

**REZONING CONDITIONS OF APPROVAL
(APPROVED APRIL 13, 2021)**

1. MAXIMUM DENSITY SHALL BE 8 UNITS/ACRE
2. MAXIMUM UNITS PER BUILDING SHALL BE 7
3. HOUSE ENTRANCES FOR UNITS WITH FRONT FACING SINGLE-CAR GARAGES MUST HAVE A COVERED PORCH OR STOOP AREA LEADING TO THE FRONT DOOR.
4. THERE SHALL BE ONE ROOF ELEMENT SUCH AS A GABLE FOR EACH UNIT AND ONE VERTICAL BREAK FOR EACH BUILDING OF MORE THAN 3 UNITS.
5. GARAGE DOORS MUST HAVE WINDOWS, DECORATIVE DETAILS OR CARRIAGE-STYLE ADORNMENTS ON THEM.
6. ON CORNER LOTS, THE SIDE ELEVATION FACING THE PUBLIC STREET SHALL CONTAIN AT LEAST TWO DECORATIVE ELEMENTS SUCH AS BUT NOT LIMITED TO:
 - WINDOWS
 - RECESSED WINDOW
 - DECORATIVE WINDOW
 - TRIM AROUND THE WINDOWS
 - DECORATIVE BRICK/STONE
 - DECORATIVE TRIM
 - DECORATIVE SHAKE
 - DECORATIVE AIR VENTS ON GABLE
 - DECORATIVE GABLE
 - DECORATIVE CORNICE
 - COLUMN
 - PORTICO
 - DORMER
7. A VARIED COLOR PALETTE SHALL BE UTILIZED ON HOMES THROUGHOUT THE SUBDIVISION TO INCLUDE A MINIMUM OF TWO COLOR FAMILIES FOR SIDING. OTHER ELEMENTS SUCH AS THE FRONT DOOR, TRIM, SHUTTERS SHALL BE PERMITTED TO BE ACCENT COLORS COMPLEMENTING THE SIDING COLOR.

SITE INFORMATION

LOCATION: 4985 NC 210 N
ANGIER, NC 27501

JURISDICTION: LILLINGTON

COUNTY: HARNETT

PIN#: 0662-33-3815

DB/PG: 4155/0541

ZONING: CD-RMX

ACREAGE: 2.23 AC

CURRENT LAND USE: RESIDENTIAL

PROPOSED LAND USE: AMENITY

MINIMUM BUILDING SETBACKS:

FRONT YARD: 20' MINIMUM

SIDE STREET (END UNITS): 6' MINIMUM

REAR YARD: 6' MINIMUM

MAX BLDG HEIGHT: 4 STORIES

IMPERVIOUS ALLOCATED: 21,780 SQ FT (0.50 AC)

PROPOSED IMPERVIOUS AREAS:

BUILDING: 817 SQ FT (0.02 AC)

CONCRETE SIDEWALK: 745 SQ FT (0.02 AC)

POOL DECK: 6704 SQ FT (0.15 AC)

TOTAL: 8,266 SQ FT (0.19 AC)

UTILITY DEMANDS: (NCAC 21 RULES):

SEWAGE USAGE: 75 PEOPLE @ 10 GAL/PERSON = 750 GPD

WATER USAGE: 75 PEOPLE @ 10 GAL/PERSON = 750 GPD

NOTE THAT THIS SITE IS WITHIN 1 MILE OF A VOLUNTARY AGRICULTURAL DISTRICT

POWELL

POOL AMENITY

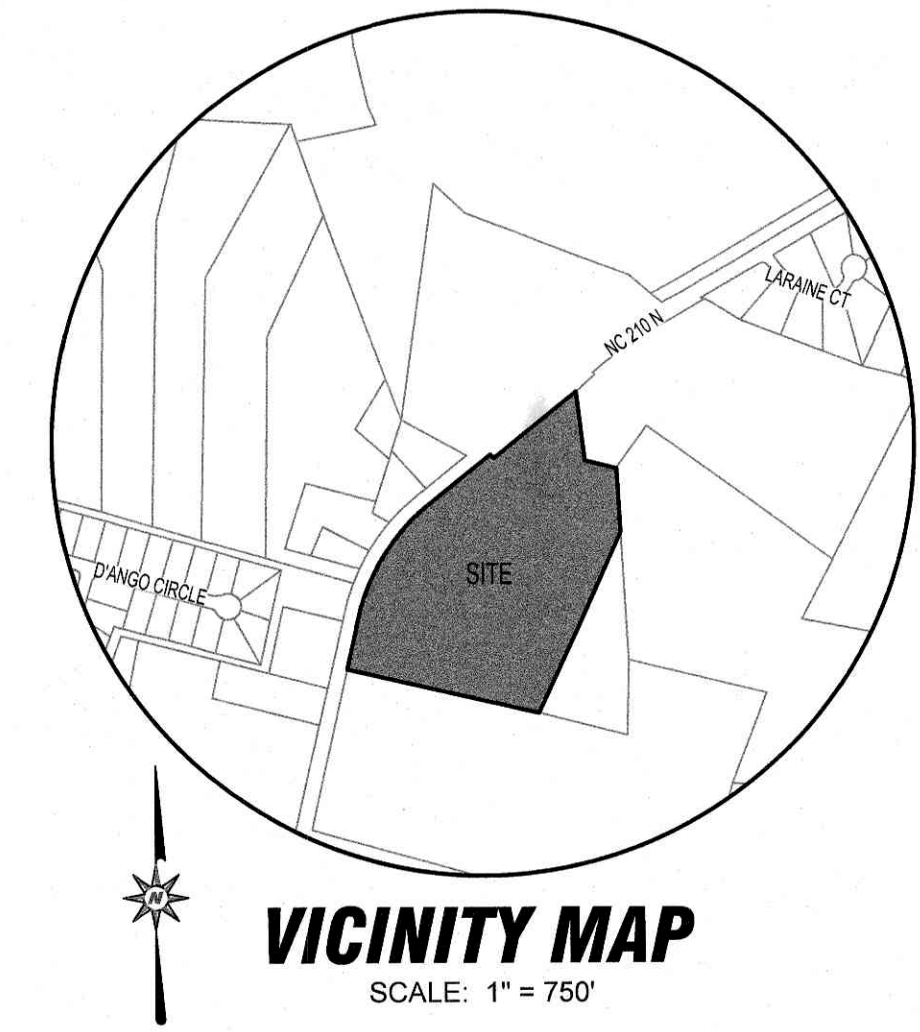
TOWN OF LILLINGTON HARNETT COUNTY, NORTH CAROLINA CONSTRUCTION DRAWINGS

TOWN OF LILLINGTON PROJECT#

1st SUBMITTAL TO THE TOWN OF LILLINGTON: FEBRUARY 12, 2024
2nd SUBMITTAL TO THE TOWN OF LILLINGTON: APRIL 8, 2024
3rd SUBMITTAL TO THE TOWN OF LILLINGTON: MAY 16, 2024

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- EC-2.0 EROSION CONTROL DETAILS



Land Owner:

GHD-Powell LLC
1330 Sunday Dr. Suite 105
Raleigh, NC 27607
910.258.2087
Contact: Jeremy Medlin
jmedlin@greenhawkcorp.com

Surveyor:

Robinson & Plante, PC
1240 SE Maynard Rd., Suite 203
Cary, NC 27511
919.859.6030 (o)
Contact: Buddy Plante, PLS

Developer:

Greenhawk Corporation, Inc.
1330 Sunday Dr. Suite 105
Raleigh, NC 27607
910.258.2087
Contact: Jeremy Medlin
jmedlin@greenhawkcorp.com

Civil Engineer:

The Curry Engineering Group, PLLC
NC License # P-0799
205 S. Fuquay Ave
Fuquay-Varina, NC 27526
919.552.0849 (o)
Contact: Don Curry, PE
don@curryeng.com

APPROVAL OF THIS PLAT/PLAN DOES NOT GUARANTEE WATER CAPACITY. CURRENT / FUTURE CAPACITY MAY NOT BE AVAILABLE. THIS DEVELOPMENT MAY REQUIRE ADDITIONAL IMPROVEMENTS TO THE EXISTING WATER SYSTEM TO MEET FUTURE WATER DEMANDS PRIOR TO AA PRELIMINARY PLAT, CONSTRUCTION PLAN AND/OR FINAL PLAT APPROVAL.

GOVERNING AGENCIES:

PLANNING: TOWN OF LILLINGTON PLANNING DEPT. 102 E. FRONT ST. LILLINGTON, NC 27546 919-893-0316 CONTACT: LANDON CHANDLER	STORMWATER: TOWN OF LILLINGTON ENGINEERING DEPARTMENT 102 E. FRONT ST. LILLINGTON, NC 27546 919-893-0314 CONTACT: SHANE CUMMINGS, PE
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EROSION CONTROL:
NCDENR FAYETTEVILLE
REGIONAL OFFICE
225 GREEN ST. SUITE 714
FAYETTEVILLE, NC 28301
910-433-3300

US ARMY CORPS OF ENGINEERS (USACE):
USACE RALEIGH FIELD OFFICE
3331 HERITAGE TRADE DR. SUITE 105
WAKE FOREST, NC 27587
919-554-4884
CONTACT: MR. JAMES LASTINGER

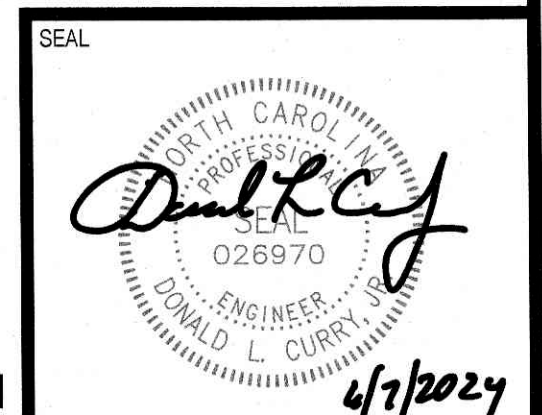
UTILITY AGENCIES:

WATER: HARNETT REGIONAL WATER 700 MCKINNEY PKWY. LILLINGTON, NC 27546 910-814-8477 CONTACT: MR. KENNY KEEL, PE	NCDENR-PUBLIC WATER SUPPLY: NCDENR DIVISION OF WATER RESOURCES RALEIGH REGIONAL OFFICE 3800 BARRETT DRIVE RALEIGH, NC 27609 919-791-4232
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NCDENR-DWQ SEWER:
NCDENR RALEIGH
REGIONAL OFFICE
3800 BARRETT DRIVE
RALEIGH, NC 27609
919-791-4232

SEWER:
TOWN OF LILLINGTON
PUBLIC WORKS DEPT.
311 E. DUNCAN ST.
LILLINGTON, NC 27546
919-893-3607

APPROVED
John Chalk 7-22-24
Lillington Planning and Inspections

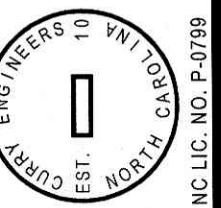


RELEASED FOR CONSTRUCTION

4/9/2024

POWELL POOL AMENITY
COVER SHEET

205 S. Fuquay Avenue
Fuquay-Varina, NC 27526
T: 919.552.0849
F: 919.552.0843



Curry
ENGINEERING

C-0.0

GENERAL CONSTRUCTION NOTES:

- BOUNDARY & TOPOGRAPHY DATA PERFORMED BY ROBINSON & PLANTE. REFER TO EXISTING CONDITIONS PLAN.
- ALL WORK, CONSTRUCTION AND MATERIALS SHALL BE IN ACCORDANCE WITH THE TOWN OF LILLINGTON, HRW, AND NCDOT STANDARDS AND SPECIFICATIONS, LATEST EDITION.
- ALL WORK, CONSTRUCTION AND MATERIALS WITHIN NCDOT RIGHT-OF-WAY SHALL BE IN ACCORDANCE WITH THE 2018 NCDOT STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES.
- ALL SUBDIVISION RIGHT OF WAYS SHALL BE PUBLIC. SIDEWALKS AND ROADWAYS WILL BE MAINTAINED BY THE TOWN OF LILLINGTON.
- THIS SITE IS NOT LOCATED IN A FLOOD HAZARD ZONE PER FEMA MAPS 3720066200J DATED 10/3/2006.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL WORK ZONE TRAFFIC CONTROL IN OR ADJACENT TO NCDOT RIGHT-OF-WAY. TRAFFIC CONTROL SHALL BE MAINTAINED AT ALL TIMES WITH PROPER SIGNAGE, SIGNALS, LIGHTING, FLAGMEN, ALL SIGNS, PAVEMENT MARKINGS AND OTHER TRAFFIC CONTROL DEVICES SHALL CONFORM TO THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD), LATEST EDITION.
- COPIES OF ALL PERMITS AND APPROVED PLANS MUST BE KEPT ON SITE IN A PERMIT BOX THAT IS CONSPICUOUSLY LOCATED AND EASILY ACCESSIBLE DURING CONSTRUCTION. THIS INCLUDES APPROVED CONSTRUCTION PLANS, APPROVED EROSION CONTROL PLANS, ENCROACHMENT AGREEMENTS, DRIVEWAY PERMITS, WATER/SEWER PERMITS, ETC.
- LOCATION OF UNDERGROUND UTILITIES ARE APPROXIMATE AND MUST BE FIELD VERIFIED. CONTACT THE NC ONE CALL CENTER AT LEAST 48 HOURS PRIOR TO DIGGING @ 1.800.632.4949. UNDERGROUND LINES SHOWN HEREON ARE APPROXIMATE OR AS REPORTED BY VARIOUS RESPONSIBLE PARTIES. THE SURVEYOR DOES NOT GUARANTEE THAT ANY UNDERGROUND STRUCTURES SUCH AS UTILITIES, TANKS AND PIPES ARE LOCATED HEREON.
- THE CONTRACTOR SHALL NOTIFY AND COOPERATE WITH ALL UTILITY COMPANIES OR FIRMS HAVING FACILITIES ON OR ADJACENT TO THE SITE BEFORE DISTURBING, ALTERING, REMOVING, RELOCATING, ADJUSTING OR CONNECTING TO SAID FACILITIES.
- THE CONTRACTOR IS RESPONSIBLE FOR REPAIR OF ANY TOWN OR NCDOT DAMAGED PROPERTY. THE CONTRACTOR SHALL REPAIR THE DAMAGED PROPERTY TO THE LATEST STANDARDS AND SPECIFICATIONS OF THE AGENCY HOLDING JURISDICTION AT NO COST TO THE OWNER.
- ANY DAMAGE DONE TO PRIVATE PROPERTY OWNERS SIGNS, MAILBOX, DRIVEWAY CULVERTS, OR OTHER PROPERTY SHALL BE RESTORED TO ORIGINAL CONDITION.
- CONTRACTOR IS RESPONSIBLE FOR FENCING AND SECURITY OF HIS LAYDOWN AND STORAGE AREA.
- CONTRACTOR SHALL KEEP ALL ROADS FREE OF DIRT AND DEBRIS AT ALL TIMES.
- CONTRACTOR SHALL PROTECT EXISTING PAVEMENTS AND UTILITIES FROM HEAVY EARTH MOVING EQUIPMENT. PROVIDE TRAFFIC CONTROL AND ADEQUATE PROTECTION METHODS AT ALL EQUIPMENT CROSSINGS.
- ALL EXCAVATION IS UNCLASSIFIED AND SHALL INCLUDE ALL MATERIALS ENCOUNTERED.
- ALL STRUCTURAL FILL MATERIAL SHALL BE FREE OF ALL STICKS, ROCKS, AND CLUMPS OF MUD. ALL ROCKS GREATER THAN 3" DURING EXCAVATION SHALL BE REMOVED.
- UNUSABLE EXCAVATED MATERIALS AND ALL WASTE RESULTING FROM CLEARING AND GRUBBING SHALL BE DISPOSED OF OFF-SITE BY THE CONTRACTOR IN AN APPROVED, LEGAL DISPOSAL SITE.
- CONCRETE SIDEWALKS THAT ARE TO BE REMOVED SHALL BE CUT BACK TO NEAREST EXPANSION OR CONTROL JOINT AND REPLACED WITH 4-INCH CONCRETE SIDEWALK FINISHED TO MATCH EXISTING SIDEWALKS.
- CONTRACTOR TO COORDINATE WITH TOWN OF LILLINGTON FOR TEMPORARY WATER NEEDED DURING CONSTRUCTION. IF PERMITTED TO CONNECT TO EXISTING FIRE HYDRANT A REDUCED PRESSURE ZONE (RPZ) BACKFLOW PREVENTER WILL BE REQUIRED.
- THE TRANSITION OF PROPOSED ROADWAY TO EXISTING ROADWAY SHALL BE DONE WITH A MINIMUM 8-FT TRANSITION WHERE THE EXISTING PAVEMENT IS MILLED TO A MINIMUM DEPTH OF 1-1/2" AND OVERLAID.
- ALL PAVEMENT SAW CUTS SHALL BE NEAT, STRAIGHT AND FULL DEPTH.
- ALL RIP-RAP IS TO BE INSTALLED WITH NON-WOVEN FILTER FABRIC BENEATH (MIRAFI 140N OR APPROVED EQUAL).
- ALL EXCESS TOPSOIL AND UNCLASSIFIED EXCAVATION IS TO BE HAULED OFF-SITE, UNLESS OTHERWISE DIRECTED BY THE OWNER TO AN APPROVED NCDENR LOCATION.
- ALL SITE CONSTRUCTION MUST BE INSPECTED BY THE GEOTECHNICAL ENGINEER AT THE FOLLOWING STAGES:
 - COMPLETION OF GRADING SUBGRADE PRIOR TO PLACING STONE BASE.
 - COMPLETION OF STONE PLACEMENT PRIOR TO PAVING.
 - FINAL INSPECTION WHEN ALL WORK IS COMPLETE.
- PRIOR TO PLACING CABG STONE BASE, THE CONTRACTOR SHOULD NOTIFY THE GEOTECHNICAL ENGINEER TO INSPECT THE PROOF ROLL OF THE SUBGRADE. ANY STONE PLACED WITHOUT PRIOR APPROVAL WILL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR AND SUBJECT TO RE-CONSTRUCTION IF SUBGRADE DOES NOT MEET TOWN AND NCDOT STANDARDS & SPECIFICATIONS.
- ALL UTILITY SERVICES, (POWER, TELEPHONE, CABLE, ETC.) ARE PROPOSED TO BE UNDERGROUND. DO NOT SEED OR MULCH DISTURBED AREAS UNTIL ALL UNDERGROUND UTILITIES HAVE BEEN INSTALLED. THE CONTRACTOR SHALL COORDINATE WITH THE PRIVATE UTILITY SERVICE COMPANIES FOR ANY REQUIRED CONDUITS OR POINT OF CONTACT CONDITIONS.
- ALL PUBLIC UTILITIES THAT REQUIRE AN ENGINEERING CERTIFICATION MUST BE INSPECTED BY A PROFESSIONAL ENGINEER ON A PERIODIC BASIS. THE CONTRACTOR SHALL CONTACT THE PROJECT ENGINEER WHEN INSTALLING UTILITIES FOR PERIODIC INSPECTIONS. THE CONTRACTOR SHALL CONTACT THE PROJECT ENGINEER AT THE TIME OF PRESSURE TESTING AND WATER LINE DISINFECTION. THE CONTRACTOR SHALL SUPPLY THE PROJECT ENGINEER PRESSURE TEST RESULTS.
- INFORMATION CONCERNING UNDERGROUND UTILITIES WAS OBTAINED FROM AVAILABLE RECORDS AND FIELD CONDITIONS WHEN POSSIBLE, BUT THE CONTRACTOR MUST DETERMINE THE EXACT LOCATION AND ELEVATION OF ALL EXISTING UTILITIES BY DIGGING TEST PITS BY HAND AT ALL UTILITY CROSSINGS WELL IN ADVANCE OF TRENCHING. IF THE CLEARANCES ARE LESS THAN SPECIFIED ON THE PLANS OR 12 INCHES, WHICH EVER IS LESS, CONTACT THE PROJECT ENGINEER PRIOR TO PROCEEDING WITH CONSTRUCTION.
- THE CONTRACTOR SHALL INCLUDE IN HIS CONTRACT PRICE THE REMOVAL AND DISPOSAL OF ANY EXCESS TOPSOIL HE DETERMINES IS NOT REQUIRED TO PERFORM THE FINAL GRADING AND LANDSCAPING OPERATION.
- THE CONTRACTOR SHALL INCLUDE IN THE CONTRACT PRICE DAILY RECORD KEEPING OF THE AS-BUILT CONDITION OF ALL OF THE UNDERGROUND UTILITIES. CONSTRUCTION TAKEOUT ASSOCIATED WITH THE PROJECT. PREPARATION OF THE NECESSARY/REQUIRED AS-BUILT PLANS TO BE SUBMITTED TO TOWN OF LILLINGTON AND/OR ALL OTHER INFORMATION REQUIRED IN CONNECTION WITH RELEASE OF BONDS.
- THE CONTRACTOR SHALL INCLUDE IN THE PRICE, ANY AND ALL COSTS ASSOCIATED WITH PROVIDING A PROFESSIONAL ENGINEER ON SITE IF REQUIRED, DURING THE CONSTRUCTION OF THE STORMWATER MANAGEMENT FACILITIES, UNDERGROUND UTILITIES, ETC. AS REQUIRED FOR AS-BUILT CERTIFICATION.
- THE CONTRACTOR IS RESPONSIBLE FOR THE DESIGN AND IMPLEMENTATION OF ALL REQUIRED/NECESSARY SHEETING, SHORING, AND SPECIAL EXCAVATION MEASURES REQUIRED ON THE PROJECT TO MEET OSHA, FEDERAL, STATE AND LOCAL REGULATIONS PURSUANT TO THE INSTALLATION OF THE WORK INDICATED ON THE DRAWINGS. NCDOT, TOWN OF LILLINGTON & CURRY ENGINEERING ACCEPT NO RESPONSIBILITY FOR THE DESIGN TO INSTALL SAID ITEMS.
- TESTING BY CONTRACTOR: CONTRACTOR SHALL EMPLOY AT HIS EXPENSE AN OUTSIDE INDEPENDENT SOIL TESTING SERVICE (APPROVED BY THE OWNER) TO PERFORM SOIL TESTING AND INSPECTION SERVICE FOR QUALITY CONTROL TESTING DURING EARTHWORK OPERATIONS. COPIES OF RESULTS OF TESTS SHALL BE SUBMITTED BY THE TESTING SERVICE DIRECTLY TO THE CONTRACTOR, THE OWNER, AND THE APPLICABLE APPROVING AGENCY. --THE TESTING SERVICE WILL CLASSIFY PROPOSED ON-SITE AND BORROW SOILS TO VERIFY THAT SOILS COMPLY WITH SPECIFIED REQUIREMENTS AND TO PERFORM REQUIRED FIELD AND LABORATORY TESTING. (MINIMUM REQUIRED SOIL BEARING CAPACITY IS NOTED ON THE STRUCTURAL DRAWINGS). --IN PAVED AND BUILDING SLAB AREAS, THE TESTING SERVICE SHALL MAKE AT LEAST ONE FIELD DENSITY TEST FOR EACH 2000 SQUARE FEET OF FILL IN EACH COMPACTED FILL LAYER. IF A TEST SHOULD FAIL TO MEET REQUIRED DENSITY, THE CONTRACTOR SHALL RE-COMPACT THAT LAYER. THE SOIL TESTING SERVICE SHALL PERFORM ADDITIONAL TESTS AT THE CONTRACTOR'S EXPENSE TO SHOW THAT THE FAILED LAYER HAS REACHED THE REQUIRED COMPACTION. --IN FOUNDATION WALL AREAS, THE TESTING SERVICE SHALL MAKE AT LEAST ONE FIELD DENSITY TEST FOR EACH 100 FEET OR LESS OF WALL LENGTH OF FILL IN EACH COMPACTED FILL LAYER, WITH NO LESS THAN TWO TESTS ALONG A WALL FACE. IF A TEST SHOULD FAIL TO MEET REQUIRED DENSITY, THE CONTRACTOR SHALL RE-COMPACT THAT LAYER. THE SOIL TESTING SERVICE SHALL PERFORM ADDITIONAL TESTS AT THE CONTRACTOR'S EXPENSE TO SHOW THAT THE FAILED LAYER HAS REACHED THE REQUIRED COMPACTION.
- COMPACTION: COMPACT EACH LAYER OF BACKFILL AND FILL SOIL MATERIALS AND THE TOP 12" OF SUBGRADE IN CUT AREAS TO 100% OF MAXIMUM DENSITY IN ACCORDANCE WITH AASHTO T99 FOR STRUCTURES, SLABS, AND PAVEMENTS AND 95% OF MAXIMUM DENSITY FOR EMBANKMENTS OR UNPAVED AREAS. MAX LIFT THICKNESS FOR FILL AREAS IS 8 INCHES.
- DISTURBED AREA IS IN EXCESS OF 1 ACRE AND FORMAL SEDIMENTATION & EROSION CONTROL PLAN APPROVAL IS REQUIRED AS A CONDITION OF CONSTRUCTION PLAN APPROVAL. A COPY OF THE APPROVED EROSION CONTROL PLAN MUST BE KEPT ON SITE AT ALL TIMES. THE APPROVED SEDIMENTATION & EROSION CONTROL PLAN SHOULD BE REGARDED AS MINIMUM REQUIREMENTS. ADDITIONAL MEASURES SHALL BE PUT IN PLACE AS NEEDED TO ENSURE THAT NO SEDIMENT IS RELEASED FROM THE SITE. THE CONTRACTOR IS RESPONSIBLE FOR PICKING UP AND PAYING FOR GRADING PERMIT ISSUED BY TOWN OF LILLINGTON ENGINEERING DEPARTMENT.
- DESIGN/FIELD CONDITIONS QUITE EASILY MAY VARY FROM THAT REPRESENTED IN THE INITIAL SOILS REPORT AND/OR TOPOGRAPHICAL REPORT. ISOLATED AREAS MAY SHOW UP WEAK AND ADVERSE SOILS OR GROUNDWATER CONDITIONS MAY BE DISCOVERED THAT WERE NOT REVEALED DURING THE INITIAL SOILS INVESTIGATION. THEREFORE, THE OWNER/CIENT IS TO BE AWARE THAT CURRY ENGINEERING GROUP, PLLC WILL NOT AND CANNOT BE HELD RESPONSIBLE FOR ANY FAILURES TO EITHER A STREET OR PARKING LOT PAVEMENT DESIGN UNLESS WE CAN BE FULLY AND TOTALLY INVOLVED IN THE CONSTRUCTION PROCESS WHICH MAY INCLUDE, BUT MAY NOT NECESSARILY BE LIMITED TO, TESTING SUBGRADE AND BASE DENSITY, ENGAGING THE GEOTECHNICAL ENGINEER FOR THE EVALUATION OF THE SUBGRADE AND FOR THE OBSERVATION OF PROOF ROLLING SUBGRADE AND BASE AT VARIOUS STEPS OF CONSTRUCTION, OPPORTUNITY FOR THE DESIGN ENGINEER TO CALL IN A GEOTECHNICAL ENGINEER FOR CONSULTATION AND ADVICE, ETC. --STEPS WHICH TAKEN ALTOGETHER WITH THE INITIAL DESIGN SHOWN ON THE PLANS, CONSTITUTE THE COMPLETE DESIGN OF THE ROAD, STREET OF PARKING AREA (PRIVATE OR PUBLIC). THE DESIGN ENGINEER MUST BE GIVEN THE FULL LATITUDE AND OPPORTUNITY TO COMPLETE THE DESIGN BY FULLY PARTICIPATING IN THE CONSTRUCTION PROCESS. PLAN DESIGN IS A SMALL PORTION OF THE DESIGN AND CANNOT BE SEPARATED FROM THE CONSTRUCTION PROCESS IF THE OWNER'S/CIENT'S DESIRE IS TO HAVE THE DESIGN ENGINEER STAND BEHIND THE COMPLETED DESIGNED PROJECT.

HARNETT COUNTY CONSTRUCTION NOTES:

- THE CONTRACTOR WILL NOTIFY THE ENGINEER OF RECORD AND MR. ALAN MOSS, UTILITY CONSTRUCTION INSPECTOR WITH HARNETT REGIONAL WATER (HRW) AT LEAST TWO (2) DAYS PRIOR TO CONSTRUCTION COMMENCING. PRIOR TO CONSTRUCTION, THE REGISTERED PROFESSIONAL ENGINEER (PE) AND THE UTILITY CONTRACTOR SHALL ATTEND A PRE-CONSTRUCTION MEETING WITH HRW. THE OWNER/DEVELOPER MAY ATTEND THIS MEETING IF DESIRED.
- ONCE THE PROJECT IS APPROVED BY THE NORTH CAROLINA DEPARTMENT OF ENVIRONMENT & NATURAL RESOURCES (NCDENR) THEN HRW WILL MARK THE UTILITY PLANS "RELEASED FOR CONSTRUCTION." THE UTILITY CONTRACTOR MUST WORK OFF THE UTILITY PLANS RELEASED BY HRW. IF THE UTILITY CONTRACTOR IS WORKING FROM OTHER PLANS THEN THE CONSTRUCTION MUST STOP UNTIL THE UTILITY PLANS MARKED "RELEASED FOR CONSTRUCTION" ARE ISSUED BY HRW.
- THE DEVELOPERS ENGINEER OF RECORD WILL REVIEW ALL SHOP DRAWINGS FOR CONFORMANCE WITH HRW SPECIFICATIONS PRIOR TO SUBMITTAL TO HRW. THE SHOP DRAWING SUBMITTAL TO HRW SHALL INCLUDE A COVER LETTER BY THE DEVELOPER'S ENGINEER OF RECORD CERTIFYING CONFORMANCE WITH HRW SPECIFICATIONS AND SUMMARIZING ANY EXCEPTIONS OR CONCERNS RELATIVE TO APPROVED DRAWINGS AND/OR HRW STANDARDS.
- ALL WATER MAINS, VALVES, FITTINGS AND APPURTENANCES SHALL BE HYDROSTATICALLY TESTED AS PER HRW SPECIFICATIONS.
- ALL WATER SAMPLES FOR BACTERIA TESTING WILL BE COLLECTED BY THE CONTRACTOR AND WITNESSED BY A REPRESENTATIVE OF HRW.
- THE CONTRACTOR MUST COORDINATE WITH THE ENGINEER OF RECORD AND MR. ALAN MOSS, UTILITY CONSTRUCTION INSPECTOR HRW FOR REGULAR INSPECTION VISITATIONS AND ACCEPTANCE OF THE SYSTEM.
- THE DEVELOPER SHALL, AT HIS EXPENSE, RETAIN THE SERVICES OF THE ENGINEER OF RECORD FOR THE PURPOSES OF PROVIDING NECESSARY INSPECTIONS AND SUPERVISION OF THE CONSTRUCTION WORK, RECORD DRAWINGS AND ENGINEER CERTIFICATIONS.
- THE ENGINEER OF RECORD IS RESPONSIBLE TO INSURE THAT CONSTRUCTION IS, AT ALL TIMES, IN COMPLIANCE WITH ACCEPTED SANITARY ENGINEERING PRACTICES AND THE APPROVED PLANS AND SPECIFICATIONS. A COPY OF EACH ENGINEER'S FIELD REPORT IS TO BE SUBMITTED TO HRW AS EACH SUCH INSPECTION IS MADE.
- UPON COMPLETION AND ACCEPTANCE OF THE SYSTEM, THE ENGINEER WILL FILE A LETTER OF CERTIFICATION THAT THE PROJECT HAS BEEN BUILT IN ACCORDANCE WITH PLANS AND SPECIFICATIONS AS APPROVED BY THE NORTH CAROLINA DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES / DIVISION OF ENVIRONMENTAL HEALTH - PUBLIC WATER SUPPLY SECTION WITH A COPY TO HRW.
- THE ENGINEER MUST FILE WITH HRW, FOUR (2) 24" X 36" BLUE PRINTS (BOND PRINTS) OF THE "AS-BUILT" OR "RECORD" DRAWINGS FOR ALL CONSTRUCTION IN PLACE. THESE DRAWINGS MUST BE SEALED BY THE REGISTERED PROFESSIONAL ENGINEER WITH HIS SIGNATURE AND MARKED "RECORD DRAWINGS." ANY AND ALL FIELD CHANGE ORDERS THAT WERE MADE DURING CONSTRUCTION SHALL BE PROPERLY DOCUMENTED IN THE "AS-BUILT RECORD" DRAWINGS. THE "RECORD DRAWINGS" SHALL INCLUDE ALL LOT NUMBERS, WATER VALVES, VALVE MARKERS, WATER METER SETTERS, FIRE HYDRANTS, BLOW OFF ASSEMBLIES, MANHOLES, SEWER CLEAN OUTS, AIR RELEASE VALVES, AND SEWER LIFT STATIONS AS INSTALLED BY THE CONTRACTOR.
- THE ENGINEER WILL PROVIDE A STATEMENT INDICATING THE TOTAL COST OF THE WATER AND/OR SEWER SYSTEM(S).
- A DIGITAL COPY OF THE "RECORD DRAWINGS" MUST BE SUBMITTED TO HRW. PREFERABLY, THE DIGITAL COPY OF THE "RECORD DRAWINGS" SHOULD BE PRODUCED IN AUTOCAD (DWG) OR (DXF) FORMAT.
- THE "RECORD DRAWINGS" THAT INCLUDE GRAVITY SEWER LINE EXTENSIONS, SEWER LIFT STATION(S) AND/OR SEWER FORCE MAINS WILL CONTAIN THE FOLLOWING DETAILED INFORMATION:
 - LOT NUMBERS THAT WILL BE SERVED BY THE SEWER SYSTEM WILL BE CLEARLY IDENTIFIED ON EACH PAGE OF THE "AS-BUILT" OR "RECORD" DRAWINGS.
 - THE DISTANCE FOR EACH SEWER SERVICE LATERAL SHALL BE MEASURED FROM THE DOWN GRADE MANHOLE ALONG THE SEWER MAIN TO THE CONNECTING WYE AND ASSOCIATED SEWER CLEANOUT FOR EACH LOT.
 - THE DIRECTION FOR EACH SEWER SERVICE LATERAL SHALL BE MARKED AS LEFT OR RIGHT FACING UP GRADE FROM THE NEAREST DOWN GRADE MANHOLE.
 - DIRECTIONAL ARROWS SHALL BE PLACED ON EACH SEWER LINE (GRAVITY AND FORCE MAIN) ON THE OVERALL LAYOUT SHEET FOR EACH PHASE OR SECTION OF THE SEWER SYSTEM.
- THE ENGINEER WILL SUBMIT IN WRITING THAT ITEMS 1 THROUGH 13 ARE COMPLETE AND THAT WARRANTY WILL BEGIN ON THE DATE WHEN THE SYSTEM HAS BEEN ACCEPTED BY NCDENR AND TERMINATE 12 MONTHS THEREAFTER.
- PRIOR TO ACCEPTANCE, ALL SERVICES WILL BE INSPECTED TO INSURE THAT THEY ARE INSTALLED AT THE PROPER DEPTH. ALL METER BOXES MUST BE FLUSHED WITH THE GROUND LEVEL AND THE SETTERS ARE TO BE A MINIMUM OF 8" BELOW THE BOX LID.
- WATER SERVICE WILL BEGIN ONLY UPON SUBMISSION OF FINAL CERTIFICATION FROM NCDENR, RECEIPT OF APPLICABLE FEES AND WARRANTY ACCEPTANCE BY THE DISTRICT.
- UPON RECEIPT OF FINAL CERTIFICATIONS AND ITEMS 1 THROUGH 14, A COPY WILL BE FORWARDED TO MR. ALAN MOSS, UTILITY CONSTRUCTION INSPECTOR HRW FOR A FINAL INSPECTION.
- THE CONTRACTOR WILL NOTIFY HRW WHEN THEY ARE READY TO BEGIN FILLING IN LINES AND COORDINATE THIS WITH MR. ALAN MOSS, UTILITY CONSTRUCTION INSPECTOR HRW.
- THE DEVELOPER/CONTRACTOR WILL BE JOINTLY RESPONSIBLE FOR ANY REPAIRS MADE DURING THE WARRANTY PERIOD. HRW WILL PROVIDE MAINTENANCE WHEN REQUESTED AND BILL THE DEVELOPER/CONTRACTOR.
- HRW REQUIRES THAT THE CURRENT WATER AND SEWER SYSTEM DEVELOPMENT FEES BE PAID IN ACCORDANCE WITH THE LATEST HARNETT COUNTY WATER AND SEWER USE ORDINANCE.
- FIRE HYDRANTS ARE INSTALLED AT CERTAIN ELEVATIONS. ANY GRADE CHANGE IN THE VICINITY OF ANY FIRE HYDRANT WHICH IMPEDES ITS OPERATION SHALL BECOME THE RESPONSIBILITY OF THE DEVELOPER FOR CORRECTION. CORRECTIONS WILL BE MONITORED BY THE HRW UTILITY CONSTRUCTION INSPECTOR AND THE HARNETT COUNTY FIRE MARSHAL.
- ALL FIRE HYDRANTS INSTALLATIONS IN HARNETT COUNTY MUST MEET ALL REQUIREMENTS ESTABLISHED BY THE TOWN OF LILLINGTON. ALL FIRE HYDRANTS INSTALLATIONS MUST BE INSPECTED BY THE TOWN OF LILLINGTON. UPON INSTALLATION OF THE WATER SUPPLY INFRASTRUCTURE, THE ACTUAL FIRE FLOW SHALL BE DETERMINED ON SITE BY A PROFESSIONAL QUALIFIED TO DO SUCH WORK AND FIRE SERVICE PERSONNEL USING AN APPROVED METHOD.
- PLEASE REFER TO THE HRW STANDARDS AND SPECIFICATIONS AS WELL AS THE HRW WATER AND SEWER USE ORDINANCE FOR ADDITIONAL INFORMATION.

SEPTIC TANK ABANDONMENT NOTES:

- ADHERE TO WAKE COUNTY ENVIRONMENTAL SERVICES WASTEWATER SYSTEM ABANDONMENT PROCEDURES TO ABANDON A WASTEWATER SYSTEM LOCATION. FOLLOW THESE STEPS:
- APPLY FOR AN ABANDONMENT PERMIT. A SITE VISIT WILL BE MADE AND PERMIT WILL BE ISSUED.
 - HAVE AN APPROVED HAULER PUMP THE LIQUID, SLUDGE, AND SCUM FROM ALL THE TANKS IN THE SYSTEM.
 - THE TANK(S) SHOULD BE ABANDONED BY A CERTIFIED SEPTIC INSTALLER, LICENSED PLUMBER, LICENSED PUBLIC UTILITIES CONTRACTOR, OR THE OWNER OF THE PROPERTY WHERE THE TANK(S) IS/ARE LOCATED. THREE WAYS TO ABANDON THE TANKS ARE LISTED BELOW:
 - REMOVE THE TANKS
 - FILL IN THE TANK IN ONE OF TWO WAYS:
 - FILL IN ENTIRE TANK WITH CONCRETE. MUST CAP OFF INLET AND OUTLET PIPE PENETRATIONS FIRST.
 - CAP OFF INLET AND OUTLET PIPE PENETRATIONS WITH CONCRETE, FILL IN ENTIRE TANK WITH SAND OR PEA GRAVEL, AND THEN CAP OFF BOTH INLET AND OUTLET ACCESS OPENINGS WITH CONCRETE.
 - CRUSH TANK IN PLACE. BREAK UP BOTTOM OF TANK SO WATER DOES NOT POND ON TOP. FILL IN AREA WITH SAND OR PEA GRAVEL. PACK MATERIAL TO ENSURE SETTLING COMPLETE.
 - BACKFILL THE EXCAVATION WITH CLEAN CLAY MATERIAL TO NATURAL GRADE AND ESTABLISH A VEGETATIVE COVER.
 - DISCONNECT POWER AT THE SOURCE TO ALL ELECTRICAL CONTROLS AND REMOVE ALL CONTROLS AND PANELS.
 - REMOVE ALL PARTS OF THE DRAINFIELD ON THE GROUND SURFACE (SUCH AS VALVES, VALVE BOXES AND RISERS), BACKFILL THE AREA TO A NATURAL GRADE AND ESTABLISH A VEGETATIVE COVER.
 - COAT ALL SURFACE AREAS EXPOSED TO EFFLUENT WITH HYDRATED LIME AND ESTABLISH A VEGETATIVE COVER.
 - RECOMMEND TO WAIT AT LEAST 18 MONTHS BEFORE USING THE DISPOSAL AREA FOR GARDENING OR CONSTRUCTION.

WELL ABANDONMENT NOTES:

- CONTRACTOR IS RESPONSIBLE FOR OBTAINING A WELL ABANDONMENT PERMIT FROM WAKE COUNTY DEPARTMENT OF ENVIRONMENTAL SERVICES (WCDES) PRIOR TO ABANDONING WELL. CONTRACTOR SHALL PROVIDE WCDES 24 HOURS NOTICE & OBTAIN PERMIT PRIOR TO ABANDONMENT.
- ALL WATER SUPPLY WELLS SHALL BE PERMANENTLY ABANDONED PER NORTH CAROLINA DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES DIVISION OF WATER QUALITY STANDARDS. ABANDONMENT OF WELLS SHALL ADHERE TO TITLE 15A NORTH CAROLINA ADMINISTRATIVE CODE, CHAPTER 2C, SECTION .0113. TO OBTAIN A COMPLETE COPY OF THESE RULES: <http://reports.oah.state.nc.us/ncac.asp> OR CONTACT THE DIVISION OF WATER RESOURCES AT DENR AQUIFER PROTECTION SECTION 1636 MAIL SERVICE CENTER RALEIGH, NORTH CAROLINA 27699-1636 PHONE: (919) 733-3221 FAX: (919) 715-0588
- WELLS MUST BE ABANDONED BY A CERTIFIED WELL CONTRACTOR.
- THE WELL CONTRACTOR MUST SUBMIT A RECORD OF ABANDONMENT (NCDENR FORM GW-30) TO THE DIVISION OF WATER RESOURCES WITHIN 30 DAYS AFTER COMPLETION OF WELL ABANDONMENT.

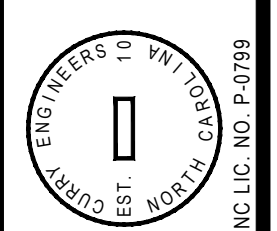
GENERAL ABBREVIATIONS:

IDENTIFIER	DESCRIPTION	IDENTIFIER	DESCRIPTION	IDENTIFIER	DESCRIPTION
&	AND	--G--	GAS	--R--	RADIUS
C	CENTERLINE	G	GALV	RCP	REINFORCED CONCRETE PIPE
Ø	DIAMETER OR ROUND	GB	GALVANIZED	R.O.W.	RIGHT OF WAY
ℙ	PROPERTY LINE	GE	GENERAL ELECTRIC	RPDA	REDUCED PRESSURE DETECTOR ASSEMBLY
ABC	AGGREGATE BASE ASPH ASPHALT	GR	GRADE	RPZ	REDUCED PRESSURE ZONE
AVE	AVENUE	--H--	HDPE	--S--	SOUTH
BLVD	BOULEVARD	HORIZ	HORIZONTAL	SD	STORM DRAIN
BLDG	BUILDING	HOV	HIGH OCCUPANCY VEHICLE	SDMH	STORM DRAIN MANHOLE
BOC	BACK OF CURB	HP	HIGH POINT	SDE	SIGHT DISTANCE EASEMENT
BW	BOTTOM OF WALL	--I--	IAW	SSMH	SANITARY SEWER MANHOLE
CB	CATCH BASIN	I.H.	INTERSTATE HIGHWAY	SS	SANITARY SEWER
CI	CURB INLET	INV	INVERT	STA	STATION
CIP	CAST IRON PIPE	--L--	LEN	STD	STANDARD
CLS	CLASS	LEV	LENGTH	ST.STL	STAINLESS STEEL
CJ	CONTROL JOINT	LF	LOW EMISSION VEHICLE LINEAR FEET	SWPPP	STORMWATER POLLUTION PREVENTION PLAN
CO	CLEANOUT	LP	LOW POINT	--T--	TOP OF BARRIER
CONC	CONCRETE	--M--	MAX	TC/TOC	TOP OF CURB
DI	DROP INLET	MH	MAXIMUM	TH	TEMPORARY DIVERSION
DIA	DIAMETER	MIN	MINIMUM	THP	TEST HEADER
DIP	DUCTILE IRON PIPE	--N--	N	TP	TOP OF PIPE
DOM	DOMESTIC	NCDENR	NORTH CAROLINA DEPARTMENT OF ENVIRONMENT & NATURAL RESOURCES	TYP	TYPICAL
DR	DRIVE	NCDOT	NORTH CAROLINA DEPARTMENT OF TRANSPORTATION	TW	TOP OF WALL
--E--	EXISTING ELEVATION	NTS	NOT TO SCALE	--U--	UNDERGROUND
(XX)	EXISTING ELEVATION	OH	OVERHEAD	--V--	VEGETATED
E	EAST, EASTING	OCB	OFF-SET CATCH BASIN	VERT	VERTICAL
EL	ELEVATION	--P--	PCC	W	WEST
EJ	EXPANSION JOINT	PE	POLYETHYLENE	W/	WITH
EOP	EDGE OF PAVEMENT	PKWY	PARKWAY	W/O	WITHOUT
EX	EXISTING	POC	POINT OF CONNECTION	--Y--	YARD INLET
EVAP	EVAPORATIVE	PVC	POLYVINYL CHLORIDE	**	ALL SYMBOLS & ABBREVIATIONS SHOWN ON THIS SHEET MAY OR MAY NOT BE USED IN THIS DRAWING PACKAGE **
FDC	FIRE DEPARTMENT CONNECTION				
FES	FLARED END SECTION				
FFE	FINISHED FLOOR ELEVATION				
FG	FINISHED GRADE				
FHA	FIRE HYDRANT ASSEMBLY				
FL	FLOW LINE				
FT	FOOT OR FEET				

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POWELL POOL AMENITY
CIVIL NOTES

208 S. Frazier Avenue
 Fryingpan, NC 27508
 T: (919) 852-0848
 F: (919) 852-0280



Curry
 ENGINEERING



DATE: FEBRUARY 12, 2024
 FILE NO: 2024-004
 HORZ SCALE: NONE
 VERT SCALE: 24"=36'
 SHEET SIZE: 24" x 36"

RELEASED FOR CONSTRUCTION

C-0.1

2022 HRW REQUIRED UTILITY NOTES
(Revision 10- April 19, 2022)

The following utility notes should be added to the coversheet of utility plans for projects located in Harnett County:

WATER

A. The Fire Marshal's Office shall approve all hydrant types and locations in new subdivisions. However, Harnett Regional Water (HRW) prefers the contractors to install one of the following fire hydrants:

- Mueller - Super Centurion 250 A-423 model with a 5/4" main valve opening three way (two hose nozzles and one pumper nozzle);
- American Darling - Mark B-64-B model with a 5/4" main valve opening three way (two hose nozzles and one pumper nozzle);
- Waterous - Pacer B-67-250 model with a 5/4" main valve opening three way (two hose nozzles and one pumper nozzle) or approved equal for standardization.

*All fire hydrants listed above must have American National Fire Loss Connection Screw Threads - NST/NH hose threads.

B. Fire hydrants are installed at certain elevations. Any grade change near any fire hydrant, which impedes its operation, shall become the responsibility of the Utility Contractor for correction. Corrections will be monitored by the HRW Utility Construction Inspector and the Harnett County Fire Marshal.

C. The Professional Engineer (PE) shall obtain and provide the NCDEQ "Authorization to Construct" permit to the Utility Contractor before the construction of the water line shall begin. The Utility Contractor must post a copy of the NCDEQ "Authorization to Construct" permit issued by the North Carolina Department of Environmental Quality (NCDEQ) on site prior to the start of construction. The permit must be maintained on site throughout the entire construction process of the proposed water lines that will serve this project.

D. The Utility Contractor shall notify Harnett Regional Water (HRW) and the Professional Engineer (PE) at least two days prior to construction commencing. The Utility Contractor must schedule a pre-construction conference with Mr. Chad Everette, HRW Utility Construction Inspector at least two (2) days before construction will begin and the Utility Contractor must coordinate with HRW for regular inspection visitations and acceptance of the water system(s). Construction work shall be performed only during the normal working hours of HRW which is 8:00 am - 5:00 pm Monday through Friday. Holiday and weekend work is not permitted by HRW.

E. The Professional Engineer (PE) shall provide HRW and the Utility Contractor with a set of NCDEQ approved plans marked "Released for Construction" at least two days prior to construction commencing. The Registered Land Surveyor (RLS) should stake out all lot corners and the grade stakes for the proposed finish grade for each street before the Utility Contractor begins construction of the water line(s). The grade stakes should be set with a consistent offset from the street centerline so as not to interfere with the street grading and utility construction.

F. The Utility Contractor shall provide the HRW Utility Construction Inspector with material submittals and shop drawings for all project materials prior to the construction of any water line extension(s), and associated water services in Harnett County. The materials to be used on the project must meet the established specifications of HRW and be approved by the Engineer of Record prior to construction. All substandard materials or materials not approved for use in Harnett County found on the project site must be removed immediately when notified by the HRW Utility Construction Inspector.

G. The water main(s), fire hydrants, service lines, meter setters and all associated appurtenances shall be constructed in strict accordance with the standard specifications of the Harnett Regional Water (HRW). The Utility Contractor shall be responsible to locate the newly installed water main(s), water service lines and all associated meter setters and meter boxes for other utility companies and their contractors until the new water main(s) have been approved by the North Carolina Department of Environmental Quality, Division of Environmental Health, Public Water Supply Section (NCDEQ, DEH, PWS) and accepted by HRW.

H. Prior to acceptance, all services will be inspected to ensure that they are installed at the proper depth. All meter boxes must be flush with the ground level at finish grade and the meter setters must be a minimum of 8" below the meter box lid. Meter setters shall be centered in the meter box and supported by brick, block or stone.

I. The Utility Contractor shall provide the Professional Engineer (PE) and HRW Utility Construction Inspector with a set of red line drawings identifying the complete water system installed for each project. The red line drawings should identify the materials, pipe sizes and approximate depths of the water lines as well as the gate valves, fire hydrants, meter setters, blow off assemblies and all associated appurtenances for all water line(s) constructed in Harnett County. The red line drawings should clearly identify any deviations from the NCDEQ approved plans. Professional Engineer (PE) in writing and properly documented in the red line field drawings.

J. Potable water mains crossing other utilities and non-potable water lines (sanitary sewer, storm sewer, RCP, etc.) shall be laid to provide a minimum vertical distance of twenty-four (24") inches between the potable water main and all other utilities. NCDOT requires the new water mains to be installed under the storm water lines. The potable water main shall be installed with twenty-four (24") inches of vertical separation and with ductile iron pipe when designed to be placed under a non-potable water line such as sanitary sewer or storm sewer lines. If these separations cannot be maintained then the water main shall be installed with ductile iron pipe. Both the potable water main and the non-potable water line must be cast iron or ductile iron pipe (DIP) if the state minimum separations cannot be maintained. The ductile iron pipe must be laid so the mechanical joints are at least (10') feet from the point where the potable water main crosses the non-potable water line.

K. Potable water mains installed parallel to non-potable water lines (sanitary sewer, storm sewer, RCP, etc.) shall be laid to provide a minimum horizontal distance of ten (10') feet between the potable water main and sanitary sewer mains, sewer laterals and services. The horizontal separation between the potable water main and any other utility or storm sewer shall not be less than five (5') feet. The potable water main must be ductile iron pipe if this horizontal separation of ten (10') feet cannot be maintained. The ductile iron pipe shall extend at least ten (10') feet beyond the point where the minimum required horizontal separation of ten (10') feet can be re-established.

L. Meter setters shall be installed in pairs on every other lot line where possible to leave adequate space for other utilities to be installed at a later time. The meter setters shall be installed at least one (1') foot inside the right-of-way and at least three (3') to five (5') feet from the property line between the lots.

M. HRW requires that meter boxes for 3/4" services shall be 12" wide x 17" long ABS plastic boxes at least 18" in height with cast iron lids/covers. Meter boxes for 1" services shall be 17" wide x 21" long ABS plastic boxes at least 18" in height with plastic lids and cast iron flip covers in the center of the lids. Meter boxes for 2" services shall be 20" wide x 22" long ABS plastic boxes at least 20" in height with plastic lids and cast iron flip covers in the center of the lids.

N. Master meters must be installed in concrete vaults sized for the meter assembly and associated appurtenances so as to provide at least eighteen (18") inches of clearance between the bottom of

the concrete vault and the bottom of the meter setter. The master meter must be provided test ports if the meter is not equipped with test ports from the manufacturer in accordance with the HRW established standard specifications and details. Ductile iron pipe must be used for the master meter vault piping and valve vault piping. The Utility Contractor must provide shop drawings for the meter vaults to HRW prior to ordering the concrete vaults.

O. The Utility Contractor will install polyethylene SDR-9 water service lines that cross under the pavement inside a schedule 40 PVC conduit to allow for removal and replacement in the future. Two (2) independent 3/4" water service lines may be installed inside one (1) - two (2") inch schedule 40 PVC conduit or two (2) independent 1" water service lines may be installed inside one (1) - three (3") inch schedule 40 PVC conduit, but each water service shall be tapped directly to the water main. Split services are not allowed by HRW. If sidewalks are proposed, the conduit must extend past the sidewalk.

P. The water main(s), fire hydrants, gate valves, service lines, meter setters and associated appurtenances must be rated for 200 psi and hydrostatically pressure tested to 200 psi. The hydrostatic pressure test(s) must be witnessed by the HRW Utility Construction Inspector. The Utility Contractor must notify HRW when they are ready to begin filling in lines and coordinate with Harnett Regional Water to witness all pressure testing.

Q. The Utility Contractor shall conduct a pneumatic pressure test using compressed air or other inert gas on the stainless steel tapping sleeve(s) prior to making the tap on the existing water main. This pneumatic pressure test must be witnessed by the HRW Utility Construction Inspector. The Utility Contractor shall use Romag brand stainless steel tapping sleeve(s) or approved equal for all taps made in Harnett County. All new water line extensions must begin with a resilient wedge type gate valve sized equal to the diameter of the new water line extension in order to provide a means of isolation between Harnett Regional Water's existing water mains and the new water line extensions under construction.

R. All water mains will be constructed with SDR-21 PVC Pipe or Class 50 Ductile Iron Pipe rated for at least 200 psi or greater. All pipe must be protected during loading, transport, unloading, staging, and installation. PVC pipe must be protected from extended exposure to sunlight prior to installation.

S. All water mains will be flushed and disinfected in strict accordance with the standard specifications of the Harnett Regional Water. All water samples collected for bacteria testing will be collected by the HRW Utility Construction Inspector and tested in the HRW Laboratory.

T. All fittings larger than two (2") inches diameter shall be ductile iron. HRW requires that mechanical joints be assembled with grip rings as "Megalog" fittings are not approved by Harnett Regional Water for pipe sizes smaller than twelve inches (12") diameter. PVC pipe used for water mains shall be connected by slip joint or mechanical joint with grip rings. Glued pipe joints are not allowed on PVC pipe used for water mains in Harnett County.

U. HRW requires that the Utility Contractor install tracer wire in the trench with all water lines. The tracer wire shall be 12 ga. insulated, solid copper conductor and it shall be terminated at the top of the valve boxes or manholes. No spliced wire connections shall be made underground on tracer wire installed in Harnett County. The tracer wire may be secured with duct tape to the top of the pipe before backfilling.

V. The Utility Contractor will provide Professional Engineer (PE) and the HRW Utility Construction Inspector with a set of red line field drawings to identify the installed locations of the water line(s) and all associated services. All change orders must be pre-approved by HRW and the Professional Engineer (PE) in writing and properly documented in the red line field drawings. The Utility Contractor shall spot dig to expose each utility pipe or line which may conflict with construction of proposed water line extensions well in advance to verify locations of the existing utilities. The Utility Contractor shall provide both horizontal and vertical clearances to the Professional Engineer (PE) to allow the PE to adjust the water line design in order to avoid conflicts with existing underground utilities. The Utility Contractor shall coordinate with the utility owner and be responsible for temporary relocation and/or securing existing utility poles, pipes, wires, cables, signs and/or utilities including services in accordance with the utility owner requirements during water line installation, grading and street construction.

X. Prior to the commencement of any work within established utility easements or NCDOT right-of-ways the Utility Contractor is required to have a signed NCDOT encroachment agreement posted on site and notify all concerned utility companies in accordance with G.S. 87-102. The Utility Contractor must call the NC One Call Center at 811 or (800) 632-4949 to verify the location of existing utilities prior to the beginning of construction. Existing utilities shown in these plans are taken from maps furnished by various utility companies and have not been physically located or verified by the P.E. (i.e. TELEPHONE, CABLE, WATER, SEWER, ELECTRICAL POWER, FIBER OPTIC,

NATURAL GAS, ETC.). The Utility Contractor will be responsible to repair any and all damages to the satisfaction of the related utility company.

Y. The Utility Contractor shall provide HRW with at least one (1) fire hydrant wrench and one (1) break-away flange kit for every subdivision with fire hydrants developed in Harnett County. These items must be provided to HRW before the final inspection will be scheduled by the HRW Utility Construction Inspector. In addition, the Utility Contractor shall install a 4" x 4" concrete valve marker at the edge of the right-of-way to identify the location of each gate valve installed in the new water system with the exception of the fire hydrant isolation valves. The contractor shall measure the distance from the center of the concrete marker to the center of the valve box. This distance (in linear feet) shall be stamped on the brass plate located on the top of the concrete valve marker. In lieu of installing the concrete valve markers, the Utility Contractor may provide at least two measurements from two independent permanent above ground structures to the Professional Engineer (PE) in the red line drawings to identify the valve locations. The Professional Engineer (PE) must include these measurements in the As-Built Record Drawings submitted to HRW.

Z. The Utility Contractor will be responsible for any and all repairs due to leakage damage from poor workmanship during the one (1) year warranty period once the water system improvements have been accepted by Harnett Regional Water. Harnett Regional Water will provide maintenance and repairs when requested and bill the Developer and/or Utility Contractor if necessary due to lack of response within 48 hours of notification of warranty work. The Utility Contractor will be responsible for any and all repairs due to damages resulting from failure to locate the new water lines and associated appurtenances for other utilities and their contractors until the water lines have been approved by NCDEQ and accepted by HRW. The final inspection of water system improvements cannot be scheduled with HRW until the streets have been paved; the rights-of-way and utility easements have been seeded and stabilized with an adequate stand of grass in place to prevent erosion issues on site.

AA. The Engineer of Record is responsible to ensure that construction is, at all times, in compliance with accepted sanitary engineering practices and approved plans and specifications. No field changes to the approved plans are allowed without prior written approval by HRW. A copy of each engineer's field report is to be submitted to HRW as each such inspection is made on system improvements or testing is performed by the contractor. Water and sewer infrastructure must pass all tests required by HRW specifications and those of all applicable regulatory agencies. These tests include, but are not limited to: air test, vacuum test, mandrel test, visual test, pressure test, bacteriological test, etc. A HRW Inspector must be present during testing and all test results shall be submitted to HRW. All tests must be satisfied before the final inspection will be scheduled with the HRW Inspector. The Engineer of Record must request in writing to schedule the final inspection once all construction is complete. The Developer's Engineer of Record and the HRW Utility Construction Inspector shall prepare a written punch list of any defects or deficiencies noted during the final inspection, should any exist. Upon completion of the punch list, the Developer's Engineer of Record will schedule another inspection. In the event the number of

POWELL POOL AMENITY
HRW UTILITY NOTES

208 S. Eagle Avenue
Fayetteville, NC 27808
T: (919) 862-0848
F: (919) 862-0843

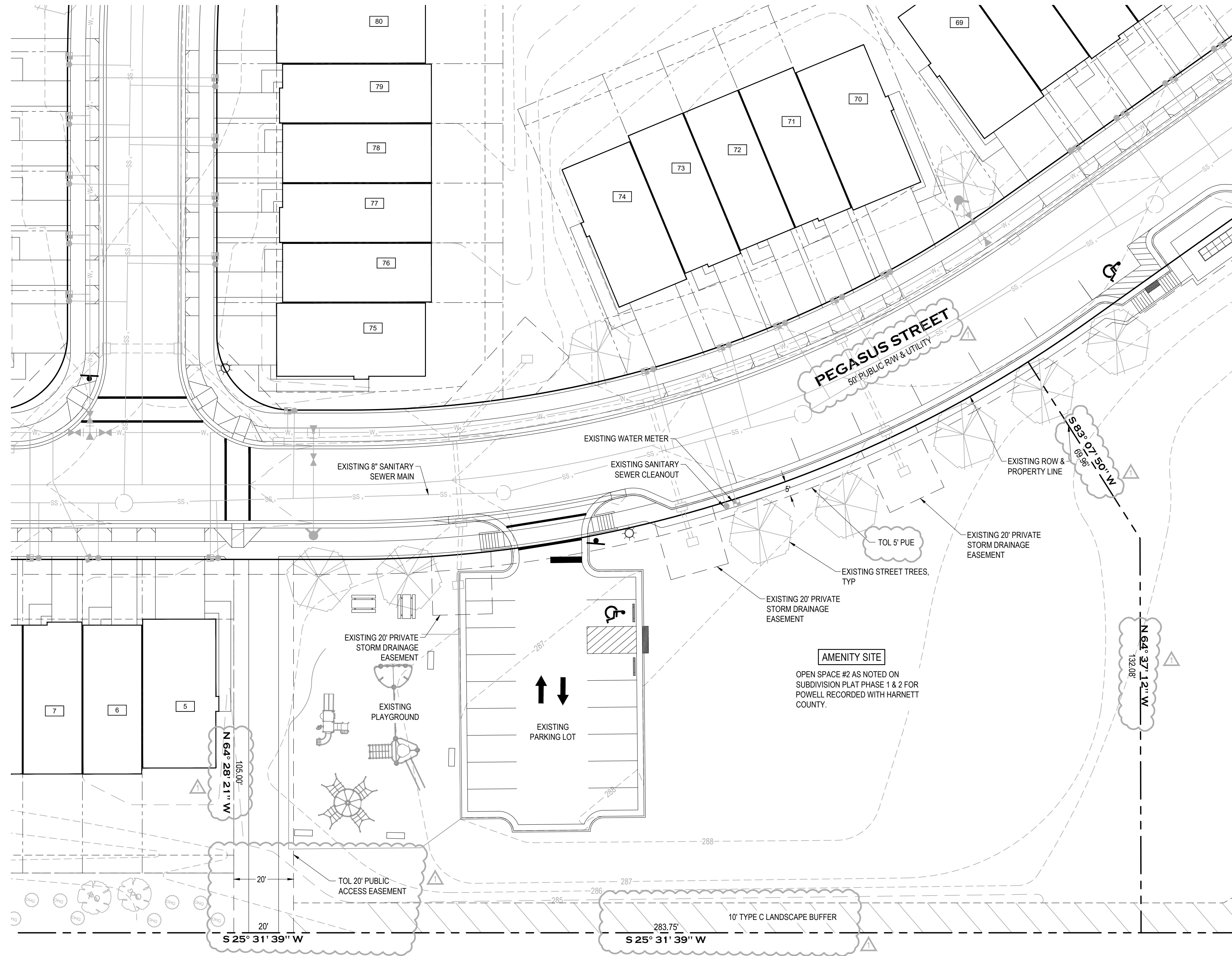
Curry
ENGINEERING

SEAL
DONALD L. CURRY
026970
6/7/2024

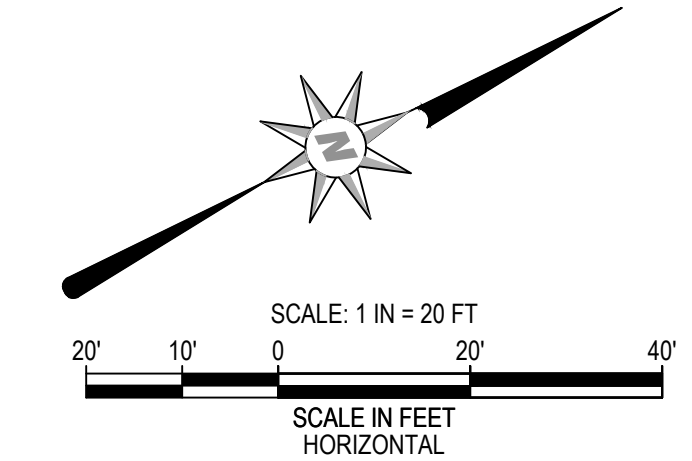
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1	04/19/2022	TOWN OF LILLINGTON COMMENTS #1
2	05/16/2022	TOWN OF LILLINGTON COMMENTS #2
3	06/06/2024	HARNETT REGIONAL WATER COMMENTS #1
DATE:	FEBRUARY 12, 2024	HRW SCALE: N.T.S.
FILE NO:	2024-004	ORIG. SHEET SIZE: 24" x 36"

Z:\PROJECTS\FOLDER_ZEBULON\2024\2024-004 GREENHAWK AMENITY - LILLINGTON\PLANS\SITE PLANS\PLANSHEET FILES\C1.0 EXISTING CONDITIONS.DWG
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- GENERAL NOTES:
1. THIS PLAN IS NOT INTENDED FOR PLATTING OR RECORDING.
 2. THE INTENT OF THIS PLAN IS TO ILLUSTRATE THE EXISTING FEATURES, STRUCTURES, AND TOPOGRAPHY OF THE PROPERTY.
 3. INFORMATION SHOWN BASED ON DESIGN FROM THE POWELL SUBDIVISION PLANS.

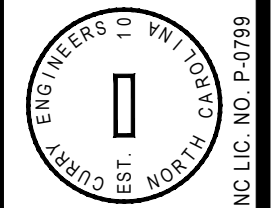


SEAL
 DONALD L. CURRY
 ENGINEER
 026970
 6/7/2024

RELEASED FOR CONSTRUCTION

POWELL POOL AMENITY
EXISTING CONDITIONS

208 S. Fidelity Avenue
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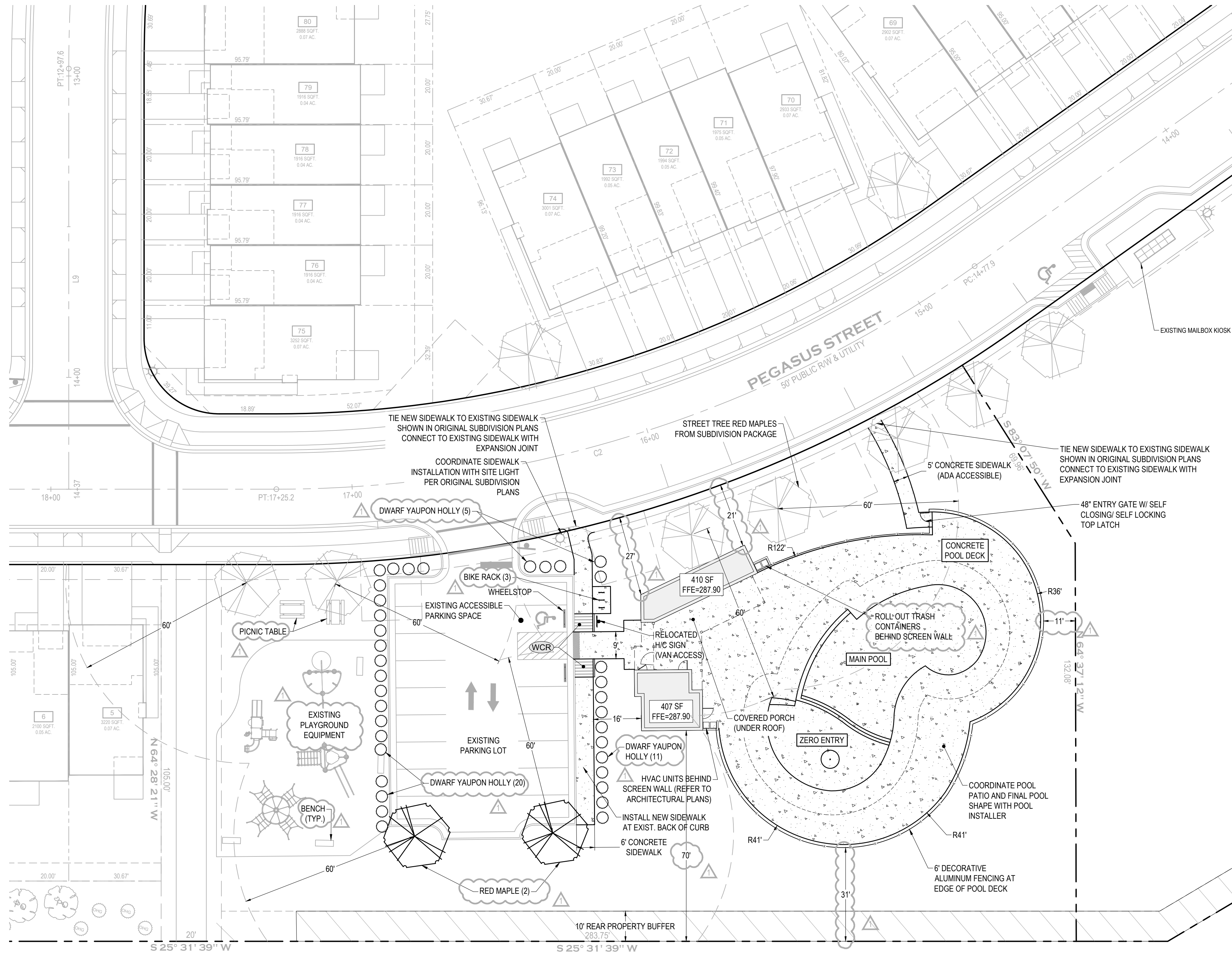


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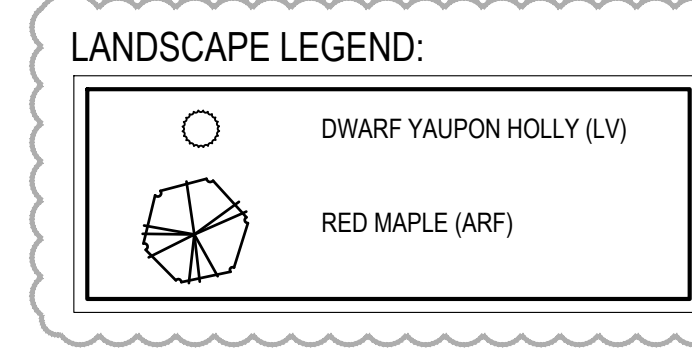
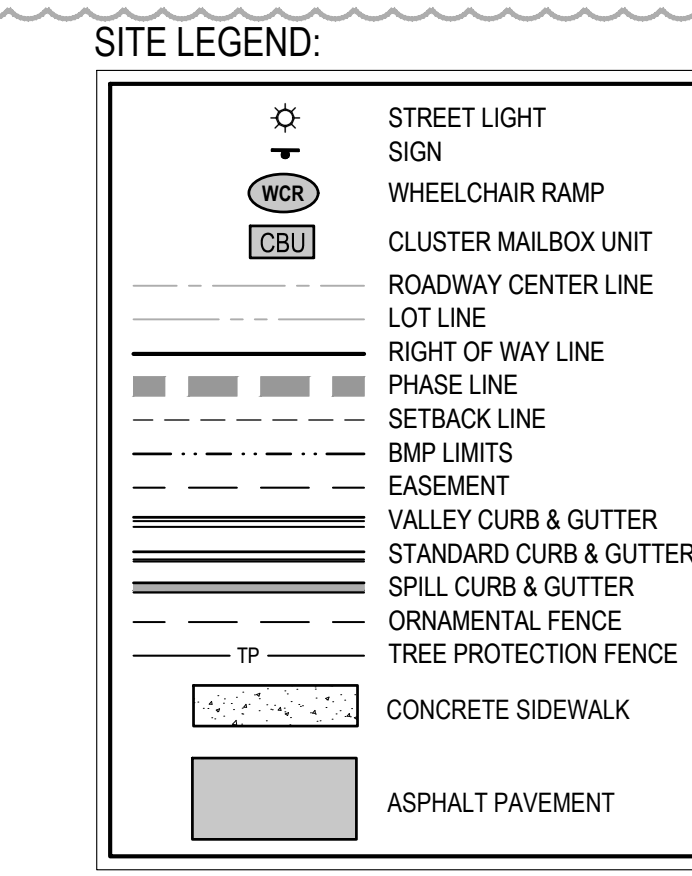
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REVISIONS	DATE	DESCRIPTION
1	04/08/2024	TOWN OF LILLINGTON COMMENTS #1
2	05/16/2024	TOWN OF LILLINGTON COMMENTS #2
3	06/06/2024	THORNTON REGIONAL WATER COMMENTS #1

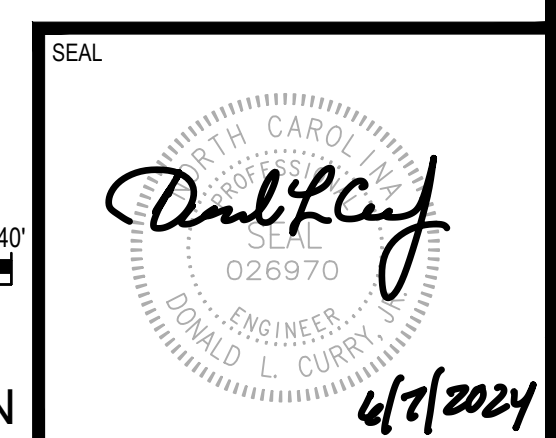
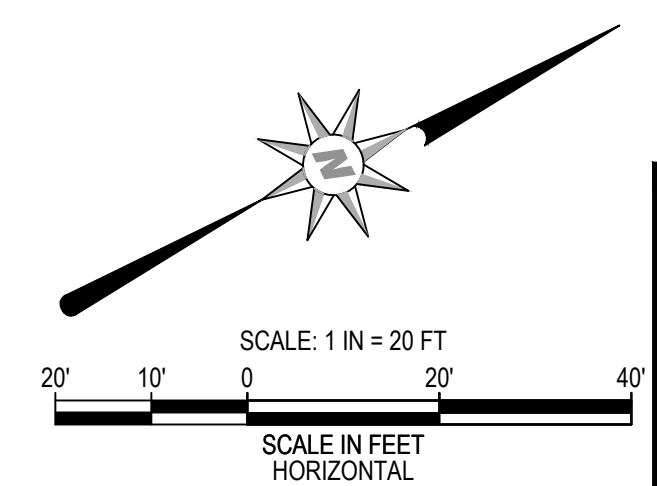
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 VERT SCALE: 1" = 4'



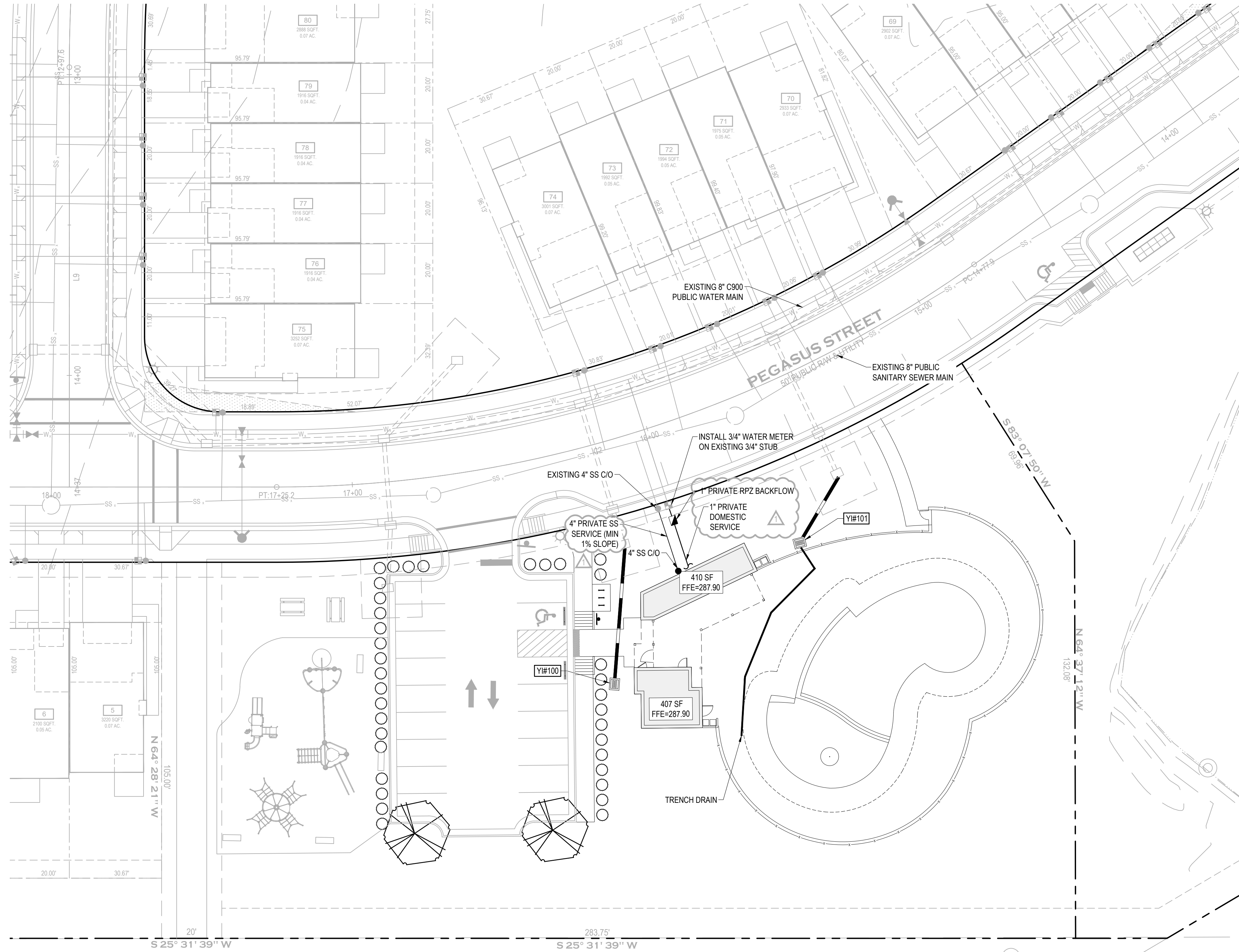
- SITE NOTES:**
- ALL SIGNS SHOULD USE PRISMATIC SHEETING THAT MEETS MINIMUM RETROREFLECTIVITY STANDARDS FOUND IN THE LATEST EDITION OF THE MUTCD.
 - ALL CONSTRUCTION MUST BE PERFORMED IN ACCORDANCE WITH TOWN OF LILLINGTON, NCDOT, AND NCEQ STANDARD SPECIFICATIONS AND DETAILS.
 - ALL ASPHALT EDGES SHALL BE SAW CUT TO PROVIDE A GOOD LONGITUDINAL JOINT. MILL 1.5 FEET AT 1.5 INCHES DEEP MINIMUM TO PROVIDE A LONGITUDINAL LAP JOINT FOR FINAL SURFACE LAYER. NO MILLING SHALL BE LEFT FOR A PERIOD OF TIME GREATER THAN 48 HOURS BEFORE A STREET IS TO BE PAVED/RESURFACED.
 - THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING AND PAYING FOR ANY PERMITS AND/OR CONNECTION FEES REQUIRED TO CARRY OUT THE WORK.
 - CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL GRADES PRIOR TO THE START OF CONSTRUCTION.
 - DUMPSTER PAD GATE ENCLOSURE ELEVATION DETAILS DEPICTED ON SHEET D-01.
 - EXISTING UTILITY LOCATIONS SHOWN ARE APPROXIMATE AND SHALL BE FIELD VERIFIED.
 - ALL DIMENSIONS ARE TO EDGE OF PAVEMENT, FACE OF CURB, FACE OF BUILDING, OR PROPERTY LINE UNLESS SHOWN OTHERWISE.
 - TACTILE WARNING MATS ARE TO BE INSTALLED ON ALL WHEELCHAIR RAMPS.
 - ALL PARKING STALL MARKINGS AND LANE ARROWS WITHIN THE PARKING AREAS SHALL BE WHITE.
 - MAX. SIDEWALK CROSS-SLOPE IS 2%.
 - POOL FACILITY TO UTILIZE ROLL-OUT CURB FOR TRASH SERVICE.
 - POOL AMMENITY, PARKING LOT, & ASSOCIATED FEATURES TO BE MAINTAINED BY THE HOA.



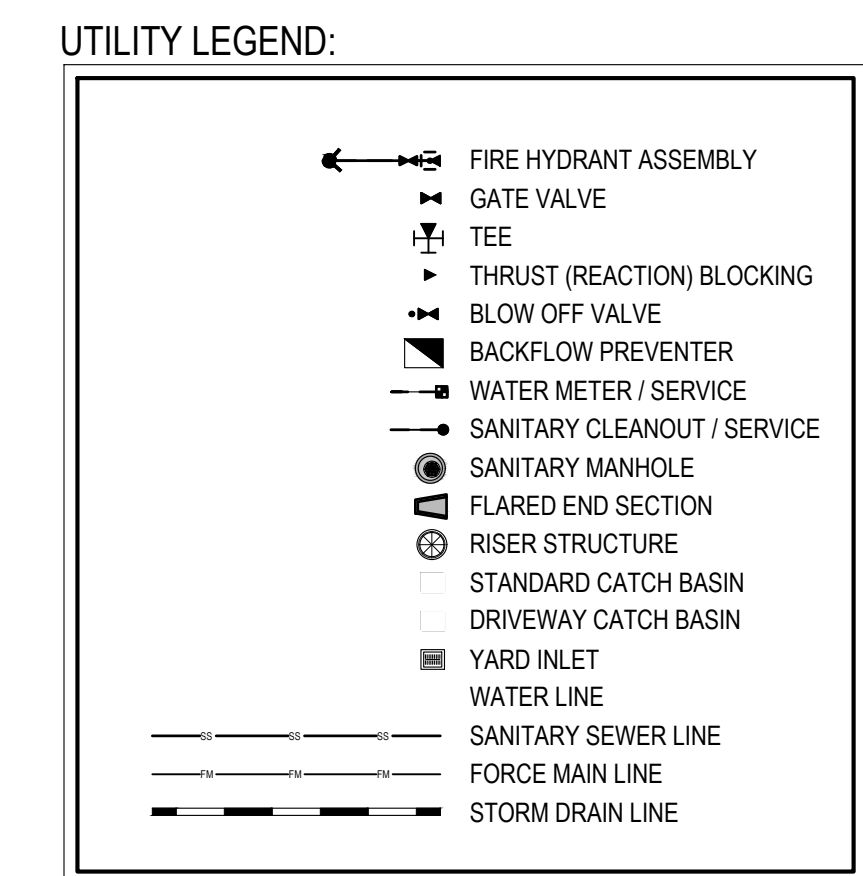
- POOL NOTES:**
- IMPORTANT NOTE: DRAINAGE LINES AND INLETS ON THE INTERIOR OF THE POOL DECK HAVE NOT BEEN SHOWN ON THIS PLAN AND SHALL BE DESIGNED BY OTHERS AS PART OF THE OVERALL POOL DESIGN. REFER TO POOL MECHANICAL DRAWINGS FOR THE LOCATION OF POOL DECK DRAINS AND DETAILS.
- SPOT GRADES ON THE INTERIOR OF THE POOL DECK ARE FOR REFERENCE ONLY AND MAY BE ADJUSTED AT THE DISCRETION OF THE POOL DESIGNER.
- POOL DRAINAGE SHALL BE PUMPED TO THE SUMP PUMP LOCATION INSIDE THE BUILDING AND THEN GRAVITY DRAINED TO THE EXISTING SANITARY SEWER SYSTEM AT NO MORE THAN 50 GPM.



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- GENERAL NOTES:**
- ALL UTILITY WORK WITHIN THE PUBLIC RIGHT OF WAY OR PUBLIC EASEMENTS SHALL BE TO TOWN OF LILLINGTON & HARNETT REGIONAL WATER STANDARDS AND SPECIFICATIONS.
 - ALL WATER MAINS, SANITARY SEWER & RECLAIMED WATER MAINS SHALL BE PUBLIC UTILITIES.
 - CONTRACTOR SHALL CONTACT TOWN OF LILLINGTON PRIOR TO MAKING CONNECTION TO ANY TOWN OWNED INFRASTRUCTURE.
 - CONTRACTOR CANNOT TAP WATER MAINS WITHOUT AN APPROVED WATER EXTENSION PERMIT ISSUED BY HARNETT REGIONAL WATER (HRW) & NC PUBLIC WATER SUPPLY.
 - WATER MAINS SHALL BE CLASS 350 DIP I.A.W. AWWA C-151 WITH PUSH ON JOINTS I.A.W. AWWA C-111. DIP SHALL BE CEMENT-MORTAR LINED AND SEALED WITH BITUMINOUS MATERIAL I.A.W. AWWA C-104. ALL BURIED PIPE SHALL HAVE A BITUMINOUS EXTERIOR COATING I.A.W. AWWA C-151. MINIMUM BURIAL DEPTH FOR WATER MAIN IS 36 INCHES BELOW FINISHED SUBGRADE. WATER MAINS SHALL BE INSTALLED WITH TYPE 1 LAYING CONDITION PER HARNETT REGIONAL WATER SPECIFICATIONS. ALL FITTINGS SHALL BE MECHANICAL JOINTS I.A.W. AWWA C-111.
 - ALL WATER SERVICES TO LOTS SHALL BE 3/4\" SDR-9 POLYETHYLENE WITH NO JOINTS OR COUPLINGS IN THE RIGHT OF WAY. SERVICE FITTINGS SHALL BE FLARED COPPER TYPE BRASS OR COMPRESSION TYPE. MINIMUM BURIAL DEPTH FOR WATER SERVICES IS 24 INCHES.
 - SANITARY SEWER MAINS SHALL BE SDR-35 PVC I.A.W. ASTM D-3034-98 TYPE PSM OR CLASS 250 DIP PUSH ON JOINTS I.A.W. AWWA C-150 AND C-151 OR C900 PVC I.A.W. ASTM D3139 WHEN NOTED.
 - ALL SANITARY SEWER SERVICES TO LOTS SHALL BE 4\" SCH-40 PVC UNLESS DEEP SERVICES DICTATE OTHERWISE. SEE DETAILS.
 - WHEN A NON-GRAVITY UTILITY MEETS A GRAVITY UTILITY, THE NON-GRAVITY UTILITY MUST BE ADJUSTED TO MEET SEPARATION REQUIREMENTS.
 - ALL NON-METALLIC PIPING MUST BE INSTALLED WITH A TRACER WIRE AND WARNING TAPE OR ELECTRIC MARKER SYSTEM BALLS PER TOWN OF LILLINGTON OR HARNETT REGIONAL WATER STANDARDS.
 - PRIVATE UTILITIES (TELEPHONE, NATURAL GAS, CABLE TV) ARE NOT SHOWN ON THIS PLAN. THE CONTRACTOR SHALL COORDINATE THE INSTALLATION OF THOSE UTILITIES WHEN INSTALLING PUBLIC UTILITIES.
 - ELECTRICAL TRANSFORMERS SHALL NOT BE LOCATED WITHIN REQUIRED LANDSCAPED BUFFERS.
 - CONTACT FOR TOWN OF LILLINGTON ELECTRIC UTILITY IS RODNEY SMITH @ 919-249-3342.
 - ANY & ALL MAILBOX KIOSKS SHOWN ON THE PLAN ARE REQUIRED TO BE INSTALLED PRIOR TO THE FIRST HOUSE OBTAINING A CERTIFICATE OF OCCUPANCY. IF A PROJECT IS PHASED, THE MAIL KIOSKS LOCATED IN THAT PHASE MUST BE INSTALLED PRIOR TO RECEIVING A CO.
 - REFER TO C0.1 FOR APPLICABLE TOWN OF LILLINGTON NOTES.
 - ALL LOTS SHALL RECEIVE A SEPARATE WATER & SEWER SERVICE WITH ASSOCIATED METER & CLEANOUT.
 - NOTE THAT PROPOSED PUBLIC SANITARY SEWER UTILITY IS TO BE OWNED & MAINTAINED BY TOWN OF LILLINGTON. PROPOSED WATER UTILITY IS TO BE OWNED & MAINTAINED BY HARNETT REGIONAL WATER.
 - SEWER SERVICES ON MAINS GREATER THAN 12\" SHALL MATCH SEWER MAIN MATERIAL.
 - DUTILE IRON PIPE SHALL HAVE INTERIOR COATING PER TOWN OF LILLINGTON SEWER SPECIFICATIONS, ASTM E 96-93.
 - THE FOLLOWING BACKFLOW PREVENTION MODEL NUMBERS SHALL BE PROVIDED:
 - 1\" DOMESTIC BACKFLOW = WILKINS MODEL 975XL
 - STORMWATER CONNECTION AND SANITARY SEWER CLEANOUT MUST BE INSPECTED BY THE TOWN OF LILLINGTON ENGINEERING DEPARTMENT PRIOR TO BACKFILL AND C/O.

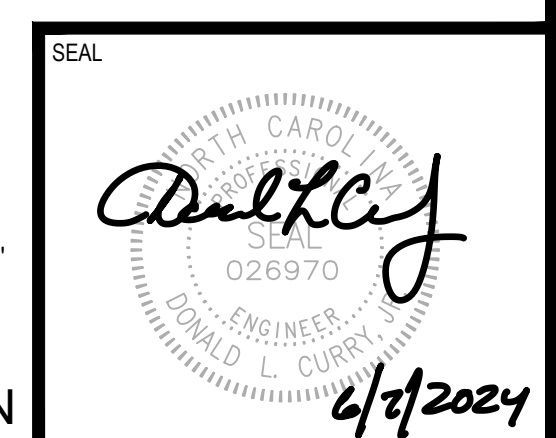
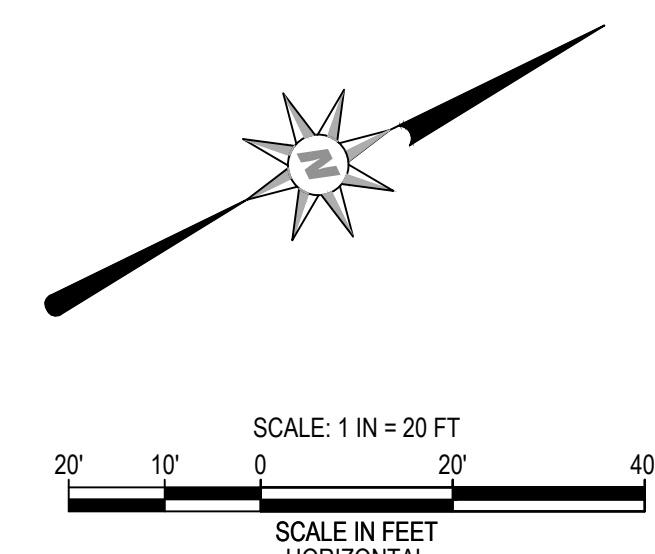


POOL NOTES:

IMPORTANT NOTE: DRAINAGE LINES AND INLETS ON THE INTERIOR OF THE POOL DECK HAVE NOT BEEN SHOWN ON THIS PLAN AND SHALL BE DESIGNED BY OTHERS AS PART OF THE OVERALL POOL DESIGN. REFER TO POOL MECHANICAL DRAWINGS FOR THE LOCATION OF POOL DECK DRAINS AND DETAILS.

SPOT GRADES ON THE INTERIOR OF THE POOL DECK ARE FOR REFERENCE ONLY AND MAY BE ADJUSTED AT THE DISCRETION OF THE POOL DESIGNER.

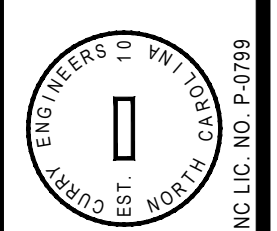
POOL DRAINAGE/BACKWASH IS NOT ALLOWED TO BE DISCHARGED TO SANITARY SEWER.



RELEASED FOR CONSTRUCTION

**POWELL POOL AMENITY
 UTILITY PLAN**

208 S. Pegasus Avenue
 Fayetteville, NC 27808
 T: (919) 802-0848
 F: (919) 802-0843



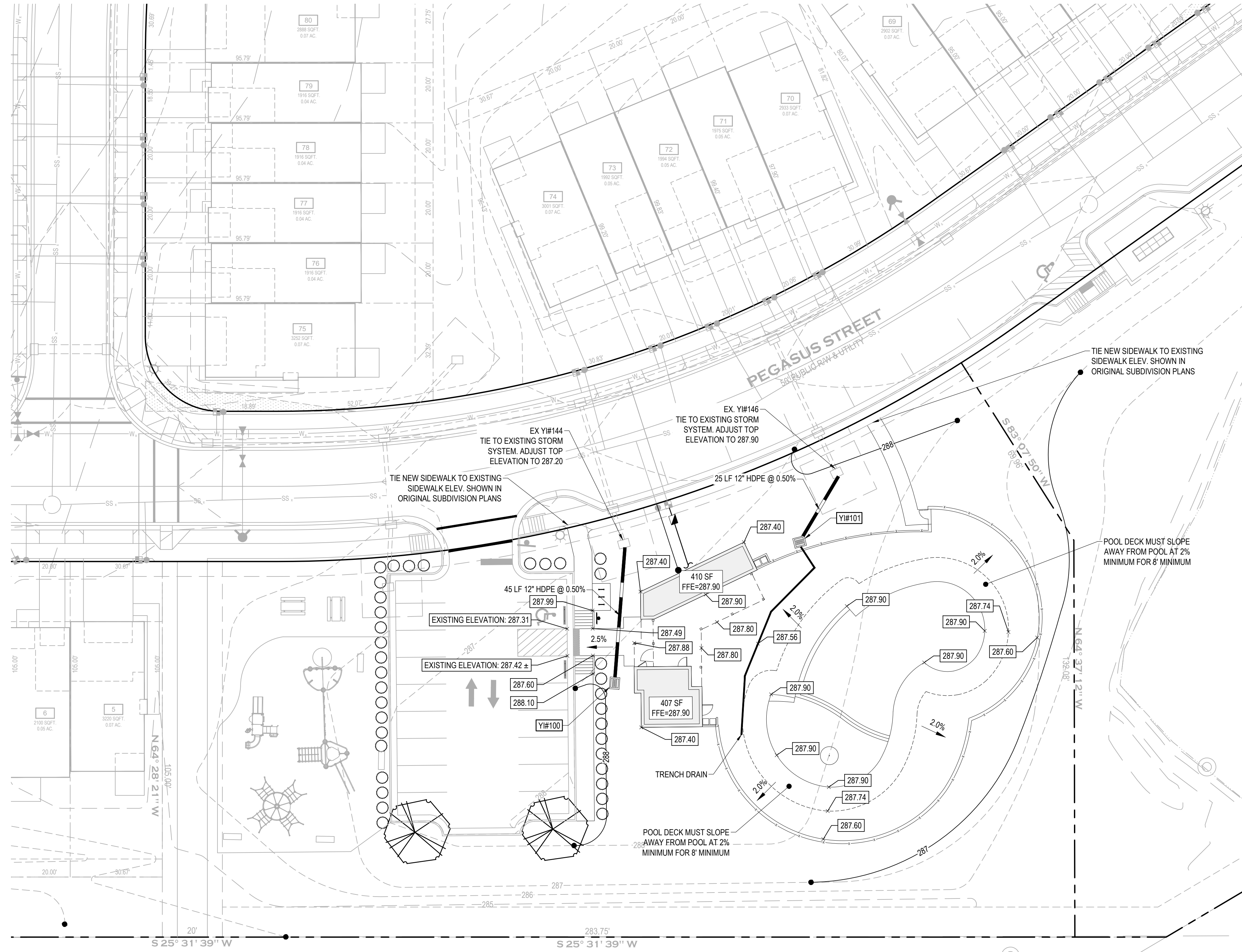
**Curry
 ENGINEERING**

C-3.0

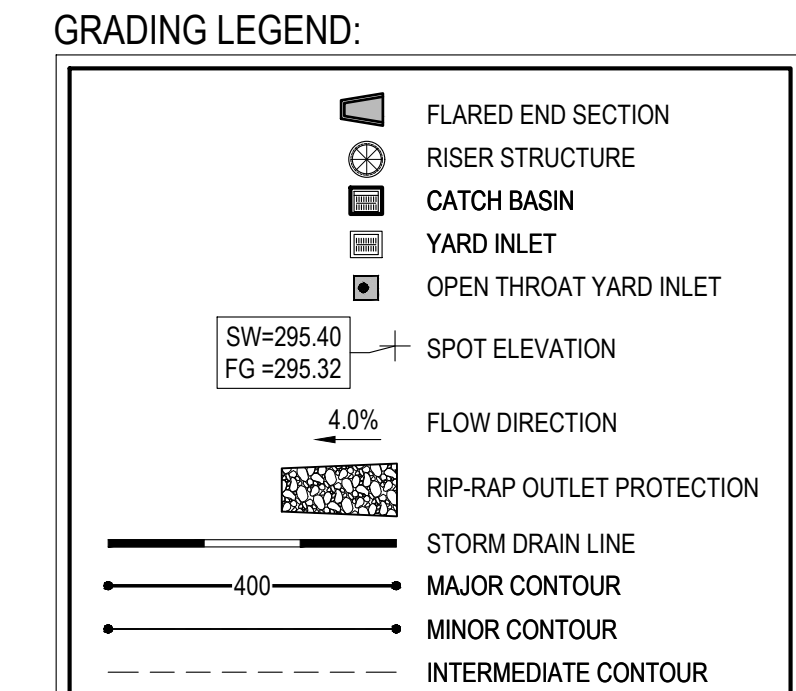
REVISIONS:
 1 04/08/2024 TOWN OF LILLINGTON COMMENTS #1
 2 05/16/2024 TOWN OF LILLINGTON COMMENTS #2
 3 06/06/2024 HARNETT REGIONAL WATER COMMENTS #1

DATE: FEBRUARY 12, 2024
 FILE NO: 2024-004
 HORZ SCALE: 1"=20'
 ORIG SHEET SIZE: 24" x 36"

Z:\PROJECTS\FOLDER_ZEBULON\2024\2024-004 GREENHAWK AMENITY - LILLINGTON PLANS\SITE PLANS\DRG\3.0 GRADING & EROSION CONTROL PLAN.DWG
 PLOTTED: 6/7/2024 2:57 PM



- GENERAL NOTES:**
- BEFORE YOU DIG STOP CALL THE NC ONE-CALL CENTER AT 1-800-632-4949. IT'S THE LAW. EXISTING UTILITIES ARE SHOWN FROM THE BEST AVAILABLE INFORMATION AND ARE APPROXIMATE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THESE AND OTHER UTILITIES BEFORE STARTING CONSTRUCTION. NOTIFY UTILITY LOCATING COMPANY (ONE CALL @ 1-800-632-4949) OR INDIVIDUAL UTILITY OWNERS FOR UNDERGROUND LOCATIONS AT LEAST 48 HOURS IN ADVANCE.
 - ALL UTILITY WORK WITHIN THE PUBLIC RIGHT OF WAY OR PUBLIC EASEMENTS SHALL BE TO TOWN OF LILLINGTON STANDARDS AND SPECIFICATIONS.
 - ALL STORM DRAINAGE WITHIN THE RIGHT OF WAY SHALL BE PUBLIC. ALL STORM DRAINAGE OUTSIDE THE RIGHT OF WAY SHALL BE PRIVATE.
 - STORM DRAINAGE PIPING SHALL BE CLASS III RCP UNLESS OTHERWISE NOTED. STORM DRAINAGE WITH LESS THAN 2' OF COVER MEASURED FROM SUBGRADE SHALL BE CLASS IV RCP.
 - PRIVATE UTILITIES (POWER, TELEPHONE, NATURAL GAS, CABLE TV) ARE NOT SHOWN ON THIS PLAN. THE CONTRACTOR SHALL COORDINATE THE INSTALLATION OF THOSE UTILITIES WHEN INSTALLING STORM DRAINAGE TO AVOID CONFLICTS.
 - RIM ELEVATION FOR YARD INLETS (YI) REFERS TO THE CENTER OF THE TOP OF GRATE. RIM ELEVATION OF MANHOLES (SDMH) REFERS TO THE CENTER OF THE TOP OF MANHOLE COVER. RIM ELEVATION OF CATCH BASINS (CB) REFERS TO THE CENTER, EDGE OF PAVEMENT GRATE ELEVATION. RIM OF CURB INLETS (CI) REFERS TO THE TOP OF SLAB, EDGE OF PAVEMENT ELEVATION.
 - CUT/FILL SLOPES SHALL BE GRADED AT A MAXIMUM OF 3H:1V UNLESS OTHERWISE INDICATED. SLOPES INDICATED TO BE STEEPER THAN 3:1 BUT EQUAL TO OR LESS THAN 2:1 SHALL BE PROVIDED WITH A PERMANENT TURF REINFORCEMENT MAT (ACF ENVIRONMENTAL ECP-2 10 OZ OR APPROVED EQUAL).
 - NO GRADING EQUIPMENT SHALL BE PERMITTED ON-SITE UNTIL A LAND DISTURBANCE PERMIT HAS BEEN ISSUED BY NCDENR.
 - THERE SHALL BE NO GRADING WITHIN THE WETLANDS OR NEUSE RIVER STREAM BUFFERS OTHER THAN AS SHOWN ON PLANS.
 - ALL RIP-RAP IS TO BE INSTALLED WITH NON-WOVEN FILTER FABRIC BENEATH (MIRAFI 140N OR APPROVED EQUAL).
 - WHERE PROPOSED EDGE OF PAVEMENT CONNECTS TO EXISTING, CONTRACTOR SHALL MATCH EXISTING ELEVATION AND CREATE A SMOOTH TRANSITION.
 - REFER TO DESIGN TABLE SHEET FOR STORM DRAINAGE INFORMATION.
 - TRANSITION VALLEY CURB TO STANDARD CURB AT CATCH BASIN LOCATIONS. WHERE CATCH BASIN LOCATION MAY CONFLICT WITH DRIVEWAYS THAT PREVENT THIS TRANSITION, VALLEY GRATES MAY BE UTILIZED. COORDINATE WITH ENGINEER AT SUCH LOCATIONS.
 - ALL PROPOSED STORM DRAINAGE IS PRIVATE. CONNECTIONS ARE TO PUBLIC DRAINAGE WHICH DRAINS TO THE EXISTING SCM.



POOL NOTES:

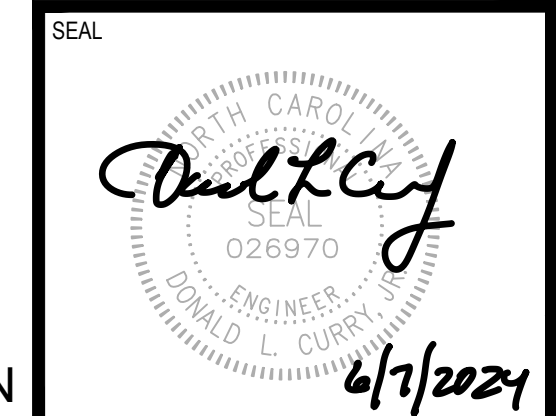
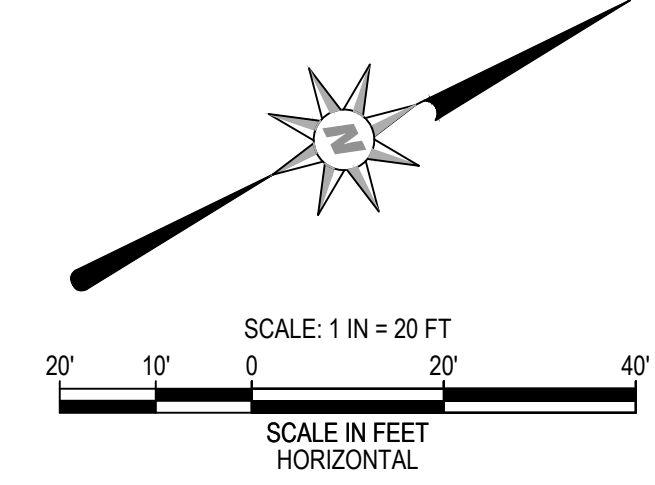
IMPORTANT NOTE: DRAINAGE LINES AND INLETS ON THE INTERIOR OF THE POOL DECK HAVE NOT BEEN SHOWN ON THIS PLAN AND SHALL BE DESIGNED BY OTHERS AS PART OF THE OVERALL POOL DESIGN. REFER TO POOL MECHANICAL DRAWINGS FOR THE LOCATION OF POOL DECK DRAINS AND DETAILS.

SPOT GRADES ON THE INTERIOR OF THE POOL DECK ARE FOR REFERENCE ONLY AND MAY BE ADJUSTED AT THE DISCRETION OF THE POOL DESIGNER.

POOL DRAINAGE SHALL BE PUMPED TO THE SUMP PUMP LOCATION INSIDE THE BUILDING AND THEN GRAVITY DRAINED TO THE EXISTING SANITARY SEWER SYSTEM AT NO MORE THAN 50 GPM.

STORM DRAINAGE TABLE

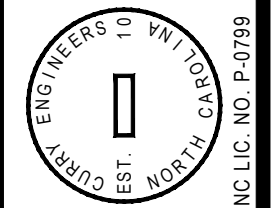
INLET#	TYPE	ROADWAY	RIM ELEV (EOP)	INV IN (SLOPE) (FROM-SIZE)	INV OUT (SLOPE) (TO-SIZE)
100	YI	NONE	287.25		281.56 (0.50%) (-12")
101	YI	NONE	287.25		282.52 (0.50%) (-12")



RELEASED FOR CONSTRUCTION

**POWELL POOL AMENITY
 GRADING & DRAINAGE PLAN**

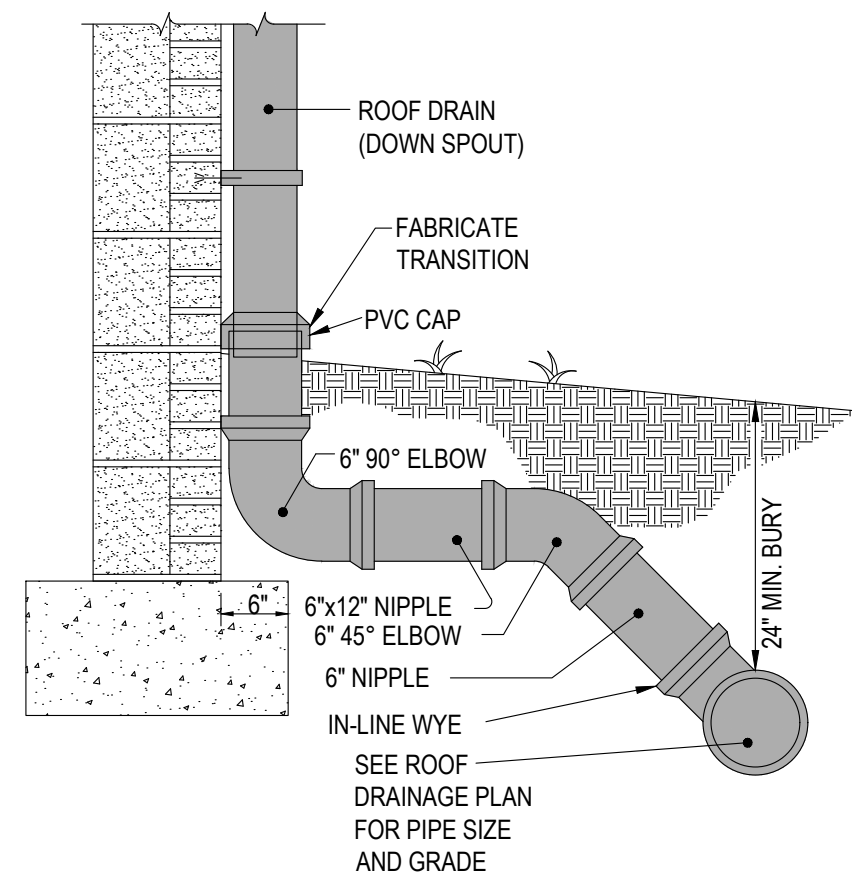
208 S. Pegasus Avenue
 Fayetteville, NC 27808
 T: (919) 852-0849
 F: (919) 852-0843



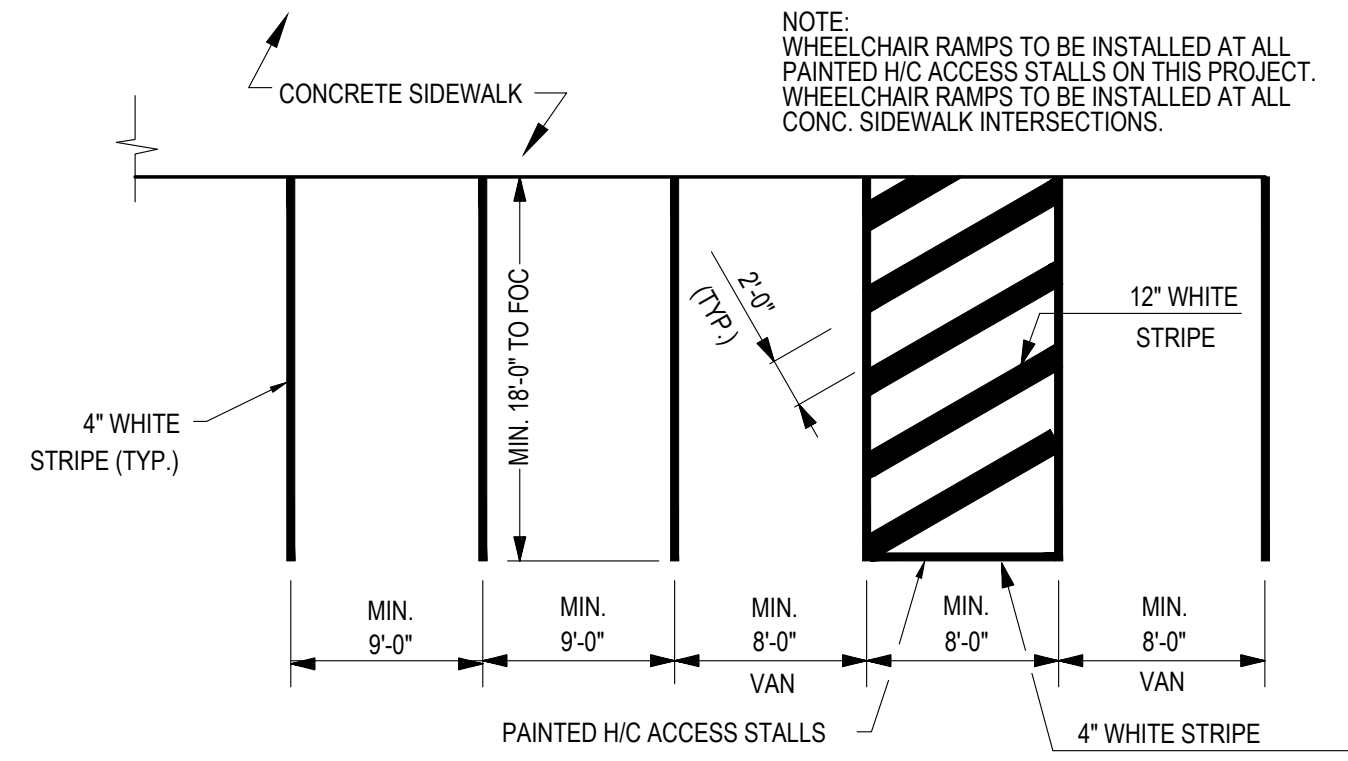
**Curry
 ENGINEERING**

C-4.0

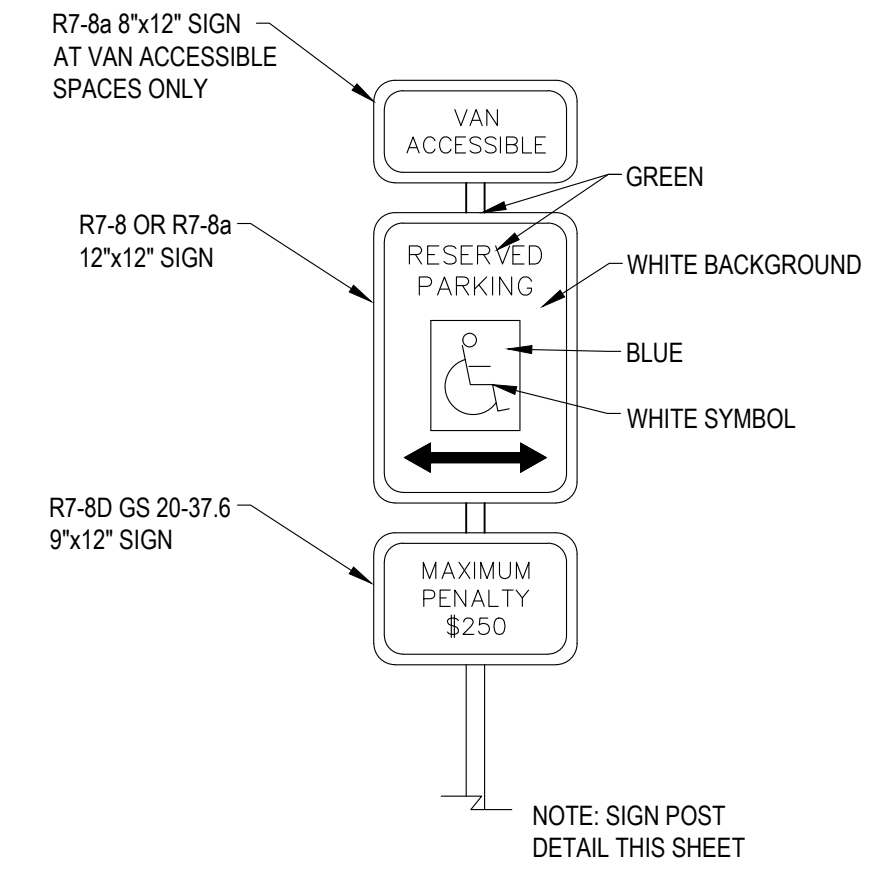
REVISIONS:
 1 04/08/2024 TOWN OF LILLINGTON COMMENTS #1
 2 05/16/2024 TOWN OF LILLINGTON COMMENTS #2
 3 06/06/2024 THORNTON REGIONAL WATER COMMENTS #1
 DATE: FEBRUARY 12, 2024
 FILE NO: 2024-004
 HORZ SCALE: 1" = 20'
 VERT SCALE: 1" = 4'
 SHEET SIZE: 24" x 36"



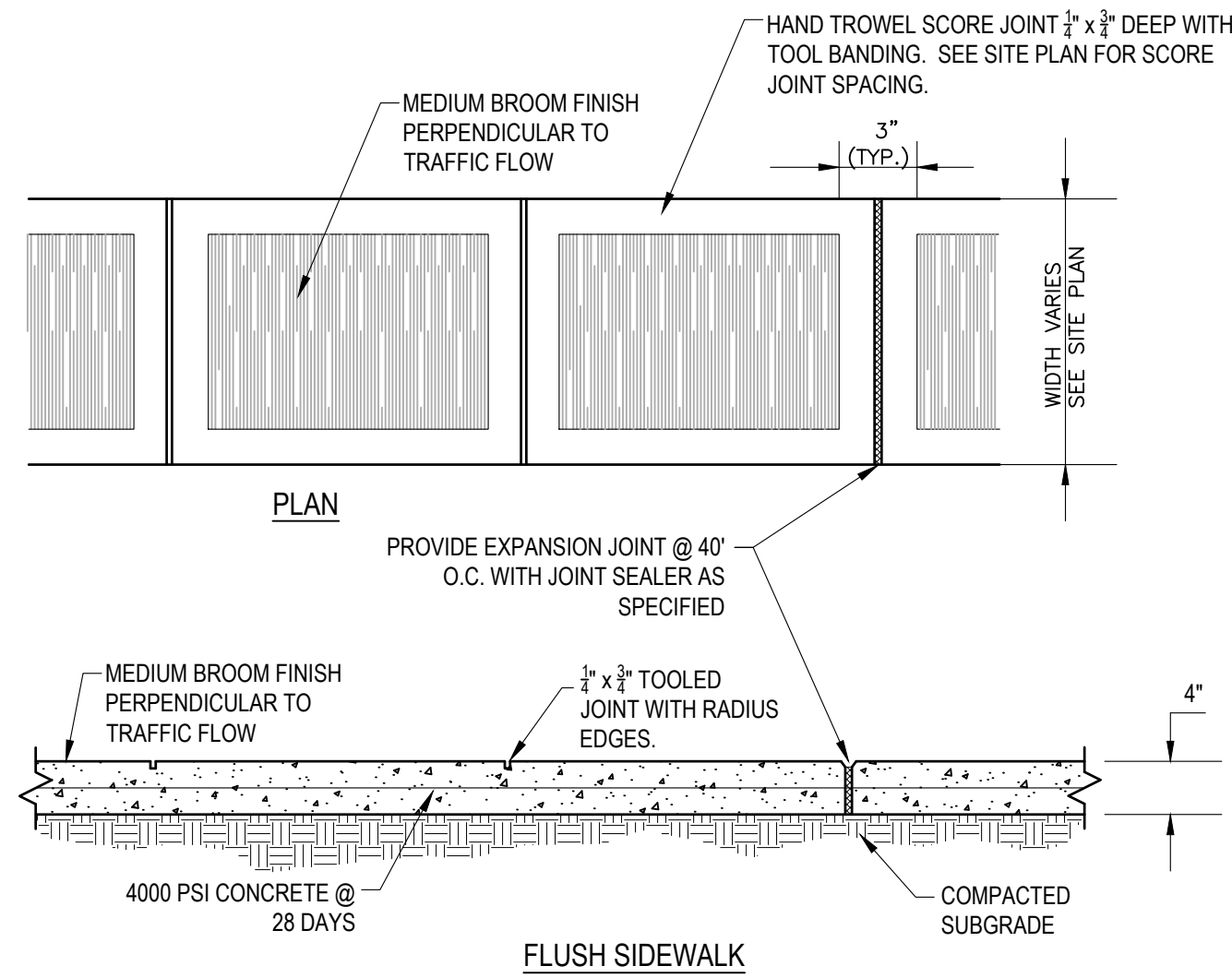
1
D-1.1 ROOF DRAIN TIE-IN
SCALE: NTS



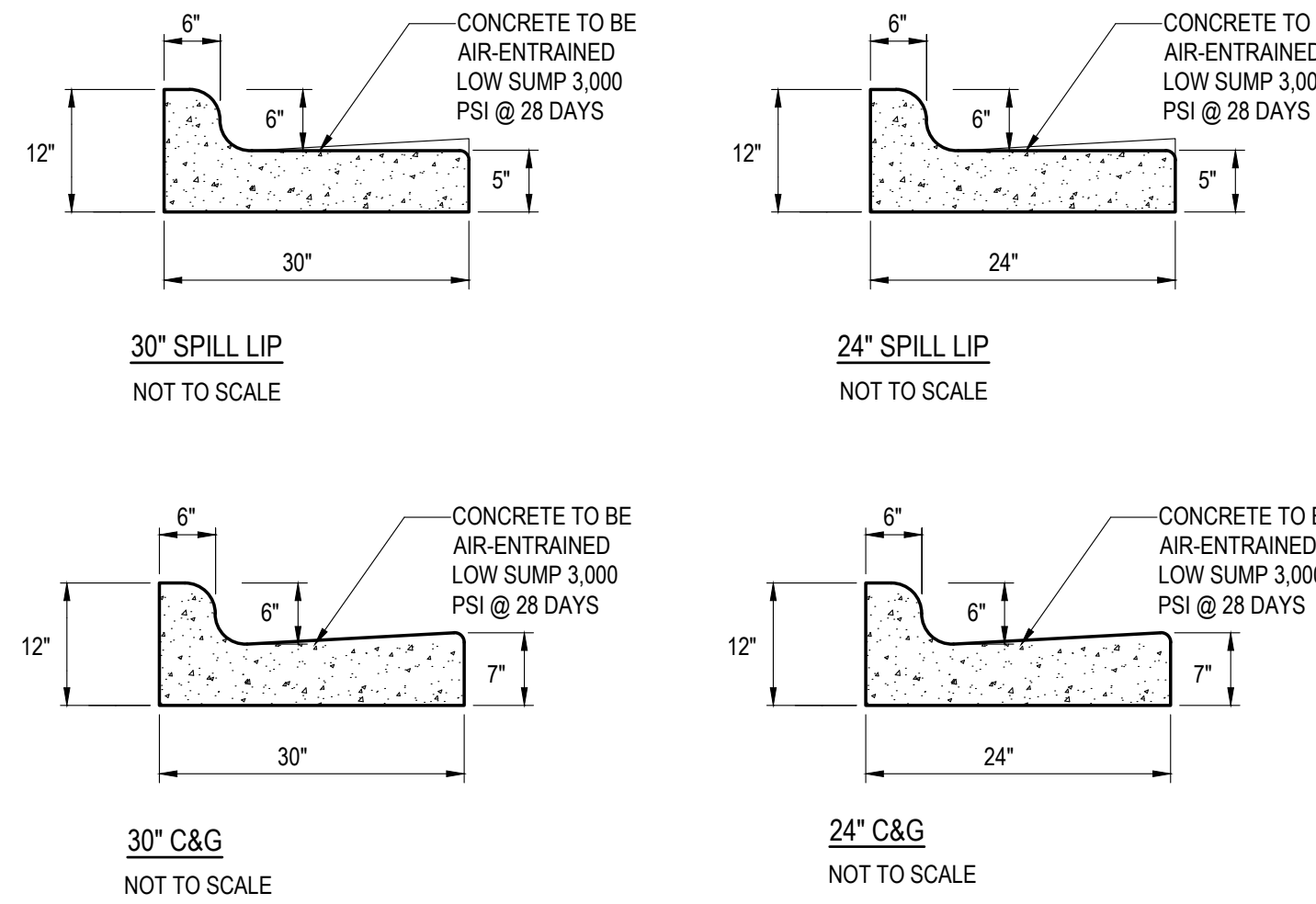
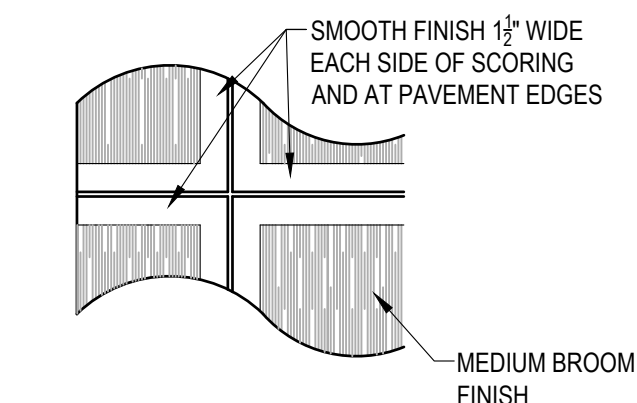
2
D-1.1 90 DEG. HANDICAP STALLS - TYPICAL
SCALE: NTS



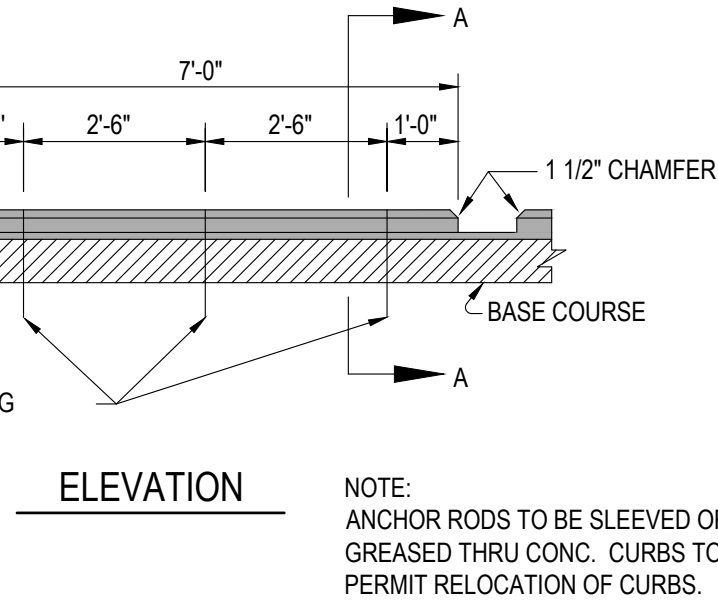
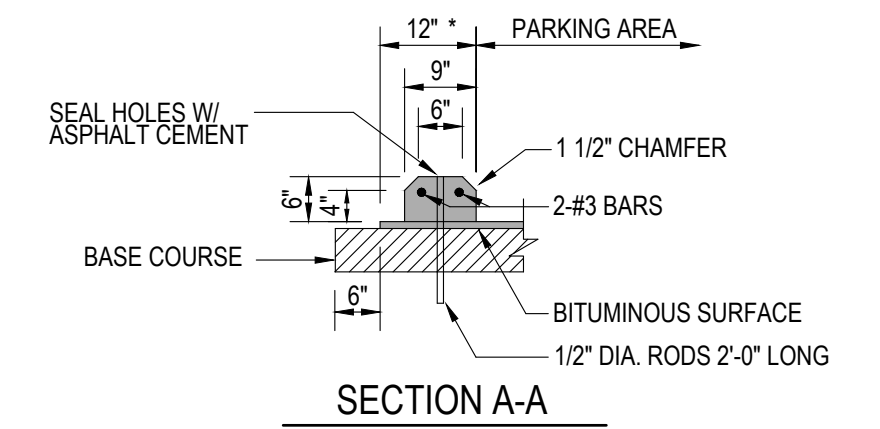
3
D-1.1 ACCESSIBLE PARKING SIGNAGE
SCALE: NTS



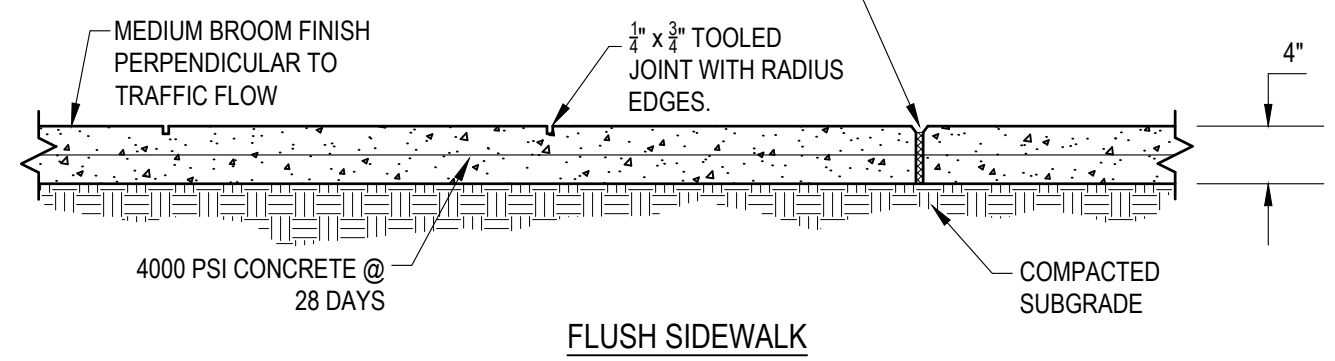
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D-1.1 CONCRETE SIDEWALK
SCALE: NTS



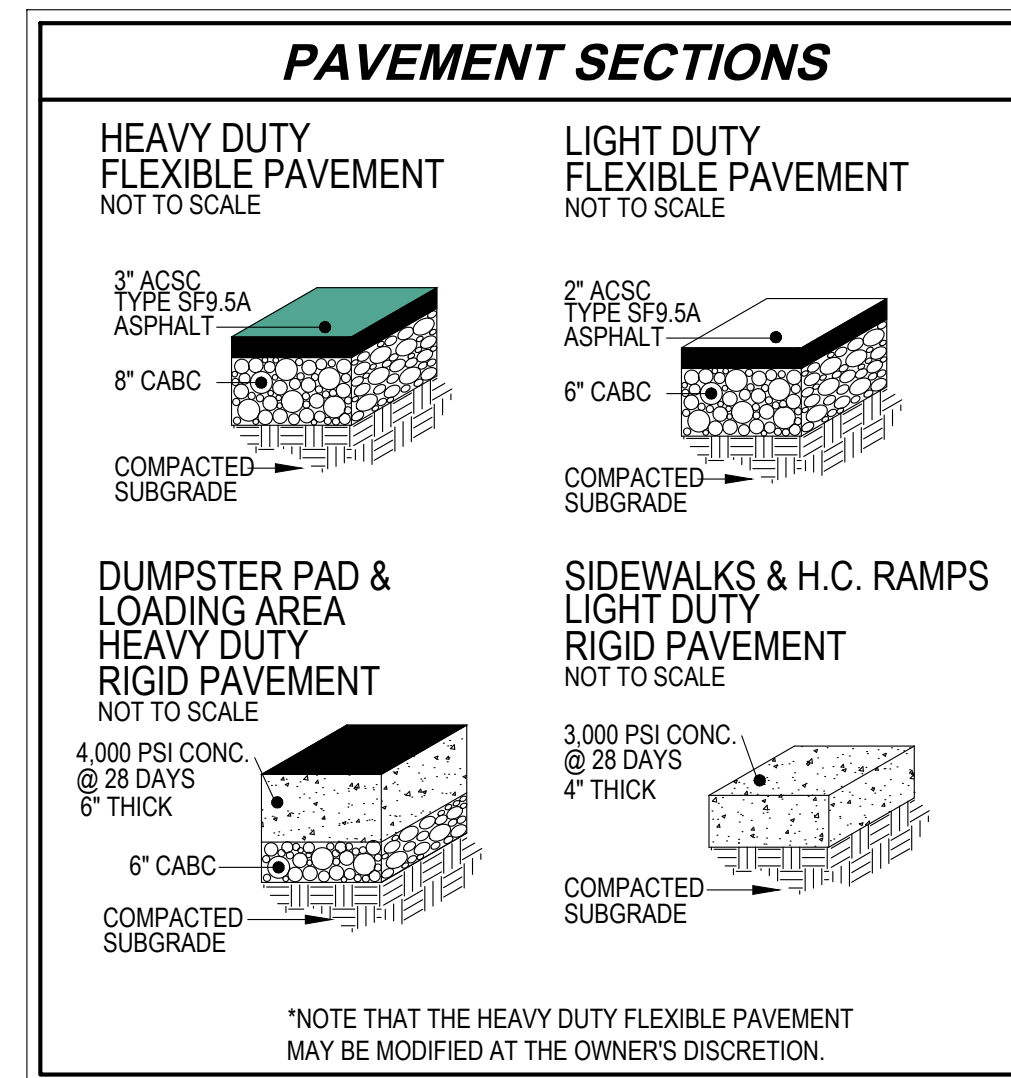
5
D-1.1 CURB & GUTTER
SCALE: NTS



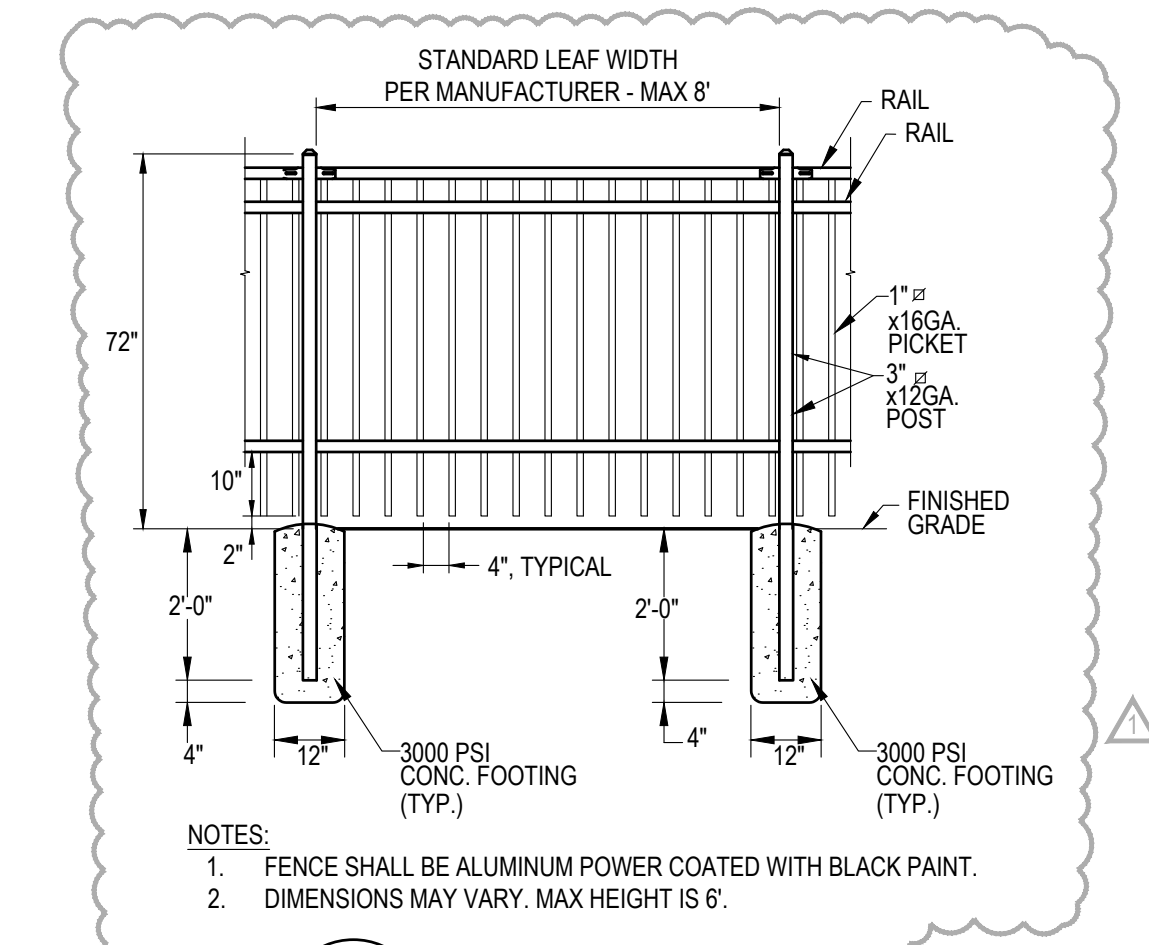
6
D-1.1 WHEEL STOP
SCALE: NTS



7
D-1.1 SIGN INSTALLATION DETAIL
SCALE: NTS



8
D-1.1 PAVEMENT SECTIONS
SCALE: NTS

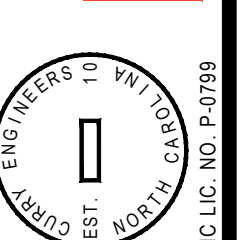


9
D-1.1 DECORATIVE FENCE
SCALE: NTS

Z:\PROJECTS\FOLDER_ZEBULON\2024\2024-004-GREENHAWK AMENITY - LILLINGTON\PIANS\SITE PLANS\SITE PLANSHEET FILES\04.1 SITE DETAILS.DWG
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**POWELL POOL AMENITY
SITE DETAILS I**

208 S. Frazier Avenue
Fayetteville, NC 27808
T: (919) 862-0448
F: (919) 862-0442



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RELEASED FOR CONSTRUCTION
6/7/2024

D-1.1

1	04/08/2024	TOWN OF LILLINGTON COMMENTS #1
2	05/16/2024	TOWN OF LILLINGTON COMMENTS #2
3	06/06/2024	THORNTON REGIONAL WATER COMMENTS #1
DATE: FEBRUARY 12, 2024		
FILE NO. 2024-004		
HORZ SCALE: NONE		VERT SCALE: 24\"/>

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

7-208 ENGLISH STANDARD DRAWING FOR CONCRETE CATCH BASIN 12" THRU 54" PIPE

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 840.00.
 OPTIONAL CONSTRUCTION - MONOLITHIC FORM, 2" KEYWAY, ON #4 BAR CORNERS AT 15° 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 3'-0" IN HEIGHT OR LESS USE 6" WALLS AND BOTTOM SLAB, OVER 3'-0" TO 4'-0" IN HEIGHT USE 8" WALLS AND BOTTOM SLAB. ADJUST QUANTITIES ACCORDINGLY.
 CONTRACT WITH PIPE JOINTS MATCHING.
 CHAMFER ALL EXPOSED CORNERS 1".
 DRAWING NOT TO SCALE.

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

PIPE SIZE	SPAN	WIDTH	MIN. HEIGHT	OVER DIMENSION	BAR-S	BAR-T	BAR-B	TOP SLAB	BOTTOM SLAB	CONCRETE	ONE PIPE
D	A	B	C	H	E	F	G	NO.	NO.	NO.	NO.
12"	3'-0"	2'-0"	2'-0"	2'-0"	1	1	1	0.295	0.272	0.215	0.098
18"	3'-0"	2'-0"	2'-0"	2'-0"	1	1	1	0.295	0.292	0.232	0.098
24"	3'-0"	2'-0"	2'-0"	2'-0"	1	1	1	0.295	0.292	0.232	0.098
30"	3'-0"	2'-0"	2'-0"	2'-0"	1	1	1	0.295	0.292	0.232	0.098
36"	3'-0"	2'-0"	2'-0"	2'-0"	1	1	1	0.295	0.292	0.232	0.098
42"	3'-0"	2'-0"	2'-0"	2'-0"	1	1	1	0.295	0.292	0.232	0.098
48"	3'-0"	2'-0"	2'-0"	2'-0"	1	1	1	0.295	0.292	0.232	0.098
54"	3'-0"	2'-0"	2'-0"	2'-0"	1	1	1	0.295	0.292	0.232	0.098

SHEET 1 OF 2 840.02

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

7-208 ENGLISH STANDARD DRAWING FOR CONCRETE CATCH BASIN 12" THRU 54" PIPE

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 840.00.
 OPTIONAL CONSTRUCTION - MONOLITHIC FORM, 2" KEYWAY, ON #4 BAR CORNERS AT 15° 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 3'-0" IN HEIGHT OR LESS USE 6" WALLS AND BOTTOM SLAB, OVER 3'-0" TO 4'-0" IN HEIGHT USE 8" WALLS AND BOTTOM SLAB. ADJUST QUANTITIES ACCORDINGLY.
 CONTRACT WITH PIPE JOINTS MATCHING.
 CHAMFER ALL EXPOSED CORNERS 1".
 DRAWING NOT TO SCALE.

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

PIPE SIZE	SPAN	WIDTH	MIN. HEIGHT	OVER DIMENSION	BAR-S	BAR-T	BAR-B	TOP SLAB	BOTTOM SLAB	CONCRETE	ONE PIPE
D	A	B	C	H	E	F	G	NO.	NO.	NO.	NO.
12"	3'-0"	2'-0"	2'-0"	2'-0"	1	1	1	0.295	0.272	0.215	0.098
18"	3'-0"	2'-0"	2'-0"	2'-0"	1	1	1	0.295	0.292	0.232	0.098
24"	3'-0"	2'-0"	2'-0"	2'-0"	1	1	1	0.295	0.292	0.232	0.098
30"	3'-0"	2'-0"	2'-0"	2'-0"	1	1	1	0.295	0.292	0.232	0.098
36"	3'-0"	2'-0"	2'-0"	2'-0"	1	1	1	0.295	0.292	0.232	0.098
42"	3'-0"	2'-0"	2'-0"	2'-0"	1	1	1	0.295	0.292	0.232	0.098
48"	3'-0"	2'-0"	2'-0"	2'-0"	1	1	1	0.295	0.292	0.232	0.098
54"	3'-0"	2'-0"	2'-0"	2'-0"	1	1	1	0.295	0.292	0.232	0.098

SHEET 2 OF 2 840.02

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

7-208 ENGLISH STANDARD DRAWING FOR FRAME, GRATES, AND HOOD FOR USE ON STANDARD CATCH BASIN

GENERAL NOTES:
 USE TYPE "E", "F" AND "G" GRATE UNLESS OTHERWISE NOTED.
 ALIGN FRAME WITH INSIDE EDGE OF WALL TO ALLOW FOR VERTICAL ADJUSTMENT.
 WALL SECTION

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

PIPE SIZE	SPAN	WIDTH	MIN. HEIGHT	OVER DIMENSION	BAR-S	BAR-T	BAR-B	TOP SLAB	BOTTOM SLAB	CONCRETE	ONE PIPE
D	A	B	C	H	E	F	G	NO.	NO.	NO.	NO.
12"	3'-0"	2'-0"	2'-0"	2'-0"	1	1	1	0.295	0.272	0.215	0.098
18"	3'-0"	2'-0"	2'-0"	2'-0"	1	1	1	0.295	0.292	0.232	0.098
24"	3'-0"	2'-0"	2'-0"	2'-0"	1	1	1	0.295	0.292	0.232	0.098
30"	3'-0"	2'-0"	2'-0"	2'-0"	1	1	1	0.295	0.292	0.232	0.098
36"	3'-0"	2'-0"	2'-0"	2'-0"	1	1	1	0.295	0.292	0.232	0.098
42"	3'-0"	2'-0"	2'-0"	2'-0"	1	1	1	0.295	0.292	0.232	0.098
48"	3'-0"	2'-0"	2'-0"	2'-0"	1	1	1	0.295	0.292	0.232	0.098
54"	3'-0"	2'-0"	2'-0"	2'-0"	1	1	1	0.295	0.292	0.232	0.098

SHEET 1 OF 2 840.03

1 CONCRETE CATCH BASIN 1 OF 2
D-2.0 SCALE: NTS

2 CONCRETE CATCH BASIN 2 OF 2
D-2.0 SCALE: NTS

3 FRAME, GRATES, AND HOOD 1 OF 2
D-2.0 SCALE: NTS

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

7-208 ENGLISH STANDARD DRAWING FOR FRAME, GRATES, AND HOOD FOR USE ON STANDARD CATCH BASIN

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 840.00.
 OPTIONAL CONSTRUCTION - MONOLITHIC FORM, 2" KEYWAY, ON #4 BAR CORNERS AT 15° 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 3'-0" IN HEIGHT OR LESS USE 6" WALLS AND BOTTOM SLAB, OVER 3'-0" TO 4'-0" IN HEIGHT USE 8" WALLS AND BOTTOM SLAB. ADJUST QUANTITIES ACCORDINGLY.
 CONTRACT WITH PIPE JOINTS MATCHING.
 CHAMFER ALL EXPOSED CORNERS 1".
 DRAWING NOT TO SCALE.

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

PIPE SIZE	SPAN	WIDTH	MIN. HEIGHT	OVER DIMENSION	BAR-S	BAR-T	BAR-B	TOP SLAB	BOTTOM SLAB	CONCRETE	ONE PIPE
D	A	B	C	H	E	F	G	NO.	NO.	NO.	NO.
12"	3'-0"	2'-0"	2'-0"	2'-0"	1	1	1	0.295	0.272	0.215	0.098
18"	3'-0"	2'-0"	2'-0"	2'-0"	1	1	1	0.295	0.292	0.232	0.098
24"	3'-0"	2'-0"	2'-0"	2'-0"	1	1	1	0.295	0.292	0.232	0.098
30"	3'-0"	2'-0"	2'-0"	2'-0"	1	1	1	0.295	0.292	0.232	0.098
36"	3'-0"	2'-0"	2'-0"	2'-0"	1	1	1	0.295	0.292	0.232	0.098
42"	3'-0"	2'-0"	2'-0"	2'-0"	1	1	1	0.295	0.292	0.232	0.098
48"	3'-0"	2'-0"	2'-0"	2'-0"	1	1	1	0.295	0.292	0.232	0.098
54"	3'-0"	2'-0"	2'-0"	2'-0"	1	1	1	0.295	0.292	0.232	0.098

SHEET 2 OF 2 840.03

4 FRAME, GRATES, AND HOOD 2 OF 2
D-2.0 SCALE: NTS

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

7-208 ENGLISH STANDARD DRAWING FOR CONCRETE DROP INLET 12" THRU 30" PIPE

GENERAL NOTES:
 USE CLASS "B" CONCRETE THROUGHOUT.
 PROVIDE ALL DROP INLETS OVER 3'-6" IN DEPTH WITH STEPS 12" ON CENTER. USE STEPS WHICH COMPLY WITH STD. DRAWING 840.00.
 OPTIONAL CONSTRUCTION - MONOLITHIC FORM, 2" KEYWAY, ON #4 BAR CORNERS AT 15° 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 3'-0" IN HEIGHT OR LESS USE 6" WALLS AND BOTTOM SLAB, OVER 3'-0" TO 4'-0" IN HEIGHT USE 8" WALLS AND BOTTOM SLAB. ADJUST QUANTITIES ACCORDINGLY.
 CONTRACT WITH PIPE JOINTS MATCHING.
 CHAMFER ALL EXPOSED CORNERS 1".
 DRAWING NOT TO SCALE.

MINIMUM DIMENSIONS AND QUANTITIES FOR CONCRETE DROP INLET (BASED ON MIN. HEIGHT, H)

PIPE SIZE	SPAN	WIDTH	MIN. HEIGHT	OVER DIMENSION	BAR-S	BAR-T	BAR-B	TOP SLAB	BOTTOM SLAB	CONCRETE	ONE PIPE
D	A	B	C	H	E	F	G	NO.	NO.	NO.	NO.
12"	3'-0"	2'-0"	2'-0"	2'-0"	1	1	1	0.295	0.272	0.215	0.098
18"	3'-0"	2'-0"	2'-0"	2'-0"	1	1	1	0.295	0.292	0.232	0.098
24"	3'-0"	2'-0"	2'-0"	2'-0"	1	1	1	0.295	0.292	0.232	0.098
30"	3'-0"	2'-0"	2'-0"	2'-0"	1	1	1	0.295	0.292	0.232	0.098

SHEET 1 OF 1 840.14

5 CONCRETE DROP INLET
D-2.0 SCALE: NTS

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

7-208 ENGLISH STANDARD DRAWING FOR DROP INLET FRAME AND GRATES FOR USE WITH STD. DWG. S 840.14 AND 840.15

GENERAL NOTES:
 USE CLASS "B" CONCRETE THROUGHOUT.
 PROVIDE ALL DROP INLETS OVER 3'-6" IN DEPTH WITH STEPS 12" ON CENTER. USE STEPS WHICH COMPLY WITH STD. DRAWING 840.00.
 OPTIONAL CONSTRUCTION - MONOLITHIC FORM, 2" KEYWAY, ON #4 BAR CORNERS AT 15° 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 3'-0" IN HEIGHT OR LESS USE 6" WALLS AND BOTTOM SLAB, OVER 3'-0" TO 4'-0" IN HEIGHT USE 8" WALLS AND BOTTOM SLAB. ADJUST QUANTITIES ACCORDINGLY.
 CONTRACT WITH PIPE JOINTS MATCHING.
 CHAMFER ALL EXPOSED CORNERS 1".
 DRAWING NOT TO SCALE.

MINIMUM DIMENSIONS AND QUANTITIES FOR CONCRETE DROP INLET (BASED ON MIN. HEIGHT, H)

PIPE SIZE	SPAN	WIDTH	MIN. HEIGHT	OVER DIMENSION	BAR-S	BAR-T	BAR-B	TOP SLAB	BOTTOM SLAB	CONCRETE	ONE PIPE
D	A	B	C	H	E	F	G	NO.	NO.	NO.	NO.
12"	3'-0"	2'-0"	2'-0"	2'-0"	1	1	1	0.295	0.272	0.215	0.098
18"	3'-0"	2'-0"	2'-0"	2'-0"	1	1	1	0.295	0.292	0.232	0.098
24"	3'-0"	2'-0"	2'-0"	2'-0"	1	1	1	0.295	0.292	0.232	0.098
30"	3'-0"	2'-0"	2'-0"	2'-0"	1	1	1	0.295	0.292	0.232	0.098

SHEET 1 OF 1 840.16

6 DROP INLET FRAME & GRATE
D-2.0 SCALE: NTS

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

7-208 ENGLISH STANDARD DRAWING FOR PRECAST MANHOLE 4', 5' AND 6' DIAMETER 12" THRU 48" PIPE

GENERAL NOTES:
 USE 4000 PSI MINIMUM COMPRESSIVE STRENGTH CONCRETE.
 FABRICATE, ASSEMBLE AND DESIGN PRECAST MANHOLE COMPONENTS ACCORDING TO THIS DRAWING.
 ASSEMBLE RISER AND GRADE RINGS WITH THE STEPS SPACED 12" FROM THE TOP TO THE BOTTOM OF THE MANHOLE.
 WHERE THE MANHOLE IS EXPOSED TO ROAD TRAFFIC, CONSTRUCT THE TOP OF THE MANHOLE FLUSH WITH THE GROUND AND A MINIMUM OF 9" ABOVE THE GROUND AT OTHER LOCATIONS.
 12" DEPTH OF FILL TO 30"-0" FROM FINISH GRADE TO TOP OF BOTTOM SLAB.
 THE MIN. SLAB THICKNESS "T" IS THE DIMENSION OF THE THINNEST PORTION OF THE TOP/BOTTOM SLAB.
 * TOP MAT OF REINFORCEMENT MAY BE NEGLECTED IF TOP SLAB HAS A DISTINGUISHABLE TOP AND BOTTOM.

MINIMUM DIMENSIONS AND QUANTITIES FOR PRECAST MANHOLE (BASED ON MIN. HEIGHT, H)

PIPE SIZE	SPAN	WIDTH	MIN. HEIGHT	OVER DIMENSION	BAR-S	BAR-T	BAR-B	TOP SLAB	BOTTOM SLAB	CONCRETE	ONE PIPE
D	A	B	C	H	E	F	G	NO.	NO.	NO.	NO.
12"	3'-0"	2'-0"	2'-0"	2'-0"	1	1	1	0.295	0.272	0.215	0.098
18"	3'-0"	2'-0"	2'-0"	2'-0"	1	1	1	0.295	0.292	0.232	0.098
24"	3'-0"	2'-0"	2'-0"	2'-0"	1	1	1	0.295	0.292	0.232	0.098
30"	3'-0"	2'-0"	2'-0"	2'-0"	1	1	1	0.295	0.292	0.232	0.098
36"	3'-0"	2'-0"	2'-0"	2'-0"	1	1	1	0.295	0.292	0.232	0.098
42"	3'-0"	2'-0"	2'-0"	2'-0"	1	1	1	0.295	0.292	0.232	0.098
48"	3'-0"	2'-0"	2'-0"	2'-0"	1	1	1	0.295	0.292	0.232	0.098

SHEET 1 OF 1 840.52

7 NCDOT MH DETAIL 840.52
D-2.0 SCALE: NTS

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

7-208 ENGLISH STANDARD DRAWING FOR MANHOLE FRAME AND COVER 12" THRU 48" PIPE

GENERAL NOTES:
 SOLID COVER SHOWN PERFORMED. PERFORATED AVAILABLE IF SPECIFIED.
 STATE USE OF SYSTEM ON COVER (I.E.: SEWER, STORM DRAIN, ELECTRICAL)

MINIMUM DIMENSIONS AND QUANTITIES FOR MANHOLE FRAME AND COVER (BASED ON MIN. HEIGHT, H)

PIPE SIZE	SPAN	WIDTH	MIN. HEIGHT	OVER DIMENSION	BAR-S	BAR-T	BAR-B	TOP SLAB	BOTTOM SLAB	CONCRETE	ONE PIPE
D	A	B	C	H	E	F	G	NO.	NO.	NO.	NO.
12"	3'-0"	2'-0"	2'-0"	2'-0"	1	1	1	0.295	0.272	0.215	0.098
18"	3'-0"	2'-0"	2'-0"	2'-0"	1	1	1	0.295	0.292	0.232	0.098
24"	3'-0"	2'-0"	2'-0"	2'-0"	1	1	1	0.295	0.292	0.232	0.098
30"	3'-0"	2'-0"	2'-0"	2'-0"	1	1	1	0.295	0.292	0.232	0.098
36"	3'-0"	2'-0"	2'-0"	2'-0"	1	1	1	0.295	0.292	0.232	0.098
42"	3'-0"	2'-0"	2'-0"	2'-0"	1	1	1	0.295	0.292	0.232	0.098
48"	3'-0"	2'-0"	2'-0"	2'-0"	1	1	1	0.295	0.292	0.232	0.098

SHEET 1 OF 1 840.54

8 NCDOT MH LID DETAIL 840.54
D-2.0 SCALE: NTS

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

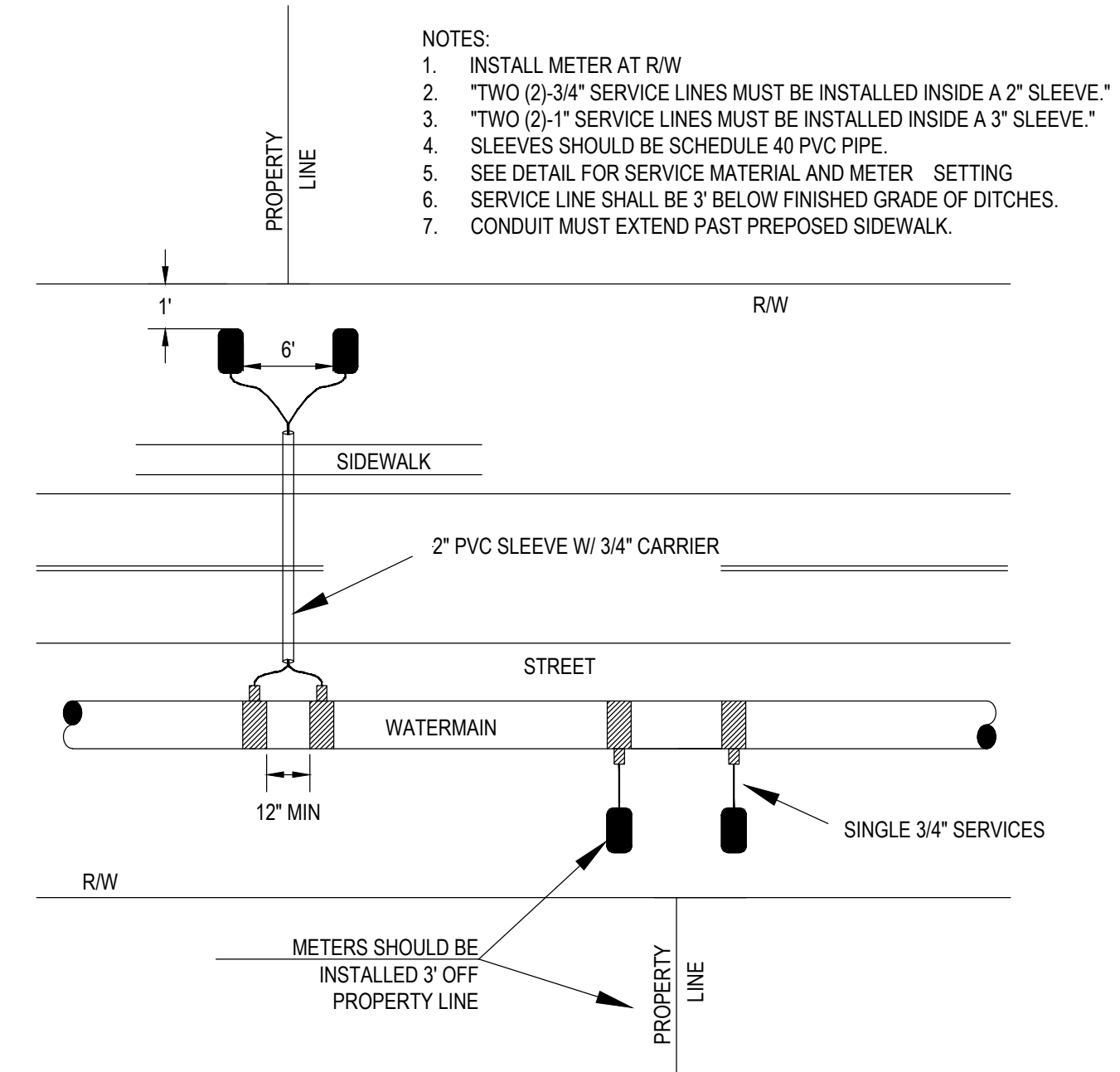
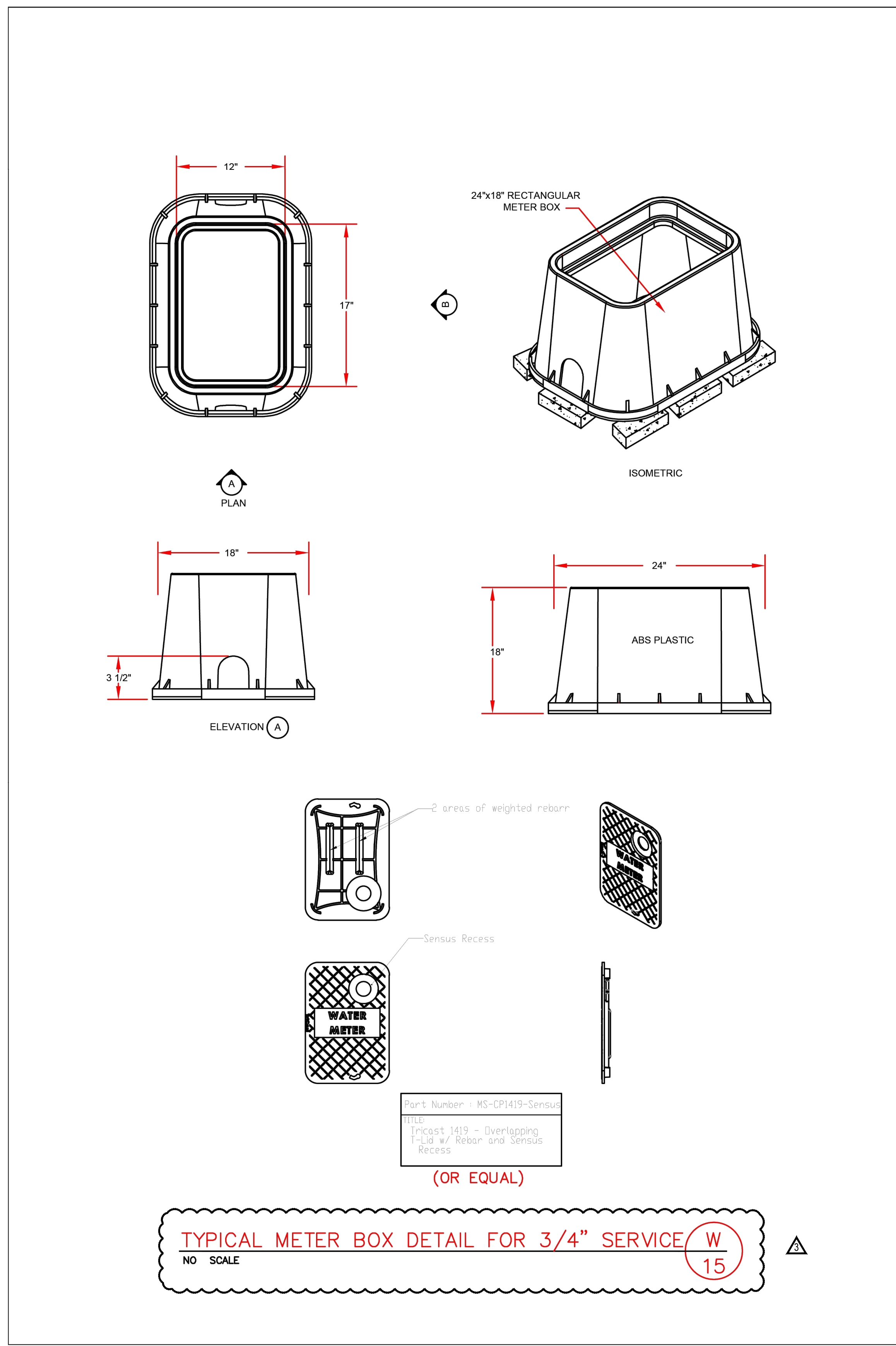
7-208 ENGLISH STANDARD DRAWING FOR OLDCASTLE 24"X24" BOX 12" THRU 48" PIPE

GENERAL NOTES:
 Concrete: 28 Day Compressive Strength $f_c = 4,000$ psi
 Steel Reinforcement: ASTM A-615, Grade 60
 Meets N.C.D.O.T Approval to 10' Depth.
 Solid Boxes meet H-20 Loading to 15' Depth.
 Solid Boxes Approved for N.C.D.O.T 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, 840.41.
 Any Modification to Box May Nullify H-20 Loading Ability.

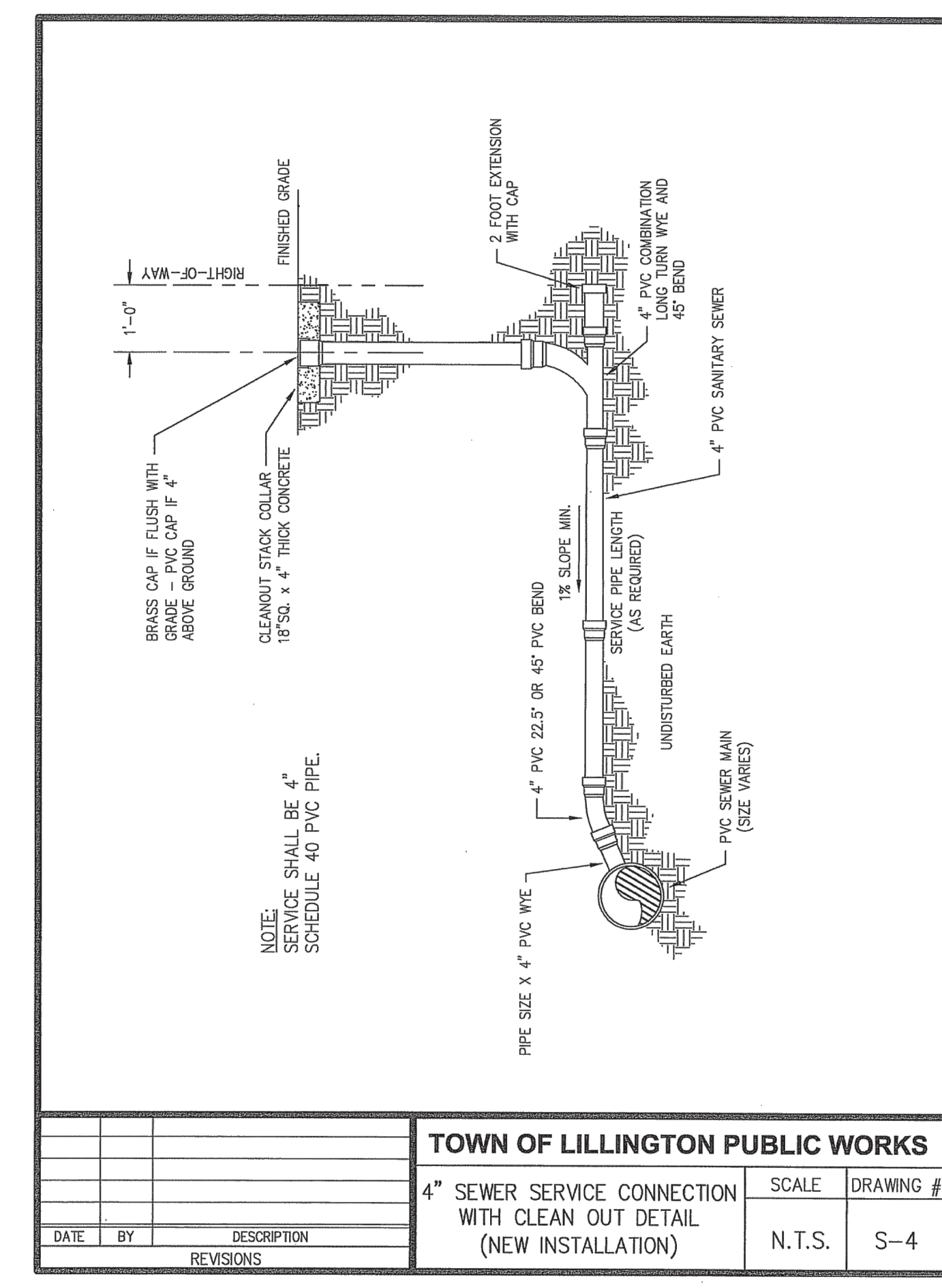
MINIMUM DIMENSIONS AND QUANTITIES FOR OLDCASTLE 24"X24" BOX (BASED ON MIN. HEIGHT, H)

PIPE SIZE	SPAN	WIDTH	MIN. HEIGHT
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Z:\PROJECTS\FOLDER_ZEBULON\2024\2024-004 GREENHAWK AMENITY - LILLINGTON\PLANS\SITE PLANSHEET FILES\3.0 UTILITY DETAILS.DWG
 PLOTTED: 6/26/2024 8:32 AM



2 TYPICAL DOMESTIC WATER SERVICE INSTALLATION DETAIL
 D-3.0 SCALE: N.T.S.



TOWN OF LILLINGTON PUBLIC WORKS
 4" SEWER SERVICE CONNECTION WITH CLEAN OUT DETAIL (NEW INSTALLATION)
 SCALE: N.T.S. DRAWING # S-4

SEAL
 NORTH CAROLINA
 DONALD L. CURRY
 026970
 ENGINEER
 6/26/2024

REVISIONS	
1	04/08/2024 TOWN OF LILLINGTON COMMENTS.F1
2	05/16/2024 TOWN OF LILLINGTON COMMENTS.F2
3	06/06/2024 TOWN OF LILLINGTON COMMENTS.F3

DATE: FEBRUARY 12, 2024
 FILE NO. 2024-004
 HORZ SCALE: N.T.S.
 ORIG SHEET SIZE: 24x36

POWELL POOL AMENITY
 UTILITY DETAILS

208 S. Fagan Avenue
 Faison, NC 27024
 T: (919) 862-0848
 F: (919) 862-0843

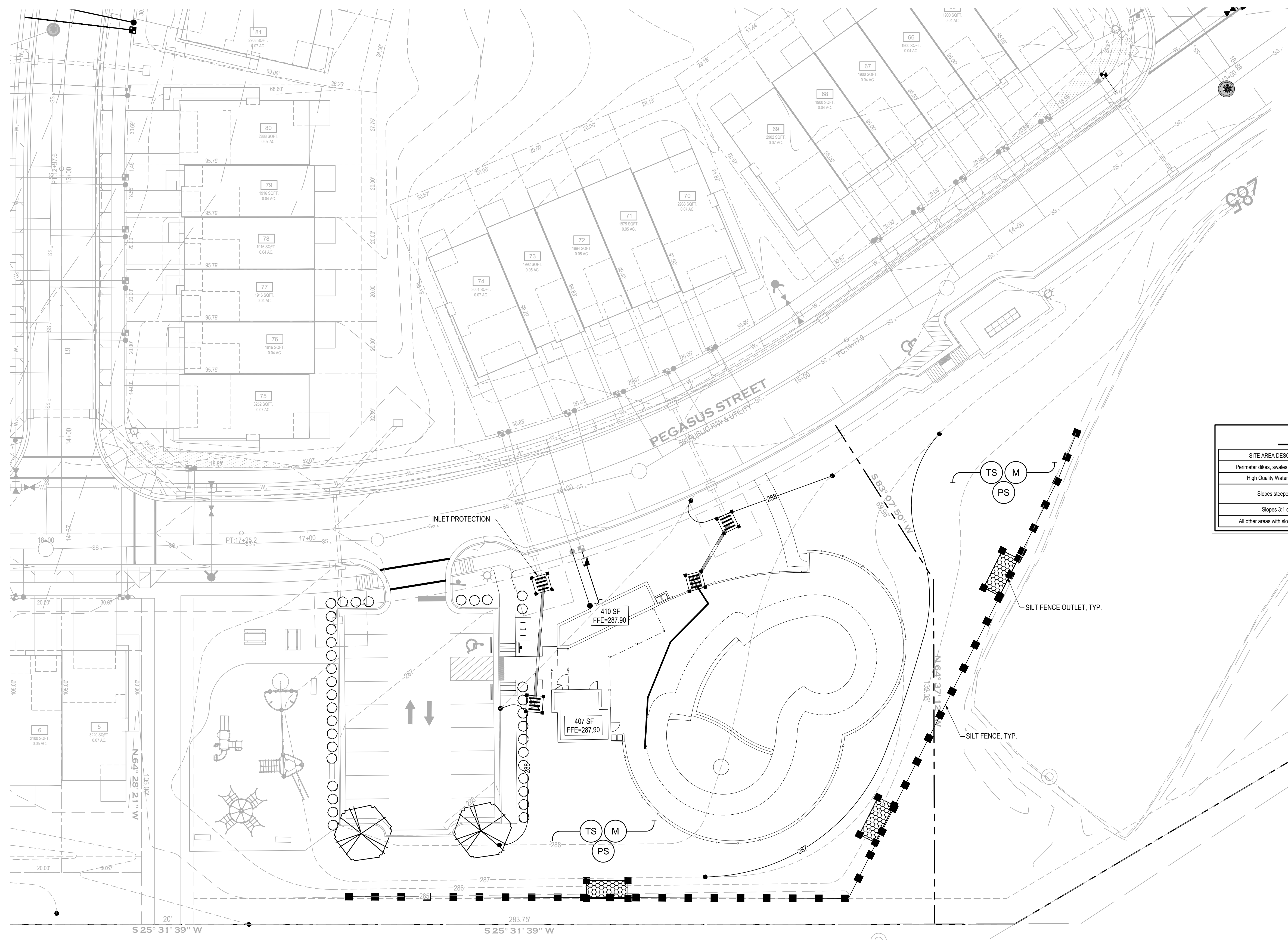
Curry
 ENGINEERING

NC LIC. NO. PA7938

D-3.0

RELEASED FOR CONSTRUCTION

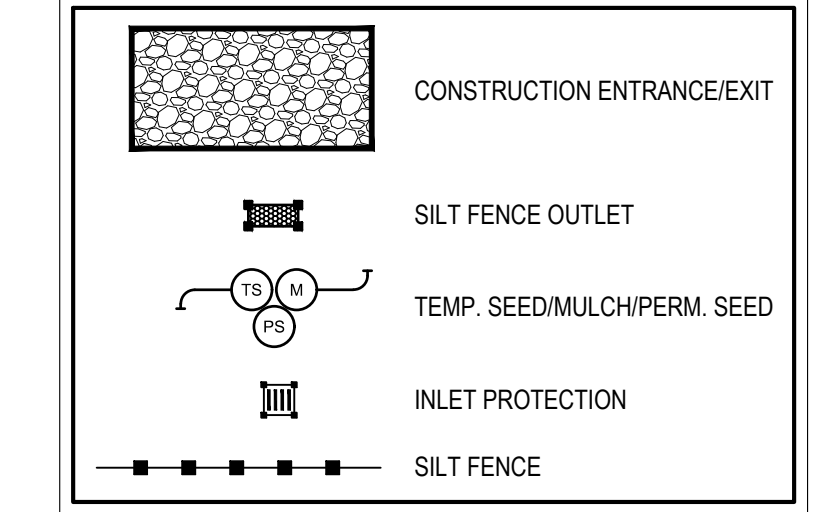
Z:\PROJECTS\FOLDER_ZEBLON\2024\2024-004 GREENHAWK AMENITY - LILLINGTON\PLANS\SITE PLANS\EROSION CONTROL PLAN.DWG
 PLOTTED: 6/7/2024 2:58 PM



NOTES:

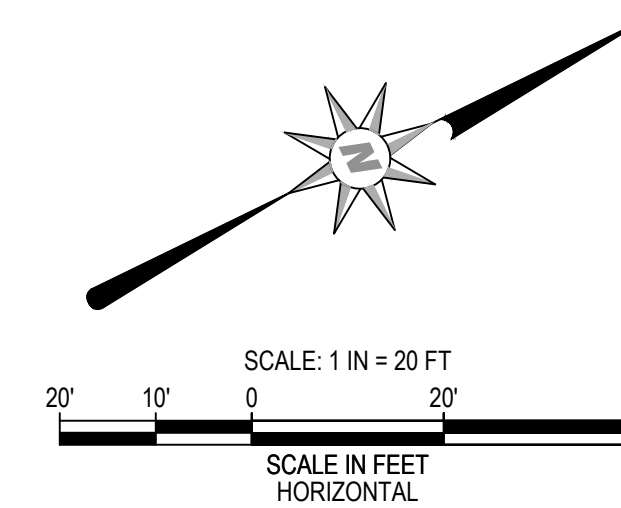
1. THE TEMPORARY DIVERSION DITCHES, SILT FENCE, AND LIMITS OF DISTURBANCE SHOWN ON THIS PLAN ARE GRAPHICAL REPRESENTATIONS OF THE ACTUAL EROSION CONTROL MEASURES THAT SHALL BE INSTALLED UNDER THIS PROJECT. DUE TO SCALE OF THIS DRAWING, THESE MEASURES ARE GRAPHICALLY DEPICTED AND MAY BE BEYOND WHERE THEY ACTUALLY WILL BE INSTALLED IN THE FIELD. HOWEVER, UNDER NO CIRCUMSTANCES IS THERE TO BE DISTURBANCE OFF SITE.
2. THE WORK ASSOCIATED WITH THIS PERMIT INCLUDES CLEARING AND GRUBBING, INFRASTRUCTURE INSTALLATION, AND MASS GRADING OF INDIVIDUAL LOTS.
3. TOTAL DISTURBED AREA = 32.5 AC (REF. ORIGINAL APPROVAL) REFER TO DETAIL SHEET EC2.0 FOR EROSION CONTROL DETAILS.
4. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH CURRENT NCDENR STANDARDS AND REGULATIONS.
5. SLOPES SHALL BE 3:1 OR FLATTER UNLESS OTHERWISE NOTED.
6. THERE SHALL BE NO DISTURBANCE OUTSIDE THE LIMITS SHOWN ON THIS PLAN WITHOUT AN APPROVED PLAN AMENDMENT BY NCDENR.
7. ALL DISTURBED AREAS SHALL BE SEED PER STABILIZATION TABLE.
8. CONTRACTOR IS RESPONSIBLE FOR MAINTAINING SELF-INSPECTION LOG.
9. ALL EXISTING CATCH BASINS AND INLETS DOWNSTREAM OF DISTURBED AREAS SHALL HAVE SILT SACKS INSTALLED INSIDE THE GRATES.
10. CONTRACTOR SHALL CLEAN OUT ALL DOWNSTREAM STORM DRAINAGE SYSTEM AFTER PHASE CONSTRUCTION IS STABILIZED.

EROSION CONTROL LEGEND:



NPDES STABILIZATION TABLE

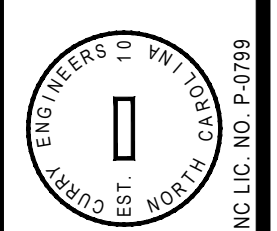
SITE AREA DESCRIPTION	STABILIZATION	TIMEFRAME EXCEPTIONS
Perimeter dikes, swales, ditches and slopes	7 days	None
High Quality Water (HQW) Zones	7 days	None
Slopes steeper than 3:1	7 days	If slopes are 10' or less in length and are not steeper than 2:1, 14 days are allowed.
Slopes 3:1 or flatter	14 days	7 days for slopes greater than 50' in length
All other areas with slopes flatter than 4:1	14 days	None, except for perimeters and HQW Zones



RELEASED FOR CONSTRUCTION

**POWELL POOL AMENITY
 EROSION CONTROL PLAN**

208 S. Fidelity Avenue
 Fayetteville, NC 27808
 T: (919) 862-0849
 F: (919) 862-0843



Curry
 ENGINEERING

EC-1.0

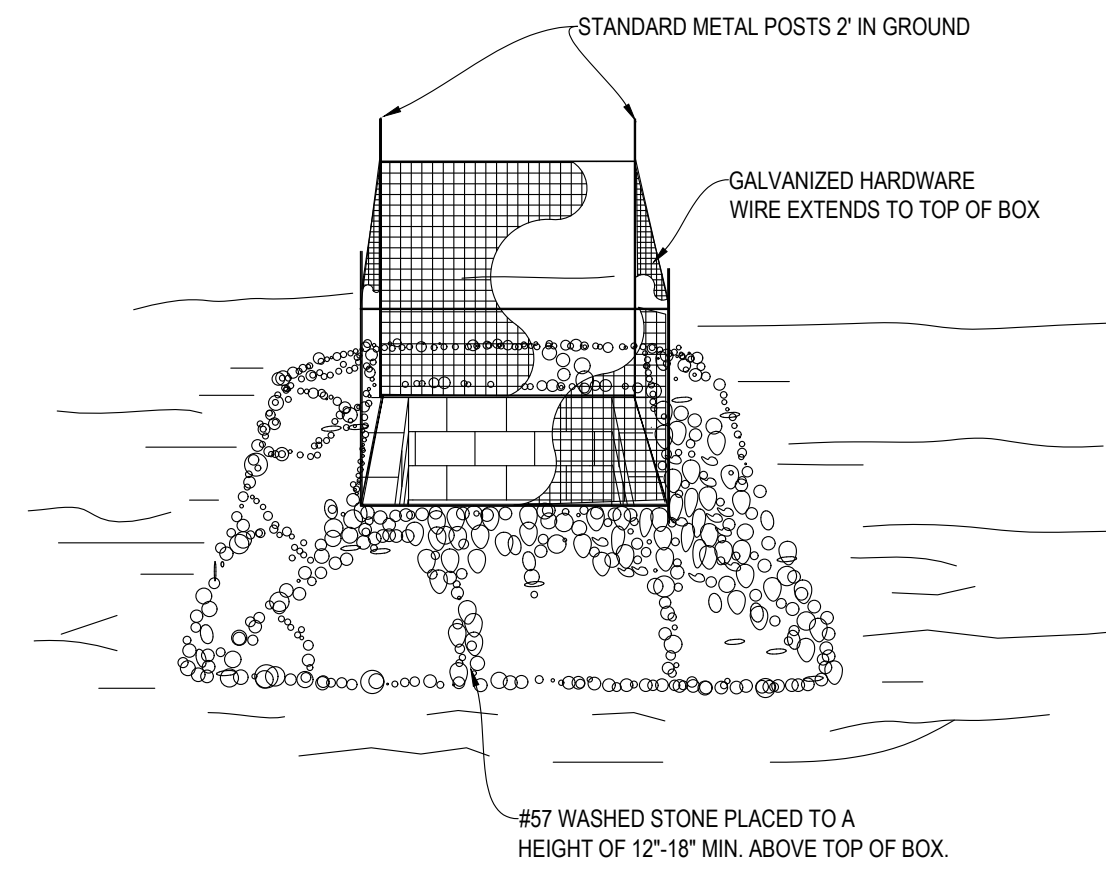
REVISIONS
 1 04/08/2024 TOWN OF LILLINGTON COMMENTS #1
 2 05/16/2024 TOWN OF LILLINGTON COMMENTS #2
 3 06/06/2024 THORNTON REGIONAL WATER COMMENTS #1
 DATE: FEBRUARY 12, 2024
 FILE NO. 2024-004
 HORZ. SCALE:
 ORIG. SHEET SIZE: 24" x 36"

CONSTRUCTION SPECIFICATIONS

- UNIFORMLY GRADE A SHALLOW DEPRESSION APPROACHING THE INLET.
- DRIVE 5-FOOT STEEL POSTS 2 FEET INTO THE GROUND SURROUNDING THE INLET. SPACE POSTS EVENLY AROUND THE PERIMETER OF THE INLET, A MAXIMUM OF 4 FEET APART.
- SURROUND THE POSTS WITH WIRE MESH HARDWARE CLOTH. SECURE THE WIRE MESH TO THE STEEL POSTS AT THE TOP, MIDDLE, AND BOTTOM, PLACING A 2-FOOT FLAP OF THE WIRE MESH UNDER THE GRAVEL FOR ANCHORING IS RECOMMENDED.
- PLACE CLEAN GRAVEL (NC DOT #5 OR #57 STONE) ON A 2:1 SLOPE WITH A HEIGHT OF 16 INCHES AROUND THE WIRE, AND SMOOTH TO AN EVEN GRADE.
- ONCE THE CONTRIBUTING DRAINAGE AREA HAS BEEN STABILIZED, REMOVE ACCUMULATED SEDIMENT, AND ESTABLISH FINAL GRADING ELEVATIONS.
- COMPACT THE AREA PROPERLY AND STABILIZED IT WITH GROUND COVER.

MAINTENANCE:

INSPECT INLETS DAILY AND AFTER EACH SIGNIFICANT (1/2 INCH OR GREATER) RAINFALL EVENT. CLEAR THE MESH WIRE OF ANY DEBRIS OR OTHER OBJECTS TO PROVIDE ADEQUATE FLOW FOR SUBSEQUENT RAINS. TAKE CARE NOT TO DAMAGE OR UNDERCUT THE WIRE MESH DURING SEDIMENT REMOVAL. REPLACE STONE AS NEEDED.

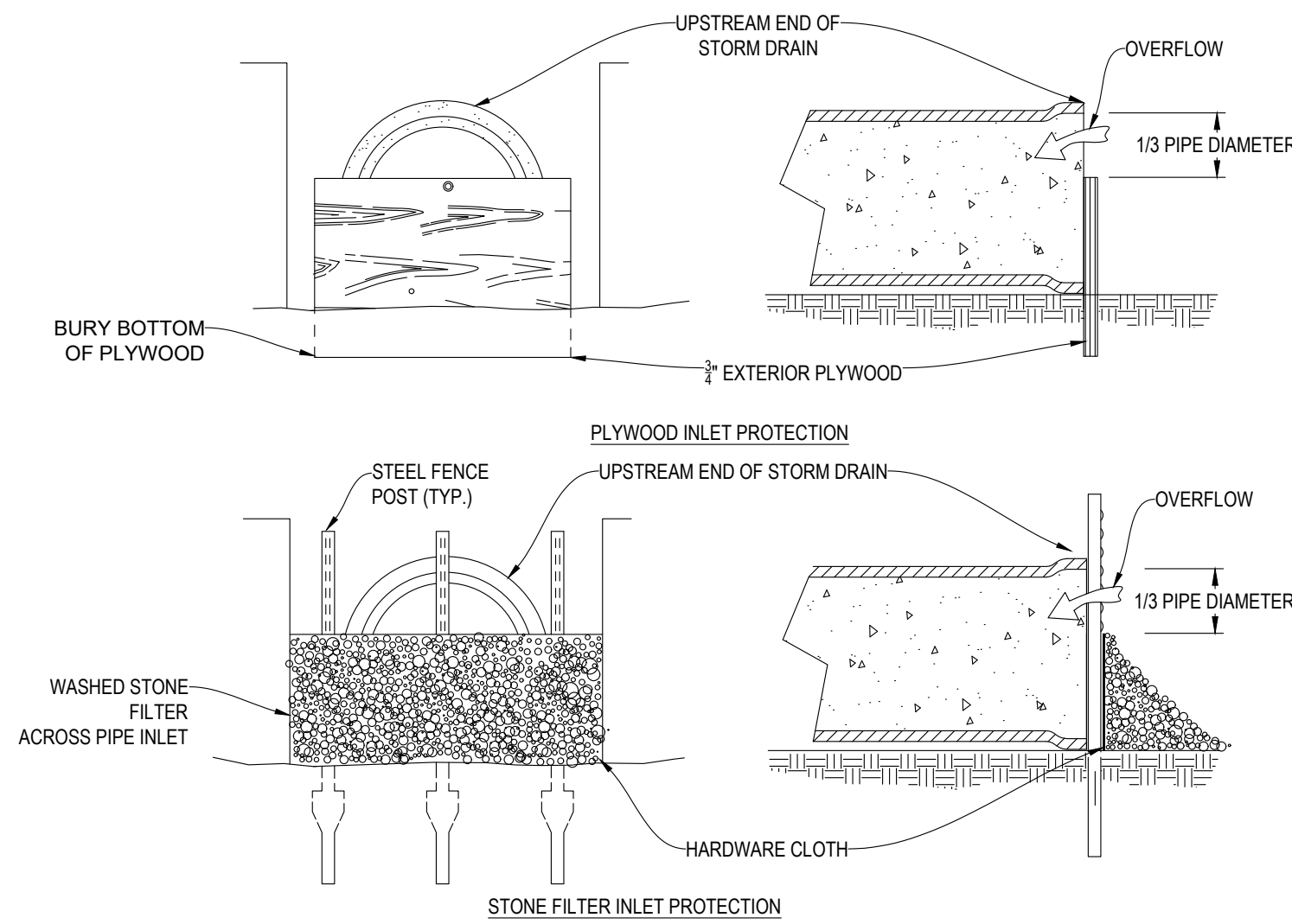


DETAIL REFERENCE 6.51 NC ESCPDM

1 INLET PROTECTION
SCALE: NTS

GENERAL NOTE:

- ALL PARTIALLY COMPLETED STORM DRAINS SHALL BE PROTECTED AT THE END OF EACH DAY IN ACCORDANCE WITH THESE DETAILS.
- THIS IS NOT AN APPROVED NC METHOD OF INLET PROTECTION AND WILL ONLY BE USED TO PROTECT THE CONTRACTORS WORK OVERNIGHT. LONGER PERIODS OF PROTECTION WILL REQUIRE THE STONE INLET PROTECTION DETAIL PER THE NC DENR ESCPDM.



2 PIPE INLET PROTECTOIN
SCALE: NTS

MIXTURE

AGRICULTURAL LIMESTONE	2 TONS/ACRE (3 TONS/ACRE IN CLAY SOILS)
FERTILIZER	1,000 LBS/ACRE - 10-10-10
SUPERPHOSPHATE	500 LBS/ACRE - 20% ANALYSIS
MULCH	2 TONS/ACRE - SMALL GRAIN STRAW
ANCHOR	ASPHALT EMULSION AT 300 GALS/ACRE

SEEDING SCHEDULE FOR SHOULDERS, SIDE DITCHES, SLOPES (MAX 3:1):

DATE	TYPE	PLANTING RATE
AUG 15 - NOV 1	TALL FESCUE	300 LBS/ACRE
NOV 1 - MAR 1	TALL FESCUE & ABRUZZI RYE	300 LBS/ACRE
MAR 1 - APR 15	TALL FESCUE	300 LBS/ACRE
APR 15 - JUN 30	HULLED COMMON BERMUDAGRASS	25 LBS/ACRE
JUL 1 - AUG 15	TALL FESCUE AND BROWNTOP MILLET OR SORGHUM-SUDAN HYBRIDS***	125 LBS/ACRE (TALL FESCUE); 35 LBS/ACRE (BROWNTOP MILLET); 30 LBS/ACRE (SORGHUM-SUDAN HYBRIDS)

FOR SHOULDERS, SIDE DITCHES, SLOPES (3:1 TO 2:1):

DATE	TYPE	PLANTING RATE
MAR 1 - JUN 1	SERICEA LESPEDEZA (SCARIFIED) AND USE THE FOLLOWING COMBINATIONS:	50 LBS/ACRE (SERICEA LESPEDEZA);
MAR 1 - APR 15	ADD TALL FESCUE	120 LBS/ACRE
MAR 1 - JUN 30	OR ADD WEEPING LOVE GRASS	10 LBS/ACRE
MAR 1 - JUN 30	OR ADD HULLED COMMON BERMUDAGRASS	25 LBS/ACRE
JUN 1 - SEPT 1	TALL FESCUE AND BROWNTOP MILLET OR SORGHUM-SUDAN HYBRIDS***	120 LBS/ACRE (TALL FESCUE); 35 LBS/ACRE (BROWNTOP MILLET); 30 LBS/ACRE (SORGHUM-SUDAN HYBRIDS)
SEPT 1 - MAR 1	SERICEA LESPEDEZA (UNHULLED - UNSCARIFIED) AND TALL FESCUE	70 LBS/ACRE (SERICEA LESPEDEZA); 120 LBS/ACRE (TALL FESCUE)
NOV 1 - MAR 1	AND ABRUZZI RYE	25 LBS/ACRE

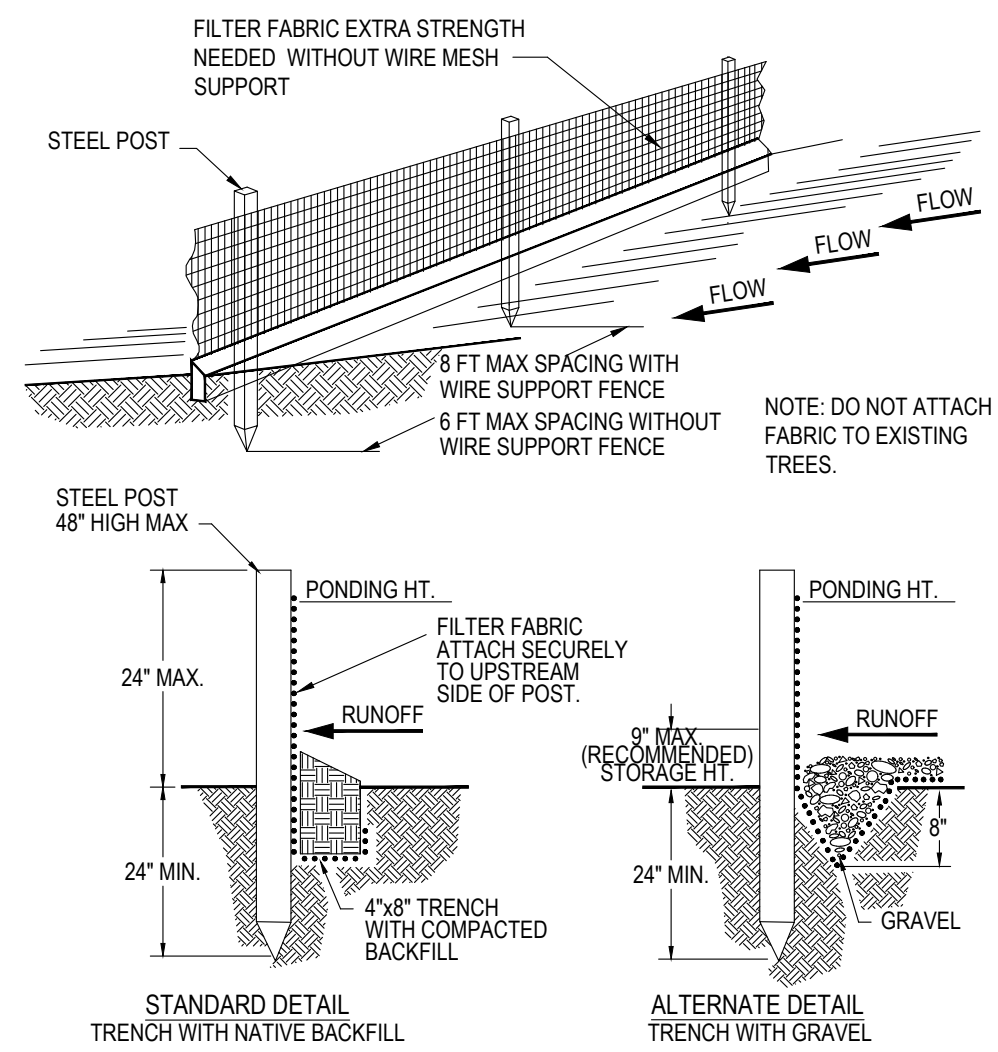
CONSULT S&EC ENVIRONMENTAL ENGINEERS FOR ADDITIONAL INFORMATION CONCERNING OTHER ALTERNATIVES FOR VEGETATION OF DENUDEED AREAS. THE ABOVE VEGETATION RATES ARE THOSE THAT DO WELL UNDER LOCAL CONDITIONS; OTHER SEEDING RATE COMBINATIONS ARE POSSIBLE.

*** TEMPORARY: RESEED ACCORDING TO OPTIMUM SEASON FOR DESIRED PERMANENT VEGETATION. DO NOT ALLOW TEMPORARY COVER TO GROW MORE THAN 12" IN HEIGHT BEFORE MOWING, OTHERWISE, FESCUE MAY BE SHADED OUT.

SEEDBED PREPARATION:

- CHISEL COMPACTED AREAS AND SPREAD TOPSOIL THREE INCHES DEEP OVER ADVERSE SOIL CONDITIONS, IF AVAILABLE.
- RIP THE ENTIRE AREA TO SIX INCHES DEEP.
- REMOVE ALL LOOSE ROCK, ROOTS AND OTHER OBSTRUCTIONS, LEAVING SURFACE REASONABLY SMOOTH AND UNIFORM.
- APPLY AGRICULTURAL LIME, FERTILIZER AND SUPERPHOSPHATE UNIFORMLY AND MIX WITH SOIL (SEE MIXTURE).
- CONTINUE TILLAGE UNTIL A WELL-PULVERIZED, FIRM, REASONABLY UNIFORM SEEDBED IS PREPARED FOUR TO SIX INCHES DEEP.
- SEED ON A FRESHLY PREPARED SEEDBED AND COVER SEED LIGHTLY WITH SEEDING EQUIPMENT OR CULTIPACK AFTER SEEDING.
- MULCH IMMEDIATELY AFTER SEEDING AND ANCHOR MULCH.
- INSPECT ALL SEEDED AREAS AND MAKE NECESSARY REPAIRS OR RESEEDINGS WITHIN THE PLANTING SEASON IF POSSIBLE. IF STAND SHOULD BE MORE THAN 60% DAMAGED, RE-ESTABLISH FOLLOWING THE ORIGINAL LIME, FERTILIZER AND SEEDING RATES.
- CONSULT S&EC ENVIRONMENTAL ENGINEERS ON MAINTENANCE TREATMENT AND FERTILIZATION AFTER PERMANENT COVER IS ESTABLISHED.

3 SEEDING SCHEDULE
SCALE: NTS



4 STANDARD TEMPORARY SILT FENCE
SCALE: NTS

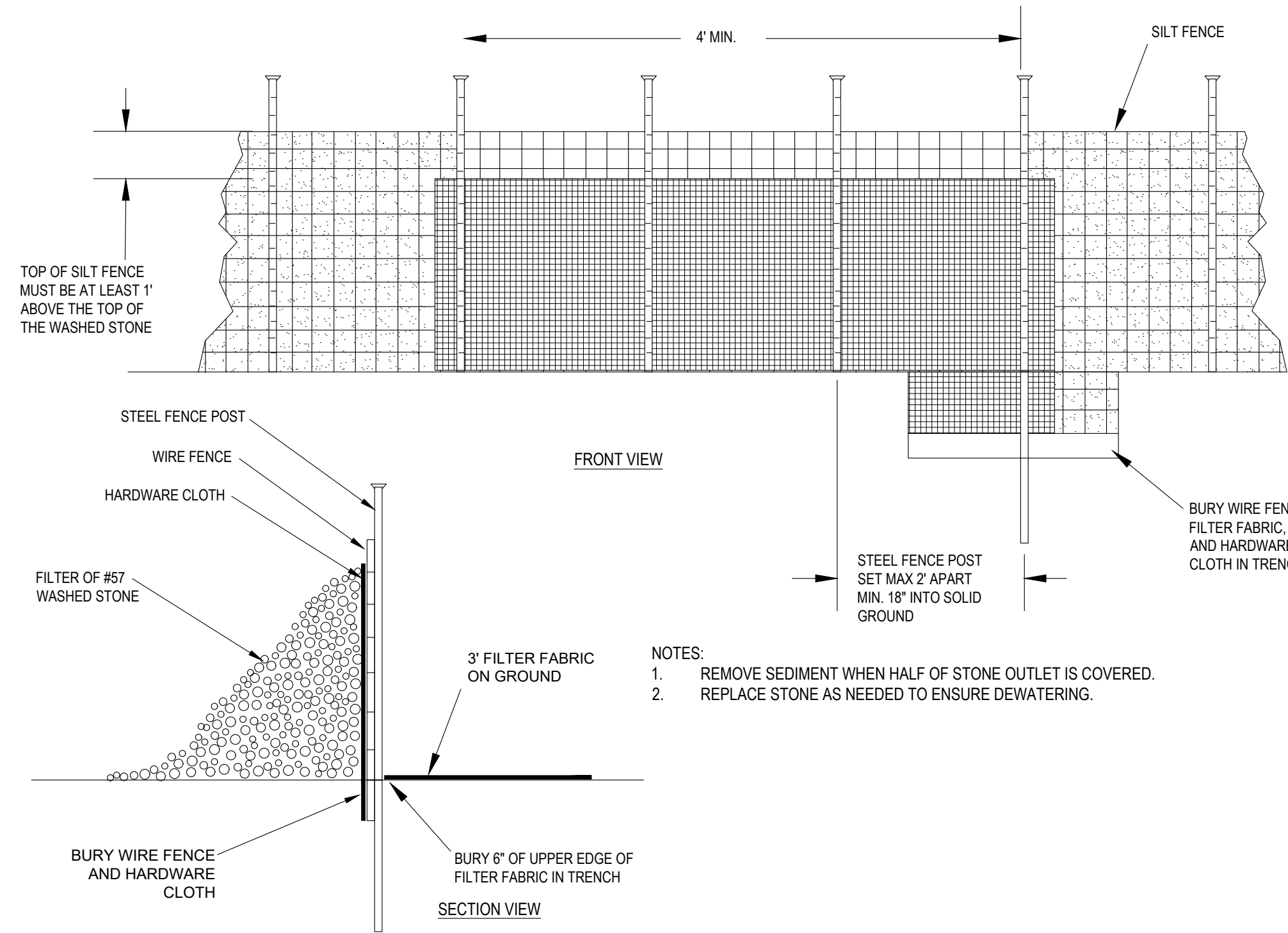
CONSTRUCTION SPECIFICATIONS

- USE A SYNTHETIC FILTER FABRIC OF AT LEAST 95% BY WEIGHT OF POLYOLEFINS OR POLYESTER, WHICH IS CERTIFIED BY THE MANUFACTURER OR SUPPLIER AS CONFORMING TO THE REQUIREMENTS IN ASTM D 6461, WHICH IS SHOWN IN PART IN TABLE 6.62B. SYNTHETIC FILTER FABRIC SHOULD CONTAIN ULTRAVIOLET RAY INHIBITORS AND STABILIZERS TO PROVIDE A MINIMUM OF 6 MONTHS OF EXPECTED USABLE CONSTRUCTION LIFE AT A TEMPERATURE RANGE OF 0 TO 120° F.
- ENSURE THAT POSTS FOR SEDIMENT FENCES ARE 1.33 LB/LINEAR-FT STEEL WITH A MINIMUM LENGTH OF 5 FEET. MAKE SURE THAT STEEL POSTS HAVE PROJECTIONS TO FACILITATE FASTENING THE FABRIC.
- FOR REINFORCEMENT OF STANDARD STRENGTH FILTER FABRIC, USE WIRE FENCE WITH A MINIMUM 14 GAUGE AND A MAXIMUM MESH SPACING OF 6 INCHES.

MAINTENANCE

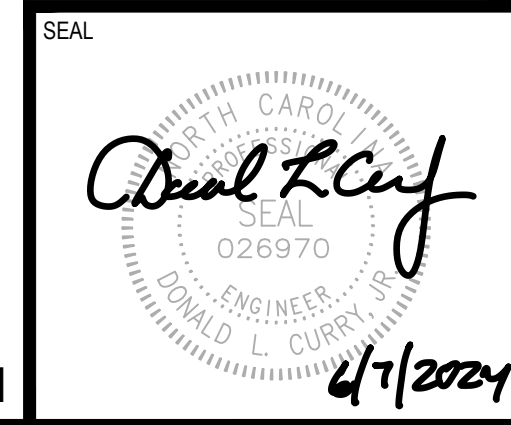
INSPECT SEDIMENT FENCES DAILY AND AFTER EACH RAINFALL EVENT. MAKE ANY REQUIRED REPAIRS IMMEDIATELY. SHOULD THE FABRIC OF A SEDIMENT FENCE COLLAPSE, TEAR, DECOMPOSE OR BECOME INEFFECTIVE, REPLACE IT PROMPTLY. REMOVE SEDIMENT DEPOSITS AS NECESSARY TO PROVIDE ADEQUATE STORAGE VOLUME FOR THE NEXT RAIN AND TO REDUCE PRESSURE ON THE FENCE. TAKE CARE TO AVOID UNDERMINING THE FENCE DURING CLEANOUT. REMOVE ALL FENCING MATERIALS AND UNSTABLE SEDIMENT DEPOSITS AND BRING THE AREA TO GRADE AND STABILIZE IT AFTER THE CONTRIBUTING DRAINAGE AREA HAS BEEN PROPERLY STABILIZED.

DETAIL REFERENCE 6.62 NC ESCPDM



5 STANDARD SILT FENCE OUTLET
SCALE: NTS

Z:\PROJECTS\FOLDER_ZEBEL\ON 2024\2024-004 GREENHAWK AMENITY - LILLINGTON\PIANS\SITE PLAN\SHEET FILE\SEC-2.0 EROSION CONTROL DETAILS.DWG
PLOTTED: 6/7/2024 2:58 PM



RELEASED FOR CONSTRUCTION

POWELL POOL AMENITY
EROSION CONTROL DETAILS

208 S. Frazier Avenue
Fayetteville, NC 27308
T: (910) 862-0848
F: (910) 862-0843
SEAL
DONALD L. CURRY
ENGINEER
NO. 026970
STATE OF NORTH CAROLINA
CURRY ENGINEERING
INC. LIC. NO. PA-7938
DATE: FEBRUARY 12, 2024
FILE NO. 2024-004
HORZ. SCALE: NONE
VERT. SCALE: 24" = 36'
ORIG. SHEET SIZE: 24" x 36"

EC-2.0