

REVISIONS		
No./Date	Description	By

LOCATION MAP

LOCATION MAP
NTS

N/F
TAYLOR ALEAN LIFE ESTATE
ZONE: RB-REGIONAL BUSINESS
USE: FAMILY RESIDENTIAL

RECEIVED
MAR 07 2019
PLANNING DIVISION

SITE INVENTORY AND DEMOLITION PLAN

PARKWAY VOLVO
OWNER: WILMINGTON AUTO GROUP PROPERTIES LLC
ADDRESS: 5820 MARKET ST., WILMINGTON, NC

PLEASE NOTE: ALL EXISTING ASPHALT AND CURBING TO BE REMOVED

For each open utility cut of City streets, a \$325 permit shall be required from the City prior to occupancy and/or project acceptance.

Approved Construction Plan	
Name	Date
Planning: Nicole Smith	3/7/19
Traffic: [Signature]	3-11-19
Fire: [Signature]	3-8-19

CITY OF WILMINGTON
NORTH CAROLINA

Public Services • Engineering Division

APPROVED STORMWATER MANAGEMENT PLAN

Date: 3/11/19 Permit #2019015

Signed: [Signature]

- SITE INVENTORY NOTES:**
- PREPARER OF THE PLAN: TRIPP ENGINEERING, P.C.
 - APPLICANT NAME: PARKWAY VOLVO
 - SITE ADDRESS OF THE DEVELOPMENT: 5820 MARKET ST.
 - PROPERTY OWNER: WILMINGTON AUTO GROUP PROPERTIES, LLC
 - DEVELOPER: PARKWAY VOLVO
 - PROPERTY BOUNDARY: SEE PLAN
TAX PARCEL INFORMATION: R05010-001-003-000
 - PROPERTY ZONING: RB-REGIONAL BUSINESS
 - ADJACENT PROPERTY OWNER INFORMATION: SEE PLAN
 - VICINITY MAP: SEE PLAN
 - TOPOGRAPHY: SEE PLAN
 - 100-YEAR FLOOD BOUNDARY: N/A
 - EXISTING DITCHES, CREEKS AND STREAMS: SEE PLAN
 - SOIL: Se; SEAGATE FINE SAND
 - CAMA AEC: N/A
 - CAMA LAND CLASSIFICATION: URBAN
 - CONSERVATION RESOURCES: NONE
ASSOCIATED SETBACKS: N/A
 - HISTORIC OR ARCHAEOLOGICAL SITE: N/A
 - CEMETERIES, BURIAL SITES/GROUNDS: N/A
 - FORESTED AREAS, HABITAT AND DOMINANT SPECIES: N/A
 - WETLANDS: NO WETLANDS EXIST ON SITE
 - PROTECTED SPECIES OR HABITAT: N/A
 - EXISTING OR PROPOSED THOROUGHFARES, BIKE ROUTES, PEDESTRIAN SIDEWALKS OR TRAILS AND TRANSIT FACILITIES: SEE SITE PLAN

INVENTORY OF TREES TO BE REMOVED		
TREE TYPE	TREE SIZE	QUANTITY
PINE	12"	14
PINE	13"	5
PINE	14"	5
PINE	15"	3
PINE	16"	3
PINE	17"	3
PINE	19"	1
OAK	12"	2
OAK	10"	1
OAK	8"	1

INVENTORY OF TREES TO BE PRESERVED			
TREE TYPE	TREE SIZE	QUANTITY	TOTAL DBH
PINE	14"	1	14
OAK	30"	1	30
OAK	6"	1	6
MAPLE	14"	1	14
MAPLE	13"	1	13
MAPLE	10"	1	10
SWEET GUM	13"	1	26

LEGEND

- PROPERTY BOUNDARY
- ☼ EXISTING TREE
- SS EXISTING SEWER
- W EXISTING WATER
- SD EXISTING STORM WATER
- EXISTING SPOT ELEVATION
- XXXX ASPHALT TO BE REMOVED
- XXXX TO BE REMOVED AS NOTED

SITE PLAN
BAR SCALE 1"=30'

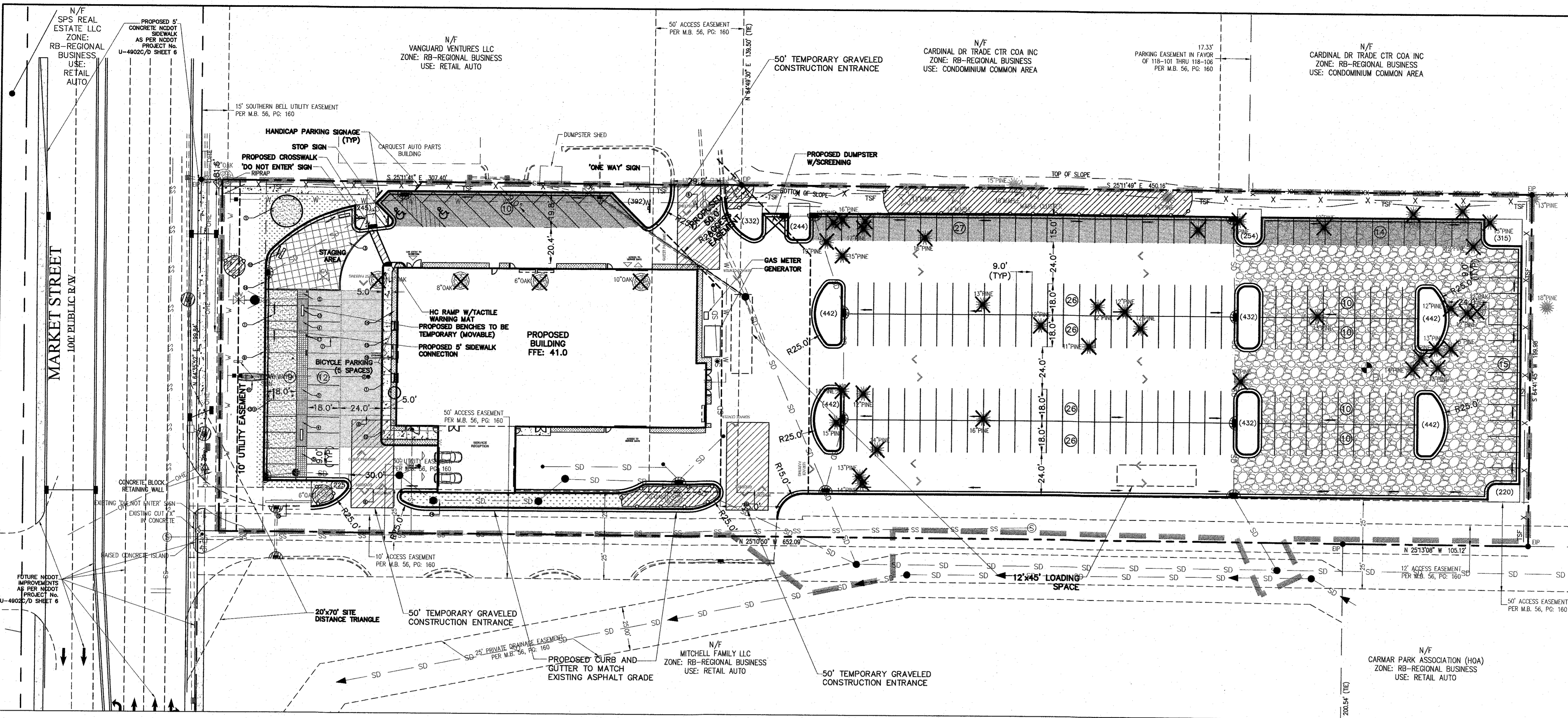
TRIPP ENGINEERING, P.C.
419 Chestnut Street
Wilmington, North Carolina 28401
Phone 910-763-5100
Fax 910-763-5631

PHILIP GREGORY TRIPP
NORTH CAROLINA PROFESSIONAL ENGINEER
17374

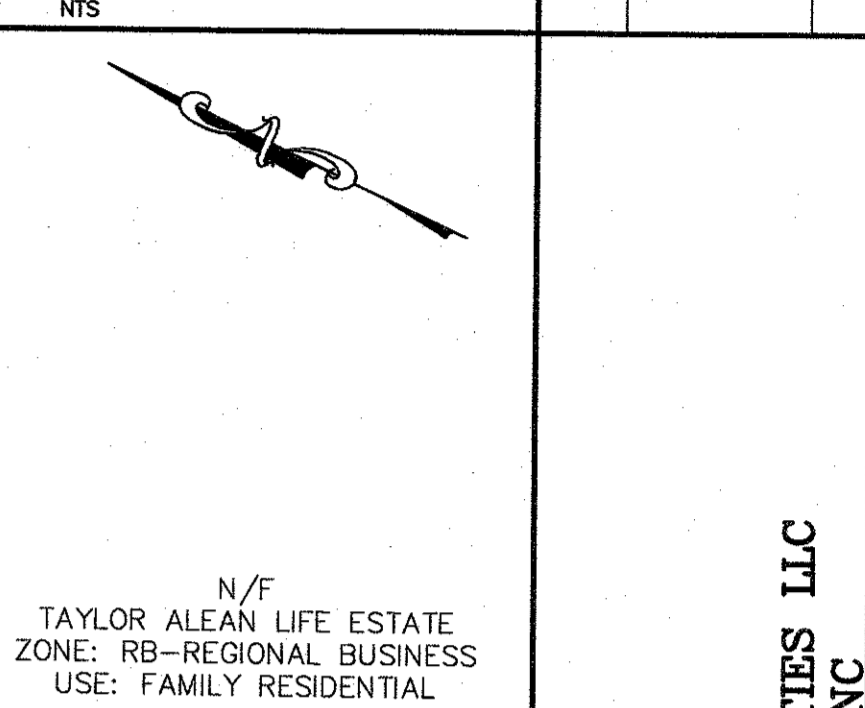
DATE: 01-23-19
DESIGN: PGT
DRAWN: EJW

C1

SHEET 1 OF 6
17069



REVISIONS		
No.	Date	Description
1	02-13-19	ADD COMMENTS
2	02-13-19	ADD FIRE LINE CONCRETE COLLAR UPDATE SW
3	02-21-19	ADDED SW IN ISLAND
4	02-25-19	SHIFTED LOG AND NEW PIPE
5	03-06-19	ADDED TREES TO BE REMOVED



N/F TAYLOR ALEAN LIFE ESTATE
 ZONE: RB-REGIONAL BUSINESS
 USE: FAMILY RESIDENTIAL

N/F CARDINAL DR TRADE CTR COA INC
 ZONE: RB-REGIONAL BUSINESS
 USE: CONDOMINIUM COMMON AREA

N/F VANGUARD VENTURES LLC
 ZONE: RB-REGIONAL BUSINESS
 USE: RETAIL AUTO

N/F MITCHELL FAMILY LLC
 ZONE: RB-REGIONAL BUSINESS
 USE: RETAIL AUTO

N/F CARMAR PARK ASSOCIATION (HOA)
 ZONE: RB-REGIONAL BUSINESS
 USE: RETAIL AUTO

For each open utility cut of City streets, a \$325 permit shall be required from the City prior to occupancy and/or project acceptance.

Approved Construction Plan
 Name: Nicole Dymith
 Date: 3/11/19
 Traffic: W. Smith
 Date: 3/11/19
 Fire: R. B. Smith
 Date: 3/11/19

City of WILMINGTON
 Public Services • Engineering Division
 APPROVED STORMWATER MANAGEMENT PLAN
 Date: 3/11/19 Permit # 2019015
 Signed: Josh Christensen

SITE DATA:

PROPERTY OWNER	WILMINGTON AUTO GROUP PROPERTIES LLC
PROJECT ADDRESS	5820 MARKET ST
PIN NUMBER	R05010-001-003-000
AREA NOT IN A FEMA 100-YEAR FLOOD ZONE.	
ZONING DISTRICT	RB-REGIONAL BUSINESS
DISTURBED AREA:	3.47 Ac.
SETBACKS REQUIRED	FRONT: 25' REAR: 15' INTERIOR SIDE: 0' CORNER LOT SIDE: 25'
PROPOSED BUILDING SETBACKS	FRONT: 101' REAR: 484' SIDE: 42' CORNER LOT SIDE: N/A
TRACT AREA	151,429 SF (3.47 AC)
BUILDING USE	AUTOMOBILE DEALER
BUILDING TYPE	IB
PROPOSED BUILDING AREA (GROSS)	17,500 SF
BUILDING LOT COVERAGE (15,850/151,429)	10%
NUMBER OF UNITS	1
NUMBER OF BUILDINGS	22
BUILDING HEIGHT	2
NUMBER OF STORES	2
SF PER FLOOR 1ST FLOOR (GROSS)	15,850 SF
SF PER FLOOR 2ND FLOOR (GROSS)	1,650 SF

SITE DATA: (CONT'D)

EXISTING ON-SITE IMPERVIOUS AREAS:	
EXISTING BUILDINGS	48,507 SF
EXISTING ASPHALT	48,507 SF
EXISTING CONCRETE	-
TOTAL EXISTING IMPERVIOUS AREA	48,507 SF (32%)
EXISTING ON-SITE IMPERVIOUS TO BE REMOVED	-48,507 SF
PROPOSED ON-SITE IMPERVIOUS AREAS:	
PROPOSED BUILDING	17,265 SF
PROPOSED ASPHALT	75,689 SF
PROPOSED CONCRETE	1,369 SF
TOTAL PROPOSED IMPERVIOUS AREA	92,303 SF (60.95%)
EXISTING IMPERVIOUS TO REMAIN	0 SF
TRUE GRID 22,094 S.F. 100% PERVIOUS	0 SF
FUTURE	17,008 SF
PROPOSED+EXISTING IMPERVIOUS	109,311 SF (72.2%)
PARKING REQUIRED: (AUTOMOBILE DEALER)	17,265 SF
MAXIMUM:	53
MINIMUM: 1/500 SF (17,265/500)	35
TOTAL PARKING PROVIDED:	231
CAMA LAND USE:	URBAN
PUBLIC WATER AND SEWER BY CFPUA	
EXISTING WATER FLOW:	0 GPD
EXISTING SEWER FLOW:	0 GPD
PROPOSED WATER FLOW:	600 GPD
PROPOSED SEWER FLOW:	500 GPD
HANDICAP SPACES REQUIRED (1-25 SPACES = 1 HANDICAP SPACE)	2 HANDICAP SPACES
35 SPACES/25 = 1.4	
BICYCLE PARKING REQUIRED: (35 PARKS)	10 SPACES
BICYCLE PARKING PROPOSED:	10 SPACES

NOTES:

- ZONING**
- 1) TOPOGRAPHY AND TREE SURVEY COMPLETED BY ATLANTIC COAST SURVEY, PLLC.
 - 2) PERMITTING OF BUSINESS IDENTIFICATION SIGNAGE IS A SEPARATE PROCESS. CITY OF WILMINGTON WILL NOT ALLOW OBSTRUCTIONS WITHIN THE RIGHT-OF-WAY.
 - 3) CONTRACTOR SHALL FIELD VERIFY SIZE, MATERIAL, INVERTS AND LOCATION OF ALL EXISTING UTILITIES PRIOR TO INSTALLATION OF PROPOSED CONNECTIONS.
 - 4) EXISTING EASEMENTS AS SHOWN.
 - 5) CONTRACTOR SHALL MAINTAIN ALL-WEATHER ACCESS FOR EMERGENCY VEHICLES AT ALL TIMES DURING CONSTRUCTION.
 - 6) UNDERGROUND FIRE LINES MUST BE PERMITTED AND INSPECTED BY THE WILMINGTON FIRE DEPARTMENT FROM THE PUBLIC RIGHT-OF-WAY TO THE BUILDING. CONTACT THE WILMINGTON FIRE DEPARTMENT DIVISION OF FIRE AND LIFE SAFETY AT 910-341-0898.
 - 7) A UTILITY CUT PERMIT IS REQUIRED FOR EACH OPEN CUT OF A CITY STREET. CONTACT (910)341-5888 FOR MORE DETAILS. IN CERTAIN CASES AN ENTIRE RESURFACING OF THE AREA BEING OPEN CUT MAY BE REQUIRED.
 - 8) A LANDSCAPING PLAN INDICATING THE LOCATION OF REQUIRED STREET TREES SHALL BE SUBMITTED TO THE CITY OF WILMINGTON TRAFFIC ENGINEERING DIVISION AND PARKS AND RECREATION DEPARTMENT FOR REVIEW AND APPROVAL PRIOR TO THE RECORDING OF THE FINAL PLAN. (SD 15-14 CONW TECH STDS)
- SOLID WASTE**
- 1) SITE TO USE ON-SITE DUMPSTER.
- TRAFFIC**
- 1) ALL PAVEMENT MARKINGS IN PUBLIC RIGHTS-OF-WAY AND FOR DRIVEWAYS ARE TO BE THERMOPLASTIC AND MEET CITY AND/OR NCDOT STANDARDS. (DETAIL SD-13 CONW TECH STDS)
 - 2) ALL SIGNS AND PAVEMENT MARKINGS IN AREAS OPEN TO PUBLIC TRAFFIC ARE TO MEET MUTCD (MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES) STANDARDS. (DETAIL SD-13 CONW TECH STDS)
 - 3) CONTACT TRAFFIC ENGINEERING AT 341-7888 TO ENSURE THAT ALL TRAFFIC SIGNALS FACILITIES AND EQUIPMENT ARE SHOWN ON THE PLAN.
 - 4) CALL TRAFFIC ENGINEERING AT 341-7888 FORTY-EIGHT HOURS PRIOR TO ANY EXCAVATION IN THE RIGHT-OF-WAY.
 - 5) ANY BROKEN OR MISSING SIDEWALK PANELS, DRIVEWAY PANELS AND CURBING WILL BE REPLACED.
 - 6) CONTACT TRAFFIC ENGINEERING AT 341-7888 TO DISCUSS STREET LIGHTING OPTIONS.
 - 7) ALL TRAFFIC CONTROL SIGNS AND MARKINGS OFF THE RIGHT-OF-WAY ARE TO BE MAINTAINED BY THE PROPERTY OWNER IN ACCORDANCE WITH MUTCD STANDARDS.
 - 8) NO ROWS TO BE CLOSED.
 - 9) NO STREETS PROPOSED.
 - 10) NO OFF SITE PARKING PROPOSED.
 - 11) NO PROPOSED DRIVEWAY.
 - 12) TRAFFIC ENGINEERING MUST APPROVE OF PAVEMENT MARKING PRIOR TO ACTUAL STRIPING.
 - 13) ALL PARKING STALL MARKINGS AND LANE ARROWS WITHIN THE PARKING AREAS SHALL BE WHITE.
 - 14) STOP SIGNS AND STREET SIGNS TO REMAIN IN PLACE DURING CONSTRUCTION.
 - 15) TACTILE WARNING MATS WILL BE INSTALLED ON ALL WHEELCHAIR RAMPS.
 - 16) A UTILITY CUT PERMIT IS REQUIRED FOR EACH OPEN CUT OF A CITY STREET. CONTACT 341-5888 FOR MORE DETAILS.
 - 17) A LANDSCAPING PLAN INDICATING THE LOCATION OF REQUIRED STREET TREES SHALL BE SUBMITTED TO THE CITY OF WILMINGTON TRAFFIC ENGINEERING DIVISION AND PARKS AND RECREATION DEPARTMENT FOR REVIEW AND APPROVAL PRIOR TO THE RECORDING OF THE FINAL PLAN. (SD 15-14 CONW TECH STDS)
- FIRE AND LIFE SAFETY**
- 1) CONTRACTOR SHALL MAINTAIN ALL-WEATHER ACCESS FOR EMERGENCY VEHICLES AT ALL TIMES DURING CONSTRUCTION
 - 2) NEW HYDRANTS MUST BE BROUGHT INTO SERVICE PRIOR TO COMBUSTIBLE MATERIALS DELIVERED TO THE JOB SITE
 - 3) HYDRANT MUST BE WITHIN 150' OF THE FDC (MEASURED AS THE TRUCK DRIVES FOR PRACTICAL USE)
 - 4) FDC MUST BE WITHIN 40' OF FIRE APPARATUS PLACEMENT
 - 5) LANDSCAPING OR PARKING CANNOT BLOCK OR IMPED THE FDC OR FIRE HYDRANTS. A 3-FOOT CLEAR SPACE SHALL BE MAINTAINED AROUND THE CIRCUMFERENCE OF THE HYDRANT AND FDC
 - 6) ADDITIONAL FIRE PROTECTION AND ACCESSIBILITY REQUIREMENTS MAY BE REQUIRED DUE TO ANY SPECIAL CIRCUMSTANCES CONCERNING THE PROJECT.
 - 7) PRIVATE UNDERGROUND FIRE LINES REQUIRE A SEPARATE UNDERGROUND FIRE LINE PERMIT FROM THE WILMINGTON FIRE AND LIFE SAFETY DIVISION 910-343-0898
 - 8) ALL ISOLATION VALVES WITHIN THE "HOT BOX" SHALL BE ELECTRICALLY SUPERVISED. PLEASE WORK CLOSELY WITH YOUR FIRE SPRINKLER AND ALARM INSTALLER IN REGARDS TO RUNNING WIRE FOR TAMPER SWITCH.
 - 9) DUE TO THE SIZE OF THE BUILDING AND TYPE OF CONSTRUCTION AN 800MHz RADIO SIGNAL SITE TEST MUST BE PERFORMED TO DETERMINE IF A RADIO AMPLIFIER IS NEEDED PER THE 2016 NC FIRE CODE SECTION 510. PLEASE WORK CLOSELY WITH YOUR ARCHITECT AND DESIGN TEAM TO ENSURE THERE IS ADEQUATE RADIO COVERAGE INSIDE THE BUILDING(S).

NOTES: (CONT'D)

- LANDSCAPING**
- 1) PRIOR TO ANY CLEARING, GRADING OR CONSTRUCTION ACTIVITY, TREE PROTECTION FENCING WILL BE INSTALLED AROUND PROTECTED TREES OR GROVES OF TREES AND NO CONSTRUCTION WORKERS, TOOLS, MATERIALS, OR VEHICLES ARE PERMITTED WITHIN THE TREE PROTECTION FENCING.
 - 2) ANY TREES AND/OR AREAS DESIGNATED TO BE PROTECTED MUST BE PROPERLY BARRICADED WITH FENCING AND PROTECTED THROUGHOUT CONSTRUCTION TO INSURE THAT NO CLEARING, GRADING OR STAGING OF MATERIALS WILL OCCUR IN THOSE AREAS.
 - 3) NO EQUIPMENT IS ALLOWED ON SITE UNTIL ALL TREE PROTECTION FENCING AND SILT FENCING IS INSTALLED AND APPROVED. PROTECTIVE FENCING IS TO BE MAINTAINED THROUGHOUT THE DURATION OF THE PROJECT AND CONTRACTORS SHALL RECEIVE ADEQUATE INSTRUCTIONS ON TREE PROTECTION METHODS.
 - 4) ALL PROPOSED VEGETATION WITHIN SIGHT TRIANGLES SHALL NOT INTERFERE WITH CLEAR VISUAL SIGHT LINES FROM 30"-10'.
- CFPUA**
- 1) WATER AND SEWER SERVICE SHALL MEET CAPE FEAR PUBLIC UTILITY AUTHORITY (CFPUA) DETAILS AND SPECIFICATIONS.
 - 2) PROJECT SHALL COMPLY WITH THE CFPUA CROSS CONNECTION CONTROL REQUIREMENTS. WATER METER(S) CANNOT BE RELEASED UNTIL ALL REQUIREMENTS ARE MET AND THE STATE HAS GIVEN THEIR FINAL APPROVAL.
 - 3) IF THE CONTRACTOR DESIRES 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 DEVELOPERS SIDE OF THE WATER METER BOX.
 - 4) ANY IRRIGATION SYSTEM SUPPLIED BY CFPUA WATER SHALL COMPLY WITH THE CFPUA'S CONNECTION CONTROL REGULATION. CALL 332-8418 FOR INFORMATION.
 - 5) ANY BACKFLOW PREVENTION DEVICES REQUIRED BY CFPUA WILL NEED TO BE ON THE LIST OF APPROVED DEVICES FOR USPOC/CHOR OR ASSE.
 - 6) PUBLIC WATER AND SEWER EXIST ON MARKET STREET.
 - 7) CONTACT THE NORTH CAROLINA ONE CALL CENTER AT 1-800-632-4949 PRIOR TO DOING ANY DIGGING, CLEARING OR GRADING.
 - 8) ANY IRRIGATION SYSTEM SHALL BE EQUIPPED WITH A RAIN AND FREEZER SENSOR.
 - 9) CONTRACTOR TO FIELD VERIFY EXISTING WATER AND SEWER SERVICE LOCATIONS, SIZES AND MATERIALS PRIOR TO CONSTRUCTION. ENGINEER TO BE NOTIFIED OF ANY CONFLICTS.
- DRAINAGE**
- 1) SITE TO DRAIN TO A PERMITTED OFFSITE STORMWATER POND. NCDOT PERMIT NO. SWS 000647 & SWS 120617 CITY OF WILMINGTON PERMIT NO. 2004022 & 2012023

KEY LEGEND

1. LIGHT GRAY CONCRETE, FINISH SHALL HAVE A BRUSHED PATTERN ON ALL VISIBLE SURFACES.
2. DARK GRAY CONCRETE, FINISH SHALL HAVE A BRUSHED PATTERN ON ALL VISIBLE SURFACES.
3. LIGHT GRAY CONCRETE, SMOOTH, SAND BLASTED FINISH WITH REVEALS AT 30" O.C. EA. WAY
4. BROWN STAINED CONCRETE WITH STAMPED WOOD DECK PATTERN
5. LIGHT GRAY PAVEMENT TO MATCH CONCRETE (CELLULAR GRASSSED PAVEMENT SYSTEM)
6. WHITE ASPHALT GRAPHICS IN VOLVO BROAD FONT, TYP.
7. PARKING STRIPING PER LOCAL CODES & REQUIREMENTS.
8. CONCRETE EXPANSION JOINTS, TYP.
9. PLAZA WALL IN LIGHT GRAY CONCRETE, SMOOTH FINISH, THE WALL SHOULD NOT OBSTRUCT VIEW FROM OFF PROPERTY INTO THE PLAZA.
10. C.P.O. WALL: WHITE STUCCO, SMOOTH FINISH, WITH ILLUMINATED VOLVO C.P.O. LETTER SIGNAGE (BY VENDOR OF RECORD).
11. Pylon SIGN BY VENDOR OF RECORD.
12. BOLLARD LIGHT
13. FEATURE DISPAY PAD W/ RECESSED LIGHTING
14. LOW LYING PLANTS: PLANTING SHALL MAKE USE OF LOCAL PLANTS AND NOT OBSTRUCT THE VIEW FROM OFF PROPERTY INTO THE PLAZA.
15. PLAZA BENCH (TEMPORARY/MOVABLE)
16. ENTRY MAT LOCATION
17. ELECTRIC VEHICLE CHARGING STATION

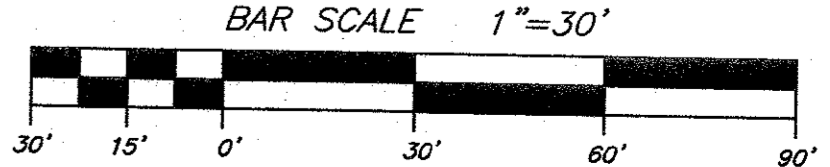
INVENTORY OF TREES TO BE REMOVED

TREE TYPE	TREE SIZE	QUANTITY
PINE	11"	2
PINE	12"	14
PINE	13"	6
PINE	14"	4
PINE	15"	3
PINE	16"	3
PINE	17"	3
PINE	19"	1
OAK	6"	1
OAK	8"	1
OAK	10"	1
OAK	12"	2

LEGEND

- PROPERTY BOUNDARY
- EXISTING TREE TO BE REMOVED
- TREE PROTECTION
- TRUE GRID
- REQUIRED PARKING
- SS --- SEWER
- W --- WATER
- SD --- STORM WATER
- LIMITS OF DISTURBANCE
- X --- TSE TEMPORARY SILT FENCE

SITE PLAN



TRIPP ENGINEERING, P.C.
 419 Chestnut Street
 Wilmington, North Carolina 28401
 Phone 910-763-5100
 Fax 910-763-5631
 www.trippeng.com

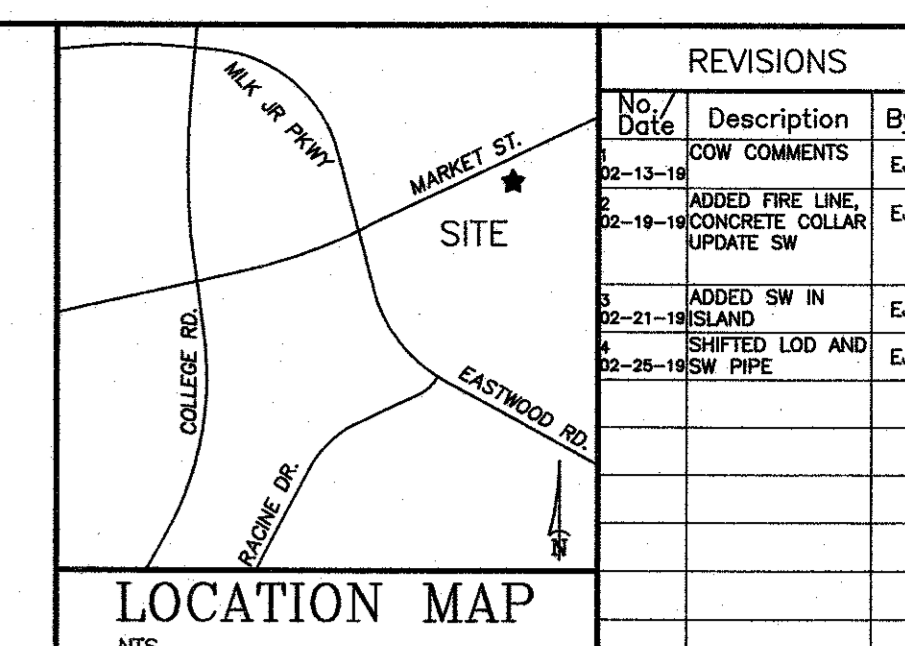
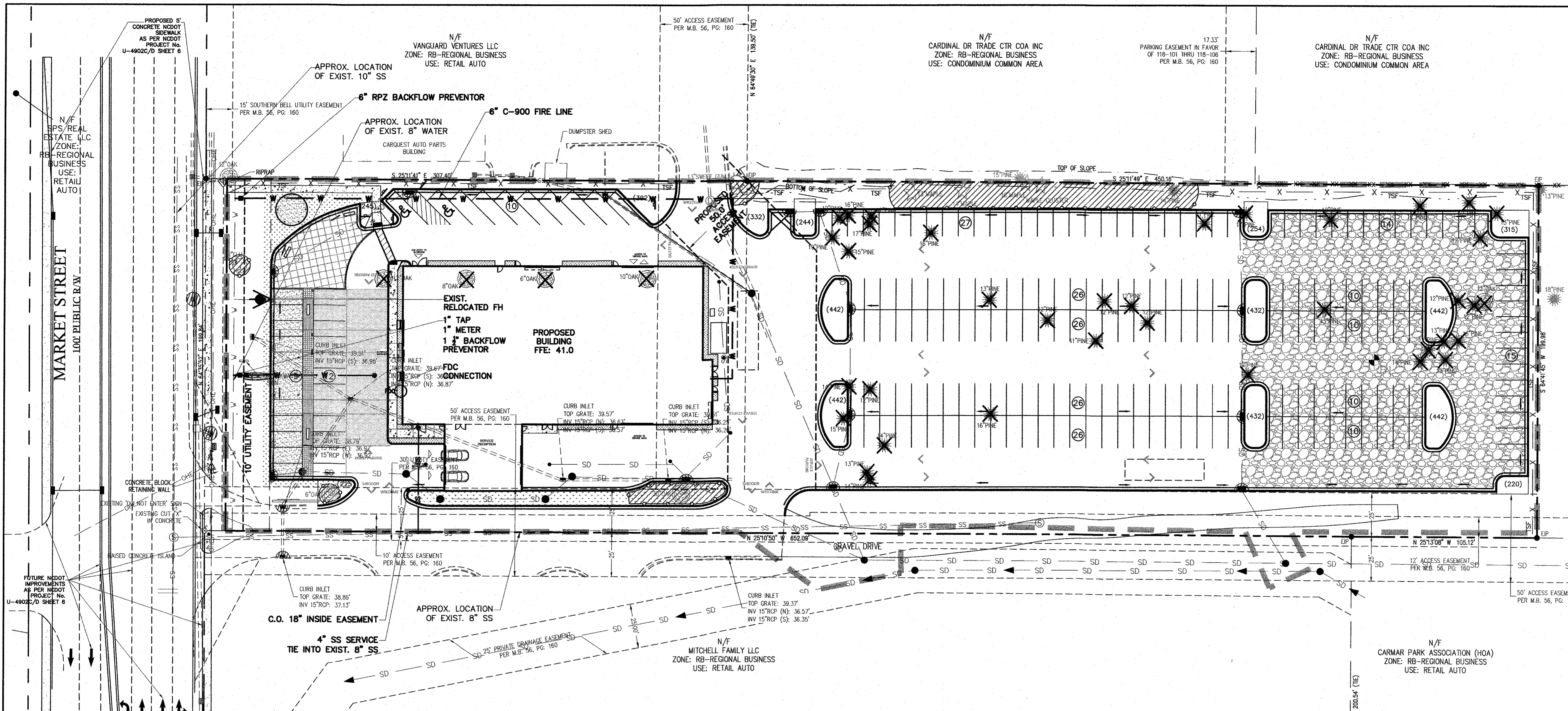
SITE AND TREE REMOVAL PLAN

PARKWAY VOLVO
 OWNER: WILMINGTON AUTO GROUP PROPERTIES LLC
 ADDRESS: 5820 MARKET ST., WILMINGTON, NC

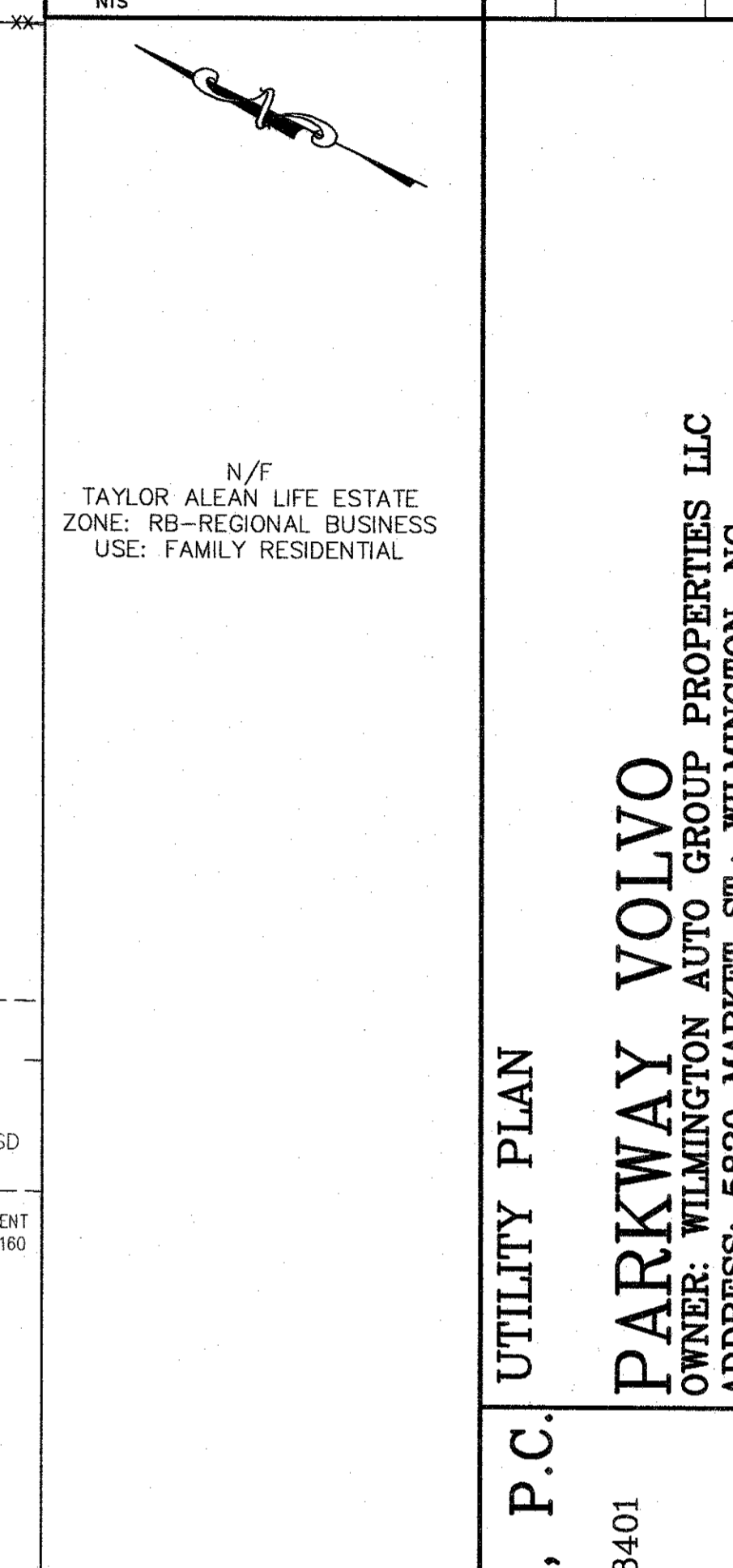
DATE 01-23-19
 DESIGN PGJ
 DRAWN EJJ

C2

SHEET 2 OF 6
 17069



REVISIONS		
No.	Description	By
22-13-16	ADD COMMENTS	EWJ
22-19-16	ADDED FIRE LINE, WOODCONCRETE COLLAR, UPDATE SW	EWJ
22-21-16	ADDED SW IN ISLAND	EWJ
22-25-16	SHIFTED LOD AND SW PIPE	EWJ



UTILITY PLAN
PARKWAY VOLVO
 OWNER: WILMINGTON AUTO GROUP PROPERTIES LLC
 ADDRESS: 5820 MARKET ST., WILMINGTON, NC

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 Name: Nicole Smith
 Date: 3/11/19
 Traffic: W. G. ...
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 City of Wilmington
 Public Services • Engineering Division
 APPROVED STORMWATER MANAGEMENT PLAN
 Date: 3/11/19 Permit # 2019015
 Signed: Rick Christensen

SITE DATA: (CONT'D)

PROPERTY OWNER	WILMINGTON AUTO GROUP PROPERTIES LLC	EXISTING BUILDINGS	48,507 SF
PROJECT ADDRESS	5820 MARKET ST	EXISTING ASPHALT	48,507 SF (32%)
PIN NUMBER	R05010-001-003-000	EXISTING CONCRETE	-48,507 SF
AREA NOT IN A FEMA 100-YEAR FLOOD ZONE		TOTAL EXISTING IMPERVIOUS AREA	48,507 SF (32%)
ZONING DISTRICT	RB-REGIONAL BUSINESS	EXISTING ON-SITE IMPERVIOUS TO BE REMOVED	-48,507 SF
DISTURBED AREA	3.47 Ac.	PROPOSED ON-SITE IMPERVIOUS AREAS:	
SETBACKS REQUIRED	FRONT: 25' REAR: 15' INTERIOR SIDE: 0' CORNER LOT SIDE: 25'	PROPOSED BUILDING	17,205 SF
PROPOSED BUILDING SETBACKS	FRONT: 101' REAR: 464' SIDE: 42' CORNER LOT SIDE: N/A	PROPOSED ASPHALT	73,889 SF
TRACT AREA	151,429 SF (3.47 AC)	PROPOSED CONCRETE	1,369 SF
BUILDING USE	AUTOMOBILE DEALER	TOTAL PROPOSED IMPERVIOUS AREA	92,303 SF (60.95%)
BUILDING TYPE	IIB	EXISTING IMPERVIOUS TO REMAIN	0 SF
PROPOSED BUILDING AREA (GROSS)	17,500 SF	TRUE GRID 22,094 S.F. 100% PERVIOUS	17,008 SF
BUILDING LOT COVERAGE (15,850/151,429)	10%	PROPOSED+EXISTING IMPERVIOUS	109,311 SF (72.2%)
NUMBER OF UNITS	1	PARKING REQUIRED: (AUTOMOBILE DEALER)	17,265 SF
BUILDING HEIGHT	22'	MAXIMUM:	53
NUMBER OF STORIES	2	MINIMUM: 1/500 SF (17,265/500)	35
SF PER FLOOR 1ST FLOOR (GROSS)	15,850 SF	TOTAL PARKING PROVIDED:	231
SF PER FLOOR 2ND FLOOR (GROSS)	1,650 SF	CAMA LAND USE:	URBAN

NOTES:

ZONING

- TOPOGRAPHY AND TREE SURVEY COMPLETED BY ATLANTIC COAST SURVEY, PLLC.
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- A UTILITY CUT PERMIT IS REQUIRED FOR EACH OPEN CUT OF A CITY STREET. CONTACT (910)341-5888 FOR MORE DETAILS. IN CERTAIN CASES AN ENTIRE RESURFACING OF THE ARE BEING OPEN CUT MAY BE REQUIRED.
- A LANDSCAPING PLAN INDICATING THE LOCATION OF REQUIRED STREET TREES SHALL BE SUBMITTED TO THE CITY OF WILMINGTON TRAFFIC ENGINEERING DIVISION AND PARKS AND RECREATION DEPARTMENT FOR REVIEW AND APPROVAL PRIOR TO THE RECORDING OF THE FINAL PLAT. (SD 15-14 C&W TECH STDS)

SOLID WASTE

- SITE TO USE ON-SITE DUMPSTER.

TRAFFIC

- ALL PAVEMENT MARKINGS IN PUBLIC RIGHTS-OF-WAY AND FOR DRIVEWAYS ARE TO BE THERMOPLASTIC AND MEET CITY AND/OR NCDOT STANDARDS. (DETAIL SD-13 C&W TECH STDS)
- ALL SIGNS AND PAVEMENT MARKINGS IN AREAS OPEN TO PUBLIC TRAFFIC ARE TO MEET MUTCD (MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES) STANDARDS. (DETAIL SD-13 C&W TECH STDS)
- CONTACT TRAFFIC ENGINEERING AT 341-7888 TO ENSURE THAT ALL TRAFFIC SIGNALS FACILITIES AND EQUIPMENT ARE SHOWN ON THE PLAN.
- CALL TRAFFIC ENGINEERING AT 341-7888 FORTY-EIGHT HOURS PRIOR TO ANY EXCAVATION IN THE RIGHT-OF-WAY.
- ANY BROKEN OR MISSING SIDEWALK PANELS, DRIVEWAY PANELS AND CURBING WILL BE REPLACED.
- CONTACT TRAFFIC ENGINEERING AT 341-7888 TO DISCUSS STREET LIGHTING OPTIONS.
- ALL TRAFFIC CONTROL SIGNS AND MARKINGS OFF THE RIGHT-OF-WAY ARE TO BE MAINTAINED BY THE PROPERTY OWNER IN ACCORDANCE WITH MUTCD STANDARDS.
- NO ROWS TO BE CLOSED.
- NO STREETS PROPOSED.
- NO OFF SITE PARKING PROPOSED.
- NO PROPOSED DRIVEWAY.
- TRAFFIC ENGINEERING MUST APPROVE OF PAVEMENT MARKING PRIOR TO ACTUAL STRIPING.
- ALL PARKING STALL MARKINGS AND LANE ARROWS WITHIN THE PARKING AREAS SHALL BE WHITE.
- 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. CONTACT 341-5888 FOR MORE DETAILS.
- CERTAIN CASES AN ENTIRE RESURFACING OF THE AREA BEING OPEN CUT MAY BE REQUIRED.
- A LANDSCAPING PLAN INDICATING THE LOCATION OF REQUIRED STREET TREES SHALL BE SUBMITTED TO THE CITY OF WILMINGTON TRAFFIC ENGINEERING DIVISION AND PARKS AND RECREATION DEPARTMENT FOR REVIEW AND APPROVAL PRIOR TO THE RECORDING OF THE FINAL PLAT. (SD 15-14 C&W TECH STDS)

FIRE AND LIFE SAFETY

- CONTRACTOR SHALL MAINTAIN AN ALL-WEATHER ACCESS FOR EMERGENCY VEHICLES AT ALL TIMES DURING CONSTRUCTION
- NEW HYDRANTS MUST BE BROUGHT INTO SERVICE PRIOR TO COMBUSTIBLE MATERIALS DELIVERED TO THE JOB SITE
- HYDRANT MUST BE WITHIN 150' OF THE FDC (MEASURED AS THE TRUCK DRIVES FOR PRACTICAL USE)
- FDC MUST BE WITHIN 40' OF FIRE APPARATUS PLACEMENT
- LANDSCAPING OR PARKING CANNOT BLOCK OR IMPIDE THE FDC OR FIRE HYDRANTS. A 3-FOOT CLEAR SPACE SHALL BE MAINTAINED AROUND THE CIRCUMFERENCE OF THE HYDRANT AND FDC
- ADDITIONAL FIRE PROTECTION AND ACCESSIBILITY REQUIREMENTS MAY BE REQUIRED DUE TO ANY SPECIAL CIRCUMSTANCES CONCERNING THE PROJECT.
- PRIVATE UNDERGROUND FIRE LINES REQUIRE A SEPARATE UNDERGROUND FIRE LINE PERMIT FROM THE WILMINGTON FIRE AND LIFE SAFETY DIVISION 910-343-0888
- ALL ISOLATION VALVES WITHIN THE HOT BOX SHALL BE ELECTRICALLY SUPERVISED. PLEASE WORK CLOSELY WITH YOUR FIRE SPRINKLER AND ALARM INSTALLER IN REGARDS TO RUNNING WIRE FOR TRAMPER SWITCH.
- DUE TO THE SIZE OF THE BUILDING AND TYPE OF CONSTRUCTION AN 800MHz RADIO SIGNAL SITE TEST MUST BE PERFORMED TO DETERMINE IF A RADIO AMPLIFIER IS NEEDED PER THE 2018 NC FIRE CODE SECTION 510. PLEASE WORK CLOSELY WITH YOUR ARCHITECT AND DESIGN TEAM TO ENSURE THERE IS ADEQUATE RADIO COVERAGE INSIDE THE BUILDING(S).

NOTES (CONT'D)

LANDSCAPING

- PRIOR TO ANY CLEARING, GRADING OR CONSTRUCTION ACTIVITY, TREE PROTECTION FENCING WILL BE INSTALLED AROUND PROTECTED TREES OR GROVES OF TREES AND NO CONSTRUCTION WORKERS, TOOLS, MATERIALS, OR VEHICLES ARE PERMITTED WITHIN THE 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 INSTRUCTIONS ON TREE PROTECTION METHODS.
- ALL PROPOSED VEGETATION WITHIN SIGHT TRIANGLES SHALL NOT INTERFERE WITH CLEAR VISUAL SIGHT LINES FROM 30'-10'.

CFPLA

- WATER AND SEWER SERVICE SHALL MEET CAPE FEAR PUBLIC UTILITY AUTHORITY (CFPLA) DETAILS AND SPECIFICATIONS.
- PROJECT SHALL COMPLY WITH THE CFPLA CROSS CONNECTION CONTROL REQUIREMENTS. WATER METER(S) CANNOT BE RELEASED UNTIL ALL REQUIREMENTS ARE MET AND THE STATE HAS GIVEN THEIR FINAL APPROVAL.
- IF THE CONTRACTOR DESIRES CFPLA 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 CFPLA WATER SHALL COMPLY WITH THE CFPLA'S CONNECTION CONTROL REGULATION. CALL 332-6419 FOR INFORMATION.
- ANY BACKFLOW PREVENTION DEVICES REQUIRED BY CFPLA WILL NEED TO BE ON THE LIST OF APPROVED DEVICES FOR USFOCORR OR ASSE.
- PUBLIC WATER AND SEWER EXIST ON MARKET STREET.
- CONTACT THE NORTH CAROLINA ONE CALL CENTER AT 1-800-632-4849 PRIOR TO DOING ANY DIGGING, CLEARING OR GRADING.
- ANY IRRIGATION SYSTEM SHALL BE EQUIPPED WITH A RAIN AND FREEZER SENSOR.
- CONTRACTOR TO FIELD VERIFY EXISTING WATER AND SEWER SERVICE LOCATIONS, SIZES AND MATERIALS PRIOR TO CONSTRUCTION. ENGINEER TO BE NOTIFIED OF ANY CONFLICTS.

DRAINAGE

- SITE TO DRAIN TO A PERMITTED OFFSITE STORMWATER POND. NCDCE PERMIT NO. SWB 000647 & SWB 120617 CITY OF WILMINGTON PERMIT NO. 2004022 & 2012023

LEGEND

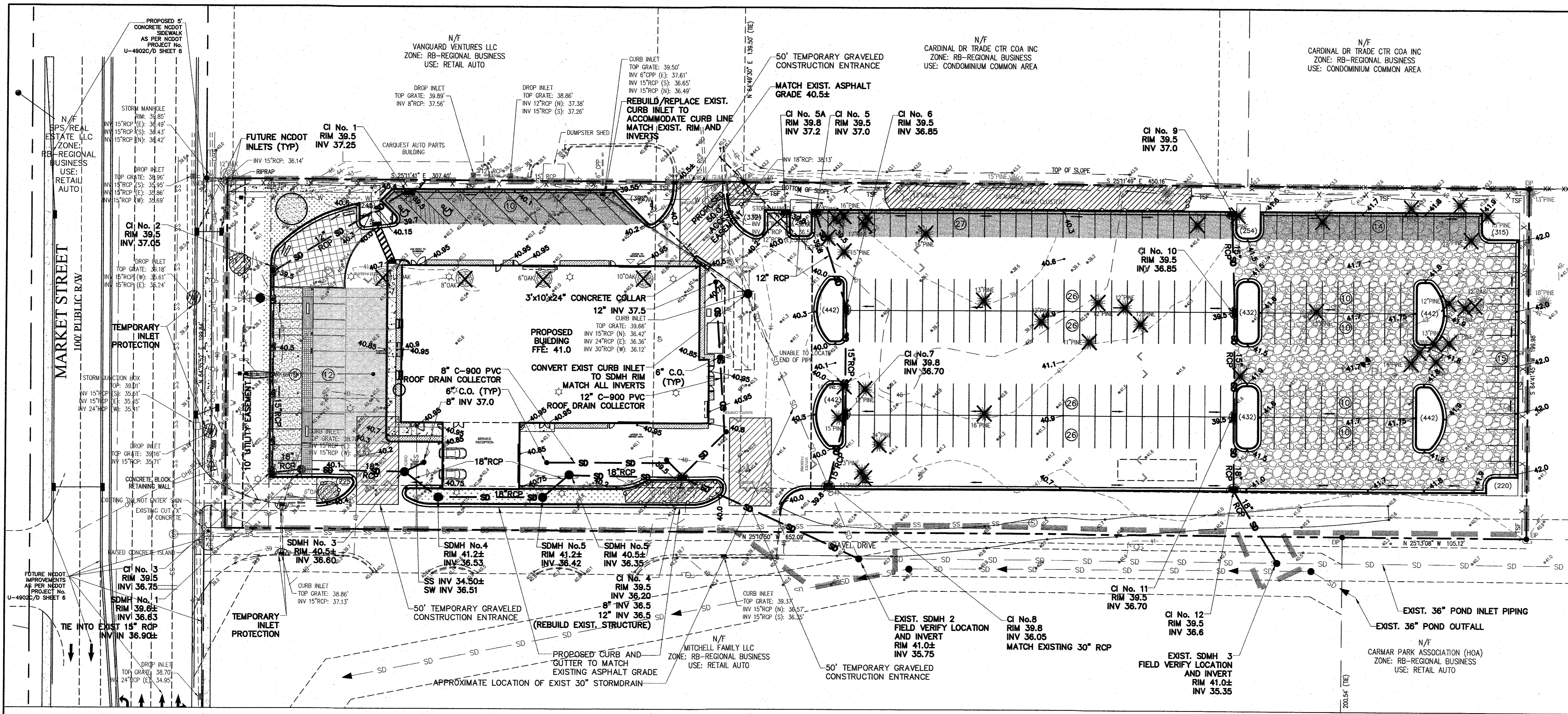
- PROPERTY BOUNDARY
- SS --- PROPOSED SEWER
- W --- PROPOSED WATER
- SD --- STORM WATER
- TRUE GRID

SITE PLAN
 BAR SCALE 1"=30'

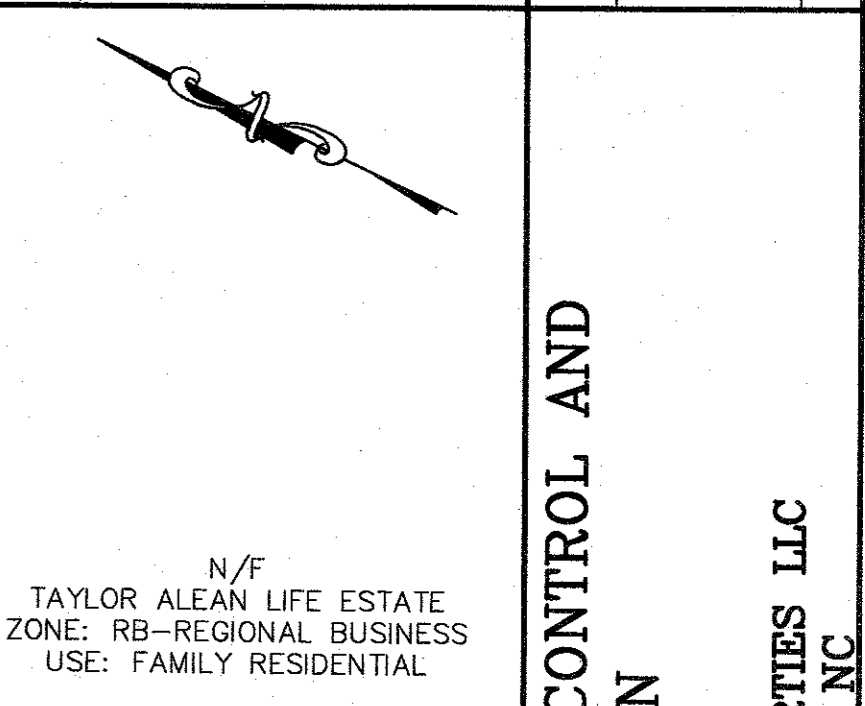
TRIPP ENGINEERING, P.C.
 419 Chestnut Street
 Wilmington, North Carolina 28401
 Phone 910-763-5100
 Fax 910-763-5631
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DATE: 01-23-19
 DESIGN: PGT
 DRAWN: EJW

C3
 SHEET 3 OF 6
 17069



REVISIONS		
No.	Description	By
12-13-19	ADD COMMENTS	EJW
12-18-19	ADDED FIRE LINE CONCRETE COLLAR UPDATE SW	EJW
12-21-19	ADDED SW IN ISLAND	EJW
12-28-19	SHIFTED LOD AND SW PIPE	EJW



TRIPP ENGINEERING, P.C.
 GRADING, DRAINAGE, EROSION CONTROL AND STORMWATER MANAGEMENT PLAN
PARKWAY VOLVO
 OWNER: WILMINGTON AUTO GROUP PROPERTIES LLC
 ADDRESS: 5820 MARKET ST., WILMINGTON, NC

For each open utility cut of City streets, a \$325 permit shall be required from the City prior to occupancy and/or project acceptance.

Approved Construction Plan

Name	Date
Planning: Nicole Smith	2/7/19
Traffic: W. Williams	3-1-19
Fire: R. B. B. B.	3-8-19

CITY OF WILMINGTON
 Public Services • Engineering Division
 APPROVED STORMWATER MANAGEMENT PLAN
 Date: 3/11/19 Permit # 2019015
 Signed: [Signature]

SITE DATA:

PROPERTY OWNER	WILMINGTON AUTO GROUP PROPERTIES LLC
PROJECT ADDRESS	5820 MARKET ST
PIN NUMBER	R05010-001-003-000
AREA NOT IN A FEMA 100-YEAR FLOOD ZONE	
ZONING DISTRICT	RB-REGIONAL BUSINESS
DISTURBED AREA:	3.47 Ac.
SETBACKS REQUIRED	FRONT: 25' REAR: 15' INTERIOR SIDE: 0' CORNER LOT SIDE: 25'
PROPOSED BUILDING SETBACKS	FRONT: 101' REAR: 484' SIDE: 42' CORNER LOT SIDE: N/A
TRACT AREA	151,429 SF (3.47 AC)
BUILDING USE	AUTOMOBILE DEALER
BUILDING TYPE	IB
PROPOSED BUILDING AREA (GROSS)	17,500 SF
BUILDING LOT COVERAGE (15,850/151,429)	10%
NUMBER OF UNITS	1
NUMBER OF BUILDINGS	1
BUILDING HEIGHT	2'
NUMBER OF STORIES	2
SF PER FLOOR 1ST FLOOR (GROSS)	15,850 SF
SF PER FLOOR 2ND FLOOR (GROSS)	1,650 SF

SITE DATA: (CONT'D)

EXISTING ON-SITE IMPERVIOUS AREAS:	
EXISTING BUILDINGS	48,507 SF
EXISTING ASPHALT	48,507 SF
EXISTING CONCRETE	48,507 SF
TOTAL EXISTING IMPERVIOUS AREA	48,507 SF (32%)
EXISTING ON-SITE IMPERVIOUS TO BE REMOVED	-48,507 SF
PROPOSED ON-SITE IMPERVIOUS AREAS:	
PROPOSED BUILDING	17,265 SF
PROPOSED ASPHALT	75,689 SF
PROPOSED CONCRETE	1,369 SF
TOTAL PROPOSED IMPERVIOUS AREA	92,303 SF (60.95%)
EXISTING IMPERVIOUS TO REMAIN	0 SF
TRUE GRID 22,094 S.F. 100% PERVIOUS	0 SF
FUTURE	17,008 SF
PROPOSED+EXISTING IMPERVIOUS	109,311 SF (72.2%)
PARKING REQUIRED: (AUTOMOBILE DEALER)	17,265 SF
MAXIMUM:	53
MINIMUM: 1/500 SF (17,265/500)	35
TOTAL PARKING PROVIDED:	231
CAMA LAND USE:	URBAN
PUBLIC WATER AND SEWER BY CFPUA	
EXISTING WATER FLOW:	0 GPD
EXISTING SEWER FLOW:	0 GPD
PROPOSED WATER FLOW:	600 GPD
PROPOSED SEWER FLOW:	500 GPD
HANDICAP SPACES REQUIRED (1-25 SPACES=1 HANDICAP SPACE)	2 HANDICAP SPACES
35 SPACES/25=1.4	
BICYCLE PARKING REQUIRED: (35 PARKS)	10 SPACES
BICYCLE PARKING PROPOSED:	10 SPACES

- NOTES:**
- ZONING**
- TOPOGRAPHY AND TREE SURVEY COMPLETED BY ATLANTIC COAST SURVEY, PLLC.
 - PERMITTING OF BUSINESS IDENTIFICATION SIGNAGE IS A SEPARATE PROCESS. CITY OF WILMINGTON WILL NOT ALLOW OBSTRUCTIONS WITHIN THE RIGHT-OF-WAY.
 - CONTRACTOR SHALL FIELD VERIFY SIZE, MATERIAL, INVERTS AND LOCATION OF ALL EXISTING UTILITIES PRIOR TO INSTALLATION OF PROPOSED CONNECTIONS.
 - EXISTING EASEMENTS AS SHOWN.
 - CONTRACTOR SHALL MAINTAIN ALL-WEATHER ACCESS FOR EMERGENCY VEHICLES AT ALL TIMES DURING CONSTRUCTION.
 - UNDERGROUND FIRE LINES MUST BE PERMITTED AND INSPECTED BY THE WILMINGTON FIRE DEPARTMENT FROM THE PUBLIC RIGHT-OF-WAY TO THE BUILDING. CONTACT THE WILMINGTON FIRE DEPARTMENT DIVISION OF FIRE AND LIFE SAFETY AT 910-341-0886.
 - A UTILITY CUT PERMIT IS REQUIRED FOR EACH OPEN CUT OF A CITY STREET. CONTACT (910)341-5888 FOR MORE DETAILS. IN CERTAIN CASES AN ENTIRE RESURFACING OF THE ARE BEING OPEN CUT MAY BE REQUIRED.
 - A LANDSCAPING PLAN INDICATING THE LOCATION OF REQUIRED STREET TREES SHALL BE SUBMITTED TO THE CITY OF WILMINGTON TRAFFIC ENGINEERING DIVISION AND PARKS AND RECREATION DEPARTMENT FOR REVIEW AND APPROVAL PRIOR TO THE RECORDING OF THE FINAL PLAT. (SD 15-14 C&W TECH STDS)
- SOLID WASTE**
- 1) SITE TO USE ON-SITE DUMPSTER.
- TRAFFIC**
- 1) ALL PAVEMENT MARKINGS IN PUBLIC RIGHTS-OF-WAY AND FOR DRIVEWAYS ARE TO BE THERMOPLASTIC AND MEET CITY AND/OR NCDOT STANDARDS. (DETAIL SD-13 C&W TECH STDS)
 - 2) ALL SIGNS AND PAVEMENT MARKINGS IN AREAS OPEN TO PUBLIC TRAFFIC ARE TO MEET MUTCD (MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES) STANDARDS. (DETAIL SD-13 C&W TECH STDS)
 - 3) CONTACT TRAFFIC ENGINEERING AT 341-7888 TO ENSURE THAT ALL TRAFFIC SIGNALS FACILITIES AND EQUIPMENT ARE SHOWN ON THE PLAN.
 - 4) CALL TRAFFIC ENGINEERING AT 341-7888 FORTY-EIGHT HOURS PRIOR TO ANY EXCAVATION IN THE RIGHT-OF-WAY.
 - 5) ANY BROKEN OR MISSING SIDEWALK PANELS, DRIVEWAY PANELS AND CURBSING WILL BE REPLACED.
 - 6) CONTACT TRAFFIC ENGINEERING AT 341-7888 TO DISCUSS STREET LIGHTING OPTIONS.
 - 7) ALL TRAFFIC CONTROL SIGNS AND MARKINGS OFF THE RIGHT-OF-WAY ARE TO BE MAINTAINED BY THE PROPERTY OWNER IN ACCORDANCE WITH MUTCD STANDARDS.
 - 8) NO ROWS TO BE CLOSED.
 - 9) NO STREETS PROPOSED.
 - 10) NO OFF SITE PARKING PROPOSED.
 - 11) NO PROPOSED DRIVEWAY.
 - 12) TRAFFIC ENGINEERING MUST APPROVE OF PAVEMENT MARKING PRIOR TO ACTUAL STRIPING.
 - 13) ALL PARKING STALL MARKINGS AND LANE ARROWS WITHIN THE PARKING AREAS SHALL BE WHITE.
 - 14) STOP SIGNS AND STREET SIGNS TO REMAIN IN PLACE DURING CONSTRUCTION.
 - 15) TACTILE WARNING MATS WILL BE INSTALLED ON ALL WHEELCHAIR RAMPS.
 - 16) A UTILITY CUT PERMIT IS REQUIRED FOR EACH OPEN CUT OF A CITY STREET. CONTACT 341-5888 FOR MORE DETAILS. IN CERTAIN CASES AN ENTIRE RESURFACING OF THE AREA BEING OPEN CUT MAY BE REQUIRED.
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 - 6) ADEQUATE FIRE PROTECTION AND ACCESSIBILITY REQUIREMENTS MAY BE REQUIRED DUE TO ANY SPECIAL CIRCUMSTANCES CONCERNING THE PROJECT.
 - 7) PRIVATE UNDERGROUND FIRE LINES REQUIRE A SEPARATE UNDERGROUND FIRE LINE PERMIT FROM THE WILMINGTON FIRE AND LIFE SAFETY DIVISION 910-343-0886
 - 8) ALL ISOLATION VALVES WITHIN THE "HOT BOX" SHALL BE ELECTRICALLY SUPERVISED. PLEASE WORK CLOSELY WITH YOUR FIRE SPRINKLER AND ALARM INSTALLER IN REGARDS TO RUNNING WIRE FOR FIRE CONTROL.
 - 9) DUE TO THE SIZE OF THE BUILDING AND TYPE OF CONSTRUCTION AN 800MHz RADIO SIGNAL SITE TEST MUST BE PERFORMED TO DETERMINE IF A RADIO AMPLIFIER IS REQUIRED FOR THE 2018 IN-FIRE CODE SECTION 510. PLEASE WORK CLOSELY WITH YOUR ARCHITECT AND DESIGN TEAM TO ENSURE THERE IS ADEQUATE RADIO COVERAGE INSIDE THE BUILDING(S).

- NOTES: (CONT'D)**
- LANDSCAPING**
- 1) PRIOR TO ANY CLEARING, GRADING OR CONSTRUCTION ACTIVITY, TREE PROTECTION FENCING WILL BE INSTALLED AROUND PROTECTED TREES OR GROVES OF TREES AND NO CONSTRUCTION WORKERS, TOOLS, MATERIALS, OR VEHICLES ARE PERMITTED WITHIN THE TREE PROTECTION FENCING.
 - 2) ANY TREES AND/OR AREAS DESIGNATED TO BE PROTECTED MUST BE PROPERLY BARRETTED WITH FENCING AND PROTECTED THROUGHOUT CONSTRUCTION TO INSURE THAT NO CLEARING, GRADING OR STAGING OF MATERIALS WILL OCCUR IN THOSE AREAS.
 - 3) NO EQUIPMENT IS ALLOWED ON SITE UNTIL ALL TREE PROTECTION FENCING AND SILT FENCING IS INSTALLED AND APPROVED.
 - 4) PROTECTIVE FENCING IS TO BE MAINTAINED THROUGHOUT THE DURATION OF THE PROJECT AND CONTRACTORS SHALL RECEIVE ADEQUATE INSTRUCTIONS ON TREE PROTECTION METHODS.
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- CFPUA**
- 1) WATER AND SEWER SERVICE SHALL MEET CAPE FEAR PUBLIC UTILITY AUTHORITY (CFPUA) DETAILS AND SPECIFICATIONS.
 - 2) PROJECT SHALL COMPLY WITH THE CFPUA CROSS CONNECTION CONTROL REQUIREMENTS. WATER METER(S) CANNOT BE RELEASED UNTIL ALL REQUIREMENTS ARE MET AND THE STATE HAS GIVEN THEIR FINAL APPROVAL.
 - 3) IF THE CONTRACTOR DESIRES 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 DEVELOPERS SIDE OF THE WATER METER BOX.
 - 4) ANY IRRIGATION SYSTEM SUPPLIED BY CFPUA WATER SHALL COMPLY WITH THE CFPUA'S CONNECTION CONTROL REGULATION. CALL 332-6419 FOR INFORMATION.
 - 5) ANY BACKFLOW PREVENTION DEVICES REQUIRED BY CFPUA WILL NEED TO BE ON THE LIST OF APPROVED DEVICES FOR USFCO/COOR OR ASSE.
 - 6) PUBLIC WATER AND SEWER EXIST ON MARKET STREET.
 - 7) CONTACT THE NORTH CAROLINA ONE CALL CENTER AT 1-800-632-4849 PRIOR TO DOING ANY DIGGING, CLEARING OR GRADING.
 - 8) ANY IRRIGATION SYSTEM SHALL BE EQUIPPED WITH A RAIN AND FREEZER SENSOR.
 - 9) CONTRACTOR TO FIELD VERIFY EXISTING WATER AND SEWER SERVICE LOCATIONS, SIZES AND MATERIALS PRIOR TO CONSTRUCTION. ENGINEER TO BE NOTIFIED OF ANY CONFLICTS.
- DRAINAGE**
- 1) SITE TO DRAIN TO A PERMITTED OFFSITE STORMWATER POND. NCDOT PERMIT NO. SWS 000647 & SWS 120617 CITY OF WILMINGTON PERMIT NO. 2004022 & 2012023

LEGEND

- PROPERTY BOUNDARY
- EXISTING TREE TO BE REMOVED
- TREE PROTECTION
- SEWER
- WATER
- PROPOSED STORM WATER
- EXISTING SPOT ELEVATION

SITE PLAN
 BAR SCALE 1"=30'

TRIPP ENGINEERING, P.C.
 419 Chestnut Street
 Wilmington, North Carolina 28401
 Phone 910-763-5100
 Fax 910-763-5631
 © 2018 TRIPP ENGINEERING, P.C.

PHILIP GREGORY TRIPP
 PROFESSIONAL ENGINEER
 17374
 SEAL

DATE 01-23-19
 DESIGN PGJ
 DRAWN EJW

C4
 SHEET 4 OF 6
 17069

MAINTENANCE

1. CONCRETE WASHOUTS SHOULD BE INSPECTED DAILY AND AFTER HEAVY RAINS. DAMAGES SHOULD BE REPAIRED PROMPTLY. IF FILLED TO BE OVER 75% CAPACITY WITH RAIN WATER IT SHOULD BE VACUUMED OR ALLOWED TO EVAPORATE TO AVOID OVERFLOWS. BEFORE HEAVY RAINS THE CONTAINERS LIQUID LEVEL SHOULD BE LOWERED OR THE CONTAINER COVERED TO AVOID AN OVERFLOW DURING RAIN. WHEN SOLIDS HAVE HARDENED THEY SHOULD BE REMOVED AND RECYCLED.

BUILDING WASTE HANDLING

1. NO PAINT OR LIQUID WASTES IN STREAMS OR STORM DRAINS.
2. DEDICATED AREAS FOR DEMOLITION, CONSTRUCTION AND OTHER WASTES MUST BE LOCATED 50' FROM STORM DRAINS AND STREAMS UNLESS NO REASONABLE ALTERNATIVES AVAILABLE.
3. EARTHEN-MATERIALS STOCKPILES MUST BE LOCATED 50' FROM STORM DRAINS AND STREAMS UNLESS NO REASONABLE ALTERNATIVES AVAILABLE.
4. CONCRETE MATERIALS MUST BE CONTROLLED TO AVOID CONTACT WITH SURFACE WATERS, WETLANDS OR BUFFERS.

INSPECTIONS

1. SAME WEEKLY INSPECTION REQUIREMENTS.
2. SAME RAIN GAUGE AND INSPECTIONS AFTER 0.5" RAIN EVENT.
3. INSPECTIONS ARE ONLY REQUIRED DURING "NORMAL BUSINESS HOURS".
4. INSPECTION REPORTS MUST BE AVAILABLE ON-SITE DURING BUSINESS HOURS UNLESS A SITE-SPECIFIC EXEMPTION IS APPROVED.
5. RECORDS MUST BE KEPT FOR 3 YEARS AND AVAILABLE UPON REQUEST.
6. ELECTRONICALLY AVAILABLE RECORDS MAY BE SUBSTITUTED UNDER CERTAIN CONDITIONS.

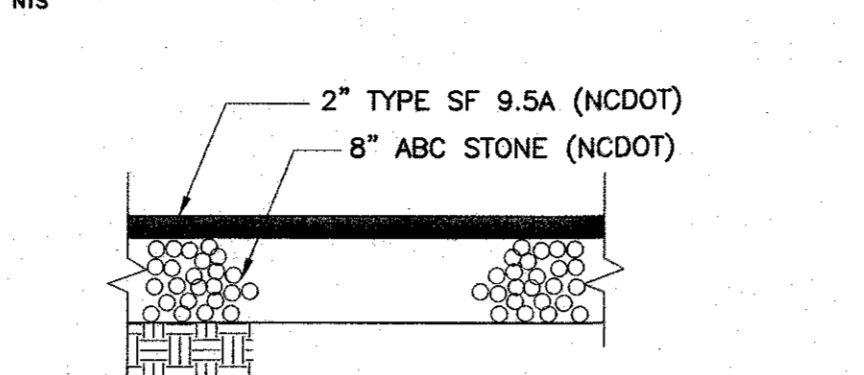
SEDIMENT BASINS

1. OUTLET STRUCTURES MUST WITHDRAW FROM BASIN SURFACE UNLESS DRAINAGE AREA IS LESS THAN 1 ACRE.
2. USE ONLY DWQ-APPROVED FLOCCULENTS.

NPDES-SPECIFIC PLAN SHEETS NOTES

1. THIS PAGE IS SUBMITTED TO COMPLY WITH NPDES GENERAL STORMWATER PERMIT NCG010000.
2. THIS PAGE CAN BE APPROVED BY THE COUNTY PURSUANT TO NPDES GENERAL STORMWATER PERMIT NCG010000 ONLY.
3. THIS PAGE OF THE APPROVED PLANS IS ENFORCEABLE EXCLUSIVELY PURSUANT TO NPDES GENERAL STORMWATER PERMIT NCG010000.
4. THE COUNTY IS NOT AUTHORIZED TO ENFORCE THIS PAGE OF THE PLANS AND IT IS NOT A PART OF THE APPROVED PLANS FOR THE PURPOSES OF ENFORCEMENT ACTION UNDER THE COUNTY CODE.

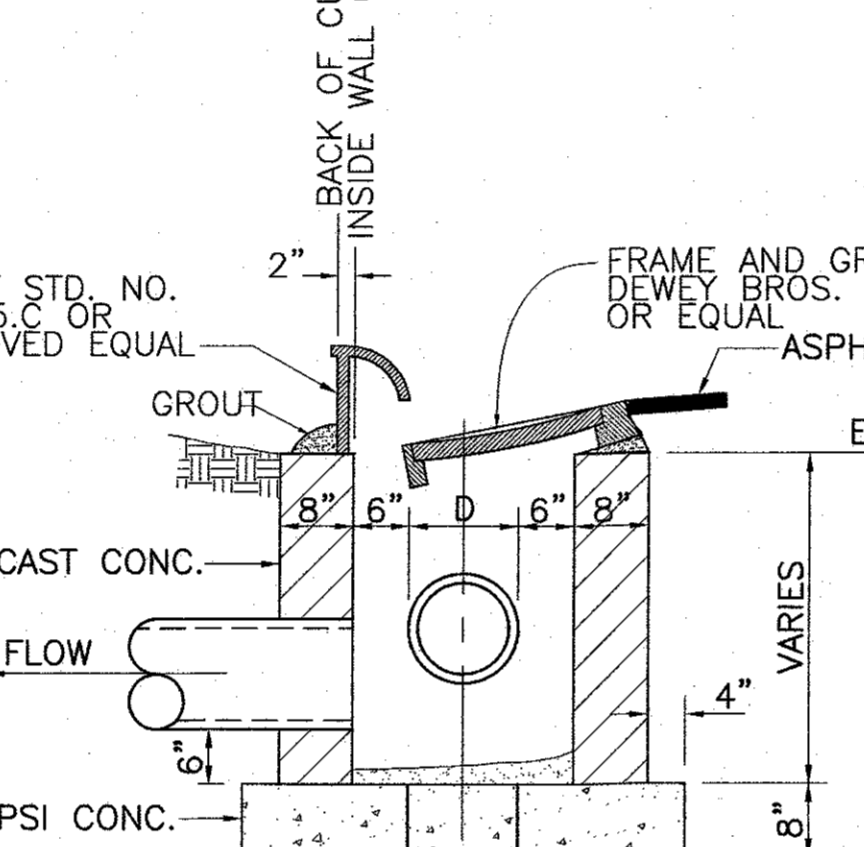
CONCRETE WASHOUT DETAIL



NOTE: PAVEMENT SECTION MAY VARY DEPENDING ON FIELD CONDITIONS. CONTRACTOR SHALL COORDINATE W/OWNER & GEOTECHNICAL ENGINEER TO DETERMINE ACTUAL PAVEMENT SECTION.

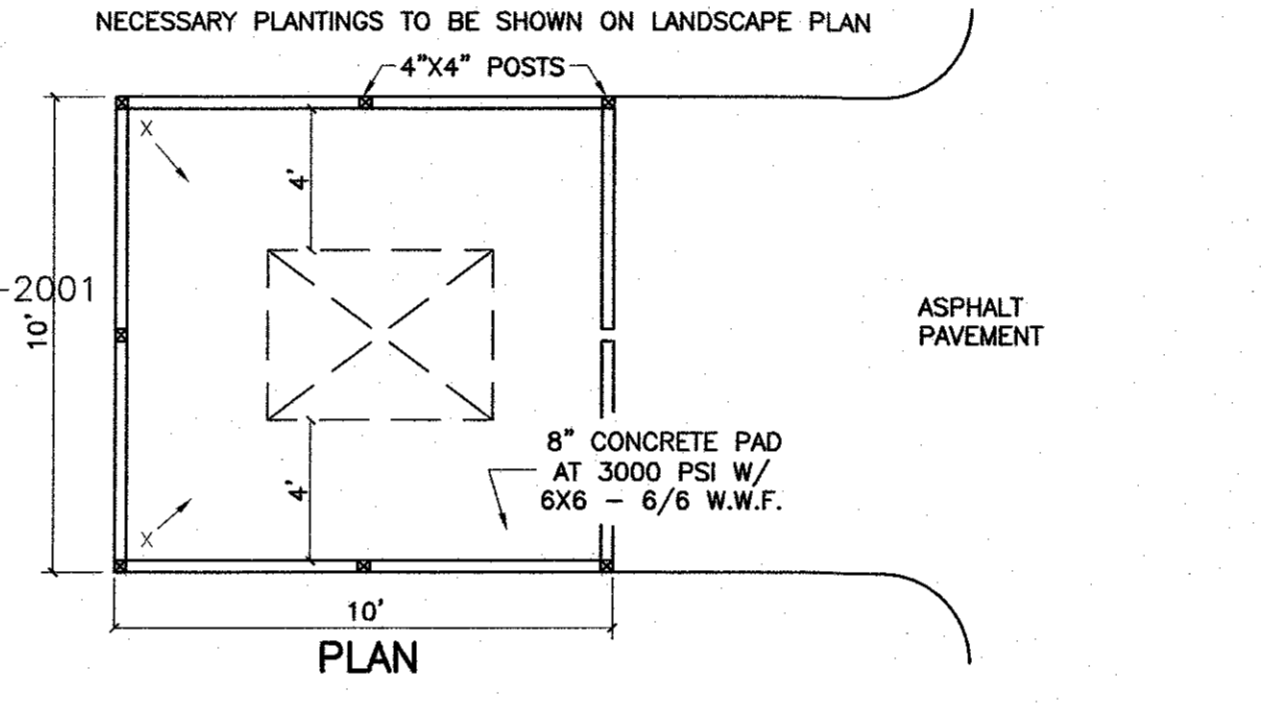
CITY OF WILMINGTON PAVEMENT SECTION

NTS



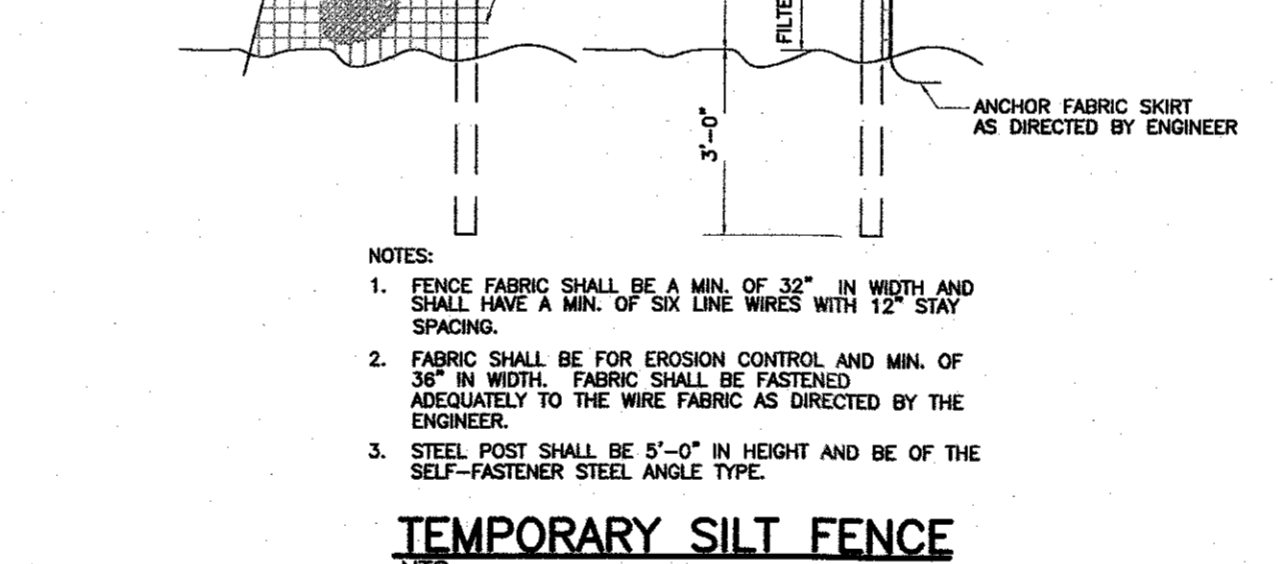
SECTION CURB INLET DETAIL

NTS



SECTION TEMPORARY SILT FENCE

NTS



CONSTRUCTION SPECIFICATIONS:

1. UNIFORMLY GRADE A SHALLOW DEPRESSION APPROACHING THE INLET.
2. DRIVE 5-FOOT STEEL POSTS 2 FEET INTO THE GROUND SURROUNDING THE INLET. SPACE POSTS EVENLY AROUND THE PERIMETER OF THE INLET, A MAXIMUM OF 4 FEET APART.
3. SURROUND THE POSTS WITH WIRE MESH HARDWARE CLOTH. SECURE THE WIRE MESH TO THE STEEL POSTS AT THE TOP, MIDDLE, AND BOTTOM. PLACING A 2-FOOT FLAP OF WIRE MESH UNDER THE GRAVEL FOR ANCHORING IS RECOMMENDED.
4. PLACE CLEAN GRAVEL (NCDOT #5 OR #7 STONE) ON A 2:1 SLOPE WITH A HEIGHT OF 16 INCHES AROUND THE WIRE, AND SMOOTH TO AN EVEN GRADE. 5. ONCE THE CONTRIBUTING DRAINAGE AREA HAS BEEN STABILIZED, REMOVE ACCUMULATED SEDIMENT, AND ESTABLISH FINAL GRADING ELEVATIONS.
6. COMPACT THE AREA PROPERLY AND STABILIZED IT WITH GROUND COVER.

MAINTENANCE

INSPECT INLETS AT LEAST WEEKLY AND AFTER EACH SIGNIFICANT (3" OR GREATER) RAINFALL EVENT. CLEAR THE MESH WIRE OF ANY DEBRIS OR OTHER OBJECTS TO PROVIDE ADEQUATE FLOW FOR SUBSEQUENT RAINS. TAKE CARE NOT TO DAMAGE OR UNDERCUT THE WIRE MESH DURING SEDIMENT REMOVAL. REPLACE STONE AS NEEDED.

HARDWARE CLOTH AND GRAVEL INLET PROTECTION

NTS

NPDES GROUND STABILIZATION CRITERIA

SITE AREA DESCRIPTION	STABILIZATION TIMEFRAME	STABILIZATION EXCEPTIONS
PERIMETER DIKES, SWALES, DITCHES AND SLOPES	7 DAYS	NONE
HIGH QUALITY WATER (HQW) 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 HQW ZONES)

TEMPORARY SEEDING SPECIFICATION

SEEDING MIXTURE SPECIES	RATE (lb./acre)
Rye (grain)	120
Annual lespedeza (Kobe in Piedmont and Coastal Plain, Kermes in Mountains)	50
Ornamental lespedeza when planted in temporary cover is not to extend beyond June.	40
German Millet	40

SEEDING DATES

WINTER - Nov 15 - Feb 15 - May 15
 EARLY SPRING - Feb 15 - May 15
 COASTAL PLAIN - Apr. 1 - Apr. 15

WINTER - May 15 - Aug 15
 EARLY SPRING - May 1 - Aug 15
 COASTAL PLAIN - Apr. 15 - Aug 15

WINTER - Aug 15 - Dec 15
 COASTAL PLAIN and Piedmont - Aug 15 - Dec 30

SOIL AMENDMENTS

FOLLOW RECOMMENDATIONS OF SOIL TESTS OR APPLY 2,000 LB/ACRE GRADE AGRICULTURAL LIMESTONE AND 750 LB/ACRE 10-10-10 FERTILIZER.

MULCH

APPLY 4,000 LB/ACRE STRAW, ANCHOR STRAW BY TACKING WITH ASPHALT, NETTING, OR A MULCH ANCHORING TOOL. A MULCH ANCHORING TOOL IS REQUIRED UNLESS STRAW CAN BE USED AS A MULCH ANCHORING TOOL.

MAINTENANCE

REFERLIZE IF GROWTH IS NOT FULLY ADEQUATE. RESEED, RESEED AND RESEED IMMEDIATELY FOLLOWING EROSION OR OTHER DAMAGE.

PERMANENT GRASSING DETAIL

SEEDING MIXTURE SPECIES	RATE (lb./acre)
PERENNIAL BAHIA GRASS	50
COMMON BERMUDA GRASS	50
SEMI-DOUGLASS PINEAPPLE	50
TALL FESCUE	50

SEEDING NOTES

1. WHERE A NEAT APPEARANCE IS REQUIRED, OAT SEEDS MAY BE USED INSTEAD OF BERMUDA GRASS. BERMUDA GRASS MAY BE REPLACED WITH 5 LB/ACRE CRYSTALINE SEEDS.

SEEDING DATES

APR. 1 - JULY 15

SOIL AMENDMENTS

APPLY LIME AND FERTILIZER ACCORDING TO SOIL TESTS, OR APPLY 2,000 LB/ACRE GRADE AGRICULTURAL LIMESTONE AND 500 LB/ACRE 10-10-10 FERTILIZER.

MULCH

APPLY 4,000 LB/ACRE STRAW OR OTHER SUITABLE MULCH ANCHOR BY TACKING WITH ASPHALT, NETTING, OR BY CHIPPING WITH A MULCH ANCHORING TOOL. A MULCH ANCHORING TOOL IS REQUIRED UNLESS STRAW CAN BE USED AS A MULCH ANCHORING TOOL.

MAINTENANCE

REFERLIZE THE FOLLOWING APRIL WITH 50 LB/ACRE NITROGEN. REFER AS GROWTH REQUIRES. MAY BE MOVED ONLY ONCE A YEAR. WHERE A NEAT APPEARANCE IS REQUIRED, OAT SEEDS AND NEW AS OTHER AS NEEDED.

SITE POLLUTANTS NOTES

1. LOCATE AREAS DEDICATED FOR MANAGEMENT OF LAND CLEARING AND DEMOLITION DEBRIS, CONSTRUCTION AND DOMESTIC WASTE, AND HAZARDOUS OR TOXIC WASTE. THIS LOCATION SHALL BE AT LEAST 50' AWAY FROM STORM DRAIN INLETS AND SURFACE WATERS UNLESS IT CAN BE SHOWN THAT NO OTHER ALTERNATIVES ARE REASONABLY AVAILABLE.
2. DUMPING OF PAINT OR OTHER LIQUID BUILDING MATERIAL WASTES IN STORM DRAINS IS PROHIBITED.
3. LITTER AND SANITARY WASTE-THE PERMITTEE SHALL CONTROL THE MANAGEMENT AND DISPOSAL OF LITTER AND SANITARY WASTE FROM THE SITE.
4. LOCATE EARTHEN-MATERIAL STOCKPILE AREAS AT LEAST 50' AWAY FROM STORM DRAIN INLETS AND SURFACE WATERS UNLESS IT CAN BE SHOWN THAT NO OTHER ALTERNATIVES ARE REASONABLY AVAILABLE.
5. CONCRETE MATERIALS ON-SITE, INCLUDING EXCESS CONCRETE, MUST BE CONTROLLED AND MANAGED TO AVOID CONTACT WITH SURFACE WATERS, WETLANDS OR BUFFERS. NO CONCRETE OR CEMENT SLURRY SHALL BE DISCHARGED FROM THE SITE.
6. ANY HARDENED CONCRETE RESIDUE WILL BE DISPOSED OF, OR RECYCLED ON SITE, IN ACCORDANCE WITH LOCAL AND STATE SOLID WASTE REGULATIONS.
7. SOIL STABILIZATION SHALL BE ACHIEVED ON ANY AREA OF A SITE WHERE LAND-DISTURBING ACTIVITIES HAVE TEMPORARILY OR PERMANENTLY CEASED ACCORDING TO THE FOLLOWING SCHEDULE:
 - i. ALL PERIMETER DIKES, SWALES, DITCHES, PERIMETER SLOPES AND ALL SLOPES STEEPER THAN 3 HORIZONTAL TO 1 VERTICAL (3:1) SHALL BE PROVIDED TEMPORARY OR PERMANENT STABILIZATION WITH GROUND COVER AS SOON AS PRACTICABLE BUT IN ANY EVENT WITHIN 7 CALENDAR DAYS FROM THE LAST LAND DISTURBING ACTIVITY.
 - ii. ALL OTHER DISTURBED AREAS SHALL BE PROVIDED TEMPORARY OR PERMANENT STABILIZATION WITH GROUND COVER AS SOON AS PRACTICABLE BUT IN ANY EVENT WITHIN 14 CALENDAR DAYS FROM THE LAST LAND-DISTURBING ACTIVITY.
 - iii. CONDITIONS-IN MEETING THE STABILIZATION REQUIREMENTS ABOVE, THE FOLLOWING CONDITIONS OR EXEMPTIONS SHALL APPLY:
 - i. EXTENSIONS OF TIME MAY BE APPROVED BY THE PERMITTING AUTHORITY BASED ON WEATHER OR OTHER SITE-SPECIFIC CONDITIONS THAT MAKE COMPLIANCE IMPRACTICABLE.
 - ii. ALL SLOPES 50' IN LENGTH OR GREATER SHALL APPLY TO GROUND COVER WITHIN 7 DAYS EXCEPT WHEN THE SLOPE IS FLATTER THAN 4:1. SLOPES LESS THAN 50' SHALL APPLY GROUND COVER WITHIN 14 DAYS EXCEPT WHEN SLOPES ARE STEEPER THAN 3:1. THE 7-DAY REQUIREMENT APPLIES.
 - iii. ANY SLOPED AREA FLATTER THAN 4:1 SHALL BE EXEMPT FROM THE 7-DAY GROUND COVER REQUIREMENT.
 - iv. SLOPES 10' OR LESS IN LENGTH SHALL BE EXEMPT FROM THE 7-DAY GROUND COVER REQUIREMENT EXCEPT WHEN THE SLOPE IS STEEPER THAN 2:1.
 - v. ALTHOUGH STABILIZATION IS USUALLY SPECIFIED AS GROUND COVER, OTHER METHODS, SUCH AS CHEMICAL STABILIZATION, MAY BE ALLOWED ON A CASE-BY-CASE BASIS.
 - vi. FOR PORTIONS OF PROJECTS WITHIN THE SEDIMENT CONTROL COMMISSION-DEFINED "HIGH QUALITY WATER ZONE" (15A NCAC 04A.0105), STABILIZATION WITH GROUND COVER SHALL BE FLOCCULATED AS SOON AS PRACTICABLE BUT IN ANY EVENT ON ALL AREAS OF THE SITE WITHIN 7 CALENDAR DAYS FROM THE LAST LAND-DISTURBING ACT.

REVISIONS

No.	Date	Description	By

CONSTRUCTION SEQUENCE

1. NO CUT SLOPE OR FILL SLOPE SHALL EXCEED A RISE OR FALL OF ONE FOOT FOR EVERY RUN OF 3 FEET (1 VERTICAL TO 3 HORIZONTAL).
2. NO SEDIMENT WILL BE ALLOWED TO EXIT THE SITE. ALL EROSION SHALL BE CONTROLLED INCLUDING SLOPE SLOPES DURING AND AFTER CONSTRUCTION.
3. INSTALL PRIMARY EROSION CONTROL MEASURES BEFORE BEGINNING CONSTRUCTION INCLUDING BUT NOT LIMITED TO GRAVELED CONSTRUCTION ENTRANCE, SILT FENCE, CHECK DAMS, ETC. INSTALL ALL SECONDARY EROSION CONTROL MEASURES AS SOON AS POSSIBLE AFTER BEGINNING CONSTRUCTION.
4. ALL EROSION CONTROL MEASURES TO BE INSPECTED AFTER EACH RAIN. SILT FENCE AND INLET PROTECTION ARE TO BE CLEANED WHEN 0.5 FEET OF SEDIMENT HAVE ACCUMULATED IN FRONT OF THE DEVICE OR WHEN THEY LEAK OR FAIL. SEDIMENT TRAPS ARE CLEANED OUT AS STATED OR WHEN HALF FULL.
5. IF APPLICABLE, CONSTRUCT PROPOSED RETENTION POND TO ACT AS A SEDIMENT BASIN DURING CONSTRUCTION. REMOVE ACCUMULATION OF SILT AS REQUIRED TO ALLOW PROPER FUNCTIONING. RESTORE POND TO DESIGN LEVELS AT THE COMPLETION OF CONSTRUCTION. 6. IF APPLICABLE, INSTALL DRAINAGE INLETS WITH INLET PROTECTION TO ACT AS SILT TRAPS DURING CONSTRUCTION. REMOVE ACCUMULATED SILT AS NEEDED TO PREVENT SILT FROM ENTERING STORM DRAIN PIPING.
7. A 4" LAYER OF TOPSOIL SHALL BE APPLIED TO ALL NEW AREAS TO BE GRASSED.
8. MAINTAIN ALL EROSION CONTROL MEASURES UNTIL PROJECT IS COMPLETE.
9. MORE STRINGENT MEASURES MAY BE REQUIRED TO HALT EROSION IF THOSE ON THIS PLAN PROVE TO BE LESS EFFECTIVE.
10. REMOVE ALL TEMPORARY EROSION CONTROL MEASURES UPON COMPLETION OF CONSTRUCTION. ALL PERMANENT MEASURES SHALL BE WELL ESTABLISHED PRIOR TO PROJECT COMPLETION.

MAINTENANCE PLAN

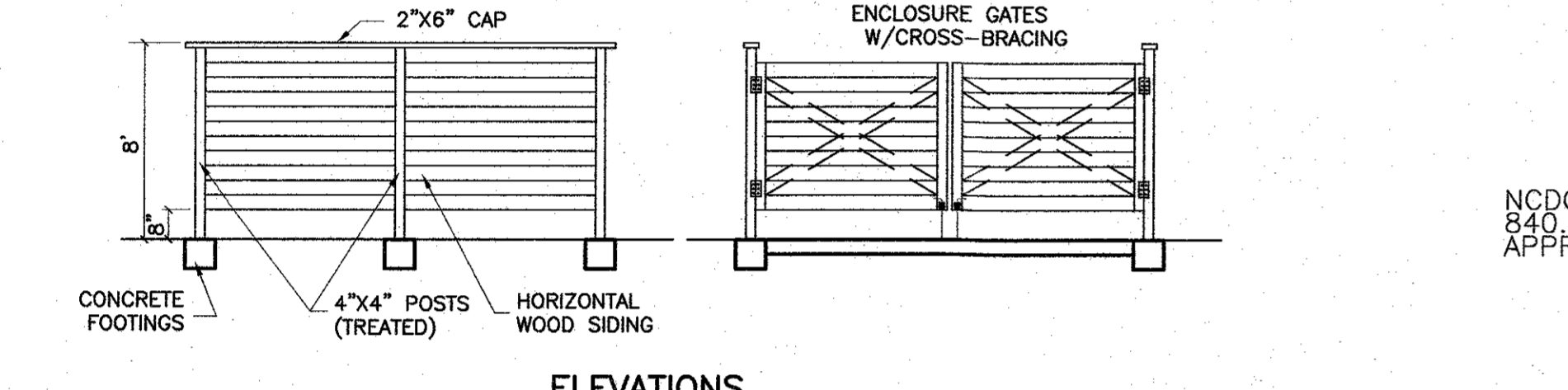
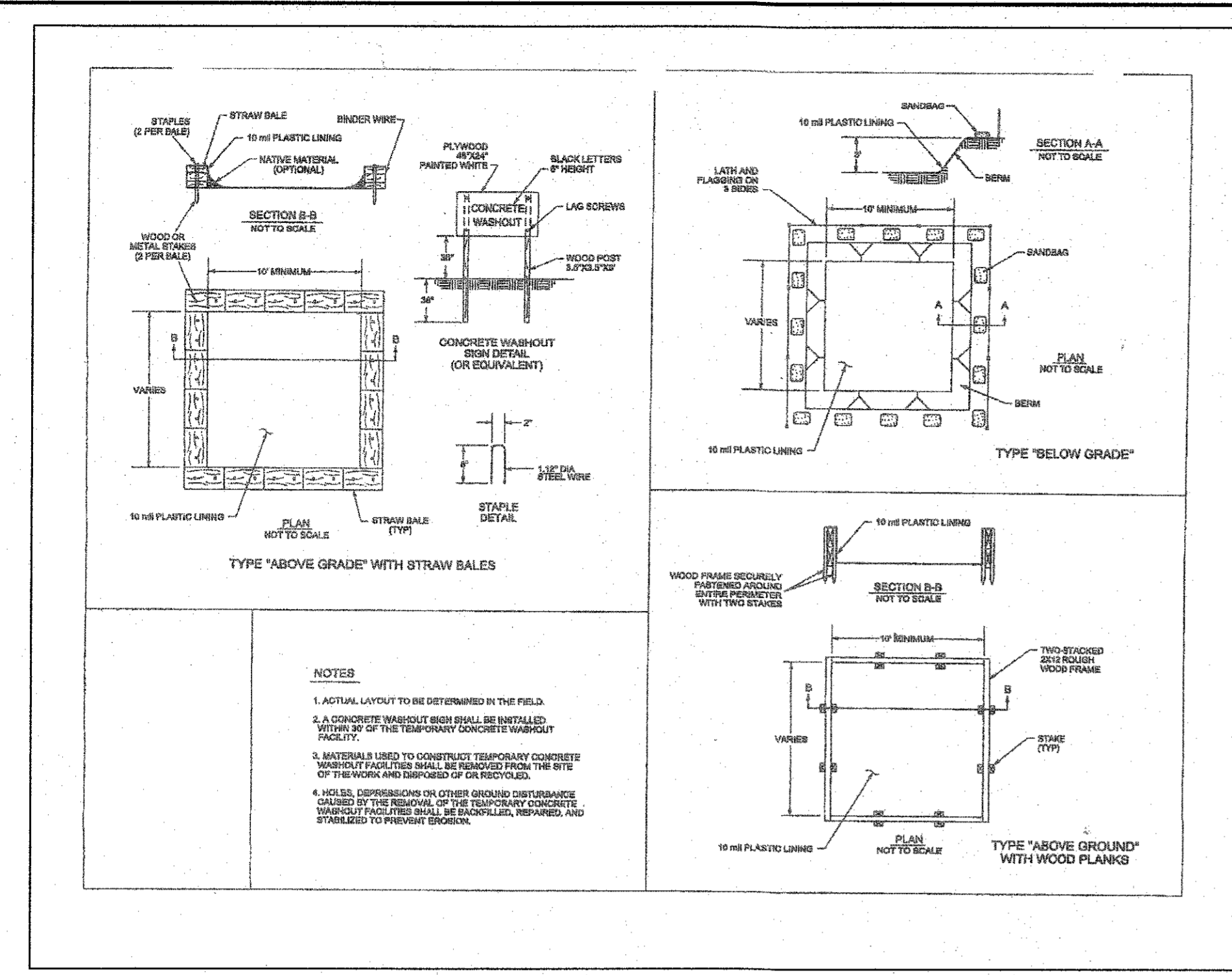
1. ALL EROSION AND SEDIMENT CONTROL PRACTICES WILL BE CHECKED FOR STABILITY AND OPERATION FOLLOWING EVERY RUNOFF-PRODUCING RAINFALL, BUT IN NO CASE, LESS THAN ONCE EVERY WEEK AND WITHIN 24 HOURS OF EVERY HALF INCH RAINFALL.
2. ALL POINTS OF EGRESS WILL HAVE CONSTRUCTION ENTRANCES THAT WILL BE PERIODICALLY TOP-DRESSED WITH AN ADDITIONAL 2 INCHES OF #4 STONE TO MAINTAIN PROPER DEPTH. THEY WILL BE MAINTAINED IN A CONDITION TO PREVENT MUD OR SEDIMENT FROM LEAVING THE SITE.
3. IMMEDIATELY REMOVE OBJECTIONABLE MATERIAL SPILLED, WASHED OR TRACKED ONTO THE CONSTRUCTION ENTRANCE OR ROADWAYS.
4. SEDIMENT WILL BE REMOVED FROM HARDWARE CLOTH AND GRAVEL INLET PROTECTION, ROCK BLOCK AND ROCK DOUGHNUT INLET PROTECTION AND ROCK PIPE INLET PROTECTION WHEN THE DESIGNED STORAGE CAPACITY HAS BEEN HALF FILLED WITH SEDIMENT. ROCK WILL BE CLEANED OR REPLACED WHEN THE SEDIMENT POOL NO LONGER REMAINS AS DESIGNED. DEBRIS WILL BE REMOVED FROM THE ROCK AND HARDWARE CLOTH TO ALLOW PROPER DRAINAGE. SILT SACKS WILL BE EMPTIED ONCE A WEEK AND AFTER EVERY RAIN EVENT. SEDIMENT WILL BE REMOVED FROM AROUND BEAVER DAMS, DANDY SACKS AND SOCKS ONCE A WEEK AND AFTER EVERY RAIN EVENT. 4. DIVERSION DITCHES WILL BE CLEANED OUT IMMEDIATELY TO REMOVE SEDIMENT OR OBSTRUCTIONS FROM THE FLOW AREA. THE DIVERSION RIDGES WILL ALSO BE REPAIRED.
5. SWALES MUST BE TEMPORARILY STABILIZED WITHIN 21 CALENDAR DAYS OF CEASE OF ANY PHASE OF ACTIVITY ASSOCIATED WITH A SWALE.
6. SEDIMENT WILL BE REMOVED FROM BEHIND THE SEDIMENT FENCE WHEN IT BECOMES HALF FILLED. THE SEDIMENT FENCE WILL BE REPAIRED AS NECESSARY TO MAINTAIN A BARRIER. STAKES MUST BE STEEL. STAKE SPACING WILL BE 6 FEET MAX. WITH THE USE OF EXTRA STRENGTH FABRIC, WITHOUT WIRE BACKING, STAKE SPACING WILL BE 8 FEET MAX. WHEN STANDING 7 FEET HIGH FABRIC AND WIRE BACKING ARE USED.
7. ROCK FILTERS ARE DESIGNED AT LOW POINTS IN THE IN THE SEDIMENT FENCE THE ROCK WILL BE REPAIRED OR REPLACED IF IT BECOMES HALF FULL OF SEDIMENT, NO LONGER DRAINS AS DESIGNED OR IS DAMAGED.
8. SEDIMENT WILL BE REMOVED FROM SEDIMENT TRAPS WHEN THE DESIGNED STORAGE CAPACITY HAS BEEN HALF FILLED WITH SEDIMENT. THE ROCK WILL BE CLEANED OR REPLACED WHEN THE SEDIMENT POOL NO LONGER DRAINS OR WHEN THE ROCK IS DISLOADED. BAFFLES WILL BE REPAIRED OR REPLACED IF THEY COLLAPSE, TEAR, DECOMPOSE OR BECOME INEFFECTIVE. THEY WILL BE REPLACED PROMPTLY. SEDIMENT WILL BE REMOVED WHEN DEPOSITS REACH HALF THE HEIGHT OF THE 1ST BAFFLE. FLOATING SKIMMERS WILL BE INSPECTED WEEKLY AND WILL BE KEPT CLEAN.
9. SEDIMENT WILL BE REMOVED FROM THE SEDIMENT BASIN WHEN THE DESIGN STORAGE CAPACITY HAS BEEN HALF FILLED WITH SEDIMENT. ROCK WILL BE CLEANED OR REPLACED WHEN THE SEDIMENT POOL NO LONGER DRAINS OR WHEN THE ROCK IS DISLOADED. BAFFLES WILL BE REPAIRED OR REPLACED IF THEY TEAR, DECOMPOSE OR BECOME INEFFECTIVE. THEY WILL BE REPLACED PROMPTLY. SEDIMENT WILL BE REMOVED FROM BAFFLES WHEN DEPOSITS REACH HALF THE HEIGHT OF THE 1ST BAFFLE. FLOATING SKIMMERS WILL BE INSPECTED WEEKLY AND WILL BE KEPT CLEAN.
10. ALL SEEDED AREAS WILL BE FERTILIZED, RESEED AS NECESSARY, AND MULCHED ACCORDING TO SPECIFICATIONS IN THE VEGETATIVE PLAN TO MAINTAIN A VIGOROUS, DENSE VEGETATIVE COVER. ALL AREAS WILL BE STABILIZED WITHIN 21 CALENDAR DAYS. ALL OTHER AREAS WILL BE STABILIZED WITHIN 15 WORKING DAYS.
11. FLOCCULANTS WILL BE USED TO ADDRESS TURBIDITY ISSUES. THE PUMPS, TANKS, HOSES AND INJECTION SYSTEMS WILL BE CHECKED FOR PROBLEMS OR TURBID DISCHARGES DAILY.

DETAILS AND NOTES

TRIPP ENGINEERING, P.C.
 419 Chestnut Street
 Wilmington, North Carolina 28401
 Phone 910-763-5100
 Fax 910-763-5631
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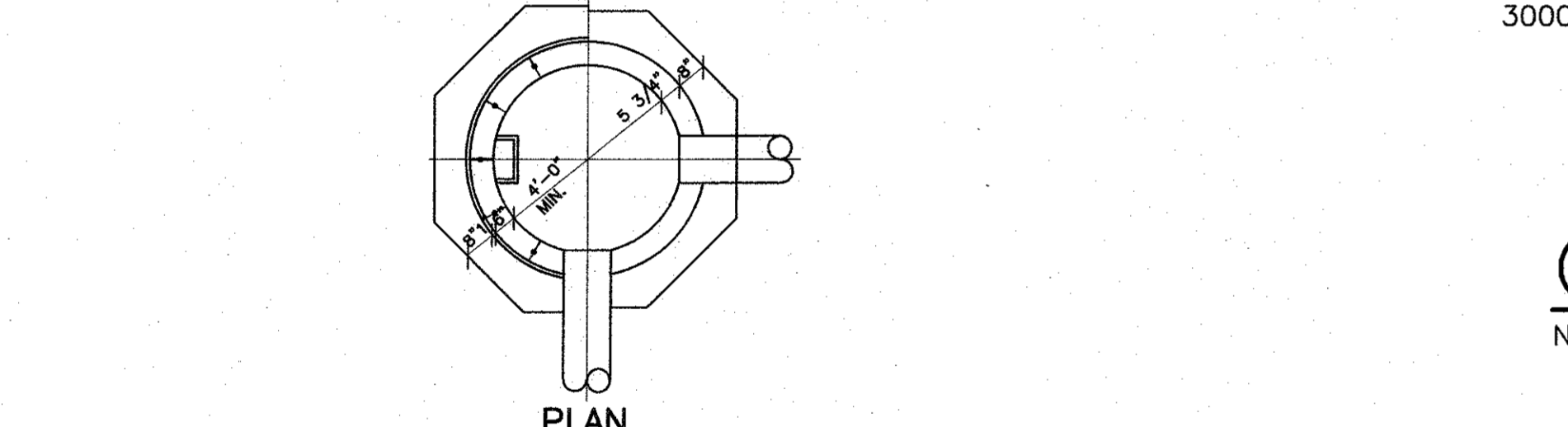
PARKWAY VOLVO
 OWNER: WILMINGTON AUTO GROUP PROPERTIES LLC
 ADDRESS: 5820 MARKET ST., WILMINGTON, NC

DATE 01-23-19
 DESIGN PGT
 DRAWN EJW
C5
 SHEET 5 OF 6
 17069



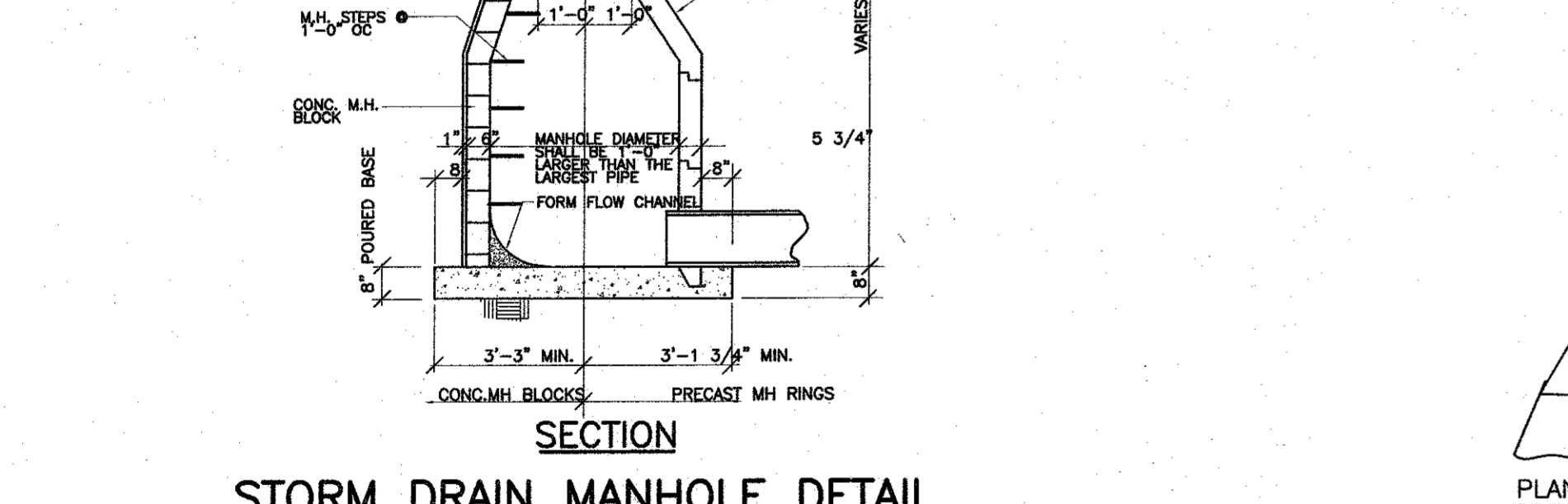
DUMPSTER PAD & ENCLOSURE DETAIL

NTS



STORM DRAIN MANHOLE DETAIL

NTS



TYPICAL SIDEWALK AND WHEEL CHAIR RAMP DETAIL

NTS

CITY OF WILMINGTON
 NORTH CAROLINA
 Public Services • Engineering Division
 APPROVED STORMWATER MANAGEMENT PLAN
 Date: 3/11/19
 Signed: [Signature]

Approved Construction Plan

Name	Date
Planning [Signature]	2/7/19
Traffic [Signature]	3/11/19
Fire [Signature]	3-8-19

WHEEL CHAIR RAMP

HARDWARE CLOTH AND GRAVEL INLET PROTECTION

NTS

REVISIONS

NO.	DATE	DESCRIPTION
V2	2/17/19	REVISED PER CITY COMMENTS
V3	3/07/19	REVISED PER CITY COMMENTS

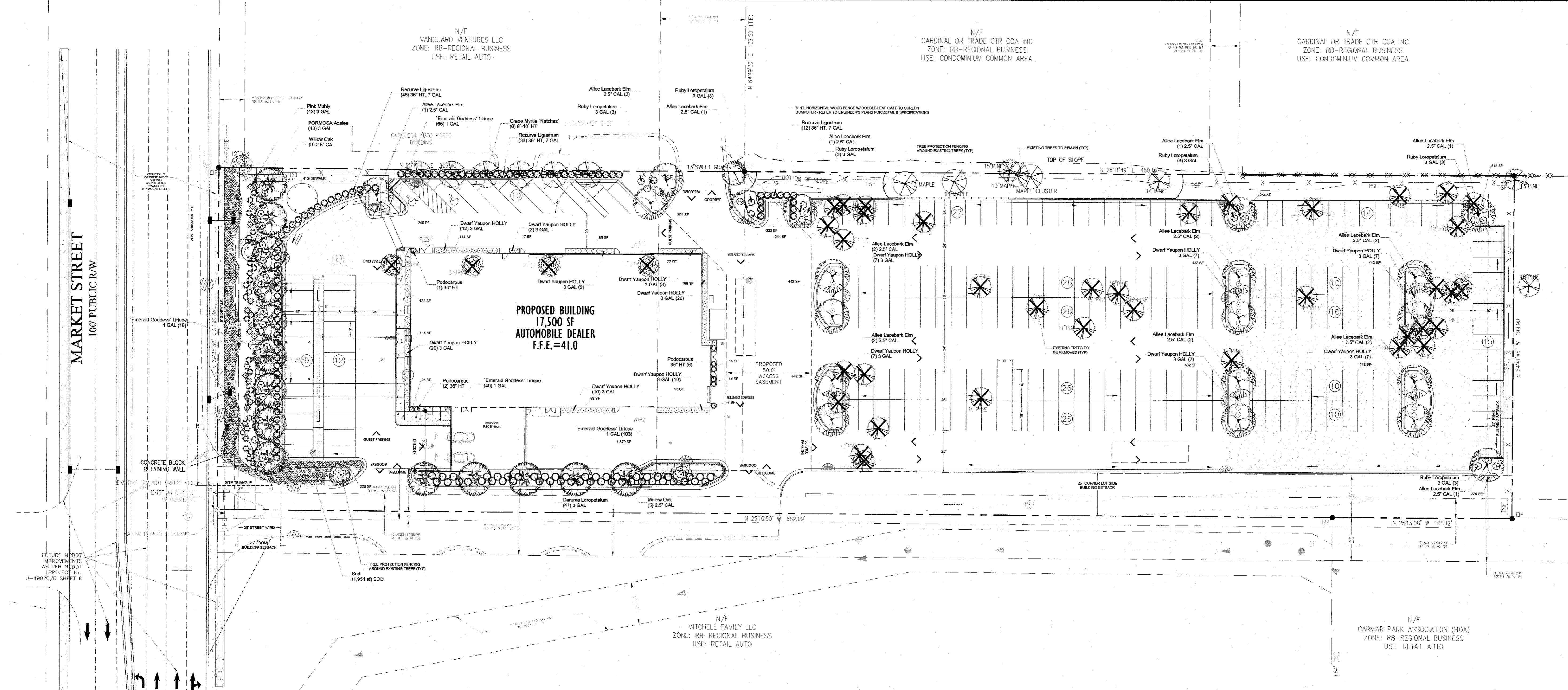
OWNER:
WILMINGTON AUTO GROUP PROPERTIES LLC
 5920 MARKET STREET
 WILMINGTON, NC 28405
 Phone: 1-877-835-8274 Fax: 1-910-791-6121

PROJECT:
PARKWAY VOLVO
 5820 MARKET STREET
 WILMINGTON, NC 28405
 LANDSCAPE PLAN






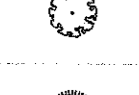
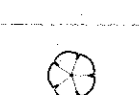


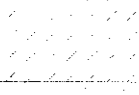

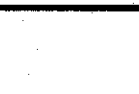
SHEET INFO

LANDSCAPE PLANTING PLAN	DATE: 2018.04.20
DESIGNED BY: MC/PF	
DRAWN BY: GD3	
CHECKED BY: MC	
SHEET: L1.1	1 OF 1

WBL PLAN CONTROL: V1 2018.12.03, V2 2019.02.19, V3 2019.03.07



PLANT SCHEDULE

TREES	BOTANICAL NAME / COMMON NAME	CONT	SPACING	QTY
	LAGERSTROEMIA X 'NATCHEZ' / CRAPE MYRTLE 'NATCHEZ'	8'-10' HT	20' o.c.	6
	QUERCUS PHELLOS / WILLOW OAK	2.5" CAL	AS SHOWN ON PLAN	14
	ULMUS PARVIFOLIA 'ALLEE' / ALLEE LACEBARK ELM	2.5" CAL	AS SHOWN ON PLAN	20
SHRUBS	BOTANICAL NAME / COMMON NAME	CONT	SPACING	QTY
	AZALEA FORMOSA / FORMOSA AZALEA	3 GAL	48" o.c.	43
	ILEX VOMITORIA 'NANA' / DWARF YAUPON HOLLY	3 GAL	36" o.c.	133
	LIGUSTRUM JAPONICUM 'RECURVIFOLIUM' / RECURVE LIGUSTRUM	36" HT, 7 GAL	48" o.c.	90
	LOROPETALUM CHINENSE 'DARUMA' / DARUMA LOROPETALUM	3 GAL	54" o.c.	47
	LOROPETALUM CHINENSE 'RUBY' / RUBY LOROPETALUM	3 GAL	48" o.c.	18
	MUHLENBERGIA CAPILLARIS / PINK MUHLY	3 GAL	48" o.c.	43
	PODOCARPUS MACROPHYLLUS / PODOCARPUS	36" HT	42" o.c.	9
GROUND COVERS	BOTANICAL NAME / COMMON NAME	CONT	SPACING	QTY
	LIRIOPE MUSCARI 'EMERALD GODDESS' / 'EMERALD GODDESS' LIRIOPE	1 GAL	19" o.c.	225
	SOD TBD / SOD	SOD		1,951 SF

LANDSCAPE REQUIREMENT CALCULATIONS

PARKING LOT INTERIOR LANDSCAPING:

TOTAL DRIVE ISLE / PARKING AREA: 73,669 SF

REQUIRED: 73,669 SF (IMPERVIOUS) x 20% = 14,734 SF SHADING
 14,734 / 707 SF = 21 TREES REQUIRED

PROVIDED: 14,734 SF TOTAL SHADING
 25 TREES PROVIDED

STREET YARD LANDSCAPING:
 MULTIPLIER: 25 (FOR RB ZONING)
 200 LF - 4 (SIDEWALK) - 14.6 (ROAD) = 181.4 LF

181.4 LF * 25 = 4,535 SF REQUIRED
 4,535 SF PROVIDED

REQUIRED PLANTING: 4,535 / 600 = 8 CANOPY SHADE TREES REQUIRED
 46 SHRUBS REQUIRED

9 PROVIDED
 86 PROVIDED

100 SF (SIDEWALK) + 453 SF (ROAD) = 553 SF IMPERVIOUS INSIDE STREET YARD
 553 SF / 4,995 SF = 11% IMPERVIOUS INSIDE STREET YARD

FOUNDATION PLANTINGS:

FOUNDATION PLANTINGS: (NORTH)	253 SF REQUIRED (96"22"12")	291 SF PROVIDED
FOUNDATION PLANTINGS: (SOUTH)	164 SF REQUIRED (62"22"12")	186 SF PROVIDED
FOUNDATION PLANTINGS: (EAST)	182 SF REQUIRED (69"22"12")	224 SF PROVIDED
FOUNDATION PLANTINGS: (WEST)	217 SF REQUIRED (82"22"12")	246 SF PROVIDED

PERIMETER LANDSCAPE:

REQUIRED 128LF / 27LF = 5 TREES
 PROVIDED 6 TREES

NO BUFFER YARDS REQUIRED

NOTES:

REFER TO ENGINEER'S PLANS FOR ADDITIONAL SITE DATA & ALL OTHER INFORMATION REGARDING TREE MITIGATION, GRADING & DRAINAGE, STORMWATER, UTILITIES, PAVING & ROADWAY IMPROVEMENTS

ALL MULCH TO BE: PINE STRAW & HARDWOOD

* ALL REQUIRED TREES SHALL BE A MINIMUM OF 2.5" CAL AND MEET THE AMERICAN NURSERYMEN ASSOCIATION STANDARDS

TREE PRESERVATION

TREES TO BE PRESERVED / CREDITS	DBH	CREDIT
PINE	14"	3
OAK	30"	5
OAK	6"	2
MAPLE	14"	3
MAPLE	13"	3
MAPLE	10"	2
SWEET GUM	13"	13
ELM	6"	2
OAK	12"	3
PINE	13"	3
MAPLE CLUSTER		
TOTAL CREDITS		39

Approved Construction Plan

Name	Date
Planning: <i>Michael Smith</i>	3/1/19
Public Utilities:	
Traffic: <i>W. Smith</i>	3-1-19
Fire: <i>A. Smith</i>	3-1-19

STORMWATER MANAGEMENT PLAN

APPROVED

CITY OF WILMINGTON
 ENGINEERING DEPARTMENT
 DATE 3/1/19 PERMIT # 2019015
 SIGNED *Jack Christman*

WRIGHTSVILLE BEACH LANDSCAPING INC.
 NCLC License #CL0083

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

