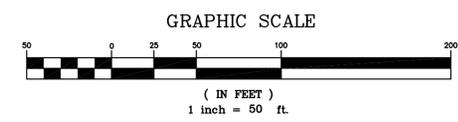


VICINITY MAP (N.T.S.)

SITE DATA

PROJECT:	HOGGARD HIGH 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:	GLENN MEDLIN REGENCY PARK 400 REGENCY FOREST DR., STE. 120 CARY, NC 27518 PHONE: 919-319-6716 FAX: 919-319-7516
PROJECT ADDRESS:	4305 SHIPYARD BOULEVARD WILMINGTON, NC 2803
PIN:	R06114-001-001-000
ZONING:	O&I
EXISTING USE:	INSTITUTIONAL/EDUCATIONAL
PROPOSED USE:	INSTITUTIONAL/EDUCATIONAL
TRACT AREA:	62.74 ACRES
FLOODPLAIN:	SITE IS NOT WITHIN A FLOODPLAIN (REF: FIRM 3720313600J, APRIL 3, 2006)
BUILDING SETBACK:	20'
PARKING REQUIREMENTS:	
PARKING CODE:	1 SPACE PER 5 STUDENTS (OR 1 SPACE PER 3 STADIUM SEATS)
NO. OF STUDENTS:	1900
TOTAL SPACES REQ'D:	380 (500)
EXISTING SPACES:	787
EXISTING SPACES REMOVED:	177
NEW SPACES ADDED:	82
TOTAL SPACES PROVIDED:	692
TOTAL H/C SPACES REQ'D:	14
EXISTING H/C SPACES:	22
EXISTING H/C SPACES REMOVED:	6
NEW H/C SPACES ADDED:	4 (W/ 1 VAN ACCESSIBLE)
TOTAL H/C SPACES PROVIDED:	20
GROSS FLOOR AREA:	
EXISTING:	115,165 SQ. FT.
PROPOSED:	34,484 SQ. FT.
MOBILE UNITS:	2,200 SQ. FT.
TOTAL:	151,849 SQ. FT.
	22.71%
PERCENT INCREASE:	
PROPOSED GYM ADD'N FOOTPRINT:	30,598 SQ. FT.
PROPOSED CAFETERIA ADD'N FOOTPRINT:	3,886 SQ. FT.
BUILDING LOT COVERAGE-EXISTING: 4.3%	
BUILDING LOT COVERAGE-PROPOSED: 5.6%	
MAX. BUILDING HEIGHT PROPOSED: 45'	
CAMA LAND USE CLASSIFICATION: URBAN	
CAMA AREAS OF CONCERN: C, SW (SWAMP WATERS); PERENNIAL	
HEWLETT'S CREEK CLASSIFICATION: S4: HOW INDEX # 18-87-26	

REFER TO PLAN SHEET C12 FOR CITY OF WILMINGTON STANDARD NOTES



bmh
BOWMAN
MURRAY
HEMINGWAY
ARCHITECTS
514 Market Street
Wilmington, NC 28401
Tel - (910) 762-2621
Fax - (910) 762-8506

CLH DESIGN, PA
400 Regency Forest Dr.
Suite 120
Cary, NC 27518
Phone: 919.319.6716
Fax: 919.319.7516
LA: C-106 PE: C-1595

PROFESSIONAL SEAL
NORTH CAROLINA
ENGINEER
KENNETH A. LONG
1-12-16

DD DOCUMENTS

Renovations and Additions to:
John T. Hoggard High School
4305 Shipyard Blvd.
Wilmington, North Carolina
28403

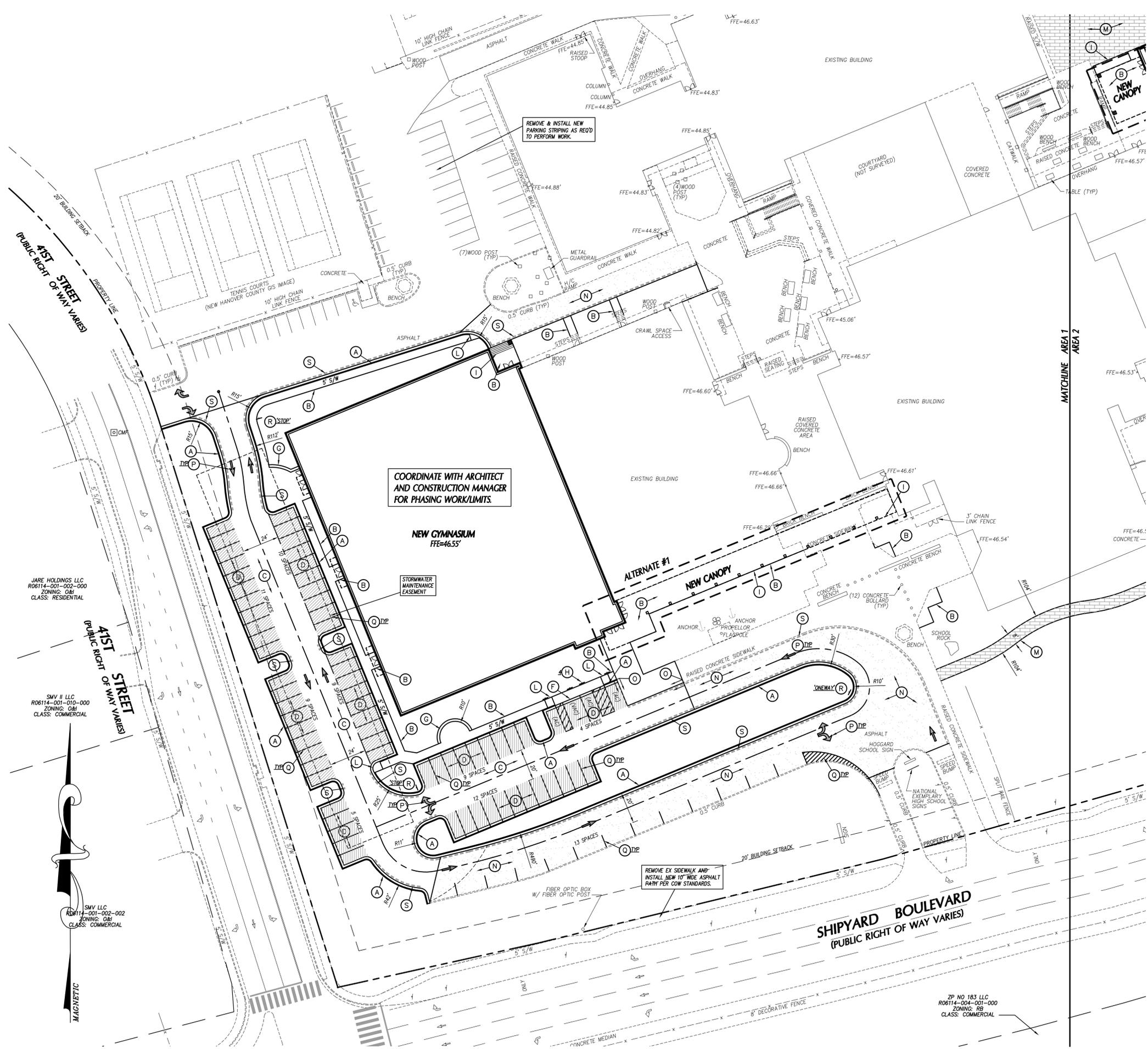
JOB NUMBER	15-120
DRAWN BY	JGM
CHECKED BY	JGM
DATE	JANUARY 13, 2016
REVISIONS	

OVERALL SITE PLAN

SHEET NUMBER

C-1.0

DESIGN DEVELOPMENT: 12-21-2015



KEY NOTES

- (A) 24" CONCRETE CURB & GUTTER, SEE DETAIL SHEET.
- (B) CONCRETE SIDEWALK, SEE DETAIL SHEET.
- (C) HEAVY DUTY ASPHALT PAVEMENT, SEE DETAIL SHEET.
- (D) LIGHT DUTY ASPHALT PAVEMENT, SEE DETAIL SHEET.
- (E) CONCRETE PAVEMENT, SEE DETAIL SHEET.
- (F) SIDEWALK FLUSH WITH PAVEMENT GRADE, SEE DETAIL SHEET.
- (G) SEAT WALL, SEE DETAIL SHEET.
- (H) ACCESSIBLE PARKING SIGNAGE, SEE DETAIL SHEET.
- (I) SEE ARCHITECTURAL PLANS FOR SCREEN WALLS, RAMP, CANOPY, STEPS, ETC.
- (J) DRIVEWAYS TO BE CONSTRUCTED PER CITY OF WILMINGTON STANDARDS.
- (K) ASPHALT PATCH, SEE DETAIL SHEET.
- (L) ACCESSIBLE CURB RAMP, SEE DETAIL SHEET.
- (M) PERMEABLE PAVERS, SEE DETAIL SHEET.
- (N) ASPHALT OVERLAY, SEE DETAIL SHEET.
- (O) RAISED CONCRETE SIDEWALK, SEE DETAIL SHEET.
- (P) DIRECTIONAL ARROW, SEE TRAFFIC CONTROL NOTES THIS SHEET.
- (Q) PARKING STRIPING, SEE TRAFFIC CONTROL NOTES THIS SHEET.
- (R) TRAFFIC CONTROL SIGNAGE, SEE TRAFFIC CONTROL NOTES THIS SHEET.
- (S) FIRE LANE STRIPING, SEE TRAFFIC CONTROL NOTES THIS SHEET.

GENERAL NOTES

1. ALL DIMENSIONS SHOWN ARE FACE OF CURB AND FACE OF BUILDING WALL, UNLESS OTHERWISE SHOWN.
2. CONTRACTOR SHALL BE RESPONSIBLE FOR FIELD VERIFICATION OF ALL DIMENSIONS SHOWN AND CONTACT THE ARCHITECT IF ANY DISCREPANCIES OCCUR.
3. CONSTRUCTION STAKE OUT IS THE RESPONSIBILITY OF THE CONTRACTOR.
4. ALL SIGNS AND PAVEMENT MARKINGS ARE TO MEET MUTCD (MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES) STANDARDS.
5. PAVEMENT MARKINGS IN PUBLIC RIGHT-OF-WAYS AND FOR DRIVEWAYS ARE TO BE THERMOPLASTIC AND MEET CITY OF WILMINGTON AND/OR NCDOT STANDARDS.
6. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH CITY OF WILMINGTON STANDARDS AND SPECIFICATIONS.
7. REPLACEMENT OF ANY BROKEN OR DAMAGED CONCRETE SIDEWALK PANELS OR CURBING THAT OCCURS DURING CONSTRUCTION IS THE RESPONSIBILITY OF THE CONTRACTOR.
8. ALL PARKING STALL RADII SHALL BE 4' UNLESS OTHERWISE NOTED.
9. PIPE GATE AT THE BUS DROP-OFF/FIRE LANE SHALL MEET THE CITY OF WILMINGTON FIRE SERVICES GATE REQUIREMENTS FOR LOCKING ARRANGEMENTS.
10. A PORTION OF THIS PROPERTY IS LOCATED IN THE 100 YEAR FLOOD ZONE AS SHOWN IN THE COMMUNITY PANEL 370170005 C DATED NOV. 4, 1997.

TRAFFIC CONTROL NOTES

1. ALL SITE SIGNAGE SHALL BE IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) AND NCDOT STANDARDS.

SIGN	MUTCD STD.	SIZE
STOP	R1-1	30"x30"
ONE WAY	R6-1	36"x12"
2. 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.
3. ALL PAVEMENT MARKINGS SHALL BE IN ACCORDANCE WITH THE MUTCD AND NCDOT STANDARDS AND THE PROJECT SPECIFICATIONS.

MARKING	NCDOT STD.	SIZE	COLOR
PARKING SPACE	4-IN	4-IN	WHT.
DIRECTIONAL ARROWS	1205.08	STD.	WHT.
NO PARKING - FIRE LANE *	-	4-IN	WHT.
SOLID	-	4-IN	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.
4. ALL PAVEMENT MARKINGS ON SITE MAY BE EITHER THERMOPLASTIC OR ALKYD-RESIN TYPE PAINT.
5. ALL SIGNAGE SHALL BE FIELD STAKED AND THE LOCATIONS APPROVED BY CLH DESIGN PRIOR TO SIGN INSTALLATION.
6. CENTER ALL DIRECTIONAL ARROWS WITHIN TRAVEL LANE.

bmh
BOWMAN MURRAY HEMINGWAY
ARCHITECTS
514 Market Street
Wilmington, NC 28401
Tel - (910) 762-2621
Fax - (910) 762-8506

CLH DESIGN, PA
400 Regency Forest Dr.
Suite 120
Cary, NC 27518
Phone: 919.318.6716
Fax: 919.318.7516
LA: C-106 PE: C-1595



DD DOCUMENTS

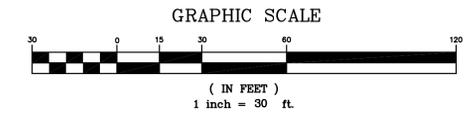
Renovations and Additions to:
John T. Hoggard High School
4305 Shipyard Blvd.
Wilmington, North Carolina
28403

JOB NUMBER	15-120
DRAWN BY	JGM
CHECKED BY	JGM
DATE	JANUARY 13, 2016
REVISIONS	

SITE STAKING PLAN

SHEET NUMBER

C-1.1



DESIGN DEVELOPMENT: 12-21-2015

JARE HOLDINGS LLC
R06114-001-002-000
ZONING: O&I
CLASS: RESIDENTIAL

SMV II LLC
R06114-001-002-000
ZONING: O&I
CLASS: COMMERCIAL

SMV LLC
R06114-001-002-002
ZONING: O&I
CLASS: COMMERCIAL

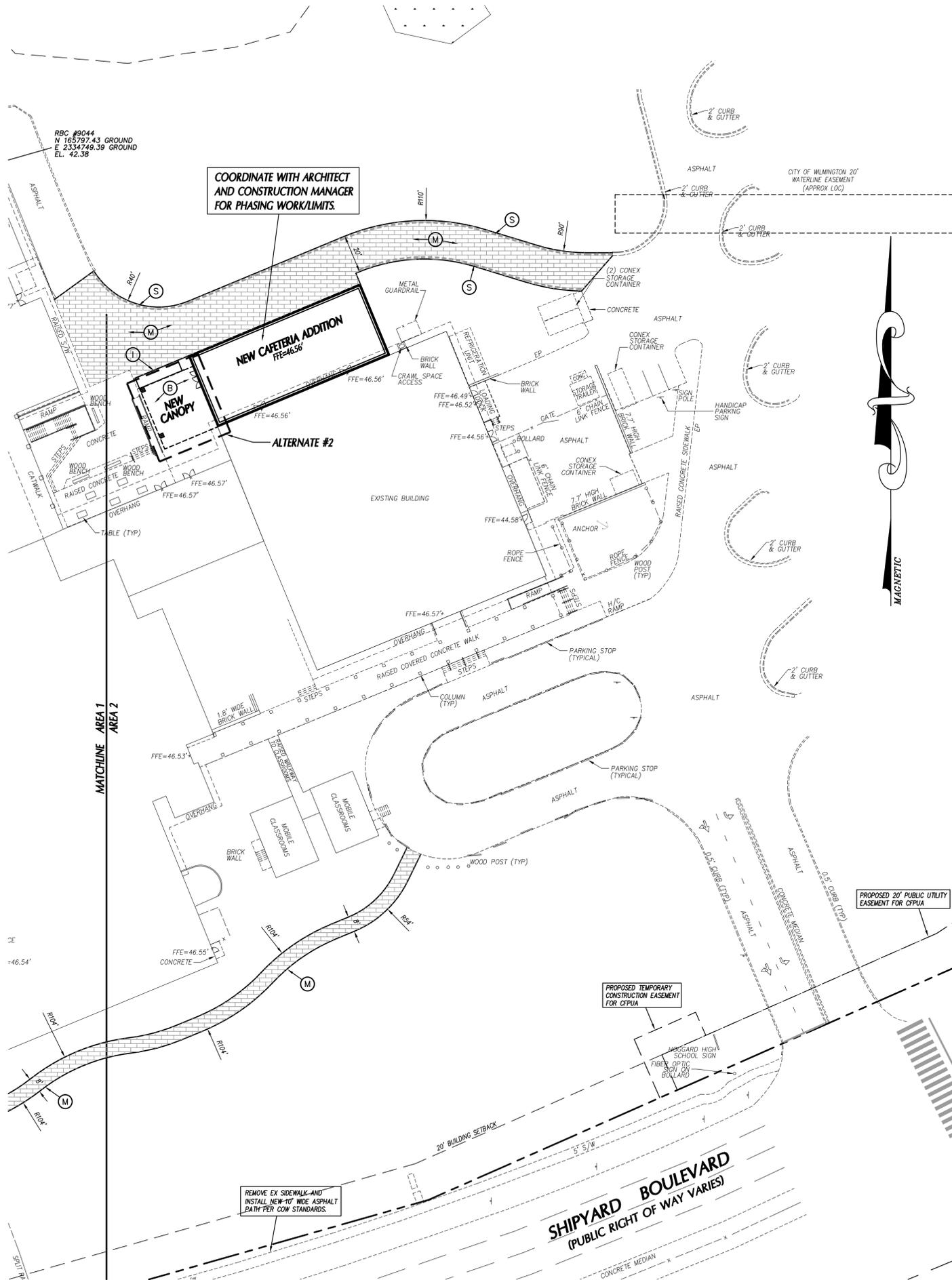
ZP NO 183 LLC
R06114-004-001-000
ZONING: R9
CLASS: COMMERCIAL

CITY OF WILMINGTON NOTES

- PRIOR TO ANY CLEARING, GRADING OR CONSTRUCTION ACTIVITY, TREE PROTECTION FENCING SHALL BE INSTALLED AROUND PROTECTED TREES OR GROVES OF TREES. NO CONSTRUCTION WORKERS, TOOLS, MATERIALS OR VEHICLES ARE PERMITTED WITHIN TREE PROTECTION FENCING.
- 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.
- NO EQUIPMENT IS ALLOWED ON SITE UNTIL ALL TREE PROTECTION FENCING AND SILT FENCING IS INSTALLED AND APPROVED. PROTECTIVE FENCING IS TO BE MAINTAINED THROUGHOUT THE DURATION OF THE PROJECT, AND CONTRACTORS SHALL RECEIVE ADEQUATE INSTRUCTION ON TREE PROTECTION METHODS.
- ALL PAVEMENT MARKINGS IN PUBLIC RIGHTS-OF-WAY AND FOR DRIVEWAYS ARE TO BE THERMOPLASTIC AND MEET CITY AND/OR NCDOT STANDARDS.
- 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.
- TRAFFIC CONTROL DEVICES (INCLUDING SIGNS AND PAVEMENT MARKINGS) IN AREAS OPEN TO PUBLIC TRAFFIC ARE TO MEET MUTCD (MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES) STANDARDS.
- CONTACT TRAFFIC ENGINEERING AT 910.341.7888 TO ENSURE THAT ALL TRAFFIC SIGNAL FACILITIES AND EQUIPMENT ARE SHOWN ON THE PLAN.
- CALL TRAFFIC ENGINEERING AT 910.341.7888 FORTY-EIGHT (48) HOURS PRIOR TO ANY EXCAVATION IN THE RIGHT-OF-WAY.
- TRAFFIC ENGINEERING MUST APPROVE OF PAVEMENT MARKING PRIOR TO ACTUAL STRIPING.
- ALL PARKING STALL MARKINGS AND LANE ARROWS WITH THE PARKING AREAS SHALL BE WHITE.
- ALL TRAFFIC CONTROL SIGNS AND MARKINGS OFF THE RIGHT-OF-WAY ARE TO BE MAINTAINED BY THE PROPERTY OWNER.
- STOP SIGNS AND STREET SIGNS TO REMAIN IN PLACE DURING CONSTRUCTION.
- TACTILE WARNING MATS WILL BE INSTALLED ON ALL WHEELCHAIR RAMPS.
- A UTILITY CUT PERMIT IS REQUIRED FOR EACH OPEN CUT OF A CITY STREET.
- ANY BROKEN OR MISSING SIDEWALK PANELS WILL BE REPLACED.
- CONTACT KAREN DIXON AT 910.341.7888 TO DISCUSS STREET LIGHT OPTIONS.
- WATER AND SEWER SERVICE SHALL MEET CAPE FEAR PUBLIC UTILITY AUTHORITY (CFPUA) DETAILS AND SPECIFICATIONS.
- PROJECT SHALL COMPLY WITH CFPUA CROSS CONNECTION CONTROL REQUIREMENTS. WATER METER(S) CANNOT BE RELEASED UNTIL ALL REQUIREMENTS ARE MET AND THE STATE HAS GIVEN THEIR FINAL APPROVAL. CALL 910.343.3910 FOR INFORMATION.
- IF THE CONTRACTOR DESIRED CFPUA WATER FOR CONSTRUCTION, HE SHALL APPLY IN ADVANCE FOR THIS SERVICE AND MUST PROVIDE A REDUCED PRESSURE ZONE (RPZ) BACKFLOW PREVENTION DEVICE ON THE DEVELOPER'S SIDE OF THE WATER METER BOX.
- ANY IRRIGATION SYSTEM SUPPLIED BY CFPUA WATER SHALL COMPLY WITH THE CFPUA CROSS CONNECTION CONTROL REGULATIONS. CALL 910.343.3910 FOR INFORMATION.
- ANY IRRIGATION SYSTEM SHALL BE EQUIPPED WITH A RAIN AND FREEZER SENSOR.
- ANY BACKFLOW PREVENTION DEVICES REQUIRED BY CFPUA WILL NEED TO BE ON THE LIST OF APPROVED DEVICES BY USOFODCHR OR ASSE.
- CONTRACTOR TO FIELD VERIFY EXISTING WATER AND SEWER SERVICE LOCATIONS, SIZES AND MATERIALS PRIOR TO CONSTRUCTION. ENGINEER TO BE NOTIFIED OF ANY CONFLICTS.
- CONTRACTOR SHALL MAINTAIN ALL-WEATHER ACCESS FOR EMERGENCY VEHICLES AT ALL TIMES DURING CONSTRUCTION.
- 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.
- NO OBSTRUCTIONS ARE PERMITTED IN THE SPACE BETWEEN THIRTY (30) INCHES AND TEN (10) FEET ABOVE THE GROUND WITHIN THE TRIANGULAR SIGHT DISTANCE.
- CONTACT THE NORTH CAROLINA ONE CALL CENTER AT 1.800.632.4949 PRIOR TO DOING ANY DIGGING, CLEARING OR GRADING.

NOTATIONS

TEACHER AND STAFF MEMBER MEMBERS = 63
 SEATING = 65
 C PARKING AREAS = 32 SPACES
 WORKING AREAS = 36 SPACES
 TOTAL SPACES = 68 SPACES



KEY NOTES

- (A) 24" CONCRETE CURB & GUTTER, SEE DETAIL SHEET.
- (B) CONCRETE SIDEWALK, SEE DETAIL SHEET.
- (C) HEAVY DUTY ASPHALT PAVEMENT, SEE DETAIL SHEET.
- (D) LIGHT DUTY ASPHALT PAVEMENT, SEE DETAIL SHEET.
- (E) CONCRETE PAVEMENT, SEE DETAIL SHEET.
- (F) SIDEWALK FLUSH WITH PAVEMENT GRADE, SEE DETAIL SHEET.
- (G) SEAT WALL, SEE DETAIL SHEET.
- (H) ACCESSIBLE PARKING SIGNAGE, SEE DETAIL SHEET.
- (I) SEE ARCHITECTURAL PLANS FOR SCREEN WALLS, RAMP, CANOPY, STEPS, ETC.
- (J) DRIVEWAYS TO BE CONSTRUCTED PER CITY OF WILMINGTON STANDARDS.
- (K) ASPHALT PATCH, SEE DETAIL SHEET.
- (L) ACCESSIBLE CURB RAMP, SEE DETAIL SHEET.
- (M) PERMEABLE PAVERS, SEE DETAIL SHEET.
- (N) ASPHALT OVERLAY, SEE DETAIL SHEET.
- (O) RAISED CONCRETE SIDEWALK, SEE DETAIL SHEET.
- (P) DIRECTIONAL ARROW, SEE TRAFFIC CONTROL NOTES THIS SHEET.
- (Q) PARKING STRIPING, SEE TRAFFIC CONTROL NOTES THIS SHEET.
- (R) TRAFFIC CONTROL SIGNAGE, SEE TRAFFIC CONTROL NOTES THIS SHEET.
- (S) FIRE LANE STRIPING, SEE TRAFFIC CONTROL NOTES THIS SHEET.

GENERAL NOTES

- ALL DIMENSIONS SHOWN ARE FACE OF CURB AND FACE OF BUILDING WALL, UNLESS OTHERWISE SHOWN.
- CONTRACTOR SHALL BE RESPONSIBLE FOR FIELD VERIFICATION OF ALL DIMENSIONS SHOWN AND CONTACT THE ARCHITECT IF ANY DISCREPANCIES OCCUR.
- CONSTRUCTION STAKE OUT IS THE RESPONSIBILITY OF THE CONTRACTOR.
- ALL SIGNS AND PAVEMENT MARKINGS ARE TO MEET MUTCD (MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES) STANDARDS.
- PAVEMENT MARKINGS IN PUBLIC RIGHTS-OF-WAYS AND FOR DRIVEWAYS ARE TO BE THERMOPLASTIC AND MEET CITY OF WILMINGTON AND/OR NCDOT STANDARDS.
- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH CITY OF WILMINGTON STANDARDS AND SPECIFICATIONS.
- REPLACEMENT OF ANY BROKEN OR DAMAGED CONCRETE SIDEWALK PANELS OR CURBING THAT OCCURS DURING CONSTRUCTION IS THE RESPONSIBILITY OF THE CONTRACTOR.
- ALL PARKING STALL RADII SHALL BE 4' UNLESS OTHERWISE NOTED.
- PIPE GATE AT THE BUS DROP-OFF/FIRE LANE SHALL MEET THE CITY OF WILMINGTON FIRE SERVICES GATE REQUIREMENTS FOR LOCKING ARRANGEMENTS.
- A PORTION OF THIS PROPERTY IS LOCATED IN THE 100 YEAR FLOOD ZONE AS SHOWN IN THE COMMUNITY PANEL 3701710005 C DATED NOV. 4,1997.

TRAFFIC CONTROL NOTES

- ALL SITE SIGNAGE SHALL BE IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) AND NCDOT STANDARDS.

SIGN	MUTCD STD.	SIZE
STOP	R1-1	30"x30"
ONE WAY	R6-1	36"x12"
- 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 PAVEMENT MARKINGS SHALL BE IN ACCORDANCE WITH THE MUTCD AND NCDOT STANDARDS AND THE PROJECT SPECIFICATIONS.

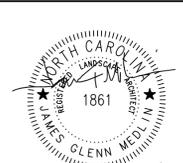
MARKING	NCDOT STD.	SIZE	COLOR
PARKING SPACE	1205.08	4'-IN	WHT.
DIRECTIONAL ARROWS	STD.	4'-IN	WHT.
NO PARKING - FIRE LANE *	-	4'-IN	WHT.
SOLID	-	4'-IN	WHT.

* 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.
- ALL PAVEMENT MARKINGS ON SITE MAY BE EITHER THERMOPLASTIC OR ALKYD-RESIN TYPE PAINT.
- ALL SIGNAGE SHALL BE FIELD STAKED AND THE LOCATIONS APPROVED BY CLH DESIGN PRIOR TO SIGN INSTALLATION.
- CENTER ALL DIRECTIONAL ARROWS WITHIN TRAVEL LANE.



BOWMAN MURRAY HEMINGWAY
 ARCHITECTS

514 Market Street
 Wilmington, NC 28401
 Tel - (910) 762-2621
 Fax - (910) 762-8506



DD DOCUMENTS

Renovations and Additions to:
John T. Hoggard High School
4305 Shipyard Blvd.
Wilmington, North Carolina
28403

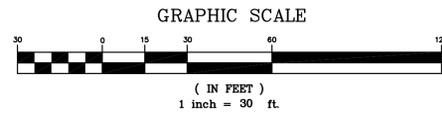
JOB NUMBER 15-120
 DRAWN BY JGM
 CHECKED BY JGM
 DATE JANUARY 13, 2016
 REVISIONS

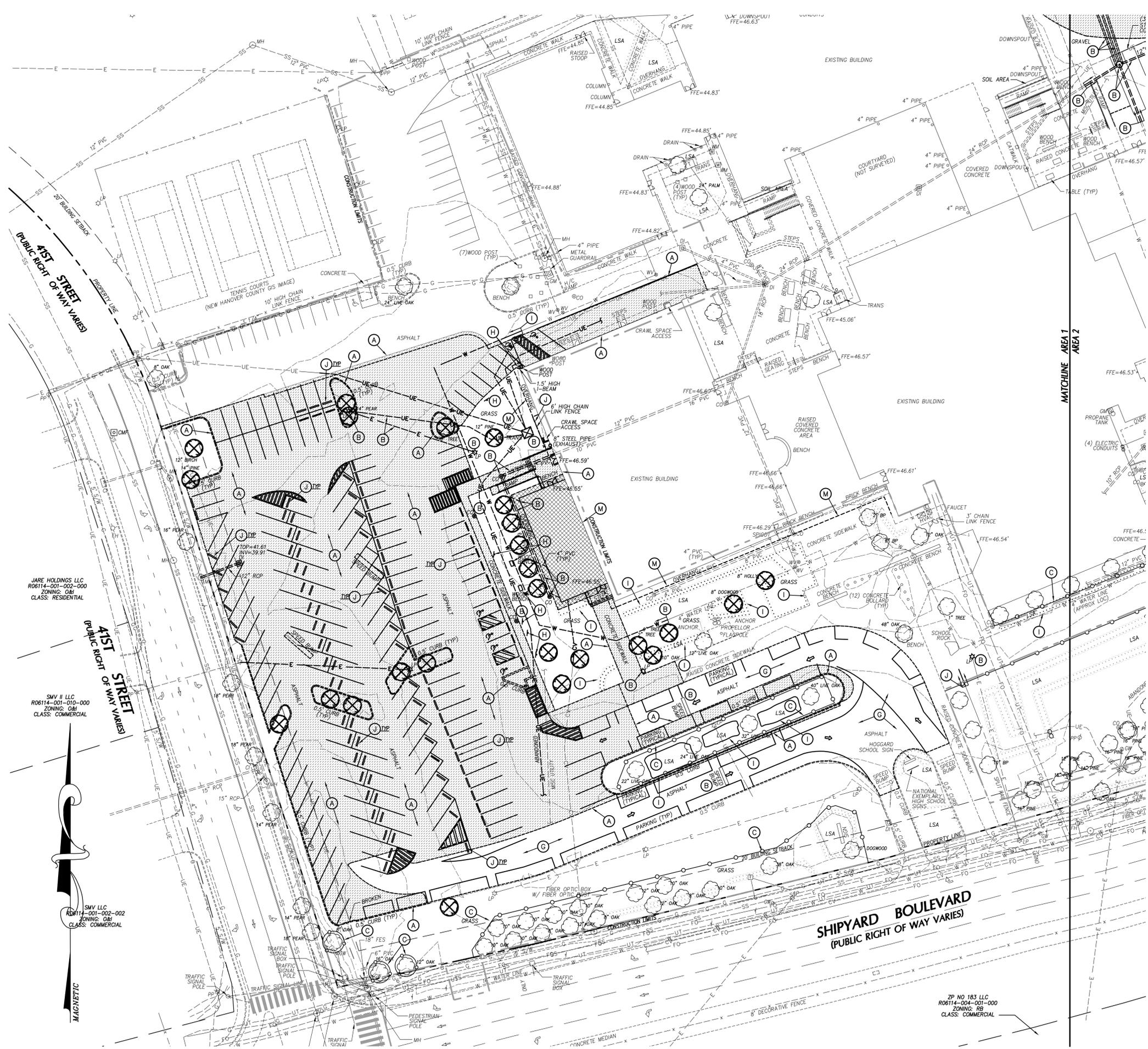
SITE STAKING PLAN

SHEET NUMBER

C-1.2

DESIGN DEVELOPMENT - 12-21-2015





LEGEND-STRUCTURES/UTILITIES TO REMAIN

OVERHEAD ELECTRICAL	----- E -----	LIGHT POLE	⊗ LP
UNDERGROUND ELECTRICAL	----- UE -----	UTILITY POLE	⊗ PP
FIRE PROTECTION	----- FP -----	MANHOLE	⊗ MH
GAS	----- G -----	CLEAN OUT	⊗ CO
SANITARY SEWER	----- SS -----	DROP INLET,CATCH BASIN	⊗ DI, CB
TELEPHONE	----- T -----	FIRE HYDRANT	⊗ FH
UNDERGROUND TELEPHONE	----- UT -----	WATER VALVE	⊗ WV
FIBER OPTIC	----- FO -----		
WATER	----- W -----		
FORCE MAIN	----- FM -----		
STORM DRAIN	----- SD -----		
INDIVIDUAL TREE TO REMAIN	⊗		

LEGEND-STRUCTURES/UTILITIES TO BE REMOVED

OVERHEAD ELECTRICAL	----- E -----	LIGHT POLE	⊗ LP
UNDERGROUND ELECTRICAL	----- UE -----	UTILITY POLE	⊗ PP
FIRE PROTECTION	----- FP -----	MANHOLE	⊗ MH
GAS	----- G -----	CLEAN OUT	⊗ CO
SANITARY SEWER	----- SS -----	DROP INLET,CATCH BASIN	⊗ DI, CB
TELEPHONE	----- T -----	FIRE HYDRANT	⊗ FH
UNDERGROUND TELEPHONE	----- UT -----	WATER VALVE	⊗ WV
FIBER OPTIC	----- FO -----	CONSTR./CLEARING LIMITS TO BE DEMOLISHED	⊗
WATER	----- W -----	PAVEMENT, S/W, CONCRETE TO BE DEMOLISHED	⊗
FORCE MAIN	----- FM -----	BUILDINGS TO BE DEMOLISHED REFER TO ARCHITECTURAL PLANS FOR ADDITIONAL INFORMATION.	⊗
STORM DRAIN	----- SD -----		
INDIVIDUAL TREE TO BE REMOVED	⊗		

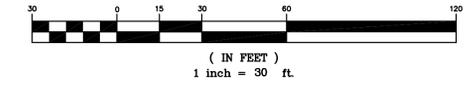
KEY NOTES

- (A) SAWCUT AND REMOVE PAVEMENT, CURB & GUTTER, AND SIDEWALK.
- (B) STRUCTURES/UTILITIES TO BE REMOVED.
- (C) TREE PROTECTION FENCING, SEE DETAIL SHEET.
- (D) CLEAR & GRUB WITHIN CONSTRUCTION LIMITS, SEE SPECIFICATIONS.
- (E) EXISTING UTILITY TO BE RELOCATED/REMOVED/ADJUSTED BY UTILITY COMPANY. COORDINATE, SCHEDULE WORK WITH UTILITY COMPANY. SEE UTILITY PLAN FOR APPROXIMATE NEW LOCATIONS.
- (F) EXISTING CONNEX/STORAGE UNIT/DUMPSTER TO BE RELOCATED BY OWNER.
- (G) MILL AREA AS REQUIRED TO RECEIVE ASPHALT OVERLAY. REFER TO STAKING PLANS FOR ADDITIONAL INFORMATION.
- (H) SITE ELEMENTS (TRASH CANS, BOLLARDS, BENCHES, SIGNS, ETC.) TO BE REMOVED.
- (J) SHRUBS/LANDSCAPING TO BE REMOVED.
- (K) CHAIN LINK FENCE TO BE REMOVED.
- (X) CONCRETE WHEEL STOP TO BE REMOVED.
- (L) PIPE GATE TO BE REMOVED
- (M) REFER TO ARCHITECTURAL PLANS FOR REMOVAL/DEMOLITION OF ITEMS.

GENERAL NOTES

1. ALL UTILITIES OR STRUCTURES NOT INDICATED FOR REMOVAL OR MODIFICATION ARE TO REMAIN AND BE PROTECTED FROM DAMAGE.
2. ALL WASTE MATERIAL GENERATED FROM CLEARING AND DEMOLITION ACTIVITIES SHALL BE DISPOSED OF OFF-SITE IN ACCORDANCE WITH ALL APPLICABLE RULES AND REGULATIONS.
3. INSTALL TREE PROTECTION FENCING PRIOR TO BEGINNING CLEARING OPERATIONS. CLEAR AND GRUB AS NEEDED WITHIN CONSTRUCTION LIMITS PER SPECIFICATIONS AND DRAWINGS. EXISTING TREES, SHRUBS OR OTHER LANDSCAPE WHICH WILL CONFLICT WITH NEW CONSTRUCTION SHALL BE REMOVED (WHETHER OR NOT SHOWN ON THE DRAWINGS) FOLLOWING APPROVAL OF ARCHITECT. BY SUBMITTING A BID, CONTRACTOR ACKNOWLEDGES THAT THE SITE HAS BEEN INVESTIGATED TO DETERMINE TYPE, SIZE AND QUANTITY OF CLEARING REQUIRED FOR CONSTRUCTION.
4. LAND CLEARING AND CONSTRUCTION CONTRACTORS SHALL RECEIVE ADEQUATE INSTRUCTION ON TREE PROTECTION REQUIREMENTS AND METHODS (PER CODE SECT. 18-457(D)).
5. NO EQUIPMENT IS ALLOWED ON SITE UNTIL ALL TREE PROTECTION FENCING AND SILT FENCING HAS BEEN INSTALLED AND APPROVED (PER CODE SECT. 18-458).
6. NO LAND DISTURBANCE, INCLUDING TREE REMOVAL, IS TO OCCUR OUTSIDE THE LIMITS OF DISTURBANCE SHOWN (PER CODE SECT. 18-457 (B)).
7. ALL PAVEMENT OR CONCRETE TO BE REMOVED SHALL BE SAW CUT TO PROVIDE A STRAIGHT AND UNIFORM JOINT WITH NEW CONSTRUCTION. ANY EXISTING PAVEMENT, SIDEWALK, CURB & GUTTER, ETC. THAT MUST BE REMOVED TO ALLOW NEW CONSTRUCTION SHALL BE REMOVED AND REPAIRED PER THE SPECIFICATIONS AND DETAILS OR TO MATCH EXISTING CONDITIONS (WHETHER OR NOT SHOWN ON THE DRAWINGS TO BE REMOVED). UTILITY INSTALLATIONS MAY UTILIZE OPEN CUT OF PAVEMENTS UNLESS INDICATED OTHERWISE. TRENCH IN EXISTING ASPHALT SHALL BE PATCHED PER PAVEMENT REPAIR ON DETAIL SHEET.
8. PROTECT ALL ADJACENT PROPERTIES, THE GENERAL PUBLIC AND ALL OF THE OWNER'S FACILITIES. SHOULD DAMAGES OCCUR, NOTIFY ARCHITECT IMMEDIATELY.
9. THE CONTRACTOR SHALL EMPLOY A QUALIFIED UTILITY LOCATOR SERVICE TO LOCATE ALL UNDERGROUND UTILITIES (INCLUDING BUT NOT LIMITED TO ELECTRICAL, TELEPHONE, GAS, CABLE, FIBER OPTIC) WITHIN THE LIMITS OF CONSTRUCTION.
10. VERIFY ALL ILLUSTRATED KNOWN UNDERGROUND ELEMENTS. EXERCISE REASONABLE EFFORTS TO PROTECT ANY UNKNOWN UNDERGROUND ELEMENTS. NOTIFY ARCHITECT IMMEDIATELY IF UNKNOWN ELEMENTS ARE DISCOVERED THAT WOULD NECESSITATE MODIFICATION TO THE PROPOSED DESIGN.
11. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH APPLICABLE LOCAL, STATE AND OSHA REGULATIONS.
12. EXISTING MANHOLES, VALVE BOXES, VAULTS, CLEANOUTS, UTILITY POLES ETC. TO REMAIN WITHIN THE GRADING LIMITS SHALL BE ADJUSTED AS NEEDED TO FUNCTION PROPERLY WITH THE PROPOSED FINISHED GRADES (WHETHER OR NOT INDICATED TO BE MODIFIED).
13. GENERAL CONTRACTOR TO COORDINATE ALL PEDESTRIAN ACCESS PATHS, LOCATIONS, LIGHTING ETC. W/OWNER.
14. EXISTING SURVEY INFORMATION WAS TAKEN FROM A BOUNDARY AND TOPOGRAPHIC SURVEY BY MCKIM & CREED DATED 10-30-15. SURVEY PROVIDED BY OWNER.
15. ANY AND ALL LANDSCAPING AND EXISTING TREES & SHRUBS TO REMAIN WHICH ARE DAMAGED DURING DEMOLITION OR CONSTRUCTION SHALL BE REPLACED BY THE CONTRACTOR UTILIZING A LICENSED LANDSCAPE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.
16. CONTRACTOR SHALL PROVIDE POSITIVE DRAINAGE WITHIN THE CONSTRUCTION AREA AFTER DEMOLITION IS COMPLETE. EXCAVATIONS FROM FOOTING AND UTILITY REMOVAL SHALL BE FILLED WITH STRUCTURAL MATERIAL AS DIRECTED BY THE OWNER'S TESTING AGENCY AND COMPACTED PER SPECIFICATIONS.

GRAPHIC SCALE



BOWMAN MURRAY HEMINGWAY
ARCHITECTS
514 Market Street
Wilmington, NC 28401
Tel - (910) 762-2621
Fax - (910) 762-8506



CLH DESIGN, PA
400 Regency Forest Dr.
Suite 120
Cary, NC 27518
Phone: 919.318.6716
Fax: 919.318.7516
LA: C-106 PE: C-1595



DD DOCUMENTS

Renovations and Additions to:
John T. Hoggard High School
4305 Shipyard Blvd.
Wilmington, North Carolina
28403

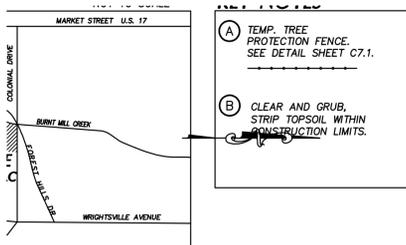
JOB NUMBER	15-120
DRAWN BY	JGM
CHECKED BY	JGM
DATE	JANUARY 13, 2016
REVISIONS	

SITE EXISTING CONDITIONS & DEMO PLAN

SHEET NUMBER

C-2.1

DESIGN DEVELOPMENT: 12-21-2015



- (A) TEMP. TREE PROTECTION FENCE. SEE DETAIL SHEET C7.1.
- (B) CLEAR AND GRUB STRIP TOPSOIL WITHIN CONSTRUCTION LIMITS.



LEGEND-STRUCTURES/UTILITIES TO REMAIN

OVERHEAD ELECTRICAL	----- E -----	LIGHT POLE	☆ LP
UNDERGROUND ELECTRICAL	----- UE -----	UTILITY POLE	⊗ PP
FIRE PROTECTION	----- FP -----	MANHOLE	⊙ MH
GAS	----- G -----	CLEAN OUT	⊙ CO
SANITARY SEWER	----- SS -----	DROP INLET,CATCH BASIN	⊙ DI, CB
TELEPHONE	----- T -----	FIRE HYDRANT	⊙ FH
UNDERGROUND TELEPHONE	----- UT -----	WATER VALVE	⊙ WV
FIBER OPTIC	----- FO -----		
WATER	----- W -----		
FORCE MAIN	----- FM -----		
STORM DRAIN	===== SD =====		
INDIVIDUAL TREE TO REMAIN	⊗		

LEGEND-STRUCTURES/UTILITIES TO BE REMOVED

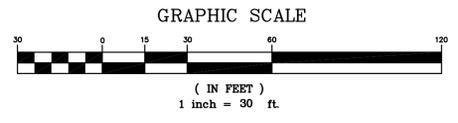
OVERHEAD ELECTRICAL	----- E -----	LIGHT POLE	☆ LP
UNDERGROUND ELECTRICAL	----- UE -----	UTILITY POLE	⊗ PP
FIRE PROTECTION	----- FP -----	MANHOLE	⊙ MH
GAS	----- G -----	CLEAN OUT	⊙ CO
SANITARY SEWER	----- SS -----	DROP INLET,CATCH BASIN	⊙ DI, CB
TELEPHONE	----- T -----	FIRE HYDRANT	⊙ FH
UNDERGROUND TELEPHONE	----- UT -----	WATER VALVE	⊙ WV
FIBER OPTIC	----- FO -----	CONSTR./CLEARING LIMITS	---
WATER	----- W -----	PAVEMENT, S/W, CONCRETE TO BE DEMOLISHED	▨
FORCE MAIN	----- FM -----	BUILDINGS TO BE DEMOLISHED	▩
STORM DRAIN	===== SD =====	REFER TO ARCHITECTURAL PLANS FOR ADDITIONAL INFORMATION.	
INDIVIDUAL TREE TO BE REMOVED	⊗		

KEY NOTES

- (A) SAWCUT AND REMOVE PAVEMENT, CURB & GUTTER, AND SIDEWALK.
- (B) STRUCTURES/UTILITIES TO BE REMOVED.
- (C) TREE PROTECTION FENCING, SEE DETAIL SHEET.
- (D) CLEAR & GRUB WITHIN CONSTRUCTION LIMITS, SEE SPECIFICATIONS.
- (E) EXISTING UTILITY TO BE RELOCATED/REMOVED/ADJUSTED BY UTILITY COMPANY. COORDINATE/SCHEDULE WORK WITH UTILITY COMPANY. SEE UTILITY PLAN FOR APPROXIMATE NEW LOCATIONS.
- (F) EXISTING CONNEX/STORAGE UNIT/DUMPSTER TO BE RELOCATED BY OWNER.
- (G) MILL AREA AS REQUIRED TO RECEIVE ASPHALT OVERLAY. REFER TO STAKING PLANS FOR ADDITIONAL INFORMATION.
- (H) SITE ELEMENTS (TRASH CANS, BOLLARDS, BENCHES, SIGNS, ETC.) TO BE REMOVED.
- (I) SHRUBS/LANDSCAPING TO BE REMOVED.
- (J) CHAIN LINK FENCE TO BE REMOVED.
- (K) CONCRETE WHEEL STOP TO BE REMOVED.
- (L) PIPE GATE TO BE REMOVED
- (M) REFER TO ARCHITECTURAL PLANS FOR REMOVAL/DEMOLITION OF ITEMS.

GENERAL NOTES

1. ALL UTILITIES OR STRUCTURES NOT INDICATED FOR REMOVAL OR MODIFICATION ARE TO REMAIN AND BE PROTECTED FROM DAMAGE.
2. ALL WASTE MATERIAL GENERATED FROM CLEARING AND DEMOLITION ACTIVITIES SHALL BE DISPOSED OF OFF-SITE IN ACCORDANCE WITH WITH ALL APPLICABLE RULES AND REGULATIONS.
3. INSTALL TREE PROTECTION FENCING PRIOR TO BEGINNING CLEARING OPERATIONS. CLEAR AND GRUB AS NEEDED WITHIN CONSTRUCTION LIMITS PER SPECIFICATIONS AND DRAWINGS. EXISTING TREES, SHRUBS OR OTHER LANDSCAPE MATERIAL WHICH WILL CONFLICT WITH NEW CONSTRUCTION SHALL BE REMOVED (WHETHER OR NOT SHOWN ON THE DRAWINGS) FOLLOWING APPROVAL OF ARCHITECT. BY SUBMITTING A BID, CONTRACTOR ACKNOWLEDGES THAT THE SITE HAS BEEN INVESTIGATED TO DETERMINE TYPE, SIZE AND QUANTITY OF CLEARING REQUIRED FOR CONSTRUCTION.
4. LAND CLEARING AND CONSTRUCTION CONTRACTORS SHALL RECEIVE ADEQUATE INSTRUCTION ON TREE PROTECTION REQUIREMENTS AND METHODS (PER CODE SECT. 18-457(D)).
5. NO EQUIPMENT IS ALLOWED ON SITE UNTIL ALL TREE PROTECTION FENCING AND SILT FEENCING HAS BEEN INSTALLED AND APPROVED (PER CODE SECT. 18-458).
6. NO LAND DISTURBANCE, INCLUDING TREE REMOVAL IS TO OCCUR OUTSIDE THE LIMITS OF DISTURBANCE SHOWN (PER CODE SECT. 18-457 (B)).
7. ALL PAVEMENT OR CONCRETE TO BE REMOVED SHALL BE SAW CUT TO PROVIDE A STRAIGHT AND UNIFORM JOINT WITH NEW CONSTRUCTION. ANY EXISTING PAVEMENT, SIDEWALK, CURB & GUTTER, ETC. THAT MUST BE REMOVED TO ALLOW NEW CONSTRUCTION SHALL BE REMOVED AND REPAIRED PER THE SPECIFICATIONS AND DETAILS OR TO MATCH EXISTING CONDITIONS (WHETHER OR NOT SHOWN ON THE DRAWINGS TO BE REMOVED). UTILITY INSTALLATIONS MAY UTILIZE OPEN CUT OF PAVEMENTS UNLESS INDICATED OTHERWISE. TRENCH IN EXISTING ASPHALT SHALL BE PATCHED PER PAVEMENT REPAIR ON DETAIL SHEET.
8. PROTECT ALL ADJACENT PROPERTIES, THE GENERAL PUBLIC AND ALL OF THE OWNER'S FACILITIES. SHOULD DAMAGES OCCUR, NOTIFY ARCHITECT IMMEDIATELY.
9. THE CONTRACTOR SHALL EMPLOY A QUALIFIED UTILITY LOCATOR SERVICE TO LOCATE ALL UNDERGROUND UTILITIES (INCLUDING BUT NOT LIMITED TO ELECTRICAL, TELEPHONE, GAS, CABLE, FIBER OPTIC) WITHIN THE LIMITS OF CONSTRUCTION.
10. VERIFY ALL ILLUSTRATED KNOWN UNDERGROUND ELEMENTS. EXERCISE REASONABLE EFFORTS TO PROTECT ANY UNKNOWN UNDERGROUND ELEMENTS. NOTIFY THE ARCHITECT IMMEDIATELY IF UNKNOWN ELEMENTS ARE DISCOVERED THAT WOULD NECESSITATE MODIFICATION TO THE PROPOSED DESIGN.
11. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH APPLICABLE LOCAL, STATE AND OSHA REGULATIONS.
12. EXISTING MANHOLES, VALVE BOXES, VAULTS, CLEANOUTS, UTILITY POLES ETC. TO REMAIN WITHIN THE GRADING LIMITS SHALL BE ADJUSTED AS NEEDED TO FUNCTION PROPERLY WITH THE PROPOSED FINISHED GRADES (WHETHER OR NOT INDICATED TO BE MODIFIED).
13. GENERAL CONTRACTOR TO COORDINATE ALL PEDESTRIAN ACCESS PATHS, LOCATIONS, LIGHTING ETC. W/OWNER.
14. EXISTING SURVEY INFORMATION WAS TAKEN FROM A BOUNDARY AND TOPOGRAPHIC SURVEY BY MOJIM & CREED DATED 10-30-15. SURVEY PROVIDED BY OWNER.
15. ANY AND ALL LANDSCAPING AND EXISTING TREES & SHRUBS TO REMAIN WHICH ARE DAMAGED DURING DEMOLITION OR CONSTRUCTION SHALL BE REPLACED BY THE CONTRACTOR UTILIZING A LICENSED LANDSCAPE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.
16. CONTRACTOR SHALL PROVIDE POSITIVE DRAINAGE WITHIN THE CONSTRUCTION AREA AFTER DEMOLITION IS COMPLETE. EXCAVATIONS FROM FOOTING AND UTILITY REMOVAL SHALL BE FILLED WITH STRUCTURAL MATERIAL AS DIRECTED BY THE OWNER'S TESTING AGENCY AND COMPACTED PER SPECIFICATIONS.



mm
BOWMAN MURRAY HEMINGWAY
 ARCHITECTS
 514 Market Street
 Wilmington, NC 28401
 Tel - (910) 762-2621
 Fax - (910) 762-8506

CLH DESIGN, PA
 400 Regency Forest Dr.
 Suite 120
 Cary, NC 27518
 Phone: 919.318.6716
 Fax: 919.318.7516
 LA: C-106 PE: C-1595



DD DOCUMENTS

Renovations and Additions to:
John T. Hoggard High School
4305 Shipyard Blvd.
Wilmington, North Carolina
28403

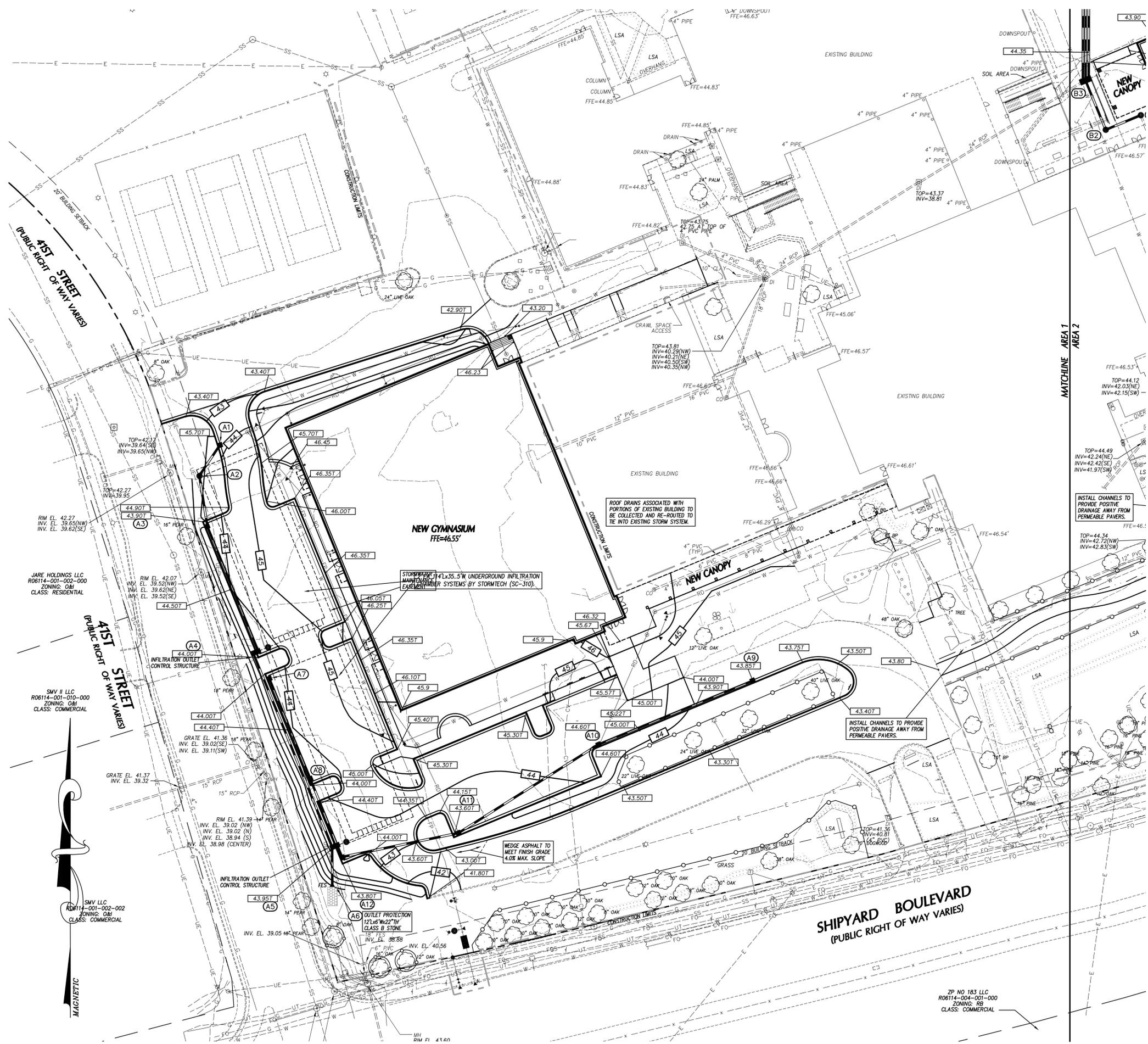
JOB NUMBER	15-120
DRAWN BY	JGM
CHECKED BY	JGM
DATE	JANUARY 13, 2016
REVISIONS	

SITE EXISTING CONDITIONS & DEMO PLAN

SHEET NUMBER

C-2.2

DESIGN DEVELOPMENT: 12-21-2015



GRADING LEGEND

- EXISTING CONTOURS
- FINAL CONTOURS
- 270.4' EXISTING SURVEY SPOT ELEVATION
- 270.50' PROPOSED TOP OF CURB SPOT ELEVATION
- 270.50' PROPOSED GROUND/PAVEMENT ELEVATION
- (29) STORM STRUCTURE NUMBER
- EXISTING STORM DRAIN PIPE
- PROPOSED STORM DRAIN PIPE
- TREE PROTECTION FENCE SEE DETAIL SHEET
- CONSTRUCTION LIMITS

- ### GRADING NOTES
- ALL SPOT ELEVATIONS INDICATED AT CURB AND GUTTER ARE TO TOP OF CURB, UNLESS OTHERWISE SHOWN.
 - TOTAL DENUDEED AREA = 5 AC.
 - CONTRACTOR SHALL ADJUST ALL EXISTING VAULTS, MANHOLES, STORM DRAIN STRUCTURES, CLEANOUTS, ETC. AS NEEDED TO MATCH FINISH GRADE.
 - ALL BACKFILL, COMPACTION, SOILS TESTING, ETC. SHALL BE PERFORMED BY THE OWNERS INDEPENDENT TESTING LABORATORY. (SEE SPECIFICATIONS FOR ADDITIONAL INFORMATION)
 - ALL STORM DRAIN PIPES SHALL BE PROTECTED WITH STONE FILTER PROTECTION AFTER STOPPAGE OF WORK EACH DAY.
 - EXISTING VEGETATION WITHIN TREE PROTECTION AREAS SHALL REMAIN UNDISTURBED, UNLESS NOTED OTHERWISE.
 - THE GRADING CONTRACTOR SHALL COMPLY WITH ALL STATE CODES IN OBSERVING EROSION CONTROL MEASURES BOTH ON AND OFF-SITE.
 - THE GRADING CONTRACTOR SHALL MAINTAIN ALL EROSION CONTROL DEVICES AFTER EACH RAINFALL EVENT OR AS DIRECTED BY STATE AUTHORITIES OR THE ARCHITECT.
 - 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 WASTE AREAS.
 - 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.

DRAINAGE STRUCTURE SCHEDULE

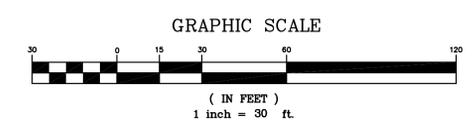
STRUCTURE NO.	UP STRM	DN STRM	PIPE SLOPE	PIPE DIA. (IN)	PIPE LENGTH (LF)	PIPE MATR.	UPPER INV. (FT)	LOWER INV. (FT)	UPSTREAM STRUCTURE DATA		
									TOP ELEV. (FT)	DEPTH (FT)	TYPE
A1	A2		1.09%	15	23	RCP	40.75	40.50	44.25	3.50	CB
A2	A3		0.94%	15	32	RCP	40.40	40.10	44.00	3.90	MH
A3	A4		0.47%	15	86	RCP	40.00	39.60	43.90	3.90	CB
A4	A5		0.84%	15	134	RCP	41.33	40.20	44.00	2.67	CB
A5	A6		0.77%	24	26	RCP	40.10	39.90	43.95	3.85	CB
A7	A8		0.74%	15	68	RCP	40.50	40.00	44.00	3.50	CB
A8	A5		0.85%	15	46	RCP	39.90	39.60	44.00	4.10	CB
A9	A10		0.42%	12	108	RCP	41.00	40.55	43.85	2.85	CB
A10	A11		0.42%	18	106	RCP	40.50	40.05	44.80	4.30	CB
A11	A12		0.46%	18	78	RCP	40.00	39.65	43.60	3.60	CB
A12	A5		0.63%	18	8	RCP	39.60	39.55	43.60	4.20	CB
B1	B2		1.25%	18	24	RCP	37.50	37.20	43.60	6.10	MH
B2	B3		1.18%	18	34	RCP	37.10	36.70	43.60	6.70	MH
B3	B4		1.08%	[3] 24	74	RCP	36.80	35.80	43.60	7.20	MH
C1	C2		1.16%	12	86	RCP	39.00	38.00	42.00	3.00	DI

LEGEND

- CB CATCH BASIN (NCOOT), SEE DETAIL SHEET.
- DI DROP INLET (NCOOT), SEE DETAIL SHEET.
- MH JUNCTION BOX MANHOLE (NCOOT), SEE DETAIL SHEET.
- FES STORMWATER WETLAND OUTLET, SEE DETAIL SHEET.
- (29) STRUCTURE I.D. NUMBER

NOTES:

- TOP ELEVATION IS TOP OF CURB FOR CATCH BASINS, TOP OF RIM FOR MANHOLES, TOP OF GRATE FOR DROP INLETS, AND FINISH GRADE FOR CLEANOUTS.
- ALL FES INLETS & OUTLETS SHALL BE RCP.



BOWMAN MURRAY HEMINGWAY
ARCHITECTS
514 Market Street
Wilmington, NC 28401
Tel - (910) 762-2621
Fax - (910) 762-8506

CLH DESIGN, PA
400 Regency Forest, Dr.
Suite 120
Cary, NC 27518
Phone: 919.318.6716
Fax: 919.318.7518
LA: C-106 PE: C-1595

DD DOCUMENTS

Renovations and Additions to:
John T. Hoggard High School
4305 Shipyard Blvd.
Wilmington, North Carolina
28403

JOB NUMBER
15-120

DRAWN BY
JGM

CHECKED BY
JGM

DATE
JANUARY 13, 2016

REVISIONS

SITE GRADING PLAN

SHEET NUMBER

C-3.1

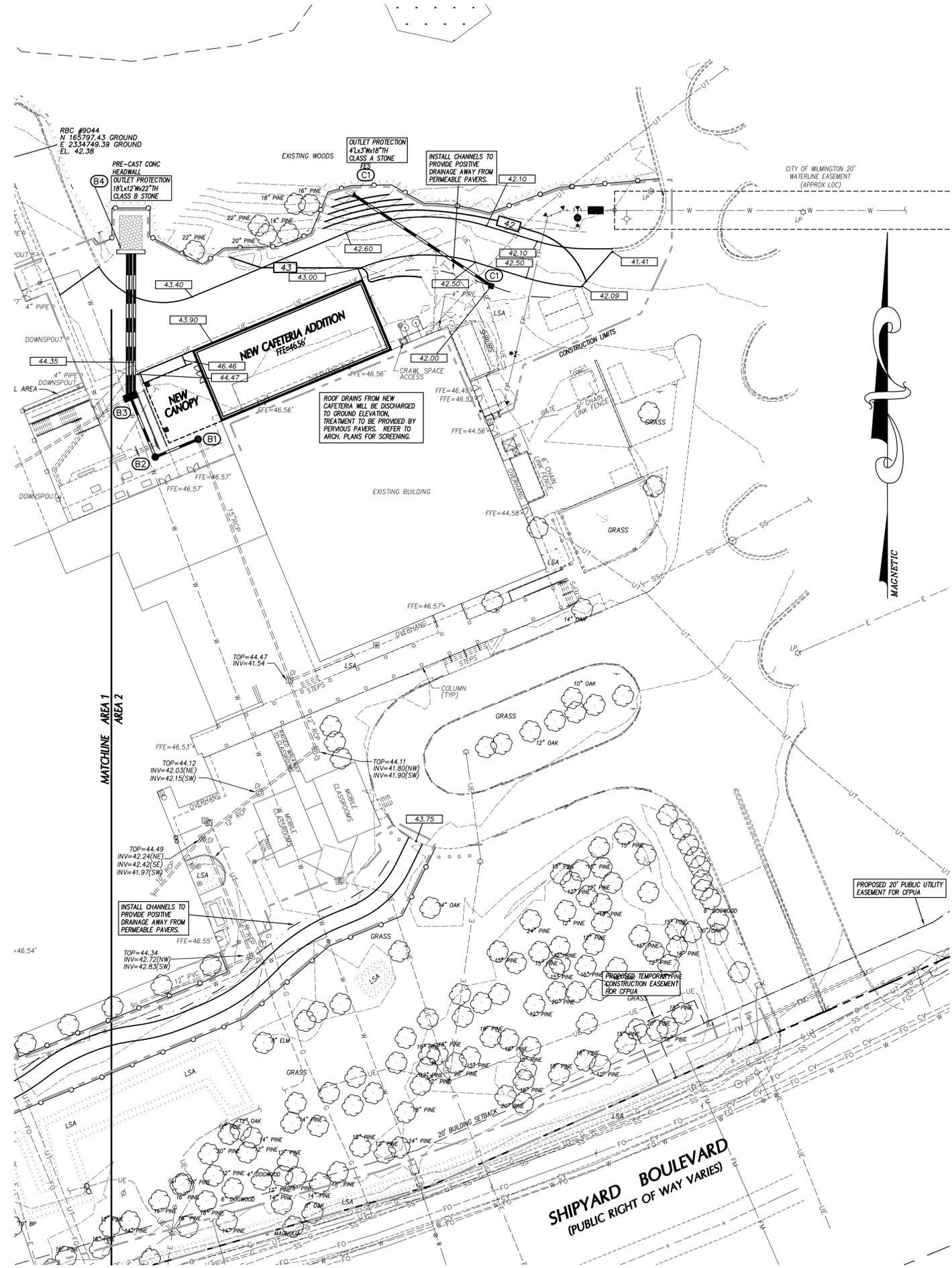
DESIGN DEVELOPMENT: 12-21-2015

ZP NO 183 LLC
R06114-004-001-000
ZONING: R3
CLASS: COMMERCIAL

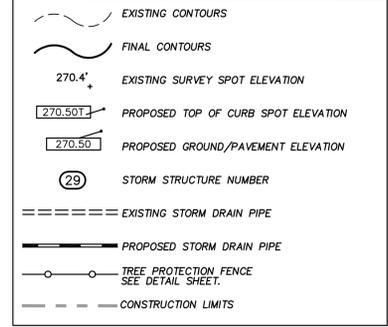
JARE HOLDINGS LLC
R06114-001-002-000
ZONING: O&I
CLASS: RESIDENTIAL

SMV II LLC
R06114-001-010-000
ZONING: O&I
CLASS: COMMERCIAL

SMV LLC
R06114-001-002-002
ZONING: O&I
CLASS: COMMERCIAL



GRADING LEGEND



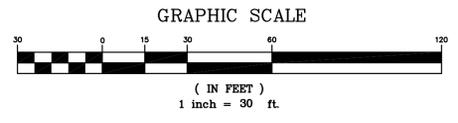
GRADING NOTES

1. ALL SPOT ELEVATIONS INDICATED AT CURB AND GUTTER ARE TO TOP OF CURB, UNLESS OTHERWISE SHOWN.
2. TOTAL DENUDE AREA = 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 AUTHORITIES OR THE ARCHITECT.
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 WASTE AREAS.
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.

DRAINAGE STRUCTURE SCHEDULE											
STRUCTURE NO.	PIPE DIA. (IN)	PIPE LENGTH (LF)	PIPE MATL.	UPPER INV. (FT)	LOWER INV. (FT)	UPSTREAM STRUCTURE DATA			TYPE	NOTES	
						TOP ELEV. (FT)	DEPTH (FT)	TYPE			
A1	A2	1.08%	15	23	RCP	40.75	43.50	44.25	3.50	CB	
A2	A3	0.94%	15	32	RCP	40.40	43.10	44.00	3.60	MH	
A3	A4	0.47%	15	86	RCP	40.00	39.60	43.90	3.90	CB	
A4	A5	0.84%	15	134	RCP	41.33	40.20	44.00	2.87	CB	BMP OUTLET
A5	A6	0.77%	24	28	RCP	40.10	39.90	43.95	3.85	CB	BMP OUTLET
A7	A8	0.74%	15	68	RCP	40.50	40.00	44.00	3.50	CB	
A8	A5	0.65%	15	48	RCP	39.90	39.60	44.00	4.10	CB	
A9	A10	0.42%	12	108	RCP	41.00	40.55	43.85	2.85	CB	
A10	A11	0.42%	18	106	RCP	40.50	40.55	44.80	4.30	CB	
A11	A12	0.46%	18	76	RCP	40.00	39.85	43.60	3.60	CB	
A12	A5	0.63%	18	8	RCP	39.60	39.55	43.60	4.20	CB	
B1	B2	1.25%	18	24	RCP	37.50	37.20	43.60	6.10	MH	
B2	B3	1.18%	18	34	RCP	37.10	36.70	43.80	6.70	MH	
B3	B4	1.08%	[3] 24	74	RCP	36.60	35.80	43.80	7.20	MH	3 OUTLETS
C1	C2	1.16%	12	86	RCP	39.00	38.00	42.00	3.00	DI	

LEGEND
 CB CATCH BASIN (NCDOT), SEE DETAIL SHEET.
 DI DROP INLET (NCDOT), SEE DETAIL SHEET.
 MH JUNCTION BOX MANHOLE (NCDOT), SEE DETAIL SHEET.
 FES STORMWATER WETLAND OUTLET, SEE DETAIL SHEET.
 (A2) STRUCTURE I.D. NUMBER

NOTES
 1. TOP ELEVATION IS TOP OF CURB FOR CATCH BASINS, TOP OF RIM FOR MANHOLES, TOP OF GRATE FOR DROP INLETS, AND FINISH GRADE FOR CLEANOUTS.
 2. ALL FES INLETS & OUTLETS SHALL BE RCP.



bmh
BOWMAN MURRAY HEMINGWAY
 ARCHITECTS
 514 Market Street
 Wilmington, NC 28401
 Tel - (910) 762-2621
 Fax - (910) 762-8506

CLH DESIGN, PA
 400 Hargett Street, Dr.
 Suite 120
 Cary, NC 27518
 Phone: 919.318.6716
 Fax: 919.318.7518
 LA: C-106 PE: C-1595



DD DOCUMENTS

Renovations and Additions to:
John T. Hoggard High School
4305 Shipyard Blvd.
Wilmington, North Carolina
28403

JOB NUMBER
15-120
 DRAWN BY
JGM
 CHECKED BY
JGM
 DATE
JANUARY 13, 2016
 REVISIONS

SITE GRADING PLAN

SHEET NUMBER

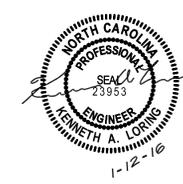
C-3.2

DESIGN DEVELOPMENT - 12-21-2015



**BOWMAN
MURRAY
HEMINGWAY**

ARCHITECTS
514 Market Street
Wilmington, NC 28401
Tel - (910) 762-2621
Fax - (910) 762-8506



DD DOCUMENTS

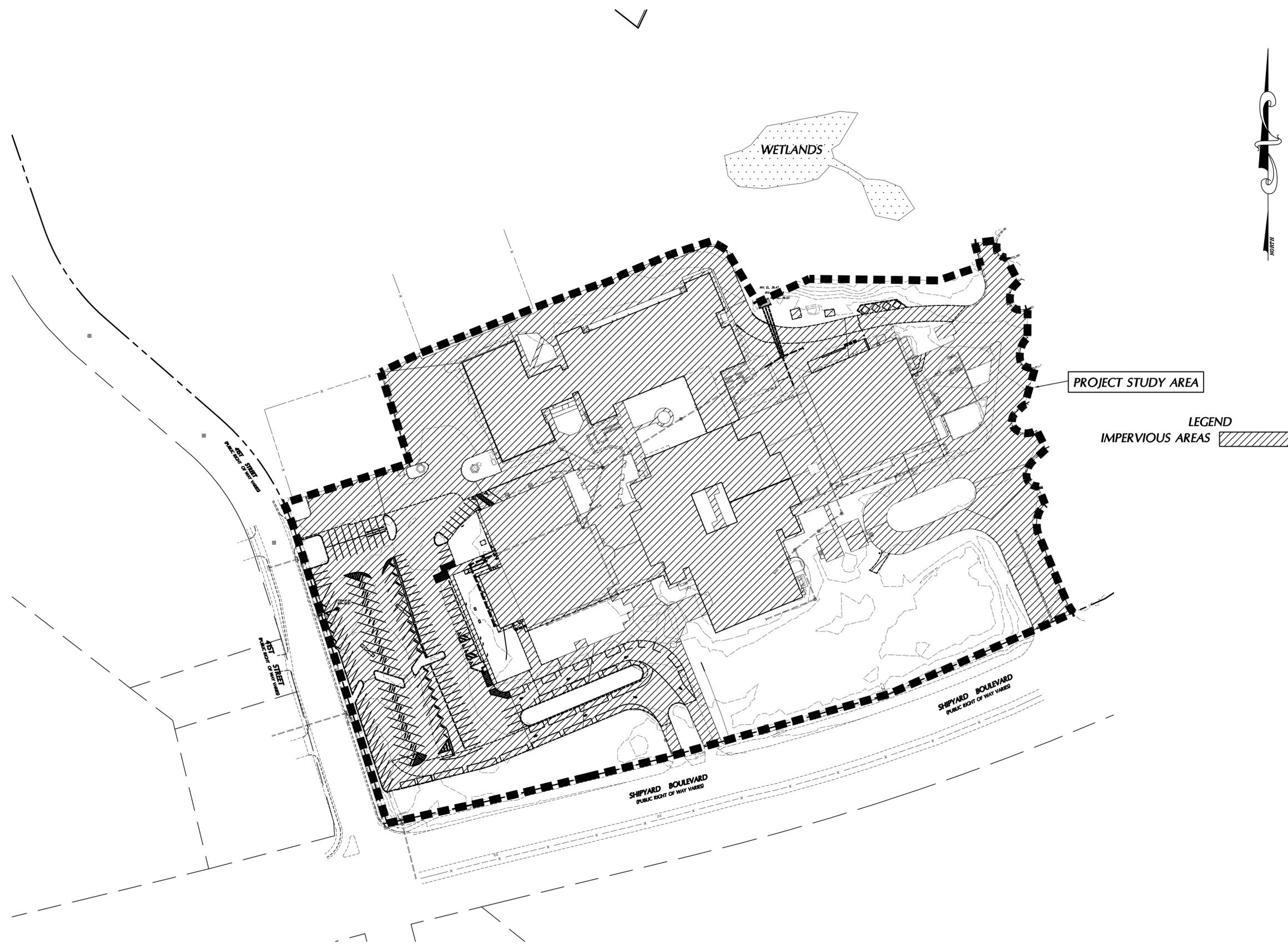
**Renovations and Additions to:
John T. Hoggard High School
4305 Shipyard Blvd.
Wilmington, North Carolina
28403**

JOB NUMBER
15-120
DRAWN BY
JGM
CHECKED BY
JGM
DATE
JANUARY 13, 2016
REVISIONS

PRE-DEV
IMPERVIOUS
AREAS PLAN
SHEET NUMBER

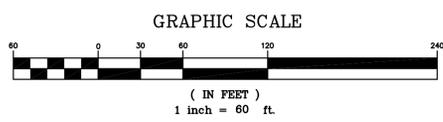
C-3.3

DESIGN DEVELOPMENT: 12-21-2015



PROJECT STUDY AREA

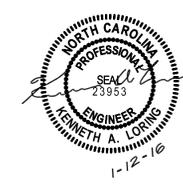
LEGEND
IMPERVIOUS AREAS





**BOWMAN
MURRAY
HEMINGWAY**

ARCHITECTS
514 Market Street
Wilmington, NC 28401
Tel - (910) 762-2621
Fax - (910) 762-8506



DD DOCUMENTS

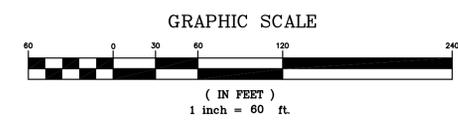
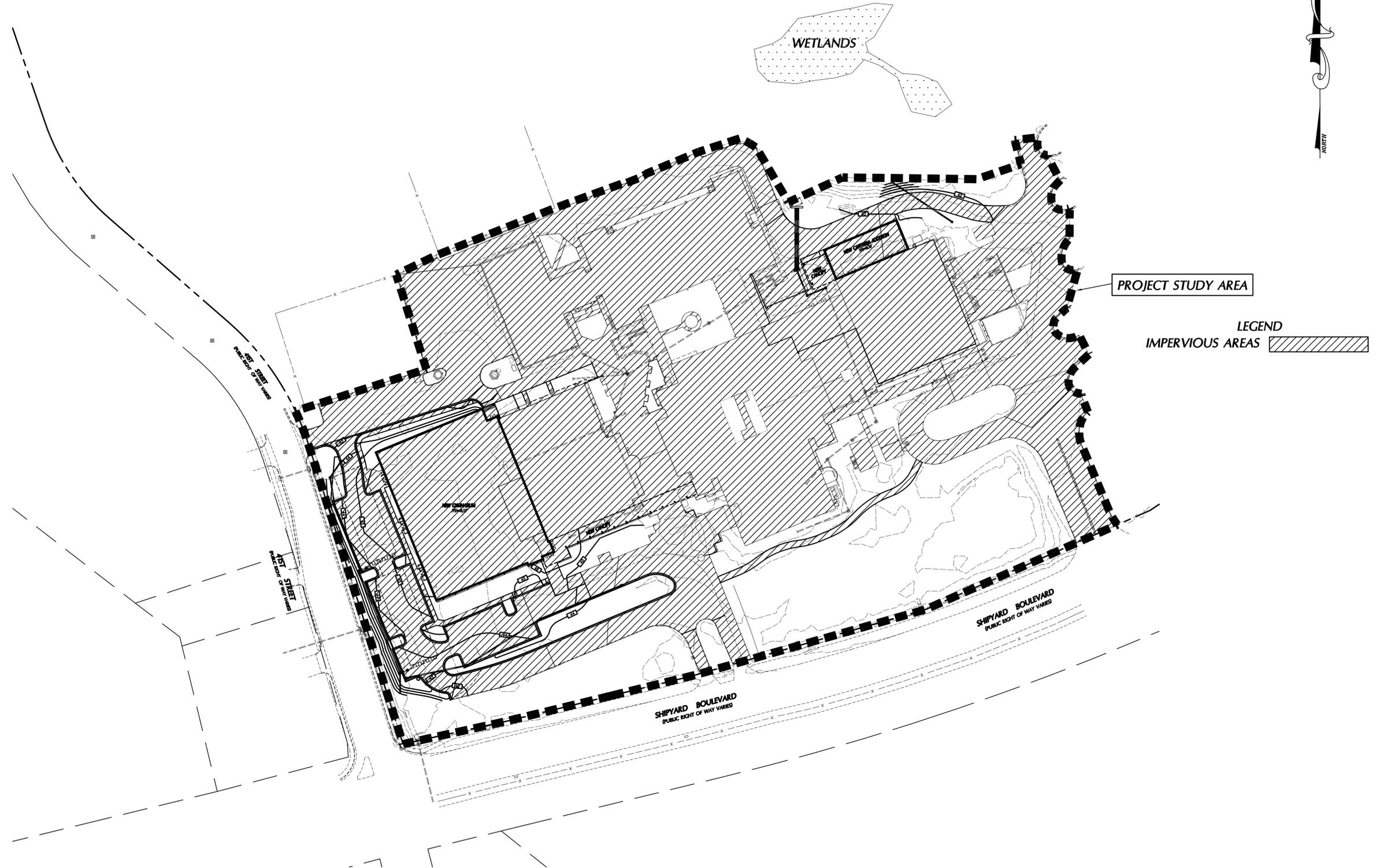
**Renovations and Additions to:
John T. Hoggard High School
4305 Shipyard Blvd.
Wilmington, North Carolina
28403**

JOB NUMBER
15-120
DRAWN BY
JGM
CHECKED BY
JGM
DATE
JANUARY 13, 2016
REVISIONS

**POST-DEV
IMPERVIOUS
AREAS PLAN**

SHEET NUMBER

C-3.4

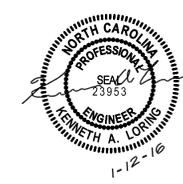


DESIGN DEVELOPMENT: 12-21-2015



**BOWMAN
MURRAY
HEMINGWAY**

ARCHITECTS
514 Market Street
Wilmington, NC 28401
Tel - (910) 762-2621
Fax - (910) 762-8506



DD DOCUMENTS

**Renovations and Additions to:
John T. Hoggard High School
4305 Shipyard Blvd.
Wilmington, North Carolina
28403**

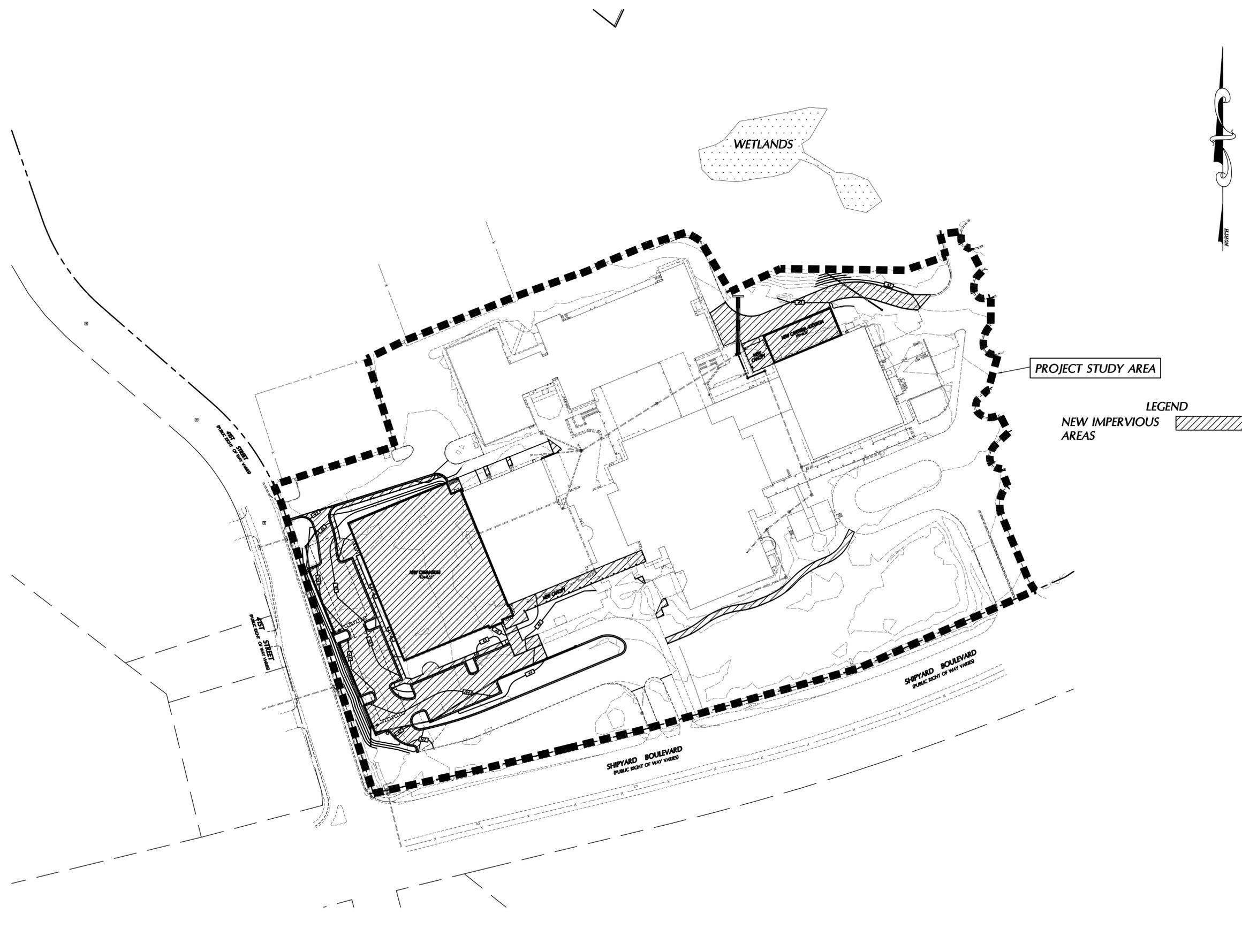
JOB NUMBER
15-120
DRAWN BY
JGM
CHECKED BY
JGM
DATE
JANUARY 13, 2016
REVISIONS

**POST-DEV
NEW
IMPERVIOUS
AREAS PLAN**

SHEET NUMBER

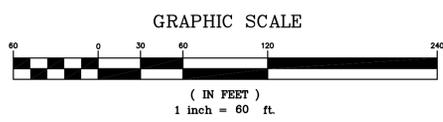
C-3.5

DESIGN DEVELOPMENT: 12-21-2015



PROJECT STUDY AREA

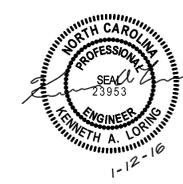
LEGEND
NEW IMPERVIOUS AREAS





**BOWMAN
MURRAY
HEMINGWAY**

ARCHITECTS
514 Market Street
Wilmington, NC 28401
Tel - (910) 762-2621
Fax - (910) 762-8506



DD DOCUMENTS

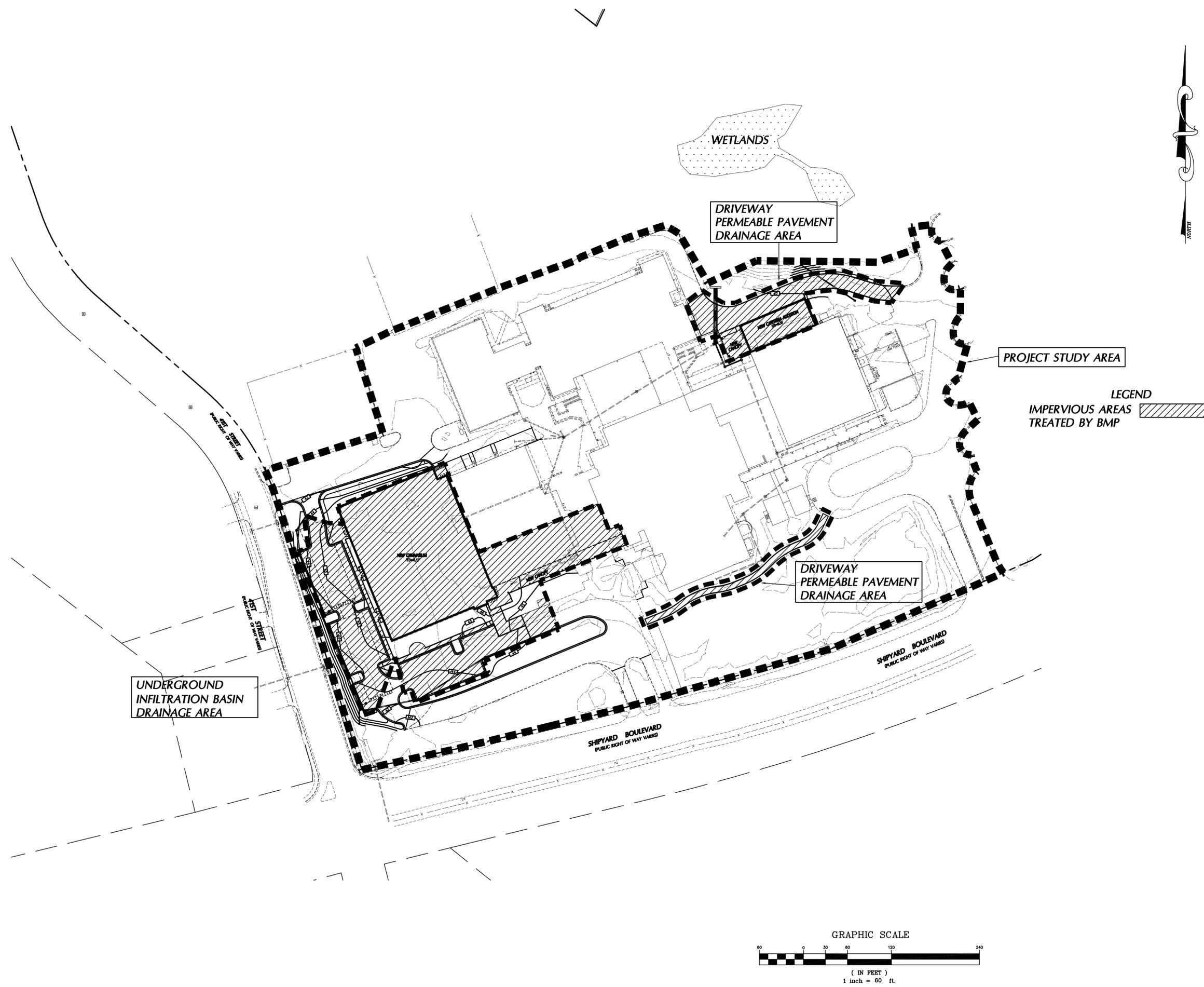
**Renovations and Additions to:
John T. Hoggard High School
4305 Shipyard Blvd.
Wilmington, North Carolina
28403**

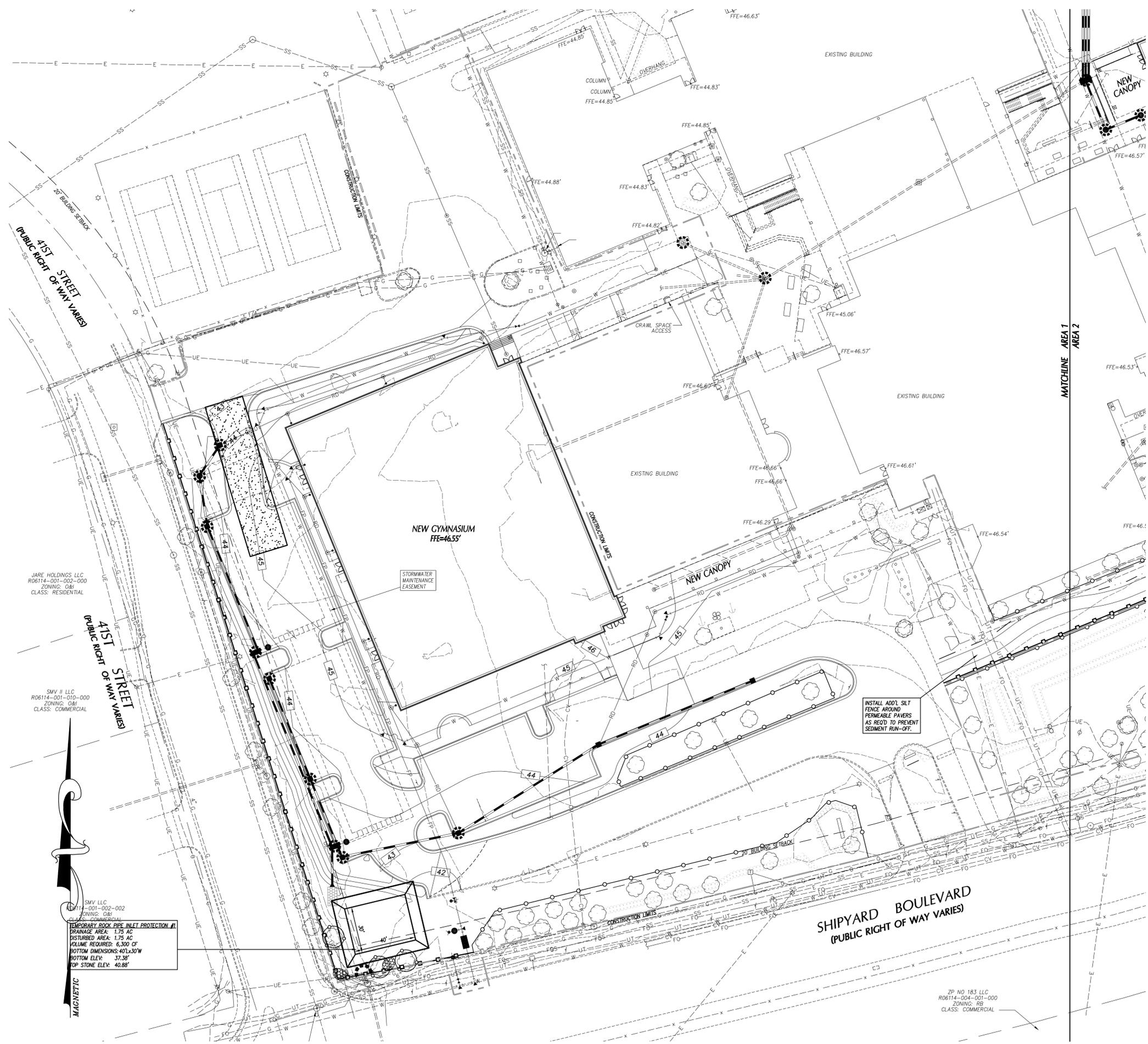
JOB NUMBER
15-120
DRAWN BY
JGM
CHECKED BY
JGM
DATE
JANUARY 13, 2016
REVISIONS

**BMP
DRAINAGE
AREAS PLAN**
SHEET NUMBER

C-3.6

DESIGN DEVELOPMENT: 12-21-2015





LEGEND

- GRAVEL CONSTR. ENTRANCE SEE DETAIL SHEET.
- TEMP. INLET PROTECTION DEVICE SEE DETAIL SHEET.
- TEMP. DIVERSION DITCH / BERM SEE DETAIL SHEET.
- TEMPORARY SILT FENCE SEE DETAIL SHEET.
- REINFORCED SILT FENCE OUTLET SEE DETAIL SHEET.
- PERMANENT OUTLET PROTECTION SEE DETAIL SHEET.
- TEMPORARY CHECK DAM SEE DETAIL SHEET.
- TEMPORARY CONCRETE WASHOUT AREA, SEE DETAIL SHEET.
- TEMPORARY ROCK PIPE INLET PROTECTION, SEE DETAIL SHEET.
- CONSTRUCTION LIMITS UNLESS OTHERWISE NOTED.
- PROPOSED STORM SEWER PIPES
- EXISTING STORM SEWER PIPES
- EXISTING CONTOUR
- FINISHED CONTOUR
- TEMPORARY CONTOUR (TEMP. GRADES DURING CONSTR.)

GENERAL NOTES

1. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH ALL CITY OF WILMINGTON AND NCDOT STANDARDS, SPECIFICATIONS AND DETAILS.
2. 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. CONTRACTOR SHALL PROVIDE WRITTEN DOCUMENTATION OF SEDIMENT & EROSION CONTROL PERMIT FOR ANY OFF-SITE SITES TO OWNER.
3. THE CONTRACTOR SHALL MAINTAIN ALL EROSION CONTROL DEVICES AFTER EACH RAINFALL EVENT OR AS DIRECTED BY LOCAL AUTHORITIES OR ARCHITECT.
4. TOTAL DISTURBED AREA: 5 AC.
5. ALL OPEN STORM PIPES SHALL BE PROTECTED WITH STONE FILTER PROTECTION AFTER WORK STOPPAGE EACH DAY. SEE DETAIL SHEET.
6. 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.
7. 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. STOCKPILES SHALL BE STABILIZED AS REQUIRED AS INDICATED IN THE SLOPE & SURFACE STABILIZATION NOTES ON THIS PLAN.
8. SOIL AND OTHER MATERIALS SHALL ONLY BE TEMPORARILY STOCKPILED WITHIN THE CONSTRUCTION LIMITS PROTECTED BY SEDIMENT AND EROSION CONTROL DEVICES AND MEASURES. STOCKPILES SHALL BE STABILIZED AS REQUIRED AS INDICATED IN THE SLOPE & SURFACE STABILIZATION NOTES ON THIS PLAN.
9. TREE PROTECTION CERTIFICATION MUST BE SUBMITTED TO THE TOWN OF CARY PLANNING DEPARTMENT AND TREE PROTECTION INSPECTION COMPLETED PRIOR TO EROSION CONTROL PERMIT ISSUANCE.
10. ROADSIDE DITCHES AND CHANNELS SHALL BE STABILIZED DAILY UNTIL PERMANENT GROUND COVER IS ESTABLISHED.

SLOPE & SURFACE STABILIZATION

GROUND STABILIZATION SHALL BE PROVIDED ON ALL DISTURBED AREAS ACCORDING TO FOLLOWING SCHEDULE:

SITE AREA DESCRIPTION	STABILIZATION TIME FRAME	STABILIZATION TIME FRAME EXCEPTIONS
PERIMETER DIKES, SWALES, DITCHES AND SLOPES	7 DAYS	NONE
HIGH QUALITY WATER (HOW) ZONES	7 DAYS	NONE
SLOPES STEEPER THAN 3:1	7 DAYS	IF SLOPES ARE 10' OR LESS IN LENGTH AND ARE NOT STEEPER THAN 2:1, 14 DAYS ARE ALLOWED.
SLOPES 3:1 OR FLATTER	14 DAYS	7-DAYS FOR SLOPES GREATER THAN 50 FEET IN LENGTH.
ALL OTHER AREAS WITH SLOPES FLATTER THAN 4:1	14 DAYS	NONE (EXCEPT FOR PERIMETERS AND HOW ZONES).

EXTENSIONS OF TIME MAY BE APPROVED BY THE PERMITTING AUTHORITY BASED ON WEATHER OR OTHER SITE-SPECIFIC CONDITIONS THAT MAKE COMPLIANCE IMPRACTICABLE (SECTION 4.6.2) (b).

THE ABOVE REQUIREMENTS ARE THE MINIMUM NECESSARY TO MEET EROSION AND SEDIMENT CONTROL REGULATIONS. THE CONTRACT DOCUMENTS INCLUDE ADDITIONAL SEEDING AND STABILIZATION REQUIREMENTS AND SCHEDULES WHICH MAY EXCEED THOSE ABOVE.

INSTALL TEMPORARY SLOPE EROSION CONTROL EXCELSDOR MATTING FOR STABILIZATION DURING THE ESTABLISHMENT OF VEGETATIVE COVER ON ALL STEEP SLOPES (6:1 OR STEEPER). UTILIZE TEMPORARY COCOMAT MAT IN AREAS IDENTIFIED ON PLAN. REFER TO SPECIFICATION SECTION 312000 FOR MATERIAL SPECIFICATIONS. INSTALL MATTING PER MANUFACTURER'S INSTRUCTIONS.

MAINTENANCE PLAN

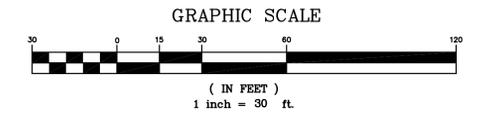
1. DURING ALL PHASES OF CONSTRUCTION, GROUND COVER ON EXPOSED SLOPES SHALL BE PROVIDED ACCORDING TO GROUND STABILIZATION TABLE (BELOW) FOLLOWING COMPLETION OF ANY PHASE OF GRADING.
2. FINAL PERMANENT GROUND COVER FOR ALL DISTURBED AREAS SHALL BE PROVIDED ON ALL DISTURBED AREAS ACCORDING TO GROUND STABILIZATION TABLE (BELOW) FOLLOWING COMPLETION OF CONSTRUCTION OR DEVELOPMENT.
3. THE ABOVE REQUIREMENTS ARE THE MINIMUM NECESSARY TO MEET EROSION AND SEDIMENT CONTROL REGULATIONS. THE CONTRACT DOCUMENTS INCLUDE ADDITIONAL SEEDING AND STABILIZATION REQUIREMENTS AND SCHEDULES WHICH MAY EXCEED THOSE ABOVE.
4. SLOPE EROSION CONTROL MATTING SHALL BE INSTALLED FOR TEMPORARY STABILIZATION DURING THE ESTABLISHMENT OF VEGETATIVE COVER ON ALL STEEP SLOPES (6:1 OR STEEPER). REFER TO MATERIAL SPECIFICATIONS. INSTALL MATTING PER MANUFACTURER'S INSTRUCTIONS.
5. ALL OTHER SEEDED AREAS SHALL BE MULCHED WITH STRAW AND TACKED WITH ASPHALT.

SELF-INSPECTION RULES

1. SELF-INSPECTION SHALL BE CONDUCTED AFTER EACH PHASE OF THE PROJECT, AND CONTINUED UNTIL PERMANENT GROUND COVER IS ESTABLISHED.
2. THE FINANCIALLY RESPONSIBLE PERSON AND/OR HIS AGENT WILL BE PERFORM SELF INSPECTIONS OF THE EROSION AND SEDIMENTATION CONTROL MEASURES USING NCDENR'S SELF INSPECTION REPORT (WORKSHEET) AND THIS WILL BE KEPT ON-SITE.
3. NOTIFICATION OF LAND RESOURCES SEDIMENT AND EROSION CONTROL SELF-INSPECTION PROGRAM: THE SEDIMENTATION POLLUTION CONTROL ACT WAS AMENDED IN 2008 TO REQUIRE THAT PERSONS RESPONSIBLE FOR LAND DISTURBING ACTIVITIES INSPECT A PROJECT AFTER EACH PHASE OF THE PROJECT TO MAKE SURE THAT THE APPROVED EROSION AND SEDIMENTATION CONTROL PLAN IS BEING FOLLOWED. RULES DETAILING THE DOCUMENTATION OF THESE INSPECTIONS TOOK EFFECT OCTOBER 1, 2010. THE SELF-INSPECTION PROGRAM IS SEPARATE FROM THE NEELY SELF-MONITORING PROGRAM OF THE NCDENR'S PERMIT FOR CONSTRUCTION ACTIVITIES. THE FOCUS OF THE SELF-INSPECTION REPORT IS THE INSTALLATION AND MAINTENANCE OF EROSION AND SEDIMENTATION CONTROL MEASURES ACCORDING TO THE APPROVED PLAN. THE INSPECTIONS MUST BE CONDUCTED AFTER EACH PHASE OF THE PROJECT, AND CONTINUED UNTIL PERMANENT GROUND COVER IS ESTABLISHED IN ACCORDANCE WITH NCS 115A-54.1 AND 154 NCAC 48.0131. THE SELF-INSPECTION REPORT FORM IS AVAILABLE AS AN EXCEL SPREADSHEET FROM <http://portal.ncdenr.org/web/0/external>. IF YOU HAVE QUESTIONS OR CANNOT ACCESS THE FORM, PLEASE CONTACT NCDENR OFFICE AT 919-797-4200.

NOTE EROSION CONTROL PLANS WILL BE REVIEWED, PERMITTED & INSPECTED BY NCDENR, NOT CITY OF WILMINGTON

REFER TO PLAN SHEET C-42 FOR CONSTRUCTION SEQUENCE



h m h
BOWMAN MURRAY HEMINGWAY
 ARCHITECTS
 514 Market Street
 Wilmington, NC 28401
 Tel - (910) 762-2621
 Fax - (910) 762-8506

CLH DESIGN, PA
 400 Haggerty Forest Dr.
 Suite 120
 Cary, NC 27518
 Phone: 919.318.6716
 Fax: 919.318.7516
 LA: C-106 PE: C-1595



DD DOCUMENTS

Renovations and Additions to:
John T. Hoggard High School
4305 Shipyard Blvd.
Wilmington, North Carolina
28403

JOB NUMBER	15-120
DRAWN BY	JGM
CHECKED BY	JGM
DATE	JANUARY 13, 2016
REVISIONS	

SITE EROSION CONTROL PLAN

SHEET NUMBER

C-4.1

DESIGN DEVELOPMENT: 12-21-2015

JARE HOLDINGS LLC
 R06114-001-002-000
 ZONING: O&I
 CLASS: RESIDENTIAL

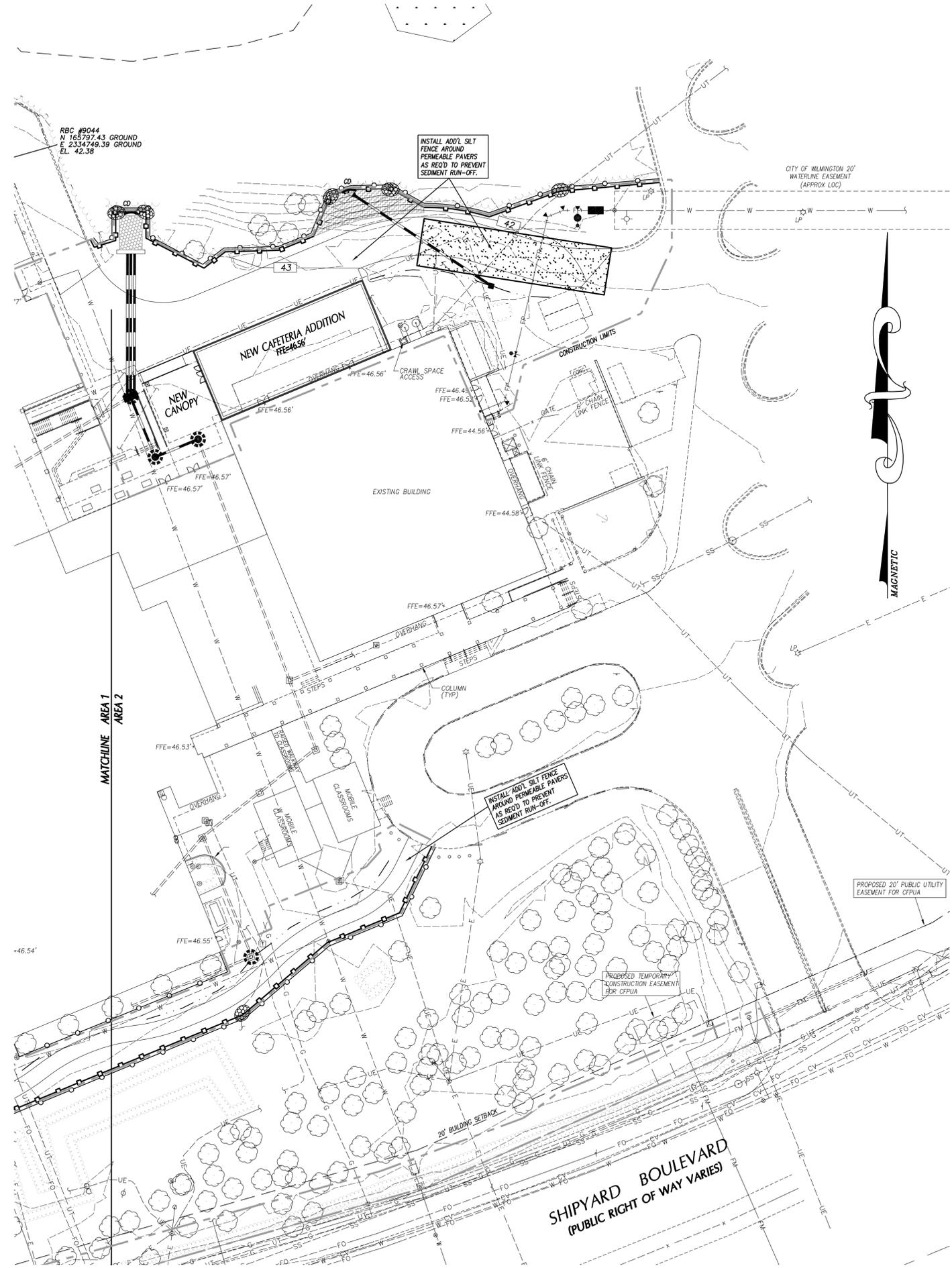
SMV II LLC
 R06114-001-010-000
 ZONING: O&I
 CLASS: COMMERCIAL

SMV LLC
 R06114-001-002-002
 ZONING: O&I
 CLASS: COMMERCIAL
 TEMPORARY ROCK PIPE INLET PROTECTION #1
 DRAINAGE AREA: 1.75 AC
 DISTURBED AREA: 1.75 AC
 VOLUME REQUIRED: 6,300 CF
 BOTTOM DIMENSIONS: 40'x30'
 BOTTOM ELEV: 37.38'
 TOP STONE ELEV: 40.88'

ZP NO 183 LLC
 R06114-004-001-000
 ZONING: R10
 CLASS: COMMERCIAL

CONSTRUCTION SEQUENCE

1. INSTALL TREE PROTECTION FENCING. CONTACT CITY OF WILMINGTON/NCDENR-DEQ FOR INSPECTION PRIOR TO STARTING ANY OTHER WORK.
 2. OBTAIN APPROVED PLAN AND APPROVAL PLACARD. A COPY OF THE APPROVED PLAN MUST BE ON FILE AT THE JOB SITE. NOTIFY EROSION CONTROL AUTHORITIES OF PROPOSED STARTING DATE OF LAND DISTURBING ACTIVITIES.
 3. CONDUCT PRE-CONSTRUCTION CONFERENCE.
 4. INSTALL PERIMETER SILT FENCES, CONSTRUCTION ENTRANCES AND INLET PROTECTION DEVICES ON EXISTING INLETS.
 5. INSTALL STORM DRAINAGE SYSTEM B1-B4, SEE GRADING PLAN. INSTALL ASSOCIATED INLET PROTECTION AND RIP-RAP OUTLET PROTECTION.
 6. CALL FOR INSPECTION OF INSTALLED DEVICES.
 7. PERFORM CLEARING OPERATIONS.
 8. STRIP TOPSOIL, STOCKPILE TOPSOIL WITHIN CONSTRUCTION LIMITS.
 9. MAINTAIN ALL INSTALLED MEASURES.
 10. BEGIN ROUGH GRADING OPERATIONS.
 11. INSTALL STORM DRAINAGE SYSTEM AS GRADING OPERATIONS PROGRESS. INSTALL INLET AND OUTLET PROTECTION DEVICES AT NEW STRUCTURES AS THEY ARE CONSTRUCTED.
 15. INSTALL UNDERGROUND INFILTRATION BASIN. TEMPORARY BLOCK/PLUG PIPES THAT ENTER UNDERGROUND INFILTRATION BASIN UNTIL SITE IS STABILIZED.
 16. PROTECT ALL OPEN STORM DRAIN LINES UNDER CONSTRUCTION WITH STONE FILTER AFTER STOPPAGE OF WORK EACH DAY. AT THE END OF EACH DAY, INSTALL AND ADJUST SILT FENCE AND INLET AND OUTLET PROTECTION DEVICES.
 17. RESPREAD TOPSOIL, INSTALL SLOPE PROTECTION BLANKETS AND VEGETATE STEEP SLOPES AS THEY ARE ESTABLISHED.
 18. GRADE, VEGETATE AND INSTALL TEMPORARY LININGS OF CHANNELS AFTER STABILIZING UPSTREAM SLOPES. VEGETATE (OR OTHERWISE STABILIZE WITH PAVEMENT, BUILDING PAD, ETC.) IMMEDIATELY ALL DISTURBED AREAS WHERE GRADING ACTIVITIES HAVE STOPPED AND WILL NOT CONTINUE FOR MORE THAN 14-DAYS.
 19. MAINTAIN ALL EROSION & SEDIMENT CONTROL MEASURES THROUGHOUT CONSTRUCTION.
 20. CALL FOR INSPECTION OF STABILIZED SITE. IF APPROVED, REMOVE REMAINING TEMPORARY EROSION & SEDIMENT CONTROL MEASURES.
 21. REMOVE TEMPORARY BLOCKING/PLUGS FROM UNDERGROUND INFILTRATION BASIN.
 22. RESPREAD TOPSOIL, INSTALL SLOPE PROTECTION BLANKETS AND VEGETATE REMAINING DISTURBED AREAS.
- ** ENSURE PERMEABLE PAVERS ARE INSTALLED DURING FINAL STAGES OF CONSTRUCTION AND THAT ALL AREAS UPSTREAM ARE STABILIZED PRIOR TO INSTALLATION OF PERMEABLE PAVERS. INSTALL ADDITIONAL SILT FENCE AROUND PERMEABLE PAVERS AS REQUIRED TO PREVENT SEDIMENT-RUN-OFF.**



LEGEND

- GRAVEL CONSTR. ENTRANCE SEE DETAIL SHEET.
- TEMP. INLET PROTECTION DEVICE SEE DETAIL SHEET.
- TEMP. DIVERSION DITCH / BERM SEE DETAIL SHEET.
- TEMPORARY SILT FENCE SEE DETAIL SHEET.
- REINFORCED SILT FENCE OUTLET SEE DETAIL SHEET.
- PERMANENT OUTLET PROTECTION SEE DETAIL SHEET.
- TEMPORARY CHECK DAM SEE DETAIL SHEET.
- TEMPORARY CONCRETE WASHOUT AREA, SEE DETAIL SHEET.
- TEMPORARY ROCK PIPE INLET PROTECTION. SEE DETAIL SHEET.
- CONSTRUCTION LIMITS UNLESS OTHERWISE NOTED.
- PROPOSED STORM SEWER PIPES
- EXISTING STORM SEWER PIPES
- EXISTING CONTOUR
- FINISHED CONTOUR
- TEMPORARY CONTOUR (TEMP. GRADES DURING CONSTR.)

GENERAL NOTES

1. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH ALL CITY OF WILMINGTON AND NCDOT STANDARDS, SPECIFICATIONS AND DETAILS.
2. 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. CONTRACTOR SHALL PROVIDE WRITTEN DOCUMENTATION OF SEDIMENT & EROSION CONTROL PERMIT FOR ANY OFF-SITE SITES TO OWNER.
3. THE CONTRACTOR SHALL MAINTAIN ALL EROSION CONTROL DEVICES AFTER EACH RAINFALL EVENT OR AS DIRECTED BY LOCAL AUTHORITIES OR ARCHITECT.
4. TOTAL DISTURBED AREA: 5 AC.
5. ALL OPEN STORM PIPES SHALL BE PROTECTED WITH STONE FILTER PROTECTION AFTER WORK STOPPAGE EACH DAY. SEE DETAIL SHEET.
6. 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.
7. 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.
8. SOIL AND OTHER MATERIALS SHALL ONLY BE TEMPORARILY STOCKPILED WITHIN THE CONSTRUCTION LIMITS PROTECTED BY SEDIMENT AND EROSION CONTROL DEVICES AND MEASURES. STOCKPILES SHALL BE STABILIZED AS REQUIRED AS INDICATED IN THE SLOPE & SURFACE STABILIZATION NOTES ON THIS PLAN.
9. TREE PROTECTION CERTIFICATION MUST BE SUBMITTED TO THE TOWN OF CARY PLANNING DEPARTMENT AND TREE PROTECTION INSPECTION COMPLETED PRIOR TO EROSION CONTROL PERMIT ISSUANCE.
10. ROADSIDE DITCHES AND CHANNELS SHALL BE STABILIZED DAILY UNTIL PERMANENT GROUND COVER IS ESTABLISHED.

SLOPE & SURFACE STABILIZATION

GROUND STABILIZATION SHALL BE PROVIDED ON ALL DISTURBED AREAS ACCORDING TO FOLLOWING SCHEDULE:

SITE AREA DESCRIPTION	GROUND STABILIZATION	
	STABILIZATION TIME FRAME	STABILIZATION TIME FRAME EXCEPTIONS
PERIMETER DIKES, SWALES, DITCHES AND SLOPES	7 DAYS	NONE
HIGH QUALITY WATER (HOW) ZONES	7 DAYS	NONE
SLOPES STEEPER THAN 3:1	7 DAYS	IF SLOPES ARE 10' OR LESS IN LENGTH AND ARE NOT STEEPER THAN 2:1, 14 DAYS ARE ALLOWED.
SLOPES 3:1 OR FLATTER	14 DAYS	7-DAYS FOR SLOPES GREATER THAN 50 FEET IN LENGTH.
ALL OTHER AREAS WITH SLOPES FLATTER THAN 4:1	14 DAYS	NONE (EXCEPT FOR PERIMETERS AND HOW ZONES).

EXTENSIONS OF TIME MAY BE APPROVED BY THE PERMITTING AUTHORITY BASED ON WEATHER OR OTHER SITE-SPECIFIC CONDITIONS THAT MAKE COMPLIANCE IMPRACTICABLE (SECTION 48.02 (6)).

THE ABOVE REQUIREMENTS ARE THE MINIMUM NECESSARY TO MEET EROSION AND SEDIMENT CONTROL REGULATIONS. THE CONTRACT DOCUMENTS INCLUDE ADDITIONAL SEEDING AND STABILIZATION REQUIREMENTS AND SCHEDULES WHICH MAY EXCEED THOSE ABOVE.

INSTALL TEMPORARY SLOPE EROSION CONTROL EXCELSDOR MATTING FOR STABILIZATION DURING THE ESTABLISHMENT OF VEGETATIVE COVER ON ALL STEEP SLOPES (6:1 OR STEEPER). UTILIZE TEMPORARY COCONUT MAT IN AREAS IDENTIFIED ON PLAN. REFER TO SPECIFICATION SECTION 312.00 FOR MATERIAL SPECIFICATIONS. INSTALL MATTING PER MANUFACTURER'S INSTRUCTIONS.

MAINTENANCE PLAN

1. DURING ALL PHASES OF CONSTRUCTION, GROUND COVER ON EXPOSED SLOPES SHALL BE PROVIDED ACCORDING TO GROUND STABILIZATION TABLE (BELOW) FOLLOWING COMPLETION OF ANY PHASE OF GRADING.
2. FINAL PERMANENT GROUND COVER FOR ALL DISTURBED AREAS SHALL BE PROVIDED ON ALL DISTURBED AREAS ACCORDING TO GROUND STABILIZATION TABLE (BELOW) FOLLOWING COMPLETION OF CONSTRUCTION OR DEVELOPMENT.
3. THE ABOVE REQUIREMENTS ARE THE MINIMUM NECESSARY TO MEET EROSION AND SEDIMENT CONTROL REGULATIONS. THE CONTRACT DOCUMENTS INCLUDE ADDITIONAL SEEDING AND STABILIZATION REQUIREMENTS AND SCHEDULES WHICH MAY EXCEED THOSE ABOVE.
4. SLOPE EROSION CONTROL MATTING SHALL BE INSTALLED FOR TEMPORARY STABILIZATION DURING THE ESTABLISHMENT OF VEGETATIVE COVER ON ALL STEEP SLOPES (6:1 OR STEEPER). REFER TO MATERIAL SPECIFICATIONS. INSTALL MATTING PER MANUFACTURER'S INSTRUCTIONS.
5. ALL OTHER SEEDED AREAS SHALL BE MULCHED WITH STRAW AND TACKED WITH ASPHALT.

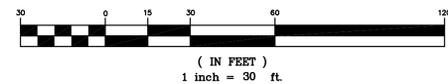
SELF-INSPECTION RULES

1. SELF-INSPECTION SHALL BE CONDUCTED AFTER EACH PHASE OF THE PROJECT, AND CONTINUED UNTIL PERMANENT GROUND COVER IS ESTABLISHED.
2. THE FINANCIALLY RESPONSIBLE PERSON AND/OR HIS AGENT WILL BE PERFORM SELF INSPECTIONS OF THE EROSION AND SEDIMENTATION CONTROL MEASURES USING NCDENR'S SELF INSPECTION REPORT (WORKSHEET) AND THIS WILL BE KEPT ON SITE.
3. NOTIFICATION OF LAND RESOURCES SEDIMENT AND EROSION CONTROL SELF-INSPECTION PROGRAM: THE SEDIMENTATION POLLUTION CONTROL ACT WAS AMENDED IN 2008 TO REQUIRE THAT PERSONS RESPONSIBLE FOR LAND DISTURBING ACTIVITIES INSPECT A PROJECT AFTER EACH PHASE OF THE PROJECT TO MAKE SURE THAT THE APPROVED EROSION AND SEDIMENTATION CONTROL PLAN IS BEING FOLLOWED. RULES DETAILING THE DOCUMENTATION OF THESE INSPECTIONS TOOK EFFECT OCTOBER 1, 2010. THE SELF-INSPECTION PROGRAM IS SEPARATE FROM THE NEELY SELF-MONITORING PROGRAM OF THE NCDENR'S PERMIT FOR CONSTRUCTION ACTIVITIES. THE FOCUS OF THE SELF-INSPECTION REPORT IS THE INSTALLATION AND MAINTENANCE OF EROSION AND SEDIMENTATION CONTROL MEASURES ACCORDING TO THE APPROVED PLAN. THE INSPECTIONS MUST BE CONDUCTED AFTER EACH PHASE OF THE PROJECT, AND CONTINUED UNTIL PERMANENT GROUND COVER IS ESTABLISHED IN ACCORDANCE WITH NCS 15A-241 AND 15A NCAC 46.0131. THE SELF-INSPECTION REPORT FORM IS AVAILABLE AS AN EXCEL SPREADSHEET FROM <http://portal.ncdenr.gov/web/ncdenr/ncdenr>. IF YOU HAVE QUESTIONS OR CANNOT ACCESS THE FORM, PLEASE CONTACT NCDENR OFFICE AT 919-791-4200.

NOTE: EROSION CONTROL PLANS WILL BE REVIEWED, PERMITTED & INSPECTED BY NCDENR, NOT CITY OF WILMINGTON

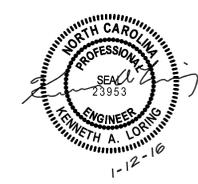
REFER TO PLAN SHEET C-42 FOR CONSTRUCTION SEQUENCE

GRAPHIC SCALE



bmh
BOWMAN MURRAY HEMINGWAY
 ARCHITECTS
 514 Market Street
 Wilmington, NC 28401
 Tel - (910) 762-2621
 Fax - (910) 762-8506

CLH DESIGN, PA
 400 Haggerty Forest Dr.
 Suite 120
 Cary, NC 27518
 Phone: 919.318.6716
 Fax: 919.318.7516
 LA: C-106 PE: C-1595



DD DOCUMENTS

**Renovations and Additions to:
 John T. Hoggard High School
 4305 Shipyard Blvd.
 Wilmington, North Carolina
 28403**

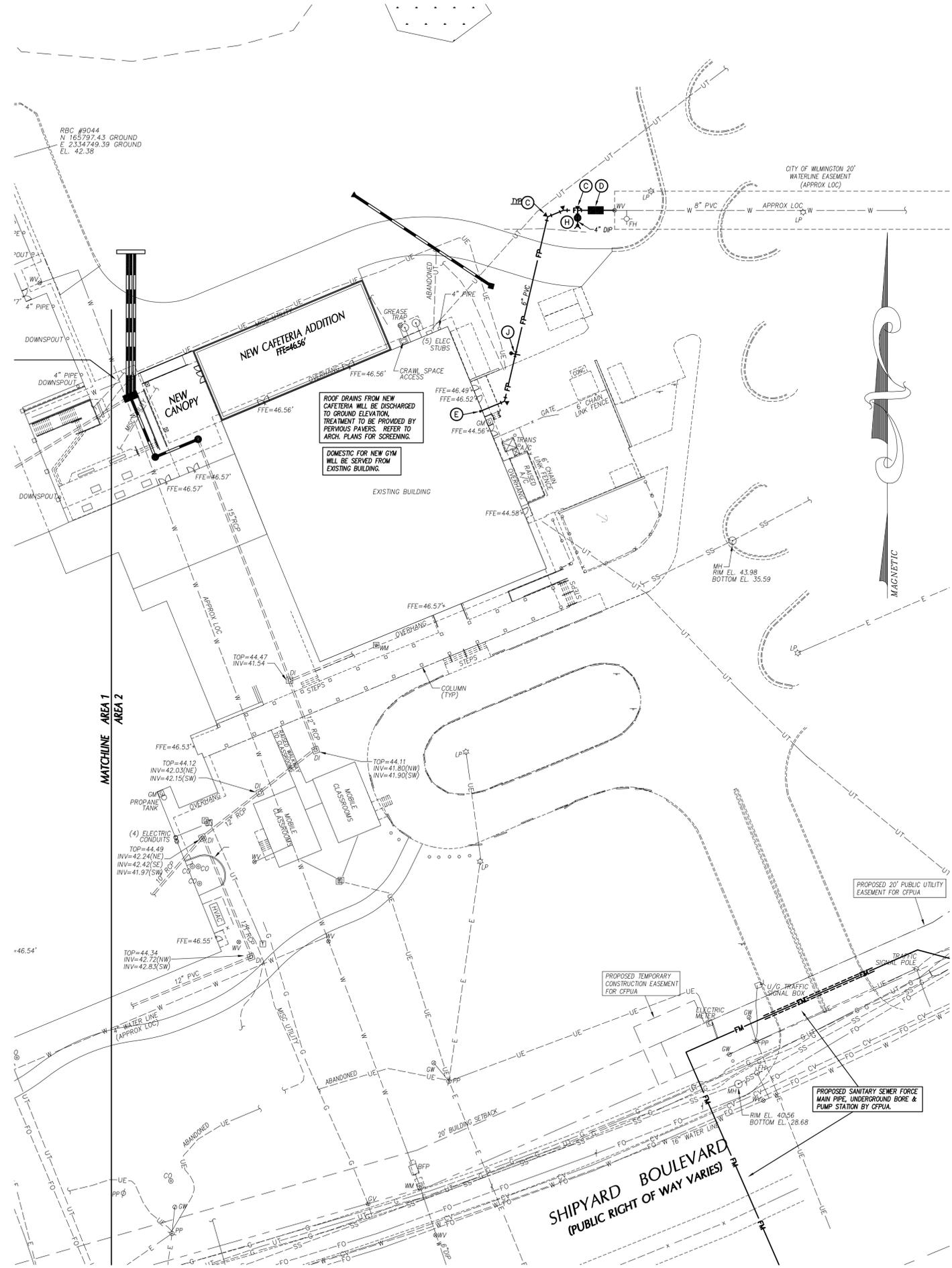
JOB NUMBER	15-120
DRAWN BY	JGM
CHECKED BY	JGM
DATE	JANUARY 13, 2016
REVISIONS	

SITE EROSION CONTROL PLAN

SHEET NUMBER

C-4.2

DESIGN DEVELOPMENT: 12-21-2015

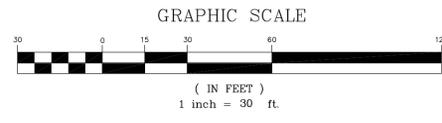


UTILITY LEGEND

	EXISTING	PROPOSED
OVERHEAD ELECTRICAL	---	---
UNDERGROUND ELECTRICAL	---	---
GAS	---	---
SANITARY SEWER	---	---
TELEPHONE	---	---
UNDERGROUND TELEPHONE	---	---
WATER	---	---
FIRE PROTECTION	---	---
FORCE MAIN	---	---
CHILLED WATER	---	---
FOUNDATION DRAIN	---	---
FIBER OPTIC	---	---
ROOF DRAIN	---	---
STORM DRAIN	---	---
LIGHT POLE	LP	*
UTILITY POLE	PP	*
MANHOLE	MH	●
CLEAN OUT	CO	○
DROP INLET/CATCH BASIN	DI, CB	○
FIRE HYDRANT	FH	●
WATER VALVE	WV	●
TELEPHONE PEDESTAL	TP	■
COMMUNICATION BOX	CB	■
SANITARY SEWER STRUCTURE I.D.		3
STORM SEWER STRUCTURE I.D.		B

- UTILITY NOTES**
- INSTALL WATERMANS 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 IRON PIPE IS USED. INSTALL SEWER SERVICES WITH NO LESS THAN 18-IN OF COVER TO SUBGRADE.
 - INSTALL ALL UTILITIES TO PROVIDE REQUIRED CLEARANCES AS INDICATED IN THE SPECIFICATIONS.
 - WATERLINES AND SEWER MAINS SHALL BE INSTALLED WITH A MINIMUM HORIZONTAL CLEARANCE OF 10'-FT.
 - WATER AND SEWER MAINS SHALL BE INSTALLED WITH A MINIMUM VERTICAL CLEARANCE OF 12'-IN TO STORM DRAINAGE PIPES.
 - 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.
 - VERIFY EXISTING CONDITIONS AND CONNECTIONS TO EXISTING UTILITIES PRIOR TO 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 SPECIFICATIONS.
 - ALL ROOF DRAINS SHALL BE 6" PVC @ 1.04% MIN. SLOPE UNLESS INDICATED OTHERWISE. USE DUCTILE IRON WHEN COVER IS LESS THAN 24'-IN.
 - 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.
 - 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 PIPING 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.
 - CONTACT THE NC ONE CALL CENTER PRIOR TO ANY DIGGING. 1-800-632-4949
 - 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 910-343-3010 FOR INFORMATION.
 - ANY BACKFLOW PREVENTION DEVICES REQUIRED BY THE CITY WILL NEED TO BE ON THE LIST OF APPROVED DEVICES BY USFCOCHR OR ASSE.

- KEY NOTES**
- FIRE HYDRANT ASSEMBLY, SEE DETAIL SHEET.
 - DOWNSPOUT CONNECTION, SEE DETAIL SHEET.
 - THRUST BLOCKING, TYP. SEE DETAIL SHEET.
 - 6" REDUCED PRESSURE DETECTOR ASSEMBLY (RPDA) IN HEATED ENCLOSURE, SEE DETAIL SHEET. SEE ELECTRICAL PLANS FOR ADD'L INFO.
 - EXTEND WATER MAIN TO 12'-IN ABOVE FINISH FLOOR FOR FIRE PROTECTION CONNECTION, SEE DETAIL SHEET.
 - CLEANOUT, SEE DETAIL SHEET.
 - TAPPING SLEEVE AND VALVE ASSEMBLY AND BLOCKING, SEE DETAIL SHEET.
 - FIRE DEPARTMENT CONNECTION, SEE DETAIL SHEET.
 - GATE VALVE AND VALVE BOX, SEE DETAIL SHEET.
 - 6" POST INDICATOR VALVE W/ TAMPER SWITCH, SEE SPECIFICATIONS.
 - EXTEND UTILITY TO WITHIN 5'-0" OF BUILDING WALL OR AS INDICATED ON PLUMBING PLANS. REFER TO PLUMBING PLANS FOR LOCATION & INVERT.



hmm

BOWMAN MURRAY HEMINGWAY

ARCHITECTS

514 Market Street
Wilmington, NC 28401
Tel - (910) 762-2621
Fax - (910) 762-8506

CLH DESIGN, PA
400 Regency Forest Dr.
Suite 120
Cary, NC 27518
Phone: 919.318.6716
Fax: 919.318.7516
LA: C-106 PE: C-1595



DD DOCUMENTS

Renovations and Additions to:
John T. Hoggard High School
4305 Shipyard Blvd.
Wilmington, North Carolina
28403

JOB NUMBER
15-120

DRAWN BY
JGM

CHECKED BY
JGM

DATE
JANUARY 13, 2016

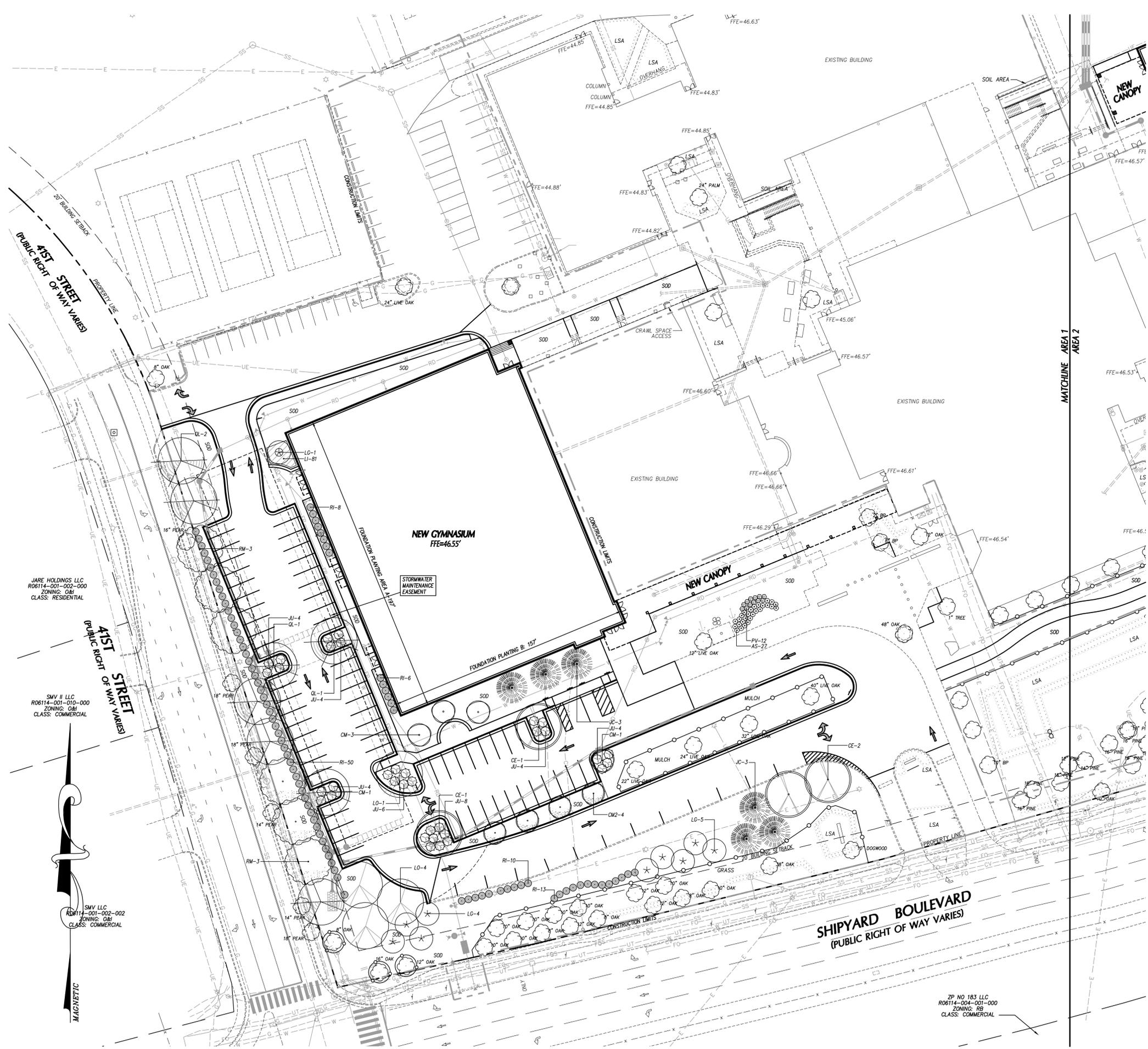
REVISIONS

SITE UTILITY PLAN

SHEET NUMBER

C-5.2

DESIGN DEVELOPMENT: 12-21-2015



LANDSCAPE NOTES

1. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH ALL CITY OF WILMINGTON AND/OR NC DOT STANDARDS AND SPECIFICATIONS.
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.
3. 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 COMMON 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 SHREDED 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. WITHIN THE SIGHT TRIANGLES SHOWN ON THIS PLAN, NO OBSTRUCTION BETWEEN TWO (2) FEET AND EIGHT (8) FEET IN HEIGHT ABOVE THE CURB LINE OF INTERSECTING STREETS SHALL BE AT LEAST TWENTY (20) FEET FROM THE POINT OF TANGENCY.

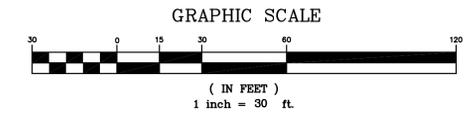
PLANT SCHEDULE

KEY	QTY	PLANT NAME	SIZE	REMARKS
CANOPY AND UNDERSTORY TREES				
BC	3	BALD CYPRESS <i>Taxodium distichum</i>	2"-2 1/2" CAL 10'-12' HT	B&B, STRAIGHT TRUNK FULL CROWN
CE	4	BOSQUE CHINESE ELM <i>Ulmus Parvifolia 'Bosque'</i>	2"-2 1/2" CAL 10'-12' HT	B&B, STRAIGHT TRUNK FULL CROWN
CM2	4	CHEROKEE CRAPE MYRTLE <i>Lagerstroemia indica 'Cherokee'</i>	3-5 TRUNKS 7'-8' HT	B&B, FULL CROWN
CM	4	NATCHEZ CRAPE MYRTLE <i>Lagerstroemia l. x f. 'Natchez'</i>	3-5 TRUNKS 7'-8' HT	B&B, FULL CROWN
LO	4	LIVE OAK <i>Quercus virginiana</i>	2"-2 1/2" CAL 10'-12' HT	B&B, STRAIGHT TRUNK FULL CROWN
LG	10	LITTLE GEM MAGNOLIA <i>Magnolia grandiflora 'Little Gem'</i>	1"-1 1/2" CAL 8'-10" HT	B&B, STRAIGHT TRUNK FULL TO GROUND
JC	6	JAPANESE CRYPTOMERIA <i>Cryptomeria japonica</i>	6"-7" HT. MIN. B&B	B&B, STRAIGHT TRUNK FULL TO GROUND
QL	8	LAUREL OAK <i>Quercus laurifolia 'Darlington'</i>	2"-2 1/2" CAL 10'-12' HT	B&B, STRAIGHT TRUNK FULL CROWN
RM	6	RED MAPLE 'OCTOBER GLORY' <i>Acer rubrum 'October Glory'</i>	2"-2 1/2" CAL 10'-12' HT	B&B, STRAIGHT TRUNK FULL CROWN
SHRUBS AND GROUNDCOVERS				
AS	27	LITTLE BLUESTEM <i>Andropogon scoparium 'The Blues'</i>	18"-24" HT./SPR. CONT.	CONT., FULL 4.0' O.C.
JU	34	BLUE PACIFIC JUNIPER <i>Juniperus conferta 'Blue Pacific'</i>	15"-18" SPR. CONT.	CONT., FULL 6" O.C.
LI	81	BIG BLUE LIRIOPE <i>Liriope muscari 'Big Blue'</i>	3-5 BIBS	SPACED 18" O.C.
PV	12	SWITCHGRASS <i>Panicum virgatum 'Shenandoah'</i>	18"-24" HT./SPR. CONT.	CONT., FULL 4.0' O.C.
RI	87	REDBIRD INDIAN HAWTHORN <i>Rhaphirolepis indica 'Redbird'</i>	18" HT./SPR. CONT.	CONT., FULL 4' O.C.

GRAPHIC SYMBOLS SUPERCEDE WRITTEN QUANTITIES WHERE DISCREPANCIES OCCUR. SEE SHEET C7.6 FOR MORE INFORMATION.

TIFWAY 419 SOD, SEE DETAIL SHEET.

REFER TO PLAN SHEET C-62 FOR LANDSCAPE CALCULATIONS.



bmh
BOWMAN MURRAY HEMINGWAY
 ARCHITECTS
 514 Market Street
 Wilmington, NC 28401
 Tel - (910) 762-2621
 Fax - (910) 762-8506

CLH DESIGN, PA
 400 Regency Forest Dr.
 Suite 120
 Cary, NC 27518
 Phone: 919.318.6716
 Fax: 919.318.7518
 LA: C-106 PE: C-1595



DD DOCUMENTS

Renovations and Additions to:
John T. Hoggard High School
4305 Shipyard Blvd.
Wilmington, North Carolina
28403

JOB NUMBER
15-120
 DRAWN BY
JGM
 CHECKED BY
JGM
 DATE
JANUARY 13, 2016
 REVISIONS

SITE PLANTING PLAN

SHEET NUMBER

C-6.1

DESIGN DEVELOPMENT: 12-21-2015

LANDSCAPE CALCULATIONS

STREET YARD REQUIREMENTS

STREET YARD FACTOR = 12
 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)
 PER 600 SQ. FT. OF STREETYARD

PRIMARY STREET YARD: SHIPYARD BOULEVARD - 8-18' WIDTH (TO LIMITS OF WORK)
 SQUARE FEET REQUIRED = $12(3781\frac{1}{2})/2 = 2,256$ SF
 MINIMUM STANDARD REQUIRED: 17 CANOPY TREES
 100 SHRUBS

PROVIDED: 19 EXISTING CANOPY TREES, 1 EXISTING UNDERSTORY
 7 EXISTING PINES, EXIST. HEDGE

SECONDARY STREET YARD: 41ST STREET - 8-18' WIDTH (TO LIMITS OF WORK)
 SQUARE FEET REQUIRED = $12(3781\frac{1}{2})/2 = 2,256$ SF
 MINIMUM STANDARD REQUIRED: 4 CANOPY TREES
 23 SHRUBS

PROVIDED: 17 EXISTING CANOPY TREES
 23 SHRUBS
 EXISTING HEDGE

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

REQUIREMENT= AREA OF BUILDING FACE X 12%

FOUNDATION PLANTING: AREA A
 BUILDING FACE = 197 FT.
 BUILDING HEIGHT = 42 FT.
 PLANTING AREA REQUIRED = 993 SQ. FT.
 PLANTING AREA PROVIDED = 1,113 SQ. FT.

FOUNDATION PLANTING: AREA B
 BUILDING FACE = 157 FT.
 BUILDING HEIGHT = 42 FT.
 PLANTING AREA REQUIRED = 791 SQ. FT.
 PLANTING AREA PROVIDED = 3,389 SQ. FT.

PARKING AREA PLANTING REQUIREMENTS

PARKING AREA PERIMETER PLANTINGS: N/A

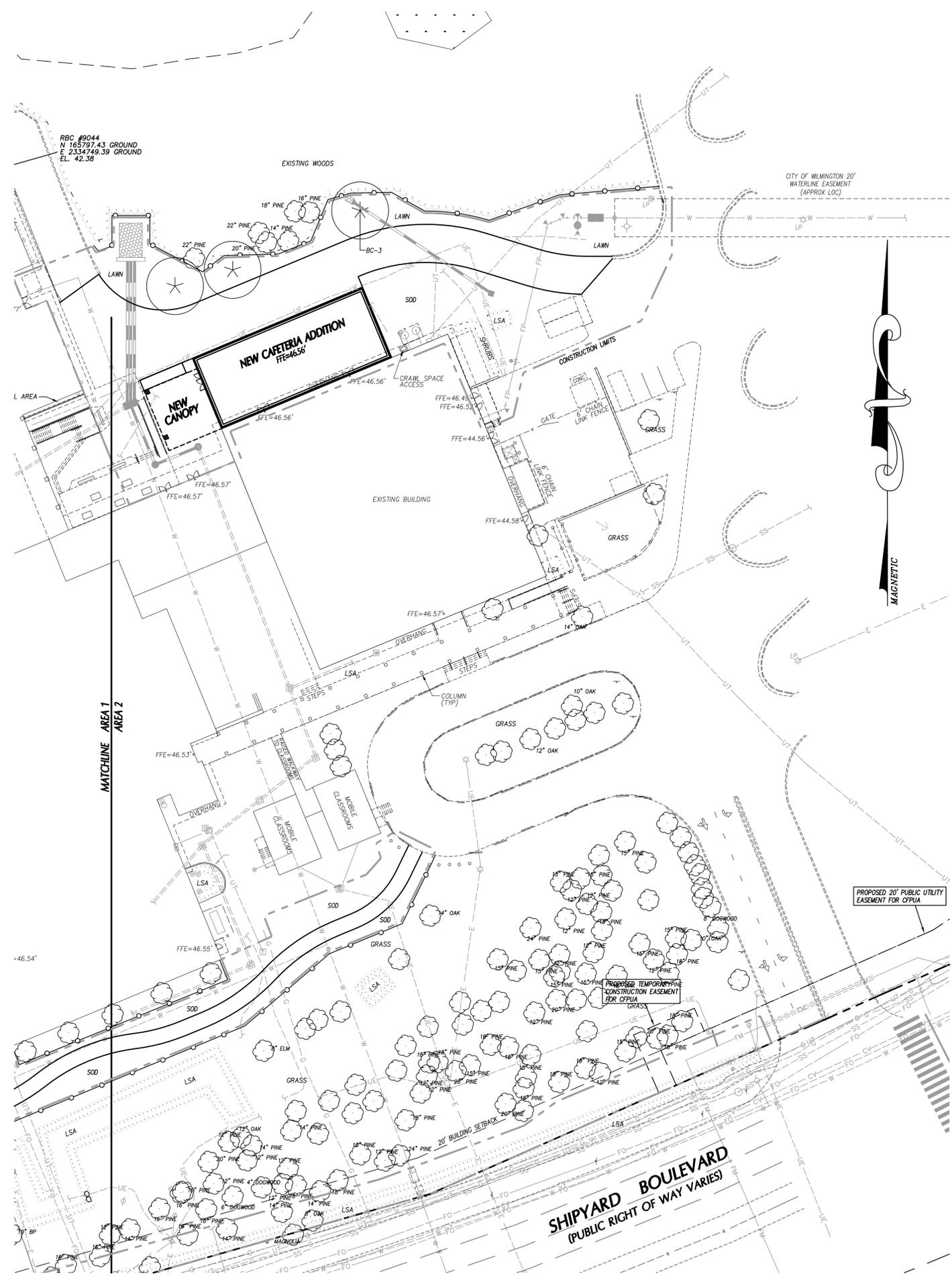
PARKING AREA INTERIOR PLANTINGS:

REQUIREMENT: INTERIOR LANDSCAPING MUST EQUAL 8% OF TOTAL PARKING
 LOADING, AND DRIVE AISLE, AND PEDESTRIAN USE AREA
 MIN. CAL. 2" TREE PER 144 SQ. FT. OF PARKING ISLAND, NO LESS THAN 12' WIDE
 ISLAND MUST HAVE GROUNDCOVER
 NO PARKING SPACE MORE THAN 120 FEET AWAY FROM AN ISLAND
 75% SHADE TREES

15 TREES 2" CALIPER OR GREATER PER ACRE OF DISTURBED LAND
 ACRES DISTURBED: 5.0 CREDITS REQUIRED: 75 CREDITS
 TREES PROVIDED: 22 TREES/22 CREDITS

CREDITS FOR EXISTING TREES:

SIZE	QTY.	CREDIT VALUE	TOTAL
2-5" CALIPER	1	-	-
6-11"	15	2	30
12-17"	2	3	6
18-23"	4	4	16
>24"	4	DBH/6 (178)	29
TOTAL:			65



LANDSCAPE NOTES

- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH ALL CITY OF WILMINGTON AND/OR NCDOT STANDARDS AND SPECIFICATIONS.
- 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.
- LAWN AREAS SHALL BE SEEDED WITH COMMON BERMUDA GRASS 95% COVERAGE (BASED ON A PER SQUARE YARD SAMPLE) SHALL BE ATTAINED PRIOR TO FINAL INSPECTION.
- ALL PLANT MATERIAL SHALL CONFORM WITH THE STANDARDS SET FORTH BY THE AMERICAN ASSOCIATION OF NURSERYMEN AND THE WRITTEN SPECIFICATIONS.
- PLANTING BEDS TO BE MULCHED WITH A MINIMUM OF 3" OF TRIPLE SHREDDED HARDWOOD MULCH. ALL PLANT GROUPINGS SHALL BE MULCHED AS ONE BED.
- ESTABLISH POSITIVE DRAINAGE IN ALL PLANTING BEDS AND AWAY FROM BUILDINGS.
- APPLY PRE-EMERGENT HERBICIDE TO ALL NEW PLANTING BEDS AT AT MANUFACTURER'S RECOMMENDED RATE PRIOR TO INSTALLATION OF MULCH.
- DO NOT INSTALL PLANT MATERIAL IN IMPERVIOUS SOILS, (i.e. HOLES WHICH, WHEN FILLED WITH WATER, DO NOT COMPLETELY DRAIN WITHIN TWO HOURS.)
- ALL SODDED AREAS SHALL BE TIFWAY-419 BERMUDA.
- ANY TREE WRAP SHALL BE REMOVED IMMEDIATELY AFTER INSTALLATION.
- SEE SPECIFICATIONS REGARDING WARRANTY/MAINTENANCE REQUIREMENTS FOR ALL PLANTS, SOD, AND LAWN SEEDING.
- DEAD OR DETERIORATING SCREENING SHALL BE REPLACED WITHIN SIX MONTHS OR DURING NEXT PLANTING SEASON.
- WITHIN THE SIGHT TRIANGLES SHOWN ON THIS PLAN, NO OBSTRUCTION BETWEEN TWO (2) FEET AND EIGHT (8) FEET IN HEIGHT ABOVE THE CURB LINE OF INTERSECTING STREETS SHALL BE AT LEAST TWENTY (20) FEET FROM THE POINT OF TANGENCY.

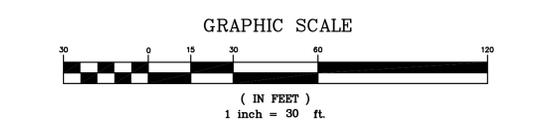
PLANT SCHEDULE

KEY	QTY	PLANT NAME	SIZE	REMARKS
CANOPY AND UNDERSTORY TREES				
BC	3	BALD CYPRESS <i>Taxodium distichum</i>	2"-2 1/2" CAL. 10'-12' HT	B&B, STRAIGHT TRUNK FULL CROWN
CE	4	BOSQUE CHINESE ELM <i>Ulmus parvifolia 'Bosque'</i>	2"-2 1/2" CAL. 10'-12' HT	B&B, STRAIGHT TRUNK FULL CROWN
CM2	4	CHEROKEE CRAPE MYRTLE <i>Lagerstroemia indica 'Cherokee'</i>	3-5 TRUNKS 7'-8' HT	B&B, FULL CROWN
CM	4	NATCHEZ CRAPE MYRTLE <i>Lagerstroemia l. x f. 'Natchez'</i>	3-5 TRUNKS 7'-8' HT	B&B, FULL CROWN
LO	4	LIVE OAK <i>Quercus virginiana</i>	2"-2 1/2" CAL. 10'-12' HT	B&B, STRAIGHT TRUNK FULL CROWN
LG	10	LITTLE GEM MAGNOLIA <i>Magnolia grandiflora 'Little Gem'</i>	1"-1 1/2" CAL. 8'-10' HT	B&B, STRAIGHT TRUNK FULL TO GROUND
JC	6	JAPANESE CRYPTOMERIA <i>Cryptomeria japonica</i>	6'-7" HT. MIN.	B&B, STRAIGHT TRUNK FULL TO GROUND
QL	8	LAUREL OAK <i>Quercus laurifolia 'Darlington'</i>	2"-2 1/2" CAL. 10'-12' HT	B&B, STRAIGHT TRUNK FULL CROWN
RM	6	RED MAPLE 'OCTOBER GLORY' <i>Acer rubrum 'October Glory'</i>	2"-2 1/2" CAL. 10'-12' HT	B&B, STRAIGHT TRUNK FULL CROWN
SHRUBS AND GROUNDCOVERS				
AS	27	LITTLE BLUESTEM <i>Andropogon scoparium 'The Blues'</i>	18"-24" HT./SPR. CONT.	CONT., FULL 4.0' O.C.
JU	34	BLUE PACIFIC JUNIPER <i>Juniperus conferta 'Blue Pacific'</i>	15"-18" SPR. CONT.	CONT., FULL 6' O.C.
LI	81	BIG BLUE LIRIOPE <i>Liriope muscari 'Big Blue'</i>	3-5 BIBS	SPACED 18" O.C.
PV	12	SWITCHGRASS <i>Panicum virgatum 'Shenandoah'</i>	18"-24" HT./SPR. CONT.	CONT., FULL 4.0' O.C.
RI	87	REDBIRD INDIAN HAWTHORN <i>Rhaphiolepis indica 'Redbird'</i>	18" HT./SPR. CONT.	CONT., FULL 4' O.C.

GRAPHIC SYMBOLS SUPERCEDE WRITTEN QUANTITIES WHERE DISCREPANCIES OCCUR. SEE SHEET C7.6 FOR MORE INFORMATION.

TIFWAY 419 SOD, SEE DETAIL SHEET.

REFER TO PLAN SHEET C-6.2 FOR LANDSCAPE CALCULATIONS.



bmh
BOWMAN MURRAY HEMINGWAY
 ARCHITECTS
 514 Market Street
 Wilmington, NC 28401
 Tel - (910) 762-2621
 Fax - (910) 762-8506

CLH DESIGN, PA
 400 Regency Forest Dr.
 Suite 120
 Cary, NC 27518
 Phone: 919.318.6716
 Fax: 919.318.7518
 LA: C-106 PE: C-1595



DD DOCUMENTS

Renovations and Additions to:
John T. Hoggard High School
4305 Shipyard Blvd.
Wilmington, North Carolina
28403

JOB NUMBER
15-120
 DRAWN BY
JGM
 CHECKED BY
JGM
 DATE
JANUARY 13, 2016
 REVISIONS

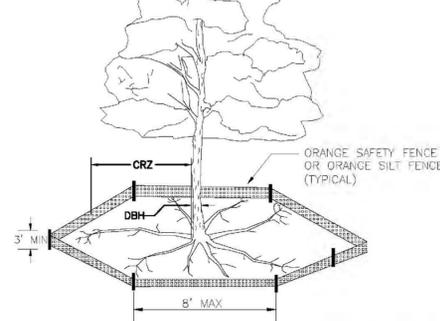
SITE PLANTING PLAN
 SHEET NUMBER

C-6.2

DESIGN DEVELOPMENT: 12-21-2015

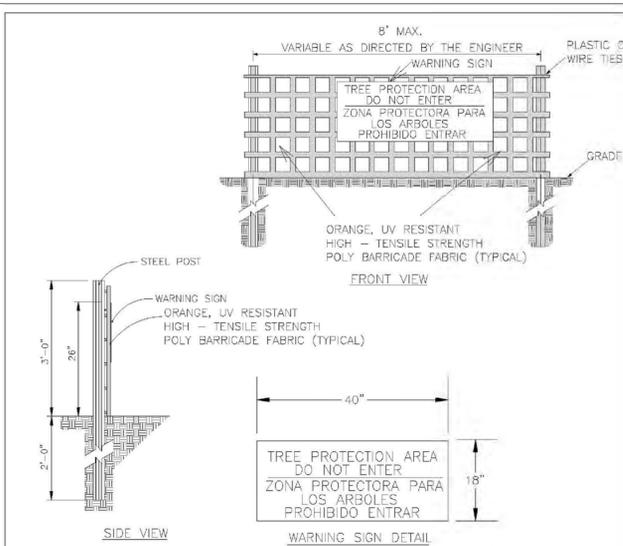
NOTE: THE CRITICAL ROOT ZONE (CRZ) OF A TREE IS WHERE THE MAJORITY OF A TREE'S ROOTS LAY. 85% OF MOST TREE ROOTS ARE FOUND IN THE TOP 24" OF THE SOIL AND SUPPLY THE MAJORITY OF NUTRIENTS AND WATER. GENERALLY, ROOTS SPREAD OUT 2-3X THE HEIGHT OF THE TREE.

NOTE: CROWN OF THE TREE IS NEEDED FOR LEAF GROWTH TO PRODUCE OXYGEN, FILTER THE AIR, REDUCE WIND AND SOFTEN NOISE. DO NOT DISFIGURE CROWN WITH INTENSIVE PRUNING.



- NOTES:**
1. PROTECT CRITICAL ROOT ZONE (CRZ) OF TREES PRIOR TO CONSTRUCTION. CLEARLY MARK THE TREES AND ERECT A PROTECTIVE BARRIER AT THE CRZ. BARRIER SHALL BE MAINTAINED UNTIL CONSTRUCTION IS COMPLETE.
 2. CRZ RADIUS IS 1 FT PER INCH OF TREE DIAMETER AT BREAST HEIGHT (DBH).
 3. IF CONSTRUCTION OCCURS WITHIN THE CRZ, AT LEAST 12" OF MULCH AND/OR LOGGING MATS SHALL BE PLACED WHERE MACHINERY MANEUVERS TO REDUCE SOIL COMPACTION IN THIS ZONE.
 4. WHERE SIDEWALKS AND PATHWAYS PASS WITHIN CRZ, EXTRA CARE SHALL BE TAKEN TO AVOID DAMAGE TO THE ROOTS. ALTERNATE CONSTRUCTION METHODS, SUCH AS A REINFORCED SIDEWALK, SHALL BE IMPLEMENTED AS NECESSARY.
 5. FOR ALL TREES, CUTTING OF LARGE STRUCTURAL ROOTS LOCATED NEAR THE BASE OF THE TRUNK IS PROHIBITED. DO NOT COMPACT SOIL BENEATH TREES. NO VEHICLE SHALL BE ALLOWED TO PARK UNDER TREES. NO MATERIALS OR EQUIPMENT SHALL BE STORED BENEATH TREES, DAMAGING THE BARK WITH LAWNMOWERS, CONSTRUCTION EQUIPMENT, OR ANYTHING ELSE IS PROHIBITED. CONTRACTOR SHALL REPAIR DAMAGE TO TREES.
 6. FAILING TO INSTALL OR MAINTAIN PROTECTION MEASURES SHALL RESULT IN A STOP WORK ORDER AND FINE OF \$500/DAY. DISTURBANCE OTHER THAN THAT ALLOWED ON THE APPROVED PLAN WILL REQUIRE OWNER TO POST A LETTER OF CREDIT FOR 3 YRS FOR TREE MITIGATION.

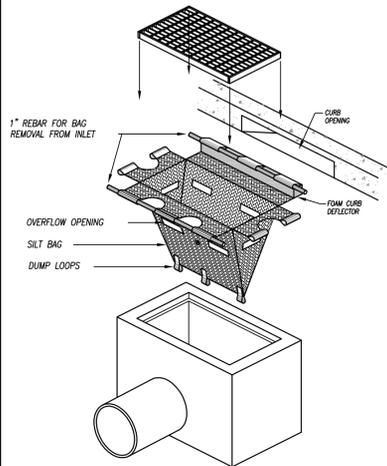
DATE: JAN. 2015	STANDARD DETAIL	<p>CITY OF WILMINGTON ENGINEERING PO BOX 1810 WILMINGTON, NC 28402 (910) 341-7807</p>	SD 15-09
DRAWN BY JSR	TREE PROTECTION DURING CONSTRUCTION		
CHECKED BY RDG, P.E.	SHEET 1 of 2		
SCALE NOT TO SCALE			



- NOTES:**
1. THE TREE PROTECTION FENCING SHALL NOT BE VIOLATED FOR THE ENTIRE DURATION OF THE PROJECT WITHOUT APPROVAL FROM URBAN FORESTRY STAFF.
 2. WARNING SIGNS TO BE MADE OF DURABLE, WEATHER-PROOF MATERIAL. LETTERS TO BE 3" HIGH, MINIMUM, CLEARLY LEGIBLE AND SPACED AS DETAILED.
 3. SIGNS SHALL BE PLACED AT 50' MAXIMUM INTERVALS. PLACE A SIGN AT EACH END OF LINEAR TREE PROTECTION AND 50' ON CENTER THEREAFTER. FOR TREE PROTECTION AREAS LESS THAN 100' IN PERIMETER, PROVIDE NO LESS THAN TWO SIGNS PER PROTECTION AREA.
 4. ATTACH SIGNS SECURELY TO FENCE POSTS AND FABRIC. MAINTAIN TREE PROTECTION FENCE AND SIGNS THROUGHOUT DURATION OF PROJECT.
 5. TREE PROTECTION FENCING AND SIGNAGE SHALL BE REMOVED AFTER CONSTRUCTION.
 6. ADDITIONAL SIGNS MAY BE REQUIRED BY CITY OF WILMINGTON, BASED ON ACTUAL FIELD CONDITIONS.

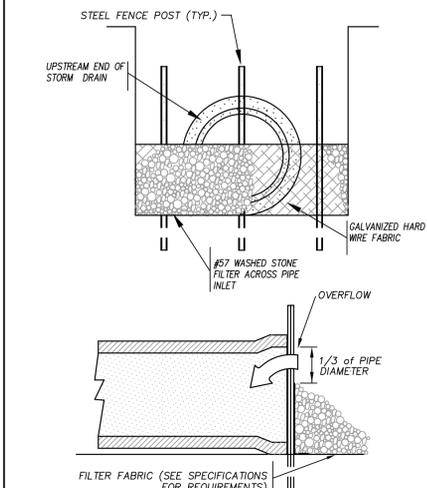
DATE: JAN. 2015	STANDARD DETAIL	<p>CITY OF WILMINGTON ENGINEERING PO BOX 1810 WILMINGTON, NC 28402 (910) 341-7807</p>	SD 15-09
DRAWN BY JSR	TREE PROTECTION DURING CONSTRUCTION		
CHECKED BY RDG, P.E.	SHEET 2 of 2		
SCALE NOT TO SCALE			

CITY OF WILMINGTON TREE PROTECTION FENCE N.T.S.



- NOTES:**
1. CONTRACTOR TO INSPECT SILT BAG EVERY TWO WEEKS OR AFTER EVERY SUBSTANTIAL RAIN EVENT.
 2. CONTRACTOR TO REMOVE AND DISPOSE OF COLLECTED SILT AT AN ACCEPTABLE OFF SITE LOCATION.
 3. COLLECTED SEDIMENT TO BE REMOVED ROUTINELY TO ENSURE FUNCTIONALITY OF SILT BAG.
 4. DEVICE SHALL BE MANUFACTURED FROM WOVEN POLYPROPYLENE GEOTEXTILE TO FIT THE OPENING OF A CATCH BASIN OR DROP INLET TO FILTER SEDIMENT FROM RUNOFF ENTERING THE INLET. DEVICE SHALL BE PROVIDED WITH AN INTEGRAL CURB DEFLECTOR IF INSTALLED AT A CATCH BASIN WITH A VERTICAL OPENING ADJACENT TO A HORIZONTAL GRATE.
 5. THE DEVICE SHALL BE A HIGH FLOW "SILTSACK" AS MANUFACTURED BY ACF ENVIRONMENTAL, INC. OR APPROVED EQUAL.
 6. INSTALL DEVICE IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS AND INSTALL A CURB DEFLECTOR IF APPROPRIATE.
 7. INSPECT DEVICE AFTER EACH RAIN EVENT AND AT INTERVALS NOT EXCEEDING TWO WEEKS DURING CONSTRUCTION. REMOVE, EMPTY, CLEAN, AND REPLACE THE DEVICE AS NEEDED DURING CONSTRUCTION. EMPTY COLLECTED SEDIMENT IN APPROVED, PROTECTED LOCATION. REMOVE AND DISPOSE OF DEVICE FOLLOWING FULL AND PERMANENT STABILIZATION OF THE CONTRIBUTING DRAINAGE AREA.

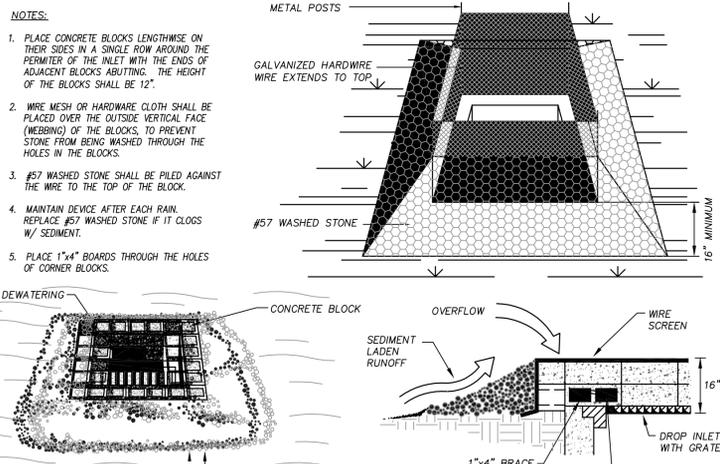
SILT BAG INLET PROTECTION N.T.S.



- NOTES:**
1. ALL OPEN STORM DRAIN PIPES SHALL BE PROTECTED AFTER STOPPAGE OF WORK EACH DAY AS ILLUSTRATED.
 2. ACCUMULATED SEDIMENT SHALL BE REMOVED AND PROPERLY DISPOSED OF AND THE TRENCH BOTTOM REGRADED AND COMPACTED IN ACCORDANCE WITH SPECIFICATIONS PRIOR TO CONTINUANCE OF LAYING PIPE.

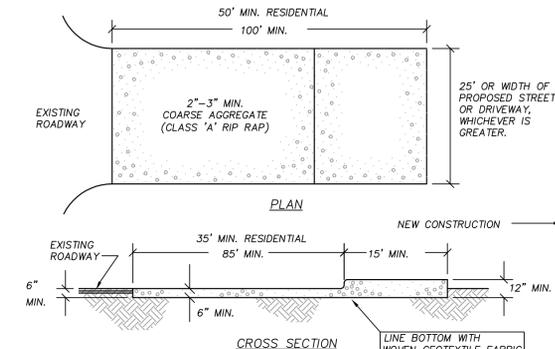
STONE FILTER INLET PROTECTION FOR STORM DRAIN UNDER CONSTRUCTION N.T.S.

- MAINTENANCE NOTES:**
1. INSPECT THE BARRIER AT LEAST WEEKLY AND AFTER EACH SIGNIFICANT RAINFALL AND MAKE REPAIRS AS NEEDED.
 2. REMOVE SEDIMENT AS NECESSARY TO PROVIDE ADEQUATE STORAGE VOLUME FOR SUBSEQUENT RAINS.
 3. APPROPRIATELY STABILIZE ALL BARE AREAS AROUND THE INLET.



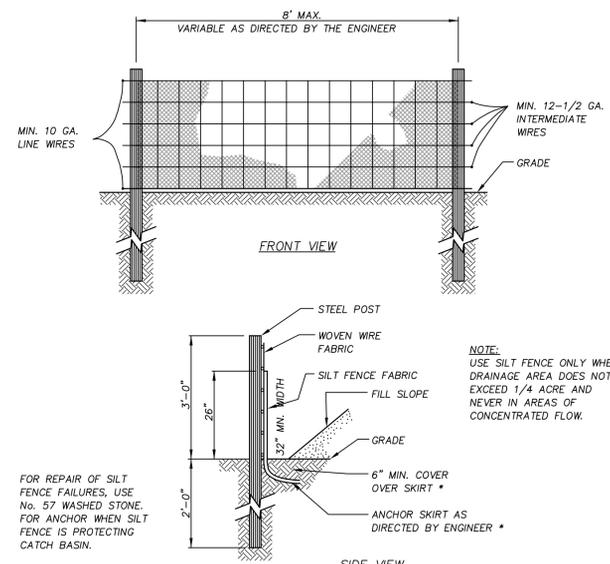
TEMPORARY CATCH BASIN AND YARD INLET PROTECTION N.T.S.

- NOTES:**
1. ENTRANCE(S) SHALL BE LOCATED TO PROVIDE MAXIMUM UTILITY BY ALL CONSTRUCTION VEHICLES.
 2. TURNING RADIUS SUFFICIENT TO ACCOMMODATE LARGE TRUCKS IS TO BE PROVIDED.
 3. MUST BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR DIRECT FLOW OF MUD ONTO STREETS. PERIODIC TOPDRESSING WITH STONE WILL BE NECESSARY. CONTRACTOR SHALL MAINTAIN AS NECESSARY.
 4. ANY MATERIAL WHICH STILL MAKES IT ONTO THE ROAD MUST BE CLEANED UP IMMEDIATELY.
 5. FREQUENT CHECKS OF THE ENTRANCE(S) AND TIMELY MAINTENANCE SHALL BE PROVIDED.
 6. NOTES ARE APPLICABLE AT ALL POINTS OF INGRESS AND EGRESS UNTIL SITE IS STABILIZED.

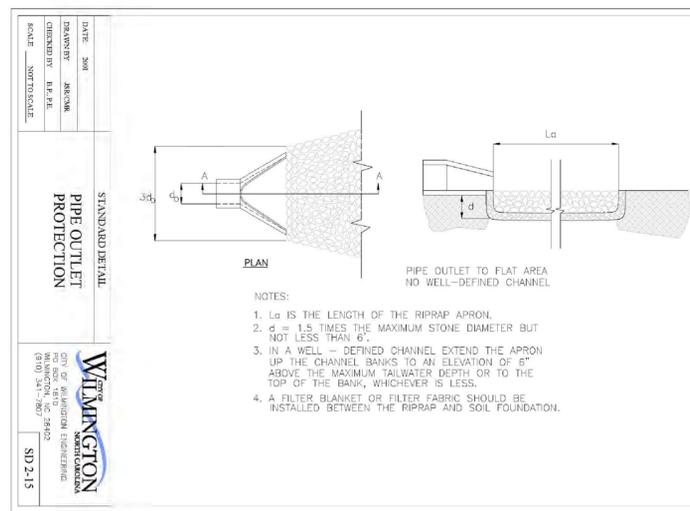


- MAINTENANCE NOTES:**
1. MAINTAIN THE GRAVEL PAD IN A CONDITION TO PREVENT MUD OR SEDIMENT FROM LEAVING THE SITE.
 2. MAY REQUIRE PERIODIC TOP DRESSING WITH 2-INCH STONE.
 3. IMMEDIATELY REMOVE ALL OBJECTIONABLE MATERIALS SPILLED, WASHED OR TRACKED ONTO PUBLIC ROADWAYS.

TEMPORARY GRAVEL CONSTRUCTION ENTRANCE N.T.S.



STANDARD TEMPORARY SILT FENCE N.T.S.



- NOTES:**
1. L₀ IS THE LENGTH OF THE RIPRAP APRON.
 2. d = 1.5 TIMES THE MAXIMUM STONE DIAMETER BUT NOT LESS THAN 6".
 3. IN A WELL-DEFINED CHANNEL EXTEND THE APRON UP THE CHANNEL BANKS TO AN ELEVATION OF 6" ABOVE THE MAXIMUM FLOW DEPTH OR TO THE TOP OF THE BANK, WHICHEVER IS LESS.
 4. A FILTER BLANKET OR FILTER FABRIC SHOULD BE INSTALLED BETWEEN THE RIPRAP AND SOIL FOUNDATION.

CITY OF WILMINGTON OUTLET PROTECTION N.T.S.

bmh
BOWMAN MURRAY HEMINGWAY ARCHITECTS
514 Market Street
Wilmington, NC 28401
Tel - (910) 762-2621
Fax - (910) 762-8506

CLH DESIGN, P.A.
400 Regency Forest Dr.
Suite 120
Cary, NC 27518
Phone: 919.318.6216
Fax: 919.318.7516
LA: C-106, P.E. C-1595



DD DOCUMENTS

Renovations and Additions to:
John T. Hoggard High School
4305 Shipyard Blvd.
Wilmington, North Carolina
28403

JOB NUMBER
15-120
DRAWN BY
JGM
CHECKED BY
JGM
DATE
JANUARY 13, 2016
REVISIONS

SITE/CIVIL DETAILS

SHEET NUMBER

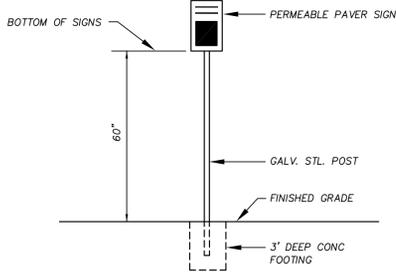
C7.1

DESIGN DEVELOPMENT: 12-21-2015

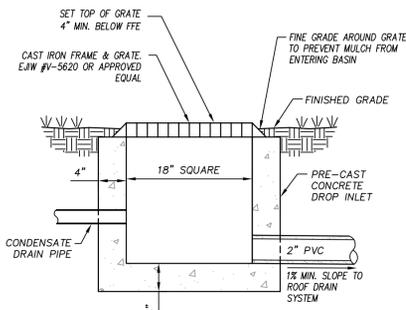
PERMEABLE PAVEMENT



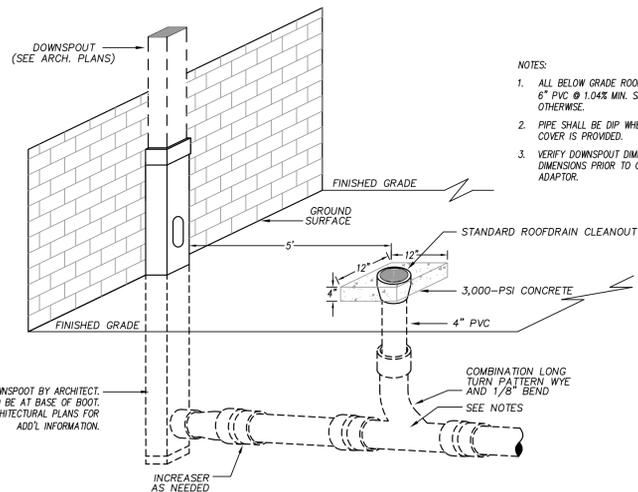
- ACTIVITIES PROHIBITED:**
- SANDING
 - RE-SEALING
 - RE-SURFACING
 - POWER WASHING
 - STORAGE OF MULCH OR SOIL
 - STORAGE OF SNOW PILES
 - STORAGE OF HEAVY LOADS
 - APPLICATION OF SALT OR DE-ICERS



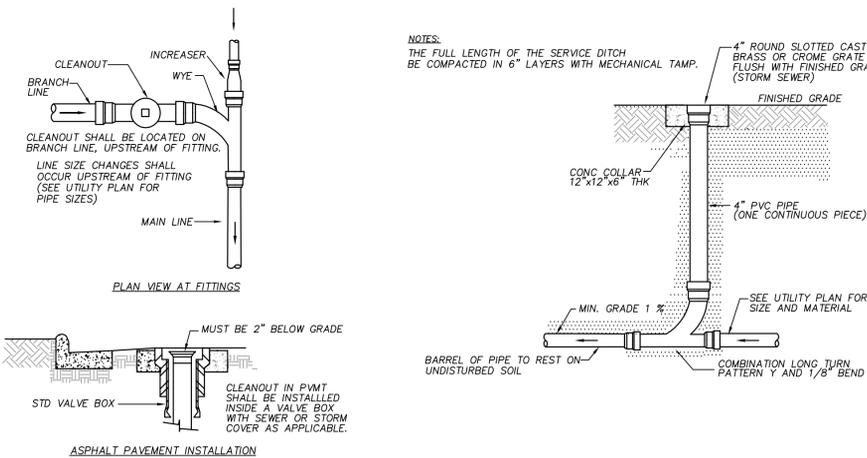
PERMEABLE PAVER SIGNAGE N.T.S.



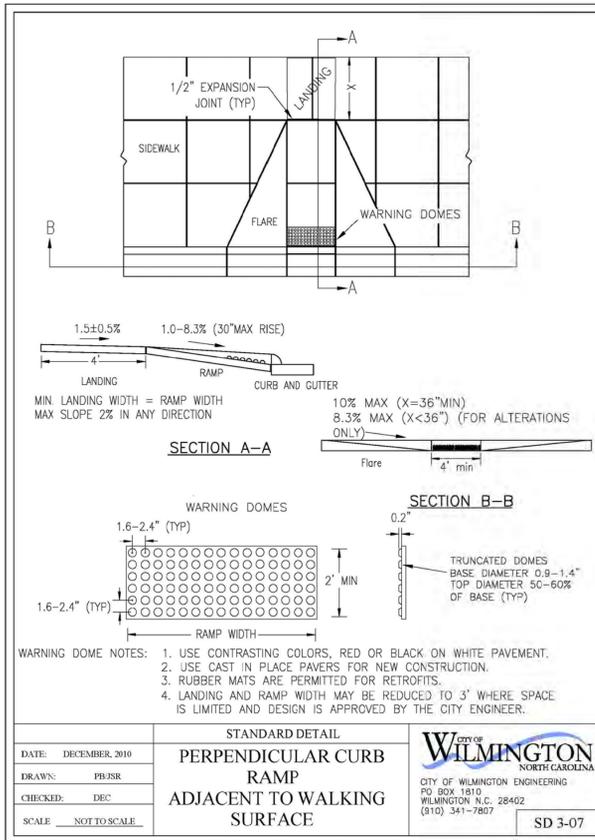
CONDENSATE RELIEF BASIN N.T.S.



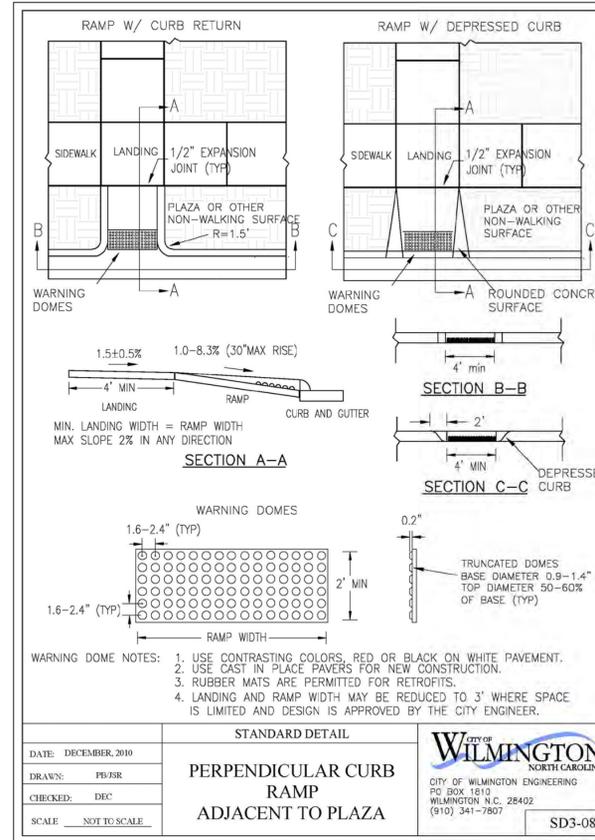
DOWNSPOUT CONNECTION N.T.S.



STANDARD ROOF DRAIN CLEANOUT N.T.S.

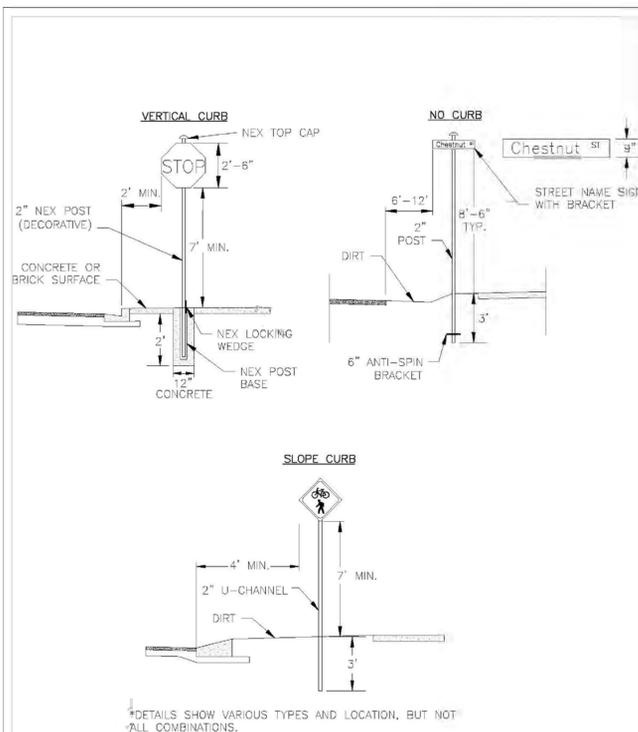


STANDARD DETAIL
PERPENDICULAR CURB RAMP ADJACENT TO WALKING SURFACE
CITY OF WILMINGTON NORTH CAROLINA
SD 3-07



STANDARD DETAIL
PERPENDICULAR CURB RAMP ADJACENT TO PLAZA
CITY OF WILMINGTON NORTH CAROLINA
SD3-08

CITY OF WILMINGTON ACCESSIBLE PARKING CURB RAMPS N.T.S.



STANDARD DETAIL
STREET SIGNS AND LOCATION
CITY OF WILMINGTON NORTH CAROLINA
SD 15-03

- SIGNS**
- All signs shall meet the requirements of MUTCD and City Traffic Engineering in effect at the time of construction.
 - 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".
 - 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.
 - 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.
 - 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.
 - 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.
 - 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.
 - All sign lettering, colors and fonts shall adhere to the MUTCD in effect at the time of construction. Fluorescent 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**
- 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.
 - 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.
 - 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.

STANDARD DETAIL
STREET SIGNS AND LOCATION
CITY OF WILMINGTON NORTH CAROLINA
SD 15-03

CITY OF WILMINGTON STREET SIGNS N.T.S.

bmh
BOWMAN MURRAY HEMINGWAY ARCHITECTS
514 Market Street
Wilmington, NC 28401
Tel - (910) 762-2621
Fax - (910) 762-8506

CLH DESIGN, P.A.
400 Regency Forest Dr.
Suite 120
Cary, NC 27518
Phone: 919.318.6716
Fax: 919.318.7516
LA: C-106, P.E. C-1595

DD DOCUMENTS

Renovations and Additions to:
John T. Hoggard High School
4305 Shipyard Blvd.
Wilmington, North Carolina
28403

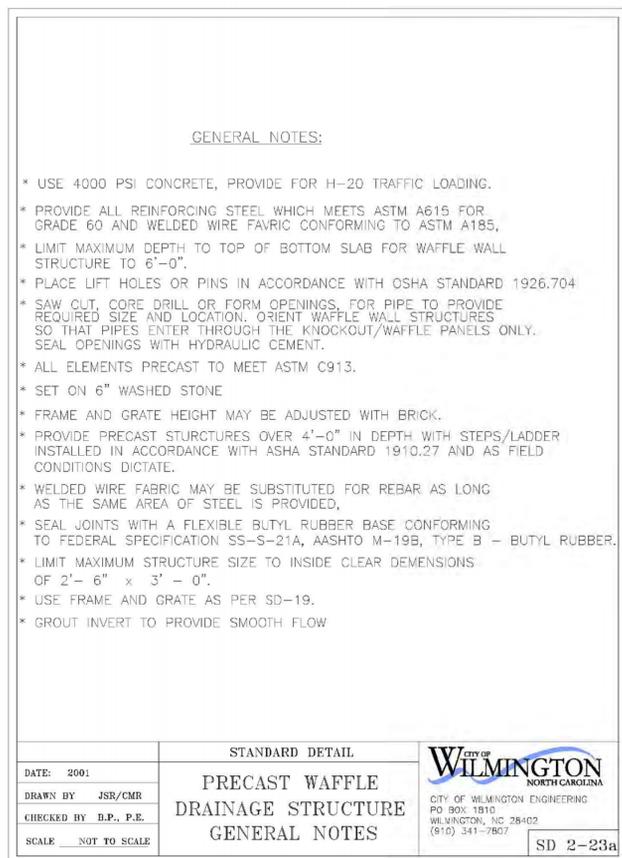
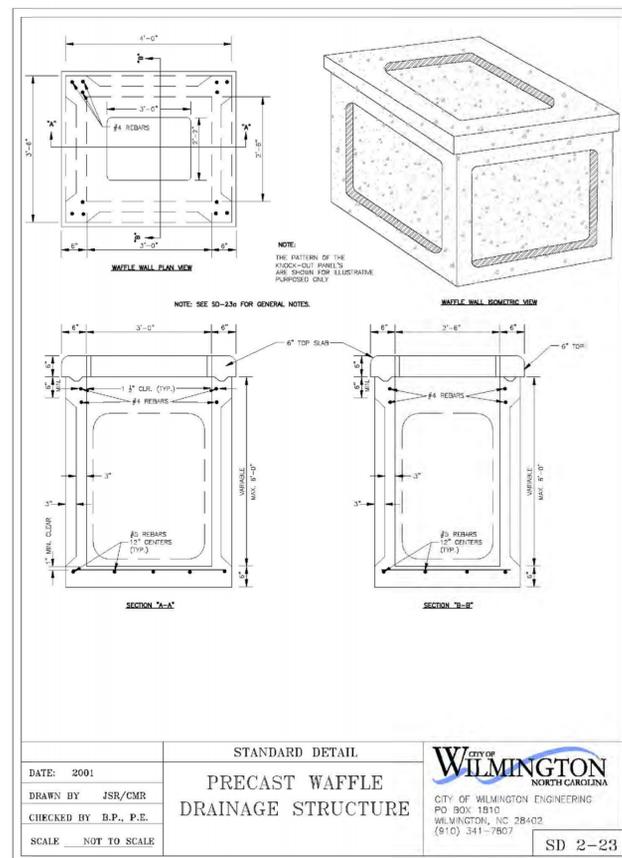
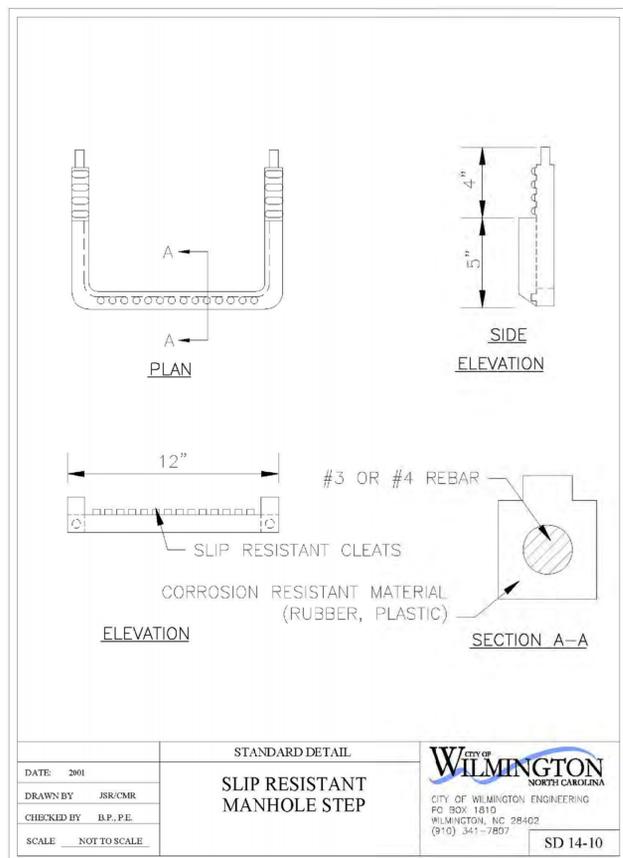
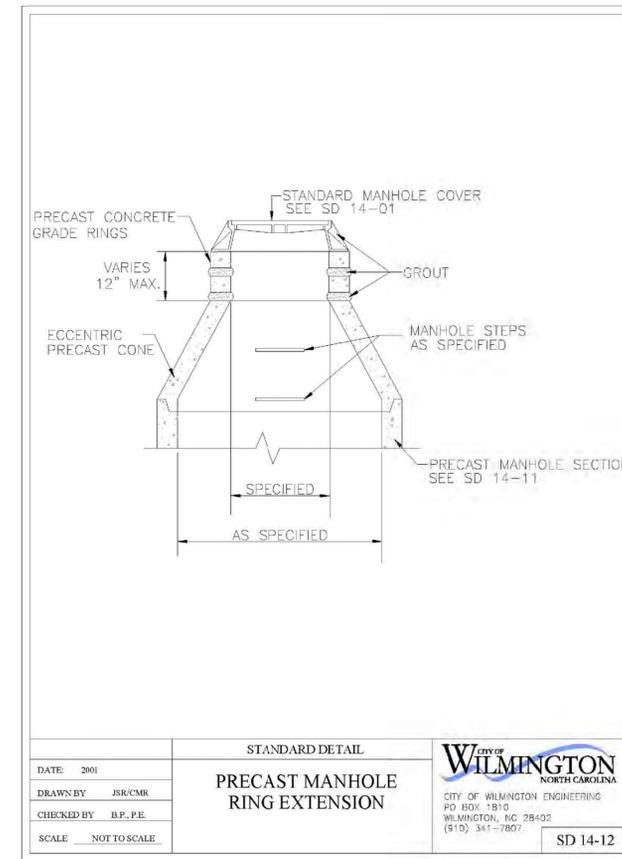
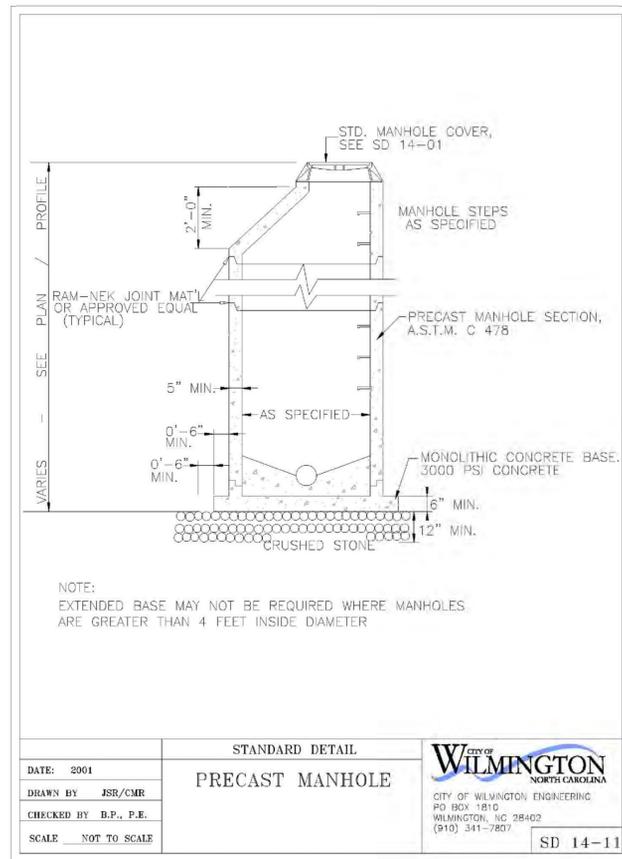
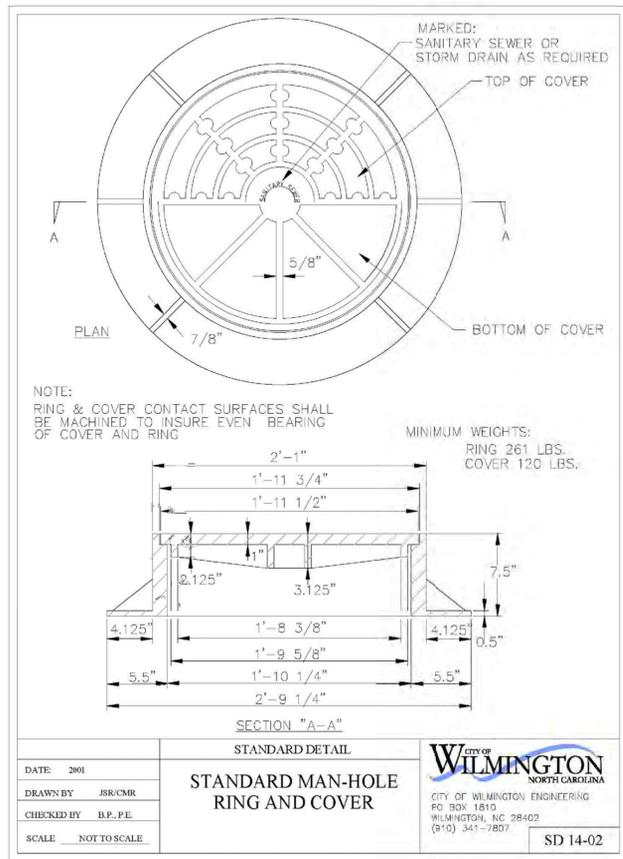
JOB NUMBER	15-120
DRAWN BY	JGM
CHECKED BY	JGM
DATE	JANUARY 13, 2016
REVISIONS	

SITE/CIVIL DETAILS

SHEET NUMBER

C7.3

DESIGN/DEVELOPMENT: 12-21-2015



**BOWMAN
MURRAY
HEMINGWAY**

ARCHITECTS
514 Market Street
Wilmington, NC 28401
Tel - (910) 762-2621
Fax - (910) 762-8506



DD DOCUMENTS

Renovations and Additions to:
John T. Hoggard High School
4305 Shipyard Blvd.
Wilmington, North Carolina
28403

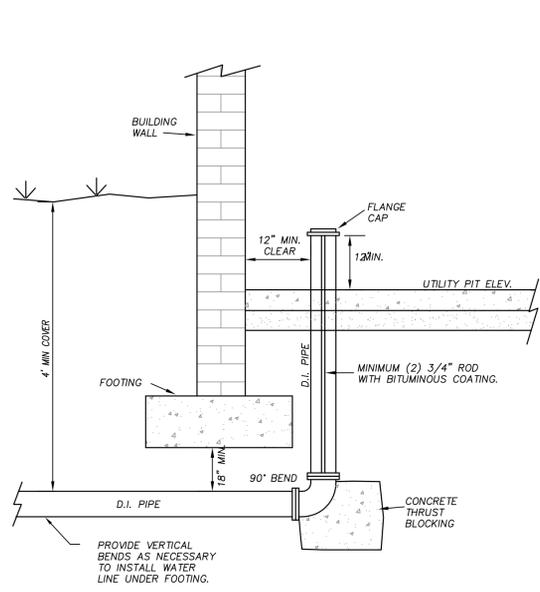
JOB NUMBER	15-120
DRAWN BY	JGM
CHECKED BY	JGM
DATE	JANUARY 13, 2016
REVISIONS	

SITE/CIVIL
DETAILS

SHEET NUMBER

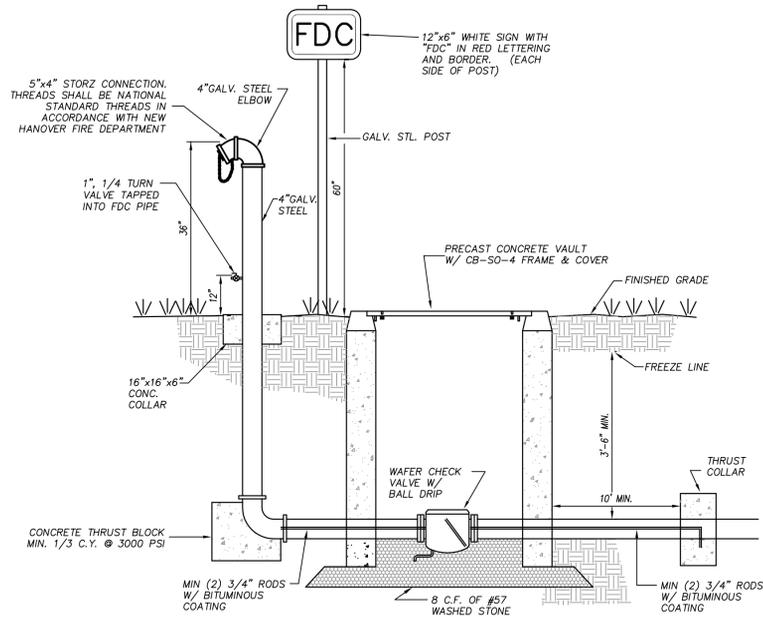
C7.4

DESIGN DEVELOPMENT: 12-21-2015



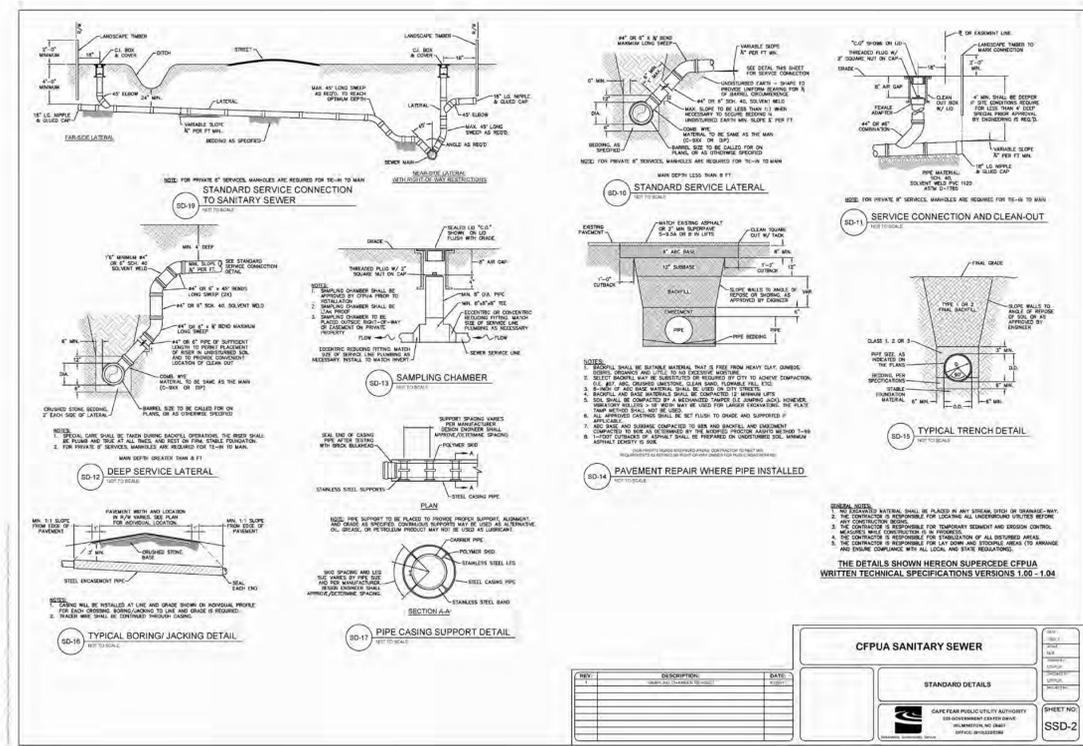
STANDARD FIRE SERVICE INSTALLATION AT BUILDING

N.T.S.



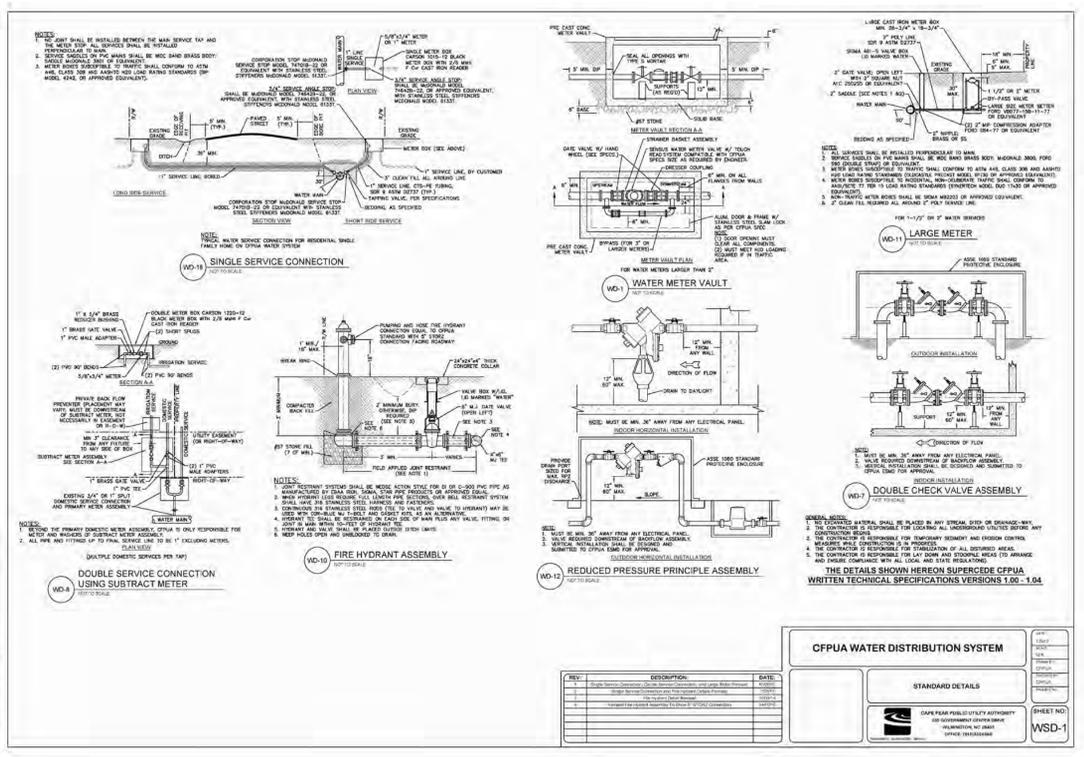
FIRE DEPARTMENT CONNECTION

N.T.S.



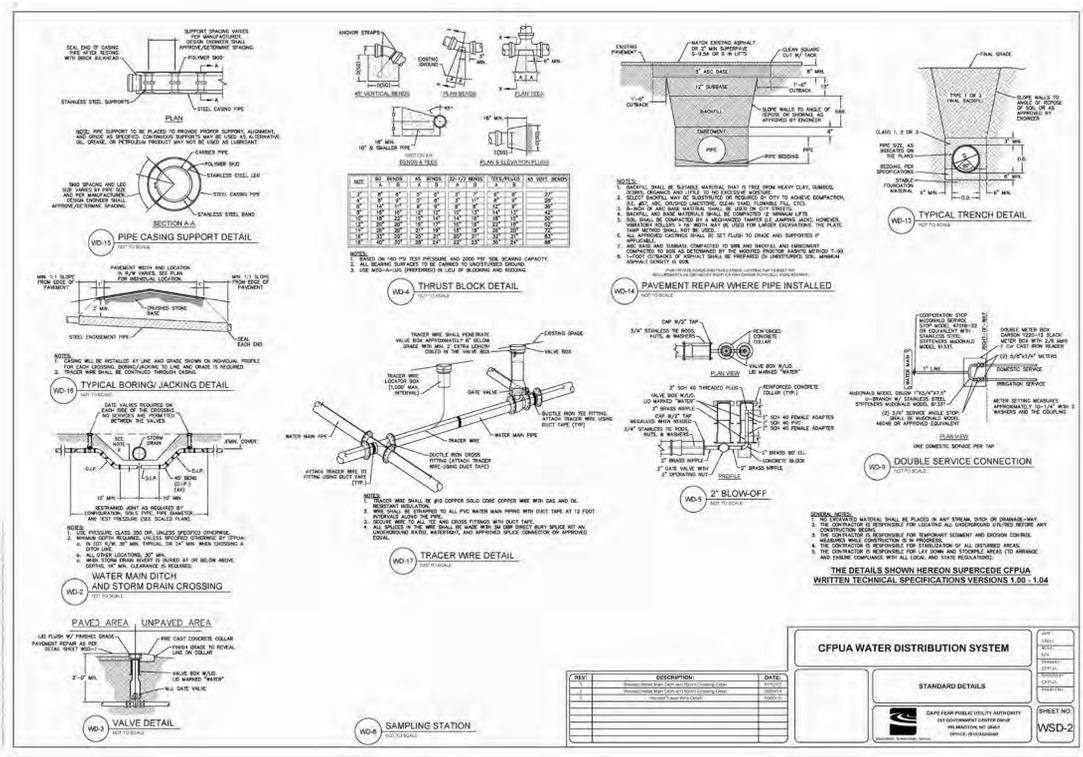
CFPWA SANITARY SEWER DETAILS

N.T.S.



CFPWA WATER DISTRIBUTION SYSTEM

WSD-1



CFPWA WATER DISTRIBUTION SYSTEM

WSD-2



**BOWMAN
MURRAY
HEMINGWAY**
ARCHITECTS
514 Market Street
Wilmington, NC 28401
Tel - (910) 762-2621
Fax - (910) 762-8506



**CLH
DESIGN, PA**
400 Regency Forest Dr.
Suite 120
Cary, NC 27518
Phone: 919.318.6716
Fax: 919.318.7516
LA: C-106 PC: C-1555



DD DOCUMENTS

Renovations and Additions to:
John T. Hoggard High School
4305 Shipyard Blvd.
Wilmington, North Carolina
28403

JOB NUMBER
15-120
DRAWN BY
JGM
CHECKED BY
JGM
DATE
JANUARY 13, 2016
REVISIONS

SITE/CIVIL
DETAILS

SHEET NUMBER

C7.5

DESIGN DEVELOPMENT: 12-21-2015

N.T.S.

CFPWA WATER DISTRIBUTION SYSTEM DETAILS

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

STANDARD DETAIL		 CITY OF WILMINGTON ENGINEERING P.O. BOX 1810 WILMINGTON, NC 28402 (910) 341-7807
DATE	APRIL, 2008	
DRAWN BY	JSR	
CHECKED BY	B.P. P.E.	
SCALE	NOT TO SCALE	

CITY OF WILMINGTON LANDSCAPE NOTES

N.T.S.

DATE	TYPE	PLANTING RATE
APR 15 - JULY 15 **	HULLED SUNSTAR OR RIVERA BERMUDA	85 LBS./ACRE *
JULY 15 - AUG 15	SUNSTAR OR RIVERA BERMUDA SPRINGS	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:

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

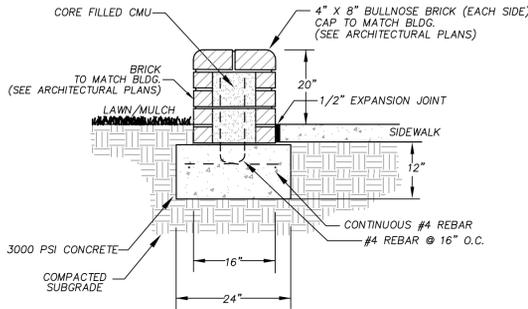
TEMPORARY OR PERMANENT GROUND COVER SHALL BE PROVIDED ON ALL SLOPES WITHIN 15 WORKING DAYS OR 30 CALENDAR DAYS AFTER CONSTRUCTION ACTIVITIES PERMANENTLY OR TEMPORARILY CEASED.

DATE	TYPE	PLANTING RATE
AUG 15 - FEB 1	TALL FESCUE AND WINTER RYE (GRAIN)	70 LBS./ACRE 25 LBS./ACRE
APR 1 - AUG 15	TALL FESCUE AND GERMAN MILLET *** OR SUDAGRASS (SMALL-STEMMED VAR.) ***	120 LBS./ACRE 25 LBS./ACRE 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.

***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



- NOTES:**
- BRICK COLOR, TYPE AND TEXTURE TO MATCH BUILDING BRICK TYPE FB-1 (UTILITY TYPE).
 - MORTAR TO MATCH BUILDING. SEE ARCH PLANS.

SEAT WALL

N.T.S.

- 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.
- 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.
- 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.
- ALL PLANT MATERIAL SHALL CONFORM WITH THE STANDARDS SET FORTH BY THE AMERICAN ASSOCIATION OF NURSERYMEN AND THE WRITTEN SPECIFICATIONS.
- ESTABLISH POSITIVE DRAINAGE IN ALL PLANTING BEDS AND AWAY FROM BUILDING.
- APPLY PRE-EMERGENT HERBICIDE TO ALL NEW PLANTING BEDS AT MANUFACTURER'S RECOMMENDED RATE PRIOR TO INSTALLATION OF PLANT MATERIAL.
- DO NOT INSTALL PLANT MATERIAL IN IMPEROUS SOILS (i.e. HOLES WHICH WHEN FILLED WITH WATER, DO NOT COMPLETELY DRAIN WITHIN TWO HOURS).
- 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.
- GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR KEEPING ALL EQUIPMENT & SUBCONTRACTORS AWAY FROM SEEDING 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.
- 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.
- GENERAL LAWN AREAS SHALL BE SEEDDED WITH COMMON BERMUDAGRASS OR APPROVED EQUAL.
- 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

- CHISEL ALL OUT GRADED OR COMPACTED AREAS TO A MINIMUM DEPTH OF 8".
- 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 SPECIFICATION SECTION 329000.
- REMOVE ALL LOOSE ROCK, ROOTS, AND OTHER OBSTRUCTIONS LEAVING SURFACE REASONABLY SMOOTH AND UNIFORM.
- APPLY AGRICULTURAL LIME, FERTILIZER, AND PHOSPHATE UNIFORMLY AS PER SPECIFICATIONS AND MIX WELL WITH SOIL.
- CONTINUE TILLAGE UNTIL A WELL-PULVERIZED, FIRM, REASONABLY UNIFORM SEEDBED IS PREPARED TO A 6 INCHES DEPTH.
- SEED AT RATE SPECIFIED OR AS NEEDED TO ACHIEVE AND MAINTAIN A THICK HEALTHY GROUND COVERAGE.
- MULCH IMMEDIATELY AFTER SEEDING AND ANCHOR MULCH. BEGIN THOROUGH WATERING OF GRASSED AREAS IMMEDIATELY UPON INSTALLATION. DO NOT ALLOW GRASSED AREAS TO BECOME EXCESSIVELY DRY.
- INSPECT ALL SEEDDED AREAS AND MAKE NECESSARY REPAIRS OR RESEEDINGS AS NEEDED.
- IF CONFLICTS OCCUR BETWEEN WRITTEN SPECIFICATIONS AND THE DRAWINGS, THE WRITTEN SPECIFICATIONS SHALL PREVAIL.

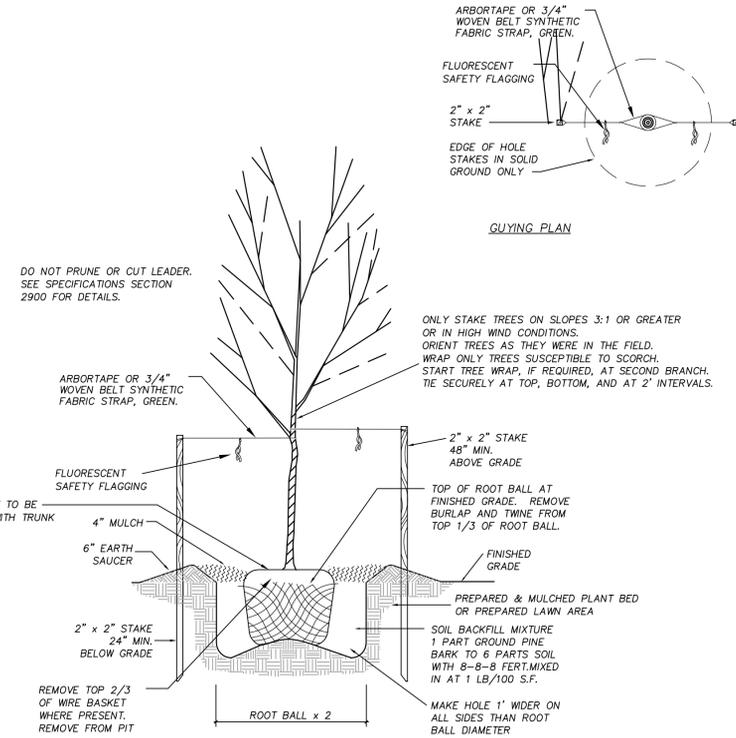
SEEDBED PREPARATION

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.

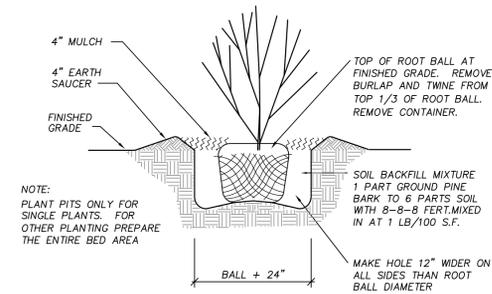
LIME & FERTILIZATION SCHEDULE

- DURING ALL PHASES OF CONSTRUCTION, GROUND COVER ON EXPOSED SLOPES SHALL BE PROVIDED WITHIN 14 CALENDAR DAYS FOLLOWING COMPLETION OF ANY PHASE OF GRADING.
- FINAL PERMANENT GROUND COVER FOR ALL DISTURBED AREAS SHALL BE PROVIDED ON ALL DISTURBED AREAS WITHIN 14 CALENDAR DAYS FOLLOWING COMPLETION OF CONSTRUCTION OR DEVELOPMENT.
- USE EXCELISOR MATTING OR OTHER APPROVED CHANNEL LINING MATERIAL TO COVER THE BOTTOM OF CHANNELS.
- APPLY 4000 LB/ACRE (2 TONS LB/AC) GRAIN STRAW OVER SEEDDED 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).
- MULCH AND ANCHORING MATERIALS MUST NOT BE ALLOWED TO WASH DOWN SLOPES AND CLOG DRAINAGE DEVICES.

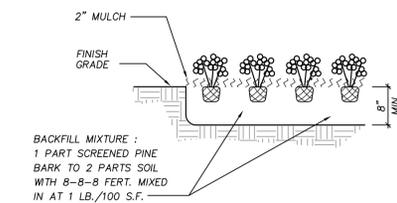
SURFACE STABILIZATION REQUIREMENTS



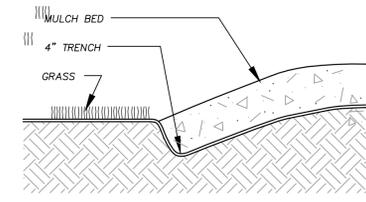
TREE PLANTING DETAIL



TYPICAL SHRUB PLANTING DETAIL

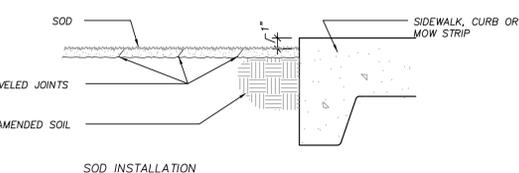


GROUND COVER PLANTING DETAIL



TO BE APPLIED TO ALL PLANTING BEDS

GROUND COVER PLANTING DETAIL



SOD INSTALLATION

SOD INSTALLATION DETAIL



BOWMAN MURRAY HEMINGWAY

ARCHITECTS
514 Market Street
Wilmington, NC 28401
Tel - (910) 762-2621
Fax - (910) 762-8506



DD DOCUMENTS

Renovations and Additions to:
John T. Hoggard High School
4305 Shipyard Blvd.
Wilmington, North Carolina
28403

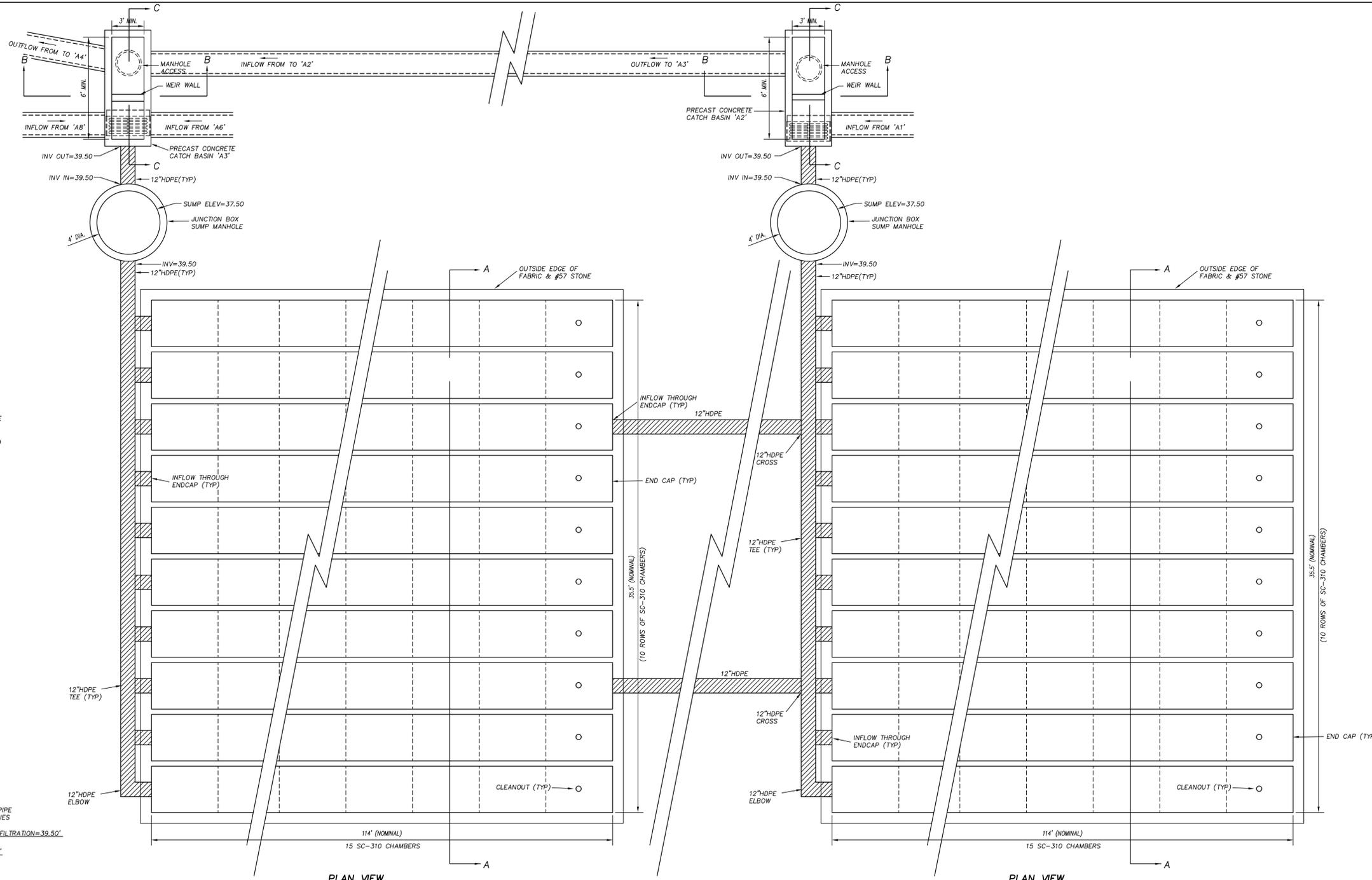
JOB NUMBER	15-120
DRAWN BY	JGM
CHECKED BY	JGM
DATE	JANUARY 13, 2016
REVISIONS	

SITE/CIVIL DETAILS

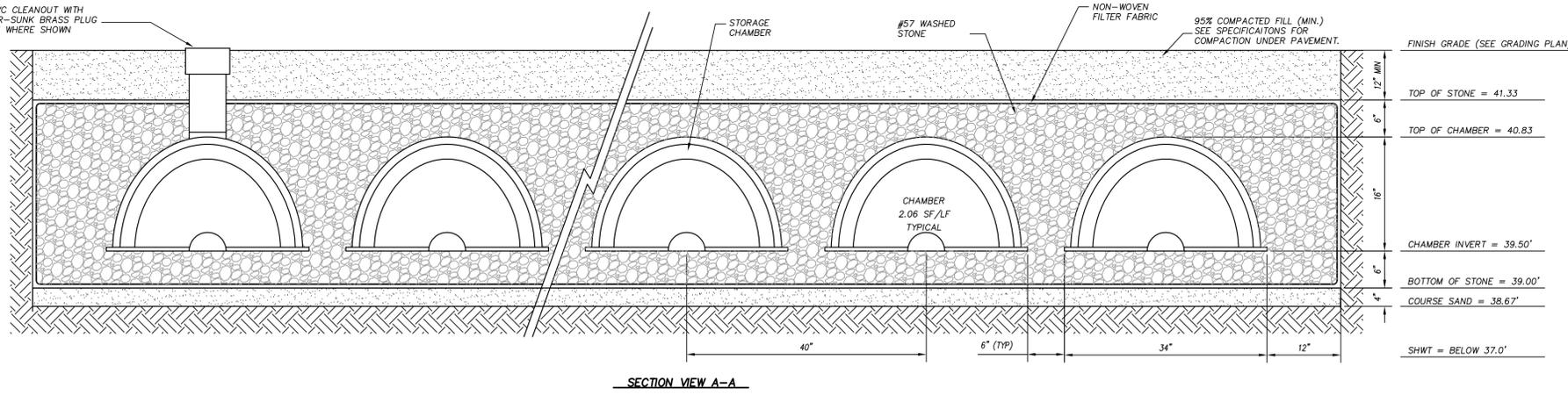
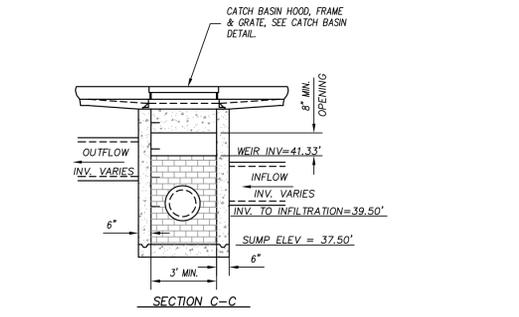
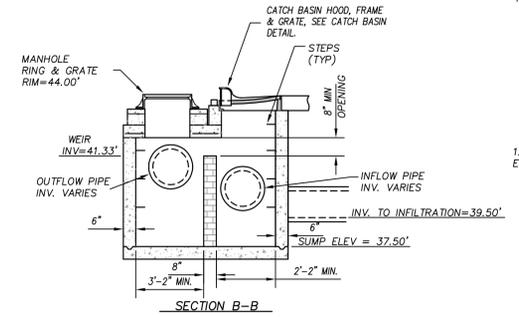
SHEET NUMBER

C7.6

DESIGN DEVELOPMENT: 12-21-2015



- NOTES:**
1. A COMPLETE STORMWATER STORAGE SYSTEM SHALL BE PROVIDED FROM A SINGLE MANUFACTURER AND SHALL INCLUDE ALL NECESSARY COMPONENTS INCLUDING STORAGE CHAMBER UNITS, CHAMBER CONNECTORS, FITTINGS AND ACCESSORIES.
 2. STORMWATER STORAGE CHAMBERS SHALL BE STORMTECH SC-310 OR APPROVED EQUAL.
 3. ALL COMPONENTS SHALL BE INSTALLED IN STRICT ACCORDANCE WITH THE MANUFACTURER'S WRITTEN INSTRUCTIONS.
 4. CHAMBERS SHALL BE CONSTRUCTED OF HIGH MOLECULAR WEIGHT HDPE WITH OPEN BOTTOMS, INTEGRALLY FORMED ENDWALLS AND PERFORATED SIDEWALLS.
 5. CHAMBER SYSTEMS SHALL BE DESIGNED TO WITHSTAND AASHTO H-20 LOAD RATINGS.
 6. CONTRACTOR SHALL SUBMIT DIMENSIONED SHOP DRAWINGS OF THE COMPLETE SYSTEM FOR APPROVAL PRIOR TO CONSTRUCTION.
 7. FILTER FABRIC SHALL BE A 4-OZ NON-WOVEN GEOTEXTILE.
 8. STONE BACKFILL SHALL BE NO. 57 WASHED STONE.
 9. SYSTEM SHALL NOT BE INSTALLED UNTIL THE CONTRIBUTING DRAINAGE AREA IS STABILIZED AND APPROVED BY THE ENGINEER. EXTREME CARE SHALL BE USED DURING INSTALLATION TO AVOID CONTAMINATION OF WASHED-STONE BACKFILL. SYSTEM SHALL BE BACKFILLED AND FINAL GROUND SURFACES SHALL BE STABILIZED IMMEDIATELY.



UNDERGROUND INFILTRATION BASIN

N.T.S.

bmh
BOWMAN MURRAY HEMINGWAY
 ARCHITECTS
 514 Market Street
 Wilmington, NC 28401
 Tel - (910) 762-2621
 Fax - (910) 762-8506

CLH DESIGN, P.A.
 400 Regency Forest Dr.
 Suite 120
 Cary, NC 27518
 Phone: 919.318.6216
 Fax: 919.318.7516
 LA: C-106, P.E. C-1595



DD DOCUMENTS

Renovations and Additions to:
John T. Hoggard High School
4305 Shipyard Blvd.
Wilmington, North Carolina
28403

JOB NUMBER	15-120
DRAWN BY	JGM
CHECKED BY	JGM
DATE	JANUARY 13, 2016
REVISIONS	

SITE/CIVIL DETAILS

DESIGN DEVELOPMENT: 12-21-2015

SHEET NUMBER

C7.8