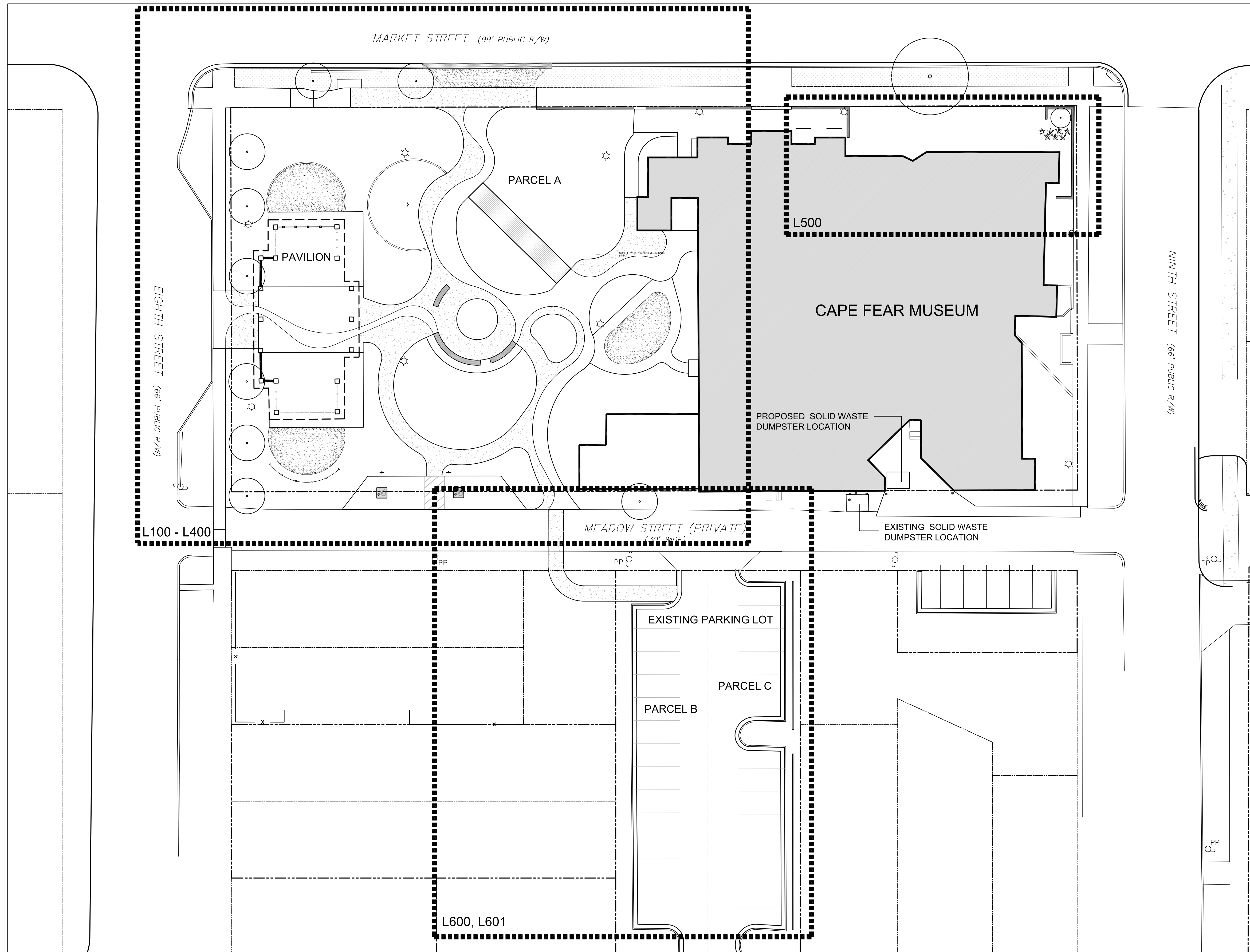


Cape Fear Museum / Outdoor Learning Environment

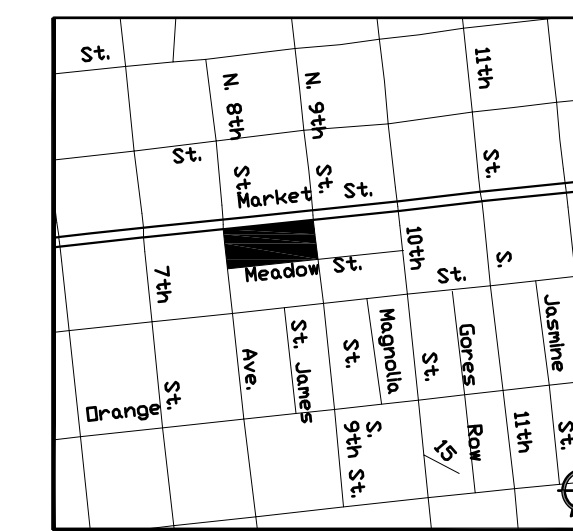
TRC SUBMITTAL

NEW HANOVER COUNTY
814 MARKET STREET, WILMINGTON, NC 28401

FEBRUARY 3, 2015



VICINITY MAP



NOT TO SCALE



Construction Approval Block

Date: _____ Name: _____

Planning: _____

Traffic: _____

Fire: _____

Engineering: _____

Permit #: _____

DRAWING INDEX:

- S100 SURVEY
- G100 GENERAL NOTES
- L100 DEMOLITION PLAN
- L200 LAYOUT PLAN
- L201 RIVER PAVING LAYOUT PLAN
- L300 GRADING / EROSION CONTROL PLAN
- L400 PLANTING PLAN
- L500 MARKET STREET FACADE
- L600 ADJACENT PARKING LOT DEMOLITION
- L601 ADJACENT PARKING LOT LAYOUT
- D100 DETAILS
- D101 DETAILS
- D102 DETAILS
- D103 BOARDWALK DETAILS
- D104 DETAILS

SITE DATA:

Property Owner: New Hanover County
Parcel Address: 814 Market Street
Developer: New Hanover County / Cape Fear Museum
New Hanover County PIN: RO4817-040-001-000

Zoning: See S100
Acreage of Parcel A: 1.13 acres - Zoned Urban Mixed Use (UMX)
Parcel A ID #: 61321 / r04817-040-001-000
Acreage of Parcel B: .12 acres - Zoned Office & Institutional Special Use District O&I-1 (SD)
Parcel B ID #: 68126 / r4817-041-007-000
Acreage of Parcel C: .12 acres - Zoned Office & Institutional Special Use District O&I-1 (SD)
Parcel C ID #: 68188 / R04817-041-008-000
Total Acreage within project boundary: 1.37 acres
Property is located within National Register Historic District Overlay

Total Building Size: 43,469 SF
Basement - 12,243 SF
First Floor - 17,165 SF
Second Floor - 12,243 SF

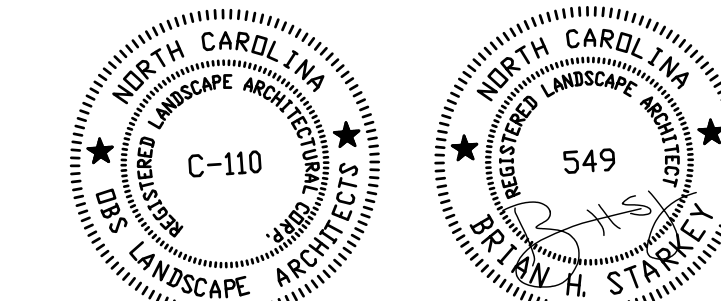
Building Setbacks:
Required: 5' Minimum - 10' Maximum
Proposed: Existing Museum - Market Street 8', Ninth Street 6'
Pavilion - Eighth Street 10'
Building Heights: Existing Museum: 36', Existing Pavilion: 25'

Pre-development Impervious Surface: 35,307.0 SF / 0.81 acres
Post-development Impervious Surface: 25,381 SF / 0.58 acres
Impervious Surface Reduction: 9,926.0 SF / 0.23 acres
Newly Constructed Impervious Surface within project boundary: 8,400 SF
Impervious Surface includes concrete, asphalt, pavers, oyster shell, walks, & curbing
Newly Constructed Impervious Surface outside project boundary (In R/W): 1,105 SF
Building Lot Coverage: 40.5% Existing (Parcel A only. Includes Museum & Pavilion)

Off Street Parking - No parking is required for UMX zoning
Parking Provided:
Meadow Street: 8 spaces (2 are parallel handicap parking spaces)
Meadow Street Lot: 28 spaces
Ninth Street Lot: 24 spaces

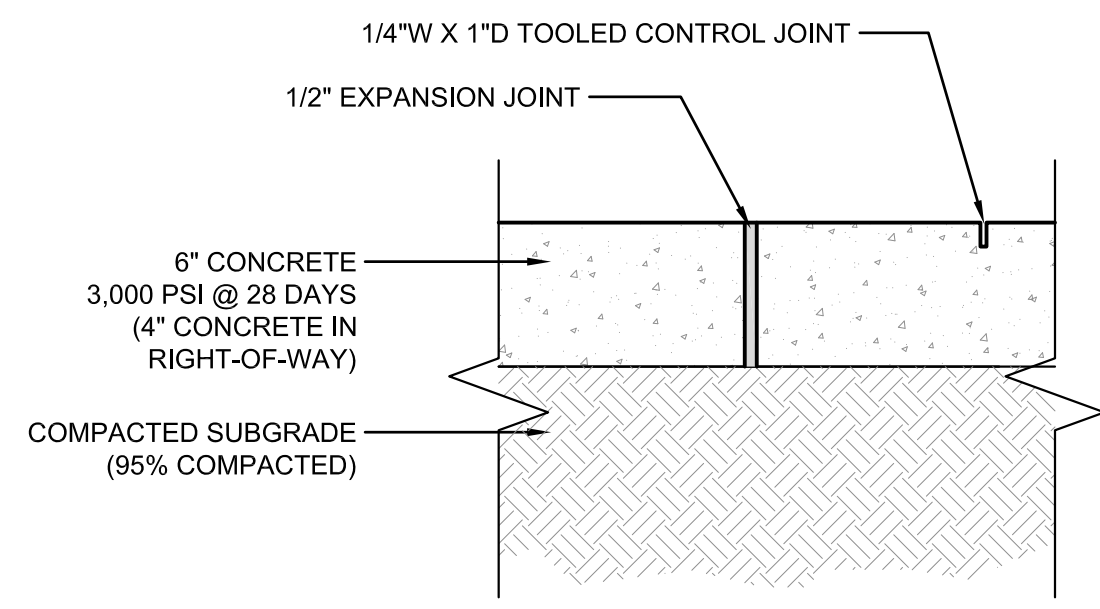
CAMA Land Use: Urban

LANDSCAPE ARCHITECT:



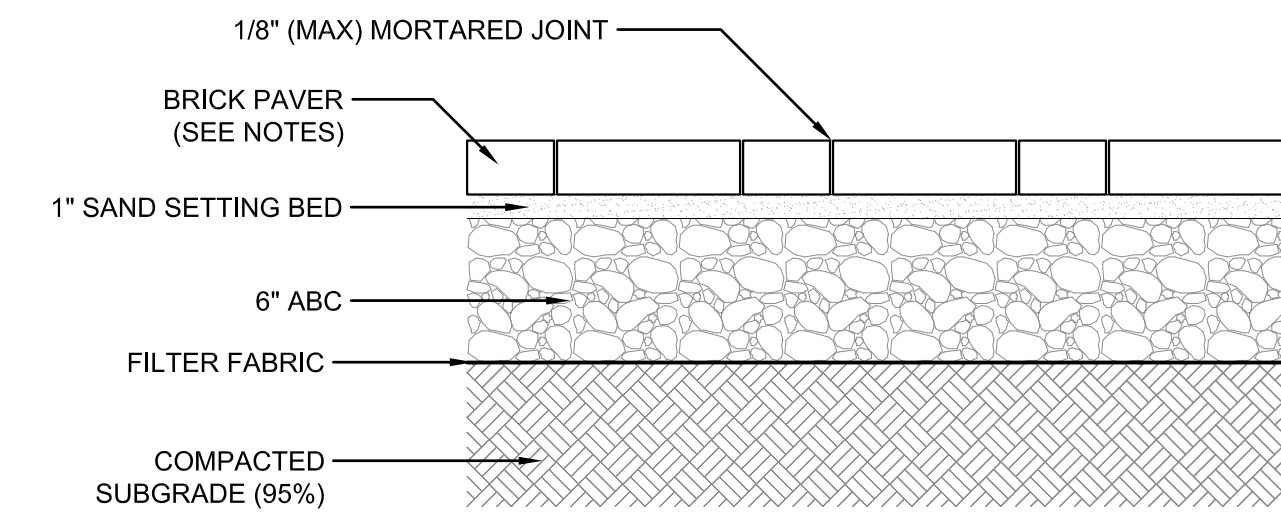
po box 28504
raleigh nc 27611
919-755-0046
obsla.net





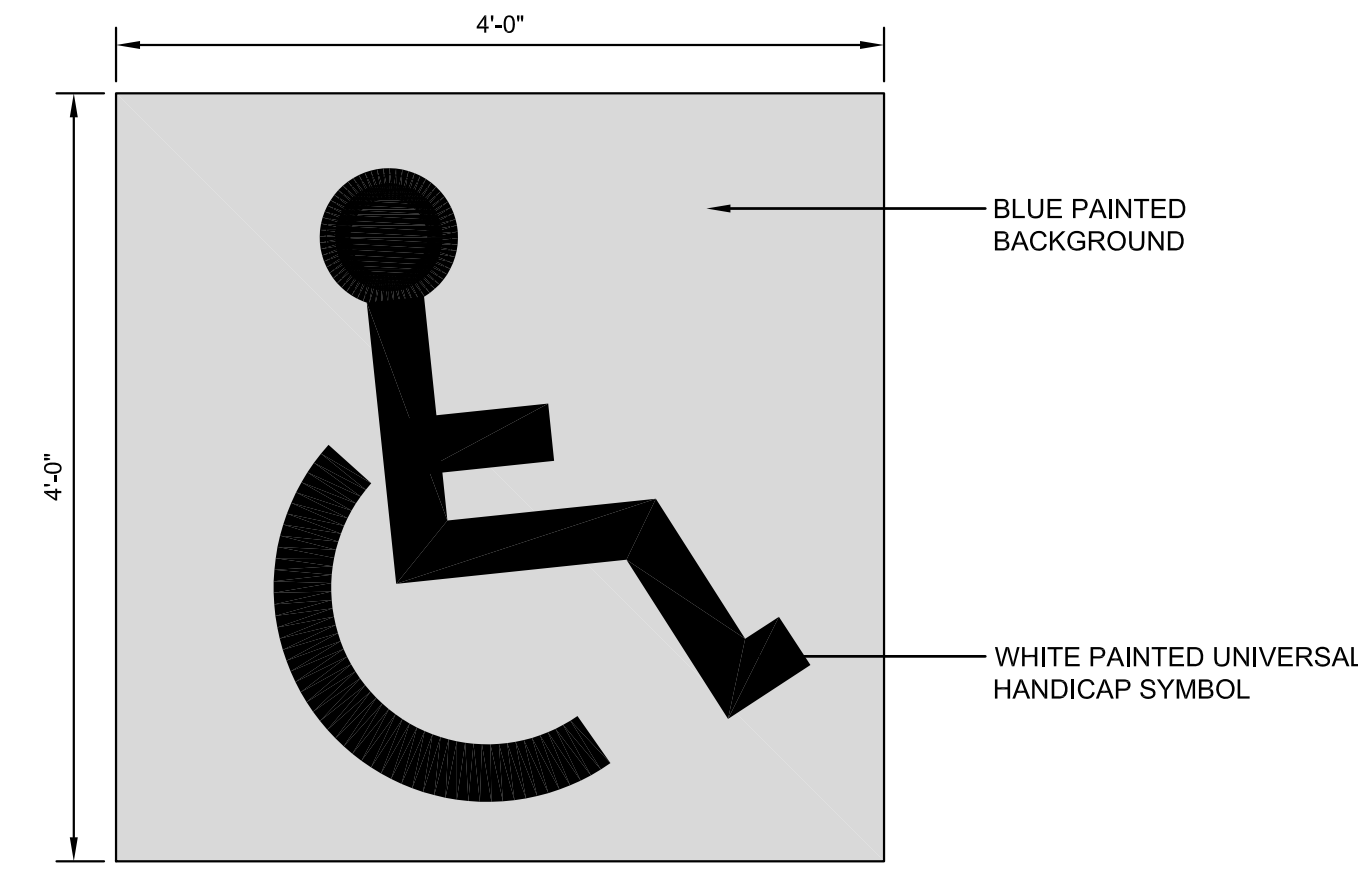
- NOTES:
- 1) Cross slope as shown on grading plan.
 - 2) Expansion joints every 30' or as shown on the plans.
 - 3) Control joints every 5' or as shown on the layout plans
 - 4) Broom Finish
 - 5) Sidewalk within right-of-way to comply with City of Wilmington Detail SD 3-10.

1 STANDARD CONCRETE PAVING
1 1/2" = 1'-0"



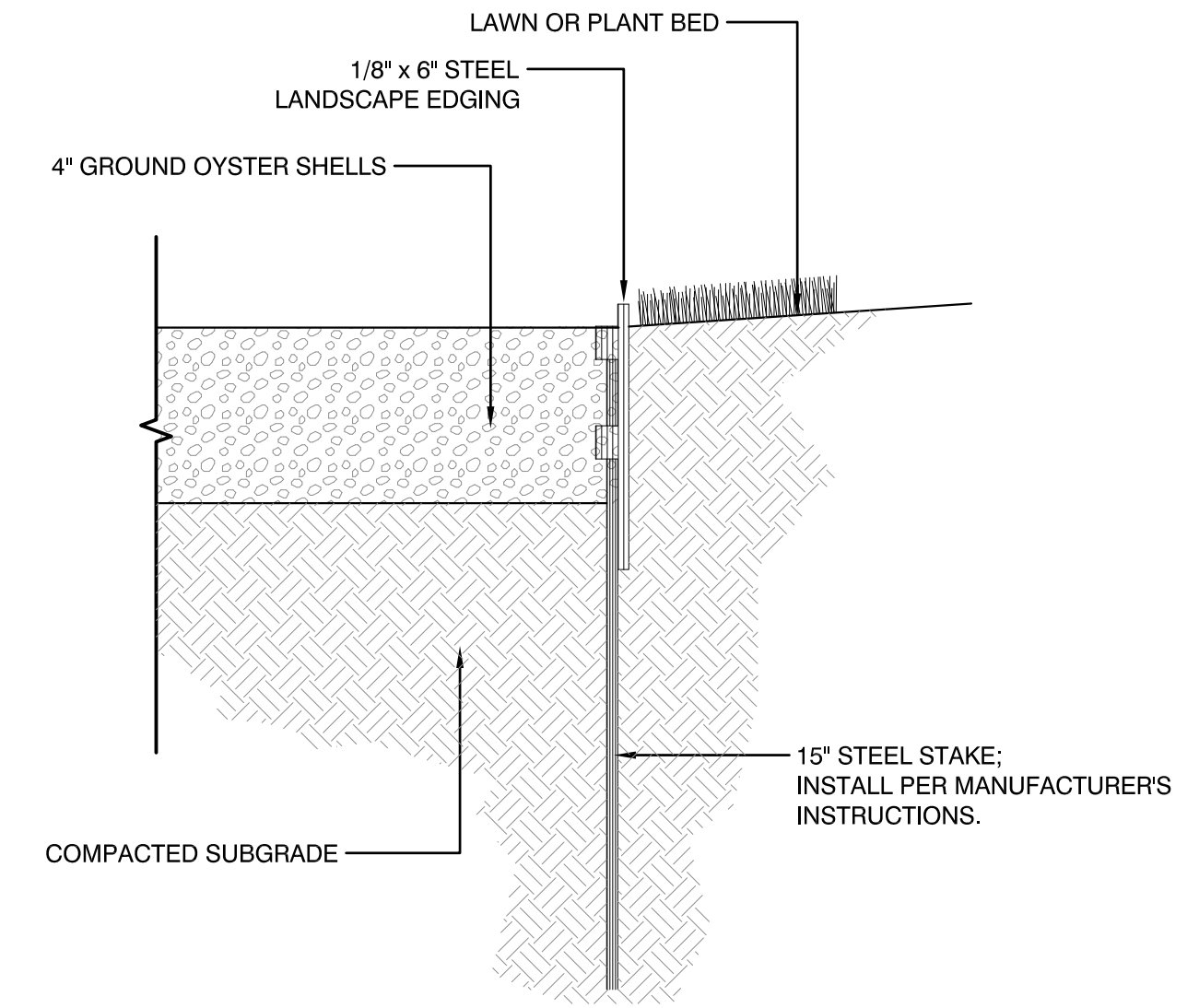
- NOTES:
- 1) PAVERS: USE EXISTING PAVERS SALVAGED FROM DEMOLITION.
 - 2) PAVERS SHALL BE INSTALLED IN COMPLIANCE WITH ADA GUIDELINES.

2 BRICK PAVING
1 1/2" = 1'-0"

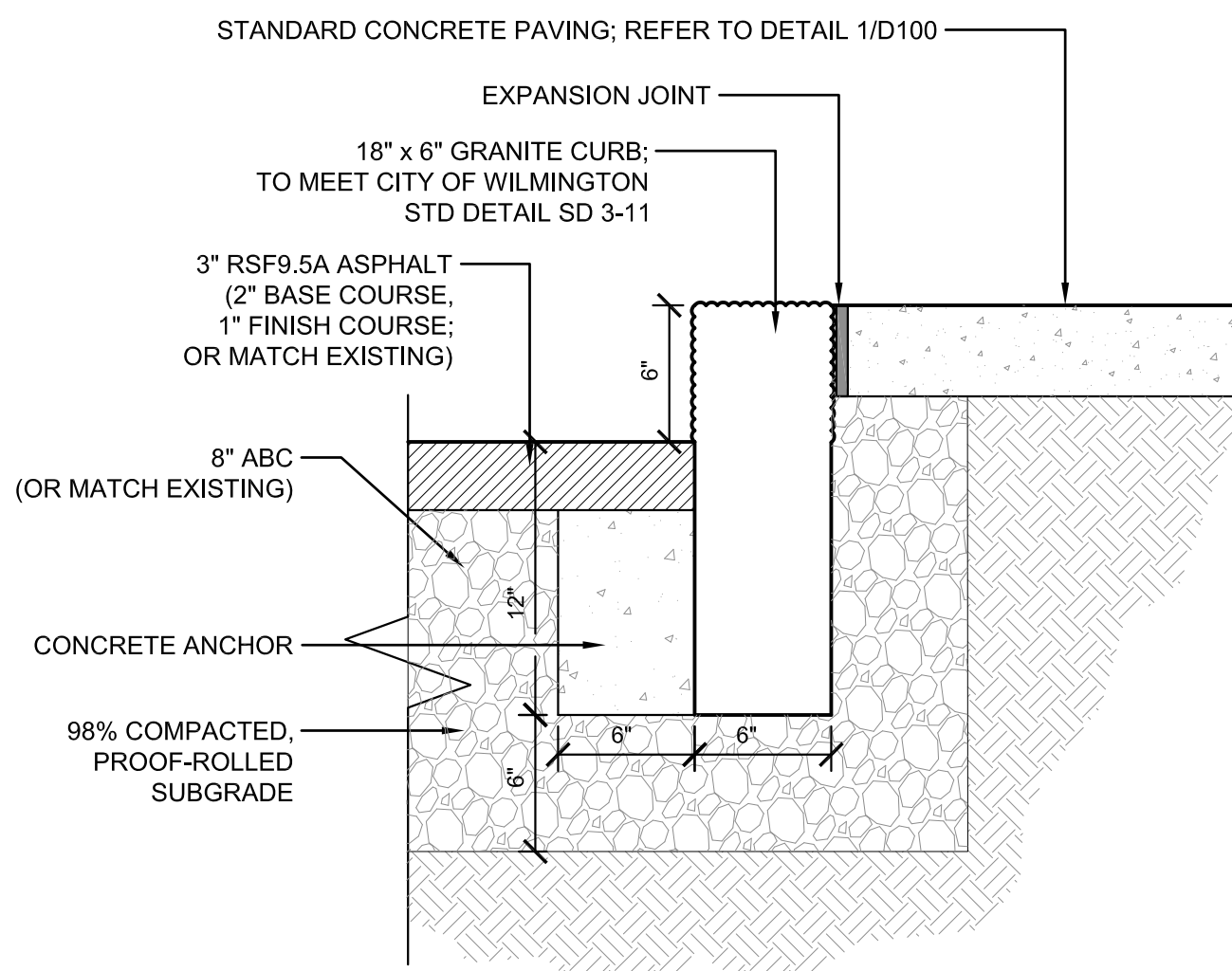


- NOTES:
- 1) Handicap symbol to be the standard universal handicap symbol.
 - 2) Any painting in the ROW to conform to NCDOT standard specifications and details.
 - 3) Location to be coordinated in the field with designer and/or inspector.
 - 4) Paint colors to conform to NCDOT and/or MUTCD Standards.

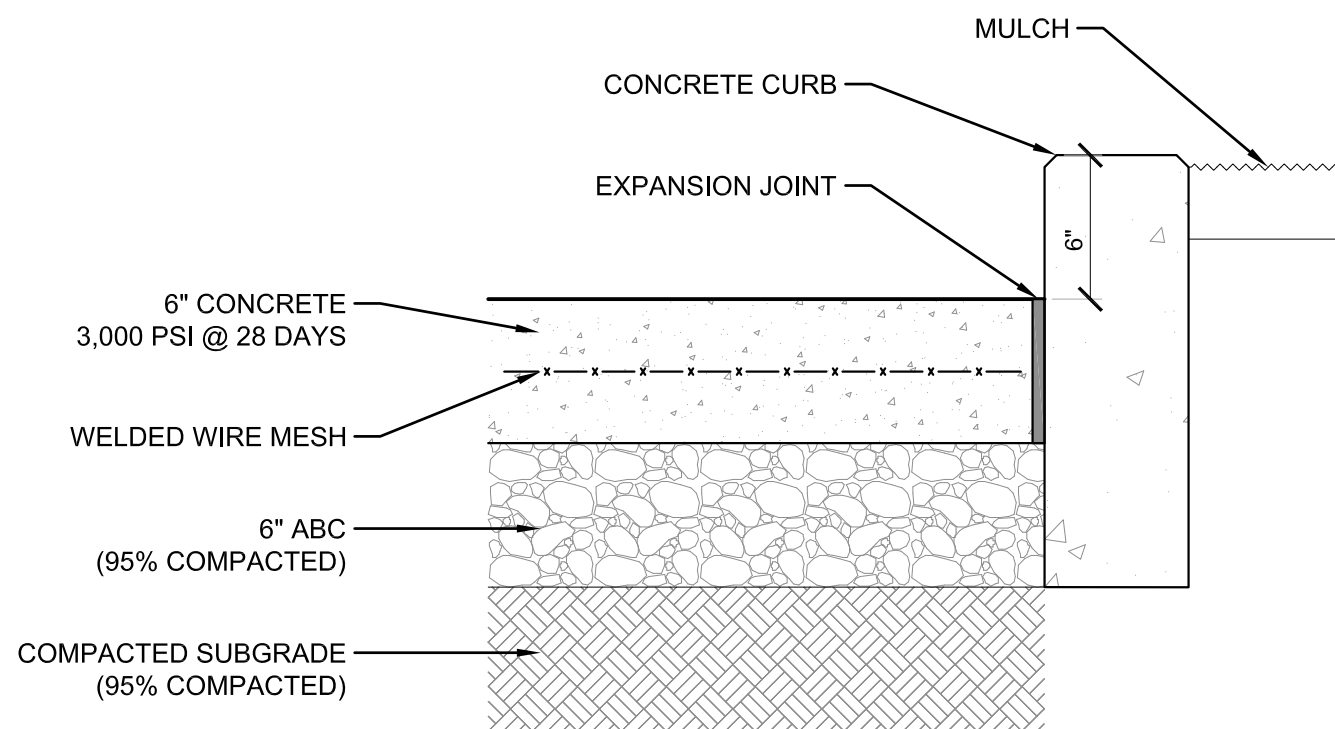
3 HANDICAP PAVEMENT SYMBOL
1" = 1'-0" P-PF-14_CF-18



4 GROUND OYSTER SHELL PAVING
3" = 1'-0"

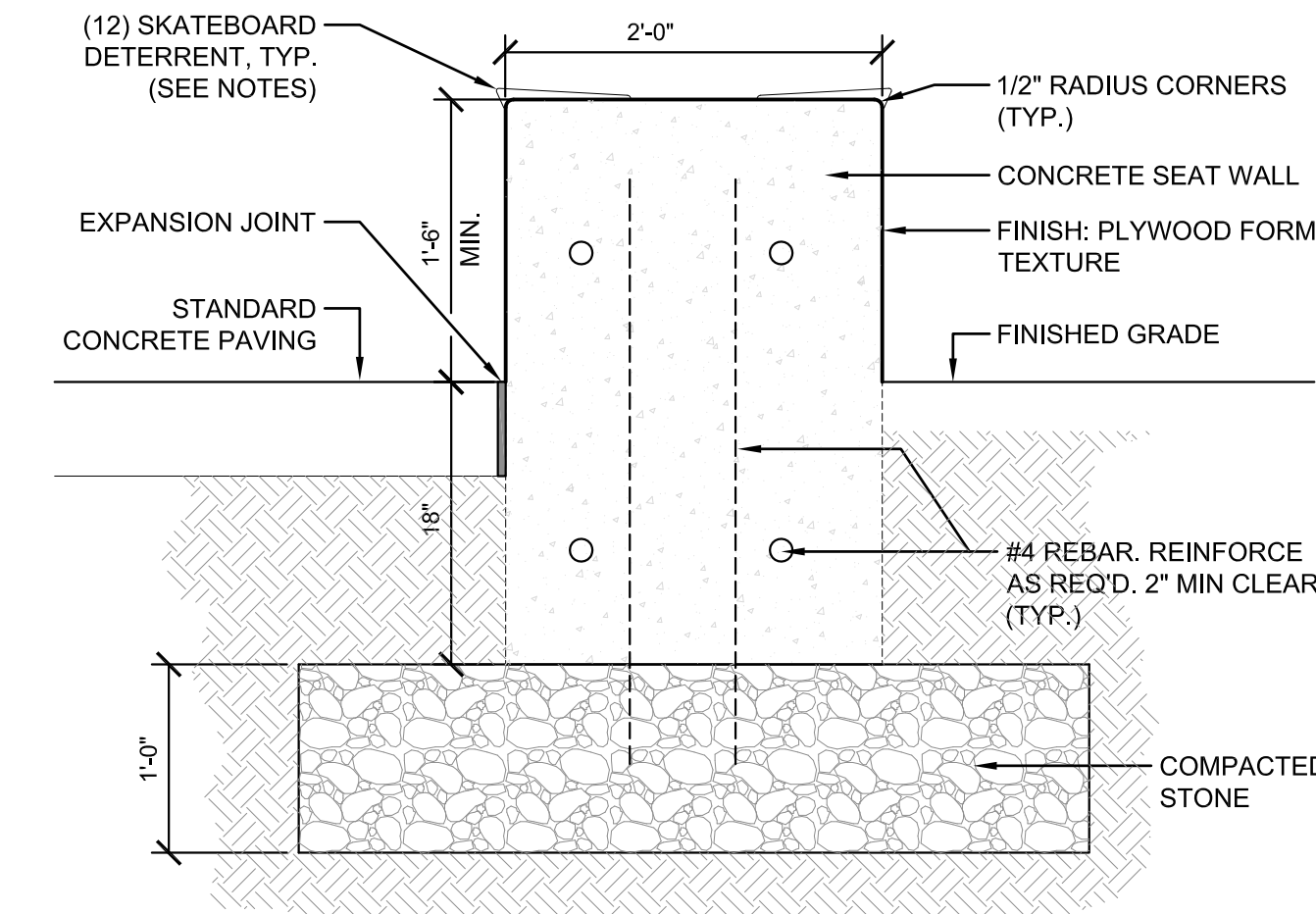


5 ASPHALT PAVING W/ GRANITE CURB
1 1/2" = 1'-0"



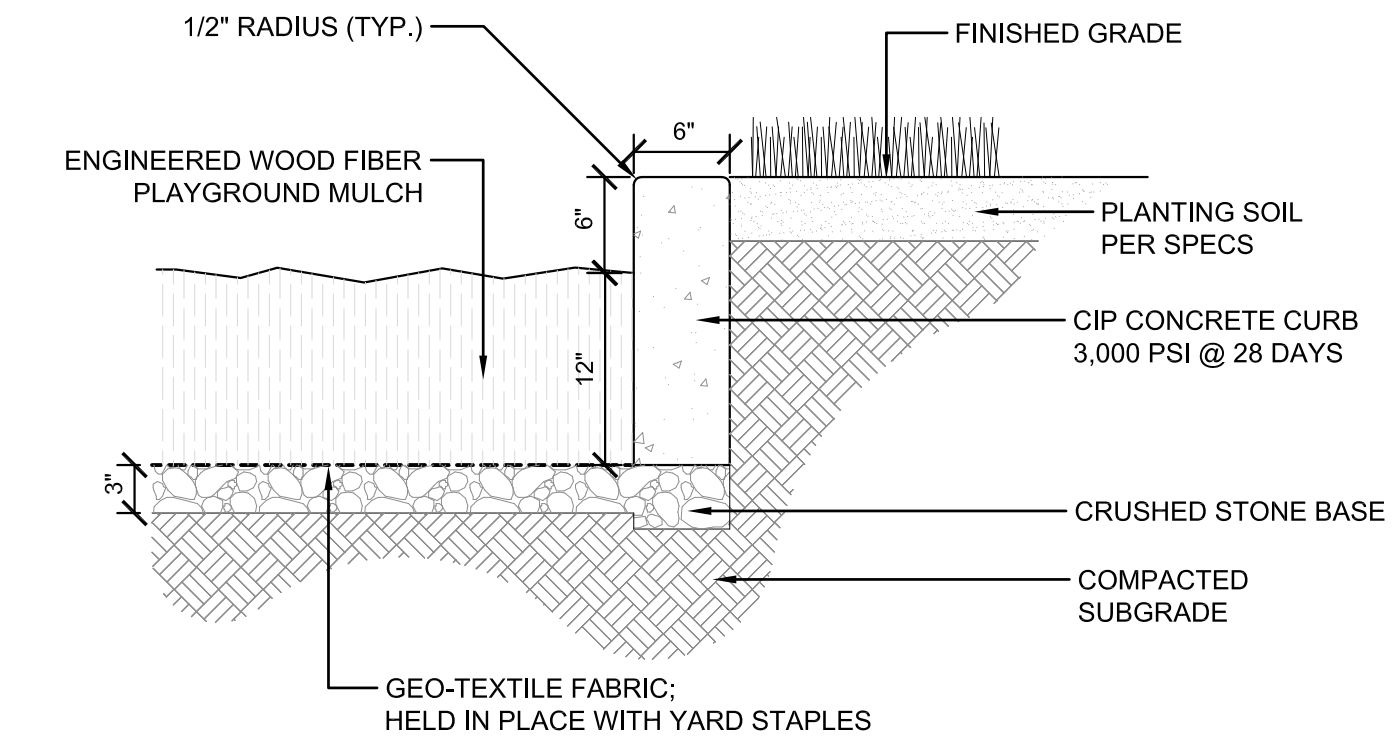
- NOTES:
- 1) Cross slope as shown on grading plan.
 - 2) Expansion joints every 30' or as shown on the plans.
 - 3) Control joints every 5' or as shown on the layout plans
 - 4) Broom Finish

6 CONCRETE PAVING (HEAVY DUTY)
1 1/2" = 1'-0"

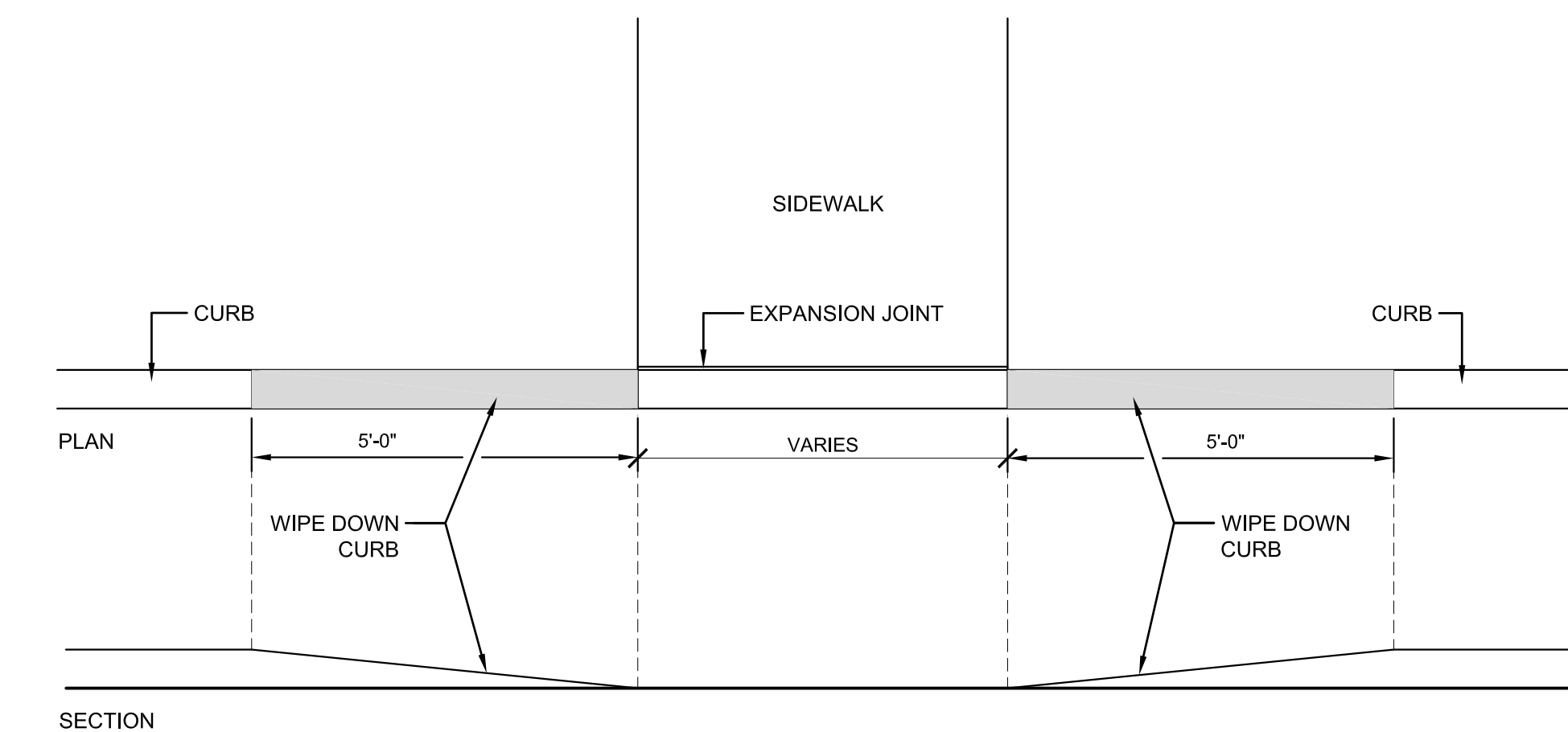


- NOTES:
- 1) Reference grading plan for top and bottom of wall elevations.
 - 2) Bottom of wall elevations refer to finished grade.
 - 3) Top of wall elevation to remain constant.
 - 4) Skateboard deterrent: Skatestoppers, Model g 05-SS; or approved equal, install per manufacturer's specifications.

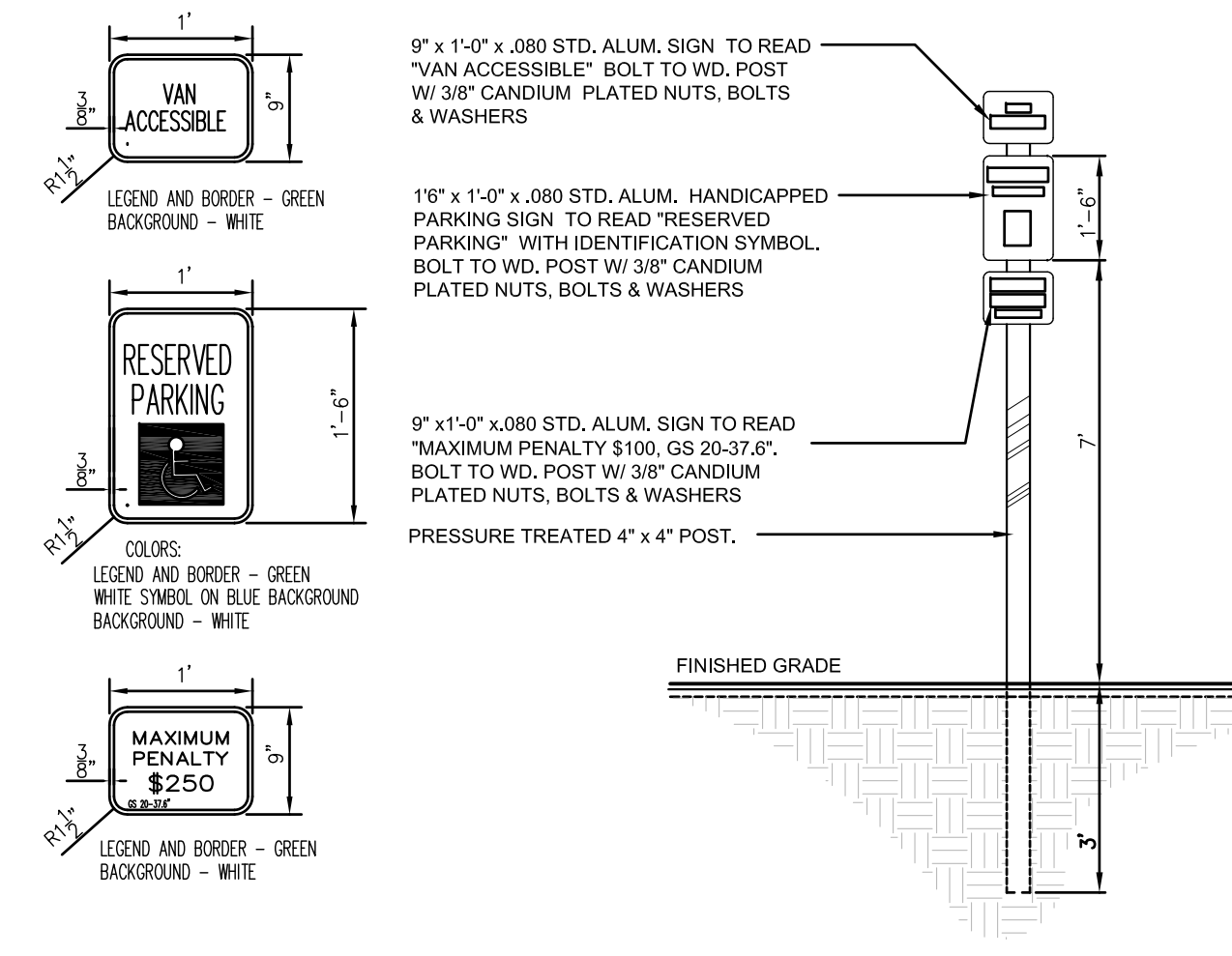
7 CONCRETE SEAT WALL
1" = 1'-0"



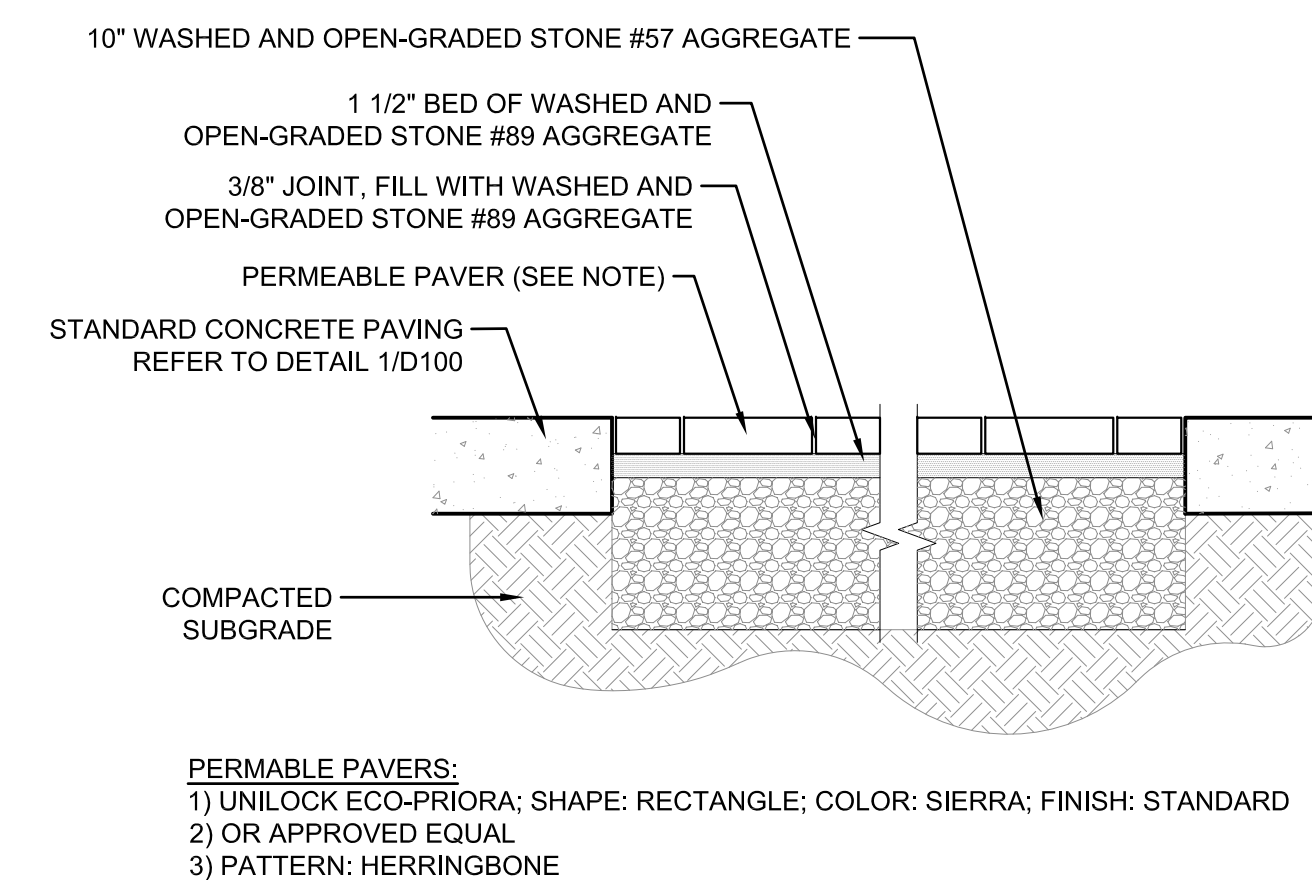
8 CONCRETE EDGE
1" = 1'-0"



9 WIPE DOWN CURB
1/2" = 1'-0"




10 HANDICAP PARKING SIGN
NOT TO SCALE



- PERMEABLE PAVERS:
- 1) UNILOCK ECO-PRIORA; SHAPE: RECTANGLE; COLOR: SIERRA; FINISH: STANDARD
 - 2) OR APPROVED EQUAL
 - 3) PATTERN: HERRINGBONE

11 PERMEABLE BRICK PAVING
1" = 1'-0"



 Construction Approval Block

 Date: _____ Name: _____

 Planning: _____

 Traffic: _____

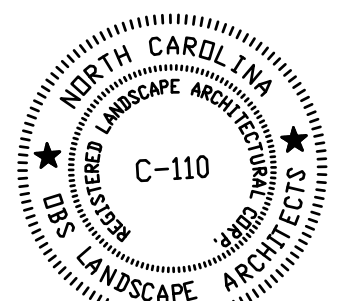
 Fire: _____

 Engineering: _____

 Permit #: _____

DETAILS

CONSULTANTS:



SEALS:

Cape Fear Museum

Outdoor Learning Environment

 NEW HANOVER COUNTY

 814 Market Street, Wilmington, NC 28401

DATE: 2/3/2015

DESIGNER: LED

CHECKED BY: BHS

REVISIONS

NO. DATE

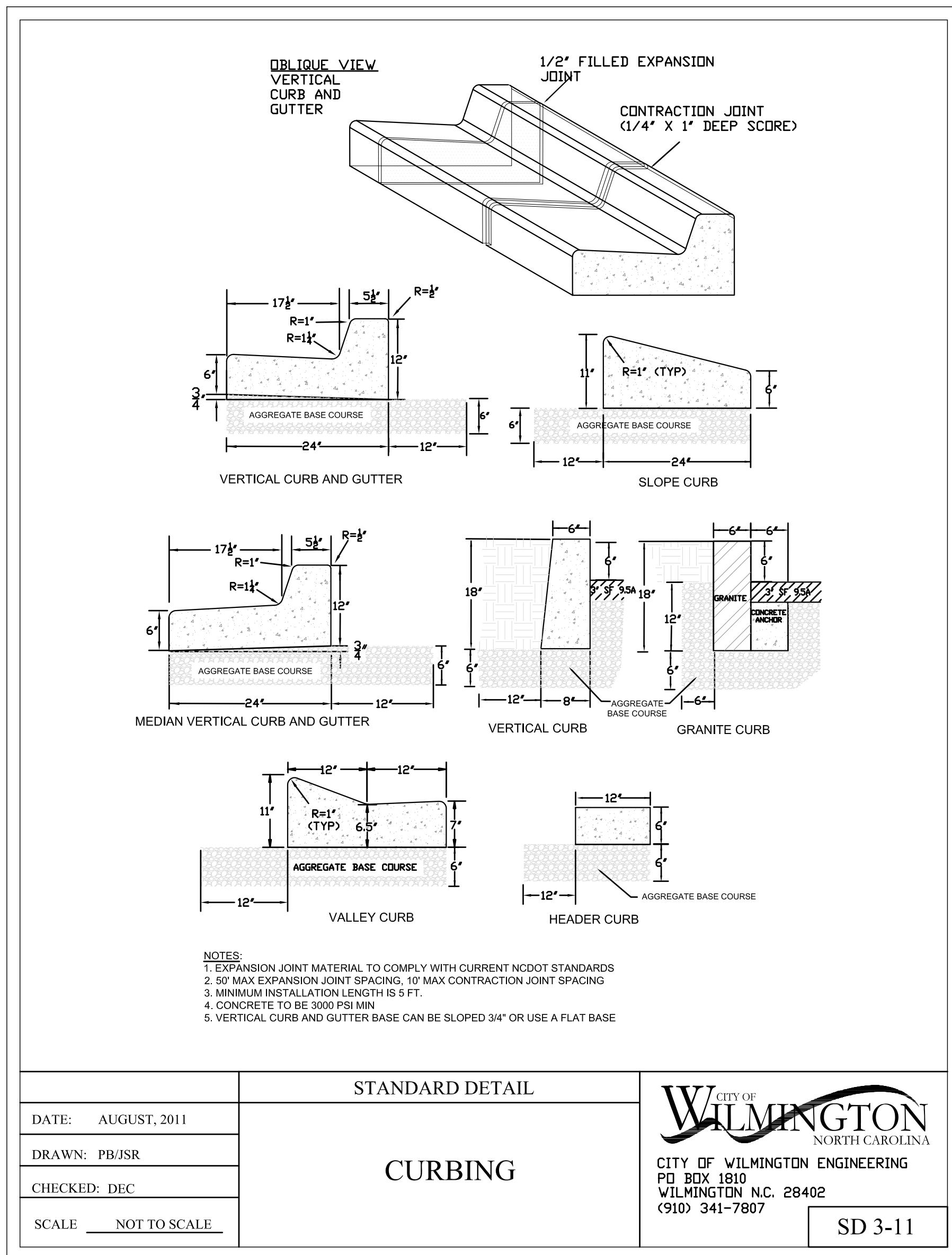
SCALES

HORIZ: 1"=10'-0"

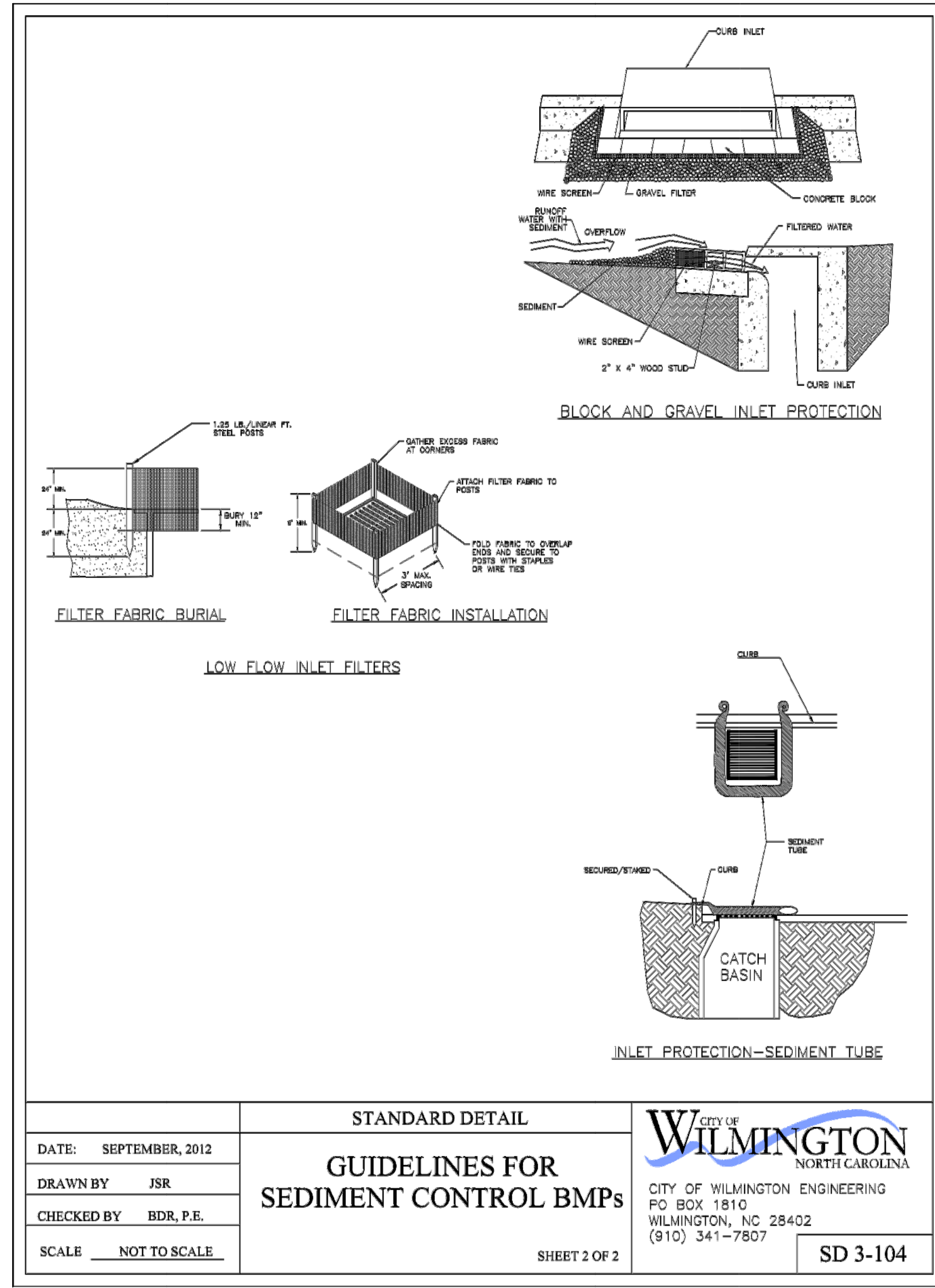
DESIGN DEVELOPMENT

SHEET NO.

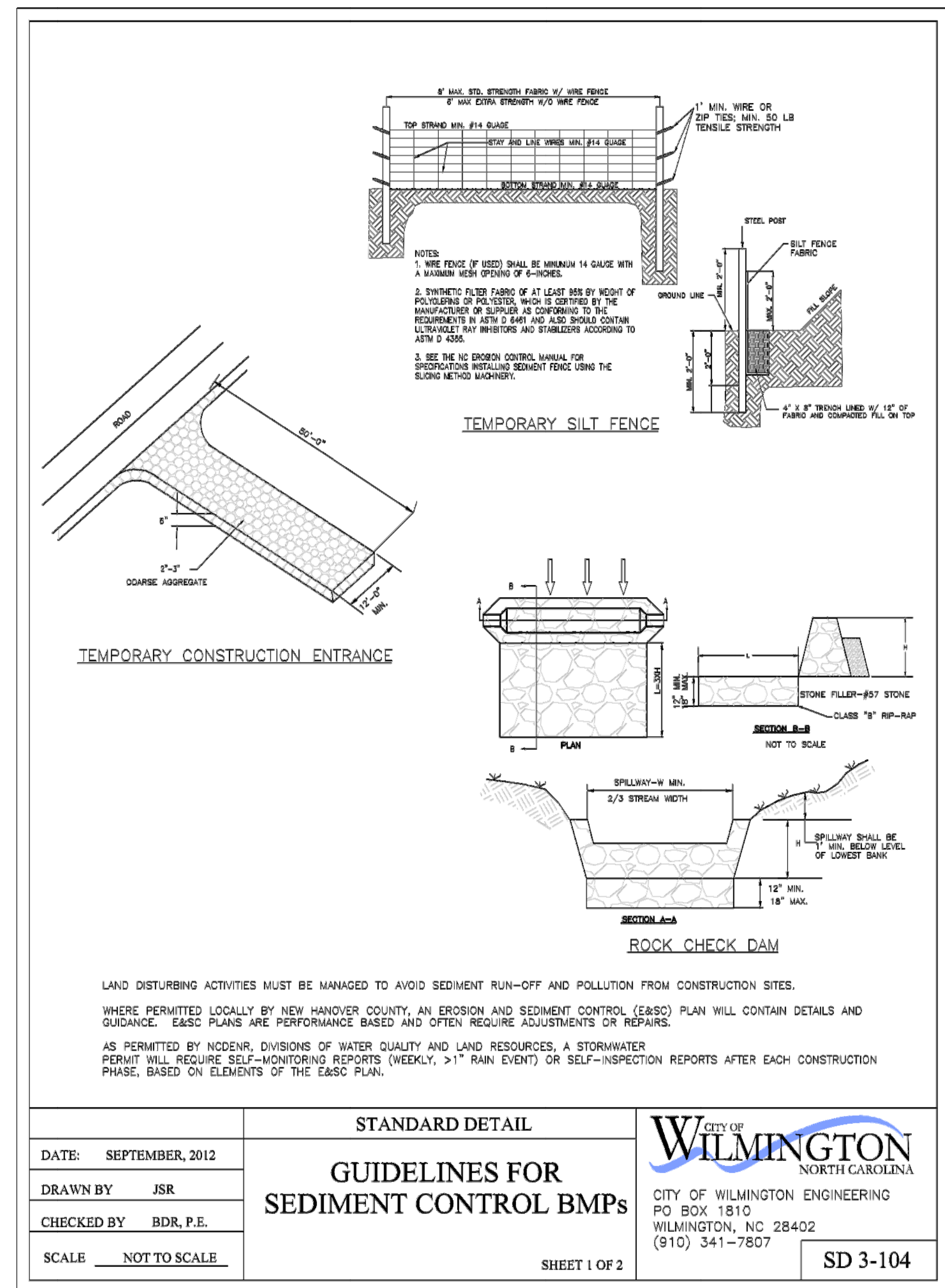
D100



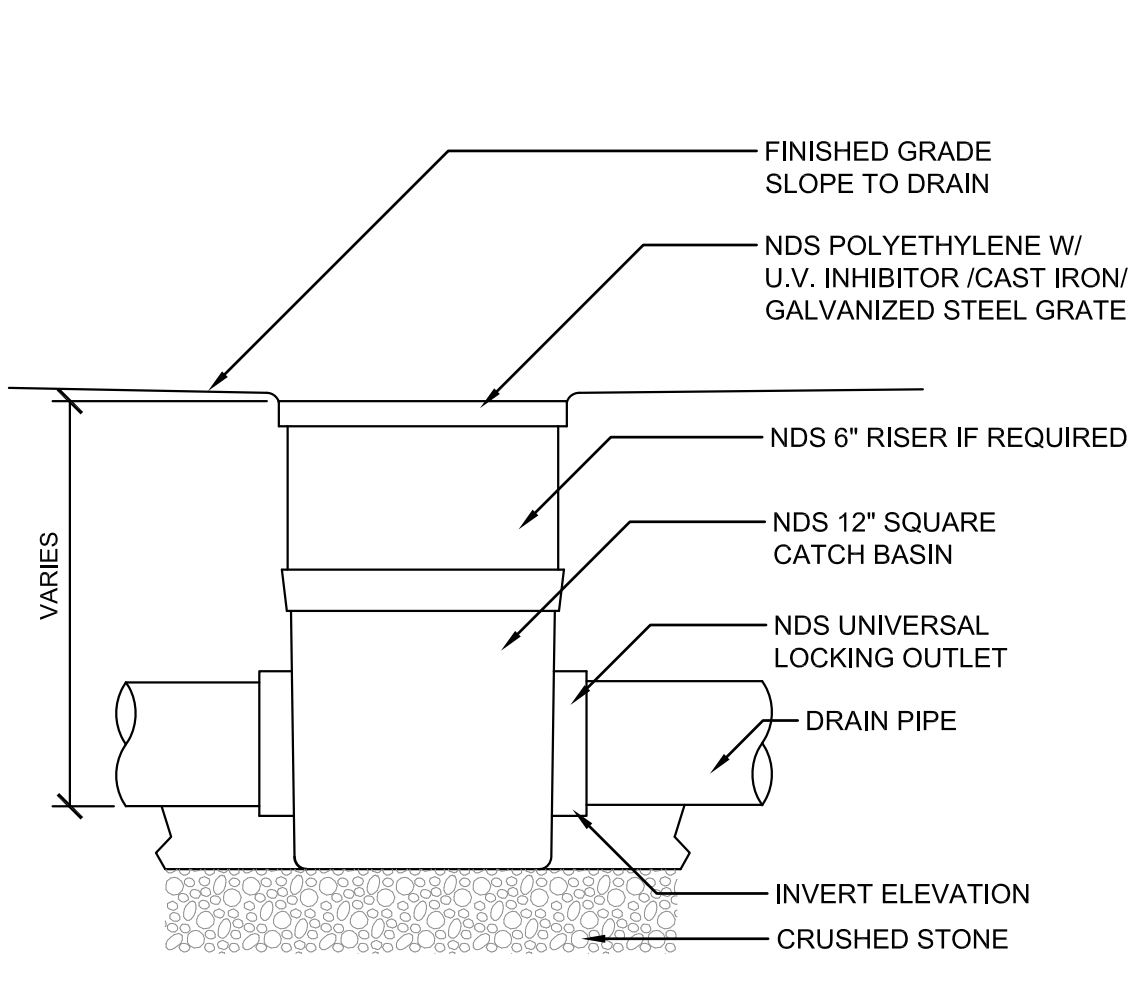
1 CURB & GUTTER (CITY OF WILMINGTON)
3" = 1'-0"



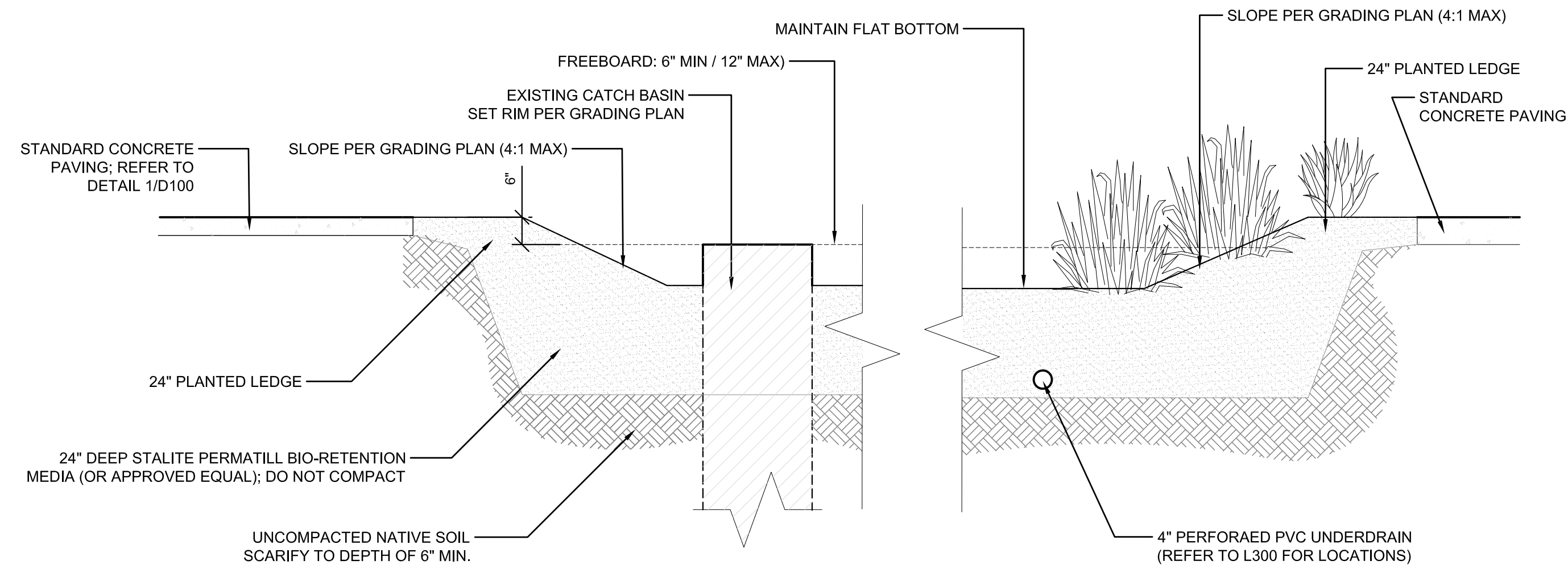
2 INLET PROTECTION (CITY OF WILMINGTON)
NOT TO SCALE



3 SEDIMENT CONTROL (CITY OF WILMINGTON)
NOT TO SCALE



4 12" HDP INLET (IN LAWN)
1 1/2" = 1'-0"



5 RAIN GARDEN
1/2" = 1'-0"

Stalite PermaTill Bio-Retention Media (Rain Garden)

- Stalite lightweight sand bio-retention root zone media
 - Recycled Stalite expanded slate MS-16 lightweight sand 85-88% sand fraction
 - Organic matter: Pine bark fines screened to minus 1/2" and/or approved compost determined by phosphorus restrictions
 - Phosphorous Index of the blended media must fall between 10-30ppm.
- Root zone Media Blend
 - Filter Layer: 100% recycled expanded slate fines 4" depth
 - Root zone media: 90% Stalite recycled expanded slate lightweight sand gradation MS-16, 10% organic matter.
 - Mechanically mix the expanded slate fines with pine bark fine/compost until a uniform distribution of the components is achieved.
- Contractor to provide soil analysis and sample for approval prior to installation.

WILMINGTON NORTH CAROLINA

Construction Approval Block

Date: _____ Name: _____

Planning: _____

Traffic: _____

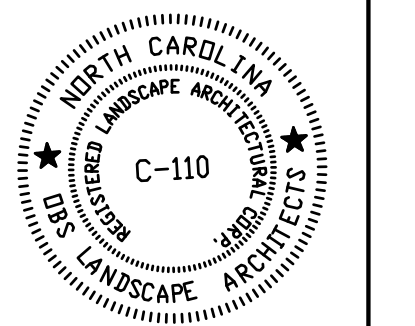
Fire: _____

Engineering: _____

Permit #: _____

DETAILS

CONSULTANTS:



SEALS:

Cape Fear Museum
Outdoor Learning Environment
 NEW HANOVER COUNTY
 814 Market Street, Wilmington, NC 28401

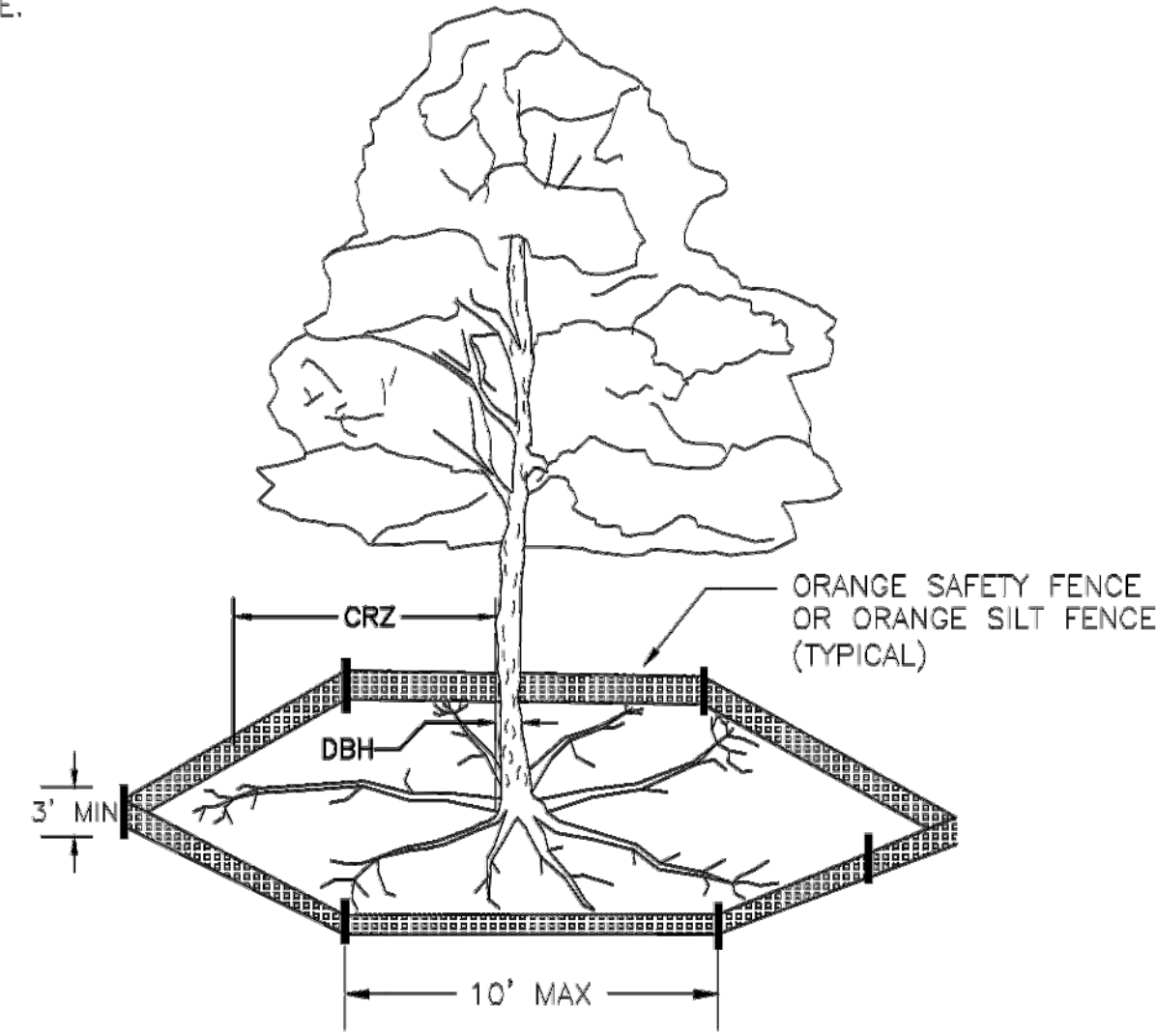
DATE: 2/3/2015

DESIGNER: LED

CHECKED BY: BHS

REVISIONS	
NO.	DATE

NOTE:
THE CRITICAL ROOT ZONE (CRZ) OF A TREE IS WHERE THE MAJORITY OF A TREE'S ROOTS LAY. 85% OF MOST TREE ROOTS ARE FOUND IN THE TOP 24" OF THE SOIL AND SUPPLY THE MAJORITY OF NUTRIENTS AND WATER. GENERALLY, ROOTS SPREAD OUT 2-3X THE HEIGHT OF THE TREE.



NOTE:
CROWN OF THE TREE IS NEEDED FOR LEAF GROWTH TO PRODUCE OXYGEN, FILTER THE AIR, REDUCE WIND AND SOFTEN NOISE. DO NOT DISFIGURE CROWN WITH INTENSIVE PRUNING.

NOTES:

1. PROTECT CRITICAL ROOT ZONE (CRZ) OF TREES PRIOR TO CONSTRUCTION. CLEARLY MARK THE TREES AND ERECT A PROTECTIVE BARRIER AT THE CRZ. BARRIER SHALL BE MAINTAINED UNTIL CONSTRUCTION IS COMPLETE.
2. CRZ RADIUS IS 1 FT PER INCH OF TREE DIAMETER AT BREAST HEIGHT (DBH).
3. WHERE SIDEWALKS AND PATHWAYS PASS WITHIN CRZ, EXTRA CARE SHALL BE TAKEN TO AVOID DAMAGE TO THE ROOTS. ALTERNATE CONSTRUCTION METHODS, SUCH AS A REINFORCED SIDEWALK, SHALL BE IMPLEMENTED AS NECESSARY.
4. FOR ALL TREES, CUTTING OF LARGE STRUCTURAL ROOTS LOCATED NEAR THE BASE OF THE TRUNK IS PROHIBITED. DO NOT COMPACT SOIL BENEATH TREES. NO VEHICLE SHALL BE ALLOWED TO PARK UNDER TREES. NO HEAVY MATERIALS SHALL BE STORED BENEATH TREES. DAMAGING THE BARK WITH LAWNMOWERS, CONSTRUCTION EQUIPMENT, OR ANYTHING ELSE IS PROHIBITED. CONTRACTOR SHALL REPAIR DAMAGE TO TREES.
5. FAILING TO INSTALL OR MAINTAIN PROTECTION MEASURES MAY RESULT IN A STOP WORK ORDER AND FINE OF \$500/DAY. DISTURBANCE OTHER THAN THAT ALLOWED ON THE APPROVED PLAN WILL REQUIRE OWNER TO POST A LETTER OF CREDIT FOR 3 YRS FOR TREE MITIGATION.

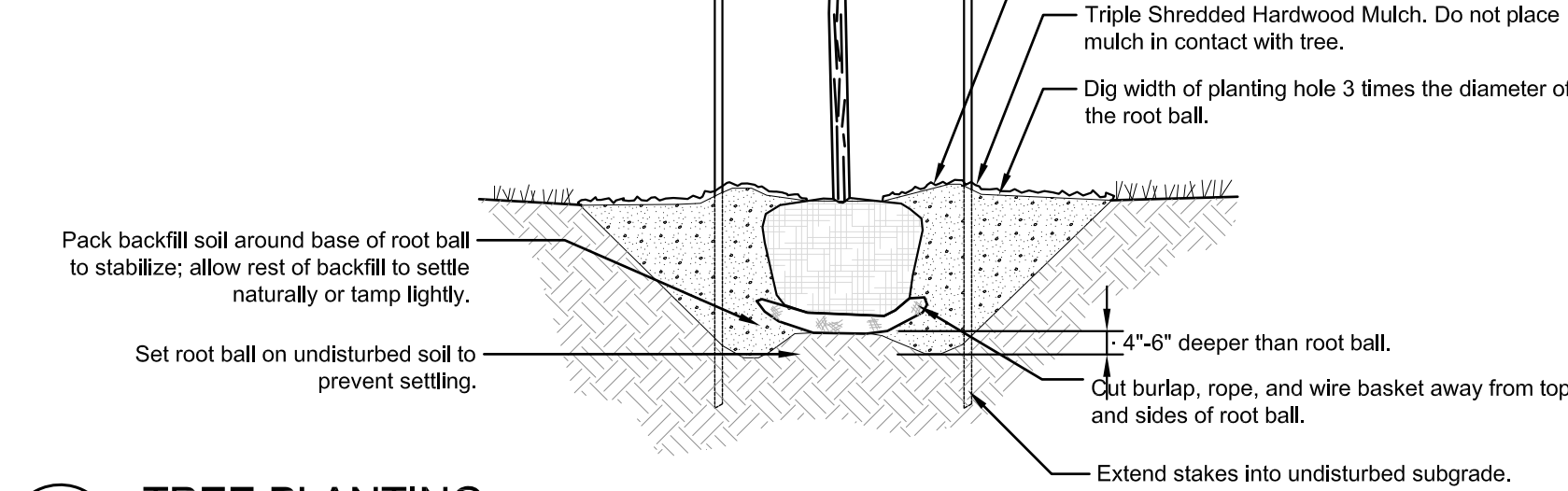
STANDARD DETAIL		<p>CITY OF WILMINGTON ENGINEERING PO BOX 1810 WILMINGTON, NC 28402 (910) 341-7807</p>	SD 15-09
DATE:	NOV, 2011		
DRAWN BY:	JSR		
CHECKED BY:	BDR, P.E.		
SCALE:	NOT TO SCALE		
TREE PROTECTION DURING CONSTRUCTION		SHEET 1 of 2	

1 TREE PROTECTION (CITY OF WILMINGTON)

NOT TO SCALE

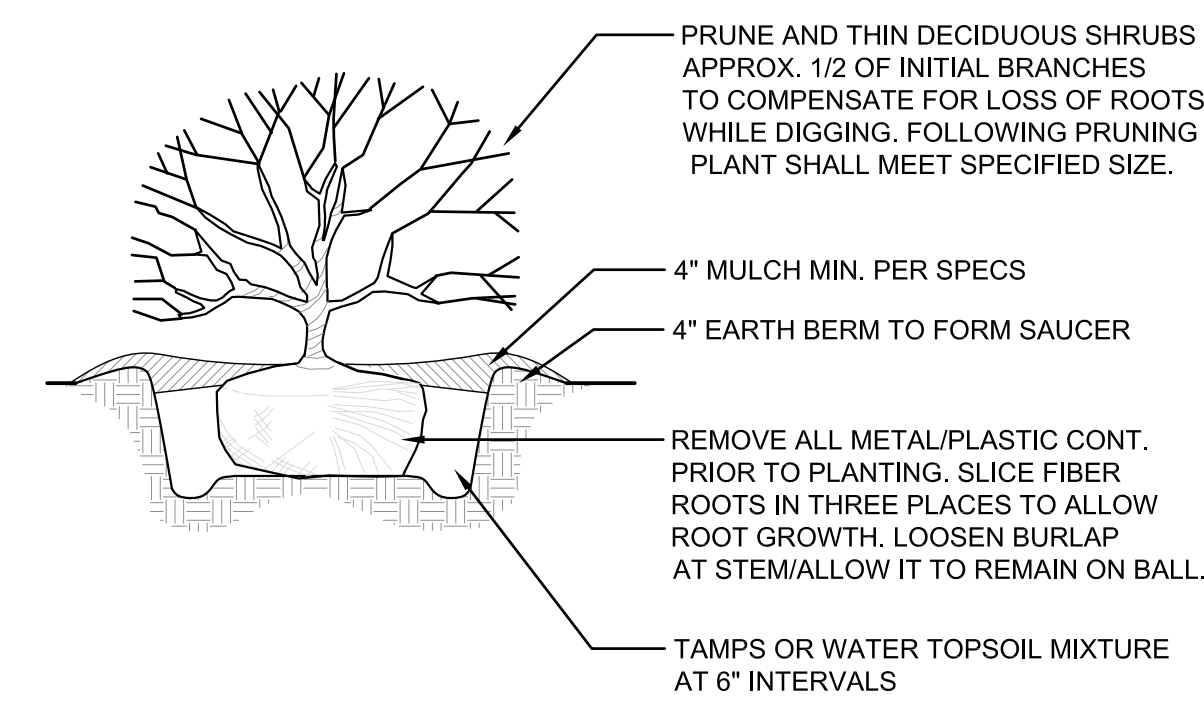
NOTES:

1. Where several trees will be planted close together such that they will likely share root space, till in soil amendments to a depth of 4-6" (10-15cm) over the entire area
2. For container-grown trees, use fingers or small hand tools to pull the roots out of the outer layer of potting soil; then cut or pull apart any roots circling the perimeter of the container.
3. During the design phase, confirm that water drains out of the soil; use lowered planting hole depth and design alternate drainage system as required.
4. Thoroughly soak root ball and adjacent prepared soil several times during first month after planting and regularly throughout the following two summers.
5. The planting process is similar for deciduous and evergreen trees.
6. Do not wrap trunk; Mark the north side of the tree in the nursery and locate to the north in the field.
7. Avoid purchasing trees with two leaders or remove one at planting. Otherwise, do not prune tree at planting except for specific structural corrections
8. Before planting, add 3-4" of well-composted leaves, recycled yard waste or other compost and fill into top 6" of prepared soil. Add compost at 20-35% by volume to backfill soil. Add compost at 20-35% by volume to backfill soil.



2 TREE PLANTING

NTS



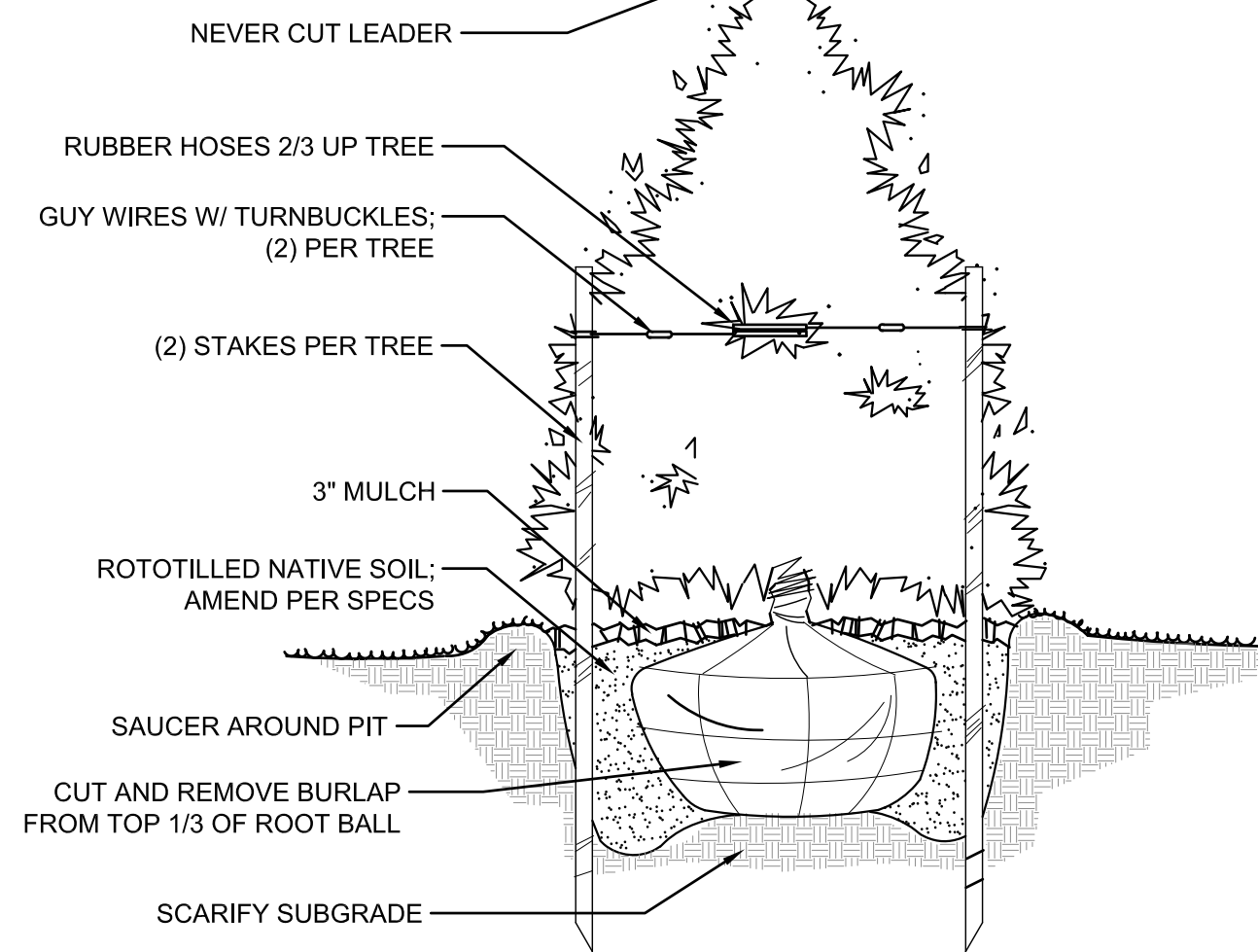
NOTES:

1. Soil mix: 1/3 organic matter, 2/3 exist soil.
2. Width of plant pit: sandy soil, 24" wider than plant ball; clay soil, 12" wider than plant ball
3. For planting areas where soil has been compacted by equip, contact LA prior to planting.
4. For camellias, rhodod, azaleas, and laurels: soil mix, 2/3 organic and 1/3 existing soil
5. Shrub shall bear same relationship to grade as it did prior to digging.

4 SHRUB PLANTING

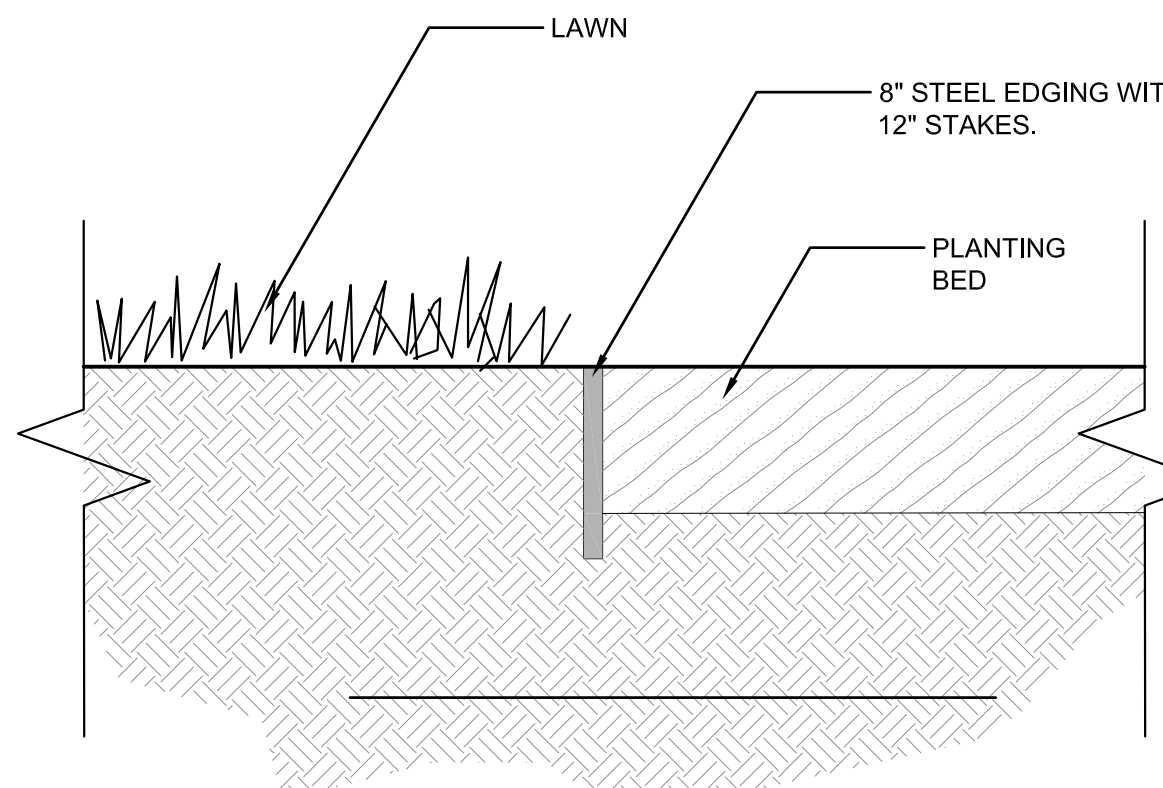
NOT TO SCALE

TREE SHALL HAVE SAME RELATION TO GRADE AS IT HAD IN NURSERY



3 EVERGREEN PLANTING

NOT TO SCALE

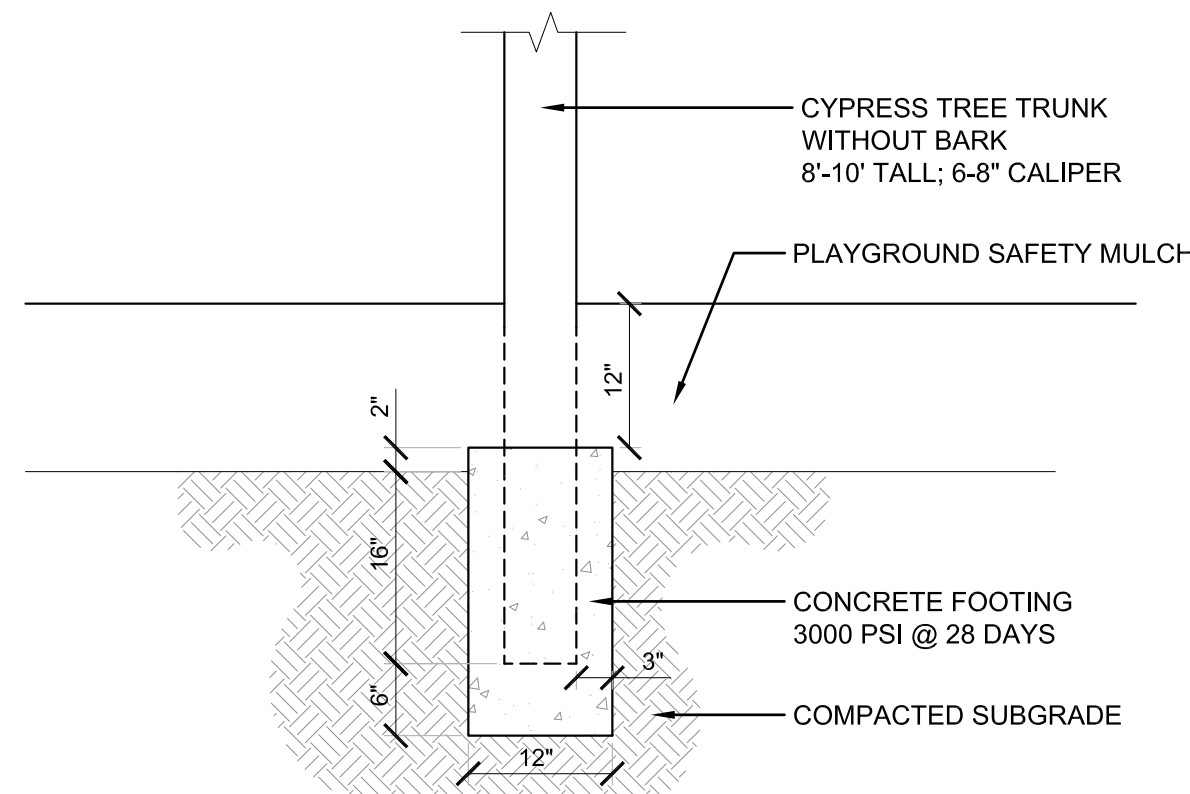


NOTES:

1. CONTRACTOR TO PROVIDE LANDSCAPE ARCHITECT WITH STEEL EDGING SAMPLE FOR APPROVAL PRIOR TO INSTALLATION.

5 STEEL PLANT BED EDGING

NTS



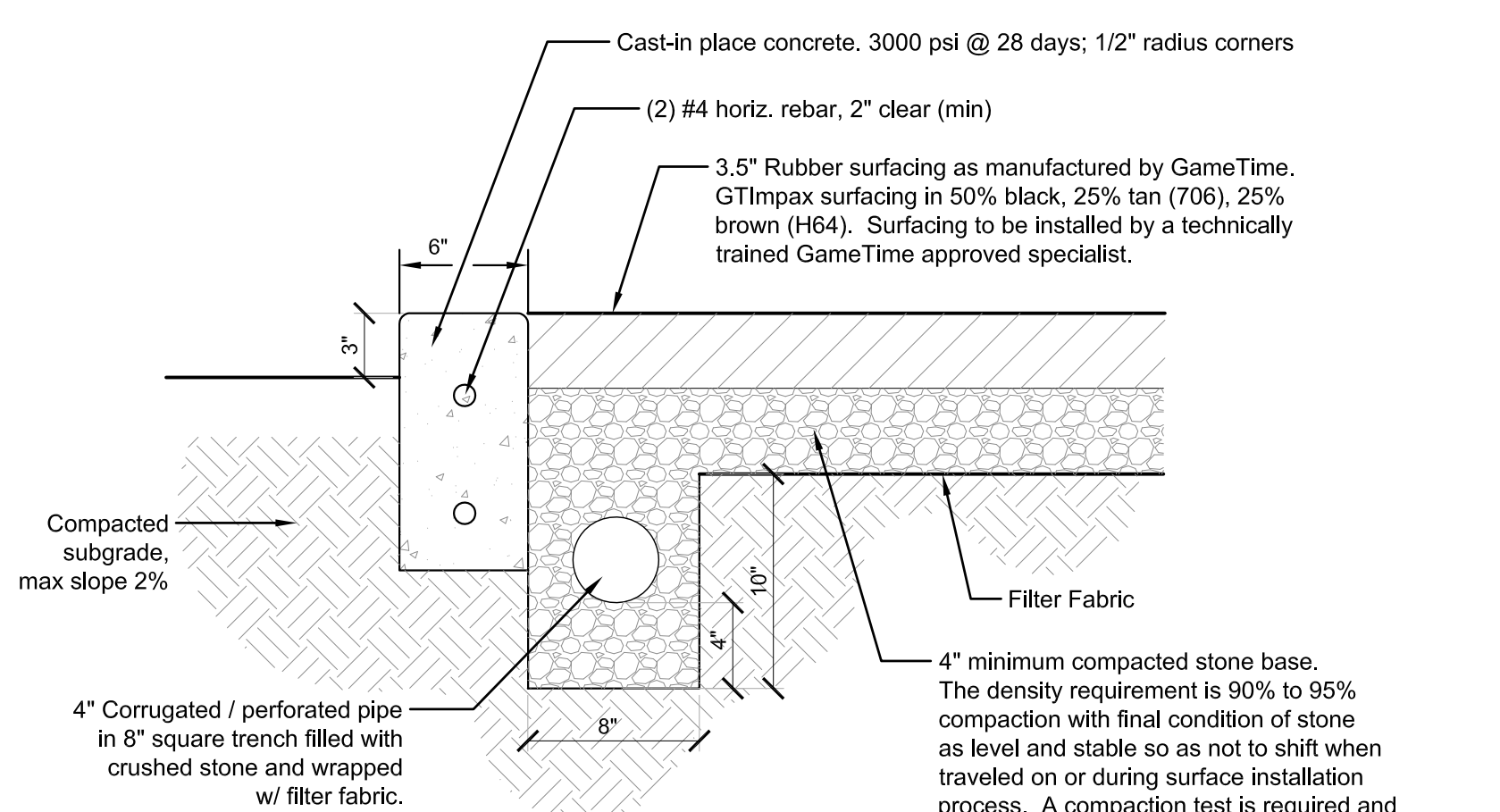
NOTES:

1. TREE PLACEMENT TO BE VERIFIED IN FIELD BY LANDSCAPE ARCHITECT PRIOR TO INSTALLATION.

6 CYPRESS TREES

3/4" = 1'-0"

P-PF-14_Cf-28



7 PLAYGROUND SURFACING

1 1/2" = 1'-0"



8 PAVILION FENCING

NTS

Construction Approval Block

Date: _____ Name: _____

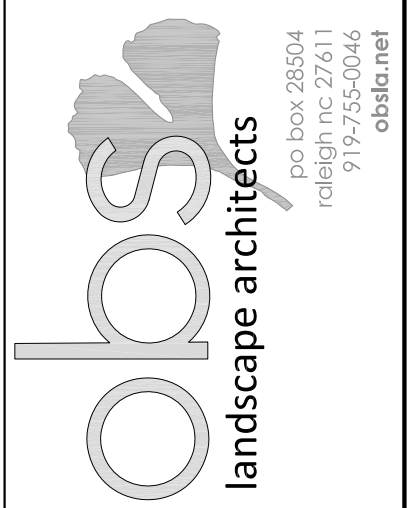
Planning: _____

Traffic: _____

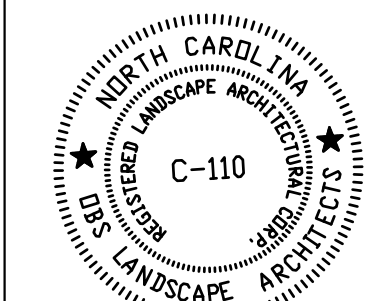
Fire: _____

Engineering: _____

Permit #: _____



CONSULTANTS:



SEALS:

Cape Fear Museum
Outdoor Learning Environment
 NEW HANOVER COUNTY
 814 Market Street, Wilmington, NC 28401

DATE: 2/3/2015

DESIGNER: LED

CHECKED BY: BHS

REVISIONS

NO.	DATE

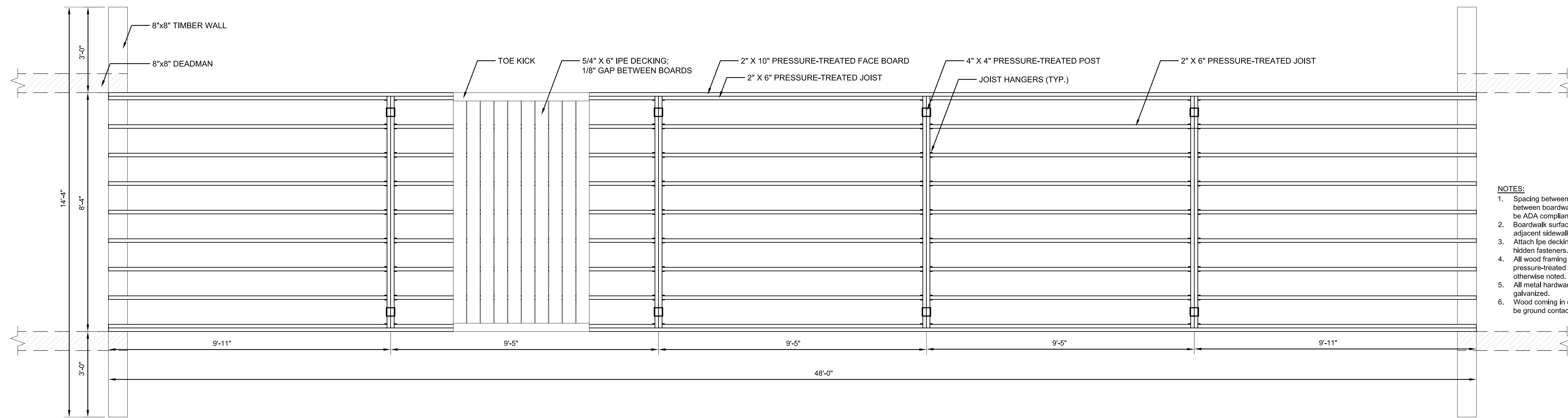
SCALES
 HORIZ: 1"=10'-0"
 DESIGN DEVELOPMENT

SHEET NO.

D102

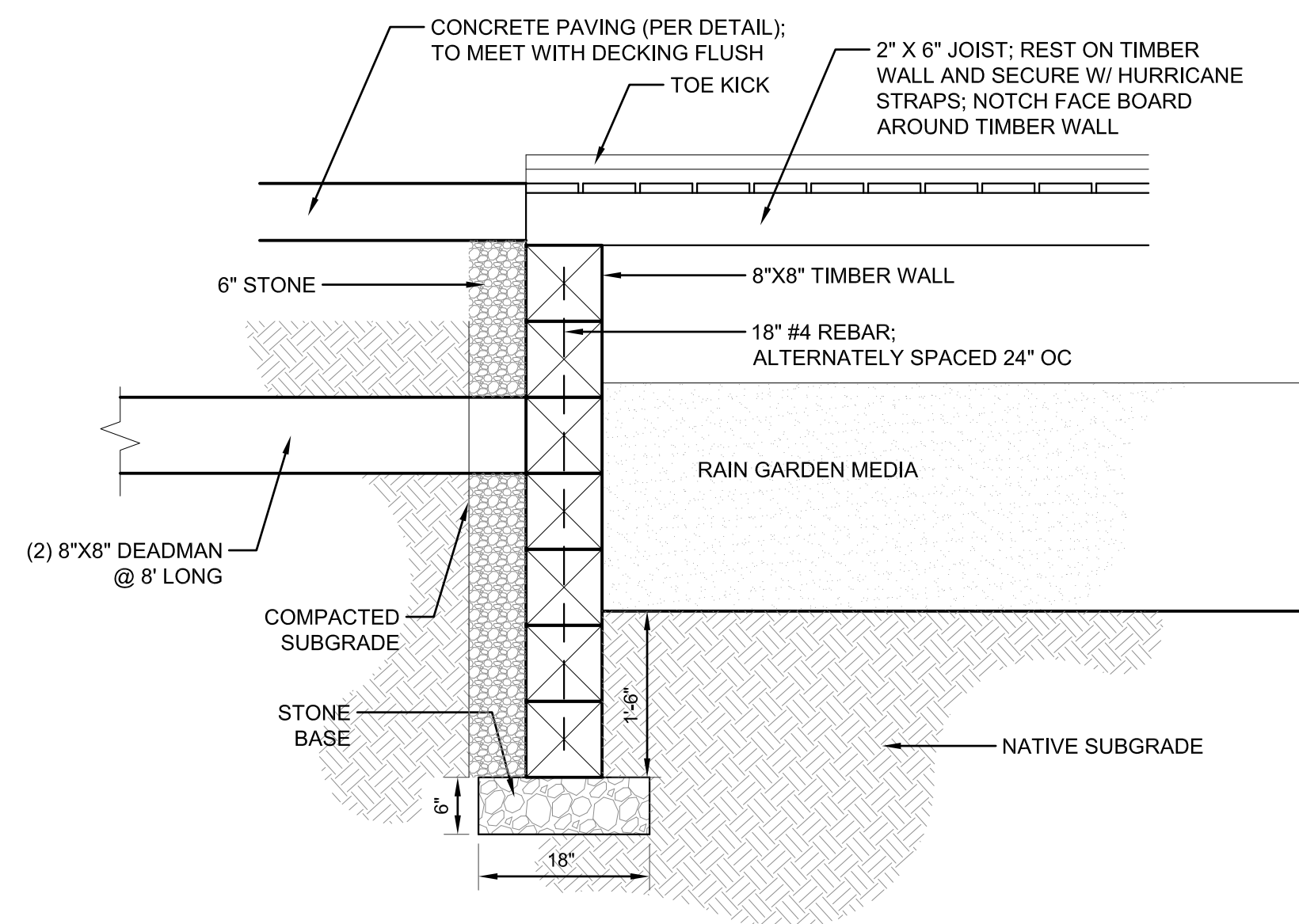
DETAILS

NTS

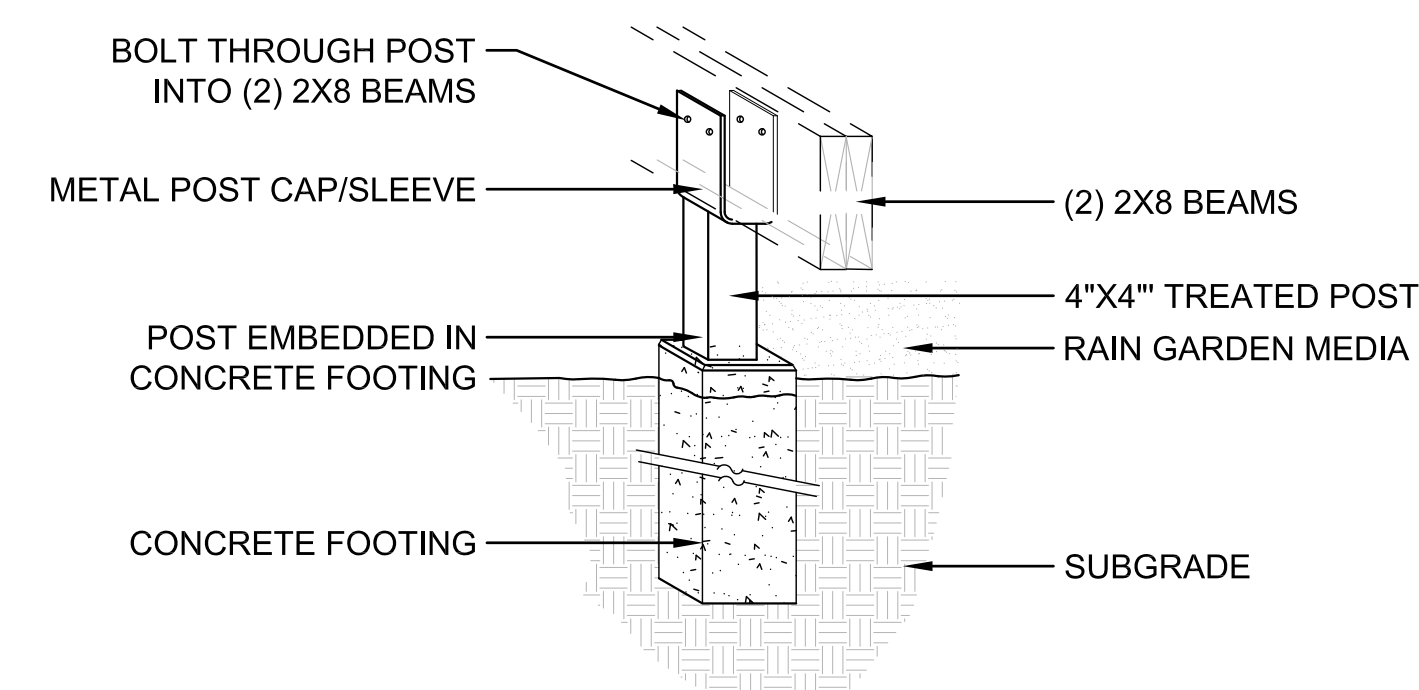


- NOTES:**
1. Spacing between decking boards and between boardwalk and sidewalks shall be ADA compliant.
 2. Boardwalk surface to be flush with adjacent sidewalks.
 3. Attach ipe decking boards to joists with hidden fasteners.
 4. All wood framing materials to be pressure-treated #2 pine unless otherwise noted.
 5. All metal hardware to be hot-dipped galvanized.
 6. Wood coming in contact with ground to be ground contact treated.

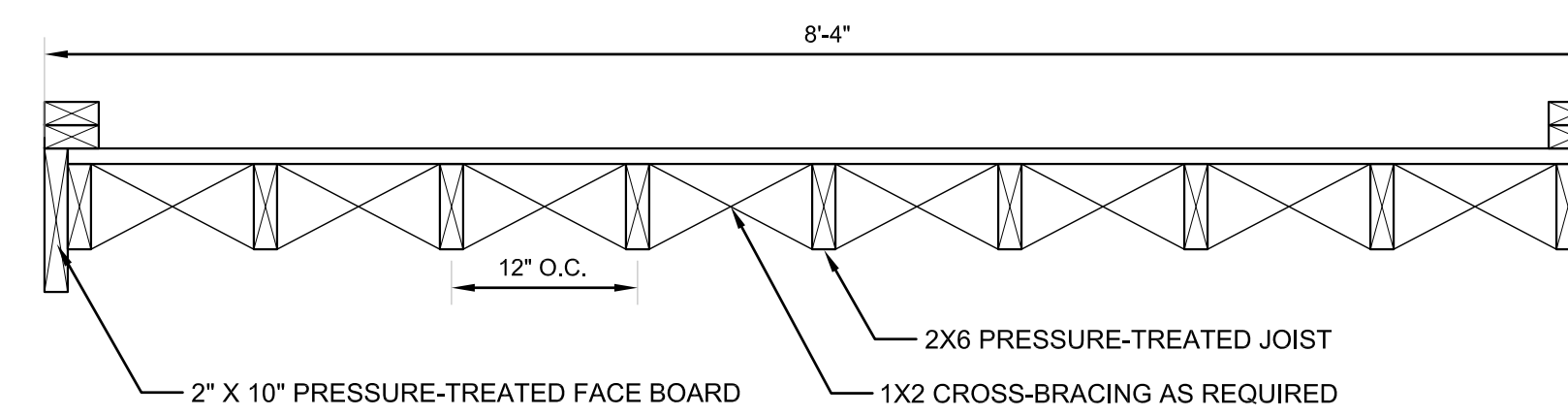
01 FRAMING LAYOUT
1/2" = 1'-0"



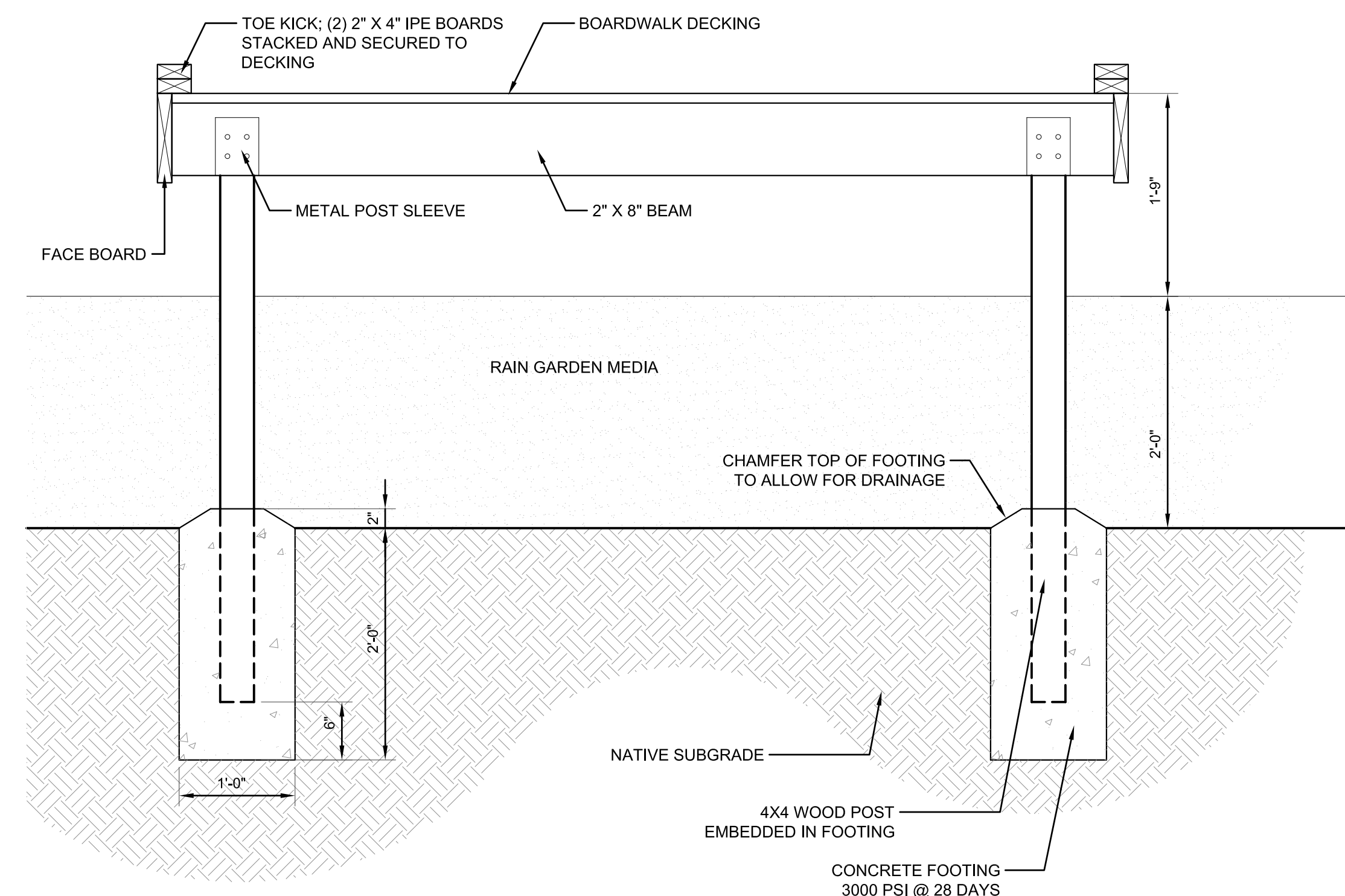
02 TIMBER WALL
3/4" = 1'-0"



03 POST & FOOTING - AXON
NTS



04 JOIST SPACING
1" = 1'-0"



05 POST & FOOTING - SECTION
1" = 1'-0"

BOARDWALK DETAILS

CITY OF WILMINGTON
NORTH CAROLINA
Construction Approval Block

Date: _____ Name: _____

Planning: _____

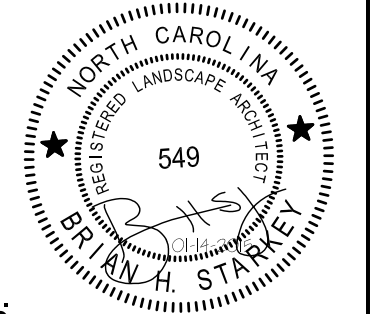
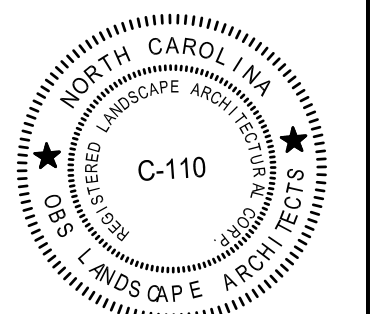
Traffic: _____

Fire: _____

Engineering: _____

Permit #: _____

CONSULTANTS:



SEALS:

Cape Fear Museum
Outdoor Learning Environment
NEW HANOVER COUNTY
814 Market Street, Wilmington, NC 28401

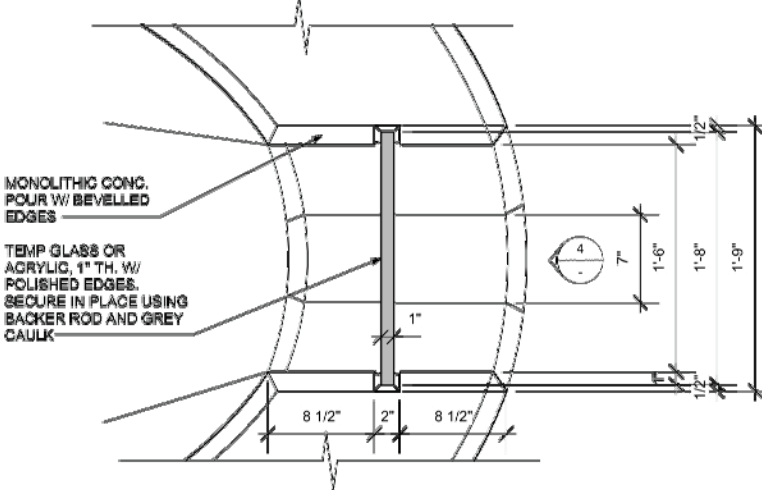
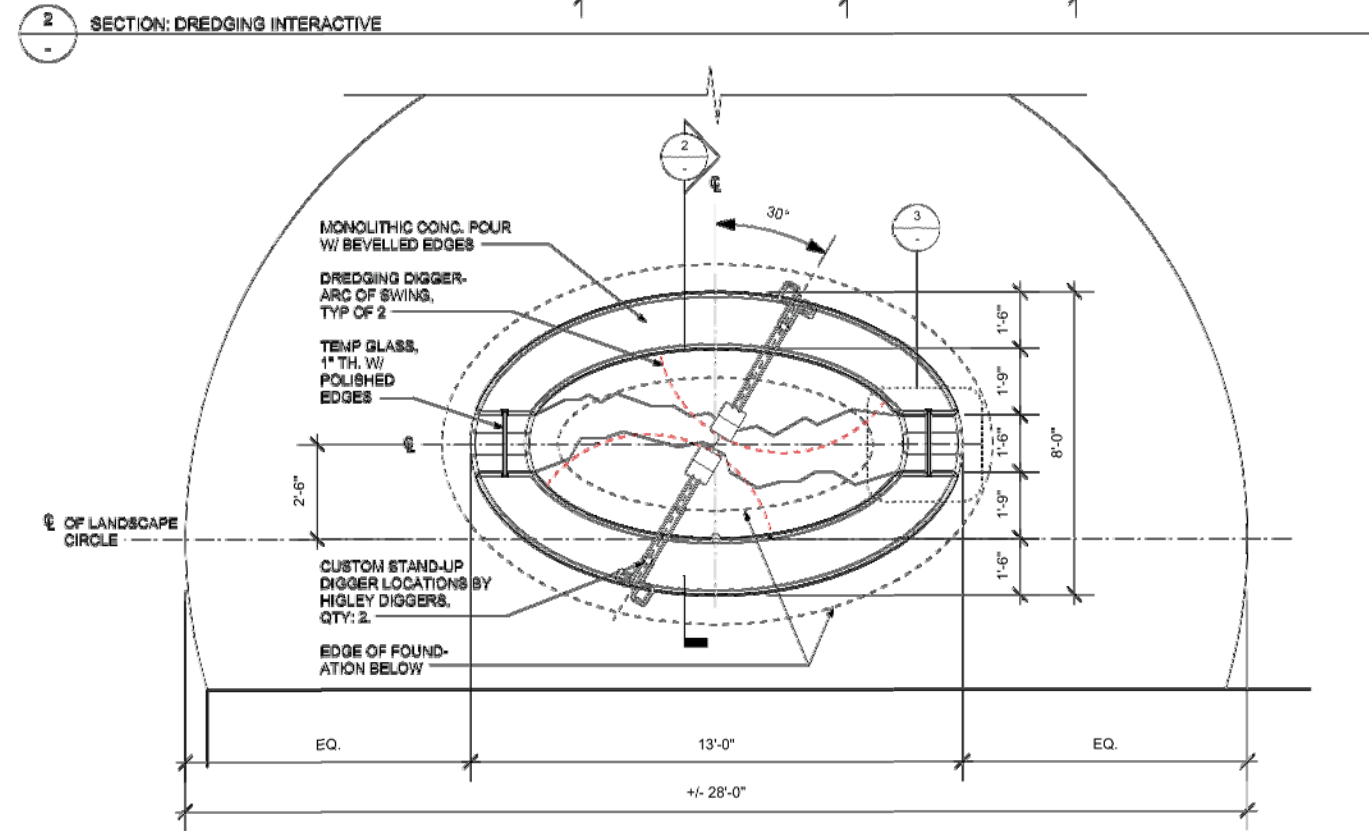
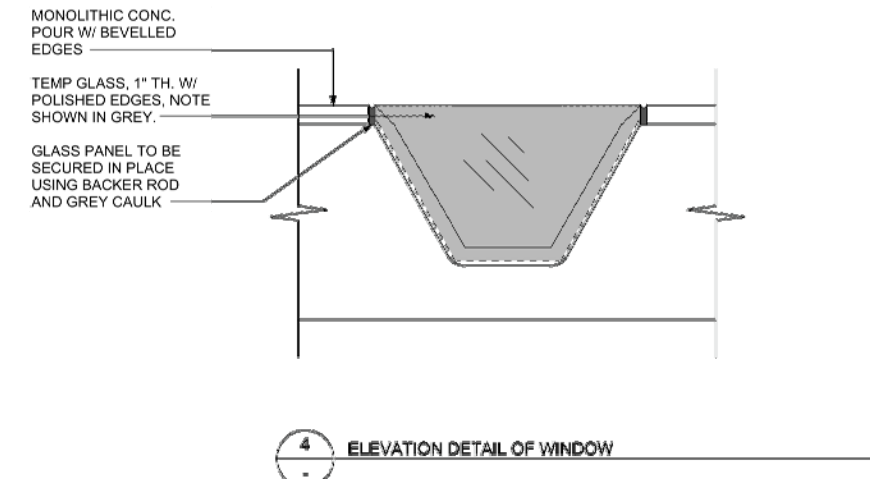
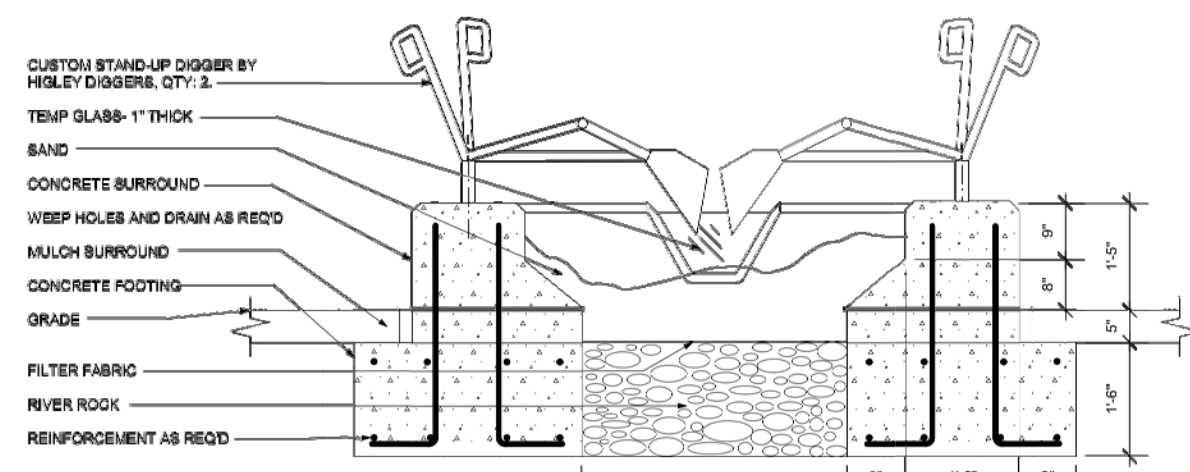
DATE: 2/3/2015
DESIGNER: LED/JAB
CHECKED BY: BHS

REVISIONS

NO.	DATE

SCALES
HORIZ: AS SHOWN
DESIGN DEVELOPMENT

SHEET NO.
D103

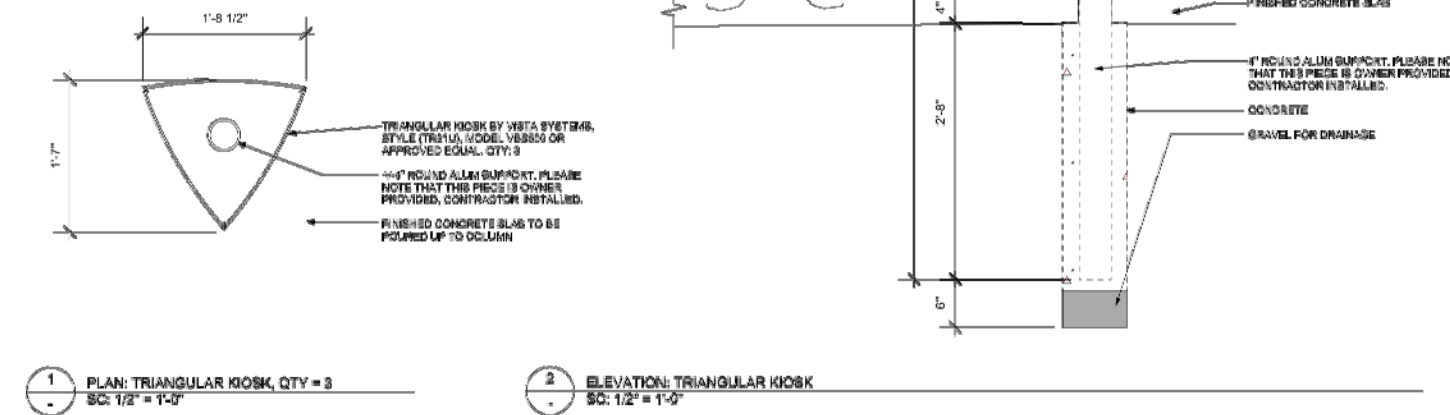


riggs ward
 LANDSCAPE ARCHITECTS
 1400 W. STREET, ROANOKE, VA 24060
 TEL: 804-251-1760 • FAX: 804-251-1742

14 JAN 2015
DREDGING INTERACTIVE
 OUTDOOR LEARNING ENVIRONMENT
 CAPE FEAR MUSEUM

5.02

1 DREDGING INTERACTIVE
 1" = 1'-0"



2 TRIANGULAR KIOSKS
 1/2" = 1'-0"

riggs ward
 LANDSCAPE ARCHITECTS
 1400 W. STREET, ROANOKE, VA 24060
 TEL: 804-251-1760 • FAX: 804-251-1742

SCALE AS NOTED
 14 JAN 2015
TRIANGULAR KIOSKS DETAILS
 OUTDOOR LEARNING ENVIRONMENT
 CAPE FEAR MUSEUM

5.01

CITY OF WILMINGTON
 NORTH CAROLINA
 Construction Approval Block

Date: _____ Name: _____

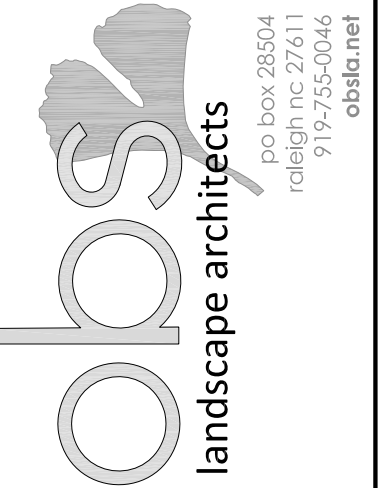
Planning: _____

Traffic: _____

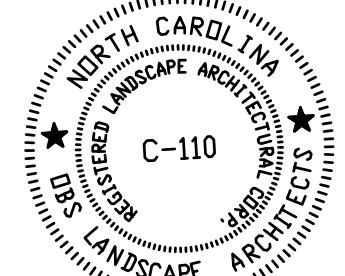
Fire: _____

Engineering: _____

Permit #: _____



CONSULTANTS:



SEALS:

Cape Fear Museum
Outdoor Learning Environment
 NEW HANOVER COUNTY
 814 Market Street, Wilmington, NC 28401

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CHECKED BY: BHS

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NO.	DATE

SCALES
 HORIZ: 1"=10'-0"

DESIGN DEVELOPMENT

SHEET NO.
D104

DETAILS

GENERAL NOTES:

1. Contractor shall inspect site prior to bidding and start of work; verify existing conditions match plans and accept site, or report any discrepancies immediately to the owner.
2. Limits of construction activities will adhere to those clearly indicated on the plans unless designated otherwise.
3. Contractor is responsible for scheduling all pre-construction meetings with all applicable governing jurisdictions. Contractor is responsible for obtaining and paying for all permits, inspections, and certifications that may be required.
4. All work shall be in accordance with New Hanover County, Town of Wilmington, & NCDOT standard specifications and details.
5. Contractor shall keep job site free of trash and garbage, and shall immediately collect any construction-related debris or trash that is on right of way or adjoining properties.
6. Tree protection fence is to be installed prior to any construction and be maintained throughout construction and removed accordingly after construction. Location to be approved by landscape architect prior to disturbance.
7. All soil erosion control measures required shall be installed prior to grading, clearing, or grubbing. All erosion control devices such as silt fences, etc., shall be maintained in workable conditions for the life of the project and shall be removed at the completion of the project only on the landscape architect's approval. Payment shall be considered incidental to clearing and grubbing. If during the life of the project, a storm causes soil erosion which changes finish grades or creates "gullies" and "washed areas", these shall be repaired at no extra cost, and all silt washed off the project site onto adjacent property shall be removed as directed by the landscape architect at no extra cost. The contractor shall adhere to any approved erosion control plans whether indicated in the construction plans or under separate cover.
8. Contractor shall restore any facilities or utilities damaged during construction.
9. Any discrepancies in plans, or departure from plans shall be reported to the landscape architect immediately, and no work shall continue on affected issue until directed by landscape architect.
10. Prepare and maintain on job site 'as-built' plans. Contractor to prepare and maintain 'as built' plans. Contractor responsible for the preparation and delivery of as built drawings to the owner. Contractor to have original CAD drawing files revised to illustrate changes made during construction.
11. Finish grade tolerances shall be as noted in the specifications. The landscape architect may make minor grade changes as required in the field without effecting the unit bid price for unclassified excavation.
12. Existing/Non conforming lighting will remain.
13. Entire area to be graded shall be cleared and grubbed. No fill shall be placed on any area not cleared and grubbed.
14. The contractor is responsible for the coordination and adjustment of all utility surface accesses whether he performs the work or a utility company performs the work.
15. The contractor shall control all "dust" by periodic watering and shall provide access at all times for property owners within the project area and for emergency vehicles. All open ditches and hazardous areas shall be clearly marked in accordance with the specifications.
16. The contractor shall enter and exit the site via the temporary construction entrance as detailed in the drawings.
17. All work must comply with North Carolina State Building and Handicapped Accessibility Code.
18. Prevent spilling of fuels, lubricants, coolants, hydraulic fluids, and any other petroleum products onto the ground or into surface waters. Dispose of spent fuels appropriately. As per law, contractor is responsible for all costs associated with hazardous material spills including remediation.
19. DISPOSABLE MATERIAL
 - 19.1. Clearing and grubbing wastes shall be removed from the site and properly disposed of by the contractor at his expense, unless specified otherwise. Solid wastes to be removed, such as sidewalks, curbs, pavement, etc., shall be removed from the site as required by the specifications.
 - 19.2. Abandoned utilities such as culverts, water pipe, hydrants, castings, pipe appurtenances, utility poles, etc., shall be the property of the specific utility agency, or company having jurisdiction. Before contractor can remove, destroy, salvage, reuse, sell or store for his own use any abandoned utility, he must present to the owner written permission from the utility company involved.
 - 19.3. The open burning of trees, limbs, stumps and construction debris associated with this development is prohibited.
20. There are no existing or proposed easements or other restrictions on the property.
21. There are no current drainage problems on the property.

CITY OF WILMINGTON GENERAL NOTES:

1. All pavement markings in public rights-of- way and for driveways are to be thermoplastic and meet City and/or NCDOT standards.
2. All signs and pavement markings in areas open to public traffic are to meet MUTCD (Manual on Uniform Traffic Control Devices) standards.
3. All traffic control signs and markings off the right-of-way are to be maintained by the property owner in accordance with MUTCD standards.
4. All parking stall markings and lane arrows within the parking areas shall be white.
5. A utility cut permit is required for each open cut of a City street. Note this on the plan and contact 341-5888 for more details. In certain cases an entire resurfacing of the area being open cut may be required.
6. Any broken or missing sidewalk panels, driveway panels, and curbing will be replaced.
7. Contact Traffic Engineering at 341-7888 forty-eight hours prior to any excavation in the right of way.

GENERAL DEMOLITION NOTES:

1. Tree protection fencing must be in place prior to any clearing, demolition, and disturbance or issuance of grading permit and maintained throughout construction. Landscape Architect to verify fence location prior to construction.
2. All materials noted for removal to be disposed of off-site and in a legal manner, unless otherwise noted. Contractor to recycle materials as appropriate including asphalt, concrete, brick, and vegetation.
3. Items or elements noted for removal and return to owner or relocation shall be stored on-site at owner's direction.
4. Items not noted for removal, including trees, lights, plant material, paving, and all utilities shall be protected and secured throughout construction. Any damage incurred shall be corrected in kind at no additional cost to the owner.
5. Erosion control measures to be installed prior to site disturbance.
6. If root systems of existing trees noted to remain on site are encountered during construction, roots are to be pruned under the direction a Certified Arborist.
7. Contractor to verify location of existing utilities prior to construction.
8. Contractor to keep construction entrance and adjacent streets clean throughout construction.
9. Contractor shall keep job site free of trash and garbage.
10. Any discrepancies in plans or departure from plans shall be reported to the Landscape Architect immediately.
11. All pavement / curb to be saw cut at limits of removal.

GENERAL LAYOUT NOTES:

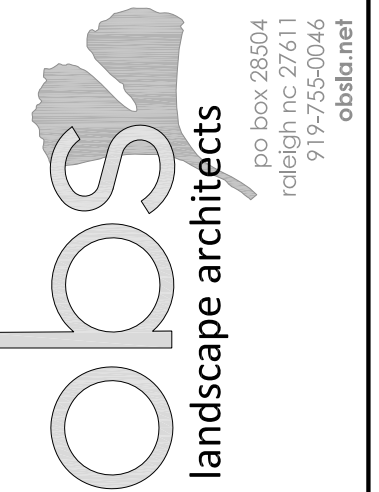
1. Drawings based on survey provided by Michael Underwood and Associates, PA. Landscape Architect assumes no responsibility for the accuracy of the survey.
2. Any discrepancies in layout should be brought to the attention of the Landscape Architect immediately.
3. Written dimensions supercede scaled dimensions. Do not scale drawings.
4. Layout to be staked by a surveyor licensed in North Carolina and approved by Landscape Architect prior to installation.

GENERAL GRADING NOTES:

1. Construction fencing and tree protection fencing must be in place prior to any clearing, demolition, and disturbance or issuance of grading permit and maintained throughout construction. Landscape Architect to verify fence location prior to construction.
2. Contractor to insure positive drainage away from buildings.
3. All slopes to be consistent and uniform.
4. Bottom of wall elevations (BW) refer to finish grade not top or bottom of wall footing.
5. Spot elevations reference final surface elevations.
6. Subgrade elevations shall reflect slope and grade of final surface elevations.
7. All proposed pavement shall meet existing pavement, flush.
8. All walks to exhibit a 2% cross slope and not exceed 5% slope in the direction of pedestrian movement unless otherwise noted.
9. The contractor shall install and maintain sufficient erosion and sediment control measures as needed to keep sediment within the project work area. Any sediment deposited outside the project work area, including tracking out, shall be immediately cleaned up by sweeping and removing the material by hand. Accumulated sediment on hard surfaces shall not be washed into storm drains, gutters or receiving waters. All installed erosion and sediment control measures shall be removed once the project area is fully stabilized.

GENERAL PLANTING NOTES:

1. All plant materials to comply with American Standard for Nursery Stock ANSI.Z60
2. Substitutions of plant materials specified can only occur with prior approval by Landscape Architect.
4. Establish plant bed configuration. Landscape Architect to approve bed layout in field.
5. Perform soil test in all new plant beds and amend soils as recommended.
6. Install plants and mulch plant beds with 3" shredded hardwood mulch.
7. All trees to be installed between October 1 and April 30.
8. Contractor to guarantee plant materials for a one year period following substantial completion.
9. Areas damaged by activities of contractor shall be re-established to pre-disturbance condition at no additional cost to the owner.
10. Use herbicides, pesticides, and fertilizer in a manner consistent with the federal insecticide, fungicide, and rodenticide act and in accordance with label restrictions.
11. Contractor shall protect any existing planting not involved in new construction.
12. Contractor shall insure that all plant material is free of fire ants prior to installation.
13. Landscape Architect / Owner shall approve placement of trees prior to planting.
14. All proposed vegetation within sight distance triangles shall not interfere with clear, visual sight lines from 30"-10' in height.



CONSULTANTS:

SEALS:

Cape Fear Museum
Outdoor Learning Environment
 NEW HANOVER COUNTY
 814 Market Street, Wilmington, NC 28401

CITY OF WILMINGTON
NORTH CAROLINA
 Construction Approval Block

Date: _____ Name: _____

Planning: _____

Traffic: _____

Fire: _____

Engineering: _____

Permit #: _____

DATE: 2/3/2015

DESIGNER: LED

CHECKED BY: BHS

REVISIONS

NO.	DATE

SCALES

HORIZ: 1"=10'-0"

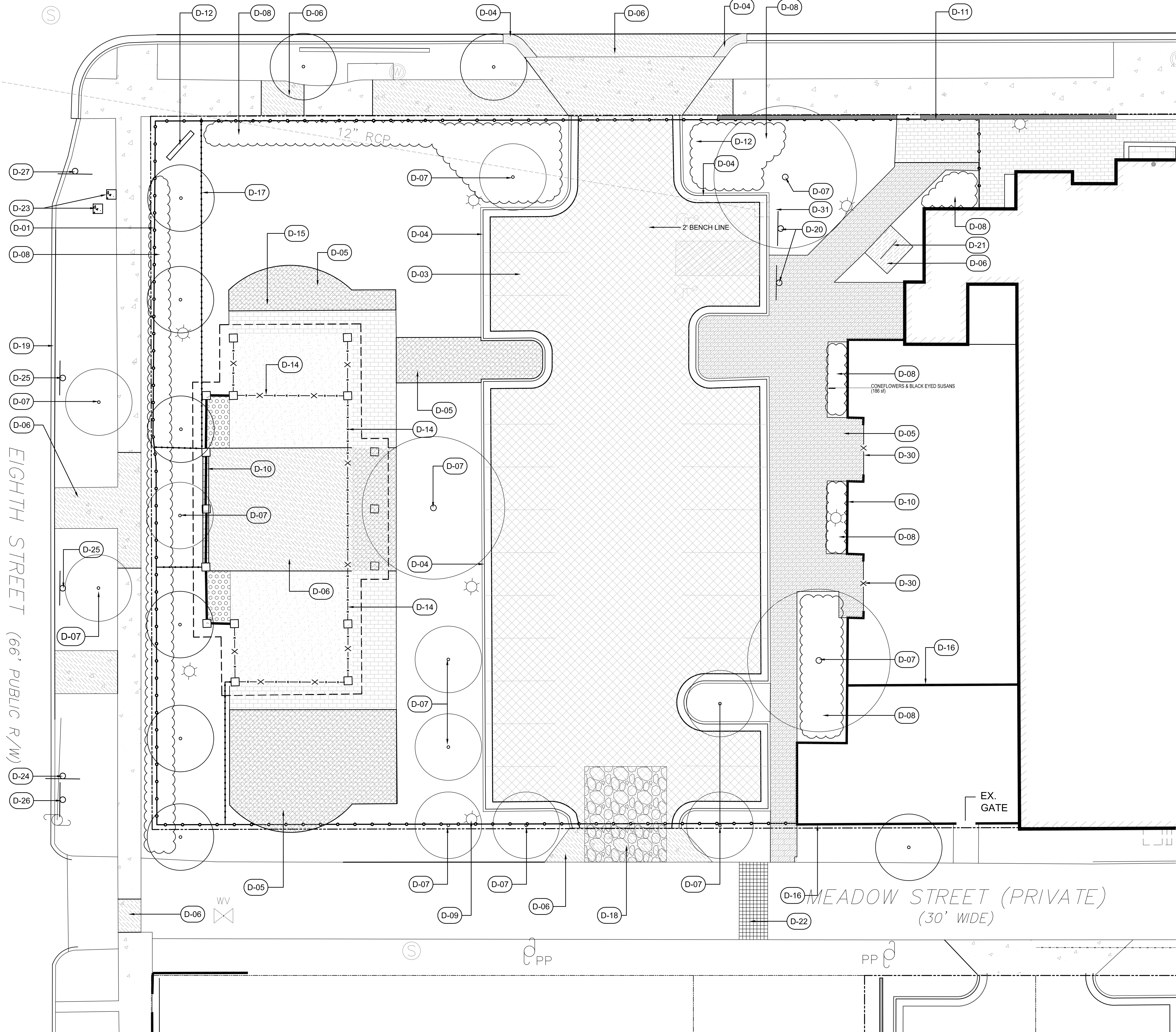
DESIGN DEVELOPMENT

SHEET NO.

G100

GENERAL NOTES

MARKET STREET (99' PUBLIC R/W)



DEMOLITION SCHEDULE

CODE	DESCRIPTION	DETAIL
D-01	Install temporary chainlink construction fencing as shown.	
D-02	Remove existing pavers in their entirety	
D-03	Remove asphalt paving to limits shown.	
D-04	Remove concrete curb and gutter to limits shown or nearest joint.	
D-05	Remove brick paving to limits shown. Mortared header course surrounding pavilion to remain. Retain a portion for reuse. Reference L-200. Contractor to dispose of remaining pavers.	
D-06	Remove concrete paving to limits shown.	
D-07	Remove tree in its entirety. Grind stump to 8" below subgrade.	
D-08	Remove shrubs in their entirety as shown. Remove stumps.	
D-09	Remove light pole. Contractor to protect lights not noted for removal throughout construction. Reconnect service connection at this location as required.	
D-10	Remove 2 sections of existing wall. Contractor to re-stucco face of existing columns, wall or building corner to remain and paint to match existing.	
D-11	Contractor to protect stone wall throughout construction.	
D-12	Existing Museum sign.	
D-13	Electrical panel to be relocated by others. Reference L200 for relocation.	
D-14	Remove metal fencing and gates between column. Reference Layout Plan, Sheet L200 for relocation. Any unused fencing to be disposed of in a legal and responsible manner.	
D-15	Existing stone tables and benches to be removed by contractor. Contractor to provide equipment and labor required to load onto owner's truck.	
D-16	Existing wall around mechanical yard to remain and be protected throughout construction. Contractor to repair stucco at corners of wall and building corner following wall removal and paint to match existing.	
D-17	Install tree protection fencing as shown.	1/D102
D-18	Construction entrance.	3/D101
D-19	Remove granite curb and reuse per Layout Sheet L200	
D-20	Remove Handicap Signs and relocate per Layout Plan L200.	
D-21	Remove Bike Rack and return to owner.	
D-22	Contractor to remove existing pavers to limits shown and retain as required for proposed brick walk. Reference Sheet L200.	
D-23	(2) 2'x2' Concrete pads to be removed.	
D-24	Museum parking sign to be removed and returned to owner.	
D-25	No parking sign to be removed and relocated per L200.	
D-26	No parking sign to remain	
D-27	Stop sign to remain	
D-28	Remove wall in its entirety.	
D-29	Remove existing modular block wall to limits shown.	
D-30	Remove gates	
D-31	Inlet Protection	
D-32	Remove block wall and columns to limits shown.	

- LEGEND:**
- Remove Existing Asphalt
 - Remove Existing Concrete Paving
 - Remove Existing Brick Paving
 - Remove Existing Curb and Gutter
 - Construction Fencing
 - Tree Protection Fencing
 - Inlet Protection
 - Existing Light to be Protected throughout construction

CITY OF WILMINGTON
NORTH CAROLINA

Construction Approval Block

Date: _____ Name: _____

Planning: _____

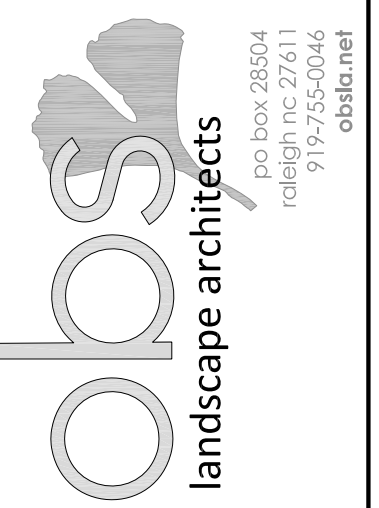
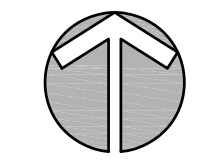
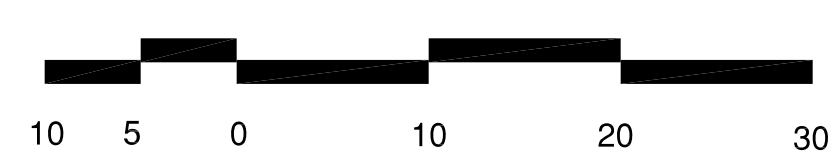
Traffic: _____

Fire: _____

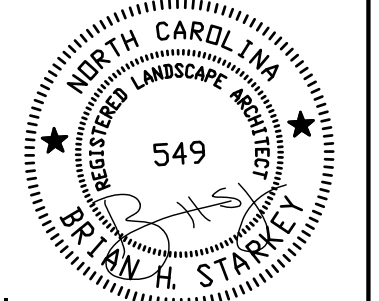
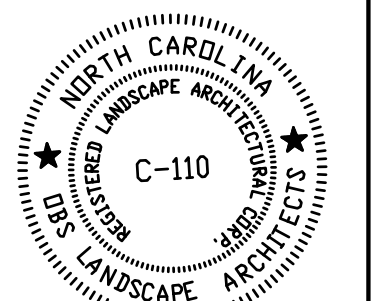
Engineering: _____

Permit #: _____

DEMOLITION PLAN



CONSULTANTS:



SEALS:

Cape Fear Museum
Outdoor Learning Environment
NEW HANOVER COUNTY
814 Market Street, Wilmington, NC 28401

DATE: 2/3/2015
DESIGNER: JAB
CHECKED BY: BHS

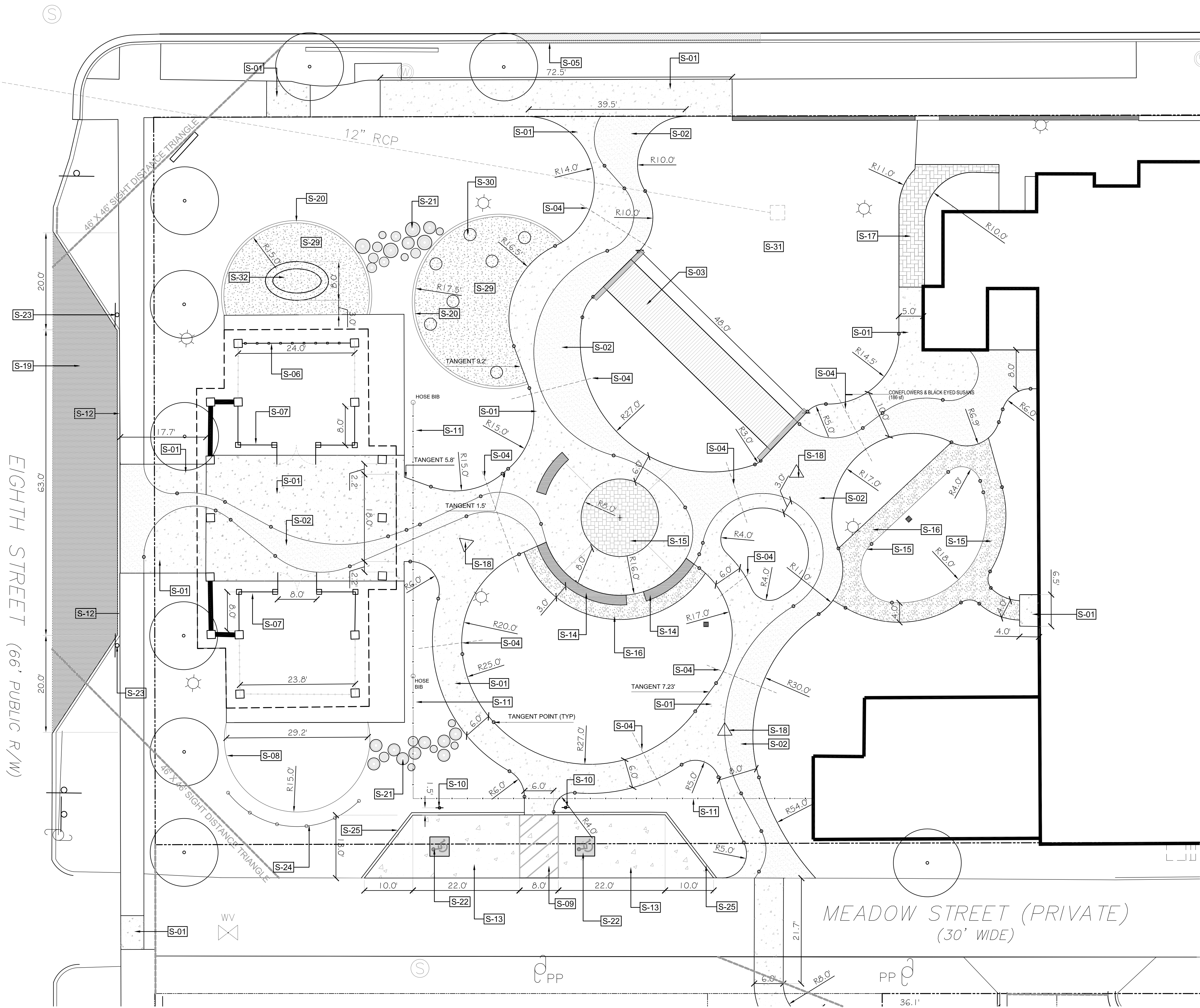
REVISIONS

NO.	DATE

SCALES
HORIZ: 1"=10'-0"
DESIGN DEVELOPMENT

SHEET NO.
L100

MARKET STREET (99' PUBLIC R/W)



SITE IMPROVEMENT SCHEDULE

CODE	DESCRIPTION	DETAIL
S-01	Standard Concrete Paving, Reference sheet L201 for scoring pattern.	1/D100
S-02	Decorative Concrete River paving. Refer to sheet L201 for detailed layout information and detail.	1/D100
S-03	Wood boardwalk. Refer to sheet D103 for details.	
S-04	2" PVC conduit installed 12" below finished grade. Conduit to extend 18" beyond edge of pavement.	
S-05	30" Curb and Gutter.	1/D101
S-06	8' Metal fencing to be relocated as shown.	8/D102
S-07	New 8' fence to match existing with 8' double swing gate in center. Contractor to attach fence to columns. Contractor to submit shop drawings for approval by landscape architect prior to installation.	
S-08	Steel Landscape Edging	5/D102
S-09	Thermoplastic Parking lot striping per specifications.	
S-10	Handicap Parking Sign, relocated as shown.	10/D100
S-11	1" PVC water line with 2 frost free yard hydrants.	
S-12	Reuse existing granite curb to layout bus drop area as shown. Contractor to provide new granite curb as needed.	1/D101
S-13	Heavy Duty Concrete Paving adjoining concrete curb.	6/D100
S-14	Concrete Seat wall	7/D100
S-15	Permeable pavers	11/D100
S-16	Oyster shell pathway	4/D100
S-17	Brick paving. Contractor to reuse bricks that were removed and to match the existing pattern and installation.	2/D100
S-18	Triangular kiosk location to be verified in field prior to installation. Contractor to install aluminum support post supplied by owner.	2/D104
S-19	Asphalt paving	5/D100
S-20	Concrete curb	8/D100
S-21	Tree cross-sections. (30) 6" thick sections of cypress trees. (10) 18" minimum diameter. (10) 24" minimum diameter. (10) 12" minimum diameter.	
S-22	Handicap Pavement Symbol	3/D100
S-23	Relocated No Parking Sign	
S-24	4' tall proposed fence to match existing in style.	8/D102
S-25	Concrete Curb with wipe downs located at each side of entry walk.	9/D100
S-26	Bike Racks provided and installed by owner.	
S-28	Wipe Down Curb and gutter for 5' on either side of walk	9/D100
S-29	Playground mulch	
S-30	(7) Cypress tree trunks	6/D102
S-31	Rain Garden	5/D101
S-32	Dredging Interactive	1/D104

LEGEND:

- Concrete Paving
- Decorative Concrete River Paving
- Oyster Shell Paving
- Asphalt Paving
- Existing Light to be Protected throughout construction
- Tangent Point

Construction Approval Block

 Date: _____ Name: _____

 Planning: _____

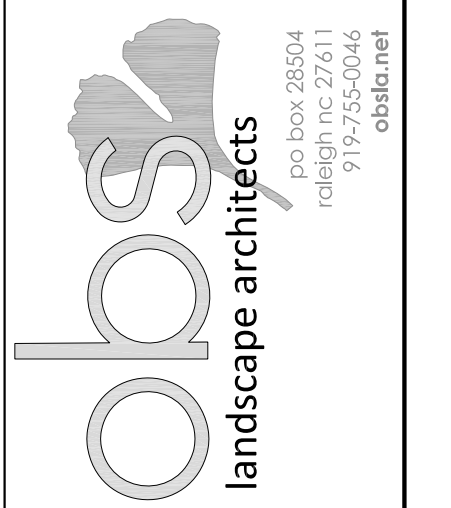
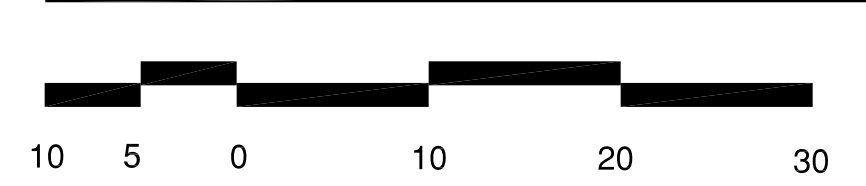
 Traffic: _____

 Fire: _____

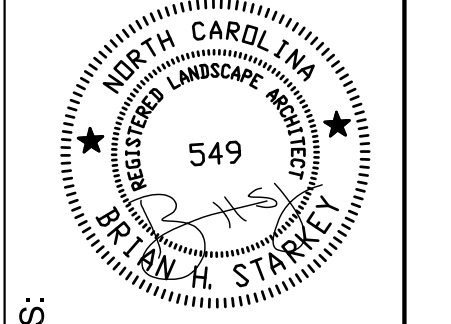
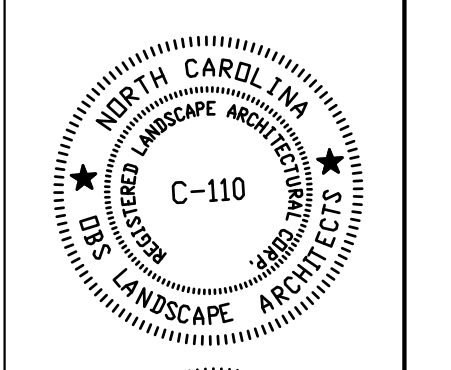
 Engineering: _____

 Permit #: _____

LAYOUT PLAN



CONSULTANTS:



SEALS:

Cape Fear Museum
Outdoor Learning Environment
 NEW HANOVER COUNTY
 814 Market Street, Wilmington, NC 28401

DATE: 2/3/2015

DESIGNER: LED

CHECKED BY: BHS

REVISIONS

NO.	DATE

SCALES

HORIZ: 1"=10'-0"

DESIGN DEVELOPMENT

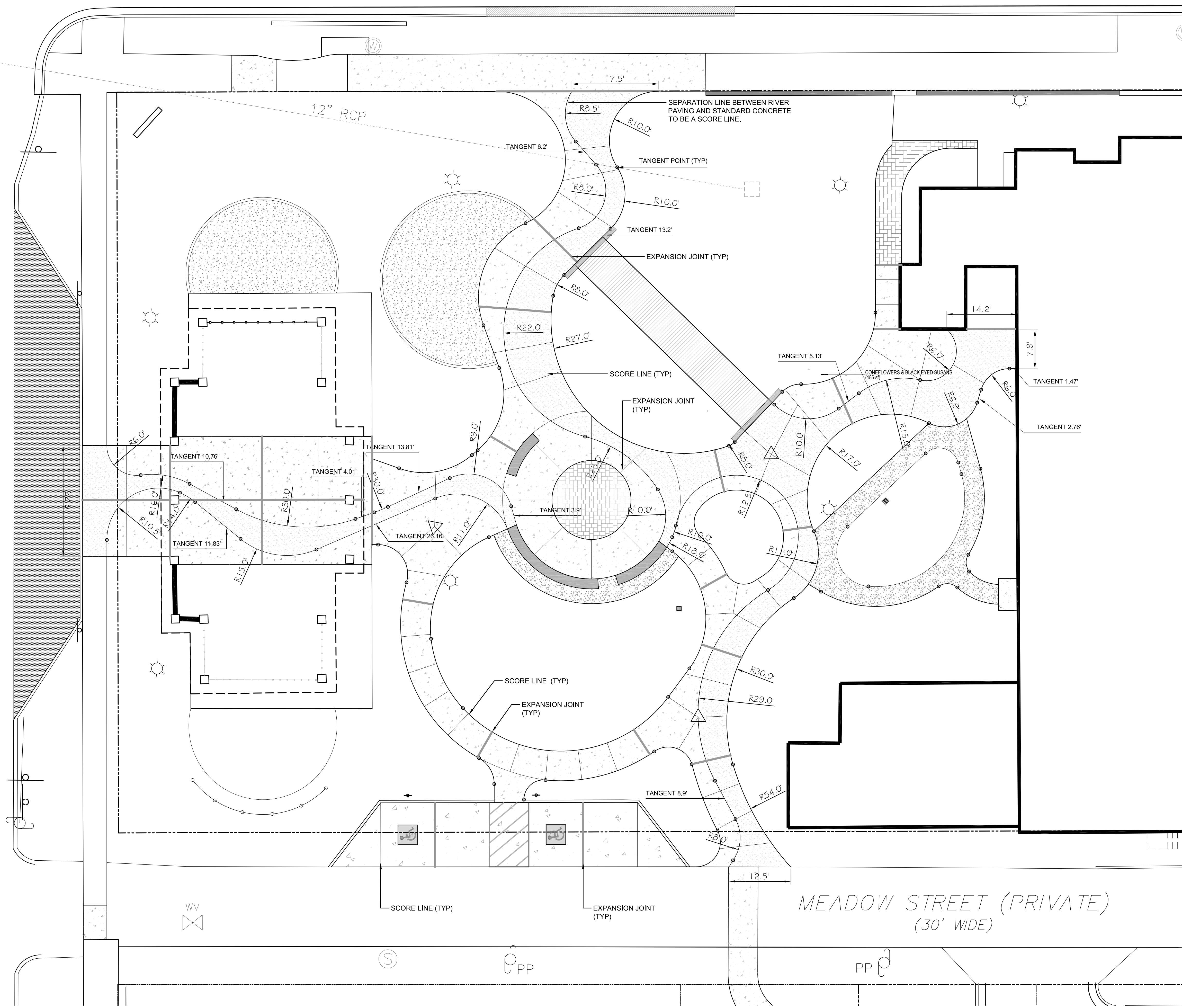
SHEET NO.

L200

MARKET STREET (99' PUBLIC R/W)

EIGHTH STREET (66' PUBLIC R/W)

MEADOW STREET (PRIVATE)
(30' WIDE)



- LEGEND:**
- Concrete Paving
 - River Paving
 - Oyster Shell Paving
 - Asphalt Paving
 - Existing Light to be Protected throughout construction
 - Tangent Point

CITY OF WILMINGTON
NORTH CAROLINA
Construction Approval Block

Date: _____ Name: _____

Planning: _____

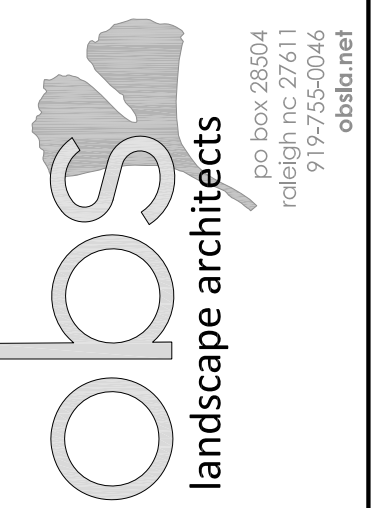
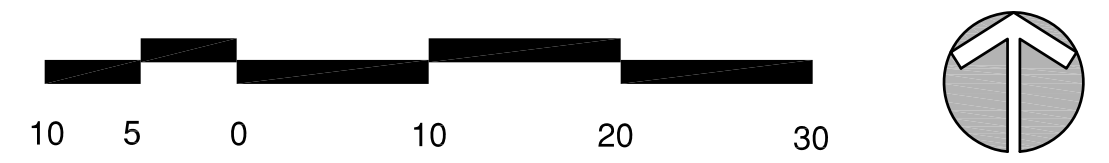
Traffic: _____

Fire: _____

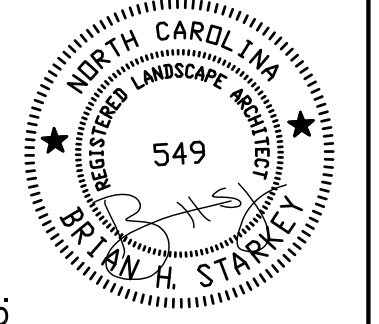
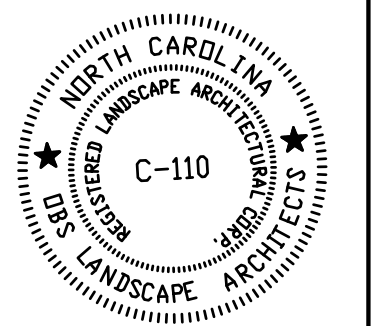
Engineering: _____

Permit #: _____

RIVER PAVING LAYOUT PLAN



CONSULTANTS:



SEALS:

Cape Fear Museum
Outdoor Learning Environment
NEW HANOVER COUNTY
814 Market Street, Wilmington, NC 28401

DATE: 2/3/2015
DESIGNER: LED
CHECKED BY: BHS

REVISIONS

NO.	DATE

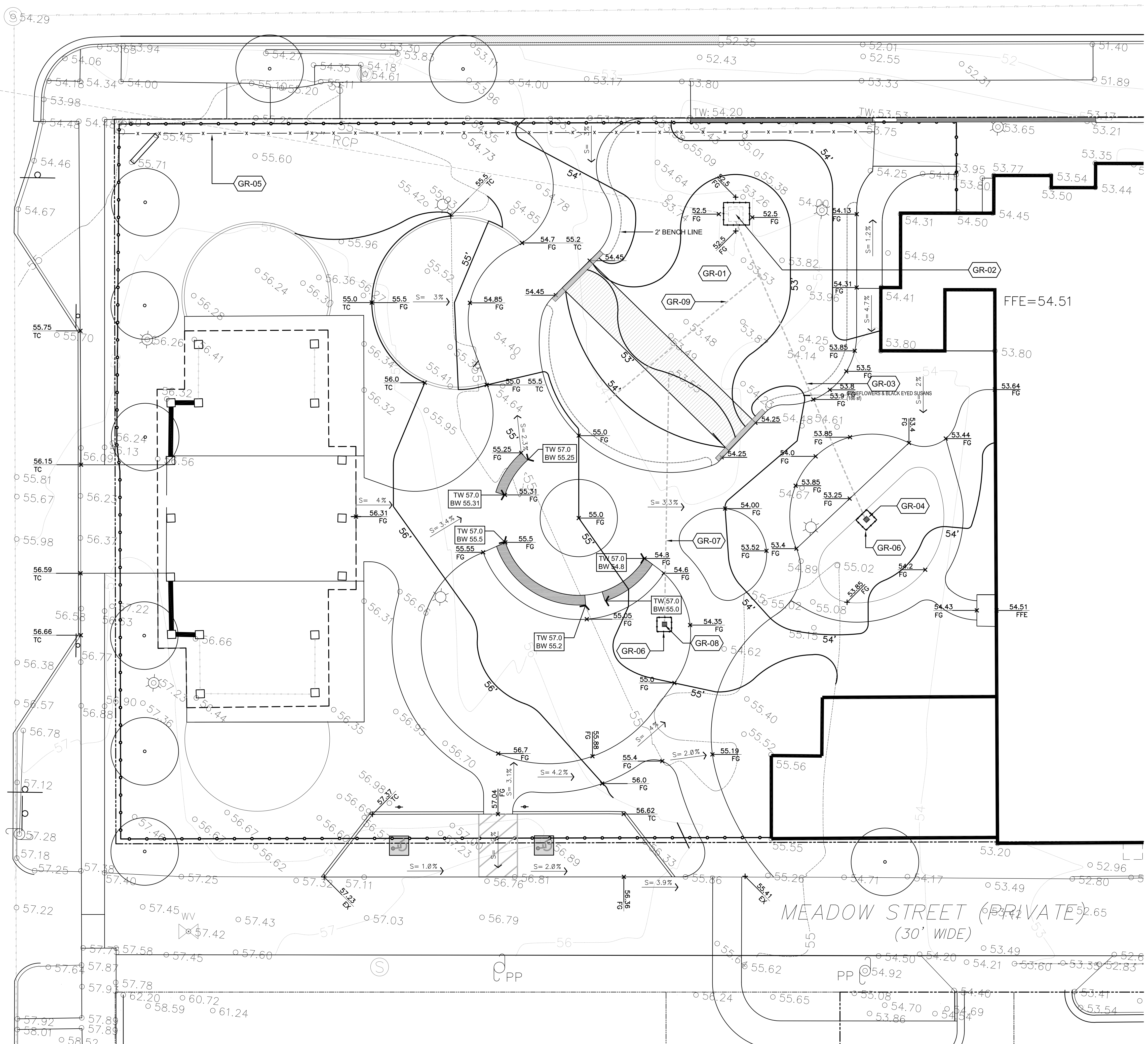
SCALES
HORIZ: 1"=10'-0"
DESIGN DEVELOPMENT

SHEET NO.
L201

MARKET STREET (99' PUBLIC R/W)

EIGHTH STREET (66' PUBLIC R/W)

MEADOW STREET (PRIVATE)
(30' WIDE)



GR Grading SCHEDULE

CODE	DESCRIPTION	DETAIL
GR-01	Rain Garden Soil Profile	5/D101
GR-02	Contractor to raise rim elevation of existing inlet or provide new inlet. Proposed Rim: 53.5' Existing Rim: 52.88' Existing Invert: 51.39'	
GR-03	6" PVC pipe at .5% slope Contractor to fix wire mesh to pipe outlet.	
GR-04	12" HDPE square yard inlet. RIM: 53.15' INVERT: 52.0	4/D101
GR-05	Sediment Fence	3/D101
GR-06	Inlet Protection	2/D101
GR-07	6" PVC Pipe at .05% slope	
GR-08	12" HDPE Square Yard Inlet RIM: 54.25' INV: 53.25'	4/D101
GR-09	6" Underdrain at .5% slope with cleanout at each connection to 6" pipe. cleanout to be capped 8" above media.	

NOTES:

- Newly Constructed Impervious surface within project boundary is 8,400 SF
- Newly Constructed Impervious surface outside project boundary is 1,105 SF
- Newly Constructed impervious surface 8,400 SF

LEGEND:

TC	Top of Curb		Existing Light Pole to remain
BC	Bottom of Curb		
TW	Top of Wall		Construction Fencing
BW	Bottom of Wall		
FG	Finished Grade		
	Proposed Spot Elevation		
	Proposed Contour		
	Existing Contour		
	Silt Fence		

Construction Approval Block

 Date: _____ Name: _____

 Planning: _____

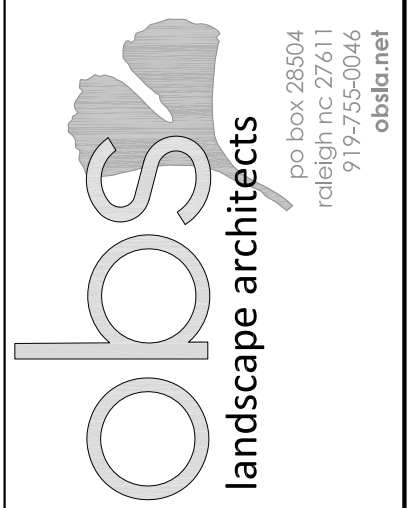
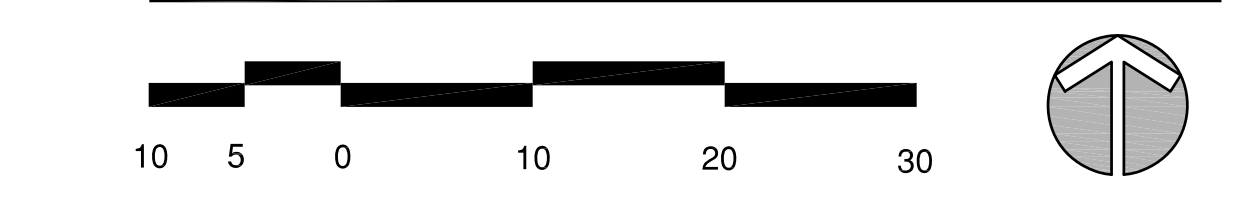
 Traffic: _____

 Fire: _____

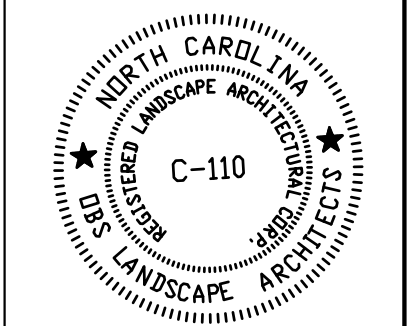
 Engineering: _____

 Permit #: _____

GRADING PLAN



CONSULTANTS:



SEALS:

Cape Fear Museum
Outdoor Learning Environment
 NEW HANOVER COUNTY
 814 Market Street, Wilmington, NC 28401

DATE: 2/3/2015

DESIGNER: LED

CHECKED BY: BHS

REVISIONS

NO.	DATE

SCALES

HORIZ: 1"=10'-0"

DESIGN DEVELOPMENT

SHEET NO.

L300

MARKET STREET (99' PUBLIC R/W)

EIGHTH STREET (66' PUBLIC R/W)

MEADOW STREET (PR 30' WIDE)


PLANT SCHEDULE OLE

TREES	QTY	BOTANICAL NAME / COMMON NAME	CONT	CAL	REMARKS
AS	3	Alnus serulata / Tag Alder	B & B	2"Cal	Single Straight Leader
IV	2	Ilex vomitoria / Yaupon Holly	B & B		Tree Form, Uniform Shape
LW	1	Lagerstroemia x 'Natchez' / White Crape Myrtle Multi-Trunk	15 gal		Multi-Trunk, Full and Uniform
NS	1	Nyssa sylvatica / Black Gum	B & B	3"Cal	Single Straight Leader
PP	8	Pinus palustris / Longleaf Pine	B & B		Single Straight Leader, Contractor to install (1) 12" tall tree, (1) 6" tall tree, (3) 3" tall trees & (3) 8" tall trees
QW	3	Quercus laevis / Turkey Oak	B & B	4.5"Cal	Full Uniform Canopy, Single Straight Leader
QV	1	Quercus virginiana / Southern Live Oak	B & B	3"Cal	
TA	1	Taxodium ascendens / Pond Cypress	B & B	3"Cal	Single Straight Leader, Uniform Canopy
TA2	1	Taxodium distichum 'Autumn Gold' / Autumn Gold Bald Cypress	B & B	3"Cal	Single Straight Leader, Uniform Canopy

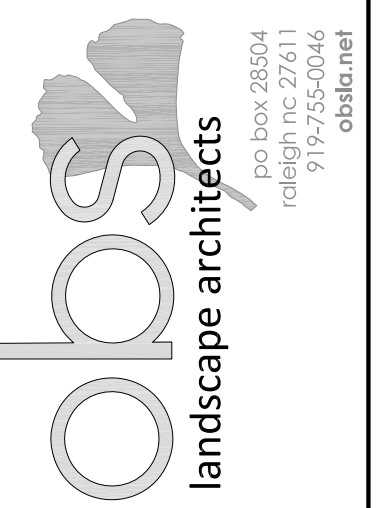
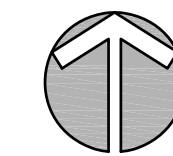
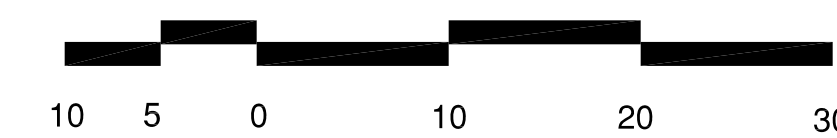
SHRUBS	QTY	BOTANICAL NAME / COMMON NAME	SIZE	HEIGHT	REMARKS
CB	3	Calliandra americana / American Beautyberry	3 gal		Fully Rooted, Uniform Shape
CK	5	Camellia sasanqua 'Kanjiro' / Rose Pink Camellia	7 gal		Uniform shape, Fully Rooted
FG	30	Fothergilla gardenii / Dwarf Fothergilla	5 gal		
LB	6	Loropetalum chinense rubrum 'Ever Red' / Ever Red Loropetalum	5 gal		Fully Rooted, Uniform Shape
RA	16	Rhododendron x 'Autumn Embers' / Autumn Embers Encore Azalea	5 gal		Uniform Shape, Fully Rooted
VS	18	Vaccinium corymbosum 'Sunshine Blue' / Highbush Blueberry	3 gal	18" Min	Fully Rooted
VC	58	Vaccinium crassifolium 'Wells Delight' / Creeping Blueberry	3 gal		Uniform Shape, Fully Rooted

SHRUB AREAS	QTY	BOTANICAL NAME / COMMON NAME	CONT	FIELD2	SPACING	REMARKS
GS	9	Gelsemium sempervirens / Jessamine	3 gal		36" o.c.	Fully Rooted, Contractor to start to train to climb fence
LM	53	Lantana camara 'Miss Huff' / Lantana	1 gal		12" o.c.	Fully Rooted

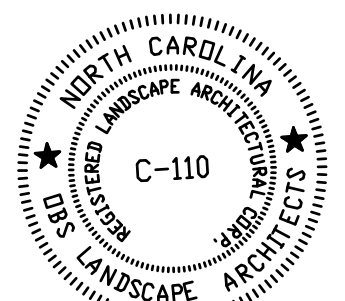
GROUND COVERS	QTY	BOTANICAL NAME / COMMON NAME	CONT	FIELD2	SPACING	REMARKS
AB	132	Ammophila breviflulata / American Beachgrass	4"pot		12" o.c.	Fully Rooted
AS2	821 sf	Aristida stricta / Wiregrass	seed			
AI	177	Asclepias incarnata / Swamp Milkweed	1 gal		18" o.c.	Fully Rooted
GP	455	Gallardia pulchella / Firewheel / Blanket Flower	1 gal		12" o.c.	Fully Rooted
JE	831	Juncus effusus / Soft Rush	1 gal		12" o.c.	Fully Rooted
JT	677 sf	Juncus tenuis / Path Rush	2" pot			Fully Rooted
LM2	140	Liriope muscari / Lily Turf	1 gal		18" o.c.	Fully Rooted
LO	123	Lycopodium obscurum / Ground Pine	1 gal		24" o.c.	Fully Rooted
OJ	109	Ophiopogon japonicus / Mondo Grass	1 gal		12" o.c.	Fully Rooted
PP2	351	Phlox paniculata / Garden Phlox	1 gal		12" o.c.	Fully Rooted
SP	141	Schizachyrium scoparium 'Prairie Blues' / Little Bluestem Grass	4"pot		12" o.c.	Fully Rooted
SB	291	Spartina bakeri / Sand Cord Grass	1 gal		18" o.c.	Fully Rooted
TO	173	Tradescantia ohioensis / Blue Jacket / Spiderwort	1 gal		24" o.c.	


 Construction Approval Block
 Date: _____ Name: _____
 Planning: _____
 Traffic: _____
 Fire: _____
 Engineering: _____
 Permit #: _____

PLANTING PLAN



CONSULTANTS:



SEALS:

Cape Fear Museum
Outdoor Learning Environment
 NEW HANOVER COUNTY
 814 Market Street, Wilmington, NC 28401

DATE: 2/3/2015
 DESIGNER: LED
 CHECKED BY: BHS

REVISIONS

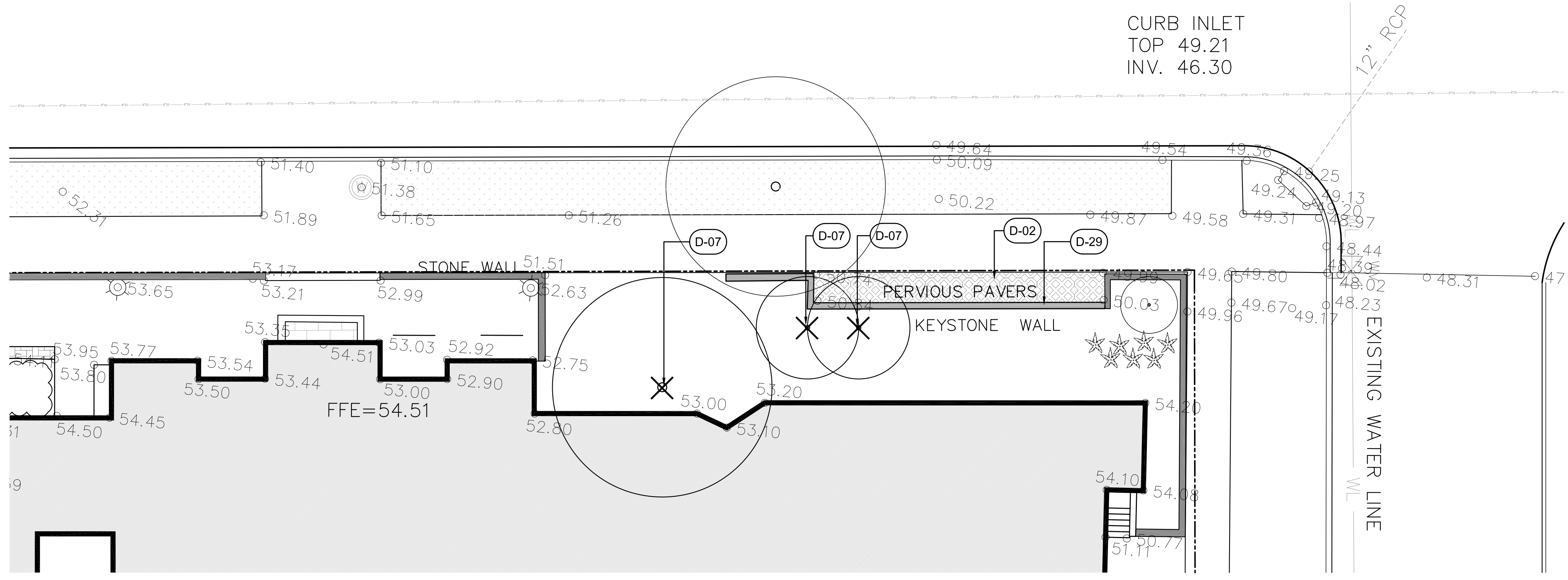
NO.	DATE

SCALES
 HORIZ: 1"=10'-0"
 DESIGN DEVELOPMENT

SHEET NO.
L400

DEMOLITION SCHEDULE

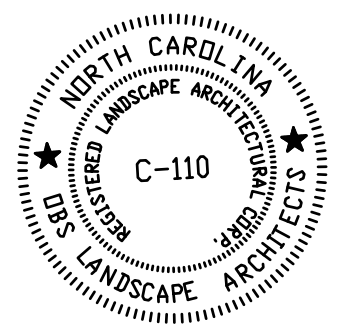
CODE	DESCRIPTION	DETAIL
D-02	Remove existing pavers in their entirety	
D-07	Remove tree in its entirety. Grind stump to 8" below subgrade.	
D-29	Remove existing modular block wall to limits shown.	



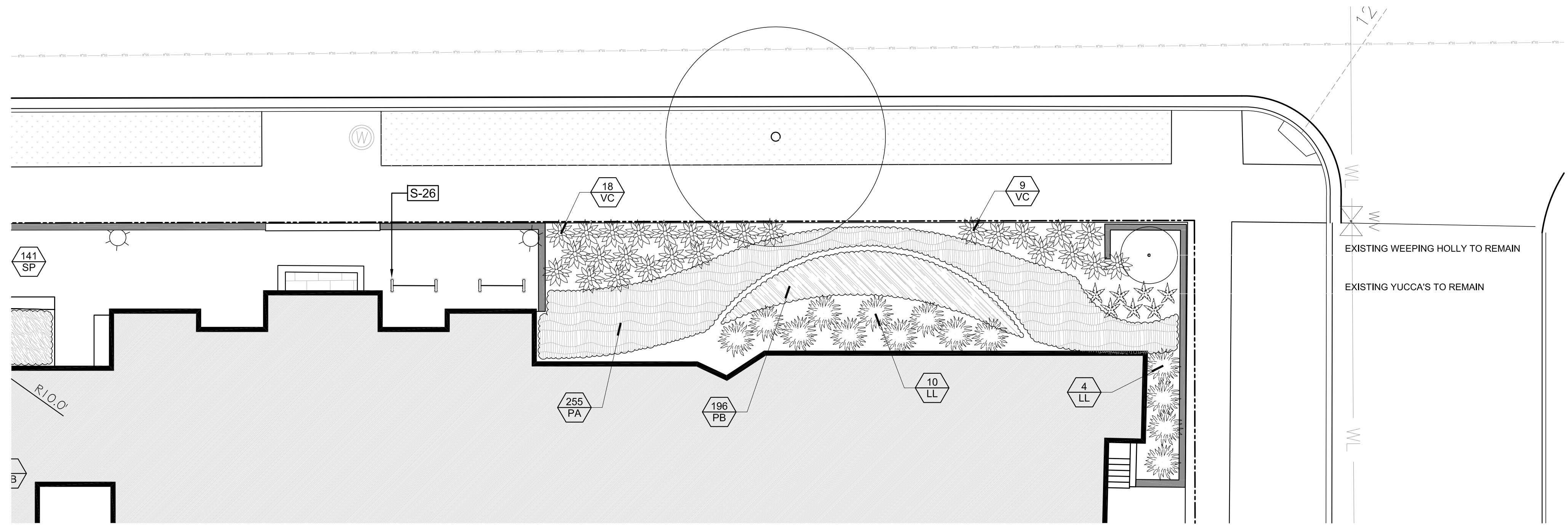
EX. CONDITIONS / DEMOLITION



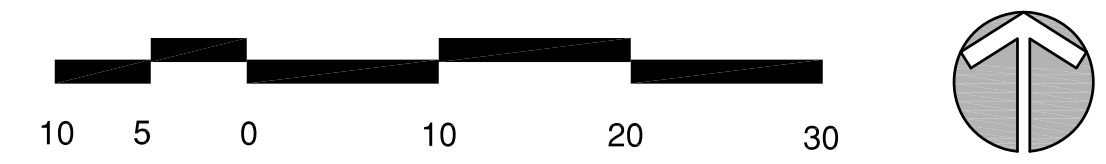
CONSULTANTS:



SEALS:



LAYOUT / PLANTING PLAN



PLANT SCHEDULE MARKET STREET FACADE

SHRUBS	QTY	BOTANICAL NAME / COMMON NAME	SIZE	HEIGHT	SPACING	REMARKS
LL	13	Lyonia lucida / Shining Fetterbush	3 gal	18" Min	60" o.c.	Uniform Shape, Fully Rooted
VC	27	Vaccinium crassifolium 'Wells Delight' / Creeping Blueberry	3 gal		48" o.c.	Uniform Shape, Fully Rooted

GROUND COVERS	QTY	BOTANICAL NAME / COMMON NAME	CONT	FIELD2	SPACING	REMARKS
PB	196	Phlox divaricata 'Blue Moon' / Blue Moon Phlox	4" pot		12" o.c.	Fully Rooted
PA	255	Polystichum acrostichoides / Christmas Fern	1 gal		18" o.c.	Fully Rooted

SITE IMPROVEMENT SCHEDULE

CODE	DESCRIPTION	DETAIL
S-26	Bike Racks provided and installed by owner.	

CITY OF WILMINGTON
 NORTH CAROLINA
 Construction Approval Block
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MARKET STREET FACADE

Cape Fear Museum
Outdoor Learning Environment
 NEW HANOVER COUNTY
 814 Market Street, Wilmington, NC 28401

DATE: 2/3/2015

DESIGNER: LED

CHECKED BY: BHS

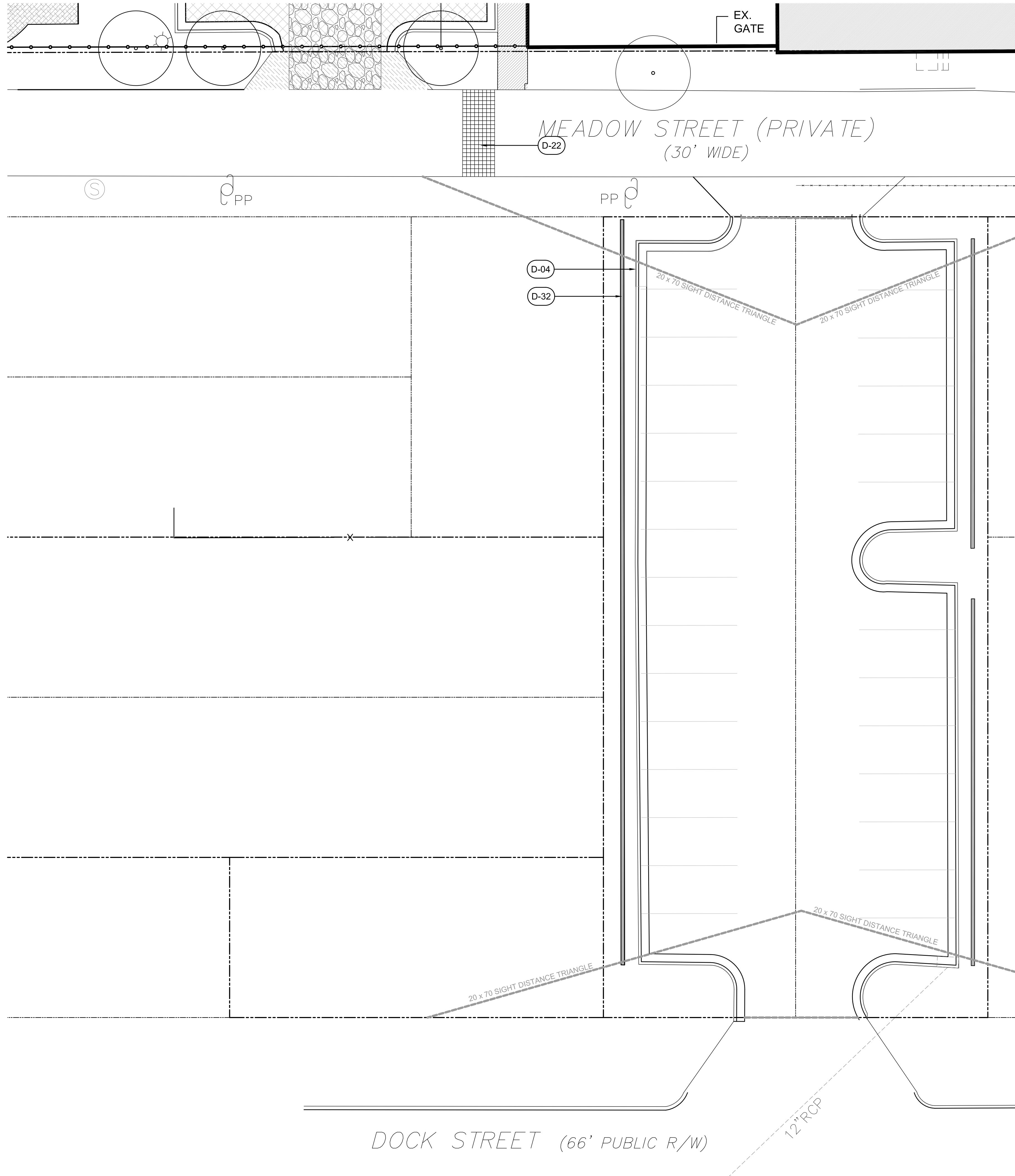
REVISIONS

NO.	DATE

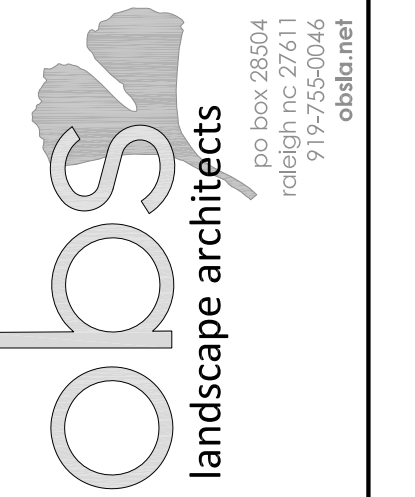
SCALES
 HORIZ: 1"=10'-0"

DESIGN DEVELOPMENT

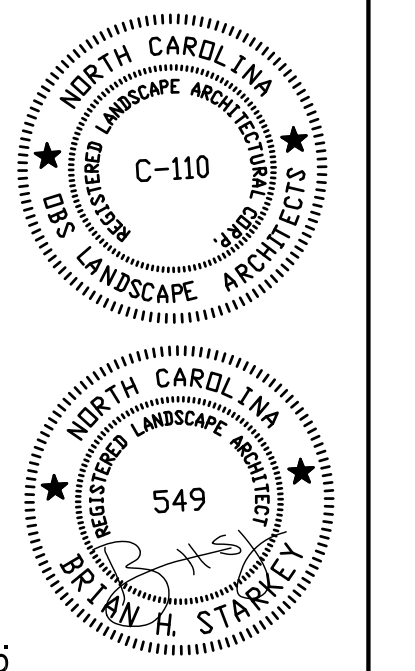
SHEET NO.
L500



DEMOLITION SCHEDULE		
CODE	DESCRIPTION	DETAIL
D-04	Remove concrete curb and gutter to limits shown or nearest joint.	
D-10	Remove 2 sections of existing wall. Contractor to re-stucco face of existing columns, wall or building corner to remain and paint to match existing.	
D-22	Contractor to remove existing pavers to limits shown and retain as required for proposed brick walk. Reference Sheet L200.	
D-32	Remove entire block wall and columns to limits shown.	



CONSULTANTS:



SEALS:

Cape Fear Museum
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CITY OF WILMINGTON
 NORTH CAROLINA
 Construction Approval Block

Date: _____ Name: _____

Planning: _____

Traffic: _____

Fire: _____

Engineering: _____

Permit #: _____

EX. CONDITIONS / DEMOLITION

DATE: 2/3/2015

DESIGNER: LED

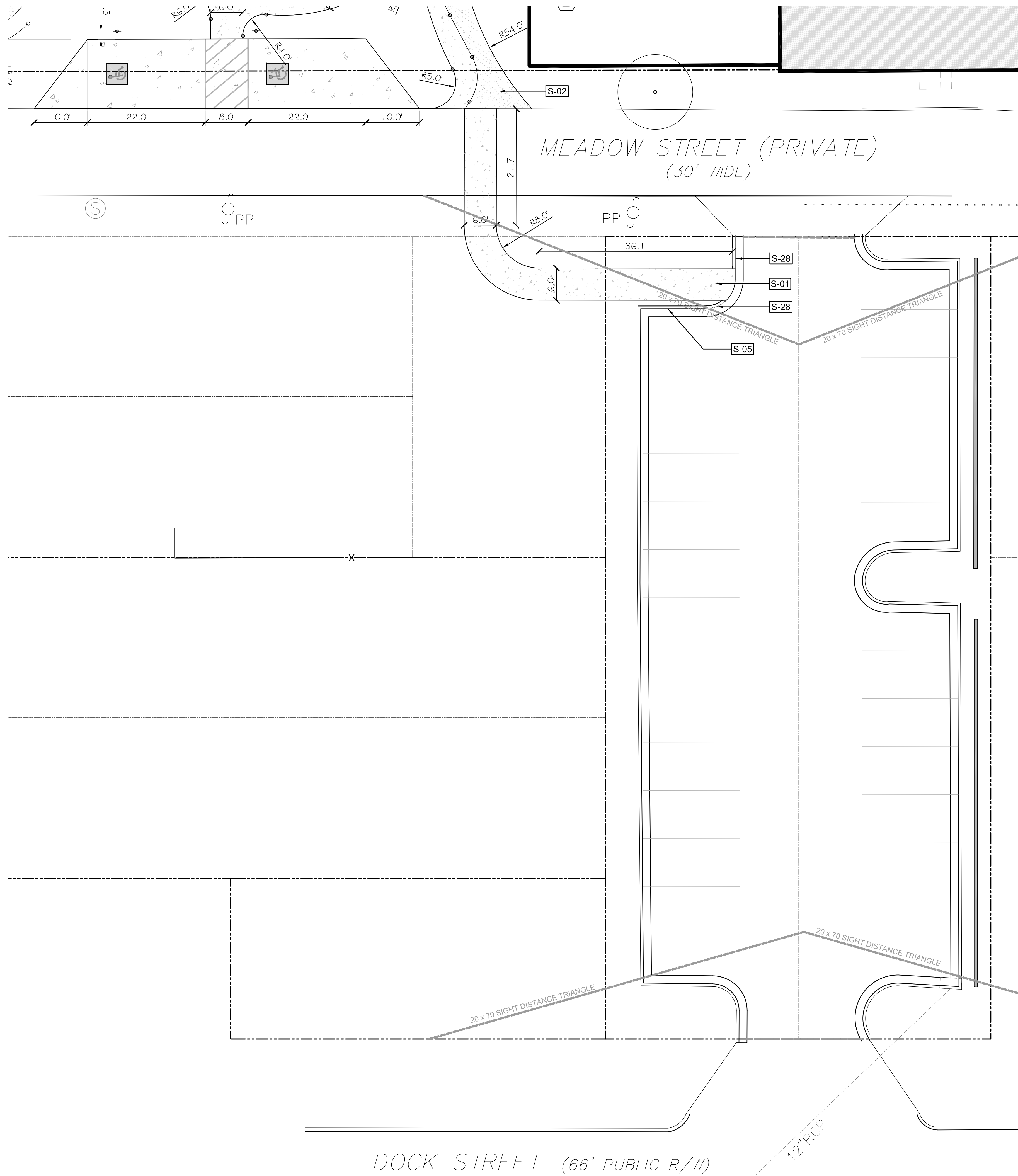
CHECKED BY: BHS

REVISIONS	
NO.	DATE

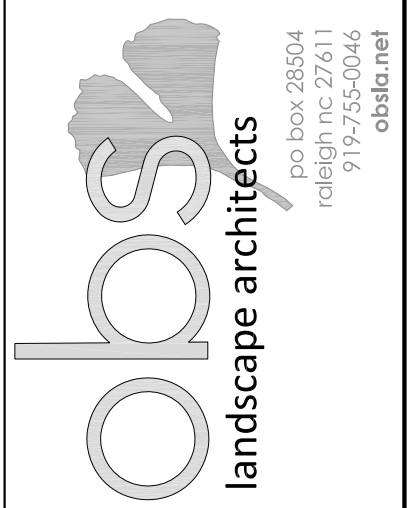
SCALES
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DESIGN DEVELOPMENT

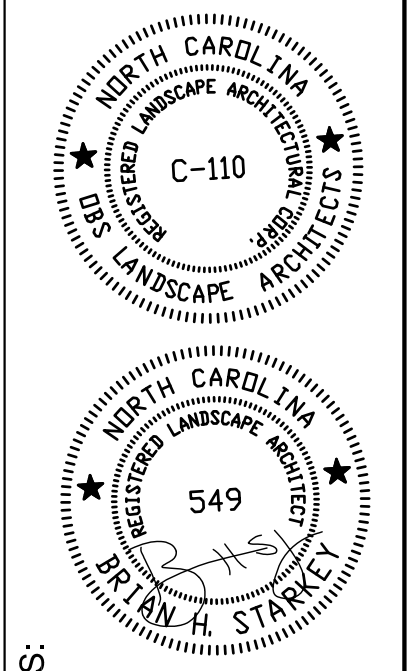
SHEET NO.
L600



SITE IMPROVEMENT SCHEDULE		
CODE	DESCRIPTION	DETAIL
S-01	Standard Concrete Paving	1/D100
S-05	30" Curb and Gutter.	1/D101
S-28	Wipe Down Curb and gutter for 5' on either side of walk	



CONSULTANTS:



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CITY OF WILMINGTON
 NORTH CAROLINA
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 Date: _____ Name: _____
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DATE: 2/3/2015

DESIGNER: LED

CHECKED BY: BHS

REVISIONS	
NO.	DATE

LAYOUT PLAN

SCALES
 HORIZ: 1"=10'-0"

DESIGN DEVELOPMENT

SHEET NO.
L601

CONSULTANTS:

SEALS:

Cape Fear Museum
Outdoor Learning Environment
NEW HANOVER COUNTY
814 Market Street, Wilmington, NC 28401

DATE: 2/3/2015
DESIGNER: LED
CHECKED BY: BHS

REVISIONS

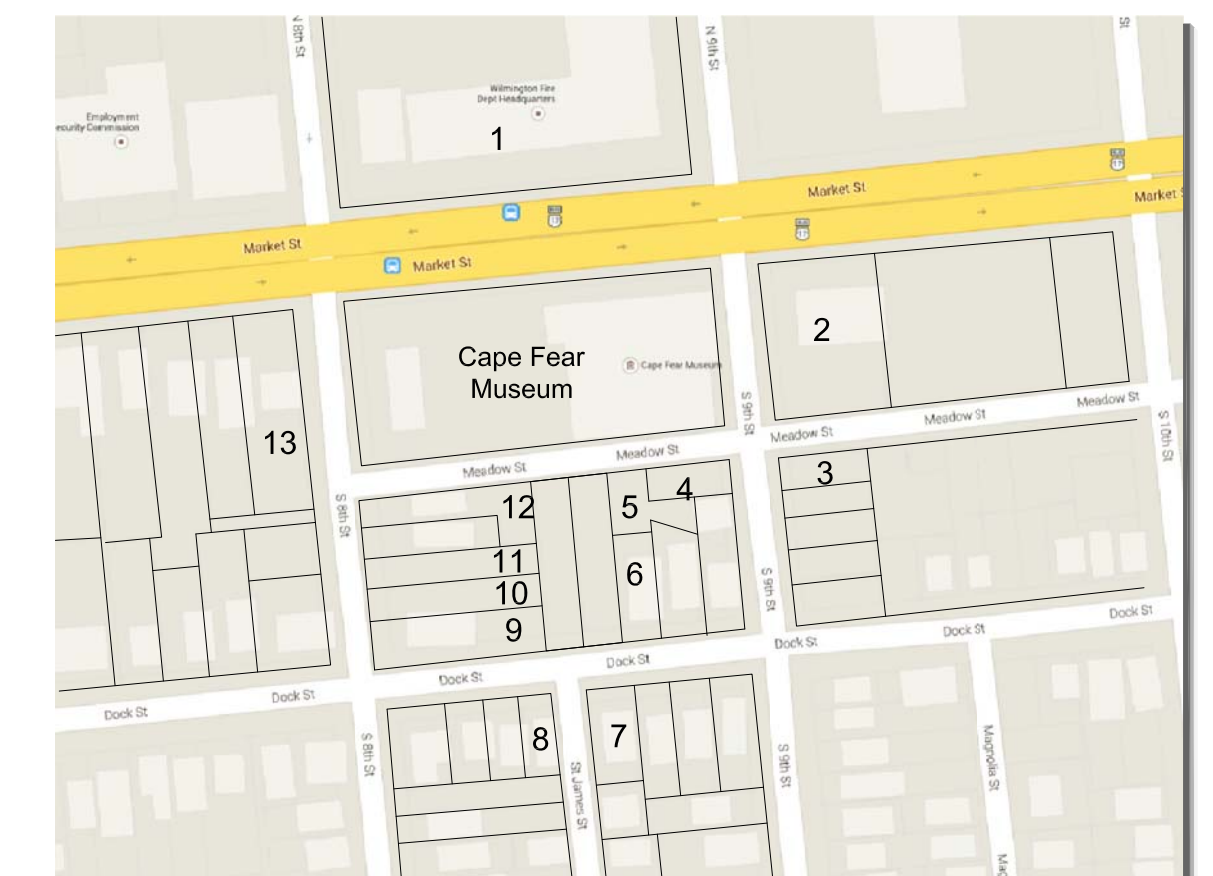
NO.	DATE

SCALES
HORIZ: 1"=20'-0"
DESIGN DEVELOPMENT

SHEET NO.
S100

NOTES:

- Survey provided by Michael Underwood and Associates, PA, dated May 14, 2014. Landscape Architect assumes no responsibility for the accuracy of the survey.



Key Map

Adjacent Property Data

Key	Parcel Number	Zoning	Owner	Book / Page	Land Use
1	R04817-026-003-000	UMX	City of Wilmington	BK 2620 / PG 0439	Fire Station
2	R04817-042-001-000	UMX	AKN Partnership	BK 1875 / PG 657	Business
3	R04817-043-001-000	O&I-1 (SD)	New Hanover County	BK 1133 / PG 0422	Parking
4	R04817-041-013-000	O&I-1 (SD)	New Hanover County	BK 1133 / PG 503	Parking
5	R04817-041-012-000	R-3	Bullock	BK 696 / PG 515	Residential
6	R04817-041-009-000	R-3	Riverwalk Palms	BK 5580 / PG 2246	Residential
7	R04817-044-006-000	R-3	D&S Downtown Properties LLC	BK 9907 / PG 1713	Residential
8	R04817-045-004-000	R-3	Tammy Dominic Golini	BK 5495 / PG 1225	Residential
9	R04817-041-006-000	R-3	New Hanover County	BK 1132 / PG 1542	Vacant
10	R04817-041-004-000	R-3	New Hanover County	BK 1472 / PG 1695	Vacant
11	R04817-041-003-000	R-3	New Hanover County	BK 1132 / PG 1542	Vacant
12	R04817-041-001-000	R-3	Fifth and Orange LLC	BK 5612 / PG 1558	Vacant
13	R04817-039-015-000	O&I-1	Douglas Dixon	BK 3227 / PG 0294	Physician

CITY OF WILMINGTON
NORTH CAROLINA
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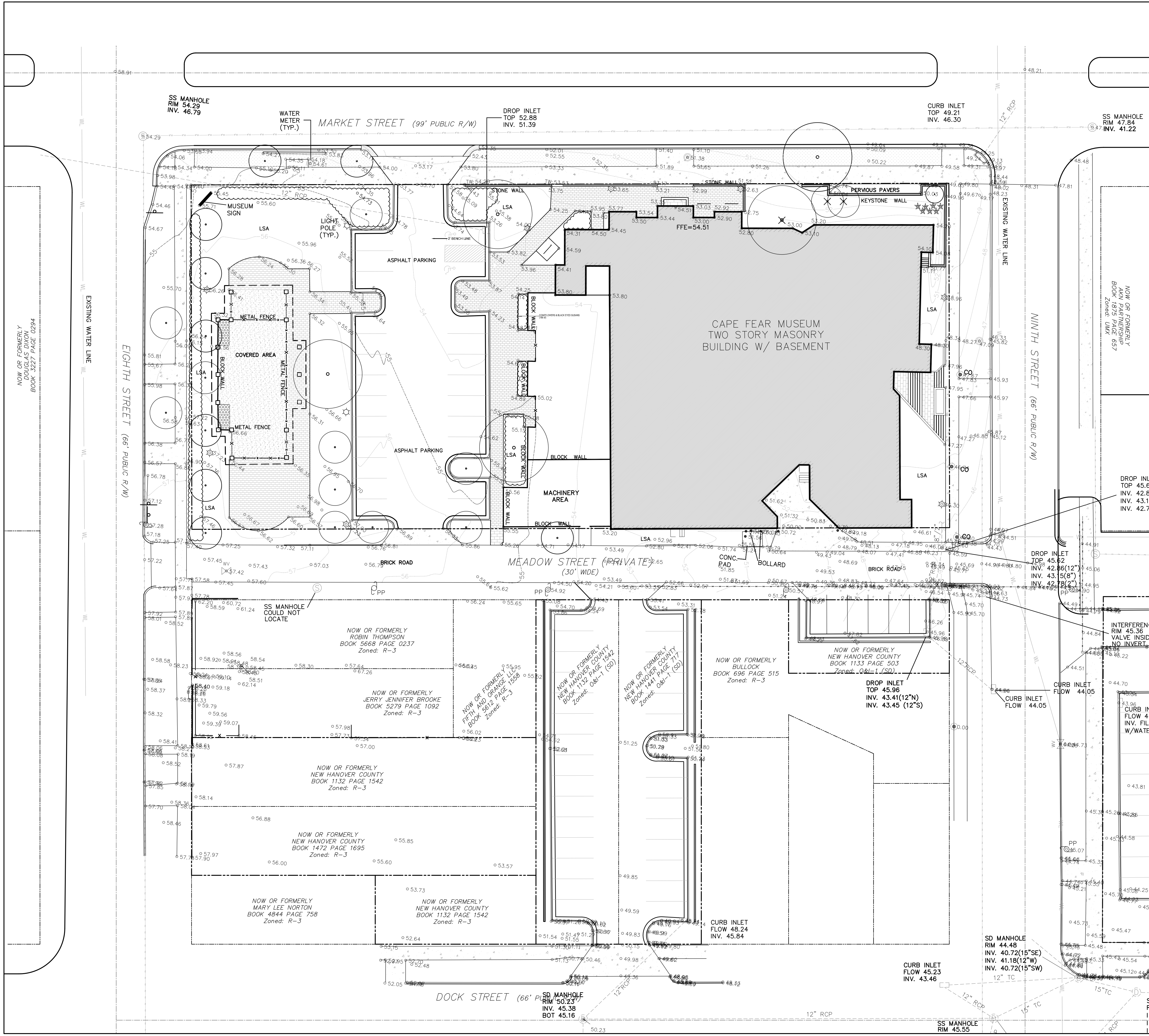
Traffic: _____

Fire: _____

Engineering: _____

Permit #: _____

SURVEY



NOW OR FORMERLY
DOUGLAS DIXON
BOOK 3227 PAGE 0294

NOW OR FORMERLY
AKN PARTNERSHIP
BOOK 1875 PAGE 657
Zoned: UMX

DROP INLET
TOP 45.5
INV. 42.6
INV. 42.7

DROP INLET
TOP 45.62
INV. 42.86(12")
INV. 43.58(8")
INV. 42.78(2")

INTERFEREN
RIM 45.36
VALVE INSC
NO INVERT

CURB INLET
FLOW 44.05

SD MANHOLE
RIM 44.48
INV. 40.72(15"SE)
INV. 41.18(12"W)
INV. 40.72(15"SW)

SS MANHOLE
RIM 45.55

SD MANHOLE
RIM 50.23
INV. 45.38
BOT 45.16

CURB INLET
FLOW 45.23
INV. 43.46

SD MANHOLE
RIM 44.48
INV. 40.72(15"SE)
INV. 41.18(12"W)
INV. 40.72(15"SW)

SS MANHOLE
RIM 45.55