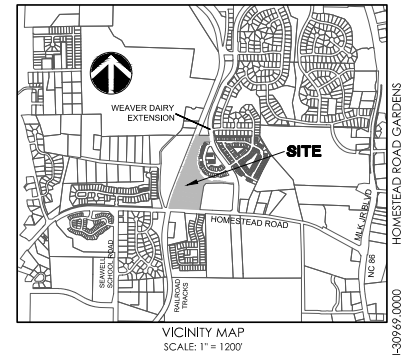




PREPARED FOR:
SELF-HELP CREDIT UNION

PREPARED BY:



SUBMITTAL HISTORY	
SUBMITTED TO	DATE



2/10/2009 10:00:00 AM (P:\WORK\BAC\Journals\CE MCP\3009-2009-CE-P_L262 - Jan 23, 2003 - 8:15 AM

DRAINAGE LEGEND

WATER LEGEND

SEWER LEGEND

Sheet List Table

OTHER UTILITIES LEGEND

PIN: 9870-91-2947

OWNER: TOWN OF CHAPEL HILL

ENVIRONMENTAL CONSTRAINTS: JORDAN BUFFER
RESOURCE CONSERVATION

TOTAL PARCEL LAND AREA: 540,536.53 / SF

HOMESTEAD FRONTAGE: 5863.1 LF, RIGHT OF
5863.5 x 37.5 = 218,160

WEAVER DAIRY EAT FRONTAGE: 116.02 LF (NORTH) =
130.35 x 50' = 6,517.5

GROSS LAND AREA: 569,446.53 / SF / 13.0

EXISTING ZONING: R-SS-CZD

PROPOSED LAND
DISTURBANCE: 373,270 sf / 8.6 A

EXISTING IMPERVIOUS
ON-SITE: 18,442 SF / 0.34 A

PROPOSED IMPERVIOUS
ON-SITE: 16,618 SF
3.0 AC

PROPOSED USE
TIMESLOPES:
0-8 UNITS X 3 BED
13-21 UNITS X 2 BED
0-8 UNITS X BEDROOM
10-15 UNITS UP TO 4 BED
BE CONVERTED TO 2 BED
22 X 2 BEDROOM
20 X 2 BEDROOM
6 X 3 BEDROOM
8 UNITS X 3 BED
4 UNITS X 4 BED
89 UNITS

TOTAL SQUARE FOOTAGE PROPOSED: 1,350,385

89 UNITS
REQUIRED: 1 SPACE PER 4 UNITS = 22.25 SPACES
Residential: 10% short term = 2 (OUTSIDE)
90% long term = 21 (PROTECTED)
PROVIDED: 4 SPACES (2 LOOPS) OUTSIDE -
1 loop at basketball court
1 loop at middle apartment area
22 PROTECTED SPACES IN OUTDOOR PROTECTED
AREAS AND WITHIN BUILDINGS
3 loops / 6 spaces at common shelter
18 4'x6' lockable porch closets at townhomes

BUILT SQUARE FOOTAGE:
REDUCE THE TOTAL BUILDING SQUARE FOOTAGE FROM
A MAXIMUM OF 181,575 SF TO A MAXIMUM OF 130,285 SF



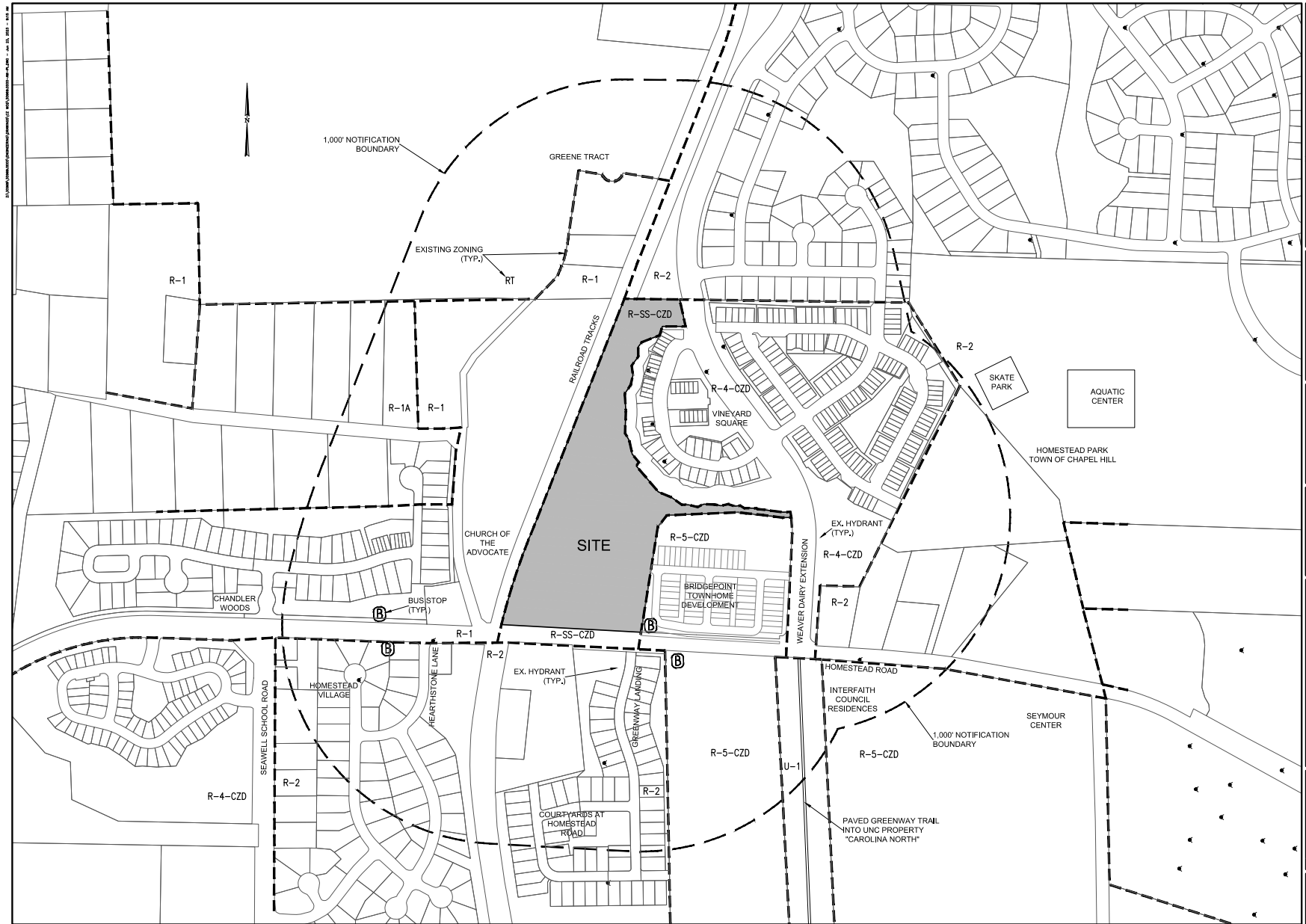
**THOMAS
&
HUTTON**

CLIENT/OWNER:
Self-Help Credit Union
301 West Main Street
Durham, NC 27701
Attn: Tucker Bartlett



JOB NO: 30969.0000
DATE: 06/21/2023
DRAWN:
DESIGNED:
REVIEWED:
APPROVED:
SCALE:

GO.1



NO.			REVISIONS			BY			DATE		
<p>111 W. ANNA STREET DURHAM, NC 27701 www.thomashutton.com</p>											
<p>AREA MAP</p>											
<p>HOMESTEAD ROAD GARDENS</p>											
<p>PROJECT LOCATION: 2200 Homestead Road Chapel Hill, NC</p>											
<p>CLIENT/OWNER: Self-Help Credit Union 301 West Main Street Durham, NC 27701 Attn: Tucker Bortlett</p>											
<p></p>											
<p>DATUM: HORIZ.: NAVD83 VERT.: NAVD88</p>											
<p>JOB NO: 30969.0000 DATE: 08/21/2023 DRAWN: DESIGNED: REVIEWED: APPROVED:</p>											
<p>SCALE: 1" = 200'</p>											
<p>AM1.1</p>											

\\houston\houston\projects\2023\230610-HOMESTEAD\DWG\230610-HOMESTEAD-D1.dwg



slope >25%
total area on site of slope >25% = 14,464 sf
total proposed disturbance = 4,050 sf (28.0%)

STEEP SLOPES CALCULATION

NO.	REVISIONS	BY	DATE



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DURHAM, NC 27701
919.652.0245
www.thomashutton.com

EXISTING CONDITIONS & DEMOLITION PLAN

HOMESTEAD ROAD GARDENS

PROJECT LOCATION:
2200 Homestead Road
Chapel Hill, NC

CLIENT/TOWN:
Self-Help Credit Union
301 West Main Street
Durham, NC 27701
Attn: Tucker Bartlett

GRAPHIC SCALE:
1" = 100 FEET

DATE: 06/01/2023
DATE: 06/01/2023
DRAWN: VLS:SPM,MTG
DESIGNED: VLS:MTG
CHECKED: VLS:SPM
APPROVED:
SCALE: 1" = 100'

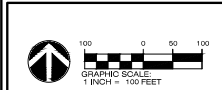
D1.1

-



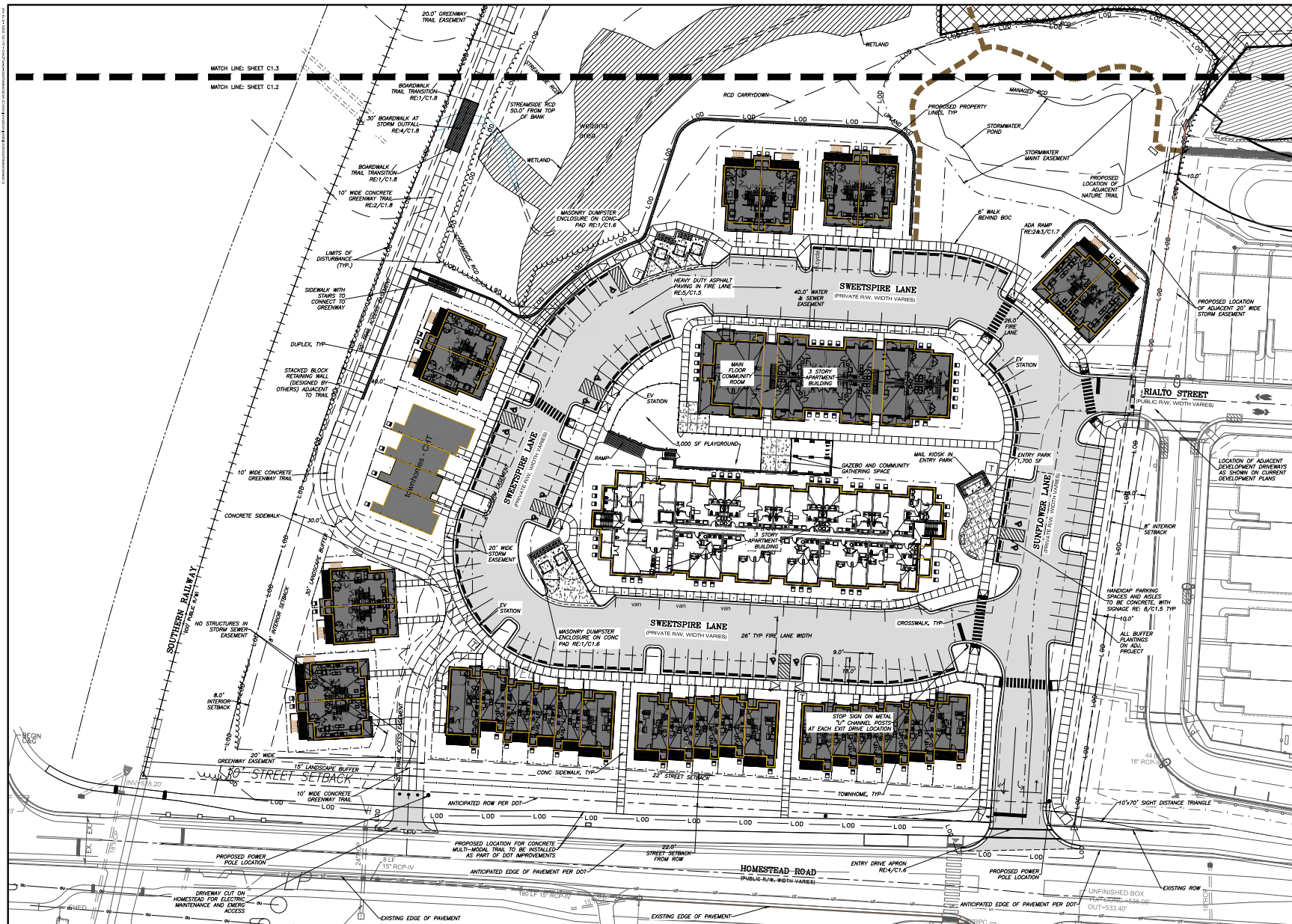
HOMESTEAD ROAD
GARDENS

CLIENT/OWNER:
Self-Help Credit Union
301 West Main Street
Durham, NC 27701
Attn: Tucker Bartlett



DATUM: HORIZ., NAV83		VERT.: NAVD88	
JOB NO.: 30986.0000		C1.1	
DATE: 06/21/2023			
DRAWN: WLR,MPM,MTG			
DESIGNED: WLR,MPM			
REVIEWED: WLR,PBR			
APPROVED:			
SCALE: 1" = 100'			

C1.1



NO.	REVISIONS	BY	DATE

**PRELIMINARY - NOT
BEAR FOR CONSTRUCTION**

REGISTERED PROFESSIONAL ENGINEER
IN THE STATE OF NORTH CAROLINA
No. 10000
THOMAS HUTTON

SITE PLAN - SOUTH

HOMESTEAD ROAD GARDENS

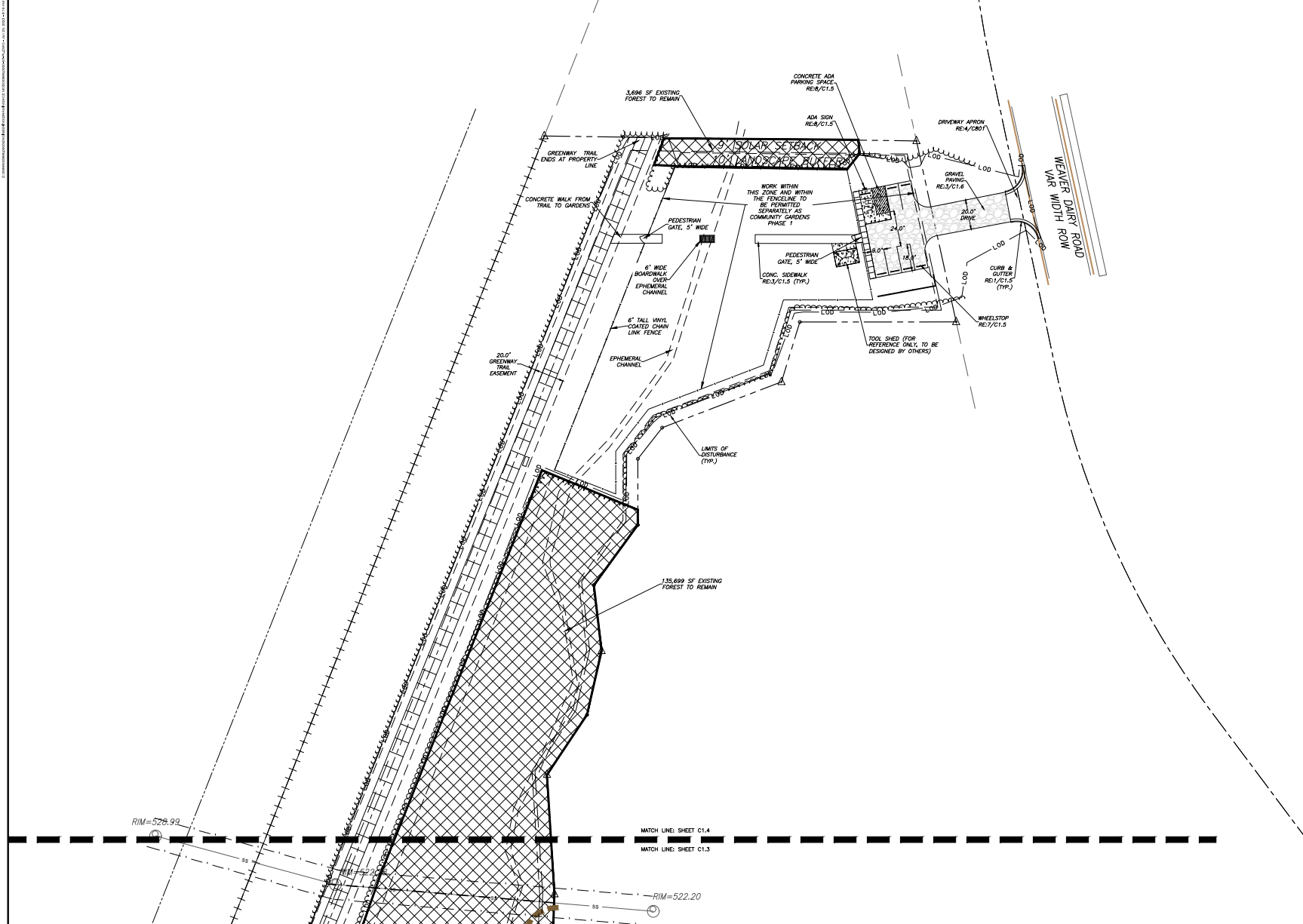
PROJECT LOCATION:
2300 Homestead Road
Charlotte, NC 28205

CLIENT/TOWNNER:
Self-Help Credit Union
301 West Main Street
Durham, NC 27701
Attn: Tucker Bartlett

GRAPHIC SCALE
1" = 30'

DATE: 08/21/2023
DATE: 08/21/2023
DRAWN: VLS/SPM/MTC
DESIGNED: VLS/SPM/MTC
PREPARED: VLS/SPM/MTC
APPROVED: [Signature]
SCALE: 1" = 30'

C1.2



NO.	REVISIONS	BY	DATE

PRELIMINARY - NOT FOR CONSTRUCTION

REGISTERED PROFESSIONAL ENGINEER
IN THE STATE OF NORTH CAROLINA
No. 10086 Exp. 12/31/2024

THOMAS & HUTTON

111 W. MAIN STREET
DURHAM, NC 27701
919.682.0248
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SITE PLAN - NORTH

HOMESTEAD ROAD GARDENS

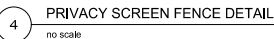
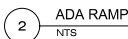
PROJECT LOCATION:
2200 Homestead Road
Chapel Hill, NC

CLIENT/OWNER:
Self-Help Credit Union
301 West Main Street
Durham, NC 27701
Attn: Tucker Bartlett

GRAPHIC SCALE: 1" = 30' FEET

DATE: 06/21/2023	
DRAWN: VLS/MPM/MTC	
DESIGNED: VLS/MPM	
CHECKED: VLS/MPM	
APPROVED:	
SCALE: 1" = 30'	

C1.4



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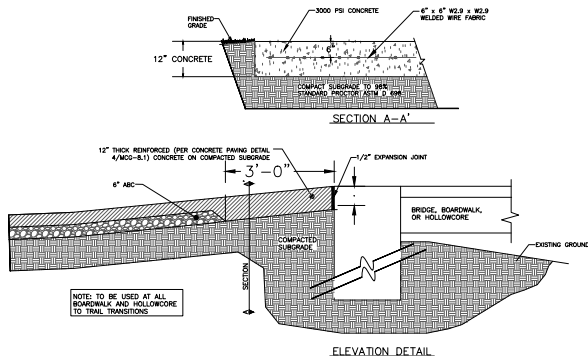
HOMESTEAD ROAD
GARDENS

CLIENT/OWNER:
Self-Help Credit Union
301 West Main Street
Durham, NC 27701
Attn: Tucker Bartlett

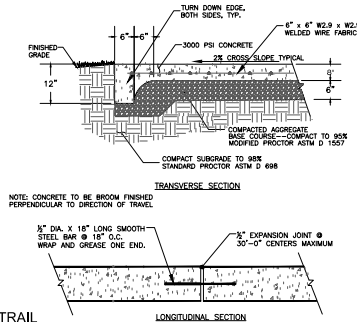


JOB NO:	30988.0000
DATE:	06/21/2023
DRAWN:	WLR,MPM,M
DESIGNED:	WLR,MPM
REVIEWED:	WLR,PBR
APPROVED:	
SCALE:	1" = 30'

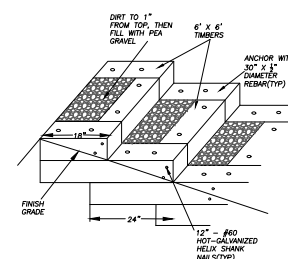
C1.7



1 CONCRETE TRAIL / BOARDWALK / HOLLOWCORE TRANSITION
NTS

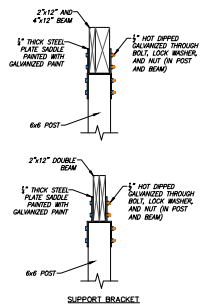
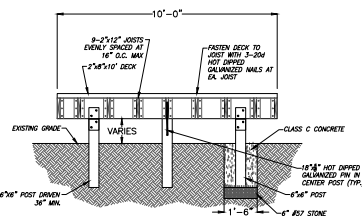
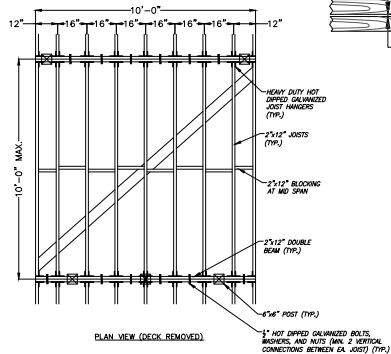


2 CONCRETE TRAIL
NTS



3 BOX STAIRS - NATURE TRAIL DETAIL
NTS

- NOTES
1. ALL LUMBER TO BE PRESSURE TREATED WITH A MIN. OF 0.60 LB/CU FT OF PRESERVATIVE.
 2. LUMBER TO BE GRADE #2 SOUTHERN PINE OR BETTER.
 3. ALL PRESERVATIVE TO BE HOT DIPPED GALVANIZED ACCORDING TO ASTM A-123 (LATEST REVISION).
 4. ALL FRAMING TO CONFORM TO LATEST NC BUILDING CODE.
 5. ALL FRAMING TO BE SPACED AT 16\"/>



4 WOOD BOARDWALK FOR USE OVER WETLANDS
no scale

NO.	REVISIONS	BY	DATE
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www.thomas-hutton.com

SITE DETAILS - TRAIL

HOMESTEAD ROAD GARDENS

PROJECT LOCATION:
2200 Homestead Road
Chapel Hill, NC

CLIENT/OWNER:

Self-Help Credit Union
301 West Main Street
Durham, NC 27701
Attn: Tucker Bartlett



DATUM: HORN, NAVD83 VERT: NAVD83

JOB NO.	30988.0000
DATE	06/12/2023
DRAWN	VLS:MPN,MTC
DESIGNED	WLR:MPN
PREPARED	WLR:MPN
APPROVED	
SCALE	1" = 30'

C1.8

1. CONTRACTOR SHALL NOTIFY "NORTH CAROLINA ONE CALL" (1-800-632-4949) AT LEAST 48 HOURS PRIOR TO BEGINNING CONSTRUCTION OR EXCAVATION TO HAVE EXISTING UTILITIES LOCATED. CONTRACTOR TO CONTACT ANY LOCAL UTILITIES THAT PROVIDE THEIR OWN LOCATOR SERVICE INDEPENDENT OF "NORTH CAROLINA ONE CALL."
2. ALL WATER AND SEWER MAINS WITHIN PUBLIC EASEMENTS AND RIGHT-OF-WAYS TO BE OWNED, OPERATED AND MAINTAINED BY OWASA.
3. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE OWASA STANDARDS AND SPECIFICATIONS.
4. ALL EXISTING UNDERGROUND UTILITIES ARE APPROXIMATELY LOCATED. ACTUAL LOCATION AND DEPTH SHALL BE CONFIRMED IN THE FIELD PRIOR TO CONSTRUCTION.
5. BEFORE STARTING ANY CONSTRUCTION OF IMPROVEMENTS WITHIN ANY TOWN OR N.C.D.O.T. STREET OR HIGHWAY RIGHT-OF-WAY THE FOLLOWING PROCEDURES SHOULD BE UNDERTAKEN: TOWN RIGHT-OF-WAY: CONTACT LOCAL AUTHORITIES' TRAFFIC ENGINEERING DEPT. FOR INFORMATION ON DETOURS, OPEN CUTTING OF STREETS OR FOR ANY CONSTRUCTION WITHIN RIGHT-OF-WAY. N.C.D.O.T. RIGHT-OF-WAY: CONTACT PROJECT ENGINEERS AND OBTAIN ALL PERMITS AND ENCROACHMENTS (KEEP COPIES ON CONSTRUCTION SITE, ALSO CONTACT N.C.D.O.T. DISTRICT OFFICE 24 HOURS IN ADVANCE BEFORE PLACING CURB AND GUTTER).
6. ALL DIMENSIONS AND GRADES SHOWN ON THE PLANS SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. CONTRACTOR SHALL NOTIFY THE OWNER IF ANY DISCREPANCIES EXIST. PRIOR TO PROCEEDING WITH CONSTRUCTION FOR NECESSARY PLAN OR GRADING CHANGES. NO EXTRA COMPENSATION SHALL BE PAID TO THE CONTRACTOR FOR ANY WORK DONE DUE TO DIMENSIONS OR GRADES SHOWN INCORRECTLY ON THESE PLANS IF SUCH NOTIFICATION HAS NOT BEEN GIVEN.
7. POWER, TELEPHONE, AND GAS SERVICES TO BUILDINGS SHALL BE UNDERGROUND. ACCESS AND SERVICE ROUTES TO BE COORDINATED WITH THE PUBLIC UTILITIES, CONTRACTOR AND THE OWNER.
8. RESURFACING OF STREET DUE TO UTILITY CUTS SHALL BE REQUIRED AT THE DIRECTION OF ENGINEERING. (MINIMUM 50' TO EITHER SIDE OF UTILITY CUTS).
9. PROVIDE 10-FT OF HORIZONTAL SEPARATION BETWEEN PROPOSED NEW WATER AND SEWER MAINS

SANITARY SEWER:

1. BACKWATER VALVES SHALL BE PROVIDED FOR ALL UNITS WITH FINAL FLOOR ELEVATIONS OF BUILDINGS LESS THAN 1'-0" ABOVE UPSTREAM MANHOLE.
2. MINIMUM COVER OF 3 FEET IN TRAFFIC AREAS TO BE PROVIDED FOR ALL COLLECTOR LINES 4 INCHES AND LARGER. DUCTILE IRON PIPE SHALL BE REQUIRED FOR ALL PIPE WITH LESS THAN 5 FEET OF COVER.
3. MINIMUM SLOPE FOR 4 INCH SANITARY SEWER COLLECTION LINES SHALL BE NO LESS THAN 2.0% WITH CLEANOUTS EVERY 75 LINEAL FEET.
4. MINIMUM SLOPE FOR 6 INCH SANITARY SEWER COLLECTION LINES SHALL BE NO LESS THAN 1.0% WITH CLEANOUTS EVERY 75 LINEAL FEET.

WATER:

1. LAY WATER MAINS AT LEAST 10 FEET Laterally FROM EXISTING OR PROPOSED SANITARY SEWERS. IF LOCAL CONDITIONS OR BARRIERS PREVENT A 10 FOOT SEPARATION, LAY THE WATER MAIN WITH AT LEAST 18" VERTICAL SEPARATION ABOVE THE TOP OF THE SANITARY SEWER PIPE EITHER IN A SEPARATE TRENCH OR IN THE SAME TRENCH ON A BENCH OF UNDISTURBED EARTH.
2. WHEN A PROPOSED WATER MAIN CROSSES OVER A PROPOSED OR EXISTING SANITARY SEWER, LAY THE WATER MAIN WITH AT LEAST 18" VERTICAL SEPARATION ABOVE THE TOP OF THE SANITARY SEWER. IF LOCAL CONDITIONS PREVENT AN 18" VERTICAL SEPARATION, CONSTRUCT BOTH THE WATER MAIN AND THE SANITARY SEWER FOR A DISTANCE OF 10 FEET ON EACH SIDE TO THE POINT OF CROSSING WITH FERROUS PIPE HAVING WATER MAIN QUALITY JOINTS.
3. WHEN A PROPOSED WATER MAIN CROSSES UNDER A PROPOSED OR EXISTING SANITARY SEWER, CONSTRUCT BOTH THE WATER MAIN AND THE SANITARY SEWER OF FERROUS MATERIALS WITH JOINTS THAT ARE EQUIVALENT TO WATER MAIN STANDARDS FOR A DISTANCE OF 10 FEET ON EACH SIDE OF THE POINT OF CROSSING. CENTER THE SECTION OF WATER PIPE AT THE POINT OF CROSSING.
4. MAINTAIN A MINIMUM COVER OF 36" AND MAXIMUM COVER OF 42" BELOW FINISHED GRADE OVER ALL PIPES UNLESS OTHERWISE DIRECTED OR SHOWN ON THE PLANS. DUE TO THE HEIGHTS OF VALVES, INCREASE THE COVER DEPTHS ADJACENT TO THE VALVES OR VARIED AT POINTS OF THE IN-TO EXISTING LINES.
5. ALL FDC(S) AND HYDRANT(S) SHALL BE SIAMASE CONNECTIONS AND MEET TOWN OF CHAPEL HILL AND OWASA STANDARDS.
6. A FIRE HYDRANT IS REQUIRED WITHIN 100' OF THE FIRE DEPARTMENT CONNECTION (FDC).
7. WATER LINES WILL CONNECT TO THE WATER MAIN ON THE NORTH SIDE OF HOMESTEAD ROAD. CONSTRUCTION METHOD WILL BE OPEN CUT THE SHORT DISTANCE TO THE MAIN. ANY UTILITY CONNECTIONS REQUIRED TO THE SOUTH SIDE OF HOMESTEAD WILL BE BORED.

UTILITY NOTES



NO.	REVISIONS	BY	DATE



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UTILITY PLAN - OVERALL

HOMESTEAD ROAD GARDENS

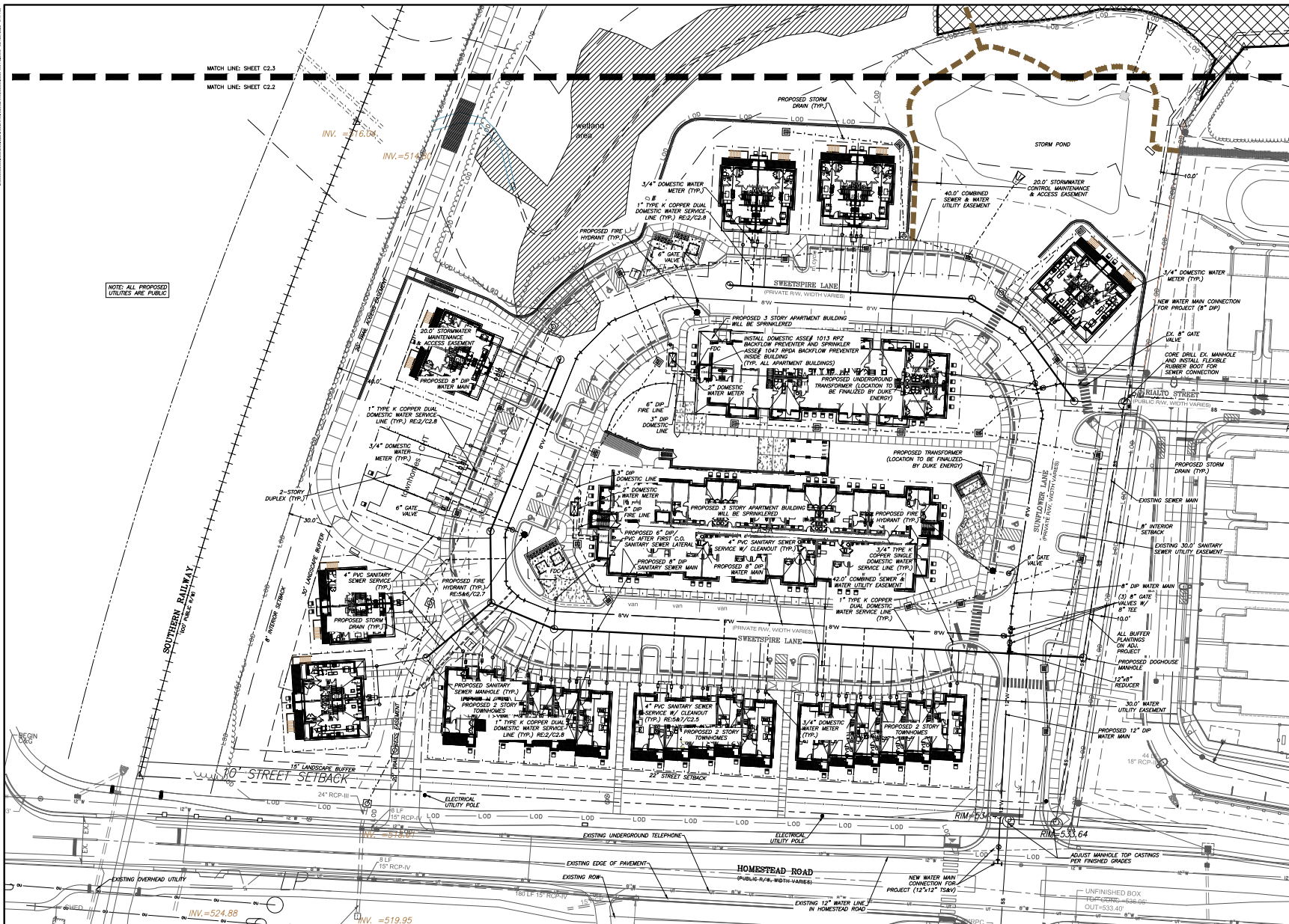
PROJECT LOCATION:
2200 Homestead Road
Chapel Hill, NC

CLIENT/OWNER:
Self-Help Credit Union
301 West Main Street
Durham, NC 27701
Attn: Tucker Bartlett



DATUM: HORZ: NAVD83	VERT: NAVD83
JOB NO: 30988.0000	DATE: 08/01/2023
DRAWN: VLS/MPM/JTC	DESIGNED: VLS/MPM
PREPARED: VLS/MPM	APPROVED:
SCALE: 1" = 100'	

C2.1



NOTE: ALL PROPOSED UTILITIES ARE PUBLIC

MATCH LINE: SHEET C2.3
MATCH LINE: SHEET C2.2

INV. = 516.04
INV. = 516.81

SOUTHERN RAILWAY
100' (R/W 100' WIDE)

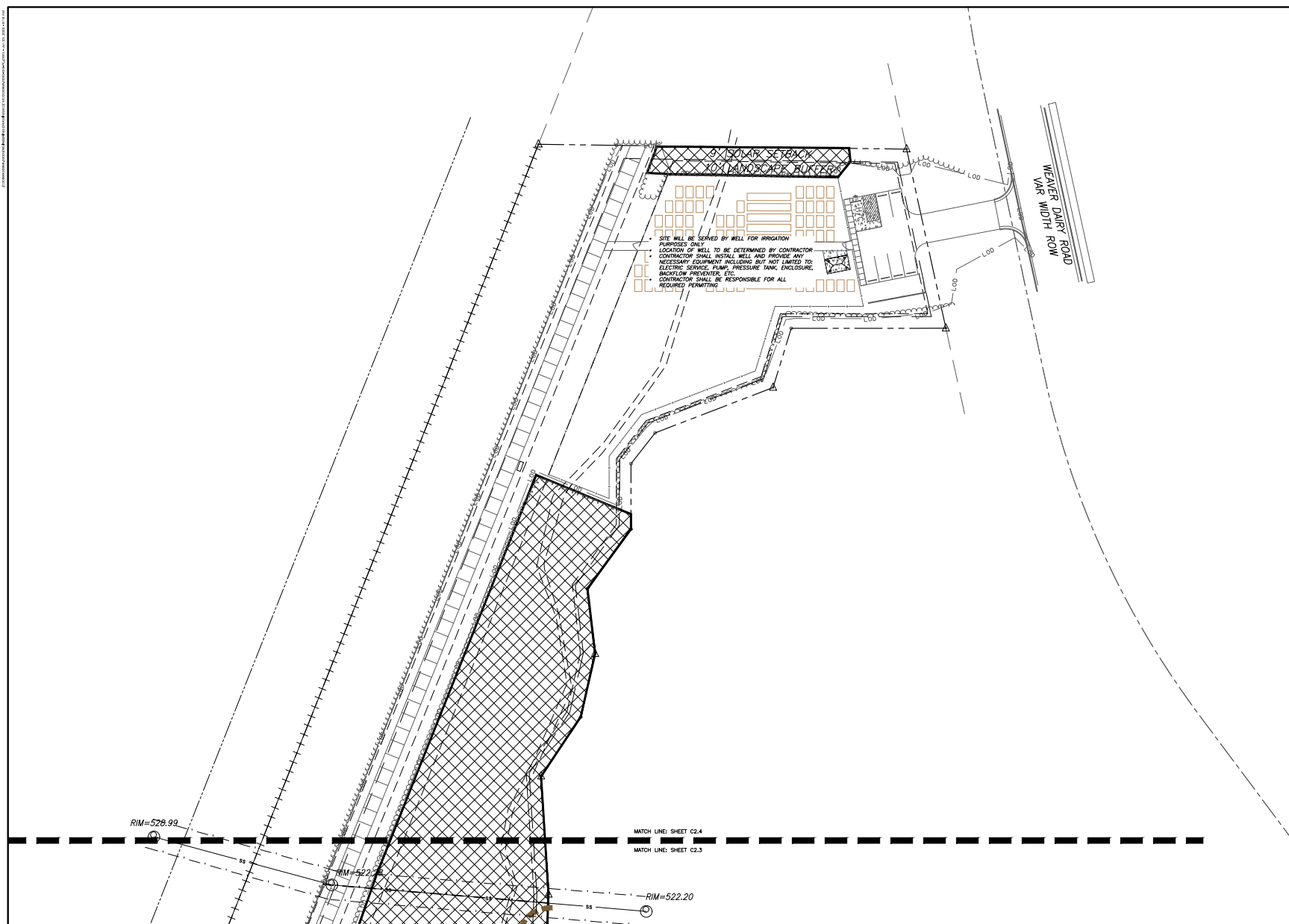
15' LANDSCAPE BUFFER
STREET SETBACK

HOMESTEAD ROAD
(PUBLIC R/W, WIDTH VARIES)

INV. = 524.88

INV. = 519.95

NO.			REVISIONS			BY			DATE		
<div><div>PRELIMINARY - NOT FOR CONSTRUCTION</div><div>THOMAS HUTTON</div><div>111 W. MAIN STREET DURHAM, NC 27701 919.462.0245 www.thomashutton.com</div></div>											
UTILITY PLAN - SOUTH											
HOMESTEAD ROAD GARDENS											
PROJECT LOCATION: 2300 Homestead Road Chapel Hill, NC											
CLIENT/TOWN/IR: Self-Help Credit Union 301 West Main Street Durham, NC 27701 Attn: Tucker Bartlett											
<div><div></div><div></div><div>GRAPHIC SCALE 1" CH = 30' FEET</div></div>											
DATE: 08/01/2023 JOB NO: 30588.0000 DRAWN: VLS/MPM/JTC DESIGNED: VLS/MPM CHECKED: VLS/MPM APPROVED: [Signature] SCALE: 1" = 30'											
<div>C2.2</div>											



NO.	REVISIONS	BY	DATE



111 W. MAIN STREET
DURHAM, NC 27701
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UTILITY PLAN - NORTH

HOMESTEAD ROAD
GARDENS

PROJECT LOCATION:
2200 Homestead Road
Chapel Hill, NC

CLIENT/OWNER:
Self-Help Credit Union
301 West Main Street
Durham, NC 27701
Attn: Tucker Bartlett



DATUM: HORIZ: NAV8

JOB NO:	30988.0000
DATE:	06/21/2023
DRAWN:	WLR,MPM,MT
DESIGNED:	WLR,MPM
REVIEWED:	WLR,PBR
APPROVED:	
SCALE:	1" = 30'

C2.3

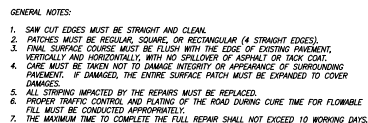
[illegible][illegible]

Diagram illustrating the components and specifications for a manhole assembly:

- CONCRETE COLLAR - CLASS 8 (18"x18"x4")
- BRASS PLUG W/ RECESSED NUT
- CLEAN-OUT
- IRON PIPE
- PVC PIPE
- COUPLING
- 22' MIN. SLOPE FOR 4" PVC
- 16' MIN. SLOPE FOR 6" & LARGER PVC
- SCH. 40 PVC
- SCH. 40 PVC SOLVENT WELD LONG SHEET PILE

NOTES:

1. MIN. DRA
2. IN DET
3. COV. LOC. AND TO
4. ALL

NOTES:

1. MINOR PIPING INCLUDES ROOF LEADERS, TRENCH DRAINS, AND UNDERDRAINS.
2. IN TRAFFIC BEARING AREAS USE CLEAN OUT DETAIL AND COVER SIMILAR TO SEWER TRAFFIC BEARING CLEAN OUT.
3. COORDINATE ALL ROOF LEADER AND DOWNSPOUT LOCATIONS AND INVERTS WITH ARCHITECTURAL AND PLUMBING PLANS. REPORT DISCREPANCIES TO ENGINEER.
4. ALL MINOR PIPING TO BE SCHEDULE 40 PVC

The drawing consists of two parts: a Plan View on the left and a Section View on the right.

Plan View: Shows a circular manhole with a square grid pattern in the center. A circle with a diagonal line and the letter 'S' is in the middle of the grid.

Section View: Shows a cross-section of the manhole assembly. Key components and dimensions include:

- Top Layer:** ASPHALT-PAVEMENT, 4" MIN. thick.
- Base Layer:** SAND CUSHION, 8" thick.
- Manhole Structure:** 4" PANELA TYPE CEMENTIT with COUNTERSINK HEAD, 1/8" thick.
- Inner Wall:** 3000 PSI CONCRETE COLLAR, 4" MIN. thick.
- Bottom Layer:** 3000 PSI CONCRETE COLLAR, 4" MIN. thick.
- Central Pipe:** PVC ENGAGEMENT PIPE, 20" MIN. diameter.
- Seal:** PIPE SEAL GASKET, 10" MIN. diameter.
- Reinforcement:** POWDER CONCRETE, 10" MIN. diameter.
- Stone Base:** 10" MIN. diameter.
- Other Dimensions:** 1/4", 3/4", 2 1/4", 10" MIN., 20" MIN., 10" MIN., 4" MIN., 1/8", 8", 4" MIN.

[illegible][illegible]

N.O.	REVISIONS	BY	DATE

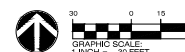


111 W. MAIN STREET
DURHAM, NC 27701
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www.thomasandhuffon.com

HOMESTEAD ROAD
GARDENS

PROJECT LOCATION:
2200 Homestead Road
Chapel Hill, NC

CLIENT/OWNER:
Self-Help Credit Union
301 West Main Street
Durham, NC 27701
Attn: Tucker Bartlett

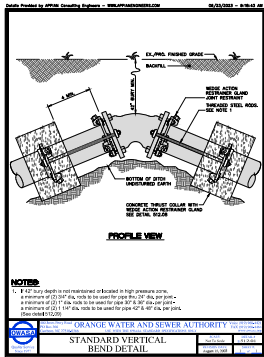


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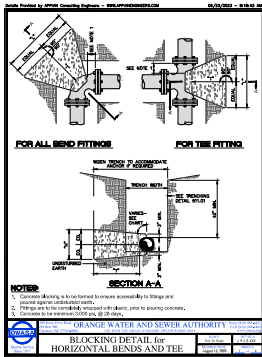
VERT.: NAVD88

JOB NO:	30988.000
DATE:	06/21/2023
DRAWN:	WLR,MPM
DESIGNED:	WLR,MPM
REVIEWED:	WLR,PBR
APPROVED:	
SCALE:	1" = 30'

C2.5



1 STANDARD VERTICAL BEND DETAIL
NTS



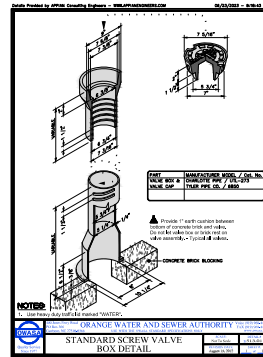
2 BLOCKING DETAILS FOR HORIZ. BEND
NTS

TEST PROBLEMS - 800 PSI

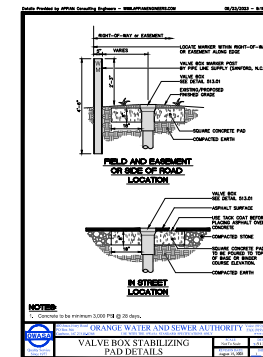
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3	1.0	1.0	1.0	1.0	1.0
4	1.0	1.0	1.0	1.0	1.0
5	1.0	1.0	1.0	1.0	1.0
6	1.0	1.0	1.0	1.0	1.0
7	1.0	1.0	1.0	1.0	1.0
8	1.0	1.0	1.0	1.0	1.0
9	1.0	1.0	1.0	1.0	1.0
10	1.0	1.0	1.0	1.0	1.0

ORANGE WATER AND SEWER AUTHORITY

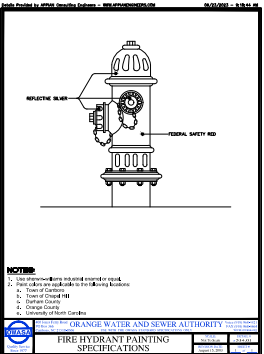
BLOCKING DETAIL FOR HORIZONTAL BENDS AND TEE



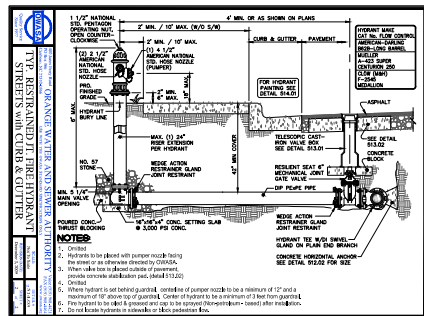
3 STANDARD SCREW VALVE BOX DETAIL
NTS



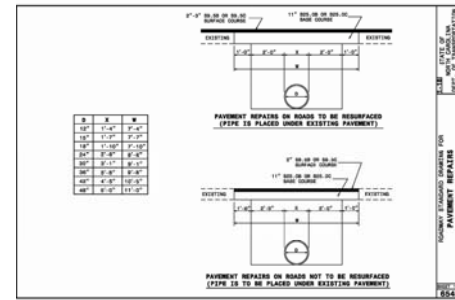
4 VALVE BOX STABILIZING PAD DETAILS
NTS



5 FIRE HYDRANT PAINTING SPECS
NTS



6 TYP. RESTRAINED JOINT FIRE HYDRANT DETAIL
NTS



7 PAVEMENT REPAIRS DETAIL
NTS

NO.	REVISIONS	BY	DATE



THOMAS HUTTON

111 W. MAIN STREET
DURHAM, NC 27701
919.462.0248
www.thomashutton.com

WATER DETAILS

HOMESTEAD ROAD GARDENS

PROJECT LOCATION:
2200 Homestead Road
Chapel Hill, NC

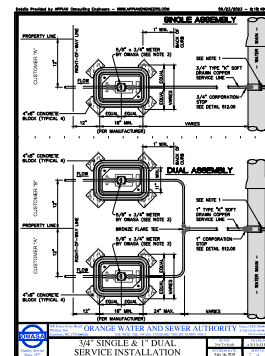
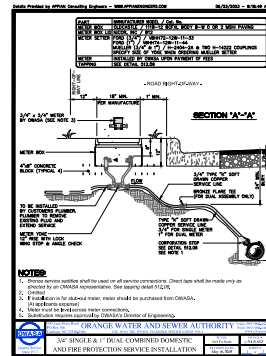
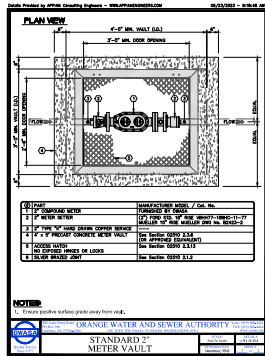
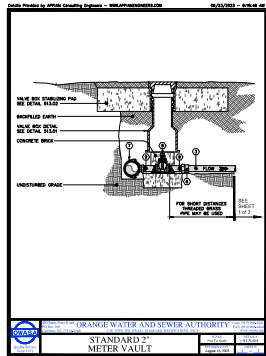
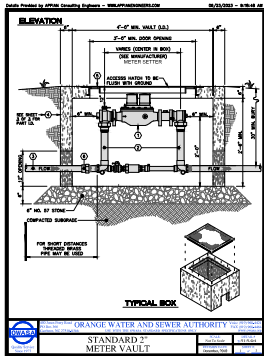
CLIENT/TOWNER:
Self-Help Credit Union
301 West Main Street
Durham, NC 27701
Attn: Tucker Bartlett

GRAPHIC SCALE
1" = 30' FEET

DATUM: HORIZ. NAVD83
VERT: NAVD83

JOB NO: 30988.0000
DATE: 06/21/2023
DRAWN: VLS/MPM/MTC
DESIGNED: VLS/MPM
PREPARED: VLS/MPM
APPROVED:
SCALE: 1" = 30'

C2.7



- NOTES:
1. WATER SERVICE LINES FOR TOWNHOUSES AND DUPLEXES SHALL BE 1-1/2\" TYPE K COPPER PER MEP DESIGN CALCULATIONS.
 2. SERVICES LINES SPLIT INSIDE THE BUILDING AND EACH UNIT WILL HAVE A 13D FIRE PROTECTION SYSTEM.

NO.	REVISIONS	BY	DATE



WATER DETAILS

HOMESTEAD ROAD GARDENS

PROJECT LOCATION:
2200 Homestead Road
Chapel Hill, NC

CLIENT/OWNER:
Self-Help Credit Union
301 West Main Street
Durham, NC 27701
Attn: Tucker Bartlett

GRAPHIC SCALE
1" = 30' FEET

DATUM: HORZ. NAVD83

VERT. NAVD83

JOB NO. 30988.0000

DATE: 06/21/2023

DRAWN: VLS:MPM,ATC

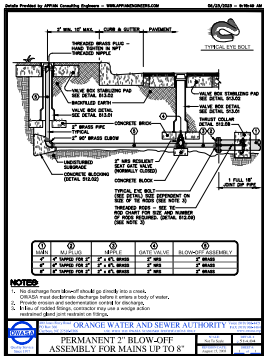
DESIGNED: VLS:MPM

PREPARED: VLS:MPM

APPROVED:

SCALE: 1" = 30'

C2.8



2" BLOW-OFF DETAIL
NTS

CONTRACTOR SHALL SUBMIT DRAWINGS PREPARED, SIGNED, AND SEALED BY A QUALIFIED LICENSED NORTH CAROLINA PROFESSIONAL ENGINEER FOR REVIEW AND APPROVAL BY THE ARCHITECT, OWNER, AND ENGINEER. CONTRACTOR SHALL BE RESPONSIBLE FOR SUBMITTING FOR AND OBTAINING ANY PERMITS REQUIRED BY THE TOWN OF CHAPEL HILL FOR THE RETAINING WALLS.

1 CONSTRUCTION, SUBMITTAL, AND PERMIT NOTE

1. ALL DIMENSIONS AND GRADES SHOWN ON THE PLANS SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. CONTRACTOR SHALL NOTIFY THE OWNER IF ANY DISCREPANCIES EXIST PRIOR TO PROCEEDING WITH CONSTRUCTION FOR NECESSARY PLAN OR GRADE CHANGES. NO COST COMPENSATION SHALL BE PAID TO THE CONTRACTOR FOR ANY WORK DONE DUE TO DIMENSIONS OR GRADES SHOWN INCORRECTLY ON THESE PLANS IF SUCH NOTIFICATION HAS NOT BEEN GIVEN.
2. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH TOWN OF CHAPEL HILL AND NC DOT STANDARDS AND SPECIFICATIONS.
3. CONTRACTOR SHALL NOTIFY "NORTH CAROLINA ONE CALL" (1-800-832-6949) AT LEAST 48 HOURS PRIOR TO BEGINNING CONSTRUCTION OR EXCAVATION TO HAVE EXISTING UTILITIES LOCATED. CONTRACTOR TO CONTACT ANY LOCAL UTILITIES THAT PROVIDE THEIR OWN LOCATOR SERVICES INDEPENDENT OF "NORTH CAROLINA ONE CALL".
4. CONSTRUCTION, MAINTENANCE AND REMOVAL OF ALL EROSION CONTROL DEVICES ARE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR.
5. EXISTING UTILITIES AND STRUCTURES SHOWN, BOTH UNDERGROUND AND ABOVE GROUND, ARE BASED ON A FIELD SURVEY AND THE BEST AVAILABLE RECORD DRAWINGS. THE CONTRACTOR SHALL VERIFY FIELD CONDITIONS PRIOR TO BEGINNING RELATED CONSTRUCTION. ANY DISCREPANCIES SHALL BE REPORTED TO THE OWNER'S REPRESENTATIVE IMMEDIATELY.
6. SOIL UNDER BUILDING PAD, PAVED AREAS AND WITHIN SLOPES GREATER THAN 3:1 (10:1) SHALL BE APPROVED, PLACED AND COMPACTED AS RECOMMENDED BY THE GEOTECHNICAL ENGINEER. THESE SOILS SHALL BE COMPACTED AS SPECIFIED UNLESS OTHERWISE RECOMMENDED BY THE GEOTECHNICAL ENGINEER. ANY UNDERCUT OF SOILS IN THESE AREAS SHALL BE APPROVED BY THE GEOTECHNICAL ENGINEER & OWNER. THE UNDERCUT SOILS SHALL ALSO BE QUANTIFIED BY THE GEOTECHNICAL ENGINEER.
7. ALL GRADING MUST PRODUCE SURFACE DRAINAGE ADEQUATE TO PREVENT STANDING WATER ON WET LANE AREAS, AND TO ENSURE THAT ALL STORM WATER FLOWS TO INLETS OR OTHER POINTS OF DISCHARGE.
8. CONNECT ALL ROOF LEADERS AND DOWNSPOUTS TO STORM DRAINAGE SYSTEM WITH PVC PIPE. SEE ARCHITECTURAL PLANS FOR LOCATIONS.
9. CURB INLETS: PROVIDE PRE-CAST CURB INLET HOODS AND COVERS STATING "DUMP NO WASTE DRAINAGE TO JORDAN LAKE" IN ACCORDANCE WITH THE SPECIFICATIONS OF THE TOWN STANDARD DETAIL SD-0A FOR ALL NEW CURB INLETS FOR PRIVATE, TOWN AND STATE RIGHTS-OF-WAY.
10. IN BOTTOM OF WALL ELEVATION IS FINISH GRADE, NOT THE FOOTING. REFERENCE RETAINING WALL PLANS/DETAILS FOR DEPTH OF FOOTING.
11. CONTRACTOR SHALL PROVIDE SHOP DRAWINGS FOR ALL PROPOSED WALLS FOR REVIEW BY ENGINEER, ARCHITECT, AND OWNER. WALL PLANS SHALL BE PREPARED, SIGNED, AND SEALED BY A LICENSED NC PROFESSIONAL ENGINEER. CONTRACTOR AND/OR WALL DESIGNER SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FOR WALL CONSTRUCTION. WALLS SHALL BE DESIGNED TO ACCOUNT FOR AND ACCOMMODATE ALL UTILITIES, PIPES, LANDSCAPING, AND ALL APPLIED LOADS.

2 GRADING AND STORM DRAINAGE NOTES

FOR ALL SIDEWALKS/CURB RAMPS THE FOLLOWING APPLIES:

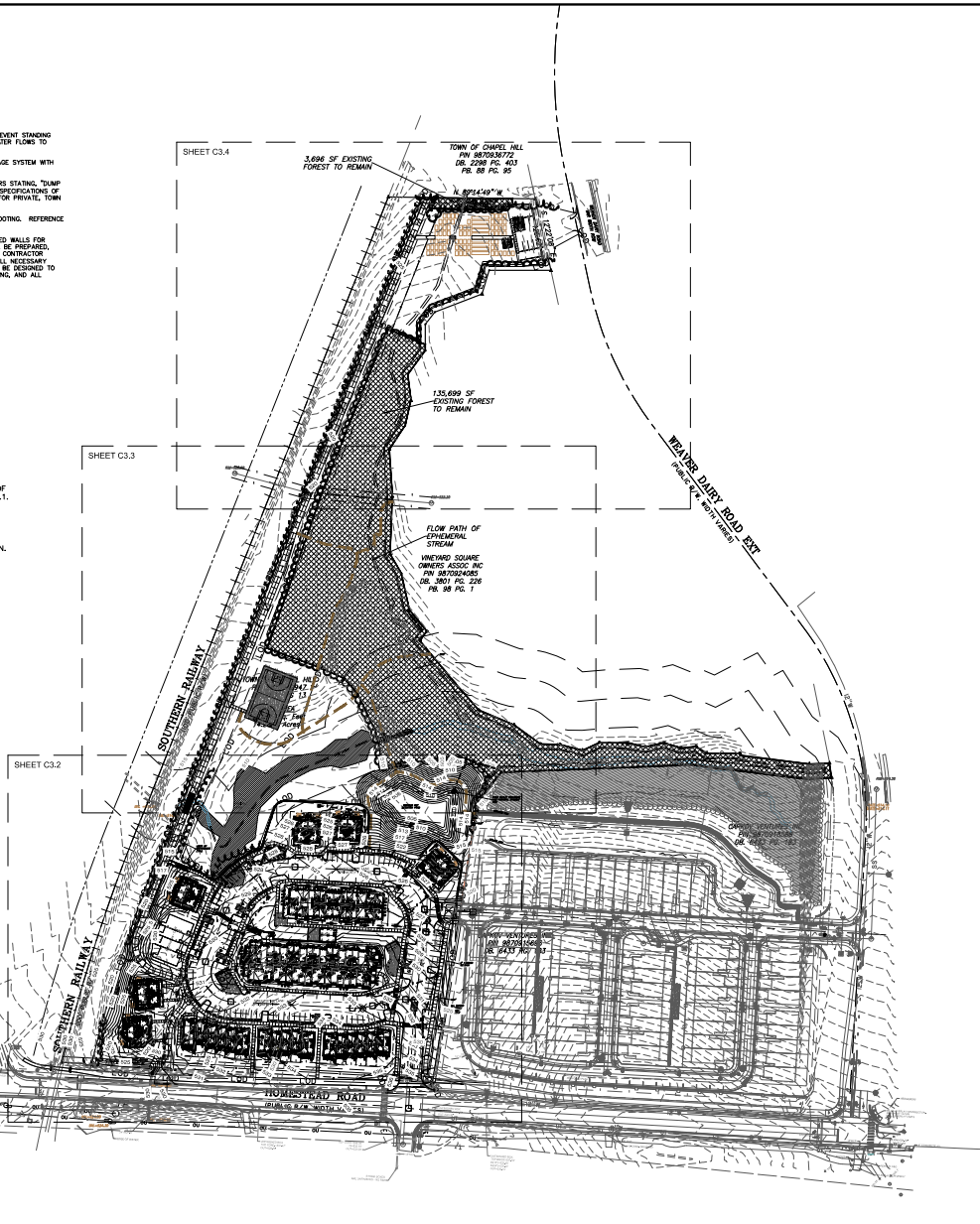
1. SIDEWALK SLOPES TO BE A MAXIMUM 4.5%.
2. SIDEWALK CROSS SLOPES TO BE A MAXIMUM 1.5%.
3. MINIMUM 1" SHOULDER AT MAXIMUM 2% SLOPE ADJACENT TO ADA PAVED ROUTES UNLESS A HANDRAIL IS CALLED OUT.
4. ADA PARKING TO BE A MAXIMUM 1.5% SLOPE IN ANY DIRECTION FOR ENTIRE AREA - PARKING SPACES AND AISLES.
5. ALL DOORS EXTING THE BUILDING REQUIRE AN ADA ACCESSIBLE COMPLAINT ROUTE TO A PUBLIC WAY.
6. PARKING - NUMBER OF SPACES TO COMPLY WITH NCBC 2012 SECTION 1106.1.1 PER 6 COMPLAINT SPACES OR PORTION THEREOF MUST BE VAN ACCESSIBLE. NO SLOPE TO EXCEED 2% IN ANY DIRECTION. SIGNAGE PER NC REQUIREMENTS, MUTCD AND ICC A 117.1.
7. CURB CUTS AND ACCESSIBLE ROUTES PER ICC A117.1.2009 ED. CROSS SLOPE LIMITED TO 2%, CALL FOR INSPECTION BEFORE PLACEMENT OF CONCRETE.
8. SLOPES GREATER THAN 5% REQUIRES CONSTRUCTION AS A RAMP.
9. CURB RAMPS SHALL HAVE A MAXIMUM RUNNING SLOPE OF 8.33% (12:1).
10. CONSTRUCT THE CURB RAMP SIDE FLARE SLOPE AT A MAXIMUM OF 10%, MEASURED ALONG THE CURB LINE.
11. CONSTRUCT THE CURB RAMP LANDINGS FOR A SIDEWALK AT A MINIMUM OF 4'-4" WITH A MAXIMUM SLOPE OF 2% IN ANY DIRECTION.
12. CONSTRUCT CURB RAMP DETECTABLE WARNING DOMES TO COVER 2'-0" LENGTH AND FULL WIDTH OF THE RAMP FLOOR.

3 SIDEWALK AND CURB RAMP NOTES (APPLIES TO ALL SHEETS)

RCD ZONE	TOTAL AREA ON SITE	PROPOSED DISTURBANCE		PROPOSED IMPERVIOUS	
		SF	%	SF	%
streamside	89,101 SF	5,500 SF	6.2%	860 SF	1.0%
managed	16,898 SF	9,350 SF	55.3%	100 SF	0.6%
upland	22,345 SF	12,600 SF	56.4%	0 SF	0%

STREAMSIDE RCD CALCULATIONS INCLUDE THE CARRY DOWN AREA BETWEEN JURISDICTIONAL STREAMS.

4 RESOURCE CONSERVATION DISTRICT CALCULATIONS



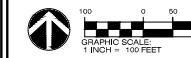
THOMAS HUTTON
111 W. MAIN STREET
DURHAM, NC 27701
919.652.0245
www.thomashutton.com

GRADING & DRAINAGE PLAN - OVERALL

HOMESTEAD ROAD GARDENS

PROJECT LOCATION:
2300 Homestead Road
Chapel Hill, NC

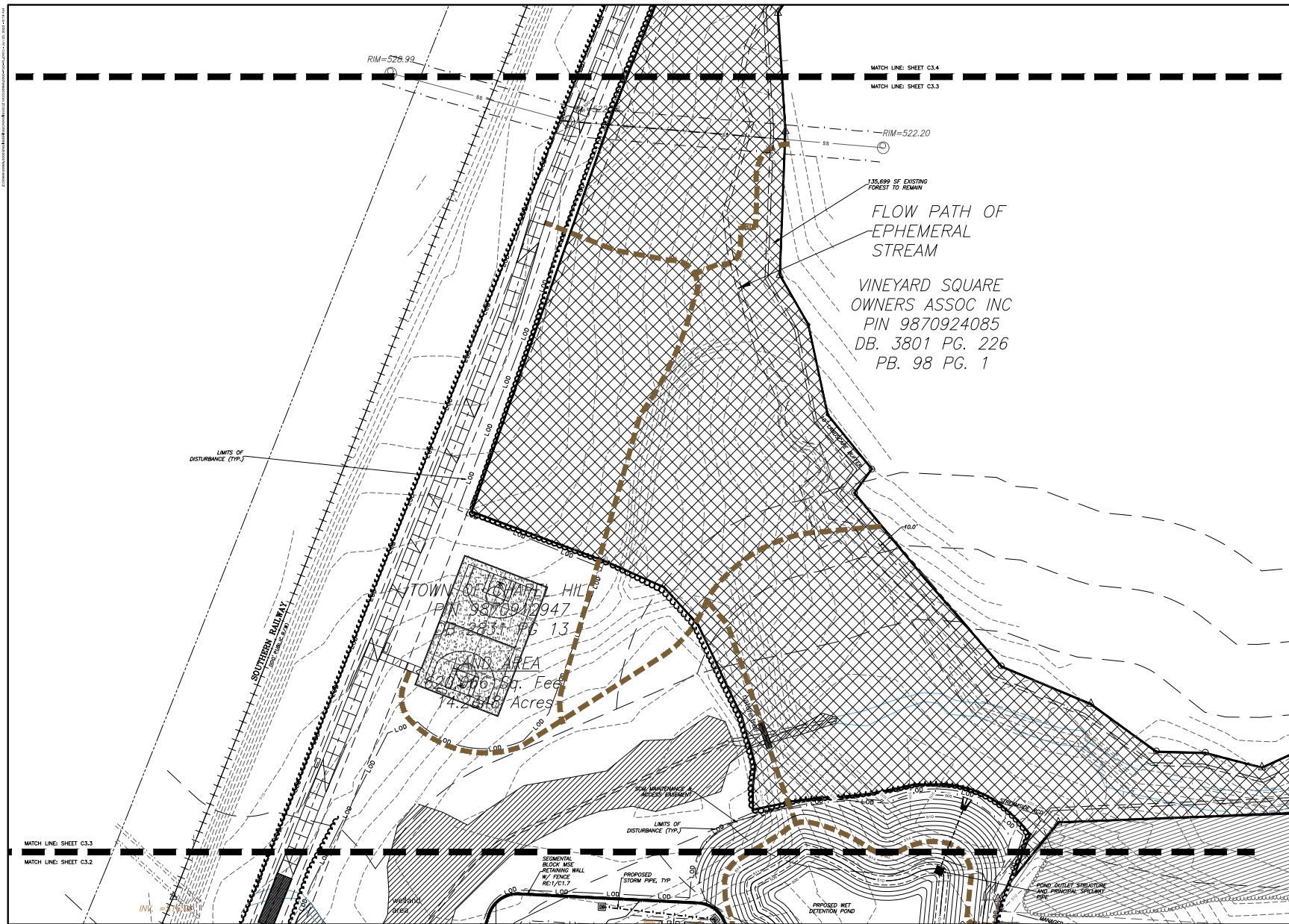
CLIENT/OWNER:
Self-Help Credit Union
301 West Main Street
Durham, NC 27701
Attn: Tucker Bartlett



DATUM: HORZ: NAVD83 VERT: NAVD83

JOB NO: 30988.0000
DATE: 06/12/2023
DRAWN: VLS:MPM/JATC
DESIGNED: VLS:MPM
CHECKED: VLS:MPM
APPROVED:
SCALE: 1" = 100'

C3.1



NO.	REVISIONS	BY	DATE

PRELIMINARY - NOT FOR CONSTRUCTION

THOMAS & HUTTON
111 W. MAIN STREET
DURHAM, NC 27701
919.682.0248
www.thomashutton.com

**GRADING & DRAINAGE
PLAN - CENTER**

**HOMESTEAD ROAD
GARDENS**

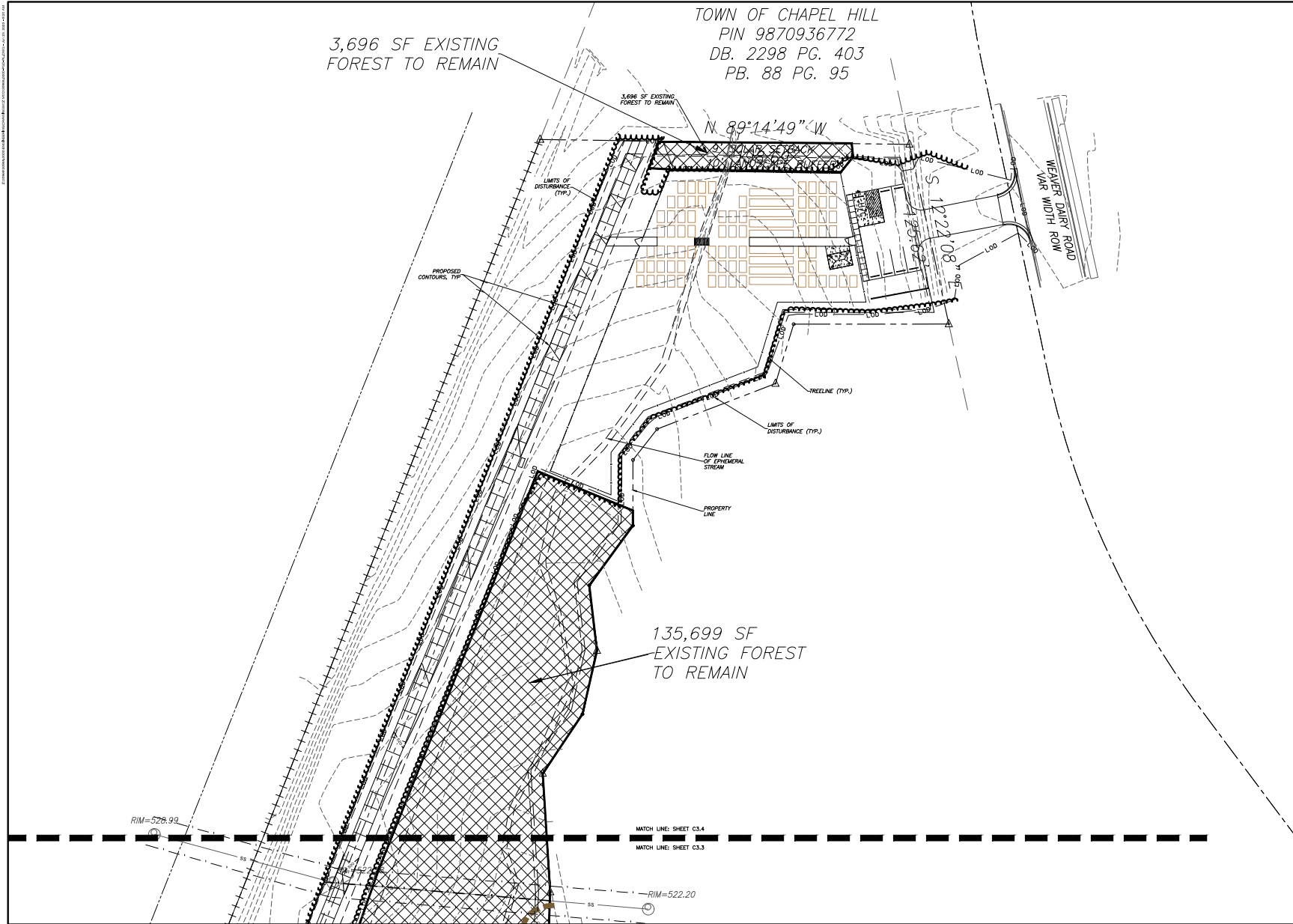
PROJECT LOCATION:
2300 Homestead Road
Chapel Hill, NC

CLIENT/OWNER:
Self-Help Credit Union
301 West Main Street
Durham, NC 27701
Attn: Tucker Bartlett

GRAPHIC SCALE:
1" = 30' FEET

DATE: 08/21/2023
DATE: 08/21/2023
DRAWN: VLS/MPM/LTC
DESIGNED: VLS/MPM
PREPARED: VLS/MPM
APPROVED:
SCALE: 1" = 30'

C3.3



NO.	REVISIONS	BY	DATE

PRELIMINARY - NOT FOR CONSTRUCTION

REGISTERED PROFESSIONAL ENGINEER
IN THE STATE OF NORTH CAROLINA
NO. 10000
TUCKER BARTLETT

THOMAS & HUTTON

111 W. MAIN STREET
DURHAM, NC 27701
919.682.0248
www.thomashutton.com

**GRADING & DRAINAGE
PLAN - NORTH**

**HOMESTEAD ROAD
GARDENS**

PROJECT LOCATION:
2200 Homestead Road
Chapel Hill, NC

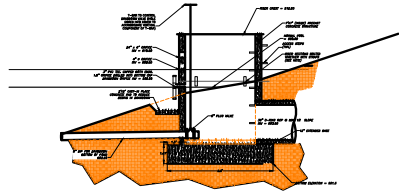
CLIENT/OWNER:
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Attn: Tucker Bartlett

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1" = 30' FEET

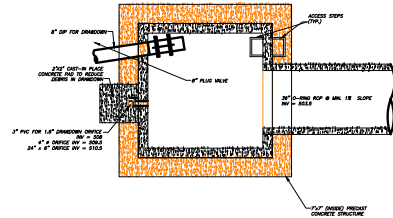
VERT. NAV/CSB

C3.4

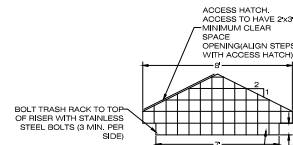
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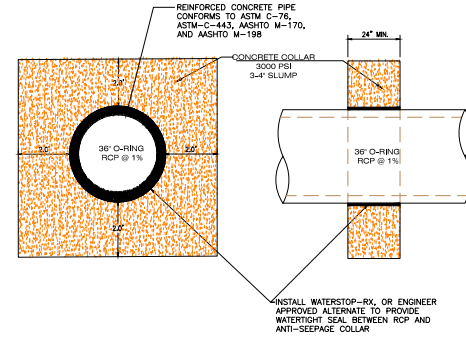
1 RISER SECTION DETAIL
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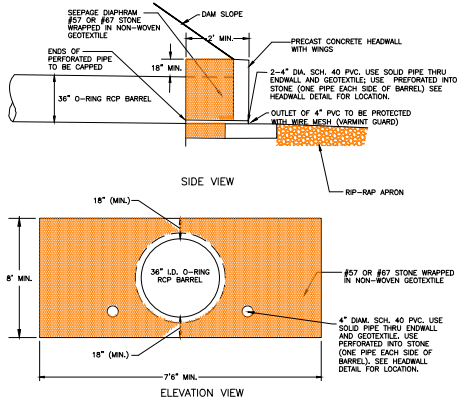
2 RISER PLAN DETAIL
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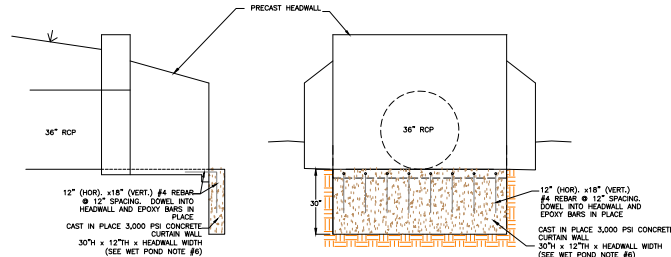
3 TRASH RACK DETAIL
NTS



4 ANTI-SEEPAGE COLLAR DETAIL
NTS



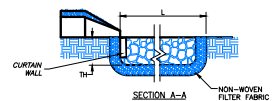
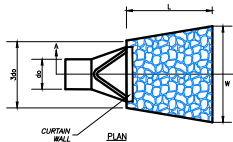
5 ANTI-SEEPAGE DIAPHRAGM DETAIL
NTS



6 CONCRETE CURTAIN WALL DETAIL
NTS

NOTES:

1. L IS THE LENGTH OF THE RIPRAP APRON.
2. TH=1.5 TIMES THE MAXIMUM STONE DIAMETER BUT NOT LESS THAN 6".
3. IN A WELL-DEFINED CHANNEL EXTEND THE APRON UP THE CHANNEL BANKS TO AN ELEVATION OF 6" ABOVE THE MAXIMUM FLOOD DEPTH OR TO THE TOP OF THE BANK WHICHEVER IS LESS.
4. A NON-WOVEN FILTER FABRIC SHOULD BE INSTALLED BETWEEN THE RIPRAP AND SOIL FOUNDATION. FILTER FABRIC SHALL CONFORM TO ASTM M-288 STANDARDS.
5. SEE SCHEDULE FOR RIPRAP SIZE, WIDTH, & LENGTH.



7 RIPRAP APRON
NTS

	LENGTH (FT)	WIDTH @PIPE OUTLET (FT)	WIDTH @ END OF PAD (FT)	THICKNESS (IN)	CLASS
OUT-1	18	9.0	16.2	18	Class B
OUT-2	10	3.8	7.8	26	Class I
OUT-3	24	9.0	18.6	26	Class I
OUT-4	24	9.0	18.6	26	Class I
OUT-5	5	3.8	5.8	12	Class A
OUT-6	10	3.8	7.8	26	Class I
OUT-7	28	10.5	21.7	26	Class I

UPDATE



THOMAS & HUTTON
111 W. MAIN STREET
DURHAM, NC 27701
919.462.0248
www.thomashutton.com

DRAINAGE DETAILS

HOMESTEAD ROAD
GARDENS

PROJECT LOCATION:
2200 Homestead Road
Chapel Hill, NC

CLIENT/TOWNER:
Self-Help Credit Union
301 West Main Street
Durham, NC 27701
Attn: Tucker Bartlett



DATUM: HORZ: NAVD83 VERT: NAVD83

JOB NO: 30988.0000
DATE: 06/21/2023
DRAWN: VLS/MPM/MTC
DESIGNED: VLS/MPM
CHECKED: VLS/MPM
APPROVED:
SCALE: 1" = 30'

C3.5

1. LANDSCAPING MUST BE IN PLACE PRIOR TO REQUEST FOR A CERTIFICATE OF OCCUPANCY OR CERTIFICATE OF COMPLIANCE.
2. CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS, DEPTHS, QUANTITIES, DISTANCES, ANGLES AND SLOPES PRIOR TO ORDERING MATERIALS OR INSTALLING PROJECT.
3. IN AREAS OF GROUND COVER, MAINTAIN A 12" MINIMUM DISTANCE BETWEEN PLANTS AND HARD IMPROVEMENTS.
4. BED LINES SHALL CONFORM TO CONFIGURATION SHOWN ON THE PLANS. BED LINES SHALL MEET CURBS, WALKS, BUILDINGS, ETC. AT RIGHT ANGLES UNLESS SHOWN OTHERWISE.
5. CONTRACTOR SHALL VISIT THE SITE AND FAMILIARIZE THEMSELVES WITH ACTUAL CONDITIONS AND VERIFY EXISTING CONDITIONS IN THE FIELD. CONTRACTOR SHALL REPORT ALL DISCREPANCIES TO LANDSCAPE ARCHITECT.
6. CONTRACTOR SHALL ACCEPT ACTUAL CONDITIONS AT SITE AND PERFORM THE WORK SPECIFIED INCLUDING FINE GRADING AND INCORPORATION OF TOP SOIL INTO PLANTING AREAS, WITHOUT ADDITIONAL COMPENSATION FOR POSSIBLE VARIATION FROM GRADES AND CONDITIONS SHOWN, WHETHER SURFACE OR SUBSURFACE, EXCEPT AS PROVIDED FOR IN CONTRACT DOCUMENTS.
7. IN LAWN AREAS, 2" TOPSOIL/COMPOST SHALL BE TILLED INTO THE TOP 5" OF GROUND PRIOR TO SEEDING. IN LANDSCAPE BEDS, 3" TOPSOIL/COMPOST SHALL BE TILLED INTO THE TOP 6" OF GROUND PRIOR TO PLANT INSTALLATION.
8. CONTRACTOR WILL OBTAIN WRITTEN APPROVAL FROM LANDSCAPE ARCHITECT FOR ANY PLANT SUBSTITUTIONS OF SPECIES, SIZE, OR TYPE OF CONTAINER.
9. CONTRACTOR SHALL LOCATE ALL UNDERGROUND UTILITIES PRIOR TO CONSTRUCTION AND SHALL BE RESPONSIBLE FOR THE PROTECTION OF THESE UTILITIES DURING INSTALLATION, AND SHALL PROMPTLY REPAIR AND RESTORE SERVICES AT NO ADDITIONAL COST TO THE OWNER IF DAMAGE OCCURS DURING INSTALLATION. CONTRACTOR SHALL BECOME THOROUGHLY FAMILIAR WITH THE FULL SET OF CONSTRUCTION DRAWINGS AND SPECIFICATIONS FOR COORDINATION WITH UTILITIES, ARCHITECTURAL FEATURES, ETC.
10. CONTRACTOR WILL LEAVE DISTURBED AREAS LEVEL AND RAKED SMOOTH, REMOVING ALL ROCKS AND DEBRIS.
11. MULCH IS TO BE A 3" LAYER OF TRIPLE SHREDDED HARDWOOD MULCH. MULCH IS TO BE KEPT AWAY FROM TREE TRUNKS.
12. ANY DAMAGE TO EXISTING CONDITIONS OUTSIDE THE CONTRACT LIMITS, INCLUDING CURBS, SIDEWALKS, TURF AREAS AND PAVING, SHALL BE RESTORED TO ORIGINAL CONDITION BY THE CONTRACTOR WITHOUT EXTRA COST TO THE OWNER.
13. IN CASE OF DISCREPANCY BETWEEN THE QUANTITY OF PLANTS ON THE PLANS COMPARED TO THE PLANT LIST, THE CONTRACTOR SHALL SUPPLY QUANTITIES AS SHOWN ON THE PLANS.
14. ALL UNPAVED SURFACES ARE TO BE COVERED IN PLANTS, MULCH, OR GRASS.
15. LINE OF SIGHT NOTE: NO PROPOSED LANDSCAPING WITHIN THE LINE OF SIGHT EASEMENT SHALL EXCEED 24" AT MATURITY. ANY NEW TREES SHALL BE LIMBED TO 7' ABOVE FINISHED GRADE.
16. ANY INVASIVE, EXOTIC PLANT MATERIAL WILL BE REMOVED. A SURVEY OF EXISTING THE LANDSCAPE BUFFERS TO REMAIN WILL BE CONDUCTED FOLLOWING INITIAL CLEARING, AND ANY INVASIVE OR EXOTIC SPECIES FOUND WILL BE REMOVED.

2 PLANTING NOTES

TREE COVERAGE CALCULATIONS

NET LAND AREA:	540,636 SF
LESS RECORDED ACCESS EASEMENTS	10,140 SF
LESS ANTICIPATED STORM EASEMENT	31,270 SF
LESS ANTICIPATED UTILITY EASEMENTS	44,207 SF (water and sewer mains)
NET SITE SIZE	454,829 SF

REQUIRED TREE COVERAGE 30% OF SITE = 136,449 SF

PROVIDED TREE COVERAGE:

RETAINED CANOPY COVERAGE: 109,815 SF
60 NEW CANOPY TREES X 500 SF = 30,000 SF CREDIT
TOTAL TREE COVERAGE = 139,815 SF = 30.7%

3 TREE COVERAGE SUMMARY

Parking Lot Shading

Lot	Paved Area	# Required per 2000 SF	Required Plantings:	Plantings Provided
South	15,150 SF	7.6	8 Large Trees	8 Large Trees
West	13,395 SF	6.7	7 Large Trees	7 Large Trees
North	10,595 SF	5.3	6 Large Trees	6 Large Trees
East	12,565 SF	6.3	7 Large Trees	7 Large Trees

4 PARKING LOT SHADING



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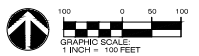
111 W. MAIN STREET
DURHAM, NC 27701
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LANDSCAPE PLAN - OVERALL

HOMESTEAD ROAD GARDENS

PROJECT LOCATION:
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Chapel Hill, NC

CLIENT/TOWNER:
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301 West Main Street
Durham, NC 27701
Attn: Tucker Bartlett



DATUM: NAD83, NAVD83 VERT: NAVD83

JOB NO: 30988.0000
DATE: 08/21/2023
DRAWN: VLS/KTC/SSG
DESIGNED: VLR
PREPARED: VLR
APPROVED:
SCALE: 1" = 100'

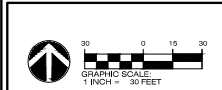
L1.1

[illegible]LANDSCAPE PLAN -
NORTH

HOMESTEAD ROAD
GARDENS

PROJECT LOCATION:
2200 Homestead Road
Chapel Hill, NC

CLIENT/OWNER:
Self-Help Credit Union
301 West Main Street
Durham, NC 27701
Attn: Tucker Bartlett



DATUM: HORIZ., NAV83		VERT.: NAVD88	
JOB NO.: 30989.0000 DATE: 06/21/2023 DRAWN: WLR,MTC, GSG DESIGNED: WLR REVIEWED: WLR APPROVED: SCALE: 1" = 30'		<h1>L1.4</h1>	



L1.6