

# VICINITY MAP (N.T.S.)

## SITE DATA PROJECT: BLAIR ELEMENTARY SCHOOL OWNER: NEW HANOVER COUNTY SCHOOLS

OWNER CONTACT: NEW HANOVER COUNTY BOARD OF EDUCATION EDDIE ANDERSON

> 6410 CAROLINA BEACH ROAD WILMINGTON, NC 28412

910-254-4325 DESIGNER: CLH DESIGN, PA

DESIGNER CONTACT: ZAK PIERCE REGENCY PARK 400 REGENCY FOREST DR., STE. 120 CARY, NC 27518

PHONE: 919-319-6716 FAX: 919-319-7516

PROJECT ADDRESS: 6510 MARKET STREET WILMINGTON, NC 28405

R05008-003-032-000 **ZONING:** 

OVERLAY DISTRICT: EXISTING USE: INSTITUTIONAL/EDUCATIONAL INSTITUTIONAL/EDUCATIONAL PROPOSED USE:

TRACT AREA: 13.79 ACRES (600,747 SF) FLOODPLAIN: SITE IS NOT WITHIN A FLOODPLAIN

(REF: FIRM 3720315800J, APRIL 3, 2006)

THERE ARE NO ENDANGERED SPECIES OR HABITATS ON THIS SITE. BUILDING SETBACKS:

REAR INTERIOR SIDE

TYPE OF CONSTRUCTION:

PARKING REQUIREMENTS:

1 SPACE PER TEACHER OR STAFF PERSON\*

NO. OF TEACHERS AND STAFF: TOTAL SPACES REQ'D: TOTAL SPACES PROVIDED:

TOTAL H/C SPACES REQ'D: TOTAL H/C SPACES PROVIDED: 5 (W/ 2 VAN ACCESSIBLE)

\*IF A PARKING GROUP DOES NOT CONTAIN A SPECIFIC MAXIMUM LIMIT ON THE NUMBER OF PARKING SPACES, THE MAXIMUM ALLOWABLE PARKING SPACES SHALL BE 150 PERCENT OF THE MINIMUM PARKING STANDARD FOR SUCH PARKING GROUPS.

TOTAL BICYCLE SPACES REQ'D: 10 TOTAL BICYCLE SPACES PROVIDED: 20

NUMBER OF PROPOSED BUILDINGS:

NUMBER OF FLOORS ON PROPOSED BUILDING: 1

GROSS FLOOR AREA:

EXISTING: 49,624 SQFT.
PROPOSED 1ST FLOOR: 56,781 SQFT. PROPOSED 2ND FLOOR: 30,844 SQFT. PROPOSED TOTAL: 87,625 SQFT.

BUILDING LOT COVERAGE-EXISTING: 8.3% BUILDING LOT COVERAGE-PROPOSED: 9.5% MAX. BUILDING HEIGHT PROPOSED: 33' 1"

EXISTING IMPERVIOUS (WITHIN PROJECT LIMITS): 4.20-AC (183,092-SF) PROPOSED IMPERVIOUS (WITHIN PROJECT LIMITS): 5.33-AC (232,062-SF)

CAMA LAND USE CLASSIFICATION:

CAMA AREAS OF CONCERN (AEC): THIS SITE IS NOT WITHIN A CAMA AEC.

THE SITE HAS NO LOCAL, STATE OR FEDERALLY RECOGNIZED HISTORIC STRUCTURES OR ARCHAEOLOGICAL RESOURCES.

THE SITE HAS NO CEMETARIES, BURIAL SITES OR BURIAL GROUNDS. THE SITE HAS NO EXISTING EASEMENT ON SITE.

PROPOSED WATER AND SEWER CAPACITY:

WATER: 7,200 GPD (600 STUDENTS X 12 GPD) SEWER: 7,200 GPD (600 STUDENTS X 12 GPD)

A TREE REMOVAL/PRESERVATION PERMIT IS REQUIRED PRIOR TO REMOVING ANY TREES. CONTRACTOR SHALL OBTAIN & COMPLETE PERMIT. CONTACT CITY OF WILMINGTON ZONING DEPARTMENT TO OBTAIN COPY OF PERMIT.

# CITY OF WILMINGTON NOTES

OR GROVES OF TREES. NO CONSTRUCTION WORKERS, TOOLS, MATERIALS OR VEHICLES ARE PERMITTED WITHIN TREE PROTECTION FENCING. 2. ANY TREES AND/OR AREAS DESIGNATED TO BE PROTECTED MUST BE PROPERLY BARRICADED WITH FENCING AND PROTECTED THROUGHOUT CONSTRUCTION TO INSURE THAT NO CLEARING, GRADING OR STAGING OF MATERIALS WILL OCCUR IN THOSE AREAS. 3. NO EQUIPMENT IS ALLOWED ON SITE UNTIL ALL TREE PROTECTION FENCING AND SILT FENCING IS INSTALLED AND APPROVED. PROTECTIVE

4. ALL PAVEMENT MARKINGS IN PUBLIC RIGHTS—OF—WAY AND FOR DRIVEWAYS ARE TO BE THERMOPLASTIC AND MEET CITY AND/OR NCDOT

5. ONCE STREETS ARE OPEN TO TRAFFIC, CONTACT TRAFFIC ENGINEERING REGARDING THE INSTALLATION OF TRAFFIC AND STREET NAME SIGNS. PROPOSED STREET NAMES MUST BE APPROVED PRIOR TO INSTALLATION OF STREET NAME SIGNS.

ON UNIFORM TRAFFIC CONTROL DEVICES) STANDARDS. 7. CONTACT TRAFFIC ENGINEERING AT 910.341.7888 TO ENSURE THAT ALL TRAFFIC SIGNAL FACILITIES AND EQUIPMENT ARE SHOWN ON THE PLAN. 22. CONTRACTOR SHALL MAINTAIN ALL—WEATHER ACCESS FOR EMERGENCY VEHICLES AT ALL TIMES DURING CONSTRUCTION

8. CALL TRAFFIC ENGINEERING AT 910.341.7888 FORTY-EIGHT (48) HOURS PRIOR TO ANY EXCAVATION IN THE RIGHT-OF-WAY.

9. TRAFFIC ENGINEERING MUST APPROVE OF PAVEMENT MARKING PRIOR TO ACTUAL STRIPING.

10. ALL PARKING STALL MARKINGS AND LANE ARROWS WITH THE PARKING AREAS SHALL BE WHITE.

11. ALL TRAFFIC CONTROL SIGNS AND MARKINGS OFF THE RIGHT-OF-WAY ARE TO BE MAINTAINED BY THE PROPERTY OWNER.

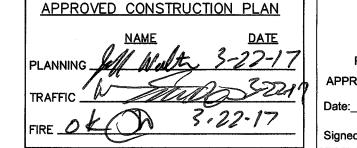
12. STOP SIGNS AND STREET SIGNS TO REMAIN IN PLACE DURING CONSTRUCTION. 13. TACTILE WARNING MATS WILL BE INSTALLED ON ALL WHEELCHAIR RAMPS.

REDUCED PRESSURE ZONE (RPZ) BACKFLOW PREVENTION DEVICE ON THE DEVELOPER'S SIDE OF THE WATER METER BOX.

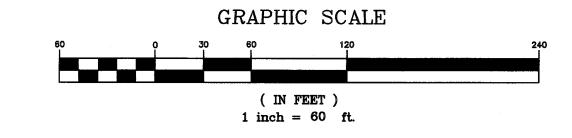
20. ANY BACKFLOW PREVENTION DEVICES REQUIRED BY CFPUA WILL NEED TO BE ON THE LIST OF APPROVED DEVICES BY USCFCCCHR OR ASSE. 6. TRAFFIC CONTROL DEVICES (INCLUDING SIGNS AND PAVEMENT MARKINGS) IN AREAS OPEN TO PUBLIC TRAFFIC ARE TO MEET MUTCD (MANUAL 21. CONTRACTOR TO FIELD VERIFY EXISTING WATER AND SEWER SERVICE LOCATIONS, SIZES AND MATERIALS PRIOR TO CONSTRUCTION. ENGINEER TO BE NOTIFIED OF ANY CONFLICTS.

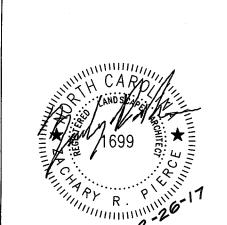
> 23. UNDERGROUND FIRE LINE(S) MUST BE PERMITTED AND INSPECTED BY THE WILMINGTON FIRE DEPARTMENT FROM THE PUBLIC RIGHT-OF-WAY TO THE BUILDING. CONTACT WILMINGTON FIRE DEPARTMENT DIVISION OF FIRE AND LIFE SAFETY AT 910.341.0696. 24. NO OBSTRUCTIONS ARE PERMITTED IN THE SPACE BETWEEN THIRTY (30) INCHES AND TEN (10) FEET ABOVE THE GROUND WITHIN THE

25. CONTACT THE NORTH CAROLINA ONE CALL CENTER AT 1.800.632.4949 PRIOR TO DOING ANY DIGGING, CLEARING OR GRADING. 26. ALL TRAFFIC CONTROL SIGNS AND MARKINGS OFF THE RIGHT-OF-WAY ARE TO BE MAINTAINED BY THE PROPERTY OWNER IN ACCORDANCE WITH MUTCD STANDARDS.



PPROVED STORMWATER MANAGEMENT PLAN Date: 3/21/17 Permit # 2017010





Leading Designer o

Specialty in Alternative Delivery Method

yetteville St, Ste 225

Raleigh, NC 27601 P: 919.573.6350 F: 919.573.6355



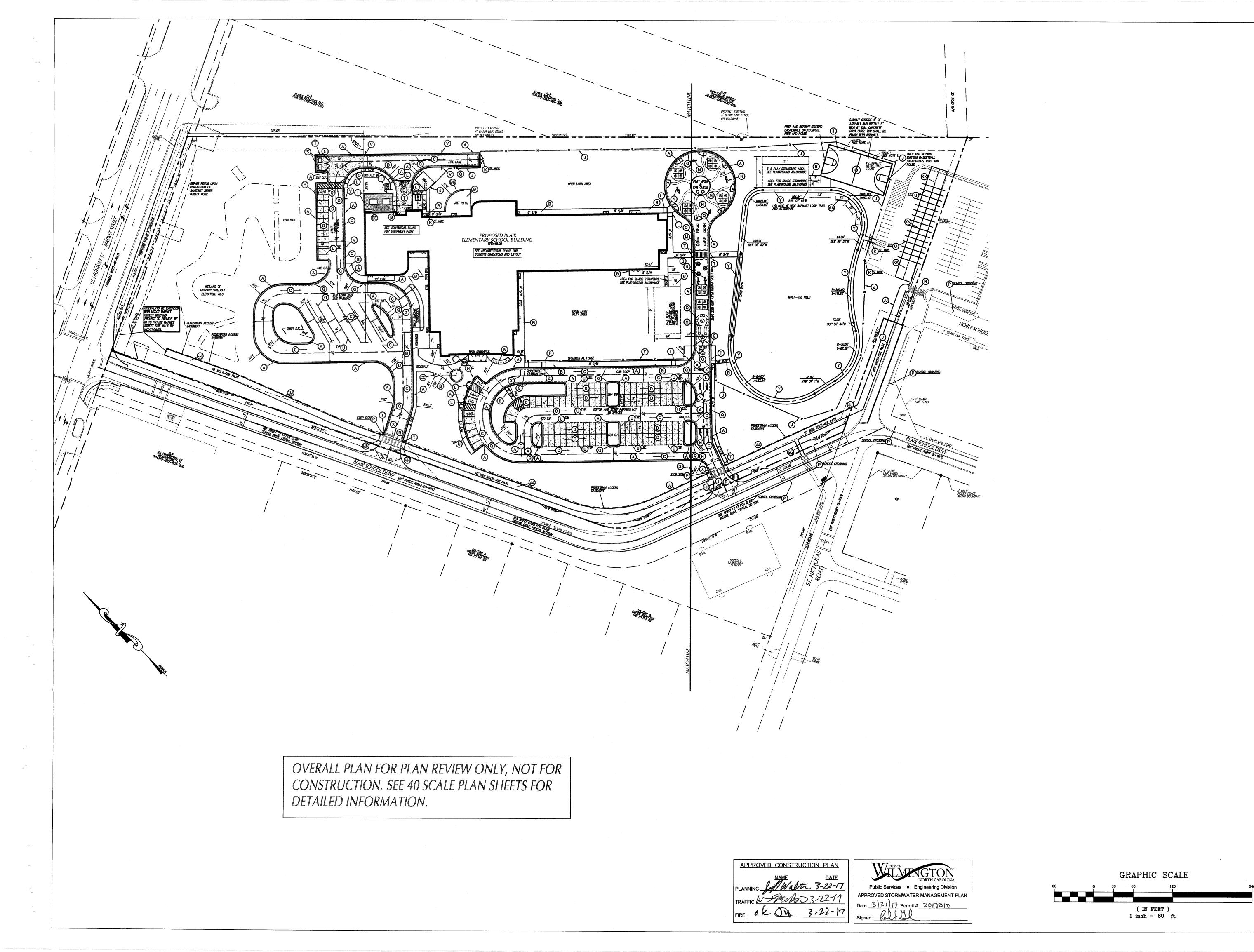
**ENERGY** PARTNER

ID DATE DESCRIPTION ISSUE DATE: 2/26/2017

PROJECT #: SFLA - 01504.000 CLH - 15-143 CAD TECH.: CAD TECH.: CHECKED BY: KAL/ZRF

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**OVERALL** SITE PLAN









Suite 120
Cary, North Carolina 27518
Phone: (919) 319-6716
Fax: (919) 319-7516
LA: C-106
PE: C-1595

AIR ELEMENTARY SCI TER COUNTY SCHOOLS

JOHN J. BLA NEW HANOV

ENERGY STAR PARTNER

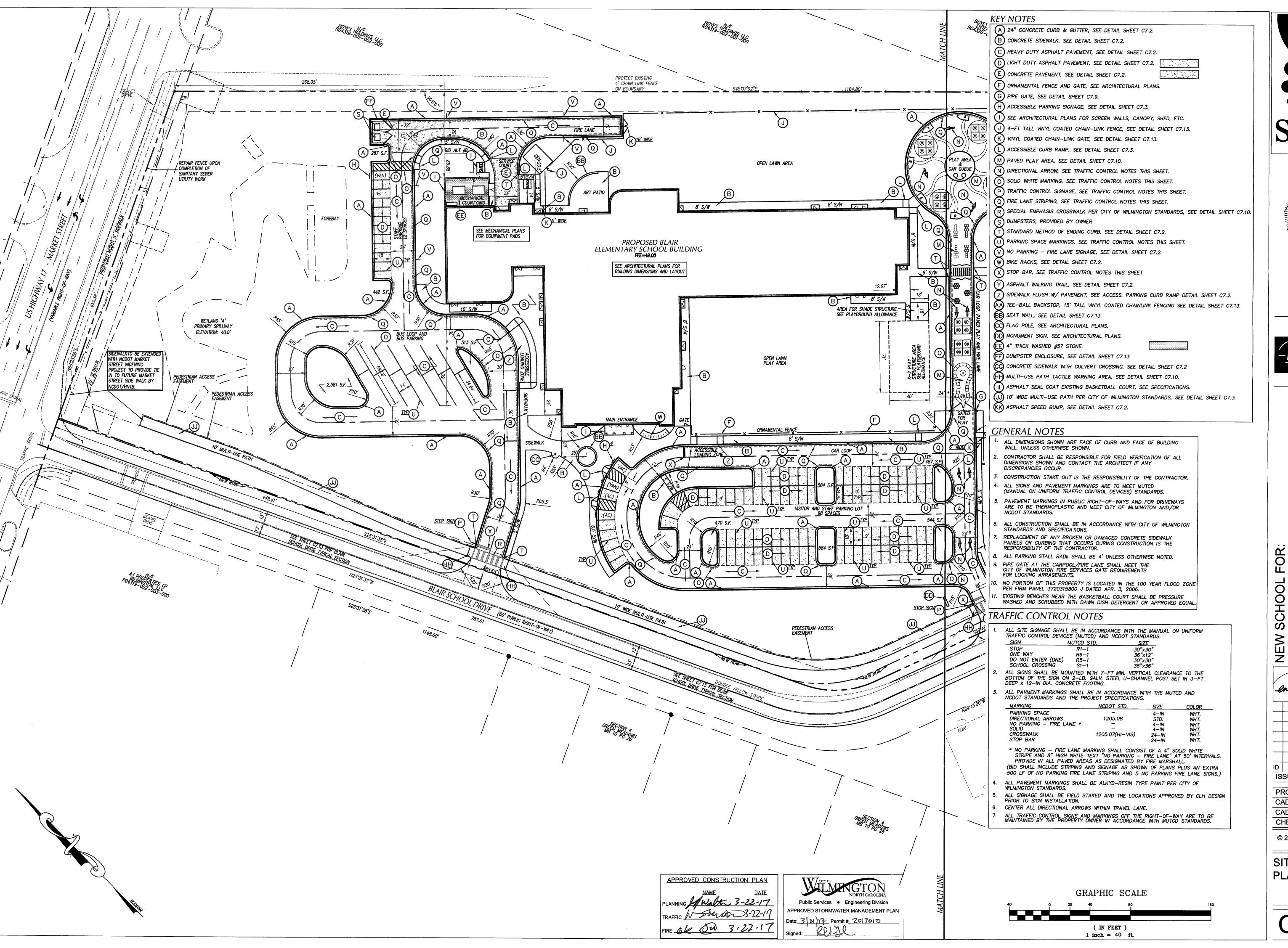
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CAD TECH.: MB
CAD TECH.: YLA
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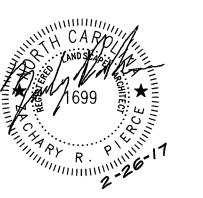
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OVERALL SITE STAKING PLAN

C1.0









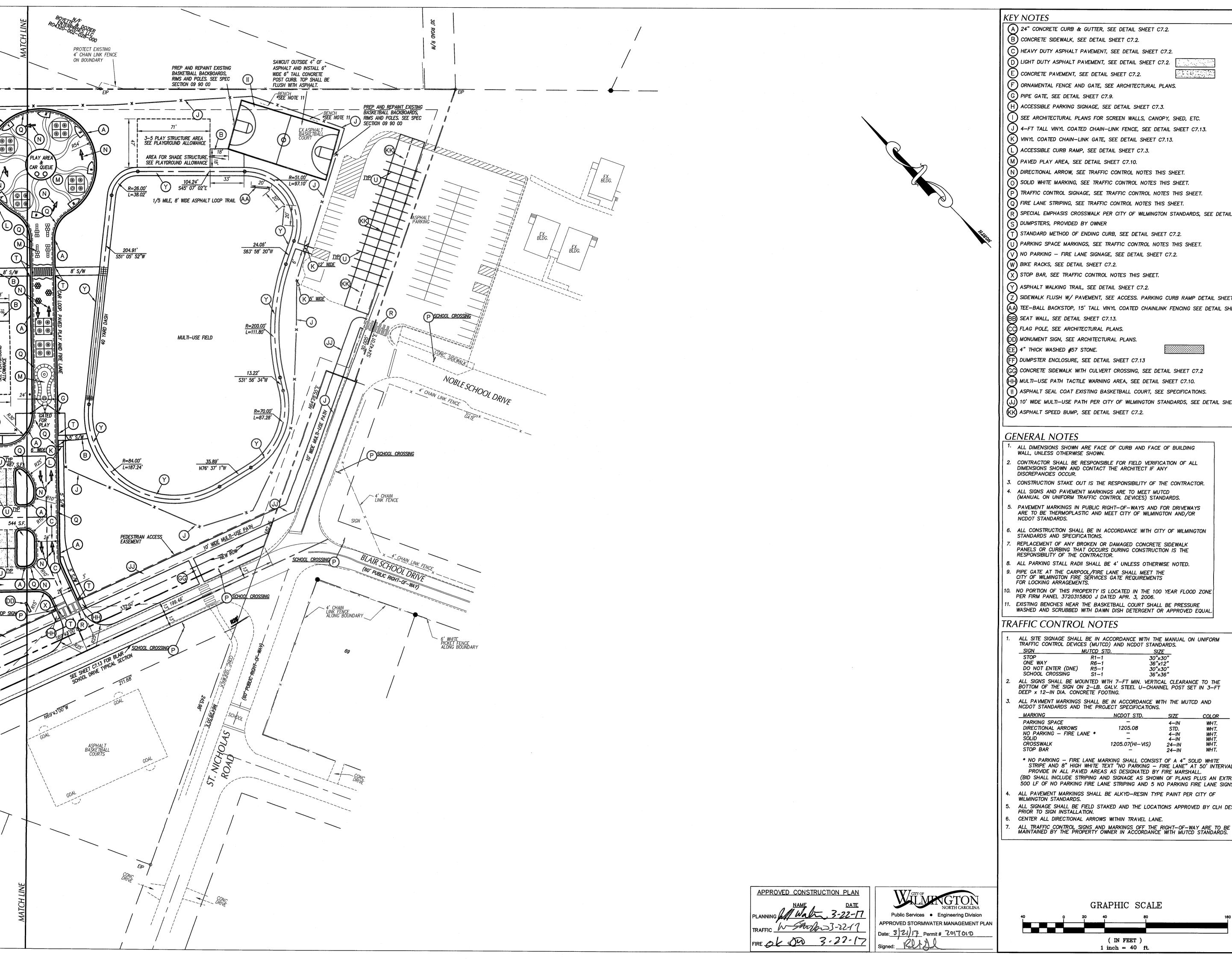
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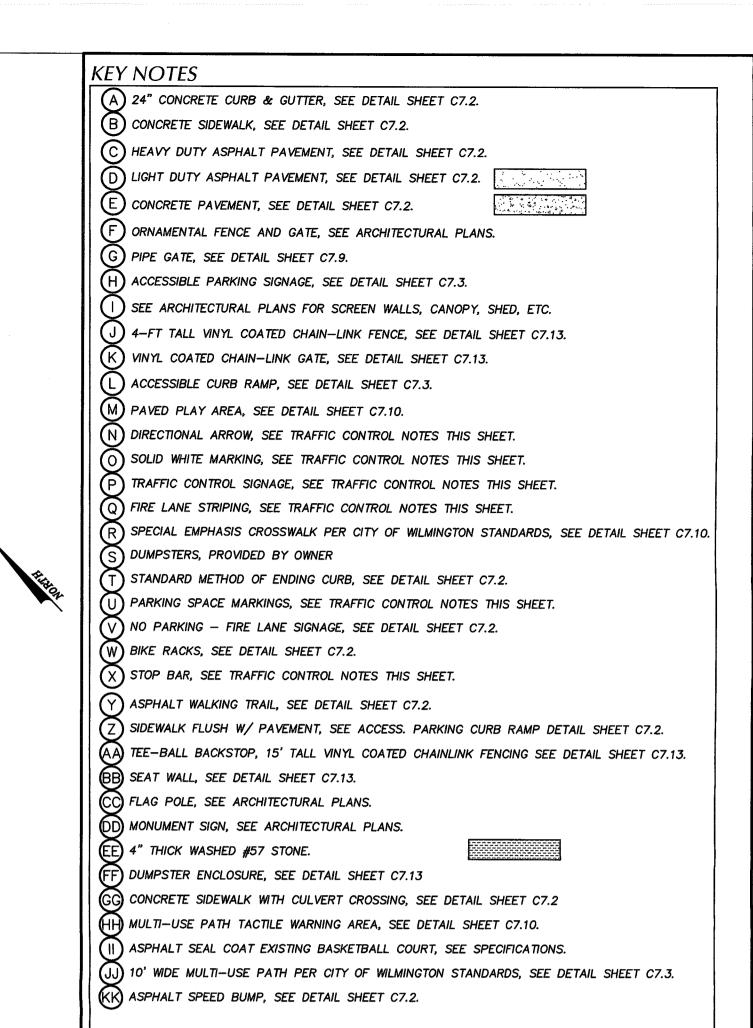
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SITE STAKING **PLAN** 





- ALL DIMENSIONS SHOWN ARE FACE OF CURB AND FACE OF BUILDING
- CONTRACTOR SHALL BE RESPONSIBLE FOR FIELD VERIFICATION OF ALL DIMENSIONS SHOWN AND CONTACT THE ARCHITECT IF ANY
- CONSTRUCTION STAKE OUT IS THE RESPONSIBILITY OF THE CONTRACTOR. 4. ALL SIGNS AND PAVEMENT MARKINGS ARE TO MEET MUTCD
- 5. PAVEMENT MARKINGS IN PUBLIC RIGHT-OF-WAYS AND FOR DRIVEWAYS ARE TO BE THERMOPLASTIC AND MEET CITY OF WILMINGTON AND/OR
- 5. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH CITY OF WILMINGTON
- REPLACEMENT OF ANY BROKEN OR DAMAGED CONCRETE SIDEWALK PANELS OR CURBING THAT OCCURS DURING CONSTRUCTION IS THE
- 8. ALL PARKING STALL RADII SHALL BE 4' UNLESS OTHERWISE NOTED.
- 9. PIPE GATE AT THE CARPOOL/FIRE LANE SHALL MEET THE
- CITY OF WILMINGTON FIRE SERVICES GATE REQUIREMENTS FOR LOCKING ARRAGEMENTS.
- 10. NO PORTION OF THIS PROPERTY IS LOCATED IN THE 100 YEAR FLOOD ZONE PER FIRM PANEL 3720315800 J DATED APR. 3, 2006.
- WASHED AND SCRUBBED WITH DAWN DISH DETERGENT OR APPROVED EQUAL.
- EXISTING BENCHES NEAR THE BASKETBALL COURT SHALL BE PRESSURE

- ALL SITE SIGNAGE SHALL BE IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) AND NCDOT STANDARDS. 30"x30" 36"x12" 30"x30" 36"x36"
- ALL SIGNS SHALL BE MOUNTED WITH 7-FT MIN. VERTICAL CLEARANCE TO THE BOTTOM OF THE SIGN ON 2-LB. GALV. STEEL U-CHANNEL POST SET IN 3-FT DEEP x 12-IN DIA. CONCRETE FOOTING.
- ALL PAYMENT MARKINGS SHALL BE IN ACCORDANCE WITH THE MUTCD AND NCDOT STANDARDS AND THE PROJECT SPECIFICATIONS.

MARKING	NCDOT STD.	SIZE	COLOR
PARKING SPACE DIRECTIONAL ARROWS NO PARKING — FIRE LANE * SOLID CROSSWALK STOP BAR	_ 1205.08 _ _ 1205.07(HI-VIS) _	4-IN STD. 4-IN 4-IN 24-IN 24-IN	WHT. WHT. WHT. WHT. WHT.

- \* NO PARKING FIRE LANE MARKING SHALL CONSIST OF A 4" SOLID WHITE STRIPE AND 8" HIGH WHITE TEXT "NO PARKING FIRE LANE" AT 50' INTERVALS. PROVIDE IN ALL PAVED AREAS AS DESIGNATED BY FIRE MARSHALL. (BID SHALL INCLUDE STRIPING AND SIGNAGE AS SHOWN OF PLANS PLUS AN EXTRA 500 LF OF NO PARKING FIRE LANE STRIPING AND 5 NO PARKING FIRE LANE SIGNS.)
- ALL PAVEMENT MARKINGS SHALL BE ALKYD-RESIN TYPE PAINT PER CITY OF
- ALL SIGNAGE SHALL BE FIELD STAKED AND THE LOCATIONS APPROVED BY CLH DESIGN
- CENTER ALL DIRECTIONAL ARROWS WITHIN TRAVEL LANE.

		G	RAPHI	C SCALE	
40	C	20	40	80	
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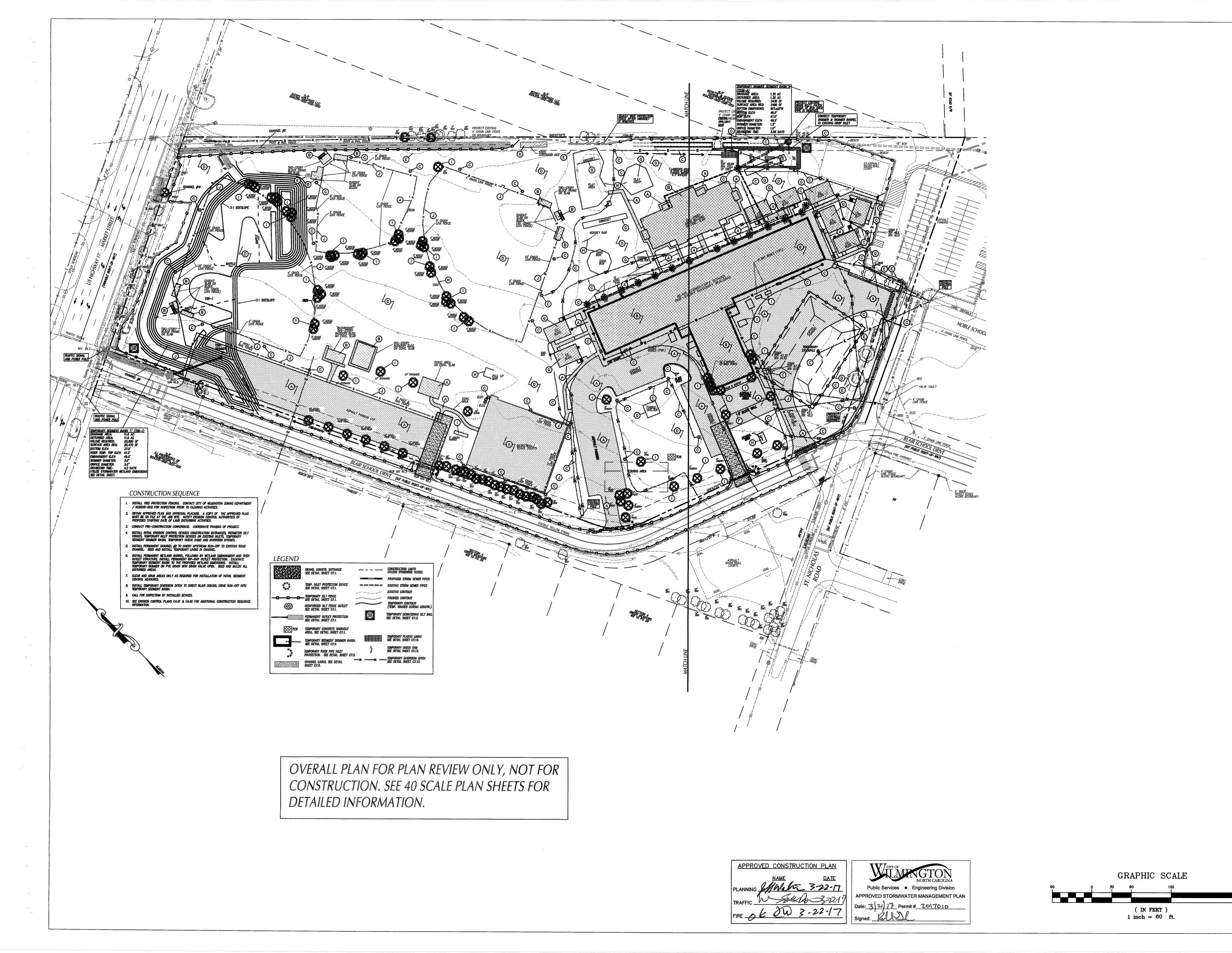
**ENERGY** STAR PARTNER

ID DATE DESCRIPTION ISSUE DATE: 2/26/2017

PROJECT #: SFLA - 01504.000 CLH - 15-143 CAD TECH.: CAD TECH.:

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SITE STAKING **PLAN** 









# Suite 120 Cary, North Carolina 27t Phone: (919) 319-6716 Fax: (919) 319-7516 L4: C-106 PE: C-1595

AIR ELEMENTARY SC TER COUNTY SCHOOL

JOHN J. BL.
NEW HANOV



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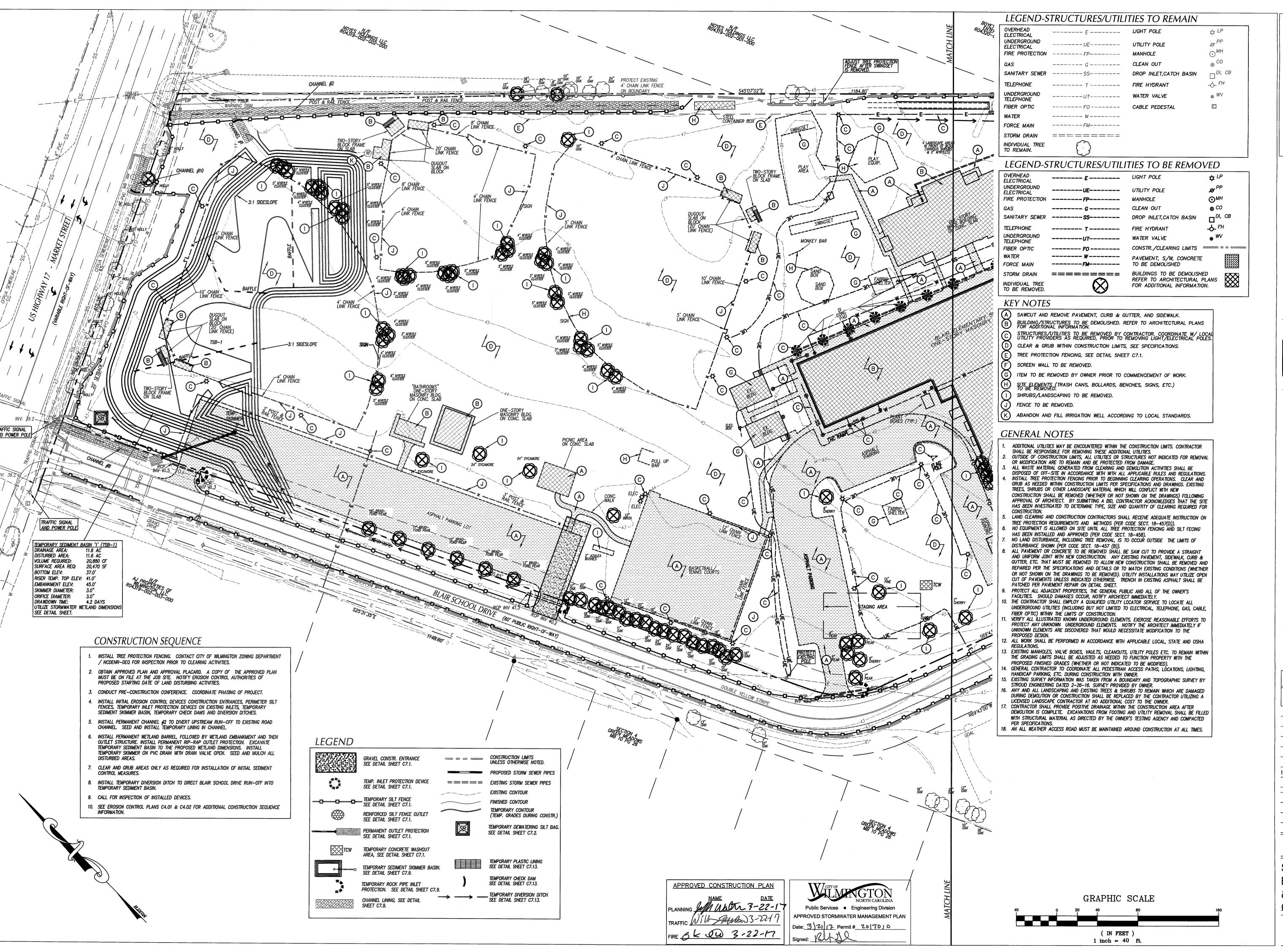
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OVERALL SITE
DEMOLITION, EXISTING
CONDITIONS & INITIAL
EROSION CONTROL PLAN

C2.0









**ENERGY** STAR

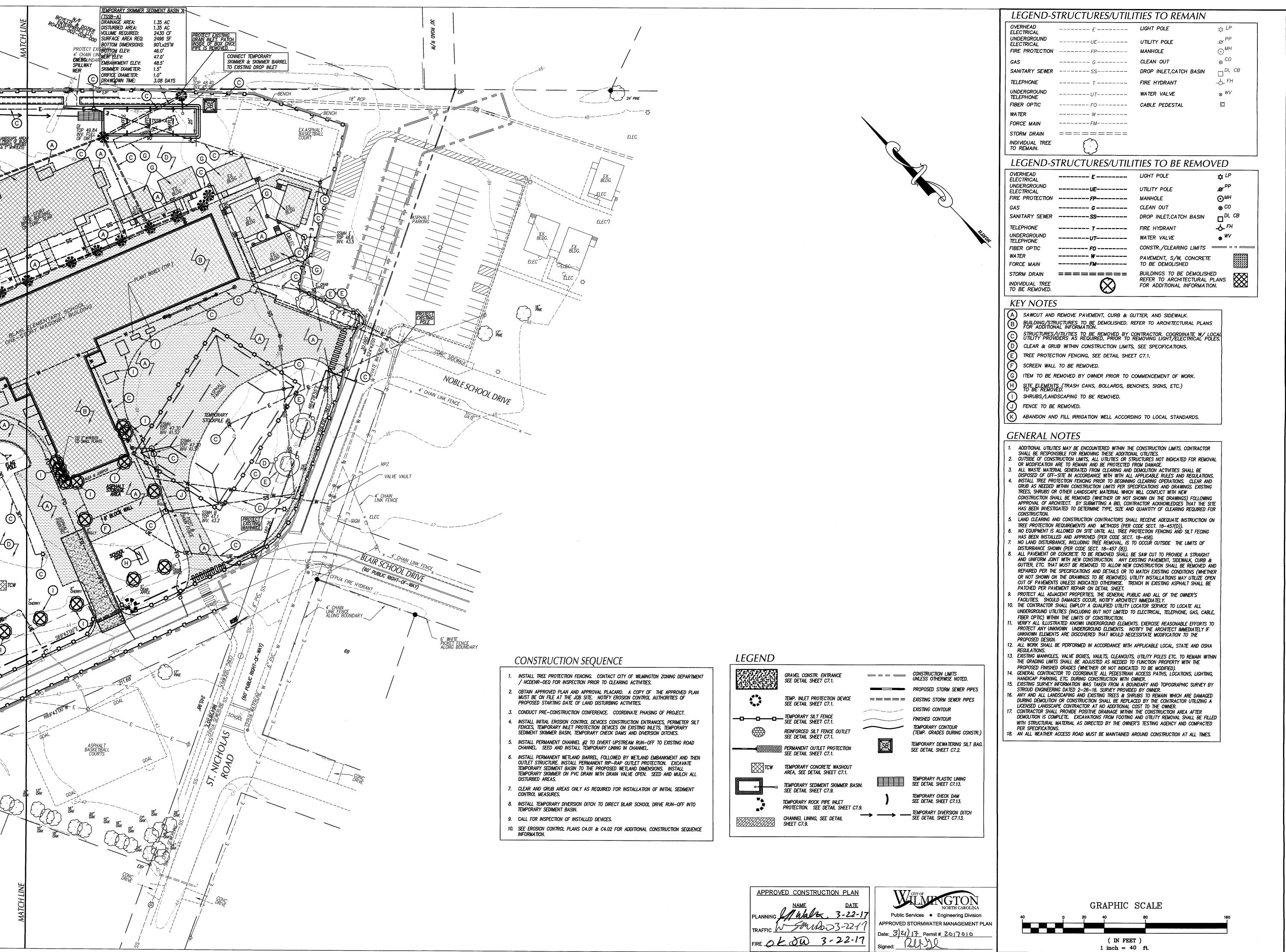
PARTNER

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SITE DEMOLITION, **EXISTING CONDITIONS** & INITIAL EROSION CONTROL PLAN



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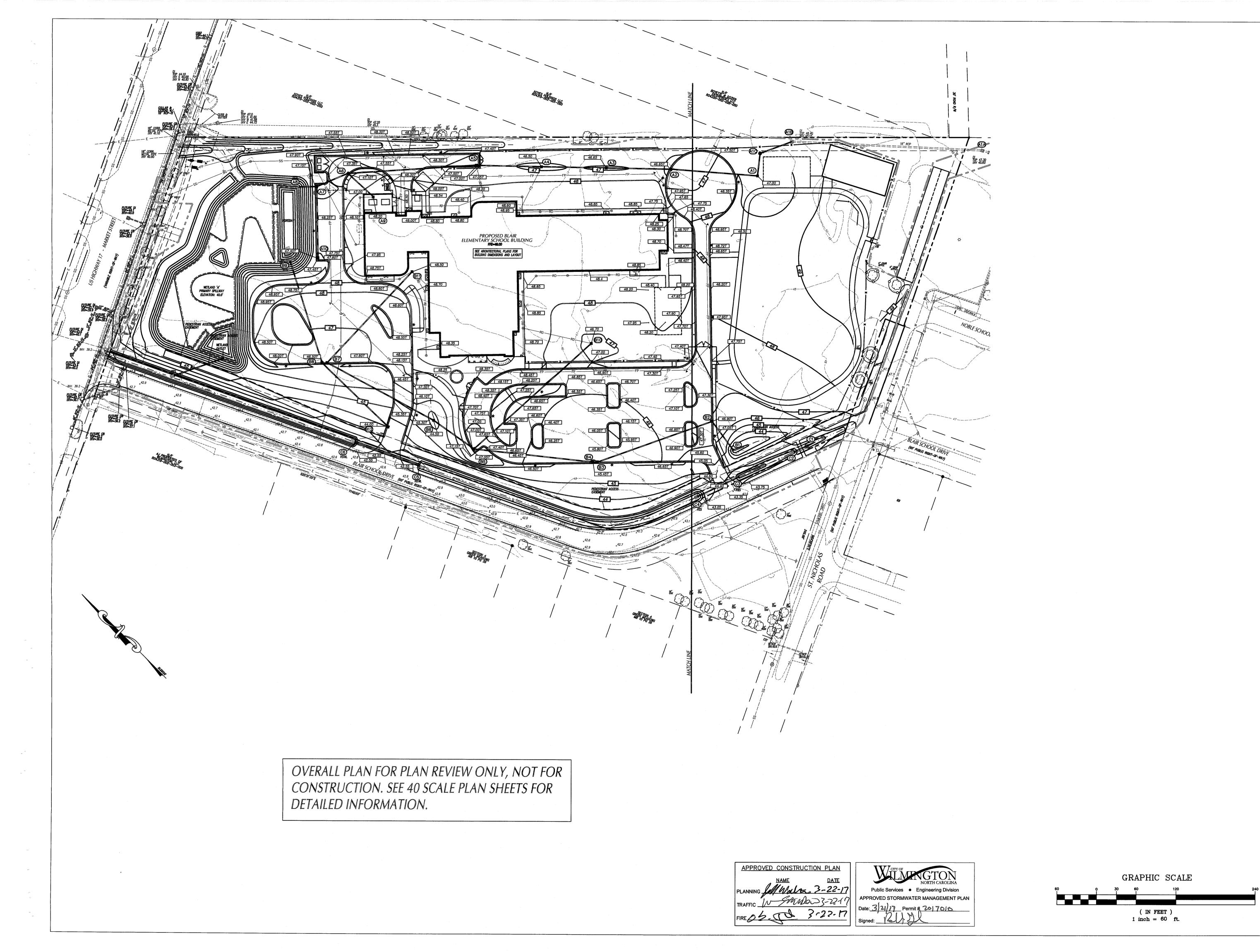
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SITE DEMOLITION, **EXISTING CONDITIONS** & INITIAL EROSION CONTROL PLAN









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ENERGY STAR PARTNER

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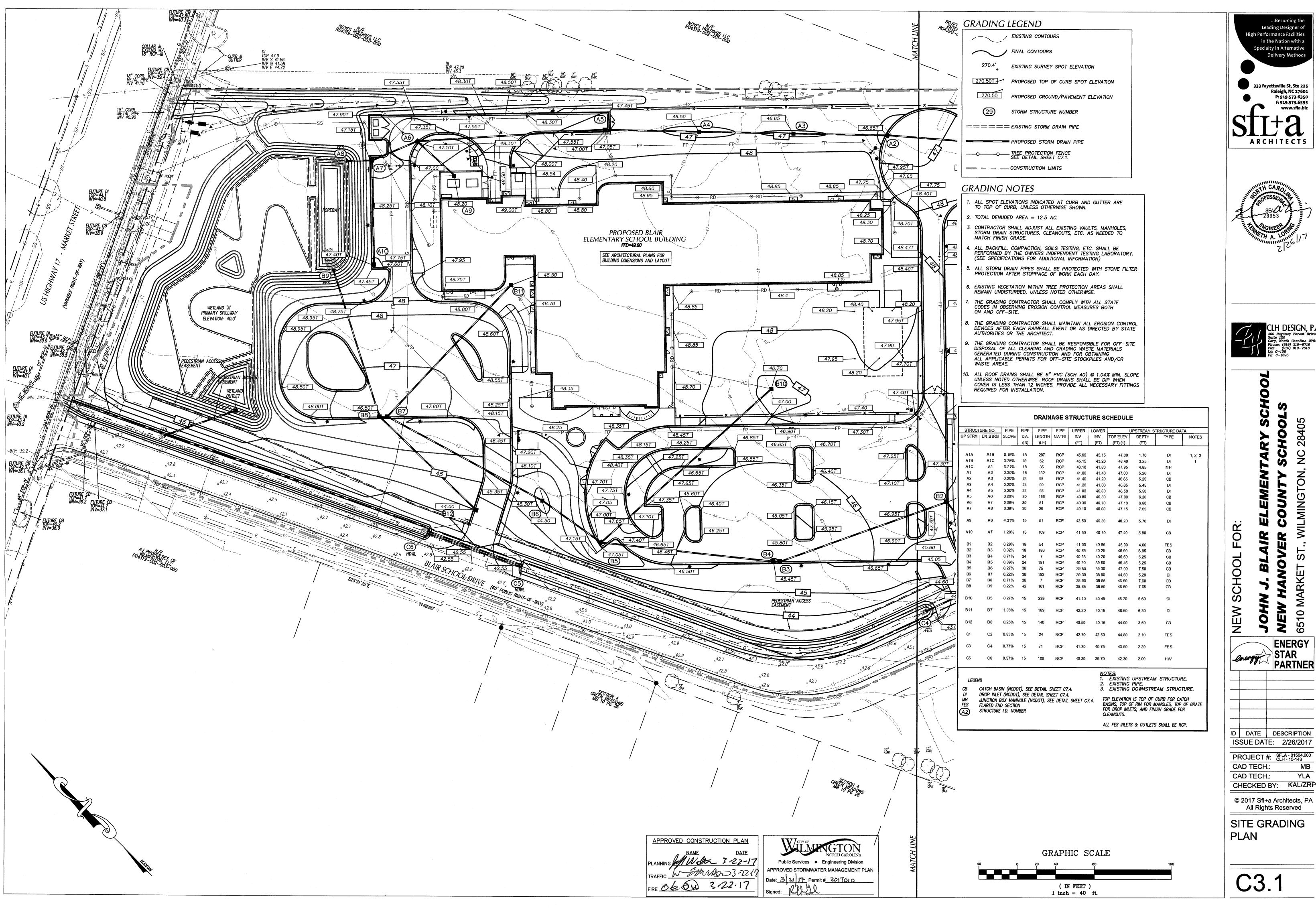
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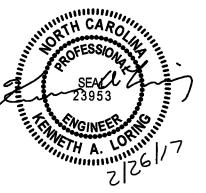
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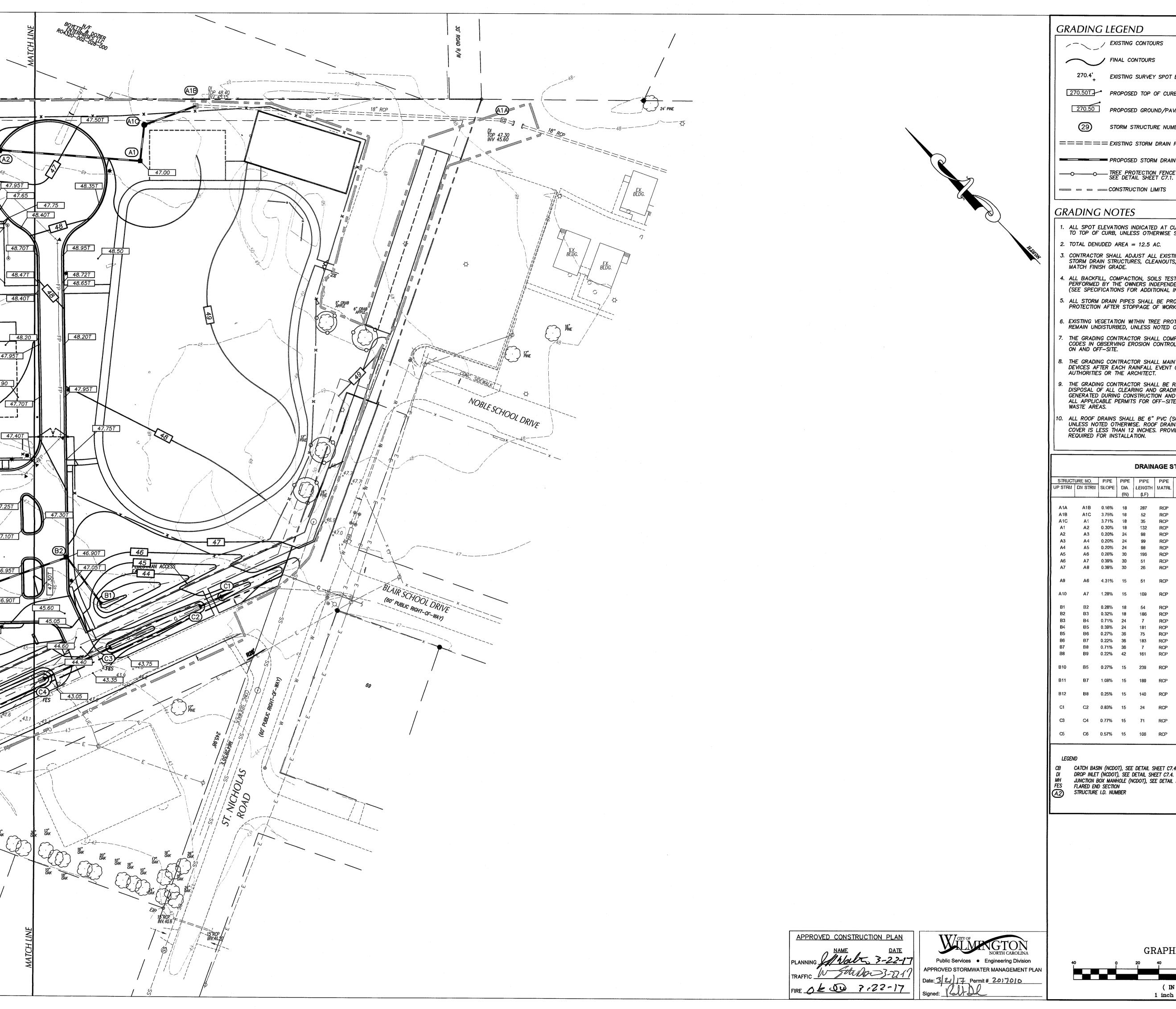
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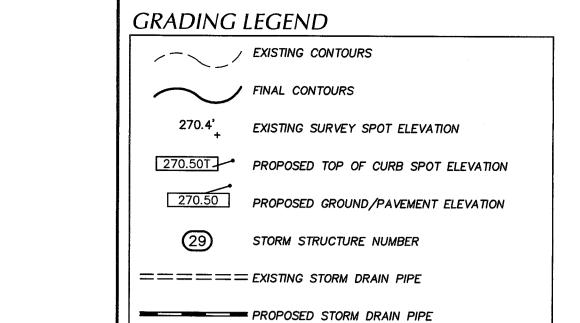
OVERALL SITE GRADING PLAN











# **GRADING NOTES**

- 1. ALL SPOT ELEVATIONS INDICATED AT CURB AND GUTTER ARE TO TOP OF CURB, UNLESS OTHERWISE SHOWN.
- 2. TOTAL DENUDED AREA = 12.5 AC.
- 3. CONTRACTOR SHALL ADJUST ALL EXISTING VAULTS, MANHOLES, STORM DRAIN STRUCTURES, CLEANOUTS, ETC. AS NEEDED TO MATCH FINISH GRADE.
- 4. ALL BACKFILL, COMPACTION, SOILS TESTING, ETC. SHALL BE PERFORMED BY THE OWNERS INDEPENDENT TESTING LABORATORY. (SEE SPECIFICATIONS FOR ADDITIONAL INFORMATION)
- 5. ALL STORM DRAIN PIPES SHALL BE PROTECTED WITH STONE FILTER PROTECTION AFTER STOPPAGE OF WORK EACH DAY.
- 6. EXISTING VEGETATION WITHIN TREE PROTECTION AREAS SHALL REMAIN UNDISTURBED, UNLESS NOTED OTHERWISE.
- 7. THE GRADING CONTRACTOR SHALL COMPLY WITH ALL STATE CODES IN OBSERVING EROSION CONTROL MEASURES BOTH ON AND OFF-SITE.
- 8. THE GRADING CONTRACTOR SHALL MAINTAIN ALL EROSION CONTROL DEVICES AFTER EACH RAINFALL EVENT OR AS DIRECTED BY STATE
- 9. THE GRADING CONTRACTOR SHALL BE RESPONSIBLE FOR OFF-SITE DISPOSAL OF ALL CLEARING AND GRADING WASTE MATERIALS GENERATED DURING CONSTRUCTION AND FOR OBTAINING ALL APPLICABLE PERMITS FOR OFF-SITE STOCKPILES AND/OR
- 10. ALL ROOF DRAINS SHALL BE 6" PVC (SCH 40) @ 1.04% MIN. SLOPE UNLESS NOTED OTHERWISE. ROOF DRAINS SHALL BE DIP WHEN COVER IS LESS THAN 12 INCHES. PROVIDE ALL NECESSARY FITTINGS REQUIRED FOR INSTALLATION.

A1A A1B A1C A1 A2 A3 A4	A1B A1C	0.16%	DIA. (IN)	LENGTH (LF)	MATRL	INV.	INV.	TOP ELEV.	DEPTH	TRUCTURE DA	NOTES
A1B A1C A1 A2 A3	A1C	0.16%	(IN)	(LF)							
A1B A1C A1 A2 A3	A1C	0.16%				(FT)	(FT)	(FT) (1)	(FT)		
A1C A1 A2 A3			18	287	RCP	45.60	45.15	47.30	1.70	DI	1, 2, 3
A1 A2 A3		3.75%	18	52	RCP	45.15	43.20	48.40	3.25	DI	1
A2 A3	<b>A</b> 1	3.71%	18	35	RCP	43.10	41.80	47.95	4.85	MH	·
А3	A2	0.30%	18	132	RCP	41.80	41.40	47.00	5.20	Di	
	<b>A3</b>	0.20%	24	98	RCP	41.40	41.20	46.65	5.25	СВ	
A4	A4	0.20%	24	99	RCP	41.20	41.00	46.65	5.45	DI	
	A5	0.20%	24	98	RCP	41.00	40.80	46.50	5.50	Di	
A5	A6	0.26%	30	196	RCP	40.80	40.30	47.00	6.20	CB	
A6	A7	0.39%	30	51	RCP	40.30	40.10	47.10	6.80	CB	
A7	A8	0.38%	30	26	RCP	40.10	40.00	47.15	7.05	CB	
A9	A6	4.31%	15	51	RCP	42.50	40.30	48.20	5.70	DI	
A10	A7	1.28%	15	109	RCP	41.50	40.10	47.40	5.90	СВ	
B1	B2	0.28%	18	54	RCP	41.00	40.85	45.00	4.00	FES	
B2	B3	0.32%	18	186	RCP	40.85	40.25	46.90	6.05	CB	
B3	B4	0.71%	24	7	RCP	40.25	40.20	45.50	5.25	CB	
<b>B</b> 4	B5	0.39%	24	181	RCP	40.20	39.50	45.45	5.25	CB	
B5	B6	0.27%	36	75	RCP	39.50	39.30	47.00	7.50	CB	
B6	B7	0.22%	36	183	RCP	39.30	38.90	44.50	5.20	DI	
B7	88	0.71%	36	7	RCP	38.90	38.85	46.50	7.60	CB	
B8	B9	0.22%	42	161	RCP	38.85	38.50	46.50	7.65	CB	
B10	B5	0.27%	15	239	RCP	41.10	40.45	46.70	5.60	DI	
B11	B7	1.08%	15	189	RCP	42.20	40.15	48.50	6.30	DI	
B12	B8	0.25%	15	140	RCP	40.50	40.15	44.00	3.50	СВ	
C1	C2	0.83%	15	24	RCP	42.70	42.50	44.80	2.10	FES	
C3	C4	0.77%	15	71	RCP	41.30	40.75	43.50	2.20	FES	
C5	C6	0.57%	15	106	RCP	40.30	39.70	42.30	2.00	нw	

GRAPHIC SCALE

( IN FEET ) 1 inch = 40 ft.

CATCH BASIN (NCDOT), SEE DETAIL SHEET C7.4. DROP INLET (NCDOT), SEE DETAIL SHEET C7.4. JUNCTION BOX MANHOLE (NCDOT), SEE DETAIL SHEET C7.4. FLARED END SECTION STRUCTURE I.D. NUMBER

TOP ELEVATION IS TOP OF CURB FOR CATCH BASINS, TOP OF RIM FOR MANOLES, TOP OF GRATE FOR DROP INLETS, AND FINISH GRADE FOR CLEANOUTS.

ALL FES INLETS & OUTLETS SHALL BE RCP.

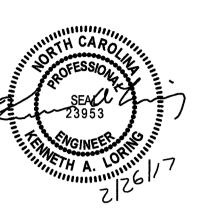
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SITE GRADING **PLAN** 

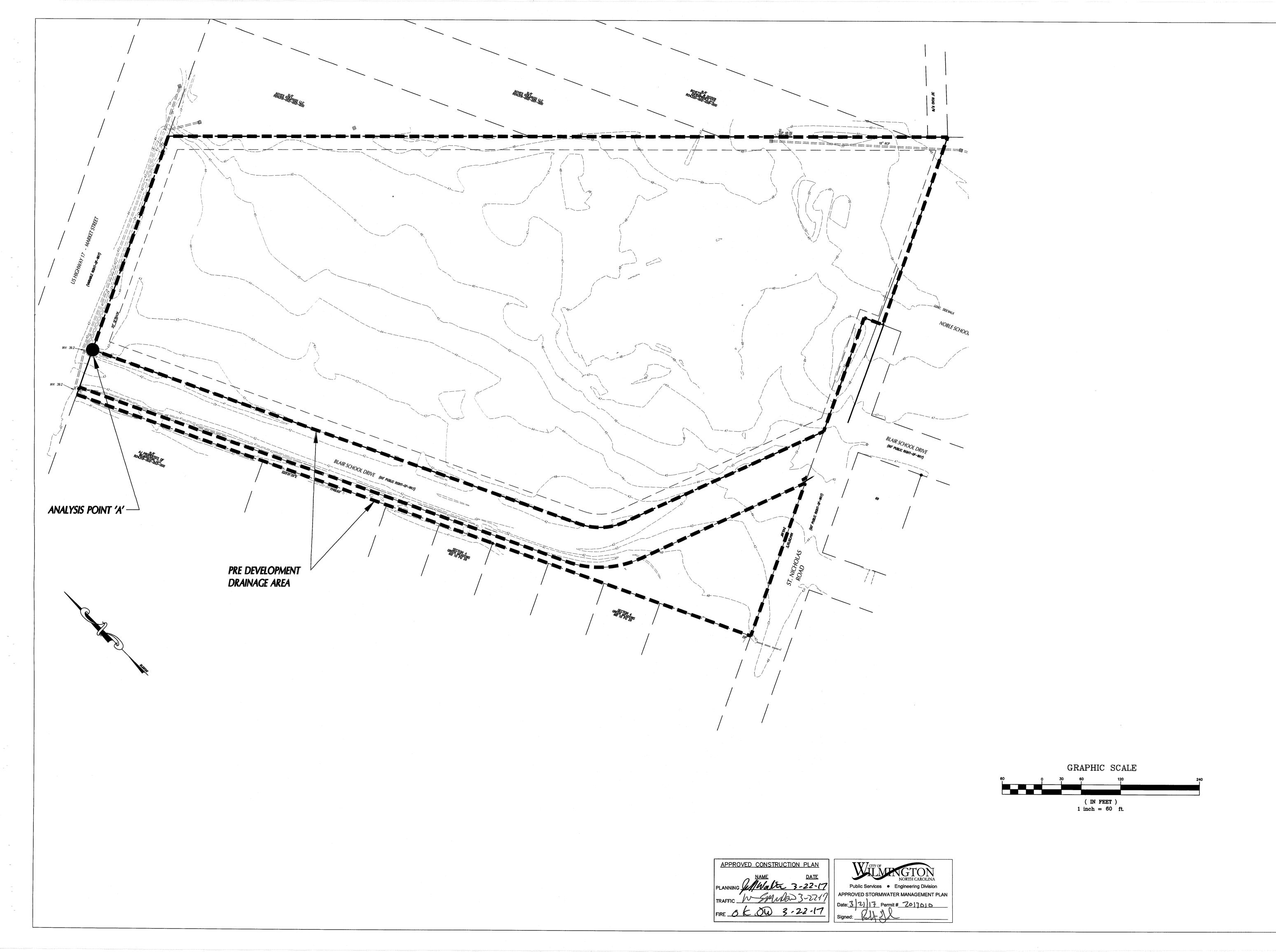
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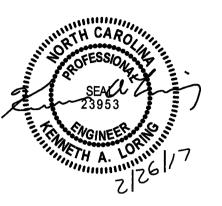




**ENERGY** energy STAR PARTNER ID DATE DESCRIPTION ISSUE DATE: 2/26/2017









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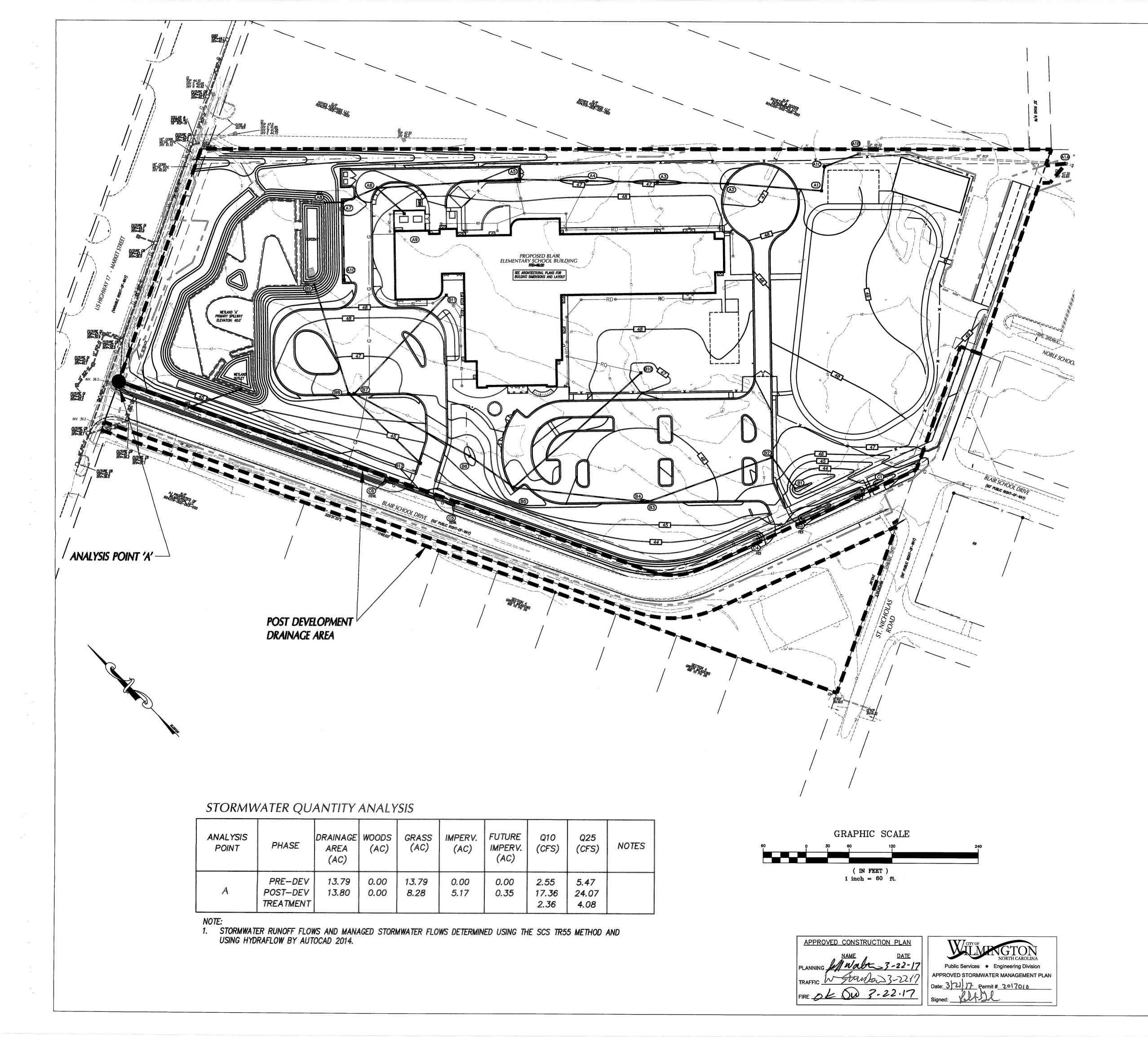
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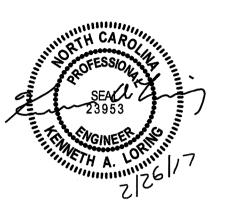
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PRE DEVELOP. STORMWATER MANAGEMENT PLAN









ARY SCHOOL CHOOLS

HN J. BLAIR ELEMENTAR V HANOVER COUNTY SCH

ENERGY STAR PARTNER

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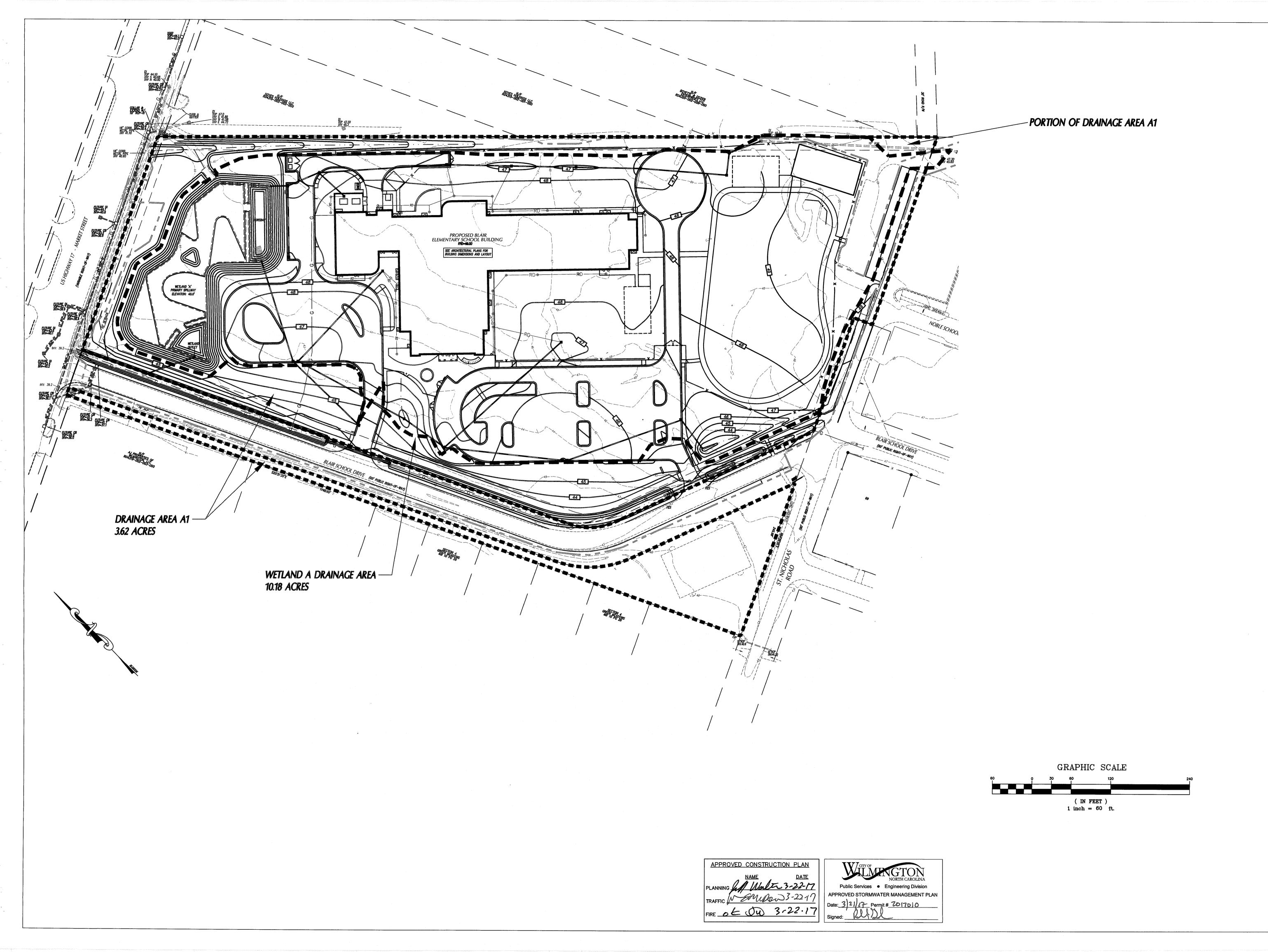
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POST DEVELOP.
STORMWATER
MANAGEMENT
PLAN







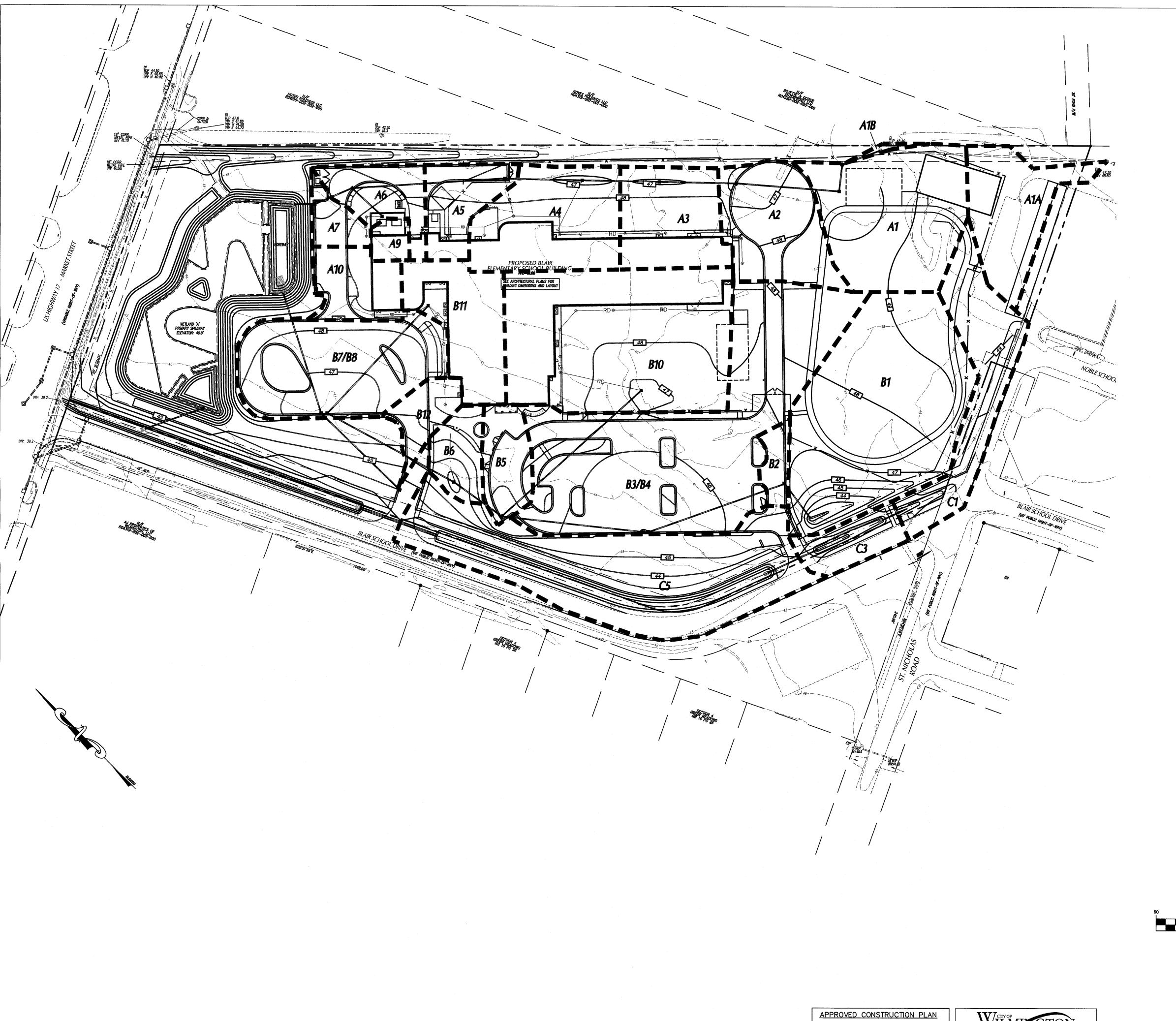


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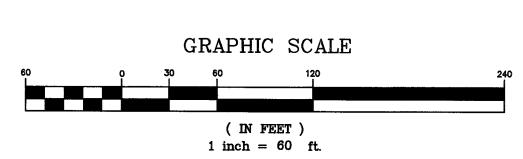
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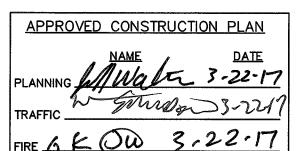
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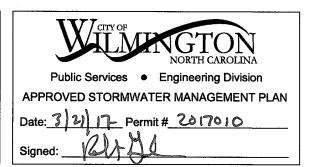
STORMWATER BMP DRAINAGE AREA PLAN



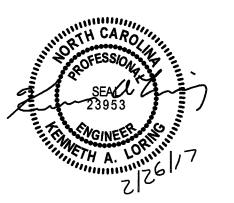
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INLET	DA (SF)	DA (ACRES)
A1A	17,050	0.39
A1B	550	0.01
A1	30,900	0.71
A2	19,050	0.44
A3	16,750	0.38
A4	22,700	0.52
A5	9,650	0.22
A6	9,300	0.21
A7	4,250	0.10
A9	2,500	0.06
A10	9,600	0.22
B1	51,950	1.19
B2	3,350	0.08
B3/B4	67,300	1.54
B5	8,300	0.19
B6	6,850	0.16
B7/B8	30,100	0.69
B10	51,650	1.19
B11	16,400	0.38
B12	5,800	0.13
C1	20,850	0.48
C2	7,500	0.17
<i>C3</i>	53,500	1.23













# Suite 120 Cary, North Carolina 27510 Phone: (919) 319-6716 Fax: (919) 319-7516 L4: C-106 PE: C-1595

"BLAIR ELEMENTARY INOVER COUNTY SCHOOL

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ENERGY
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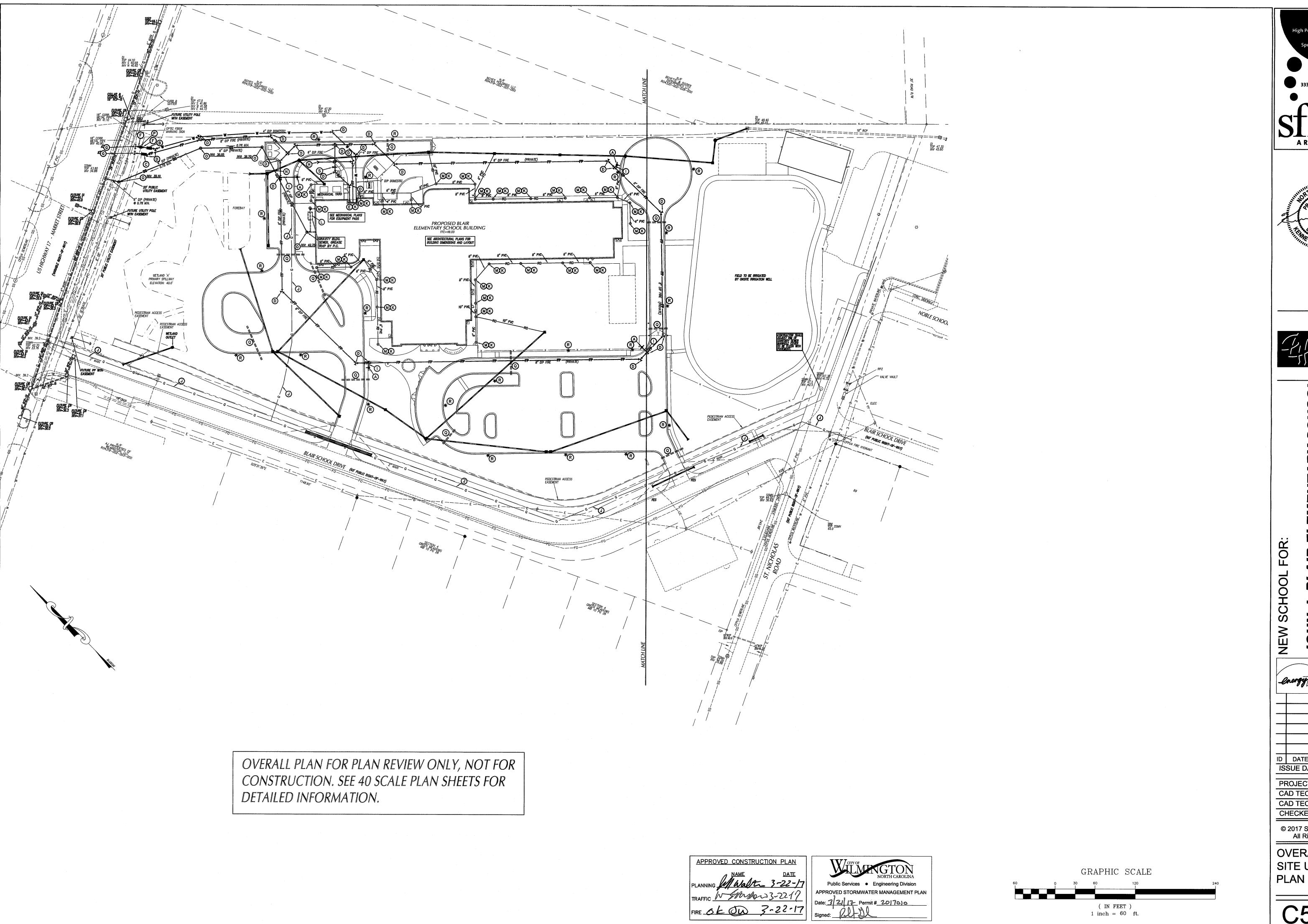
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ISSUE DATE: 2/26/2017

PROJECT #: SFLA - 01504.000
CAD TECH.: MB
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INLET DRAINAGE AREA PLAN









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J. BLAIR ELEMENTARY S IANOVER COUNTY SCHOO

MUZ SUPPLY STAR PARTNER

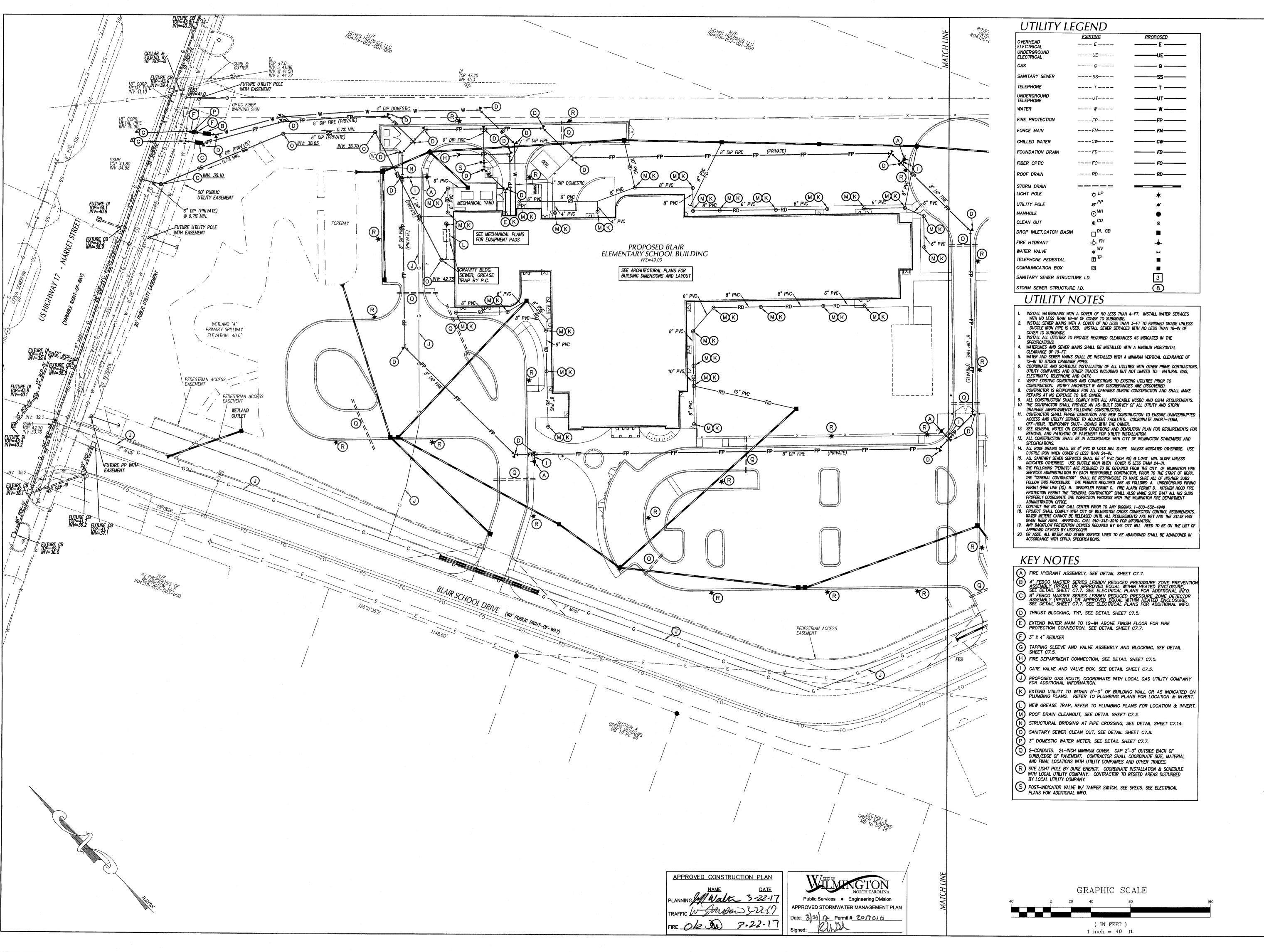
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OVERALL SITE UTILITY

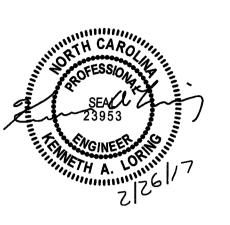
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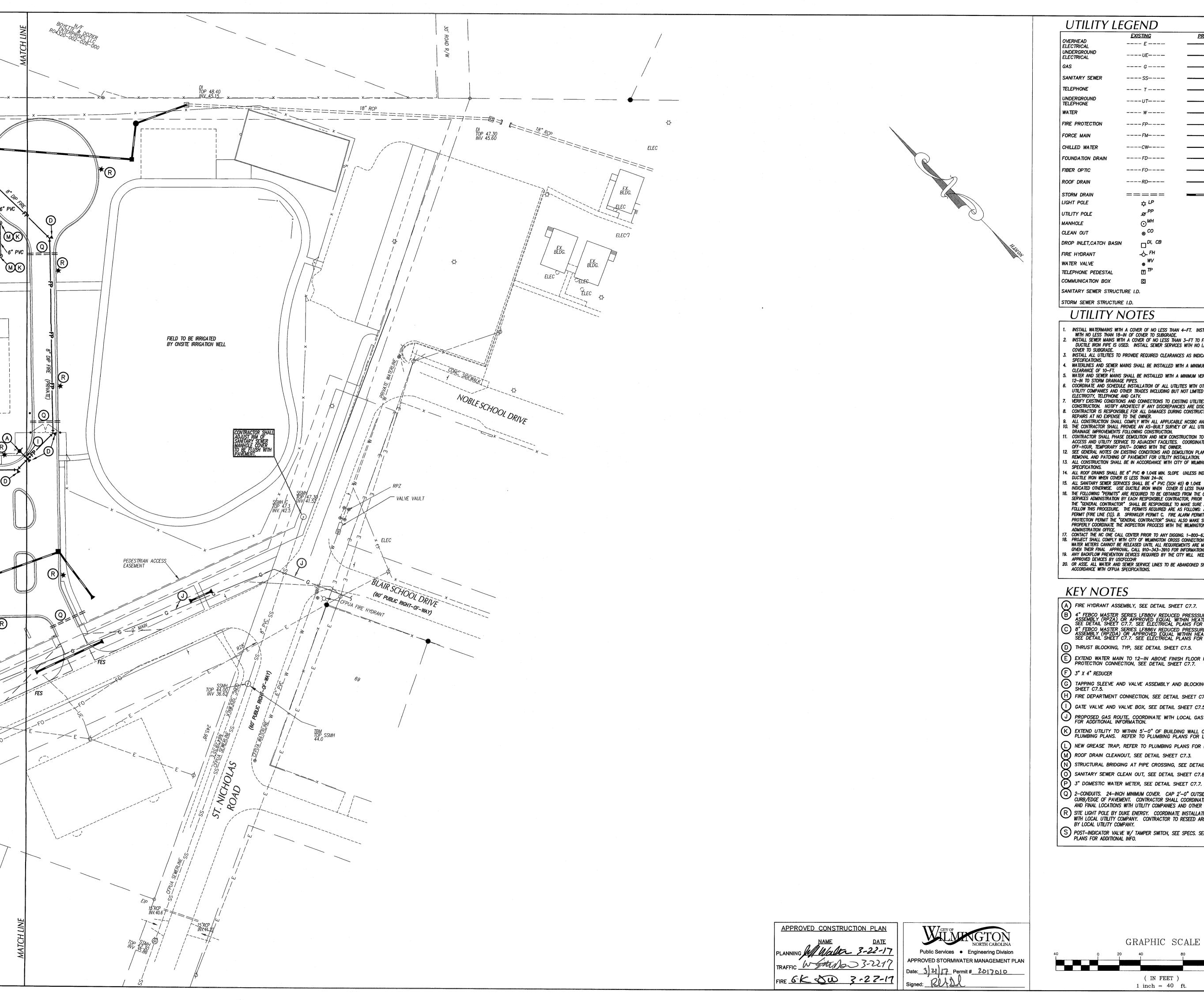
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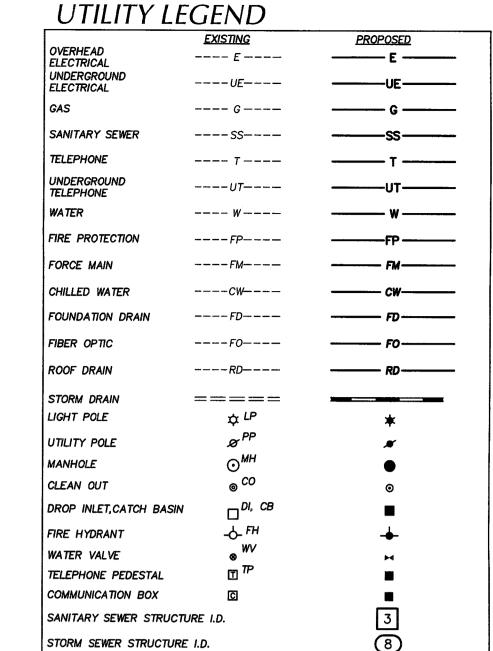
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SITE UTILITY PLAN

C5.1





**UTILITY NOTES** 

- INSTALL WATERMAINS WITH A COVER OF NO LESS THAN 4-FT. INSTALL WATER SERVICES WITH NO LESS THAN 18-IN OF COVER TO SUBGRADE.
  INSTALL SEWER MAINS WITH A COVER OF NO LESS THAN 3-FT TO FINISHED GRADE UNLESS DUCTILE INFORMATION OF COVER TO SUBGRADE.
- INSTALL ALL UTILITIES TO PROVIDE REQUIRED CLEARANCES AS INDICATED IN THE WATERLINES AND SEWER MAINS SHALL BE INSTALLED WITH A MINIMUM HORIZONTAL CLEARANCE OF 10-FT.
- CLEARANCE OF 10-FT.

  5. WATER AND SEWER MAINS SHALL BE INSTALLED WITH A MINIMUM VERTICAL CLEARANCE OF 12-IN TO STORM DRAINAGE PIPES.

  6. COORDINATE AND SCHEDULE INSTALLATION OF ALL UTILITIES WITH OTHER PRIME CONTRACTORS, UTILITY COMPANIES AND OTHER TRADES INCLUDING BUT NOT LIMITED TO: NATURAL GAS, ELECTRICITY, TELEPHONE AND CATV.

  7. VERIFY EXISTING CONDITIONS AND CONNECTIONS TO EXISTING UTILITIES PRIOR TO CONSTRUCTION NOTICE AND DISCREPANCIES AND DISCREPANC
- CONSTRUCTION. NOTIFY ARCHITECT IF ANY DISCREPANCIES ARE DISCOVERED.
- CONTRACTOR IS RESPONSIBLE FOR ALL DAMAGES DURING CONSTRUCTION AND SHALL MAKE REPAIRS AT NO EXPENSE TO THE OWNER.
- ALL CONSTRUCTION SHALL COMPLY WITH ALL APPLICABLE NCSBC AND OSHA REQUIREMENTS.

  THE CONTRACTOR SHALL PROVIDE AN AS—BUILT SURVEY OF ALL UTILITY AND STORM DRAINAGE IMPROVEMENTS FOLLOWING CONSTRUCTION.

  CONTRACTOR SHALL PHASE DEMOLITION AND NEW CONSTRUCTION TO ENSURE UNINTERRUPTED
- ACCESS AND UTILITY SERVICE TO ADJACENT FACILITIES. COORDINATE SHORT-TERM, OFF-HOUR, TEMPORARY SHUT- DOWNS WITH THE OWNER. SEE GENERAL NOTES ON EXISTING CONDITIONS AND DEMOLITION PLAN FOR REQUIREMENTS FOR
- REMOVAL AND PATCHING OF PAVEMENT FOR UTILITY INSTALLATION.
  ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH CITY OF WILMINGTON STANDARDS AND . ALL ROOF DRAINS SHALL BE 6" PVC @ 1.04% MIN. SLOPE UNLESS INDICATED OTHERWISE. USE
- DUCTILE IRON WHEN COVER IS LESS THAN 24-IN. 5. ALL SANITARY SEWER SERVICES SHALL BE 4" PVC (SCH 40) @ 1.04% MIN. SLOPE UNLESS INDICATED OTHERWISE. USE DUCTILE IRON WHEN COVER IS LESS THAN 24-IN. 5. THE FOLLOWING "PERMITS" ARE REQUIRED TO BE OBTAINED FROM THE CITY OF WILMINGTON FIRE SERVICES ADMINISTRATION BY EACH RESPONSIBLE CONTRACTOR, PRIOR TO THE START OF WORK.
- THE "GENERAL CONTRACTOR" SHALL BE RESPONSIBLE TO MAKE SURE ALL OF HIS/HER SUBS FOLLOW THIS PROCEDURE. THE PERMITS REQUIRED ARE AS FOLLOWS: A. UNDERGROUND PIPIING PERMIT (FIRE LINE (S)). B. SPRINKLER PERMIT C. FIRE ALARM PERMIT D. KITCHEN HOOD FIRE
- PROTECTION PERMIT THE GENERAL CONTRACTOR" SHALL ALSO MAKE SURE THAT ALL HIS SUBS PROPERLY COORDINATE THE INSPECTION PROCESS WITH THE WILMINGTON FIRE DEPARTMENT ADMINISTRATION OFFICE.

  17. CONTACT THE NC ONE CALL CENTER PRIOR TO ANY DIGGING, 1—800—632—4949

  18. PROJECT SHALL COMPLY WITH CITY OF WILMINGTON CROSS CONNECTION CONTROL REQUIREMENTS. WATER METERS CANNOT BE RELEASED UNTIL ALL REQUIREMENTS ARE MET AND THE STATE HAS GIVEN THEIR FINAL APPROVAL. CALL 910—343—3910 FOR INFORMATION.

  19. ANY BACKFLOW PREVENTION DEVICES REQUIRED BY THE CITY WILL NEED TO BE ON THE LIST OF APPROVED DEVICES RY USCENCEUR APPROVED DEVICES BY USCFCCCHE

  OR ASSE. ALL WATER AND SEWER SERVICE LINES TO BE ABANDONED SHALL BE ABANDONED IN ACCORDANCE WITH CFPUA SPECIFICATIONS.

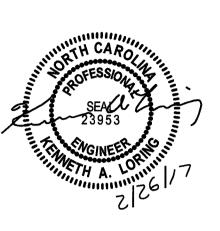
- (A) FIRE HYDRANT ASSEMBLY, SEE DETAIL SHEET C7.7.

- (D) THRUST BLOCKING, TYP, SEE DETAIL SHEET C7.5.
- E EXTEND WATER MAIN TO 12-IN ABOVE FINISH FLOOR FOR FIRE PROTECTION CONNECTION, SEE DETAIL SHEET C7.7.
- TAPPING SLEEVE AND VALVE ASSEMBLY AND BLOCKING, SEE DETAIL SHEET C7.5.
- (H) FIRE DEPARTMENT CONNECTION, SEE DETAIL SHEET C7.5. ( ) GATE VALVE AND VALVE BOX, SEE DETAIL SHEET C7.5.
- PROPOSED GAS ROUTE, COORDINATE WITH LOCAL GAS UTILITY COMPANY FOR ADDITIONAL INFORMATION.
- K EXTEND UTILITY TO WITHIN 5'-0" OF BUILDING WALL OR AS INDICATED ON PLUMBING PLANS. REFER TO PLUMBING PLANS FOR LOCATION & INVERT.
- NEW GREASE TRAP, REFER TO PLUMBING PLANS FOR LOCATION & INVERT.
- M) ROOF DRAIN CLEANOUT, SEE DETAIL SHEET C7.3. (N) STRUCTURAL BRIDGING AT PIPE CROSSING, SEE DETAIL SHEET C7.14.
- SANITARY SEWER CLEAN OUT, SEE DETAIL SHEET C7.8.
- Q 2-CONDUITS. 24-INCH MINIMUM COVER. CAP 2'-0" OUTSIDE BACK OF CURB/EDGE OF PAVEMENT. CONTRACTOR SHALL COORDINATE SIZE, MATERIAL AND FINAL LOCATIONS WITH UTILITY COMPANIES AND OTHER TRADES.
- R SITE LIGHT POLE BY DUKE ENERGY. COORDINATE INSTALLATION & SCHEDULE WITH LOCAL UTILITY COMPANY. CONTRACTOR TO RESEED AREAS DISTURBED BY LOCAL UTILITY COMPANY.
- S POST-INDICATOR VALVE W/ TAMPER SWITCH, SEE SPECS. SEE ELECTRICAL PLANS FOR ADDITIONAL INFO.

GRAPHIC SCALE

( IN FEET ) 1 inch = 40 ft.

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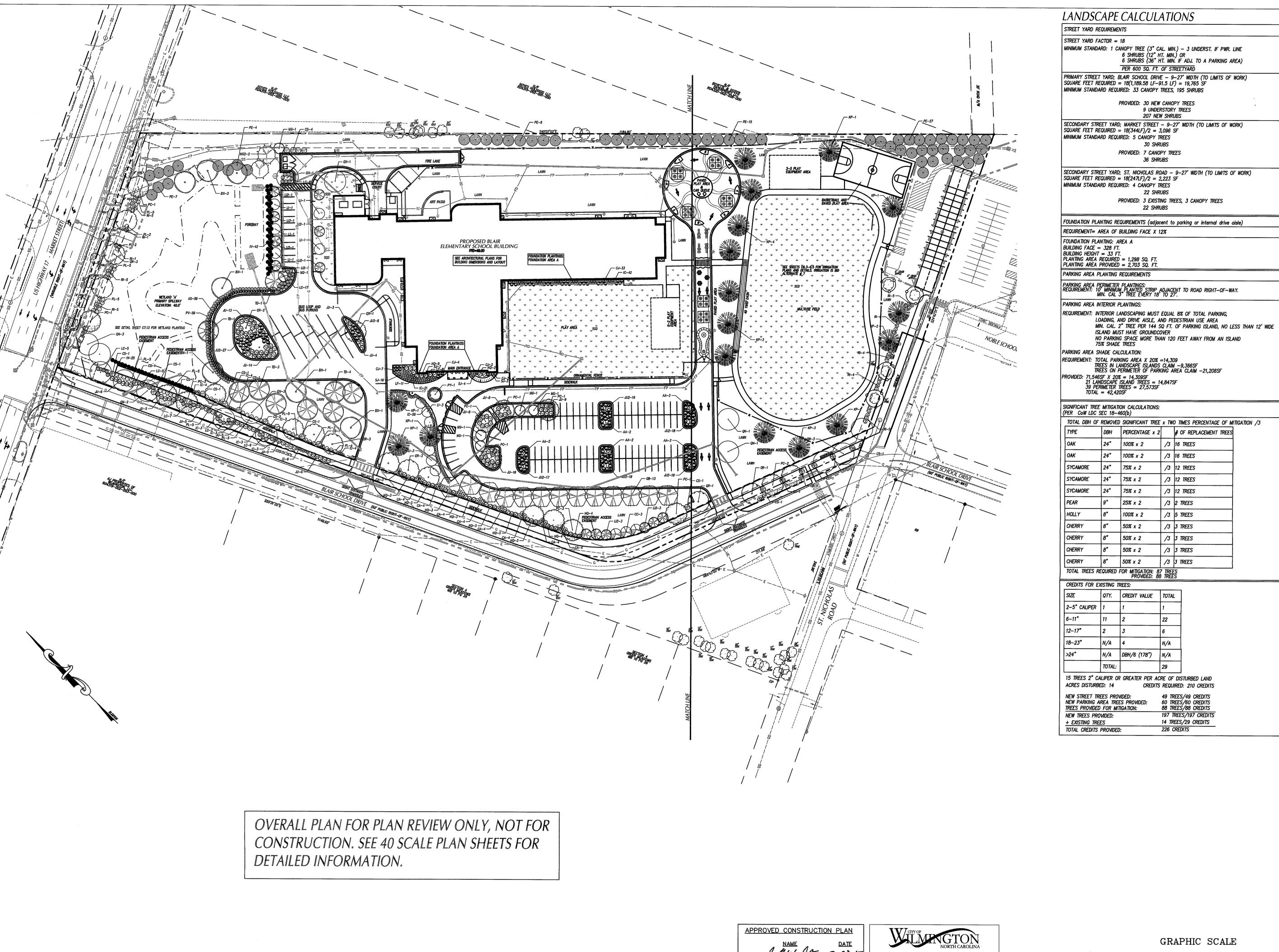
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SITE UTILITY PLAN

C5.2



LANDSCAPE CALCULATIONS

MINIMUM STANDARD: 1 CANOPY TREE (3" CAL. MIN.) — 3 UNDERST. IF PWR. LINE
6 SHRUBS (12" HT. MIN.) OR
6 SHRUBS (36" HT. MIN. IF ADJ. TO A PARKING AREA)

PRIMARY STREET YARD; BLAIR SCHOOL DRIVE -9-27' WDTH (TO LIMITS OF WORK) SQUARE FEET REQUIRED  $=18(1,189.58\ LF-91.5\ LF)=19,765\ SF$  MINIMUM STANDARD REQUIRED: 33 CANOPY TREES, 195 SHRUBS

PROVIDED: 30 NEW CANOPY TREES 9 UNDERSTORY TREES 207 NEW SHRUBS

SECONDARY STREET YARD; MARKET STREET - 9-27' WIDTH (TO LIMITS OF WORK) SQUARE FEET REQUIRED = 18(344LF)/2 = 3,096 SF MINIMUM STANDARD REQUIRED: 5 CANOPY TREES

PROVIDED: 7 CANOPY TREES 36 SHRUBS

SECONDARY STREET YARD; ST. NICHOLAS ROAD -9-27' WIDTH (TO LIMITS OF WORK) SQUARE FEET REQUIRED = 18(247LF)/2 = 2,223 SF MINIMUM STANDARD REQUIRED: 4 CANOPY TREES

PROVIDED: 3 EXISTING TREES, 3 CANOPY TREES

FOUNDATION PLANTING REQUIREMENTS (adjacent to parking or internal drive aisle)

PARKING AREA PERIMETER PLANTINGS: REQUIREMENT: 10' MINIMUM PLANTED STRIP ADJACENT TO ROAD RIGHT-OF-WAY. MIN. CAL 3" TREE EVERY 18" TO 27'.

ISLAND MUST HAVE GROUNDCOVER NO PARKING SPACE MORE THAN 120 FEET AWAY FROM AN ISLAND 75% SHADE TREES

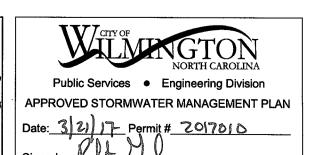
REQUIREMENT: TOTAL PARKING AREA X 20% =14,309
TREES IN LANDSCAPE ISLANDS CLAIM -9,366SF
TREES ON PERIMETER OF PARKING AREA CLAIM -21,206SF

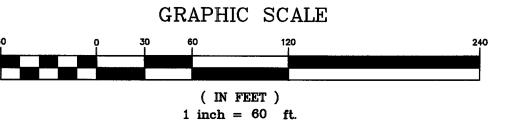
PROVIDED: 71,546SF X 20% = 14,309SF 21 LANDSCAPE ISLAND TREES = 14,847SF 39 PERIMETER TREES = 27,573SF TOTAL = 42,420SF

FER CON LDC	3EC 10-4	00(0)			
TOTAL DBH O	REMOVED	SIGNIFICANT TREE	x TW	O TIMES PERCENTAGE OF M	ITTIGATION /
TYPE	DBH	PERCENTAGE x 2		# OF REPLACEMENT TREES	
OAK	24"	100% x 2	/3	16 TREES	1
OAK	24"	100% x 2	/3	16 TREES	
SYCAMORE	24"	75% x 2	/3	12 TREES	
SYCAMORE	24"	75% x 2	/3	12 TREES	
SYCAMORE	24"	75% x 2	/3	12 TREES	
PEAR	9"	25% x 2	/3	2 TREES	
HOLLY	8"	100% x 2	/3	5 TREES	
CHERRY	8"	50% x 2	/3	3 TREES	
CHERRY	8"	50% x 2	/3	3 TREES	
CHERRY	8"	50% x 2	/3	3 TREES	

L	TOTAL TREES TO	LGONLD	PROVIDED: 8	38 TREES	
	CREDITS FOR E.	XISTING T	REES:		
SIZE QTY. CREDIT VALUE TOTA					
	2-5" CALIPER	1	1	1	
	6-11"	11	2	22	
	12-17"	2	3	6	
	18–23"	N/A	4	N/A	
	>24"	N/A	DBH/6 (178")	N/A	

15 TREES 2" CALIPER OR GREATER PER ACRE OF DISTURBED LAND











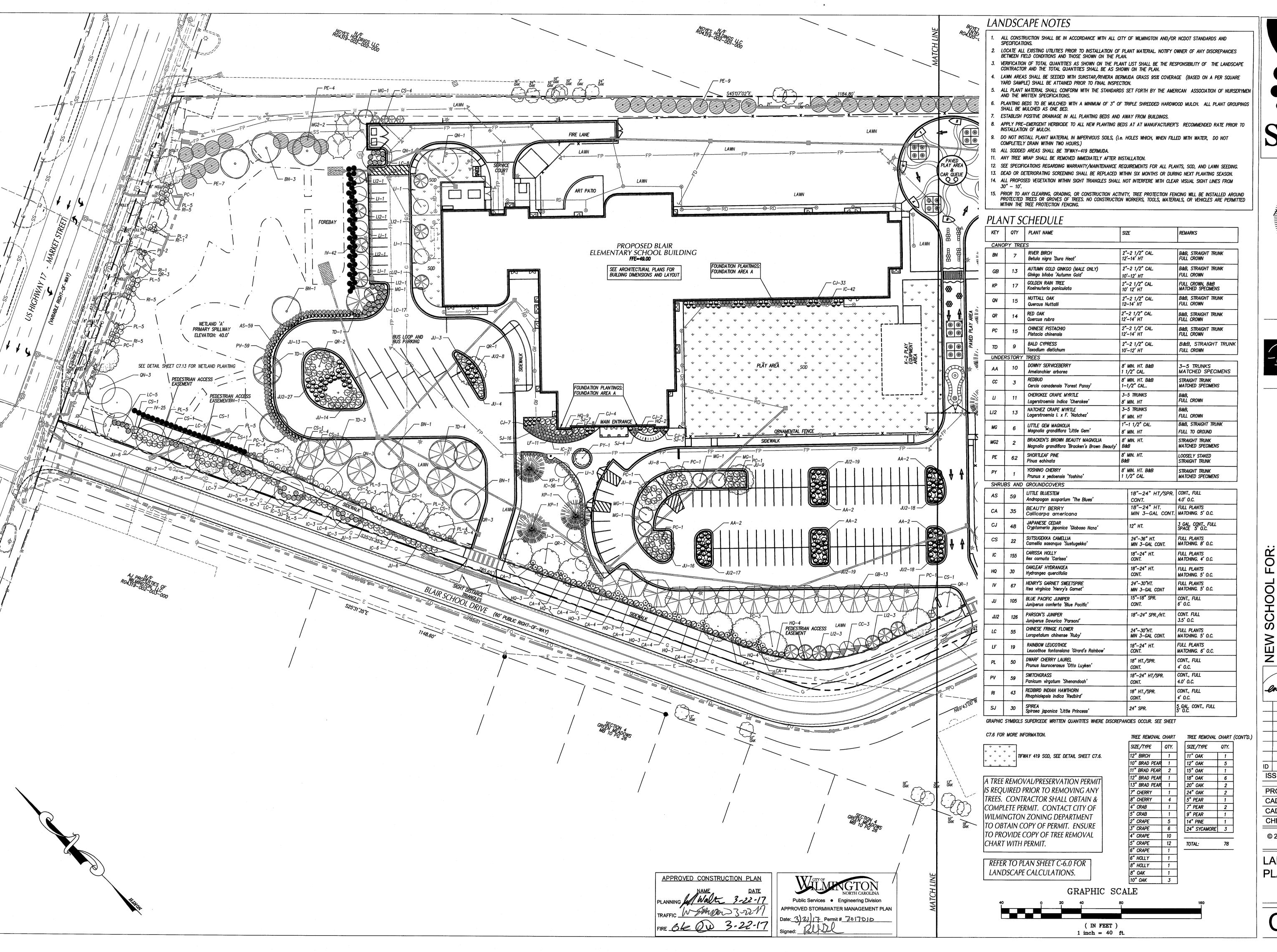


ISSUE DATE: 2/26/2017

PROJECT #: SFLA - 01504.000 CAD TECH.:

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**OVERALL** LANDSCAPE **PLAN** 









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Cary, North Carolina 27518
Phone: (919) 319-6716
Fax: (919) 319-7516
LA: C-106
PE: C-1595

AIR ELEMENTARY SCHOVER

OHN J. BLAIR ELEN EW HANOVER COUI

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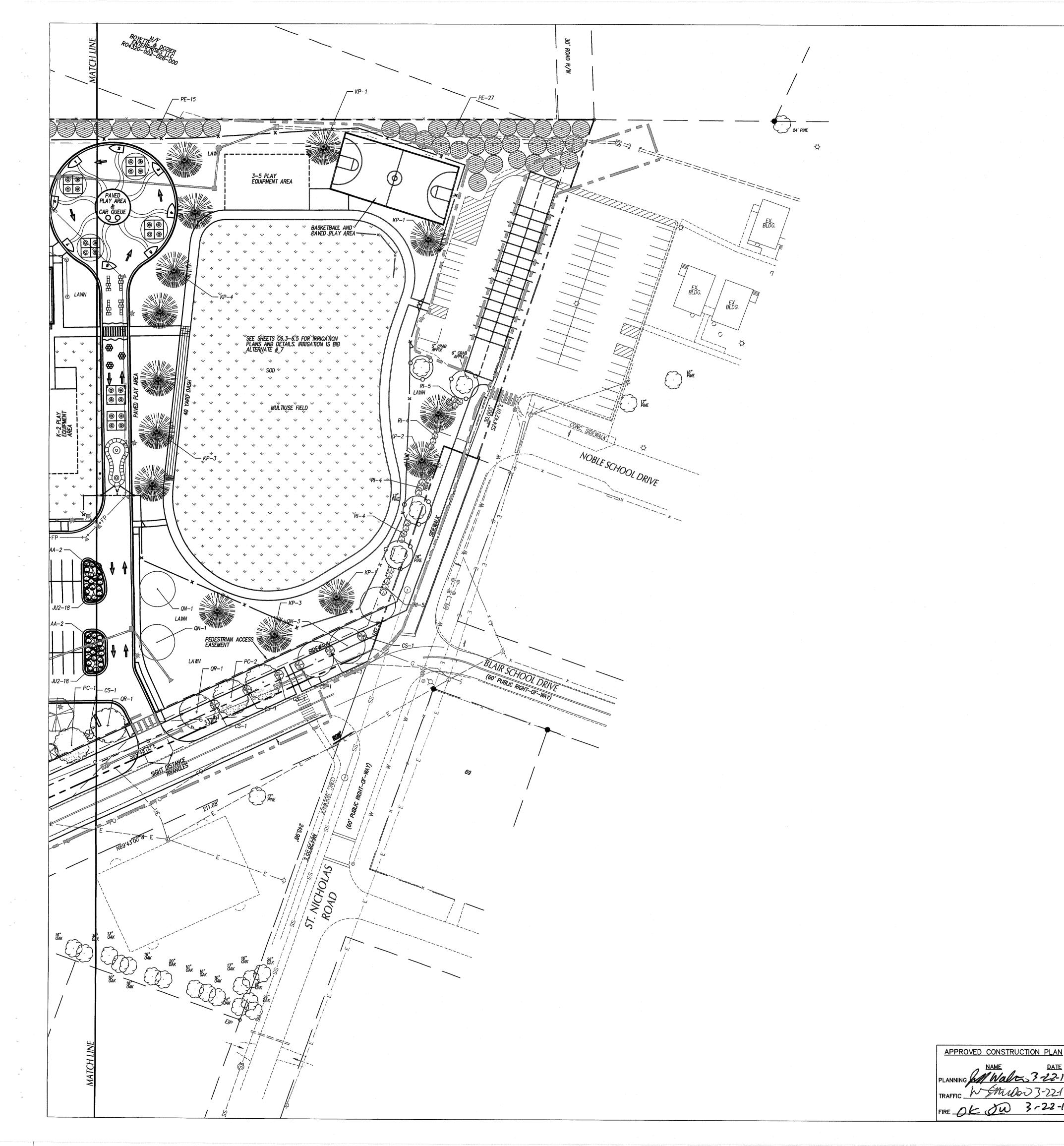
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LANDSCAPE PLAN



# LANDSCAPE NOTES

- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH ALL CITY OF WILMINGTON AND/OR NCDOT STANDARDS AND
- 2. LOCATE ALL EXISTING UTILITIES PRIOR TO INSTALLATION OF PLANT MATERIAL. NOTIFY OWNER OF ANY DISCREPANCIES BETWEEN FIELD CONDITIONS AND THOSE SHOWN ON THE PLAN.
- . VERIFICATION OF TOTAL QUANTITIES AS SHOWN ON THE PLANT LIST SHALL BE THE RESPONSIBILITY OF THE LANDSCAPE CONTRACTOR AND THE TOTAL QUANTITIES SHALL BE AS SHOWN ON THE PLAN.
- 4. LAWN AREAS SHALL BE SEEDED WITH SUNSTAR/RIVIERA BERMUDA GRASS 95% COVERAGE (BASED ON A PER SQUARE
- YARD SAMPLE) SHALL BE ATTAINED PRIOR TO FINAL INSPECTION. 5. ALL PLANT MATERIAL SHALL CONFORM WITH THE STANDARDS SET FORTH BY THE AMERICAN ASSOCIATION OF NURSERYMEN
- AND THE WRITTEN SPECIFICATIONS. 6. PLANTING BEDS TO BE MULCHED WITH A MINIMUM OF 3" OF TRIPLE SHREDDED HARDWOOD MULCH. ALL PLANT GROUPINGS
- SHALL BE MULCHED AS ONE BED. 7. ESTABLISH POSITIVE DRAINAGE IN ALL PLANTING BEDS AND AWAY FROM BUILDINGS.
- 8. APPLY PRE-EMERGENT HERBICIDE TO ALL NEW PLANTING BEDS AT AT MANUFACTURER'S RECOMMENDED RATE PRIOR TO INSTALLATION OF MULCH.
- 9. DO NOT INSTALL PLANT MATERIAL IN IMPERVIOUS SOILS, (i.e. HOLES WHICH, WHEN FILLED WITH WATER, DO NOT COMPLETELY DRAIN WITHIN TWO HOURS.)
- 10. ALL SODDED AREAS SHALL BE TIFWAY-419 BERMUDA.
- 11. ANY TREE WRAP SHALL BE REMOVED IMMEDIATELY AFTER INSTALLATION.
- 12. SEE SPECIFICATIONS REGARDING WARRANTY/MAINTENANCE REQUIREMENTS FOR ALL PLANTS, SOD, AND LAWN SEEDING. 13. DEAD OR DETERIORATING SCREENING SHALL BE REPLACED WITHIN SIX MONTHS OR DURING NEXT PLANTING SEASON. 14. ALL PROPOSED VEGETATION WITHIN SIGHT TRIANGLES SHALL NOT INTERFERE WITH CLEAR VISUAL SIGHT LINES FROM

15. PRIOR TO ANY CLEARING, GRADING, OR CONSTRUCTION ACTIVITY, TREE PROTECTION FENCING WILL BE INSTALLED AROUND PROTECTED TREES OR GROVES OF TREES. NO CONSTRUCTION WORKERS, TOOLS, MATERIALS, OR VEHICLES ARE PERMITTED WITHIN THE TREE PROTECTION FENCING.

PLANT SCHEDUI
---------------

KEY	QTY	PLANT NAME	SIZE	REMARKS
CANO	PY TRE	FS		
BN	7	RIVER BIRCH Betula nigra 'Dura Heat'	2"-2 1/2" CAL. 12'-14' HT	B&B, STRAIGHT TRUNK FULL CROWN
GB	13	AUTUMN GOLD GINKGO (MALE ONLY) Ginkgo biloba 'Autumn Gold'	2"-2 1/2" CAL. 10'-12' HT	B&B, STRAIGHT TRUNK FULL CROWN
KP	17	GOLDEN RAIN TREE Koelreuteria paniculata	2"-2 1/2" CAL. 10' 12' HT	FULL CROWN, B&B MATCHED SPECIMENS
QN	15	NUTTALL OAK Quercus Nuttalli	2"-2 1/2" CAL. 12-14' HT	B&B, STRAIGHT TRUNK FULL CROWN
QR	14	RED OAK Quercus rubra	2"-2 1/2" CAL. 12'-14' HT	B&B, STRAIGHT TRUNK FULL CROWN
PC	15	CHINESE PISTACHIO Pistacia chinensis	2"-2 1/2" CAL. 12'-14" HT	B&B, STRAIGHT TRUNK FULL CROWN
ΤD	9	BALD CYPRESS Taxodium distichum	2"-2 1/2" CAL. 10'-12' HT	B&B, STRAIGHT TRUNK FULL CROWN
UNDE	RSTORY	TREES	, , , , , , , , , , , , , , , , , , , ,	
AA	10	DOWNY SERVICEBERRY Amelanchier arborea	8' MIN. HT. B&B 1 1/2" CAL.	3-5 TRUNKS MATCHED SPECIMENS
сс	3	REDBUD Cercis canadensis 'Forest Pansy'	8' MIN. HT. B&B 1-1/2" CAL	STRAIGHT TRUNK MATCHED SPECIMENS
Ц	11	CHEROKEE CRAPE MYRTLE Lagerstroemia indica 'Cherokee'	3–5 TRUNKS 8' MIN. HT	B&B, FULL CROWN
LI2	13	NATCHEZ CRAPE MYRTLE Lagerstroemia I. x F. 'Natchez'	3–5 TRUNKS 8' MIN. HT	B&B, FULL CROWN
MG	6	LITTLE GEM MAGNOLIA Magnolia grandiflora 'Little Gem'	1"-1 1/2" CAL. 8' MIN. HT	B&B, STRAIGHT TRUNK FULL TO GROUND
MG2	2	BRACKEN'S BROWN BEAUTY MAGNOLIA Magnolia grandiflora 'Bracken's Brown Beauty'	8' MIN. HT. B&B	STRAIGHT TRUNK MATCHED SPECIMENS
PE	62	SHORTLEAF PINE Pinus echinata	8' MIN. HT. B&B	LOOSELY STAKED STRAIGHT TRUNK
PY	1	YOSHINO CHERRY Prunus x yedoensis 'Yoshino'	8' MIN. HT. B&B 1 1/2" CAL.	STRAIGHT TRUNK MATCHED SPECIMENS
SHRU	BS AND	GROUNDCOVERS		
AS	59	UTTLE BLUESTEM Andropogon scoparium 'The Blues'	18"-24" HT/SPR. CONT.	CONT., FULL 4.0° O.C.
CA	<i>3</i> 5	BEAUTY BERRY Callicarpa americana	18"-24" HT. MIN 3-GAL CONT.	FULL PLANTS MATCHING. 5' O.C.
CJ	48	JAPANESE CEDAR Cryptomeria japonica 'Globoso Nana'	12" HT.	3 GAL. CONT., FULL SPACE 5' O.C.
cs	22	SUTSUGEKKA CAMELLIA Camellia sasanqua 'Sustugekka'	24"-36" HT. MIN 3-GAL CONT.	FULL PLANTS MATCHING. 8' O.C.
IC	155	CARISSA HOLLY llex cornuta 'Carissa'	18"-24" HT. CONT.	FULL PLANTS MATCHING. 4' O.C.
HQ	30	OAKLEAF HYDRANGEA Hydrangea quercifolia	18"-24" HT. CONT.	FULL PLANTS MATCHING. 5' O.C.
IV	67	HENRY'S GARNET SWEETSPIRE Itea virginica 'Henry's Garnet'	24"-30"HT. MIN 3-GAL CONT	FULL PLANTS MATCHING. 5' O.C.
JU	105	BLUE PACIFIC JUNIPER Juniperus conferta 'Blue Pacific'	15"-18" SPR. CONT.	CONT., FULL 6' O.C.
JU2	126	PARSON'S JUNIPER Juniperus Davurica 'Parsoni'	18"-24" SPR./HT.	CONT. FULL 3.5' O.C.
LC	55	CHINESE FRINGE FLOWER Loropetalum chinense 'Ruby'	24"-30"HT. MIN 3-GAL CONT.	FULL PLANTS MATCHING. 5' O.C.

18"-24" HT. CONT.

18" HT./SPR.

18" HT./SPR.

18"-24" HT/SPR.

RAINBOW LEUCOTHOE Leucothoe fontansiana 'Girard's Rainbow'

DWARF CHERRY LAUREL Prunus laurocerasus 'Otto Luyken'

Panicum virgatum 'Shenandoah

REDBIRD INDIAN HAWTHORN Rhaphiolepsis indica 'Redbird'

C7.6 FOR MORE INFORMATION.

TIFWAY 419 SOD, SEE DETAIL SHEET C7.6.

A TREE REMOVAL/PRESERVATION PERMIT IS REQUIRED PRIOR TO REMOVING ANY TREES. CONTRACTOR SHALL OBTAIN & COMPLETE PERMIT. CONTACT CITY OF WILMINGTON ZONING DEPARTMENT TO OBTAIN COPY OF PERMIT. ENSURE TO PROVIDE COPY OF TREE REMOVAL CHART WITH PERMIT.

APPROVED STORMWATER MANAGEMENT PLAN

Date: 3 21) 17 - Permit # 20) 7010

Signed: 21 - 31

TREE REMOVAL	CHART	TREE REMOVAL CHART (CONT'D.)
SIZE/TYPE	QTY.	SIZE/TYPE QTY.
12" BIRCH	1	11" OAK 1
10" BRAD PEAR	1	12" OAK 5
11" BRAD PEAR	2	15" OAK 1
12" BRAD PEAR	1	18" OAK 6
13" BRAD PEAR	1	20" OAK 2
7" CHERRY	1	24" OAK 2
8" CHERRY	4	5" PEAR 1
4" CRAB	1	7" PEAR 2
5" CRAB	1	9" PEAR 1
2" CRAPE	5	14" PINE 1
3" CRAPE	6	24" SYCAMORE 3
4" CRAPE	10	
5" CRAPE	12	TOTAL: 78
6" CRAPE	1	
6" HOLLY	1	
8" HOLLY	1	
8" OAK	1	
10" OAK	7	

FULL PLANTS MATCHING. 6' O.C.

CONT., FULL

CONT., FULL

CONT., FULL 4' O.C.

5, GAL. CONT., FULL 5, O.C.

4.0° O.C.

REFER TO PLAN SHEET C-6.0 FOR LANDSCAPE CALCULATIONS.

		C	RAPH:	IC SCALE	
40	0	20	40	80	16
			•	FEET ) = 40 ft.	

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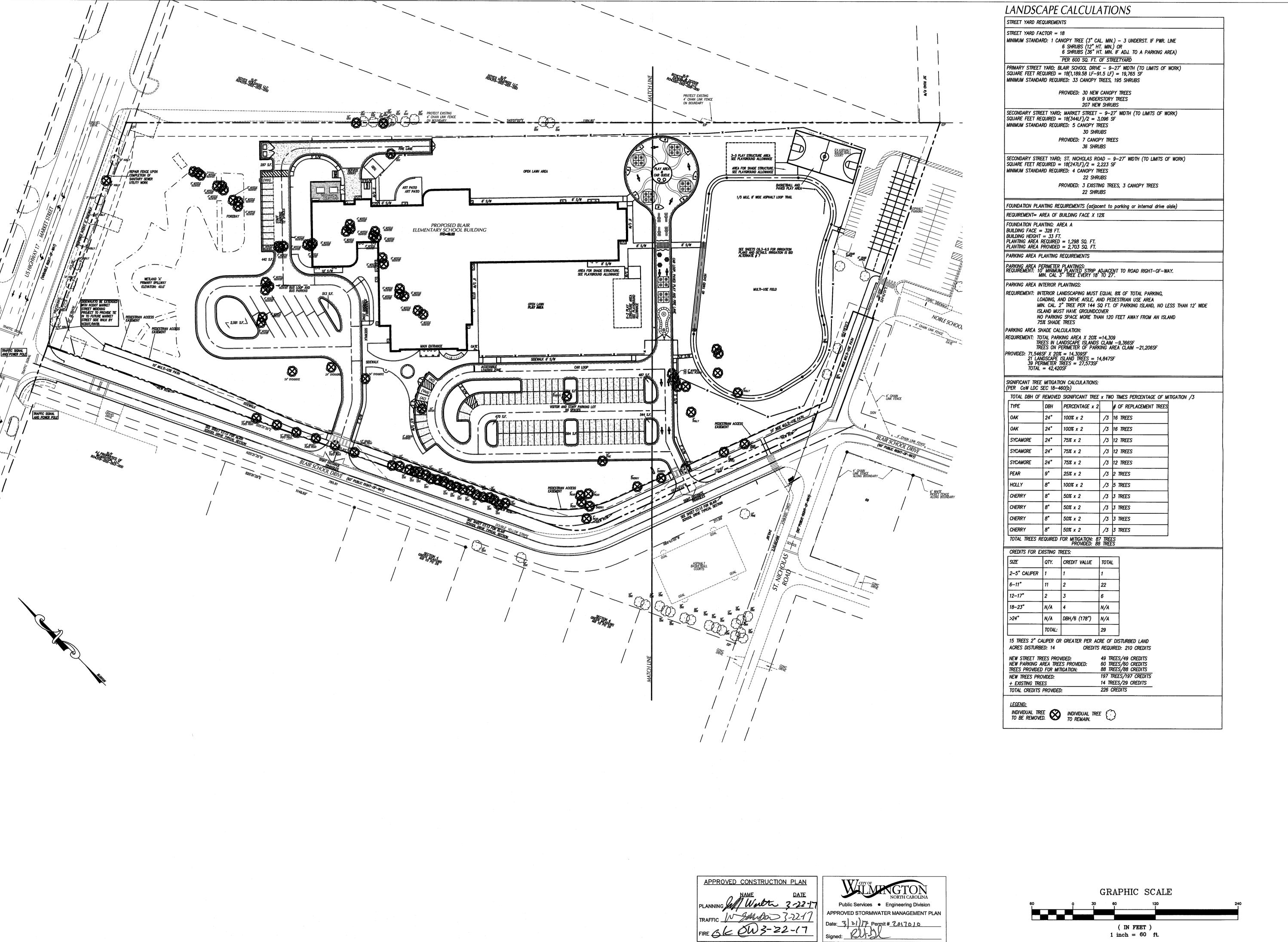
NEW

PROJECT #: SFLA - 01504.000 CLH - 15-143 CAD TECH.: CAD TECH.:

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CHECKED BY: KAL/ZRP

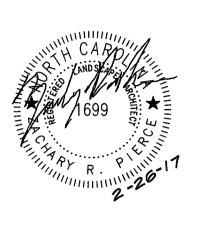
LANDSCAPE PLAN



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A R C H I T E C T S





RELEMENTARY SCHOO COUNTY SCHOOLS WILMINGTON, NC 28405

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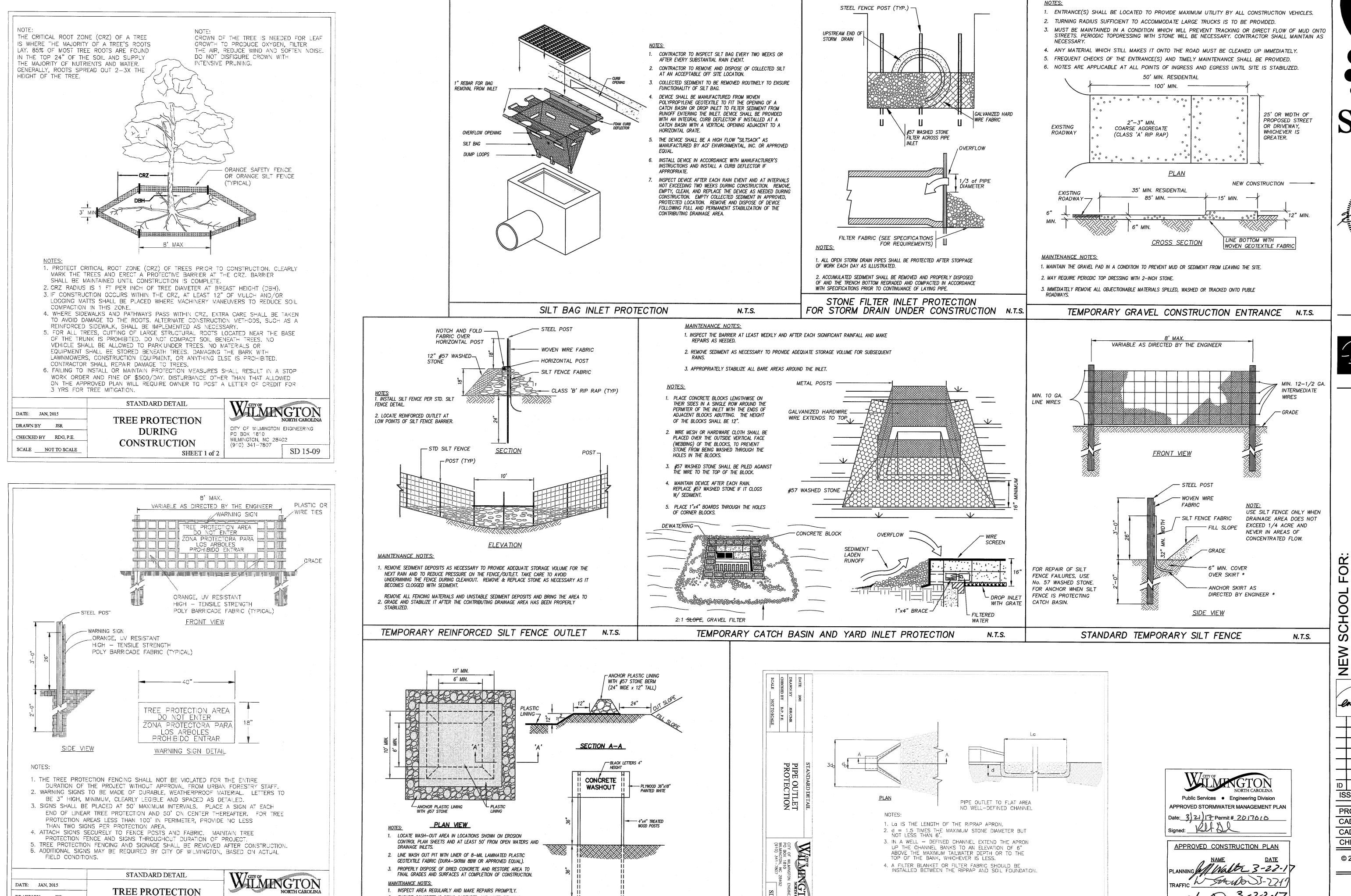
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PROJECT #: SFLA - 01504.000
CAD TECH.: MB
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OVERALL TREE
DEMO SURVEY



MAINTENANCE NOTES:

ANCHORED.

RE-ANCHOR LINER AS NEEDED.

1. INSPECT AREA REGULARLY AND MAKE REPAIRS PROMPTLY.

2. ENSURE CONCRETE IS BEING CAPTURED AND LINER REMAINS

3. REMOVE DRIED CONCRETE AND RESTORE PIT BEFORE CAPACITY IS

4. REPLACE OR PATCH IMPERVIOUS LINER THAT BECOMES DAMAGED.

CONCRETE WASHOUT AREA

SIGN DETAIL

N.T.S.

DATE: JAN, 2015

DRAWN BY JSR

CHECKED BY RDG, P.E.

SCALE NOT TO SCALE

TREE PROTECTION

DURING

CONSTRUCTION

CITY OF WILMINGTON TREE PROTECTION FENCE

SHEET 2 of 2

CITY OF WILMINGTON ENGINEERING

SD 15-09

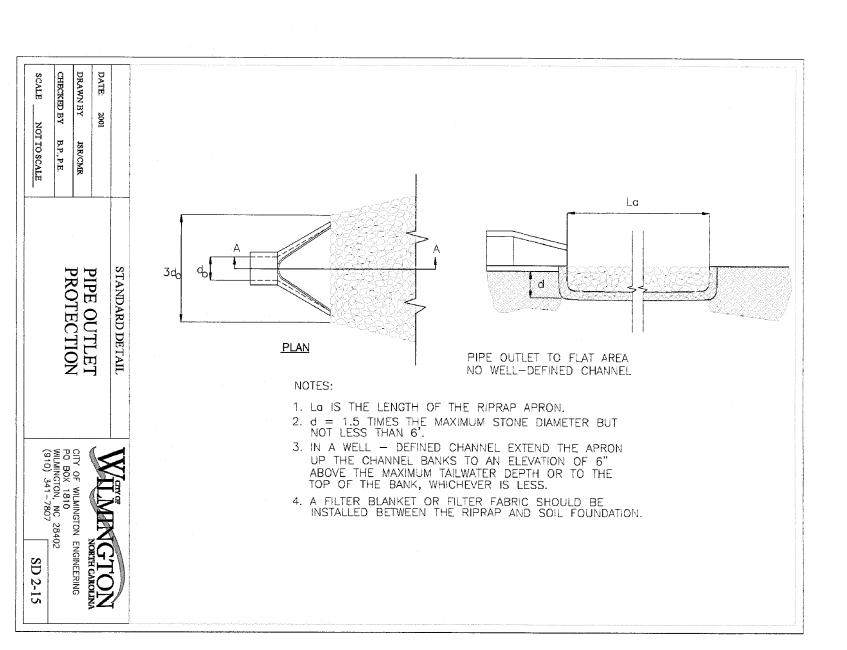
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PO BOX 1810

(910) 341-7807

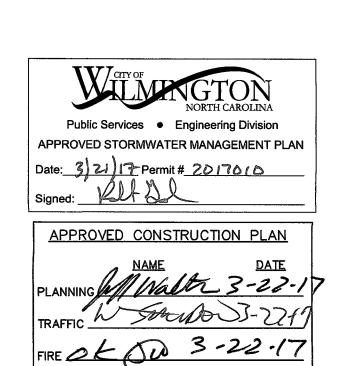
WILMINGTON, NC 28402

ARCHITECTS



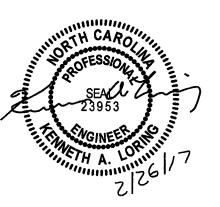
CITY OF WILMINGTON OUTLET PROTECTION

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**ENERGY** 

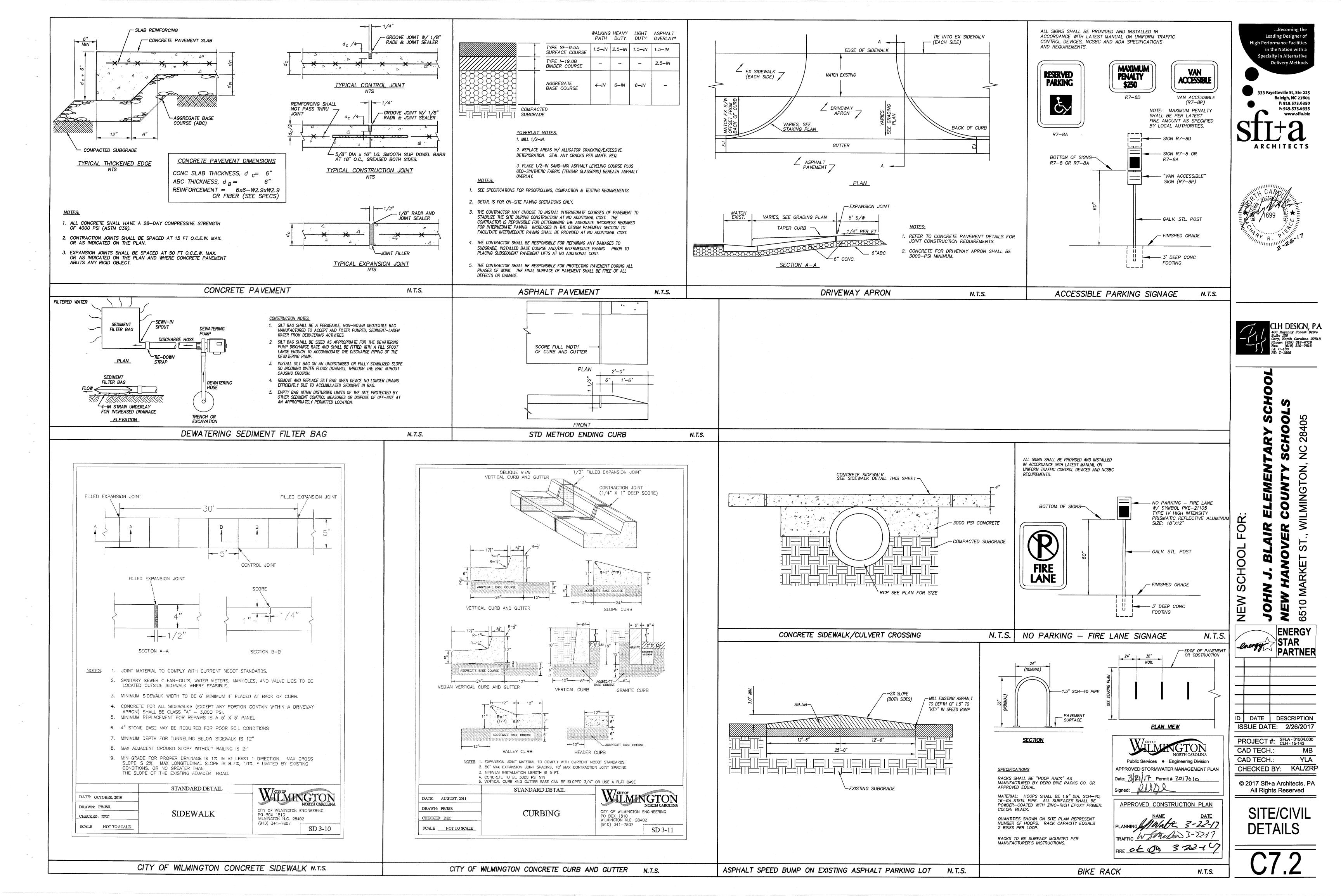
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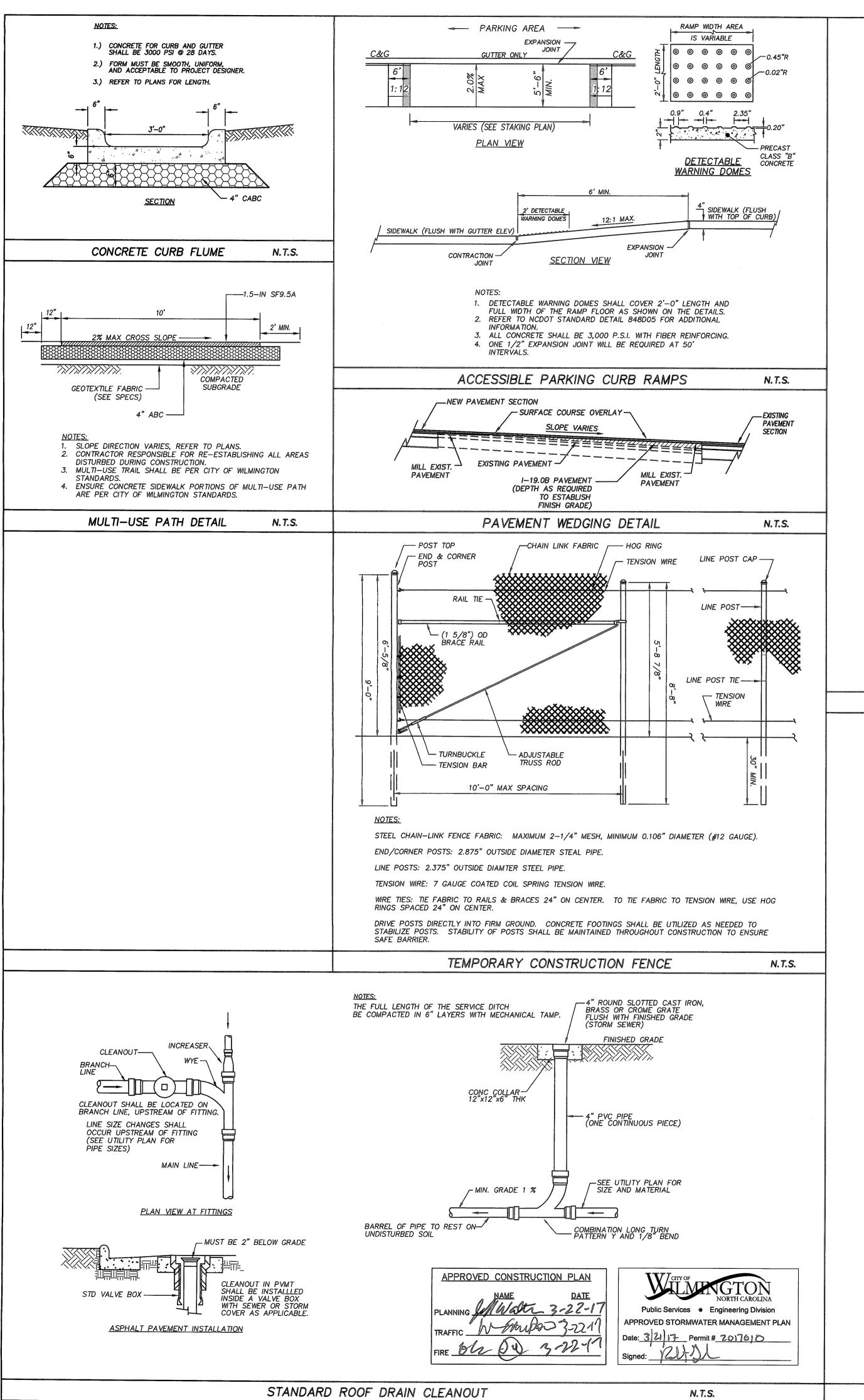
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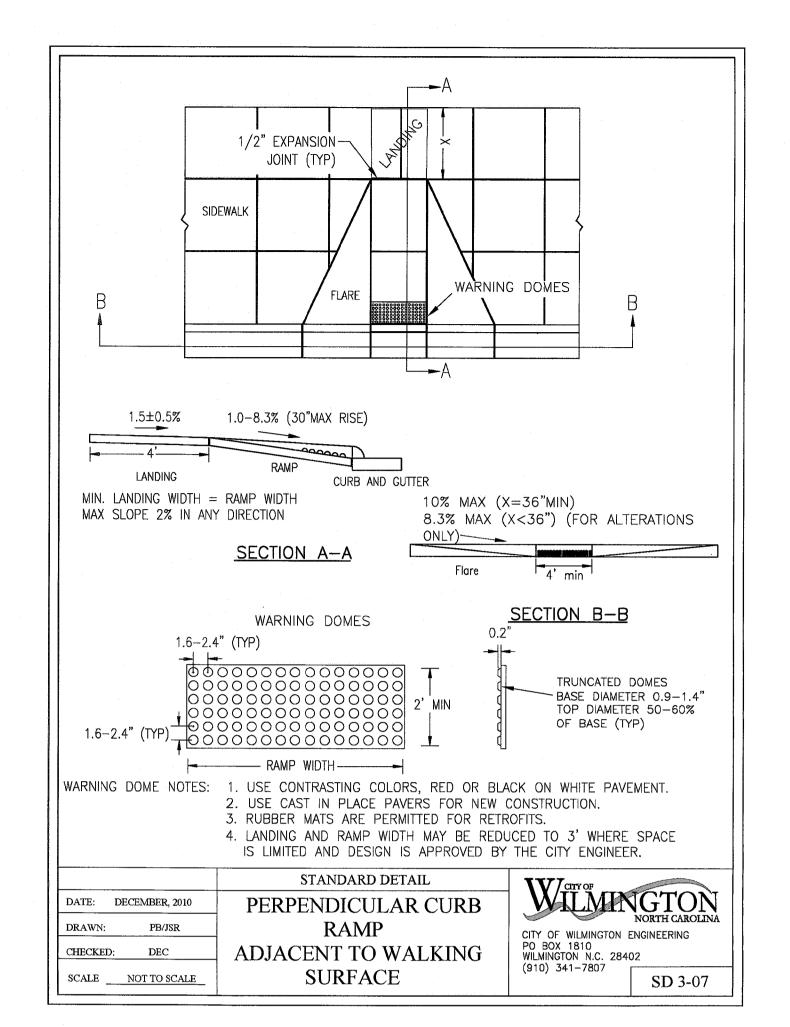
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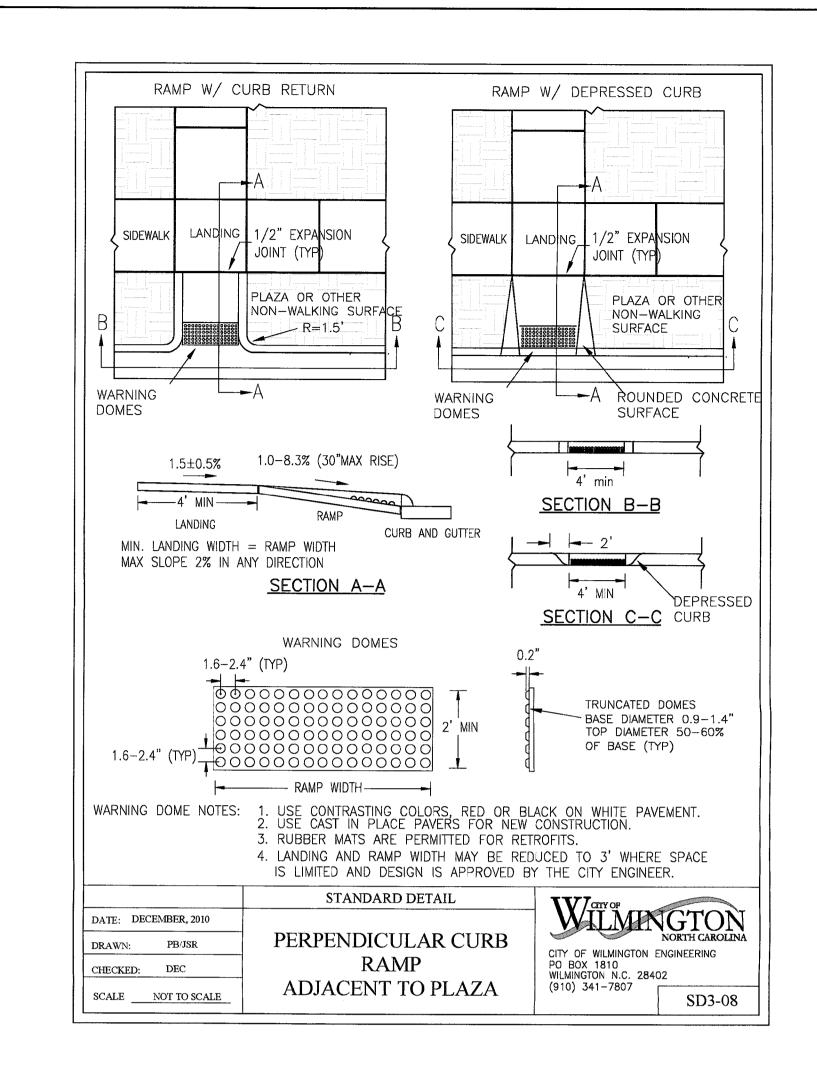
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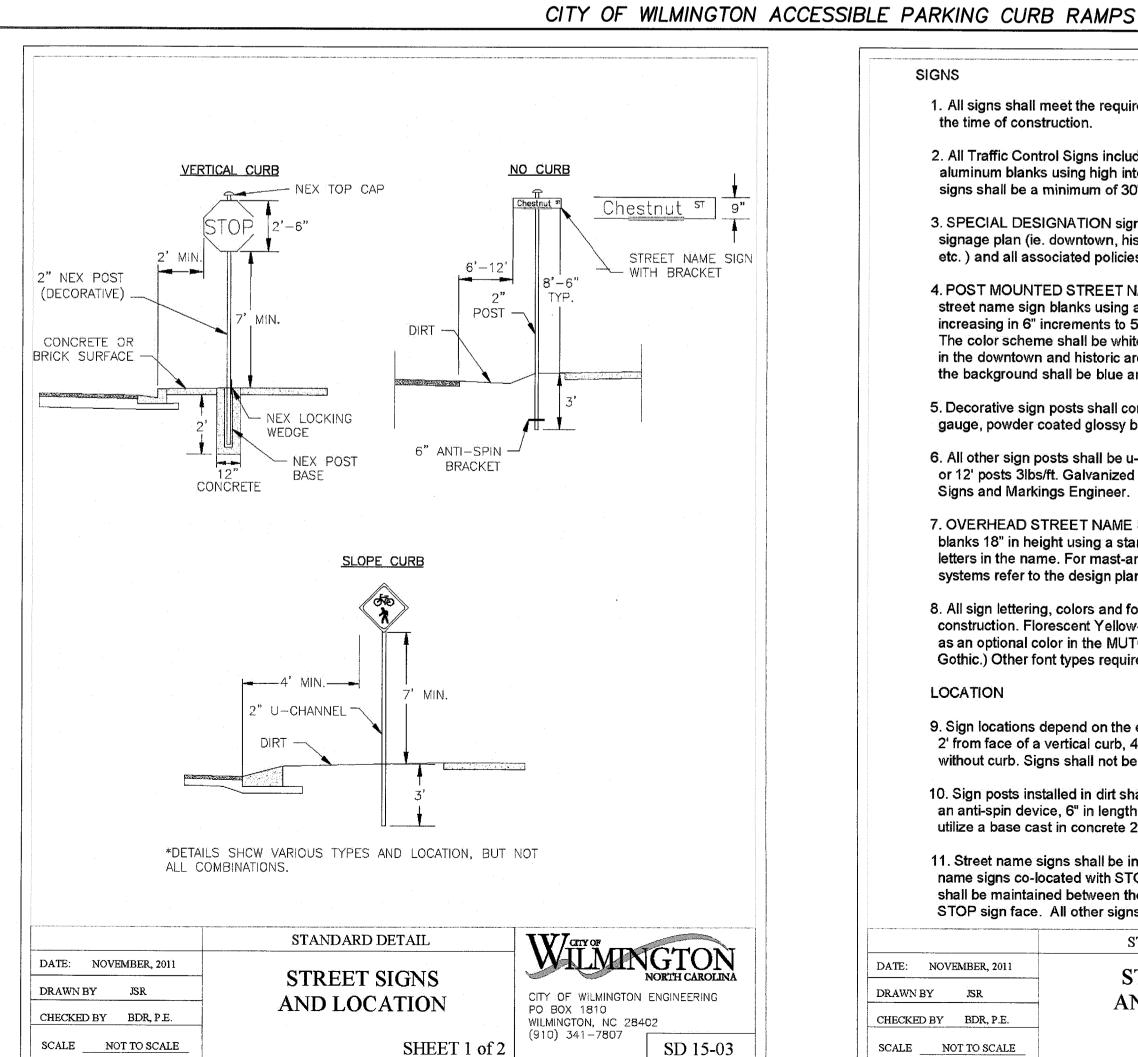
> SITE/CIVIL **DETAILS**











- 1. All signs shall meet the requirements of MUTCD and City Traffic Engineering in effect at the time of construction.
- 2. All Traffic Control Signs including multi-use paths shall be fabricated with 0.080 inch aluminum blanks using high intensity prismatic reflective sheeting Type IV or better. STOP signs shall be a minimum of 30"x30".
- 3. SPECIAL DESIGNATION signs by location and type shall adhere to City of Wilmington signage plan (ie. downtown, historic, cross-city trail, parks, riverfront, scenic by-way, parking, etc.) and all associated policies.

N.T.S.

- 4. POST MOUNTED STREET NAME SIGNS shall be fabricated with 9" extruded aluminum street name sign blanks using a standard cut-out. Minimum sign length is 18" long and increasing in 6" increments to 54" maximum as dictated by the number of letters in the name. The color scheme shall be white letters on a green background without a border. Generally, in the downtown and historic areas or as designated in the City of Wilmington signage plan the background shall be blue and contain a topper.
- 5. Decorative sign posts shall consist of the NEX sign support system, 2" octagonal tube, 14 gauge, powder coated glossy black and include cap, post, base and wedge.
- 6. All other sign posts shall be u-channel posts made of galvanized steel with 8' posts 2lbs/ft or 12' posts 3lbs/ft. Galvanized NEX post may be substituted with approval from the City Signs and Markings Engineer.
- 7. OVERHEAD STREET NAME SIGNS shall be fabricated with 0.080 inch aluminum flat sign blanks 18" in height using a standard cut-out. Sign length will be dictated by the number of letters in the name. For mast-arm type traffic signal supports and other overhead support systems refer to the design plans for maximum sign length.
- 8. All sign lettering, colors and fonts shall adhere to the MUTCD in effect at the time of construction. Florescent Yellow-Green shall be used on signs, in place of Yellow, when listed as an optional color in the MUTCD. Generally, the font will be FHWA series fonts (Highway Gothic.) Other font types require prior City Signs and Markings Engineer approval.

# LOCATION

- 9. Sign locations depend on the edge of road condition. Generally, signs shall be a minimum 2' from face of a vertical curb, 4' from front of slope face curb, and 6' from edge of pavement without curb. Signs shall not be located more than 12' from any of these locations.
- 10. Sign posts installed in dirt shall be buried a minimum of 36". Octagonal posts shall utilize an anti-spin device, 6" in length minimum. Sign posts installed in concrete or brick shall utilize a base cast in concrete 24" x 12" diameter.
- 11. Street name signs shall be installed 8'-6" from the ground to the bottom of the sign. Street name signs co-located with STOP signs shall be installed above the STOP sign. A 6" space shall be maintained between the STOP sign and a Street name sign that is parallel to the STOP sign face. All other signs should be mounted per MUTCD guidelines for Urban Areas.



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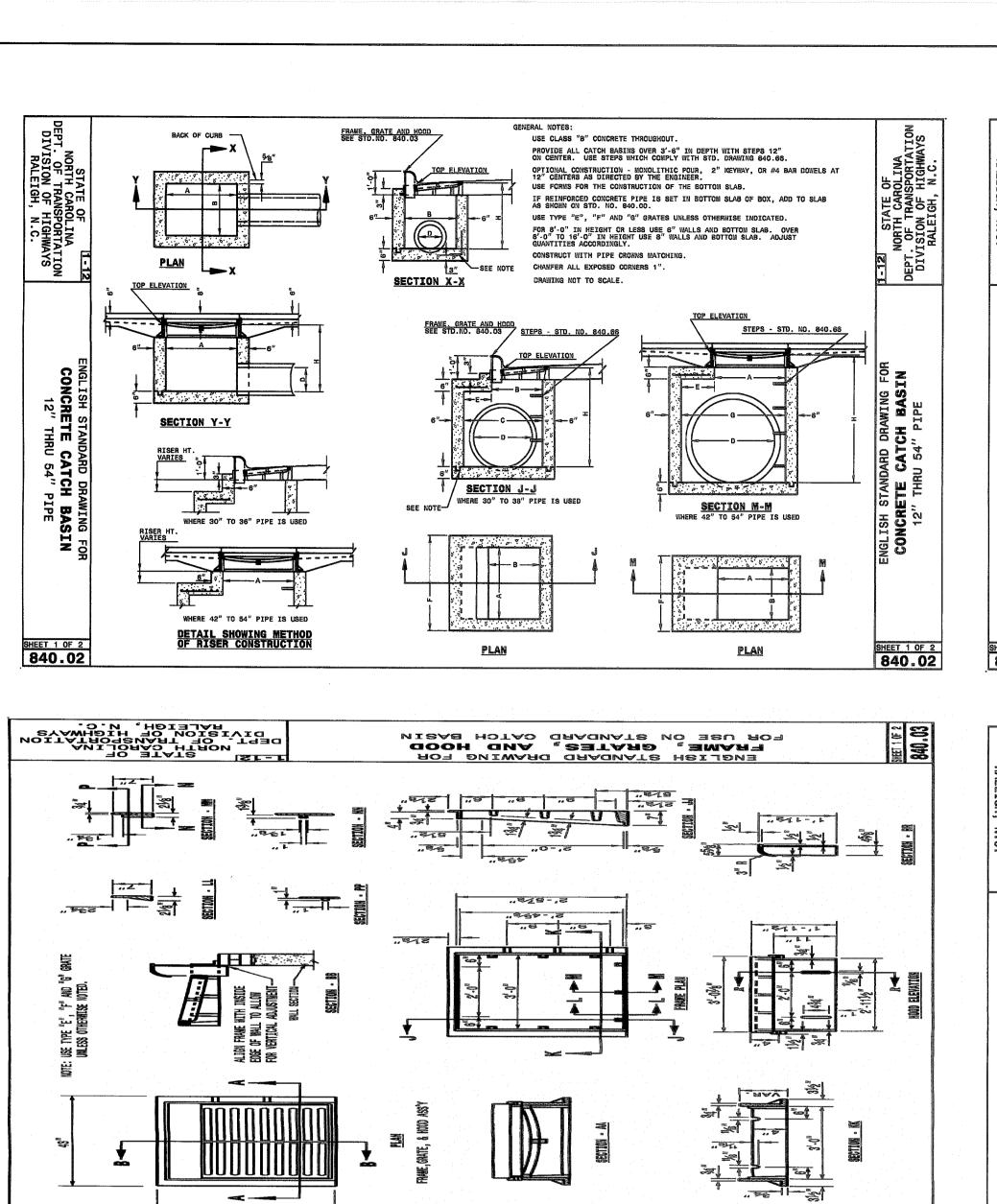
10 **ENERGY PARTNER** 

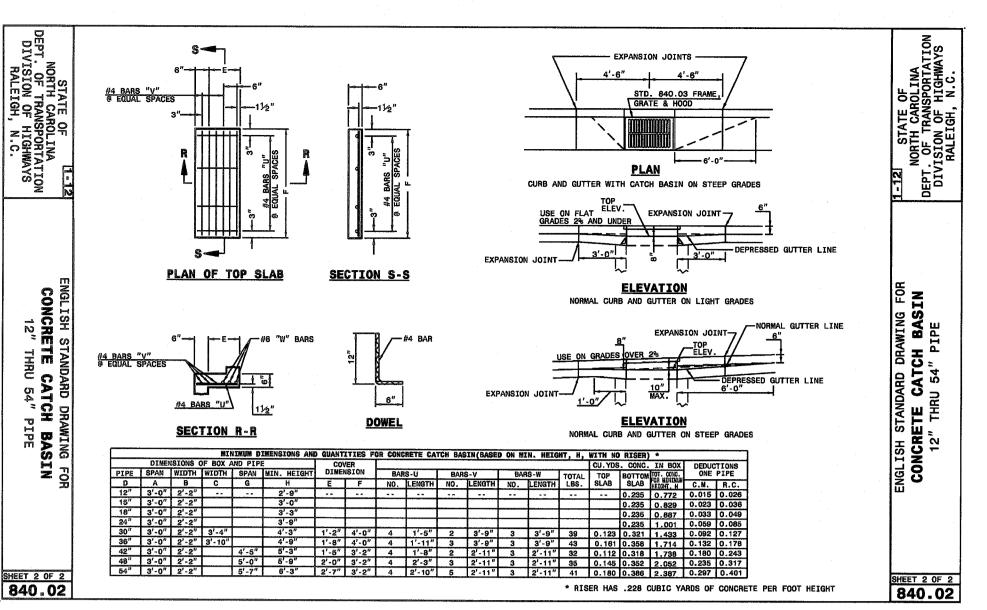
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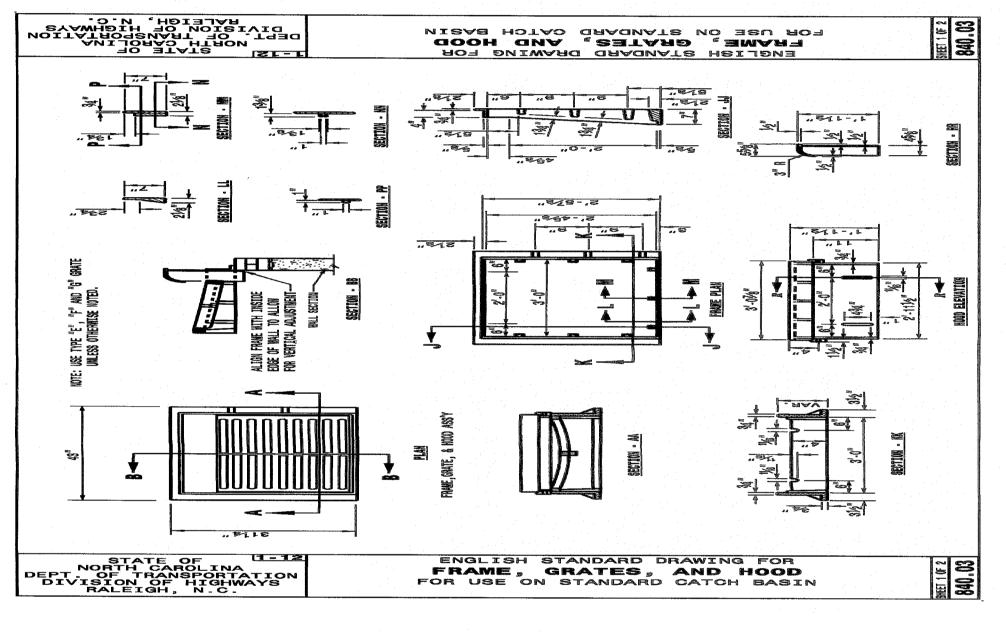
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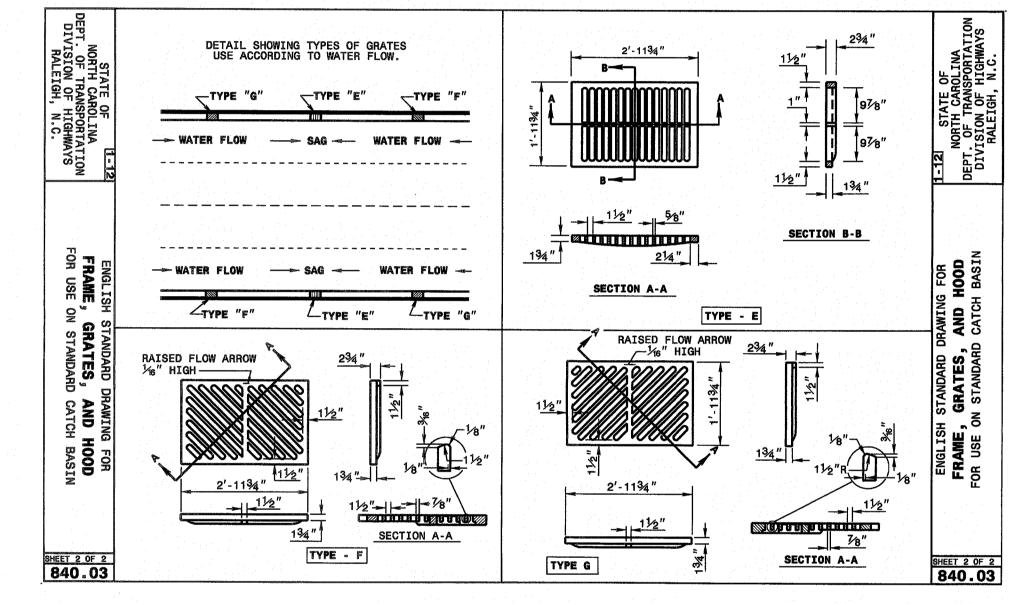
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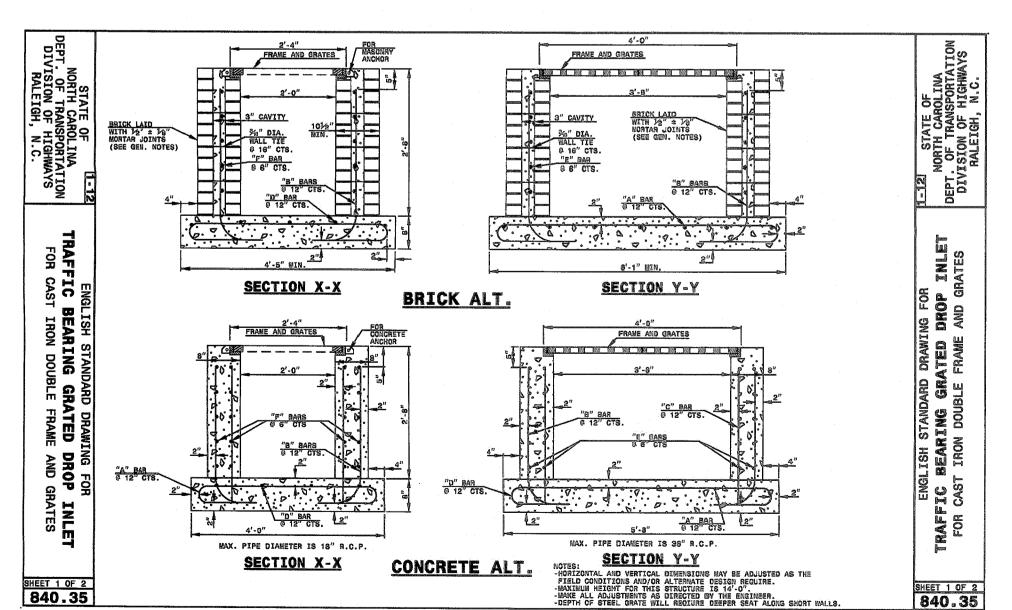
SITE/CIVIL

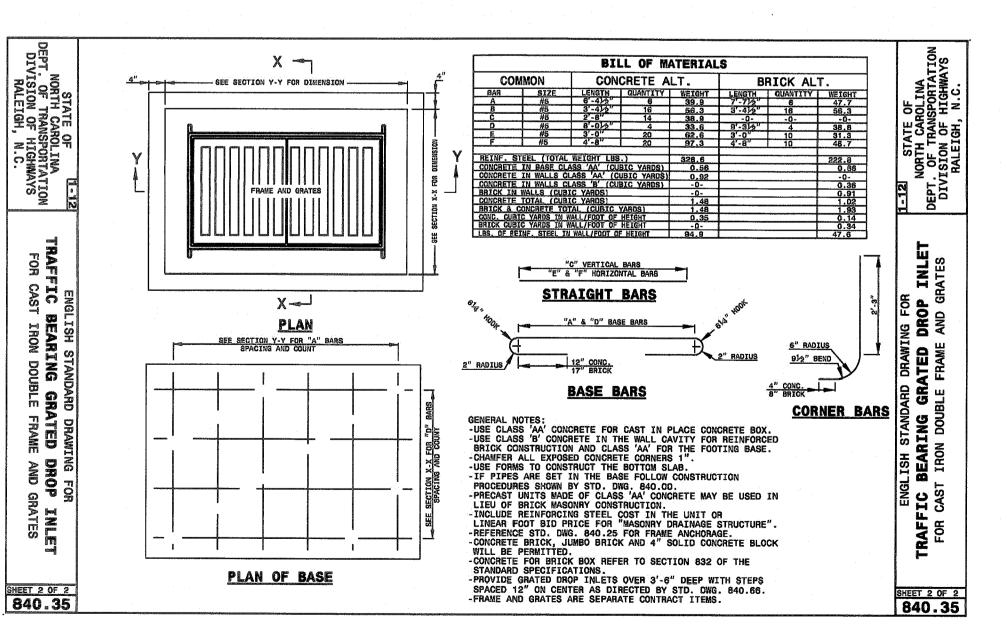


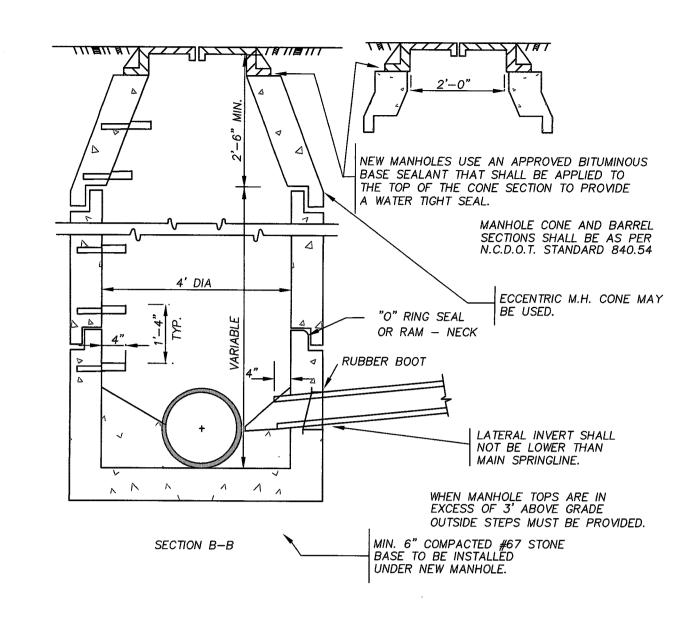


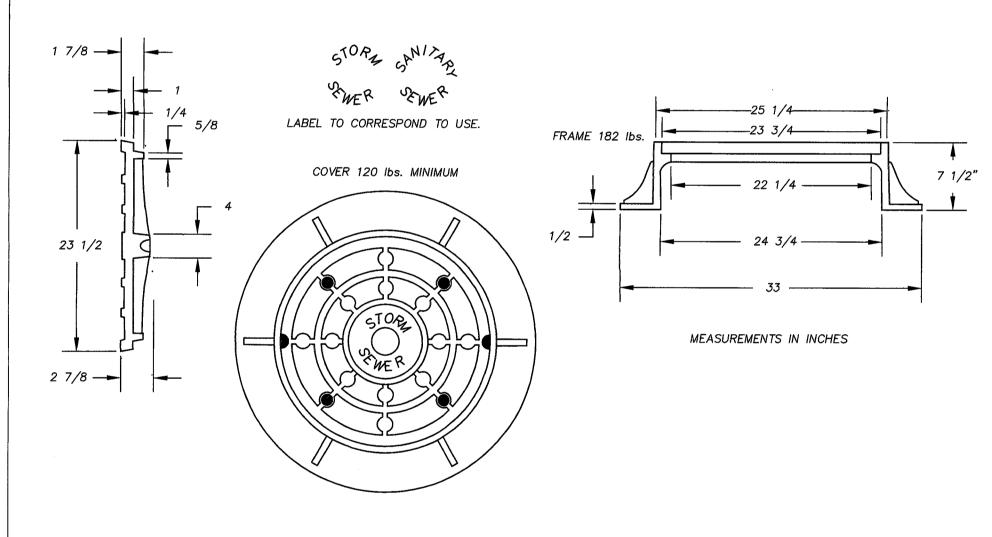


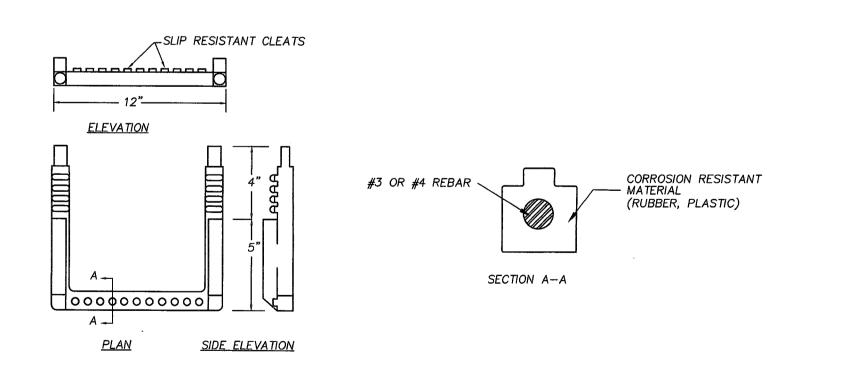












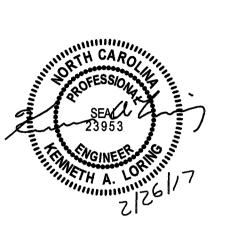
STANDARD PRE-CAST CONCRETE MANHOLE, SLIP RESISTANT STEPS, RING/COVER DETAIL

APPROVED CONSTRUCTION PLAN TRAFFIC W EMISSON 3-2217 FIRE & LE OU 3-22-17

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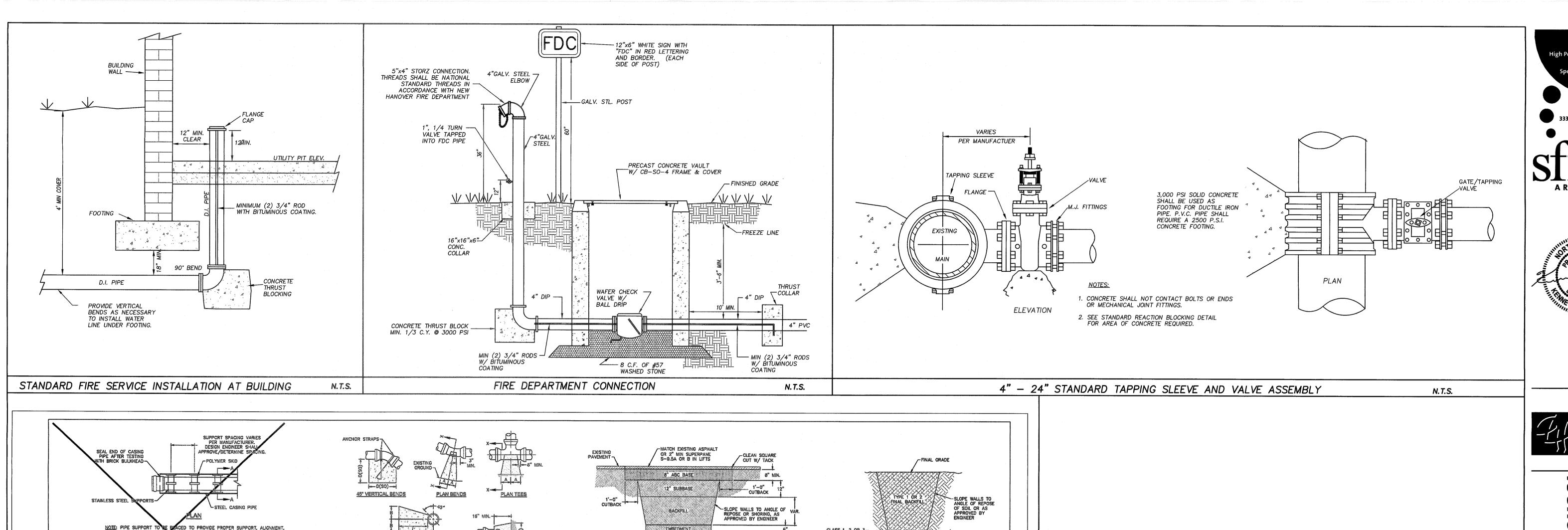
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STAR PARTNER ID DATE DESCRIPTION ISSUE DATE: 2/26/2017 PROJECT #: SFLA - 01504.000

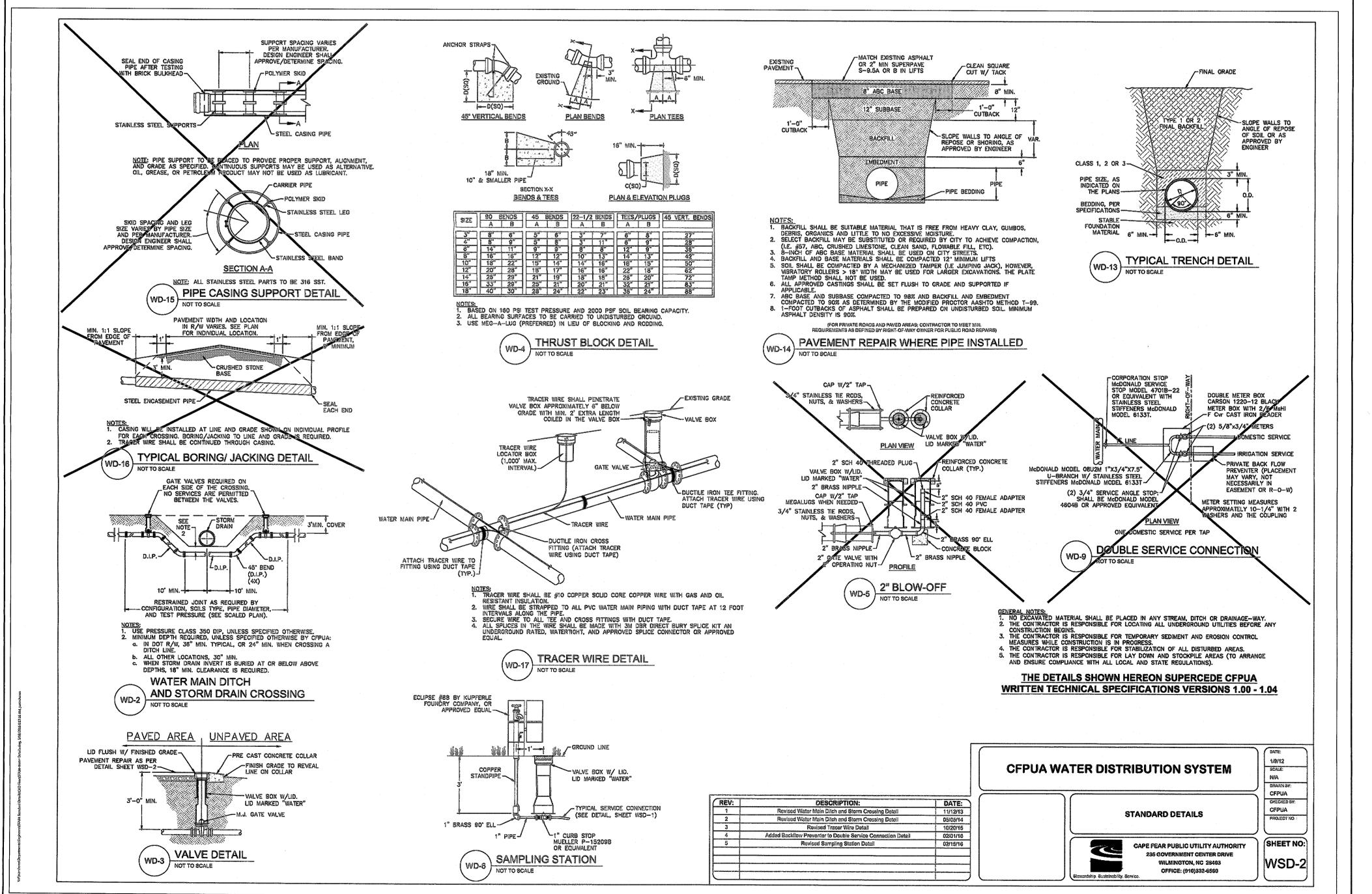
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> SITE/CIVIL **DETAILS**

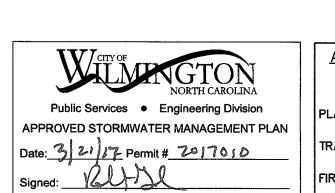
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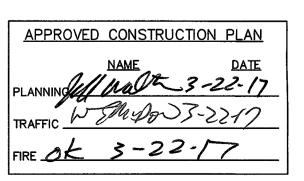


N.T.S.



CFPUA STANDARD DETAILS





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ARCHITECTS





AIR ELEMENTARY SCHOOLS
VER COUNTY SCHOOLS

JOHN J. BL
NEW HANO
Section Market 8

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SITE/CIVIL DETAILS

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C7.5

- 1. No plantings over thirty (30) inches in height allowed in vision clearance.
- 2. Protection from vehicular traffic provided around all landscaping with a minimum height of six (6) inches.
- 3. Owner is responsible for maintenance to ensure plant material lives and prospers.
- 4. Planting plans shall be approved by Landscape Designer prior to installation.
- 5. Landscaping shall be required at the ends of all parking
- 6. A low buffer shall be required where parking is within fifty (50) feet of the Right—of—Way.
- 7. Landscaped islands shall be a minimum width of twelve (12) feet (back of curb to back of curb) and a minimum of two hundred and sixteen (216) square feet.
- 8. A minimum of fifteen (15) trees 2 inches or greater in diameter as measured 6 inches above ground per disturbed acre-
- 9. For recommended Plant List see "Landscape" T-10.4.

	STANDARD DETAIL	TV CTY OF
DATE: APRIL, 2008	I ANDCCADE NOTES	WILMINGTON NORTH CAROLIN
DRAWN BY JSR	LANDSCAPE NOTES	CITY OF WILMINGTON ENGINEERING
CHECKED BY B.P., P.E.		PO BOX 1810 WILMINGTON, NC 28402
SCALE NOT TO SCALE		(910) 341–7807 SD 15-14

CITY OF WILMINGTON LANDSCAPE NOTES

N. T. S.

PLANTING RATE APR 15 - JULY 15 \*\* HULLED SUNSTAR OR RIVIERA BERMUDA 85 LBS/ACRE SUNSTAR OR RIVIERA BERMUDA SPRIGS 5 BUSHELS/1.000 SF

AUG 15 - APR 15 TEMPORARY SEEDING APPLIES\*\*

\* OR AS REQUIRED TO ACHIEVE 95% COVERAGE AS DETERMINED ON A PER SQUARE YARD BASIS PRIOR TO SUBSTANTIAL COMPLETION.

\*\* WHEN SEEDING MUST TAKE PLACE OUT-OF- SEASON FOR PERMANENT GRASS, APPROPRIATE TEMPORARY SEEDING SHALL BE DONE AND THE CONTRACTOR SHALL BE RESPONSIBLE FOR PERMANENT SEEDING AS SPECIFIED IN SEASON AT NO ADDITIONAL COST TO OWNER.

# LAWN MAINTENANCE NOTES:

- 1. CONTRACTOR SHALL BE RESPONSIBLE FOR LAWN MAINTENANCE UNTIL FINAL COMPLETION.
- 2. LAWN MUST BE AT 95% COVERAGE AT SUBSTANTIAL COMPLETION REVIEW TO BE ACCEPTED.

3. IF NOT AT 95%, SUBSTANTIAL COMPLETION WILL BE DELAYED UNTIL THE FOLLOWING GROWING SEASON.

# SUBSTANTIAL COMPLETION (GRASS):

CONTRACTOR SHALL BE RESPONSIBLE FOR LAWN MAINTENANCE AND WATERING UNTIL SUBSTANTIAL COMPLETION. LAWN/TURF SHALL BE CONSIDERED SUBSTANTIALLY COMPLETE WHEN GRASS ESTABLISHMENT IS AT A MIN. 95% COVERAGE AND THE SURFACE COMPLIES WITH THE SLOPE, SMOOTHNESS AND OTHER SPECIFIED TOLERANCES. IF THE MINIMUM REQUIREMENTS ARE NOT MET. SUBSTANTIAL COMPLETION WILL BE DELAYED UNTIL THE MINIMUM REQUIREMENTS ARE MET (POSSIBLY INTO THE FOLLOWING GROWING SEASON). THE CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR WATERING AND MAINTENANCE OF THE GRASS UNTIL SUBSTANTIAL COMPLETION IS REACHED. SEE SPECIFICATIONS FOR FURTHER INFORMATION.

# PERMANENT SEEDING SCHEDULE- BERMUDA SEED

PERMANENT OR TEMPORARY GROUND COVER SHALL BE PROVIDED OVER ALL DISTURBED AREAS OF THE SITE AS SOON AS POSSIBLE, HOWEVER, NO LATER 30 DAYS AFTER CONSTRUCTION ACTIVITIES HAVE PERMANENTLY OR TEMPORARILY CEASED DURING ANY PHASE OF WORK.

TEMPORARY OR PERMANENT GROUND COVER SHALL BE PROVIDED ON ALL SLOPES WITHIN 15 WORKING DAYS OR 30 CALENDAR DAYS AFTER CONSTRUCTION ACTIVITIES PERMANENTLY OR TEMPORARILY CEASED.

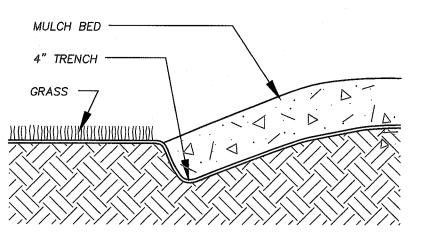
<u>TYPE</u> <u>PLANTING RATE</u> AUG 15 - FEB 1 TALL FESCUE AND 70 LBS/ACRE WINTER RYE (GRAIN) 25 LBS/ACRE APR 1 - AUG 15 TALL FESCUE AND 120 LBS/ACRE GERMAN MILLET \*\*\* *25 LBS/ACRE* OR SUDANGRASS *30 LBS/ACRE* 

CONSULT CONSERVATION ENGINEER OR SOIL CONSERVATION SERVICE FOR ADDITIONAL INFORMATION CONCERNING OTHER ALTERNATIVES FOR VEGETATION OF DENUDED AREAS. THE ABOVE VEGETATION RATES ARE THOSE WHICH DO WELL UNDER LOCAL CONDITIONS; OTHER SEEDING RATE COMBINATIONS ARE POSSIBLE.

(SMALL-STEMMED VAR.) \*\*\*

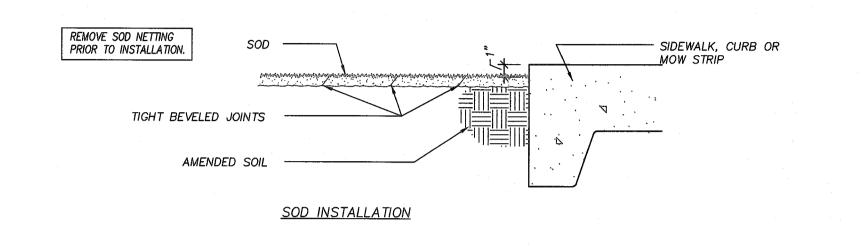
\*\*\*TEMPORARY - RESEED ACCORDING TO OPTIMUM SEASON FOR DESIRED PERMANENT VEGETATION. DO NOT ALLOW TEMPORARY COVER TO GROW OVER 12" IN HEIGHT BEFORE MOWING.

TEMPORARY SEEDING SCHEDULE



# GROUND COVER PLANTING DETAIL

TO BE APPLIED TO ALL PLANTING BEDS



# SOD INSTALLATION DETAIL

- 1. LOCATE ALL EXISTING UTILITIES PRIOR TO INSTALLATION OF PLANT MATERIAL. NOTIFY LANDSCAPE ARCHITECT OF ANY DISCREPANCIES BETWEEN FIELD CONDITIONS AND THOSE SHOWN ON THE PLAN.
- 2. VERIFICATION OF TOTAL QUANTITIES AS SHOWN ON THE PLANT LIST SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR, AND THE TOTAL QUANTITIES SHALL BE AS SHOWN ON THE PLAN.
- 3. CONTACT THE LANDSCAPE ARCHITECT FOR INSPECTION 48 HOURS IN ADVANCE OF THE
- SCHEDULED SITE VISIT AND AT THE FOLLOWING INTERVALS:
- REVIEW OF GRADING PRIOR TO PLANT AND LAWN INSTALLATION - REVIEW OF PLANT MATERIAL PRIOR TO INSTALLATION.
- ONE SUBSTANTIAL COMPLETION MEETING FOR PLANT INSTALLATION. - ONE FINAL INSPECTION FOR ALL SEEDING/PLANTING OPERATIONS.
- 4. ALL PLANT MATERIAL SHALL CONFORM WITH THE STANDARDS SET FORTH BY THE AMERICAN
- ASSOCIATION OF NURSERYMEN AND THE WRITTEN SPECIFICATIONS.
- 5. ESTABLISH POSITIVE DRAINAGE IN ALL PLANTING BEDS AND AWAY FROM BUILDING. 6. APPLY PRE-EMERGENT HERBICIDE TO ALL NEW PLANTING BEDS AT MANUFACTURER'S
- RECOMMENDED RATE PRIOR TO INSTALLATION OF PLANT MATERIAL. 7. DO NOT INSTALL PLANT MATERIAL IN IMPERVIOUS SOILS (i.e. HOLES WHICH WHEN FILLED WITH WATER, DO NOT COMPLETELY DRAIN WITHIN TWO HOURS).
- 8. LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR WATERING ALL PLANTS AND LAWN AREAS AT HIS COST FROM HIS OWN WATER SOURCE INCLUDING DURING PERIODS OF DROUGHT UNTIL FINAL COMPLETION. ANY WATERING OR MAINTENANCE REQUIRED AFTER FINAL
- COMPLETION SHALL BE AT OWNER'S COST. 9. GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR KEEPING ALL EQUIPMENT & SUBCONTRACTORS AWAY FROM SEEDED AREAS. IF DAMAGE OCCURS, THROUGH NO FAULT OF THE OWNER, AREAS SHALL BE REGRADED AND RESEEDED IMMEDIATELY AT NO ADDITIONAL COST TO THE OWNER. CONTRACTOR SHALL WATER AND MAINTAIN THOSE AREAS UNTIL THEY ARE AT 95% COVERAGE AT SUBSTANTIAL COMPLETION.
- 10. SUBSTITUTIONS OF PLANT MATERIAL SHALL ONLY BE ACCEPTED 60 DAYS PRIOR TO COMMENCEMENT OF PLANTING OPERATIONS. SUBSTITUTION REQUESTS MUST BE IN WRITING AND WILL ONLY BE ACCEPTED FOR LACK OF AVAILABILITY REASONS WHICH CAN BE SUBSTANTIATED OR FOR SUPERIOR STOCK SUBSTITUTIONS.
- 11. GENERAL LAWN AREAS SHALL BE SEEDED WITH SUNSTAR/RIVIERA BERMUDAGRASS OR APPROVED EQUAL.
- 12. LANDSCAPE CONTRACTOR SHALL NOTIFY LANDSCAPE ARCHITECT TO REVIEW GRADING ONE WEEK PRIOR TO SEEDING, IF THE LANDSCAPE CONTRACTOR AND LANDSCAPE ARCHITECT FIND GRADING UNACCEPTABLE FOR FINAL SEEDING, LANDSCAPE CONTRACTOR SHALL BRING IT TO THE ATTENTION OF THE GENERAL CONTRACTOR. LANDSCAPE CONTRACTOR SHALL NOT PROCEED WITHOUT APPROVAL BY LANDSCAPE ARCHITECT.

# LANDSCAPE NOTES

- 1. CHISEL ALL CUT GRADED OR COMPACTED AREAS TO A MINIMUM DEPTH OF 8".
- 2. DISC ALL AREAS TO RECEIVE GRASS TO A MINIMUM OF 8 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
- 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.
- 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.
- 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.

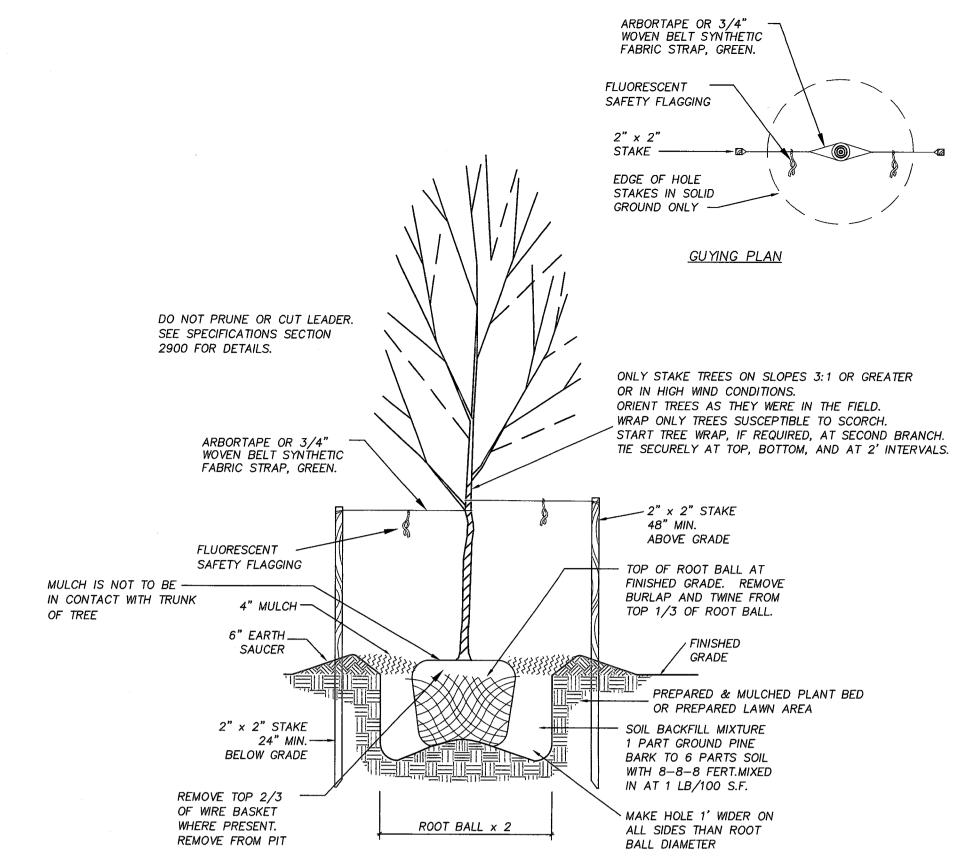
# SEEDBED PREPARATION

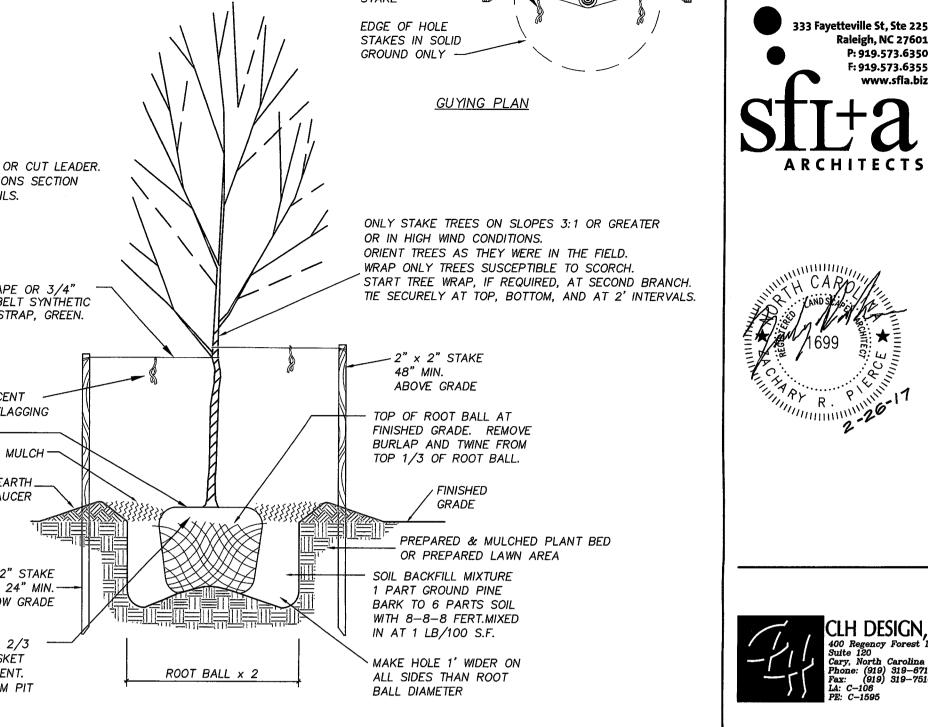
APPLY LIME AND FERTILIZER ACCORDING TO SOIL TESTS, OR APPLY A MINIMUM 3,000 LB/ACRE GROUND AGRICULTURAL LIMESTONE AND A MINIMUM 500 LB/ACRE 10-10-10 FERTILIZER, AS NEEDED TO ESTABLISH 95% COVERAGE (AS DETERMINED ON A PER SQUARE YARD BASIS) PRIOR TO SUBSTANTIAL COMPLETION. CONTRACTOR TO SUBMIT A COPY OF ALL SOIL REPORTS TO OWNER UPON RECEIPT.

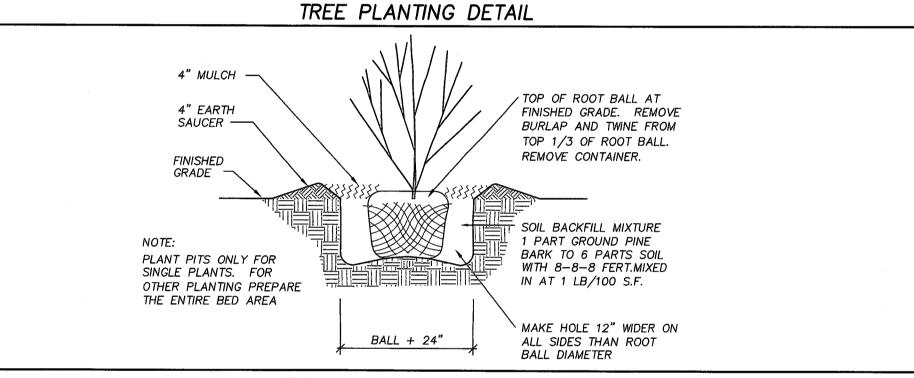
# LIME & FERTILIZATION SCHEDULE

- 1. DURING ALL PHASES OF CONSTRUCTION, GROUNDCOVER ON EXPOSED SLOPES SHALL BE PROVIDED WITHIN
- 14 CALENDAR DAYS FOLLOWING COMPLETION OF ANY PHASE OF GRADING. 2. FINAL PERMANENT GROUNDCOVER FOR ALL DISTURBED AREAS SHALL BE PROVIDED ON ALL DISTURBED
- AREAS WITHIN 14 CALENDAR DAYS FOLLOWING COMPLETION OF CONSTRUCTION OR DEVELOPMENT. 3. USE EXCELSIOR MATTING OR OTHER APPROVED CHANNEL LINING MATERIAL TO COVER THE BOTTOM OF
- 4. APPLY 4000 LB/ACRE(2 TONS LB/AC) GRAIN STRAW OVER SEEDED AREAS AND ANCHOR STRAW CRIMPING WITH HAND OR MECHANICAL CRIMPER 8" MAX. SPACING, ASPHALT TACKING OR OTHER APPROVED METHOD. ASPHALT TACKING SHALL BE 400 GAL/ACRE (9 GAL/1000 SF).
- 5. MULCH AND ANCHORING MATERIALS MUST NOT BE ALLOWED TO WASH DOWN SLOPES AND CLOG DRAINAGE

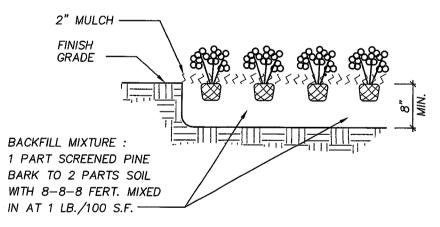
SURFACE STABILIZATION REQUIREMENTS







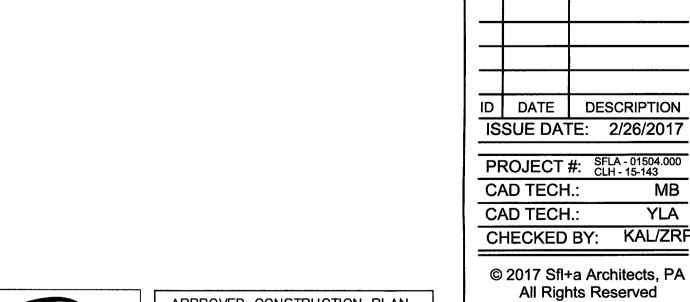




# GROUND COVER PLANTING DETAIL

APPROVED STORMWATER MANAGEMENT PLAN

Date: 3 21 17 Permit # 2017010



APPROVED CONSTRUCTION PLAN

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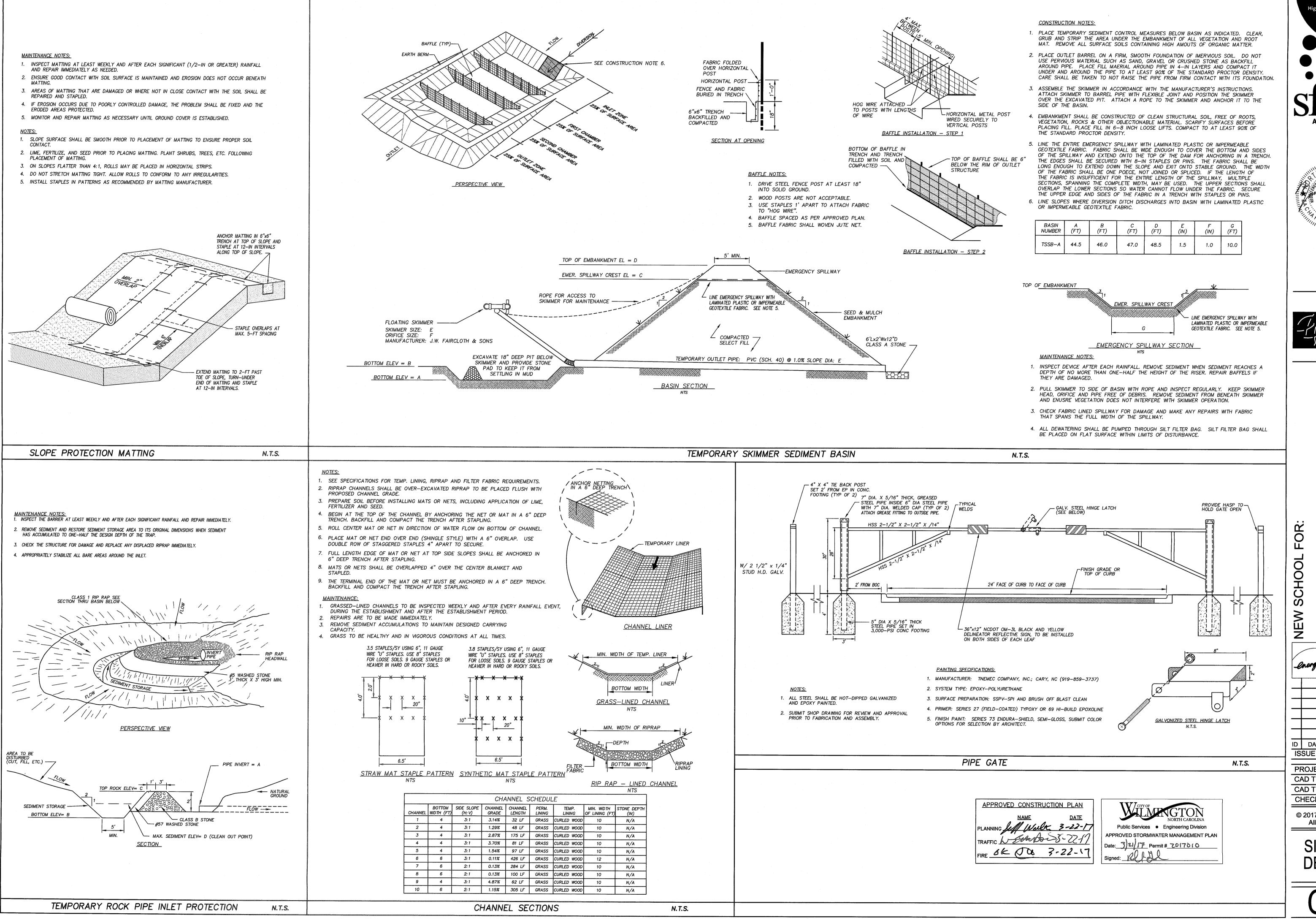
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**ENERGY** 

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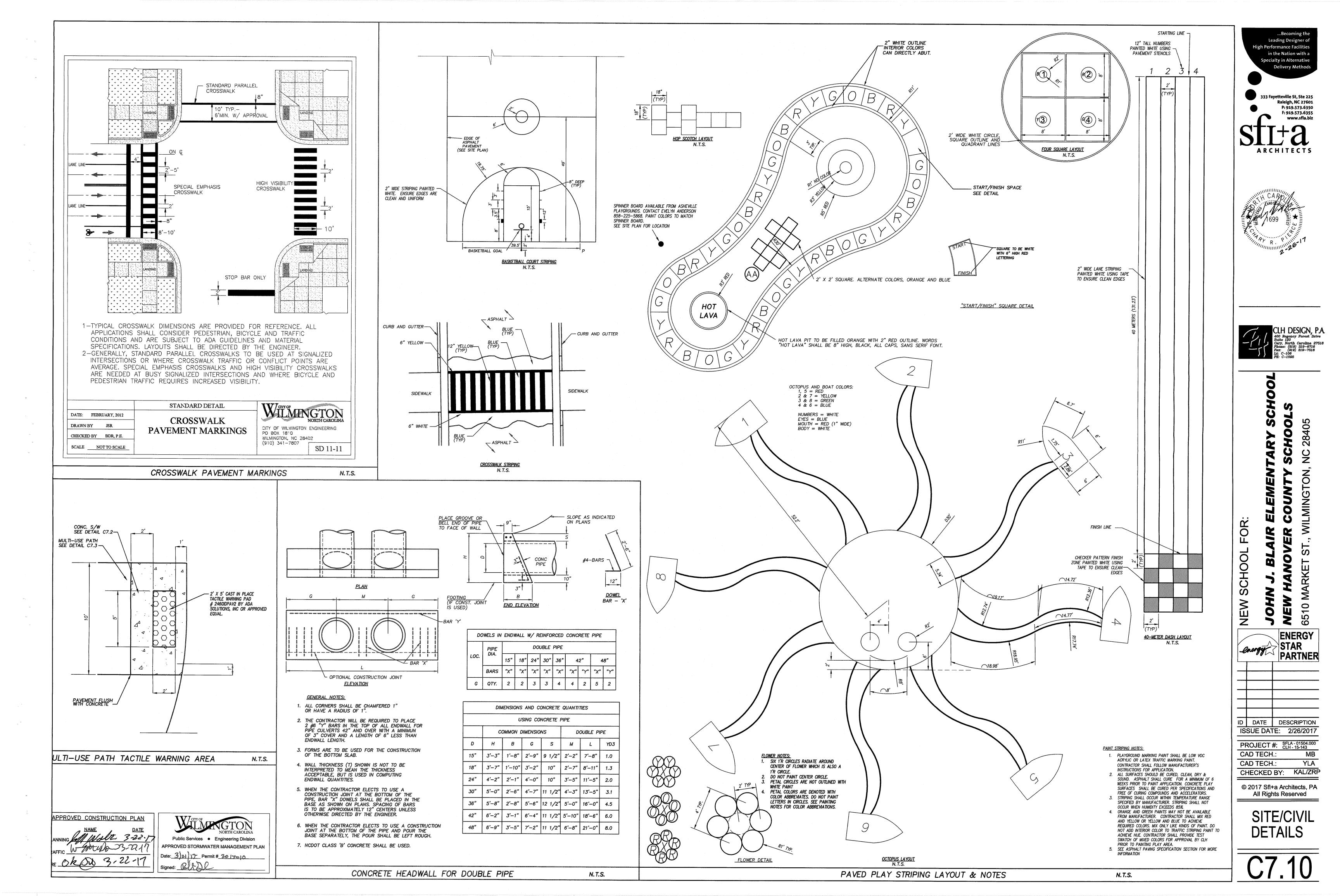
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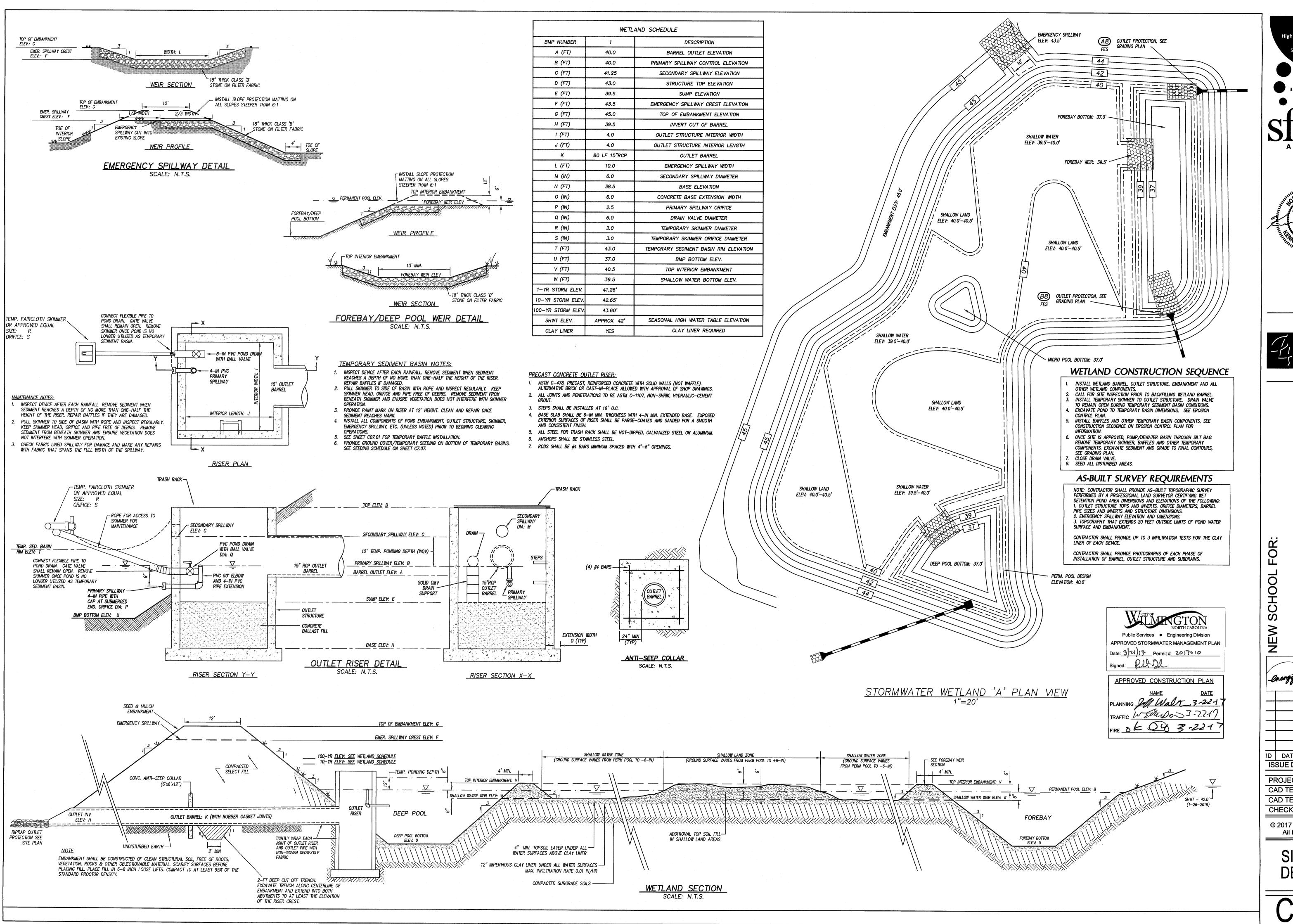
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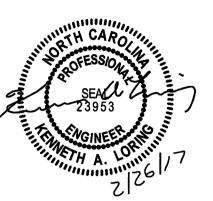
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SITE/CIVIL











 $\mathbf{C}$ WILMINGTON,

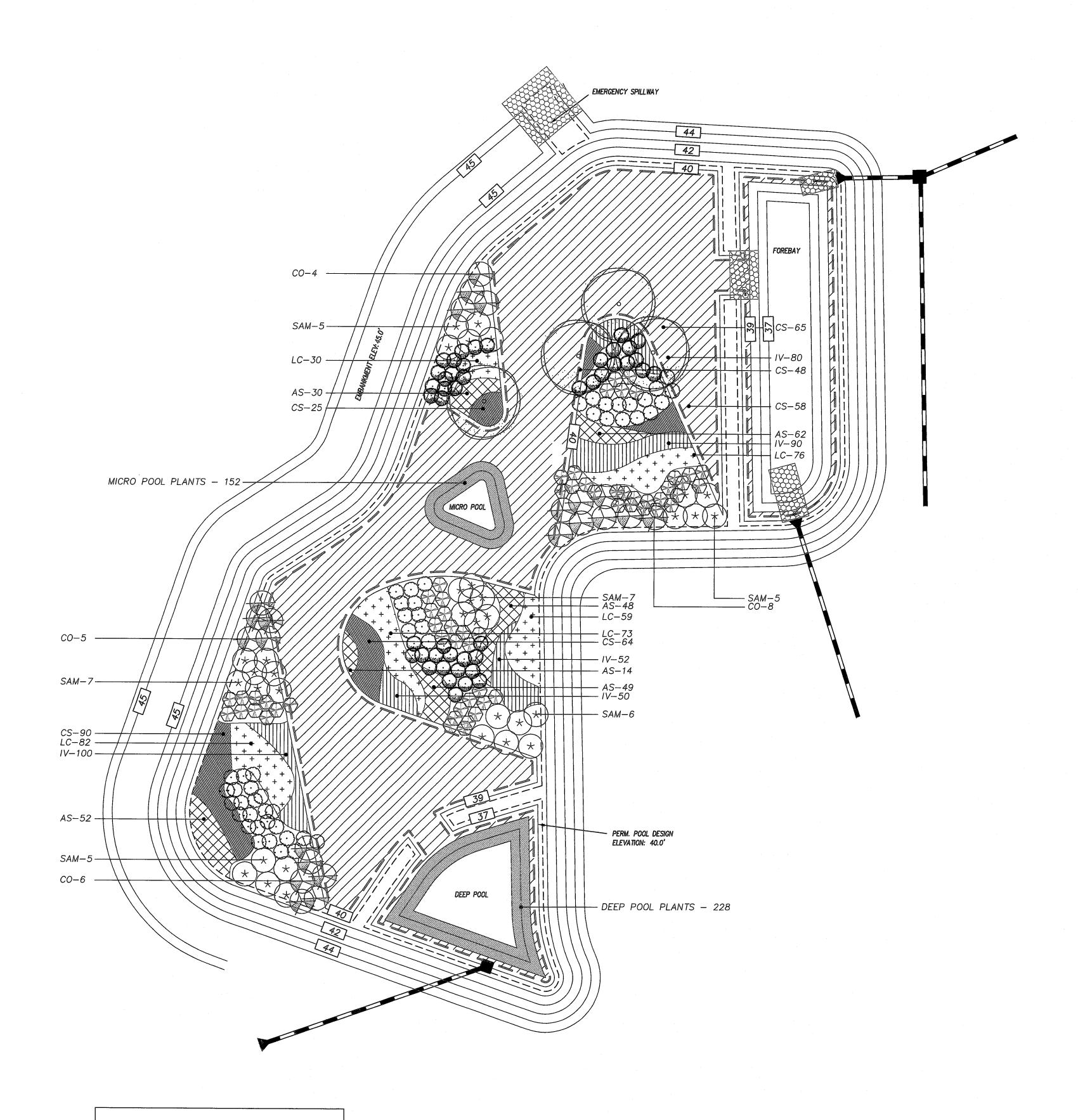
**ENERGY** STAR PARTNER

ID DATE DESCRIPTION ISSUE DATE: 2/26/2017

PROJECT #: SFLA - 01504.000 CLH - 15-143 **CAD TECH.:** YLA **CAD TECH.:** CHECKED BY: KAL/ZRP

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STORMWATER WETLAND

PERM. POOL ELEV: 40.0'

# STORMWATER WETLAND "A" PLANTING SCHEDULE

VVEILAN	D TREE L	<del></del>		
KEY	QTY		PLANT NAME	SIZE
TD	4	7-GAL. CONT.		
SHALLO	W LAND	<b>SHRUBS</b>		
KEY	QTY		PLANT NAME	SIZE
со	23	CEPHALA	NTHUS OCCIDENTALIS — BUTTONBUSH	1-GAL. CONT.
SAM	35	SAMBUCL	JS CANADENSIS - ELDERBERRY	PLANT 5' O.C.
	60	CLETHRA	ALNIFOLIA — SWEET PEPPERBUSH	
$\odot$	50	ITEA VIR	PGINICA 'HENRY'S GARNET' — SWEETSPIRE	
	55	ARONIA	ARBUTIFOLIA 'BRILLIANTISSIMA' — CHOKEBERRY	
HALLOV	N WATE	R PLANT	UST	
	PV	620	PELTANDRA VIRGINIANA — ARROW ARUM	LARGE PLUGS (MIN. 6 CUBIC INCHES)
	PC	620	PONTEDERIA CORDATA – PICKEREL WEED	SPACE 2' O.C.
	AB	620	ACORUS SUBCORDATUM — SWEETFLAG	
	SC	620	SAURURUS CERNUUS — LIZARD'S TAIL	
	JE	620	JUNCUS EFFUSUS - SOFT RUSH	
HALLOV	N LAND	PLANT LIS	ST	
	cs	350	CAREX STRICTA — TUSSOCK SEDGE	LARGE PLUGS (MIN. 6 CUBIC INCHES)
$\bigotimes$	AS	217	ASCLEPIAS INCARNATA — SWAMP MILKWEED	SPACE 2' O.C.
	IV	372	IRIS VIRGINICA BLUE FLAG IRIS	
+ + +	LC	320	LOBELIA CARDINALIS — CARDINAL FLOWER	
DEEP PO	OL AND	MICRO I	POOL PLANT LIST	
	95 95 95 95	NUPHAR L NYMPHAEA	A LATIFOLIA — BROADLEAF ARROWHEAD UTEA — SPATTERDOCK A ODORATA — WATERLILY LUTEA — AMERICAN LOTUS	LARGE PLUGS (MIN. 6 CUBIC INCHES)

# **DETENTION WETLAND NOTES**

- 1. WETLAND AREA SHALL BE DRAINED ONE DAY PRIOR TO PLANTING. SEE DETAIL SHEET CO7.13 FOR STRUCTURAL INFORMATION. LANDSCAPE ARCHITECT TO APPROVE ALL LOCATIONS IN FIELD.
- 2. PLACE SHALLOW WATER PLANTINGS IN DESIGNATED AREA BY SPECIES IN GROUPINGS OF 40 PLANTS MIN., 100 PLANTS MAX.
- 3. SEE SHEET CO7.12 FOR MORE INFORMATION.

# WETLAND SOIL MIX

ADD 4" OF TOPSOIL THROUGHOUT STORMWATER WETLAND AREA. TOPSOIL SHALL BE PLACED WITHIN THE SHALLOW LAND, SHALLOW WATER AND DEEP POOL AREAS AND ADHERE TO THE FOLLOWING REQUIREMENTS:

- THE SOIL MUST BE UNIFORM AND FREE OF STONES, STUMPS, ROOTS, OR OTHER SIMILAR MATERIAL GREATER THAN 2 INCHES.
- 2. SOIL TEXTURE SHALL BE A LOAMY SAND, WITH NO MORE THAN 10% CLAY (USDA SOIL TEXTURAL
- 3. A MINIMUM ORGANIC CONTENT OF 10% BY DRY WEIGHT.
- 4. THE PH SHALL BE BETWEEN 5.5 AND 7.0.

Date: 3 21 17 Permit # 20 17010 Signed:

APPROVED CONSTRUCTION PLAN





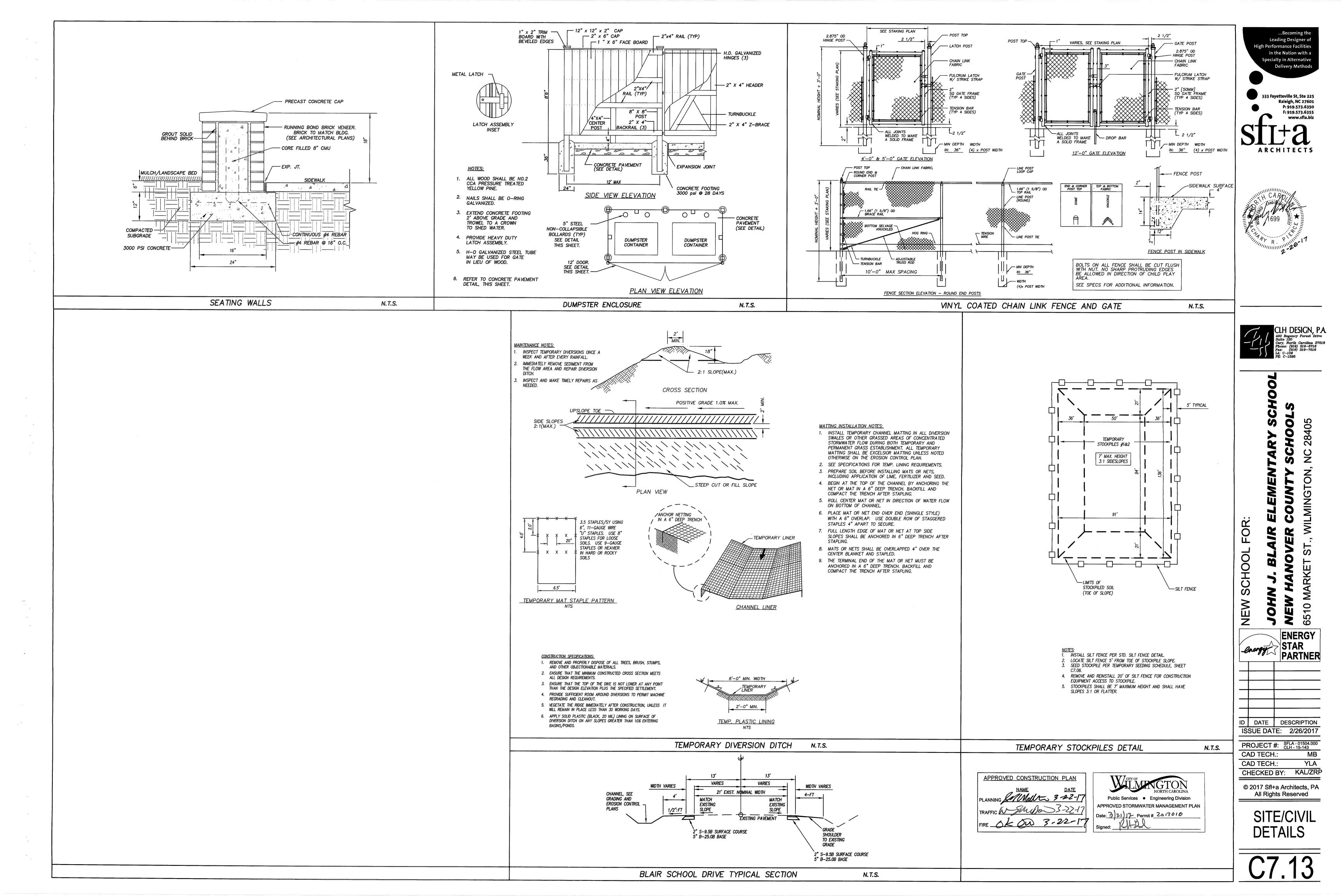
**ENERGY** 

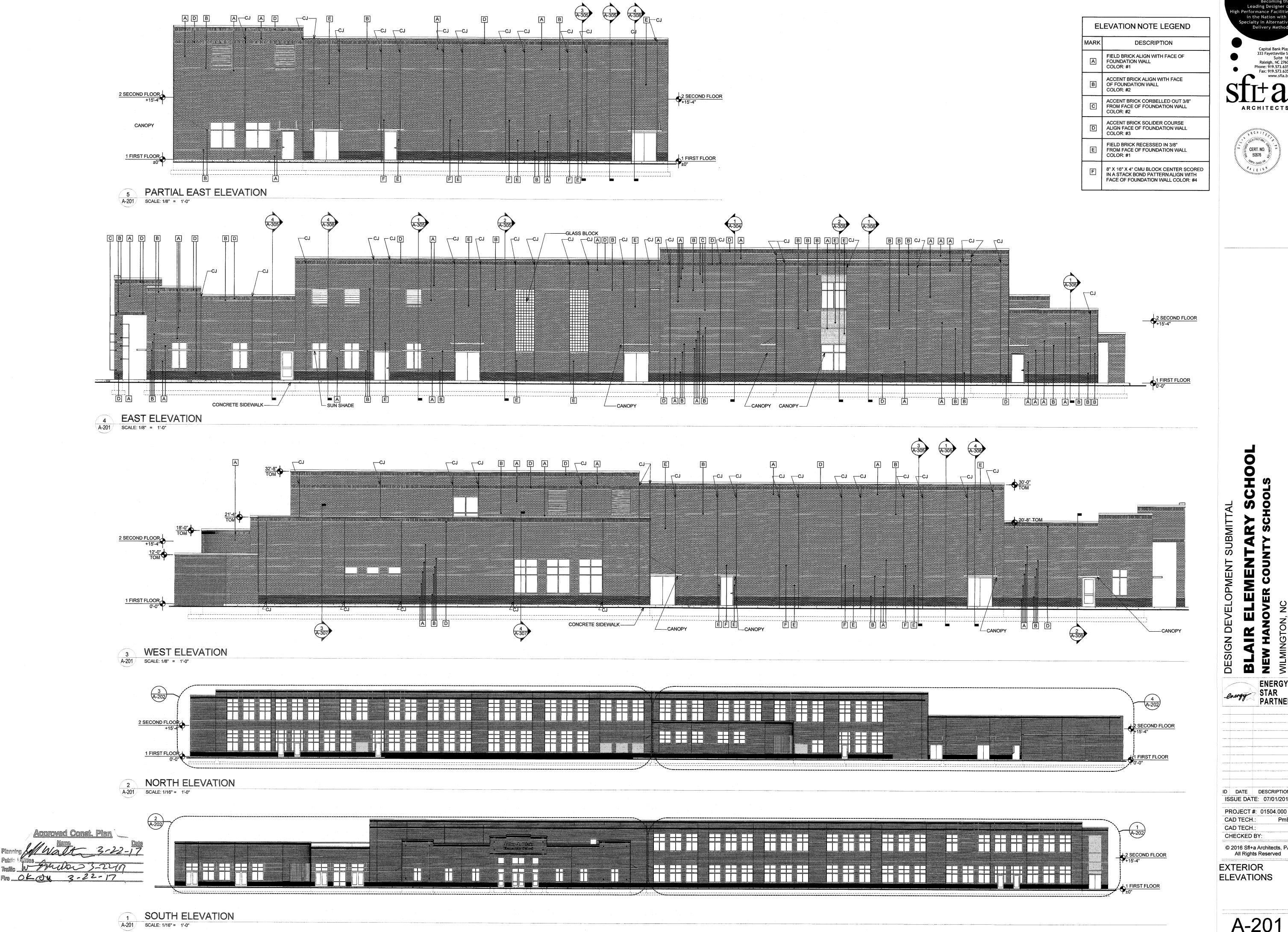
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> SITE/CIVIL DETAILS







CERT. NO. 5 50676

H00F BLAIR ELEMENTARY SCINEW HANOVER COUNTY SCHOOLS

ENERGY STAR PARTNER

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**EXTERIOR ELEVATIONS** 

A-201