

PUBLIC WORKS & WATER RESOURCES

CITY OF NEWARK

220 South Main Street · Newark, Delaware 19711 302.366.7000 · Fax 302.366.7160 · www.newarkde.gov

June 12, 2023

CONTRACT NO. 23-07

ADDENDUM #2

1. PROJECT INFORMATION

Name: City Hall Parking Lot Reconstruction

Owner: City of Newark, Delaware

Contract Number: 23-07

Date of Addendum: June 12, 2023

Pre-Bid Meeting Date: 10:00 a.m., Tuesday, May 30, 2023

Questions Deadline: 12:00 p.m., Thursday, June 15, 2023

Bid Submission Deadline: 2:00 p.m., Tuesday, June 20, 2023

2. NOTICE TO BIDDERS

- A. The Bidder shall acknowledge receipt of this addendum with their submitted proposal. Failure to do so may disqualify the Bidder.
- B. The date for questions is changed to 12:00 p.m., Thursday, June 15, 2023. The receipt of bids deadline remains unchanged by this addendum.
- C. This addendum shall serve to answer questions submitted to date for this contract.

3. REVISIONS

A. The Geogrid stabilization shall be a Rutguard gravel stabilizing geocell- permeable driveway, parking, road base - 4" height or approved equal

4. QUESTIONS

- Q. Where is the right of way for Apple Road and are there any impacts to the construction area?
- A. The Right of way has been added to the plan and no there are no impacts to the construction area.

5. ATTACHMENTS TO THIS ADDENDUM

- A. Revised Plan Set Addendum #2 dated June 9th, 2023
- B. Revised Specification SECTION 00 00 00 General Provisions pages 24-40

END OF ADDENDUM #2

CITY HALL PARKING LOT RECONSTRUCTION

CITY OF NEWARK, NEW CASTLE COUNTY, DELAWARE
MAY 18, 2023
CONTRACT NO. 2307

PREPARED FOR:

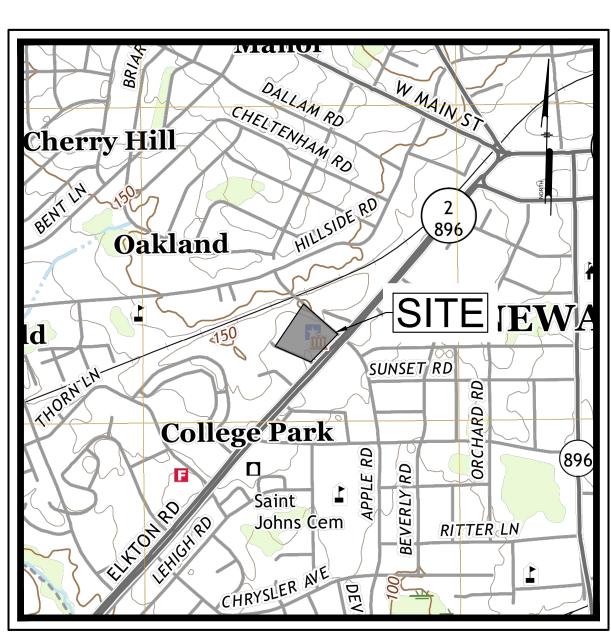
CITY OF NEWARK

220 SOUTH MAIN STREET NEWARK, DE 19711 (302) 366-7000

Sheet List Table						
Sheet Number	Sheet Title					
1	COVER SHEET					
2	EXISTING CONDITIONS PLAN					
3	NPD LOT DEMOLITION AND E&S PLAN					
4	NPD LOT RECONFIGURATION PLAN					
5	FENCING AND GATING PLAN					
6	ELECTRICAL PLAN					
7	ELECTRICAL TRANSFORMER PLAN					
8	NPD LOT GRADING AND DRAINAGE PLAN					
9	NPD LOT LIGHTING PLAN					
10	ADMIN LOT DEMOLITION PLAN					
11	ADMIN LOT RECONFIGURATION PLAN					
12	PROPOSED CONDITIONS OVERLAYED EXISTING CONDITIONS PLA					
13	ADMIN LOT GRADING AND UTILITY PLAN					
14	ADMIN LOT LIGHTING PLAN					
15	CONSTRUCTION DETAILS					
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17	RETAINING WALL DETAILS					
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20	SEDIMENT AND STORMWATER DETAILS					
21	SEDIMENT AND STORMWATER DETAILS					



LOCATION MAP
Scale: 1" = 600'



USGS MAP Scale: 1" = 1000'



AERIAL MAP
Scale: 1" = 100'

PREPARED BY: PENNONI ASSOCIATES INC.



Christiana Executive Campus
121 Continental Drive, Suite 207
Newark, DE 19713-4310

T 302.655.4451

F 302.654.2895



CALL BEFORE YOU DIG
Call Miss Utility of Delmarva
800-282-8555
Ticket Number(s): 230390704

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PROJECT CNEWK22005

DATE 2023-05-18

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SHEET 1 OF 2



Pennoni ASSOCIATES INC.

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CONDITIONS PLAN

EXISTING CONDI

DATE NO. REVISIONS E

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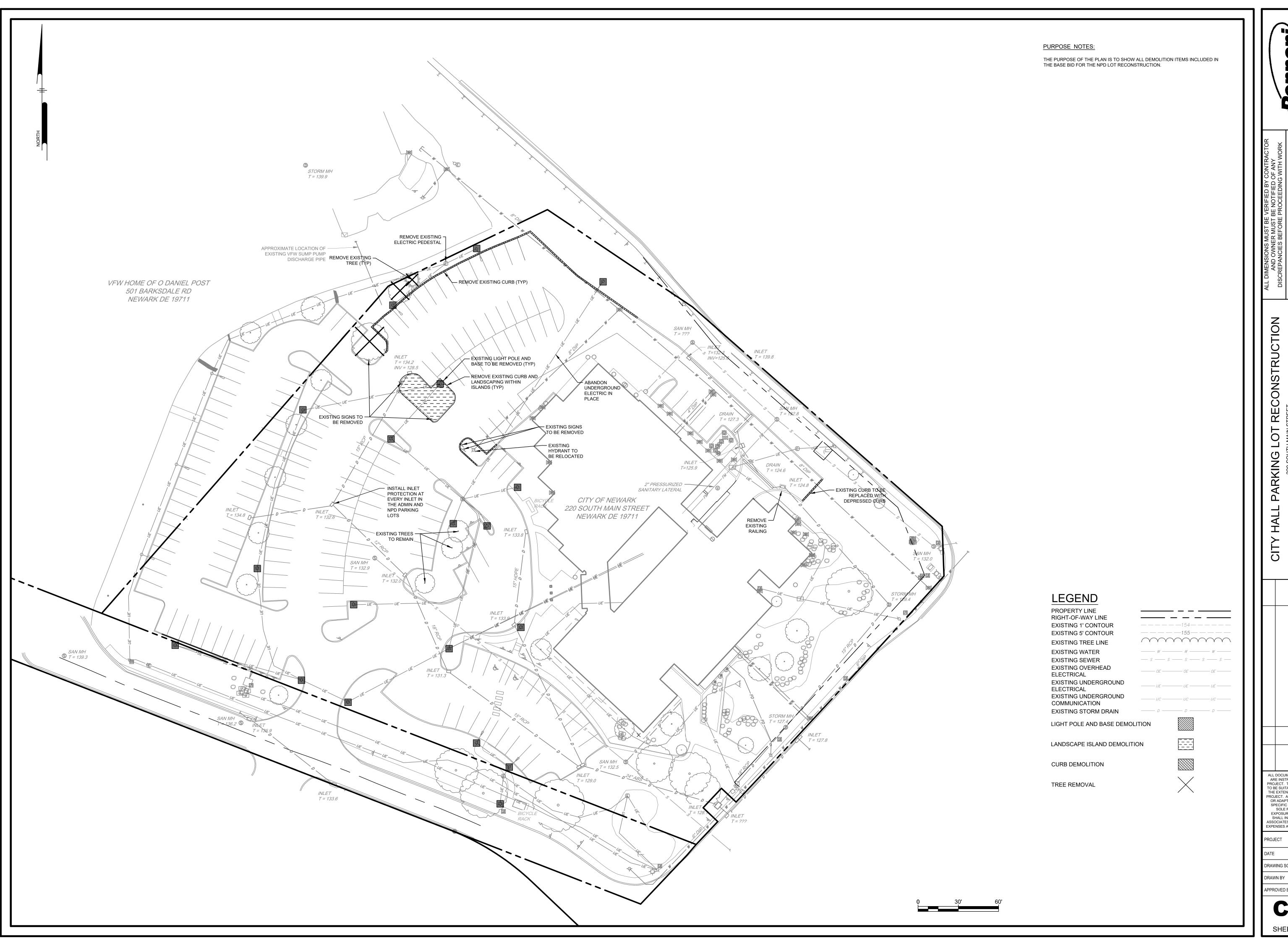
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2023-03-07

IG SCALE 1"=30"

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DISCREPANCIES BEFORE PROCEEDING WITH WORK
TO CREATER INC.
Christiana Executive Campus
121 Continental Drive, Suite 207
Newark, DE 19713-4310

OLITION AND E&S PLAN

NPD LOT DEMOLITION

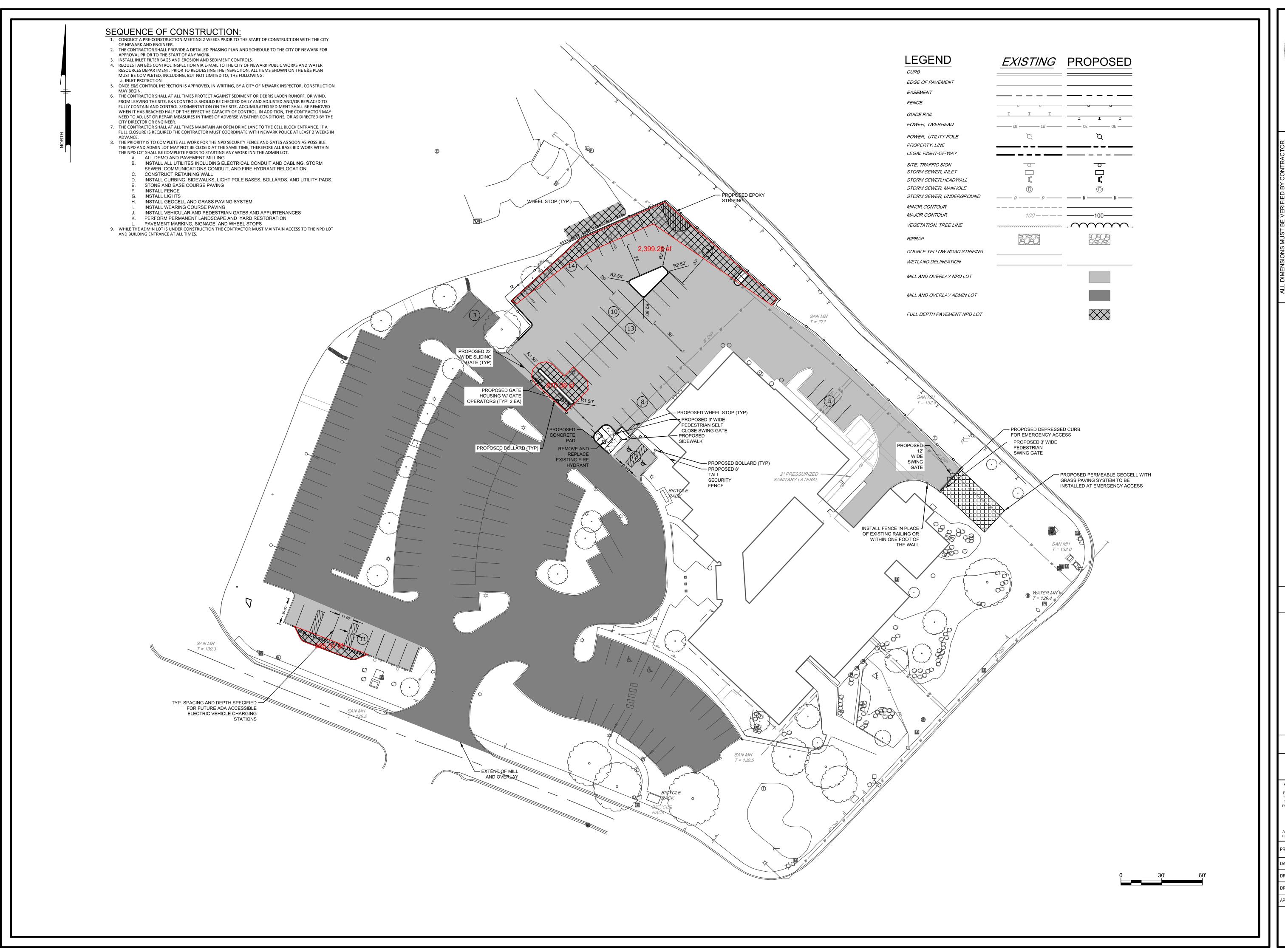
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DATE NO. REVISIONS BY

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CNEWK22005 2023-03-07

DRAWING SCALE 1"=30'
DRAWN BY MRW/ALS
APPROVED BY M.IF

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CITY OF NEWARK

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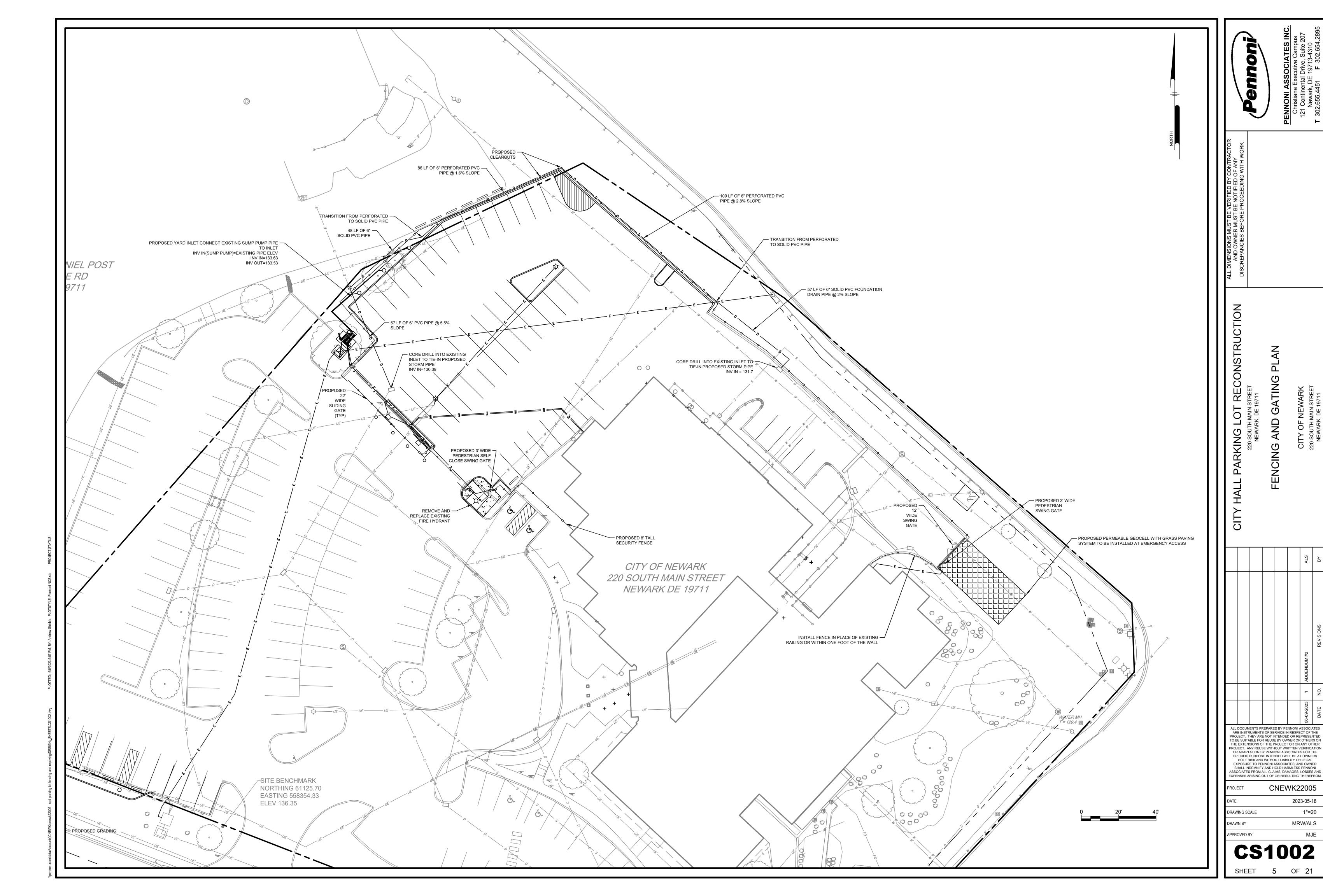
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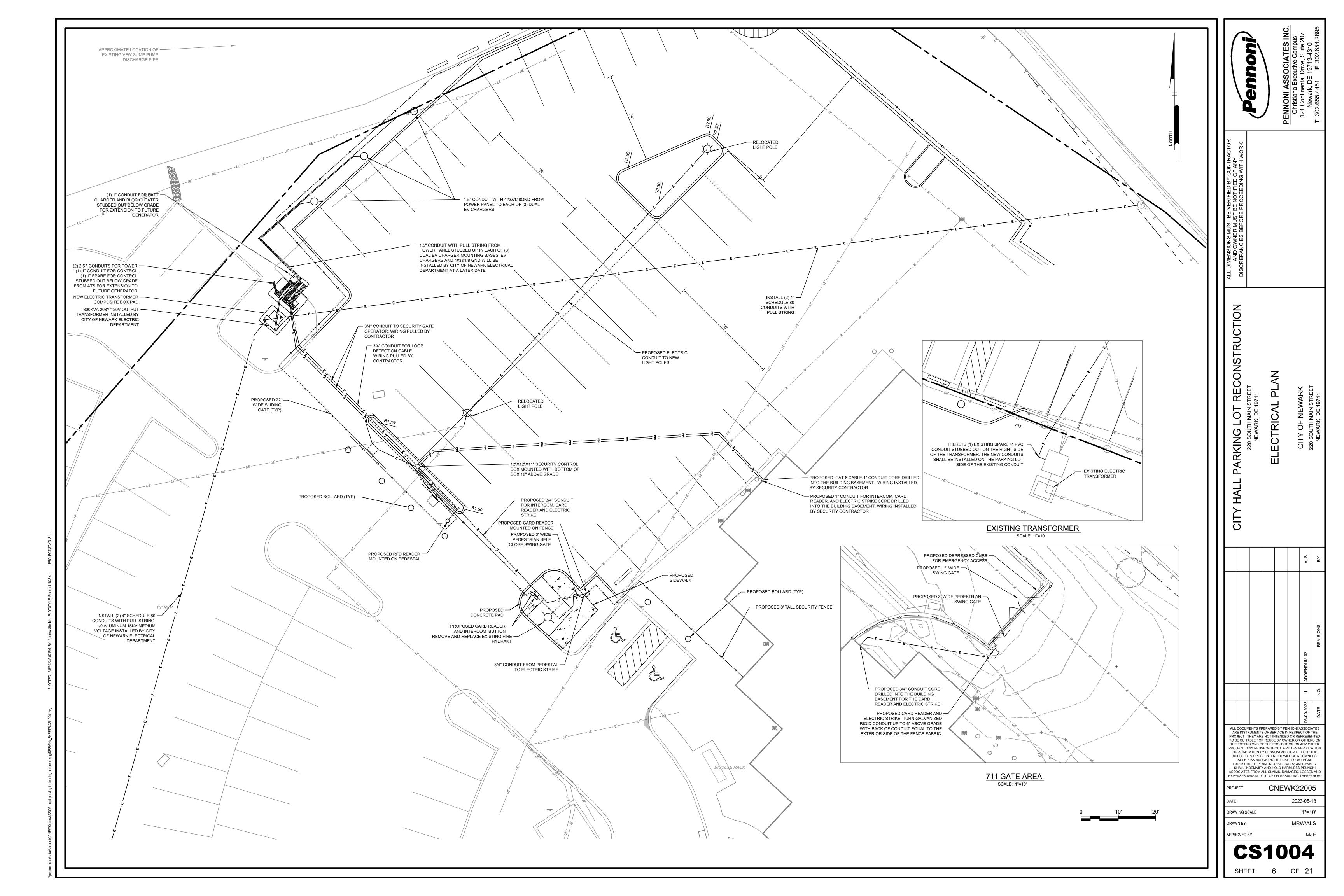
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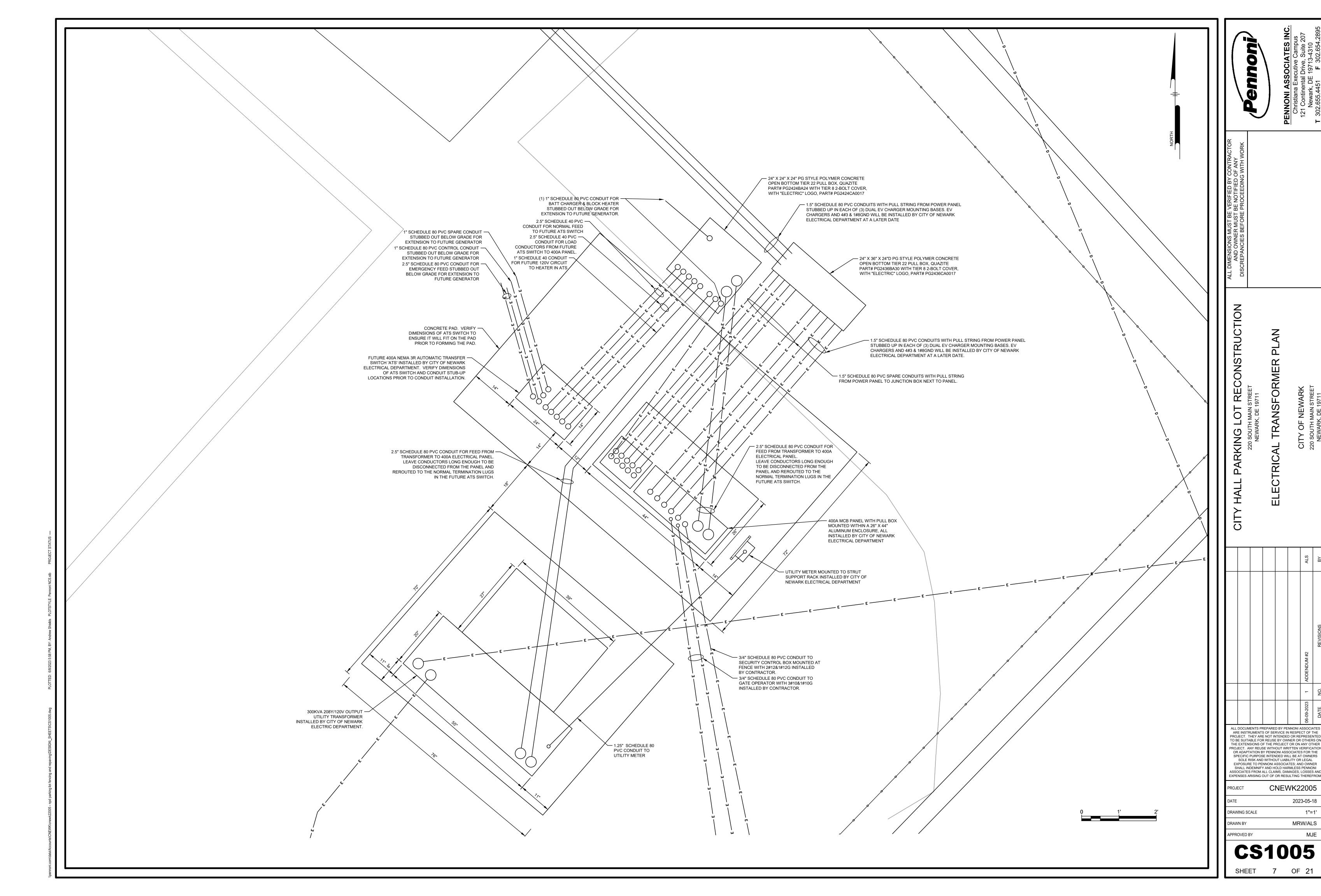
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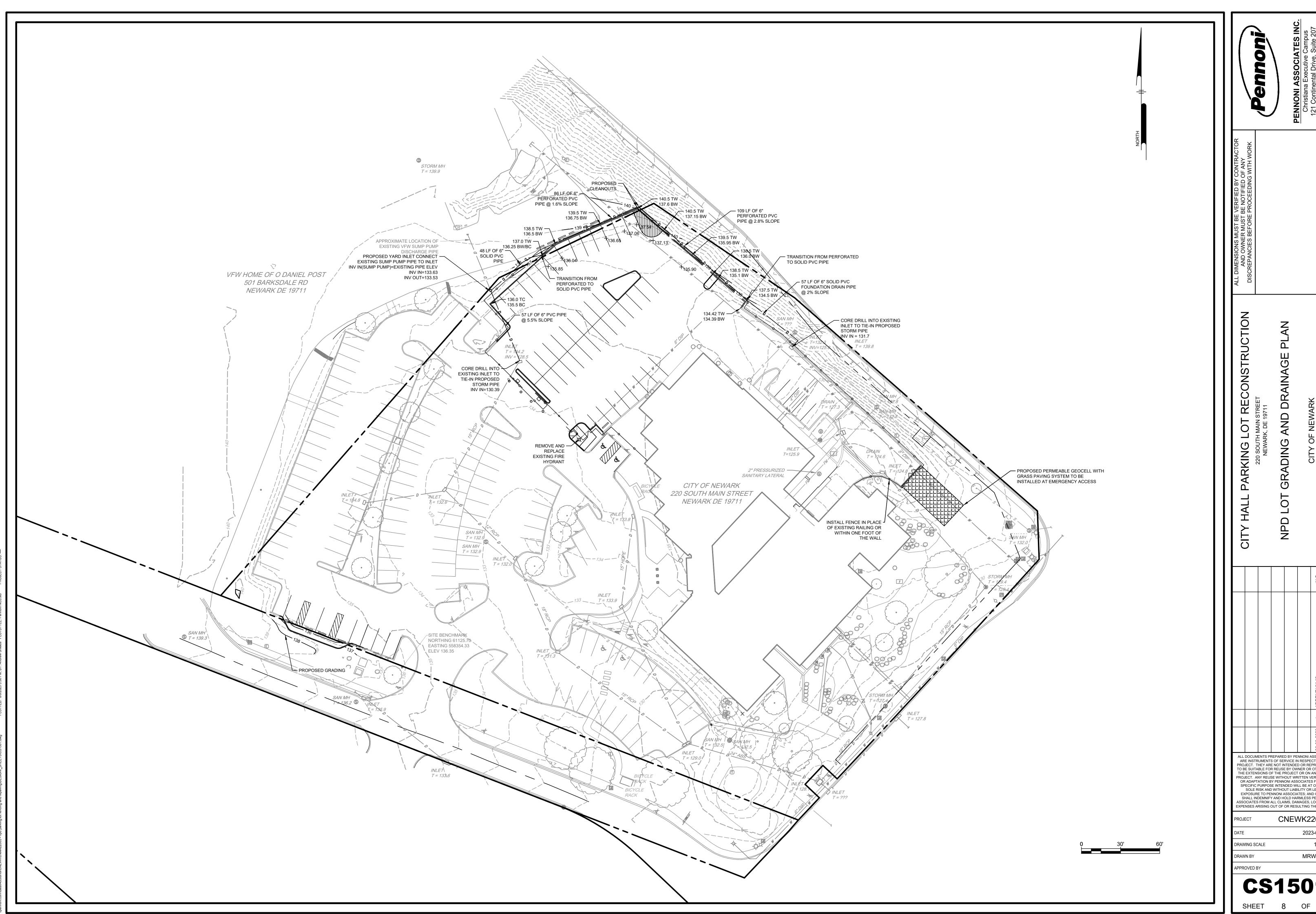
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SHEET 4 OF









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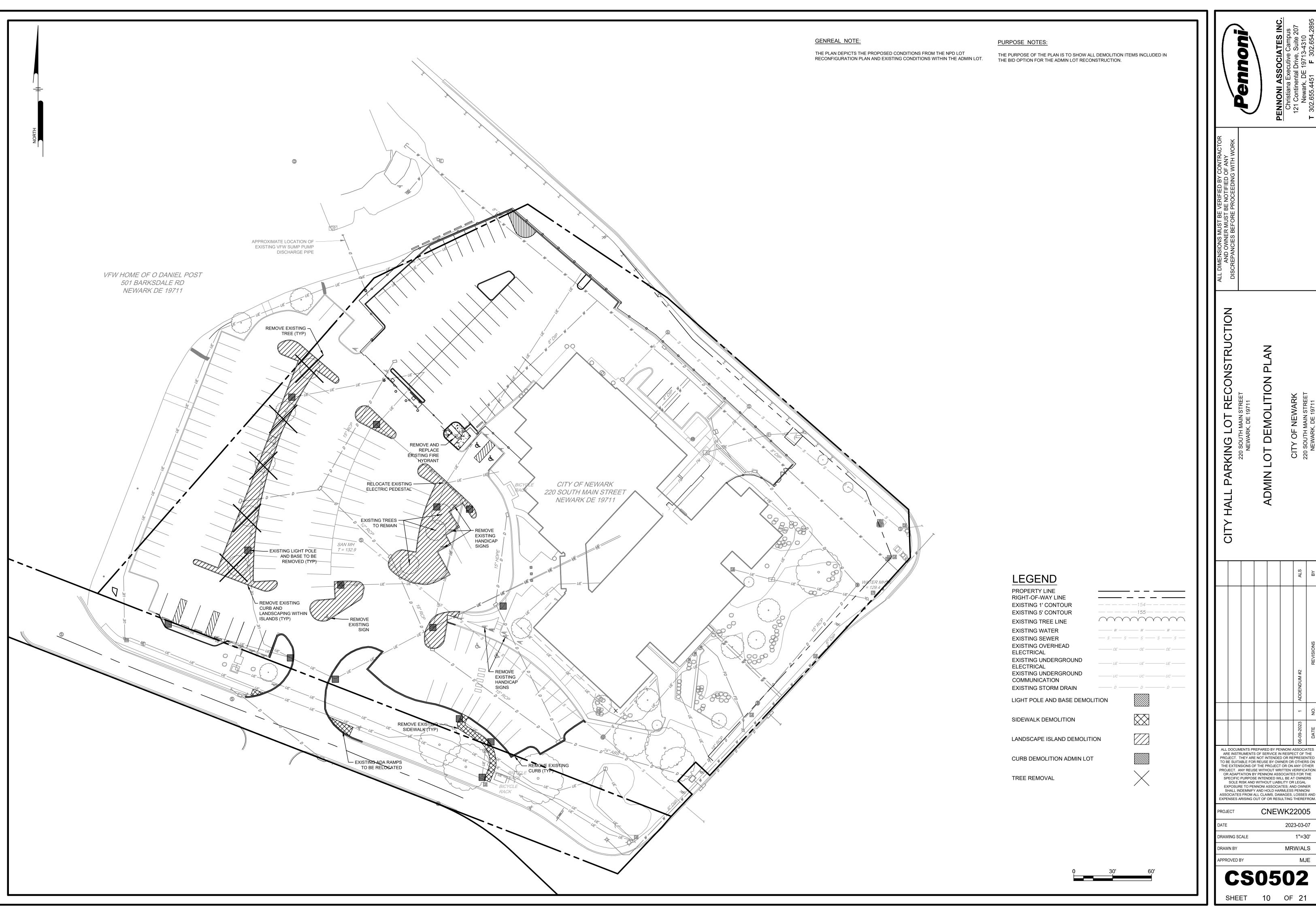
ELECTRICAL NOTES:

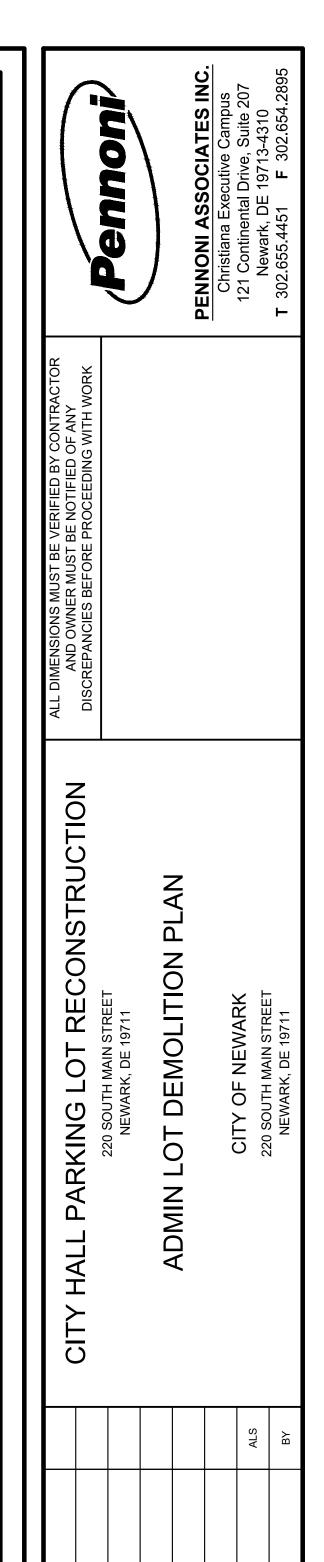
- 1. READ THE ELECTRICAL SPECIFICATIONS FOR SPECIFIC REQUIREMENTS PRIOR TO THE START OF
- 2. WHERE LIGHT POLES AND BASES ARE SHOWN TO BE DEMOLISHED, EXISTING UNDERGROUND CONDUITS ARE TO BE SALVAGED FOR REUSE WHERE POSSIBLE. MATCH EXISTING SIZE AND TYPE OF UNDERGROUND CONDUIT FEEDING TO NEW LIGHT POLES IN NEW WORK. REFER TO THE POLE BASE DETAILS FOR THE CONDUIT REQUIREMENTS WITHIN THE NEW POLE BASE.
- 3. REMOVE CONDUCTORS BACK TO NEAREST JUNCTION BOX TO ALLOW POLE BASES TO BE DEMOLISHED AND REPLACE WITH NEW THWN-2 CONDUCTORS MATCHING THE EXISTING WIRE GUAGE. SPLICE AND EXTEND THE EXISTING LIGHT CIRCUITS TO FEED THE NEW POLE LIGHTS WITH THE CIRCUIT NOTED ON THE DRAWINGS. EXISTING WIRE SIZES ARE NOT KNOWN. ASSUME #8 THWN-2 AWG FOR BIDDING PURPOSES. IF LARGER WIRE SIZES ARE DISCOVERED DURING DEMOLITION, NOTIFY THE OWNER FOR DIRECTION.
- 4. INSTALL THE NEW POLE BASE WITH THE CENTER OF THE POLE 3 FEET FROM THE EDGE OF THE FRONT FACE OF THE CURB UNLESS OTHERWISE DIRECTED BY OWNER. THE ACTUAL LOCATION OF THE NEW POLE SHALL BE COORDINATED WITH THE OWNER TO AVOID THE EXISTING UNDERGROUND UTILITIES. CONSULT THE OWNER FOR APPROVAL OF ANY REQUIRED CHANGES.
- 5. INSTALL THE NEW POLE BASE PER THE POLE BASE DETAIL. REFER TO VENDOR ANCHOR BOLT INSTALLATION GUIDE FOR BOLT CIRCLE DIAMETER, BASE COVER SIZE, ANCHOR BOLT PROJECTION, ANCHOR BOLT SIZE AND SPECIFIC DETAILS.
- 6. WHERE JUNCTION BOXES ARE SHOWN, PROVIDE HUBBELL QUAZITE 11"W X 18"L X 18.5"D PC STYLE POLYMER CONCRETE UNDERGROUND ENCLOSURE PART #PC118JA18 WITH TWO HEX BOLT COVER WITH "STREET LIGHTING" LOGO ON COVER PART #PC1118CA0041. MOUNT THE TOP OF THE BOX 6 INCH ABOVE THE FINISHED GRADE. ENCASE THE BOX WITH 6 INCHES OF 3000 PSI CONCRETE VIBRATED AROUND ALL FOUR SIDES WITH THE TOP OF THE CONCRETE FLUSH WITH THE TOP OF THE BOX AND THE BOTTOM OF THE CONCRETE EQUAL TO THE BOTTOM OF THE BOX. PROVIDE A 1 INCH CHAMFER AROUND THE TOP PERIMETER OF THE CONCRETE AND THE VERTICAL CORNERS. REMOVE ALL FORMS USED AFTER THE CONCRETE CURES. PROVIDE SUPPORT WITHIN THE BOX TO KEEP ALL SPLICE CONNECTIONS AT THE BOTTOM OF THE COVER.
- 7. CONDUITS UNDER WALKWAYS SHALL BE GALVANIZED RIGID CONDUITS WHICH SHALL EXTEND 3' BEYOND EACH EDGE OF THE WALKWAY FOR PROTECTION FROM VEHICLES WHICH MAY DRIVE OVER THE EDGE OF THE WALKWAY.
- 8. BACK FILL ALL EXCAVATIONS TO MATCH THE EXISTING GRADE AND RESEED THE EXCAVATION AREA. EXCESS SOIL SHALL BE REMOVED FROM THE SITE BY THE CONTRACTOR.
- 9. PROVIDE A 4" HIGH X 6" WIDE BLACK WITH 3/4" YELLOW LETTERING UV RESISTANT SELF-ADHESIVE LABEL, ABOVE THE HAND HOLE LEVEL ON EACH LIGHT POLE. LABELS SHALL FACE THE DIRECTION OF THE ROADWAY, WALKWAY OR PARKING SPACE WHERE THE POLE IS LOCATED. WHERE POLES ARE LOCATED IN THE CENTER OF A PARKING LOT, AND THERE ARE PARKING SPACES ON BOTH THE NORTH AND SOUTH SIDE OF THE POLE, INSTALL THE LABEL ON THE NORTH SIDE OF THE POLE TO MINIMIZE FADING FROM THE SUN. LETTERING ON THE LABEL SHALL STATE THE POLE NUMBER. PROVIDE A PRINTED EXAMPLE FOR THE OWNERS APPROVAL PRIOR TO PRINTING ALL THE LABELS. SEE EXAMPLE.
- EXAMPLE: POLE #
- 10. MOUNT THE LIGHT POLES WITH THE HAND HOLE FACING 90-DEGREE FROM THE ROADWAY, WALKWAY OR PARKING SPACE SO THAT THE OPENING IS ACCESSIBLE WHEN A VEHICLE IS PARKED IN THE PARKING SPACE IN FRONT OF THE POLE LOCATION. DO NOT FACE THE HAND HOLE IN THE OPPOSITE DIRECTION OF THE ROADWAY OR PARKING SPACE SO THAT IT WILL NOT BE BLOCKED BY VEGETATION AND HEDGES GROWING BEHIND THE POLE LOCATIONS.
- 11. PROVIDE NEW POLES WITH ALL REQUIRED POLE CAPS, ACCESS COVERS, GALVANIZED STEEL ANCHOR 'J' BOLTS, NUTS, LOCK NUTS AND WASHERS PER VENDORS INSTALLATION GUIDE.
- 12. PROVIDE NEW LIGHT FIXTURES WITH ALL REQUIRED ATTACHMENT ARMS, AND MOUNTING HARDWARE PER THE MANUFACTURERS INSTALLATION INSTRUCTIONS.
- 13. PROVIDE 2#10&10 GND THWN IN THE LIGHT POLE BETWEEN THE UNDERGROUND FEED CONDUCTORS AND THE FIXTURE MOUNTED AT THE TOP OF THE POLE.
- 14. ANCHOR NUTS SHALL BE ADJUSTED TO MAKE POLE PLUMB.
- 15. POLE BASE MUST HAVE FULL CONTACT WITH THE FOUNDATION BY GROUTING. GROUT THE SPACE BETWEEN THE TOP OF THE CONCRETE BASE AND THE BOTTOM OF THE LIGHT POLE BASE AND PROVIDE A CHANNEL THROUGH THE GROUT FOR DRAINAGE FROM THE POLE INTERIOR.
- 16. THE CONTRACTOR IS RESPONSIBLE FOR ALL CIVIL WORK INCLUDING EXCAVATIONS, BACKFILLING, RE-SEEDING, ASPHALT REPAIR, ETC.

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PHAN BICYCLE RACK 1 12-18L35 BASE TO REIANN 14-18-18-18-18-18-18-18-18-18-18-18-18-18-	POLE NO XTURE TYPE OUNT HEIGHT SE INSTRUCTIONS = NEW LIGHT FIXTURE, SEE SCHEDULE (LEFT) FOR SPECIFIC FIXTURE TYPE
	0 30' 60'

	Lightin	ng Schedule		
ıre Type	Mounting Height	Pole Height	Base Type	Color
-16L-35	12'	11'6"	С	Bronze
3-32L-7	25'	24'6"	В	Bronze
3-32L-7	25'	24'6"	В	Bronze
-16L-35	12'	11'6"	С	Bronze
-16L-35	12'	11'6"	С	Bronze
-16L-35	12'	11'6"	С	Bronze
5-64L-1	25'	24'6"	С	Bronze
5-64L-1	25'	24'6"	В	Bronze
5-64L-1	25'	24'6"	В	Bronze
3-32L-7	25'	24'6"	В	Bronze
3-32L-7	25'	24'6"	В	Bronze
-16L-35	12'	11'6"	С	Bronze
5-64L-1	25'	24'6"	В	Bronze
5-64L-1	25'	24'6"	В	Bronze
5-64L-1	25'	22'6"	A	Bronze
5-64L-1	25'	24'6"	В	Bronze
	-16L-35 3-32L-7 3-32L-7 -16L-35 -16L-35 -16L-35 5-64L-1 5-64L-1 3-32L-7 -16L-35 5-64L-1 5-64L-1 5-64L-1	Are Type Mounting Height -16L-35	12' 11'6" 3-32L-7 25' 24'6" 3-32L-7 25' 24'6" 3-32L-7 25' 24'6" 11'6" -16L-35 12' 11'6" -16L-35 12' 11'6" 5-64L-1 25' 24'6" 3-32L-7 25' 24'6" 3-32L-7 25' 24'6" 3-32L-7 25' 24'6" 5-64L-1 25' 24'6"	Aire Type Mounting Height Pole Height Base Type -16L-35 12' 11'6" C 3-32L-7 25' 24'6" B 3-32L-7 25' 24'6" B 3-32L-7 25' 24'6" C -16L-35 12' 11'6" C -16L-35 12' 11'6" C 3-64L-1 25' 24'6" B 3-64L-1 25' 24'6" B 3-32L-7 25' 24'6" B 3-32L-7 25' 24'6" B 3-32L-7 25' 24'6" B 3-64L-1 25' 24'6"



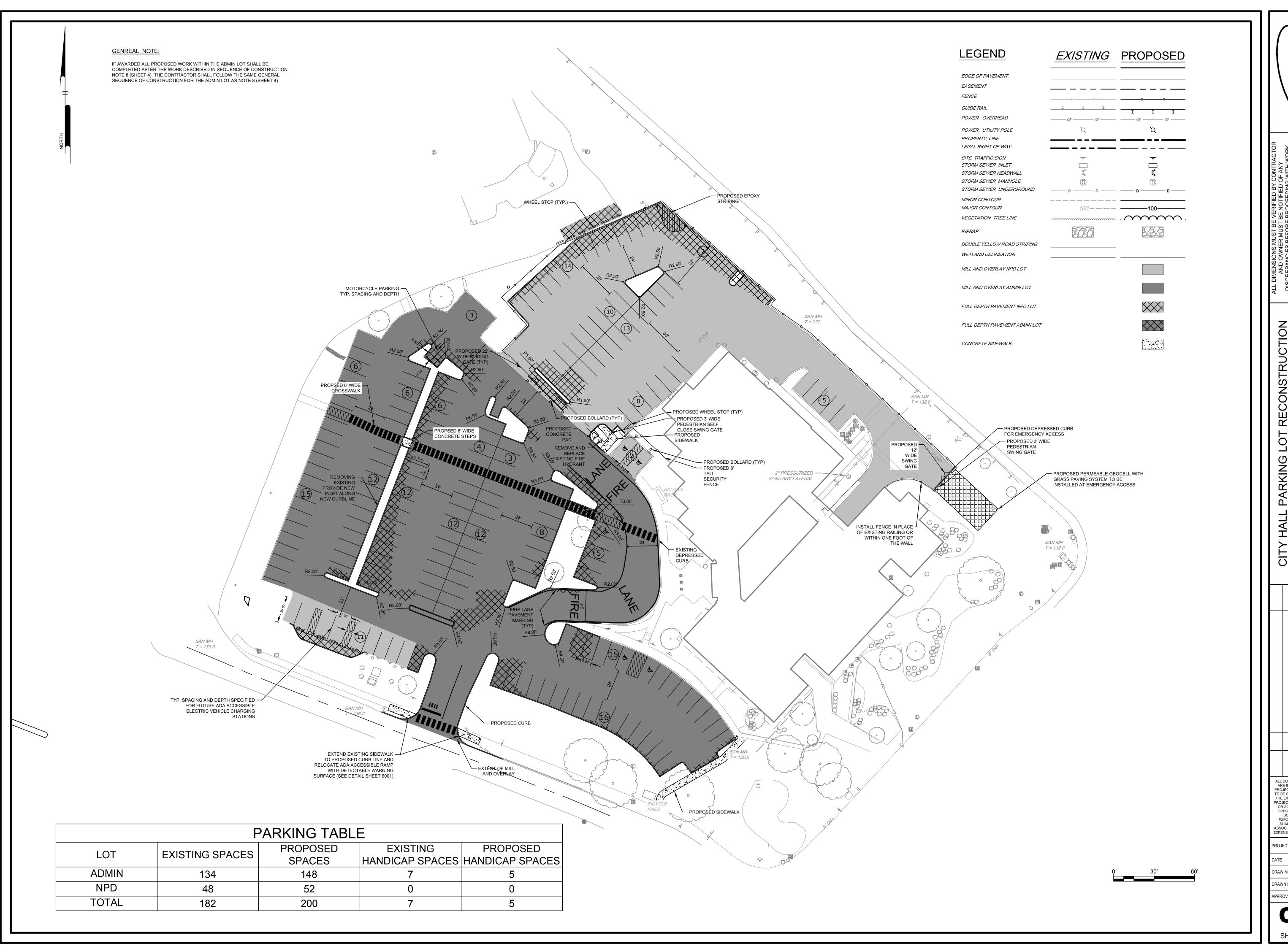




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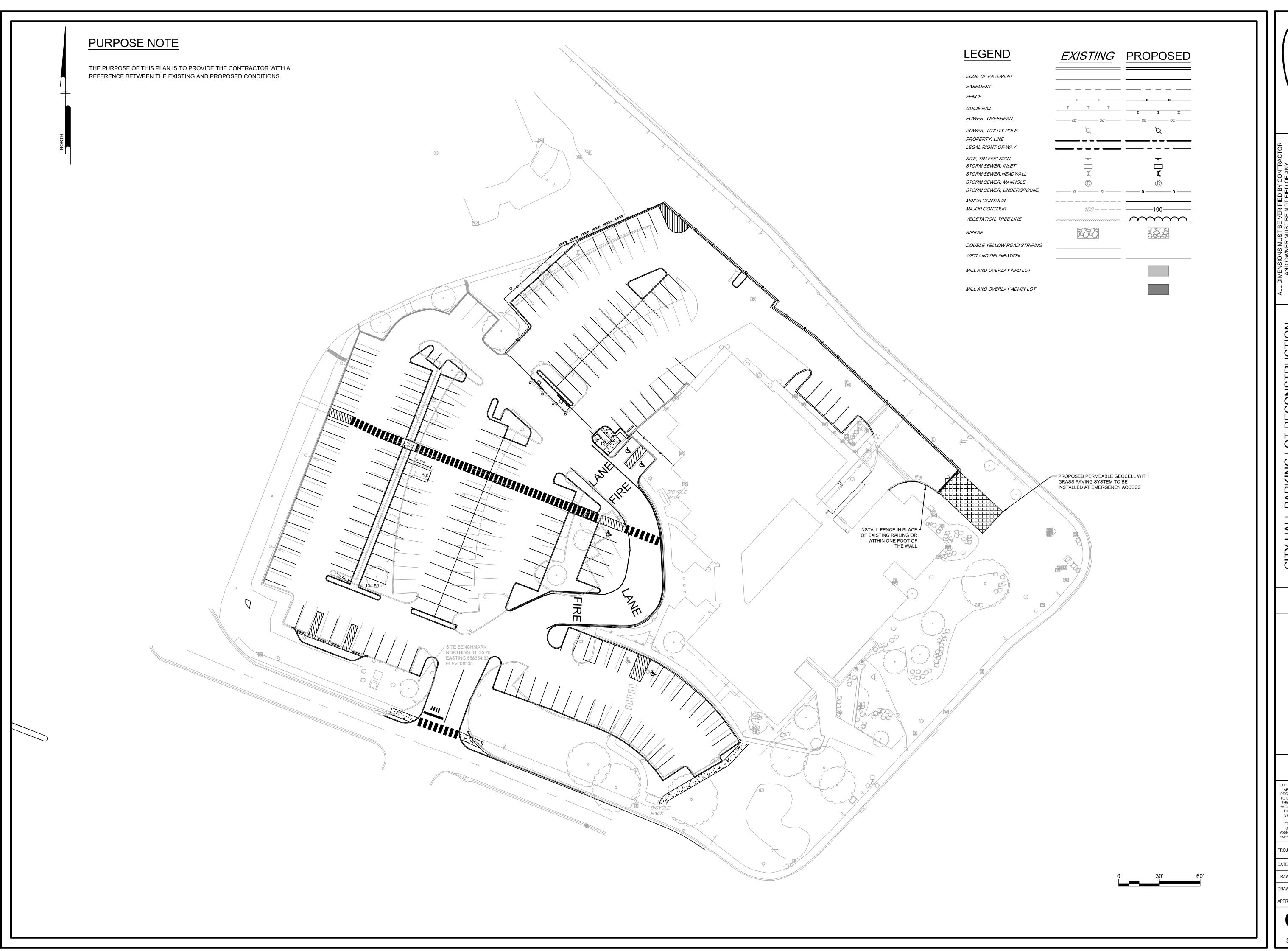
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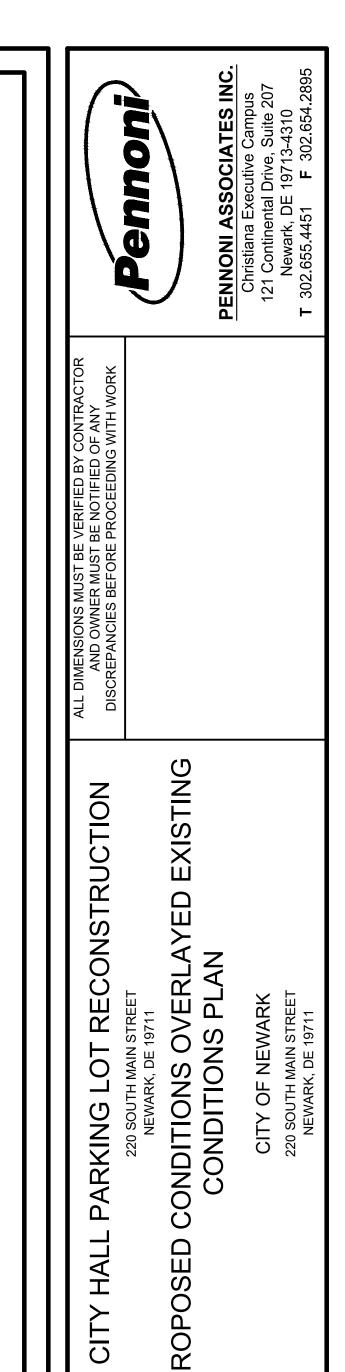
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DRAWN BY MRW/ALS

APPROVED BY MJE

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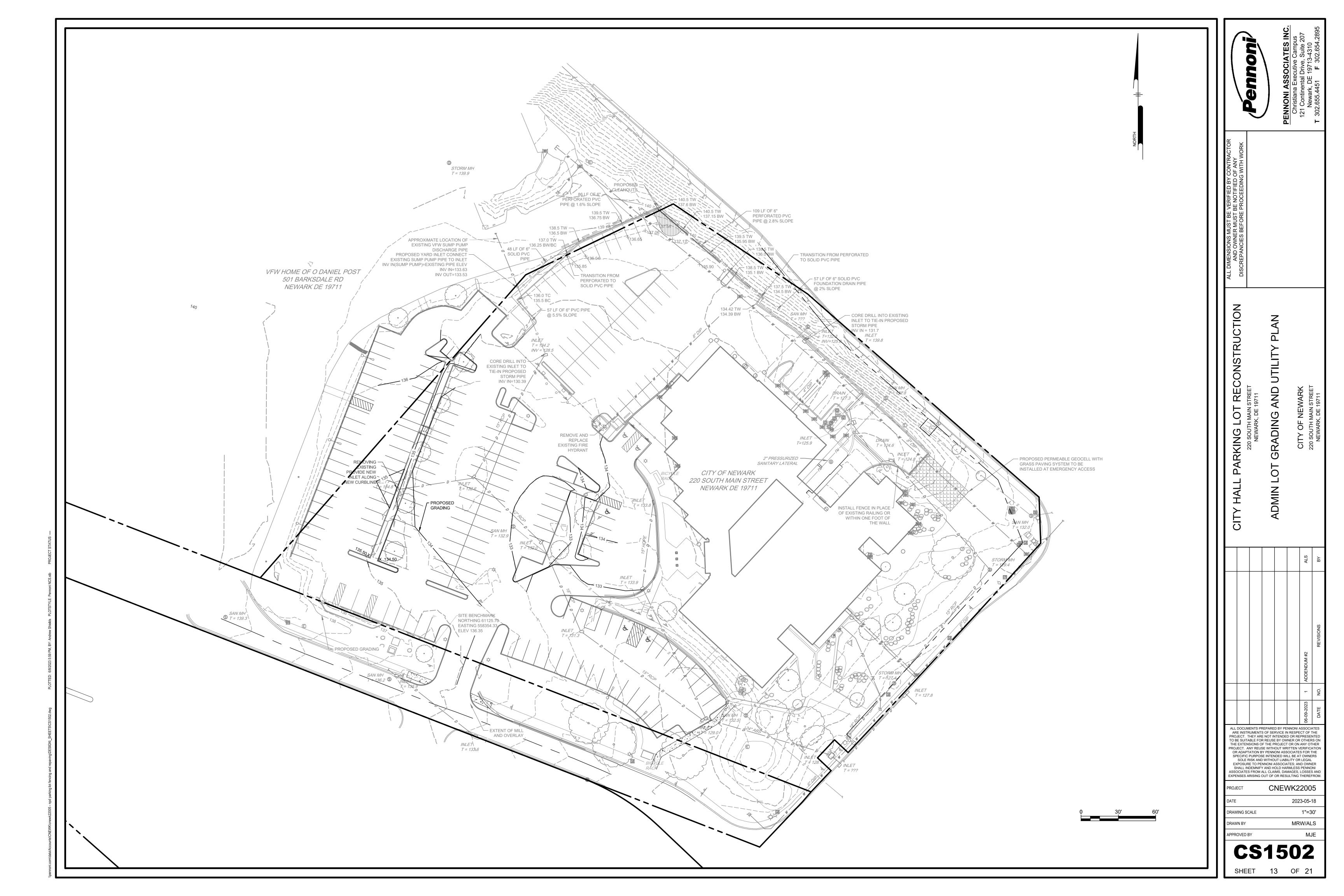
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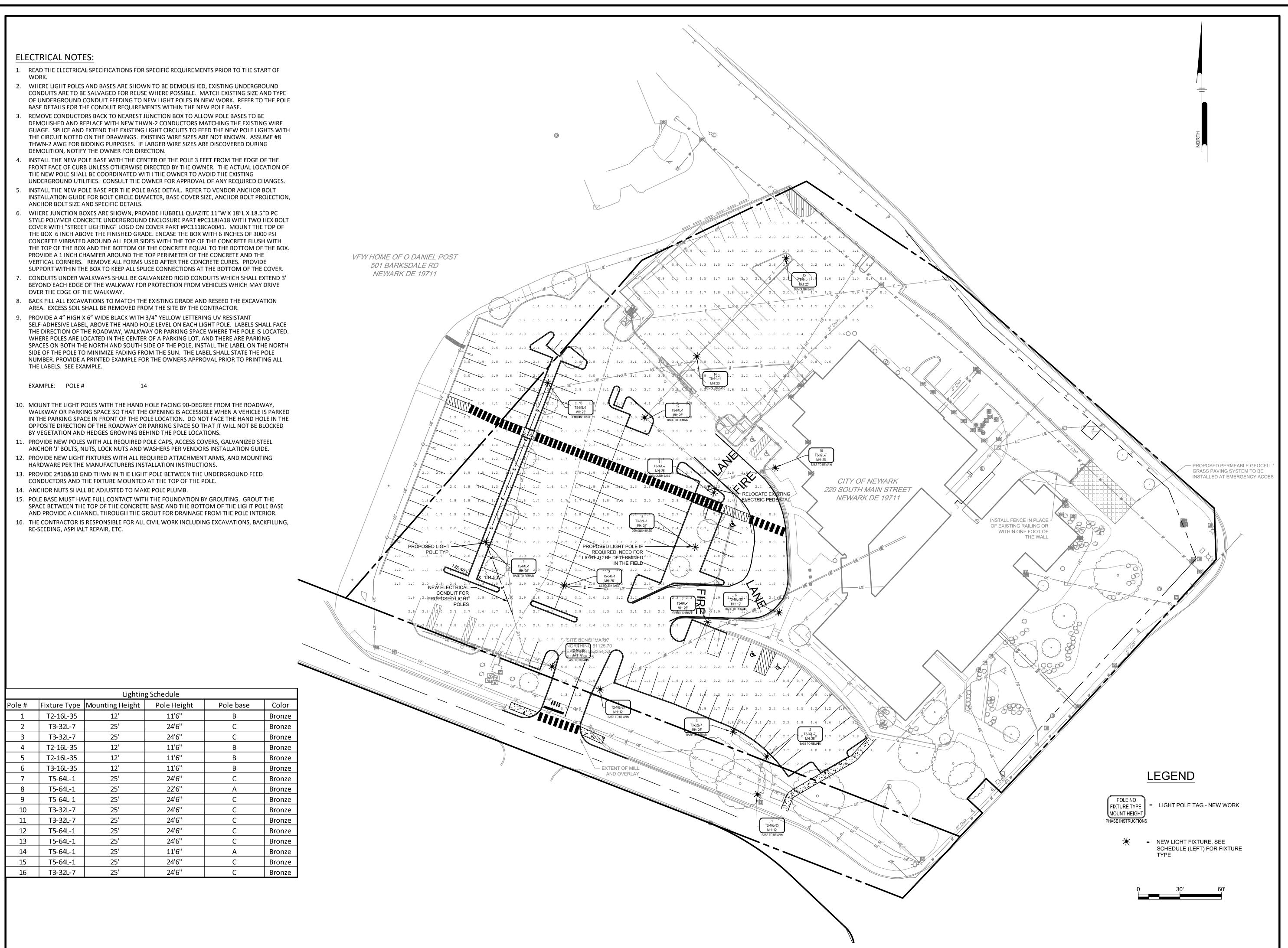
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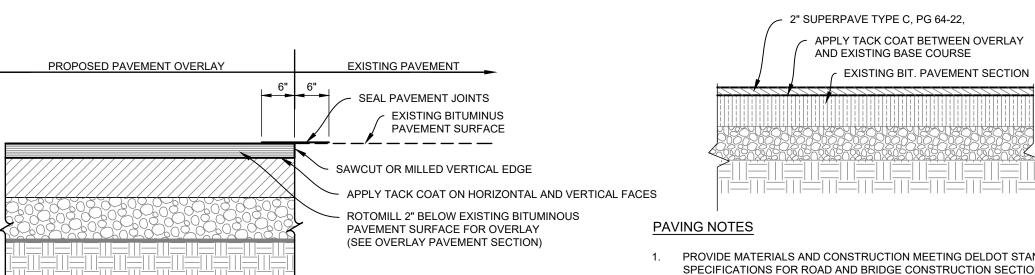
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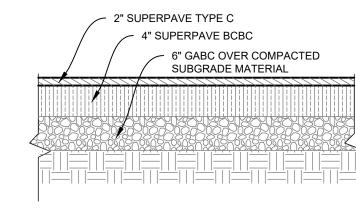
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CUT AND SEAL AT LIMITS OF PAVEMENT OVERLAY NOT TO SCALE

1. PROVIDE MATERIALS AND CONSTRUCTION MEETING DELDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION SECTIONS FOR SUBGRADE, AGGREGATE, AND FLEXIBLE PAVEMENT.

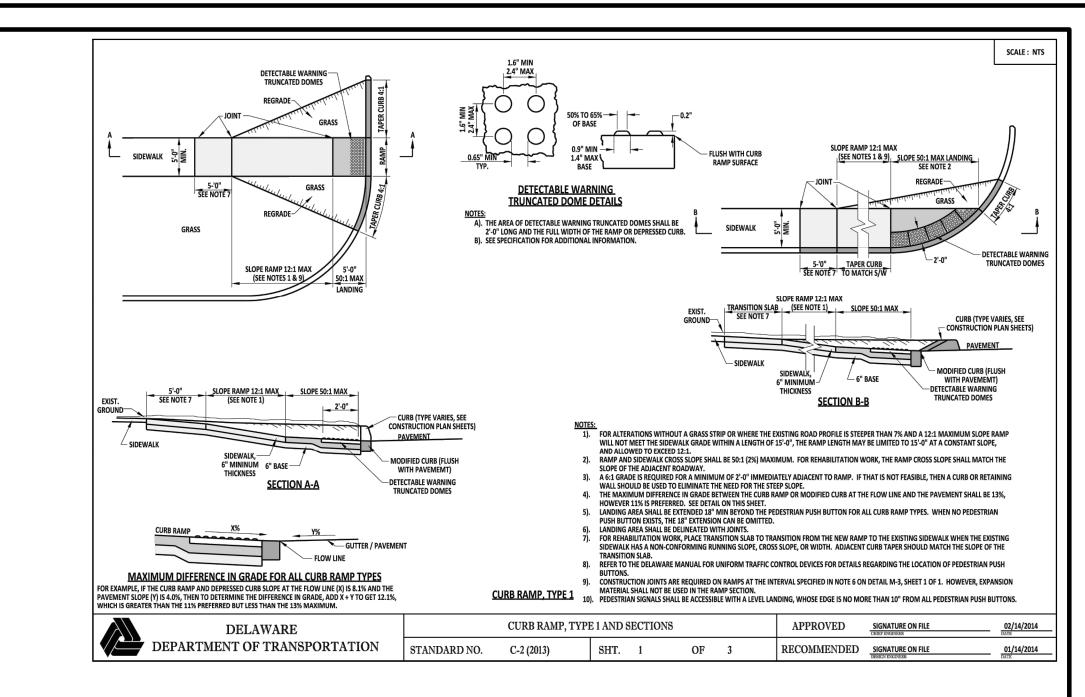
> **OVERLAY PAVEMENT SECTION** NOT TO SCALE

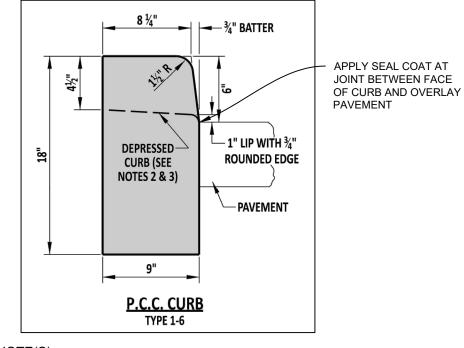


PAVING NOTES

1. PROVIDE MATERIALS AND CONSTRUCTION MEETING DELDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION SECTIONS FOR SUBGRADE, AGGREGATE, AND FLEXIBLE PAVEMENT.

FULL DEPTH AND BASE REPAIR PAVEMENT SECTION NOT TO SCALE





- (1) P.C.C. (TYPE 1-6) DETAIL REFERENCES DELDOT STANDARD DETAIL NO. C-1 (2017)
- (2) DEPRESS CURB AT ENTRANCES AS SHOWN. (3) DEPRESS CURB FLUSH WITH PAVEMENT AT CURB RAMPS. MAXIMUM SLOPE OF CURB AT CURB RAMPS

IS 20:1 IN THE DIRECTION OF PEDESTRIAN TRAVEL

P.C.C CURB (TYPE 1-6)

NOT TO SCALE

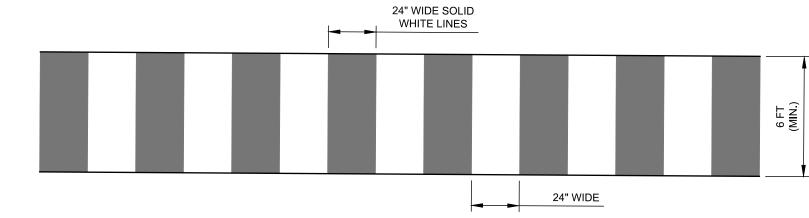


* STROKE WIDTH: MINIMUM = 3 INCHES SPECIAL = 4 INCHES

NOTE: 1) BLUE BACKGROUND AND WHITE BORDER ARE OPTIONAL 2) ALL HANDICAPPED STRIPPING SHALL BE BLUE EPOXY RESIN PAINT

INTERNATIONAL SYMBOL OF ACCESSIBILITY PARKING SPACE MARKING

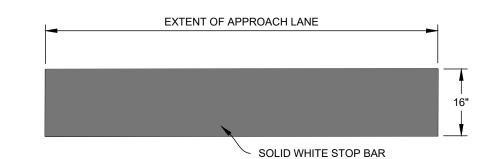
NOT TO SCALE



- 1) SPACING OF LINES SELECTED TO AVOID WHEEL PATH
- 2) CROSSWALK MARKINGS SHOULD BE LOCATED SO THAT THE CURB RAMPS ARE WITHIN THE EXTENSION OF THE CROSSWALK MARKINGS
- 3) DETECTABLE WARNING SURFACES SHALL BE INSTALLED TO MARK BOUNDARIES BETWEEN PEDESTRIAN AND VEHICULAR WAYS WHERE THERE IS NO RAISED CURB.

CROSSWALK MARKINGS

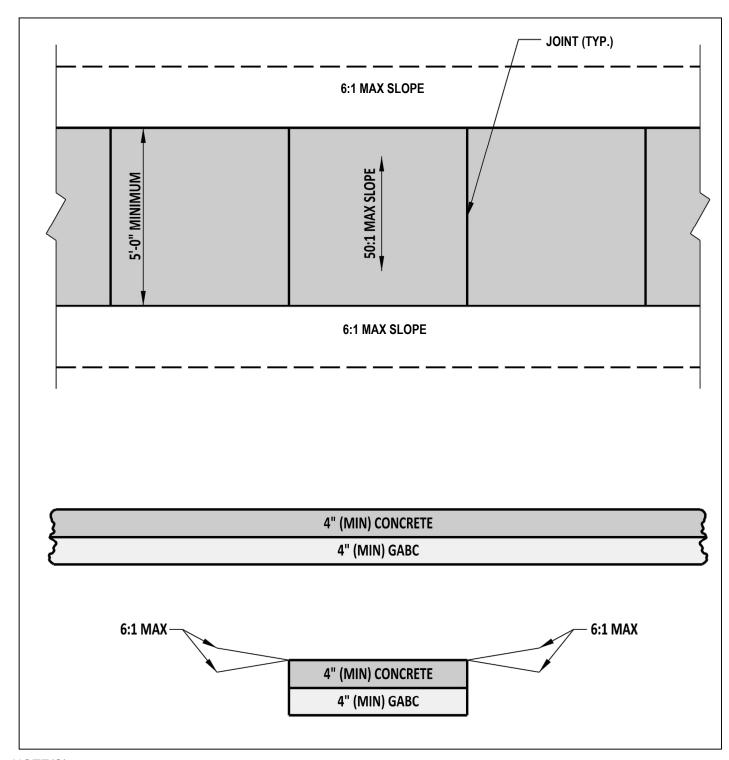
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STOP BAR AND "STOP" PAVEMENT MARKINGS

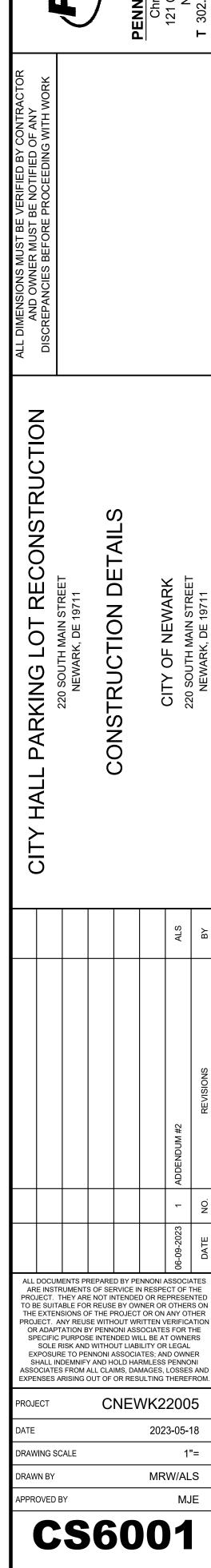
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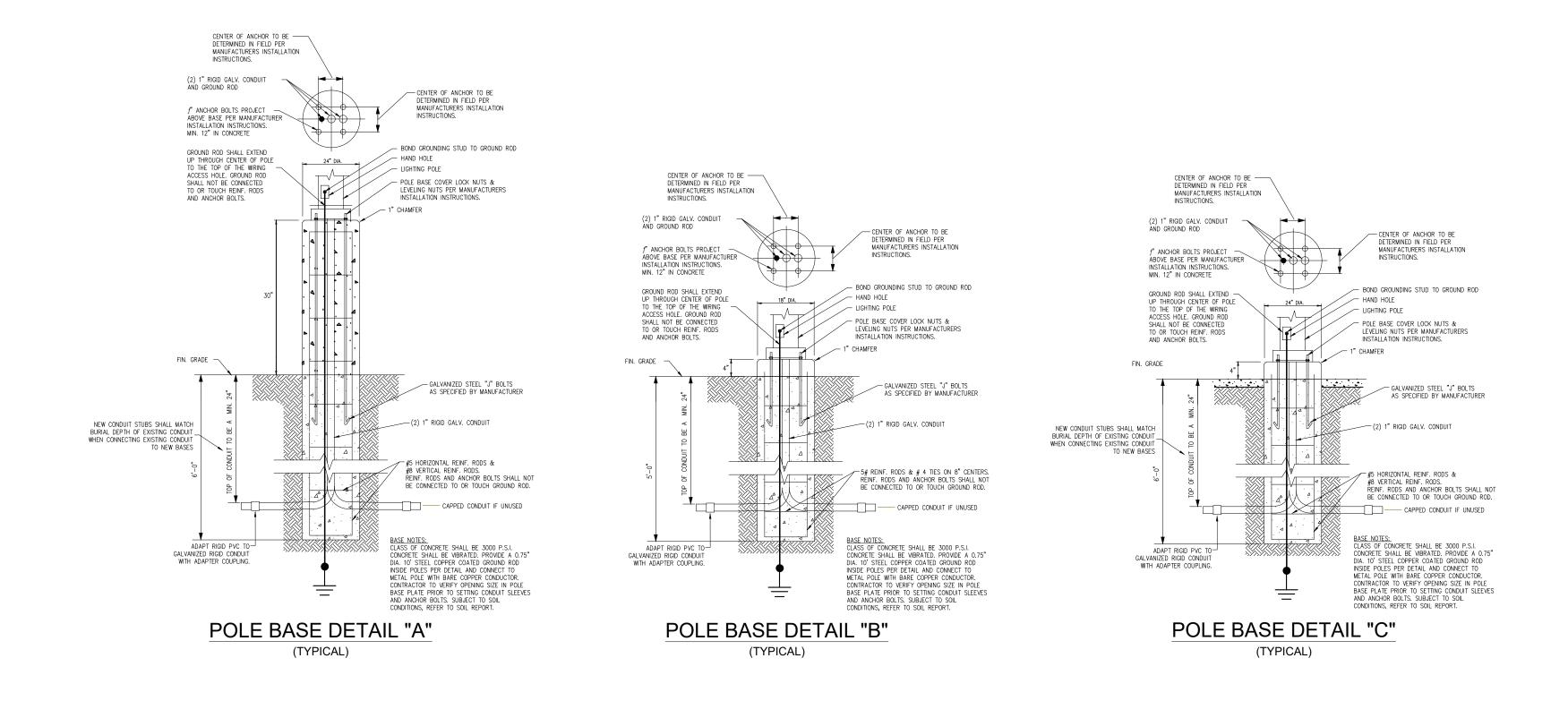


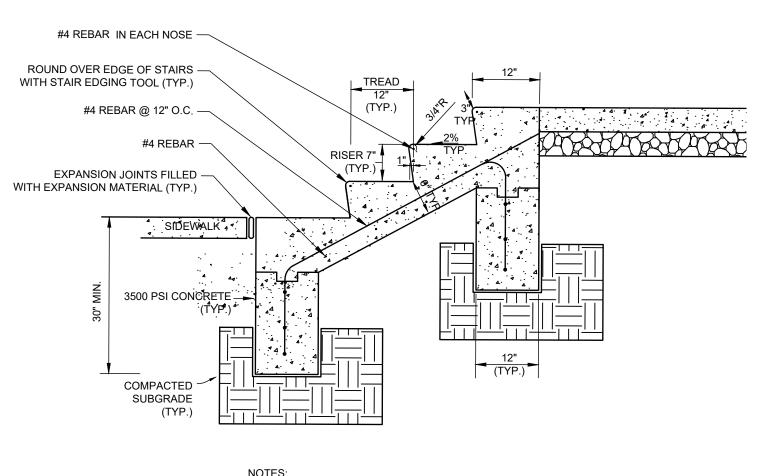
- (1) FOR SIDEWALKS, CONSTRUCTION JOINTS SHALL BE PLACED EVERY 10'-0" AND EXPANSION MATERIAL EVERY 20'-0". HOWEVER, EXPANSION MATERIAL SHALL NOT BE USED IN THE RAMP SECTION.
- (2) A 6:1 MAX SLOPE IS REQUIRED FOR 2'-0" ON BOTH SIDES OF THE SIDEWALK.
- (3) TOPSOIL, SEED, & MULCH ANY DISTURBED AREA ADJACENT TO THE SIDEWALK UP TO A MAXIMUM OF
- (4) ON REHABILITATION PROJECTS, WHEN EXISTING OBSTRUCTIONS (FIRE HYDRANT, UTILITY POLE, ETC...) ARE LOCATED IN THE SIDEWALK, THE SIDEWALK PATH SHALL NOT BE LESS THAN 32" WIDE AND THE OBSTRUCTION SHALL NOT EXTEND MORE THAN 2'-0".

SIDEWALK PLAN AND CROSS-SECTION

NOT TO SCALE

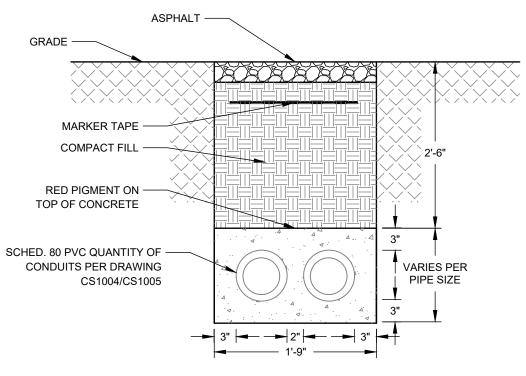




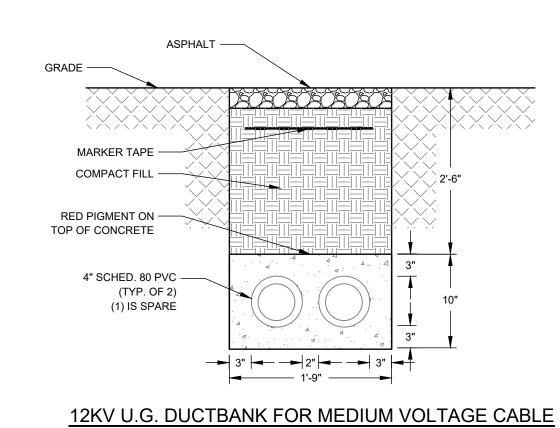


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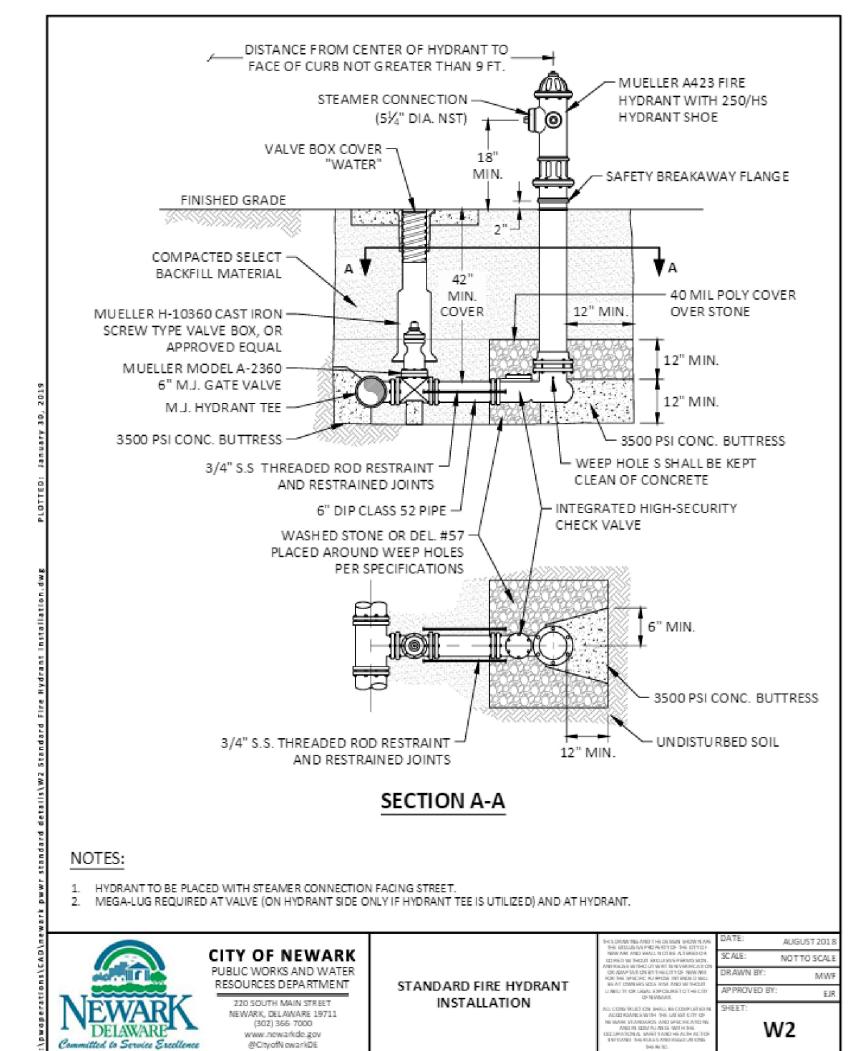
1. NUMBER OF TREADS AND RISERS VARIES. SEE PLANS FOR STAIR LAYOUT. CONCRETE STAIRS WITH SIDEWALK

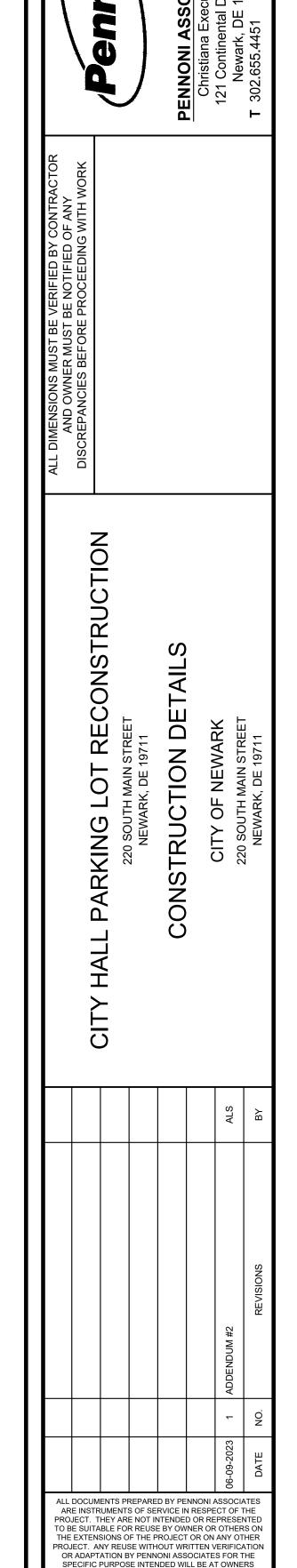


U.G. DUCTBANK BELOW ASPHALT AREAS NOT TO SCALE



NOT TO SCALE





SPECIFIC PURPOSE INTENDED WILL BE AT OWNERS SOLE RISK AND WITHOUT LIABILITY OR LEGAL EXPOSURE TO PENNONI ASSOCIATES; AND OWNER SHALL INDEMNIFY AND HOLD HARMLESS PENNONI ASSOCIATES FROM ALL CLAIMS, DAMAGES, LOSSES AN EXPENSES ARISING OUT OF OR RESULTING THEREFRO

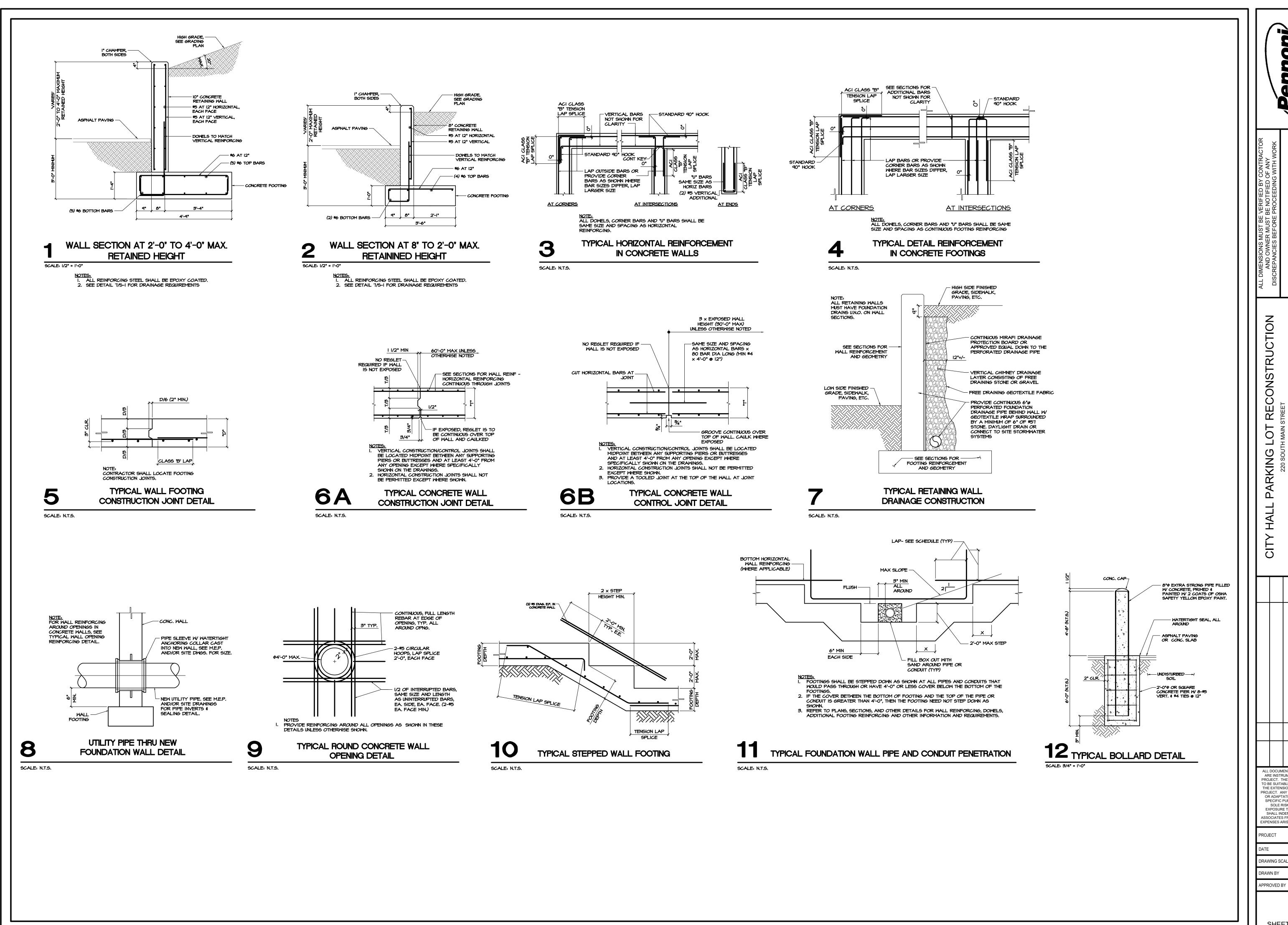
CNEWK22005 2020-02-10

DRAWING SCALE

DRAWN BY MRW/ALS

CS6002

SHEET 16 OF 21



Pennoniassociates incoming

Christiana Executive Campus 121 Continental Drive, Suite 20 Newark, DE 19713-4310

FORE PROCEEDING WITH WORK

Chris

AND OWNER MUST BE NOTIFIED OF DISCREPANCIES BEFORE PROCEEDING W

G WALL DETAILS

NEWARK, DE 19711
RETAINING WALL

ALS ALS ALS ALS ALS ALS

ALL DOCUMENTS PREPARED BY PENNONI ASSOCIATES
ARE INSTRUMENTS OF SERVICE IN RESPECT OF THE
PROJECT. THEY ARE NOT INTENDED OR REPRESENTED
TO BE SUITABLE FOR REUSE BY OWNER OR OTHERS ON
THE EXTENSIONS OF THE PROJECT OR ON ANY OTHER
PROJECT. ANY REUSE WITHOUT WRITTEN VERIFICATION
OR ADAPTATION BY PENNONI ASSOCIATES FOR THE
SPECIFIC PURPOSE INTENDED WILL BE AT OWNERS
SOLE RISK AND WITHOUT LIABILITY OR LEGAL
EXPOSURE TO PENNONI ASSOCIATES; AND OWNER
SHALL INDEMNIFY AND HOLD HARMLESS PENNONI
ASSOCIATES FROM ALL CLAIMS, DAMAGES, LOSSES AND

EXPENSES ARISING OUT OF OR RESULTING THEREFROM.

ROJECT

CNEWK22005

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2023-03-27

DRAWING SCALE AS NOTED
DRAWN BY

SHEET 17 OF 21

GENERAL RETAINING WALL AND CONSTRUCTION NOTES

I.O <u>GENERAL</u>

- ALL WORK SHALL CONFORM TO THE "2018 INTERNATIONAL BUILDING CODE" AND TO ALL OTHER APPLICABLE FEDERAL, STATE, AND LOCAL REGULATIONS. ALL SUBCODES REFERENCED IN THE GENERAL NOTES HEREAFTER ARE THE LATEST EDITIONS REQUIRED BY THE REFERENCED GOVERNING CODE.
- ALL CODES AND STANDARDS REFERENCED IN THESE NOTES INCLUDING SPECIFICATIONS REFERENCED WITHIN, AND ALL FEDERAL, STATE, AND LOCAL REGULATIONS APPLY TO THE DESIGN, CONSTRUCTION, DEMOLITION, QUALITY CONTROL, AND SAFETY OF ALL WORK PERFORMED ON THE PROJECT. USE THE LATEST ADOPTED EDITIONS OF THE CODES AND STANDARDS.
- 3. IN CASE OF CONFLICT BETWEEN THE GENERAL NOTES AND DETAILS, THE MOST RIGID REQUIREMENTS SHALL GOVERN.
- WORK NOT INDICATED ON A PART OF THE DRAWINGS BUT REASONABLY IMPLIED TO BE SIMILAR TO THAT SHOWN AT CORRESPONDING PLACES SHALL BE REPEATED AND PROVIDED AT NO ADDITIONAL COST. MINOR DETAILS OR INCIDENTAL ITEMS NOT SHOWN OR SPECIFIED, BUT NECESSARY FOR A PROPER AND COMPLETE INSTALLATION,
- SHALL BE INCLUDED IN THE WORK. 5. JOB SITE SAFETY AND CONSTRUCTION PROCEDURES ARE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
- 6. THE CONTRACTOR SHALL PROVIDE FOR DEWATERING AS REQUIRED DURING EXCAVATION AND CONSTRUCTION. REFER TO SPECIFICATIONS FOR ADDITIONAL
- INFORMATION. 7. ALL COSTS OF INVESTIGATION, REDESIGN AND/OR RE-INSTALLATION DUE TO CONTRACTOR IMPROPER INSTALLATION OF STRUCTURAL ELEMENTS OR OTHER ITEMS NOT IN CONFORMANCE WITH THE CONTRACT DOCUMENTS SHALL BE AT THE
- CONTRACTOR'S EXPENSE. 8. THE CONTRACTOR SHALL VERIFY AND/OR ESTABLISH ALL EXISTING CONDITIONS AND DIMENSIONS AT THE SITE. FAILURE TO NOTIFY ENGINEER OF UNSATISFACTORY CONDITIONS CONSTITUTES ACCEPTANCE OF UNSATISFACTORY CONDITIONS.
- 9. IF THE EXISTING FIELD CONDITIONS DO NOT PERMIT THE INSTALLATION OF THE WORK IN ACCORDANCE WITH THE DETAILS SHOWN, THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY AND PROVIDE A SKETCH OF THE CONDITION WITH HIS PROPOSED MODIFICATION OF THE DETAILS GIVEN ON THE CONTRACT DOCUMENTS. DO NOT COMMENCE WORK UNTIL CONDITION IS RESOLVED AND MODIFICATION IS APPROVED BY THE ARCHITECT.
- 10. THE CONTRACTOR SHALL BE RESPONSIBLE TO DETERMINE ALLOWABLE CONSTRUCTION LOADS AND TO PROVIDE DESIGN AND CONSTRUCTION OF FALSEWORK, FORMWORK, STAGINGS, BRACING, SHEETING, AND SHORING, ETC.
- CONTRACTOR TO PROVIDE SHEETING, BRACING, AND UNDERPINNING AS NECESSARY TO PREVENT ANY LATERAL OR VERTICAL MOVEMENTS OF EXISTING BUILDINGS, STREETS, AND ANY EXISTING UTILITY LINES.
- 12. IN NO CASE SHALL HEAVY EQUIPMENT BE PERMITTED CLOSER THAN 8'-0" FROM ANY FOUNDATION WALL. IF IT IS NECESSARY TO OPERATE SUCH EQUIPMENT CLOSER THAN 8'-0" TO THE WALL, THE CONTRACTOR SHALL BE THE SOLE RESPONSIBLE PARTY AND, AT HIS OWN EXPENSE, SHALL PROVIDE ADEQUATE SUPPORTS OR BRACE THE WALL TO WITHSTAND THE ADDITIONAL LOADS SUPERIMPOSED FROM SUCH EQUIPMENT.
- 13. SHOP DRAWINGS FOR ALL STRUCTURAL MATERIALS TO BE SUBMITTED TO ENGINEER FOR REVIEW PRIOR TO THE START OF FABRICATION OR COMMENCEMENT OF WORK. REVIEW PERIOD SHALL BE A MINIMUM OF TWO (2) WEEKS.
- 14. REPRODUCTION OF ANY PORTION OF THE CONTRACT DRAWINGS FOR RESUBMITTAL AS SHOP DRAWINGS IS PROHIBITED. SHOP DRAWINGS PRODUCED IN SUCH A MANNER WILL BE REJECTED AND RETURNED.
- 15. SHOP DRAWINGS SHALL BEAR THE CONTRACTOR'S STAMP OF APPROVAL WHICH SHALL CONSTITUTE CERTIFICATION THAT THE CONTRACTOR HAS VERIFIED ALL CONSTRUCTION CRITERIA, MATERIALS, AND SIMILAR DATA AND HAS CHECKED EACH DRAWING FOR COMPLETENESS, COORDINATION, AND COMPLIANCE WITH THE CONTRACT DOCUMENTS
- 16. THE DRAWINGS HAVE BEEN PRODUCED ENTIRELY ON PENNONI CADD SYSTEM. ANY OTHER LETTERING, LINES OR SYMBOLS, OTHER THAN PROFESSIONAL STAMPS AND SIGNATURES, HAVE BEEN MADE WITHOUT THE AUTHORIZATION OF PENNONI ARE INVALID.
- 17. INSPECTION IS REQUIRED OF ALL CONSTRUCTION DELINEATED ON THE STRUCTURAL DRAWINGS AND/OR SPECIFICATIONS. THE CONTRACTOR SHALL EMPLOY A TESTING/INSPECTION AGENCY WHICH SHALL PROVIDE PERSONNEL WITH THE FOLLOWING MINIMUM QUALIFICATIONS:
 - A. CERTIFIED BY INSTITUTE OF CERTIFIED ENGINEERING TECHNICIANS, OR OTHER RECOGNIZED COMPARABLE ORGANIZATION, AND,
 - FOR INSPECTION, SAMPLING, TESTING CONCRETE AND MASONRY: ACI CERTIFIED CONCRETE FIELD-TESTING TECHNICIAN, GRADE I; AND CONSTRUCTION INSPECTOR, LEVEL II.
- 28. SUBMIT PERIODIC REPORTS WITHIN ONE BUSINESS DAY AFTER RECEIPT BY THE CONTRACTOR TO ENGINEER AND THE CONSTRUCTION CODE OFFICIAL DURING CONSTRUCTION. SUBMIT FINAL INSPECTION REPORT SUMMARY FOR EACH DIVISION OF WORK, CERTIFIED BY A LICENSED PROFESSIONAL ENGINEER, THAT INSPECTIONS WERE PERFORMED AND THAT WORK WAS PERFORMED IN ACCORDANCE WITH CONTRACT DOCUMENTS.
- 29. THE CONTRACTOR SHALL ENGAGE A TESTING AGENCY TO PROVIDE TESTING SERVICES AS INDICATED IN EACH SECTION OF THESE GENERAL NOTES.
- 30. ALL MATERIALS SHALL BE STORED TO PROTECT THEM FROM EXPOSURE TO THE ELEMENTS.

2.0 EARTHWORK

- EXCAVATION SHALL BE PERFORMED SO AS NOT TO DISTURB EXISTING ADJACENT BUILDINGS, STREETS, AND UTILITY LINES. VERIFY LOCATION OF ALL UTILITIES PRIOR TO COMMENCEMENT OF WORK. HAND EXCAVATE AROUND UTILITIES AS REQUIRED.
- 2. SATISFACTORY FILL MATERIALS ARE THOSE COMPLYING WITH ASTM D2487, GROUPS GW, GP, GM, SM, SW, AND SP. ON SITE BORROW MATERIAL SHALL BE TESTED TO DETERMINE SUITABILITY FOR USE AS FILL MATERIAL.
- 3. COMPACT SOIL TO NOT LESS THAN THE FOLLOWING PERCENTAGES OF MAXIMUM DENSITY OF MODIFIED PROCTOR (ASTM DI557):

UNDER RETAINING WALL FOUNDATIONS - 98%

- 4. REMOVE EXISTING VEGETATION, TOPSOIL, AND UNSATISFACTORY SOIL MATERIALS. PROOF ROLL SUBGRADE TO OBTAIN UNIFORMLY DENSIFIED SUBSTRATA PRIOR TO PLACING FILL MATERIAL EVENLY IN 8" THICK (MAXIMUM) LAYERS AND COMPACTING TO REQUIRED DENSITY.
- 5. THE CONTRACTOR SHALL RETAIN THE SERVICES OF A PROFESSIONAL GEOTECHNICAL ENGINEER, SUBJECT TO THE APPROVAL OF THE ARCHITECT, TO PERFORM SOIL TESTING AND INSPECTION. THE ENGINEER SHALL INSPECT THE SUBGRADE TO VERIFY BEARING LEVELS AND ENSURE THAT THE SAFE BEARING CAPACITY MEETS OR EXCEEDS THE DESIGN VALUE INDICATED BELOW. REPORTS SHALL BE SUBMITTED TO THE ARCHITECT OUTLINING THE WORK PERFORMED AND TEST RESULTS.
- 6. BACKFILL SHALL BE BROUGHT UP SIMULTANEOUSLY ON EACH SIDE OF WALLS, WITH A GRADE DIFFERENCE NOT TO EXCEED 2'-0" AT ANY TIME.

3.0 <u>FOUNDATIONS</u>

- A NEW SUBSURFACE INVESTIGATION REPORT, WITH FOUNDATION RECOMMENDATIONS, HAS NOT BEEN PROVIDED BY THE OWNER FOR THIS PROJECT AT THIS TIME. THE SOIL INFORMATION AND BEARING CAPACITY SHALL BE VERIFIED BY A QUALIFIED GEOTECHNICAL ENGINEER DURING CONSTRUCTION.
- 2. FOOTINGS SHALL BEAR ON UNDISTURBED STRATUM OR ENGINEERED FILL WITH A MINIMUM BEARING CAPACITY OF 1,500 PSF.
- PRIOR TO FOOTING CONCRETE PLACEMENT, THE FOOTING SUBGRADE SHALL BE APPROVED BY THE INSPECTING GEOTECHNICAL ENGINEER.
- 4. THE BOTTOM OF EXTERIOR FOOTINGS SHALL BE A MINIMUM OF 3 FEET BELOW FINISHED GRADE, OR AS REQUIRED BY LOCAL BUILDING CODES.
- CONCRETE FOR FOUNDATIONS SHALL BE POURED ON THE SAME DAY THE SUBGRADE IS
- APPROVED BY THE GEOTECHNICAL ENGINEER. 6. UTILITY LINES SHALL NOT BE PLACED THROUGH OR BELOW FOUNDATIONS WITHOUT THE
- STRUCTURAL ENGINEER'S APPROVAL. 7. THE CONTRACTOR SHALL OBSERVE WATER CONDITIONS AT THE SITE AND TAKE THE NECESSARY PRECAUTIONS TO ENSURE THAT THE FOUNDATION EXCAVATIONS REMAIN DRY DURING CONSTRUCTION. ANY SHEETING OR SHORING REQUIRED FOR DEWATERING SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.

4.0 CAST-IN-PLACE CONCRETE

- CONCRETE SHALL BE DESIGNED AND DETAILED IN ACCORDANCE WITH THE BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE (ACI-318), AND CONSTRUCTED IN ACCORDANCE WITH THE CRSI MANUAL OF STANDARD PRACTICE.
- 2. CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE 28-DAY STRENGTH OF 4,000 PSI. AIR ENTRAINMENT 4% TO 6% IN ALL EXPOSED CONCRETE WORK. MAXIMUM WATER/CEMENT RATIO OF 0.45.
- 3. REINFORCING STEEL: ASTM A615 GRADE 60
- 4. EPOXY COATED REINFORCING STEEL: ASTM A775.
- 5. REINFORCING STEEL CLEAR COVER SHALL BE AS FOLLOWS UNLESS NOTED OTHERWISE:

REINFORCING STEEL IN CONCRETE CAST AGAINST SOIL	3"
REINFORCING STEEL IN CONCRETE EXPOSED TO SOIL OR WEATHER	3"
#5 BARS AND SMALLER	l I/2"
#6 BARS AND LARGER	2"

TOLERANCE FOR CONCRETE CONSTRUCTION SHALL BE IN ACCORDANCE WITH ACI IIT

6. SPLICES IN REINFORCING STEEL SHALL BE MADE ONLY AT THOSE LOCATIONS WHERE SPLICES ARE SHOWN ON THE STRUCTURAL DRAWINGS AND AT THOSE LOCATIONS WHERE SPLICES HAVE BEEN DETAILED ON THE REINFORCING STEEL PLACING DRAWINGS THAT HAVE BEEN REVIEWED BY THE STRUCTURAL ENGINEER. ALL SPLICES SHALL BE CLASS "B" TENSION LAP SPLICES (SEE TABLES | AND 2 BELOW), EXCEPT WHERE INDICATED OTHERWISE ON THE STRUCTURAL DRAWINGS. MECHANICAL SPLICE COUPLERS CAPABLE OF DEVELOPING 125% OF THE TENSILE STRENGTH OF THE REINFORCING STEEL MAY BE USED INSTEAD OF TENSION LAP SPLICES AT THE CONTRACTOR'S OPTION AT ANY LOCATION. COMPRESSION LAP SPLICES PER TABLE 4 MAY BE USED ONLY AT THOSE LOCATIONS WHERE SUCH SPLICES ARE SPECIFICALLY INDICATED. STAGGER SPLICES WHERE REQUIRED TO PROVIDE I I/2" CLEAR SPACING BETWEEN REINFORCING STEEL AT SPLICE LOCATIONS.

TABLE 1						
REINFORCING	BAR	BAR	CONCRETE STRENGTH			
STEEL (FY)	SIZE	LOCATION	3 KSI	4 KSI	5 KSI	
	#3	TOP BARS	2'-4"	2'-0"	1'-9"	
	#5	OTHER BARS	1'-9"	1'-6"	l'-5"	
	#4	TOP BARS	3'-1"	2'-8"	2'-5"	
60 KSI		OTHER BARS	2'-4"	2'-1"	1'-10"	
60 KSI	#5	TOP BARS	3'-10"	3'-4"	3'-0"	
		OTHER BARS	3'-0"	2'-7"	2'-4"	
	#6	TOP BARS	4'-8"	4'-0"	3'-7"	
		OTHER BARS	3'-7"	3'-1"	2'-9"	

- A. SPLICE LENGTHS SHOWN IN TABLE ABOVE ARE APPLICABLE FOR
- SPLICES: OCCURRING UNDER THE FOLLOWING CONDITIONS: • GRADE 60 REINFORCING STEEL (U.N.O.)
- NORMAL WEIGHT CONCRETE
- MINIMUM BAR SPACING REQUIREMENTS:
- CLEAR SPACING BETWEEN BARS AT SPLICE LOCATION ≥ DIAMETER AND CLEAR COVER TO BARS OCCURRING PER CODE SPACING WITHIN LENGTH OF SPLICE
- CLEAR SPACING BETWEEN BARS AT SPLICE ≥ 2X BAR DIAMETER AND CLEAR COVER ≥ BAR DIAMETER.
- B. INDICATED SPLICE LENGTHS SHALL BE INCREASED BY THE FOLLOWING FACTORS WHERE THE FOLLOWING CONDITIONS OCCUR:

TABLE 2				
CONDITION	SPLICE LENGTH MULTIPLIER			
BAR SPACING OR CLEAR COVER LESS THAN REQUIRED PER NOTE #I	1.5			
LIGHTWEIGHT CONCRETE	1.3			
EPOXY COATED REINFORCING WITH COVER < 3X DIAMETER AND CLEAR SPACING < 6X DIAMETER	1.5			
ALL OTHER EPOXY COATED BARS	l.2			

- "TOP BARS" ARE HORIZONTAL BARS LOCATED WHERE MORE THAN 12" OF FRESH CONCRETE IS CAST IN THE MEMBER BELOW THE BARS.
- SUBMIT TO ENGINEER REINFORCING STEEL SHOP DRAWINGS FOR APPROVAL AND MIX DESIGNS FOR REVIEW PRIOR TO PLACING ANY CONCRETE.
 - REINFORCING STEEL PLACING DRAWINGS SHALL BE PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF ACI 314-92, "DETAILS AND DETAILING OF CONCRETE REINFORCING". THE PLACING DRAWINGS SHALL SHOW ALL INFORMATION NECESSARY TO FABRICATE AND PLACE THE REINFORCING STEEL
- THE SPACING OF ALL REINFORCING STEEL MUST BE COMPUTED BY THE REINFORCING STEEL DETAILER AND MUST BE INDICATED ON THE PLACING DRAWINGS, EXTENT ARROWS MUST BE USED TO CLEARLY INDICATE THE LOCATIONS WHERE GROUPS OF REINFORCING BARS ARE TO BE INSTALLED.
- C. A LIST OF ALL APPLICABLE REINFORCING STEEL PLACEMENT TOLERANCES SHALL BE INDICATED ON ALL REINFORCING STEEL PLACING DRAWINGS. PLACING DRAWINGS THAT DO NOT SHOW SUFFICIENT INFORMATION NEEDED TO PLACE THE REINFORCING STEEL WILL BE REJECTED.
- ALL REINFORCEMENT SHALL BE SECURELY HELD IN PLACE WHILE PLACING CONCRETE. IF REQUIRED, ADDITIONAL BARS, STIRRUPS OR CHAIRS SHALL BE PROVIDED BY THE CONTRACTOR TO FURNISH SUPPORT FOR ALL BARS.
- PROVIDE PLASTIC TIPPED BOLSTERS AND CHAIRS AT ALL LOCATIONS WHERE THE CONCRETE SURFACE IN CONTACT WITH THE BOLSTERS OR CHAIRS IS EXPOSED.
- 10. PLACING OF CONCRETE SHALL NOT START UNTIL THE PLACEMENT OF REINFORCING HAS BEEN APPROVED BY THE INSPECTION AGENCY.
- BONDING AGENT SHALL BE USED WHERE NEW CONCRETE IS PLACED AGAINST EXISTING
- 12. EPOXY ADHESIVE SHALL BE USED WHERE DOWELS ARE TO BE INSTALLED INTO
- EXISTING CONCRETE. SUBMIT MANUFACTURER INFORMATION FOR ENGINEER REVIEW. 13. NO SLEEVE SHALL BE PLACED THROUGH ANY CONCRETE ELEMENT UNLESS SHOWN ON THE APPROVED SHOP DRAWINGS OR SPECIFICALLY AUTHORIZED IN WRITING BY THE STRUCTURAL ENGINEER. THE CONTRACTOR SHALL VERIFY DIMENSIONS AND LOCATIONS OF ALL SLOTS, PIPE SLEEVES, ETC. AS REQUIRED FOR MECHANICAL
- 14. PRIOR TO CONCRETE PLACEMENT, THE CONTRACTOR SHALL SUBMIT TO THE STRUCTURAL ENGINEER FOR REVIEW, CONCRETE MIX DESIGNS PREPARED IN ACCORDANCE WITH THE SPECIFICATIONS AND REQUIREMENTS INDICATED IN THE

TRADES BEFORE CONCRETE IS PLACED.

- 15. CONCRETE SHALL NOT BE PUMPED THROUGH ALUMINUM PIPES AND SHALL NOT BE PLACED IN CONTACT WITH ALUMINUM FORMS, MIXING DRUMS, BUGGIES, CHUTES, CONVEYORS OR OTHER EQUIPMENT MADE OF ALUMINUM.
- 16. ALL INSERTS AND SLEEVES SHALL BE CAST-IN-PLACE WHENEVER FEASIBLE. DRILLED OR POWDER DRIVEN FASTENERS WILL BE PERMITTED WHEN PROVEN TO THE SATISFACTION OF THE STRUCTURAL ENGINEER THAT THE FASTENERS WILL NOT SPALL THE CONCRETE AND HAVE THE SAME CAPACITY AS CAST-IN-PLACE INSERTS.
- 17. CHAMFER ALL EXPOSED CONCRETE CORNERS UNLESS NOTED OTHERWISE ON
- 18. EARLY DRYING OUT OF CONCRETE, ESPECIALLY DURING THE FIRST 24 HOURS, SHALL BE CAREFULLY GUARDED AGAINST. ALL SURFACES SHALL BE MOIST CURED OR PROTECTED USING A MEMBRANE CURING AGENT APPLIED AS SOON AS FORMS ARE REMOVED. IF MEMBRANE CURING AGENT IS USED, EXERCISE CARE NOT TO DAMAGE
- 19. COLD WEATHER CONCRETING SHALL BE IN ACCORDANCE WITH ACI-306. HOT WEATHER CONCRETING SHALL BE IN ACCORDANCE WITH ACI-305R.
- 20. THROUGHOUT CONSTRUCTION, THE CONCRETE WORK SHALL BE ADEQUATELY PROTECTED AGAINST DAMAGE DUE TO EXCESSIVE LOADING, CONSTRUCTION EQUIPMENT, MATERIALS OR METHODS, ICE, RAIN, SNOW, EXCESSIVE HEAT, AND FREEZING
- 21. PREPARE CONCRETE TEST CYLINDERS FROM EACH DAY'S POUR. CYLINDERS SHALL BE PROPERLY CURED AND STORED. SAMPLE FRESH CONCRETE IN ACCORDANCE WITH ASTM CI72.
- 22. RETAIN LABORATORY TO PROVIDE TESTING SERVICE. SLUMP PER ASTM 143 AIR CONTENT PER ASTM C231 OR C173, CYLINDER TESTS PER ASTM C31 AND C39. ONE SET OF SIX (6) CYLINDERS FOR EACH 50 CUBIC YARDS FOR EACH MIX USED. REPORTS OF ALL TESTS TO BE SUBMITTED TO THE ARCHITECT.

5.0 SPECIAL INSPECTIONS, TESTING AND OBSERVATIONS

- ACTING AS THE SPECIAL INSPECTION COORDINATOR, THE STRUCTURAL ENGINEER OF RECORD (SER) WILL SUBMIT A STATEMENT OF SPECIAL INSPECTIONS (SSI) TO THE BUILDING OFFICIAL AS REQUIRED TO COMPLY WITH CHAPTER 17 (SPECIAL INSPECTIONS) OF THE 2018 INTERNATIONAL BUILDING CODE (IBC).
- INSPECTION AND MATERIAL TESTING WILL BE REQUIRED FOR THE FOLLOWING BUILDING SYSTEMS IN COMPLIANCE WITH THE APPLICABLE REFERENCED CODE SECTION. SUBMIT A STATEMENT OF RESPONSIBILITY FOR WIND OR SEISMIC SITES AND PROJECTS IF INDICATED BELOW.

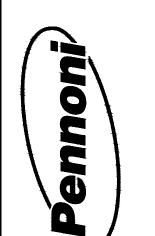
SYSTEM, ELEMENT OR COMPONENT	INSPECTION REQUIRED
SOILS	YES
CONCRETE	YES

- UNLESS OTHERWISE NOTED, SPECIAL INSPECTIONS ARE OWNER FURNISHED AS REQUIRED BY CHAPTER IT OF THE IBC.
- COORDINATE AND PROVIDE ACCESS TO THE WORK FOR REQUIRED SPECIAL INSPECTIONS AND PROVIDE NOTICE OF REQUIRED SPECIAL INSPECTIONS AND STRUCTURAL OBSERVATIONS.
- THE SER IS NOT RESPONSIBLE FOR CONSTRUCTION SITE SAFETY AND IS NOT REQUIRED TO INSPECT THE WORK FOR COMPLIANCE WITH OSHA REGULATIONS. AFTER COMPLETION OF THE WORK.
- SHOP INSPECTIONS OF ANY APPROVED FABRICATORS MAY BE WAIVED BY THE BUILDING OFFICIAL OR SER. IF SHOP INSPECTIONS ARE WAIVED A FABRICATOR'S CERTIFICATE OF COMPLIANCE SHALL BE SUBMITTED TO THE SER.

SPECIAL INSPECTIONS AND TESTS

- SPECIAL INSPECTIONS AND TESTS WILL COMPLY WITH CHAPTER 17 OF THE IBC TOGETHER WITH LOCAL AND STATE AMENDMENTS AND THE PROJECT
- SPECIAL INSPECTIONS WILL BE PROVIDED FOR EACH SYSTEM AND/OR MATERIAL. TESTING WILL BE PERFORMED BY AN APPROVED AND ACCREDITED AGENCY AND SUBJECT TO APPROVAL BY THE BUILDING OFFICIAL.
- UNLESS OTHERWISE NOTED THE OWNER WILL SECURE AND PAY FOR THE SERVICES OF THE AGENCY TO PERFORM ALL SPECIAL INSPECTION AND ASSOCIATED TESTS.
- THE SPECIAL INSPECTOR WILL OBSERVE THE INDICATED WORK FOR COMPLIANCE WITH THE APPROVED CONTRACT DOCUMENTS AND SUBMIT RECORDS OF INSPECTION ALL DISCREPANCIES WILL BE BROUGHT TO THE ATTENTION OF THE CONTRACTOR FOR CORRECTION.
- SPECIAL INSPECTION AND ASSOCIATED TESTING REPORTS WILL BE SUBMITTED TO THE ENGINEER, CONTRACTOR, BUILDING OFFICIAL AND OWNER WITHIN ONE WEEK OF INSPECTION OR WITHIN ONE WEEK OF TEST COMPLETION.
- IN ADDITION TO THE SUBMISSION OF ONGOING INSPECTION REPORTS, THE APPROVED INSPECTION AND TESTING AGENCIES SHALL SUBMIT AN AGENT'S FINAL REPORT OF SPECIAL INSPECTIONS TO THE SER. THE SER WILL SUBMIT A FINAL REPORT OF VERIFICATION OF SPECIAL INSPECTIONS AFTER REVIEW AND APPROVAL OF THE AGENT'S FINAL REPORT OF SPECIAL INSPECTIONS AFTER COMPLETION OF THE WORK...
- PERIODIC INSPECTION IS DEFINED AS PART-TIME OR INTERMITTENT OBSERVATION OF WORK REQUIRING SPECIAL INSPECTION BY AN APPROVED SPECIAL INSPECTOR WHO IS PRESENT IN THE AREA WHERE THE WORK IS BEING PERFORMED.
- CONTINUOUS INSPECTION IS DEFINED AS FULL-TIME OBSERVATION OF WORK REQUIRING SPECIAL INSPECTION BY AN APPROVED SPECIAL INSPECTOR WHO IS PRESENT IN THE AREA WHERE THE WORK HAS BEEN OR IS BEING PERFORMED.

THE PROJECT IS EXEMPT FROM THE REQUIREMENTS OF IBC SECTION 1704.6 FOR STRUCTURAL OBSERVATIONS.

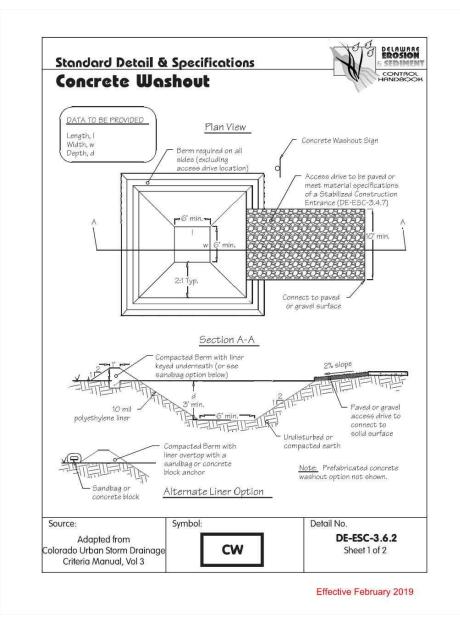


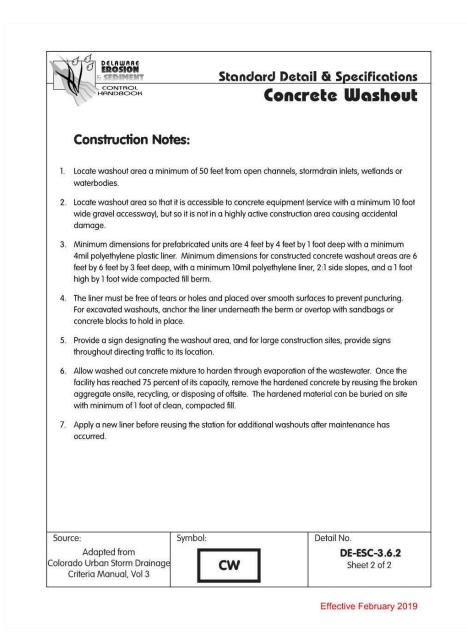
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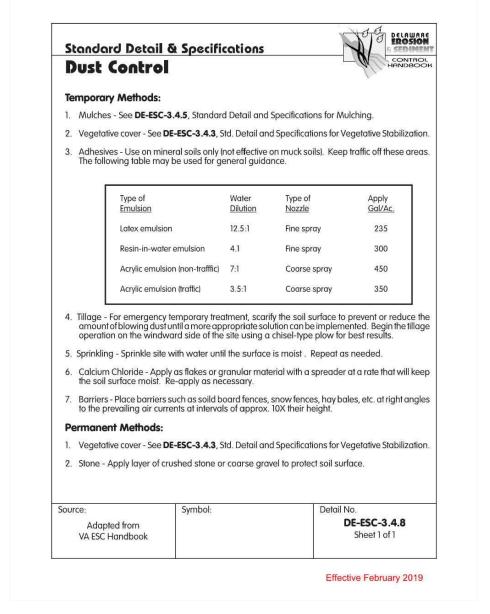
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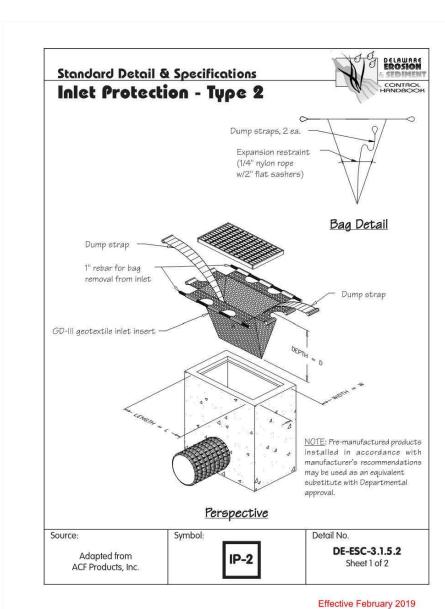
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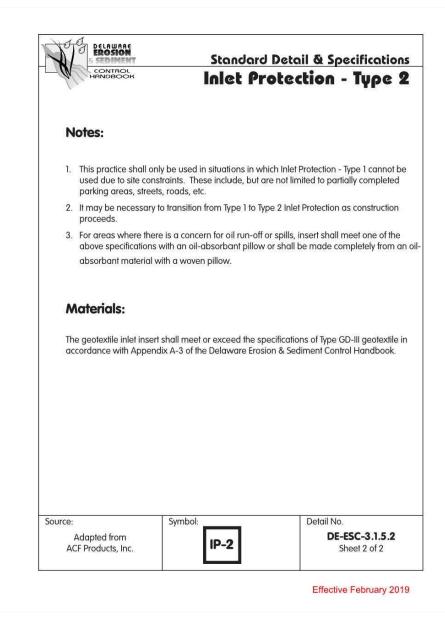
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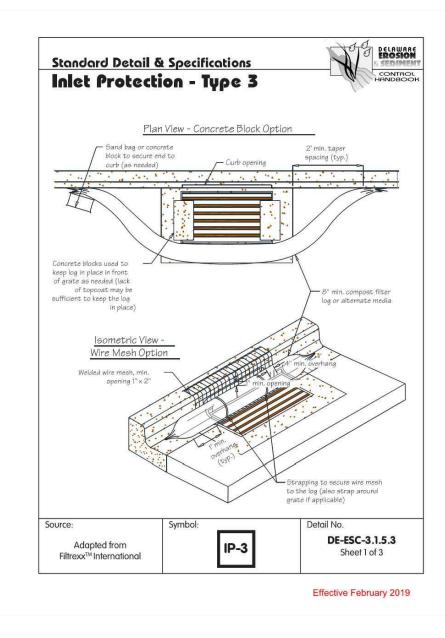


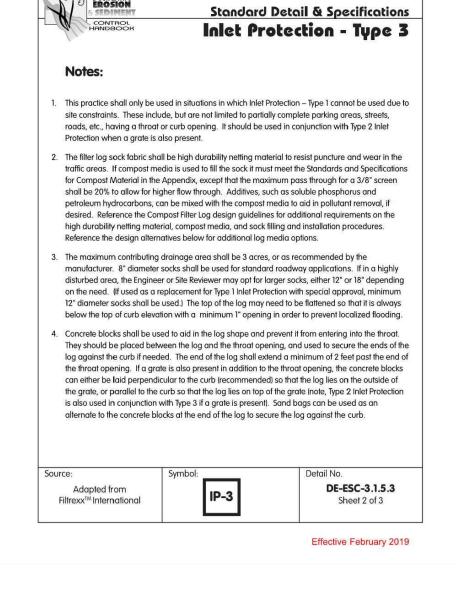


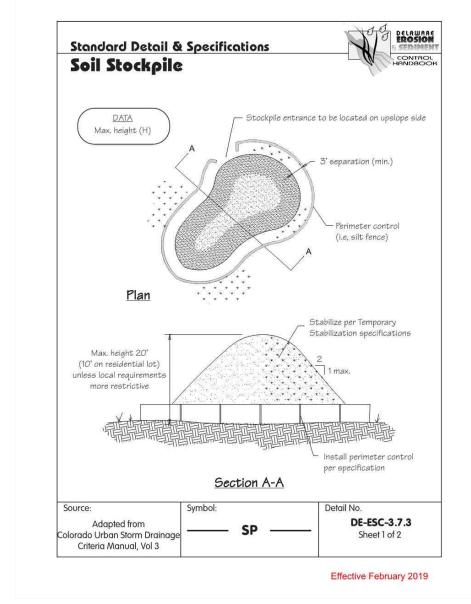


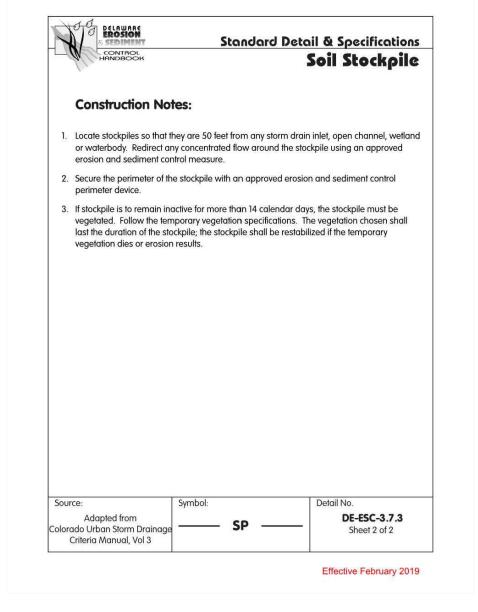


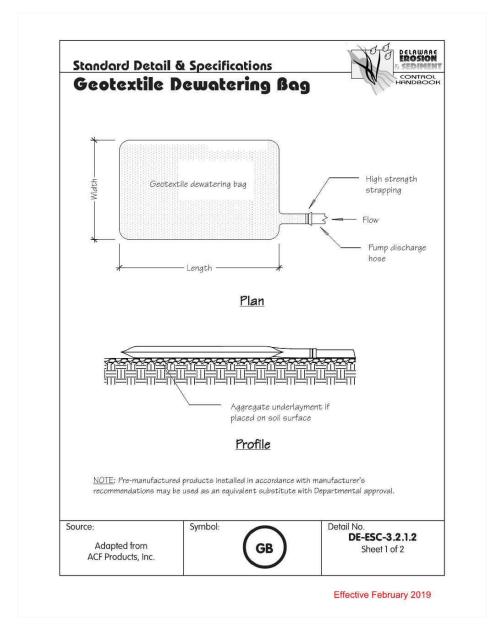


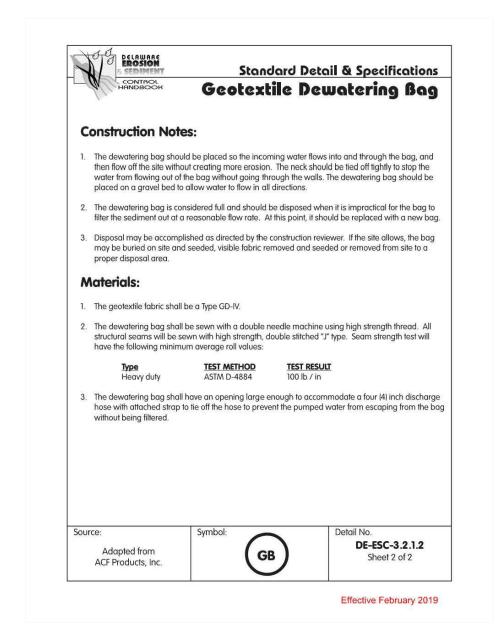


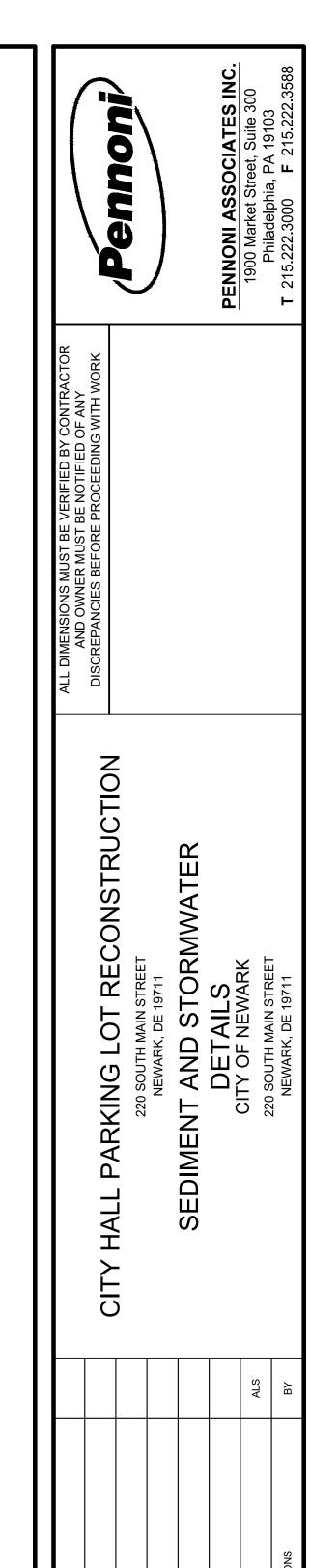












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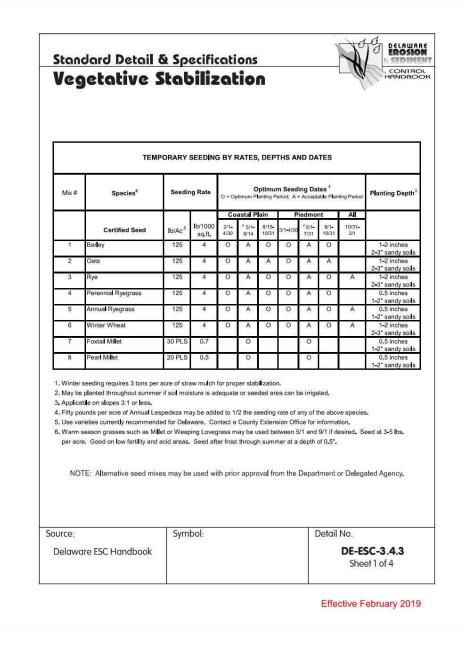
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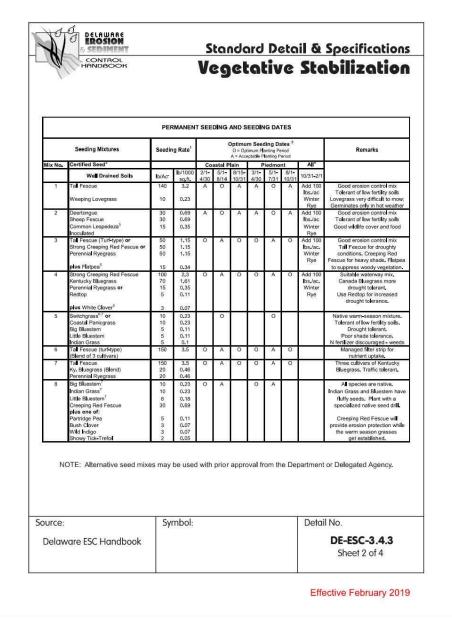
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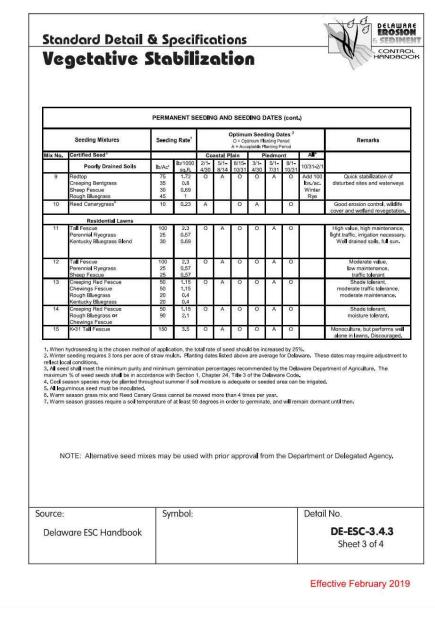
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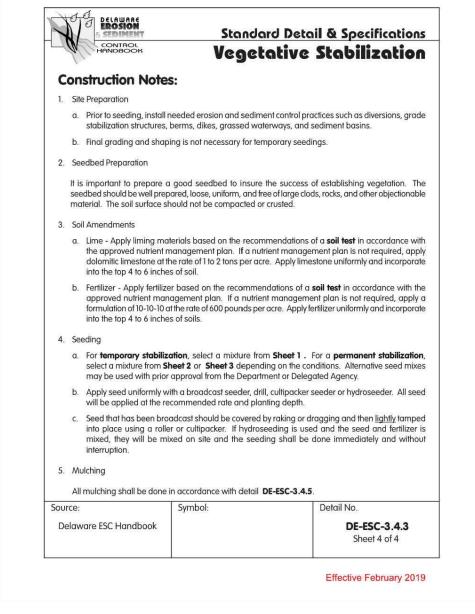
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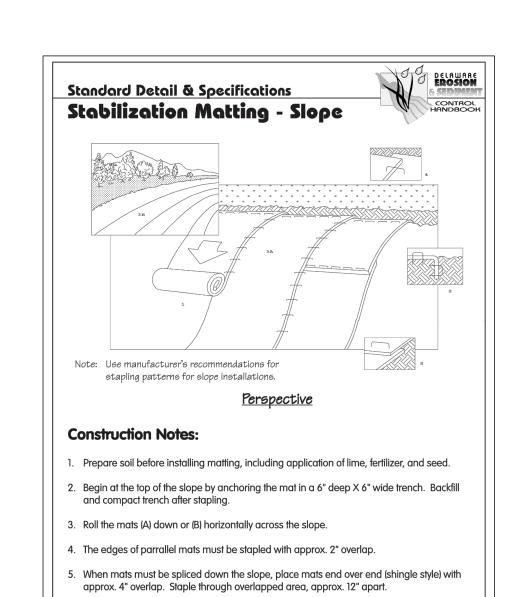
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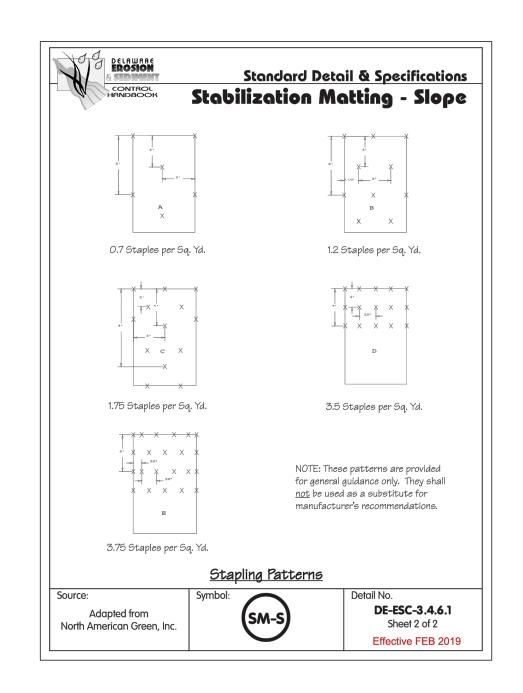
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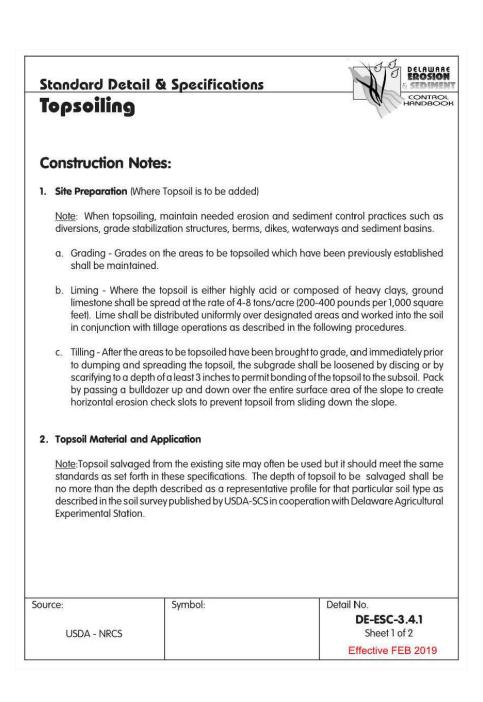
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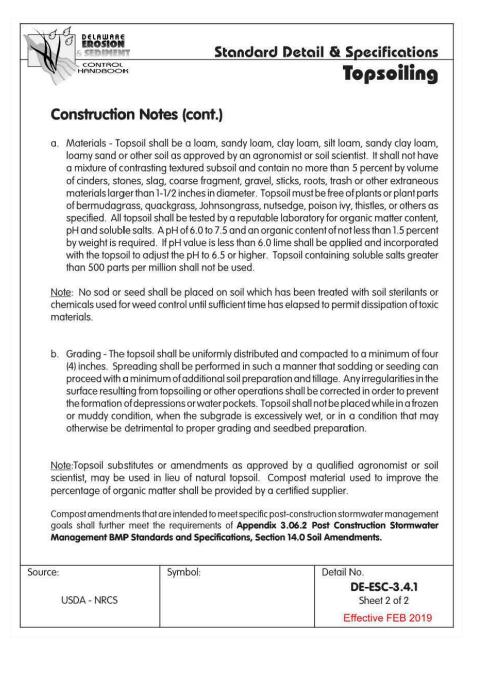
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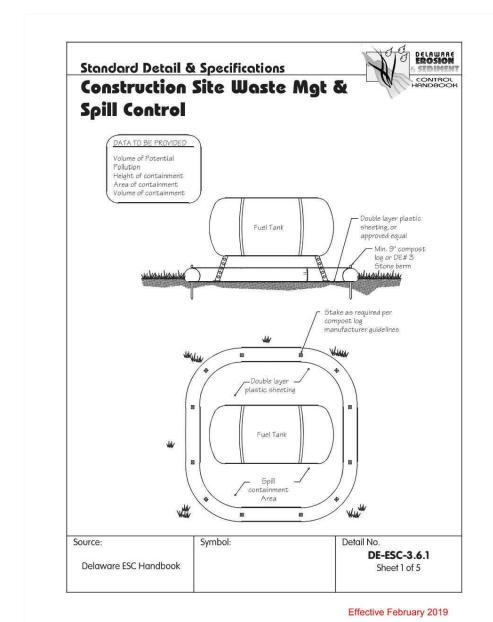
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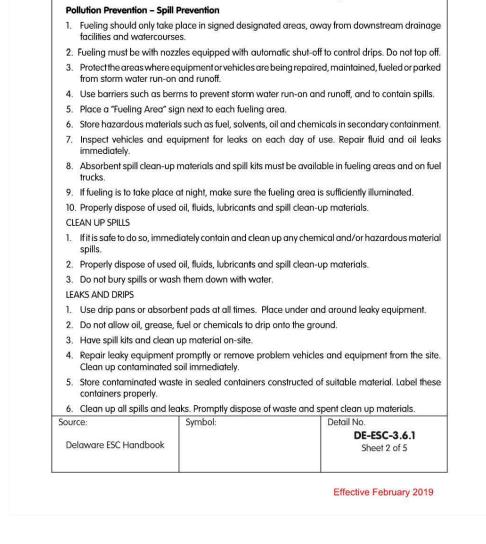
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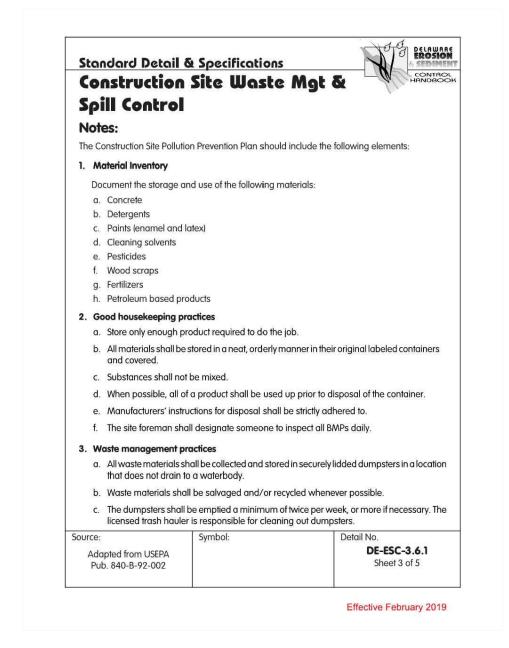


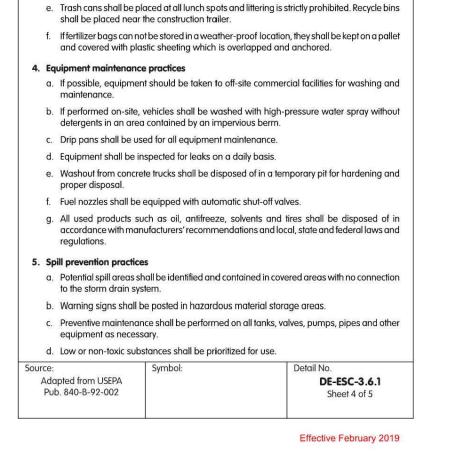


Standard Detail & Specifications

Spill Control

Construction Site Waste Mgt &





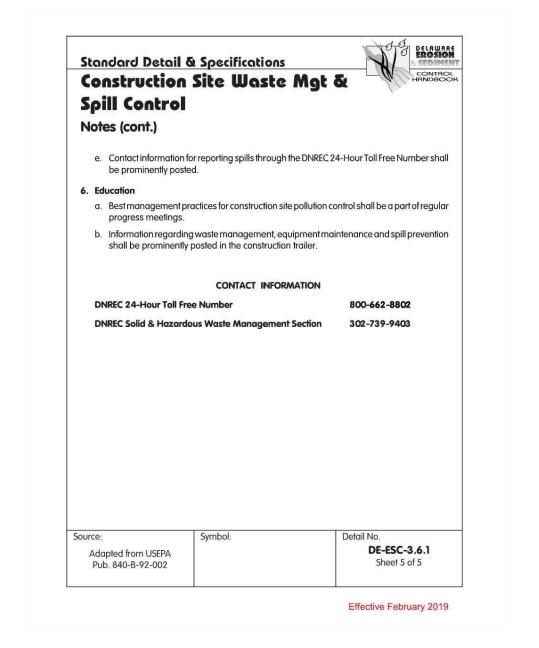
Standard Detail & Specifications

Spill Control

Construction Site Waste Mgt &

d. Trash shall be disposed of in accordance with all applicable Delaware laws.

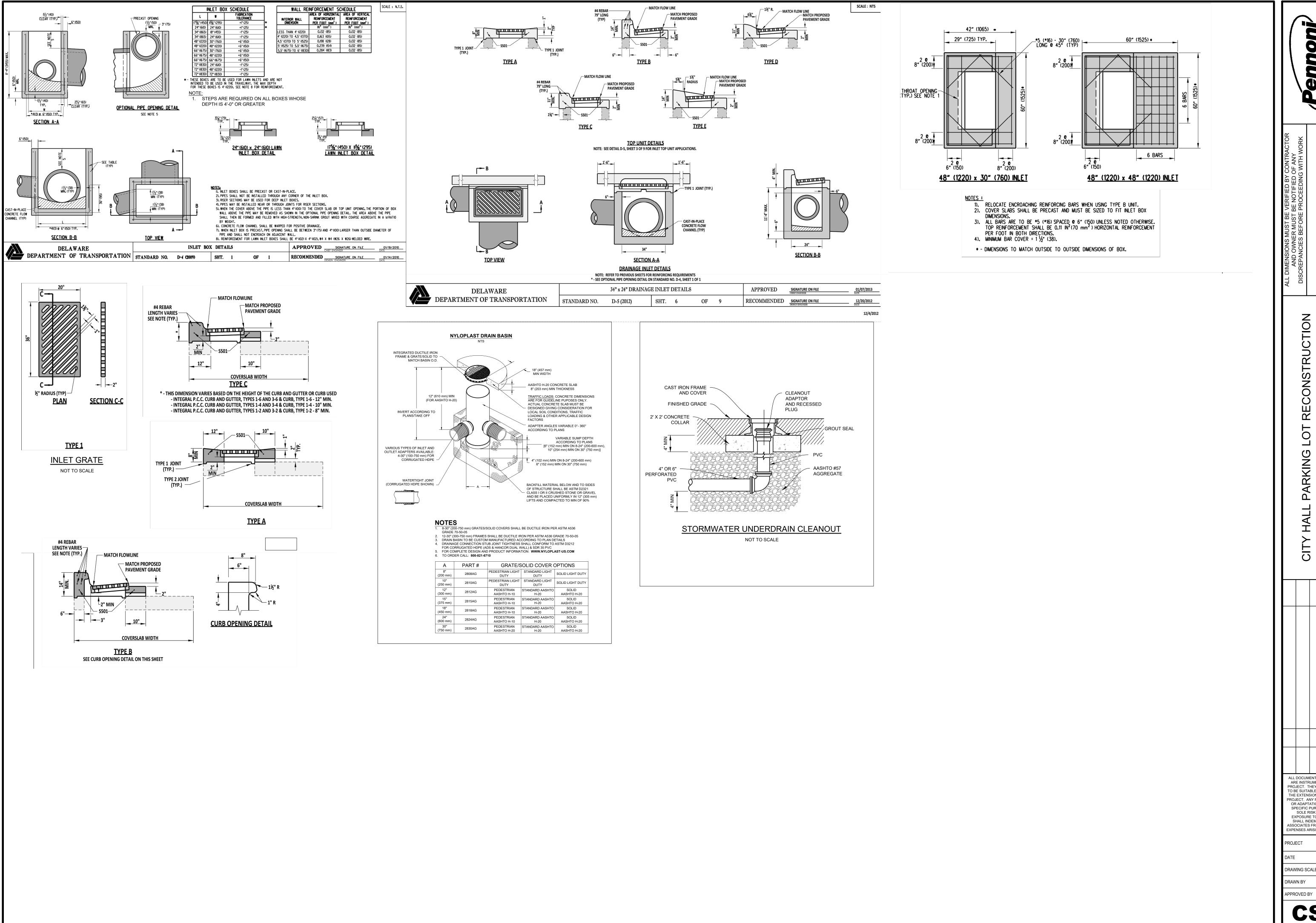
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> CNEWK22005 2023-05-18

DRAWING SCALE 1"= DRAWN BY MRW/ALS

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SHEET 21 OF 21

Bid Item Descriptions:

1. BASE BID: all Items associated with the work within the NPD lot and Admin EV space area

1.A. Newark Police Department (NPD) Lot

- 1.A.1. Mobilization/Demobilization: This lump sum bid item includes, but is not limited to, bonding, insurance, shop drawings, meetings, construction stakeout, preconstruction video, utility locating, staging, movement of equipment, site maintenance, erosion and sedimentation pollution control, site clean-up, replacement of any damaged property, Lawn and site restoration, and as-built plans. The Contractor shall provide redline plan markups, including as-built rim and invert elevations. Payment will be scheduled as follows: fifty (50) percent upon issuance of Notice to Proceed and the balance upon completion of the project.
- 1.A.2. <u>Demolition of Landscape & Islands:</u> Price and payment shall be full compensation for furnish, setup, and removal of landscape and islands, <u>including curbing</u>, for preparation of the site, including disposal, excavation, and shoring. This item is measured per square yard.
- 1.A.3. <u>Demolition of Concrete Curb:</u> This work consists of the removal of concrete curbing to the full depth for installation of replacement curbing including labor, equipment and excavation of the materials. The work shall include sawcutting and removal of adjacent asphalt pavement as needed for curb replacement. Concrete curb shall be sawcut at the limits of removal and excavated to the depth of the replacement curb section including the GABC base layer. Any pavement removals shall be sawcut around the full perimeter of pavement removal. The demolition of concrete curb and any needed asphalt pavement to be paid for under this section shall be the actual linear feet of curb removed and disposed of in a lawful manner. Price and payment will constitute full compensation for the removal and disposal of concrete and asphalt, and excavated material; and for all labor, equipment, tools, and incidentals necessary to complete the work.
- 1.A.4. Pavement Milling: Work under this item includes all labor, equipment, tools, disposal costs, and incidentals necessary to complete the scope of work shown on the contract drawings and described in this specification. Payment for this item will be as a unit price. Mill or plane bituminous concrete to a 2-inch depth as specified in accordance with contract documents and the latest edition of DelDOT's Standard Specifications for Road and Bridge Construction. Remove and dispose of recovered milling materials. The construction methods for Pavement Milling shall conform to Section 760 of the latest edition of DelDOT's Standard Specifications for Road and Bridge Construction. The number of square yards of Pavement Milling to be paid for under this section shall be the square yards milled, removed, and disposed. The square yards measured as provided above, shall be paid for at the contract unit

- price bid per square yard for this item which price and payment shall constitute full compensation for all labor, equipment, tools, and incidentals necessary to complete the work.
- 1.A.5. <u>Remove Existing Tree:</u> Price and payment shall be full compensation for furnish, setup, and removal of trees for preparation of the site, including disposal, excavation, and shoring. This item is measured per each.
- 1.A.6. <u>6" Graded Aggregate Base Course:</u> Work under this item includes all labor, equipment, tools, disposal costs, and incidentals necessary to complete the scope of work shown on the contract drawings and described in this specification. Payment for this item will be as a unit price. Graded Aggregate Base Course (GABC) shall include furnishing, placing and compacting graded aggregate base course on a prepared subgrade <u>for locations of full depth pavement</u>. <u>GABC for curbing is paid as part of the Concrete Curb bid item.</u> Subgrade must be compacted to at least 95% compaction on a modified proctor. Graded Aggregate Base Course shall conform to the material and construction method requirements in Section 301 of the latest edition of DelDOT's Standard Specifications for Road and Bridge Construction and the plan details. The number of cubic yards of GABC to be paid for under this section shall be the cubic yards furnished, graded, and compacted during the performance of work as directed by the Owner or Engineer that are not paid under other bid items. Price and payment shall be full compensation for furnishing all labor, equipment, materials, and proof rolling necessary to complete the work.
- 1.A.7./1.A.8. Superpave Type C, 115 Gyrations, PG 64-22 2"- 4" Depth: Work under this item includes all labor, equipment, tools, disposal costs, and incidentals necessary to complete the scope of work shown on the contract drawings and described in this specification. Payment for this item will be as a unit price. Superpave Type C shall consist of furnishing and installing Superpave Type C hot-mix, hot-laid bituminous concrete at 2 or 4" compacted depth in accordance with DelDOT Specifications and in conformity with lines and grades of the existing asphalt. The materials and construction methods shall conform to the material and construction requirements in Section 401 of the latest edition of DelDOT's Standard Specifications for Road and Bridge Construction and the cross-section shown on the plans for Superpave Type C. This item includes tack coat and edge sealant at pavement joints and curb faces. Materials for tack coat shall conform to Section 810 of the Standard Specifications.

The number of square yards of Superpave Type C to be paid for under this section shall be the square yards furnished, graded, compacted, and accepted including bituminous asphalt tack coat.

1.A.9. <u>Bituminous Pavement Leveling Course</u>, <u>Type C:</u> Work under this item includes all labor, equipment, tools, disposal costs, and incidentals necessary to complete the

scope of work shown on the contract drawings and described in this specification. Payment for this item will be as a unit price. Description: This work consists of furnishing and placing a Superpave hot-mix, type C, leveling/scratch course, at locations approved and/or directed by the Engineer. Materials and Execution: The Superpave Type C hot-mix used for leveling shall have the same gyration and asphalt performance grade requirements as the lift to be placed immediately above it. A maximum nominal aggregate size of 4.75 mm shall be used for the leveling course. Construction methods shall be in accordance with Section 401 of the Standard Specifications and the Superpave hot-mix specifications found elsewhere in these Special Provisions. Leveling course shall be placed as directed by the Engineer. Method of Measurement and Basis of Payment: The method of measurement and basis of payment shall be per ton as directed, completed, and accepted.

- 1.A.10. Superpave BCBC Repair, 115 Gyrations, PG 64-22: Work under this item includes all labor, equipment, tools, disposal costs, and incidentals necessary to complete the scope of work shown on the contract drawings and described in this specification. Payment for this item will be as a unit price. Superpave BCBC Repair shall consist of removal of existing base and subbase material to a depth of 4 inches below the milled pavement surface and furnishing and installing Superpave BCBC hot-mix, hot-laid bituminous concrete at 4-inch compacted depth in accordance with DelDOT Specifications and in conformity with lines and grades of the asphalt and the cross-section shown on the plans. Superpave BCBC locations will be identified and directed by the Engineer following Pavement Milling. The materials and construction methods shall conform to the material and construction requirements in Section 401 of the latest edition of DelDOT's Standard Specifications for Road and Bridge Construction and the cross-section shown on the plans for Superpave BCBC._The number of square yards of Superpave BCBC Repair Type C to be paid for under this section shall be the square yards furnished, graded, compacted, and accepted including bituminous asphalt tack coat.
- 1.A.11. Concrete Curb: Work under this item includes all labor, equipment, tools, and incidentals necessary to complete the scope of work shown on the contract drawings and described in this specification. Payment for this item will be as a unit price and shall consist of excavation, furnishing and installing all materials in the curb section, forming, finishing, and protection of the concrete, compaction, installing control, expansion, and contraction joints, shop drawings, and all other appurtenant labor, work, supervision, tools, equipment, materials, and all other items incidental thereto. Furnish and install Portland cement concrete curb as detailed on the contract drawings including GABC bearing material set on prepared subgrade and replacement of any adjacent asphalt base course and subgrade removed for installation of curbing. Subgrade and subbase replacement

shall consist of 6 inches of GABC and 4 inches of Superpave BCBC. The construction methods shall conform to Section 701 of the latest edition of DelDOT's Standard Specifications for Road and Bridge Construction. The number of linear feet to be paid for under this section shall be the linear feet of curb installed, completed and accepted. Price and payment shall be full compensation for furnishing all labor, equipment, materials, and incidentals, necessary to complete the work.

- 1.A.12. Depressed Curb: Work under this item includes all labor, equipment, tools, and incidentals necessary to complete the scope of work shown on the contract drawings and described in this specification. Payment for this item will be as a unit price and shall consist of excavation, furnishing and installing all materials in the curb section, forming, finishing, and protection of the concrete, compaction, installing control, expansion, and contraction joints, shop drawings, and all other appurtenant labor, work, supervision, tools, equipment, materials, and all other items incidental thereto. Furnish and install Portland cement concrete curb as detailed on the contract drawings including GABC bearing material set on prepared subgrade and replacement of any adjacent asphalt base course and subgrade removed for installation of curbing. Subgrade and subbase replacement shall consist of 6 inches of GABC and 4 inches of Superpave BCBC. The construction methods shall conform to Section 701 of the latest edition of DelDOT's Standard Specifications for Road and Bridge Construction. The number of linear feet to be paid for under this section shall be the linear feet of curb installed, completed and accepted. Price and payment shall be full compensation for furnishing all labor, equipment, materials, and incidentals, necessary to complete the work. Price and payment shall be full compensation for furnishing and installing depressed concrete curb, including excavation, furnishing and installing all materials in the depressed curb section, forming, finishing, and protection of the concrete, compaction, installing control, expansion, and contraction joints, shop drawings, and all other appurtenant labor, work, supervision, tools, equipment, materials, and all other items incidental thereto. This item is measured and paid per linear feet of sidewalk installed.
- 1.A.13. <u>Concrete Sidewalk</u>: Price and payment shall be full compensation for furnishing and installing concrete sidewalk, including excavation, furnishing and installing all materials in sidewalk section (4" concrete, 4" AASHTO #57 stone), forming, finishing, and protection of the concrete, compaction, installing control, expansion, and contraction joints, shop drawings, and all other appurtenant labor, work, supervision, tools, equipment, materials, and all other items incidental thereto. This item is measured and paid per square yard of sidewalk installed.
- 1.A.14./1.A.15. Concrete Retaining Wall: Price and payment shall be full compensation for furnishing and installing concrete retaining wall, including excavation, furnishing and installing all materials in the retaining wall section, forming, finishing, and

- protection of the concrete, compaction, installing control, expansion, and contraction joints, sheeting and shoring, dewatering, 6" perforated PVC foundation drainage pipe, cleanouts, geotextile fabric, #57 stone, backfill, shop drawings, and all other appurtenant labor, work, supervision, tools, equipment, materials, and all other items incidental thereto. This item is measured and paid per linear feet of sidewalk installed.
- 1.A.16. <u>Geogrid Stabilization</u>: Price and payment shall be full compensation for furnishing and installing geogrid stabilization including excavation, furnishing and installing all materials in the <u>geogrid stabilization detailgravel stabilizing geocell system</u>, <u>forming</u>, <u>finishing</u>, <u>and protection of the geogridsoil backfill</u>, <u>topsoil and seed</u>, compaction, shop drawings, and all other appurtenant labor, work, supervision, tools, equipment, materials, and all other items incidental thereto. This item is measured and paid per square yard.
- 1.A.17. <u>Concrete Parking Bumper:</u> Price and payment shall be full compensation for furnishing and installing <u>7' precast</u> concrete parking bumper, <u>including all materials in the concrete parking bumper detailand anchoring into pavement, forming, finishing, and protection of the concrete, compaction, shop drawings, and all other appurtenant labor, work, supervision, tools, equipment, materials, and all other items incidental thereto. This item is measured and paid per each of sidewalk installed.</u>
- 1.A.18. 8' Security Fence: Price and payment shall be full compensation for furnishing and installing the 8' Aberdeen or approved equal fence including excavation, furnishing and installing all materials in the fence specification, forming, finishing, and protection of the fence, compaction, shop drawings, and all other appurtenant labor, work, supervision, tools, equipment, materials, and all other items incidental thereto. This item is measured and paid per Linear Foot of sidewalk installed.
- 1.A.19. Two 22' Wide Sliding Gates: Price and payment shall be full compensation for furnishing and installation of two 22' wide sliding gates, including excavation, furnishing and installing all materials, forming, finishing, and protection of the concrete, compaction, installing control, expansion, and contraction joints, shop drawings, and all other appurtenant labor, work, supervision, tools, equipment, materials, and all other items incidental thereto. This item is measured and paid per lump sum.each of gates installed.
- 1.A.20. Two 3' Wide Swing Gates: Price and payment shall be full compensation for furnishing and installation of two 3' wide swing gates, including including excavation, furnishing and installing all materials, forming, finishing, and protection of the concrete, compaction, installing control, expansion, and contraction joints, shop drawings, and all other appurtenant labor, work,

- supervision, tools, equipment, materials, and all other items incidental thereto. This item is measured and paid per each of gates installed lump sum.
- 1.A.21. 12' Wide Double Swing Gate: Price and payment shall be full compensation for furnishing and installation of two 12' wide double swing gates, including excavation, furnishing and installing all materials, forming, finishing, and protection of the concrete, compaction, installing control, expansion, and contraction joints, shop drawings, and all other appurtenant labor, work, supervision, tools, equipment, materials, and all other items incidental thereto. This item is measured and paid per each of gates installed lump sum.
- 1.A.22. <u>Gate Automation:</u> Price and payment shall be full compensation for furnishing and installing the gate automation <u>for the vehicular and pedestrian gates</u> including <u>excavation</u>, furnishing and installing all materials in<u>cluding two HySecurity HD25</u> <u>SlideSmart gate operators</u>, 3 stand alone card readers, intercoms, 3-button station <u>to control gate</u>, ul325 compliant photo and edge sensors, safety and free exit <u>loops</u>, the fence specification, forming, finishing, and protection of the gate automation, compaction, shop drawings, and all other appurtenant labor, work, supervision, tools, equipment, materials, and all other items incidental thereto. This item is measured and paid per lump sum<u>of sidewalk installed</u>.
- 1.A.23. <u>Stormwater Yard Inlet:</u> Price and payment shall be full compensation for furnishing and installing the new yard inlet, including excavation, <u>furnishing and installing</u> all materials in the <u>yard inletNyloplast Drain Basin</u>—detail, <u>forming, finishing, and protection of the inlet, compaction, shop drawings, and all other appurtenant labor, work, supervision, tools, equipment, materials, and all other items incidental thereto. This item is measured and paid per each of <u>sidewalk-inlet</u> installed.</u>
- 1.A.24. <u>6" PVC Connection Into Existing Inlet:</u> Price and payment shall be full compensation for <u>furnishing</u>, <u>drilling</u>, <u>and installing connecting</u> the <u>new 6" PVC pipe into the existing inlet. Includinginlet including excavation, coreing, sealing with grout, furnishing and installing all materials, <u>forming</u>, <u>finishing</u>, <u>protection of the existing inlet</u>, <u>compaction</u>, <u>shop drawings</u>, and all other appurtenant labor, work, supervision, tools, equipment, materials, and all other items incidental thereto. This item is measured and paid per each of <u>sidewalk installed.inlet connections made</u>.</u>
- 1.A.25. <u>6" PVC Storm Sewer Pipe:</u> Price and payment shall be full compensation for furnishing and installing the new 6" <u>solid PVC storm</u> sewer pipe, including excavation, <u>bedding and backfill</u>, furnishing and installing all materials, <u>coupling to the 6" perforated PVC foundation drainage pipe</u>, <u>forming</u>, <u>finishing</u>, and <u>protection of the PVC pipe</u>, <u>compaction</u>, shop drawings, and all other appurtenant

labor, work, supervision, tools, equipment, materials, and all other items incidental thereto. This item is measured and paid per linear foot of sidewalk-pipe installed. This bid item is for the solid PVC pipe only; the perforated PVC foundation drainage pipe is incidental to the Retaining Wall bid item.

- 1.A.26. Remove and Replace Fire Hydrant: Price and payment shall be full compensation for removal and disposal of the existing hydrant, furnishing and installing the new hydrant, including excavation, bedding and backfill, furnishing and installing all piping and materials in the fire hydrant detail, forming, finishing, and protection of the hydrant, compaction, shop drawings, and all other appurtenant labor, work, supervision, tools, equipment, materials, and all other items incidental thereto. This item is measured and paid per each of sidewalk-hydrants installed.
- 1.A.27. Epoxy Pavement Markings: Work under this item includes all labor, equipment, tools, and incidentals necessary to complete the scope of work shown on the contract drawings and described in this specification. Payment for this item will be as a lump sum price. Pavement Markings shall be applied using acceptable furnished materials in colors meeting the requirements for parking areas, including parking space, no parking area, lane line, and crosswalk striping, stop bars, arrows, and "NO PARKING", "STOP", "FIRE LANE and "ONLY" lettering. This work consists of reflective pavement markings. The Contractor shall furnish the epoxy; maintenance of traffic; and all labor, equipment and incidentals necessary to apply pavement markings in a safe and efficient manner. The materials and construction methods shall conform to the material and construction requirements in Section 1071 of the latest edition of DelDOT's Standard Specifications for Road and Bridge Construction and the details shown on the plans. Parking space striping, "no parking" area striping, and Transverse pavement markings including crosswalks, stop bars, arrows, and "NO PARKING", "STOP", and "ONLY" lettering shall be epoxy pavement markings in accordance with Section 1071.02 of the latest edition of DelDOT's Standard Specifications for Road and Bridge Construction. This item will not be measured but will be paid for at the contract lump sum price bid for Epoxy Pavement Marking. The price and payment shall constitute full compensation for all materials, labor, equipment, tools, and incidentals necessary to complete the work.
- 1.A.28. <u>Bollard:</u> Price and payment shall be full compensation for furnish, setup, and installation of bollards. This item is measured and paid per each.
- 1.A.29. <u>Miscellaneous Excavation and Backfill:</u> Price and payment shall be full compensation for furnishing all labor, equipment, <u>unclassified</u> excavation, protection of existing utilities, provision of <u>GABC2A</u> or <u>#572B</u> stone, backfill, compaction, sheeting and shoring, <u>dewatering</u>, disposal of all excess excavated materials, and all other appurtenant labor, work, supervision, tools, equipment, materials, and all other items incidental thereto **beyond the contract depths and**

limits as directed by the Engineer and not paid under other bid items. This item is measured per cubic yard.

1.B. Electrical

- 1.B.1. <u>Demolition of Light Poles and Fixtures:</u> Work under this item includes all labor, equipment, tools, disposal costs, and incidentals necessary to complete the scope of work shown on the contract drawings and described in this specification. Payment for this item will be as a unit price. This work consists of the removal of poles, light fixtures and lamps. The Owner shall have right of salvage. for any materials removed. Should right of salvage be waived all materials removed shall become the property of the Contractor for salvage, recycle, or disposal. The poles and fixtures and lamps shall be removed and disposed of in a lawful manner. The number of light pole poles and fixtures to be paid for under this section shall be the actual number of pole and fixture units removed and disposed of in a lawful manner. Price and payment will constitute full compensation for the removal and disposal of poles, light fixtures and lamps; and for all labor, equipment, tools, and incidentals necessary to complete the work.
- 1.B.2. <u>Demolition of Light Pole Bases:</u> Work under this item includes all labor, equipment, tools, and incidentals necessary to complete the scope of work shown on the contract drawings and described in this specification. Payment for this item will be as a unit price per each. This work consists of the removal of concrete pole bases. The concrete and conduit shall be removed to full depth and disposed of in a lawful manner. The number of light pole bases to be paid for under this section shall be the actual number removed and disposed of in a lawful manner. Price and payment will constitute full compensation for the removal and disposal of concrete, conduit, wire and excavated material; and for all labor, equipment, tools, and incidentals necessary to complete the work.
- 1.B.3./ 1.B.4. New Light Poles, Fixtures, 11'6" High, and 22'6" to 24'6" High: Work under the Light Pole and Fixture item includes all labor, equipment, tools, and incidentals necessary to complete the scope of work shown on the contract drawings and described in this specification. Payment for these items will be as a unit price. This work consists of furnishing and installing lighting poles and fixtures in accordance with the drawings. Poles and fixtures shall be installed at the locations shown on the drawings or as directed by the Engineer. The number of Light Poles and Fixtures to be paid for under this section shall be the actual number furnished, installed, and accepted. As provided above, these items shall be paid for at the contract unit price bid per each for which price and payment shall constitute full compensation for all materials, labor, equipment, tools, testing, and incidentals necessary to complete the work.
 - 1.B.5. Pole Base A: Price and payment shall be full compensation for furnishing and

installing the 30" high pole base with a 6' deep footing, including excavation, furnishing and installing all materials in the pole base detail, forming, finishing, and protection of the pole base, compaction, shop drawings, and all other appurtenant labor, work, supervision, tools, equipment, materials, and all other items incidental thereto. This item is measured and paid per each of sidewalk-pole base installed.

- 1.B.6. <u>Pole Base B:</u> Price and payment shall be full compensation for furnishing and installing the 4" high pole base with a 5' deep footing, including excavation, furnishing and installing all materials in the pole base detail, forming, finishing, and protection of the pole base, compaction, shop drawings, and all other appurtenant labor, work, supervision, tools, equipment, materials, and all other items incidental thereto. This item is measured and paid per each of sidewalk pole base installed.
- 1.B.7. Pole Base C: Price and payment shall be full compensation for furnishing and installing the 4" high pole base with a 6' deep footing, including excavation, furnishing and installing all materials in the pole base detail, forming, finishing, and protection of the pole base, compaction, shop drawings, and all other appurtenant labor, work, supervision, tools, equipment, materials, and all other items incidental thereto. This item is measured and paid per each of sidewalk-pole base installed.
- 1.B.8. <u>HDPE Pole Base Covers:</u> Price and payment shall be full compensation for furnishing and installing the-HDPE pole base cover detail, forming, finishing, and protection of the concrete, compaction, shop drawings, __and all other appurtenant labor, work, supervision, tools, equipment, materials, and all other items incidental thereto. This item is measured and paid per each of sidewalk-pole base cover installed.
- 1.B.9. Composite and Concrete Pads For Future Electrical Equipment: The lump sum cost for this bid item includes, but is not limited to, mobilization and demobilization, excavation and backfill, forming, finishing, furnishing, and protection of the concrete, reinforcing, bedding, compaction, installing control, expansion, and contraction joints, construction, erosion and sediment control measures, pipe and conduit penetrations, restoration, and any other measures required to complete all of the work identified on the project plans and specifications.
- 1.B.10. <u>Remove Electrical Pedestal:</u> Price and payment shall be full compensation for furnish, setup, and removal of electrical pedestal for preparation of the site, including disposal, excavation, and shoring. This item is measured per each.
- 1.B.11. <u>Relocate Electrical Pedestal:</u> Price and payment shall be full compensation for furnish, setup, removal, and relocation of electrical pedestal for preparation of the site, including disposal, excavation, and shoring. This item is measured per each.

- 1.B.12. Electrical Conduit: Work under this item includes all labor, equipment, tools, and incidentals necessary to complete the scope of work shown on the contract drawings and described in this specification. Payment for this item will be as a unit price per linear foot. This section includes furnishing and installing conduit, raceways and junctions including materials and equipment for the completion of work. Excavation and backfill shall be included in this item as may be needed for installation and restoration. All work shall conform to the National Electrical Code (NEC). All material shall be new and where applicable shall be UL labeled or approved.
 - 1.B.13. <u>Electrical Wiring:</u> Work under this item includes all labor, equipment, tools, and incidentals necessary to complete the scope of work shown on the contract drawings and described in this specification. Payment for this item will be as a unit price per linear foot. This section includes furnishing and installing electrical wiring including materials and equipment for the completion of work. Excavation and backfill shall be included in this item as may be needed for installation and restoration. All work shall conform to the National Electrical Code (NEC). All material shall be new and where applicable shall be UL labeled or approved.
 - 1.B.14. Electrical Work: Work under this item includes all labor, equipment, tools, and incidentals necessary to complete the scope of work shown on the contract drawings and described in this specification. Payment for this item will be as a lump sum price. This section includes all miscellaneous electrical work required for the completion of the lighting rehabilitation project not covered under other items including 3rd party electrical inspections, and code compliance certifications with Authorities Having Jurisdiction. All work shall conform to the National Electrical Code (NEC). All material shall be new and where applicable shall be UL labeled or approved. This item will not be measured, but will be paid for at the contract lump sum price bid for Electrical Work. The price and payment shall constitute full compensation for all materials, labor, equipment, tools, and incidentals necessary to complete the work.

1.C. Admin EV Spaces

- 1.C.1. Demolition of Concrete Curb: Refer to Item 1.A.3.
- 1.C.2. Pavement Milling: Refer to Item 1.A.4.
- 1.C.3. 6" Graded Aggregate Base Course: Refer to Item 1.A.67.
- 1.C.4. Superpave Type C, 115 Gyrations, PG 64-22 2" Depth: Refer to Item 1.A.78.
- 1.C.5. Superpave BCBC, 115 Gyrations, PG 64-22 4" Depth: Refer to Item 1.A.89.

- 1.C.6. Concrete Curb: Refer to Item 1.A.112.
- 1.C.7. Pavement Markings: Refer to Item 1.A.278.
- 1.C.8. <u>Signs:</u> Price and payment shall be full compensation for furnishing and installing the new signs, including-excavation, furnishing and installing, all materials in the sign details, forming, finishing, and protection of the hydrant, compaction, shop drawings, and all other appurtenant labor, work, supervision, tools, equipment, materials, and all other items incidental thereto. This item is measured and paid per each of <u>sidewalk-signs</u> installed.

2. ADD ITEM - Repave Admin Lot:

- 2.1. Pavement Milling: Refer to Item 1.A.4.
- 2.2. Superpave Type C, 115 Gyrations, PG 64-22 2" Depth: Refer to Item 1.A.78.
- 2.3. <u>Bituminous Pavement Leveling Course</u>, Type C: Refer to Item 1.A.<u>9</u>10.
- 2.4. Superpave BCBC, 115 Gyrations, PG 64-22: Refer to Item 1.A.811.
- 2.5. Pavement Markings: Refer to Item 1.A.278.
- 2.6. Signs: Refer to Item 1.C.8.
- 2.7. Bollard: Refer to Item 1.A.286.

3. <u>ALTERNATIVE ITEM – Reconfigure Admin Lot:</u>

- 3.1. <u>Demolition of Landscape & Islands:</u> Refer to Item 1.A.2.
- 3.2. Demolition of Concrete Curb: Refer to Item 1.A.3.
- 3.3. <u>Demolition of Concrete Sidewalk:</u> This work consists of the removal of concrete sidewalk and curb skirts for replacement or as needed for replacement of light pole bases to the full depth for installation of replacement sidewalk including labor, equipment and excavation of the materials. <u>Curb skirts are defined as the concrete paneling approximately 18" in width located behind the curb.</u> Concrete sidewalk and curb skirts shall be sawcut at the nearest joint, broken, and removed or excavated to the depth of the replacement sidewalk section including the GABC base layer. The demolition of concrete sidewalk and curb skirts to be paid for under this section shall

- be square yards removed and disposed of. Price and payment will constitute full compensation for the removal and disposal of concrete, and excavated material; and for all labor, equipment, tools, and incidentals necessary to complete the work.
- 3.4. <u>Demolition of Full Depth Pavement:</u> This work consists of the removal of asphalt pavement to the full depth for installation of replacement asphalt including labor, equipment and excavation of the materials. The work shall include sawcutting and removal of adjacent asphalt pavement as needed for full depth replacement. Asphalt shall be excavated to the depth of the replacement curb section including the GABC base layer. Any pavement removals shall be sawcut around the full perimeter of pavement removal. The demolition of asphalt pavement to be paid for under this section shall be the actual square yard of asphalt removed and disposed of in a lawful manner. Price and payment will constitute full compensation for the removal and disposal of asphalt, and excavated material; and for all labor, equipment, tools, and incidentals necessary to complete the work.
- 3.5. Pavement Milling: Refer to Item 1.A.4.
- 3.6. Remove Existing Tree: Refer to Item 1.A.5.
- 3.7. Miscellaneous Excavation and Backfill: Refer to Item 1.A.296.
- 3.8. <u>6" Graded Aggregate Base Course:</u> Refer to Item 1.A.<u>67</u>.
- 3.9. Superpave Type C, 115 Gyrations, PG 64-22 2" Depth: Refer to Item 1.A.78.
- 3.10. Superpave BCBC, 115 Gyrations, PG 64-22 4" Depth: Refer to Item 1.A.89.
- 3.11. Bituminous Pavement Leveling Course, Type C: Refer to Item 1.A.910.
- 3.12. Superpave BCBC Repair, 115 Gyrations, PG 64-22: Refer to Item 1.A.140.
- 3.13. <u>Deduction for Pole Base C:</u> This Bid Item is to account for the replacement of one Pole Base C from the base bid with a Pole Base A. This Item shall be bid at the exact unit price of Item 1.B.7.
- 3.14. Pole Base A: Refer to Item 1.B.5.
- 3.15. HDPE Pole Base Covers: Refer to Item 1.B.8. Price and payment shall be full compensation for furnishing and installing HDPE Pole Base Covers, including furnishing and installing, finishing, and protection of the HDPE pole base cover, shop drawings, and all other appurtenant labor, work, supervision, tools, equipment, materials, and all other items incidental thereto. This item is measured and paid per each of sidewalk installed.

- 3.16. Concrete Curb: Refer to Item 1.A.112.
- 3.17. Concrete Sidewalk: Refer to Item 1.A.134.
- 3.18. Concrete Steps: Price and payment shall be full compensation for furnishing and installing concrete steps, including excavation, furnishing and installing all materials in the concrete step detail, forming, finishing, and protection of the concrete, compaction, installing control, expansion, and contraction joints, shop drawings, and all other appurtenant labor, work, supervision, tools, equipment, materials, and all other items incidental thereto. This item is measured and paid per Lump Sum.
- 3.19. ADA Detectable Warning Surface: This work consists of furnishing all materials and installing a detectable warning surface system on an existing or new sidewalk or curb ramp that complies with the Americans with Disabilities Act (ADA) (1990) for outdoor facilities. The detectable warning surface shall be in accordance with these Special Provisions, the Plans, the Standard Construction Details and as directed by the Engineer. The quantity of ADA detectable warning surface will be measured and paid as the actual number of square feet of truncated dome paver units installed and accepted. Price and payment will constitute full compensation for saw cutting, concrete removal, brick removal, excavation, disposal, furnishing and installing all materials, and for all labor, equipment, tools and incidentals required to complete the work.
- 3.20. Pavement Markings: Refer to Item 1.A.278.
- 3.21. Replace Inlet Grates: Work under this item includes all labor, equipment, tools, and incidentals necessary to complete the scope of work shown on the contract drawings and described in this specification. Payment for these items will be as a unit price. This work consists of removal and legal disposal off-site of existing inlet tops and furnishing and installing replacement inlet tops of the type specified and depicted on the plans, precast concrete adjustment rings, frame, grate, joint materials, and replacement of adjacent curb as needed to create a smooth transition. The construction methods shall conform to Section 602 of the latest edition of DelDOT's Standard Specifications for Road and Bridge Construction. The number of Inlet Top Replacements to be paid for under this section shall be the actual number of inlet tops installed, completed and accepted. As provided above, these items shall be paid for at the contract unit price bid per each for which price and payment shall constitute full compensation for furnishing all materials, labor, equipment, tools, and incidentals, necessary to complete the work
- 3.22. Bollard: Refer to Item 1.A.289.
- 3.23. Convert Catch Basin to Junction Box: Price and payment shall be full compensation

for furnishing and converting an existing the catch basin to a junction box, including removal and disposal of the existing concrete top unit and grate, furnishing and installation of a new precast concrete top unit with 24" dia. manhole opening and cast iron traffic rated manhole lid, parging, excavation, furnishing and installing all materials, forming, finishing, and protection of the concrete, compaction, installing control, expansion, and contraction joints, shop drawings, and all other appurtenant labor, work, supervision, tools, equipment, materials, and all other items incidental thereto. This item is measured and paid per each of catch basins converted.

3.24. Reconstruct Existing Catch Basin (Up to 18"): Price and payment shall be full compensation for furnishing and reconstructing the existing catch basin up to 18" depth, including excavation, removal and disposal of the existing concrete top unit and grate, sawcut and remove concrete or brick wall to specified depth, preparation for replacement top unit, furnishing and installation of a new precast concrete top unit to match existing dimensions, precast concrete riser ring, parging, furnishing and installing all materials, forming, finishing, and protection of the concrete, compaction, installing control, expansion, and contraction joints, shop drawings, and all other appurtenant labor, work, supervision, tools, equipment, materials, and all other items incidental thereto. This item is measured and paid per each of catch basins reconstructed.

29. AVAILABLE BACKGROUND INFORMATION

Maps, photographs, and other documents provided herein form a part of this Bid Specification to the extent referenced and provide detailed information about the Project Location, and existing conditions of the site(s). The documentation is provided for informational purposes only and for the sole use of the Contractor. The City makes no claims as to the correctness or accuracy of the data provided therein. The Contractor shall review and determine for themselves the correctness and accuracy of the information before incorporating and relying on the prior work as part of their work product to the City.

CITY OF NEWARK Delaware

CONTRACT NO. 23-07

CITY HALL PARKING LOT RECONSTRUCTION

PROPOSAL

To: The Mayor and City Council	
Newark, Delaware	

The undersigned as a lawfully authorized agent for the below named bidder has carefully examined the Bid Documents to be known as Contract No. 23-05 and binds himself on award to him by the Mayor and City Council of Newark, Delaware to execute in accordance with such award, a contract of which this Proposal and said General Provisions and Specifications and any Addenda shall be a part, and to furnish the goods as specified F.O.B. Newark, Delaware in a manner that is in complete accordance with said General Provisions and Specifications at the following named unit price on or before the delivery period stated below:

BID ITEM	DESCRIPTION	UNITS	QUANTITY	UNIT PRICE	TOTAL			
1	Base Bid							
1.A	Newark Police	Departme	ent Lot					
1.A.1	Mobilization/Demobilization	LS	1					
1.A.2	Demolition of Landscape & Islands	SY	100					
1.A.3	Demolition of Concrete Curb	LF	335					
1.A.4	Pavement Milling	SY	3010					
1.A.5	Remove Existing Tree	EA	3					
1.A.6	6" Graded Aggregate Base Course	CY	18					
1.A.7	Superpave Type C, 115 Gyrations, PG 64-22 - 2" Depth	SY	2970					
1.A.8	Superpave BCBC, 115 Gyrations, PG 64-22 - 4" Depth	SY	485					
1.A.9	Bituminous Pavement Leveling Course, Type C	TN	20					
1.A.10	Superpave BCBC Repair, 115 Gyrations, PG 64-22	SY	250					
1.A.11	Concrete Curb	LF	325					
1.A.12	Depressed Curb	LF	25					
1.A.13	Concrete Sidewalk	SY	15					
1.A.14	Concrete Retaining Wall 8" to 2'-0" Height	LF	20					
1.A.15	Concrete Retaining Wall 2'-0" to 4'-0" Height	LF	176					
1.A.16	Install New-Geogrid Stabilization	SY	111					

1.A.17	Concrete Parking Bumper	EA	7		
	8' Security Aberdeen Fence , Gates, and Gate				
1.A.18	Housing	LF	750		
1.A.19	Two 22' Wide Sliding Gates	LS	1		
1.A.20	Two 3' Wide Swing Gates	LS	1		
1.A.21	12' Wide Double Swing Gate	LS	1		
1.A.22	Gate Automation	LS	1		
1.A.23	Stormwater Yard Inlet	EA	1		
1.A.24	Core Drill Into Existing Inlet6" PVC Connection Into Existing Inlet	EA	1		
1.A.25	6" PVC Storm Sewer Pipe	LF	<u>162</u> 50		
1.A.26	Remove and Replace Fire Hydrant	EA	1		
1.A.27	Epoxy Pavement StripingMarkings	LS	1		
1.A.28	Bollard	EA	4		
1.A.29	Miscellaneous Excavation and Backfill	CY	10		
	Subtotal				
1.B	Elect	rical	I	1	•
1.B.1	Demolition of Light Poles and Fixtures	EA	17		
1.B.2	Demolition of Light Pole Bases	EA	17		
1.B.3	Light Poles, Fixtures, 11'-6" High	EA	4		
1.B.4	Light Poles, Fixtures, 22'-6" to 24'-6" High	EA	12		
1.B.5	Pole Base A	EA	1		
1.B.6	Pole Base B	EA	5		
1.B.7	Pole Base C	EA	10		
1.B.8	HDPE Pole Base Covers	EA	1		
1.B.9	Composite and Concrete Pads For Future Electrical Equipment	LS	1		
1.B.10	Remove Electrical Pedestal	EA	1		
1.B.11	Relocate Electrical Pedestal	EA	1		
1.B.12	Electrical Conduit	LF	1560		
1.B.13	Electrical Wiring	LF	270		
1.B.14	Electrical Work	LS	1		
	Subtotal				
1.C	Admin E	/ Spaces			
1.C.1	Demolition of Concrete Curb	LF	61		
1.C.2	Pavement Milling	SY	240		
1.C.3	6" Graded Aggregate Base Course	CY	7		
1.C.4	Superpave Type C, 115 Gyrations, PG 64-22 - 2" Depth	SY	240		
1.C.5	Superpave BCBC, 115 Gyrations, PG 64-22 - 4" Depth	SY	42		
1.C.6	New Concrete Curb	LF	65		
1.C.7	Pavement Markings	LS	1		
1.C.8	Signs	EA	2		

	Subtotal							
	Base Bid Total							
2								
2.1	Pavement Milling	SY	6230					
2.2	Superpave Type C, 115 Gyrations, PG 64-22 - 2" Depth	SY	6230					
2.3	Bituminous Pavement Leveling Course, Type C	TN	25					
2.4	Superpave BCBC Repair, 115 Gyrations, PG 64-22	S∈Y	1 <u>50</u> 0					
2.5	Pavement Markings	LS	1					
2.6	Signs	EA	2					
2.7	Bollard	EA	2					
	Add Item Total							
	Add Alternate – Adm	nin Lot R	econstruction	n				
3.1	Demolition of Landscape & Islands	SY	775					
3.2	Demolition of Concrete Curb	LF	465					
3.3	Demolition of Concrete Sidewalk	SY	48					
3.4	Demolition of Full Depth Pavement	SY	60					
3.5	Pavement Milling	SY	6230					
3.6	Remove Existing Tree	EA	5					
3.7	Miscellaneous Excavation and Backfill	CY	90					
3.8	6" Graded Aggregate Base Course	CY	10					
3.9	Superpave Type C, 115 Gyrations, PG 64-22 - 2" Depth	SY	6460					
3.10	Superpave BCBC, 115 Gyrations, PG 64-22 - 4" Depth	SY	60					
3.11	Bituminous Pavement Leveling Course, Type C	TN	50					
3.12	Superpave BCBC Repair, 115 Gyrations, PG 64-22	<u>S</u> C Y	<u>150</u> 10					
3.13	Deduction For Pole Base C	EA	1					
3.14	Pole Base A	EA	1					
3.15	HDPE Pole Base Covers	EA	1					
3.16	Concrete Curb	LF	1885					
3.17	Concrete Sidewalk	SY	66					
3.18	Concrete Steps	LS	1					
3.19	ADA Detectable Warning Surface	SF	200					
3.20	Pavement Marking	LS	1					
3.21	Replace Inlet Grates	EA	9					
3.22	Bollard	EA	2					
3.23	Convert Catch Basin to Junction Box	EA	1					
3.24	Reconstruct Existing Catch Basin (up to 18" Depth)	EA	5					
	Add Alternate Total							
<u>TOTAL</u>	<u>\$</u>							
BID								