SITE PLAN REVIEW DRAWINGS: FOR

JONES DAIRY STORAGE FACILITY

Add a box for the conditions of approval for MA-22-09

Add a box for the approved Alternative Parking Plan conditions.

SITE DATA TABLE

JONES DAIRY STORAGE FACILITY

10925 ENCHANTED HOLLOW WAY

SELF STORAGE (COMMERCIAL)

CLIMATE CONTROLLED BUILDING: 62,120

STORAGE BUILDING(S): 1800 SQFT (2), 3600 SQFT (2)

RALEIGH, NC 27614

1850608722

5.50 ACRES

GI-CU

VACANT

4.70 ACRES

2.83 ACRES

10% SAVE : .60 ACRES

0 ACRES

REQUIRED VEHICULAR SPACES:

REQUIRED VEHICULAR SPACES:

PROVIDED VEHICULAR SPACES: 9 SPACES

PROVIDED VEHICULAR SPACES: 1 SPACE

FRONT: 30-FT

SIDE: 15-FT

REAR: 35-FT

ADJACENT PROPERTY: 50' TYPE "4" BUFFER ADJACENT PROPERTY: 10' TYPE "1" BUFFER

NEUSE RIVER

SANFORD CREEK (NEUSE)

Add a box for the Text Amendment wording.

PROJECT NAME:

DEED ACRES:

CURRENT USE:

PROPOSED USE:

DISTURBED AREA:

PARKING SUMMARY:

BUILDING HEIGHT:

LANDSCAPE BUFFERS:

WATERSHED: RIVER BASIN:

CURRENT IMPERVIOUS:

PROPOSED IMPERVIOUS

ADA PARKING SUMMARY:

BUILDING SQUARE FOOTAGE(S):

BUILDING/STRUCTURE SETBACKS:

SURFACE WATER CLASSIFICATION:

TREE COVERAGE SUMMARY

PROPERTY ADDRESS

PROPERTY ZONING:

PIN ID:

SITE PLAN NUMBER

PROPERTY OWNER/ DEVELOPER:

0 JONES DAIRY RD ROLESVILLE, NC 27587

SITE PLAN#: SDPXX-XX REZONING CASE #: MA-22-09 4 Please also include the amendment

Sheet

Number

C0.0

C1.0

C2.0

C3.0

C3.1

C3.2

C3.3

C4.0

C4.1

C5.0

C5.1

C6.0

C6.1

C6.2

C6.3

C6.4

C6.5

C6.6

C6.7

C6.8

C6.9

C6.10

L1.0

L2.0 PS1.0

PS1.1

W1.0

E1.0

SDP-23-03

Sheet List Table

Sheet Title

COVER

EXISTING CONDITIONS & DEMOLITION PLAN

SITE PLAN

GRADING & DRAINAGE PLAN

STORM SEWER PROFILES

SCM PLAN AND PROFILE

SCM NOTES AND DETAILS

SITE UTILITY PLAN

SITE UTILITY PLAN & PROFILE

EROSION & SEDIMENATION CONTROL PLAN - PH I

EROSION & SEDIMENATION CONTROL PLAN - PH II

SITE DETAILS

NCG01 GROUND STABILIZATION AND MATERIALS HANDLING NCG01 SELF-INSPECTION, RECORDKEEPING, AND REPORTING

LANDSCAPE PLAN

LANDSCAPE NOTES AND DETAILS

PUMP STATION SITE AND FORCEMAIN

PUMP STATION NOTES AND DETAILS

HYDRAULIC ANALYSIS LAYOUT AND RESULTS

ARCHITECTUAL ELEVATIONS

SITE PHOTOMETRICS

Vicinity map should be

updated to "zoom out"

and show surrounding

PRELIMINARY PLANS

04/05/2023

J. HAYES **DESIGNED BY** G. FRANK

CHECKED BY G. FRANK

AS SHOWN

CITY OF RALEIGH - PLANS AUTHORIZED FOR CONSTRUCTION

RALEIGH WATER REVIEW OFFICER

Clarify tree coverage area with Add a column for tree save area required and provided.



VICINITY MAP SCALE 1"=100'

PROJECT TEAM

Michael: A clear table of the mix of and total units should be included in the Site Data

Per April 6th email from

Table in the plan set.

As required by Section 6.2.1.D.3, 5% of the total site area is to be dedicated to the provision of open space. The applicant shall add the required and provided open space calculation to the site data table and indicate the area for open space

LAND OWNER

Change

to "GI-CZ"

CONTACT: SUZANNE SHOAF WARD PHONE: N/A 10925 ENCHANTED HOLLOWAY RALEIGH NC, 27614

DEVELOPER

RIVERCREST REALTY INVESTORS **CONTACT: BRIAN HOLDER** PHONE: (919) 846-4046 8816 SIX FORKS ROAD, SUITE 201 RALEIGH, NC 27615

CIVIL ENGINEER

TIMMONS GROUP CONTACT: GARRETT FRANK, PLA, PE PHONE: (919) 866-4503 5410 TRINITY ROAD, SUITE 102 RALEIGH, NC 27607

area road network in relation to the site.

ELECTRONIC APPROVAL: THIS APPROVAL IS BEING ISSUED ELECTRONICALLY. THI APPROVAL IS VALID ONLY UPON THE SIGNATURE OF A CITY OF RALEIGH REVIEW OFFICER BELOW. THE CITY WILL RETAIN A COPY OF THE APPROVED PLANS. ANY WORK AUTHORIZED BY THIS APPROVAL MUST PROCEED IN ACCORDANCE WITH THE PLANS KEPT ON FILE WITH THE CITY. THIS ELECTRONIC APPROVAL MAY NOT BE EDITED ONCE ISSUED. ANY MODIFICATION TO THIS APPROVAL ONCE ISSUED WILL INVALIDATE THIS APPROVAL.

CITY OF RALEIGH DEVELOPMENT APPROVAL

on the site plan.

Note maximum This parcel height allowed and height has three sides. Please

An Alternative

Parking Plan

approved

the required

approved with

the plan.

Add project

SDP-23-03.

Change name

Estate ID"

shown.

clarify which

Example

Adjacent to

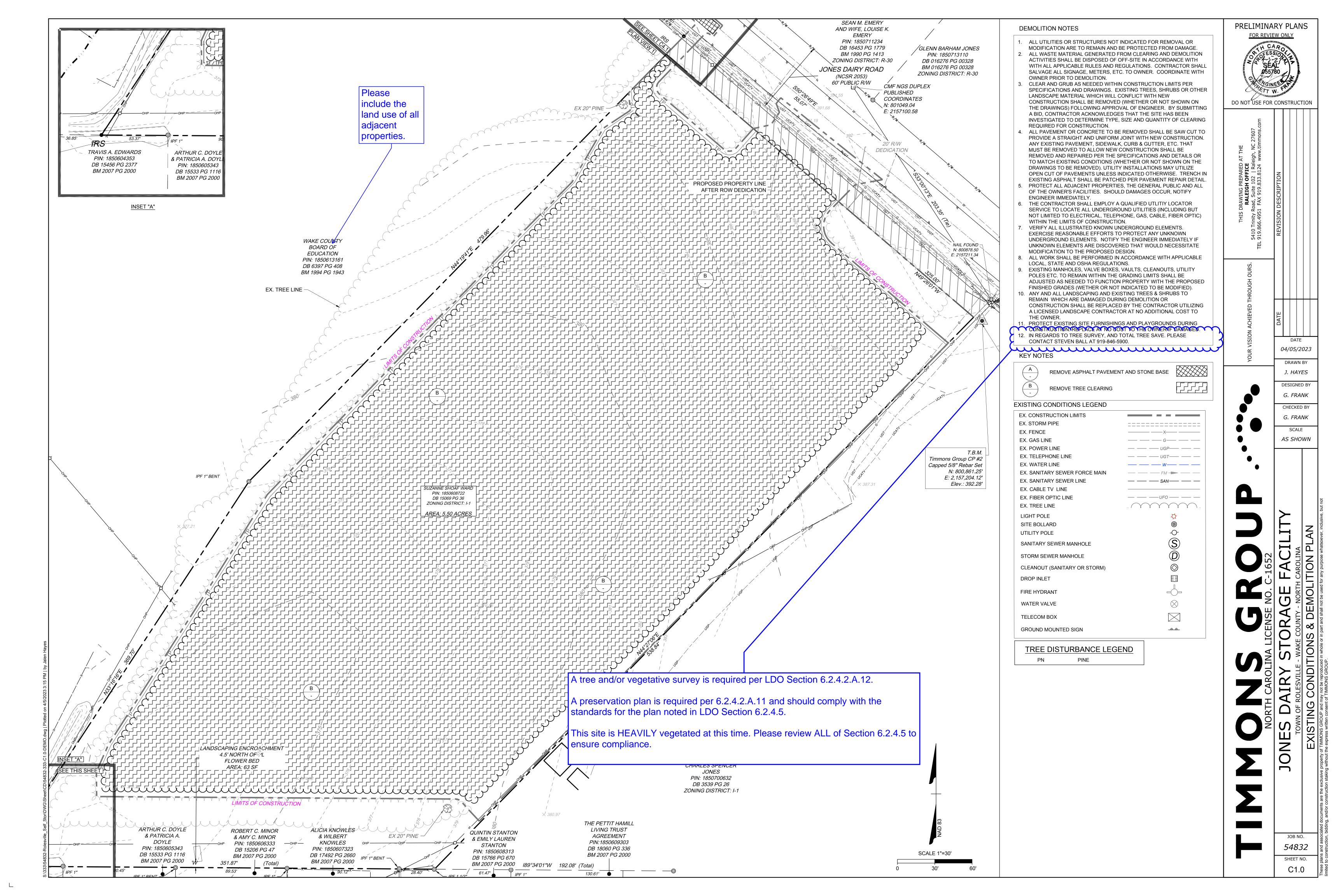
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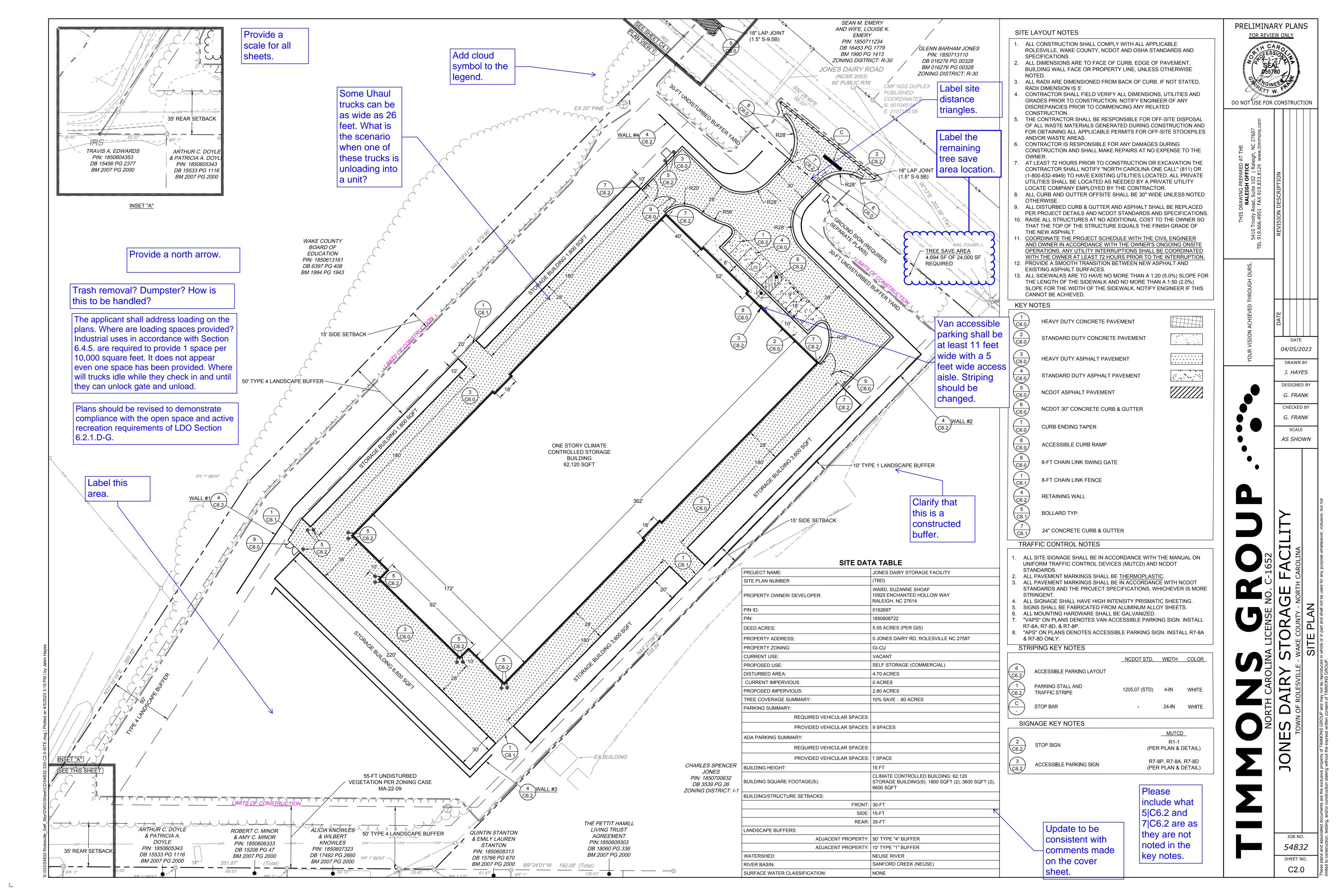
or "East

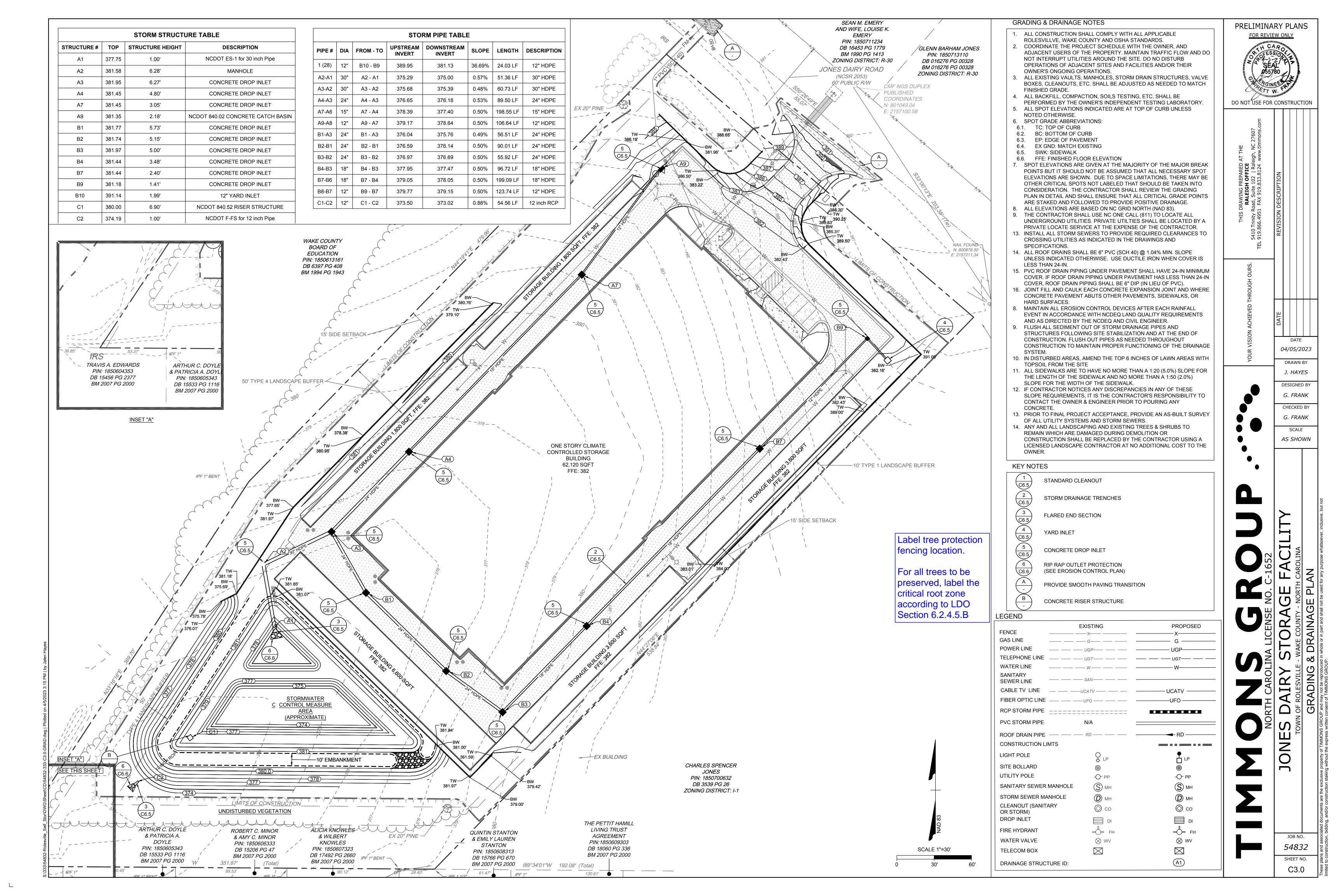
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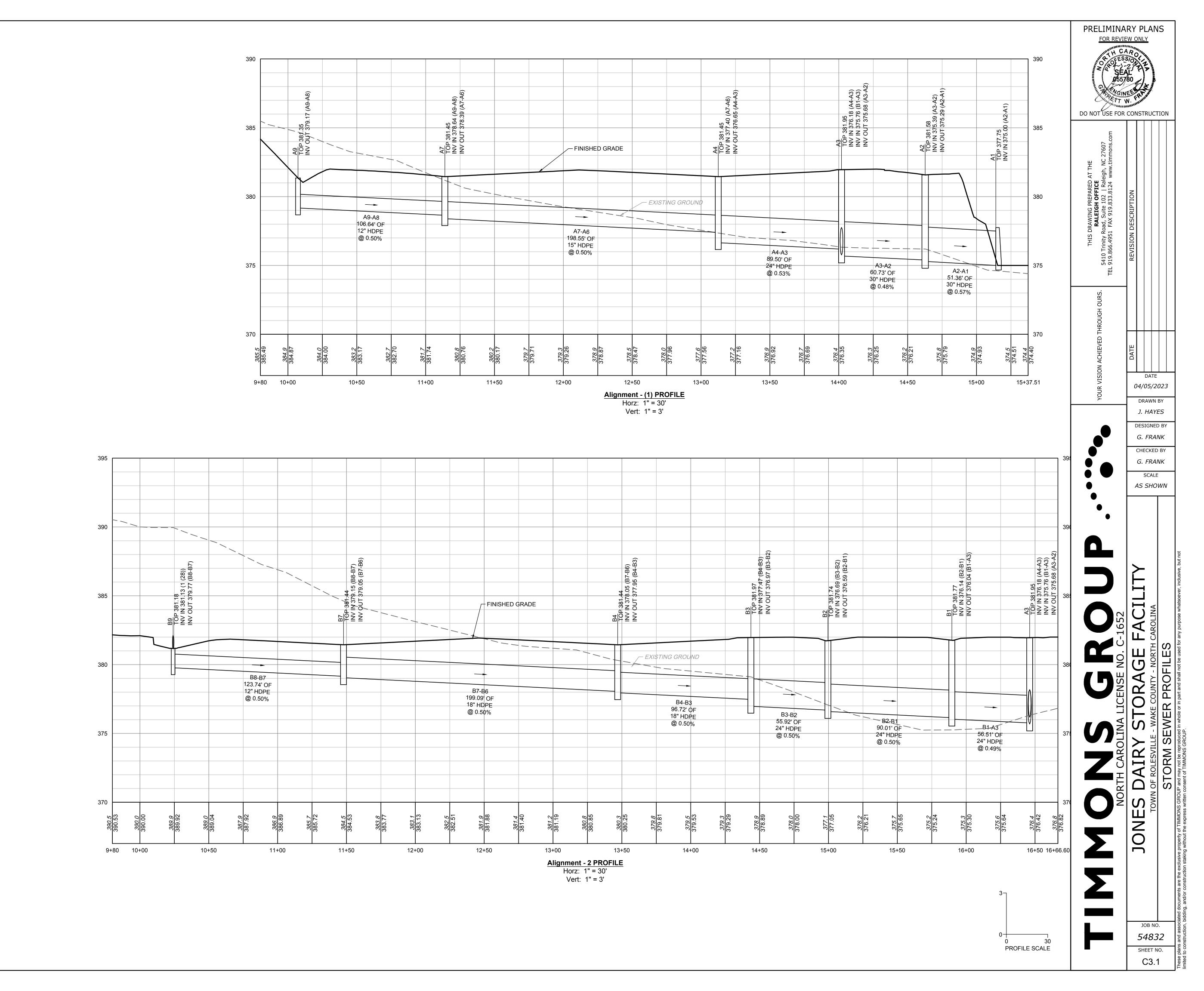
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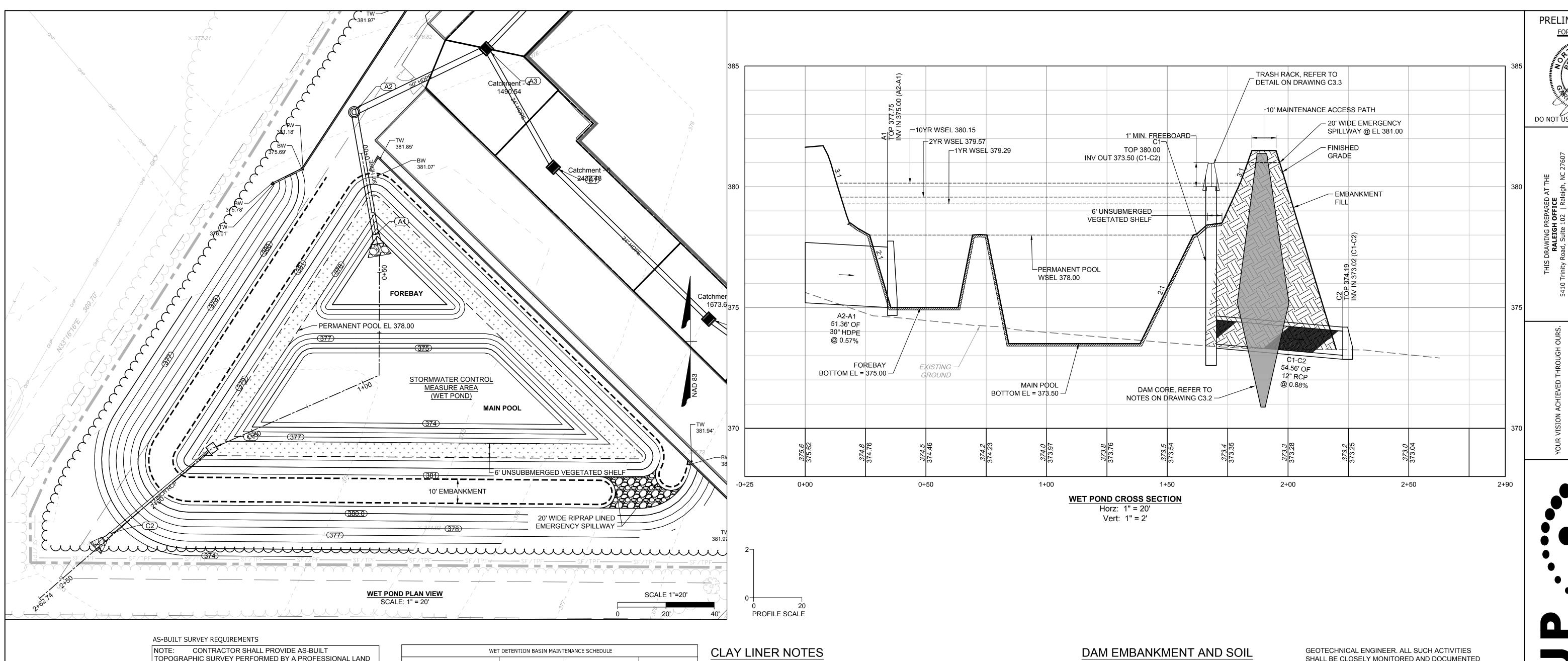








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TOPOGRAPHIC SURVEY PERFORMED BY A PROFESSIONAL LAND SURVEYOR CERTIFYING WET DETENTION POND AREA DIMENSIONS AND ELEVATIONS OF THE FOLLOWING:

TOPOGRAPHIC SURVEY OF THE WET POND AND EMBANKMENT

- OUTLET STRUCTURE TOPS AND INVERTS OUTLET STRUCTURE DIMENSIONS
- ORIFICE DIAMETERS BARREL PIPE SIZES AND INVERTS
- EMERGENCY SPILLWAY ELEVATION AND DIMENSIONS.

OUTLET STRUCTURE NOTES

- CAST-IN-PLACE CONCRETE RISER IS REQUIRED WITHOUT CLASS "A" (3,000 PSI) CONCRETE TO BE USED.
- . ALL MORTOR JOINTS ARE $1/2" \pm 1/8"$. GROUT SHALL BE NON-SHRINK (ASTM-C1107) ALL STRUCTURES OVER 3'-6" IN DEPTH TO BE PROVIDED WITH STEPS 1'-2" ON CENTERS. STEPS SHALL BE IN ACCORDANCE WITH
- STANDARD 840.66. LOCATE MANHOLE OVER STEPS.

Label tree protection fencing location.

For all trees to be preserved, label the critical root zone according to LDO Section 6.2.4.5.B

WE1	DETENTION BASIN MAIN	TENANCE SCHEDULE						
DESCRIPTION	METHOD	FREQUENCY	SEASON					
EMBANKMENT								
INSPECT AND REPAIR EROSION / ANIMAL NESTINGS	VISUAL	ONCE PER YEAR	ALL					
INSPECT AND RESEED GRASS COVERAGE	VISUAL WHENEVER NEEDED		ALL					
	OUTLET STRUC	TURE						
DEBRIS / OBSTRUCTIONS	BY HAND	WHENEVER NEEDED	ALL					
OPERATE POND DRAIN VALVE	BY HAND	ONCE PER YEAR	ALL					
EROSION AT OUTLET DISCHARGE	VISUAL	ONCE PER YEAR	ALL					
1	FOREBAY / MAIN	N POOL						
SEDIMENT / DEBRIS	BY HAND	ONCE PER YEAR	ALL					
REMOVE TRASH	BY HAND	WHENEVER NEEDED	ALL					

DAM CORE, CUTOFF TRENCH, AND EMBANKMENT FILL NOTES:

- DAM CORE AND CUTOFF TRENCH FILL MATERIAL SHALL CLASSIFY AS ML, MH, CL OR CH PER USCS. THIS MATERIAL MAY CONSIST OF MATERIAL FROM ON-SITE BORROW PITS, OR APPROVED OFF-SITE BORROW SOURCES. EMBANKMENT FILL SOIL MATERIAL SHALL CALSIFY SM, SC, ML OR CL PER USCS. THIS
- MATERIAL MAY CONSIST OF MATERIAL FROM ON-SITE EXCAVATIONS, ON-SITE BORROW PIS OR APPROVED OFF-SITE BORROW SOURCES. UNSUITABLE EMBANKMENT FILL IS CLASSIFIED AS GW, GP, GM, GC, SW, SP, OH, OL PER

- 1. THE CONTRACTOR WILL NEED TO INSTALL A CLAY LINER A MINIMUM OF 1-FOOT BELOW THE LOWEST GRADE. THE CLAY LINER SHALL BE AT LEAST 12" THICK AND MEET THE FOLLOWING SPECIFICATIONS:
 - 1.1. UNIFIED SOIL CLASSIFICATION SYSTEM DESIGNATION OF CL, CH, ML
 - 1.2. MINIMUM PLASTICITY INDEX OF 12
 - 1.3. MINIMUM OF 2 TESTS OF EACH ABOVE PARAMETER SHALL BE COMPLETED BY THE CONTRACTOR ON THE LINER MATERIAL AND PRESENTED TO THE ON-SITE GEOTECHNICAL ENGINEER FOR APPROVAL. SHOULD THESE TESTS NOT MEET THE ABOVE REQUIREMENTS, THE ON-SITE GEOTECHNICAL ENGINEER MAY PROVIDE PERMEABILITY TESTING DEMONSTRATING AN INFILTRATION RATE OF NO MORE THAN 0.01 IN/HR
 - 1.4. COMPACTION TO A MINIMUM OF 95% PER ASTM D698 AND WITHIN 2% OF THE OPTIMUM MOISTURE CONTENT (1 COMPACTION DENSITY TEST PER 2500 SQ.

IF IT IS DETERMINED BY THE ON-SITE GEOTECHNICAL ENGINEER THAT A LINER IS NOT NEEDED, THEN A LETTER TO THE DESIGN ENGINEER CERTIFYING THE INFILTRATION RATE SHALL BE PROVIDED, WHICH WILL BE USED DURING THE AS-BUILT CERTIFICATION PROCESS.

2. THE GRADES SHOWN ON THIS PLAN ARE FINISHED GRADES AND INCLUDE THE CLAY LINER.

GENERAL NOTES:

- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE WAKE COUNTY (TOWN OF ROLESVILLE), NCDEQ AND NCDOT STANDARDS, SPECIFICATIONS AND DETAILS.
- 2. SEE GRADING PLAN FOR MORE INFORMATION ON ENTIRE SITE GRADING.

COMPACTION SPECIFICATIONS

- 1. CONTROLLED FILL, AS SPECIFIED BY THE GEOTECHNICAL ENGINEER, IN THE DAM EMBANKMENT /KEY TRENCH SHALL BE PLACED IN 6-INCH LOOSE LAYERS (3-INCH LOOSE LAYERS WITHIN 3-FEET OF EITHER SIDE OF THE PRINCIPAL SPILLWAY PIPE TO A q DEPTH OF 2-FEET OVER THE PIPE) AND SHALL BE COMPACTED TO A DENSITY OF NO LESS THAN 95% OF THE STANDARD PROCTOR MAXIMUM DENSITY AT A MOISTURE CONTENT OF + OR - TWO PERCENTAGE POINTS OF THE OPTIMUM MOISTURE CONTENT IN ACCORDANCE WITH ASTM D698.
- 2. ALL VISIBLE ORGANIC DEBRIS SUCH AS ROOTS AND LIMBS SHALL BE REMOVED FROM THE FILL MATERIAL 11. PRIOR TO COMPACTION TO THE REQUIRED DENSITY. SOILS WITH ORGANIC MATTER CONTENT EXCEEDING 5% BY WEIGHT SHALL NOT BE USED. STONES GREATER THAN 3-INCH (IN ANY DIRECTION) SHALL BE REMOVED FROM THE FILL PRIOR TO COMPACTION. 12.
- FILL MATERIAL PLACED AT DENSITIES LOWER THAN SPECIFIED MINIMUM DENSITIES OR AT MOISTURE CONTENTS OUTSIDE THE SPECIFIED RANGES OR OTHERWISE NOT CONFORMING TO SPECIFIED REQUIREMENTS SHALL BE REMOVED AND REPLACED **TESTING, OBSERVATION, AND CERTIFICATION** WITH ACCEPTABLE MATERIALS.
- 4. ANY FILL LAYER THAT IS SMOOTH DRUM ROLLED TO REDUCE MOISTURE PENETRATION DURING A STORM EVENT SHALL BE PROPERLY SCARIFIED PRIOR TO THE PLACEMENT OF THE NEXT SOIL LIFT.
- 5. SURFACE WATER AND STREAM FLOW SHALL BE CONTINUOUSLY CONTROLLED THROUGHOUT CONSTRUCTION AND THE PLACEMENT OF CONTROLLED FILL.
- 6. FOUNDATION AREAS MAY REQUIRE UNDERCUTTING OF COMPRESSIBLE AND/OR UNSUITABLE SOILS IN ADDITION TO THAT INDICATED ON THE PLANS. ALL SUCH UNDERCUTTING SHALL BE PERFORMED AT THE DISCRETION OF THE GEOTECHNICAL ENGINEER AND SHALL BE MONITORED AND DOCUMENTED. IN NO CASE 2. SHALL THERE BE AN ATTEMPT TO STABILIZE ANY PORTIONS OF THE FOUNDATION SOILS WITH CRUSHED STONE.
- 7. TREATMENT OF SEEPAGE AREAS, SUBGRADE PREPARATION, FOUNDATION DEWATERING AND ROCK FOUNDATION PREPARATION (I.E., TREATMENT WITH SLUSH GROUTING, DENTAL CONCRETE, ETC.) MAY BE REQUIRED AT THE DISCRETION OF THE

SHALL BE CLOSELY MONITORED AND DOCUMENTED BY THE GEOTECHNICAL ENGINEER.

8. FILL ADJACENT TO THE RISER AND PRINCIPAL SPILLWAY PIPE SHALL BE PLACED SO THAT LIFTS ARE AT THE SAME LEVEL ON BOTH SIDES OF THE STRUCTURES.

EARTHWORK COMPACTION WITHIN 3-FEET OF ANY STRUCTURES SHALL BE ACCOMPLISHED BY MEANS OF HAND TAMPERS, MANUALLY DIRECTED POWER TAMPERS OR PLATE COMPACTORS OR MINIATURE SELF-PROPELLED ROLLERS.

10. COMPACTION BY MEANS OF DROP WEIGHTS FROM A CRANE OR HOIST SHALL NOT BE PERMITTED.

HEAVY EQUIPMENT SHALL NOT BE ALLOWED TO PASS OVER CAST-IN-PLACE STRUCTURES (INCLUDING THE CRADLE) UNTIL ADEQUATE CURING TIME HAS ELAPSED.

TO RE-ESTABLISH VEGETATION AFTER CONSTRUCTION, A 4-INCH LAYER OF TOPSOIL SHALL BE PLACED ON THE DISTURBED EMBANKMENT SURFACE AND THE AREA SEEDED AND MULCHED OR HYDROSEEDED.

TESTS OF THE DEGREE (%) OF COMPACTION OF THE PLACED FILL IN THE DAM /KEY TRENCH SHALL BE PERFORMED AS A PART OF THE PERMITTEE'S NORMAL QUALITY CONTROL PROGRAM FOR THE CONSTRUCTION OF THE DAM. TESTS SHALL BE CONDUCTED CONCURRENT WITH THE INSTALLATION OF THE COMPACTED FILL AND THE CONTRACTOR SHALL COORDINATE THE CONSTRUCTION OF THE DAM SO THAT THE TESTING CAN BE COMPLETED. SHOULD THE RESULTS OF THE TESTS INDICATE THAT THE SPECIFIED DEGREE OF COMPACTION HAS NOT BEEN OBTAINED; THE PORTIONS OF THE DAM REPRESENTED BY SUCH TESTS SHALL BE REWORKED OR REBUILT. ALL PORTIONS OF THE DAM SHALL ACHIEVE THE SPECIFIED MINIMUM DEGREE OF COMPACTION.

CONSTRUCTION OF THE SCM SHALL BE DONE UNDER THE OBSERVATION OF A QUALIFIED GEOTECHNICAL ENGINEER, WHO IS REGISTERED AS A PROFESSIONAL ENGINEER IN THE STATE OF NORTH CAROLINA. THE GEOTECHNICAL ENGINEER MUST HAVE EXPERIENCE IN THE DESIGN AND CONSTRUCTION MONITORING OF SCM'S OF THE SIZE AND SCOPE COVERED BY THESE STANDARDS AND GUIDELINES.

PRELIMINARY PLANS

04/05/2023 DRAWN BY J. HAYES

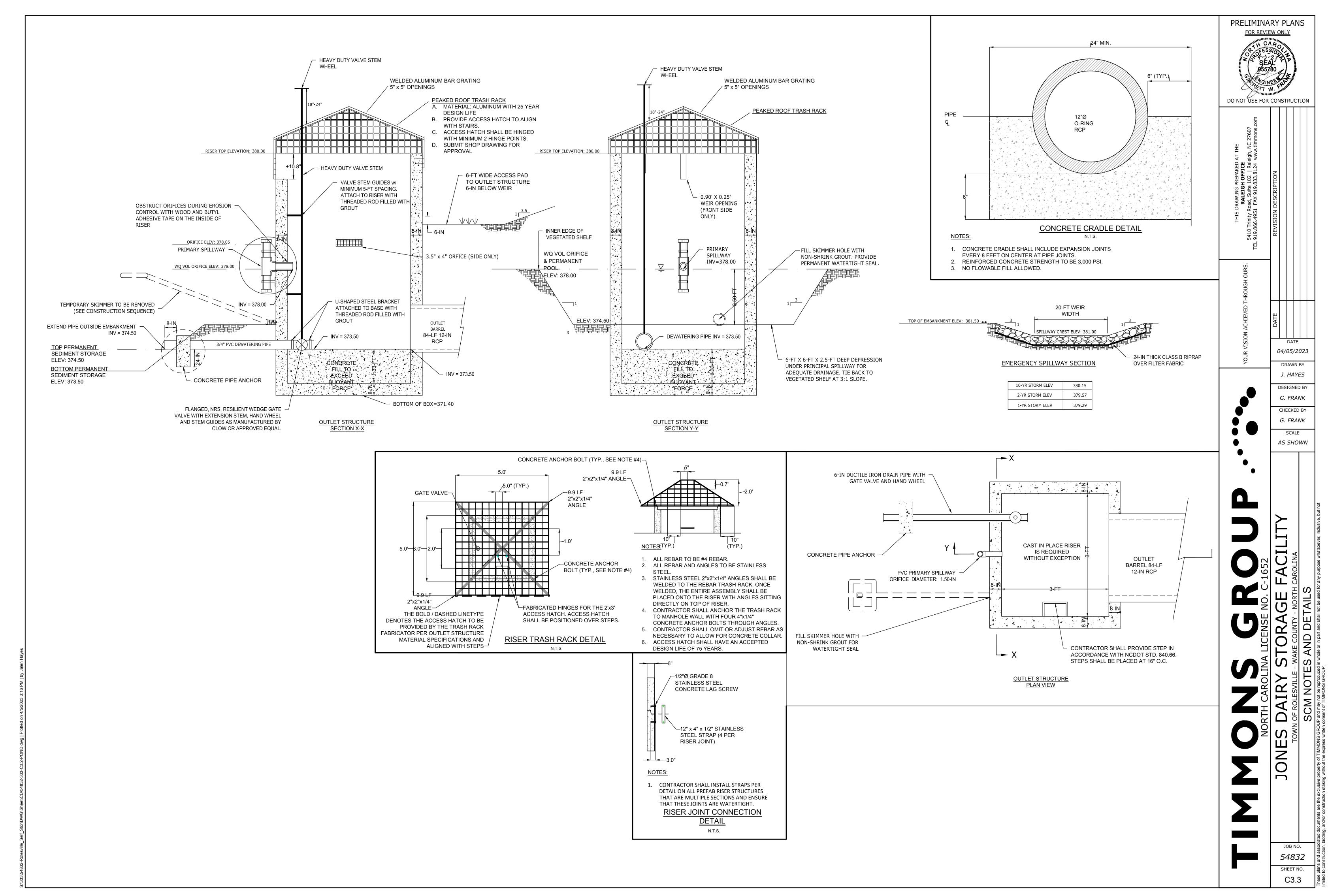
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CHECKED BY G. FRANK

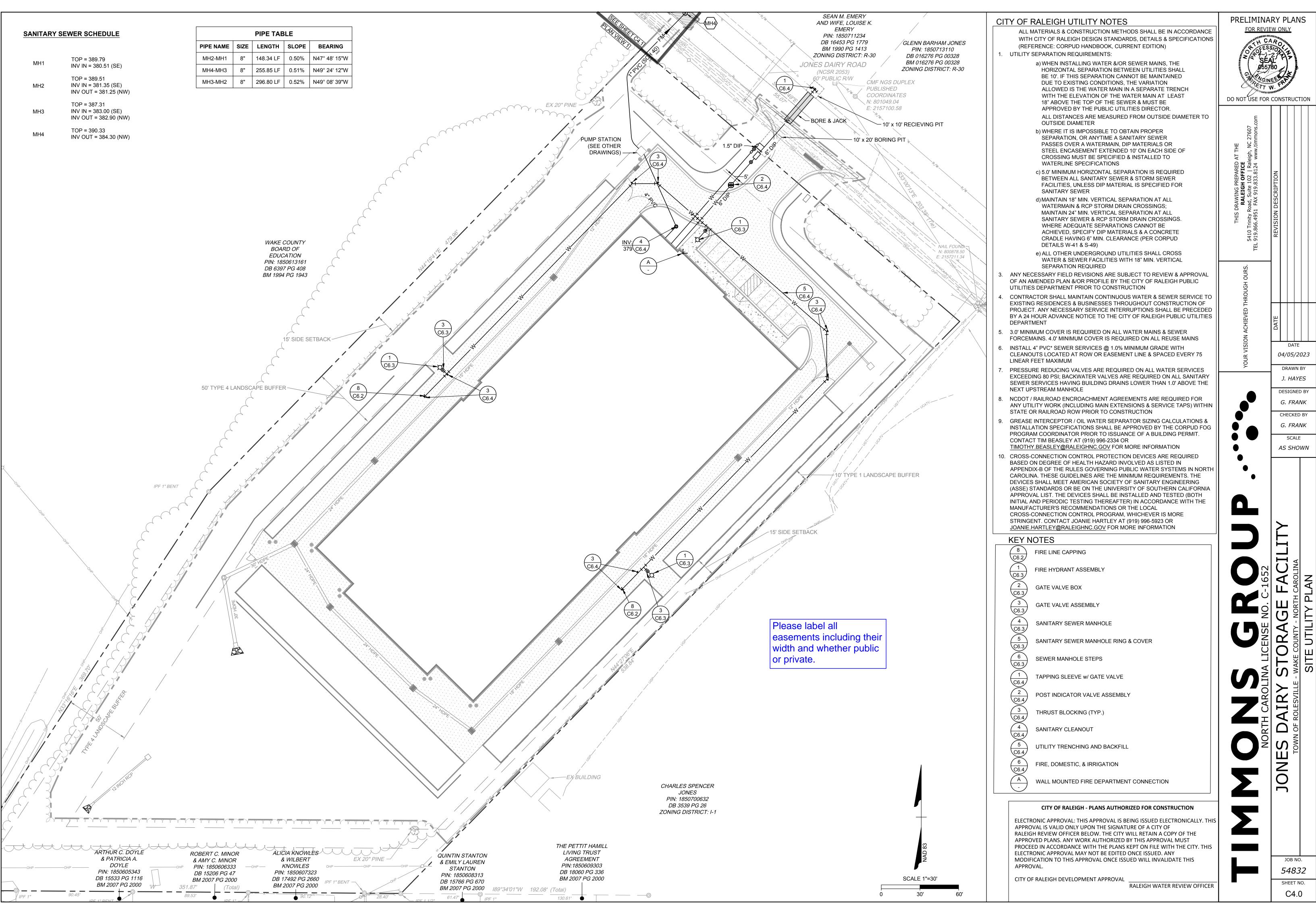
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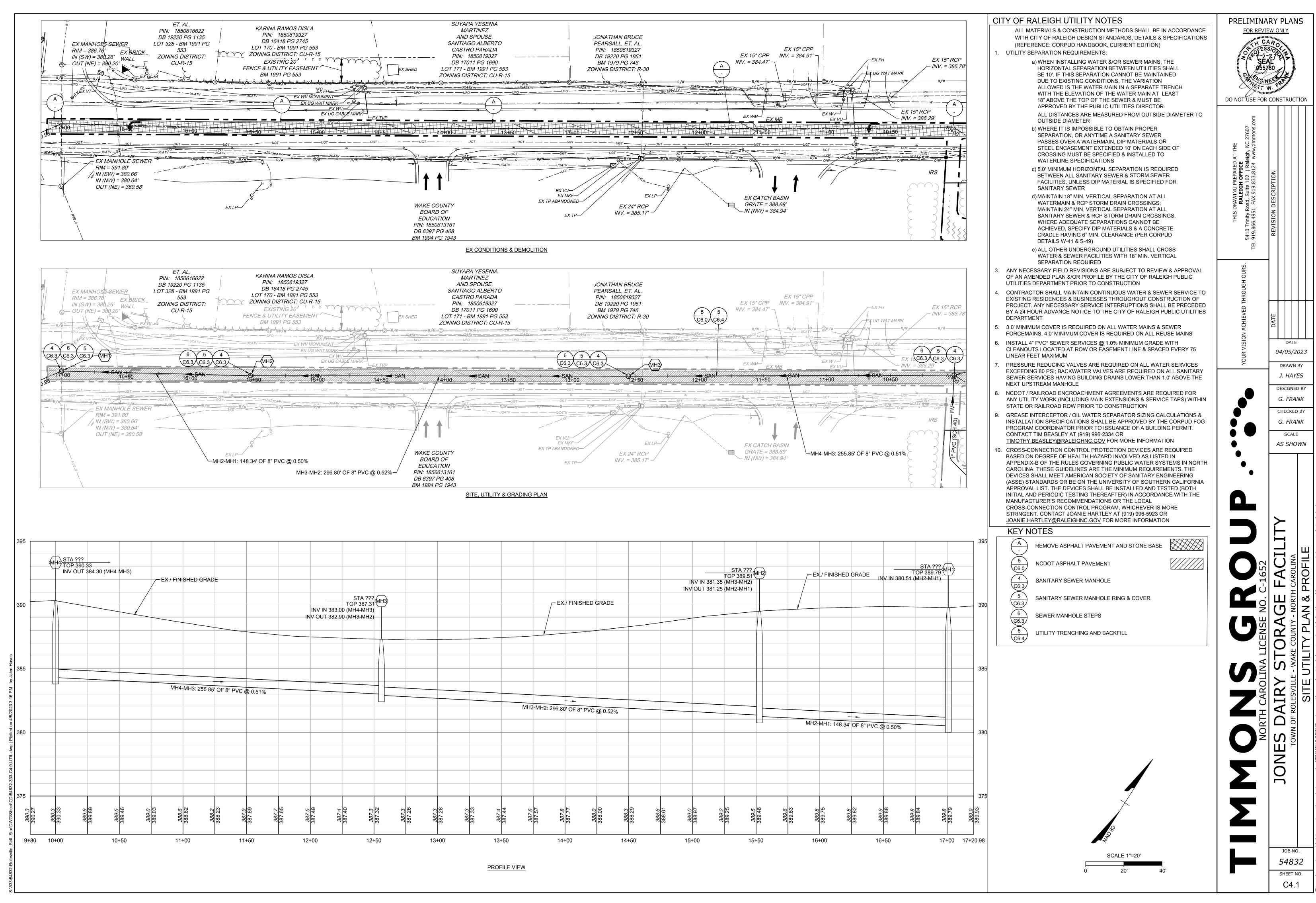
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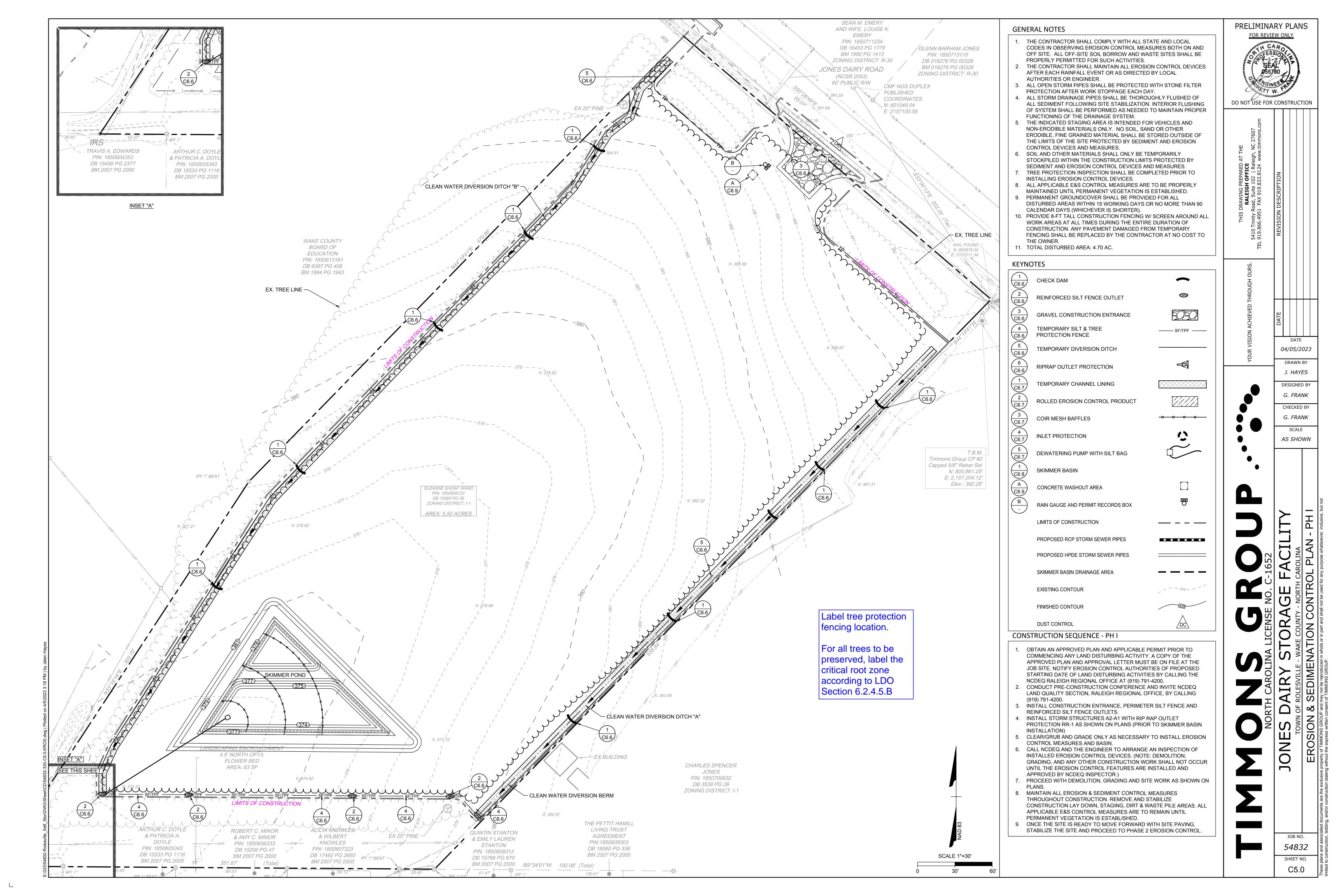
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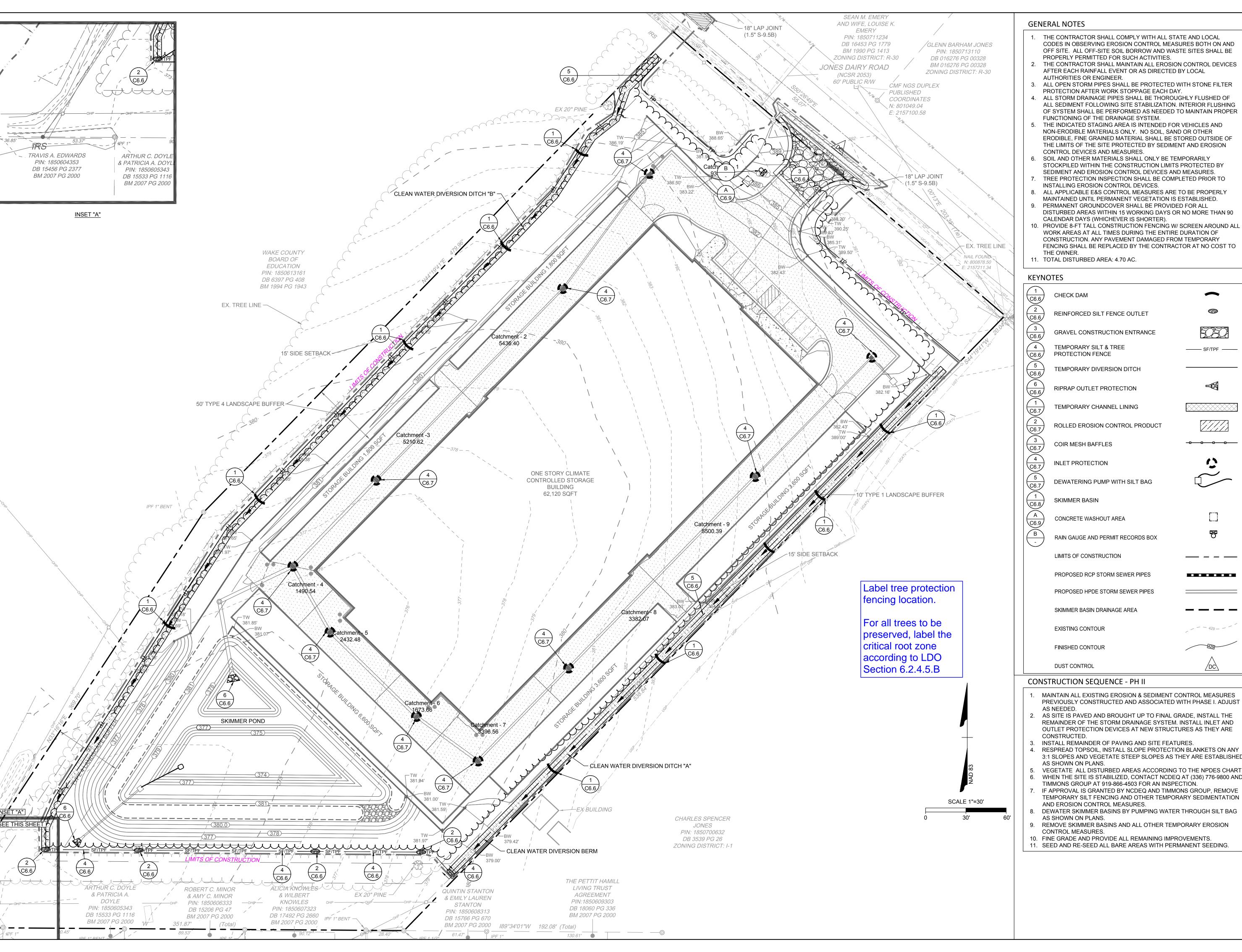


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1. THE CONTRACTOR SHALL COMPLY WITH ALL STATE AND LOCAL CODES IN OBSERVING EROSION CONTROL MEASURES BOTH ON AND OFF SITE. ALL OFF-SITE SOIL BORROW AND WASTE SITES SHALL BE PROPERLY PERMITTED FOR SUCH ACTIVITIES.

2. THE CONTRACTOR SHALL MAINTAIN ALL EROSION CONTROL DEVICES AFTER EACH RAINFALL EVENT OR AS DIRECTED BY LOCAL

AUTHORITIES OR ENGINEER.

3. ALL OPEN STORM PIPES SHALL BE PROTECTED WITH STONE FILTER PROTECTION AFTER WORK STOPPAGE EACH DAY.

4. ALL STORM DRAINAGE PIPES SHALL BE THOROUGHLY FLUSHED OF ALL SEDIMENT FOLLOWING SITE STABILIZATION. INTERIOR FLUSHING OF SYSTEM SHALL BE PERFORMED AS NEEDED TO MAINTAIN PROPER FUNCTIONING OF THE DRAINAGE SYSTEM

THE INDICATED STAGING AREA IS INTENDED FOR VEHICLES AND NON-ERODIBLE MATERIALS ONLY. NO SOIL, SAND OR OTHER ERODIBLE, FINE GRAINED MATERIAL SHALL BE STORED OUTSIDE OF THE LIMITS OF THE SITE PROTECTED BY SEDIMENT AND EROSION CONTROL DEVICES AND MEASURES.

6. SOIL AND OTHER MATERIALS SHALL ONLY BE TEMPORARILY STOCKPILED WITHIN THE CONSTRUCTION LIMITS PROTECTED BY SEDIMENT AND EROSION CONTROL DEVICES AND MEASURES.

7. TREE PROTECTION INSPECTION SHALL BE COMPLETED PRIOR TO INSTALLING EROSION CONTROL DEVICES. 8. ALL APPLICABLE E&S CONTROL MEASURES ARE TO BE PROPERLY

DISTURBED AREAS WITHIN 15 WORKING DAYS OR NO MORE THAN 90 CALENDAR DAYS (WHICHEVER IS SHORTER) 10. PROVIDE 8-FT TALL CONSTRUCTION FENCING W/ SCREEN AROUND ALL WORK AREAS AT ALL TIMES DURING THE ENTIRE DURATION OF

CONSTRUCTION. ANY PAVEMENT DAMAGED FROM TEMPORARY FENCING SHALL BE REPLACED BY THE CONTRACTOR AT NO COST TO

11. TOTAL DISTURBED AREA: 4.70 AC.

KE	EYNO	TES	
\vee	1 6.6	CHECK DAM	
> _~ .l	2 6.6	REINFORCED SILT FENCE OUTLET	
_ _ —	3 6.6	GRAVEL CONSTRUCTION ENTRANCE	5050
_ I _ I [4 6.6	TEMPORARY SILT & TREE PROTECTION FENCE	SF/TPF
- 1 - 1	5 6.6	TEMPORARY DIVERSION DITCH	
	6.6	RIPRAP OUTLET PROTECTION	
_	6.7	TEMPORARY CHANNEL LINING	
	6.7	ROLLED EROSION CONTROL PRODUCT	
_ _	3 6.7	COIR MESH BAFFLES	-000
	6.7	INLET PROTECTION	Q.
_ I	5 6.7	DEWATERING PUMP WITH SILT BAG	
I I (<u>1</u> 6.8	SKIMMER BASIN	
_ I _ I 	A 6.9	CONCRETE WASHOUT AREA	
	B -	RAIN GAUGE AND PERMIT RECORDS BOX	Ö
		LIMITS OF CONSTRUCTION	
		PROPOSED RCP STORM SEWER PIPES	••••
		PROPOSED HPDE STORM SEWER PIPES	
		SKIMMER BASIN DRAINAGE AREA	
		EXISTING CONTOUR	429

- MAINTAIN ALL EXISTING EROSION & SEDIMENT CONTROL MEASURES PREVIOUSLY CONSTRUCTED AND ASSOCIATED WITH PHASE I. ADJUST
- . AS SITE IS PAVED AND BROUGHT UP TO FINAL GRADE, INSTALL THE REMAINDER OF THE STORM DRAINAGE SYSTEM. INSTALL INLET AND OUTLET PROTECTION DEVICES AT NEW STRUCTURES AS THEY ARE
- . INSTALL REMAINDER OF PAVING AND SITE FEATURES. 4. RESPREAD TOPSOIL, INSTALL SLOPE PROTECTION BLANKETS ON ANY 3:1 SLOPES AND VEGETATE STEEP SLOPES AS THEY ARE ESTABLISHED
- 6. WHEN THE SITE IS STABILIZED, CONTACT NCDEQ AT (336) 776-9800 AND TIMMONS GROUP AT 919-866-4503 FOR AN INSPECTION. IF APPROVAL IS GRANTED BY NCDEQ AND TIMMONS GROUP, REMOVE
- TEMPORARY SILT FENCING AND OTHER TEMPORARY SEDIMENTATION AND EROSION CONTROL MEASURES.
- DEWATER SKIMMER BASINS BY PUMPING WATER THROUGH SILT BAG AS SHOWN ON PLANS. REMOVE SKIMMER BASINS AND ALL OTHER TEMPORARY EROSION
- CONTROL MEASURES.
- 10. FINE GRADE AND PROVIDE ALL REMAINING IMPROVEMENTS. 11. SEED AND RE-SEED ALL BARE AREAS WITH PERMANENT SEEDING.

PRELIMINARY PLANS FOR REVIEW ONLY

DO NOT USE FOR CONSTRUCTION

AS SHOWN

04/05/2023

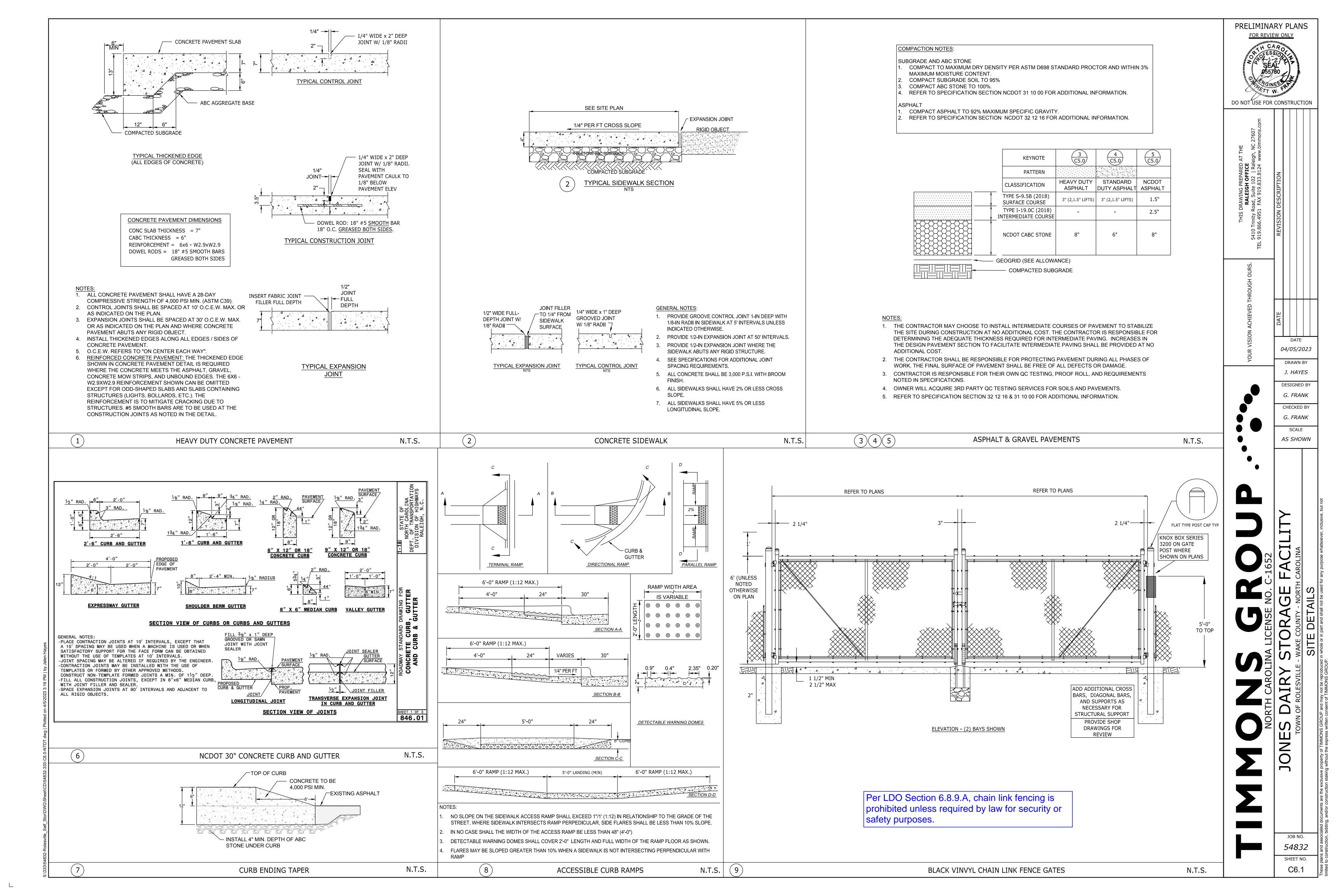
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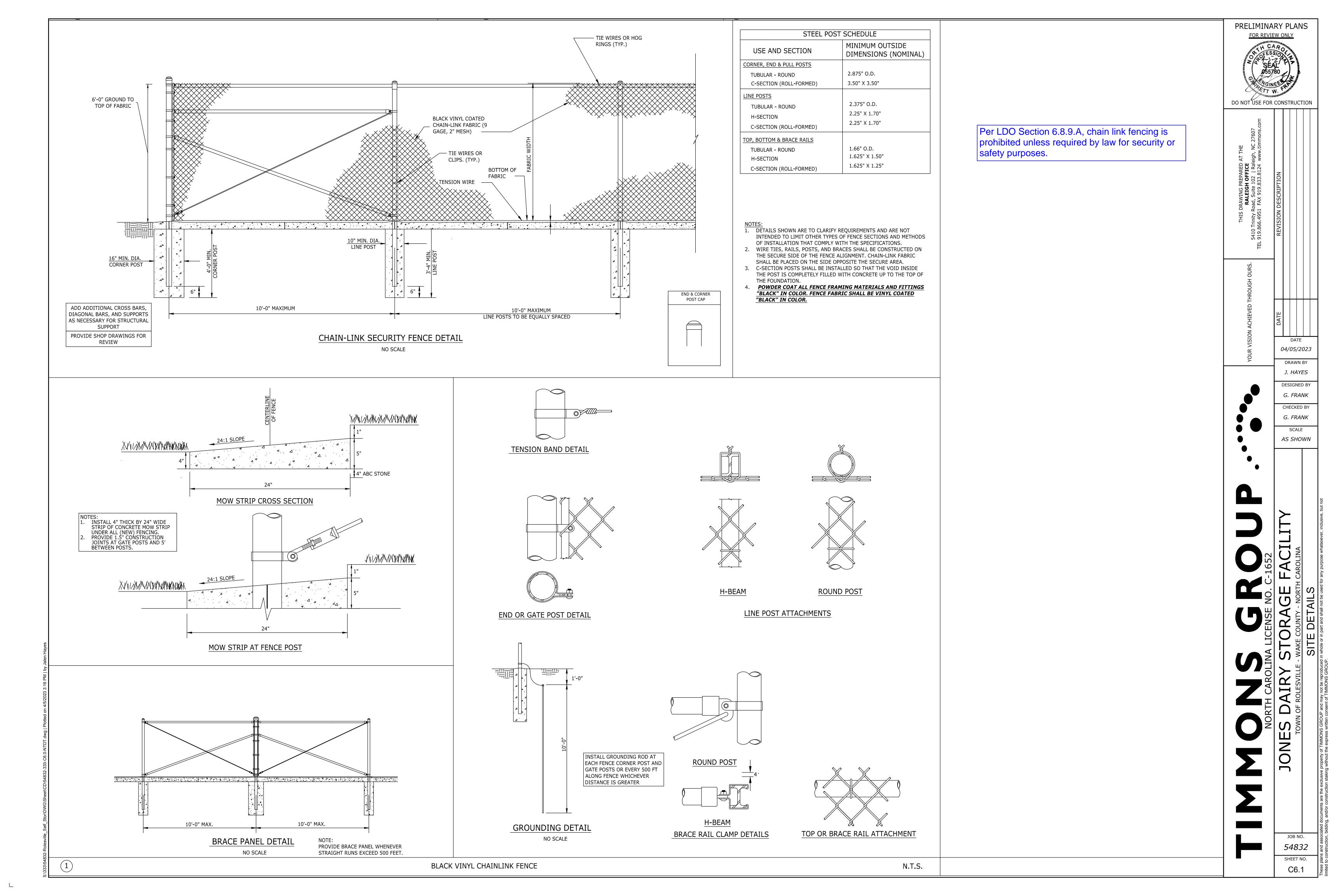
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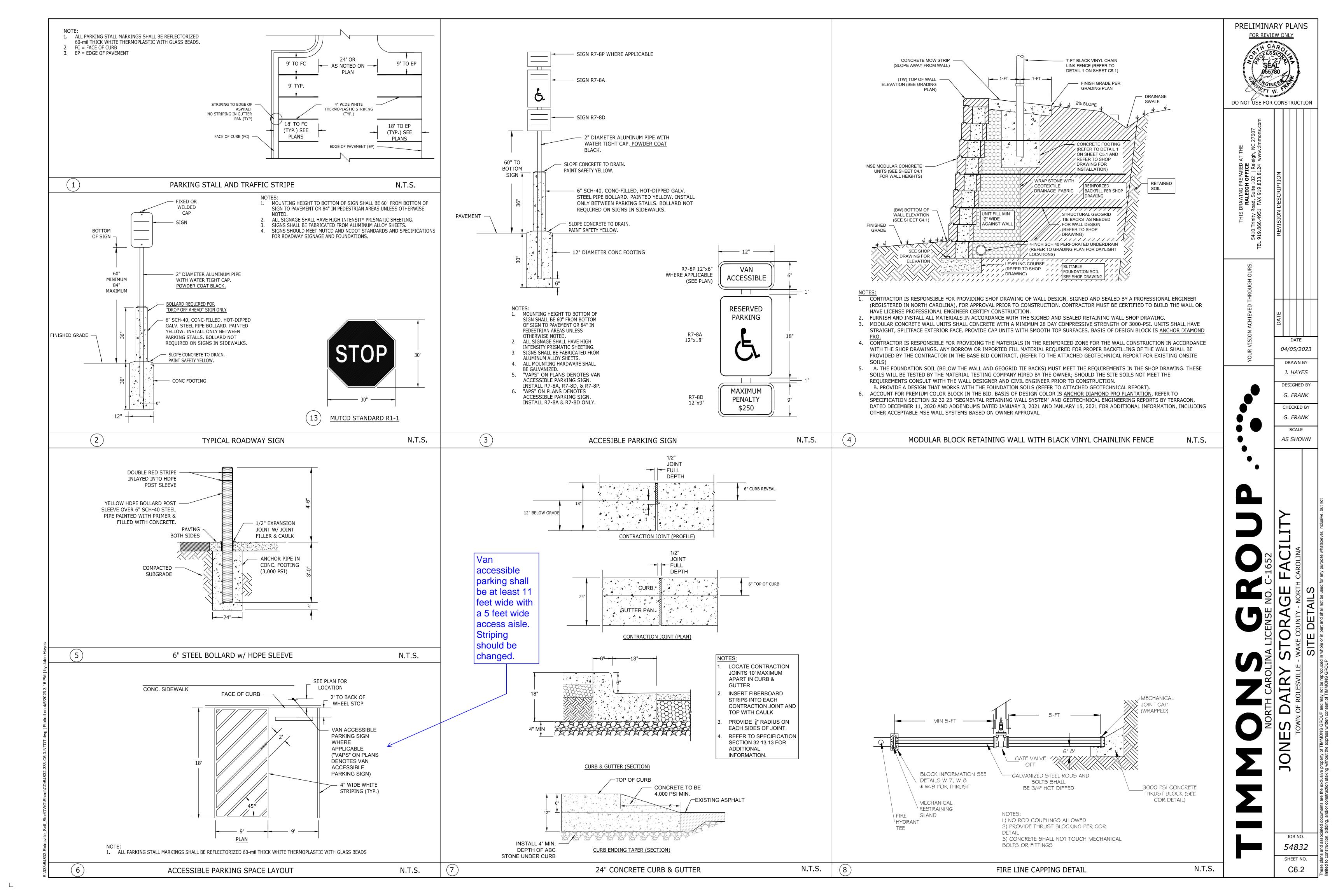
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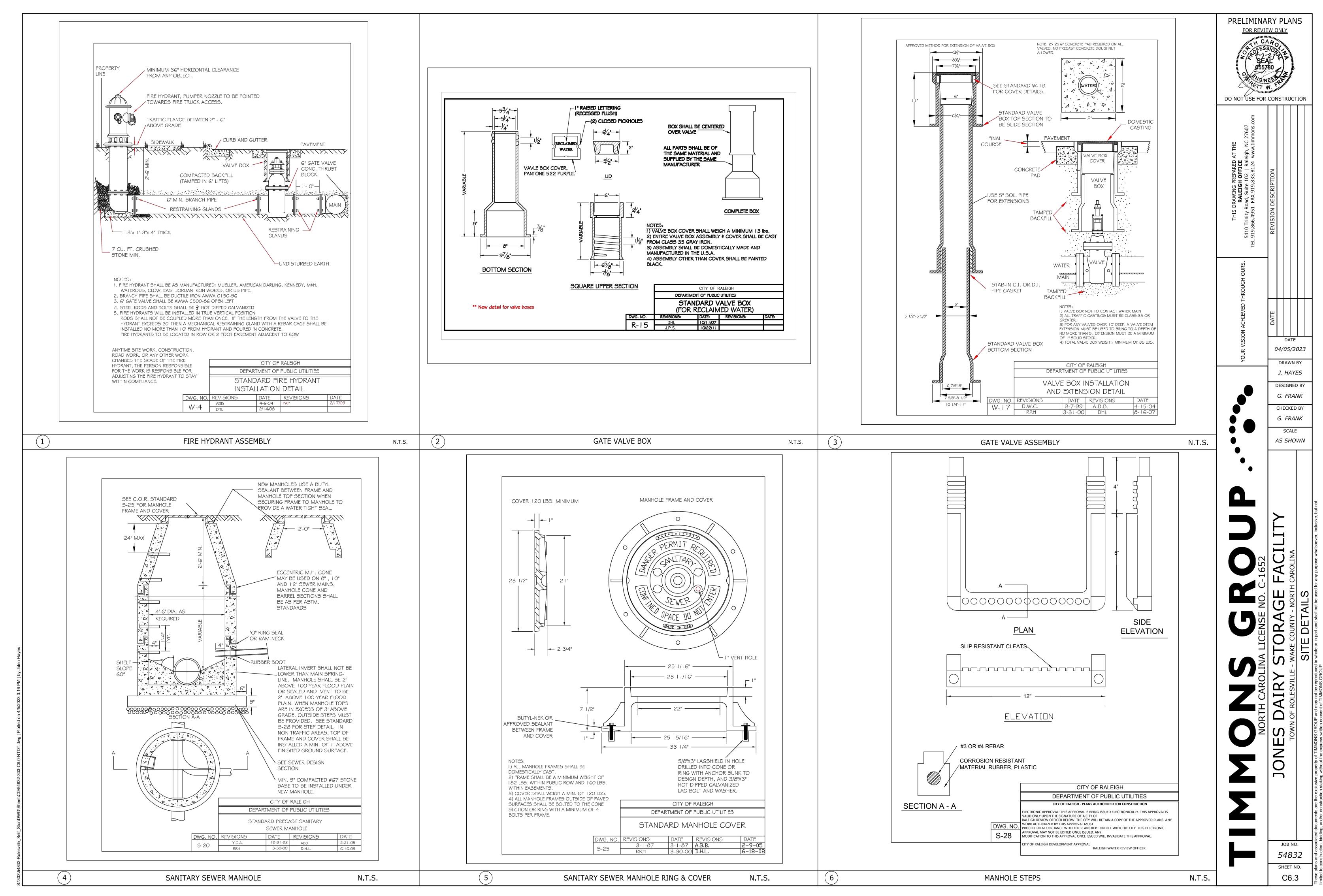
G. FRANK

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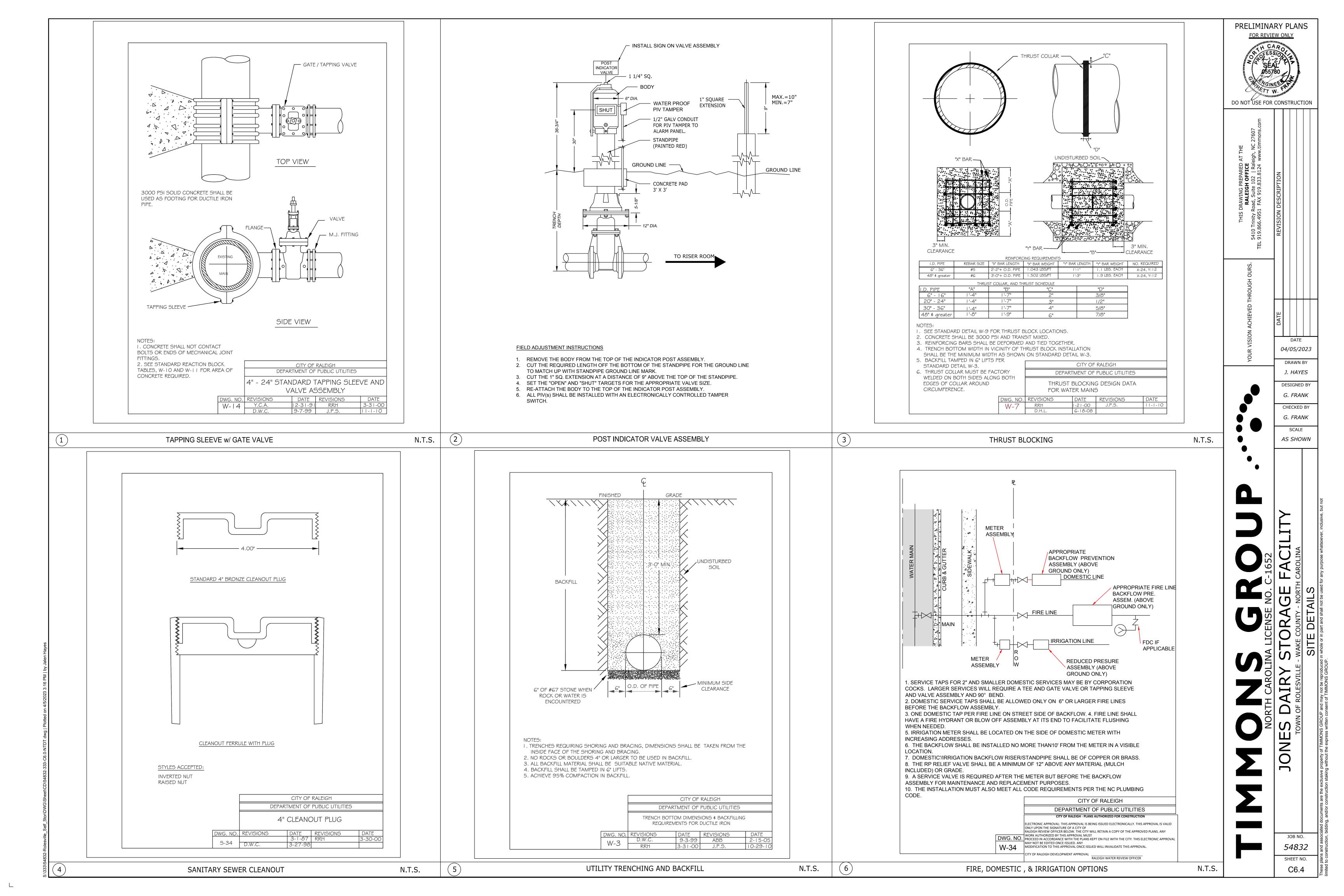


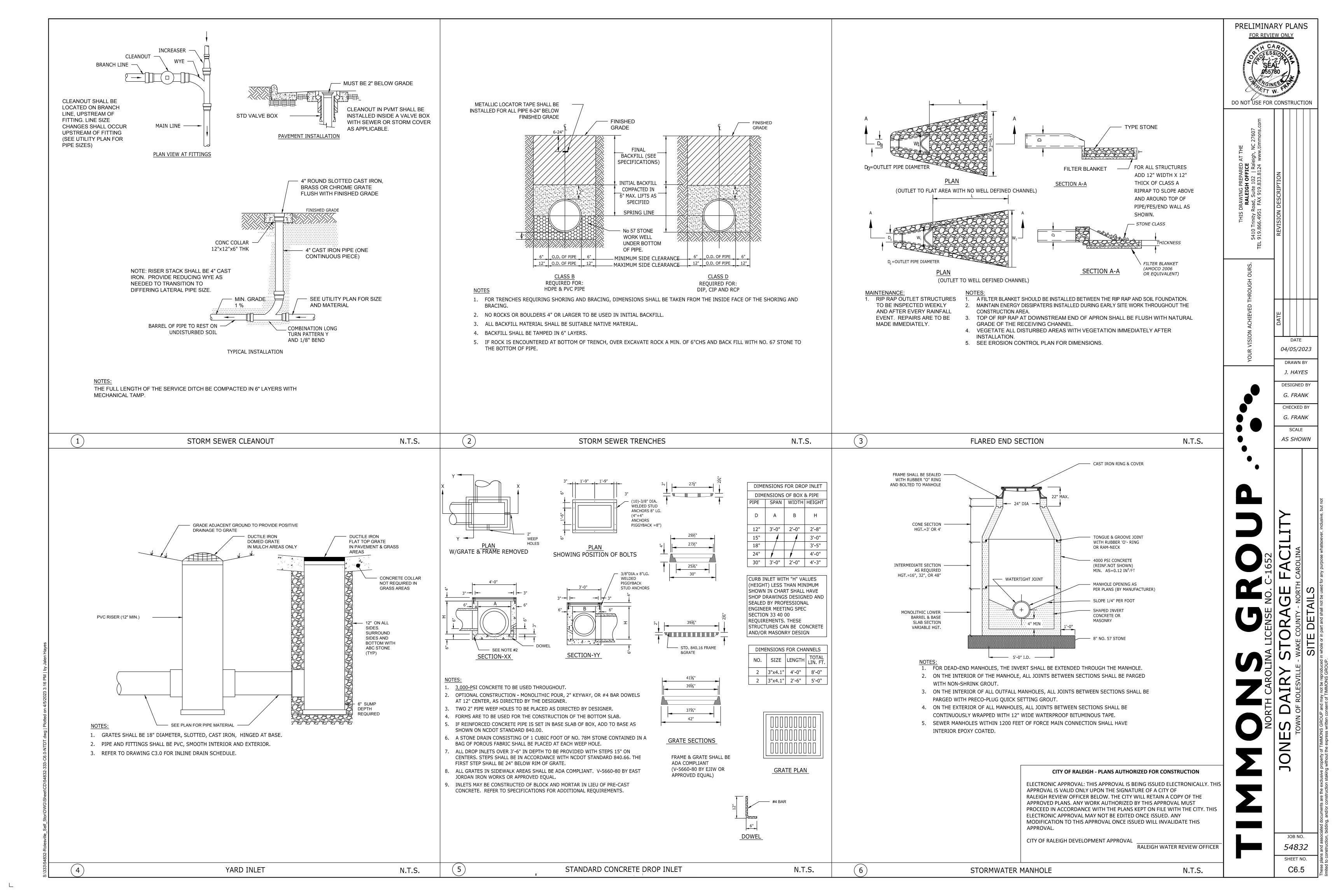


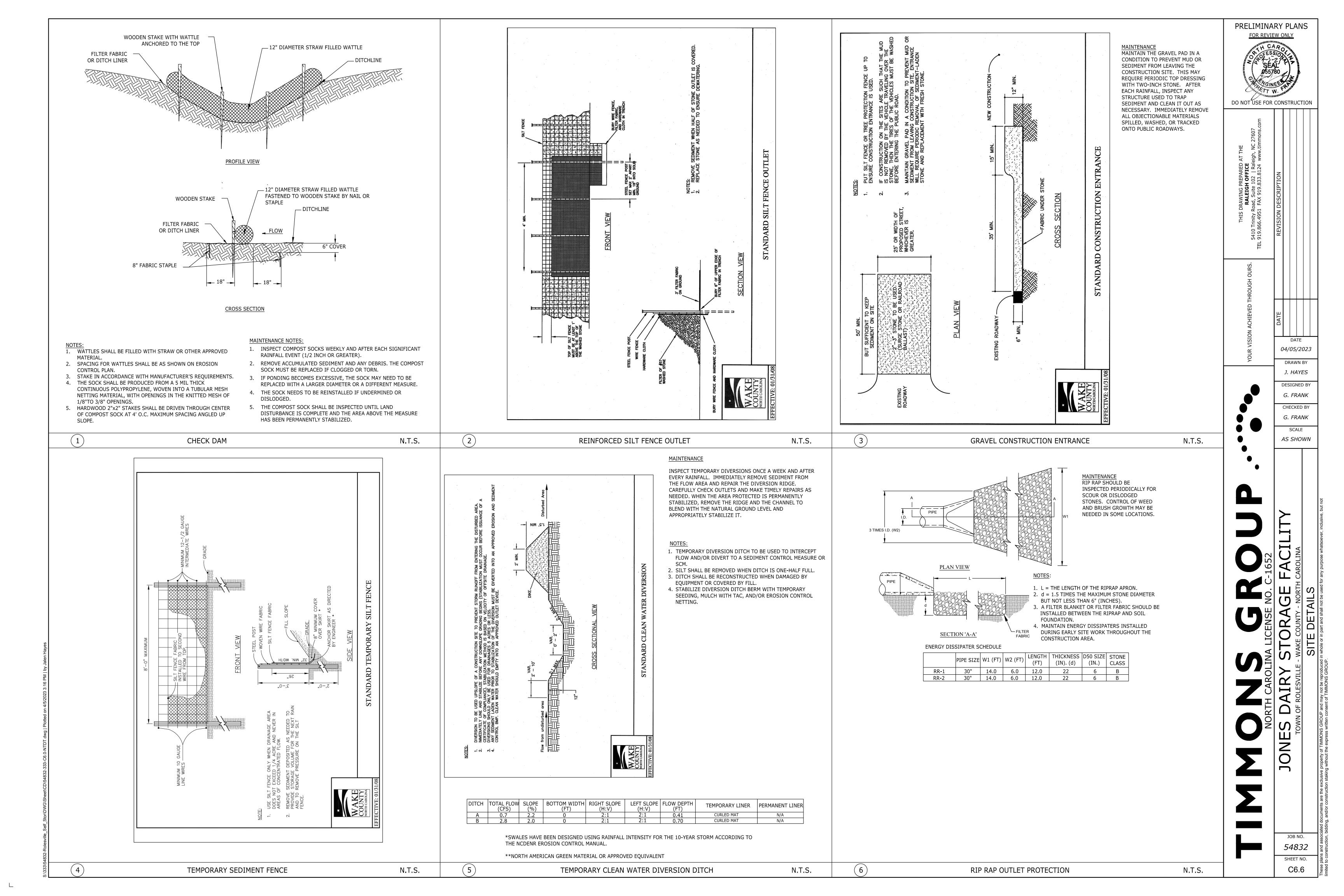


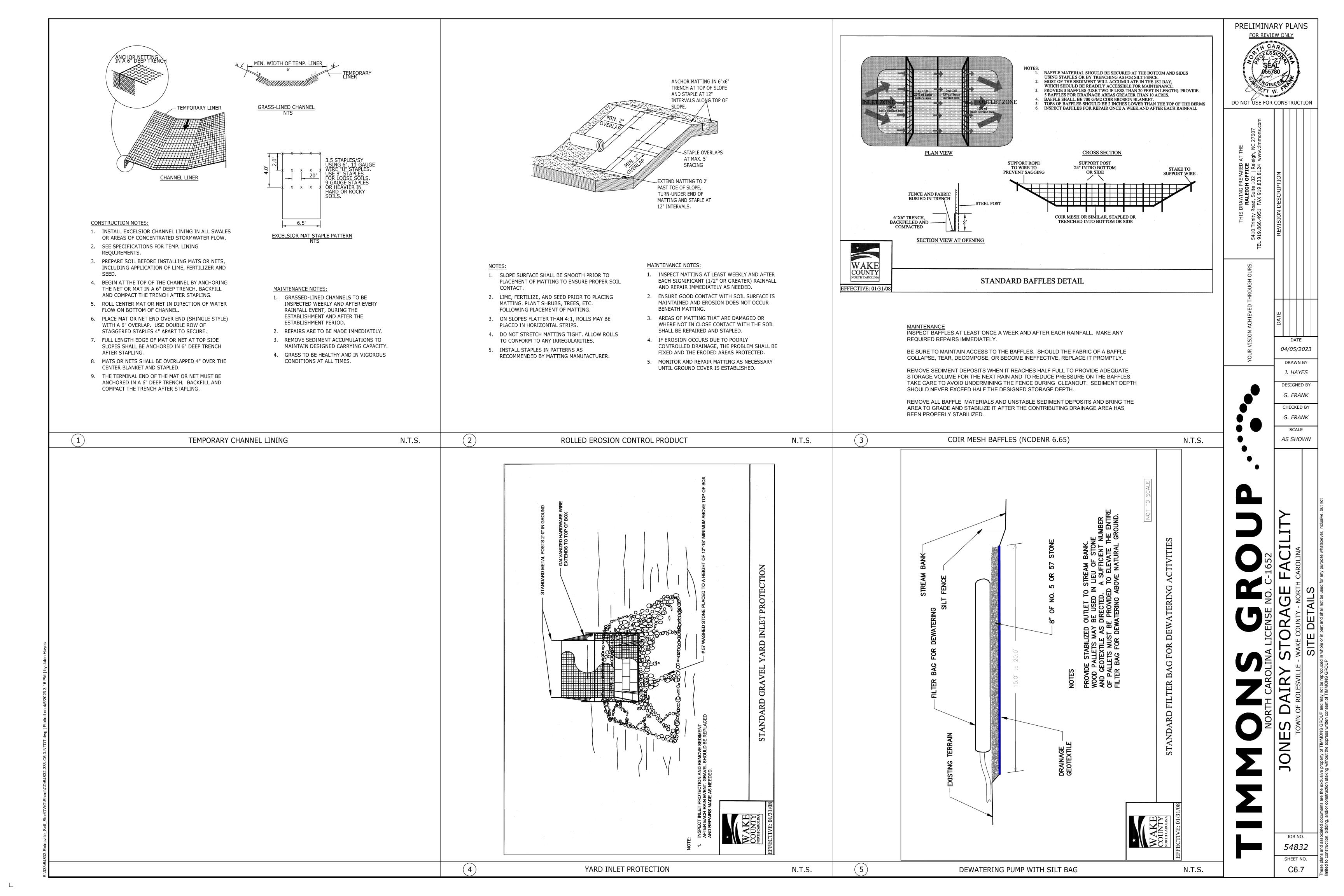


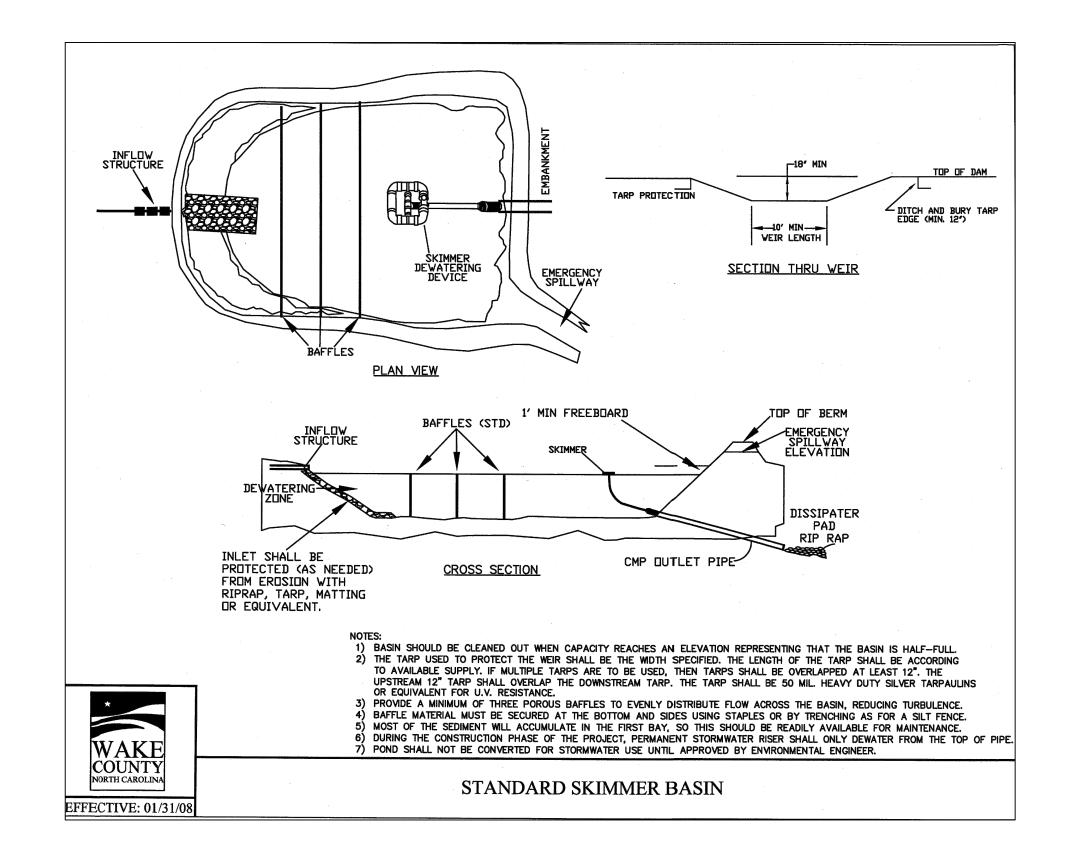
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REQUIRED

SURFACE AREA(SF)

VOLUME (CF)

SEED

1%

1%

SEED

1%

98%

85%

|BASIN SURFACE|

AREA(SF)

TEMPORARY SEED SCHEDULE (Oct 1 - May 1)

GRASS SPECIES BLEND | PLANTING RATE | MIN. % PURE | MAX. % WEED |

50-LBS PER

1-ACRE

FOLLOW RECOMMENDATIONS OF SOIL TESTS OR APPLY 4,00LB/ACRE GROUND

APPLY 4,000 lb/ACRE STRAW. THE GROUND SHOULD BE COMPLETELY COVERED

WITH NO BARE SPOT LARGER THAN A QUARTER, THEN TACKED WITH EMULSIFIED

ASPHALT. EMULSIFIED ASPHALT SHALL BE APPLIED AT A RATE OF 400 GALLONS

REFERTILIZE IF GROWTH IS NOT FULLY ADEQUATE. RESEED, REFERTILIZE AND

GRASS SPECIES BLEND | PLANTING RATE | MIN. % PURE | MAX. % WEED |

30-LBS PER

1-ACRE

FOLLOW RECOMMENDATIONS OF SOIL TESTS OR APPLY 4,00LB/ACRE GROUND

AGRICULTURAL LIMESTONE IN SANDY SOILS OR 6,000LB/ACRE IN CLAY SOILS, AND

APPLY 4,000 lb/ACRE STRAW. THE GROUND SHOULD BE COMPLETELY COVERED

REFERTILIZE IF GROWTH IS NOT FULLY ADEQUATE. RESEED, REFERTILIZE AND

GRASS SPECIES BLEND | PLANTING RATE | MIN. % PURE | MAX. % WEED |

200-LBS PER

PERMANENT SEEDING FOR THIS PROJECT SHALL OCCUR BETWEEN MAY - AUGUST 1.

ADJUSTED AS NECESSARY FOR ADEQUATE GROUND TEMPERATURES. GROUND

MULCH IMMEDIATELY FOLLOWING EROSION OR OTHER DAMAGE

PERMANENT SEED SCHEDULE (MAY1 - SEPT 1)

WITH NO BARE SPOT LARGER THAN A QUARTER, THEN TACKED WITH EMULSIFIED ASPHALT. EMULSIFIED ASPHALT SHALL BE APPLIED AT A RATE OF 400 GALLONS

MULCH IMMEDIATELY FOLLOWING EROSION OR OTHER DAMAGE

TEMPORARY SEED SCHEDULE (May 1 - Sept 30)

AGRICULTURAL LIMESTONE IN SANDY SOILS OR 6,000LB/ACRE IN CLAY SOILS, AND

NUMBER AREA(ACRES) AREA(ACRES) FLOW(CFS)

ANNUAL RYE GRASS

SOIL AMENDMENTS:

GERMAN MILLET

1,000 LB/ACRE 10-10-10 FERTILIZER.

1,000 LB/ACRE 10-10-10 FERTILIZER.

MAINTENANCE NOTES:

INSPECT SKIMMER SEDIMENT BASINS AT LEAST WEEKLY AND AFTER EACH SIGNIFICANT (ONE-HALF INCH OR GREATER) RAINFALL EVENT AND REPAIR IMMEDIATELY. REMOVE SEDIMENT AND RESTORE THE BASIN TO ITS ORIGINAL DIMENSIONS WHEN SEDIMENT ACCUMULATES TO ONE-HALF THE HEIGHT OF THE FIRST BAFFLE. PULL THE SKIMMER TO ONE SIDE SO THAT THE SEDIMENT UNDERNEATH IT CAN BE EXCAVATED. EXCAVATE THE SEDIMENT FROM THE ENTIRE BASIN, NOT JUST AROUND THE SKIMMER OR THE FIRST CELL. MAKE SURE VEGETATION GROWING IN THE BOTTOM OF THE BASIN DOES NOT HOLD DOWN THE SKIMMER.

REPAIR THE BAFFLES IF THEY ARE DAMAGED. RE-ANCHOR THE BAFFLES IF WATER IS FLOWING UNDERNEATH OR AROUND THEM. IF THE SKIMMER IS CLOGGED WITH TRASH AND THERE IS WATER IN THE BASIN, USUALLY JERKING ON THE ROPE WILL MAKE THE SKIMMER BOB UP AND DOWN AND DISLODGE THE DEBRIS AND RESTORE FLOW. IF THIS DOES NOT WORK, PULL THE SKIMMER OVER TO THE SIDE OF THE BASIN AND REMOVE THE DEBRIS. ALSO CHECK THE ORIFICE INSIDE THE SKIMMER TO SEE IF IT IS CLOGGED; IF SO REMOVE THE DEBRIS.

IF THE SKIMMER ARM OR BARREL PIPE IS CLOGGED, THE ORIFICE CAN BE REMOVED AND THE OBSTRUCTION CLEARED WITH A PLUMBER'S SNAKE OR BY FLUSHING WITH WATER. BE SURE AND REPLACE THE ORIFICE BEFORE REPOSITIONING THE SKIMMER.

CHECK THE FABRIC LINED SPILLWAY FOR DAMAGE AND MAKE ANY REQUIRED REPAIRS WITH FABRIC THAT SPANS THE FULL WIDTH OF THE SPILLWAY. CHECK THE EMBANKMENT, SPILLWAYS, AND OUTLET FOR EROSION DAMAGE, AND INSPECT THE EMBANKMENT FOR PIPING AND SETTLEMENT. MAKE ALL NECESSARY REPAIRS IMMEDIATELY. REMOVE ALL TRASH AND OTHER DEBRIS FROM THE SKIMMER AND POOL AREAS.

FREEZING WEATHER CAN RESULT IN ICE FORMING IN THE BASIN. SOME SPECIAL PRECAUTIONS SHOULD BE TAKEN IN THE WINTER TO PREVENT THE SKIMMER FROM PLUGGING WITH ICE.

CONSTRUCTION SEQUENCE

- CLEAR, GRUB, AND STRIP THE AREA UNDER THE EMBANKMENT OF ALL VEGETATION AND ROOT MAT. REMOVE ALL SURFACE SOIL CONTAINING HIGH AMOUNTS OF ORGANIC MATTER AND STOCKPILE OR DISPOSE OF IT PROPERLY. HAUL ALL OBJECTIONABLE MATERIAL TO THE DESIGNATED DISPOSAL AREA. PLACE TEMPORARY SEDIMENT CONTROL MEASURES BELOW BASIN AS NEEDED.
- ENSURE THAT FILL MATERIAL FOR THE EMBANKMENT IS FREE OF ROOTS, WOODY VEGETATION, ORGANIC MATTER, AND OTHER OBJECTIONABLE MATERIAL. PLACE THE FILL IN LIFTS NOT TO EXCEED 9 INCHES, AND MACHINE COMPACT IT. OVER FILL THE EMBANKMENT 6 INCHES TO ALLOW FOR SETTLEMENT.
- SHAPE THE BASIN TO THE SPECIFIED DIMENSIONS. PREVENT THE SKIMMING DEVICE FROM SETTLING INTO THE MUD BY EXCAVATING A SHALLOW PIT UNDER THE SKIMMER OR PROVIDING A LOW SUPPORT UNDER THE SKIMMER OF STONE OR TIMBER.
- PLACE THE BARREL (TYPICALLY 4-INCH SCHEDULE 40 PVC PIPE) ON A FIRM, SMOOTH FOUNDATION OF IMPERVIOUS SOIL. DO NOT USE PERVIOUS MATERIAL SUCH AS SAND, GRAVEL, OR CRUSHED STONE AS BACKFILL AROUND THE PIPE. PLACE THE FILL MATERIAL AROUND THE PIPE SPILLWAY IN 4-INCH LAYERS AND COMPACT IT UNDER AND AROUND THE PIPE TO AT LEAST THE SAME DENSITY AS THE ADJACENT EMBANKMENT. CARE MUST BE TAKEN NOT TO RAISE THE PIPE FROM THE FIRM CONTACT WITH ITS FOUNDATION WHEN COMPACTING UNDER THE PIPE HAUNCHES. PLACE A MINIMUM DEPTH OF 2 FEET OF COMPACTED BACKFILL OVER THE PIPE SPILLWAY BEFORE CROSSING IT WITH CONSTRUCTION EQUIPMENT. IN NO CASE SHOULD THE PIPE CONDUIT BE INSTALLED BY CUTTING A TRENCH THROUGH THE DAM AFTER THE EMBANKMENT IS COMPLETE.
- ASSEMBLE THE SKIMMER FOLLOWING THE MANUFACTURERS INSTRUCTIONS, OR AS DESIGNED.
- LAY THE ASSEMBLED SKIMMER ON THE BOTTOM OF THE BASIN WITH THE FLEXIBLE JOINT AT THE INLET OF THE BARREL PIPE. ATTACH THE FLEXIBLE JOINT TO THE BARREL PIPE AND POSITION THE SKIMMER OVER THE EXCAVATED PIT OR SUPPORT. BE SURE TO ATTACH A ROPE TO THE SKIMMER AND ANCHOR IT TO THE SIDE OF THE BASIN. THIS WILL BE USED TO PULL THE SKIMMER TO THE SIDE FOR MAINTENANCE.
- EARTHEN SPILLWAYS--INSTALL THE SPILLWAY IN UNDISTURBED SOIL TO THE GREATEST EXTENT POSSIBLE. THE ACHIEVEMENT OF PLANNED ELEVATIONS, GRADE, DESIGN WIDTH, AND ENTRANCE AND EXIT CHANNEL SLOPES ARE CRITICAL TO THE SUCCESSFUL OPERATION OF THE SPILLWAY. THE SPILLWAY SHOULD BE LINED WITH LAMINATED PLASTIC OR IMPERMEABLE GEOTEXTILE FABRIC. THE FABRIC MUST BE WIDE AND LONG ENOUGH TO COVER THE BOTTOM AND SIDES AND EXTEND ONTO THE TOP OF THE DAM FOR ANCHORING IN A TRENCH. THE EDGES MAY BE SECURED WITH 8-INCH STAPLES OR PINS. THE FABRIC MUST BE LONG ENOUGH TO EXTEND DOWN THE SLOPE AND EXIT ONTO STABLE GROUND. THE WIDTH OF THE FABRIC MUST BE ONE PIECE, NOT JOINED OR SPLICED; OTHERWISE WATER CAN GET UNDER THE FABRIC. IF THE LENGTH OF THE FABRIC IS INSUFFICIENT FOR THE ENTIRE LENGTH OF THE SPILLWAY, MULTIPLE SECTIONS, SPANNING THE COMPLETE WIDTH, MAY BE USED. THE UPPER SECTION(S) SHOULD OVERLAP THE LOWER SECTION(S) SO THAT WATER CANNOT FLOW UNDER THE FABRIC. SECURE THE UPPER EDGE AND SIDES OF THE FABRIC IN A TRENCH WITH STAPLES OR PINS. (ADAPTED FROM "A MANUAL FOR DESIGNING, INSTALLING AND MAINTAINING SKIMMER SEDIMENT BASINS." FEBRUARY, 1999. J. W. FAIRCLOTH & SON.).
- INLETS--DISCHARGE WATER INTO THE BASIN IN A MANNER TO PREVENT EROSION. USE TEMPORARY SLOPE DRAINS OR DIVERSIONS WITH OUTLET PROTECTION TO DIVERT SEDIMENT- LADEN WATER TO THE UPPER END OF THE POOL AREA TO IMPROVE BASIN TRAP EFFICIENCY (REFERENCES: RUNOFF CONTROL MEASURES AND OUTLET PROTECTION).
- EROSION CONTROL--CONSTRUCT THE STRUCTURE SO THAT THE DISTURBED AREA IS MINIMIZED. DIVERT SURFACE WATER AWAY FROM BARE AREAS. COMPLETE THE EMBANKMENT BEFORE THE AREA IS CLEARED. STABILIZE THE EMERGENCY SPILLWAY EMBANKMENT AND ALL OTHER DISTURBED AREAS ABOVE THE CREST OF THE PRINCIPAL SPILLWAY IMMEDIATELY AFTER CONSTRUCTION (REFERENCES: SURFACE STABILIZATION).
- 10. INSTALL POROUS BAFFLES AS SPECIFIED IN PRACTICE 6.65
- 11. AFTER ALL THE SEDIMENT-PRODUCING AREAS HAVE BEEN PERMANENTLY STABILIZED, REMOVE THE STRUCTURE AND ALL THE UNSTABLE SEDIMENT. SMOOTH THE AREA TO BLEND WITH THE ADJOINING AREAS AND STABILIZE PROPERLY (REFERENCES: SURFACE STABILIZATION).

YOUR V	04/05/2023
>	DRAWN BY
	J. HAYES
	DESIGNED BY
	G. FRANK
	CHECKED BY

PRELIMINARY PLANS

DO NOT USE FOR CONSTRUCTION

G. FRANK SCALE AS SHOWN

54832 SHEET NO.

C6.8

TEMPORARY & PERMANENT SEEDING SPECIFICATIONS

BOTTOM OF

BASIN ELEV.

COMPLETE GRADING BEFORE PREPARING SEEDBEDS, AND INSTALL ALL NECESSARY EROSION CONTROL PRACTICES SUCH AS, DIKES, WATERWAYS, AND BASINS. MINIMIZE STEEP SLOPES BECAUSE THEY MAKE SEEDBED PREPARATION DIFFICULT AND INCREASE THE EROSION HAZARD. IF SOILS BECOME COMPACTED DURING GRADING, LOOSEN THEM TO A DEPTH OF 6-8 INCHES USING A RIPPER, HARROW, OR CHISEL PLOW.

GOOD SEEDBED PREPARATION IS ESSENTIAL TO SUCCESSFUL PLANT ESTABLISHMENT. A GOOD SEEDBED IS WELL-PULVERIZED, LOOSE, AND UNIFORM. WHERE HYDROSEEDING METHODS ARE USED, THE SURFACE MAY BE LEFT WITH A MORE IRREGULAR SURFACE OF LARGE CLODS AND STONES.

- LIMING APPLY LIME ACCORDING TO SOIL TEST RECOMMENDATIONS. IF THE PH (ACIDITY) OF THE SOIL IS NOT KNOWN, AN APPLICATION OF GROUND AGRICULTURAL LIMESTONE AT THE RATE OF 2 TONS/ACRE ON COARSE-TEXTURED SOILS AND 3 TONS/ACRE ON FINE-TEXTURED SOILS IS USUALLY SUFFICIENT. APPLY LIMESTONE UNIFORMLY AND INCORPORATE INTO THE TOP 4-6 INCHES OF SOIL. SOILS WITH A PH OF 6 OR HIGHER NEED NOT BE LIMED.
- FERTILIZER BASE APPLICATION RATES ON SOIL TESTS. WHEN THESE ARE NOT POSSIBLE, APPLY A 10-10-10 GRADE FERTILIZER AT 700-1,00 LB/ACRE. BOTH FERTILIZER AND LIME SHOULD BE INCORPORATED INTO THE TOP 4-6 INCHES OF SOIL. IF A HYDRAULIC SEEDER IS USED, DO NOT MIX SEED AND FERTILIZER MORE THAN 30 MINUTES BEFORE APPLICATION.
- SURFACE ROUGHENING IF RECENT TILLAGE OPERATIONS HAVE RESULTED IN A LOOSE SURFACE, ADDITIONAL ROUGHENING MAY NOT BE REQUIRED, EXCEPT TO BREAK UP LARGE CLODS. IF RAINFALL CAUSES THE SURFACE TO BECOME SEALED OR CRUSTED, LOOSEN IT JUST PRIOR TO SEEDING BY DISKING, RAKING, HARROWING, OR OTHER SUITABLE METHODS. GROOVE OR FURROW SLOPES STEEPER THAN 3:1 ON THE CONTOUR BEFORE SEEDING (REFER TO THE NCDEQ EROSION AND SEDIMENT CONTROL PLANNING AND DESIGN MANUAL, PRACTICE 6.03, SURFACE ROUGHENING).

LANT SELECTION

ELEV.

SELECT AN APPROPRIATE SPECIES OR SPECIES MIXTURE FROM TABLE 6.10A FOR SEEDING IN LATE WINTER AND EARLY SPRING, TABLE 6.10B FOR SUMMER, AND TABLE 6.10C FOR FALL.

DEWATERING

TIME (DAYS)

SLOPES

IN THE MOUNTAINS, DECEMBER AND JANUARY SEEDING HAVE POOR CHANCES OF SUCCESS. WHEN IT IS NECESSARY TO PLANT AT THESE TIMES, USE RECOMMENDATIONS FOR FALL AND A SECURELY TACKED MULCH.

SKIMMER ORIFICE | TOP OF BERM | EMERGENCY SPILLWAY

SEDIMENT BASIN WITH STANDARD SKIMMER

ELEV.

- EVENLY APPLY SEED USING A CYCLONE SEEDER (BROADCAST), DRILL, CULTIPACKER SEEDER, OR HYDROSEEDER. USE SEEDING RATES GIVEN IN TABLES 6.10A-6.10C. BROADCAST SEEDING AND HYDROSEEDING ARE APPROPRIATE FOR STEEL SLOPES WHERE EQUIPMENT CANNOT BE DRIVEN. HAND BROADCASTING IS NOT RECOMMENDED BECAUSE OF THE DIFFICULTY IN ACHIEVING A UNIFORM DISTRIBUTION.
- SMALL GRAINS SHOULD BE PLANTED NO MORE THAN 1 INCH DEEP, AND GRASSES AND LEGUMES NO MORE THAN 1/2 INCH. BROADCAST SEED MUST BE COVERED BY RAKING OR CHAIN DRAGGING, AND THEN LIGHTLY FIRMED WITH A ROLLER OR CULTIPACKER. HYDROSEEDED MIXTURES SHOULD INCLUDE A WOOD FIBER (CELLULOSE) MULCH.

THE USE OF AN APPROPRIATE MULCH WILL HELP ENSURE ESTABLISHMENT UNDER NORMAL CONDITIONS, AND IS ESSENTIAL TO SEEDING SUCCESS UNDER HARSH SITE CONDITIONS (REFER TO THE NCDEQ EROSION AND SEDIMENT CONTROL PLANNING AND DESIGN MANUAL, PRACTICE 6.14, MULCHING). APPLY 4,000 LB/ACRE STRAW. THE GROUND SHOULD BE COMPLETELY COVERED WITH NO BARE SPOT LARGER THAN A QUARTER, THEN TACKED WITH EMULSIFIED ASPHALT. EMULSIFIED ASPHALT SHALL BE APPLIED AT A RATE OF 400 GALLONS PER ACRE

HARSH SITE CONDITIONS INCLUDE:

- SEEDING IN FALL FOR WINTER COVER (WOOD FIBER MULCHES ARE NOT CONSIDERED ADEQUATE FOR THIS USE),
- SLOPES STEEPER THAN 3:1,
- EXCESSIVELY HOT OR DRY WEATHER,
- ADVERSE SOILS (SHALLOW, ROCKY, OR HIGH IN CLAY OR SAND), AND
- AREAS RECEIVING CONCENTRATED FLOW.

FITHE AREA TO BE MULCHED IS SUBJECT TO CONCENTRATED WATERFLOW, AND IN CHANNELS, ANCHOR MULCH WITH NETTING (REFER TO THE NCDEQ EROSION AND SEDIMENT CONTROL PLANNING AND DESIGN MANUAL, PRACTICE 6.14, MULCHING).

TEMPORARY SEEDING MAINTENANCE

RESEED AND MULCH AREAS WHERE SEEDING EMERGENCE IS POOR, OR WHERE EROSION OCCURS, AS SOON AS POSSIBLE. DO NOT MOW. PROTECT FROM TRAFFIC AS MUCH AS POSSIBLE.

LIME & FERTILIZER NOTES

- CHISEL ALL CUT GRADED OR COMPACTED AREAS TO A MINIMUM DEPTH OF 6".
- DISC ALL AREAS TO RECEIVE GRASS TO A MINIMUM OF 6 INCHES, MIX AND AMEND WITH 3 INCHES OF WELL SCREENED TOPSOIL. ON-SITE TOPSOIL MAY BE USED IN PLACE OF IMPORTED TOPSOIL, IF WELL-SCREENED AND DRY PRIOR TO APPLICATION IN ACCORDANCE WITH SPECIFICATION SECTION 329000.
- REMOVE ALL LOOSE ROCK, ROOTS, AND OTHER OBSTRUCTIONS LEAVING SURFACE REASONABLY SMOOTH AND UNIFORM.
- APPLY AGRICULTURAL LIME, FERTILIZER, AND PHOSPHATE UNIFORMLY AS PER SPECIFICATIONS AND MIX WELL WITH SOIL.
- CONTINUE TILLAGE UNTIL A WELL-PULVERIZED, FIRM, REASONABLY UNIFORM SEEDBED IS PREPARED TO A 6 INCHES DEPTH. SEED AT RATE SPECIFIED OR AS NEEDED TO ACHIEVE AND MAINTAIN A THICK HEALTHY GROUND COVERAGE.
- MULCH IMMEDIATELY AFTER SEEDING AND ANCHOR MULCH. BEGIN THOROUGH WATERING OF GRASSED AREAS IMMEDIATELY UPON INSTALLATION. DO NOT ALLOW GRASSED AREAS TO BECOME EXCESSIVELY DRY.
- INSPECT ALL SEEDED AREAS AND MAKE NECESSARY REPAIRS OR RESEEDINGS AS NEEDED.
- IF CONFLICTS OCCUR BETWEEN WRITTEN SPECIFICATIONS AND THE DRAWINGS, THE WRITTEN SPECIFICATIONS SHALL PREVAIL.

2:1 3.39 4.70 4,873 1.5 1.5 378 377 373.5 4.40 BASIN SIDES AND WEIR SHALL HAVE MAXIMUM SLOPES OF 2:1 OR FLATTER. DIMENSIONS SHOWN ARE AT WEIR ELEVATION OF BASIN VOLUMES PROVIDED ARE BASED ON AVAILABLE VOLUME AT THE PRINCIPAL SPILLWAY

SPILLWAY WIDTH

(FT)

REQUIRED BASIN

VOLUME (CF)

SKIMMER

SIZE (IN.)

DIAMETER (IN.)

TEMPERATURES SHALL BE IN THE RANGE OF 60-68 DEGREES FOR GERMINATION. REFER TO SPECIFICATION SECTION 329200. 80% OF PERMANENT SEEDING MUST BE ESTABLISHED PRIOR TO GRADING PERMIT CLOSEOUT

CELEBRATION BERMUDA

TEMPORARY/PERMANENT SEEDING

N.T.S.

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

IMPLEMENTING THE DETAILS AND SPECIFICATIONS ON THIS PLAN SHEET WILL RESULT IN THE CONSTRUCTION ACTIVITY BEING CONSIDERED COMPLIANT WITH THE GROUND STABILIZATION AND MATERIALS HANDLING SECTIONS OF THE NCG01 CONSTRUCTION GENERAL PERMIT (SECTIONS E AND F, RESPECTIVELY). THE PERMITTEE SHALL COMPLY WITH THE EROSION AND SEDIMENT CONTROL PLAN APPROVED BY THE DELEGATED AUTHORITY HAVING JURISDICTION. ALL DETAILS AND SPECIFICATIONS SHOWN ON THIS SHEET MAY NOT APPLY DEPENDING ON SITE CONDITIONS AND THE DELEGATED AUTHORITY HAVING JURISDICTION.

SECTION E: GROUND STABILIZATION

	REQUIRED GROUND STABI	LIZATION TIMEFRAMES
SITE AREA DESCRIPTION	STABILIZE WITHIN THIS MANY CALENDAR DAYS AFTER CEASING LAND DISTURBANCE	TIMEFRAME VARIATIONS
(A) PERIMETER DIKES, SWALES, DITCHES, AND PERIMETER SLOPES	7	NONE
(B) HIGH QUALITY WATER (HQW) ZONES	7	NONE
(C) SLOPES STEEPER THAN 3:1	7	IF SLOPES ARE 10' OR LESS IN LENGTH AND ARE NO STEEPER THAN 2:1, 14 DAYS ARE ALLOWED
(D) SLOPES 3:1 TO 4:1	14	-7 DAYS FOR SLOPES > 50' IN LENGTH AND WITH SLOPES STEEPER THAN 4:1 -7 DAYS FOR PERIMETER DIKES, SWALES, DITCHES, PERIMETER SLOPES AND HQW ZONES -10 DAYS FOR FALLS LAKE WATERSHED
(E) AREAS WITH SLOPES FLATTER THAN 4:1	14	-7 DAYS FOR PERIMETER DIKES, SWALES, DITCHES, PERIMETER SLOPES AND HQW ZONES -10 DAYS FOR FALLS LAKE WATERSHED UNLESS THERE IS 7ERO SLOPE

NOTE: AFTER THE PERMANENT CESSATION OF CONSTRUCTION ACTIVITIES, ANY AREAS WITH TEMPORARY GROUND STABILIZATION SHALL BE CONVERTED TO PERMANENT GROUND STABILIZATION AS SOON AS PRACTICABLE BUT IN NO CASE LONGER THAN 90 CALENDAR DAYS AFTER THE LAST LAND DISTURBING ACTIVITY. TEMPORARY GROUND STABILIZATION SHALL BE MAINTAINED IN A MANNER TO RENDER THE SURFACE STABLE AGAINST ACCELERATED EROSION UNTIL PERMANENT GROUND STABILIZATION IS ACHIEVED.

BELOW GRADE WASHOUT STRUCTURE NOT TO SCALE

HIGH COHESIVE & LOW

FILTRATION SOIL BERM

SANDBAGS (TYP.)

OR STAPLES

1:1 SIDE SLOPE (TYP) HIGH COHESIVE & LOW 1:1 SIDE - PLASTIC SLOPE (TYP) FILTRATION SOIL BERM LINING SANDBAGS (TYP.) OR STAPLES CONCRETE WASHOUT <</><//> SANDBAGS ONSITE CONCRETE WASHOUT (TYP.) OR STAPLES STRUCTURE WITH LINER SECTION A-A 10 MIL PLASTIC LINING **SECTION B-B CLEARLY MARKED** SIGNAGE NOTING DEVICE (18"X24"MIN) ABOVE GROUND WASHOUT STRUCTURE NOTES HIGH COHESIVE & LOW SIGNAGE FOR EITHER WASHOUT STRUCTURE FILTRATION SOIL BERM ACTUAL LOCATION DETERMINED IN FIELD **BELOW GROUND CONCRETE WASHOUT NOTES:** 2. THE CONCRETE WASHOUT STRUCTURES SHALL BE SANDBAGS (TYP.) 1. ACTUAL LOCATION DETERMINED IN FIELD MAINTAINED WHEN THE LIQUID OR STAPLES AND/OR SOLID REACHES 75% OF 2. THE CONCRETE WASHOUT STRUCTURES SHALL BE THE STRUCTURES CAPACITY TO MAINTAINED WHEN PROVIDE ADEQUATE HOLDING THE LIQUID AND/OR SOLID REACHES 75% OF THE CAPACITY WITH A MINIMUM 12 STRUCTURES CAPACITY. INCHES OF FREEBOARD. 3.CONCRETE WASHOUT STRUCTURE NEEDS TO BE 3.CONCRETE WASHOUT CLEARLY MARKED STRUCTURE NEEDS TO BE WITH SIGNAGE NOTING DEVICE. CLEARY MARKED WITH SIGNAGE

ABOVE GRADE WASHOUT STRUCTURE NOTING DEVICE. NOT TO SCALE CONCRETE WASHOUT AREA

1. DO NOT DISCHARGE CONCRETE OR CEMENT SLURRY FROM THE SITE.

MATERIALS ON IMPERVIOUS BARRIER AND WITHIN LOT PERIMETER SILT FENCE.

WATERS. LIQUID WASTE MUST BE PUMPED OUT AND REMOVED FROM PROJECT.

ADDITIONAL CONTROLS MAY BE REQUIRED BY THE APPROVING AUTHORITY.

PROPRIETARY PRODUCTS, FOLLOW MANUFACTURER'S INSTRUCTIONS.

ONE OF THE TWO TYPES OF TEMPORARY CONCRETE WASHOUTS PROVIDED ON THIS DETAIL.

PIT, IF APPLICABLE, AND STABILIZE ANY DISTURBANCE CAUSED BY REMOVAL OF WASHOUT.

GROUND STABILIZATION SPECIFICATION

STABILIZE THE COOLING STEELCIENTLY SO THAT BAIN WILL NOT DISLODGE THE SOIL LISE ONE OF THE TECHNIQUES IN THE TARLE BELOW:

TEMPORARY STABILIZATION	PERMANENT STABILIZATION				
 TEMPORARY GRASS SEED COVERED WITH STRAW OR OTHER MULCHES AND TACKIFIERS HYDROSEEDING ROLLED EROSION CONTROL PRODUCTS WITH OR WITHOUT TEMPORARTY GRASS SEED APPROPRIATELY APPLIED STRAW OR OTHER MULCH PLASTIC SHEETING 	 PERMANENT GRASS SEED COVERED WITH STRAW OR OTHER MULCHES AND TACKIFIERS GEOTEXTILE FABRICS SUCH AS PERMANENT SOIL REINFORCEMENT MATTING HYDROSEEDING SHRUBS OR OTHER PERMANENT PLANTINGS COVERED WITH MULCH UNIFORM AND EVENLY DISTRIBUTED GROUND COVER SUFFICIENT TO RESTRAIN EROSION STRUCTURAL METHODS SUCH AS CONCRETE, ASPHALT OR RETAINING WALLS ROLLED EROSION CONTROL PRODUCTS WITH GRASS SEED 				

POLYACRYLAMIDES (PAMS) AND FLOCCULANTS

- 1. SELECT FLOCCULANTS THAT ARE APPROPRIATE FOR THE SOILS BEING EXPOSED DURING CONSTRUCTION, SELECTING FROM THE NC DWR LIST OF APPROVED PAMS/FLOCCULANTS.
- APPLY FLOCCULANTS AT OR BEFORE THE INLETS TO EROSION AND SEDIMENT CONTROL MEASURES.
- 3. APPLY FLOCCULANTS AT THE CONCENTRATIONS SPECIFIED IN THE NC DWR LIST OF APPROVED PAMS/FLOCCULANTS AND IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS.
- 4. PROVIDE PONDING AREA FOR CONTAINMENT OF TREATED STORMWATER BEFORE DISCHARGING OFFSITE.
- 5. STORE FLOCCULANTS IN LEAK-PROOF CONTAINERS THAT ARE KEPT UNDER STORM-RESISTANT COVER OR SURROUNDED BY SECONDARY CONTAINMENT STRUCTURES.
- **EQUIPMENT AND VEHICLE MAINTENANCE**
- 1. MAINTAIN VEHICLES AND EQUIPMENT TO PREVENT DISCHARGE OF FLUIDS.
- 2. PROVIDE DRIP PANS UNDER ANY STORED EQUIPMENT.
- 3. IDENTIFY LEAKS AND REPAIR AS SOON AS FEASIBLE, OR REMOVE LEAKING EQUIPMENT FROM THE PROJECT
- 4. COLLECT ALL SPENT FLUIDS, STORE IN SEPARATE CONTAINERS AND PROPERLY DISPOSE AS HAZARDOUS WASTE (RECYCLE WHEN
- 5. REMOVE LEAKING VEHICLES AND CONSTRUCTION EQUIPMENT FROM SERVICE UNTIL THE PROBLEM HAS BEEN CORRECTED.
- 6. BRING USED FUELS, LUBRICANTS, COOLANTS, HYDRAULIC FLUIDS AND OTHER PETROLEUM PRODUCTS TO A RECYCLING OR DISPOSAL CENTER THAT HANDLES THESE MATERIALS.

LITTER, BUILDING MATERIAL AND LAND CLEARING WASTE

- NEVER BURY OR BURN WASTE. PLACE LITTER AND DEBRIS IN APPROVED WASTE CONTAINERS.
- 2. PROVIDE A SUFFICIENT NUMBER AND SIZE OF WASTE CONTAINERS (E.G DUMPSTER, TRASH RECEPTACLE) ON SITE TO CONTAIN CONSTRUCTION AND DOMESTIC WASTES. 3. LOCATE WASTE CONTAINERS AT LEAST 50 FEET AWAY FROM STORM DRAIN INLETS AND SURFACE WATERS UNLESS NO OTHER ALTERNATIVES
- ARE REASONABLY AVAILABLE.
- 4. LOCATE WASTE CONTAINERS ON AREAS THAT DO NOT RECEIVE SUBSTANTIAL AMOUNTS OF RUNOFF FROM UPLAND AREAS AND DOES NOT DRAIN DIRECTLY TO A STORM DRAIN, STREAM OR WETLAND.
- 5. COVER WASTE CONTAINERS AT THE END OF EACH WORKDAY AND BEFORE STORM EVENTS OR PROVIDE SECONDARY CONTAINMENT. REPAIR OR REPLACE DAMAGED WASTE CONTAINERS.
- 6. ANCHOR ALL LIGHTWEIGHT ITEMS IN WASTE CONTAINERS DURING TIMES OF HIGH WINDS.
- 7. EMPTY WASTE CONTAINERS AS NEEDED TO PREVENT OVERFLOW. CLEAN UP IMMEDIATELY IF CONTAINERS OVERFLOW.
- 8. DISPOSE WASTE OFF-SITE AT AN APPROVED DISPOSAL FACILITY.
- 9. ON BUSINESS DAYS, CLEAN UP AND DISPOSE OF WASTE IN DESIGNATED WASTE CONTAINERS.

PAINT AND OTHER LIQUID WASTE

- 1. DO NOT DUMP PAINT AND OTHER LIQUID WASTE INTO STORM DRAINS, STREAMS OR WETLANDS. 2. LOCATE PAINT WASHOUTS AT LEAST 50 FEET AWAY FROM STORM DRAIN INLETS AND SURFACE WATERS UNLESS NO OTHER ALTERNATIVES
- ARE REASONABLY AVAILABLE.
- 3. CONTAIN LIQUID WASTES IN A CONTROLLED AREA.
- CONTAINMENT MUST BE LABELED, SIZED AND PLACED APPROPRIATELY FOR THE NEEDS OF SITE 5. PREVENT THE DISCHARGE OF SOAPS, SOLVENTS, DETERGENTS AND OTHER LIQUID WASTES FROM CONSTRUCTION SITES.

PORTABLE TOILETS

FENCE

- 1. INSTALL PORTABLE TOILETS ON LEVEL GROUND, AT LEAST 50 FEET AWAY FROM STORM DRAINS, STREAMS OR WETLANDS UNLESS THERE IS NO ALTERNATIVE REASONABLY AVAILABLE. IF 50 FOOT OFFSET IS NOT ATTAINABLE, PROVIDE RELOCATION OF PORTABLE TOILET BEHIND SILT FENCE OR PLACE ON A GRAVEL PAD AND SURROUND WITH SAND BAGS.
- 2. PROVIDE STAKING OR ANCHORING OF PORTABLE TOILETS DURING PERIODS OF HIGH WINDS OR IN HIGH FOOT TRAFFIC AREAS.
- 3. MONITOR PORTABLE TOILETS FOR LEAKING AND PROPERLY DISPOSE OF ANY LEAKED MATERIAL. UTILIZE A LICENSED SANITARY WASTE HAULER TO REMOVE LEAKING PORTABLE TOILETS AND REPLACE WITH PROPERLY OPERATING UNIT.

HERBICIDES, PESTICIDES AND RODENTICIDES

CONCRETE WASHOUTS

AND AT AN APPROVED FACILITY.

- 1. STORE AND APPLY HERBICIDES, PESTICIDES AND RODENTICIDES IN ACCORDANCE WITH LABEL RESTRICTIONS.
- 2. STORE HERBICIDES, PESTICIDES AND RODENTICIDES IN THEIR ORIGINAL CONTAINERS WITH THE LABEL, WHICH LISTS DIRECTIONS FOR USE, INGREDIENTS AND FIRST AID STEPS IN CASE OF ACCIDENTAL POISONING.

2. DISPOSE OF, OR RECYCLE SETTLED, HARDENED CONCRETE RESIDUE IN ACCORDANCE WITH LOCAL AND STATE SOLID WASTE REGULATIONS

3. MANAGE WASHOUT FROM MORTAR MIXERS IN ACCORDANCE WITH THE ABOVE ITEM AND IN ADDITION PLACE THE MIXER AND ASSOCIATED

4. INSTALL TEMPORARY CONCRETE WASHOUTS PER LOCAL REQUIREMENTS, WHERE APPLICABLE. IF AN ALTERNATE METHOD OR PRODUCT IS

6. LOCATE WASHOUTS AT LEAST 50 FEET FROM STORM DRAIN INLETS AND SURFACE WATERS UNLESS IT CAN BE SHOWN THAT NO OTHER

8. INSTALL AT LEAST ONE SIGN DIRECTING CONCRETE TRUCKS TO THE WASHOUT WITHIN THE PROJECT LIMITS. POST SIGNAGE ON THE

9. REMOVE LEAVINGS FROM THE WASHOUT WHEN AT APPROXIMATELY 75% CAPACITY TO LIMIT OVERFLOW EVENTS. REPLACE THE TARP,

SAND BAGS OR OTHER TEMPORARY STRUCTURAL COMPONENTS WHEN NO LONGER FUNCTIONAL. WHEN UTILIZING ALTERNATIVE OR

10. AT THE COMPLETION OF THE CONCRETE WORK, REMOVE REMAINING LEAVINGS AND DISPOSE OF IN AN APPROVED DISPOSAL FACILITY. FILL

5. DO NOT USE CONCRETE WASHOUTS FOR DEWATERING OR STORING DEFECTIVE CURB OR SIDEWALK SECTIONS. STORMWATER

TO BE USED, CONTACT YOUR APPROVAL AUTHORITY FOR REVIEW AND APPROVAL. IF LOCAL STANDARD DETAILS ARE NOT AVAILABLE, USE

ACCUMULATED WITHIN THE WASHOUT MAY NOT BE PUMPED INTO OR DISCHARGED TO THE STORM DRAIN SYSTEM OR RECEIVING SURFACE

ALTERNATIVES ARE REASONABLY AVAILABLE. AT A MINIMUM, INSTALL PROTECTION OF STORM DRAIN INLET(S) CLOSEST TO THE WASHOUT

7. LOCATE WASHOUTS IN AN EASILY ACCESSIBLE AREA, ON LEVEL GROUND AND INSTALL A STONE ENTRANCE PAD IN FRONT OF THE WASHOUT.

- 3. DO NOT STORE HERBICIDES, PESTICIDES AND RODENTICIDES IN AREAS WHERE FLOODING IS POSSIBLE OR WHERE THEY MAY SPILL OR LEAK INTO WELLS, STORMWATER DRAINS, GROUND WATER OR SURFACE WATER. IF A SPILL OCCURS, CLEAN AREA IMMEDIATELY.
- 4. DO NOT STOCKPILE THESE MATERIALS ONSITE.

WHICH COULD RECEIVE SPILLS OR OVERFLOW.

WASHOUT ITSELF TO IDENTIFY THIS LOCATION.

EARTHEN STOCKPILE MANAGEMENT

- 1. SHOW STOCKPILE LOCATIONS ON PLANS. LOCATE EARTHEN-MATERIAL STOCKPILE AREAS AT LEAST 50 FEET AWAY FROM STORM DRAIN INLETS, SEDIMENT BASINS, PERIMETER SEDIMENT CONTROLS AND SURFACE WATERS UNLESS IT CAN BE SHOWN NO OTHER ALTERNATIVES ARE REASONABLY AVAILABLE.
- 2. PROTECT STOCKPILE WITH SILT FENCE INSTALLED ALONG TOE OF SLOPE WITH A MINIMUM OFFSET OF FIVE FEET FROM THE TOE OF STOCKPILE.
- 3. PROVIDE STABLE STONE ACCESS POINT WHEN FEASIBLE.
- 4. STABILIZE STOCKPILE WITHIN THE TIMEFRAMES PROVIDED ON THIS SHEET AND IN ACCORDANCE WITH THE APPROVED PLAN AND ANY ADDITIONAL REQUIREMENTS. SOIL STABILIZATION IS DEFINED AS VEGETATIVE, PHYSICAL OR CHEMICAL COVERAGE TECHNIQUES THAT WILL RESTRAIN ACCELERATED EROSION ON DISTURBED SOILS FOR TEMPORARY OR PERMANENT CONTROL NEEDS.

HAZARDOUS AND TOXIC WASTE

- CREATE DESIGNATED HAZARDOUS WASTE COLLECTION AREAS ON-SITE
- 2. PLACE HAZARDOUS WASTE CONTAINERS UNDER COVER OR IN SECONDARY CONTAINMENT. 3. DO NOT STORE HAZARDOUS CHEMICALS, DRUMS OR BAGGED MATERIALS DIRECTLY ON THE GROUND.

NCG01 GROUND STABILIZATION AND MATERIALS HANDLING

EFFECTIVE: 04/01/19

- CHISEL ALL CUT GRADED OR COMPACTED AREAS TO A MINIMUM DEPTH OF 6".
- 2. DISC ALL AREAS TO RECEIVE GRASS TO A MINIMUM OF 6 INCHES, MIX AND AMEND WITH 3 INCHES OF WELL SCREENED TOPSOIL. ON-SITE TOPSOIL MAY BE USED IN PLACE OF IMPORTED TOPSOIL, IF WELL-SCREENED AND DRY PRIOR TO APPLICATION IN ACCORDANCE WITH SPECIFICATION SECTION
- 3. REMOVE ALL LOOSE ROCK, ROOTS, AND OTHER OBSTRUCTIONS LEAVING SURFACE REASONABLY SMOOTH AND UNIFORM.
- 4. APPLY AGRICULTURAL LIME, FERTILIZER, AND PHOSPHATE UNIFORMLY AS PER SPECIFICATIONS AND MIX
- 5. CONTINUE TILLAGE UNTIL A WELL-PULVERIZED, FIRM, REASONABLY UNIFORM SEEDBED IS PREPARED TO A 6 INCHES DEPTH.
- 6. SEED AT RATE SPECIFIED OR AS NEEDED TO ACHIEVE AND MAINTAIN A THICK HEALTHY GROUND
- 7. MULCH IMMEDIATELY AFTER SEEDING AND ANCHOR MULCH. BEGIN THOROUGH WATERING OF GRASSED AREAS IMMEDIATELY UPON INSTALLATION. DO NOT ALLOW GRASSED AREAS TO BECOME EXCESSIVELY

LIME & FERTILIZATION SCHEDULE

- 8. INSPECT ALL SEEDED AREAS AND MAKE NECESSARY REPAIRS OR RESEEDINGS AS NEEDED.
- 9. IF CONFLICTS OCCUR BETWEEN WRITTEN SPECIFICATIONS AND THE DRAWINGS, THE WRITTEN
- SPECIFICATIONS SHALL PREVAIL.

CITY OF RALEIGH - PLANS AUTHORIZED FOR CONSTRUCTION

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CITY OF RALEIGH DEVELOPMENT APPROVAL

RALEIGH WATER REVIEW OFFICER



DO NOT USE FOR CONSTRUCTION

N.T.S.

04/05/2023

DRAWN BY J. HAYES **DESIGNED BY**

CHECKED BY G. FRANK

AS SHOWN

54832 SHEET NO.

C6.9

PART III SELF-INSPECTION, RECORDKEEPING AND REPORTING

SECTION A: SELF-INSPECTION

SELF-INSPECTIONS ARE REQUIRED DURING NORMAL BUSINESS HOURS IN ACCORDANCE WITH THE TABLE BELOW. WHEN ADVERSE WEATHER OR SITE CONDITIONS WOULD CAUSE THE SAFETY OF THE INSPECTION PERSONNEL TO BE IN JEOPARDY, THE INSPECTION MAY BE DELAYED UNTIL THE NEXT BUSINESS DAY ON WHICH IT IS SAFE TO PERFORM THE INSPECTION. IN ADDITION, WHEN A STORM EVENT OF EQUAL TO OR GREATER THAN 1.0 INCH OCCURS OUTSIDE OF NORMAL BUSINESS HOURS, THE SELF-INSPECTION SHALL BE PERFORMED UPON THE COMMENCEMENT OF THE NEXT BUSINESS DAY. ANY TIME WHEN INSPECTIONS WERE DELAYED SHALL BE NOTED IN THE INSPECTION RECORD.

	REQUIRED GR	OUND STABILIZATION TIMEFRAMES
INSPECT	FREQUENCY (DURING NORMAL BUSINESS HOURS)	TIMEFRAME VARIATIONS
(1) RAIN GAUGE MAINTAINED IN GOOD WORKING ORDER	DAILY	DAILY RAINFALL AMOUNTS. IF NO DAILY RAIN GAUGE OBSERVATIONS ARE MADE DURING WEEKEND OR HOLIDAY PERIODS, AND NO INDIVIDUAL-DAY RAINFALL INFORMATION IS AVAILABLE, RECORD THE CUMULATIVE RAIN MEASUREMENT FOR THOSE UNATTENDED DAYS (AND THIS WILL DETERMINE IF A SITE INSPECTION IS NEEDED). DAYS ON WHICH NO RAINFALL OCCURRED SHALL BE RECORDED AS "ZERO." THE PERMITTEE MAY USE ANOTHER RAIN-MONITERING DEVICE APPROVED BY THE DIVISION.
(2) E&SC MEASURES	AT LEAST ONCE PER 7 CALENDAR DAYS AND WITHIN 24 HOURS OF A RAIN EVENT ≥ 1.0 INCH IN 24 HOURS	 IDENTIFICATION OF THE MEASURES INSPECTED, DATE AND TIME OF THE INSPECTION, NAME OF THE PERSON PERFORMING THE INSPECTION INDICATION OF WEATHER THE MEASURES WERE OPERATING PROPERLY DESCRIPTION OF MAINTENANCE NEEDS FOR THE MEASURE DESCRIPTION, EVIDENCE, AND DATE OF CORRECTIVE ACTIONS TAKEN.
(3) STORMWATER DISCHARGE OUTFALLS (SDOS)	AT LEAST ONCE PER 7 CALENDAR DAYS AND WITHIN 24 HOURS OF A RAIN EVENT ≥ 1.0 INCH IN 24 HOURS	 IDENTIFICATION OF THE MEASURES INSPECTED, DATE AND TIME OF THE INSPECTION, NAME OF THE PERSON PERFORMING THE INSPECTION EVIDENCE OF INDICATORS OF STORMWATER POLLUTION SUCH AS OIL SHEEN, FLOATING OR SUSPENDED SOLIDS OR DISCOLORATION. INDICATION OF VISIBLE SEDIMENT LEAVING THE SITE DESCRIPTION, EVIDENCE, AND DATE OF CORRECTIVE ACTIONS TAKEN.
(4) PERIMETER OF SITE	AT LEAST ONCE PER 7 CALENDAR DAYS AND WITHIN 24 HOURS OF A RAIN EVENT ≥ 1.0 INCH IN 24 HOURS	 IF VISIBLE SEDIMENTATION IS FOUND OUTSIDE SITE LIMITS, THEN A RECORD OF THE FOLLOWING SHALL BE MADE: 1. ACTIONS TAKEN TO CLEAN UP OR STABILIZE THE SEDIMENT THE HAS LEFT THE SITE LIMITS 2. DESCRIPTION, EVIDENCE, AND DATE OF CORRECTIVE ACTIONS TAKEN, AND 3. AN EXPLANATION AS TO THE ACTIONS TAKEN TO CONTROL FUTURE RELEASES.
(5) STREAMS OR WETLANDS ON SITE OR OFFSITE (WHERE ACCESSIBLE)	AT LEAST ONCE PER 7 CALENDAR DAYS AND WITHIN 24 HOURS OF A RAIN EVENT ≥ 1.0 INCH IN 24 HOURS	IF THE STREAM OR WETLAND HAS INCREASED VISIBLE SEDIMENTATION OR A STREAM HAS VISIBLE INCREASED TURBIDITY FROM THE CONSTRUCTION ACTIVITY, THEN A RECORD OF THE FOLLOWING SHALL BE MADE: 1. DESCRIPTION, EVIDENCE AND DATE OF CORRECTIVE ACTIONS TAKEN, AND 2. RECORDS OF THE REQUIRED REPORTS TO THE APPROPRIATE DIVISION REGIOINAL OFFICE PER PART III, SECTION C, ITEM (2)(A) OF THIS PERMIT.
(6) GROUND STABILIZATION MEASURES	AFTER EACH PHASE OF GRADING	 THE PHASE OF GRADING (INSTALLATION OF PERIMETER E&SC MEASURES, CLEARING AND GRUBBING, INSTALLATION OF STORM DRAINAGE FACILITIES, COMPLETION OF ALL LAND-DISTURBING ACTIVITY, CONSTRUCTION OR REDEVELOPMENT, PERMANENT GROUND COVER). DOCUMENTATION THAT THE REQUIRED GROUND STABILIZATION MEASURES HAVE BEEN PROVIDED WITHIN THE REQUIRED TIMEFRAME OR AN ASSURANCE THAT THEY

NOTE: THE RAIN INSPECTION RESETS THE REQUIRED 7 CALENDAR DAY INSPECTION REQUIREMENT.

PART III SELF-INSPECTION, RECORDKEEPING AND REPORTING

SECTION B: RECORDKEEPING

1. E&SC PLAN DOCUMENTATION

THE APPROVED E&SC PLAN AS WELL AS ANY APPROVED DEVIATION SHALL BE KEPT ON THE SITE. THE APPROVED E&SC PLAN MUST BE KEPT UP-TO-DATE THROUGHOUT THE COVERAGE UNDER THIS PERMIT. THE FOLLOWING ITEMS PERTAINING TO THE E&SC PLAN SHALL BE KEPT ON SITE AND AVAILABLE FOR INSPECTION AT ALL TIMES DURING NORMAL BUSINESS HOURS.

OCCURRENCE	DOCUMENTATION REQUIREMENTS
(A) EACH E&SC MEASURE HAS BEEN INSTALLED AND DOES NOT SIGNIFICANTLY DEVIATE FROM THE LOCATIONS, DIMENSIONS, AND RELATIVE ELEVATIONS SHOWN ON THE APPROVED E&SC PLAN.	INITIAL AND DATE EACH E&SC MEASURE ON A COPY OF THE APPROVED E&SC PLAN OR COMPLETE, DATE AND SIGN AN INSPECTION REPORT THAT LISTS EACH E&SC MEASURE SHOWN ON THE APPROVED E&SC PLAN. THIS DOCUMENTATION IS REQUIRED UPON THE INITIAL INSTALLATION OF THE E&SC MEASURES OR IF THE E&SC MEASURES ARE MODIFIED AFTER INITIAL INSTALLATION.
(B) A PHASE OF GRADING HAS BEEN COMPLETED	INITIAL AND DATE A COPY OF THE APPROVED E&SC PLAN OR COMPLETE, DATE AND SIGN AN INSPECTION REPORT TO INDICATE COMPLETION OF THE CONSTRUCTION PHASE
(C) GROUND COVER IS LOCATED AND INSTALLED IN ACCORDANCE WITH THE APPROVED E&SC PLAN.	INITIAL AND DATE A COPY OF THE APPROVED E&SC PLAN OR COMPLETE, DATE AND SIGN AN INSPECTION REPORT TO INDICATE COMPLIANCE WITH APPROVED GROUND COVER SPECIFICATIONS
(D) THE MAINTENANCE AND REPAIR REQUIREMENTS FOR ALL E&SC MEASURES HAVE BEEN PERFORMED	COMPLETE, DATE AND SIGN AN INSPECTION REPORT
(E) CORRECTIVE ACTIONS HAVE BEEN TAKEN TO E&SC MEASURES	INITIAL AND DATE A COPY OF THE APPROVED E&SC PLAN OR COMPLETE, DATE AND SIGN AN INSPECTION REPORT TO INDICATE THE COMPLETION OF THE CORRECTIVE ACTION

2. ADDITIONAL DOCUMENTATION TO BE KEPT ON SITE

IN ADDITION TO THE E&SC PLAN DOCUMENTS ABOVE, THE FOLLOWING ITEMS SHALL BE KEPT ON THE SITE AND AVAILABLE FOR INSPECTORS AT ALL TIMES DURING NORMAL BUSINESS HOURS, UNLESS THE DIVISION PROVIDES A SITE-SPECIFIC EXEMPTION BASED ON UNIQUE SITE CONDITIONS THAT MAKE THIS REQUIREMENT NOT PRACTICAL:

- (a) THIS GENERAL PERMIT AS WELL AS THE CERTIFICATE OF COVERAGE, AFTER IT IS RECEIVED.
- (b) RECORDS OF INSPECTIONS MADE DURING THE PREVIOUS TWELVE MONTHS. THE PERMITTEE SHALL RECORD THE REQUIRED OBSERVATIONS ON THE INSPECTION RECORD FORM PROVIDED BY THE DIVISION OR A SIMILAR INSPECTION FORM THAT INCLUDES ALL THE REQUIRED ELEMENTS. USE OF ELECTRONICALLY-AVAILABLE RECORDS IN LIEU OF THE REQUIRED PAPER COPIES WILL BE ALLOWED IF SHOWN TO PROVIDE EQUAL ACCESS AND UTILITY AS THE HARD-COPY RECORDS.

3. DOCUMENTATION TO BE RETAINED FOR THREE YEARS

ALL DATA USED TO COMPLETE THE E-NOI AND ALL INSPECTION RECORDS SHALL BE MAINTAINED FOR A PERIOD OF THREE YEARS AFTER PROJECT COMPLETION AND MADE AVAILABLE UPON REQUEST. [40 CFR 122.41]

PART II, SECTION G, ITEM (4)

DRAW DOWN OF SEDIMENT BASINS FOR MAINTENANCE OR CLOSE OUT

SEDIMENT BASINS AND TRAPS THAT RECEIVE RUNOFF FROM DRAINAGE AREAS OF ONE ACRE OR MORE SHALL USE OUTLET STRUCTURES THAT WITHDRAW WATER FROM THE SURFACE WHEN THESE DEVICES NEED TO BE DRAWN DOWN FOR MAINTENANCE OR CLOSE OUT UNLESS THIS IS INFEASIBLE. THE CIRCUMSTANCES IN WHICH IT IS NOT FEASIBLE TO WITHDRAW WATER FROM THE SURFACE SHALL BE RARE (FOR EXAMPLE, TIMES WITH EXTENDED COLD WEATHER). NON-SURFACE WITHDRAWALS FROM SEDIMENT BASINS SHALL BE ALLOWED ONLY WHEN ALL OF THE FOLLOWING CRITERIA HAVE BEEN MET:

- (a) THE E&SC PLAN AUTHORITY HAS BEEN PROVIDED WITH DOCUMENTATION OF THE NON-SURFACE WITHDRAWAL AND THE SPECIFIC TIME PERIODS OR CONDITIONS IN WHICH IT WILL OCCUR. THE NON-SURFACE WITHDRAWAL
- SHALL NOT COMMENCE UNTIL THE E&SC PLAN AUTHORITY HAS APPROVED THESE ITEMS, (b) THE NON-SURFACE WITHDRAWAL HAS BEEN REPORTED AS AN ANTICIPATED BYPASS IN ACCORDANCE WITH PART III, SECTION C, ITEM (2)(C) AND (D) OF THIS PERMIT,

WILL BE PROVIDED AS SOON AS POSSIBLE

- (c) DEWATERING DISCHARGES ARE TREATED WITH CONTROLS TO MINIMIZE DISCHARGES OF POLLUTANTS FROM STORMWATER THAT IS REMOVED FROM THE SEDIMENT BASIN. EXAMPLES OF APPROPRIATE CONTROLS INCLUDE
- PROPERLY SITED, DESIGNED AND MAINTAINED DEWATERING TANKS, WEIR TANKS, AND FILTRATION SYSTEMS,
- (d) VEGETATED, UPLAND AREAS OF THE SITES OR A PROPERLY DESIGNED STONE PAD IS USED TO THE EXTENT FEASIBLE AT THE OUTLET OF THE DEWATERING TREATMENT DEVICES DESCRIBED IN ITEM (C) ABOVE,
- (e) VELOCITY DISSIPATION DEVICES SUCH AS CHECK DAMS, SEDIMENT TRAPS, AND RIPRAP ARE PROVIDED AT THE DISCHARGE POINTS OF ALL DEWATERING DEVICES, AND
- (f) SEDIMENT REMOVED FROM THE DEWATERING TREATMENT DEVICES DESCRIBED IN ITEM (C) ABOVE IS DISPOSED OF IN A MANNER THAT DOES NOT CAUSE DEPOSITION OF SEDIMENT INTO WATERS OF THE UNITED STATES.

PART III SELF-INSPECTION, RECORDKEEPING AND REPORTING

SECTION C: REPORTING

1. OCCURRENCES THAT MUST BE REPORTED

PERMITTEES SHALL REPORT THE FOLLOWING OCCURRENCES:

(a) VISIBLE SEDIMENT DEPOSITION IN A STREAM OR WETLAND.

- (b) OIL SPILLS IF:
- THEY ARE 25 GALLONS OR MORE,
- THEY ARE LESS THAN 25 GALLONS BUT CANNOT BE CLEANED UP WITHIN 24 HOURS,
- THEY CAUSE SHEEN ON SURFACE WATERS (REGARDLESS OF VOLUME), OR
- THEY ARE WITHIN 100 FEET OF SURFACE WATERS (REGARDLESS OF VOLUME).

(C) RELEASES OF HAZARDOUS SUBSTANCES IN EXCESS OF REPORTABLE QUANTITIES UNDER SECTION 311 OF THE CLEAN WATER ACT (REF: 40 CFR 110.3 AND 40 CFR 117.3) OR SECTION 102 OF CERCLA (REF: 40 CFR 302.4) OR G.S. 143-215.85.

- (d) ANTICIPATED BYPASSES AND UNANTICIPATED BYPASSES.
- (e) NONCOMPLIANCE WITH THE CONDITIONS OF THIS PERMIT THAT MAY ENDANGER HEALTH OR THE ENVIRONMENT.

2. REPORTING TIMEFRAMES AND OTHER REQUIREMENTS

AFTER A PERMITTEE BECOMES AWARE OF AN OCCURRENCE THAT MUST BE REPORTED, HE SHALL CONTACT THE APPROPRIATE DIVISION REGIONAL OFFICE WITHIN THE TIMEFRAMES AND IN ACCORDANCE WITH THE OTHER REQUIREMENTS LISTED BELOW. OCCURRENCES OUTSIDE NORMAL BUSINESS HOURS MAY ALSO BE REPORTED TO THE DEPARTMENT'S ENVIRONMENTAL EMERGENCY CENTER PERSONNEL AT (800) 858-0368.

OCCURRENCE	REPORTING TIMEFRAMES (AFTER DISCOVERY) AND OTHER REQUIREMENTS
(A) VISIBLE SEDIMENT DEPOSITION IN A STREAM OR WETLAND	 WITHIN 24 HOURS, AN ORAL OR ELECTRONIC NOTIFICATION WITHIN 7 CALENDAR DAYS, A REPORT THAT CONTAINS A DESCRIPTION OF THE SEDIMENT AND ACTIONS TAKEN TO ADDRESS THE CAUSE OF THE DEPOSITION. DIVISION STAFF MAY WAIVE THE REQUIREMENT FOR A WRITTEN REPORT ON A CASE-BY-CASE BASIS. IF THE STREAM IS NAMED ON THE NC 303(D) LIST AS IMPAIRED FOR SEDIMENT RELATED CAUSES, THE PERMITTEE MAY BE REQUIRED TO PERFORM ADDITIONAL MONITERING, INSPECTIONS, OR APPLY MORE STRINGENT PRACTICES IF STAFF DETERMINE THAT ADDITIONAL REQUIREMENTS ARE NEEDED TO ASSURE COMPLIANCE WITH THE FEDERAL OR STATE IMPAIRED-WATERS CONDITIONS
(B) OIL SPILLS AND RELEASE OF HAZARDOUS SUBSTANCES PER ITEM 1 (B)-(C) ABOVE	WITHIN 24 HOURS, AN ORAL OR ELECTRONIC NOTIFICATION. THE NOTIFICATION SHALL INCLUDE INFORMATION ABOUT THE DATE, TIME, NATURE, VOLUME, AND LOCATION OF THE SPILL OR RELEASE
(C) ANTICIPATED BYPASSES [40 CFR 122.41(M)(3)]	A REPORT AT LEAST TEN DAYS BEFORE THE DATE OF THE BYPASS, IF POSSIBLE. THE REPORT SHALL INCLUDE AN EVALUATION OF THE ANTICIPATED QUALITY AND EFFE OF THE BYPASS
(D) UNANTICIPATED BYPASSES [40 CFR 122.41(M)(3)]	 WITHIN 24 HOURS, AN ORAL OR ELECTRONIC NOTIFICATION WITHIN 7 CALENDAR DAYS, A REPORT THAT INCLUDES AN EVALUATION OF THE QUALITY AND EFFECT OF THE BYPASS
(E) NONCOMPLIANCE WITH THE CONDITIONS OF THIS PERMIT THAT MAY ENDANGER HEALTH OR THE ENVIRONMENT [40 CFR 122.41 (I)(7)]	 WITHIN 24 HOURS, AN ORAL OR ELECTRONIC NOTIFICATION WITHIN 7 CALENDAR DAYS, A REPORT THAT CONTAINS A DESCRIPTION OF THE NONCOMPLIANCE, AND ITS CAUSES; THE PERIOD OF NONCOMPLIANCE, INCLUDIN EXACT DATES AND TIMES, AND IF THE NONCOMPLIANCE HAS NOT BEEN CORRECT THE ANTICIPATED TIME NONCOMPLIANCE IS EXPECTED TO CONTINUE; AND STEPS TAKEN OR PLANNED TO REDUCE, ELIMINATE, AND PREVENT REOCCURRENCE OF T NONCOMPLIANCE. [40 CFR 122.41(I)(6). DIVISION STAFF MAY WAIVE THE REQUIREMENT FOR A WRITTEN REPORT ON A CABY CASE BASIS



DO NOT USE FOR CONSTRUCTION

04/05/2023 DRAWN BY

J. HAYES **DESIGNED BY**

CHECKED BY G. FRANK SCALE

AS SHOWN

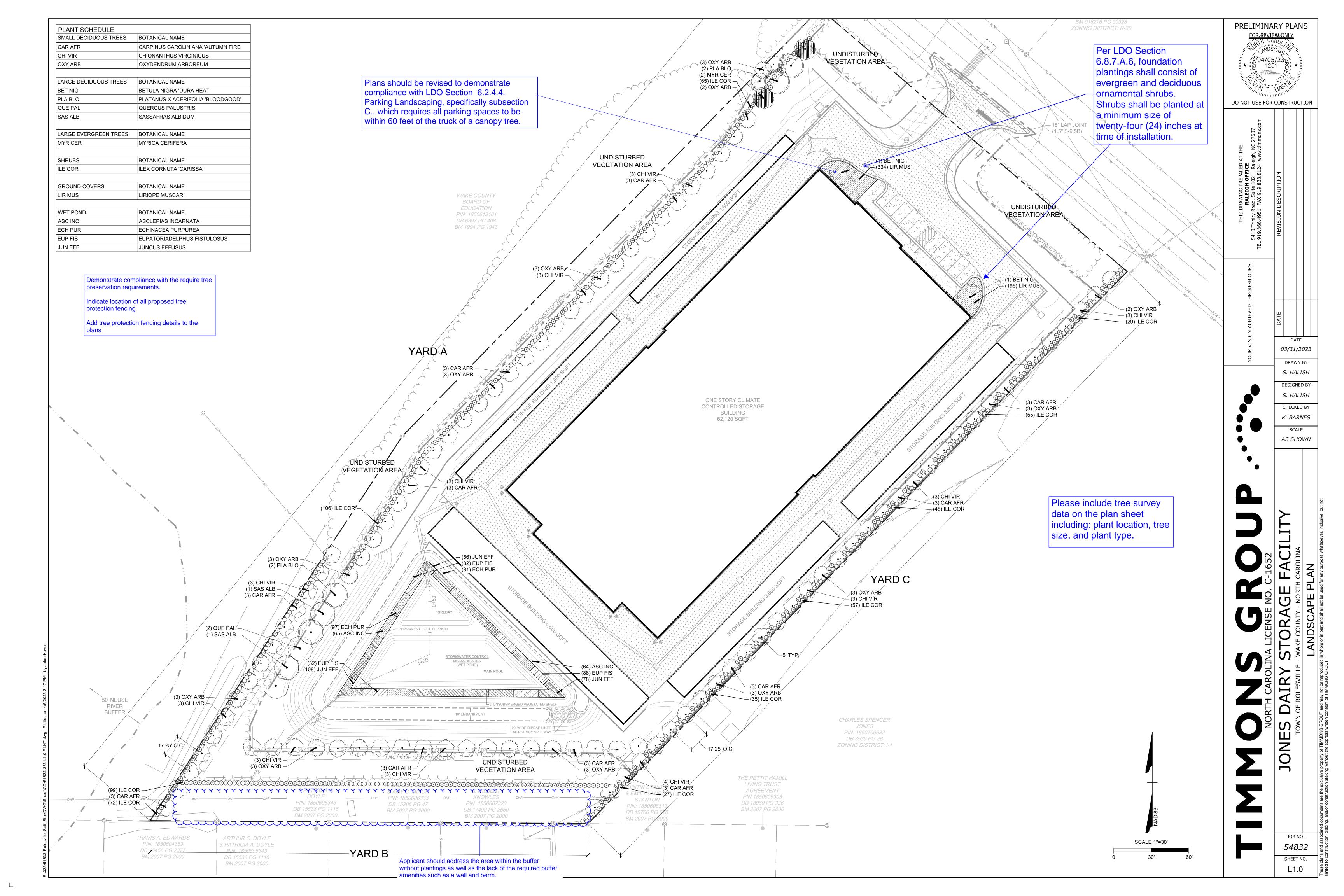
54832 SHEET NO. C6.10

CITY OF RALEIGH - PLANS AUTHORIZED FOR CONSTRUCTION

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CITY OF RALEIGH DEVELOPMENT APPROVAL

RALEIGH WATER REVIEW OFFICER



YARD	REQUIREMENT	LENGTH & WIDTH	CALCULATION	REQUIRED LANDSCAPE	PROVIDED LANDSCAPE
А	LANDSCAPE TYPE: 4 SM. DECID TREE: 4/100 LG. DECID TREE: 8/100 EVERGREE TREE: 0 MEDIUM SHRUB HEDGE	LENGTH: 869.7 ENTRIES: - EASEMENTS: - EXIST. VEG.: - TOTAL: 869.7 WIDTH: 50	SM. DECID TREE: (870 / 100) x 4 = 34. LG. DECID TREE: (870 / 100) x 8 = 69. EVERGREE TREE: MEDIUM SHRUB HED	LG. DECID TREE : 70 EVERGREE TREE :	SM. DECID TREE: 47 LG. DECID TREE: 8 EVERGREE TREE: 2 MEDIUM SHRUB: 24
В	LANDSCAPE TYPE: 4 SM. DECID TREE: 4/100 LG. DECID TREE: 8/100 EVERGREE TREE: 0 MEDIUM SHRUB HEDGE	LENGTH: 351.8 ENTRIES: - EASEMENTS: - EXIST. VEG.: - TOTAL: 351.8 WIDTH: 50	SM. DECID TREE: (352 / 100) x 4 = 14.0 LG. DECID TREE: (352 / 100) x 8 = 28.0 EVERGREE TREE: MEDIUM SHRUB HED	14 LG. DECID TREE : 29 EVERGREE TREE :	SM. DECID TREE : 18 LG. DECID TREE : EVERGREE TREE : MEDIUM SHRUB : 93
С	LANDSCAPE TYPE: 1 SM. DECID TREE: 1/100 LG. DECID TREE: 3/100 EVERGREE TREE: 0 MEDIUM SHRUB 40/100	LENGTH: 640.1 ENTRIES: - EASEMENTS: - EXIST. VEG.: - TOTAL: 640.1 WIDTH: 10	SM. DECID TREE: (641 / 100) x 1 = 6.4 LG. DECID TREE: (641 / 100) x 3 = 19.1 EVERGREE TREE: MEDIUM SHRUB (641 / 100) x 40 = 256.	20 LG. DECID TREE: 20 EVERGREE TREE: 0	SM. DECID TREE: 36 LG. DECID TREE: EVERGREE TREE: MEDIUM SHRUB: 25

PLANT SCHEDULE YARD							
SMALL DECIDUOUS TREES	QTY	BOTANICAL NAME	COMMON NAME	MIN. INSTALLED SIZE	ROOT		REMARKS
CAR AFR	15	CARPINUS CAROLINIANA 'AUTUMN FIRE'	AUTUMN FIRE AMERICAN HORNBEAM	2" CAL.	B&B		
CHI VIR	15	CHIONANTHUS VIRGINICUS	WHITE FRINGETREE	2" CAL.	B&B		
OXY ARB	17	OXYDENDRUM ARBOREUM	SOURWOOD TREE	2" CAL.	B&B		
	•			•	•	•	•
LARGE DECIDUOUS TREES	QTY	BOTANICAL NAME	COMMON NAME	MIN. INSTALLED SIZE	ROOT		REMARKS
PLA BLO	4	PLATANUS X ACERIFOLIA 'BLOODGOOD'	BLOODGOOD LONDON PLANE TREE	2.5" CAL.	B&B		
QUE PAL	2	QUERCUS PALUSTRIS	PIN OAK	2.5" CAL.	B&B		
SAS ALB	2	SASSAFRAS ALBIDUM	SASSAFRAS	2.5" CAL.	B&B		
	•			•	•	•	,
LARGE EVERGREEN TREES	QTY	BOTANICAL NAME	COMMON NAME	MIN. INSTALLED SIZE	ROOT		REMARKS
MYR CER	2	MYRICA CERIFERA	WAX MYRTLE	2.5" CAL.	B&B		
				•	•		•
SHRUBS	QTY	BOTANICAL NAME	COMMON NAME	MIN. INSTALLED SIZE	ROOT	SPACING	REMARKS
ILE COR	245	ILEX CORNUTA 'CARISSA'	CARISSA CHINESE HOLLY	24" HT./SPRD.	CONTAINER	42" o.c.	

PLANT SCHEDULE YARI	D B						
SMALL DECIDUOUS TREES	QTY	BOTANICAL NAME	COMMON NAME	MIN. INSTALLED SIZE	ROOT		REMARKS
CAR AFR	6	CARPINUS CAROLINIANA 'AUTUMN FIRE'	AUTUMN FIRE AMERICAN HORNBEAM	2" CAL.	B&B		
CHI VIR	6	CHIONANTHUS VIRGINICUS	WHITE FRINGETREE	2" CAL.	B&B		
OXY ARB	6	OXYDENDRUM ARBOREUM	SOURWOOD TREE	2" CAL.	B&B		
SHRUBS	QTY	BOTANICAL NAME	COMMON NAME	MIN. INSTALLED SIZE	ROOT	SPACING	REMARKS
ILE COR	93	ILEX CORNUTA 'CARISSA'	CARISSA CHINESE HOLLY	24" HT./SPRD.	CONTAINER	42" o.c.	

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	BOTANICAL NAME	COMMON NAME	MIN. INSTALLED SIZE	ROOT		REMARKS
C	CARPINUS CAROLINIANA 'AUTUMN FIRE'	AUTUMN FIRE AMERICAN HORNBEAM	2" CAL.	B&B		
C	CHIONANTHUS VIRGINICUS	WHITE FRINGETREE	2" CAL.	B&B		
C	OXYDENDRUM ARBOREUM	SOURWOOD TREE	2" CAL.	B&B		
ΓY E	BOTANICAL NAME	COMMON NAME	MIN. INSTALLED SIZE	ROOT	SPACING	REMARKS
0 11	LEX CORNUTA 'CARISSA'	CARISSA CHINESE HOLLY	24" HT./SPRD.	CONTAINER	42" o.c.	
ΓΥ	((CHIONANTHUS VIRGINICUS OXYDENDRUM ARBOREUM	CHIONANTHUS VIRGINICUS OXYDENDRUM ARBOREUM SOURWOOD TREE BOTANICAL NAME COMMON NAME	CHIONANTHUS VIRGINICUS WHITE FRINGETREE 2" CAL. OXYDENDRUM ARBOREUM SOURWOOD TREE 2" CAL. BOTANICAL NAME COMMON NAME MIN. INSTALLED SIZE	CHIONANTHUS VIRGINICUS WHITE FRINGETREE 2" CAL. B&B OXYDENDRUM ARBOREUM SOURWOOD TREE 2" CAL. B&B MIN. INSTALLED SIZE ROOT	CHIONANTHUS VIRGINICUS WHITE FRINGETREE 2" CAL. B&B OXYDENDRUM ARBOREUM SOURWOOD TREE 2" CAL. B&B MIN. INSTALLED SIZE ROOT SPACING

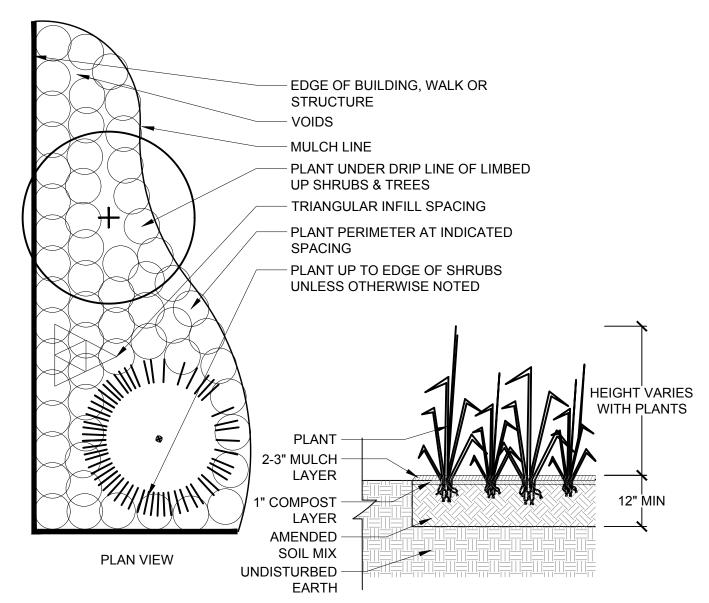
OVERALL

A greater variety in the type of shrubs shall

be provided. Please indicate at least three

varieties to provide diversity on site

PLANT SCHEDULI	E							
SMALL DECIDUOUS T	TREES	QTY	BOTANICAL NAME	COMMON NAME	MIN. INSTALLED SIZE	ROOT		REMARKS
CAR AFR		33	CARPINUS CAROLINIANA 'AUTUMN FIRE'	AUTUMN FIRE AMERICAN HORNBEAM	2" CAL.	B&B		
CHI VIR		34	CHIONANTHUS VIRGINICUS	WHITE FRINGETREE	2" CAL.	B&B		
OXY ARB		34	OXYDENDRUM ARBOREUM	SOURWOOD TREE	2" CAL.	B&B		
LARGE DECIDUOUS	TREES	QTY	BOTANICAL NAME	COMMON NAME	MIN. INSTALLED SIZE	ROOT		REMARKS
BET NIG		2	BETULA NIGRA 'DURA HEAT'	DURA HEAT RIVER BIRCH	2.5" CAL.	B&B		
PLA BLO		4	PLATANUS X ACERIFOLIA 'BLOODGOOD'	BLOODGOOD LONDON PLANE TREE	2.5" CAL.	B&B		
QUE PAL		2	QUERCUS PALUSTRIS	PIN OAK	2.5" CAL.	B&B		
SAS ALB		2	SASSAFRAS ALBIDUM	SASSAFRAS	2.5" CAL.	B&B		
LARGE EVERGREEN	TREES	QTY	BOTANICAL NAME	COMMON NAME	MIN. INSTALLED SIZE	ROOT		REMARKS
MYR CER		2	MYRICA CERIFERA	WAX MYRTLE	2.5" CAL.	B&B		
~~~~		$\overline{\gamma}$	$\sim$		•	·		•
SHRUBS		QTY	BOTANICAL NAME	COMMON NAME	MIN. INSTALLED SIZE	ROOT	SPACING	REMARKS
LE COR		593	ILEX CORNUTA 'CARISSA'	CARISSA CHINESE HOLLY	24" HT./SPRD.	CONTAINER	42" o.c.	
PROUND COVERS		QTY-	BOTANICAL NAME	COMMONIANT	MIN INICTALLED CIZE	DOOT	CDACING	DEMARKS
				COMMON NAME	MIN. INSTALLED SIZE	ROOT	SPACING	REMARKS
IR MUS		530	LIRIOPE MUSCARI	LILYTURF	BARE ROOT	CONTAINER	18" o.c.	
WET POND		QTY	BOTANICAL NAME	COMMON NAME	MIN. INSTALLED SIZE	ROOT	SPACING	REMARKS
ASC INC		129	ASCLEPIAS INCARNATA	SWAMP MILKWEED	BULB	CONTAINER	24" o.c.	
ECH PUR		178	ECHINACEA PURPUREA	CONEFLOWER	BULB	CONTAINER	24" o.c.	
EUP FIS		152	EUPATORIADELPHUS FISTULOSUS	JOE PYE WEED	BULB	CONTAINER	24" o.c.	
JUN EFF		242	JUNCUS EFFUSUS	COMMON RUSH	BULB	CONTAINER	24" o.c.	





# **GENERAL NOTES**

# PRE-CONSTRUCTION

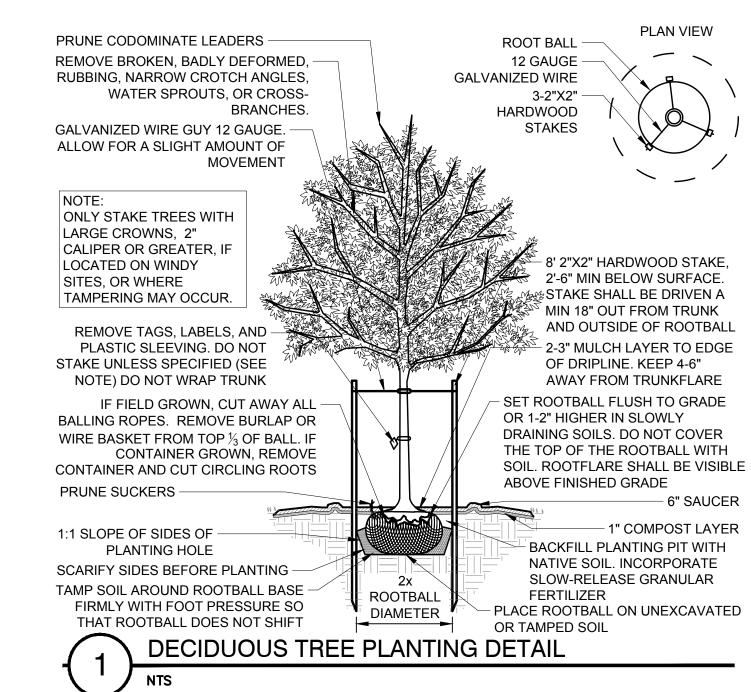
- CONTRACTOR IS RESPONSIBLE FOR CONTACTING VIRGINIA 811 AT 1.800.553.3120 FOR LOCATION OF ALL UTILITY LINES.TREES SHALL BE LOCATED A MINIMUM OF 5 FEET FROM SEWER/WATER CONNECTIONS NOTIFY LANDSCAPE ARCHITECT OF CONFLICTS.
- VERIFY ALL PLANT MATERIAL QUANTITIES ON THE PLAN PRIOR TO BIDDING, PLANT LIST TOTALS ARE FOR CONVENIENCE ONLY AND SHALL BE VERIFIED PRIOR TO BIDDING.
- PROVIDE PLANT MATERIALS OF QUANTITY, SIZE, GENUS, SPECIES, AND VARIETY INDICATED ON PLANS. ALL PLANT MATERIALS AND INSTALLATION SHALL COMPLY WITH RECOMMENDATIONS AND REQUIREMENTS OF ANSI Z60.1 "AMERICAN STANDARD FOR NURSERY STOCK". IF SPECIFIED PLANT MATERIAL IS NOT OBTAINABLE, SUBMIT PROOF OF NON AVAILABILITY TO THE LANDSCAPE ARCHITECT, TOGETHER WITH PROPOSAL FOR USE OF EQUIVALENT MATERIAL.
- PROVIDE AND INSTALL ALL PLANTS AS IN ACCORDANCE WITH DETAILS AND CONTRACT SPECIFICATIONS.
- SOIL TESTS SHALL BE PERFORMED TO DETERMINE SOIL CHARACTER AND QUALITY. NECESSARY SOIL AMENDMENTS SHALL BE PERFORMED PER TEST RESULTS TO ENSURE PLANT HEALTH.

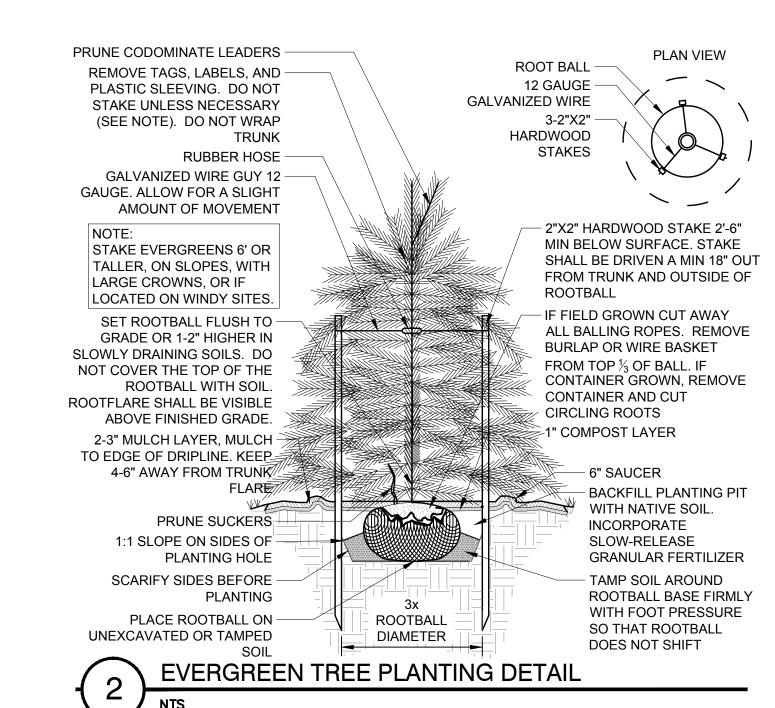
# CONSTRUCTION/INSTALLATION

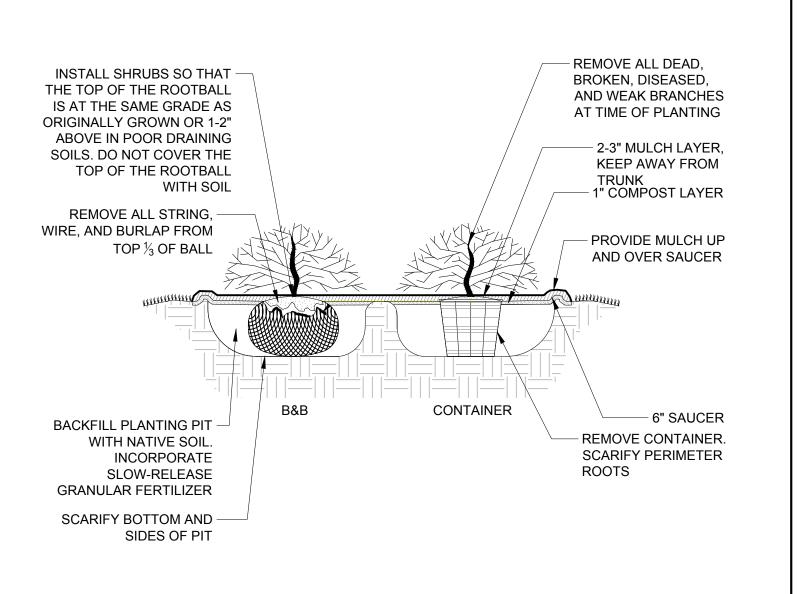
- LANDSCAPE ARCHITECT RESERVES THE RIGHT TO REJECT ANY PLANTS AND MATERIALS THAT ARE IN AN UNHEALTHY OR UNSIGHTLY CONDITION, AS WELL AS PLANTS AND MATERIALS THAT DO NOT CONFORM TO ANSI Z60.1 "AMERICAN STANDARD FOR NURSERY STOCK"
- LABEL AT LEAST ONE TREE AND ONE SHRUB OF EACH VARIETY AND CALIPER WITH A SECURELY ATTACHED, WATERPROOF TAG BEARING THE DESIGNATION OF BOTANICAL AND COMMON NAME.
- INSTALL LANDSCAPE PLANTINGS AT ENTRANCES/EXITS AND PARKING AREAS ACCORDING TO PLANS SO THAT MATERIALS WILL NOT INTERFERE WITH SIGHT DISTANCES.
- CONTRACTOR IS RESPONSIBLE FOR WATERING ALL PLANT MATERIAL DURING INSTALLATION AND UNTIL FINAL INSPECTION AND ACCEPTANCE BY OWNER. CONTRACTOR SHALL NOTIFY OWNER OF CONDITIONS WHICH AFFECTS THE GUARANTEE.

# INSPECTIONS/GUARANTEE

- UPON COMPLETION OF LANDSCAPE INSTALLATION, THE LANDSCAPE CONTRACTOR SHALL NOTIFY THE GENERAL CONTRACTOR WHO WILL VERIFY COMPLETENESS, INCLUDING THE REPLACEMENT OF ALL DEAD PLANT MATERIAL. CONTRACTOR IS RESPONSIBLE FOR SCHEDULING A FINAL INSPECTION BY THE LANDSCAPE ARCHITECT.
- ALL EXTERIOR PLANT MATERIALS SHALL BE GUARANTEED FOR ONE FULL YEAR AFTER DATE OF FINAL INSPECTION AGAINST DEFECTS INCLUDING DEATH AND UNSATISFACTORY GROWTH. DEFECTS RESULTING FROM NEGLECT BY THE OWNER, ABUSE OR DAMAGE BY OTHERS, OR UNUSUAL PHENOMENA OR INCIDENTS WHICH ARE BEYOND THE CONTRACTORS CONTROL ARE NOT THE RESPONSIBILITY OF THE CONTRACTOR.
- PLANT MATERIAL QUANTITIES AND SIZES WILL BE INSPECTED FOR COMPLIANCE WITH APPROVED PLANS BY A SITE PLAN REVIEW AGENT OF THE PLANNING DEPARTMENT PRIOR TO THE RELEASE OF THE CERTIFICATE OF OCCUPANCY.
- REMOVE ALL GUY WIRES AND STAKES 12 MONTHS AFTER INSTALLATION.









PRELIMINARY PLANS FOR REVIEW/ONLY NDSCAN 1251 O DO NOT USE FOR CONSTRUCTION

DATE 03/31/2023

DRAWN BY S. HALISH **DESIGNED BY** 

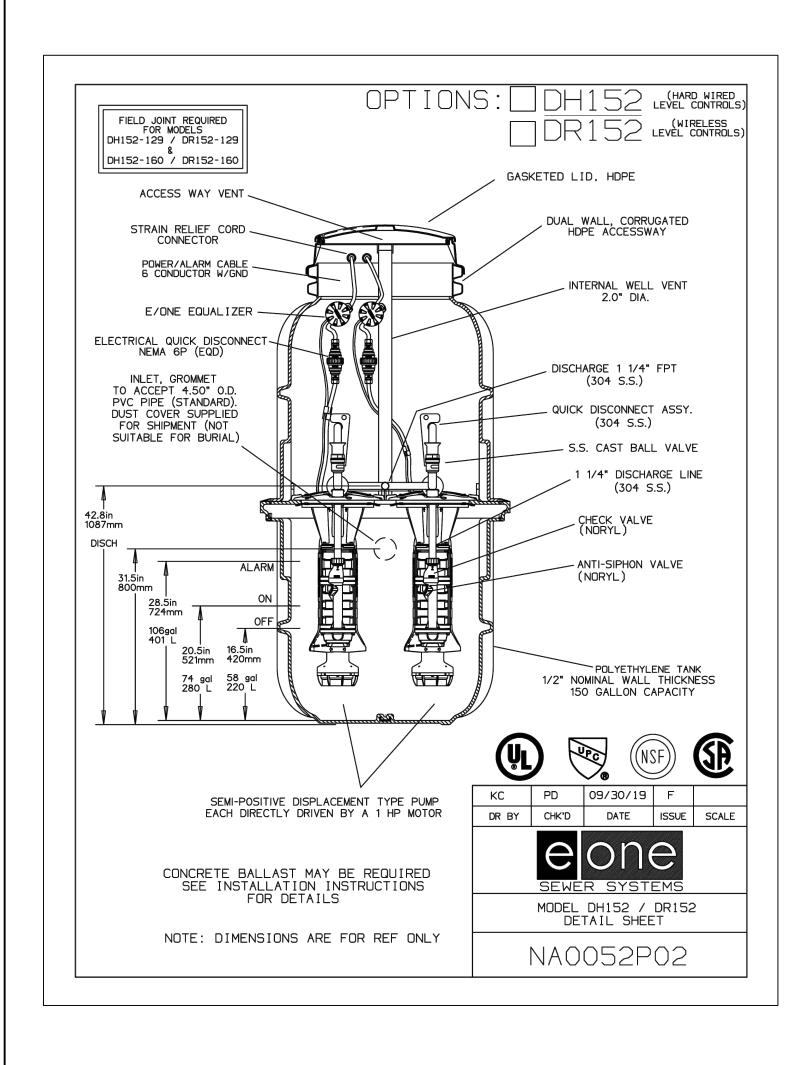
S. HALISH CHECKED BY K. BARNES

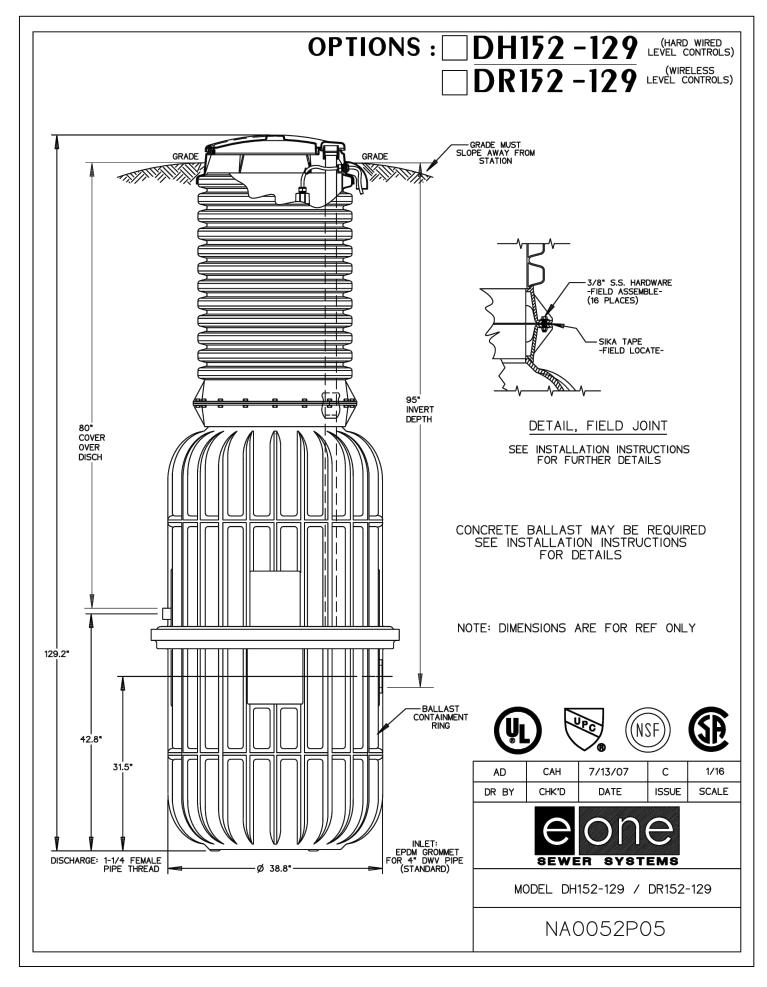
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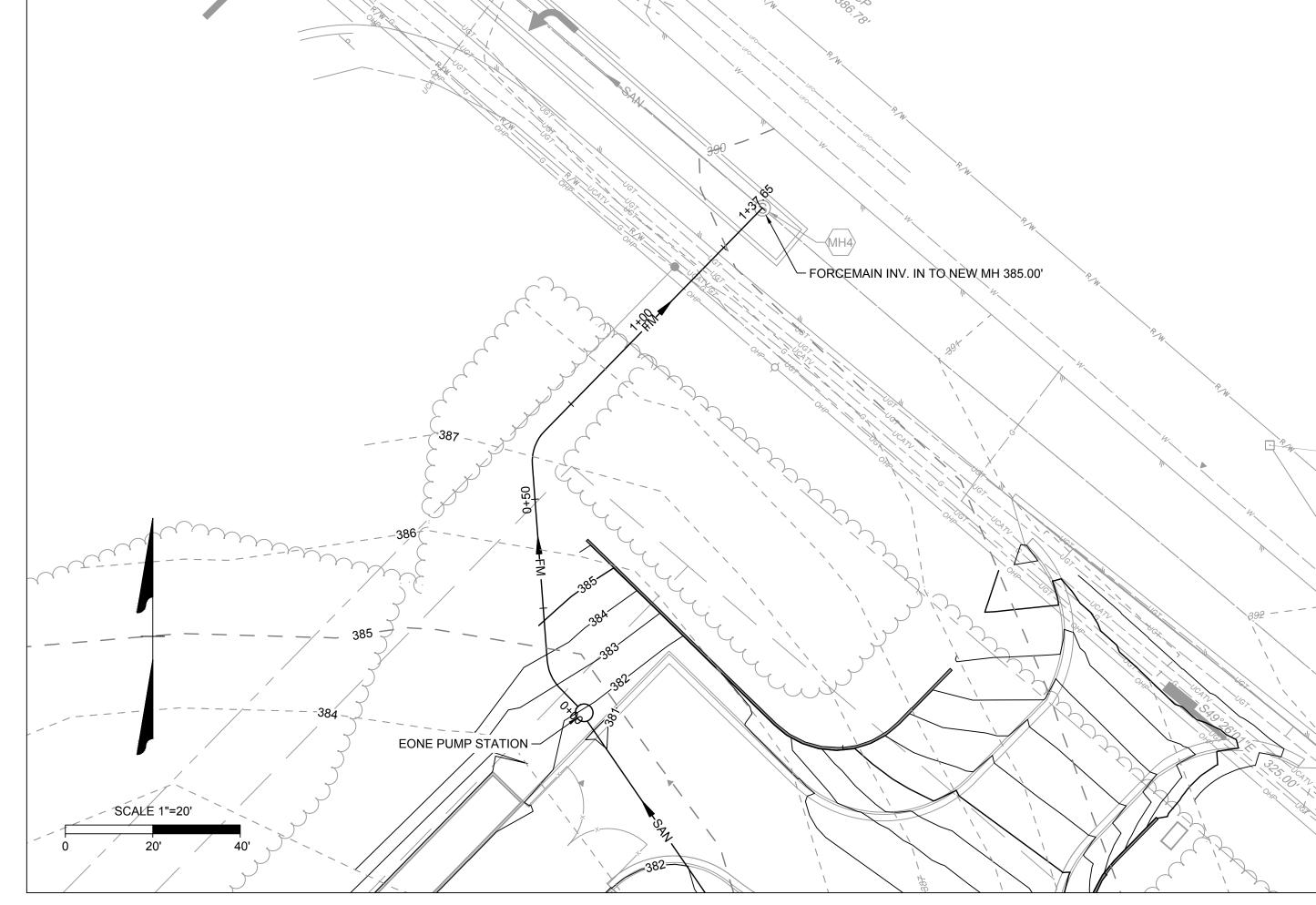
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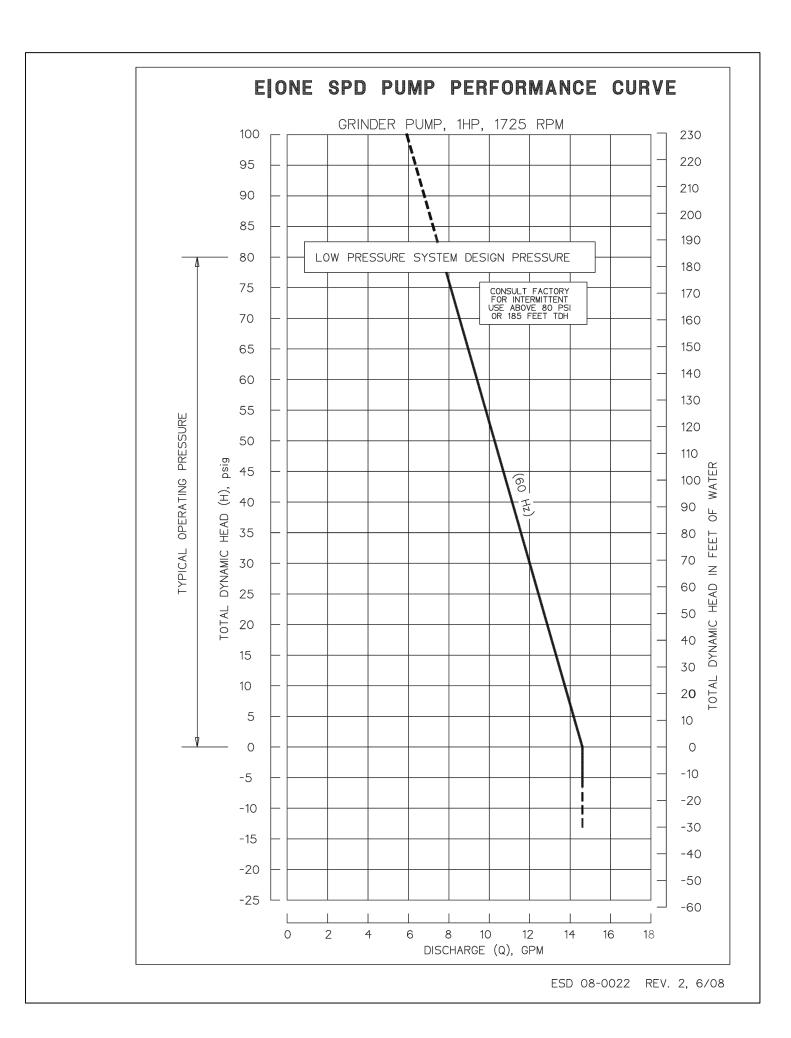
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# DESIGN CRITERIA:

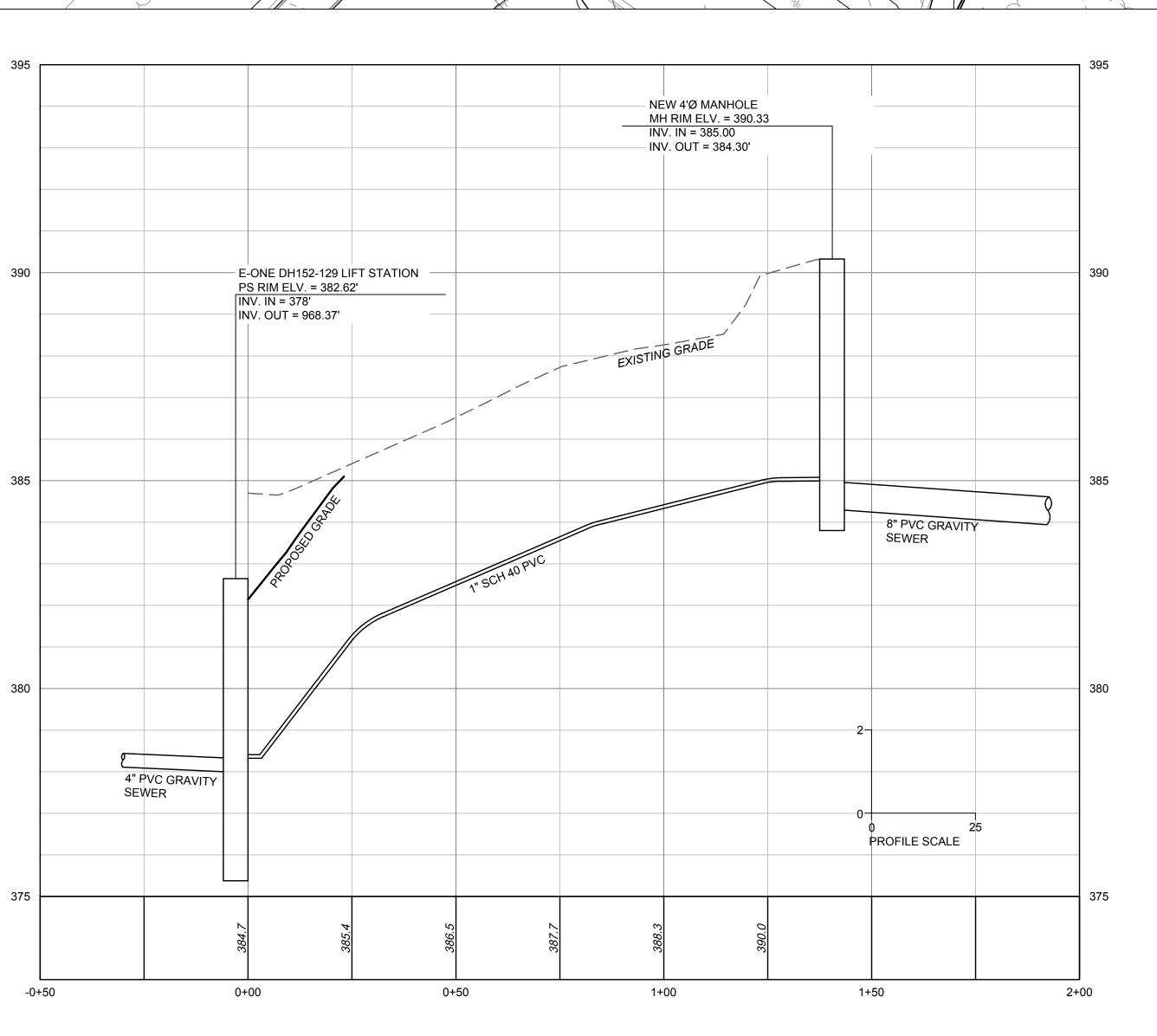
- 1. PUMP STATION IS NOT LOCATED WITHIN 100-YR FLOODPLAIN ACCORDING TO FEMA FIRM MAP 3720185000K EFF. 07/19/2022.
- 2. THE ROLESVILLE STORAGE FACILITY PUMP STATION HAS BEEN DESIGNED TO HANDLE AN AVERAGE DAILY FLOW OF 1,570 GALLONS PER DAY (GPD) BASED ON 15A NCAC 02T FLOW RULES: 1 GPD PER STORAGE UNIT. THE PEAK INFLUENT RATE IS 2.73 GALLONS PER MINUTE BASED ON A PEAKING FACTOR OF 2.5. THE STATION WILL BE A DUPLEX ENVIRONMENT ONE STATION (OR APPROVED EQUAL) WITH A 1" INCH FORCE MAIN, WHICH WILL DISCHARGE TO AN EXISTING MANHOLE ON SITE.
- 3. PUMP STATION FLOWS ARE HANDLED BY A SINGLE ENVIRONMENT ONE SUBMERSIBLE GRINDER PUMP OR APPROVED EQUIVALENT OPERATING AT THE RATE SHOWN BELOW. A SECOND ENVIRONMENT ONE PUMP IS PROVIDED FOR REDUNDANCY.
- 4. THE DESIGN PUMPING RATE IS 11.5 GPM AT 35.1' TDH UTILIZING A SINGLE PUMP.

# PUMP STATION NOTES:

- ALL PUMP STATION COMPONENTS SHALL BE SUPPLIED BY ONE MANUFACTURER: ENVIRONMENT ONE OR APPROVED EQUIVALENT.
- 2. CONTRACTOR TO MAINTAIN A DRY EXCAVATION UNTIL ALL BACKFILLING IS COMPLETED.
- 3. CONTRACTOR TO ENSURE POSITIVE DRAINAGE AWAY FROM PUMP STATION.
- 4. A BACKUP GENERATOR WILL BE PROVIDED FOR THE BUILDING AND WILL BE SIZED TO SERVE THE REQUIRED PUMP STATION LOAD.

# ELECTRICAL NOTES:

- 1. ALL ABOVE-GRADE ENCLOSURES INSTALLED UNDER THIS CONTRACT SHALL BE PAD LOCKABLE AND NEMA 4X.
- 2. ALL WIRE INSTALLED UNDER THIS CONTRACT SHALL BE COPPER.
- 3. ALL EQUIPMENT SHALL BE INSTALLED IN ACCORDANCE WITH ALL APPLICABLE STATE AND LOCAL CODES AND REGULATIONS; AND THE RECOMMENDATIONS AND REQUIREMENTS OF THE EQUIPMENT MANUFACTURERS.
- 4. NO ELECTRICAL SPLICES ALLOWED IN WET WELL.
- 5. ALL EXTERIOR CONDUITS SHALL BE UNDERGROUND AND SHALL BE INSTALLED PER 1996 NEC TABLE 300-5 & TABLE 300-50 AND ARTICLE 300-6 (PROTECTION AGAINST CORROSION).
- 6. E/ONE CELLULAR MODEM SENTRY ADVISOR AND SENTRY PROTECT PLUS DUPLEX SHALL BE COMBINED INTO ONE PANEL. MANUFACTURER'S PANEL SHALL ALSO INCLUDE A GENERATOR CONNECTION AND MANUAL TRANSFER SWITCH.



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PRELIMINARY PLANS

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DATE

02/09/2023

L. SOLARI

**DESIGNED BY** 

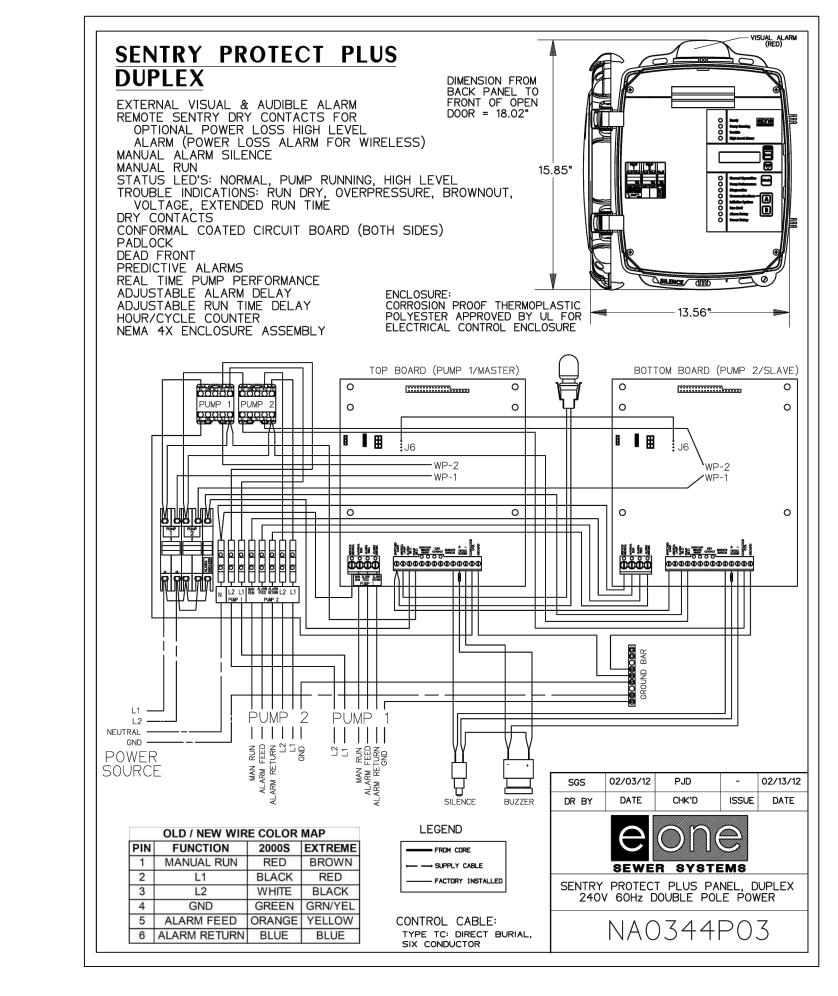
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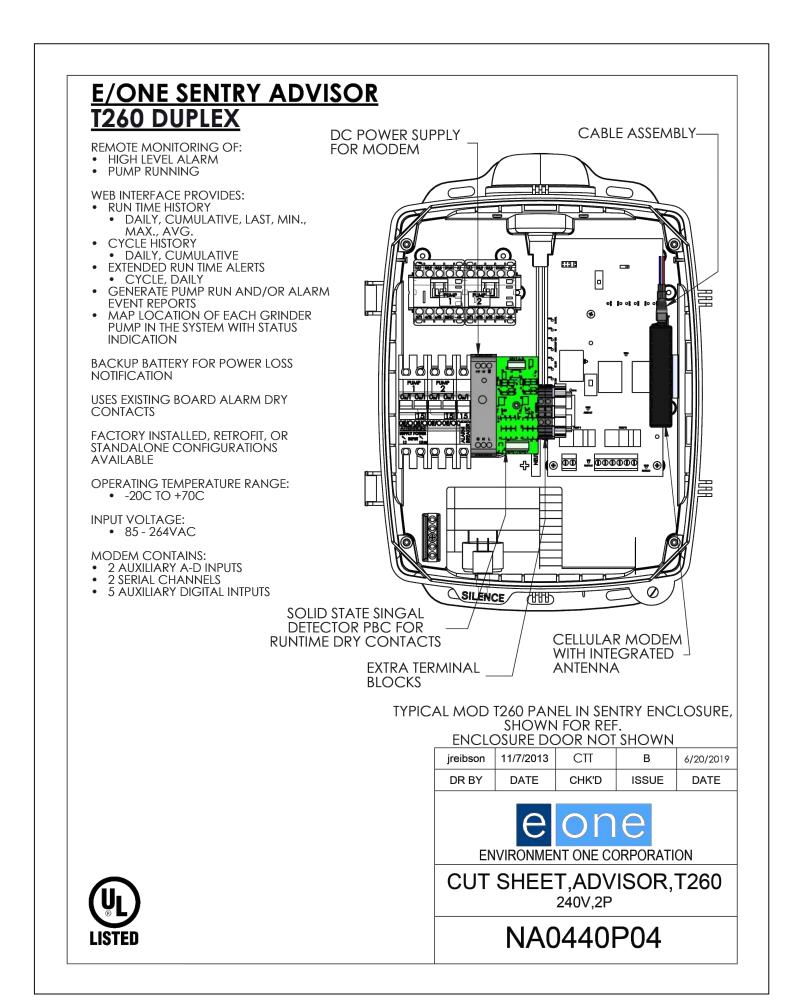
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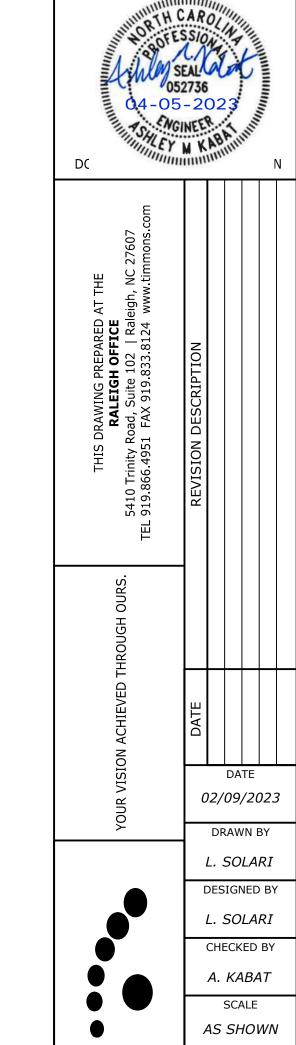
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PRELIMINARY PLANS

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JOB NO. 54832 SHEET NO. *PS1.1* 

# Instantaneous Flow Test Curve - Fire Hydrant #125123 Located at 1208 Jones Dairy Road. | HYDRANT FLOW TEST | Test Date: 03/01/2023 | Test Test Date: 03/0

Flow (GPM)

that expectations regarding pressures and flows will be exacting. Projected flow beyond the observed flow is

only an estimation.

# **AVAILABLE FIRE FLOW**

FLOW SCENARIO	HYDRANTS					
FLOW SCENARIO	H-1	H-2	H-3	H-4		
ELEVATION (FT)	383.4	383.4	388.0	383.3		
AVAILABLE FIRE FLOW*	1,788	1,716	2,896	2,050		
MINIMUM RESIDUAL PRESSSURE DURING REQURIED FIRE FLOW**	34.6	34.5	39.3	34.5		

*AVAILABLE FIRE FLOWIS MEASURED, NON-SIMULTANEOUSLY, DURING THE MAD DAILY DEMAND SCENARIO AT A SYSTEM RESIDUAL PRESSURE LIMIT OF 20 PSI. **1,500 GPM IS REQUIRED AT EACH ONSITE HYDRANT.

# RESIDUAL PRESSURE RESULTS (PSI)

FLOW SCENARIO		JU	NCTIO	NS		HYDRANTS			
LOW SCENARIO		J-2	J-3	J-4	J-5	H-1	H-2	H-3	H-4
ELEVATION (FT)	391.5	388.9	383.3	383.5	383.5	383.4	383.4	388.0	383.3
STATIC	55.5	56.6	54.0	53.9	58.8	53.9	53.9	57.0	54.0
AVERAGE DAILY DEMAND (ADD)	55.5	56.6	54.0	53.9	47.7	53.9	53.9	57.0	54.0
MAXIMUM DAILY DEMAND (MDD)	55.5	56.6	54.0	53.9	47.4	53.9	53.9	57.0	54.0
MDD + SPRINKLER	54.5	55.5	51.4	51.0	46.3	51.4	51.4	56.1	51.4

# PIPE REPORT

LABEL	LENGTH (FT)	DIA (IN.)
P-1	59	8
P-2	9	8
P-3	67	8
P-4	35	6
P-5	276	8
P-6A	9	8
P-6B	364	8
P-7	8	1.5
P-8	5	1.5
P-10	103	1.5
P-11	202	12

# **DESIGN CRITERIA**

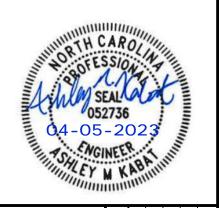
- FLOW INFORMATION WAS OBTAINED BY ASSOCIATED FIRE PROTECTION FROM ONE INSTANTANEOUS FLOW TEST ON 03/01/2023. THE FLOW TEST NODE IS THE EXISTING HYDRANT LOCATED ON THE EXISTING 12-INCH WATERLINE, AT 1208 JONES DAIRY ROAD. THE AVAILABLE FLOW CURVE IS SHOWN ON THIS SHEET.
- SYSTEM FLOW FOR IS REPRESENTED AT H-3 IN THE INCLUDED WATER MODEL LAYOUT.
- THIS WATER MODEL HAS BEEN PERFORMED TO EVALUATE AVAILABLE PRESSURE AND FLOW BASED ON THE INCLUDED WATER MODEL LAYOUT AND FLOW DEMAND CRITERIA. ALL WATERLINES WERE MODELED WITH A HAZEN-WILLIAMS ROUGHNESS COEFFICIENT OF 120.
- THE WATER MODEL LAYOUT IS BASED ON INFORMATION (SURVEY, GRADING AND SITE LAYOUT) PROVIDED BY TIMMONS GROUP.
- THE PROPOSED SYSTEM MUST MAINTAIN A MINIMUM RESIDUAL PRESSURE OF 30 PSI FOR ALL DOMESTIC SCENARIOS, AND A MINIMUM RESIDUAL PRESSURE OF 20 PSI FOR ALL FIRE SCENARIOS DURING MAXIMUM DAY DEMAND PER THE NCDEQ DESIGN STANDARDS AND PROCEDURES FOR WATER DISTRIBUTION.
- GPV CURVES
- •• GPV-1 = 6" WATTS 709 DCDA
- •• GPV-2 = 2" NEPTUNE TURBINE METER
- GPV-3 = 2" WATTS 009 RPZ

# FLOW DEMAND CRITERIA

- AVERAGE DAILY DEMAND (ADD) = 1 GPD / SELF STORAGE UNIT
   1,570 STORAGE UNITS (1.09 GPM) APPLIED AT J-5
- MAXIMUM DAILY DEMAND (MDD) = ADD X 2.5
- SPRINKLER DEMAND
- •• 450 GPM APPLIED AT J-4
- FIRE FLOW DEMAND
- •• A MINIMUM OF 1,500 GPM IS REQUIRED ON EACH ON-SITE HYDRANT.

# CONCLUSION

- BASED ON THE INFORMATION PROVIDED, THE PROPOSED SYSTEM ADEQUATELY MEETS THE MINIMUM RESIDUAL PRESSURE REQUIREMENTS WHILE PROVIDING THE REQUIRED FLOWS FOR THE DOMESTIC AND FIRE SCENARIOS.
- THE RESULTS PRESENTED ARE BASED ON INFORMATION GATHERED AT THE TIME OF THIS ANALYSIS. THE VARIABILITY OF THE WATER SYSEM DUE TO CHANGES IN USAGE, DEMAND, OPERATING CONDITIONS, AND LAYOUT PRECLUDES GUARANTEES OF EXACT PRESSURES AND FLOWS.
- THE PROPOSED SYSTEM MEETS BOTH TOWN OF ROLESVILLE AND NCDEQ DESIGN STANDARDS



THIS DRAWING PREPARED AT THE

CORPORATE OFFICE

1001 Boulders Parkway, Suite 300 | Richmond,
TEL 804.200.6500 FAX 804.560.1016 www.tim

REVISION DESCRIPTION

DATE

DATE

04/03/2023

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DRAWN BY

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DESIGNED BY

L. SOLARI

L. SOLARI
CHECKED BY
C. PETREE

SCALE N.T.S.

N.T.S

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TOWN OF ROLESVILLE - WAKE COUNTY
HYDRAULIC ANALYSIS LAYO

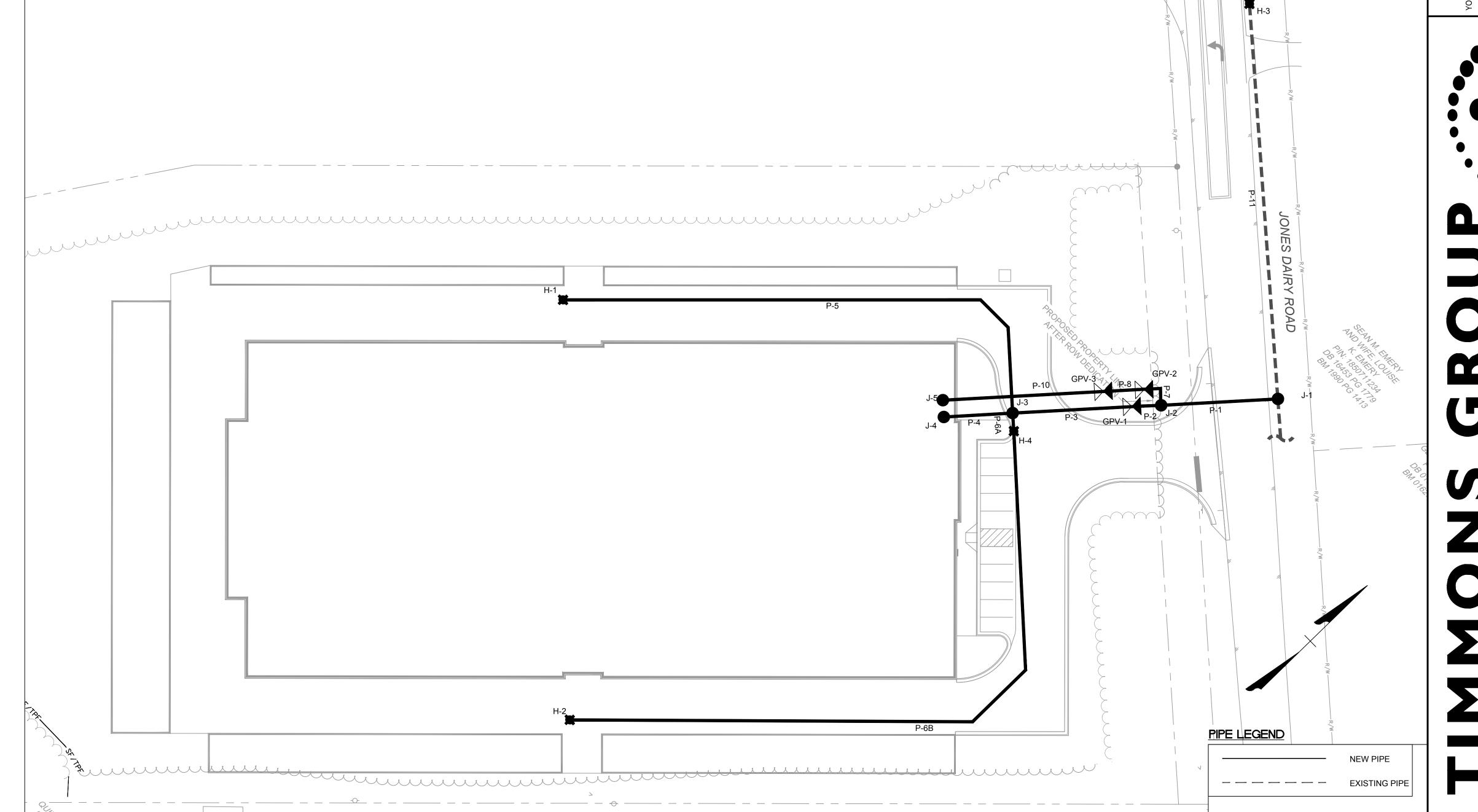
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ROLESVILLE, NC

FRONT ELEVATION



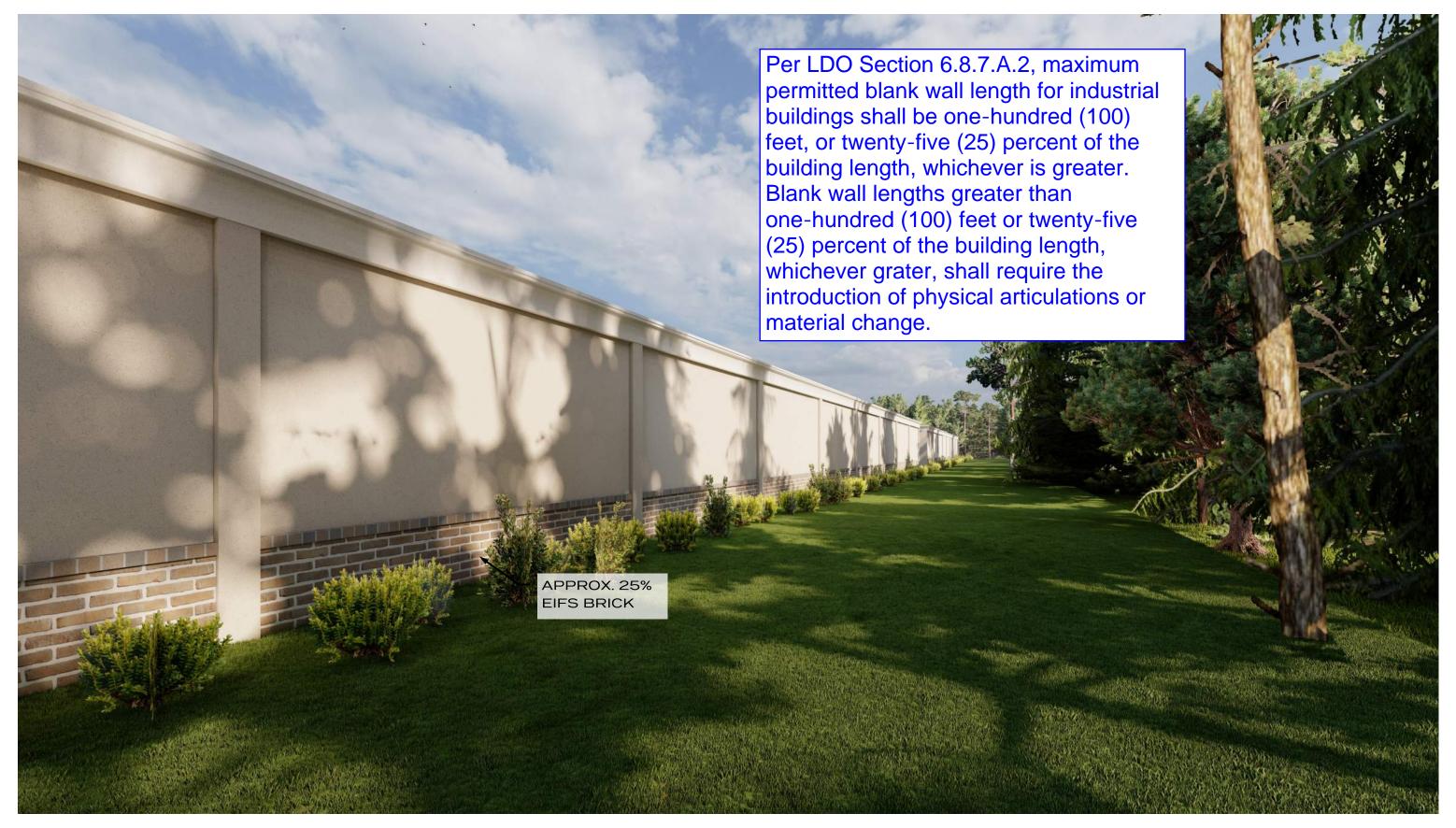




ROLESVILLE, NC

EAST ELEVATION



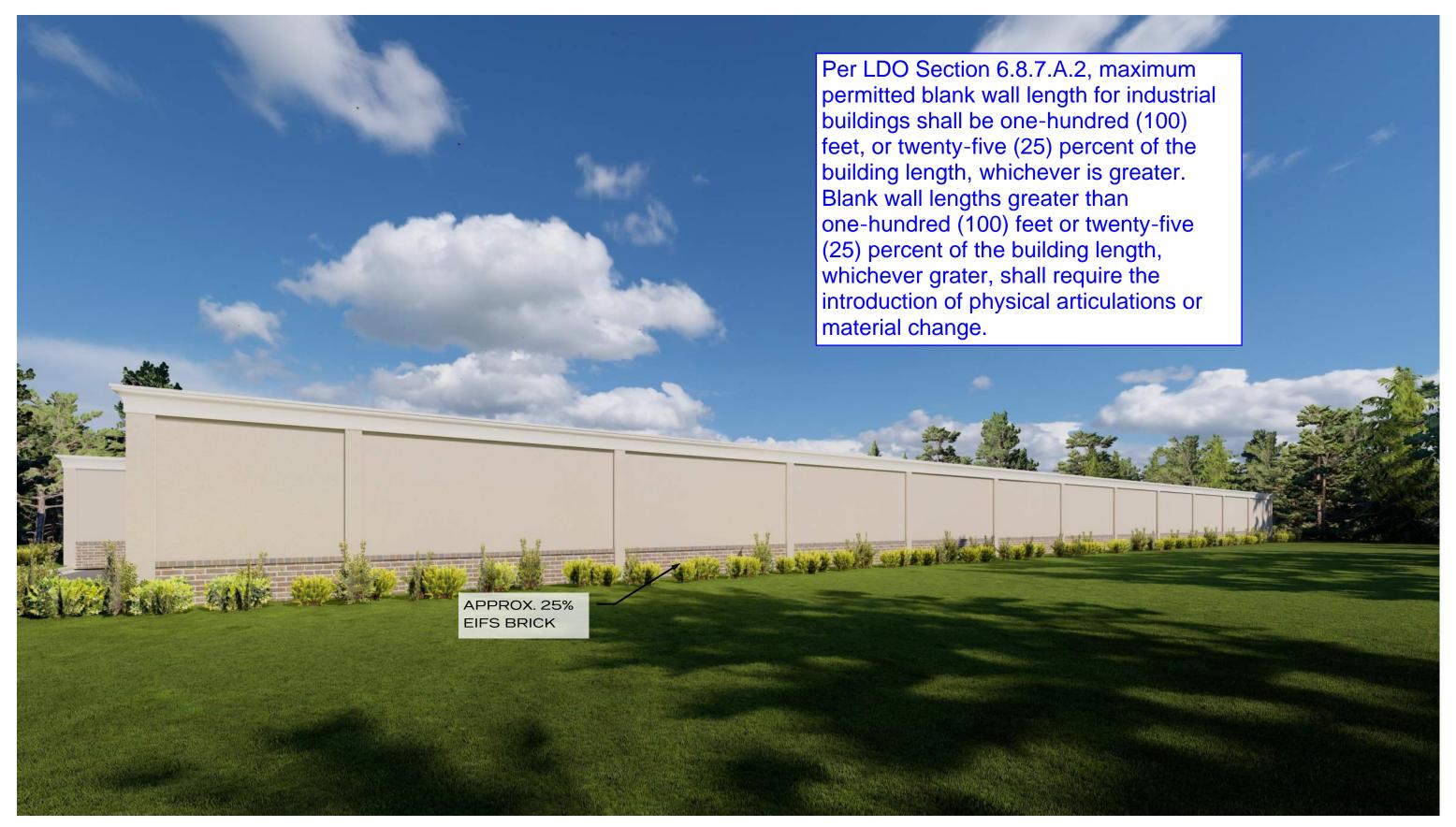




ROLESVILLE, NC

WEST ELEVATION





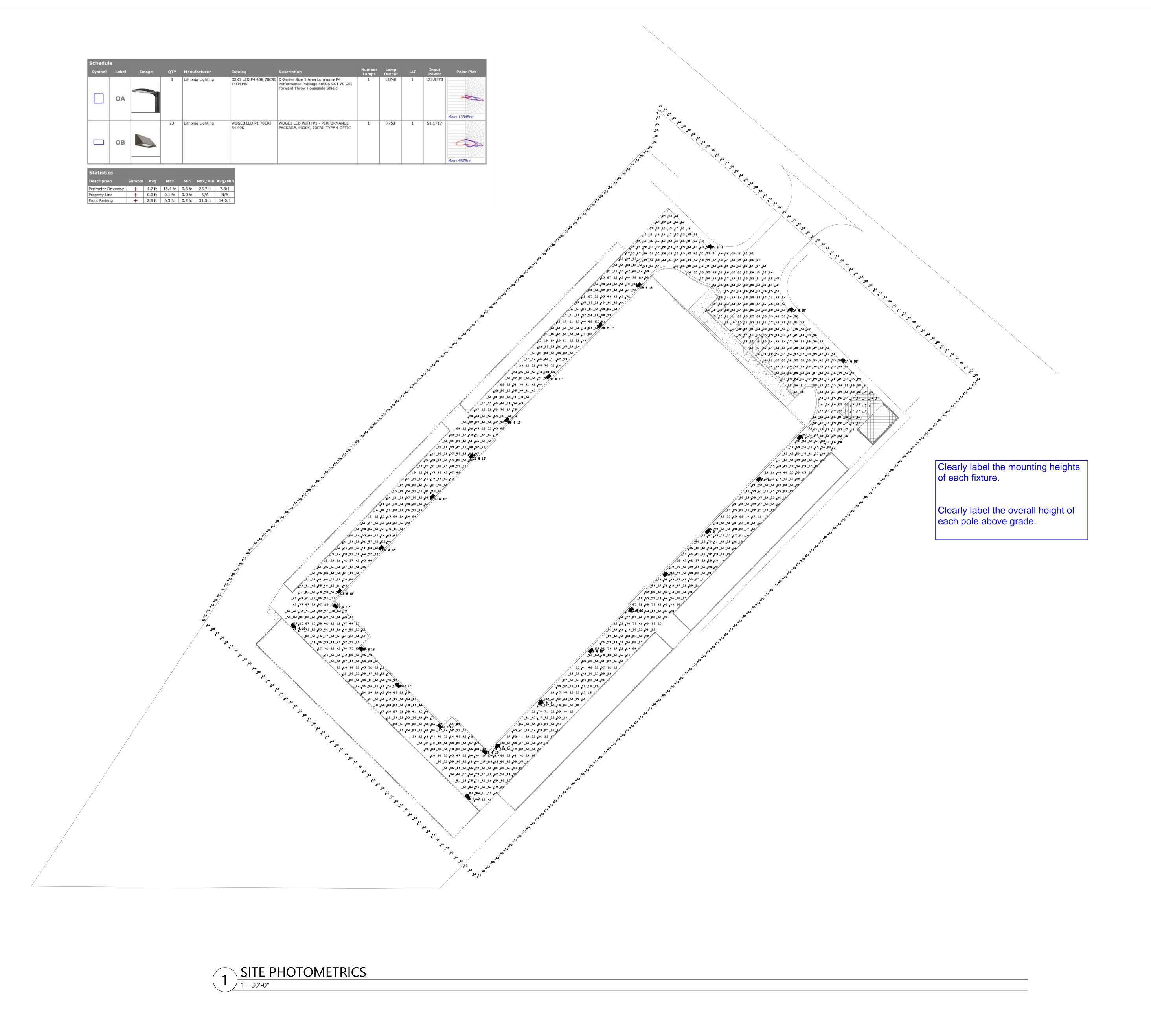


ROLESVILLE, NC

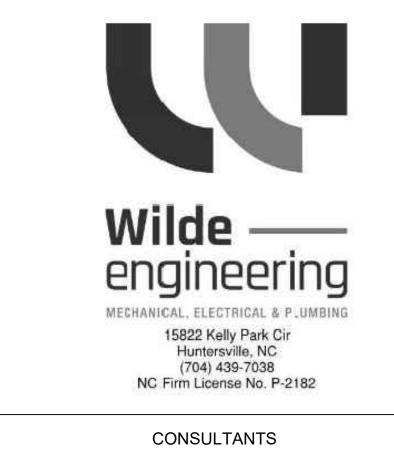
BACK ELEVATION



04 APRIL 2023



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ROLESVILLE STORAGE BUILDING SITE PHOTOMETRICS

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SITE PHOTOMETRICS

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