

# SIDETRACK EXPANSION PROJECT

NATIONAL GYPSUM COMPANY  
 NEW HANOVER COUNTY  
 838 SUNNYVALE DRIVE  
 WILMINGTON, NC

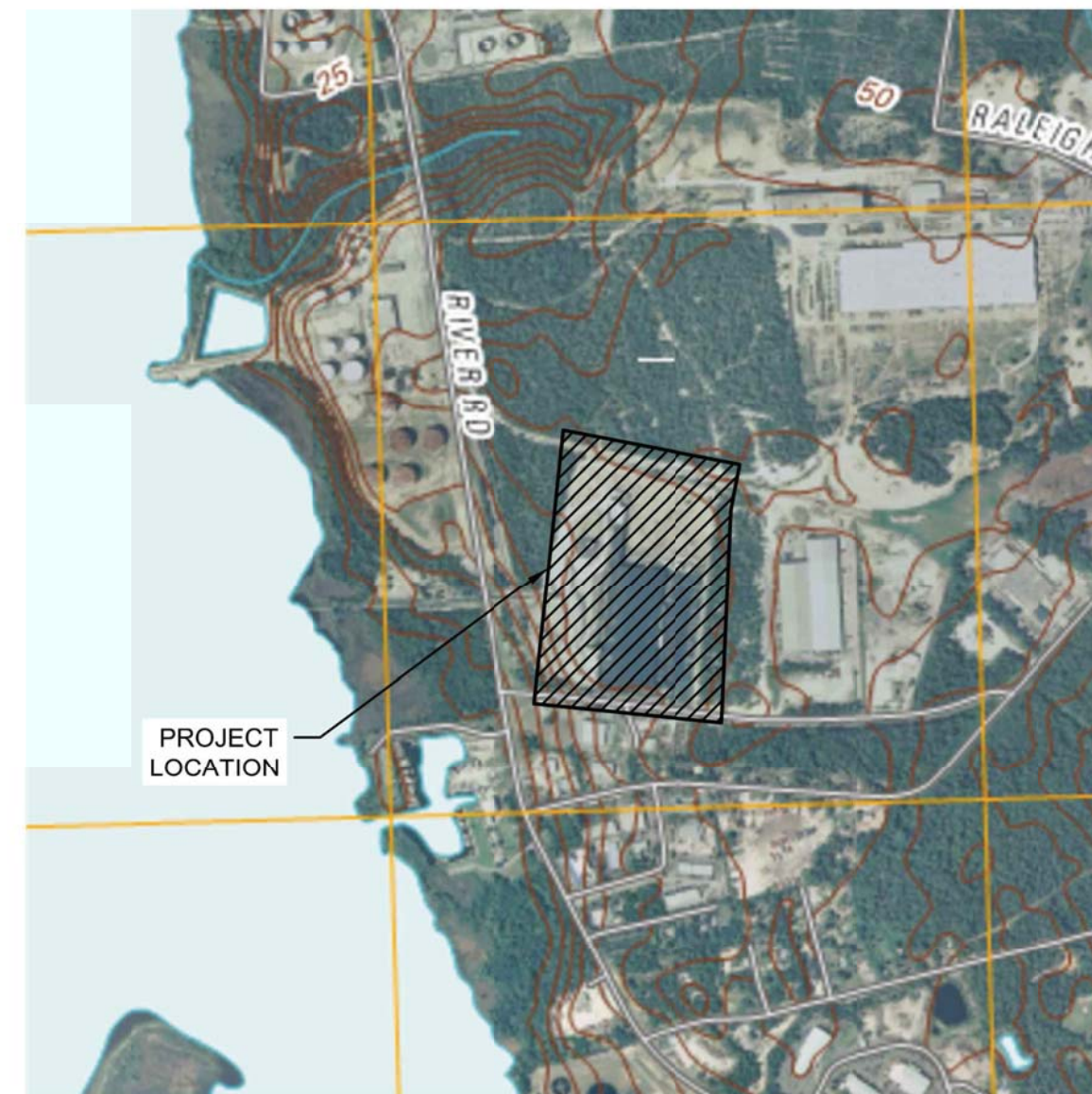
CIVIL ENGINEER  
 URBAN ENGINEERS, INC.

530 WALNUT STREET  
 PHILADELPHIA, PA 19106  
 PHONE: 215-922-8080  
 FAX: 215-922-8082



**LOCATION MAP**

SCALE: 1" = 1000'



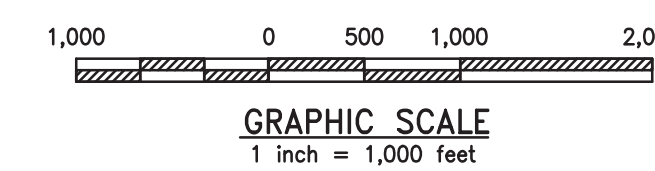
**USGS MAP**

SCALE: 1" = 1000'

Sheet List Table	
Sheet Number	Sheet Title
G-000	COVER SHEET
G-100	GENERAL NOTES & LEGENDS
C-000	EXISTING CONDITIONS PLAN
C-001	TREE INVENTORY PLAN
C-200	EROSION & SEDIMENT CONTROL PLAN
C-201	EROSION & SEDIMENT CONTROL - NOTES 1
C-202	EROSION & SEDIMENT CONTROL - NOTES 2
C-203	EROSION & SEDIMENT CONTROL - DETAILS 1
C-204	EROSION & SEDIMENT CONTROL - DETAILS 2
C-205	DEMOLITION PLAN - OVERALL
C-206	TREE PROTECTION AND REMOVAL PLAN
C-400	SITE PLAN - OVERALL
C-401	SITE PLAN - ENLARGEMENT 1
C-402	SITE PLAN - ENLARGEMENT 2
C-410	GRADING PLAN - OVERALL
C-411	RAIL SPUR AND BASIN GRADING PLAN
C-412	ENDWALL GRADING DETAIL
C-500	UTILITY PLAN - OVERALL
C-501	UTILITY PROFILE - STORM
C-502	EMERGENCY OUTFALL UTILITY PROFILE
C-600	CONSTRUCTION DETAILS - 1
C-601	CONSTRUCTION DETAILS - 2
C-701	WB-62 TRUCK TURNING MANEUVER PLAN
C-702	WB-62 TRUCK TURNING MANEUVER PLAN
C-703	WB-62 TRUCK TURNING MANEUVER PLAN
C-900	EXISTING DRAINAGE AREA PLAN
C-901	PROPOSED DRAINAGE AREA PLAN

\* RAIL DRAWINGS NOT LISTED OR INCLUDED IN THIS SUBMISSION

<b>Approved Construction Plan</b>			
Name _____	Date _____		
Planning _____			
Traffic _____			
Fire _____			
REV	BY	DATE	DESCRIPTION
LOCATION 838 SUNNYVALE DR., WILMINGTON, NC			
TITLE WILMINGTON WALLBOARD PLANT PROPOSED INDUSTRIAL SIDETRACK & STORMWATER MANAGEMENT IMPROVEMENTS COVER SHEET			
DGN			DRAWING NUMBER
DWN	JAB	DATE 10/24/2019	G-000
CHK	MJT	DATE 10/25/2019	



**URBAN ENGINEERS**  
 530 Walnut Street  
 Philadelphia, PA  
 19106-3685  
 o. 215.922.8080



## GENERAL NOTES

- EXISTING SITE INFORMATION:
  - SITE ADDRESS: 838 SUNNYVALE DRIVE  
WILMINGTON, NC 28412  
PARCEL ID: R06400-001-002-000
  - OWNER: NATIONAL GYPSUM COMPANY (NGC)  
2001 REXFORD ROAD  
CHARLOTTE, NC 28211
  - DESIGNER: JOHN BONCK, PE  
URBAN ENGINEERS, INC.  
530 WALNUT STREET  
7TH FLOOR  
PHILADELPHIA, PA 19106
  - ZONED: 'I' - INDUSTRIAL
  - WATERSHED: DRAINS TO NE CAPE FEAR
  - SITE DATA:
 

NUMBER OF BUILDINGS:	1
NUMBER OF FLOORS:	1
ROOF AREA:	235,015 SF
TRACT PROPERTY:	26,975 AC.
CAMA LAND USE:	URBAN
  - PROPOSED ADDITIONS:
 

RAIL SPUR:	26,738 SF
STUCCO BUILDING ADDITION	3,150 SF
RAIL SPUR ACCESS DRIVE:	11,200 SF
EXPANDED ASPHALT PAVING:	29,780 SF
TOTAL:	70,868 SF
- PROPOSED PROJECT WILL NOT TIE INTO EXISTING PUBLIC UTILITIES: WATER, STORMWATER, FIRE PROTECTION OR SANITARY SEWER SYSTEM
- NO NEW WATER/SEWER SERVICES ARE PROPOSED WITH THIS DEVELOPMENT
- ACCORDING TO THE FLOOD INSURANCE MAPS FOR WILMINGTON NORTH CAROLINA PREPARED BY THE NATIONAL FLOOD INSURANCE PROGRAM, THE PROJECT FALLS WITHIN THE X FLOOD ZONE AS SHOWN ON MAP NUMBER 3720311500L, REVISED DATE 8/28/2018. FLOOD INSURANCE MAPS ARE MADE AVAILABLE BY FEMA.
- DATUM:  
HORIZONTAL: THE NORTH CAROLINA STATE PLANE COORDINATE SYSTEM, NAD83, BASED ON GNSS OBSERVATIONS MADE DURING THE FIELD SURVEY.  
VERTICAL: NAVD 88.
- IF DISCREPANCIES IN OR OMISSIONS FROM THE CONTRACT DOCUMENTS ARE FOUND, NOTIFY THE ENGINEER IN WRITING IMMEDIATELY. NO CONSIDERATION OR ALLOWANCES WILL BE GRANTED FOR ANY ALLEGED MISUNDERSTANDING OF MATERIAL TO BE FURNISHED OR WORK TO BE PERFORMED.
- THE CONTRACTOR SHALL NOTIFY NORTH CAROLINA DEPARTMENT OF ENVIRONMENTAL QUALITY 48 HOURS PRIOR TO ANY EARTH DISTURBANCE ACTIVITIES. THE CONTRACTOR SHALL SCHEDULE AND CONDUCT ALL CONSTRUCTION TO MINIMIZE EROSION.
- APPROVED EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE PROVIDED AND MAINTAINED UNTIL ALL WORK IS COMPLETED. E&S PLANS SHALL BE AVAILABLE ON SITE UNTIL CONSTRUCTION IS COMPLETED. THE CONTRACTOR SHALL CONDUCT OPERATIONS TO COMPLY WITH THE APPROVED EROSION AND SEDIMENTATION CONTROL PLAN. IF THE APPROVED PLAN(S) CANNOT BE FOLLOWED, THE CONTRACTOR SHALL OBTAIN WRITTEN APPROVAL OF ALTERNATIVE EROSION AND SEDIMENTATION CONTROLS BY THE APPROPRIATE REGULATORY AGENCY. AT NO TIME SHALL WATER CONTAINING SEDIMENTS OR POLLUTANTS BE DISCHARGED INTO DRAINAGE DITCHES, STORMWATER PIPES OR WATERCOURSES.
- CLEAR AND GRUB ALL VEGETATION AND OTHER MISCELLANEOUS ITEMS WITHIN THE LIMITS OF WORK PRIOR TO ANY EARTHMOVING ACTIVITIES.
- ALL STRUCTURES ARE DESIGNED TO BE SELF-SUPPORTING AND STABLE AFTER CONSTRUCTION WORK IS FULLY COMPLETE. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO DETERMINE CONSTRUCTION PROCEDURES AND SEQUENCE AND TO ENSURE THE SAFETY OF THE STRUCTURE AND ITS COMPONENTS PARTS DURING ERECTION. THIS INCLUDES THE ADDITION OF WHATEVER SHORING, SHEETING, TEMPORARY BRACING, GUYS OR TIE DOWNS WHICH MAY BE NECESSARY. SUCH MATERIAL SHALL REMAIN THE CONTRACTORS PROPERTY AND BE REMOVED FROM THE SITE AFTER COMPLETION OF PROJECT.

## OFF STREET PARKING

- PER WILMINGTON ZONING CODE SECTION 18.528 (E)
  - 1:15 PARKING SPACES PER EMPLOYEE ON THE SHIFT OF THE AVERAGE GREATEST EMPLOYMENT
  - MINIMUM REQUIRED = 2 BASED ON LARGEST SHIFT PRODUCTION
  - 1ST SHIFT (DAYTIME) - 30 EMPLOYEES
  - 2ND SHIFT - 15 EMPLOYEES
  - 3RD SHIFT - 15 EMPLOYEES
  - CURRENTLY 78 DESIGNATED PARKING SPACES

## CITY OF WILMINGTON REQUIRED NOTES

- ALL SIGNS AND PAVEMENT MARKINGS IN AREAS OPEN TO PUBLIC TRAFFIC ARE TO MEET MUTCD (MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES) STANDARD.
- ALL TRAFFIC CONTROL SIGNS AND MARKINGS OFF THE RIGHT-OF-WAY ARE TO BE MAINTAINED BY THE PROPERTY OWNER IN ACCORDANCE WITH MUTCH STANDARDS.
- CONTACT TRAFFIC ENGINEERING AT 910-341-7888 FORTY-EIGHT HOURS PRIOR TO ANY EXCAVATION IN THE RIGHT-OF-WAY.

## TREE PROTECTION NOTES

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

## LANDSCAPING NOTES

- NO TREE MITIGATION IS PROPOSED WITH THIS DEVELOPMENT. EXISTING TREES TO BE REMOVED ARE IN DIRECT CONFLICT WITH THE MAXIMUM RAIL GRADE & CURVE REQUIREMENTS AND STORMWATER MANAGEMENT FEATURES AND ARE THEREFORE EXEMPT FROM MITIGATION AS DESCRIBED IN SECTION 18-461(a-c) OF ARTICLE 8 OF THE WILMINGTON, NC CODE OF ORDINANCES.
- NO ADDITIONAL TREES AS A RESULT IN EXPANSION UNDER SECTION 18-510, TABLE III ARE PROPOSED. PROPOSED ASPHALT EXPANSION IS TO REPLACE TRAILER PARKING LOSE FROM THE RAIL SPUR ADDITION AND NOT FOR ADDITIONAL VEHICULAR USE.
- ALL PROPOSED VEGETATION WITHIN SIGHT TRIANGLES SHALL NOT INTERFERE WITH CLEAR VISUAL SIGHT LINES FROM 30'-10'.

## UTILITY NOTES

- CAUTION: HIGH VOLTAGE LINES MAY EXIST WITHIN THE PROJECT LIMITS. ALL WORK IS TO BE PERFORMED IN CONFORMITY WITH ALL STATE, FEDERAL, UTILITY AND CONTRACT REQUIREMENTS. MEANS, METHODS, CHOICE OF EQUIPMENT, SEQUENCING OF AND SAFETY PRACTICES USED OR NOT USED, IN, ON OR AROUND HIGH VOLTAGE LINES OR OTHER UTILITY STRUCTURES, AS THESE ITEMS ARE THE SOLE RESPONSIBILITY OF THE CONTRACTOR PHYSICALLY PERFORMING OR CONTROLLING, THE PERFORMANCE OF THE WORK, EXCEPT WHERE ELECTRICAL DISTRIBUTION AND TRANSMISSION LINES HAVE BEEN DE-ENERGIZED AND VISIBLY DE-ENERGIZED GROUNDED AT THE POINT OF WORK, ASSUME THAT ALL SUCH LINES ARE ENERGIZED AND CONFORM OPERATIONS TO INTER ALIA, TITLE 29 OF THE CODE OF FEDERAL REGULATIONS, SECTION 1928.550(a)(19).
- EXAMINE ALL DRAWINGS RELATED TO PROPOSED WORK OF ALL TRADES AND BECOME THOROUGHLY FAMILIAR AND FULLY INFORMED AS TO THE EXTENT AND CHARACTER OF THE WORK REQUIRED AND ITS RELATIONSHIP TO ALL OTHER WORK ON THE PROJECT. IF DISCREPANCIES IN OR OMISSIONS FROM THE CONTRACT DOCUMENTS ARE FOUND, NOTIFY THE ENGINEER IN WRITING IMMEDIATELY. NO CONSIDERATION OR ALLOWANCES WILL BE GRANTED FOR ANY ALLEGED MISUNDERSTANDING OF MATERIAL TO BE FURNISHED OR WORK TO BE PERFORMED.
- THE CONTRACTOR SHALL PROTECT AND MAINTAIN ALL EXISTING UTILITIES AND/OR TEMPORARILY RELOCATE AND PROPERLY SUPPORT EXISTING UTILITIES AS NECESSARY.
- THE CONTRACTOR SHALL RESTORE INTERRUPTED OR DAMAGED UTILITY SERVICES 24 HOURS PER DAY UNTIL UTILITY SERVICES HAVE BEEN COMPLETELY RESTORED OR TEMPORARY SERVICES HAVE BEEN DETERMINED SUFFICIENT BY THE ENGINEER.
- THE CONTRACTOR SHALL OBTAIN FROM THE APPROPRIATE UTILITY COMPANY OR CITY DEPARTMENT, VERIFICATION OF THE CURRENT STATUS OF UTILITIES AND STRUCTURES SHOWN ON THE CONTRACT DOCUMENTS PRIOR TO WORKING ON OR NEAR SUCH STRUCTURES AND UTILITIES.

## SOILS DATA

- THE SOIL INFORMATION FOR THIS PROJECT WAS OBTAINED FROM THE U.S. DEPARTMENT OF AGRICULTURE, NATURAL RESOURCES CONSERVATION SERVICE WEB SOIL SURVEY.
- SOIL SURVEY STAFF, NATURAL RESOURCES CONSERVATION SERVICE, UNITED STATES DEPARTMENT OF AGRICULTURE. WEB SOIL SURVEY. AVAILABLE ONLINE AT <http://websoilsurvey.nrcs.usda.gov/accessed> 06/11/2019.
- THE SOIL SURVEY INDICATES THAT THE SOILS ENCOMPASSING THE PROJECT AREA ARE SAND. THE SOILS AND FOUNDATION MATERIALS ARE HIGHLY VARIABLE.

## CURRENT IMPERVIOUS AREA CALCULATIONS

CURRENTLY UNDER ROOF:	235,015 SF
PAVED PARKING/ROADWAYS:	269,200 SF
TOTAL:	504,215 SF
	42.96% OF TOTAL AREA

## PROPOSED IMPERVIOUS AREA CALCULATIONS

CURRENTLY UNDER ROOF:	235,015 SF
STUCCO BUILDING ADDITION:	3,150 SF
PAVED PARKING/ROADWAYS:	258,667 SF
RAIL SPUR:	26,738 SF
RAIL SPUR ACCESS DRIVE:	11,200 SF
EXPANDED ASPHALT PAVING	29,780 SF
TOTAL:	564,550 SF
	47.88% OF TOTAL AREA

## WATER AND SEWER CAPACITY

WATER:	3,000 GPD (CURRENT USE)
WATER:	0 GPD (PROPOSED ADDITIONAL USE)
SEWER:	3,000 GPD (CURRENT USE)
SEWER:	0 GPD (PROPOSED ADDITIONAL USE)

## EXISTING WATER AND SEWER CONNECTIONS

FIRE WATER LATERAL CONNECTS TO AN EXISTING 6" WATER LINE WITHIN SUNNYVALE R.O.W. OWNED BY CAPE FEAR PUBLIC UTILITY AUTHORITY.

12" RECP LATERAL CONNECTS TO EXISTING SANITARY SEWER LINE WITHIN SUNNYVALE R.O.W. OWNED BY CAPE FEAR PUBLIC UTILITY AUTHORITY.

## STORMWATER MANAGEMENT NOTES

- THE CONTRACTOR SHALL PERFORM ANY REMEDIATION OR REPAIRS TO EXISTING INFRASTRUCTURE THAT IS DAMAGED BY CONSTRUCTION ACTIVITIES, AT NO ADDITIONAL COST TO THE CITY.
- DISTURBANCE WITHIN THE PROPERTY'S IS 289,238 SF, THUS THE PROJECT WILL REQUIRE A NPDES PERMIT.
- PROJECT DRAINS TO THE NE CAPE FEAR.

## UTILITIES CONTACT

COMPANY: CAPE FEAR PUBLIC UTILITY AUTHORITY  
ADDRESS: 235 GOVERNMENT CENTER DRIVE  
WILMINGTON, NC 28403  
CONTACT: FIELD - JIM TAYSON  
910-470-3243  
FIELD - KATHY WILLIS  
910-367-8698  
DAMAGE - SHANE FORD  
910-322-6571

COMPANY: DUKE ENERGY  
ADDRESS: 1451 MILITARY CUTOFF ROAD  
WILMINGTON, NC 28403  
CONTACT: FIELD - DISPATCH  
800-778-9140  
DAMAGE - DUKE ENERGY REPRESENTATIVE  
800-452-2777

COMPANY: SOUTH WILMINGTON PIPELINE/IKI  
CONTACT: FIELD - ARDEN HORELL  
910-791-3291  
DAMAGE - ARDEN HORRELL  
910-200-9002

COMPANY: AT&T(DISTRIBUTION)  
CONTACT: FIELD 1 - DISPATCH  
800-778-9140  
FIELD 2 - DINO FARRUGGIO  
561-997-0240  
DAMAGE ATT REPRESENTATIVE  
877-737-2478

COMPANY: TIME WARNER CABLE-CHARTER  
ADDRESS: 2321 SCIENTIFIC PARK DR  
WILMINGTON, NC 28405  
CONTACT: FIELD - DISPATCH  
800-778-9140  
DAMAGE - CAROLINAS REGIONAL OPERATIONS  
855-272-2862

COMPANY: USIC LOCATING SERVICES, INC.  
ADDRESS: WTR/SWR/STR DRAIN ONLY LOCATION

COMPANY: PIEDMONT NATURAL GAS COMPANY  
ADDRESS: 1321 SOUTH 10TH ST, WILMINGTON, NC 28401  
CONTACT: FIELD - LARRY JOHNSTON  
910-465-5397  
DAMAGE - CUSTOMER SERVICE CENTER  
800-752-7504

## EXISTING LEGEND

STANDARD ABBREVIATIONS	STANDARD SYMBOLS
AC AIR CONDITIONER	⊕ OVERHEAD TRAFFIC SIGNAL LIGHT
BH BORE HOLE	⚡ POWER POLE
BSL BUILDING SETBACK LINE	— GUY WIRE
CI CURB INLET	— POWER LINE
CMP CORRUGATED METAL PIPE	⊕ LIGHT POLE
CMF CONCRETE MONUMENT FND	⊠ ELECTRIC TRANSFORMER
CO SANITARY CLEANOUT	⊠ WATER VAULT
CPED COMMUNICATION PEDESTAL	⊠ GAS VALVE
CIP CRIMPED TOP PIPE	⊠ GAS METER
DI DROP INLET	⊠ WATER VALVE
DIP DUCTILE IRON PIPE	⊠ WATER METER
DWCB DOUBLE WING CATCH BASIN	⊠ FIRE HYDRANT
FND FENCE	— UNDERGROUND ELECTRIC LINE
GM GAS METER	— UNDERGROUND GAS LINE
INV INVERT	— UNDERGROUND COMMUNICATION LINE
JB JUNCTION BOX	— UNDERGROUND WATER LINE
MH MANHOLE	⊕ PHOTO POSITION INDICATOR
OCS OUTLET CONTROL STRUCTURE	⊕ REGULAR PARKING SPACE COUNT
OTP OPEN TOP PIPE	⊕ HANDICAP PARKING SPACE
PM POWER METER	⊕ TREE POSITION INDICATOR SIGN
PKS PK NAIL SET	⊕ EXISTING TREE LOCATION
POB POINT OF BEGINNING	⊕ BRUSH/SHRUB
POC POINT OF COMMENCEMENT	
RPC REINFORCED CONCRETE PIPE	
RBR IRON REINFORCING BAR	
RBS 5/8"RBR SET CAPPED LSF 621	
RRS RAILROAD SWITCH	
SS SANITARY SEWER	
SWCB SINGLE WING CATCH BASIN	
TRANS ELECTRIC TRANSFORMER	
— EXISTING RAIL	
— EXISTING TREELINE	
— EXISTING FENCE	

## EROSION & SEDIMENT CONTROL LEGEND

—	LIMIT OF DISTURBANCE
—	ENVIRONMENTAL FEATURE
—	12" CURLEX SEDIMENT LOG
—	SAWCUT LINE
—	REMOVE & SALVAGE FENCE
—	PROTECT FENCE
—	SOIL DELINEATION
—	ROCK CONSTRUCTION ENTRANCE
—	REMOVE & DISPOSE ASPHALT
—	TEMPORARY/PERMANENT SEEDING AREA
—	RETENTION BASIN AREA
—	PROTECT ASPHALT DRIVE
—	STOCKPILE STORAGE AREA
○	INLET PROTECTION
( )	UTILITY PROTECTION

## UTILITIES LEGEND

— ST — ST	PROPOSED STORMWATER PIPE
—	SECONDARY OUTLET CONTROL STRUCTURE
—	HEADWALL/ENDWALL
●	MANHOLE

## DEMOLITION LEGEND

○	TREE PROTECTION FENCE
×	REMOVE TREE
—	REMOVE FENCE
—	LIMIT OF DISTURBANCE
—	ASPHALT REMOVAL

## GRADING LEGEND

— 40 —	MAJOR CONTOUR
— 41 —	MINOR CONTOUR
+37.86	SPOT ELEVATION
2%	SLOPES

## SITE LEGEND

—	PROPOSED ASPHALT PAVING
—	6" HIGH CHAIN LINK FENCE
—	RETENTION BASIN AREA
—	ADA ACCESSIBLE ROUTE
—	PROPOSED LAWN AREA
—	RAIL SPUR
—	BOLLARDS
—	STRIPING
—	BIKE RACK

## Approved Construction Plan

Name	Date
Planning	
Traffic	
Fire	

REV	BY	DATE	DESCRIPTION
LOCATION			838 SUNNYVALE DR., WILMINGTON, NC

TITLE WILMINGTON WALLBOARD PLANT  
PROPOSED INDUSTRIAL SIDETRACK &  
STORMWATER MANAGEMENT IMPROVEMENTS  
GENERAL NOTES & LEGENDS

DN			
DN	JAB	DATE 10/24/2019	DRAWING NUMBER
CHK	MJT	DATE 10/25/2019	G-100



530 Walnut Street  
Philadelphia, PA  
19106-3685  
o. 215.922.8080



SEABOARD COASTLINE RAILROAD  
 PARCEL ID R06400-022-006-000  
 ZONING - INDUSTRIAL  
 CURRENT LAND USE - INDUSTRIAL

VOPAK TERMINAL WILMINGTON, INC.  
 PARCEL ID R06400-001-003-000  
 ZONING - INDUSTRIAL  
 CURRENT LAND USE - VACANT

TRACT 1  
 26.975 ACRES  
 1,175,037.5 SF

CAMERON COMPANY, LTD  
 PARCEL ID R06500-007-001-000  
 ZONING - INDUSTRIAL  
 CURRENT LAND USE - VACANT

EXISTING BUILDING  
 238,165 SQ. FT.  
 HEIGHT OF BUILDING = 66.2'

SEABOARD COASTLINE RAILROAD  
 ZONING - INDUSTRIAL  
 CURRENT LAND USE - VACANT

SKYWAY INVESTMENTS, LLC  
 PARCEL ID R06500-006-014-000  
 ZONING - INDUSTRIAL  
 CURRENT LAND USE - INDUSTRIAL

BURNETTE ENTERPRISES OF WILM INC ETAL  
 PARCEL ID R06500-006-013-000  
 ZONING - INDUSTRIAL  
 CURRENT LAND USE - INDUSTRIAL

EXISTING LEGEND

STANDARD ABBREVIATIONS	STANDARD SYMBOLS
AC AIR CONDITIONER	⊕ OVERHEAD TRAFFIC SIGNAL LIGHT
BH BORE HOLE	⊖ POWER POLE
BSL BUILDING SETBACK LINE	— GUY WIRE
CI CURB INLET	⊖ POWER LINE
CMF CORRUGATED METAL PIPE	⊖ LP LIGHT POLE
CMF CONCRETE MONUMENT FND	⊖ ELECTRIC TRANSFORMER
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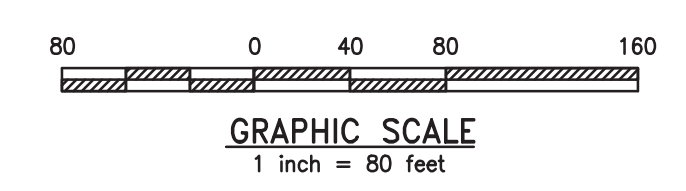
Approved Construction Plan

Name: \_\_\_\_\_ Date: \_\_\_\_\_

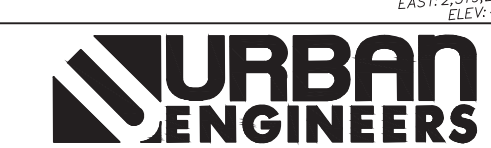
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REV	BY	DATE	DESCRIPTION
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TITLE WILMINGTON WALLBOARD PLANT PROPOSED INDUSTRIAL SIDETRACK & STORMWATER MANAGEMENT IMPROVEMENTS EXISTING CONDITIONS PLAN			
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 CURRENT LAND USE - INDUSTRIAL

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 PARCEL ID R06500-006-014-000  
 ZONING - INDUSTRIAL  
 CURRENT LAND USE - INDUSTRIAL

BURNETTE ENTERPRISES OF WILM INC ETAL  
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 ZONING - INDUSTRIAL  
 CURRENT LAND USE - INDUSTRIAL

EXISTING LEGEND

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SWCB SINGLE WING CATCH BASIN	
TRANS ELECTRIC TRANSFORMER	
— EXISTING RAIL	
— EXISTING TREELINE	
— EXISTING FENCE	

TREE INVENTORY NOTES:

- TREE SURVEY/INVENTORY CONDUCTED FOR PROJECT DISTURBANCE AREA ONLY AND ONLY INCLUDES REGULATED AND SIGNIFICANT TREES AS DEFINED IN SECTION 18-456 (a) AND (b).

PROPERTY ADDRESS & PARCEL ID:

838 SUNNYVALE DRIVE  
 WILMINGTON, NC 28412

PARCEL ID: R06400-001-002-000

PROPERTY OWNER:

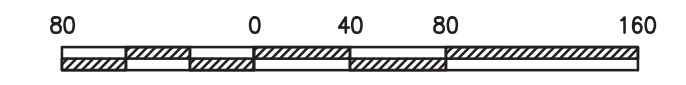
NATIONAL GYPSUM COMPANY  
 2001 REXFORD ROAD  
 CHARLOTTE, NC 28211

SITE DATA:

NUMBER OF BUILDINGS: 1  
 NUMBER OF FLOORS: 1  
 ROOF AREA: 238,165 SF  
 TRACT PROPERTY: 26.975 AC.  
 ZONED: INDUSTRIAL  
 CAMA LAND USE: URBAN

Approved Construction Plan

Planning	Name	Date
Traffic		
Fire		



GRAPHIC SCALE  
 1 inch = 80 feet

REV	BY	DATE	DESCRIPTION

LOCATION: 838 SUNNYVALE DR., WILMINGTON, NC  
 TITLE: WILMINGTON WALLBOARD PLANT  
 PROPOSED INDUSTRIAL SIDETRACK &  
 STORMWATER MANAGEMENT IMPROVEMENTS  
 TREE INVENTORY PLAN

DN	DATE	DRAWING NUMBER
JAB	10/24/2019	C-001
MAT	10/25/2019	

SEABOARD COASTLINE RAILROAD  
 ZONING - INDUSTRIAL  
 CURRENT LAND USE - VACANT



530 Walnut Street  
 Philadelphia, PA  
 19106-3685  
 o. 215.922.8080





EROSION AND SEDIMENT CONTROL GENERAL NOTES

1. LAND DISTURBING ACTIVITIES MUST BE MANAGED TO AVOID SEDIMENT RUN-OFF AND POLLUTION FROM CONSTRUCTION SITES
2. WHERE PERMITTED LOCALLY BY NEW HANOVER COUNTY, AN EROSION AND SEDIMENT (E&S) PLAN WILL CONTAIN DETAILS AND GUIDANCE. E&S PLANS ARE PERFORMANCE BASED AND OFTEN REQUIRE ADJUSTMENTS OR REPAIRS.
3. AS PERMITTED BY NC DEQ, DIVISIONS OF WATER QUALITY AND LAND RESOURCES, A STORMWATER PERMIT WILL REQUIRE SELF-MONITORING REPORTS (WEEKLY, >1" RAIN EVENT) OR SELF-INSPECTION REPORTS AFTER EACH CONSTRUCTION PHASE, BASED ON ELEMENTS OF THE E&S PLAN.
4. INLET PROTECTION SHOULD BE PROVIDED FOR ALL INLETS OWNED BY THE ENGINEERING DEPARTMENT OF WILMINGTON, NC THAT ARE LOCATED WITHIN ONE BLOCK OF THE PROJECT SITE. ALL INLETS NOT WITHIN THE PARCEL SHOULD BE CONSIDERED OWNED BY ENGINEERING DEPARTMENT OF WILMINGTON, NC.
5. THE CONTRACTOR IS RESPONSIBLE FOR ANY CLEANING OR REPAIRS NEEDED ON CITY-OWNED INFRASTRUCTURE DUE TO FAILURE OF ANY EROSION AND SEDIMENT CONTROL PRACTICES.
6. INSPECTION AND MAINTENANCE OF ALL EROSION AND SEDIMENT CONTROL BEST MANAGEMENT PRACTICES SHALL OCCUR ON A WEEKLY BASIS, BEFORE ANY ANTICIPATED PRECIPITATION EVENTS, AND AFTER ALL PRECIPITATION EVENTS BY THE CONTRACTOR.
7. THE MAXIMUM HEIGHT FOR STOCKPILES AREAS SHALL BE 35 FEET. THE MAXIMUM SIDE SLOPE FOR STOCKPILE AREAS SHALL NOT EXCEED 2:1.
8. THE ROCK CONSTRUCTION ENTRANCE THICKNESS SHALL BE CONSTANTLY MAINTAINED ON-SITE. A STOCKPILE SHALL BE MAINTAINED ON-SITE FOR THIS PURPOSE. AT THE END OF EACH CONSTRUCTION DAY, ALL SEDIMENT DEPOSITED ON PAVED ROADWAYS SHALL BE REMOVED AND RETURNED TO THE CONSTRUCTION SITE. IN NO CASE SHALL THE SEDIMENT BE WASHED, SHOVELED, OR SWEEPED INTO ANY ROADSIDE DITCH, STORM SEWER, OR SURFACE WATER.
9. SILT FENCE/CURLEX SEDIMENT LOG SHOULD BE INSTALLED AT LEVEL GRADE. BOTH ENDS OF EACH FENCE SECTION SHOULD BE EXTENDED AT LEAST 8 FEET UPSLOPE AT 45 DEGREES TO THE MAIN BARRIER ALIGNMENT. SUPPORT STAKES SHALL BE SPACED 6 FEET APART UNLESS A WIRE BACKING IS USED WITH 8 FOOT STAKE SPACING, OR BY APPROVED CONSTRUCTION DETAIL. SEDIMENT MUST BE REMOVED WHEN ACCUMULATIONS REACH 1/2 THE ABOVE GROUND HEIGHT OF THE FILTER FENCE.
10. ANY FENCE OR SEDIMENT LOG SECTION WHICH HAS BEEN UNDERMINED OR TOPPED MUST BE IMMEDIATELY REPLACED WITH A ROCK FILTER OUTLET. SEDIMENT MUST BE REMOVED WHEN ACCUMULATIONS REACH 1/3 THE HEIGHT OF THE OUTLET.
11. EROSION CONTROL BLANKETING SHALL BE INSTALLED ON ALL SLOPES 3H:1V OR STEEPER WITHIN 50 FEET OF A SURFACE WATER AND ON ALL OTHER DISTURBED AREAS SPECIFIED ON THE CONTRACT DOCUMENTS AND/OR DETAIL SHEETS.
12. IMMEDIATELY UPON DISCOVERING UNFORESEEN CIRCUMSTANCES POSING THE POTENTIAL FOR ACCELERATED EROSION AND/OR SEDIMENT POLLUTION, THE CONTRACTOR SHALL IMPLEMENT APPROPRIATE BEST MANAGEMENT PRACTICES TO MINIMIZE THE POTENTIAL FOR EROSION AND SEDIMENT POLLUTION AND NOTIFY THE ENGINEERING DEPARTMENT OF WILMINGTON, NC AND NC DEQ.
13. UNTIL THE SITE IS STABILIZED, ALL E&S BMPS SHALL BE MAINTAINED PROPERLY BY THE CONTRACTOR. MAINTENANCE SHALL INCLUDE INSPECTIONS OF ALL E&S BMPS PRIOR TO ANY ANTICIPATED STORM EVENT, AFTER EACH RUNOFF EVENT AND ON A WEEKLY BASIS. ALL PREVENTATIVE AND REMEDIAL MAINTENANCE WORK, INCLUDING CLEAN OUT, REPAIR, REPLACEMENT, REGRADING, RESEEDING, REMULCHING, AND RENETTING, MUST BE PERFORMED IMMEDIATELY. IF THE E&S BMPS FAIL TO PERFORM AS EXPECTED, REPLACEMENT BMPS, OR MODIFICATIONS OF THOSE INSTALLED, WILL BE REQUIRED.
14. ALL EARTH DISTURBANCES, INCLUDING CLEARING AND GRUBBING, AS WELL AS CUTS AND FILLS, SHALL BE DONE IN ACCORDANCE WITH THE APPROVED E&S PLAN. A COPY OF THE APPROVED DRAWINGS MUST BE AVAILABLE AT THE PROJECT SITE AT ALL TIMES. THE ENGINEERING DEPARTMENT OF WILMINGTON, NC SHALL BE NOTIFIED OF ANY CHANGES TO THE APPROVED PLAN PRIOR TO IMPLEMENTATION OF THOSE CHANGES BY THE CONTRACTOR. THE ENGINEERING DEPARTMENT OF WILMINGTON, NC MAY REQUIRE A WRITTEN SUBMITTAL OF THOSE CHANGES FOR REVIEW AND APPROVAL AT ITS DISCRETION.
15. AT LEAST SEVEN (7) DAYS PRIOR TO STARTING ANY EARTH DISTURBANCE ACTIVITIES, OR EXPANDING INTO AN AREA PREVIOUSLY UNMARKED, THE NORTH CAROLINA ONE CALL CENTER SHALL BE NOTIFIED AT 1-800-632-4949 FOR THE LOCATION OF EXISTING UNDERGROUND UTILITIES.
16. ALL EARTH DISTURBANCE ACTIVITIES SHALL PROCEED IN ACCORDANCE WITH THE SEQUENCE PROVIDED ON THE CONTRACT DRAWINGS. DEVIATION FROM THAT SEQUENCE MUST BE APPROVED IN WRITING BY THE ENGINEERING DEPARTMENT OF WILMINGTON, NC AND THE NC DEQ PRIOR TO IMPLEMENTATION.
17. AREAS TO BE FILLED ARE TO BE CLEARED, GRUBBED, AND STRIPPED OF TOPSOIL TO REMOVE TREES, VEGETATION, ROOTS, AND OTHER OBJECTIONABLE MATERIAL, DEFINED BY THE CONTRACT SPECIFICATIONS.
18. CLEARING, GRUBBING, AND TOPSOIL STRIPPING SHALL BE LIMITED TO THOSE AREAS DESCRIBED IN EACH STAGE OF THE CONSTRUCTION SEQUENCE. GENERAL SITE CLEARING, GRUBBING, AND TOPSOIL STRIPPING MAY NOT COMMENCE IN ANY STAGE OF THE PROJECT UNTIL THE E&S BMPS SPECIFIED BY THE BMP SEQUENCE FOR THAT STAGE HAVE BEEN INSTALLED AND ARE FUNCTIONING AS DESCRIBED IN THIS E&S PLAN.
19. AT NO TIME SHALL CONSTRUCTION VEHICLES BE ALLOWED TO ENTER AREAS OUTSIDE THE LIMIT OF DISTURBANCE BOUNDARIES SHOWN ON THE CONTRACT DOCUMENTS. THESE AREAS MUST BE CLEARLY MARKED AND FENCED OFF BEFORE CLEARING AND GRUBBING OPERATIONS BEGIN.
20. A LOG SHOWING DATES THAT E&S BMPS WERE INSPECTED AS WELL AS ANY DEFICIENCIES FOUND AND THE DATE THEY WERE CORRECTED SHALL BE MAINTAINED ON THE SITE BY THE CONTRACTOR AND BE MADE AVAILABLE TO THE ENGINEERING DEPARTMENT OF WILMINGTON, NC AT THE TIME OF INSPECTION.
21. ALL SEDIMENT REMOVED FROM BMPS SHALL BE DISPOSED OF AS DEFINED BY THE NPDES PERMIT, BY THE CONTRACTOR.

22. REFER TO CONTRACT SPECIFICATIONS AND CONTRACTOR DOCUMENT DETAILS FOR TOPSOIL AREA SCARIFICATION, SEEDING, MULCHING, AND TOPSOIL DEPTH REQUIREMENTS.
23. ALL FILLS SHALL BE COMPACTED AS REQUIRED TO REDUCE EROSION, SLIPPAGE, SETTLEMENT, SUBSIDENCE, OR OTHER RELATED PROBLEMS. FILL INTENDED TO SUPPORT BUILDINGS, STRUCTURES, AND CONDUITS, ETC. SHALL BE COMPACTED IN ACCORDANCE WITH LOCAL REQUIREMENTS OR CODES.
24. ALL EARTHEN FILLS SHALL BE PLACED IN COMPACTED LAYERS NOT TO EXCEED NINE INCHES IN THICKNESS.
25. FILL MATERIALS SHALL BE FREE OF FROZEN PARTICLES, BRUSH, ROOTS, SOD, OR OTHER FOREIGN OR OBJECTIONABLE MATERIALS, DEFINED BY THE CONTRACT SPECIFICATIONS, THAT WOULD INTERFERE WITH OR PREVENT CONSTRUCTION OF SATISFACTORY FILLS.
26. FROZEN MATERIALS OR SOFT, MUCKY, OR HIGHLY COMPRESSIBLE MATERIALS SHALL NOT BE INCORPORATED INTO FILLS.
27. FILL SHALL NOT BE PLACED ON SATURATED OR FROZEN SURFACES.
28. SEEPS OR SPRINGS ENCOUNTERED DURING CONSTRUCTION SHALL BE HANDLED IN ACCORDANCE WITH THE STANDARD AND SPECIFICATION FOR SUBSURFACE DRAIN OR OTHER APPROVED METHOD.
29. ALL GRADED AREAS SHALL BE PERMANENTLY STABILIZED IMMEDIATELY UPON REACHING FINISHED GRADE. CUT SLOPES IN COMPETENT BEDROCK AND ROCK FILLS NEED NOT BE VEGETATED. SEEDED AREAS WITHIN 50 FEET OF A SURFACE WATER, OR AS OTHERWISE SHOWN ON THE PLAN DRAWINGS, SHALL BE BLANKETED ACCORDING TO THE STANDARDS OF THIS PLAN.
30. IMMEDIATELY AFTER EARTH DISTURBANCE ACTIVITIES CEASE IN ANY AREA OR SUBAREA OF THE PROJECT, THE CONTRACTOR SHALL STABILIZE ALL DISTURBED AREAS. DURING NON-GERMINATING MONTHS, MULCH OR PROTECTIVE BLANKETING SHALL BE APPLIED AS DESCRIBED IN THE PLAN. AREAS NOT AT FINISHED GRADE, WHICH WILL BE REACTIVATED WITHIN ONE YEAR, MAY BE STABILIZED IN ACCORDANCE WITH THE TEMPORARY STABILIZATION SPECIFICATIONS. THOSE AREAS WHICH WILL NOT BE REACTIVATED WITHIN ONE YEAR SHALL BE STABILIZED IN ACCORDANCE WITH THE PERMANENT STABILIZATION SPECIFICATIONS.
31. PERMANENT STABILIZATION IS DEFINED AS A MINIMUM UNIFORM, PERENNIAL 70% VEGETATIVE COVER OR OTHER PERMANENT NON-VEGETATIVE COVER WITH A DENSITY SUFFICIENT TO RESIST ACCELERATED EROSION. CUT AND FILL SLOPES SHALL BE CAPABLE OF RESISTING FAILURE DUE TO SLUMPING, SLIDING, OR OTHER MOVEMENTS.
32. E&S BMPS SHALL REMAIN FUNCTIONAL AS SUCH UNTIL ALL AREAS TRIBUTARY TO THEM ARE PERMANENTLY STABILIZED OR UNTIL THEY ARE REPLACED BY ANOTHER BMP APPROVED BY THE ENGINEERING DEPARTMENT OF WILMINGTON, NC AND NC DEQ.
33. AFTER FINAL SITE STABILIZATION HAS BEEN ACHIEVED, TEMPORARY E&S BMPS MUST BE REMOVED OR CONVERTED TO PERMANENT POST-CONSTRUCTION STORMWATER MANAGEMENT PRACTICES. AREAS DISTURBED DURING REMOVAL OR CONVERSION OF THE E&S BMPS SHALL BE STABILIZED IMMEDIATELY. IN ORDER TO ENSURE RAPID REVEGETATION OF DISTURBED AREAS, SUCH REMOVAL/CONVERSIONS ARE TO BE DONE ONLY DURING THE GERMINATING SEASON.
34. SEDIMENT BASINS AND/OR TRAPS SHALL BE KEPT FREE OF ALL CONSTRUCTION WASTE, WASH WATER, AND OTHER DEBRIS HAVING POTENTIAL TO CLOG THE BASIN/TRAP OUTLET STRUCTURES AND/OR POLLUTE THE SURFACE WATERS. (WHEN APPLICABLE)
35. DURING CONSTRUCTION, THE SELECTED CONTRACTOR IS EXPECTED TO FOLLOW THE PCSMP APPROVED BY THE ENGINEERING DEPARTMENT OF WILMINGTON, NC. NO CHANGE OR DEVIATION FROM THE APPROVED PCSMP IS PERMITTED WITHOUT PRIOR APPROVAL FROM THE ENGINEERING DEPARTMENT OF WILMINGTON, NC.
36. ALL WORK ASSOCIATED WITH THE ENGINEERING DEPARTMENT OF WILMINGTON, NC WATER CONVEYANCE AND SEWER INFRASTRUCTURE SHALL BE DONE IN ACCORDANCE WITH THE WILMINGTON, NORTH CAROLINA "TECHNICAL STANDARDS AND SPECIFICATIONS MANUAL", 2007 EDITION, AND WILMINGTON, NORTH CAROLINA STANDARD DETAILS.
37. CONTACT THE ENGINEERING DEPARTMENT OF WILMINGTON, NC (212 OPERATIONS CENTER DRIVE, PHONE: 910-341-7807) FOR ADDITIONAL APPROVALS AND PERMITS REQUIRED FOR ALL WATER SERVICES, METERS, AND CONNECTIONS TO THE EXISTING AND/OR PROPOSED THE ENGINEERING DEPARTMENT OF WILMINGTON, NC FACILITIES.
38. ALL BUILDING MATERIALS AND WASTES SHALL BE REMOVED FROM THE SITE AND RECYCLED OR DISPOSED OF IN ACCORDANCE WITH THE NC DEQ'S SOLID WASTE MANAGEMENT REGULATIONS AT 15A NCAC 13. NO BUILDING MATERIALS OR WASTES OR UNUSED BUILDING MATERIALS SHALL BE BURNED, BURIED, DUMED, OR DISCHARGED AT THE SITE.
39. THE ENGINEERING DEPARTMENT OF WILMINGTON, NC INFRASTRUCTURE SHALL BE RESTORED TO THE ENGINEERING DEPARTMENT OF WILMINGTON, NC STANDARDS AT PRIVATE COST.

SOIL INFORMATION FOR NEW HANOVER COUNTY

1. THE SOIL INFORMATION FOR THIS PROJECT WAS OBTAINED FROM THE U.S. DEPARTMENT OF AGRICULTURE, NATURAL RESOURCES CONSERVATION SERVICE WEB SOIL SURVEY ON JUNE 19, 2019.
2. THE SOIL SURVEY INDICATES THAT THE SOILS ENCOMPASSING THE PROJECT AREA ARE BAYMEADE FINE SAND (BE), BORROW PITS (BP), KUREB SAND (KR), LEON SAND (LE), LYNN HAVEN FINE SAND (LY), AND URBAN LAND (UR).

COMPLIANCE WITH STATE AND LOCAL REQUIREMENTS

1. THE EROSION AND SEDIMENT POLLUTON CONTROL REPORT, APPLICATION DOCUMENTS, NARRATIVE(S), CONTRACT PLANS AND SPECIFICATIONS ARE ALL INCLUDED HERewith BY REFERENCE AS AN INTEGRAL PART OF THIS CONTRACT. ANY QUESTIONS, COMMENTS, APPROVAL CONDITIONS OR PERMIT REQUIREMENTS CONTAINED WITHIN A REGULATORY REVIEW LETTER (OR THE ENGINEER'S RESPONSE TO A REGULATORY REVIEW LETTER) FOR THIS PROJECT ARE HEREBY INCLUDED AS AN INTEGRAL PART OF THIS CONTRACT, AND THE CONTRACTOR SHALL FULLY COMPLY WITH ANY APPROVAL CONDITIONS OR PERMIT REQUIREMENTS AS IF THEY WERE INCLUDED HERewith IN THEIR FULL TEXT. COPIES OF ALL STATE AND LOCAL REGULATORY AGENCY REVIEWS, COMMENTS, APPROVAL CONDITIONS OR PERMIT REQUIREMENTS MAY BE OBTAINED THROUGH THE ENGINEER OR THE ENGINEERING DEPARTMENT OF WILMINGTON, NC OFFICE.

2. A COPY OF THE APPROVED EROSION AND SEDIMENT POLLUTION CONTROL PLANS MUST BE AVAILABLE AT THE CONSTRUCTION SITE AT ALL TIMES IN ACCORDANCE WITH STATE LAW.

UTILITY LINE TRENCH EXCAVATION NOTES

1. LIMIT CLEARING AND GRUBBING ACTIVITIES TO A DISTANCE EQUAL TO TWICE THE LENGTH PIPE THAT CAN BE INSTALLED IN ONE DAY. (WHERE APPLICABLE)
2. LIMIT DAILY TRENCH EXCAVATION TO THE LENGTH OF PIPE PLACEMENT, AND BACKFILLING THAT CAN BE COMPLETED THE SAME DAY.
3. SHOULD UNFORESEEN EROSION CONDITIONS DEVELOP DURING CONSTRUCTION, THE CONTRACTOR SHALL TAKE ACTION TO REMEDY SUCH CONDITIONS AND TO PREVENT DAMAGE TO ADJACENT AREAS AS A RESULT OF INCREASED RUNOFF AND/OR SEDIMENT DISPLACEMENT. STOCKPILES OF WOOD CHIPS, HAY BALES, CRUSHED STONE AND SEDIMENT FILTER LOGS SHALL BE HELD IN READINESS TO DEAL IMMEDIATELY WITH EMERGENCY PROBLEMS OR EROSION.

Approved Construction Plan		
Name	Date	
Planning		
Traffic		
Fire		

REV	BY	DATE	DESCRIPTION
LOCATION 838 SUNNYVALE DR., WILMINGTON, NC			
TITLE WILMINGTON WALLBOARD PLANT PROPOSED INDUSTRIAL SIDETRACK & STORMWATER MANAGEMENT IMPROVEMENTS EROSION & SEDIMENT CONTROL - NOTES 1			
DN	JAB	DATE 10/24/2019	DRAWING NUMBER
CHK	MAT	DATE 10/25/2019	C-201



**MAINTENANCE PROGRAM FOR SEDIMENT AND EROSION CONTROLS**

- ALL EROSION AND SEDIMENT CONTROL MEASURES 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.
- 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. IMMEDIATELY REMOVE OBJECTIONABLE MATERIAL SPILLED, WASHED OR TRACKED ONTO THE CONSTRUCTION ENTRANCE OR ROADWAYS.
- SEDIMENT WILL BE REMOVED FROM HARDWARE CLOTH AND GRAVEL INLET PROTECTION, BLOCK AND GRAVEL INLET PROTECTION, ROCK DROUGHTNUT 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 DRAINS 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 WATTLES, BEAVER DAMN, DANDY SACKS AND SOCKS ONCE A WEEKS AND AFTER EVERY RAIN EVENT.
- DIVERSION DITCHES WILL BE CLEANED OUT IMMEDIATELY TO REMOVE SEDIMENT OR OBSTRUCTIONS FROM THE FLOW AREA. THE DIVERSION RIDGES WILL ALSO BE REPAIRED. SWALES MUST BE TEMPORARILY STABILIZED WITHIN 21 CALENDAR DAYS OF CEASE OF ANY PHASE OF ACTIVITY ASSOCIATED WITH A SWALE.
- 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 STANDARD STRENGTH FABRIC AND WIRE BACKING ARE USED. IF ROCK FILTERS ARE DESIGNED AT LOW POINTS 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.
- ALL SEEDED AREAS WILL BE FERTILIZED, RESEEDED AS NECESSARY AND MULCHED ACCORDING TO SPECIFICATIONS IN THE VEGETATIVE PLAN TO MAINTAIN A VIGOROUS, DENSE VEGETATIVE COVER. ALL SLOPES WILL BE STABILIZED WITHIN 21 CALENDAR DAYS. ALL OTHER AREAS WILL BE STABILIZED WITHIN 15 WORKING DAYS.
- FLOCCULANTS WILL BE USED TO ADDRESS TURBIDITY ISSUES. THE PUMPS, TANKS, HOSES AND INJECTION SYSTEMS WILL BE CHECKED FOR PROBLEMS OR TURBID DISCHARGES DAILY.

THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING ALL EROSION CONTROL FACILITIES DURING CONSTRUCTION. ALL DAMAGED FACILITIES WILL BE REPAIRED WITHIN 24 HOURS. THE CONTRACTOR WILL NOT REMOVE ANY CONTROL FACILITY UNTIL DIRECTED BY THE ENGINEER. MATERIALS USED FOR EROSION CONTROL WILL BE DISPOSED OF OFF-SITE WHEN REMOVED. SUCH MATERIALS ARE CONSIDERED PROPERTY OF THE CONTRACTOR.

**ROCK CONSTRUCTION ENTRANCE:**

- THE STRUCTURE'S THICKNESS WILL BE CONSTANTLY MAINTAINED TO THE SPECIFIED DIMENSIONS BY ADDING ROCK. A STOCKPILE OF ROCK MATERIAL WILL BE MAINTAINED ON THE SITE FOR THIS PURPOSE.
- AT THE END OF EACH CONSTRUCTION DAY, ALL SEDIMENT DEPOSITED ON PUBLIC ROADWAYS WILL BE REMOVED BY USE OF A VACUUM TYPE ROAD SWEEPER AND RETURNED TO THE CONSTRUCTION SITE.

**CURLEX SEDIMENT LOG:**

- THE LOG INSTALLATION SHALL BE INSPECTED WEEKLY, BEFORE ANY ANTICIPATED PRECIPITATION EVENT, AND AFTER ALL PRECIPITATION EVENTS. ANY NECESSARY REPAIRS WILL BE MADE IMMEDIATELY.
- ACCUMULATED SEDIMENTS SHALL BE REMOVED AS REQUIRED TO KEEP THE SOCK FUNCTIONAL. IN ALL CASES REMOVE DEPOSITS WHERE ACCUMULATIONS REACH 1/2 THE ABOVE-GROUND HEIGHT OF THE LOG.
- ALL UNDERCUTTING OR EROSION OF THE TOE ANCHOR WILL BE REPAIRED IMMEDIATELY WITH COMPACTED BACKFILL MATERIALS.

**SOIL STOCKPILES:**

- INSPECT SOIL STOCKPILES MONTHLY.
- RESEED TO ESTABLISH GRASS COVER.

**STANDARD SEQUENCE OF CONSTRUCTION NOTES**

FOLLOWING IS A SCHEDULE OF EARTHMOVING/CONSTRUCTION ACTIVITIES AND INSTALLATION OF CONTROL MEASURES AND FACILITIES. ALL EROSION AND SEDIMENTATION CONTROLS SHALL BE INSTALLED AT THE LOCATIONS SHOWN ON THE PLANS. THEY SHALL BE CONSTRUCTED ACCORDING TO THE DETAILS AND MAINTAINED AS INSTRUCTED ON THE DETAILS AND WITHIN THIS EROSION & SEDIMENTATION CONTROL PLAN.

ALL EXISTING DRAINAGE FACILITIES DIRECTLY UPSTREAM AND DOWNSTREAM OF THE PROJECT SITE WILL BE PROTECTED AND MAINTAINED. ALL EXISTING DRAINAGE FACILITIES WITHIN THE PROJECT LIMITS WILL BE PROTECTED DURING CONSTRUCTION AS OUTLINED IN THE E&S CONTROL PLANS. EXISTING SITE DRAINAGE WILL BE MAINTAINED AT ALL TIMES DURING AND AFTER CONSTRUCTION. EXISTING DRAINAGE FACILITIES ON THE SITE TO BE DEMOLISHED WILL BE REPLACED IN SEQUENCE AND CONSTRUCTED IN ACCORDANCE WITH THE CONTRACT DRAWINGS.

- PROVIDE WRITTEN NOTIFICATION (10 DAYS PRIOR TO ANTICIPATED START DATE) TO THE NC DEQ AND THE ENGINEERING DEPARTMENT OF WILMINGTON, NC THAT WORK IS SCHEDULED TO BEGIN. AT LEAST 7 DAYS BEFORE STARTING ANY EARTH DISTURBANCE ACTIVITIES, THE OWNER SHALL INVITE ALL CONTRACTORS INVOLVED IN THE PROPOSED ACTIVITIES, ALL APPROPRIATE MUNICIPAL OFFICIALS, THE EROSION AND SEDIMENTATION CONTROL PLAN PREPARER, AND A REPRESENTATIVE OF THE NORTH CAROLINA DEPARTMENT OF ENVIRONMENTAL QUALITY (NC DEQ) TO AN ON-SITE PRE-CONSTRUCTION MEETING.
- AT LEAST SEVEN (7) DAYS PRIOR TO ANY EARTH DISTURBANCE, THE INSPECTIONS COORDINATOR OF THE ENGINEERING DEPARTMENT OF WILMINGTON, NC (OFFICE: 910-341-7807) MUST BE CALLED TO SCHEDULE A PRECONSTRUCTION MEETING.
- AT LEAST 3 DAYS BEFORE STARTING ANY EARTH DISTURBANCE ACTIVITIES, ALL CONTRACTORS INVOLVED IN THOSE ACTIVITIES SHALL NOTIFY THE NORTH CAROLINA ONE CALL SYSTEM INC. AT 1-800-632-4949 FOR BURIED UTILITIES LOCATION.
- AT LEAST THREE (3) DAYS PRIOR TO INFILTRATION BASIN INSTALLATION, THE INSPECTIONS COORDINATOR OF THE ENGINEERING DEPARTMENT OF WILMINGTON, NC. MUST BE CALLED TO SCHEDULE AN INSPECTION (FOR EACH SMP). A LICENSED PROFESSIONAL OR DESIGNED SHALL BE PRESENT ON SITE DURING THE INSTALLATION OF THE STORMWATER BMPs.
- BEFORE IMPLEMENTING ANY REVISIONS TO THE APPROVED EROSION & SEDIMENTATION CONTROL PLAN OR REVISIONS TO OTHER PLANS WHICH MAY AFFECT THE EFFECTIVENESS OF THE APPROVED EROSION & SEDIMENTATION CONTROL PLAN, THE OWNER MUST RECEIVE THE APPROVAL OF THE NC DEQ. THE ENGINEERING DEPARTMENT OF WILMINGTON, NC APPROVAL MUST ALSO BE RECEIVED BEFORE ANY CONSIDERABLE DEVIATIONS FROM THE

APPROVED E&S PLAN ARE IMPLEMENTED. SHOULD THE CONTRACTOR WISH TO IMPLEMENT CHANGES, THE CONTRACTOR MUST PREPARE REVISED E&S PLANS FOR REVIEW AND APPROVAL BY THE OWNER/ENGINEER AND THEN SUBMIT TO APPROPRIATE AGENCIES FOR REGULATORY APPROVAL.

- THE CONTRACTOR IS ADVISED THAT THE OWNER HAS DETERMINED THAT ALL EXCAVATED MATERIALS ARE TO REMAIN ON-SITE.
- THE CONTRACTOR SHALL SWEEP (USING A VACUUM TRUCK) LOCAL ROADWAY PAVEMENT DAILY AND RETURN SEDIMENT TO WORK AREAS.
- UPON COMPLETION OF ALL EARTH DISTURBANCE ACTIVITIES AND PERMANENT STABILIZATION OF ALL DISTURBED AREAS, THE OWNER AND/OR OPERATOR SHALL CONTACT INSPECTIONS COORDINATOR OF THE ENGINEERING DEPARTMENT OF WILMINGTON, NC (OFFICE: 910-341-7807) FOR A FINAL INSPECTION PRIOR TO REMOVAL/CONVERSION OF THE E&S BMPs.
- AS SOON AS SLOPES, CHANNELS, DITCHES, AND OTHER DISTURBED AREAS REACH FINAL GRADE, THEY MUST BE STABILIZED. CESSATION OF ACTIVITY FOR FOUR (4) DAYS OR LONGER REQUIRES TEMPORARY STABILIZATION.
- THE NPDES NOTICE OF TERMINATION (N.O.T.) MUST BE SUBMITTED BY THE OWNER/HOLDER OF THE PERMIT TO NC DEQ UPON COMPLETION OF CONSTRUCTION FOR THE NPDES PHASE ASSOCIATED WITH THE NATIONAL GYPSUM SITE IMPROVEMENTS.
- WATER PUMPED FROM WORK AREAS SHOULD BE TREATED FOR SEDIMENT REMOVAL PRIOR TO DISCHARGING TO A 'SURFACE WATER' (WHEN APPLICABLE).

**SEQUENCE OF CONSTRUCTION**

BEFORE IMPLEMENTING, ANY REVISIONS TO THE APPROVED POST CONSTRUCTION STORMWATER MANAGEMENT PLAN OR REVISIONS TO OTHER PLANS THAT MAY AFFECT THE EFFECTIVENESS OF THE APPROVED POST CONSTRUCTION STORMWATER MANAGEMENT PLAN, THE CONTRACTOR SHALL RECEIVE THE WRITTEN APPROVAL OF THE ENGINEERING DEPARTMENT OF WILMINGTON, NC.

AFTER THE COMPLETION OF THE INITIAL INSPECTION COORDINATION WITH THE ENGINEERING DEPARTMENT OF WILMINGTON, NC (AS INDICATED ABOVE) THE FOLLOWING CONSTRUCTION SEQUENCE CAN OCCUR IN THE FOLLOWING ORDER:

- INSTALL SITE EROSION AND SEDIMENT (E&S) CONTROL BMPs IN ACCORDANCE WITH THE E&S STANDARD SEQUENCE OF CONSTRUCTION NOTE.
- CLEAR AND GRUB SITE.
- INSTALL ORANGE SAFETY FENCE AROUND PROPOSED RETENTION BASIN. BASIN FOOTPRINT TO BE PROTECTED DURING NON-BASIN CONSTRUCTION ACTIVITIES TO AVOID SOIL COMPACTION.
- EXCAVATE TO RAIL SUB-BASE ELEVATIONS. INSTALL IMPERMEABLE GEOTEXILE LAYER.
- PERFORM RAIL INSTALLATION CONSTRUCTION SEQUENCING.
- UPON FINALIZING RAIL SPUR CONSTRUCTION, GRADE AND INSTALL HARD SURFACES.
- GRADE RETENTION BASINS TO BOTTOM OF BASIN GRADES, INSTALL OUTLET CONTROL STRUCTURE.
- TRENCH AND INSTALL CONVEYANCE PIPING.
- UPON COMPLETION OF ALL SMPs AND PERMANENT STABILIZATION OF ALL DISTURBED AREAS, THE OWNER AND/OR OPERATOR SHALL CONTACT THE INSPECTIONS COORDINATOR OF THE ENGINEERING DEPARTMENT OF WILMINGTON, NC (OFFICE: 910-341-7807) FOR A FINAL INSPECTION, PRIOR TO REMOVAL/CONVERSION OF THE E&S BMPs.

NOTE: ALL EXISTING DRAINAGE FACILITIES DIRECTLY UPSTREAM AND DOWNSTREAM OF THE PROJECT SITE WILL BE PROTECTED AND MAINTAINED. WHERE APPLICABLE, EXISTING SITE DRAINAGE WILL BE MAINTAINED AT ALL TIMES DURING AND AFTER CONSTRUCTION. EXISTING DRAINAGE FACILITIES ON THE SITE TO BE DEMOLISHED WILL BE REPLACED IN SEQUENCE AND CONSTRUCTED IN ACCORDANCE WITH THE CONTRACT DRAWINGS.

**Temporary Seeding Recommendations**

Late Winter & Early Spring

Seeding mixture	Species	Rate (lb/acre)	(lb/1000 ft <sup>2</sup> )
	Rye (grain)	120	2.75
	Annual lespedeza (Kobe in Piedmont and Coastal Plain, Korean in Mountains)	30	1.15

Annual lespedeza when duration to temporary cover is not to extend beyond June.

Soil amendments: Apply lime and fertilizer according to soil tests, or apply 2,000 lb/acre (45.9 lb/1000sq ft) ground agricultural limestone (use the lower rate on sandy soils) and 750 lb/acre (17.2 lb/1000sq ft) 10-10-10 fertilizer.

Mulch: Apply 4,000 lb/acre (91.83 lb/1000sq ft) straw. Anchor straw by tacking with asphalt, netting, or a mulch anchoring tool. A disk with blades set nearly straight can be used as a mulch anchoring tool.

Maintenance: Refertilize if growth is not fully adequate. Reseed, refertilize and mulch immediately following erosion or other damage.

Summer

Seeding mixture	Species	Rate (lb/acre)	(lb/1000 ft <sup>2</sup> )
	German Millet	40	0.92

In the Piedmont and Mountains, a small-stemmed Sudangrass may be substituted at a rate of 50 lb/acre.

Fall

Seeding mixture	Species	Rate (lb/acre)	(lb/1000 ft <sup>2</sup> )
	Rye (grain)	120	2.75

Soil amendments: Follow recommendations of soil test or apply 2,000 lb/acre (45.9 lb/1000sq ft) ground agricultural limestone and 750 lb/acre (17.2 lb/1000sq ft) 10-10-10 fertilizer.

Mulch: Apply 4,000 lb/acre (91.83 lb/1000sq ft) straw. Anchor straw by tacking with asphalt, netting, or a mulch anchoring tool. A disk with blades set nearly straight can be used as a mulch anchoring tool.

Maintenance: Refertilize if growth is not fully adequate. Reseed, refertilize and mulch immediately following erosion or other damage.

Fall & Early Spring

Seeding mixture	Species	Rate (lb/acre)	(lb/1000 ft <sup>2</sup> )
	Tall fescue	80	1.84
	Pensacola Bahiagrass	50	1.15
	sericea lespedeza	30	0.69
	Kobe lespedeza	10	0.23

Late Spring & Early Summer

Seeding mixture	Species	Rate (lb/acre)	(lb/1000 ft <sup>2</sup> )
	Pensacola Bahiagrass	50	1.15
	Sericea lespedeza	30	0.69
	Common Bermudagrass	10	0.23
	German millet	10	0.23

Soil amendments: Apply lime and fertilizer according to soil tests, or apply 3,000-5,000 lb/acre (68.9-114.8 lb/1000sq ft) ground agricultural limestone (use the lower rate on sandy soils) and 1,000 lb/acre (22.5 lb/1000sq ft) 10-10-10 fertilizer.

Mulch: Apply 4,000 lb/acre (91.83 lb/1000sq ft) grain straw or equivalent cover of another suitable mulch. Anchor straw by tacking with asphalt, netting, or riving or by crimping with a mulch anchoring tool. A disk with blades set nearly straight can be used as a mulch anchoring tool.

Maintenance: If growth is less than fully adequate, refertilize in the second year, according to soil tests of topdress with 500 lb/acre (11.5 lb/1000sq ft) 10-10-10 fertilizer. Mow as needed when sericea is omitted from the mixture. Reseed, fertilize, and mulch damaged areas immediately.

Soil amendments: Apply lime and fertilizer according to soil test, or apply 3,000 lb/acre (68.9 lb/1000sq ft) ground agricultural limestone and 500 lb/acre (11.5 lb/1000sq ft) 10-10-10 fertilizer.

Mulch: Apply 4,000 lb/acre (91.83 lb/1000sq ft) grain straw or equivalent cover of another suitable mulch. Anchor straw by tacking with asphalt, netting, or riving or by crimping with a mulch anchoring tool. A disk with blades set nearly straight can be used as a mulch anchoring tool.

Maintenance: Refertilize the following April with 50 lb/acre (1.15lb/1000sq ft) nitrogen. Repeat as growth requires. May be mowed only once a year. Where a neat appearance is desired, omit sericea and mow as often as needed.

Soil amendments: Follow recommendations of soil test or apply 2,000 lb/acre (45.9 lb/1000sq ft) ground agricultural limestone and 750 lb/acre (17.2 lb/1000sq ft) 10-10-10 fertilizer.

Mulch: Apply 4,000 lb/acre (91.83 lb/1000sq ft) straw. Anchor straw by tacking with asphalt, netting, or a mulch anchoring tool. A disk with blades set nearly straight can be used as a mulch anchoring tool.

Maintenance: Repair and refertilize damaged areas immediately. Topdress with 50 lb/acre (1.15 lb/1000sq ft) of nitrogen in March. If necessary to extend temporary cover beyond June 15, overseed with 50 lb/acre (1.15 lb/1000sq ft) Kobe (Piedmont and Coastal Plain) or Korean (Mountains) lespedeza in late February or early March.

Soil amendments: Apply lime and fertilizer according to soil tests, or apply 3,000-5,000 lb/acre (68.9-114.8 lb/1000sq ft) ground agricultural limestone (use the lower rate on sandy soils) and 1,000 lb/acre (22.5 lb/1000sq ft) 10-10-10 fertilizer.

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Maintenance: Refertilize if growth is not fully adequate. Reseed, refertilize and mulch immediately following erosion or other damage.

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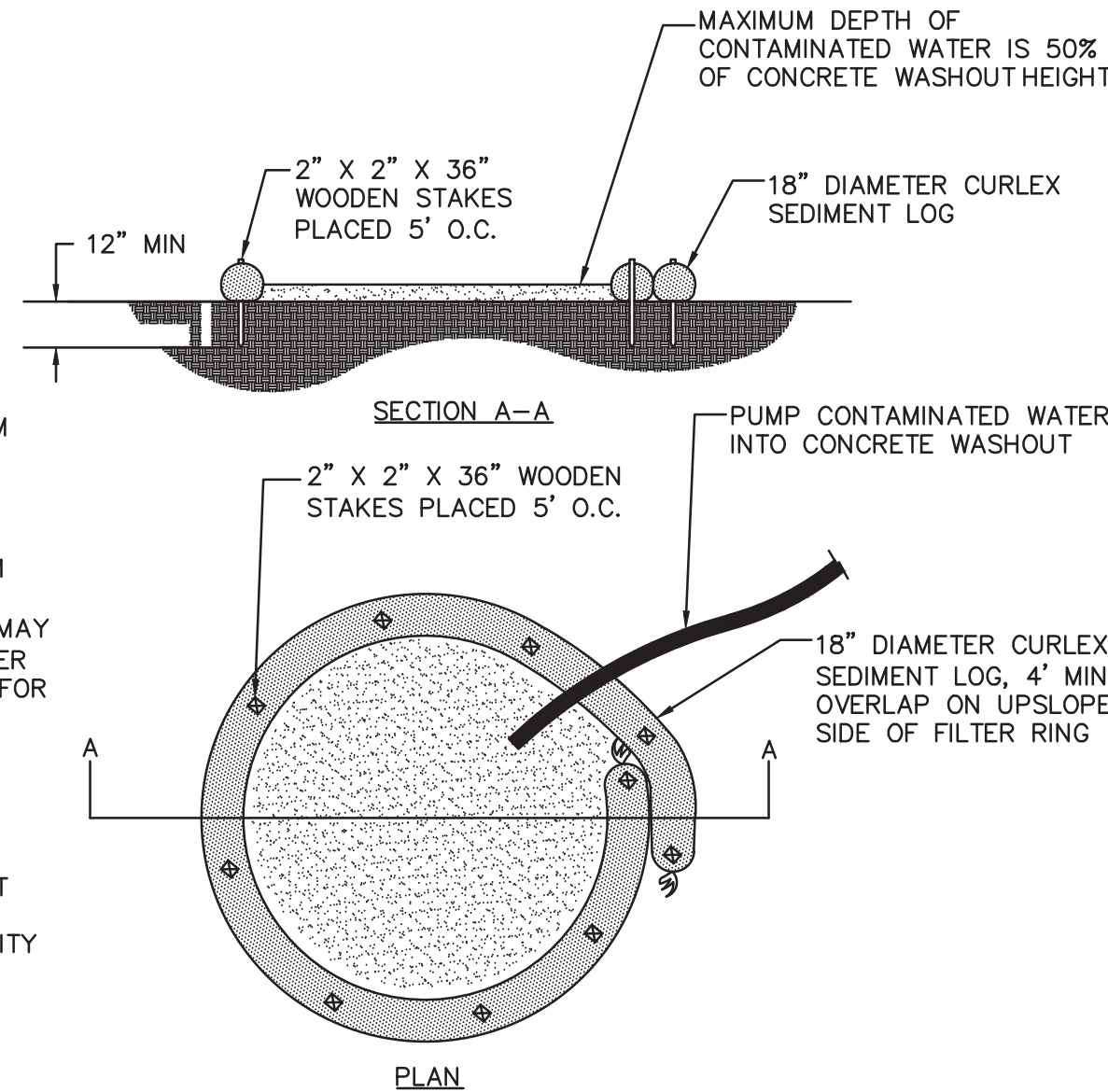
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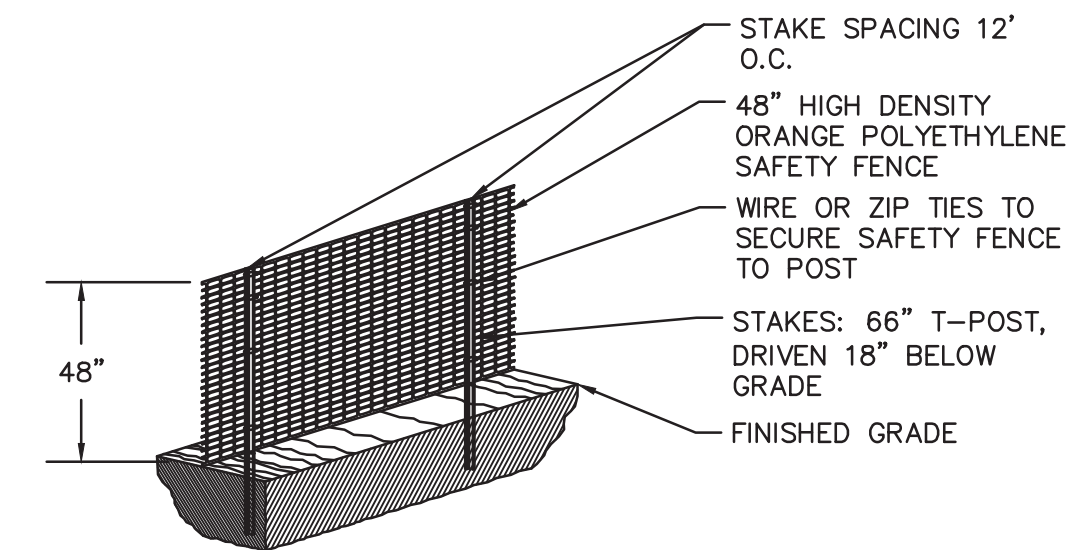
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- INSTALLATION NOTES:**
1. PLACE GEOTEXTILE, CLASS 2, TYPE A BENEATH THE AREA OF THE WASHOUT.
  2. STAKE CURLEX SEDIMENT LOGS IN A MANNER RECOMMENDED BY THE MANUFACTURER AROUND THE PERIMETER OF THE GEOTEXTILE SO AS TO FORM A RING WITH THE ENDS OF THE LOG LOCATED AT THE UPSLOPE CORNER.
  3. ENSURE LOG MAINTAINS CONTINUOUS CONTACT WITH GEOTEXTILE AT ALL LOCATIONS.
  4. LOGS MAY BE STAKED SO AS TO FORM A TRIANGULAR CROSS SECTION.

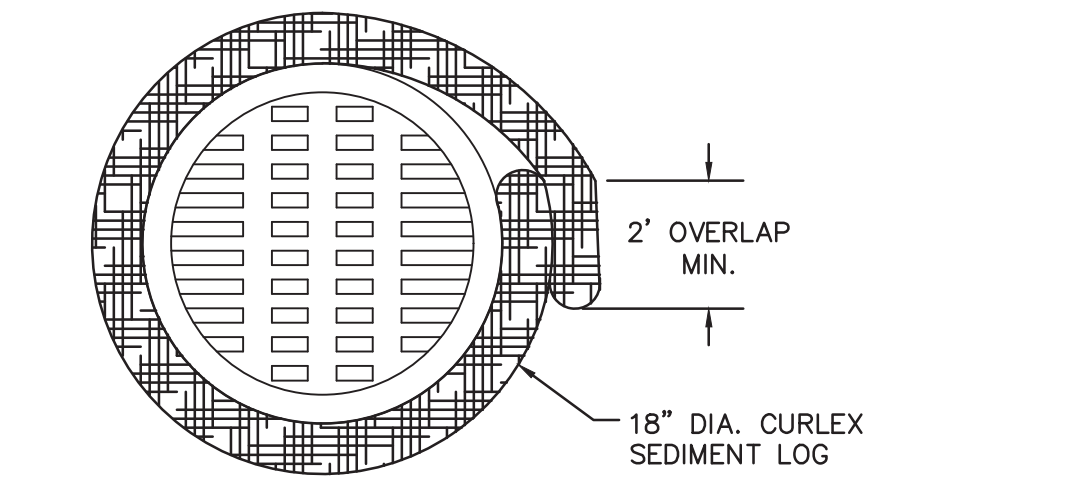
- NOTES:**
1. INSTALL ON FLAT GRADE FOR OPTIMUM PERFORMANCE.
  2. 18" DIAMETER CURLEX SEDIMENT LOG MAY BE STAKED ONTO DOUBLE 24" DIAMETER SOCKS IN PYRAMIDAL CONFIGURATION FOR ADDED HEIGHT.
  3. WASHOUT FACILITIES SHOULD NOT BE PLACED WITHIN 50 FEET OF STORM DRAINS, OPEN DITCHES OR SURFACE WATERS.
  4. WHERE POSSIBLE, WASHOUT FACILITIES SHOULD BE LOCATED ON A SLOPE NOT EXCEEDING A 2% GRADE.
  5. NO DIRECT DISCHARGE TO RIVER OR CITY SEWERS ALLOWED.



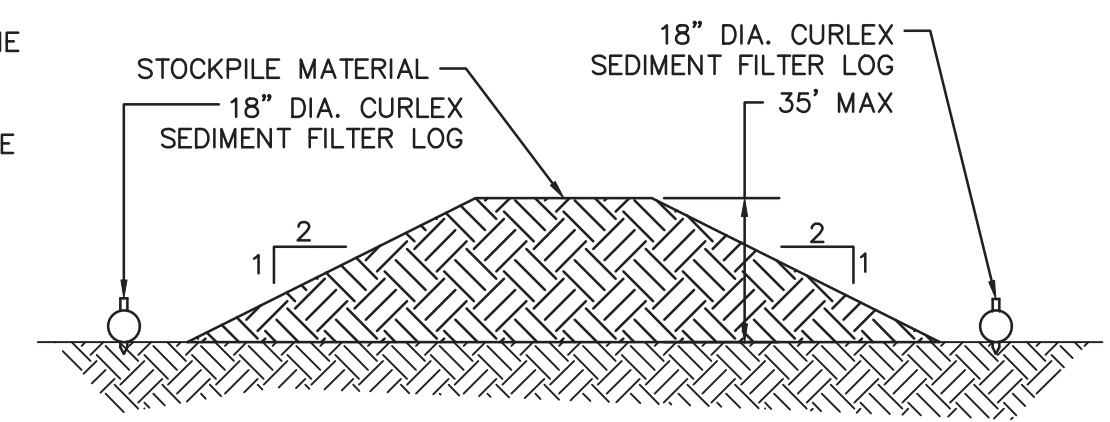
**CONCRETE WASHOUT FACILITY DETAIL**  
NOT TO SCALE



**ORANGE CONSTRUCTION FENCE**  
NOT TO SCALE



**TYPICAL COMPOST SOCK WASHOUT INSTALLATION**  
NOT TO SCALE

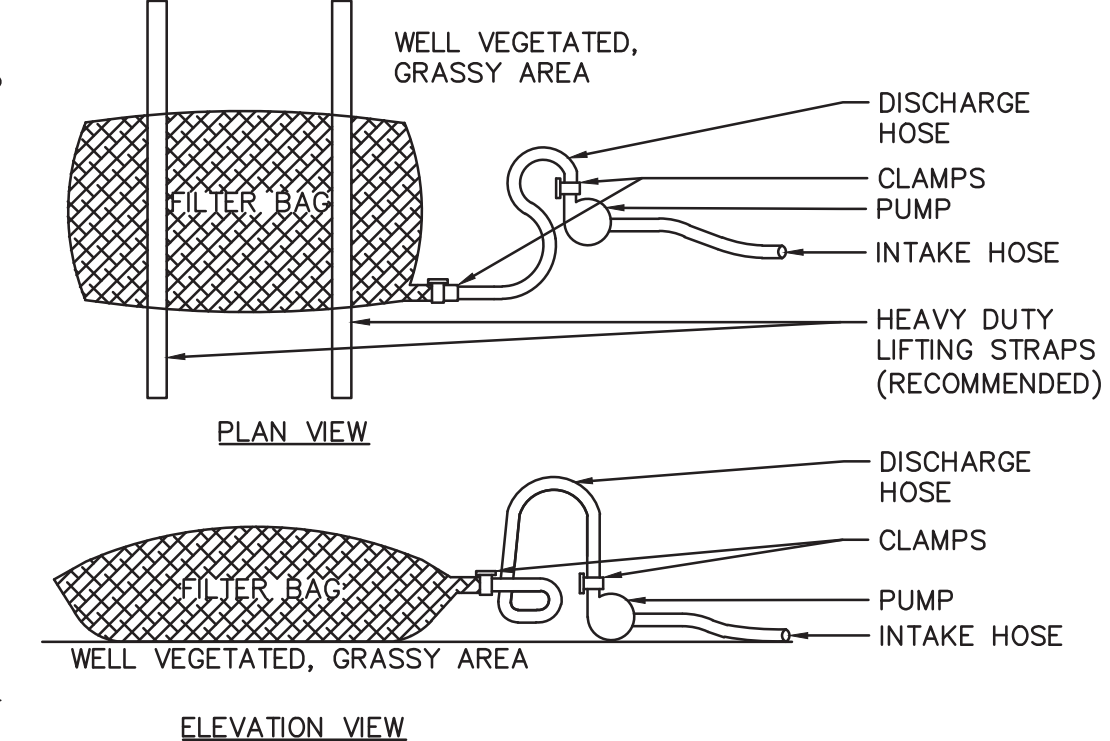


**SOIL STOCKPILE AREA**  
NOT TO SCALE

- NOTES:**
- 1.) LOW VOLUME FILTER BAGS SHALL BE MADE FROM NON-WOVEN GEOTEXTILE MATERIAL SEWN WITH HIGH STRENGTH, DOUBLE STITCHED "J" TYPE SEAMS. THEY SHALL BE CAPABLE OF TRAPPING PARTICLES LARGER THAN 150 MICRONS. HIGH VOLUME FILTER BAGS SHALL BE MADE FROM WOVEN GEOTEXTILES THAT MEET THE FOLLOWING STANDARDS:

PROPERTY	TEST METHOD	MINIMUM STANDARD
AVG. WIDE WIDTH STRENGTH	ASTM D-4884	60 LB/IN
GRAB TENSILE	ASTM D-4632	205 LB
PUNCTURE	ASTM D-4833	110 LB
MULLEN BURST	ASTM D-3786	350 PSI
UV RESISTANCE	ASTM D-4355	70%
AOS % RETAINED	ASTM D-4751	80 SIEVE

- 2.) A SUITABLE MEANS OF ACCESSING THE BAG WITH MACHINERY REQUIRED FOR DISPOSAL PURPOSES SHALL BE PROVIDED. FILTER BAGS SHALL BE REPLACED WHEN THEY BECOME 1/2 FULL OF SEDIMENT. SPARE BAGS SHALL BE KEPT AVAILABLE FOR REPLACEMENT OF THOSE THAT HAVE FAILED OR ARE FILLED. BAGS SHALL BE PLACED ON STRAPS TO FACILITATE REMOVAL UNLESS BAGS COME WITH LIFTING STRAPS ALREADY ATTACHED.
- 3.) BAGS SHALL BE LOCATED IN WELL-VEGETATED (GRASSY) AREA, AND DISCHARGE ONTO STABLE, EROSION RESISTANT AREAS. WHERE THIS IS NOT POSSIBLE, A GEOTEXTILE UNDERLAYMENT AND FLOW PATH SHALL BE PROVIDED. BAGS MAY BE PLACED ON FILTER STONE TO INCREASE DISCHARGE CAPACITY. BAGS SHALL NOT BE PLACED ON SLOPES GREATER THAN 5%. FOR SLOPES EXCEEDING 5%, CLEAN ROCK OR OTHER NON-ERODIBLE AND NON-POLLUTING MATERIAL MAY BE PLACED UNDER THE BAG TO REDUCE SLOPE STEEPNESS.
- 4.) NO DOWNSLOPE SEDIMENT BARRIER IS REQUIRED FOR MOST INSTALLATIONS. COMPOST BERM OR COMPOST FILTER SOCK SHALL BE INSTALLED BELOW BAGS LOCATED IN HQ OR EV WATERSHEDS, WITHIN 50 FEET OF ANY RECEIVING SURFACE WATER OR WHERE GRASSY AREA IS NOT AVAILABLE.
- 5.) THE PUMP DISCHARGE HOSE SHALL BE INSERTED INTO THE BAGS IN THE MANNER SPECIFIED BY THE MANUFACTURER AND SECURELY CLAMPED. A PIECE OF PVC PIPE IS RECOMMENDED FOR THIS PURPOSE.
- 6.) THE PUMPING RATE SHALL BE NO GREATER THAN 750 GPM OR 1/2 THE MAXIMUM SPECIFIED BY THE MANUFACTURER, WHICHEVER IS LESS. PUMP INTAKES SHALL BE FLOATING AND SCREENED.
- 7.) FILTER BAGS SHALL BE INSPECTED DAILY. IF ANY PROBLEM IS DETECTED, PUMPING SHALL CEASE IMMEDIATELY AND NOT RESUME UNTIL THE PROBLEM IS CORRECTED.



**PUMPED WATER FILTER BAG**  
NOT TO SCALE

REV	BY	DATE	DESCRIPTION
1			

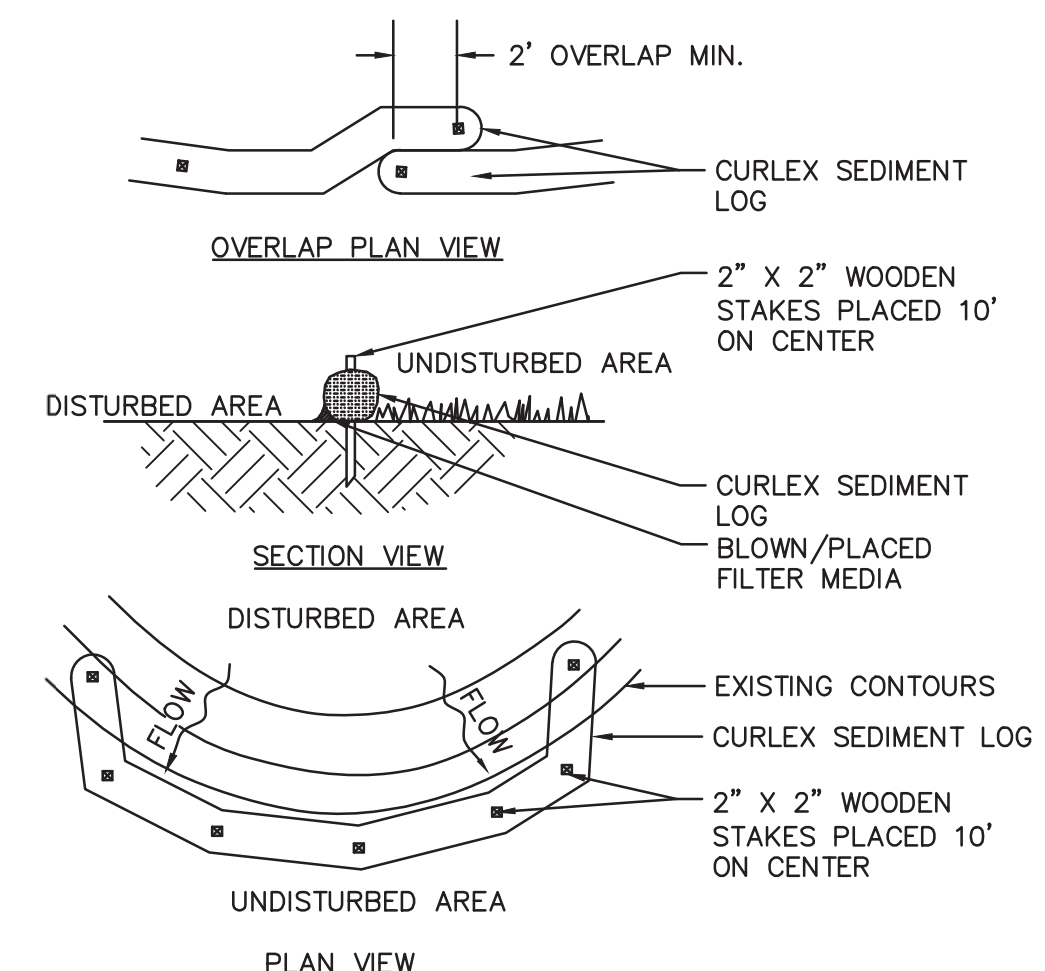
LOCATION: 838 SUNNYVALE DR., WILMINGTON, NC

TITLE: WILMINGTON WALLBOARD PLANT PROPOSED INDUSTRIAL SIDETRACK & STORMWATER MANAGEMENT IMPROVEMENTS EROSION & SEDIMENT CONTROL - DETAILS 1

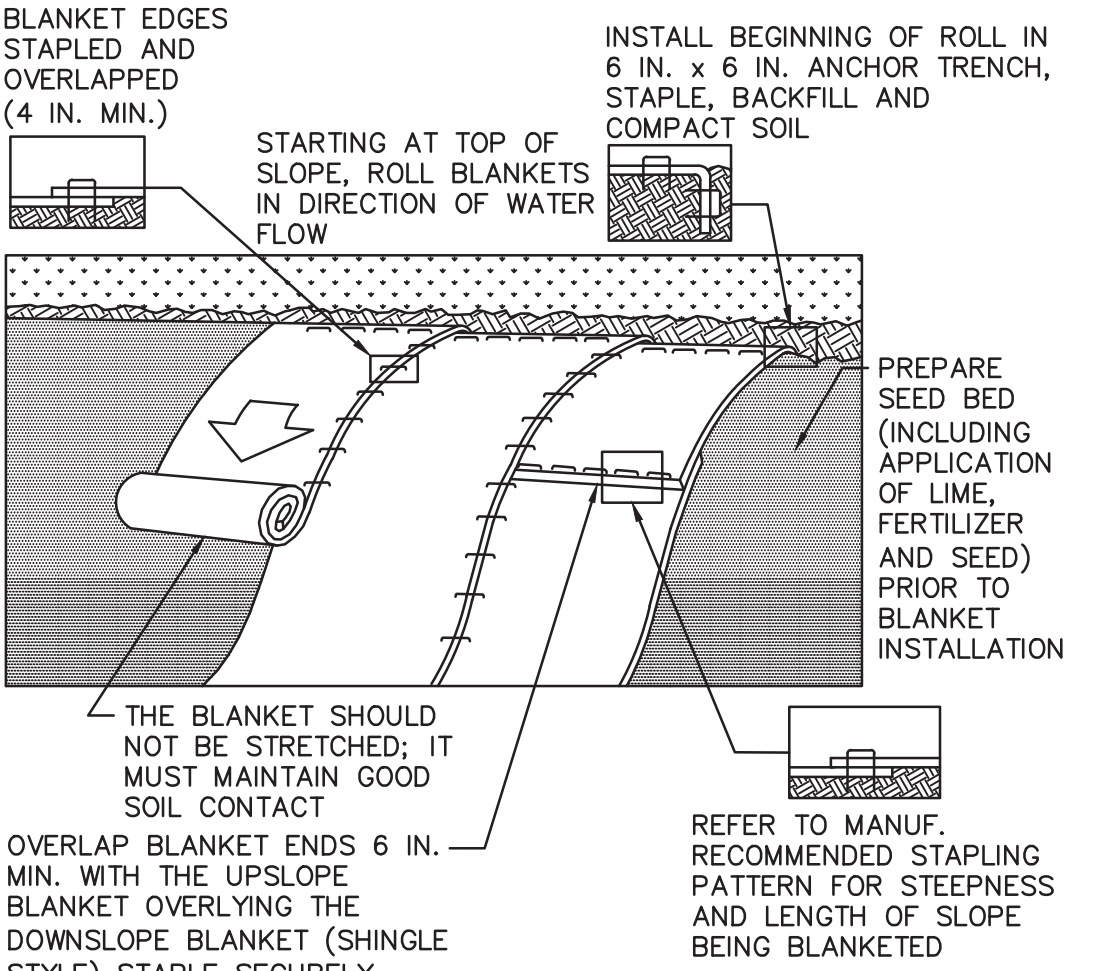
DATE: 10/24/2019  
DRAWING NUMBER: C-203

- NOTES:**
- 1.) SEDIMENT LOG SHALL MEET STANDARDS OF THE NORTH CAROLINA DEPARTMENT OF ENVIRONMENTAL QUALITY CONTROL MANUAL. COMPOST SHALL MEET THE STANDARDS OF NC DEQ EROSION AND SEDIMENT CONTROL PLANNING DESIGN AND MANUAL.
  - 2.) SEDIMENT LOG SHALL BE PLACED AT EXISTING LEVEL GRADE. BOTH ENDS OF THE BARRIER SHALL BE EXTENDED AT LEAST 8 FEET UP SLOPE AT 45 DEGREES TO THE MAIN BARRIER ALIGNMENT. MAXIMUM SLOPE LENGTH ABOVE ANY BARRIER SHALL NOT EXCEED THAT SPECIFIED FOR THE SIZE OF THE SOCK AND THE SLOPE OF ITS TRIBUTARY AREA.
  - 3.) TRAFFIC SHALL NOT BE PERMITTED TO CROSS SEDIMENT LOG.
  - 4.) ACCUMULATED SEDIMENT SHALL BE REMOVED WHEN IT REACHES 1/2 THE ABOVE GROUND HEIGHT OF THE BARRIER AND DISPOSED IN THE MANNER DESCRIBED ELSEWHERE IN THE PLAN.
  - 5.) COMPOST FILTER SOCKS SHALL BE INSPECTED WEEKLY AND AFTER EACH RUNOFF EVENT. DAMAGED SOCKS SHALL BE REPAIRED ACCORDING TO MANUFACTURER'S SPECIFICATIONS OR REPLACED WITHIN 24 HOURS OF INSPECTION.
  - 6.) BIODEGRADABLE COMPOST FILTER SOCKS SHALL BE REPLACED AFTER 6 MONTHS; PHOTODEGRADABLE SOCKS AFTER 1 YEAR. POLYPROPYLENE SOCKS SHALL BE REPLACED ACCORDING TO MANUFACTURER'S RECOMMENDATIONS.
  - 7.) UPON STABILIZATION OF THE AREA TRIBUTARY TO THE SOCK, STAKES SHALL BE REMOVED. THE SOCK MAY BE LEFT IN PLACE AND VEGETATED OR REMOVED. IN THE LATTER CASE, THE MESH SHALL BE CUT OPEN AND THE MULCH SPREAD AS A SOIL SUPPLEMENT.
  - 8.) OBJECTS OF CONSIDERABLE MASS (I.E. CONCRETE BLOCKS, SAND BAGS, ETC.) MUST BE USED IMMEDIATELY DOWNSLOPE OF COMPOST SOCKS PLACED ON PAVED SURFACES (AT THE SAME INTERVALS AS RECOMMENDED BY THE SOCK MANUFACTURER FOR STAKES) IN ORDER TO HOLD THEM IN PLACE.

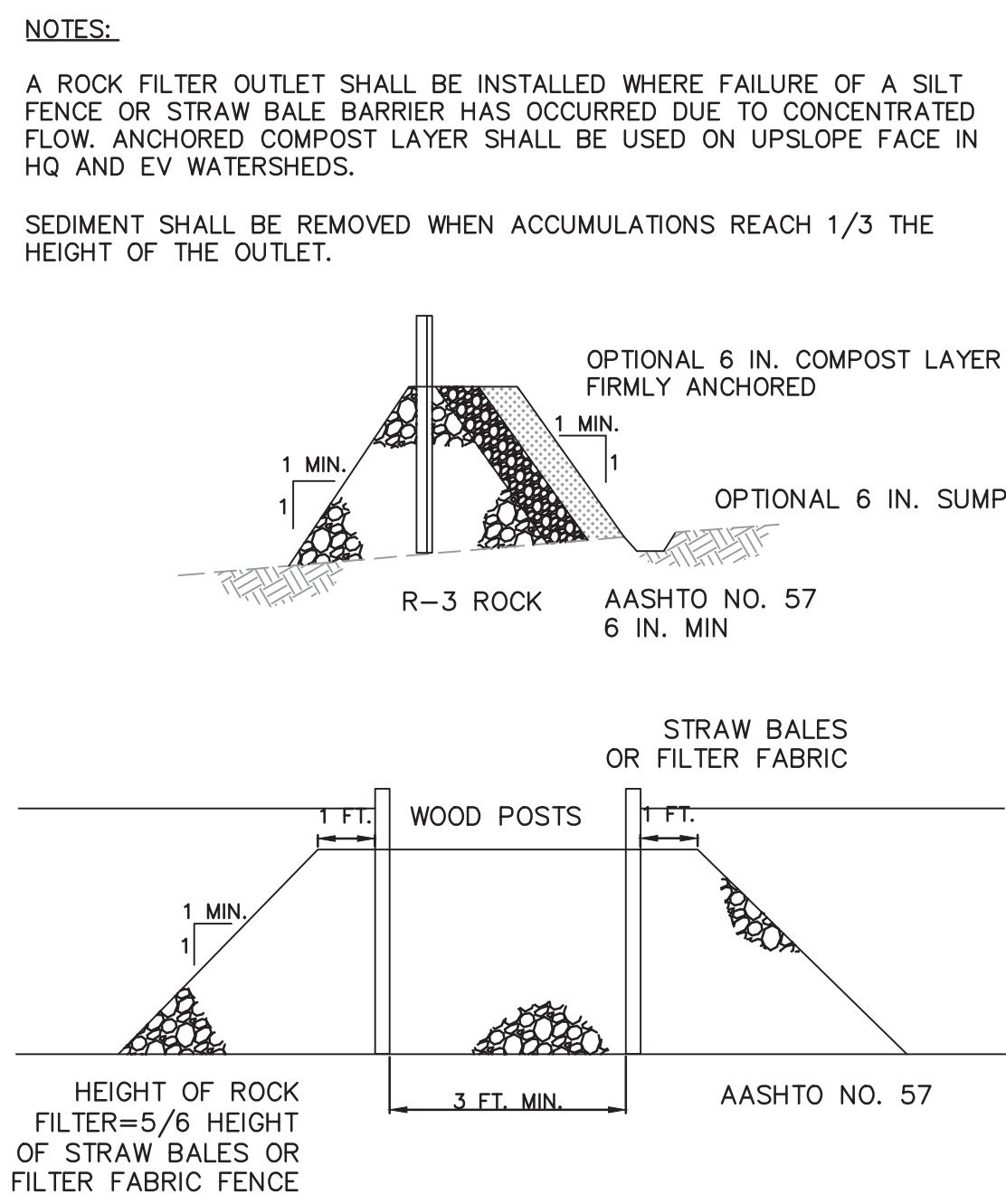
- NOTES:**
- 1.) SEED AND SOIL AMENDMENTS SHALL BE APPLIED ACCORDING TO THE RATES IN THE PLAN DRAWINGS PRIOR TO INSTALLING THE BLANKET.
  - 2.) PROVIDE ANCHOR TRENCH AT TOE OF SLOPE IN SIMILAR FASHION AS AT TOP OF SLOPE.
  - 3.) SLOPE SURFACE SHALL BE FREE OF ROCKS, CLODS, STICKS, AND GRASS.
  - 4.) BLANKET SHALL HAVE GOOD CONTINUOUS CONTACT WITH UNDERLYING SOIL THROUGHOUT ENTIRE LENGTH. LAY BLANKET LOOSELY AND STAKE OR STAPLE TO MAINTAIN DIRECT CONTACT WITH SOIL. DO NOT STRETCH BLANKET.
  - 5.) THE BLANKET SHALL BE STAPLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.
  - 6.) BLANKETED AREAS SHALL BE INSPECTED WEEKLY AND AFTER EACH RUNOFF EVENT UNTIL PERENNIAL VEGETATION IS ESTABLISHED TO A MINIMUM UNIFORM 70% COVERAGE THROUGHOUT THE BLANKETED AREA. DAMAGED OR DISPLACED BLANKETS SHALL BE RESTORED OR REPLACED WITHIN 4 CALENDAR DAYS.



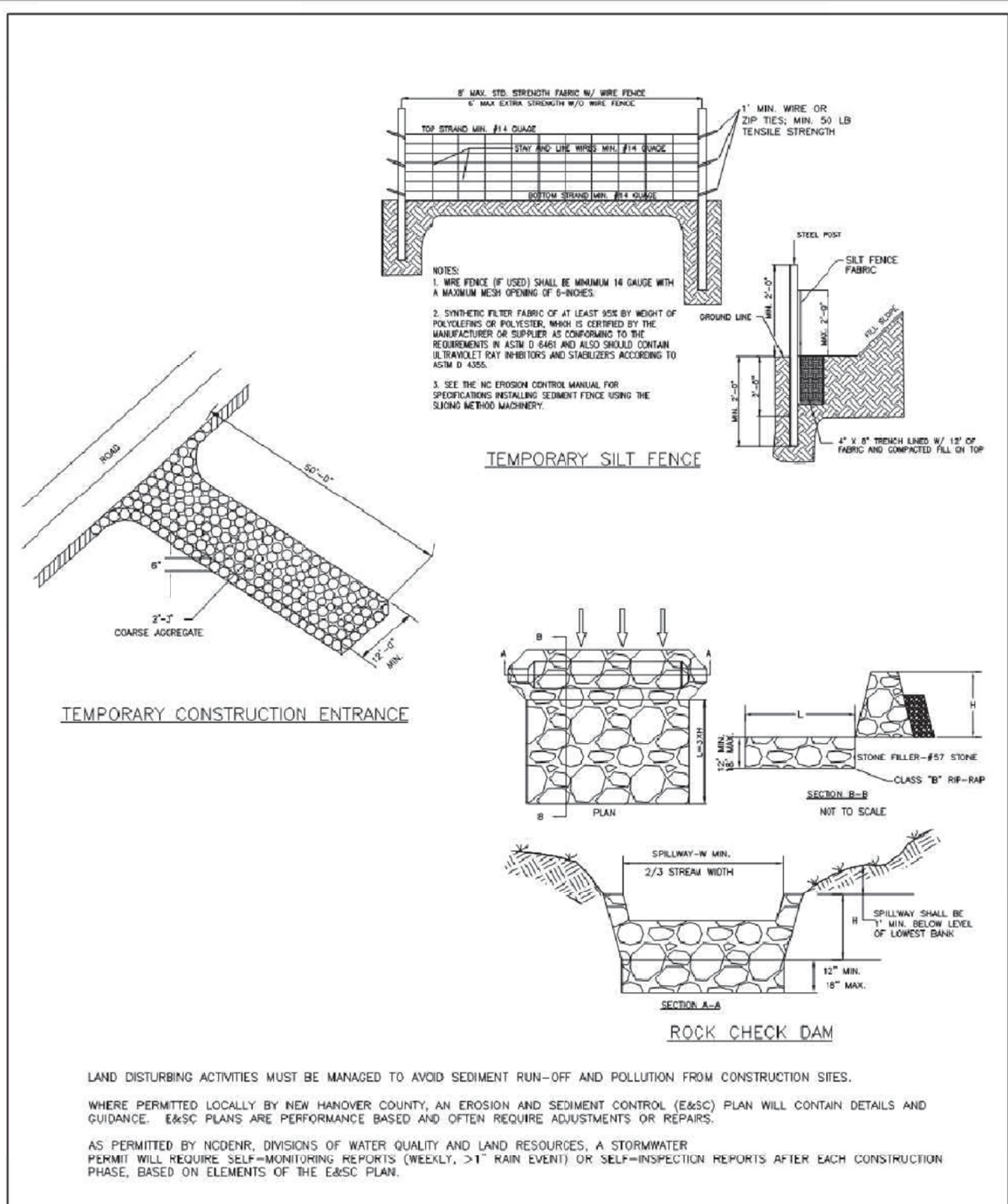
**CURLEX SEDIMENT LOG**  
NOT TO SCALE



**EROSION CONTROL MATTING**  
NOT TO SCALE



**ROCK FILTER OUTLET**  
NOT TO SCALE



LAND DISTURBING ACTIVITIES MUST BE MANAGED TO AVOID SEDIMENT RUN-OFF AND POLLUTION FROM CONSTRUCTION SITES.

WHERE PERMITTED LOCALLY BY NEW HANOVER COUNTY, AN EROSION AND SEDIMENT CONTROL (EASC) PLAN WILL CONTAIN DETAILS AND GUIDANCE. EASC PLANS ARE PERFORMANCE BASED AND OFTEN REQUIRE ADJUSTMENTS OR REPAIRS.

AS PERMITTED BY NCDENR, DIVISIONS OF WATER QUALITY AND LAND RESOURCES, A STORMWATER PERMIT WILL REQUIRE SELF-MONITORING REPORTS (WEEKLY, >1" RAIN EVENT) OR SELF-INSPECTION REPORTS AFTER EACH CONSTRUCTION PHASE, BASED ON ELEMENTS OF THE EASC PLAN.

DATE:	SEPTEMBER, 2012
DRAWN BY:	JSR
CHECKED BY:	DEC, P.E.
SCALE:	NOT TO SCALE

STANDARD DETAIL  
**GUIDELINES FOR SEDIMENT CONTROL BMPs**  
SHEET 1 OF 3

CITY OF WILMINGTON  
NORTH CAROLINA  
CITY OF WILMINGTON ENGINEERING  
PO BOX 1810  
WILMINGTON, NC 28402  
(910) 341-7807

SD 3-104

**Approved Construction Plan**

Name: \_\_\_\_\_ Date: \_\_\_\_\_

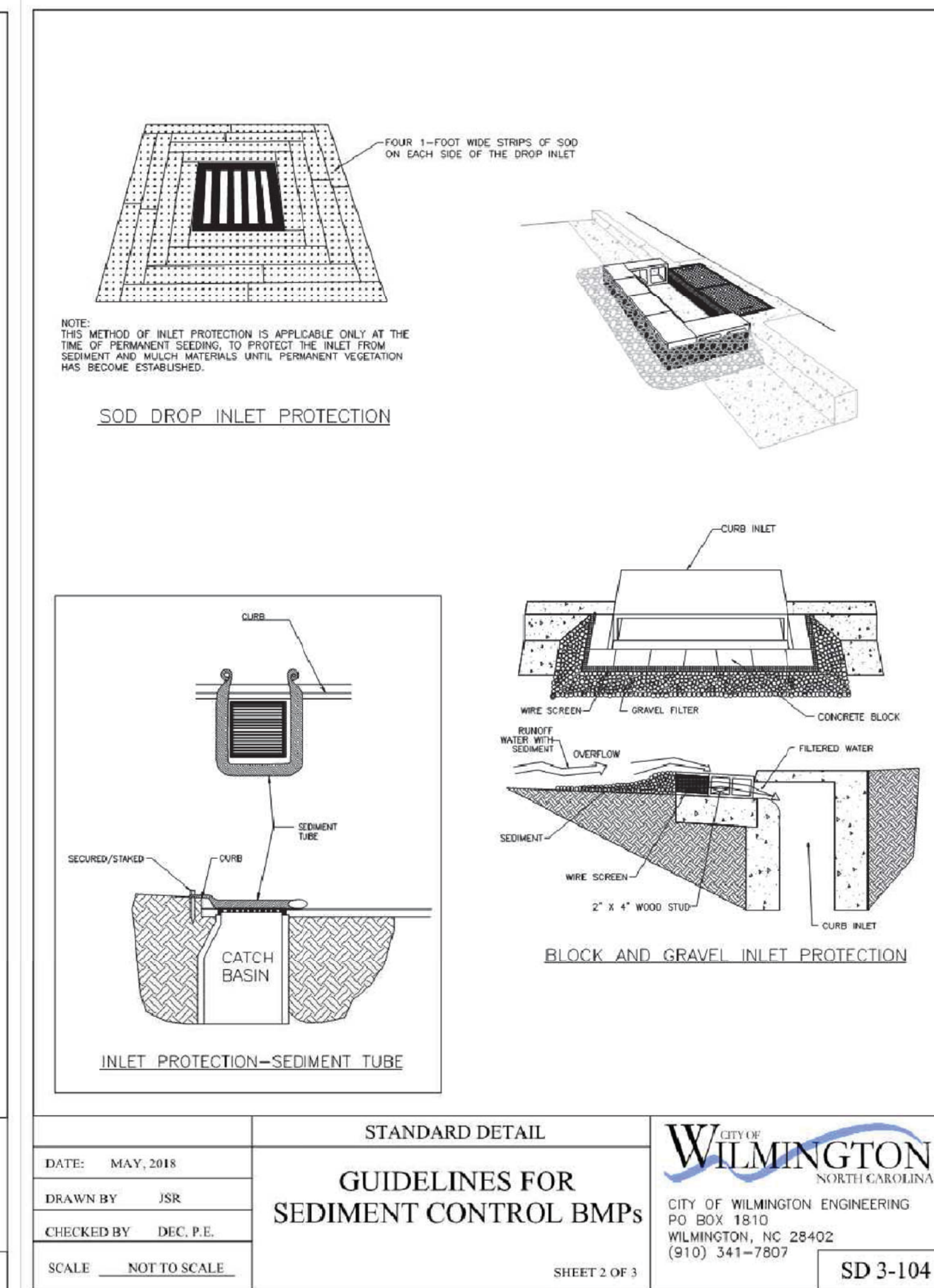
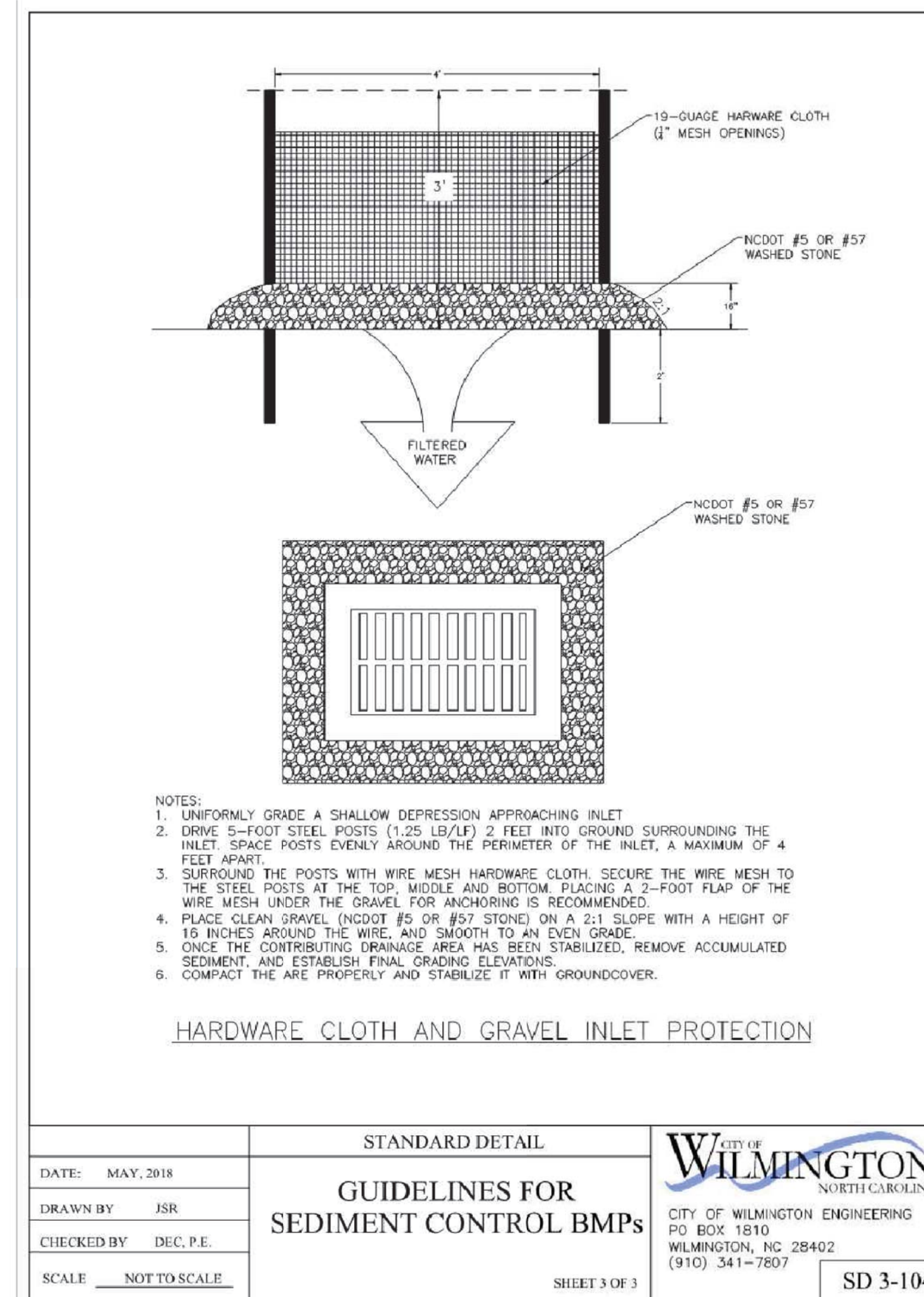
Planning: \_\_\_\_\_

Traffic: \_\_\_\_\_

Fire: \_\_\_\_\_







Approved Construction Plan

Name	Date
Planning	
Traffic	
Fire	



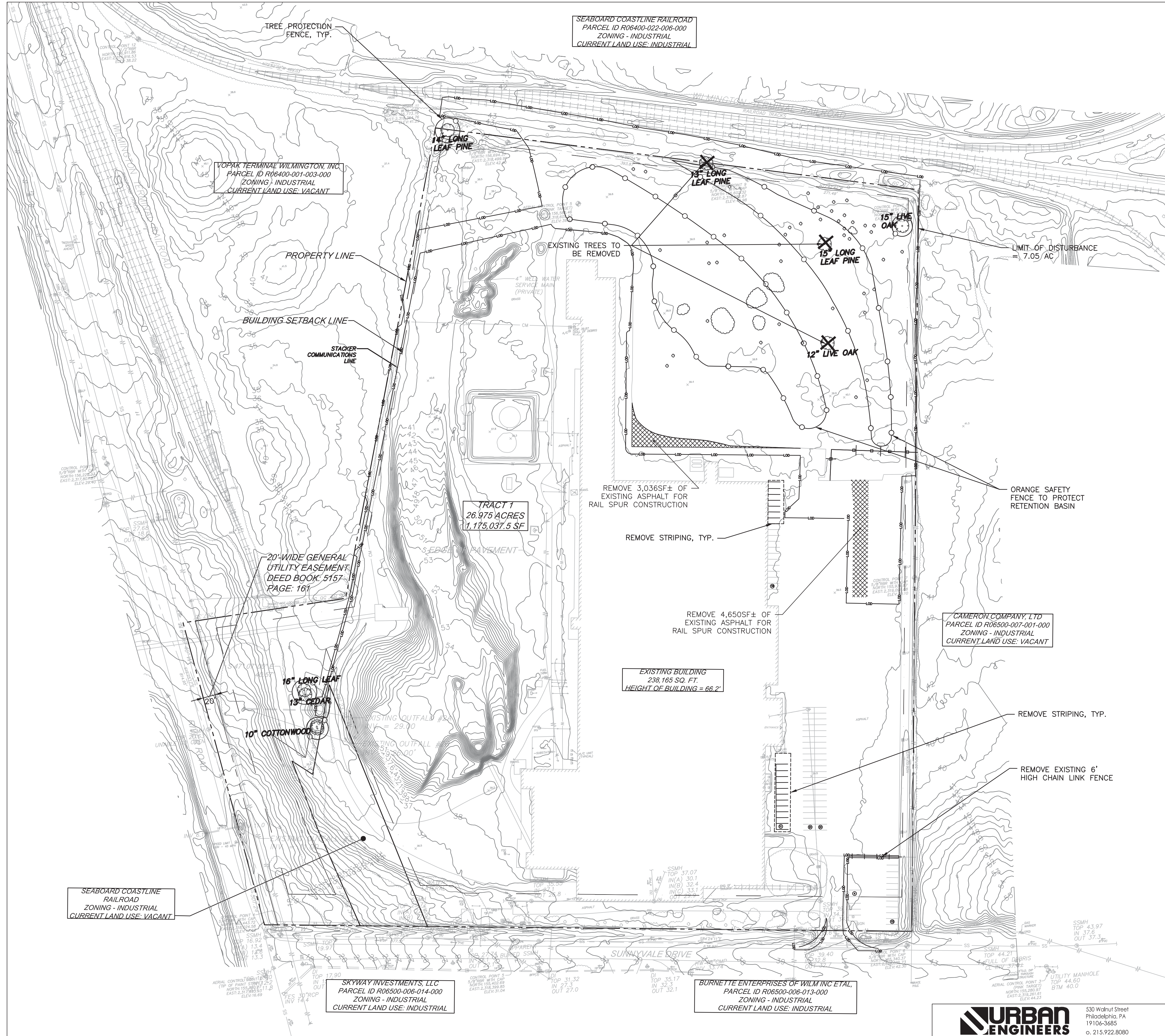
REV	BY	DATE	DESCRIPTION

LOCATION: 838 SUNNYVALE DR., WILMINGTON, NC

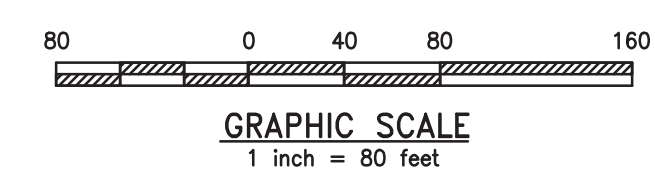
TITLE: WILMINGTON WALLBOARD PLANT PROPOSED INDUSTRIAL SIDETRACK & STORMWATER MANAGEMENT IMPROVEMENTS EROSION & SEDIMENT CONTROL - DETAILS 2

DRN	JAB	DATE 10/24/2019	DRAWING NUMBER
CHK	MJT	DATE 10/25/2019	C-204

DEMOLITION LEGEND	
	TREE PROTECTION FENCE
	REMOVE TREE
	REMOVE FENCE
	LIMIT OF DISTURBANCE
	ASPHALT REMOVAL



Approved Construction Plan		
Name	Date	
Planning		
Traffic		
Fire		



REV	BY	DATE	DESCRIPTION
LOCATION 838 SUNNYVALE DR., WILMINGTON, NC			
TITLE WILMINGTON WALLBOARD PLANT PROPOSED INDUSTRIAL SIDETRACK & STORMWATER MANAGEMENT IMPROVEMENTS DEMOLITION PLAN - OVERALL			
DGN	JAB	DATE 10/24/2019	DRAWING NUMBER
CHK	MJT	DATE 10/25/2019	C-205



**URBAN ENGINEERS**  
 530 Walnut Street  
 Philadelphia, PA  
 19106-3685  
 o. 215.922.8080

SKYWAY INVESTMENTS, LLC  
 PARCEL ID R06500-006-014-000  
 ZONING - INDUSTRIAL  
 CURRENT LAND USE: INDUSTRIAL

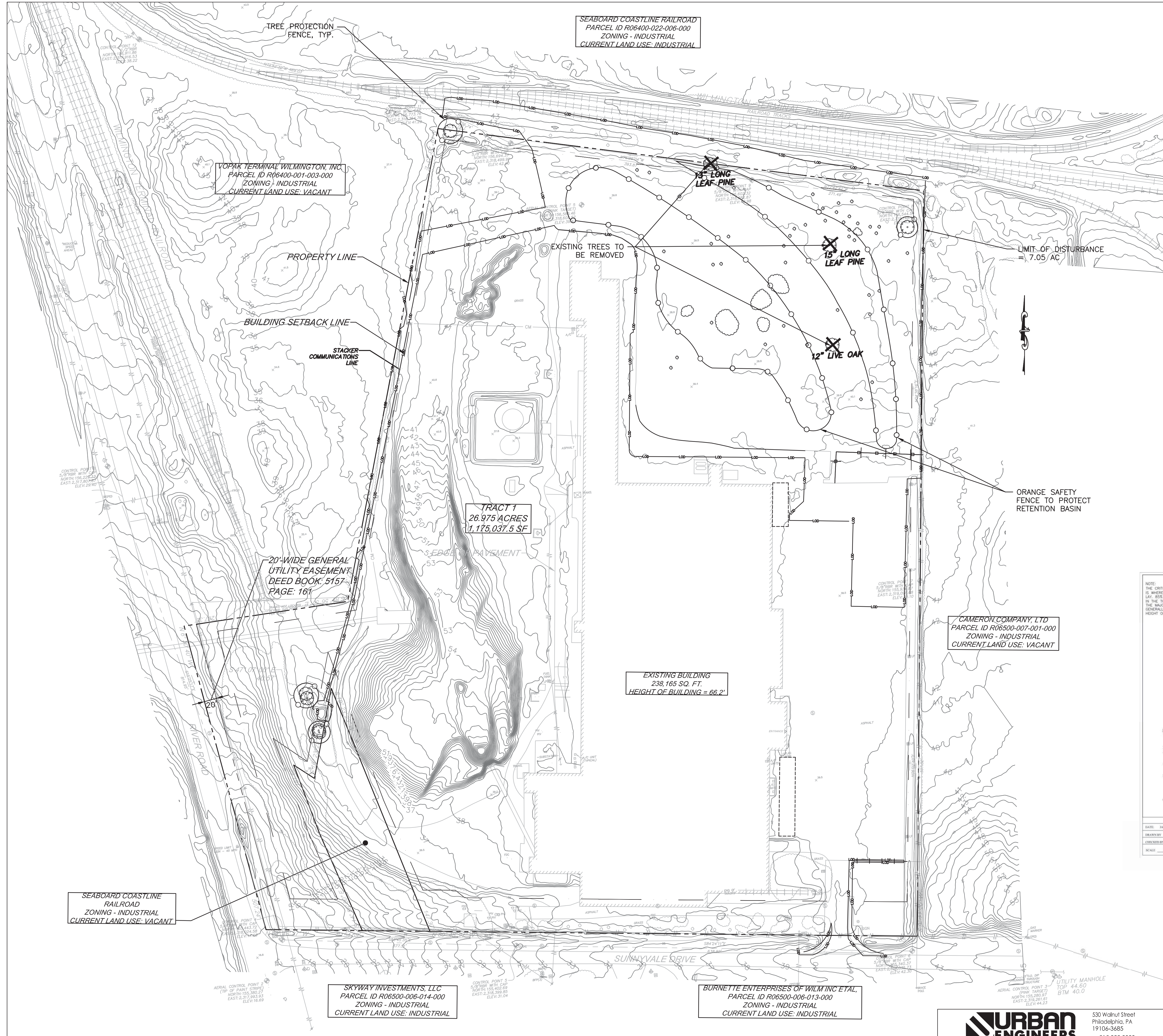
BURNETTE ENTERPRISES OF WILM INC ET AL,  
 PARCEL ID R06500-006-013-000  
 ZONING - INDUSTRIAL  
 CURRENT LAND USE: INDUSTRIAL

SEABOARD COASTLINE RAILROAD  
 ZONING - INDUSTRIAL  
 CURRENT LAND USE: VACANT

VOPAK TERMINAL WILMINGTON, INC  
 PARCEL ID R06400-001-003-000  
 ZONING - INDUSTRIAL  
 CURRENT LAND USE: VACANT

SEABOARD COASTLINE RAILROAD  
 PARCEL ID R06400-022-006-000  
 ZONING - INDUSTRIAL  
 CURRENT LAND USE: INDUSTRIAL

CAMERON COMPANY, LTD  
 PARCEL ID R06500-007-001-000  
 ZONING - INDUSTRIAL  
 CURRENT LAND USE: VACANT



**TREE PROTECTION NOTES:**

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

**TREE REMOVAL NOTES:**

NO PERSON, DIRECTLY OR INDIRECTLY, SHALL REMOVE ANY TREE FROM PUBLIC OR PRIVATE PROPERTY WITHOUT FIRST OBTAINING A TREE REMOVAL PERMIT FROM THE CITY MANAGER. A TREE REMOVAL PERMIT IS REQUIRED BEFORE ANY CLEARING; GRADING OR OTHER AUTHORIZATIONS MAY BE ISSUED INCLUDING SOIL AND SEDIMENTATION CONTROL PERMITS AND BUILDING PERMITS. AN APPROVED TREE REMOVAL PERMIT FOR NEW CONSTRUCTION SHALL APPLY TO THE ENTIRE SITE. THE TREE REMOVAL PERMIT AND APPROVED TREE PRESERVATION PLAN SHALL BE POSTED AT THE JOB SITE WITH OTHER PERMITS FOR THE DURATION OF WORK ON THE SITE. A TREE REMOVAL PERMIT MAY BE EITHER ATTACHED TO THE SUBMITTED SITE PLAN OR THE SITE PLAN MAY BE CLEARLY MARKED FOR EITHER APPROVAL OR DENIAL.

**PROPERTY ADDRESS & PARCEL ID:**

838 SUNNYVALE DRIVE  
WILMINGTON, NC 28412

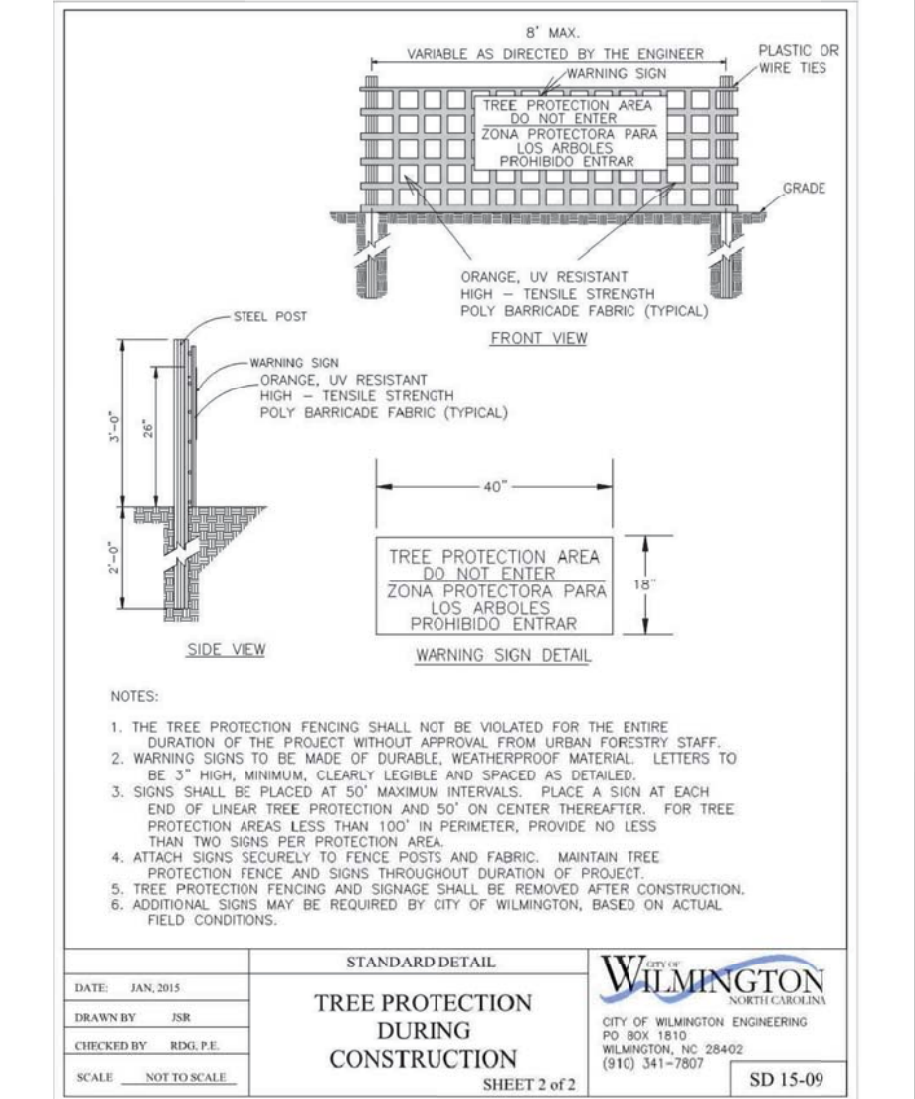
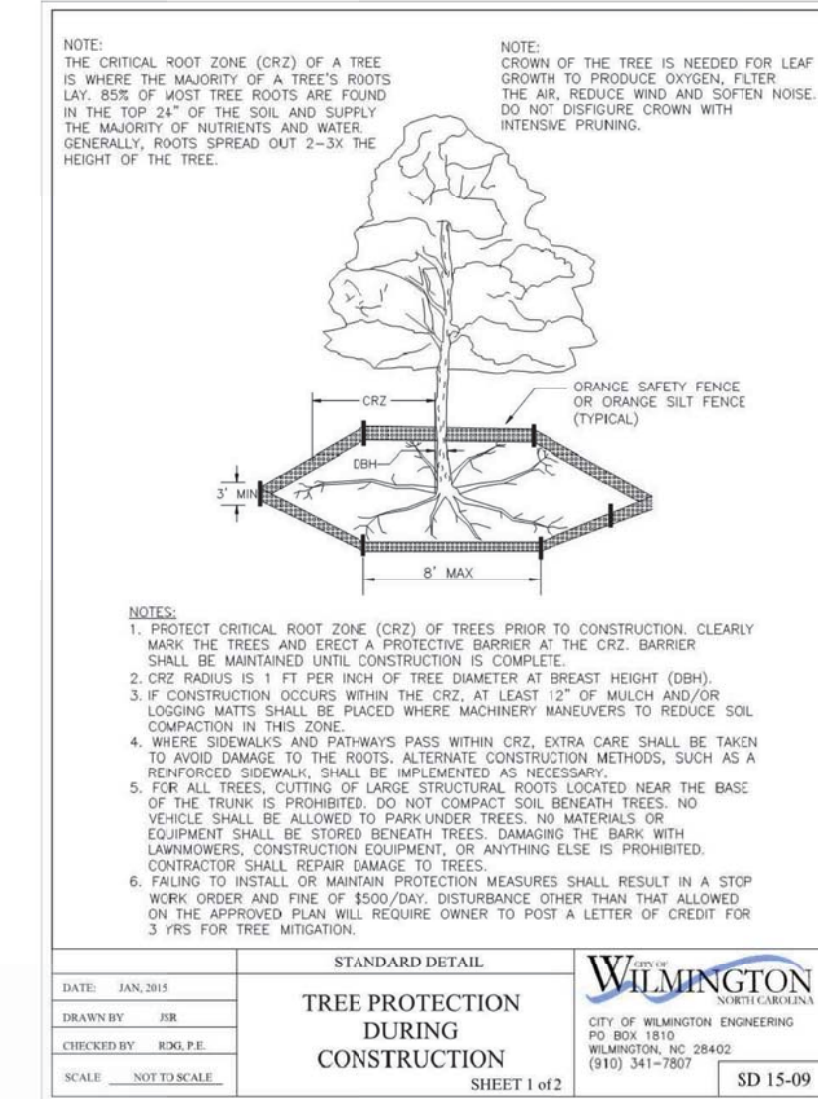
PARCEL ID: R06400-001-002-000

**PROPERTY OWNER:**

NATIONAL GYPSUM COMPANY  
2001 REXFORD ROAD  
CHARLOTTE, NC 28211

**SITE DATA:**

NUMBER OF BUILDINGS: 1  
NUMBER OF FLOORS: 1  
ROOF AREA: 238,165 SF  
TRACT PROPERTY: 26,975 AC.  
ZONED: INDUSTRIAL  
CAMA LAND USE: URBAN



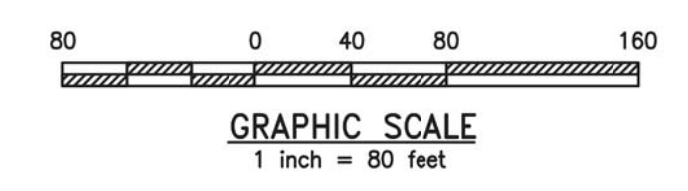
**Approved Construction Plan**

Name: \_\_\_\_\_ Date: \_\_\_\_\_

Planning: \_\_\_\_\_

Traffic: \_\_\_\_\_

Fire: \_\_\_\_\_



530 Walnut Street  
Philadelphia, PA  
19106-3685  
o. 215.922.8080

REV	BY	DATE	DESCRIPTION
LOCATION: 838 SUNNYVALE DR., WILMINGTON, NC			
TITLE: WILMINGTON WALLBOARD PLANT PROPOSED INDUSTRIAL SIDETRACK & STORMWATER MANAGEMENT IMPROVEMENTS TREE PROTECTION AND REMOVAL PLAN			
DN	JAB	DATE 10/24/2019	DRAWING NUMBER
CHK	MJT	DATE 10/25/2019	C-206

SKYWAY INVESTMENTS, LLC  
PARCEL ID R06500-006-014-000  
ZONING - INDUSTRIAL  
CURRENT LAND USE: INDUSTRIAL

BURNETTE ENTERPRISES OF WILM INC ET AL,  
PARCEL ID R06500-006-013-000  
ZONING - INDUSTRIAL  
CURRENT LAND USE: INDUSTRIAL

TRACT 1  
26.975 ACRES  
1,175,037.5 SF

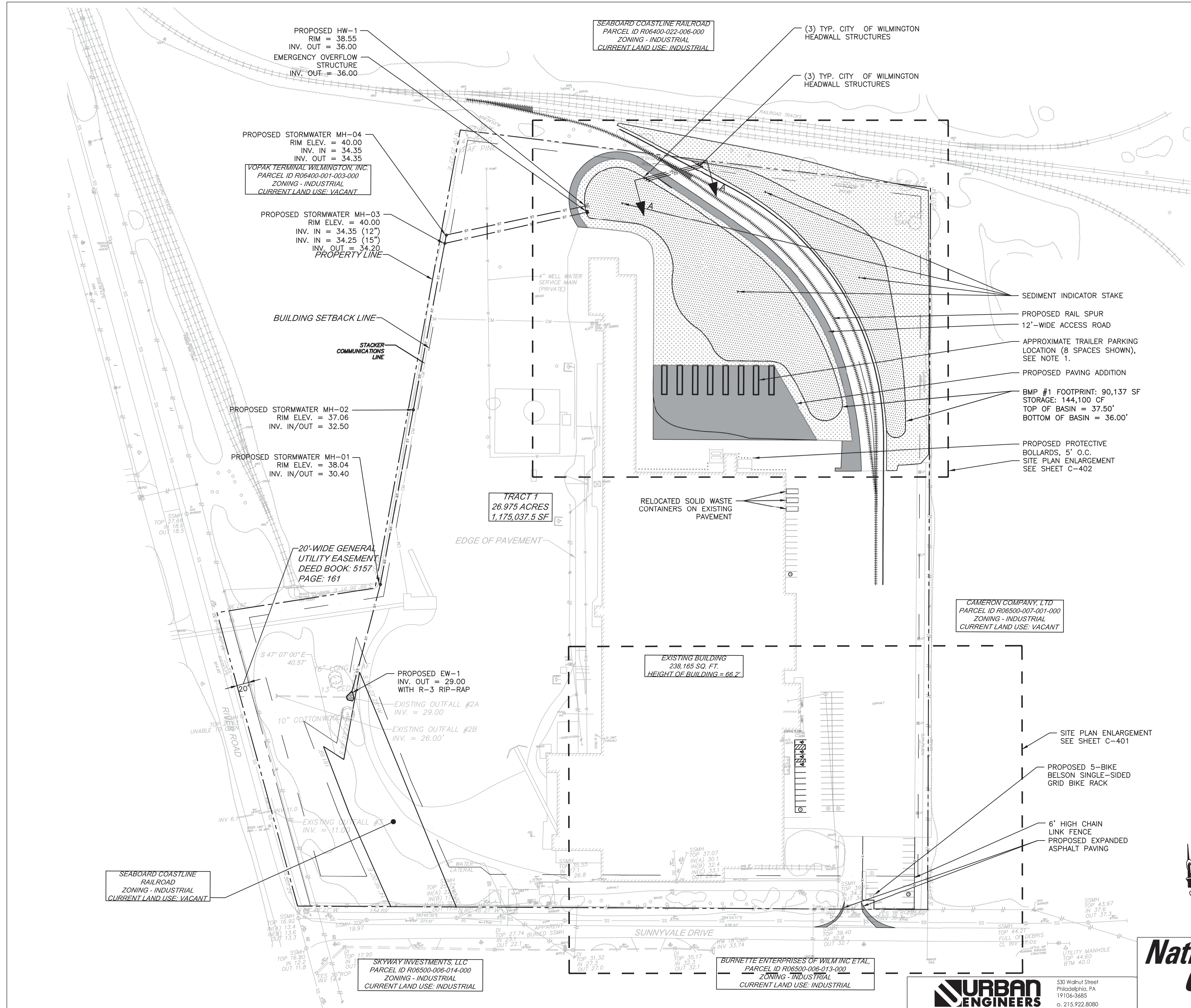
EXISTING BUILDING  
238,165 SQ. FT.  
HEIGHT OF BUILDING = 66.2'

VOPAK TERMINAL WILMINGTON, INC.  
PARCEL ID R06400-001-003-000  
ZONING - INDUSTRIAL  
CURRENT LAND USE: VACANT

SEABOARD COASTLINE RAILROAD  
PARCEL ID R06400-022-006-000  
ZONING - INDUSTRIAL  
CURRENT LAND USE: INDUSTRIAL

SEABOARD COASTLINE RAILROAD  
ZONING - INDUSTRIAL  
CURRENT LAND USE: VACANT

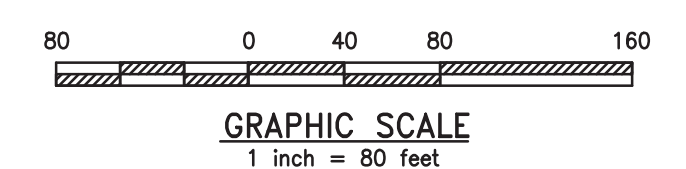
- SITE LEGEND**
- PROPOSED ASPHALT PAVING
  - 6' HIGH CHAIN LINK FENCE
  - RETENTION BASIN AREA
  - ADA ACCESSIBLE ROUTE
  - PROPOSED LAWN AREA
  - RAIL SPUR
  - BOLLARDS
  - STRIPING
  - BIKE RACK
- UTILITIES LEGEND**
- PROPOSED STORMWATER PIPE
  - SECONDARY OUTLET CONTROL STRUCTURE
  - HEADWALL/ENDWALL
  - MANHOLE



SEDIMENT INDICATOR STAKE  
 PROPOSED RAIL SPUR  
 12'-WIDE ACCESS ROAD  
 APPROXIMATE TRAILER PARKING LOCATION (8 SPACES SHOWN), SEE NOTE 1.  
 PROPOSED PAVING ADDITION  
 BMP #1 FOOTPRINT: 90,137 SF  
 STORAGE: 144,100 CF  
 TOP OF BASIN = 37.50'  
 BOTTOM OF BASIN = 36.00'  
 PROPOSED PROTECTIVE BOLLARDS, 5' O.C.  
 SITE PLAN ENLARGEMENT SEE SHEET C-402

NOTES:  
 1. THE EXACT INTENT OF THE EXPANDED PAVEMENT IS UNDETERMINED AT THIS TIME. TRAILER PARKING IS CURRENTLY SHOWN AS A PLACE HOLDER.

Approved Construction Plan		
	Name	Date
Planning		
Traffic		
Fire		



REV	BY	DATE	DESCRIPTION
LOCATION 838 SUNNYVALE DR., WILMINGTON, NC			
TITLE WILMINGTON WALLBOARD PLANT PROPOSED INDUSTRIAL SIDETRACK & STORMWATER MANAGEMENT IMPROVEMENTS SITE PLAN - OVERALL			
DGN	JAB	DATE 10/24/2019	DRAWING NUMBER
CHK	MJT	DATE 10/25/2019	C-400



SEABOARD COASTLINE RAILROAD  
 ZONING - INDUSTRIAL  
 CURRENT LAND USE: VACANT

PROPOSED STORMWATER MH-04  
 RIM ELEV. = 40.00  
 INV. IN = 34.35  
 INV. OUT = 34.35  
 VOPAK TERMINAL WILMINGTON, INC.  
 PARCEL ID R06400-001-003-000  
 ZONING - INDUSTRIAL  
 CURRENT LAND USE: VACANT

PROPOSED STORMWATER MH-03  
 RIM ELEV. = 40.00  
 INV. IN = 34.35 (12")  
 INV. IN = 34.25 (15")  
 INV. OUT = 34.20  
 PROPERTY LINE

PROPOSED STORMWATER MH-02  
 RIM ELEV. = 37.06  
 INV. IN/OUT = 32.50

PROPOSED STORMWATER MH-01  
 RIM ELEV. = 38.04  
 INV. IN/OUT = 30.40

TRACT 1  
 26.975 ACRES  
 1,175,037.5 SF

EXISTING BUILDING  
 238,165 SQ. FT.  
 HEIGHT OF BUILDING = 66.2'

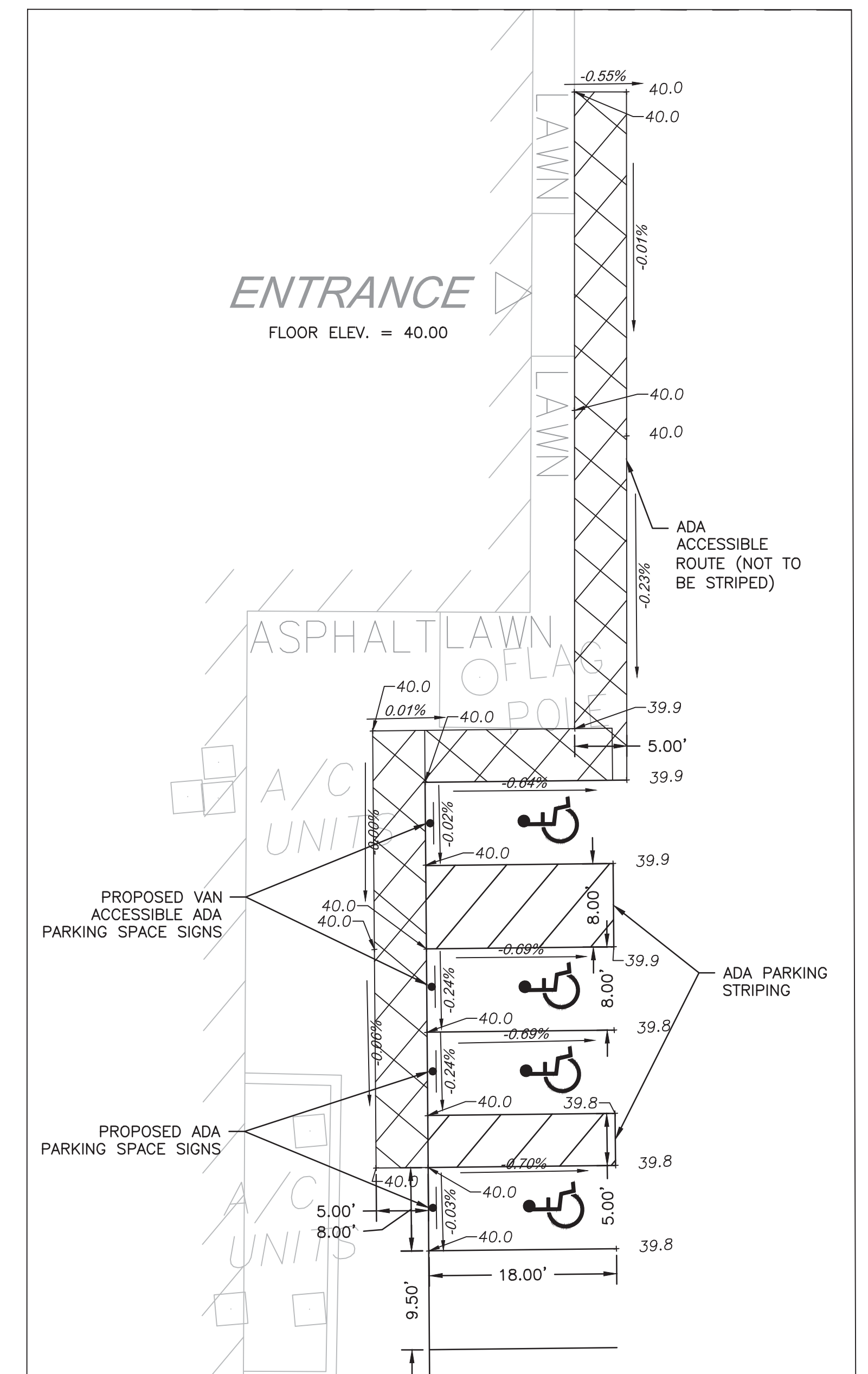
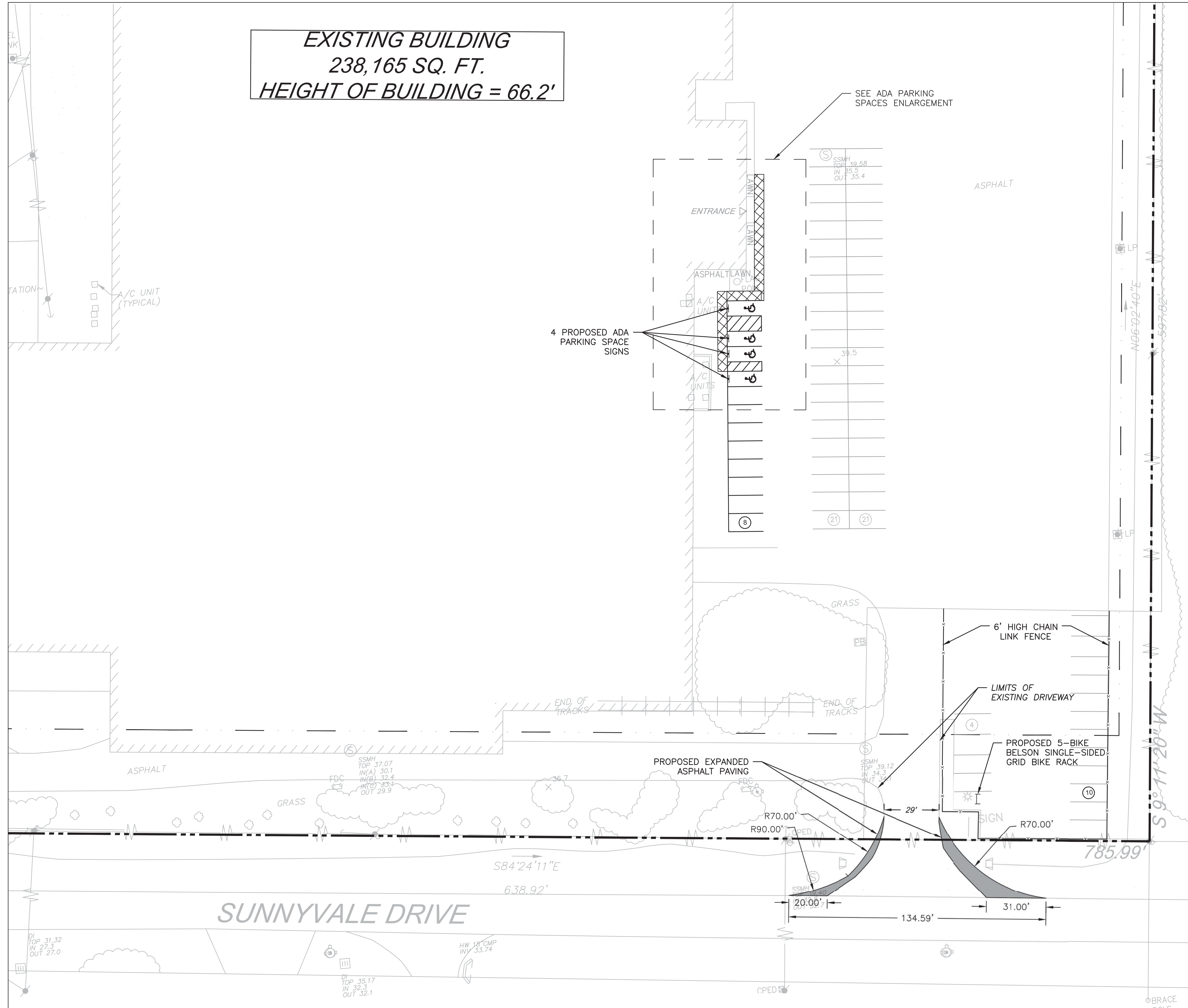
CAMERON COMPANY, LTD  
 PARCEL ID R06500-007-001-000  
 ZONING - INDUSTRIAL  
 CURRENT LAND USE: VACANT

SKYWAY INVESTMENTS, LLC  
 PARCEL ID R06500-006-014-000  
 ZONING - INDUSTRIAL  
 CURRENT LAND USE: INDUSTRIAL

BURNETTE ENTERPRISES OF WILM INC ETAL,  
 PARCEL ID R06500-006-013-000  
 ZONING - INDUSTRIAL  
 CURRENT LAND USE: INDUSTRIAL

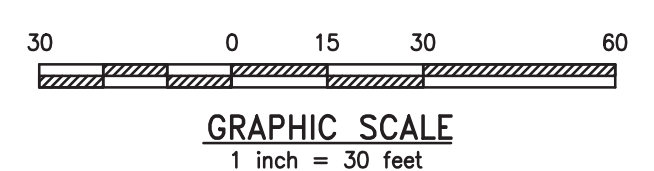
**EXISTING BUILDING**  
**238,165 SQ. FT.**  
**HEIGHT OF BUILDING = 66.2'**

- SITE LEGEND**
- PROPOSED ASPHALT PAVING
  - - - 6' HIGH CHAIN LINK FENCE
  - ▨ RETENTION BASIN AREA
  - ▩ ADA ACCESSIBLE ROUTE
  - ▤ PROPOSED LAWN AREA
  - ||||| RAIL SPUR
  - ..... BOLLARDS
  - ▲ STRIPING
  - ⊥ BIKE RACK
- UTILITIES LEGEND**
- ST — ST — PROPOSED STORMWATER PIPE
  - SECONDARY OUTLET CONTROL STRUCTURE
  - HEADWALL/ENDWALL
  - MANHOLE



**ADA PARKING SPACES ENLARGEMENT**  
 SCALE: 1" = 10'  
 GRAPHIC SCALE  
 1 inch = 10 feet

Approved Construction Plan	
Name	Date
Planning	
Traffic	
Fire	



**GENERAL NOTES:**

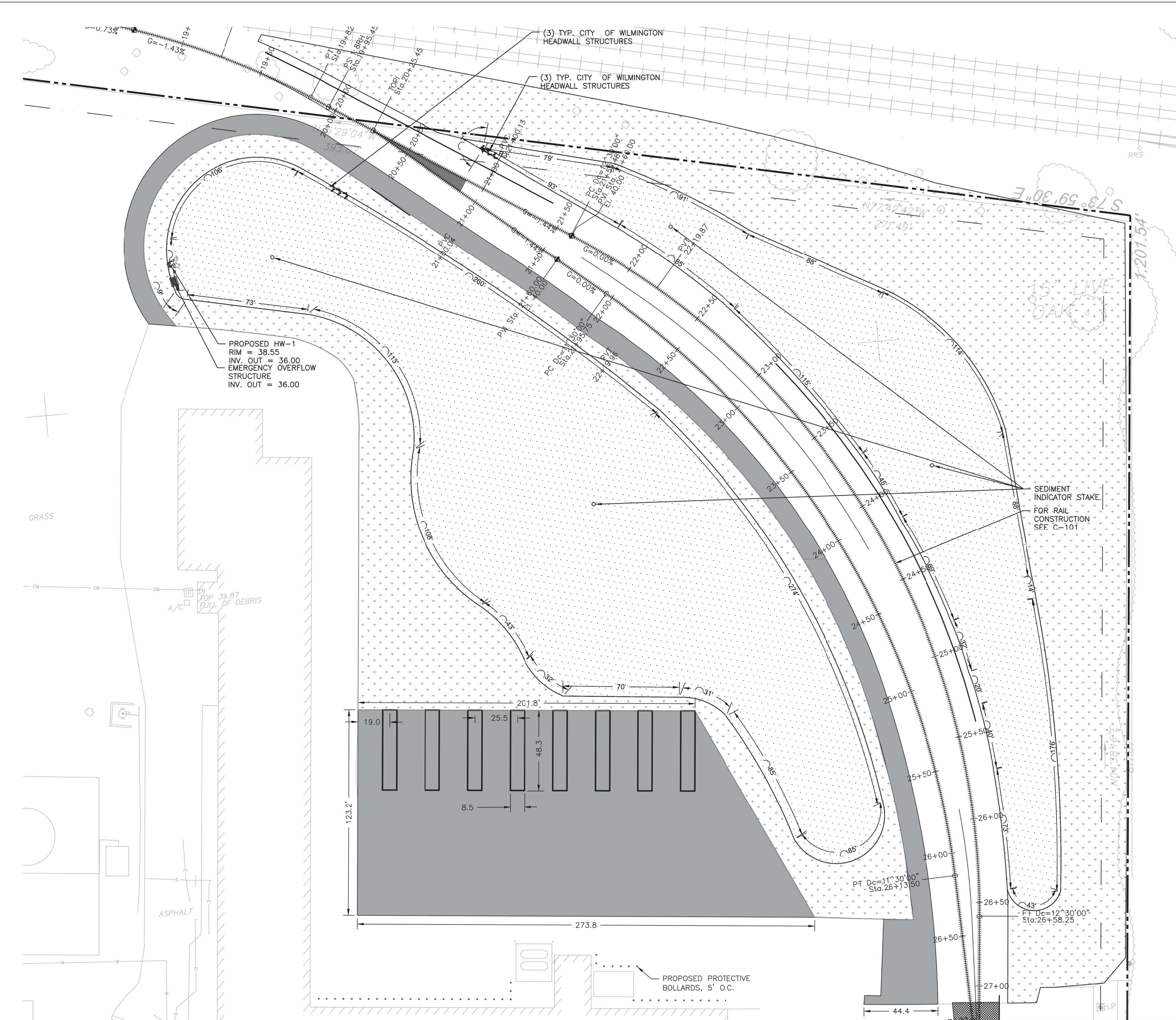
- EXISTING PAVEMENT TO REMAIN. GRADES AND SLOPES ARE PROVIDED TO SHOW THAT EXISTING GRADES/SLOPES ARE ADA COMPLIANT.



**URBAN ENGINEERS**  
 530 Walnut Street  
 Philadelphia, PA  
 19106-3685  
 o. 215.922.8080

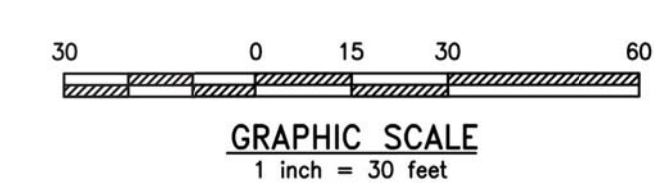
**National Gypsum COMPANY**

REV	BY	DATE	DESCRIPTION
LOCATION: 838 SUNNYVALE DR., WILMINGTON, NC			
TITLE: WILMINGTON WALLBOARD PLANT PROPOSED INDUSTRIAL SIDETRACK & STORMWATER MANAGEMENT IMPROVEMENTS SITE PLAN - ENLARGEMENT 1			
DN	JAB	DATE 10/24/2019	DRAWING NUMBER
CHK	MJT	DATE 10/25/2019	C-401



- SITE LEGEND**
- PROPOSED ASPHALT PAVING
  - 6' HIGH CHAIN LINK FENCE
  - RETENTION BASIN AREA
  - ADA ACCESSIBLE ROUTE
  - PROPOSED LAWN AREA
  - RAIL SPUR
  - BOLLARDS
  - STRIPING
  - BIKE RACK
- UTILITIES LEGEND**
- PROPOSED STORMWATER PIPE
  - SECONDARY OUTLET CONTROL STRUCTURE
  - HEADWALL/ENDWALL
  - MANHOLE

Approved Construction Plan		
Name	Date	
Planning		
Traffic		
Fire		



**URBAN ENGINEERS**  
530 Walnut Street  
Philadelphia, PA  
19106-3685  
o. 215.922.3080

REV	BY	DATE	DESCRIPTION
LOCATION 838 SUNNYVALE DR., WILMINGTON, NC			
TITLE WILMINGTON WALLBOARD PLANT PROPOSED INDUSTRIAL SIDETRACK & STORMWATER MANAGEMENT IMPROVEMENTS SITE PLAN - ENLARGEMENT 2			
DGN	JAB	DATE 10/24/2019	DRAWING NUMBER
CHK	MJT	DATE 10/25/2019	C-402

SEABOARD COASTLINE RAILROAD  
 PARCEL ID R06400-022-006-000  
 ZONING - INDUSTRIAL  
 CURRENT LAND USE - INDUSTRIAL

VOPAK TERMINAL WILMINGTON, INC.  
 PARCEL ID R06400-001-003-000  
 ZONING - INDUSTRIAL  
 CURRENT LAND USE - VACANT

TRACT 1  
 26.975 ACRES  
 1,175,037.5 SF

EXISTING BUILDING  
 238,165 SQ. FT.  
 HEIGHT OF BUILDING = 66.2'

CAMERON COMPANY, LTD  
 PARCEL ID R06500-007-001-000  
 ZONING - INDUSTRIAL  
 CURRENT LAND USE - VACANT

SEABOARD COASTLINE RAILROAD  
 ZONING - INDUSTRIAL  
 CURRENT LAND USE - VACANT

SKYWAY INVESTMENTS, LLC  
 PARCEL ID R06500-006-014-000  
 ZONING - INDUSTRIAL

BURNETTE ENTERPRISES OF WILM INC ETAL  
 PARCEL ID R06500-006-013-000  
 ZONING - INDUSTRIAL

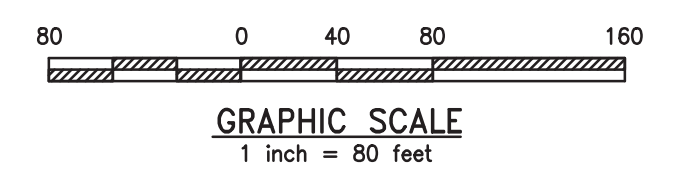
**GRADING LEGEND**

40	MAJOR CONTOUR
41	MINOR CONTOUR
-37.86	SPOT ELEVATION
2%	SLOPES

**CITY OF WILMINGTON**  
 NORTH CAROLINA  
 Public Services • Engineering Division  
 APPROVED STORMWATER MANAGEMENT PLAN  
 Date: \_\_\_\_\_ Permit # \_\_\_\_\_  
 Signed: \_\_\_\_\_

**Approved Construction Plan**

Name	Date
Planning	
Traffic	
Fire	



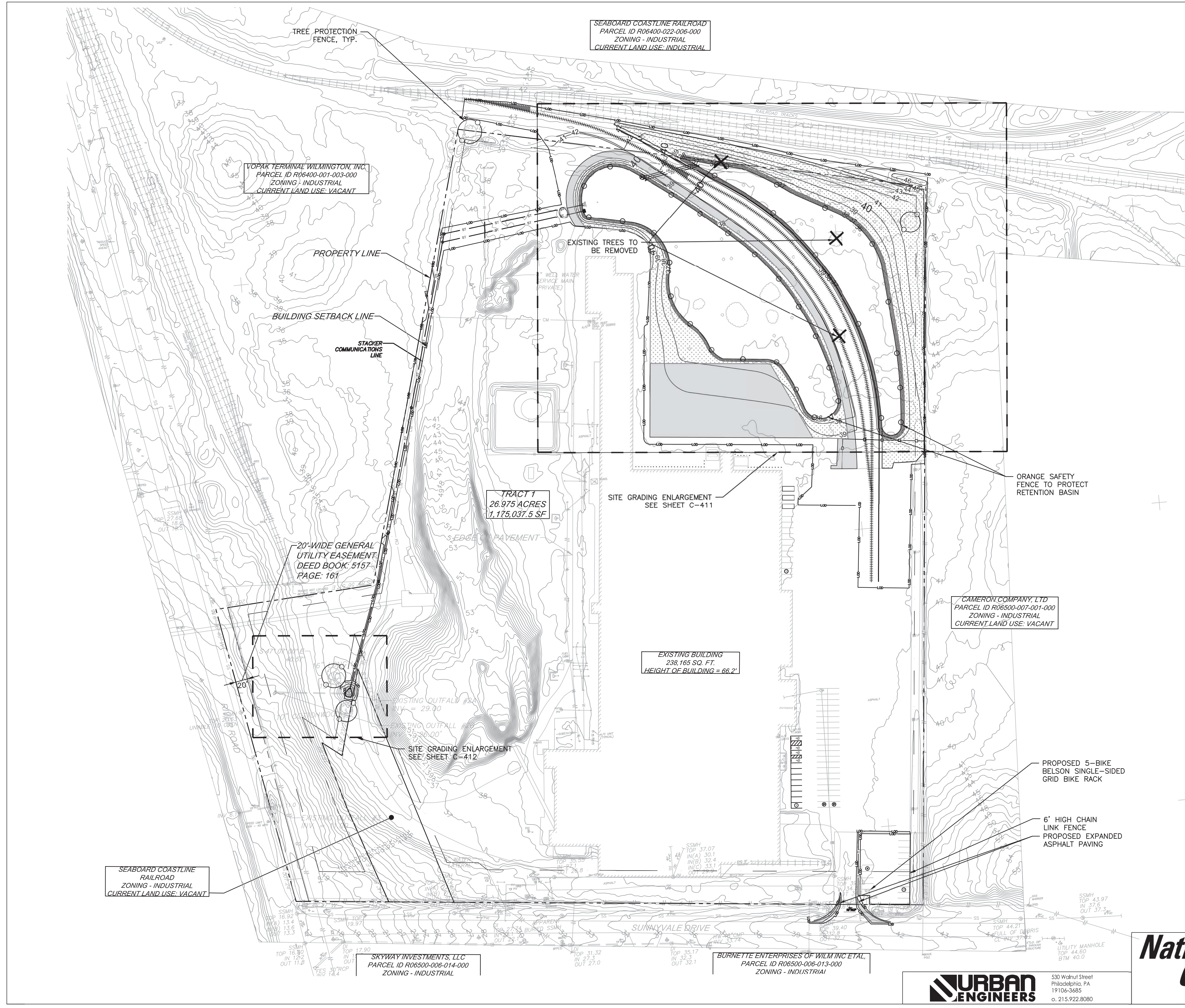
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LOCATION 838 SUNNYVALE DR., WILMINGTON, NC			

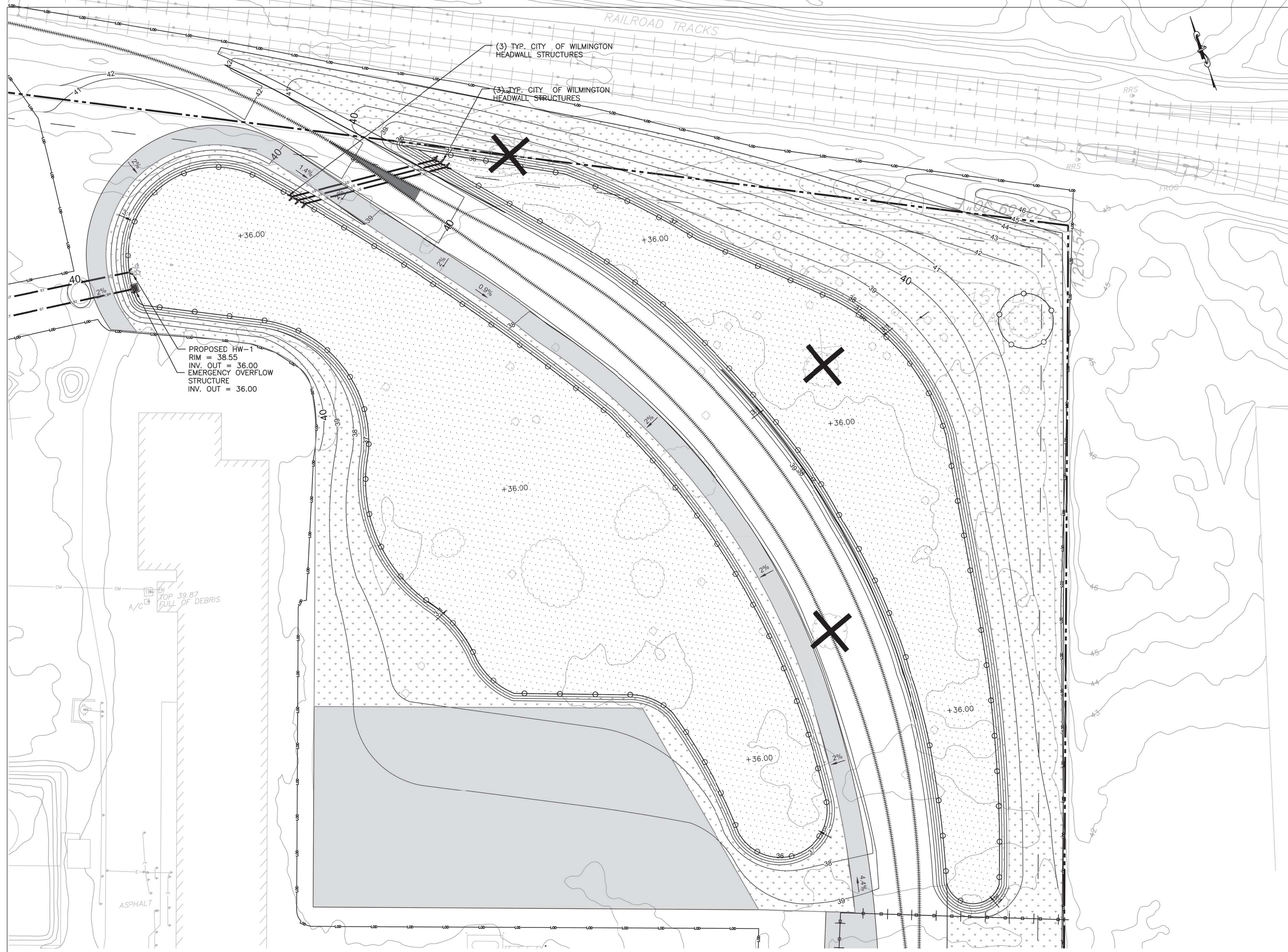
TITLE WILMINGTON WALLBOARD PLANT  
 PROPOSED INDUSTRIAL SIDETRACK &  
 STORMWATER MANAGEMENT IMPROVEMENTS  
 GRADING PLAN - OVERALL

DN			
DWN	JAB	DATE 10/24/2019	DRAWING NUMBER
CHK	MJT	DATE 10/25/2019	C-410

**URBAN ENGINEERS**  
 530 Walnut Street  
 Philadelphia, PA  
 19106-3685  
 o. 215.922.8080

**National Gypsum COMPANY**





**GRADING LEGEND**

——— 40	————— MAJOR CONTOUR
——— 41	————— MINOR CONTOUR
+37.86	● SPOT ELEVATION
← 2%	———— SLOPES

PROPOSED HW-1  
RIM = 38.55  
INV. OUT = 36.00  
EMERGENCY OVERFLOW  
STRUCTURE  
INV. OUT = 36.00

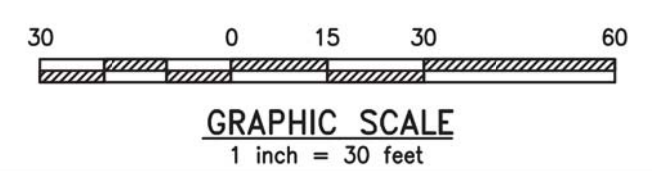
A/C 114  
TOP 39.87  
FULL OF DEBRIS

ASPHALT

**CITY OF WILMINGTON**  
NORTH CAROLINA  
Public Services • Engineering Division  
APPROVED STORMWATER MANAGEMENT PLAN  
Date: \_\_\_\_\_ Permit # \_\_\_\_\_  
Signed: \_\_\_\_\_

**Approved Construction Plan**

	Name	Date
Planning	_____	_____
Traffic	_____	_____
Fire	_____	_____



**URBAN ENGINEERS**  
530 Walnut Street  
Philadelphia, PA  
19106-3685  
o. 215.922.3080

**National Gypsum COMPANY**

REV	BY	DATE	DESCRIPTION

LOCATION: 838 SUNNYVALE DR., WILMINGTON, NC

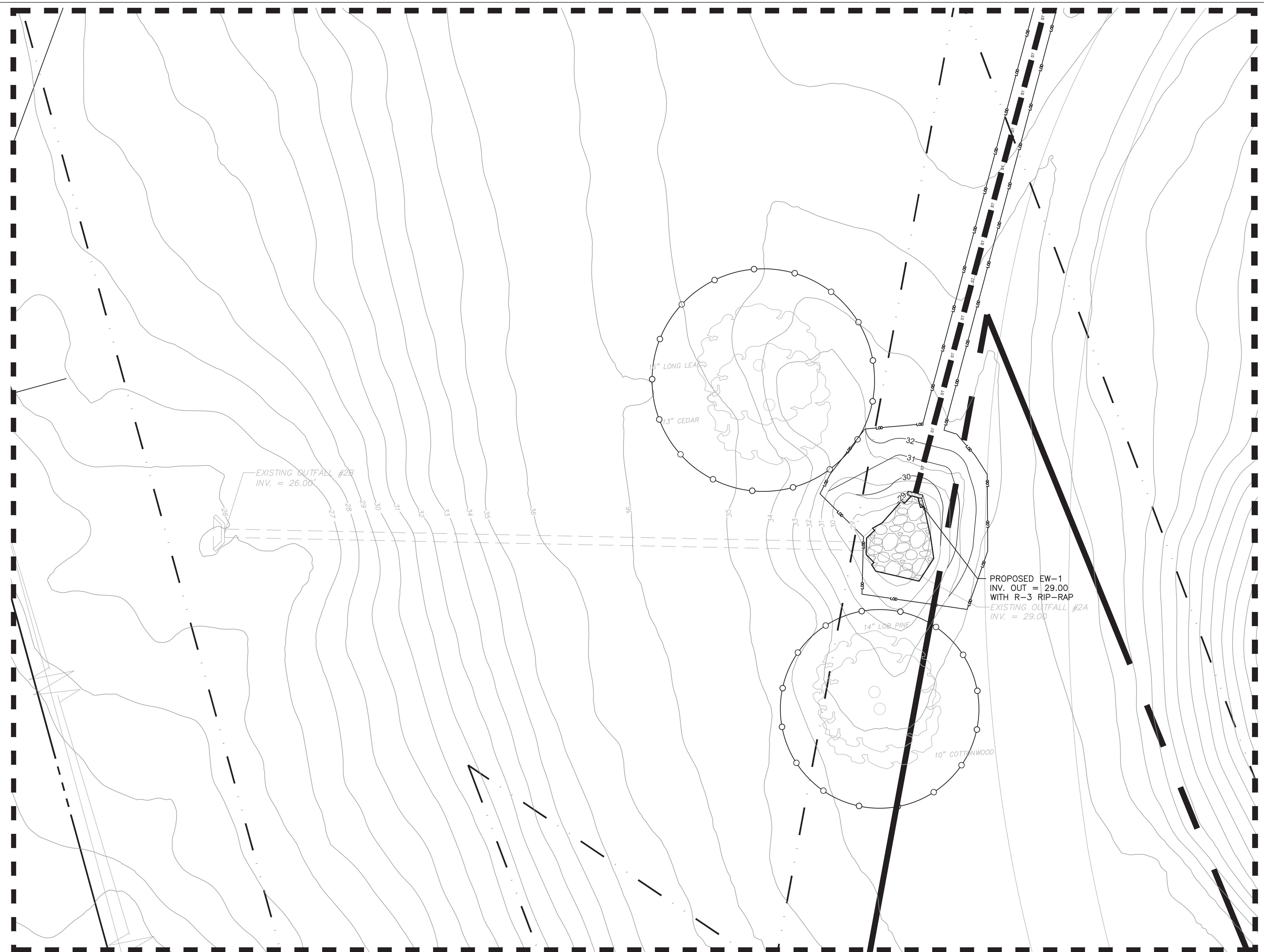
TITLE: WILMINGTON WALLBOARD PLANT  
PROPOSED INDUSTRIAL SIDETRACK &  
STORMWATER MANAGEMENT IMPROVEMENTS  
RAIL SPUR AND BASIN GRADING PLAN

DGN			
DWN	JAB	DATE 10/24/2019	DRAWING NUMBER
CHK	MJT	DATE 10/25/2019	C-411

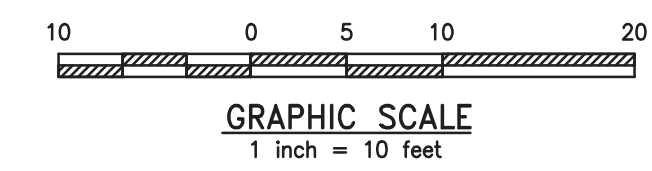


**GRADING LEGEND**

	40		MAJOR CONTOUR
	41		MINOR CONTOUR
	+37.86		SPOT ELEVATION
			SLOPES



**CITY OF WILMINGTON**  
 NORTH CAROLINA  
 Public Services • Engineering Division  
**APPROVED STORMWATER MANAGEMENT PLAN**  
 Date: \_\_\_\_\_ Permit # \_\_\_\_\_  
 Signed: \_\_\_\_\_



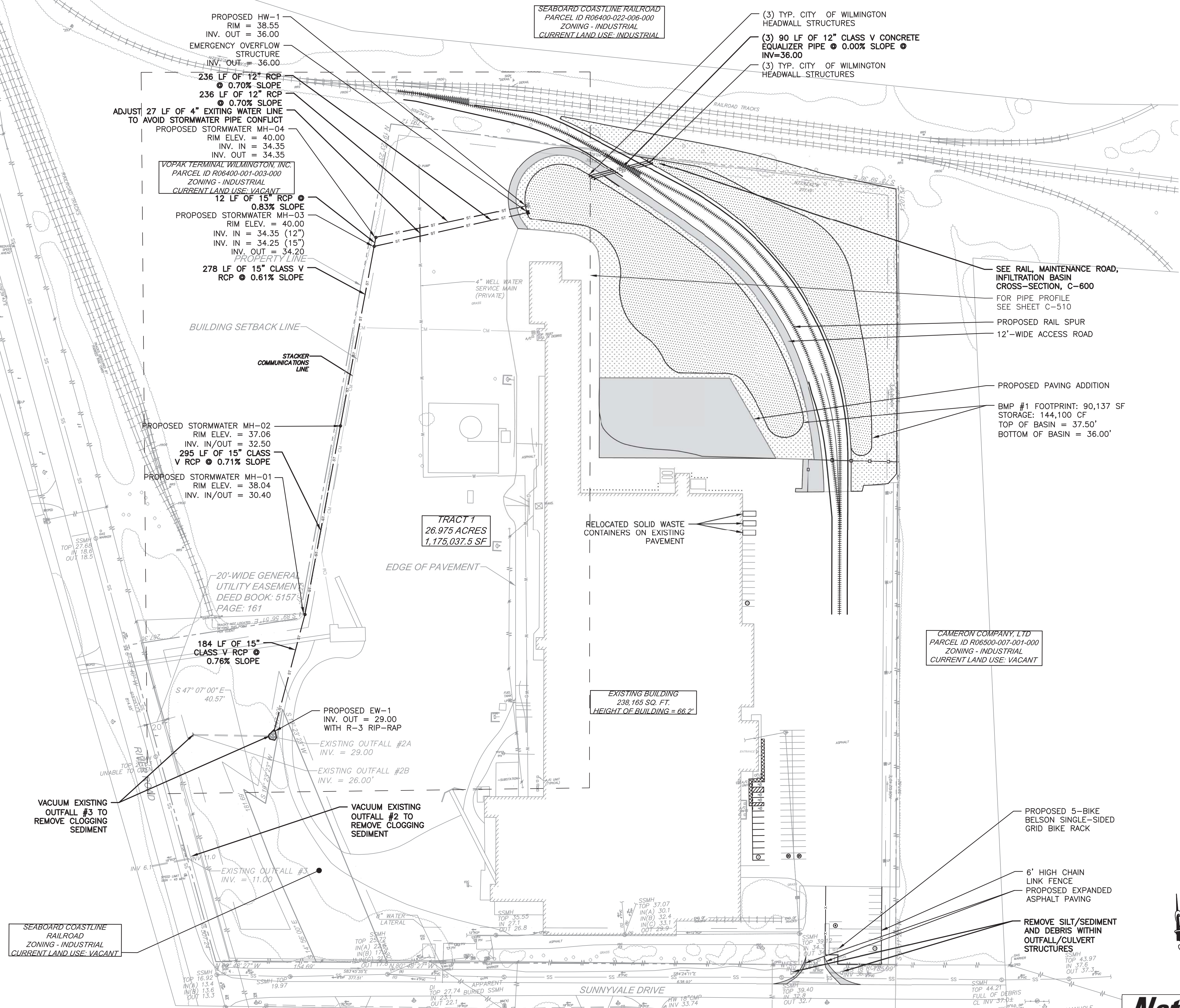
**URBAN ENGINEERS**  
 530 Walnut Street  
 Philadelphia, PA  
 19106-3685  
 o. 215.922.8080

**National Gypsum COMPANY**

REV	BY	DATE	DESCRIPTION
LOCATION			838 SUNNYVALE DR., WILMINGTON, NC
TITLE WILMINGTON WALLBOARD PLANT PROPOSED INDUSTRIAL SIDETRACK & STORMWATER MANAGEMENT IMPROVEMENTS ENDWALL GRADING DETAIL			
DGN	JAB	DATE 10/24/2019	DRAWING NUMBER
CHK	MJT	DATE 10/25/2019	C-412

UTILITIES LEGEND

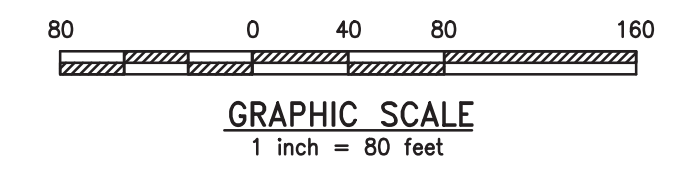
- ST — ST — PROPOSED STORMWATER PIPE
- SECONDARY OUTLET CONTROL STRUCTURE
- ▲ HEADWALL/ENDWALL
- MANHOLE



**CITY OF WILMINGTON**  
 NORTH CAROLINA  
 Public Services • Engineering Division  
 APPROVED STORMWATER MANAGEMENT PLAN  
 Date: \_\_\_\_\_ Permit # \_\_\_\_\_  
 Signed: \_\_\_\_\_

**Approved Construction Plan**

Name	Date
Planning	
Traffic	
Fire	



REV	BY	DATE	DESCRIPTION
LOCATION: 838 SUNNYVALE DR., WILMINGTON, NC			
TITLE: WILMINGTON WALLBOARD PLANT PROPOSED INDUSTRIAL SIDETRACK & STORMWATER MANAGEMENT IMPROVEMENTS UTILITY PLAN - OVERALL			
DGN	JAB	DATE 10/24/2019	DRAWING NUMBER
CHK	MJT	DATE 10/25/2019	C-500



**URBAN ENGINEERS**  
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 Philadelphia, PA  
 19106-3685  
 o. 215.922.8080

SEABOARD COASTLINE RAILROAD  
 ZONING - INDUSTRIAL  
 CURRENT LAND USE - VACANT

VOPAK TERMINAL WILMINGTON, INC.  
 PARCEL ID R06400-001-003-000  
 ZONING - INDUSTRIAL  
 CURRENT LAND USE - VACANT

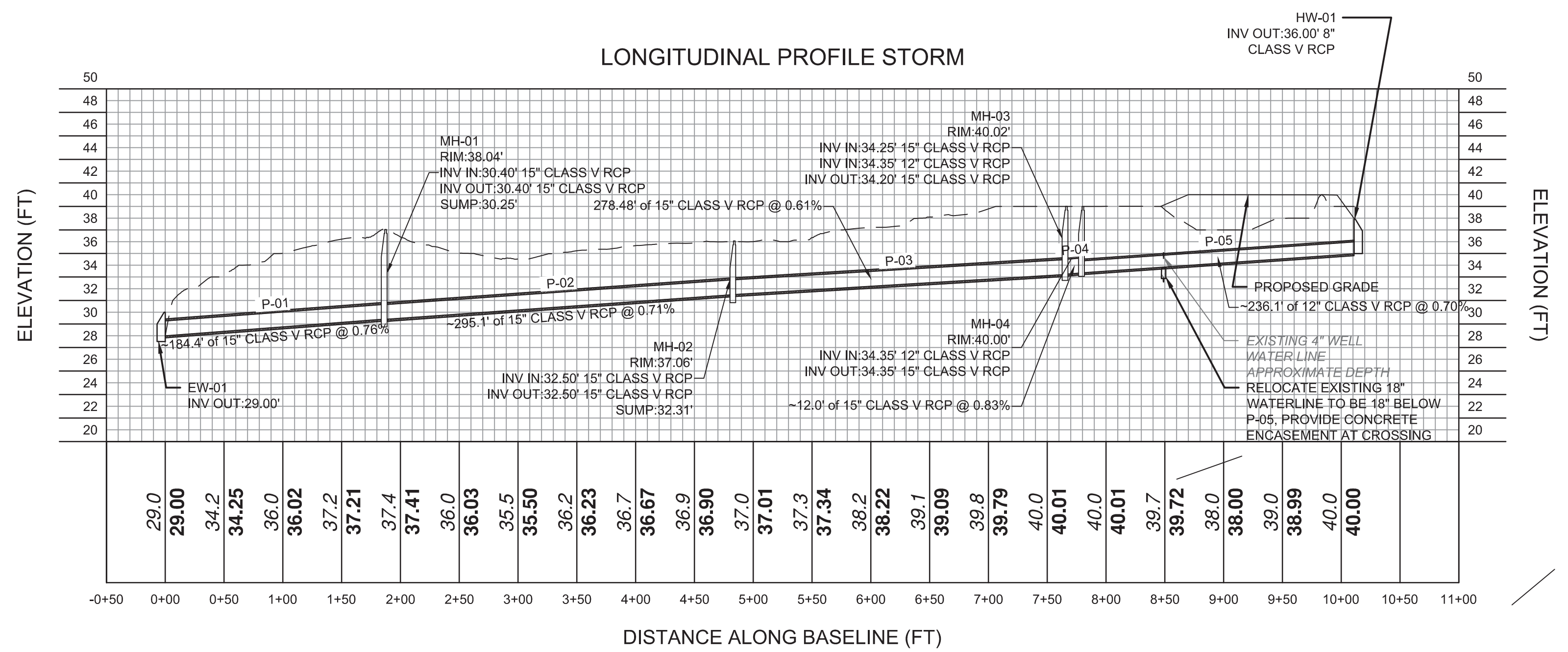
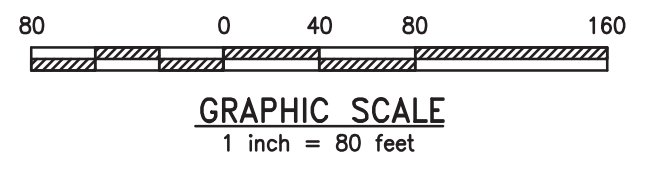
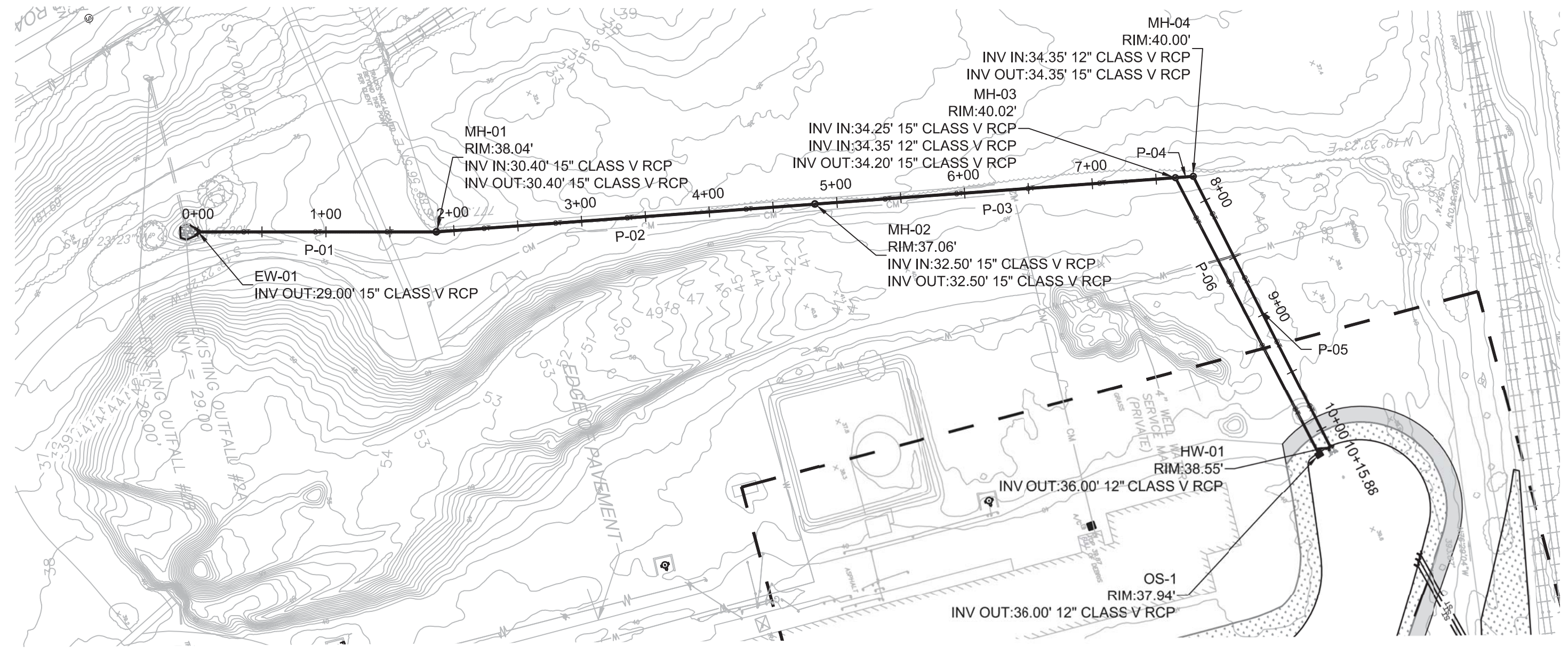
TRACT 1  
 26.975 ACRES  
 1,175,037.5 SF

EXISTING BUILDING  
 238,165 SQ. FT.  
 HEIGHT OF BUILDING = 66.2'

CAMERON COMPANY, LTD  
 PARCEL ID R06500-007-001-000  
 ZONING - INDUSTRIAL  
 CURRENT LAND USE - VACANT

SKYWAY INVESTMENTS, LLC  
 PARCEL ID R06500-006-014-000  
 ZONING - INDUSTRIAL  
 CURRENT LAND USE - INDUSTRIAL

BURNETTE ENTERPRISES OF WILM INC ETAL,  
 PARCEL ID R06500-006-013-000  
 ZONING - INDUSTRIAL  
 CURRENT LAND USE - INDUSTRIAL



**CITY OF WILMINGTON**  
NORTH CAROLINA  
Public Services • Engineering Division  
APPROVED STORMWATER MANAGEMENT PLAN  
Date: \_\_\_\_\_ Permit # \_\_\_\_\_  
Signed: \_\_\_\_\_

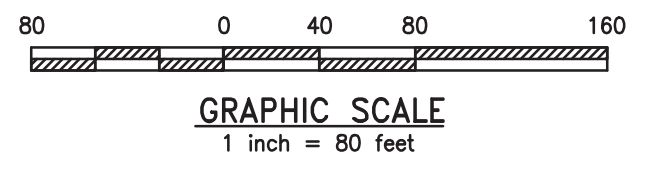
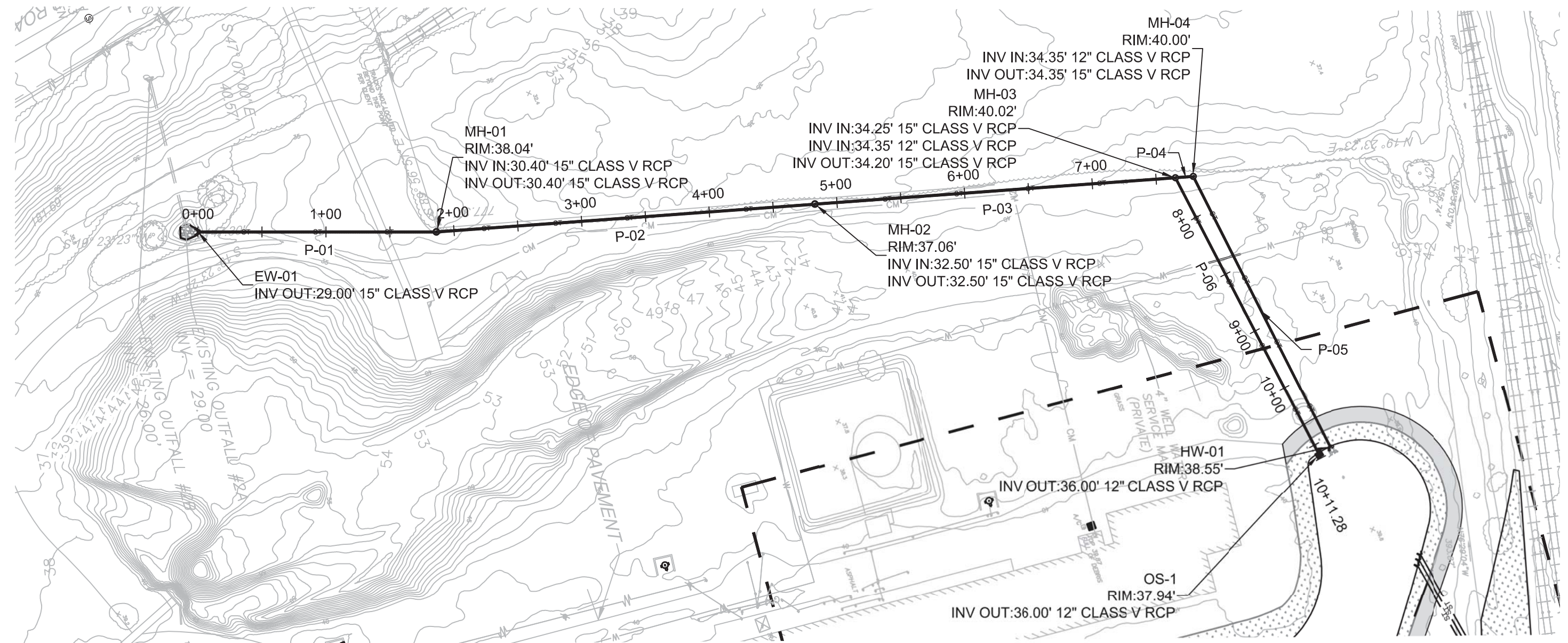
**Approved Construction Plan**

Name _____	Date _____
Planning _____	
Traffic _____	
Fire _____	

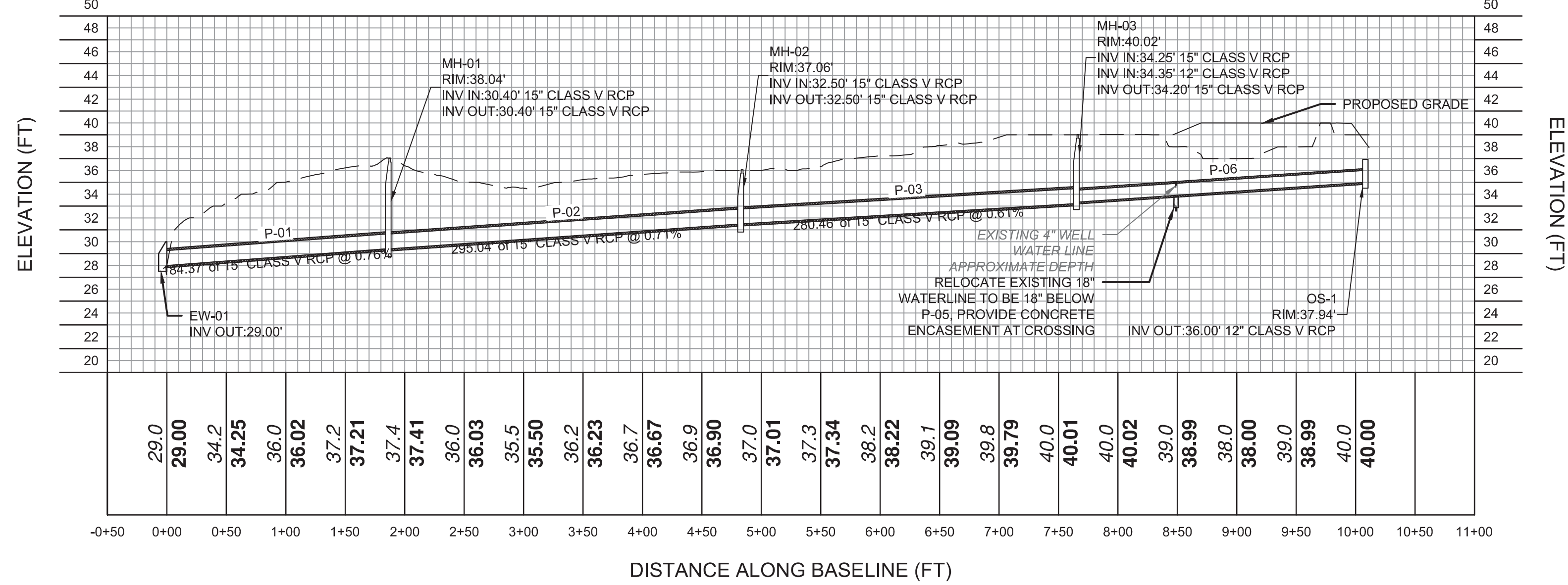
REV	BY	DATE	DESCRIPTION
LOCATION			838 SUNNYVALE DR., WILMINGTON, NC
TITLE WILMINGTON WALLBOARD PLANT PROPOSED INDUSTRIAL SIDETRACK & STORMWATER MANAGEMENT IMPROVEMENTS UTILITY PROFILE - STORM			
DGN	JAB	DATE 10/24/2019	DRAWING NUMBER
CHK	MJT	DATE 10/25/2019	C-501

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19106-3685  
o. 215.922.8080

**National Gypsum COMPANY**



LONGITUDINAL PROFILE EMERGENCY OUTFALL



Public Services • Engineering Division
   
 APPROVED STORMWATER MANAGEMENT PLAN
   
 Date: \_\_\_\_\_ Permit #: \_\_\_\_\_
   
 Signed: \_\_\_\_\_

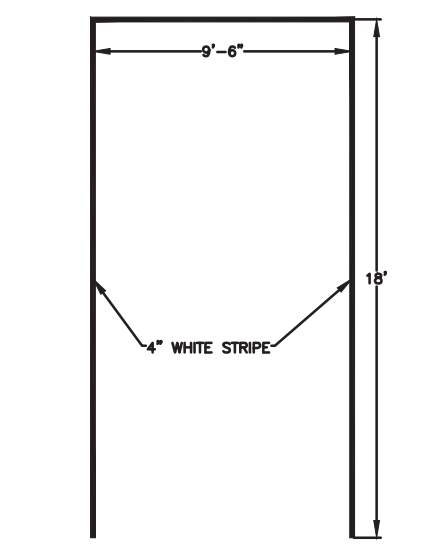
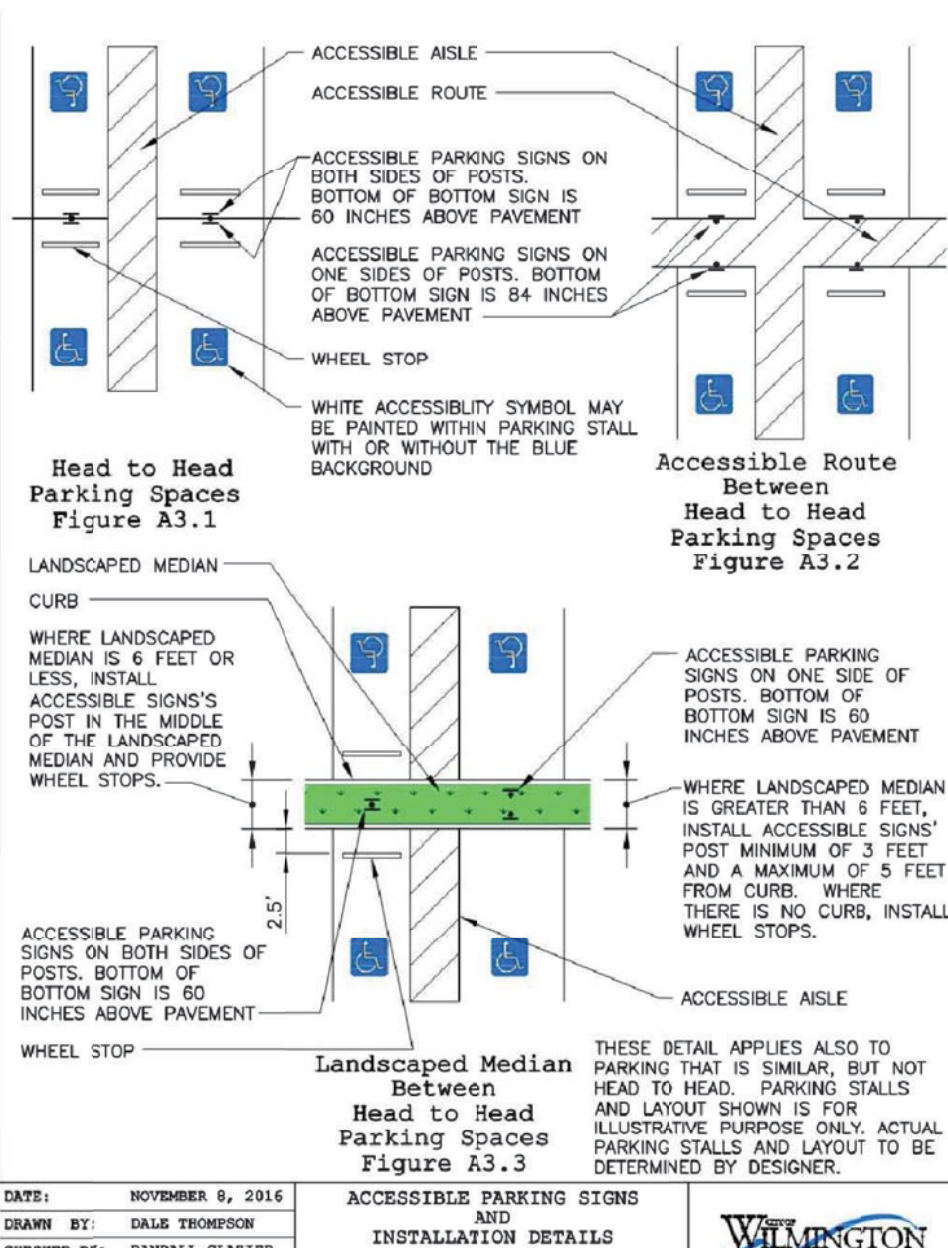
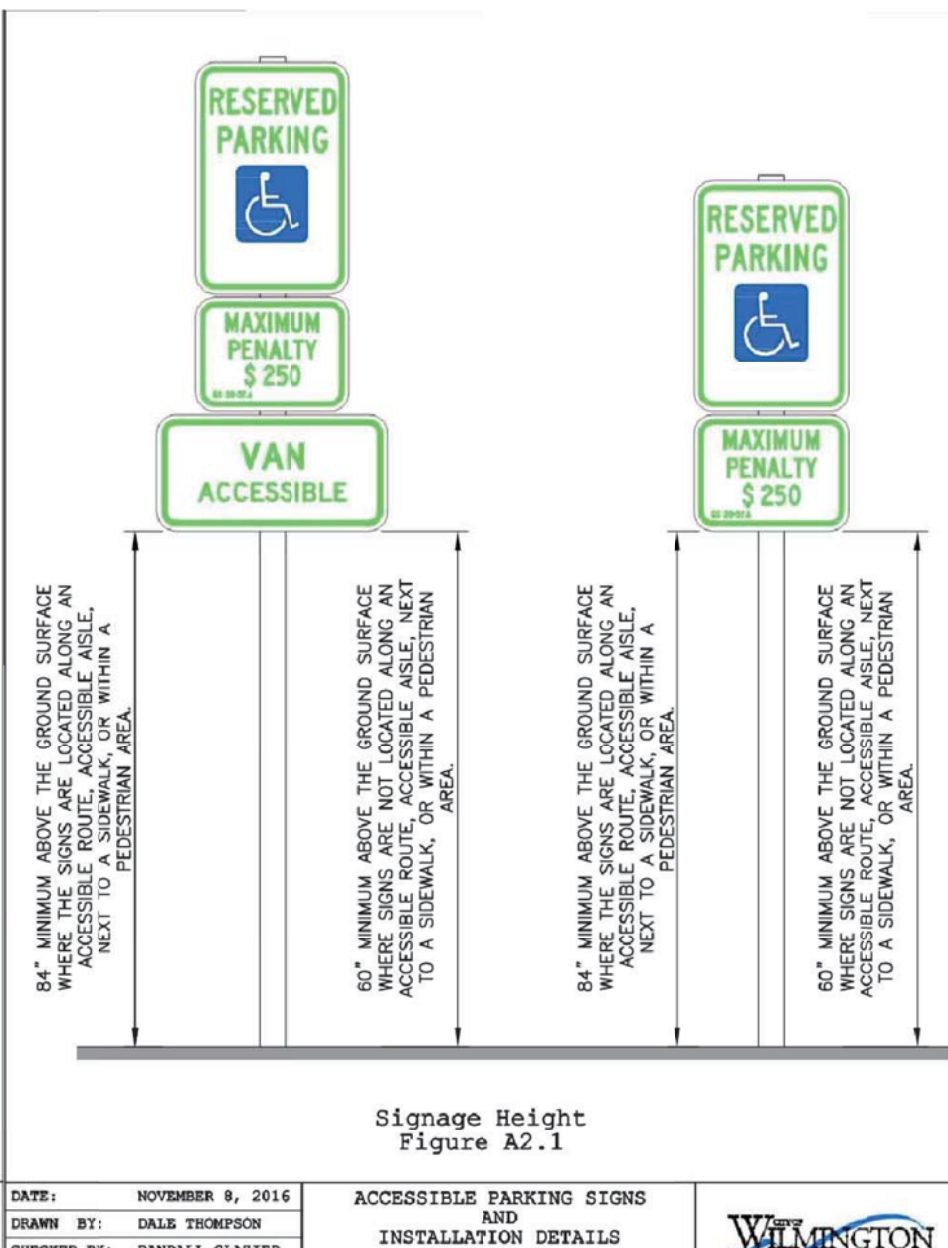
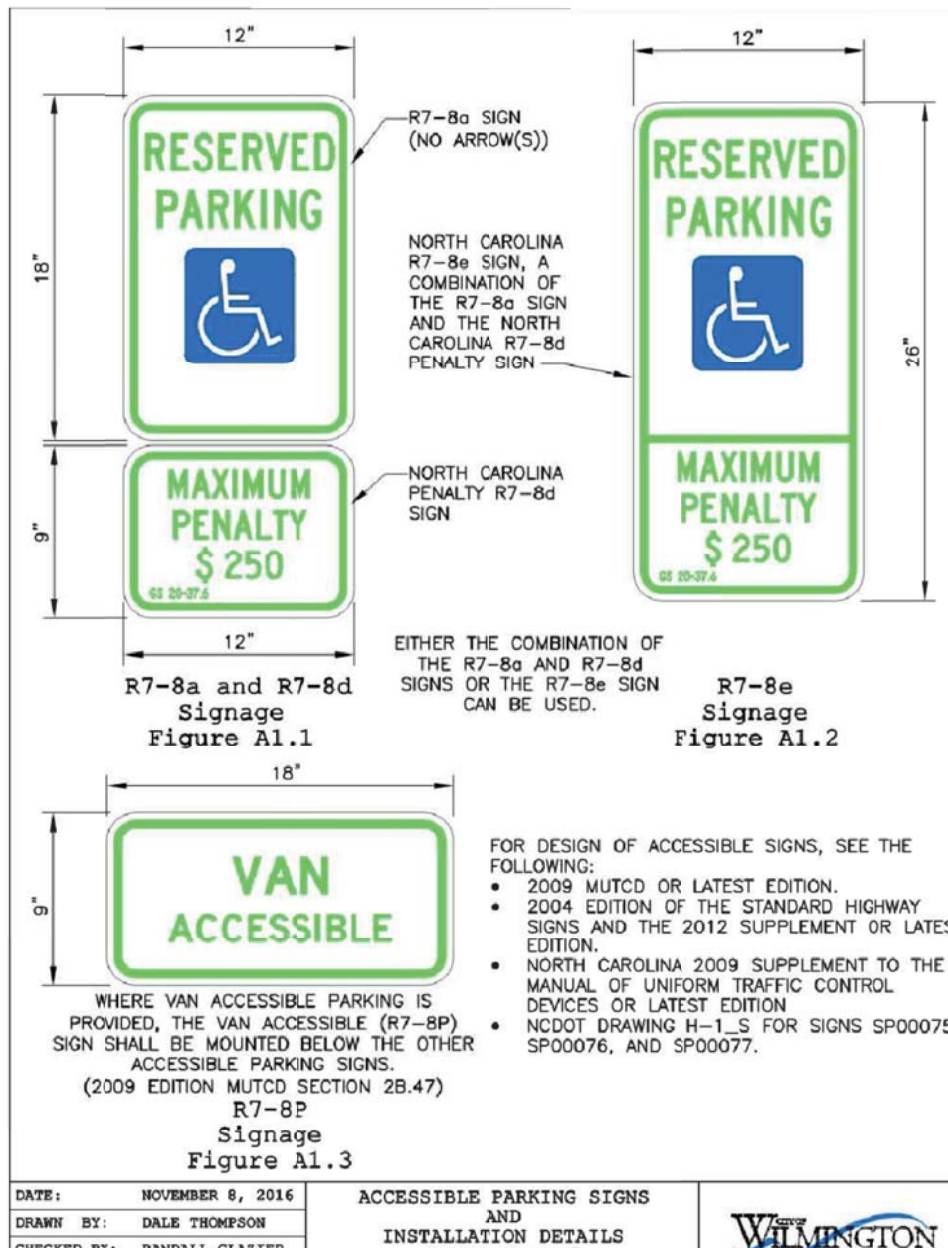
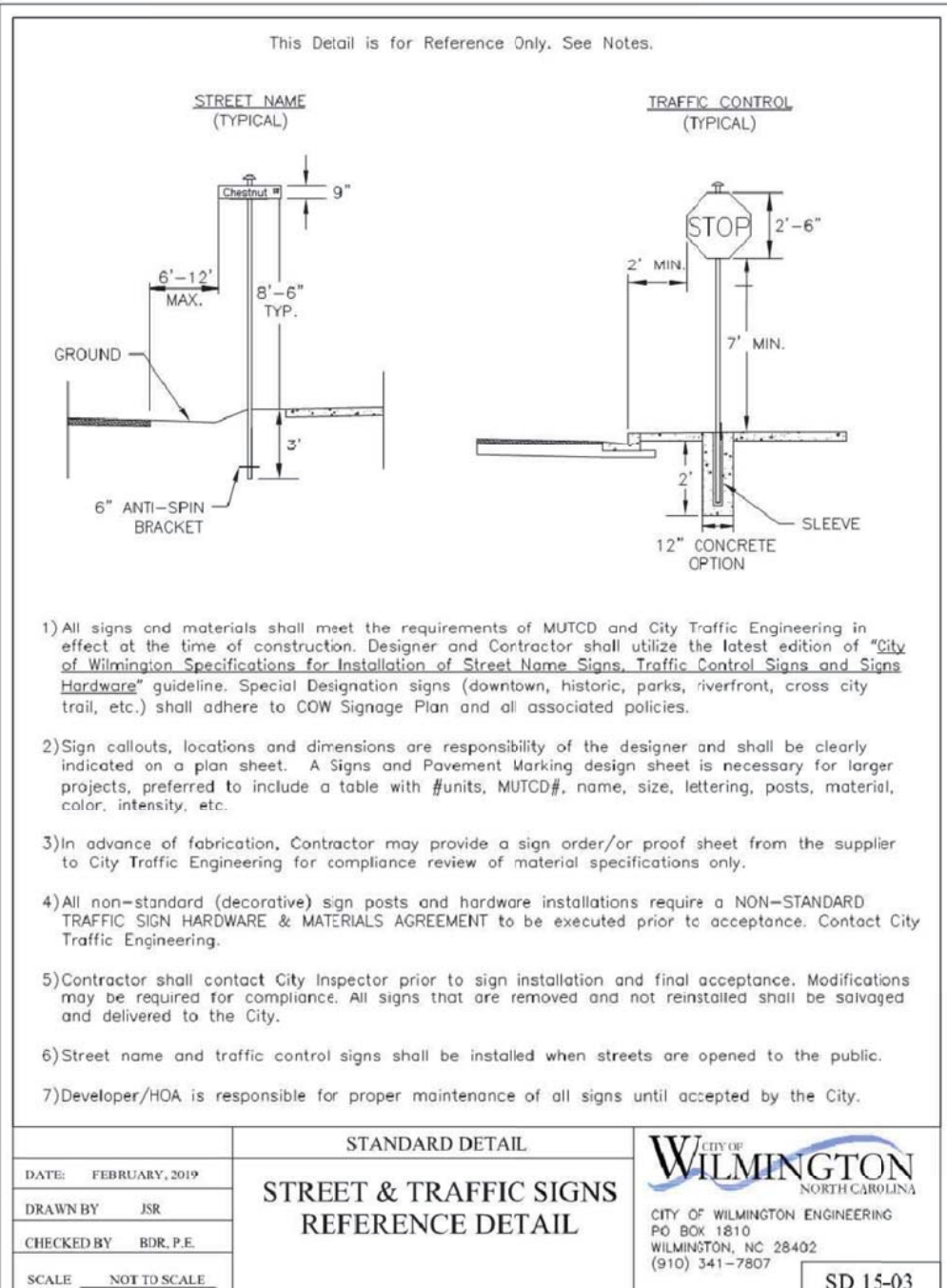
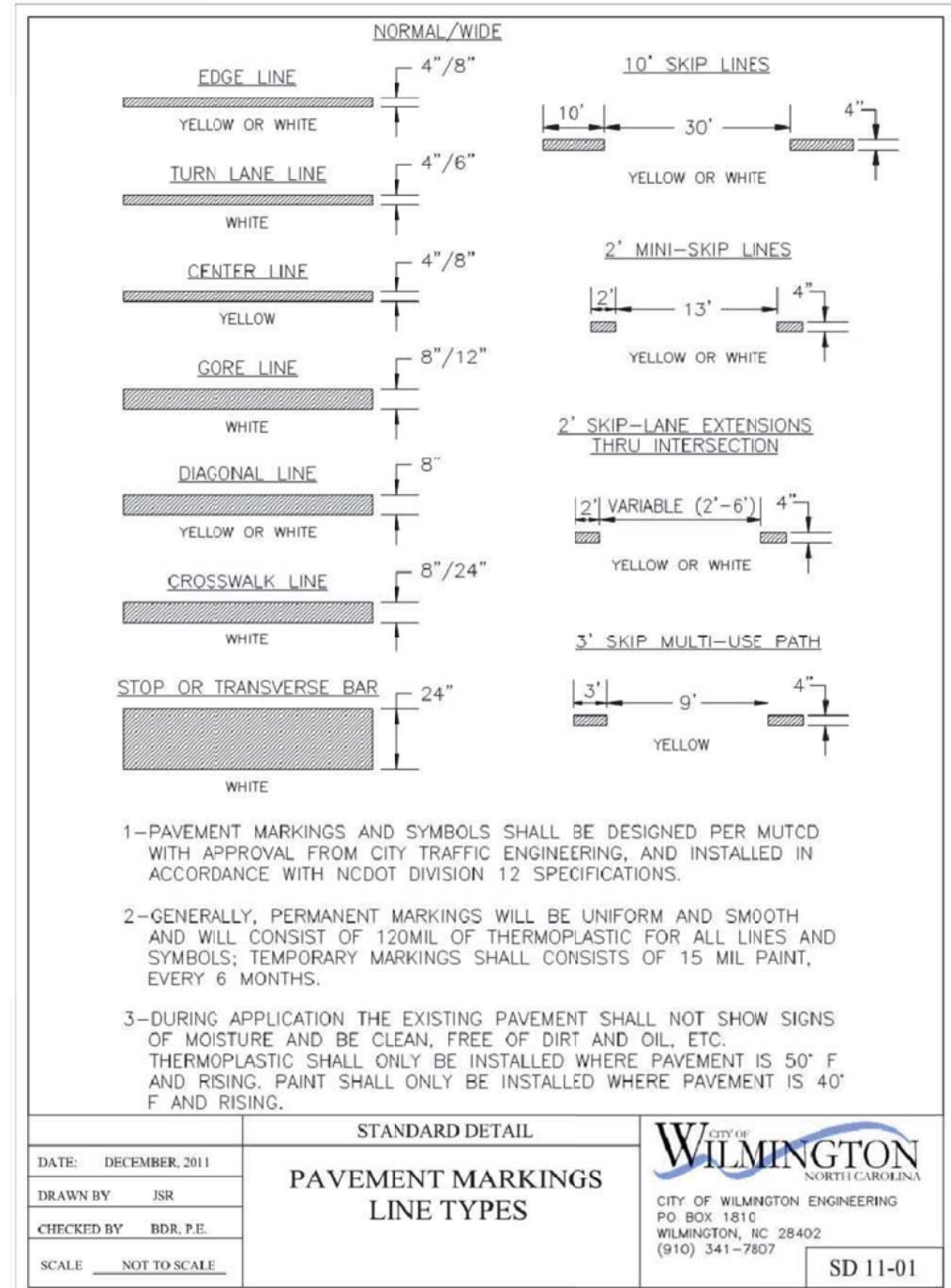
**Approved Construction Plan**
  
 Name: \_\_\_\_\_ Date: \_\_\_\_\_
   
 Planning: \_\_\_\_\_
   
 Traffic: \_\_\_\_\_
   
 Fire: \_\_\_\_\_

REV	BY	DATE	DESCRIPTION

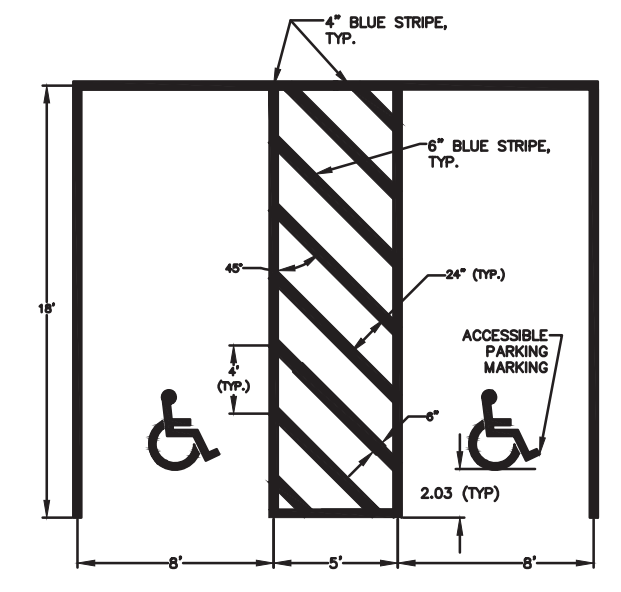
LOCATION: 838 SUNNYVALE DR., WILMINGTON, NC
   
 TITLE: WILMINGTON WALLBOARD PLANT PROPOSED INDUSTRIAL SIDETRACK & STORMWATER MANAGEMENT IMPROVEMENTS EMERGENCY OUTFALL UTILITY PROFILE
   
 DSN: \_\_\_\_\_
   
 PIN: JAB DATE: 10/24/2019
   
 CHK: MJT DATE: 10/25/2019
   
 DRAWING NUMBER: C-502



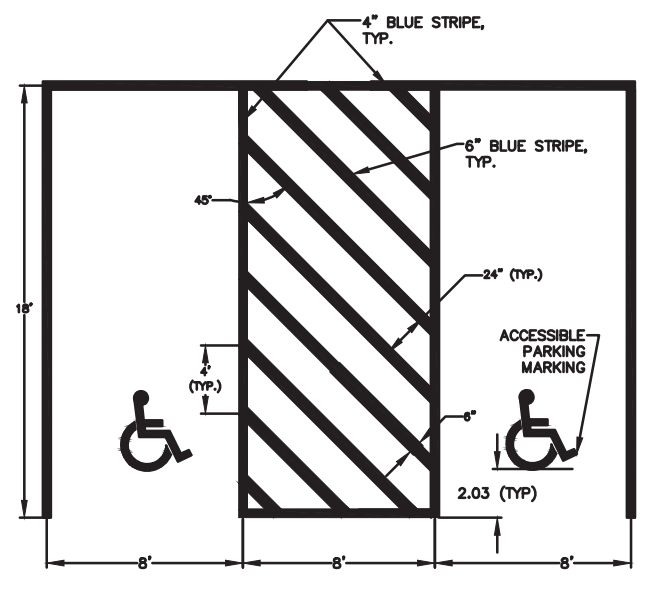




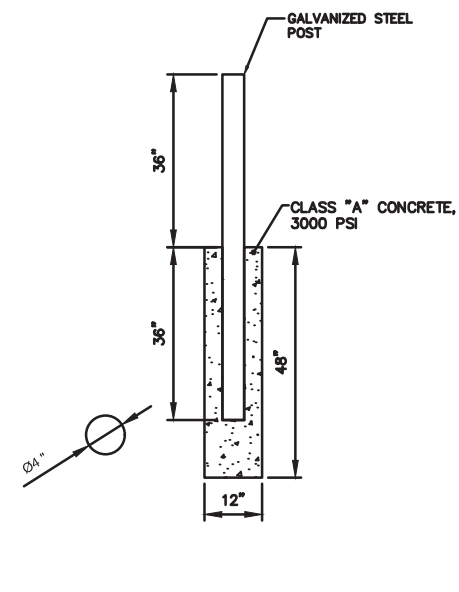
**PARKING STALL STRIPING**  
NOT TO SCALE



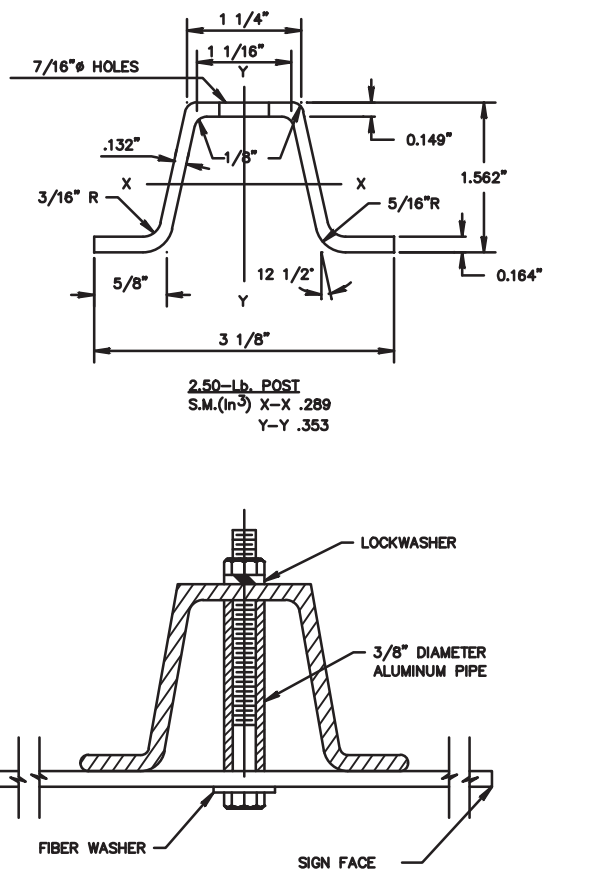
**ACCESSIBLE PARKING STALL STRIPING**  
NOT TO SCALE



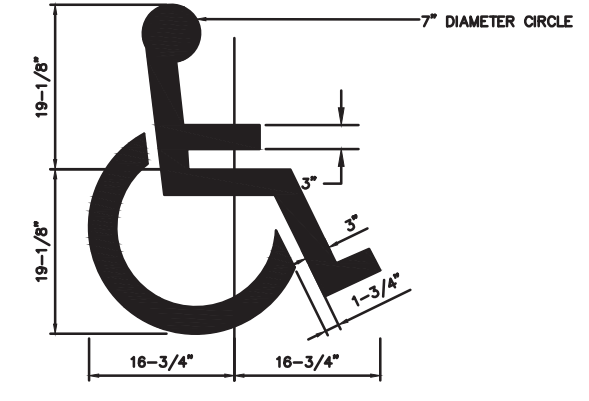
**ACCESSIBLE VAN PARKING STALL STRIPING**  
NOT TO SCALE



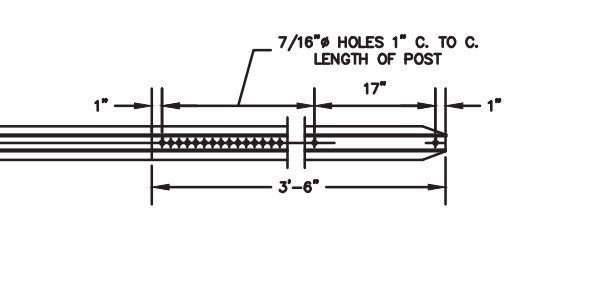
**BOLLARD POST**  
NOT TO SCALE



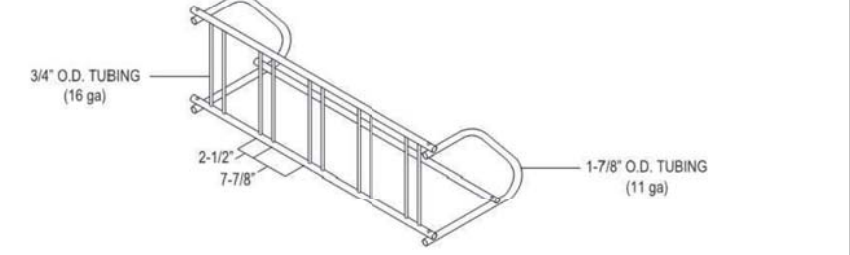
**MOUNTING DETAIL**  
NOT TO SCALE



**ACCESSIBLE PARKING MARKING**  
1" = 1"



**SIGN POST**  
NOT TO SCALE



**5 GRID BELSON BIKE RACK, BLACK, MODEL #CBBR-56G-BK**  
NOT TO SCALE

**Approved Construction Plan**

Name: \_\_\_\_\_ Date: \_\_\_\_\_

Planning: \_\_\_\_\_

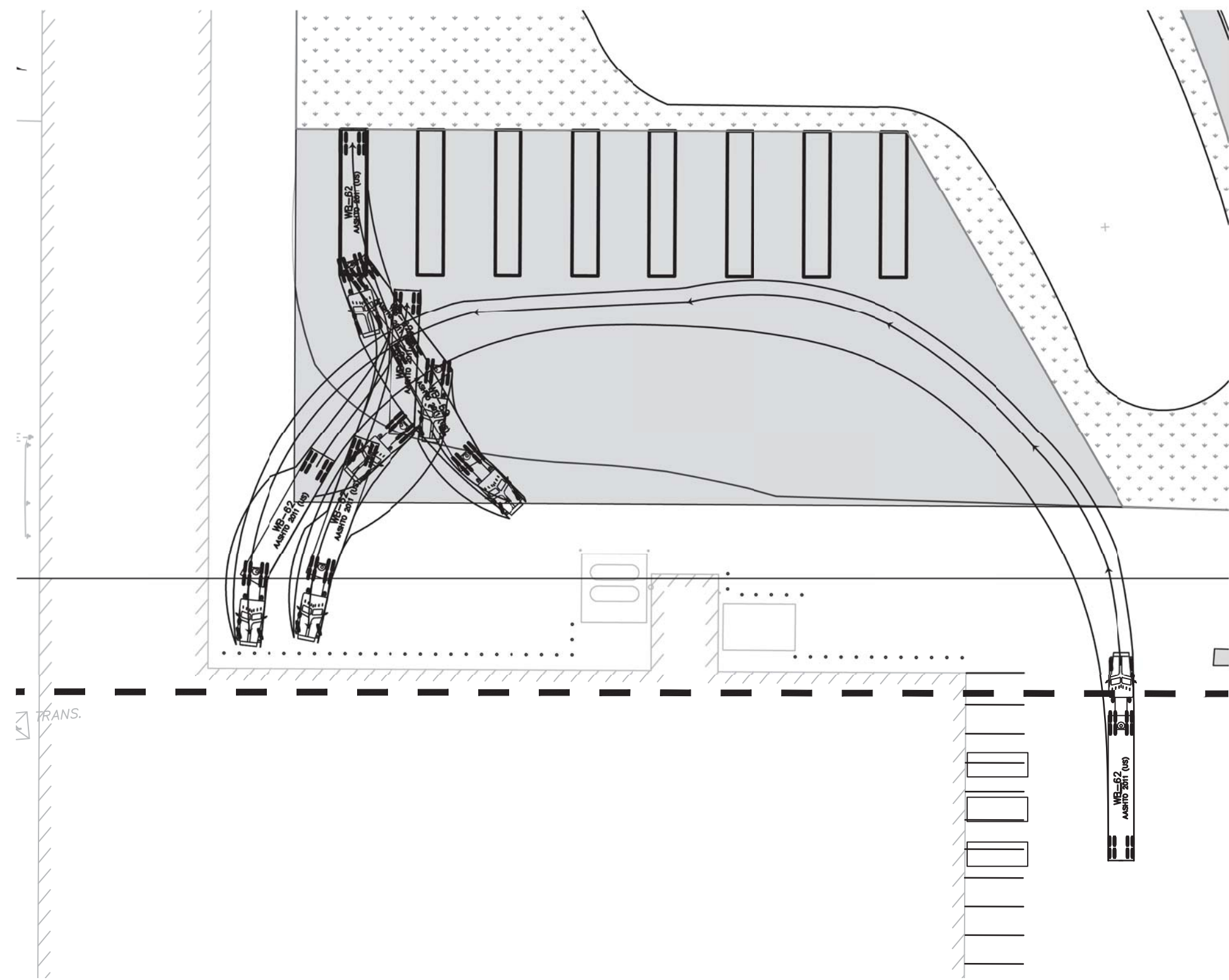
Traffic: \_\_\_\_\_

Fire: \_\_\_\_\_

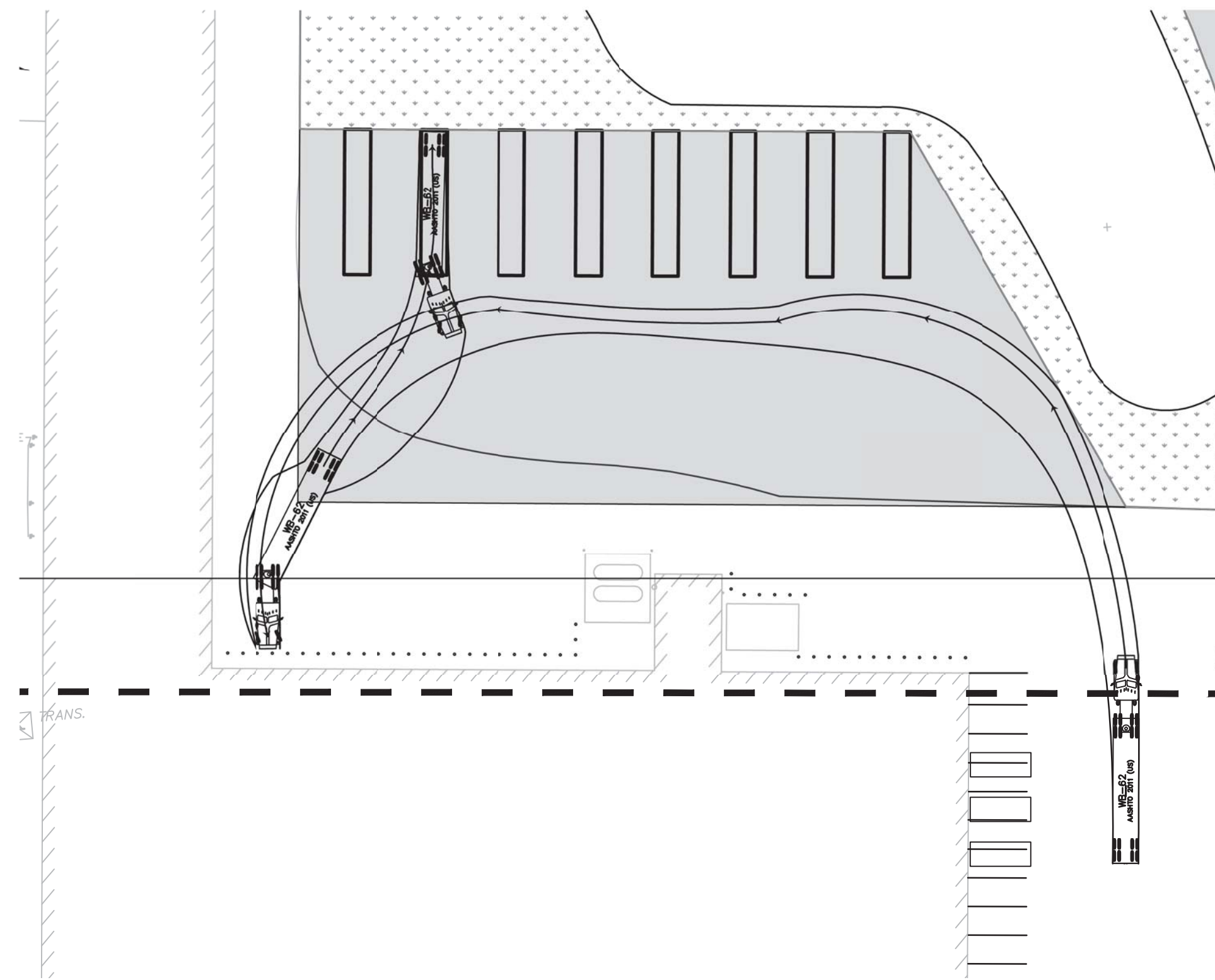
REV	BY	DATE	DESCRIPTION

LOCATION	838 SUNNYVALE DR., WILMINGTON, NC
TITLE	WILMINGTON WALLBOARD PLANT PROPOSED INDUSTRIAL SIDETRACK & STORMWATER MANAGEMENT IMPROVEMENTS CONSTRUCTION DETAILS - 2
DGN	
DWN	JAB
DATE	10/24/2019
DRAWING NUMBER	C-601
CHK	MJT
DATE	10/25/2019

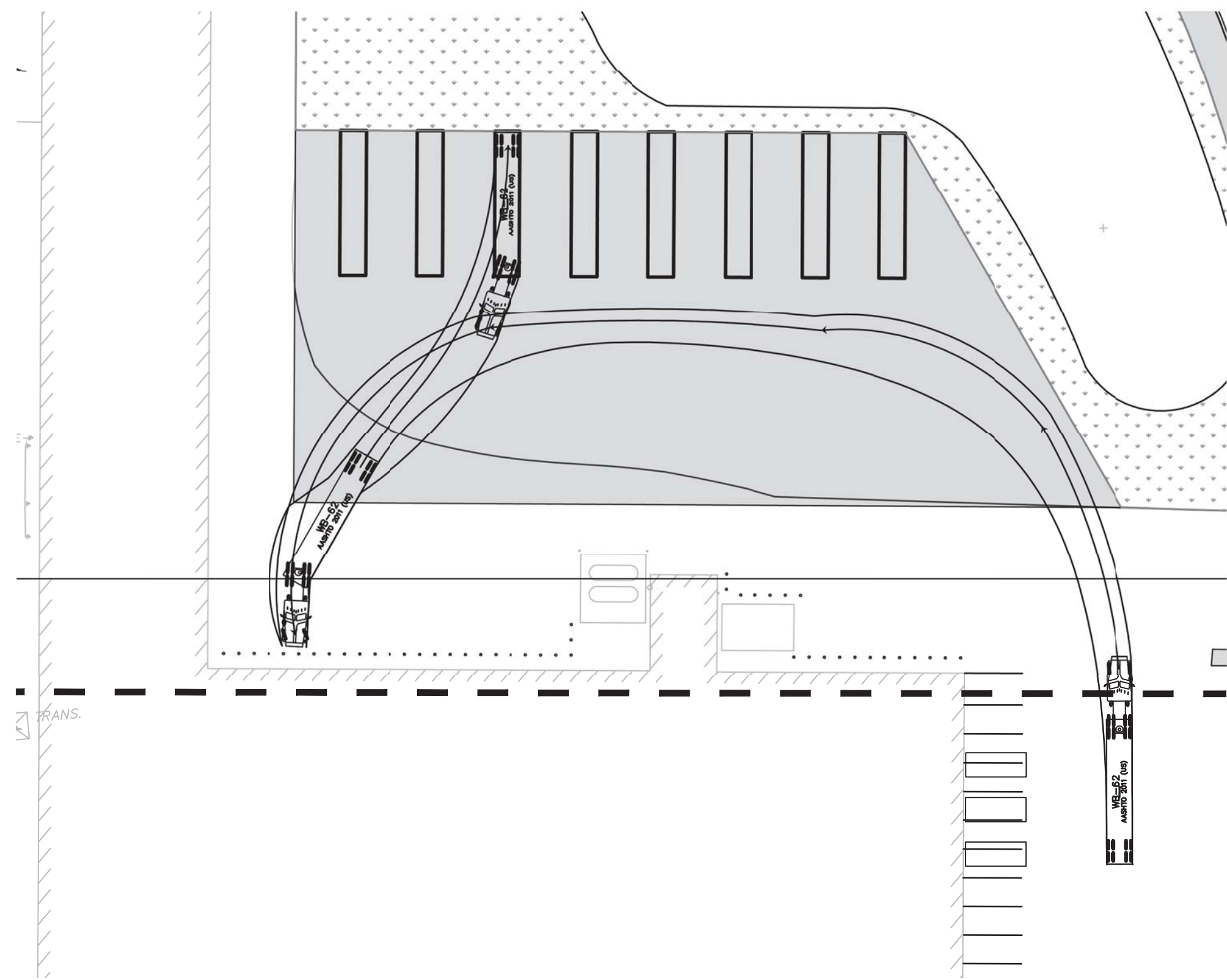




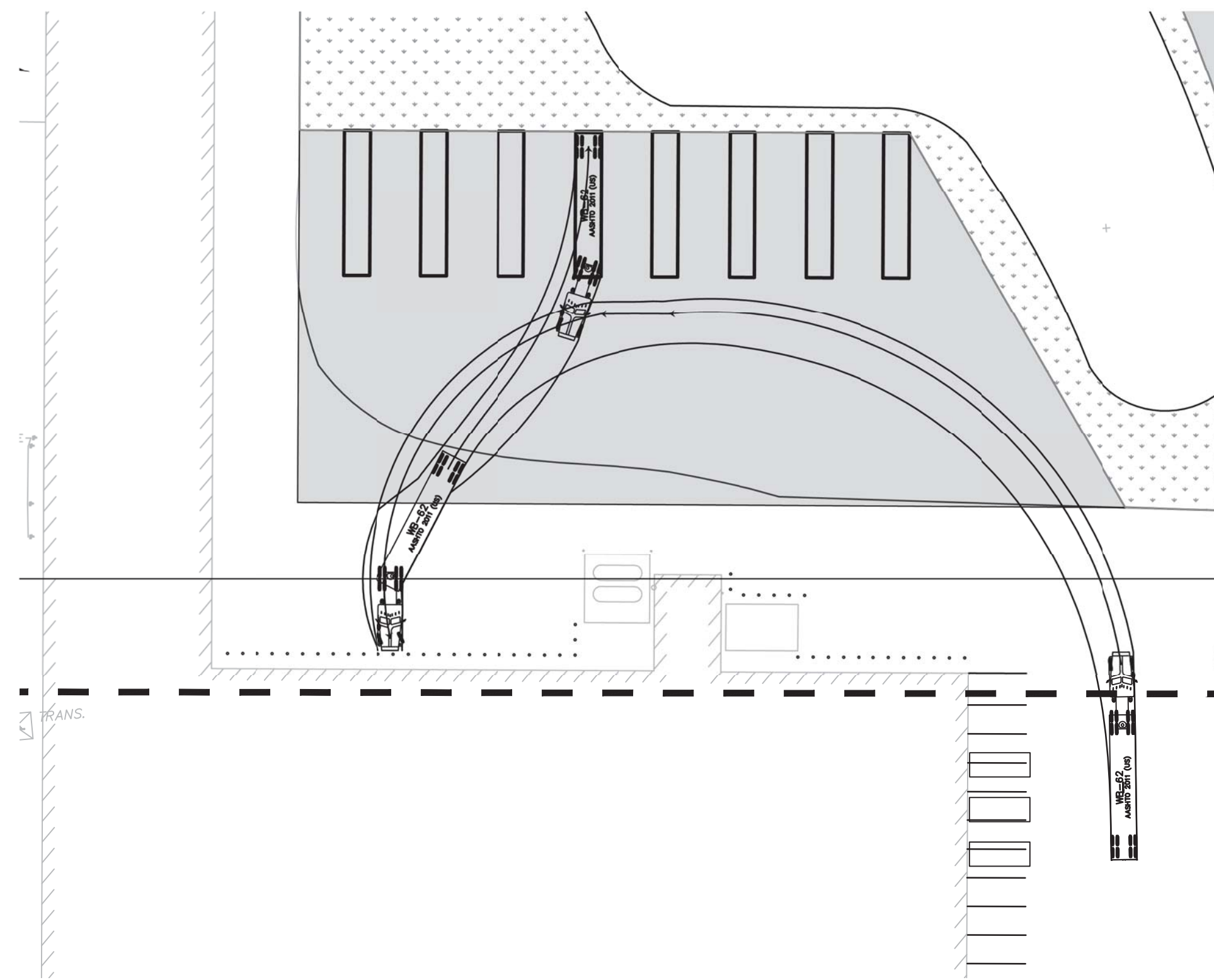
**WB-62 TRUCK TURNING MANEUVER - SPOT 1**  
SCALE: 1" = 40'



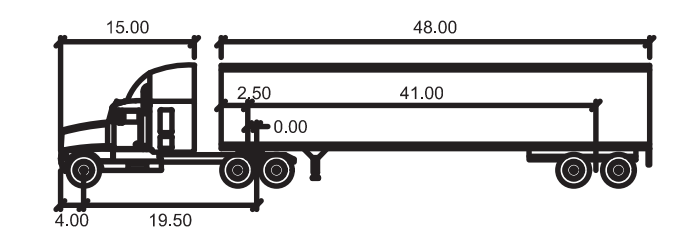
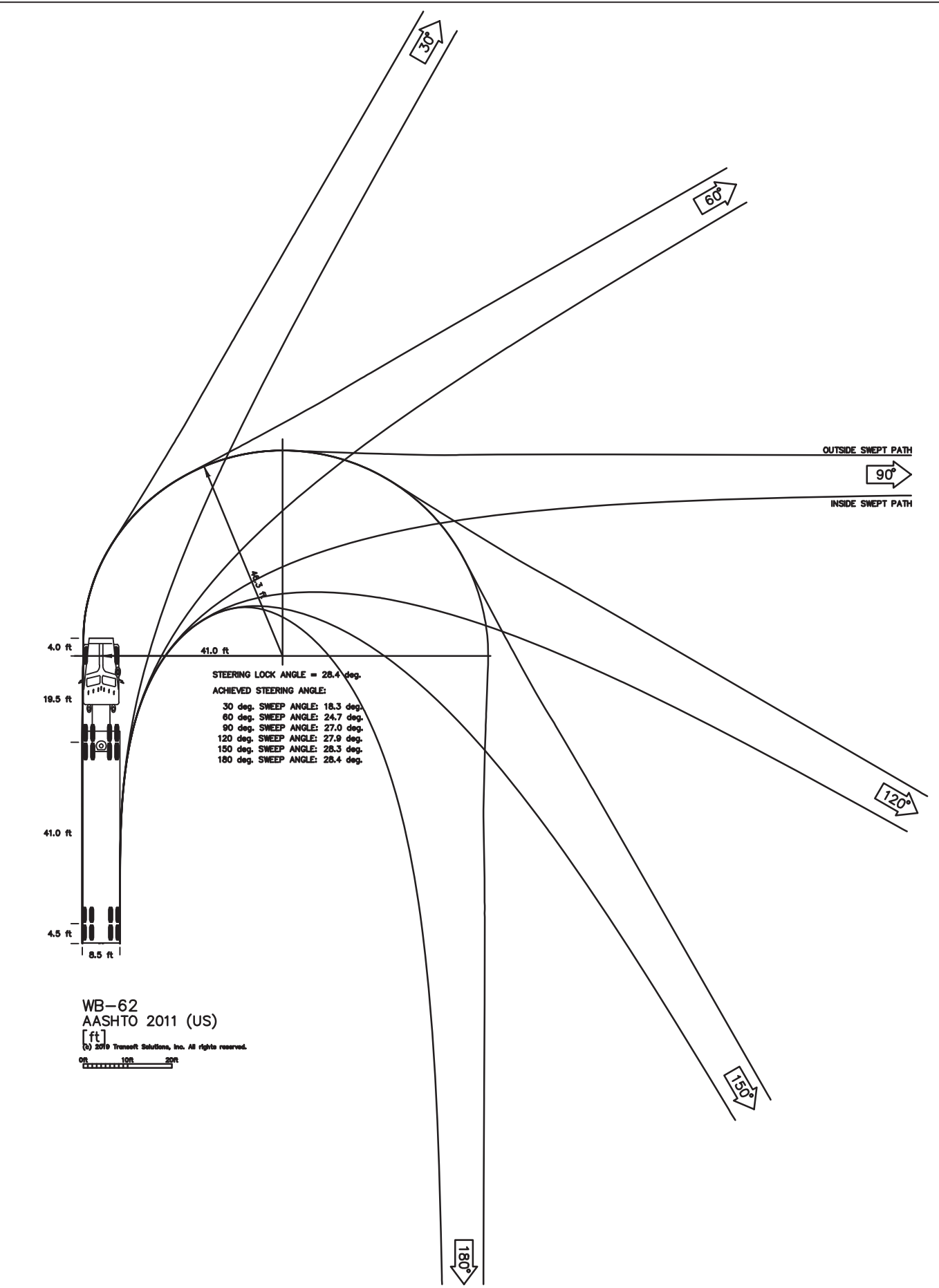
**WB-62 TRUCK TURNING MANEUVER - SPOT 2**  
SCALE: 1" = 40'



**WB-62 TRUCK TURNING MANEUVER - SPOT 3**  
SCALE: 1" = 40'



**WB-62 TRUCK TURNING MANEUVER - SPOT 4**  
SCALE: 1" = 40'



WB-62

feet	
Tractor Width	: 8.00
Tractor Track	: 8.00
Trailer Width	: 8.50
Trailer Track	: 8.50
Lock to Lock Time	: 6.0
Steering Angle	: 28.4
Articulating Angle	: 70.0

**Approved Construction Plan**

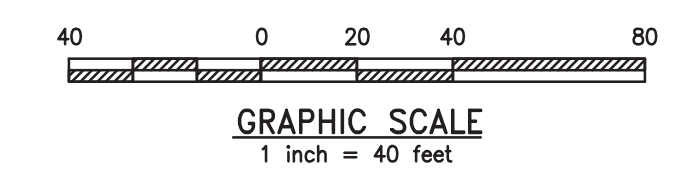
Name \_\_\_\_\_ Date \_\_\_\_\_

Planning \_\_\_\_\_

Traffic \_\_\_\_\_

Fire \_\_\_\_\_

- NOTE:**
1. PROTECTIVE BOLLARDS WILL BE INSTALLED AT 5-FOOT ON CENTER, IF NECESSARY TO PROTECT THE BUILDING.
  2. DESIGN SPEED FOR TURNING MANEUVER - SPOT 1: 2 MPH.
  3. DESIGN SPEED FOR TURNING MANEUVERS - SPOTS 2-4: 6 MPH.



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19106-3685  
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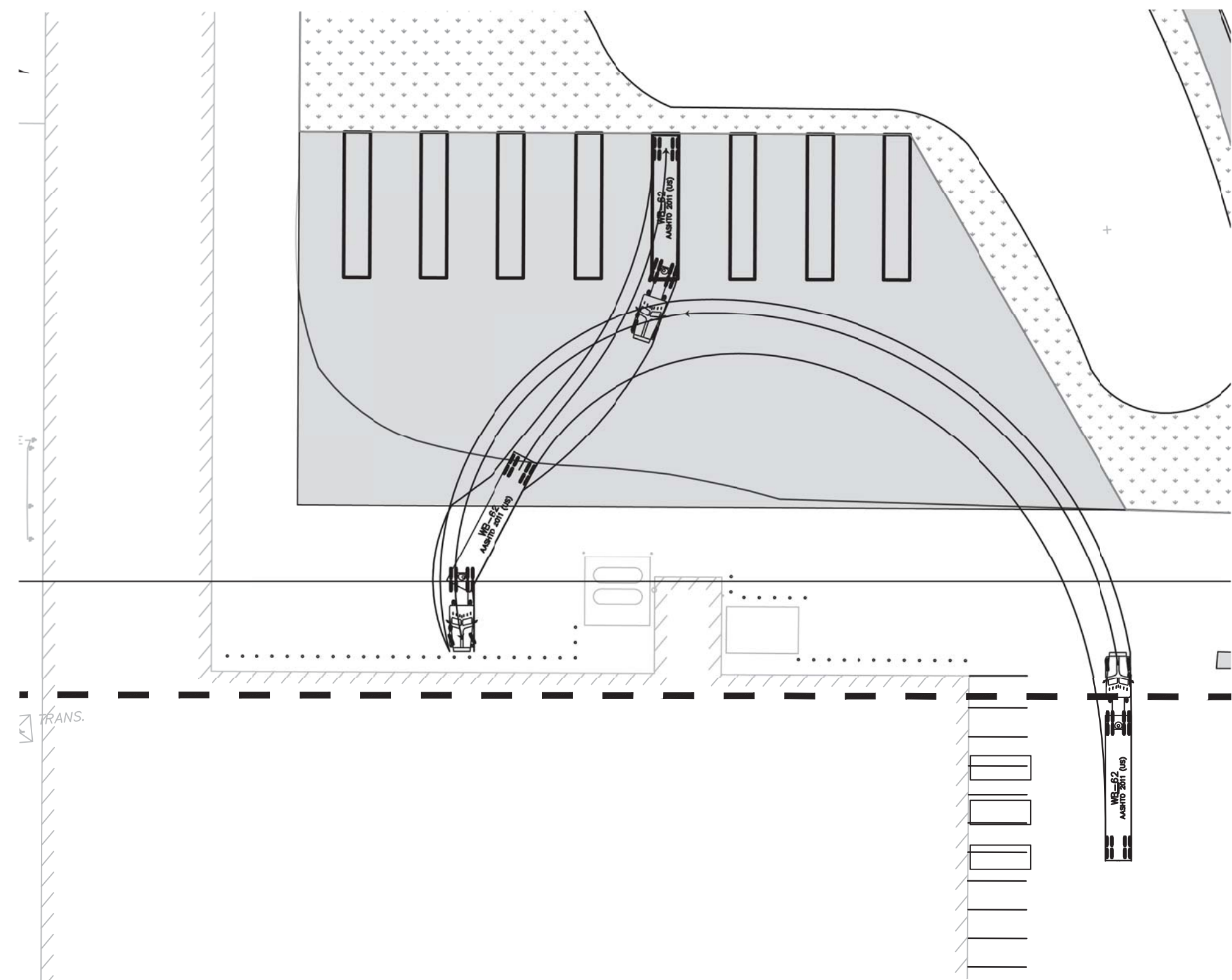
REV	BY	DATE	DESCRIPTION

LOCATION: 838 SUNNYVALE DR., WILMINGTON, NC

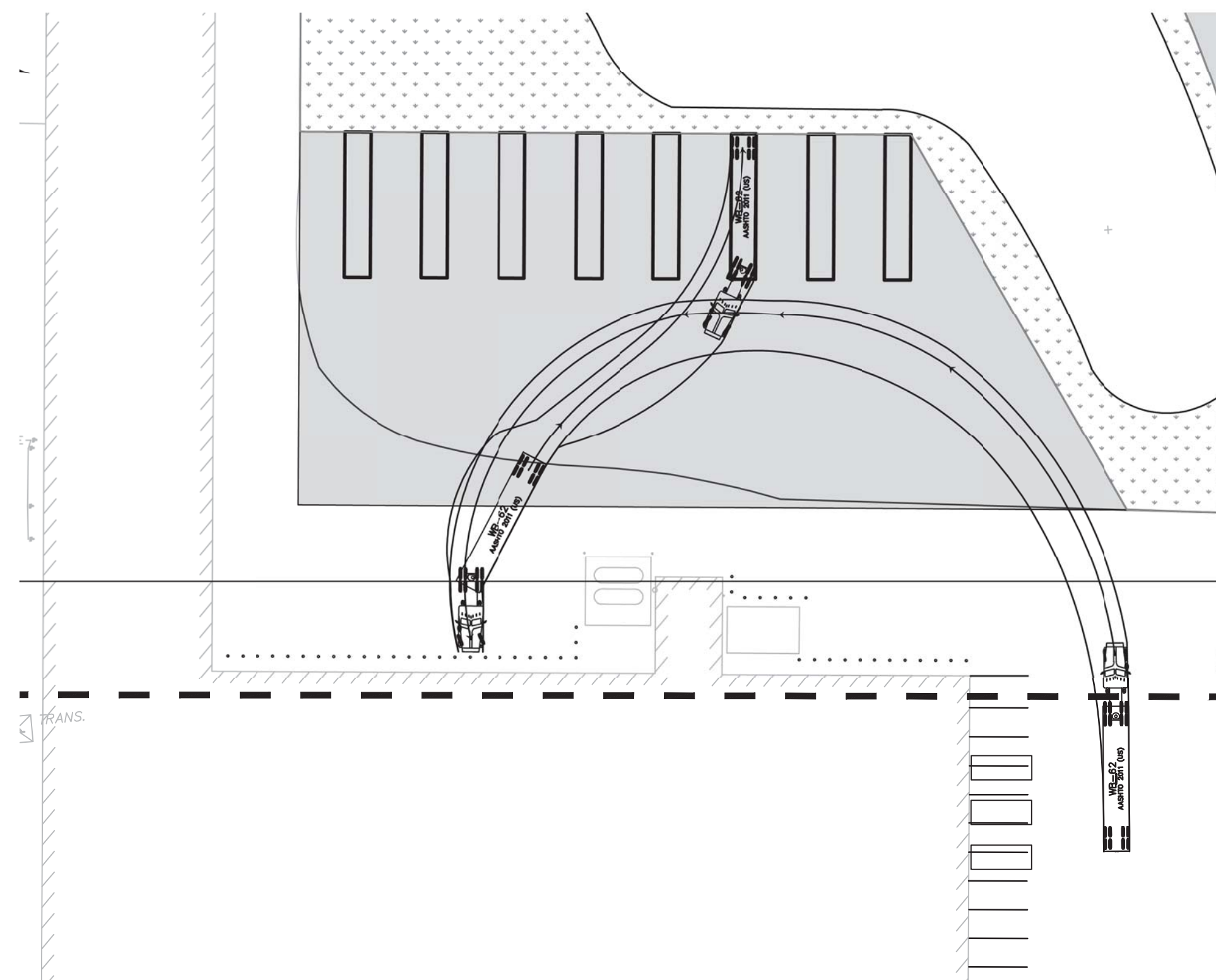
TITLE: WILMINGTON WALLBOARD PLANT PROPOSED INDUSTRIAL SIDETRACK & STORMWATER MANAGEMENT IMPROVEMENTS WB-62 TRUCK TURNING MANEUVER PLAN

DGN: \_\_\_\_\_ DATE: 10/24/2019 DRAWING NUMBER: \_\_\_\_\_

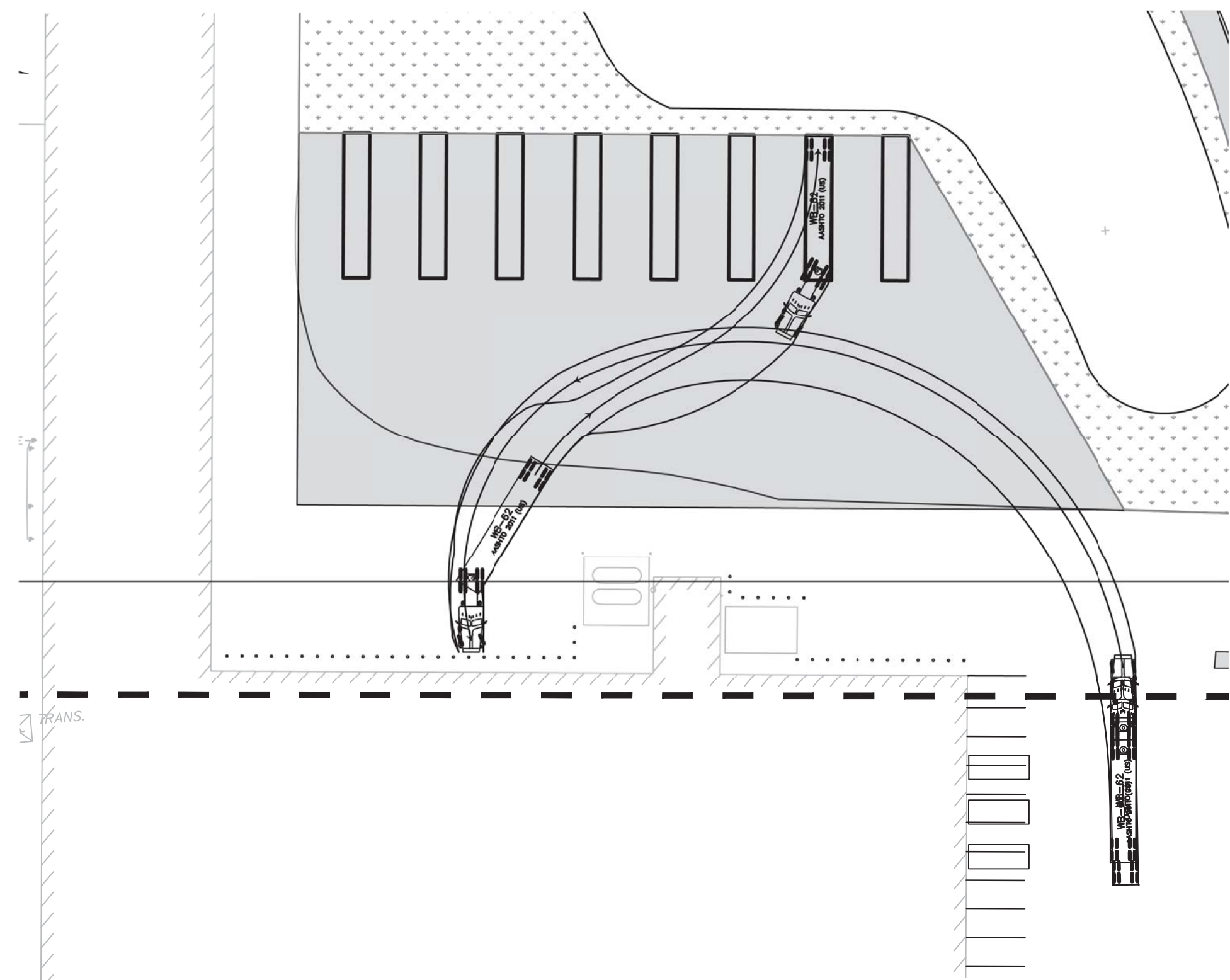
CHK: MJT DATE: 10/25/2019 \_\_\_\_\_ C-701



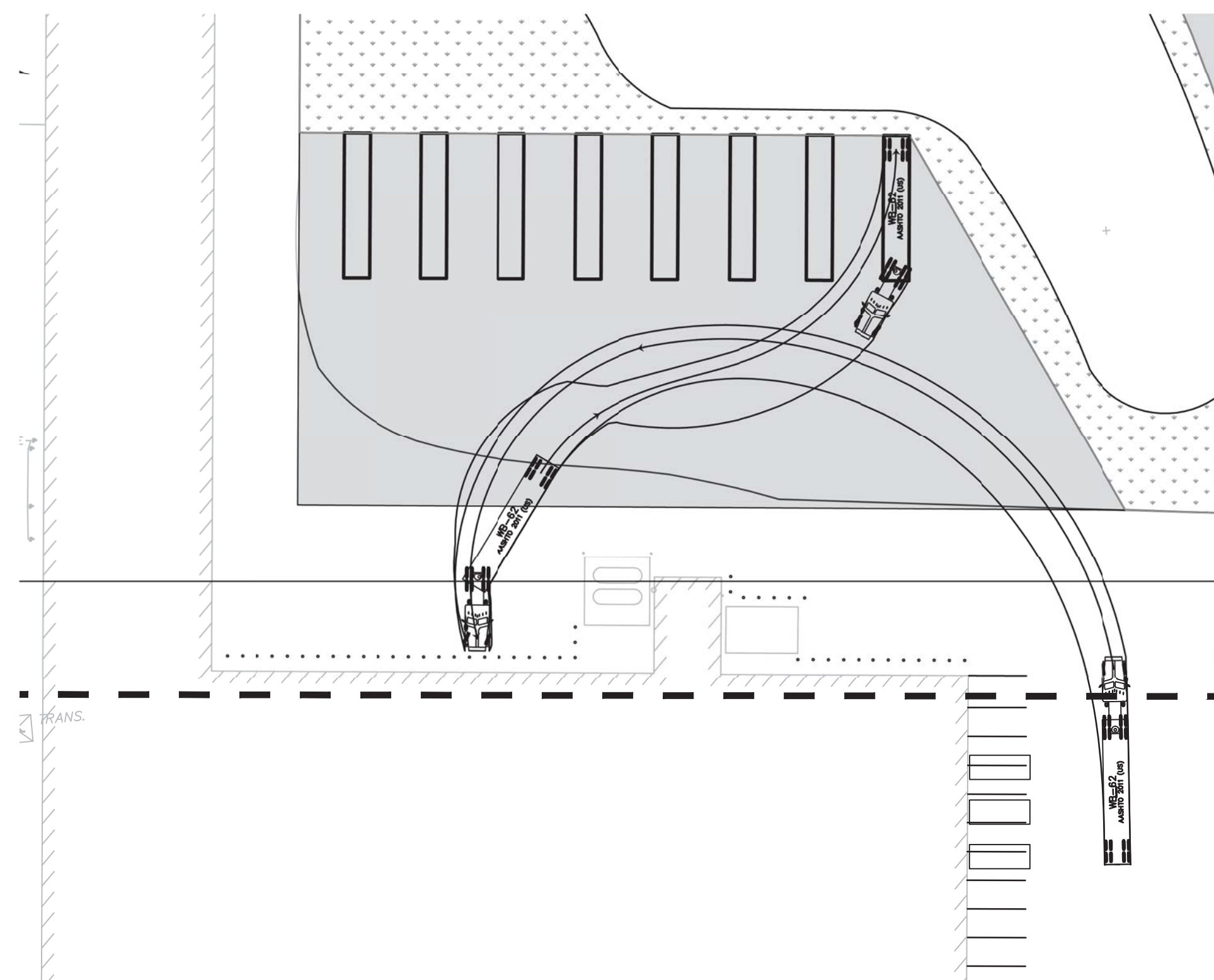
WB-62 TRUCK TURNING MANEUVER - SPOT 5  
SCALE: 1" = 40'



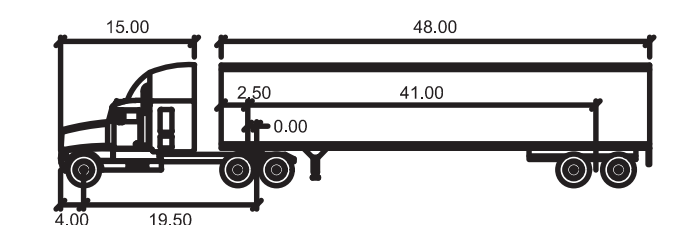
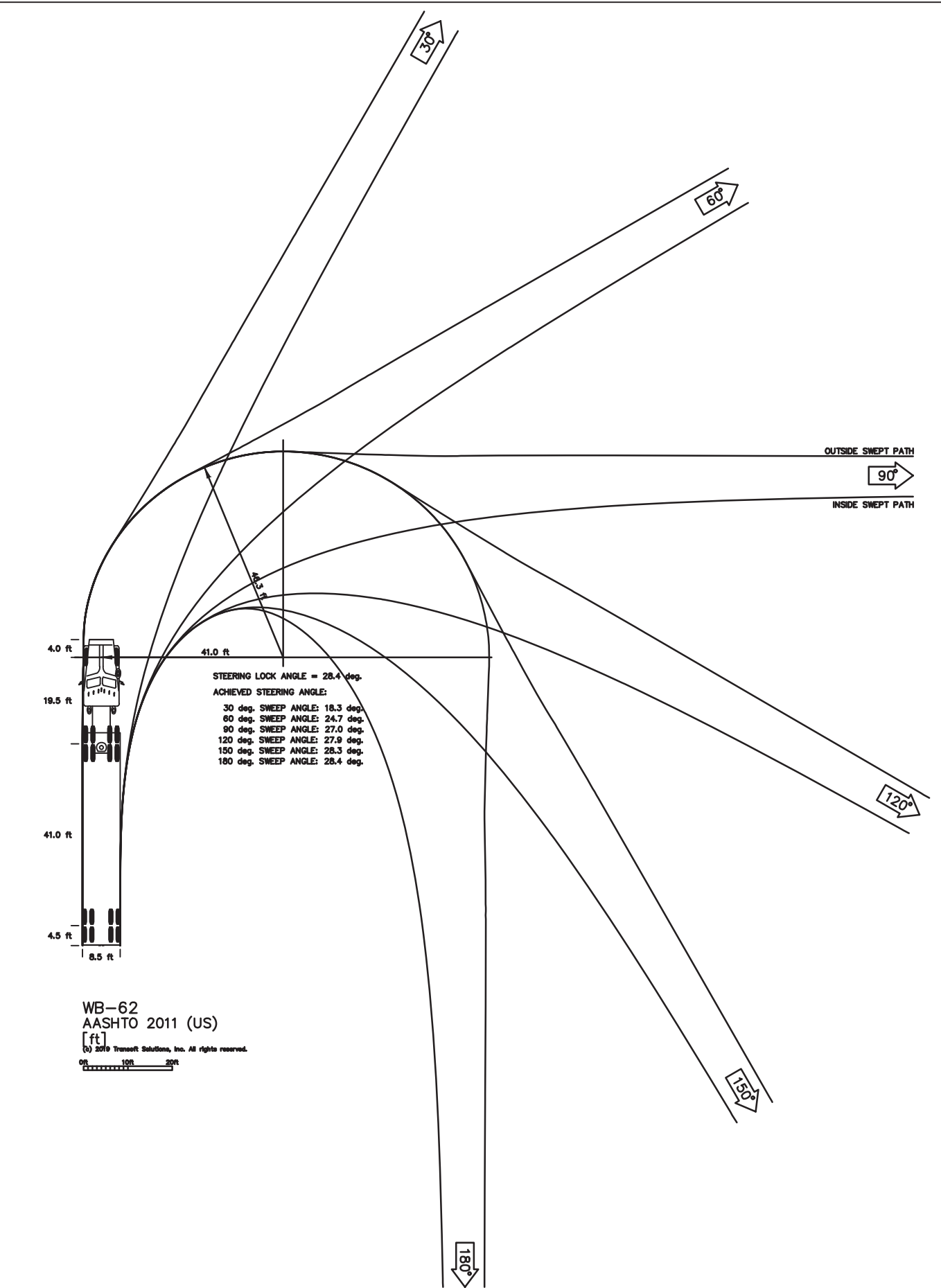
WB-62 TRUCK TURNING MANEUVER - SPOT 6  
SCALE: 1" = 40'



WB-62 TRUCK TURNING MANEUVER - SPOT 7  
SCALE: 1" = 40'



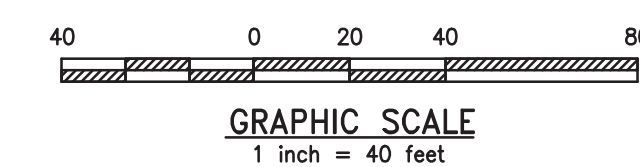
WB-62 TRUCK TURNING MANEUVER - SPOT 8  
SCALE: 1" = 40'



WB-62			
Tractor Width	: 8.00	Lock to Lock Time	: 6.0
Tractor Track	: 8.50	Steering Angle	: 22.4
Trailer Width	: 8.00	Articulating Angle	: 70.0
Trailer Track	: 8.50		

Approved Construction Plan		
	Name	Date
Planning		
Traffic		
Fire		

- NOTE:
1. PROTECTIVE BOLLARDS WILL BE INSTALLED AT 5-FOOT ON CENTER, IF NECESSARY TO PROTECT THE BUILDING.
  2. DESIGN SPEED FOR TURNING MANEUVERS - SPOTS 5-8: 6 MPH.

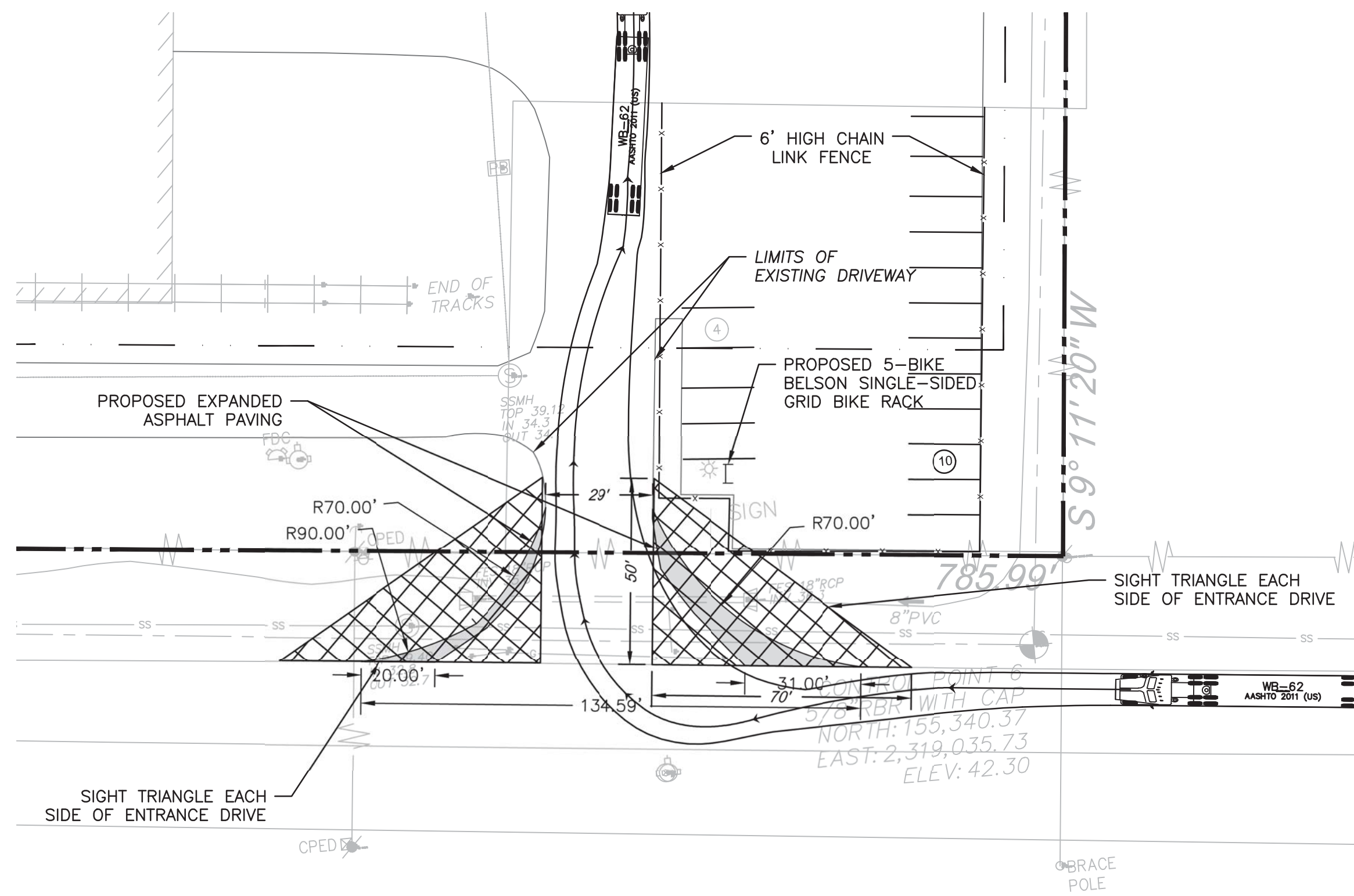


**URBAN ENGINEERS**  
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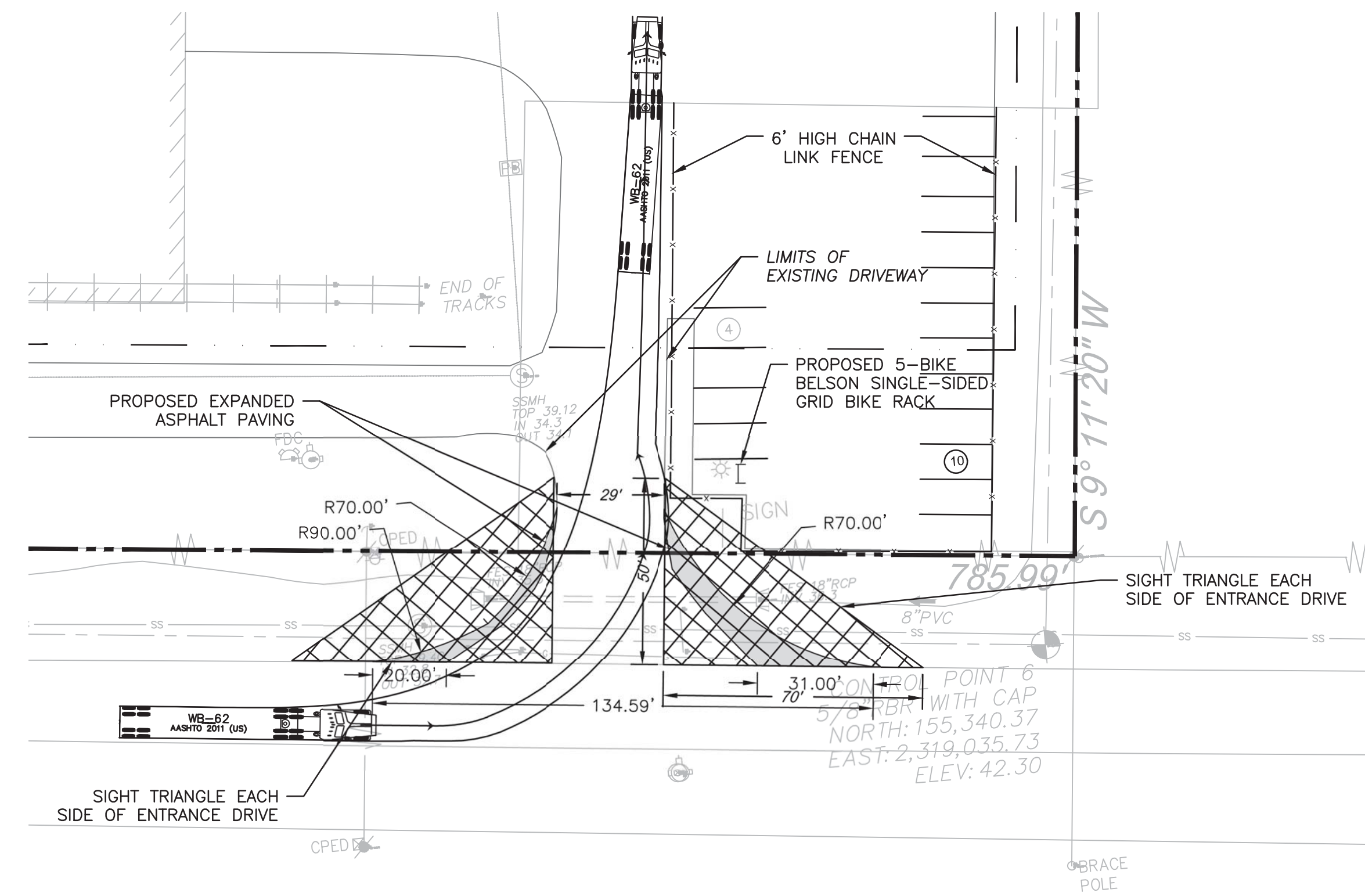
**National Gypsum COMPANY**

REV	BY	DATE	DESCRIPTION
LOCATION: 838 SUNNYVALE DR., WILMINGTON, NC			
TITLE: WILMINGTON WALLBOARD PLANT PROPOSED INDUSTRIAL SIDETRACK & STORMWATER MANAGEMENT IMPROVEMENTS WB-62 TRUCK TURNING MANEUVER PLAN			
DGN	JAB	DATE 10/24/2019	DRAWING NUMBER
CHK	MJT	DATE 10/25/2019	C-702

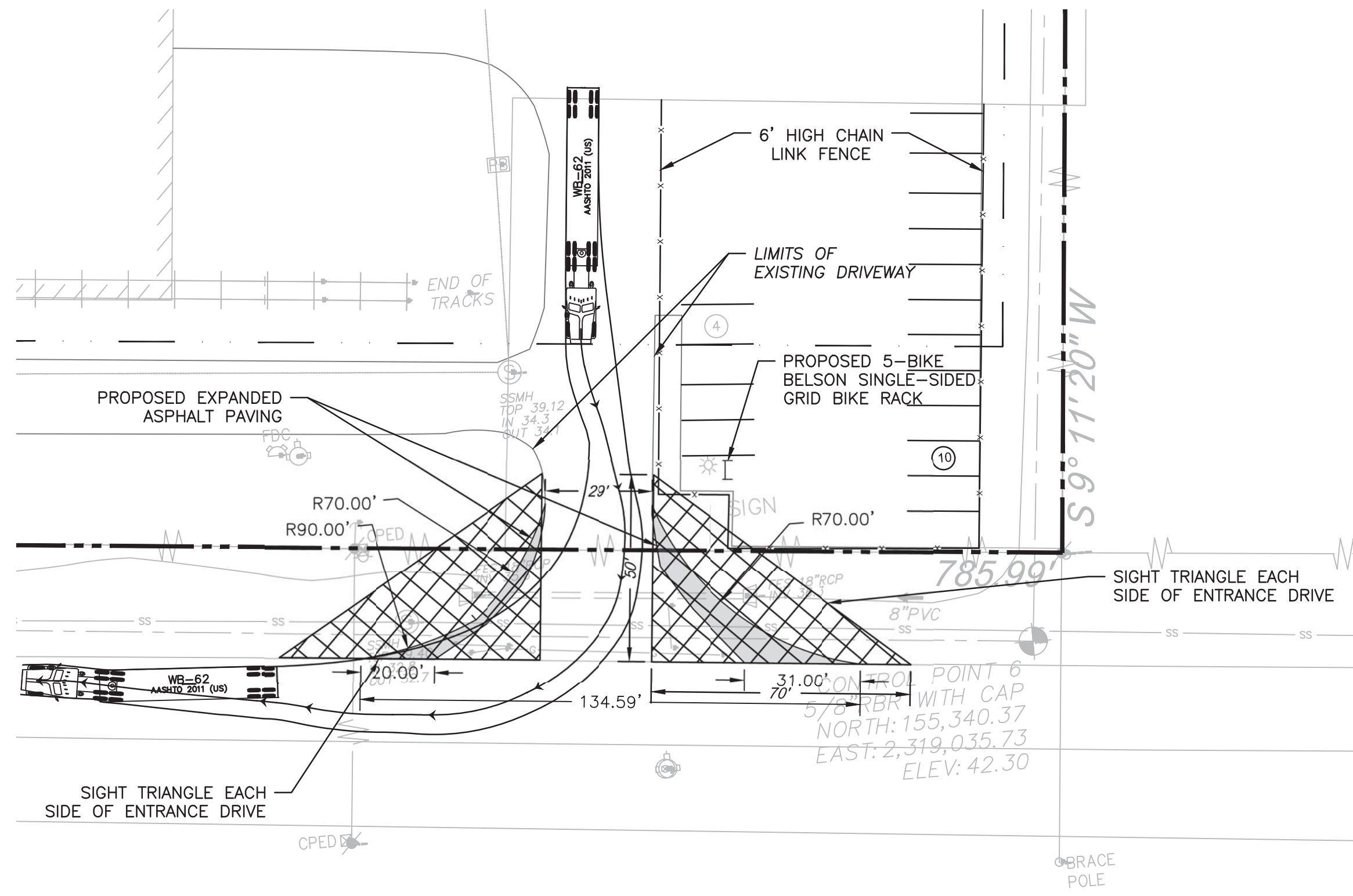
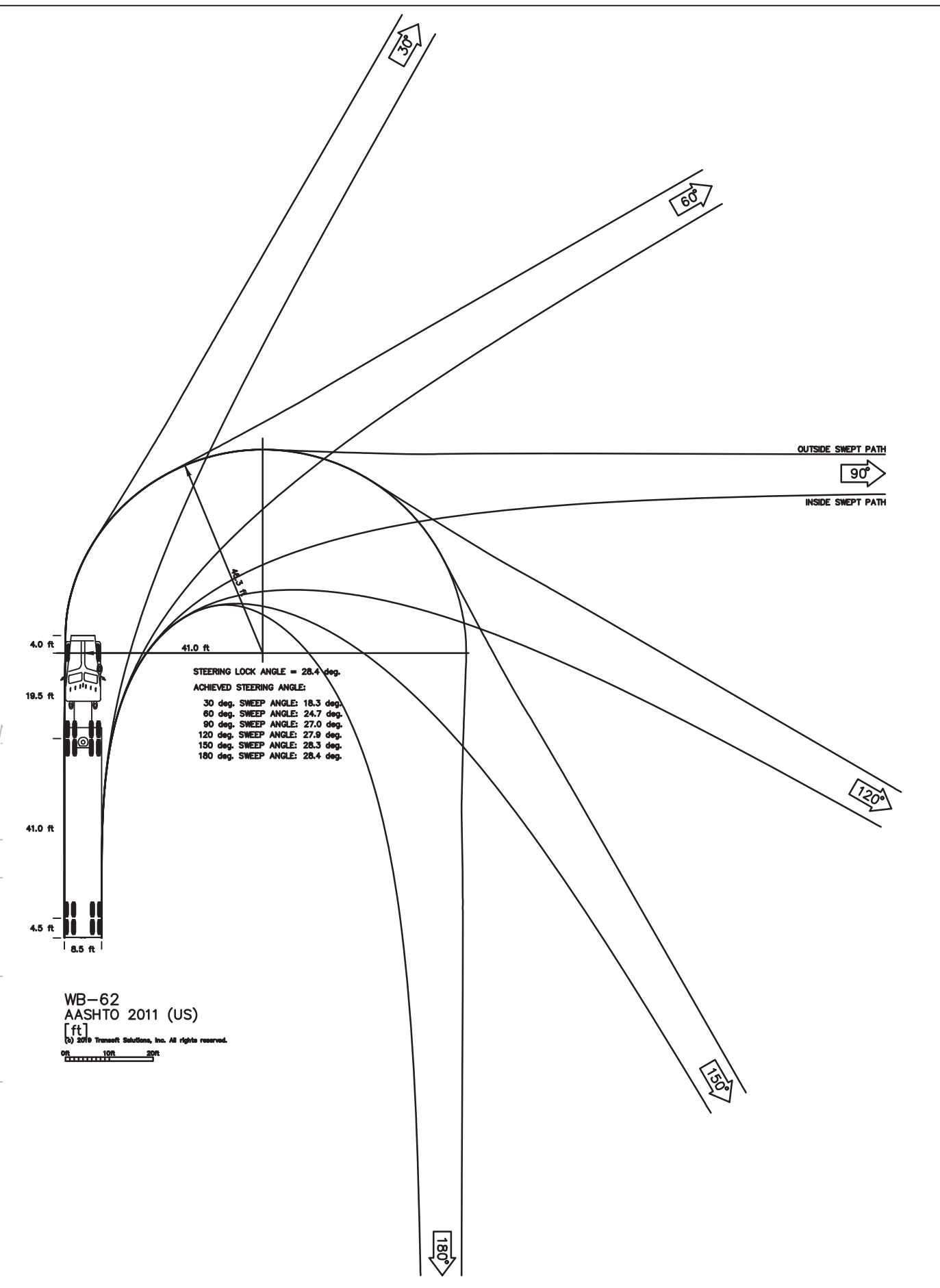




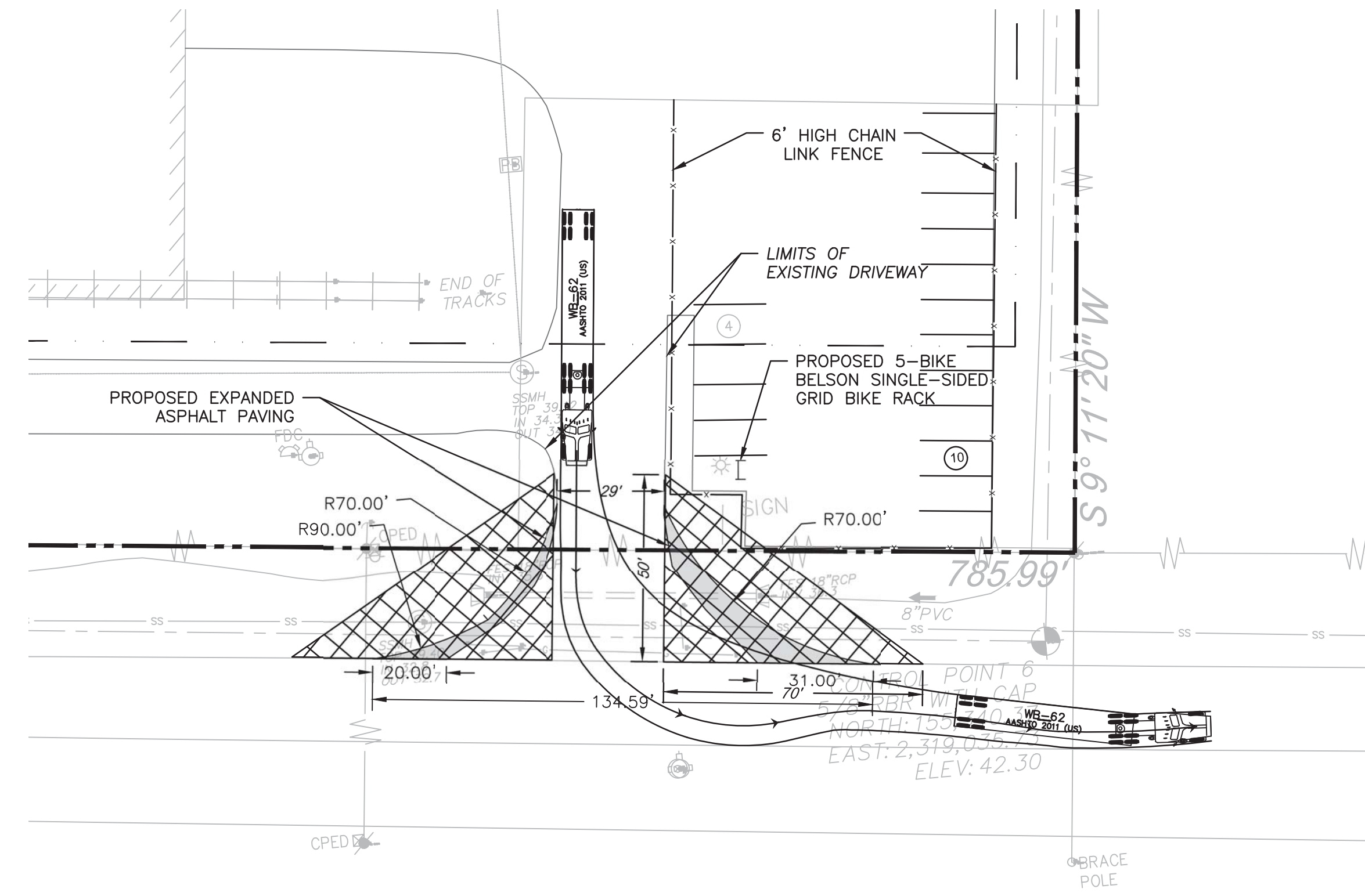
**WB-62 TRUCK TURNING MANEUVER - INBOUND WEST**  
SCALE: 1" = 30'



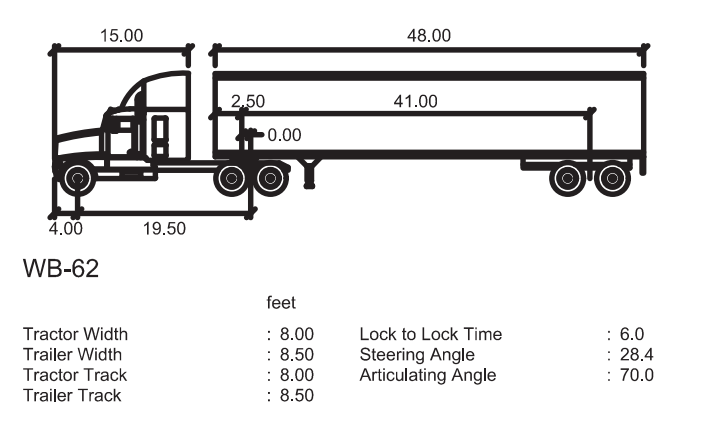
**WB-62 TRUCK TURNING MANEUVER - INBOUND EAST**  
SCALE: 1" = 30'



**WB-62 TRUCK TURNING MANEUVER - OUTBOUND WEST**  
SCALE: 1" = 30'



**WB-62 TRUCK TURNING MANEUVER - OUTBOUND EAST**  
SCALE: 1" = 30'



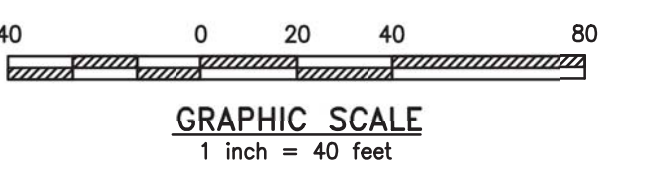
**Approved Construction Plan**

Name: \_\_\_\_\_ Date: \_\_\_\_\_

Planning: \_\_\_\_\_

Traffic: \_\_\_\_\_

Fire: \_\_\_\_\_



**NOTE:**  
1. DESIGN SPEED FOR TURNING MANEUVERS IN AND OUT OF DRIVEWAY: 6 MPH.

REV	BY	DATE	DESCRIPTION

LOCATION: 838 SUNNYVALE DR., WILMINGTON, NC

TITLE: WILMINGTON WALLBOARD PLANT PROPOSED INDUSTRIAL SIDETRACK & STORMWATER MANAGEMENT IMPROVEMENTS WB-62 TRUCK TURNING MANEUVER PLAN

DGN: JAB DATE: 10/24/2019 DRAWING NUMBER: C-703

CHK: MAT DATE: 10/25/2019



**COVERAGE LEGEND**

- IMPERVIOUS
- PERVIOUS
- EXISTING BUILDING
- DRAINAGE AREA #4 DRAINAGE AREA LABEL
- DRAINAGE AREA
- FLOW ARROW

**EXISTING DRAINAGE NOTES:**

1. DRAINAGE AREA BASED OFF OF ARIEL TOPOGRAPHY AND PREVIOUSLY APPROVED CITY OF WILMINGTON NORTH CAROLINA DRAINAGE AREA PLAN.
2. FIELD OBSERVATIONS SHOW DIFFERENT DRAINAGE PATTERNS COMPARED TO THE PREVIOUSLY APPROVED DRAINAGE AREA PLAN.
3. TC CALCULATIONS CAN BE FOUND IN ATTACHED STORMWATER NARRATIVE BINDER.
4. TIME OF CONCENTRATION CALCULATION FOR DRAINAGE AREA #3 WAS NOT DETERMINED BECAUSE THIS DRAINAGE AREA'S FLOW IS CONCENTRATED WITHIN THE DRAINAGE AREA ITSELF. DRAINAGE AREA #3 IS NOT INCLUDED IN THE PRE/POST PEAK FLOW CALCULATIONS.

EXISTING LAND COVER CALCULATIONS					
DRAINAGE AREA	IMPERVIOUS SURFACE (SF)	IMPERVIOUS SURFACE (AC)	PERVIOUS SURFACE (SF)	PERVIOUS SURFACE (AC)	OVERALL AREA (SF)
DRAINAGE AREA - 1	2,917	0.07	83,629	1.92	86,546
DRAINAGE AREA - 2	207,622	4.77	345,954	7.94	553,576
DRAINAGE AREA - 3	46,165	1.06	222,535	5.11	268,700
DRAINAGE AREA - 4	247,511	5.68	17,277	0.40	264,788
<b>TOTAL</b>	<b>504,215</b>	<b>11.58</b>	<b>669,395</b>	<b>15.37</b>	<b>1,173,610</b>
	42.96%		57.04%		

**CITY OF WILMINGTON**  
NORTH CAROLINA  
Public Services • Engineering Division  
APPROVED STORMWATER MANAGEMENT PLAN  
Date: \_\_\_\_\_ Permit # \_\_\_\_\_  
Signed: \_\_\_\_\_

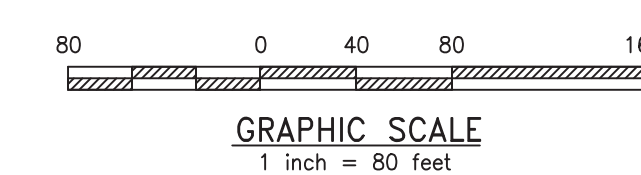
**Approved Construction Plan**

Name: \_\_\_\_\_ Date: \_\_\_\_\_

Planning \_\_\_\_\_

Traffic \_\_\_\_\_

Fire \_\_\_\_\_



REV	BY	DATE	DESCRIPTION
LOCATION 838 SUNNYVALE DR., WILMINGTON, NC			
TITLE WILMINGTON WALLBOARD PLANT PROPOSED INDUSTRIAL SIDETRACK & STORMWATER MANAGEMENT IMPROVEMENTS EXISTING DRAINAGE AREA PLAN			
DGN	JAB	DATE 10/24/2019	DRAWING NUMBER
CHK	MJT	DATE 10/25/2019	C-900



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Philadelphia, PA  
19106-3685  
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PROPERTY LINE  
AB (TC-2)  
BC (TC-2)  
BUILDING SETBACK LINE  
STACKER COMMUNICATIONS LINE  
CD (TC-2)

20'-WIDE GENERAL UTILITY EASEMENT  
DEED BOOK: 5157  
PAGE: 161

DRAINAGE AREA #1

DRAINAGE AREA #2

DRAINAGE AREA #3

DRAINAGE AREA #4

DRAINAGE AREA #1

POINT OF INTEREST  
OUTFALL #2

GRASSED DITCH

START OF CHANNEL  
CONCRETE CHANNEL

OUTFALL #1  
RIP RAP LINED ROAD  
SIDE DITCH



**COVERAGE LEGEND**

- IMPERVIOUS
- PERVIOUS
- EXISTING BUILDING
- DRAINAGE AREA LABEL
- DRAINAGE AREA
- LIMIT-OF-DISTURBANCE
- FLOW ARROW

**PROPOSED LAND COVER CALCULATIONS**

DRAINAGE AREA	IMPERVIOUS SURFACE (SF)	IMPERVIOUS SURFACE (AC)	PERVIOUS SURFACE (SF)	PERVIOUS SURFACE (AC)	OVERALL AREA (SF)
DRAINAGE AREA - 1	6,087	0.14	80,479	1.85	86,566.32
DRAINAGE AREA - 2	197,089	4.52	349,602	8.03	546,691.00
DRAINAGE AREA - 3	113,883	2.61	161,502	3.71	275,385.00
DRAINAGE AREA - 4	247,511	5.68	17,277	0.40	264,788.00
<b>TOTAL</b>	<b>564,550</b>	<b>12.96</b>	<b>609,660</b>	<b>13.98</b>	<b>1,173,610</b>
		48.10%		51.90%	

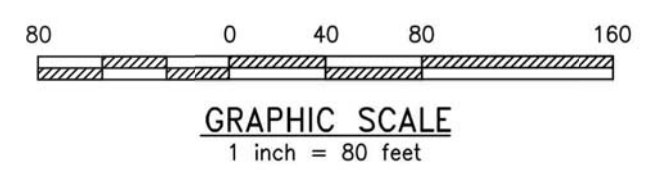
- PROPOSED DRAINAGE NOTES:**
1. TIME OF CONCENTRATION CALCULATIONS CAN BE FOUND IN ATTACHED STORMWATER NARRATIVE BINDER. PROPOSED TIME OF CONCENTRATION TIMES ARE THE SAME AS EXISTING TC'S BECAUSE NO CHANGE IN DRAINAGE AREAS 1, 2 & 4 ARE PROPOSED.



**WILMINGTON**  
NORTH CAROLINA  
Public Services • Engineering Division  
APPROVED STORMWATER MANAGEMENT PLAN  
Date: \_\_\_\_\_ Permit # \_\_\_\_\_  
Signed: \_\_\_\_\_

**Approved Construction Plan**

Name	Date
Planning	
Traffic	
Fire	



**National Gypsum COMPANY**

**URBAN ENGINEERS**  
330 Walnut Street  
Philadelphia, PA  
19106-3685  
o. 215.922.3080

REV	BY	DATE	DESCRIPTION

LOCATION: 838 SUNNYVALE DR., WILMINGTON, NC

TITLE: WILMINGTON WALLBOARD PLANT  
PROPOSED INDUSTRIAL SIDETRACK &  
STORMWATER MANAGEMENT IMPROVEMENTS  
PROPOSED GRADING & DRAINAGE AREA PLAN

DRN	JAB	DATE 10/24/2019	DRAWING NUMBER
CHK	MJT	DATE 10/25/2019	C-901