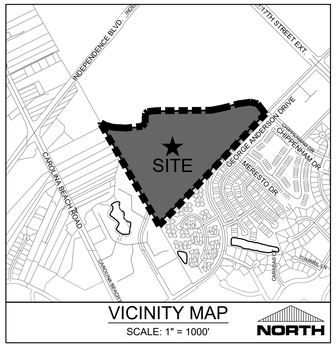
WILMINGTON THREE PHASE A

WILMINGTON, NORTH CAROLINA

DESIGN DOCUMENTS
JANUARY 2021
REV. MARCH 2021



VICINITY MAP
SCALE: 1" = 1000'
NORTH

DEVELOPER:
CK WILMINGTON THREE PHASE A, LLC
301 SOUTH COLLEGE STREET, SUITE 2800
CHARLOTTE, NORTH CAROLINA 28202

OWNER:
CAMERON PROPERTIES LAND CO, LLC
1201 GLEN MEADE RD,
WILMINGTON, NORTH CAROLINA 28401

ARCHITECT
HOUSING STUDIO
333 WEST TRADE STREET, SUITE 300
CHARLOTTE, NORTH CAROLINA 28202
704.333.7862
ARCHITECT - ATTN: CARL NALLS

CIVIL ENGINEER
PARAMOUNTE ENGINEERING, INC.
122 CINEMA DRIVE
WILMINGTON, NORTH CAROLINA 28403
910.791.6707
CIVIL ENGINEER - ATTN: DAN FISK, PE LANDSCAPE ARCHITECT - ATTN: MIKE NICHOLS, RLA

LANDSCAPE ARCHITECT
MIHALY LAND DESIGN
330 MILITARY CUTOFF ROAD #3
WILMINGTON, NORTH CAROLINA 28405
910.392.4355
LANDSCAPE ARCHITECT - ATTN: JOSH MIHALY, RLA, LEED AP

SHEET INDEX	
SHEET NUMBER	SHEET TITLE
C-0.0	COVER SHEET
C-1.0	GENERAL NOTES
C-1.1	NPDES NOTES
C-1.2 - C-1.3	SITE INVENTORY PLAN
C-2.0	OVERALL SITE PLAN
C-2.1 - C-2.4	SITE PLAN
C-2.5	ADA ACCESS PLAN
C-3.0 - C-3.2	EROSION CONTROL PLAN
C-4.0 - C-4.1	OVERALL GRADING & DRAINAGE PLAN
C-4.2 - C-4.5	FINE GRADING PLAN
C-5.0 - C-5.1	OVERALL UTILITY PLAN
C-5.2 - C-5.3	PLAN & PROFILE
C-5.4	PRIVATE SEWER PROFILES
C-6.00 - C-6.01	SITE DETAILS
C-6.02 - C-6.05	EC & STORM DETAILS
C-6.10 - C-6.11	UTILITY DETAILS
C-7.0 - C-7.1	STRIPING & SIGNAGE PLAN
Exh-1.0 - Exh-1.4	AUTOTURN EXHIBITS
L-	LANDSCAPE PLANS
A-	ARCHITECTURAL ELEVATIONS

NOTICE REQUIRED

ALL EXISTING UNDERGROUND UTILITIES SHALL BE PHYSICALLY LOCATED PRIOR TO THE BEGINNING OF ANY CONSTRUCTION IN THE VICINITY OF SAID UTILITIES.

CONTRACTORS SHALL NOTIFY OPERATORS WHO MAINTAIN UNDERGROUND UTILITY LINES IN THE AREA OF PROPOSED EXCAVATION AT LEAST TWO WORKING DAYS, BUT NOT MORE THAN TEN WORKING DAYS PRIOR TO COMMENCEMENT OF EXCAVATION OR DEMOLITION.

CONTACT "CAROLINA ONE CALL" AT
1-800-632-4949

CONTACT THESE UTILITIES

CITY OF WILMINGTON, DEVELOPMENT SERVICES
ATTN: BRIAN CHAMBERS
PH: 910-341-2782

PIEDMONT NATURAL GAS
ATTN: PAUL GONKA
PH: 910-251-2810

EMERGENCY DIAL 911
POLICE - FIRE - RESCUE

CAPE FEAR PUBLIC UTILITY AUTHORITY (WATER & SEWER)
ATTN: FRANK STYERS
PH: 910-332-6670

DUKE ENERGY PROGRESS
ATTN: MARK A. HATFIELD
PH: 910-350-3428

AT&T
ATTN: STEVE DAYVAULT
PH: 910-341-0741
EMAIL: sd8094@att.com

TIME WARNER CABLE
PH: 910-763-4638

PREPARED BY:
PARAMOUNTE ENGINEERING, INC.
122 Cinema Drive
Wilmington, North Carolina 28403
(910) 791-6707 (O) (910) 791-6760 (F)
NC License #: C-2846
PROJECT # 20195.PE

Know what's below. Call before you dig.

REVISIONS:
1. PER NHC EC COMMENT 02.17.21

CLIENT INFORMATION:
CK WILMINGTON
THREE PHASE A, LLC
CHARLOTTE, NC

PARAMOUNTE ENGINEERING, INC.
122 Cinema Drive
Wilmington, North Carolina 28403
(910) 791-6707 (O) (910) 791-6760 (F)
NC License #: C-2846

COVER SHEET

WILMINGTON THREE PHASE A
CITY OF WILMINGTON
NORTH CAROLINA

PROJECT STATUS
CONCEPTUAL LAYOUT:
PRELIMINARY LAYOUT:
FINAL PLAN:
RELEASED FOR CONST.:

DRAWING INFORMATION
JOB: 20195.PE
DATE: 02.17.21
SCALE: AS NOTED
DESIGNED: DJF
DRAWN: DJF
CHECKED: DJF

RELEASED FOR: ☐ PRELIMINARY ☑ PERMITTING ☐ BID ☐ CONSTRUCTION

Professional Seal redacted on electronic copy per City of Wilmington Policy

C-0.0

PEI JOB#: 20195.PE

COORDINATION NOTES:

1. THE CONTRACTOR IS REQUIRED TO OBTAIN ANY/ALL PERMITS REQUIRED FOR CONSTRUCTION OF THESE PLANS.
2. ALL CONSTRUCTION TO BE IN ACCORDANCE WITH PERMITS ISSUED AND WITH THE CITY OF WILMINGTON, NEW HANOVER COUNTY, CAPE FEAR PUBLIC UTILITY AUTHORITY (CFPUA), AND THE STATE OF NORTH CAROLINA.
3. THE CONTRACTOR IS TO ESTABLISH AND CHECK ALL HORIZONTAL AND VERTICAL CONTROLS TO BE USED WITH THE PROJECT. IN ADDITION, THE CONTRACTOR IS TO COMPUTE THE LAYOUT OF THE ENTIRE SITE PLAN IN ADVANCE OF BEGINNING ANY WORK ASSOCIATED WITH THE SUBJECT PLANS. CONTRACTOR SHALL EMPLOY A PROFESSIONAL SURVEYOR TO PERFORM SITE IMPROVEMENT STAKEOUT(S).
4. ANYTIME WORK IS PERFORMED OFF-SITE OR WITHIN AN EXISTING EASEMENT, THE CONTRACTOR IS TO NOTIFY THE HOLDER OF SAID EASEMENT AS TO THE NATURE OF PROPOSED WORK, AND TO FOLLOW ANY GUIDELINES OR STANDARDS WHICH ARE ASSOCIATED WITH OR REFERENCED IN THE RECORDED EASEMENT.
5. CONTRACTOR SHALL REFER TO ARCHITECTURAL DRAWINGS BY OTHERS FOR ALL BUILDING DIMENSIONS AND DETAILS.

GENERAL NOTES:

1. TREE INVENTORY AND TOPOGRAPHIC SURVEY COMPLETED BY PARAMOUNTE ENGINEERING, INC. THE SURVEY SHALL BE FIELD VERIFIED BY CONTRACTOR AND ANY DISCREPANCIES REPORTED TO THE OWNER AND ENGINEER.
2. REASONABLE CARE HAS BEEN EXERCISED IN SHOWING THE LOCATION OF EXISTING UTILITIES ON THE PLANS. THE EXACT LOCATION OF ALL EXISTING UTILITIES IS NOT KNOWN IN ALL CASES. THE CONTRACTOR SHALL EXPLORE THE AREA AHEAD OF DITCHING OPERATIONS BY OBSERVATIONS, ELECTRONIC DEVICES, HAND DIGGING AND BY PERSONAL CONTACT WITH THE UTILITY COMPANIES. IN ORDER TO LOCATE EXISTING UTILITIES IN ADVANCE OF TRENCHING OPERATIONS SO AS TO ELIMINATE OR MINIMIZE DAMAGE TO EXISTING UTILITIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COSTS RESULTING FROM ANY DAMAGE TO THE EXISTING UTILITY LINES INCLUDING LOSS OF UTILITY REVENUES. CONTRACTOR SHALL ARRANGE FOR TEMPORARY SUPPORT OF EXISTING UTILITIES, SUCH AS POLES, CONDUITS, FIBER OPTIC CABLES, TELEPHONE CABLES, WATER LINES, ETC.
3. CONTRACTOR SHALL COMPLY WITH THE LATEST REVISIONS AND INTERPRETATIONS OF THE DEPARTMENT OF LABOR SAFETY AND HEALTH REGULATIONS FOR CONSTRUCTION PROMULGATED UNDER THE OCCUPATIONAL SAFETY AND HEALTH ACT.
4. CONTRACTOR SHALL PLAN AND CONSTRUCT WORK SO AS TO CAUSE MINIMUM INCONVENIENCE TO THE OWNER AND THE PUBLIC. THE CONTRACTOR SHALL PROVIDE, ERECT AND MAINTAIN AT ALL TIMES DURING THE PROGRESS OR TEMPORARY SUSPENSION OF WORK, SUITABLE BARRIERS, FENCES, SIGNS OR OTHER ADEQUATE PROTECTION, INCLUDING FLAGMEN AND WATCHMEN AS NECESSARY TO INSURE THE SAFETY OF THE PUBLIC AS WELL AS THOSE ENGAGED IN THE CONSTRUCTION WORK. CONSTRUCTION SIGNING SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF "CONSTRUCTION AND MAINTENANCE OPERATIONS SUPPLEMENT TO THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" BY THE USDOT.
5. ALL MATERIAL CLEARED OR DEMOLISHED BY THE CONTRACTOR IN ORDER TO CONSTRUCT THE WORK SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE PROPERLY DISPOSED OF OFF-SITE.
6. ALL WORK BY THE CONTRACTOR SHALL BE WARRANTED BY THE CONTRACTOR FOR A PERIOD OF ONE YEAR AFTER THE OWNER ACCEPTS THE WORK.
7. CONTRACTOR SHALL CALL THE NORTH CAROLINA ONE-CALL CENTER AT 811 AN ALLOW THE CENTER TO LOCATE EXISTING UTILITIES BEFORE DIGGING.
8. ANY DISCREPANCY IN THIS PLAN AND ACTUAL FIELD CONDITIONS SHALL BE REPORTED TO THE OWNER PRIOR TO START OF CONSTRUCTION. GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFICATION OF ALL SETBACKS, EASEMENTS AND DIMENSIONS SHOWN HEREON BEFORE BEGINNING CONSTRUCTION.
9. CONTRACTOR SHALL MAINTAIN THE SITE IN A MANNER SO THAT WORKMEN AND PUBLIC SHALL BE PROTECTED FROM INJURY, AND ADJOINING PROPERTY PROTECTED FROM DAMAGE.
10. ACCESS TO UTILITIES, FIRE HYDRANTS, STREET LIGHTING, ETC., SHALL REMAIN UNDISTURBED, UNLESS COORDINATED WITH THE RESPECTIVE UTILITY.
11. DO NOT SCALE THIS DRAWING AS IT IS A REPRODUCTION AND SUBJECT TO DISTORTION.
12. THE GENERAL CONTRACTOR SHALL REMOVE ALL DEBRIS FROM THE SITE UPON COMPLETION OF THE PROJECT AND AT LEAST ONCE A WEEK DURING CONSTRUCTION.
13. THE GENERAL CONTRACTOR SHALL KEEP THE AREA OUTSIDE THE "CONSTRUCTION LIMITS" BROOM CLEAN AT ALL TIMES.
14. ALL STREET SURFACES, DRIVEWAYS, CULVERTS, CURB AND GUTTERS, ROADSIDE DRAINAGE DITCHES AND OTHER STRUCTURES THAT ARE DISTURBED OR DAMAGED IN ANY MANNER AS A RESULT OF CONSTRUCTION SHALL BE REPLACED OR REPAIRED IN ACCORDANCE WITH THE SPECIFICATIONS.
15. CONTRACTOR SHALL MAINTAIN AN "AS-BUILT" SET OF DRAWINGS TO RECORD THE EXACT LOCATION OF ALL PIPING PRIOR TO CONCEALMENT. DRAWINGS SHALL BE GIVEN TO THE OWNER UPON COMPLETION OF THE PROJECT WITH A COPY OF THE TRANSMITTAL LETTER TO THE ENGINEER.
16. IF DEPARTURES FROM THE SPECIFICATIONS OR DRAWINGS ARE DEEMED NECESSARY BY THE CONTRACTOR, DETAILS OF SUCH DEPARTURES AND REASONS THEREOF SHALL BE GIVEN TO THE OWNER FOR REVIEW, NO DEPARTURES FROM THE CONTRACT DOCUMENTS SHALL BE MADE WITHOUT THE PERMISSION OF THE OWNER, THE CITY OF WILMINGTON, NEW HANOVER COUNTY, OR CFPUA, RESPECTIVELY.
17. CONTRACTOR SHALL VERIFY LOCATION AND ELEVATION OF ALL UNDERGROUND UTILITIES. THE LOCATION OF ALL EXISTING UTILITIES ARE NOT NECESSARILY SHOWN ON PLANS AND WHERE SHOWN ARE ONLY APPROXIMATE. THE CONTRACTOR SHALL ON HIS INITIATIVE AND AT NO EXTRA COST HAVE LOCATED ALL UNDERGROUND LINES AND STRUCTURES AS NECESSARY. NO CLAIMS FOR DAMAGES OR EXTRA COMPENSATION SHALL ACCRUE TO THE CONTRACTOR FROM THE PRESENCE OF SUCH PIPE OTHER OBSTRUCTIONS OR FROM DELAY DUE TO REMOVAL OR REARRANGEMENT OF THE SAME. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO UNDERGROUND STRUCTURES. CONTACT NORTH CAROLINA ONE CALL" TOLL FREE 1-800-632-4949 AT LEAST 48 HOURS PRIOR TO CONSTRUCTION. THE CONTRACTOR IS RESPONSIBLE FOR CONTACTING ALL NONSUBSCRIBING UTILITIES.
18. THE CONTRACTOR SHALL OBTAIN AND PAY FOR ALL INSPECTIONS, CERTIFICATIONS, EQUIPMENT, ETC., THAT MAY BE REQUIRED.
19. THE ENGINEER AND/OR OWNER DISCLAIM ANY ROLE IN THE CONSTRUCTION MEANS AND METHODS ASSOCIATED WITH THE PROJECT AS SET FORTH IN THESE PLANS.
20. ALL LOT STRIPING AND DIRECTIONAL ARROWS TO BE REFLECTIVE MARKINGS AND SHALL CONFORM TO MUTCD. ALL PARKING STALL MARKINGS AND LANE ARROWS WITHIN THE PARKING AREAS SHALL BE WHITE.
21. LANDSCAPE PLANTINGS AT ENTRANCE/ EXITS WILL BE INSTALLED AND MAINTAINED SO AS NOT TO INTERFERE WITH SIGHT DISTANCE NEEDS OF DRIVERS IN THE PARKING AREA AND AT ENTRANCE/EXIT LOCATIONS PER LOCAL STANDARDS.
22. ALL DIMENSIONS AND RADII ARE TO OUTSIDE FACE OF BUILDING OR TO FACE OF CURB UNLESS OTHERWISE NOTED.
23. ALL PROPOSED VEGETATION WITHIN SIGHT TRIANGLES SHALL NOT INTERFERE WITH CLEAR VISUAL SIGHT LINES FROM 30"-10'.

TRAFFIC NOTES:

1. ALL PAVEMENT MARKINGS IN PUBLIC RIGHTS-OF-WAY & FOR DRIVEWAY(S) ARE TO BE THERMOPLASTIC & MEET CITY OF WILMINGTON AND/OR NCDOT STANDARDS.
2. TRAFFIC CONTROL DEVICES (INCLUDING SIGNS AND PAVEMENT MARKINGS) IN AREAS OPEN TO PUBLIC TRAFFIC ARE TO MEET MUTCD (MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES) STANDARDS.
3. ALL TRAFFIC CONTROL SIGNS AND MARKINGS NOT WITHIN THE PUBLIC RIGHT-OF-WAY ARE TO BE MAINTAINED BY THE PROPERTY OWNER IN ACCORDANCE WITH MUTCD STANDARDS.
4. ALL PARKING STALL MARKINGS AND LANE ARROWS WITHIN THE PARKING AREAS SHALL BE WHITE.
5. ANY OPEN CUTTING OF A CITY STREET REQUIRES A UTILITY CUT PERMIT. CONTACT 341-5888 FOR MORE DETAILS. IN CERTAIN CASES, AN ENTIRE RESURFACING OF THE AREA BEING OPEN CUT MAY BE REQUIRED.
6. CONTACT TRAFFIC ENGINEERING, AT 341-7888 TO ENSURE THAT ALL TRAFFIC SIGNAL FACILITIES AND EQUIPMENT ARE SHOWN ON THE PLAN. CALL TRAFFIC ENGINEERING FORTY-EIGHT (48) HOURS PRIOR TO ANY EXCAVATION IN THE RIGHT OF WAY.
7. ANY BROKEN OR MISSING SIDEWALK PANELS, DRIVEWAY PANELS AND/OR CURBING SHALL BE REPLACED.
8. TACTILE WARNING MATS TO BE INSTALLED AT ALL WHEELCHAIR RAMPS.
9. STREET TREES MUST BE LOCATED A MINIMUM OF 15 FEET FROM STREETLIGHTS. [CofW SD 15-17]
10. IT SHALL BE THE RESPONSIBILITY OF THE SUBDIVIDER TO ERECT OFFICIAL STREET NAME SIGNS AT ALL INTERSECTIONS ASSOCIATED WITH THE SUBDIVISION IN ACCORDANCE WITH THE TECHNICAL STANDARDS AND SPECIFICATIONS MANUAL. THE SUBDIVIDER MAY ACQUIRE AND ERECT OFFICIAL STREET NAME SIGNS OR MAY CHOOSE TO CONTRACT WITH THE CITY TO INSTALL THE STREET SIGNS AND THE SUBDIVIDER SHALL PAY THE COST OF SUCH INSTALLATION. CONTACT TRAFFIC ENGINEERING AT 341-7888 TO DISCUSS INSTALLATION OF TRAFFIC AND STREET NAME SIGNS. PROPOSED STREET NAMES MUST BE APPROVED PRIOR TO INSTALLATION OF STREET NAME SIGNS.
11. CONTACT 811 PRIOR TO CONTACTING CITY OF WILMINGTON, TRAFFIC ENGINEERING REGARDING UTILITIES IN ROW.
12. CONTACT TRAFFIC ENGINEERING AT (910) 341-7888 TO DISCUSS STREET LIGHTING OPTIONS.

GENERAL EROSION AND SEDIMENT CONTROL NOTES:

1. THE EROSION CONTROL PLAN SHALL INCLUDE PROVISIONS FOR GROUNDCOVER ON ALL EXPOSED PERIMETER DIKES, SWALES, DITCHES, PERIMETER SLOPES AND ALL SLOPES STEEPER THAN 3:1 WITHIN 7 CALENDAR DAYS FROM THE LAST LAND DISTURBING ACTIVITY. GROUND COVER SHALL BE PROVIDED ON ALL OTHER DISTURBED AREAS WITHIN 14 CALENDAR DAYS FROM THE LAST LAND DISTURBING ACTIVITY.
2. UNLESS OTHERWISE INDICATED, ALL VEGETATIVE AND STRUCTURAL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE CONSTRUCTED AND MAINTAINED IN ACCORDANCE WITH THE MINIMUM STANDARDS AND SPECIFICATIONS OF THE NORTH CAROLINA EROSION AND SEDIMENT CONTROL HANDBOOK. (NO SEPARATE PAYMENT).
3. THE CONTRACTOR SHALL NOTIFY PLAN APPROVING AUTHORITY ONE WEEK PRIOR TO THE PRE-CONSTRUCTION CONFERENCE, ONE WEEK PRIOR TO THE COMMENCEMENT OF LAND DISTURBING ACTIVITY, AND ONE WEEK PRIOR TO FINAL INSPECTION.
4. ALL EROSION AND SEDIMENT CONTROL MEASURES ARE TO BE PLACED PRIOR TO CLEARING AND/OR LAND DISTURBANCE.
5. A COPY OF THE APPROVED EROSION AND SEDIMENT CONTROL PLAN AND PERMIT SHALL BE MAINTAINED ON THE SITE AT ALL TIMES.
6. PRIOR TO COMMENCING LAND DISTURBING ACTIVITIES IN AREAS OTHER THAN INDICATED ON THESE PLANS (INCLUDING, BUT NOT LIMITED TO OFF-SITE BORROW OR WASTE AREAS STAGING OR STORAGE AREAS), THE CONTRACTOR SHALL PREPARE AND SUBMIT A SUPPLEMENTARY EROSION CONTROL PLAN TO THE OWNER FOR REVIEW AND TO NEW HANOVER COUNTY FOR APPROVAL. CONTRACTOR SHALL PAY ALL FEES REQUIRED AND SHALL INSTALL NECESSARY MEASURES AT NO SEPARATE PAYMENT. THE CONTRACTOR SHALL PROVIDE THE OWNER AND THE ENGINEER A COPY OF THE AMENDED PERMIT.
7. THE CONTRACTOR IS RESPONSIBLE FOR INSTALLATION OF ANY ADDITIONAL EROSION CONTROL MEASURES NECESSARY TO PREVENT EROSION AND SEDIMENTATION AS DETERMINED BY EITHER THE REVIEWING AGENCY OR THE ENGINEER. (NO SEPARATE PAYMENT).
8. ALL DISTURBED AREAS ARE TO DRAIN TO APPROVED SEDIMENT CONTROL MEASURES AT ALL TIMES DURING LAND DISTURBING ACTIVITIES AND DURING SITE DEVELOPMENT UNTIL FINAL STABILIZATION IS ACHIEVED.
9. ALL AREAS DISTURBED BY CONSTRUCTION UNLESS OTHERWISE IMPROVED SHALL BE SODDED OR SEEDED AS INDICATED AND STABILIZED.
10. DURING DEWATERING OPERATIONS, WATER SHALL BE PUMPED INTO AN APPROVED FILTERING DEVICE PRIOR TO DISCHARGE TO RECEIVING OUTLET.
11. THE CONTRACTOR SHALL INSPECT ALL EROSION CONTROL MEASURES PERIODICALLY AND AFTER EACH RUNOFF-PRODUCING EVENT. ANY NECESSARY REPAIRS OR CLEANUP TO MAINTAIN THE EFFECTIVENESS OF THE EROSION CONTROL DEVICES SHALL BE MADE IMMEDIATELY.
12. ALL TEMPORARY EROSION CONTROL MEASURES SHALL BE REMOVED BY CONTRACTOR ONCE STABILIZATION OR A SUFFICIENT GROUND COVER HAS BEEN ESTABLISHED OR AS DIRECTED BY THE ENGINEER. (NO SEPARATE PAYMENT). NCDENR'S FINAL APPROVAL IS REQUIRED.
13. TEMPORARY GRAVEL CONSTRUCTION ENTRANCE SHALL BE REQUIRED AT ALL CONSTRUCTION STAGING AREA ENTRANCES AND ALL CONSTRUCTION ACCESS LOCATIONS INTO NON-PAVED AREA. (NO SEPARATE PAYMENT).
14. WHEN CROSSING CREEK OR DRAINAGE-WAY, THE DIVISION OF WATER QUALITY SHALL BE CONTACTED PRIOR TO DISTURBING A CREEK. THE CONTRACTOR SHALL INSTALL RIP-RAP WITH FABRIC ALONG DISTURBED BANKS AND CHANNEL AND RESTORE SLOPES TO ORIGINAL CONTOURS, BUT NOT STEEPER THAN 2:1 MAXIMUM. DISTURBED CREEK AREA SHALL BE STABILIZED IMMEDIATELY.

DEMOLITION NOTES:

1. CONTRACTOR TO COORDINATE WITH THE OWNER TO PROPERLY MAINTAIN OR RELOCATE EXISTING SERVICE CONNECTIONS WHEN NECESSARY.
2. CONTRACTOR IS TO WALK THE SITE AND BECOME FAMILIAR WITH THE SCOPE OF DEMOLITION REQUIRED. ALL DEMOLITION WORK REQUIRED TO CONSTRUCT NEW SITE IMPROVEMENTS WILL BE PERFORMED BY THE CONTRACTOR AND WILL BE CONSIDERED UNCLASSIFIED EXCAVATION.
3. DEMOLITION SHALL INCLUDE BUT IS NOT LIMITED TO THE EXCAVATION, HAULING AND OFFSITE DISPOSAL OF CONCRETE PADS, CONCRETE DITCHES, FOUNDATIONS, SLABS, STEPS, AND STRUCTURES; ABANDONED UTILITIES, BUILDINGS, PAVEMENTS AND ALL MATERIALS CLEARED AND STRIPPED TO THE EXTENT NECESSARY AS DIRECTED BY THE GEOTECHNICAL ENGINEER FOR THE INSTALLATION OF THE NEW IMPROVEMENTS AND WITHIN THE LIMITS OF CLEARING AND GRADING AND AS SHOWN ON THESE PLANS.
4. THE CONTRACTOR SHALL PROTECT ALL ADJACENT PROPERTY, STRUCTURES AND UTILITIES ON THE PROPERTY NOT TO BE DEMOLISHED. DAMAGE TO PROPERTIES OF OTHERS DUE TO THE CONTRACTOR'S ACTIVITIES SHALL BE REPLACED IN KIND BY THE CONTRACTOR AT NO COST TO OWNER.
5. ELECTRIC, TELEPHONE, SANITARY SEWER, WATER AND STORM SEWER UTILITIES THAT SERVICE OFF-SITE PROPERTIES SHALL BE MAINTAINED DURING THE CONSTRUCTION PROCESS BY THE CONTRACTOR.
6. THE CONTRACTOR SHALL PRODUCE A PHOTOGRAPHIC RECORD (DIGITAL) OF DEVELOPMENT COMMENCING WITH A RECORD OF THE SITE AS IT APPEARS BEFORE DEMOLITION HAS BEGUN. AFTERWARDS, A PHOTOGRAPHIC RECORD SHALL BE MAINTAINED WEEKLY DURING CONSTRUCTION AND ENDING WITH A PHOTOGRAPHIC RECORD OF THE DEVELOPMENT AS IT APPEARS AFTER DEMOLITION. THIS RECORD SHALL BE DELIVERED TO THE OWNER.
7. EXISTING CURB AND GUTTER, LIGHTS, SIDEWALK, AND UTILITIES NOT INTENDED FOR DEMOLITION SHALL BE MAINTAINED, PROTECTED AND UNDISTURBED DURING DEMOLITION.
8. ALL EXISTING IMPROVEMENTS INDICATED OR REQUIRED TO BE DEMOLISHED SHALL INCLUDE REMOVAL FROM THE PROPERTY AND PROPER DISPOSAL.
9. CONTRACTOR SHALL COORDINATE RELOCATION OF ALL EXISTING OVERHEAD AND UNDERGROUND UTILITIES INCLUDING CABLE, GAS, TELEPHONE AND ELECTRIC AND ANY OTHER UTILITIES THROUGH THE SITE WITH THE RESPECTIVE COMPANIES.
10. CONTRACTOR SHALL MAINTAIN REQUIRED DISTANCES FROM HIGH VOLTAGE OVERHEAD LINES AND REMOVE TREES SO THEY DO NOT FALL TOWARDS OVERHEAD ELECTRICITY.
11. PROVIDE SMOOTH SAW CUT OF EXISTING PAVEMENTS, CURBS AND GUTTERS AND SIDEWALKS TO BE DEMOLISHED.
12. ALL DEMOLITION WORK SHALL BE DONE IN STRICT ACCORDANCE WITH LOCAL, STATE AND FEDERAL REGULATIONS AS WELL AS OSHA REGULATIONS.
13. EXISTING FIRE HYDRANTS ON OR NEAR THE SITE ARE TO REMAIN IN SERVICE.
14. INFORMATION CONCERNING UNDERGROUND UTILITIES WAS OBTAINED FROM AVAILABLE RECORDS, BUT THE CONTRACTOR MUST DETERMINE THE EXACT LOCATION AND ELEVATIONS.

GENERAL STORM SEWER NOTES

1. ALL STORM SEWERS SHALL BE CONSTRUCTED IN ACCORDANCE WITH CITY OF WILMINGTON REQUIREMENTS AS SPECIFIED ON THE DRAWINGS AND IN THE PROJECT SPECIFICATIONS.
2. BEDDING FOR ALL STORM SEWER PIPE SHALL BE AS SPECIFIED ON THE DRAWINGS.
3. ALL STORM SEWER PIPES SHOWN AS RCP ON THE PLANS SHALL BE REINFORCED CONCRETE PIPE CONFORMING TO ASTM C-76, UNLESS INDICATED OTHERWISE ON PLANS.

ROOF DRAIN NOTE:

1) PROPOSED BUILDING SHALL DIVERT ROOF DRAINAGE TO STORMWATER COLLECTION SYSTEM.

EXISTING UTILITY NOTES:

1. IT IS THE RESPONSIBILITY OF THE GENERAL CONTRACTOR TO VERIFY THE ACTUAL LOCATION AND AVAILABILITY OF ALL EXISTING AND PROPOSED UTILITIES IN THE FIELD PRIOR TO GROUND BREAKING.
2. EXISTING UTILITIES AND STRUCTURES SHOWN, BOTH UNDERGROUND AND ABOVE GROUND, ARE BASED ON A FIELD SURVEY AND THE BEST AVAILABLE RECORD DRAWINGS. THE CONTRACTOR SHALL FIELD VERIFY FIELD CONDITIONS PRIOR TO BEGINNING RELATED CONSTRUCTION. ANY DISCREPANCIES SHALL BE REPORTED TO THE OWNER'S REPRESENTATIVE IMMEDIATELY.

WETLAND NOTES:

1) THERE ARE NO WETLANDS ON THE PROPERTY. THIS DETERMINATION HAS BEEN AGREED TO BY THE ACOE (SAW-2005-00627).

FIRE AND LIFE SAFETY NOTES:

1. CONTRACTOR SHALL MAINTAIN AN ALL-WEATHER ACCESS FOR EMERGENCY VEHICLES AT ALL TIMES DURING CONSTRUCTION.
2. NEW HYDRANTS MUST BE BROUGHT INTO SERVICE PRIOR TO COMBUSTIBLE MATERIALS DELIVERED TO THE JOB SITE.
3. HYDRANT MUST BE WITHIN 150' OF THE FDC (MEASURED AS THE TRUCK DRIVES FOR PRACTICAL USE).
4. LANDSCAPING OR PARKING CANNOT BLOCK OR IMPEDE THE FDC OR FIRE HYDRANTS. A 3-FOOT CLEAR SPACE SHALL BE MAINTAINED AROUND THE CIRCUMFERENCE OF THE HYDRANT AND FDC.
5. PRIVATE UNDERGROUND FIRE LINES REQUIRE A SEPARATE UNDERGROUND FIRE LINE PERMIT FROM THE WILMINGTON FIRE AND LIFE SAFETY DIVISION 910-343-0696.
6. FDC MUST BE WITHIN 40' OF FIRE APPARATUS PLACEMENT.
7. ADDITIONAL FIRE PROTECTION AND/OR ACCESSIBILITY REQUIREMENTS MAY BE REQUIRED DUE TO ANY SPECIAL CIRCUMSTANCES CONCERNING THE PROJECT.
8. ALL ISOLATION VALVES WITHIN THE "HOT BOX" AND BETWEEN THE "HOT BOX" AND THE RISER ROOM, MUST BE ELECTRICALLY SUPERVISED. CONTRACTOR SHALL SUBMIT A RADIO SIGNAL STRENGTH STUDY FOR ALL COMMERCIAL BUILDINGS THAT DEMONSTRATES THAT EXISTING EMERGENCY RESPONDER RADIO SIGNAL LEVELS MEET THE REQUIREMENTS OF SECTION 510 OF THE 2018 NC FIRE CODE.

EROSION CONTROL AND SEQUENCE OF CONSTRUCTION NOTES:

NOTE: THESE EROSION CONTROL AND SEQUENCE OF CONSTRUCTION NOTES ARE INTENDED FOR EACH "PHASE" OF CONSTRUCTION. THE ORDER AND STEPS TAKEN MUST BE IMPLEMENTED AS EACH PART OF THE PROJECT IS DEVELOPED; WHETHER AS A WHOLE OR IN PHASES. ANY EROSION CONTROL DEVICES/MEASURES MUST REMAIN IN PLACE UNTIL THE ENTIRE DISTURBANCE IS STABILIZED AND ALL IMPROVEMENTS WITHIN THE DISTURBANCE LIMITS ARE COMPLETE.

1. CONSTRUCT TEMPORARY GRAVEL CONSTRUCTION ENTRANCE(S), ESTABLISH THE LIMITS OF DISTURBANCE, TREE PROTECTION FENCING, AND TEMPORARY SILT FENCE.
2. CLEAR AND REMOVE FROM SITE TREES AS DESIGNATED, ROOTS, ROOT MAT, ETC. FROM THE AREA WITHIN THE DESIGNATED CLEARING LIMITS.
3. CONSTRUCT TEMPORARY SEDIMENT BASIN(S) AND ASSOCIATED SKIMMER, OUTLET PIPE, SPILLWAY, ETC.
4. INSTALL REMAINING EROSION CONTROL MEASURES AS SHOWN ON THE PLANS WITHIN THE AREA DISTURBED. ALL EROSION CONTROL MEASURES MUST BE INSTALLED BEFORE COMMENCING CONSTRUCTION.
5. PLANT GRASS OVER ALL GRADED AREAS WITHIN 14 WORKING DAYS OF CEASE OF ANY GRADING ACTIVITY.
6. IMMEDIATELY UPON THE INSTALLATION OF ANY STORM DRAINAGE CATCH BASIN, DROP INLET, ETC., THE CONTRACTOR SHALL INSTALL INLET PROTECTION TO PREVENT SEDIMENT FROM ENTERING THE DRAINAGE SYSTEM.
7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CLEANING AND RESTORING TO PRE-CONSTRUCTION CONDITIONS ANY AREAS OUTSIDE THE PROJECT LIMITS THAT MAY INADVERTENTLY BE DAMAGED DUE TO THE FAILURE OF THE EROSION CONTROL MEASURES.
8. DURING GRADING AND AFTER GRADING HAS BEEN COMPLETE, THE CONTRACTOR SHALL CONTINUE TO MAINTAIN PERMANENT AND TEMPORARY EROSION CONTROL MEASURES UNTIL FINAL APPROVAL BY ENGINEER OR EROSION CONTROL INSPECTOR.
9. UPON RECEIVING FINAL APPROVAL, THE CONTRACTOR CAN REMOVE TEMPORARY EROSION CONTROL MEASURES.
10. THE CONTRACTOR SHALL CONTINUE TO WATER, FERTILIZE, MOW AND MAINTAIN GRASS & PLANTED AREAS UNTIL ALL CONSTRUCTION IS COMPLETE.

EROSION CONTROL MAINTENANCE PLAN:

1. ALL EROSION AND SEDIMENT CONTROL PRACTICES WILL BE CHECKED FOR STABILITY AND OPERATION FOLLOWING EVERY 1/2-INCH OR GREATER RAINFALL BUT IN NO CASE LESS THAN ONCE EVERY WEEK. ANY NEEDED REPAIRS WILL BE MADE IMMEDIATELY TO MAINTAIN ALL PRACTICES AS DESIGNED.
2. ALL CONSTRUCTION ENTRANCES WILL BE PERIODICALLY TOP DRESSED WITH AN ADDITIONAL 2 INCHES OF #4 STONE TO MAINTAIN PROPER DEPTH. ANY SEDIMENT THAT IS TRACKED INTO THE STREET WILL BE IMMEDIATELY REMOVED.
3. SEDIMENT FENCE / SEDIMENT FENCE OUTLETS - SEDIMENT WILL BE REMOVED BEHIND THE SEDIMENT FENCE WHEN IT BECOMES HALF-FILLED. THE SEDIMENT FENCE WILL BE BE REPAIRED AS NECESSARY TO MAINTAIN A BARRIER. STAKES MUST BE STEEL, AND SPACED 6 FEET WITH EXTRA STRENGTH FABRIC AND NO WIRE BACKING. STAKE SPACING CAN BE 8 FEET WHEN STANDARD STRENGTH FABRIC AND WIRE BACKING ARE USED. IF ROCK FILTERS (OR EXCELSIOR WATTLES) ARE DESIGNED AT LOW POINTS IN THE SEDIMENT FENCE THE ROCK OR WATTLE WILL BE REPAIRED OR REPLACED IF IT BECOMES HALF FULL OF SEDIMENT, NO LONGER DRAINS, OR IS DAMAGED.
4. ALL SEEDED AREAS WILL BE FERTILIZED, RESEEDED AS NECESSARY, AND MULCHED ACCORDING TO SPECIFICATIONS ON THESE PLANS AND CONTRACT SPECIFICATIONS TO MAINTAIN A VIGOROUS, DENSE VEGETATIVE COVER.
5. INLET PROTECTION - SEDIMENT SHALL BE REMOVED FROM HARDWARE CLOTH AND GRAVEL, BLOCK AND GRAVEL, OR ROCK-PIPE INLETS, WHEN IT REACHES HALF-FILLED. ROCK WILL BE CLEANED OR REPLACED WHEN NO LONGER DRAINS. SILT SACKS, BEAVER DAMS, SANDY SACKS, AND SOCKS NEED CHECKING EVERY WEEK AND AFTER RAIN.
6. SEDIMENT BASIN/SEDIMENT TRAPS - REMOVE SEDIMENT AND RESTORE THE BASIN TO ITS ORIGINAL DIMENSIONS WHEN IT ACCUMULATES TO WITHIN ONE HALF OF THE DESIGN DEPTH. PLACE SEDIMENT IN AREA WITH SEDIMENT CONTROLS. CHECK THE EMBANKMENT, SPILLWAYS, AND OUTLET FOR EROSION DAMAGE, PIPING, AND SETTLEMENT. MAKE ALL NECESSARY REPAIRS IMMEDIATELY. REMOVE ALL TRASH AND OTHER DEBRIS FROM THE RISER AND POOL AREA. BAFFLES WILL BE REPAIRED OR REPLACED IF THEY COLLAPSE, TEAR, DECOMPOSE, ETC.
7. SKIMMER - INSPECT SKIMMER AT LEAST ONCE A WEEK AND AFTER EACH RAINFALL TO MAKE SURE THAT THE INTAKE MECHANISM, ORIFICE, OR DISCHARGE PIPE IS NOT CLOGGED WITH TRASH OR SEDIMENT. IF THE BASIN IS DRY, MAKE SURE THAT ANY VEGETATION GROWING ON THE BOTTOM IS NOT HOLDING THE SKIMMER DOWN. TAKE SPECIAL PRECAUTION IN WINTER TO PREVENT THE SKIMMER FROM PLUGGING WITH ICE.
8. OUTLET PROTECTION - INSPECT RIP RAP OUTLET STRUCTURES WEEKLY AND AFTER RAINFALL EVENTS TO SEE IF ANY EROSION AROUND OR BELOW THE RIP RAP HAS TAKEN PLACE, OR IF STONES HAVE BEEN DISLODGED. IMMEDIATELY MAKE ALL NEEDED REPAIRS TO PREVENT FURTHER OFFSITE SEDIMENTATION.
9. EMERGENCY SPILLWAY / FOREBAY PROTECTION - AFTER EVERY HIGH-WATER EVENT INSPECT THE INTEGRITY OF THE LINED SPILLWAY AND THE ADJACENT EARTHEN BANKS. IMMEDIATELY MAKE ALL NEEDED REPAIRS TO PREVENT FURTHER DAMAGE. REPAIR ANY VOIDS IN THE RIP RAP LINED APRONS. RE-ESTABLISH ANY LOOSE STONES, AND FIX GAPS IN THE ADJACENT VEGETATIVE COVER.
10. DIVERSION DITCHES / GRASS SWALES - INSPECT THE CHANNEL OUTLET AND ALL ROAD CROSSINGS FOR BANK STABILITY AND EVIDENCE OF PIPING OR SCOUR HOLES. REMOVE ALL SIGNIFICANT SEDIMENT ACCUMULATIONS TO MAINTAIN THE DESIGNED CARRYING CAPACITY. DIVERSIONS SHALL BE LINED OR STABILIZED AS NOTED ON THE PLANS. IF THE DIVERSION WILL BECOME PERMANENT GRASS SWALES. THEN GROW GRASS INTO A HEALTHY, VIGOROUS CONDITION.
11. CHECK DAMS - EXCELSIOR OR RIP-RAP - SEDIMENT SHALL BE REMOVED FROM THE DAM WHEN IT REACHES HALF-FILLED. CHECK DAMS SHALL BE REPAIRED OR REPLACED, AND CHANNEL SHALL BE REPAIRED OF RUTS, PIPING, AND SETTLEMENT AROUND THE DAMS AS NEEDED.
12. CONCRETE WASHOUTS - CONCRETE WASHOUTS SHOULD BE INSPECTED DAILY AND AFTER HEAVY RAINS. DAMAGES SHOULD BE REPAIRED PROMPTLY. IF FILLED TO OVER 75% CAPACITY WITH RAIN WATER IT SHOULD BE VACUUMED OR ALLOWED TO EVAPORATE TO AVOID OVERFLOWS. BEFORE HEAVY RAINS THE CONTAINERS LIQUID LEVEL SHOULD BE LOWERED OR THE CONTAINER COVERED TO AVOID AN OVER FLOW DURING RAIN. WHEN SOLIDS HAVE HARDENED THEY SHOULD BE REMOVED AND RECYCLED.
13. WATTLE BARRIER - IT IS IMPORTANT THAT THE WATTLE BARRIERS BE KEPT CLEAN TO ALLOW WATER TO FLOW THROUGH THE NATURAL FIBERS. THE WATTLE BARRIERS CAN BECOME BLOCKED WITH DEBRIS, SEDIMENT, STRAW AND OTHER ITEMS.
    - THE UP GRADIENT SIDE OF THE WATTLE BARRIER SHOULD BE MAINTAINED TO ALLOW THE WATER TO FLOW THROUGH, REDUCE VELOCITY AND ALLOW SEDIMENTATION TO OCCUR.
    - IF THE NATURAL FIBERS OF THE WATTLE BARRIER BECOME TOO SATURATED WITH DEBRIS, SEDIMENT, ETC., AND REMOVAL OF THESE ITEMS IS NOT POSSIBLE, WATTLE BARRIERS SHOULD BE REPLACED.
    - STAKES SHOULD BE USED TO ANCHOR THE WATTLE BARRIER ADEQUATELY TO THE GROUND TO PREVENT SCOURING AND WASHOUT DURING STORM EVENTS.

PERMANENT SEEDING

GRASS TYPE	LBS/ ACRE	TIME OF SEEDING	FERTILIZER LIMESTONE
BERMUDA, HULLED BERMUDA, UNHULLED	10-20 35	MARCH - AUGUST SEPT. - FEB.	BY SOIL TEST
CENTIPEDE	10	MARCH - AUGUST	BY SOIL TEST (NO HIGH PH)
TALL FESCUE (COASTAL CULTIVAR RECOMMENDED)	50	MARCH - AUGUST	300 LB/AC 10-20-20 OR BY SOIL TEST
SLOPES >= 2:1 CENTIPEDE SERICEA LESPEDEZA	5 20	JAN - DEC	BY SOIL TEST

TEMPORARY SEEDING

GRASS TYPE	LBS/ ACRE	TIME OF SEEDING	FERTILIZER LIMESTONE
RYE GRAIN	50	OCT. - APR.	400 LBS/AC. 10-20-20
SWEET SUDAN GRASS	50	JUNE - AUGUST	400 LBS/AC. 10-20-20
GERMAN or BROWNTOP MILLET	50	JUNE - AUGUST	400 LBS/AC. 10-20-20
STRAW MULCH AS NEEDED	4,000		

811
Know what's below.
Call before you dig.

NC ACCESSIBILITY NOTES:

GENERAL NOTES:

1. SPECIAL ATTENTION SHALL BE GIVEN TO COMPLIANCE WITH AMERICANS WITH DISABILITIES ACT (2010 ADA STANDARDS), THE NORTH CAROLINA BUILDING CODE/ANSI A117.1, AND APPLICABLE LOCAL LAWS & REGULATIONS.
2. IT IS ESSENTIAL THAT CONTRACTORS ARE AWARE OF THE SITE ACCESSIBILITY REQUIREMENTS. PARAMOUNTE ENGINEERING HAS DEVELOPED THESE NOTES AND DETAILS TO ASSURE THAT CONTRACTORS ARE AWARE OF THE REQUIREMENTS AT THE POINT IN TIME WHEN THEY ARE BIDDING THE PROJECT. IN ADDITION, PARAMOUNTE ENGINEERING HAS MADE A POINT IN THESE NOTES AND DETAILS, AS WELL AS IN OUR DRAWINGS, TO PROVIDE SLOPES / GRADES AND DIMENSIONS THAT COMPLY WITH THE AMERICANS WITH DISABILITIES ACT (2010 ADA STANDARDS), THE NORTH CAROLINA BUILDING CODE/ANSI A117.1 AND APPLICABLE LOCAL LAWS & REGULATIONS. IF THESE SLOPES / GRADES AND DIMENSIONS ARE NOT ACHIEVABLE, THE CONTRACTOR IS REQUIRED TO CONTACT THE OWNER IMMEDIATELY AND BEFORE MOVING FORWARD WITH THE WORK.
3. THE CONTRACTOR SHALL NOTIFY PARAMOUNTE ENGINEERING IMMEDIATELY OF ANY CONFLICT BETWEEN THESE NOTES AND DETAILS AND OTHER PROJECT DRAWINGS, WHETHER BY PARAMOUNTE ENGINEERING OR OTHERS. THE CONTRACTOR SHALL NOT PROCEED WITH THE WORK FOR WHICH THE ALLEGED CONFLICT HAS BEEN DISCOVERED UNTIL SUCH ALLEGED CONFLICT HAS BEEN RESOLVED. NO CLAIM SHALL BE MADE BY THE CONTRACTOR FOR DELAY OR DAMAGES AS A RESULT OF RESOLUTION OF ANY SUCH CONFLICT(S).
4. THESE ACCESSIBILITY NOTES AND DETAILS ARE INTENDED TO DEPICT SLOPE AND DIMENSIONAL REQUIREMENTS ONLY. REFER TO SIDEWALK, CURBING, AND PAVEMENT DETAILS FOR ADDITIONAL INFORMATION.

ACCESSIBLE ROUTE NOTES:

1. AT LEAST ONE ACCESSIBLE ROUTE SHALL BE PROVIDED WITHIN THE SITE FROM ACCESSIBLE PARKING SPACES AND ACCESSIBLE PASSENGER LOADING ZONES; PUBLIC STREETS OR SIDEWALKS; AND PUBLIC TRANSPORTATION STOPS TO THE ACCESSIBLE BUILDING OR FACILITY ENTRANCE THEY SERVE.
2. AT LEAST ONE ACCESSIBLE ROUTE SHALL CONNECT ACCESSIBLE BUILDINGS, ACCESSIBLE FACILITIES, ACCESSIBLE ELEMENTS, AND ACCESSIBLE SPACES THAT ARE ON THE SAME SITE.
3. WALKING SURFACES THAT ARE PART OF AN ACCESSIBLE ROUTE SHALL HAVE A MAXIMUM RUNNING SLOPE OF 5.0% AND A MAXIMUM CROSS SLOPE OF 2.0%.
4. ANY WALKING SURFACE THAT IS PART OF AN ACCESSIBLE ROUTE WITH A RUNNING SLOPE GREATER THAN 5.0% IS A RAMP AND SHALL COMPLY WITH THE GUIDELINES FOR RAMPS OR CURB RAMPS.
5. TRANSITIONS BETWEEN RAMPS, WALKS, LANDINGS, GUTTERS OR STREETS SHALL BE FLUSHAND FREE OF ABRUPT VERTICAL CHANGES (1/4 INCH MAXIMUM VERTICAL CHANGE IN LEVEL PERMITTED).
6. FLOOR SURFACES SHALL BE STABLE, FIRM AND SLIP RESISTANT.
7. THE MINIMUM CLEAR WIDTH OF EXTERIOR ACCESSIBLE ROUTES SHALL BE FORTY-EIGHT (48) INCHES MINIMUM MEASURED BETWEEN HANDRAILS WHERE HANDRAILS ARE PROVIDED (NC BUILDING CODE 1104.1 & 1104.2).
8. WHERE AN ACCESSIBLE ROUTE MAKES A 180 DEGREE TURN AROUND AN OBJECT THAT IS LESS THAN FORTY-EIGHT (48) INCHES IN WIDTH, CLEAR WIDTH SHALL BE FORTY-TWO (42) INCHES MINIMUM APPROACHING THE TURN, FORTY-EIGHT (48) INCHES MINIMUM DURING THE TURN, AND FORTY-TWO (42) INCHES MINIMUM LEAVING THE TURN. THE CLEAR WIDTH APPROACHING AND LEAVING THE TURN MAY BE THIRTY-SIX (36) INCHES MINIMUM WHEN THE CLEAR WIDTH AT THE TURN IS SIXTY (60) INCHES MINIMUM. .* SEE NOTE 7 ABOVE FOR NC CLEAR WIDTH OF EXTERIOR ACCESSIBLE ROUTES*
9. AN ACCESSIBLE ROUTE WITH A CLEAR WIDTH LESS THAN SIXTY (60) INCHES SHALLPROVIDE PASSING SPACES AT INTERVALS OF TWO HUNDRED (200) FEET MAXIMUM. PASSING SPACES SHALL BE EITHER A SIXTY (60) INCH MINIMUM BY SIXTY (60) INCH MINIMUM SPACE; OR AN INTERSECTION OF TWO (2) WALKING SURFACES THAT PROVIDE A COMPLIANT T-SHAPED TURNING SPACE, PROVIDED THE BASE AND ARMS OF THE T-SHAPED SPACE EXTEND FORTY-EIGHT (48) INCHES MINIMUM BEYOND THE INTERSECTION.
10. DOORS, DOORWAYS AND GATES THAT ARE PART OF AN ACCESSIBLE ROUTE SHALL COMPLY WITH THE AMERICANS WITH DISABILITIES ACT (2010 ADA STANDARDS), THE NORTH CAROLINA BUILDING CODE/ ANSI A117.1, AND APPLICABLE LOCAL LAWS & REGULATIONS.
11. DIRECTIONAL SIGNAGE INDICATING THE ROUTE TO THE NEAREST ACCESSIBLE BUILDING ENTRANCE SHALL BE PROVIDED AT INACCESSIBLE BUILDING ENTRANCES.
12. WHERE POSSIBLE, DRAINAGE INLETS SHALL NOT BE LOCATED ON AN ACCESSIBLE ROUTE. IN THE EVENT THAT A DRAINAGE INLET MUST BE LOCATED ON AN ACCESSIBLE ROUTE, THE GRATE SHALL COMPLY WITH THE AMERICANS WITH DISABILITIES ACT (2010 ADA STANDARDS), A117.1, THE NC BUILDING CODE, AND APPLICABLE LOCAL LAWS & REGULATIONS

RAMP NOTES:

1. ANY PART OF AN ACCESSIBLE ROUTE WITH A RUNNING SLOPE GREATER THAN 5% SHALL BE CONSIDERED A RAMP.
2. THE MAXIMUM RUNNING SLOPE FOR A RAMP SHALL BE 8.33% AND THE MAXIMUM CROSS SLOPE SHALL BE 2.0%.
3. THE CLEAR WIDTH OF AN EXTERIOR RAMP RUN SHALL BE FORTY EIGHT INCHES (NC BUILDING CODE 1104.1). WHERE HANDRAILS ARE PROVIDED ON THE RAMP RUN, THE CLEAR WIDTH SHALL BE MEASURED BETWEEN THE HANDRAILS.
4. THE RISE FOR ANY RAMP RUN SHALL BE THIRTY (30) INCHES MAXIMUM.
5. LANDINGS SHALL BE PROVIDED AT THE TOP AND BOTTOM OF RAMPS. LANDINGS SHALL HAVE A SLOPE NOT STEEPER THAN 2.0% IN ANY DIRECTION. THE LANDING CLEAR WIDTH SHALL BE AT LEAST AS WIDE AS THE WIDEST RAMP RUN LEADING TO THE LANDING. THE LANDING CLEAR LENGTH SHALL BE SIXTY (60) INCHES LONG MINIMUM. RAMPS THAT CHANGE DIRECTION BETWEEN RUNS AT LANDINGS SHALL HAVE A CLEAR LANDING OF SIXTY (60) INCHES BY SIXTY (60) INCHES MINIMUM.
6. RAMP RUNS WITH A RISE GREATER THAN SIX (6) INCHES SHALL HAVE HANDRAILS ON BOTH SIDES COMPLYING WITH THE AMERICANS WITH DISABILITIES ACT (2010 ADA STANDARDS), THE NC BUILDING CODE/ANSI A117.1, AND APPLICABLE LOCAL LAWS & REGULATIONS.
7. FLOOR SURFACES OF RAMPS AND LANDINGS SHALL BE STABLE, FIRM AND SLIP RESISTANT.
8. EDGE PROTECTION COMPLYING WITH AMERICANS WITH DISABILITIES ACT (2010 ADA STANDARDS), THE NC BUILDING CODE/ANSI A117.1, AND APPLICABLE LOCAL LAWS & REGULATIONS SHALL BE PROVIDED ON EACH SIDE OF RAMP RUNS AND ON EACH SIDE OF RAMP LANDINGS.
9. WHERE DOORWAYS ARE LOCATED ADJACENT TO A RAMP LANDING, MANEUVERING CLEARANCES REQUIRED BY THE AMERICANS WITH DISABILITIES ACT (2010 ADA STANDARDS), THE NC BUILDING CODE/ANSI A117.1 SHALL BE PERMITTED TO OVERLAP THE REQUIRED LANDING AREA. WHERE DOORS THAT ARE SUBJECT TO LOCKING ARE ADJACENT TO A RAMP LANDING, LANDINGS SHALL BE SIZED TO PROVIDE A COMPLIANT TURNING SPACE.

CURB RAMP NOTES:

1. THE MAXIMUM RUNNING SLOPE OF A CURB RAMP SHALL BE 8.33% AND THE MAXIMUM CROSS SLOPE SHALL BE 2.0%.
2. COUNTER SLOPES OF ADJOINING GUTTERS AND ROAD SURFACES IMMEDIATELY ADJACENT TO THE CURB RAMP SHALL NOT BE STEEPER THAN 5%. THE ADJACENT SURFACES AT TRANSITIONS AT CURB RAMPS TO WALKS, GUTTERS AND STREETS SHALL BE AT THE SAME LEVEL.
3. THE CLEAR WIDTH OF A CURB RAMP SHALL BE 36 INCHES (36) MINIMUM, EXCLUSIVE OF FLARED SIDES, IF PROVIDED. *NOTE NC BUILDING CODE REQUIRES EXTERIOR ACCESSIBLE ROUTES TO BE 48 INCHES MINIMUM WIDE (1104.1 & 1104.2).*
4. LANDINGS SHALL BE PROVIDED AT THE TOP OF CURB RAMPS. THE CLEAR LENGTH OF THE LANDING SHALL BE THIRTY-SIX (36) INCHES MINIMUM. THE CLEAR WIDTH OF THE LANDING SHALL BE AT LEAST AS WIDE AS THE CURB RAMP, EXCLUDING FLARED SIDES, LEADING TO THE LANDING. LANDINGS SHALL HAVE A SLOPE NOT STEEPER THAN 2% IN ANY DIRECTION.
5. IF A CURB RAMP IS LOCATED WHERE PEDESTRIANS MUST WALK ACROSS THE RAMP, OR WHERE IT IS NOT PROTECTED BY HANDRAILS OR GUARDRAILS, IT SHALL HAVE FLARED SIDES.
6. WHERE PROVIDED, CURB RAMP FLARES SHALL NOT EXCEED 10%.
7. CURB RAMPS AND THE FLARED SIDES OF CURB RAMPS SHALL BE LOCATED SO THAT THEY DO NOT PROJECT INTO VEHICULAR TRAFFIC LANES, PARKING SPACES OR PARKING ACCESS AISLES. CURBS AT MARKED CROSSINGS SHALL BE WHOLLY CONTAINED WITHIN THE MARKINGS, EXCLUDING ANY FLARED SIDES.
8. CURB RAMPS SHALL BE LOCATED OR PROTECTED TO PREVENT THEIR OBSTRUCTION BY PARKED VEHICLES.
9. IT IS RECOMMENDED TO PROVIDE CURB RAMPS WITH A TWENTY-FOUR (24) INCH DEEP DETECTABLE WARNING COMPLYING WITH 406.12 A117.1, EXTENDING THE FULL WIDTH OF THE RAMP. REFERTO DETECTABLE WARNING DETAILS AND NOTES FOR PLACEMENT, ORIENTATION AND NOTES. THE NC BUILDING CODE DOES NOT CURRENTLY REQUIRE DETECTABLE WARNINGS AT CURB RAMPS, NOR DO THE 2010 ADA STANDARDS - HOWEVER US DOT ADA REGULATIONS DO REQUIRE THESE.
10. FLOOR SURFACES OF CURB RAMPS SHALL BE DEEP GROOVED, ½ INCH WIDE BY ¼ INCH DEEP, ONE (1) INCH CENTERS TRANSVERSE TO THE RAMP.
11. WHERE PROVIDED, STOP LINES SHALL BE LOCATED IN ADVANCE OF CURB RAMP.
12. WHERE PROVIDED, PEDESTRIAN ACTIVATED SIGNALS SHALL BE LOCATED ADJACENT TO THE SIDEWALK AND NOT ON THE SIDEWALK.
13. WHERE PROVIDED, DRAINAGE INLETS SHALL BE LOCATED UPSTREAM OF CURB RAMPS AND NOT IN THE RAMP AREA.
14. CURB RAMP TYPE AND LOCATION ARE PER PLAN.

NC ACCESSIBILITY NOTES CONTD.

PARKING SPACE NOTES:

1. ACCESSIBLE PARKING SPACES SHALL BE LOCATED ON THE SHORTEST ACCESSIBLE ROUTES OF TRAVEL FROM ADJACENT PARKING TO AN ACCESSIBLE BUILDING ENTRANCE.
2. ACCESSIBLE PARKING SPACES SHALL BE AT LEAST NINETY-SIX (96) INCHES WIDE. ACCESS AISLES SHALL BE 60 INCHES WIDE. ONE OF SIX ACCESSIBLE SPACES SHOULD PROVIDE A VAN ACCESSIBLE AISLE. THE AISLE SHOULD BE 96 INCHES WIDE (OR ACCESSIBLE SPACE IS 11 FEET AND ACCESS AISLE IS FIVE FEET). WHERE PARKING SPACES AND ACCESS AISLES ARE MARKED WITH LINES, THE WIDTH MEASUREMENTS SHALL BE MADE FROM CENTERLINE OF THE MARKINGS. WHERE PARKING SPACES OR ACCESS AISLES ARE NOT ADJACENT TO ANOTHER PARKING SPACE OR ACCESS AISLES, MEASUREMENTS SHALL BE PERMITTED TO INCLUDE THE FULL WIDTH OF THE LINE DEFINING THE PARKING SPACE OR ACCESS AISLE.
3. PARKING ACCESS AISLES SHALL BE PART OF AN ACCESSIBLE ROUTE TO THE BUILDING OR FACILITY ENTRANCE AND SHALL COMPLY WITH PROVISIONS FORACCESSIBLE ROUTES. MARKED CROSSINGS SHALL BE PROVIDED WHERE THE ACCESSIBLE ROUTE MUST CROSS VEHICULAR TRAFFIC LANES. WHERE POSSIBLE, IT IS PREFERABLE THAT THE ACCESSIBLE ROUTE NOT PASS BEHIND PARKED VEHICLES.
4. TWO (2) ACCESSIBLE PARKING SPACES MAY SHARE A COMMON ACCESS AISLE.
5. ACCESS AISLES SHALL EXTEND THE FULL LENGTH OF THE PARKING SPACE THEY SERVE.
6. ACCESS AISLES SHALL BE MARKED SO AS TO DISCOURAGE PARKING IN THEM.
7. ACCESS AISLES SHALL NOT OVERLAP THE VEHICULAR WAY. ACCESS AISLES SHALL BE PERMITTED TO BE PLACED ON EITHER SIDE OF THE PARKING SPACE EXCEPTFOR ANGLED VAN PARKING SPACES WHICH SHALL HAVE ACCESS AISLES LOCATED ON THE PASSENGER SIDE OF THE PARKING SPACES.
8. FLOOR SURFACES OF PARKING SPACES AND ACCESS AISLES SERVING THEM SHALL BE STABLE, FIRM AND SLIP RESISTANT. ACCESS AISLES SHALL BE AT THE SAME LEVEL AS THE PARKING SPACES THEY SERVE. CHANGES IN LEVEL ARE NOT PERMITTED.
9. PARKING SPACES AND ACCESS AISLES SHALL BE LEVEL WITH SURFACE SLOPES NOT EXCEEDING 2.0% IN ALL DIRECTIONS.
10. PARKED VEHICLE OVERHANGS SHALL NOT REDUCE THE REQUIRED CLEAR WIDTH OF AN ACCESSIBLE ROUTE.
11. PARKING SPACES FOR VANS AND ACCESS AISLES AND VEHICULAR ROUTES SERVING THEM SHALL PROVIDE A VERTICAL CLEARANCE OF NINETY-EIGHT (98) INCHES MINIMUM. SIGNS SHALL BE PROVIDED AT ENTRANCES TO PARKING FACILITIES INFORMING DRIVERS OF CLEARANCES AND THE LOCATION OF VAN ACCESSIBLE PARKING SPACES.
12. EACH ACCESSIBLE PARKING SPACE SHALL BE PROVIDED WITH SIGNAGE DISPLAYING THE INTERNATIONAL SYMBOL OF ACCESSIBILITY. SIGNS SHALL BE INSTALLED AT A MINIMUM CLEAR HEIGHT OF SIXTY (60) INCHES ABOVE GRADE AND SHALL NOT INTERFERE WITH AN ACCESSIBLE ROUTE FROM AN ACCESS AISLE. SIGNS LOCATED WHERE THEY MAY BE HIT BY VEHICLES BEING PARKED SHALL BE INSTALLED WITH BOLLARD PROTECTION.
13. SIGNAGE AT ACCESSIBLE PARKING SPACES REQUIRED BY THE NC BUILDING CODE SECTION 1106.1SHALL COMPLY WITH THE REQUIREMENTS OF NORTH CAROLINA GENERAL STATUTE 20-37.6 AND 136-30 AND THE NCDOT UNIFORM MANUAL ON TRAFFIC CONTROL DEVICES. A SEPARATE SIGN IS REQUIRED FOR EACH SPACE. SIGNS TO INDICATE THE MAXIMUM PENALTY MUST BE PROVIDED AT EACH ACCESSIBLE SPACE.
14. ACCESSIBLE PARKING SPACE, ACCESS AISLE STRIPING, AND INTERNATIONAL SYMBOL OF ACCESSIBILITY SHALL BE PAINTED BLUE (OR ANOTHER COLOR THAT CAN BE DISTINGUISHED FROM PAVEMENT).

PASSENGER LOADING ZONE NOTES:

1. PASSENGER LOADING ZONES SHALL PROVIDE VEHICULAR PULL-UP SPACE NINETY-SIX (96) INCHES WIDE MINIMUM AND TWENTY (20) FEET LONG MINIMUM.
2. PASSENGER LOADING ZONES SHALL PROVIDE A CLEARLY MARKED ACCESS AISLE THAT IS SIXTY (60) INCHES WIDE MINIMUM AND EXTENDS THE FULL LENGTH OF THE VEHICLE PULL-UP SPACE THEY SERVE.
3. ACCESS AISLE SHALL ADJOIN AN ACCESSIBLE ROUTE AND NOT OVERLAP THE VEHICULAR WAY.
4. VEHICLE PULL-UP SPACES AND ACCESS AISLES SERVING THEM SHALL BE LEVEL WITH SURFACE SLOPES NOT EXCEEDING 2.0% IN ALL DIRECTIONS. ACCESS AISLES SHALL BE AT THE SAME LEVEL AS THE VEHICLE PULL-UP SPACE THEY SERVE. CHANGES IN LEVEL ARE NOT PERMITTED.
5. FLOOR SURFACES OF VEHICLE PULL-UP SPACES AND ACCESS AISLES SERVING THEM SHALL BE STABLE, FIRM AND SLIP RESISTANT.
6. VEHICLE PULL-UP SPACES, ACCESS AISLES SERVING THEM AND A VEHICULAR ROUTE FROM AN ENTRANCE TO THE PASSENGER LOADING ZONE, AND FROM THE PASSENGER LOADING ZONE TO A VEHICULAR EXIT SERVING THEM, SHALL PROVIDE A VERTICAL CLEARANCE OF ONE HUNDRED FOURTEEN (114) INCHES MINIMUM.

ACCESSIBLE ENTRANCE NOTES:

1. ACCESSIBLE ENTRANCES SHALL BE PROVIDED AS REQUIRED BY THE AMERICANS WITH DISABILITIES ACT (2010 ADA STANDARDS) AND THE NORTH CAROLINA BUILDING CODE, AND APPLICABLE LOCAL LAWS & REGULATIONS.
2. ENTRANCE DOORS, DOORWAYS AND GATES SHALL COMPLY WITH THE AMERICANS WITH DISABILITIES ACT (2010 ADA STANDARDS) THE NC BUILDING CODE/ANSI A117.1 AND SHALL BE ON AN ACCESSIBLE ROUTE.

LEGEND:

Symbol	Description
— LOD — LOD —	LIMITS OF DISTURBANCE
	SILT FENCE
	TREE PROTECTION FENCING
	FENCING, TYPE AS SPECIFIED
	COIR FIBER BAFFLES
— >TDD — >TDD —	TEMP. DIVERSION DITCHES
— 20 —	PROPOSED CONTOURS
— 20 —	EXISTING CONTOURS
— W — W — W —	WATER LINE
— FM — FM —	FORCEMAIN LINE
— SS — SS — SS —	SANITARY SEWER LINE
	SANITARY SEWER LATERAL/SERVICE
	STORM DRAIN LINE
	ROOF DRAIN LINE
— 20 —	PROPOSED CONTOURS
	PROPOSED SETBACKS
	PROPOSED BUFFERS/EASEMENTS
	PROPOSED POND OUTLINE
— OHE —	OVERHEAD ELECTRIC
— UGT —	BURIED TELEPHONE LINE
— GAS — GAS —	BURIED GAS LINE
— UTV —	BURIED TV CABLE
— FO —	BURIED FIBER OPTIC
— W — W — W —	WATER LINE
— FM — FM —	FORCEMAIN LINE
— SS — SS —	SANITARY SEWER LINE
	STORM DRAINAGE LINE
— WET — WET —	WETLAND DELINEATION
— x — x —	CHAINLINK FENCE
— 18 —	EXISTING CONTOUR
	RIGHT OF WAY/BOUNDARY
	BOUNDARY LINE
	ADJOINER LINE

ISSUED FOR: ☐ PRELIMINARY ☑ PERMITTING ☐ BID ☐ CONSTRUCTION

REVISIONS:

CLIENT INFORMATION:

CK WILMINGTON
THREE PHASE A, LLC
CHARLOTTE, NC

PARAMOUNTE
E N G I N E E R I N G , I N C .

122 Cinema Drive
Wilmington, North Carolina 28403
(910) 791-6707 (O) (910) 791-6760 (F)
NC License #: C-2846

GENERAL NOTES

WILMINGTON THREE PHASE A
CITY OF WILMINGTON
NORTH CAROLINA

PROJECT STATUS
CONCEPTUAL LAYOUT:
PRELIMINARY LAYOUT:
FINAL DESIGN:
RELEASED FOR CONST.:

DRAWING INFORMATION

DATE:	03.25.21
SCALE:	AS NOTED
DESIGNED:	DJF
DRAWN:	DJF
CHECKED:	DJF

Professional Seal redacted on electronic copy per City of Wilmington Policy

C-1.0

PEI JOB#: 20195.PE

GROUND STABILIZATION AND MATERIALS HANDLING PRACTICES FOR COMPLIANCE WITH THE NCG01 CONSTRUCTION GENERAL PERMIT

Implementing the details and specifications on this plan sheet will result in the construction activity being considered compliant with the Ground Stabilization and Materials Handling sections of the NCG01 Construction General Permit (Sections E and F, respectively). The permittee shall comply with the Erosion and Sediment Control plan approved by the delegated authority having jurisdiction. All details and specifications shown on this sheet may not apply depending on site conditions and the delegated authority having jurisdiction.

SECTION E: GROUND STABILIZATION

Required Ground Stabilization Timeframes		
Site Area Description	**Stabilize within this many calendar days after ceasing land disturbance**	**Timeframe variations**
(a) Perimeter dikes, swales, ditches, and perimeter slopes	7	None
(b) High Quality Water (HQW) Zones	7	None
(c) Slopes steeper than 3:1	7	If slopes are 10' or less in length and are not steeper than 2:1, 14 days are allowed
(d) Slopes 3:1 to 4:1	14	-7 days for slopes greater than 50' in length and with slopes steeper than 4:1 -7 days for perimeter dikes, swales, ditches, perimeter slopes and HQW Zones -10 days for Falls Lake Watershed
(e) Areas with slopes flatter than 4:1	14	-7 days for perimeter dikes, swales, ditches, perimeter slopes and HQW Zones -10 days for Falls Lake Watershed unless there is zero slope

Note: After the permanent cessation of construction activities, any areas with temporary ground stabilization shall be converted to permanent ground stabilization as soon as practicable but in no case longer than 90 calendar days after the last land disturbing activity. Temporary ground stabilization shall be maintained in a manner to render the surface stable against accelerated erosion until permanent ground stabilization is achieved.

GROUND STABILIZATION SPECIFICATION

Stabilize the ground sufficiently so that rain will not dislodge the soil. Use one of the techniques in the table below:

Temporary Stabilization	Permanent Stabilization
• Temporary grass seed covered with straw or other mulches and tackifiers • Hydroseeding • Rolled erosion control products with or without temporary grass seed • Appropriately applied straw or other mulch • Plastic sheeting	• Permanent grass seed covered with straw or other mulches and tackifiers • Geotextile fabrics such as permanent soil reinforcement matting • Hydroseeding • Shrubs or other permanent plantings covered with mulch • Uniform and evenly distributed ground cover sufficient to restrain erosion • Structural methods such as concrete, asphalt or retaining walls • Rolled erosion control products with grass seed

POLYACRYLAMIDES (PAMS) AND FLOCCULANTS

1. Select flocculants that are appropriate for the soils being exposed during construction, selecting from the *NC DWR List of Approved PAMS/Flocculants*.
2. Apply flocculants at or before the inlets to Erosion and Sediment Control Measures.
3. Apply flocculants at the concentrations specified in the *NC DWR List of Approved PAMS/Flocculants* and in accordance with the manufacturer's instructions.
4. Provide ponding area for containment of treated Stormwater before discharging offsite.
5. Store flocculants in leak-proof containers that are kept under storm-resistant cover or surrounded by secondary containment structures.

EQUIPMENT AND VEHICLE MAINTENANCE

1. Maintain vehicles and equipment to prevent discharge of fluids.
2. Provide drip pans under any stored equipment.
3. Identify leaks and repair as soon as feasible, or remove leaking equipment from the project.
4. Collect all spent fluids, store in separate containers and properly dispose as hazardous waste (recycle when possible).
5. Remove leaking vehicles and construction equipment from service until the problem has been corrected.
6. Bring used fuels, lubricants, coolants, hydraulic fluids and other petroleum products to a recycling or disposal center that handles these materials.

LITTER, BUILDING MATERIAL AND LAND CLEARING WASTE

1. Never bury or burn waste. Place litter and debris in approved waste containers.
2. Provide a sufficient number and size of waste containers (e.g dumpster, trash receptacle) on site to contain construction and domestic wastes.
3. Locate waste containers at least 50 feet away from storm drain inlets and surface waters unless no other alternatives are reasonably available.
4. Locate waste containers on areas that do not receive substantial amounts of runoff from upland areas and does not drain directly to a storm drain, stream or wetland.
5. Cover waste containers at the end of each workday and before storm events or provide secondary containment. Repair or replace damaged waste containers.
6. Anchor all lightweight items in waste containers during times of high winds.
7. Empty waste containers as needed to prevent overflow. Clean up immediately if containers overflow.
8. Dispose waste off-site at an approved disposal facility.
9. On business days, clean up and dispose of waste in designated waste containers.

PAINT AND OTHER LIQUID WASTE

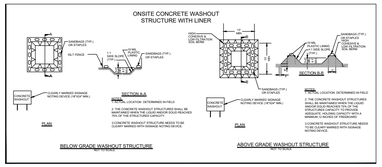
1. Do not dump paint and other liquid waste into storm drains, streams or wetlands.
2. Locate paint washouts at least 50 feet away from storm drain inlets and surface waters unless no other alternatives are reasonably available.
3. Contain liquid wastes in a controlled area.
4. Containment must be labeled, sized and placed appropriately for the needs of site.
5. Prevent the discharge of soaps, solvents, detergents and other liquid wastes from construction sites.

PORTABLE TOILETS

1. Install portable toilets on level ground, at least 50 feet away from storm drains, streams or wetlands unless there is no alternative reasonably available. If 50 foot offset is not attainable, provide relocation of portable toilet behind silt fence or place on a gravel pad and surround with sand bags.
2. Provide staking or anchoring of portable toilets during periods of high winds or in high foot traffic areas.
3. Monitor portable toilets for leaking and properly dispose of any leaked material. Utilize a licensed sanitary waste hauler to remove leaking portable toilets and replace with properly operating unit.

EARTHEN STOCKPILE MANAGEMENT

1. Show stockpile locations on plans. Locate earthen-material stockpile areas at least 50 feet away from storm drain inlets, sediment basins, perimeter sediment controls and surface waters unless it can be shown no other alternatives are reasonably available.
2. Protect stockpile with silt fence installed along toe of slope with a minimum offset of five feet from the toe of stockpile.
3. Provide stable stone access point when feasible.
4. Stabilize stockpile within the timeframes provided on this sheet and in accordance with the approved plan and any additional requirements. Soil stabilization is defined as vegetative, physical or chemical coverage techniques that will restrain accelerated erosion on disturbed soils for temporary or permanent control needs.



CONCRETE WASHOUTS

1. Do not discharge concrete or cement slurry from the site.
2. Dispose of, or recycle settled, hardened concrete residue in accordance with local and state solid waste regulations and at an approved facility.
3. Manage washout from mortar mixers in accordance with the above item and in addition place the mixer and associated materials on impervious barrier and within lot perimeter silt fence.
4. Install temporary concrete washouts per local requirements, where applicable. If an alternate method or product is to be used, contact your approval authority for review and approval. If local standard details are not available, use one of the two types of temporary concrete washouts provided on this detail.
5. Do not use concrete washouts for dewatering or storing defective curb or sidewalk sections. Stormwater accumulated within the washout may not be pumped into or discharged to the storm drain system or receiving surface waters. Liquid waste must be pumped out and removed from project.
6. Locate washouts at least 50 feet from storm drain inlets and surface waters unless it can be shown that no other alternatives are reasonably available. At a minimum, install protection of storm drain inlet(s) closest to the washout which could receive spills or overflow.
7. Locate washouts in an easily accessible area, on level ground and install a stone entrance pad in front of the washout. Additional controls may be required by the approving authority.
8. Install at least one sign directing concrete trucks to the washout within the project limits. Post signage on the washout itself to identify this location.
9. Remove leavings from the washout when at approximately 75% capacity to limit overflow events. Replace the tarp, sand bags or other temporary structural components when no longer functional. When utilizing alternative or proprietary products, follow manufacturer's instructions.
10. At the completion of the concrete work, remove remaining leavings and dispose of in an approved disposal facility. Fill pit, if applicable, and stabilize any disturbance caused by removal of washout.

HERBICIDES, PESTICIDES AND RODENTICIDES

1. Store and apply herbicides, pesticides and rodenticides in accordance with label restrictions.
2. Store herbicides, pesticides and rodenticides in their original containers with the label, which lists directions for use, ingredients and first aid steps in case of accidental poisoning.
3. Do not store herbicides, pesticides and rodenticides in areas where flooding is possible or where they may spill or leak into wells, stormwater drains, ground water or surface water. If a spill occurs, clean area immediately.
4. Do not stockpile these materials onsite.

HAZARDOUS AND TOXIC WASTE

1. Create designated hazardous waste collection areas on-site.
2. Place hazardous waste containers under cover or in secondary containment.
3. Do not store hazardous chemicals, drums or bagged materials directly on the ground.

NCG01 GROUND STABILIZATION AND MATERIALS HANDLING | EFFECTIVE: 04/01/19

PART III
SELF-INSPECTION, RECORDKEEPING AND REPORTING

SECTION A: SELF-INSPECTION

Self-inspections are required during normal business hours in accordance with the table below. When adverse weather or site conditions would cause the safety of the inspection personnel to be in jeopardy, the inspection may be delayed until the next business day on which it is safe to perform the inspection. In addition, when a storm event of equal to or greater than 1.0 inch occurs outside of normal business hours, the self-inspection shall be performed upon the commencement of the next business day. Any time when inspections were delayed shall be noted in the Inspection Record.

Inspect	Frequency (during normal business hours)	Inspection records must include:
(1) Rain gauge maintained in good working order	Daily	Daily rainfall amounts. If no daily rain gauge observations are made during weekend or holiday periods, and no individual-day rainfall information is available, record the cumulative rain measurement for those un-attended days (and this will determine if a site inspection is needed). Days on which no rainfall occurred shall be recorded as "zero." The permittee may use another rain-monitoring device approved by the Division.
(2) E&SC Measures	At least once per 7 calendar days and within 24 hours of a rain event ≥ 1.0 inch in 24 hours	1. Identification of the measures inspected, 2. Date and time of the inspection, 3. Name of the person performing the inspection, 4. Indication of whether the measures were operating properly, 5. Description of maintenance needs for the measure, 6. Description, evidence, and date of corrective actions taken.
(3) Stormwater discharge outfalls (SDOs)	At least once per 7 calendar days and within 24 hours of a rain event ≥ 1.0 inch in 24 hours	1. Identification of the discharge outfalls inspected, 2. Date and time of the inspection, 3. Name of the person performing the inspection, 4. Evidence of indicators of stormwater pollution such as oil sheen, floating or suspended solids or discoloration, 5. Indication of visible sediment leaving the site, 6. Description, evidence, and date of corrective actions taken.
(4) Perimeter of site	At least once per 7 calendar days and within 24 hours of a rain event ≥ 1.0 inch in 24 hours	If visible sedimentation is found outside site limits, then a record of the following shall be made: 1. Actions taken to clean up or stabilize the sediment that has left the site limits, 2. Description, evidence, and date of corrective actions taken, and 3. An explanation as to the actions taken to control future releases.
(5) Streams or wetlands onsite or offsite (where accessible)	At least once per 7 calendar days and within 24 hours of a rain event ≥ 1.0 inch in 24 hours	If the stream or wetland has increased visible sedimentation or a stream has visible increased turbidity from the construction activity, then a record of the following shall be made: 1. Description, evidence and date of corrective actions taken, and 2. Records of the required reports to the appropriate Division Regional Office per Part III, Section C, Item (2)(a) of this permit of this permit.
(6) Ground stabilization measures	After each phase of grading	1. The phase of grading (installation of perimeter E&SC measures, clearing and grubbing, installation of storm drainage facilities, completion of all land-disturbing activity, construction or redevelopment, permanent ground cover). 2. Documentation that the required ground stabilization measures have been provided within the required timeframe or an assurance that they will be provided as soon as possible.

NOTE: The rain inspection resets the required 7 calendar day inspection requirement.

PART III
SELF-INSPECTION, RECORDKEEPING AND REPORTING

SECTION B: RECORDKEEPING

1. E&SC Plan Documentation

The approved E&SC plan as well as any approved deviation shall be kept on the site. The approved E&SC plan must be kept up-to-date throughout the coverage under this permit. The following items pertaining to the E&SC plan shall be documented in the manner described:

Item to Document	Documentation Requirements
(a) Each E&SC Measure has been installed and does not significantly deviate from the locations, dimensions and relative elevations shown on the approved E&SC Plan.	Initial and date each E&SC Measure on a copy of the approved E&SC Plan or complete, date and sign an inspection report that lists each E&SC Measure shown on the approved E&SC Plan. This documentation is required upon the initial installation of the E&SC Measures or if the E&SC Measures are modified after initial installation.
(b) A phase of grading has been completed.	Initial and date a copy of the approved E&SC Plan or complete, date and sign an inspection report to indicate completion of the construction phase.
(c) Ground cover is located and installed in accordance with the approved E&SC Plan.	Initial and date a copy of the approved E&SC Plan or complete, date and sign an inspection report to indicate compliance with approved ground cover specifications.
(d) The maintenance and repair requirements for all E&SC Measures have been performed.	Complete, date and sign an inspection report.
(e) Corrective actions have been taken to E&SC Measures.	Initial and date a copy of the approved E&SC Plan or complete, date and sign an inspection report to indicate the completion of the corrective action.

2. Additional Documentation

In addition to the E&SC Plan documents above, the following items shall be kept on the site

and available for agency inspectors at all times during normal business hours, unless the Division provides a site-specific exemption based on unique site conditions that make this requirement not practical:

(a) This general permit as well as the certificate of coverage, after it is received.

(b) Records of inspections made during the previous 30 days. The permittee shall record the required observations on the Inspection Record Form provided by the Division or a similar inspection form that includes all the required elements. Use of electronically-available records in lieu of the required paper copies will be allowed if shown to provide equal access and utility as the hard-copy records.

(c) All data used to complete the Notice of Intent and older inspection records shall be maintained for a period of three years after project completion and made available upon request. [40 CFR 122.41]

PART III
SELF-INSPECTION, RECORDKEEPING AND REPORTING

SECTION C: REPORTING

1. Occurrences that must be reported

Permittees shall report the following occurrences:

(a) Visible sediment deposition in a stream or wetland.

(b) Oil spills if:
- They are 25 gallons or more,
- They are less than 25 gallons but cannot be cleaned up within 24 hours,
- They cause sheen on surface waters (regardless of volume), or
- They are within 100 feet of surface waters (regardless of volume).

(a) Releases of hazardous substances in excess of reportable quantities under Section 311 of the Clean Water Act (Ref: 40 CFR 110.3 and 40 CFR 117.3) or Section 102 of CERCLA (Ref: 40 CFR 302.4) or G.S. 143-215.85.

(b) Anticipated bypasses and unanticipated bypasses.

(c) Noncompliance with the conditions of this permit that may endanger health or the environment.

2. Reporting Timeframes and Other Requirements

After a permittee becomes aware of an occurrence that must be reported, he shall contact the appropriate Division regional office within the timeframes and in accordance with the other requirements listed below. Occurrences outside normal business hours may also be reported to the Division's Emergency Response personnel at (800) 662-7956, (800) 858-0368 or (919) 733-3300.

Occurrence	Reporting Timeframes (After Discovery) and Other Requirements
(a) Visible sediment deposition in a stream or wetland	• ***Within 24 hours***, an oral or electronic notification. • ***Within 7 calendar days,*** a report that contains a description of the sediment and actions taken to address the cause of the deposition. Division staff may waive the requirement for a written report on a case-by-case basis. • If the stream is named on the NC 303(d) list as impaired for sediment-related causes, the permittee may be required to perform additional monitoring, inspections or apply more stringent practices if staff determine that additional requirements are needed to assure compliance with the federal or state impaired-waters conditions.
(b) Oil spills and release of hazardous substances per Item 1(b)-(c) above	• ***Within 24 hours***, an oral or electronic notification. The notification shall include information about the date, time, nature, volume and location of the spill or release.
(c) Anticipated bypasses [40 CFR 122.41(m)(3)]	• ***A report at least ten days before the date of the bypass, if possible.*** The report shall include an evaluation of the anticipated quality and effect of the bypass.
(d) Unanticipated bypasses [40 CFR 122.41(m)(3)]	• ***Within 24 hours***, an oral or electronic notification. • ***Within 7 calendar days,*** a report that includes an evaluation of the quality and effect of the bypass.
(e) Noncompliance with the conditions of this permit that may endanger health or the environment[40 CFR 122.41(l)(7)]	• ***Within 24 hours***, an oral or electronic notification. • ***Within 7 calendar days***, a report that contains a description of the noncompliance, and its causes; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time noncompliance is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance. [40 CFR 122.41(l)(6). • Division staff may waive the requirement for a written report on a case-by-case basis.

NCG01 SELF-INSPECTION, RECORDKEEPING AND REPORTING | EFFECTIVE: 04/01/19

Know what's below. Call before you dig.

ISSUED FOR: ☐ PRELIMINARY ☑ PERMITTING ☐ BID ☐ CONSTRUCTION

REVISIONS:

CLIENT INFORMATION:

CK WILMINGTON
THREE PHASE A, LLC
CHARLOTTE, NC

PARAMOUNTE ENGINEERING
122 Cinema Drive
Wilmington, North Carolina 28403
(910) 791-6707 (O) (910) 791-6760 (F)
NC License #: C-2846

NPDES NOTES

WILMINGTON THREE PHASE A
CITY OF WILMINGTON
NORTH CAROLINA

PROJECT STATUS
CONCEPTUAL LAYOUT:
PRELIMINARY LAYOUT:
FINAL DESIGN:
RELEASED FOR CONST:

DRAWING INFORMATION
DATE: 03.25.21
ISSUED: AS NOTED
REVISIONED: PTED
DRAWN: DJF
CHECKED: DJF

Professional Seal redacted on electronic copy per City of Wilmington Policy

C-1.1

PEI JOB#: 20195.PE

MATCH LINE - SEE SHEET C-1.3

NC83(NSRS2011)

BREEZEWOOD
PID: 06500-003-098-000
CB 11, PG 30
ZONING: MF-M (SD)
USE: MF RESIDENTIAL

BREEZEWOOD DRIVE
(60' PUBLIC R.O.W.)

EXISTING LIGHT POLE

REEZEWOOD
6500-003-097-000
CB 11, PG 47
IING: MF-M (SD)
MF RESIDENTIAL

35.0' DRAINAGE EASEMENT CB: 11, PG 30

S 44°41'28" W
1013.46'

SUMMERLIN FALLS SEC. 15
PID: 06520-012-001-000
MB 42, PG 31
ZONING: MF-L (SD)
USE: MF RESIDENTIAL

SUMMERLIN FALLS SEC. 16
PID: 06520-012-001-000
MB 44, PG 137
ZONING: MF-L (SD)
USE: MF RESIDENTIAL

SUMMERLIN FALLS SEC. 17
PID: 06520-012-001-000
MB 45, PG 106
ZONING: MF-L (SD)
USE: MF RESIDENTIAL

SUMMERLIN FALLS SEC. 20
PID: 06520-012-001-000
MB 46, PG 69
ZONING: MF-M (SD)
USE: MF RESIDENTIAL

GEORGE ANDERSON
(60' PUBLIC R.O.W.)

Know what's below. Call before you dig.

GRAPHIC SCALE
0 25 50 100 200
SCALE: 1"=50'

ISSUED FOR: ☐ PRELIMINARY ☑ PERMITTING ☐ BID ☐ CONSTRUCTION

REVISIONS:

CLIENT INFORMATION:

CK WILMINGTON
THREE PHASE A, LLC
CHARLOTTE, NC

PARAMOUNTE ENGINEERING, INC.
122 Cinema Drive
Wilmington, North Carolina 28403
(910) 791-6707 (O) (910) 791-6760 (F)
NC License #: C-2846

SITE INVENTORY PLAN

WILMINGTON THREE PHASE A
CITY OF WILMINGTON
NORTH CAROLINA

PROJECT STATUS
CONCEPTUAL LAYOUT:
PRELIMINARY LAYOUT:
FINAL PLAT:
RELEASED FOR CONST:

DRAWING INFORMATION
DATE: 03.8.21
SCALE: 1" = 50'
DESIGNED: DF
DRAWN: DF
CHECKED: DF

Professional Seal redacted on electronic copy per City of Wilmington Policy

C-1.2

PEI JOB#: 20195.PE

MATCH LINE - SEE SHEET C-1.2

EXISTING TEMPORARY SWALE TO BE PIPED AND FILLED AS PART OF A SEPARATE PROJECT FOR THE EXTENSION OF CHIPPENHAM DRIVE.

SAWCUT & REMOVE EXISTING SIDEWALK, REMOVE TO THE NEAREST FULL JOINT/PANEL.

SAWCUT & REMOVE EXISTING CURB & GUTTER.

EXISTING TRANSFORMER TO BE RELOCATED. COORDINATE WITH UTILITY PROVIDER.

SAWCUT & REMOVE EXISTING PAVEMENT FOR SANITARY SEWER MAIN EXTENSION. REPAIR PAVEMENT PER CITY STANDARD DETAIL SD 1-05.

SAWCUT & REMOVE EXISTING PAVEMENT, CURB & GUTTER FOR DOMESTIC & FIRE SERVICES. REPAIR PAVEMENT PER CITY STANDARD DETAIL SD 1-05.

SAWCUT & REMOVE EXISTING SIDEWALK, REMOVE TO THE NEAREST FULL JOINT/PANEL.

TEMPORARY PRIVATE DRAINAGE EASEMENT MB 92, PG 58

DUSTY MILLER LN. 60' PUBLIC RIGHT OF WAY

CHIPPENHAM DRIVE 60' PUBLIC R/W

GEORGE ANDERSON (60' PUBLIC R.O.W.)

WILMINGTON GALLERY I LLC RB580-062-21-1-000 DB 6165, PG 172

S 44°38'34" W 974.06'

Know what's below. Call before you dig. 811

GRAPHIC SCALE 0 25 50 100 200

SCALE: 1" = 50'

ISSUED FOR: ☐ PRELIMINARY ☑ PERMITTING ☐ BID ☐ CONSTRUCTION

REVISIONS:

CLIENT INFORMATION:
CK WILMINGTON
THREE PHASE A, LLC
CHARLOTTE, NC

PARAMOUNTE ENGINEERING, INC.
122 Cinema Drive
Wilmington, North Carolina 28403
(910) 791-6707 (O) (910) 791-6760 (F)
NC License #: C-2846

SITE INVENTORY PLAN

WILMINGTON THREE PHASE A
CITY OF WILMINGTON
NORTH CAROLINA

PROJECT STATUS
CONCEPTUAL LAYOUT:
PRELIMINARY LAYOUT:
FINAL:
RELEASED FOR CONST:

DRAWING INFORMATION
DATE: 08.26.21
SCALE: 1" = 50'
DESIGNED: DF
DRAWN: DF
CHECKED: DF

Professional Seal redacted on electronic copy per City of Wilmington Policy

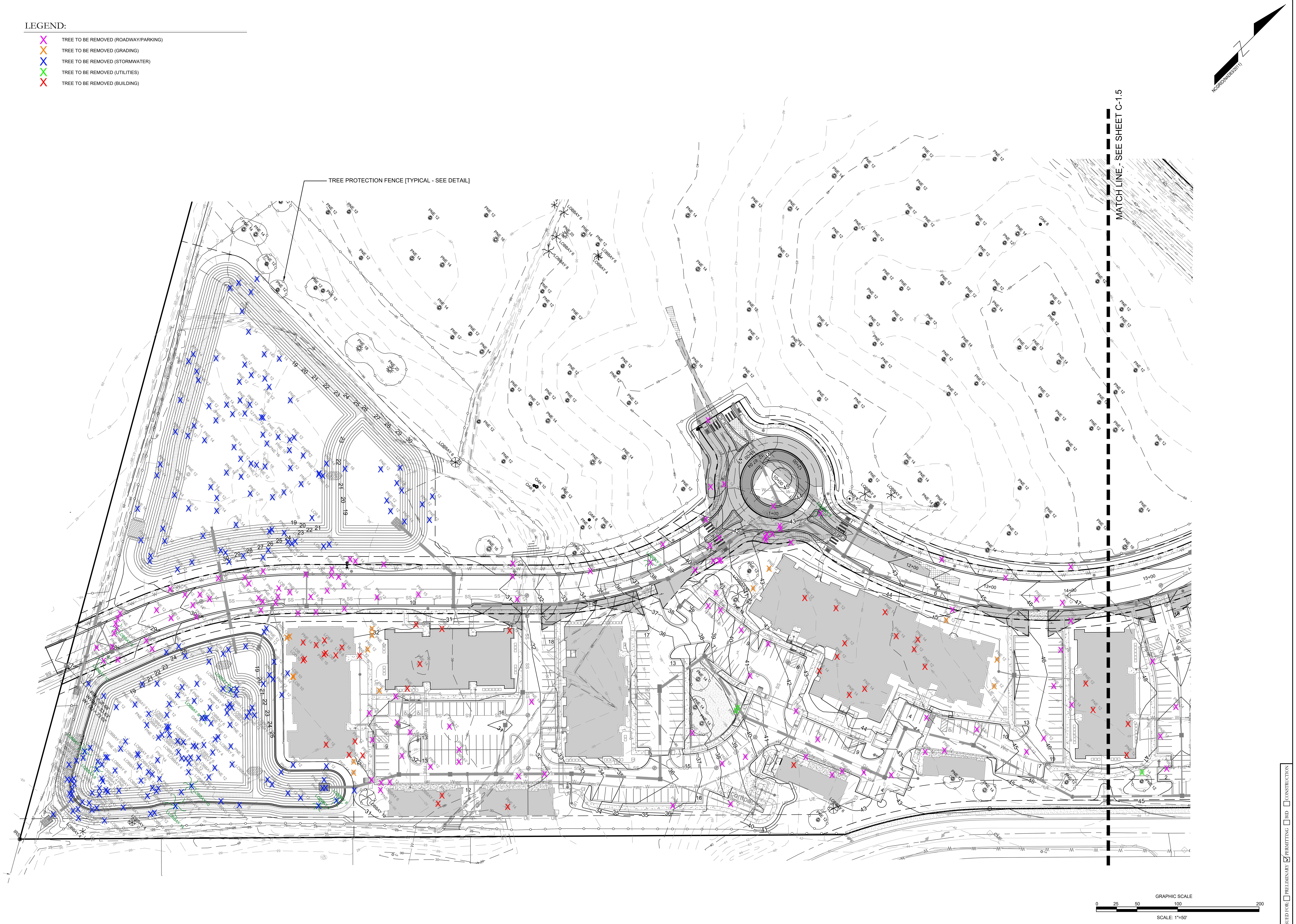
C-1.3

PEI JOB#: 20195.PE

TREE REMOVAL PLAN

LEGEND:

- X TREE TO BE REMOVED (ROADWAY/PARKING)
- X TREE TO BE REMOVED (GRADING)
- X TREE TO BE REMOVED (STORMWATER)
- X TREE TO BE REMOVED (UTILITIES)
- X TREE TO BE REMOVED (BUILDING)



ISSUED FOR: ☐ PRELIMINARY ☑ PERMITTING ☐ BID ☐ CONSTRUCTION

REVISIONS:

CLIENT INFORMATION:

CK WILMINGTON
THREE PHASE A, LLC
CHARLOTTE, NC

PARAMOUNTE ENGINEERING, INC.
122 Cinema Drive
Wilmington, North Carolina 28403
(910) 791-6707 (O) (910) 791-6760 (F)
NC License #: C-2846

TREE REMOVAL PLAN

WILMINGTON THREE PHASE A
CITY OF WILMINGTON
NORTH CAROLINA

PROJECT STATUS
CONCEPTUAL LAYOUT:
PRELIMINARY LAYOUT:
FINAL DESIGN:
RELEASED FOR CONST:

DRAWING INFORMATION

DATE:	03.25.21
SCALE:	1" = 50
DESIGNED:	DF
DRAWN:	DF
CHECKED:	DF

Professional Seal redacted on electronic copy per City of Wilmington Policy

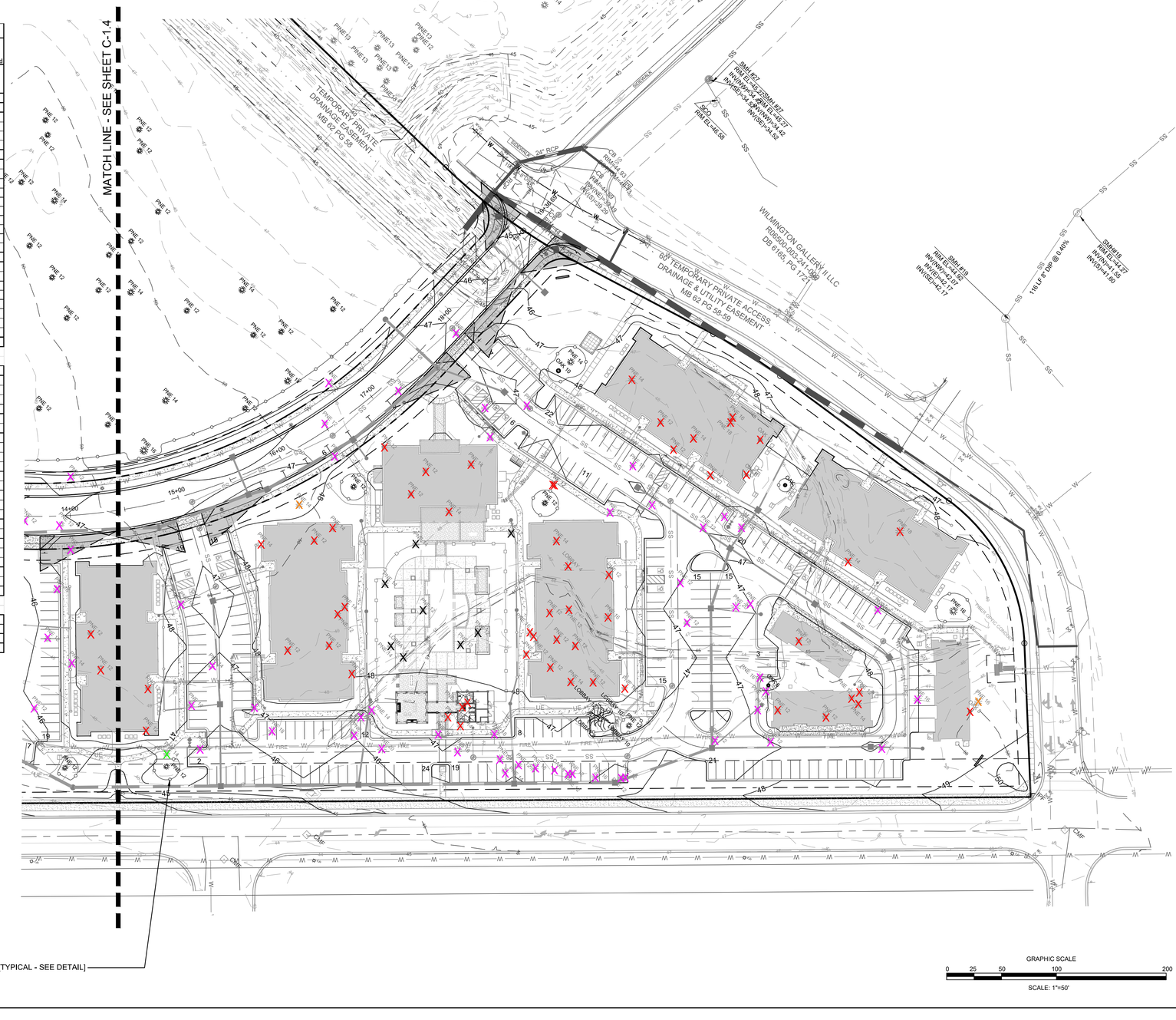
C-1.4

PEI JOB#: 20195.PE

Wilmington Three Phase A Tree Removal & Required Mitigation

Qty of Trees	Caliper Inches*	Individual Trunk Calipers AND Individual Cluster Trunks	Tree Common Name	City Tree Type Classification	Total Cal. Inches to be Removed	% Mitigation	Significant	Location	Essential Site Improvements	Total Qty. of Mitigation Trees Required
Note: * All listed as total caliper inches for entire tree cluster or single tree trunk caliper in compliance with City of Wilmington Land Development Code definition for " diameter at breast height"										
Essential Site Improvements: It is anticipated that all trees will be removed for essential site improvements, so only significant trees require mitigation										
REGULATED & SIGNIFICANT TREES										
Category 1 (100% Mitigation)										
2	4	4	LOBBAY (LOBLOLLY BAY)	flowering	8	100%		Building	yes	
4	8	8	OAK (WATER OR LIVE OAK)	hardwood	32	100%		Building	yes	
1	9	9	OAK (WATER OR LIVE OAK)	hardwood	9	100%		Building	yes	
3	10	10	OAK (WATER OR LIVE OAK)	hardwood	30	100%		Building	yes	
1	4	4	LOBBAY (LOBLOLLY BAY)	flowering	4	100%		Pool Courtyard	no	**3**
1	6	6	AH (AMERICAN HOLLY)	hardwood	6	100%		Roadway/Parking	yes	
10	4	4	LOBBAY (LOBLOLLY BAY)	flowering	40	100%		Roadway/Parking	yes	
5	6	6	LOBBAY (LOBLOLLY BAY)	flowering	30	100%		Roadway/Parking	yes	
3	8	8	LOBBAY (LOBLOLLY BAY)	flowering	24	100%	**yes**	Roadway/Parking	yes	**16**
1	10	10	LOBBAY (LOBLOLLY BAY)	flowering	10	100%	**yes**	Roadway/Parking	yes	**7**
1	4	4	MAG (SOUTHERN MAGNOLIA)	flowering	4	100%		Roadway/Parking	yes	
1	8	8	MAP (RED MAPLE)	hardwood	8	100%		Roadway/Parking	yes	
4	8	8	OAK (WATER OR LIVE OAK)	hardwood	32	100%		Roadway/Parking	yes	
1	10	10	OAK (WATER OR LIVE OAK)	hardwood	10	100%		Roadway/Parking	yes	
1	14	14	OAK (WATER OR LIVE OAK)	hardwood	14	100%		Roadway/Parking	yes	
2	10	10	OAK (WATER OR LIVE OAK)	hardwood	20	100%		Grading	yes	
44	4	4	LOBBAY (LOBLOLLY BAY)	flowering	176	100%		Stormwater	yes	
33	6	6	LOBBAY (LOBLOLLY BAY)	flowering	198	100%		Stormwater	yes	
5	8	8	LOBBAY (LOBLOLLY BAY)	flowering	40	100%	**yes**	Stormwater	yes	**27**
2	10	10	LOBBAY (LOBLOLLY BAY)	flowering	20	100%	**yes**	Stormwater	yes	**13**
1	14	14	LOBBAY (LOBLOLLY BAY)	flowering	14	100%	**yes**	Stormwater	yes	**9**
6	8	8	OAK (WATER OR LIVE OAK)	hardwood	48	100%		Stormwater	yes	
2	10	10	OAK (WATER OR LIVE OAK)	hardwood	20	100%		Stormwater	yes	
2	12	12	OAK (WATER OR LIVE OAK)	hardwood	24	100%		Stormwater	yes	
					Total Category 1 Significant & Regulated Mitigation Trees Required:					**75**
					Total Category 1 Regulated Trees To Be Removed with Essential Site Improvements:				**125**	
Category 3 (50% Mitigation)										
48	12	12	PNE (LOBLOLLY)	conifer	576	50%		Building	yes	
26	14	14	PNE (LOBLOLLY)	conifer	364	50%		Building	yes	
5	16	16	PNE (LOBLOLLY)	conifer	80	50%		Building	yes	
2	18	18	PNE (LOBLOLLY)	conifer	36	50%		Building	yes	
4	12	12	PINE (LOBLOLLY)	conifer	48	50%		Pool Courtyard	no	**16**
3	14	14	PINE (LOBLOLLY)	conifer	42	50%		Pool Courtyard	no	**14**
80	12	12	PNE (LOBLOLLY)	conifer	960	50%		Roadway/Parking	yes	
37	14	14	PNE (LOBLOLLY)	conifer	518	50%		Roadway/Parking	yes	
2	15	15	PNE (LOBLOLLY)	conifer	30	50%		Roadway/Parking	yes	
16	16	16	PNE (LOBLOLLY)	conifer	256	50%		Roadway/Parking	yes	
5	18	18	PNE (LOBLOLLY)	conifer	90	50%		Roadway/Parking	yes	
2	20	20	PNE (LOBLOLLY)	conifer	40	50%		Roadway/Parking	yes	
10	12	12	PNE (LOBLOLLY)	conifer	120	50%		Grading	yes	
4	14	14	PNE (LOBLOLLY)	conifer	56	50%		Grading	yes	
1	16	16	PINE (LOBLOLLY)	conifer	16	50%		Grading	yes	
95	12	12	PNE (LOBLOLLY)	conifer	1140	50%		Stormwater	yes	
37	14	14	PNE (LOBLOLLY)	conifer	518	50%		Stormwater	yes	
13	16	16	PNE (LOBLOLLY)	conifer	208	50%		Stormwater	yes	
4	18	18	PNE (LOBLOLLY)	conifer	72	50%		Stormwater	yes	
3	20	20	PNE (LOBLOLLY)	conifer	60	50%		Stormwater	yes	
2	12	12	PNE (LOBLOLLY)	conifer	24	50%		Utility Extension	yes	
1	14	14	PNE (LOBLOLLY)	conifer	14	50%		Utility Extension	yes	
					Total Category 3 Significant & Regulated Mitigation Trees Required:					**30**
					Total Category 3 Regulated Trees To Be Removed with Essential Site Improvements:				**312**	

Total Qty. of Trees to be Removed (essential site improvements):	**437**	
Total Qty. of Significant & Regulated Tree Mitigation:		**105**
Total Tree Credits:		0
Total Qty. of Mitigation Trees Required on Site (or Pay in Lieu Equivalent):		**105**



ISSUED FOR: ☐ PRELIMINARY ☑ PERMITTING ☐ BID ☐ CONSTRUCTION

REVISIONS:

CLIENT INFORMATION:

CK WILMINGTON
THREE PHASE A, LLC
CHARLOTTE, NC

PARAMOUNTE ENGINEERING, INC.
122 Cinema Drive
Wilmington, North Carolina 28403
(910) 791-6707 (O) (910) 791-6760 (F)
NC License #: C-2846

TREE REMOVAL PLAN

WILMINGTON THREE PHASE A
CITY OF WILMINGTON
NORTH CAROLINA

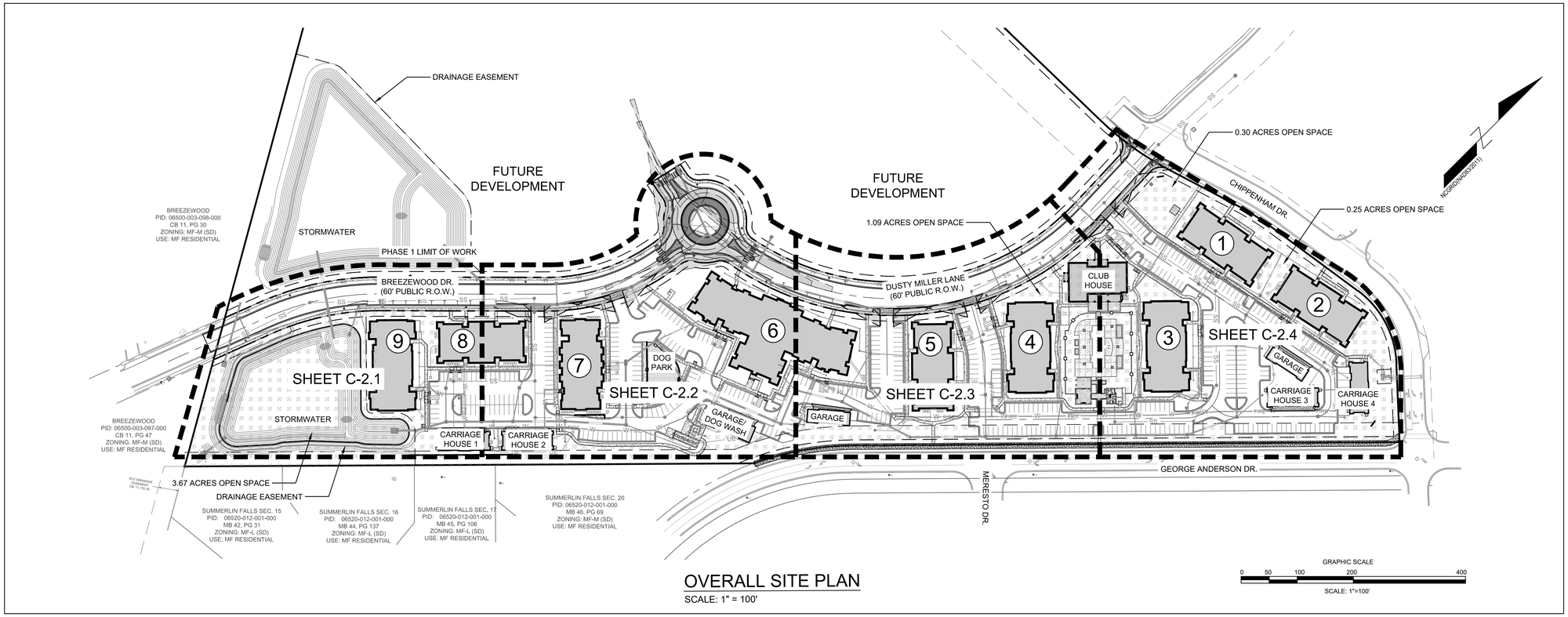
PROJECT STATUS
CONCEPTUAL LAYOUT:
PRELIMINARY LAYOUT:
PERMITTING:
RELEASED FOR CONST:

DRAWING INFORMATION
DATE: 02.26.21
SCALE: 1" = 50'
DESIGNED: DF
DRAWN: DF
CHECKED: DF

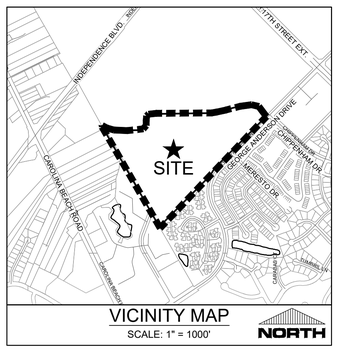
Professional Seal redacted on electronic copy per City of Wilmington Policy

C-1.5

PEI JOB#: 20195.PE

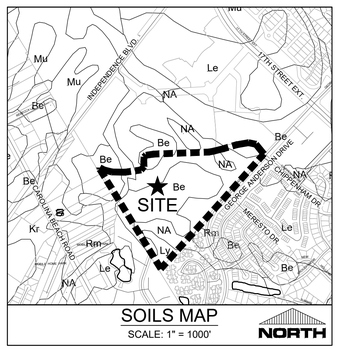


OVERALL SITE PLAN
SCALE: 1" = 100'



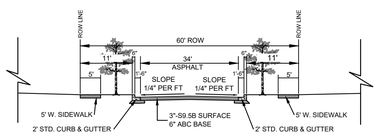
VICINITY MAP
SCALE: 1" = 1000'

NORTH

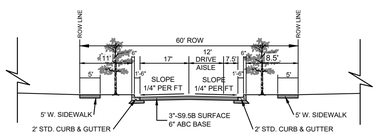


SOILS MAP
SCALE: 1" = 1000'

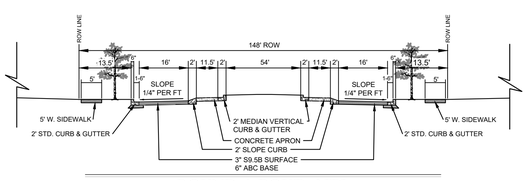
NORTH



COLLECTOR STREET WITH STD. CURB & GUTTER (60' ROW) - NTS



COLLECTOR STREET WITH STD. CURB & GUTTER & ON-STREET PARKING (60' ROW) - NTS



ROUND-A-BOUT - NTS

SITE DATA INFORMATION

OWNER INFORMATION:	CAMERON PROPERTIES LAND CO LLC 1201 GLEN MEADE RD. WILMINGTON, NC 28401
PROJECT ADDRESSES:	3743 INDEPENDENCE BLVD. WILMINGTON, NC 28403
PARCEL IDENTIFICATION #:	R06500-003-031-000
PARCEL PIN #:	3125-67-8501.000
RECORDED DEED BOOK:	DB 006256 PG001725
ZONING:	MF-M (CD)
EXISTING USE:	VACANT LAND
PROPOSED USE:	MULTIFAMILY RESIDENTIAL
TOTAL SITE AREA :	41.85 +/- ACRES
SITE AREA FOR PROPOSED PHASE:	17.61 +/- ACRES
SITE AREA FOR LOT A:	14.85 +/- ACRES
FLOOD INFORMATION:	PARCELS LOCATED IN FLOOD ZONE X, WHICH IS NOT A SPECIAL FLOOD HAZARD AREA AS DETERMINED BY FEMA FLOOD PANEL 3125 MAP NUMBER 33720312500kK, DATED 8/28/2018
FEMA FLOODPLAIN NOTE:	NO 100-YEAR FLOODPLAIN EXISTS ON SITE
CONSERVATION RESOURCES DISTRICT:	POCOSIN
OVERLAY ZONE:	S 17TH / INDEPENDENCE BLVD.
CAMA AREAS OF ENVIRONMENTAL CONCERNS:	NONE
CAMA FUTURE LAND USE:	URBAN
EXISTING HISTORIC AND ARCHAEOLOGICAL SITES:	NONE
EXISTING WETLANDS:	NONE
EXISTING SURFACE WATERS:	NONE

DWELLING UNITS*
ACREAGE = 25.52 [ELEMENT AT BARCLAY] + 17.61 = 43.13+/- ACRES
UNITS = 402 [ELEMENT AT BARCLAY] + 286 = 688 (16 UNITS PER ACRE)
*UNITS PER ACRE REQUIREMENTS IS PROPOSED TO BE A COMBINATION OF THE MF-M ZONING ACREAGE AND BARCLAY WEST APARTMENT DEVELOPMENTS. ELEMENT AT BARCLAY INFORMATION TAKEN FROM HDS PLANS DATED 8.28.16 AND APPROVED 9.1.16.

DIMENSIONAL REQUIREMENTS
MF-M (CD) - MULTIFAMILY

	REQUIREMENTS	PROVIDED
MINIMUM LOT AREA:	20,000 SF	14.85 +/- ACRES
MINIMUM LOT WIDTH:	150'	725'
MAXIMUM LOT COVERAGE:	30%	22.3%
MINIMUM FRONT SETBACK:	35'	10' (CD)
MINIMUM REAR SETBACK:	25'	25'*
MINIMUM SIDE SETBACK:	20'	20'*
MAXIMUM BUILDING HEIGHT:	35'	VARIES - SEE BLDG INFO

*ADDITIONAL SETBACK PROVIDED FOR BUILDING HEIGHTS GREATER THAN 35' IN ACCORDANCE WITH SEC. 18-184(f)(2)

DISTURBED AREA (PHASE 1)
PROPOSED DISTURBED AREA 21.75 +/- ACRES

BUILDING LOT COVERAGE (PHASE 1)
TOTAL PROPOSED BUILDING SF 143,865 SF
LOT COVERAGE PERCENTAGE 22.3%

OPEN SPACE (PHASE 1 | TRACT A)
REQUIRED OPEN SPACE (35%) 5.20 ACRES
TOTAL PROPOSED OPEN SPACE 5.31 ACRES

IMPERVIOUS CALCULATIONS

EXISTING IMPERVIOUS:		
BUILDINGS:	0	SF
PAVED AREAS:	0	SF
SIDEWALKS:	0	SF
TOTAL EXISTING IMPERIOUS	0	SF
PROPOSED IMPERVIOUS:		
BUILDING:	143,965	SF
ROADS:	81,770	SF
PARKING:	171,071	SF
SIDEWALKS:	63,610	SF
FUTURE | MISC.	724,324	SF
TOTAL PROPOSED IMPERVIOUS:	1,184,740	SF

PERCENT OF PROPOSED IMPERVIOUS: 65%

PARKING CALCULATIONS
RESIDENTIAL PARKING REQUIREMENTS

MINIMUM PARKING SPACES REQUIRED:
0-1 BEDROOMS = 1.5 SPACES PER UNIT
2 BEDROOMS = 2 SPACES PER UNIT
3+ BEDROOMS = 2.5 SPACES PER UNIT

MAXIMUM PARKING SPACES ALLOWED:
2.5 PARKING SPACES PER UNIT

REQUIRED MINIMUM PARKING
0-1 BEDROOMS = 121 X 1.5 = 182 SPACES
2 BEDROOMS = 149 X 2 = 298 SPACES
3+ BEDROOMS = 16 X 2.5 = 40 SPACES
TOTAL MINIMUM PARKING SPACES REQUIRED = 520 SPACES

MAXIMUM PARKING SPACES ALLOWED:
2.5 PARKING SPACES PER UNIT
286 UNITS X 2.5 = 715 MAX. ALLOWABLE PARKING SPACES

OFF-STREET PARKING PROVIDED =	499 SPACES
ON-STREET PARKING PROVIDED =	22 SPACES
TOTAL PARKING PROVIDED =	521 SPACES
HANDICAP SPACES REQUIRED =	11 SPACES
HANDICAP SPACES PROVIDED =	22 SPACES

BICYCLE PARKING REQUIREMENTS

BICYCLE PARKING SPACES REQUIRED =	20 SPACES
BICYCLE PARKING SPACES PROVIDED =	20 SPACES

SITE TRIP GENERATION:

LAND USE:	APARTMENTS
ITE CODE:	220
24 HR VOLUMES:	2,116
AM PEAK HOUR TRIPS:	30 ENTER | 99 EXIT
PM PEAK HOUR TRIPS:	95 ENTER | 55 EXIT

PROPOSED USES:

BUILDING 1: (12) 1-BEDROOM
3- STORY (38'-6") (12) 2-BEDROOM
(TYPE V-A SPRINKLED) 24 UNITS TOTAL
10,625 SF FOOTPRINT | 30,672 GFA

BUILDING 2: (12) 1-BEDROOM
3- STORY (38'-6") (12) 2-BEDROOM
(TYPE V-A SPRINKLED) 24 UNITS TOTAL
10,625 SF FOOTPRINT | 30,672 GFA

BUILDING 3: (24) 2-BEDROOM
3- STORY (37'-8") 24 UNITS TOTAL
(TYPE V-A SPRINKLED)
12,094 SF FOOTPRINT | 34,935 GFA

BUILDING 4: (24) 2-BEDROOM
3- STORY (37'-8") 24 UNITS TOTAL
(TYPE V-A SPRINKLED)
12,094 SF FOOTPRINT | 34,935 GFA

BUILDING 5: (12) 1-BEDROOM
3- STORY (38'-6") (12) 2-BEDROOM
(TYPE V-A SPRINKLED) 24 UNITS TOTAL
10,625 SF FOOTPRINT | 30,672 GFA

BUILDING 6: (49) 1-BEDROOM
4- STORY (54') (15) 2-BEDROOM
(TYPE V-A SPRINKLED) (16) 3-BEDROOM
27,255 SF FOOTPRINT (80) UNITS
TOTAL
107,190 GFA

BUILDING 7: (24) 1-BEDROOM
3- STORY (40') (6) 2-BEDROOM
(TYPE V-A SPRINKLED) 30 UNITS TOTAL
11,454 SF FOOTPRINT | 32,508 GFA

BUILDING 8: (12) 1-BEDROOM
3- STORY (38'-6") (12) 2-BEDROOM
(TYPE V-A SPRINKLED) 24 UNITS TOTAL
10,625 SF FOOTPRINT | 30,672 GFA

BUILDING 9: (24) 2-BEDROOM
3- STORY (37'-8") 24 UNITS TOTAL
(TYPE V-A SPRINKLED)
12,094 SF FOOTPRINT | 34,935 GFA

CARRIAGE HOUSES #1 - #4: (2) 2-BEDROOM
2-STORY (28'-6") EACH [8 TOTAL]
(TYPE V-B SPRINKLED)
2,820 SF FOOTPRINT | 5,236 GFA

CLUBHOUSE
2-STORY (29')
(TYPE V-B SPRINKLED)
7,506 SF FOOTPRINT | 10,132 GFA

POOL PAVILION
1-STORY (11')
(TYPE V-B)

DOG SPA / MAINT.
1-STORY (11')
(TYPE V-B)

GARAGE
1-STORY (11')
(TYPE V-B)

TOTALS:
1-BEDROOM = 121 UNITS
2-BEDROOM = 149 UNITS
3-BEDROOM = 16 UNITS

811 Know what's below. Call before you dig.

ISSUED FOR: PRELIMINARY PERMITTING BID CONSTRUCTION

REVISIONS:

CLIENT INFORMATION:
CK WILMINGTON
THREE PHASE A, LLC
CHARLOTTE, NC

PARAMOUNTE ENGINEERING, INC.
122 Cinema Drive
Wilmington, North Carolina 28403
(910) 791-6707 (O) (910) 791-6760 (F)
NC License #: C-2846

OVERALL SITE PLAN AND SITE DATA INFORMATION
WILMINGTON THREE PHASE A
CITY OF WILMINGTON
NORTH CAROLINA

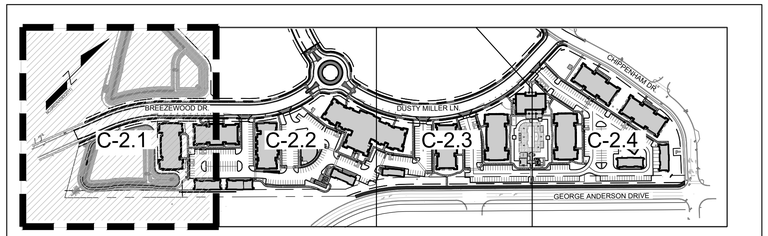
PROJECT STATUS
CONCEPTUAL LAYOUT:
PRELIMINARY LAYOUT:
PERMITTING:
RELEASED FOR CONST:

DRAWING INFORMATION
DATE: 05.25.21
SCALE: AS NOTED
DESIGNED: DF
DRAWN: IS
CHECKED: DF

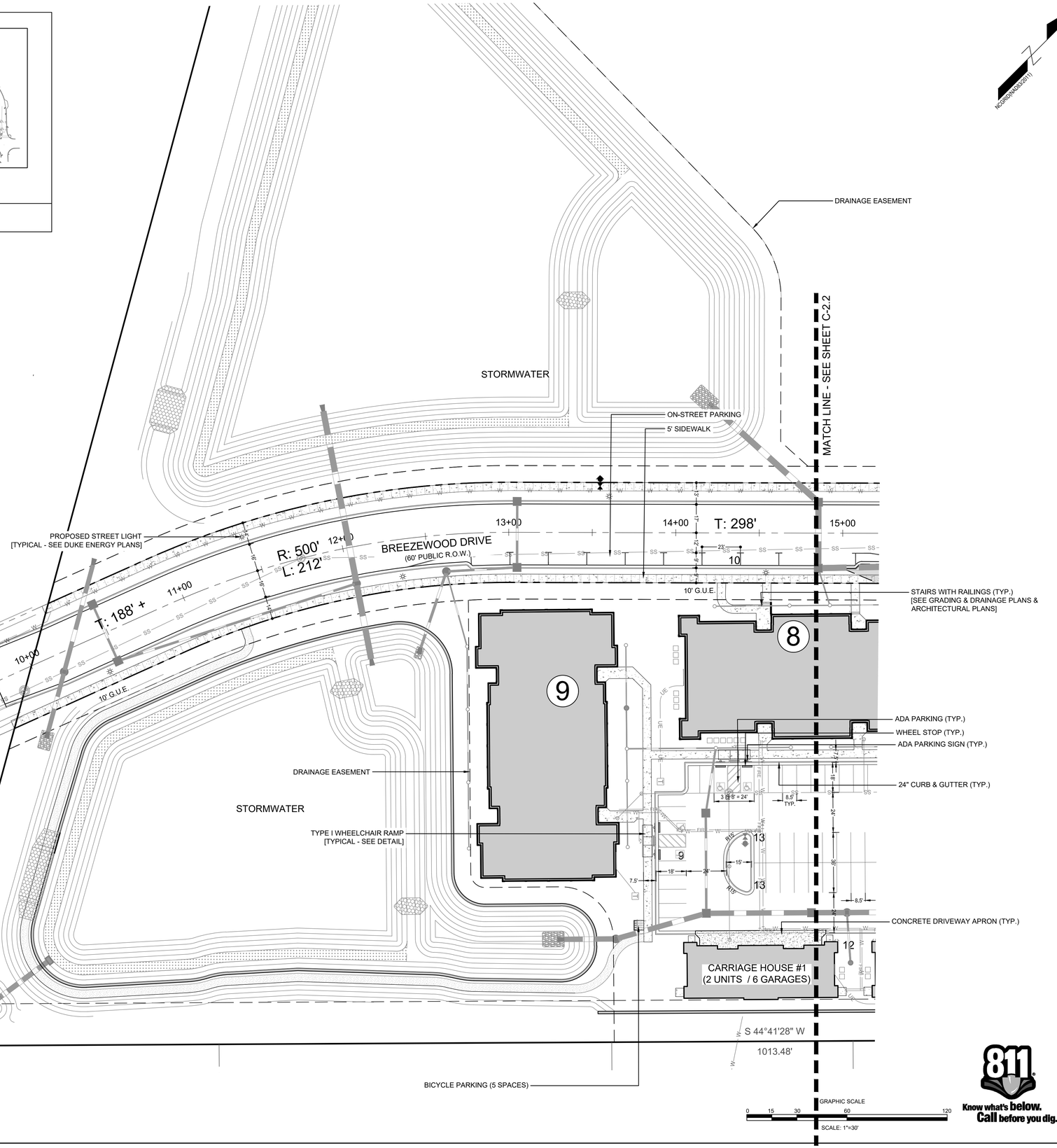
Professional Seal redacted on electronic copy per City of Wilmington Policy

C-2.0

PEI JOB#: 20195.PE



KEY MAP
SCALE: 1" = 250'



REVISIONS:

CLIENT INFORMATION:
CK WILMINGTON
THREE PHASE A, LLC
CHARLOTTE, NC

PARAMOUNTE ENGINEERING, INC.
122 Cinema Drive
Wilmington, North Carolina 28403
(910) 791-6707 (O) (910) 791-6760 (F)
NC License #: C-2846

SITE PLAN

WILMINGTON THREE PHASE A
CITY OF WILMINGTON
NORTH CAROLINA

PROJECT STATUS
CONCEPTUAL LAYOUT:
PRELIMINARY LAYOUT:
PRELIMINARY:
RELEASED FOR CONST:

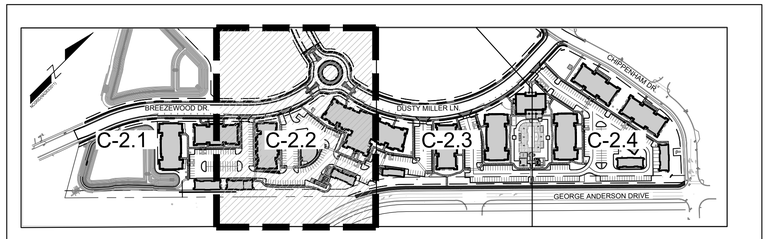
DRAWING INFORMATION
DATE: 03.24.21
SCALE: 1" = 30'
DESIGNED: DF
DRAWN: DF
CHECKED: DF

ISSUED FOR: ☐ PRELIMINARY ☑ PERMITTING ☐ BID ☐ CONSTRUCTION

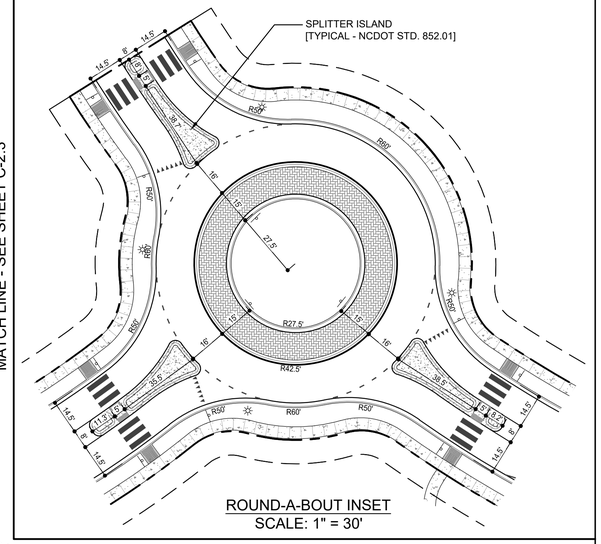
Professional Seal redacted on electronic copy per City of Wilmington Policy

C-2.1

PEI JOB#: 20195.PE



KEY MAP
SCALE: 1" = 250'



ROUND-A-BOUT INSET
SCALE: 1" = 30'

ROUND-A-BOUT DESIGN INFORMATION:

Roadway	Design Vehicle	Design Speeds (mph)			Measurements (ft)		Sight Distances (ft)			
		Entry	Circulating	Exit	Central Island, Dia.	Inscribed Circle, Dia.	Stopping on Approach	on Circulatory Roadway	Intersection	to Crosswalk on Exit
Breezewood|Stone Crop| Dusty Miller Roundabout	WB-50	25	15	15	55	117	152.7	109	190.1	-
Stone Crop to Breezewood										94
Breezewood to Dusty Miller										111
Dusty Miller to Stone Crop										160

GRAPHIC SCALE
0 15 30 60 120
SCALE: 1"=30'

811 Know what's below. Call before you dig.

ISSUED FOR: ☐ PRELIMINARY ☑ PERMITTING ☐ BID ☐ CONSTRUCTION

REVISIONS:

CLIENT INFORMATION:
CK WILMINGTON
THREE PHASE A, LLC
CHARLOTTE, NC

PARAMOUNTE ENGINEERING, INC.
122 Cinema Drive
Wilmington, North Carolina 28403
(910) 791-6707 (O) (910) 791-6760 (F)
NC License #: C-2846

SITE PLAN
WILMINGTON THREE PHASE A
CITY OF WILMINGTON
NORTH CAROLINA

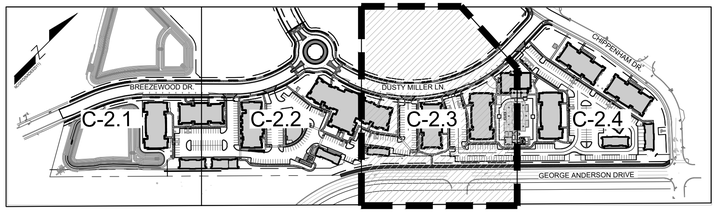
PROJECT STATUS
CONCEPTUAL LAYOUT:
PRELIMINARY LAYOUT:
PERMITTING:
RELEASED FOR CONST:

DRAWING INFORMATION
DATE: 03.26.21
SCALE: 1" = 30'
DESIGNED: DF
DRAWN: JS
CHECKED: DF

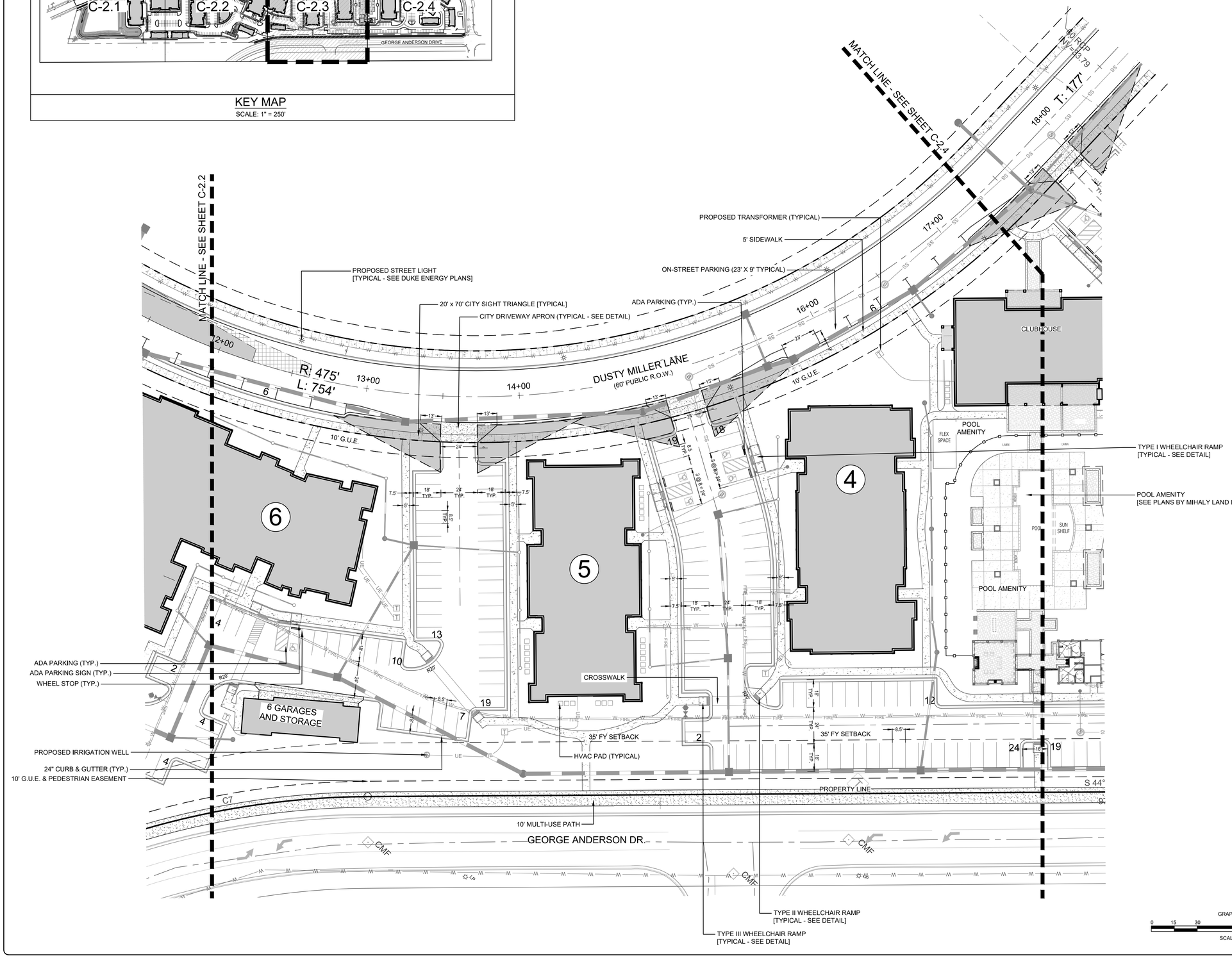
Professional Seal redacted on electronic copy per City of Wilmington Policy

C-2.2

PEI JOB#: 20195.PE



KEY MAP
SCALE: 1" = 250'



REVISIONS:

CLIENT INFORMATION:
CK WILMINGTON
THREE PHASE A, LLC
CHARLOTTE, NC

PARAMOUNTE ENGINEERING, INC.
122 Cinema Drive
Wilmington, North Carolina 28403
(910) 791-6707 (O) (910) 791-6760 (F)
NC License #: C-2846

SITE PLAN

WILMINGTON THREE PHASE A
CITY OF WILMINGTON
NORTH CAROLINA

PROJECT STATUS
CONCEPTUAL LAYOUT:
PRELIMINARY LAYOUT:
PERMITTING:
RELEASED FOR CONST:

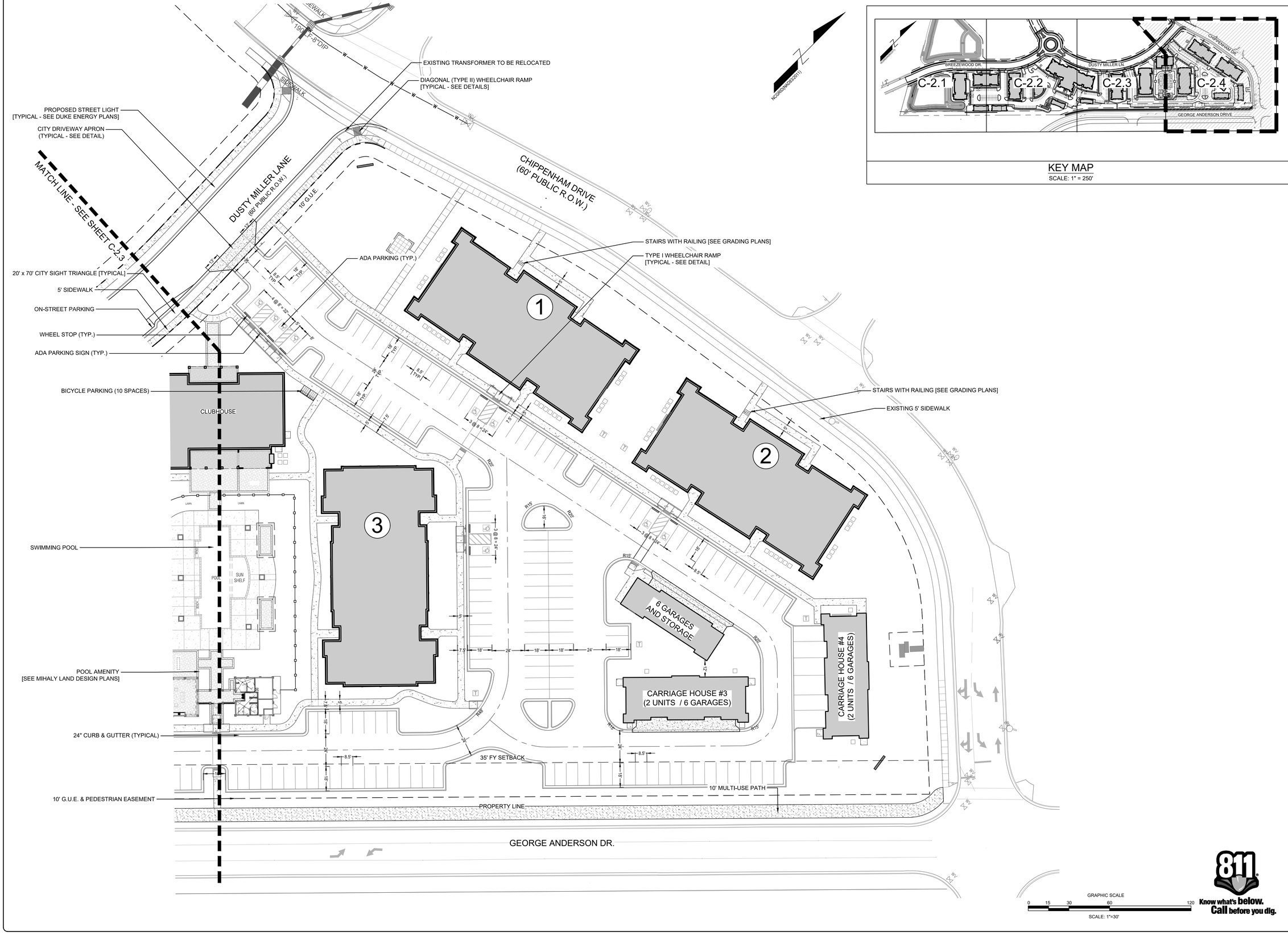
DRAWING INFORMATION
DATE: 03.15.21
SCALE: 1" = 30'
DESIGNED: DF
DRAWN: DF
CHECKED:

ISSUED FOR: ☐ PRELIMINARY ☑ PERMITTING ☐ BID ☐ CONSTRUCTION

Professional Seal redacted on electronic copy per City of Wilmington Policy

C-2.3

PEI JOB#: 20195.PE



KEY MAP
SCALE: 1" = 250'

REVISIONS:

CLIENT INFORMATION:
CK WILMINGTON
THREE PHASE A, LLC
CHARLOTTE, NC

PARAMOUNTE ENGINEERING, INC.
122 Cinema Drive
Wilmington, North Carolina 28403
(910) 791-6707 (O) (910) 791-6760 (F)
NC License #: C-2846

SITE PLAN

WILMINGTON THREE PHASE A
CITY OF WILMINGTON
NORTH CAROLINA

PROJECT STATUS
CONCEPTUAL LAYOUT:
PRELIMINARY LAYOUT:
FINAL:
RELEASED FOR CONST:

DRAWING INFORMATION
DATE: 03.26.21
SCALE: 1" = 30'
DESIGNED: DF
DRAWN: DF
CHECKED: DF

Professional Seal redacted on electronic copy per City of Wilmington Policy

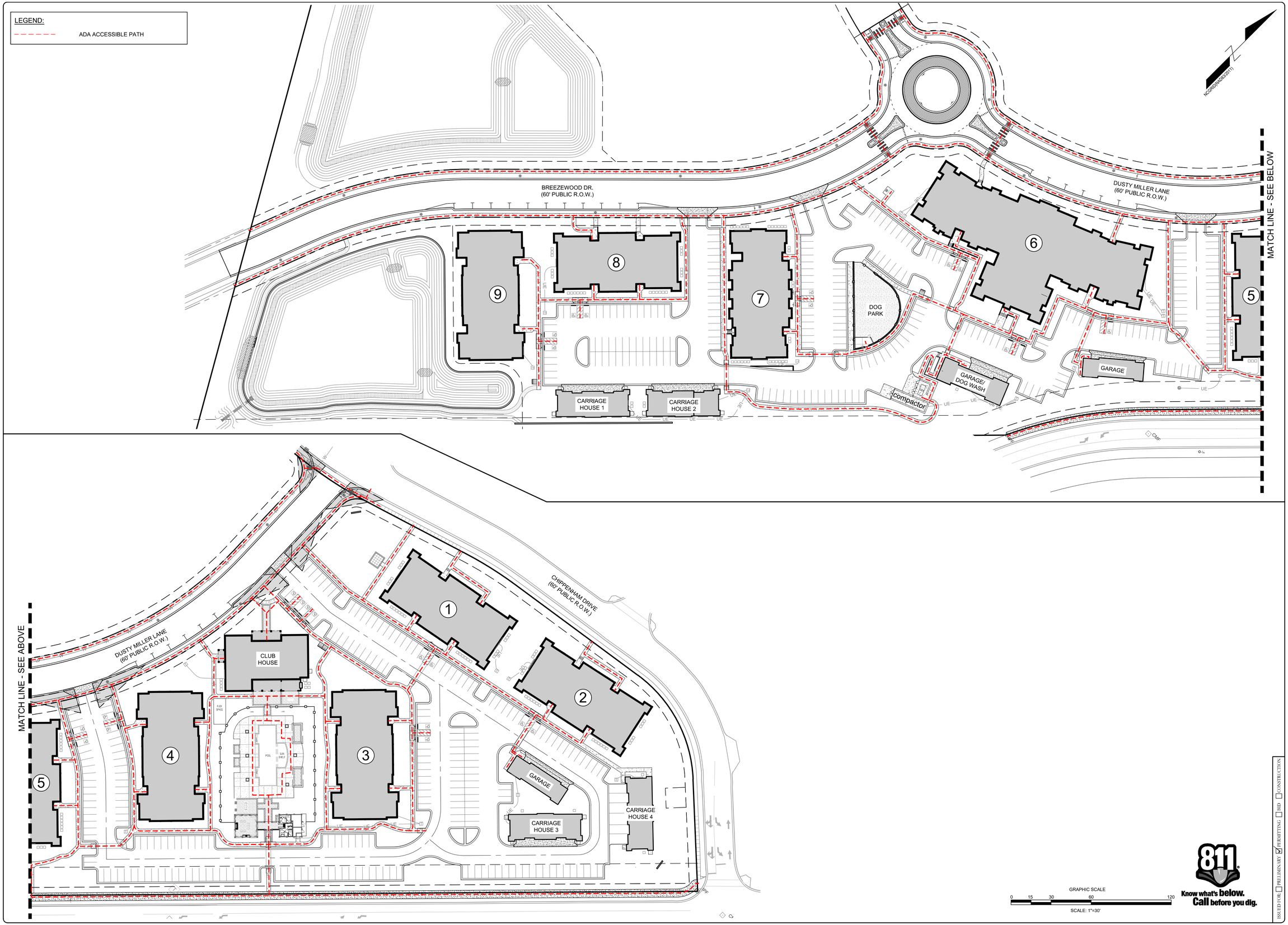
C-2.4

PEI JOB#: 20195.PE

ISSUED FOR: ☐ PRELIMINARY ☑ PERMITTING ☐ MID ☐ CONSTRUCTION

LEGEND:

ADA ACCESSIBLE PATH



GRAPHIC SCALE

0 15 30 60 120

SCALE: 1"=30'

811 Know what's below. Call before you dig.

ISSUED FOR: ☐ PRELIMINARY ☑ PERMITTING ☐ BID ☐ CONSTRUCTION

REVISIONS:

CLIENT INFORMATION:

CK WILMINGTON
THREE PHASE A, LLC
CHARLOTTE, NC

PARAMOUNTE ENGINEERING, INC.
122 Cinema Drive
Wilmington, North Carolina 28403
(910) 791-6707 (O) (910) 791-6760 (F)
NC License #: C-2846

ADA ACCESS PLAN

WILMINGTON THREE PHASE A
CITY OF WILMINGTON
NORTH CAROLINA

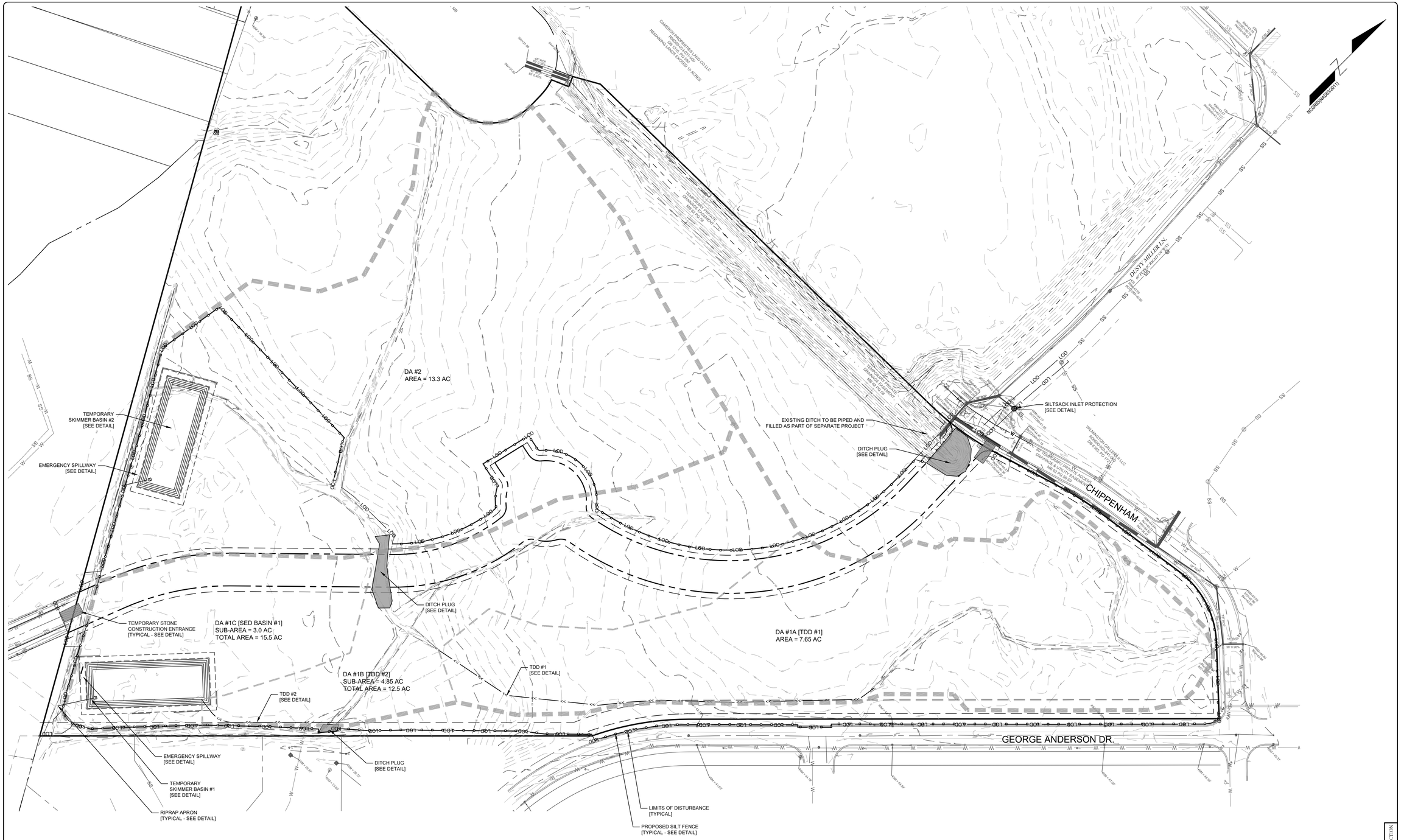
PROJECT STATUS
CONCEPTUAL LAYOUT:
PRELIMINARY LAYOUT:
PERMITTING:
RELEASED FOR CONST.:

DRAWING INFORMATION
DATE: 03.25.21
SCALE: 1" = 50'
DESIGNED: DF
DRAWN: DF
CHECKED: DF

Professional Seal redacted on electronic copy per City of Wilmington Policy

C-2.5

PEI JOB#: 20195.PE



LEGEND

- EXISTING CONTOUR — 5
- PROPOSED CONTOUR — 5
- LIMITS OF DISTURBANCE — LOD
- PROPERTY BOUNDARY
- WETLANDS — WET
- CONSTRUCTION ENTRANCE
- RIP RAP APRON
- SANITARY SEWER — SS
- TEMPORARY DIVERSION DITCH — >>
- WATTLE OR CHECK DAM
- DRAINAGE AREA
- SILT FENCE

EROSION CONTROL NOTES:

LIMITS OF DISTURBANCE = 21.75 ACRES

NOTES:

1.) SEE GENERAL NOTES SHEET (C-1.0) FOR GRADING, DRAINAGE AND EROSION CONTROL NOTES AND DETAILS FOR MORE INFORMATION.

2.) ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH ALL CITY OF WILMINGTON AND NEW HANOVER COUNTY STANDARDS AND SPECIFICATIONS.

3.) GEOTECHNICAL TESTING HAS BEEN PERFORMED ON-SITE BY ECS CAROLINAS, LLP (REFER TO REPORT). A GEOTECHNICAL ENGINEER SHALL BE CONSULTED TO CONFIRM SUITABILITY OF SUBGRADE MATERIAL AND PROPER COMPACTION IN FILL AREAS.

ASPHALT AREA NOTE:

1.) SITE CONTRACTOR SHALL STRIP TOPSOIL AND ANY UNSUITALBE MATERIAL AND PROVIDE CUT/FILL OPERATIONS TO PROVIDE A COMPACTED CONTROLLED SUBGRADE, IN ACCORDANCE WITH THE SUBSURFACE GEOTECHNICAL EXPLORATION AND TECHNICAL SPECIFICATIONS.

BUILDING PAD NOTE:

1.) SITE CONTRACTOR SHALL STRIP TOPSOIL AND ANY UNSUITALBE MATERIAL AND PROVIDE CUT/FILL OPERATIONS TO PROVIDE A COMPACTED CONTROLLED BUILDING PAD, IN ACCORDANCE WITH THE SUBSURFACE GEOTECHNICAL EXPLORATION AND TECHNICAL SPECIFICATIONS.

GRAPHIC SCALE
0 40 80 160 320
SCALE: 1"=80'

Know what's below. Call before you dig.

ISSUED FOR: ☐ PRELIMINARY ☑ PERMITTING ☐ BID ☐ CONSTRUCTION

REVISIONS:

1	PER NHC EC COMMENT
	02.17.21

CLIENT INFORMATION:

CK WILMINGTON
THREE PHASE A, LLC
CHARLOTTE, NC

PARAMOUNTE ENGINEERING, INC.
122 Cinema Drive
Wilmington, North Carolina 28403
(910) 791-6707 (O) (910) 791-6760 (F)
NC License #: C-2846

EROSION CONTROL PLAN
PHASE I
WILMINGTON THREE PHASE A
CITY OF WILMINGTON
NORTH CAROLINA

PROJECT STATUS
CONCEPTUAL LAYOUT:
PRELIMINARY LAYOUT:
FINAL DESIGN:
RELEASED FOR CONST:

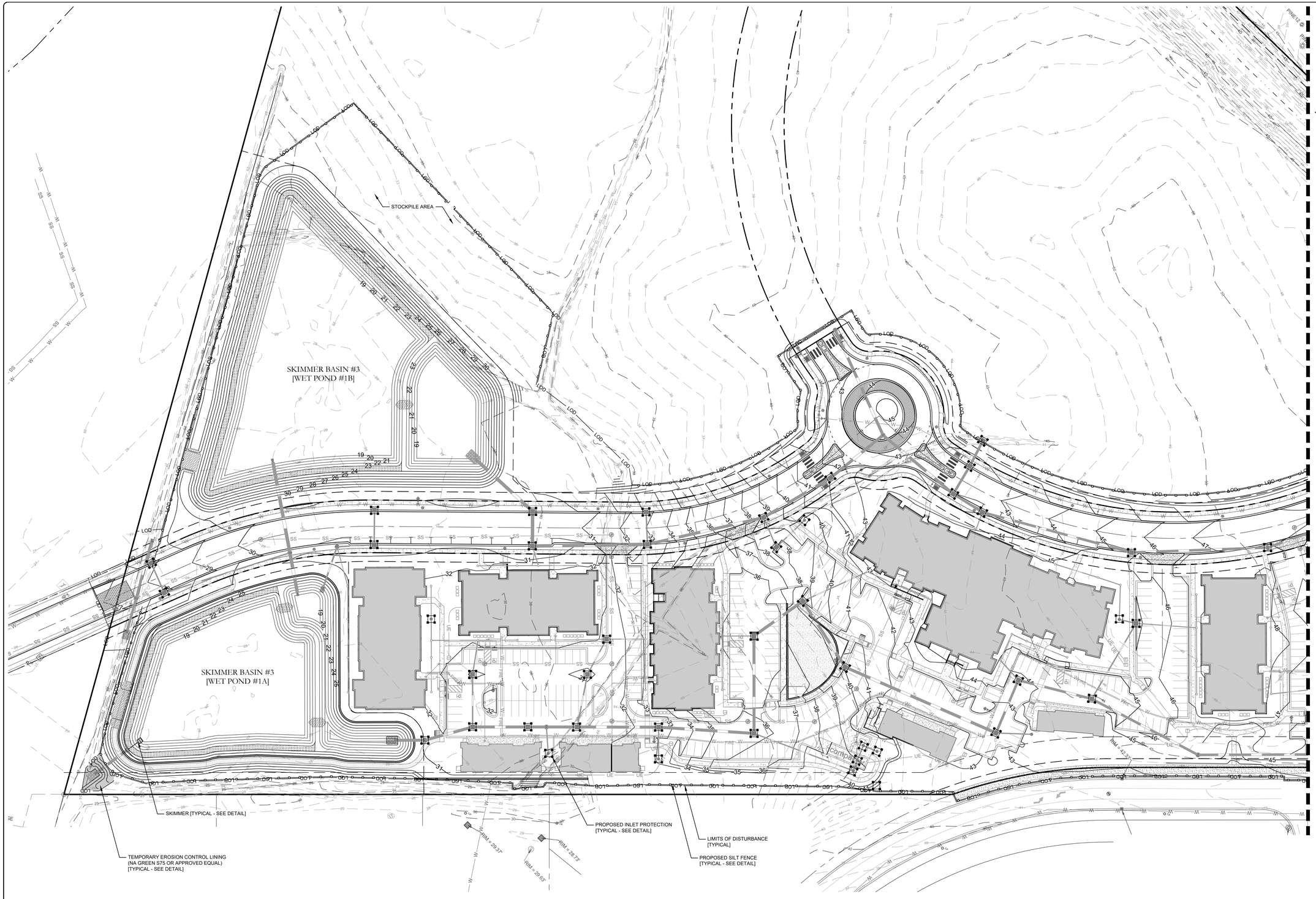
DRAWING INFORMATION

DATE:	03.25.21
SCALE:	1" = 80'
DESIGNED:	DF
DRAWN:	DF
CHECKED:	DF

Professional Seal redacted on electronic copy per City of Wilmington Policy

C-3.0

PEI JOB#: 20195.PE



ISSUED FOR: ☐ PRELIMINARY ☑ PERMITTING ☐ BID ☐ CONSTRUCTION

REVISIONS:

1 PER NHC EC COMMENT	02.17.21

CLIENT INFORMATION:

CK WILMINGTON
THREE PHASE A, LLC
CHARLOTTE, NC

PARAMOUNTE ENGINEERING, INC
122 Cinema Drive
Wilmington, North Carolina 28403
(910) 791-6707 (O) (910) 791-6760 (F)
NC License #: C-2846

EROSION CONTROL PLAN
PHASE II
WILMINGTON THREE PHASE A
CITY OF WILMINGTON
NORTH CAROLINA

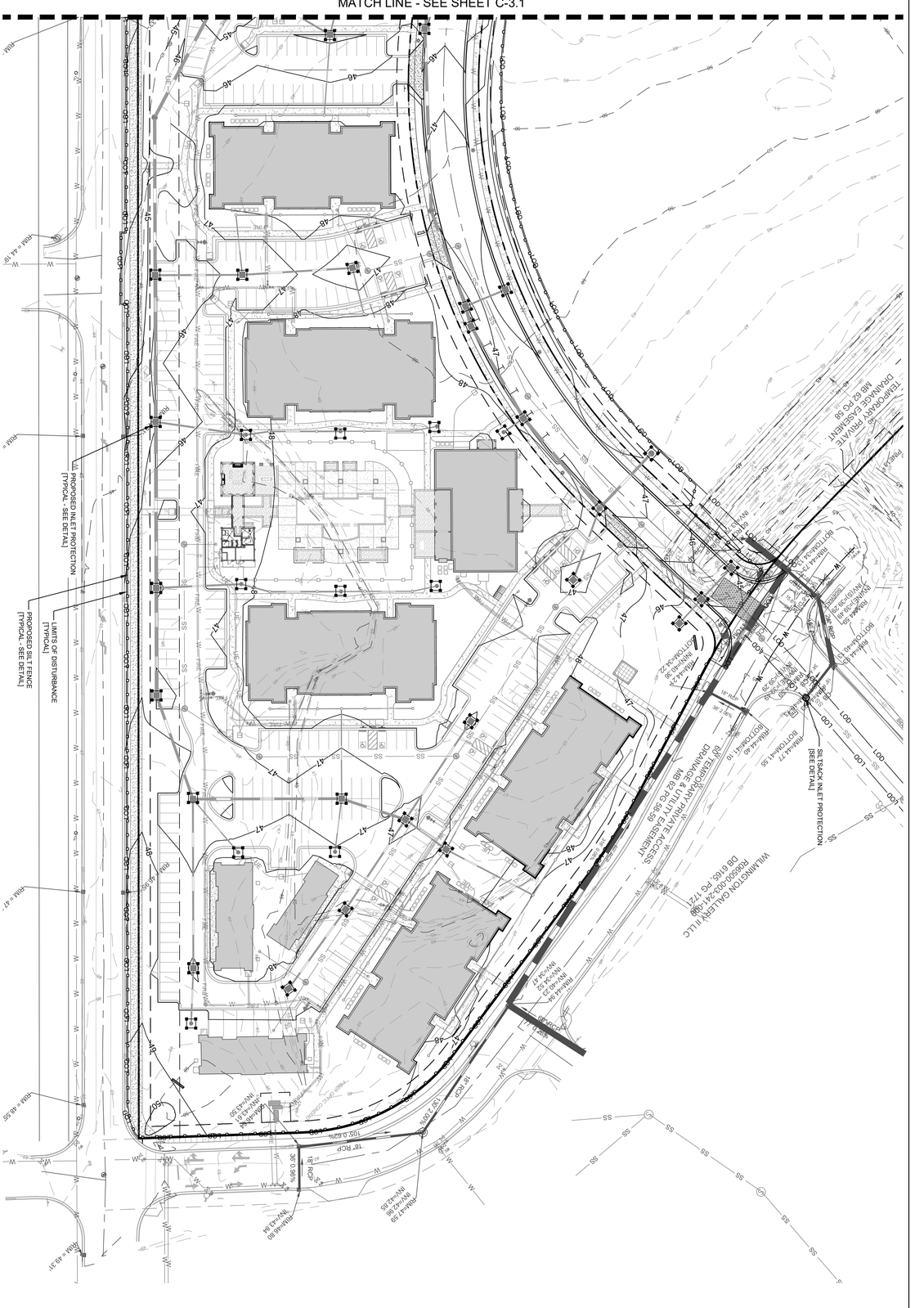
PROJECT STATUS
CONCEPT / SKETCH:
PRELIMINARY LAYOUT:
FINAL DESIGN:
RELEASED FOR CONST:

DRAWING INFORMATION
DATE: 03.25.21
SCALE: 1" = 50'
DESIGNED: DP
DRAWN: DF
CHECKED: DP

Professional Seal redacted on electronic copy per City of Wilmington Policy

C-3.1

PEI JOB#: 20195.PE



ISSUED FOR: ☐ PRELIMINARY ☑ PERMITTING ☐ BID ☐ CONSTRUCTION

811 Know what's below. Call before you dig.

PE/ JOB#: 20195.PE

C-3.2

Professional Seal redacted on electronic copy per CK or Wilmington Policy

PROJECT STATUS

CONCEPTUAL LAYOUT:
PRELIMINARY LAYOUT:
FINAL DESIGN:
RELEASED FOR CONST:

DRAWING INFORMATION

DATE:	03.25.21
SCALE:	1" = 50'
DESIGNED:	DF
DRAWN:	DF
CHECKED:	DF

EROSION CONTROL PLAN PHASE II
WILMINGTON THREE PHASE A
CITY OF WILMINGTON
NORTH CAROLINA

PARAMOUNTE ENGINEERING, INC.
122 Cinema Drive
Wilmington, North Carolina 28403
(910) 791-6707 (O) (910) 791-6760 (F)
NC License #: C-2846

CLIENT INFORMATION:

CK WILMINGTON
THREE PHASE A, LLC
CHARLOTTE, NC

REVISIONS:

1. PER NHC EC COMMENT	02.17.21

DRAINAGE NOTES:

1.) DRAINAGE EASEMENT AND STORMWATER SYSTEM MAINTENANCE IS THE RESPONSIBILITY OF THE DEVELOPER OR HOA, INCLUDING PONDS, PIPES, AND INFILTRATION BASINS AND TRENCHES.

2.) ALL IMPERVIOUS MUST DRAIN TO THE DESIGNED STORMWATER SYSTEM, PER THE APPROVED PLANS. LOTS / BUILDING PADS SHALL BE FILLED AS NECESSARY TO FACILITATE IMPERVIOUS DRAINAGE TO THE STORM CONVEYANCE SYSTEM AND SCM (STORMWATER CONTROL MEASURE).

3.) NO OBSTRUCTIONS ARE ALLOWED IN DRAINAGE EASEMENTS, INCLUDING FENCES.

4.) ALL STORM DRAINAGE STRUCTURES SHALL MEET NCDOT STANDARDS AND SPECIFICATIONS AND SHALL BE TRAFFIC RATED FOR H-20 LOADS AT A MINIMUM.

5.) ALL CATCH BASIN (CB) RIM ELEVATIONS AND YARD INLET (YI) THROAT ELEVATIONS ARE LISTED AS THE "GUTTER OF FLOWLINE ELEVATION" WITHIN THE CURB SECTION. THE CONTRACTOR SHALL MAINTAIN A UNIFORM EDGE OF PAVEMENT (EOP) WHEN PLACING THE STORM INLETS WITHIN THE CURB-LINE (SEE "CURB TRANSITION" DETAIL). FOR CATCH BASINS WITHIN A TRANSITION FROM 24" STANDARD CURB & GUTTER, THE RIM ELEVATION GIVEN IS 1 INCH BELOW EOP. FOR MODIFIED VALLEY, THE RIM ELEVATION GIVEN IS 1/2 INCH BELOW EOP.

6.) MANHOLE RIM ELEVATION SHOWN ABOVE IS FLUSH WITH PROPOSED GRADE. CONTRACTOR SHALL PROVIDE 6" CLEARANCE ABOVE PROPOSED GRADE WHEN PLACED IN A GRASS/PERVIOUS AREA; AND A FLUSH CONDITION WITH PROPOSED PAVEMENT OR IMPERVIOUS COVER.

7.) PROPOSED BUILDINGS SHALL DIVERT ROOF DRAINAGE TO STORMWATER COLLECTION SYSTEM.

8.) CONTRACTOR SHALL ADJUST ALL FRAMES OF EX. UTILITY INFRASTRUCTURE WITHIN ASPHALT OVERLAY AREAS TO MATCH PROPOSED GRADES.

9.) ALL EXISTING DITCHES AND OUTFALLS SHALL BE PROPERLY MAINTAINED AND FREE OF ALL VEGETATIVE DEBRIS OR ENCUMBRANCES.

BUILDING PAD NOTES:

1.) SITE CONTRACTOR SHALL STRIP TOPSOIL AND ANY UNSUITALBE MATERIAL AND PROVIDE CUT/FILL OPERATIONS TO PROVIDE A COMPACTED CONTROLLED BUILDING PAD, IN ACCORDANCE WITH THE SUBSURFACE GEOTECHNICAL EXPLORATION AND TECHNICAL SPECIFICATIONS.

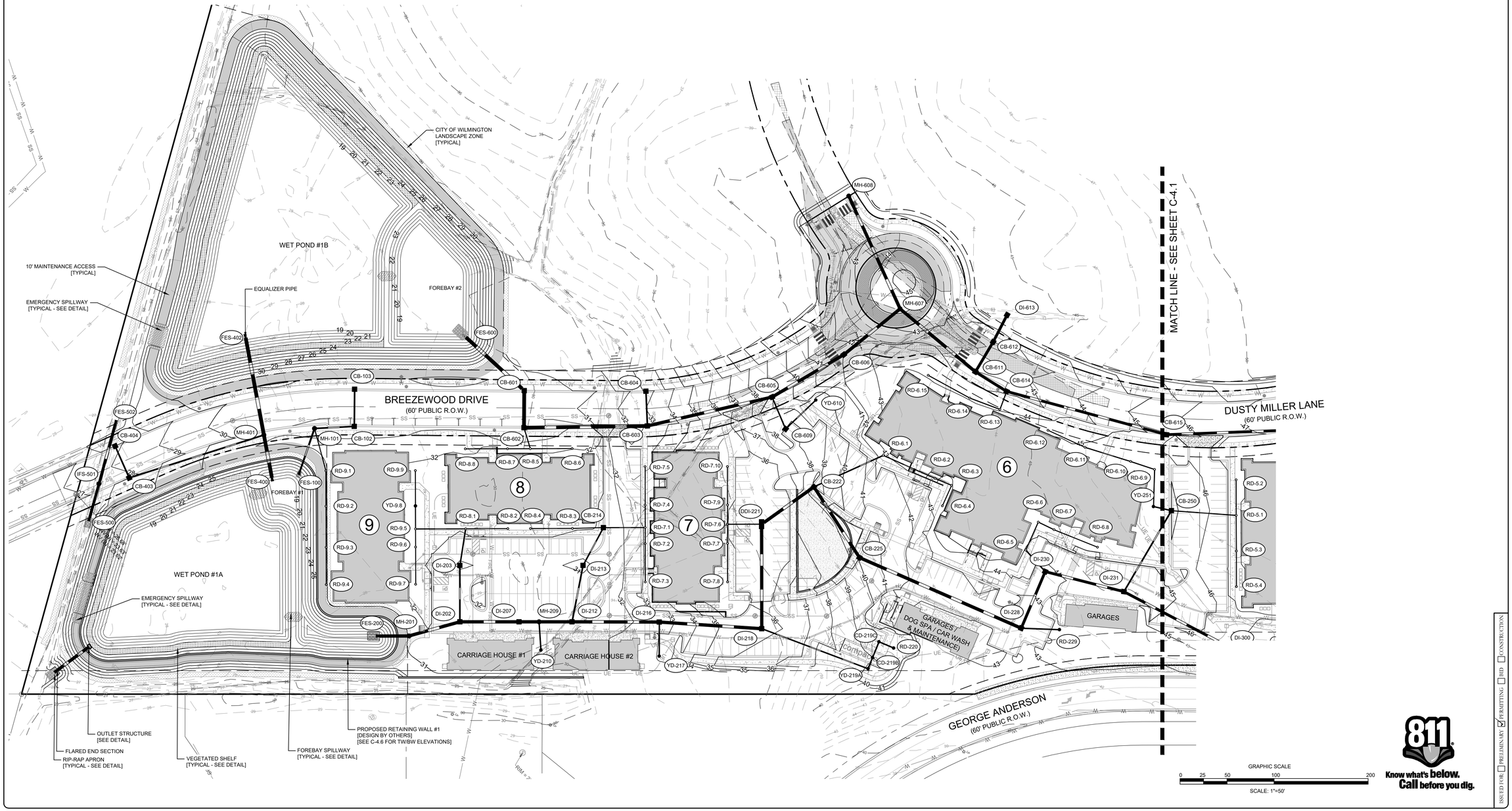
2.) FUTURE MINIMUM BUILDING PAD REFERENCED PER TYPICAL LOT GRADING DETAIL ON SHEET C-6.0. MINIMUM BUILDING PAD ELEVATION SHOWN DOES NOT REFERENCE FFE. 100-YEAR FLOOD ELEVATION AND DRAINAGE AROUND BUILDING PAD SHALL BE USED IN SETTING FFE.

ASPHALT AREA NOTE:

1.) SITE CONTRACTOR SHALL STRIP TOPSOIL AND ANY UNSUITALBE MATERIAL AND PROVIDE CUT/FILL OPERATIONS TO PROVIDE A COMPACTED CONTROLLED SUBGRADE, IN ACCORDANCE WITH THE SUBSURFACE GEOTECHNICAL EXPLORATION AND TECHNICAL SPECIFICATIONS.

NOTATION:

CB	=	CATCH BASIN	[NCDOT STD. 840.02 | 840.03]
DCB	=	DOUBLE CATCH BASIN	
DI	=	DROP INLET	[NCDOT STD. 840.16 | 840.46]
DDI	=	DOUBLE DROP INLET	[NCDOT STD. 840.35]
EW	=	ENDWALL	[NCDOT STD. 838.80]
FES	=	FLARED END SECTION	
HW	=	HEADWALL	
IFS	=	INTERFERENCE STRUCTURE	
MH	=	STORM MANHOLE	[CoW SD 2-03]
OS	=	OUTLET STRUCTURE	[SEE DETAILS SHEET]
YD	=	YARD DRAIN	[ADS NYLOPLAST]
YI	=	YARD INLET (2-SIDE OPEN THROAT)	[NCDOT STD. 840.04]
BC	=	BOTTOM OF CURB (GUTTER/FLOWLINE) ELEVATION	
BEE	=	BREEZEWAY ENTRANCE ELEVATION	
BW	=	BOTTOM OF WALL (BOTTOM OF EXPOSED WALL FACE AT GRADE TIE-IN ELEVATION)	
FFE	=	FINISHED FLOOR ELEVATION	
FLUME	=	CONCRETE DRAINAGE FLUME FLOWLINE ELEVATION	
GFE	=	GARAGE FLOOR ELEVATION	
HP	=	HIGH POINT ELEVATION	
LP	=	LOW POINT ELEVATION	
PAD	=	DUMPSTER PAD ELEVATION	
PG	=	PROPOSED GRADE	
RP	=	RAMP ELEVATION	
SW	=	SIDEWALK ELEVATION	
TC	=	TOP OF CURB ELEVATION	
TW	=	TOP OF WALL	



Know what's below. Call before you dig.

ISSUED FOR: ☐ PRELIMINARY ☑ PERMITTING ☐ BID ☐ CONSTRUCTION

REVISIONS:

CLIENT INFORMATION:

CK WILMINGTON
THREE PHASE A, LLC
CHARLOTTE, NC

PARAMOUNTE ENGINEERING
122 Cinema Drive
Wilmington, North Carolina 28403
(910) 791-6707 (O) (910) 791-6760 (F)
NC License #: C-2846

OVERALL GRADING AND DRAINAGE PLAN
WILMINGTON THREE PHASE A
CITY OF WILMINGTON
NORTH CAROLINA

PROJECT STATUS
CONCEPTUAL LAYOUT:
PRELIMINARY LAYOUT:
FINAL DESIGN:
RELEASED FOR CONST:

DRAWING INFORMATION
DATE: 03.25.21
SCALE: 1"= 50'
DESIGNED: DF
DRAWN: DF
CHECKED: DF

Professional Seal redacted on electronic copy per City of Wilmington Policy

C-4.0

PEI JOB#: 20195.PE

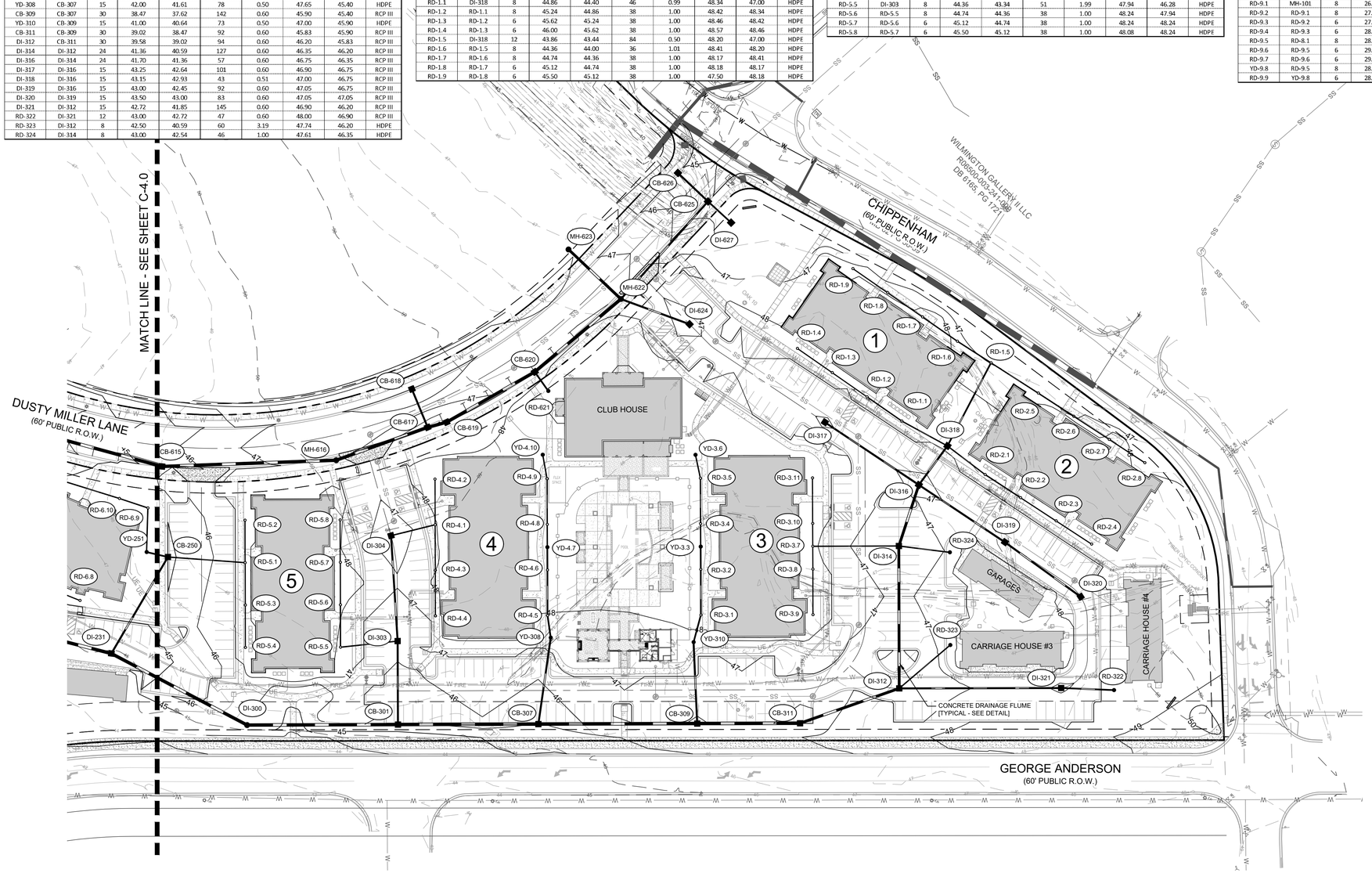
STORM SCHEDULE:

Upstream Node	Downstream Node	Diameter (In)	Upstream Invert	Downstream Invert	Pipe Length (ft)	Slope (%)	Upstream Rim Elev	Downstream Rim Elev	Pipe Material
MH-101	FES-100	18	21.89	21.00	48	1.85	30.77	-	RCP III
CB-102	MH-101	15	26.21	25.79	42	0.99	30.01	30.77	RCP III
CB-103	CB-102	15	26.60	26.21	40	1.00	30.06	30.01	RCP III
MH-201	FES-200	36	21.62	21.00	31	2.00	31.00	-	RCP III
DI-202	MH-201	36	22.75	21.62	56	2.00	31.00	31.00	RCP III
DI-203	DI-202	15	26.40	25.80	60	1.01	31.00	31.00	RCP III
DI-207	DI-202	36	23.63	22.75	63	1.40	31.05	31.00	RCP III
MH-209	DI-207	36	23.93	23.63	21	1.40	31.26	31.05	RCP III
YD-210	MH-209	12	25.78	25.48	30	1.02	31.50	31.26	RCP III
DI-212	MH-209	36	24.42	23.93	35	1.40	30.95	31.26	RCP III
DI-213	DI-212	15	27.29	26.69	61	0.99	30.85	30.95	RCP III
CB-214	DI-213	12	28.15	27.92	46	0.50	31.25	30.85	RCP III
DI-216	DI-212	36	25.72	24.42	93	1.40	31.90	30.95	RCP III
YD-217	DI-216	12	27.35	26.99	36	1.01	31.00	31.90	RCP III
DI-218	DI-216	36	27.24	25.72	109	1.40	35.81	31.90	RCP III
YD-219A	DI-218	12	34.10	31.06	121	2.52	38.50	35.81	RCP III
CD-219B	YD-219A	12	34.36	34.10	13	2.00	38.99	38.50	RCP III
CD-219C	CD-219B	12	34.72	34.36	18	2.00	39.54	38.99	RCP III
RD-220	CD-219C	12	35.06	34.72	17	2.00	39.50	39.54	RCP III
DDI-221	DI-218	36	28.80	27.24	111	1.40	35.00	35.81	RCP III
CB-222	DDI-221	36	29.76	28.80	68	1.40	38.40	35.00	RCP III
CB-225	CB-222	36	31.01	29.76	89	1.40	40.40	38.40	RCP III
DI-228	CB-225	36	33.64	31.01	188	1.40	42.00	40.40	RCP III
RD-229	DI-228	12	37.00	36.19	41	2.00	43.00	42.00	RCP III
DI-230	DI-228	30	34.29	33.64	65	1.00	43.75	42.00	RCP III
DI-231	DI-230	30	35.15	34.29	86	1.00	44.12	43.75	RCP III
CB-250	DI-231	15	36.05	35.15	100	0.90	44.78	44.12	RCP III
YD-251	CB-250	12	39.00	38.80	20	1.01	45.25	44.78	HDPE
DI-300	DI-231	30	36.08	35.25	137	0.60	44.25	44.12	RCP III
CB-301	DI-300	30	36.87	36.08	135	0.59	45.15	44.25	RCP III
DI-303	CB-301	15	42.21	41.46	75	1.01	46.28	45.15	RCP III
DI-304	DI-303	15	43.00	42.06	94	1.00	46.71	46.28	RCP III
CB-307	CB-301	30	37.62	36.87	125	0.60	45.40	45.15	RCP III
YD-308	CB-307	15	42.00	41.61	78	0.50	47.65	45.40	HDPE
CB-309	CB-307	30	38.47	37.62	142	0.60	45.90	45.40	RCP III
YD-310	CB-309	15	41.00	40.64	73	0.50	47.00	45.90	HDPE
CB-311	CB-309	30	39.02	38.47	92	0.60	45.83	45.90	RCP III
DI-312	CB-311	30	39.58	39.02	94	0.60	46.20	45.83	RCP III
DI-314	DI-312	24	41.36	40.59	127	0.60	46.35	46.20	RCP III
DI-316	DI-314	24	41.70	41.36	57	0.60	46.75	46.35	RCP III
DI-317	DI-316	15	43.25	42.64	101	0.60	46.90	46.75	RCP III
DI-318	DI-316	15	43.15	42.93	43	0.51	47.00	46.75	RCP III
DI-319	DI-316	15	43.00	42.45	92	0.60	47.05	46.75	RCP III
DI-320	DI-319	15	43.50	43.00	83	0.60	47.05	47.05	RCP III
DI-321	DI-312	15	42.72	41.85	145	0.60	46.90	46.20	RCP III
RD-322	DI-321	12	43.00	42.72	47	0.60	48.00	46.90	RCP III
RD-323	DI-312	8	42.50	40.59	60	3.19	47.74	46.20	HDPE
RD-324	DI-314	8	43.00	42.54	46	1.00	47.61	46.35	HDPE

Upstream Node	Downstream Node	Diameter (In)	Upstream Invert	Downstream Invert	Pipe Length (ft)	Slope (%)	Upstream Rim Elev	Downstream Rim Elev	Pipe Material
MH-401	FES-400	42	20.00	20.00	46	0.00	30.86	-	RCP III
FES-402	MH-401	42	20.00	20.00	105	0.00	-	30.86	RCP III
CB-403	MH-401	15	24.13	23.38	150	0.50	27.81	30.86	RCP III
CB-404	CB-403	15	25.30	25.17	37	0.35	27.81	27.81	RCP IV
IFS-501	FES-500	30	23.68	23.50	37	0.49	27.42	-	RCP IV
FES-502	IFS-501	30	24.00	23.68	66	0.48	-	27.42	RCP IV
CB-601	FES-600	42	20.63	20.00	84	0.75	30.12	-	RCP III
CB-602	CB-601	42	20.93	20.63	40	0.75	30.06	30.12	RCP III
CB-603	CB-602	42	21.91	20.93	131	0.75	32.62	30.06	RCP III
CB-604	CB-603	15	29.00	15.56	37	36.32	32.62	32.62	RCP III
CB-605	CB-603	36	29.31	26.25	136	2.25	38.46	32.62	RCP III
CB-606	CB-605	36	31.31	29.31	89	2.25	41.53	38.46	RCP III
MH-607	CB-606	36	33.05	31.31	77	2.25	44.39	41.53	RCP III
MH-608	MH-607	36	34.03	33.05	132	0.75	42.10	44.39	RCP III
CB-609	CB-605	12	33.61	32.87	37	2.00	37.45	38.46	RCP III
YD-610	CB-609	12	34.50	33.61	44	2.00	38.00	37.45	RCP III
CB-611	MH-607	36	35.45	34.67	104	0.75	42.26	44.39	RCP III
CB-612	CB-611	30	38.04	37.86	37	0.49	42.26	42.26	RCP III
DI-613	CB-612	30	38.20	38.04	32	0.50	42.00	42.26	RCP III
CB-614	CB-611	30	35.74	35.45	39	0.74	42.39	42.26	RCP III
CB-615	CB-614	30	37.06	35.74	176	0.75	45.36	42.39	RCP III
MH-616	CB-615	30	37.84	37.06	156	0.50	47.66	45.36	RCP III
CB-617	MH-616	30	38.27	37.84	87	0.50	46.68	47.66	RCP III
CB-618	CB-617	15	43.00	42.63	37	0.99	46.68	46.68	RCP III
CB-619	CB-617	30	38.36	38.27	18	0.50	46.65	46.68	RCP III
CB-620	CB-619	30	38.82	38.36	91	0.50	47.22	46.65	RCP III
RD-621	CB-620	12	43.00	42.80	21	0.98	48.50	47.22	RCP III
MH-622	CB-620	30	39.32	38.82	101	0.50	47.73	47.22	RCP III
MH-623	MH-622	24	41.95	41.63	64	0.50	47.00	47.73	RCP III
DI-624	MH-622	15	42.70	42.05	65	1.00	46.70	47.73	RCP III
CB-625	MH-622	15	41.85	41.38	117	0.40	45.12	47.73	RCP III
CB-626	CB-625	15	42.00	41.85	37	0.41	45.12	45.12	RCP III
DI-627	CB-625	12	41.96	41.82	28	0.50	45.00	45.12	RCP III
RD-1.1	DI-318	8	44.86	44.40	46	0.99	48.34	47.00	HDPE
RD-1.2	RD-1.1	8	45.24	44.86	38	1.00	48.42	48.34	HDPE
RD-1.3	RD-1.2	6	45.62	45.24	38	1.00	48.46	48.42	HDPE
RD-1.4	RD-1.3	6	46.00	45.62	38	1.00	48.57	48.46	HDPE
RD-1.5	DI-318	12	43.86	43.44	84	0.50	48.20	47.00	HDPE
RD-1.6	RD-1.5	8	44.36	44.00	36	1.01	48.41	48.20	HDPE
RD-1.7	RD-1.6	8	44.74	44.36	38	1.00	48.17	48.41	HDPE
RD-1.8	RD-1.7	6	45.12	44.74	38	1.00	48.18	48.17	HDPE
RD-1.9	RD-1.8	6	45.50	45.12	38	1.00	47.50	48.18	HDPE

Upstream Node	Downstream Node	Diameter (In)	Upstream Invert	Downstream Invert	Pipe Length (ft)	Slope (%)	Upstream Rim Elev	Downstream Rim Elev	Pipe Material
RD-2.1	DI-318	8	44.76	44.34	42	1.00	48.35	47.00	HDPE
RD-2.2	RD-2.1	8	45.14	44.76	38	1.00	48.51	48.35	HDPE
RD-2.3	RD-2.2	6	45.52	45.14	38	1.00	48.63	48.51	HDPE
RD-2.4	RD-2.3	6	45.90	45.52	38	1.00	48.39	48.63	HDPE
RD-2.5	RD-1.5	8	44.36	43.86	50	1.00	48.42	48.20	HDPE
RD-2.6	RD-2.5	8	44.74	44.36	38	1.00	47.99	48.42	HDPE
RD-2.7	RD-2.6	6	45.12	44.74	38	1.00	47.98	47.99	HDPE
RD-2.8	RD-2.7	6	45.50	45.12	38	1.00	47.50	47.98	HDPE
RD-3.1	YD-310	12	43.45	43.32	25	0.52	48.34	47.00	HDPE
RD-3.2	RD-3.1	12	43.65	43.45	41	0.50	48.47	48.34	HDPE
YD-3.3	RD-3.2	12	43.75	43.65	20	0.50	48.48	48.47	HDPE
RD-3.4	YD-3.3	8	44.18	44.08	20	0.49	48.61	48.48	HDPE
RD-3.5	RD-3.4	8	44.38	44.18	41	0.50	48.66	48.61	HDPE
YD-3.6	RD-3.5	8	44.50	44.38	21	0.56	47.65	48.66	HDPE
RD-3.7	DI-314	8	44.07	43.30	77	1.00	48.37	46.35	HDPE
RD-3.8	RD-3.7	6	45.69	45.49	20	0.99	48.48	48.37	HDPE
RD-3.9	RD-3.8	6	46.10	45.69	41	1.01	48.69	48.48	HDPE
RD-3.10	RD-3.7	6	45.69	45.49	20	0.99	48.48	48.37	HDPE
RD-3.11	RD-3.10	6	46.10	45.69	41	1.01	48.81	48.48	HDPE
RD-4.1	DI-304	8	44.28	43.47	41	2.00	47.93	46.71	HDPE
RD-4.2	RD-4.1	6	45.10	44.69	41	1.01	48.41	47.93	HDPE
RD-4.3	RD-4.1	6	44.69	44.28	41	1.01	47.99	47.93	HDPE
RD-4.4	RD-4.3	6	45.10	44.69	41	1.01	47.62	47.99	HDPE
RD-4.5	YD-308	12	43.49	43.38	20	0.55	48.07	47.65	HDPE
RD-4.6	RD-4.5	12	43.69	43.49	41	0.50	48.23	48.07	HDPE
YD-4.7	RD-4.6	12	43.79	43.69	20	0.50	47.65	48.23	HDPE
RD-4.8	YD-4.7	8	44.22	44.12	20	0.49	48.45	47.65	HDPE
RD-4.9	RD-4.8	8	44.42	44.22	41	0.50	48.47	48.45	HDPE
YD-4.10	RD-4.9	8	44.50	44.42	22	0.37	47.65	48.47	HDPE
RD-5.1	CB-250	8	42.88	41.50	69	2.00	47.90	44.78	HDPE
RD-5.2	RD-5.1	6	44.87	44.49	38	0.99	47.82	47.90	HDPE
RD-5.3	RD-5.1	6	44.87	44.49	38	1.00	48.00	47.90	HDPE
RD-5.4	RD-5.3	6	45.25	44.87	38	1.00	47.76	48.00	HDPE
RD-5.5	DI-303	8	44.36	43.34	51	1.99	47.94	46.28	HDPE
RD-5.6	RD-5.5	8	44.74	44.36	38	1.00	48.24	47.94	HDPE
RD-5.7	RD-5.6	6	45.12	44.74	38	1.00	48.24	48.24	HDPE
RD-5.8	RD-5.7	6	45.50	45.12	38	1.00	48.08	48.24	HDPE

Upstream Node	Downstream Node	Diameter (In)	Upstream Invert	Downstream Invert	Pipe Length (ft)	Slope (%)	Upstream Rim Elev	Downstream Rim Elev	Pipe Material
RD-6.1	CB-222	12	38.62	37.00	81	2.00	42.61	38.40	HDPE
RD-6.2	RD-6.1	8	40.57	39.97	60	1.00	44.52	42.61	HDPE
RD-6.3	RD-6.2	8	40.76	40.57	19	1.00	44.60	44.52	HDPE
RD-6.4	RD-6.3	6	41.00	40.76	24	1.00	43.53	44.60	HDPE
RD-6.5	DI-230	12	39.00	38.69	31	1.01	44.99	43.75	HDPE
RD-6.6	RD-6.5	8	42.11	41.78	33	1.01	45.36	44.99	HDPE
RD-6.7	RD-6.6	8	42.30	42.11	19	1.02	45.32	45.36	HDPE
RD-6.8	RD-6.7	6	42.80	42.30	50	1.00	45.36	45.32	HDPE
RD-6.9	YD-251	8	40.69	40.30	39	0.99	45.79	45.25	HDPE
RD-6.10	RD-6.9	8	40.96	40.69	27	1.01	45.49	45.79	HDPE
RD-6.11	RD-6.10	8	41.47	40.96	51	1.00	45.15	45.49	HDPE
RD-6.12	RD-6.11	6	41.90	41.47	43	1.00	44.56	45.15	HDPE
RD-6.13	CB-614	8	39.36	39.16	20	1.00	43.78	42.39	HDPE
RD-6.14	RD-6.13	8	39.71	39.36	34	1.00	43.60	43.78	HDPE
RD-6.15	RD-6.14	6	40.21	39.71	50	1.00	43.69	43.60	HDPE
RD-7.1	CB-214	8	29.14	28.25	44	2.00	33.25	31.25	HDPE
RD-7.2	RD-7.1	6	29.48	29.14	17	2.00	33.24	33.25	HDPE
RD-7.3	RD-7.2	6	30.30	29.48	41	2.00	33.27	33.24	HDPE
RD-7.4	RD-7.1	6	29.61	29.14	24	2.00	33.41	33.25	HDPE
RD-7.5	RD-7.4	6	30.43	29.61	41	2.00	33.55	33.41	HDPE
RD-7.6	DDI-221	8	32.40	32.04	36	0.99	36.04	35.00	HDPE
RD-7.7	RD-7.6	6	33.59	33.39	20	0.98	36.23	36.04	HDPE
RD-7.8	RD-7.7	6	34.00	33.59	41	1.00	36.56	36.23	HDPE
RD-7.9	RD-7.6	6	33.59	33.39	20	0.98	36.23	36.04	HDPE
RD-7.10	RD-7.9	6	34.00	33.59	41	1.00	36.59	36.23	HDPE
RD-8.1	DI-203	12	26.70	26.40	39	0.75	32.12	31.00	RCP III
RD-8.2	RD-8.1	6	29.00	28.56	45	0.99	32.36	32.12	HDPE
RD-8.3	CB-214	6	29.05	28.72	33	1.00	32.10	31.25	HDPE
RD-8.4	RD-8.3	6	29.50	29.05	45	1.01	32.32	32.10	HDPE
RD-8.5	CB-602	8	27.97	14.86	23	58.48	31.68	30.06	HDPE
RD-8.6	RD-8.5	6	29.00	28.56	45	1.00	31.67	31.68	HDPE
RD-8.7	RD-8.5	6	28.75	28.51	24	1.02	31.69	31.68	HDPE
RD-8.8	RD-8.7	6	29.20	28.75	45	1.00	31.69	31.69	HDPE
RD-9.1	MH-101	8	26.78	26.31	47	1.01	30.50	30.77	HDPE
RD-9.2	RD-9.1	8	27.16	26.78	38	1.01	30.09	30.50	HDPE
RD-9.3	RD-9.2	6	27.60	27.16	44	1.01	30.09	30.09	HDPE
RD-9.4	RD-9.3	6	28.00	27.60	40	1.01	30.13	30.09	HDPE
RD-9.5	RD-8.1	8	28.26	27.78	53	1.00	32.41	32.12	HDPE
RD-9.6	RD-9.5	6	29.35	29.16	19	0.99	32.35	32.41	HDPE
RD-9.7	RD-9.6	6	29.75	29.35	40	1.01	32.90	32.35	HDPE
YD-9.8	RD-9.5	8	28.50	28.26	24	1.00	31.75	32.41	HDPE
RD-9.9	YD-9.8	6	28.88	28.50	38	1.00	32.90	31.75	HDPE



PIPE MATERIAL NOTE:

FOR PIPE SECTIONS WITH THE MATERIAL SPECIFIED AS "RCP III" THE CONTRACTOR SHALL USE EITHER RCP (CL. III) OR HDPE PIPE FOR THE STORM DRAINAGE SYSTEM. IF THE CONTRACTOR CHOOSES TO USE HDPE PIPE, IT SHALL BE ADS HP (WT) STORM PIPE OR APPROVED EQUAL AND SHALL BE INSTALLED TO MANUFACTURER SPECIFICATIONS. CONTRACTOR SHALL PROVIDE CONCRETE COLLARS AROUND EACH F.E.S. TO PREVENT FLOATATION IF HDPE PIPE IS CHOSEN.

ALL PIPE MATERIAL NOT LISTED AS "RCP III" SHALL BE RCP (CL. REFERENCED) PIPE.

811 Know what's below. Call before you dig.

ISSUED FOR: ☐ PRELIMINARY ☑ PERMITTING ☐ BID ☐ CONSTRUCTION

REVISIONS:

CLIENT INFORMATION:

CK WILMINGTON
THREE PHASE A, LLC
CHARLOTTE, NC

PARAMOUNTE ENGINEERING
122 Cinema Drive
Wilmington, North Carolina 28403
(910) 791-6707 (O) (910) 791-6760 (F)
NC License #: C-2846

OVERALL GRADING AND DRAINAGE PLAN
WILMINGTON THREE PHASE A
CITY OF WILMINGTON
NORTH CAROLINA

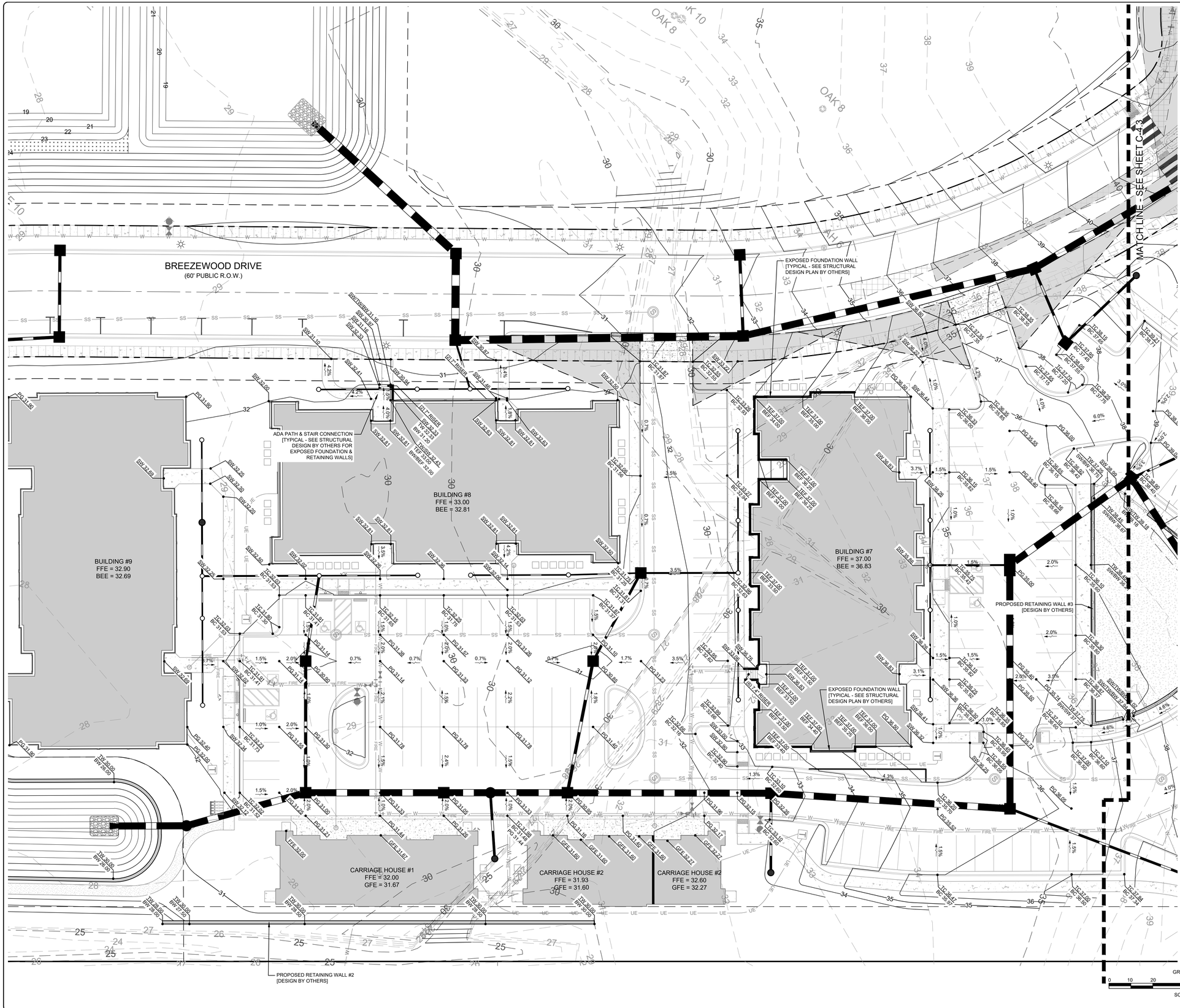
PROJECT STATUS
CONCEPTUAL LAYOUT:
PRELIMINARY LAYOUT:
FINAL DESIGN:
RELEASED FOR CONST:

DRAWING INFORMATION
DATE: 03.25.21
SCALE: 1" = 50'
DESIGNED: DF
DRAWN: DF
CHECKED: DF

Professional Seal redacted on electronic copy per City of Wilmington Policy

C-4.1

PEI JOB#: 20195.PE



FINE GRADING NOTE:

1.) DESIGN GRADE EXCEEDS CHILDRESS KLEIN STANDARD CONSTRUCTION TOLERANCE. CONTRACTOR SHALL TAKE EXTRA CARE TO ENSURE CONSTRUCTION MEET ADA REQUIREMENTS AS DESIGNED.

ISSUED FOR: ☐ PRELIMINARY ☑ PERMITTING ☐ BID ☐ CONSTRUCTION

REVISIONS:

CLIENT INFORMATION:

CK WILMINGTON
THREE PHASE A, LLC
CHARLOTTE, NC

PARAMOUNTE ENGINEERING, INC
122 Cinema Drive
Wilmington, North Carolina 28403
(910) 791-6707 (O) (910) 791-6760 (F)
NC License #: C-2846

FINE GRADING PLAN

WILMINGTON THREE PHASE A
CITY OF WILMINGTON
NORTH CAROLINA

PROJECT STATUS
CONCEPTUAL SKETCH
PRELIMINARY LAYOUT
FINAL DESIGN
RELEASED FOR CONST.

DRAWING INFORMATION
DATE: 03.25.21
SCALE: 1" = 20'
DESIGNED: DF
DRAWN: DF
CHECKED: DS

Professional Seal redacted on electronic copy per City of Wilmington Policy

C-4.2

PEI JOB#: 20195.PE

ISSUED FOR: ☐ PRELIMINARY ☑ PERMITTING ☐ BID ☐ CONSTRUCTION

REVISIONS:

CLIENT INFORMATION:

CK WILMINGTON
THREE PHASE A, LLC
CHARLOTTE, NC

PARAMOUNTE ENGINEERING
122 Cinema Drive
Wilmington, North Carolina 28403
(910) 791-6707 (O) (910) 791-6760 (F)
NC License #: C-2846

FINE GRADING PLAN
DRAINAGE PLAN
WILMINGTON THREE PHASE A
CITY OF WILMINGTON
NORTH CAROLINA

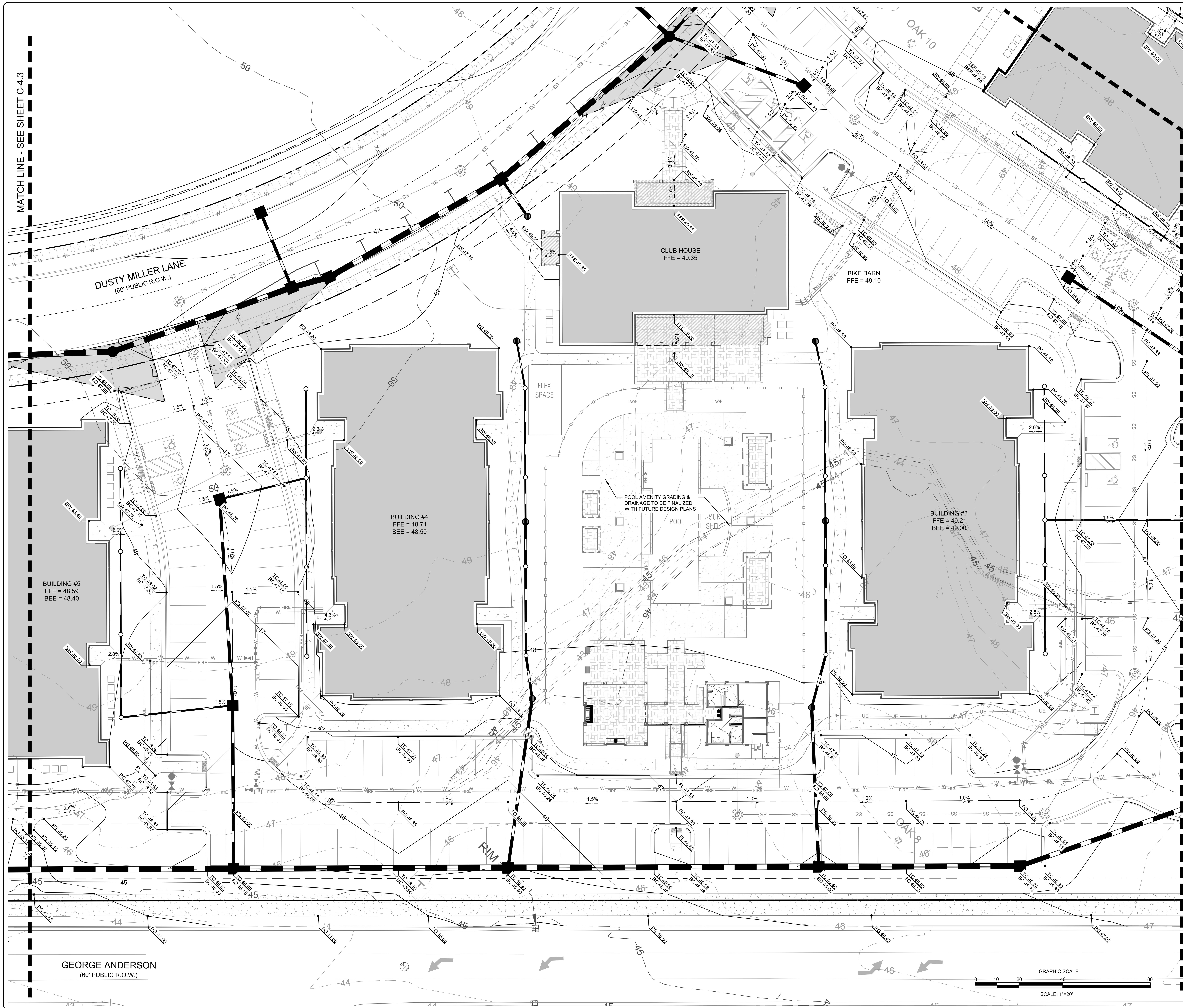
PROJECT STATUS
CONCEPTUAL LAYOUT:
PRELIMINARY LAYOUT:
FINAL DESIGN:
RELEASED FOR CONST:

DRAWING INFORMATION
DATE: 03.25.21
SCALE: 1" = 20'
DESIGNED: DF
DRAWN: DF
CHECKED: DF

Professional Seal redacted on electronic copy per City of Wilmington Policy

C-4.3

PEI JOB#: 20195.PE



Know what's below. Call before you dig.

ISSUED FOR: ☐ PRELIMINARY ☑ PERMITTING ☐ BID ☐ CONSTRUCTION

REVISIONS:

CLIENT INFORMATION:

CK WILMINGTON
THREE PHASE A, LLC
CHARLOTTE, NC

PARAMOUNTE
ENGINEERING, INC

122 Cinema Drive
Wilmington, North Carolina 28403
(910) 791-6707 (O) (910) 791-6760 (F)
NC License #: C-2846

FINE GRADING PLAN
DRAINAGE PLAN

WILMINGTON THREE PHASE A
CITY OF WILMINGTON
NORTH CAROLINA

PROJECT STATUS
CONCEPTUAL LAYOUT:
PRELIMINARY LAYOUT:
FINAL DESIGN:
RELEASED FOR CONST:

DRAWING INFORMATION
DATE: 03.25.21
SCALE: 1"= 20'
DESIGNED: DF
DRAWN: DF
CHECKED: DF

Professional Seal redacted on electronic copy per City of Wilmington Policy

C-4.4

PEI JOB#: 20195.PE

ISSUED FOR: ☐ PRELIMINARY ☑ PERMITTING ☐ BID ☐ CONSTRUCTION

REVISIONS:

CLIENT INFORMATION:

CK WILMINGTON
THREE PHASE A, LLC
CHARLOTTE, NC

PARAMOUNTE ENGINEERING, INC
122 Cinema Drive
Wilmington, North Carolina 28403
(910) 791-6707 (O) (910) 791-6760 (F)
NC License #: C-2846

FINE GRADING PLAN
DRAINAGE PLAN
WILMINGTON THREE PHASE A
CITY OF WILMINGTON
NORTH CAROLINA

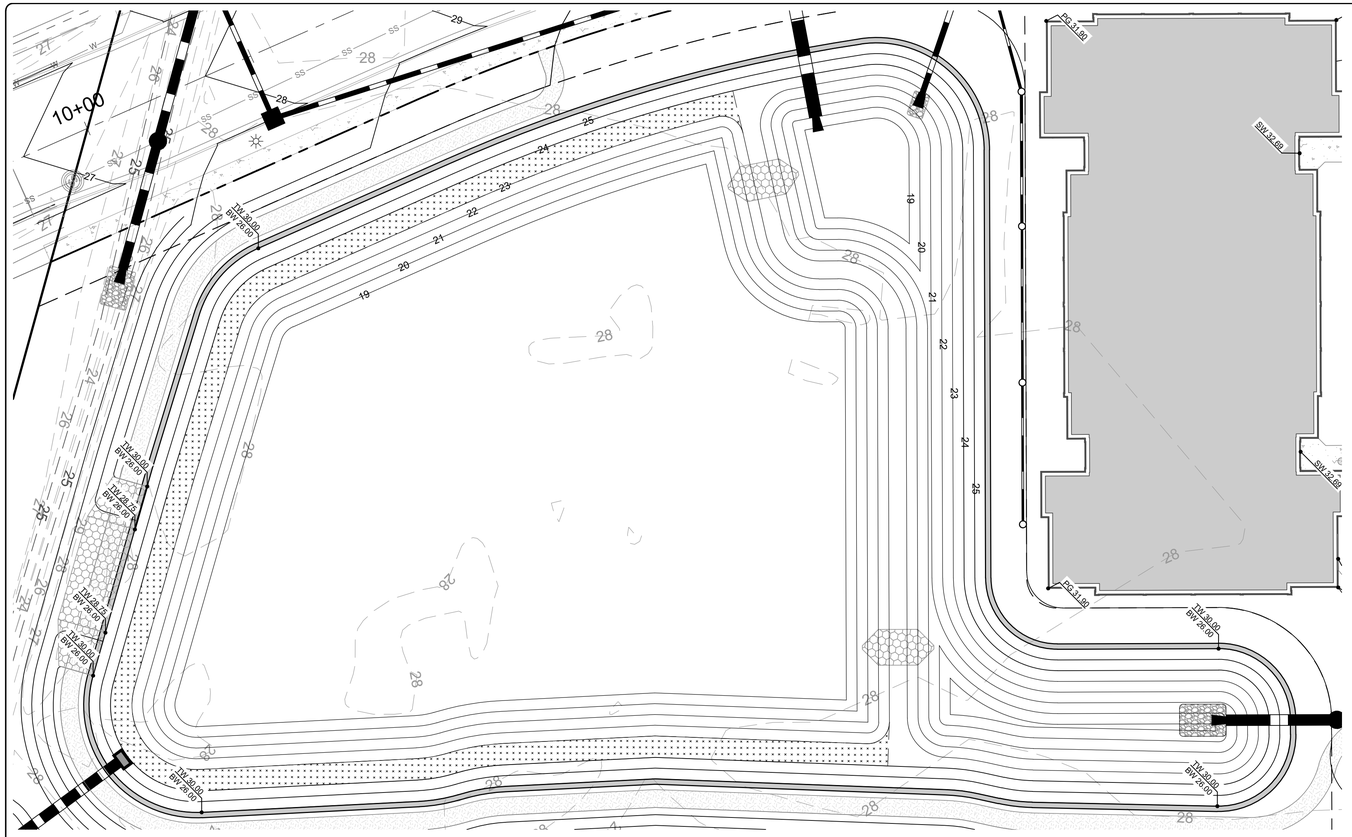
PROJECT STATUS
CONCEPTUAL LAYOUT:
PRELIMINARY LAYOUT:
FINAL DESIGN:
RELEASED FOR CONST.

DRAWING INFORMATION
DATE: 03.25.21
SCALE: 1" = 20'
DESIGNED: DF
DRAWN: DF
CHECKED: DT

Professional Seal redacted on electronic copy per City of Wilmington Policy

C-4.5

PEI JOB#: 20195.PE



RETAINING WALL #1 - PLAN VIEW

SCALE: 1" = 20'

GRAPHIC SCALE
0 10 20 40 80
SCALE: 1"=20'

BUILDING #6 SW ENTRANCE

SCALE: 1" = 10'

BUILDING #6 SOUTH ENTRANCE

SCALE: 1" = 10'

DOG WASH ENTRANCE

SCALE: 1" = 10'

GRAPHIC SCALE
0 5 10 20 40
SCALE: 1"=10'

ISSUED FOR: ☐ PRELIMINARY ☑ PERMITTING ☐ BID ☐ CONSTRUCTION

REVISIONS:

CLIENT INFORMATION:

CK WILMINGTON
THREE PHASE A, LLC
CHARLOTTE, NC

PARAMOUNTE ENGINEERING
122 Cinema Drive
Wilmington, North Carolina 28403
(910) 791-6707 (O) (910) 791-6760 (F)
NC License #: C-2846

FINE GRADING PLAN
DRAINAGE PLAN
WILMINGTON THREE PHASE A
CITY OF WILMINGTON
NORTH CAROLINA

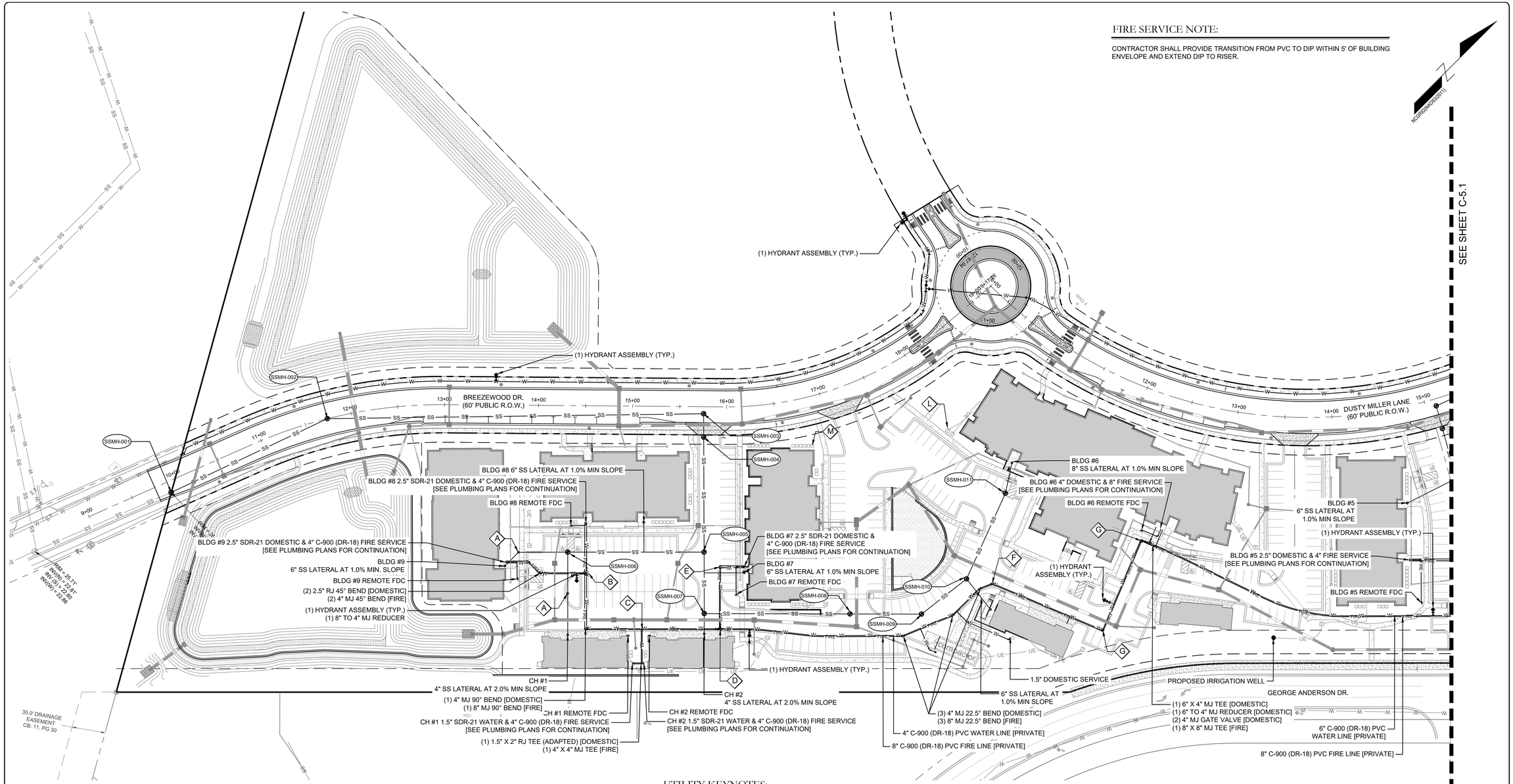
PROJECT STATUS
CONCEPTUAL LAYOUT:
PRELIMINARY LAYOUT:
FINAL DESIGN:
RELEASED FOR CONST:

DRAWING INFORMATION
DATE: 03.25.21
SCALE: AS NOTED
DESIGNED: TD
DRAWN: DF
CHECKED: DS

Professional Seal redacted on electronic copy per City of Wilmington Policy

C-4.6

PEI JOB#: 20195.PE



UTILITY NOTES: (NCAC 15A.02T.0305 / T15A.18C.0906)

1. WATER MAINS SHALL BE LAID SO AS TO PROVIDE A MINIMUM HORIZONTAL SEPARATION OF 10 FEET FROM SEWERS. IF CONDITIONS EXIST SUCH THAT THIS SEPARATION CANNOT BE ACHIEVED, THE WATER MAIN CAN BE INSTALLED AT LEAST 18 INCHES ABOVE THE TOP OF THE SEWER, EITHER IN A SEPARATE TRENCH, OR IN THE SAME TRENCH ON A BENCH OF UNDISTURBED EARTH.
2. WHEN CROSSING A WATER MAIN OVER A SEWER, THE WATER MAIN SHALL BE LAID AT LEAST 18 INCHES ABOVE THE SEWER. IF CONDITIONS EXIST SUCH THAT THIS SEPARATION CANNOT BE ACHIEVED, BOTH THE WATER MAIN AND SEWER SHALL BE CONSTRUCTED OF DUCTILE IRON PIPE WITH JOINTS THAT MEET WATER MAIN STANDARDS. THE DUCTILE IRON PIPE SHALL EXTEND 10 FEET ON EACH SIDE OF THE CROSSING WITH A SECTION OF WATER MAIN PIPE CENTERED ON THE CROSSING.
3. CROSSING A WATER MAIN UNDER A SEWER. WHENEVER IT IS NECESSARY FOR A WATER MAIN TO CROSS UNDER A SEWER, BOTH THE WATER MAIN AND THE SEWER SHALL BE CONSTRUCTED OF FERROUS MATERIALS AND WITH JOINTS EQUIVALENT TO WATER MAIN STANDARDS FOR A DISTANCE OF 10 FEET ON EACH SIDE OF THE POINT OF CROSSING. A SECTION OF WATER MAIN PIPE SHALL BE CENTERED AT THE POINT OF CROSSING.
4. WHERE VERTICAL CLEARANCE IS LESS THAN 24" BETWEEN SANITARY SEWER AND STORM DRAIN, SANITARY SEWER SHALL BE DUCTILE IRON PIPE FOR A MINIMUM OF 10' EITHER SIDE OF CROSSING AND STORM DRAIN SHALL BE RC PIPE.
5. WHERE VERTICAL CLEARANCE IS LESS THAT 18" BETWEEN WATER MAIN AND STORM DRAIN, WATER MAIN SHALL BE DUCTILE IRON PIPE FOR A MINIMUM OF 10' EITHER SIDE OF CROSSING AND STORM DRAIN SHALL BE RC PIPE.

UTILITY INFORMATION

SANITARY SEWER

THIS PROJECT IS CONSTRUCTING A SANITARY SEWER GRAVITY SYSTEM THAT WILL CONNECT TO AN EXISTING GRAVITY LINE IN BREEZEWOOD DRIVE AND DUSTY MILLER LANE. SANITARY SEWER ALLOCATION IS PROVIDED BY CFPUA.

WATER

THIS PROJECT WILL EXTEND AN EXISTING 8-INCH PUBLIC WATER MAIN ON BREEZEWOOD DRIVE TO THE ROUND-A-BOUT FOR FUTURE EXTENSION TO STONE CROP. THIS PROJECT'S DOMESTIC AND FIRE SERVICE WILL CONNECT TO EXISTING 8-INCH MAIN IN CHIPPENHAM DR. RIGHT OF WAY, CONSTRUCTING PRIVATE WATER LINES THAT WILL PROVIDE FIRE FLOW AND DOMESTIC WATER FOR THE TRACT. DOMESTIC WATER ALLOCATION PROVIDED BY CFPUA.

WATER & SEWER SERVICE NOTE:

1. CONTRACTOR SHALL INSTALL WATER AND SEWER SERVICES IN ACCORDANCE WITH CFPUA STANDARD DETAILS AND SPECIFICATIONS.

CAPE FEAR PUBLIC UTILITY AUTHORITY STANDARD SEWER NOTES:

1. SEWER GUARDS REQUIRED AT ALL MANHOLES. STAINLESS STEEL SEWER GUARDS REQUIRED AT MANHOLES LOCATED IN TRAFFIC AREAS.
2. WATER AND SEWER SERVICES SHALL BE PERPENDICULAR TO MAIN AND TERMINATE AT R/W LINE. SEWER SERVICES IN CUL-DE-SACS ARE REQUIRED TO BE PERPENDICULAR, OR MUST ORIGINATE IN END OF LINE MANHOLE AND TERMINATE AT RIGHT-OF-WAY LINE.
3. ALL SERVICES TYING INTO DUCTILE IRON MAINS SHALL BE CONSTRUCTED OF CLASS 50, DIP, WITH PROTECTO 401 CERAMIC EPOXY LINING.
4. MINIMUM 10' UTILITIES EASEMENT PROVIDED ALONG THE FRONTAGE OF ALL LOTS AND AS SHOWN FOR NEW DEVELOPMENTS.
5. NO FLEXIBLE COUPLINGS SHALL BE USED.
6. ALL STAINLESS STEEL FASTENERS SHALL BE 316.
7. CLEANOUTS SHALL BE LOCATED A MINIMUM OF 12 FEET FROM ALL PROPERTY CORNERS. WATER METER BOXES ARE TO BE A MINIMUM OF 5 FEET FROM THE PROPERTY CORNER.

UTILITY KEYNOTES:

- A — 4" CLEAN OUT [TYPICAL]
- B — (1) 4" X 4" MJ TEE [DOMESTIC]; (2) 4" MJ GATE VALVE [DOMESTIC]; (2) 4" MJ PLUG (ADAPTED FOR 2.5" SERVICE) [DOMESTIC]; (1) 8" X 8" MJ TEE [FIRE]; (1) 8" TO 4" MJ REDUCER [FIRE]
- C — (1) 4" X 4" MJ TEE [DOMESTIC]; (2) 4" MJ GATE VALVE; (1) 4" MJ PLUG (ADAPTED FOR 2" SERVICE) [DOMESTIC]; (1) 8" X 4" MJ TEE [FIRE]
- D — (1) 4" X 4" MJ TEE [DOMESTIC]; (2) 4" MJ GATE VALVE; (1) 4" MJ PLUG (ADAPTED FOR 2.5" SERVICE) [DOMESTIC]; (1) 8" X 4" MJ TEE [FIRE]
- E — (1) 2.5" RJ 90° BEND [DOMESTIC]; (1) 4" MJ 90° BEND [FIRE]
- F — (1) 4" MJ 45° BEND [DOMESTIC]; (1) 8" MJ 45° BEND [FIRE]
- G — (1) 4" MJ 90° BEND [DOMESTIC]; (1) 8" MJ 90° BEND [FIRE]
- H — (1) 2.5" RJ 45° BEND [DOMESTIC]; (1) 4" MJ 45° BEND [FIRE]
- I — (1) FIRE HYDRANT ASSEMBLY; (2) 6" MJ 22.5° BEND [DOMESTIC]; (1) 6" X 6" MJ TEE [DOMESTIC]; (1) 6" TO 4" MJ REDUCER [DOMESTIC]; (1) 6" MJ GATE VALVE [DOMESTIC]; (1) 4" MJ GATE VALVE [DOMESTIC]; (1) 8" X 8" MJ TEE [FIRE]; (2) 8" MJ 22.5° BEND [FIRE]
- J — (1) 4" X 4" MJ TEE [DOMESTIC]; (2) 4" MJ GATE VALVE [DOMESTIC]; (1) 4" MJ PLUG (ADAPTED FOR 2.5" SERVICE) [DOMESTIC]; (1) 8" X 4" MJ TEE [FIRE]
- K — (1) 4" X 4" MJ TEE [DOMESTIC]; (2) 4" MJ GATE VALVE [DOMESTIC]; (1) 4" MJ PLUG (ADAPTED FOR 2.5" SERVICE) [DOMESTIC]; (1) 4" MJ PLUG (ADAPTED FOR 1.5" SERVICE) [DOMESTIC]; (1) 8" X 4" MJ TEE [FIRE]
- L — PROPOSED TRANSFORMER AND UNDERGROUND SERVICE TO BUILDING (TYPICAL). [SEE MEP PLANS]
- M — PROPOSED HVAC PAD (TYPICAL). [SEE MEP PLANS]

811 Know what's below. Call before you dig.

GRAPHIC SCALE
0 25 50 100 200
SCALE: 1"=50'

ISSUED FOR ☐ PRELIMINARY ☑ PERMITTING ☐ BID ☐ CONSTRUCTION

REVISIONS:

CLIENT INFORMATION:
CK WILMINGTON
THREE PHASE A, LLC
CHARLOTTE, NC

PARAMOUNTE ENGINEERING
122 Cinema Drive
Wilmington, North Carolina 28403
(910) 791-6707 (O) (910) 791-6760 (F)
NC License #: C-2846

OVERALL UTILITY PLAN

WILMINGTON THREE PHASE A
CITY OF WILMINGTON
NORTH CAROLINA

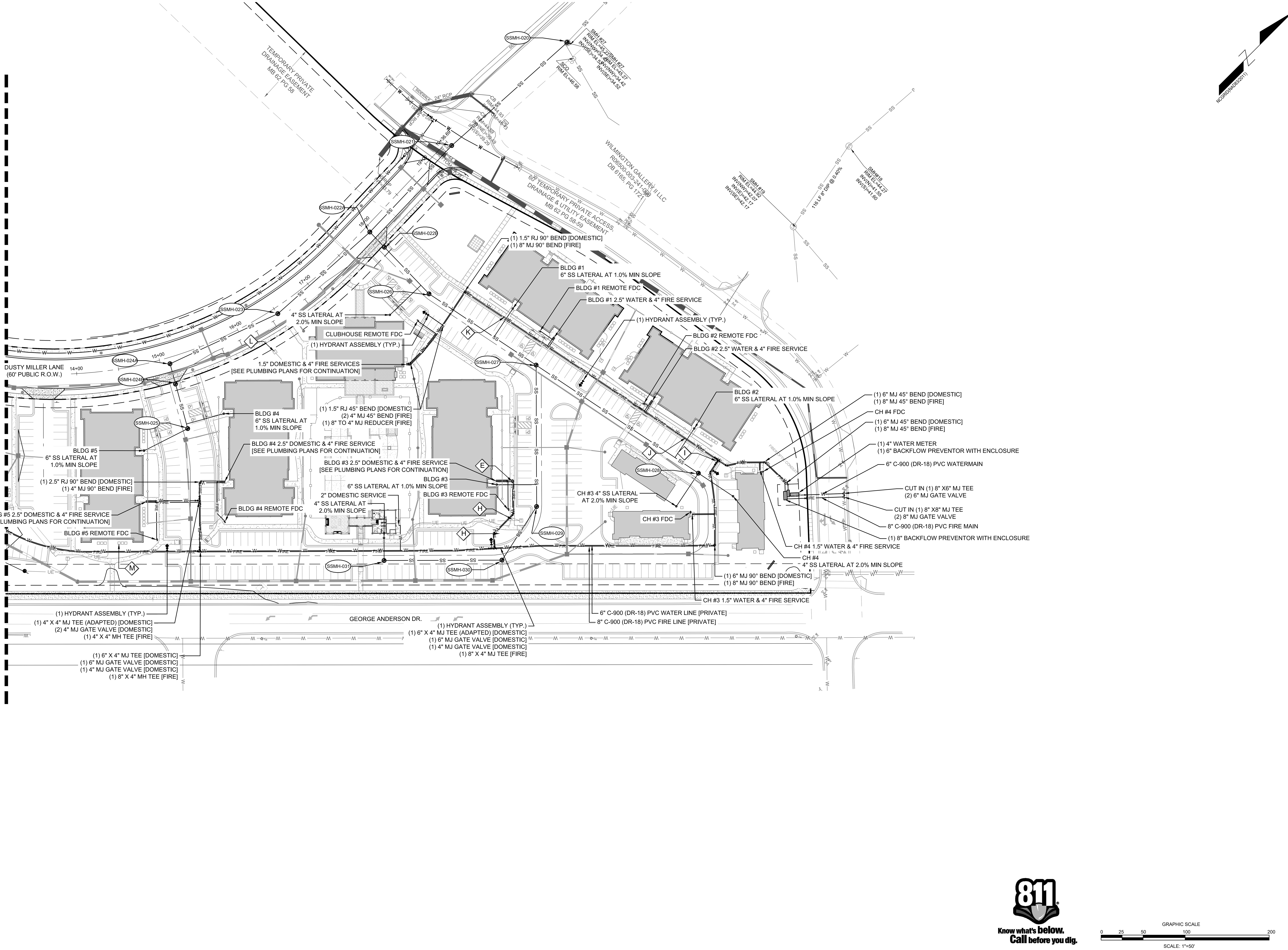
PROJECT STATUS
CONCEPTUAL SKETCH:
PRELIMINARY LAYOUT:
FINAL DESIGN:
RELEASED FOR CONST:

DRAWING INFORMATION
DATE: 03.29.21
SCALE: 1" = 50'
DESIGNED: DP
DRAWN: DP
CHECKED: DP

Professional Seal redacted on electronic copy per City of Wilmington Policy

C-5.0

PEI JOB#: 20195.PE



SEE SHEET C-5.0
TEMPORARY PRIVATE DRAINAGE EASEMENT MB 62 PG 58
WILMINGTON GALLERY II LLC R06500-003-241-000 DB 6165 PG 1721
60' TEMPORARY PRIVATE ACCESS, DRAINAGE & UTILITY EASEMENT MB 62 PG 58-59
116 LF 8" DIP @ 0.40%
SSMH-020
SSMH-021
SSMH-022
SSMH-022B
SSMH-023
SSMH-024
SSMH-024B
SSMH-025
SSMH-026
SSMH-027
SSMH-028
SSMH-029
SSMH-030
SSMH-031
24" RCP
DUSTY MILLER LANE (60' PUBLIC R.O.W.)
GEORGE ANDERSON DR.
(1) 1.5" RJ 90° BEND [DOMESTIC]
(1) 8" MJ 90° BEND [FIRE]
BLDG #1 6" SS LATERAL AT 1.0% MIN SLOPE
BLDG #1 REMOTE FDC
BLDG #1 2.5" WATER & 4" FIRE SERVICE
(1) HYDRANT ASSEMBLY (TYP.)
BLDG #2 REMOTE FDC
BLDG #2 2.5" WATER & 4" FIRE SERVICE
BLDG #2 6" SS LATERAL AT 1.0% MIN SLOPE
4" SS LATERAL AT 2.0% MIN SLOPE
CLUBHOUSE REMOTE FDC
(1) HYDRANT ASSEMBLY (TYP.)
1.5" DOMESTIC & 4" FIRE SERVICES [SEE PLUMBING PLANS FOR CONTINUATION]
(1) 1.5" RJ 45° BEND [DOMESTIC]
(2) 4" MJ 45° BEND [FIRE]
(1) 8" TO 4" MJ REDUCER [FIRE]
BLDG #4 6" SS LATERAL AT 1.0% MIN SLOPE
BLDG #4 2.5" DOMESTIC & 4" FIRE SERVICE [SEE PLUMBING PLANS FOR CONTINUATION]
BLDG #3 2.5" DOMESTIC & 4" FIRE SERVICE [SEE PLUMBING PLANS FOR CONTINUATION]
BLDG #3 6" SS LATERAL AT 1.0% MIN SLOPE
BLDG #3 REMOTE FDC
2" DOMESTIC SERVICE
4" SS LATERAL AT 2.0% MIN SLOPE
BLDG #4 REMOTE FDC
BLDG #5 6" SS LATERAL AT 1.0% MIN SLOPE
(1) 2.5" RJ 90° BEND [DOMESTIC]
(1) 4" MJ 90° BEND [FIRE]
BLDG #5 2.5" DOMESTIC & 4" FIRE SERVICE [SEE PLUMBING PLANS FOR CONTINUATION]
BLDG #5 REMOTE FDC
CH #3 4" SS LATERAL AT 2.0% MIN SLOPE
CH #3 FDC
(1) 6" MJ 45° BEND [DOMESTIC]
(1) 8" MJ 45° BEND [FIRE]
CH #4 FDC
(1) 6" MJ 45° BEND [DOMESTIC]
(1) 8" MJ 45° BEND [FIRE]
(1) 4" WATER METER
(1) 6" BACKFLOW PREVENTOR WITH ENCLOSURE
6" C-900 (DR-18) PVC WATERMAIN
CUT IN (1) 8" X6" MJ TEE
(2) 6" MJ GATE VALVE
CUT IN (1) 8" X8" MJ TEE
(2) 8" MJ GATE VALVE
8" C-900 (DR-18) PVC FIRE MAIN
(1) 8" BACKFLOW PREVENTOR WITH ENCLOSURE
CH #4 1.5" WATER & 4" FIRE SERVICE
CH #4 4" SS LATERAL AT 2.0% MIN SLOPE
(1) 6" MJ 90° BEND [DOMESTIC]
(1) 8" MJ 90° BEND [FIRE]
CH #3 1.5" WATER & 4" FIRE SERVICE
6" C-900 (DR-18) PVC WATER LINE [PRIVATE]
8" C-900 (DR-18) PVC FIRE LINE [PRIVATE]
(1) HYDRANT ASSEMBLY (TYP.)
(1) 4" X 4" MJ TEE (ADAPTED) [DOMESTIC]
(2) 4" MJ GATE VALVE [DOMESTIC]
(1) 4" X 4" MH TEE [FIRE]
(1) HYDRANT ASSEMBLY (TYP.)
(1) 6" X 4" MJ TEE (ADAPTED) [DOMESTIC]
(1) 6" MJ GATE VALVE [DOMESTIC]
(1) 4" MJ GATE VALVE [DOMESTIC]
(1) 8" X 4" MJ TEE [FIRE]
(1) 6" X 4" MJ TEE [DOMESTIC]
(1) 6" MJ GATE VALVE [DOMESTIC]
(1) 4" MJ GATE VALVE [DOMESTIC]
(1) 8" X 4" MH TEE [FIRE]
Know what's below. Call before you dig.
GRAPHIC SCALE
0 25 50 100 200
SCALE: 1"=50'

ISSUED FOR: ☐ PRELIMINARY ☑ PERMITTING ☐ BID ☐ CONSTRUCTION

REVISIONS:

CLIENT INFORMATION:

CK WILMINGTON THREE PHASE A, LLC
CHARLOTTE, NC

PARAMOUNTE ENGINEERING, INC
122 Cinema Drive
Wilmington, North Carolina 28403
(910) 791-6707 (O) (910) 791-6760 (F)
NC License #: C-2846

OVERALL UTILITY PLAN

WILMINGTON THREE PHASE A
CITY OF WILMINGTON
NORTH CAROLINA

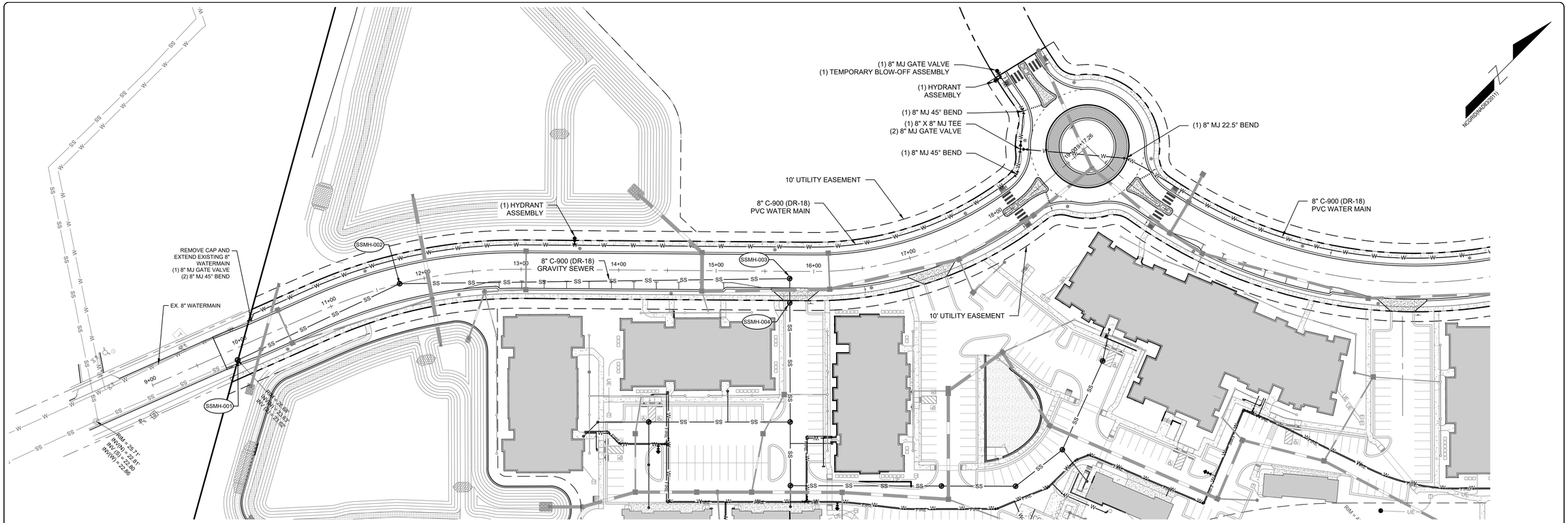
PROJECT STATUS
CONCEPTUAL LAYOUT:
PRELIMINARY LAYOUT:
FINAL DESIGN:
RELEASED FOR CONST:

DRAWING INFORMATION
DATE: 03.25.21
SCALE: 1" = 50'
DESIGNED: DF
DRAWN: DF
CHECKED: DF

Professional Seal redacted on electronic copy per City of Wilmington Policy

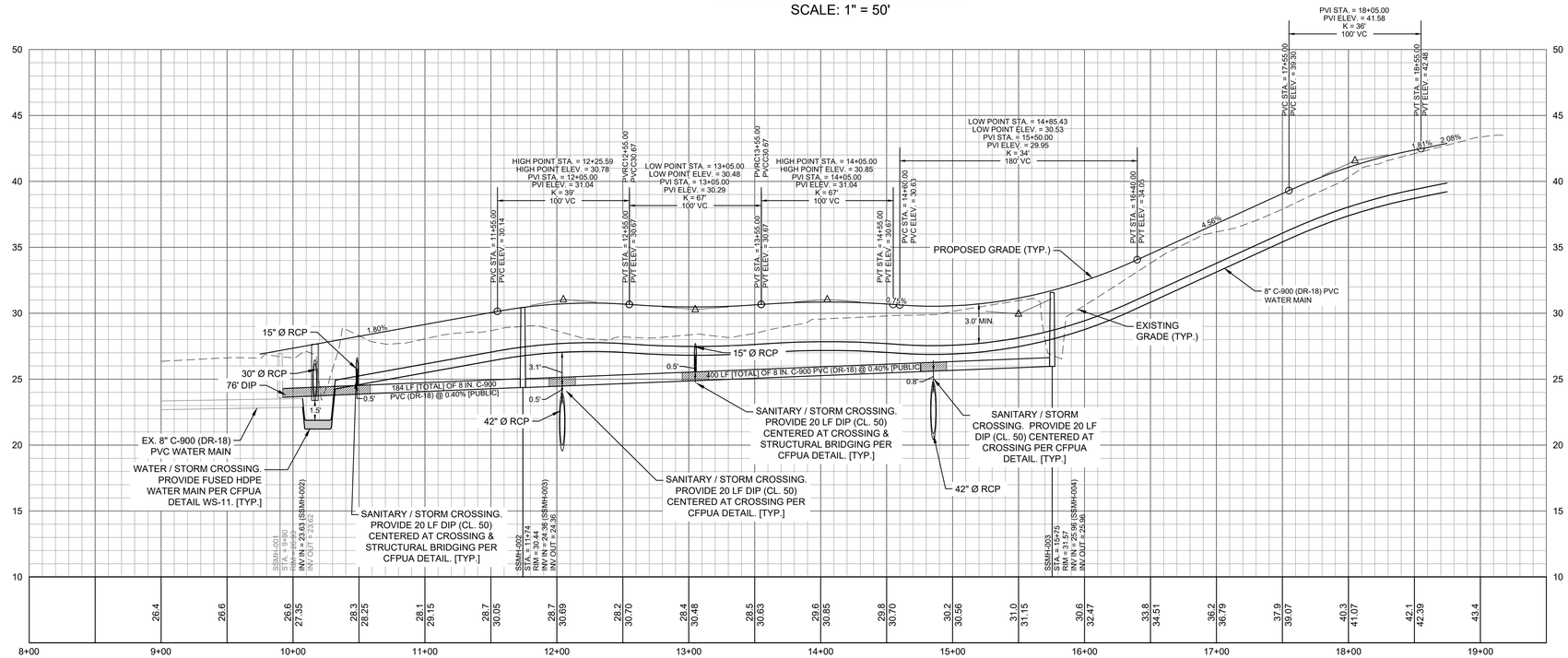
C-5.1

PEI JOB#: 20195.PE



BREEZEWOOD - PLAN VIEW

SCALE: 1" = 50'



BREEZEWOOD - PROFILE VIEW

HORIZONTAL SCALE: 1" = 50'

VERTICAL SCALE: 1" = 5'

Know what's below. Call before you dig.

GRAPHIC SCALE

0 25 50 100 200

SCALE: 1"=50'

ISSUED FOR: ☐ PRELIMINARY ☑ PERMITTING ☐ BID ☐ CONSTRUCTION

REVISIONS:

CLIENT INFORMATION:

CK WILMINGTON
THREE PHASE A, LLC
CHARLOTTE, NC

PARAMOUNTE ENGINEERING
122 Cinema Drive
Wilmington, North Carolina 28403
(910) 791-6707 (O) (910) 791-6760 (F)
NC License #: C-2846

PLAN & PROFILE

WILMINGTON THREE PHASE A
CITY OF WILMINGTON
NORTH CAROLINA

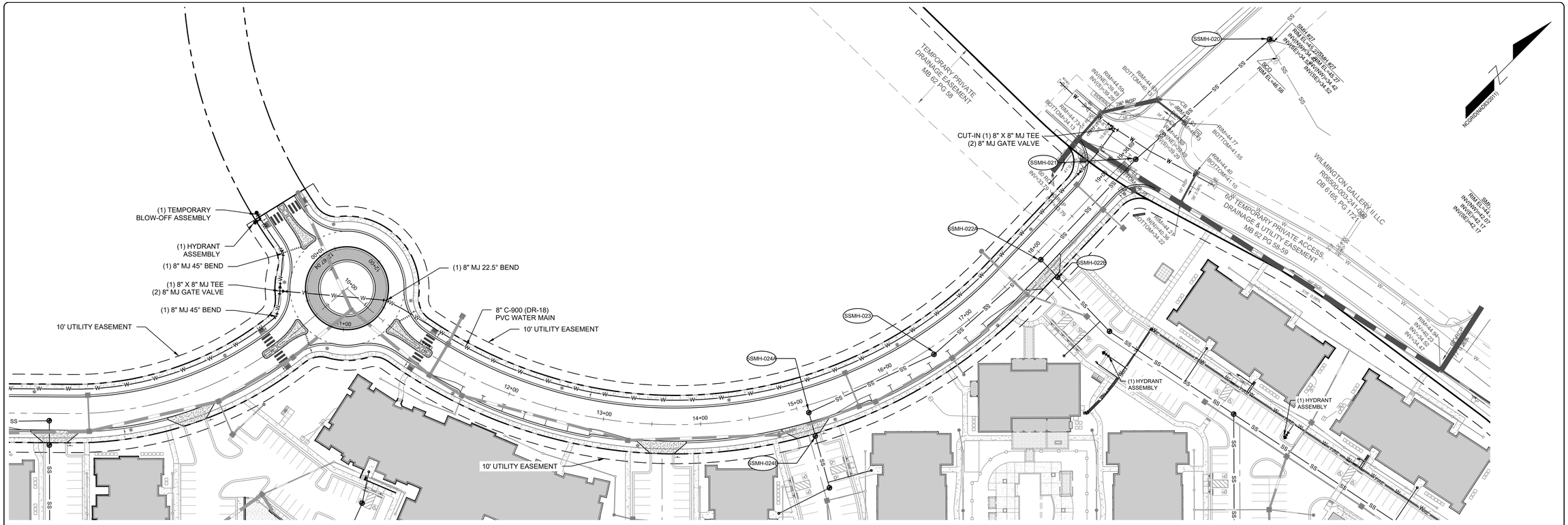
PROJECT STATUS
CONCEPTUAL / ENTITLEMENT:
PRELIMINARY LAYOUT:
FINAL DESIGN:
RELEASED FOR CONST:

DRAWING INFORMATION
DATE: 03.23.21
SCALE: AS NOTED
DESIGNED: EP
DRAWN: DF
CHECKED: DP

Professional Seal redacted on electronic copy per City of Wilmington Policy

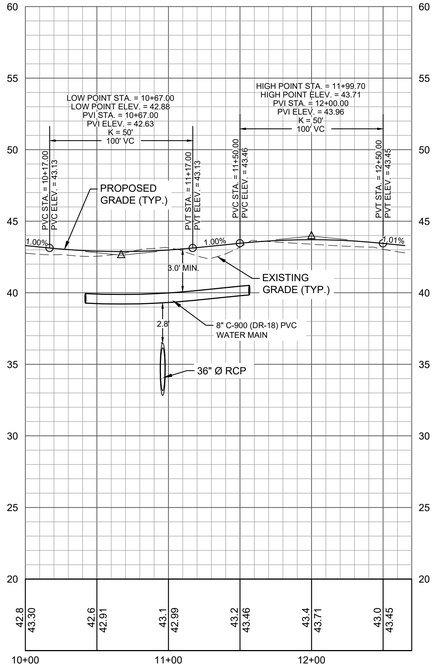
C-5.2

PEI JOB#: 20195.PE



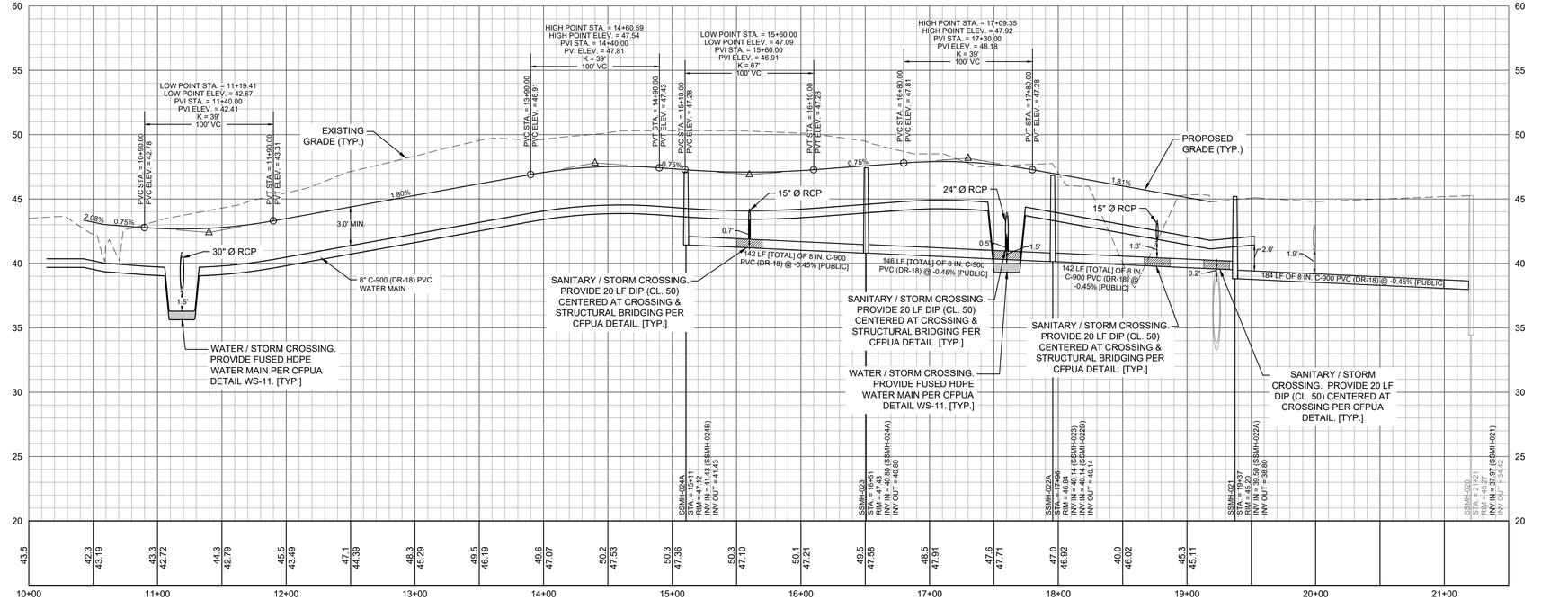
ROUND-A-BOUT + DUSTY MILLER - PLAN VIEW

SCALE: 1" = 50'



ROUND-A-BOUT - PROFILE VIEW

HORIZONTAL SCALE: 1" = 50'
VERTICAL SCALE: 1" = 5'



DUSTY MILLER - PROFILE VIEW

HORIZONTAL SCALE: 1" = 50'
VERTICAL SCALE: 1" = 5'

Know what's below. Call before you dig.

GRAPHIC SCALE
0 25 50 100 200
SCALE: 1"=50'

ISSUED FOR: ☐ PRELIMINARY ☑ PERMITTING ☐ BID ☐ CONSTRUCTION

REVISIONS:

CLIENT INFORMATION:

CK WILMINGTON
THREE PHASE A, LLC
CHARLOTTE, NC

PARAMOUNT ENGINEERING
122 Cinema Drive
Wilmington, North Carolina 28403
(910) 791-6707 (O) (910) 791-6760 (F)
NC License #: C-2846

PLAN & PROFILE

WILMINGTON THREE PHASE A
CITY OF WILMINGTON
NORTH CAROLINA

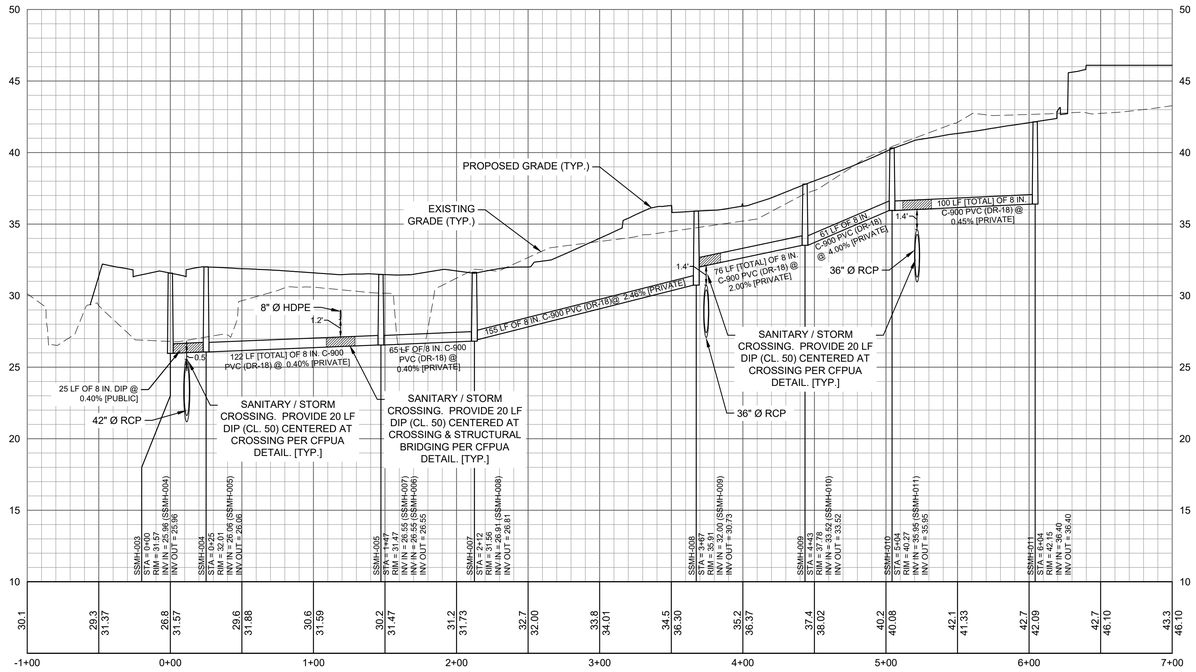
PROJECT STATUS
CONCEPT PLAN:
PRELIMINARY LAYOUT:
FINAL DESIGN:
RELEASED FOR CONST.:

DRAWING INFORMATION
DATE: 03.25.21
SCALE: AS NOTED
DESIGNED: TD
DRAWN: JF
CHECKED: DP

Professional Seal redacted on electronic copy per City of Wilmington Policy

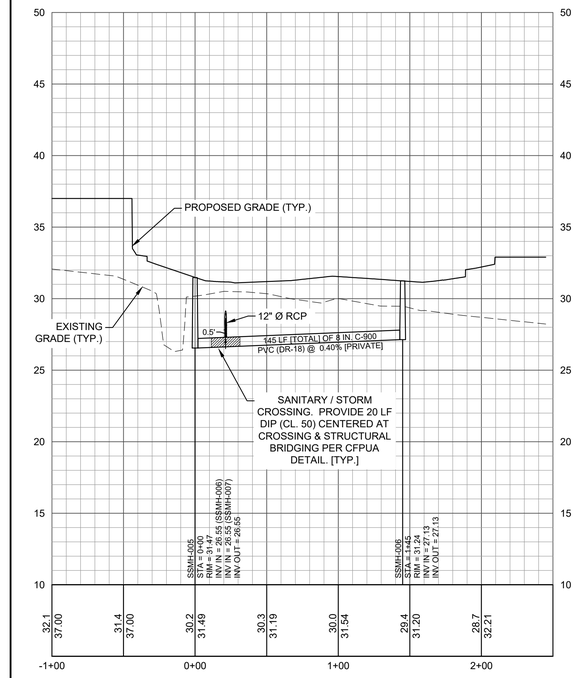
C-5.3

PEI JOB#: 20195.PE



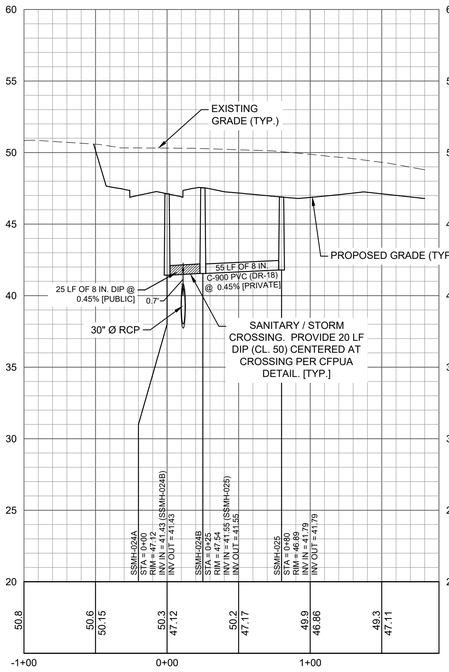
SSMH-003 TO SSMH-011 - PROFILE VIEW

HORIZONTAL SCALE: 1" = 50'
VERTICAL SCALE: 1" = 5'



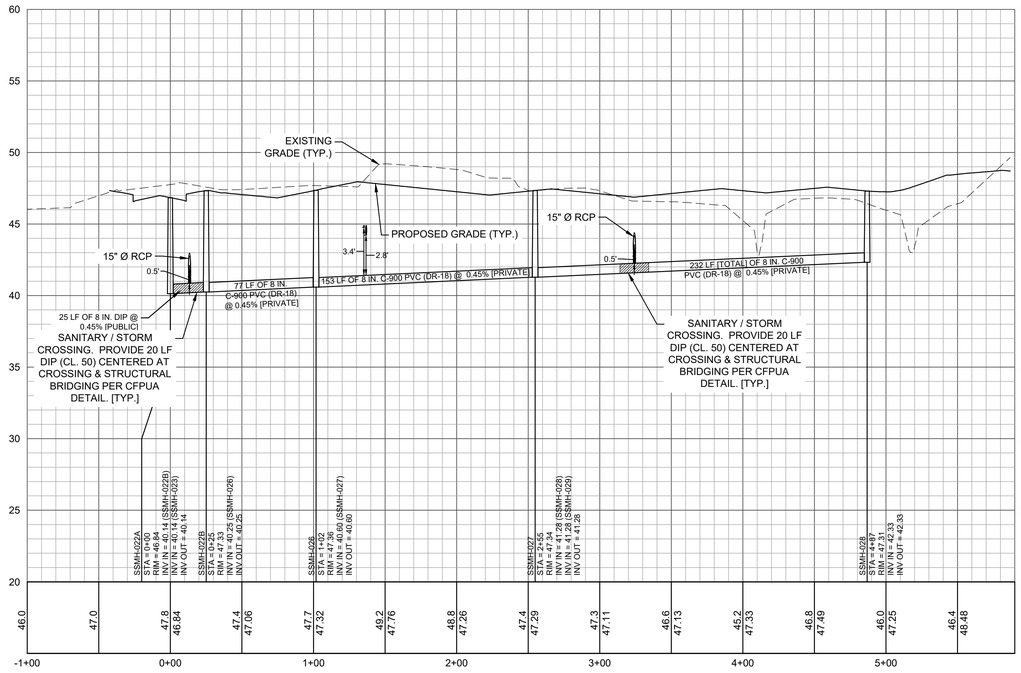
SSMH-005 TO SSMH-006 - PROFILE VIEW

HORIZONTAL SCALE: 1" = 50'
VERTICAL SCALE: 1" = 5'



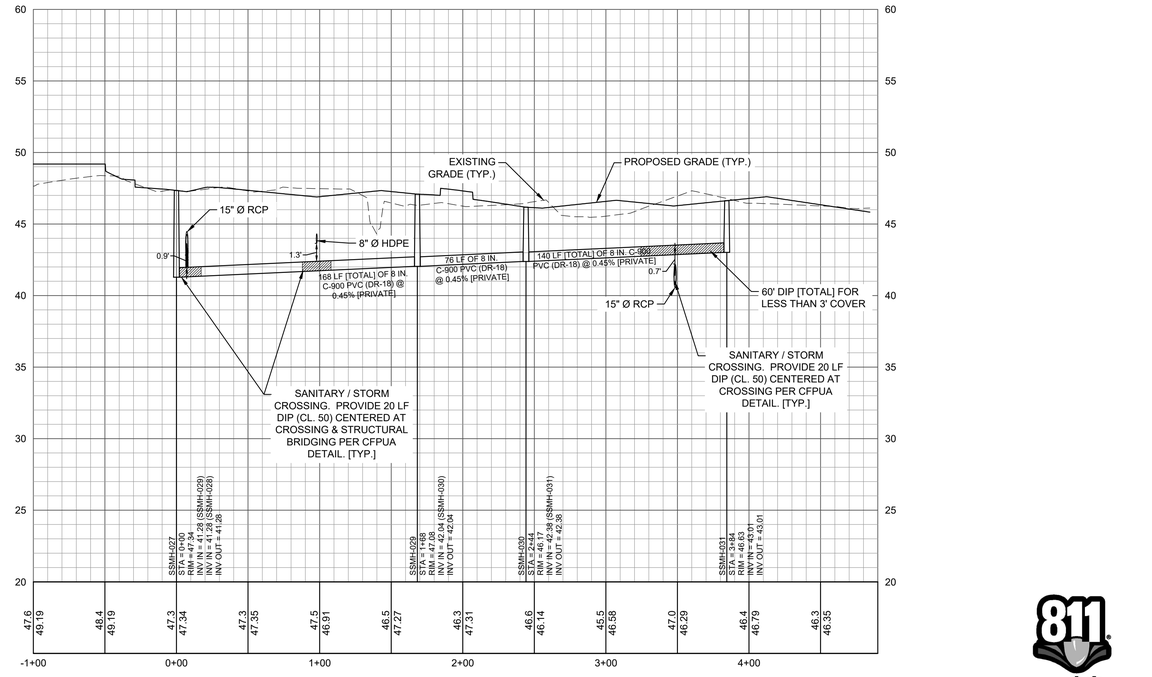
SSMH-024A TO SSMH-025 - PROFILE VIEW

HORIZONTAL SCALE: 1" = 50'
VERTICAL SCALE: 1" = 5'



SSMH-022A TO SSMH-028 - PROFILE VIEW

HORIZONTAL SCALE: 1" = 50'
VERTICAL SCALE: 1" = 5'



SSMH-027 TO SSMH-031 - PROFILE VIEW

HORIZONTAL SCALE: 1" = 50'
VERTICAL SCALE: 1" = 5'

Know what's below. Call before you dig.

GRAPHIC SCALE
0 25 50 100 200
SCALE: 1"=50'

ISSUED FOR: ☐ PRELIMINARY ☑ PERMITTING ☐ BID ☐ CONSTRUCTION

REVISIONS:

CLIENT INFORMATION:

CK WILMINGTON
THREE PHASE A, LLC
CHARLOTTE, NC

PARAMOUNTE ENGINEERING
122 Cinema Drive
Wilmington, North Carolina 28403
(910) 791-6707 (O) (910) 791-6760 (F)
NC License #: C-2846

SEWER PROFILE

WILMINGTON THREE PHASE A
CITY OF WILMINGTON
NORTH CAROLINA

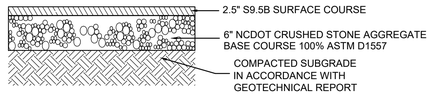
PROJECT STATUS
CONCEPTUAL LAYOUT:
PRELIMINARY LAYOUT:
FINAL DESIGN:
RELEASED FOR CONST:

DRAWING INFORMATION
DATE: 03.23.21
SCALE: AS NOTED
DESIGNED: DF
DRAWN: DF
CHECKED:

Professional Seal redacted on electronic copy per City of Wilmington Policy

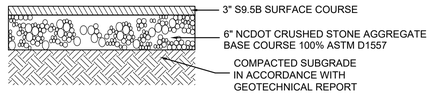
C-5.4

PEI JOB#: 20195.PE



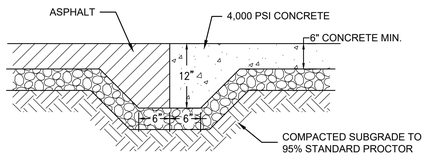
LIGHT DUTY ASPHALT PAVING SECTION (PRIVATE PARKING & DRIVE AISLES)

NOT TO SCALE



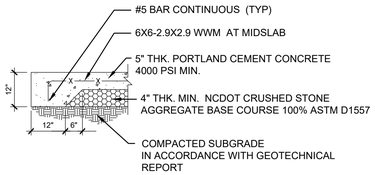
HEAVY DUTY ASPHALT PAVING SECTION (PUBLIC R.O.W.)

NOT TO SCALE



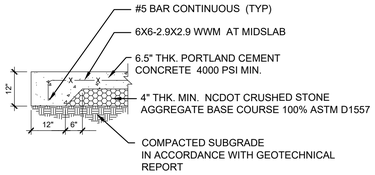
ASPHALT TO CONCRETE PAVEMENT TRANSITION

NOT TO SCALE



CONCRETE PAVING SECTION

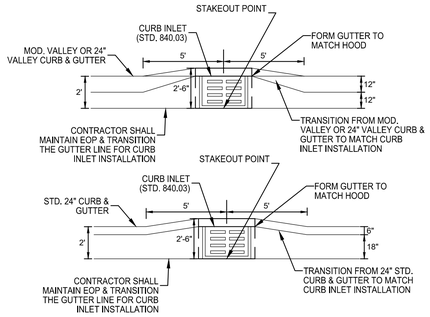
NOT TO SCALE



(AT DUMPSTER AREAS PER GEOTECH REPORT)

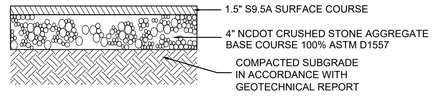
HEAVY DUTY CONCRETE PAVING SECTION

NOT TO SCALE



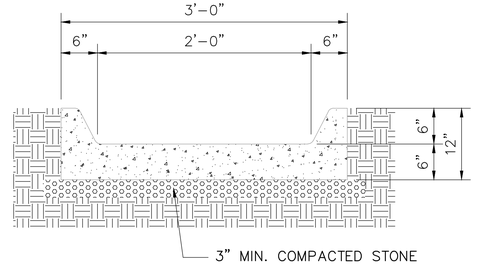
CURB TRANSITION DETAIL

NOT TO SCALE



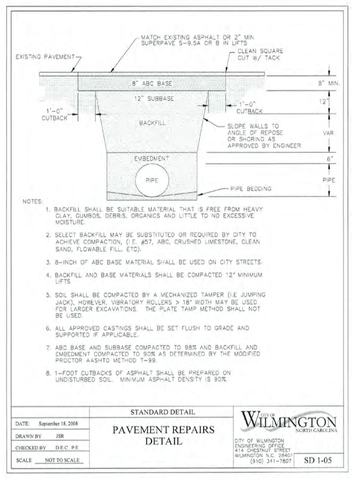
MULTI-USE PATH ASPHALT PAVING SECTION

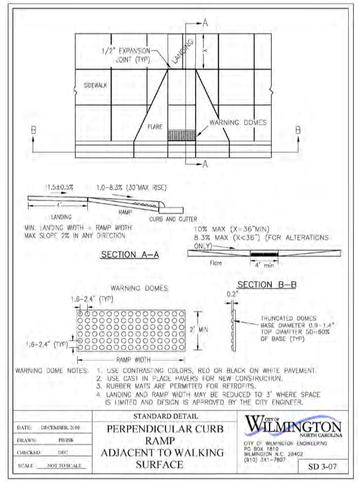
NOT TO SCALE

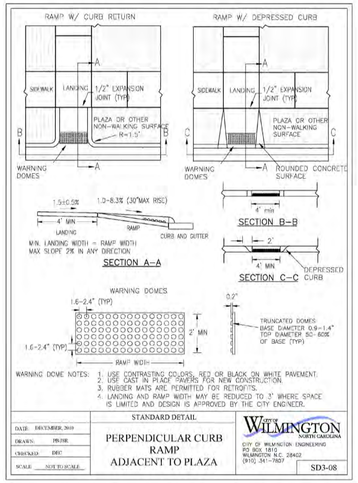


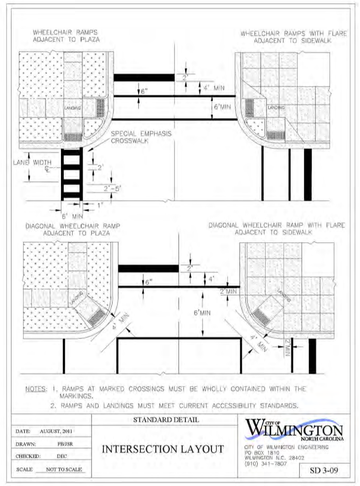
CONCRETE DRAINAGE FLUME

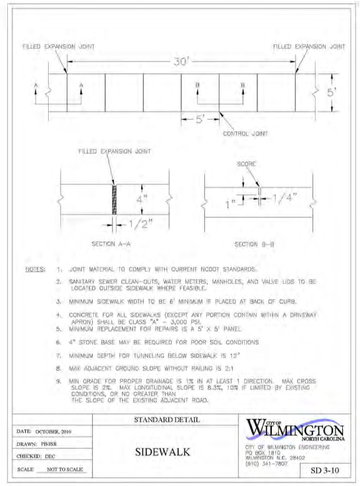
NOT TO SCALE

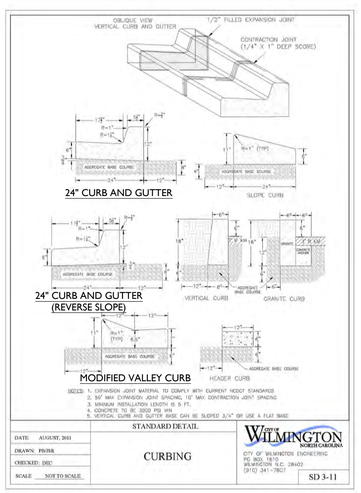


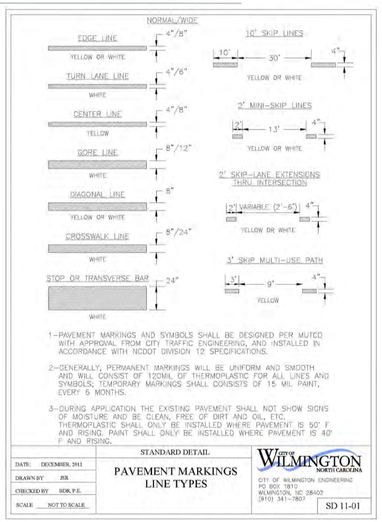


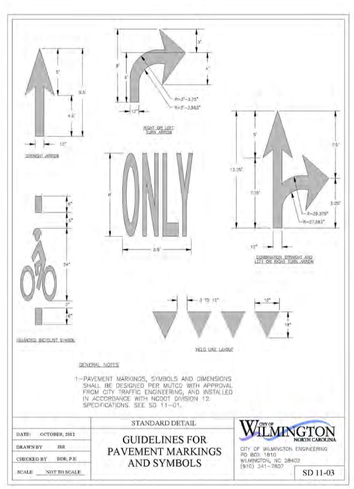


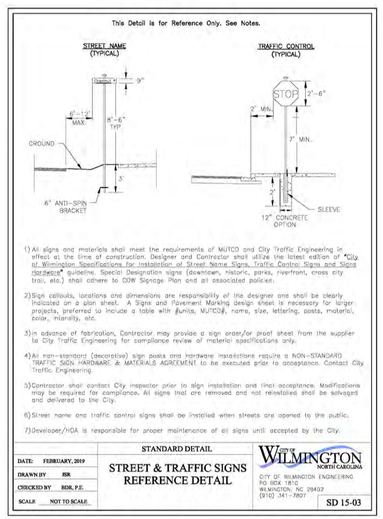












REVISIONS:

CLIENT INFORMATION:

CK WILMINGTON
THREE PHASE A, LLC
CHARLOTTE, NC

PARAMOUNTE ENGINEERING
122 Cinema Drive
Wilmington, North Carolina 28403
(910) 791-6707 (O) (910) 791-6760 (F)
NC License #: C-2846

SITE DETAILS

WILMINGTON THREE PHASE A
CITY OF WILMINGTON
NORTH CAROLINA

PROJECT STATUS
CONCEPTUAL LAYOUT:
PRELIMINARY LAYOUT:
FINAL DESIGN:
RELEASED FOR CONST:

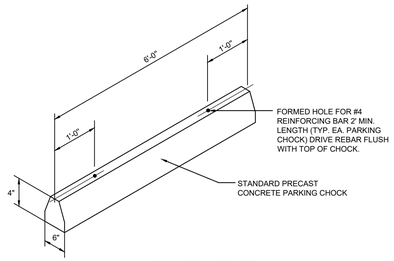
DRAWING INFORMATION
DATE: 03.25.21
SCALE: AS NOTED
DESIGNED: TED
DRAWN: DJF
CHECKED: DJF

ISSUED FOR: ☐ PRELIMINARY ☑ PERMITTING: ☐ BID ☐ CONSTRUCTION

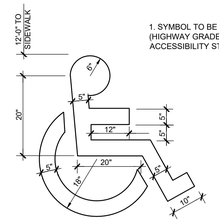
Professional Seal redacted on electronic copy per City of Wilmington Policy

C-6.00

PEI JOB#: 20195.PE

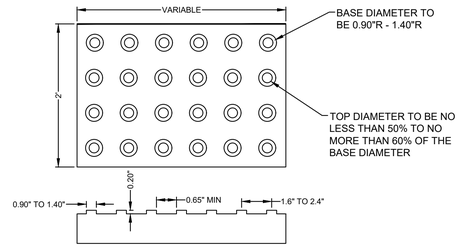


WHEEL STOP
NOT TO SCALE

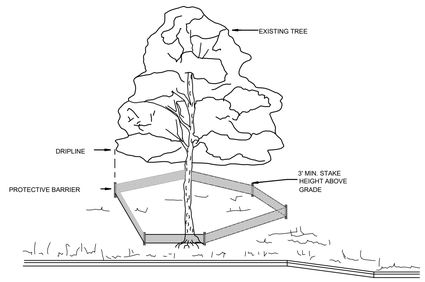


1. SYMBOL TO BE PAINTED (HIGHWAY GRADE) YELLOW PER ACCESSIBILITY STANDARDS.

HANDICAPPED PARKING SYMBOL
NOT TO SCALE

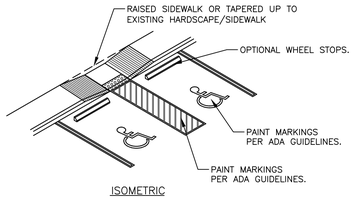


DETECTABLE WARNING MAT
NOT TO SCALE

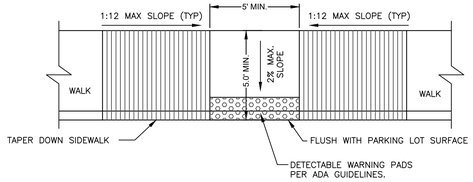


NOTE:
TREES TO BE SAVED WILL BE CLEARLY MARKED PRIOR TO CONSTRUCTION AND A PROTECTIVE BARRIER IS TO BE INSTALLED AT THE DRIPLINE.
DRIP LINE - THE AREA OF SOIL DIRECTLY BENEATH THE TREE EXTENDING OUT TO THE TIPS OF THE OUTERMOST BRANCHES.

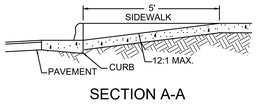
METHOD OF TREE PROTECTION DURING CONSTRUCTION
NOT TO SCALE



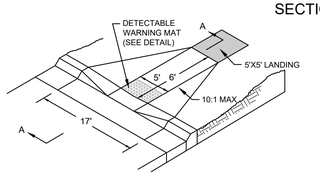
ISOMETRIC



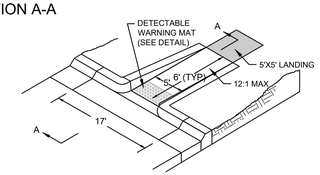
WHEELCHAIR RAMP - TYPE 1



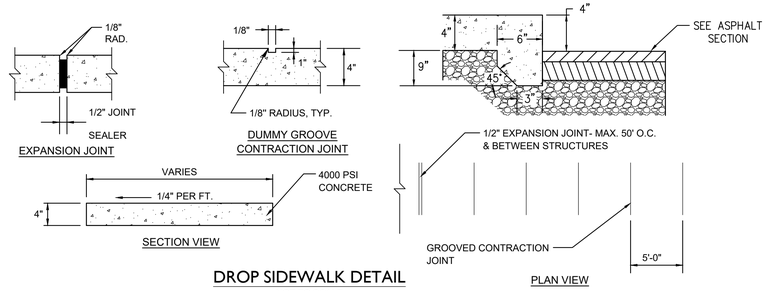
SECTION A-A



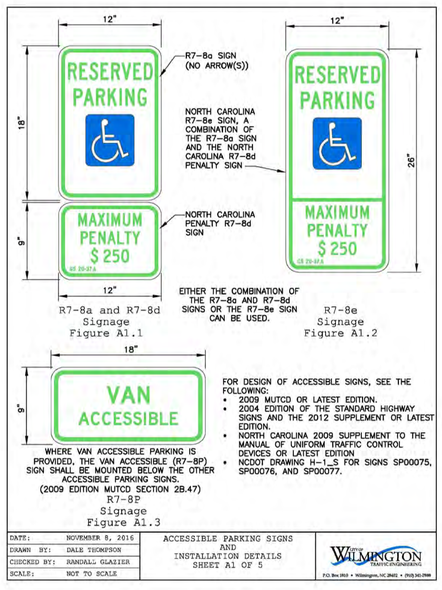
TYPE 2 - WHEELCHAIR RAMP (DROP CURB)
NOT TO SCALE



TYPE 3 - WHEELCHAIR RAMP (CURB RETURN)
NOT TO SCALE



DROP SIDEWALK DETAIL
NOT TO SCALE

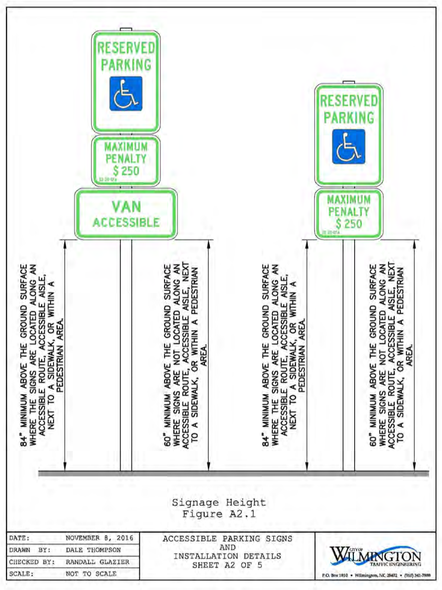


R7-8a and R7-8d Signage
Figure A1.1

R7-8e Signage
Figure A1.2

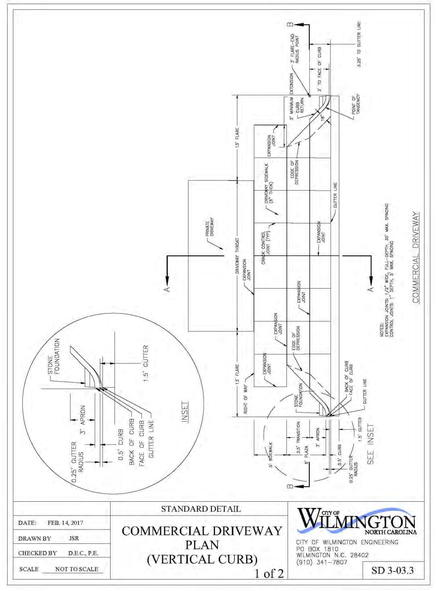
R7-8P Signage
Figure A1.3

DATE: NOVEMBER 8, 2016	ACCESSIBLE PARKING SIGNS AND INSTALLATION DETAILS SHEET A1 OF 5	City of Wilmington Traffic Engineering
DRAWN BY: DALE THOMPSON		
CHECKED BY: RANDALL GLAZIER		
SCALE: NOT TO SCALE		

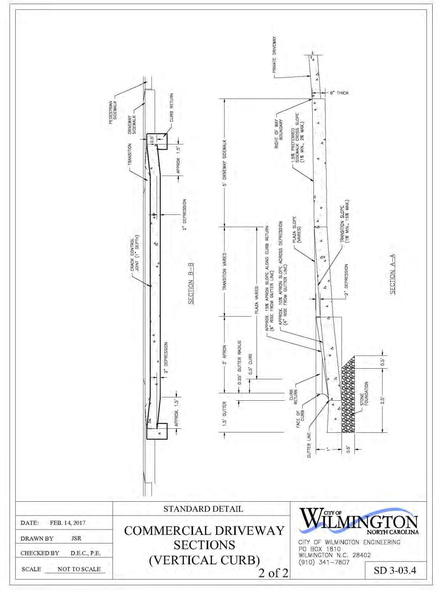


Signage Height
Figure A2.1

DATE: NOVEMBER 8, 2016	ACCESSIBLE PARKING SIGNS AND INSTALLATION DETAILS SHEET A2 OF 5	City of Wilmington Traffic Engineering
DRAWN BY: DALE THOMPSON		
CHECKED BY: RANDALL GLAZIER		
SCALE: NOT TO SCALE		



DATE: FEB. 14, 2017	STANDARD DETAIL COMMERCIAL DRIVEWAY PLAN (VERTICAL CURB) 1 of 2	City of Wilmington North Carolina CITY OF WILMINGTON ENGINEERING PO BOX 1810 WILMINGTON, N.C. 28402 (910) 341-7807
DRAWN BY JSR		
CHECKED BY D.E.C., P.E.		
SCALE NOT TO SCALE		SD 3-03.3



DATE: FEB. 14, 2017	STANDARD DETAIL COMMERCIAL DRIVEWAY SECTIONS (VERTICAL CURB) 2 of 2	City of Wilmington North Carolina CITY OF WILMINGTON ENGINEERING PO BOX 1810 WILMINGTON, N.C. 28402 (910) 341-7807
DRAWN BY JSR		
CHECKED BY D.E.C., P.E.		
SCALE NOT TO SCALE		SD 3-03.4

ISSUED FOR: ☐ PRELIMINARY ☑ PERMITTING ☐ BID ☐ CONSTRUCTION

REVISIONS:

CLIENT INFORMATION:
CK WILMINGTON
THREE PHASE A, LLC
CHARLOTTE, NC

PARAMOUNTE ENGINEERING
122 Cinema Drive
Wilmington, North Carolina 28403
(910) 791-6707 (O) (910) 791-6760 (F)
NC License #: C-2846

SITE DETAILS

WILMINGTON THREE PHASE A
CITY OF WILMINGTON
NORTH CAROLINA

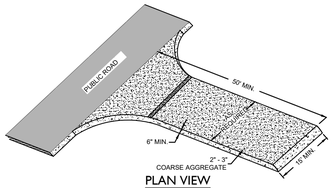
PROJECT STATUS
CONCEPTUAL LAYOUT:
PRELIMINARY LAYOUT:
FINAL DESIGN:
RELEASED FOR CONST:

DRAWING INFORMATION
DATE: 03.25.21
DESIGNED: AS NOTED
DRAWN: TED
CHECKED: DJF
DJF

Professional Seal redacted on electronic copy per City of Wilmington Policy

C-6.01

PEI JOB#: 20195.PE

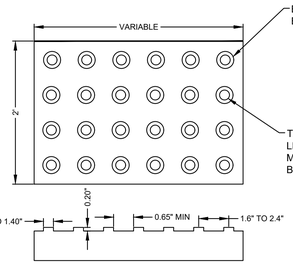


PLAN VIEW

SECTION VIEW

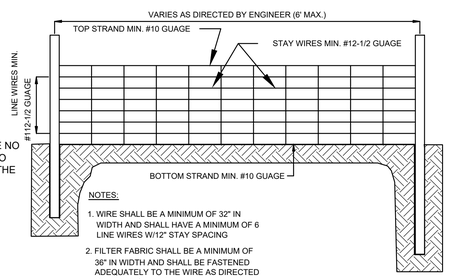
TEMPORARY CONSTRUCTION ENTRANCE

NOT TO SCALE



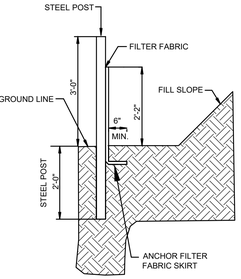
DETECTABLE WARNING MAT

NOT TO SCALE



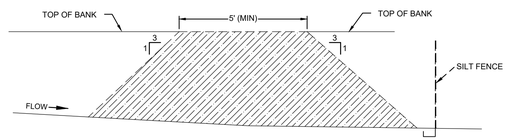
NOTES:

1. WIRE SHALL BE A MINIMUM OF 32" IN WIDTH AND SHALL HAVE A MINIMUM OF 6 LINE WIRES W/12" STAY SPACING
2. FILTER FABRIC SHALL BE A MINIMUM OF 36" IN WIDTH AND SHALL BE FASTENED ADEQUATELY TO THE WIRE AS DIRECTED BY THE ENGINEER
3. STEEL POST SHALL BE 5' 0" IN HEIGHT AND BE OF SELF FASTENER ANGLE STEEL TYPE



GUIDELINES FOR TEMPORARY SILT FENCE DETAIL

NOT TO SCALE

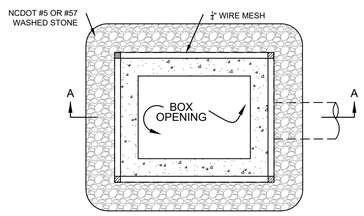


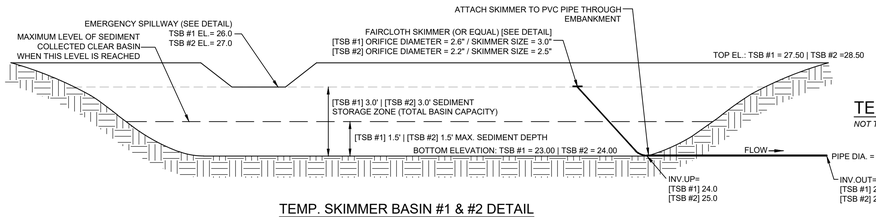
NOTES:

1. CONTRACTOR TO INSTALL DITCH PLUGS AS SHOWN ON PLANS IN ALL DITCHES TO BE FILLED.
2. DITCH PLUGS ARE TO BE INSTALLED AND DITCHES TO BE FILLED PRIOR TO ANY RAIN EVENT

DITCH PLUG

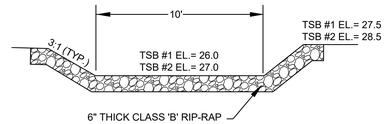
NOT TO SCALE





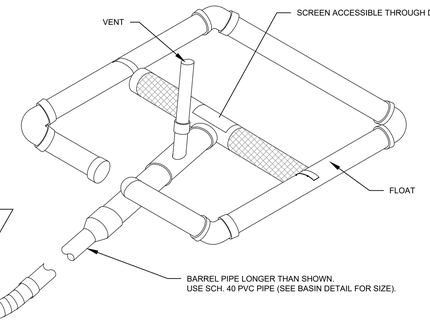
TEMP. SKIMMER BASIN #1 & #2 DETAIL

NOT TO SCALE



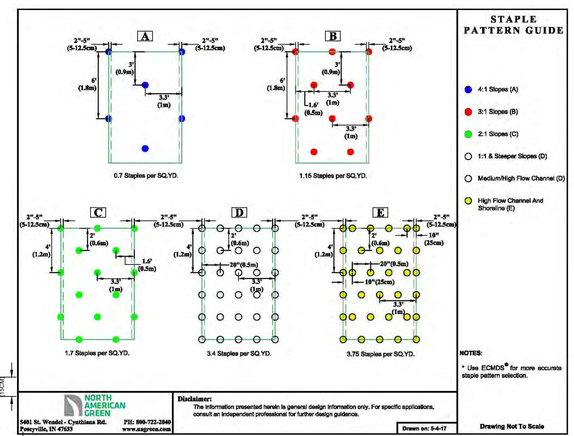
TEMP SKIMMER BASIN #1 & #2 SPILLWAY DETAIL

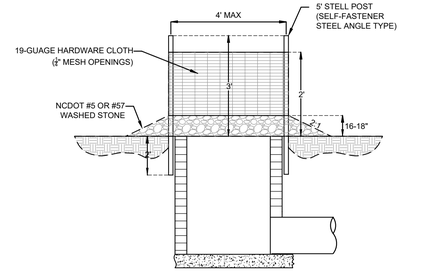
NOT TO SCALE



FAIRCLOTH SKIMMER DETAIL

NOT TO SCALE

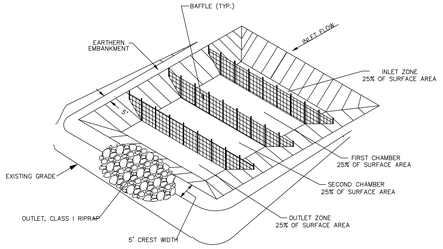




SECTION A - A

NOTE:
FOR CURB INLETS AND DROP INLETS

INLET PROTECTION



BAFFLES

CONSTRUCTION SPECIFICATION

1. Grade the basin so that the bottom is level front to back and side to side.
2. Install posts or saw horses across the width of the sediment trap (Practice 6.62, *Sediment Fence*).
3. Steel posts should be driven to a depth of 24 inches, spaced a maximum of 4 feet apart, and installed up the side of the basin as well. The top of the fabric should be 6 inches higher than the invert of the spillway. Tops of baffles should be 2 inches lower than the top of the berms.
4. Install at least three rows of baffles between the inlet and outlet discharge point. Basins less than 20 feet in length may use 2 baffles.
5. When using posts, add a support wire or rope across the top of the measure to prevent sagging.
6. Wrap jute, backed by coir material, over a sawhorse or the top wire. Hammer rebar into the sawhorse legs for anchoring. The fabric should have five to ten percent openings in the weave. Attach fabric to a rope and a support structure with zip ties, wire or staples.
7. The bottom and sides of the fabric should be anchored in a trench or pinned with 8-inch erosion control matting staples.
8. Do not splice the fabric, but use a continuous piece across the basin.

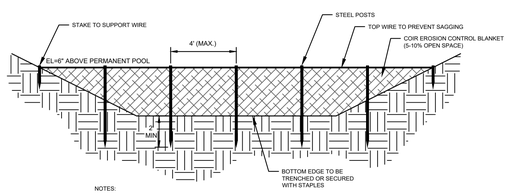
MAINTENANCE

Inspect baffles at least once a week and after each rainfall. Make any required repairs immediately.

Be sure to maintain access to the baffles. Should the fabric of a baffle collapse, tear, decompose, or become ineffective, replace it promptly.

Remove sediment deposits when it reaches half full to provide adequate storage volume for the next rain and to reduce pressure on the baffles. Take care to avoid damaging the baffles during cleanout. Sediment depth should never exceed half the designed storage depth.

After the contributing drainage area has been properly stabilized, remove all baffle materials and unstable sediment deposits, bring the area to grade, and stabilize it.

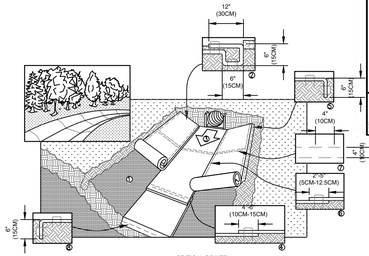


NOTES:

1. INSTALL ONE CONTINUOUS PIECE OF FABRIC ACROSS THE ENTIRE BASIN--DO NOT SPLICE.

BAFFLE DETAIL

NOT TO SCALE



CRITICAL POINTS

A. OVERLAPS AND SEAMS
B. PROJECTED WATER LINE
C. CHANNEL BOTTOM/SIDE SLOPE VERTICES

* HORIZONTAL STAPLE SPACING SHOULD BE ALTERED IF NECESSARY TO ALLOW STAPLES TO SECURE THE CRITICAL POINTS ALONG THE CHANNEL SURFACE.

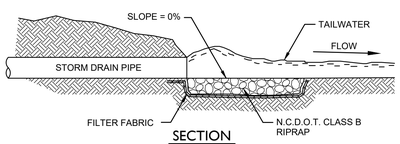
** IN LOOSE SOIL CONDITIONS, THE USE OF STAPLE OR STAKE LENGTHS GREATER THAN 6" (15 CM) MAY BE NECESSARY TO PROPERLY ANCHOR THE BLANKETS.

NOTES:

1. INSTALLATION TO BE COMPLETED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
2. DO NOT SCALE DRAWINGS.

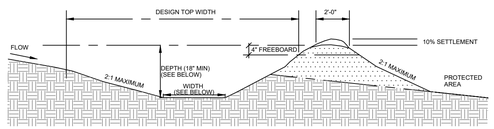
ROLLED EROSION CONTROL LINING

NOT TO SCALE



PLAN

SECTION



NOTES:
BUILD RIDGE HIGHER THAN DESIGN AND COMPACT WITH WHEELS OF CONSTRUCTION EQUIPMENT. COMPACTED RIDGE MUST AT OR ABOVE DESIGN GRADE AT ALL POINTS. CHANNEL MUST BE CONSTRUCTED ON DESIGN GRADE. LEAVE SUFFICIENT AREA ALONG DIVERSION TO PERMIT CLEANOUT AND REGRADING.

TEMPORARY DIVERSION DITCH

NOT TO SCALE

RIP-RAP SCHEDULE					
APRON #	PIPE DIA. (IN.)	LENGTH (FT.)	UP.WIDTH (FT.)	DWN.WIDTH (FT.)	THICKNESS (IN.)
FES-100	18	7	4.5	4.5	18
FES-200	36	13	9	9	18
FES-500	30	11	7.5	7.5	18
FES-600	42	15	10.5	10.5	18
POND#1	36	13	9	9	18

RIP-RAP APRON

NTS

TDD #	LENGTH (FT)	INV UP	INV DN	SLOPE (FT/FT)	WIDTH (FT)	DEPTH (FT)
1	835	42.00	30.00	0.0144	4.0	1.5
2	260	25.00	24.00	0.0038	4.0	2.0

PROVIDE TEMPORARY LINING (NA GREEN S75 OR APPROVED EQUAL FOR TDD #1 & #2

REVISIONS:

CLIENT INFORMATION:

CK WILMINGTON
THREE PHASE A, LLC
CHARLOTTE, NC

PARAMOUNTE
ENGINEERING
122 Cinema Drive
Wilmington, North Carolina 28403
(910) 791-6707 (O) (910) 791-6760 (F)
NC License #: C-2846

EC & STORM DETAILS

WILMINGTON THREE PHASE A
CITY OF WILMINGTON
NORTH CAROLINA

PROJECT STATUS
CONCEPTUAL LAYOUT:
PRELIMINARY LAYOUT:
FINAL DESIGN:
RELEASED FOR CONST:

DRAWING INFORMATION
DATE: 03.25.21
SCALE: AS NOTED
DESIGNED: DJF
DRAWN: DJF
CHECKED: DJF

ISSUED FOR: ☐ PRELIMINARY ☑ PERMITTING ☐ BID ☐ CONSTRUCTION

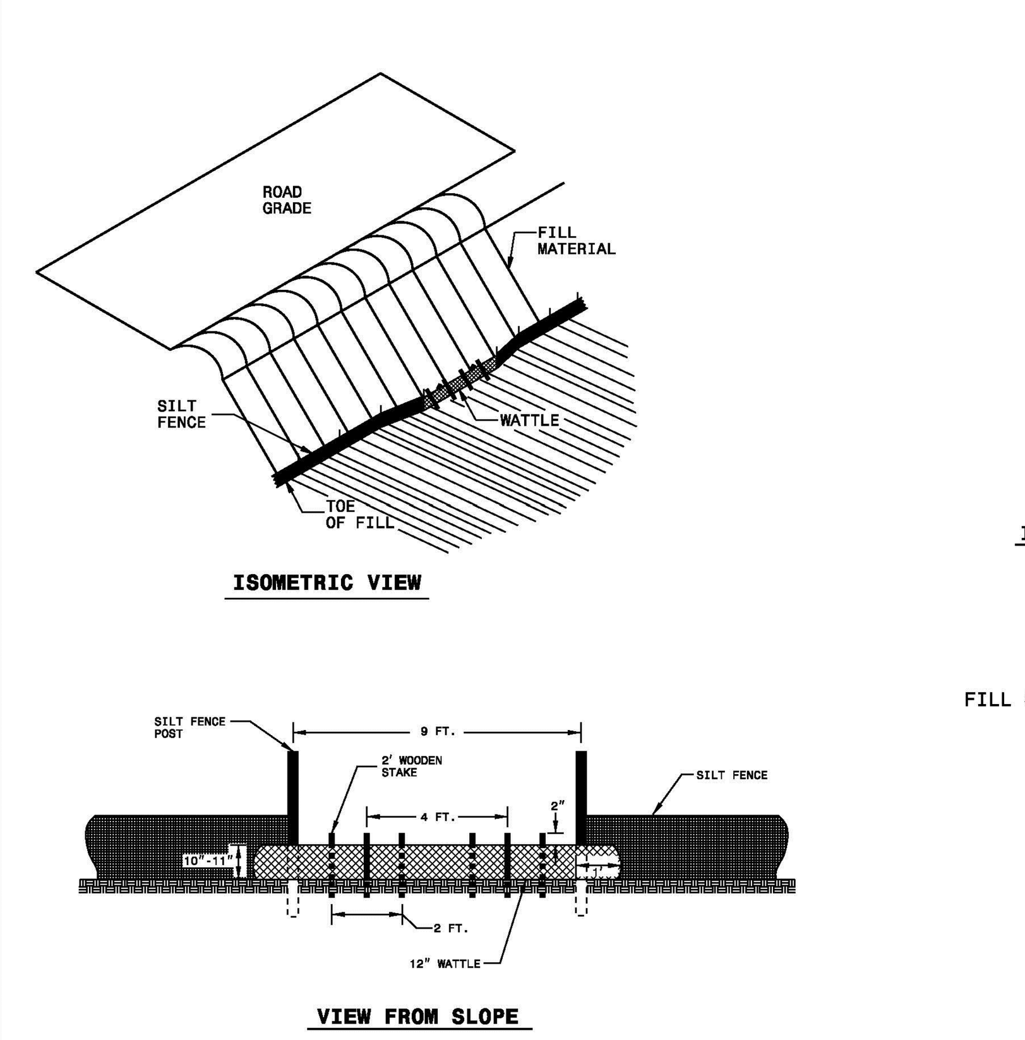
Professional Seal redacted on electronic copy per City of Wilmington Policy

C-6.02

PEI JOB#: 20195.PE

SILT FENCE WATTLE BREAK DETAIL

PROJECT REFERENCE NO.	SHEET NO.
X-XXXX	EC-2G
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



NOTES:

USE MINIMUM 12 IN. DIAMETER EXCELSIOR WATTLE AND LENGTH OF 10 FT.

EXCAVATE A 1 TO 2 INCH TRENCH FOR WATTLE TO BE PLACED.

DO NOT PLACE WATTLE ON TOE OF SLOPE.

USE 2 FT. WOODEN STAKES WITH A 2 IN. BY 2 IN. NOMINAL CROSS SECTION.

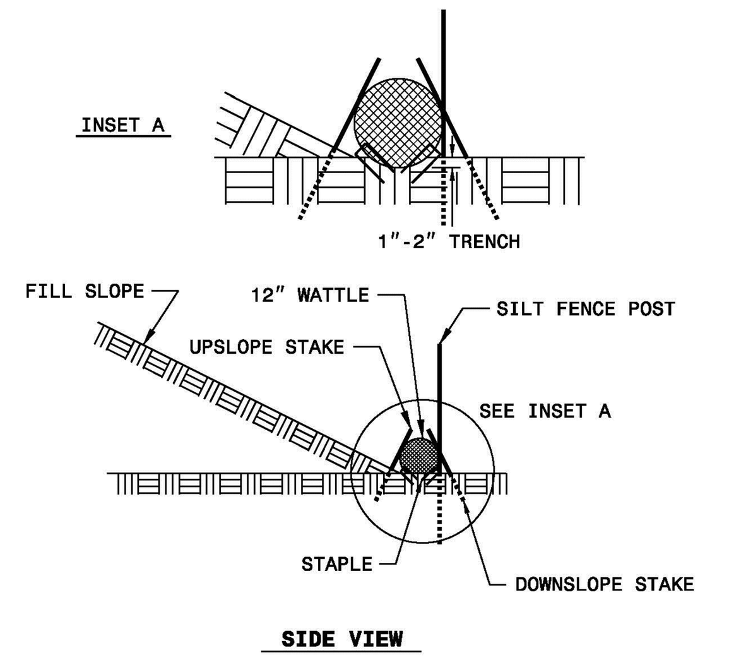
INSTALL A MINIMUM OF 2 UPSLOPE STAKES AND 4 DOWNSLOPE STAKES AT AN ANGLE TO WEDGE WATTLE TO GROUND.

PROVIDE STAPLES MADE OF 0.125 IN. DIAMETER STEEL WIRE FORMED INTO A U SHAPE NOT LESS THAN 12" IN LENGTH.

INSTALL STAPLES APPROXIMATELY EVERY 1 LINEAR FOOT ON BOTH SIDES OF WATTLE AND AT EACH END TO SECURE IT TO THE SOIL.

WATTLE INSTALLATION CAN BE ON OUTSIDE OF THE SILT FENCE AS DIRECTED.

INSTALL TEMPORARY SILT FENCE IN ACCORDANCE WITH SECTION 1605 OF THE STANDARD SPECIFICATIONS.



Section 2721

Engineered Surface Drainage Products

GENERAL
PVC surface drainage inlets shall include the drain basin type as indicated on the contract drawing and referenced within the contract specifications. The ductile iron grates for each of these fittings are to be considered an integral part of the surface drainage inlet and shall be furnished by the same manufacturer. The surface drainage inlets shall be as manufactured by Nyloplast a division of Advanced Drainage Systems, Inc., or prior approved equal.

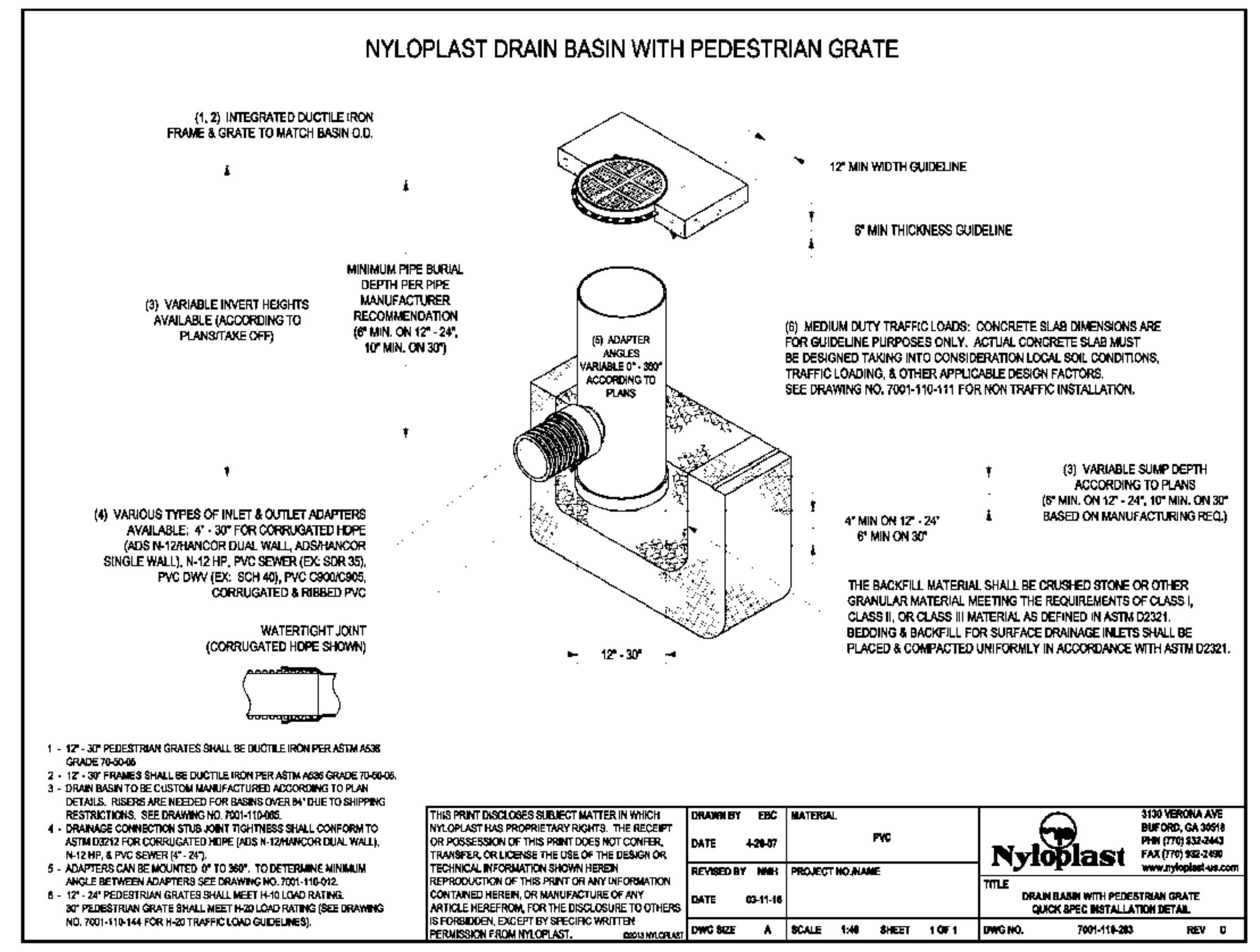
MATERIALS
The drain basins required for this contract shall be manufactured from PVC pipe stock, utilizing a thermoforming process to reform the pipe stock to the specified configuration. The drainage pipe connection stubs shall be manufactured from PVC pipe stock and formed to provide a watertight connection with the specified pipe system. This joint tightness shall conform to ASTM D3212 for joints for drain and sewer plastic pipe using flexible elastomeric seals. The flexible elastomeric seals shall conform to ASTM F477. The pipe bell spigot shall be joined to the main body of the drain basin or catch basin. The raw material used to manufacture the pipe stock that is used to manufacture the main body and pipe stubs of the surface drainage inlets shall conform to ASTM D1784 cell class 12454.

The grates and frames furnished for all surface drainage inlets shall be ductile iron for sizes 8", 10", 12", 15", 18", 24" and 30" and shall be made specifically for each basin so as to provide a round bottom flange that closely matches the diameter of the surface drainage inlet. Grates for drain basins shall be capable of supporting various wheel loads as specified by Nyloplast. 12" and 15" square grates will be hinged to the frame using pins. Ductile iron used in the manufacture of the castings shall conform to ASTM A536 grade 70-50-05. Grates and covers shall be provided painted black.

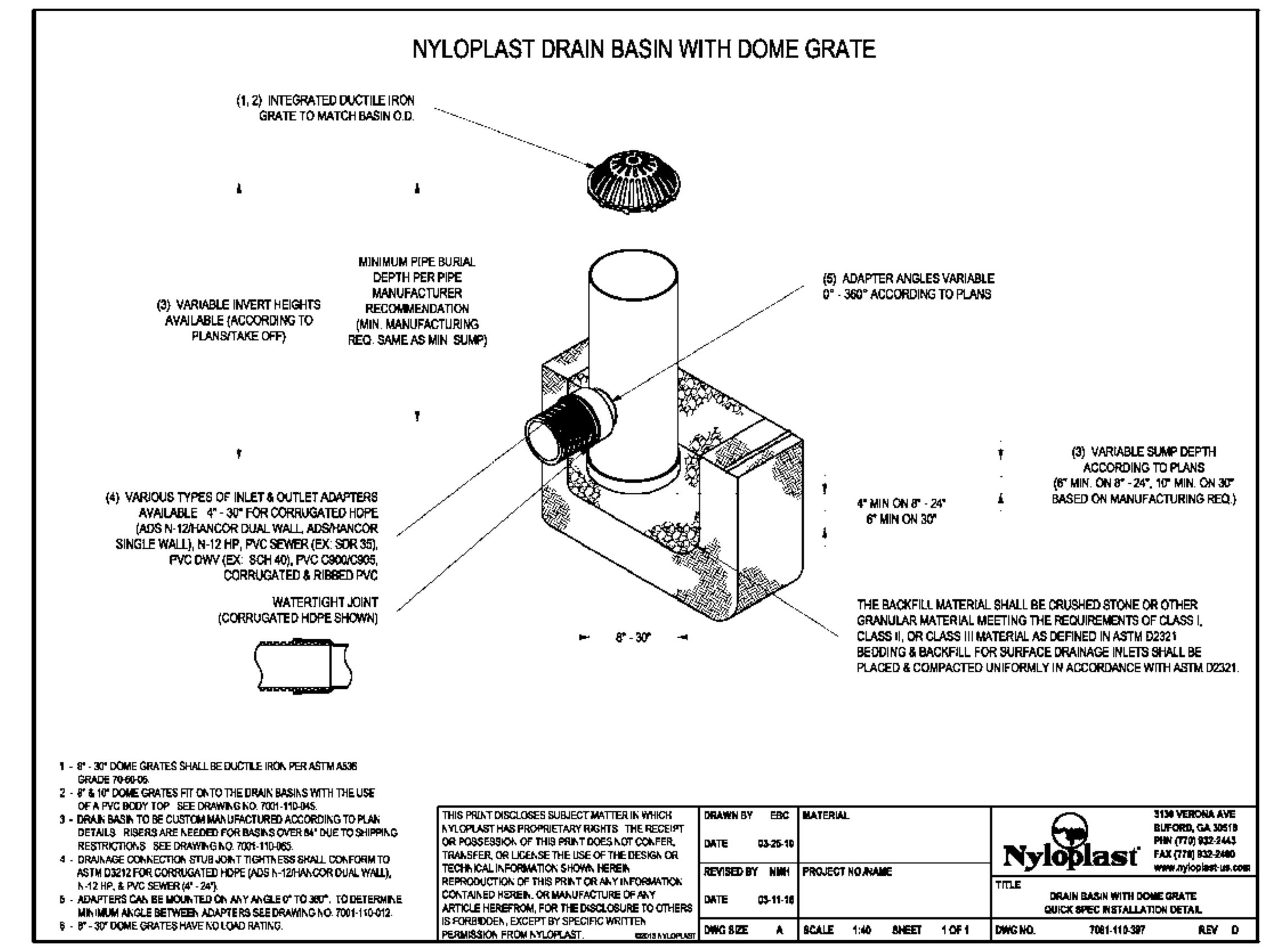
INSTALLATION
The specified PVC surface drainage inlet shall be installed using conventional flexible pipe backfill materials and procedures. The backfill material shall be crushed stone or other granular material meeting the requirements of class 1, class 2, or class 3 material as defined in ASTM D2321. Bedding and backfill for surface drainage inlets shall be well placed and compacted uniformly in accordance with ASTM D2321. The drain basin body will be cut at the time of the final grade. No brick, stone or concrete block will be required to set the grate to the final grade height. For load rated installations, a concrete slab shall be poured under and around the grate and frame. The concrete slab must be designed taking into consideration local soil conditions, traffic loading, and other applicable design factors. For other installation considerations such as migration of fines, ground water, and soft foundations refer to ASTM D2321 guidelines.

Nyloplast

NYLOPLAST DRAIN BASIN WITH PEDESTRIAN GRATE



NYLOPLAST DRAIN BASIN WITH DOME GRATE



YARD DRAIN DETAIL
(OR APPROVED EQUAL)

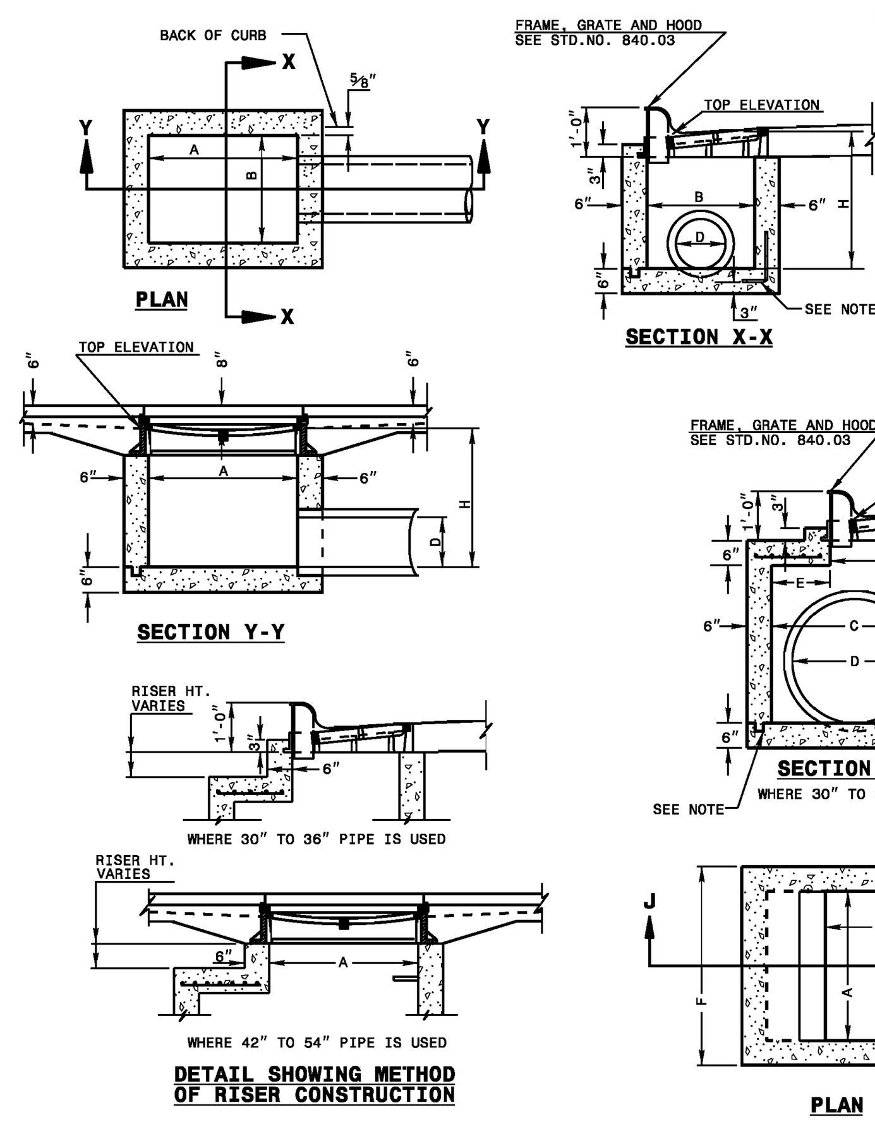
NOT TO SCALE

STATE OF NORTH CAROLINA DEPT. OF TRANSPORTATION DIVISION OF HIGHWAYS RALEIGH, N.C.

1-12

ENGLISH STANDARD DRAWING FOR **CONCRETE CATCH BASIN** 12" THRU 54" PIPE

SHEET 1 OF 2 — 840.02



GENERAL NOTES:

USE CLASS "B" CONCRETE THROUGHOUT.

PROVIDE ALL CATCH BASINS OVER 3'-6" IN DEPTH WITH STEPS 12" ON CENTER. USE STEPS WHICH COMPLY WITH STD. DRAWING 840.66.

OPTIONAL CONSTRUCTION - MONOLITHIC POUR, 2" KEYWAY, OR #4 BAR DOWELS AT 12" CENTERS AS DIRECTED BY THE ENGINEER.

USE FORMS FOR THE CONSTRUCTION OF THE BOTTOM SLAB.

IF REINFORCED CONCRETE PIPE IS SET IN BOTTOM SLAB OF BOX, ADD TO SLAB AS SHOWN ON STD. NO. 840.00.

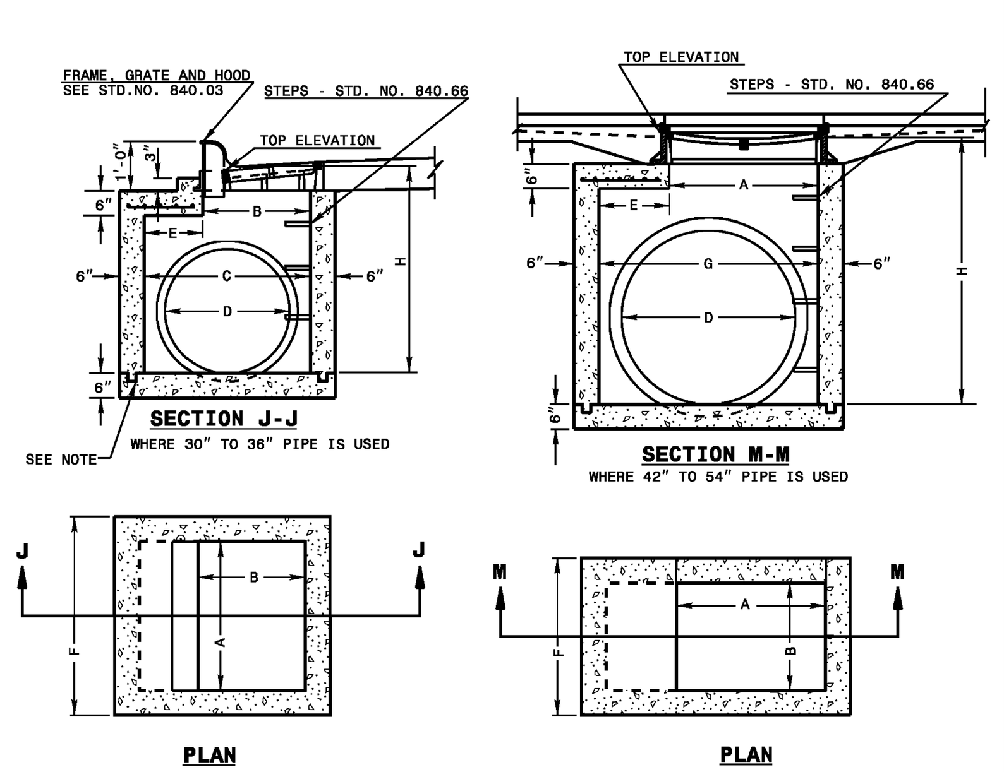
USE TYPE "E", "F" AND "G" GRATES UNLESS OTHERWISE INDICATED.

FOR 8'-0" IN HEIGHT OR LESS USE 6" WALLS AND BOTTOM SLAB. OVER 8'-0" TO 16'-0" IN HEIGHT USE 8" WALLS AND BOTTOM SLAB. ADJUST QUANTITIES ACCORDINGLY.

CONSTRUCT WITH PIPE CROWNS MATCHING.

CHAMFER ALL EXPOSED CORNERS 1".

DRAWING NOT TO SCALE.

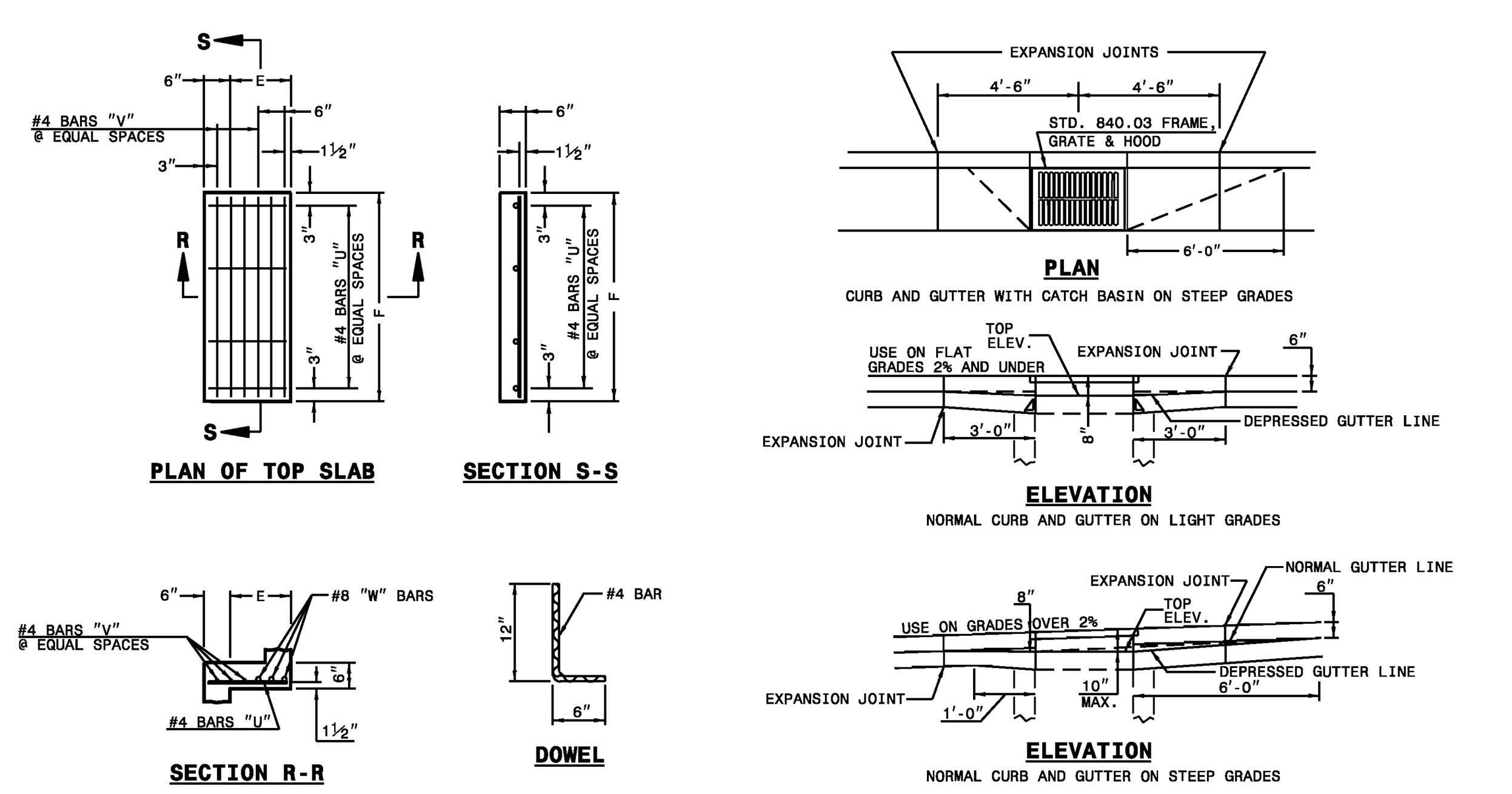


STATE OF NORTH CAROLINA DEPT. OF TRANSPORTATION DIVISION OF HIGHWAYS RALEIGH, N.C.

1-12

ENGLISH STANDARD DRAWING FOR **CONCRETE CATCH BASIN** 12" THRU 54" PIPE

SHEET 2 OF 2 — 840.02



#4 BARS "Y" @ EQUAL SPACES
PLAN OF TOP SLAB
SECTION S-S
EXPANSION JOINTS
STD. 840.03 FRAME, GRATE & HOOD
PLAN
CURB AND GUTTER WITH CATCH BASIN ON STEEP GRADES
USE ON FLAT GRADES 2% AND UNDER
EXPANSION JOINT
DEPRESSED GUTTER LINE
ELEVATION
NORMAL CURB AND GUTTER ON LIGHT GRADES
#4 BARS "V" @ EQUAL SPACES
#8 "W" BARS
#4 BARS "U"
SECTION R-R
#4 BAR
DOWEL
USE ON GRADES OVER 2%
TOP ELEV.
NORMAL GUTTER LINE
DEPRESSED GUTTER LINE
ELEVATION
NORMAL CURB AND GUTTER ON STEEP GRADES

MINIMUM DIMENSIONS AND QUANTITIES FOR CONCRETE CATCH BASIN(BASED ON MIN. HEIGHT, H, WITH NO RISER) *

PIPE D	SPAN A	WIDTH B	WIDTH C	SPAN G	MIN. HEIGHT H	COVER DIMENSION E	COVER DIMENSION F	BARS-U NO.	BARS-U LENGTH	BARS-V NO.	BARS-V LENGTH	BARS-W NO.	BARS-W LENGTH	TOTAL LBS.	CU.YDS. CONC. IN BOX TOP SLAB	BOTTOM SLAB	TOT. CONC. FOR MINIMUM HEIGHT, H	DEDUCTIONS ONE PIPE C.M.	DEDUCTIONS ONE PIPE R.C.
12"	3'-0"	2'-2"	--	--	2'-9"	--	--	--	--	--	--	--	--	--	--	0.235	0.772	0.015	0.026
15"	3'-0"	2'-2"			3'-0"											0.235	0.829	0.023	0.036
18"	3'-0"	2'-2"			3'-3"											0.235	0.887	0.033	0.049
24"	3'-0"	2'-2"			3'-9"											0.235	1.001	0.059	0.085
30"	3'-0"	2'-2"	3'-4"		4'-3"	1'-2"	4'-0"	4	1'-5"	2	3'-9"	3	3'-9"	39	0.123	0.321	1.433	0.092	0.127
36"	3'-0"	2'-2"	3'-10"		4'-9"	1'-8"	4'-0"	4	1'-11"	3	3'-9"	3	3'-9"	43	0.161	0.358	1.714	0.132	0.178
42"	3'-0"	2'-2"		4'-5"	5'-3"	1'-5"	3'-2"	4	1'-8"	2	2'-11"	3	2'-11"	32	0.112	0.318	1.738	0.180	0.243
48"	3'-0"	2'-2"		5'-0"	5'-9"	2'-0"	3'-2"	4	2'-3"	3	2'-11"	3	2'-11"	35	0.145	0.352	2.052	0.235	0.317
54"	3'-0"	2'-2"		5'-7"	6'-3"	2'-7"	3'-2"	4	2'-10"	5	2'-11"	3	2'-11"	41	0.180	0.386	2.387	0.297	0.401

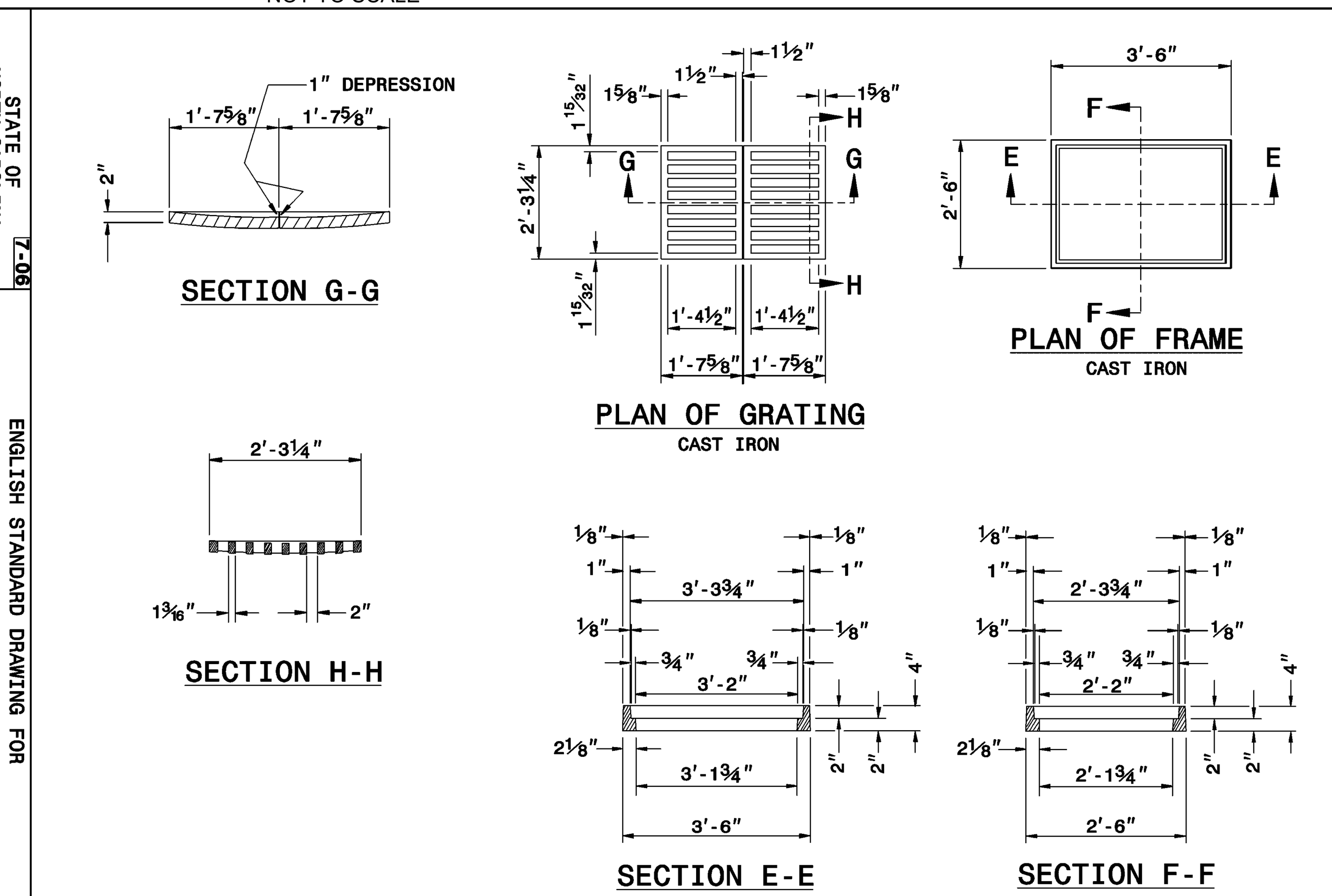
* RISER HAS .228 CUBIC YARDS OF CONCRETE PER FOOT HEIGHT

STATE OF NORTH CAROLINA DEPT. OF TRANSPORTATION DIVISION OF HIGHWAYS RALEIGH, N.C.

7-06

ENGLISH STANDARD DRAWING FOR **DROP INLET FRAME AND GRATES** FOR USE WITH STD. DWG.S 840.14 AND 840.15

SHEET 1 OF 1 — 840.16

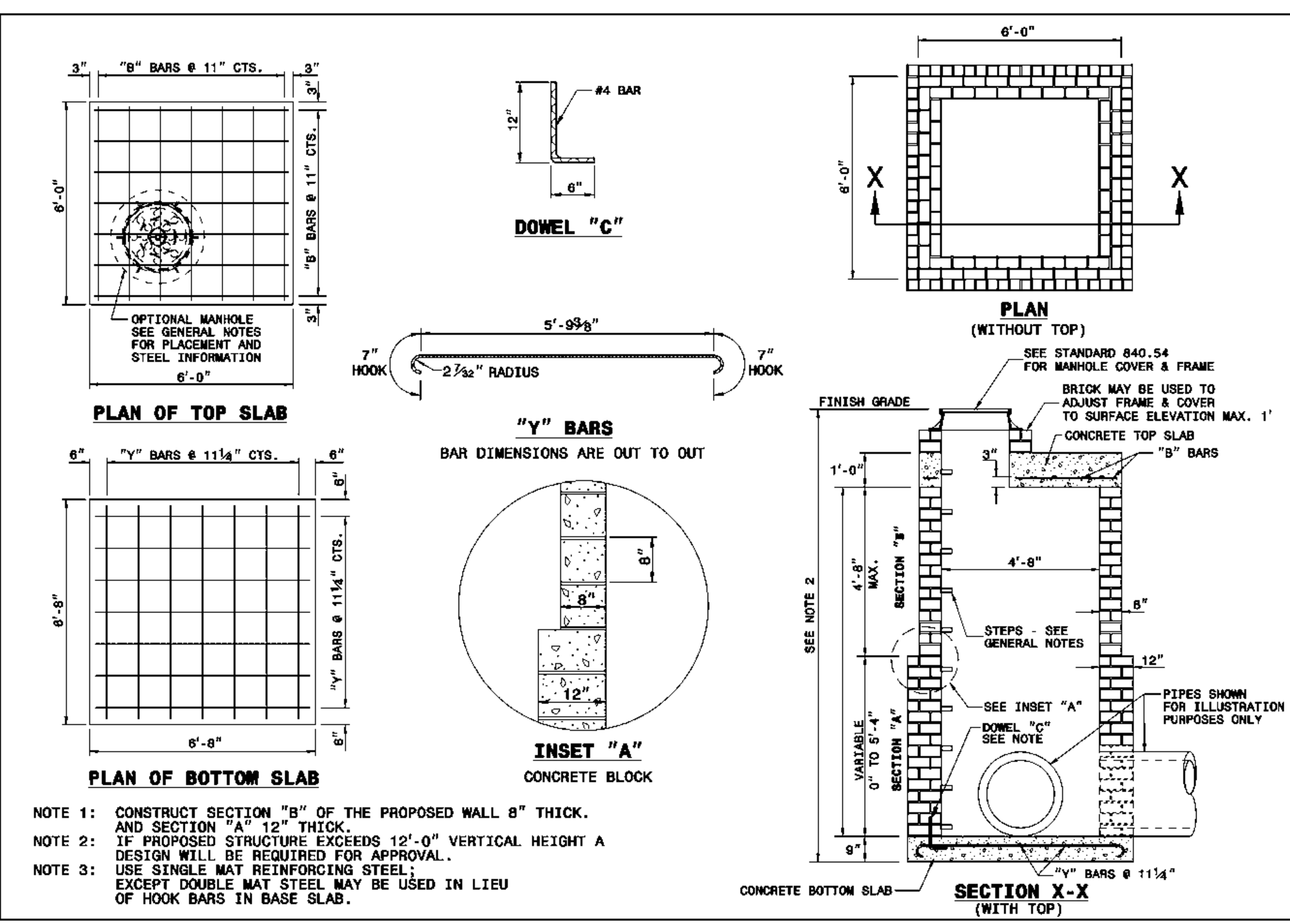


STATE OF NORTH CAROLINA DEPT. OF TRANSPORTATION DIVISION OF HIGHWAYS RALEIGH, N.C.

7-06

ENGLISH STANDARD DRAWING FOR **TRAFFIC BEARING JUNCTION BOX** FOR USE WITH PIPES 42" AND UNDER

SHEET 1 OF 2 — 840.34



"B" BARS @ 11" CTS.
OPTIONAL MANHOLE SEE GENERAL NOTES FOR PLACEMENT AND STEEL INFORMATION
PLAN OF TOP SLAB
"Y" BARS @ 11¼" CTS.
PLAN OF BOTTOM SLAB
#4 BAR
DOWEL "C"
"Y" BARS
BAR DIMENSIONS ARE OUT TO OUT
INSET "A"
CONCRETE BLOCK
PLAN (WITHOUT TOP)
SEE STANDARD 840.54 FOR MANHOLE COVER & FRAME
CONCRETE TOP SLAB
STEPS - SEE GENERAL NOTES
SEE INSET "A"
PIPES SHOWN FOR ILLUSTRATION PURPOSES ONLY
CONCRETE BOTTOM SLAB
SECTION X-X (WITH TOP)

NOTE 1: CONSTRUCT SECTION "B" OF THE PROPOSED WALL 8" THICK. AND SECTION "A" 12" THICK.
NOTE 2: IF PROPOSED STRUCTURE EXCEEDS 12'-0" VERTICAL HEIGHT A DESIGN WILL BE REQUIRED FOR APPROVAL.
NOTE 3: USE SINGLE MAT REINFORCING STEEL; EXCEPT DOUBLE MAT STEEL MAY BE USED IN LIEU OF HOOK BARS IN BASE SLAB.

STATE OF NORTH CAROLINA DEPT. OF TRANSPORTATION DIVISION OF HIGHWAYS RALEIGH, N.C.

7-06

ENGLISH STANDARD DRAWING FOR **TRAFFIC BEARING JUNCTION BOX** FOR USE WITH PIPES 42" AND UNDER

SHEET 2 OF 2 — 840.34

GENERAL NOTES:

USE STANDARD OR JUMBO BRICK FOR WALL CONSTRUCTION. SOLID CONCRETE BRICK OR BLOCK ARE OPTIONAL WALL CONSTRUCTION MATERIAL

PRECAST UNITS MADE OF CLASS "AA" CONCRETE MAY BE USED IN LIEU OF BRICK MASONRY CONTRUCTION. SUBMIT DESIGN OF PRECAST UNITS FOR APPROVAL PRIOR TO CONSTRUCTION.

INCLUDE ALL ADJUSTMENTS TO WALLS, SLABS OR REINFORCING MATERIAL IN THE UNIT PRICE BID FOR EACH UNIT.

INSTALL OPTIONAL MANHOLE IN POSITION AS DIRECTED BY THE ENGINEER. CUT OR BEND ALL REBAR CROSSING THIS OPENING TO ALLOW 2" MINIMUM CONCRETE COVERAGE. ENCLOSE THE OPENING WITH 8 "A" BARS TIED TO TO THE REBAR MAT AND SET SO A MINIMUM OF 3" CONCRETE COVER IS ATTAINED. REFERENCE STD. NO. 840.54 FOR MANHOLE INFORMATION.

PROVIDE JUNCTION BOXES WITH MAHNOLES OVER 3'-6" IN DEPTH WITH STEPS PLACED ON 12" CENTERS. REFERENCE STD. NO. 840.66.

SPACE DOWEL "C" BARS AT A MAXIMUM OF 12" CENTERS.

MAXIMUM DEPTH OF THIS UNIT AS SHOWN IS 12'.

CONSTRUCT THE JUNCTION BOX IN ACCORDANCE WITH SECTIONS 830, 832, 834 AND 840 OF THE STANDARD SPECIFICATIONS.

BILL OF MATERIAL

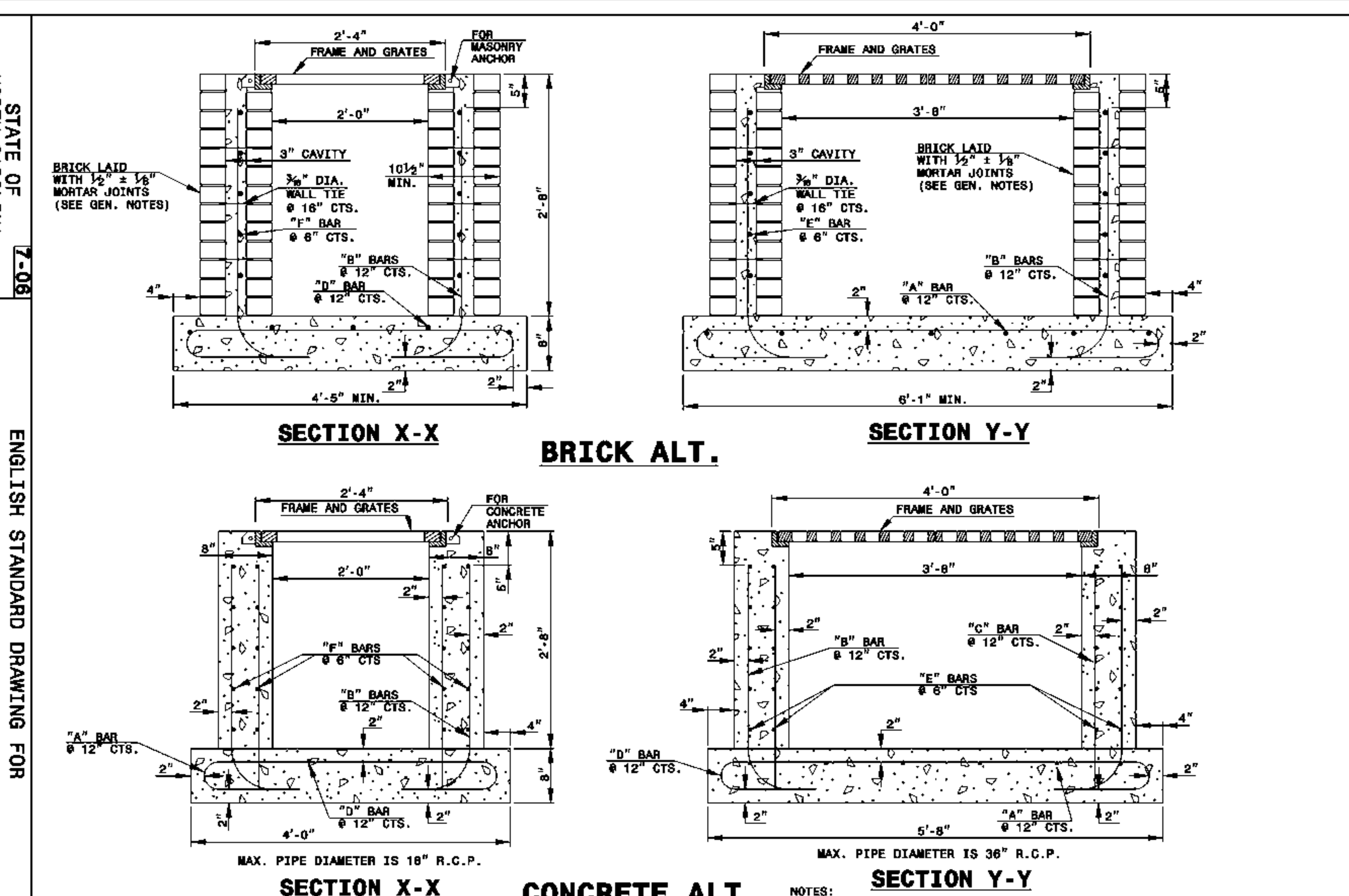
BAR	QTY.	SIZE	LENGTH	WEIGHT
A	8	#5	1'-2"	9.7
B	14	#5	5'-6"	80.3
C	26	#4	1'-6"	26.1
Y	14	#5	6'-11⅜"	101.5
STEEL TOTAL WEIGHT				217.6
CU. YDS. CLASS "AA" CONC.				2.6
CU. YDS. BRICK/FT. HT. (8")				0.53
CU. YDS. BRICK/FT. HT. (12")				0.84

STATE OF NORTH CAROLINA DEPT. OF TRANSPORTATION DIVISION OF HIGHWAYS RALEIGH, N.C.

7-06

ENGLISH STANDARD DRAWING FOR **TRAFFIC BEARING GRATED DROP INLET** FOR CAST IRON DOUBLE FRAME AND GRATES

SHEET 1 OF 2 — 840.35



NOTES:
-HORIZONTAL AND VERTICAL DIMENSIONS MAY BE ADJUSTED AS THE FIELD CONDITIONS AND/OR ALTERNATE DESIGN REQUIRE.
-MAXIMUM HEIGHT FOR THIS STRUCTURE IS 14'-0".
-MAKE ALL ADJUSTMENTS AS DIRECTED BY THE ENGINEER.
-DEPTH OF STEEL GRATE WILL REQUIRE DEEPER SEAT ALONG SHORT WALLS.

ISSUED FOR: ☐ PRELIMINARY ☑ PERMITTING ☐ BID ☐ CONSTRUCTION

REVISIONS:

CLIENT INFORMATION:

CK WILMINGTON
THREE PHASE A, LLC
CHARLOTTE, NC

PARAMOUNTE
ENGINEERING, INC.
122 Cinema Drive
Wilmington, North Carolina 28403
(910) 791-6707 (O) (910) 791-6760 (F)
NC License #: C-2846

EC & STORM DETAILS

WILMINGTON THREE PHASE A
CITY OF WILMINGTON
NORTH CAROLINA

PROJECT STATUS
CONCEPTUAL LAYOUT:
PRELIMINARY LAYOUT:
FINAL DESIGN:
RELEASED FOR CONST.:

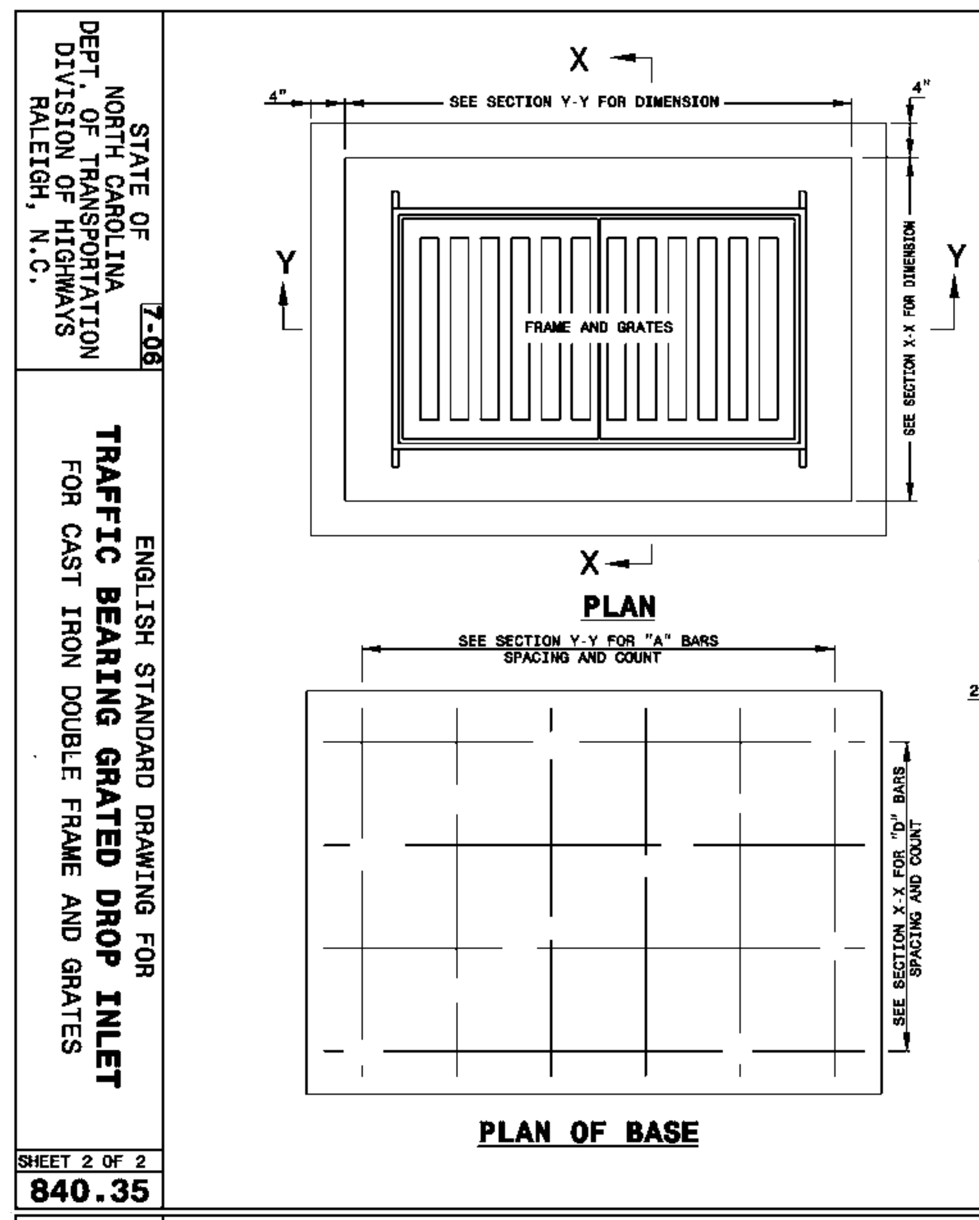
DRAWING INFORMATION

DATE:	03.25.21
SCALE:	AS NOTED
DESIGNED:	DJF
DRAWN:	DJF
CHECKED:	DJF

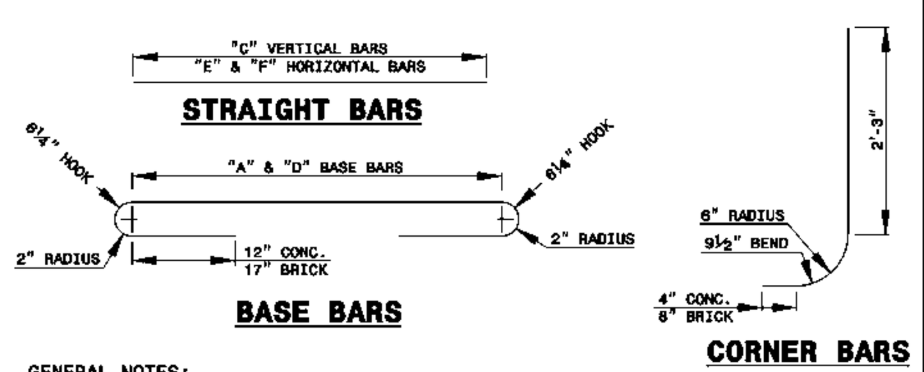
Professional Seal redacted on electronic copy per City of Wilmington Policy

C-6.03

PEI JOB#: 20195.PE



BILL OF MATERIALS							
COMMON		CONCRETE ALT.			BRICK ALT.		
BAR	SIZE	LENGTH	QUANTITY	WEIGHT	LENGTH	QUANTITY	WEIGHT
A	#5	6'-4½"	6	39.9	7'-7½"	6	47.7
B	#5	3'-4½"	16	56.3	3'-4½"	16	56.3
C	#5	2'-8"	14	38.9	-0-	-0-	-0-
D	#5	8'-0½"	4	33.6	9'-3½"	4	38.6
E	#5	3'-0"	20	62.6	3'-0"	10	31.3
F	#5	4'-8"	20	97.3	4'-8"	10	48.7
REINF. STEEL (TOTAL WEIGHT LBS.)				328.6			222.8
CONCRETE IN BASE CLASS 'AA' (CUBIC YARDS)				0.56			0.66
CONCRETE IN WALLS CLASS 'AA' (CUBIC YARDS)				0.92			-0-
CONCRETE IN WALLS CLASS 'M' (CUBIC YARDS)				-0-			0.36
BRICK IN WALLS (CUBIC YARDS)				-0-			0.91
CONCRETE TOTAL (CUBIC YARDS)				1.48			1.02
BRICK & CONCRETE TOTAL (CUBIC YARDS)				1.48			1.93
CONC. CUBIC YARDS IN WALL/FOOT OF HEIGHT				0.35			0.14
BRICK CUBIC YARDS IN WALL/FOOT OF HEIGHT				-0-			0.34
LBS. OF REINF. STEEL IN WALL/FOOT OF HEIGHT				94.9			47.6

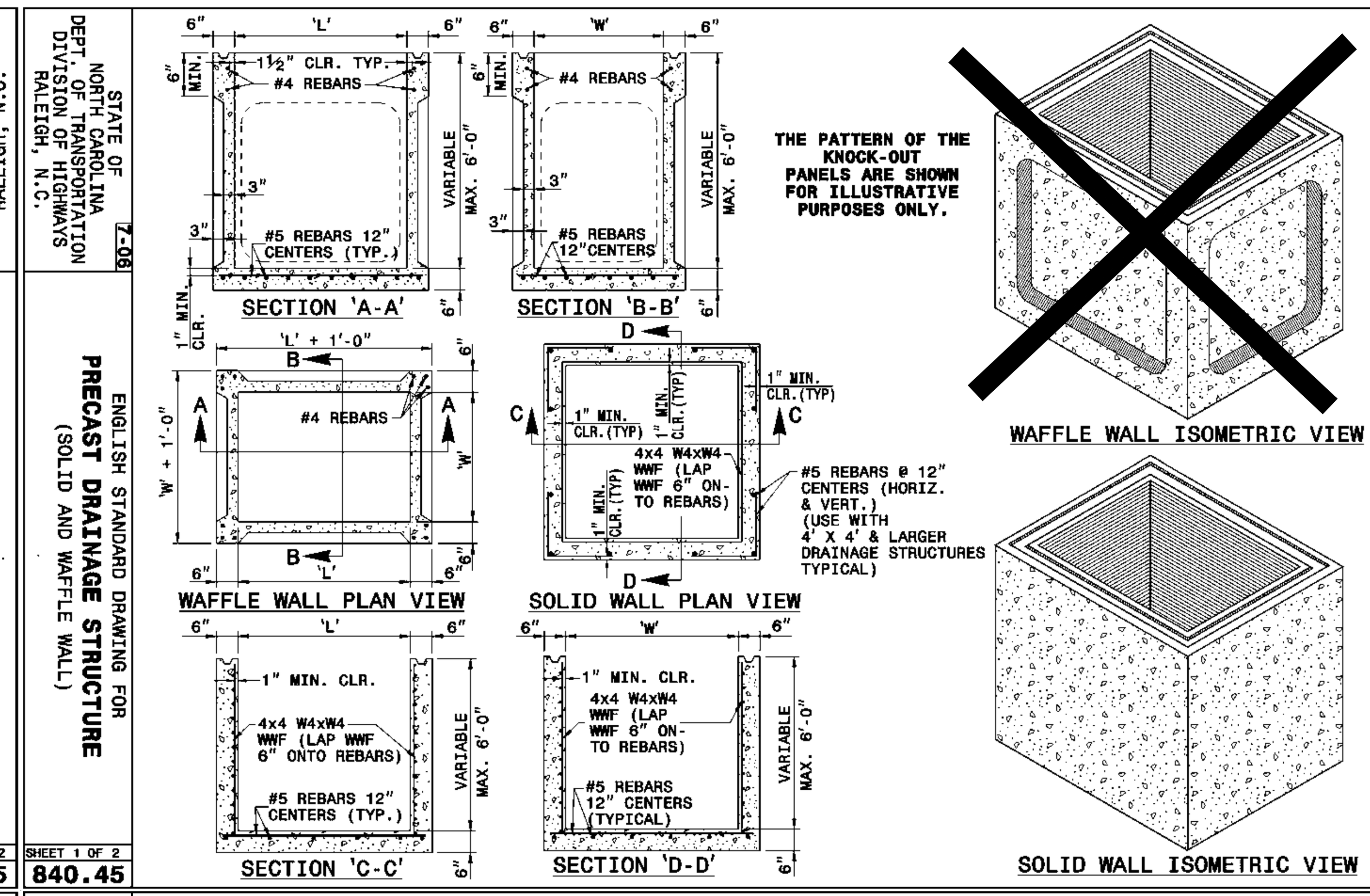


GENERAL NOTES:
-USE CLASS 'AA' CONCRETE FOR CAST IN PLACE CONCRETE BOX.
-USE CLASS 'M' CONCRETE IN THE WALL CAVITY FOR REINFORCED BRICK CONSTRUCTION AND CLASS 'AA' FOR THE FOOTING BASE.
-CHAMFER ALL EXPOSED CONCRETE CORNERS 1".
-USE FORMS TO CONSTRUCT THE BOTTOM SLAB.
-IF PIPES ARE SET IN THE BASE FOLLOW CONSTRUCTION PROCEDURES SHOWN BY STD. DWG. 840.00.
-PRECAST UNITS MADE OF CLASS 'AA' CONCRETE MAY BE USED IN LIEU OF BRICK MASONRY CONSTRUCTION.
-INCLUDE REINFORCING STEEL COST IN THE UNIT OR LINEAR FOOT BID PRICE FOR "MASONRY DRAINAGE STRUCTURE".
-REFERENCE STD. DWG. 840.25 FOR FRAME ANCHORAGE.
-CONCRETE BRICK, JUMBO BRICK AND 4" SOLID CONCRETE BLOCK WILL BE PERMITTED.
-CONCRETE FOR BRICK BOX REFER TO SECTION 832 OF THE STANDARD SPECIFICATIONS.
-PROVIDE GRATED DROP INLETS OVER 3'-6" DEEP WITH STEPS SPACED 12" ON CENTER AS DIRECTED BY STD. DWG. 840.66.
-FRAME AND GRATES ARE SEPARATE CONTRACT ITEMS.

STATE OF NORTH CAROLINA DEPT. OF TRANSPORTATION DIVISION OF HIGHWAYS RALEIGH, N.C. 7-06

ENGLISH STANDARD DRAWING FOR **TRAFFIC BEARING GRATED DROP INLET** FOR CAST IRON DOUBLE FRAME AND GRATES

SHEET 2 OF 2 — 840.35



STATE OF NORTH CAROLINA DEPT. OF TRANSPORTATION DIVISION OF HIGHWAYS RALEIGH, N.C. 7-06

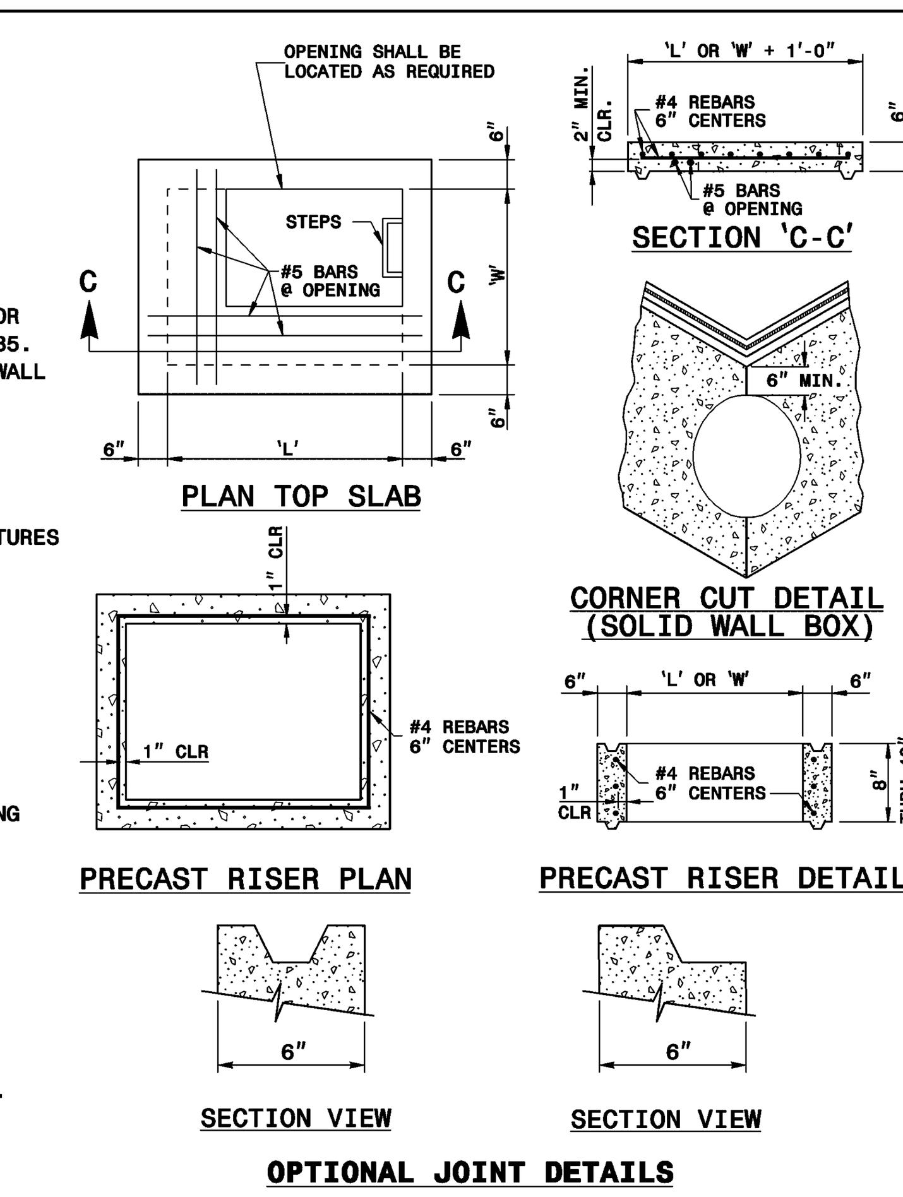
ENGLISH STANDARD DRAWING FOR **PRECAST DRAINAGE STRUCTURE** (SOLID AND WAFFLE WALL)

SHEET 1 OF 2 — 840.45

STATE OF NORTH CAROLINA DEPT. OF TRANSPORTATION DIVISION OF HIGHWAYS RALEIGH, N.C. 7-06

ENGLISH STANDARD DRAWING FOR **PRECAST DRAINAGE STRUCTURE** (GENERAL NOTES AND DETAILS)

GENERAL NOTES:
* THIS PRECAST BOX MAY BE USED FOR THE FOLLOWING STANDARDS: 840.01, 840.02, 840.04, 840.05, 840.11, 840.12, 840.14, 840.15, 840.17, 840.18, 840.19, 840.26, 840.27, 840.28, 840.31, 840.32 AND 840.41.
* INSTALL PRECAST DRAINAGE STRUCTURES AND PAY FOR IN ACCORDANCE WITH SPECIFICATION SECTION 840.
* DO NOT PLACE PRECAST DRAINAGE STRUCTURES UNDER TRAFFIC OR WHERE TRAFFIC WILL BE DETOURED.
* USE 4000 PSI CONCRETE.
* PROVIDE ALL REINFORCING STEEL WHICH MEETS ASTM A615 FOR GRADE 60 AND WELDED WIRE FABRIC CONFORMING TO ASTM A185.
* LIMIT MAXIMUM DEPTH TO TOP OF BOTTOM SLAB FOR WAFFLE WALL STRUCTURE TO 10'-0"; LIMIT SOLID WALL STRUCTURE TO 15'-0".
* PLACE LIFT HOLES OR PINS IN ACCORDANCE WITH OSHA STANDARD 1926.704.
* CUT OR FORM OPENINGS FOR PIPE TO PROVIDE REQUIRED SIZE AND LOCATION. ORIENT WAFFLE WALL STRUCTURES SO THAT PIPES ENTER THROUGH THE KNOCKOUT/WAFFLE PANELS ONLY. PIPES MAY ENTER THROUGH THE CORNERS OF SOLID WALL BOXES IF A MINIMUM OF 6" OF WALL IS PROVIDED ABOVE THE HOLE.
* ALL ELEMENTS PRECAST TO MEET ASTM C913.
* FRAME AND GRATE HEIGHT MAY BE ADJUSTED WITH CONCRETE OR BRICK IN ACCORDANCE WITH STANDARD 840.25.
* PROVIDE PRECAST STRUCTURES OVER 4'-0" IN DEPTH WITH STEPS AS DIRECTED BY THE ENGINEER.
* WELDED WIRE FABRIC MAY BE SUBSTITUTED FOR REBAR AS LONG AS THE SAME AREA OF STEEL IS PROVIDED.
* SEAL JOINTS WITH A FLEXIBLE BUTYL RUBBER BASE CONFORMING TO FEDERAL SPECIFICATION SS-S-21A, AASHTO M-198, TYPE B - BUTYL RUBBER.
* LIMIT MAXIMUM STRUCTURE SIZE TO INSIDE CLEAR DIMENSIONS OF 5'-0" X 5'-0".
* THE OUTSIDE PIPE DIAMETER PLUS 2" OR THE OPENING REQUIRED FOR FRAME AND GRATE IS THE MINIMUM STRUCTURE SIZE WHICHEVER IS GREATER.
* USE MANHOLE FRAME AND COVER AS INDICATED ON THE PLANS. REINFORCE OPENING AS SHOWN ON THIS SHEET.

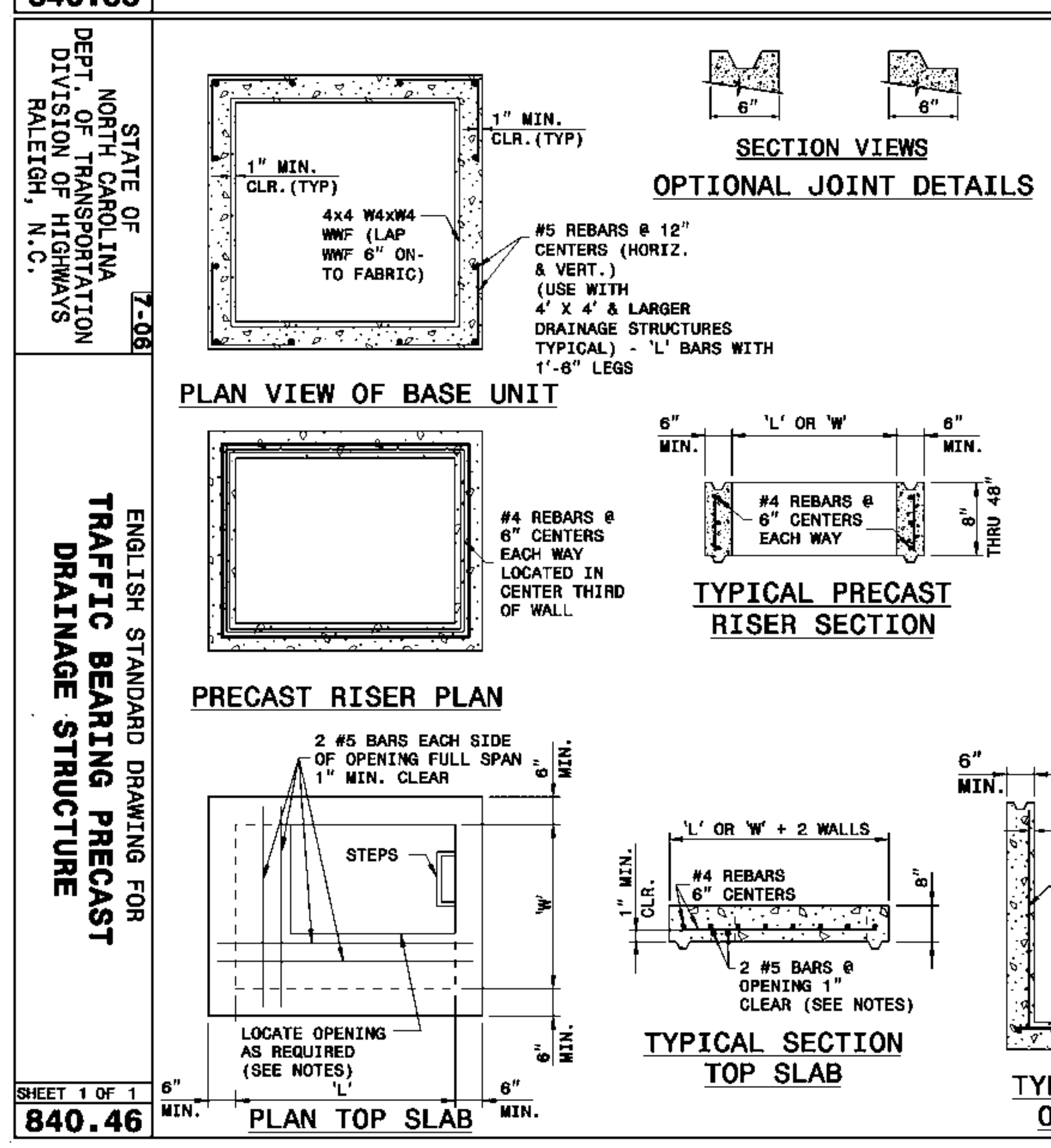


STATE OF NORTH CAROLINA DEPT. OF TRANSPORTATION DIVISION OF HIGHWAYS RALEIGH, N.C. 7-06

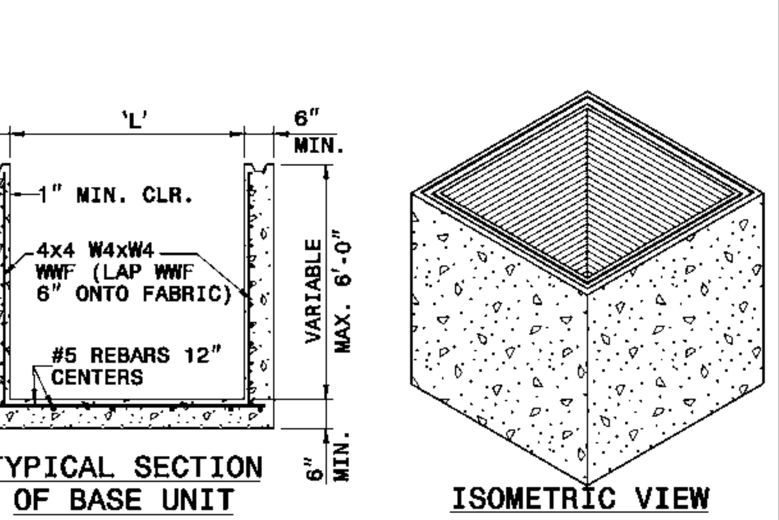
ENGLISH STANDARD DRAWING FOR **PRECAST DRAINAGE STRUCTURE** (GENERAL NOTES AND DETAILS)

SHEET 2 OF 2 — 840.45

CERTIFICATION NOTE:
CONTRACTOR SHALL PROVIDE CERTIFICATION FROM A LICENSED NORTH CAROLINA STRUCTURAL ENGINEER THAT PRECAST STRUCTURES PROVIDED MEET REQUIREMENTS FOR H20 LOADING



GENERAL NOTES:
* THIS PRECAST BOX MAY BE USED FOR THE FOLLOWING STANDARDS: 840.04, 840.05, 840.14, 840.15, 840.31, 840.32, 840.34, 840.35, 840.36 AND 840.41.
* INSTALL AND PAY FOR PRECAST DRAINAGE STRUCTURES IN ACCORDANCE WITH NCDOT STANDARD SPECIFICATION SECTION 840.
* USE 4000 PSI MINIMUM COMPRESSIVE STRENGTH CONCRETE.
* USE ASTM A615 GRADE 60 REINFORCING STEEL. USE ASTM A185 WELDED WIRE FABRIC (WWF).
* LIMIT MAXIMUM DEPTH TO TOP OF BOTTOM SLAB TO 15'-0".
* PLACE LIFT HOLES OR PINS IN ACCORDANCE WITH OSHA STANDARD 1926.704.
* ORIENT STRUCTURES SO THAT CORNERS WILL NOT BE CUT OR MODIFIED UNLESS ALLOWED BY DETAIL IN PLANS.
* PRECAST ALL ELEMENTS TO MEET ASTM C913.
* FRAME AND GRATE HEIGHT MAY BE ADJUSTED WITH CONCRETE OR BRICK IN ACCORDANCE WITH STANDARD 840.25.
* PROVIDE PRECAST STRUCTURES OVER 4'-0" IN DEPTH WITH STEPS 12" ON CENTERS IN ACCORDANCE WITH STD. NO. 840.66.
* WELDED WIRE FABRIC MAY BE SUBSTITUTED FOR REBAR IF THE SAME MIN. AREA OF STEEL IS PROVIDED.
* SEAL JOINTS WITH AN APPROVED SEALANT (SEE SECTION 840 OF NCDOT STANDARD SPECIFICATIONS.
* LIMIT MAXIMUM STRUCTURE SIZE INSIDE CLEAR DIMENSIONS TO 6'-0" X 6'-0".
* THE OUTSIDE PIPE DIAMETER PLUS 2" IS THE MINIMUM STRUCTURE SIZE OR THE OPENING REQUIRED FOR GRATE AND FRAME WHICHEVER IS GREATER.
* ROUND MANHOLE MAY BE USED IN LIEU OF SQUARE PROVIDED 2 EXTRA #5'S ARE PLACED ON EVERY SIDE NOT ADJACENT TO A WALL. SEE STD. DWG. 840.34 FOR MANHOLE INSTALLATION.



STATE OF NORTH CAROLINA DEPT. OF TRANSPORTATION DIVISION OF HIGHWAYS RALEIGH, N.C. 7-06

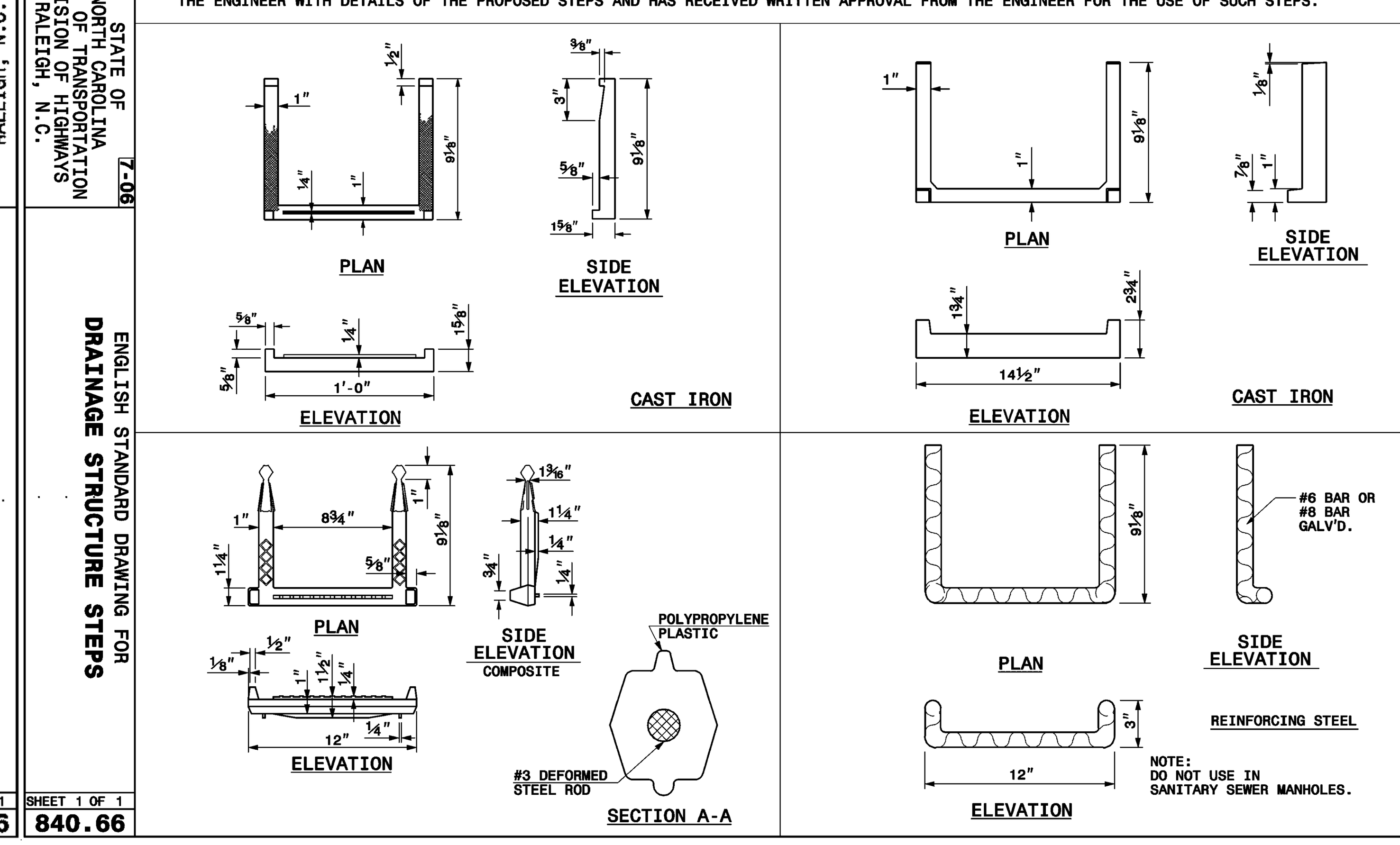
ENGLISH STANDARD DRAWING FOR **TRAFFIC BEARING PRECAST DRAINAGE STRUCTURE**

SHEET 1 OF 1 — 840.46

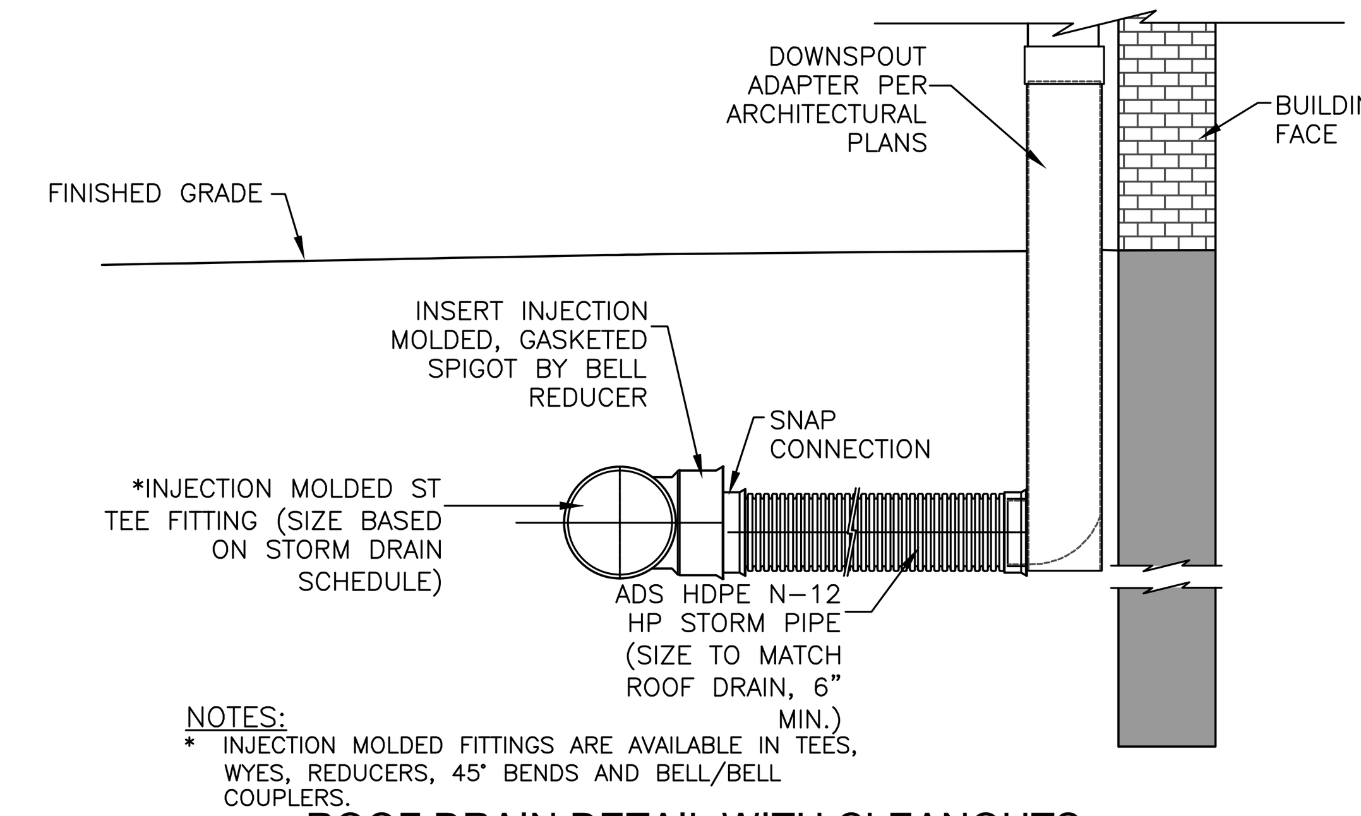
STATE OF NORTH CAROLINA DEPT. OF TRANSPORTATION DIVISION OF HIGHWAYS RALEIGH, N.C. 7-06

ENGLISH STANDARD DRAWING FOR **DRAINAGE STRUCTURE STEPS**

NOTES:
INSTALL ALL STEPS PROTRUDING 4" FROM INSIDE FACE OF STRUCTURE WALL.
STEPS DIFFERING IN DIMENSIONS, CONFIGURATION, OR MATERIALS FROM THOSE SHOWN MAY ALSO BE USED PROVIDED THE CONTRACTOR HAS FURNISHED THE ENGINEER WITH DETAILS OF THE PROPOSED STEPS AND HAS RECEIVED WRITTEN APPROVAL FROM THE ENGINEER FOR THE USE OF SUCH STEPS.

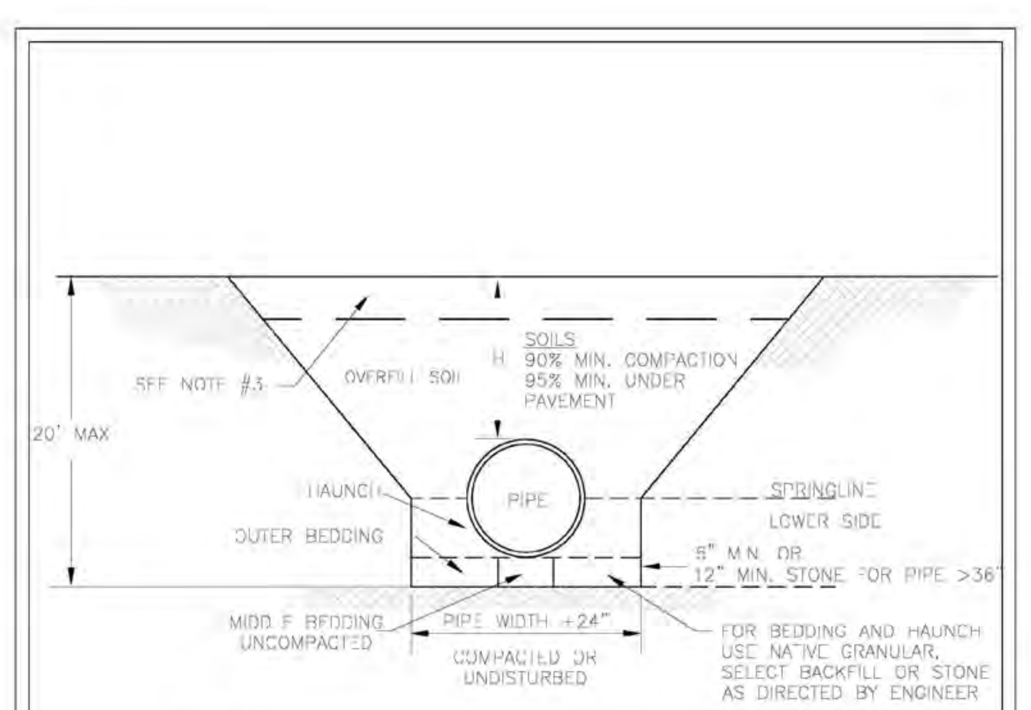


SHEET 1 OF 1 — 840.66



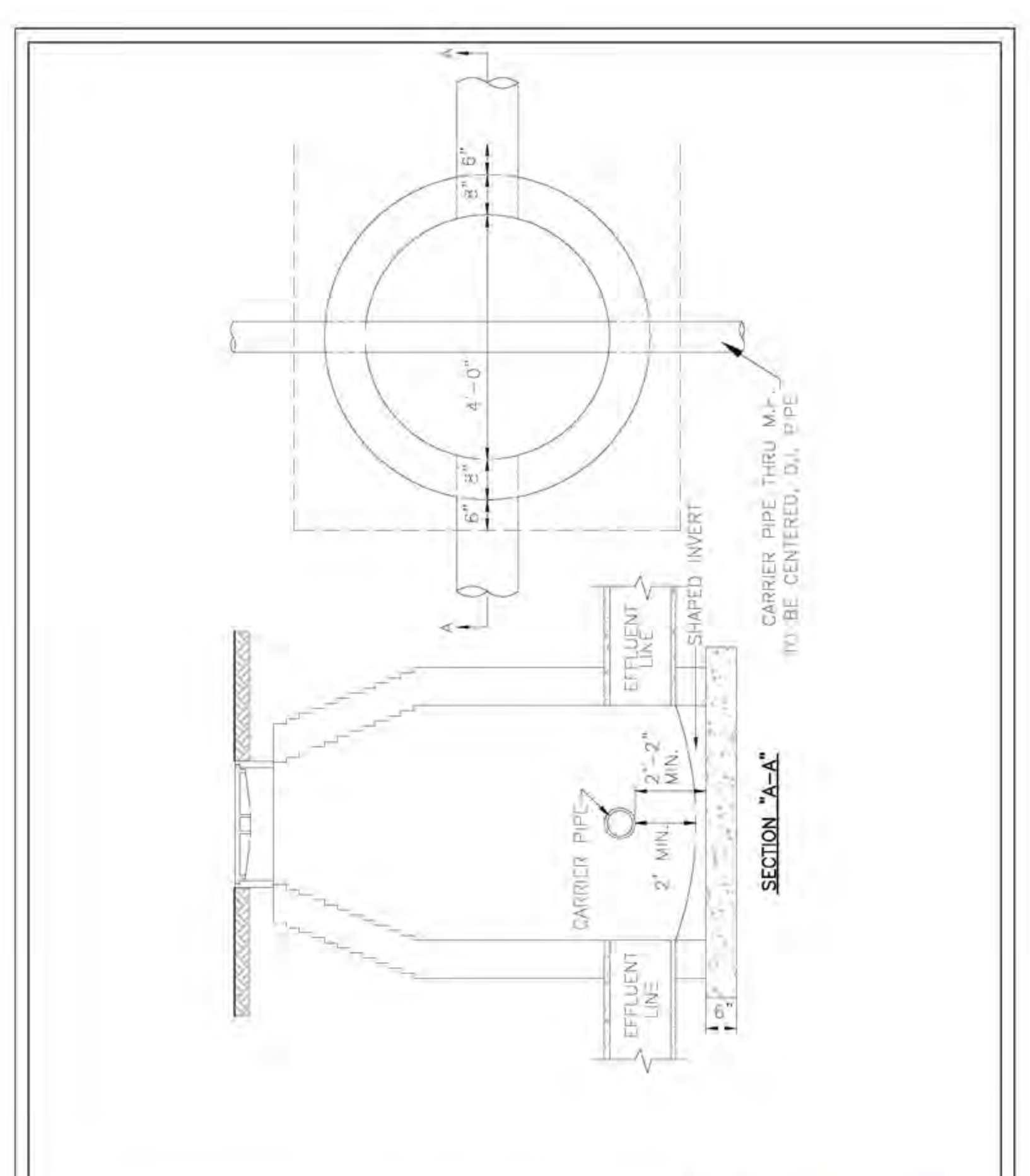
NOTES:
* INJECTION MOLDED FITTINGS ARE AVAILABLE IN TEES, WYES, REDUCERS, 45° BENDS AND BELL/BELL COUPLERS.

ROOF DRAIN DETAIL WITH CLEANOUTS
NOT TO SCALE

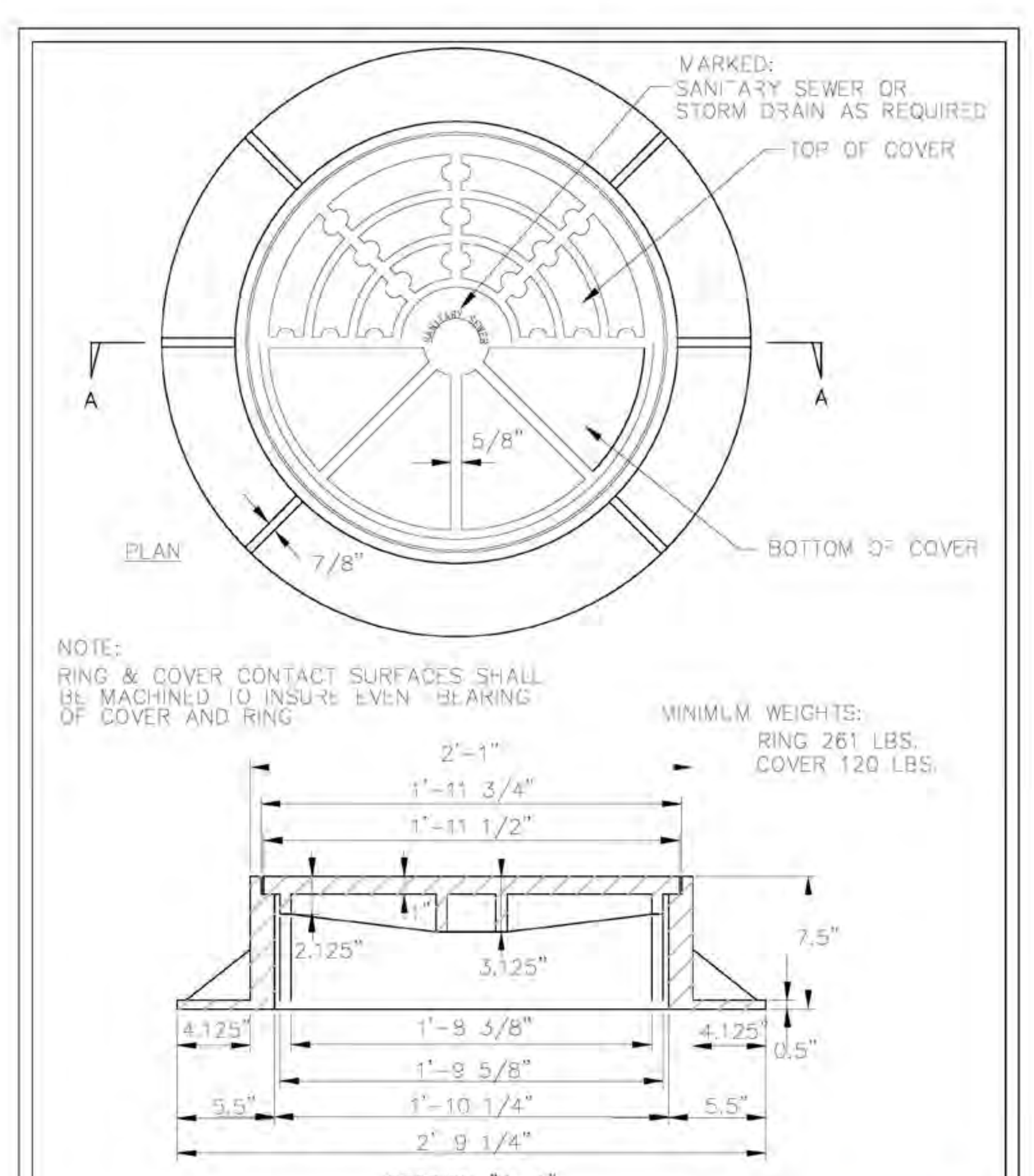


NOTES:
1. CONTRACTOR SHALL ENSURE BOTTOM OF TRENCH IS SUITABLE FOR PIPE INSTALLATION AND DOES NOT REQUIRE FOUNDATION CONDITIONING STONE.
2. CONTRACTOR TO INSTALL BEDDING AND PIPE BEFORE INSTALLING HAUNCH AND THEN OVERFILL. SOILS SHALL BE INSTALLED IN 6"-8" LIFTS AND COMPACTED TO MIN. % DENSITY AS DETERMINED BY THE STANDARD PROCTOR ASTM D-698-A METHOD.
3. WHERE IN PAVEMENT, CONTRACTOR SHALL ADHERE TO CITY STREET CUT POLICY AND SD 1-04 OR SD 1-05 FOR ROAD AND PAVEMENT REBUILD.
4. SOIL SHALL BE COMPACTED BY A MECHANIZED TAMP (I.E. JUMPING JACK). HOWEVER, VIBRATORY ROLLERS > 18" WIDTH MAY BE USED FOR LARGER EXCAVATIONS. THE PLATE TAMP METHOD SHALL NOT BE USED.
5. THIS DETAIL IS REPRESENTATIVE AND PIPE TRENCH DESIGN IS SUBJECT TO SPECIFIC SOIL CATEGORY (I, II, III), AND INSTALLATION TYPE (1, 2, 3, 4), AS DIRECTED BY THE ENGINEER AND SITE CONDITIONS.

STANDARD DETAIL — PIPE TRENCH TYPICAL
DATE: MAY, 2013 — DRAWN: JSR — CHECKED: BDR, P.E. — SCALE: NOT TO SCALE
CITY OF WILMINGTON NORTH CAROLINA — CITY OF WILMINGTON ENGINEERING OFFICE, 212 OPERATIONS CENTER DRIVE, WILMINGTON, N.C. 28412, (910) 341-7807 — SD 1-07



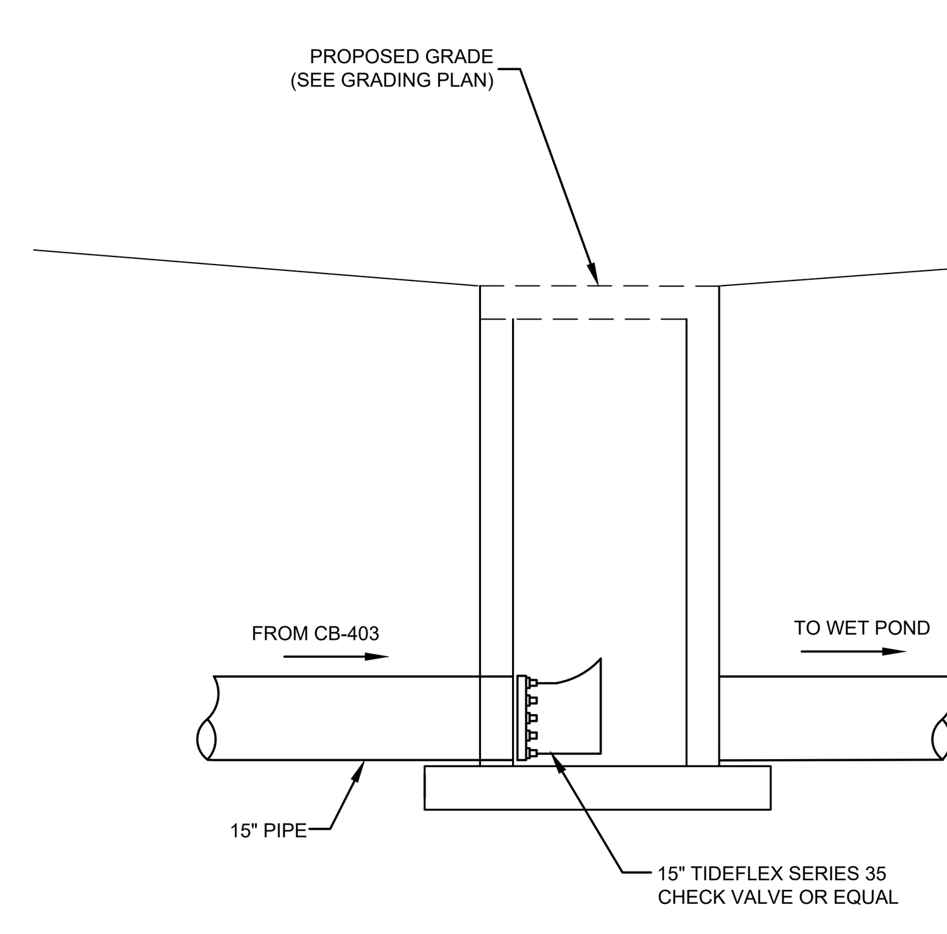
STANDARD DETAIL — INTERFERENCE STORM DRAIN MAN HOLE
DATE: NOVEMBER, 2008 — SCALE: NOT TO SCALE
CITY OF WILMINGTON NORTH CAROLINA — SD 2-05



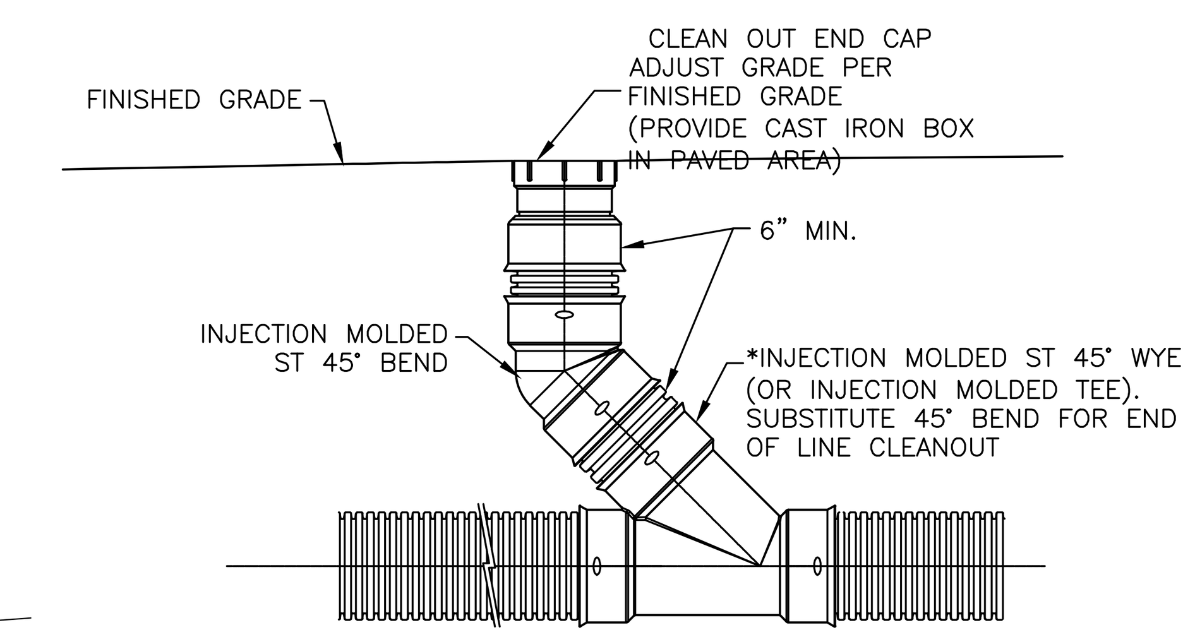
NOTE:
RING & COVER CONTACT SURFACES SHALL BE MACHINED TO INSURE EVEN SEATING OF COVER AND RING.

MINIMUM WEIGHTS: RING 261 LBS. COVER 120 LBS.

STANDARD DETAIL — STANDARD MAN-HOLE RING AND COVER
CITY OF WILMINGTON NORTH CAROLINA — SD 14-02



CB-403 TO MH-401 SECTION
NOT TO SCALE



IN-LINE CLEANOUT
NOT TO SCALE

REVISIONS:

CLIENT INFORMATION:
CK WILMINGTON THREE PHASE A, LLC
CHARLOTTE, NC

PARAMOUNTE ENGINEERING, INC
122 Cinema Drive
Wilmington, North Carolina 28403
(910) 791-6707 (O) (910) 791-6760 (F)
NC License #: C-2846

EC & STORM DETAILS
WILMINGTON THREE PHASE A
CITY OF WILMINGTON
NORTH CAROLINA

PROJECT STATUS
CONCEPTUAL LAYOUT:
PRELIMINARY LAYOUT:
FINAL DESIGN:
RELEASED FOR CONST.:

DRAWING INFORMATION
DATE: 03.25.21
SCALE: AS NOTED
DESIGNED: DJF
DRAWN: DJF
CHECKED: DJF

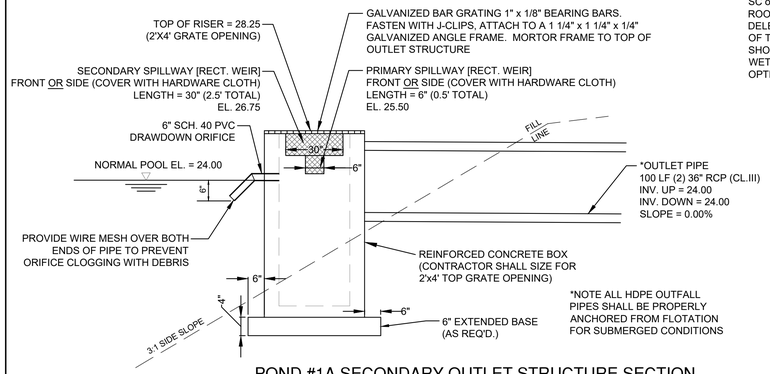
ISSUED FOR: ☐ PRELIMINARY ☑ PERMITTING ☐ BID ☐ CONSTRUCTION

Professional Seal redacted on electronic copy per City of Wilmington Policy

C-6.04

PEI JOB#: 20195.PE

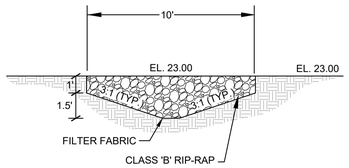
*NOTE:
THE CONTRACTOR SHALL ATTACH THE SKIMMER TO THE DRAWDOWN ORIFICE. ONCE THE AREA DRAINING TO THE BASIN IS STABILIZED, THE CONTRACTOR CAN ESTABLISH THE FINAL WET POND & REMOVE THE SKIMMER.



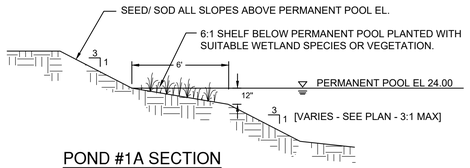
*NOTE ALL HDPE OUTFALL PIPES SHALL BE PROPERLY ANCHORED FROM FLOTATION FOR SUBMERGED CONDITIONS

POND #1A SECONDARY OUTLET STRUCTURE SECTION
NOT TO SCALE

STRUCTURAL BERM FILL SATISFACTORY SOILS:
SOILS WITH ORGANICS LESS THAN 2% WITH BETWEEN 30% AND 60% PASSING THE NO. 200 SIEVE WITH A PLASTICITY INDEX AND LIQUID LIMIT OF LESS THAN 20 AND 50 PERCENT, RESPECTIVELY WITH A UNIFIED SOIL CLASSIFICATION OF SC or CL; FREE OF ROCK OR GRAVEL LARGER THAN 2" IN ANY DIMENSION, ROOTS, DEBRIS, WASTE, FROZEN MATERIALS, VEGETATION, AND OTHER DELETERIOUS MATTER AS INDICATED BY ENGINEER. COMPACT TO MIN. 95% OF THE STANDARD PROCTOR MAXIMUM DRY DENSITY PER ASTM D 698; SOIL SHOULD BE MOISTURE CONDITIONED BY THE CONTRACTOR BY DRYING OR WETTING THE MATERIAL TO WITHIN +/- 3 PERCENT OF THE MATERIALS OPTIMUM MOISTURE CONTENT.



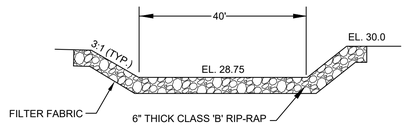
POND #1A FOREBAY SPILLWAY DETAIL
NOT TO SCALE



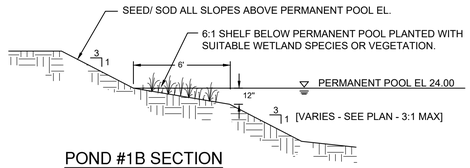
POND #1A SECTION
NOT TO SCALE

SUITABLE PLANTS
PICKERELWEED (PONTEDERIA CORDATA)
DUCK POTATO (SAGGITARIA LATIFOLIA AND SAGGITARIA CARDINALIS)
SWAMP ROSE (HIBISCUS MOSHEUTOS)
BLUE FLAG (IRIS VIRGINICA)
CARDINAL FLOWER (LOBELIA CARDINALIS)

WET DETENTION POND PLANTING
CONTRACTOR TO INSTALL ON THE 6:1 SLOPED SHELF, EQUAL NUMBERS OF EACH OF THE LISTED SUITABLE PLANTS. DURING INSTALLATION, GROUP SIMILAR SPECIES OF PLANTS TOGETHER. INSTALL PLANTS 24" O.C. IN A CHECKERBOARD PATTERN.



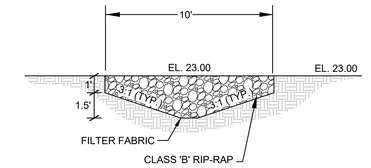
POND #1A EMERGENCY SPILLWAY DETAIL
NOT TO SCALE



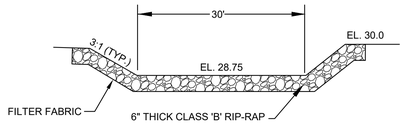
POND #1B SECTION
NOT TO SCALE

SUITABLE PLANTS
PICKERELWEED (PONTEDERIA CORDATA)
DUCK POTATO (SAGGITARIA LATIFOLIA AND SAGGITARIA CARDINALIS)
SWAMP ROSE (HIBISCUS MOSHEUTOS)
BLUE FLAG (IRIS VIRGINICA)
CARDINAL FLOWER (LOBELIA CARDINALIS)

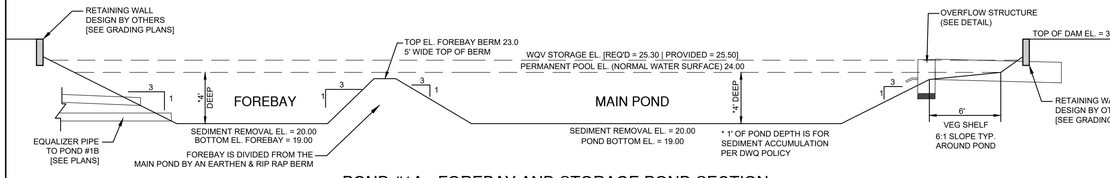
WET DETENTION POND PLANTING
CONTRACTOR TO INSTALL ON THE 6:1 SLOPED SHELF, EQUAL NUMBERS OF EACH OF THE LISTED SUITABLE PLANTS. DURING INSTALLATION, GROUP SIMILAR SPECIES OF PLANTS TOGETHER. INSTALL PLANTS 24" O.C. IN A CHECKERBOARD PATTERN.



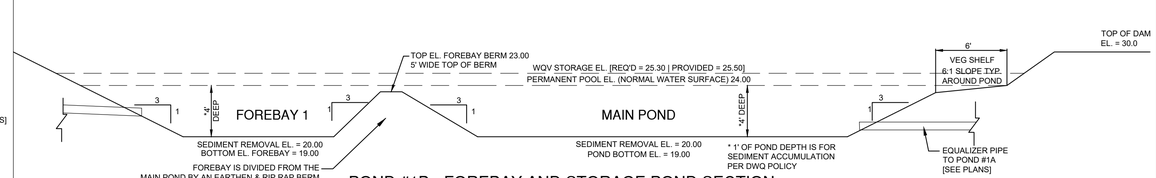
POND #1B FOREBAY SPILLWAY DETAIL
NOT TO SCALE



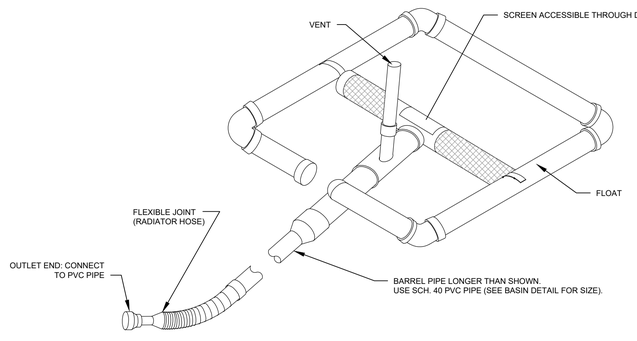
POND #1B EMERGENCY SPILLWAY DETAIL
NOT TO SCALE



POND #1A - FOREBAY AND STORAGE POND SECTION
NOT TO SCALE

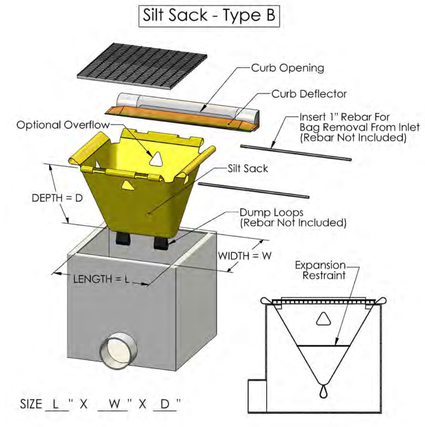


POND #1B - FOREBAY AND STORAGE POND SECTION
NOT TO SCALE



[TSB #3 (WET POND #1)] ORIFICE DIAMETER = 5.4" / SKIMMER SIZE = 6.0"

FAIRCLOTH SKIMMER DETAIL
NOT TO SCALE



ACF ENVIRONMENTAL
2831 Cardwell Road
Richmond, VA 23234
WWW.ACFENVIRONMENTAL.COM

ISSUED FOR: ☐ PRELIMINARY ☑ PERMITTING ☐ BID ☐ CONSTRUCTION

REVISIONS:
1 PER NHC EC COMMENT 02.17.21

CLIENT INFORMATION:
CK WILMINGTON
THREE PHASE A, LLC
CHARLOTTE, NC

PARAMOUNTE ENGINEERING, INC
122 Cinema Drive
Wilmington, North Carolina 28403
(910) 791-6707 (O) (910) 791-6760 (F)
NC License #: C-2846

EC & STORM DETAILS
WILMINGTON THREE PHASE A
CITY OF WILMINGTON
NORTH CAROLINA

PROJECT STATUS
CONCEPTUAL LAYOUT:
PRELIMINARY LAYOUT:
FINAL DESIGN:
RELEASED FOR CONST:

DRAWING INFORMATION
DATE: 03.25.21
SCALE: AS NOTED
DESIGNED: DJD
DRAWN: DJF
CHECKED: DJF

Professional Seal redacted on electronic copy per City of Wilmington Policy

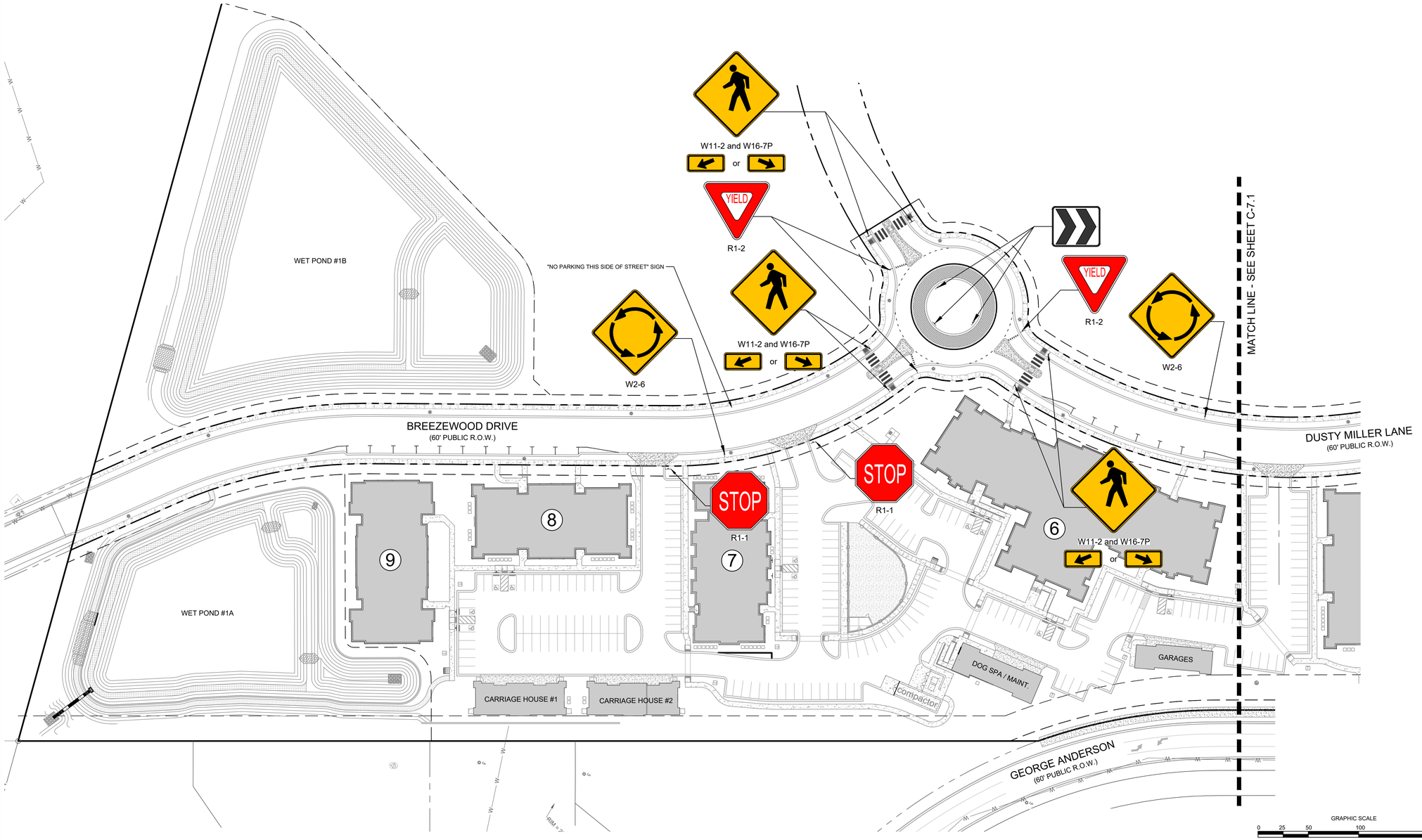
C-6.05

PEI JOB#: 20195.PE

PAVEMENT MARKING LEGEND:

CONTRACTOR SHALL REFER TO NCDOT STANDARD DETAIL #1205.01 FOR PAVEMENT MARKINGS

SYMBOL	DESCRIPTION	PAVEMENT MARKINGS		
T9	2 FT - 6 FT WHITE MINISKIP	THERMOPLASTIC (4", 90MILS)	60 LF	
TE	WHITE SOLID LINE		525 LF	
			TOTAL	585 LF
T3	WHITE CROSSWALK LINE	THERMOPLASTIC (24", 90MILS)	180 LF	
			TOTAL	180 LF
UM	12" YIELD LINE TRIANGLE	THERMOPLASTIC THICK SYMBOLS (90MILS)	18 EA	
			TOTAL	18 EA



811 Know what's below. Call before you dig.

ISSUED FOR: ☐ PRELIMINARY ☑ PERMITTING ☐ BID ☐ CONSTRUCTION

REVISIONS:

CLIENT INFORMATION:

CK WILMINGTON
THREE PHASE A, LLC
CHARLOTTE, NC

PARAMOUNTE ENGINEERING
122 Cinema Drive
Wilmington, North Carolina 28403
(910) 791-6707 (O) (910) 791-6760 (F)
NC License #: C-2846

STRIPING & SIGNAGE PLAN

WILMINGTON THREE PHASE A
CITY OF WILMINGTON
NORTH CAROLINA

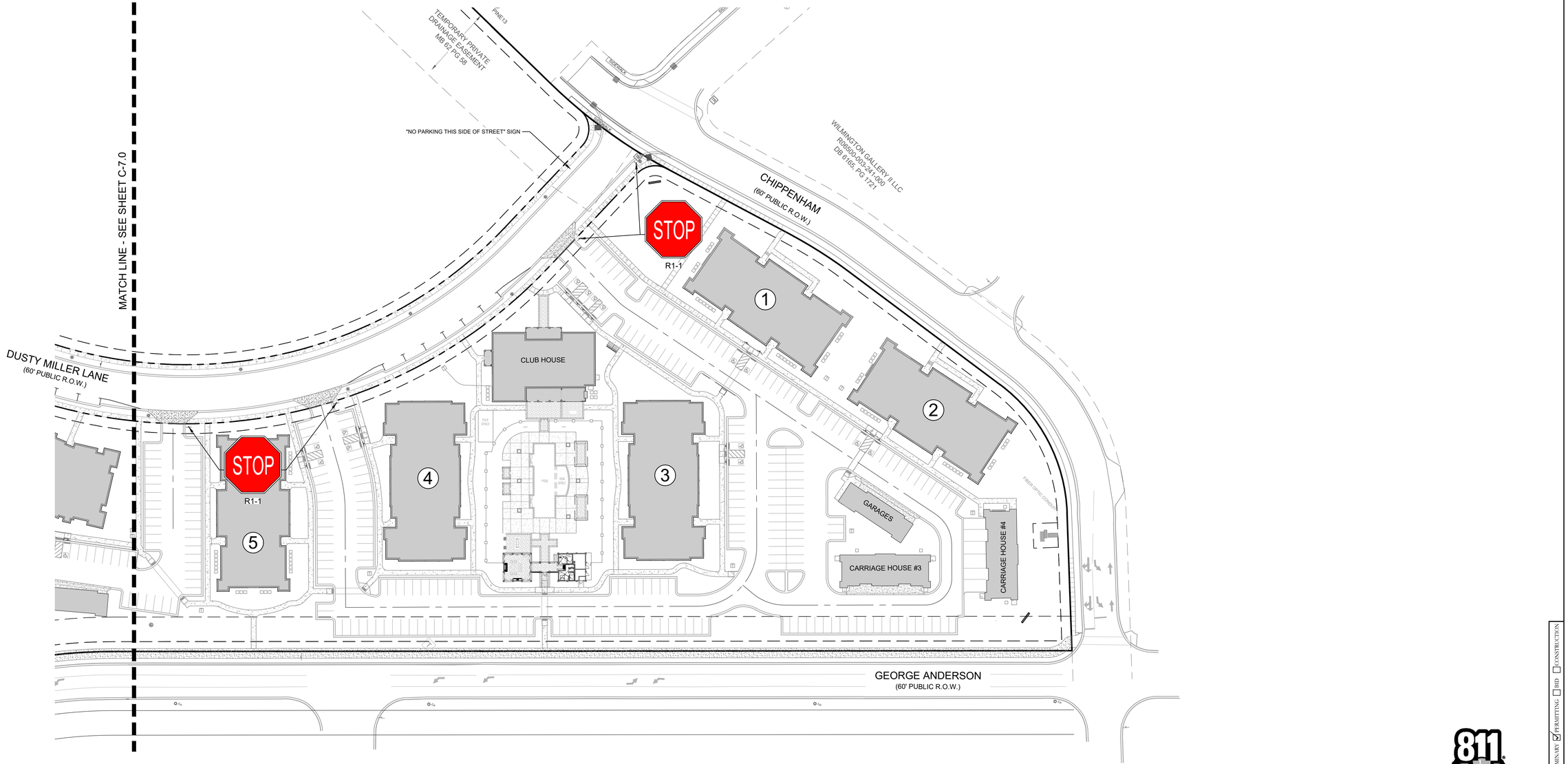
PROJECT STATUS
CONCEPTUAL LAYOUT:
PRELIMINARY LAYOUT:
FINAL DESIGN:
RELEASED FOR CONST:

DRAWING INFORMATION
DATE: 03.22.21
SCALE: 1"= 50'
DESIGNED: DF
DRAWN: DF
CHECKED: DF

Professional Seal redacted on electronic copy per City of Wilmington Policy

C-7.0

PEI JOB#: 20195.PE



ISSUED FOR: ☐ PRELIMINARY ☑ PERMITTING ☐ BID ☐ CONSTRUCTION

REVISIONS:

CLIENT INFORMATION:

CK WILMINGTON
THREE PHASE A, LLC
CHARLOTTE, NC

PARAMOUNTE ENGINEERING, INC
122 Cinema Drive
Wilmington, North Carolina 28403
(910) 791-6707 (O) (910) 791-6760 (F)
NC License #: C-2846

STRIPING & SIGNAGE PLAN

WILMINGTON THREE PHASE A
CITY OF WILMINGTON
NORTH CAROLINA

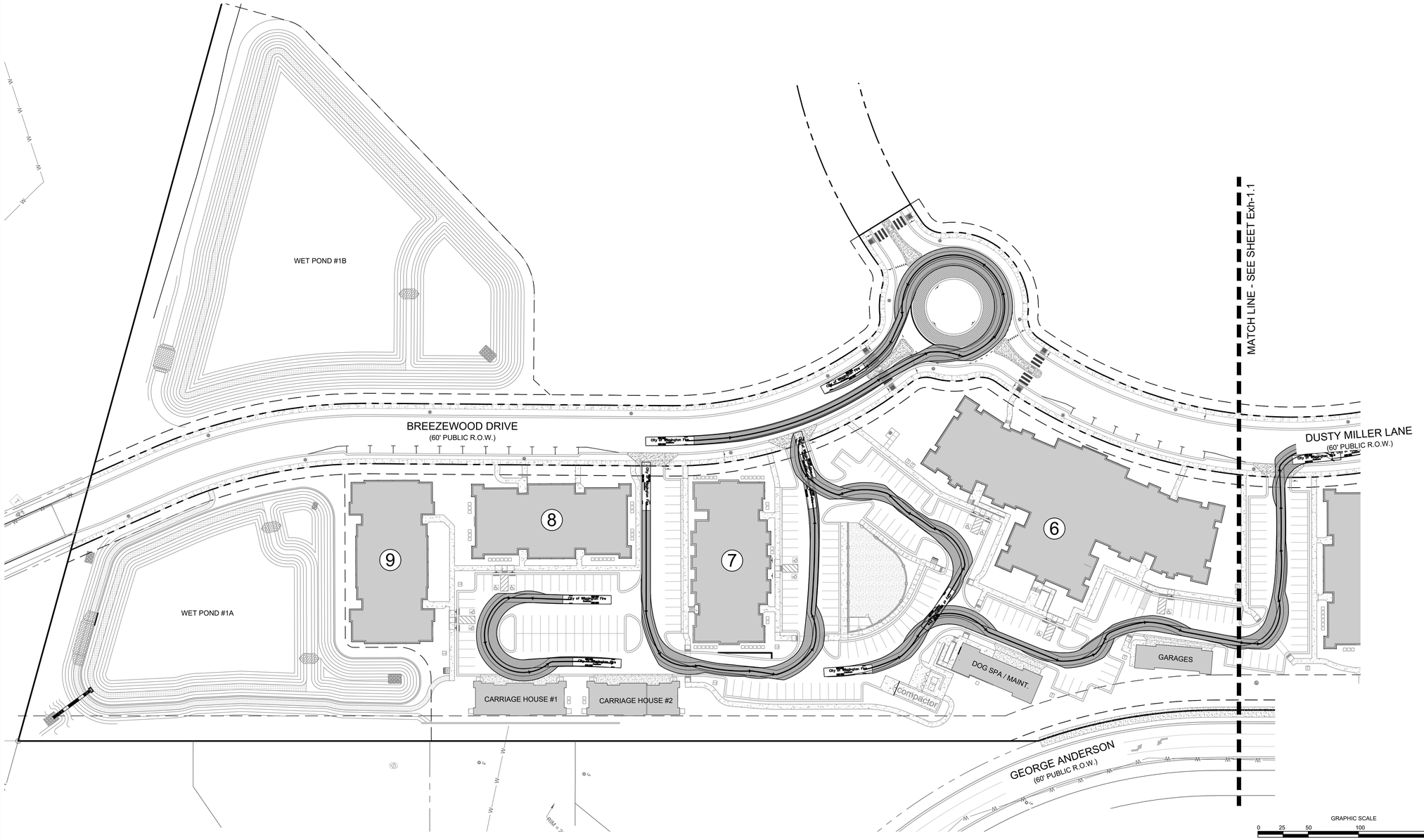
PROJECT STATUS
CONCEPTUAL LAYOUT:
PRELIMINARY LAYOUT:
FINAL DESIGN:
RELEASED FOR CONST:

DRAWING INFORMATION
DATE: 03.25.21
SCALE: 1"=50'
DESIGNED: DP
DRAWN: DF
CHECKED: DP

Professional Seal redacted on electronic copy per City of Wilmington Policy

C-7.1

PEI JOB#: 20195.PE



ISSUED FOR: ☐ PRELIMINARY ☑ PERMITTING ☐ BID ☐ CONSTRUCTION

PROJECT STATUS
CONCEPTUAL LAYOUT:
PRELIMINARY LAYOUT:
FINAL DESIGN:
RELEASED FOR CONST:

DRAWING INFORMATION
DATE: 03.25.21
SCALE: 1" = 50'
DESIGNED: DF
DRAWN: DF
CHECKED: DF

Professional Seal redacted on electronic copy per City of Wilmington Policy

Exh-1.0

PEI JOB#: 20195.PE

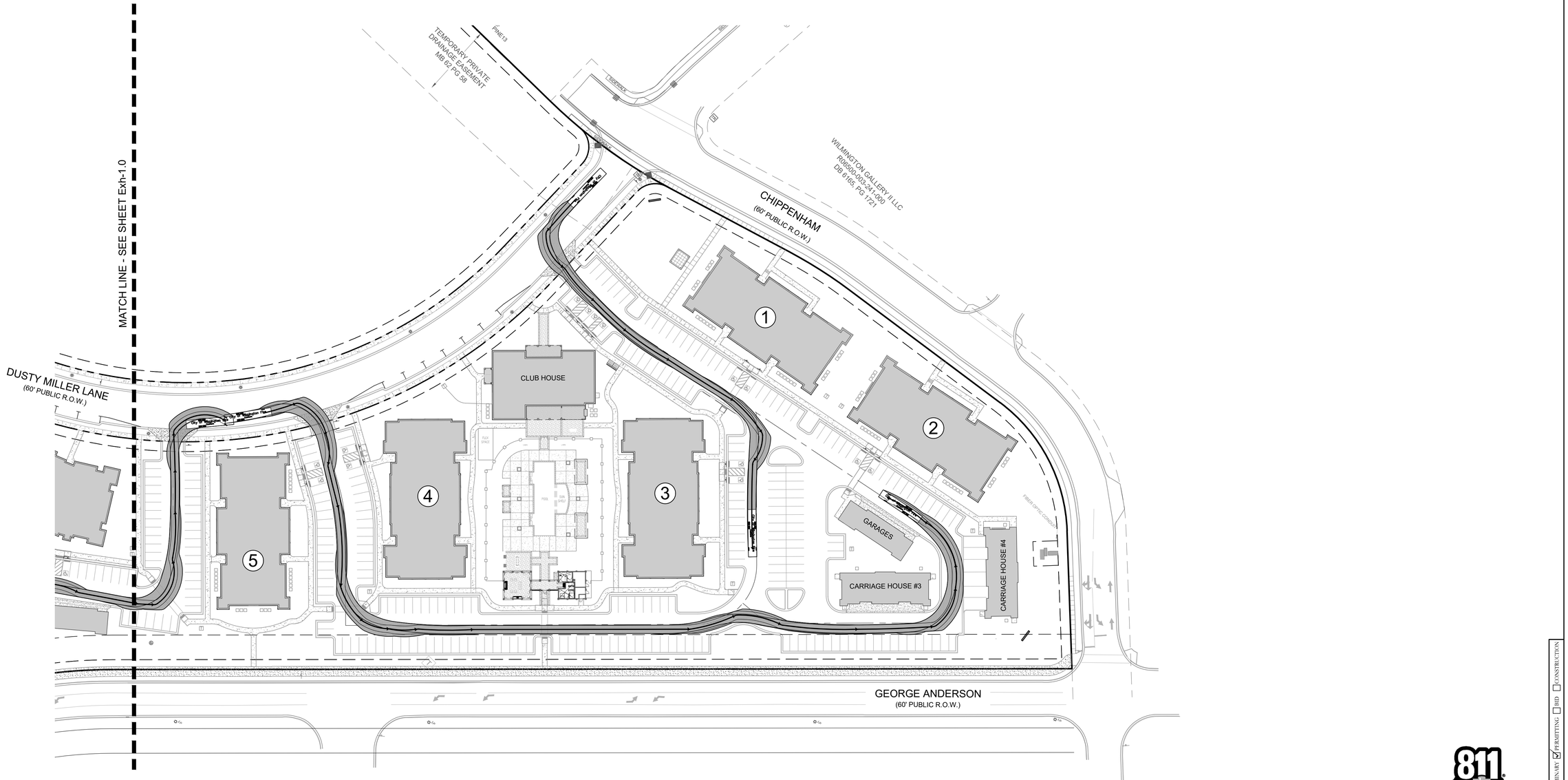
CLIENT INFORMATION:

CK WILMINGTON
THREE PHASE A, LLC
CHARLOTTE, NC

REVISIONS:

PARAMOUNTE
ENGINEERING
122 Cinema Drive
Wilmington, North Carolina 28403
(910) 791-6707 (O) (910) 791-6760 (F)
NC License #: C-2846

AUTOTURN EXHIBIT
FIRE TRUCK
WILMINGTON THREE PHASE A
CITY OF WILMINGTON
NORTH CAROLINA



ISSUED FOR: ☐ PRELIMINARY ☑ PERMITTING ☐ BID ☐ CONSTRUCTION

PROJECT STATUS
CONCEPTUAL LAYOUT:
PRELIMINARY LAYOUT:
FINAL DESIGN:
RELEASED FOR CONST:

DRAWING INFORMATION
DATE: 03.25.21
SCALE: 1"= 50'
DESIGNED: DF
DRAWN: DF
CHECKED: DF

STRIPING & SIGNAGE PLAN
FIRE TRUCK
WILMINGTON THREE PHASE A
CITY OF WILMINGTON
NORTH CAROLINA

Professional Seal redacted on electronic copy per City of Wilmington Policy

Exh-1.1

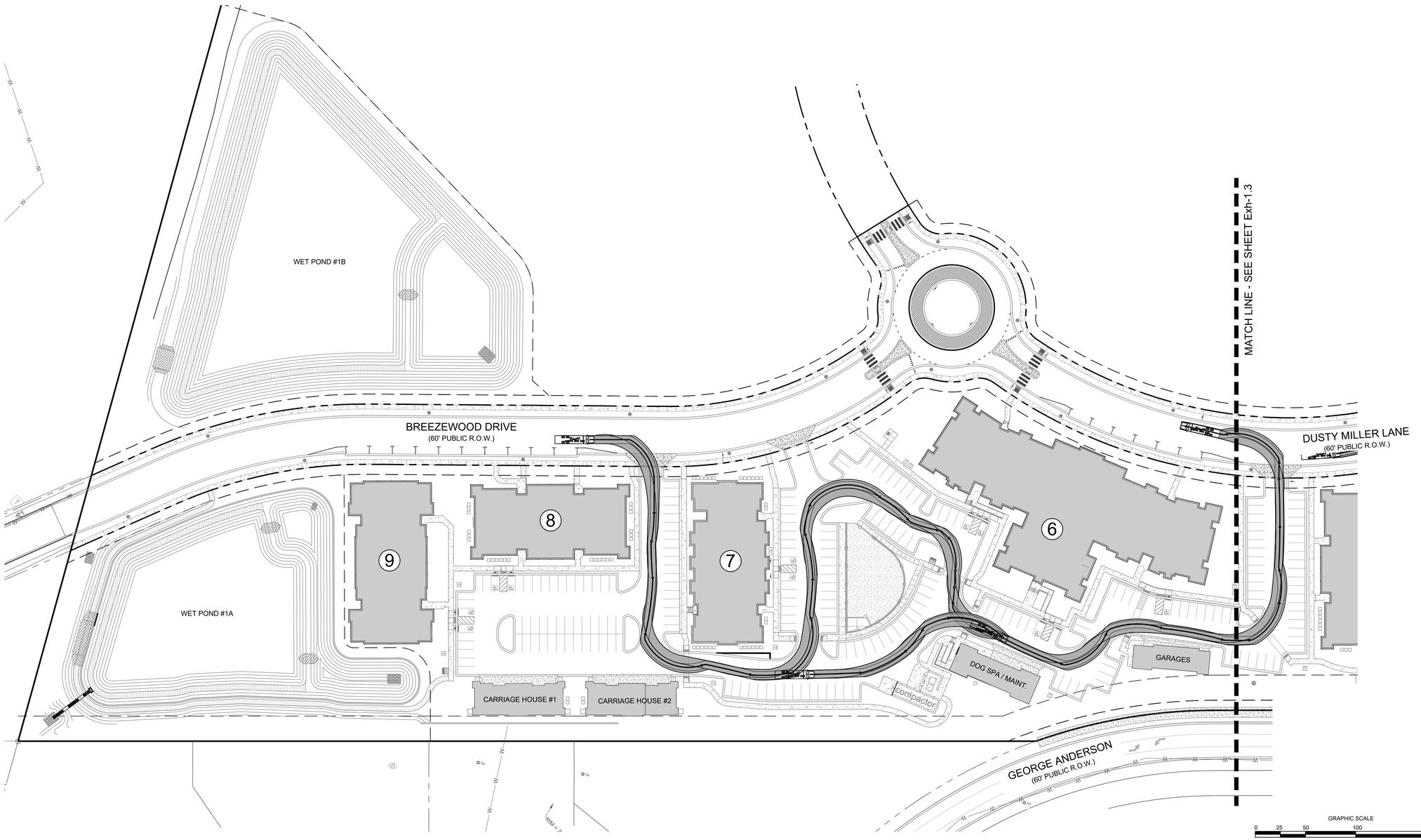
PEI JOB#: 20195.PE

CLIENT INFORMATION:

CK WILMINGTON
THREE PHASE A, LLC
CHARLOTTE, NC

REVISIONS:

PARAMOUNTE ENGINEERING, INC
122 Cinema Drive
Wilmington, North Carolina 28403
(910) 791-6707 (O) (910) 791-6760 (F)
NC License #: C-2846



ISSUED FOR: ☐ PRELIMINARY ☑ PERMITTING ☐ BID ☐ CONSTRUCTION

REVISIONS:

CLIENT INFORMATION:

CK WILMINGTON
THREE PHASE A, LLC
CHARLOTTE, NC

PARAMOUNTE ENGINEERING, INC
122 Cinema Drive
Wilmington, North Carolina 28403
(910) 791-6707 (O) (910) 791-6760 (F)
NC License #: C-2846

AUTOTURN EXHIBIT
TRUCK (SU-40)
WILMINGTON THREE PHASE A
CITY OF WILMINGTON
NORTH CAROLINA

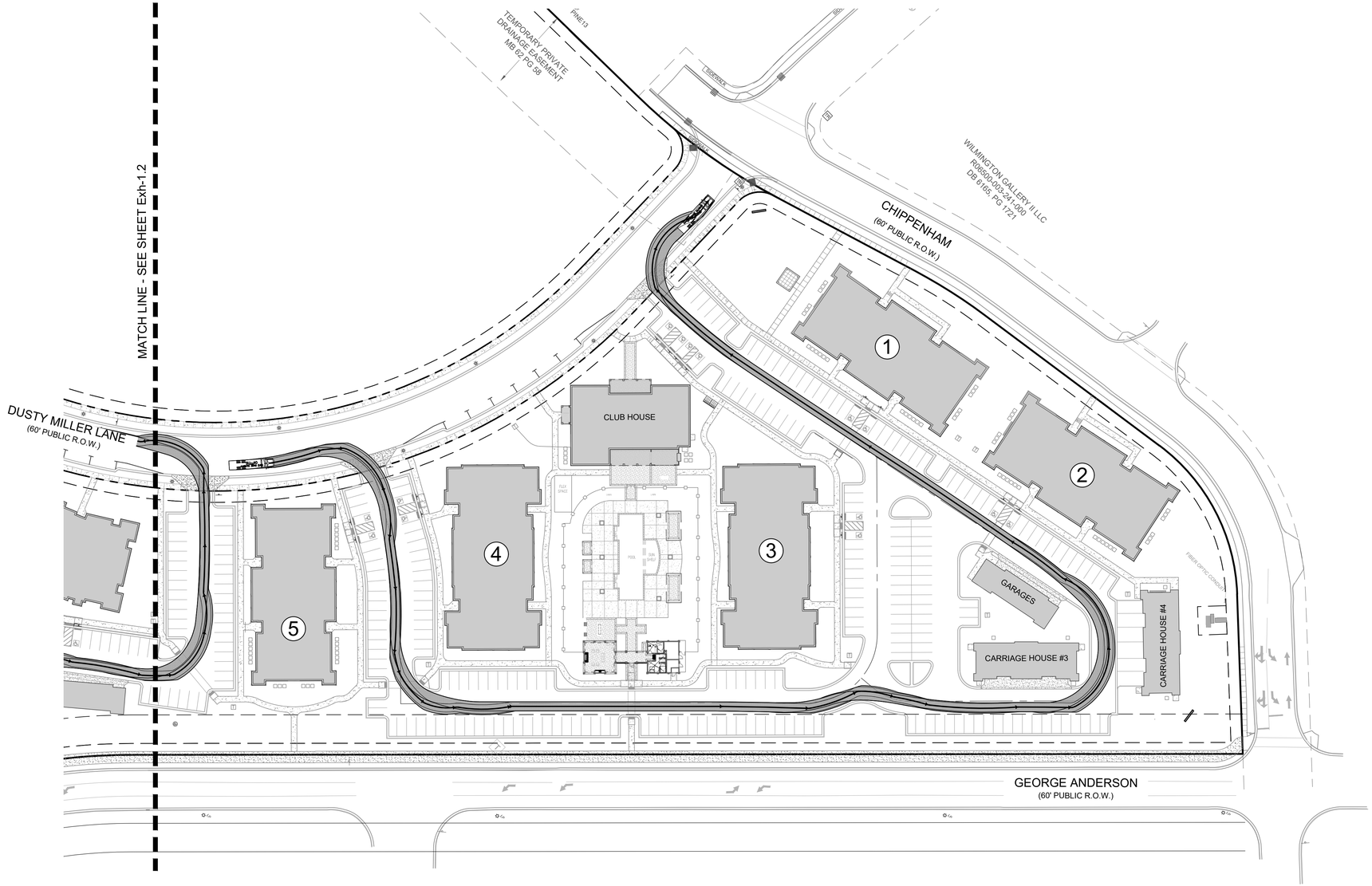
PROJECT STATUS
CONCEPTUAL LAYOUT:
PRELIMINARY LAYOUT:
FINAL DESIGN:
RELEASED FOR CONST:

DRAWING INFORMATION
DATE: 03.25.21
SCALE: 1" = 50'
DESIGNED: SP
DRAWN: DF
CHECKED: DR

Professional Seal redacted on electronic copy per City of Wilmington Policy

Exh-1.2

PEI JOB#: 20195.PE



NC2010(HARN)(2011)

GRAPHIC SCALE
0 25 50 100 200
SCALE: 1"=50'

811 Know what's below. Call before you dig.

ISSUED FOR: ☐ PRELIMINARY ☑ PERMITTING ☐ BID ☐ CONSTRUCTION

REVISIONS:

CLIENT INFORMATION:

CK WILMINGTON
THREE PHASE A, LLC
CHARLOTTE, NC

PARAMOUNTE ENGINEERING, INC
122 Cinema Drive
Wilmington, North Carolina 28403
(910) 791-6707 (O) (910) 791-6760 (F)
NC License #: C-2846

STRIPING & SIGNAGE PLAN
TRUCK (SU-40)
WILMINGTON THREE PHASE A
CITY OF WILMINGTON
NORTH CAROLINA

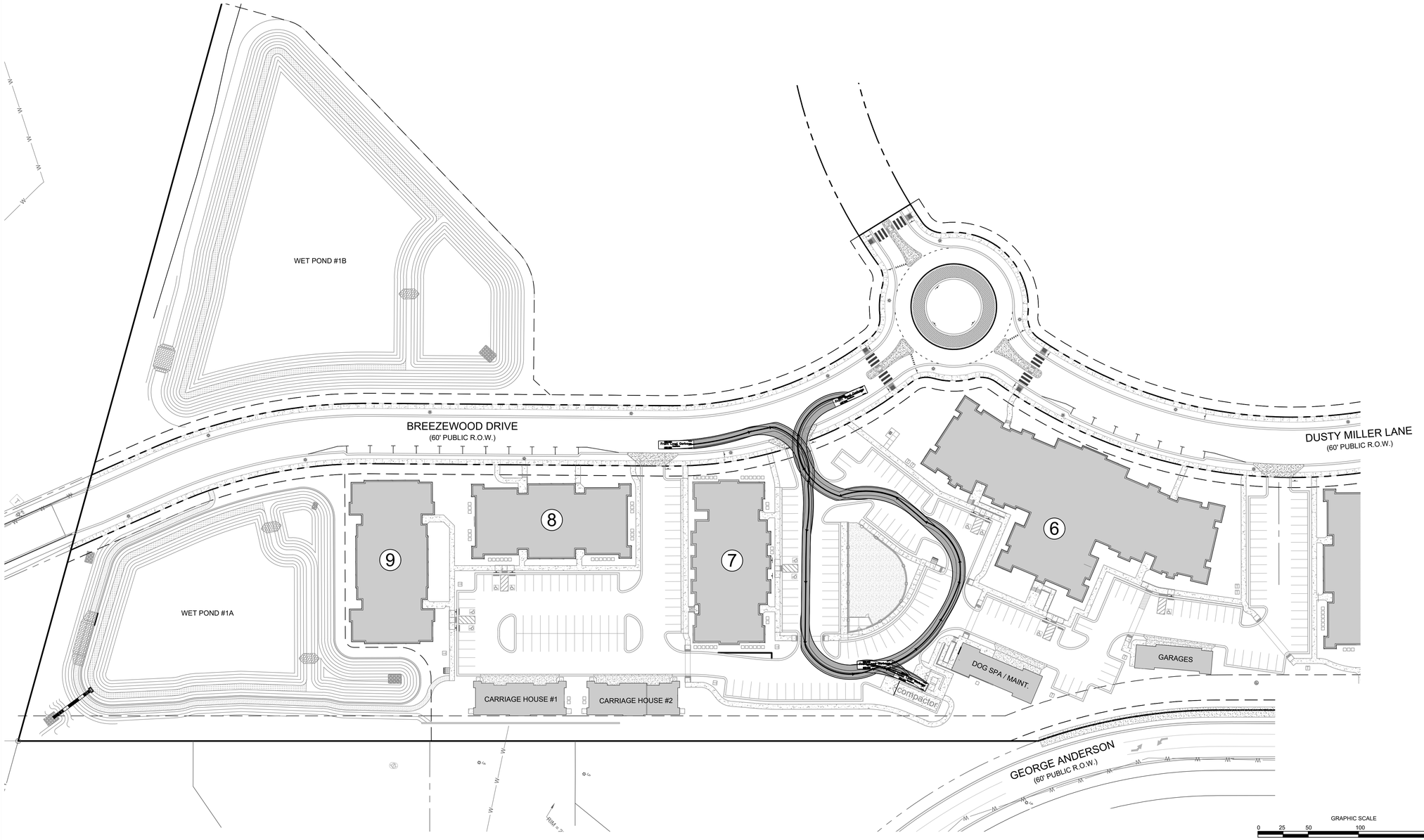
PROJECT STATUS
CONCEPTUAL LAYOUT:
PRELIMINARY LAYOUT:
PRELIMINARY:
FINAL DESIGN:
RELEASED FOR CONST:

DRAWING INFORMATION
DATE: 03.25.21
SCALE: 1" = 50'
DESIGNED: DF
DRAWN: DF
CHECKED: DF

Professional Seal redacted on electronic copy per City of Wilmington Policy

Exh-1.3

PEI JOB#: 20195.PE



ISSUED FOR: ☐ PRELIMINARY ☑ PERMITTING ☐ BID ☐ CONSTRUCTION

REVISIONS:

CLIENT INFORMATION:

CK WILMINGTON
THREE PHASE A, LLC
CHARLOTTE, NC

PARAMOUNTE ENGINEERING, INC.
122 Cinema Drive
Wilmington, North Carolina 28403
(910) 791-6707 (O) (910) 791-6760 (F)
NC License #: C-2846

AUTOTURN EXHIBIT
GARBAGE TRUCK
WILMINGTON THREE PHASE A
CITY OF WILMINGTON
NORTH CAROLINA

PROJECT STATUS
CONCEPTUAL LAYOUT:
PRELIMINARY LAYOUT:
FINAL DESIGN:
RELEASED FOR CONST:

DRAWING INFORMATION
DATE: 03.23.21
SCALE: 1"= 50'
DESIGNED: DF
DRAWN: DF
CHECKED: DF

Professional Seal redacted on electronic copy per City of Wilmington Policy

Exh-1.4

PEI JOB#: 20195.PE

GENERAL NOTES - BUILDING ELEVATIONS

- EXTERIOR MATERIALS, DETAILING, AND COLORS TO WRAP AT ALL EXTERIOR CORNERS AND TERMINATE AT THE INSIDE CORNER, U.N.O.
- CONTROL JOINTS SHOULD OCCUR AT INSIDE CORNERS AS NEEDED TO MEET BRICK INDUSTRY ASSOCIATION STANDARDS. EXTEND UP ENTIRE MASONRY VENEER FACE, U.N.O.
- SEAL ALL WALL PENETRATIONS WITH MEMBRANE FLASHING AT SURFACE OF EXTERIOR SHEATHING U.N.O., SEE WATERPROOFING DETAILS.
- PROVIDE 3/8" JOINT SPACE WITH SEALANT AND AT INTERFACE BETWEEN DISSIMILAR EXTERIOR FINISHES.
- ALL FIBER CEMENT TO BE PRIMED AND PAINTED SMOOTH PANEL WITH FIBER CEMENT TRIM AS NOTED OR LAP SIDING WITH TRIM AS NOTED. PRIME AND PAINT ALL CUT EDGES OF FIBER CEMENT PANELING PRIOR TO INSTALLATION.
- G.C. TO COORDINATE WITH MEP, ARCH., AND STRUCTURAL TO MATCH DRYER AND EXHAUST VENT LOCATIONS WITH DRAWINGS. VENTS TO BE PAINTED BASED ON ADJACENT FIELD COLORS. ARCH. TO PROVIDE COLORS. ALL VENTS TO BE LOCATED TO THE LEFT OR RIGHT OF WINDOWS, NOT DIRECTLY ABOVE, UNLESS SHOWN OTHERWISE.
- COMMERCIAL BUILDING WRAP TO BE USED AT EXTERIOR ENVELOPE.
- CONDUCTORS, SCUPPERS, AND DOWNSPOUTS TO BE PREFINISHED, COLOR TO BE SELECTED BY ARCH.
- PROVIDE SILICONE SEALANTS AT ALL MASONRY CONTROL JOINTS AND WINDOWS/DOORS IN MASONRY.
- PROVIDE URETHANE SEALANTS AT PANEL CONDITIONS, INCLUDING WINDOW/DOORS PERIMETERS (IF ANTICIPATED TO BE PAINTED, OTHERWISE SILICONE IS TO BE USED).
- PROVIDE PREFABRICATED FLASHING COMPONENTS AT DRYER/EXHAUST VENTS.
- PROVIDE FLASHING AT HORIZONTAL TRANSITIONS BETWEEN WALL FINISHES.
- REFERENCE CIVIL/LANDSCAPING DRAWINGS FOR ENTRY/PATIO CONNECTIONS AT GRADE.
- ALL GROUND LEVEL UNITS AT POOL COURTYARD SHALL HAVE RAILINGS 48" MIN. FROM PATIO F.F.E. OR LOWEST HORIZONTAL RAILING, WHICHEVER IS HIGHER. WINDOWS SHALL HAVE WINDOW LIMITERS PER 2013 NCENR - 15 NCAC 18A2528
- REFERENCE MATERIAL SELECTION ELEVATIONS FOR ALL MATERIAL, COLOR, AND MASONRY CALLOUTS.
- — — — INDICATES LOCATION OF RAIN LEADERS. REF. ROOF PLANS.
- 42" HIGH ALUMINUM RAILINGS TYP. AT ALL 2ND - 4TH FLOOR BALCONIES.
- UNIT BALCONY DOORS TO MATCH VINYL WINDOW COLOR SELECTION, USE OF HIGH TEMPURATURE PAINT, TYP.
- SEE WINDOW DETAILS FOR DIFFERENTIAL SETTLEMENT NOTES.

HOUSING STUDIO
333 West Trade Street, Suite 300
Charlotte, NC 28202
T: 704.333.7862 F: 980.237.3862

2 BLDG TYPE A - FRONT ELEVATION 2
1/8" = 1'-0"

3 BLDG TYPE A - FRONT ELEVATION 3
1/8" = 1'-0"

1 BLDG TYPE A - FRONT ELEVATION 1
1/8" = 1'-0"

CHILDRESS KLEIN - BARCLAY PHASE A

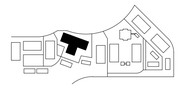
VOLUME 1: CIVIL - LANDSCAPE - ARCHITECTURE - INTERIORS
WILMINGTON, NC

NOT FOR CONSTRUCTION

PROJECT NUMBER: 2006
ISSUE DATE: SEPTEMBER 10TH, 2020
ISSUED FOR: 30% SET

#	**REVISIONS**

KEY PLAN



N

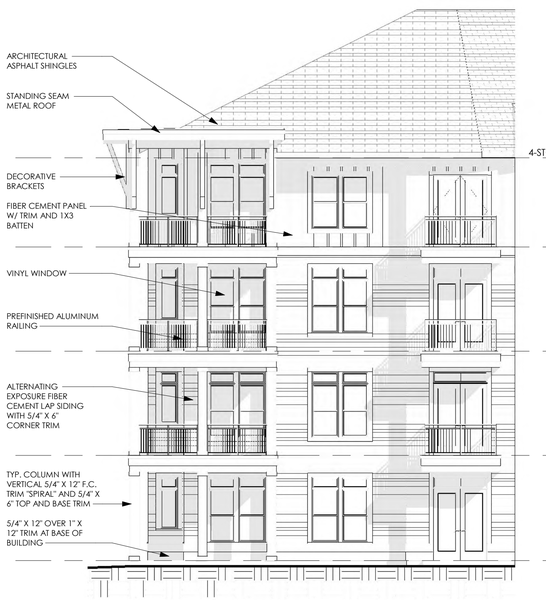
BLDG TYPE A - ELEVATIONS

A4.A16

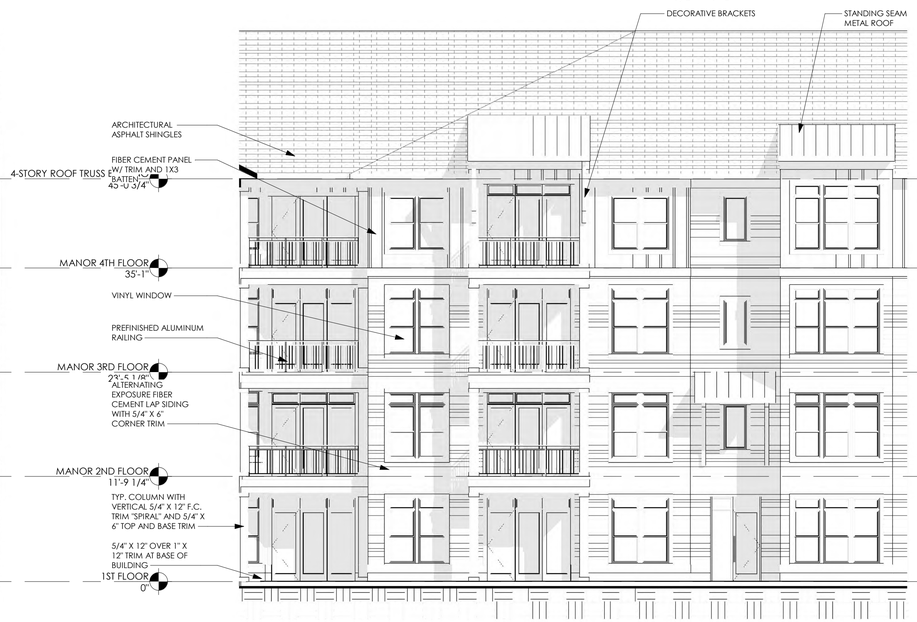
1
A6.1

5 BLDG TYPE A - REAR ELEVATION 5
1/8" = 1'-0"

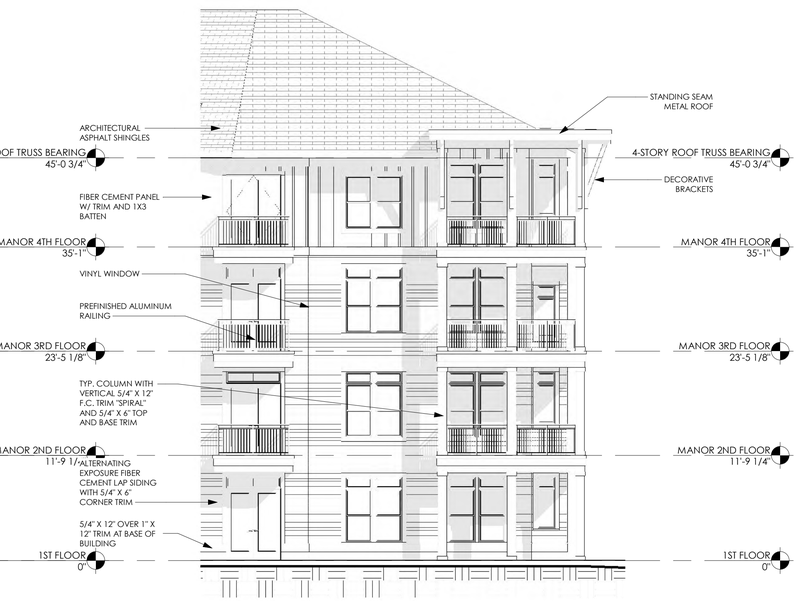
4 BLDG TYPE A - REAR ELEVATION 4
1/8" = 1'-0"



3 BLDG TYPE A - REAR ELEVATION 3
1/8" = 1'-0"



2 BLDG TYPE A - REAR ELEVATION 2
1/8" = 1'-0"



1 BLDG TYPE A - REAR ELEVATION 1
1/8" = 1'-0"

GENERAL NOTES - BUILDING ELEVATIONS

- EXTERIOR MATERIALS, DETAILING, AND COLORS TO WRAP AT ALL EXTERIOR CORNERS AND TERMINATE AT THE INSIDE CORNER, U.N.O.
- CONTROL JOINTS SHOULD OCCUR AT INSIDE CORNERS AS NEEDED TO MEET BRICK INDUSTRY ASSOCIATION STANDARDS. EXTEND UP ENTIRE MASONRY VENEER FACE, U.N.O.
- SEAL ALL WALL PENETRATIONS WITH MEMBRANE FLASHING AT SURFACE OF EXTERIOR SHEATHING U.N.O., SEE WATERPROOFING DETAILS.
- PROVIDE 3/8" JOINT SPACE WITH SEALANT AND AT INTERFACE BETWEEN DISSIMILAR EXTERIOR FINISHES.
- ALL FIBER CEMENT TO BE PRIMED AND PAINTED SMOOTH PANEL WITH FIBER CEMENT TRIM AS NOTED OR LAP SIDING WITH TRIM AS NOTED. PRIME AND PAINT ALL CUT EDGES OF FIBER CEMENT PANELING PRIOR TO INSTALLATION.
- G.C. TO COORDINATE WITH MEP, ARCH., AND STRUCTURAL TO MATCH DRYER AND EXHAUST VENT LOCATIONS WITH DRAWINGS. VENTS TO BE PAINTED BASED ON ADJACENT FIELD COLORS. ARCH. TO PROVIDE COLORS. ALL VENTS TO BE LOCATED TO THE LEFT OR RIGHT OF WINDOWS, NOT DIRECTLY ABOVE, UNLESS SHOWN OTHERWISE.
- COMMERCIAL BUILDING WRAP TO BE USED AT EXTERIOR ENVELOPE.
- CONDUCTORS, SCUPPERS, AND DOWNSPOUTS TO BE PREFINISHED, COLOR TO BE SELECTED BY ARCH.
- PROVIDE SILICONE SEALANTS AT ALL MASONRY CONTROL JOINTS AND WINDOWS/DOORS IN MASONRY.
- PROVIDE URETHANE SEALANTS AT PANEL CONDITIONS, INCLUDING WINDOW/DOORS PERIMETERS (IF ANTICIPATED TO BE PAINTED, OTHERWISE SILICONE IS TO BE USED).
- PROVIDE PREFABRICATED FLASHING COMPONENTS AT DRYER/EXHAUST VENTS.
- PROVIDE FLASHING AT HORIZONTAL TRANSITIONS BETWEEN WALL FINISHES.
- REFERENCE CIVIL/LANDSCAPING DRAWINGS FOR ENTRY/PATIO CONNECTIONS AT GRADE.
- ALL GROUND LEVEL UNITS AT POOL COURTYARD SHALL HAVE RAILINGS 48" MIN. FROM PATIO F.F.E. OR LOWEST HORIZONTAL RAILING, WHICHEVER IS HIGHER. WINDOWS SHALL HAVE WINDOW LIMITERS PER 2013 NCENR - 15 NCAC 18A2528
- REFERENCE MATERIAL SELECTION ELEVATIONS FOR ALL MATERIAL, COLOR, AND MASONRY CALLOUTS.
- — — — INDICATES LOCATION OF RAIN LEADERS. REF. ROOF PLANS.
- 42" HIGH ALUMINUM RAILINGS TYP. AT ALL 2ND - 4TH FLOOR BALCONIES.
- UNIT BALCONY DOORS TO MATCH VINYL WINDOW COLOR SELECTION, USE OF HIGH TEMPURATURE PAINT, TYP.
- SEE WINDOW DETAILS FOR DIFFERENTIAL SETTLEMENT NOTES.

HOUSING STUDIO
333 West Trade Street, Suite 300
Charlotte, NC 28202
T: 704.333.7862 F: 980.237.3862

CHILDRESS KLEIN - BARCLAY PHASE A

VOLUME 1: CIVIL - LANDSCAPE - ARCHITECTURE - INTERIORS

WILMINGTON, NC

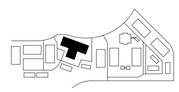
CK

NOT FOR CONSTRUCTION

PROJECT NUMBER: 2006
ISSUE DATE: SEPTEMBER 10TH, 2020
ISSUED FOR: 30% SET

#	REVISIONS

KEY PLAN



N

BLDG TYPE A - ELEVATIONS

A4.A17

GENERAL NOTES - BUILDING ELEVATIONS

- EXTERIOR MATERIALS, DETAILING, AND COLORS TO WRAP AT ALL EXTERIOR CORNERS AND TERMINATE AT THE INSIDE CORNER, U.N.O.
- CONTROL JOINTS SHOULD OCCUR AT INSIDE CORNERS AS NEEDED TO MEET BRICK INDUSTRY ASSOCIATION STANDARDS. EXTEND UP ENTIRE MASONRY VENEER FACE, U.N.O.
- SEAL ALL WALL PENETRATIONS WITH MEMBRANE FLASHING AT SURFACE OF EXTERIOR SHEATHING U.N.O., SEE WATERPROOFING DETAILS.
- PROVIDE 3/8" JOINT SPACE WITH SEALANT AND AT INTERFACE BETWEEN DISSIMILAR EXTERIOR FINISHES.
- ALL FIBER CEMENT TO BE PRIMED AND PAINTED SMOOTH PANEL WITH FIBER CEMENT TRIM AS NOTED OR LAP SIDING WITH TRIM AS NOTED. PRIME AND PAINT ALL CUT EDGES OF FIBER CEMENT PANELING PRIOR TO INSTALLATION.
- G.C. TO COORDINATE WITH MEP, ARCH., AND STRUCTURAL TO MATCH DRYER AND EXHAUST VENT LOCATIONS WITH DRAWINGS. VENTS TO BE PAINTED BASED ON ADJACENT FIELD COLORS. ARCH. TO PROVIDE COLORS. ALL VENTS TO BE LOCATED TO THE LEFT OR RIGHT OF WINDOWS, NOT DIRECTLY ABOVE, UNLESS SHOWN OTHERWISE.
- COMMERCIAL BUILDING WRAP TO BE USED AT EXTERIOR ENVELOPE.
- CONDUCTORS, SCUPPERS, AND DOWNSPOUTS TO BE PREFINISHED, COLOR TO BE SELECTED BY ARCH.
- PROVIDE SILICONE SEALANTS AT ALL MASONRY CONTROL JOINTS AND WINDOWS/DOORS IN MASONRY.
- PROVIDE URETHANE SEALANTS AT PANEL CONDITIONS, INCLUDING WINDOW/DOORS PERIMETERS (IF ANTICIPATED TO BE PAINTED, OTHERWISE SILICONE IS TO BE USED).
- PROVIDE PREFABRICATED FLASHING COMPONENTS AT DRYER/EXHAUST VENTS.
- PROVIDE FLASHING AT HORIZONTAL TRANSITIONS BETWEEN WALL FINISHES.
- REFERENCE CIVIL/LANDSCAPING DRAWINGS FOR ENTRY/PATIO CONNECTIONS AT GRADE.
- ALL GROUND LEVEL UNITS AT POOL COURTYARD SHALL HAVE RAILINGS 48" MIN. FROM PATIO F.F.E. OR LOWEST HORIZONTAL RAILING, WHICHEVER IS HIGHER. WINDOWS SHALL HAVE WINDOW LIMITERS PER 2013 NCENR - 15 NCAC 18A2528
- REFERENCE MATERIAL SELECTION ELEVATIONS FOR ALL MATERIAL, COLOR, AND MASONRY CALLOUTS.
- — — — INDICATES LOCATION OF RAIN LEADERS, REF. ROOF PLANS.
- 42" HIGH ALUMINUM RAILINGS TYP. AT ALL 2ND - 4TH FLOOR BALCONIES.
- UNIT BALCONY DOORS TO MATCH VINYL WINDOW COLOR SELECTION, USE OF HIGH TEMPURATURE PAINT, TYP.
- SEE WINDOW DETAILS FOR DIFFERENTIAL SETTLEMENT NOTES.

HOUSING STUDIO
333 West Trade Street, Suite 300
Charlotte, NC 28202
T: 704.333.7862 F: 980.237.3862

4 BLDG TYPE A - SIDE 2 ELEVATION 2
1/8" = 1'-0"

2 BLDG TYPE A - SIDE 1 ELEVATION 2
1/8" = 1'-0"

3 BLDG TYPE A - SIDE 2 ELEVATION 1
1/8" = 1'-0"

1 BLDG TYPE A - SIDE 1 ELEVATION 1
1/8" = 1'-0"

CHILDRESS KLEIN - BARCLAY PHASE A

VOLUME 1: CIVIL - LANDSCAPE - ARCHITECTURE - INTERIORS

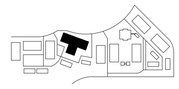
WILMINGTON, NC

NOT FOR CONSTRUCTION

PROJECT NUMBER: 2006
ISSUE DATE: SEPTEMBER 10TH, 2020
ISSUED FOR: 30% SET

#	REVISIONS

KEY PLAN



N

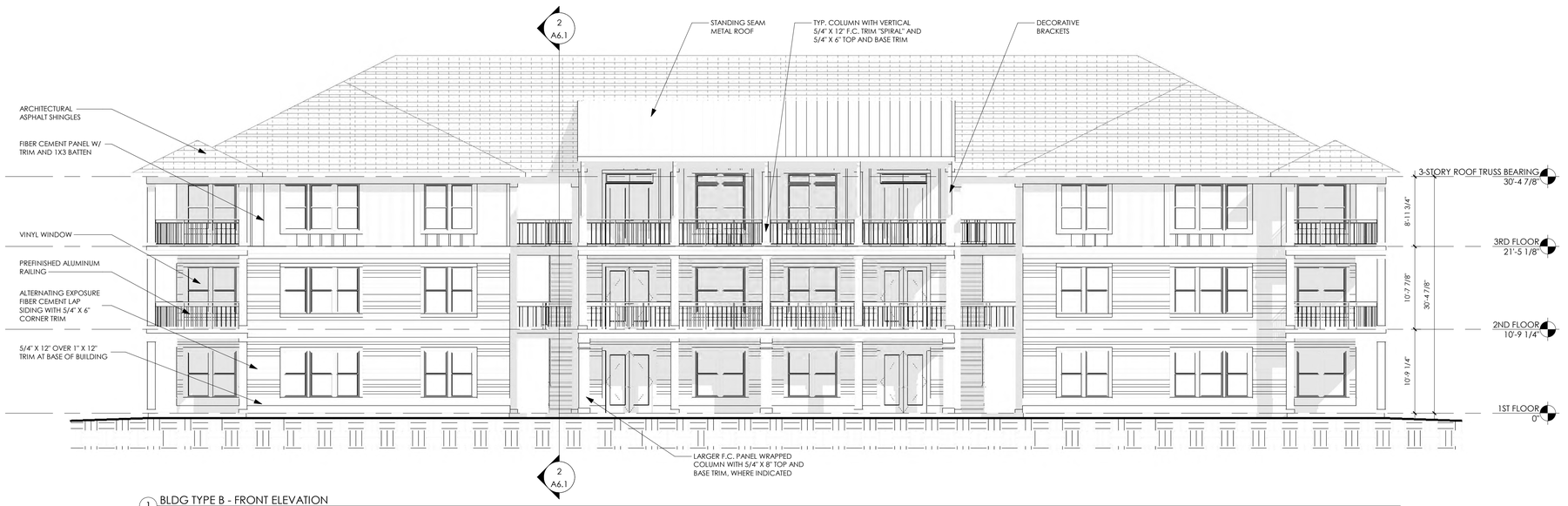
BLDG TYPE A - ELEVATIONS

A4.A18

GENERAL NOTES - BUILDING ELEVATIONS

- EXTERIOR MATERIALS, DETAILING, AND COLORS TO WRAP AT ALL EXTERIOR CORNERS AND TERMINATE AT THE INSIDE CORNER, U.N.O.
- CONTROL JOINTS SHOULD OCCUR AT INSIDE CORNERS AS NEEDED TO MEET BRICK INDUSTRY ASSOCIATION STANDARDS. EXTEND UP ENTIRE MASONRY VENEER FACE, U.N.O.
- SEAL ALL WALL PENETRATIONS WITH MEMBRANE FLASHING AT SURFACE OF EXTERIOR SHEATHING U.N.O., SEE WATERPROOFING DETAILS.
- PROVIDE 3/8" JOINT SPACE WITH SEALANT AND AT INTERFACE BETWEEN DISSIMILAR EXTERIOR FINISHES.
- ALL FIBER CEMENT TO BE PRIMED AND PAINTED SMOOTH PANEL WITH FIBER CEMENT TRIM AS NOTED OR LAP SIDING WITH TRIM AS NOTED. PRIME AND PAINT ALL CUT EDGES OF FIBER CEMENT PANELING PRIOR TO INSTALLATION.
- G.C. TO COORDINATE WITH MEP, ARCH., AND STRUCTURAL TO MATCH DRYER AND EXHAUST VENT LOCATIONS WITH DRAWINGS. VENTS TO BE PAINTED BASED ON ADJACENT FIELD COLORS. ARCH. TO PROVIDE COLORS. ALL VENTS TO BE LOCATED TO THE LEFT OR RIGHT OF WINDOWS, NOT DIRECTLY ABOVE, UNLESS SHOWN OTHERWISE.
- COMMERCIAL BUILDING WRAP TO BE USED AT EXTERIOR ENVELOPE.
- CONDUCTORS, SCUPPERS, AND DOWNSPOUTS TO BE PREFINISHED, COLOR TO BE SELECTED BY ARCH.
- PROVIDE SILICONE SEALANTS AT ALL MASONRY CONTROL JOINTS AND WINDOWS/DOORS IN MASONRY.
- PROVIDE URETHANE SEALANTS AT PANEL CONDITIONS, INCLUDING WINDOW/DOORS PERIMETERS (IF ANTICIPATED TO BE PAINTED, OTHERWISE SILICONE IS TO BE USED).
- PROVIDE PREFABRICATED FLASHING COMPONENTS AT DRYER/EXHAUST VENTS.
- PROVIDE FLASHING AT HORIZONTAL TRANSITIONS BETWEEN WALL FINISHES.
- REFERENCE CIVIL/LANDSCAPING DRAWINGS FOR ENTRY/PATIO CONNECTIONS AT GRADE.
- ALL GROUND LEVEL UNITS AT POOL COURTYARD SHALL HAVE RAILINGS 48" MIN. FROM PATIO F.F.E. OR LOWEST HORIZONTAL RAILING, WHICHEVER IS HIGHER. WINDOWS SHALL HAVE WINDOW LIMITERS PER 2013 NCENR - 15 NCAC 18A2528
- REFERENCE MATERIAL SELECTION ELEVATIONS FOR ALL MATERIAL, COLOR, AND MASONRY CALLOUTS.
- — — — INDICATES LOCATION OF RAIN LEADERS. REF. ROOF PLANS.
- 42" HIGH ALUMINUM RAILINGS TYP. AT ALL 2ND - 4TH FLOOR BALCONIES.
- UNIT BALCONY DOORS TO MATCH VINYL WINDOW COLOR SELECTION, USE OF HIGH TEMPURATURE PAINT, TYP.
- SEE WINDOW DETAILS FOR DIFFERENTIAL SETTLEMENT NOTES.

2 BLDG TYPE B - REAR ELEVATION
1/8" = 1'-0"



1 BLDG TYPE B - FRONT ELEVATION
1/8" = 1'-0"

HOUSING STUDIO
333 West Trade Street, Suite 300
Charlotte, NC 28202
T: 704.333.7862 F: 980.237.3862

CHILDRESS KLEIN - BARCLAY PHASE A

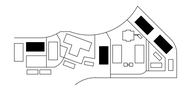
VOLUME 1: CIVIL - LANDSCAPE - ARCHITECTURE - INTERIORS
WILMINGTON, NC

NOT FOR CONSTRUCTION

PROJECT NUMBER: 2006
ISSUE DATE: SEPTEMBER 10TH, 2020
ISSUED FOR: 30% SET

#	**REVISIONS**

KEY PLAN



N

BLDG TYPE B - ELEVATIONS

A4.B5

GENERAL NOTES - BUILDING ELEVATIONS

- EXTERIOR MATERIALS, DETAILING, AND COLORS TO WRAP AT ALL EXTERIOR CORNERS AND TERMINATE AT THE INSIDE CORNER, U.N.O.
- CONTROL JOINTS SHOULD OCCUR AT INSIDE CORNERS AS NEEDED TO MEET BRICK INDUSTRY ASSOCIATION STANDARDS. EXTEND UP ENTIRE MASONRY VENEER FACE, U.N.O.
- SEAL ALL WALL PENETRATIONS WITH MEMBRANE FLASHING AT SURFACE OF EXTERIOR SHEATHING U.N.O., SEE WATERPROOFING DETAILS.
- PROVIDE 3/8" JOINT SPACE WITH SEALANT AND AT INTERFACE BETWEEN DISSIMILAR EXTERIOR FINISHES.
- ALL FIBER CEMENT TO BE PRIMED AND PAINTED SMOOTH PANEL WITH FIBER CEMENT TRIM AS NOTED OR LAP SIDING WITH TRIM AS NOTED. PRIME AND PAINT ALL CUT EDGES OF FIBER CEMENT PANELING PRIOR TO INSTALLATION.
- G.C. TO COORDINATE WITH MEP, ARCH., AND STRUCTURAL TO MATCH DRYER AND EXHAUST VENT LOCATIONS WITH DRAWINGS. VENTS TO BE PAINTED BASED ON ADJACENT FIELD COLORS. ARCH. TO PROVIDE COLORS. ALL VENTS TO BE LOCATED TO THE LEFT OR RIGHT OF WINDOWS, NOT DIRECTLY ABOVE, UNLESS SHOWN OTHERWISE.
- COMMERCIAL BUILDING WRAP TO BE USED AT EXTERIOR ENVELOPE.
- CONDUCTORS, SCUPPERS, AND DOWNSPOUTS TO BE PREFINISHED, COLOR TO BE SELECTED BY ARCH.
- PROVIDE SILICONE SEALANTS AT ALL MASONRY CONTROL JOINTS AND WINDOWS/DOORS IN MASONRY.
- PROVIDE URETHANE SEALANTS AT PANEL CONDITIONS, INCLUDING WINDOW/DOORS PERIMETERS (IF ANTICIPATED TO BE PAINTED, OTHERWISE SILICONE IS TO BE USED).
- PROVIDE PREFABRICATED FLASHING COMPONENTS AT DRYER/EXHAUST VENTS.
- PROVIDE FLASHING AT HORIZONTAL TRANSITIONS BETWEEN WALL FINISHES.
- REFERENCE CIVIL/LANDSCAPING DRAWINGS FOR ENTRY/PATIO CONNECTIONS AT GRADE.
- ALL GROUND LEVEL UNITS AT POOL COURTYARD SHALL HAVE RAILINGS 48" MIN. FROM PATIO F.F.E. OR LOWEST HORIZONTAL RAILING, WHICHEVER IS HIGHER. WINDOWS SHALL HAVE WINDOW LIMITERS PER 2013 NCENR - 15 NCAC 18A2528
- REFERENCE MATERIAL SELECTION ELEVATIONS FOR ALL MATERIAL, COLOR, AND MASONRY CALLOUTS.
- — — — INDICATES LOCATION OF RAIN LEADERS. REF. ROOF PLANS.
- 42" HIGH ALUMINUM RAILINGS TYP. AT ALL 2ND - 4TH FLOOR BALCONIES.
- UNIT BALCONY DOORS TO MATCH VINYL WINDOW COLOR SELECTION, USE OF HIGH TEMPURATURE PAINT, TYP.
- SEE WINDOW DETAILS FOR DIFFERENTIAL SETTLEMENT NOTES.

2 BLDG TYPE B - SIDE 2 ELEVATION
1/8" = 1'-0"

1 BLDG TYPE B - SIDE 1 ELEVATION
1/8" = 1'-0"

HOUSING STUDIO
333 West Trade Street, Suite 300
Charlotte, NC 28202
T: 704.333.7862 F: 980.237.3862

CHILDRESS KLEIN - BARCLAY PHASE A

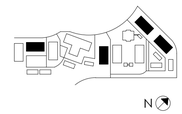
VOLUME 1: CIVIL - LANDSCAPE - ARCHITECTURE - INTERIORS
WILMINGTON, NC

NOT FOR CONSTRUCTION

PROJECT NUMBER: 2006
ISSUE DATE: SEPTEMBER 10TH, 2020
ISSUED FOR: 30% SET

REVISIONS

KEY PLAN



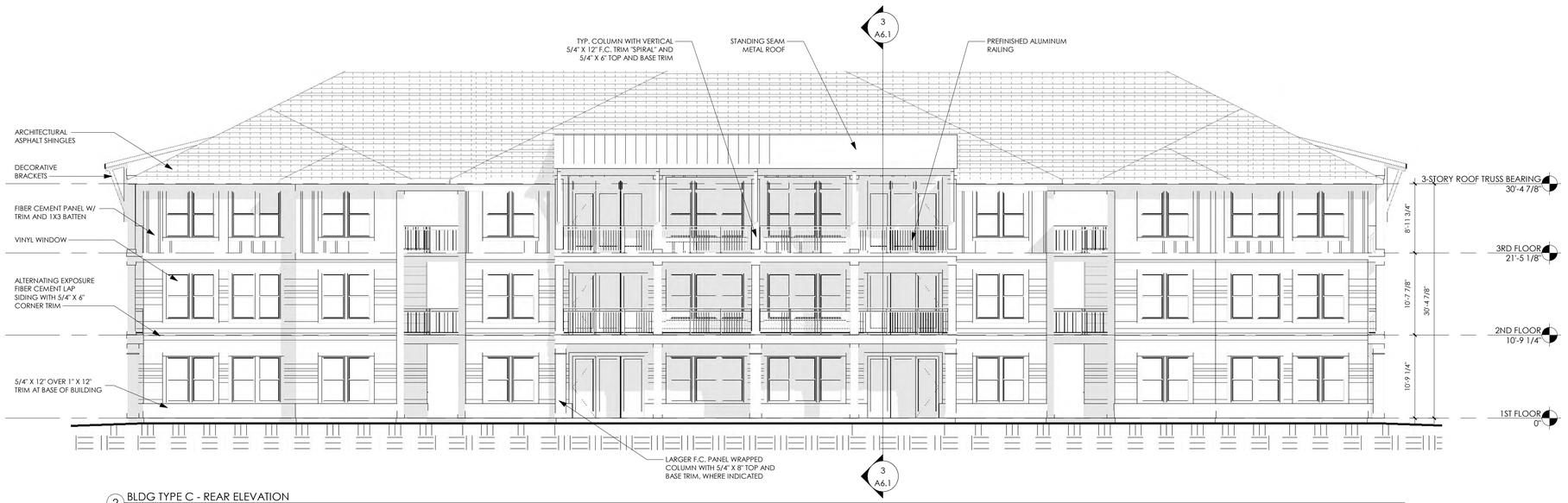
BLDG TYPE B - ELEVATIONS

A4.B6

GENERAL NOTES - BUILDING ELEVATIONS

- EXTERIOR MATERIALS, DETAILING, AND COLORS TO WRAP AT ALL EXTERIOR CORNERS AND TERMINATE AT THE INSIDE CORNER, U.N.O.
- CONTROL JOINTS SHOULD OCCUR AT INSIDE CORNERS AS NEEDED TO MEET BRICK INDUSTRY ASSOCIATION STANDARDS. EXTEND UP ENTIRE MASONRY VENEER FACE, U.N.O.
- SEAL ALL WALL PENETRATIONS WITH MEMBRANE FLASHING AT SURFACE OF EXTERIOR SHEATHING U.N.O., SEE WATERPROOFING DETAILS.
- PROVIDE 3/8" JOINT SPACE WITH SEALANT AND AT INTERFACE BETWEEN DISSIMILAR EXTERIOR FINISHES.
- ALL FIBER CEMENT TO BE PRIMED AND PAINTED SMOOTH PANEL WITH FIBER CEMENT TRIM AS NOTED OR LAP SIDING WITH TRIM AS NOTED. PRIME AND PAINT ALL CUT EDGES OF FIBER CEMENT PANELING PRIOR TO INSTALLATION.
- G.C. TO COORDINATE WITH MEP, ARCH., AND STRUCTURAL TO MATCH DRYER AND EXHAUST VENT LOCATIONS WITH DRAWINGS. VENTS TO BE PAINTED BASED ON ADJACENT FIELD COLORS. ARCH. TO PROVIDE COLORS. ALL VENTS TO BE LOCATED TO THE LEFT OR RIGHT OF WINDOWS, NOT DIRECTLY ABOVE, UNLESS SHOWN OTHERWISE.
- COMMERCIAL BUILDING WRAP TO BE USED AT EXTERIOR ENVELOPE.
- CONDUCTORS, SCUPPERS, AND DOWNSPOUTS TO BE PREFINISHED, COLOR TO BE SELECTED BY ARCH.
- PROVIDE SILICONE SEALANTS AT ALL MASONRY CONTROL JOINTS AND WINDOWS/DOORS IN MASONRY.
- PROVIDE URETHANE SEALANTS AT PANEL CONDITIONS, INCLUDING WINDOW/DOORS PERIMETERS (IF ANTICIPATED TO BE PAINTED, OTHERWISE SILICONE IS TO BE USED).
- PROVIDE PREFABRICATED FLASHING COMPONENTS AT DRYER/EXHAUST VENTS.
- PROVIDE FLASHING AT HORIZONTAL TRANSITIONS BETWEEN WALL FINISHES.
- REFERENCE CIVIL/LANDSCAPING DRAWINGS FOR ENTRY/PATIO CONNECTIONS AT GRADE.
- ALL GROUND LEVEL UNITS AT POOL COURTYARD SHALL HAVE RAILINGS 48" MIN. FROM PATIO F.F.E. OR LOWEST HORIZONTAL RAILING, WHICHEVER IS HIGHER. WINDOWS SHALL HAVE WINDOW LIMITERS PER 2013 NCENR - 15 NCAC 18A2528
- REFERENCE MATERIAL SELECTION ELEVATIONS FOR ALL MATERIAL, COLOR, AND MASONRY CALLOUTS.
- — — — INDICATES LOCATION OF RAIN LEADERS. REF. ROOF PLANS.
- 42" HIGH ALUMINUM RAILINGS TYP. AT ALL 2ND - 4TH FLOOR BALCONIES.
- UNIT BALCONY DOORS TO MATCH VINYL WINDOW COLOR SELECTION, USE OF HIGH TEMPURATURE PAINT, TYP.
- SEE WINDOW DETAILS FOR DIFFERENTIAL SETTLEMENT NOTES.

HOUSING STUDIO
333 West Trade Street, Suite 300
Charlotte, NC 28202
T: 704.333.7862 F: 980.237.3862



2 BLDG TYPE C - REAR ELEVATION
1/8" = 1'-0"

1 BLDG TYPE C - FRONT ELEVATION
1/8" = 1'-0"

CHILDRESS KLEIN - BARCLAY PHASE A

VOLUME 1: CIVIL - LANDSCAPE - ARCHITECTURE - INTERIORS

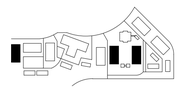
WILMINGTON, NC

NOT FOR CONSTRUCTION

PROJECT NUMBER: 2006
ISSUE DATE: SEPTEMBER 10TH, 2020
ISSUED FOR: 30% SET

REVISIONS

KEY PLAN



N

BLDG TYPE C - ELEVATIONS

A4.C5

GENERAL NOTES - BUILDING ELEVATIONS

- EXTERIOR MATERIALS, DETAILING, AND COLORS TO WRAP AT ALL EXTERIOR CORNERS AND TERMINATE AT THE INSIDE CORNER, U.N.O.
- CONTROL JOINTS SHOULD OCCUR AT INSIDE CORNERS AS NEEDED TO MEET BRICK INDUSTRY ASSOCIATION STANDARDS. EXTEND UP ENTIRE MASONRY VENEER FACE, U.N.O.
- SEAL ALL WALL PENETRATIONS WITH MEMBRANE FLASHING AT SURFACE OF EXTERIOR SHEATHING U.N.O., SEE WATERPROOFING DETAILS.
- PROVIDE 3/8" JOINT SPACE WITH SEALANT AND AT INTERFACE BETWEEN DISSIMILAR EXTERIOR FINISHES.
- ALL FIBER CEMENT TO BE PRIMED AND PAINTED SMOOTH PANEL WITH FIBER CEMENT TRIM AS NOTED OR LAP SIDING WITH TRIM AS NOTED. PRIME AND PAINT ALL CUT EDGES OF FIBER CEMENT PANELING PRIOR TO INSTALLATION.
- G.C. TO COORDINATE WITH MEP, ARCH., AND STRUCTURAL TO MATCH DRYER AND EXHAUST VENT LOCATIONS WITH DRAWINGS. VENTS TO BE PAINTED BASED ON ADJACENT FIELD COLORS. ARCH. TO PROVIDE COLORS. ALL VENTS TO BE LOCATED TO THE LEFT OR RIGHT OF WINDOWS, NOT DIRECTLY ABOVE, UNLESS SHOWN OTHERWISE.
- COMMERCIAL BUILDING WRAP TO BE USED AT EXTERIOR ENVELOPE.
- CONDUCTORS, SCUPPERS, AND DOWNSPOUTS TO BE PREFINISHED, COLOR TO BE SELECTED BY ARCH.
- PROVIDE SILICONE SEALANTS AT ALL MASONRY CONTROL JOINTS AND WINDOWS/DOORS IN MASONRY.
- PROVIDE URETHANE SEALANTS AT PANEL CONDITIONS, INCLUDING WINDOW/DOORS PERIMETERS (IF ANTICIPATED TO BE PAINTED, OTHERWISE SILICONE IS TO BE USED).
- PROVIDE PREFABRICATED FLASHING COMPONENTS AT DRYER/EXHAUST VENTS.
- PROVIDE FLASHING AT HORIZONTAL TRANSITIONS BETWEEN WALL FINISHES.
- REFERENCE CIVIL/LANDSCAPING DRAWINGS FOR ENTRY/PATIO CONNECTIONS AT GRADE.
- ALL GROUND LEVEL UNITS AT POOL COURTYARD SHALL HAVE RAILINGS 48" MIN. FROM PATIO F.F.E. OR LOWEST HORIZONTAL RAILING, WHICHEVER IS HIGHER. WINDOWS SHALL HAVE WINDOW LIMITERS PER 2013 NCENR - 15 NCAC 18A2528
- REFERENCE MATERIAL SELECTION ELEVATIONS FOR ALL MATERIAL, COLOR, AND MASONRY CALLOUTS.
- — — — INDICATES LOCATION OF RAIN LEADERS. REF. ROOF PLANS.
- 42" HIGH ALUMINUM RAILINGS TYP. AT ALL 2ND - 4TH FLOOR BALCONIES.
- UNIT BALCONY DOORS TO MATCH VINYL WINDOW COLOR SELECTION, USE OF HIGH TEMPURATURE PAINT, TYP.
- SEE WINDOW DETAILS FOR DIFFERENTIAL SETTLEMENT NOTES.

2 BLDG TYPE C - SIDE 2 ELEVATION
1/8" = 1'-0"

1 BLDG TYPE C - SIDE 1 ELEVATION
1/8" = 1'-0"

HOUSING STUDIO
333 West Trade Street, Suite 300
Charlotte, NC 28202
T: 704.333.7862 F: 980.237.3862

CHILDRESS KLEIN - BARCLAY PHASE A

VOLUME 1: CIVIL - LANDSCAPE - ARCHITECTURE - INTERIORS

WILMINGTON, NC

NOT FOR CONSTRUCTION

PROJECT NUMBER: 2006
ISSUE DATE: SEPTEMBER 10TH, 2020
ISSUED FOR: 30% SET

REVISIONS

KEY PLAN

N

BLDG TYPE C - ELEVATIONS

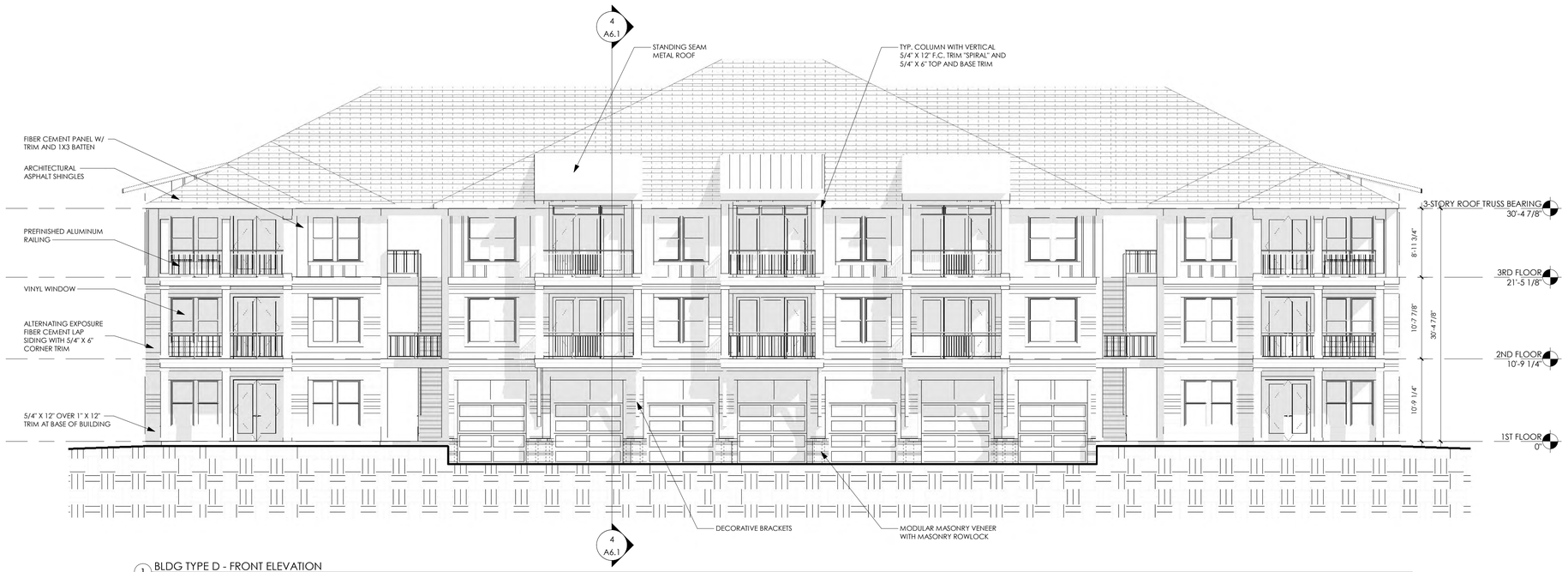
A4.C6

GENERAL NOTES - BUILDING ELEVATIONS

- EXTERIOR MATERIALS, DETAILING, AND COLORS TO WRAP AT ALL EXTERIOR CORNERS AND TERMINATE AT THE INSIDE CORNER, U.N.O.
- CONTROL JOINTS SHOULD OCCUR AT INSIDE CORNERS AS NEEDED TO MEET BRICK INDUSTRY ASSOCIATION STANDARDS. EXTEND UP ENTIRE MASONRY VENEER FACE, U.N.O.
- SEAL ALL WALL PENETRATIONS WITH MEMBRANE FLASHING AT SURFACE OF EXTERIOR SHEATHING U.N.O., SEE WATERPROOFING DETAILS.
- PROVIDE 3/8" JOINT SPACE WITH SEALANT AND AT INTERFACE BETWEEN DISSIMILAR EXTERIOR FINISHES.
- ALL FIBER CEMENT TO BE PRIMED AND PAINTED SMOOTH PANEL WITH FIBER CEMENT TRIM AS NOTED OR LAP SIDING WITH TRIM AS NOTED. PRIME AND PAINT ALL CUT EDGES OF FIBER CEMENT PANELING PRIOR TO INSTALLATION.
- G.C. TO COORDINATE WITH MEP, ARCH., AND STRUCTURAL TO MATCH DRYER AND EXHAUST VENT LOCATIONS WITH DRAWINGS. VENTS TO BE PAINTED BASED ON ADJACENT FIELD COLORS. ARCH. TO PROVIDE COLORS. ALL VENTS TO BE LOCATED TO THE LEFT OR RIGHT OF WINDOWS, NOT DIRECTLY ABOVE, UNLESS SHOWN OTHERWISE.
- COMMERCIAL BUILDING WRAP TO BE USED AT EXTERIOR ENVELOPE.
- CONDUCTORS, SCUPPERS, AND DOWNSPOUTS TO BE PREFINISHED, COLOR TO BE SELECTED BY ARCH.
- PROVIDE SILICONE SEALANTS AT ALL MASONRY CONTROL JOINTS AND WINDOWS/DOORS IN MASONRY.
- PROVIDE URETHANE SEALANTS AT PANEL CONDITIONS, INCLUDING WINDOW/DOORS PERIMETERS (IF ANTICIPATED TO BE PAINTED, OTHERWISE SILICONE IS TO BE USED).
- PROVIDE PREFABRICATED FLASHING COMPONENTS AT DRYER/EXHAUST VENTS.
- PROVIDE FLASHING AT HORIZONTAL TRANSITIONS BETWEEN WALL FINISHES.
- REFERENCE CIVIL/LANDSCAPING DRAWINGS FOR ENTRY/PATIO CONNECTIONS AT GRADE.
- ALL GROUND LEVEL UNITS AT POOL COURTYARD SHALL HAVE RAILINGS 48" MIN. FROM PATIO F.F.E. OR LOWEST HORIZONTAL RAILING, WHICHEVER IS HIGHER. WINDOWS SHALL HAVE WINDOW LIMITERS PER 2013 NCENR - 15 NCAC 18A2528
- REFERENCE MATERIAL SELECTION ELEVATIONS FOR ALL MATERIAL, COLOR, AND MASONRY CALLOUTS.
- — — — INDICATES LOCATION OF RAIN LEADERS, REF. ROOF PLANS.
- 42" HIGH ALUMINUM RAILINGS TYP. AT ALL 2ND - 4TH FLOOR BALCONIES.
- UNIT BALCONY DOORS TO MATCH VINYL WINDOW COLOR SELECTION, USE OF HIGH TEMPURATURE PAINT, TYP.
- SEE WINDOW DETAILS FOR DIFFERENTIAL SETTLEMENT NOTES.

HOUSING STUDIO
333 West Trade Street, Suite 300
Charlotte, NC 28202
T: 704.333.7862 F: 980.237.3862

3 BLDG TYPE D - REAR ELEVATION
1/8" = 1'-0"



1 BLDG TYPE D - FRONT ELEVATION
1/8" = 1'-0"

CHILDRESS KLEIN - BARCLAY PHASE A

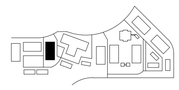
VOLUME 1: CIVIL - LANDSCAPE - ARCHITECTURE - INTERIORS
WILMINGTON, NC

NOT FOR CONSTRUCTION

PROJECT NUMBER: 2006
ISSUE DATE: SEPTEMBER 10TH, 2020
ISSUED FOR: 30% SET

#	REVISIONS

KEY PLAN



N

BLDG TYPE D - ELEVATIONS

A4.D5

GENERAL NOTES - BUILDING ELEVATIONS

- EXTERIOR MATERIALS, DETAILING, AND COLORS TO WRAP AT ALL EXTERIOR CORNERS AND TERMINATE AT THE INSIDE CORNER, U.N.O.
- CONTROL JOINTS SHOULD OCCUR AT INSIDE CORNERS AS NEEDED TO MEET BRICK INDUSTRY ASSOCIATION STANDARDS. EXTEND UP ENTIRE MASONRY VENEER FACE, U.N.O.
- SEAL ALL WALL PENETRATIONS WITH MEMBRANE FLASHING AT SURFACE OF EXTERIOR SHEATHING U.N.O., SEE WATERPROOFING DETAILS.
- PROVIDE 3/8" JOINT SPACE WITH SEALANT AND AT INTERFACE BETWEEN DISSIMILAR EXTERIOR FINISHES.
- ALL FIBER CEMENT TO BE PRIMED AND PAINTED SMOOTH PANEL WITH FIBER CEMENT TRIM AS NOTED OR LAP SIDING WITH TRIM AS NOTED. PRIME AND PAINT ALL CUT EDGES OF FIBER CEMENT PANELING PRIOR TO INSTALLATION.
- G.C. TO COORDINATE WITH MEP, ARCH., AND STRUCTURAL TO MATCH DRYER AND EXHAUST VENT LOCATIONS WITH DRAWINGS. VENTS TO BE PAINTED BASED ON ADJACENT FIELD COLORS. ARCH. TO PROVIDE COLORS. ALL VENTS TO BE LOCATED TO THE LEFT OR RIGHT OF WINDOWS, NOT DIRECTLY ABOVE, UNLESS SHOWN OTHERWISE.
- COMMERCIAL BUILDING WRAP TO BE USED AT EXTERIOR ENVELOPE.
- CONDUCTORS, SCUPPERS, AND DOWNSPOUTS TO BE PREFINISHED, COLOR TO BE SELECTED BY ARCH.
- PROVIDE SILICONE SEALANTS AT ALL MASONRY CONTROL JOINTS AND WINDOWS/DOORS IN MASONRY.
- PROVIDE URETHANE SEALANTS AT PANEL CONDITIONS, INCLUDING WINDOW/DOORS PERIMETERS (IF ANTICIPATED TO BE PAINTED, OTHERWISE SILICONE IS TO BE USED).
- PROVIDE PREFABRICATED FLASHING COMPONENTS AT DRYER/EXHAUST VENTS.
- PROVIDE FLASHING AT HORIZONTAL TRANSITIONS BETWEEN WALL FINISHES.
- REFERENCE CIVIL/LANDSCAPING DRAWINGS FOR ENTRY/PATIO CONNECTIONS AT GRADE.
- ALL GROUND LEVEL UNITS AT POOL COURTYARD SHALL HAVE RAILINGS 48" MIN. FROM PATIO F.F.E. OR LOWEST HORIZONTAL RAILING, WHICHEVER IS HIGHER. WINDOWS SHALL HAVE WINDOW LIMITERS PER 2013 NCENR - 15 NCAC 18A2528
- REFERENCE MATERIAL SELECTION ELEVATIONS FOR ALL MATERIAL, COLOR, AND MASONRY CALLOUTS.
- — — — INDICATES LOCATION OF RAIN LEADERS, REF. ROOF PLANS.
- 42" HIGH ALUMINUM RAILINGS TYP. AT ALL 2ND - 4TH FLOOR BALCONIES.
- UNIT BALCONY DOORS TO MATCH VINYL WINDOW COLOR SELECTION, USE OF HIGH TEMPURATURE PAINT, TYP.
- SEE WINDOW DETAILS FOR DIFFERENTIAL SETTLEMENT NOTES.

2 BLDG TYPE D - SIDE 2 ELEVATION
1/8" = 1'-0"

1 BLDG TYPE D - SIDE 1 ELEVATION
1/8" = 1'-0"

HOUSING STUDIO
333 West Trade Street, Suite 300
Charlotte, NC 28202
T: 704.333.7862 F: 980.237.3862

CHILDRESS KLEIN - BARCLAY PHASE A

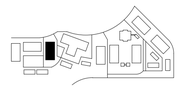
VOLUME 1: CIVIL - LANDSCAPE - ARCHITECTURE - INTERIORS
WILMINGTON, NC

NOT FOR CONSTRUCTION

PROJECT NUMBER: 2006
ISSUE DATE: SEPTEMBER 10TH, 2020
ISSUED FOR: 30% SET

REVISIONS

KEY PLAN



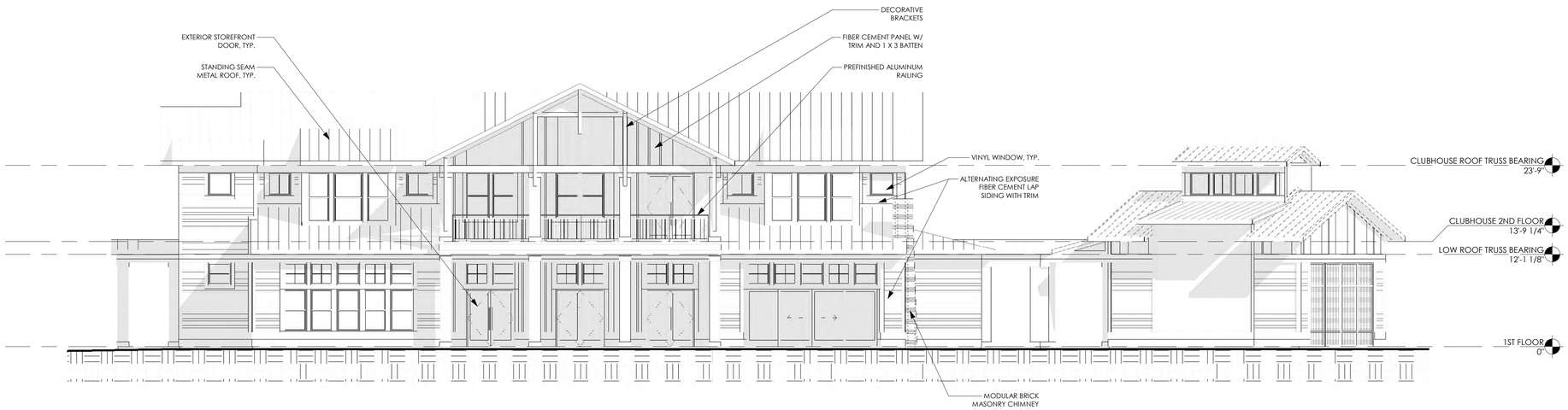
N

BLDG TYPE D - ELEVATIONS

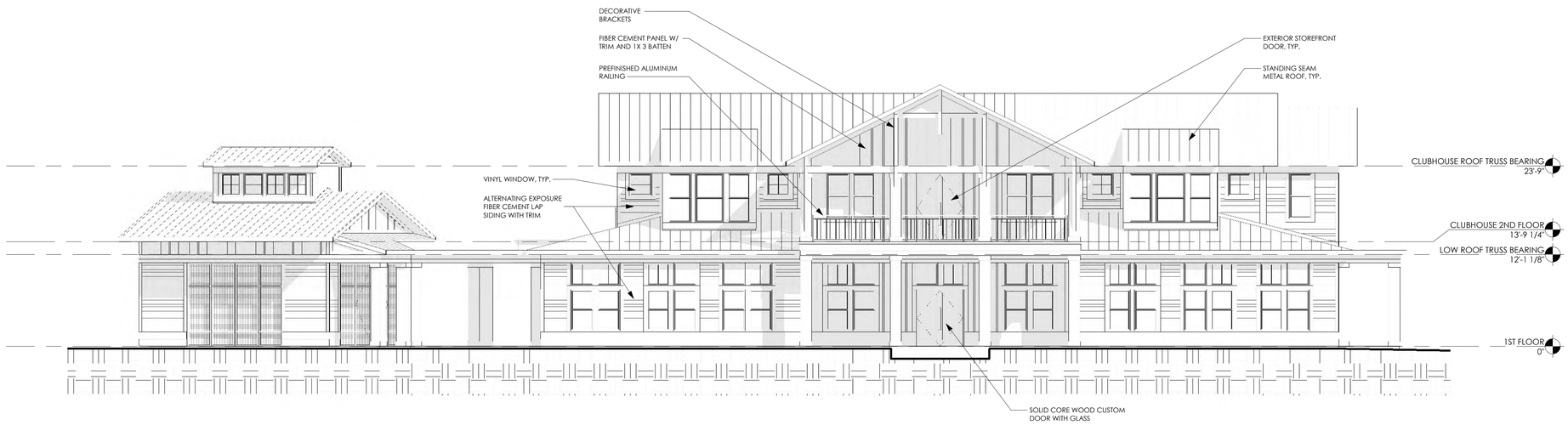
A4.D6

GENERAL NOTES - BUILDING ELEVATIONS

- EXTERIOR MATERIALS, DETAILING, AND COLORS TO WRAP AT ALL EXTERIOR CORNERS AND TERMINATE AT THE INSIDE CORNER, U.N.O.
- CONTROL JOINTS SHOULD OCCUR AT INSIDE CORNERS AS NEEDED TO MEET BRICK INDUSTRY ASSOCIATION STANDARDS. EXTEND UP ENTIRE MASONRY VENEER FACE, U.N.O.
- SEAL ALL WALL PENETRATIONS WITH MEMBRANE FLASHING AT SURFACE OF EXTERIOR SHEATHING U.N.O., SEE WATERPROOFING DETAILS.
- PROVIDE 3/8" JOINT SPACE WITH SEALANT AND AT INTERFACE BETWEEN DISSIMILAR EXTERIOR FINISHES.
- ALL FIBER CEMENT TO BE PRIMED AND PAINTED SMOOTH PANEL WITH FIBER CEMENT TRIM AS NOTED OR LAP SIDING WITH TRIM AS NOTED. PRIME AND PAINT ALL CUT EDGES OF FIBER CEMENT PANELING PRIOR TO INSTALLATION.
- G.C. TO COORDINATE WITH MEP, ARCH., AND STRUCTURAL TO MATCH DRYER AND EXHAUST VENT LOCATIONS WITH DRAWINGS. VENTS TO BE PAINTED BASED ON ADJACENT FIELD COLORS. ARCH. TO PROVIDE COLORS. ALL VENTS TO BE LOCATED TO THE LEFT OR RIGHT OF WINDOWS, NOT DIRECTLY ABOVE, UNLESS SHOWN OTHERWISE.
- COMMERCIAL BUILDING WRAP TO BE USED AT EXTERIOR ENVELOPE.
- CONDUCTORS, SCUPPERS, AND DOWNSPOUTS TO BE PREFINISHED, COLOR TO BE SELECTED BY ARCH.
- PROVIDE SILICONE SEALANTS AT ALL MASONRY CONTROL JOINTS AND WINDOWS/DOORS IN MASONRY.
- PROVIDE URETHANE SEALANTS AT PANEL CONDITIONS, INCLUDING WINDOW/DOORS PERIMETERS (IF ANTICIPATED TO BE PAINTED, OTHERWISE SILICONE IS TO BE USED).
- PROVIDE PREFABRICATED FLASHING COMPONENTS AT DRYER/EXHAUST VENTS.
- PROVIDE FLASHING AT HORIZONTAL TRANSITIONS BETWEEN WALL FINISHES.
- REFERENCE CIVIL/LANDSCAPING DRAWINGS FOR ENTRY/PATIO CONNECTIONS AT GRADE.
- ALL GROUND LEVEL UNITS AT POOL COURTYARD SHALL HAVE RAILINGS 48" MIN. FROM PATIO F.F.E. OR LOWEST HORIZONTAL RAILING, WHICHEVER IS HIGHER. WINDOWS SHALL HAVE WINDOW LIMITERS PER 2013 NCENR - 15 NCAC 18A2528
- REFERENCE MATERIAL SELECTION ELEVATIONS FOR ALL MATERIAL, COLOR, AND MASONRY CALLOUTS.
- — — — INDICATES LOCATION OF RAIN LEADERS, REF. ROOF PLANS.
- 42" HIGH ALUMINUM RAILINGS TYP. AT ALL 2ND - 4TH FLOOR BALCONIES.
- UNIT BALCONY DOORS TO MATCH VINYL WINDOW COLOR SELECTION, USE OF HIGH TEMPURATURE PAINT, TYP.
- SEE WINDOW DETAILS FOR DIFFERENTIAL SETTLEMENT NOTES.



2 BLDG TYPE F - REAR ELEVATION
1/8" = 1'-0"



1 BLDG TYPE F - FRONT ELEVATION
1/8" = 1'-0"

HOUSING STUDIO
333 West Trade Street, Suite 300
Charlotte, NC 28202
T: 704.333.7862 F: 980.237.3862

CHILDRESS KLEIN - BARCLAY PHASE A

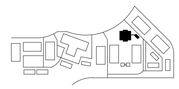
VOLUME 1: CIVIL - LANDSCAPE - ARCHITECTURE - INTERIORS
WILMINGTON, NC

NOT FOR CONSTRUCTION

PROJECT NUMBER: 2006
ISSUE DATE: SEPTEMBER 10TH, 2020
ISSUED FOR: 30% SET

REVISIONS

KEY PLAN



N

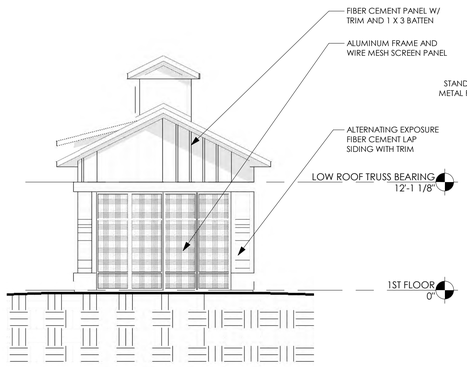
BLDG TYPE F (CLUBHOUSE) - ELEVATIONS

A4.F4

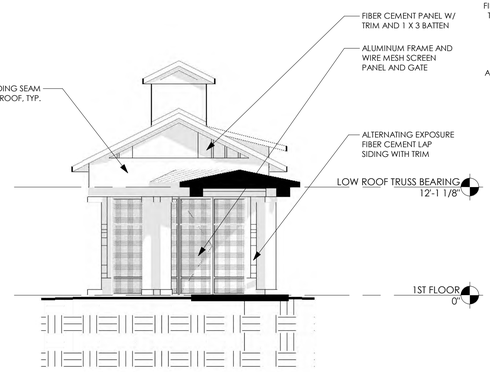
GENERAL NOTES - BUILDING ELEVATIONS

- EXTERIOR MATERIALS, DETAILING, AND COLORS TO WRAP AT ALL EXTERIOR CORNERS AND TERMINATE AT THE INSIDE CORNER, U.N.O.
- CONTROL JOINTS SHOULD OCCUR AT INSIDE CORNERS AS NEEDED TO MEET BRICK INDUSTRY ASSOCIATION STANDARDS. EXTEND UP ENTIRE MASONRY VENEER FACE, U.N.O.
- SEAL ALL WALL PENETRATIONS WITH MEMBRANE FLASHING AT SURFACE OF EXTERIOR SHEATHING U.N.O., SEE WATERPROOFING DETAILS.
- PROVIDE 3/8" JOINT SPACE WITH SEALANT AND AT INTERFACE BETWEEN DISSIMILAR EXTERIOR FINISHES.
- ALL FIBER CEMENT TO BE PRIMED AND PAINTED SMOOTH PANEL WITH FIBER CEMENT TRIM AS NOTED OR LAP SIDING WITH TRIM AS NOTED. PRIME AND PAINT ALL CUT EDGES OF FIBER CEMENT PANELING PRIOR TO INSTALLATION.
- G.C. TO COORDINATE WITH MEP, ARCH., AND STRUCTURAL TO MATCH DRYER AND EXHAUST VENT LOCATIONS WITH DRAWINGS. VENTS TO BE PAINTED BASED ON ADJACENT FIELD COLORS. ARCH. TO PROVIDE COLORS. ALL VENTS TO BE LOCATED TO THE LEFT OR RIGHT OF WINDOWS, NOT DIRECTLY ABOVE, UNLESS SHOWN OTHERWISE.
- COMMERCIAL BUILDING WRAP TO BE USED AT EXTERIOR ENVELOPE.
- CONDUCTORS, SCUPPERS, AND DOWNSPOUTS TO BE PREFINISHED, COLOR TO BE SELECTED BY ARCH.
- PROVIDE SILICONE SEALANTS AT ALL MASONRY CONTROL JOINTS AND WINDOWS/DOORS IN MASONRY.
- PROVIDE URETHANE SEALANTS AT PANEL CONDITIONS, INCLUDING WINDOW/DOORS PERIMETERS (IF ANTICIPATED TO BE PAINTED, OTHERWISE SILICONE IS TO BE USED).
- PROVIDE PREFABRICATED FLASHING COMPONENTS AT DRYER/EXHAUST VENTS.
- PROVIDE FLASHING AT HORIZONTAL TRANSITIONS BETWEEN WALL FINISHES.
- REFERENCE CIVIL/LANDSCAPING DRAWINGS FOR ENTRY/PATIO CONNECTIONS AT GRADE.
- ALL GROUND LEVEL UNITS AT POOL COURTYARD SHALL HAVE RAILINGS 48" MIN. FROM PATIO F.F.E. OR LOWEST HORIZONTAL RAILING, WHICHEVER IS HIGHER. WINDOWS SHALL HAVE WINDOW LIMITERS PER 2013 NCENR - 15 NCAC 18A2528
- REFERENCE MATERIAL SELECTION ELEVATIONS FOR ALL MATERIAL, COLOR, AND MASONRY CALLOUTS.
- — — — INDICATES LOCATION OF RAIN LEADERS, REF. ROOF PLANS.
- 42" HIGH ALUMINUM RAILINGS TYP. AT ALL 2ND - 4TH FLOOR BALCONIES.
- UNIT BALCONY DOORS TO MATCH VINYL WINDOW COLOR SELECTION, USE OF HIGH TEMPURATURE PAINT, TYP.
- SEE WINDOW DETAILS FOR DIFFERENTIAL SETTLEMENT NOTES.

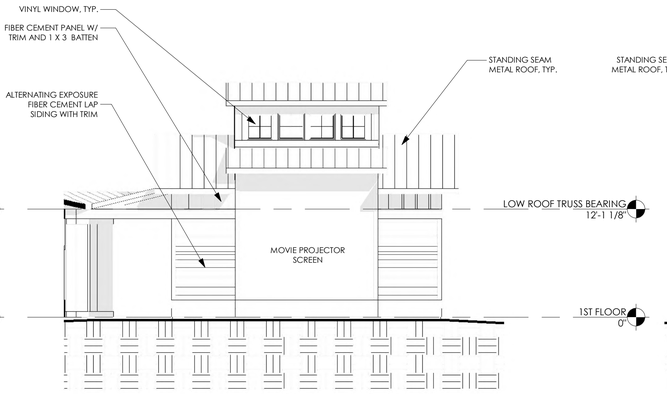
HOUSING STUDIO
333 West Trade Street, Suite 300
Charlotte, NC 28202
T: 704.333.7862 F: 980.237.3862



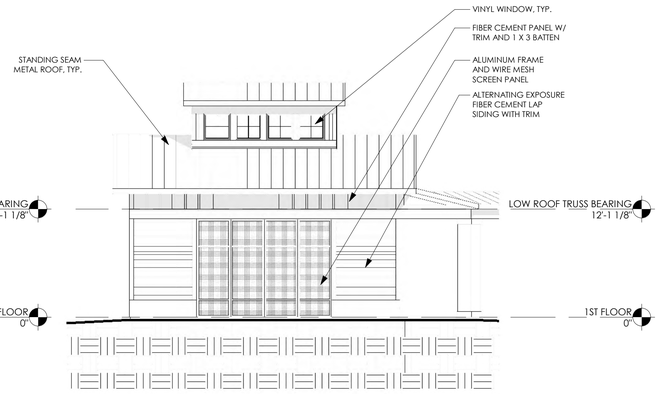
6 BLDG TYPE F - BIKE BARN - SIDE 2 ELEVATION
1/8" = 1'-0"



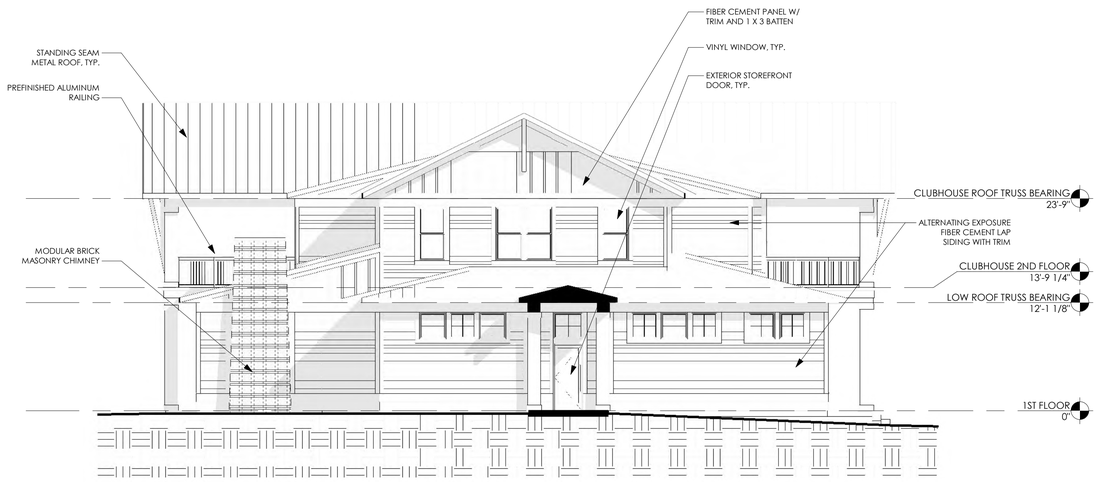
5 BLDG TYPE F - BIKE BARN - SIDE 1 ELEVATION
1/8" = 1'-0"



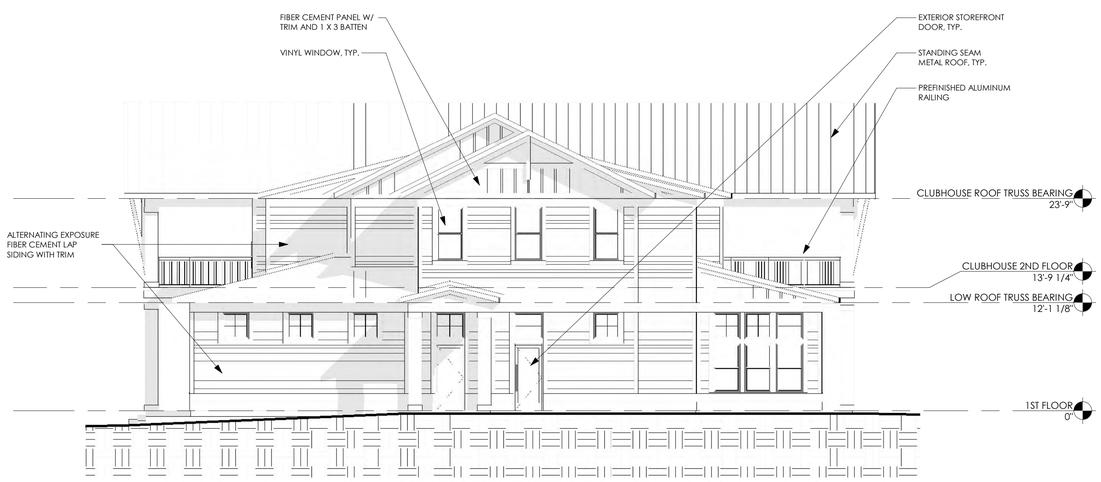
4 BLDG TYPE F - BIKE BARN - REAR ELEVATION
1/8" = 1'-0"



3 BLDG TYPE F - BIKE BARN - FRONT ELEVATION
1/8" = 1'-0"



2 BLDG TYPE F - SIDE 2 ELEVATION
1/8" = 1'-0"



1 BLDG TYPE F - SIDE 1 ELEVATION
1/8" = 1'-0"

CHILDRESS KLEIN - BARCLAY PHASE A

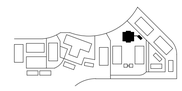
VOLUME 1: CIVIL - LANDSCAPE - ARCHITECTURE - INTERIORS
WILMINGTON, NC

NOT FOR CONSTRUCTION

PROJECT NUMBER: 2006
ISSUE DATE: SEPTEMBER 10TH, 2020
ISSUED FOR: 30% SET

REVISIONS

KEY PLAN



N

BLDG TYPE F (CLUBHOUSE) - ELEVATIONS

A4.F5

GENERAL NOTES - BUILDING ELEVATIONS

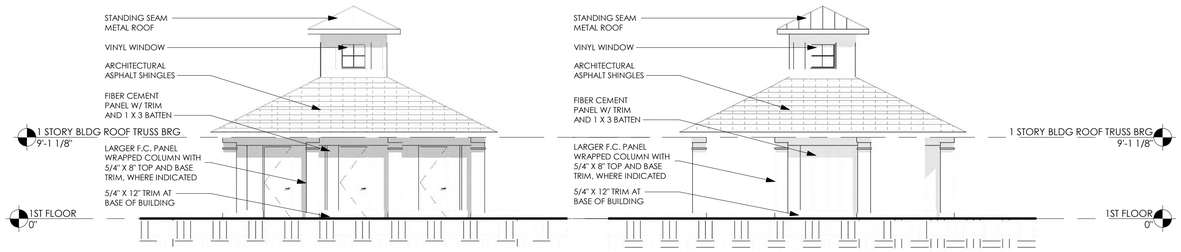
- EXTERIOR MATERIALS, DETAILING, AND COLORS TO WRAP AT ALL EXTERIOR CORNERS AND TERMINATE AT THE INSIDE CORNER, U.N.O.
- CONTROL JOINTS SHOULD OCCUR AT INSIDE CORNERS AS NEEDED TO MEET BRICK INDUSTRY ASSOCIATION STANDARDS. EXTEND UP ENTIRE MASONRY VENEER FACE, U.N.O.
- SEAL ALL WALL PENETRATIONS WITH MEMBRANE FLASHING AT SURFACE OF EXTERIOR SHEATHING U.N.O., SEE WATERPROOFING DETAILS.
- PROVIDE 3/8" JOINT SPACE WITH SEALANT AND AT INTERFACE BETWEEN DISSIMILAR EXTERIOR FINISHES.
- ALL FIBER CEMENT TO BE PRIMED AND PAINTED SMOOTH PANEL WITH FIBER CEMENT TRIM AS NOTED OR LAP SIDING WITH TRIM AS NOTED. PRIME AND PAINT ALL CUT EDGES OF FIBER CEMENT PANELING PRIOR TO INSTALLATION.
- G.C. TO COORDINATE WITH MEP, ARCH., AND STRUCTURAL TO MATCH DRYER AND EXHAUST VENT LOCATIONS WITH DRAWINGS. VENTS TO BE PAINTED BASED ON ADJACENT FIELD COLORS. ARCH. TO PROVIDE COLORS. ALL VENTS TO BE LOCATED TO THE LEFT OR RIGHT OF WINDOWS, NOT DIRECTLY ABOVE, UNLESS SHOWN OTHERWISE.
- COMMERCIAL BUILDING WRAP TO BE USED AT EXTERIOR ENVELOPE.
- CONDUCTORS, SCUPPERS, AND DOWNSPOUTS TO BE PREFINISHED, COLOR TO BE SELECTED BY ARCH.
- PROVIDE SILICONE SEALANTS AT ALL MASONRY CONTROL JOINTS AND WINDOWS/DOORS IN MASONRY.
- PROVIDE URETHANE SEALANTS AT PANEL CONDITIONS, INCLUDING WINDOW/DOORS PERIMETERS (IF ANTICIPATED TO BE PAINTED, OTHERWISE SILICONE IS TO BE USED).
- PROVIDE PREFABRICATED FLASHING COMPONENTS AT DRYER/EXHAUST VENTS.
- PROVIDE FLASHING AT HORIZONTAL TRANSITIONS BETWEEN WALL FINISHES.
- REFERENCE CIVIL/LANDSCAPING DRAWINGS FOR ENTRY/PATIO CONNECTIONS AT GRADE.
- ALL GROUND LEVEL UNITS AT POOL COURTYARD SHALL HAVE RAILINGS 48" MIN. FROM PATIO F.F.E. OR LOWEST HORIZONTAL RAILING, WHICHEVER IS HIGHER. WINDOWS SHALL HAVE WINDOW LIMITERS PER 2013 NCENR - 15 NCAC 18A2528
- REFERENCE MATERIAL SELECTION ELEVATIONS FOR ALL MATERIAL, COLOR, AND MASONRY CALLOUTS.
- — — — INDICATES LOCATION OF RAIN LEADERS, REF. ROOF PLANS.
- 42" HIGH ALUMINUM RAILINGS TYP. AT ALL 2ND - 4TH FLOOR BALCONIES.
- UNIT BALCONY DOORS TO MATCH VINYL WINDOW COLOR SELECTION, USE OF HIGH TEMPURATURE PAINT, TYP.
- SEE WINDOW DETAILS FOR DIFFERENTIAL SETTLEMENT NOTES.

HOUSING STUDIO
333 West Trade Street, Suite 300
Charlotte, NC 28202
T: 704.333.7862 F: 980.237.3862

CHILDRESS KLEIN - BARCLAY PHASE A

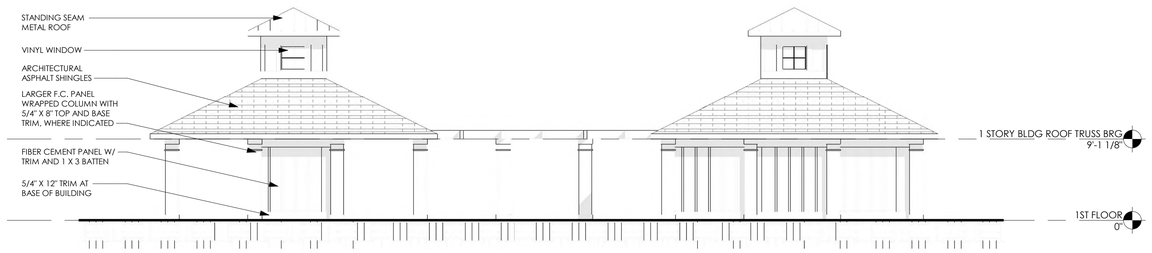
VOLUME 1: CIVIL - LANDSCAPE - ARCHITECTURE - INTERIORS

WILMINGTON, NC

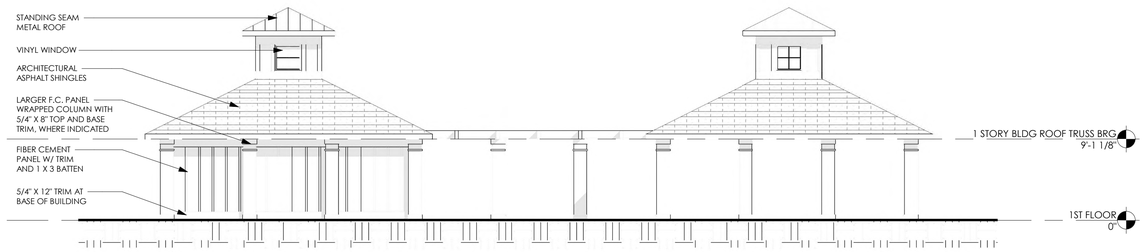


6 BLDG TYPE G - SIDE 2 ELEVATION
1/8" = 1'-0"

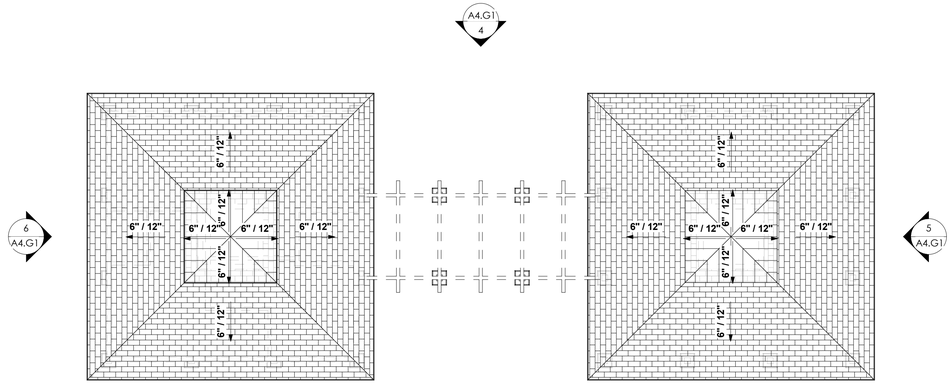
5 BLDG TYPE G - SIDE 1 ELEVATION
1/8" = 1'-0"



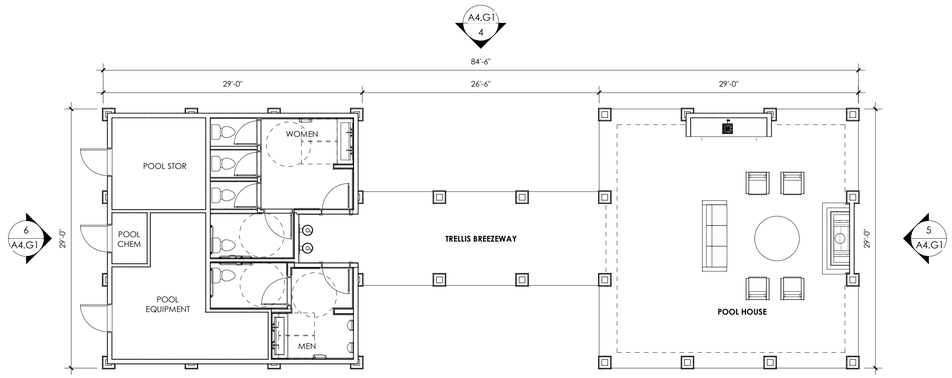
4 BLDG TYPE G - REAR ELEVATION
1/8" = 1'-0"



3 BLDG TYPE G - FRONT ELEVATION
1/8" = 1'-0"



2 BLDG TYPE G - ROOF PLAN
1/8" = 1'-0"



1 BLDG TYPE G - FLOOR PLAN
1/8" = 1'-0"

NOT FOR CONSTRUCTION

PROJECT NUMBER: 2006
ISSUE DATE: SEPTEMBER 10TH, 2020
ISSUED FOR: 30% SET

#	**REVISIONS**

KEY PLAN

N

BLDG TYPE G
(POOL PAVILION)

A4.G1

GENERAL NOTES - BUILDING ELEVATIONS

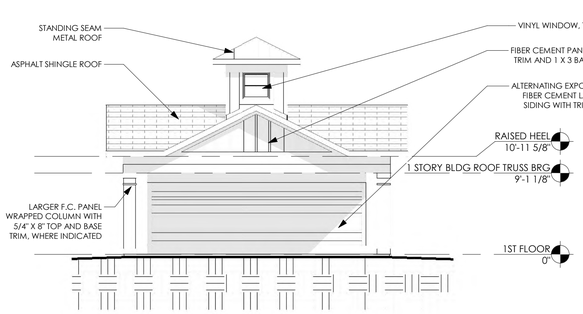
- EXTERIOR MATERIALS, DETAILING, AND COLORS TO WRAP AT ALL EXTERIOR CORNERS AND TERMINATE AT THE INSIDE CORNER, U.N.O.
- CONTROL JOINTS SHOULD OCCUR AT INSIDE CORNERS AS NEEDED TO MEET BRICK INDUSTRY ASSOCIATION STANDARDS. EXTEND UP ENTIRE MASONRY VENEER FACE, U.N.O.
- SEAL ALL WALL PENETRATIONS WITH MEMBRANE FLASHING AT SURFACE OF EXTERIOR SHEATHING U.N.O., SEE WATERPROOFING DETAILS.
- PROVIDE 3/8" JOINT SPACE WITH SEALANT AND AT INTERFACE BETWEEN DISSIMILAR EXTERIOR FINISHES.
- ALL FIBER CEMENT TO BE PRIMED AND PAINTED SMOOTH PANEL WITH FIBER CEMENT TRIM AS NOTED OR LAP SIDING WITH TRIM AS NOTED. PRIME AND PAINT ALL CUT EDGES OF FIBER CEMENT PANELING PRIOR TO INSTALLATION.
- G.C. TO COORDINATE WITH MEP, ARCH., AND STRUCTURAL TO MATCH DRYER AND EXHAUST VENT LOCATIONS WITH DRAWINGS. VENTS TO BE PAINTED BASED ON ADJACENT FIELD COLORS. ARCH. TO PROVIDE COLORS. ALL VENTS TO BE LOCATED TO THE LEFT OR RIGHT OF WINDOWS, NOT DIRECTLY ABOVE, UNLESS SHOWN OTHERWISE.
- COMMERCIAL BUILDING WRAP TO BE USED AT EXTERIOR ENVELOPE.
- CONDUCTORS, SCUPPERS, AND DOWNSPOUTS TO BE PREFINISHED, COLOR TO BE SELECTED BY ARCH.
- PROVIDE SILICONE SEALANTS AT ALL MASONRY CONTROL JOINTS AND WINDOWS/DOORS IN MASONRY.
- PROVIDE URETHANE SEALANTS AT PANEL CONDITIONS, INCLUDING WINDOW/DOORS PERIMETERS (IF ANTICIPATED TO BE PAINTED, OTHERWISE SILICONE IS TO BE USED).
- PROVIDE PREFABRICATED FLASHING COMPONENTS AT DRYER/EXHAUST VENTS.
- PROVIDE FLASHING AT HORIZONTAL TRANSITIONS BETWEEN WALL FINISHES.
- REFERENCE CIVIL/LANDSCAPING DRAWINGS FOR ENTRY/PATIO CONNECTIONS AT GRADE.
- ALL GROUND LEVEL UNITS AT POOL COURTYARD SHALL HAVE RAILINGS 48" MIN. FROM PATIO F.F.E. OR LOWEST HORIZONTAL RAILING, WHICHEVER IS HIGHER. WINDOWS SHALL HAVE WINDOW LIMITERS PER 2013 NCENR - 15 NCAC 18A2528
- REFERENCE MATERIAL SELECTION ELEVATIONS FOR ALL MATERIAL, COLOR, AND MASONRY CALLOUTS.
- — — — INDICATES LOCATION OF RAIN LEADERS. REF. ROOF PLANS.
- 42" HIGH ALUMINUM RAILINGS TYP. AT ALL 2ND - 4TH FLOOR BALCONIES.
- UNIT BALCONY DOORS TO MATCH VINYL WINDOW COLOR SELECTION, USE OF HIGH TEMPURATURE PAINT, TYP.
- SEE WINDOW DETAILS FOR DIFFERENTIAL SETTLEMENT NOTES.

HOUSING STUDIO
333 West Trade Street, Suite 300
Charlotte, NC 28202
T: 704.333.7862 F: 980.237.3862

CHILDRESS KLEIN - BARCLAY PHASE A

VOLUME 1: CIVIL - LANDSCAPE - ARCHITECTURE - INTERIORS

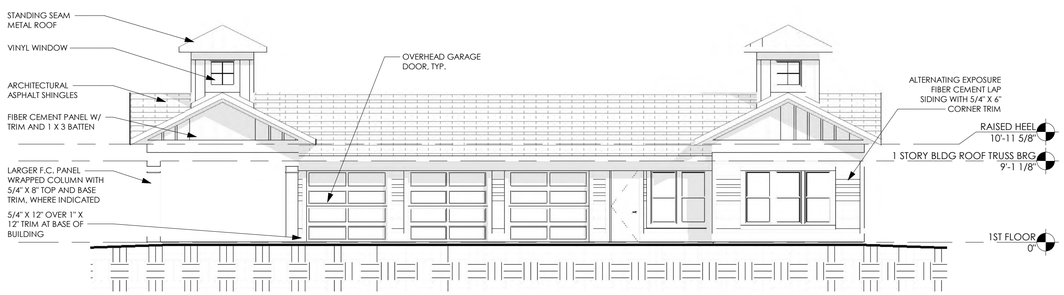
WILMINGTON, NC



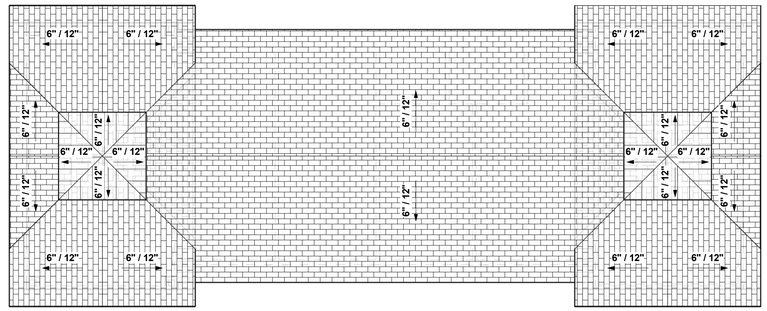
6 BLDG TYPE H - SIDE 2 ELEVATION
1/8" = 1'-0"

5 BLDG TYPE H - SIDE 1 ELEVATION
1/8" = 1'-0"

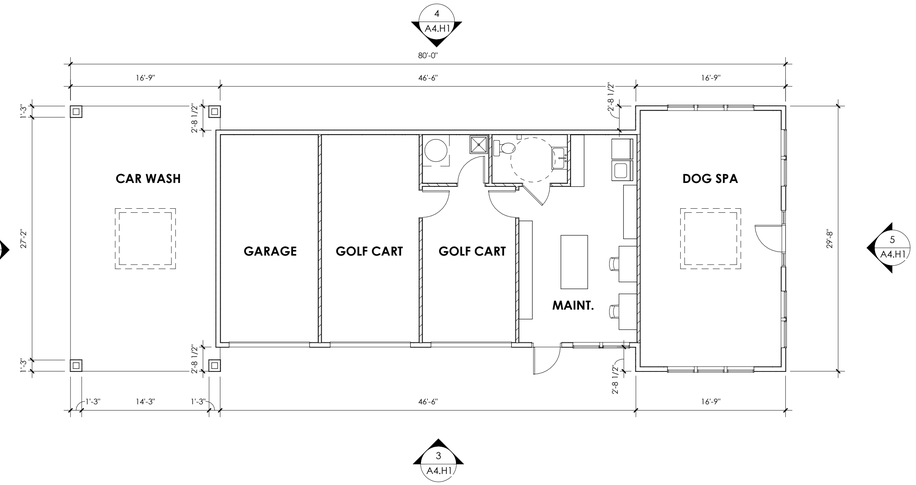
4 BLDG TYPE H - REAR ELEVATION
1/8" = 1'-0"



3 BLDG TYPE H - FRONT ELEVATION
1/8" = 1'-0"



2 BLDG TYPE H - ROOF PLAN
1/8" = 1'-0"



1 BLDG TYPE H - FLOOR PLAN
1/8" = 1'-0"

NOT FOR CONSTRUCTION

PROJECT NUMBER: 2006
ISSUE DATE: SEPTEMBER 10TH, 2020
ISSUED FOR: 30% SET

REVISIONS

BLDG TYPE H (DOG SPA / MAINT.)

A4.H1

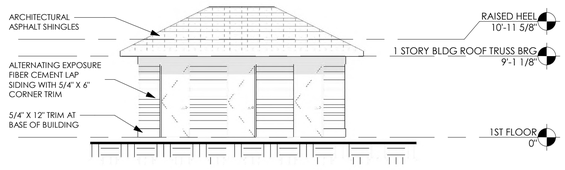
GENERAL NOTES - BUILDING ELEVATIONS

- EXTERIOR MATERIALS, DETAILING, AND COLORS TO WRAP AT ALL EXTERIOR CORNERS AND TERMINATE AT THE INSIDE CORNER, U.N.O.
- CONTROL JOINTS SHOULD OCCUR AT INSIDE CORNERS AS NEEDED TO MEET BRICK INDUSTRY ASSOCIATION STANDARDS. EXTEND UP ENTIRE MASONRY VENEER FACE, U.N.O.
- SEAL ALL WALL PENETRATIONS WITH MEMBRANE FLASHING AT SURFACE OF EXTERIOR SHEATHING U.N.O., SEE WATERPROOFING DETAILS.
- PROVIDE 3/8" JOINT SPACE WITH SEALANT AND AT INTERFACE BETWEEN DISSIMILAR EXTERIOR FINISHES.
- ALL FIBER CEMENT TO BE PRIMED AND PAINTED SMOOTH PANEL WITH FIBER CEMENT TRIM AS NOTED OR LAP SIDING WITH TRIM AS NOTED. PRIME AND PAINT ALL CUT EDGES OF FIBER CEMENT PANELING PRIOR TO INSTALLATION.
- G.C. TO COORDINATE WITH MEP, ARCH., AND STRUCTURAL TO MATCH DRYER AND EXHAUST VENT LOCATIONS WITH DRAWINGS. VENTS TO BE PAINTED BASED ON ADJACENT FIELD COLORS. ARCH. TO PROVIDE COLORS. ALL VENTS TO BE LOCATED TO THE LEFT OR RIGHT OF WINDOWS, NOT DIRECTLY ABOVE, UNLESS SHOWN OTHERWISE.
- COMMERCIAL BUILDING WRAP TO BE USED AT EXTERIOR ENVELOPE.
- CONDUCTORS, SCUPPERS, AND DOWNSPOUTS TO BE PREFINISHED, COLOR TO BE SELECTED BY ARCH.
- PROVIDE SILICONE SEALANTS AT ALL MASONRY CONTROL JOINTS AND WINDOWS/DOORS IN MASONRY.
- PROVIDE URETHANE SEALANTS AT PANEL CONDITIONS, INCLUDING WINDOW/DOORS PERIMETERS (IF ANTICIPATED TO BE PAINTED, OTHERWISE SILICONE IS TO BE USED).
- PROVIDE PREFABRICATED FLASHING COMPONENTS AT DRYER/EXHAUST VENTS.
- PROVIDE FLASHING AT HORIZONTAL TRANSITIONS BETWEEN WALL FINISHES.
- REFERENCE CIVIL/LANDSCAPING DRAWINGS FOR ENTRY/PATIO CONNECTIONS AT GRADE.
- ALL GROUND LEVEL UNITS AT POOL COURTYARD SHALL HAVE RAILINGS 48" MIN. FROM PATIO F.F.E. OR LOWEST HORIZONTAL RAILING, WHICHEVER IS HIGHER. WINDOWS SHALL HAVE WINDOW LIMITERS PER 2013 NCENR - 15 NCAC 18A2528
- REFERENCE MATERIAL SELECTION ELEVATIONS FOR ALL MATERIAL, COLOR, AND MASONRY CALLOUTS.
- — — — INDICATES LOCATION OF RAIN LEADERS. REF. ROOF PLANS.
- 42" HIGH ALUMINUM RAILINGS TYP. AT ALL 2ND - 4TH FLOOR BALCONIES.
- UNIT BALCONY DOORS TO MATCH VINYL WINDOW COLOR SELECTION, USE OF HIGH TEMPURATURE PAINT, TYP.
- SEE WINDOW DETAILS FOR DIFFERENTIAL SETTLEMENT NOTES.

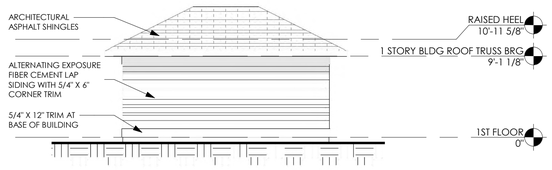
HOUSING STUDIO
333 West Trade Street, Suite 300
Charlotte, NC 28202
T: 704.333.7862 F: 980.237.3862

CHILDRESS KLEIN - BARCLAY PHASE A

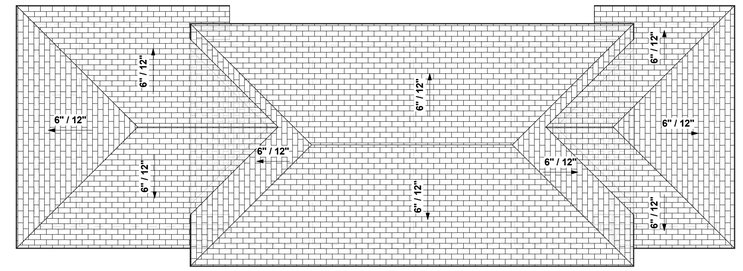
VOLUME 1: CIVIL - LANDSCAPE - ARCHITECTURE - INTERIORS
WILMINGTON, NC



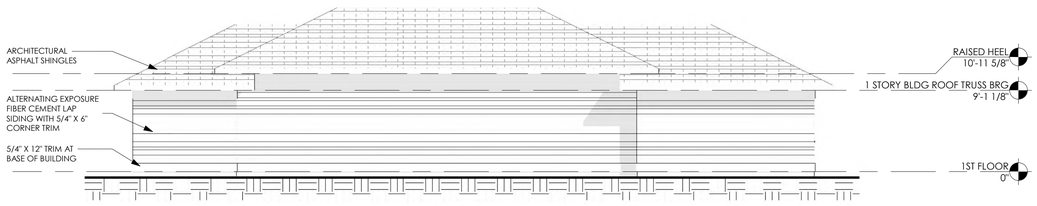
6 BLDG TYPE J - SIDE 2 ELEVATION
1/8" = 1'-0"



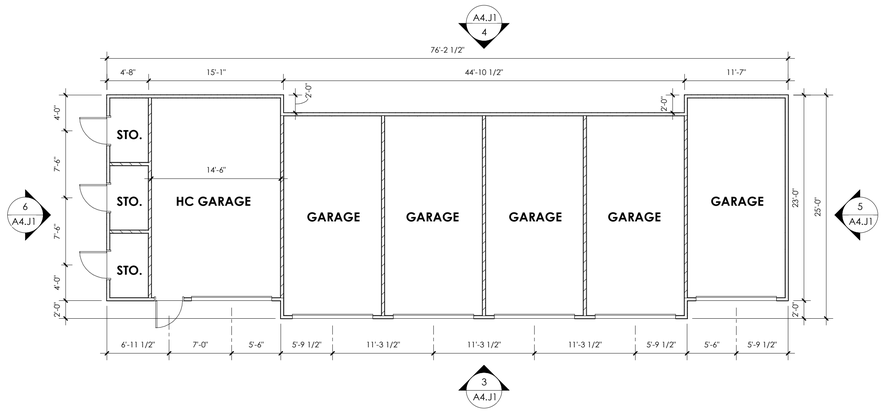
5 BLDG TYPE J - SIDE 1 ELEVATION
1/8" = 1'-0"



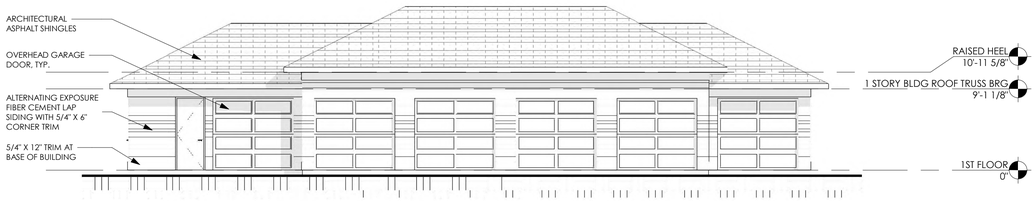
2 BLDG TYPE J - ROOF PLAN
1/8" = 1'-0"



4 BLDG TYPE J - REAR ELEVATION
1/8" = 1'-0"



1 BLDG TYPE J - FLOOR PLAN
1/8" = 1'-0"



3 BLDG TYPE J - FRONT ELEVATION
1/8" = 1'-0"

NOT FOR CONSTRUCTION

PROJECT NUMBER: 2006
ISSUE DATE: SEPTEMBER 10TH, 2020
ISSUED FOR: 30% SET

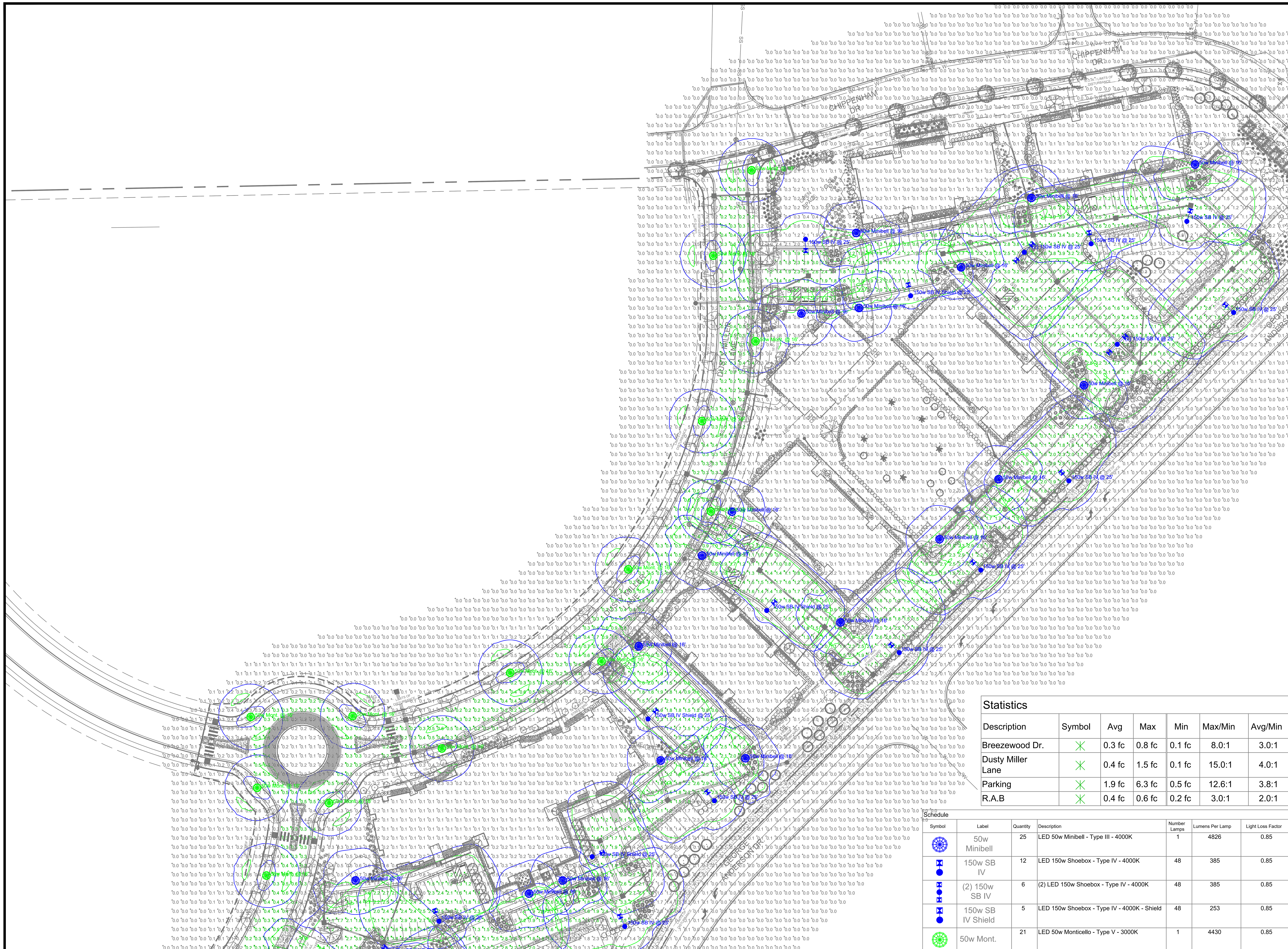
REVISIONS

KEY PLAN

N

BLDG TYPE J
(GARAGE)

A4.J1



Statistics

Description	Symbol	Avg	Max	Min	Max/Min	Avg/Min
Breezewood Dr.	✳	0.3 fc	0.8 fc	0.1 fc	8.0:1	3.0:1
Dusty Miller Lane	✳	0.4 fc	1.5 fc	0.1 fc	15.0:1	4.0:1
Parking	✳	1.9 fc	6.3 fc	0.5 fc	12.6:1	3.8:1
R.A.B	✳	0.4 fc	0.6 fc	0.2 fc	3.0:1	2.0:1

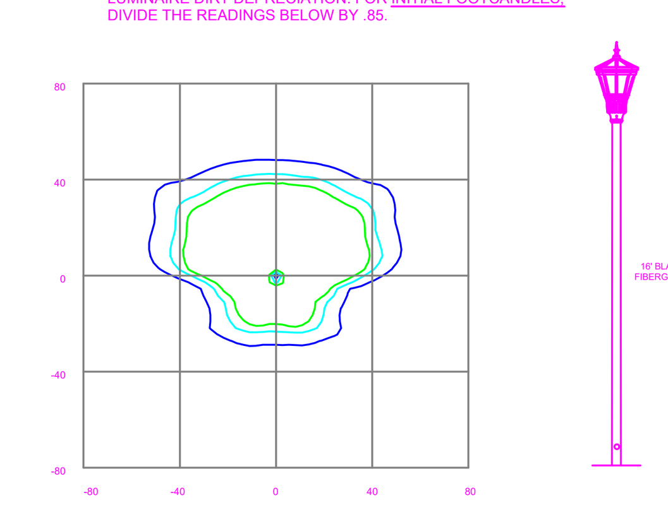
Schedule

Symbol	Label	Quantity	Description	Number Lamps	Lumens Per Lamp	Light Loss Factor
	50w Minibell	25	LED 50w Minibell - Type III - 4000K	1	4826	0.85
	150w SB IV	12	LED 150w Shoebox - Type IV - 4000K	48	385	0.85
	(2) 150w SB IV	6	(2) LED 150w Shoebox - Type IV - 4000K	48	385	0.85
	150w SB IV Shield	5	LED 150w Shoebox - Type IV - 4000K - Shield	48	253	0.85
	50w Mont.	21	LED 50w Monticello - Type V - 3000K	1	4430	0.85

ISOFOOTCANDLE CURVES

FIXTURE: MONTICELLO OPEN LED
MOUNTING HEIGHT: 16 FT
LAMP: 75W LED'S 4000K
PATTERN: TYPE III, B1-U0-G1 (zero light at or above 90 degrees)

NOTE: THE FOOTCANDLE READINGS BELOW ARE MAINTAINED AND HAVE BEEN DEPRECIATED FOR LAMP LUMEN DEPRECIATION AND LUMINAIRE DIRT DEPRECIATION. FOR INITIAL FOOTCANDLES, DIVIDE THE READINGS BELOW BY .85.



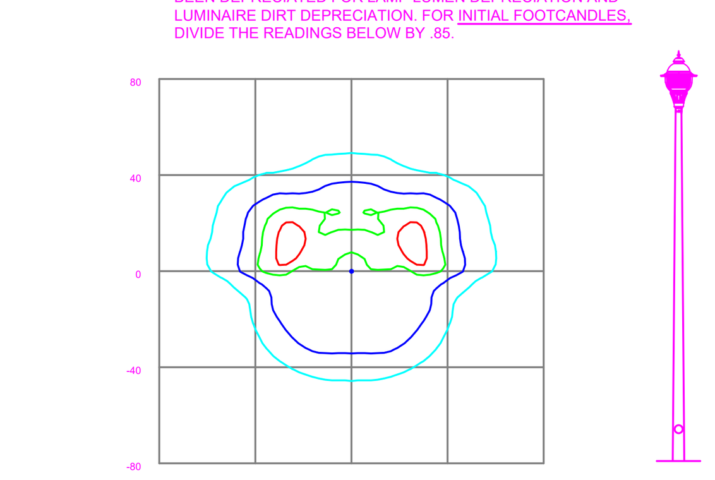
LEGEND (OUTER to INNER): 0.100 , 0.200 , 0.300

ISOFOOTCANDLE CURVES

FIXTURE: MINI BELL LED
MOUNTING HEIGHT: 16 FT
LIGHT SOURCE: 50W LED'S, 4000K
PATTERN: TYPE III, B2-U3-G2
LUMENS: 4825

POLE ASSY # Black Fiberglass
ASSY # LFIX-MB-LED-50-BLK-III-MULTIV-___-P

NOTE: THE FOOTCANDLE READINGS BELOW ARE MAINTAINED AND HAVE BEEN DEPRECIATED FOR LAMP LUMEN DEPRECIATION AND LUMINAIRE DIRT DEPRECIATION. FOR INITIAL FOOTCANDLES, DIVIDE THE READINGS BELOW BY .85.



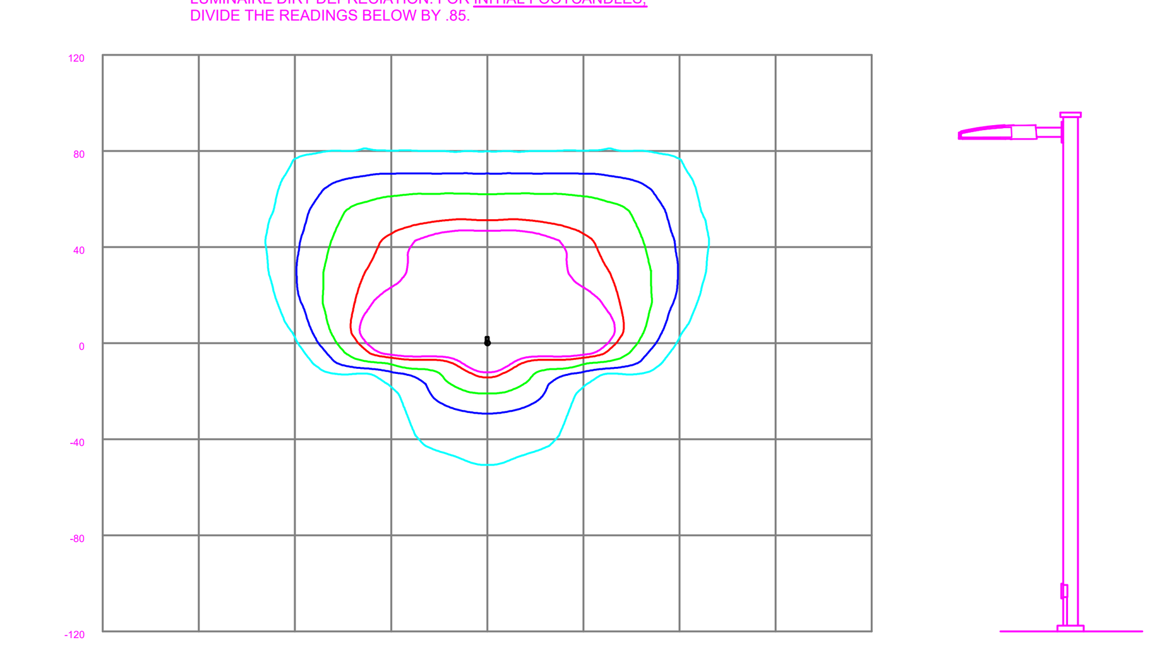
LEGEND (OUTER to INNER): 0.100 , 0.250 , 0.500 , 1.000

ISOFOOTCANDLE CURVES

FIXTURE: LED150, EATON
MOUNTING HEIGHT: 25 FT
LIGHT SOURCE: LED'S, 4000K, 70 CRI
LUMENS - 18459
PATTERN: TYPE IV B3-U0-G4 (zero light at or above 90 degrees)

ASSY# LFIX-SBX-LED-150-BLK-IV-MULTIV-___-P
POLE ASSY# LPOLE-AB-STL-25FT-BLK-SQ-___-P (BLACK)
BRACKET ASSY# LBKT-SIDE-12IN-BLK-UNV-STL-___-P (BLACK)

NOTE: THE FOOTCANDLE READINGS BELOW ARE MAINTAINED AND HAVE BEEN DEPRECIATED FOR LED LUMEN DEPRECIATION AND LUMINAIRE DIRT DEPRECIATION. FOR INITIAL FOOTCANDLES, DIVIDE THE READINGS BELOW BY .85.



LEGEND (OUTER to INNER): 0.10 , 0.25 , 0.50 , 1.00 , 1.25

LIGHTING DESIGN TOLERANCE

The calculated footcandle light levels in this lighting design are predicted values and are based on specific information that has been supplied to Duke Energy Progress. Any inaccuracies in the supplied information, differences in luminaire installation, lighted area geometry including elevation differences, reflective properties of surrounding surfaces, obstructions (foliage or otherwise) in the lighted area, or lighting from sources other than listed in this design may produce different results from the predicted values. Normal tolerances of voltage, lamp output, and ballast and luminaire manufacture will also affect results.

Customer approval____________________________ Date____________

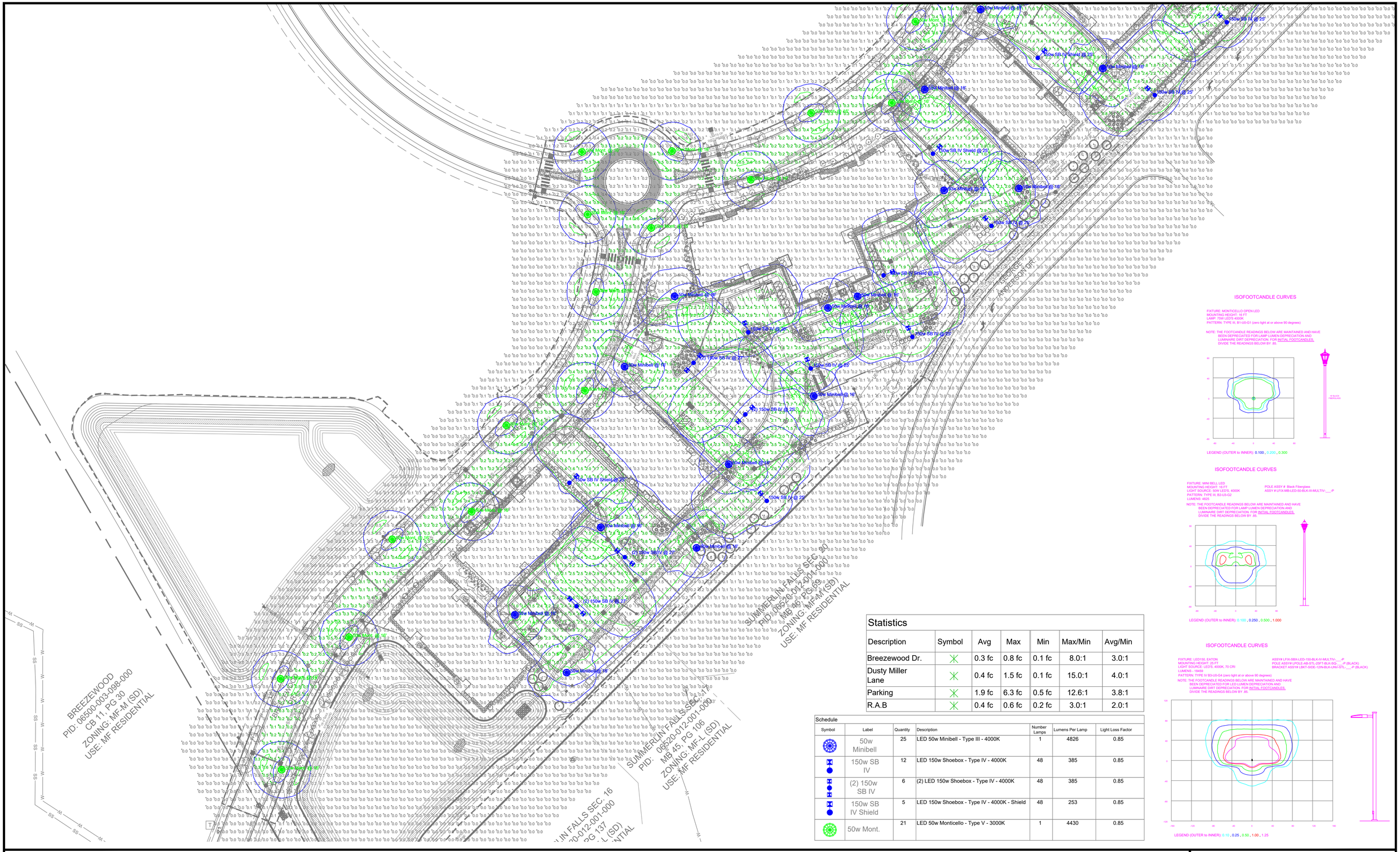
DISTANCE CALIBRATION (INCHES)

0 0.5 1.0 2.0 3.0 4.0

DUKE ENERGY® PROGRESS

BARCLAY PHASE A
WILMINGTON, NC
SITE LIGHTING PLAN

Designed by DEP LIGHTING SOLUTIONS
Reviewed by N. Johnson Scale 1" = 50'
Date 03/19/2021 Size "Arch D"
Description LED 50W Minibell, 75w Open Mitchell, & 150w Shoebox
Drawing No. 21-0101A Sht. 1 OF 2



ISOFOOTCANDLE CURVES

FIXTURE: MONTICELLO OPEN LED
MOUNTING HEIGHT: 16 FT
LAMP: 75W LED'S 4000K
PATTERN: TYPE III, B1-U0-G1 (zero light at or above 90 degrees)

NOTE: THE FOOTCANDLE READINGS BELOW ARE MAINTAINED AND HAVE BEEN DEPRECIATED FOR LAMP LUMEN DEPRECIATION AND LUMINAIRE DIRT DEPRECIATION. FOR INITIAL FOOTCANDLES, DIVIDE THE READINGS BELOW BY .85.

LEGEND (OUTER to INNER): 0.100 , 0.200 , 0.300

ISOFOOTCANDLE CURVES

FIXTURE: MINI BELL LED
MOUNTING HEIGHT: 16 FT
LIGHT SOURCE: 50W LED'S, 4000K
PATTERN: TYPE III, B2-U3-G2
LUMENS: 4825

POLE ASSY # Black Fiberglass
ASSY # LFX-MB-LED-50-BLK-W-MULTIV-___-P

NOTE: THE FOOTCANDLE READINGS BELOW ARE MAINTAINED AND HAVE BEEN DEPRECIATED FOR LAMP LUMEN DEPRECIATION AND LUMINAIRE DIRT DEPRECIATION. FOR INITIAL FOOTCANDLES, DIVIDE THE READINGS BELOW BY .85.

LEGEND (OUTER to INNER): 0.100 , 0.250 , 0.500 , 1.000

ISOFOOTCANDLE CURVES

FIXTURE: LED150, EATON
MOUNTING HEIGHT: 25 FT
LIGHT SOURCE: LED'S, 4000K, 70 CRI
LUMENS - 18459
PATTERN: TYPE IV B3-U0-G4 (zero light at or above 90 degrees)

ASSY# LFIX-SBX-LED-150-BLK-IV-MULTIV-___-P
POLE ASSY# LPOLE-AB-ST-25FT-BLK-SQ___-P (BLACK)
BRACKET ASSY# LBKT-SIDE-12IN-BLK-UNV-STL-___-P (BLACK)

NOTE: THE FOOTCANDLE READINGS BELOW ARE MAINTAINED AND HAVE BEEN DEPRECIATED FOR LED LUMEN DEPRECIATION AND LUMINAIRE DIRT DEPRECIATION. FOR INITIAL FOOTCANDLES, DIVIDE THE READINGS BELOW BY .85.

LEGEND (OUTER to INNER): 0.10 , 0.25 , 0.50 , 1.00 , 1.25

Statistics

Description	Symbol	Avg	Max	Min	Max/Min	Avg/Min
Breezewood Dr.	+	0.3 fc	0.8 fc	0.1 fc	8.0:1	3.0:1
Dusty Miller Lane	+	0.4 fc	1.5 fc	0.1 fc	15.0:1	4.0:1
Parking	+	1.9 fc	6.3 fc	0.5 fc	12.6:1	3.8:1
R.A.B	+	0.4 fc	0.6 fc	0.2 fc	3.0:1	2.0:1

Schedule

Symbol	Label	Quantity	Description	Number Lamps	Lumens Per Lamp	Light Loss Factor
	50w Minibell	25	LED 50w Minibell - Type III - 4000K	1	4826	0.85
	150w SB IV	12	LED 150w Shoebox - Type IV - 4000K	48	385	0.85
	(2) 150w SB IV	6	(2) LED 150w Shoebox - Type IV - 4000K	48	385	0.85
	150w SB IV Shield	5	LED 150w Shoebox - Type IV - 4000K - Shield	48	253	0.85
	50w Mont.	21	LED 50w Monticello - Type V - 3000K	1	4430	0.85

LIGHTING DESIGN TOLERANCE

The calculated footcandle light levels in this lighting design are predicted values and are based on specific information that has been supplied to Duke Energy Progress. Any inaccuracies in the supplied information, differences in luminaire installation, lighted area geometry including elevation differences, reflective properties of surrounding surfaces, obstructions (foliage or otherwise) in the lighted area, or lighting from sources other than listed in this design may produce different results from the predicted values. Normal tolerances of voltage, lamp output, and ballast and luminaire manufacture will also affect results.

Customer approval_____ **Date**_____

DISTANCE CALIBRATION (INCHES)

0 0.5 1.0 2.0 3.0 4.0

DUKE ENERGY® PROGRESS

PROPRIETARY & CONFIDENTIAL

BARCLAY PHASE A
WILMINGTON, NC
SITE LIGHTING PLAN

Designed by DEP LIGHTING SOLUTIONS
Reviewed by N. Johnson Scale 1" = 50'
Date 03/19/2021 Size "Arch D"
Description LED 50W Minibell, 75w Open Mitchell, & 150w Shoebox
Drawing No. 21-0101A Sht. 2 OF 2