
LOCAL HISTORIC DISTRICT: Wesley Heights

PROPERTY ADDRESS: 621 Woodruff Place

SUMMARY OF REQUEST: Landscaping plan

APPLICANT/OWNER: Heather Brockelbank

The application was denied in August for tree removal without a COA. The motion recommends a future landscape plan that includes three large maturing canopy trees, two that are similar to the previous trees and planted close to the previous location and the third tree to be of a type and location of the owner's choice.

Details of Proposed Request

Existing Conditions

The rear yard contained three large maturing trees that were removed without HDC approval. The purpose of removal was to make improvements in the yard.

Proposal

The project is the addition of a retaining wall/bench wall, covered porch and landscaping in the rear yard including three large maturing trees along the rear property line.

Revised Proposal – September 14

1. The landscape plan has been revised to show two trees replanted in close proximity of the original trees and the third located to the right rear corner.

Policy & Design Guidelines, page 59

1. A Certified Arborist should be consulted in all applications regarding the removal of trees, and regarding the planting of trees when necessary. For full HDC review cases, a written recommendation from a Certified Arborist may be required.
2. The removal of dead or diseased trees will not require a Certificate of Appropriateness, provided a written assessment by a Certified Arborist is submitted to HDC Staff in advance, and that the HDC Staff judges that removal is justified. Otherwise, the removal request will be reviewed by the full Historic District Commission.
3. Trees in rear yards that are less than six inches in diameter may be removed with administrative approval.
4. Large healthy trees in rear and side yards that make a major contribution to the neighborhood tree canopy cannot be removed without the approval of the full Historic District Commission.
5. Front yard trees less than six inches in diameter may be removed with administrative approval. The removal of larger trees will require the approval of the full Commission, unless a written assessment by a Certified Arborist is submitted to HDC Staff in advance, and that the HDC Staff judges that removal is justified.

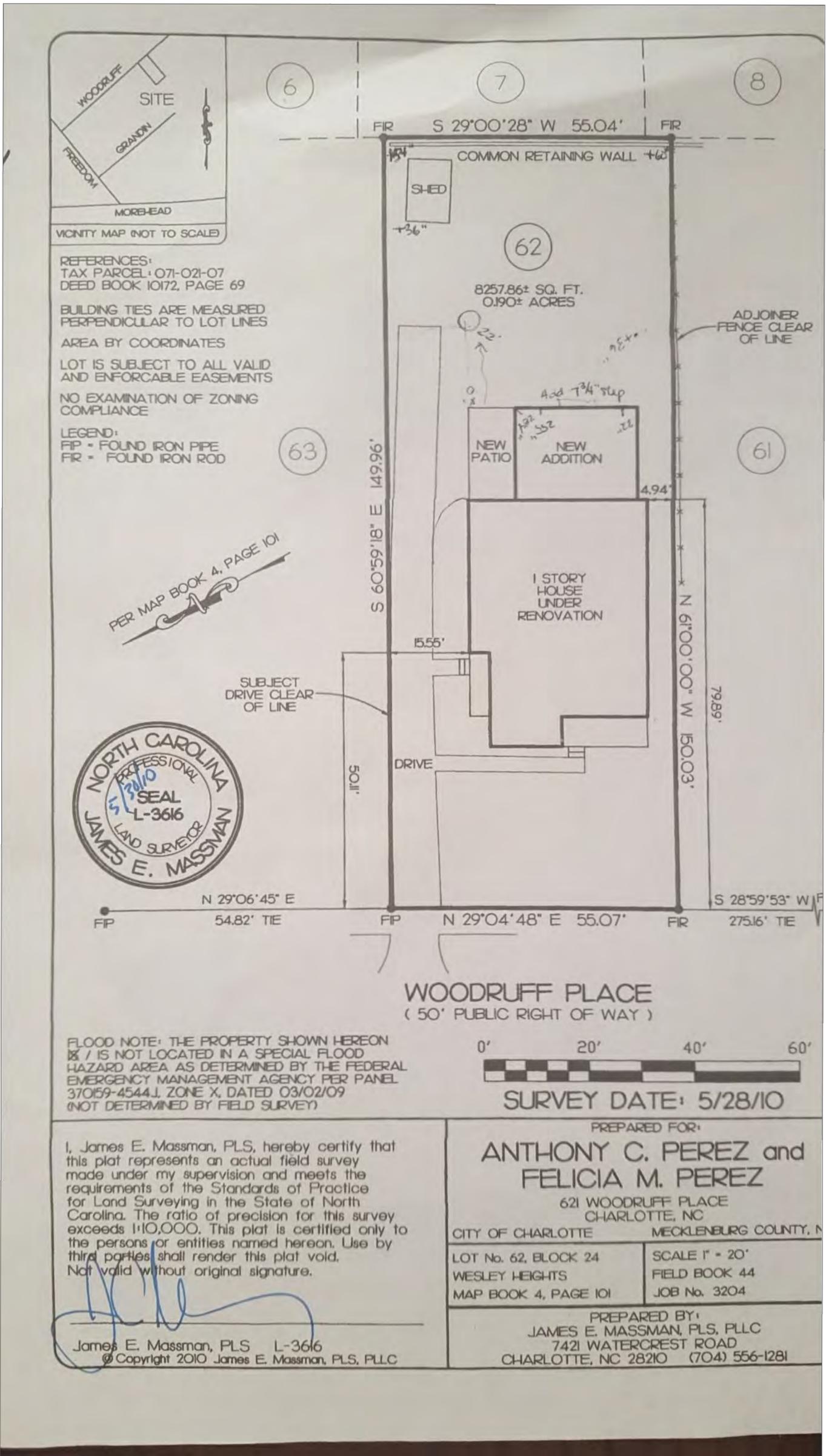
6. Where necessary, applicants are responsible for obtaining a tree protection plan approval from the Charlotte Engineering Department for new construction and additions, as required by the Charlotte Tree Ordinance.

Staff Analysis

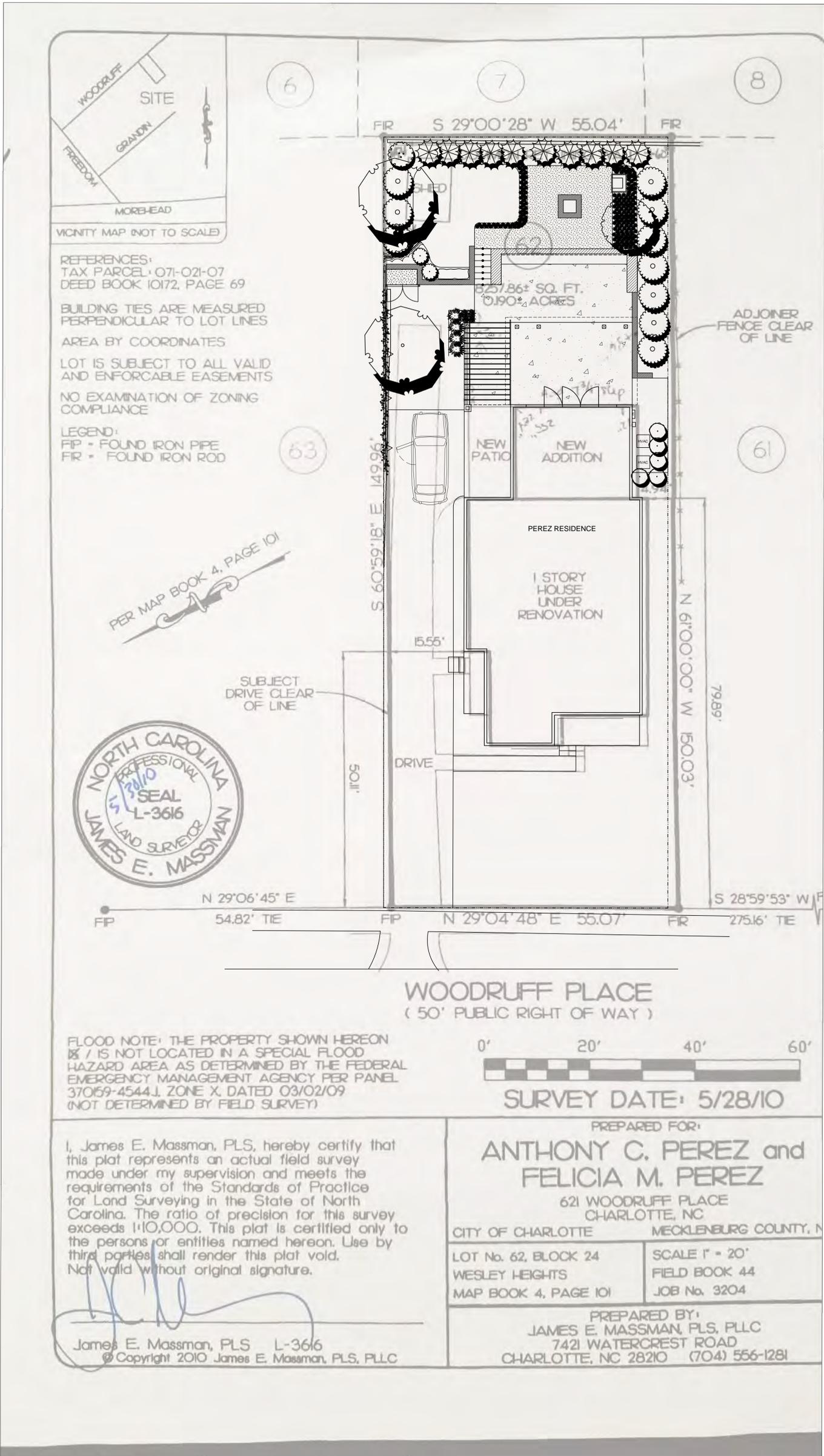
The Commission shall if the proposal meets the guidelines for site features and provide recommendations for tree replacement.

Charlotte Historic District Commission - Case 2016-216
HISTORIC DISTRICT: WESLEY HEIGHTS





<p>1023 Parker Drive, Charlotte, NC 28208 704.544.9880 office www.massmanpls.com</p> <p>Project Notes</p>	<p>METRORENSCAPE everything outdoors</p>	<p>Perez Residence</p> <p>Address 621 Woodruff Place, Charlotte, NC</p>	<p>Scale 1" = 5'</p>	<p>Job Number</p>	<p>Designer Janet Bean</p>	<p>Client Perez Residence</p>	<p>Date</p>	<p>Completed: 4.14.16 Revised: 6.13.16 Revised: 6.22.16 Revised: 8.16.16</p>	<p>Plan Type SITE SURVEY</p>	<p>Page Number 1</p>
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Home Office: 231 Tanner Drive Taylors, SC 29687 864.244.3088 (p) 864.244.8077 (f)

September 6, 2016

To Whom It May Concern:

The location of the trees in the backyard that have been outlined by MetroGreenscape on their blueprints are good. There should not be any effects from the existing root system from the old tree. If you have any further questions or concerns, please contact your Arborist, Chris Green.

Best Regards,

Chris Green
Schneider Tree Care
ISA Certified Arborist
SO-6502A

SITE PHOTOS - EXISTING



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Client: **Perez Residence**
 Address: **621 Woodruff Place, Charlotte, NC**

Project Notes

Designed By

Chris Parris

Scale

Job Number

Client

Perez Residence

Date

Completed:

Revision:

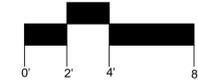
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Revision:

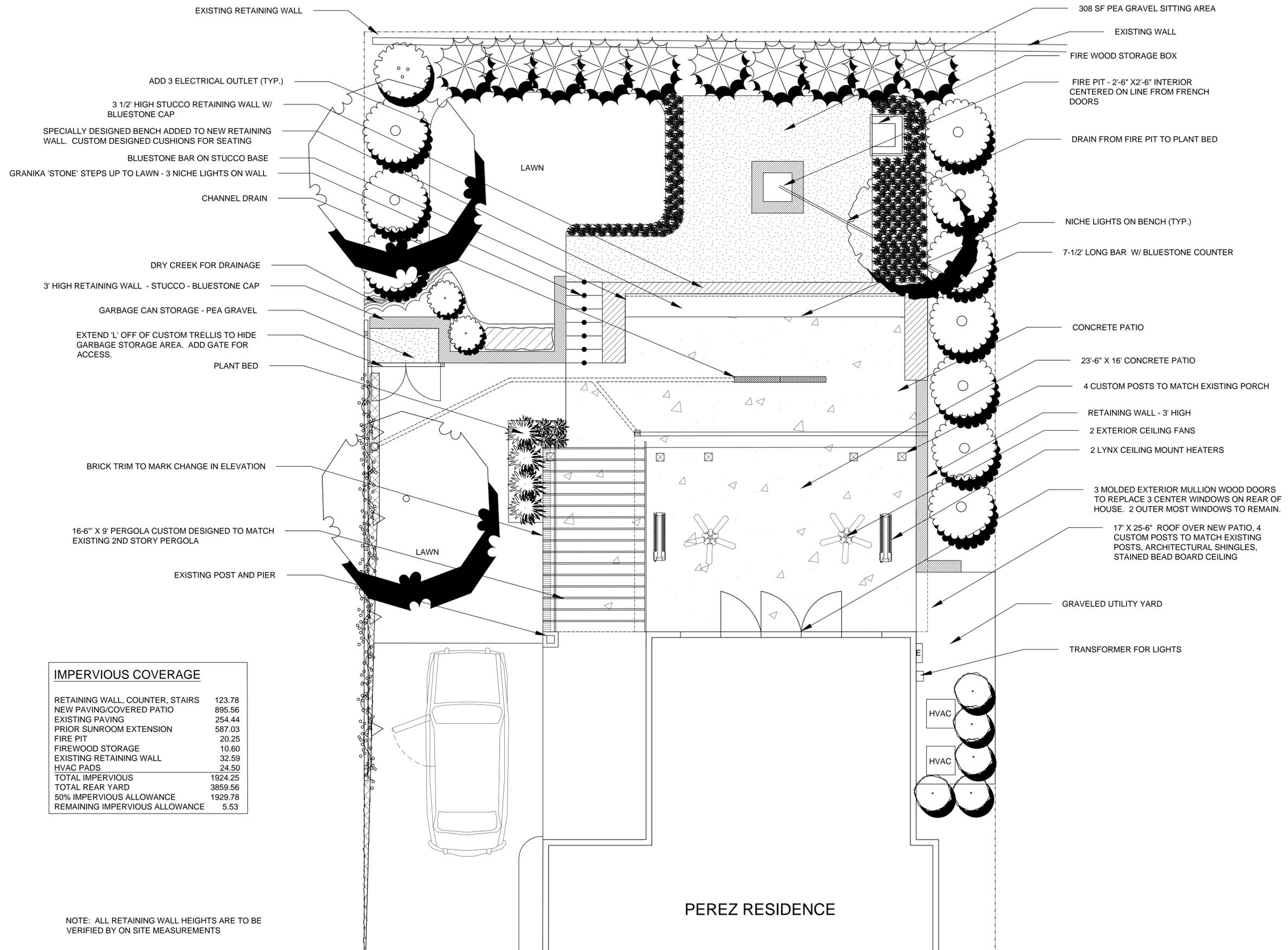
Plan Type

Site Photos

Page Number



4 SCALE



IMPERVIOUS COVERAGE	
RETAINING WALL, COUNTER, STAIRS	123.78
NEW PAVING/COVERED PATIO	895.56
EXISTING PAVING	254.44
PRIOR SUNROOM EXTENSION	587.03
FIRE PIT	20.25
FIREWOOD STORAGE	10.60
EXISTING RETAINING WALL	32.59
HVAC PADS	24.50
TOTAL IMPERVIOUS	1924.25
TOTAL REAR YARD	3859.56
50% IMPERVIOUS ALLOWANCE	1929.78
REMAINING IMPERVIOUS ALLOWANCE	5.53

NOTE: ALL RETAINING WALL HEIGHTS ARE TO BE VERIFIED BY ON SITE MEASUREMENTS

Perez Residence

Address
621 Woodruff Place, Charlotte, NC

Scale
1" = 4'

Job Number

Designer

Janet Bean

Client

Perez Residence

Date

- Completed: 4-14-16
- Revised: 6-13-16
- Revised: 6-22-16
- Revised: 7-20-16
- Revised: 8-16-16

Plan Type

Master Plan

Page Number

L-1

PEREZ RESIDENCE



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Perez Residence

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Revision:

Revision:

Plan Type

3D Model

Page Number

4



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Client: **Perez Residence**
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Project Notes

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Scale

--

Job Number

--

Client

Perez Residence

Date

Completed:

Revision:

Revision:

Revision:

Plan Type

3D Model

Page Number

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Client

Perez Residence

Date

Completed:

Revision:

Revision:

Revision:

Plan Type

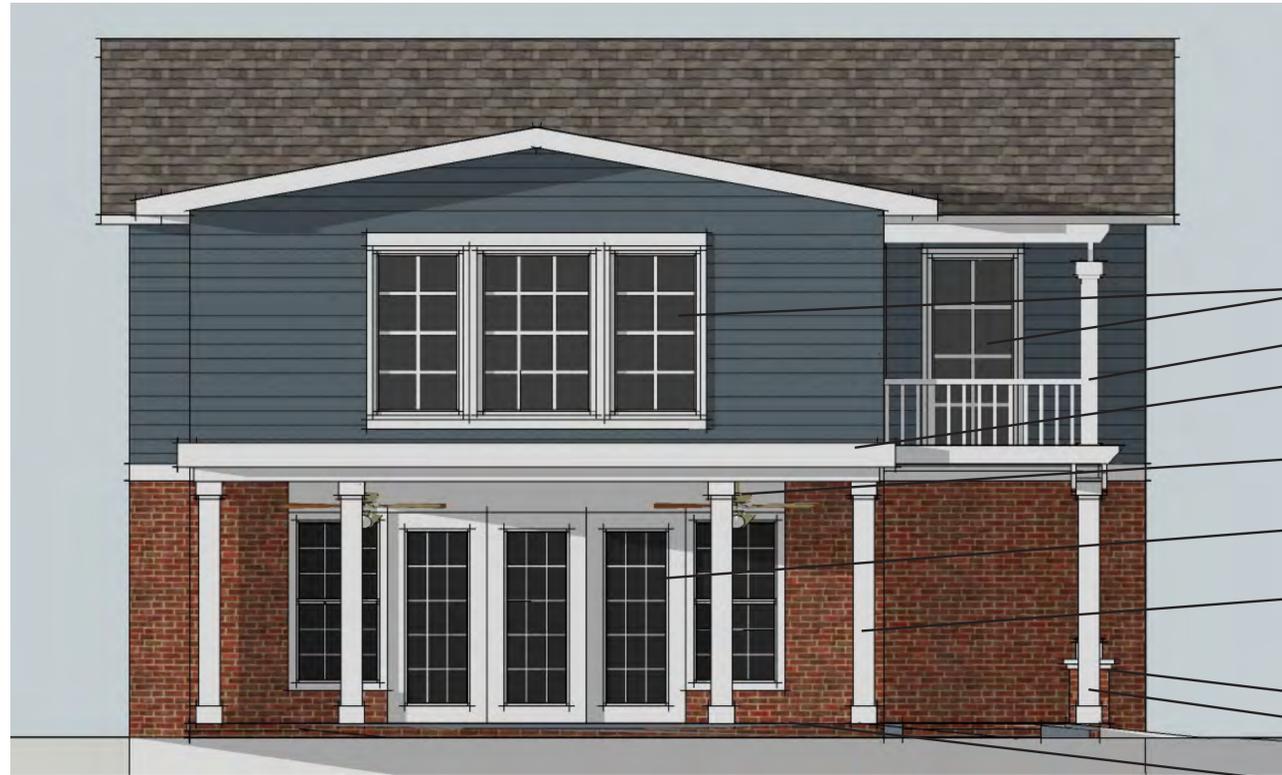
Sample Page

Page Number

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- EXISTING WINDOWS
- EXISTING PERGOLA ON 2ND STORY PORCH
- 17'X25'-6" ROOF OVER NEW PATIO, 4 CUSTOM POSTS TO MATCH EXISTING MATERIAL, ARCHITECTURAL SHINGLES, STAINED BEAD BOARD CEILING, 10" FASCIA WITH 8" BEAM, PAINTED WHITE
- 2 EXTERIOR CEILING FANS
- 3 MOLDED EXTERIOR MULLION WOOD DOORS TO REPLACE 3 CENTER WINDOWS ON REAR OF HOUSE. 2 OUTER MOST WINDOWS TO REMAIN
- COLUMNS TO MATCH EXISTING MATERIALS ON EXISTING 2ND STORY PERGOLA AND PORCH COLUMNS. 8" PRESSURE TREATED POST CLAD IN 1" SPRUCE, SIMPLE BASE AND CAP FROM 1" SPRUCE. PAINTED WHITE
- EXISTING BRICK COLUMN ON PORCH
- 16'-6" LONG X 9' WIDE PERGOLA OF SPRUCE, PAINTED WHITE.
- 23'-6" X 16' Poured in place concrete patio to match materials of existing porch



- 16'-6" LONG X 9' WIDE PERGOLA OF SPRUCE, PAINTED WHITE. STYLE TO MATCH EXISTING PERGOLA MATERIALS ON 2ND STORY PORCH.
- JOISTS OF 2" X 8" SPRUCE LUMBER, PAINTED WHITE
- BEAMS OF (2) 2" X 8" SPRUCE LUMBER BOLTED TOGETHER AND PAINTED WHITE
- COLUMNS OF PRESSURED TREATED 8" X 8" LUMBER, CLAD IN 1" X 10" SPRUCE LUMBER, PAINTED WHITE. CAPS AND BASES OF ADDITIONAL 1" X 10" SPRUCE BOARDS, PAINTED WHITE - TO MATCH EXISTING MATERIALS ON PORCH COLUMNS - SEE DETAIL 11 ON PAGE L-10
- BRICK EDGING ALONG SOLID POUR CONCRETE SLAB PROVIDES VISUAL MARKER FOR CHANGE IN ELEVATION (6" STEP DOWN)

- EXISTING PERGOLA
- EXISTING WINDOWS
- EXISTING PORCH
- EXISTING BRICK PIERS WITH COLUMNS

Client: **Perez Residence**
 Address: **621 Woodruff Place, Charlotte, NC**

Project Notes

Designed By

Chris Parris

Scale

1" = 3'

Job Number

Client

Perez Residence

Date

Completed:

Revision:

Revision:

Revision:

Plan Type

Elevations

Page Number

7



LARGE FREESTANDING WOOD TRELLIS



CAROLINA JASMINE VINE ON TRELLIS



WOOD LATTICE GATES FOR GARBAGE CAN STORAGE AREA



GRANIKA STEPS



STUCCO RETAINING WALL WITH STONE CAP



WARM GREY STUCCO COLOR



BLUESTONE FOR RETAINING WALL, BENCH, BAR, FIRE PIT AND FIREWOOD STORAGE



STUCCO FIRE PIT



PEA GRAVEL



PERGOLA TO MATCH EXISTING PERGOLA ON 2ND STORY



CONCRETE PATIO W/BRICK EDGE



MOLDED EXTERIOR MULLION WOOD DOORS

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Project Notes

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Chris Parris

Scale

Job Number

Client

Perez Residence

Date

Completed:

Revision:

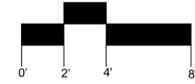
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Revision:

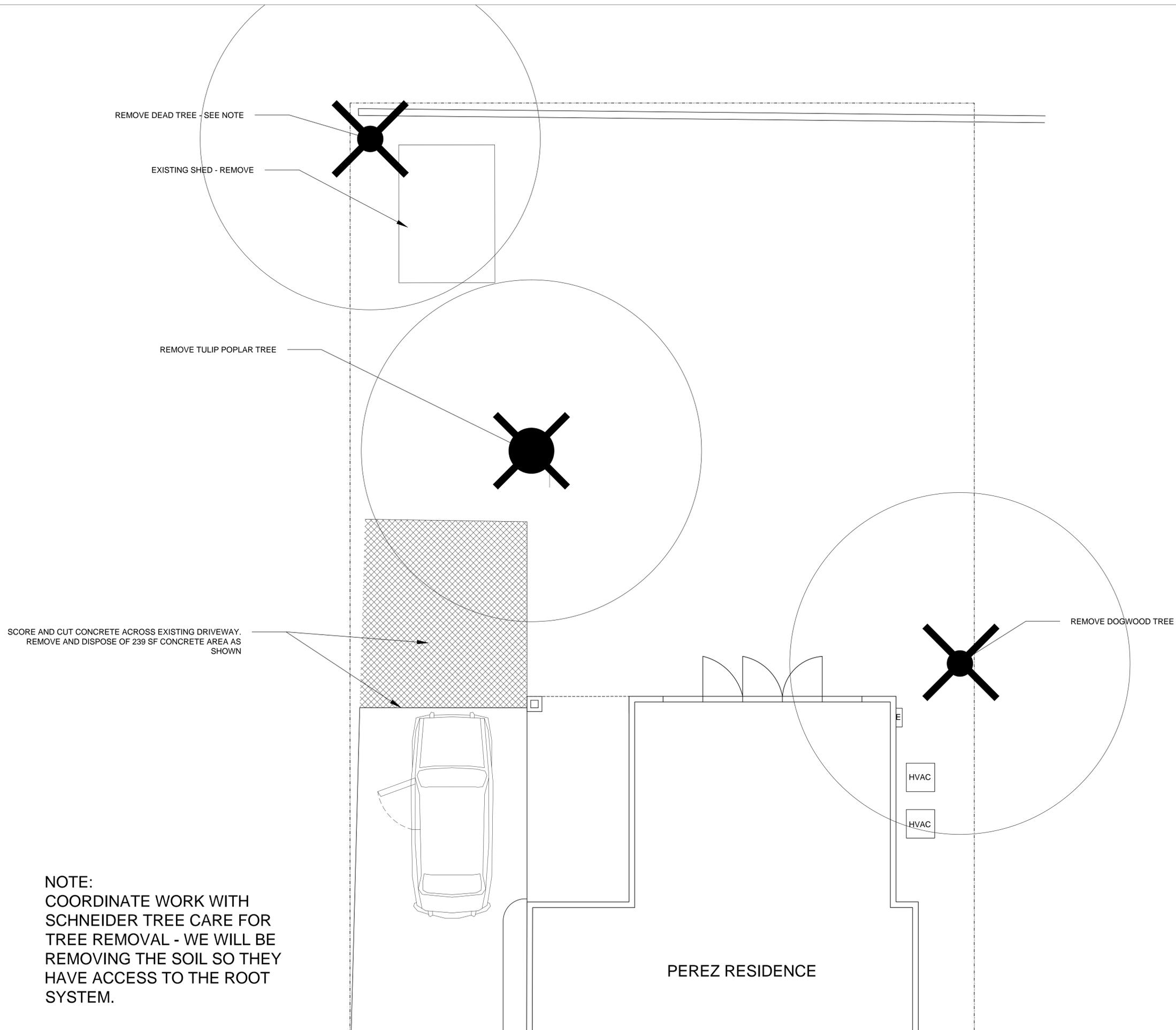
Plan Type

Sample Page

Page Number



4 SCALE



Perez Residence

Address
621 Woodruff Place, Charlotte, NC

Scale

1" = 4'

Job Number

Designer

Janet Bean

Client

Perez Residence

Date

Completed: 4-14-16

Revised: 6-13-16

Revised: 6-22-16

Revised: 7-20-16

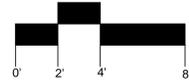
Revised: 8-16-16

Plan Type

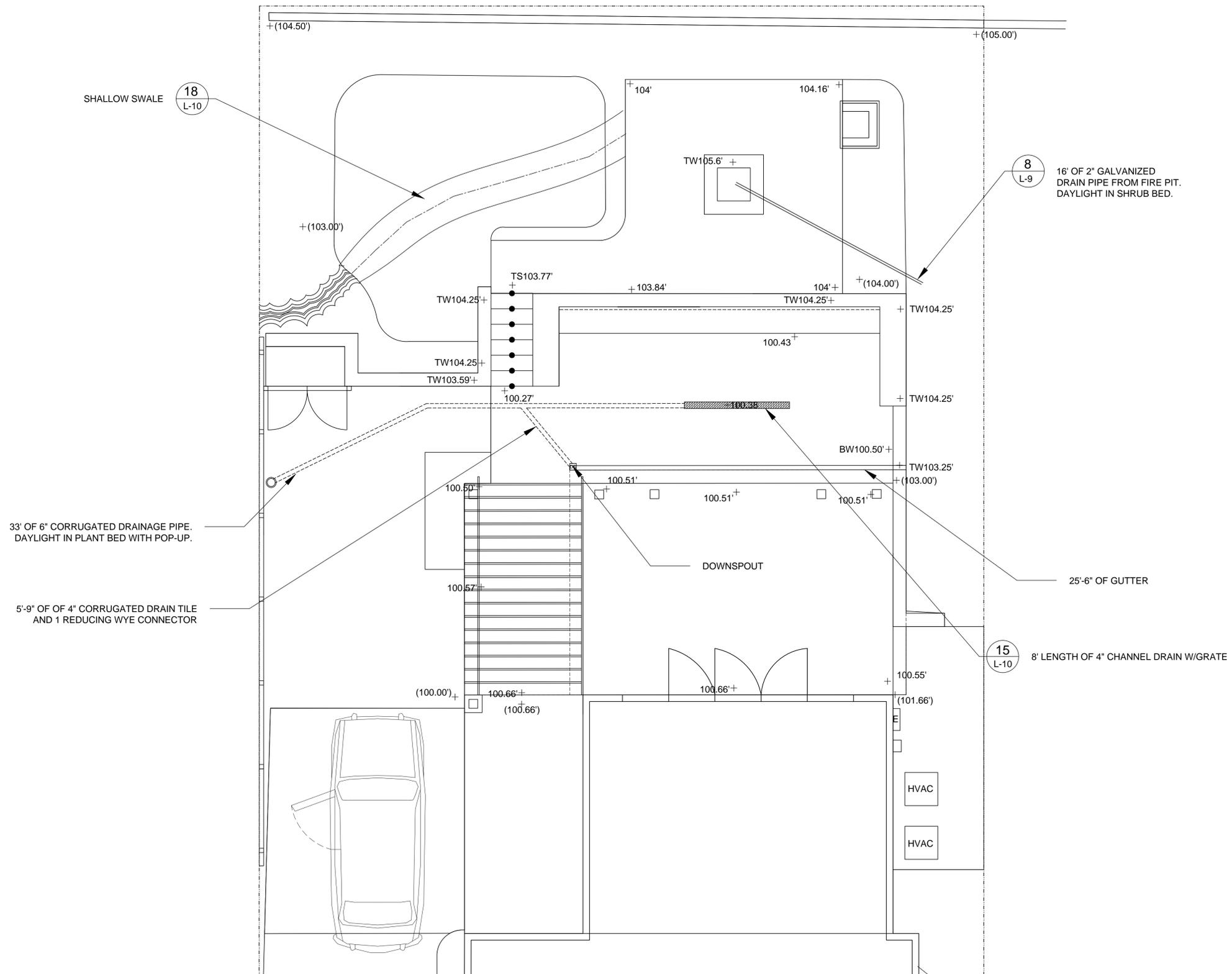
Demolition Plan

Page Number

L-2



4 SCALE



Perez Residence

Address
621 Woodruff Place, Charlotte, NC

Scale

1" = 4'

Job Number

Designer

Janet Bean

Client

Perez Residence

Date

Completed: 4-14-16

Revised: 6-13-16

Revised: 6-22-16

Revised:

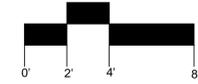
Revised:

Plan Type

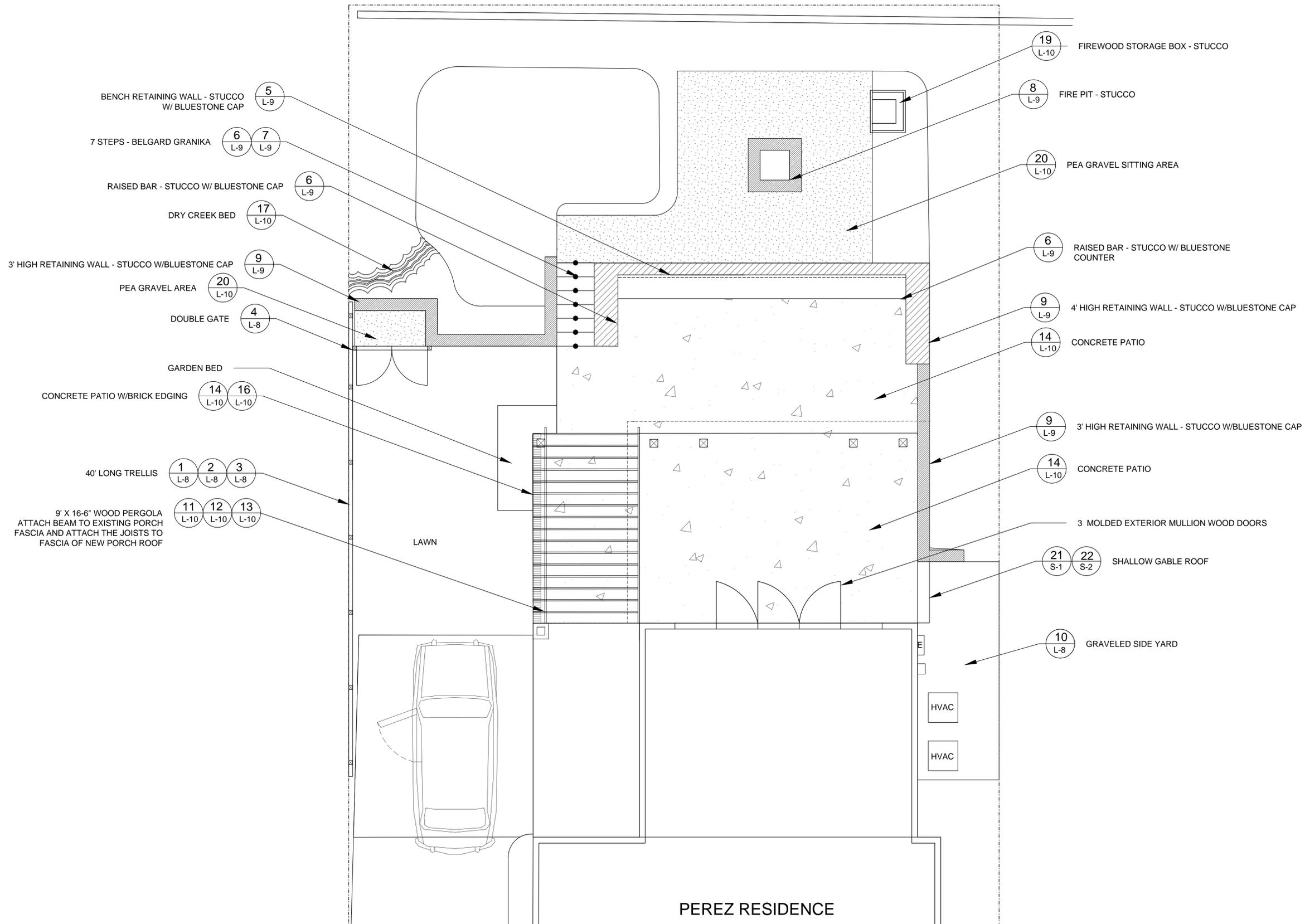
Grading and
Drainage Plan

Page Number

L-3



4 SCALE



Perez Residence
Address
621 Woodruff Place, Charlotte, NC

Scale
1" = 4'

Job Number

Designer

Janet Bean

Client

Perez Residence

Date

Completed: 4-14-16

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Revised: 7-20-16

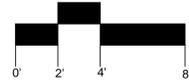
Revised: 8-16-16

Plan Type

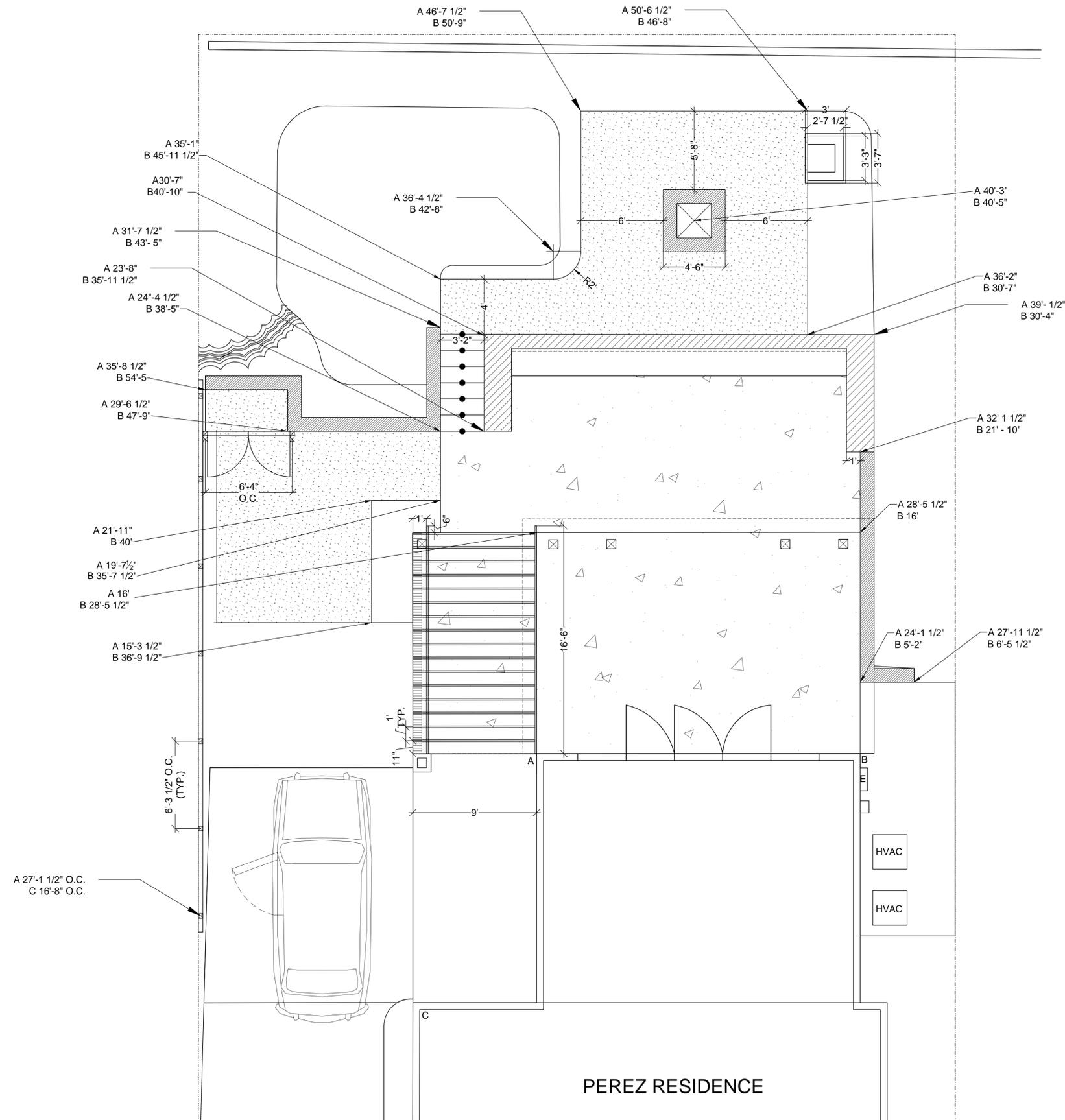
Site Layout
Plan

Page Number

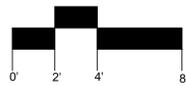
L-4



4 SCALE



PEREZ RESIDENCE



4 SCALE



1 AUTUMN SPIRIT CAMELLIA

1 NUTTALL OAK

3 CHINDO VIBURNUM

2 FROST PROOF GARDENIA

6 GROSSO LAVENDER

4 CORAL REEF DIANTHUS

1 TULIP POPLAR TREE

4 DENIM AND LACE RUSSIAN SAGE

4 CAROLINA JASMINE

1 TRAY VINCA

1 FREEMAN MAPLE
55 DWARF MONDO GRASS

LAWN

PEREZ RESIDENCE

1 TRAY VINCA MINOR SPREAD THROUGHOUT BEDS

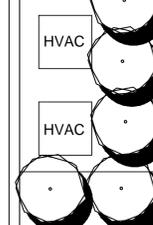
10 DEGROOT'S ARBORVITAE

1 FREEMAN MAPLE

7 TEA OLIVES

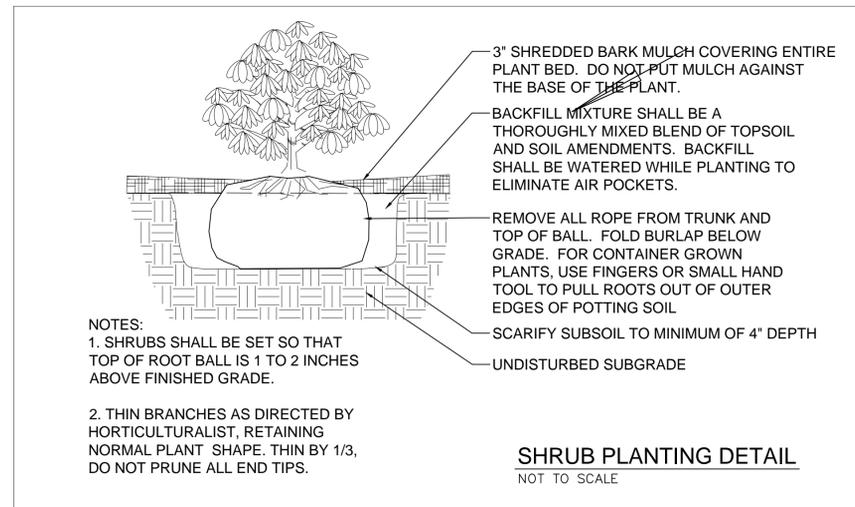
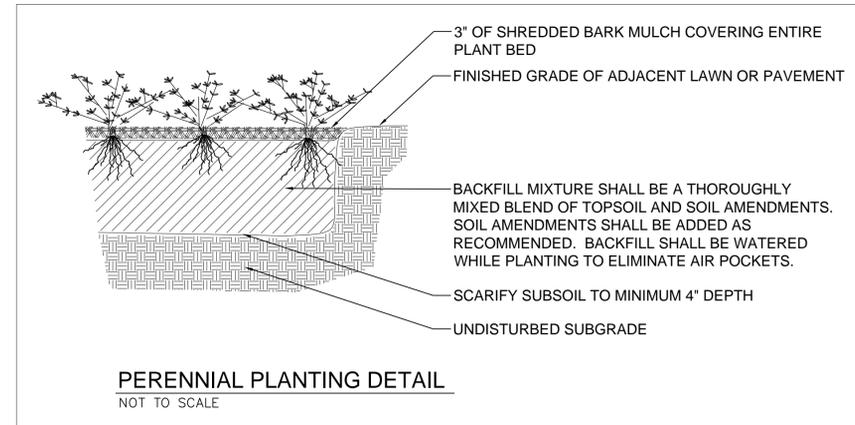
1 KWANZAN CHERRY
130 DWARF MONDO GRASS

5 OTTO LUYKEN CHERRY LAUREL



PLANT SCHEDULE

Key	Qty	Latin Name	Common Name	Size
Shade Trees:				
1	1	Quercus nuttallii 'MonPowe'	Charisma Nuttall Oak	5" caliper
1	1	Liriodendron tulipifera	Tulip Poplar	5" caliper
Ornamental Trees:				
1	1	Prunus serotina 'Kwanzan'	Kwanzan Cherry	15 gal
Shrubs:				
1	1	Camellia x 'Autumn Spirit'	Autumn Spirit Camellia	#3 can
2	2	Gardenia jasminoides 'Frostproof'	Frostproof Gardenia	#3 can, 10-12" h.
7	7	Osmanthus fragrans	Fragrant Tea Olive	#15 can, 3-3 1/2' h.
5	5	Prunus laurocerasus 'Otto Luyken'	Otto Luyken Cherry Laurel	#10 can, 18-20" h.
10	10	Thuja occidentalis 'Degroot's Spire'	Degroot's Spire Arborvitae	#5 can, 6 1/2-7' h.
3	3	Viburnum awabuki 'Chindo'	Chindo Viburnum	#15 can, 3-3 1/2' h.
Perennials and Bulbs:				
6	6	Lavendula x intermedia 'Grosso'	Grosso Lavender	#1 can
2	2	Vinca minor 'Bowles'	Bowles Periwinkle	18 - tray
185	185	Ophiopogon japonicus 'Nanus'	Dwarf Mondo Grass	
Vines:				
4	4	Gelsemium sempervirens	Carolina Jasmine	#3 can



- PLANTING NOTES:
- ALL PLANT MATERIAL SHALL COMPLY WITH THE RECOMMENDATIONS AND REQUIREMENTS OF ANSI Z60.1 "AMERICAN STANDARDS FOR NURSERY STOCK" LATEST REVISION.
 - ALL PLANTS AND ENTIRE SHRUB BEDS TO RECEIVE 3" LAYER OF DOUBLE SHREDDED HARDWOOD BARK MULCH. MULCH SHOULD NOT TOUCH STEMS OR TRUNKS OF PLANTS. MULCH ALL EVERGREEN TREES TO WITHIN 6" OF BRANCH ENDS.
 - TOPSOIL AND SEED ALL DISTURBED AREAS AS A RESULT OF ANY AND ALL CONSTRUCTION OR STORAGE OF EQUIPMENT, WHETHER AREAS ARE SHOWN AS LAWN OR NOT. AREAS NOT DIRECTLY RELATED TO DEVELOPMENT WILL BE RETAINED IN THEIR NATURAL STATE.
 - TOPSOIL FOR PLANT BEDS SHALL BE IMPROVED BY MIXING AS FOLLOWS: (3:2:1 MIXTURE)
50% APPROVED SCREENED SANDY LOAM TOPSOIL
33% COARSE CONCRETE SAND
17% SCREENED COMPOST
 - PROVIDE THIS IMPROVED TOPSOIL MIXTURE TO DEPTHS AS FOLLOWS:
6" IN GROUND COVER AREAS
12" IN SHRUB AND PERENNIAL BED AREAS
2'-6" DEPTH TO WIDTH OF TREE PIT AS SHOWN ON DETAIL
 - PROVIDE AND SPREAD APPROVED SANDY LOAM TOPSOIL TO 6" DEPTH IN LAWN AREAS. ROTOTILL IMPROVED TOPSOIL MIXTURE INTO TOP 6" FOR LAWN AREAS AND INTO TOP 18" FOR SHRUB AND PERENNIALS BED AREAS.
 - ROOTBALLS OF PLANTS SHALL BE SET 1" TO 2" ABOVE FINISHED GRADE.
 - CUT AND REMOVE BURLAP FROM TOP AND SIDES OF BALL. REMOVE ALL NYLON AND PLASTIC. REMOVE ALL NON-ROT BURLAP AND CUT OF SIDES OF WIRE BASKETS FROM BALL IF PRESENT.
 - DO NOT STAKE PLANTS UNLESS DIRECTED TO DO SO BY FOREMAN.

1622 Parker Drive, Charlotte, NC 28208
704.504.0980 office
704.504.8547 fax
www.metrogreenscape.com

Project Notes

Perez Residence
Address
621 Woodruff Place, Charlotte, NC

Scale
1" = 4'

Job Number

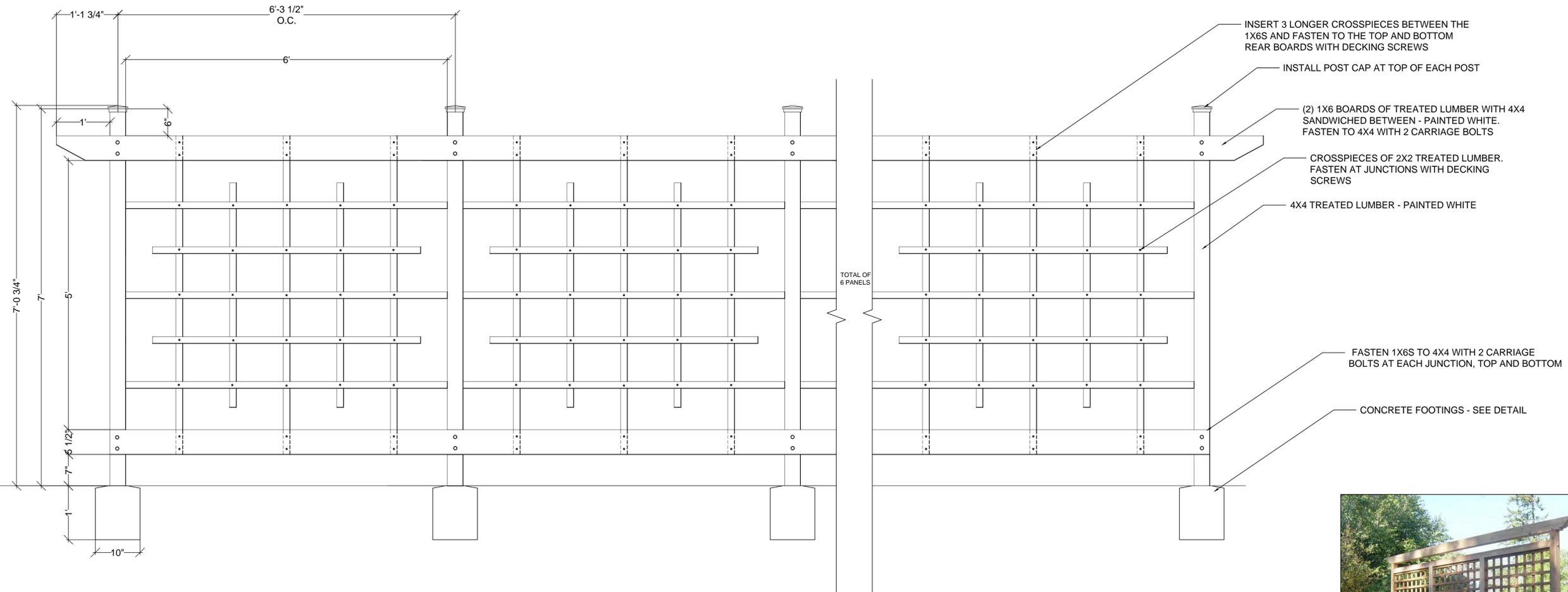
Designer
Janet Bean

Client
Perez Residence

Date
Completed: 4-14-16
Revised: 6-13-16
Revised: 6-22-16
Revised: 7-20-16
Revised: 8-16-16

Plan Type
Planting Plan

Page Number
L-7



NOTES:

- 1) TOTAL LENGTH FROM END OF BEAM TO END OF BEAM - 40'-1/2"
- 2) TOTAL HEIGHT OF POSTS 7'
- 3) POST CAPS EITHER OF PAINTED WOOD OR GOOD QUALITY MAN MADE MATERIAL - WHITE TO MATCH PAINTED ELEMENTS

1 CUSTOM TRELLIS
L-8 SCALE: 1" = 1'

Perez Residence

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1" = 4'

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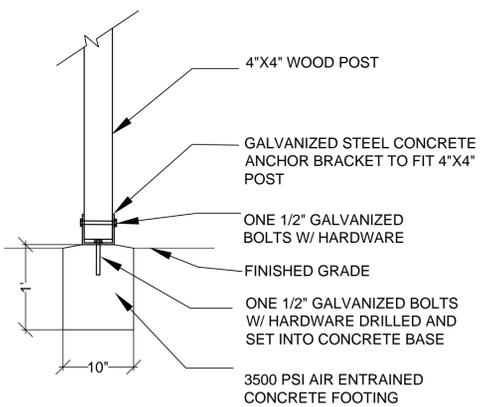
Revised:

Plan Type

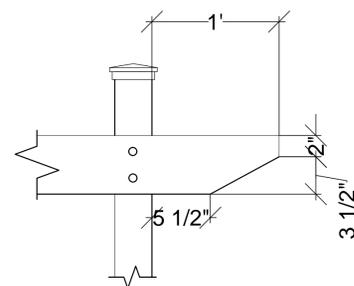
Detail Sheet 1

Page Number

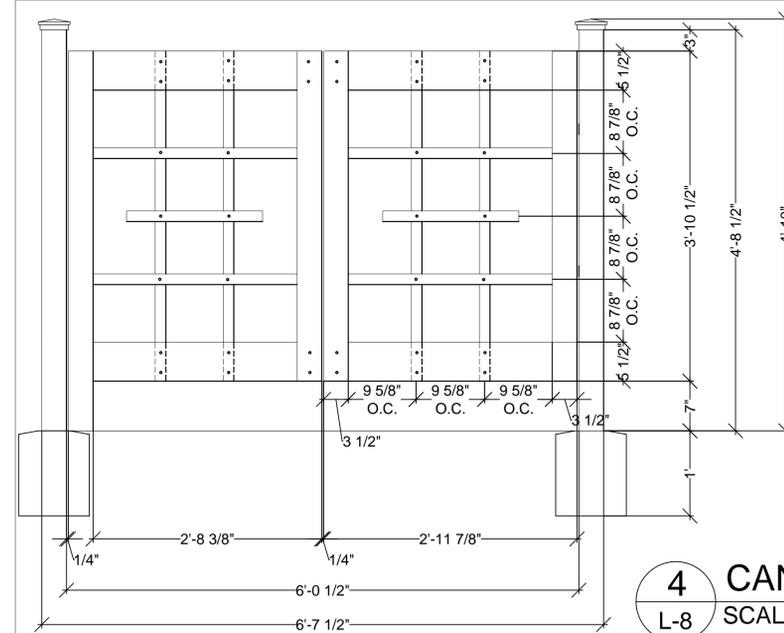
L-8



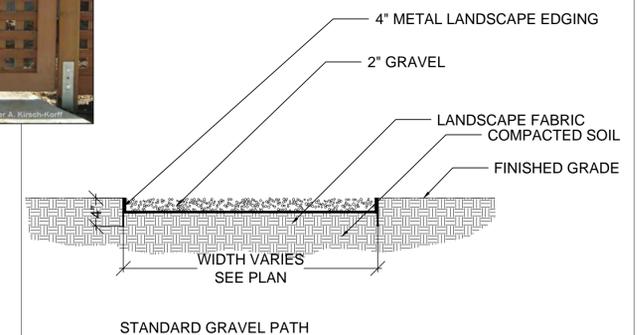
2 TRELLIS FOOTER
L-8 SCALE: 1" = 1'



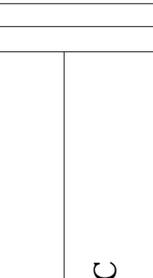
3 TRELLIS BEAM
L-8 SCALE: 1" = 1'



4 CAN STORAGE GATE
L-8 SCALE: 1" = 1'



10 GRAVEL SIDE YARD
L-8 SCALE: 1" = 1'



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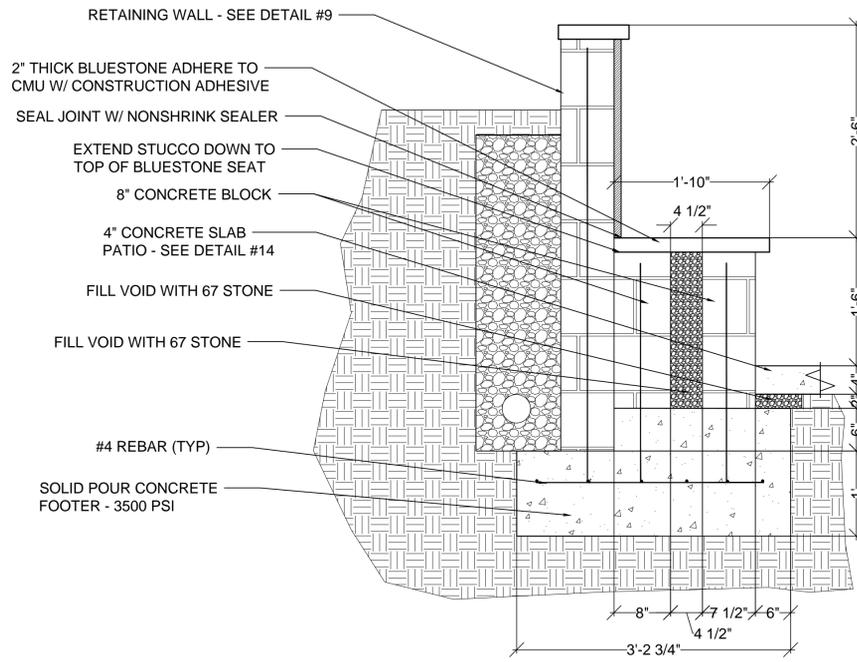
Revised:

Plan Type

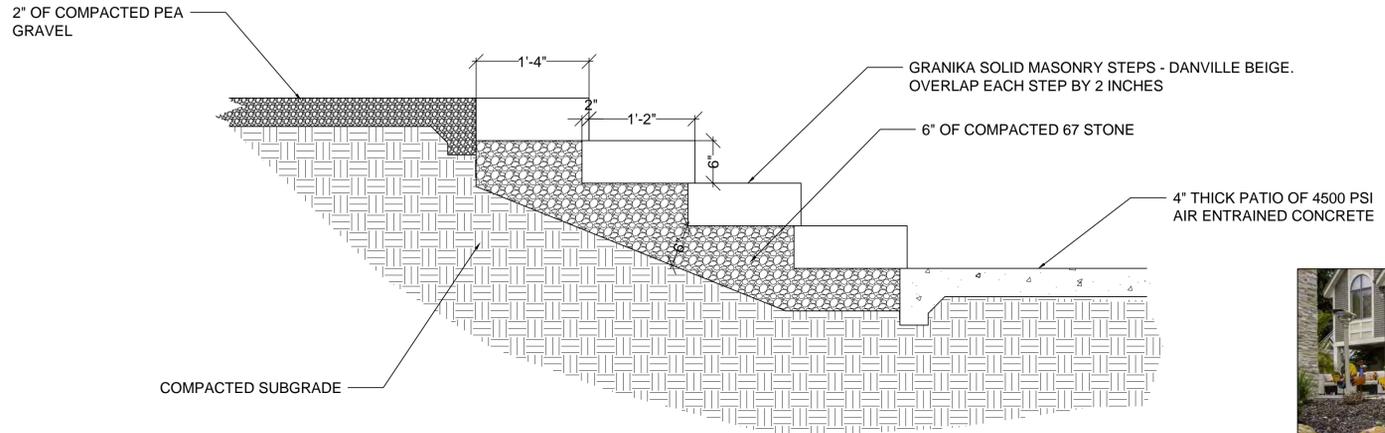
Detail Sheet 2

Page Number

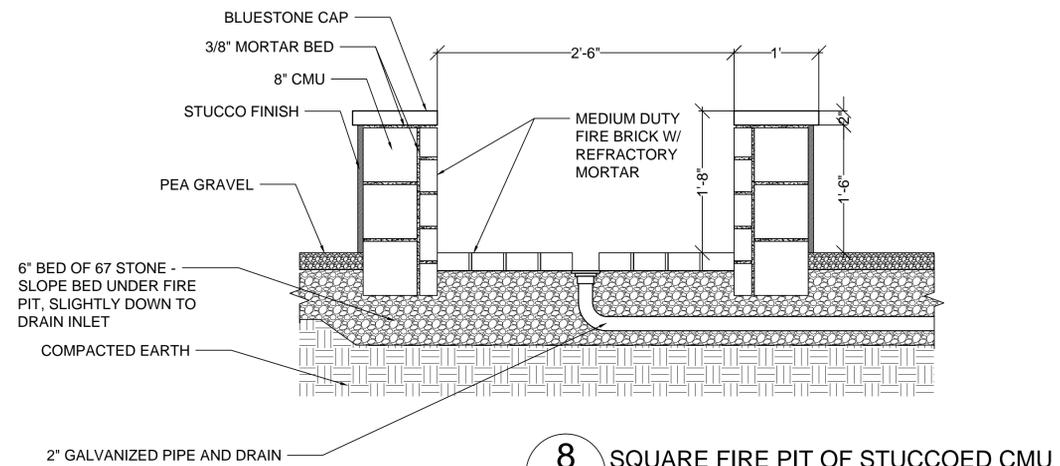
L-9



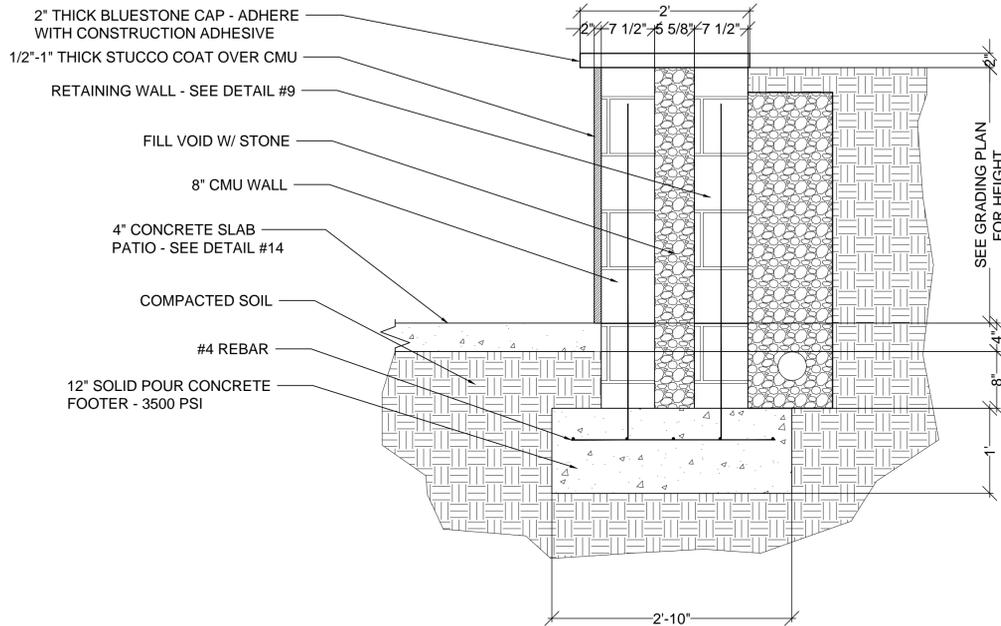
5 CUSTOM BENCH OF STUCCOED CMU AND BLUESTONE
L-9 SCALE: 1" = 1'



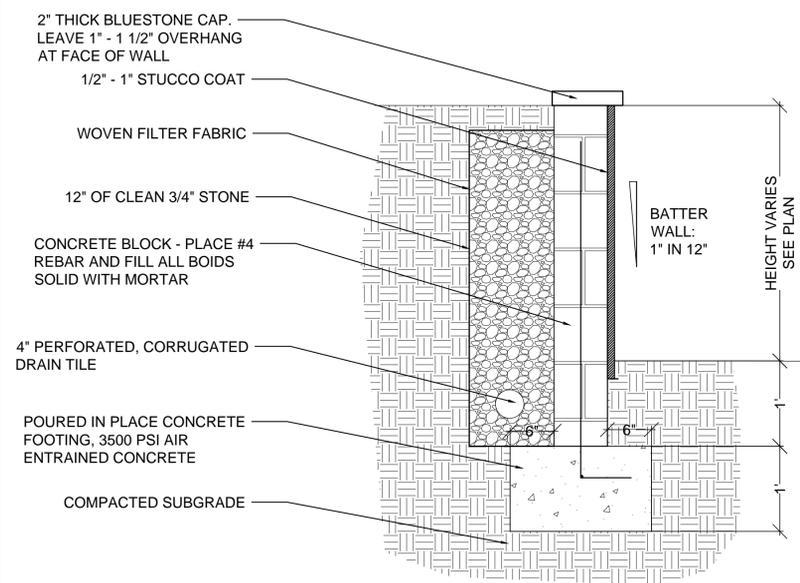
7 BELGARDE GRANIKA STEPS
L-9 SCALE: 1" = 1'



8 SQUARE FIRE PIT OF STUCCOED CMU
L-9 SCALE: 1" = 1'



6 CUSTOM BAR OF STUCCOED CMU W/BLUESTONE COUNTER
L-9 SCALE: 1" = 1'



9 STUCCO OVER CMU RETAINING WALL
L-9 SCALE: 1" = 1'



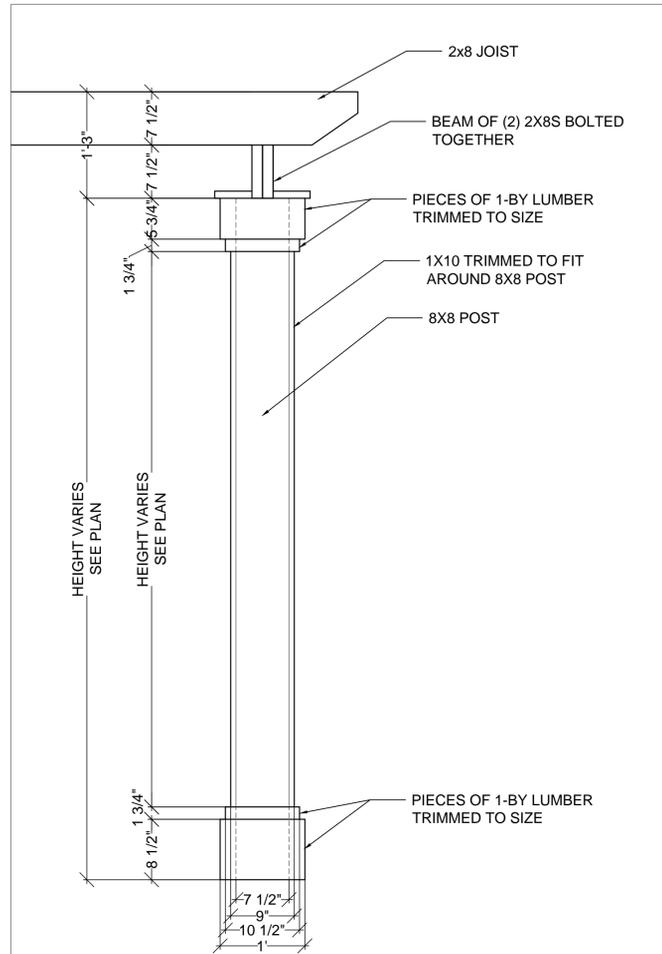
STUCCOED RETAINING WALLS W/ BLUESTONE CAPS



WARM GREY STUCCO

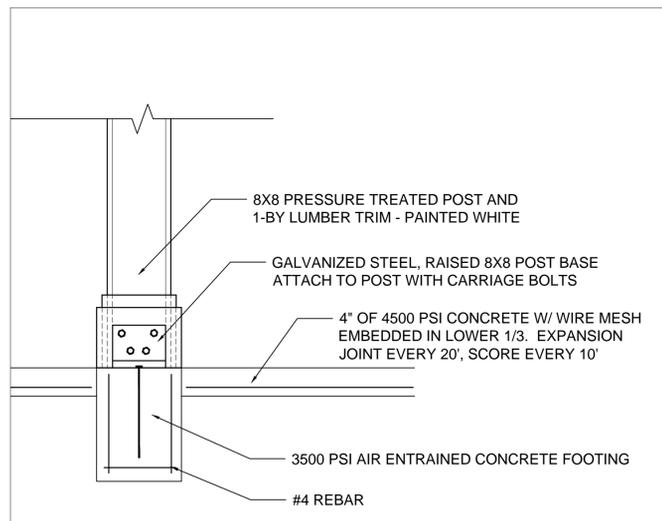


BLUESTONE CAPS



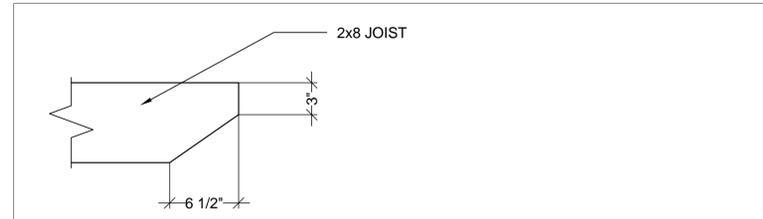
11 PERGOLA AND ROOF POSTS WITH CUSTOM TRIM

L-10 SCALE: 1" = 1'



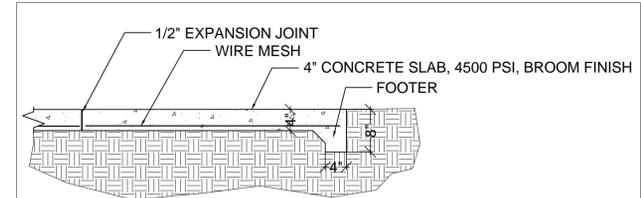
12 POST TO FOOTING ATTACHMENT

L-10 SCALE: 1" = 1'



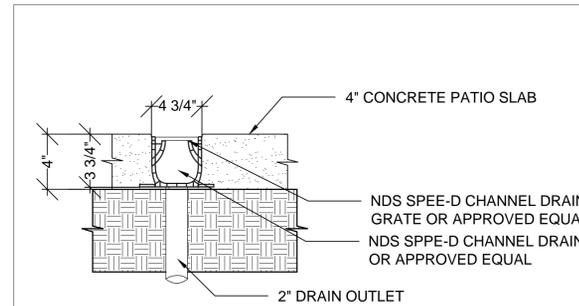
13 PERGOLA BEAM AND POST ENDS

L-10 SCALE: 1 1/2" = 1'



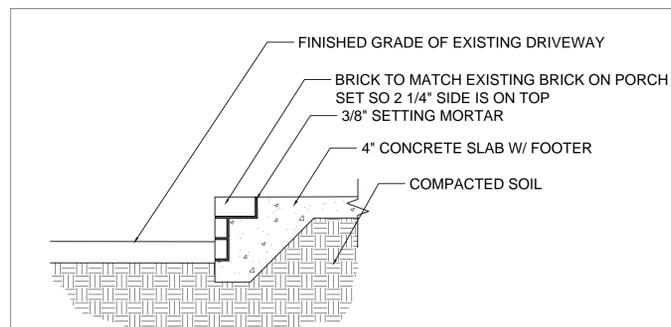
14 CONCRETE PATIO

L-10 SCALE: 3/4" = 1'



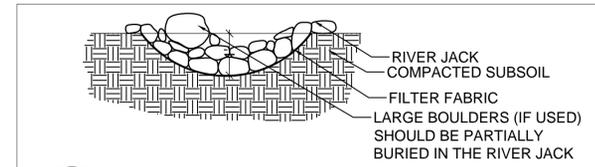
15 PATIO CHANNEL DRAIN

L-10 SCALE: 1 1/2" = 1'



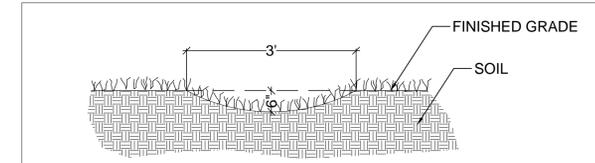
16 PERGOLA CONCRETE PATIO W/ BRICK TRIM

L-10 SCALE: 3/4" = 1'



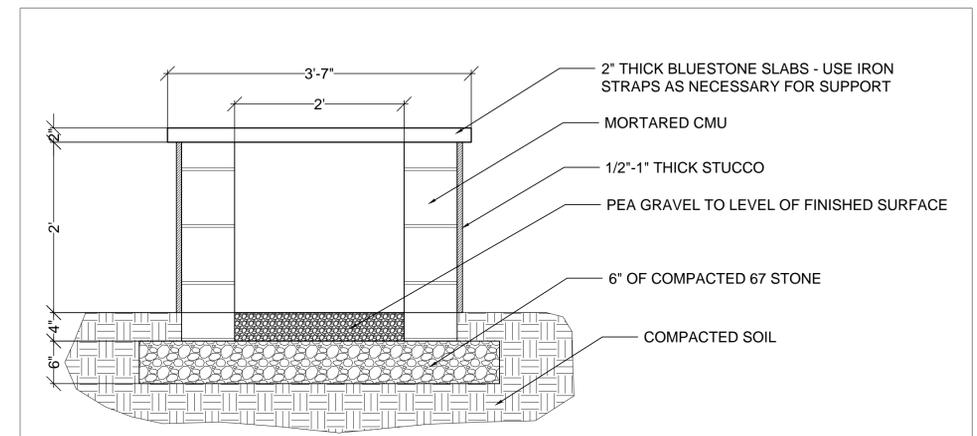
17 DRY CREEK

L-10 NOT TO SCALE



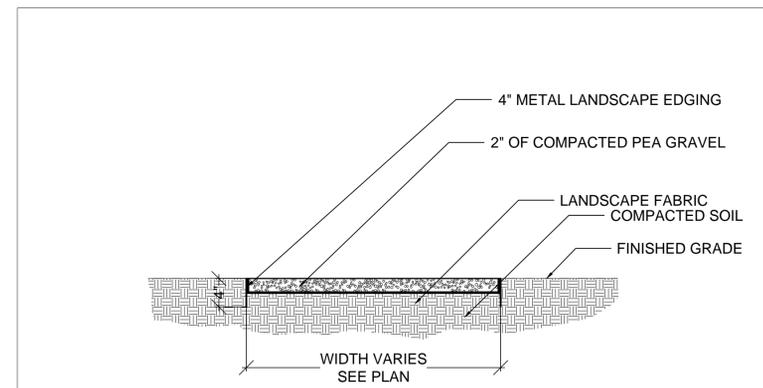
18 GRASS SWALE

L-10 NOT TO SCALE



19 FIREWOOD STORAGE

L-10 SCALE: 1" = 1'



20 PEA GRAVEL SITTING AREA

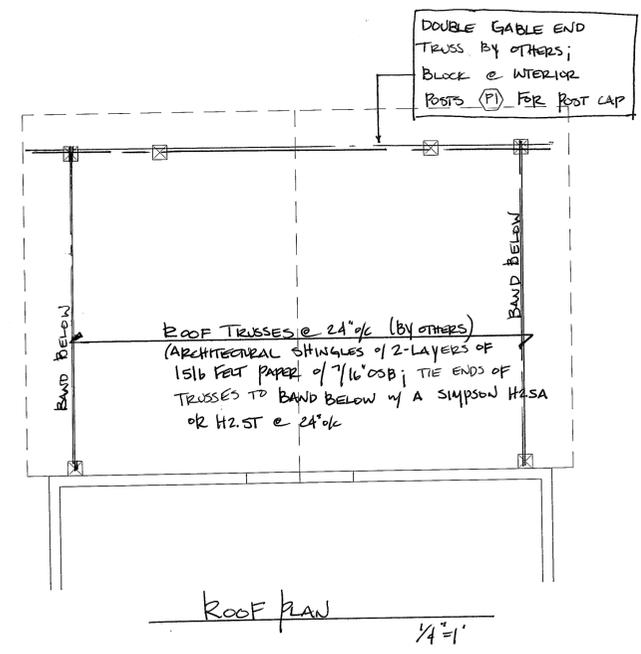
L-10 SCALE: 1" = 1'



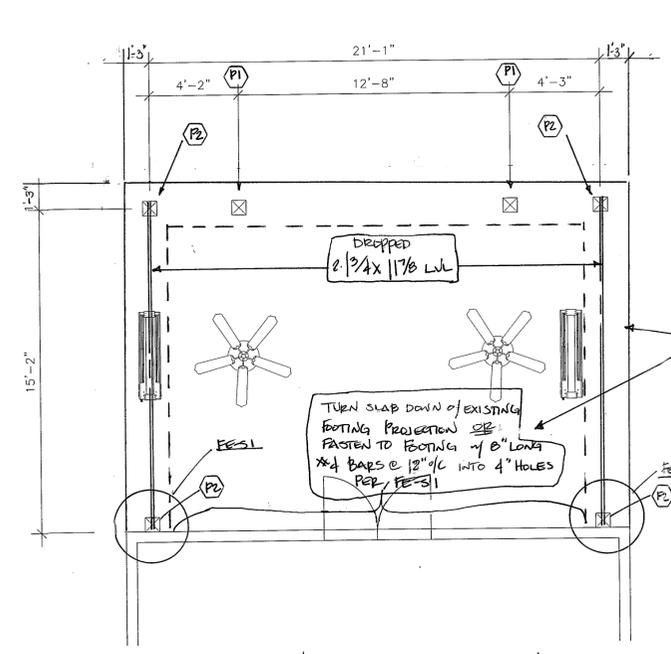


HOWARD VERNA ENGINEERING'S STANDARD NOTES ARE TO BE USED WITH THESE PLANS. THE ENGINEER OF RECORD DOES NOT ACCEPT RESPONSIBILITY FOR ANY PART OF THE PLAN NOT RELEVANT TO THE STRUCTURAL INFORMATION.

NOTE TO BUILDER &/OR TIMBER SUPPLIER
DO NOT ALTER THE FRAMING PLANS WITHOUT THE APPROVAL OF THE ENGINEER OF RECORD. ANY CHANGES MADE WITHOUT REVIEW AND APPROVAL BY THE ENGINEER OF RECORD SHALL ABSOLVE HIM OF ALL RESPONSIBILITY FOR ALL ASPECTS OF THE ENGINEERED DESIGN.



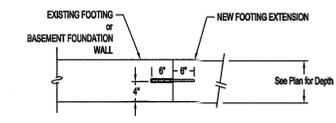
Roof Plan
1/4"=1'



POST/BEAM + FOUNDATION PLAN
1/4"=1'-0"

(P1) ⇒ TREATED SYP&L EXD POST;
TIE TO DOUBLE GABLE
END TRUSS ABOVE w/ A
SIMPSON CCG40SDS 2.5;
TIE TO FOOTING BELOW w/
A SIMPSON ABUBBZ w/ 2-3/8"
Ø ANCHOR BOLTS w/ A 7" EMBED-
MENT

(P2) ⇒ (P1) TIED TO ENDS
OF 2-1 1/8" LVL w/
A SIMPSON BCB,
(BLOCKED w/ 1 3/4" x
1 1/8" LVL @ CAP)



- FE** Typical Footing Extension Procedure:
NTS
1. Dig footing beside Existing footing to the specified depth and width
 2. Clean dirt away from the existing footing
 3. Drill 6" diameter holes 6" into the existing footing, at mid-depth @ 12" o/c (Unless noted otherwise)
 4. Clean holes w/ a blowout bulb and wire brush
 5. Add a 2-part epoxy to each hole
 6. Insert 12" long #4 bars into each hole
 7. Place concrete after inspection

4" CONCRETE SLAB
w/ 6x6^{WIP} NWF of
6 MIL POLY VAPOR
BARRIER @ 4"
STONE/GRANUL BASE,
OPTIONAL) of COMPACTED
FILL w/ 12" deep
X 24" WIDE TURN DOWN/
FOOTINGS w/ 2x4 BARS
CONTINUOUS

Perez Residence
Address
621 Woodruff Place, Charlotte, NC

Rear Porch Cover Plans

DRAWN BY:
D. Howard, PE
DATE:
04-22-16

DESIGN LOADS:

- Design loads are all dead loads plus:
 - Sleeping Rooms 30 PSF
 - All other floors 40 PSF
 - Balconies 60 PSF
 - Attic floor (ceiling joists) live loading with the following:
 - Area accessible by stairs 40 PSF
 - Roof slopes > 3:12 20 PSF
 - Roof slopes < 3:12 10 PSF
 - Roof live load 20 PSF or as required by Code.
 - Wind load 90 MPH, Exposure B
 - Snow load 10 PSF or as required by Code.
- All designs are in accordance with 2012 North Carolina Residential Code (w/ April and September 2013 Amendments). Refer to the relevant Code for any additional information not covered in these notes or the designs.
- Engineering design is for structural information only. The Engineer of Record does not accept responsibility for dimension errors, architectural errors, detailing of waterproofing, plumbing, electrical, or mechanical information or any part of the plan not relevant to the structural information.

RESIDENTIAL FOUNDATIONS:

- All continuous wall footings are 8"x16" for one- and two-story houses (10"x20" for houses w/ brick veneer) and footings for three-story walls shall be 12"x24" unless otherwise noted. Reinforcing is to be as noted on plans. **Footings on original soil do not need rebar. Rebar is required on any compacted fill regardless of compaction.**
- All interior piers are 8"x16" CMU up to a maximum height of 32". All piers over 32" high must be filled solid with Type S mortar. Maximum height for 8"x16" filled pier is 6'-8". Piers larger than 8"x16" are noted on plans and must be filled with Type S mortar. For one-story structures, pier caps are to be 4" solid masonry. For two-story structures, pier caps are to be 8" of solid masonry.
- Footings for 8"x16" piers are 24"x36"x10" unless noted otherwise. Reinforcing is to be as noted on plans.
- Interior thickened slab footings which occur in basements and "slab on grade" floors are 10" deep by 18" wide unless noted otherwise. Thickened footings are required under all bearing walls.
- All rebar splices shall be a minimum of 2'-0" unless otherwise noted.
- Shallow foundations are designed for an assumed soil bearing capacity of 2,000 psf. The contractor is responsible for notifying the Engineer of Record if any soils are found to be unsuitable for this bearing capacity. The contractor is responsible obtaining soil testing to ensure that the bearing capacity of the soil meets or exceeds this value. All fill is to be compacted to 95% density as measured by the Standard Proctor Test (ASTM D-1557).
- All soils and fill under floors within and/or under buildings shall have preconstruction soil treatment for protection against termites. Certification of Compliance shall be issued to the Building Department by a licensed pest control company.
- All footing excavations shall be neat, straight, and level in the proper elevations to receive the concrete. Excessive variations in the dimensions of footings or slab will not be permitted. Reinforcing steel and mesh shall be accurately placed and supported to maintain their position during the concrete pouring. Edge forms shall be used for concrete that will be exposed.
- All slab penetrations are to be the responsibility of the contractor. Penetrations interfering with reinforcing shall be approved by the Engineer of Record prior to the placement of concrete.
- Elevation difference between the bottom of adjacent footings shall be a maximum of one foot less than the minimum horizontal footing distance - for stepped footings. Differential heights between footings can become excessive usually where a pier footing in a crawlspace or garage footing is next to a basement wall footing.

SPECIAL FOUNDATION CONSIDERATIONS:

- Waffle slabs are self-supporting slabs reinforced according to details and do not require firm soil for support. Soil must only be capable of supporting concrete until it hardens and develops strength.
- Caisson foundations shall be a minimum of 12" diameter drilled unreinforced concrete caissons. Caissons shall extend to a minimum depth providing 2' penetrations into good original ground. A caisson cannot be used if water rises immediately into a drilled hole. Piles will have to be used in such cases. (6'-0" MIN.)
- Treated wood piles with a minimum diameter of 8" and a minimum design load of six tons are used for all foundations with unsuitable soil deeper than 13' or with water in drilled caisson holes. Drive per North Carolina or South Carolina Code.
- Sizes and reinforcing for footing caps over caissons or piles shall be as shown on plans.
- Chimney footings are to be 12" larger than the chimney footprint by 12" thick.
- Foundation walls backfilled with dirt which support structural framing shall be constructed as follows:
 - For earth fill up to a maximum height of 4': Use 8" Solid Grouted CMU or 8" brick with Bituthene membrane waterproofing on exterior. Footings are to be 8"x16" or 8"x24" as noted on the plan.
 - For earth fill 4' to a maximum height of 9': Use 8"x24" footing with #4 @ 16" dowels hooked in footing and projecting 18" above footings. Use 12" CMU walls with #4 @ 16" vertical bars located 4" from non-dirt fill face, lap all splices 12" and use Dur-o-wall horizontal reinforcing every 8" in CMU joints. Install 1-#3 L-bar with 24" legs in every other joint horizontally at all corners; i.e., #3 corner bars @ 16" o/c vertically. Fill all open cells of CMU with either type S or M mortar or fill with 2,500 psi concrete. Install waterproof Bituthene membrane or equal.
 - In lieu of the preceding design, basement walls may be constructed in accordance with R404.1 of the Code. However, 24"x24", #3 corner bars shall be installed at 16" o/c vertically regardless of the wall height. **ERECT ALL FRAMING BEFORE BACKFILLING**
- For retaining walls without framing see special designs on drawings.

FRAMING CONSTRUCTION - OTHER THAN ROOF:

- See Table R602.3(1) of the Code for a fastener schedule for structural members.
- Wood beams shall be supported by metal hangers of adequate capacity where framing into beams or ledgers. The following hanger schedule may be used unless noted otherwise on the plan:

Member Size	Simpson® Hangers
(2) 2x8	HUS 28-2
(2) 2x10	HU 210-2 (Max)
(2) 2x12	HU 212-2 (Max)
(2) 1½" x 9½" LVL	HU 410 (Max)
(2) 1½" x 11½" LVL	HU 412 (Max)
(2) 1½" x 14" LVL	HHUS 410
All Triple LVL Members	HHUS 5.50/10

Note: This table shows Simpson® face hangers. Other hangers may be used so long as they are equal to or stronger than those listed.

- Crawl girders and bands with 4" curtain wall and pier construction shall be 2-2x10 Southern Yellow Pine #1 unless noted otherwise. Maximum clear spans are to be 4'-8" (6'-0" o/c spacing of piers). To avoid objectionable cracking in finished hardwood floors over any girders, use the following procedure:
 - Nailing
 - All floor joists must be toenailed to their support girders with a minimum of 3-8d nails at each end. Larger nails will split and render the toenail ineffective. No end nailing through the girder or band is permitted.
 - If dropped girders are used, end lap all joists and side nail each with a minimum of 3-16d nails at each end of each joist. Ledger strips are to be fastened to girders with 3-16d face nails at 4" on center at each joist end.
 - Nail multiple member built-up girders with two rows of 16d nails staggered at 32" o/c, 2" down from the top and 2" up from the bottom with 3-16d nails at each end of each piece in the joist between the members making up the multiple girder.
 - This nailing pattern will ensure a tight floor from the outside of the house to the outside so that when the framing shrinks during the first heating season, the shrinkage will be uniformly distributed over the entire floor. If the girder-nailing pattern is omitted, then the shrinkage will accumulate over the girders and an objectionable crack will develop in the finished hardwood floor over the girder line.
 - At all girders where the joists change direction, install bridging at 6' o/c for a minimum of six joist spacings beyond any joint direction change. This will insure shrinkage distribution over the floor and not let it accumulate at the girder.
 - There must be wood blocking thru bolted to the steel beam with joists toenailed or attached to the beam with metal hangers under any hardwood floors that pass over a steel beam supporting floor joists. This condition often exists over basement areas.
- All other lumber may be Spruce #2 unless noted otherwise.
- Steel beams must have (3)-2x4 or (4)-2x6 studs under each end U.N.O. The top flange shall be covered with wood blocking fastened with 2 rows ½"Ø lag-screws 12" o/c staggered, or powder-actuated fasteners, Simpson TB Screws, or an approved method.
- "Lam" beams must have (3)-2x4 or (2)-2x6 studs under each end U.N.O.
- Masonry lintels:
 - For openings up to 6': Use 3 ½" x 3 ½" x ¼" steel angles.
 - For openings from 6' to 10': Use 5" x 3 ½" x ¼" steel angles.
 - For openings from 10' to 18': Fasten 5" x 5" x ¼" steel angle to wood header with ½"Øx4" lag screws @ 12" O.C. Extend angle 6" past opening to bear on masonry veneer at ends.
 - When structural steel beams with bottom plates are used to support masonry, the bottom plate must extend the full length of the steel beam. Provide a minimum 4" bearing at all end steel headers. This supports the ends of the plate by bearing on the adjacent masonry jacks. The beam should be temporarily shored prior to laying the masonry. The shoring may be removed five days after laying the masonry.
- All brick veneer over lower roofs (brick climbs) must have a structural angle lag screwed to an adjacent stud wall in accordance with detail, with steel brick stops to prevent sliding of brick.
- All rafter braces must have two studs from plate through all floors to the foundation or supporting beam below. No braces shall be attached to top wall brace without studs directly under them.

FRAMING CONSTRUCTION - OTHER THAN ROOF (CONT'D)

- Where non-load bearing partitions fall between floor joists or trusses, 2x4 ladders @ 16" o/c must be placed perpendicular to the trusses to support the plywood decking. The ladders shall be supported with a Simpson "Z" clip or similar device. A double joist can also be used and is allowed to be separated 4" Max. to allow for plumbing and wiring.
- All wood I-joists and open joists must be braced in accordance with the manufacturer's directions plus details shown on plans. Load-bearing partitions, jacks, beams and column supports must be solid blocked through floor. Trusses and plywood cannot carry concentrated point loads. I-joist material should not be used as blocking under concentrated point loads. All point loads must be carried to foundations with adequate blocking and/or beams.
- All steel columns shall bear on concrete, masonry, or steel only. Beams that bear on top of steel columns shall be welded to the column. Where steel columns bear on concrete or masonry, unless otherwise noted, a ¾"x6½"x6½" or ¾"x3½"x10" base plate shall be used to spread the column load across the bearing surface. Base plates shall be bolted with at least two ½"Ø anchor bolts or expansion bolts to concrete or masonry.
- Unless noted otherwise on the plans, all exterior facing stud walls taller than 10' shall be constructed as follows:
 - Walls 10' to 11' high: Balloon frame 2x4 SPF#2 studs at 12" o/c with ½" OSB sheathing and 3 king studs on each side of each opening nailed securely to the header.
 - Walls 11'-1" to 20' high: Balloon frame 2x6 studs at 16" o/c (½" OSB sheathing required for wall heights > 17'). Provide 2-1 ¾"x5¼" LVL king studs on each side of openings 3' to 6' wide and 2-2x6 king studs for openings less than 3' wide. Fasten king studs securely to all headers with a minimum of 12-16d nails or 4- ¾"Ø lag screws embedded a minimum of 4" into the header.
 - Gable end walls of rooms with vaulted ceiling joists: Balloon frame wall and provide triple king stud on each side of openings, nailed securely to the header.
 - Two-story high foyer walls less than 9' wide: Extend 3 ½"x9¼" PSL member with 3-2x4 flat plates across the entire wall. Locate the beam near mid-height of the wall at or near first floor top plate.
 - See special design or engineer for walls taller than 20': when openings in high walls exceed 6' in width, or if the wall cannot be constructed using any of the methods mentioned.
- Continuous 2x6 bridging shall be nailed to diagonal or vertical web members of all open-web floors trusses over 10' long. They shall be installed near mid-span as a load distribution member. If the 2x6 bridging is not continuous, lap ends of bridging one truss space.
- Lower stud walls for buildings over two stories, but not more than three stories:
 - Interior walls
 - Load bearing 2x4 @ 12" o/c for up to 10'-0", or 2x6 @ 16" o/c if taller than 10'-0"
 - Non load bearing 2x4 @ 16" o/c under 12'-6"
 - Exterior walls
 - Use 2x6 @ 16" o/c with ½" plywood sheathing solid on walls.
- Headers shall be as follows unless noted differently on plans:
 - Interior and exterior:
 - Spans up to 2'-6" 2-2x6's - 1 Jack Stud Each Side
 - Spans 2'-6" to 3'-6" 2-2x8's - 1 Jack Stud Each Side
 - Spans 3'-6" to 6'-6" 2-2x10's - 2 Jack Stud Each Side
 - Spans 6'-6" or more See Plan - See Plan
 - Number of SPF #2 2x4 King Studs Required At Each End For A Given Wall Height And Opening Width

Wall Height	2'-6"	3'-6"	4'-9"	5'-6"	6'-0"	8'-0"
8'	1	1	1	1	1	2
9'	1	1	1	2	2	2
10'	1	2	2	2	3	3
11'	2	2	3	3	-	-
12'	2	3	3	-	-	-

 *See plans for king-stud requirements at openings in 2x6 framed walls.

- When ceiling joists are parallel to an exterior wall, tie the rafters near the top plate to ceiling joists with a 2x6 strongback a minimum of 6' long at 4' o/c across the top of the ceiling joists. 2x4 rafter ties shall be fastened to the side of the rafter and the strongback.
- At all exterior diagonal wall panels (i.e. bay windows), each panel shall be nailed to each adjacent panel with 5-16d nails or tied together with metal strapping nailed at four locations between floors with a minimum of 2-16d nails into each panel at each strap. This will avoid vertical cracking in panel joints due to horizontal oscillating panels.
- At all stairs, every stud at each stringer must be nailed to each stringer with a minimum of 2-16d nails. This will avoid cracking between wallboard and top of base molding due to vertical oscillation of stair stringers.
- Roof trusses that have non-bearing partitions passing under them should be nailed to the partition plates to avoid ceiling-wall cracking.
- Roof trusses close to side walls framing and used as dead wood for sheetrock boards should be nailed to the wall framing to prevent ceiling-wall cracking.
- All structural framing lumber exposed directly to the weather or bearing directly on exterior masonry piers or concrete shall be treated. All wood in contact with the ground is to be ground-contact approved. All wood exposed directly to the weather shall be protected to prevent the occurrence of rot.
- Unless otherwise detailed, all sick-built chimneys shall be constructed with 2x4 studs at 12" o/c, balloon-framed from attic ceiling or floor. Fasten ½" CDX plywood on all sides of the chimney along the full length of the studs. Fasten each stud to the supporting beam or ceiling joist with a 1½"x24", 18-gauge metal strap, or a similar connector. Fasten beam down to support studs with (2) similar straps.
- All point loads from roof brace, jack studs, beam supports - whether wood or steel - cannot bear on sheathing alone. Blocking equal to or better than the point load supports above must be carried through all construction to the foundation.
- Note to apply for all hard coat stucco exterior finishes:
 - Joints are necessary at the following locations:
 - Horizontally at each floor line.
 - No areas larger than 144 S.F. surface exposed.
 - No dimension longer than 18'.
 - No dimension longer than 2½ times the shortest dimension.
 - Drip screed required at the bottom of all walls 2" above paved areas and 4" above grade.
 - See ASTM 926 and 1063 for further information.
- All "Self Supporting Stairs" must be connected to adequate framing to support the load of the stair case. It is the stair manufacturer's responsibility to provide the E.O.R. with all point loads prior to construction.
- All studs, which support the bearing ends of steel or LVL beams, greater than four plies, are to be fastened with a Liquid Nails Adhesive @ or equivalent and fastened with 1d nails at 12" on center vertically at each face of each ply in contact

ROOF CONSTRUCTION:

- All roof trusses must be built in accordance with truss manufacturers' requirements. Tie-down connections to resist uplift shall be installed where required. When roof truss manufacturers do not provide the required connectors, it is the responsibility of the contractor to notify the roof truss engineer or the Engineer of Record to provide an adequate connector.
- Roof trusses and stick framed rafters are to be tied down to the top plates of walls, headers and beams/girder trusses with a Simpson H2.5A as follows (per Table R802.11 for 90 mph Basic Wind Speed; 30' mean roof height; Exposure B, if site conditions are found to be above that specified, contact Howard Verna Engineering, PC for further consultation):
 - Roof span 0 to 22' => Simpson H2.5A @ 48" on center (per manufacturer's specifications)
 - Roof span 22'-1" to 40'-0" => Simpson H2.5A @ 32" on center (per manufacturer's specifications)
- Rafters shall be 2x6 SPF#2 @ 16" o/c for shingles with ¼" OSB sheathing with one layer of 15# felt unless noted otherwise. They are to be cut into hips, ridges, etc., unless noted otherwise. Tile, slate and other heavy roof coverings shall use 2x8 SPF#2 @ 16" o/c with ¾" minimum OSB sheathing with (2) layers of 15# felt, unless noted otherwise.
- Collar ties shall be 2x6 @ 48" o/c at all ridges unless noted otherwise and located a nominal 3' below the ridge. Vaulted ceilings require special collar tie or ridge beam details. See the end of Table R802.5.1 in the Code unless otherwise detailed on the plan.
- A minimum of three collar ties shall be used at all ridges even if two ties must be put on one set of rafters.
- All hips and ridges are 2x10 SPF#2 unless noted otherwise.
- All "HOGS" shall be composed of two 2x6's or a 2x6 nailed to a 2x8, as indicated on the plan. The boards shall be fastened together at their ends with 16d nails at 4" on center to form an "L" shape (See detail at lower right this page). All hogs on ceiling joists or rafters are 12" long 2x6's unless noted otherwise. Rafter may be spliced over hogs. Splice rafter hogs only at a roof brace.
- Gable end framing must be braced parallel to ridges with a minimum of 2x6 diagonal braces @ 6' o/c along the gable wall to interior ceiling joists. Braces to bear on 2x6 hogs and to the gable wall at approximately mid-height of gable walls. Braces shall be at an angle of approximately 45°. Other bracing may be used with the design engineer's approval.
- Ceiling joists when erected parallel to rafters must be sistered to rafters and nailed with 3-16d nails at each rafter. If a kneewall is used and ceiling joists do not intersect with rafters, then the rafters must be tied to the ceiling joists using 2x4 kickers or rafter ties spaced no more than 48" o/c or every third rafter.
- Roof Plan Legend:
 - Indicates location of roof brace point at rafter level.
 - Arrow away from the brace point indicates direction of roof brace to partition, beam, or other brace point below.
 - Arrow into brace point indicates a vertical or almost vertical roof brace to partition, beam, or other brace point below.
 - Roof braces under 7'-0" are 2-2x4 nailed with 16 penny nails @ 9" o/c vertically from top to bottom. Braces longer than 7'-0" are (2)-2x6 T-braces. Braces longer than 10' must be braced horizontally in two directions at mid-height.
 - Maximum spacing of roof braces are to be as follows (unless noted otherwise on plans):
 - For (2) 2x6 Hog 6'-0" o/c
 - For (2) 2x8 Hog 7'-6" o/c

MATERIALS SPECIFICATIONS:

Concrete General Notes:

- Except where otherwise noted, for all concrete, the proportions of cement, aggregate, and water to attain required plasticity and compressive strength shall be in accordance with ACI 318 Code. Concrete shall be 2,500 PSI in 28 days for footings and 3,000 PSI for walls, beams and columns, unless noted otherwise.
- Before placing concrete, all debris, water and other deleterious material shall be removed from the places to be occupied by the concrete. The placing of all concrete shall be in accordance with ACI 318 and ASTM C94 requirements. Pumping of concrete will be permitted only with the Engineer of Record's approval of proposed concrete mix and method of pumping. Concrete shall be rapidly handled from the mixer to forms and deposited as nearly as possible to its final position to avoid segregation due to rehandling. Concrete to be spaded and worked by hand and vibrated to assure close contact with all surfaces of forms and reinforcing steel and leveled off at proper grade to receive finish. All concrete shall be placed upon clean, damp surfaces. Vibration shall be applied directly to the concrete and shall be sufficient to cause flow of settlement but not long enough to cause segregation of the mix.
- Construction joints shall be located in accordance with ACI 301. All reinforcing steel shall be continuous across joints. In slabs on grade, saw contraction joints shall not be over 20 feet center to center each way. Joints shall be sawn a depth of one-third of the slab thickness. Sawing of the joints shall commence as soon as the concrete has hardened sufficiently to permit sawing without excessive raveling. Fill the saw cuts with approved joint filler after the concrete has cured.
- Concrete, when deposited, shall have a temperature not below 50° F and not above 90° F. The methods and recommended practices as described in ACI 306 shall be followed for cold weather concreting and ACI 305 for hot weather concreting.
- Freshly placed concrete shall be protected from premature drying by one of the following methods:
 - Ponding or continuous sprinkling.
 - Absorptive mat or fabric kept continuously wet.
 - Waterproof paper conforming to ASTM C171.
 - Application of an approved chemical curing compound.
 The curing shall continue until the cumulative number of days when the ambient temperature above 50° F has totaled seven. During curing, the concrete shall be protected from any mechanical injury, load stresses, shock, vibration, or damage to finished surfaces.
- Reinforcing steel bars shall be deformed in accordance with ASTM A305 and/or A408 and formed of ASTM A615-78 Grade 60 steel. Welded wire fabric reinforcing to be ASTM A185 steel wire. Accessories shall conform to the CRSI "Manual of Standard Practice." The following minimum concrete cover shall be provided over reinforcing bars:

A. Exposed to Earth	3" Min.
B. Exposed to Weather	1½"
C. Slabs not Exposed to Weather 8"	¾"
D. Beams and columns	1½"

Masonry General Notes:

- Masonry walls are to be of the sizes and in the locations shown on the plans and shall be constructed in accordance with the provisions of ACI 530.
- Hollow Load Bearing Units: ASTM C90 made with lightweight or normal weight aggregates. Grade N-I units shall be provided for exterior and foundation walls. Grade N-I or S-I units shall be provided for other load-bearing walls or partitions.
- Concrete Building Brick: ASTM C55 made with lightweight or normal aggregates, Grade N-I or S-I except that brick exposed to weather shall be N-I.
- Mortar: ASTM C270-95, Type S prepackaged mortar mix which shall not contain any non-cementitious fillers combined with not more than three parts sand per one part mix.
- Reinforcing Steel: ASTM A615 Grade 60 steel deformed bars where indicated on the plans. Where reinforcing bars are installed in the cells of concrete masonry units, they shall be secured with wire ties at intervals not exceeding 24" o/c to maintain the bars location in the cell. The tolerance for spacing of vertical bars is ±2 inches along the length of the wall. The tolerance for the distance between the face of the concrete masonry unit and the center of the bar shall not exceed ±½".
- Mortar protrusion shall be less than ¼". A protrusion of ½" or greater must be removed before grouting.
- Horizontal Joint Reinforcement: ASTM A82 fabricated from cold drawn steel wire and hot dip zinc coated (ASTM A153). It shall consist of two or more parallel, longitudinal wires 0.1875" in diameter with weld-connected cross wires 0.1483" in diameter at a maximum of 16" o/c. Joint reinforcement is to be installed in every other course and in the first two courses at the bottom and top of wall openings and shall extend not less than 24" past the opening. Splices shall overlap not less than 12".
- Execution: Masonry units shall be laid in a running bond pattern unless noted otherwise. The walls shall be carried up level and plumb within the tolerances specified in ACI 530.1-88, Section 2.3.3.2. If nonstandard dimensions are encountered, block shall be cut with a masonry saw to fit, not by stretching or shrinking joints. Unfinished work shall be stepped back for joining with new work. Toothing will not be permitted except where specifically approved. Damaged units are to be cut out and new units set in place.
- The filled cells and bond-beam blocks of reinforced masonry walls are to be filled with ASTM C476-91 Grout for Masonry with minimum compressive stress of 2,000 psi and slump range of 8" to 11". The outside face of the bottom block of each cell is to be broken out for inspection of reinforcing and clean out of mortar droppings in the cell. The grout is to be placed in cells in maximum 5' lifts and immediately vibrated to minimize voids within the grout. Reconsolidate each lift by vibrating several inches into the preceding lift before plasticity is lost. Reconsolidate the top lift and fill with grout any spaces left by settlement or shrinkage.

Lumber General Notes:

- All common framing lumber is to meet the following minimum specifications at 19% moisture content:

MATERIAL	Fb (psi)	Ft (psi)	Fc (psi)(Perp.)	E (psi)
#2 Spruce Pine Fir	875	450	425	1,400,000
Southern Yellow Pine	800 (2x10)	575	565	1,400,000

- All Structural Composite Lumber (LVL, LSL, PSL) is to meet the following minimum specifications:

APPLICATION	Fb (psi)	Fc (psi)(Parallel)	Fc (psi)(Perp.)	E (psi)
Girders & Beams (LVL, PSL)	2,600	2,510	750	2,000,000
Columns (LSL) & Rimboards	1,700	1,400	400	1,300,000

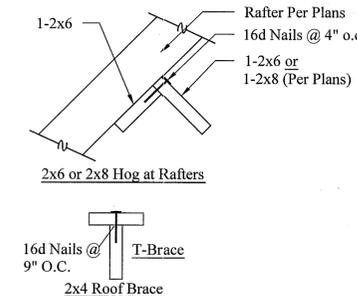
- All Glue Laminated Timber (Glu-lam) is to meet the following minimum specifications:

APPLICATION	Fb (psi)	Fc (psi)(Parallel)	Fc (psi)(Perp.)	E (psi)
Girders & Beams	2,400	1,700	740	1,700,000
Columns	1,600	1,550	560	1,500,000

- Where three-ply or four-ply LVL beams are side-loaded (joists frame into the side at the outside plies), fasten all plies together with two rows of ½"Ø bolts at 12" o/c. The bolts shall be located a minimum of 2½" and a maximum of 3½" from the top or bottom of the beam.
- Built-up wood columns consisting of multiple studs shall have each lamination nailed with 16d nails at 9" o/c.

Steel General Notes:

- All steel wide flange beams shall conform to ASTM A572 having a minimum yield stress of 50,000 psi.
- All steel pipes shall be Schedule 40 or better with a minimum yield stress of 35,000 psi.
- All steel tubes shall conform to ASTM A500, Grade B, having a minimum yield stress of 46,000 psi.
- All other shapes not listed above shall conform to ASTM A36 having a minimum yield stress of 36,000 psi.
- Unless otherwise noted, all welds shall be fillet type with a minimum ¼" leg. Welding electrodes shall be E70xx type having a minimum yield strength of 70,000 psi. Welding work and materials shall conform to the American Welding Society Welding Code (AWS D.1).
- Bolted connections shall include high strength bolts conforming to ASTM A325. Foundation anchor bolts or tie rods shall conform to ASTM A36 having a minimum yield strength of 36,000 psi.



NOTE [A]: PROJECTIONS/SOFFITS:
 2' TO 5' OF PROPERTY LINE, PROVIDE A THRUSTED 6/8" GYPSUM BOARD OR EQUIVALENT VENTILATION OR OPENINGS.
 5' TO 10' OF PROPERTY LINE, PROVIDE FIRE RESISTANT 2x8" WOOD SHEATHING OR 5/8" GYPSUM UNDERLAMENT FOR VINYL OR ALUMINUM SOFFIT MATERIAL.

NOTE [B]: WINDOW OPENINGS:
 IN DWELLING UNITS, WHERE THE OPENING OF AN OPERABLE WINDOW IS LOCATED, LOCATE THE FINISHED FLOOR OF THE GRADE OR SURFACE BELOW, THE LOWEST PART OF THE CLEAR OPENING OF THE WINDOW SHALL BE A MINIMUM OF 34" ABOVE THE FINISHED FLOOR OF THE ROOM IN WHICH THE WINDOW IS LOCATED. OPERABLE SECTIONS OF THE WINDOW SHALL NOT REST ON THE OPENINGS THAT ALLOW PASSAGE OF A 4 INCH DIAMETER SPHERE WHERE SUCH OPENING ARE LOCATED WITHIN 24 INCHES OF THE FINISHED FLOOR.

TABLE R602.3(1) DWELLING UNITS SEPARATION

SEPARATION	DWELLING UNITS SEPARATION	MATERIAL
From the residence and attic	Not less than ½-inch gypsum board or equivalent applied to the gypsum side.	
From all habitable rooms above the garage	Not less than ½-inch Type X gypsum board or equivalent.	
Structures supporting floor/ceiling assemblies used for separation required by this section	Not less than ½-inch gypsum board or equivalent.	
Changes located less than 5 feet from a dwelling unit on the same lot	Not less than ½-inch gypsum board or equivalent applied to the interior side of exterior walls that are within this area.	

For SI: 1 inch = 25.4 mm, 1 foot = 304.8 mm.

2012 NORTH CAROLINA RESIDENTIAL CODE

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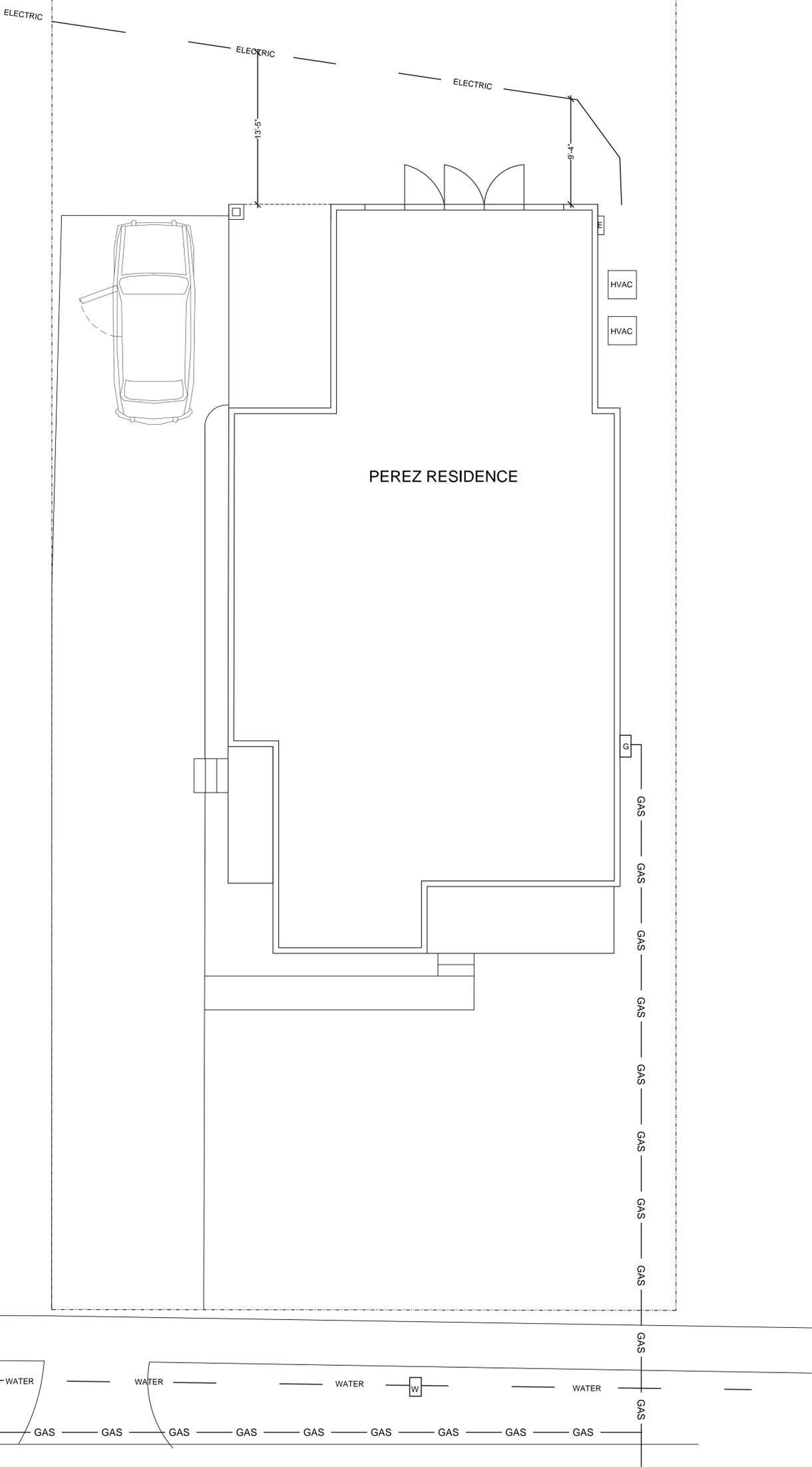
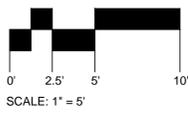
Perez Residence
 Address
 621 Woodruff Place, Charlotte, NC

N.C. RESIDENTIAL STANDARD NOTES

PROFESSIONAL SEAL
 02126
 22-16
 HOWARD V. VERNA
 ENGINEER

SN-1

SHEET





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Project Notes

Perez Residence
 Address
621 Woodruff Place, Charlotte, NC

Scale	1" = 5'
Job Number	
Designer	Janet Bean
Client	Perez Residence
Date	
Completed:	4-14-16
Revised:	6-13-16
Revised:	6-22-16
Revised:	7-20-16
Plan Type	EXISTING UTILITIES
Page Number	L-11