOR CONSTRUCTION	DD	GWS	9-22-14
REV	DESCRIPTION	DRAWN	CHECKED	DATE

**SHEATS CONSULTING, PLLC**  
PROFESSIONAL ENGINEERING SERVICES  
PO BOX 470171  
CHARLOTTE, NC 28247

CLIENT	PREFERRED PARKING			
LOCATION	420 WEST 5th STREET/CHARLOTTE, NC			
DRAWN BY	DD	9-16-14	TITLE	STAIR PLAN AND DETAILS
CHECKED BY	G.W.SHEATS	3-30-15		
APPROVED BY				
AUTHORIZATION LICENSE NUMBER P-1348		SEAL	3-30-15	REV 2
SCALE: AS NOTED		DRAWING NUMBER S02		











