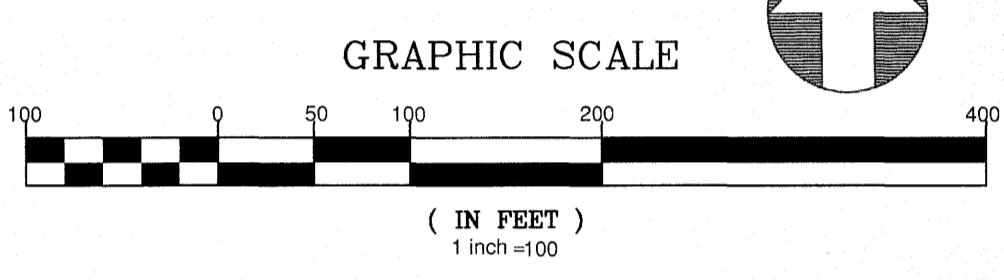
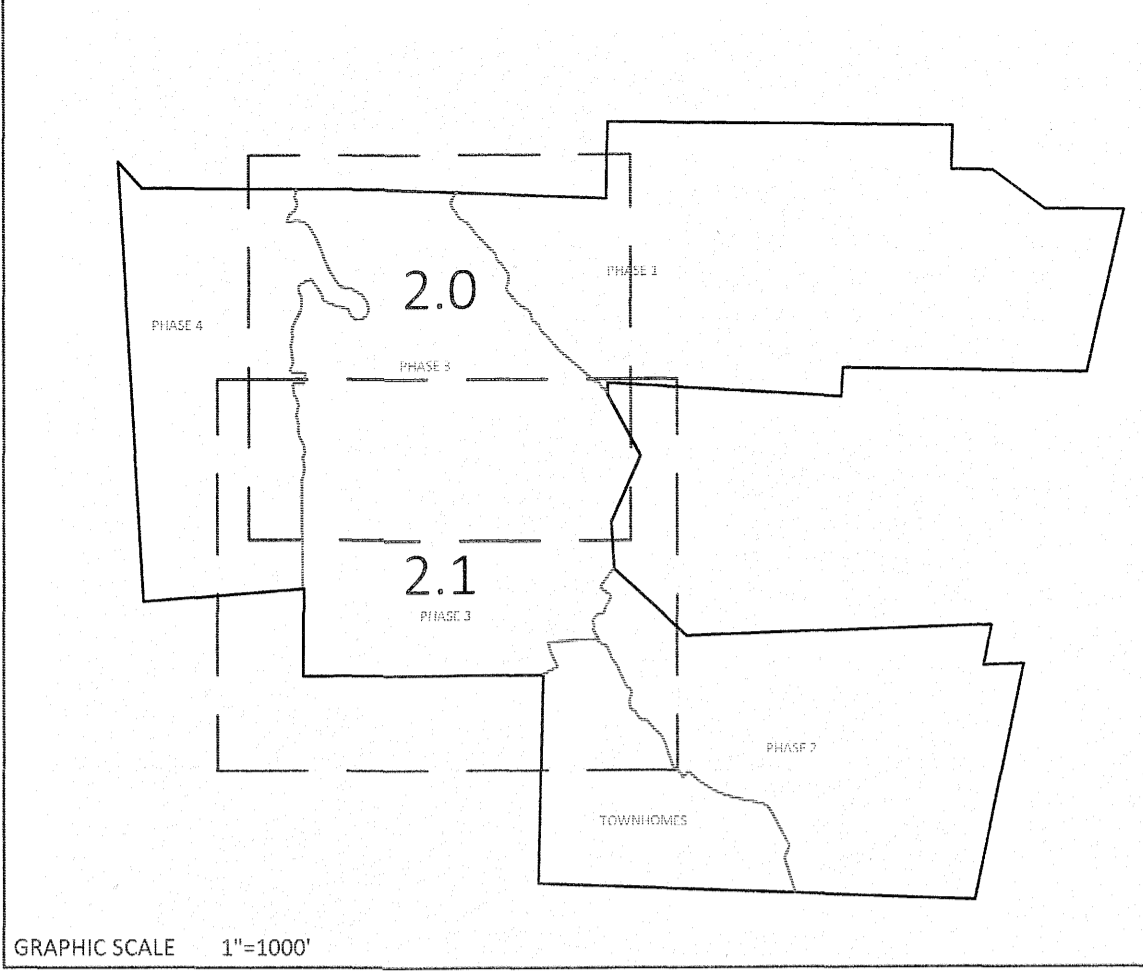


WC HOLLIF
LAURA W HOLLIF
P.I.N. 176
REAL ESTA
VF



PHILLIP L. MOODY
ZONING: R-30
D.B. 3750, PG. 589
B.M. 1986, PG. 968
B.M. 1936, PG. 142
P.I.N. 1767.01-28-3460
REAL ESTATE ID: 0048422
AGRICULTURAL



| EROSION CONTROL LEGEND | |
|------------------------|--|
| | 100 YEAR FLOOD EASEMENT |
| | EXISTING TOPOGRAPHY |
| | EXISTING BOUNDARY |
| | EXISTING WETLANDS AREA |
| | EXISTING 50' NEUSE RIPARIAN BUFFER |
| | EXISTING BUFFER ZONES |
| | PROPOSED LOT LINE |
| | BUILDING RESTRICTION LINE |
| | PROPOSED ROW |
| | PROPOSED SIDEWALK |
| | PROPOSED BOC |
| | PROPOSED EOP |
| | PROPOSED CENTERLINE |
| | PROPOSED GRADING |
| | PROPOSED EASEMENT |
| | PROPOSED 25 x 50 GRAVEL CONSTRUCTION ENTRANCE |
| | PROPOSED RIP RAP |
| | BASIN WEIR |
| | PROPOSED SEDIMENT BASIN |
| | PROPOSED INLET PROTECTION |
| | PROPOSED CHECK DAM |
| | PROPOSED SF LOW POINT |
| | GREENWAY TRAIL HATCH |
| | PROPOSED AREAS FOR 7 DAY STABILIZATION |
| | PROPOSED EROSION CONTROL BLANKET |
| | PROPOSED BASIN MAINTENANCE PAD |
| | PROPOSED WATTLE |
| | PROPOSED SILT FENCE |
| | PROPOSED TREE PROTECTION FENCE/LIMITS OF DISTURBANCE |
| | PROPOSED SILT FENCE/LIMITS OF DISTURBANCE |
| | PROPOSED DIVERSION DITCH |
| | PROPOSED SWALE |
| | PROPOSED JUNCTION BOX |
| | PROPOSED CATCH BASIN |
| | PROPOSED YARD INLET |
| | PROPOSED DROP INLET |
| | PROPOSED STORM WATER |

- GENERAL NOTES:
 1. ALL SEDIMENT TRAPS/PONDS SHALL BE STABILIZED WITHIN 7 DAYS OF INSTALLATION.
 2. WATTLE/CHECK DAM ARE TO BE PLACED EVERY 3 TO 4 FT VERTICALLY.
 3. WHERE SILT FENCE IS LOCATED OUTSIDE OF TEMPORARY SILT DITCHES THE SILT FENCE WILL BE THE LIMITS OF DISTURBANCE.
 4. SEE SHEET 3.1 FOR SEDIMENT BASIN CHART SHOWING THE SKIMMER/ORIFICE SIZES.
 5. DIVERSION SWALE DESIGN, SEE SHEET 3.1 FOR DETAILS AND REFERENCE TABLE.
 6. SEE SHEETS 2.2 TO 2.6 FOR SLOPE DRAIN PIPE SIZES.
 7. SEE SHEET 3.1 FOR RIP RAP PAD SIZES.

IS PROPERTIES, LLC ZONING: R-30
D.B. 16879 PG. 1897
B.M. 1971 PG. 445
I. 1757.02-97-4973 VACANT

JONES PROPERTIES, LLC
ZONING: R-30
D.B. 13842 PG. 1231
B.M. 1983 PG. 1447
P.I.N. 1757.02-97-2579

S D I FRANCOIS ZONING: R-30
D.B. 3210, PG. 279
LOT 4A
P.I.N. 1757.02-97-3325
SAL ESTATE ID: 0129622

ANNIE H. MOODY
ZONING: R-30
D.B. 0955, PG. 00-E
B.M. 1986, PG. 862
P.I.N. 1767.01-06-9438
AGRICULTURAL



PHILLIP L. MOODY
 PROFESSIONAL ENGINEER
 STATE OF NORTH CAROLINA
 LICENSE NO. 3881
 3/17/21

| NO. | DATE | REVISION: |
|-----|-----------|--|
| 1 | 1/22/2021 | 1ST REV. FROM TOWN OF ROLESVILLE CONSULTANT, WAKE COUNTY AND CITY OF RALEIGH |

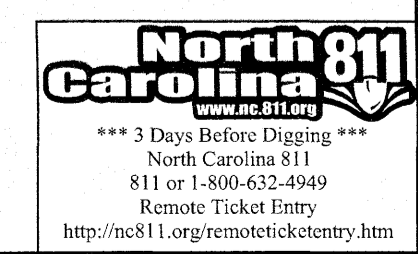
STIPULATION FOR REUSE
 THIS DRAWING WAS PREPARED FOR USE ON THE SPECIFIC SITE, NAMED HEREON, CONTEMPORANEOUSLY WITH ITS ISSUE DATE AS LISTED, HEREON, AND IT IS NOT SUITABLE FOR USE ON A DIFFERENT PROJECT SITE OR AT A LATER TIME. USE OF THIS DRAWING FOR REFERENCE OR EXAMPLE ON ANOTHER PROJECT REQUIRES THE SERVICES OF PROPERLY LICENSED ARCHITECTS AND ENGINEERS. REPRODUCTION OF THIS DRAWING FOR REUSE ON ANOTHER PROJECT IS NOT AUTHORIZED AND MAY BE CONTRARY TO THE LAW.

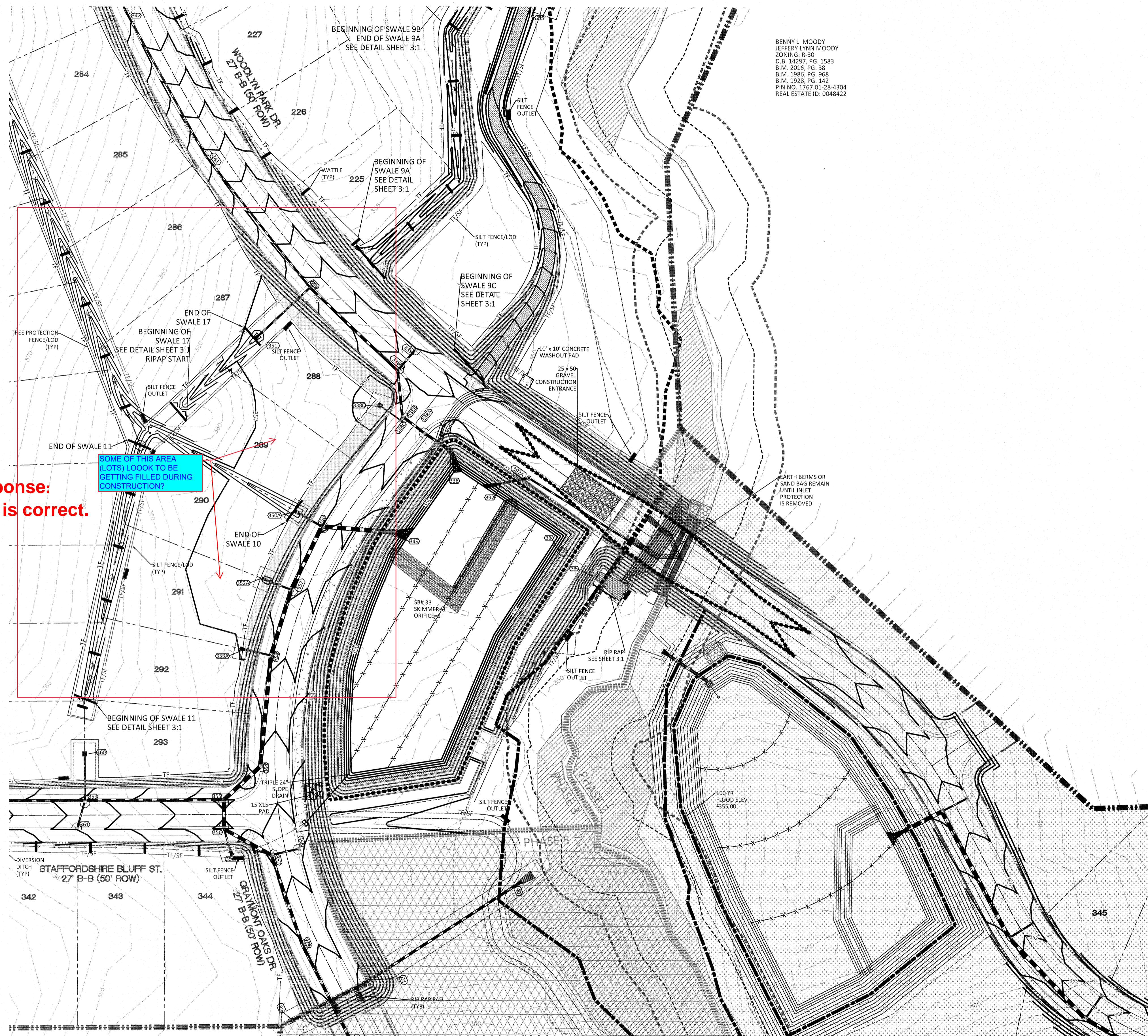
**KALAS FALLS
 PHASE 3
 1832 ROLESVILLE ROAD
 WAKE COUNTY, NC**

JOB NUMBER: 9900
 CHECKED BY:
 DRAWN BY:
 DATE: FEB 18, 2021

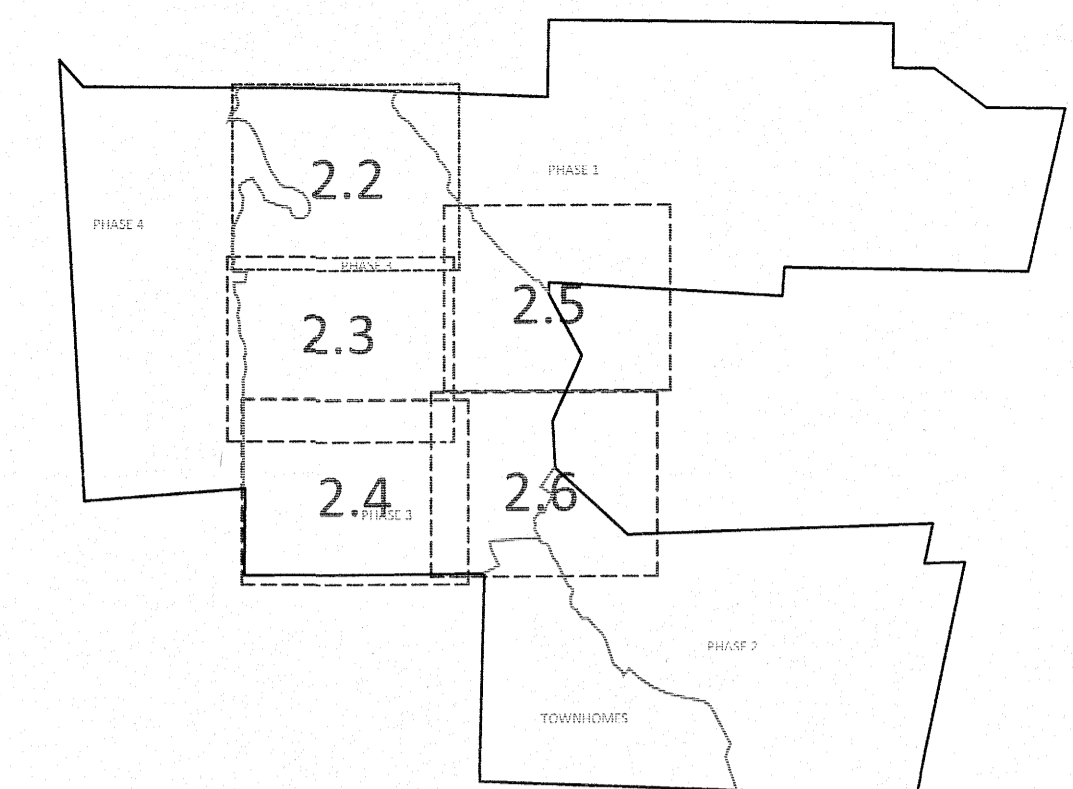
SHEET TITLE:
**PHASE 3
 EROSION
 CONTROL
 STAGE 1**

SHEET NO.:
2.1



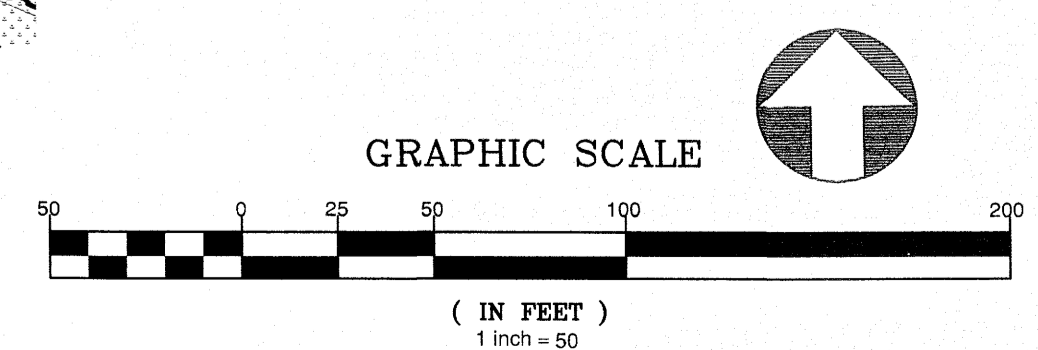


BENNY L. MOODY
JEFFERY LYNN MOODY
ZONING: R-30
D.B. 14297, PG. 1583
B.M. 2016, PG. 38
B.M. 1986, PG. 968
B.M. 1928, PG. 142
PIN NO. 3757-01-28-4304
REAL ESTATE ID: 0048422



| EROSION CONTROL LEGEND | |
|------------------------|--|
| | 100 YEAR FLOOD EASEMENT |
| | EXISTING TOPOGRAPHY |
| | EXISTING BOUNDARY |
| | EXISTING WETLANDS AREA |
| | EXISTING 50' NEUSE RIPARIAN BUFFER |
| | EXISTING BUFFER ZONES |
| | PROPOSED LOT LINE |
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| | PROPOSED BOC |
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| | PROPOSED STORM WATER |

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North Carolina
3 Days Before Digging
811 or 1-800-652-4949
Remote Ticket Entry
http://nc811.org/remoteticketentry.htm

AMERICAN Engineering
American Engineering Associates - Southeast, P.A.
4020 Westchase Boulevard, Suite 450
Raleigh, NC 27607
919-469-1101

AMERICAN ENGINEERING ASSOCIATES SOUTHEAST
C-3881
STATE OF NORTH CAROLINA
3/17/24

NO. 1 DATE 7/21/2021 REVISION: 1ST REVIEW FROM TOWN OF ROLESVILLE CONSULTANT, WAKE COUNTY AND CITY OF RALEIGH

KALAS FALLS PHASE 3
1832 ROLESVILLE ROAD
WAKE COUNTY, NC

JOB NUMBER: 9900
CHECKED BY:
DRAWN BY:
DATE: FEB 18, 2021

SHEET TITLE:
PHASE 3 EROSION CONTROL (50 SCALE)

SHEET NO.: 2.6

| Sediment Basin/Sediment Trap Schedule | | | | | | | | | | | | |
|---------------------------------------|--------------|------------------|--------------------|----------------|-------------|--------------------|------------------|--------------------|-------------------|--------------|-------------------|----------------------|
| Basin No. | Bottom Elev. | Top of Dam Elev. | Top of Riser Elev. | Spillway Elev. | Weir Length | Riser/ Barrel Size | Basin Dimensions | | | Skimmer Size | Skimmer Hole Size | Anti-Flotation Size* |
| | | | | | | | At Top of Dam | At Emerg. Spillway | At Bott. of Basin | | | |
| SCM#3B | 348.00 | 356.00 | 353.33 | 354.00 | 24' | 6'x6' | ** | ** | ** | 8" | 6" | 7'x7'x17" |
| SCM#3C | 337.00 | 344.00 | 342.00 | 342.50 | 12' | 4'x4' | ** | ** | ** | 6" | 4" | 5'x5'x7.5" |
| SCM#4B | 320.00 | 329.00 | 326.50 | 327.50 | 24' | 5'x5' | ** | ** | ** | 6" | 4.5" | 6'x6'x37" |
| SB#403 | 356.00 | 361.00 | N/A | 359.50 | 10' | N/A | 21'x40' | 15'x34' | 1'x20' | 1.5" | 0.5" | N/A |
| SB#404 | 347.00 | 352.00 | N/A | 350.50 | 12' | N/A | 53'x105' | 49'x99' | 2.5" | 2" | N/A | N/A |
| SCM#4C | 290.00 | 300.00 | 296.90 | 298.50 | 12' | 4'x4' | ** | ** | ** | 8" | 6" | 5'x5'x9" |
| SB#406 | 308.00 | 313.00 | N/A | 311.50 | 10' | N/A | 34'x64' | 28'x58' | 14'x44' | 2" | 1.25" | N/A |
| SCM#4E | 277.00 | 286.00 | 284.00 | 285.00 | 12' | 6'x6' | ** | ** | ** | 6" | 5" | 7'x7'x22.5" |
| SCM#8A | 354.00 | 362.00 | 360.50 | 361.00 | 12' | 3'x3' | ** | ** | ** | 4" | 3" | 4'x4'x8" |

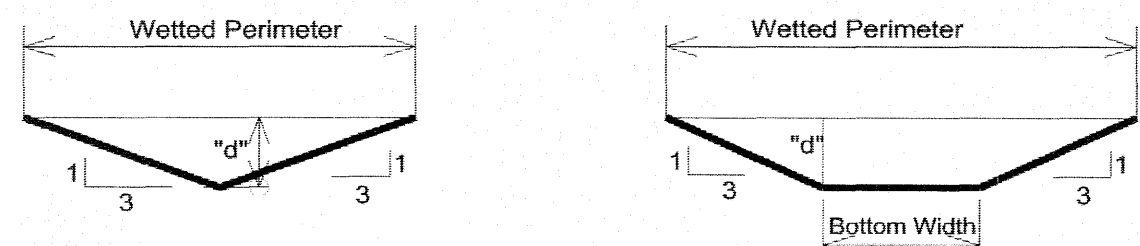
*Side x side x depth **Irregular, see plans
 Y:\Jobs\9900\Watkins Property\Documents\Schedules\Sediment Basin Schedule_Ph3.xlsx

Minimum slope requirement >0.5%

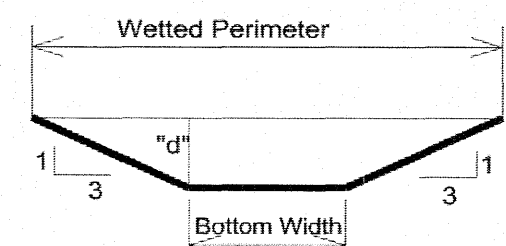
Response: These have been corrected.

Phase 3 Lot Areas

| LOT NUMBER | SQUARE FOOTAGE(SF) | LOT NUMBER | SQUARE FOOTAGE(SF) | LOT NUMBER | SQUARE FOOTAGE(SF) | LOT NUMBER | SQUARE FOOTAGE(SF) |
|------------|--------------------|------------|--------------------|------------|--------------------|------------|--------------------|
| 96 | 13,190 | 203 | 10,592 | 274 | 16,307 | 311 | 14,402 |
| 97 | 14,291 | 204 | 9,521 | 275 | 16,283 | 312 | 12,774 |
| 98 | 13,390 | 205 | 20,160 | 276 | 16,268 | 313 | 12,760 |
| 99 | 11,742 | 206 | 11,561 | 277 | 16,253 | 314 | 12,746 |
| 100 | 11,127 | 207 | 10,305 | 278 | 16,238 | 315 | 12,734 |
| 101 | 11,189 | 208 | 10,360 | 279 | 16,223 | 316 | 13,051 |
| 102 | 11,253 | 209 | 11,706 | 280 | 16,223 | 317 | 13,992 |
| 103 | 11,317 | 210 | 12,666 | 281 | 15,139 | 318 | 14,618 |
| 104 | 12,633 | 211 | 12,800 | 282 | 15,835 | 319 | 13,251 |
| 105 | 10,868 | 212 | 12,800 | 283 | 11,262 | 320 | 12,565 |
| 106 | 15,452 | 213 | 12,800 | 284 | 10,397 | 321 | 12,581 |
| 107 | 16,188 | 214 | 12,929 | 285 | 11,445 | 322 | 12,596 |
| 108 | 17,306 | 215 | 14,854 | 286 | 13,212 | 323 | 12,617 |
| 109 | 14,503 | 216 | 14,707 | 287 | 15,801 | 324 | 15,552 |
| 110 | 11,400 | 217 | 15,091 | 288 | 11,576 | 325 | 14,424 |
| 111 | 9,455 | 218 | 13,611 | 289 | 11,575 | 326 | 17,343 |
| 112 | 9,592 | 219 | 13,684 | 290 | 12,808 | 327 | 15,146 |
| 113 | 10,044 | 220 | 13,757 | 291 | 11,394 | 328 | 12,789 |
| 114 | 12,212 | 221 | 13,830 | 292 | 12,746 | 329 | 12,746 |
| 115 | 11,203 | 222 | 13,903 | 293 | 11,097 | 330 | 12,702 |
| 116 | 15,386 | 223 | 13,972 | 294 | 11,849 | 331 | 12,658 |
| 117 | 12,552 | 224 | 12,583 | 295 | 11,300 | 332 | 12,615 |
| 118 | 14,846 | 225 | 10,906 | 296 | 12,491 | 333 | 12,569 |
| 119 | 13,349 | 226 | 10,906 | 297 | 14,056 | 334 | 14,663 |
| 120 | 10,651 | 227 | 10,906 | 298 | 15,111 | 335 | 13,600 |
| 121 | 10,202 | 228 | 10,906 | 299 | 13,279 | 336 | 13,600 |
| 122 | 11,981 | 229 | 10,906 | 300 | 12,079 | 337 | 13,600 |
| 123 | 15,664 | 230 | 10,906 | 301 | 10,849 | 338 | 13,600 |
| 124 | 12,220 | 231 | 11,004 | 302 | 10,923 | 339 | 13,600 |
| 125 | 9,729 | 232 | 10,398 | 303 | 10,923 | 340 | 13,600 |
| 126 | 8,686 | 233 | 10,400 | 304 | 14,394 | 341 | 13,600 |
| 127 | 11,652 | 234 | 10,400 | 305 | 12,279 | 342 | 13,600 |
| 128 | 12,717 | 235 | 11,561 | 306 | 12,236 | 343 | 13,600 |
| 129 | 18,066 | 236 | 10,400 | 307 | 12,194 | 344 | 18,698 |
| 130 | 14,471 | 237 | 14,802 | 308 | 12,151 | | |
| 131 | 11,591 | 238 | 16,386 | 309 | 12,108 | | |
| 132 | 10,033 | 239 | 16,406 | 310 | 14,179 | | |



Ditch Section (For Bottom Width = 0) (Not To Scale)



Trapezoidal Ditch / Swale Section (Not To Scale)

TRAPEZOIDAL SWALE DRAINAGE CHART-PHASE THREE

| Ditch I.D. | D.A., Ac. | C | iso. in/hr | Q ₁₀ cfs | Left Side Slope, Z ₁ | Right Side Slope, Z ₂ | Avg. Ditch Slope, % | Bottom Width | Ditch Lining | Manning, n | Flow Velocity V ₁₀ , fps | Calc. Shear, psf | |
|------------|-----------|------|------------|---------------------|---------------------------------|----------------------------------|---------------------|--------------|------------------------|------------|-------------------------------------|------------------|------|
| DS 7A | 0.20 | 0.45 | 7.22 | 0.65 | 3.00 | 3.00 | 1.2 | 0.00 | Reinforced Mesh(Grass) | 0.022 | 0.32 | 2.08 | 0.27 |
| DS 7B | 0.51 | 0.48 | 7.22 | 1.77 | 3.00 | 3.00 | 12.0 | 0.00 | RipRap | 0.037 | 0.37 | 4.29 | 2.77 |
| DS 7C | 0.78 | 0.46 | 7.22 | 2.59 | 3.00 | 3.00 | 4.0 | 0.00 | RipRap | 0.037 | 0.52 | 3.12 | 1.30 |
| DS 7D | 2.05 | 0.41 | 7.22 | 6.07 | 3.00 | 3.00 | 1.2 | 2.00 | RipRap | 0.037 | 0.55 | 3.04 | 0.41 |
| DS 9A | 1.60 | 0.35 | 7.22 | 4.04 | 3.00 | 3.00 | 2.0 | 1.00 | Reinforced Mesh(Grass) | 0.022 | 0.44 | 3.95 | 0.55 |
| DS 9B | 2.39 | 0.34 | 7.22 | 5.87 | 3.00 | 3.00 | 1.7 | 1.00 | Reinforced Mesh(Grass) | 0.022 | 0.54 | 4.10 | 0.58 |
| DS 9C | 0.68 | 0.35 | 7.22 | 1.72 | 3.00 | 3.00 | 1.0 | 0.00 | Reinforced Mesh(Grass) | 0.022 | 0.48 | 2.49 | 0.30 |
| DS 9D | 0.15 | 0.34 | 7.22 | 0.37 | 3.00 | 3.00 | 2.3 | 0.00 | Reinforced Mesh(Grass) | 0.022 | 0.23 | 2.28 | 0.33 |
| DS 9E | 0.78 | 0.32 | 7.22 | 1.80 | 3.00 | 3.00 | 1.5 | 0.00 | Reinforced Mesh(Grass) | 0.022 | 0.45 | 2.93 | 0.42 |
| DS 9F | 0.54 | 0.34 | 7.22 | 1.33 | 3.00 | 3.00 | 1.0 | 0.00 | Reinforced Mesh(Grass) | 0.022 | 0.44 | 2.33 | 0.27 |
| DS 9G | 1.16 | 0.34 | 7.22 | 2.85 | 3.00 | 3.00 | 12.0 | 0.00 | RipRap | 0.037 | 0.44 | 4.85 | 3.31 |
| DS 9H | 4.33 | 0.34 | 7.22 | 10.63 | 3.00 | 3.00 | 1.3 | 2.00 | RipRap | 0.037 | 0.82 | 2.93 | 0.68 |
| DS 9I | 0.26 | 0.34 | 7.22 | 0.64 | 3.00 | 3.00 | 6.6 | 0.00 | Reinforced Mesh(Grass) | 0.022 | 0.23 | 3.92 | 0.96 |
| DS 9J | 0.50 | 0.34 | 7.22 | 1.23 | 3.00 | 3.00 | 2.0 | 0.00 | Reinforced Mesh(Grass) | 0.022 | 0.37 | 2.96 | 0.46 |
| DS 9K | 0.83 | 0.34 | 7.22 | 2.04 | 3.00 | 3.00 | 8.4 | 0.00 | RipRap | 0.037 | 0.42 | 3.90 | 2.19 |
| DS 9L | 0.81 | 0.34 | 7.22 | 1.99 | 3.00 | 3.00 | 8.3 | 0.00 | RipRap | 0.037 | 0.42 | 3.86 | 2.15 |
| DS 9M | 0.65 | 0.34 | 7.22 | 1.60 | 3.00 | 3.00 | 8.3 | 0.00 | RipRap | 0.037 | 0.38 | 3.65 | 1.98 |
| DS 9N | 0.80 | 0.34 | 7.22 | 1.96 | 3.00 | 3.00 | 9.5 | 0.00 | RipRap | 0.037 | 0.40 | 4.03 | 2.37 |
| DS 10A | 1.35 | 0.45 | 7.22 | 4.39 | 3.00 | 3.00 | 5.2 | 2.00 | RipRap | 0.037 | 0.37 | 3.76 | 1.21 |
| DS 10B | 2.50 | 0.45 | 7.22 | 8.12 | 3.00 | 3.00 | 4.1 | 2.00 | RipRap | 0.037 | 0.54 | 4.11 | 1.39 |
| DS 11 | 0.95 | 0.45 | 7.22 | 3.09 | 3.00 | 3.00 | 0.8 | 2.00 | Reinforced Mesh(Grass) | 0.022 | 0.39 | 2.53 | 0.19 |
| DS 12 | 2.33 | 0.31 | 7.22 | 5.22 | 3.00 | 3.00 | 1.0 | 3.00 | Reinforced Mesh(Grass) | 0.022 | 0.41 | 3.05 | 0.25 |
| DS 13 | 1.05 | 0.45 | 7.22 | 3.41 | 3.00 | 3.00 | 7.0 | 1.00 | RipRap | 0.037 | 0.40 | 4.16 | 1.75 |
| DS 14A | 0.76 | 0.50 | 7.22 | 2.74 | 3.00 | 3.00 | 7.0 | 1.00 | RipRap | 0.037 | 0.35 | 3.86 | 1.53 |
| DS 14B | 0.90 | 0.46 | 7.22 | 2.99 | 3.00 | 3.00 | 4.0 | 0.00 | RipRap | 0.037 | 0.55 | 3.24 | 1.37 |
| DS 15A | 0.05 | 0.20 | 7.22 | 0.07 | 3.00 | 3.00 | 1.5 | 0.00 | Reinforced Mesh(Grass) | 0.022 | 0.15 | 1.39 | 0.14 |
| DS 15B | 0.28 | 0.38 | 7.22 | 0.77 | 3.00 | 3.00 | 9.0 | 2.00 | RipRap | 0.037 | 0.30 | 3.23 | 1.68 |
| DS 15C | 1.07 | 0.48 | 7.22 | 3.71 | 3.00 | 3.00 | 1.5 | 1.00 | Reinforced Mesh(Grass) | 0.022 | 0.46 | 3.50 | 0.43 |
| DS 17 | 0.87 | 0.4 | 7.22 | 2.51 | 3.00 | 3.00 | 5.3 | 2.00 | RipRap | 0.037 | 0.28 | 3.21 | 0.91 |
| DS 24A | 0.34 | 0.49 | 7.22 | 1.20 | 3.00 | 3.00 | 6.9 | 2.00 | Reinforced Mesh(Grass) | 0.022 | 0.13 | 3.95 | 0.55 |
| DS 24B | 1.03 | 0.49 | 7.22 | 3.64 | 3.00 | 3.00 | 6.9 | 2.00 | RipRap | 0.037 | 0.31 | 3.93 | 1.35 |
| DS 25 | 0.69 | 0.49 | 7.22 | 2.44 | 3.00 | 3.00 | 2.1 | 2.00 | Reinforced Mesh(Grass) | 0.022 | 0.26 | 3.31 | 0.35 |
| DS 26A | 0.20 | 0.49 | 7.22 | 0.71 | 3.00 | 3.00 | 4.0 | 2.00 | Reinforced Mesh(Grass) | 0.022 | 0.11 | 2.76 | 0.28 |
| DS 26B | 0.50 | 0.49 | 7.22 | 3.18 | 3.00 | 3.00 | 2.0 | 2.00 | RipRap | 0.037 | 0.41 | 2.44 | 1.51 |
| DS 27 | 0.92 | 0.49 | 7.22 | 3.25 | 3.00 | 3.00 | 4.6 | 2.00 | RipRap | 0.037 | 0.33 | 3.30 | 0.95 |
| DS 34 | 0.53 | 0.4 | 7.22 | 1.53 | 3.00 | 3.00 | 6.0 | 2.00 | Reinforced Mesh(Grass) | 0.022 | 0.15 | 4.06 | 0.56 |
| DS 34A | 0.11 | 0.4 | 7.22 | 0.32 | 3.00 | 3.00 | 2.4 | 2.00 | Reinforced Mesh(Grass) | 0.022 | 0.08 | 1.77 | 0.12 |
| DS 34B | 0.12 | 0.4 | 7.22 | 0.35 | 3.00 | 3.00 | 3.3 | 2.00 | Reinforced Mesh(Grass) | 0.022 | 0.08 | 2.02 | 0.16 |
| DS 34C | 0.13 | 0.4 | 7.22 | 0.38 | 3.00 | 3.00 | 3.7 | 2.00 | Reinforced Mesh(Grass) | 0.022 | 0.08 | 2.16 | 0.18 |

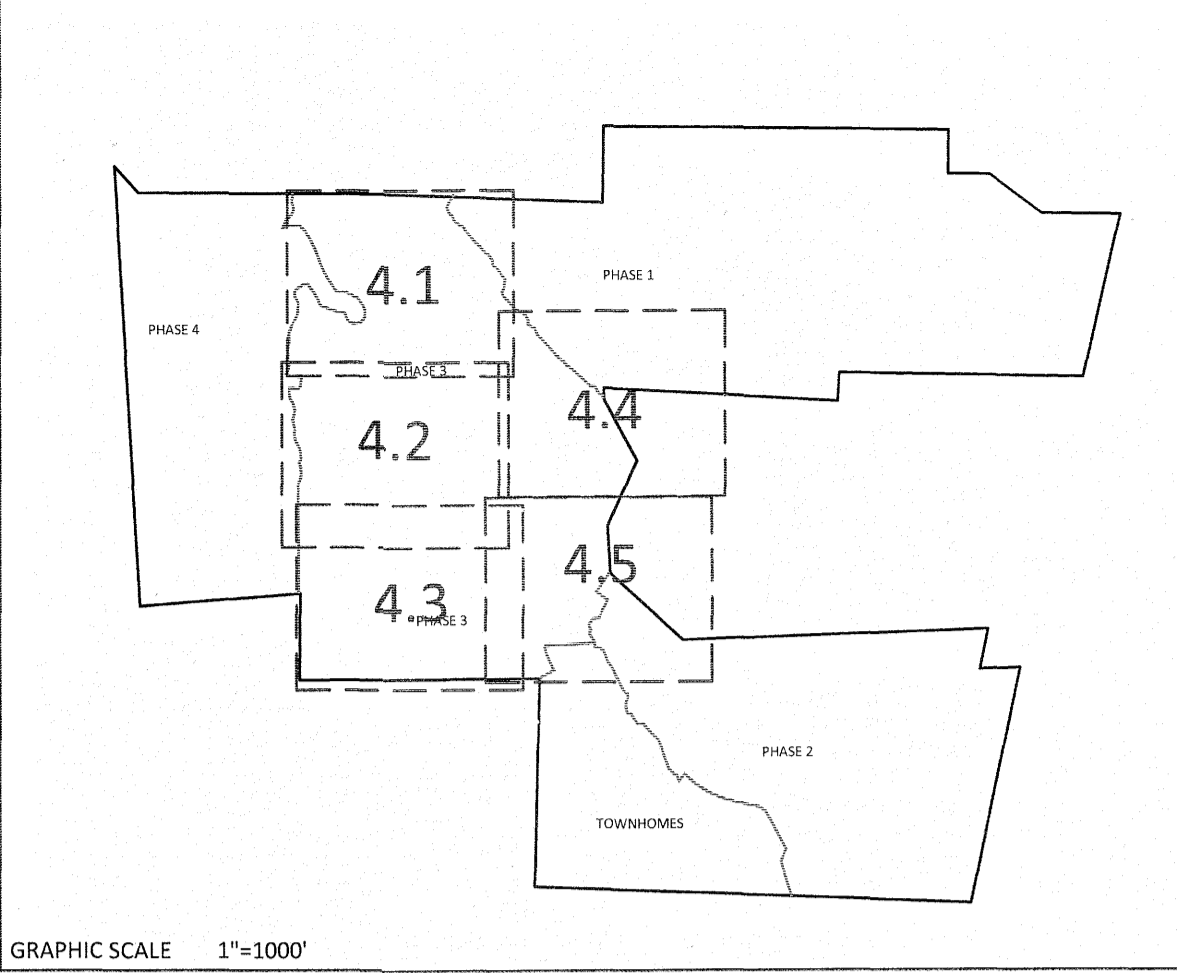
RIP-RAP PADS

| OUTLET | PIPE DIA. (IN.) | VELOCITY (FPS) | ZONE | STONE SIZE (FT.) | STONE CLASS (FT.) | WIDTH (FT.) | LENGTH (FT.) | DEPTH (IN.) |
|---------|-----------------|----------------|------|------------------|-------------------|-------------|--------------|-------------|
| FES 30 | 24 | 9.36 | 2 | 6" | B | 8 | 12 | 18 |
| FES 3B | 48 | 9.69 | 3 | 13" | A | 17.5 | 32 | 24 |
| FES 3C | 18 | 6.54 | 1 | 3" | A | 5.5 | 6 | 12 |
| FES 4B | 30 | 6.76 | 3*** | 13" | A | 11 | 20 | 24 |
| FES 4C | 18 | 7.06 | 3*** | 13" | A | 6.5 | 12 | 24 |
| FES 4E | 24 | 5.55 | 3*** | 13" | A | 8.75 | 16 | 24 |
| FES 8A | 18 | 5.01 | 1 | 3" | A | 5.5 | 6 | 12 |
| FES 17 | 15 | 7.41 | 1 | 3" | A | 4.75 | 5 | 12 |
| FES 19 | 15 | 8.34 | 2 | 6" | B | 5 | 7.5 | 18 |
| FES 21 | 15 | 4.52 | 1 | 3" | A | 4.75 | 5 | 12 |
| FES 23 | 18 | 6.95 | 2 | 6" | B | 6 | 9 | 18 |
| SB#403 | 4 | ** | 1 | 3" | A | 2 | 4 | 12 |
| SB#404 | 4 | ** | 1 | 3" | A | 2 | 4 | 12 |
| SB#406 | 4 | ** | 1 | 3" | A | 2 | 4 | 12 |
| FES 25 | 18 | 6.73 | 2 | 6" | B | 6 | 9 | 18 |
| FES 330 | 18 | 5.53 | 1 | 3" | A | 5.5 | 6 | 12 |
| FES 338 | 24 | 5.73 | 2 | 6" | B | 8 | 12 | 18 |
| FES 349 | 42 | 5.77 | 2 | 6" | B | 14 | 21 | 18 |
| FES 392 | 18 | 4.07 | 1 | 3" | A | 5.5 | 6 | 12 |
| FES 401 | 24 | 7.55 | 2 | 6" | B | 8 | 12 | 18 |
| FES 419 | 30 | 12.91 | 3 | 13" | A | 11 | 20 | 24 |
| FES 469 | 36 | 8.89 | 2 | 6" | B | 12 | 18 | 18 |
| FES 800 | 18 | 8.76 | 2 | 6" | B | 6 | 9 | 18 |
| FES 815 | 15 | 6.13 | 1 | 3" | A | 4.75 | 5 | 12 |

Are all these structures built in this phase? Please identify the location of these structures on plans. SEE DETAIL FOR ONLY (1) ROAD CULVERT CROSSING (SHEETS 2.7) NO EW/HW LABELS

Response: That is correct.

| PIPING & STRUCT | | | | | | | | | |
|-----------------|--|--|--|--|--|--|--|--|--|
|-----------------|--|--|--|--|--|--|--|--|--|

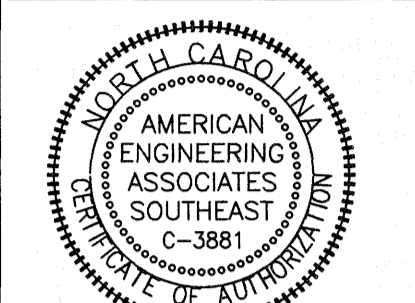
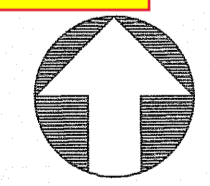
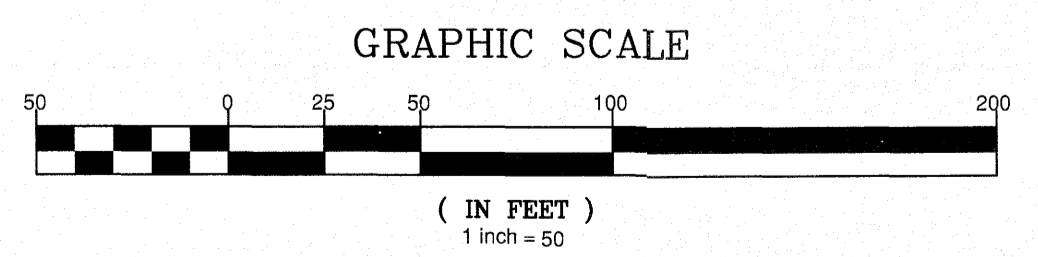


NOTE: THE 100 YEAR FLOOD-LINE AS ON THESE PLANS WERE TAKEN FROM THE FLOOD STUDY PREPARED BY DONLAD A SEVER, PE (024627) OF HUGH J. GILLECE, III AND ASSOCIATES, P.A.

| GRADING LEGEND | |
|----------------|---|
| | EXISTING TOPOGRAPHY |
| | EXISTING BOUNDARY |
| | EXISTING WETLANDS AREA |
| | EXISTING 50' RIPIPERIAN BUFFER |
| | EXISTING BUFFER ZONES |
| | PROPOSED LOT LINE |
| | 100 YEAR FLOOD EASEMENT |
| | BUILDING RESTRICTION LINE |
| | PROPOSED GREENWAY HATCHING |
| | PROPOSED ROW |
| | PROPOSED SIDEWALK |
| | PROPOSED BOC |
| | PROPOSED EOP |
| | PROPOSED CENTERLINE |
| | PROPOSED GRADING |
| | PROPOSED EASEMENT |
| | PHASELINE |
| | RIP RAP |
| | BASIN WEIR |
| | JUNCTION BOX |
| | PROPOSED CATCH BASIN |
| | PROPOSED YARD INLET |
| | PROPOSED DROP INLET |
| | PROPOSED FLARED END SECTION |
| | PROPOSED STORM WATER |
| | EXISTING PHASING |
| | FUTURE PHASING |
| | PROPOSED SWALE (AT TIME OF LOT GRADING) |

Response:
These have been corrected.

SOME OF THE NOTES FOR THE SWALES ARE CONFUSING BASED ON END AND BEGINNING - RECOMMEND HAVING THE BEGINNING (UPSTREAM) AND THE END (DOWN STREAM, STR./INLET)
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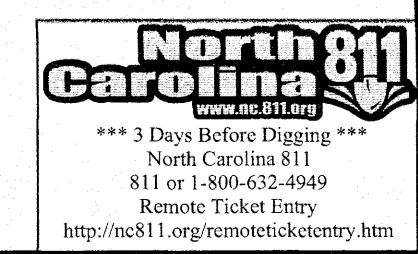
Professional Engineer Seal for Donlad A. Sever, PE, No. 024627, State of North Carolina.

| NO. | DATE | REVISION |
|-----|-----------|--|
| 1 | 7/21/2021 | 1ST REVIEW FROM TOWN OF ROLESVILLE CONSULTANT, WAKE COUNTY AND CITY OF RALEIGH |

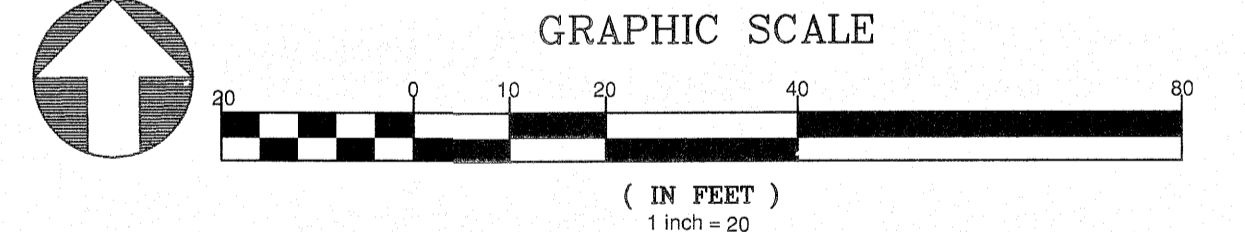
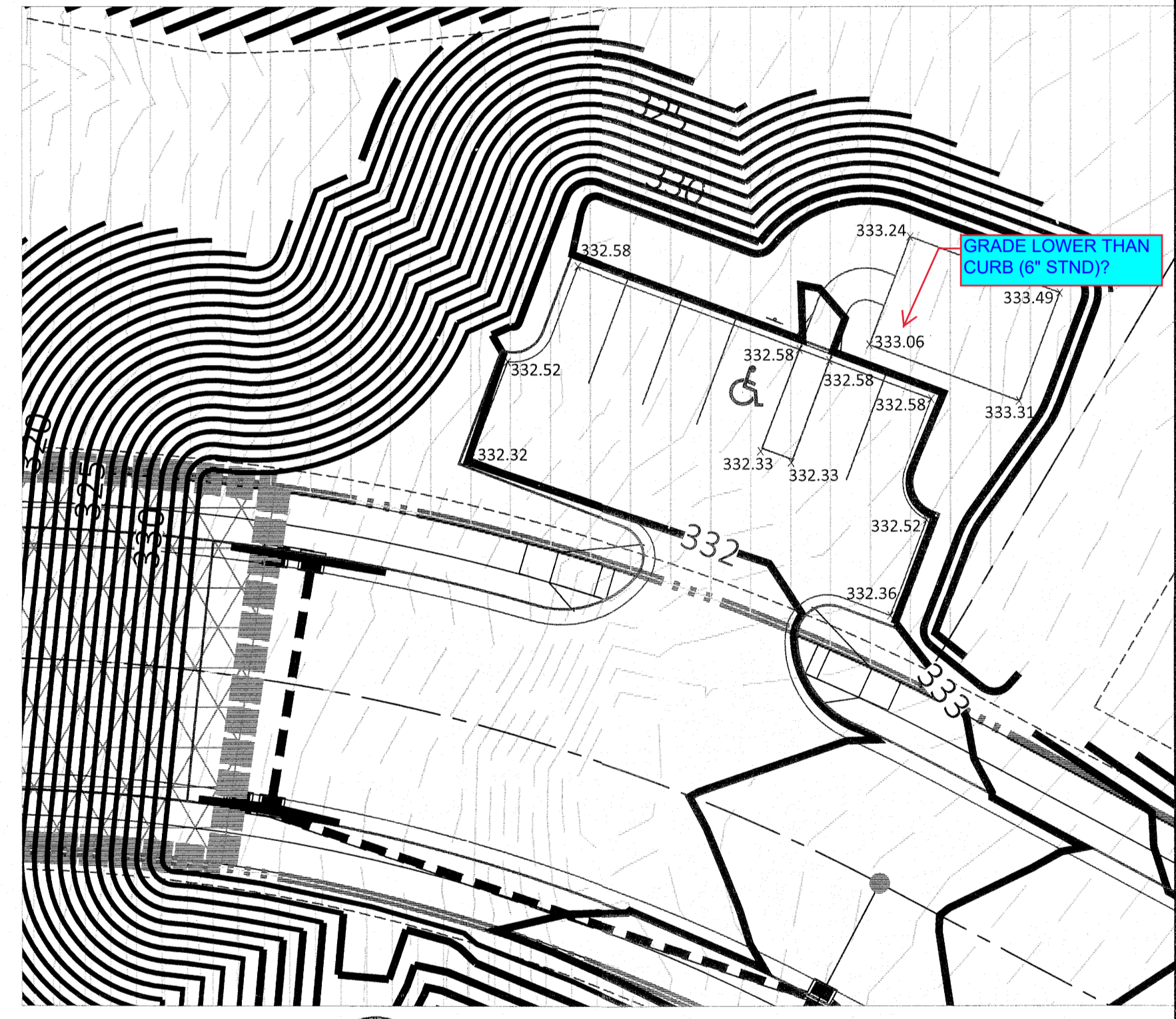
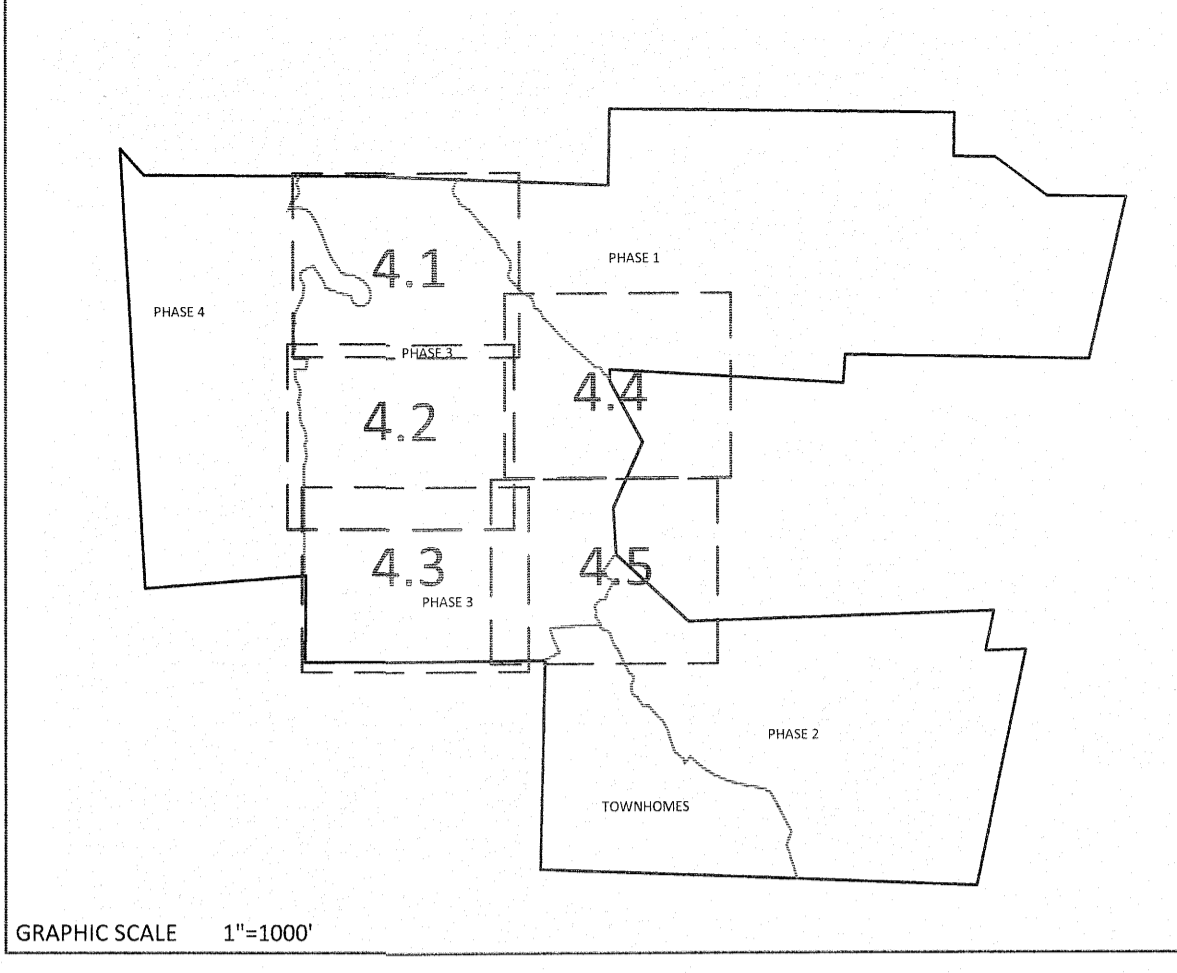
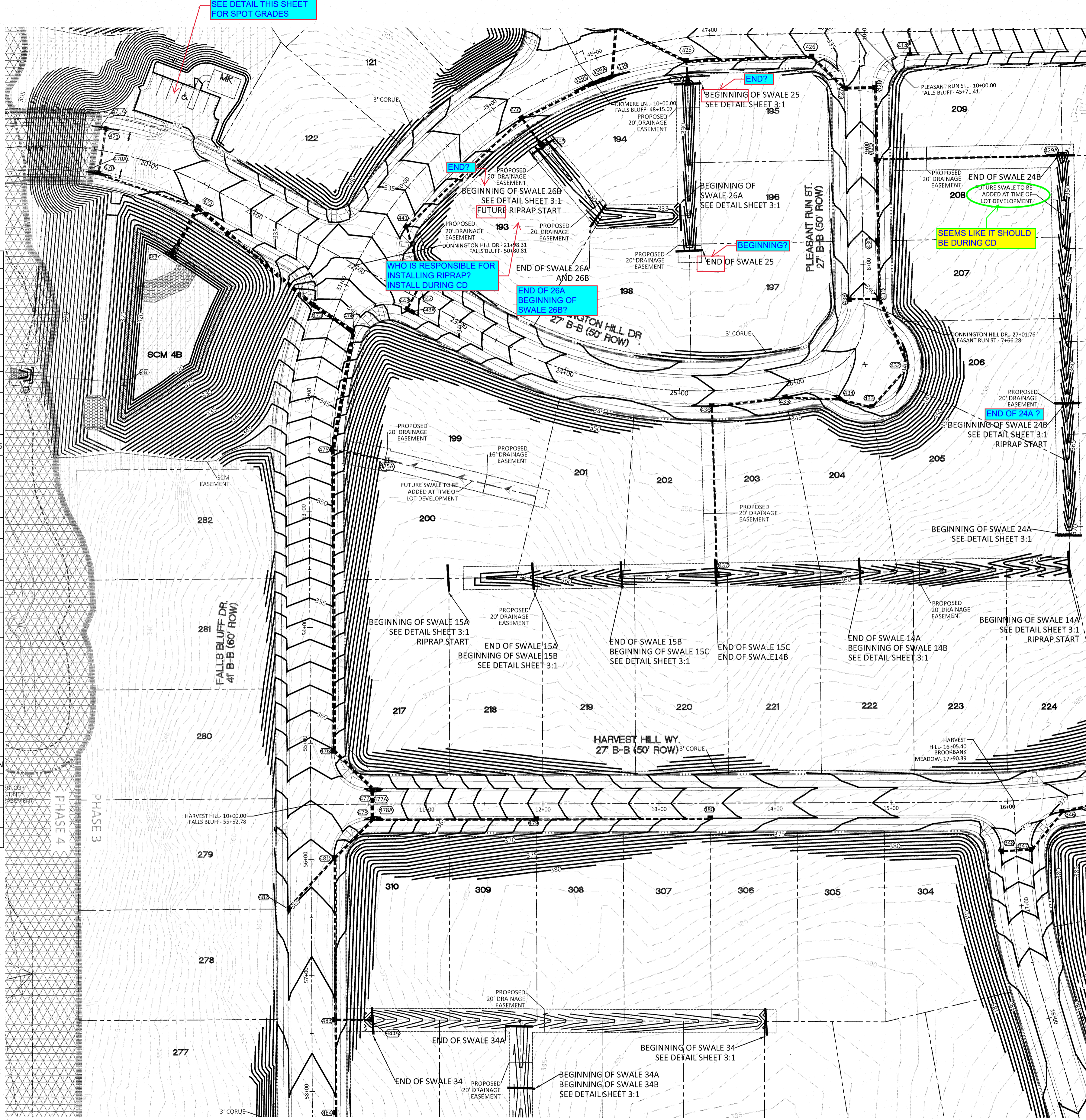
STIPULATION FOR REUSE
 THIS DRAWING WAS PREPARED FOR USE ON THE SPECIFIC SITE, NAMED HEREON, CONTEMPORANEOUSLY WITH ITS ISSUE DATE AS LISTED, HEREON, AND IT IS NOT SUITABLE FOR USE ON A DIFFERENT PROJECT SITE OR AT A LATER TIME. USE OF THIS DRAWING FOR REFERENCE OR EXAMPLE ON ANOTHER PROJECT REQUIRES THE SERVICES OF PROPERLY LICENSED ARCHITECTS AND ENGINEERS. REPRODUCTION OF THIS DRAWING FOR REUSE ON ANOTHER PROJECT IS NOT AUTHORIZED AND MAY BE CONTRARY TO THE LAW.

KALAS FALLS PHASE 3
 1832 ROLESVILLE ROAD
 WAKE COUNTY, NC

| | |
|--------------|---------------------------------------|
| JOB NUMBER: | 9900 |
| CHECKED BY: | |
| DRAWN BY: | |
| DATE: | FEB 18, 2021 |
| SHEET TITLE: | PHASE 3 GRADING & DRAINAGE |
| SHEET NO.: | 4.1 |

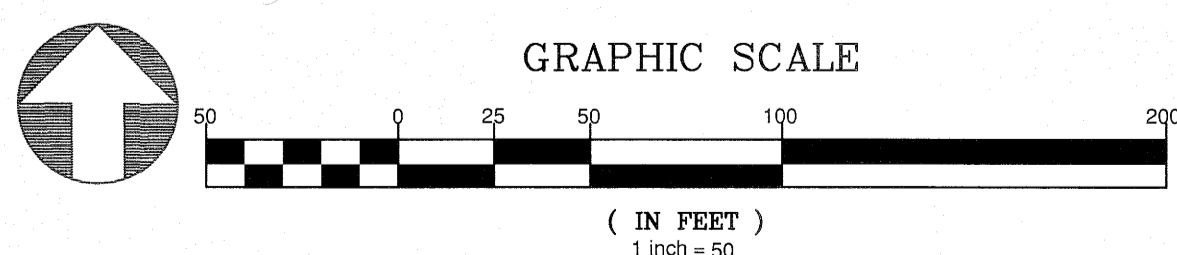


| GRADING LEGEND | |
|----------------|---|
| | EXISTING TOPOGRAPHY |
| | EXISTING BOUNDARY |
| | EXISTING WETLANDS AREA |
| | EXISTING 50' NEUSE RIPARIAN BUFFER |
| | EXISTING BUFFER ZONES |
| | PROPOSED LOT LINE |
| | 100 YEAR FLOOD EASEMENT |
| | BUILDING RESTRICTION LINE |
| | PROPOSED GREENWAY HATCHING |
| | PROPOSED ROW |
| | PROPOSED SIDEWALK |
| | PROPOSED BOC |
| | PROPOSED EOP |
| | PROPOSED CENTERLINE |
| | PROPOSED GRADING |
| | PROPOSED EASEMENT |
| | PHASELINE |
| | RIP RAP |
| | BASIN WEIR |
| | JUNCTION BOX |
| | PROPOSED CATCH BASIN |
| | PROPOSED YARD INLET |
| | PROPOSED DROP INLET |
| | PROPOSED FLARED END SECTION |
| | PROPOSED STORM WATER |
| | EXISTING PHASING |
| | FUTURE PHASING |
| | PROPOSED SWALE (AT TIME OF LOT GRADING) |

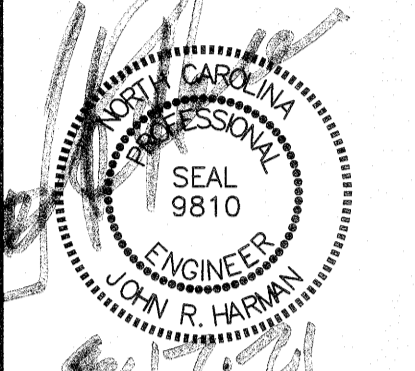


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Response:
 These have been corrected.



AMERICAN Engineering
 American Engineering Associates - Southeast, P.A.
 4020 Westchase Boulevard, Suite 450
 Raleigh, NC 27607
 919-469-1101

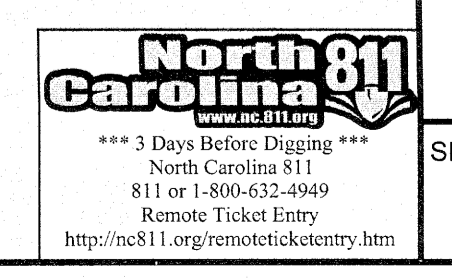


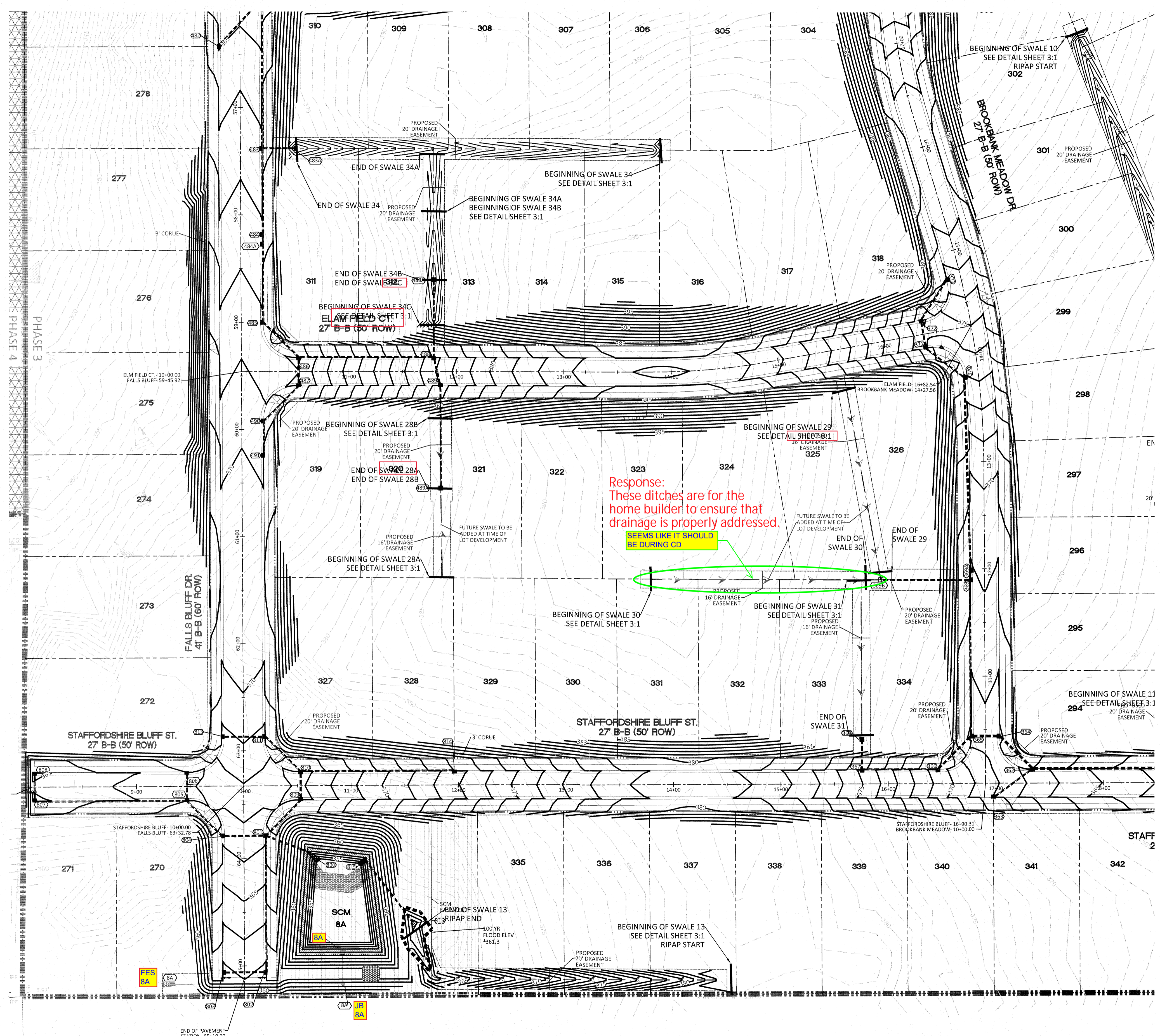
| | | |
|-----|-----------|--|
| NO. | DATE | REVISION: |
| 1 | 7/21/2021 | 1ST REVIEW FROM TOWN OF ROLESVILLE CONSULTANT, WAKE COUNTY AND CITY OF RALEIGH |

STIPULATION FOR REUSE
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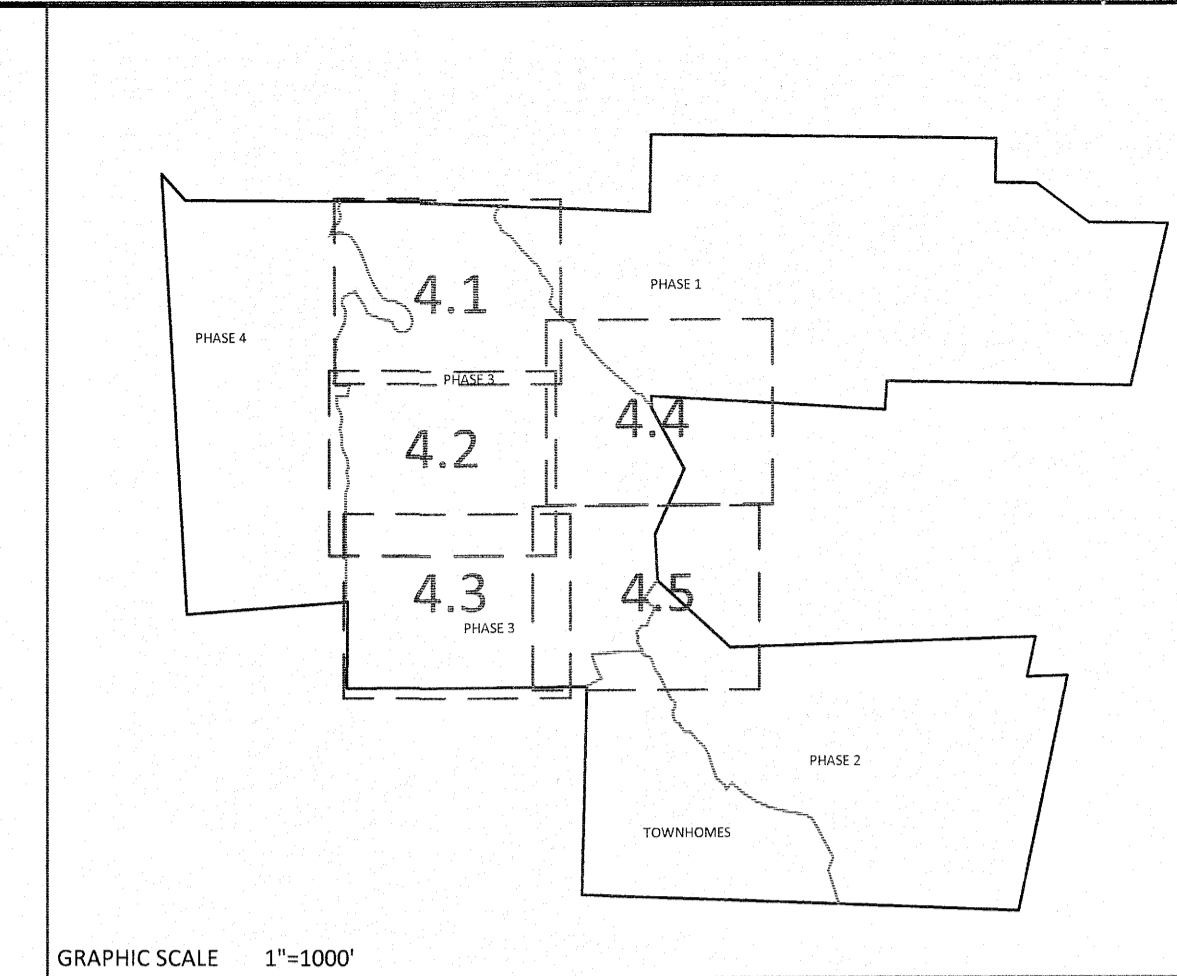
KALAS FALLS PHASE 3
 1832 ROLESVILLE ROAD
 WAKE COUNTY, NC

| | |
|--------------|----------------------------|
| JOB NUMBER: | 9900 |
| CHECKED BY: | |
| DRAWN BY: | |
| DATE: | FEB 18, 2021 |
| SHEET TITLE: | PHASE 3 GRADING & DRAINAGE |
| SHEET NO.: | 4.2 |





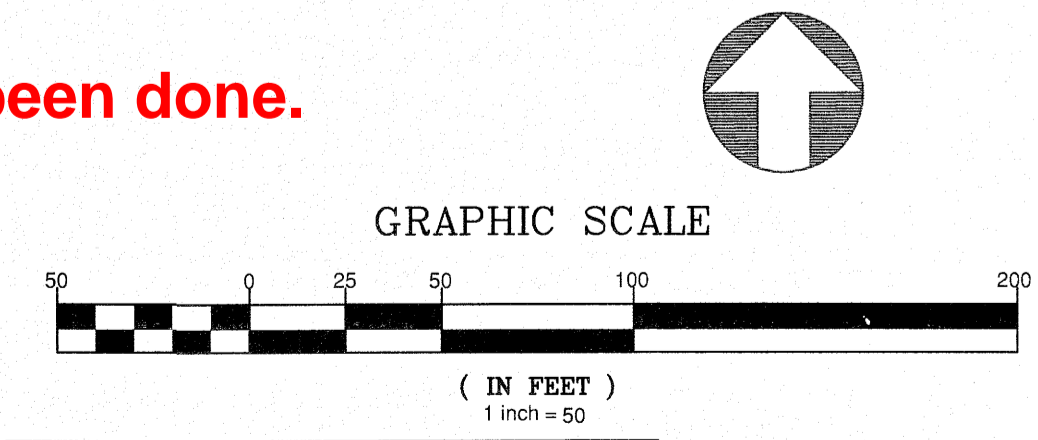
Response:
These ditches are for the
home builder to ensure that
drainage is properly addressed.
SEEMS LIKE IT SHOULD
BE DURING CD



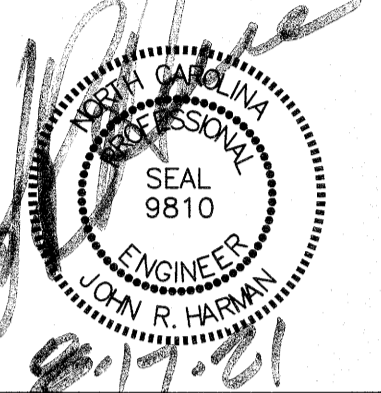
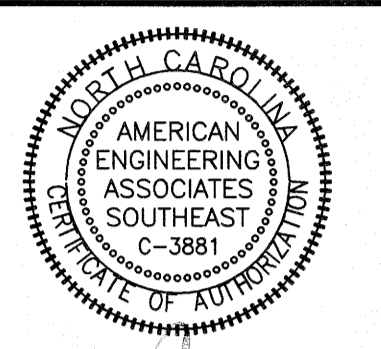
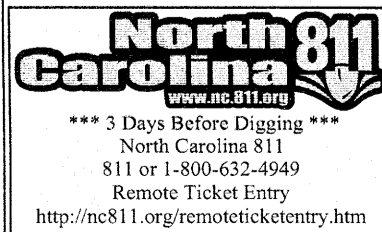
| GRADING LEGEND | |
|----------------|---|
| | EXISTING TOPOGRAPHY |
| | EXISTING BOUNDARY |
| | EXISTING WETLANDS AREA |
| | EXISTING 50' NEUSE RIPARIAN BUFFER |
| | EXISTING BUFFER ZONES |
| | PROPOSED LOT LINE |
| | 100 YEAR FLOOD EASEMENT |
| | BUILDING RESTRICTION LINE |
| | PROPOSED GREENWAY HATCHING |
| | PROPOSED ROW |
| | PROPOSED SIDEWALK |
| | PROPOSED BOC |
| | PROPOSED EOP |
| | PROPOSED CENTERLINE |
| | PROPOSED GRADING |
| | PROPOSED EASEMENT |
| | PHASELINE |
| | RIP RAP |
| | BASIN WEIR |
| | JUNCTION BOX |
| | PROPOSED CATCH BASIN |
| | PROPOSED YARD INLET |
| | PROPOSED DROP INLET |
| | PROPOSED FLARED END SECTION |
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Response:
These have been done.



CITY OF RALEIGH - PLANS AUTHORIZED FOR CONSTRUCTION
 Electronic Approval: This approval is being issued electronically. This approval is valid only upon the signature of a City of Raleigh Review Officer below. The City will retain a copy of the approved plans. Any work authorized by this approval must proceed in accordance with the plans kept on file with the City. This electronic approval may not be edited once issued. Any modification to this approval once issued will invalidate this approval.
 City of Raleigh Development Approval _____
 Raleigh Water Review Officer

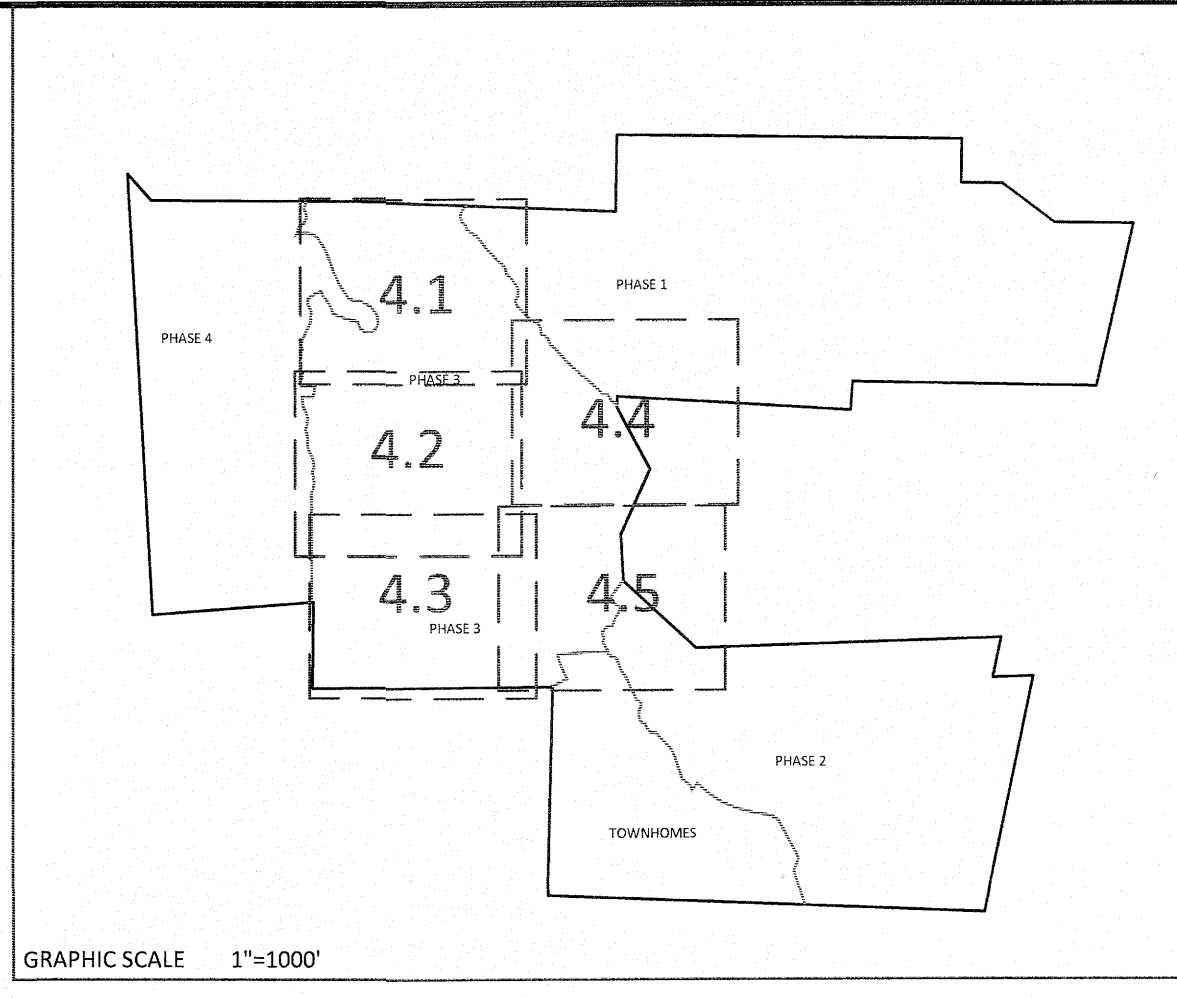
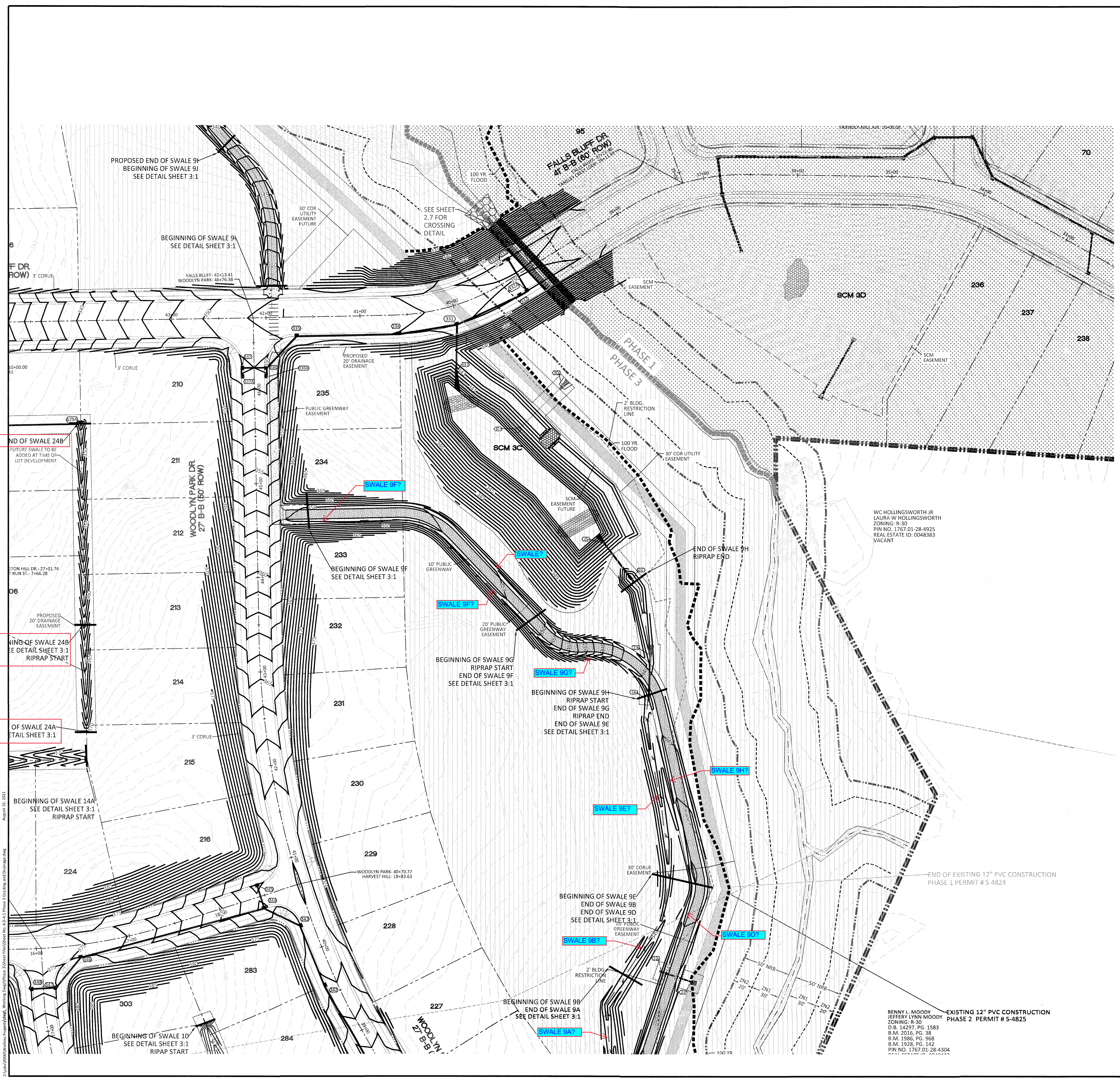


| NO. | DATE | REVISION |
|-----|-----------|---|
| 1 | 7/21/2021 | 1ST REVIEW FROM TOWN OF ROLESVILLE CONSULTANT, WAKE COUNTY AND CITY OF HAREHOUT |

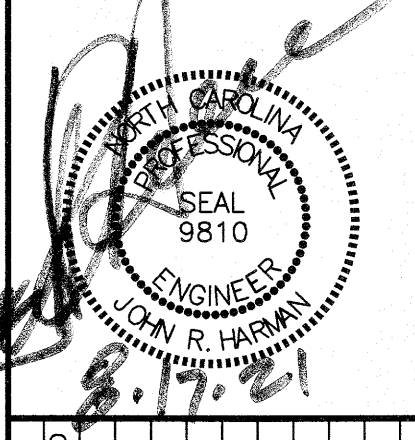
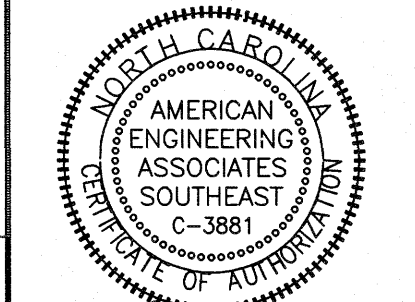
STIPULATION FOR REUSE
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KALAS FALLS PHASE 3
 1832 ROLESVILLE ROAD
 WAKE COUNTY, NC

| | |
|--------------|---------------------------------------|
| JOB NUMBER: | 9900 |
| CHECKED BY: | |
| DRAWN BY: | |
| DATE: | FEB 18, 2021 |
| SHEET TITLE: | PHASE 3 GRADING & DRAINAGE |
| SHEET NO.: | 4.3 |



AMERICAN Engineering
 American Engineering Associates - Southeast, P.A.
 4020 Westchase Boulevard, Suite 450
 Raleigh, NC 27607
 919-469-1101

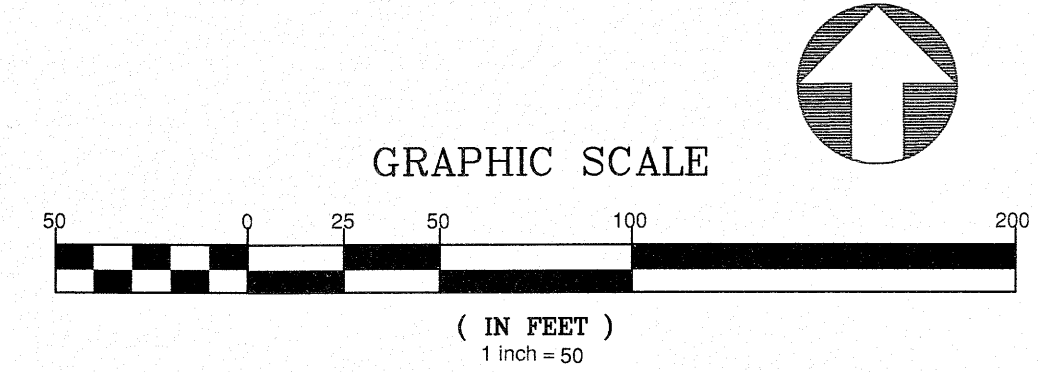


| GRADING LEGEND | |
|----------------|---|
| | EXISTING TOPOGRAPHY |
| | EXISTING BOUNDARY |
| | EXISTING WETLANDS AREA |
| | EXISTING 50' NEUSE RIPARIAN BUFFER |
| | EXISTING BUFFER ZONES |
| | PROPOSED LOT LINE |
| | 100 YEAR FLOOD EASEMENT |
| | BUILDING RESTRICTION LINE |
| | PROPOSED GREENWAY HATCHING |
| | PROPOSED ROW |
| | PROPOSED SIDEWALK |
| | PROPOSED BOC |
| | PROPOSED EOP |
| | PROPOSED CENTERLINE |
| | PROPOSED GRADING |
| | PROPOSED EASEMENT |
| | PHASELINE |
| | RIP RAP |
| | BASIN WEIR |
| | JUNCTION BOX |
| | PROPOSED CATCH BASIN |
| | PROPOSED YARD INLET |
| | PROPOSED DROP INLET |
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| | FUTURE PHASING |
| | PROPOSED SWALE (AT TIME OF LOT GRADING) |

NOTE: THE 100 YEAR FLOOD-LINE AS ON THESE PLANS WERE TAKEN FROM THE FLOOD STUDY PREPARED BY DONLAD A SEVER, PE (024627) OF HUGH J. GILLEECE, III AND ASSOCIATES, P.A.

SOME TO THE NOTES FOR THE SWALES ARE CONFUSING BASED ON END AND BEGINNING - RECOMMEND HAVING THE BEGINNING (UPSTREAM) AND THE END (DOWN STREAM, STR/ INLET)
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Response: These have been done.

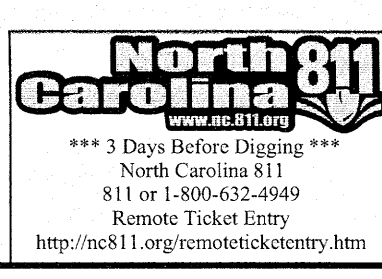


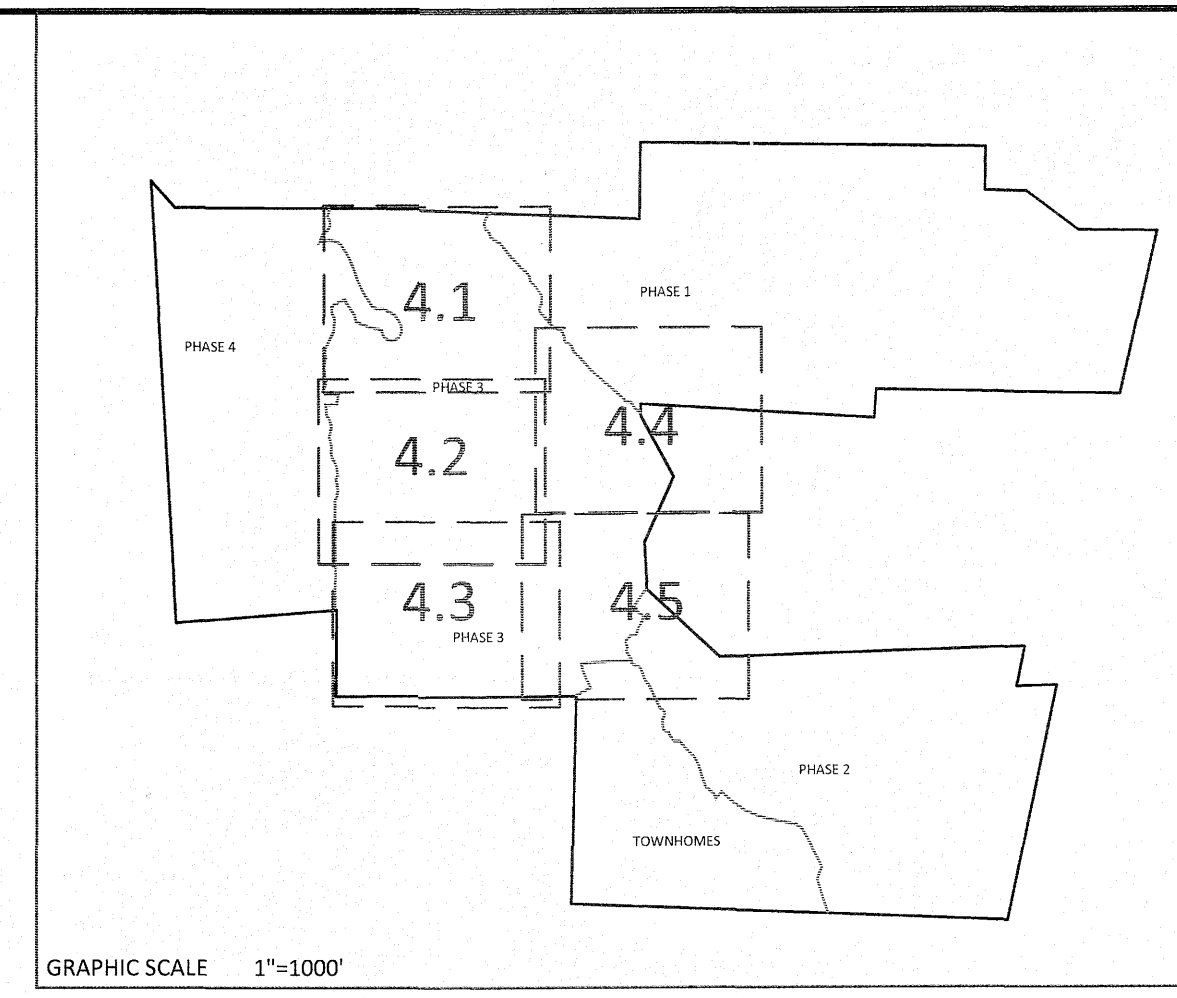
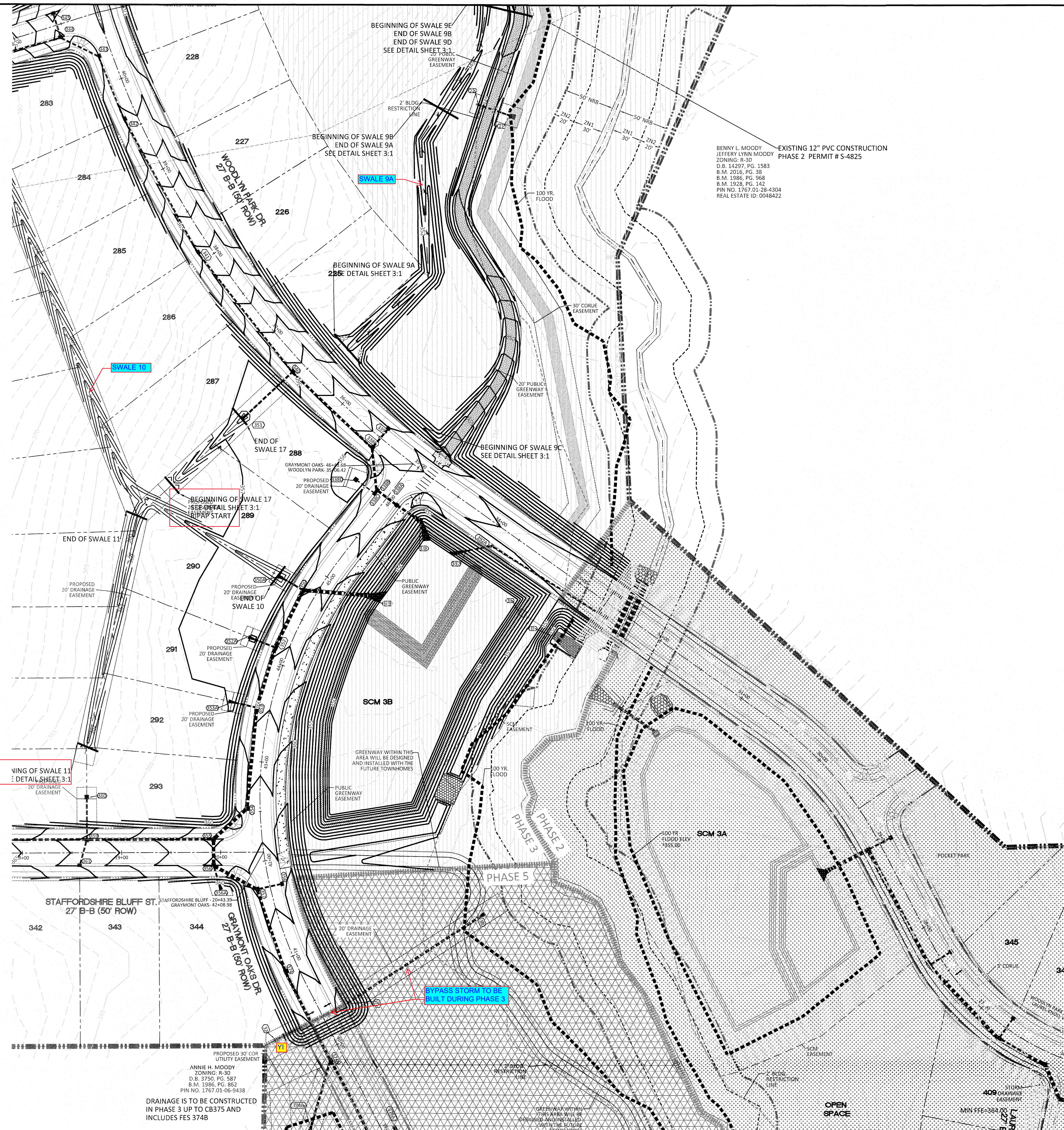
| NO. | DATE | REVISION |
|-----|-----------|---|
| 1 | 7/21/2021 | 1ST REVIEW FROM TOWN OF ROLESVILLE CONSULTANT, WAKE COUNTY AND CITY OF HARRISBORO |

STIPULATION FOR REUSE
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KALAS FALLS PHASE 3
 1832 ROLESVILLE ROAD
 WAKE COUNTY, NC

JOB NUMBER: 9900
 CHECKED BY:
 DRAWN BY:
 DATE: FEB 18, 2021
 SHEET TITLE:
PHASE 3 GRADING & DRAINAGE
 SHEET NO.: 4.4





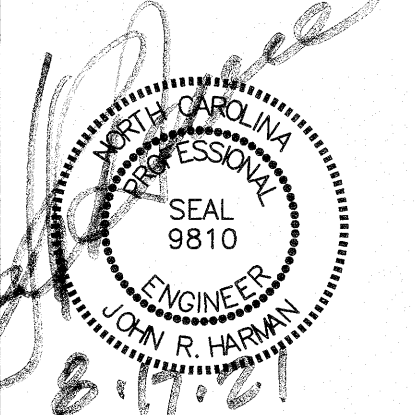
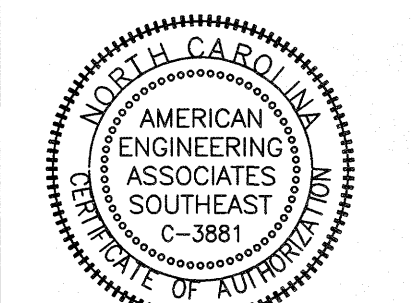
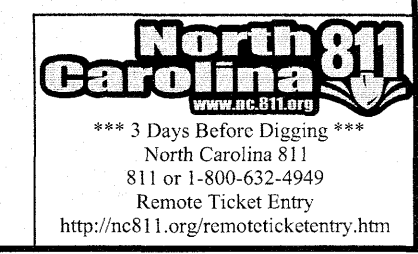
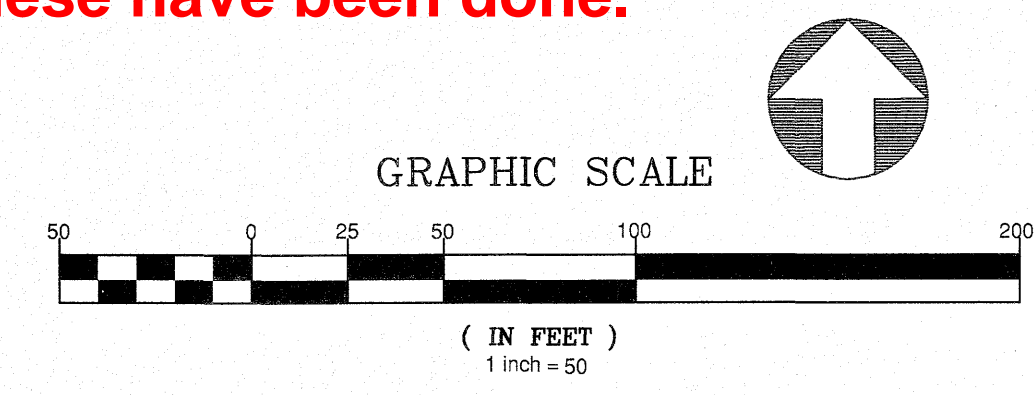
GRAPHIC SCALE 1"=100'

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| GRADING LEGEND | |
|----------------|---|
| | EXISTING TOPOGRAPHY |
| | EXISTING BOUNDARY |
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Response: These have been done.



| NO. | DATE | REVISION |
|-----|-------------|--|
| 1 | 1/7/21/2021 | 1ST REVIEW FROM TOWN OF ROLESVILLE CONSULTANT, WAKE COUNTY AND CITY OF RALEIGH |

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KALAS FALLS PHASE 3
 1832 ROLESVILLE ROAD
 WAKE COUNTY, NC

| | |
|--------------|---------------------------------------|
| JOB NUMBER: | 9900 |
| CHECKED BY: | |
| DRAWN BY: | |
| DATE: | FEB 18, 2021 |
| SHEET TITLE: | PHASE 3 GRADING & DRAINAGE |
| SHEET NO.: | 4.5 |