MA-22-09 CONDITIONS OF APPROVAL

- ACCOMPANYING EXHIBIT D CONCEPT PLAN, LOCATIONS SHOWN FOR COMMITTED ELEMENTS FINAL LOCATIONS OF ELEMENTS SHALL BE DETERMINED AT SUBSEQUENT STAGES OF APPROVAL.
- SUBJECT TO APPROVAL BY THE TOWN OF ROLESVILLE, THE VEGETATION IN THE AREA THAT EXTENDS AT LEAST 55 (55') FEET FROM THE PROPERTY LINE ABUTTING PINS 1850604353, BUFFER OTHERWISE REQUIRED BY THE LDO (THE "UNDISTURBED VEGETATION AREA"). THIS SHALL EXCLUDE MINOR ENCROACHMENTS FOR SITE DESIGN FEATURES. SUCH AS DRAINAGE AREAS OR
- ALL EXTERIOR LIGHT FIXTURES SHALL BE FULL CUTOFF FIXTURES, EXCEEDING THE MINIMUM STANDARD OF "CUTOFF FIXTURES" AS REQUIRED BY LDO § 6.6.G.2.
- IF THE EXISTING VEGETATION IS REMOVED IN THE BUFFER AREA OTHERWISE REQUIRED BY THE LDO ON THE PROPERTY LINE ABUTTING PIN 1850700632 AND EXTENDING FROM THE UNDISTURBED VEGETATION AREA TO THE RIGHT-OF-WAY ON JONES DAIRY ROAD, THE FOLLOWING ADDITIONAL VEGETATION SHALL BE PROVIDED IN THE REQUIRED BUFFER OR WITHIN 5 (5') FEET OF ANY PERIMETER EASEMENT THAT WOULD PREVENT SUCH PLANTINGS: FAST-GROWING DENSE EVERGREEN TREES 15-FT ON CENTER. THE EVERGREEN TREES SHALL HAVE A MINIMUM MATURE
- HEIGHT OF 30-FT AND A SPREAD OF 12-FT. INSTALL HEIGHT SHALL BE 4-FT MINIMUM. AT LEAST SEVENTY-FIVE PERCENT (75%) OF ANY REQUIRED PLANTS IN THE STORMWATER CONTROL MEASURE POND, EXCLUDING GRASSES, SHALL BE POLLINATOR PLANTS SUCH AS NATIVE MILKWEEDS AND OTHER NECTAR-RICH FLOWERS.
- GATES TO ACCESS AREAS WITH EXTERIOR-ACCESS STORAGE UNITS SHALL BE LOCKED BETWEEN
- ON EXTERIOR FAÇADES FACING A PUBLIC RIGHT-OF-WAY OR EXTERIOR FAÇADES FACING PINS 1850700632, 1850604353, 1850605343, 1850606333, 1850607323, AND 1850608313; 7.1. THE FOLLOWING MATERIALS ARE PROHIBITED: CINDERBLOCK, CONCRETE, METAL SIDING, AND
- 7.2. BRICK, EIFS BRICK, STONE, OR CONCRETE MASONRY COMPONENTS SHALL BE A MINIMUM OF

SITE PLAN REVIEW DRAWINGS: FOR

JONES DAIRY STORAGE FACILITY

0 JONES DAIRY RD ROLESVILLE, NC 27587

SITE PLAN#: SDP-23-03 REZONING CASE #: MA-22-09 TEXT AMENDMENT CASE #: TA-22-02

APPROVED TA-22-02:

V3 -

SDP-23-03 -

Sheet Number

C0.0

C1.0 C2.0

C2.1

C3.0

C3.1

C3.2

C3.3

C3.4

C4.0

C4.1 C4.2

C5.0

C5.1 C6.0

C6.2

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C6 4

C6.5

C6.6

C6.7 C6.8

C6.9

C6.10 C7.0

C7.1

L1.0

L1.1 L2.0

PS1.0

PS1.1

W1.0

A-101

A-200 E-010

- 5.1.6.D.5.b. 'INDUSTRIAL, LIGHT' PRINCIPAL USE SELF-SERVICE STORAGE SHALL BE CONTAINED WITHIN A FULLY ENCLOSED BUILDING AND CONTAINED IN A SINGLE BUILDING, ACCESS INTERNALLY, EXCEPT IN THE GENERAL INDUSTRIAL DISTRICT NOT LOCATED ON N MAIN ST OR S MAIN ST.
- 5.1.6.I.4. 'WAREHOUSING' PRINCIPAL USE EXAMPLES. INCLUDES WAREHOUSES AND

APPROVED ALTERNATE PARKING PLAN CONDITIONS:

Sheet List Table

Sheet Title

COVER **EXISTING CONDITIONS & DEMOLITION PLAN**

SITE PLAN

VEHICULAR ROUTING PLAN

GRADING & DRAINAGE PLAN

STORM SEWER PROFILES

STORM SEWER PROFILES SCM PLAN & PROFILE

SCM NOTES & DETAILS

SITE UTILITY PLAN

SITE UTILITY PLAN & PROFILE

FIRE HOSE LAY PLAN

EROSION & SEDIMENATION CONTROL PLAN - PH I

EROSION & SEDIMENATION CONTROL PLAN - PH II

SITE DETAILS

SITE DETAILS

SITE DETAILS

SITE DETAILS

SITE DETAILS

SITE DETAILS SITE DETAILS

SITE DETAILS NCG01 GROUND STABILIZATION AND MATERIALS HANDLING

NCG01 SELF-INSPECTION, RECORDKEEPING, AND REPORTING

ROAD WIDENING PLAN - DEMO, SITE AND SIGNAGE & STRIPING PLANS

ROAD WIDENING PLAN - GRADING, DRAINAGE & EROSION CONTROL PLAN

LANDSCAPE PLAN TREE PRESERVATION PLAN

LANDSCAPE NOTES AND DETAILS

PUMP STATION SITE AND FORCEMAIN

PUMP STATION NOTES AND DETAILS

HYDRAULIC ANALYSIS LAYOUT AND RESULTS ARCHITECTURAL FLOOR PLAN

ARCHITECTUAL ELEVATIONS - BUILDING A & B

SITE PHOTOMETRICS

1 PARKING SPACE PER 100 SELF-STORAGE UNITS.

PARKING PERMITTED BETWEEN A PROPOSED BUILDING AND THE STREET FRONTAGE.

ATTENTION CONTRACTORS

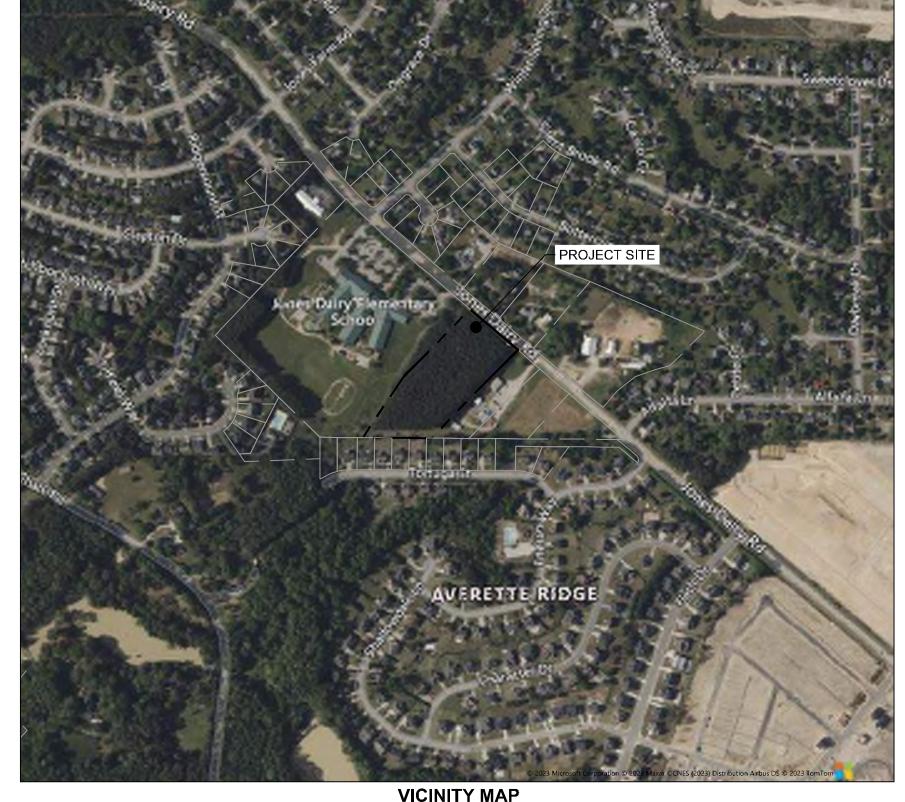
The Construction Contractor responsible for the extension of water, sewer, and/or reuse, as approved in these plans, is responsible for contacting the Public Utilities Department at (919) 996-4540 at least twenty four hours prior to beginning any of their construction.

Failure to notify both City Departments in advance of beginning construction, will result in the issuance of monetary fines, and require reinstallation of any water or sewer facilities not inspected as a result of this notification failure.

Failure to call for **Inspection**, **Install a Downstream Plug**, have Permitted Plans on the Jobsite, or any other Violation of City of Raleigh Standards will result in a Fine and Possible Exclusion from future work in the City of Raleigh.

SITE DATA TABLE

### APPLICATION OF STORAGE UNITS: ### ADJACENT PROPERTY #### ADJACENT PROPERTY #### ADJACENT PROPERTY ##### ADJACENT PROPERTY #### ADJACENT PROPERTY ######### ADJACENT PROPERTY ######################	PROJECT NAME:	JONES DAIRY STORAGE FACILITY
1992	SITE PLAN NUMBER	SDP-23-03
1950606722 195060672 19506	PROPERTY OWNER/ DEVELOPER:	10925 ENCHANTED HOLLOW WAY
S. 55 ACRES S. 55 ACRES S. 55 ACRES S. 50 ACRES	REAL ESTATE ID:	0162697
ROPERTY ADDRESS: ROPERTY ZONING: GLCZ URRENT USE: VACANT PROPOSED USE: SELF STORAGE (COMMERCIAL) 5.69 AORES CURRENT IMPERVIOUS: REQUIRED TREE PRESERVATION: PROVIDED TREE PRESERVATION: REQUIRED TREE PRESERVATION: REQUIRED TREE PRESERVATION: REQUIRED TREE PRESERVATION: REQUIRED VEHICULAR SPACES: PROVIDED VEHICULAR SPACES: PROVIDED VEHICULAR SPACES: PROVIDED VEHICULAR SPACES: BUILDING HEIGHT: WITH SPRINKLERS: 60-FT PROVIDED BUILDING HEIGHT: BUILDING: 10-FT BU	PIN:	1850608722
PROPERTY ZONING: GI-CZ	DEED ACRES:	5.55 ACRES
VACANT V	PROPERTY ADDRESS:	0 JONES DAIRY RD, ROLESVILLE NC 27587
REPROSED USE: REPROPOSED USE: SELF STORAGE (COMMERCIAL) 5.69 ACRES CURRENT IMPERVIOUS: 0 ACRES PROPOSED IMPERVIOUS: 2.22 ACRES REE SAVE SUMMARY: REQUIRED TREE PRESERVATION: REQUIRED TREE PRESERVATION: REQUIRED TREE PRESERVATION: REQUIRED VEHICULAR SPACES: PROVIDED VEHICULAR SPACES: 1 SPACE MAXIMUM BUILDING HEIGHT: WITHOUT SPRINKLERS: 35-FT TOTAL NUMBER OF UNITS: 565 BUILDING SOUTH SELECTION SOUTH SELECTIO	PROPERTY ZONING:	GI-CZ
DISTURBED AREA: 0.69 ACRES	CURRENT USE:	VACANT
CURRENT IMPERVIOUS: ROPOSED IMPERVIOUS: RECURED TREE PRESERVATION: PROVIDED TREE PRESERVATION: PROVIDED TREE PRESERVATION: REQUIRED VEHICULAR SPACES: PROVIDED VEHICULAR SPACES: SUILDING HEIGHT: WITHOUT SIRRING HEIGHT: WAS ACKES TOPACES TOPACES TOTAL NUMBER OF UNITS: 565 BUILDING 62: 1800 SOFT TOTAL NUMBER OF UNITS: 565 BUILDING 70: 10X20: 18 UNITS: BUILDING 70: 10X20	PROPOSED USE:	SELF STORAGE (COMMERCIAL)
PROPOSED IMPERVIOUS: REQUIRED TREE PRESERVATION: REQUIRED TREE PRESERVATION: 0.607 ACRES = 0.10*4.76 (TREE AREA ON-SITE) = 0.476 ACRES PROVIDED TREE PRESERVATION: 0.607 ACRES = 13% PROVIDED VEHICULAR SPACES: 1 SPACE PER 100 STORAGE UNITS = 565/100 = 6 SPACES ADA PARKING SUMMARY: REQUIRED VEHICULAR SPACES: 1 SPACE PROVIDED VEHICULAR SPACES: 1 SPACES 1 SPACE	DISTURBED AREA:	5.69 ACRES
REQUIRED TREE PRESERVATION: REQUIRED TREE PRESERVATION: PROVIDED TREE PRESERVATION: REQUIRED VEHICULAR SPACES: PROVIDED VEHICULAR SPACES: CLIMATE CONTROLLED BUILDING: 62,120 SOFT STORAGE BUILDING HEIGHTS: 16 FT PROVIDED BUILDING: 1610 SOFT (2), 3600 SOFT (2), 6600 SOFT TOTAL NUMBER OF UNITS: 565 BUILDING SAL	CURRENT IMPERVIOUS:	0 ACRES
REQUIRED TREE PRESERVATION: PROVIDED TREE PRESERVATION: 0.607 ACRES = 13% PROVIDED VEHICULAR SPACES: 1 SPACE PROVIDED VEHICULAR SPACES: PROVIDED VEHICULAR SPACES: 1 SPACE PROVIDED VEHICULAR SPACES: PROVIDED VEHICULAR SPACES: UMAXIMUM BUILDING HEIGHT: WITHOUT SPRINKLERS: 36-FT WATH SPRINKLERS: 36-FT TOTAL NUMBER OF UNITS: 56-FT TOTAL NUMBER OF UNITS: 56-FT BUILDING: A SYN 14 UNITS 10X0: 19 UNITS 10X0: 19 UNITS 10X0: 19 UNITS BUILDING: C 10X0: 19 UNITS BUILDING: C 10X0: 19 UNITS BUILDING: C 10X10: 19 UNITS BUILDING: C 10X1	PROPOSED IMPERVIOUS:	2.92 ACRES
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PROVIDED VEHICULAR SPACES: 1 SPACE MAXIMUM BUILDING HEIGHT: WITHOUT SPRINKLERS: 35-FT WITH SPRINKLERS: 36-FT CLIMATE CONTROLLED BUILDING: 62, 120 SQFT STORAGE BUILDING: 18: 100 SQFT (2), 3600 SQFT (2), 6600 SQFT TOTAL NUMBER OF UNITS: 565 BUILDING: A UNITS 10X10: 152 UNITS 10X10: 152 UNITS 10X10: 152 UNITS 10X20: 12 UNITS 10X20: 12 UNITS 10X30: 12 UNITS BUILDING: C 10X20: 18 UNITS BUILDING: C 10X30: 22 UNITS BUILDING: T 10X10: 18 UNI	ADA PARKING SUMMARY:	
MAXIMUM BUILDING HEIGHT: WITHOUT SPRINKLERS: 35-FT WITHOUT SPRINKLERS: 36-FT PROVIDED BUILDING HEIGHTS: 16 FT CLIMATE CONTROLLED BUILDING: 62,120 SQFT STORAGE BUILDING(S): 1800 SQFT (2), 3600 SQFT (2), 6600 SQFT TOTAL NUMBER OF UNITS: 565 BUILDING 'A' 5X6: 64 UNITS 10X10: 152 UNITS 10X10: 152 UNITS 10X20: 19 UNITS 10X30: 16 UNITS 10X30: 16 UNITS BUILDING' B' 10X20: 18 UNITS BUILDING' B' 10X20: 18 UNITS BUILDING' E' 10X10: 18 UNITS BUILDING 'B'	REQUIRED VEHICULAR SPACES:	1 SPACE
### WITHOUT SPRINKLERS: 35-FT WITH SPRINKLERS: 35-FT WITH SPRINKLERS: 60-FT PROVIDED BUILDING HEIGHTS: 16 FT CLIMATE CONTROLLED BUILDING: 62,120 SQFT STORAGE BUILDING(S): 1800 SQFT (2), 3600 SQFT (2), 6600 SQFT TOTAL NUMBER OF UNITS: 565 ### BUILDING A' 5X5: 64 UNITS 10X10: 152 UNITS 10X10: 152 UNITS 10X20: 49 UNITS 10X20: 16 UNITS 10X20: 16 UNITS 10X20: 16 UNITS 10X20: 18 UNITS ### BUILDING BUILDING B' 10X20: 18 UNITS ### BUILDING B' 10X20: 18 UNITS ### BUILDING B' 10X20: 18 UNITS ### BUILDING BUILDING B' 10X10: 18 UNITS ### BUILDING BUILDING BUILDING B' 10X10: 18 UNITS ### BUILDING BUIL	PROVIDED VEHICULAR SPACES:	1 SPACE
STORAGE BUILDING (S): 1800 SQFT (2), 3600 SQFT (2), 6600 SQFT TOTAL NUMBER OF UNITS: 565	BUILDING HEIGHT:	WITHOUT SPRINKLERS: 35-FT WITH SPRINKLERS: 60-FT
BUILDING 'A' 5X5: 64 UNITS 5X10: 114 UNITS 10X10: 152 UNITS 10X20: 49 UNITS 10X20: 49 UNITS 10X20: 18 UNITS 10	BUILDING SQUARE FOOTAGE(S):	STORAGE BUILDING(S): 1800 SQFT (2), 3600 SQFT (2),
FRONT: 30-FT SIDE: 15-FT REAR: 35-FT ANDSCAPE BUFFERS: ADJACENT PROPERTY: 50' TYPE "4" BUFFER (SOUTH & WEST OF PARCEL) ADJACENT PROPERTY: SEE CONDITION 4 (EAST OF PARCEL) WATERSHED: NEUSE RIVER RIVER BASIN: SANFORD CREEK (NEUSE)	NUMBER OF STORAGE UNITS:	BUILDING 'A' 5X5: 64 UNITS 5X10: 114 UNITS 10X10: 152 UNITS 10X15: 64 UNITS 10X20: 49 UNITS 10X25: 12 UNITS 10X30: 16 UNITS BUILDING 'B' 10X20: 18 UNITS BUILDING 'C' 10X20: 18 UNITS BUILDING 'D' 10X30: 22 UNITS BUILDING 'E' 10X10: 18 UNITS
SIDE: 15-FT REAR: 35-FT ANDSCAPE BUFFERS: ADJACENT PROPERTY: 50' TYPE "4" BUFFER (SOUTH & WEST OF PARCEL) ADJACENT PROPERTY: SEE CONDITION 4 (EAST OF PARCEL) WATERSHED: NEUSE RIVER RIVER BASIN: SANFORD CREEK (NEUSE)	BUILDING/STRUCTURE SETBACKS:	
REAR: 35-FT ANDSCAPE BUFFERS: ADJACENT PROPERTY: 50' TYPE "4" BUFFER (SOUTH & WEST OF PARCEL) ADJACENT PROPERTY: SEE CONDITION 4 (EAST OF PARCEL) WATERSHED: NEUSE RIVER RIVER BASIN: SANFORD CREEK (NEUSE)	FRONT:	30-FT
ADJACENT PROPERTY: 50' TYPE "4" BUFFER (SOUTH & WEST OF PARCEL) ADJACENT PROPERTY: SEE CONDITION 4 (EAST OF PARCEL) WATERSHED: NEUSE RIVER RIVER BASIN: SANFORD CREEK (NEUSE)	SIDE:	15-FT
ADJACENT PROPERTY: 50' TYPE "4" BUFFER (SOUTH & WEST OF PARCEL) ADJACENT PROPERTY: SEE CONDITION 4 (EAST OF PARCEL) WATERSHED: NEUSE RIVER RIVER BASIN: SANFORD CREEK (NEUSE)	REAR:	35-FT
ADJACENT PROPERTY: SEE CONDITION 4 (EAST OF PARCEL) WATERSHED: NEUSE RIVER RIVER BASIN: SANFORD CREEK (NEUSE)	LANDSCAPE BUFFERS:	
ADJACENT PROPERTY: SEE CONDITION 4 (EAST OF PARCEL) WATERSHED: NEUSE RIVER RIVER BASIN: SANFORD CREEK (NEUSE)	ADJACENT PROPERTY:	50' TYPE "4" BUFFER (SOUTH & WEST OF PARCEL)
WATERSHED: NEUSE RIVER RIVER BASIN: SANFORD CREEK (NEUSE)		
RIVER BASIN: SANFORD CREEK (NEUSE)		,
· · · · · · · · · · · · · · · · · · ·		
I I	SURFACE WATER CLASSIFICATION:	, , ,



SCALE 1"=500'

PROJECT TEAM

LAND OWNER

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, PE, PLA PHONE: (919) 866-4503 5410 TRINITY ROAD, SUITE 102 RALEIGH, NC 27607

Sewer Collection / Extension System The City of Raleigh consents to the connection and extension of the City's public sewer system as shown on this plan. The material and Construction methods used for this project shall conform to the standards and specifications of the City's Public Utilities Handbook

ELECTRONIC APPROVAL: THIS APPROVAL IS BEING ISSUED ELECTRONICALLY. THE 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

CITY OF RALEIGH - PLANS AUTHORIZED FOR CONSTRUCTION

CITY OF RALEIGH DEVELOPMENT APPROVAL

RALEIGH WATER REVIEW OFFICER

EROSION CONTROL, STORMWATE

AND FLOODPLAIN MANAGEMENT

ENVIRONMENTAL CONSULTANT SIGNATURE

EROSION CONTROL □ S-STORMWATER MGMT.

S-

FLOOD STUDY
S-

APPROVED

PRELIMINARY PLANS

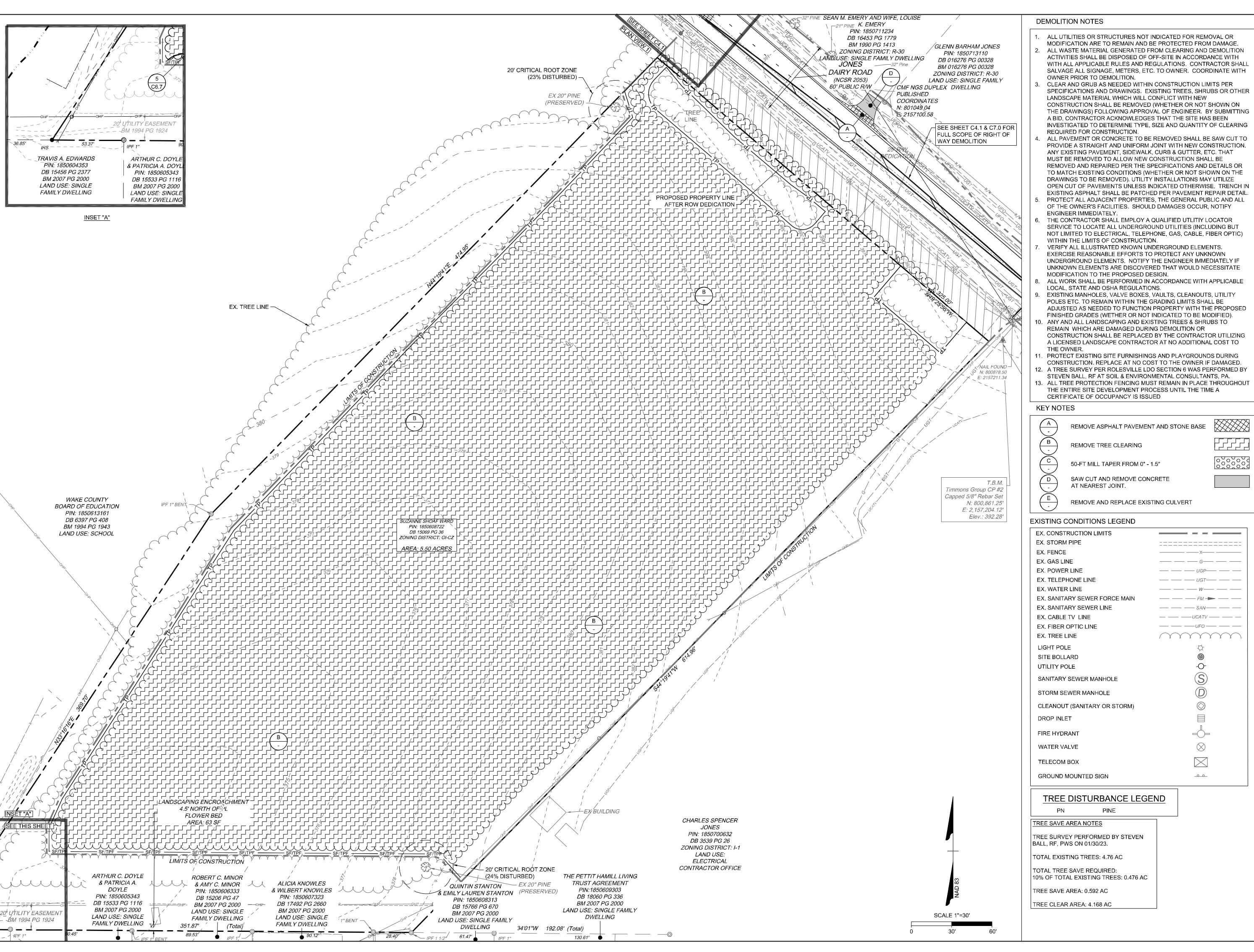
04/05/2023 L. BARNES

CHECKED BY G. FRANK

AS SHOWN

54832 SHEET NO.

C0.0



PRELIMINARY PLANS

USE FOR CONSTRUCTION

04/05/2023

DRAWN BY

L. BARNES

DESIGNED BY G. FRANK

CHECKED BY

G. FRANK

SCALE

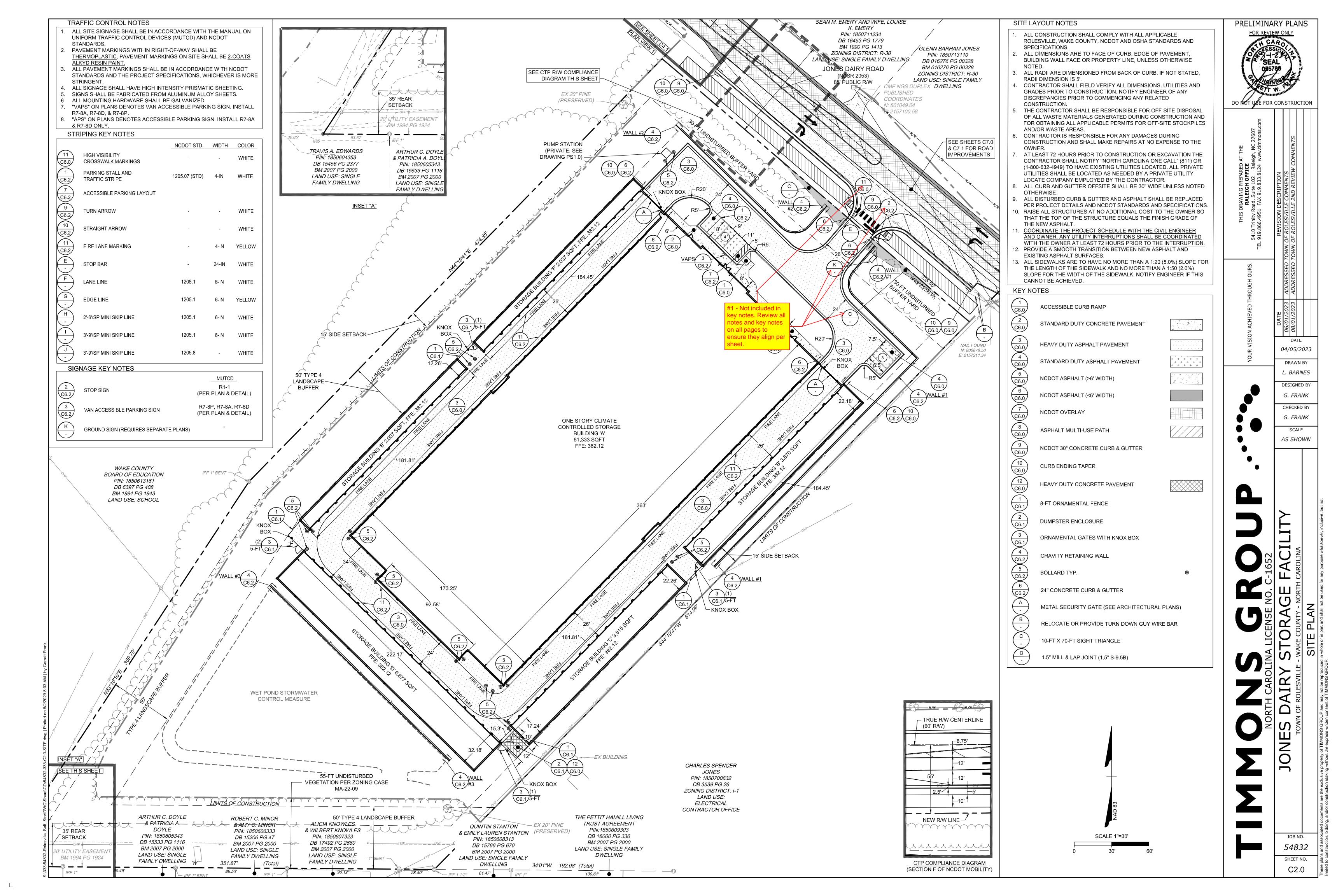
AS SHOWN

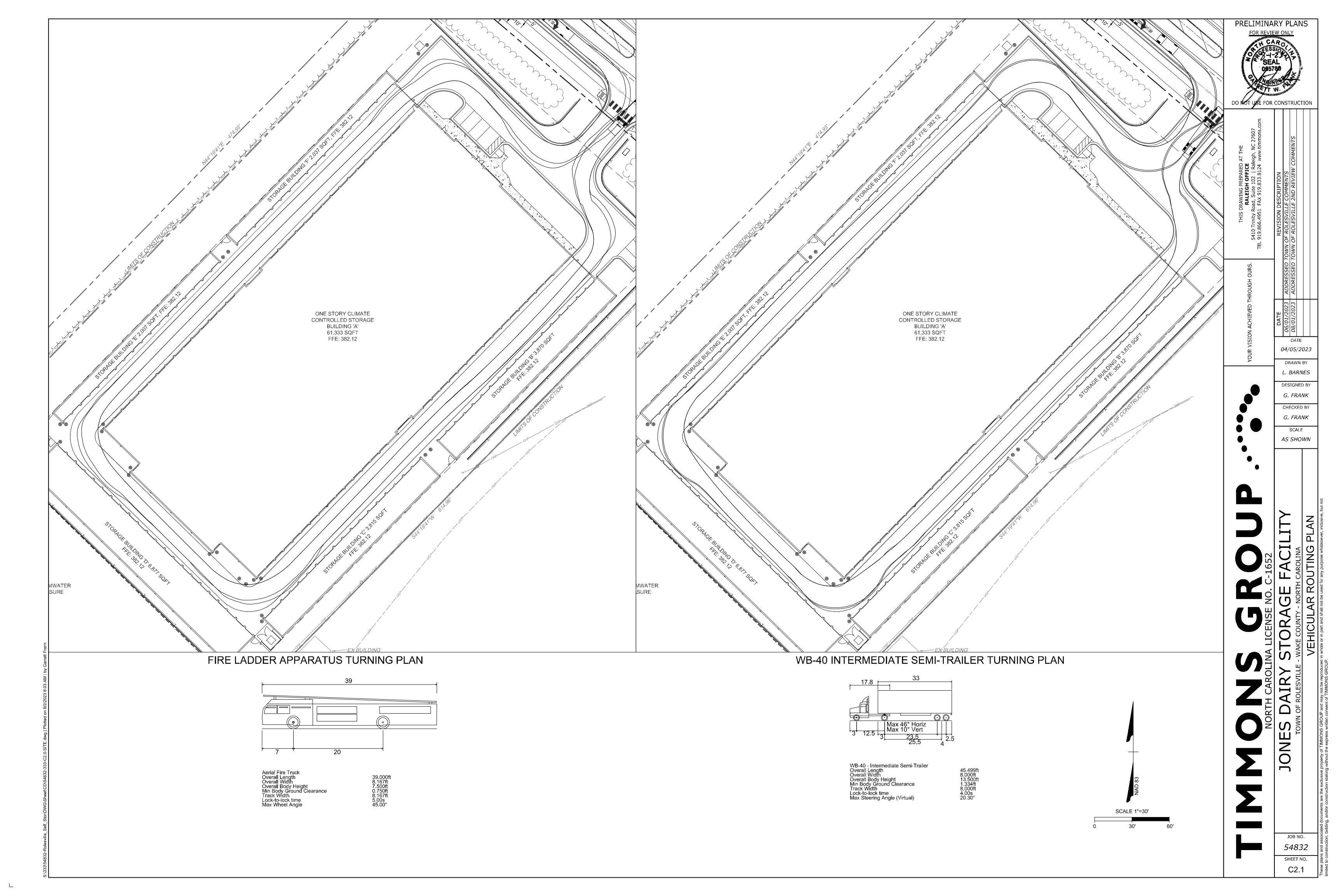
CONSTRUCTION SHALL BE REPLACED BY THE CONTRACTOR UTILIZING A LICENSED LANDSCAPE CONTRACTOR AT NO ADDITIONAL COST TO

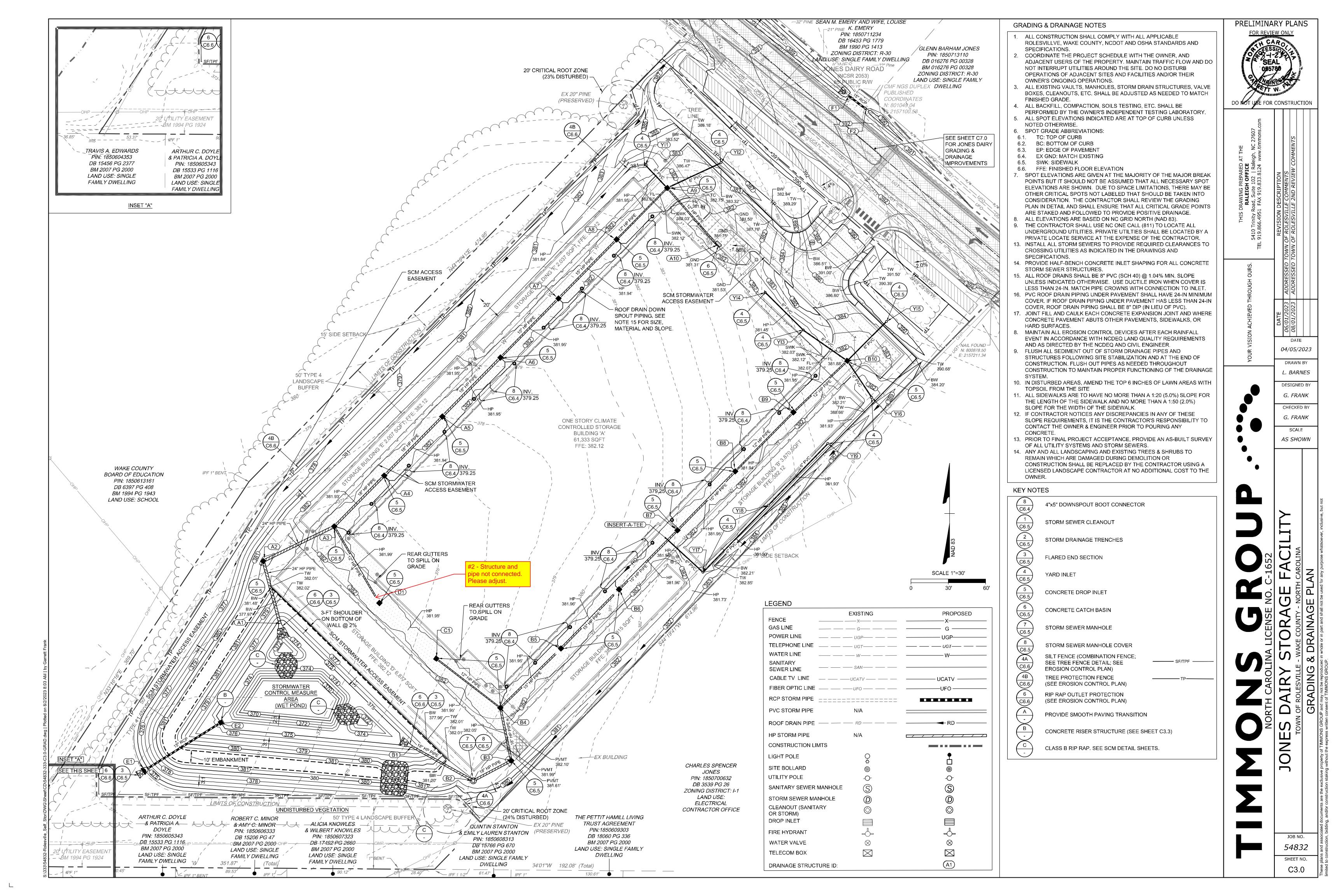
PROTECT EXISTING SITE FURNISHINGS AND PLAYGROUNDS DURING CONSTRUCTION. REPLACE AT NO COST TO THE OWNER IF DAMAGED.

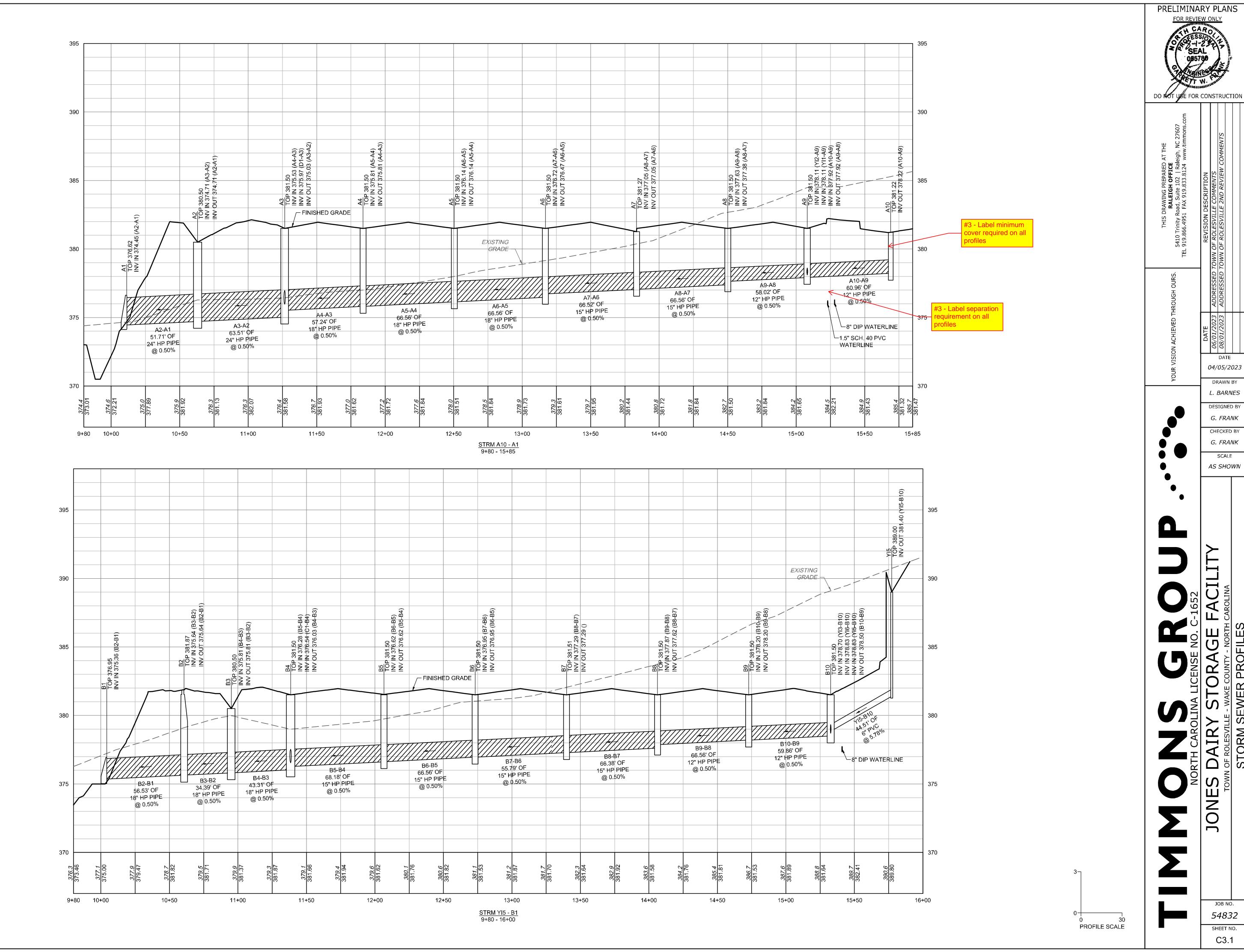
13. ALL TREE PROTECTION FENCING MUST REMAIN IN PLACE THROUGHOUT

54832 SHEET NO. C1.0









JON

JOB NO. *54832* SHEET NO. C3.1

DATE

	510	ORM STRUCTURE TA	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1						
STRUCTURE #	ТОР	STRUCTURE HEIGHT	DESCRIPTION						
A1	376.62	N/A	24" FES						
A2	380.50	5.79'	CONCRETE DROP INLE						
A3	381.50	6.47'	CONCRETE DROP INLE						
A4	381.50	5.69'	CONCRETE DROP INLE						
A 5	381.50	5.36'	CONCRETE DROP INLE						
A6	381.50	5.03'	CONCRETE DROP INLE						
A7	381.27	4.22'	CONCRETE DROP INLE						
A8	381.50	4.12'	CONCRETE DROP INLE						
A9	381.50	3.58'	CONCRETE DROP INLE						
A10	381.22	3.00'	CONCRETE CURB INLE						
B1	376.95	N/A	18" FES						
B2	381.87	6.23'	MANHOLE						
В3	380.50	4.69'	CONCRETE DROP INLE						
B4	381.50	5.47'	CONCRETE DROP INLE						
B5	381.50	4.88'	CONCRETE DROP INLE						
В6	381.50	4.55'	CONCRETE DROP INLE						
В7	381.51	4.22'	CONCRETE DROP INLE						
B8	381.50	3.88'	CONCRETE DROP INLE						
В9	381.50	3.30'	CONCRETE DROP INLE						
B10	381.50	3.00'	CONCRETE DROP INLE						
C1	381.50	2.00'	CONCRETE DROP INLE						
D1	381.50	3.00'	CONCRETE DROP INLE						
E1	374.85	N/A	15" FES						
E2	379.50	5.70'	CONCRETE DROP INLE						
INSERT-A-TEE	378.68	N/A	INSERT-A-TEE						
YI1	380.75	2.37'	YARD INLET						
Yl2	385.50	5.17'	YARD INLET						
YI3	380.90	1.93'	YARD INLET						
YI4	380.90	1.67'	YARD INLET						
YI5	389.00	7.74'	YARD INLET						
YI6	381.50	2.48'	YARD INLET						
YI7	381.50	3.47'	YARD INLET						
YI8	381.50	3.06'	YARD INLET						
YI9	381.53	2.70'	YARD INLET						

NCDOT STORM STRUCTURE TABLE					
STRUCTURE#	ТОР	STRUCTURE HEIGHT	DESCRIPTION		
F1	390.44	N/A	15" FES		
F2	390.19	N/A	15" FES		
F3	389.94	N/A	15" FES		
F4	390.44	N/A	15" FES		
	•	•			

				_		
		STO	RM PIPE TABL	E		<u> </u>
PIPE#	DIA	UPSTREAM INVERT	DOWNSTREAM INVERT	SLOPE	LENGTH	DESCRIPTION
B2-B1	18"	375.64	375.36	0.50%	56.53 LF	18" HP PIPE
B3-B2	18"	375.81	375.64	0.50%	34.39 LF	18" HP PIPE
B7-B6	15"	377.23	376.95	0.50%	55.79 LF	15" HP PIPE
YI5-B10	6"	381.40	378.83	5.78%	44.51 LF	6" PVC
YI6-B10	6"	379.02	378.83	0.54%	35.39 LF	6" PVC
YI9-YI8	6"	378.83	378.45	0.56%	68.94 LF	6" PVC
Y18-Y17	6"	378.45	378.03	0.56%	75.21 LF	6" PVC
B4-B3	18"	376.03	375.81	0.50%	43.31 LF	18" HP PIPE
D1-A3	12"	378.50	375.97	3.54%	71.40 LF	12" HP PIPE
C1-B4	12"	379.50	376.54	4.56%	64.94 LF	12" HP PIPE
B5-B4	15"	376.62	376.28	0.50%	68.18 LF	15" HP PIPE
B6-B5	15"	376.95	376.62	0.50%	66.56 LF	15" HP PIPE
B8-B7	15"	377.62	377.29	0.50%	66.38 LF	15" HP PIPE
B9-B8	12"	378.20	377.87	0.50%	66.56 LF	12" HP PIPE
B10-B9	12"	378.50	378.20	0.50%	59.86 LF	12" HP PIPE
YI3-B10	6"	378.97	378.70	0.62%	43.08 LF	6" PVC
YI2-A9	6"	380.33	378.11	4.66%	47.66 LF	6" PVC
YI1-A9	6"	378.52	378.11	1.59%	25.55 LF	6" PVC
A2-A1	24"	374.71	374.45	0.50%	51.71 LF	24" HP PIPE
A3-A2	24"	375.03	374.71	0.50%	63.51 LF	24" HP PIPE
A4-A3	18"	375.81	375.53	0.50%	57.24 LF	18" HP PIPE
A5-A4	18"	376.14	375.81	0.50%	66.56 LF	18" HP PIPE
A6-A5	18"	376.47	376.14	0.50%	66.56 LF	18" HP PIPE
A7-A6	15"	377.05	376.72	0.50%	66.52 LF	15" HP PIPE
A8-A7	15"	377.38	377.05	0.50%	66.56 LF	15" HP PIPE
A9-A8	12"	377.92	377.63	0.50%	58.02 LF	12" HP PIPE
A10-A9	12"	378.22	377.92	0.50%	60.96 LF	12" HP PIPE
YI4-YI3	6"	379.23	378.97	0.62%	42.89 LF	6" PVC
YI7-INSERT-A-TEE	6"	378.03	377.81	0.56%	38.34 LF	6" PVC
E2-E1	15"	373.80	373.40	0.56%	71.44 LF	15" RCP
	15"	377.29	377.23	0.50%	10.94 LF	15" HP PIPE

	NCDOT STORM PIPE TABLE							
PIPE#	DIA	UPSTREAM INVERT	DOWNSTREAM INVERT	SLOPE	LENGTH	DESCRIPTION		
F2-F1	15"	389.00	388.75	1.43%	17.45 LF	15" RCP		
F4-F3	15"	389.00	388.50	1.59%	31.45 LF	15" RCP		

YI7-INSERT-A-TEE

38 34' OF

6" PVC

@ 0.56%

_8" DIP WATERLINE

10+50

/- FINISHED GRADE

75.21' OF

6" PVC

@ 0.56%

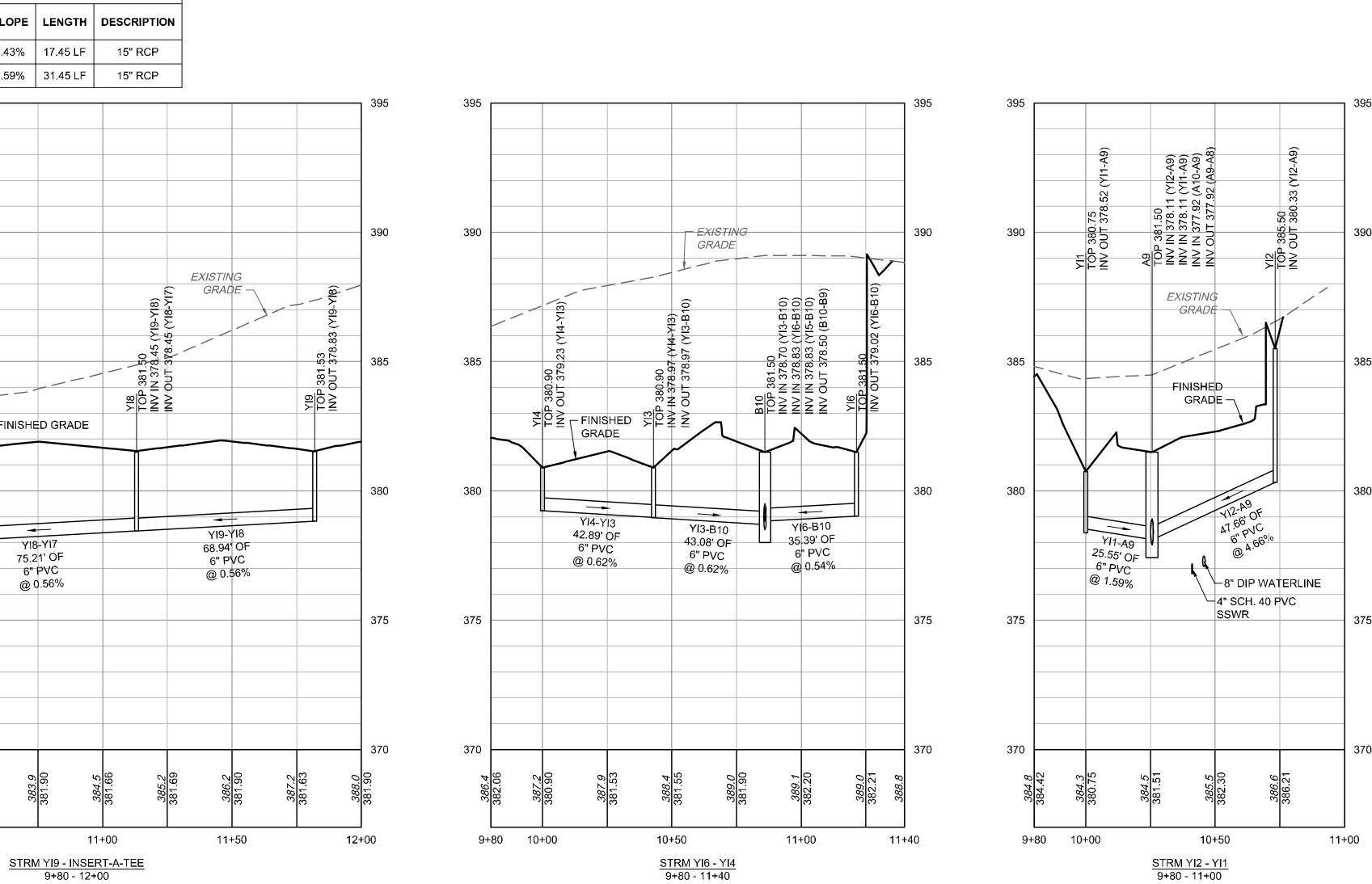
384.5 381.66

390

375

370

9+80 10+00



FINISHED GRADE

- EXISTING GRADE

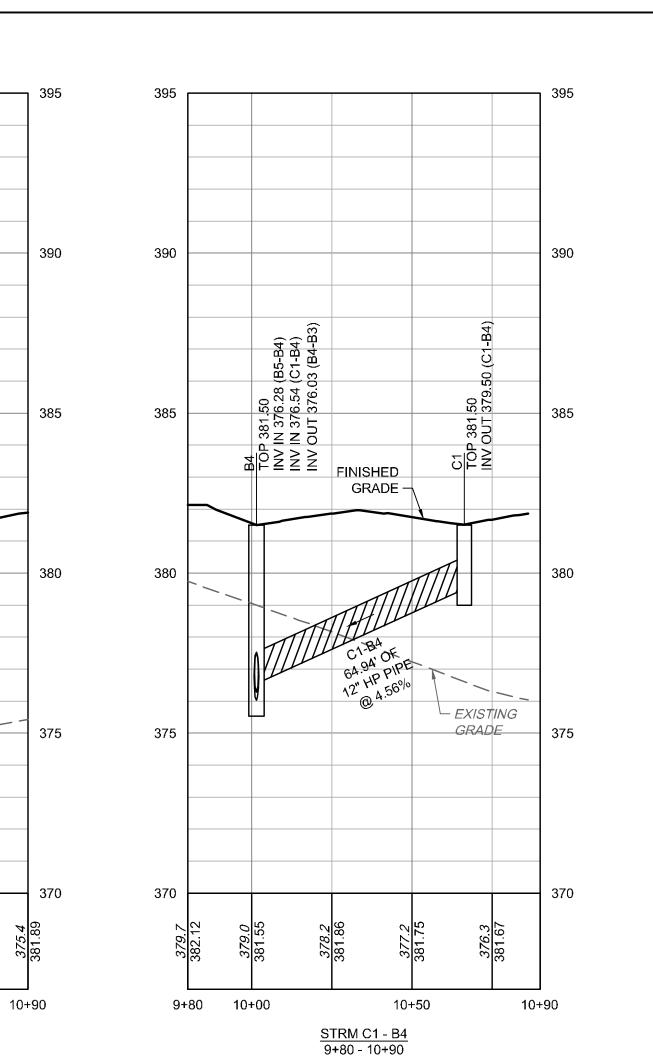
10+50

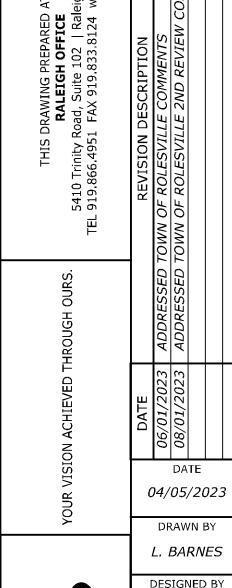
STRM D1 - A3 9+80 - 10+90

380

375

9+80 10+00





PRELIMINARY PLANS

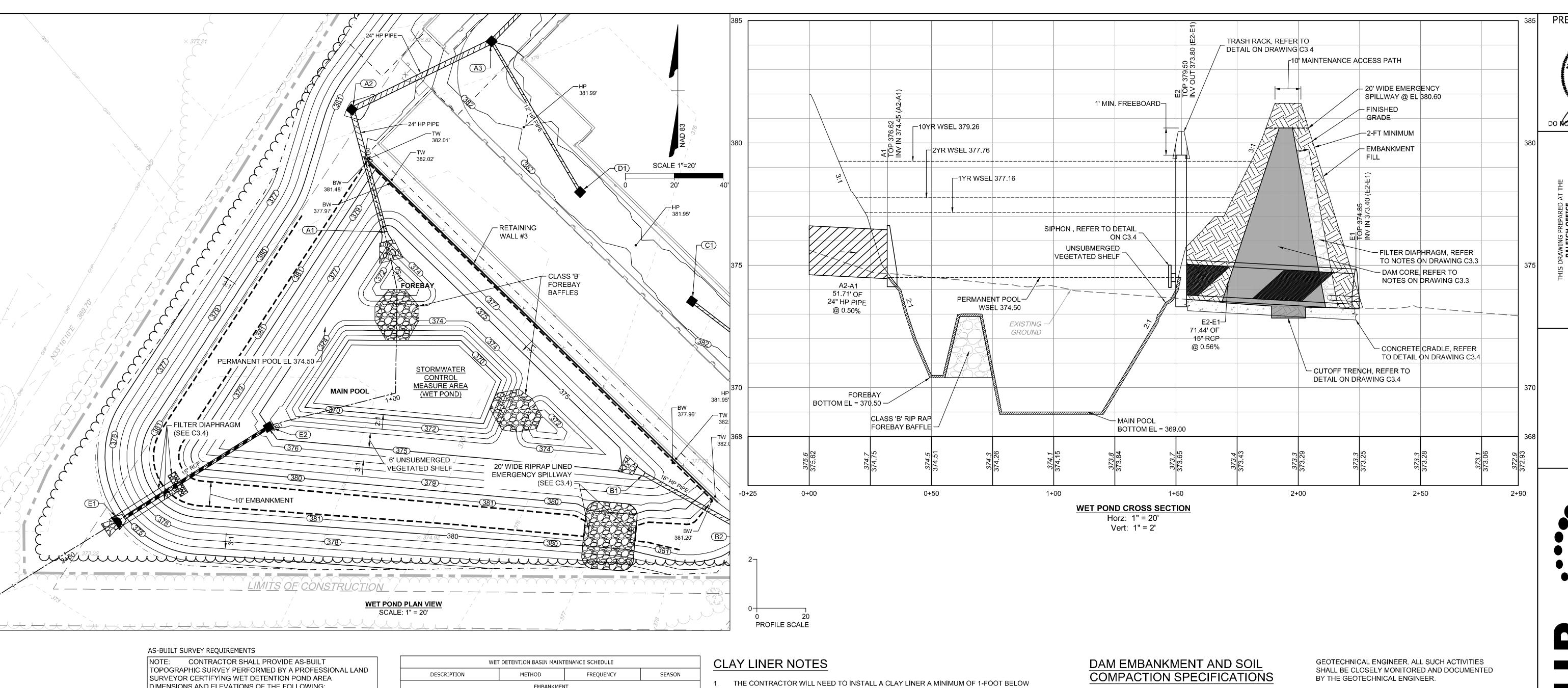
DO NOT USE FOR CONSTRUCTION

DESIGNED BY G. FRANK CHECKED BY G. FRANK SCALE AS SHOWN

JON

JOB NO. *54832* SHEET NO. C3.1

PROFILE SCALE



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 EXCEPTION.
- CLASS "A" (3,000 PSI) CONCRETE TO BE USED. 6. 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.

DESCRIPTION	METHOD	FREQUENCY	SEASON
	EMBANKM	ENT	
INSPECT AND REPAIR EROSION / ANIMAL NESTINGS	VISUAL	ONCE PER YEAR	ALL
INSPECT AND RESEED GRASS COVERAGE	VISUAL	WHENEVER NEEDED	ALL
·	OUTLET STRI	JCTURE	
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
	FOREBAY / MA	IN POOL	
SEDIMENT / DEBRIS	BY HAND	ONCE PER YEAR	ALL
REMOVE TRASH	BY HAND	WHENEVER NEEDED	ALL

<u>DAM CORE, CUTOFF TRENCH, AND EMBANKMENT FILL NOTES:</u>

- 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

- 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.

- 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 9 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.
- 3. 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

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 **J**ÉE FOR CONSTRUCTION

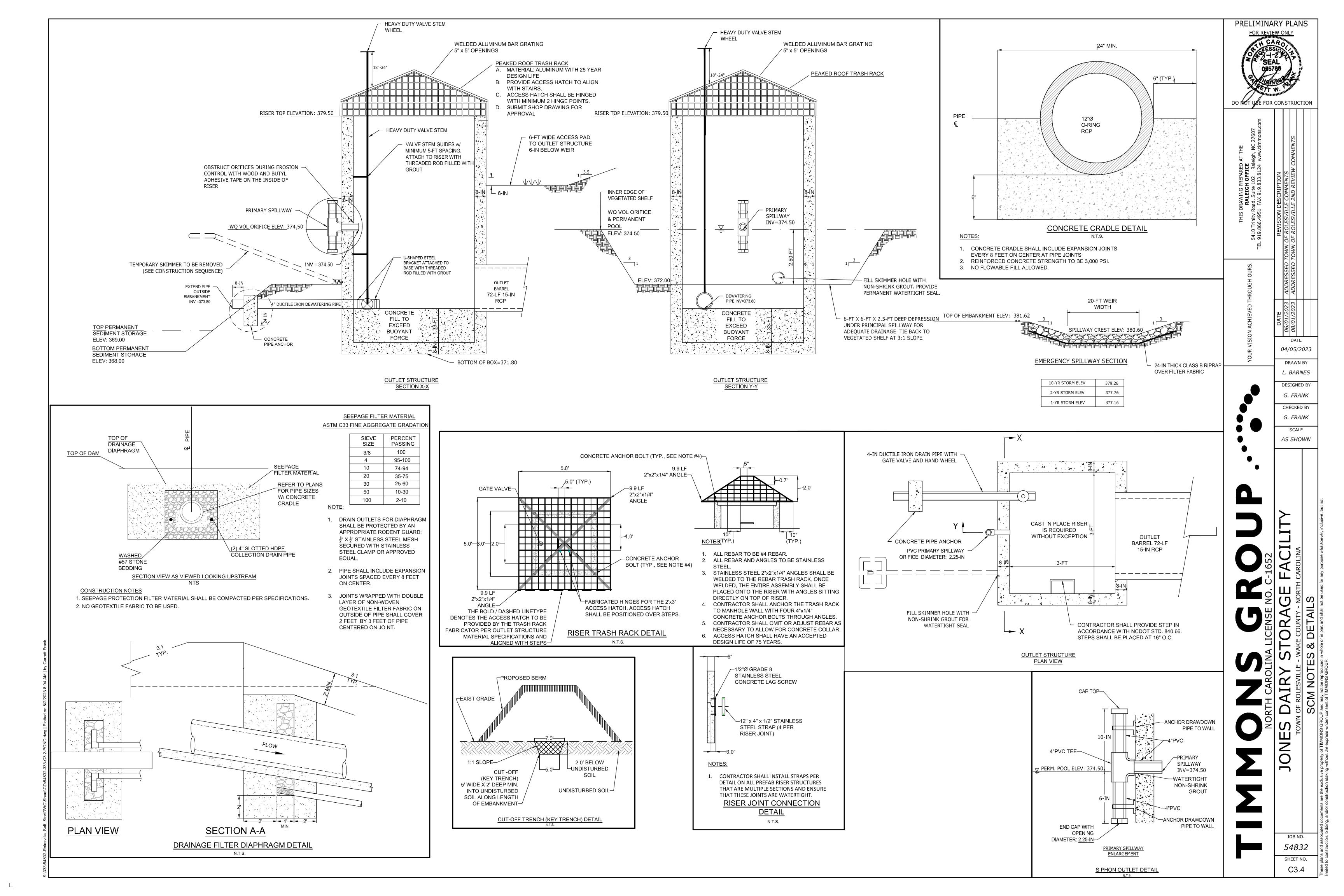
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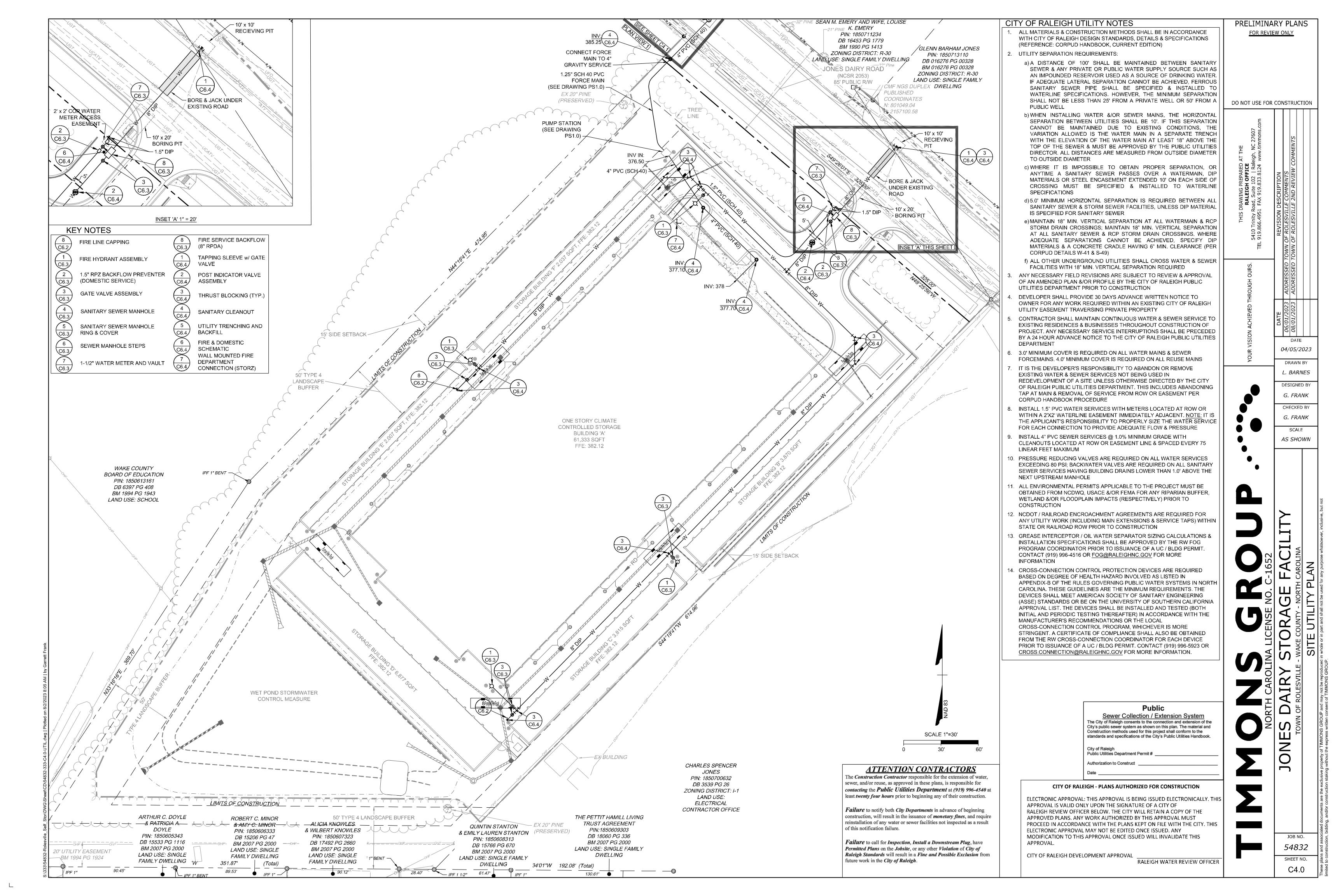
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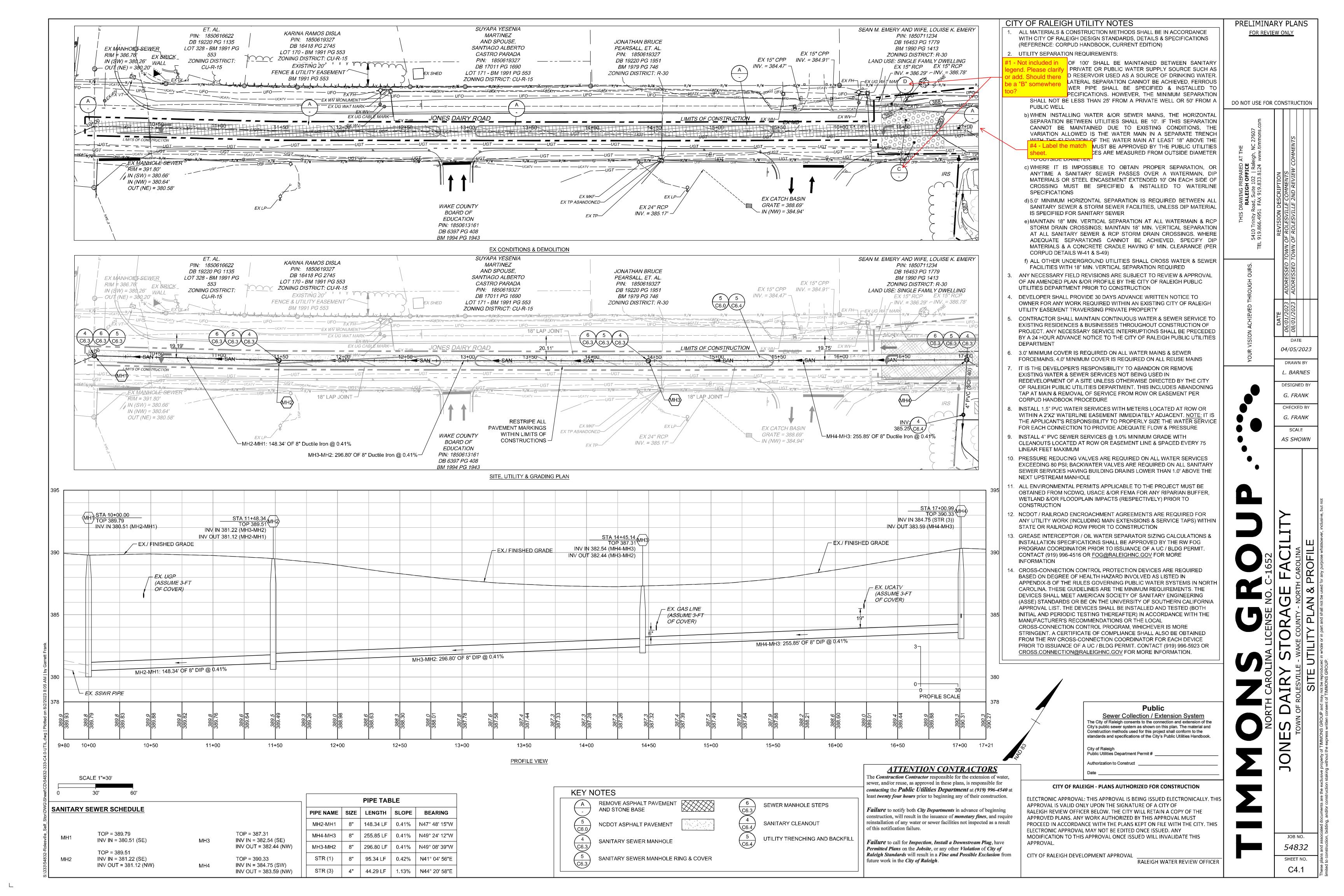
G. FRANK SCALE AS SHOWN

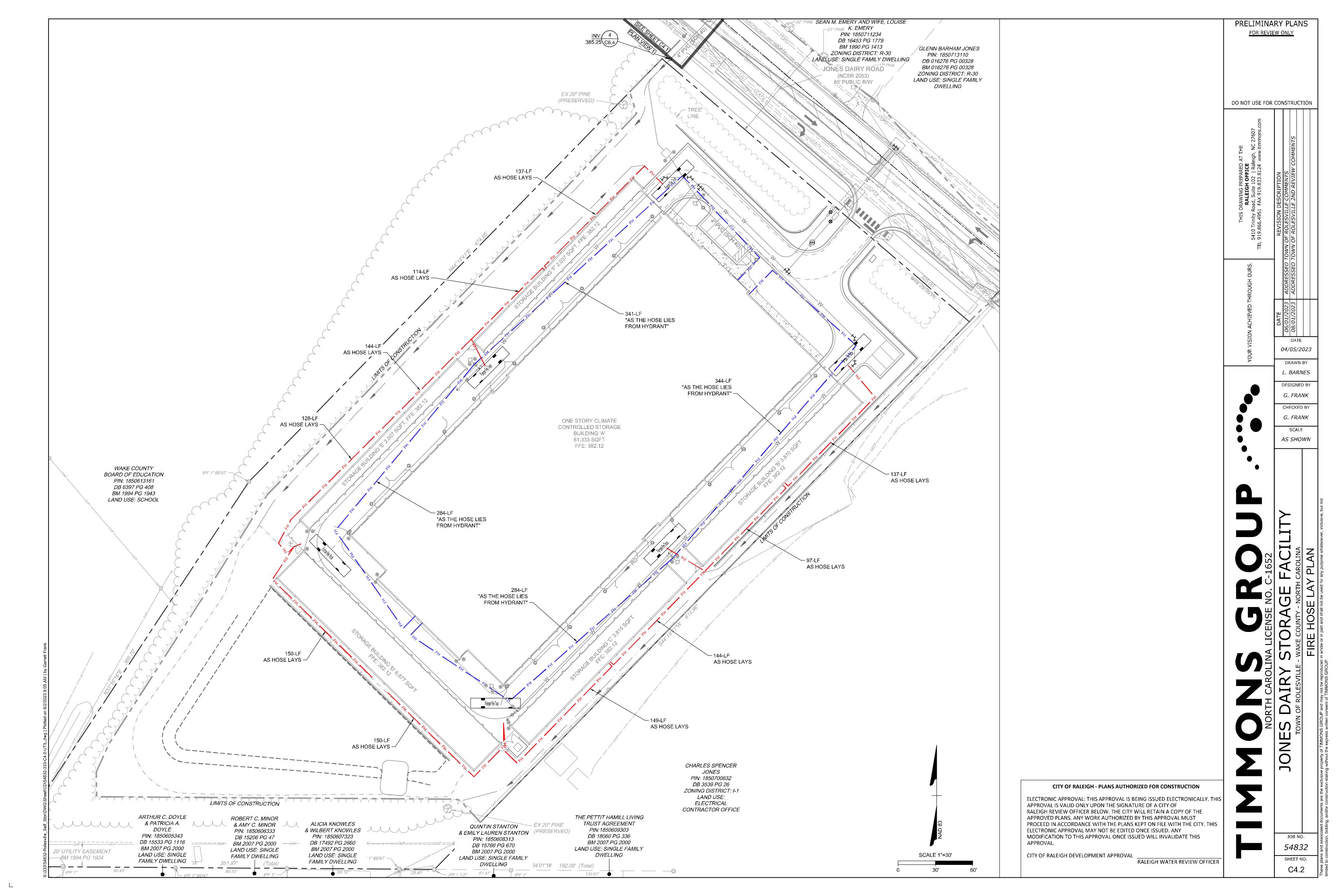
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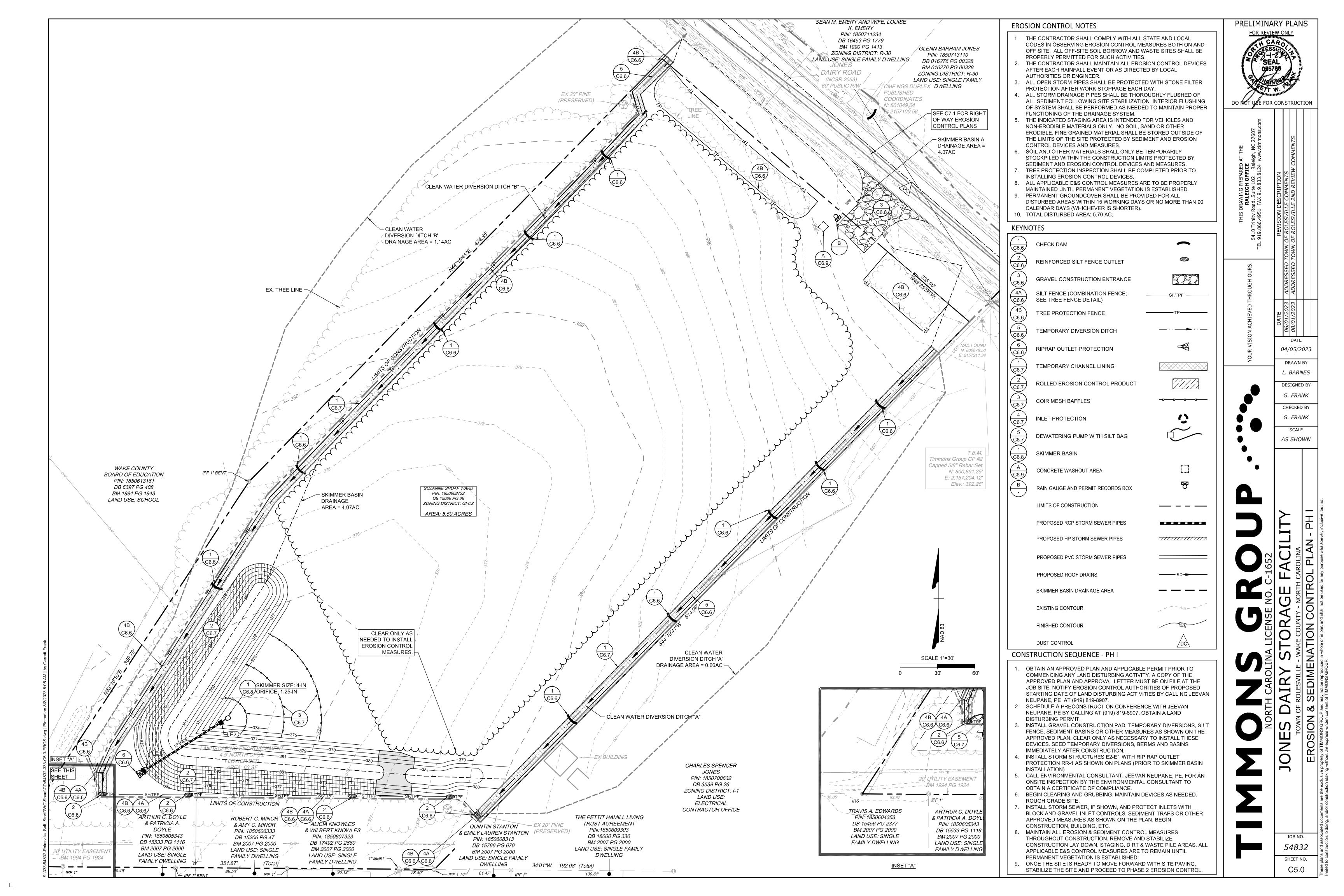
C3.3

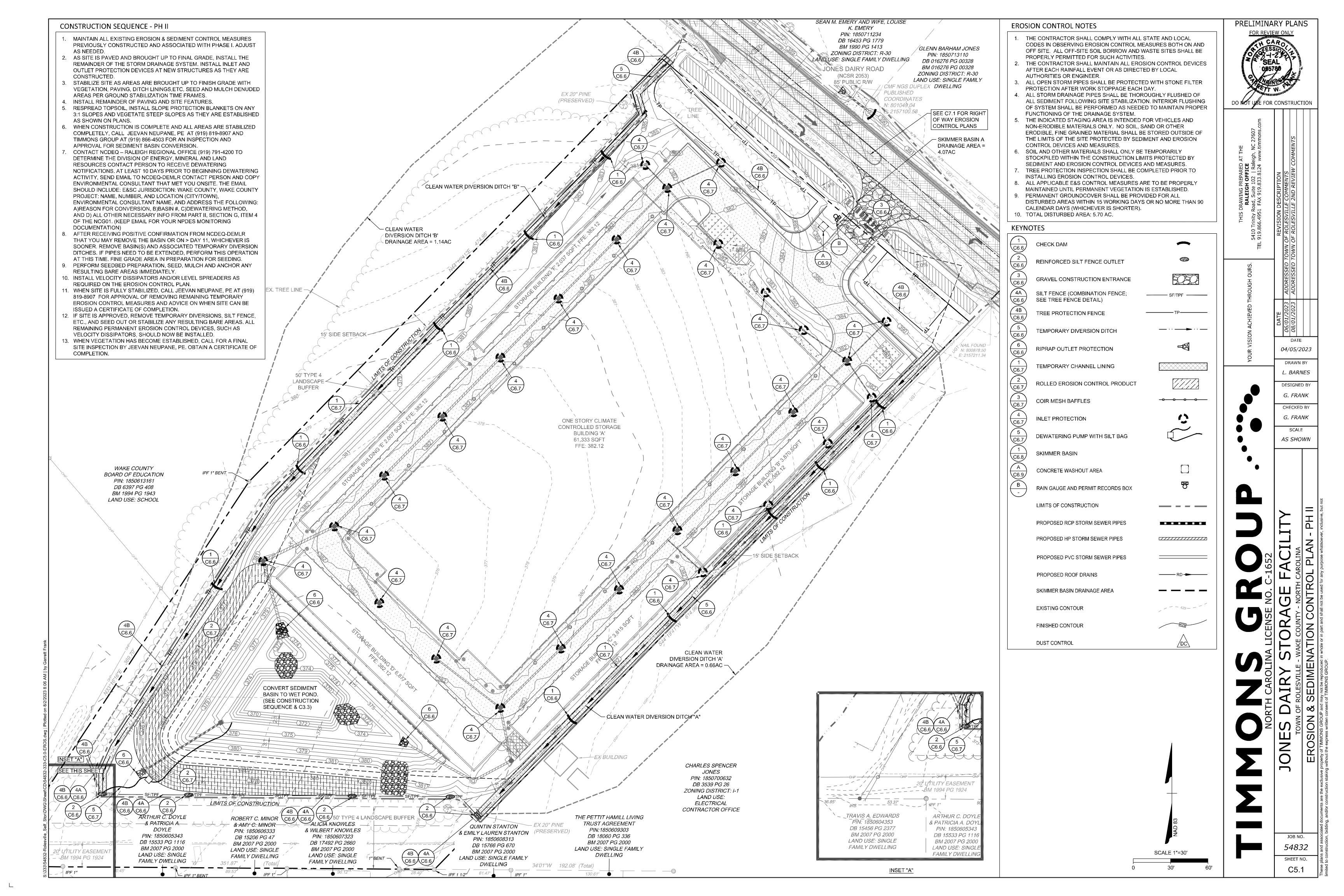


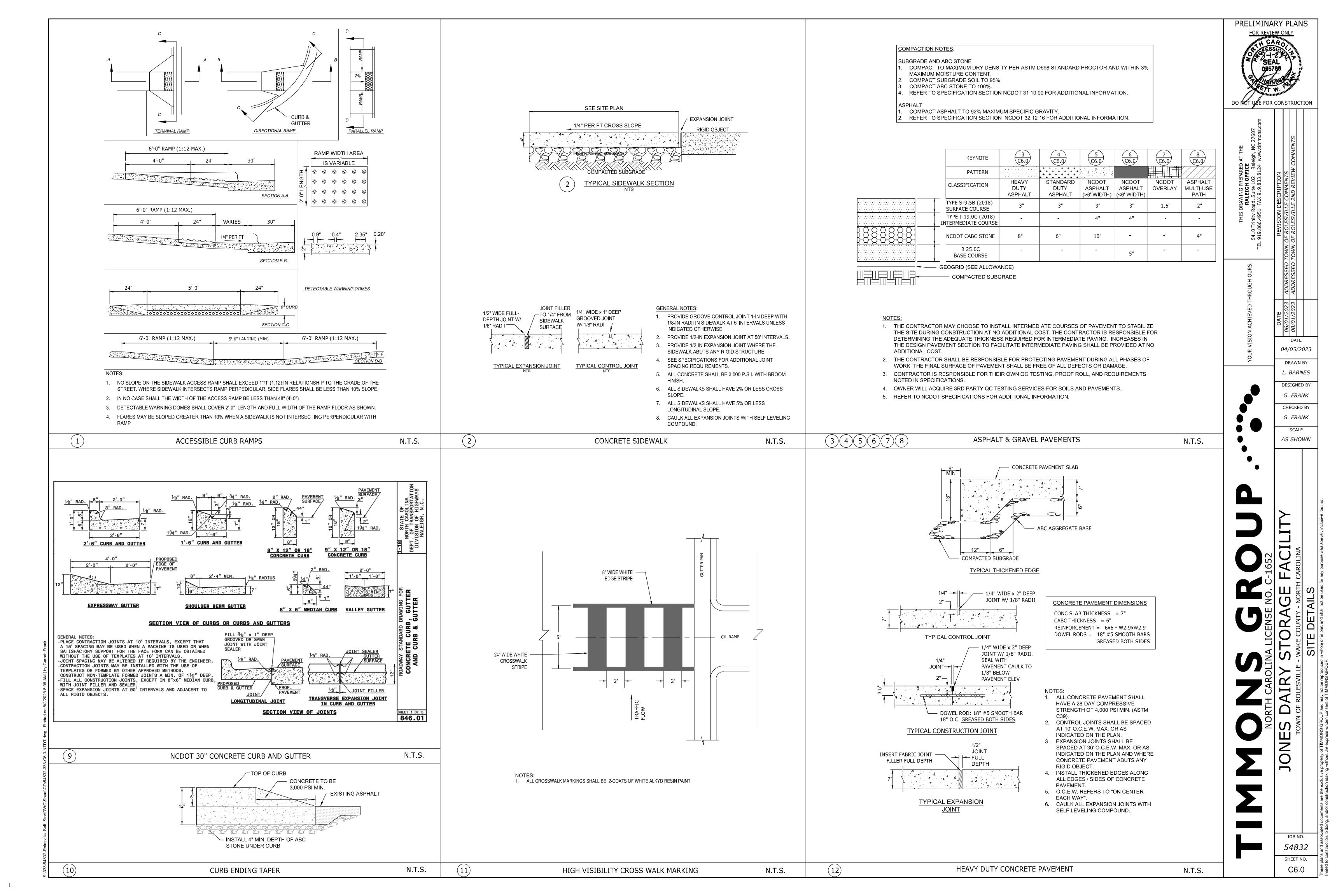


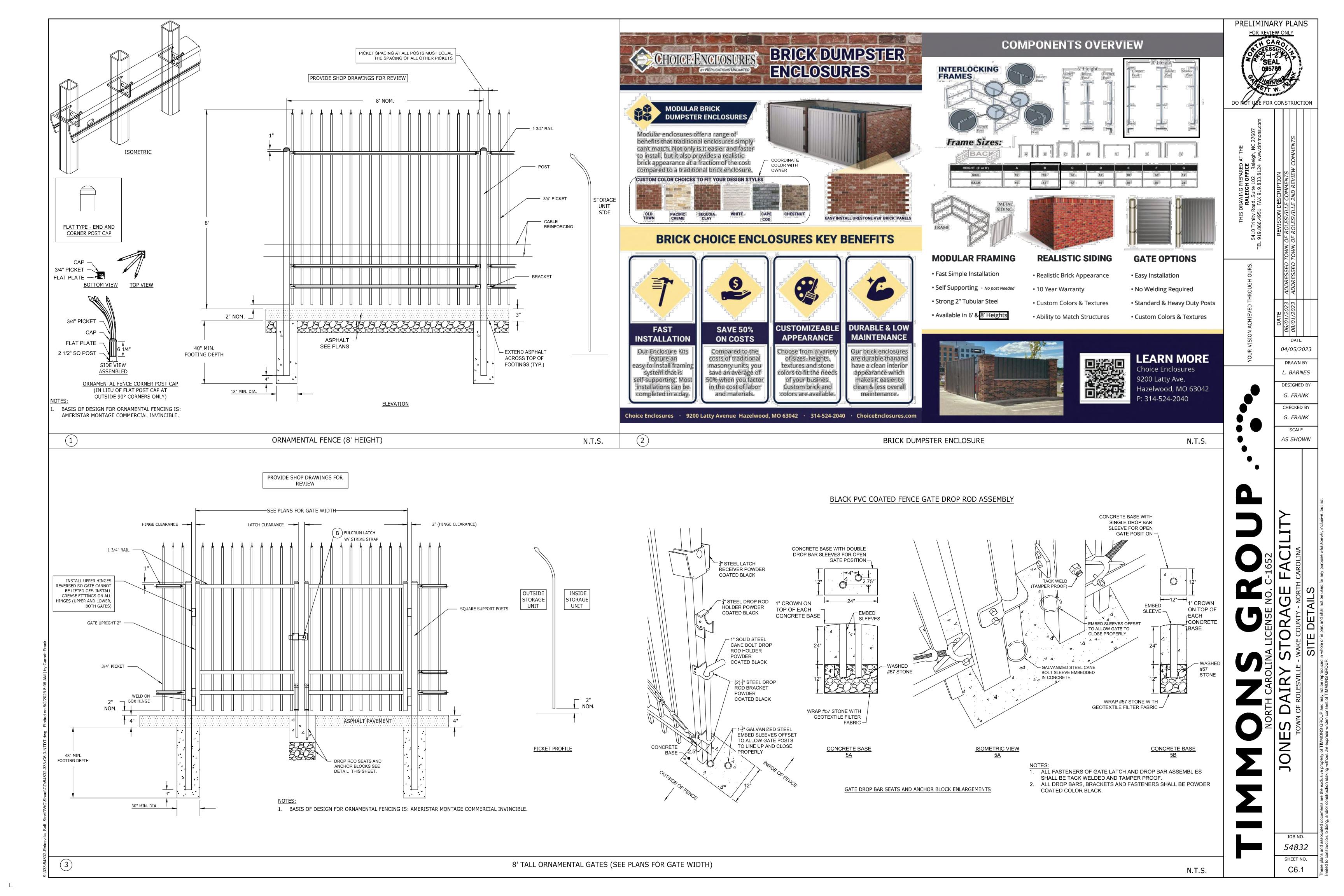


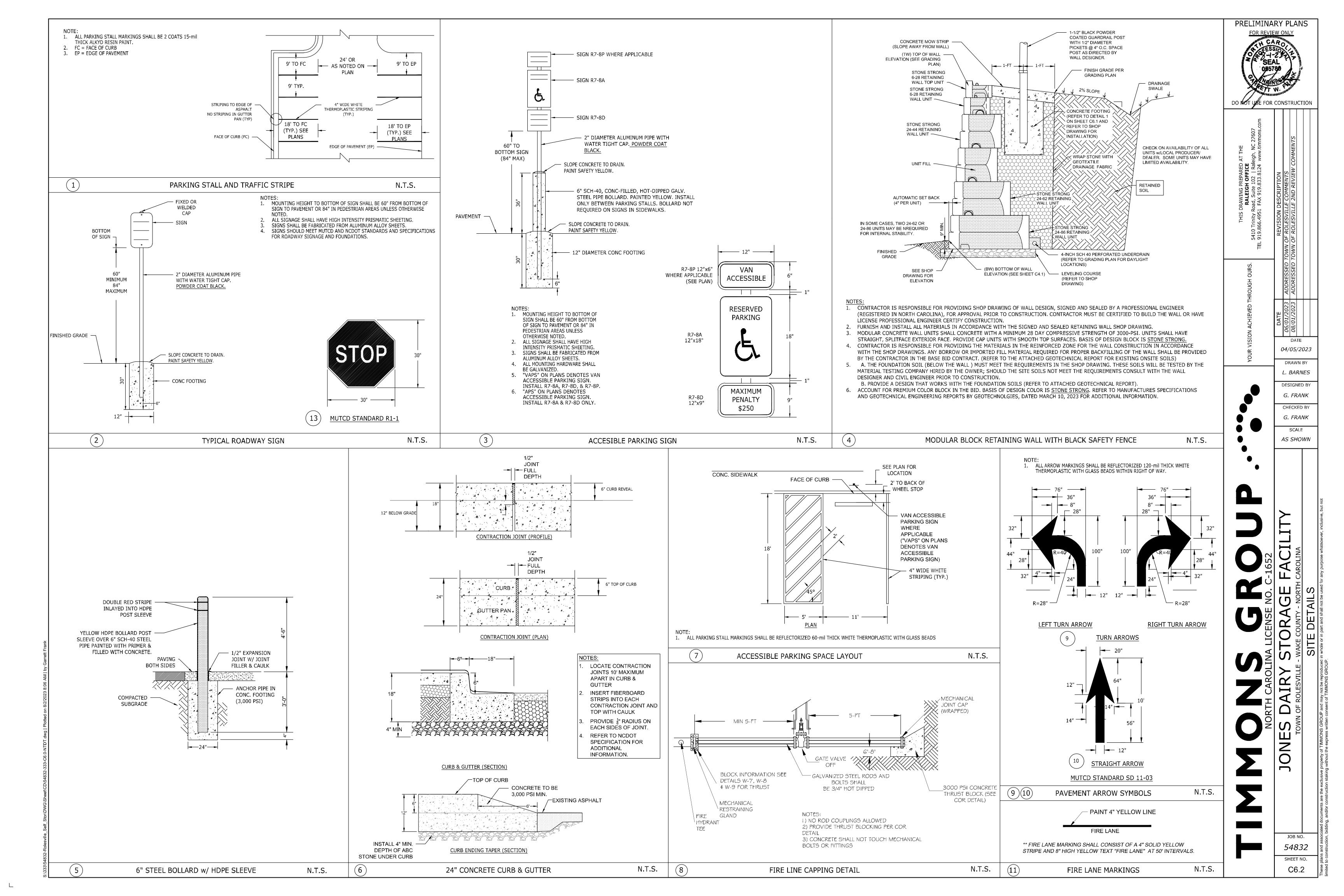


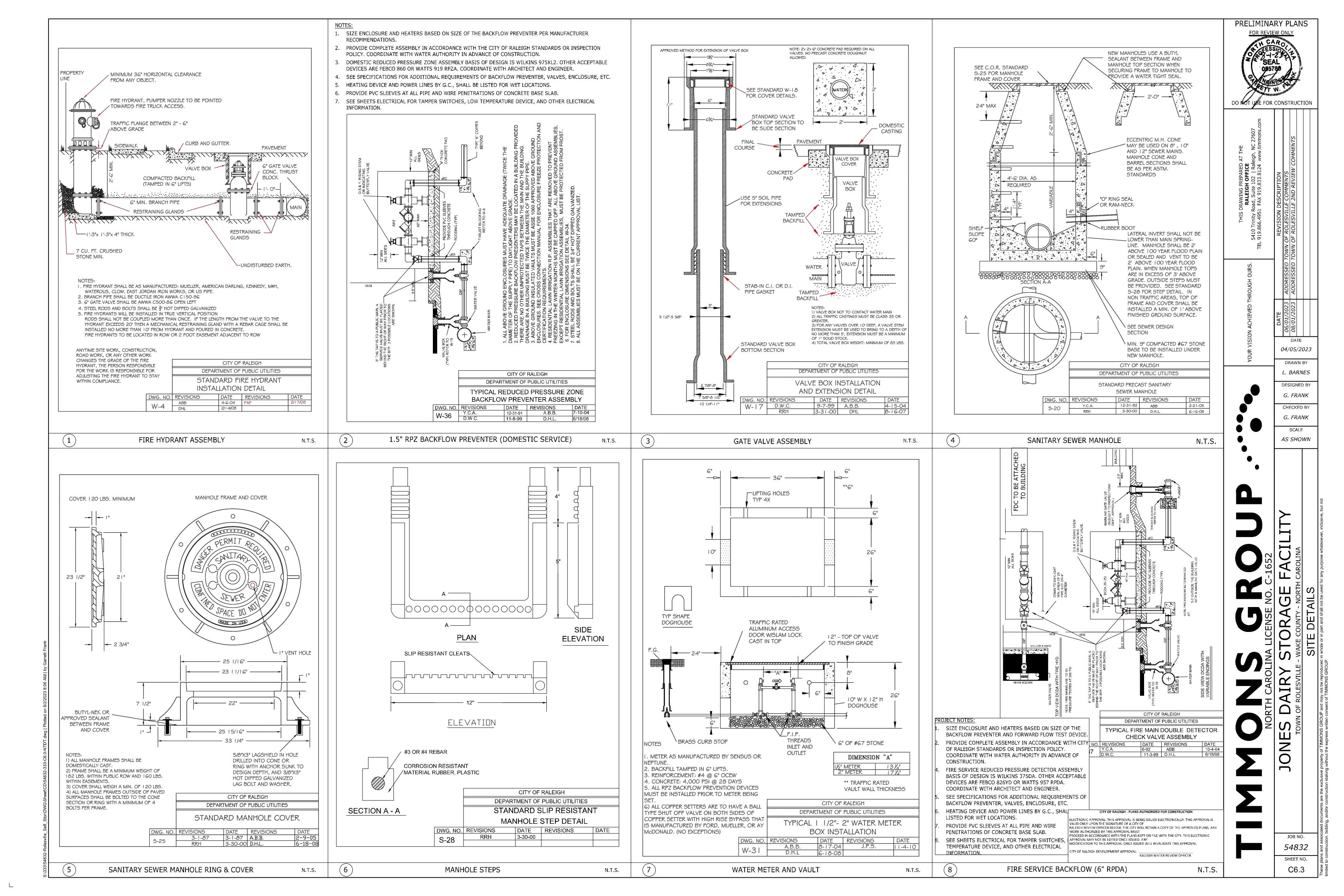


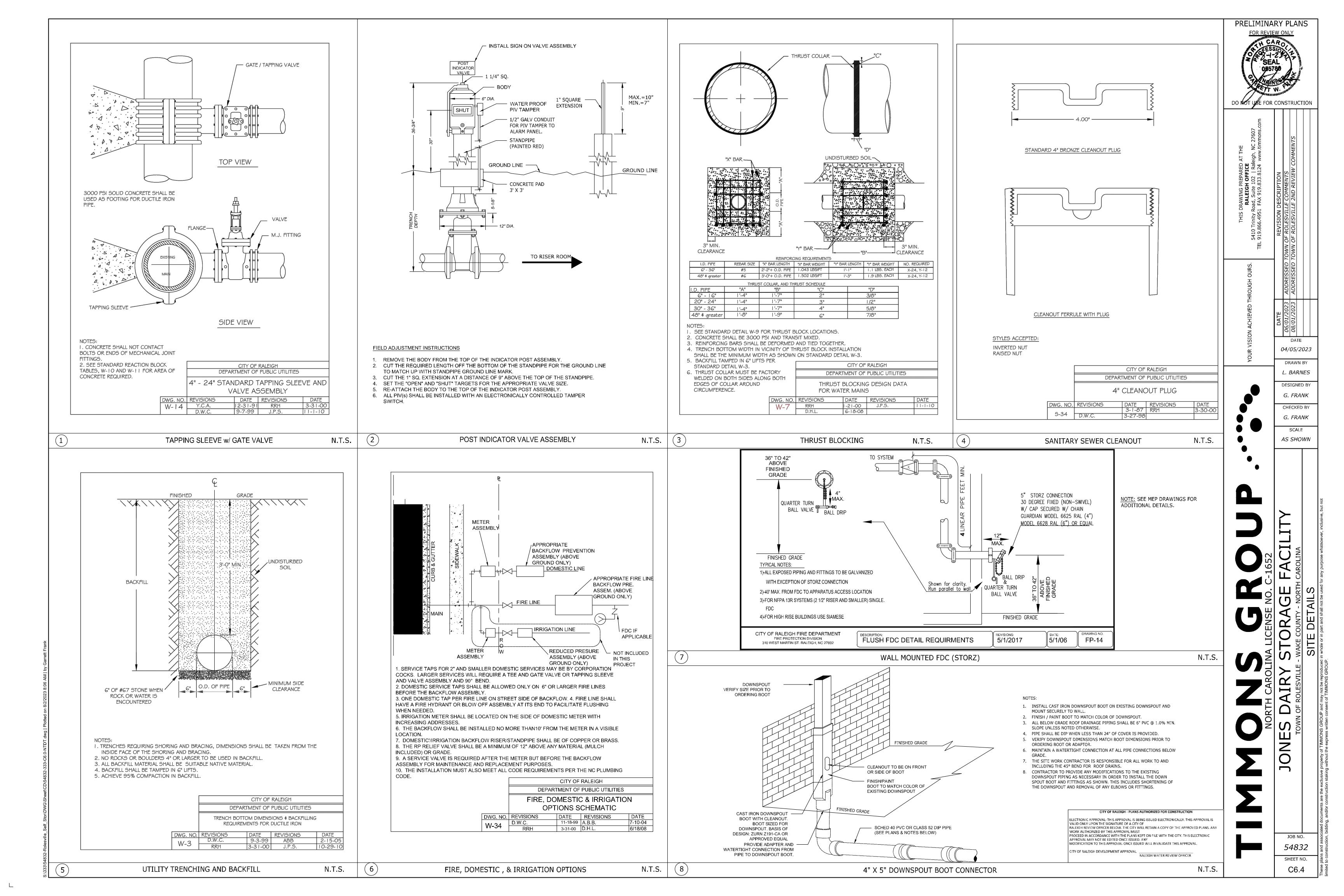


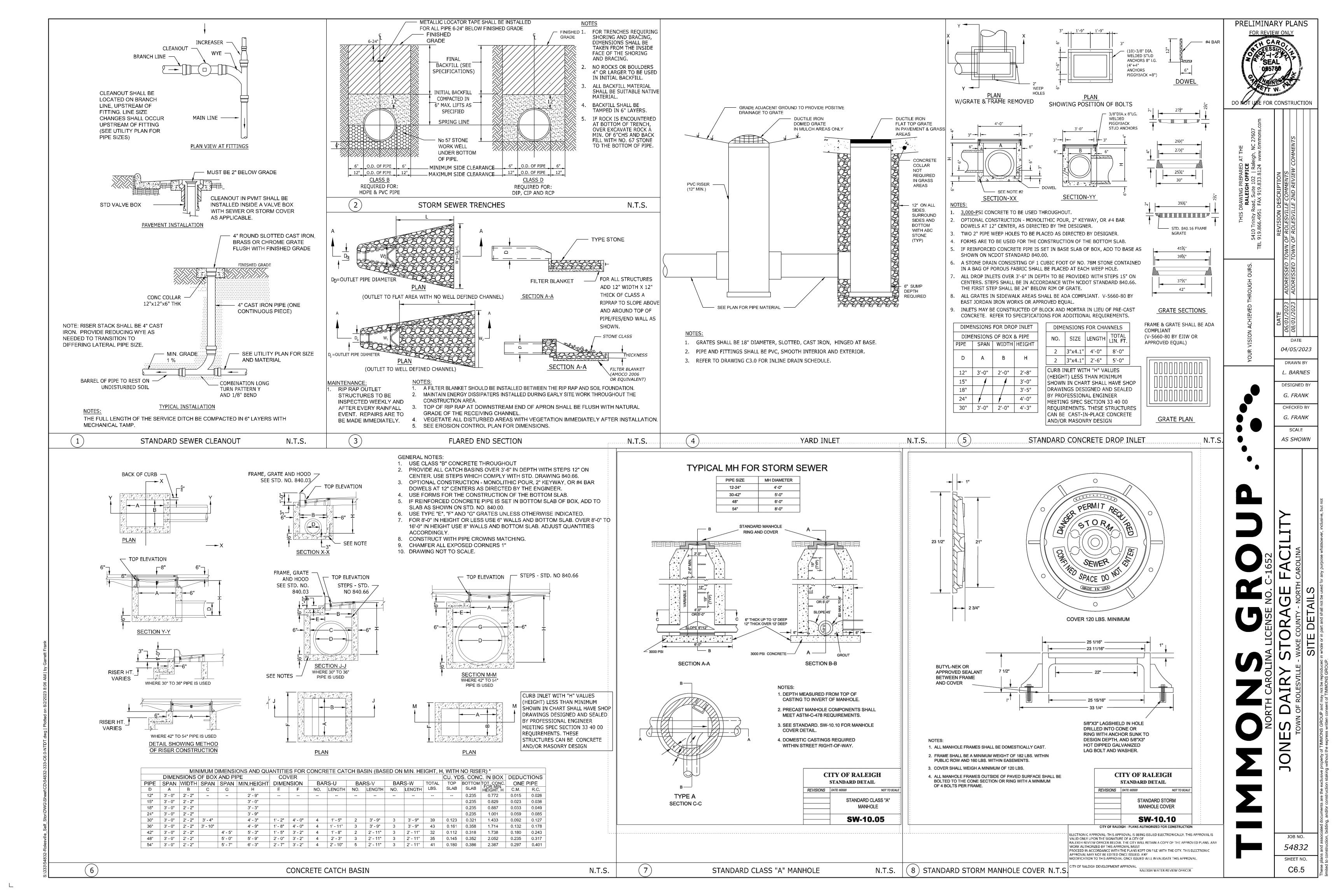


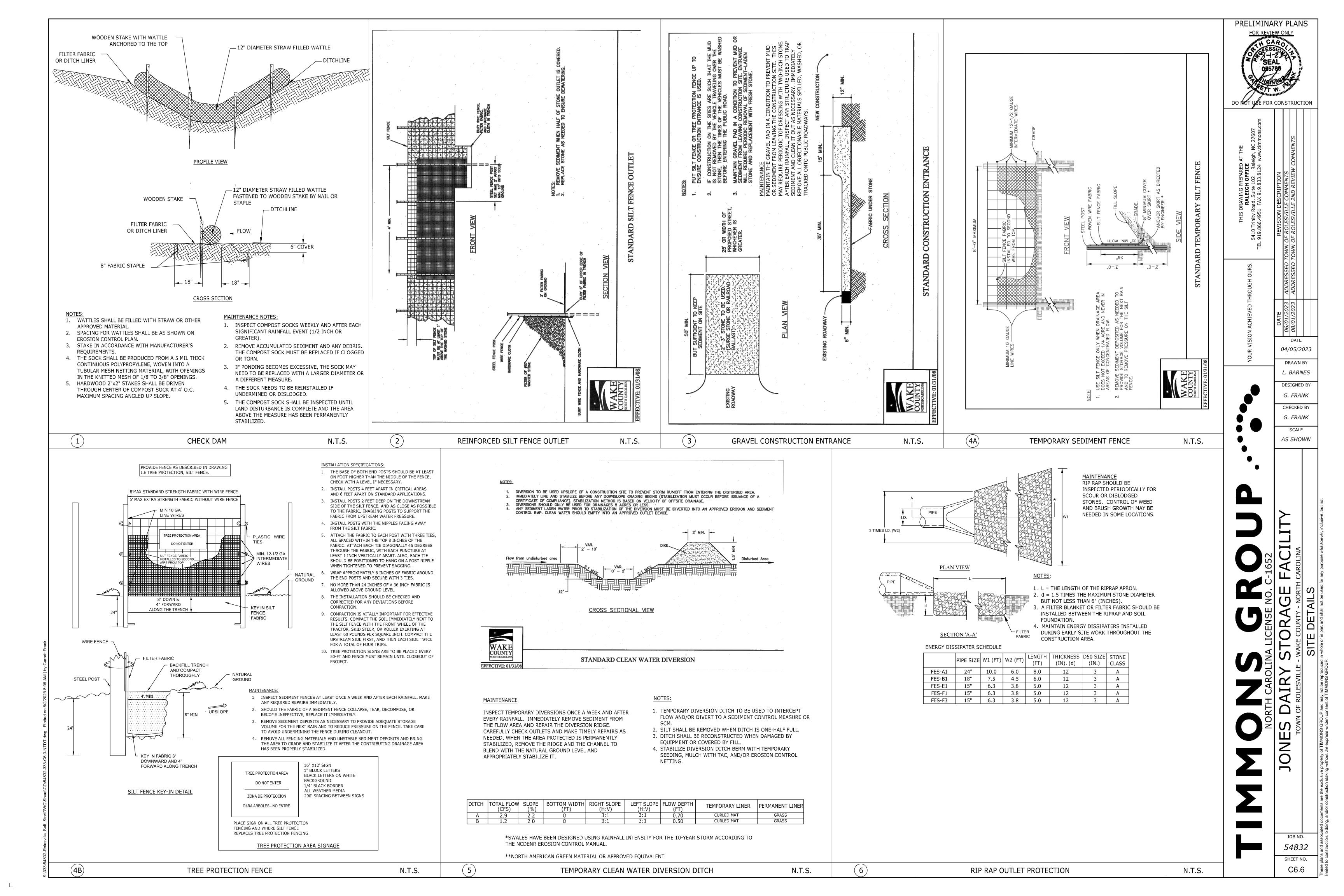


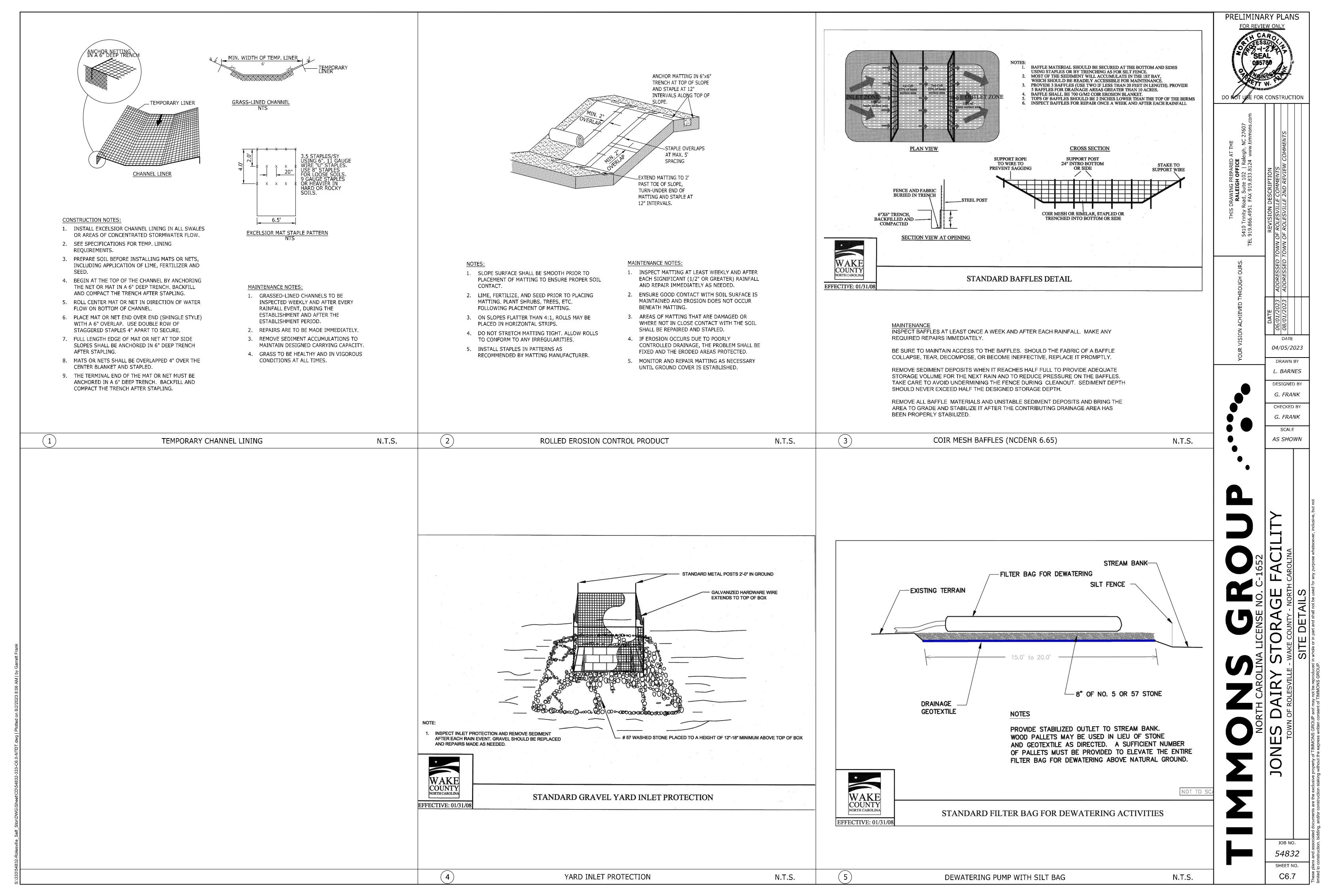




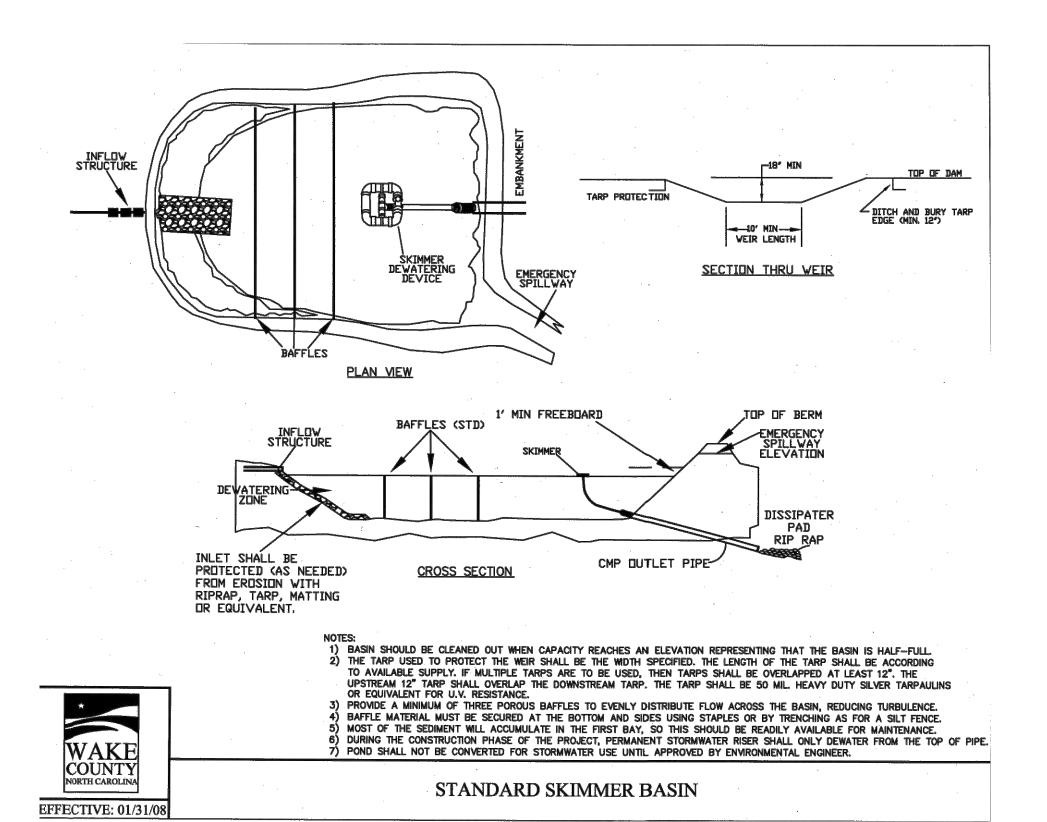








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MAINTENANCE NOTES:

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.
- 4. 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).

BASIN NUMBER	DRAIN AREA(ACRES)	DISTB. AREA(ACRES)	,	BASIN SURFACE AREA(SF)	REQUIRED SURFACE AREA(SF)	BASIN VOLUME (CF)	REQUIRED BASIN VOLUME (CF)	SPILLWAY WIDTH (FT)	SKIMMER SIZE (IN.)	SKIMMER ORIFICE DIAMETER (IN.)	TOP OF BERM ELEV.	EMERGENCY SPILLWAY ELEV.	BOTTOM OF BASIN ELEV.	SIDE SLOPES	DEWATERING TIME (DAYS)
Α	4.07	4.07	14.63	7,864	6,365	13,109	7,326	15	4	1.25	381.62	378	374	3:1	3.52

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

SEDIMENT BASIN WITH STANDARD SKIMMER N.T.S.

TEMPORARY SEED SCHEDULE (Oct 1 - May 1)

GRASS SPECIES BLEND	PLANTING RATE	MIN. % PURE SEED	MAX. % WEED SEED
ANNUAL RYE GRASS	50-LBS PER 1-ACRE	85%	1%

SOIL AMENDMENTS FOLLOW RECOMMENDATIONS OF SOIL TESTS OR APPLY 4,00LB/ACRE GROUND AGRICULTURAL LIMESTONE IN SANDY SOILS OR 6,000LB/ACRE IN CLAY SOILS, AND 1,000 LB/ACRE 10-10-10 FERTILIZER.

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 MULCH IMMEDIATELY FOLLOWING EROSION OR OTHER DAMAGE.

TEMPORARY SEED SCHEDULE (May 1 - Sept 30)

GRASS SPECIES BLEND	PLANTING RATE	MIN. % PURE SEED	MAX. % WEED SEED
GERMAN MILLET	30-LBS PER 1-ACRE	85%	1%

FOLLOW RECOMMENDATIONS OF SOIL TESTS OR APPLY 4,00LB/ACRE GROUND AGRICULTURAL LIMESTONE IN SANDY SOILS OR 6,000LB/ACRE IN CLAY SOILS, AND 1,000 LB/ACRE 10-10-10 FERTILIZER.

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 MULCH IMMEDIATELY FOLLOWING EROSION OR OTHER DAMAGE.

PERMANENT SEED SCHEDULE (MAY1 - SEPT 1)

GRASS SPECIES BLEND	PLANTING RATE	MIN. % PURE SEED	MAX. % WEED SEED
CELEBRATION BERMUDA	200-LBS PER	98%	1%

PERMANENT SEEDING FOR THIS PROJECT SHALL OCCUR BETWEEN MAY - AUGUST 1 ADJUSTED AS NECESSARY FOR ADEQUATE GROUND TEMPERATURES. GROUND 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

TEMPORARY & PERMANENT SEEDING SPECIFICATIONS

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).

- 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.
- 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.

- 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. THE 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.

IME & FERTILIZER NOTES

CHISEL ALL CUT GRADED OR COMPACTED AREAS TO A MINIMUM DEPTH OF 6".

INSPECT ALL SEEDED AREAS AND MAKE NECESSARY REPAIRS OR RESEEDINGS AS NEEDED.

- 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.

IF CONFLICTS OCCUR BETWEEN WRITTEN SPECIFICATIONS AND THE DRAWINGS, THE WRITTEN SPECIFICATIONS SHALL PREVAIL.

TEMPORARY/PERMANENT SEEDING



PRELIMINARY PLANS

 \mathscr{E} E FOR CONSTRUCTION

DATE

04/05/2023 DRAWN BY L. BARNES

DESIGNED BY G. FRANK

CHECKED BY G. FRANK

SCALE

AS SHOWN

54832 SHEET NO.

C6.8

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

GROUND STABILIZATION SPECIFICATION

OTHER MULCHES AND TACKIFIERS

WITHOUT TEMPORARTY GRASS SEED

POLYACRYLAMIDES (PAMS) AND FLOCCULANTS

CONTAINMENT STRUCTURES.

EQUIPMENT AND VEHICLE MAINTENANCE

POSSIBLE).

LIST OF APPROVED PAMS/FLOCCULANTS.

WITH THE MANUFACTURER'S INSTRUCTIONS.

2. PROVIDE DRIP PANS UNDER ANY STORED EQUIPMENT.

CENTER THAT HANDLES THESE MATERIALS.

TEMPORARY GRASS SEED COVERED WITH STRAW OR

APPROPRIATELY APPLIED STRAW OR OTHER MULCH

ROLLED EROSION CONTROL PRODUCTS WITH OR

TEMPORARY STABILIZATION

HYDROSEEDING

PLASTIC SHEETING

	REQUIRED GROUND STABILIZATION 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 ZERO 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.

PERMANENT STABILIZATION

HYDROSEEDING

RETAINING WALLS

MULCHES AND TACKIFIERS

REINFORCEMENT MATTING

SUFFICIENT TO RESTRAIN EROSION

PERMANENT GRASS SEED COVERED WITH STRAW OR OTHER

SHRUBS OR OTHER PERMANENT PLANTINGS COVERED WITH

UNIFORM AND EVENLY DISTRIBUTED GROUND COVER

STRUCTURAL METHODS SUCH AS CONCRETE, ASPHALT OR

ROLLED EROSION CONTROL PRODUCTS WITH GRASS SEED

GEOTEXTILE FABRICS SUCH AS PERMANENT SOIL

STABILIZE THE GROUND SUFFICIENTLY SO THAT RAIN WILL NOT DISLODGE THE SOIL. USE ONE OF THE TECHNIQUES IN THE TABLE BELOW:

1. SELECT FLOCCULANTS THAT ARE APPROPRIATE FOR THE SOILS BEING EXPOSED DURING CONSTRUCTION, SELECTING FROM THE NC DWR

3. APPLY FLOCCULANTS AT THE CONCENTRATIONS SPECIFIED IN THE NC DWR LIST OF APPROVED PAMS/FLOCCULANTS AND IN ACCORDANCE

5. STORE FLOCCULANTS IN LEAK-PROOF CONTAINERS THAT ARE KEPT UNDER STORM-RESISTANT COVER OR SURROUNDED BY SECONDARY

4. COLLECT ALL SPENT FLUIDS, STORE IN SEPARATE CONTAINERS AND PROPERLY DISPOSE AS HAZARDOUS WASTE (RECYCLE WHEN

6. BRING USED FUELS, LUBRICANTS, COOLANTS, HYDRAULIC FLUIDS AND OTHER PETROLEUM PRODUCTS TO A RECYCLING OR DISPOSAL

5. REMOVE LEAKING VEHICLES AND CONSTRUCTION EQUIPMENT FROM SERVICE UNTIL THE PROBLEM HAS BEEN CORRECTED.

1:1 SIDE FENCE PLASTIC SLOPE (TYP) LINING SECTION A-A HIGH COHESIVE & LOW FILTRATION SOIL BERM SANDBAGS (TYP.) OR STAPLES

1:1 SIDE SLOPE (TYP) HIGH COHESIVE & LOW FILTRATION SOIL BERM SANDBAGS (TYP.) OR STAPLES CONCRETE WASHOUT ONSITE CONCRETE WASHOUT STRUCTURE WITH LINER 10 MIL PLASTIC LINING SECTION B-B **CLEARLY MARKED** SIGNAGE NOTING DEVICE (18"X24"MIN)

SIGNAGE FOR EITHER WASHOUT STRUCTURE

2. THE CONCRETE WASHOUT STRUCTURES SHALL BE

THE LIQUID AND/OR SOLID REACHES 75% OF THE

3.CONCRETE WASHOUT STRUCTURE NEEDS TO BE WITH SIGNAGE NOTING DEVICE.

HIGH COHESIVE & LOW FILTRATION SOIL BERM 2. THE CONCRETE WASHOUT SANDBAGS (TYP.) OR STAPLES <u>PLAN</u>

ABOVE GROUND WASHOUT STRUCTURE NOTES ACTUAL LOCATION DETERMINED IN FIELD

STRUCTURES SHALL BE MAINTAINED WHEN THE LIQUID AND/OR SOLID REACHES 75% OF THE STRUCTURES CAPACITY TO PROVIDE ADEQUATE HOLDING CAPACITY WITH A MINIMUM 12 INCHES OF FREEBOARD.

3.CONCRETE WASHOUT STRUCTURE NEEDS TO BE CLEARY MARKED WITH SIGNAGE NOTING DEVICE.

N.T.S.

04/05/2023

PRELIMINARY PLANS

JÉE FOR CONSTRUCTION

DRAWN BY

L. BARNES DESIGNED BY

G. FRANK CHECKED BY G. FRANK

AS SHOWN

JOB NO. *54832* SHEET NO.

CITY OF RALEIGH - PLANS AUTHORIZED FOR CONSTRUCTION ELECTRONIC APPROVAL: THIS APPROVAL IS BEING ISSUED ELECTRONICALLY. THIS APPROVAL IS 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

RALEIGH WATER REVIEW OFFICER

LITTER, BUILDING MATERIAL AND LAND CLEARING WASTE

- 1. 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
- 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.
- 4. 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

- 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.

4. DO NOT STOCKPILE THESE MATERIALS ONSITE.

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.

1. STORE AND APPLY HERBICIDES, PESTICIDES AND RODENTICIDES IN ACCORDANCE WITH LABEL RESTRICTIONS.

- 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
- 2. PROTECT STOCKPILE WITH SILT FENCE INSTALLED ALONG TOE OF SLOPE WITH A MINIMUM OFFSET OF FIVE FEET FROM THE TOE OF STOCKPILE.
- PROVIDE STABLE STONE ACCESS POINT WHEN FEASIBLE.
 - RESTRAIN ACCELERATED EROSION ON DISTURBED SOILS FOR TEMPORARY OR PERMANENT CONTROL NEEDS.

EARTHEN STOCKPILE MANAGEMENT

- REASONABLY AVAILABLE.
- 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

NCG01 GROUND STABILIZATION AND MATERIALS HANDLING

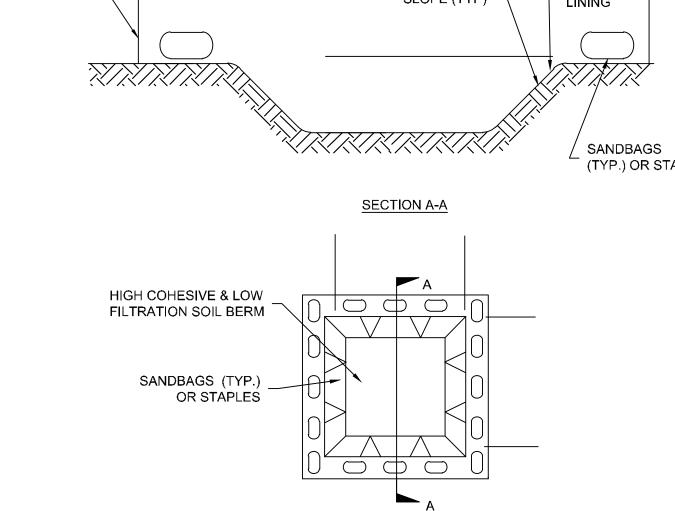
APPLY FLOCCULANTS AT OR BEFORE THE INLETS TO EROSION AND SEDIMENT CONTROL MEASURES.

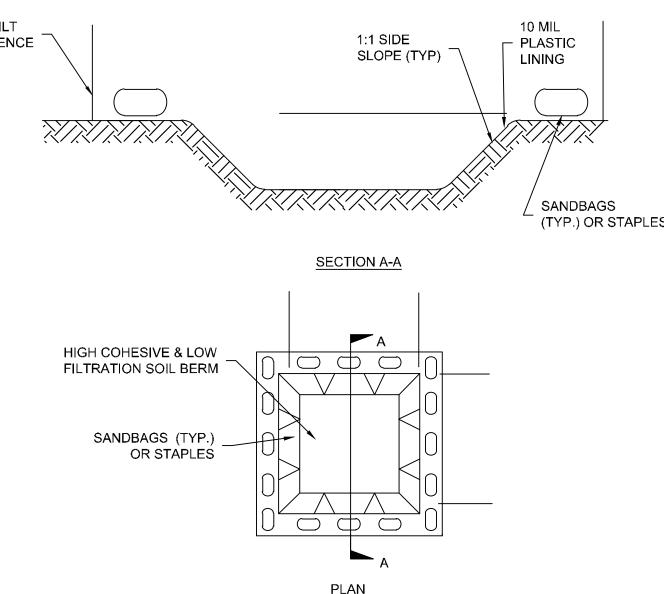
1. MAINTAIN VEHICLES AND EQUIPMENT TO PREVENT DISCHARGE OF FLUIDS.

4. PROVIDE PONDING AREA FOR CONTAINMENT OF TREATED STORMWATER BEFORE DISCHARGING OFFSITE.

3. IDENTIFY LEAKS AND REPAIR AS SOON AS FEASIBLE, OR REMOVE LEAKING EQUIPMENT FROM THE PROJECT

- 1. 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
- WELL WITH SOIL
- 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
- 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.





(TYP.) OR STAPLES

BELOW GROUND CONCRETE WASHOUT NOTES: 1. ACTUAL LOCATION DETERMINED IN FIELD MAINTAINED WHEN STRUCTURES CAPACITY. CLEARLY MARKED

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.

INGREDIENTS AND FIRST AID STEPS IN CASE OF ACCIDENTAL POISONING.

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.

AND AT AN APPROVED FACILITY.

WHICH COULD RECEIVE SPILLS OR OVERFLOW.

WASHOUT ITSELF TO IDENTIFY THIS LOCATION.

HERBICIDES, PESTICIDES AND RODENTICIDES

ABOVE GRADE WASHOUT STRUCTURE NOT TO SCALE

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

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.

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

2. STORE HERBICIDES, PESTICIDES AND RODENTICIDES IN THEIR ORIGINAL CONTAINERS WITH THE LABEL, WHICH LISTS DIRECTIONS FOR USE,

WELLS, STORMWATER DRAINS, GROUND WATER OR SURFACE WATER. IF A SPILL OCCURS, CLEAN AREA IMMEDIATELY.

3. DO NOT STORE HERBICIDES, PESTICIDES AND RODENTICIDES IN AREAS WHERE FLOODING IS POSSIBLE OR WHERE THEY MAY SPILL OR LEAK INTO

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

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

C6.9

LIME & FERTILIZATION SCHEDULE

VALID ONLY UPON THE SIGNATURE OF A CITY OF ODIFICATION TO THIS APPROVAL ONCE ISSUED WILL INVALIDATE THIS APPROVAL,

CITY OF RALEIGH DEVELOPMENT APPROVAL

EFFECTIVE: 04/01/19

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	COUND 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 B 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 WILL BE PROVIDED AS SOON AS POSSIBLE

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,
- (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.

SELF-INSPECTION, RECORDKEEPING AND REPORTING

PART III

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 EFFEC 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, INCLUDING EXACT DATES AND TIMES, AND IF THE NONCOMPLIANCE HAS NOT BEEN CORRECTED THE ANTICIPATED TIME NONCOMPLIANCE IS EXPECTED TO CONTINUE; AND STEPS TAKEN OR PLANNED TO REDUCE, ELIMINATE, AND PREVENT REOCCURRENCE OF THIN NONCOMPLIANCE. [40 CFR 122.41(I)(6). DIVISION STAFF MAY WAIVE THE REQUIREMENT FOR A WRITTEN REPORT ON A CASI BY CASE BASIS

PRELIMINARY PLANS

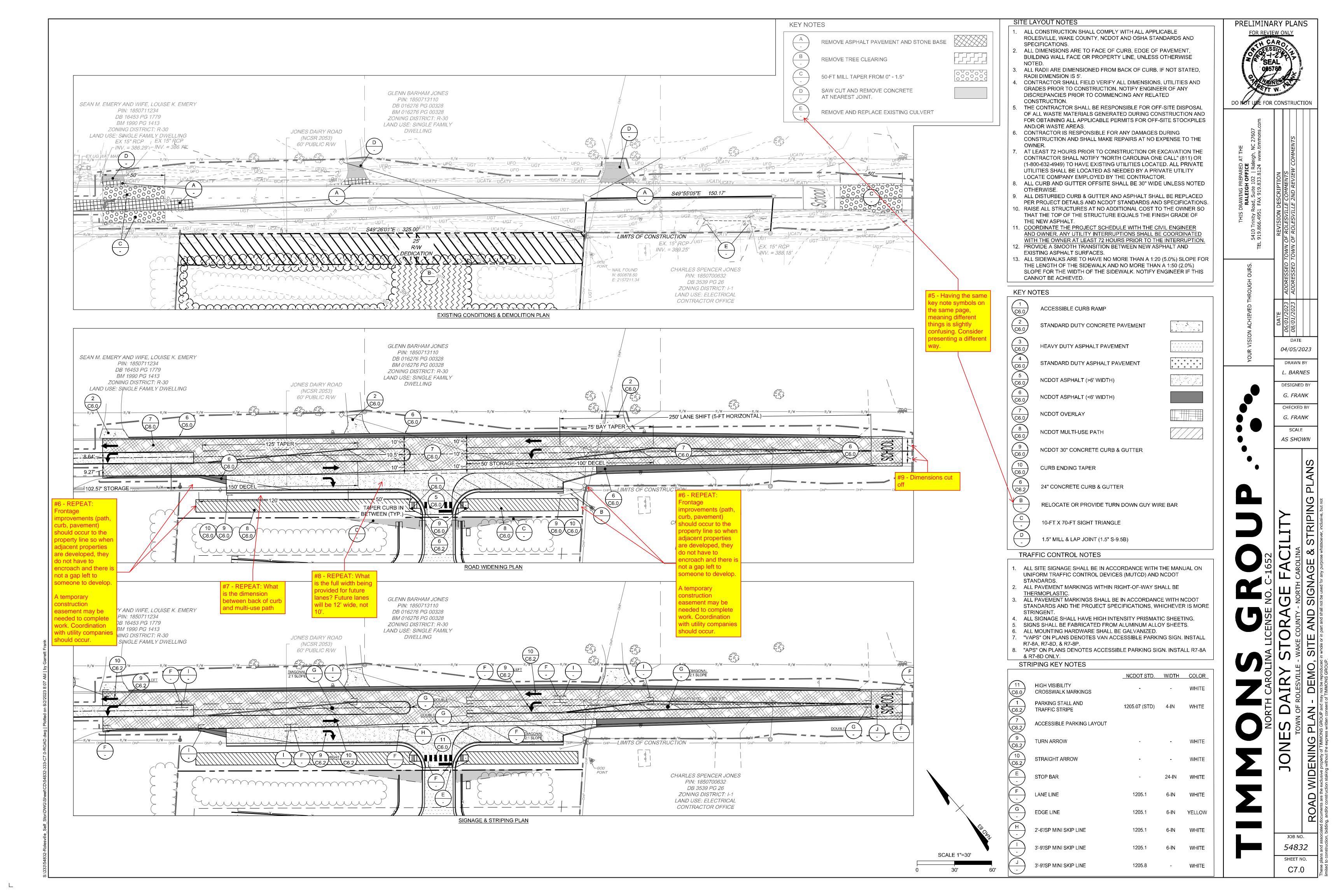
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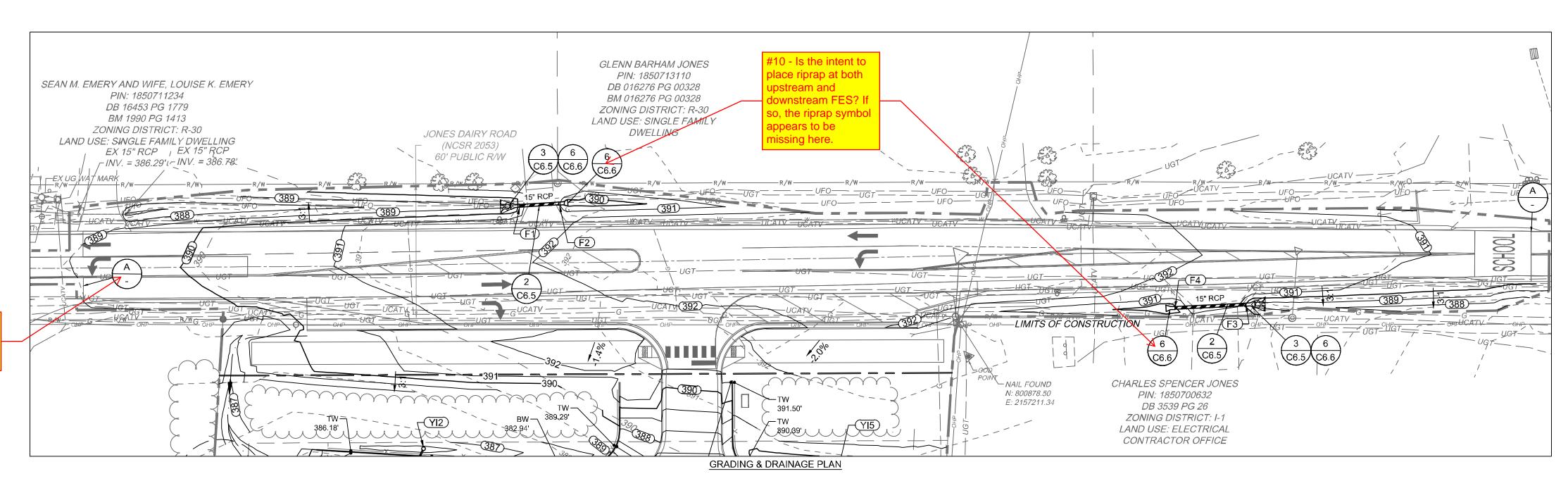
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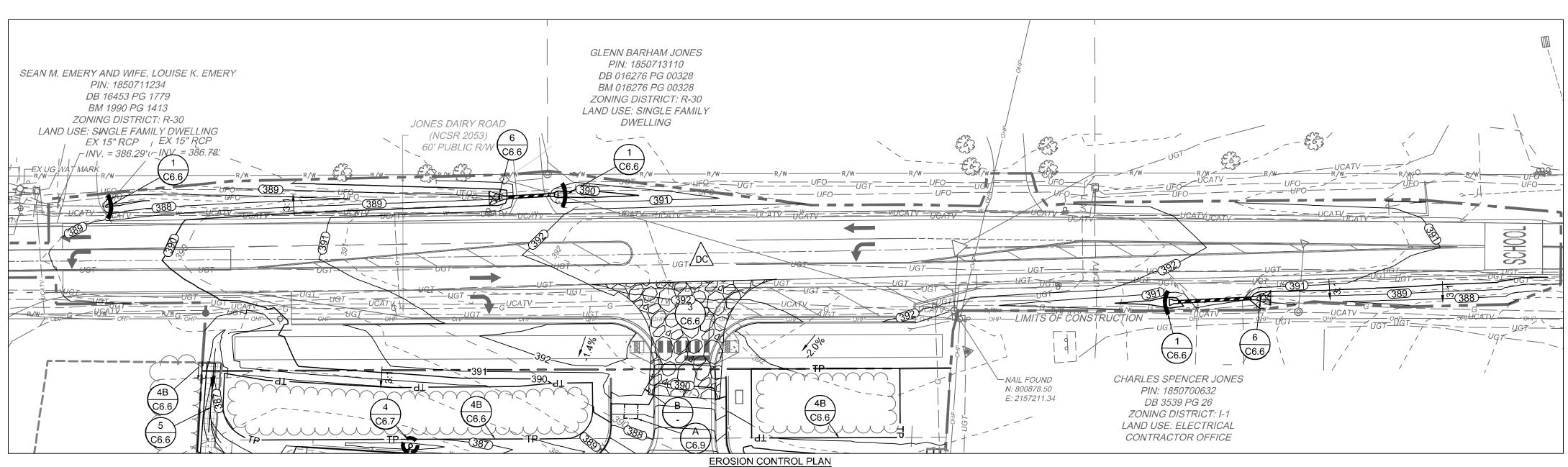
54832 SHEET NO. C6.10

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





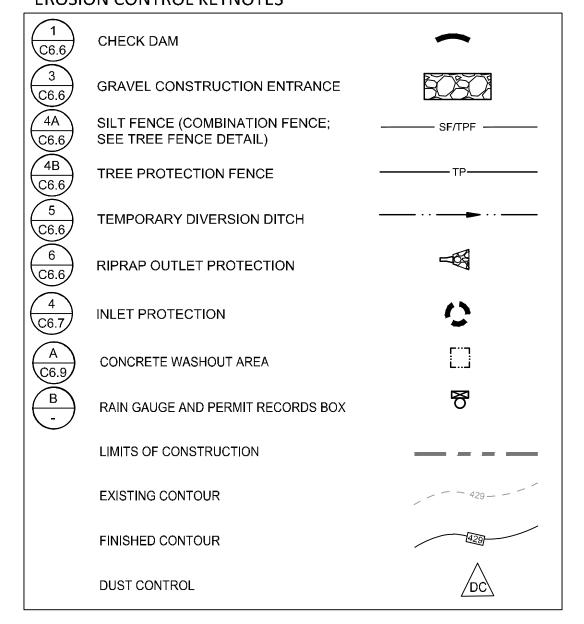
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EROSION CONTROL NOTES

- 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.
- 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
- MAINTAINED UNTIL PERMANENT VEGETATION IS ESTABLISHED. PERMANENT GROUNDCOVER SHALL BE PROVIDED FOR ALL DISTURBED AREAS WITHIN 15 WORKING DAYS OR NO MORE THAN 90
- CALENDAR DAYS (WHICHEVER IS SHORTER). 10. TOTAL DISTURBED AREA: 5.70 AC.

EROSION CONTROL KEYNOTES



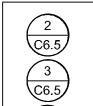
GRADING & DRAINAGE NOTES

- ALL CONSTRUCTION SHALL COMPLY WITH ALL APPLICABLE ROLESVILLVE, WAKE COUNTY, NCDOT AND OSHA STANDARDS AND SPECIFICATIONS.
- COORDINATE THE PROJECT SCHEDULE WITH THE OWNER, AND ADJACENT USERS OF THE PROPERTY. MAINTAIN TRAFFIC FLOW AND DO NOT INTERRUPT UTILITIES AROUND THE SITE. DO NO DISTURB OPERATIONS OF ADJACENT SITES AND FACILITIES AND/OR THEIR
- OWNER'S ONGOING OPERATIONS. ALL EXISTING VAULTS, MANHOLES, STORM DRAIN STRUCTURES, VALVE BOXES, CLEANOUTS, ETC. SHALL BE ADJUSTED AS NEEDED TO MATCH
 - FINISHED GRADE. ALL BACKFILL, COMPACTION, SOILS TESTING, ETC. SHALL BE
- PERFORMED BY THE OWNER'S INDEPENDENT TESTING LABORATORY. ALL SPOT ELEVATIONS INDICATED ARE AT TOP OF CURB UNLESS NOTED OTHERWISE.
- 6. SPOT GRADE ABBREVIATIONS:
- 6.1. TC: TOP OF CURB
- 6.2. BC: BOTTOM OF CURB 6.3. EP: EDGE OF PAVEMENT
- 6.4. EX GND: MATCH EXISTING
- 6.5. SWK: SIDEWALK
- 6.6. FFE: FINISHED FLOOR ELEVATION SPOT ELEVATIONS ARE GIVEN AT THE MAJORITY OF THE MAJOR BREAK POINTS BUT IT SHOULD NOT BE ASSUMED THAT ALL NECESSARY SPOT ELEVATIONS ARE SHOWN. DUE TO SPACE LIMITATIONS, THERE MAY BE OTHER CRITICAL SPOTS NOT LABELED THAT SHOULD BE TAKEN INTO
- CONSIDERATION. THE CONTRACTOR SHALL REVIEW THE GRADING PLAN IN DETAIL AND SHALL ENSURE THAT ALL CRITICAL GRADE POINTS ARE STAKED AND FOLLOWED TO PROVIDE POSITIVE DRAINAGE. ALL ELEVATIONS ARE BASED ON NC GRID NORTH (NAD 83).
- 9. THE CONTRACTOR SHALL USE NC ONE CALL (811) TO LOCATE ALL UNDERGROUND UTILITIES. PRIVATE UTILTIES SHALL BE LOCATED BY A PRIVATE LOCATE SERVICE AT THE EXPENSE OF THE CONTRACTOR. 13. INSTALL ALL STORM SEWERS TO PROVIDE REQUIRED CLEARANCES TO

CROSSING UTILITIES AS INDICATED IN THE DRAWINGS AND

- SPECIFICATIONS. 14. PROVIDE HALF-BENCH CONCRETE INLET SHAPING FOR ALL CONCRETE
- STORM SEWER STRUCTURES. 15. ALL ROOF DRAINS SHALL BE 8" PVC (SCH 40) @ 1.04% MIN. SLOPE UNLESS INDICATED OTHERWISE. USE DUCTILE IRON WHEN COVER IS LESS THAN 24-IN. MATCH PIPE CROWNS WITH CONNECTION TO INLET. 16. PVC ROOF DRAIN PIPING UNDER PAVEMENT SHALL HAVE 24-IN MINIMUM COVER. IF ROOF DRAIN PIPING UNDER PAVEMENT HAS LESS THAN 24-IN
- COVER, ROOF DRAIN PIPING SHALL BE 8" DIP (IN LIEU OF PVC). 7. JOINT FILL AND CAULK EACH CONCRETE EXPANSION JOINT AND WHERE CONCRETE PAVEMENT ABUTS OTHER PAVEMENTS, SIDEWALKS, OR HARD SURFACES.
- MAINTAIN ALL EROSION CONTROL DEVICES AFTER EACH RAINFALL EVENT IN ACCORDANCE WITH NCDEQ LAND QUALITY REQUIREMENTS AND AS DIRECTED BY THE NCDEQ AND CIVIL ENGINEER.
- FLUSH ALL SEDIMENT OUT OF STORM DRAINAGE PIPES AND STRUCTURES FOLLOWING SITE STABILIZATION AND AT THE END OF CONSTRUCTION. FLUSH OUT PIPES AS NEEDED THROUGHOUT CONSTRUCTION TO MAINTAIN PROPER FUNCTIONING OF THE DRAINAGE
- 10. IN DISTURBED AREAS, AMEND THE TOP 6 INCHES OF LAWN AREAS WITH TOPSOIL FROM THE SITE
- 11. ALL SIDEWALKS ARE TO HAVE NO MORE THAN A 1:20 (5.0%) SLOPE FOR THE LENGTH OF THE SIDEWALK AND NO MORE THAN A 1:50 (2.0%) SLOPE FOR THE WIDTH OF THE SIDEWALK.
- 2. IF CONTRACTOR NOTICES ANY DISCREPANCIES IN ANY OF THESE SLOPE REQUIREMENTS, IT IS THE CONTRACTOR'S RESPONSIBILITY TO CONTACT THE OWNER & ENGINEER PRIOR TO POURING ANY
- 3. PRIOR TO FINAL PROJECT ACCEPTANCE, PROVIDE AN AS-BUILT SURVEY OF ALL UTILITY SYSTEMS AND STORM SEWERS.
- 14. ANY AND ALL LANDSCAPING AND EXISTING TREES & SHRUBS TO REMAIN WHICH ARE DAMAGED DURING DEMOLITION OR CONSTRUCTION SHALL BE REPLACED BY THE CONTRACTOR USING A LICENSED LANDSCAPE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.

GRADING & DRAINAGE KEY NOTES



F4-F3 | 15" | 389.00

STORM DRAINAGE TRENCHES

FLARED END SECTION

RIP RAP OUTLET PROTECTION (SEE EROSION CONTROL PLAN)

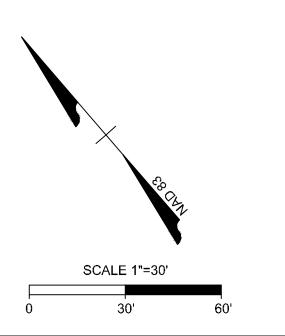
		NC	DOT STORM PII	PE TABL	.E	
PE#	DIA	UPSTREAM INVERT	DOWNSTREAM INVERT	SLOPE	LENGTH	DESCRIPTIO
2-F1	15"	389.00	388.75	1.43%	17.45 LF	15" RCP

NCDOT STORM STRUCTURE TABLE					
STRUCTURE#	TOP	STRUCTURE HEIGHT	DESCRIPTION		
F1	390.44	N/A	15" FES		
F2	390.19	N/A	15" FES		
F3	389.94	N/A	15" FES		
F4	390.44	N/A	15" FES		

388.50 | 1.59% | 31.45 LF | 15" RCP

#11 - Is this intended

o be a trench or a



PRELIMINARY PLANS

SE FOR CONSTRUCTION

DATE

04/05/2023 DRAWN BY L. BARNES

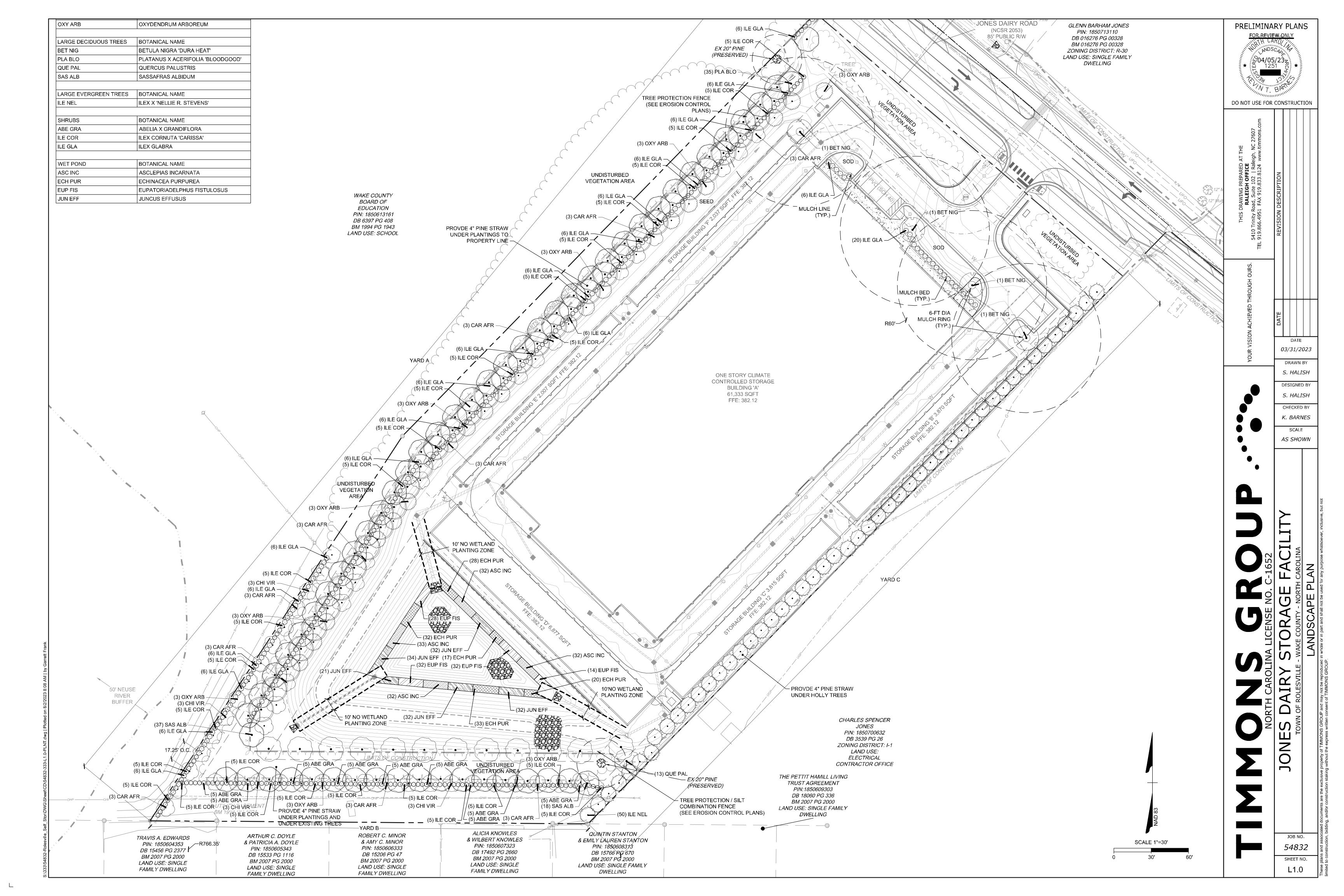
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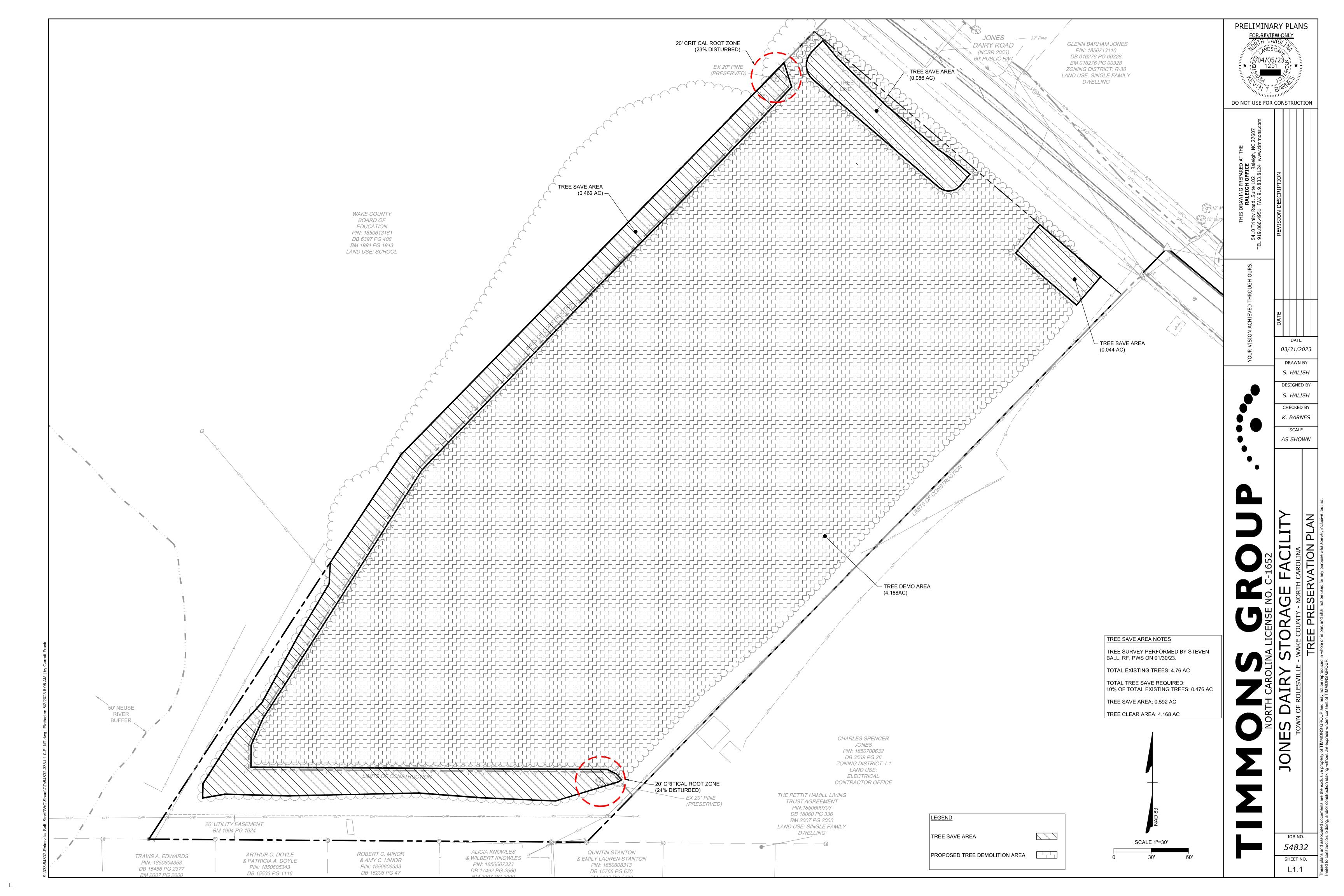
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SHEET NO. C7.1





SMALL DECIDUOUS TREES	QTY	BOTANICAL NAME	COMMON NAME	MIN. INSTALLED SIZE	ROOT		REMARKS
CAR AFR	24	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	21	OXYDENDRUM ARBOREUM	SOURWOOD TREE	2" CAL.	B&B		
LARGE DECIDUOUS TREES	QTY	BOTANICAL NAME	COMMON NAME	MIN. INSTALLED SIZE	ROOT		REMARKS
PLA BLO	35	PLATANUS X ACERIFOLIA 'BLOODGOOD'	BLOODGOOD LONDON PLANE TREE	2.5" CAL.	В&В		
SAS ALB	37	SASSAFRAS ALBIDUM	SASSAFRAS	2.5" CAL.	B&B		
SHRUBS	QTY	BOTANICAL NAME	COMMON NAME	MIN. INSTALLED SIZE	ROOT	SPACING	REMARKS
ILE COR	115	ILEX CORNUTA 'CARISSA'	CARISSA CHINESE HOLLY	24" HT./SPRD.	CONTAINER	42" o.c.	
ILE GLA	138	ILEX GLABRA	INKBERRY HOLLY	24" HT./SPRD.	3 GAL.	48" o.c.	
PLANT SCHEDULE YARD) 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	7	CHIONANTHUS VIRGINICUS	WHITE FRINGETREE	2" CAL.	В&В		
OXY ARB	6	OXYDENDRUM ARBOREUM	SOURWOOD TREE	2" CAL.	B&B		
	•				·		
LARGE DECIDUOUS TREES	QTY	BOTANICAL NAME	COMMON NAME	MIN. INSTALLED SIZE	ROOT		REMARKS
QUE PAL	13	QUERCUS PALUSTRIS	PIN OAK	2.5" CAL	B&B		
SAS ALB	18	SASSAFRAS ALBIDUM	SASSAFRAS	2.5" CAL.	B&B		
SHRUBS	QTY	BOTANICAL NAME	COMMON NAME	MIN. INSTALLED SIZE	ROOT	SPACING	REMARKS
ABE GRA	45	ABELIA X GRANDIFLORA	GLOSSY ABELIA	24" HT./SPRD.		48" o.c.	
				-	_	$\overline{}$	$\overline{}$

CARISSA CHINESE HOLLY

MIN. INSTALLED SIZE

COMMON NAME

ILEX X 'NELLIE R. STEVENS' NELLIE R. STEVENS HOLLY 4' HT. MIN.

24" HT./SPRD.

BULB

REMARKS

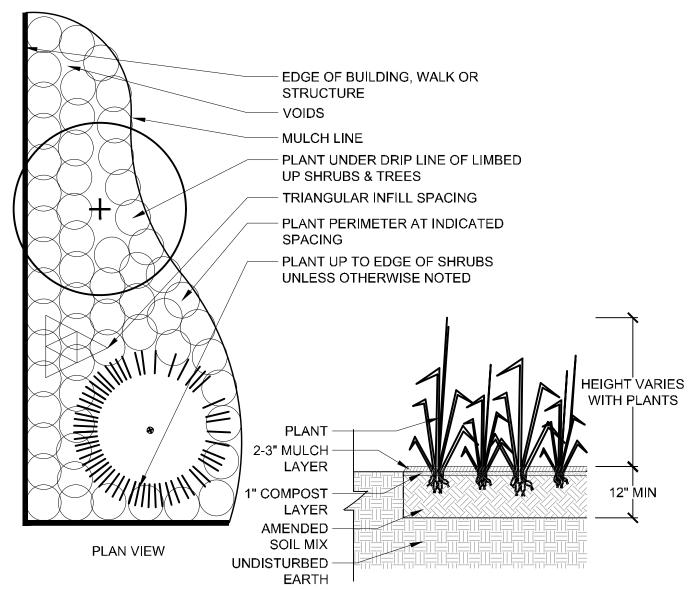
CONTAINER 42" o.c.

CONTAINER 24" o.c.

SMALL DECIDUOUS TREES	QTY	BOTANICAL NAME	COMMON NAME	MIN. INSTALLED SIZE	ROOT		REMARKS
CAR AFR	30	CARPINUS CAROLINIANA 'AUTUMN FIRE'	AUTUMN FIRE AMERICAN HORNBEAM	2" CAL.	B&B		
CHI VIR	13	CHIONANTHUS VIRGINICUS	WHITE FRINGETREE	2" CAL.	B&B		
OXY ARB	27	OXYDENDRUM ARBOREUM	SOURWOOD TREE	2" CAL.	B&B		
LARGE DECIDUOUS TREES	QTY	BOTANICAL NAME	COMMON NAME	MIN. INSTALLED SIZE	ROOT		REMARKS
BET NIG	4	BETULA NIGRA 'DURA HEAT'	DURA HEAT RIVER BIRCH	2.5" CAL.	B&B		
PLA BLO	35	PLATANUS X ACERIFOLIA 'BLOODGOOD'	BLOODGOOD LONDON PLANE TREE	2.5" CAL.	B&B		
QUE PAL	13	QUERCUS PALUSTRIS	PIN OAK	2.5" CAL.	B&B		
SAS ALB	55	SASSAFRAS ALBIDUM	SASSAFRAS	2.5" CAL.	B&B		
LARGE EVERGREEN TREES	QTY	BOTANICAL NAME	COMMON NAME	MIN. INSTALLED SIZE	ROOT		REMARKS
ILE NEL	50	ILEX X 'NELLIE R. STEVENS'	NELLIE R. STEVENS HOLLY	4` HT. MIN.			
SHRUBS	QTY	BOTANICAL NAME	COMMON NAME	MIN. INSTALLED SIZE	ROOT	SPACING	REMARKS
ABE GRA	45	ABELIA X GRANDIFLORA	GLOSSY ABELIA	24" HT./SPRD		48" o.c.	
ILE COR	165	ILEX CORNUTA 'CARISSA'	CARISSA CHINESE HOLLY	24" HT /SPRD	CONTAINER	42" o.c.	
ILE GLA	164	ILEX GLABRA	INKBERRY HOLLY	24" HT./SPRD.	3 GAL.	48" 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	130	ECHINACEA PURPUREA	CONEFLOWER	BULB	CONTAINER	24" o.c.	
EUP FIS	106	EUPATORIADELPHUS FISTULOSUS	JOE PYE WEED	BULB	CONTAINER	24" o.c.	

WET POND DENSITY CALCULATION = TOTAL SQUARE FOOTAGE (1966) PER 200 SF SHELF AREA, PROVIDED 50 PLANTS = 492 REQUIRED PLANTS, 516 PROVIDED

COMMON RUSH





GENERAL NOTES

PRE-CONSTRUCTION

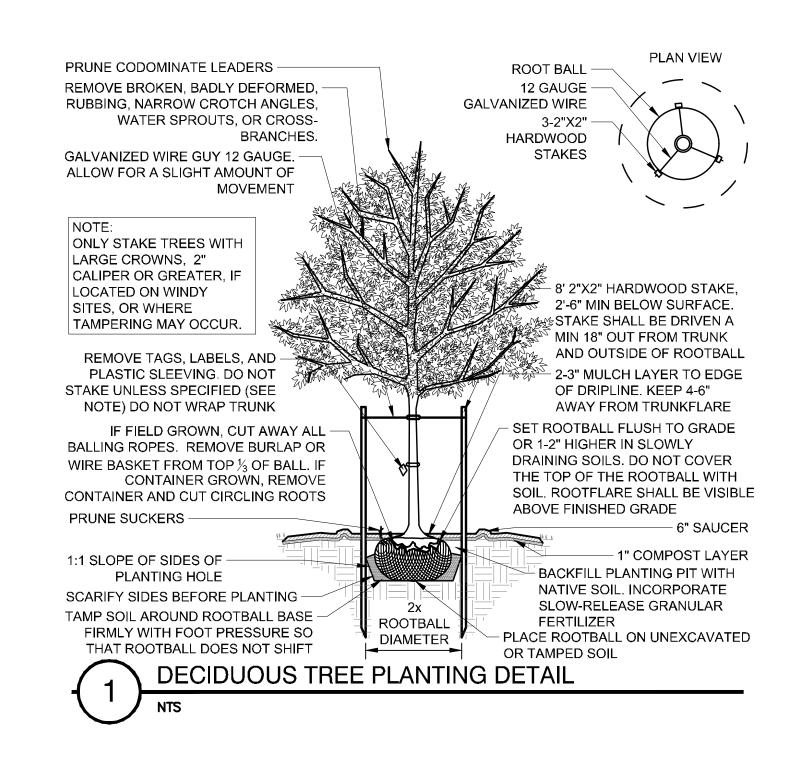
- CONTRACTOR IS RESPONSIBLE FOR CONTACTING VIRGINIA 811 AT 1.800.553.3120 FOR LOCATION OF ALL UTILITY LINES.TREES SHALL BE LOCATED A MINIMUM OF 5 FEET FROM SEWER/WATER CONNECTIONS. NOTIFY LANDSCAPE ARCHITECT OF CONFLICTS.
- VERIFY ALL PLANT MATERIAL QUANTITIES ON THE PLAN PRIOR TO BIDDING, PLANT LIST 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.

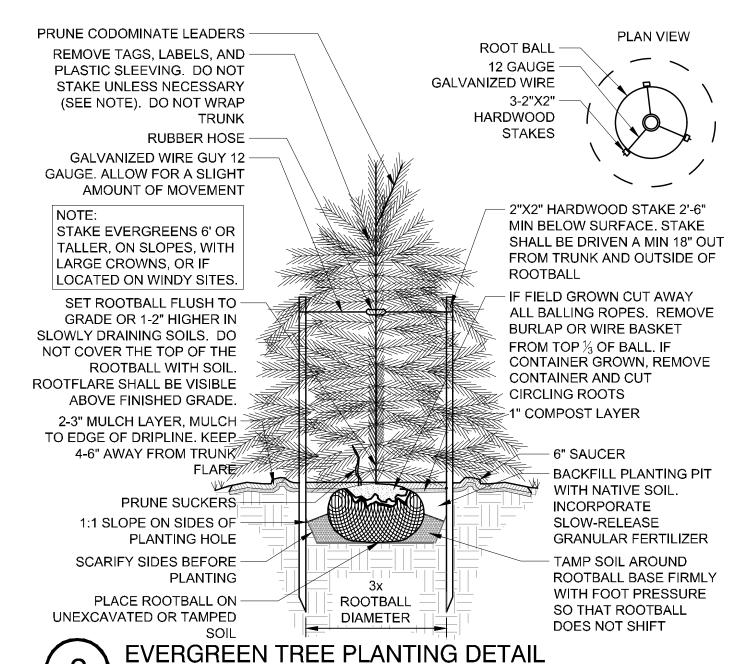
CONSTRUCTION/INSTALLATION

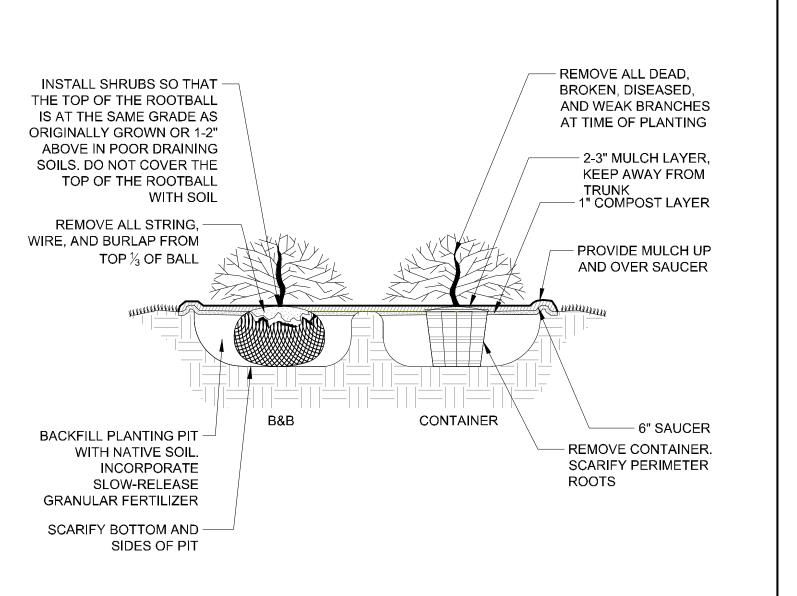
- LANDSCAPE ARCHITECT RESERVES THE RIGHT TO REJECT ANY PLANTS AND MATERIALS THAT ARE IN AN UNHEALTHY OR UNSIGHTLY CONDITION, AS WELL AS PLANTS AND MATERIALS THAT DO NOT CONFORM TO ANSI Z60.1 "AMERICAN STANDARD FOR NURSERY STOCK"
- LABEL AT LEAST ONE TREE AND ONE SHRUB OF EACH VARIETY AND CALIPER WITH 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

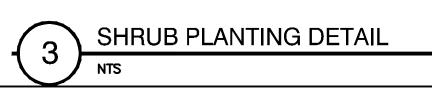
INSPECTIONS/GUARANTEE

- 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 WNDSCAN 204/05/23 1251 DO NOT USE FOR CONSTRUCTION

DATE

03/31/2023 DRAWN BY S. HALISH

DESIGNED BY S. HALISH CHECKED BY K. BARNES

SCALE AS SHOWN

JOB NO. 54832 SHEET NO.

L2.0

| PLANT SCHEDULE YARD A

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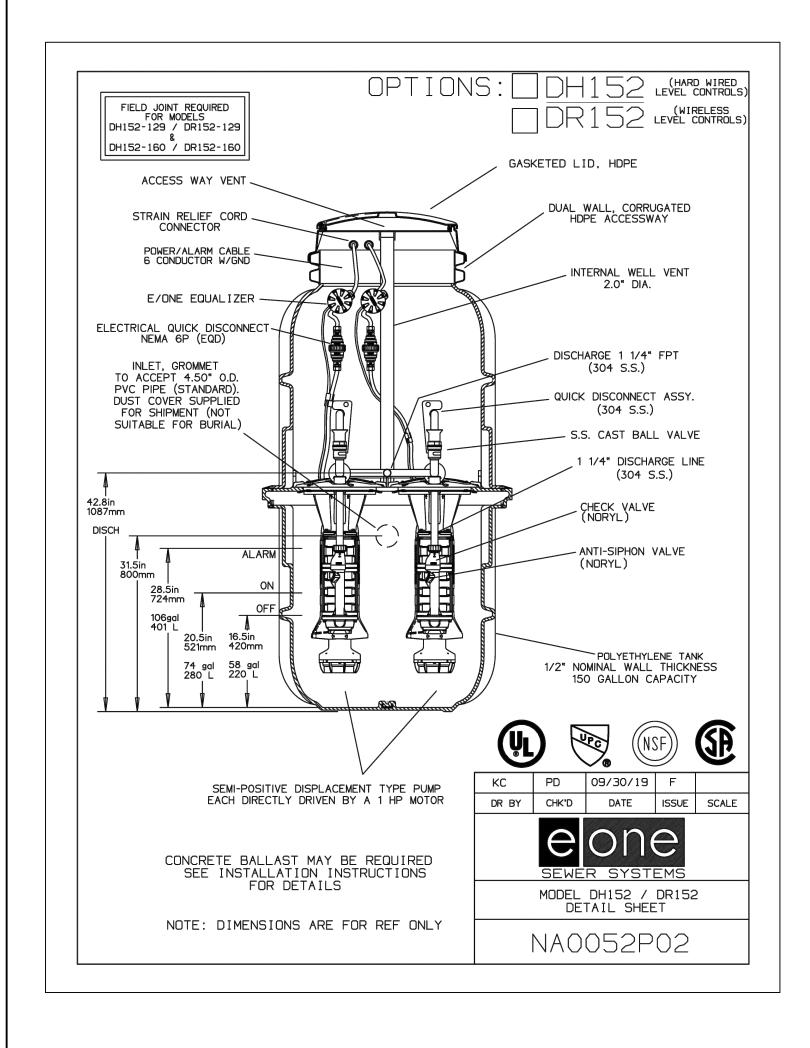
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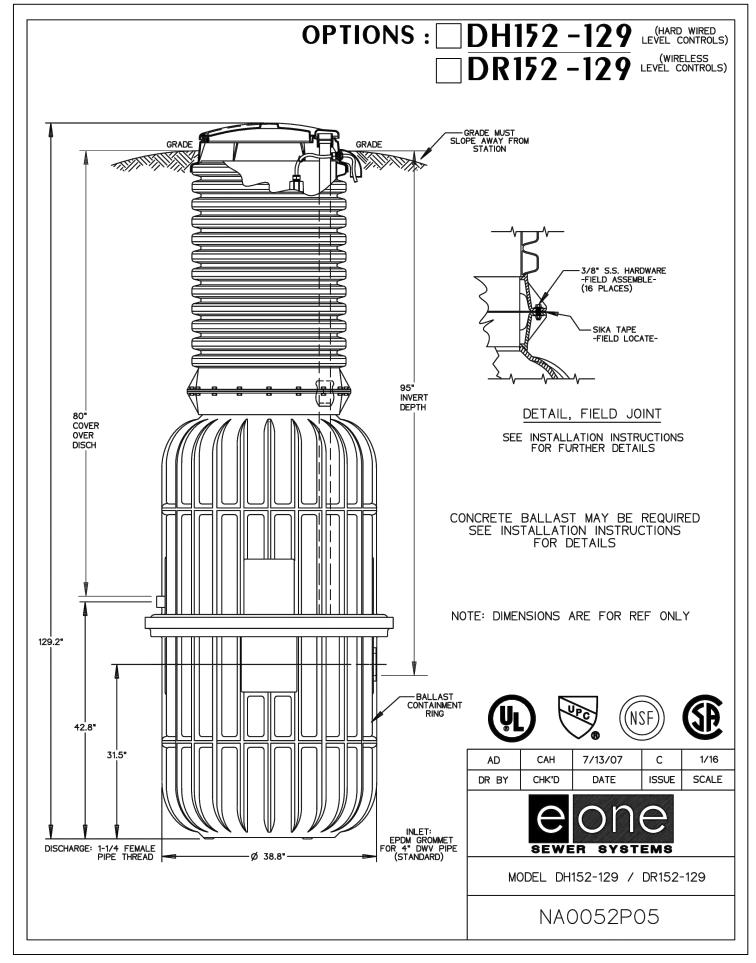
PLANT SCHEDULE YARD C

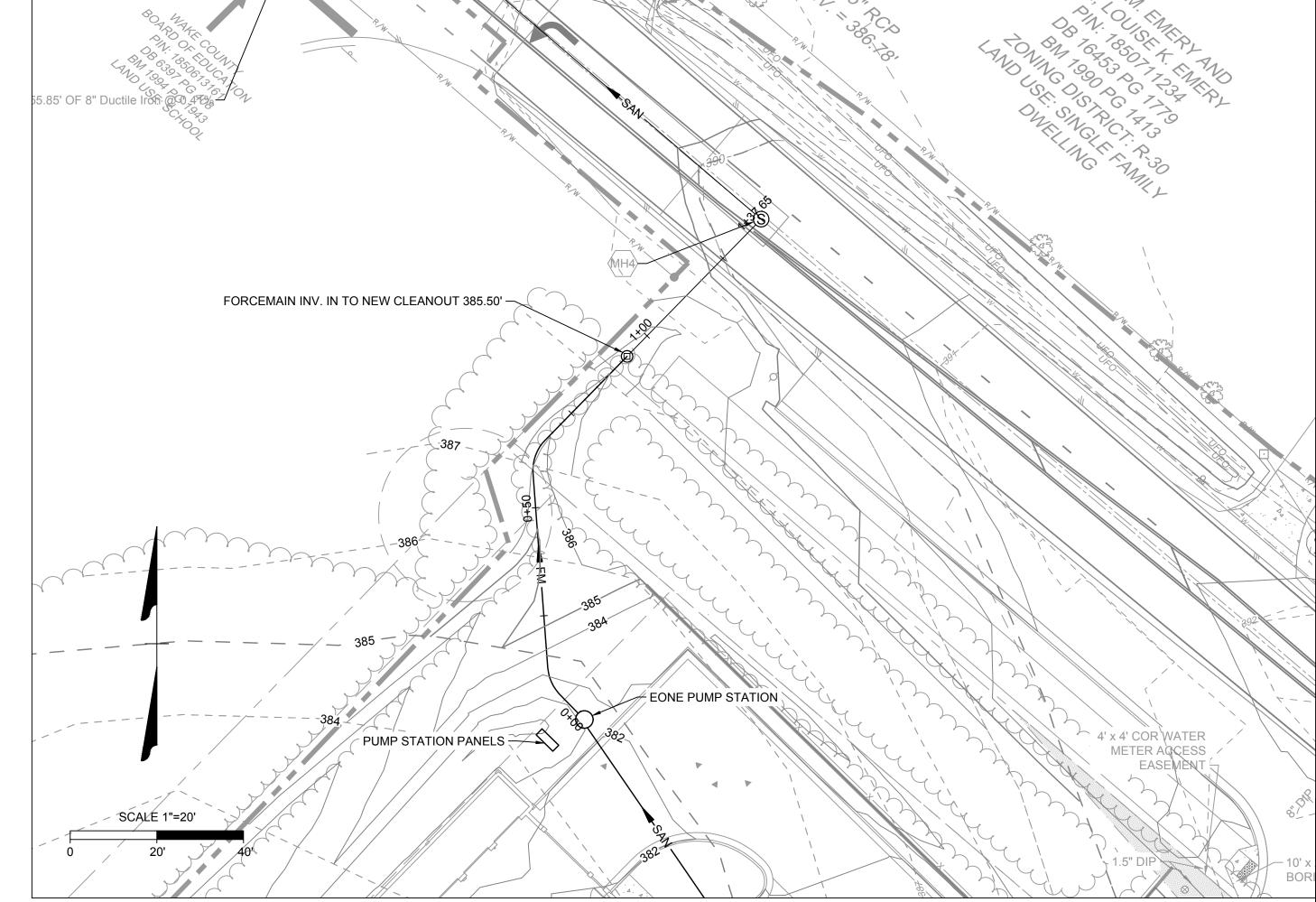
LARGE EVERGREEN TREES QTY BOTANICAL NAME

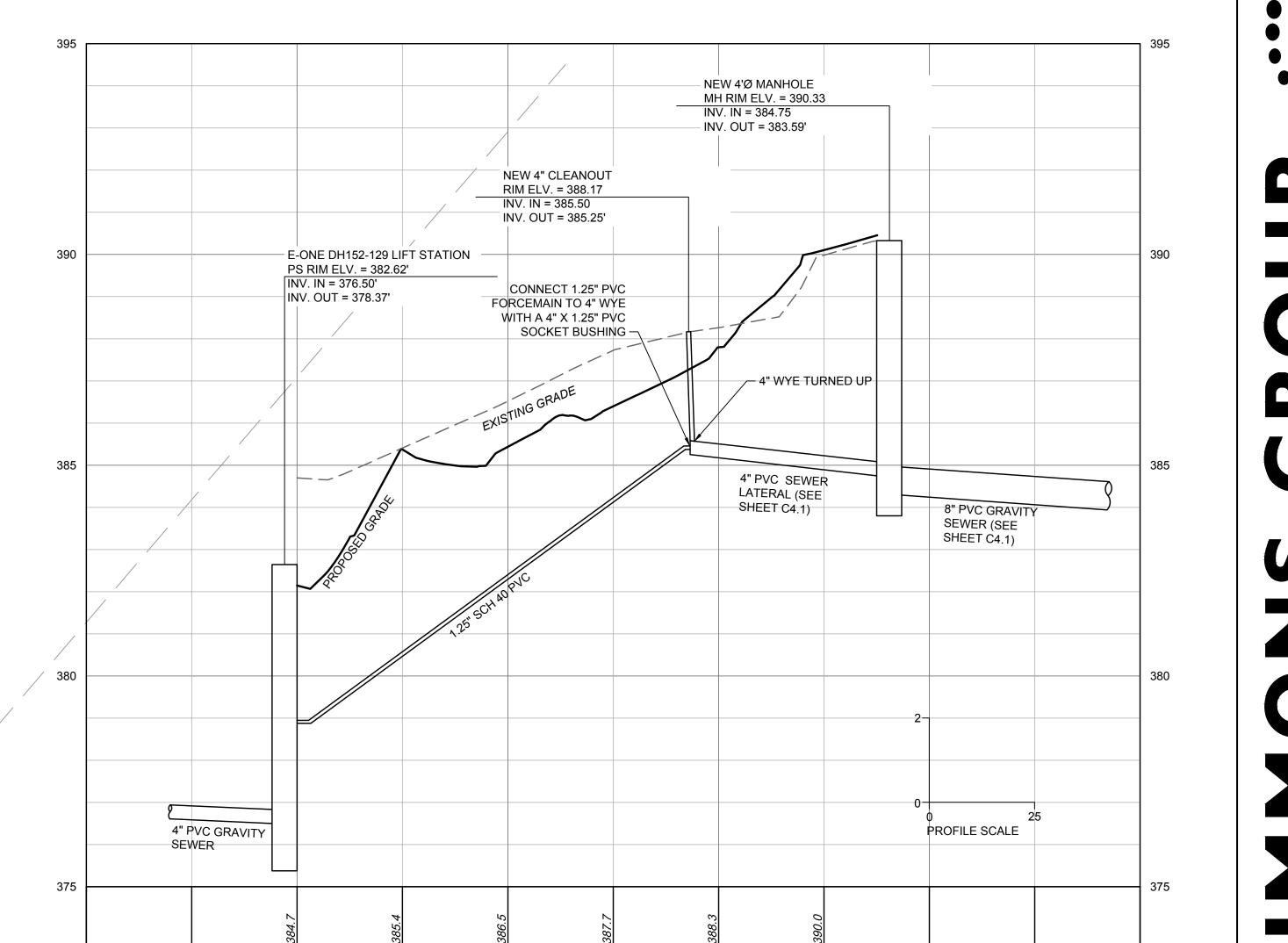
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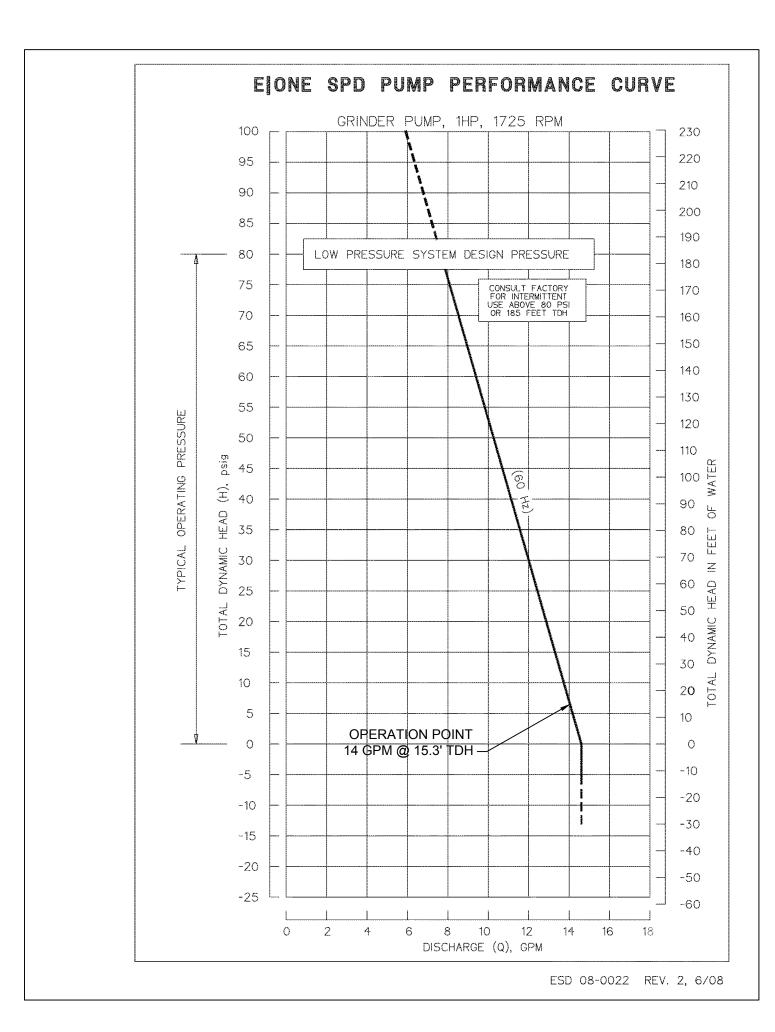
1+50

2+00

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-0+50

0+00



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 1.25" SCH 40 PVC FORCE MAIN, WHICH WILL DISCHARGE TO AN PROPOSED 4" CLEANOUT LOCATED AT THE RIGHT OF WAY.
- 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 14 GPM AT 15.3' 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.

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JOB NO.
54832
SHEET NO.
PS1.0

06/01/2023

L. SOLARI

DESIGNED BY

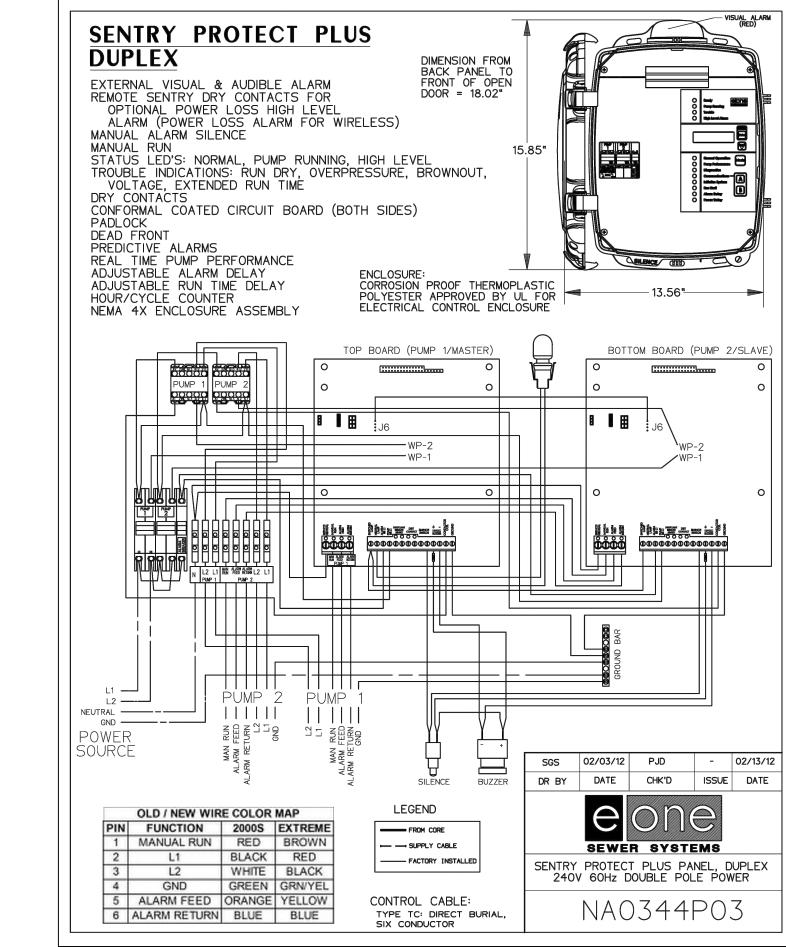
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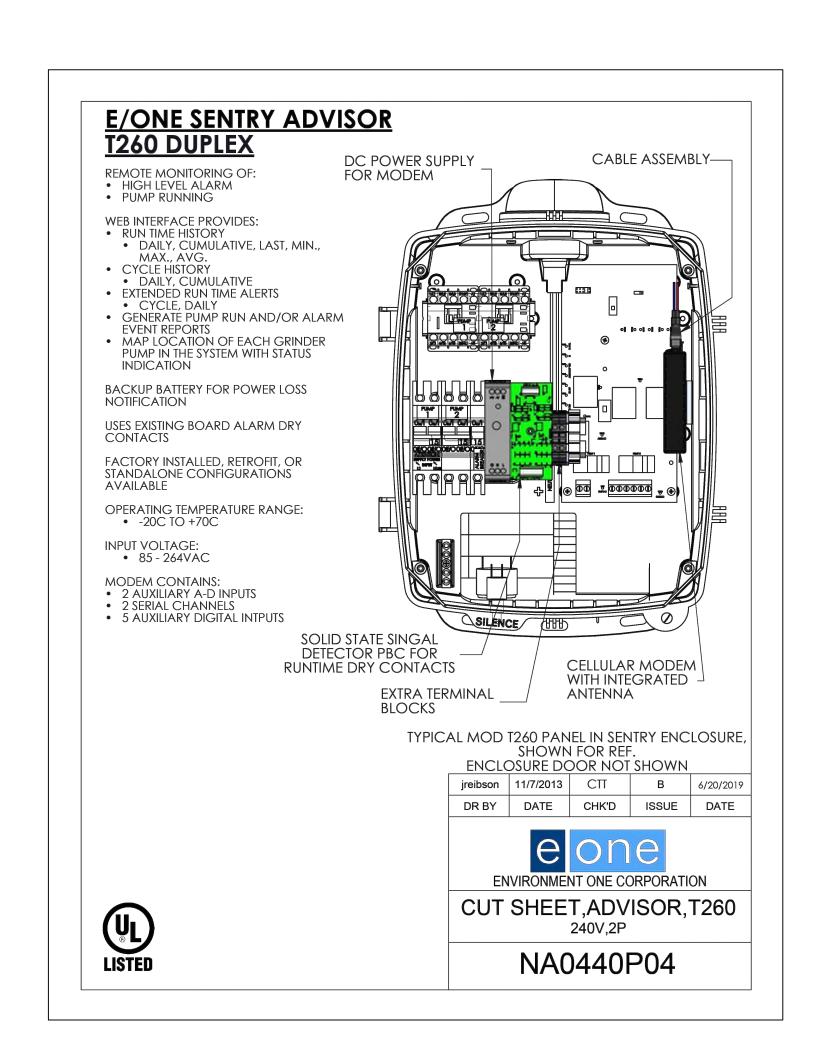
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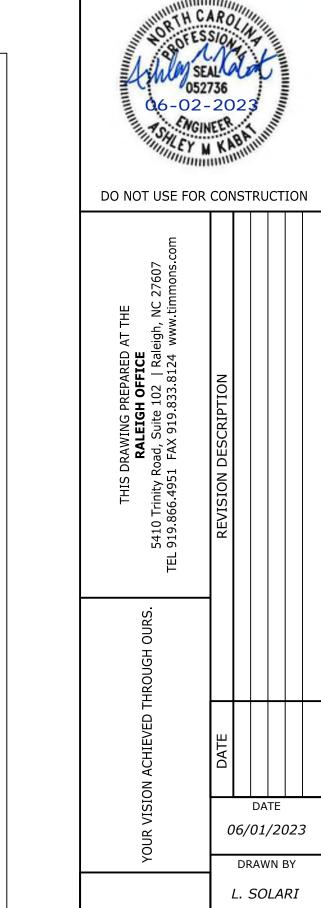
A. KABAT

SCALE

AS SHOWN







DESIGNED BY L. SOLARI

CHECKED BY A. KABAT SCALE AS SHOWN

 Δ

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

AVAILABLE FLOW CURVE Instantaneous Flow Test Curve - Fire Hydrant #125123 Located at 1208 Jones Dairy Road. HYDRANT FLOW TEST Observed Flow #125123 Test Time: 12:35 p.m. Static Pressure #125123: 57 PSI Residual Pressure #125123: 51 PSI Observed Flow #125123: 1,276 GPM Observed Flow 20 Projected Flow The flow test results are based upon information gathered at the time the test was performed. The 10 | variability of the water system due to changes in usage, demand and operating conditions precludes guarantee that expectations regarding pressures and flows will be exacting. Projected flow beyond the observed flow is only an estimation. Flow (GPM)

AVAILABLE FIRE FLOW

ELOW SCENADIO	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	2,956	2,050			
MINIMUM RESIDUAL PRESSSURE DURING REQURIED FIRE FLOW**	34.6	34.5	40.4	34.5			

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)

ELOW SCENABIO		JU	NCTIO	NS		HYDRANTS			
FLOW SCENARIO	J-1	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	48.7	53.9	53.9	57.0	54.0
MAXIMUM DAILY DEMAND (MDD)	55.5	56.6	54.0	53.9	48.5	53.9	53.9	57.0	54.0
MDD + SPRINKLER	54.5	55.5	51.4	51.0	47.4	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 = 1.5" NEPTUNE TURBINE METER
- GPV-3 = 1.5" 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

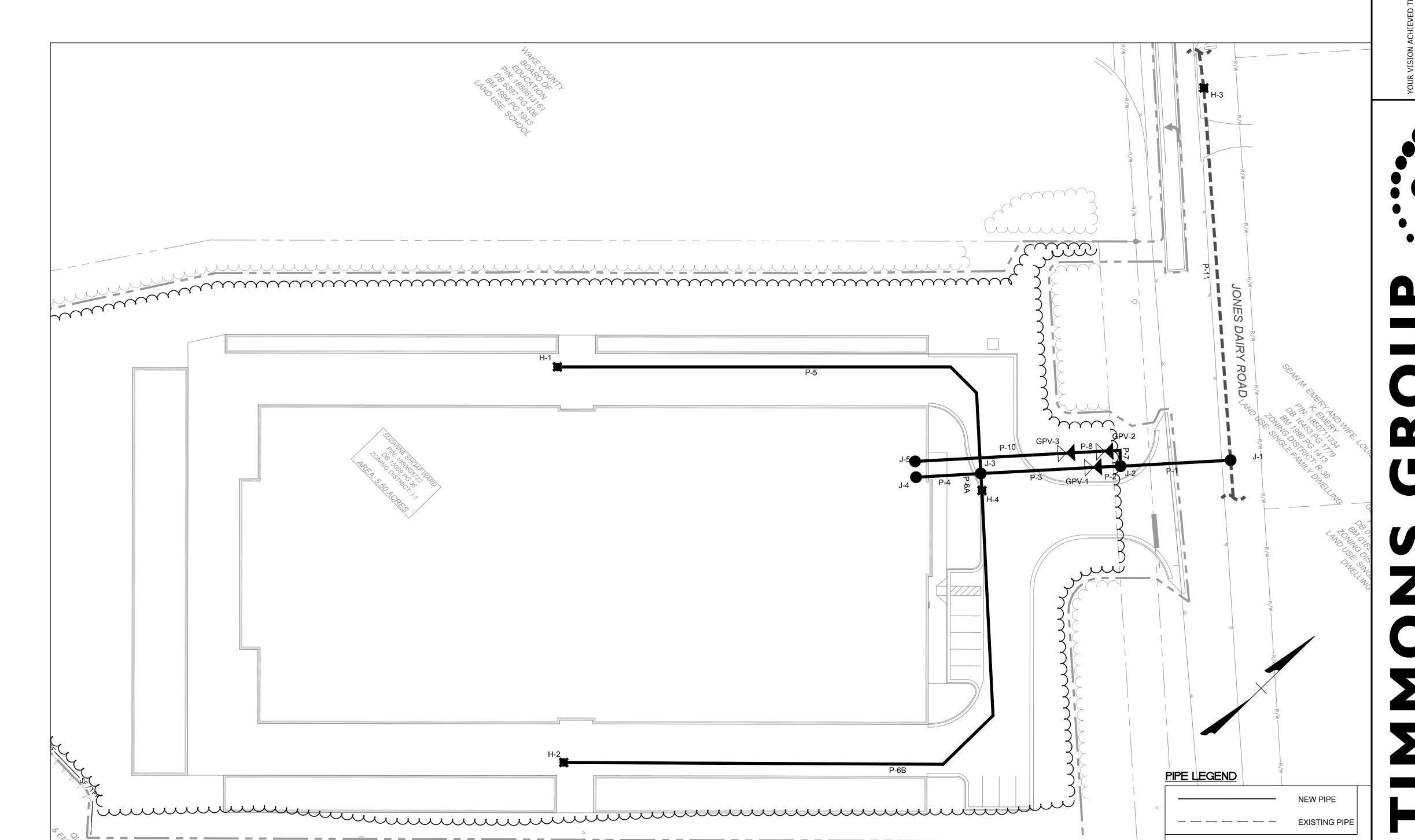


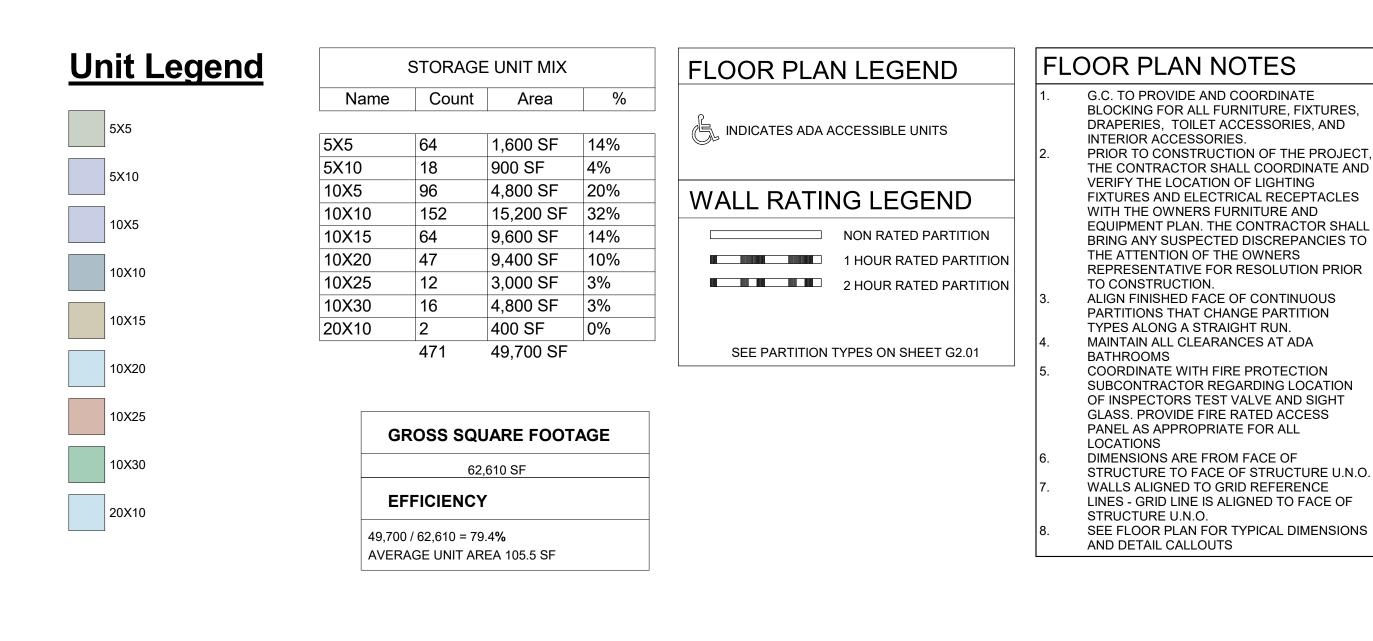
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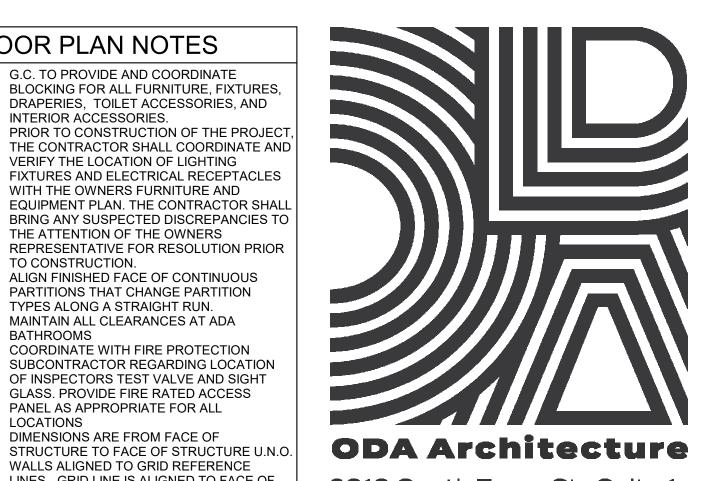
L. SOLARI CHECKED BY C. PETREE SCALE

N.T.S.

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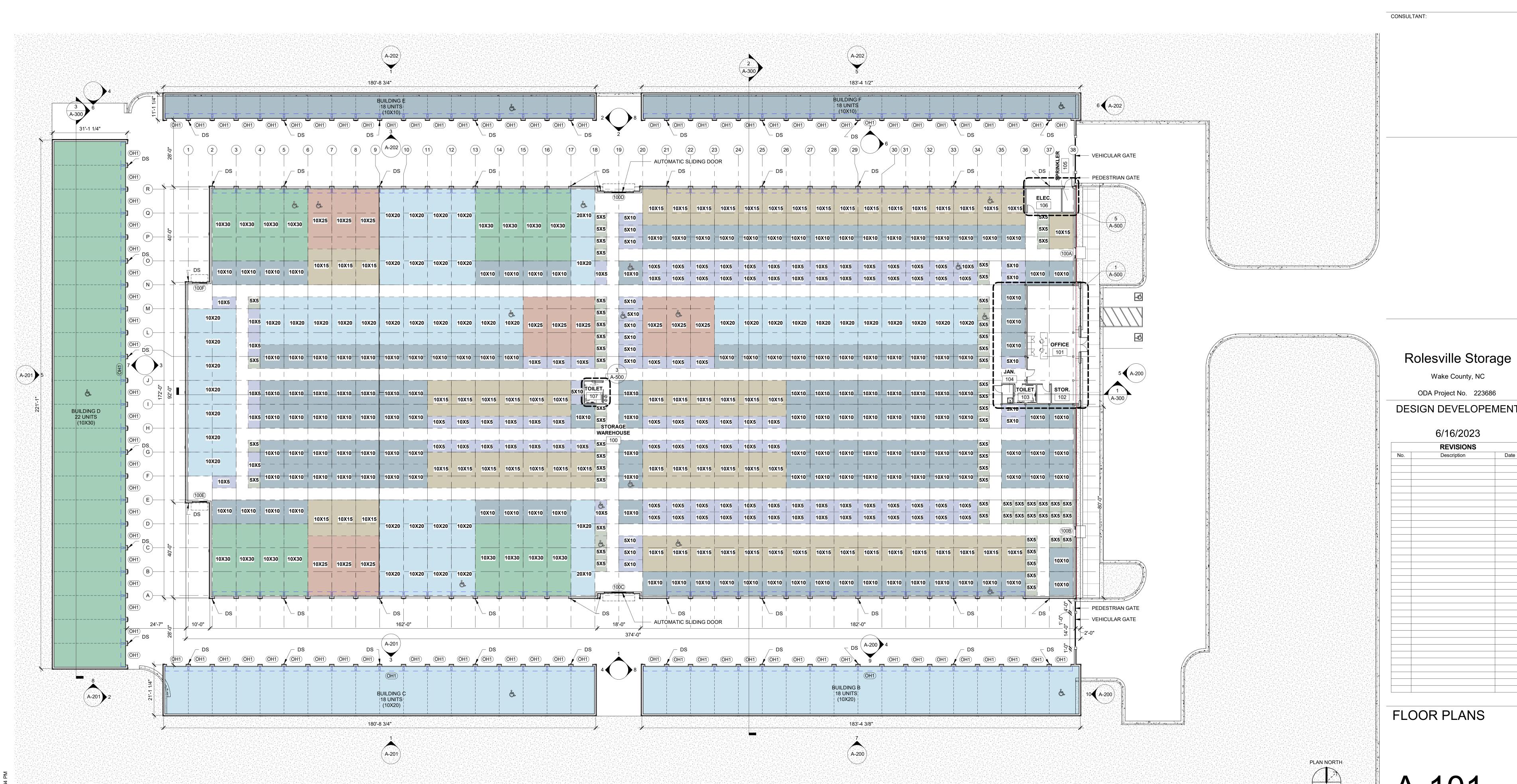






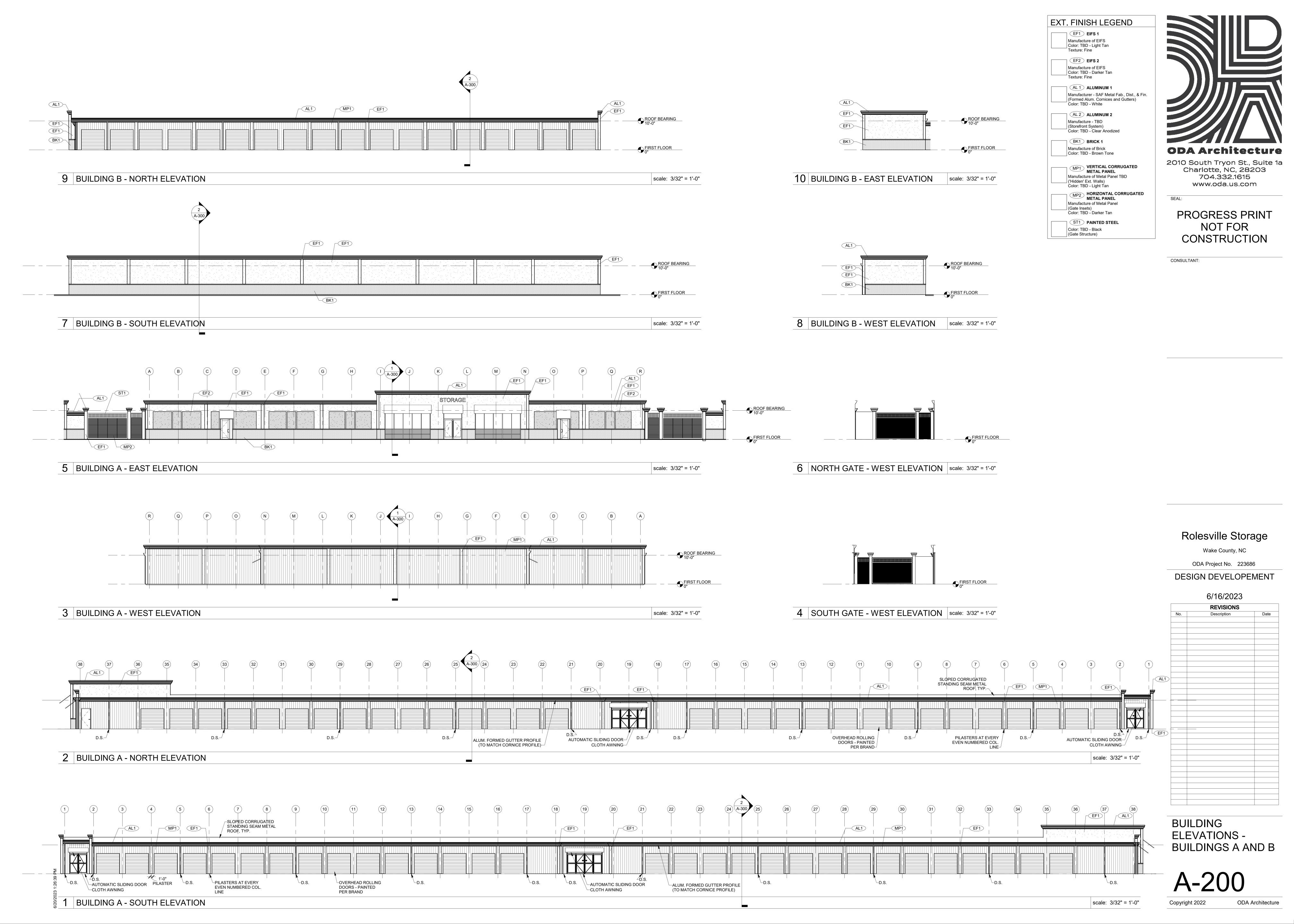
2010 South Tryon St., Suite 1a Charlotte, NC, 28203 704.332.1615 www.oda.us.com

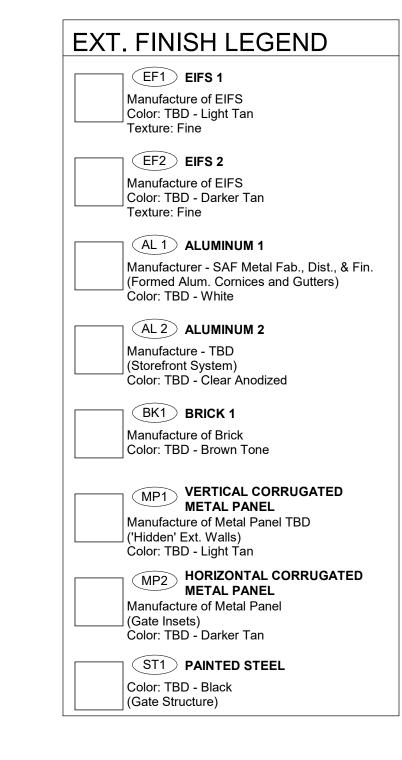
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scale: 1/16" = 1'-0"

ODA Architecture

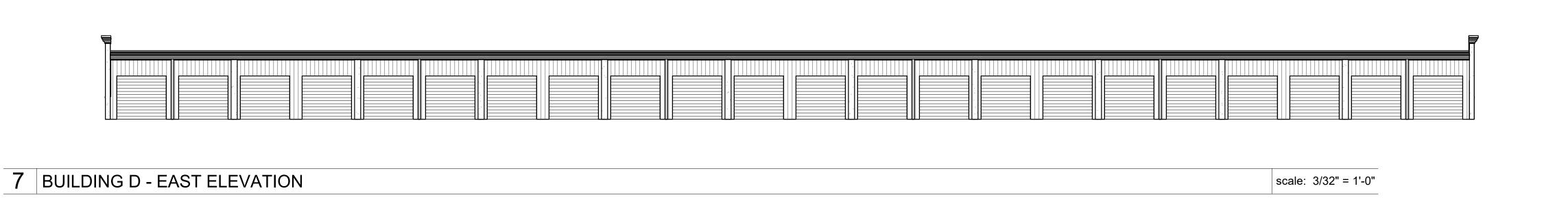


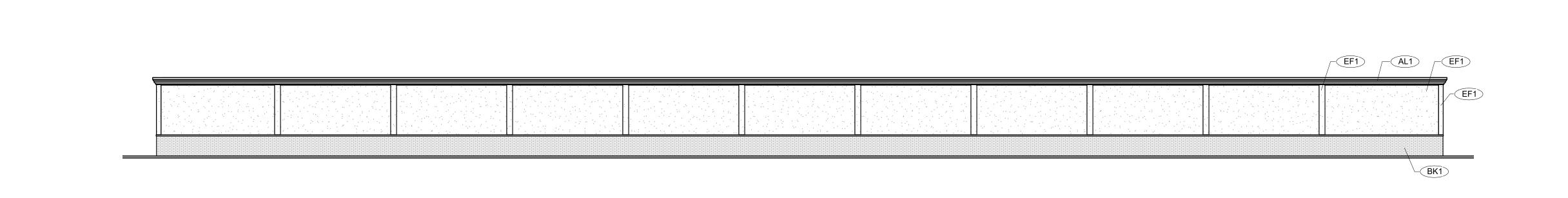


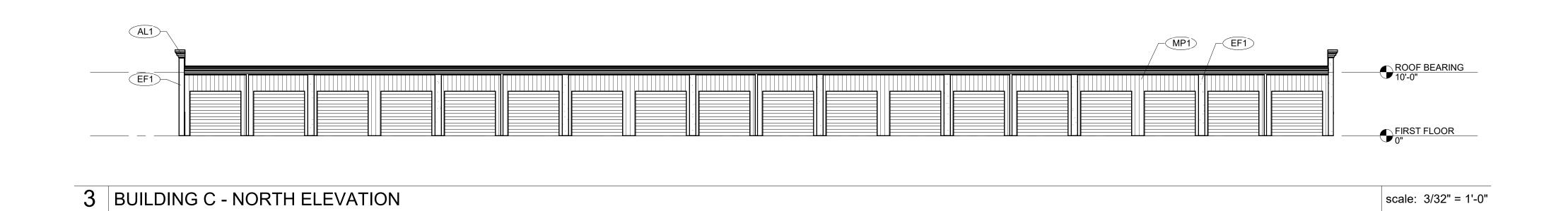


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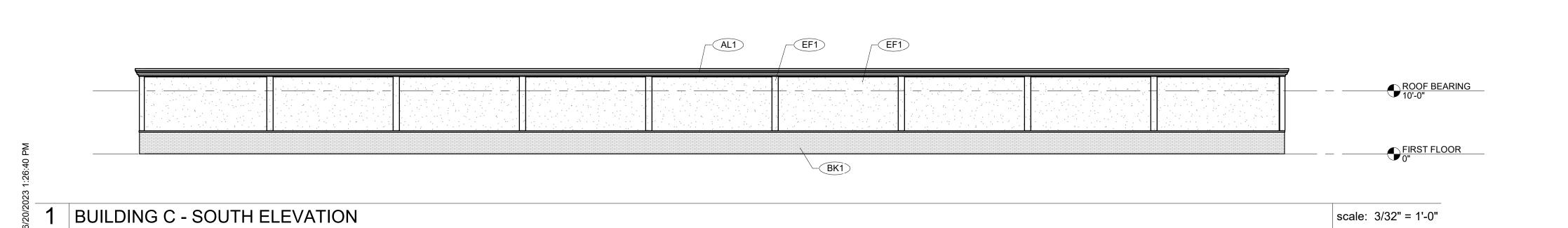
CONSULTANT:

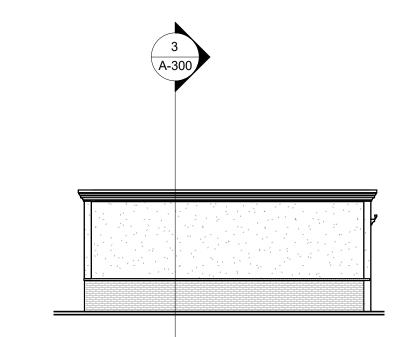




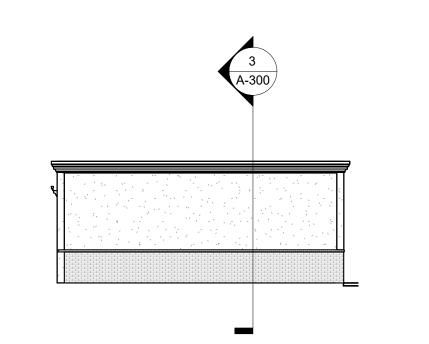


5 BUILDING D - WEST ELEVATION



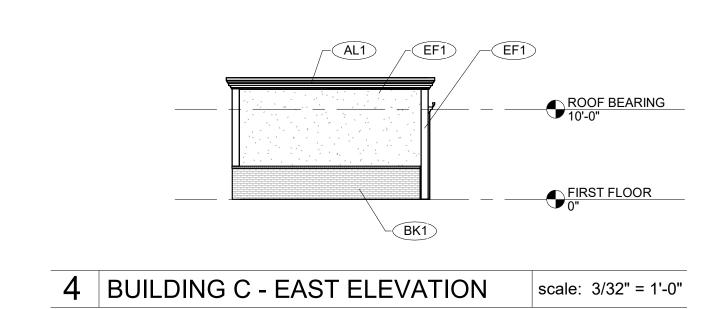


8 BUILDING D - SOUTH ELEVATION | scale: 3/32" = 1'-0"



6 BUILDING D - NORTH ELEVATION scale: 3/32" = 1'-0"

scale: 3/32" = 1'-0"



AL1EF1	EF1
	ROOF BEARING 10'-0"
 - BK1	FIRST FLOOR 0"

2 BUILDING C - WEST ELEVATION scale: 3/32" = 1'-0"



Wake County, NC

ODA Project No. 223686

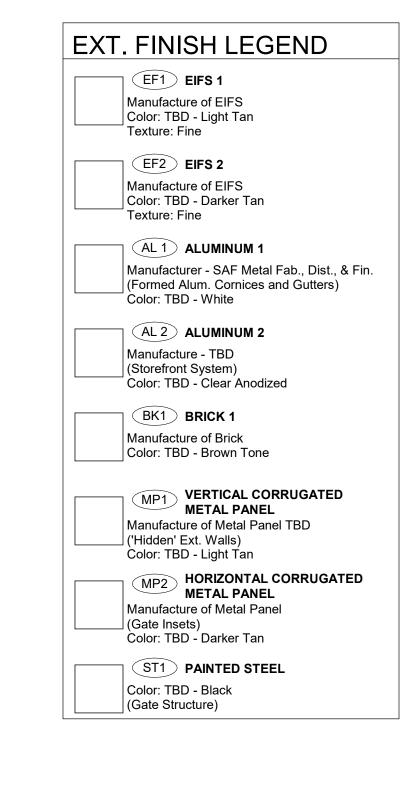
DESIGN DEVELOPEMENT

	REVISIONS			
No.	Description	Da		

BUILDING ELEVATIONS -BUILDINGS C AND D

A-201

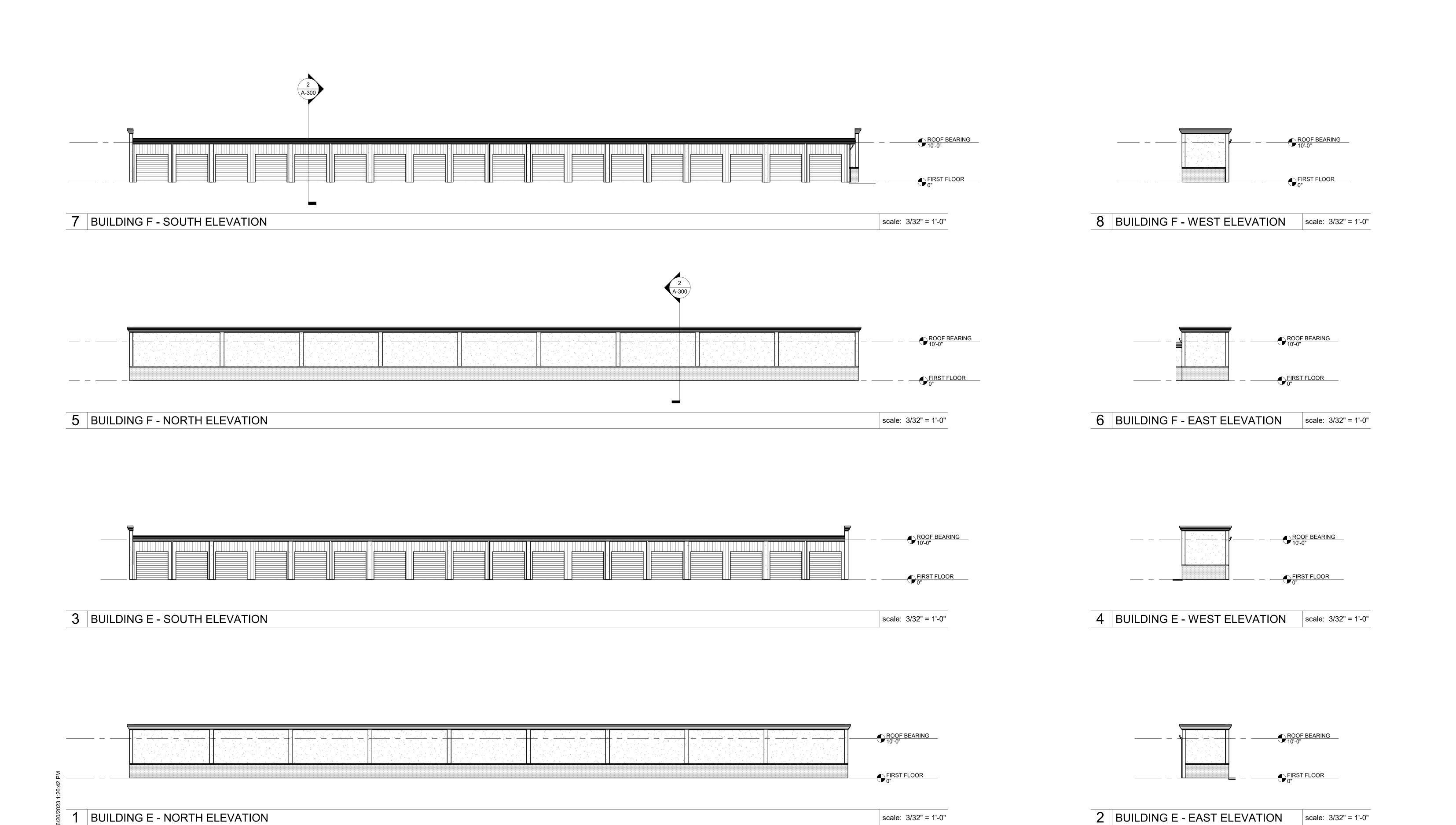
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NOT FOR CONSTRUCTION

CONSULTANT:



Rolesville Storage Wake County, NC

ODA Project No. 223686 DESIGN DEVELOPEMENT

6/16/2023 REVISIONS

BUILDING **ELEVATIONS -**BUILDINGS E AND F

Copyright 2022 ODA Architecture

NOTES: 1. ALL WALL MOUNTED LIGHTS HAVE A MOUNTING HEIGHT OF 12-FT. 2. ALL POLE MOUNTED LIGHTS HAVE A MOUNTING HEIGHT OF 18-FT. THE HEIGHT OF EACH POLE IS 18-FT ABOVE GRADE. iymbol Label Image QTY Manufacturer Catalog DSX1 LED P4 40K 70CRI D-Series Size 1 Area Luminaire P4 Performance Package 4000K CCT 70 CRI Forward Throw Houseside Shield Max: 13345cd WDGE3 LED P1 70CRI WDGE3 LED WITH P1 - PERFORMANCE PACKAGE, 4000K, 70CRI, TYPE 4 OPTIC □ ОВ escription Symbol Avg Max Min Max/Min Avg/Mi Perimeter Driveway + 4.7 fc 15.4 fc 0.6 fc 25.7:1 7.8:1
 Property Line
 +
 0.0 fc
 0.1 fc
 0.0 fc
 N/A
 N/A

 Front Parking
 +
 2.8 fc
 6.3 fc
 0.2 fc
 31.5:1
 14.0:1
 40.7 40.9 41.2 41.5 41.7 41.6 41.4 +1.0 +1.1 +1.2 +1.4 +1.7 +2.0 +2.2 +2.5 +2.6 117 121 122 123 122 122 124 126 129 134 143 149 15 1A @ 18 4²⁰₄2.5 ₄2.7 ₄3.0 ₄3.1 ₄3.0 ₄2.8 ₄2.8 ₄2.8 ₄2.9 ₄3.5 ₄4.2 ₄5.0 ₄5.3 ₄5.1 ₄4.4 ₄3.2 ₄2.0 ₄1.1 ₄0.6 ₄0.2 4^{2.0} +^{2.9} +^{3.2} +^{3.4} +^{3.9} +^{4.1} +^{3.8} +^{3.3} +^{2.1} +^{2.4} +^{2.8} +^{3.4} +^{4.0} +^{4.5} +^{4.9} +^{4.7} +^{4.3} +^{3.4} +^{2.6} +^{1.9} +^{1.2} +^{0.6} +^{0.4} 22 +26 +30 +35 +40 +41 +39 +36 +31 +26 +22 +20 +14 +0.7 +0.4 2.3 +2.7 +3.2 +4.0 +6.0 +9.6 +11.0 +9.0 22 +2.8 +3.3 +3.7 +4.5 +7.0 +10.3 2 18 @ 12' 42.0 +2.6 +3.2 +3.9 +4.4 +5.1 +6.1 +7.8 41.8 +2.5 +3.0 +3.5 +4.3 +4.6 +4.9 +5.2 4.7 ₊2.5 ₊3.3 ₊3.5 ₊4.0 ₊4.6 ₊4.8 ₊4.4 ₊4.6 ₊2.4 ₊3.4 ₊4.1 ₊4.9 ₊5.8 ₊5.6 ₊5.0 1.3 1.5 1.8 1.23 1.31 1.43 1.64 1.85 0B @ 12' #3 #15 #18 #23 #31 #43 #64 #85 *** IBB @ 12'

#23 #25 #36 #41 #48 #60

22 2.26 #29 #35 #39 #41 #43 22 +2.5 +2.6 +2.8 +2.9 +3.1 +3.4 +3.8 +4.3 +4.6 +4.9 +4.7 +4.1 2.2 +2.3 +2.4 +2.6 +2.7 +2.9 +3.3 +3.7 +4.0 +4.1 +3.9 +3.5 +2.9 2.5 +2.7 +3.0 +3.3 +3.4 +3.2 +2.9 +2.5 +2.1 1.7 4.8 +2.3 +2.5 +2.7 +2.9 +2.8 +2.5 +2.5 +2.5 2.0 2.1 2.5 2.6 2.5 2.2 1.9 1.7 1.4 1.1 1.6 +2.4 +2.4 +2.3 +2.2 +1.9 +1.7 +1.4 +1.1 +2.5 +2.7 +2.5 +2.2 +2.0 +1.7 +1.4 +1.2 1.5 +3.5 +3.1 +2.6 +2.1 +1.8 +1.4 +1.2 15.2 +4.5 +3.6 +2.9 +2.2 +1.7 +1.3 +1.6 +^{7.4}+6.3 +4.7 +3.8 +3.1 +2.3 +1.7 +1.2 10.7 +9.1 +6.1 +5 +3.5 +2.9 +2.2 +1.6 8 e 12' +5.4 +3.8 +3.2 +2.6 +2.0 +5.7 +6.9 +7.4 +5.8 +4.5 +3.6 +2.8 2.2 +4.2 +4.8 +5.0 +4.5 +4.1 +3.7 +2.8 +2.1 +4.1 +4.3 +4.4 +3.9 +3.2 +3.2 +2.7 +2.0 1.9 1.28 1.37 1.31 1.38 1.43 1.48 1.53 1.55 1.9 1.28 1.32 1.35 1.43 1.47 1.47 1.42 1.19 1.28 1.37 1.42 1.49 1.54 1.53 1.43 +55 +48 +4.3 +3.9 +3.4 +2.9 +2.5 +1.1 +8.4 +6.6 +4.8 +4.0 +3.5 +3.0 +2.5 +2.0 £ 20.627.2 +4.3 +3.2 +2.9 +2.5 +2/ 1.7 +2.5 +3.3 +4.3 +6.4 +8.1 +7.5 +5.8 1.5 1.9 2.4 3.3 5.3 9.0 11.3 8.6 1.4 1.6 2.1 2.7 3.6 5.6 8.5 18 0 12' 2.1 +2.5 +2.7 +2.9 +2.7 +2.6 +2.4 +1.8 +2.7 +2.5 +2.3 +2.2 +2.2 +2.1 +2.0 +1.7 /1.6 +1.8 +1.9 +2.0 +2.2 +2.6 +3.3 +3.7/ 4.3 +3.7 +2.9 +2.2 +1.9 +1.7 +1.6 +1.5 /1.9 +2.2 +2.3 +2.5 +2.4 +2.4 +2.4 +2.4 7.3 +5.7 +4.1 +3.1 +2.3 +1.8 +1.5 +1.3 66 9.9 6.6 4.0 2.8 2.2 1.7 1.3 8 6 12 2.7 2.7 2.7 2.1 1.6 7.8 10.3 2.5 5.9 2.7 2.7 2.1 1.6 45.0 6.3 7.0 6.1 4.4 2.5 2.6 1.8 2.1 +2.4 +2.8 +3.6 +5.7 +9.3 +10.8 +8.0 45.0 46.3 47.0 46.1 49.4 49.5 40.2 40.2 41.9 43.6 46.6 44.7 4.3 43.9 43.6 42.8 41.9 43.7 44.0 44.1 43.8 43.2 42.9 42.7 41.9 45.2 44.7 44.2 43.7 43.4 42.8 42.4 41.9 42.2 42.9 42.5 2.0 1.9 1.2.4 1.2.8 1.3.2 1.4.1 1.5.3 1.3.3 1.3.8 1.4.4 1.5.7 1.7.0 1.0 1.2.4 1.2.8 1.3.3 1.3.8 1.4.4 1.5.7 1.7.0 1.2.4 1.2.8 1.2.4 1.2. 41.8 +2.4 +2.6 +3.2 +3.7 +4.0 +4.3 +4.6 41.8 +2.6 +3.1 +3.1 +3.7 +4.2 +4.1 +3.6 7.9 +6.9 +5.0 +3.9 +3.4 +2.9 +2.5 +2.0 2.3 +2.6 +3.5 +4.0 +4.6 +5.1 +4.9 +4.2 3.1 +3.7 +4.1 +4.0 +5.8 +7.8 +7.4 +6.0 4.1 4.8 5.5 6.0 8.2 11.1 9.3 4.1 5.1 6.2 7.5 9.5 7.9 10.8 e 12' +4.0 +4.9 +6.1 +7.2 +8.6 +11.1 +13.7 +4.9 +5.5 +6.7 +7.4 +8.7 +11.6 +100 +9.9 (2 12') +5.9 +7.2 +7.2 +7.1 +7.5 +8.2 +9.7 +11.0 +10.8 +7.9 47.6 ±10.2 ±10.4 ±8.2 ±7.3 ±7.3 ±6.9 ±7.9 ±8.1 ±6.5 ±7.7 407 t115 t87 t65 t58 t62 t62 t62 t57 t44 t25 +4.9 +4.6 +4.2 +3.8 +3.1 +2.7 +2.2 17.0 +5.3 +4.4 +3.8 +3.4 +2.4 +2.4 +2.4 +2.5 +2.5 +2.6 +2.2 +2.3 +3.7 +3.2 +2.9 +2.4 +2.5 +6.5 +6.6 +5.1 +3.9 +3.1 +2.3 +3.5 +4.1 +4.2 +3.9 +3.7 +3.2 +2.3 +2.5 +4.2 +3.2 +2.7 +2.8 +2.2 +2.5 +2.8 +2.2 +2.5 +2.4 +2.4 +2.3 +2.1 +2.0 +7.0 +5.3 +4.4 +3.8 +3.4 +2.8 +2.3 25 +29 +34 +24 +23 +21 +20 +27 +25 +24 +24 +23 +21 +20 +39 +32 +26 +21 +19 +18 +17 +64 +47 +35 +26 +20 +17 +15 10.2 ₁7.8 ₁5.0 ₁3.3 ₁2.5 ₁1.9 ₁1.5 B e 12' 9.5 ₁10.7 ₁7.6 ₁4.5 ₁3.0 ₁2.3 ₁1.8 +5.9 +7.0 +7.1 +5.3 +3.9 +3.0 +2.2 +4.1 +4.7 +4.7 +4.2 +3.8 +3.3 +2.4 136 139 139 134 129 129 124 145 141 137 134 129 125 122 116 20 +24 +29 +32 +38 +56 +86 +87 8 2 12 ,06 ,09 20 +24 +27 +33 +48 +80 +107 +94 +62 +33 +23 +6.7 +5.2 +4.1 +3.4 +3.0 +2.6 +2.2 +1.7 +2.4 +3.2 +4.1 +5.4 +7.0 +7.0 +6.4 +5.3 +4.2 +4.2 126 132 139 146 153 161 180 1115 1118 1105 180 153 138 125 134 126 126 132 139 146 153 161 180 1115 1118 1105 180 153 138 125 134 126 136 136 146 153 161 180 1115 1118 1105 180 153 138 125 1 +3.4 +4.6 +5.5 +6.4 +7.3 +7.5 +7.2 +6.7 +5.6 +4.4 +3.9 +5.1 +6.5 +7.5 +7.4 +7.0 +6.6 +5.9 +4.8 +3.4 +8.3 +10.2 +9.4 +6.9 +5.7 +4.9 +3.9 11.6 +10.4 +7.1 +5.0 +4.0 B @ 882' +6.3 +4.6

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