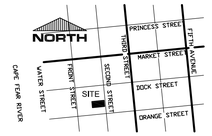

VICINITY MAP: 1" = 1000'

GENERAL UTILITY NOTE:

THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS ARE BASED ON RECORDS FROM THE UTILITY COMPANY AND, WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY LOCATION OF ALL EXISTING UTILITIES. ANY CONFLICTS SHALL BE BROUGHT TO THE OWNERS AND ENGINEERS ATTENTION IMMEDIATELY.

10' 0 10' 20'
1 INCH = 10'
(WHEN PRINTED ON 24"X36" SHEET)

For each open utility cut of City streets, a $325 permit shall be required from the City prior to occupancy and/or project acceptance.

CITY OF WILMINGTON NORTH CAROLINA
Public ServicesEngineering Division
APPROVED DRAINAGE PLAN
Date:_____ Permit #_____
Signed: _____

CITY OF WILMINGTON NORTH CAROLINA
Approved Construction Plan
Name ____
Date _____
Planning _____
Traffic _____
Fire _____

John Sawyer Architects
124 Market Street
Wilmington, NC 28401
p: 910.762.0892
e: info@johnsawyerarchitects.com

Coastal Land Design,PLLC
Civil Engineering / Landscape Architecture
Land Planning / Construction Management
NCBELS Firm License No.: P-0369
P.O.Box 1172 Wilmington, NC 28402 www.cldesng.com Phone: 910-254-9333 Fax: 910-254-0502

SageDesign

City of Wilmington

2nd Street & Church Alley Parking Lot

Construction Drawing
January 13, 2014

Revisions:
1- Revisions per TRC review

XC 1.0
of
3 Sheets

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1" EXIST. IRON PIPE

EXIST. MAG NAIL

3/4" EXIST. IRON PIPE

PARCEL ID
R05308-004-009-000
125 FRONT ST
WILMINGTON NC 28401
FLORIGO ANTONIA GUIDA
DEED BOOK 1253
PAGE 919
PART LOTS 3&4
BLOCK 139
CITY OF WILMINGTON
ZONING CBD(HDO)
USE: PARKING

WOOD LATTICE FENCE

1" EXIST. IRON REBAR

ALLEY

ALLEY

PARCEL ID
R05308-004-010-000
HAROLD P LAING
116 2ND ST
WILMINGTON NC 28401
DEED BOOK 1179 PAGE 410
PART LOT 4 BLOCK 139
CITY OF WILMINGTON
ZONING CBD(HDO)
USE: PARKING

1" EXIST. IRON PIPE

7" CONC. BLOCK RETAINING WALL

UNIDENTIFIED CORNER MARKER UNDER PAVEMENT

LL15L

L10L

BRICK FENCE

PARCEL ID
R05405-001-004-000
CLASSIC INNS OF AMERICA INC
108 2ND ST
WILMINGTON NC 28401
DEED BOOK 1421 PAGE 959
TRACT A BLOCK 139 CLASSIC INNS
ZONING CBD(HDO)

BRICK FENCE

CONC. SIDEWALK

(66' PUBLIC RIGHT-O

S. SECOND STREET

ASPHALT PARKING LOT

EX. IRON REBAR WITH PLASTIC CONTROL CAP

'53"E 166.56'

CHURCH ALLEY

13'-0 7/8"

CONC. NAIL SET

BENT 1" PINCHED EXIST. IRON PIPE

S88°29'36"E 163.37'

ASPHALT

DRIVE

1" EXIST. IRON PIPE

EX. NAIL

S1°30'00"W 496.00'

NA111

EX. CONC. NAIL

ASPH

PAVEMENT

PARCEL ID
R05308-004-014-000
3638 SOUTH PERRY LLC
121 FRONT ST
WILMINGTON NC 28401
DEED BOOK 4947 PAGE 513
LOT 2 PART BLOCK 139
CITY OF WILMINGTON
ZONING CBD(HDO)
USE: PARKING

OVERHEAD POWER

N1°30'24"E 87.00'

5' METAL FENCE

PARCEL ID
R05308-004-015-000
118 2ND ST
WILMINGTON NC 28401
CITY OF WILMINGTON
DEED BOOK 5431 PAGE 2050
PARCEL 2 RECOMBINATION
FOR
W H MCEACHERNS SONS INC
MAP BOOK 47 PAGE 25
Zoning CBD(HDO)
use GRAVEL PARKING

14212.947 S.F.=
0.326 ACRES ±

GRAVEL PARKING

PARCEL ID
R05405-002-003-000
FIRST FEDERAL BANK
CLARENDON INN
117 S 2ND ST.
WILMINGTON NC 28401
DEED BOOK 5648 PAGE 0814
ZONING CBD(HDO)
USE: TRANSIENT LODGING

S1°30'24"W 87.00'

CONC. SIDEWALK

PP (NO ID)

12" BRICK RETAINING WALL

8" BRICK NG WALL

EXISTING TREE TO BE SAVED
SEE SHEET L-1.0 PROVIDE TREE PROTECTION AS PER DETAIL ON L 2.0

EXISTING MEMORIAL TREE TO BE SAVED
SEE SHEET L-1.0 FOR MEMORIAL CONIFER TREE NOTE

LK97L

7" CONCRETE RETAINING WALL

4" PVC INV.23.97

IRON REBAR SET

14" BRICK RETAINING WALL

7" CONCRETE RETAINING WALL WITH HANDRAIL

1" EXIST. IRON PIPE

INV.23.6

4" CPP

4" CPP INV.23.60

HEDGE

N88°29'36"W 163.37'

CONC. SIDEWALK

HVAC

4" PVC INV.25.04

DOWNSPOUTS

LANDSCAPED AREA

2 STORY
WOOD & MASONRY BUILDING

PARCEL ID: R05405-001-001-000
NEW HANOVER COUNTY/CITY OF WILMINGTON
COMMUNITY ARTS CENTER
DEED BOOK 355 PAGE 122
PART LOTS 6 & 6 1/2
BLOCK 139 WILMINGTON

ZONING CBD (HDO)
USE: CULTURAL EXHIBITION

N12°22'
136.0

PARKING SIGN AND POST TO BE REMOVED AND TURNED OVER TO THE CITY OF WILMINGTON STREETS AND TRAFFIC DEPARTMENT.

PARKING SIGN AND POST TO BE REMOVED AND TURNED OVER TO THE CITY OF WILMINGTON STREETS AND TRAFFIC DEPARTMENT.

PARKING SIGN AND POST TO BE REMOVED AND TURNED OVER TO THE CITY OF WILMINGTON STREETS AND TRAFFIC DEPARTMENT.

PARKING PAY STATION TO BE REMOVED AND TURNED OVER TO THE CITY OF WILMINGTON STREETS AND TRAFFIC DIVISION.

TRASH CAN AND POST TO BE REMOVED.

WOODEN WHEEL STOPS AND NUMBERED STAKES TO BE REMOVED. QUANTITY OF 35.

John Sawyer Architects

124 Market Street
Wilmington, NC 28401

910.762.0892
johnsawyerarchitects.com

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P.O.Box 1173
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www.cldesign.com
Phone: 910-604-8600
Fax: 910-344-0630

SageDesign

City of Wilmington

2nd Street & Church Alley Parking Lot

Wilmington, NC

Construction Documents
January 13, 2014

Revisions:

Sheet AD-1.0 added in responce to TRC comments

Existing Conditions & Demolition Site Plan

AD1.0
of Sheets

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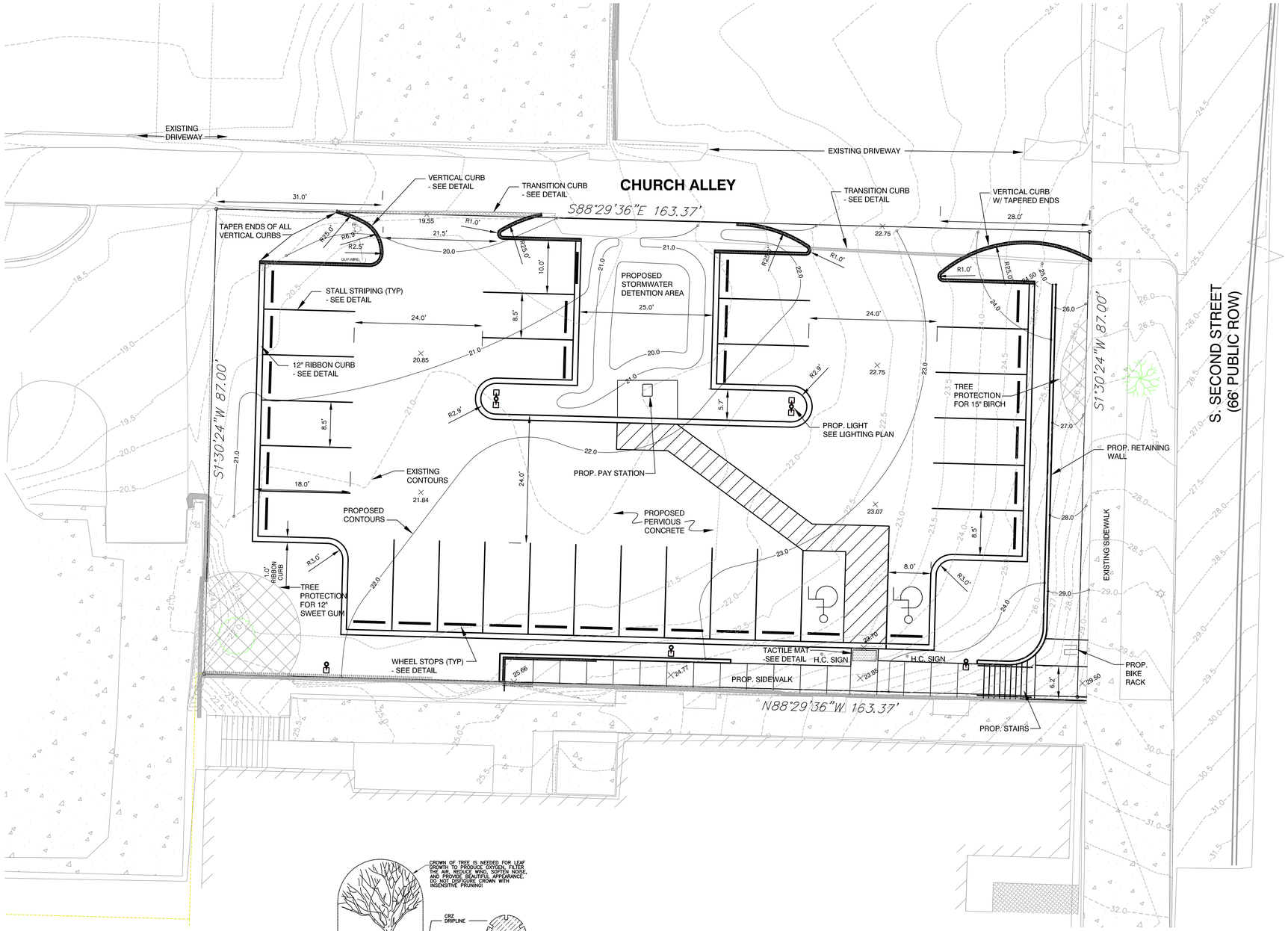


SITE INFORMATION:

- ADDRESS: 118 S. 2ND ST.
- PARCEL ID: R05308-004-015-000
- DEED BOOK 5431 PAGE 2050
- ZONING: CBD (HDO)
- BUILDING SETBACK: N/A
- LOT AREA: 14,213 SF
- IMPERVIOUS:
  - EXISTING PARKING AREA APPROX. 8,518 SF GRAVEL
  - PROPOSED PARKING AREA APPROX. 8,700 SF PERV. CONC.
  - PROPOSED IMPERVIOUS APPROX. 1,289 SF CONCRETE
- CAMA LAND USE: URBAN
- SURVEY PROVIDED BY CITY OF WILMINGTON AND VERTICAL DATAM IS NAVD 1988
- PROPERTY DOES NOT LIE WITHIN A FEMA DESIGNATED 100 YEAR FLOOD HAZARD AREA

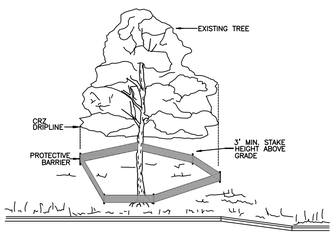
PARKING NOTES:

- 30 PARKING SPACES
  - 2 HANDICAP SPACES REQUIRED
  - 2 HANDICAP SPACES PROVIDED
- PARKING STALLS 8.5' X 18'
- HC PARKING STALLS 8.0' X 18'
- TWO WAY DRIVE ISLES 24'
- 1' CONCRETE RIBBON CURB
- PERVIOUS CONCRETE PAVING
- BICYCLE PARKING - 5 PROVIDED
- EXISTING DRIVEWAY TO BE RECONFIGURED AS SHOWN
- STREET INTERSECTIONS WITHIN 500':
  - DOCK ST / S.SECOND ST
  - DOCK ST / S.FRONT ST
  - ORANGE ST / S.SECOND ST
  - ORANGE ST / S.FRONT ST

DRAINAGE NOTES:

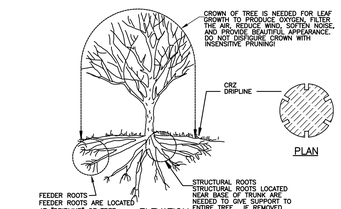
- PARKING SURFACE TO BE PERVIOUS CONCRETE
- ALL DRAINAGE TO SHEET FLOW TO DEPRESSED AREA
- APPROX. DISTURBANCE 14,213 SF

For each open utility cut of City streets, a $325 permit shall be required from the City prior to occupancy and/or project acceptance.



NOTE:
TREES TO BE SAVED WILL BE CLEARLY MARKED PRIOR TO CONSTRUCTION AND A PROTECTIVE BARRIER IS TO BE INSTALLED AT THE DRIPLINE.
DRIP LINE – THE AREA OF SOIL DIRECTLY BENEATH THE TREE EXTENDING OUT TO THE TIPS OF THE OUTERMOST BRANCHES.

METHOD OF TREE FENCING DURING CONSTRUCTION
SD 15-08
NOT TO SCALE



TREE PROTECTION DURING CONSTRUCTION

1. DO NOT COMPACT SOIL BENEATH TREES. NO VEHICLE SHALL BE ALLOWED TO PARK UNDER TREES. NO HEAVY MATERIALS SHALL BE STORED BENEATH TREES. RESULTS OF COMPACTION CAUSE WATER AND AIR NOT TO REACH THE ROOTS AND THE TREE WILL DIE. THESE "FEEDING ROOTS" OCCUR WELL AWAY FROM THE BASE OF THE TREE TO THE EDGE OF THE OVERHEAD BRANCH CANOPY. DAMAGING THE BARK WITH LAWNMOWERS, CONSTRUCTION EQUIPMENT, OR ANYTHING ELSE IS PROHIBITED. APPROTECTIVE BARRIER SHOULD PREVENT DAMAGE FROM OCCURING DURING CONSTRUCTION.
2. NO CUTTING OF LARGE STRUCTURAL ROOTS LOCATED NEAR THE BASE OF THE TRUNK. THESE ARE ESSENTIAL IN SUPPORTING THE TREE AND HOLDING IT UPRIGHT IN HIGH WINDS. REMOVAL OF THESE ROOTS ALONG ONE SIDE IS OFTEN DONE BECAUSE OF A WALK, PAVING OR BUILDING WHICH IS BEING CONSTRUCTED.
3. AVOID CUT AND FILL WITHIN DIAMETER OF TREE CROWN DURING EXCAVATION.

METHOD OF TREE PROTECTION DURING CONSTRUCTION
SD 15-09
NOT TO SCALE

*CRITICAL ROOT ZONE (CRZ) = RADIUS AROUND THE TREE EQUAL TO ONE (1) FOOT FOR EVERY ONE (1) INCH DBH (DIAMETER BREAST HEIGHT)

SITE SPECIFIC NOTES:

A. THERE ARE NO KNOWN OR PROPOSED EASEMENTS OR RESTRICTIONS ON THE PROPERTY.
B. THERE ARE NO KNOWN DRAINAGE PROBLEMS.
C. ALL WORK WILL BE COMPLETED IN ACCORDANCE WITH COA MJW-14-16, GRANTED BY THE HISTORIC PRESERVATION COMMISSION DATED OCTOBER 24, 2013 AND EXPIRING APRIL 25, 2014.
D. ALL FEDERAL, STATE AND LOCAL PERMITS ARE REQUIRED PRIOR TO FULL CONSTRUCTION RELEASE.

GENERAL UTILITY NOTE:

THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS ARE BASED ON RECORDS FROM THE UTILITY COMPANY AND, WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY LOCATION OF ALL EXISTING UTILITIES. ANY CONFLICTS SHALL BE BROUGHT TO THE OWNERS AND ENGINEERS ATTENTION IMMEDIATELY.

10' 0 10' 20'
1 INCH = 10'
(WHEN PRINTED ON 24"X36" SHEET)

CITY OF WILMINGTON NORTH CAROLINA
Public ServicesEngineering Division
APPROVED DRAINAGE PLAN
Date:_____ Permit #_____
Signed: _____

CITY OF WILMINGTON NORTH CAROLINA
Approved Construction Plan
Name ____
Date _____
Planning _____
Traffic _____
Fire _____

John Sawyer Architects
124 Market Street
Wilmington, NC 28401
p: 910.762.0892
e: info@johnsawyerarchitects.com

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Phone: 910-254-9333 Fax: 910-254-9502

SageDesign

City of Wilmington

2nd Street & Church Alley Parking Lot

Construction Drawing
January 13, 2014

Revisions:
1- Revisions per TRC review
2- Revised driveway entrance to accommodate power pole
3- Revise per Transportation comments.

C 1.0
of 3 Sheets

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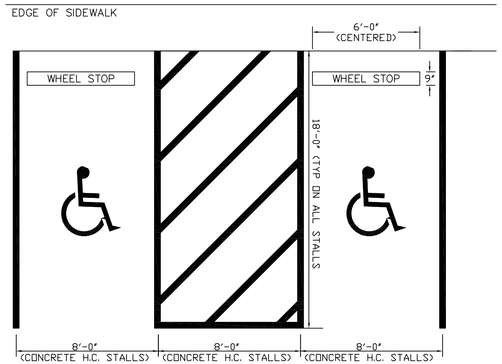
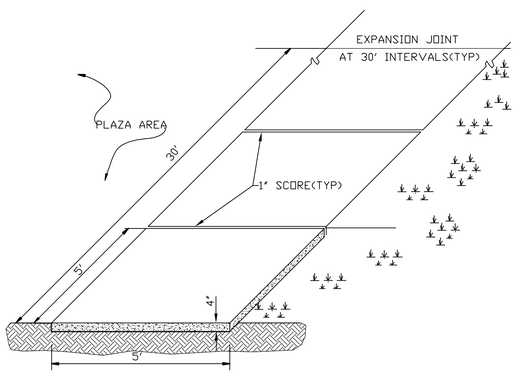
NOTE:
ALL STRIPING TO BE PER CITY OF WILMINGTON SPECIFICATON

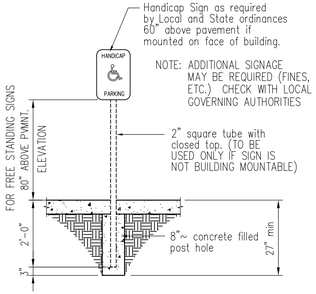


VAN ACCESS AND PARKING STALL DETAIL
NOT TO SCALE

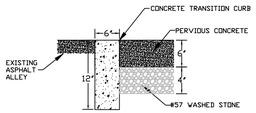
NOTES:
1. ALL PAVEMENT MARKINGS IN PUBLIC RIGHTS-OF-WAY AND FOR DRIVEWAYS ARE TO BE THERMOPLASTIC AND MEET CITY AND/OR NCDOT STANDARDS.
2. TRAFFIC CONTROL DEVICES (INCLUDING SIGNS AND PAVEMENT MARKINGS) IN AREAS OPEN TO PUBLIC TRAVEL ARE TO MEET MUTCD (MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES) STANDARDS.
3. CALL TRAFFIC ENGINEERING AT 910-341-7888 FORTY-EIGHT (48) HOURS PRIOR TO ANY EXCAVATION IN THE RIGHT-OF-WAY.
4. TRAFFIC ENGINEERING MUST APPROVE OF PAVEMENT MARKINGS PRIOR TO ACTUAL STRIPING.
5. ALL PARKING STALL MARKINGS AND LANE ARROW WITHIN THE PARKING AREAS SHALL BE WHITE.
6. ALL TRAFFIC CONTROL SIGNS AND MARKINGS OFF THE RIGHT-OF-WAY ARE TO BE MAINTAINED BY THE PROPERTY OWNER.
7. STOP SIGNS AND STREET SIGNS TO REMAIN IN PLACE DURING CONSTRUCTION.
8. TACTILE WARNING MATS WILL BE INSTALLED ON ALL WHEELCHAIR RAMPS.
9. A UTILITY CUT PERMIT IS REQUIRED FOR EACH OPEN CUT OF A CITY STREET.
10. ANY BROKEN OR MISSING SIDEWALK PANELS WILL BE REPLACED.
11. CONTACT KAREN DIXON AT 910-341-7888 TO DISCUSS STREET LIGHT OPTIONS.
12. CONTRACTOR SHALL MAINTAIN ALL-WEATHER ACCESS FOR EMERGENCY VEHICLES AT ALL TIMES DURING CONSTRUCTION.
13. NO OBSTRUCTIONS ARE PERMITTED IN THE SPACE BETWEEN THIRTY (30) INCHES AND TEN (10) FEET ABOVE THE GROUND WITHIN THE TRIANGULAR SIGHT DISTANCE.
14. CONTACT THE NORTH CAROLINA ONE CALL CENTER AT 1-800-632-4949 PRIOR TO DOING ANY DIGGING, CLEARING, OR GRADING.



CITY OF WILMINGTON SIDEWALK DETAIL SD 8-15
NOT TO SCALE



TYPICAL HANDICAP SIGN
NOT TO SCALE



NOTES: 1. EXPANSION JOINT MATERIAL TO COMPLY WITH CURRENT NCDOT STANDARDS
2. 50' MAX EXPANSION JOINT SPACING, 10' MAX CONTRACTION JOINT SPACING
3. CONCRETE TO BE 3000 PSI MIN

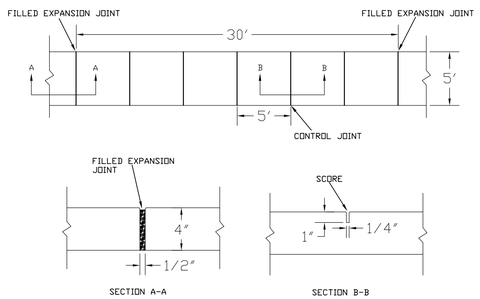
TRANSITION CURB DETAIL: EXISTING ALLEY TO PERVIOUS CONCRETE
NOT TO SCALE

1-PAVEMENT MARKINGS AND SYMBOLS SHALL BE DESIGNED PER MUTCD WITH APPROVAL FROM CITY TRAFFIC ENGINEERING, AND INSTALLED IN ACCORDANCE WITH NCDOT DIVISION 12 SPECIFICATIONS.

2-GENERALLY, PERMANENT MARKINGS WILL BE UNIFORM AND SMOOTH AND WILL CONSIST OF 120MIL OF THERMOPLASTIC FOR ALL LINES AND SYMBOLS; TEMPORARY MARKINGS SHALL CONSISTS OF 15 MIL PAINT, EVERY 6 MONTHS.

3-DURING APPLICATION THE EXISTING PAVEMENT SHALL NOT SHOW SIGNS OF MOISTURE AND BE CLEAN, FREE OF DIRT AND OIL, ETC. THERMOPLASTIC SHALL ONLY BE INSTALLED WHERE PAVEMENT IS 50° F AND RISING. PAINT SHALL ONLY BE INSTALLED WHERE PAVEMENT IS 40° F AND RISING.

CITY OF WILMINGTON PAVEMENT MARKING DETAIL SD 11-01
NOT TO SCALE

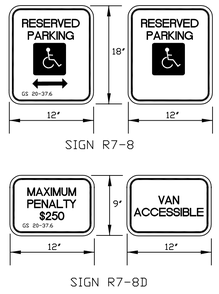


NOTES:
1. JOINT MATERIAL TO COMPLY WITH CURRENT NCDOT STANDARDS.
2. SANITARY SEWER CLEAN-OUTS, WATER METERS, MANHOLES, AND VALVE LIDS TO BE LOCATED OUTSIDE SIDEWALK WHERE FEASIBLE.
3. MINIMUM SIDEWALK WIDTH TO BE 6' MINIMUM IF PLACED AT BACK OF CURB.
4. CONCRETE FOR ALL SIDEWALKS (EXCEPT ANY PORTION CONTAIN WITHIN A DRIVEWAY APRON) SHALL BE CLASS "A" - 3,000 PSI.
5. MINIMUM REPLACEMENT FOR REPAIRS IS A 5' X 5' PANEL
6. 4" STONE BASE MAY BE REQUIRED FOR POOR SOIL CONDITIONS
7. MINIMUM DEPTH FOR TUNNELING BELOW SIDEWALK IS 12"
8. MAX ADJACENT GROUND SLOPE WITHOUT RAILING IS 2:1
9. MIN GRADE FOR PROPER DRAINAGE IS 1% IN AT LEAST 1 DIRECTION. MAX CROSS SLOPE IS 2%. MAX LONGITUDINAL SLOPE IS 8.3%, 10% IF LIMITED BY EXISTING CONDITIONS, OR NO GREATER THAN THE SLOPE OF THE EXISTING ADJACENT ROAD.

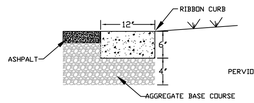
CITY OF WILMINGTON SIDEWALK DETAIL SD 3-10
NOT TO SCALE

NOTE:
ALL SIGNAGE AND PAVEMENT MARKINGS MUST COMPLY WITH THE MANUAL FOR UNIFORM TRAFFIC CONTROL DEVICES (MUTCD)

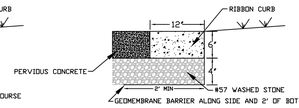
SIGN R7-8E
MAY BE USED IN PLACE OF SIGNS R7-8/R7-8D



HANDICAPPED SIGN DETAIL
NOT TO SCALE



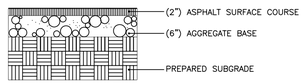
RIBBON CURB WITH ASPHALT ALTERNATIVE



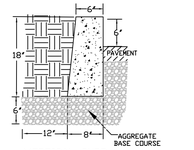
RIBBON CURB WITH PERVIOUS CONC.

NOTES: 1. EXPANSION JOINT MATERIAL TO COMPLY WITH CURRENT NCDOT STANDARDS
2. 50' MAX EXPANSION JOINT SPACING, 10' MAX CONTRACTION JOINT SPACING
3. MINIMUM INSTALLATION LENGTH IS 5 FT.
4. CONCRETE TO BE 3000 PSI MIN

RIBBON CURBING DETAIL
NOT TO SCALE



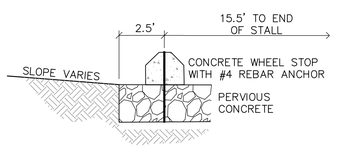
ALTERNATIVE PAVEMENT DESIGN - ASPHALT CROSS SECTION
NOT TO SCALE



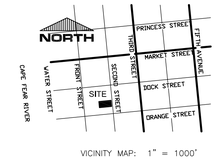
VERTICAL CURB

NOTES: 1. EXPANSION JOINT MATERIAL TO COMPLY WITH CURRENT NCDOT STANDARDS
2. 50' MAX EXPANSION JOINT SPACING, 10' MAX CONTRACTION JOINT SPACING
3. MINIMUM INSTALLATION LENGTH IS 5 FT.
4. CONCRETE TO BE 3000 PSI MIN
5. VERTICAL CURB AND GUTTER BASE CAN BE SLOPED 3/4" OR USE A FLAT BASE

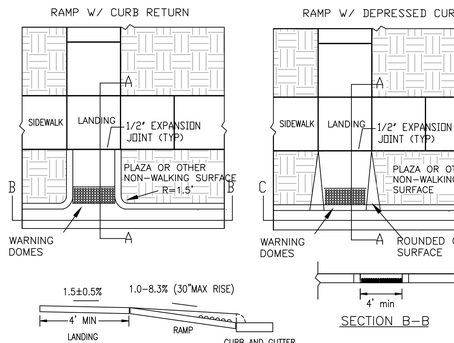
VERTICAL CURB DETAIL
NOT TO SCALE



CONCRETE WHEEL STOP DETAIL
NOT TO SCALE



VICINITY MAP: 1" = 1000'



WARNING DOME NOTES: 1. USE CONTRASTING COLORS, RED OR BLACK ON WHITE PAVEMENT.
2. USE CAST IN PLACE PAVERS FOR NEW CONSTRUCTION.
3. RUBBER MATS ARE PERMITTED FOR RETROFITS.
4. LANDING AND RAMP WIDTH MAY BE REDUCED TO 3' WHERE SPACE IS LIMITED AND DESIGN IS APPROVED BY THE CITY ENGINEER.

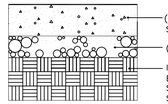
CITY OF WILMINGTON TACTILE WARNING MAT DETAIL SD 3-8
NOT TO SCALE

PERVIOUS PAVEMENT NOTES:
1. Washed aggregate base materials shall be used.
2. In HSG B, C and D, the surface of the soil subgrade under infiltrating permeable pavement should be scarified, ripped or trenched immediately prior to aggregate base placement to maintain the pre-construction subgrade infiltration rate.
3. Runoff from adjoining pervious areas, such as grassed slopes and landscaping, shall be prevented by grading the landscape away from the permeable pavement.
4. Permeable pavement shall not be installed until the upslope and adjoining areas are stabilized. After installations, barriers shall be installed to prevent construction traffic from driving on the pavement.
5. The soil subgrade for the permeable pavement shall be graded when dry. The aggregate base and permeable surface course should be completed as quickly as possible to reduce risk of soil subgrade compaction.
6. Permeable pavement may be placed on fill material as long as the material is at least as permeable as the in-situ soil after it is placed and prepared. Fill material comprised of HSG A or B shall not be placed on top of an in-situ HSG C or D to receive additional BUA credit.

PERVIOUS PAVEMENT MAINTENANCE:
After permeable pavement is constructed, it shall be inspected once a quarter. The inspector shall check each BMP component and address any deficiencies in accordance with Table 18-4 below.

At all times, the pavement shall be kept free of:
- Debris and particulate matter through frequent blowing that removes such debris, particularly during the fall and spring.
- Piles of soil, sand, mulch, building materials or other materials that could deposit particulates on the pavement.
- Piles of snow and ice.
- Chemicals of all kinds, including deicers.

Important inspection and maintenace procedures:
- Stable groundcover will be maintained in the drainage area to reduce the sediment load to the permeable pavement.
- The area around the perimeter of the permeable pavement will be stabilized and mowed, with clippings removed.
- Any weeds that grow in the permeable pavement will be sprayed with pesticide immediately. Weeds will not be pulled, since this could damage the fill media.
- Once a year, the permeable pavement surface will be vacuum swept.



PERVIOUS CONCRETE PARKING CROSS SECTION
NOT TO SCALE

For each open utility cut of City streets, a $325 permit shall be required from the City prior to occupancy and/or project acceptance.

CITY OF WILMINGTON NORTH CAROLINA
Public ServicesEngineering Division
APPROVED DRAINAGE PLAN
Date:_____ Permit #_____
Signed: _____

CITY OF WILMINGTON NORTH CAROLINA
Approved Construction Plan
Name ____
Date _____
Planning _____
Traffic _____
Fire _____

John Sawyer Architects
124 Market Street
Wilmington, NC 28401
p: 910.762.0892
e: info@johnsawyerarchitects.com

Coastal Land Design,PLLC
Civil Engineering / Landscape Architecture/
Land Planning / Construction Management
NCBELS Firm License No.: P-0269
P.O.Box 1172 Phone: 910-254-9333
Wilmington, NC 28402 www.cldesng.com Fax: 910-254-0502

SageDesign

City of Wilmington

2nd Street & Church Alley Parking Lot

Construction Drawing
January 13, 2014

Revisions:
1- Revisions per TRC review
2- Revise curbing details, add transition curb detail, clarify asphalt detail as alternative. 3/13/14
3- Add vertical curb detail, revise curbing details to clarify pavement thickness. 5/14/14

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of
3 Sheets

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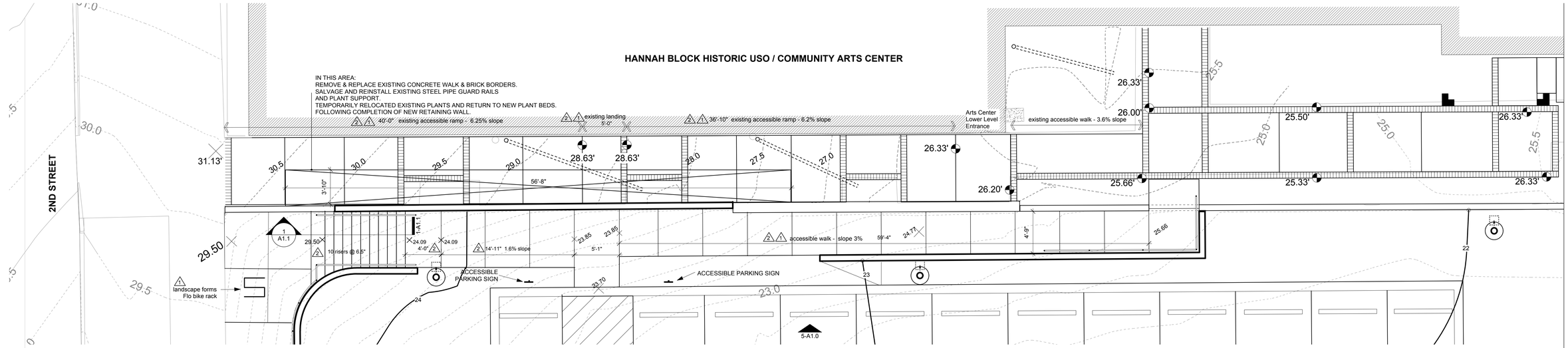
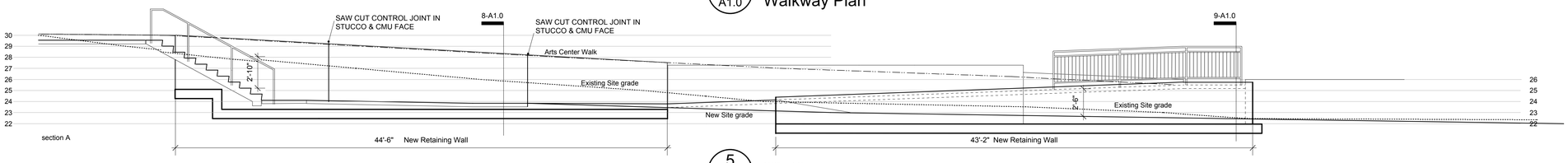
HANNAH BLOCK HISTORIC USO / COMMUNITY ARTS CENTER

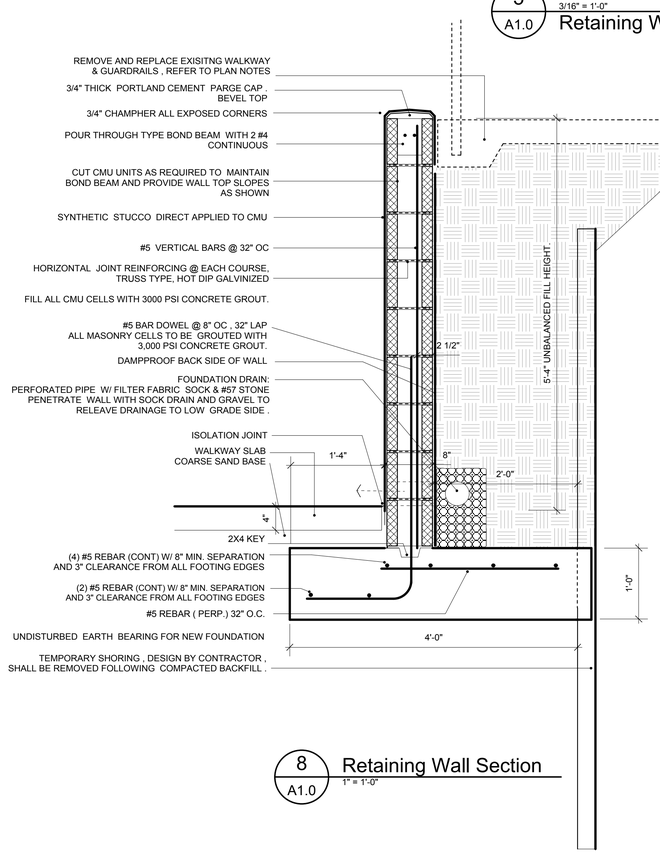
IN THIS AREA:
REMOVE & REPLACE EXISTING CONCRETE WALK & BRICK BORDERS.
SALVAGE AND REINSTALL EXISTING STEEL PIPE GUARD RAILS AND PLANT SUPPORT.
TEMPORARILY RELOCATED EXISTING PLANTS AND RETURN TO NEW PLANT BEDS. FOLLOWING COMPLETION OF NEW RETAINING WALL.



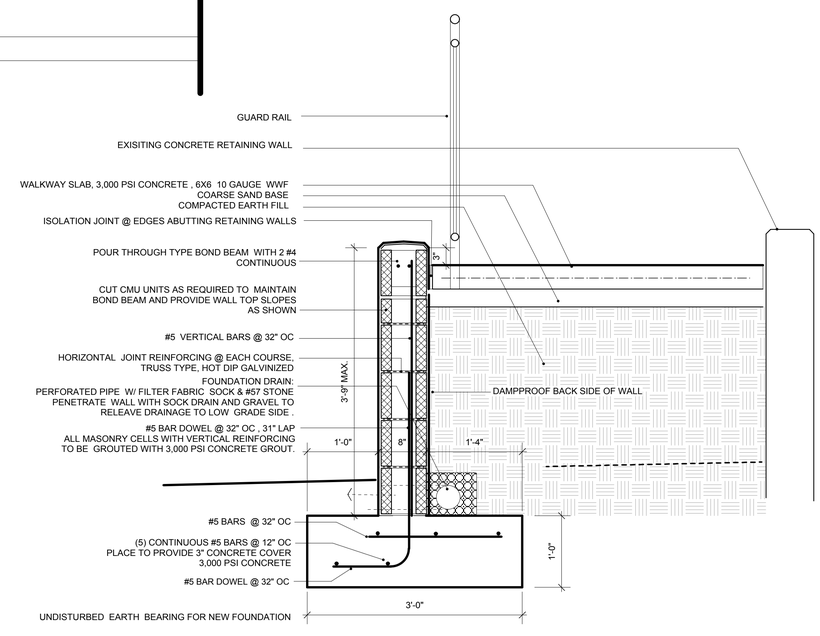
2 A1.0 — 3/16" = 1'-0"
Walkway Plan



5 A1.0 — 3/16" = 1'-0"
Retaining Wall Elevations



8 A1.0 — Retaining Wall Section
1" = 1'-0"



9 A1.0 — Retaining Wall Section
1" = 1'-0"

John Sawyer Architects

124 Market Street
Wilmington, NC 28401

910.762.0892
johnsawyerarchitects.com

Coastal Land Design PLLC
Civil Engineering / Landscape Architecture
Land Planning / Construction Management
NCBELS Firm / License No. P-0389
P.O.Box 1172 Wilmington, NC 28402 www.cldesig.com
Phone: 910-334-9020 Fax: 910-334-0932

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JOHN R. SAWYER REGISTERED ARCHITECT 3428 1/13/14 NORTH CAROLINA WILMINGTON, N. C.

JOHN SAWYER ARCHITECTS, PC REGISTERED ARCHITECTURAL CORPORATION 52349 NORTH CAROLINA WILMINGTON, NC

City of Wilmington

2nd Street & Church Alley Parking Lot

Wilmington, NC

Construction Documents
January 13, 2014

Revisions:

1 May 2, 2014
TRC review revision / clarification

2 May 21,2014
TRC review revision / clarification

Wall & Walkway Details

A1.0
of
Sheets

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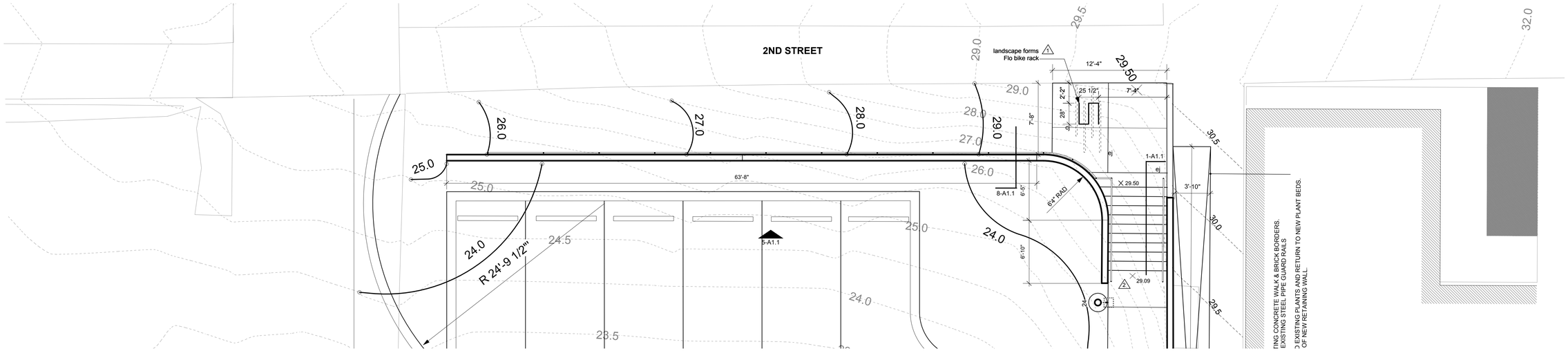
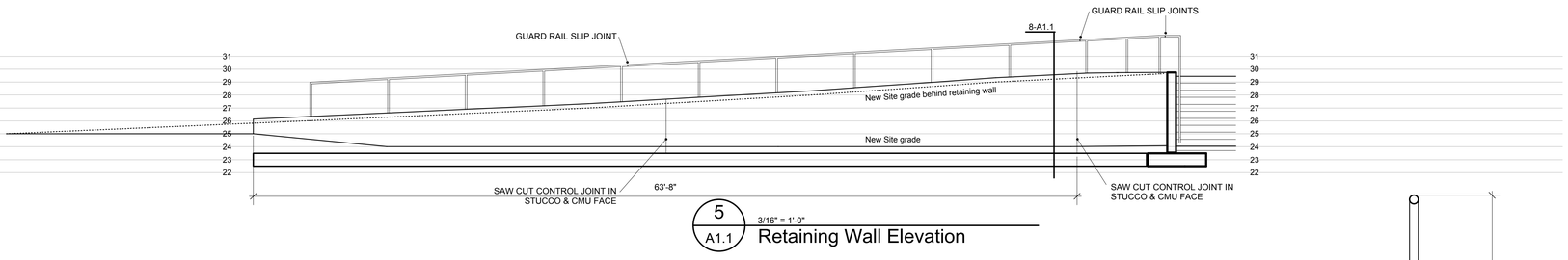
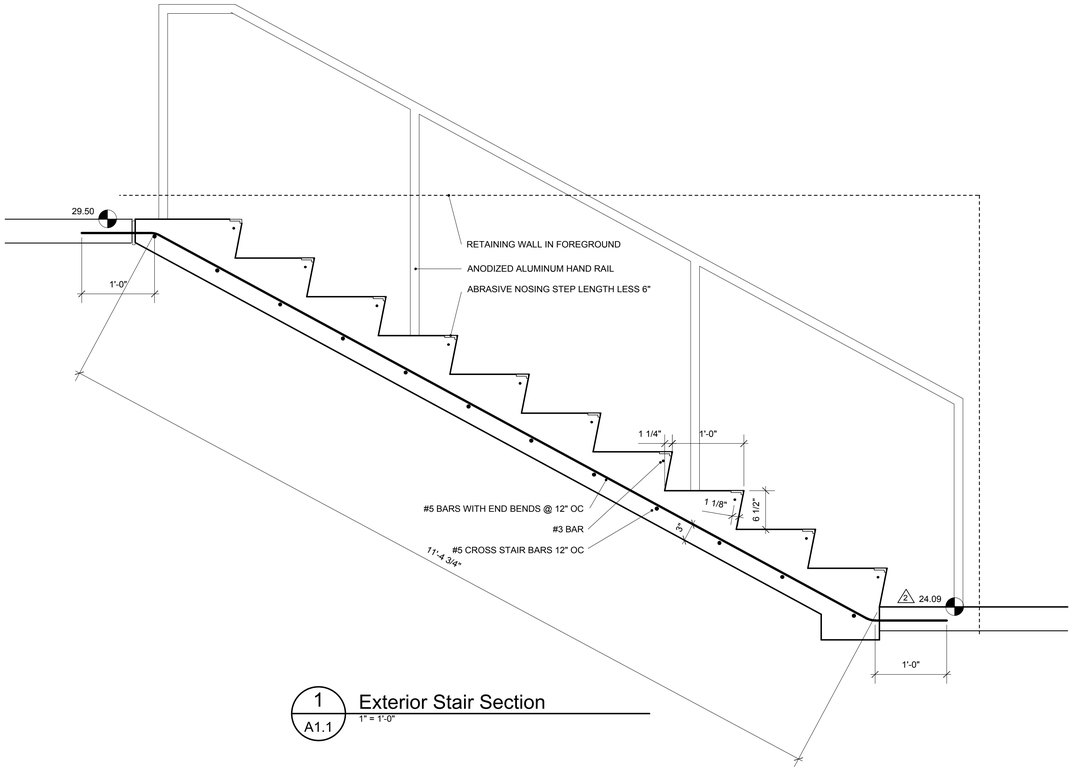
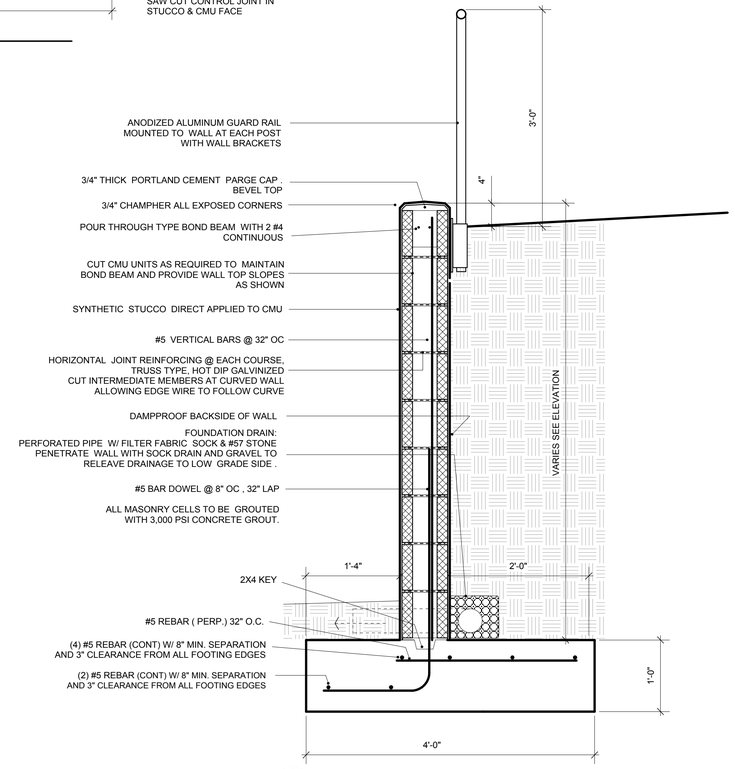




5 / A1.1 — 3/16" = 1'-0"
Retaining Wall Elevation



1 / A1.1 — 1" = 1'-0"
Exterior Stair Section



8 / A1.1 — 1" = 1'-0"
Retaining Wall Section

John Sawyer Architects
124 Market Street
Wilmington, NC 28401
910.762.0892
johnsawyerarchitects.com

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Civil Engineering / Landscape Architecture
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P.O.Box 1172
Wilmington, NC 28402
www.cldesng.com
Phone 910-334-0600
Fax 910-334-0602

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JOHN R. SAWYER REGISTERED PROFESSIONAL 3428 1/13/14 NORTH CAROLINA WILMINGTON, N. C.

JOHN SAWYER ARCHITECTS PA REGISTERED ARCHITECTURAL CORPORATION 52349 NORTH CAROLINA WILMINGTON, NC

City of Wilmington

2nd Street & Church Alley Parking Lot

Wilmington, NC

Construction Documents
January 13, 2014

Revisions:

1 May 2, 2014
TRC review revision / clarification

2 May 21,2014
TRC review revision / clarification

Retaining Wall Details

A1.1
of Sheets

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Total Parking Lot Square Footage=
8700 SF. = 20% Interior shade
Shade Coverage Required: 1740 SF
Shade Coverage Provided: 1789 SF
Sec. 18-481

(2) Redbuds

Asiatic Jasmine

Live Oaks
'High Rise'

Purple Oriental
Fountain Grass

(1) Ginko

Surface parking screened by at least 3' in combination of wall and plant material (see architectural plans for wall detail) Sec. 18-483

Exceeds 10' landscape yard required between abutting parking lot:

Required: 1 tree every 27' = 3 trees. *(Note the conifer is a relocated tree rather than shade tree)* Sec. 18-482 (a)

(2) Live Oaks
'High Rise'

Existing Street Tree- (15" Birch) To be protected per City tree protection detail

Blue Gray Sedge

Variegated Liriope

Pervious Pavement

Pay Station

Relocated Memorial Conifer- Contractor shall not remove existing memorial tree or begin work without prior notification to the City. Existing Tree shall be stored and maintained off-site -by City

Existing Overhead Power, Light Pole, and guy wire
No Additional street trees can be added due to existing site constraints. (per City Arborist)

Scrub Shrub to be cleared in corner and existing mixed hardwood cluster containing 1 - 12" sweetgum to be limbed up to 10' clear hgt. (Approx. location). To be protected with Tree protection Fence per City requirements.

Dwarf Japanese Plum Yew

Variegated Liriope

Live Oak 'High Rise'

Purple Oriental
Fountain Grass

Blue Gray Sedge

Inkberry

Purple Oriental
Fountain Grass

Loropetalum

Perimeter Buffer South Side Note: Due to input from the City staff, Community Arts Center (CAC) staff, existing conditions, and desire to accommodate an accessible ramp to the CAC, there is not enough room to provide perimeter landscape. Visual Clearance shall be maintained to the Community Arts Building entrances, windows, and exits, and not impact proposed lighting to the site.

CITY OF WILMINGTON NORTH CAROLINA
Public Services Engineering Division
APPROVED DRAINAGE PLAN
Date:_____ Permit #_____
Signed: _____

CITY OF WILMINGTON NORTH CAROLINA
Approved Construction Plan
Name Date
Planning_____
Traffic_____
Fire_____

For each open utility cut of City streets, a $325 permit shall be required from the City prior to occupancy and/or project acceptance.

2ND STREET PARKING LOT PLANT LIST
WILMINGTON, NORTH CAROLINA

QTY.	BOTANICAL NAME	COMMON NAME	SIZE & SPECIFICATIONS
TREES			
4	*QUERCUS VIRGINIANA 'HIGH RISE'*	LIVE OAK- 'High Rise'	2.5" MIN. CAL.
2	*GINKO BILOBA (MALE ONLY)*	GINKO	2.5" MIN. CAL.
FLOWERING TREES			
2	*CERCIS CANADENSIS*	REDBUD	8'-10' HGT. 4' LIMBED CLEAR
SHRUBS			
10	ILEX GLABRA	INKBERRY	3' HGT. X 3' SPD.; 3' O.C.
5	*LOROPETALUM CHINENSIS*	LOROPETALUM	3' HGT. X 3' SPD.; 3' O.C.
GROUNDCOVERS			
140	*TRACHELOSPERMUM ASIATICUM*	ASIATIC JASMINE	1 GAL. 18" O.C. (TOT. SF = 316 sf)
54	*CAREX GLAUCA*	BLUE GREY SEDGE	1 GAL. 18" - 24" O.C.
30	*CEPHALOTAXUS HARRINTONIA 'PROSTRATA'*	DWARF JAPANESE PLUM YEW	3 GAL. 3' O.C.
130	*LIRIOPE MUSCARI 'VARIEGATA'*	VARIEGATED LILYTURF	1 GAL. 18" O.C. (TOT. SF = 290 sf)
27	*PENNISETUM ORIENTALE 'KARLEY ROSE'*	PURPLE ORIENTAL FOUNTAIN GRASS	3 GAL. 3' O.C.

10' 0 10' 20'
1 INCH = 10'
(WHEN PRINTED ON 24"X36" SHEET)

SageDesign PLLC
Sara Burroughs, RLA
228 North Front Street
Suite 202D
Wilmington, NC 28401
Ph. (910)232-3878
sara@sagedesign.us

John Sawyer Architects
124 Market Street
Wilmington, NC 28401
910.762.0892
johnsawyerarchitects.com

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Civil Engineering | Landscape Architecture
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NCBELS Firm License No. P-0950
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Fax: 910-254-0532
www.cldesg.com

SageDesign

City of Wilmington

2nd Street & Church Alley Parking Lot

Wilmington, NC

Construction Documents
January 13, 2014

Revisions:

1- 02/05/14: Revisions from City comments made 1/31/14
2- 04/25/14: Revised Tree Locations to reflect existing Overhead Power
3- 05/14/14: Moved 2 Redbuds in center island per City Staff comment

LANDSCAPE PLAN

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of Sheets

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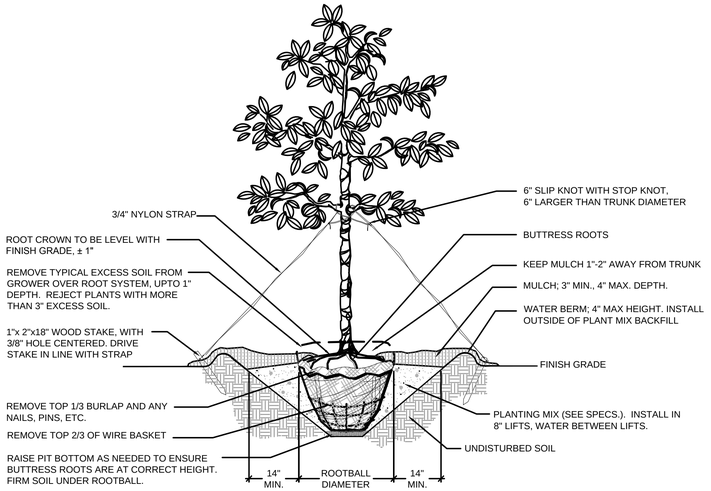
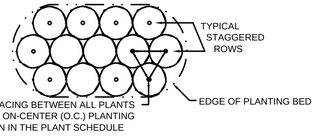
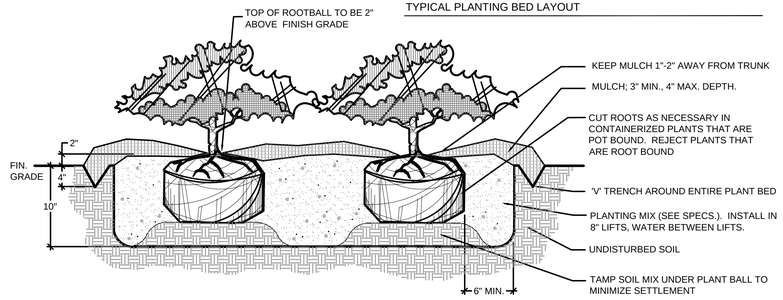


A SINGLE STEM TREE INSTALLATION DETAIL

SCALE: NTS



TYPICAL PLANTING BED LAYOUT



B SHRUB INSTALLATION DETAIL

SCALE: NTS

PLANT MATERIAL NOTES

1. ALL PLANT MATERIAL SHALL CONFORM TO THE MOST CURRENT STANDARDS ESTABLISHED BY 'THE AMERICAN ASSOCIATION OF NURSERYMAN".
2. CONTAINERIZED PLANTS SHALL HAVE A ROOT SYSTEM SUFFICIENT ENOUGH IN DEVELOPMENT TO HOLD THE SOIL INTACT WHEN REMOVED FROM THE CONTAINER. THE ROOT SYSTEM SHALL NOT BE ROOT BOUND, A CONDITION WHERE THE ROOT SYSTEM IS DENSE IN MASS, EXCESSIVELY INTERTWINED, AND HAS ESTABLISHED A CIRCULAR GROWTH PATTERN.
3. ALL PLANTS SHALL BE FRESHLY DUG, SOUND, HEALTHY, VIGOROUS, WELL-ROOTED PLANTS AND ESTABLISHED IN THE CONTAINER IN WHICH THEY ARE SOLD. THE PLANTS SHALL HAVE TOPS WHICH ARE GOOD QUALITY AND ARE IN A HEALTHY GROWING CONDITION.
4. PLANTS SHALL NOT BE PRUNED PRIOR TO DELIVERY UNLESS APPROVED BY THE LANDSCAPE ARCHITECT PRIOER TO SHIPMENT.
5. ALL TREE PITS, SHRUB BEDS AND PREPARED PLANTING BEDS ARE TO BE COMPLETELY EXCAVATED IN ACCORDANCE WITH THE PLANTING DETAILS.
6. TOPSOIL AMENDMENTS REQUIRED FOR SOIL MIXES SHALL BE PROVIDED BY CONTRACTOR AND APPROVED BY LANDSCAPE ARCHITECT PRIOR TO INSTALLATION. CONTRACTOR MUST LOAD, HAUL, MIX AND SPREAD ALL TOPSOIL AND OTHER SOIL ADDITIVES AS REQUIRED ON SITE.
7. CONTRACTOR SHALL VERIFY AND/ OR AMEND ALL PLANTING SOILS TO ENSURE PROPER SUITABILITY INCLUDING STATE RECOMMENDED QUANTITIES OF NITROGEN, PHOSPHORUS, AND POTASH NUTRIENTS AND SOIL AMENDMENTS TO BE ADDED TO PRODUCE QUALITY PLANTING SOIL FOR ALL PLANT MATERIAL TO SURVIVE.
8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING THAT ALL PLANTING PITS PERCOLATE PROPERLY PRIOR TO PLANTING INSTALLATION.
9. SHRUBS, BULBS, AND GROUNDCOVERS SHALL BE TRIANGULARLY SPACED AT SPACING SHOWN ON PLANTING PLANS AND/OR IN THE PLANT SCHEDULE.
10. THE CONTRACTOR SHALL THE VERIFY EXTENT OF SEEDING OR SOD AREA WITH OWNER REPRESENTATIVE AND LANDSCAPE ARCHITECT PRIOR TO INSTALLATION.

TREE INSTALLATION NOTES

1. ALL TREES SHALL MEET AMERICAN STANDARD FOR NURSERY STOCK (ANSI, 1990, PART 1, "SHADE AND FLOWERING TREES").
2. TREES SUPPLIED MUST HAVE BEEN PROPERLY PLANTED AND GROWN IN THE NURSERY. THE ROOT CROWN (ALSO CALLED THE TRUNK FLARE) SHALL BE EVIDENT NEAR THE TOP OF THE GROUND. ANY EXCESS SOIL, UP TO 3 INCHES COVERING THE CROWN WILL HAVE TO BE REMOVED CAREFULLY BY HAND, IN ORDER TO PREVENT ROOT SCRAPES. THE TREE IS THEN TO BE PLANTED WITH THE ROOT CROWN IN PROPER RELATION TO THE SURROUNDING GRADE. ANY TREES WITH MORE THAN 3 INCHES OF SOIL ON TOP OF THE ROOT CROWN WILL BE REJECTED. THE NURSERY OWNERS MAY DIG OVERSIZE BALLS AND REMOVE THE SOIL IN ORDER FOR THE ROOT SYSTEM DIAMETER (WHICH IS THE REQUIRED ROOT BALL DIAMETER) TO MEET THE SPECIFICATION FOR THE TRUNK CALIPER REQUIRED.
3. BALL AND BURLAPPED (B&B) PLANTS MUST HAVE FIRM, NATURAL BALLS OF EARTH, OF DIAMETER NOT LESS THAN RECOMMENDED IN THE "TREE AND SHRUB TRANSPLANTING MANUAL", AND BE OF SUFFICIENT DEPTH TO INCLUDE THE FIBROUS AND FEEDING ROOTS. PLANTS MOVED WITH A BALL WILL NOT BE ACCEPTED IF THE BALL IS DRY, CRACKED OR BROKEN BEFORE OR DURING PLANTING OPERATIONS.
4. REMOVE ALL TREATED OR PLASTIC-COATED BURLAP, STRAPPING, WIRE OR NYLON TWINE FROM ROOT BALL. AFTER SETTING IN HOLE, CUT AWAY 2/3 OF WIRE BASKET, IF ANY, AND TOP 1/3 OF BURLAP.
5. SOAK ROOT BALL AND PIT IMMEDIATELY AFTER INSTALLATION.
6. CONSTRUCT 4" HIGH SAUCER (WATER BERM) OUTSIDE OF PLANT MIX BACK FILL.
7. WHERE TREES ARE PLANTED IN ROWS, THEY SHALL BE UNIFORM IN SIZE AND SHAPE.
8. NO EXISTING TREES SHALL BE REMOVED WITHOUT WRITTEN AUTHORIZATION FROM THE OWNER REPRESENTATIVE EXCEPT WHERE NOTED ON PLANS. NO GRUBBING SHALL OCCUR WITHIN EXISTING TREE AREAS.
9. THE CONTRACTOR SHALL STAKE THE LOCATIONS OF ALL PROPOSED TREES AND OBTAIN APPROVAL FROM THE LANDSCAPE ARCHITECT AND OWNER REPRESENTATIVE PRIOR TO INSTALLATION.
10. ALL TREES SHALL BE STAKED AT TIME OF INSTALLATION IN ACCORDANCE WITH PLANTING DETAILS.
11. THE CONTRACTOR SHALL ENSURE THAT TREES REMAIN VERTICAL AND UPRIGHT FOR THE DURATION OF THE GUARANTEE PERIOD.
12. STAKES FOR TREE SUPPORT SHALL BE CONSTRUCTED OF 2"x2" x18" UNTREATED PINE. GUYING FABRIC SHALL BE 'ARBOR TAPE', AS MANUFACTURED BY NEPTCO, PAWTUCKET, RI. (401) 722-5500 (OR APPROVED EQUAL). COLOR SHALL BE OLIVE DRAB.

SHRUB INSTALLATION NOTES

1. CUT ROOTS AS NECESSARY IN CONTAINERIZED PLANTS THAT ARE POT BOUND. REJECT PLANTS THAT HAVE GIRDLED ROOT OR ARE BOUND.
2. INSTALL TOP OF PLANT BALL 2" ABOVE ADJACENT GRADE.
3. TAMP PLANT SOIL MIX FIRMLY IN 8" LIFTS AROUND PLANT BALL.
4. SOAK PLANT BALL AND PIT IMMEDIATELY AFTER INSTALLATION.

SageDesign PLLC

Sara Burroughs, RLA
228 North Front Street
Suite 202D
Wilmington, NC 28401
Ph. (910)232-3878
sara@sagedesign.us

John Sawyer Architects

124 Market Street
Wilmington, NC 28401

910.762.0892
johnsawyerarchitects.com

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City of Wilmington

2nd Street & Church Alley Parking Lot

Wilmington, NC

Construction Documents
January 13, 2014

Revisions:

LANDSCAPE DETAILS

L-2.0
of
Sheets

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Electrical Specifications

16000 GENERAL ELECTRICAL

A. ALL WORK SHALL BE INSTALLED IN ACCORDANCE WITH THE LATEST EDITION OF THE FOLLOWING CODES AND STANDARDS INSOFAR AS THEY APPLY.
   1. THE NATIONAL ELECTRICAL CODE, 2011 EDITION
   2. THE NATIONAL ELECTRICAL SAFETY CODE
   3. UNDERWRITER'S LABORATORIES, INC., STANDARDS AND APPROVED LISTINGS
   4. ELECTRICAL TESTING LABORATORIES STANDARDS
   5. NORTH CAROLINA STATE BUILDING CODE, LATEST EDITION AND REVISIONS
   6. ALL LOCAL CODES AND ORDINANCES
   7. ADA

B. THE CONTRACTOR SHALL OBTAIN ALL PERMITS, LICENSES, INSPECTIONS, ETC., REQUIRED FOR THE WORK AND SHALL PAY FOR SAME. THE CONTRACTOR SHALL FURNISH A FINAL CERTIFICATE OF INSPECTION AND APPROVAL FROM THE AUTHORITY HAVING JURISDICTION PRIOR TO ACCEPTANCE OF THE WORK.

C. ALL WORK SHALL BE DONE BY SKILLED MECHANICS AND SHALL PRESENT A NEAT, TRIM AND WORKMANLIKE FINISH WHEN COMPLETED.

D. COORDINATION: DO NOT SCALE ELECTRICAL DRAWINGS. LOCATIONS SHOWN ARE APPROXIMATE. THE CONTRACTOR SHALL REFER TO THE ARCHITECTURAL DRAWINGS FOR EXACT MEASUREMENTS IN THE PLACEMENT OF EQUIPMENT, FIXTURES, OUTLETS, ETC. THE DRAWINGS DO NOT GIVE EXACT DETAILS AS TO ELEVATIONS AND LOCATIONS OF VARIOUS FITTINGS, CONDUIT, ETC., AND DO NOT SHOW ALL OFFSETS AND OTHER INSTALLATION DETAILS WHICH MAY BE REQUIRED.

E. MATERIALS: ALL MATERIALS SHALL BE NEW AND SHALL BEAR THE MANUFACTURER'S NAME, TRADE NAME, AND UL LABEL WHERE SUCH A STANDARD HAS BEEN ESTABLISHED FOR THE PARTICULAR MATERIAL. MATERIALS SHALL BE THE STANDARD PRODUCTS OF MANUFACTURER'S REGULARLY ENGAGED IN THE MANUFACTURE OF THE REQUIRED TYPE OF EQUIPMENT AND THE MANUFACTURER'S LATEST APPROVED DESIGN. OTHER MATERIALS AND EQUIPMENT TO BE AS SHOWN ON THE DRAWINGS. WHERE NO SPECIFIC MATERIAL TYPE IS MENTIONED, A HIGH QUALITY PRODUCT OF A REPUTABLE MANUFACTURER MAY BE USED PROVIDED IT CONFORMS TO THE REQUIREMENTS OF THESE SPECIFICATIONS.

F. WIRING METHODS: ANY NEC APPROVED WIRING METHOD IS ACCEPTABLE. EXPOSED WORK SHALL BE IN CONDUIT.

G. ELECTRICAL DISTRIBUTION SYSTEM TESTS
   1. ALL CURRENT CARRYING PHASE CONDUCTORS AND NEUTRALS SHALL BE TESTED AS INSTALLED, AND BEFORE CONNECTIONS ARE MADE, FOR INSULATION RESISTANCE AND ACCIDENTAL GROUNDS. THIS SHALL BE DONE WITH A 500 VOLT MEGGER.
      a. MINIMUM READINGS SHALL BE ONE MILLION (1,000,000) OR MORE OHMS FOR #6 WIRE AND SMALLER, 250,000 OHMS OR MORE FOR #4 WIRE OR LARGER BETWEEN CONDUCTORS AND BETWEEN CONDUCTOR AND THE GROUNDED METAL RACEWAY.
      b. AFTER ALL FIXTURES, DEVICES AND EQUIPMENT ARE INSTALLED AND ALL CONNECTIONS COMPLETED TO EACH PANEL, THE CONTRACTOR SHALL DISCONNECT THE NEUTRAL FEEDER CONDUCTOR FROM THE NEUTRAL BAR AND TAKE A MEGGER READING BETWEEN THE NEUTRAL BAR AND GROUNDED ENCLOSURE. IF THIS READING IS LESS THAN 250,000 OHMS, THE CONTRACTOR SHALL DISCONNECT THE BRANCH CIRCUIT NEUTRAL WIRES FROM THIS NEUTRAL BAR. HE SHALL THEN TEST EACH ONE SEPARATELY TO THE PANEL AND UNTIL THE LOW READING ONES ARE FOUND. THE CONTRACTOR SHALL CORRECT TROUBLES, RECONNECT AND RETEST UNTIL AT LEAST 250,000 OHMS FROM THE NEUTRAL BAR TO THE GROUNDED PANEL CAN BE ACHIEVED WITH ONLY THE NEUTRAL FEEDER DISCONNECTED.
      c. THE CONTRACTOR SHALL CERTIFY IN WRITING THE ABOVE HAS BEEN DONE AND TABULATE THE MEGGER READINGS FOR EACH PANEL.

16111 RACEWAYS AND FITTINGS

A. RACEWAYS SHALL BE RIGID GALVANIZED STEEL AND/OR SCHEDULE 40 PVC WITH APPROPRIATE FITTINGS.

B. FLEXIBLE METAL CONDUIT AND LIQUIDTIGHT FLEXIBLE METAL CONDUIT: UL APPROVED AND LABELED WITH HEX NUT STEEL FITTINGS.

C. RACEWAYS, BOXES, FITTINGS, ETC., SHALL BE SOLIDLY FASTENED TO MASONRY WITH LEAD ANCHORS AND MACHINE SCREWS OR TOGGLE BOLTS. RACEWAYS SHALL BE FASTENED TO STRUCTURAL STEEL WITH BEAM CLAMPS, CONDUIT HANGERS, TRAPEZE HANGERS, OR OTHER APPROVED DEVICES.

D. BOXES INSTALLED IN CONCEALED LOCATIONS SHALL BE SET FLUSH WITH THE FINISHED SURFACES AND SHALL BE PROVIDED WITH EXTENSION RINGS [OR PLASTIC COVERS] WHERE REQUIRED. BOXES SHALL BE RIGIDLY INSTALLED.

E. RACEWAYS PASSING THROUGH RATED WALLS, FLOORS, ETC., SHALL BE INSTALLED IN ACCORDANCE WITH PUBLISHED UL CONFIGURATIONS.

F. RACEWAYS SHALL BE SIZED AS SHOWN AND/OR AS REQUIRED BY THE NEC. MINIMUM SIZE SHALL BE 1/2".

16123 CONDUCTORS

A. CONDUCTORS SHALL BE COPPER, MINIMUM SIZE #12. SIZES #10 AND #12 SHALL BE SOLID, #8 AND LARGER, STRANDED. INSULATION SHALL BE TYPE THW, THWN OR THHN FOR FEEDERS, TYPE THWN OR THHN FOR BRANCH CIRCUITS, [AND TYPE USE FOR DIRECTLY BURIED CONDUCTORS].

B. CONDUCTORS SHALL BE COLOR CODED THROUGHOUT, SIZES #10 AND #12 SHALL BE FACTORY CODED, SIZES #8 AND LARGER MAY BE COLOR TAPED ON THE JOB. COLOR CODING SHALL BE: PHASE A – BLACK, PHASE B – RED, PHASE C – BLUE, NEUTRAL – WHITE, GROUND – GREEN FOR 120/208 VOLT SYSTEMS SHALL MEET THE LATEST REQUIREMENTS OF NEMA AND IPCEA AND SHALL BE UL APPROVED.

C. ALL CONDUCTORS SHALL BE CONTINUOUS WITHOUT SPLICE BETWEEN JUNCTION, OUTLET, DEVICE BOXES, ETC., UNLESS NOTED OTHERWISE. NO SPLICING WILL BE PERMITTED IN PANELBOARD CABINETS, SAFETY SWITCHES, ETC.

D. TRENCHING: DIRECT BURIED RACEWAYS SHALL BE 24" DEEP TO THE TOP OF THE RACEWAY. TRENCH IN COMPLIANCE WITH LOCAL CODES AND REGULATIONS. BACKFILL TO 95% COMPACTION AND RESOD GRASSED AREAS TO MATCH EXISTING.

E. MARKER TAPE: ALL UNDERGROUND CONDUCTORS SHALL BE IDENTIFIED BY UNDERGROUND LINE MARKING TAPE LOCATED DIRECTLY ABOVE THE CONDUCTORS AT 6 TO 8 INCHES BELOW FINISHED GRADE. TAPE SHALL BE PERMANENT BRIGHT-COLORED, CONTINUOUS FOIL BACKING SUITABLE FOR USE WITH METAL DETECTION DEVICES, FOR DIRECT BURIAL NOT LESS THAN 8 INCHES AND 4 MILS THICK. PRINTED LEGEND SHALL BE INDICATIVE OF TYPE OF UNDERGROUND LINE BELOW.

16130 BOXES

A. JUNCTION, SWITCH, RECEPTACLE AND OUTLET BOXES FOR EXTERIOR AND EXPOSED LOCATIONS SHALL BE CAST "FS" AND "FD" TYPE WITH HUBS. WHERE LARGER JUNCTION BOXES ARE REQUIRED, THEY SHALL BE FABRICATED FROM NO. 10, 12, 14 OR 16 GAUGE SHEET STEEL AS REQUIRED BY THE UNDERWRITER'S LABORATORIES, INC., AND GALVANIZED AFTER FABRICATION.

B. ALL JUNCTION BOXES SHALL HAVE SCREW FASTENED COVERS.

C. SET WALL MOUNTED BOXES AT ELEVATIONS TO ACCOMMODATE MOUNTING HEIGHTS INDICATED AND SPECIFIED IN SECTION FOR OUTLET DEVICE. BOXES ARE SHOWN ON DRAWINGS IN APPROXIMATE LOCATIONS UNLESS DIMENSIONED. ADJUST BOX LOCATION UP TO 10 FEET (3 M) IF REQUIRED TO ACCOMMODATE INTENDED PURPOSE. INSTALL PULL BOXES AND JUNCTION BOXES ABOVE ACCESSIBLE CEILINGS AND IN UNFINISHED AREAS ONLY. COORDINATE MOUNTING HEIGHTS AND LOCATIONS OF OUTLETS MOUNTED ABOVE COUNTERS, BENCHES, AND BACKSPLASHES.

D. INSTALL BOXES TO PRESERVE FIRE RESISTANCE RATING OF PARTITIONS AND OTHER ELEMENTS, USING APPROVED MATERIALS AND METHODS.

16140 WIRING DEVICES: PROVIDE HEAVY DUTY INDUSTRIAL SPECIFICATION GRADE BROWN RECEPTACLES. ALL DEVICES SHALL BE RATED 20 AMPERES. HUBBELL HBL 5362 OR EQUAL BY PASS AND SEYMOUR OR LEVITON.

16170 GROUNDING

A. THE NEUTRAL OF EACH SECONDARY ELECTRICAL DISTRIBUTION SYSTEM SHALL BE GROUNDED AT ONE POINT ONLY WHICH SHALL BE AT THE MAIN DISCONNECTING DEVICE. FROM THE MAIN DISCONNECTING DEVICE, A COPPER GROUNDING CONDUCTOR SIZED IN ACCORDANCE WITH THE NEC SHALL BE EXTENDED TO THE EARTH ELECTRODE. MAIN GROUNDING CONDUCTORS #8 AWG THROUGH AND INCLUDING #4 AWG SHALL BE INSULATED AND IDENTIFIED BY A GREEN COLORED INSULATION. ALL GROUNDING CONDUCTORS SHALL BE INSTALLED IN CONDUIT SIZED IN ACCORDANCE WITH THE NEC. CONDUIT CARRYING A GROUNDING CONDUCTOR SHALL ALSO BE GROUNDED AT THE EARTH ELECTRODE.

B. THE EARTH ELECTRODE SHALL BE GROUND RODS, SIZE AS SPECIFIED BELOW DRIVEN 11 FEET INTO THE EARTH WHERE SHOWN ON THE CONTRACT DRAWINGS OR AS REQUIRED. THE ROD SHALL BE CONNECTED TO THE SYSTEM GROUND POINT ON THE WATER PIPE BY AN INSULATED, GREEN COPPER JUMPER IN CONDUIT. THE JUMPER SHALL BE SIZED IN ACCORDANCE WITH THE NEC AND THE CONNECTION AT THE ROD SHALL BE BRAZED OR EXOTHERMICALLY WELDED. THE POINTS OF CONNECTION TO THE EARTH ELECTRODE SYSTEM SHALL BE VISIBLE AND ACCESSIBLE UPON COMPLETION OF CONSTRUCTION. SECTIONAL RODS OF THE SAME SIZE AND LENGTH SHALL BE USED IN MULTIPLE ROD INSTALLATIONS, IF REQUIRED BY SOIL CONDITIONS.

C. THE GROUND RESISTANCE OF THE EARTH ELECTRODE SHALL NOT EXCEED 5 OHMS. THE ELECTRICAL CONTRACTOR SHALL TEST THE EARTH ELECTRODE USING A STANDARD THREE POINT GROUND RESISTANCE TESTER AND SHALL ADVISE THE ARCHITECT/ENGINEER OF THE RESULTS OF SUCH TESTS IN WRITING. WHERE TESTS SHOW THE RESISTANCE TO GROUND EXCEEDS 5 OHMS, APPROPRIATE ACTION SHALL BE TAKEN TO REDUCE THE RESISTANCE TO 5 OHMS, OR LESS, BY DRIVING ADDITIONAL GROUND RODS OR OTHER APPROVED METHODS. COMPLIANCE SHALL BE DEMONSTRATED BY RETESTING.

D. ALL GROUNDING SHALL BE IN ACCORDANCE WITH ARTICLE 250 OF THE NEC. IN ADDITION, THE FOLLOWING REQUIREMENTS SHALL BE MET:
   1. GROUNDING CONDUCTORS SHALL BE INSTALLED AS TO PERMIT THE SHORTEST AND MOST DIRECT PATH FROM EQUIPMENT TO GROUND. ALL GROUND CONNECTIONS TO GROUND CONDUCTORS SHALL BE ACCESSIBLE.
   2. EQUIPMENT GROUND CONTINUITY SHALL BE MAINTAINED THROUGH FLEXIBLE METAL CONDUIT.
   3. ALL WIRING DEVICES EQUIPPED WITH GROUNDING CONNECTION SHALL BE SOLIDLY GROUNDED TO GROUND SYSTEM WITH GROUNDING CONDUCTORS.
   4. THE FRAME OF ALL LIGHTING FIXTURES SHALL BE SECURELY GROUNDED TO THE EQUIPMENT GROUND SYSTEM WITH GROUNDING CONDUCTORS.
   5. GROUNDING TYPE CONVENIENCE OUTLETS AND SWITCHES SHALL BE SOLIDLY GROUNDED TO EQUIPMENT GROUNDING SYSTEM WITH A GREEN COLORED INSULATED CONDUCTOR. ELECTRICAL CONNECTIONS SHALL BE CONTINUOUS FROM EQUIPMENT GROUND BUS IN PANELBOARD TO THE HEX NUT ON THE CONVENIENCE OUTLET OR SWITCH.
   6. ALL CIRCUITS SHALL CONTAIN AN INSULATED, GREEN, COPPER GROUNDING CONDUCTOR, SIZED IN ACCORDANCE WITH TABLE 250-122 OF THE NEC. GROUNDING CONDUCTORS SHALL BE CONNECTED TO EQUIPMENT GROUND BUS IN PANELBOARD AND SECURELY ATTACHED AND GROUNDED TO THE DEVICE OR ENCLOSURE AT THE OTHER END.
   7. ALL EQUIPMENT ENCLOSURES, AND NON-CURRENT METALLIC PARTS OF ELECTRICAL EQUIPMENT, RACEWAY SYSTEMS, ETC., SHALL BE EFFECTIVELY AND ADEQUATELY BONDED TO GROUND.

16190 SUPPORTING DEVICES

A. PROVIDE MATERIALS, SIZES, AND TYPES OF ANCHORS, FASTENERS AND SUPPORTS TO CARRY THE LOADS OF EQUIPMENT AND CONDUIT. CONSIDER WEIGHT OF WIRE IN CONDUIT WHEN SELECTING PRODUCTS. PROVIDE ADEQUATE CORROSION RESISTANCE.

B. ANCHORS AND FASTENERS:
   1. CONCRETE SURFACES: USE SELF_DRILLING ANCHORS AND EXPANSION ANCHORS.
   2. SOLID MASONRY WALLS: USE EXPANSION ANCHORS.

C. INSTALL PRODUCTS IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.

D. PROVIDE ANCHORS, FASTENERS, AND SUPPORTS IN ACCORDANCE WITH NECA "STANDARD OF INSTALLATION".

E. INSTALL SURFACE_MOUNTED CABINETS AND PANELBOARDS WITH MINIMUM OF FOUR ANCHORS.

F. IN WET AND DAMP LOCATIONS USE STEEL CHANNEL SUPPORTS TO STAND CABINETS AND PANELBOARDS ONE INCH (25 MM) OFF WALL.

G. CONDUITS INSTALLED ON THE INTERIOR OF EXTERIOR BUILDING WALLS SHALL BE SPACED AWAY FROM THE WALL SURFACE A MINIMUM OF 1/4 INCH (65MM) USING "CLAMP-BACKS" OR STRUTS.

16195 IDENTIFICATION

A. WIRE MARKERS: PROVIDE SPLIT SLEEVE TYPE WIRE MARKERS OR APPROVED EQUIVALENT ON EACH CONDUCTOR AT PANELBOARD GUTTERS, PULL BOXES, OUTLET AND JUNCTION BOXES, AND EACH LOAD CONNECTION. LEGEND: (1) POWER AND LIGHTING CIRCUITS: BRANCH CIRCUIT OR FEEDER NUMBER AS INDICATED ON DRAWINGS. (2) CONTROL CIRCUITS: CONTROL WIRE NUMBER AS INDICATED ON SCHEMATIC AND INTERCONNECTION DIAGRAMS ON DRAWINGS.

B. IDENTIFICATION NAMEPLATES: FURNISH AND INSTALL ENGRAVED LAMINATED PHENOLIC NAMEPLATES FOR ALL PANELBOARDS AND ELECTRICAL EQUIPMENT SUPPLIED FOR IDENTIFICATION OF EQUIPMENT CONTROLLED, SERVED, PHASE, VOLTAGE, ETC. NAMEPLATES SHALL BE SECURELY ATTACHED TO EQUIPMENT WITH METAL SCREWS AND SHALL IDENTIFY BY NAME THE EQUIPMENT CONTROLLED, ATTACHED, ETC. LETTERS SHALL BE APPROXIMATELY 1/4-INCH HIGH MINIMUM. EMBOSSED, SELF-ADHESIVE PLASTIC TAPE IS NOT ACCEPTABLE. NAMEPLATE MATERIAL COLORS SHALL BE BLACK SURFACE WITH WHITE CORE.

C. RECEPTACLE CIRCUIT IDENTIFICATION: PROVIDE ADHESIVE BACKED, LAMINATED PLASTIC RECEPTACLE DEVICE PLATE LABELS IDENTIFYING THE CIRCUIT FEEDING THE DEVICE. LABELS SHALL BE LABEL MACHINE PRINTED, BLACK LETTERING ON A CLEAR BACKGROUND, TO INDICATE PANEL AND CIRCUIT NUMBER AND SHALL BE CASIO, BROTHER, T&B OR APPROVED EQUAL. PRINT CIRCUIT NUMBER ON FLAG TYPE PLASTIC CABLE TIE WITH A PERMANENT MARKER (SHARPIE, ETC.) AND ATTACH TO CONDUCTORS IN OUTLET BOX. FLAG SHALL BE READILY VISIBLE UPON REMOVAL OF DEVICE PLATE. LOCATION: EACH RECEPTACLE DEVICE PLATE. APPLY CENTERED ON THE LOWER PORTION BELOW THE RECEPTACLE, PARALLEL TO THE LOWER SURFACE. LEGEND: TYPED LABELS TO INDICATE PANEL AND CIRCUIT NUMBER FEEDING THE DEVICE (I.E., RPA-24).

16470 PANELBOARDS

A. NEMA PB1, CIRCUIT BREAKER TYPE, LIGHTING AND APPLIANCE BRANCH CIRCUIT PANELBOARD WITH COPPER PHASE BUS, 100% COPPER GROUND AND NEUTRALS BUSES AND RATINGS AS INDICATED. MINIMUM INTEGRATED SHORT CIRCUIT RATING: 10,000 AMPERES RMS SYMMETRICAL FOR 208 VOLT PANELBOARDS, OR AS INDICATED. CIRCUIT BREAKERS: NEMA AB 1, BOLT-ON TYPE. ENCLOSURE: NEMA PB 1, TYPE 4X.

B. PANELBOARDS SHALL BE MANUFACTURED BY CUTLER HAMMER, GENERAL ELECTRIC, SIEMENS OR SQUARE D.

C. PROVIDE TYPED CIRCUIT DIRECTORY FOR EACH BRANCH CIRCUIT PANELBOARD. FINAL TYPED PANELBOARD DIRECTORIES INSTALLED IN THE PANELBOARD DOOR POCKET SHALL INCLUDE FINAL ACTUAL LOAD DESCRIPTIONS.

16510 LIGHTING FIXTURES

A. LIGHTING FIXTURE TYPES SHALL BE FURNISHED AS REQUIRED BY THE LIGHTING FIXTURE SCHEDULE AS INDICATED ON THE DRAWINGS. CATALOG NUMBERS ARE PROVIDED AS A GUIDE TO THE DESIGN AND QUALITY OF FIXTURE DESIRED. EQUIVALENT DESIGNS AND EQUAL QUALITY FIXTURES OF OTHER MANUFACTURERS LISTED WILL BE ACCEPTABLE UPON APPROVAL OF THE ARCHITECT/ENGINEER.

B. ALL FIXTURES SHALL BE INSTALLED COMPLETE WITH LAMPS. LAMPS SHALL BE INDICATED ON THE DRAWINGS.

Electrical General Notes

1. THE CONTRACTOR SHALL REVIEW THE ARCHITECTURAL DRAWINGS AND SPECIFICATIONS FOR WORK REQUIREMENTS, THE AMOUNT OF SPACE AVAILABLE FOR ELECTRICAL EQUIPMENT, AND LAYOUT HIS WORK IN A COMPATIBLE AND COMPLEMENTARY MANNER.

2. THE CONTRACTOR SHALL ALSO BE RESPONSIBLE FOR THOROUGHLY FAMILIARIZING HIMSELF WITH ANY CONTRACTUAL REQUIREMENTS AS MAY BE SET FORTH IN THE OTHER DIVISIONS OF THE PROJECT SPECIFICATIONS.

3. UNLESS SPECIFICALLY NOTED OTHERWISE, SYSTEMS PROVIDED OR INSTALLED BY THE ELECTRICAL CONTRACTOR SHALL BE COMPLETE AND FULLY-FUNCTIONING AFTER INSTALLATION. INCIDENTAL COMPONENTS MAY NOT BE SHOWN, AND ALL WORK WHICH MAY BE REASONABLY IMPLIED AS BEING INCIDENTAL TO THIS WORK, BUT REQUIRED FOR THE PROPER OPERATION OF THE EQUIPMENT OR SYSTEM, SHALL BE PROVIDED AT NO ADDITIONAL COST TO THE OWNER. ADDITIONAL CIRCUITS SHALL BE INSTALLED WHEREVER NEEDED TO CONFORM TO THE SPECIFIC REQUIREMENTS OF EQUIPMENT.

4. THE WORK SHALL INCLUDE COMPLETE TESTING OF ALL EQUIPMENT AND WIRING AT THE COMPLETION OF WORK AND ANY MINOR CORRECTIONS, CHANGES OR ADJUSTMENTS NECESSARY FOR THE PROPER FUNCTIONING OF THE SYSTEM AND EQUIPMENT.

5. ALL EQUIPMENT SHOWN DOTTED OR DASHED IS BY OTHERS OR IS EXISTING, AS NOTED.

6. ALL ELECTRICAL EQUIPMENT SHALL, AT ALL TIMES DURING CONSTRUCTION, BE ADEQUATELY PROTECTED AGAINST MECHANICAL INJURY, OR DAMAGE BY WATER AND/OR THE ELEMENTS. ELECTRICAL EQUIPMENT SHALL NOT BE STORED OUT OF DOORS, BUT SHALL BE STORED IN DRY PERMANENT SHELTERS. IF AN APPARATUS HAS BEEN DAMAGED, OR HAS BEEN SUBJECT TO POSSIBLE INJURY BY WATER OR THE ELEMENTS, SUCH DAMAGE SHALL BE REPLACED AT NO ADDITIONAL COST TO THE OWNER.

7. DO NOT SCALE ELECTRICAL DRAWINGS. REFER TO THE ARCHITECTURAL DRAWINGS FOR DIMENSIONS.

8. CIRCUIT LAYOUTS ARE NOT INTENDED TO SHOW THE NUMBER OF FITTINGS, OR OTHER INSTALLATION DETAILS. UNLESS NOTED OTHERWISE, THE EXACT ROUTING OF FEEDER AND BRANCH CIRCUIT RACEWAYS AND CABLES IS THE RESPONSIBILITY OF THE CONTRACTOR. RISER AND GENERAL CIRCUIT ARRANGEMENTS ARE SHOWN SCHEMATICALLY/DIAGRAMMATICALLY ONLY. THE CONTRACTOR SHALL ROUTE CONDUITS AS REQUIRED BY THE CONDITIONS OF THE INSTALLATION.

9. UNLESS DIMENSIONED, DEVICE LOCATIONS SHOWN ON THE DRAWINGS ARE APPROXIMATE. ADJUST EXACT LOCATIONS AS REQUIRED TO SERVE THE INTENDED PURPOSE AND TO AVOID CONFLICTS AND INTERFERENCES WITH OTHER TRADES. EXACT DEVICE LOCATIONS SHALL BE AS INDICATED ON THE ARCHITECTURAL DRAWINGS OR AS DIMENSIONED. IF NOT SHOWN ON THE ARCHITECTURAL DRAWINGS OR DIMENSIONED ON THE ELECTRICAL DRAWINGS, VERIFY EXACT LOCATION WITH THE ARCHITECT/ENGINEER PRIOR TO ROUGH-IN.

10. ALL EXTERIOR WIRING DEVICES, BOXES, ETC. SHALL BE WEATHERPROOF. LIGHTING FIXTURES SHALL BE APPROPRIATELY RATED AND LISTED FOR THE ENVIRONMENT.

11. ALL RACEWAYS SHALL BE CONCEALED EXCEPT THOSE SHOWN TO BE EXPOSED ON DRAWINGS. IF APPLICABLE, MATCH EXISTING RACEWAY INSTALLATION METHODS AND ROUTINGS AT OR NEAR EXISTING FACILITIES.

12. INSTALL EXPOSED RACEWAYS PARALLEL TO OR AT RIGHT ANGLES TO NEARBY SURFACES OR STRUCTURAL MEMBERS, AND FOLLOW THE SURFACE CONTOURS AS MUCH AS POSSIBLE. NO DIAGONAL RUNS WILL BE ALLOWED. ALL CONDUITS SHALL BE RUN STRAIGHT AND TRUE. RUN PARALLEL OR BANKED RACEWAYS TOGETHER ON COMMON SUPPORTS WHERE PRACTICAL. MAKE BENDS IN PARALLEL OR BANKED RUNS FROM SAME CENTERLINE TO MAKE BENDS PARALLEL.

13. SURFACE MOUNTED PANELBOARDS, JUNCTION, OUTLET AND PULL BOXES, RACEWAYS, ETC., INSTALLED ON EXTERIOR SURFACES SHALL BE SUPPORTED BY SPACERS TO PROVIDE A 1/4" MINIMUM CLEARANCE BETWEEN THE WALL AND EQUIPMENT.

14. EXCAVATION AND TRENCHING REQUIRED FOR THE INSTALLATION OF ELECTRICAL POWER AND TELECOMMUNICATIONS RACEWAYS SHALL BE PROVIDED BY THE CONTRACTOR IN ACCORDANCE WITH THE REQUIREMENTS OF DIVISION 16 OF THE PROJECT SPECIFICATIONS.

15. PRIOR TO TRENCHING IN ANY AREA, THE CONTRACTOR SHALL CONTACT ELECTRICAL, COMMUNICATIONS/DATA/FIBER, CABLE TELEVISION, GAS AND WATER UTILITY PROVIDERS AND HAVE ALL UTILITIES IN THE AREA IDENTIFIED. DAMAGE TO ANY UNDERGROUND UTILITIES OR STRUCTURES SHALL BE REPAIRED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE PROJECT.

16. ALL UNDERGROUND RACEWAYS SHALL BE IDENTIFIED BY UNDERGROUND LINE MARKING TAPE LOCATED DIRECTLY ABOVE THE RACEWAY AT 6 TO 8 INCHES BELOW FINISHED GRADE. SEE SPECIFICATIONS SECTION 16195.

17. PROVIDE ADHESIVE BACKED RECEPTACLE DEVICE PLATE LABELS IDENTIFYING THE CIRCUIT FEEDING THE DEVICE. LABELS SHALL INDICATE PANEL AND CIRCUIT NUMBER. SEE SPECIFICATIONS SECTION 16195 FOR REQUIREMENTS.

18. FINAL TYPED PANELBOARD DIRECTORIES INSTALLED IN THE PANELBOARD DOOR POCKET SHALL INCLUDE FINAL ACTUAL LOAD DESCRIPTIONS.

19. CONDUCTOR SIZING IS BASED ON 75 DEGREE C. COPPER NEC RATINGS, UNLESS NOTED OTHERWISE. THE CONTRACTOR SHALL VERIFY, PRIOR TO INSTALLATION OF CONDUCTORS OR CONDUIT FEEDING ANY EQUIPMENT, THE ELECTRICAL EQUIPMENT IS RATED FOR USE WITH 75 DEGREE C. WIRING. IF ANY EQUIPMENT IS RATED FOR USE WITH LESS THAN 75 DEGREE C. CONDUCTORS, THE CONTRACTOR SHALL NOTIFY THE ARCHITECT/ENGINEER IMMEDIATELY FOR EVALUATION/CORRECTION.

20. DO NOT PULL CONDUCTORS UNTIL THE CONDUIT SYSTEM IS COMPLETE IN EVERY DETAIL.

21. WHERE SIZE IS NOT SHOWN ON THE DRAWINGS, BRANCH CIRCUITS SHALL CONSIST OF #12 OR #10 AWG MINIMUM PHASE, NEUTRAL AND EQUIPMENT GROUND CONDUCTORS IN 1/2" MINIMUM RACEWAY.

22. USE #10 AWG CONDUCTORS FOR 20 AMPERE, 120 VOLT BRANCH CIRCUITS WITH A TOTAL INSTALLED LENGTH GREATER THAN 75 FEET AND/OR BRANCH CIRCUIT HOMERUNS LONGER THAN 50 FEET, I.E.; #12 AWG INCREASED TO #10 AWG FOR RECEPTACLE BRANCH CIRCUITS OVER 75 FEET TOTAL LENGTH (INCLUDING THE HOMERUN SEGMENT) AND HOMERUNS OVER 50 FEET.

23. KEEP CONDUCTOR SPLICES TO A MINIMUM. INSTALL SPLICES AND TAPES THAT POSSESS EQUIVALENT OR BETTER MECHANICAL STRENGTH AND INSULATION RATINGS THAN CONDUCTORS BEING SPLICED. USE SPLICE AND TAP CONNECTORS COMPATIBLE WITH CONDUCTOR MATERIAL. INSTALL CONDUCTORS AT EACH OUTLET WITH AT LEAST 6 INCHES OF SLACK, EXCEPT 12 INCHES IN ALL LIGHTING POLE BASES. CONNECT OUTLETS AND COMPONENTS TO WIRING AND TO GROUND AS INDICATED AND INSTRUCTED BY THE MANUFACTURER.

24. DO NOT SPLICE BRANCH CIRCUIT HOMERUNS WITHOUT THE PERMISSION OF THE ARCHITECT/ENGINEER. HOMERUNS SHALL BE CONTINUOUS FROM THE LAST OUTLET BOX TO THE SERVING PANELBOARD.

25. DO NOT COMBINE BRANCH CIRCUIT HOMERUNS UNLESS SPECIFICALLY INDICATED ON THE DRAWINGS.

26. DO NOT CHANGE CIRCUITING SHOWN WITHOUT PERMISSION OF THE ARCHITECT/ENGINEER.

27. INSTALL WIRING DEVICES AT HEIGHTS AS SHOWN ON THE DRAWINGS.

28. PROVIDE GROUND FAULT CIRCUIT-INTERRUPTER PROTECTION FOR PERSONNEL IN ACCORDANCE WITH THE NEC.

29. COORDINATE LOCATIONS OF GENERAL CONTRACTOR-PROVIDED EQUIPMENT WITH THE GENERAL CONTRACTOR BEFORE ROUGH-IN. ADJUST ELECTRICAL EQUIPMENT TO ACCOMMODATE THIS EQUIPMENT. ADVISE THE ARCHITECT/ENGINEER OF CONFLICTS BEFORE ROUGH-IN.

30. COORDINATION WITH THE UTILITY COMPANY IS THE RESPONSIBILITY OF THE ELECTRICAL CONTRACTOR. ALL ELECTRICAL DISTRIBUTION EQUIPMENT (PANELBOARDS, CIRCUIT BREAKERS, SAFETY SWITCHES, ETC.) SHALL, AS A MINIMUM, BE PROVIDED WITH SHORT CIRCUIT WITHSTAND AND INTERRUPTING RATINGS AS SHOWN IN THE DRAWINGS. COORDINATE ACTUAL FAULT CURRENT AVAILABLE WITH THE SERVING UTILITY COMPANY AND ADJUST RATINGS AS APPROPRIATE. PROVIDE DEVICES WITH CURRENT LIMITING CHARACTERISTICS AS REQUIRED TO SAFELY FUNCTION AND PROTECT THE DISTRIBUTION SYSTEM.

31. TELECOMMUNICATIONS CABLES WILL BE PROVIDED AND INSTALLED BY THE OWNER. LEAVE PULL WIRES OR ROPES OF ADEQUATE TENSILE STRENGTH IN ALL EMPTY CONDUITS.

32. PROVIDE TELEPHONE AND DATA SERVICE ENTRANCE CONDUIT IN SIZES AND LOCATIONS AS SHOWN ON THE DRAWINGS AND AS REQUIRED BY THE OWNER AND THE SERVICE UTILITIES. UTILITY SERVICE ENTRANCE CABLES WILL BE PROVIDED AND INSTALLED BY THE OWNER'S SERVICE UTILITIES. LEAVE PULL WIRES OR ROPES OF ADEQUATE TENSILE STRENGTH IN ALL EMPTY CONDUITS.

33. INSTALLATION INFORMATION PACKED WITH LIGHTING FIXTURES, DEVICES AND EQUIPMENT SHALL BE RETAINED FOR INCLUSION IN THE OPERATIONS AND MAINTENANCE MANUALS.

34. SAFETY: COMPLY WITH OSHA AND NEC ARC FLASH PROTECTION REQUIREMENTS.

Panel "MDP"

TYPE: NEMA 4X | BOLT-ON | 208 / 120 V, 1 PH, 3 WIRE | MOUNT: SURFACE | FEED: BOTTOM

PROVIDE IF CHECKED: XX EQUIP. GROUND BUS; XX NEUTRAL BUS; GUTTER TAPS; SUB-FEED LUGS

LOAD SERVED	LOAD VA	CKT BKR	CKT #	A	B	CKT #	CKT BKR	LOAD VA	LOAD SERVED
CONTACTOR COIL	50	1/20	1	150		2	1/20	100	AUTOMATED PAY STATION
SPARE		1/20	3		180	4	1/20	180	RECEPTACLE
SPARE		1/20	5	1,000		6	1/20	1,000	SITE LIGHTING
SPARE		1/20	7			8	1/20		SPARE
SPARE		1/20	9	500		10	1/20	500	RECEPTACLE AT TREE
SPARE		1/20	11			12	1/20		SPARE
SPARE		1/20	13			14	1/20		SPARE
SPARE		1/20	15			16	1/20		SPARE
SPARE		1/20	17			18	1/20		SPARE
NOTE:				1,650	180	TOTAL VOLT AMPS		100 A.	BUS (COPPER)
				14	2	CONN. AMPS		100 A.	MAIN CIRCUIT BREAKER
								10	KAIC MIN.

1. PROVIDE HANDLE TIES FOR ALL MULTI-CIRCUIT COMMON NEUTRAL CIRCUIT BREAKERS PER NEC ARTICLE 605.7.
2. U.L.S.E. LABEL
3. PROVIDE WITH INTEGRAL, 4 POLE, 100 AMP CONTACTOR, SWITCHING POLES 6,8,10,12.

McFadyen Engineers, PLLC
4411 Peachtree Avenue
Wilmington, NC 28403
Phone : 910.399.1125
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John Sawyer Architects
124 Market Street
Wilmington, NC 28401
910.762.0892
johnsawyerarchitects.com

Coastal Land Design, PLLC

SageDesign

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 8433 DUNCAN MCFADYEN
4-24-2014

City of Wilmington

2nd Street & Church Alley Parking Lot

Wilmington, NC

Construction Documents
January 13, 2014

Revisions:

E1.0
of 3 Sheets

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McFadyen Engineers, PLLC
4411 Peachtree Avenue
Wilmington, NC 28403
Phone : 910.399.1125
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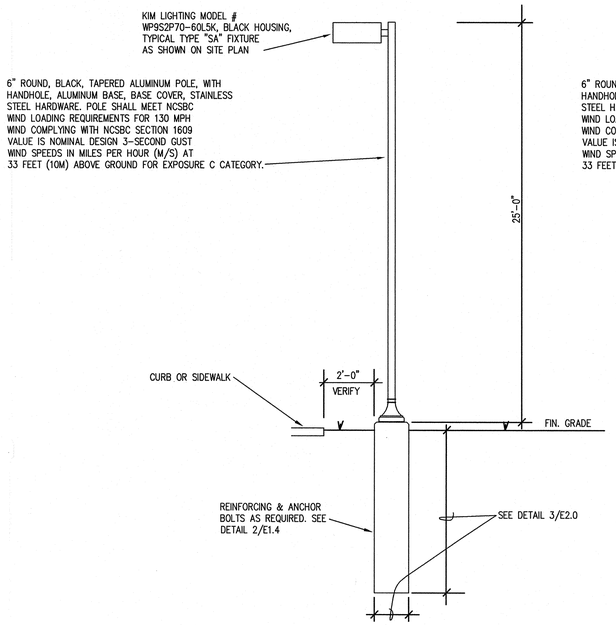
NC# P-1010

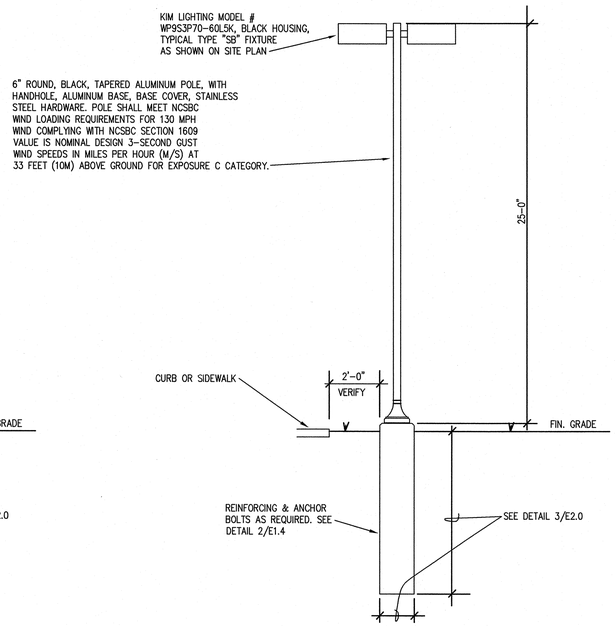
John Sawyer Architects
124 Market Street
Wilmington, NC 28401
910.762.0892
johnsawyerarchitects.com

Coastal Land Design PLLC
Civil Engineering / Landscape Architecture
Land Planning / Construction Management
NCBELS Firm License No. P-0265
P.O. Box 1172
Wilmington, NC 28402
www.coastalgo.com
Phone: 910-264-6054
Fax: 910-264-6057

SageDesign



1 - Type "SA" Site Lighting Fixture Detail
NOT TO SCALE



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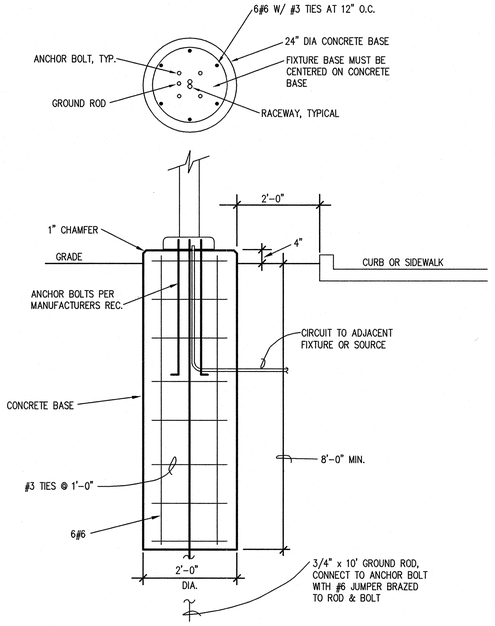
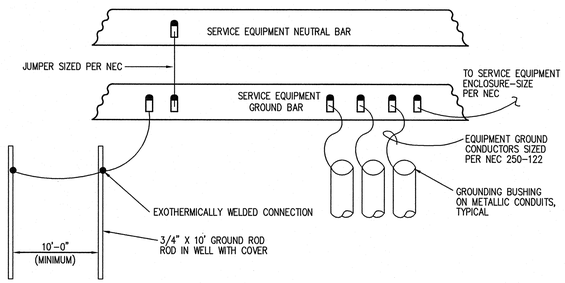
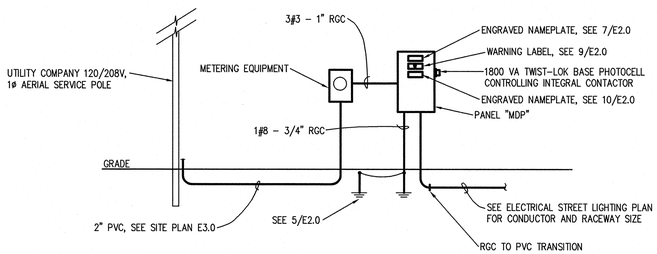


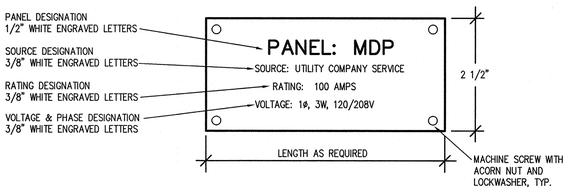
3 - Site Lighting Fixture Concrete Base Detail
NOT TO SCALE



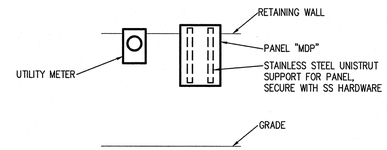
5 - Service Grounding System Detail
Not to Scale



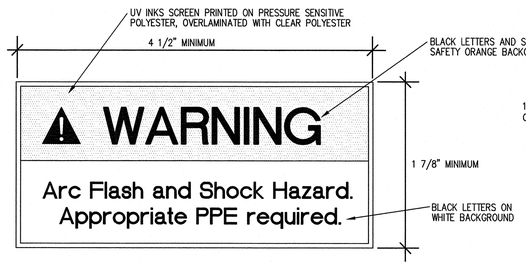
6 - Power Riser Diagram
(City of Wilmington Standard 9-06 (Revised))
Not to Scale



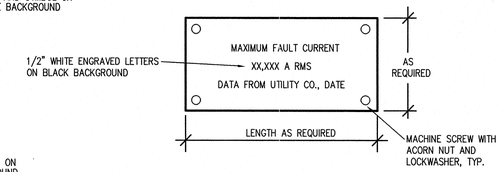
7 - Panelboard Nameplate Detail
Not To Scale



8 - Electrical Service Equipment Detail
Not to Scale



9 - Electrical Equipment Warning Label Detail
Not To Scale



10 - Fault Current Nameplate Detail
Not to Scale

City of Wilmington

2nd Street & Church Alley Parking Lot

Wilmington, NC

Construction Documents
January 13, 2014

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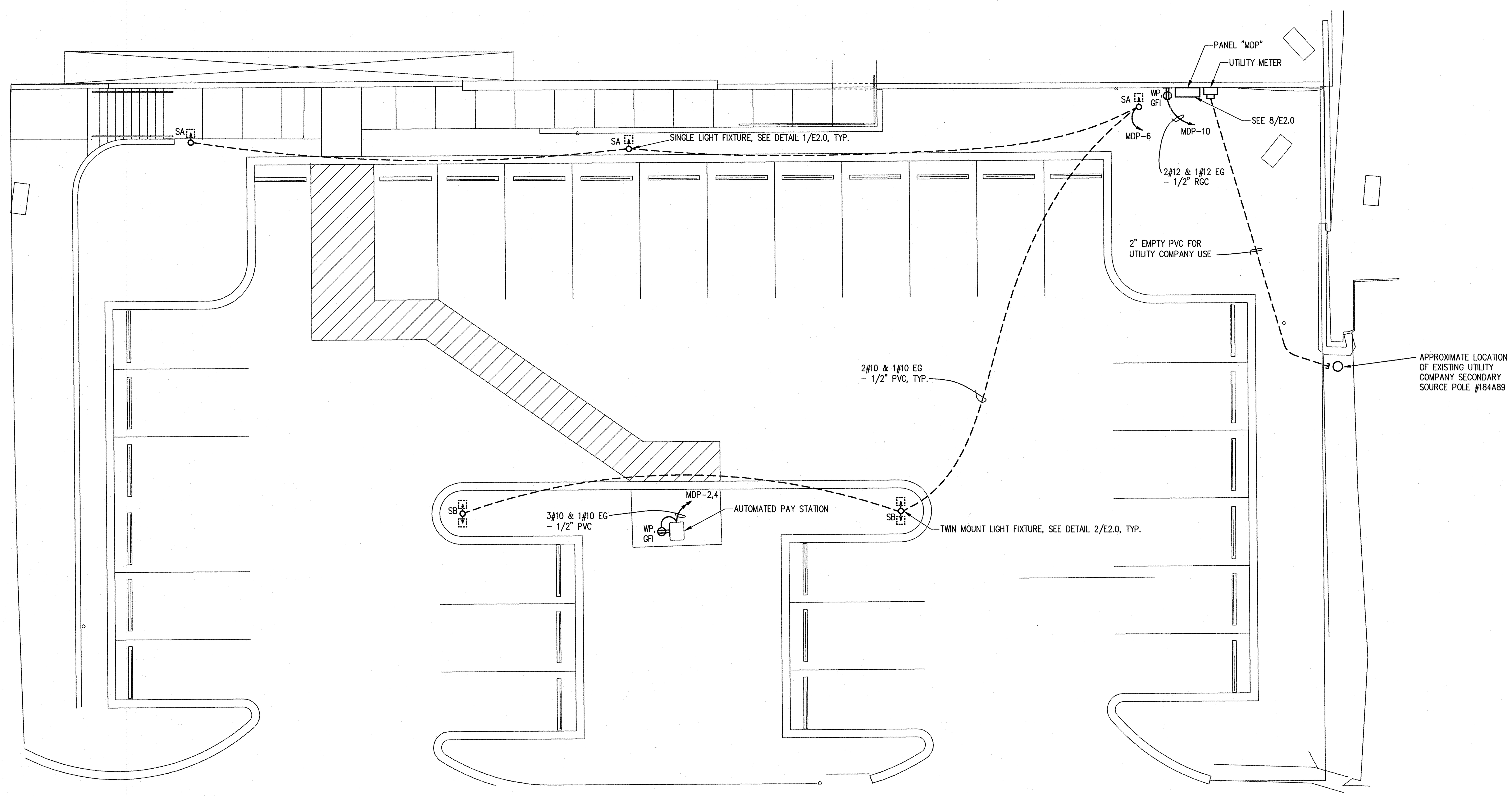

1 - Electrical Parking Lot Lighting Plan

1/8"=1'-0"

McFadyen Engineers, PLLC
4411 Peachtree Avenue
Wilmington, NC 28403
Phone: 910.399.1125

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John Sawyer Architects
124 Market Street
Wilmington, NC 28401
910.762.0892
johnsawyerarchitects.com

Coastal Land Design, PLLC

SageDesign

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 8433 DUNCAN McFADYEN

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