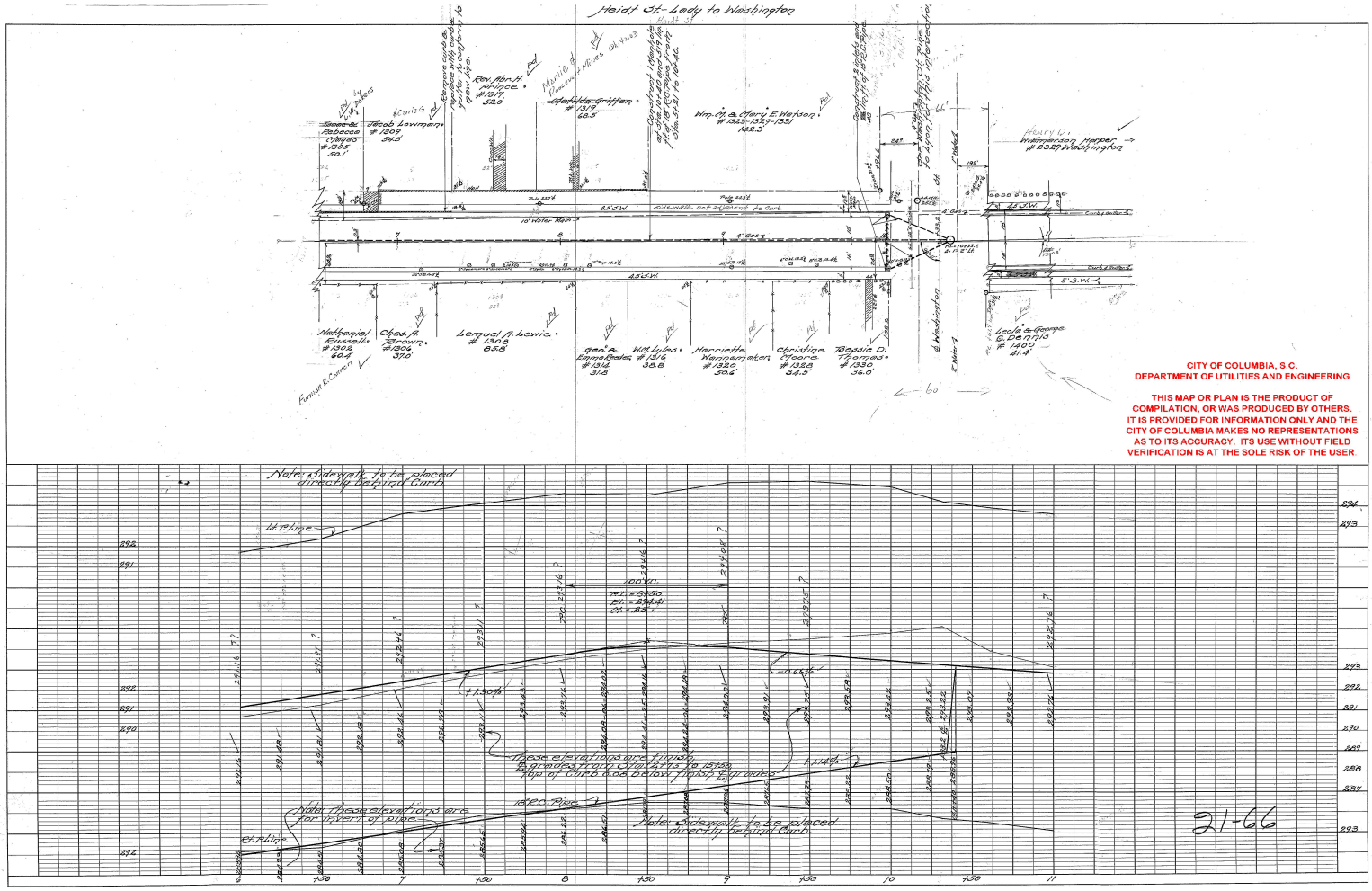

CITY OF COLUMBIA, S.C.
DEPARTMENT OF UTILITIES AND ENGINEERING

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PLAN
SUBMITTED:
RECOMMENDED:
APPROVED:
NOTE SCALE:
NO.
BY
DATE

PROFILE
SUBMITTED:
RECOMMENDED:
APPROVED:
NOTE SCALE: H. 1"=50' V. 1"=5'
NO.
BY
DATE

Heidt St. Washington to Hampton

CITY OF COLUMBIA, S.C.
DEPARTMENT OF UTILITIES AND ENGINEERING

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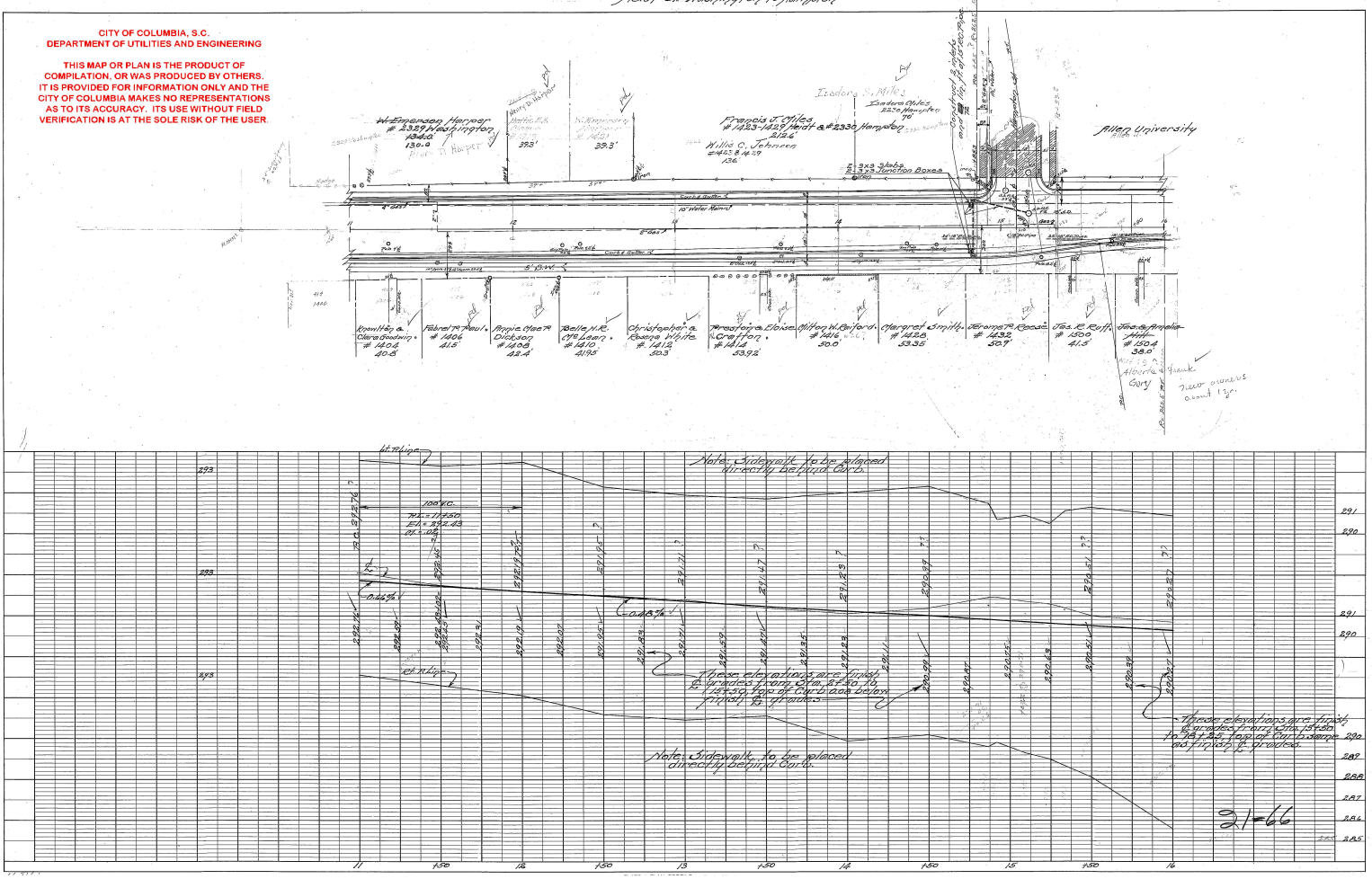

21-66

PLAN
SUBMITTED:
APPROVED:
ACCEPTED:
NOTE BOOK
PG.
DATE
BY
REVISIONS

PROFILE
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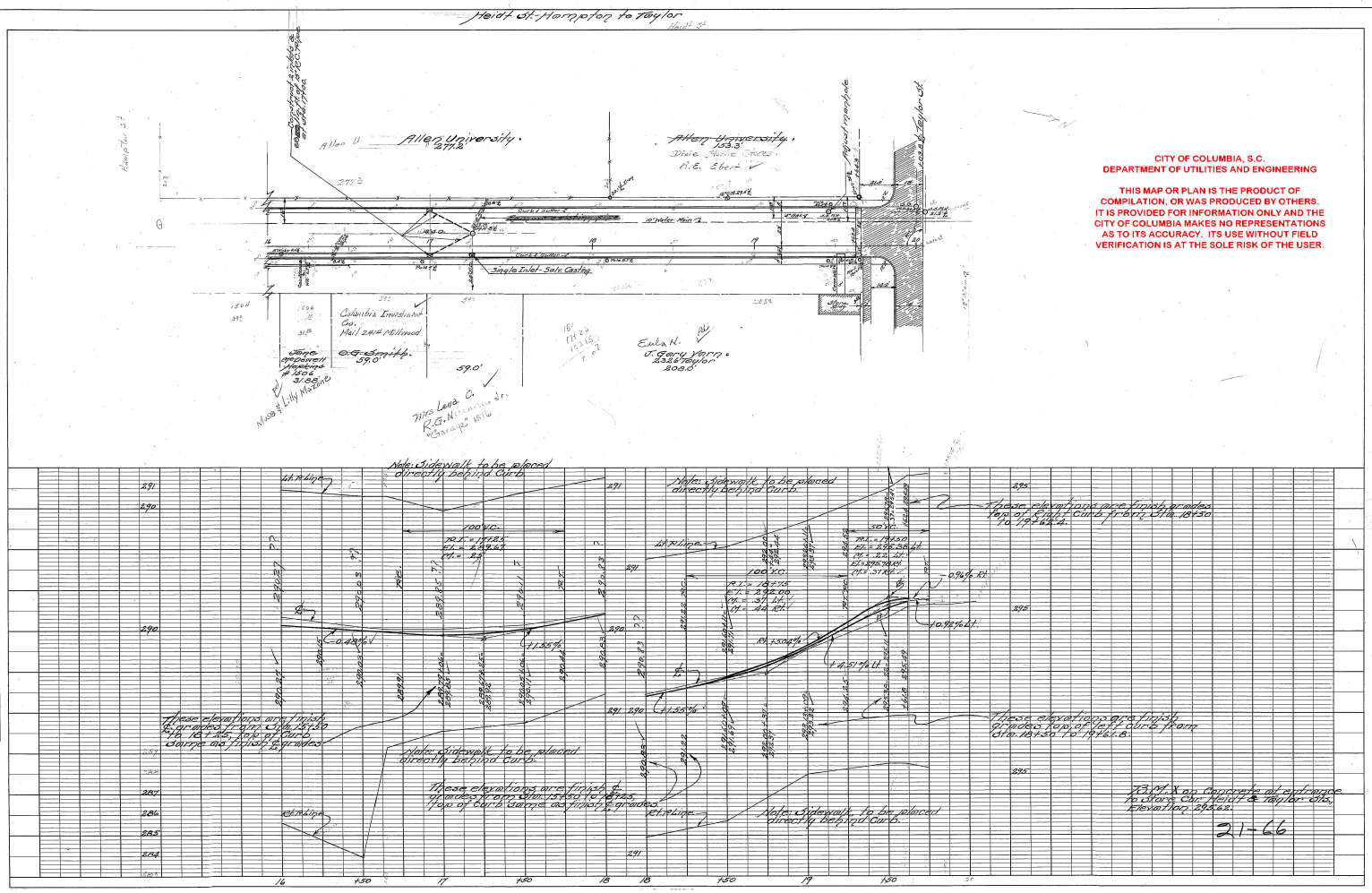
APPROVED:
ACCEPTED:
NOTE BOOK
PG.
DATE
BY
REVISIONS

Heidt St-Hampton to Taylor



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21-66

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DEPARTMENT OF UTILITIES AND ENGINEERING

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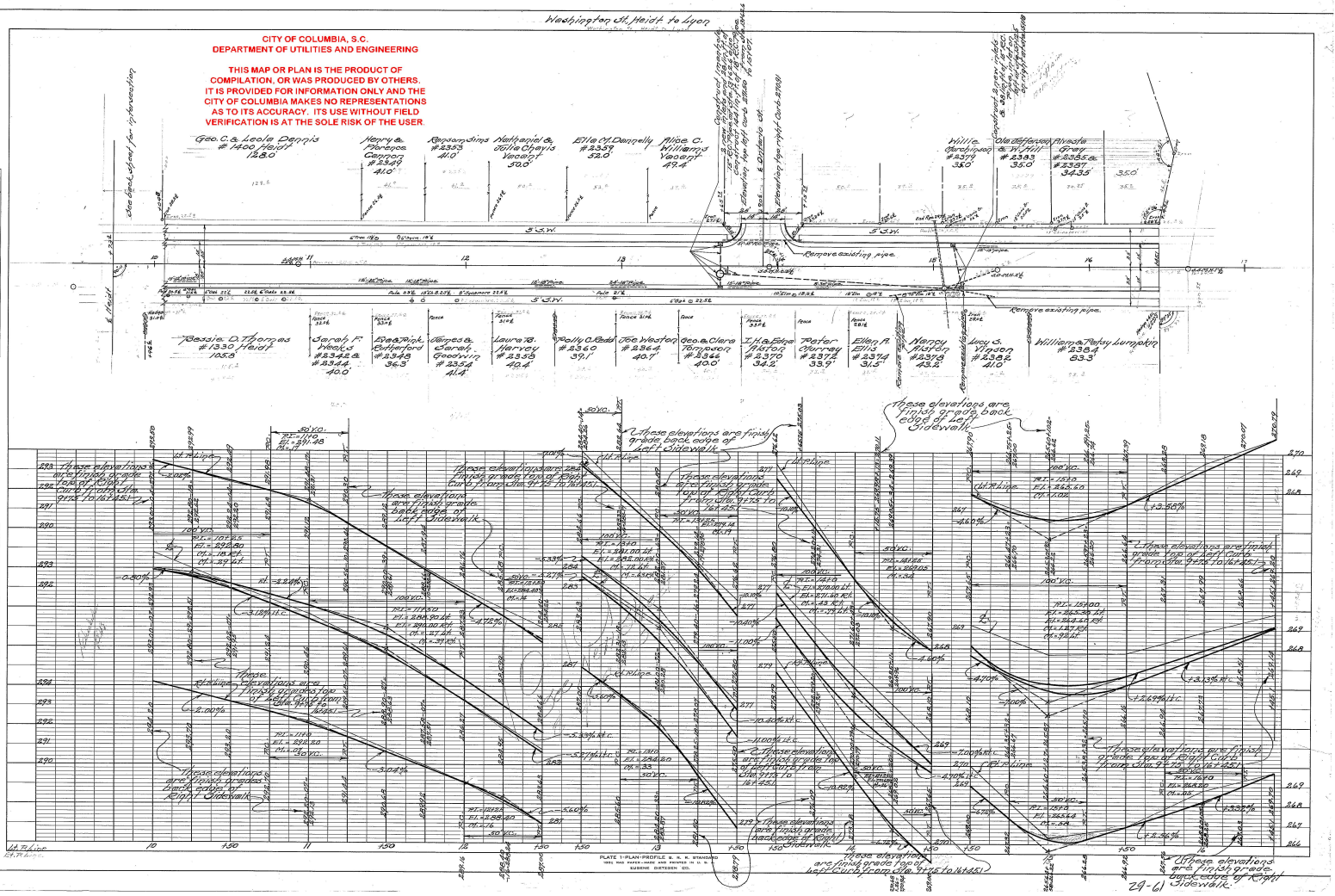

29-61

CITY OF COLUMBIA, S.C.
DEPARTMENT OF UTILITIES AND ENGINEERING

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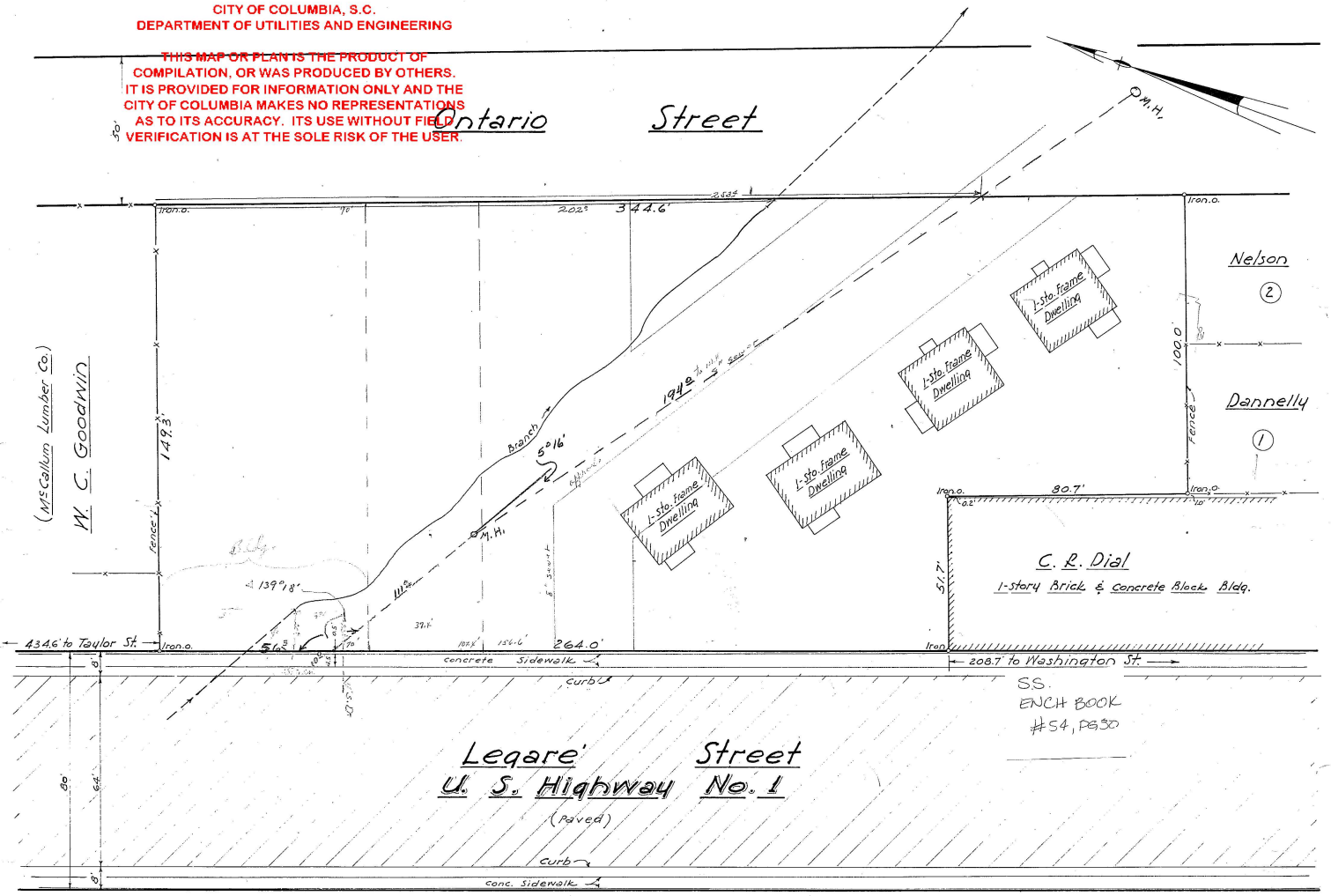


Plat prepared for

Julius L. McCallum & James L. Gibbs

Columbia, S.C.

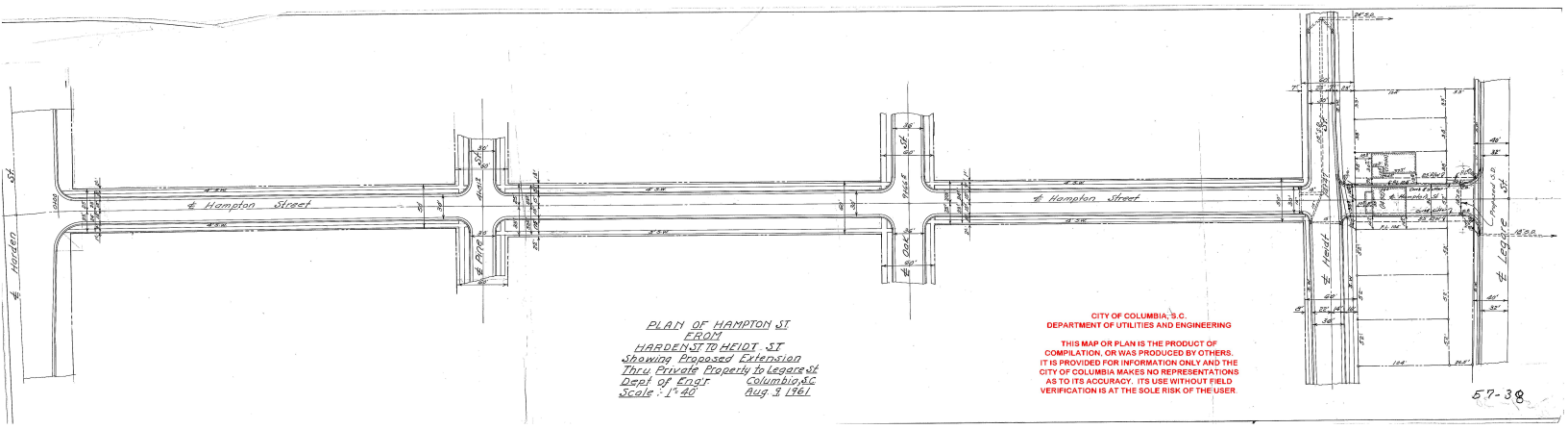
Scale: 1"=20'

B.P. Barber & Assoc's., Engineers ~ Columbia, S.C. ~ March 15, 1955

48-109

N.B. # 419-Pg. 3, N.B. # 335-Pg. 44
Ref. Plats # 1521-C1, # 7937-E1, # 5964-A1

10,003-E6



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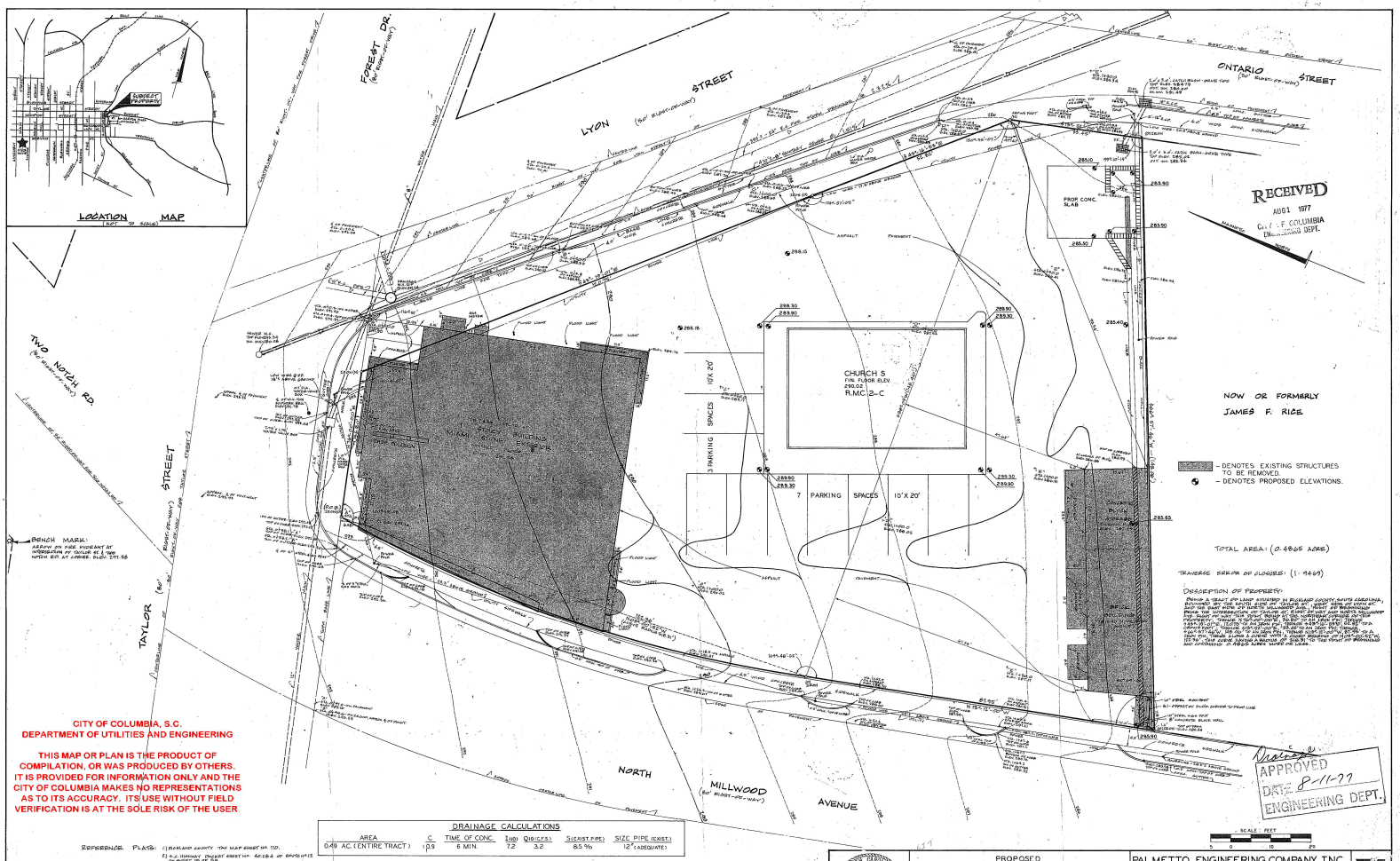
57-38



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REFERENCE PLATS: 1) RICHLAND COUNTY TAX MAP SHEET No. 17D.
2) U.S. HIGHWAY "DRAFT" SHEET No. 42-18-8 OF ENVIRONS OF COLUMBIA, S.C.
3) PROPERTY SURVEYS FOR H. B. GARDNER.

DRAINAGE CALCULATIONS

AREA	C	TIME OF CONC.	I(10)	Q10(CFS)	S(EXIST.PIPE)	SIZE PIPE (EXIST.)
0.49 AC. (ENTIRE TRACT)	1.0	6 MIN.	7.2	3.2	8.5 %	12" (ADEQUATE)

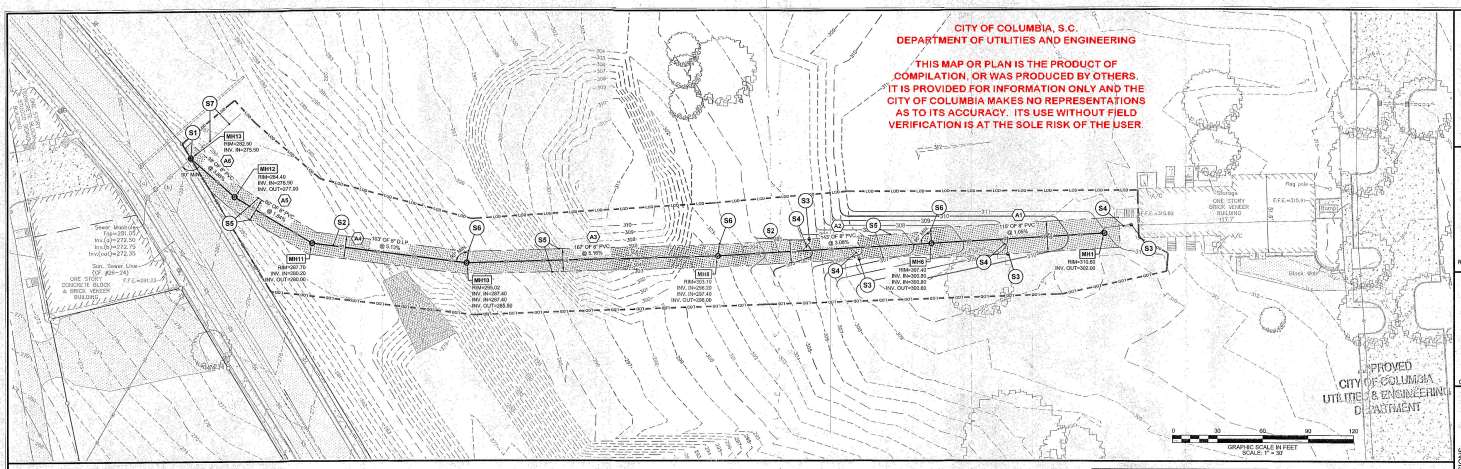
NO.	DESCRIPTION OF REVISION	APPROVED BY	REVISED BY

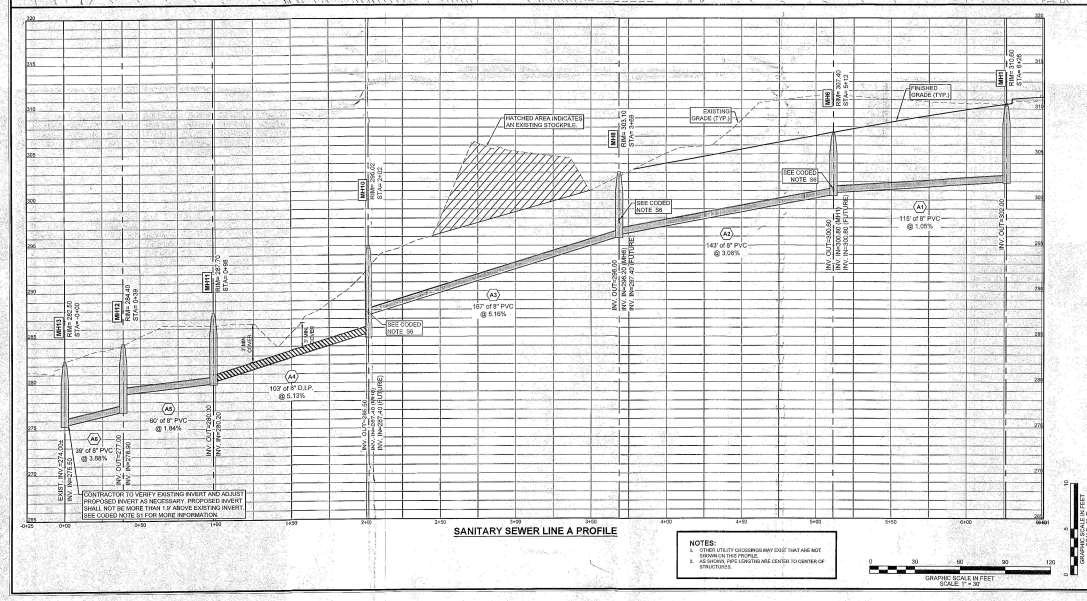
SOUTH CAROLINA REGISTERED PROFESSIONAL ENGINEER No. 3925 — REGISTERED LAND SURVEYOR No. 3926 — ROBERT A. CARSON

PROPOSED
GRADING AND DRAINAGE PLAN
FOR
CHURCH'S FRIED CHICKEN, INC.
RICHLAND COUNTY, IN COLUMBIA, S.C.
NORTH MILLWOOD AVENUE, & FOREST DRIVE

PALMETTO ENGINEERING COMPANY, INC.
ENGINEERS & LAND SURVEYORS
2105 COMMERCE DRIVE
CAYCE, SOUTH CAROLINA, 29033

SCALE:	DESIGNED BY:	CHECKED BY:	SHEET No:
AS SHOWN			
DATE:	DRAWN BY:	APPROVED BY:	PROJECT No:
JULY 29, 1977	R.W.M.		62-267





SANITARY SEWER LINE A PROFILE

NOTES:

1. OTHER UTILITY CROSSINGS MAY EXIST THAT ARE NOT SHOWN ON THIS PROFILE.
2. AS SHOWN, PIPE LENGTHS ARE CENTER TO CENTER OF STRUCTURES.

SANITARY SEWER LEGEND

- PROPOSED SANITARY SEWER MAIN
- PROPOSED SANITARY SEWER SERVICE
- PROPOSED SANITARY SEWER MANHOLE
- PROPOSED SANITARY SEWER CLEANOUT
- SANITARY SEWER MAIN DESIGNATION
- SANITARY SEWER MANHOLE DESIGNATION
- EXISTING SANITARY SEWER MAIN
- EXISTING SANITARY SEWER MANHOLE
- EXISTING SANITARY SEWER CLEANOUT
- PROPOSED EXCLUSIVE CITY OF COLUMBIA SANITARY SEWER EASEMENT (SEE PLAN FOR WIDTH)

CODED NOTES

S1 CONTRACTOR SHALL FURNISH AND INSTALL NEW SANITARY SEWER MANHOLE AT THIS LOCATION. SEE PROFILES FOR APPROXIMATE INVERT AT THE TIE IN LOCATION. CONTRACTOR SHALL VERIFY EXISTING INVERT PRIOR TO CONSTRUCTION AND NOTIFY THE ENGINEER IMMEDIATELY IF DISCREPANCIES ARE FOUND. CORE HOLE FOR EXISTING PIPE CONNECTION AND GROUT WATERTIGHT SEAL.

S2 CONTRACTOR SHALL FURNISH AND INSTALL NEW 8" SDR 35 PVC SANITARY SEWER GRAVITY MAIN. SEE SANITARY SEWER PROFILES FOR MORE INFORMATION.

S3 CONTRACTOR SHALL FURNISH AND INSTALL NEW TRAFFIC RATED SANITARY SEWER CLEANOUT. (TYPICAL) (SEE DETAIL)

S4 CONTRACTOR SHALL FURNISH AND INSTALL 6" SDR 35 PVC SANITARY SEWER SERVICE LINE AT 1.0% MINIMUM SLOPE WITH CLEANOUTS AS SHOWN. MAINTAIN 3' MINIMUM COVER ALONG ENTIRE LENGTH OF SERVICE. (TYPICAL) WHERE COVER IS LESS THAN 3', INSTALL DUCTILE IRON PIPE WITH PROTECTOR 401 LINING.

S5 PROPOSED EXCLUSIVE SANITARY SEWER EASEMENT TO BE DEDICATED TO THE CITY OF COLUMBIA UPON COMPLETION OF CONSTRUCTION & ACCEPTANCE BY THE CITY OF COLUMBIA. SEE PLAN FOR WIDTH.

S6 FUTURE STUB-OUT AND CONNECTION SHOWN ARE FOR REFERENCE ONLY. CONTRACTOR SHALL NOT INSTALL THE STUB-OUT PIPE(S) AS SHOWN. CONTRACTOR SHALL INSTALL THE PROPER INVERT IN THE MANHOLE(S) AT THE ELEVATIONS SHOWN ON THE PROFILE TO ACCOMMODATE EACH FUTURE SEWER PIPE CONNECTION. THE MANHOLE(S) WILL HAVE TO BE CORED IN THE FUTURE FOR THE PIPE INSTALLATIONS ACCORDING TO THE CITY OF COLUMBIA. THE MANHOLE CORE(S) AND STUB-OUT(S) ARE NOT INCLUDED IN THIS CONTRACT.

S7 CONTRACTOR SHALL DEMOLISH AND PROPERLY DISPOSE OF EXISTING SANITARY SEWER LINE UPSTREAM OF NEW MANHOLE.

NOTE:

INFORMATION REGARDING THE REPORTED PRESENCE, SIZE, CHARACTER AND LOCATION OF EXISTING UNDERGROUND UTILITIES AND STRUCTURES SHOWN ON THESE PLANS (MY HAVE BEEN PROVIDED TO COX AND DINKINS, INC. FROM LOCAL UTILITY COMPANIES. THERE IS NO CERTAINTY OF THE ACCURACY OF THIS INFORMATION AND IT SHALL BE ASSUMED THAT THERE ARE OTHER UTILITIES NOT SHOWN. COX AND DINKINS, INC. HAS NO NOTICE OR KNOWLEDGE OF ANY FACTS THAT WOULD LEAD US TO CONCLUDE THAT THE INFORMATION IS NOT ACCURATE. FURTHERMORE, OTHER UTILITIES AND STRUCTURES NOT SHOWN ON THESE PLANS MAY BE ENCOUNTERED. THE OWNER, HIS AGENTS AND ALL CONTRACTORS ENGAGED IN EXCAVATION WORK SHALL HEREBY DISTINCTLY UNDERSTAND THAT COX AND DINKINS, INC. IS NOT RESPONSIBLE FOR THE CORRECTNESS OR SUFFICIENCY OF THE UNDERGROUND INFORMATION, INFORMATION WITH RESPECT TO ABOVE GROUND MOVEMENTS OF SUCH UTILITIES IS BASED UPON ACTUAL FIELD MEASUREMENTS AND OBSERVATIONS, AND IS SHOWN HEREON.

The Palmetto Utility Protection Service, Inc.
1st Responder Well, Not 1st Choice, Avoid Costly Damages

South Carolina 811
Call Before You Dig

3 DAYS BEFORE DIGGING IN SOUTH CAROLINA
CALL 811
CONTRACTOR SHALL CONTACT THE UNDERGROUND LOCATORS EVERY 10 DAYS FOR AN UPDATE TO UTILITY LOCATIONS.

REFERENCES:

1. BOUNDARY & TOPOGRAPHIC MAP PREPARED FOR COLUMBIA HOUSING AUTHORITY DEVELOPMENTS, INC. GONZALES GARDENS, BY COX AND DINKINS, INC. DATED AUGUST 18, 2016.
2. DRAWING PREPARED FOR RONNIE BOOZER - GONZALES GARDENS DEMO, BY ASSOCIATED E & S, INC., DATED NOVEMBER 22, 2017.
3. PLAT PREPARED FOR HOUSING AUTHORITY OF THE CITY OF COLUMBIA, SOUTH CAROLINA, BY COX AND DINKINS, INC., DATED MARCH 14, 2016.

GENERAL NOTES:

1. TAX MAP NUMBERS WILL BE ASSIGNED TO THE SUBJECT PARCELS UPON APPROVAL AND RECORDING OF A NEW SUBDIVISION PLAT.
2. TOTAL AREA OF ALL PARCELS ASSOCIATED WITH THIS LCP IS 19.12 ACRES.
3. ZONING OF THE SUBJECT PARCELS IS R-2.
4. CONTOUR INTERVAL ELEVATIONS ARE ONE (1) FOOT. ELEVATIONS SHOWN ARE NAVD 88 DATUM.
5. THE LOCATIONS OF UNDERGROUND UTILITIES SHOWN HEREON ARE APPROXIMATE. THE LOCATIONS OF OTHER UNDERGROUND UTILITIES AND THEIR SERVICES ARE UNKNOWN. CONTRACTOR SHALL LOCATE ALL UTILITIES PRIOR TO CONSTRUCTION.
6. THIS PROPERTY IS LOCATED IN FLOOD ZONE X PER FLOOD INSURANCE RATE MAP NUMBER 45079C0244L, REVISED DECEMBER 21, 2017, BY SCALED LOCATION AND GRAPHIC PLOTTING ONLY.
7. IT IS THE CONTRACTORS RESPONSIBILITY TO VERIFY THAT THEY AND THEIR SUBCONTRACTORS HAVE THE CORRECT/MOST UP-TO-DATE PLANS AVAILABLE.

COX AND DINKINS
ENGINEERS - SURVEYORS
COX AND DINKINS, INC.
724 BELTLINE BLVD.
COLUMBIA, SC 29205
803-254-0018
Fax: 803-765-0993
Email: cdinc@coxanddinkins.com

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SOUTH CAROLINA No.14890 KAREN A. HOLCOMB
REGISTERED PROFESSIONAL ENGINEER NO. 14890
11/8/18

SOUTH CAROLINA COX AND DINKINS, INC. No. C00294 CERTIFICATE OF AUTHORIZATION
CERTIFICATE OF AUTHORIZATION SEAL

REVISIONS		
No.	DATE	DESCRIPTION
1	11/08/2018	REVISED PER CITY COMMENTS

PRIMARY PERMITTEE:
COLUMBIA HOUSING AUTHORITY
DEVELOPMENTS, INC.
1917 HARDEN STREET
COLUMBIA, SC 29204
803-254-3886
email: jprater@chasc.org

PROJECT:
GONZALES GARDENS COMMUNITY BUILDING SANITARY SEWER
LOCATED IN THE CITY OF COLUMBIA
RICHLAND COUNTY, SOUTH CAROLINA

SANITARY SEWER PLAN AND PROFILE

TMS #11411-04-01,21,22,23 & 24
BOOK 46C-52C
SP NO. 370-17
SHEET NO. C4 of 6
PROJECT NO. 1888
DATE 10/15/2018

FILE 343-12A

SITE CONSTRUCTION DRAWINGS
FOR
GONZALES GARDENS COMMUNITY BUILDING SANITARY SEWER

LOCATED IN THE CITY OF COLUMBIA
RICHLAND COUNTY, SOUTH CAROLINA

CITY OF COLUMBIA, S.C.
DEPARTMENT OF UTILITIES AND ENGINEERING

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UTILITY CONTACTS:

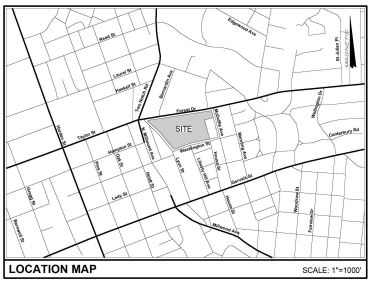
WATER & SEWER:
CITY OF COLUMBIA
SCOTT ROGERS
1138 WASHINGTON STREET
COLUMBIA, SOUTH CAROLINA 29201
(P) 803-545-3290
(F) 803-733-8674

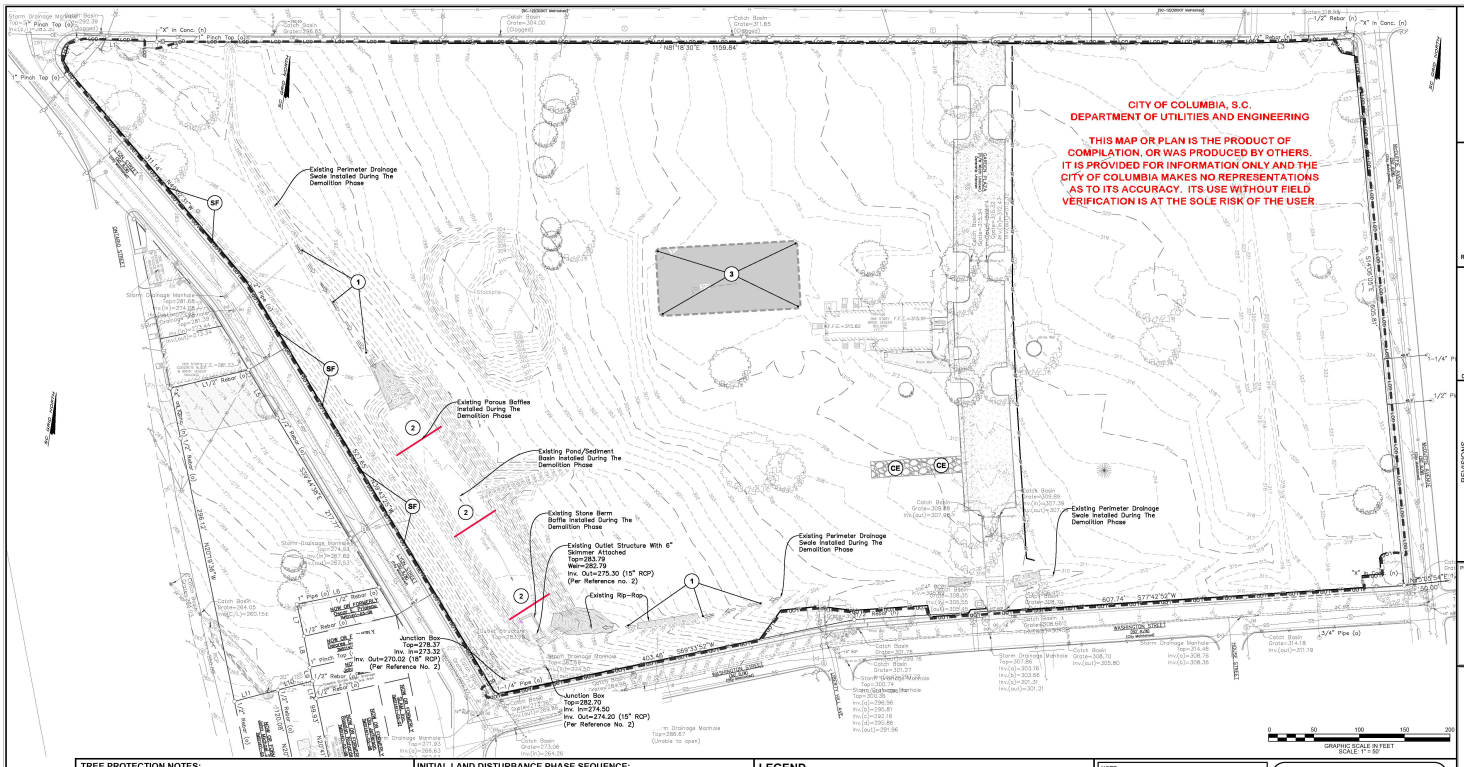
ELECTRICAL:
SCE&G
TOM COONEY
MAIL CODE J-40
190 OPERATION WAY
CAYCE, SOUTH CAROLINA 29033
(P) 803-217-8443

GAS:
SCE&G
ROLANDO ADAMS
6011 SHAKESPEARE ROAD
MAIL CODE K50
COLUMBIA, SOUTH CAROLINA 29210
(P) 803-217-9218

TELEPHONE:
AT&T / BELLSOUTH
JEFF RICH
1600 WILLIAMS ST. ROOM 4410
COLUMBIA, SOUTH CAROLINA 29201
(P) 803-401-2544

CABLE:
TIME WARNER CABLE
SHARON PRATT
3347 PLATT SPRINGS ROAD
WEST COLUMBIA, SOUTH CAROLINA 29170
(P) 803-251-5431
(F) 803-744-5524


SITE
Hood St.
Horne St.
Hunt St.
Elmwood Ave.
Greene St.
Taylor St.
Washington St.
Blanding St.
Calhoun St.
Lady St.
Sumter St.
Marion St.
Wayne St.
Pickens St.
Bull St.
Assembly St.
Main St.
Gervais St.
Senate St.
Hampton St.
Richland St.
Lincoln St.
Henderson St.
Wheat St.
Rosewood Dr.
Forest Dr.
Millwood Ave.
Confederate Rd.
Devine St.
Beaufort St.
Blossom St.
Heyward St.
Harden



TREE PROTECTION NOTES:

1. TREE PROTECTION WAS INSTALLED DURING THE GONZALES GARDENS DEMOLITION PHASE THAT IS NOT SHOWN ON THIS PLAN. HOWEVER, THE CONTRACTOR SHALL ADJUST AND REPAIR AS NECESSARY TO ACCOMMODATE THE LAND DISTURBING ACTIVITIES CONTAINED WITHIN THESE PLANS.
2. ANY DAMAGE TO THE TREE PROTECTION FENCING OR SAVED TREES CAUSED BY DEMOLITION OR CONSTRUCTION ACTIVITIES SHALL BE REPAIRED IMMEDIATELY AND AT THE CONTRACTOR'S EXPENSE. REPAIR TO DAMAGED TREES SHALL BE ACCORDING TO STANDARD ARBORICULTURAL TECHNIQUES RECOGNIZED BY THE INTERNATIONAL SOCIETY OF ARBORICULTURE.
3. MITIGATION OF SAVED TREES DESTROYED BY DEMOLITION OR CONSTRUCTION ACTIVITIES SHALL BE AT THE CONTRACTORS EXPENSE AND ACCORDING TO DIVISION 13 OF THE CITY OF COLUMBIA ZONING ORDINANCE, SEC. 17-421 AND SEC. 17-422.
4. ANY ROOTS OF SAVED TREES THAT MUST BE CUT SHALL BE DONE SO DELIBERATELY AND IN A CLEAN NEAT FASHION USING A SAW, PRUNERS OR OTHER APPROPRIATE CUTTING METHOD. ALL TOOLS USED TO CUT ROOTS OR OTHERWISE PRUNE TREES SHALL BE CLEAN AND SHARP. NO TREE PAINT OR SEALANTS SHALL BE USED.
5. STOCKPILING OF CONSTRUCTION AND EXCAVATION MATERIALS WITHIN THE PROTECTED ZONE OF A SAVED TREE IS STRICTLY PROHIBITED.
6. TEMPORARILY COVER ROOTS EXPOSED DURING DEMOLITION OR CONSTRUCTION WITH WET BURLAP TO PREVENT ROOTS FROM DRYING OUT. COVER ROOTS WITH SOIL AS SOON AS POSSIBLE.
7. TEMPORARY TREE PROTECTION FENCING SHALL BE A MINIMUM 48" COMMERCIAL GRADE HEAVY-DUTY ORANGE PLASTIC MESH FENCING. SEE DETAIL.
8. WHERE SILT FENCING CROSSES TREE PROTECTION FENCING, INSTALL TREE PROTECTION FENCING AROUND SILT FENCING SUCH THAT THE SILT FENCING IS CONTINUOUS.

UNDERGROUND UTILITIES:

COX AND DINKINS, INC. HAS ATTEMPTED TO LOCATE ALL BURIED SANITARY SEWER LINES, STORM DRAINAGE PIPES/ STRUCTURES AND OTHER UNDERGROUND UTILITIES OF WHICH WE HAVE KNOWLEDGE. SOME ADDITIONAL UNDERGROUND UTILITIES MAY EXIST WITHIN THE LIMITS OF DISTURBANCE OF WHICH THE LOCATION IS NOT KNOWN TO COX AND DINKINS, INC. IF A MORE DETAILED ANALYSIS OF THE UNDERGROUND PIPES AND/OR UTILITIES IS NEEDED, COX AND DINKINS, INC., STRONGLY RECOMMENDS THAT A INDEPENDENT THIRD PARTY UNDERGROUND UTILITY LOCATOR BE CONSULTED TO LOCATE THESE UTILITIES.

INITIAL LAND DISTURBANCE PHASE SEQUENCE:

1. RECEIVE APPROVAL/PERMIT COVERAGE FROM THE CITY OF COLUMBIA AND SCDHEC.
2. COORDINATE AND HOLD A PRE-CONSTRUCTION MEETING AT THE SITE TO INCLUDE A REPRESENTATIVE FROM THE CITY OF COLUMBIA STORMWATER STAFF, THE PROJECT ENGINEER, AND THE SITE CONTRACTOR.
3. NOTIFY THE CITY OF COLUMBIA STORMWATER DEPARTMENT 48 HOURS PRIOR TO COMMENCING LAND DISTURBING ACTIVITIES.
4. ENSURE THE PERIMETER DRAINAGE SWALES, PERIMETER SILT FENCING, AND SEDIMENT BASIN INSTALLED DURING THE GONZALES GARDENS DEMOLITION PHASE ARE FUNCTIONING PROPERLY. THOSE DEVICES ARE INTENDED TO BE USED TO CONVEY RUNOFF FROM CONSTRUCTION ACTIVITIES ASSOCIATED WITH THE LAND DISTURBING ACTIVITIES SHOWN ON THESE PLANS INTO THE EXISTING BASIN. REPAIR PERIMETER CONTROLS AS NECESSARY AND REMOVE ANY ACCUMULATED SEDIMENT.
5. INSTALLATION OF CONSTRUCTION ENTRANCE. THIS INSTALLATION SHALL OCCUR PRIOR TO LAND DISTURBING ACTIVITIES SHOWN ON THESE PLANS.
6. INSTALLATION OF ADDITIONAL SILT FENCING AROUND THE AREA OF PROPOSED LAND DISTURBING ACTIVITIES, IF NECESSARY, TO ENSURE SEDIMENT LADEN RUNOFF DOES NOT LEAVE THE PROJECT SITE.
7. PARTIAL CLEARING AND/OR GRUBBING AS REQUIRED TO ESTABLISH A STOCKPILE AREA FOR EXCESS MATERIAL. THE AREA SHOWN ON THIS PLAN IS APPROXIMATE. CONTRACTOR SHALL COORDINATE WITH THE CITY INSPECTOR FOR EXACT LOCATION.
8. PROCEED TO STABILIZATION PHASE SWPPP.

LEGEND

- 300 — EXISTING INDEX CONTOUR
- 299 — EXISTING INTERMEDIATE CONTOUR
- LOD — LOD — OVERALL LOP LIMITS OF DISTURBANCE
- SF — WIRE-BACKED SILT FENCING INSTALLED DURING THE GONZALES GARDENS PROJECT DEMOLITION PHASE
- FLOW ARROW INDICATING DIRECTION OF FLOW IN EXISTING PERIMETER DRAINAGE SWALES
- CE — CONSTRUCTION ENTRANCE
- 3 — TEMPORARY STOCKPILE AREA

CODED NOTES

- SF — EXISTING WIRE-BACKED SILT FENCE INSTALLED DURING DEMOLITION SWPP PHASE. CONTRACTOR SHALL REMOVE ANY ACCUMULATED SEDIMENT FROM THE EXISTING SILT FENCING RECEIVING RUNOFF FROM THE LAND DISTURBING ACTIVITIES SHOWN ON THESE PLANS. CONTRACTOR SHALL REPAIR AND/OR REPLACE EXISTING SILT FENCING IN THE AREAS RECEIVING RUNOFF FROM LAND DISTURBING ACTIVITIES SHOWN ON THESE PLANS IF REQUIRED BY THE ENGINEER OR INSPECTOR.
- CE — CONTRACTOR SHALL FURNISH AND INSTALL TEMPORARY CONSTRUCTION ENTRANCE/EXIT. (SEE DETAIL) CONSTRUCTION ENTRANCE SHALL BE INSTALLED PRIOR TO ANY LAND DISTURBING ACTIVITIES SHOWN ON THESE PLANS.
- 1 — EXISTING PERIMETER DRAINAGE SWALE INSTALLED DURING THE DEMOLITION PHASE. FLOW ARROWS INDICATE DIRECTION OF FLOW. CONTRACTOR SHALL REMOVE ANY ACCUMULATED SEDIMENT IN THE EXISTING SWALE RECEIVING RUNOFF FROM THE LAND DISTURBING ACTIVITIES SHOWN ON THESE PLANS.
- 2 — EXISTING DETENTION/SEDIMENT BASIN INSTALLED DURING THE GONZALES GARDENS DEMOLITION PHASE. CONTRACTOR SHALL TAKE ALL MEASURES NECESSARY TO ENSURE RUNOFF FROM ALL LAND DISTURBING ACTIVITY IS DIRECTED INTO THE EXISTING SEDIMENT BASIN. ENSURE THE BASIN IS FUNCTION PROPERLY PRIOR TO COMMENCEMENT OF CONSTRUCTION.
- 3 — STOCKPILE AREA FOR EXCESS MATERIAL ASSOCIATED WITH LAND DISTURBING ACTIVITIES SHOWN ON THESE PLANS. COORDINATE WITH INSPECTOR FOR EXACT LOCATION AND RECORD IN THE OS-SWPPP. IF STOCKPILE AREA IS TO REMAIN FOR MORE THAN 14 DAYS, THE AREA SHALL BE SEEDED, STABILIZED, AND IRRIGATED TO ESTABLISH VEGETATION. PLACE SILT FENCE AROUND THE BASE OF THE STOCKPILE AREA AND ADJUST AS NECESSARY.

NOTE:

INFORMATION REGARDING THE REPUTED PRESENCE, SIZE, CHARACTER AND LOCATION OF EXISTING UNDERGROUND UTILITIES AND STRUCTURES SHOWN ON THESE PLANS MAY HAVE BEEN PROVIDED TO COX AND DINKINS, INC. FROM LOCAL UTILITY COMPANIES. THERE IS NO CERTAINTY OF THE ACCURACY OF THIS INFORMATION AND IT SHALL BE ASSUMED THAT THE ACTUAL LOCATIONS MAY VARY. THE ENGINEER, COX and DINKINS, INC. HAS NO NOTICE OR KNOWLEDGE OF ANY FACTS THAT WOULD LEAD US TO CONCLUDE THAT THE INFORMATION IS NOT ACCURATE. FURTHERMORE, OTHER UTILITIES AND STRUCTURES NOT SHOWN ON THESE PLANS MAY BE ENCOUNTERED. THE OWNER, HIS AGENTS AND THE CONTRACTOR, INCLUDING ALL SUBCONTRACTORS SHALL HEREBY DISTINCTLY UNDERSTAND THAT COX and DINKINS, INC. IS NOT RESPONSIBLE FOR THE CORRECTNESS OR SUFFICIENCY OF THE UNDERGROUND INFORMATION. INFORMATION WITH RESPECT TO ABOVE GROUND MONUMENTS OF SUCH UTILITIES IS BASED UPON ACTUAL FIELD MEASUREMENTS AND OBSERVATIONS, AS IS SHOWN HEREON.

The Palmetto Utility Protection Service, Inc.
811 Bush River Rd. Suite 100 Columbia, South Carolina 29210(803) 691-1117

South Carolina 811

3 DAYS BEFORE DIGGING IN SOUTH CAROLINA

CALL 811

CONTRACTOR SHALL CONTACT THE UNDERGROUND LOCATORS EVERY 10 DAYS FOR AN UPDATE TO UTILITY LOCATIONS.

REFERENCES:

1. BOUNDARY & TOPOGRAPHIC MAP PREPARED FOR COLUMBIA HOUSING AUTHORITY DEVELOPMENTS, INC. GONZALES GARDENS, BY COX AND DINKINS, INC. DATED AUGUST 18, 2016.
2. DRAWING PREPARED FOR RONNIE BOOZER - GONZALES GARDENS DEMO, BY ASSOCIATED E & S, INC., DATED NOVEMBER 22, 2017.
3. PLAT PREPARED FOR HOUSING AUTHORITY OF THE CITY OF COLUMBIA, SOUTH CAROLINA, BY COX AND DINKINS, INC., DATED MARCH 14, 2016.

GENERAL NOTES:

1. TAX MAP NUMBERS WILL BE ASSIGNED TO THE SUBJECT PARCELS UPON APPROVAL AND RECORDING OF A NEW SUBDIVISION PLAT.
2. TOTAL AREA OF ALL PARCELS ASSOCIATED WITH THIS LCP IS 18.12 ACRES.
3. ZONING OF THE SUBJECT PARCELS IS RG-2.
4. CONTOUR INTERVAL ELEVATIONS ARE ONE (1) FOOT. ELEVATIONS SHOWN ARE NAVD 88 DATUM.
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6. THIS PROPERTY IS LOCATED IN FLOOD ZONE X PER FLOOD INSURANCE RATE MAP NUMBER 45079C0244L, REVISED DECEMBER 21, 2017, BY SCALED LOCATION AND GRAPHIC PLOTTING ONLY.
7. IT IS THE CONTRACTORS RESPONSIBILITY TO VERIFY THAT THEY AND THEIR SUBCONTRACTORS HAVE THE CORRECT/MOST UP-TO-DATE PLANS AVAILABLE.

COX AND DINKINS
ENGINEERS - SURVEYORS
COX AND DINKINS, INC.
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SOUTH CAROLINA PROFESSIONAL ENGINEER No.14890 BARRY W. HOLCOMBE

REGISTERED PROFESSIONAL ENGINEER NO. 14890

SOUTH CAROLINA PROFESSIONAL ENGINEERING CERTIFICATE OF AUTHORIZATION COX AND DINKINS, INC. No. C00294

CERTIFICATE OF AUTHORIZATION SEAL

REVISIONS		
NO.	DATE	DESCRIPTION

PRIMARY PERMITTEE:
COLUMBIA HOUSING AUTHORITY
DEVELOPMENTS, INC.
1917 HARDEN STREET
COLUMBIA, SC 29204

803-254-3886

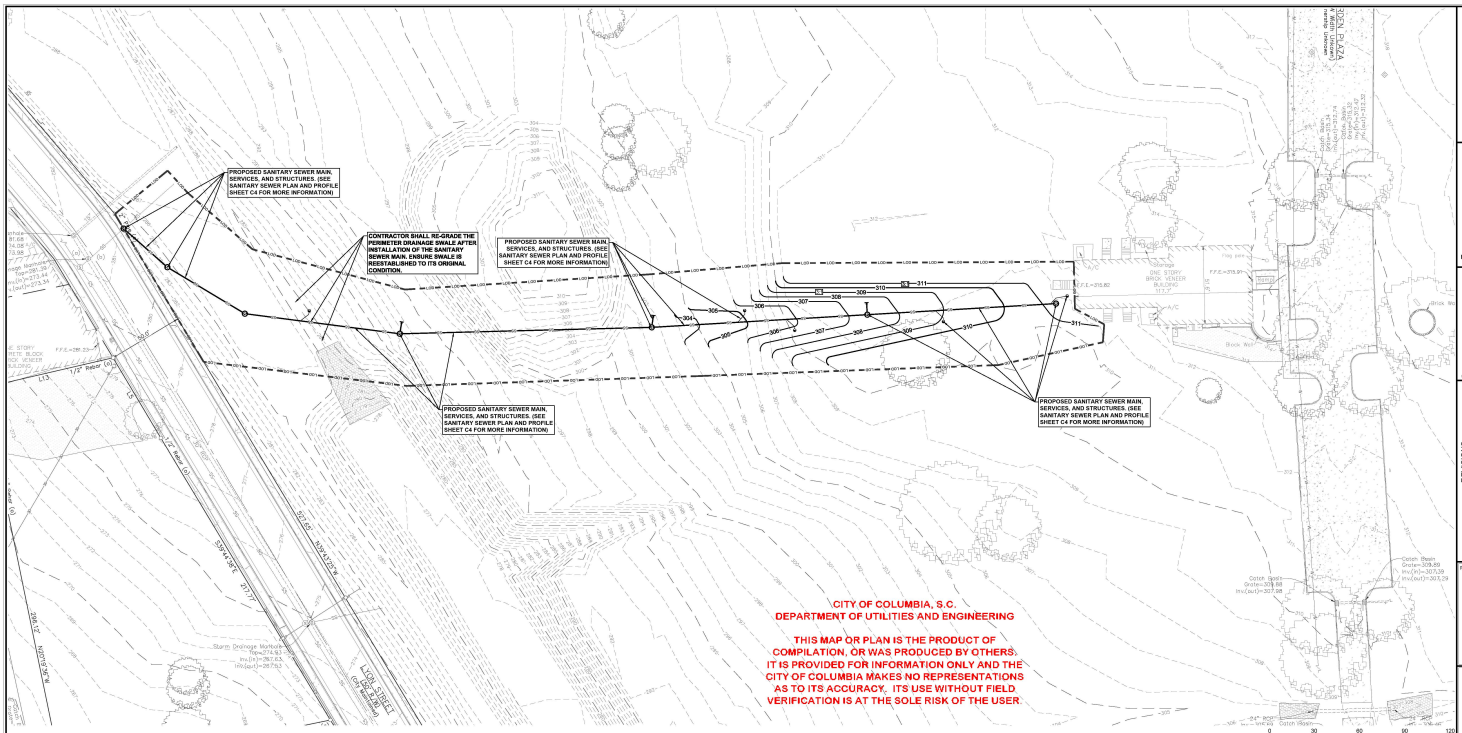
email: jprater@chasc.org

PROJECT:
GONZALES GARDENS COMMUNITY BUILDING SANITARY SEWER
LOCATED IN THE CITY OF COLUMBIA
RICHLAND COUNTY, SOUTH CAROLINA

OVERALL EXISTING CONDITIONS AND INITIAL SWPP PLAN

FILE	#11411-04-01,21,22,23 & 24
BOOK	46C-52C
SF NO.	370-17
PROJECT NO.	1868
DATE	10/15/2018
SHEET NO.	C2 of 6

G:\Proj\1868 Gonzales Gardens Bldgs\LAN\ACAD\1868_Grading(SWPP)Demolition.dwg, Plotted By: Eric, Plotted: Oct 22, 2018 - 2:07pm



TEMPORARY STABILIZATION NOTES:

1. TEMPORARY STABILIZATION IS REQUIRED ON ALL DISTURBED AREAS WITHIN 14 DAYS AFTER CONSTRUCTION ACTIVITY IS COMPLETE UNLESS CONSTRUCTION ACTIVITY IS GOING TO RESUME WITHIN 21 DAYS.
2. GRASSSEED ALL AREAS PER THE TEMPORARY SEEDING SCHEDULE
3. COVER SEEDED AREAS WITH AN APPROPRIATE MULCH TO PROVIDE PROTECTION FROM EROSION, WEATHER, AND HUMAN ACTIVITY UNTIL THE SEED HAS ESTABLISHED. DO NOT GROW QUICKLY OR THICK ENOUGH TO PREVENT EROSION. RE-SEED AND IRRIGATE AS SOON AN POSSIBLE
4. KEEP SEEDED AREAS ADEQUATELY MOIST. IRRIGATE SEEDED AREA IF NORMAL RAINFALL IS NOT ADEQUATE FOR THE GERMINATION AND GROWTH OF SEEDLINGS. WATER SEEDED AREAS AT CONTROLLED RATES THAT ARE LESS THAN THE RATE AT WHICH THE SOIL CAN ABSORB WATER TO PREVENT RUNOFF. RUNOFF OF IRRIGATION WATER WASTES WATER AND CAN CAUSE EROSION.
5. RE-SEED AREAS WHERE SEEDING DOES NOT GROW QUICKLY, THICK ENOUGH, OR ADEQUATELY TO PREVENT EROSION.

FINAL STABILIZATION NOTE:

TEMPORARY SEEDING WILL NOT BE ACCEPTED AS A FINAL STABILIZATION MEASURE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ENSURE THAT PERMANENT SEEDING IS APPLIED IN STRICT ACCORDANCE WITH PERMANENT SEEDING SCHEDULE OR LANDSCAPE PLANS AND THAT ALL SEEDED AND/OR SODDED AREAS ARE ADEQUATELY IRRIGATED BY ANY AND ALL MEANS NECESSARY TO ESTABLISH VEGETATION AS REQUIRED TO ACHIEVE FINAL STABILIZATION, WHICH IS DEFINED BY 70% COVERAGE OVER 100% OF THE DISTURBED AREA.

TOTAL DISTURBED AREA
1.0 ACRES

GRADING LEGEND

300 — EXISTING INDEX CONTOUR	310 — PROPOSED INDEX CONTOUR
299 — EXISTING INTERMEDIATE CONTOUR	309 — PROPOSED INTERMEDIATE CONTOUR
LOD — LOD — CURRENT PHASE LIMITS OF DISTURBANCE	PROPOSED SANITARY SEWER MAIN AND STRUCTURES

GRADING NOTES:

1. TO THE MAXIMUM EXTENT POSSIBLE, ALL RUNOFF SHALL BE DIRECTED TOWARD THE THE PERIMETER DRAINAGE SWALES INSTALLED DURING THE GONZALES GARDEN DEMOLITION PHASE.
2. THE CONTRACTOR SHALL CONTROL DUST GENERATED FROM THE PROPOSED LAND DISTURBING ACTIVITIES BY USE OF A WATER OR OTHER MEASURES NECESSARY TO LIMIT DUST GENERATED FROM THE CONSTRUCTION SITE ACTIVITIES.

CONSTRUCTION SEQUENCE:

1. INSPECT CONSTRUCTION ENTRANCE AND ALL OTHER EXISTING SEDIMENT AND EROSION CONTROL MEASURES. REPAIR AS NECESSARY AND REMOVE ANY ACCUMULATED SEDIMENT.
2. ROUGH GRADING OF THE SITE AS REQUIRED FOR THE SANITARY SEWER MAIN INSTALLATION.
3. TEMPORARILY ESTABLISH VEGETATION TO THE MAXIMUM EXTENT POSSIBLE ON ALL DISTURBED AREAS WITHIN 14 DAYS AFTER CONSTRUCTION ACTIVITY IS COMPLETE UNLESS CONSTRUCTION ACTIVITY IS GOING TO RESUME WITHIN 21 DAYS. SEE THE TEMPORARY SEEDING NOTES FOR MORE INFORMATION.
4. INSTALLATION OF THE SANITARY SEWER MAIN AND ALL ASSOCIATED APPURTENANCES.
5. RE-GRADE PERIMETER DRAINAGE SWALE IN THE AREA OF THE SANITARY SEWER MAIN INSTALLATION TO ITS ORIGINAL CONDITION AND BEGIN STABILIZATION OF THE SWALE.
6. FINALIZE ALL EARTH MOVING OPERATIONS UTILITY INSTALLATION.
7. INSPECT THE SEDIMENT BASIN INSTALLED AS PART OF THE GONZALES GARDENS DEMOLITION PHASE AND COORDINATE WITH THE OWNER AND THE GONZALES GARDENS DEMOLITION PHASE CONTRACTOR FOR SEDIMENT REMOVAL, IF NECESSARY.
8. BEGIN PERMANENT/FINAL STABILIZATION OF ALL DISTURBED AREAS WITHIN THE LIMITS OF DISTURBANCE SHOWN ON THESE PLANS.
9. SUBMIT NOTICE OF TERMINATION TO THE CITY OF COLUMBIA FOR PROJECT CLOSEOUT.

NOTE:

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811 Bush River Rd. Suite 100 Columbia, South Carolina 29210(803) 691-1127

South Carolina 811

3 DAYS BEFORE DIGGING IN SOUTH CAROLINA
CALL 811
CONTRACTOR SHALL CONTACT THE UNDERGROUND LOCATORS EVERY 10 DAYS FOR AN UPDATE TO UTILITY LOCATIONS.

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COX AND DINKINS, INC.
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803-254-0918
Fax: 803-765-0993
Email: cdinc@coxanddinkins.com

SOUTH CAROLINA PROFESSIONAL ENGINEER No.14890 BARRY R. HOLCOMBE

REGISTERED PROFESSIONAL ENGINEER NO. 14890

COX AND DINKINS, INC. No. C00294 CERTIFICATE OF AUTHORIZATION

CERTIFICATE OF AUTHORIZATION SEAL

REVISIONS		
NO.	DATE	DESCRIPTION

PRIMARY PERMITTEE:
COLUMBIA HOUSING AUTHORITY
DEVELOPMENTS, INC.
1917 HARDEN STREET
COLUMBIA, SC 29204
803-254-3886
email: jprater@chasc.org

PROJECT
GONZALES GARDENS COMMUNITY BUILDING SANITARY SEWER
LOCATED IN THE CITY OF COLUMBIA
RICHLAND COUNTY, SOUTH CAROLINA

GRADING AND STABILIZATION PHASE SWPP PLAN

MB	#11411-04-01,21,22,23 & 24
BOOK	46C-52C
SF NO.	370-17
PROJECT NO.	1868
DATE	10/15/2018
SHEET NO.	C3 of 6

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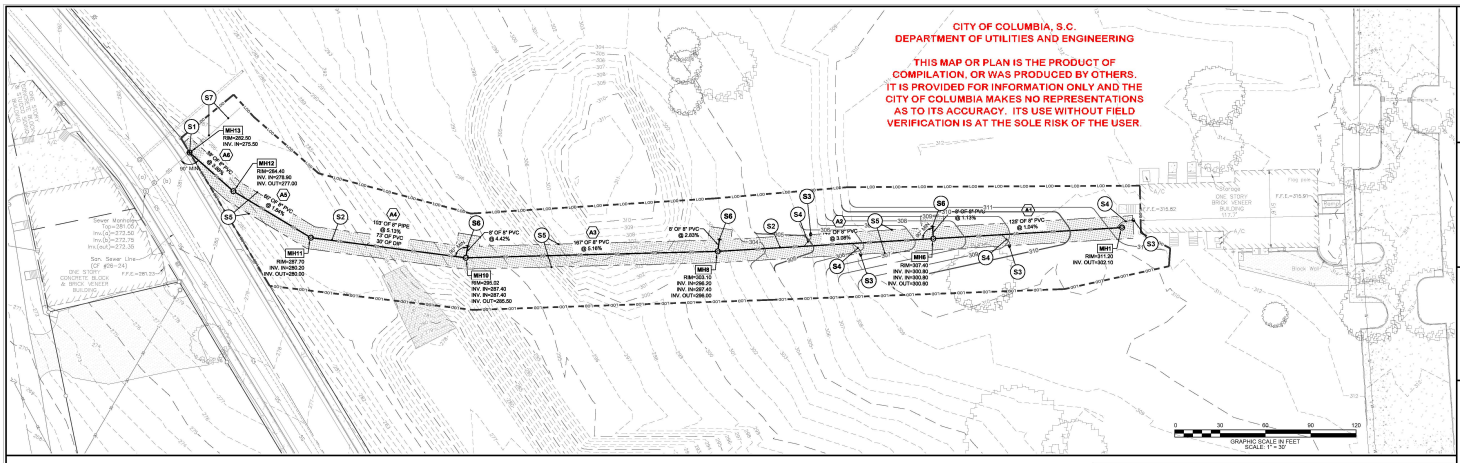

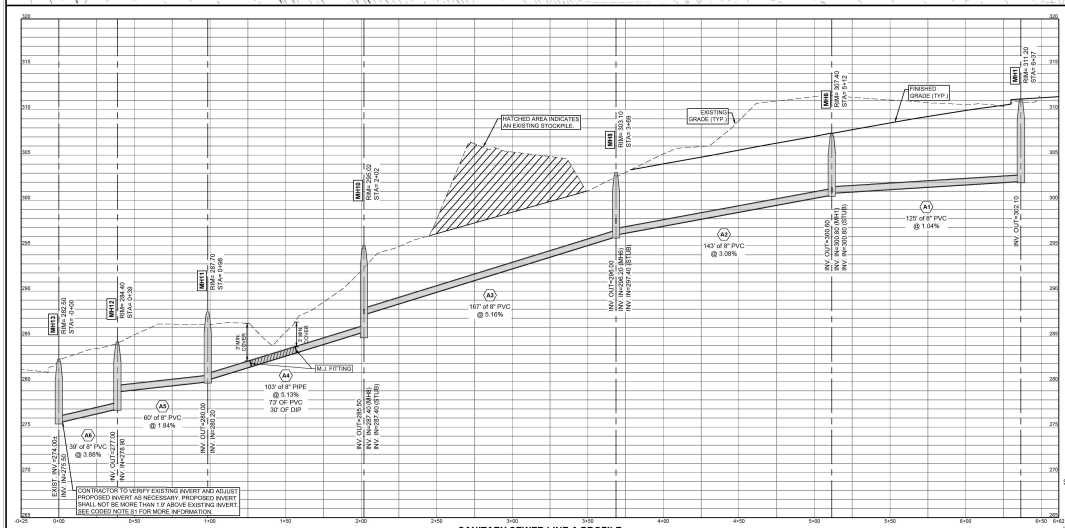

SANITARY SEWER LINE A PROFILE

NOTES:

1. SHOW UTILITY CROSSINGS MAY EXIST THAT ARE NOT SHOWN ON THIS PROFILE.
2. AS SHOWN, PIPE LENGTHS ARE CENTER TO CENTER OF STRUCTURES.

SANITARY SEWER LEGEND

- PROPOSED SANITARY SEWER MAIN
- PROPOSED SANITARY SEWER SERVICE
- PROPOSED SANITARY SEWER MANHOLE
- PROPOSED SANITARY SEWER CLEANOUT
- SANITARY SEWER MAIN DESIGNATION (A#)
- SANITARY SEWER MANHOLE DESIGNATION (MH#)
- EXISTING SANITARY SEWER MAIN
- EXISTING SANITARY SEWER MANHOLE
- EXISTING SANITARY SEWER CLEANOUT
- PROPOSED 15' EXCLUSIVE CITY OF COLUMBIA SANITARY SEWER EASEMENT

CODED NOTES

S1 CONTRACTOR SHALL FURNISH AND INSTALL NEW SANITARY SEWER MANHOLE AT THIS LOCATION. SEE PROFILES FOR APPROXIMATE INVERT AT THE TIE IN LOCATION. CONTRACTOR SHALL VERIFY EXISTING INVERT PRIOR TO CONSTRUCTION AND NOTIFY THE ENGINEER IMMEDIATELY IF DISCREPANCIES ARE FOUND. CORE HOLE FOR EXISTING PIPE CONNECTION AND GROUT WATERTIGHT SEAL.

S2 CONTRACTOR SHALL FURNISH AND INSTALL NEW 8" SDR 35 PVC SANITARY SEWER GRAVITY MAIN. SEE SANITARY SEWER PROFILES FOR MORE INFORMATION.

S3 CONTRACTOR SHALL FURNISH AND INSTALL NEW TRAFFIC RATED SANITARY SEWER CLEANOUT. (TYPICAL) (SEE DETAIL)

S4 CONTRACTOR SHALL FURNISH AND INSTALL 6" SDR 35 PVC SANITARY SEWER SERVICE LINE AT 1.0% MINIMUM SLOPE WITH CLEANOUTS AS SHOWN. MAINTAIN 7' MINIMUM COVER ALONG ENTIRE LENGTH OF SERVICE. (TYPICAL) WHERE COVER IS LESS THAN 3', INSTALL DUCTILE IRON PIPE WITH PROTECTOR 401 LINING.

S5 PROPOSED 15' WIDE EXCLUSIVE SANITARY SEWER EASEMENT TO BE DEDICATED TO THE CITY OF COLUMBIA UPON COMPLETION OF CONSTRUCTION & ACCEPTANCE BY THE CITY OF COLUMBIA.

S6 CONTRACTOR SHALL FURNISH AND INSTALL 8" OF NEW 8" SDR 35 PVC SANITARY SEWER STUB-OUT. CONTRACTOR SHALL CAP STUB WITH 8" PLUG FOR FUTURE CONNECTION.

S7 CONTRACTOR SHALL DEMOLISH AND PROPERLY DISPOSE OF EXISTING SANITARY SEWER LINE UPSTREAM OF NEW MANHOLE.

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The Palmetto Utility Protection Service, Inc.
811 Bush River Road, Suite 110 Columbia, South Carolina 29210 (803) 771-7731

South Carolina 811

3 DAYS BEFORE DIGGING IN SOUTH CAROLINA

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COX AND DINKINS, INC.
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Fax: 803-765-0993
Email: cdinc@coxanddinkins.com

SOUTH CAROLINA PROFESSIONAL ENGINEER No.14890 BARRY W. HOLCOMBE

Signature 10/5/18

REGISTERED PROFESSIONAL ENGINEER NO. 14890

COX AND DINKINS, INC. No. C00294 STATE OF SOUTH CAROLINA CERTIFICATE OF AUTHORIZATION

CERTIFICATE OF AUTHORIZATION SEAL

REVISIONS		
NO.	DATE	DESCRIPTION

PRIMARY PERMITTEE:
COLUMBIA HOUSING AUTHORITY
DEVELOPMENTS, INC.
1917 HARDEN STREET
COLUMBIA, SC 29204

803-254-3886

email: jprater@chasc.org

PROJECT
GONZALES GARDENS COMMUNITY BUILDING SANITARY SEWER

LOCATED IN THE CITY OF COLUMBIA
RICHLAND COUNTY, SOUTH CAROLINA

SANITARY SEWER PLAN AND PROFILE

TMS	#11411-04-01,21,22,23 & 24
BOOK	46C-52C
SF NO. 370-17	SHEET NO. C4 of 6
PROJECT NO. 1868	
DATE 10/15/2018	

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EROSION CONTROL NOTES

1. IF NECESSARY, SLOPES WHICH EXCEED EIGHT (8) VERTICAL FEET SHOULD BE STABILIZED WITH SYNTHETIC OR VEGETATIVE MATS, IN ADDITION TO HYDROSEEDING. IT MAY BE NECESSARY TO INSTALL TEMPORARY SLOPE DRAINS DURING CONSTRUCTION. TEMPORARY BERMS MAY BE NEEDED UNTIL THE SLOPE IS BROUGHT TO GRADE.
2. STABILIZATION MEASURES SHALL BE INITIATED AS SOON AS PRACTICABLE IN PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITIES HAVE TEMPORARILY OR PERMANENTLY CEASED, BUT IN NO CASE MORE THAN FOURTEEN (14) DAYS AFTER WORK HAS CEASED, EXCEPT AS STATED BELOW:
   - WHERE STABILIZATION BY THE 14TH DAY IS PRECLUDED BY SNOW COVER OR FROZEN GROUND CONDITIONS, STABILIZATION MEASURES MUST BE INITIATED AS SOON AS PRACTICABLE.
   - WHERE CONSTRUCTION ACTIVITY ON A PORTION OF THE SITE IS TEMPORARILY CEASED, AND EARTH-DISTURBING ACTIVITIES WILL BE RESUMED WITHIN 14 DAYS, TEMPORARY STABILIZATION MEASURES DO NOT HAVE TO BE IN INITIATED ON THAT PORTION OF THE SITE.
3. ALL SEDIMENT AND EROSION CONTROL DEVICES SHALL BE INSPECTED ONCE EVERY CALENDAR WEEK. IF PERIODIC INSPECTION OR OTHER INFORMATION INDICATES THAT A BMP HAS BEEN INAPPROPRIATELY OR INCORRECTLY INSTALLED, THE PERMITTEE MUST ADDRESS THE NECESSARY REPLACEMENT OR MODIFICATION REQUIRED TO CORRECT THE BMP WITHIN 48 HOURS OF IDENTIFICATION.
4. PROVIDE SILT FENCE AND/OR OTHER CONTROL DEVICES, AS MAY BE REQUIRED, TO CONTROL SOIL EROSION DURING UTILITY CONSTRUCTION. ALL DISTURBED AREAS SHALL BE CLEANED, GRADED, AND STABILIZED WITH GRASSING IMMEDIATELY AFTER THE UTILITY INSTALLATION. FILL, COVER, AND TEMPORARY SEEDING AT THE END OF EACH DAY ARE RECOMMENDED. IF WATER IS ENCOUNTERED WHILE TRENCHING, THE WATER SHOULD BE FILTERED TO REMOVE ANY SEDIMENT BEFORE BEING PUMPED BACK INTO ANY WATERS OF THE STATE.
5. ALL EROSION CONTROL DEVICES SHALL BE PROPERLY MAINTAINED DURING ALL PHASES OF CONSTRUCTION AND UNTIL THE COMPLETION OF ALL CONSTRUCTION ACTIVITIES AND ALL DISTURBED AREAS HAVE BEEN STABILIZED. ADDITIONAL CONTROL DEVICES MAY BE REQUIRED DURING CONSTRUCTION IN ORDER TO CONTROL EROSION AND/OR OFFSITE SEDIMENTATION. ALL TEMPORARY CONTROL DEVICES SHALL BE REMOVED ONCE CONSTRUCTION IS COMPLETE AND THE SITE HAS BEEN STABILIZED.
6. THE CONTRACTOR MUST TAKE NECESSARY ACTION TO MINIMIZE THE TRACKING OF MUD ONTO PAVED ROADWAY(S) FROM CONSTRUCTION AREAS AND TO MINIMIZE THE GENERATION OF DUST. THE CONTRACTOR SHALL DAILY REMOVE MUD/SOIL FROM PAVEMENT, AS MAY BE REQUIRED.
7. CONTRACTOR SHALL CONTROL DUST GENERATED FROM THE SITE BY USE OF WATER TRUCK OR OTHER MEASURES AS NECESSARY TO LIMIT DUST.
8. TEMPORARY DIVERSION BERMS AND/OR DITCHES MUST BE PROVIDED AS NEEDED DURING CONSTRUCTION TO PROTECT WORK AREAS FROM UPSLOPE RUNOFF AND/OR TO DIVERT SEDIMENT-LADEN WATER TO APPROPRIATE TRAPS OR STABLE OUTLETS.
9. ALL WATERS OF THE STATE (WoS), INCLUDING JURISDICTIONAL WETLANDS AND STREAMS, ARE TO BE FLAGGED OR OTHERWISE CLEARLY MARKED IN THE FIELD. A DOUBLE ROW OF SILT FENCE IS TO BE INSTALLED IN ALL AREAS WHERE A 50-FOOT BUFFER CANNOT BE MAINTAINED BETWEEN THE DISTURBED AREA AND ALL WoS. WHEN POSSIBLE A 10-FOOT BUFFER SHOULD BE MAINTAINED BETWEEN THE LAST ROW OF SILT FENCE AND ALL WoS.
10. LITTER, CONSTRUCTION DEBRIS, OILS, FUELS, AND BUILDING PRODUCTS WITH SIGNIFICANT POTENTIAL FOR IMPACT (SUCH AS STOCKPILES OF FRESHLY TREATED LUMBER) AND CONSTRUCTION CHEMICALS THAT COULD BE EXPOSED TO STORM WATER MUST BE PREVENTED FROM BECOMING A POLLUTANT SOURCE IN STORM WATER DISCHARGES.
11. A COPY OF THE SWPPP, INSPECTION RECORDS, AND RAINFALL DATA MUST BE RETAINED AT THE CONSTRUCTION SITE OR NEARBY LOCATION EASILY ACCESSIBLE DURING NORMAL BUSINESS HOURS, FROM THE DATE OF COMMENCEMENT OF CONSTRUCTION ACTIVITIES THROUGH THE DATE FINAL STABILIZATION IS REACHED.
12. INITIATE STABILIZATION MEASURES ON ANY EXPOSED STEEP SLOPE (3H:1V OR GREATER) WHERE LAND-DISTURBING ACTIVITIES HAVE PERMANENTLY OR TEMPORARILY CEASED, AND WILL NOT RESUME FOR A PERIOD OF 7 CALENDAR DAYS.
13. MINIMIZE TOPSOIL COMPACTION AND, UNLESS INFEASIBLE, PRESERVE TOPSOIL.
14. MINIMIZE THE DISCHARGE OF POLLUTANTS FROM EQUIPMENT AND VEHICLE WASHING, WHEEL WASH WATER, AND OTHER WASH WATERS. WASH WATERS MUST BE TREATED IN A SEDIMENT BASIN OR ALTERNATIVE CONTROL THAT PROVIDES EQUIVALENT OR BETTER TREATMENT PRIOR TO DISCHARGE.
15. MINIMIZE THE DISCHARGE OF POLLUTANTS FROM DEWATERING OF TRENCHES AND EXCAVATED AREAS. THESE DISCHARGES ARE TO BE ROUTED THROUGH APPROPRIATE BMPS (SEDIMENT BASIN, FILTER BAG, ETC).
16. THE FOLLOWING DISCHARGES FROM THE SITE ARE PROHIBITED:
   - WASTEWATER FROM THE WASHOUT OF CONCRETE, UNLESS MANAGED BY AN APPROPRIATE CONTROL;
   - WASTEWATER FROM THE WASHOUT AND CLEANOUT OF STUCCO, PAINT, FORM RELEASE OILS, CURING COMPOUNDS AND OTHER CONSTRUCTION MATERIALS;
   - FUELS, OILS, OR OTHER POLLUTANTS USED IN VEHICLE AND EQUIPMENT OPERATION AND MAINTENANCE; AND
   - SOAPS AND SOLVENTS USED IN VEHICLE AND EQUIPMENT WASHING.
17. AFTER CONSTRUCTION ACTIVITIES BEGIN, INSPECTIONS MUST BE CONDUCTED AT LEAST ONCE EVERY CALENDAR WEEK AND MUST BE CONDUCTED UNTIL FINAL STABILIZATION IS REACHED ON ALL AREAS OF THE CONSTRUCTION SITE.
18. IF EXISTING BMPS REQUIRE MODIFICATION OR IF ADDITIONAL BMPS ARE NECESSARY TO COMPLY WITH THE REQUIREMENTS OF THIS PERMIT AND/OR SC'S WATER QUALITY STANDARDS, IMPLEMENTATION MUST BE COMPLETED BEFORE THE NEXT STORM EVENT WHENEVER PRACTICABLE. IF IMPLEMENTATION BEFORE THE NEXT STORM EVENT IS IMPRACTICABLE, THE SITUATION MUST BE DOCUMENTED IN THE SWPPP AND ALTERNATIVE BMPS MUST BE IMPLEMENTED AS SOON AS REASONABLY POSSIBLE.
19. A PRE-CONSTRUCTION CONFERENCE MUST BE HELD FOR EACH CONSTRUCTION SITE WITH AN APPROVED ON-SITE SWPPP PRIOR TO THE COMMENCEMENT OF CONSTRUCTION ACTIVITIES. FOR NON-LINEAR PROJECTS THAT DISTURB 10 ACRES OR MORE THIS CONFERENCE MUST BE HELD ON-SITE UNLESS THE DEPARTMENT HAS APPROVED OTHERWISE.
20. THE CONTRACTOR SHALL MAINTAIN A RAIN GAUGE ON SITE AND MAINTAIN DAILY PRECIPITATION RECORDS IN THE SWPPP MANUAL PER SCDHEC REQUIREMENTS. THE CONTRACTOR SHALL NOTIFY THE SWPPP INSPECTOR OF ALL RAINFALL EVENTS OF OVER ONE-HALF INCH PRECIPITATION.
21. LAND DISTURBING ACTIVITIES SHALL NOT COMMENCE UNTIL APPROVAL TO DO SO HAS BEEN ISSUED BY GOVERNING AUTHORITIES.
22. THE CONTRACTOR SHALL COMPLY WITH APPLICABLE STATE AND LOCAL ORDINANCES.
23. THE EROSION CONTROL MEASURES INCLUDED IN THE STORM WATER POLLUTION PREVENTION PLAN SHALL BE INSTALLED PRIOR TO INITIAL LAND DISTURBANCE ACTIVITIES OR AS SOON AS PRACTICAL. SEDIMENT SHALL BE PREVENTED FROM DISCHARGING FROM THE PROJECT SITE BY INSTALLING AND MAINTAINING CONTROL PRACTICES AS SHOWN ON THIS PLAN. IF SHOWN ON THESE PLANS, ENERGY- DISSIPATION DEVICES OR EROSION CONTROL AT THE OUTFALL OF THE STORM SEWER SYSTEM SHALL BE INSTALLED AT THE TIME OF THE CONSTRUCTION OF THE OUTFALL. STRUCTURAL PRACTICES SHALL BE USED TO CONTROL EROSION FROM ALL SITES REMAINING UNDISTURBED FOR MORE THAN 14 DAYS.
24. THE CONTRACTOR SHALL CONTROL WASTES, GARBAGE, DEBRIS, WASTEWATER, AND OTHER SUBSTANCES ON THE SITE IN SUCH A WAY THAT THEY SHALL NOT BE TRANSPORTED FROM THE SITE BY THE ACTION OF WINDS, STORM WATER RUNOFF, OR OTHER FORCES. PROPER DISPOSAL OR MANAGEMENT OF ALL WASTES AND UNUSED BUILDING MATERIAL, APPROPRIATE TO THE NATURE OF THE WASTE OR MATERIAL IS REQUIRED. COMPLIANCE IS REQUIRED WITH ALL STATE OR LOCAL REGULATIONS REGARDING WASTE DISPOSAL, SANITARY SEWER, OR SEPTIC SYSTEMS.
25. ALL ON-SITE STORM DRAIN INLETS SHALL BE PROTECTED AGAINST SEDIMENTATION AS SHOWN ON THESE PLANS.
26. THIS EROSION CONTROL PLAN SHALL BE IMPLEMENTED ON ALL DISTURBED AREAS WITHIN THE CONSTRUCTION SITE. ALL MEASURES INVOLVING EROSION CONTROL PRACTICES SHALL BE INSTALLED UNDER THE GUIDANCE OF QUALIFIED PERSONNEL EXPERIENCED IN EROSION CONTROL, AND FOLLOWING THE PLANS AND SPECIFICATIONS INCLUDED HEREIN.
27. DURING THE PERIOD OF CONSTRUCTION ACTIVITY, ALL SEDIMENT BASINS AND OTHER EROSION CONTROL MEASURES SHALL BE MAINTAINED BY THE CONTRACTOR. AT COMPLETION OF CONSTRUCTION, THE CONTRACTOR SHALL COORDINATE THE TRANSFER OF MAINTENANCE RESPONSIBILITIES, IF REQUIRED, WITH THE OWNER. MAINTENANCE SHALL BE IN ACCORDANCE WITH DHEC'S MANUAL, "SOUTH CAROLINA STORMWATER MANAGEMENT AND SEDIMENT CONTROL HANDBOOK FOR LAND DISTURBANCE ACTIVITIES".
28. ALL EROSION CONTROL PRACTICES SHALL BE IN ACCORDANCE WITH "SOUTH CAROLINA STORMWATER MANAGEMENT AND SEDIMENT CONTROL HANDBOOK FOR LAND DISTURBANCE ACTIVITIES" AND APPLICABLE RICHLAND COUNTY REGULATIONS AND BMP MANUAL.
29. EXISTING VEGETATION SHALL BE PROTECTED AS MUCH AS PRACTICAL.
30. IF SYNTHETIC OR PERMANENT VEGETATIVE MATTING IS USED, THE MANUFACTURER'S REPRESENTATIVE MUST PROVIDE WRITTEN APPROVAL OF THE INSTALLATION OF THE MATERIAL. A COPY OF THAT LETTER MUST BE PROVIDED TO THE OWNER AND THE ENGINEER.
31. IF THE INSTALLATION OF THE STORM DRAINAGE SYSTEM IS INTERRUPTED BY WEATHER OR NIGHTFALL, PIPE ENDS SHALL BE COVERED WITH FILTER FABRIC.
32. THE CONTRACTOR SHALL REMOVE SEDIMENT FROM THE DETENTION POND/SEDIMENT BASIN AT SUCH TIME AS IT REACHES THE SPECIFIED DEPTH ABOVE THE DESIGN BOTTOM ELEVATION OF THE POND/BASIN. DISPOSAL OF THE MATERIAL IS ALSO THE RESPONSIBILITY OF THE CONTRACTOR.
33. THE CONTRACTOR SHALL REMOVE ALL ACCUMULATED SEDIMENT FROM THE DETENTION POND/SEDIMENT BASIN AFTER THE SITE IS STABILIZED, ENSURING THAT THE DESIGN VOLUME OF THE POND/BASIN HAS BEEN PROVIDED FOLLOWING STABILIZATION.
34. ALL TEMPORARY CONTROL DEVICES SHALL BE REMOVED ONCE CONSTRUCTION IS COMPLETE AND THE SITE IS STABILIZED.
35. THE CONTRACTOR SHALL RESPREAD TOPSOIL ON SITE AS PART OF THE FINAL GRADING AND STABILIZATION PROCESS.
36. THIS PLAN SHALL NOT BE CONSIDERED ALL INCLUSIVE. THE CONTRACTOR SHALL TAKE ALL NECESSARY MEASURES AT HIS EXPENSE TO REDUCE EROSION AND PREVENT SEDIMENT FROM LEAVING THE SITE. THE CONTRACTOR IS RESPONSIBLE FOR ALL CLEANUP AND REPAIR ON-SITE AND DOWNSTREAM DUE TO EROSION AND SILTATION.

TEMPORARY SEEDBED PREPARATION

1. SURFACE WATER CONTROL MEASURES SHALL BE INSTALLED ACCORDING TO PLAN.
2. AREA TO BE SEEDED SHALL BE RIPPED AND SPREAD WITH AVAILABLE TOP SOIL 3" DEEP. TOTAL SEEDBED PREPARED DEPTH SHALL BE 4" TO 5" DEEP.
3. LOOSE ROCKS, ROOTS AND OTHER OBSTRUCTIONS SHALL BE REMOVED FROM THE SURFACE SO THAT THEY WILL NOT INTERFERE WITH ESTABLISHMENT AND MAINTENANCE OF VEGETATION. SURFACE FOR FINAL SEEDBED PREPARATION, AT FINISH GRADES SHOWN, SHALL BE REASONABLY SMOOTH AND UNIFORM.
4. IF NO SOIL TEST IS TAKEN PROVIDE FERTILIZER AND LIME ACCORDING TO SEEDING SCHEDULE. IN ADDITION, PROVIDE 15 LBS./100 SF OF SUPERPHOSPHATE.
5. IF SOIL TEST IS TAKEN, PROVIDE LIME AND FERTILIZER ACCORDING TO SOIL TEST REPORT.
6. LIME AND FERTILIZER SHALL BE APPLIED UNIFORMLY AND MIXED WITH THE SOIL DURING SEEDBED PREPARATION.
7. MULCH TO BE TACKED OR MECHANICALLY TIED DOWN WITHIN TWO DAYS AFTER MULCH IS SPREAD.

TEMPORARY SEEDING SCHEDULE

FROM MAY 1 - AUGUST 31

1	POUND	BROWN TOP MILLET
2	POUNDS	HULLED BERMUDA
25	POUNDS	10-10-10 FERTILIZER
75	POUNDS	LIMESTONE

OR

1	POUND	BROWN TOP MILLET
1	POUND	HULLED BERMUDA
2*	POUNDS	BAHIA GRASS
25	POUNDS	10-10-10 FERTILIZER
75	POUNDS	LIMESTONE

OR
(DEEP DANDY SOILS)

2	POUNDS	BROWN TOP MILLET
3*	POUNDS	BAHIA GRASS
25	POUNDS	10-10-10 FERTILIZER
75	POUNDS	LIMESTONE

FROM SEPTEMBER 1 - APRIL 30

2	POUNDS	ANNUAL RYE GRASS
0.5	POUND	HULLED BERMUDA
1.5	POUNDS	UNHULLED BERMUDA
25	POUNDS	10-10-10 FERTILIZER
75	POUNDS	LIMESTONE

OR

2	POUNDS	ANNUAL RYE GRASS
0.5	POUND	HULLED BERMUDA
1	POUND	UNHULLED BERMUDA
2*	POUNDS	BAHIA GRASS
25	POUNDS	10-10-10 FERTILIZER
75	POUNDS	LIMESTONE

OR

1	POUND	ANNUAL RYE GRASS
3**	POUNDS	FESCUE GRASS
25	POUNDS	10-10-10 FERTILIZER
75	POUNDS	LIMESTONE

OR
(DEEP DANDY SOILS)

1	POUND	UNHULLED BERMUDA
2	POUNDS	RYE GRASS/GRAIN RYE
2*	POUNDS	BAHIA GRASS
25	POUNDS	10-10-10 FERTILIZER
75	POUNDS	LIMESTONE

* BAHIA GRASS IS A GOOD EROSION CONTROL GRASS; HOWEVER, IT PRODUCES MANY SEED HEADS WHICH SCATTER TO OTHER AREAS. BAHIA GRASS IS HARD TO MOW, BUT IT DOES NOT REQUIRE THE CARE THAT OTHER GRASSES REQUIRE. AROUND OFFICE BUILDINGS AND WITHIN SUBDIVISIONS, USE 4 TO 6 OUNCES OF CENTIPEDE GRASS IN LIEU OF BAHIA GRASS OR IN COMBINATION WITH BERMUDA GRASS.

**FOR SOILS WITH CLAY SUBSOIL. DO NOT PLANT IN SANDY SOILS.

NOTES:
1. ON ALL VEGETATED SWALES OR DITCHES WITH SIDE SLOPES (CUT OR FILL) STEEPER THAN 2:1, ADD 4 TO 6 OUNCES PER 1,000 SQUARE FEET OF WEEPING LOVE GRASS SEED TO ANY OF THE ABOVE MIXTURES.
2. SWALE AND DITCH BOTTOMS SHOULD BE DOUBLE SEEDED.
3. ALL SLOPES STEEPER THAN 2:1 SHALL BE HYDROSEEDED.
4. GROWTH OF RYE GRASS IN EARLY SPRING MUST BE SUPPRESSED TO PREVENT RYE FROM CHOKING OUT PERMANENT GRASS SUCH AS BERMUDA, BAHIA OR FESCUE.

PERMANENT GRASSING SCHEDULE (PER 1000SF)

NOTE: SEED ALL DISTURBED AREAS DUE TO GRADING OR TRENCHING AND ALL AREAS NOT TO BE PLANTED OR SODDED.

FROM MAY 1 - AUGUST 31

1	POUND	BROWN TOP MILLET
1	POUND	HULLED BERMUDA
6	OUNCES	CENTIPEDE GRASS
25	POUNDS	10-10-10 FERTILIZER
75	POUNDS	LIMESTONE

FROM SEPTEMBER 1 - APRIL 30

2	POUNDS	ANNUAL RYE
1	POUND	UNHULLED BERMUDA
6	OUNCES	CENTIPEDE GRASS
25	POUNDS	10-10-10 FERTILIZER
75	POUNDS	LIMESTONE

CITY OF COLUMBIA, S.C.
DEPARTMENT OF UTILITIES AND ENGINEERING

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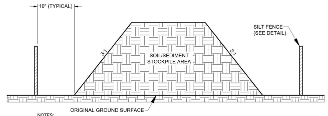
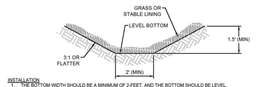


NOTES:
1. SILT FENCE TO EXTEND AROUND ENTIRE PERIMETER OF STOCKPILE, OR IF STOCKPILE AREA IS LOCATED ON/NEAR A SLOPE, THE SILT FENCE IS TO EXTEND ALONG CONTOURS OF THE DOWN-GRADIENT AREA.
2. IF STOCKPILE IS TO REMAIN FOR MORE THAN 14 DAYS, TEMPORARY STABILIZATION MEASURES MUST BE IMPLEMENTED.
3. SILT FENCE SHALL BE MAINTAINED UNTIL STOCKPILE AREA EITHER BEEN REMOVED OR PERMANENTLY STABILIZED.
4. THE KEY TO FUNCTIONAL AND TEMPORARY STOCKPILE AREAS IS WEEKLY INSPECTIONS, ROUTINE MAINTENANCE, AND REGULAR SEDIMENT REMOVAL.

TEMPORARY STOCKPILE
NTS



INSTALLATION
1. THE BOTTOM WIDTH SHOULD BE A MINIMUM OF 2-FEET, AND THE BOTTOM SHOULD BE LEVEL.
2. THE DEPTH SHOULD BE A MINIMUM OF 1.5-FEET, AND THE SIDE SLOPES SHOULD BE 2H:1V OR FLATTER.
3. THE MAXIMUM GRADE SHALL BE 5% WITH POSITIVE DRAINAGE TO A SUITABLE OUTLET.
4. SLOPES SHALL BE STABILIZED IMMEDIATELY USING VEGETATION, SOD, AND EROSION CONTROL BLANKETS OR TURF REINFORCEMENT MATS TO PREVENT EROSION.
5. THE UPSLOPE SIDE OF THE SWALE SHOULD PROVIDE POSITIVE DRAINAGE SO NO EROSION OCCURS AT THE OUTLET. PROVIDE ENERGY DISSIPATION MEASURES AS NECESSARY.
6. SEDIMENT-LADEN RUNOFF SHALL BE DIRECTED TO A SEDIMENT TRAPPING FACILITY.

INSPECTION AND MAINTENANCE
1. SWALES SHOULD BE INSPECTED EVERY SEVEN (7) CALENDAR DAYS AND WITHIN 24-HOURS AFTER EACH RAINFALL EVENT THAT PRODUCES 1/2-INCHES OR MORE OF PRECIPITATION AND REPAIRS MADE AS NECESSARY.
2. DAMAGE CAUSED BY CONSTRUCTION TRAFFIC OR OTHER ACTIVITY MUST BE REPAIRED BEFORE THE END OF EACH WORKING DAY.

DIVERSION SWALE DETAIL
NTS

INSTALLATION
1. EXCAVATE A TRENCH ALONG THE LINE OF THE POSTS, UP-SLOPE FROM THE FENCE, APPROXIMATELY 6-INCHES WIDE AND 6-INCHES DEEP WHEN PLACING FABRIC BY HAND. THE TRENCH SHALL BE HAND CLEANED FOLLOWING EXCAVATION TO REMOVE BULKY DEBRIS SUCH AS ROCKS, STICKS, AND SOIL CLODS FROM THE TRENCH.
2. DRIVE AND SET SUPPORT POSTS TO A MINIMUM DEPTH OF 18-INCHES, WITH NO MORE THAN 3-FEET OF THE POST ABOVE THE GROUND. MAXIMUM POST SPACING SHALL BE NO LESS THAT 10-FEET ON CENTER. INSTALL POSTS SUCH THAT THE TOP IS A MINIMUM OF 2" ABOVE THE FABRIC.
3. A WIRE MESH SUPPORT FENCE SHALL BE FASTENED SECURELY TO THE UP-SLOPE SIDE OF THE POSTS USING HEAVY DUTY TIE WIRES OR HOG RINGS. THE WIRE MESH SHALL SHALL BE A MINIMUM OF 2-INCHES FROM THE TOP OF THE POST AND SHALL EXTEND INTO THE TRENCH A MINIMUM OF 4-INCHES AND SHOULD NOT EXCEED MORE THAN 36-INCHES ABOVE THE GROUND SURFACE.
4. PURCHASE FABRIC IN CONTINUOUS ROLLS AND CUT TO THE LENGTH OF THE BARRIER TO AVOID JOINTS. WHEN JOINTS ARE NECESSARY, WRAP THE FABRIC TOGETHER AT A SUPPORT POST WITH BOTH ENDS FASTENED TO THE POST, WITH A 6-INCH MINIMUM OVERLAP. THE FILTER FABRIC SHOULD BE WIRED TO THE FENCE AND 12-INCHES OF THE FABRIC SHOULD BE EXTENDED INTO THE 6-INCH DEEP TRENCH, EXTENDING THE REMAINING 6 INCHES TOWARDS THE UP-SLOPE SIDE OF THE TRENCH. BURY 18-INCHES OF FABRIC INTO THE GROUND WHEN PNEUMATICALLY INSTALLING SILT FENCE WITH SLICING METHOD. THE FABRIC SHOULD NOT EXTEND MORE THAN 36 INCHES ABOVE THE ORIGINAL GROUND SURFACE. DO NOT STAPLE FILTER FABRIC TO TREES. INSTALL THE FENCE PERPENDICULAR TO THE DIRECTION OF FLOW AND PLACE THE FENCE THE PROPER DISTANCE FROM THE TOE OF STEEP SLOPES TO PROVIDE SEDIMENT STORAGE AND ACCESS FOR MAINTENANCE AND CLEANOUT.
4.a. WHEN NECESSARY, THE HEIGHT OF THE FENCE ABOVE GROUND MAY BE GREATER THAN 24-INCHES. IN TIDAL AREAS, EXTRA SILT FENCE HEIGHT MAY BE REQUIRED. THE POST HEIGHT WILL BE TWICE THE EXPOSED POST HEIGHT. POST SPACING WILL REMAIN THE SAME AND EXTRA HEIGHT FABRIC WILL BE 4-, 5-, OR 6-FEET TALL.
5. BACKFILL TRENCH WITH SOIL OR GRAVEL AND COMPACT OVER THE FILTER FABRIC.

INSPECTION AND MAINTENANCE
INSPECT EVERY SEVEN CALENDAR DAYS AND WITHIN 24-HOURS AFTER EACH RAINFALL EVENT THAT PRODUCES ½-INCHES OR MORE OF PRECIPITATION. CHECK FOR SEDIMENT BUILDUP AND FENCE INTEGRITY. CHECK WHERE RUNOFF HAS ERODED A CHANNEL BENEATH THE FENCE, OR WHERE THE FENCE HAS SAGGED OR COLLAPSED BY FENCE OVERTOPPING. IF THE FENCE FABRIC TEARS, BEGINS TO DECOMPOSE, OR IN ANY WAY BECOMES INEFFECTIVE, REPLACE THE SECTION OF FENCE IMMEDIATELY. ***REMOVE SEDIMENT ACCUMULATED ALONG THE FENCE WHEN IT REACHES 1/3 THE HEIGHT OF THE FENCE, ESPECIALLY IF HEAVY RAINS ARE EXPECTED.*** REMOVE TRAPPED SEDIMENT FROM THE SITE OR STABILIZE IT ON SITE. REMOVE SILT FENCE WITHIN 30 DAYS AFTER FINAL STABILIZATION IS ACHIEVED OR AFTER TEMPORARY BEST MANAGEMENT PRACTICES (BMPS) ARE NO LONGER NEEDED. PERMANENTLY STABILIZE DISTURBED AREAS RESULTING FROM FENCE REMOVAL.

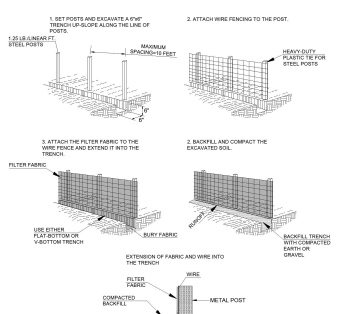
WHEN AND WHERE TO USE IT
SILT FENCE IS APPLICABLE IN AREAS:
1. WHERE THE MAXIMUM SHEET OR OVERLAND FLOW PATH LENGTH TO THE FENCE IS 100-FEET.
2. WHERE THE MAXIMUM SLOPE STEEPNESS (NORMAL [PERPENDICULAR] TO FENCE LINE) IS 2H:1V.THAT DO NOT RECEIVE CONCENTRATED FLOWS GREATER THAN 0.5 CFS.
3. DO NOT PLACE SILT FENCE ACROSS CHANNELS OR USE IT AS A VELOCITY CONTROL BMP.

MATERIALS
STEEL POSTS
USE 48-INCH LONG STEEL POSTS THAT MEET THE FOLLOWING MINIMUM PHYSICAL REQUIREMENTS:
COMPOSED OF HIGH STRENGTH STEEL WITH MINIMUM YIELD STRENGTH OF 50,000 PSI.
HAVE A STANDARD "T" SECTION WITH A NOMINAL FACE WIDTH OF 1.38-INCHES AND NOMINAL "T" LENGTH OF 1.48-INCHES.
WEIGH 1.25 POUNDS PER FOOT (± 8%).
HAVE A SOIL STABILIZATION PLATE WITH A MINIMUM CROSS SECTION AREA OF 17-SQUARE INCHES ATTACHED TO THE STEEL POSTS.
PAINTED WITH A WATER BASED BAKED ENAMEL PAINT.

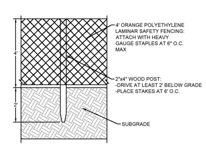
USE STEEL POSTS WITH A MINIMUM LENGTH OF 4-FEET, WEIGHING 1.25 POUNDS PER LINEAR FOOT (± 8%) WITH PROJECTIONS TO AID IN FASTENING THE FABRIC. EXCEPT WHEN HEAVY CLAY SOILS ARE PRESENT ON SITE, STEEL POSTS WILL HAVE A METAL SOIL STABILIZATION PLATE WELDED NEAR THE BOTTOM SUCH THAT WHEN THE POST IS DRIVEN TO THE PROPER DEPTH, THE PLATE WILL BE BELOW THE GROUND LEVEL FOR ADDED STABILITY. THE SOIL PLATES SHOULD HAVE THE FOLLOWING CHARACTERISTICS:
1. BE COMPOSED OF MINIMUM 15 GAUGE STEEL.
2. HAVE A MINIMUM CROSS SECTION AREA OF 17-SQUARE INCHES.

GEOTEXTILE FILTER FABRIC
FILTER FABRIC IS:
COMPOSED OF FIBERS CONSISTING OF LONG CHAIN SYNTHETIC POLYMERS COMPOSED OF AT LEAST 85% BY WEIGHT OF POLYOLEFINS, POLYESTERS, OR POLYAMIDES. FORMED INTO A NETWORK SUCH THAT THE FILAMENTS OR YARNS RETAIN DIMENSIONAL STABILITY RELATIVE TO EACH OTHER. FREE OF ANY TREATMENT OR COATING WHICH MIGHT ADVERSELY ALTER ITS PHYSICAL PROPERTIES AFTER INSTALLATION. FREE OF DEFECTS OR FLAWS THAT SIGNIFICANTLY AFFECT ITS PHYSICAL AND/OR FILTERING PROPERTIES. CUT TO A MINIMUM WIDTH OF 36 INCHES.

USE ONLY FABRIC APPEARING ON SCDOT APPROVAL SHEET #34 MEETING THE REQUIREMENTS OF THE MOST CURRENT EDITION OF THE SCDOT STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION.

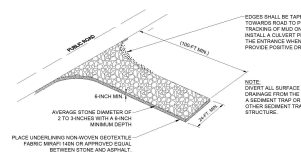


SILT FENCE (SF)
NTS



(TP)

HEAVY-DUTY ORANGE PLASTIC MESH TREE PROTECTION FENCING DETAIL
NTS



STABILIZED CONSTRUCTION ENTRANCE

WHEN AND WHERE TO USE IT
STABILIZED CONSTRUCTION ENTRANCES SHOULD BE USED AT ALL POINTS WHERE TRAFFIC WILL BE ENTERING AND LEAVING A CONSTRUCTION SITE AND
MOVING DIRECTLY ONTO A PUBLIC ROAD.

IMPORTANT CONSIDERATIONS
IF WASHING IS USED, PROVISIONS MUST BE MADE TO INTERCEPT THE WASH WATER AND TRAP THE SEDIMENT BEFORE IT IS
CARRIED OFFSITE. WASHDOWN FACILITIES SHALL BE REQUIRED AS DIRECTED BY SCDHEC AS NEEDED. WASHDOWN
AREAS IN GENERAL MUST BE ESTABLISHED WITH CRUSHED GRAVEL AND DRAIN INTO A SEDIMENT TRAP OR SEDIMENT BASIN.
CONSTRUCTION ENTRANCES SHOULD BE USED IN CONJUNCTION WITH THE STABILIZATION OF CONSTRUCTION ROADS TO REDUCE THE AMOUNT OF MUD PICKED UP BY VEHICLES.

INSTALLATION:
-REMOVE ALL VEGETATION AND ANY OBJECTIONABLE MATERIAL FROM THE FOUNDATION AREA.
-DIVERT ALL SURFACE RUNOFF AND DRAINAGE FROM STONES TO A SEDIMENT TRAP OR BASIN.
-INSTALL A NON-WOVEN GEOTEXTILE FABRIC PRIOR TO PLACING ANY STONE.
-INSTALL A CULVERT PIPE ACROSS THE ENTRANCE WHEN NEEDED TO PROVIDE POSITIVE DRAINAGE.
-THE ENTRANCE SHALL CONSIST OF 1-INCH TO 3-INCH D50 STONE PLACED AT A MINIMUM DEPTH OF 6-INCHES.
-MINIMUM DIMENSIONS OF THE ENTRANCE SHALL BE 24-FEET WIDE BY 100-FEET LONG, AND MAY BE MODIFIED AS
NECESSARY TO ACCOMMODATE SITE CONSTRAINTS.
-THE EDGES OF THE ENTRANCE SHALL BE TAPERED OUT TOWARDS THE ROAD TO PREVENT TRACKING OF MUD AT THE EDGE OF THE ENTRANCE.

INSPECTION AND MAINTENANCE:
INSPECT CONSTRUCTION ENTRANCES EVERY SEVEN (7) CALENDAR DAYS AND WITHIN 24-HOURS AFTER EACH RAINFALL EVENT THAT PRODUCES ½-INCHES OR MORE OF PRECIPITATION, OR AFTER HEAVY USE. CHECK FOR MUD AND SEDIMENT BUILDUP AND PAD INTEGRITY. MAKE DAILY INSPECTIONS DURING PERIODS OF WET WEATHER. MAINTENANCE IS REQUIRED MORE FREQUENTLY IN WET WEATHER CONDITIONS. RESHAPE THE STONE PAD AS NEEDED FOR DRAINAGE AND RUNOFF CONTROL.

WASH OR REPLACE STONES AS NEEDED AND AS DIRECTED BY THE INSPECTOR. THE STONE IN THE ENTRANCE SHOULD
BE WASHED OR REPLACED WHENEVER THE ENTRANCE FAILS TO REDUCE MUD BEING CARRIED OFF-SITE BY VEHICLES.
FREQUENT WASHING WILL EXTEND THE USEFUL LIFE OF STONE.

IMMEDIATELY REMOVE MUD AND SEDIMENT TRACKED OR WASHED ONTO PUBLIC ROADS BY BRUSHING OR SWEEPING.
FLUSHING SHOULD ONLY BE USED WHEN THE WATER CAN BE DISCHARGED TO A SEDIMENT TRAP OR BASIN.

REPAIR ANY BROKEN PAVEMENT IMMEDIATELY.

TEMPORARY CONSTRUCTION ENTRANCE (CE)
NTS

COX AND DINKINS
ENGINEERS — SURVEYORS
COX AND DINKINS, INC.
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SOUTH CAROLINA REGISTERED PROFESSIONAL ENGINEER No.14890 DARREN K. HOLCOMBE
10/15/18
REGISTERED PROFESSIONAL ENGINEER NO. 14890

SOUTH CAROLINA CERTIFICATE OF AUTHORIZATION COX AND DINKINS, INC. No. C00294
CERTIFICATE OF AUTHORIZATION SEAL

REVISIONS		
No.	DATE	DESCRIPTION

PRIMARY PERMITTEE:
COLUMBIA HOUSING AUTHORITY DEVELOPMENTS, INC.
1917 HARDEN STREET
COLUMBIA, SC 29204
803-254-3886
email: jprater@chasc.org

PROJECT:
GONZALES GARDENS COMMUNITY BUILDING SANITARY SEWER
LOCATED IN THE CITY OF COLUMBIA
RICHLAND COUNTY, SOUTH CAROLINA

DETAILS

TMS	#11411-04-01,21,22,23 & 24
BOOK	46C-52C
SF NO.	370-17
PROJECT NO.	1888
DATE	10/15/2018
SHEET NO.	C5 of 6

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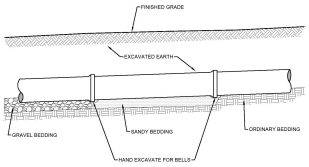
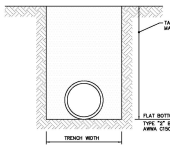


PIPE TRENCH

NTS



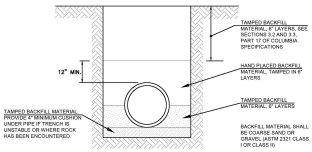
CROSSING NOTES

1. CROSSING A WATER MAIN OVER A SEWER. WHENEVER IT IS NECESSARY FOR A WATER MAIN TO CROSS OVER A SEWER, THE WATER MAIN SHALL BE LAID AT SUCH AN ELEVATION THAT THE BOTTOM OF THE WATER MAIN IS AT LEAST 18 INCHES ABOVE THE TOP OF THE SEWER, UNLESS LOCAL CONDITIONS OR BARRIERS PREVENT AN 18 INCH VERTICAL SEPARATION, IN WHICH CASE, BOTH THE WATER MAIN AND SEWER SHALL BE CONSTRUCTED OF FERROUS MATERIALS AND WITH JOINTS THAT ARE EQUIVALENT TO WATER MAIN STANDARDS FOR A DISTANCE OF 10 FEET ON EACH SIDE OF THE POINT OF CROSSING.

   CROSSING A WATER MAIN UNDER A SEWER. WHENEVER IT IS NECESSARY FOR A WATER MAIN TO CROSS UNDER A SEWER, BOTH THE WATER MAIN AND THE SEWER SHALL BE CONSTRUCTED OF FERROUS MATERIALS AND WITH JOINTS EQUIVALENT TO WATER MAIN STANDARDS FOR A DISTANCE OF 10 FEET ON EACH SIDE OF THE POINT OF CROSSING. A SECTION OF WATER MAIN PIPE SHALL BE CENTERED AT THE POINT OF CROSSING.

DUCTILE IRON PIPE BEDDING AND BACKFILLING DETAIL

NTS



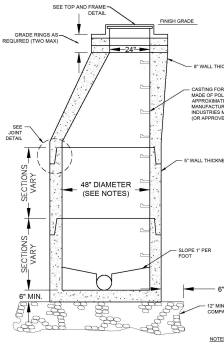
THE PIPE IS TO BE BEDDED IN COMPACTED 6" LAYERS TO THE SPRING LINE FIRST; THEN BACKFILLED WITH HAND PLACED MATERIAL COMPACTED IN 6" LAYERS TO A DEPTH OF 12" MINIMUM ABOVE THE PIPE. SEE SECTION 3.2 AND 3.3 (PART 16) AND SECTION 3.7 (PART 17) COLUMBIA SPECIFICATIONS FOR REMAINDER OF THE BACKFILL.

CROSSING NOTES:

1. CROSSING A WATER MAIN OVER A SEWER. WHENEVER IT IS NECESSARY FOR A WATER MAIN TO CROSS OVER A SEWER, THE WATER MAIN SHALL BE LAID AT SUCH AN ELEVATION THAT THE BOTTOM OF THE WATER MAIN IS AT LEAST 18 INCHES ABOVE THE TOP OF THE SEWER, UNLESS LOCAL CONDITIONS OR BARRIERS PREVENT AN 18 INCH VERTICAL SEPARATION, IN WHICH CASE, BOTH THE WATER MAIN AND SEWER SHALL BE CONSTRUCTED OF FERROUS MATERIALS AND WITH JOINTS THAT ARE EQUIVALENT TO WATER MAIN STANDARDS FOR A DISTANCE OF 10 FEET ON EACH SIDE OF THE POINT OF CROSSING.
2. CROSSING A WATER MAIN UNDER A SEWER. WHENEVER IT IS NECESSARY FOR A WATER MAIN TO CROSS UNDER A SEWER, BOTH THE WATER MAIN AND THE SEWER SHALL BE CONSTRUCTED OF FERROUS MATERIALS AND WITH JOINTS EQUIVALENT TO WATER MAIN STANDARDS FOR A DISTANCE OF 10 FEET ON EACH SIDE OF THE POINT OF CROSSING. A SECTION OF WATER MAIN PIPE SHALL BE CENTERED AT THE POINT OF CROSSING.

PIPE BEDDING AND BACKFILLING

NTS



NOTES:

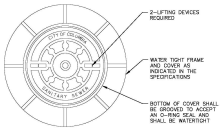
1. BENCH CAN BE PRECAST, OR BRICK AND MORTAR TOWELED SMOOTH.
2. MANHOLE SHALL BE UNLINED UNLESS IT IS THE RECEIVING MANHOLE FOR A FORCE MAIN OR THE NEXT MANHOLE DOWNSTREAM.
3. MANHOLES OVER 12 FT. DEEP SHALL HAVE A 60" (5') MINIMUM INSIDE DIAMETER.
4. THE FRAME AND COVER AND GRADE RINGS SHALL BE SECURED TO THE CONE WITH GROUT ON BOTH THE INTERIOR & EXTERIOR.
5. IF MANHOLE DEPTH IS GREATER THAN 12 FEET, BASE THICKNESS SHALL BE A MINIMUM OF 8 INCHES.

NOTES:

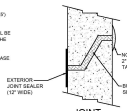
1. SEE SPECIFICATIONS FOR MANHOLE RING AND COVER.
2. SEAL ALL EXTERNAL JOINTS WITH MASTIC SEALANT. SEE SPECIFICATIONS.

TYPICAL PRECAST MANHOLE

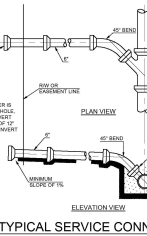
NTS



TOP AND FRAME

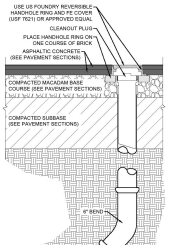


JOINT



TYPICAL SERVICE CONNECTION

NTS



TRAFFIC-RATED SANITARY SEWER CLEANOUT

NTS

CITY OF COLUMBIA, S.C.
DEPARTMENT OF UTILITIES AND ENGINEERING

THIS MAP OR PLAN IS THE PRODUCT OF COMPILATION, OR WAS PRODUCED BY OTHERS. IT IS PROVIDED FOR INFORMATION ONLY AND THE CITY OF COLUMBIA MAKES NO REPRESENTATIONS AS TO ITS ACCURACY. ITS USE WITHOUT FIELD VERIFICATION IS AT THE SOLE RISK OF THE USER.

SEWER NOTES

NOTES TO OWNER AND CONTRACTOR:

1. THE OWNER SHALL PAY ALL SANITARY SEWER FEES ASSOCIATED WITH THE PROJECT TO THE CITY OF COLUMBIA. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING THE PAYMENT OF THOSE FEES BETWEEN THE OWNER AND THE CITY OF COLUMBIA.
2. AT THE COMPLETION OF THE SANITARY SEWER SYSTEM CONSTRUCTION, THE PROJECT MUST BE GRANTED APPROVAL FROM THE CITY OF COLUMBIA AND RECEIVE AN OPERATIONAL PERMIT FROM SCDHEC. **IT IS IMPERATIVE THAT COX AND DINKINS, INC. RECEIVE CERTIFIED RECORD DATA FROM THE CONTRACTOR'S SOUTH CAROLINA LICENSED AND REGISTERED PROFESSIONAL LAND SURVEYOR IMMEDIATELY UPON COMPLETION OF THE SANITARY SEWER SYSTEM INSTALLATION.** THIS INFORMATION SHALL BE PROVIDED IN A TIMELY FASHION TO ALLOW SUFFICIENT TIME FOR THE RECORD DRAWING SUBMITTAL AND APPROVAL PROCESS THROUGH THE CITY OF COLUMBIA AND SCDHEC.
3. **THE CONTRACTOR SHALL PROVIDE COX AND DINKINS, INC. SIGNED AND SEALED HARD COPIES OF THE CERTIFIED RECORD DRAWINGS. IN ADDITION, COX AND DINKINS, INC. SHALL RECEIVE ALL ELECTRONIC INFORMATION USED TO PREPARE THE AFOREMENTIONED RECORD DRAWINGS, INCLUDING, BUT NOT LIMITED TO, THE AUTOCAD FILES) AND FIELD SURVEY DATA FILE(S).**
4. **THE CERTIFIED RECORD DATA PROVIDED TO COX AND DINKINS, INC. SHALL INCLUDE LOCATIONS OF ALL APPURTENANT ITEMS ASSOCIATED WITH THE SANITARY SEWER SYSTEM, INCLUDING, BUT NOT LIMITED TO, LINES, MANHOLES, CLEANOUTS, SERVICE LINE BENDS, ETC.**
5. EASEMENT DOCUMENTATION WILL BE PREPARED BY EITHER THE CITY OF COLUMBIA LEGAL DEPARTMENT BASED UPON THE RECORD DRAWINGS.
6. THE CITY OF COLUMBIA, AS COORDINATED AND ASSISTED BY THE CONTRACTOR, WILL CONDUCT THE REQUIRED TESTS ON THE SANITARY SEWER SYSTEM, IF DIRECTED BY THE CITY OF COLUMBIA OR THE ENGINEER. THE CONTRACTOR WILL BE RESPONSIBLE FOR THE REQUIRED TESTING.
7. UPON APPROVAL FOR THE RECORD DRAWINGS BY THE CITY OF COLUMBIA, SUCCESSFUL TESTING OF THE SANITARY SEWER SYSTEM, AND RECEIPT OF AN APPROVAL LETTER FROM THE CITY OF COLUMBIA, COX AND DINKINS, INC. WILL PREPARE AND SUBMIT THE NECESSARY PACKAGE TO SCDHEC REQUIRED FOR FINAL APPROVAL TO PLACE THE SANITARY SEWER SYSTEM INTO OPERATION.

SANITARY SEWER SYSTEM NOTES:

1. ALL MATERIALS AND INSTALLATION OF THE PROPOSED SANITARY SEWER SYSTEM SHALL MEET THE REQUIREMENTS AS SET FORTH BY THE CITY OF COLUMBIA AND SCDHEC.
2. ALL PROPOSED SANITARY SEWER LINES (MAINS AND SERVICES) SHALL CONFORM TO "TEN STATE STANDARDS."
3. CONTRACTOR SHALL NOTIFY THE CITY OF COLUMBIA AND THE ENGINEER 48 HOURS PRIOR TO COMMENCING CONSTRUCTION.
4. CONTRACTOR IS RESPONSIBLE FOR ACQUIRING NECESSARY PERMITS AND LICENSES FROM THE CITY OF COLUMBIA AND SCDHEC PRIOR TO COMMENCING CONSTRUCTION.
5. CONTRACTOR IS RESPONSIBLE FOR COORDINATING AND/OR PERFORMING ALL NECESSARY TESTING OF THE NEW SANITARY SEWER SYSTEM (MAINS AND/OR SERVICES) ACCORDING TO THE REQUIREMENTS OF THE CITY OF COLUMBIA AND SCDHEC. AT A MINIMUM, THE CONTRACTOR SHALL BE RESPONSIBLE FOR PRESSURE TESTING ALL MAINS AND SERVICES IN THE PRESENCE OF THE ENGINEER AND A REPRESENTATIVE OF THE CITY OF COLUMBIA.
6. CONTRACTOR SHALL FURNISH AND INSTALL SILT FENCING AND/OR OTHER SEDIMENT AND EROSION CONTROL DEVICES, AS NECESSARY, TO CONTROL AND LIMIT, TO THE MAXIMUM EXTENT POSSIBLE, EROSION DURING THE INSTALLATION OF THE SANITARY SEWER SYSTEM.
7. ALL DISTURBED AREAS RESULTING FROM THE INSTALLATION OF THE PROPOSED SANITARY SEWER SYSTEM SHALL BE CLEANED, GRADED, AND IMMEDIATELY STABILIZED UPON COMPLETION OF THE INSTALLATION.
8. OTHER UTILITY CROSSINGS MAY EXISTS THAT ARE NOT SHOWN ON THE CONSTRUCTION PLANS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE LOCATION(S) AND ELEVATION(S) OF UTILITY CROSSINGS OF BOTH EXISTING AND PROPOSED UTILITIES PRIOR TO COMMENCING CONSTRUCTION.
9. THE CONTRACTOR SHALL MAINTAIN, PROTECT, RELOCATE, OR CONNECT ANY AND ALL OPERATING UTILITIES FOUND DURING CONSTRUCTION THAT ARE NOT SHOWN ON THIS PLAN. CONSULT THE ARCHITECT AND ENGINEER IMMEDIATELY IF UTILITIES ARE ENCOUNTERED ON DURING CONSTRUCTION THAT ARE NOT SHOWN WITHIN THESE PLANS.
10. CONTRACTOR SHALL FURNISH AND INSTALL ALL FITTINGS, BENDS, ETC. AS REQUIRED TO FACILITATE AND COMPLETE THE SANITARY SEWER SYSTEM INSTALLATION. FITTINGS SHALL BE OF SAME MATERIAL AND PRESSURE CLASS AS PIPING.
11. SANITARY SEWER PIPING SHALL BE DUCTILE IRON OR MINIMUM SDR-35 (STANDARD DIRECT RATIO CLASSIFICATION 35) PVC AND SHALL BE LAID WITH A MINIMUM OF 36" OF COVER FROM THE TOP OF THE PIPE TO THE FINISHED GRADE ELEVATION.
12. JOINTS SHALL BE INTEGRAL BELL SPIGOT WITH RUBBER GASKETS FORMED INTEGRAL TO BELLS.
13. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE SIZE, LOCATION, AND INVERT ELEVATION OF SANITARY SEWER SERVICE(S) FROM THE BUILDING(S).
14. ALL SANITARY SEWER SERVICES SHALL TIE INTO SANITARY SEWER MAIN LINES AND NOT DIRECTLY INTO A SANITARY SEWER MANHOLE.

SANITARY SEWER UTILITY SEPARATION NOTES:

RELATION TO WATER DISTRIBUTION SYSTEMS:

HORIZONTAL SEPARATION:

WHENEVER POSSIBLE, SANITARY SEWER MAIN LINES SHALL BE LAID AT LEAST 10', HORIZONTALLY, FROM ANY EXISTING OR PROPOSED WATER MAIN. SHOULD LOCAL CONDITIONS PREVENT A LATERAL SEPARATION OF TEN FEET, A SANITARY SEWER MAIN MAY BE LAID CLOSER THAN TEN FEET TO A WATER MAIN IF:

1. IT IS LAID IN A SEPARATE TRENCH
2. IT IS LAID IN THE SAME TRENCH WITH THE WATER MAINS LOCATED AT ONE SIDE ON A BENCH OF UNDISTURBED EARTH.
3. IN EITHER CASE THE ELEVATION OF THE CROWN OF THE SEWER IS AT LEAST 18" BELOW THE INVERT OF THE WATER MAIN.

VERTICAL SEPARATION:

WHENEVER SEWERS MUST CROSS UNDER WATER MAINS, THE SEWER SHALL BE LAID AT SUCH AN ELEVATION THAT THE TOP OF THE SEWER IS AT LEAST 18" BELOW THE BOTTOM OF THE WATER MAIN. WHEN THE ELEVATION OF THE SEWER CANNOT BE BURIED TO MEET THE ABOVE REQUIREMENTS, THE WATER MAIN SHALL BE RELOCATED TO PROVIDE THIS SEPARATION OR RECONSTRUCTED WITH SLIP-ON OR MECHANICAL-JOINT CAST-IRON PIPE OR PRESTRESSED CONCRETE CYLINDER PIPE FOR A DISTANCE OF TEN FEET ON EACH SIDE OF THE SEWER. ONE FULL LENGTH OF WATER MAIN SHOULD BE CENTERED OVER THE SEWER SO THAT BOTH JOINTS WILL BE AS FAR FROM THE SEWER AS POSSIBLE.

SPECIAL CONDITIONS:

WHEN IT IS IMPOSSIBLE TO OBTAIN PROPER HORIZONTAL AND VERTICAL SEPARATION AS STIPULATED ABOVE, THE WATER MAIN SHALL BE CONSTRUCTED OF SLIP-ON OR MECHANICAL-JOINT CAST-IRON PIPE OR PRESTRESSED CONCRETE CYLINDER PIPE AND THE SEWER CONSTRUCTED OF MECHANICAL-JOINT CAST-IRON PIPE, AND BOTH SERVICES SHOULD BE PRESSURE TESTED TO ASSURE WATER TIGHTNESS.

RELATION TO STORM DRAIN SYSTEMS:

HORIZONTAL SEPARATION:

WHENEVER POSSIBLE, SEWERS SHOULD BE LAID AT LEAST FIVE FEET, HORIZONTALLY, FROM ANY EXISTING OR PROPOSED STORM DRAIN PIPES OR STRUCTURES. SHOULD LOCAL CONDITIONS PREVENT A LATERAL SEPARATION OF FIVE FEET, A SEWER MAIN MAY BE LAID CLOSER THAN FIVE FEET TO A STORM DRAIN PIPE MAIN IF:

1. IT IS LAID IN THE SAME TRENCH WITH THE STORM DRAIN PIPE MAIN LOCATED AT ONE SIDE ON A BENCH OF UNDISTURBED EARTH.

VERTICAL SEPARATION:

WHENEVER SEWERS MUST CROSS STORM DRAINS, THE SEWER SHALL BE LAID AT SUCH AN ELEVATION THAT THE TOP OF THE SEWER IS AT LEAST 18 INCHES BELOW THE BOTTOM OF THE WATER MAIN. WHEN THE ELEVATION OF THE SEWER CANNOT BE BURIED TO MEET THE ABOVE REQUIREMENTS, THE WATER MAIN SHALL BE RELOCATED TO PROVIDE THIS SEPARATION OR RECONSTRUCTED WITH SLIP-ON OR MECHANICAL-JOINT CAST-IRON PIPE OR PRESTRESSED CONCRETE CYLINDER PIPE FOR A DISTANCE OF TEN FEET ON EACH SIDE OF THE SEWER. ONE FULL LENGTH OF WATER MAIN SHOULD BE CENTERED OVER THE SEWER SO THAT BOTH JOINTS WILL BE AS FAR FROM THE SEWER AS POSSIBLE.

SPECIAL CONDITIONS:

WHEN IT IS IMPOSSIBLE TO OBTAIN PROPER HORIZONTAL AND VERTICAL SEPARATION AS STIPULATED ABOVE, THE WATER MAIN SHALL BE CONSTRUCTED OF SLIP-ON OR MECHANICAL-JOINT CAST-IRON PIPE OR PRESTRESSED CONCRETE CYLINDER PIPE AND THE SEWER CONSTRUCTED OF MECHANICAL-JOINT CAST-IRON PIPE, AND BOTH SERVICES SHOULD BE PRESSURE TESTED TO ASSURE WATER TIGHTNESS.

COX AND DINKINS
ENGINEERS – SURVEYORS
COX AND DINKINS, INC.
724 BELTLINE BLVD.
COLUMBIA, SC 29205
803-254-0518
Fax: 803-765-0993
Email: cdinc@coxanddinkins.com

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SOUTH CAROLINA PROFESSIONAL ENGINEER No.14890 BARRY K. HOLCOMBE
Signature
REGISTERED PROFESSIONAL ENGINEER NO. 14890

SOUTH CAROLINA CERTIFICATE OF AUTHORIZATION COX AND DINKINS, INC No. C00294

CERTIFICATE OF AUTHORIZATION SEAL

REVISIONS		
NO.	DATE	DESCRIPTION

PRIMARY PERMITTEE:
COLUMBIA HOUSING AUTHORITY
DEVELOPMENTS, INC.
1917 HARDEN STREET
COLUMBIA, SC 29204

803-254-3886

email: jprater@chasc.org

PROJECT
GONZALES GARDENS COMMUNITY BUILDING SANITARY SEWER
LOCATED IN THE CITY OF COLUMBIA
RICHLAND COUNTY, SOUTH CAROLINA

DETAILS

File	#11411-04-01,21,22,23 & 24
BOOK	46C-52C
SF NO. 370-17	SHEET NO. C6 of 6
PROJECT NO. 1868	
DATE 10/15/2018	

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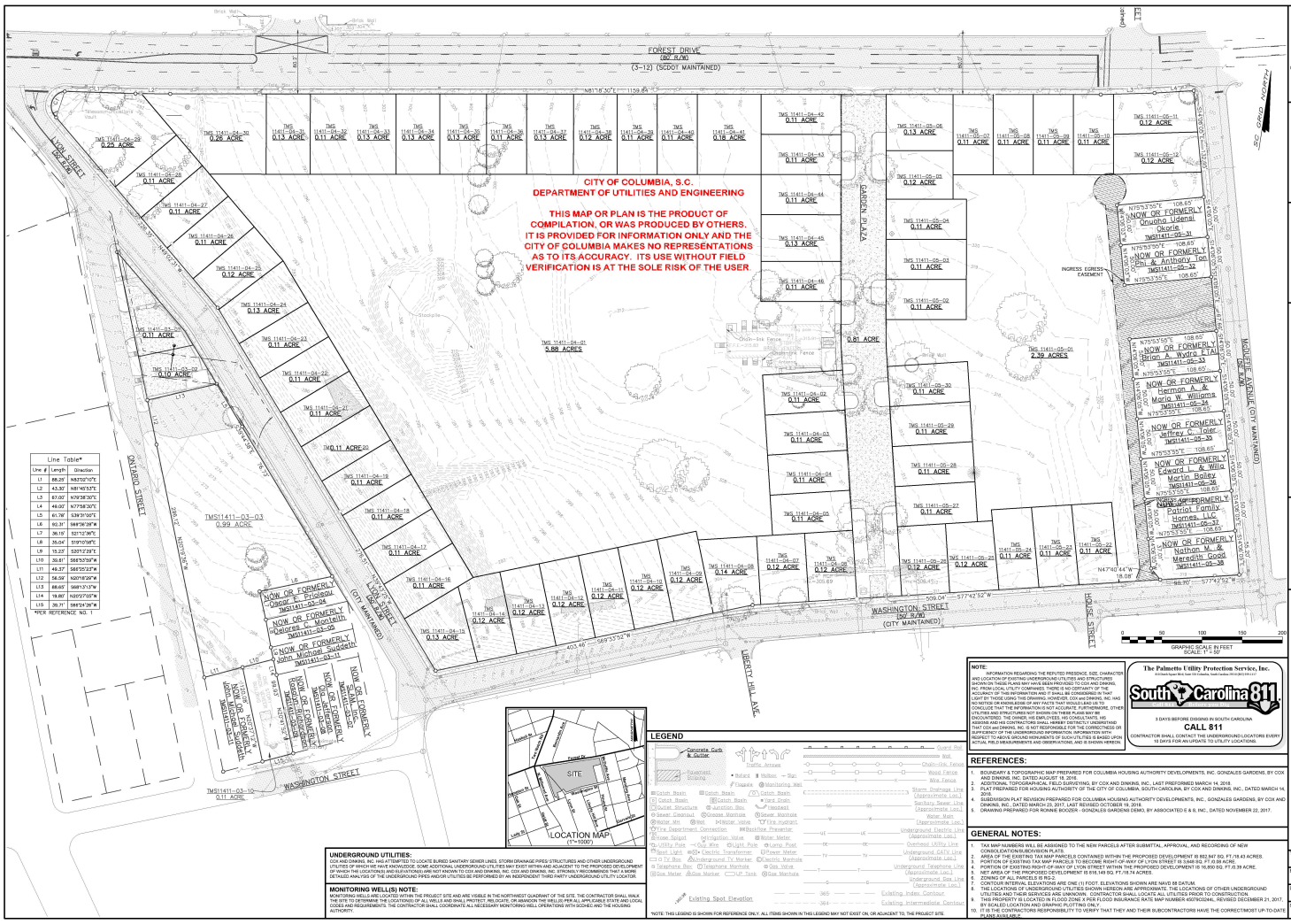

Line Table*		
Line #	Length	Direction
L1	66.25'	N83°02'10"E
L2	43.30'	N81°45'53"E
L3	67.00'	N79°38'30"E
L4	46.00'	N77°58'30"E
L5	61.76'	S36°31'50"E
L6	60.31'	S89°36'28"W
L7	36.15'	S21°12'36"E
L8	35.04'	S10°10'58"E
L9	15.23'	S20°12'28"E
L10	30.61'	S85°53'59"W
L11	49.37'	S85°25'23"W
L12	56.56'	N20°16'26"W
L13	88.65'	S69°13'13"W
L14	19.86'	N20°27'35"W
L15	36.71'	S85°24'26"W

*PER REFERENCE NO. 1

LEGEND

Concrete Curb & Gutter
Pavement Striping
Traffic Arrows
Bollard
Mailbox
Sign
Flagpole
Monitoring Well
Catch Basin
Catch Basin
Catch Basin
Yard Drain
Catch Basin
Catch Basin
Junction Box
Headwall
Cleanout
Grease Manhole
Sewer Manhole
Water Valve
Fire Hydrant
Water Mtr
Well
Fire Department Connection
Backflow Preventer
Hose Spigot
Irrigation Valve
Water Meter
Utility Pole
Guy Wire
Light Pole
Lamp Post
Road Light
Electric Transformer
Power Meter
TV Box
Underground TV Marker
Electric Manhole
Telephone Box
Telephone Manhole
Gas Valve
Gas Meter
Gas Marker
LP Tank
Gas Manhole
Guard Rail
Wall
Chain-link Fence
Wood Fence
Wire Fence
Storm Drainage Line (Approximate Loc.)
Sanitary Sewer Line (Approximate Loc.)
Water Main (Approximate Loc.)
Underground Electric Line (Approximate Loc.)
Overhead Utility Line
Underground CATV Line (Approximate Loc.)
Underground Telephone Line (Approximate Loc.)
Underground Gas Line (Approximate Loc.)
Existing Spot Elevation
Existing Index Contour
Existing Intermediate Contour

*NOTE: THIS LEGEND IS SHOWN FOR REFERENCE ONLY. ALL ITEMS SHOWN IN THIS LEGEND MAY NOT EXIST ON, OR ADJACENT TO, THE PROJECT SITE.

UNDERGROUND UTILITIES:
COX AND DINKINS, INC. HAS ATTEMPTED TO LOCATE BURIED SANITARY SEWER LINES, STORM DRAINAGE PIPES/ STRUCTURES AND OTHER UNDERGROUND UTILITIES OF WHICH WE HAVE KNOWLEDGE. SOME ADDITIONAL UNDERGROUND UTILITIES MAY EXIST WITHIN AND ADJACENT TO THE PROPOSED DEVELOPMENT WHICH MAY NOT BE SHOWN ON THE PLANS. THE CONTRACTOR SHALL CONTACT THE UNDERGROUND UTILITY LOCATORS FOR THE AREA TO OBTAIN A DETAILED ANALYSIS OF THE UNDERGROUND PIPES AND/OR UTILITIES BE PERFORMED BY AN INDEPENDENT THIRD PARTY UNDERGROUND UTILITY LOCATOR.

MONITORING WELL(S) NOTE:
MONITORING WELLS ARE LOCATED WITHIN THE PROJECT SITE AND ARE VISIBLE IN THE NORTHWEST QUADRANT OF THE SITE. THE CONTRACTOR SHALL WALK THE SITE TO DETERMINE THE LOCATIONS OF ALL WELLS AND SHALL PROTECT, RELOCATE, OR ABANDON THE WELLS PER ALL APPLICABLE STATE AND LOCAL CODES AND REQUIREMENTS. THE CONTRACTOR SHALL COORDINATE ALL NECESSARY MONITORING WELL OPERATIONS WITH SCDHEC AND THE HOUSING AUTHORITY.

NOTE:
INFORMATION REGARDING THE REPUTED PRESENCE, SIZE, CHARACTER AND LOCATION OF EXISTING UNDERGROUND UTILITIES AND STRUCTURES SHOWN ON THESE PLANS MAY HAVE BEEN PROVIDED TO COX AND DINKING, INC. FROM LOCAL UTILITY COMPANIES. THERE IS NO CERTAINTY OF THE ACCURACY OF THIS INFORMATION AND IT SHALL BE CONSIDERED IN THAT REGARD. COX AND DINKINS, INC. HAS NO REASON TO BELIEVE THAT THE DATA HAS NO NOTICE OR KNOWLEDGE OF ANY FACTS THAT WOULD LEAD US TO CONCLUDE THAT THE INFORMATION IS NOT ACCURATE. FURTHERMORE, OTHER UTILITIES AND STRUCTURES NOT SHOWN ON THESE PLANS MAY BE ENCOUNTERED. THE OWNER, HIS EMPLOYEES, HIS CONSULTANTS, HIS CONTRACTORS AND SUBCONTRACTORS MUST ACCEPT AND UNDERSTAND THAT COX AND DINKINS, INC. IS NOT RESPONSIBLE FOR THE CORRECTNESS OR SUFFICIENCY OF THE UNDERGROUND INFORMATION. INFORMATION WITH RESPECT TO ABOVE GROUND MONUMENTS OF SUCH UTILITIES IS BASED UPON ACTUAL FIELD MEASUREMENTS AND OBSERVATIONS, AND IS SHOWN HEREON.

The Palmetto Utility Protection Service, Inc.
1122 Saint Andrew Road, P.O. Box 12159 Columbia, South Carolina 803-799-7832 FAX

South Carolina 811
3 DAYS BEFORE DIGGING IN SOUTH CAROLINA
CALL 811
CONTRACTOR SHALL CONTACT THE UNDERGROUND LOCATORS EVERY 10 DAYS FOR AN UPDATE TO UTILITY LOCATIONS.

REFERENCES:

1. BOUNDARY & TOPOGRAPHIC MAP PREPARED FOR COLUMBIA HOUSING AUTHORITY DEVELOPMENTS, INC. GONZALES GARDENS, BY COX AND DINKINS, INC. DATED AUGUST 18, 2016.
2. ADDITIONAL TOPOGRAPHICAL FIELD SURVEYING, BY COX AND DINKINS, INC., LAST PREFORMED MARCH 14, 2018.
3. PLAT PREPARED FOR HOUSING AUTHORITY OF THE CITY OF COLUMBIA, SOUTH CAROLINA, BY COX AND DINKINS, INC., DATED MARCH 14, 2018.
4. SUBDIVISION PLAT REVISION PREPARED FOR COLUMBIA HOUSING AUTHORITY DEVELOPMENTS, INC., GONZALES GARDENS, BY COX AND DINKINS, INC., DATED MARCH 23, 2017, LAST REVISED OCTOBER 19, 2018.
5. DRAWING PREPARED FOR RONNIE BOOZER - GONZALES GARDENS DEMO, BY ASSOCIATED E & B, INC., DATED NOVEMBER 22, 2017.

GENERAL NOTES:

1. TAX MAP NUMBERS WILL BE ASSIGNED TO THE NEW PARCELS AFTER SUBMITTAL, APPROVAL, AND RECORDING OF NEW CONSOLIDATION/SUBDIVISION PLATS.
2. AREA OF THE EXISTING TAX MAP PARCELS CONTAINED WITHIN THE PROPOSED DEVELOPMENT IS 892,847 SQ. FT./19.43 ACRES.
3. PORTION OF EXISTING TAX MAP PARCELS TO BECOME RIGHT-OF-WAY OF LYON STREET IS 3,648 SQ. FT./0.08 ACRE.
4. PORTION OF EXISTING RIGHT-OF-WAY OF LYON STREET WITHIN THE PROPOSED DEVELOPMENT IS 16,890 SQ. FT./0.39 ACRE.
5. NET AREA OF PROPOSED DEVELOPMENT IS 916,148 SQ. FT./18.74 ACRES.
6. CONTOUR INTERVAL OF ALL PARCELS IS 0.5'.
7. CONTOUR INTERVAL ELEVATIONS ARE ONE (1) FOOT. ELEVATIONS SHOWN ARE NAVD 88 DATUM.
8. THE LOCATIONS OF UNDERGROUND UTILITIES SHOWN HEREON ARE APPROXIMATE. THE LOCATIONS OF OTHER UNDERGROUND UTILITIES AND THEIR SERVICES ARE UNKNOWN. CONTRACTOR SHALL LOCATE ALL UTILITIES PRIOR TO CONSTRUCTION.
9. THIS PROPERTY IS LOCATED IN FLOOD ZONE X PER FLOOD INSURANCE RATE MAP NUMBER 45079C0204L, REVISED DECEMBER 21, 2017, BY SCALED LOCATION AND GRAPHIC PLOTTING ONLY.
10. IT IS THE CONTRACTORS RESPONSIBILITY TO VERIFY THAT THEY AND THEIR SUBCONTRACTORS HAVE THE CORRECT/MOST UP-TO-DATE PLANS AVAILABLE.

COX AND DINKINS
ENGINEERS • SURVEYORS • LANDSCAPE ARCHITECTS
724 BELTLINE BLVD.
COLUMBIA, SC 29205
803.254.0518
COXANDDINKINS.COM

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SOUTH CAROLINA PROFESSIONAL SEAL No.14890 REGISTERED PROFESSIONAL ENGINEER
SOUTH CAROLINA COX AND DINKINS, INC. No. C00294 CERTIFICATE OF AUTHORIZATION
CERTIFICATE OF AUTHORIZATION SEAL

REVISIONS		
NO.	DATE	DESCRIPTION

PRIMARY PERMITTEE:
COLUMBIA HOUSING
CINDI HERRERA
SVP OF DEVELOPMENT
1917 HARDEN STREET
COLUMBIA, SC 29204
843-810-5073
email:
cherrera@columbiahousingsc.org

PROJECT
THE OAKS AT ST. ANNA'S PARK
LOCATED IN THE CITY OF COLUMBIA
RICHLAND COUNTY, SOUTH CAROLINA

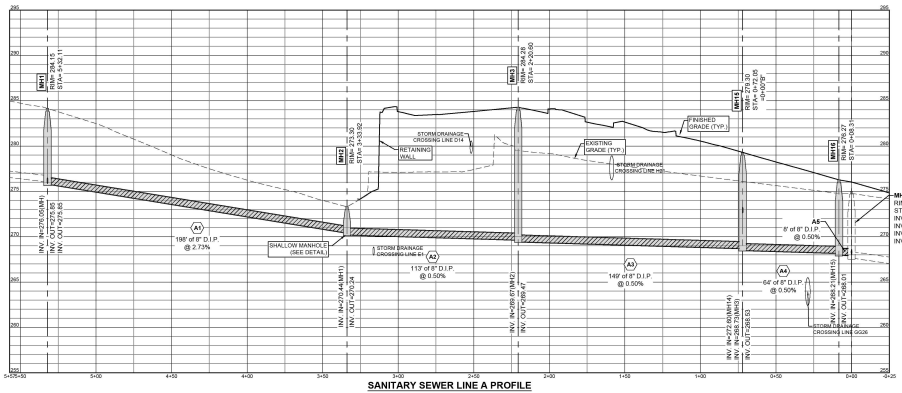
SF NO. 376-1

PROJECT NO. 27170

OVERALL EXISTING CONDITIONS

G:\27170 Gonzales Gardens - New Design\DRAWINGS\01_Existing.dwg, Plotted By: JDC, Plotted: Jul 09, 2021 - 11:30am

TMS	TO BE ASSIGNED
BOOK	46C-52C
DATE	7/9/2021
SHEET NO.	C3 of 55



SANITARY SEWER LINE A PROFILE

CITY OF COLUMBIA, S.C.
DEPARTMENT OF UTILITIES AND ENGINEERING

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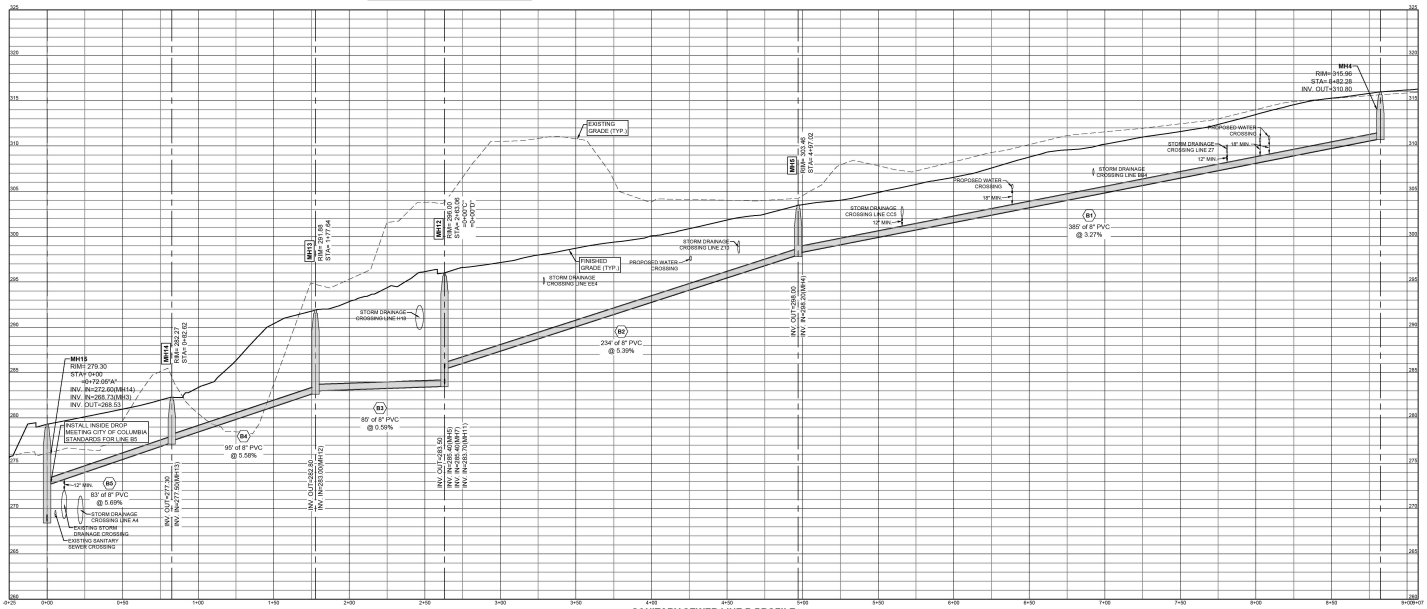
GRAPHIC SCALE IN FEET
SCALE: 1" = 30'

GRAPHIC SCALE IN FEET
SCALE: 1" = 10'

NOTES:

1. OTHER UTILITY CROSSINGS MAY EXIST THAT ARE NOT SHOWN ON THIS PROFILE.
2. AS SHOWN, PIPE LENGTHS ARE CENTER TO CENTER OF STRUCTURES.



SANITARY SEWER LINE B PROFILE

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SOUTH CAROLINA PROFESSIONAL ENGINEER No.14890 JAMES M. COX, JR.

REGISTERED PROFESSIONAL ENGINEER NO. 14890

SOUTH CAROLINA COX AND DINKINS, INC. No. C00294 CERTIFICATE OF AUTHORIZATION

CERTIFICATE OF AUTHORIZATION SEAL

REVISIONS

NO.	DATE	DESCRIPTION

PRIMARY PERMITTEE:
COLUMBIA HOUSING
CINDI HERRERA
SVP OF DEVELOPMENT
1917 HARDEN STREET
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843-810-5073

email:
cherrera@columbiahousingsc.org

PROJECT
THE OAKS AT ST. ANNA'S PARK
LOCATED IN THE CITY OF COLUMBIA
RICHLAND COUNTY, SOUTH CAROLINA

PROJECT NO. 2770

SF NO. 3705-1

SANITARY SEWER PROFILES

TMS: TO BE ASSIGNED
BOOK: 46C-52C
DATE: 7/9/2021
SHEET NO. C26 of 55

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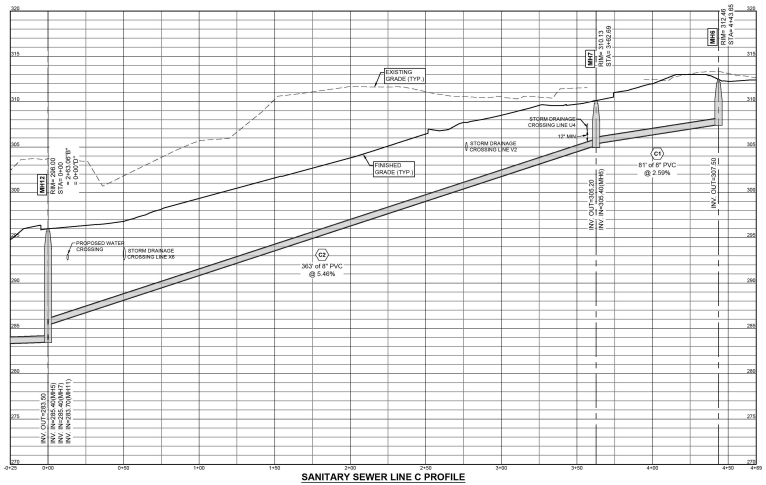
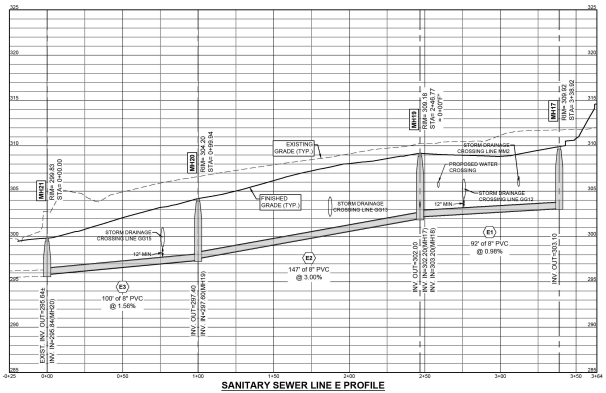


SANITARY SEWER LINE C PROFILE



SANITARY SEWER LINE E PROFILE

CITY OF COLUMBIA, S.C.
DEPARTMENT OF UTILITIES AND ENGINEERING

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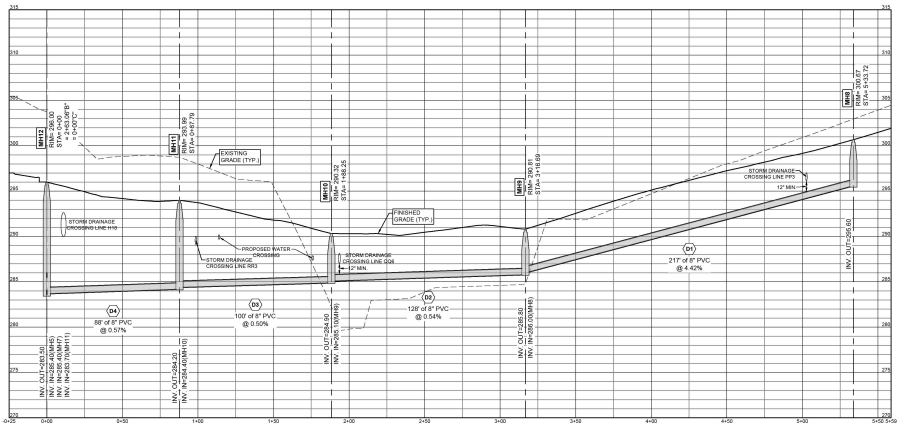
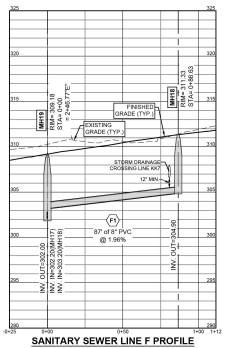


SANITARY SEWER LINE D PROFILE



SANITARY SEWER LINE F PROFILE

GRAPHIC SCALE IN FEET
SCALE: 1" = 30'

NOTES:
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SANITARY SEWER PROFILES

TMS	TO BE ASSIGNED
BOOK	46C-52C
DATE	7/9/2021
SHEET NO.	C27 of 55

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