



1. CONTRACTOR IS FULLY RESPONSIBLE FOR CONTACTING APPROPRIATE PARTIES AND ASSURING THAT EXISTING UTILITIES ARE LOCATED PRIOR TO CONSTRUCTION.
2. CONTRACTOR IS RESPONSIBLE FOR PLACING BARRICADES USING FLAG MEN, ETC. AS NECESSARY TO INSURE SAFETY TO THE PUBLIC.
3. ALL PAVEMENT CUTS, CONCRETE OR ASPHALT, ARE TO BE REPLACED ACCORDING TO STANDARDS OF THE NORTH CAROLINA DEPARTMENT OF TRANSPORTATION AND CHARLOTTE-MECKLENBURG UTILITIES SPECIFICATIONS.
4. SHORING WILL BE ACCORDING TO OSHA TRENCHING STANDARDS PART 1926 SUBPART "P, OR AS AMENDED.

REVISION

APPROVED FOR
CONSTRUCTION

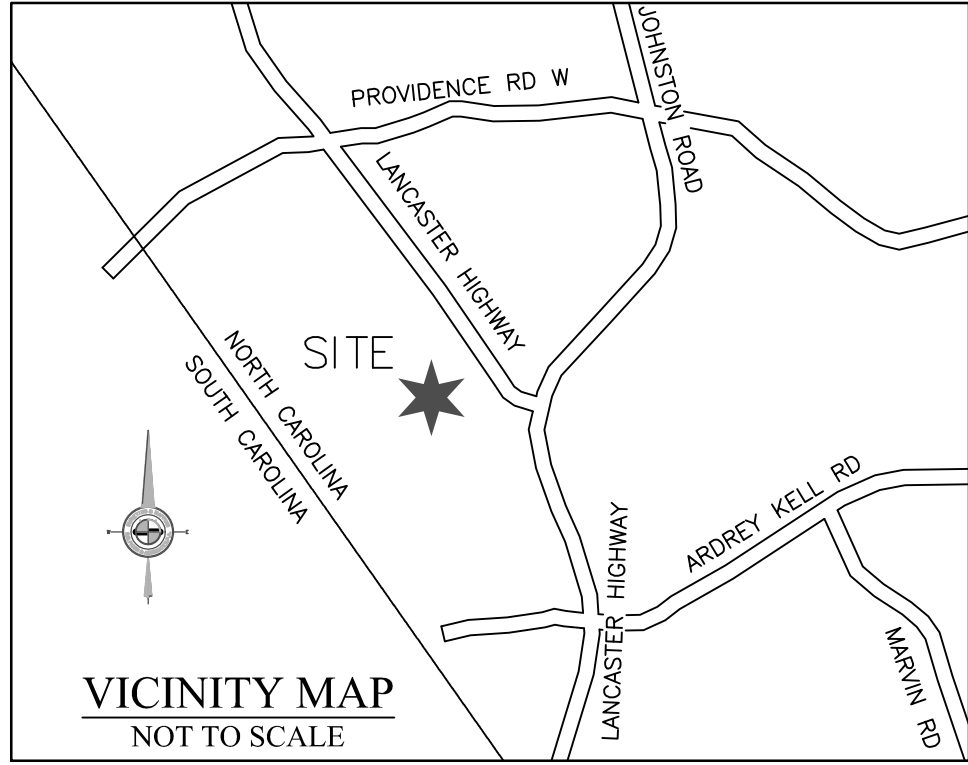
CHARLOTTE-MECKLENBURG PLANNING DEPARTMENT

By: Joshua Weaver 9-24-2015 f of 2

ELEVATION CHURCH

CHARLOTTE, NORTH CAROLINA

MPV PROPERTIES
521 EAST MOREHEAD STREET SUITE 400
CHARLOTTE, NORTH CAROLINA 28202



CONSTRUCTION DOCUMENTS

GENERAL NOTES:

1. SURVEY INFORMATION OBTAINED BY R.B. PHARR & ASSOCIATES, P.A. DATED 10/13/14, 10/23/14, AND 10/23/14.
2. ARCHITECTURAL DIMENSIONS TO BE VERIFIED BY SURVEYOR. REFER TO ARCHITECTURAL PLANS FOR EXACT BUILDING DIMENSIONS.
3. SURVEYOR SHALL REPORT ANY ENCROACHMENTS OR DISCREPANCIES GENERATED BY THE SITE PLAN AGAINST ANY SITE DEVELOPMENT REQUIREMENTS SPECIFIED BY THE SITE PLAN TO THE OWNER, LANDSCAPE ARCHITECT OR CIVIL ENGINEER PRIOR TO ANY ACTUAL CONSTRUCTION.
4. COORDINATE ALL CURB AND STREET GRADES IN INTERSECTION WITH INSPECTOR.
5. ALL ROAD IMPROVEMENTS AT LANCASTER HIGHWAY, JOHNSTON ROAD, PROVIDENCE ROAD WEST, AND ARDREY KELL ROAD ARE TO BE COORDINATED WITH THE CITY OF CHARLOTTE ENGINEERING DEPARTMENT AND NCDOT PRIOR TO CONSTRUCTION.
6. DEVELOPER WILL PROVIDE STREET SIGNS PER CMULDS# 50.05 (9" SIGNS ONLY).
7. SIGHT TRIANGLES SHOWN ARE THE MINIMUM REQUIRED.
8. IN ROLLING AND HILLY TERRAINS, SWEEPING OF THE STONE BASE AND/OR APPLICATION OF A TACK COAT MAY BE REQUIRED NEAR INTERSECTIONS. THESE REQUIREMENTS WILL BE ESTABLISHED BY THE INSPECTOR AND BASED ON FIELD CONDITIONS.
9. APPROVAL OF THIS PLAN IS NOT AN AUTHORIZATION TO GRADE ADJACENT PROPERTIES. WHEN FIELD CONDITIONS WARRANT OFF-SITE GRADING, PERMISSION MUST BE OBTAINED FROM THE AFFECTED PROPERTY OWNERS.
10. IN ORDER TO ENSURE PROPER DRAINAGE, KEEP A MINIMUM OF 0.5% SLOPE ON THE CURB.
11. SUBSURFACE DRAINAGE FACILITIES MAY BE REQUIRED IN THE STREET RIGHT-OF-WAY IF DEEMED NECESSARY BY THE INSPECTOR.
12. CURB AND GUTTER SHOWN ON PLANS ALONG LANCASTER HIGHWAY, JOHNSTON ROAD, PROVIDENCE ROAD WEST, AND ARDREY KELL ROAD MAY BE ADJUSTED BASED UPON FIELD STAKING BY CITY ENGINEERING. ASSOCIATED STORM DRAINAGE MAY ALSO REQUIRE MODIFICATION BASED UPON FIELD CONDITIONS.
13. THE PURPOSE OF THE STORM DRAINAGE EASEMENT (SDE) IS TO PROVIDE STORM WATER CONVEYANCE AND ANY STRUCTURES AND/OR OBSTRUCTION TO STORM WATER FLOW IS PROHIBITED.
14. HIGH-DENSITY POLYETHYLENE (HDPE) STORM DRAINAGE PIPE INSTALLED WITHIN EXISTING OR PROPOSED PUBLIC STREET RIGHT-OF-WAY MUST BE APPROVED BY THE CITY'S INSPECTOR PRIOR TO ANY BACKFILL BEING PLACED. BACKFILL MATERIAL MUST BE APPROVED BY THE CITY INSPECTOR PRIOR TO PLACEMENT OF THE MATERIAL WITHIN THE PUBLIC STREET RIGHT-OF-WAY.
15. THE DEVELOPER SHALL MAINTAIN EACH STREAM, CREEK, OR BACKWASH CHANNEL IN AN UNOBSTRUCTED STATE AND SHALL REMOVE FROM THE CHANNEL AND BANKS OF THE STREAM ALL DEBRIS, LOGS, TIMBER, JUNK AND OTHER ACCUMULATIONS.
16. PE SEALED SHOP DRAWINGS FOR RETAINING WALL MUST BE SUBMITTED TO CITY ENGINEER PRIOR TO CONSTRUCTION.
17. "AS-BUILT" DRAWINGS AND PLANS OF THE STORM DRAINAGE SYSTEM, INCLUDING DESIGNED DITCHES, MUST BE SUBMITTED PRIOR TO SUBDIVISION FINAL INSPECTION TO THE CITY/COUNTY ENGINEERING DEPARTMENT IN ACCORDANCE WITH THE CITY/COUNTY SUBDIVISION ORDINANCE.
18. PRIOR TO INSTALLATION, PE SEALED SHOP DRAWINGS FOR UNDERGROUND DETENTION SYSTEMS MUST BE FURNISHED TO CITY OF CHARLOTTE ENGINEERING FOR APPROVAL.
19. PRIOR TO CO, SURVEYOR SEALED, AS-BUILT DRAWINGS OF UNDERGROUND DETENTION SYSTEMS MUST BE PROVIDED.
20. NONSTANDARD ITEMS (IE: PAVERS, IRRIGATION SYSTEMS, ETC.) IN THE RIGHT-OF-WAY REQUIRE A RIGHT-OF-WAY ENCROACHMENT AGREEMENT WITH THE (CHARLOTTE DEPARTMENT OF TRANSPORTATION/NORTH CAROLINA DEPARTMENT OF TRANSPORTATION) BEFORE INSTALLATION.
21. PRIOR TO PLAT RECORDATION, OFFSITE R/W AND/OR CONSTRUCTION EASEMENTS ARE REQUIRED TO BE OBTAINED ACCORDING TO THE GUIDELINES OF THE "OFFSITE R/W ACQUISITION PROCESS". THESE NEEDED R/W AND CONSTRUCTION LIMITS ARE CLEARLY SHOWN ON THE ROADWAY IMPROVEMENT PLAN.
22. PIPE SYSTEMS AND/OR CHANNELS LOCATED WITHIN PUBLIC DRAINAGE EASEMENTS ARE THE MAINTENANCE RESPONSIBILITY OF THE INDIVIDUAL PROPERTY OWNER.
23. ALL CONSTRUCTION TO CONFORM TO CHARLOTTE / MECKLENBURG LAND DEVELOPMENT STANDARDS.
24. FIRE HYDRANT LOCATION SHALL BE REVIEWED AND APPROVED BY THE CITY FIRE MARSHALL DURING THE BUILDING PERMIT PROCESS.

ENGINEER'S NOTES:

1. CONTRACTOR SHALL NOTIFY THE ENGINEER OF WORK 48 HOURS PRIOR TO COMMENCEMENT OF CONSTRUCTION ACTIVITIES.
2. CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING INTERPRETATIONS FOR ANY QUESTIONS REGARDING THESE DRAWINGS PRIOR TO COMMENCEMENT OF WORK OR ORDERING OF MATERIALS AND SHALL BEAR THE COST OF ALL REWORK IF NOT PROPERLY COORDINATED.
3. CONTRACTOR SHALL PROVIDE ENGINEER RECORD DRAWING INFORMATION FROM A REGISTERED LAND SURVEYOR UPON COMPLETION OF CONSTRUCTION.
4. CONTRACTOR SHALL OBTAIN A PERMIT FOR ANY EXCAVATION PERFORMED WITHIN THE PUBLIC RIGHT-OF-WAY.
5. THE ENGINEER OF WORK SHALL NOT BE RESPONSIBLE FOR THE ENFORCEMENT OF SAFETY MEASURES OR REGULATIONS. THE CONTRACTOR SHALL DESIGN, CONSTRUCT, AND MAINTAIN ALL SAFETY DEVICES AND SHALL BE SOLELY RESPONSIBLE FOR CONFORMING TO ALL LOCAL, STATE, AND FEDERAL SAFETY STANDARDS, LAWS AND REGULATIONS.
6. CONTRACTOR SHALL ADJUST ALL PROPOSED AND EXISTING FACILITIES TO FINAL GRADE PER AGENCY STANDARDS.
7. CONTRACTOR SHALL NOTIFY THE ENGINEER OF ANY DISCREPANCIES BETWEEN THE FIELD DATA AND THE INFORMATION SHOWN HEREON. ENGINEER SHALL NOT BE RESPONSIBLE FOR ANY WORK DONE WITHOUT PROPER NOTIFICATION AND COORDINATION.
8. THE ENGINEER PREPARING THESE PLANS SHALL NOT BE RESPONSIBLE FOR, OR LIABLE FOR, UNAUTHORIZED CHANGES TO OR USES OF THESE PLANS. ALL CHANGES MUST BE IN WRITING AND MUST BE APPROVED BY THE DESIGN ENGINEER PRIOR TO IMPLEMENTATION.
9. PRIVATE WATER AND SANITARY SEWER SYSTEMS SHALL BE TESTED IN ACCORDANCE WITH N.C.D.E.N.R. REGULATIONS IN THE PRESENCE OF THE ENGINEER. RECEIPT OF FINAL ACCEPTANCE SHALL BE REQUIRED PRIOR TO ACTIVATION OF FACILITIES.
10. EXISTING SANITARY SEWER AND WATER SYSTEM SHOWN PER PROVIDED SURVEY AND CMUD REFERENCE DRAWINGS. EXISTING PUBLIC UTILITY INFORMATION IS SHOWN FOR REFERENCE ONLY. EXISTING SIZES, INVERTS AND LOCATIONS SHALL BE FIELD VERIFIED PRIOR TO COMMENCEMENT OF CONSTRUCTION AND THE ORDERING OF MATERIALS.
11. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO LOCATE ALL SUBSTRUCTURES, WHETHER SHOWN HEREON OR NOT, AND PROTECT FROM DAMAGE DURING INSTALLATION. THE EXPENSE OF REPAIR OR REPLACEMENT OF SUCH STRUCTURES SHALL BE BORNE BY THE CONTRACTOR.
12. A LICENSED UTILITY CONTRACTOR WILL INSTALL THE TAPS AND METERS. THE CONTRACTOR IS RESPONSIBLE FOR INSTALLING THE TAPS AND METERS TO CMUD STANDARDS AND REGULATIONS.
13. SANITARY YARD HYDRANTS SHALL NOT BE 'STOP AND DRAIN', 'STOP AND WASTE', OR 'WEEP HOLE' TYPE HYDRANTS.
14. IF CONTRACTOR OPTS TO INSTALL PRECAST STRUCTURES, CONTRACTOR SHALL VERIFY RIM ELEVATIONS AND LAYOUT OF ALL PIPES, INCLUDING SIZE AND INVERTS OF EXISTING FACILITIES, PRIOR TO THE ORDERING OF MATERIALS.
15. IT SHALL BE THE RESPONSIBILITY OF THE INSTALLER TO ADJUST ALL PRECAST STRUCTURES TO FINISHED GRADE IN ACCORDANCE WITH AGENCY SPECIFICATIONS AND MANUFACTURER RECOMMENDATIONS. NO ADDITIONAL PAYMENT WILL BE MADE FOR ADJUSTING FACILITIES TO FINISHED GRADE.
16. FIRE HYDRANTS ARE TO BE 10' CLEAR OF ANY OBSTRUCTIONS.
17. FDC LOCATIONS SHALL BE IN ACCORDANCE W/ CFD REQUIREMENTS.
18. FIRE SPRINKLER SIZING AND FDC CONNECTIONS TO BE SIZED AND LOCATED PER THE RECOMMENDATIONS OF THE FIRE SPRINKLER CONSULTANT. ALL REFERENCES SHOWN HEREON ARE FOR SCHEMATIC PURPOSES ONLY.

Amendments to Rezoning Plan:

Future amendments to this Site Plan and these development conditions may be applied for by the then Owner or Owners of the Site in accordance with the provisions of Chapter 6 of the Ordinance.

Binding Effect of the Rezoning Petition:

If this Rezoning Petition is approved, all conditions applicable to development of the Site imposed under these development conditions and the Site Plan, will, unless amended in the manner provided under the Ordinance, be binding upon and inure to the benefit of Petitioner and subsequent owners of the Site and their respective heirs, devisees, personal representatives, successors in interest or assigns, throughout these development conditions, the terms Petitioner and Owner(s) shall be deemed to include the heirs, devisees, personal representatives, successors in interest and assigns of the Petitioner or the owner or owners of the Site from time to time who may be involved in any future development thereof.

SITE DATA

TAX PARCEL ID NUMBERS:	223-511-01 (PORTION OF) 223-511-02 (PORTION OF) 223-511-03 223-532-01 0-1 (CD) 2013-048
ZONING:	22.145 AC. (964,659 S.F.)
REZONING PETITION NO:	RELIGIOUS INSTITUTION
SITE AREA:	1,600 SEATS
PROPOSED USE:	57,000 S.F. FIRST FLOOR
PROPOSED SEATING:	14,000 S.F. SECOND FLOOR
PROPOSED SQUARE FEET:	71,000 S.F. TOTAL
FLOOR-AREA RATIO:	0.60 F.A.R. MAXIMUM
FLOOR-AREA RATIO PROPOSED:	0.07 F.A.R.
BUILDING HEIGHT:	WORSHIP CENTER/CHILDREN'S MINISTRY 40' MAX EXCLUDING STEEPLE (IF ANY)
BUILDING HEIGHT PROPOSED:	40' TO TOP OF PARAPET
PARKING REQUIRED:	1 SPACE/ 4 SEATS = 400 SPACES
PARKING PROVIDED:	988 REGULAR SPACES 22 ACCESSIBLE SPACES 1,010 TOTAL
BIKE PARKING REQUIRED:	SHORT TERM FOR 2% OF PARKING = 20 BIKE SPACES NO LONG TERM SPACES REQUIRED
BIKE PARKING PROVIDED:	21 BIKE SPACES
SETBACK:	20' FROM R.O.W.
BUFFER:	75' CLASS B BUFFER
TRASH & RECYCLING PICK UP REQUIRED:	EQUAL TRASH AND RECYCLING
TRASH & RECYCLING PICK UP PROVIDED:	144 S.F. TRASH AND 144 S.F. RECYCLING

FIRE NOTES

BUILDING CONSTRUCTION:	II-B
BUILDINGS SPRINKLERED:	NFPA 13
BUILDING AREA:	71,000 SQ. FT.
FIRST FLOOR:	57,000 SQ. FT.
SECOND FLOOR:	14,000 SQ. FT.

NOTES: SEE WATER PLAN SHEET C5.0 FOR FDC LOCATIONS HYDRANT FLOW TEST FLOW TEST RESULTS

SITE ACCESSIBILITY NOTES

1. ALL BUILDINGS WITHIN THE BOUNDARY OF THIS SITE, UNLESS OTHERWISE STATED AS EXEMPT, SHALL HAVE "ACCESSIBLE ROUTES" AS REQUIRED THAT CONFORM TO THE REQUIREMENTS OF "THE AMERICANS WITH DISABILITIES ACT", "FAIR HOUSING STANDARDS", ICC ANSI A 117.1-209 AND GOVERNING STATE HANDICAP CODE STANDARDS.

THESE STANDARDS FOR ACCESSIBILITY INCLUDE, BUT ARE NOT LIMITED TO:

MAXIMUM WALK SLOPE = 1:20
MAXIMUM RAMP SLOPE = 1:12 WITH RAILING
MAXIMUM CROSS SLOPE = 1/4" PER FOOT (2%)
ALL WALKS TO BE BROOM FINISHED CONCRETE UNLESS OTHERWISE SPECIFIED ON THESE DRAWINGS
MAXIMUM ACCESSIBLE ROUTE LENGTH (NC) = 200'

2. THE PAVEMENT SLOPE WITHIN ACCESSIBLE PARKING SPACES SHALL NOT EXCEED 2% IN ALL DIRECTIONS.
3. CONTRACTOR TO CONTACT DESIGN RESOURCE GROUP FOR ANY VARYING SITE CONDITIONS OR DISCREPANCIES AFFECTING SITE ACCESSIBILITY REQUIREMENTS.

ADDITIONAL ACCESSIBLE ROUTE NOTES FOR ACCESSIBILITY COMPLIANCE WITH ICC/ANSI A117.1-2009, AND 2010 ADA STANDARDS.

1. PROTRUDING OBJECTS ON CIRCULATION PATHS WITHIN COMMON USE AREAS TO COMPLY WITH ANSI 2009 SECTION 307, INCLUDING:
 - a. PROTRUSION LIMITS: OBJECTS WITH LEADING EDGES MORE THAN 27" AND NOT MORE THAN 80" ABOVE THE FLOOR SHALL PROTRUDE 4" MAXIMUM HORIZONTALLY INTO THE CIRCULATION PATH. EXCEPTIONS INCLUDE HANDRAILS, DOOR CLOSERS, AND DOOR STOPS.
 - b. POST MOUNTED OBJECTS: OBJECTS ON POSTS OR PYLONS SHALL BE PERMITTED TO OVERHANG 4" MAXIMUM WHERE MORE THAN 27" AND NOT MORE THAN 80" ABOVE THE FLOOR. OBJECTS ON MULTIPLE POSTS OR PYLONS WHERE THE CLEAR DISTANCE BETWEEN THE POSTS OR PYLONS IS GREATER THAN 12" SHALL HAVE THE LOWEST EDGE OF SUCH OBJECT EITHER 27" MAXIMUM OR 80" MINIMUM ABOVE THE FLOOR.
 - c. REDUCED VERTICAL CLEARANCE: GUARDRAILS OR OTHER BARRIERS SHALL BE PROVIDED WHERE OBJECT PROTRUSION IS BEYOND THE LIMITS ALLOWED BY SECTIONS 307.2 AND 307.3, AND WHERE THE VERTICAL CLEARANCE IS LESS THAN 80" ABOVE THE FLOOR, THE LEADING EDGE OF SUCH GUARDRAIL OR BARRIER SHALL BE 27" MAXIMUM ABOVE THE FLOOR.
2. PROTRUDING OBJECTS ON CIRCULATION PATHS WITHIN PUBLIC USE AREAS TO COMPLY WITH 2010 ADA SECTION 307, INCLUDING:
 - a. 2010 ADA SECTION 307.2: OBJECTS PROJECTING FROM WALLS
 - b. 2010 ADA SECTION 307.4: MINIMUM CLEAR HEADROOM
3. FLOOR AND GROUND SURFACES IN COMMON USE AREAS SHALL BE STABLE, FIRM, AND SLIP RESISTANT AND SHALL COMPLY WITH ANSI 2009 SECTION 302.
4. FLOOR AND GROUND SURFACES ALONG ACCESSIBLE ROUTES AND IN ACCESSIBLE ROOMS AND SPACES WITH PUBLIC USE AREAS SHALL BE STABLE, FIRM, AND SLIP-RESISTANT AND SHALL COMPLY WITH 2010 ADA SECTION 302.
5. CHANGES IN LEVEL IN COMMON USE AREAS SHALL COMPLY WITH ANSI 2009 SECTION 303, INCLUDING:
 - a. ANSI 2009 SECTION 303.2: VERTICAL
 - b. ANSI 2009 SECTION 303.3: BEVELED
 - c. ANSI 2009 SECTION 303.4: RAMPS
6. CHANGES IN LEVEL ALONG ACCESSIBLE ROUTES AND IN ACCESSIBLE ROOMS AND SPACES WITH PUBLIC USE AREAS SHALL COMPLY WITH 2010 ADA SECTION 303, INCLUDING:
 - a. 2010 ADA SECTION 303.2: VERTICAL
 - b. 2010 ADA SECTION 303.3: BEVELED
 - c. 2010 ADA SECTION 303.4: RAMPS
7. IF TREES OR OTHER PLANTING OVERHANG ALONG THE CIRCULATION ROUTES AT THE SIDEWALK WITHOUT PROTECTION AT 27" A.F.F. OR LOWER, ASSURE THEY DO NOT EXTEND GREATER THAN 4" INTO CIRCULATION ROUTE AT A HEIGHT OF 80" ABOVE GRADE OR LOWER. (1986 ANSI, SECTION 4.4.1)
8. THE CONTROLS AT ANY ADDITIONAL COMMON USE ELEMENT SUCH AS THE GATE HARDWARE, FIRE PIT, POOL SHOWER, ETC. WHICH ARE INTENDED TO BE USED BY THE RESIDENTS AND THEIR GUESTS ARE LOCATED ON AN ACCESSIBLE ROUTE, WITHIN THE REQUIRED REACH RANGE OF 15"-48" A.F.F. AND ARE OPERABLE WITH ONE HAND USING 5LB MAXIMUM PRESSURE, WITHOUT TIGHT GRASPING, PINCHING, OR TWISTING OF THE WRIST (1986 ANSI, SECTION 4.2.5 & ANSI 2009, SECTION 308)

* FIRE DEPARTMENT - SEE NOTES, CALCULATIONS, AND FIRE HYDRANT INFORMATION ON SHEETS C5.0

SHEET SCHEDULE

C0.00	COVER SHEET
C1.00	SURVEY
C1.01	SURVEY
C1.02	SURVEY
C1.03	DEMOLITION PLAN
C2.00	SITE PLAN
C2.01	OVERALL SITE PLAN
C2.02	VEHICULAR MANEUVERING PLAN
C2.03	PHOTOMETRICS PLAN
C3.00	OVERALL EROSION CONTROL PLAN - PHASE I
C3.01	EROSION CONTROL PLAN - PHASE I
C3.02	EROSION CONTROL PLAN - PHASE I
C3.03	EROSION CONTROL PLAN - PHASE I
C3.04	OVERALL EROSION CONTROL PLAN - PHASE II
C3.05	EROSION CONTROL PLAN - PHASE II
C3.06	EROSION CONTROL PLAN - PHASE II
C3.07	EROSION CONTROL PLAN - PHASE II
C4.00	OVERALL GRADING PLAN
C4.01	GRADING PLAN - WEST
C4.02	GRADING PLAN - NORTHEAST
C4.03	GRADING PLAN - SOUTHEAST
C4.10	STORM DRAIN PLAN
C4.11	DRAINAGE AREAS PLAN
C4.12	DRAINAGE AREA AND STORM DRAINAGE CHART
C4.13	PCCO WET POND BMP DETAILS
C4.14	STORM WATER MANAGEMENT PLAN
C5.00	UTILITY PLAN

C6.00	REQUIRED PLANTING PLAN
C6.01	WET POND PLANTING AND NOTES
C7.00	ELEVATION POINT DRIVE PLAN, PROFILE AND PAVEMENT MARKINGS
C7.01	ELEVATION POINT DRIVE PLAN, PROFILE AND PAVEMENT MARKINGS
C7.02	OVERALL ROAD IMPROVEMENTS PLAN
C7.03	PROVIDENCE ROAD WEST IMPROVEMENT PLAN
C7.04	PROVIDENCE ROAD WEST PAVEMENT MARKING PLAN
C7.05	PROVIDENCE ROAD WEST CROSS SECTIONS
C7.06	PROVIDENCE ROAD WEST CROSS SECTIONS
C7.07	PROVIDENCE ROAD WEST CROSS SECTIONS
C7.08	NOT USED
C7.09	NOT USED
C7.10	NOT USED
C7.11	PROVIDENCE ROAD WEST DETOUR PLAN
C7.12	PROVIDENCE ROAD WEST TRAFFIC CONTROL PLAN
C7.13	JOHNSTON ROAD AND LANCASTER HWY ROAD IMPROVEMENT PLAN
C7.14	LANCASTER HWY. AND JOHNSTON ROAD PAVEMENT MARKING PLAN
C7.15	LANCASTER HWY ISD PLAN AND PROFILE
C7.16	JOHNSTON ROAD ISD PLAN AND PROFILE
C7.17	LANCASTER HWY CROSS SECTIONS
C7.18	LANCASTER HWY CROSS SECTIONS
C7.19	LANCASTER HWY CROSS SECTIONS
C7.20	LANCASTER HWY CROSS SECTIONS
C7.21	LANCASTER HWY CROSS SECTIONS
C7.22	LANCASTER HWY CROSS SECTIONS
C7.23	JOHNSTON ROAD CROSS SECTIONS
C7.24	JOHNSTON ROAD CROSS SECTIONS
C7.25	JOHNSTON ROAD CROSS SECTIONS
C7.26	JOHNSTON ROAD TRAFFIC CONTROL PLAN
C7.27	LANCASTER HWY TRAFFIC CONTROL PLAN
C7.28	LANCASTER HWY TRAFFIC CONTROL PLAN
C7.29	TRAFFIC CONTROL NOTES
C7.30	ARDREY KELL ROAD AND LANCASTER HWY IMPROVEMENT PLAN
C7.31	ARDREY KELL ROAD AND LANCASTER HWY PAVEMENT PLAN
C7.32	ARDREY KELL ROAD CROSS SECTIONS
C7.33	ARDREY KELL ROAD CROSS SECTIONS
C7.34	ARDREY KELL ROAD TRAFFIC CONTROL PLAN
C7.35	VEHICULAR ROAD MANEUVERING PLANS
C7.36	PAVEMENT MARKING DETAILS
C7.37	ROUNDOABOUT DETAIL PLAN
C8.00	SITE DETAILS
C8.01	SITE DETAILS
C8.02	SITE DETAILS
C8.03	SITE DETAILS
C8.04	SITE DETAILS
C8.05	SITE DETAILS
C8.06	SITE DETAILS
C9.00	EROSION CONTROL DETAILS
C9.01	EROSION CONTROL DETAILS
C9.02	EROSION CONTROL DETAILS
C9.03	DRAINAGE DETAILS
C9.04	UTILITY DETAILS

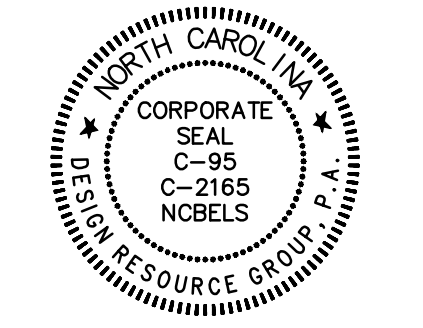
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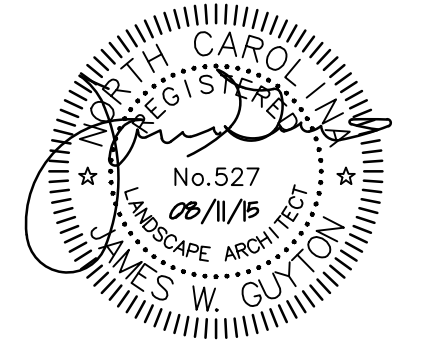
- landscape architecture
- civil engineering
- urban design
- land planning
- traffic engineering
- transportation planning

2459 wilkinson boulevard, suite 200
Charlotte, NC 28208
p 704.343.0608 f 704.358.3093
www.drgrp.com



ELEVATION CHURCH
CHARLOTTE, NORTH CAROLINA
MPV PROPERTIES
521 EAST MOREHEAD STREET SUITE 400
CHARLOTTE, NC 28202

CONSTRUCTION
DOCUMENTS



PROJECT #: 397-007
DRAWN BY: MB
CHECKED BY: SK

COVER SHEET

DATE: JUNE 27, 2014

REVISIONS:
1. 09/03/14 - PER REVIEW COMMENTS
2. 11/6/14 - PER REVIEW COMMENTS
3. 08/11/15 - RTAP

C0.00

LEGEND:

BFP - BACK FLOW PREVENTOR
C&G - CURB & GUTTER
CB - CATCH BASIN
CI - CURB INLET
CMP - CORRUGATED METAL PIPE
CP - CALCULATED POINT
CPP - CORRUGATED PLASTIC PIPE
CLO - CLEAN OUT
DB - DEED BOOK
DI - DROP INLET
DIP - DUCTILE IRON PIPE
ECM - EXISTING CONCRETE MONUMENT
EIP - EXISTING IRON PIPE
EIR - EXISTING IRON ROD
EMM - EXISTING METAL MONUMENT
EN - EXISTING NAIL
EPH - EXISTING PUNCH HOLE
EOG - EDGE OF GRAVEL
EOP - EDGE OF PAVEMENT
EU - END UNKNOWN
FP - FIRE CONNECTION
FIR - FIRE HYDRANT
FP - FLAG POLE
FV - FIRE VALVE
GDP - GUARD POST
GLT - GROUND LIGHT
GM - GAS METER
GP - GATE POST
GT - GAS VALVE
GW - GUY WIRE
HVAC - HEATING, VENTILATION, AIR COND.
HW - HEADWALL
ICY - IRRIGATION CONTROL VALVE
JBX - JUNCTION BOX
LMP - LAMP POST
LP - LIGHT POLE
M - MEASURED
MBX - MAILBOX
MB - MAP BOOK
MW - MONITORING WELL
N.G.S. - NATIONAL GEODETIC SURVEY
NIP - NEW IRON ROD
NN - NEW NAIL
NPH - NEW PUNCH HOLE
OHANG - OVERHANG
PB - POWER BOX
PIN - PARCEL IDENTIFICATION NUMBER
PM - POWER METER
PMH - POWER MANHOLE
PP - POWER POLE
PG - PAGE
PVC - PLASTIC PIPE
R/W - RIGHT-OF-WAY
RCP - REINFORCED CONCRETE PIPE
RW - RETAINING WALL
SBB - BILLBOARD
SDMH - STORM DRAIN MANHOLE
SMP - MULTI-POST SIGN
SSMH - SANITARY SEWER MANHOLE
T - TOTAL
TB - TELEPHONE BOX
TBM - TEMPORARY BENCHMARK
TERP - TERRACOTTA PIPE
TMH - TELEPHONE MANHOLE
TPED - TELEPHONE PEDESTAL
TSB - TRAFFIC SIGNAL BOX
TIB - CABLE TV BOX
WB - WATER BOX
WM - WATER METER
WSP - WATER SPOUT
WV - WATER VALVE
YI - YARD INLET

HARRISON METHODIST CHURCH
DB. 1386, PG. 315
PIN: 223-591-65

LINE LEGEND:

EASEMENT
PROPERTY LINE (NOT SURVEYED)
RIGHT-OF-WAY
RIGHT-OF-WAY (NOT SURVEYED)
SETBACK
CABLE TV LINE
FIBER OPTIC LINE
GAS LINE
POWER LINE
POWER LINE (UNDERGROUND)
SANITARY SEWER PIPE
STORM DRAIN PIPE
TELEPHONE LINE
TELEPHONE LINE (UNDERGROUND)
WATER LINE
WOOD FENCE
CHAIN LINK FENCE

UTILITIES:

POWER
DUKE POWER ENERGY
1-800-777-9088
TELEPHONE
BELL SOUTH TELECOMMUNICATIONS
1-888-757-6500
WATER & SEWER
CHAR-MECK, UTILITY DEPT. (CMUD)
(704) 336-2364 WATER
(704) 357-6064 SEWER
GAS
PIEDMONT NATURAL GAS CO.
1-800-752-7504
CABLE TELEVISION
TIME WARNER CABLE
1-800-892-2255



Know what's below.
Call before you dig.

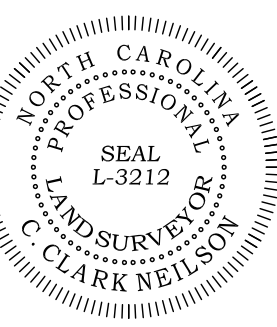
MULTIPLE OWNERS
UNIT OWNERSHIP FILE 980, PG. 980
PIN: 223-03C-99

GPS CERTIFICATION:

I, C. CLARK NELSON, CERTIFY THAT THIS MAP WAS DRAWN UNDER MY SUPERVISION FROM AN ACTUAL GPS SURVEY MADE UNDER MY SUPERVISION AND THE FOLLOWING INFORMATION WAS USED TO PERFORM THE SURVEY:
(1) CLASS OF SURVEY: CLASS A1 (10.000)
(2) POSITIONAL ACCURACY: HORIZONTAL N=0.0015", E=0.005"; VERTICAL=0.006"
(3) TYPE OF GPS FIELD PROCEDURE: REAL-TIME KINEMATIC, ONLINE POSITION USER SERVICE
(4) DATES OF SURVEY: JANUARY 27, 2014
(5) DATUM/EPOCH: NAD 1983 (CONUS)
(6) PUBLISHED/FIELD CONTROL USE: NGS MONUMENT LOWERY
(7) GEOD. MODEL: GEOID03 (CONUS)
(8) COMBINED GRID FACTOR(S): 0.99983280
(9) UNITS: US SURVEY FEET

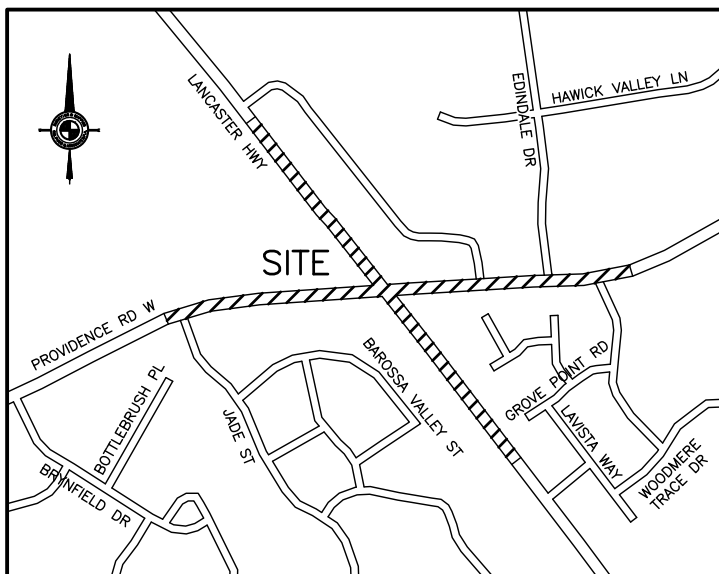
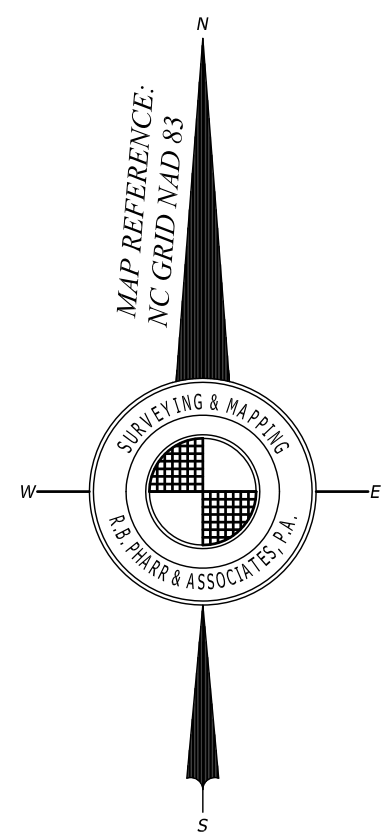
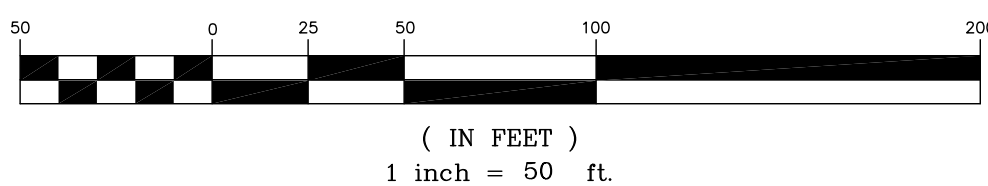
THIS IS TO CERTIFY THAT ON THE 18TH DAY OF FEBRUARY 2014, THIS MAP WAS PREPARED UNDER MY SUPERVISION AND THAT NO BOUNDARY WAS PERFORMED IN ITS PREPARATION. THE PURPOSE OF THIS MAP IS TO SHOW TOPOGRAPHICAL AND PHYSICAL FEATURES ONLY, AND IT DOES NOT MEET THE MINIMUM STANDARDS OF PRACTICE FOR LAND SURVEYING IN NORTH CAROLINA, BOARD RULE 1600 (21 NCAC 56), AND IS NOT INTENDED TO BE USED FOR RECORDATION, CONVEYANCES, OR SALES. HOWEVER, THE POSITIONAL AND VERTICAL ACCURACY OF THE PHYSICAL AND TOPOGRAPHICAL FEATURES SHOWN ARE RELIABLE AND MEET THE ACCURACY STANDARDS OF THE AFORESAID STANDARDS OF PRACTICE.

SIGNED



B&B OLDE LANCASTER RI, LLC
DB. 22707, PG. 338
MB. 48, PG. 445
PIN: 223-135-96

GRAPHIC SCALE



TREE LEGEND:

BCH - BEECH
BRK - BIRCH
BRAD - BRADFORD PEAR
CED - CEDAR
CHY - CHERRY
CPM - CREPE MYRTLE
DGW - DOGWOOD
HIC - HICKORY
HOL - HOLLY
LOC - LOCUST
MAG - MAGNOLIA
MAP - MAPLE
PEC - PECAN
PIN - PINE
POP - POPLAR
SYC - SYCAMORE
WLN - WALNUT
WLC - WILD CHERRY

NOTES:

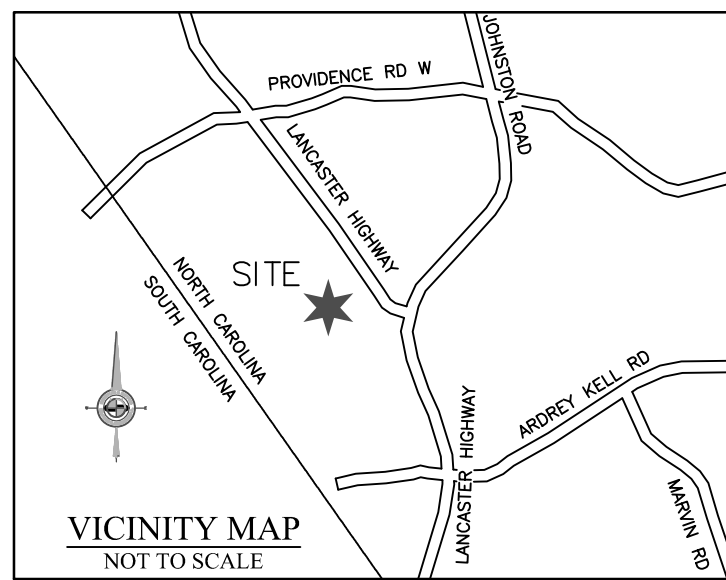
- THIS PLAT IS NOT FOR RECORDATION AS PER G.S. 47-30 AS AMENDED.
- ALL CORNERS MONUMENTED AS SHOWN.
- NO RECOVERABLE NGS MONUMENT LOCATED WITHIN 2,000 FEET OF SUBJECT PROPERTY.
- THE LOCATION OF UNDERGROUND UTILITIES SHOWN ON THIS MAP IS APPROXIMATE, BASED ON INFORMATION PROVIDED BY OTHERS OR BY FIELD LOCATION. UTILITY LOCATIONS AS SHOWN HEREON ARE INTENDED FOR PLANNING ONLY. ACTUAL LOCATION, SIZE, OR DEPTH OF LINE SHOULD BE VERIFIED WITH THE INDIVIDUAL UTILITY COMPANY BEFORE CONSTRUCTION.
- THIS SURVEY WAS PERFORMED WITHOUT BENEFIT OF A TITLE COMMITMENT REPORT. R.B. PHARR & ASSOCIATES, P.A. DOES NOT CLAIM THAT ALL MATTERS OF RECORD WHICH MAY OR MAY NOT AFFECT THE SUBJECT PROPERTY ARE SHOWN HEREON.
- ELEVATIONS BASED ON N.G.S. MONUMENT "LOWERY", ELEVATION = 657.31 FEET, NAVD 88.
- BROKEN LINES INDICATE PROPERTY LINES NOT SURVEYED.
- LANCASTER HIGHWAY AND PROVIDENCE ROAD WEST ARE SHOWN AS A "MAJOR THOROUGHFARE" ON THE MECKLENBURG-UNION METROPOLITAN PLANNING ORGANIZATION THOROUGHFARE PLAN OF 2004 AND MAY BE SUBJECT TO A FUTURE RIGHT-OF-WAY OF 50' FROM CENTERLINE.
- THE OFF-SITE RIGHT-OF-WAY SHOWN HEREON IS FOR ILLUSTRATIVE PURPOSES ONLY. THE UNDERSIGNED CERTIFIES ONLY TO THE RIGHT-OF-WAYS SURVEYED, AND DOES NOT CERTIFY TO THE RIGHT OF WAY WIDTH OF ANY ADJACENT PROPERTIES.
- THE PURPOSE OF THIS MAP IS TO SHOW TOPOGRAPHIC INFORMATION ONLY ALONG LANCASTER HIGHWAY ROAD AND PROVIDENCE ROAD WEST AS SHOWN. NO BOUNDARY SURVEY WAS PERFORMED WITH THE PREPARATION OF THIS MAP.

ARDREY PARK TOWNHOME ASSOCIATION, INC.
DB. 11587, PG. 172
MB. 33, PG. 677 & MB. 33, PG. 713
PIN: 223-092-99

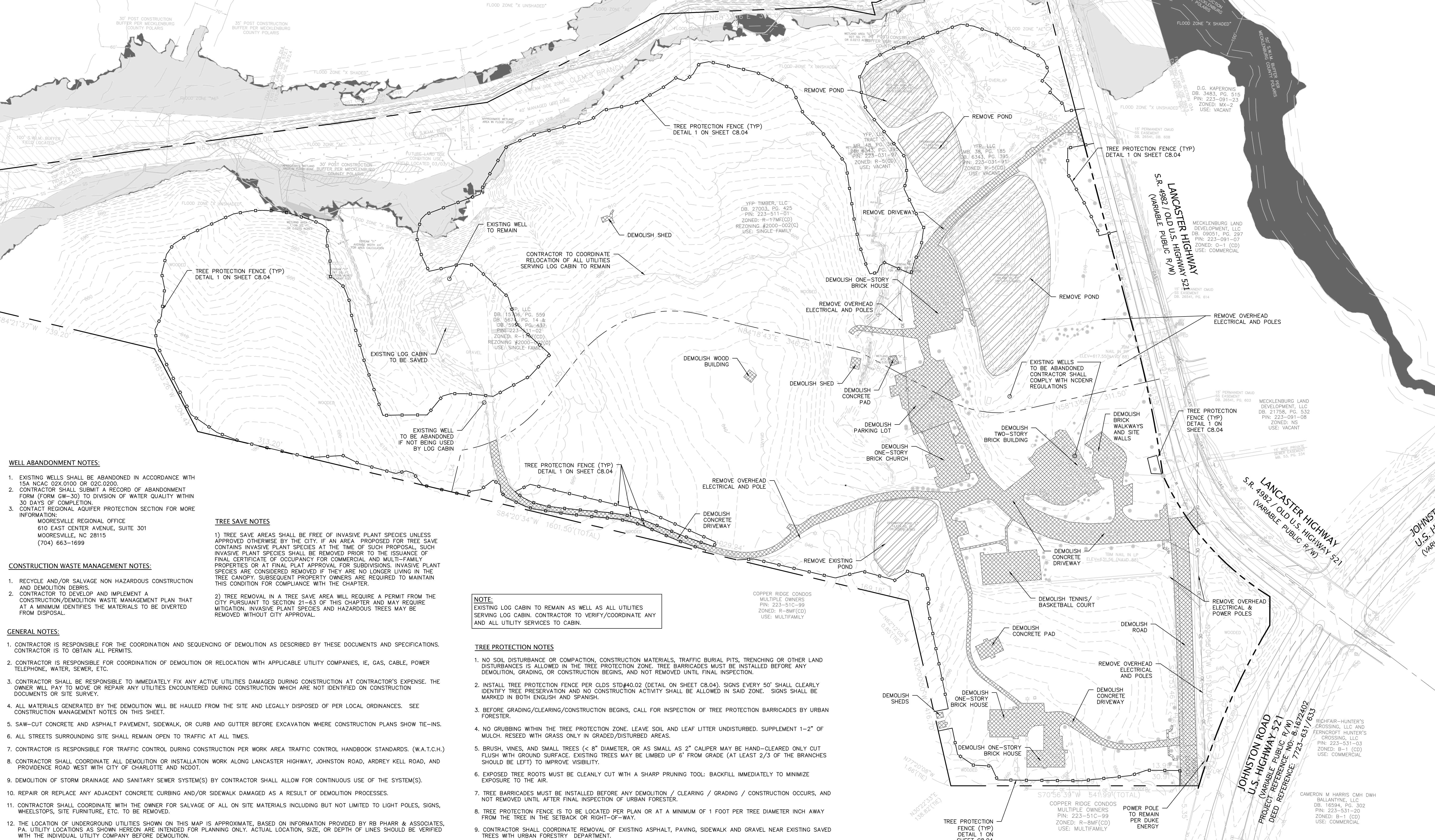
NGS MONUMENT "LOWERY"
N=474,223.54
E=1,443,592.39
ELEV=657.31

REVISIONS			TOPOGRAPHICAL SURVEY PREPARED FOR:		
10/13/14 - ADD SPEED LIMIT INFORMATION AND SR #'S.			ELEVATION CHURCH		
10/23/14 - ADD SOFTDIG LOCATION INFORMATION.			LANCASTER HIGHWAY & PROVIDENCE ROAD WEST CITY OF CHARLOTTE, MECKLENBURG COUNTY, NC DEED REFERENCE: AS SHOWN TAX PARCEL #: AS SHOWN		
			R.B. PHARR & ASSOCIATES, P.A. SURVEYING & MAPPING LICENSE NO. C-1471		
CREW: EH	DRAWN: CW	REVISED: CW	SCALE: 1" = 50'	DATE: FEBRUARY 18, 2014	FILE NO. W-4515 JOB NO. 80799

PLOTTED: 10/23/2014
C:\CARLSON\PROJECTS\RB PHARR\807\80799\DWG\80799.DWG



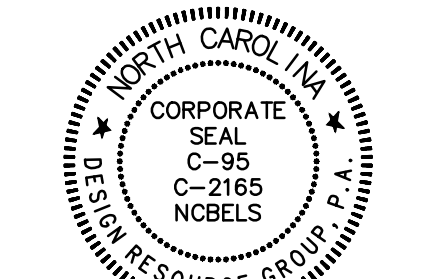
- BEFORE YOU LOG!
CONTACT OUR CALL CENTER
1-800-652-9999
- CONTRACTOR IS FULLY RESPONSIBLE FOR CONTACTING APPROPRIATE PARTIES AND ASSURING THAT EXISTING UTILITIES ARE LOCATED PRIOR TO CONSTRUCTION.
 - CONTRACTOR IS RESPONSIBLE FOR PLACING BARRICADES USING FLAG MEN, ETC. AS NECESSARY TO INSURE SAFETY TO THE PUBLIC.
 - ALL PAVEMENT CUTS, CONCRETE OR ASPHALT, ARE TO BE REPLACED ACCORDING TO STANDARDS OF THE NORTH CAROLINA DEPARTMENT OF TRANSPORTATION AND CHARLOTTE-MECKLENBURG UTILITIES SPECIFICATIONS.
 - SHORING WILL BE ACCORDING TO OSHA TRENCHING STANDARDS PART 1926 SUBPART P, OR AS AMENDED.



design resource group

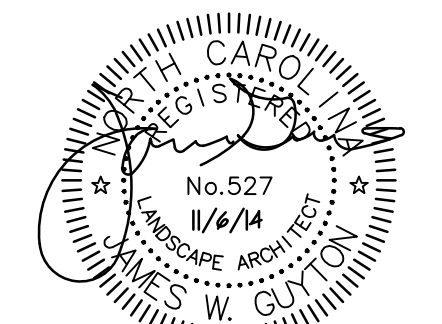
- landscape architecture
- civil engineering
- urban design
- land planning
- traffic engineering
- transportation planning

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charlotte, nc 28208
p 704.343.0608 f 704.358.3093
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ELEVATION CHURCH
CHARLOTTE, NORTH CAROLINA
MPV PROPERTIES
521 EAST MOREHEAD STREET SUITE 400
CHARLOTTE, NC 28202

CONSTRUCTION
DOCUMENTS



50 0 50 100
SCALE: 1"=100'

PROJECT #: 397-007
DRAWN BY: MB
CHECKED BY: SK

**DEMOLITION
PLAN**

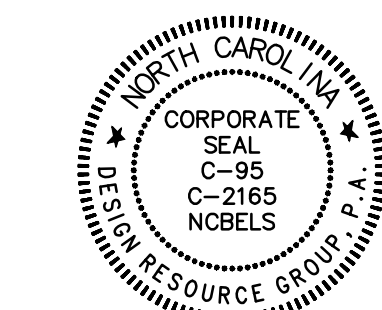
DATE: JUNE 27, 2014

REVISIONS:
1. 09/03/14 - PER REVIEW COMMENTS
2. 11/6/14 - PER REVIEW COMMENTS



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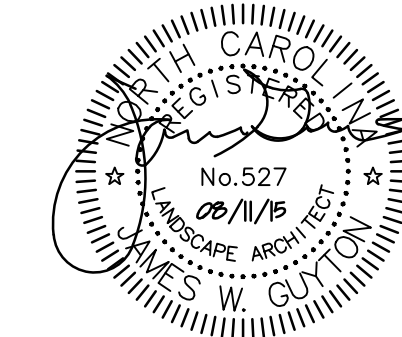


ELEVATION CHURCH

CHARLOTTE, NORTH CAROLINA

MPV PROPERTIES

521 EAST MOREHEAD STREET SUITE 400

CONSTRUCTION
DOCUMENTS

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SCALE: 1" = 60'

PROJECT #: 397-007
DRAWN BY: MB
CHECKED BY: SK

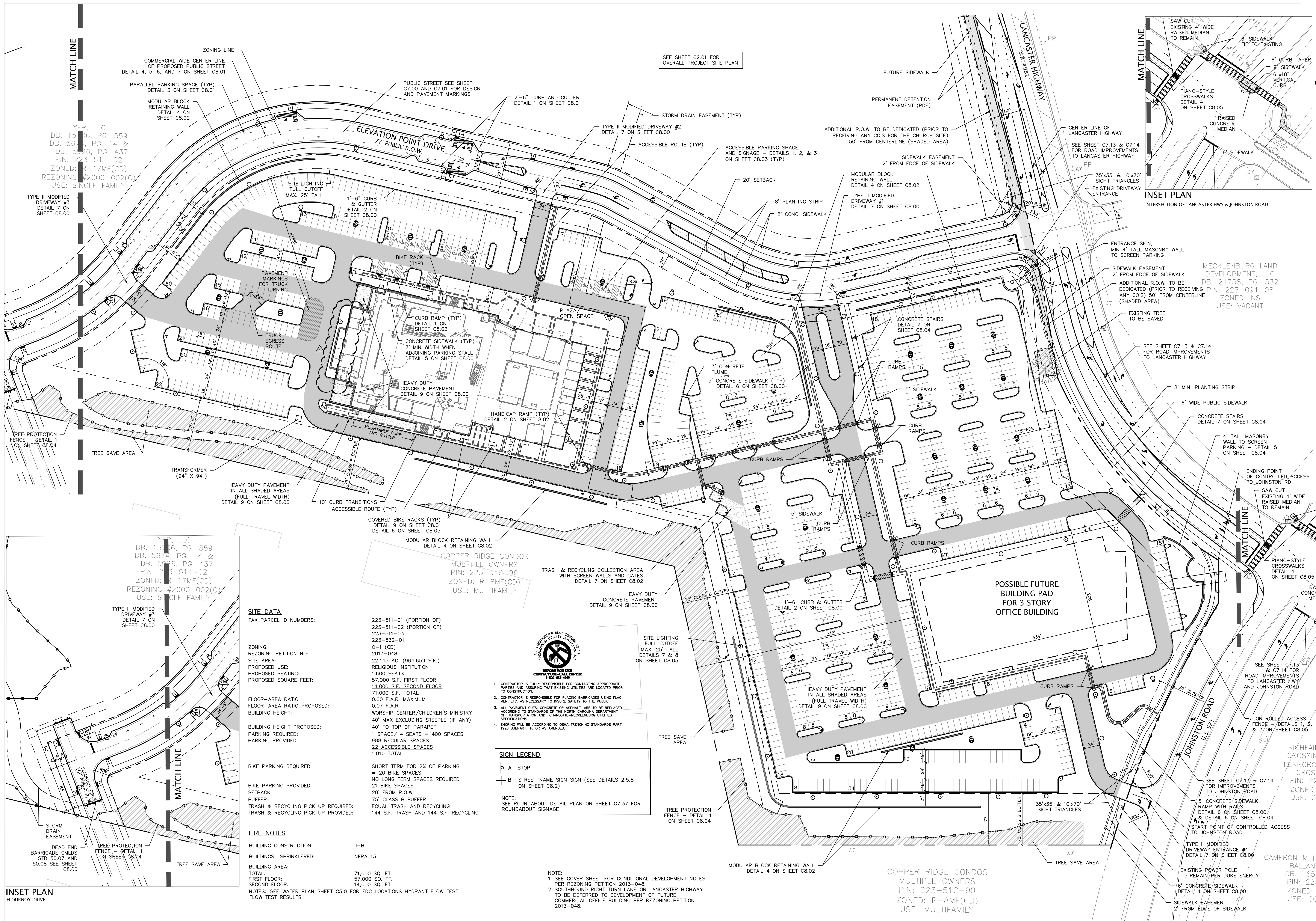
SITE PLAN

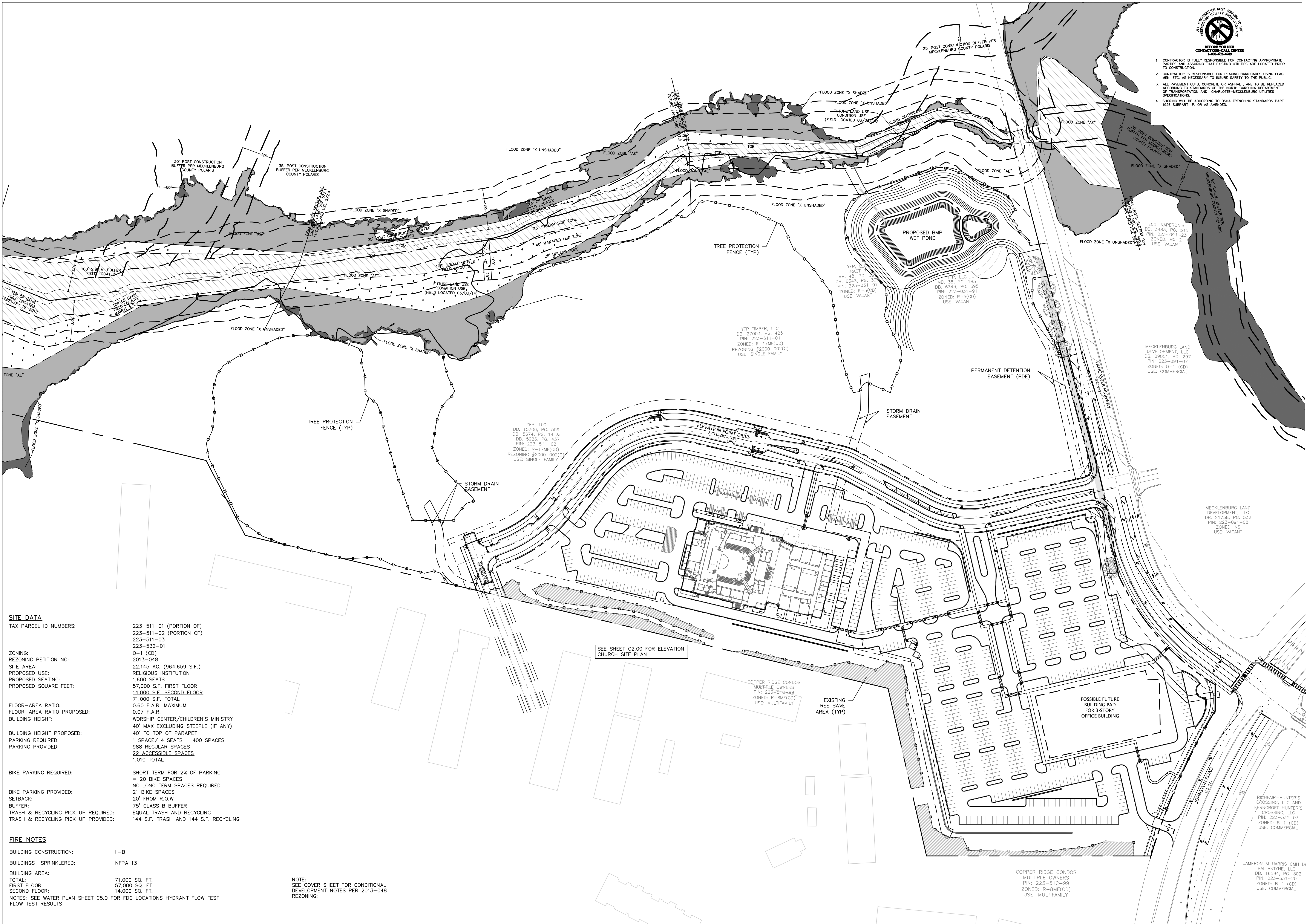
DATE: JUNE 27, 2014

REVISIONS

1. 09/03/14 - PER REVIEW COMMENTS
2. 11/6/14 - PER REVIEW COMMENTS
3. 01/20/15 - FOOTPRINT UPDATES &
GRADING AT WEST END OF BLDG
4. 03/18/15 - PER BUILDING STANDARD
COMMENTS
5. 05/20/15 - PATIO ADDITION
6. 08/11/15 - RTAP

C2.00





SITE DATA
TAX PARCEL ID NUMBERS:
223-511-01 (PORTION OF)
223-511-02 (PORTION OF)
223-511-03
223-532-01
0-1 (CD)
2013-048
22,145 AC. (964,659 S.F.)
RELIGIOUS INSTITUTION
1,600 SEATS
57,000 S.F. FIRST FLOOR
14,000 S.F. SECOND FLOOR
71,000 S.F. TOTAL
0.60 F.A.R. MAXIMUM
0.07 F.A.R.
WORSHIP CENTER/CHILDREN'S MINISTRY
40' MAX EXCLUDING STEEPLE (IF ANY)
40' TO TOP OF PARAPET
1 SPACE/ 4 SEATS = 400 SPACES
988 REGULAR SPACES
22 ACCESSIBLE SPACES
1,010 TOTAL

BIKE PARKING REQUIRED:
SHORT TERM FOR 2% OF PARKING
= 20 BIKE SPACES
NO LONG TERM SPACES REQUIRED

BIKE PARKING PROVIDED:
21 BIKE SPACES

SETBACK:
20' FROM R.O.W.
75' CLASS B BUFFER

TRASH & RECYCLING PICK UP REQUIRED:
EQUAL TRASH AND RECYCLING

TRASH & RECYCLING PICK UP PROVIDED:
144 S.F. TRASH AND 144 S.F. RECYCLING

FIRE NOTES
BUILDING CONSTRUCTION: II-B
BUILDINGS SPRINKLERED: NFPA 13
BUILDING AREA:
TOTAL: 71,000 SQ. FT.
FIRST FLOOR: 57,000 SQ. FT.
SECOND FLOOR: 14,000 SQ. FT.
NOTES: SEE WATER PLAN SHEET C5.0 FOR FDC LOCATIONS HYDRANT FLOW TEST FLOW TEST RESULTS

NOTE:
SEE COVER SHEET FOR CONDITIONAL
DEVELOPMENT NOTES PER 2013-048
REZONING:



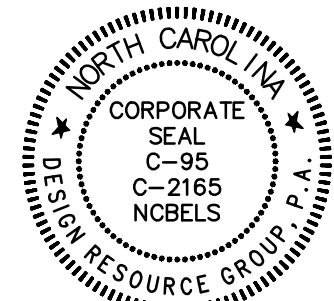
1. CONTRACTOR IS FULLY RESPONSIBLE FOR CONTACTING APPROPRIATE PARTIES AND ASSURING THAT EXISTING UTILITIES ARE LOCATED PRIOR TO CONSTRUCTION.
2. CONTRACTOR IS RESPONSIBLE FOR PLACING BARRICADES USING FLAG MEN, ETC. AS NECESSARY TO INSURE SAFETY TO THE PUBLIC.
3. ALL PAVEMENT CUTS, CONCRETE OR ASPHALT, ARE TO BE REPLACED ACCORDING TO STANDARDS OF THE NORTH CAROLINA DEPARTMENT OF TRANSPORTATION AND CHARLOTTE-MECKLENBURG UTILITIES SPECIFICATIONS.
4. SHORING WILL BE ACCORDING TO OSHA TRENCHING STANDARDS PART 1926 SUBPART P, OR AS AMENDED.



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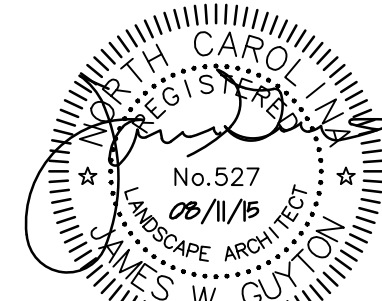


ELEVATION CHURCH

CHARLOTTE, NORTH CAROLINA

MPV PROPERTIES
521 EAST MOREHEAD STREET SUITE 400
CHARLOTTE, NC 28202

CONSTRUCTION DOCUMENTS



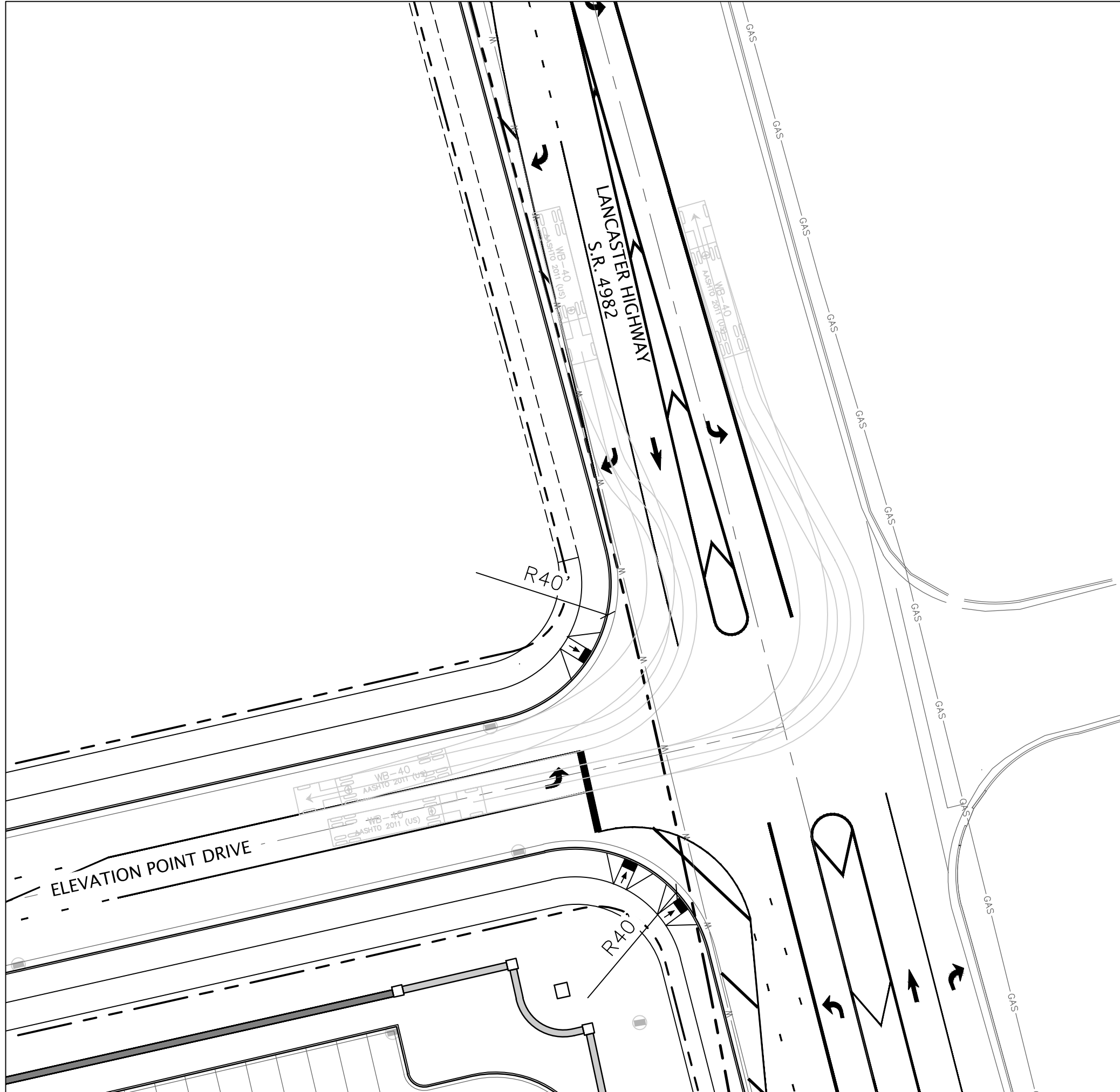
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SCALE: 1" = 100'

PROJECT #: 397-007
DRAWN BY: MB
CHECKED BY: SK

OVERALL SITE PLAN

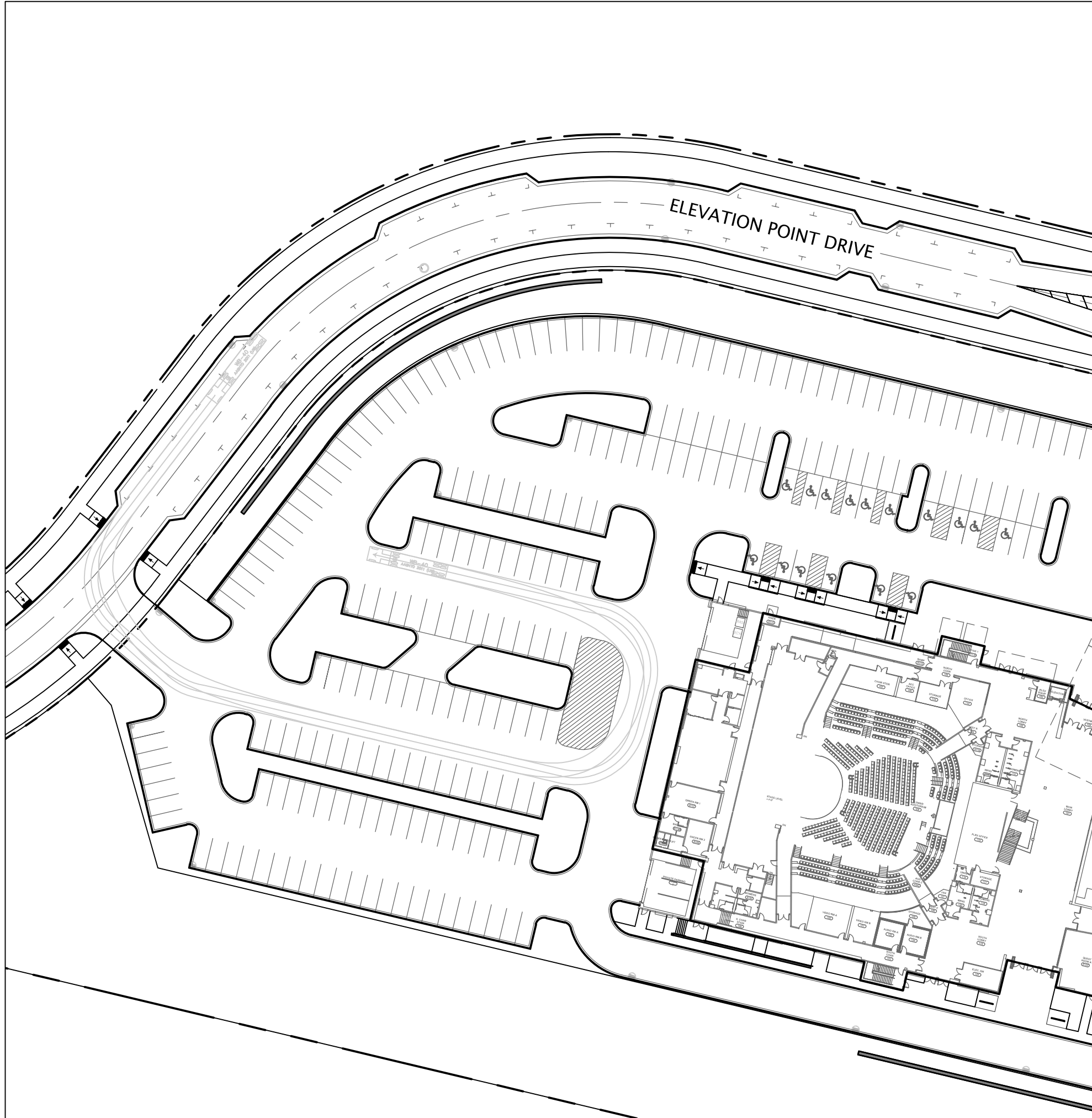
DATE: JUNE 27, 2014

- REVISIONS:
1. 09/03/14 - PER REVIEW COMMENTS
 2. 11/6/14 - PER REVIEW COMMENTS
 3. 08/11/15 - RTAP



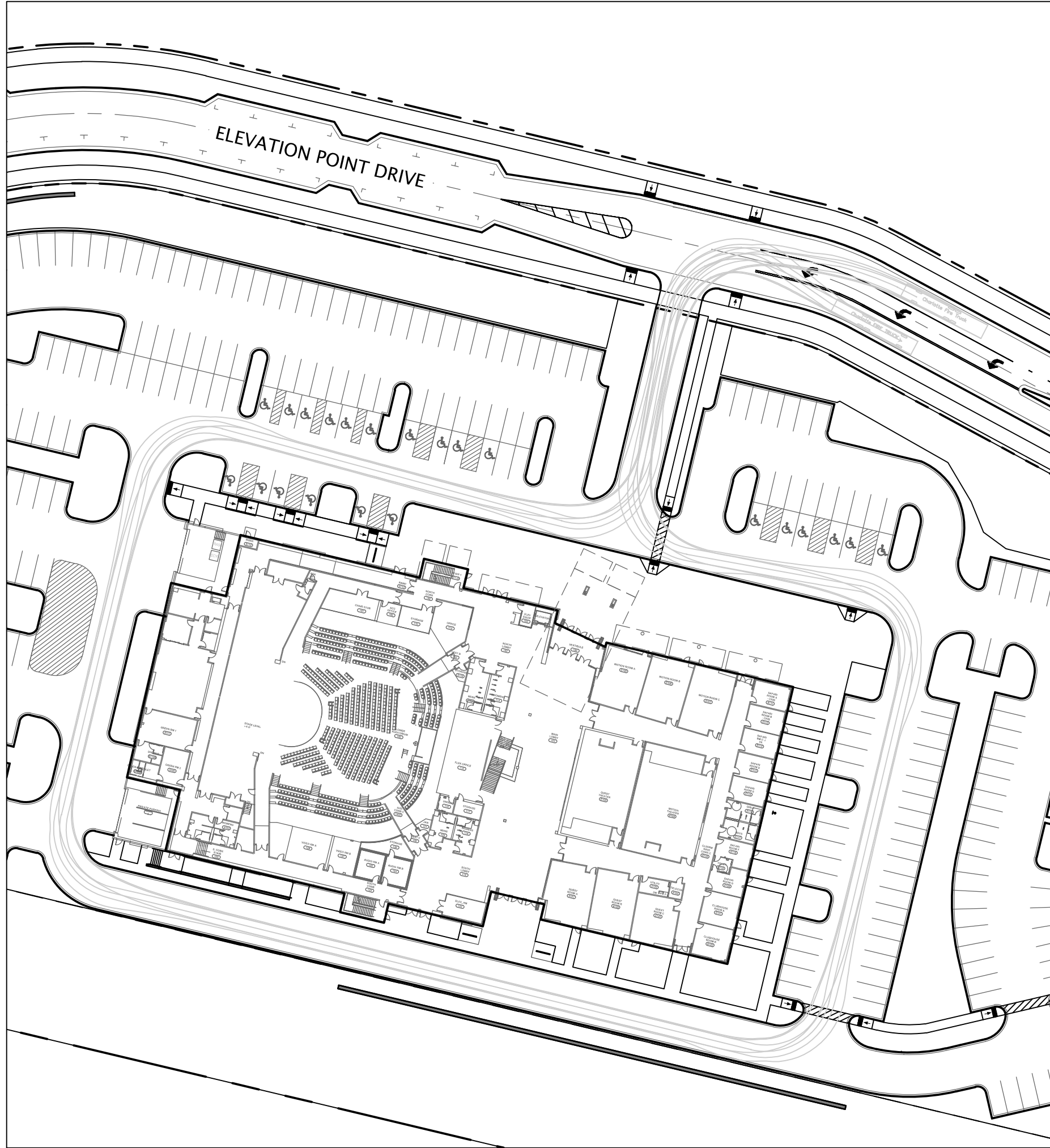
WB-40'S FROM ELEVATION POINT DRIVE TO LANCASTER HIGHWAY

SCALE: 1" = 30'



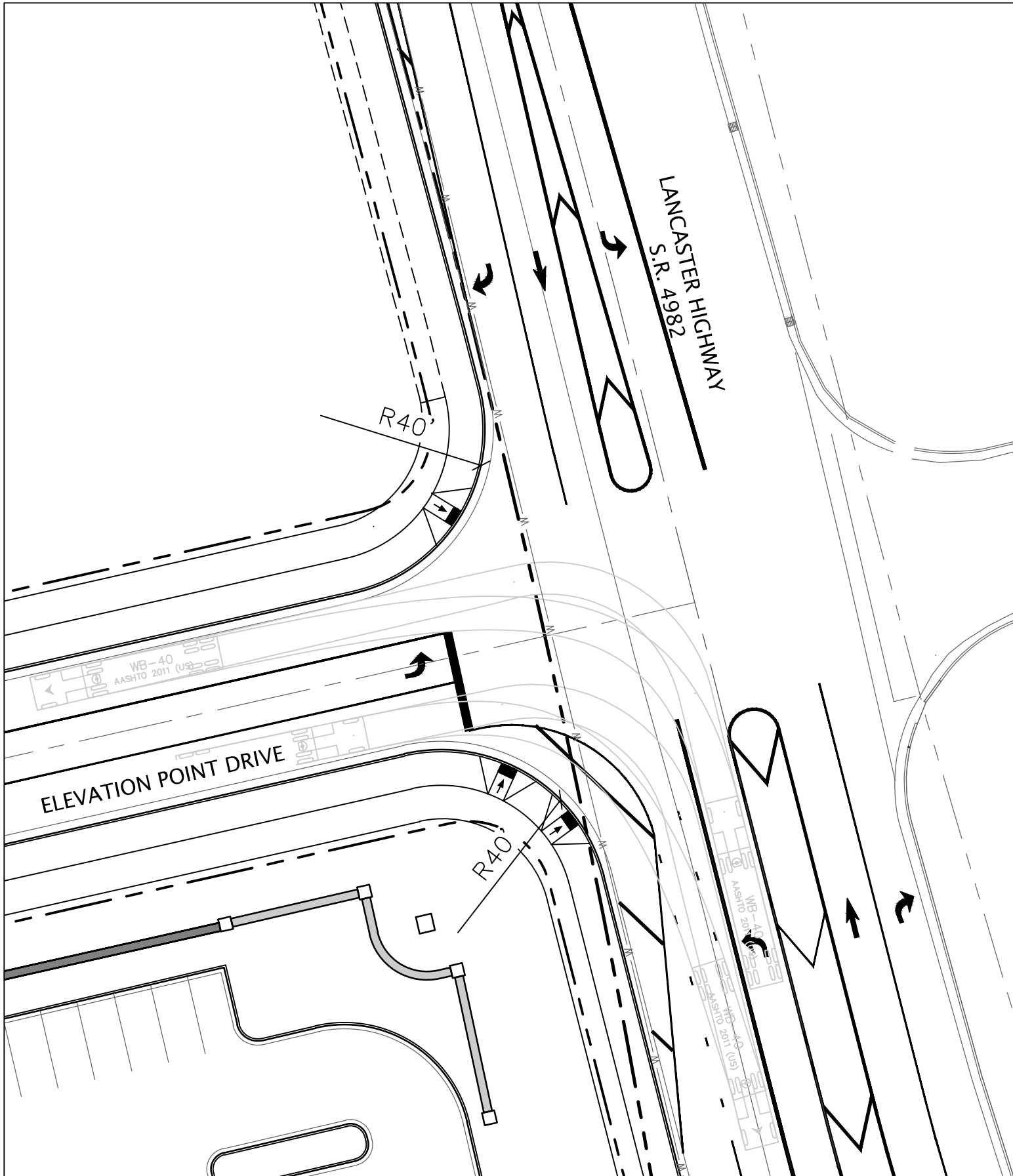
WB-40 INGRESS TO LOADING DOCK

SCALE: 1" = 60'



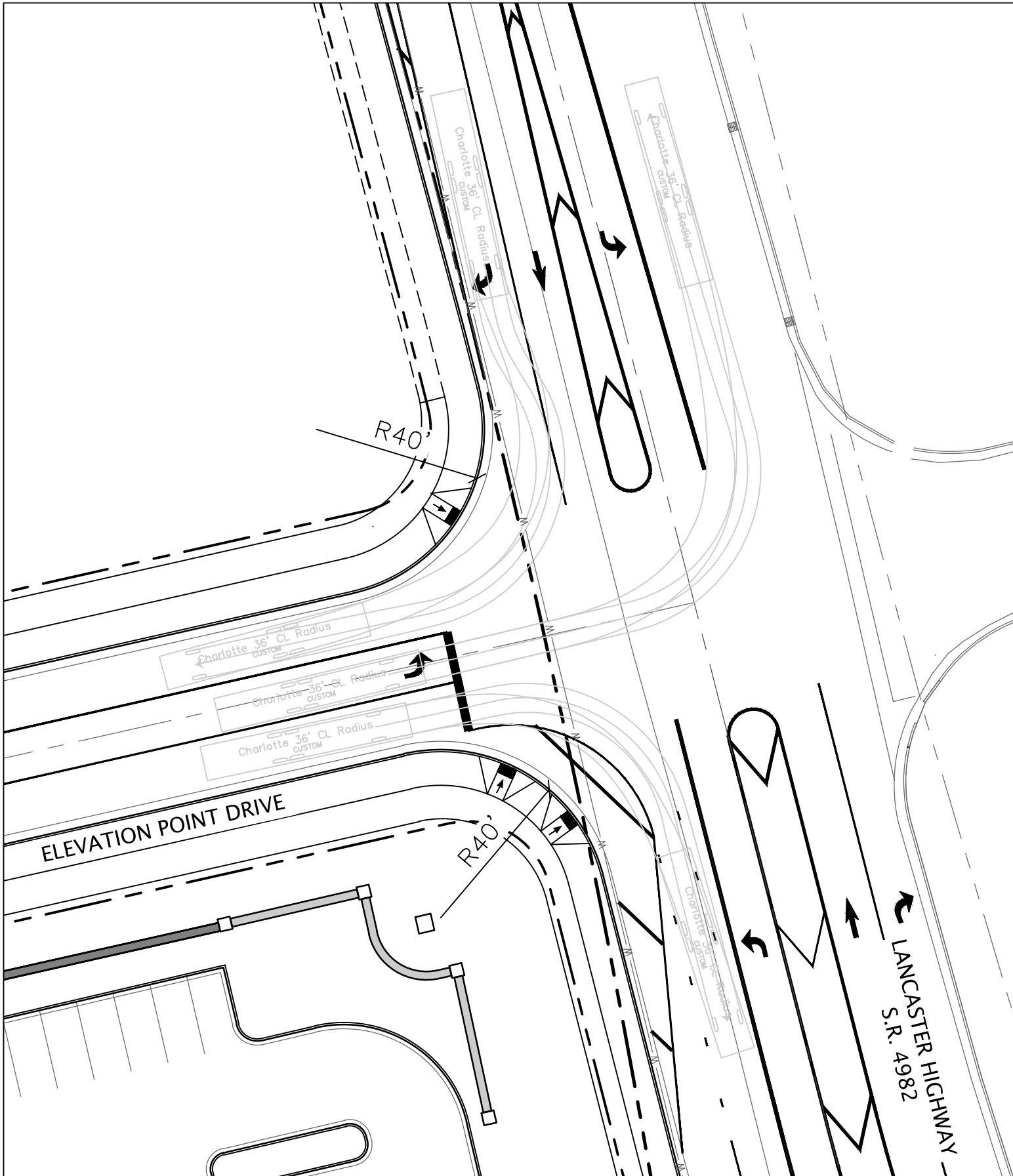
FIRE TRUCK PATH

SCALE: 1" = 60'



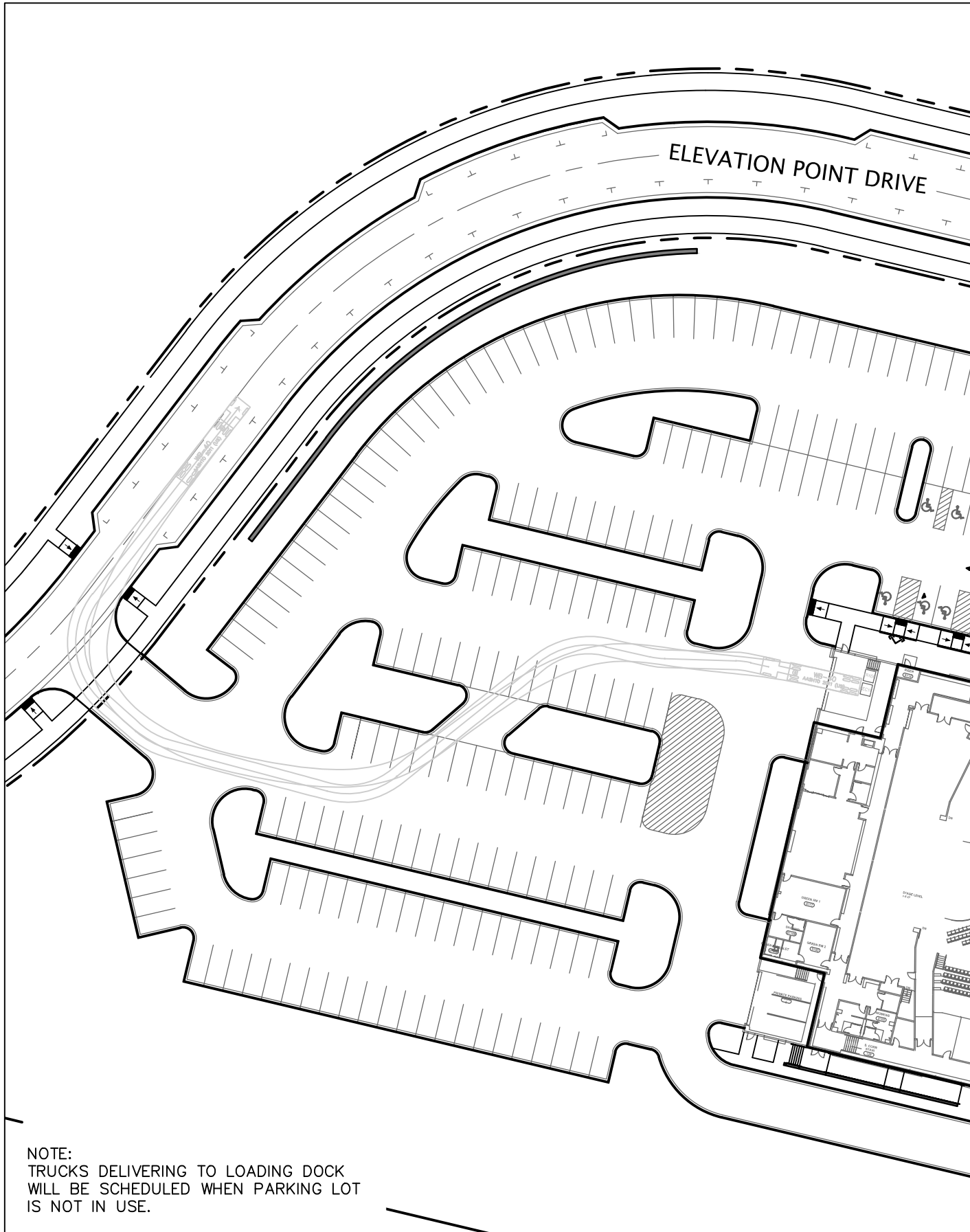
WB-40'S AT INTERSECTION OF ELEVATION POINT DRIVE AND LANCASTER HIGHWAY

SCALE: 1" = 30'



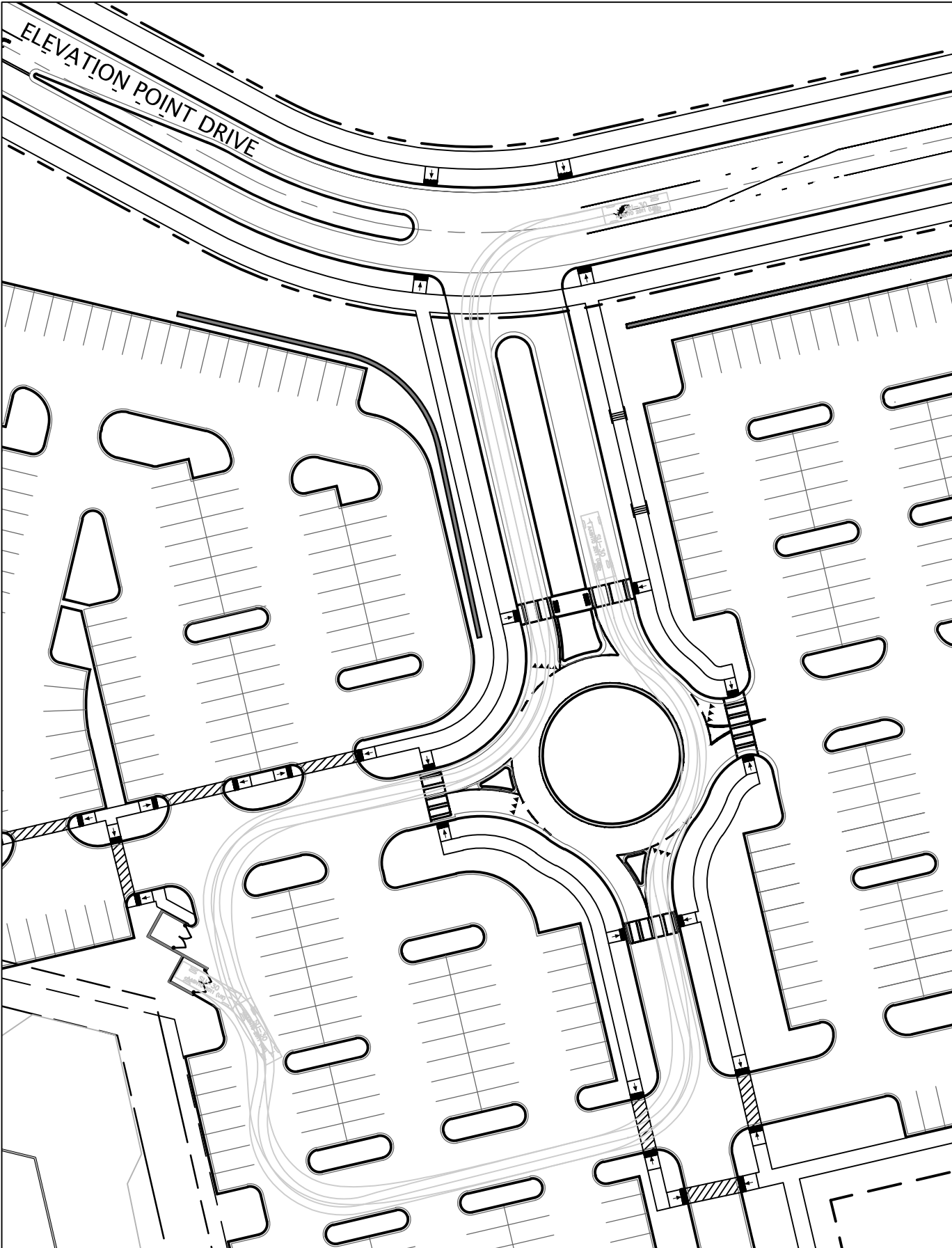
FIRE TRUCK TURNING AT ELEVATION POINT DRIVE AND LANCASTER HIGHWAY

SCALE: 1" = 30'



WB-40 EGRESS FROM LOADING DOCK

SCALE: 1" = 60'



GARBAGE TRUCK INGRESS/EGRESS TO TRASH COLLECTION AREA

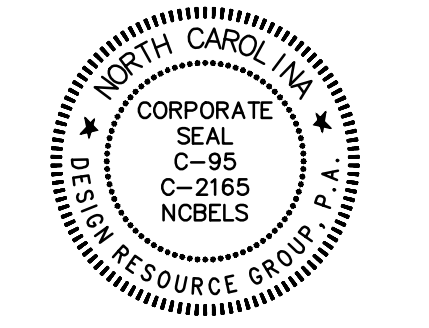
SCALE: 1" = 60'



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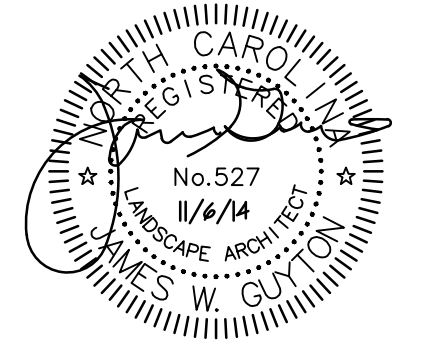
ELEVATION CHURCH

CHARLOTTE, NORTH CAROLINA

MPV PROPERTIES

521 EAST MOREHEAD STREET SUITE 400
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CONSTRUCTION
DOCUMENTS



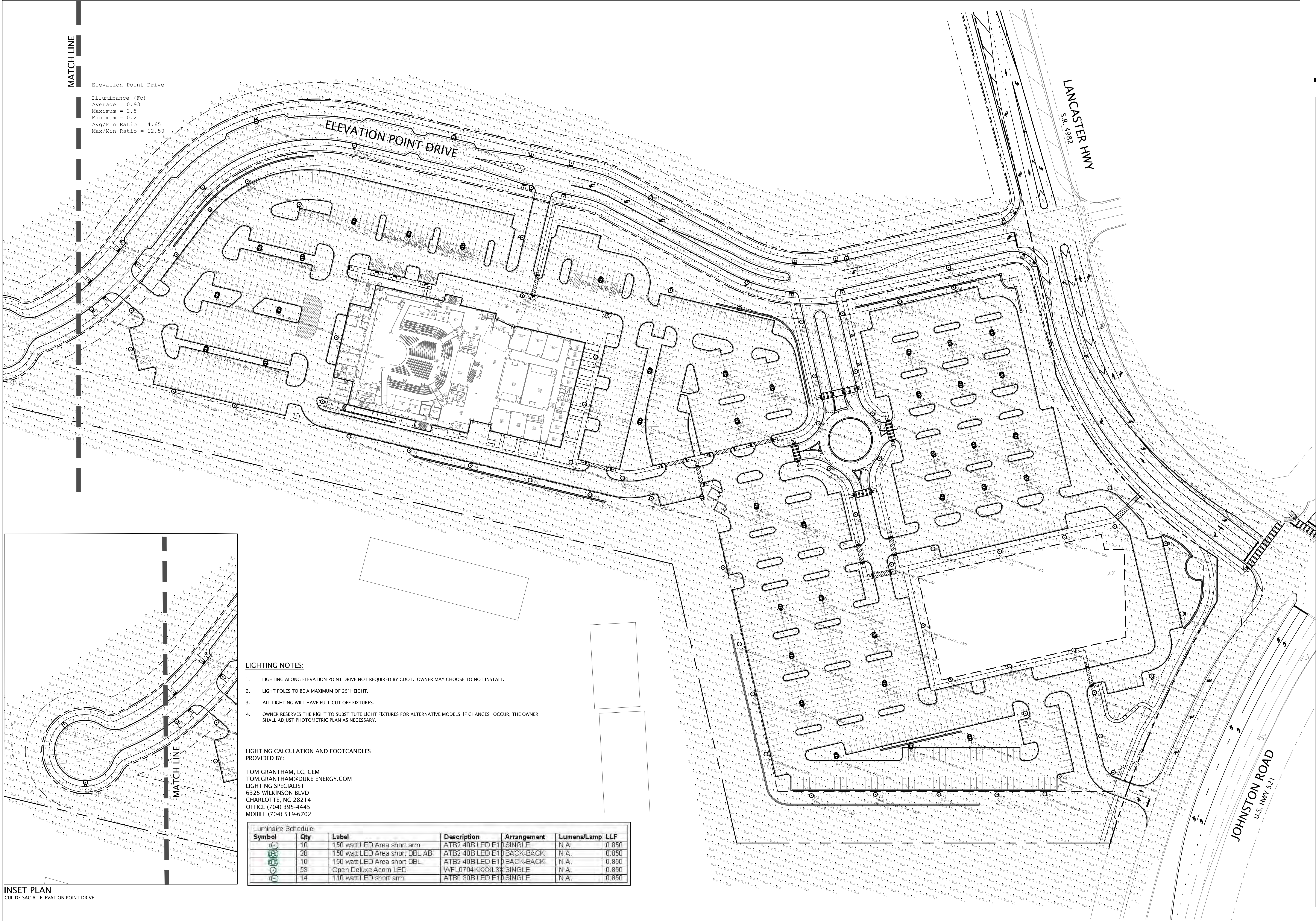
SCALE: VARIES

PROJECT #: 397-007
DRAWN BY: MB
CHECKED BY: SK

VEHICULAR
MANEUVERING
PLANS

DATE: JUNE 27, 2014

REVISIONS:
1. 09/03/14 - PER REVIEW COMMENTS
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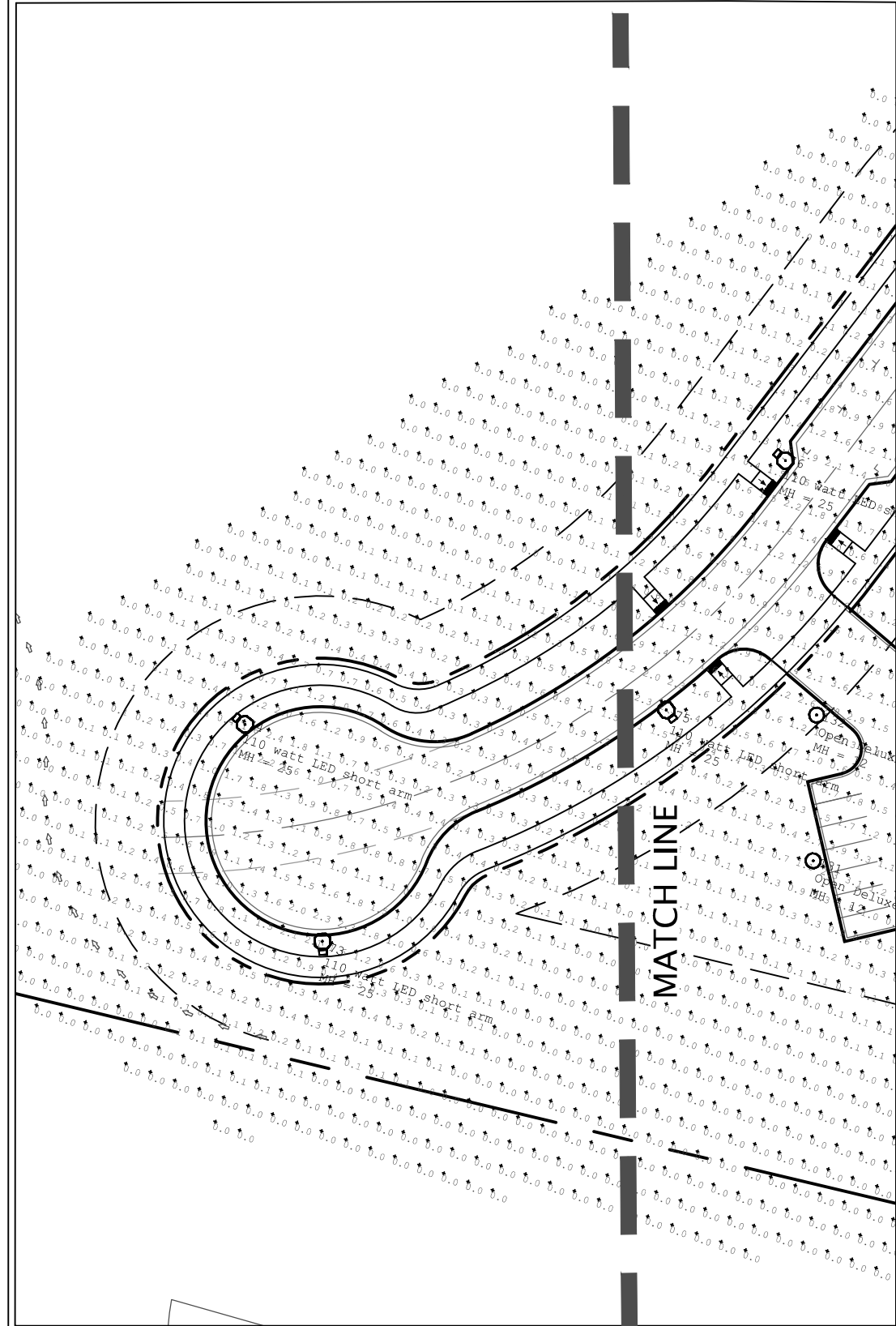
MATCH LINE

Elevation Point Drive
Illuminance (Fc)
Average = 0.93
Maximum = 2.5
Minimum = 0.2
Avg/Min Ratio = 4.65
Max/Min Ratio = 12.50

ELEVATION POINT DRIVE

LANCASTER HWY
S.R. 4982

JOHNSTON ROAD
U.S. HWY 521



INSET PLAN
CUL-DE-SAC AT ELEVATION POINT DRIVE

LIGHTING NOTES:

1. LIGHTING ALONG ELEVATION POINT DRIVE NOT REQUIRED BY CDOT. OWNER MAY CHOOSE TO NOT INSTALL.
2. LIGHT POLES TO BE A MAXIMUM OF 25' HEIGHT.
3. ALL LIGHTING WILL HAVE FULL CUT-OFF FIXTURES.
4. OWNER RESERVES THE RIGHT TO SUBSTITUTE LIGHT FIXTURES FOR ALTERNATIVE MODELS. IF CHANGES OCCUR, THE OWNER SHALL ADJUST PHOTOMETRIC PLAN AS NECESSARY.

LIGHTING CALCULATION AND FOOTCANDLES
PROVIDED BY:

TOM GRANTHAM, LC, CEM
TOM.GRANTHAM@DUKE-ENERGY.COM
LIGHTING SPECIALIST
6325 WILKINSON BLVD
CHARLOTTE, NC 28214
OFFICE (704) 395-4445
MOBILE (704) 519-6702

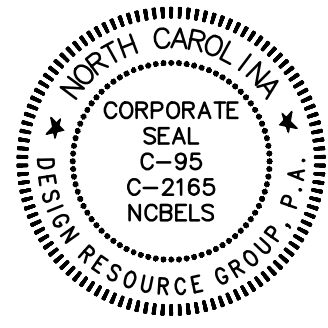
Luminaire Schedule						
Symbol	Qty	Label	Description	Arrangement	Lumens/Lamp	LLF
	10	150 watt LED Area short arm	ATB2 40B LED E10 SINGLE	N.A.	0.850	
	28	150 watt LED Area short DBL AB	ATB2 40B LED E10 BACK-BACK	N.A.	0.850	
	10	150 watt LED Area short DBL	ATB2 40B LED E10 BACK-BACK	N.A.	0.850	
	53	Open Deluxe Acom LED	WFL0704KXXXL3X SINGLE	N.A.	0.850	
	14	110 watt LED short arm	ATB0 30B LED E10 SINGLE	N.A.	0.850	



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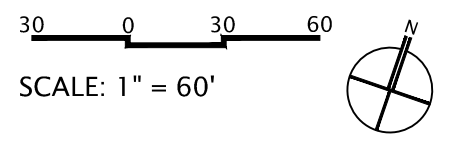
ELEVATION CHURCH

CHARLOTTE, NORTH CAROLINA

MPV PROPERTIES

521 EAST MOREHEAD STREET SUITE 400
CHARLOTTE, NC 28202

CONSTRUCTION
DOCUMENTS

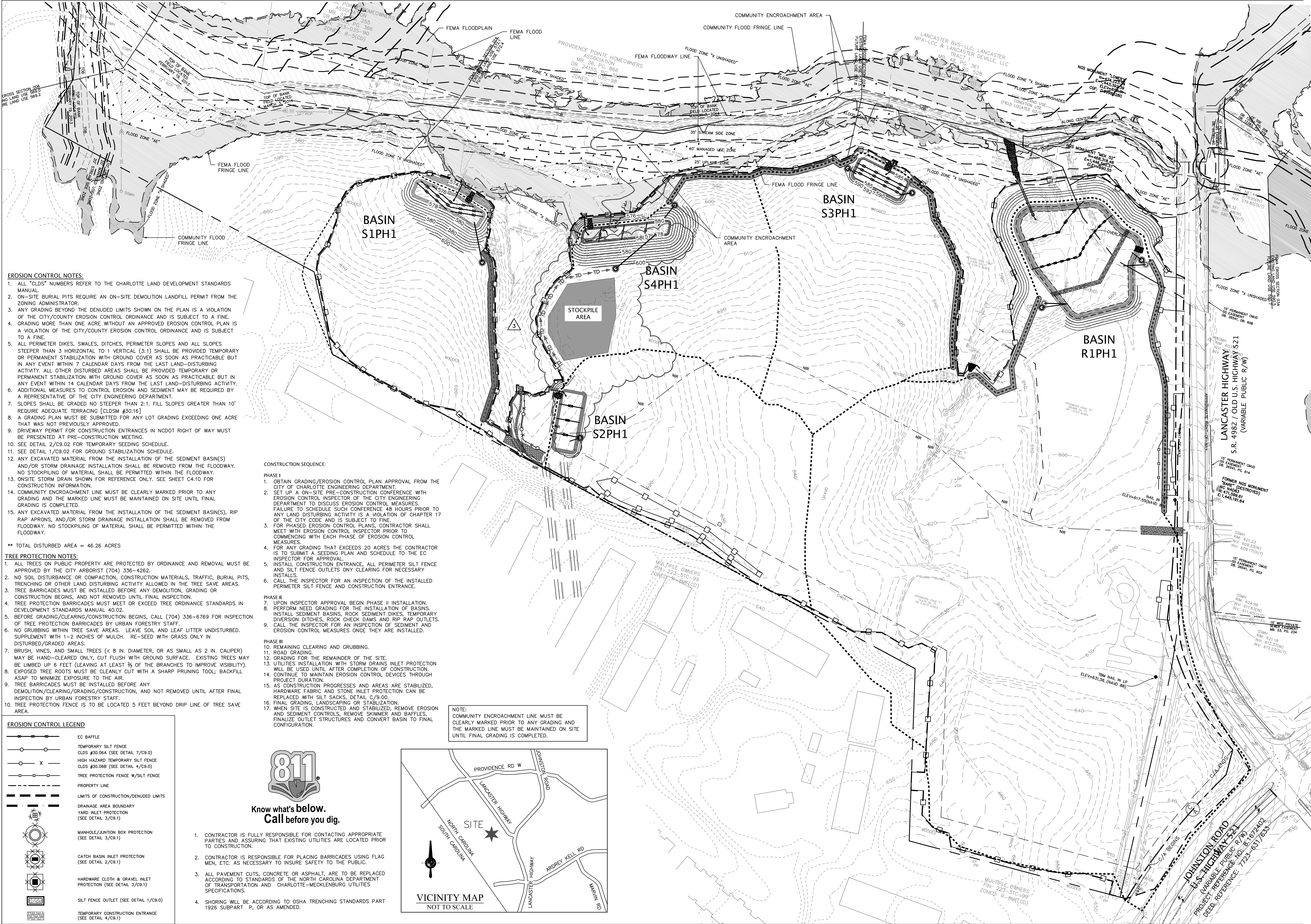


PROJECT #: 397-007
DRAWN BY: MB
CHECKED BY: SK

PHOTOMETRICS
PLAN

DATE: JUNE 27, 2014

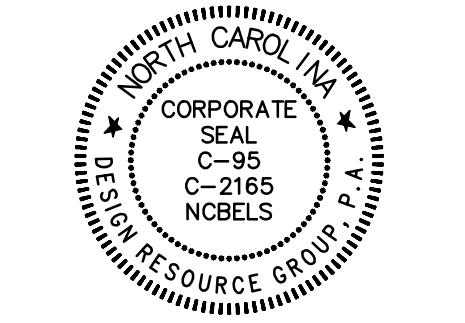
REVISIONS:
1. 09/03/14 - PER REVIEW COMMENTS
2. 11/6/14 - PER REVIEW COMMENTS



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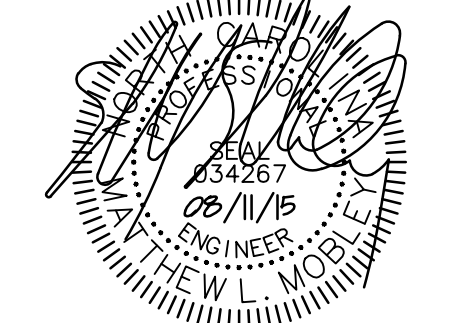
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ELEVATION CHURCH
CHARLOTTE, NORTH CAROLINA
MPV PROPERTIES
521 EAST MOREHEAD STREET SUITE 400
CHARLOTTE, NC 28202

CONSTRUCTION DOCUMENTS



SCALE: 1" = 100'

PROJECT #: 397-007
DRAWN BY: KK
CHECKED BY: MM

OVERALL EROSION CONTROL PLAN PH. I

DATE: JUNE 27, 2014

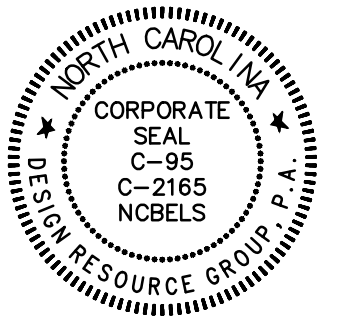
REVISIONS:

1. 09/03/14 - PER REVIEW COMMENTS
2. 11/6/14 - PER REVIEW COMMENTS
3. 02/18/15 - STOCKPILE AREA AND BASINS 2 & 4
4. 08/11/15 - RTAP

C3.00



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ELEVATION CHURCH
CHARLOTTE, NORTH CAROLINA

CHARLOTTE, NORTH CAROLINA

MPV PROPERTIES

CHARLOTTE, NC 28202

CONSTRUCTION DOCUMENTS



25 0 25 50
SCALE: 1" = 50'

PROJECT #: 397-007
DRAWN BY: KK
CHECKED BY: MM

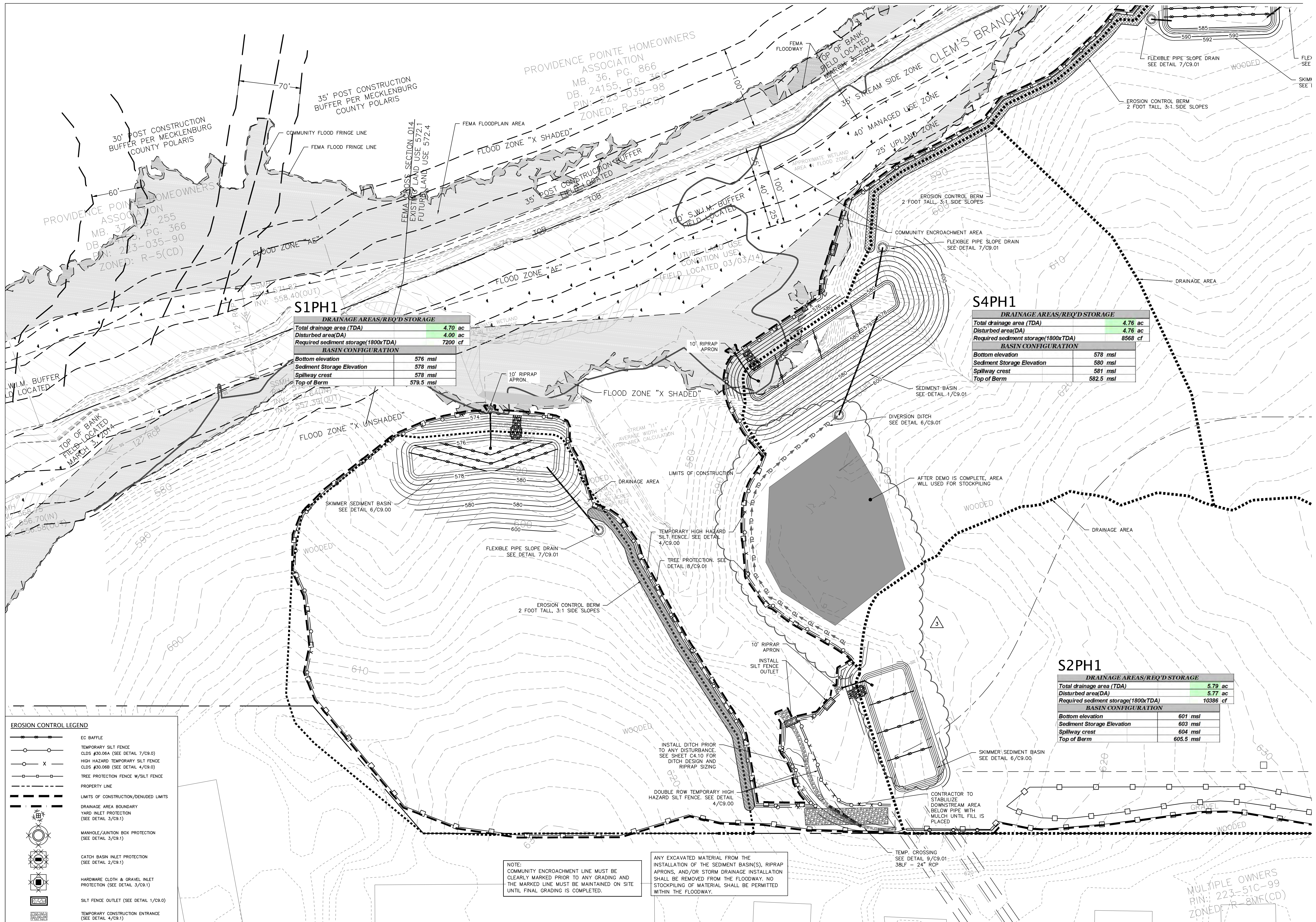
EROSION
CONTROL PLAN
PH. I

DATE: JUNE 27, 2014

REVISIONS:

1. 09/03/14 – PER REVIEW COMMENTS
2. 11/06/14 – PER REVIEW COMMENTS
3. 02/18/15 – STOCKPILE AREA AND
BASINS 2 & 4
4. 08/11/15 – RTAP

C3.01



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NOTE:
COMMUNITY ENCROACHMENT LINE MUST BE
CLEARLY MARKED PRIOR TO ANY GRADING AND
THE MARKED LINE MUST BE MAINTAINED ON SITE
UNTIL FINAL GRADING IS COMPLETED.

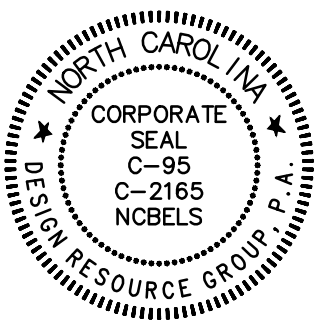
ANY EXCAVATED MATERIAL FROM THE
INSTALLATION OF THE SEDIMENT BASIN(S), RIPRAP
APRONS, AND/OR STORM DRAINAGE INSTALLATION
SHALL BE REMOVED FROM THE FLOODWAY. NO
STOCKPILING OF MATERIAL SHALL BE PERMITTED
WITHIN THE FLOODWAY.



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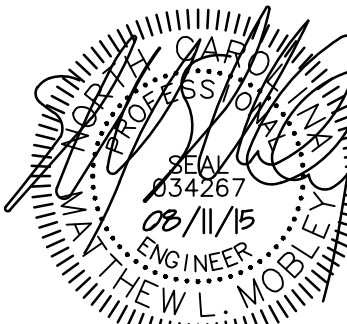
ELEVATION CHURCH

CHARLOTTE, NORTH CAROLINA

MPV PROPERTIES

521 EAST MOREHEAD STREET SUITE 400
CHARLOTTE, NC 28202

CONSTRUCTION
DOCUMENTS



SCALE: 1" = 50'

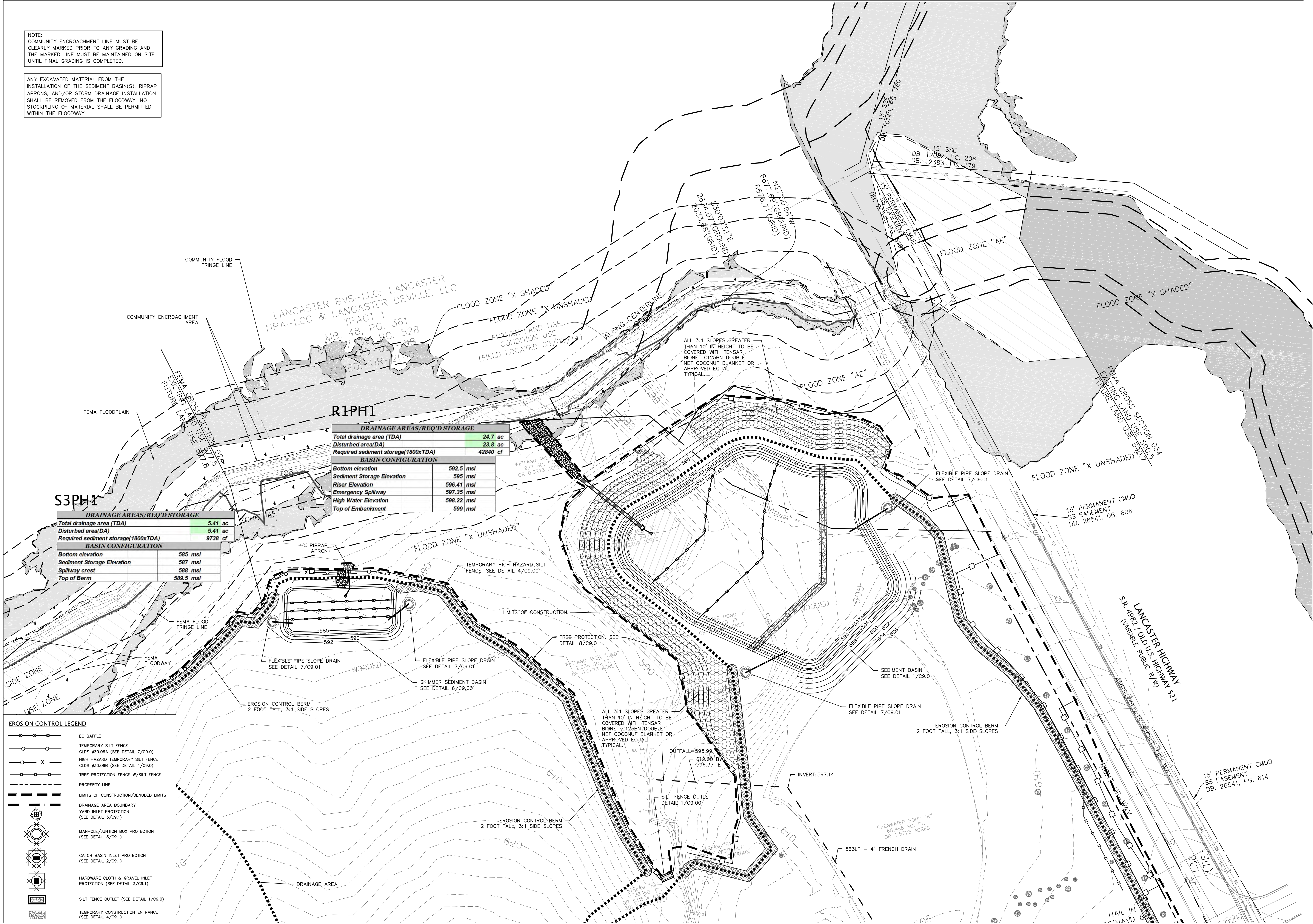
PROJECT #: 397-007
DRAWN BY: KK
CHECKED BY: MM

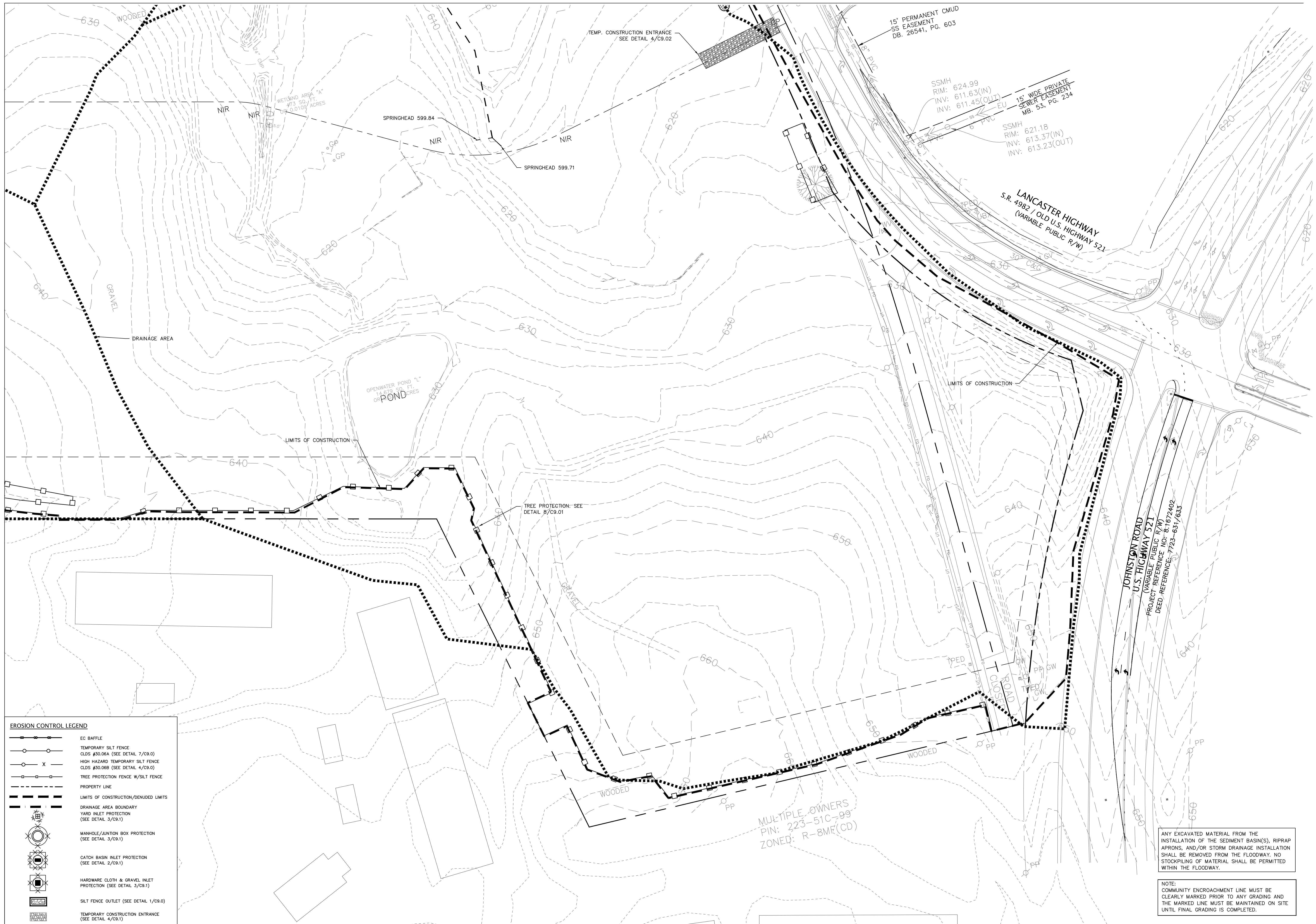
EROSION
CONTROL PLAN
PH. I

DATE: JUNE 27, 2014

- REVISIONS:
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 - 02/18/15 - STOCKPILE AREA AND BASINS 2 & 4
 - 08/11/15 - RTAP

C3.02

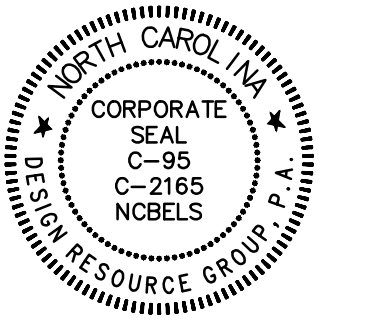




design resource group

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- traffic engineering
- transportation planning

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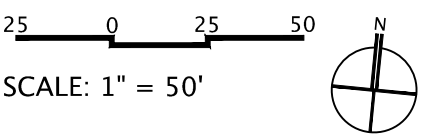
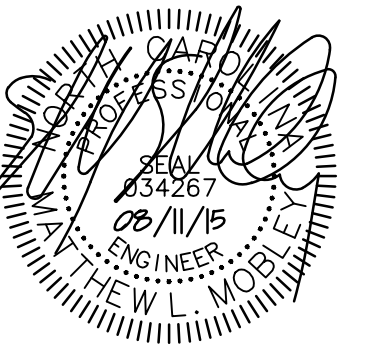
ELEVATION CHURCH

CHARLOTTE, NORTH CAROLINA

MPV PROPERTIES

CHARLOTTE, NC 28202

CONSTRUCTION DOCUMENTS



PROJECT #: 397-007
DRAWN BY: KK
CHECKED BY: MM

EROSION CONTROL PLAN PH. I

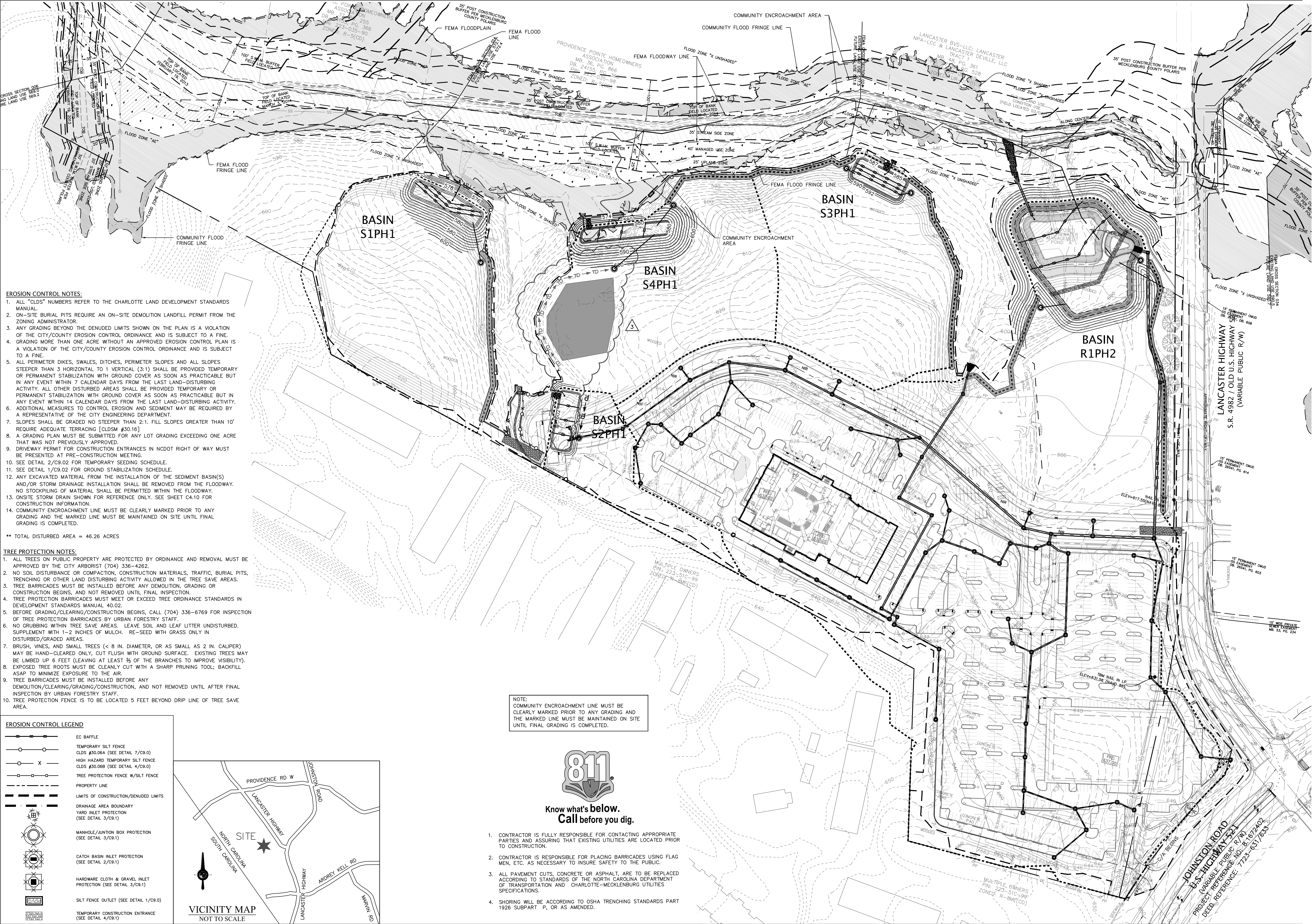
DATE: JUNE 27, 2014

- REVISIONS:**
1. 09/03/14 – PER REVIEW COMMENTS
 2. 11/6/14 – PER REVIEW COMMENTS
 3. 02/18/15 – STOCKPILE AREA AND
BASINS 2 & 4
 4. 08/11/15 – RTAP

ANY EXCAVATED MATERIAL FROM THE INSTALLATION OF THE SEDIMENT BASIN(S), RIPRAP APRONS, AND/OR STORM DRAINAGE INSTALLATION SHALL BE REMOVED FROM THE FLOODWAY. NO STOCKPILING OF MATERIAL SHALL BE PERMITTED WITHIN THE FLOODWAY.

NOTE:
COMMUNITY ENCROACHMENT LINE MUST BE
CLEARLY MARKED PRIOR TO ANY GRADING AND
THE MARKED LINE MUST BE MAINTAINED ON SITE
UNTIL FINAL GRADING IS COMPLETED.

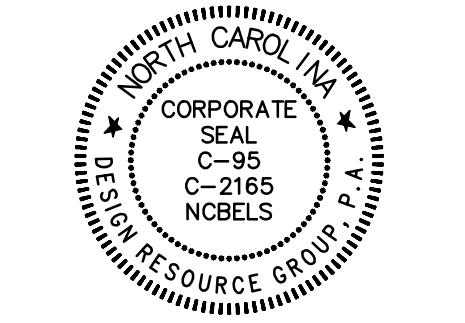
C3.03



design resource group

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- traffic engineering
- transportation planning

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ELEVATION CHURCH
CHARLOTTE, NORTH CAROLINA
MPV PROPERTIES
521 EAST MOREHEAD STREET SUITE 400
CHARLOTTE, NC 28202

CONSTRUCTION
DOCUMENTS



SCALE: 1" = 100'

PROJECT #: 397-007
DRAWN BY: KK
CHECKED BY: MM

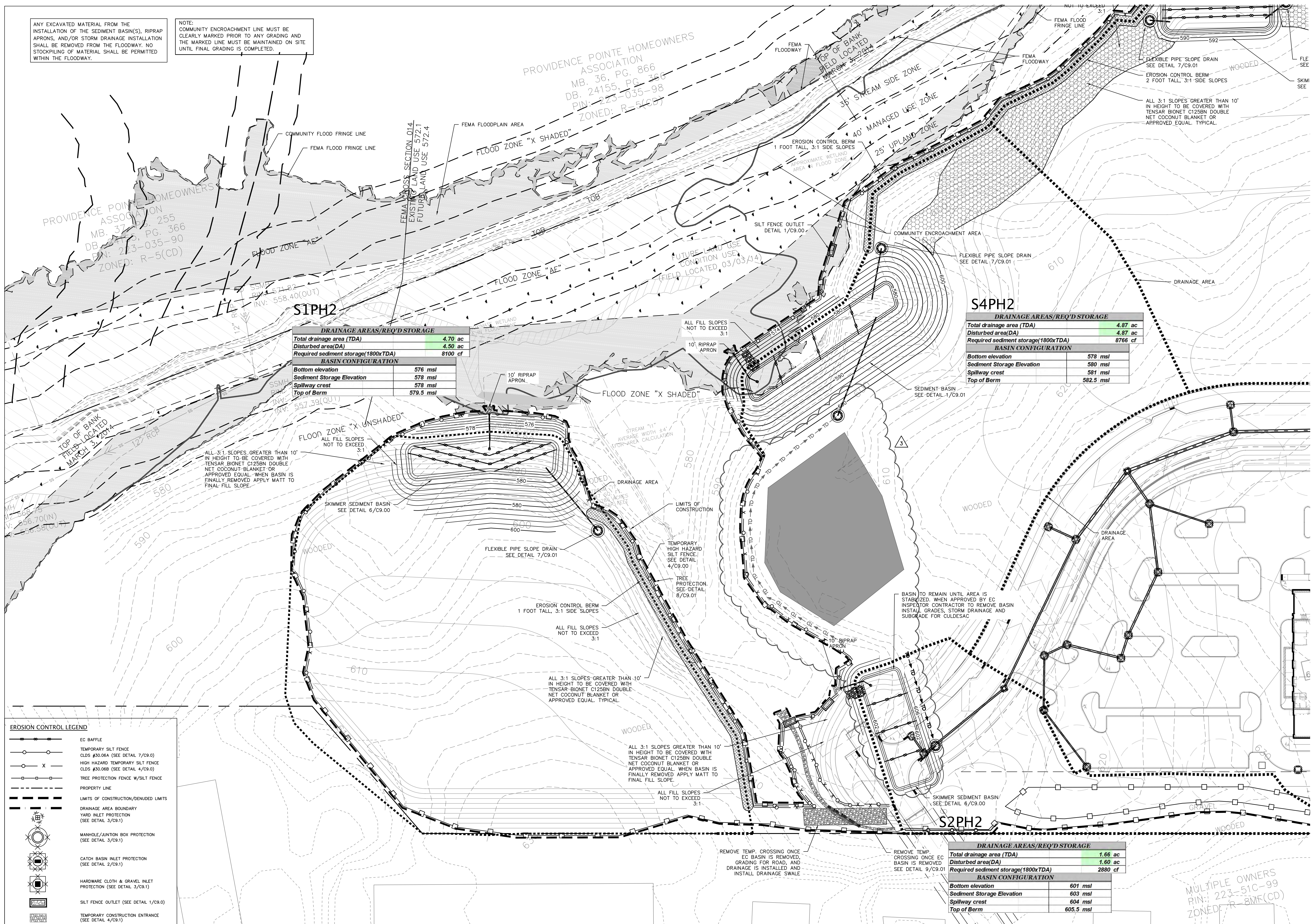
**OVERALL EROSION
CONTROL PLAN
PH. II**

DATE: JUNE 27, 2014

- REVISIONS:
1. 09/03/14 - PER REVIEW COMMENTS
 2. 11/6/14 - PER REVIEW COMMENTS
 3. 02/18/15 - STOCKPILE AREA AND BASINS 2 & 4
 4. 08/11/15 - RTAP

C3.04

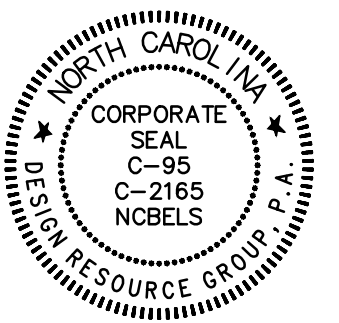
NOTE:
COMMUNITY ENCROACHMENT LINE MUST BE
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THE MARKED LINE MUST BE MAINTAINED ON SITE
UNTIL FINAL GRADING IS COMPLETED.



- landscape architecture
- civil engineering
- urban design
- land planning
- traffic engineering
- transportation planning



Elevation
CHURCH



CHARLOTTE, NORTH CAROLINA

3521 EAST MOREHEAD STREET SUITE 400
CHARLOTTE, NC 28202

Professional Engineer Seal for Thew L. Mobley, State of Maryland, License No. 034267, expires 08/11/15.

PROJECT #: 397-007
DRAWN BY: KK
CHECKED BY: MM

DATE: JUNE 27, 2014

REVISIONS:

1. 09/03/14 – PER REVIEW COMMENTS
2. 11/6/14 – PER REVIEW COMMENTS
3. 02/18/15 – STOCKPILE AREA AND
BASINS 2 & 4
4. **08/11/15 – RTAP**

C3.05

NOTE:
COMMUNITY ENCROACHMENT LINE MUST BE
CLEARLY MARKED PRIOR TO ANY GRADING AND
THE MARKED LINE MUST BE MAINTAINED ON SITE
UNTIL FINAL GRADING IS COMPLETED.

ANY EXCAVATED MATERIAL FROM THE
INSTALLATION OF THE SEDIMENT BASIN(S), RIPRAP
APRONS, AND/OR STORM DRAINAGE INSTALLATION
SHALL BE REMOVED FROM THE FLOODWAY. NO
STOCKPILING OF MATERIAL SHALL BE PERMITTED
WITHIN THE FLOODWAY.

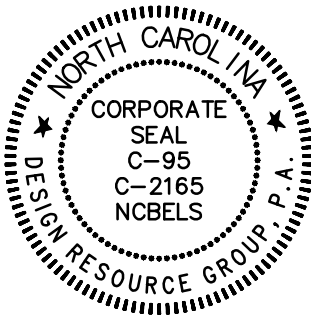
EROSION CONTROL LEGEND	
	EC BAFLE
	TEMPORARY SILT FENCE CLDS #30.06A (SEE DETAIL 7/C9.0)
	HIGH HAZARD TEMPORARY SILT FENCE CLDS #30.06B (SEE DETAIL 4/C9.0)
	TREE PROTECTION FENCE W/SILT FENCE
	PROPERTY LINE
	LIMITS OF CONSTRUCTION/DENUDED LIMITS
	DRAINAGE AREA BOUNDARY
	YARD INLET PROTECTION (SEE DETAIL 3/C9.1)
	MANHOLE/JUNCTION BOX PROTECTION (SEE DETAIL 3/C9.1)
	CATCH BASIN INLET PROTECTION (SEE DETAIL 2/C9.1)
	HARDWARE CLOTH & GRAVEL INLET PROTECTION (SEE DETAIL 3/C9.1)
	SILT FENCE OUTLET (SEE DETAIL 1/C9.0)
	TEMPORARY CONSTRUCTION ENTRANCE (SEE DETAIL 4/C9.1)



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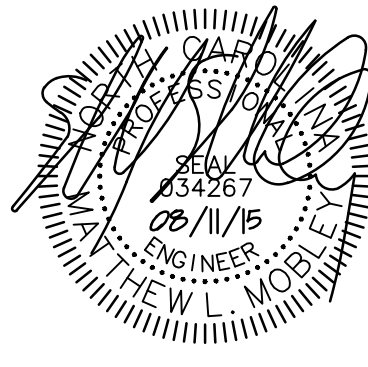
ELEVATION CHURCH

CHARLOTTE, NORTH CAROLINA

MPV PROPERTIES

521 EAST MOREHEAD STREET SUITE 400
CHARLOTTE, NC 28202

CONSTRUCTION
DOCUMENTS



SCALE: 1" = 50'

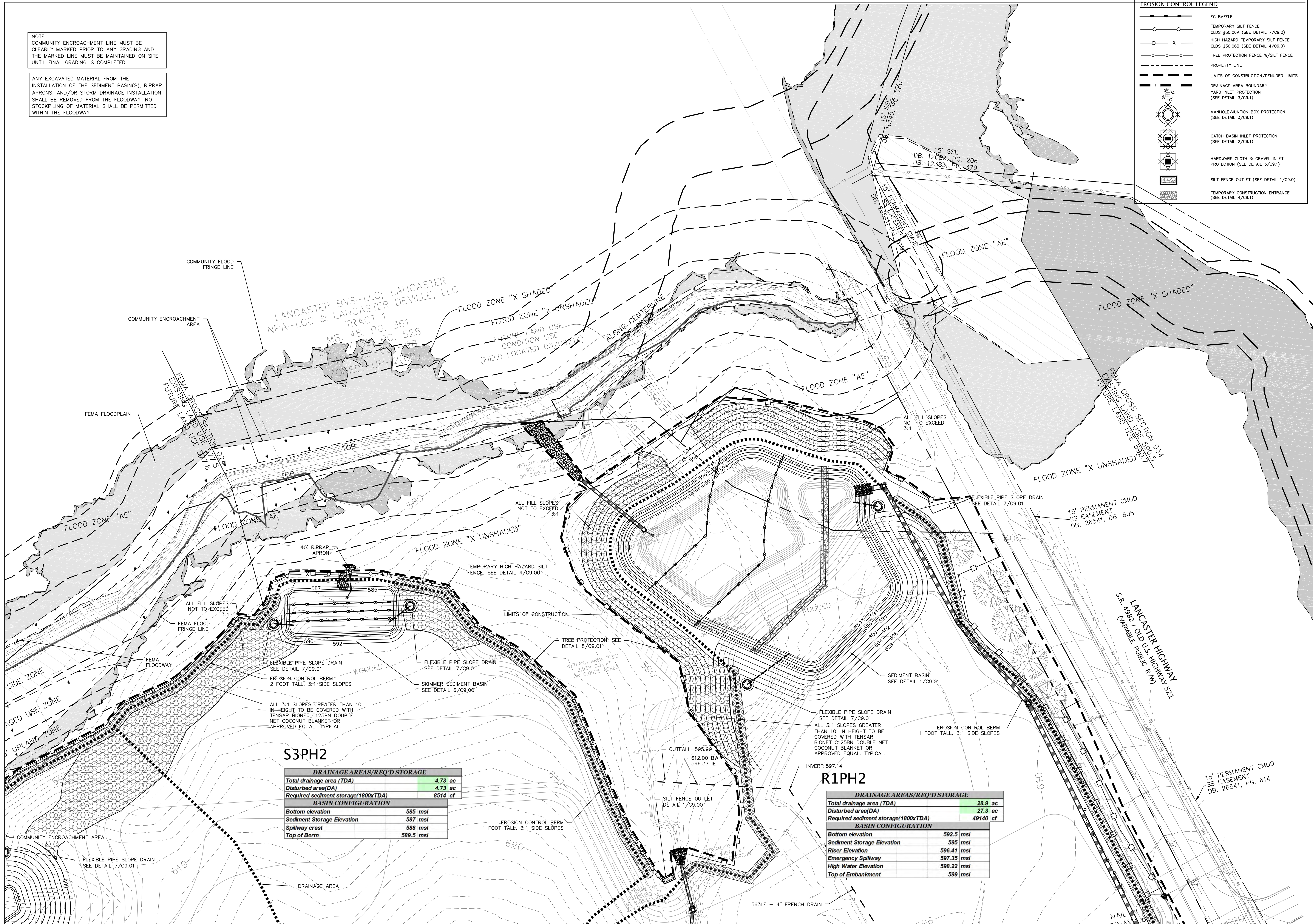
PROJECT #: 397-007
DRAWN BY: KK
CHECKED BY: MM

EROSION
CONTROL PLAN
PH. II

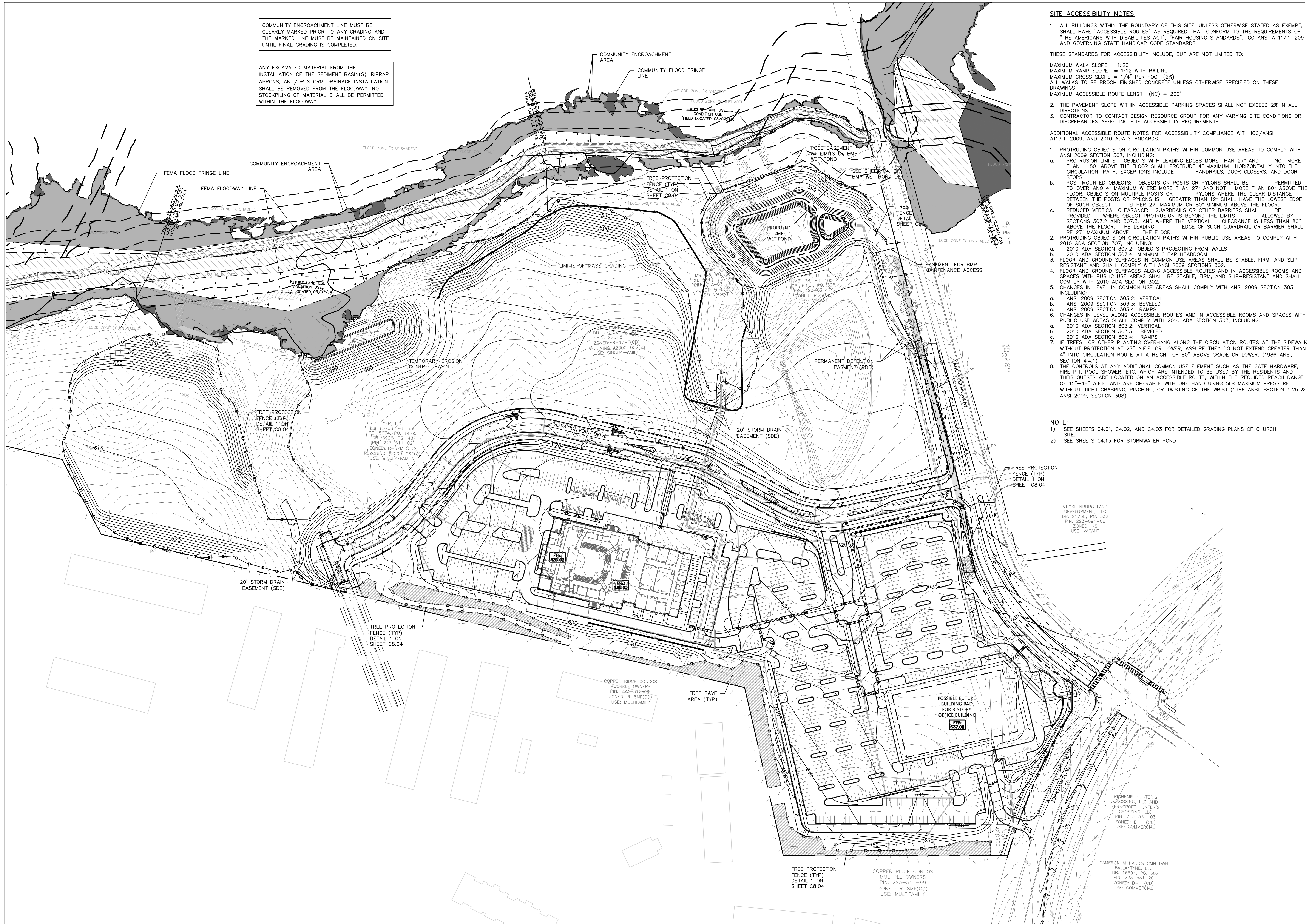
DATE: JUNE 27, 2014

- REVISIONS:
- 09/03/14 - PER REVIEW COMMENTS
 - 11/6/14 - PER REVIEW COMMENTS
 - 02/18/15 - STOCKPILE AREA AND BASINS 2 & 4
 - 08/11/15 - RTAP

C3.06



ANY EXCAVATED MATERIAL FROM THE
INSTALLATION OF THE SEDIMENT BASIN(S), RIPRAP
APRONS, AND/OR STORM DRAINAGE INSTALLATION
SHALL BE REMOVED FROM THE FLOODWAY. NO
STOCKPILING OF MATERIAL SHALL BE PERMITTED
WITHIN THE FLOODWAY.



1. ALL BUILDINGS WITHIN THE BOUNDARY OF THIS SITE, UNLESS OTHERWISE STATED AS EXEMPT, SHALL HAVE "ACCESSIBLE ROUTES" AS REQUIRED THAT CONFORM TO THE REQUIREMENTS OF "THE AMERICANS WITH DISABILITIES ACT", "FAIR HOUSING STANDARDS", ICC ANSI A 117.1-209 AND GOVERNING STATE HANDICAP CODE STANDARDS.

MAXIMUM WALK SLOPE = 1:20
 MAXIMUM RAMP SLOPE = 1:12 WITH RAILING
 MAXIMUM CROSS SLOPE = 1/4" PER FOOT (2%)
 ALL WALKS TO BE BROOM FINISHED CONCRETE UNLESS OTHERWISE SPECIFIED ON THESE
 DRAWINGS
 MAXIMUM ACCESSIBLE ROUTE LENGTH (NC) = 200'

ADDITIONAL ACCESSIBLE ROUTE NOTES FOR ACCESSIBILITY COMPLIANCE WITH ICC/ANSI A117.1-2009, AND 2010 ADA STANDARDS.

1. PROTRUDING OBJECTS ON CIRCULATION PATHS WITHIN COMMON USE AREAS TO COMPLY WITH ANSI 2009 SECTION 307, INCLUDING:
 - a. PROTRUSION LIMITS: WITH LEADING EDGES MORE THAN 27" AND NOT MORE THAN 80" ABOVE THE FLOOR SHALL PROTRUDE A/4 MAXIMUM HORIZONTALITY INTO THE CIRCULATION PATH. EXCEPTIONS INCLUDE HANDRAILS, DOOR CLOSERS, AND DOOR STOPS.
 - b. POST MOUNTED OBJECTS: OBJECTS ON POSTS OR PYLONS SHALL BE PERMITTED TO OVERHANG 4" MAXIMUM WHERE MORE THAN 27" AND NOT MORE THAN 80" ABOVE THE FLOOR. OBJECTS ON MULTIPLE POSTS OR PYLONS WHERE THE CLEAR DISTANCE BETWEEN THE POSTS OR PYLONS IS GREATER THAN 12" SHALL HAVE THE LOWEST EDGE OF THE OBJECT NO MORE THAN 27" MAXIMUM OR 80" MINIMUM ABOVE THE FLOOR.
 - c. REDUCED VERTICAL CLEARANCE: GUARDRAILS OR OTHER BARRIERS SHALL BE PROVIDED WHERE OBJECT PROTRUSION IS BEYOND THE LIMITS ALLOWED BY SECTIONS 307.2 AND 307.3, AND WHERE THE VERTICAL CLEARANCE IS LESS THAN 80" ABOVE THE FLOOR. THE LOWEST EDGE OF SUCH GUARDRAIL OR BARRIER SHALL BE 27" MAXIMUM ABOVE THE FLOOR.
2. PROTRUDING OBJECTS ON CIRCULATION PATHS WITHIN PUBLIC USE AREAS TO COMPLY WITH 2010 ADA SECTION 307, INCLUDING:
 - a. 2010 ADA SECTION 307.2: OBJECTS PROJECTING FROM WALLS
 - b. 2010 ADA SECTION 307.4: MINIMUM CLEAR HEADROOM
 - c. FLOOR AND GROUND SURFACES IN COMMON USE AREAS SHALL BE STABLE, FIRM, AND SLIP RESISTANT AND SHALL COMPLY WITH ANSI 2009 SECTIONS 302
 - d. FLOOR AND GROUND SURFACES ALONG ACCESSIBLE ROUTES AND IN ACCESSIBLE ROOMS AND SPACES WITH PUBLIC USE AREAS SHALL BE STABLE, FIRM, AND SLIP-RESISTANT AND SHALL COMPLY WITH 2010 ADA SECTION 302.
 - e. CHANGES IN LEVEL IN COMMON USE AREAS SHALL COMPLY WITH ANSI 2009 SECTION 303, INCLUDING:
 - a. ANSI 2009 SECTION 303.2: VERTICAL
 - b. ANSI 2009 SECTION 303.3: BEVELED
 - c. ANSI 2009 SECTION 303.4: RAMPS
 - f. CHANGES IN LEVEL ALONG ACCESSIBLE ROUTES AND IN ACCESSIBLE ROOMS AND SPACES WITH PUBLIC USE AREAS SHALL COMPLY WITH 2010 ADA SECTION 303, INCLUDING:
 - a. 2010 ADA SECTION 303.2: VERTICAL
 - b. 2010 ADA SECTION 303.3: BEVELED
 - c. 2010 ADA SECTION 303.4: RAMPS
 - g. IF TREES OR OTHER PLANTING OVERHANG ALONG THE CIRCULATION ROUTES AT THE SIDEWALK WITHOUT PROTECTION AT 27" A.F.F. OR LOWER, ASSURE THEY DO NOT EXTEND GREATER THAN 4" IN THE CIRCULATION ROUTE AT A HEIGHT OF 80" ABOVE GRADE OR LOWER. (1986 ANSI SECTION 4.4.1)
 - h. THE CONTROLS AT ANY ADDITIONAL COMMON USE ELEMENT SUCH AS THE GATE HARDWARE, FIRE PIT, PUMP SHOWER, ETC. WHICH ARE INTENDED TO BE USED BY THE RESIDENTS AND VISITORS MUST BE ACCESSIBLE ROUTES AND SHALL BE REACHABLE WITH A REACH RANGE OF 15" TO 48" A.F.F. AND ARE OPERABLE WITH ONE HAND USING 5LB MAXIMUM PRESSURE WITHOUT TIGHT GRASPING, PINCHING, OR TWISTING OF THE WRIST (1986 ANSI, SECTION 4.2.5 & ANSI 2009, SECTION 308)

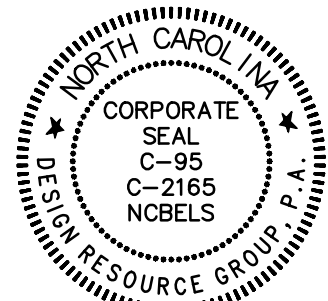
- 1) SEE SHEETS C4.01, C4.02, AND C4.03 FOR DETAILED GRADING PLANS OF CHURCH SITE.
- 2) SEE SHEETS C4.13 FOR STORMWATER POND



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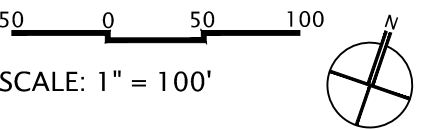
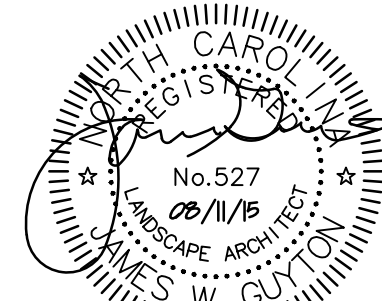
ELEVATION CHURCH

CHARLOTTE, NORTH CAROLINA

MPV PROPERTIES

521 EAST MOREHEAD STREET SUITE 400
CHARLOTTE, NC 28202

CONSTRUCTION
DOCUMENTS



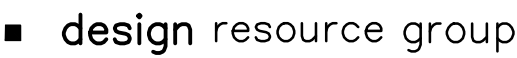
PROJECT #: 397-007
DRAWN BY: MB
CHECKED BY: SK

OVERALL GRADING PLAN

DATE: JUNE 27, 2014

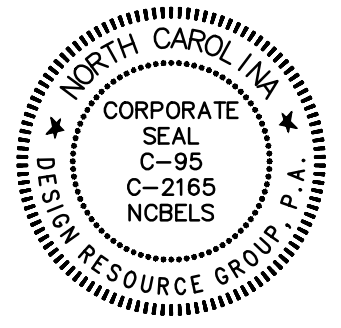
REVISIONS:

1. 09/03/14 - PER REVIEW COMMENTS
2. 11/6/14 - PER REVIEW COMMENTS
3. 03.06.15 updated limits of mass grading
4. 08/11/15 - RTAP



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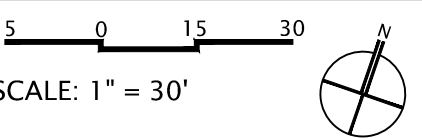
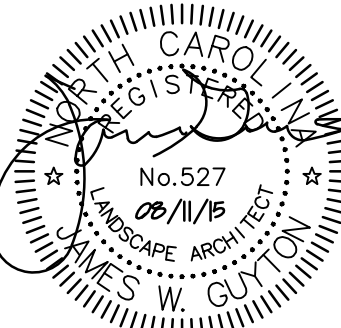


ELEVATION CHURCH

CHARLOTTE, NORTH CAROLINA

MPV PROPERTIES
521 EAST MOREHEAD STREET SUITE 400
CHARLOTTE, NC 28202

CONSTRUCTION
DOCUMENTS



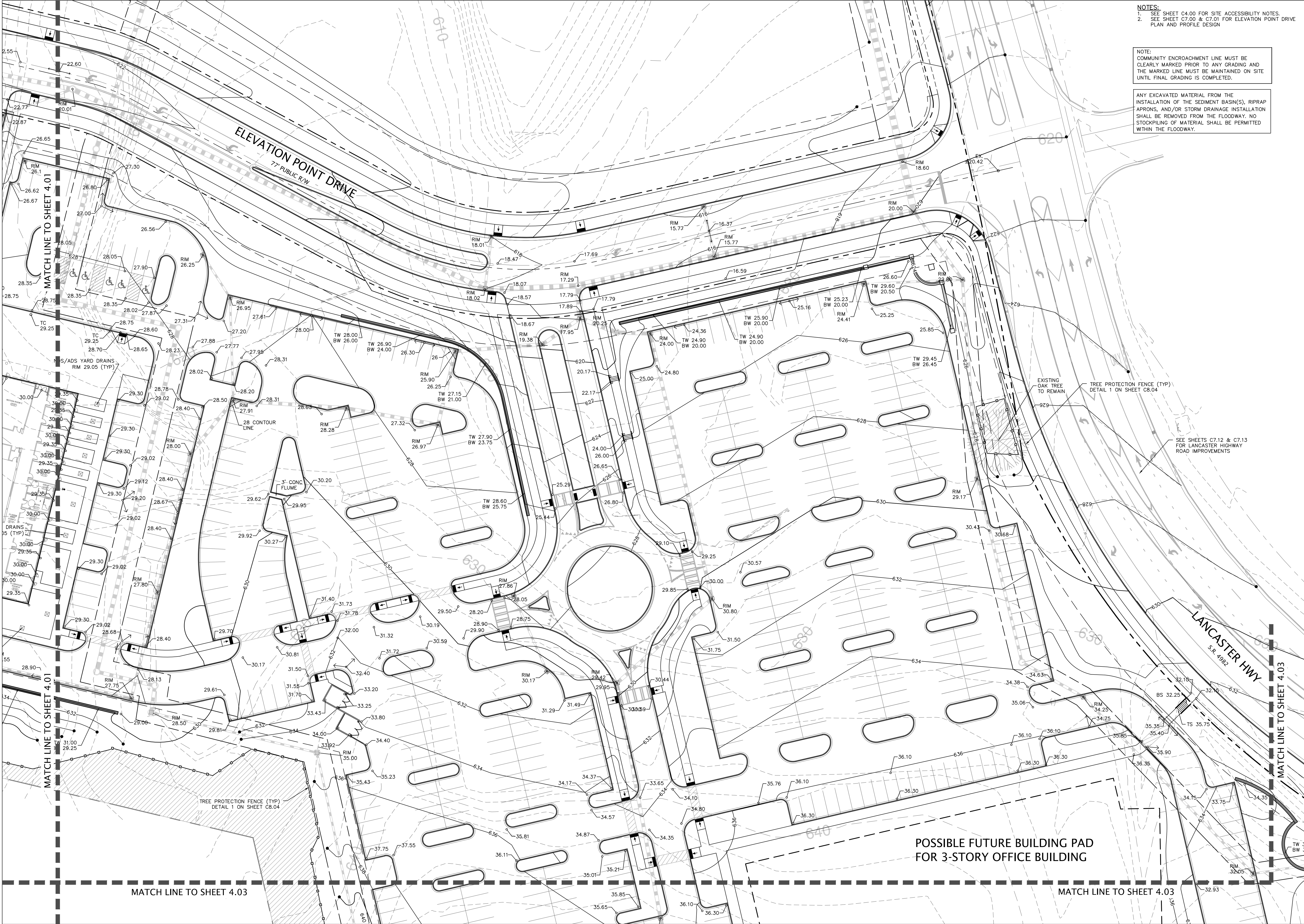
PROJECT #: 397-007
DRAWN BY: MB
CHECKED BY: SK

GRADING PLAN WEST

DATE: JUNE 27, 2014

REVISIONS:

- 1. 09/03/14 - PER REVIEW COMMENTS
- 2. 11/6/14 - PER REVIEW COMMENTS
- 3. 01/29/15 - ARCH. COORDINATION
- 4. 05/20/15 - PATIO ADDITION
- 5. 08/11/15 - RTAP



NOTES:
1. SEE SHEET C4.00 FOR SITE ACCESSIBILITY NOTES.
2. SEE SHEET C7.00 & C7.01 FOR ELEVATION POINT DRIVE PLAN AND PROFILE DESIGN

NOTE:
COMMUNITY ENCROACHMENT LINE MUST BE CLEARLY MARKED PRIOR TO ANY GRADING AND THE MARKED LINE MUST BE MAINTAINED ON SITE UNTIL FINAL GRADING IS COMPLETED.

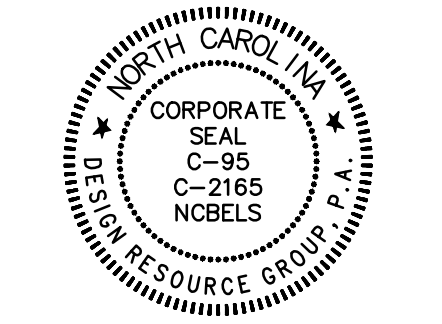
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design resource group

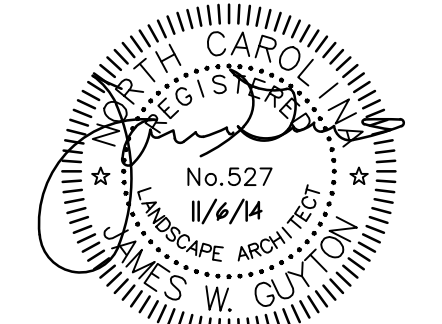
- landscape architecture
- civil engineering
- urban design
- land planning
- traffic engineering
- transportation planning

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ELEVATION CHURCH
CHARLOTTE, NORTH CAROLINA
MPV PROPERTIES
521 EAST MOREHEAD STREET SUITE 400
CHARLOTTE, NC 28202

CONSTRUCTION
DOCUMENTS



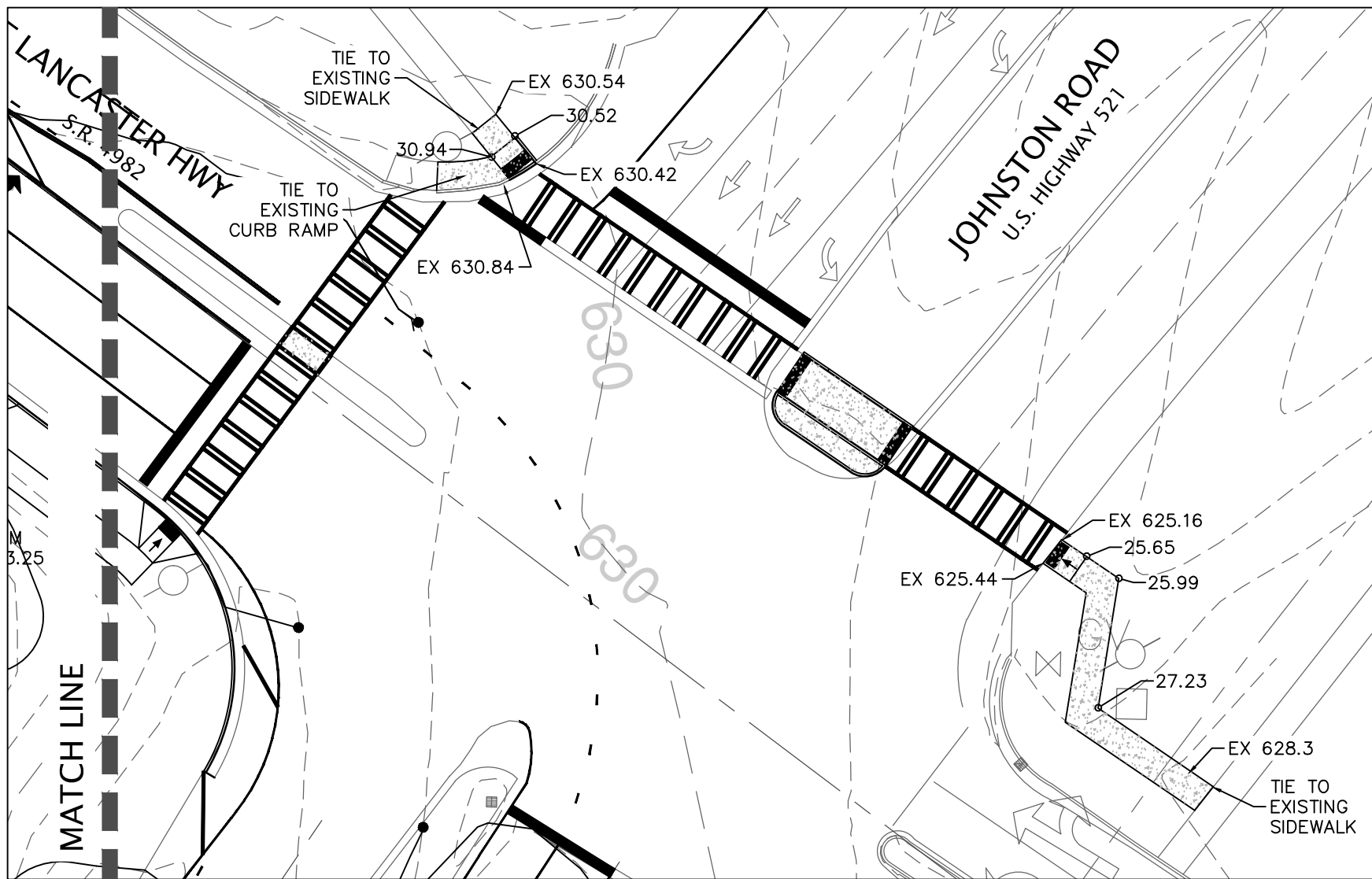
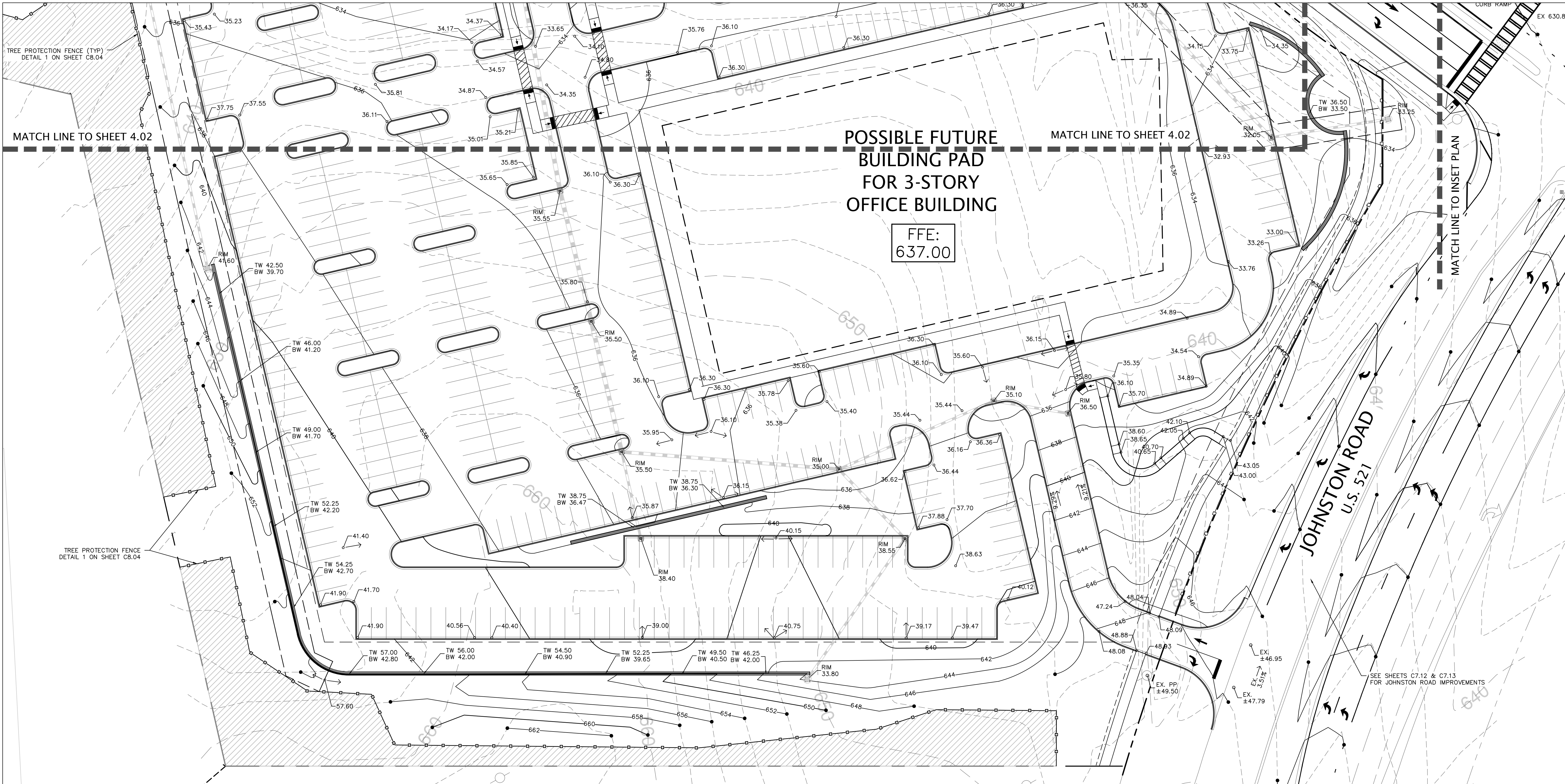
1" = 30'
SCALE: 1" = 30'

PROJECT #: 397-007
DRAWN BY: MB
CHECKED BY: SK

**GRADING
PLAN
NORTHEAST**

DATE: JUNE 27, 2014

REVISIONS:
1. 09/03/14 - PER REVIEW COMMENTS
2. 11/6/14 - PER REVIEW COMMENTS



- NOTES:
- SEE SHEET C4.00 FOR SITE ACCESSIBILITY NOTES.
 - SEE SHEET C7.00 & C7.01 FOR ELEVATION POINT DRIVE PLAN AND PROFILE DESIGN

NOTE:
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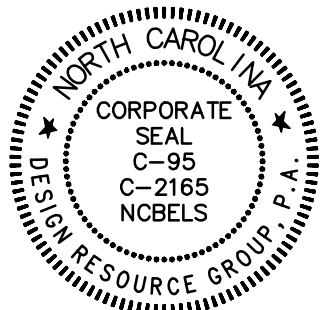
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design resource group

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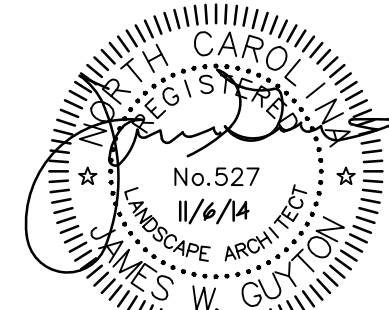


ELEVATION CHURCH

CHARLOTTE, NORTH CAROLINA

MPV PROPERTIES
521 EAST MOREHEAD STREET SUITE 400
CHARLOTTE, NC 28202

CONSTRUCTION
DOCUMENTS



15 0 15 30
SCALE: 1" = 30'

PROJECT #: 397-007
DRAWN BY: MB
CHECKED BY: SK

GRADING
PLAN
SOUTHEAST

DATE: JUNE 27, 2014

- REVISIONS:
- 09/03/14 - PER REVIEW COMMENTS
 - 11/6/14 - PER REVIEW COMMENTS

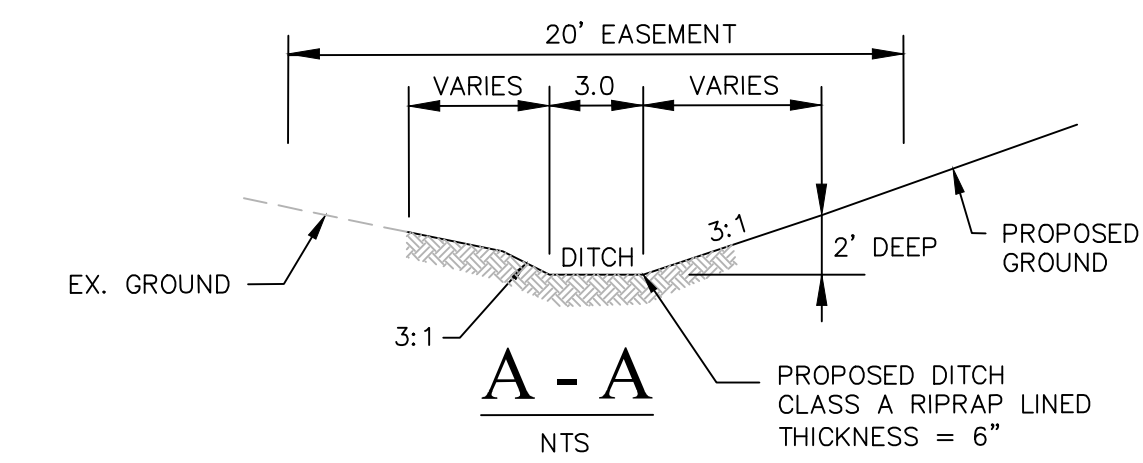
- ADS NYLOPLAST INLINE DRAIN 12" SOLID COVER. CONTACT MANUFACTURER FOR ADDITIONAL PARTS REQUIRED
- ☒ GRATE TOP YARD INLET. SEE DETAILS 1 THROUGH 3 ON SHEET C9.03 AND NCDOT STD. 840.02 AND 840.03
- ◐ CURB INLET. SEE DETAILS 1 THROUGH 3 ON SHEET C9.03 AND NCDOT STD. 840.02
- ◎ SLAB TOP DROP INLET. SEE DETAILS 1 THROUGH 3 ON SHEET C9.03 AND NCDOT STD. 840.04
- ◎ JUNCTION BOX. SEE DETAILS 1 THROUGH 3 ON SHEET C9.03 AND NCDOT STD. 840.54 AND 840.31

[illegible]

AREA DRAIN PIPE CHART			
PIPE #	LENGTH	SIZE	SLOPE
2	64.33'	8" HDPE	1% MIN.
3	20.26'	8" HDPE	1% MIN.
4	30.67'	8" HDPE	1% MIN.
5	39.79'	8" HDPE	1% MIN.
6	36.73'	8" HDPE	1% MIN.
7	34.68'	8" HDPE	1% MIN.
8	24.00'	8" HDPE	1% MIN.
9	23.18'	8" HDPE	1% MIN.
10	22.73'	8" HDPE	1% MIN.
11	13.58'	8" HDPE	1% MIN.

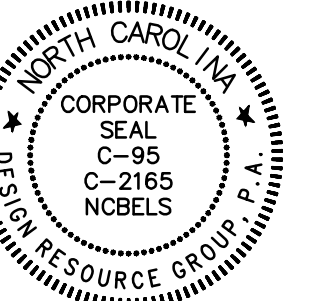
AREA DRAIN PIPE CHART				
PIPE #	LENGTH	SIZE	SLOPE	
12	13.58"	8" HDPE	1% MIN.	
13	12.68"	8" HDPE	1% MIN.	
14	12.00"	8" HDPE	1% MIN.	
15	7.44"	8" HDPE	1% MIN.	
18	15.76"	8" HDPE	1% MIN.	
19	22.29"	8" HDPE	1% MIN.	
20	32.68"	8" HDPE	1% MIN.	
21	10.30"	8" HDPE	1% MIN.	
22	12.25"	8" HDPE	1% MIN.	
23	34.50"	8" HDPE	1% MIN.	

PIPE #	LENGTH	SIZE	SLOPE
24	8.47'	8" HDPE	1% MIN.
25	191.60'	8" HDPE	1% MIN.
26	56.60'	8" HDPE	1% MIN.
27	98.01'	8" HDPE	1% MIN.



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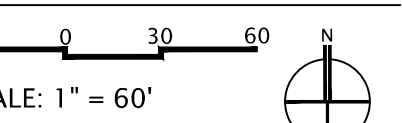
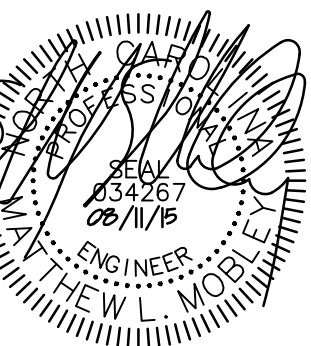
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ELEVATION CHURCH

CHARLOTTE, NORTH CAROLINA

521 EAST MOREHEAD STREET SUITE 400
CHARLOTTE, NC 28202

CONSTRUCTION
DOCUMENTS

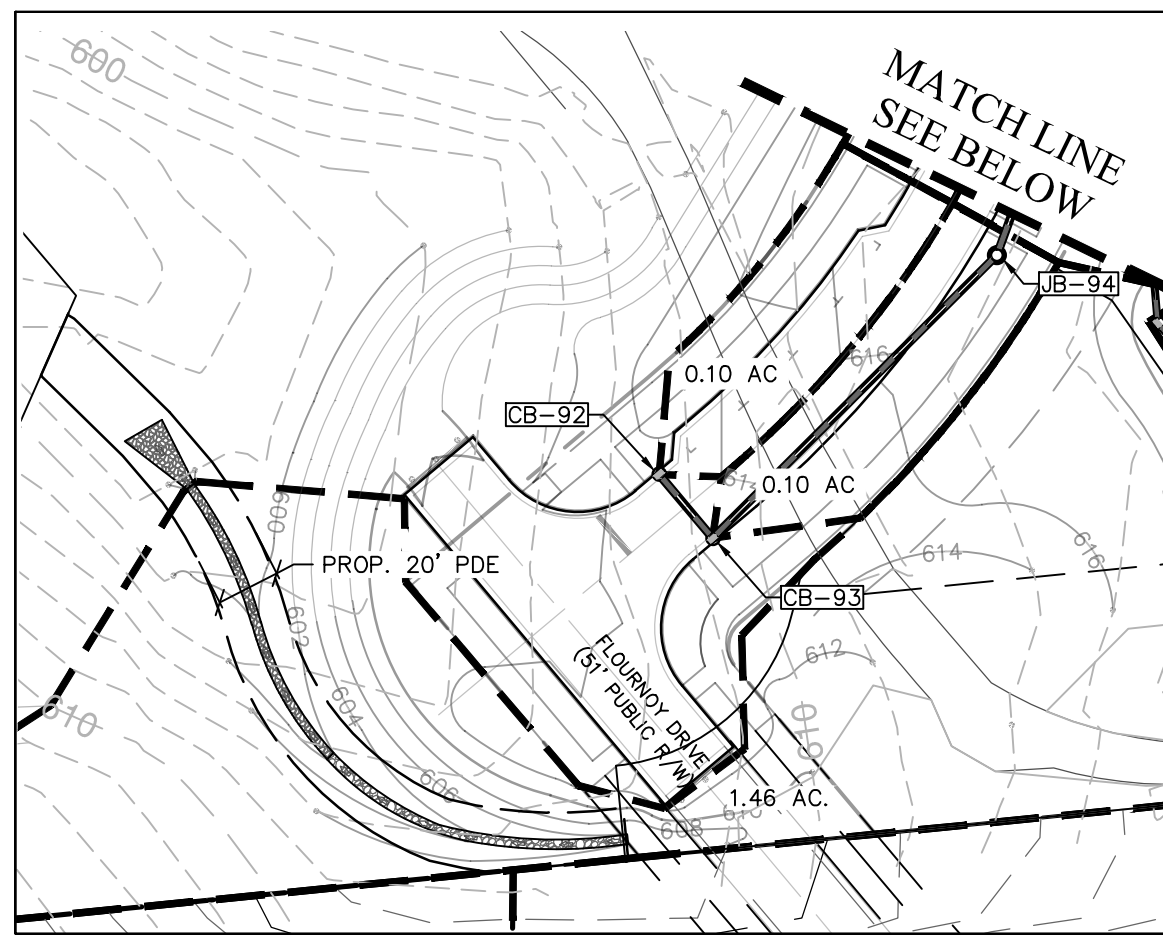
PROJECT #: 397-007
OWN BY: MB
CHECKED BY: KL

STORM DRAIN PLAN

TE: JUNE 27, 2014

9/03/14 - PER REVIEW COMMENTS
1/6/14 - PER REVIEW COMMENTS
1/20 /15 - PER FOOTPRINT UPDATES &
GRADING AT WEST END OF BLDG
2/16/15 - MEP COORDINATION
8/11/15 - RTAP

C4.10



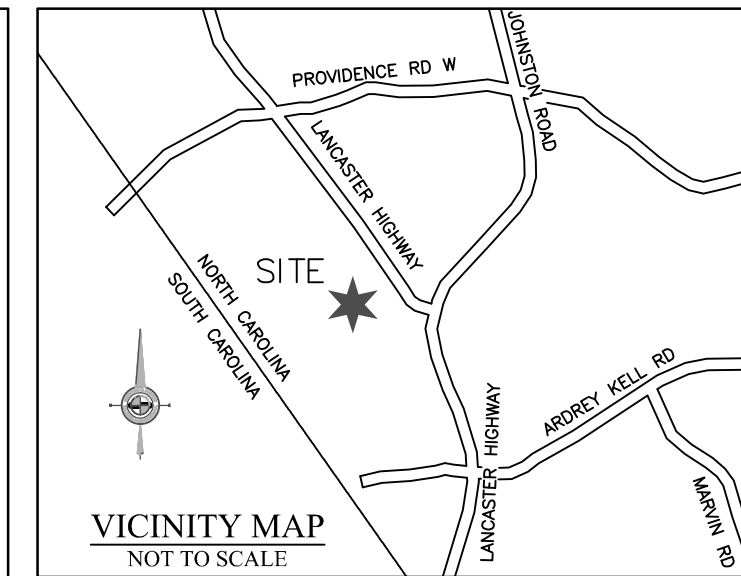
INSET 'A'
NTS



STORM DRAINAGE LEGEND

- ADS NYLOPLAST INLINE DRAIN 12" SOLID COVER, CONTACT MANUFACTURER FOR ADDITIONAL PARTS REQUIRED
- ▣ GRATE TOP YARD INLET. SEE DETAILS 1 THROUGH 3 ON SHEET C9.03 AND NCDOT STD. 840.02 AND 840.03
- CURB INLET. SEE DETAILS 1 THROUGH 3 ON SHEET C9.03 AND NCDOT STD. 840.02
- SLAB TOP DROP INLET. SEE DETAILS 1 THROUGH 3 ON SHEET C9.03 AND NCDOT STD. 840.04
- JUNCTION BOX. SEE DETAILS 1 THROUGH 3 ON SHEET C9.03 AND NCDOT STD. 840.54 AND 840.31

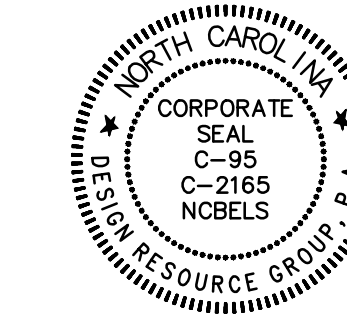
*NCDOT STD 840.46 TRAFFIC BEARING PRECAST DRAINAGE STRUCTURE TO BE USED FOR STRUCTURE WITHIN ROAD RIGHT-OF-WAY.
*DCB - DOUBLE CATCH BASIN PER CLDS 20.03
*SEE SHEET C4.12 FOR STORM DRAINAGE STRUCTURE AND PIPE CHART
*SEE SHEET C7.03, C7.13 FOR OFF-SITE STORM DRAINAGE IMPROVEMENTS



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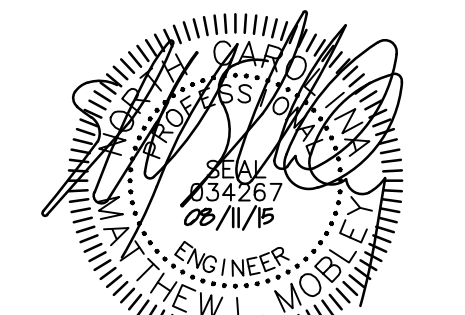
ELEVATION CHURCH

CHARLOTTE, NORTH CAROLINA

MPV PROPERTIES

521 EAST MOREHEAD STREET SUITE 400
CHARLOTTE, NC 28202

CONSTRUCTION DOCUMENTS



SCALE: 1" = 60'

PROJECT #: 397-007
DRAWN BY: KL
CHECKED BY: MB

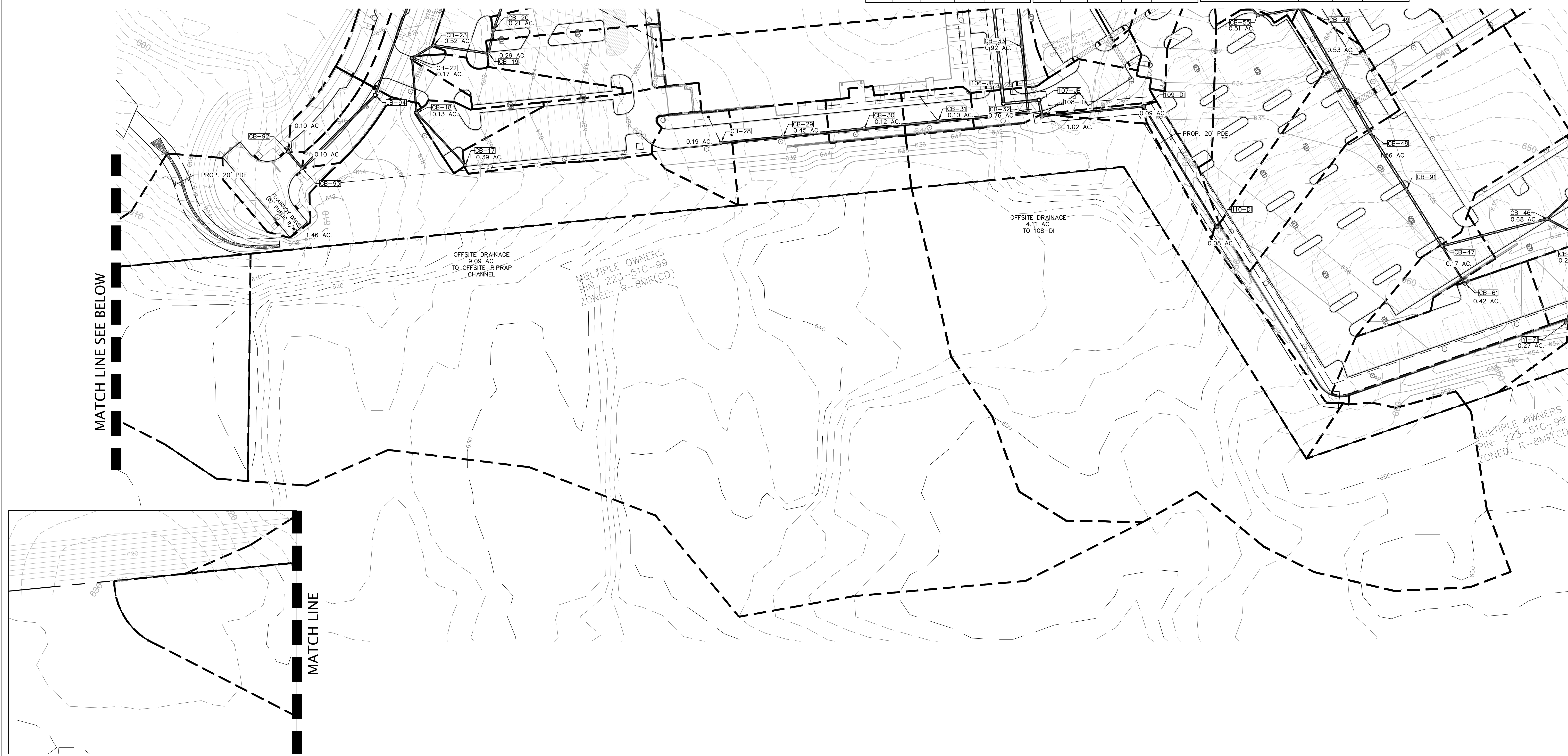
DRAINAGE AREA PLAN

DATE: JUNE 27, 2014

- REVISIONS:
- 09/03/14 - PER REVIEW COMMENTS
 - 11/6/14 - PER REVIEW COMMENTS
 - 01/20/15 - PER FOOTPRINT UPDATES & GRADING AT WEST END OF BLDG
 - 08/11/15 - RTAP

STRUCTURE TABLE					STRUCTURE TABLE					STRUCTURE TABLE					STRUCTURE TABLE				
STRUCTURE	RIM	INV. IN	FROM	INV. OUT	STRUCTURE	RIM	INV. IN	FROM	INV. OUT	STRUCTURE	RIM	INV. IN	FROM	INV. OUT	STRUCTURE	RIM	INV. IN	FROM	INV. OUT
CB-4	617.98	605.52 613.61	JB-3 CB-5	605.52	CB-32	627.75	622.06	CB-31	622.06	CB-55	630.17	624.51	CB-54	624.51	YI-71	634.37			631.35
CB-5	617.92			613.94	CB-33	627.80	621.43	CB-32	621.08	CB-56	632.05	629.00	YI-73	628.75	YI-73	634.26			629.36
CB-6	620.00	604.87 615.64	CB-4 CB-7	604.87	CB-34	628.00	620.46	CB-33	620.26	CB-57	634.25	626.97	CB-56	626.77	STRUCTURE TABLE				
CB-7	620.00			616.00	CB-35	627.91	619.91 622.06	CB-34 CB-36	619.71	CB-59	629.15	624.79	JB-58	624.59	STRUCTURE	RIM	INV. IN	FROM	INV. OUT
CB-9	618.02	601.99 614.12	JB-8 CB-14	601.99	CB-36	626.95	623.01	CB-37	622.81	CB-61	638.40			632.72	FES-68	584.20	580.78	OS-67	
CB-12	620.00	599.19 614.39	DCB-11 DI-60	599.19	CB-37	626.25			623.20	CB-62	615.77			612.07	OS-67	597.54			581.72
CB-13	618.61	598.89	CB-12	598.89	CB-38	626.16			620.09	CB-91	635.50	627.87	CB-47	627.67	STRUCTURE TABLE				
CB-14	618.01			614.51	CB-39	628.28	618.89	CB-35	618.69	CB-92	613.46			608.51	STRUCTURE	RIM	INV. IN	FROM	INV. OUT
CB-15	625.52			620.48	CB-40	626.97	617.60	CB-39	616.90	CB-93	613.71	608.38	CB-92	608.38	101-HW	601.29	598.00	102-JB	
CB-16	623.14	619.72 610.35	CB-15 CB-21	608.67	CB-41	625.90	615.80	CB-40	615.60	DCB-1	612.47			608.47	102-JB	612.98	605.10	103-JB	598.58
CB-17	620.60			617.35	CB-42	619.38	614.33	CB-41	613.83	CB-94	606.74	JB-94	606.74		103-JB	623.72	612.59	104-JB	612.39
CB-18	620.05	615.66	CB-17	615.46	CB-43	617.95	611.96 612.83	DI-52 CB-42	606.16	DCB-11	615.77	600.38 611.70	CB-10 CB-62	600.38	104-JB	628.55	613.91	105-JB	613.71
CB-19	621.95	612.70	CB-23	612.55	CB-44	636.50			632.28	DI-52	620.25	614.54	CB-51	612.53	105-JB	627.85	615.00	106-JB	614.80
CB-20	622.30	612.26	CB-19	612.06	CB-45	635.01	631.74	CB-44	631.54	DI-60	622.80	618.21	CB-59 CB-52	616.21	106-JB	628.43	617.55	107-JB	617.05
CB-21	623.74	611.38	CB-20	611.18	CB-46	635.01	630.52 630.52	CB-45 CB-53	630.02	HW-66	597.96	592.50	JB-65		107-JB	628.42	621.20	108-DI	618.21
CB-22	616.73	613.67	CB-18	613.47	CB-47	635.50	628.86 CB-61	628.36		JB-3	614.46	607.22 606.22	CB-16 DCB-2	606.22	108-DI	628.51	622.50	109-DI	621.50
CB-23	620.01	613.28	CB-22	613.08	CB-48	635.55	627.18	CB-91	627.18	JB-8	620.02			603.69	109-DI	635.00	628.89	110-DI	628.69
CB-26	625.90			620.49	CB-49	629.43	625.16 624.24	CB-48 CB-55	623.49	JB-10	617.30	606.00 601.59	CB-27 CB-6	601.19	110-DI	641.61			637.17
CB-27	622.95	619.90 619.48	CB-38 CB-26	619.23	CB-50	630.80	621.65	CB-49	621.45	STRUCTURE TABLE (OFFSITE)					STRUCTURE	RIM	INV. IN	FROM	INV. OUT
CB-28	628.60			625.06	CB-51	624.00	616.52	CB-50	616.02	PROP DI-102	630.79			626.14	PROP DI-102	630.79			626.14
CB-29	628.40	624.67	CB-28	624.20	CB-52	624.41			620.14	PROP DI-105	653.25			650.07	PROP DI-105	653.25			650.07
CB-30	628.41	623.69	CB-29	623.49	CB-53	638.55	630.82	YI-71	630.82	PROP MH-104	653.70	649.78	PROP DI-105	649.58					
CB-31	628.55	623.03	CB-30	622.83	CB-54	627.86			624.81	JB-64	608.42	594.20	JB-63	594.20					
										JB-65	599.00	592.57	JB-64	592.58					
										JB-94	617.23	607.75	CB-93	607.75					

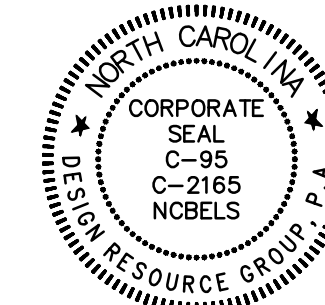
PIPE CHART					PIPE CHART					PIPE CHART					PIPE CHART				
FROM	TO	LENGTH	SLOPE	COMMENTS	FROM	TO	LENGTH	SLOPE	COMMENTS	FROM	TO	LENGTH	SLOPE	COMMENTS	FROM	TO	LENGTH	SLOPE	COMMENTS
CB-4	CB-6	127.58	0.5%	30" RCP	CB-34	CB-35	49.79	0.7%	24" RCP	CB-61	CB-47	53.69	2.5%	12" RCP	102-JB	101-HW	58.11	1.0%	30" RCP
CB-5	CB-4	32.19	1.0%	15" RCP	CB-35	CB-39	82.32	1.0%	24" RCP	CB-62	DCB-11	37.08	1.0%	15" RCP	103-JB	102-JB	182.17	4.0%	30" RCP
CB-6	JB-8	236.16	0.5%	30" RCP	CB-36	CB-35	74.63	1.0%	12" RCP	CB-91	CB-48	81.00	0.6%	24" RCP	104-JB	103-JB	112.49	1.0%	30" RCP
CB-7	CB-6	36.00	1.0%	15" RCP	CB-37	CB-36	36.67	0.5%	12" RCP	CB-92	CB-93	25.91	0.5%	15" RCP	105-JB	104-JB	89.30	1.0%	30" RCP
CB-9	JB-10	67.87	0.6%	36" RCP	CB-38	CB-27	36.85	0.5%	12" RCP	CB-93	JB-94	125.23	0.5%	15" RCP	106-JB	105-JB	256.40	0.8%	30" RCP
CB-12	CB-13	36.91	0.8%	48" RCP	CB-39	CB-40	67.42	1.6%	24" RCP	DCB-1	DCB-2	37.04	4.7%	15" RCP	107-JB	106-JB	43.34	1.5%	24" RCP
CB-13	JB-63	340.09	1.0%	48" RCP	CB-40	CB-41	54.94	2.0%	24" RCP	DCB-2	JB-3	103.63	0.5%	24" RCP	108-DI	107-JB	19.67	1.5%	24" RCP
CB-14	CB-9	38.66	1.0%	15" RCP	CB-41	CB-42	63.29	2.0%	24" RCP	DCB-11	CB-12	148.51	0.8%	48" RCP	109-DI	108-DI	123.71	5.0%	12" RCP
CB-15	CB-16	76.11	1.0%	12" RCP	CB-42	CB-43	33.33	3.0%	24" RCP	DI-52	CB-43	28.38	2.0%	30" RCP	110-DI	109-DI	170.64	4.9%	12" RCP
CB-16	JB-3	48.24	3.0%	18" RCP	CB-43	JB-10	23.62	0.7%	42" RCP	DI-60	CB-12	60.67	3.0%	18" RCP	PIPE CHART				
CB-17	CB-18	86.53	2.0%	12" RCP	CB-44	CB-45	45.50	1.2%	12" RCP	JB-3	CB-4	137.39	0.5%	30" RCP	FROM	TO	LENGTH	SLOPE	COMMENTS
CB-18	CB-22	66.26	2.7%	12" RCP	CB-45	CB-46	102.26	1.0%	12" RCP	JB-8	CB-9	332.61	0.5%	36" RCP	OS-67	FES-68	94.01	1.0%	36" RCP ☆
CB-19	CB-20	29.29	1.0%	18" RCP	CB-46	CB-47	131.71	0.9%	18" RCP	JB-10	DCB-11	100.85	0.8%	48" RCP	NOTE - ALL RCP ARE CLASS III UNLESS OTHERWISE NOTED				
CB-20	CB-21	84.55	0.8%	18" RCP	CB-47	CB-91	81.00	0.6%	24" RCP	JB-58	CB-59	137.24	1.0%	18" RCP	* - WATERTIGHT JOINT RCP				
CB-21	CB-16	83.42	1.0%	18" RCP	CB-48	CB-49	173.62	1.2%	24" RCP	JB-63	JB-64	128.60	1.0%	48" RCP	SEE SHEET C7.03, C7.13 FOR OFFSITE STORM DRAINAGE				
CB-22	CB-23	30.39	0.6%	15" RCP	CB-49	CB-50	92.20	2.0%	24" RCP	JB-64	JB-65	188.90	0.9%	48" RCP ☆					
CB-23	CB-19	67.52	0.6%	18" RCP	CB-50	CB-51	197.38	2.5%	24" RCP	JB-65	HW-66	15.00	0.5%	54" RCP					
CB-26	CB-27	115.46	0.9%	12" RCP	CB-51	DI-52	24.43	6.1%	24" RCP	JB-94	DCB-2	201.08	0.5%	15" RCP					
CB-27	JB-8	53.83	2.0%	15" RCP	CB-52	DI-60	71.62	2.0%	12" RCP	YI-71	CB-53	103.37	0.5%	12" RCP					
CB-28	CB-29	75.66	0.5%	12" RCP	CB-53	CB-46	57.87	0.5%	15" RCP	YI-73	CB-56	71.39	0.5%	12" RCP					
CB-29	CB-30	99.10	0.5%	15" RCP	CB-54	CB-55	59.60	0.5%	12" RCP	PIPE CHART (OFFSITE)					FROM	TO	LENGTH	SLOPE	COMMENTS
CB-30	CB-31	89.99	0.5%	15" RCP	CB-55	CB-49	51.54	0.5%	15" RCP	PROP DI-102	PROP MH-101	8.99	1.0%	12" RCP	PROP DI-105	PROP MH-104	56.46	0.5%	15" RCP
CB-31	CB-32	109.84	0.7%	15" RCP	CB-56	CB-57	178.00	1.0%	15" RCP										
CB-32	CB-33	79.21	0.8%	18" RCP	CB-57	JB-58	50.89	0.8%	18" RCP										
CB-33	CB-34	103.29	0.6%	24" RCP	CB-59	DI-60	144.77	4.4%	18" RCP										



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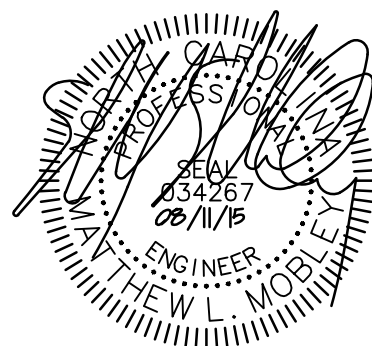
ELEVATION CHURCH

CHARLOTTE, NORTH CAROLINA

MPV PROPERTIES

521 EAST MOREHEAD STREET SUITE 400
CHARLOTTE, NC 28202

CONSTRUCTION
DOCUMENTS



30 0 30 60 N
SCALE: 1" = 60'

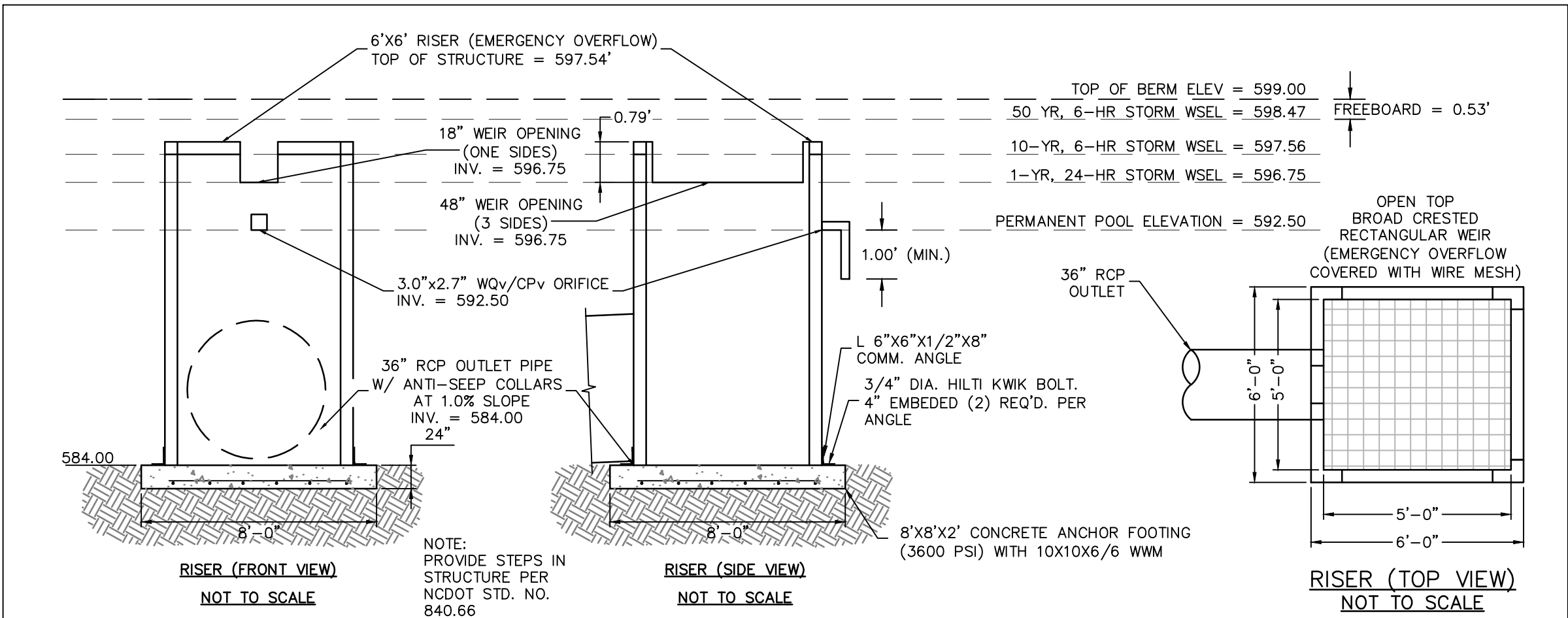
PROJECT #: 397-007
DRAWN BY: MB
CHECKED BY: KL

DRAINAGE AREA &
STORM DRAINAGE
CHARTS

DATE: JUNE 27, 2014

- REVISIONS:
- 09/03/14 - PER REVIEW COMMENTS
 - 11/6/14 - PER REVIEW COMMENTS
 - 01/29/15 - STORM FOOTPRINT UPDATES & GRADING AT WEST END OF BLDG
 - 03/26/15 - STORM REVISIONS
 - 08/11/15 - RTAP

C4.12



NOTE: ALL CONNECTIONS TO THE PROPOSED RISER AND ALL PIPING DOWNSTREAM OF THE OUTLET STRUCTURE SHALL INCORPORATE WATER-TIGHT SEALS (RUBBER BOOT OR EQUIVALENT) TO MINIMIZE LEAKAGE

WET POND: RISER DETAIL

EMBANKMENT CONSTRUCTION

THE FOLLOWING STEPS APPLY TO CONSTRUCTION OF AN EMBANKMENT:

STEP 1: SUBGRADE PREPARATION:

- COMPACT SUBGRADE TO DENSITY REQUIREMENTS FOR SUBSEQUENT FILL MATERIALS.
- CUT OUT SOFT AREAS OF SUBGRADE NOT CAPABLE OF COMPACTION IN PLACE.
- SCARP SUBGRADE SURFACE TO DEPTH OF 6 INCHES.
- PROOF ROLL SUBGRADE TO IDENTIFY SOFT SPOTS. FILL AND COMPACT TO DENSITY EQUAL TO OR GREATER THAN REQUIREMENTS FOR SUBSEQUENT FILL MATERIAL.

STEP 2: SEEPAGE KEY PLACEMENT

- SEEPAGE KEY TRENCH WILL BE LOCATED BETWEEN EMBANKMENT ABUTMENTS.
- SEEPAGE KEY SHALL EXTEND TO A MINIMUM DEPTH OF 4 FEET OR AS REQUIRED THROUGH GEOTECHNICAL SEEPAGE ANALYSIS. A MINIMUM BOTTOM TRENCH WIDTH SHALL BE 10 FEET AND THE TRENCH SIDEWALLS SHALL BE SLOPED OR BENCHED TO PROMOTE STABILITY AND BONDING BETWEEN THE SIDEWALL SOILS AND SEEPAGE KEY FILL.

STEP 3: EMBANKMENT FILL PLACEMENT

- EMBANKMENT FILL SHALL BE CONSTRUCTED AT 3(HORIZONTAL):1(VERTICAL) OR AS SHOWN ON THE DRAWINGS. DEMONSTRATION OF APPROPRIATE SAFETY FACTORS AGAINST FAILURE THROUGH GEOTECHNICAL ANALYSIS SHALL BE REQUIRED FOR SLOPES STEEPER THAN 3(HORIZONTAL):1(VERTICAL).
- FILL SOILS SHALL BE PLACED IN LOOSE LIFTS NOT TO EXCEED 8 INCHES IN THICKNESS AND BE COMPACTED TO A MINIMUM OF 95 PERCENT OF THE SOILS STANDARD PROCTOR (ASTM D698) MAXIMUM DRY DENSITY, OR AS SPECIFIED ON THE DRAWINGS.
- COMPACTED MOISTURE CONTENT SHALL BE BETWEEN 3 PERCENT BELOW AND 3 PERCENT ABOVE THE OPTIMUM MOISTURE CONTENT FOR ALL FILL PLACED, OR AS OTHERWISE APPROVED BY GEOTECHNICAL CONSULTANT.
- FILL SOILS SHOULD BE PLACED IN CONTINUOUS, HORIZONTAL LAYERS FROM ABUTMENT TO ABUTMENT. EXISTING SLOPES GREATER THAN 4(HORIZONTAL):1(VERTICAL) SHALL BE BENCHED TO PROMOTE BONDING OF NEWLY PLACED FILL WITH EXISTING SOILS. BENCHING SHALL BE PERFORMED AT MAXIMUM OF 2 FEET VERTICAL INTERVALS AND SHALL EXTEND A MINIMUM OF 4 FEET HORIZONTALLY OR AS SPECIFIED ON DRAWINGS.
- WITHIN THE UPPER 12 INCHES OF EMBANKMENT, FILL SOILS SHOULD BE COMPACTED TO 100% OF ITS STANDARD PROCTOR (ASTM D698) MAXIMUM DRY DENSITY.
- FILL AGAINST SUPPORTED STRUCTURES. DO NOT FILL AGAINST UNSUPPORTED STRUCTURES.
- PLACE FILL SIMULTANEOUSLY ON EACH SIDE OF UNSUPPORTED STRUCTURES UNTIL SUPPORTS ARE IN PLACE.
- PLACE A MINIMUM OF SIX INCHES OF TOPSOIL ACROSS DAM EMBANKMENT TO PROMOTE VEGETATIVE GROWTH.

STEP 4: OUTLET PIPE FILL PLACEMENT

- FILL OF THE CULVERTS SHALL BE PLACED AND COMPACTED IN 6-INCH THICK LOOSE LIFTS AROUND THE DROP INLETS AND UP TO 2 FEET ABOVE THE CULVERTS.
- COMPACTION SHALL BE PERFORMED BY HAND TAMPERS OR SMALL HAND OPERATED COMPACTORS.
- COMPACTION SHALL BE AT A MINIMUM 95 PERCENT OF THE STANDARD PROCTOR (ASTM D698) MAXIMUM DRY DENSITY. COMPACTED MOISTURE CONTENT SHALL BE BETWEEN 3 PERCENT BELOW AND 3 PERCENT ABOVE THE OPTIMUM MOISTURE CONTENT FOR ALL FILL PLACED, OR AS OTHERWISE APPROVED BY GEOTECHNICAL CONSULTANT.
- ADDITIONAL COMPACTION OF LIFTS 2 FEET OR GREATER ABOVE CULVERTS SHALL CONFORM TO THE EMBANKMENT FILL PLACEMENT SECTION OF THIS SPECIFICATION.

STEP 5: FIELD QUALITY CONTROL

LABORATORY TESTING

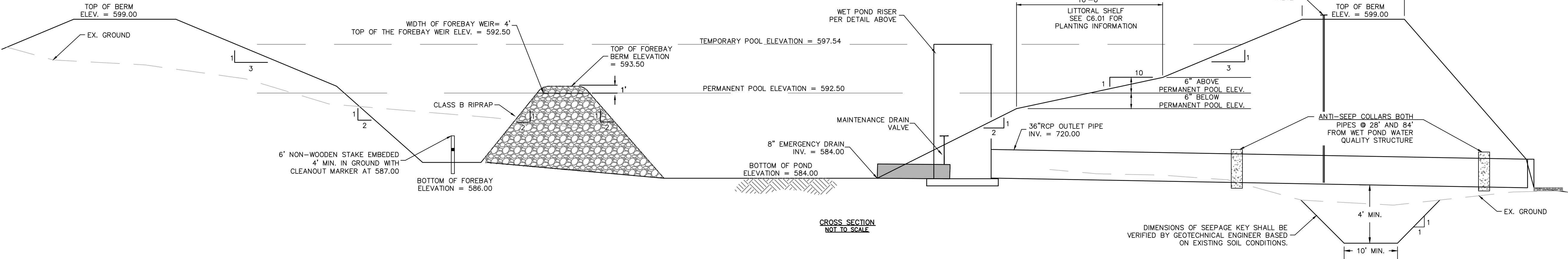
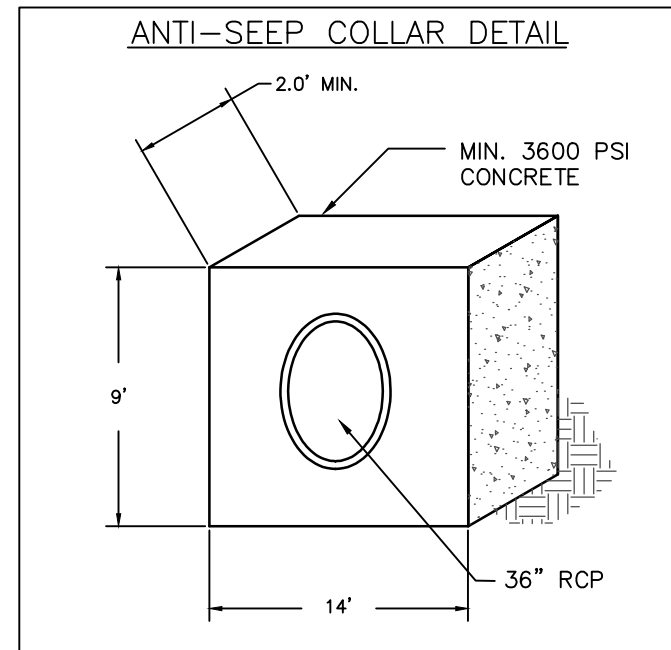
- PERFORM LABORATORY MATERIAL TESTS IN ACCORDANCE WITH ASTM D422, ASTM D698, ASTM D2216, AND ASTM D4318.
- TEST AT A FREQUENCY OF EVERY 500 CUBIC YARDS OF EMBANKMENT FILL MATERIAL PLACED, WHEN MATERIALS USING FOR EMBANKMENT FILL CHANGE, AND/OR AS DIRECTED BY THE GEOTECHNICAL CONSULTANT.
- SAMPLE SIZE SHALL BE 50-LB.

IN PLACE COMPACTION AND NATURAL MOISTURE CONTENT TESTS

- PERFORM IN PLACE COMPACTION TESTS IN ACCORDANCE WITH ASTM D1556, ASTM D2922, OR ASTM D2937 AND NATURAL MOISTURE CONTENT TEST IN ACCORDANCE WITH ASTM D2216.
- FREQUENCY OF COMPACTION/NATURAL MOISTURE CONTENT TESTS:
- EMBANKMENT FILL: EACH LIFT AT A MINIMUM FREQUENCY OF 1 PER 2,500 SQ. FT.
- PIPE INSTALLATION: EACH LIFT AT A MINIMUM FREQUENCY OF 1 PER 30 LF OF PIPE.
- WHEN TESTS INDICATE WORK DOES NOT MEET SPECIFIED REQUIREMENTS, REMOVE WORK, REPLACE AND RETEST.

ALLOWABLE VARIANCES

EMBANKMENT SPECIFICATIONS MAY BE MODIFIED BASED ON SITE-SPECIFIC GEOTECHNICAL INVESTIGATION AT THE DISCRETION OF THE GEOTECHNICAL CONSULTANT.



BMP EMBANKMENT REQUIREMENTS PER CITY OF CHARLOTTE BMP DESIGN MANUAL

CONSTRUCTION OF BMPs AND THE PLACEMENT OF ALL EMBANKMENTS SHALL BE IN ACCORDANCE WITH THE N.C. DAM SAFETY ACT OF 1967 AND ANY SUBSEQUENT CHANGES THERETO, STANDARDS AND SPECIFICATIONS OF THE NORTH CAROLINA DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES, AND/OR THE STANDARDS AND SPECIFICATIONS OF THE APPROVING AGENCY. THESE SPECIFICATIONS APPLY TO ALL BMPs WITH EMBANKMENTS THAT ARE DESIGNED TO HOLD WATER, EVEN IF THE EMBANKMENT IS DESIGNED TO HOLD WATER ONLY DURING A STORM EVENT.

DESIGN RESOURCE GROUP IS NOT RESPONSIBLE FOR THE DESIGN AND CERTIFICATION OF GEOTECHNICAL INSTALLATIONS AND OFFERS THE FOLLOWING SPECIFICATIONS FOR REFERENCE ONLY. VERIFICATION OF SITE CONDITIONS AND FINAL GEOTECHNICAL RECOMMENDATIONS SHALL BE THE RESPONSIBILITY OF THE GEOTECHNICAL CONSULTANT. CONSTRUCTION OF ALL PROPOSED BMPs SHALL BE PERFORMED UNDER THE OBSERVATION OF A GEOTECHNICAL CONSULTANT WORKING UNDER THE DIRECTION OF AN NC LICENSED ENGINEER.

EMBANKMENT FILL MATERIALS

THE FOLLOWING PARAMETERS APPLY TO MATERIALS USED TO CONSTRUCT EMBANKMENTS: BORROW MATERIAL SHALL BE CLASSIFIED AS ML, MH, SC, SM, CL OR CH SOILS ACCORDING TO THE UNIFIED SOIL CLASSIFICATION SYSTEM (ASTM D2487) OR ANY MIXTURE OF THESE SOILS.

BORROW MATERIALS SHALL HAVE A LIQUID LIMIT (LL) BETWEEN 40 AND 60 AND A PLASTICITY INDEX (PI) BETWEEN 15 AND 30 (ASTM D4318).

MATERIALS SHALL BE FREE OF TOPSOIL, ORGANIC MATERIAL, ROOTS, STUMPS, BRUSH, ROCKS LARGER THAN 3 INCHES, SUBSOIL, DEBRIS, VEGETATION, AND OTHER FOREIGN MATTER.

ALL MATERIAL CLOUDS WILL BE BROKEN DOWN WITH TILLERS AND/OR DISCS TO PROVIDE A HOMOGENEOUS SOIL THAT IS FREE OF CLAY CLOUDS GREATER THAN 3 INCHES IN DIAMETER.

REFERENCES

- "CHARLOTTE-MECKLENBURG BMP DESIGN MANUAL", CHARLOTTE-MECKLENBURG STORM WATER SERVICES,
- CITY OF CHARLOTTE, NORTH CAROLINA, JULY 1, 2013
- ASTM D422 - STANDARD TEST METHOD FOR PARTICLE-SIZE ANALYSIS OF SOILS (GRAIN SIZE WITH HYDROMETER).
- ASTM D698 - STANDARD TEST METHODS FOR LABORATORY COMPACTION CHARACTERISTICS OF SOIL USING STANDARD EFFORT (12,400 FT-LBF/FT³).
- ASTM D1556 - STANDARD TEST METHOD FOR DENSITY OF SOIL IN PLACE BY THE SAND-CONE METHOD.
- ASTM D2216 - STANDARD TEST METHOD FOR LABORATORY DETERMINATION OF WATER (MOISTURE) CONTENT OF SOIL AND ROCK BY MASS.
- ASTM D2922 - STANDARD TEST METHOD FOR DENSITY OF SOIL AND SOIL-AGGREGATE IN PLACE BY NUCLEAR METHODS (SHALLOW DEPTH).
- ASTM D2487 - STANDARD PRACTICES FOR CLASSIFICATION OF SOIL FOR ENGINEERING PURPOSES (UNIFIED SOIL CLASSIFICATION SYSTEM)
- ASTM D2937 - STANDARD TEST METHOD FOR DENSITY OF SOIL IN PLACE BY THE DRIVE-CYLINDER METHOD TEST.
- ASTM D4318 - STANDARD TEST METHODS FOR LIQUID LIMIT, PLASTIC LIMIT, AND PLASTICITY INDEX OF SOILS.

Wet Pond: Stage/Storage Information

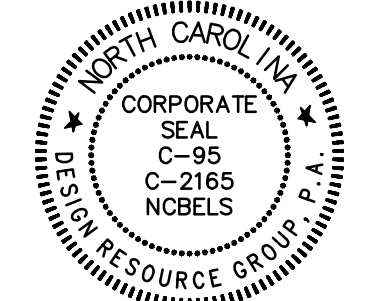
Elevation	Area (sf)		
	Main Pond	Forebay	Total
584.0	12805	0	12805
585.0	13747	0	13747
586.0	14716	1042	15758
587.0	15709	1322	17031
588.0	16727	1626	18353
589.0	17771	1956	19727
590.0	18839	2310	21149
592.0	21052	3095	24147
592.5	23592	3307	26899
593.0	30879		30879
594.0	33033		33033
595.0	35243		35243
596.0	37510		37510
597.0	39833		39833
598.0	42213		42213
599.0	44650		44650



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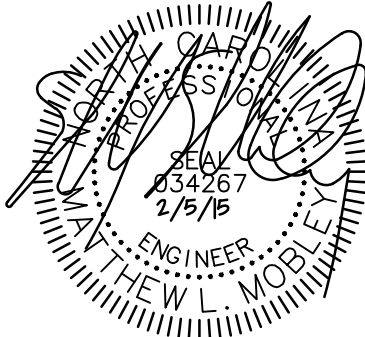
ELEVATION CHURCH

CHARLOTTE, NORTH CAROLINA

MPV PROPERTIES

521 EAST MOREHEAD STREET SUITE 400
CHARLOTTE, NC 28202

CONSTRUCTION DOCUMENTS



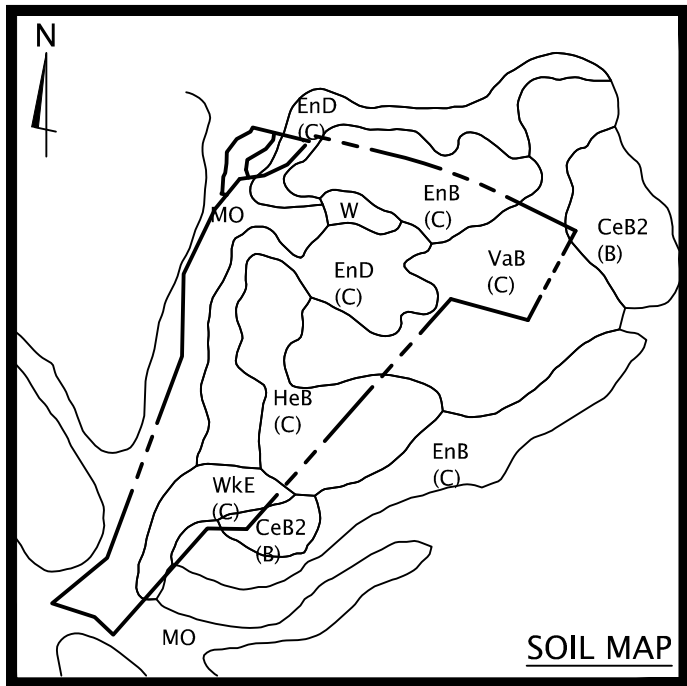
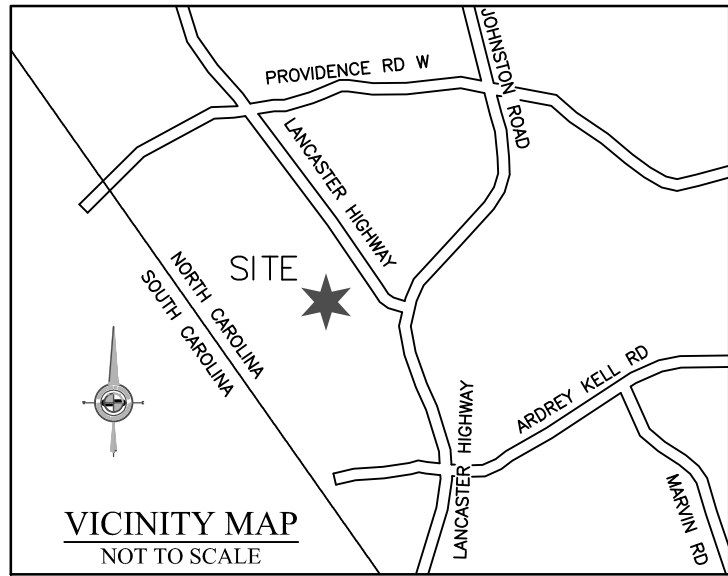
SCALE: 1" = 20'

PROJECT #: 397-007
DRAWN BY: MB
CHECKED BY: KL

PCCO WETPOND BMP DETAILS

DATE: JUNE 27, 2014

- REVISIONS:
1. 09/03/14 - PER REVIEW COMMENTS
 2. 11/6/14 - PER REVIEW COMMENTS
 3. 2/5/15 - REVISE OUTLET STRUCTURE



STORM DRAIN EASEMENTS (SDE'S) AND THE OPERATIONS AND MAINTENANCE AGREEMENT RECORDED IN ACCORDANCE WITH THE REQUIREMENTS OF THE POST CONSTRUCTION CONTROLS ORDINANCE

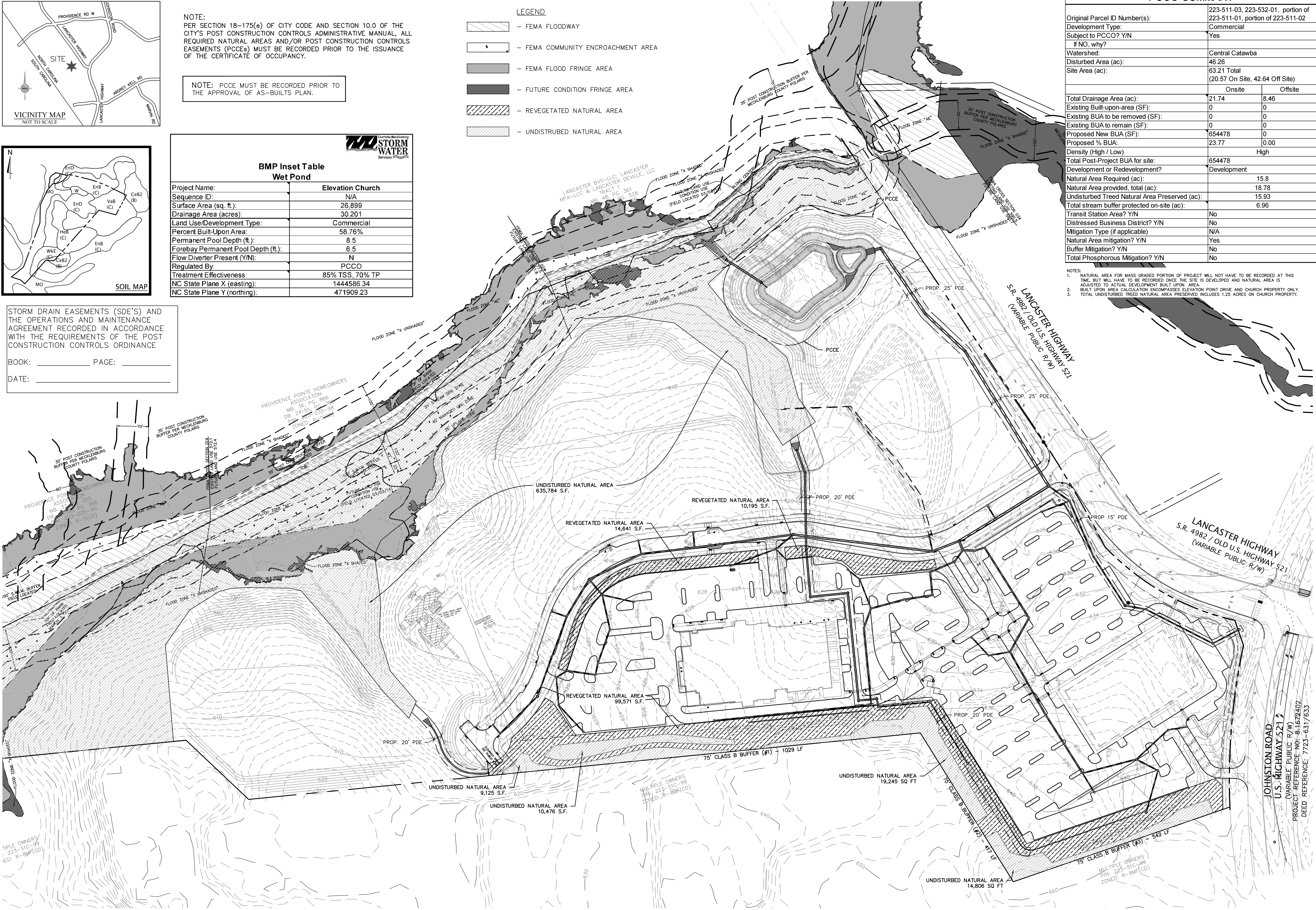
BOOK: _____ PAGE: _____
DATE: _____

NOTE:
PER SECTION 18-175(e) OF CITY CODE AND SECTION 10.0 OF THE CITY'S POST CONSTRUCTION CONTROLS ADMINISTRATIVE MANUAL, ALL REQUIRED NATURAL AREAS AND/OR POST CONSTRUCTION CONTROLS EASEMENTS (PCCOs) MUST BE RECORDED PRIOR TO THE ISSUANCE OF THE CERTIFICATE OF OCCUPANCY.

NOTE: PCCO MUST BE RECORDED PRIOR TO THE APPROVAL OF AS-BUILTS PLAN.

BMP Inset Table Wet Pond	
Project Name:	Elevation Church
Sequence ID:	N/A
Surface Area (sq. ft.):	26,899
Drainage Area (acres):	30.201
Land Use/Development Type:	Commercial
Percent Built-Upon Area:	58.76%
Permanent Pool Depth (ft.):	8.5
Forebay Permanent Pool Depth (ft.):	6.5
Flow Diverter Present (Y/N):	N
Regulated By:	PCCO
Treatment Effectiveness:	85% TSS, 70% TP
NC State Plane X (easting):	1444586.34
NC State Plane Y (northing):	471909.23

- LEGEND
- FEMA FLOODWAY
 - FEMA COMMUNITY ENCROACHMENT AREA
 - FEMA FLOOD FRINGE AREA
 - FUTURE CONDITION FRINGE AREA
 - REVEGETATED NATURAL AREA
 - UNDISTURBED NATURAL AREA



PCCO SUMMARY		
Original Parcel ID Number(s):	223-511-03, 223-532-01, , portion of 223-511-01, portion of 223-511-02	
Development Type:	Commercial	
Subject to PCCO? Y/N	Yes	
If NO, why?		
Watershed:	Central Catawba	
Disturbed Area (ac):	46.26	
Site Area (ac):	63.21 Total (20.57 On Site, 42.64 Off Site)	
	Onsite	Offsite
Total Drainage Area (ac):	21.74	8.46
Existing Built-upon-area (SF):	0	0
Existing BUA to be removed (SF):	0	0
Existing BUA to remain (SF):	0	0
Proposed New BUA (SF):	654478	0
Proposed % BUA:	23.77	0.00
Density (High / Low)	High	
Total Post-Project BUA for site:	654478	
Development or Redevelopment?	Development	
Natural Area Required (ac):	15.8	
Natural Area provided, total (ac):	18.78	
Undisturbed Treed Natural Area Preserved (ac):	15.93	
Total stream buffer protected on-site (ac):	6.96	
Transit Station Area? Y/N	No	
Distressed Business District? Y/N	No	
Mitigation Type (if applicable)	N/A	
Natural Area mitigation? Y/N	Yes	
Buffer Mitigation? Y/N	No	
Total Phosphorous Mitigation? Y/N	No	

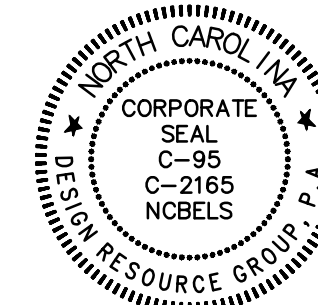
- NOTES:
- NATURAL AREA FOR MASS GRADED PORTION OF PROJECT WILL NOT HAVE TO BE RECORDED AT THIS TIME, BUT WILL HAVE TO BE RECORDED ONCE THE SITE IS DEVELOPED AND NATURAL AREA IS ADJUSTED TO ACTUAL DEVELOPMENT BUILT UPON AREA.
 - BUILT UPON AREA CALCULATION ENCOMPASSES ELEVATION POINT DRIVE AND CHURCH PROPERTY ONLY.
 - TOTAL UNDISTURBED TREED NATURAL AREA PRESERVED INCLUDES 1.25 ACRES ON CHURCH PROPERTY.



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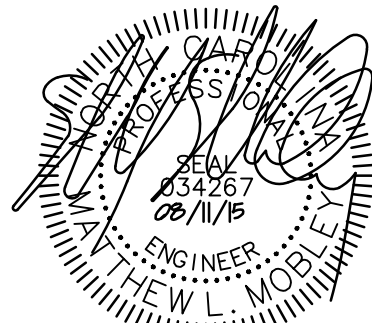
ELEVATION CHURCH

CHARLOTTE, NORTH CAROLINA

MPV PROPERTIES

521 EAST MOREHEAD STREET SUITE 400
CHARLOTTE, NC 28202

CONSTRUCTION
DOCUMENTS



SCALE: 1" = 100'

PROJECT #: 397-007
DRAWN BY: KL
CHECKED BY: MB

STORM WATER
MANAGEMENT
PLAN

DATE: JUNE 27, 2014

- REVISIONS:
- 09/03/14 - PER REVIEW COMMENTS
 - 11/6/14 - PER REVIEW COMMENTS
 - 08/11/15 - RTAP



NOTE:
PVC SEWER PIPE SHALL BE
SDR 35.

NOTE:
FIRE DEPT. INSPECTOR TO
LOCATE FINAL FDC SIGN
LOCATION AND SIZE.

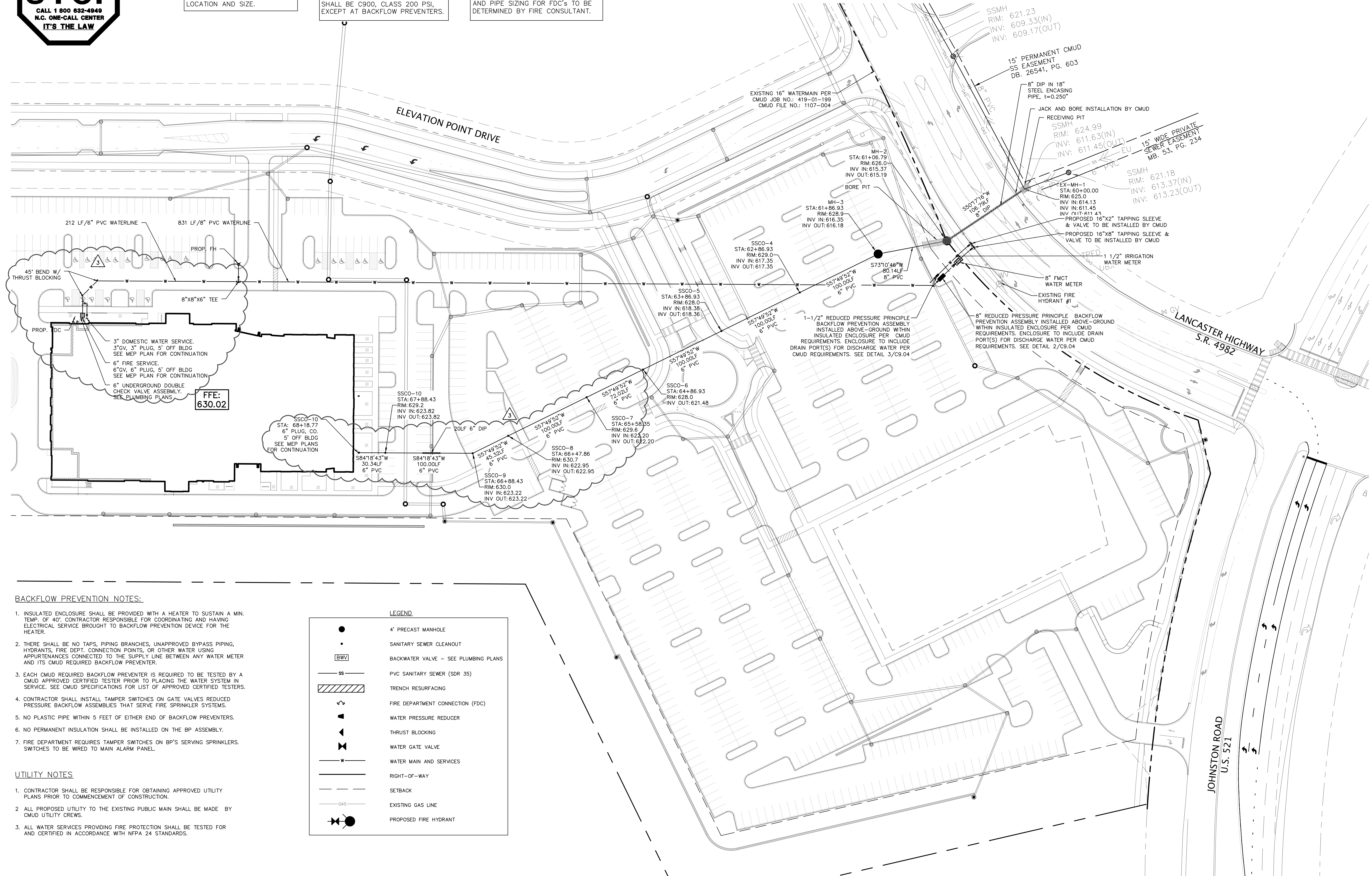
NOTE:
PVC WATERLINE LESS THAN 4"
SHALL BE SDR 21, CLASS 200 PSI.

NOTE:
PVC WATERLINE 4" OR GREATER
SHALL BE C300, CLASS 200 PSI,
EXCEPT AT BACKFLOW PREVENTERS.

NOTE:
() - DENOTES ELEVATION
TAKEN FROM FIELD SURVEY

NOTE:
FINAL FDC TYPE, LOCATION, SIGNAGE
AND PIPE SIZING FOR FDC's TO BE
DETERMINED BY FIRE CONSULTANT.

EX. FIRE HYDRANT #1: FLOW DATA					
HYDRANT NUMBER: 208933					
HYDRANT LOCATION: 15912 LANCASTER HIGHWAY					
DATE	REPORT #	STAT.	RSDL.	DSCHG	@20psi
05/20/14	NA	108	100	1424	5197



BACKFLOW PREVENTION NOTES:

1. INSULATED ENCLOSURE SHALL BE PROVIDED WITH A HEATER TO SUSTAIN A MIN. TEMP. OF 40°. CONTRACTOR RESPONSIBLE FOR COORDINATING AND HAVING ELECTRICAL SERVICE BROUGHT TO BACKFLOW PREVENTION DEVICE FOR THE HEATER.
2. THERE SHALL BE NO TAPS, PIPING BRANCHES, UNAPPROVED BYPASS PIPING, HYDRANTS, FIRE DEPT. CONNECTION POINTS, OR OTHER WATER USING APPURTENANCES CONNECTED TO THE SUPPLY LINE BETWEEN ANY WATER METER AND ITS CMUD REQUIRED BACKFLOW PREVENTER.
3. EACH CMUD REQUIRED BACKFLOW PREVENTER IS REQUIRED TO BE TESTED BY A CMUD APPROVED CERTIFIED TESTER PRIOR TO PLACING THE WATER SYSTEM IN SERVICE. SEE CMUD SPECIFICATIONS FOR LIST OF APPROVED CERTIFIED TESTERS.
4. CONTRACTOR SHALL INSTALL TAMPER SWITCHES ON GATE VALVES REDUCED PRESSURE BACKFLOW ASSEMBLIES THAT SERVE FIRE SPRINKLER SYSTEMS.
5. NO PLASTIC PIPE WITHIN 5 FEET OF EITHER END OF BACKFLOW PREVENTERS.
6. NO PERMANENT INSULATION SHALL BE INSTALLED ON THE BP ASSEMBLY.
7. FIRE DEPARTMENT REQUIRES TAMPER SWITCHES ON BP'S SERVING SPRINKLERS. SWITCHES TO BE WIRED TO MAIN ALARM PANEL.

UTILITY NOTES

1. CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING APPROVED UTILITY PLANS PRIOR TO COMMENCEMENT OF CONSTRUCTION.
2. ALL PROPOSED UTILITY TO THE EXISTING PUBLIC MAIN SHALL BE MADE BY CMUD UTILITY CREWS.
3. ALL WATER SERVICES PROVIDING FIRE PROTECTION SHALL BE TESTED FOR AND CERTIFIED IN ACCORDANCE WITH NFPA 24 STANDARDS.

LEGEND

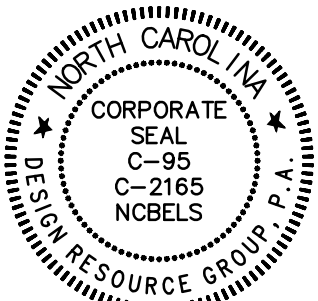
●	4' PRECAST MANHOLE
•	SANITARY SEWER CLEANOUT
[BWV]	BACKWATER VALVE - SEE PLUMBING PLANS
SS	PVC SANITARY SEWER (SDR 35)
[Hatched Box]	TRENCH RESURFACING
[Arrow]	FIRE DEPARTMENT CONNECTION (FDC)
[Triangle]	WATER PRESSURE REDUCER
[X]	THRUST BLOCKING
[Valve Symbol]	WATER GATE VALVE
W	WATER MAIN AND SERVICES
---	RIGHT-OF-WAY
---	SETBACK
---	EXISTING GAS LINE
[Hydrant Symbol]	PROPOSED FIRE HYDRANT



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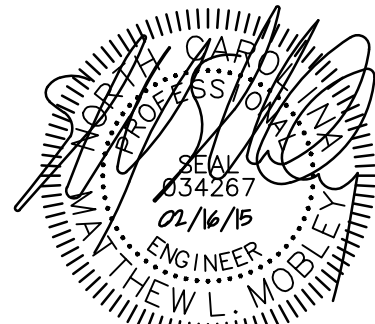
ELEVATION CHURCH

CHARLOTTE, NORTH CAROLINA

MPV PROPERTIES

521 EAST MOREHEAD STREET SUITE 400
CHARLOTTE, NC 28202

CONSTRUCTION DOCUMENTS



50' 0 25' 50'
SCALE: 1" = 50'

PROJECT #: 397-007
DRAWN BY: KK
CHECKED BY: MM

UTILITY PLAN

DATE: JUNE 27, 2014

- REVISIONS:
1. 09/03/14 - PER REVIEW COMMENTS
 2. 11/6/14 - PER REVIEW COMMENTS
 3. 02/16/15 - MEP COORDINATION

STREET TREE REQUIREMENTS

LINEAR FEET OF ROAD FRONTAGE ALONG MAINTAINED RIGHT OF WAY INCLUDING DRIVEWAYS

STREET: ELEVATION POINT DRIVE = 1,673 LF - (57 + 24 + 36) LF DRIVEWAYS = 1,556 LF
REQUIRED: (39) LARGE MATURING TREES
PROVIDED: (39) 2" CAL. OVERCUP OAK

LANCASTER HIGHWAY = 531.43 LF
REQUIRED: (8) LARGE MATURING TREES
(7) SMALL MATURING TREES (BENEATH POWER LINES)
PROVIDED: (1) EXISTING (30" OAK)
(7) 2" CAL. WILLOW OAK
(7) 2" CAL. MAGNOLIA SOULANGEANA (BENEATH POWER LINES)

JOHNSTON ROAD = 454.42 LF - 30 LF DRIVEWAY = 414.42 LF
REQUIRED: (14) SMALL MATURING TREES (BENEATH POWER LINE)
PROVIDED: (14) 2" CAL. MAGNOLIA SOULANGEANA (BENEATH POWER LINES)

FLOURNOY DRIVE = 89.35 LF
REQUIRED: (3) LARGE MATURING TREES
PROVIDED: (4) 2" CAL. SOUTHERN RED OAK

STREET TREE PLANTING NOTES

ALL TREES SHALL HAVE A MINIMUM CALIPER OF 2 INCHES MEASURED 6 INCHES ABOVE GROUND AT THE TIME OF PLANTING.

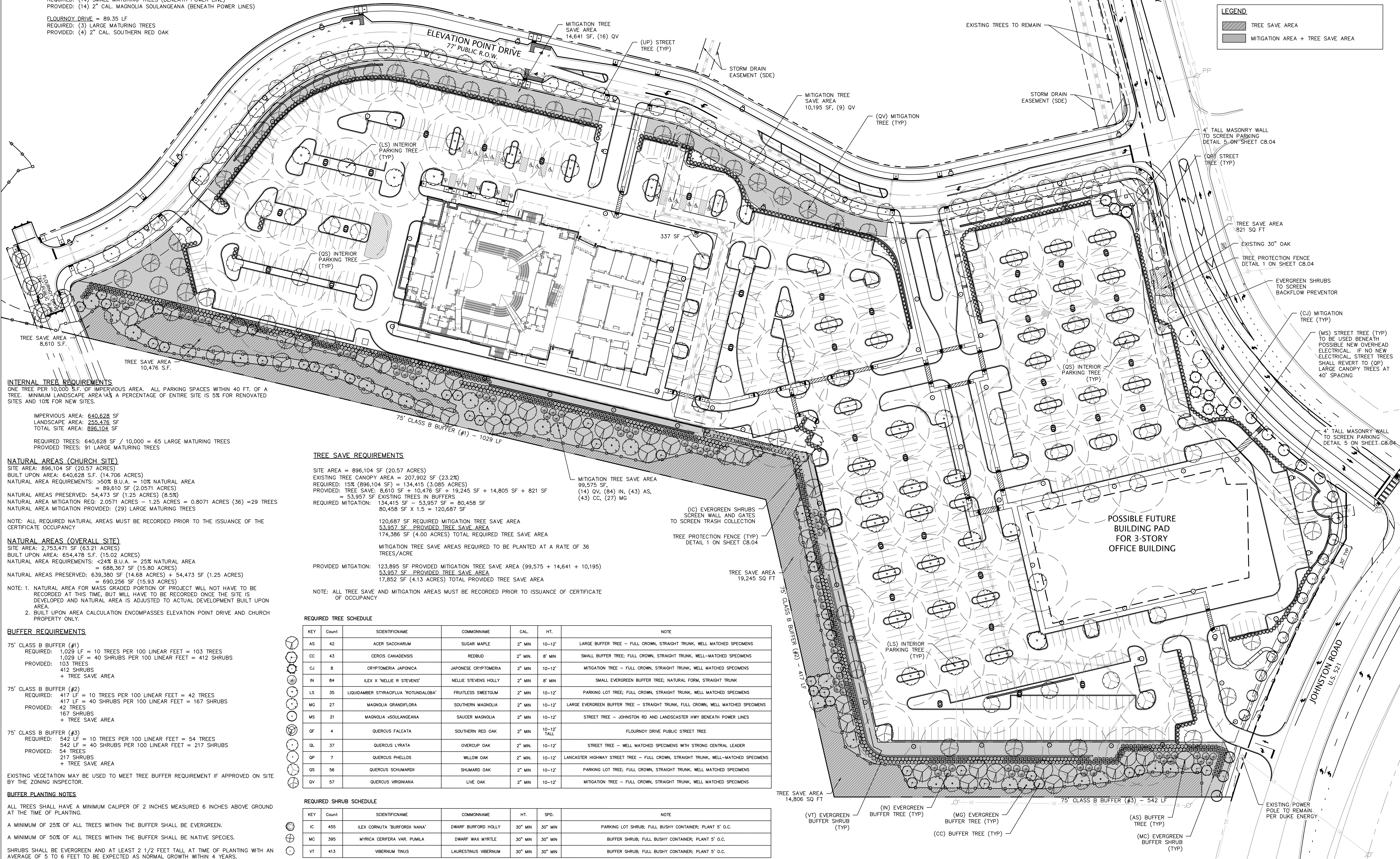
A MINIMUM OF 50% OF NEW TREES SHALL BE NATIVE SPECIES.

TREES MUST BE PLACED IN A PLANTING STRIP WITH A MINIMUM WIDTH OF 8 FEET.

ONE LARGE MATURING TREE SHALL BE PLANTED FOR EVERY 40 FEET OF FRONTAGE OR FRACTION THEREOF. IN CASE OF OVERHEAD POWER LINES, UNDERSTORY TREES SHALL BE PLANTED AT 30' O.C.

NOTE:

- SEE SHEET 6.01 FOR NOTES, TOPSOIL PLANTING MIX REQUIREMENTS, AND POND PLANTING.
- SEE SHEET 8.04 FOR TREE PROTECTION FENCE AND PLANTING DETAILS



INTERNAL TREE REQUIREMENTS

ONE TREE PER 10,000 S.F. OF IMPERVIOUS AREA. ALL PARKING SPACES WITHIN 40 FT. OF A TREE. MINIMUM LANDSCAPE AREA AS A PERCENTAGE OF ENTIRE SITE IS 5% FOR RENOVATED SITES AND 10% FOR NEW SITES.

IMPERVIOUS AREA: 640,628 SF
LANDSCAPE AREA: 255,476 SF
TOTAL SITE AREA: 896,104 SF

REQUIRED TREES: 640,628 SF / 10,000 = 65 LARGE MATURING TREES
PROVIDED TREES: 91 LARGE MATURING TREES

NATURAL AREAS (CHURCH SITE)

SITE AREA: 896,104 SF (20.57 ACRES)
BUILT UPON AREA: 640,628 S.F. (14.706 ACRES)
NATURAL AREA REQUIREMENTS: >50% B.U.A. = 10% NATURAL AREA
= 89,610 SF (2.0571 ACRES)
NATURAL AREAS PRESERVED: 54,473 SF (1.25 ACRES) (8.5%)
NATURAL AREA MITIGATION REQ: 2,0571 ACRES - 1.25 ACRES = 0.8071 ACRES (36) = 29 TREES
NATURAL AREA MITIGATION PROVIDED: (29) LARGE MATURING TREES

NOTE: ALL REQUIRED NATURAL AREAS MUST BE RECORDED PRIOR TO THE ISSUANCE OF THE CERTIFICATE OCCUPANCY

NATURAL AREAS (OVERALL SITE)

SITE AREA: 2,753,471 SF (63.21 ACRES)
BUILT UPON AREA: 654,476 S.F. (15.02 ACRES)
NATURAL AREA REQUIREMENTS: <24% B.U.A. = 25% NATURAL AREA
= 688,367 SF (15.80 ACRES)
NATURAL AREAS PRESERVED: 639,380 SF (14.65 ACRES) + 54,473 SF (1.25 ACRES)
= 690,256 SF (15.93 ACRES)

- NOTE: 1. NATURAL AREA FOR MASS GRADED PORTION OF PROJECT WILL NOT HAVE TO BE RECORDED AT THIS TIME, BUT WILL HAVE TO BE RECORDED ONCE THE SITE IS DEVELOPED AND NATURAL AREA IS ADJUSTED TO ACTUAL DEVELOPMENT BUILT UPON AREA.
2. BUILT UPON AREA CALCULATION ENCOMPASSES ELEVATION POINT DRIVE AND CHURCH PROPERTY ONLY.

BUFFER REQUIREMENTS

75' CLASS B BUFFER (#1)
REQUIRED: 1,029 LF = 10 TREES PER 100 LINEAR FEET = 103 TREES
1,029 LF = 40 SHRUBS PER 100 LINEAR FEET = 412 SHRUBS
PROVIDED: 103 TREES
412 SHRUBS
+ TREE SAVE AREA

75' CLASS B BUFFER (#2)
REQUIRED: 417 LF = 10 TREES PER 100 LINEAR FEET = 42 TREES
417 LF = 40 SHRUBS PER 100 LINEAR FEET = 167 SHRUBS
PROVIDED: 42 TREES
167 SHRUBS
+ TREE SAVE AREA

75' CLASS B BUFFER (#3)
REQUIRED: 542 LF = 10 TREES PER 100 LINEAR FEET = 54 TREES
542 LF = 40 SHRUBS PER 100 LINEAR FEET = 217 SHRUBS
PROVIDED: 54 TREES
217 SHRUBS
+ TREE SAVE AREA

EXISTING VEGETATION MAY BE USED TO MEET TREE BUFFER REQUIREMENT IF APPROVED ON SITE BY THE ZONING INSPECTOR.

BUFFER PLANTING NOTES

ALL TREES SHALL HAVE A MINIMUM CALIPER OF 2 INCHES MEASURED 6 INCHES ABOVE GROUND AT THE TIME OF PLANTING.

A MINIMUM OF 25% OF ALL TREES WITHIN THE BUFFER SHALL BE EVERGREEN.

A MINIMUM OF 50% OF ALL TREES WITHIN THE BUFFER SHALL BE NATIVE SPECIES.

SHRUBS SHALL BE EVERGREEN AND AT LEAST 2 1/2 FEET TALL AT TIME OF PLANTING WITH AN AVERAGE OF 5 TO 6 FEET TO BE EXPECTED AS NORMAL GROWTH WITHIN 4 YEARS.

TREE SAVE REQUIREMENTS

SITE AREA = 896,104 SF (20.57 ACRES)
EXISTING TREE CANOPY AREA = 207,902 SF (23.2%)
REQUIRED: 15% (896,104 SF) = 134,415 (3.085 ACRES)
PROVIDED: TREE SAVE: 8,610 SF + 10,476 SF + 19,245 SF + 14,805 SF + 821 SF
= 53,957 SF EXISTING TREES IN BUFFERS
REQUIRED MITIGATION: 134,415 SF - 53,957 SF = 80,458 SF
80,458 SF X 1.5 = 120,687 SF

120,687 SF REQUIRED MITIGATION TREE SAVE AREA
53,957 SF PROVIDED TREE SAVE AREA
174,386 SF (4.00 ACRES) TOTAL REQUIRED TREE SAVE AREA

MITIGATION TREE SAVE AREAS REQUIRED TO BE PLANTED AT A RATE OF 36 TREES/ACRE
PROVIDED MITIGATION: 123,895 SF PROVIDED MITIGATION TREE SAVE AREA (99,575 + 14,641 + 10,195)
53,957 SF PROVIDED TREE SAVE AREA
17,852 SF (4.13 ACRES) TOTAL PROVIDED TREE SAVE AREA

NOTE: ALL TREE SAVE AND MITIGATION AREAS MUST BE RECORDED PRIOR TO ISSUANCE OF CERTIFICATE OF OCCUPANCY

REQUIRED TREE SCHEDULE

KEY	Count	SCIENTIFICNAME	COMMONNAME	CAL.	HT.	NOTE
AS	42	ACER SACCHARUM	SUGAR MAPLE	2" MIN	10-12'	LARGE BUFFER TREE - FULL CROWN, STRAIGHT TRUNK, WELL MATCHED SPECIMENS
CJ	43	CERIS CANADENSIS	REDBUD	2" MIN.	8' MIN	SMALL BUFFER TREE; FULL CROWN, STRAIGHT TRUNK, WELL-MATCHED SPECIMENS
CC	8	CRYPTOMERIA JAPONICA	JAPANESE CRYPTOMERIA	2" MIN	10-12'	MITIGATION TREE - FULL CROWN, STRAIGHT TRUNK, WELL MATCHED SPECIMENS
IN	84	ILEX X 'NELLIE R STEVENS'	NELLIE STEVENS HOLLY	2" MIN	8' MIN	SMALL EVERGREEN BUFFER TREE; NATURAL FORM, STRAIGHT TRUNK
LS	35	LIQUIDAMBER STYRACIFLUA 'ROTUNDALOB'	FRUITLESS SWEETGUM	2" MIN	10-12'	PARKING LOT TREE; FULL CROWN, STRAIGHT TRUNK, WELL MATCHED SPECIMENS
MG	27	MAGNOLIA GRANDIFLORA	SOUTHERN MAGNOLIA	2" MIN	10-12'	LARGE EVERGREEN BUFFER TREE - STRAIGHT TRUNK, FULL CROWN, WELL MATCHED SPECIMENS
MS	21	MAGNOLIA XSOULANGEANA	SAUCER MAGNOLIA	2" MIN	10-12'	STREET TREE - JOHNSTON RD AND LANCASTER HWY BENEATH POWER LINES
QF	4	QUERCUS FALCATA	SOUTHERN RED OAK	2" MIN	10-12' TALL	FLOURNOY DRIVE PUBLIC STREET TREE
QL	37	QUERCUS LYRATA	OVERCUP OAK	2" MIN.	10-12'	STREET TREE - WELL MATCHED SPECIMENS WITH STRONG CENTRAL LEADER
QF	7	QUERCUS PHELLOS	WILLOW OAK	2" MIN.	10-12'	LANCASTER HIGHWAY STREET TREE - FULL CROWN, STRAIGHT TRUNK, WELL-MATCHED SPECIMENS
QS	56	QUERCUS SCHUMARDII	SHUMARD OAK	2" MIN	10-12'	PARKING LOT TREE; FULL CROWN, STRAIGHT TRUNK, WELL MATCHED SPECIMENS
QV	57	QUERCUS VIRGINIANA	LIVE OAK	2" MIN	10-12'	MITIGATION TREE - FULL CROWN, STRAIGHT TRUNK, WELL MATCHED SPECIMENS

REQUIRED SHRUB SCHEDULE

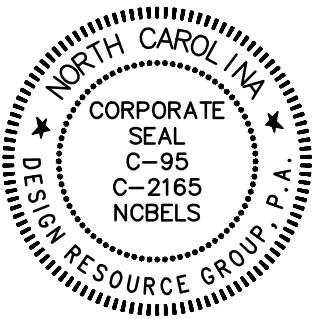
KEY	Count	SCIENTIFICNAME	COMMONNAME	HT.	SPD.	NOTE
IC	455	ILEX CORNUTA 'BURFORDI NANA'	DWARF BURFORD HOLLY	30" MIN	30" MIN	PARKING LOT SHRUB; FULL BUSHY CONTAINER; PLANT 5' O.C.
MC	395	MYRTICA CERIFERA VAR. PUMILA	DWARF WAX MYRTLE	30" MIN	30" MIN	BUFFER SHRUB; FULL BUSHY CONTAINER; PLANT 5' O.C.
VT	413	VIBERNUM TINUS	LAURESTINUS VIBERNUM	30" MIN	30" MIN	BUFFER SHRUB; FULL BUSHY CONTAINER; PLANT 5' O.C.



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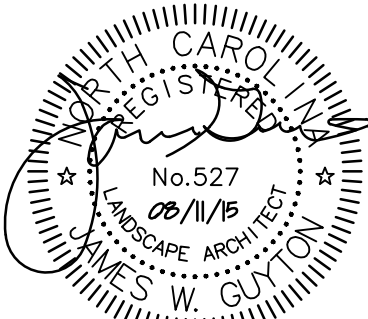


ELEVATION CHURCH

CHARLOTTE, NORTH CAROLINA

MPV PROPERTIES
521 EAST MOREHEAD STREET SUITE 400
CHARLOTTE, NC 28202

CONSTRUCTION DOCUMENTS



30 0 30 60
SCALE: 1" = 60'

PROJECT #: 397-007
DRAWN BY: MB
CHECKED BY: SK

REQUIRED PLANTING PLAN

DATE: JUNE 27, 2014

- REVISIONS:
- 09/03/14 - PER REVIEW COMMENTS
 - 11/6/14 - PER REVIEW COMMENTS
 - 03/18/15 - PER BUILDING STANDARDS COMMENTS
 - 08/11/15 - RTAP

1. MINIMUM TREE SIZE AT PLANTING IS 2-INCH CALIPER (FOR SINGLE STEM TREES). TREES MUST MEET ANSI STANDARDS AND HAVE SINGLE LEADER ALL THE WAY TO THE TOP. ALL MULTI-STEM PLANTS MUST BE TREE FORM, MAXIMUM 3 TO 5 TRUNKS, AND MINIMUM 8 FEET TALL, MAXIMUM 3 TO 5 TRUNKS, AND MINIMUM 8 FEET TALL. MITIGATION TREES ARE 3-1/2" CAL.
2. ALL PLANTING MUST BE DONE PRIOR TO BACKFILLING PLANTING PIT. REMOVE ALL EXISTING MULCH AND BURLAP FROM ROOT BALL. REMOVE ALL EXISTING MULCH AND BURLAP FROM ROOT BALL.
3. FOR NEW PLANTING AREAS, REMOVE ALL PAVEMENT, GRAVEL SUB-BASE AND CONSTRUCTION DEBRIS; REMOVE COMPACTED SOIL AND ADD 24" NEW TOPSOIL, OR TILL AND AMEND THE TOP 24" OF EXISTING SOIL TO MEET TOPSOIL/PLANTING MIX STANDARDS FOR TREES (WITHIN ENTIRE MINIMUM AREA OF 274 SQUARE FEET PER TREE).
4. EXISTING TREES MUST BE A MINIMUM 25 TO 30 FEET FROM THE OVERHEAD DISTRIBUTION OR TRANSMISSION LINES. IF TREES CONFLECT WITH POWER LINES OR SIGNS, CALL URBAN FORESTER TO RESOLVE BEFORE PLANTING.
5. A MINIMUM OF FIFTY (50) PERCENT OF NEW TREES MUST BE NATIVE SPECIES, AND SITES WITH MORE THAN TWENTY (20) TREES REQUIRED WILL HAVE TO INSTALL MULTIPLE SPECIES PURSUANT TO THE TREE DIVERSITY ORDINANCE.
6. SITE LIGHTING MUST BE A MINIMUM THIRTY (30) FEET AWAY FROM A TREE. IF PEDESTRIAN SCALE LIGHTING IS BEING USED, THEN LIGHTING MUST BE A MINIMUM OF FIFTEEN (15) FEET AWAY FROM A TREE, UNLESS APPROVED OTHERWISE BY THE CITY. SHOW SITE LIGHTING PLAN. NO LIGHT POLES IN TREE ISLANDS.
7. ADJUST TREE PLANTING LOCATIONS TO AVOID UNDERGROUND UTILITIES. PLANT 15' FROM ALL UNDERGROUND UTILITIES (GAS, WATER, PHONE, AND ELECTRICAL LINES).
8. ALL PLANTING MUST BE DONE PRIOR TO BACKFILLING PLANTING PIT. REMOVE ALL EXISTING MULCH AND BURLAP FROM ROOT BALL. REMOVE ALL EXISTING MULCH AND BURLAP FROM ROOT BALL.
9. ALL PARKING LOCATED WITHIN 40 FEET OF A TREE.
10. UNLESS APPROVED BY URBAN FORESTRY, ALL REQUIRED TREES MUST HAVE SINGLE STEM TRUNKS WITH NO CO-DOMINANT TRUNKS OR BRANCHES. TREE TRUNKS SHALL BE STRAIGHT IN FORM AND FREE OF DEFECTS, CRACKS, OR OTHER DAMAGE. UNLESS OTHERWISE SPECIFIED, REQUIRED TRUNK BRANCH LENGTH SHALL BE TYPICAL FOR THE TREES AGE AND NOT BE BROKEN, DISEASED, OR INJURED. ROOT FLARE SHALL BE LOCATED AT GRADE AND BE FREE OF ADVENTUROUS ROOT GROWTH.
11. CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL DIMENSIONS. HEIGHT AND WIDTH SIZES SHALL BE MET REGARDLESS OF CONTAINER OR CONDITION SHOWN.
12. ALL PLANTS SHALL MEET OR EXCEED THE MINIMUM STANDARDS SET BY THE U.S.D.A. STANDARD FOR NURSERY STOCK SPONSORED BY THE AMERICAN ASSOCIATION OF NURSERMEN, INC., WASHINGTON, D.C.
13. CONTRACTOR TO REVIEW PLANT SELECTION WITH LANDSCAPE ARCHITECT PRIOR TO INSTALLATION AND DURING PROPOSAL PREPARATION FOR QUALITY CONTROL AND VALUE ENGINEERING.
14. ALL PLANTING MUST BE DONE PRIOR TO BACKFILLING PLANTING PIT. REMOVE ALL EXISTING MULCH AND BURLAP FROM ROOT BALL. REMOVE ALL EXISTING MULCH AND BURLAP FROM ROOT BALL.
15. ANY CONFLICT BETWEEN TREES AND UTILITIES SHALL BE RESOLVED IN THE FIELD WITH FINAL LOCATIONS APPROVED BY THE LANDSCAPE ARCHITECT AND THE PLANNING DEPARTMENT.
16. PLEASE CALL THE CITY OF CHARLOTTE FOR AN INSPECTION OF TREE PROTECTION AND/OR TREE PLANTING AREAS, 7 TO 10 DAYS BEFORE THE TEMPORARY OR FINAL CERTIFICATE OF OCCUPANCY IS NEEDED.
17. A TREE PROTECTION ORDER (TPO) AND/OR A TREE REMOVAL ORDER (TRO) MAY BE REQUIRED. IF A TPO OR TRO IS REQUIRED, THE CITY OF CHARLOTTE WILL BE NOTIFIED AND THE TPO OR TRO WILL BE ISSUED PRIOR TO PLANTING TREES. ALL THE URBAN FORESTER NAME AND ADDRESS MUST BE INCLUDED ON THE APPROVED PLAN FOR ANY CONFLICTS REGARDING SIGN, OVERHEAD POWERLINES OR OTHER UTILITIES.
18. VIOLATIONS OF TREE PROTECTION REQUIREMENTS ARE SUBJECT TO FINES AND/OR IMMEDIATE CORRECTIVE ACTION/ MITIGATION.
19. MULCH ALL PLANTING BEDS WITH 4" OF PINE BARK MULCH.
20. APPLY PRE-EMERGENT HERBICIDE TO PLANTING BEDS PRIOR TO MULCHING.
21. SEED ALL DISTURBED AREAS EXCEPT PLANTING BEDS AS NOTED.
22. ALL PLANT BEDS AND LAWN AREAS SHALL HAVE 2" - 4" TRENCH EDGE.
23. NO LIGHT PIS INS WITHIN 15' FOR PEDESTRIAN SCALE LIGHTING AND 30' FOR COMMERCIAL LIGHTING OR IN THE SAME ISLAND WITH TREES.
24. ALL EXISTING TREES TO BE PRESERVED IN BUFFER LOCATIONS ARE TO MEET BUFFER REQUIREMENTS OF THE MECKLENBURG COUNTY ORDINANCE. THESE TREES NEED TO BE FIELD VERIFIED WITH INSPECTOR.

1. EXISTING COMPACTED SOIL MUST BE REMOVED AND REPLACED WITH 24" OF TOPSOIL / PLANTING MIX – OR – EXISTING SOIL MAY BE UNCOMPACTED TO A DEPTH OF 24" AND AMENDED TO MEET TOPSOIL STANDARDS FOR THE ENTIRE PLANTING AREA.
2. SOIL IN ALL PLANTING STRIPS OR ISLANDS, WHETHER EXISTING OR NEW (ON NEW OR RENOVATED SITES), MUST MEET THE MINIMUM TOPSOIL/PLANTING MIX SPECIFICATIONS. SOIL AMENDMENTS OR FRESH TOPSOIL / PLANTING MIX AREA OFTEN NEEDED FOR PLANTING AREAS AT SITES WHERE ORIGINAL TOPSOIL IS OF POOR QUALITY, HEAVILY COMPACTED OR WHERE TOPSOIL HAS BEEN COMPLETELY REMOVED DURING GRADING.
3. TOPSOIL / PLANTING MIX SHOULD BE NATURAL, FERTILE, AGRICULTURAL SOIL CAPABLE OF SUSTAINING VIGOROUS PLANT GROWTH. IT SHOULD BE UNIFORM COMPOSITION THROUGHOUT, WITH ADMIXTURE OF SUBSOIL. IT SHOULD BE FREE OF STONES, LUMPS, LIVE PLANTS AND THEIR ROOTS, STICKS AND OTHER EXTRANEOUS MATTER. TOPSOIL SHOULD NOT BE USED WHILE IN A FROZEN OR MUDDY CONDITION.
4. TOPSOIL / PLANTING MIX SHALL HAVE AN ACIDITY RANGE OF PH 5.5-7.0 AND THE FOLLOWING COMPOSITION:

CLAY (RED CLAY, WELL PULVERIZED)	MINIMUM 10%; MAXIMUM 35%
COMPOST* / ORGANIC	MINIMUM 5%; MAXIMUM 10%
SILT	MINIMUM 30%; MAXIMUM 50%
COARSE SAND (FREE OF ROCKS, 0.5 TO 1.0 MM F)	MINIMUM 30%; MAXIMUM 45%

*ORGANIC MATERIAL SUCH AS SAWDUST OR LEAF MOLD THAT HAS COMPLETED THE DECOMPOSITION PROCESS

1. PRIOR TO DEMOLITION, CLEARING, CONSTRUCTION, GRADING, AND INSTALLATION OF EROSION CONTROL MEASURES; TREE PROTECTIVE BARRIERS MUST BE INSTALLED AROUND ALL TREE SAVE AREAS BY THE DEVELOPER AND APPROVED BY THE TOWN.
2. THE TREE PROTECTION FENCE SHALL BE LOCATED ALONG THE PERIMETER OF THE TREE SAVE AREA (DRIP LINE PLUS 5 FEET). TREE PROTECTION FENCING FOR A FOREST CANOPY STANDS AREA IS TO BE LOCATED ALONG THE PERIMETER OF THE TREE SAVE AREA AROUND THE FOREST EDGE. TREE PROTECTION FENCING SHALL CONSIST OF QUALITY 4" X 4" POSTS OF A LONG DURATION SAFETY FENCING WITH A MINIMUM OF 4 FEET IN HEIGHT ON METAL OR WOOD POSTS.
3. ALL TREE PROTECTION AREAS MUST BE DESIGNATED AS SUCH WITH "TREE SAVE AREA SIGNS" POSTED IN ADDITION TO THE REQUIRED PROTECTIVE FENCING. SIGNS REQUESTING SUBCONTRACTOR COOPERATION AND COMPLIANCE WITH TREE PROTECTION STANDARDS ARE RECOMMENDED FOR SITE ENTRANCES.
4. NO SOIL DISTURBANCE OR COMPACTION, STOCK PILING OF SOIL OR OTHER CONSTRUCTION MATERIAL, VEHICULAR TRAFFIC, OR STORAGE OF EQUIPMENT AND MATERIALS ARE ALLOWED WITHIN TREE SAVE AREAS.
5. NO ROPES, SIGNS, WIRES, UNPROTECTED ELECTRICAL INSTALLATION OR OTHER DEVICE OR MATERIAL, SHALL BE SECURED OR FASTENED AROUND OR THROUGH A TREE OR SHRUB.
6. ALL PROTECTIVE MEASURES SHALL BE MAINTAINED THROUGHOUT THE LAND DISTURBING AND CONSTRUCTION PROCESS, AND SHALL NOT BE REMOVED UNTIL FINAL LANDSCAPING IS INSTALLED.

1. ALL SHRUBS SHALL BE A MINIMUM OF 3 FEET IN HEIGHT AT THE TIME OF PLANTING WITH AN EXPECTED MINIMUM HEIGHT OF AT LEAST 6 FEET AT MATURITY.
2. SEE DETAILS ON SHEET C8.04 FOR TREE AND SHRUB PLANTING

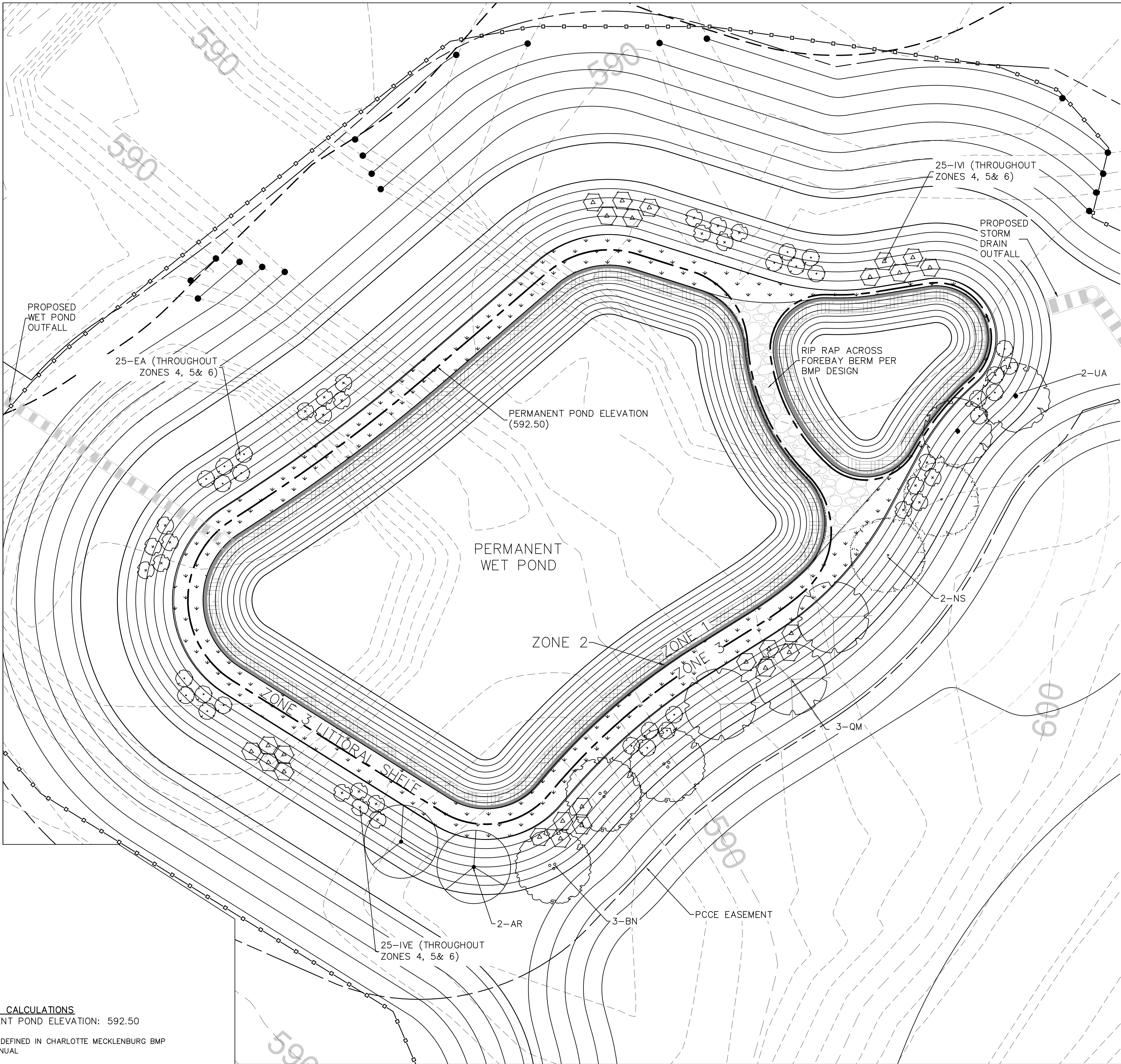
TREES SHALL NOT BE PLANTED IN PERMANENT DRAINAGE EASEMENTS, WITHIN 10 FEET OF A MASONRY DRAINAGE STRUCTURE, OR WITHIN 10 FEET OF A DRAINAGE PIPE. (THIS DOES NOT APPLY TO STORMWATER BMP' S.)

*A FINAL CERTIFICATE OF OCCUPANCY MAY BE ISSUED PRIOR TO THE INSTALLATION OF TREES AND SHRUBS, EXCLUDING YARD TREES, DURING THE NON-PLANTING SEASON IF A CASH BOND, SURETY BOND OR LETTER OF CREDIT IS ISSUED FOR 120% OF THE COST OF MATERIALS AND INSTALLATION. PLANTING SHALL BE COMPLETED DURING THE NEXT PLANTING SEASON.

•THE PLANTING SEASON SHALL RUN FROM OCTOBER 15 TO MARCH 15, EXCEPT FOR EXTREME WEATHER CONDITIONS AS DETERMINED BY STAFF. A FINAL CERTIFICATE OF OCCUPANCY SHALL NOT BE GIVEN DURING THE PLANTING SEASON UNLESS ALL OF THE LANDSCAPING IS COMPLETELY INSTALLED ACCORDING TO THIS ARTICLE.

DEVELOPERS SHALL ENTER INTO A MAINTENANCE SURETY AGREEMENT WITH MECKLENBURG COUNTY GUARANTEEING THE VIABILITY OF STREET TREES AND TREES AND SHRUBS PLANTED IN BUFFER YARDS FOR A PERIOD OF 1 YEAR FOLLOWING PLANTING. THE AMOUNT OF THE SURETY SHALL BE EQUAL TO 50% OF THE VALUE OF THE NEW TREES OR LANDSCAPE MATERIAL AND THEIR INSTALLATION. THE MAINTENANCE SURETY SHALL BE PROVIDED WHEN ALL OF THE REQUIRED TREES AND SHRUBS HAVE BEEN PLANTED.

KEY	QTY.	SCIENTIFIC NAME	COMMON NAME	CON.	NOTE	ZONES
AG	451	ANDROPOGON GLOMERATUS	BUSHY BEARDGRASS	2"ø x 5" PLUG	FULL BUSHY CONTAINER	3
AC	451	ACORUS CALAMUS	SWEETFLAG	2"ø x 5" PLUG	FULL BUSHY CONTAINER	2&3
CS	504	CAREX STRICTA	TUSsock SEDGE	2"ø x 5" PLUG	FULL BUSHY CONTAINER	2&3
OC	502	OSMUNDA CINNAMONEA	CINAMMON FERN	2"ø x 5" PLUG	FULL BUSHY CONTAINER	3
IV	451	IRIS VIRGINICA	BLUE FLAG IRIS	2"ø x 5" PLUG	FULL BUSHY CONTAINER	2&3
LO	451	LEERSIA ORYZIODES	RICE CUTGRASS	2"ø x 5" PLUG	FULL BUSHY CONTAINER	2&3
NO	736	NYMPHAEA ODORATA	WHITE (NATIVE) WATER LILY	2"ø x 5" PLUG	FULL BUSHY CONTAINER	1&2
SL	737	SAGITTARIA LATIFOLIA	DUCK POTATO	2"ø x 5" PLUG	FULL BUSHY CONTAINER	1&2
SV	452	SCIRPUS VALIDUS	SOFT STEM BULRUSH	2"ø x 5" PLUG	FULL BUSHY CONTAINER	2&3
QM	3	QUERCUS MICHAUXII	SWAMP WHITE OAK	Ø&Ø	2" CALIPER x 5' TALL MIN.	4,5,&6
AR	2	ACER RUBRUM	SWAMP MAPLE	Ø&Ø	2" CALIPER x 5' TALL MIN.	4,5,&6
BN	3	BETULA NIGRA	RIVER BIRCH	Ø&Ø	2" CALIPER x 5' TALL MIN.	4,5,&6
NS	2	NYSSA SYLVATICA	BLACK GUM	Ø&Ø	2" CALIPER x 5' TALL MIN.	4,5,&6
UA	2	ULMUS AMERICANA	WHITE ELM	Ø&Ø	2" CALIPER x 5' TALL MIN.	4,5,&6
VI	25	ITEA VIRGINICA	VIRGINIA WILLOW	CG	3' HEIGHT	4,5,&6
IVE	25	ILEX VERTICILLATA	COMMON WINTERBERRY	CG	3' HEIGHT	4,5,&6
EA	25	EUONYMUS AMERICANA	HEARTS-A-BUSTIN STRAWBERRY BUSH	CG	3' HEIGHT	4,5,&6



PERMANENT POND ELEVATION: 592.50

ZONES AS DEFINED IN CHARLOTTE MECKLENBURG BMP
DESIGN MANUAL

REQUIRED: .5 PLANTS PER SQUARE FOOT
(2 MINIMUM HERBACEOUS SPECIES)
 $0.5 \times 2946 = 1,473$ STEMS

PROVIDED: (736) NO, (737) SL

REQUIRED: .5 PLANTS PER SQUARE FOOT
(3 MINIMUM HERBACEOUS SPECIES)
0.5 x 740 = 370 STEMS

PROVIDED: (74) AC, (74) CS, (74) IV, (74) LO, (74) SV

REQUIRED: .5 PLANTS PER SQUARE FOOT
(4 MINIMUM HERBACEOUS SPECIES)
 $0.5 \times 5780 = 2,890$ STEMS

PROVIDED: (502) AG, (377) AC, (377) CS, (502) OC,
(377) IV, (377) LO, (378) SV

9,010 S.F. (0.2068 ACRES)

REQUIRED: 400 STEMS PER ACRE
 $0.2068 \times 400 = 83$ STEMS
 10% (8) LARGE MATURING DECIDUOUS TREE
 90% (75) SMALL MATURING TREE/SHRUB

(3) 2" SWAMP WHITE OAK
(2) 2" WHITE ELM
(2) 2" SWAMP MAPLE
(3) 2" RIVER BIRCH
(25) 36" HT. VIRGINIA WILLOW
(25) 36" HT. COMMON WINTERBERRY
(25) 36" HT. HEARTS-A-BUSTIN
STRAWBERRY BUSH

GEESE CONTROL
TO CONTROL ACCESS FROM THE SHORE, NYLON TWINE FENCING IS TO BE PLACED AT THE
INTERFACE OF OPEN WATER AND THE PLANTED AREAS. FENCING TO BE 24-42" IN HEIGHT.

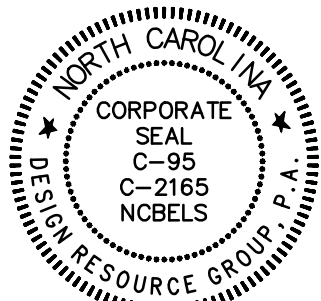
NO CATTAILS SHALL BE PLANTED. CATTAILS CAN BE INTRODUCED NATURALLY AND CAN HAVE THE POTENTIAL OF WIPING OUT OTHER VEGETATION. TO PREVENT THIS, USE FORMULATIONS OF THE SYSTEMIC HERBICIDE GLYPHOSATE IN EARLY PHASES OF COLONIALIZATION

ANY PLANTS PLANTED IN THE LOW ZONES SHALL BE PLANTED HIGH AND SLIGHTLY RAISED MOUNDS TO FACILITATE AERATION OF THE ROOTS

NO TREES SHALL BE PLANTED WITHIN 10 FEET OF A RELIEF DRAIN

- landscape architecture
- civil engineering
- urban design
- land planning
- traffic engineering
- transportation planning

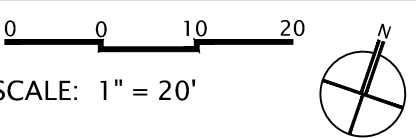
2459 wilkinson boulevard, suite 200
charlotte, nc 28208
p 704.343.0608 f 704.358.3093
www.drgrp.com



CHARLOTTE, NORTH CAROLINA

MPV PROPERTIES

521 EAST MOREHEAD STREET SUITE 400
CHARLOTTE NC 28202



PROJECT #: 397-007
DRAWN BY: MB
CHECKED BY: SK

DATE: JUNE 27, 2014

1. 09/03/14 - PER REVIEW COMMENT