



# UNION COUNTY IMPROVEMENT AUTHORITY PLANS FOR WARINANCO PARK BASEBALL FIELD IMPROVEMENTS

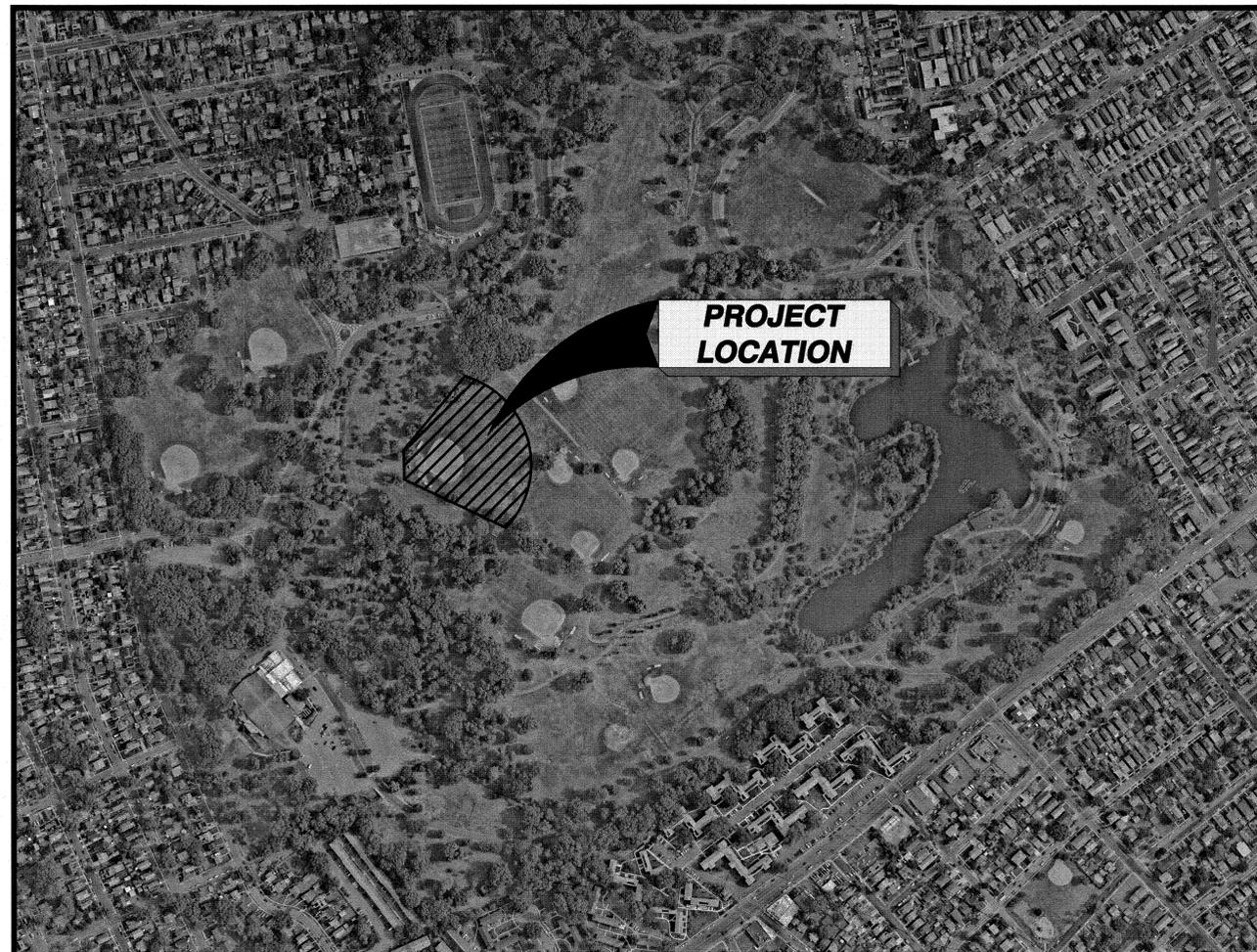
LOCATED IN  
BOROUGH OF ROSELLE, UNION COUNTY, NEW JERSEY

AUGUST 2025

PREPARED BY: CME ASSOCIATES OF PARLIN, NJ

### DR. BIBI TAYLOR - EXECUTIVE DIRECTOR

CHRISTOPHER KOLIBAS	CHAIRPERSON
SCOTT M. HUFF	VICE CHAIRPERSON
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JONATHAN BOGUCHWAL	COMMISSIONER
JENNY DAVIS TOTH	COMMISSIONER
TERRI HUDAK	COMMISSIONER
AHMED SHEHATA	COMMISSIONER



**KEY MAP**  
N.T.S.

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MID-POINT OF PROJECT  
LONGITUDE: 74° 14' 33.80" W  
LATITUDE: 40° 39' 19.87" N

UTILITIES	
<b>ELECTRIC</b> MR. BURK LAMBERTSON PSE&G - ELECTRIC 472 WESTON CANAL ROAD SOMERSET, NJ 08873 (732) 764-3160	<b>WATER</b> MR. KEVIN BAMBURAK SUEZ RAHWAY 1045 WESTFIELD AVENUE RAHWAY, NJ 07065 (201) 538-0369
<b>CABLE</b> MR. ROBERT KNOEPFEL COMCAST OF NEW JERSEY 800 RAHWAY AVENUE UNION, NJ 07083 (732) 602-7444	<b>GAS</b> MR. KEVIN ESCOBAR ELIZABETHTOWN GAS 520 GREEN LANE UNION, NJ 07083 (908) 662-8370
<b>TELEPHONE/COMMUNICATIONS</b> MR. IAN CHAN VERIZON COMMUNICATIONS 999 W MAIN STREET FREEHOLD, NJ 07728 (732) 683-5146	<b>SEWER</b> MR. JAMES MEEHAN RAHWAY VALLEY SEWERAGE AUTHORITY 1050 EAST HAZELWOOD AVENUE RAHWAY, NJ 07065
<b>NJ ONE CALL SERVICE</b> 1-800-272-1000	

NEW JERSEY DEPARTMENT OF TRANSPORTATION, STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION OF 2019 AND ALL AMENDMENTS IN THE UNION COUNTY FORMAT THERETO SHALL GOVERN.

THE HEADING OF THE ARTICLES CONTAINED HEREIN CONFORM TO THE NEW JERSEY DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATION FOR ROAD AND BRIDGE CONSTRUCTION, DATED 2019 AND ALL ADDENDA THERETO, WHICH IS TO BE USED IN THE EXECUTION OF THIS CONTACT.

THE NEW JERSEY DEPARTMENT OF TRANSPORTATION "STANDARD ROADWAY CONSTRUCTION/TRAFFIC CONTROL/BRIDGE CONSTRUCTION DETAILS" BOOKLET DATED 2016 TO GOVERN, EXCEPT FOR THOSE DETAILS CONTAINED HEREIN.

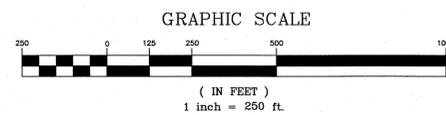
PREPARED BY:

**MICHAEL J. McCLELLAND P.E.**  
NEW JERSEY PROFESSIONAL ENGINEER LICENSE No. 32468





### LOCATION PLAN



**SPECIAL PROVISIONS**

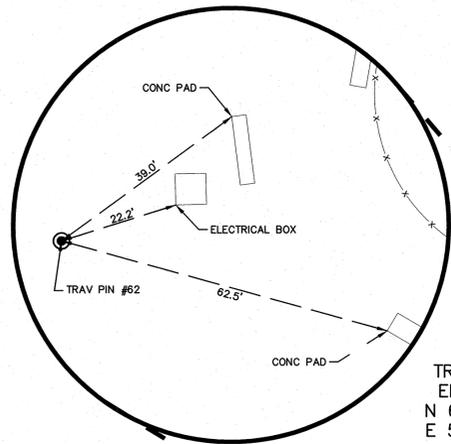
THE CONTRACTOR IS SPECIFICALLY DIRECTED TO THE REQUIREMENTS CONTAINED IN THE SPECIAL PROVISIONS SECTION OF THE CONTRACT SPECIFICATIONS.

### GENERAL CONSTRUCTION NOTES:

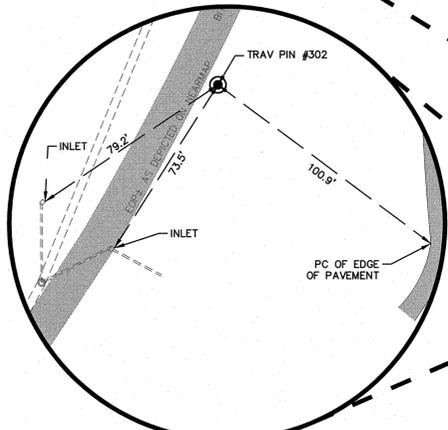
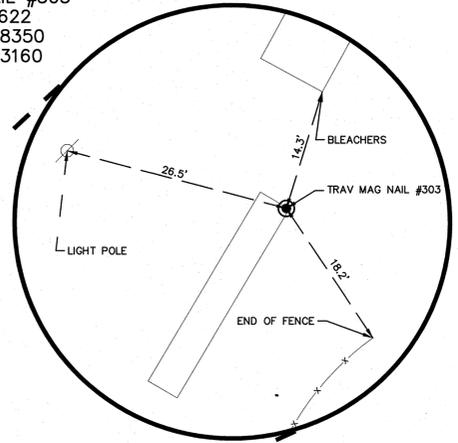
1. CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL PERMITS NECESSARY FOR CONSTRUCTION IN ACCORDANCE WITH EXISTING LOCAL, COUNTY, OR STATE REGULATIONS, OR ANY OTHER AGENCY HAVING JURISDICTION IN THESE MATTERS.
2. THE CONTRACTOR IS RESPONSIBLE FOR AND SHALL VERIFY ALL DIMENSIONS AND DETAILS BEFORE PROCEEDING WITH WORK. ANY DISCREPANCIES SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE ENGINEER.
3. ALL REGRADED AREAS AT THE SITE WHICH ARE NOT DESIGNATED AS PAVED OR GRAVEL AREAS SHALL BE TOPSOILED AND SEEDING AND SHALL BE STABILIZED IN ACCORDANCE WITH STANDARDS FOR SOIL EROSION AND SEDIMENT CONTROL IN NEW JERSEY AND THE CONTRACT SPECIFICATIONS.
4. ALL GRADING OPERATIONS SHALL PROVIDE FOR POSITIVE DRAINAGE AWAY FROM ALL BUILDINGS AND STRUCTURES AND SHALL ELIMINATE PONDING AREAS.
5. THE CONTRACTOR SHALL VISIT THE SITE AND MAKE ALL NECESSARY INVESTIGATIONS TO SATISFY HIMSELF AS TO THE EXISTING CONDITIONS PRIOR TO BIDDING WORK INCLUDING THE LOCATION OF EXISTING SUBSURFACE IRRIGATION AND UTILITY SYSTEMS.
6. THE CONTRACTOR IS RESPONSIBLE TO COORDINATE THE LOCATION OF THE UTILITIES WITH THE UTILITY COMPANIES AND THE OWNER PRIOR TO CONSTRUCTION.
7. THE COORDINATION OF THE LOCATION OR RELOCATION WHERE REQUIRED OF TELEPHONE, CABLE, ELECTRIC, GAS, IRRIGATION AND WATER FACILITIES IS THE RESPONSIBILITY OF THE CONTRACTOR AND SAME SHALL BE COORDINATED TO INSURE COMPLETION WITHIN THE TIME PERMITTED.
8. THE CONTRACTOR IS RESPONSIBLE TO MAINTAIN MEANS OF INGRESS AND EGRESS TO PEDESTRIANS THROUGHOUT THE COURSE OF THE WORK AND TO PROVIDE FOR THE MAINTENANCE AND PROTECTION OF TRAFFIC.
9. THE CONTRACTOR'S LICENSED SURVEYOR SHALL PROVIDE THE CONSTRUCTION STAKEOUT FOR THE PROJECT.
10. THE CONTRACTOR WILL NOT BE PERMITTED TO STOCKPILE EXCAVATED MATERIALS OVER EXISTING UTILITY LINES. THE STOCKPILED MATERIALS SHOULD BE PLACED SUFFICIENTLY AWAY FROM THE EDGE OF ANY EXCAVATION TO PREVENT CAVING OF THE TRENCH WALL AND TO PERMIT SAFE ACCESS ALONG THE TRENCH. WITH SHEETED TRENCHES, A MINIMUM OF FIVE (5) FEET FROM THE EDGE OF SHEETING TO TOE OF SPOIL BANK MUST BE MAINTAINED.
11. THE CONTRACTOR SHALL TAKE EVERY PRECAUTION NECESSARY TO PRECLUDE DAMAGE TO EXISTING STRUCTURES, FACILITIES, AND UTILITIES DUE TO LOSS OF LATERAL SUPPORT AND/OR CONSTRUCTION LOADINGS. SPECIFIC DETAILS NECESSARY TO ACCOMPLISH SAME SHALL BE SUBMITTED BY THE CONTRACTOR FOR REVIEW AND APPROVAL PRIOR TO COMMENCING CONSTRUCTION.
12. ALL WORK BY THE CONTRACTOR SHALL BE DONE IN ACCORDANCE WITH THE PROVISIONS OF THE NEW JERSEY STATUTE KNOWN AS CHAPTER 249 OF THE LAWS OF 1948, BEING SECTIONS 34:6-47.1 TO 47.9, INCLUSIVE OF THE REVISED STATUTES OF NEW JERSEY, 1937, AND IN ACCORDANCE WITH THE RULES AND REGULATIONS CONCERNING PRECAUTIONS TO BE TAKEN IN THE PROXIMITY OF HIGH-VOLTAGE LINES FOR THE PREVENTION OF ACCIDENTS PROMULGATED BY THE COMMISSIONER OF THE DEPARTMENT OF LABOR AND INDUSTRY OF THE STATE OF NEW JERSEY, EFFECTIVE DECEMBER 28, 1948, ALL AS AMENDED AND SUPPLEMENTED, AND IN ACCORDANCE WITH THE PROVISIONS OF THE FEDERAL OCCUPATIONAL SAFETY AND HEALTH ACT OF 1970 AND OF SUBPART N, PARAGRAPH 1926.550 OF THE RULES AND REGULATIONS ISSUED UNDER SAID ACT.
13. THE CONTRACTOR IS HEREIN ADVISED THAT ALL WORK TO BE PERFORMED SHALL BE GOVERNED BY THE LOCAL MUNICIPAL ORDINANCES. THIS SHALL INCLUDE THE PROVISIONS IN THEIR CODES WHICH SET FORTH PERMITTED HOURS OF CONSTRUCTION WITHIN THE MUNICIPALITY.
14. THE CONTRACTOR IS ADVISED THAT THEY ARE RESPONSIBLE TO PAY FOR, ACQUIRE AND COMPLY WITH ANY ROAD OPENING PERMITS IF REQUIRED IN CONJUNCTION WITH THE PROPOSED IMPROVEMENTS.
15. THE CONTRACTOR SHALL COMPLY WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES BY THE U.S.D.O.T.
16. THE CONTRACTOR IS ADVISED THAT THEY MUST MAINTAIN A MINIMUM OF ONE LANE OF TRAFFIC IN EACH DIRECTION AT ALL TIMES AND MUST COMPLETELY BACKFILL ALL TRENCHES PRIOR TO NON-DAYLIGHT HOURS.
17. IN ORDER TO MAINTAIN ONE LANE OF TRAFFIC IN EACH DIRECTION, THE CONTRACTOR MAY FIND IT NECESSARY TO UTILIZE STEEL PLATES OVER TRENCHES AT NO ADDITIONAL COST TO THE OWNER.
18. WHEN DISTURBING, REMOVING AND/OR DISPOSING OF ASBESTOS CEMENT PIPE, THE CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE FEDERAL, STATE, AND LOCAL REQUIREMENTS INCLUDING BUT NOT LIMITED TO: CURRENT USEPA REGULATIONS (NESHA, 40 CFR 61 SUBPART M); OSHA REGULATIONS (29 CFR 192658); THE CURRENT NEW JERSEY ASBESTOS HAZARD ABATEMENT SUBCODE (N.J.A.C. 5:23-8); THE CURRENT NJDEPE REGULATIONS (N.J.A.C. 7:26-1 ET. SEQ.); AND NOTIFICATION REGULATIONS (N.J.A.C. 5:23-8.6, 40 CFR 61 SUBPART M, AND N.J.A.C. 7:26-2:12).
19. THE SOMERSET-UNION SOIL CONSERVATION DISTRICT GOVERNS SOIL EROSION AND SEDIMENT CONTROL MEASURES WITHIN THE PROJECT AREA. ACCORDINGLY ALL SOIL EROSION AND SEDIMENT CONTROL MEASURES ARE TO BE INSTALLED AS PER THE REQUIREMENTS OF THE SOMERSET-UNION SOIL CONSERVATION DISTRICT AND AS DIRECTED BY THE ENGINEER.
20. AT CERTAIN TIMES THE SITE MAY BE OCCUPIED BY SEVERAL CONTRACTORS AND IT IS THEREFORE REQUIRED FOR ANY AND ALL CONTRACTORS OCCUPYING THE SITE TO COOPERATE WITH ONE ANOTHER. NO DELAYS RESULTING FROM MULTIPLE CONTRACTORS WORKING ON THE SITE WILL BE CONSIDERED.
21. THE CONTRACTOR SHALL CONTINUOUSLY DEWATER ALL EXCAVATIONS UNTIL BACKFILLING OPERATIONS HAVE BEEN COMPLETED. PRIOR TO DISCHARGE TO STREAMS, SILT SHALL BE SETTLED OUT IN AN APPROVED SETTLING BASIN.
22. THE CONTRACTOR SHALL MAINTAIN THE FLOW OF ALL STREAMS, DRAINAGE DITCHES, STORM SEWERS, AND SANITARY SEWERS AT ALL TIMES BY A MEANS ACCEPTABLE TO THE ENGINEER AND ALL THE RESPONSIBLE AGENCIES.
23. THE CONTRACTOR SHALL MAINTAIN ALL UTILITY SERVICE FLOWS AND PRESSURES UNLESS WRITTEN APPROVAL BY THE RESPONSIBLE UTILITY COMPANY AND/OR OWNER AS APPLICABLE PERMITS HIM TO DO OTHERWISE.
24. THE CONTRACTOR SHALL COMPLY WITH ALL REQUIREMENTS OF THE STATE OF NEW JERSEY WORKER HEALTH AND SAFETY ACT (N.J.A.C. 12:110 ET SEQ) AS AMENDED AND THE UNITED STATES OCCUPATIONAL SAFETY & HEALTH ACT (OSHA) (29 CFR 1910.), AS AMENDED WITH REGARD TO WORKER AND JOBSITE SAFETY.

No.	DESCRIPTION OF REVISION	DATE	DRAWN	CHECKED	RELEASED
BOROUGH OF ROSELLE UNION COUNTY, NEW JERSEY <b>WARINANCO PARK BASEBALL FIELD IMPROVEMENTS</b> LOCATION PLAN AND CONSTRUCTION NOTES					
(732) 727 8000 3141 BORDENTOWN AVENUE, PARLIN, NEW JERSEY 08859-1102		(732) 462 7400 1460 ROUTE 9 SOUTH, HOWELL, NEW JERSEY 07731-1194			
<b>MICHAEL J. McCLELLAND P.E.</b> NEW JERSEY PROFESSIONAL ENGINEER LIC. 32468		SCALE As Shown	DATE August 2025	DRAWN BY LAK	DESIGNED BY LAK
		CHECKED BY [Signature]	SHEET 2 of 22	DRAWING NUMBER 115.UN00219.P03	

TRAV MAG NAIL #303  
 ELEV. 39.622  
 N 663,788.8350  
 E 563,246.3160  
 N.T.S.



TRAV PIN #62  
 ELEV. 38.166  
 N 663,719.2700  
 E 563,184.7070  
 N.T.S.

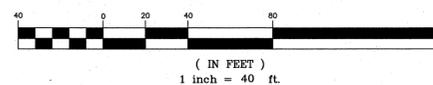


TRAV PIN #302  
 ELEV. 35.954  
 N 663,853.3800  
 E 562,871.8730  
 N.T.S.

**NOTES:**

1. THIS SURVEYOR IS NOT QUALIFIED TO MAKE A DETERMINATION AS TO THE EXISTENCE OR NON-EXISTENCE OF ENVIRONMENTALLY UNSAFE CONDITIONS. THEREFORE, NO STATEMENT IS BEING MADE OR IMPLIED HEREON, NOR SHOULD IT BE ASSUMED OR CONSTRUED THAT ANY STATEMENT IS BEING MADE BY THE FACT THAT NO EVIDENCE OF ENVIRONMENTALLY UNSAFE CONDITIONS ARE PORTRAYED HEREON. THE CLIENT SHOULD PURSUE THESE MATTERS SEPARATE AND APART FROM THIS SURVEY.
2. THIS SURVEYOR HAS NOT BEEN RETAINED TO MAKE ANY DETERMINATIONS AS TO THE EXISTENCE OR NON-EXISTENCE OF WETLANDS. THEREFORE, NO STATEMENT IS BEING MADE OR IMPLIED HEREON, NOR SHOULD IT BE ASSUMED OR CONSTRUED THAT ANY STATEMENT IS BEING MADE BY THE FACT THAT NO EVIDENCE OF WETLANDS IS PORTRAYED HEREON. THE CLIENT SHOULD PURSUE THIS MATTER SEPARATE AND APART FROM THIS SURVEY.
3. THIS SURVEYOR CONDUCTED NO UNDERGROUND EXPLORATIONS. THEREFORE, ONLY THOSE PHYSICAL FEATURES WHICH WERE PLAINLY VISIBLE AT THE TIME OF THIS SURVEY ARE PORTRAYED HEREON.
4. SURVEY DATA PORTRAYED HEREON IS BASED UPON FIELD OBSERVATIONS COLLECTED IN JULY AND SEPTEMBER OF 2024.
5. BASIS FOR BEARINGS IS THE NORTH AMERICAN DATUM OF 1983, NEW JERSEY STATE PLANE COORDINATE SYSTEM, UNITED STATES SURVEY FOOT. ALL VALUES REDUCED TO GROUND COORDINATES. CONTROL MONUMENTS FOR CONVERSION: KENNEL 1, CRANFORD 2, 20 E. 1. AVERAGE COMBINED SCALE FACTOR OF 0.99990662, CENTROID N. 664,775.1900, E. 556,180.4667. GPS POSITIONS DERIVED VIA REAL TIME KINEMATIC SURVEY IN COORDINATION WITH KEYSTONE KEYNET VRS NETWORK.
6. VERTICAL DATUM DERIVED FROM MONUMENT F11 PID KWB824 - NORTH AMERICAN VERTICAL DATUM OF 1988. ALL VALUES EXPRESSED IN U.S. SURVEY FOOT.

**GRAPHIC SCALE**



NO.	DESCRIPTION OF REVISION	DATE	DRAWN	CHECKED	RELEASED

BOROUGH OF ROSELLE  
 UNION COUNTY, NEW JERSEY

**WARINANCO PARK BASEBALL FIELD IMPROVEMENTS**

**SURVEY CONTROL PLAN**

**CVE ASSOCIATES**  
 CONSULTING AND MUNICIPAL ENGINEERS  
 (732) 727 8000 3141 BORDENTOWN AVENUE, PARLIN, NEW JERSEY 08859-1162 (732) 462 7400 1400 ROUTE 9 SOUTH, HOWELL, NEW JERSEY 07731-1194

**MICHAEL J. MCGURL P.L.S.**  
 NEW JERSEY PROFESSIONAL LAND SURVEYOR  
 LIC. 38338

DATE: 8/5/2025

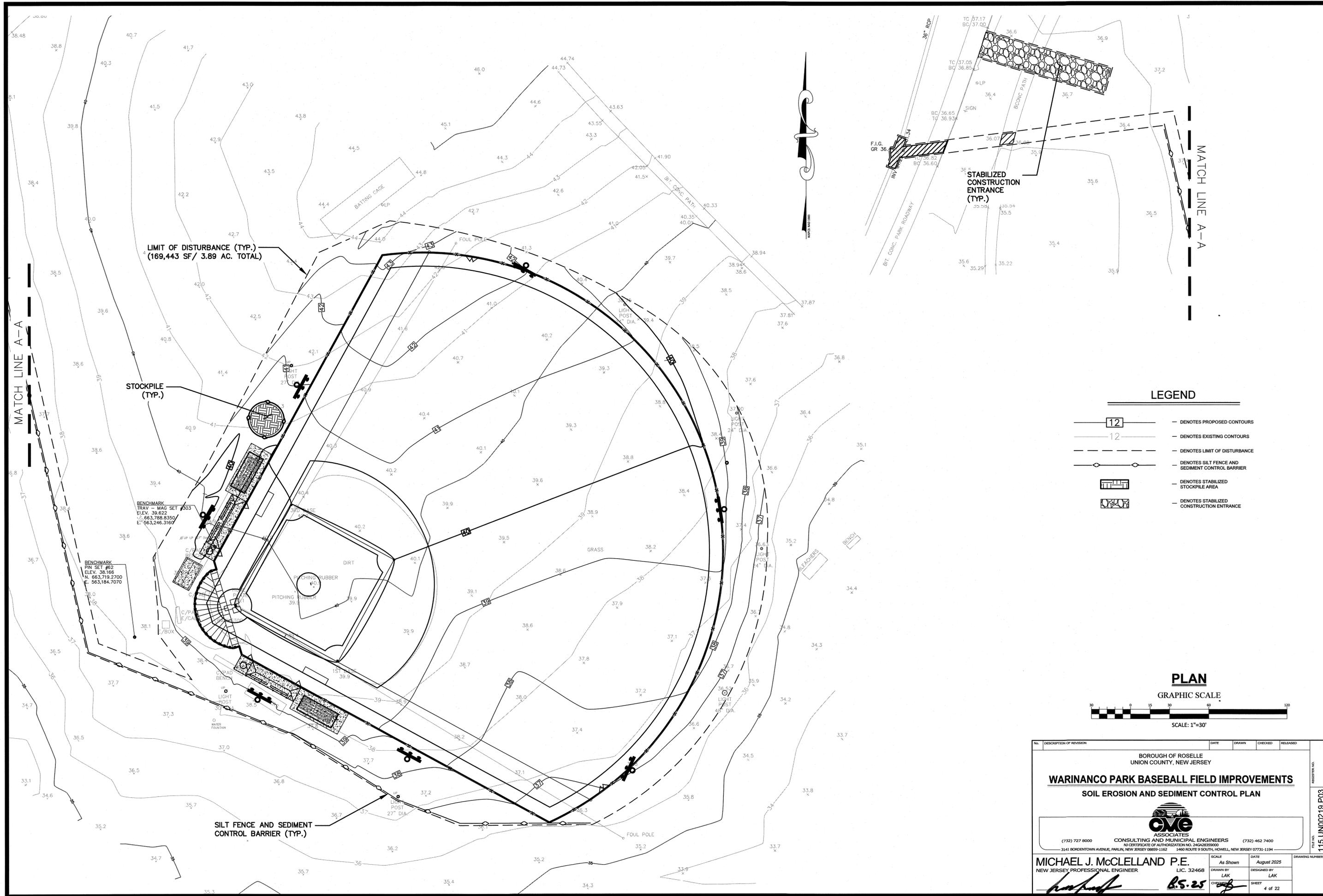
SCALE: As Shown  
 DRAWN BY: MLB  
 CHECKED BY: MJM

DATE: August 2025  
 DESIGNED BY:  
 SHEET: 3 of 22

DRAWING NUMBER: SC-1

REGISTERED NO.: 115.UN00219.P03

File Path: G:\3030000\115-UN00219-P03\WARINANCO PARK SURVEY CONTROL PLAN.dwg



LIMIT OF DISTURBANCE (TYP.)  
(169,443 SF / 3.89 AC. TOTAL)

STOCKPILE (TYP.)

BENCHMARK  
TRAV - MAG SET #303  
ELEV. 39.622  
N. 663,758.8350  
E. 563,246.3160

BENCHMARK  
PIN SET #62  
ELEV. 38.166  
N. 663,719.2700  
E. 563,184.7070

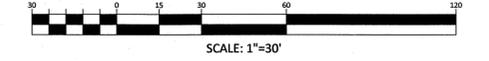
SILT FENCE AND SEDIMENT  
CONTROL BARRIER (TYP.)

**LEGEND**

- DENOTES PROPOSED CONTOURS
- DENOTES EXISTING CONTOURS
- DENOTES LIMIT OF DISTURBANCE
- DENOTES SILT FENCE AND SEDIMENT CONTROL BARRIER
- DENOTES STABILIZED STOCKPILE AREA
- DENOTES STABILIZED CONSTRUCTION ENTRANCE

**PLAN**

GRAPHIC SCALE



No.	DESCRIPTION OF REVISION	DATE	DRAWN	CHECKED	RELEASED
BOROUGH OF ROSELLE UNION COUNTY, NEW JERSEY <b>WARINANCO PARK BASEBALL FIELD IMPROVEMENTS</b> <b>SOIL EROSION AND SEDIMENT CONTROL PLAN</b>					
 <b>CME ASSOCIATES</b> CONSULTING AND MUNICIPAL ENGINEERS <small>(732) 727-8000      3141 BORDENTOWN AVENUE, PARLIN, NEW JERSEY 08859-1102      (732) 462-7400      1460 ROUTE 9 SOUTH, HOWELL, NEW JERSEY 07731-1194</small>					
<b>MICHAEL J. McCLELLAND P.E.</b> NEW JERSEY PROFESSIONAL ENGINEER 		SCALE As Shown LAK B.S. 25		DATE August 2025 LAK SHEET 4 of 22	

FILE NO. 115.UN00219.P03

## SEQUENCE OF CONSTRUCTION

THIS PROJECT SHALL CONSIST ESSENTIALLY OF THE CONSTRUCTION OF A SYNTHETIC TURF BASEBALL FIELD WITH UNDERDRAIN SYSTEM AND HIGH MAST SPORTS LIGHTING AS WELL AS ASSOCIATED GRADING, DRAINAGE, STORMWATER MANAGEMENT, SITE RESTORATION AND OTHER RELATED WORK. CONSTRUCTION SHOULD PROCEED IN THE FOLLOWING MANNER:

NO.	DESCRIPTION	DURATION
1.	INSTALLATION OF SEDIMENT AND EROSION CONTROL DEVICES THAT CAN BE PLACED PRIOR TO ANY MAJOR SOIL DISTURBANCES. THE WORK SHALL INCLUDE THE FURNISHING AND INSTALLATION OF STABILIZED CONSTRUCTION ENTRANCES, TREE PROTECTION, INLET SILTATION PROTECTION AND SILT STOP SEDIMENT BARRIER AS DETAILED ON ALL APPLICABLE PLAN SHEETS.	5 DAYS
2.	DEMOLITION, SITE CLEARING AND REMOVAL OF EXISTING VEGETATION AND STRUCTURES TO BE DEMOLISHED WITHIN THE SCOPE OF THE PROJECT AS SHOWN WITHIN THE SOIL EROSION AND SEDIMENT CONTROL PLAN, PROTECT TREES WHERE NECESSARY. ALL REMAINING VEGETATION TO BE PROPERLY PROTECTED AND TO REMAIN IN ITS NATURAL STATE.	10 DAYS
3.	IMMEDIATE INSTALLATION OF ALL REMAINING SOIL EROSION AND SEDIMENT CONTROL DEVICES.	5 DAYS
4.	ROUGH GRADE PARK SITE IMPROVEMENTS INCLUDING BASEBALL FIELD AND AMENITIES. INSTALL TEMPORARY SEEDING OF ALL DISTURBED AREAS.	10 DAYS
5.	CONSTRUCTION OF UNDERDRAIN SYSTEM AND STORM WATER MANAGEMENT IMPROVEMENTS, INCLUDING ALL APPURTENANCES FOR COMPLETION.	40 DAYS
6.	UNDERGROUND ELECTRIC AND LIGHTING INSTALLATION.	10 DAYS
7.	FINE GRADE BASEBALL FIELD AND AMENITIES.	10 DAYS
8.	BASEBALL FIELD INSTALLATION AND COMPLETION.	25 DAYS
9.	REMOVAL OF APPROPRIATE TEMPORARY SEDIMENT AND EROSION CONTROL MEASURES.	5 DAYS
TOTAL		120 DAYS

## TRAFFIC CONTROL STANDARDS

- CONSTRUCTION TRAFFIC SHALL BE RESTRICTED TO ON-SITE ACCESS BY MEANS SO DESIGNATED BY THE COUNTY ENGINEER.
- TRAFFIC DURING WET WEATHER SHALL BE MINIMIZED AND APPROPRIATE CLEAN-UP SHALL BE PROVIDED BY THE CONTRACTOR AS SOON AS WEATHER CONDITIONS PERMIT.
- TRAFFIC CONTROL STANDARDS REQUIRE THE INSTALLATION DISTURBANCE BE KEPT TO A MINIMUM AND ADEQUATELY STABILIZED IN ACCORDANCE WITH THE STANDARDS HEREIN.

### DUST CONTROL

- ALL AREAS OF CLEARING AND EMBANKMENT, AS WELL AS CONSTRUCTION HAUL ROADS SHALL BE TREATED AND MAINTAINED IN SUCH A MANNER AS TO MINIMIZE ANY DUST GENERATION.
- DISTURBED AREAS SHALL BE MAINTAINED IN A ROUGH GRADED CONDITION AND TEMPORARILY SEEDED AND/OR MULCHED UNTIL PROPER WEATHER CONDITIONS EXIST FOR THE ESTABLISHMENT OF PERMANENT VEGETATION COVER.

### TREE PROTECTION

- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL TREES WITHIN THE SITE FOR THE DURATION OF THE PROJECT. THE CONTRACTOR SHALL FURTHER EMPLOY EVERY MEASURE POSSIBLE FOR THE PROTECTION OF ALL TREES WITHIN THE DESIGNATED USE AREAS.
- DAMAGED TRUNKS OR EXPOSED ROOTS SHOULD HAVE DAMAGED BARK REMOVED IMMEDIATELY AND NO PAINT SHALL BE APPLIED. EXPOSED ROOTS SHOULD BE COVERED WITH TOPSOIL IMMEDIATELY AFTER EXCAVATION IS COMPLETE. ROOTS SHALL BE PRUNED TO GIVE A CLEAN, SHARP SURFACE AMENABLE TO HEALING. ROOTS EXPOSED DURING HOT WEATHER SHOULD BE IRRIGATED TO PREVENT PERMANENT TREE INJURY.

## MULCHING

MULCHING IS REQUIRED ON ALL SEEDING. MULCH WILL INSURE AGAINST EROSION BEFORE GRASS IS ESTABLISHED AND WILL PROMOTE FASTER AND EARLIER ESTABLISHMENT. THE EXISTENCE OF VEGETATION SUFFICIENT TO CONTROL SOIL EROSION SHALL BE DEEMED COMPLIANCE WITH THIS MULCHING REQUIREMENT.

- STRAW OR HAY UNROTTED SMALL GRAIN STRAW, HAY FREE OF SEEDS, APPLIED AT THE RATE OF 1-1/2 TO 2 TONS PER ACRE (70 TO 90 POUNDS PER 1,000 SQUARE FEET), EXCEPT THAT WHERE A CRIMPER IS USED INSTEAD OF A LIQUID MULCH-BINDER (TACKIFYING OR ADHESIVE AGENT), THE RATE OF APPLICATION IS 3 TONS PER ACRE. MULCH CHOPPER-BLOWERS MUST NOT GRIND THE MULCH. HAY MULCH IS NOT RECOMMENDED FOR ESTABLISHING FINE TURF OR LAWNS DUE TO THE PRESENCE OF WEED SEED.

APPLICATION: SPREAD MULCH UNIFORMLY BY HAND OR MECHANICALLY SO THAT APPROXIMATELY 90% OF THE SOIL SURFACE WILL BE COVERED. FOR UNIFORM DISTRIBUTION OF HAND-SPREAD MULCH, DIVIDE AREA INTO APPROXIMATELY 1,000 SQUARE FEET SECTIONS AND DISTRIBUTE 70 TO 90 POUNDS WITHIN EACH SECTION.

ANCHORING SHALL BE ACCOMPLISHED IMMEDIATELY AFTER PLACEMENT TO MINIMIZE LOSS BY WIND OR WATER. THIS MAY BE DONE BY ONE OF THE FOLLOWING METHODS, DEPENDING UPON THE SIZE OF THE AREA, STEEPNESS OF SLOPES, AND COSTS.

- PEG AND TWINE. DRIVE 8 TO 10 INCH WOODEN PEGS TO WITHIN 2 TO 3 INCHES OF THE SOIL SURFACE EVERY 4 FEET IN ALL DIRECTIONS. STAKES MAY BE DRIVEN BEFORE OR AFTER APPLYING MULCH. SECURE MULCH TO SOIL SURFACE BY STRETCHING TWINE BETWEEN PEGS IN A CRIS-CROSS AND A SQUARE PATTERN. SECURE TWINE AROUND EACH PEG WITH TWO OR MORE ROUND TURNS.
- MULCH NETTINGS. STAPLE PAPER, LITE, COTTON, OR PLASTIC NETTINGS TO THE SOIL SURFACE. USE A DEGRADABLE NETTING IN AREAS TO BE MOWED.
- CRIMPER (MULCH ANCHORING TOOL). A TRACTOR-DRAWN IMPLEMENT, SOMEWHAT LIKE A DISC HARROW, ESPECIALLY DESIGNED TO PUSH OR CUT SOME OF THE BROADCAST LONG FIBER MULCH 3 TO 4 INCHES INTO THE SOIL SO AS TO ANCHOR IT AND LEAVE PART STANDING UPRIGHT. THIS TECHNIQUE IS LIMITED TO AREAS TRAVERSABLE BY A TRACTOR, WHICH MUST OPERATE ON THE CONTOUR OF SLOPES. STRAW MULCH RATE MUST BE 3 TONS PER ACRE. NO TACKIFYING OR ADHESIVE AGENT IS REQUIRED.
- LIQUID MULCH-BINDERS. - MAY BE USED TO ANCHOR HAY OR STRAW MULCH.

- APPLICATIONS SHOULD BE HEAVIER AT EDGES WHERE WIND MAY CATCH THE MULCH IN VALLEYS, AND AT CRESTS OF BANKS. THE REMAINDER OF THE AREA SHOULD BE UNIFORM IN APPEARANCE.
- USE ONE OF THE FOLLOWING:
  - ORGANIC AND VEGETABLE BASED BINDERS - NATURALLY OCCURRING, POWDER BASED, HYDROPHILIC MATERIALS WHEN MIXED WITH WATER FORMULATES A GEL AND WHEN APPLIED TO MULCH UNDER SATISFACTORY CURING CONDITIONS WILL FORM MEMBRANED NETWORKS OF INSOLUBLE POLYMERS. THE VEGETABLE GEL SHALL BE PHYSIOLOGICALLY HARMLESS AND NOT RESULT IN A PHYTOXIC EFFECT OR IMPEDE GROWTH OF TURFGRASS. USE AT RATES AND WEATHER CONDITIONS AS RECOMMENDED BY THE MANUFACTURER TO ANCHOR MULCH MATERIALS. MANY NEW PRODUCTS ARE AVAILABLE, SOME OF WHICH MAY NEED FURTHER EVALUATION FOR USE IN THIS STATE.
  - SYNTHETIC BINDERS - HIGH POLYMER SYNTHETIC EMULSION, MISCIBLE WITH WATER WHEN DILUTED AND FOLLOWING APPLICATION TO MULCH DRYING AND CURING SHALL NO LONGER BE SOLUBLE OR DISPERSIBLE IN WATER. IT SHALL BE APPLIED AT RATES RECOMMENDED BY THE MANUFACTURER AND REMAINS TACKY UNTIL GERMINATION OF GRASS.

NOTE: ALL NAMES ONE ABOVE ARE REGISTERED TRADE NAMES. THIS DOES NOT CONSTITUTE A COMMENTATION OF THESE PRODUCTS TO THE EXCLUSION OF OTHER PRODUCTS.

- WOOD-FIBER OR PAPER-FIBER MULCH. SHALL BE MADE FROM WOOD, PLANT FIBERS OR PAPER CONTAINING NO GROWTH OR GERMINATION INHIBITING MATERIALS. USED AT THE RATE OF 1,500 TONS PER ACRE (OR AS RECOMMENDED BY THE PROJECT MANUFACTURER) AND MAY BE APPLIED BY A HYDROSEEDER. THIS MULCH SHALL NOT BE MIXED IN THE TANK WITH SEED. USE IS LIMITED TO FLATTER SLOPES AND DURING OPTIMUM SEEDING PERIODS IN SPRING AND FALL.

- PELLETIZED MULCH. COMPRESSED AND EXTRUDED PAPER AND/OR WOOD FIBER PRODUCT, WHICH MAY CONTAIN CO-POLYMERS, TACKIFIERS, FERTILIZERS AND COLORING AGENTS. THE DRY PELLETS, WHEN APPLIED TO A SEEDING AREA AND WATERED, FORM A MULCH MAT. PELLETIZED MULCH SHALL BE APPLIED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. MULCH MAY BE APPLIED BY HAND OR MECHANICAL SPREADER AT THE RATE OF 60-75 LBS./1,000 SQUARE FEET AND ACTIVATED WITH 0.2 TO 0.4 INCHES OF WATER. THIS MATERIAL HAS BEEN FOUND TO BE BENEFICIAL FOR USE ON SMALL LAWN OR RENOVATION AREAS, SEEDING AREAS WHERE WEED-SEED FREE MULCH IS DESIRED OR ON SITES WHERE STRAW MULCH AND TACKIFIER AGENT ARE NOT PRACTICAL OR DESIRABLE.

APPLYING THE FULL 0.2 TO 0.4 INCHES OF WATER AFTER SPREADING PELLETIZED MULCH ON THE SEED BED IS EXTREMELY IMPORTANT FOR SUFFICIENT ACTIVATION AND EXPANSION OF THE MULCH TO PROVIDE SOIL COVERAGE.

## TEMPORARY SEEDING SPECIFICATIONS

- APPLY 10-20-10 FERTILIZER AT A RATE OF 500 LBS. PER ACRE OR 11 LBS. PER 1,000 SQ. FEET.
- APPLY LIMESTONE ACCORDING TO THE RATE RECOMMENDED BY SOIL TESTING.
- APPLY PERENNIAL RYE GRASS AT A RATE OF 100 LBS. PER ACRE OR 1 LB. PER 1,000 SQ. FT.
- APPLY SPRING GRASS AT A RATE OF 86 LBS. PER ACRE OR 2 LBS. PER 1,000 SQ. FT.
- APPLY ANNUAL RYEGRASS AT A RATE OF 100 LBS. PER ACRE OR 1 LB. PER 1,000 SQ. FT.
- APPLY WINTER BARLEY AT A RATE OF 96 LBS. PER ACRE OR 2.2 LBS. PER 1,000 SQ. FT.
- APPLY WINTER CERIAL RYE AT A RATE OF 112 LBS. PER ACRE OR 2.8 LBS. PER 1,000 SQ. FT.
- APPLY PEARL MILLET AT A RATE OF 20 LBS. PER ACRE OR 0.5 LBS. PER 1,000 SQ. FT.
- APPLY MILLET (GERMAN OR HUNGARIAN) AT A RATE OF 30 LBS. PER ACRE OR 0.7 LBS. PER SQ. FT.

## TEMPORARY SEEDBED PREPARATIONS

- APPLY GROUND LIMESTONE AND FERTILIZER ACCORDING TO SOIL TEST RECOMMENDATIONS SUCH AS OFFERED BY RUTGERS CO-OPERATIVE EXTENSION. SOIL SAMPLE MAILERS ARE AVAILABLE FROM THE LOCAL RUTGERS CO-OPERATIVE EXTENSION OFFICES. FERTILIZER SHALL BE APPLIED AT THE RATE OF 500 POUNDS PER ACRE OR 11 POUNDS PER 1,000 SQUARE FEET OF 10-20-10 OR EQUIVALENT WITH 50% WATER INSOLUBLE NITROGEN UNLESS A SOIL TEST INDICATES OTHERWISE.

CALCIUM CARBONATE IS THE EQUIVALENT AND STANDARD FOR MEASURING THE ABILITY OF LIMING MATERIALS TO NEUTRALIZE SOIL ACIDITY AND SUPPLY CALCIUM AND MAGNESIUM TO GRASSES AND LEGUMES.

- WORK LIME AND FERTILIZER INTO THE SOIL AS NEARLY AS PRACTICAL TO A DEPTH OF 4 INCHES WITH A DISC, SPRING-TOOTH HARROW, OR OTHER SUITABLE EQUIPMENT. THE FINAL HARROWING OR DISKING OPERATION SHOULD BE ON THE GENERAL CONTOUR. CONTINUE TILLAGE UNTIL A REASONABLE UNIFORM SEEDBED IS PREPARED.

- INSPECT SEEDBED JUST BEFORE SEEDING. IF TRAFFIC HAS LEFT THE SOIL COMPACTED, THE AREA MUST BE RETILLED IN ACCORDANCE WITH THE ABOVE.

- SOILS HIGH IN SULFIDES OR HAVING A pH OF 4 OR LESS REFER TO STANDARD FOR MANAGEMENT OF HIGH ACID PRODUCING SOILS, PG 1-1.

## SITE PREPARATION

- GRADE AS NEEDED AND FEASIBLE TO PERMIT THE USE OF CONVENTIONAL EQUIPMENT FOR SEEDBED PREPARATION, SEEDING, MULCH APPLICATION, AND MULCH ANCHORING. ALL GRADING SHOULD BE DONE IN ACCORDANCE WITH STANDARD FOR LAND GRADING.

- IMMEDIATELY PRIOR TO SEEDING AND TOPSOIL APPLICATION, THE SUBSOIL SHALL BE EVALUATED FOR COMPACTION IN ACCORDANCE WITH STANDARD FOR LAND GRADING.

- TOPSOIL SHOULD BE HANDLED ONLY WHEN IT IS DRY ENOUGH TO WORK WITHOUT DAMAGING THE SOIL STRUCTURE. A UNIFORM APPLICATION TO A DEPTH OF 5 INCHES (UNSETTLED) IS REQUIRED ON ALL SITES. TOPSOIL SHALL BE AMENDED WITH ORGANIC MATTER, AS NEEDED, IN ACCORDANCE WITH THE STANDARD FOR TOPSOILING.

- INSTALL NEEDED EROSION CONTROL PRACTICES OR FACILITIES SUCH AS DIVERSIONS, GRADE-STABILIZATION STRUCTURES, CHANNEL STABILIZATION MEASURES, SEDIMENT BASINS, AND WATERWAYS.

## PERMANENT SEEDBED PREPARATIONS

- UNIFORMLY APPLY GROUND LIMESTONE AND FERTILIZER TO TOPSOIL WHICH HAS BEEN SPREAD AND FIRMED, ACCORDING TO SOIL TEST RECOMMENDATIONS SUCH AS OFFERED BY RUTGERS CO-OPERATIVE EXTENSION. SOIL SAMPLE MAILERS ARE AVAILABLE FROM THE LOCAL RUTGERS CO-OPERATIVE EXTENSION OFFICES (HTTP://NAEES.RUTGERS.EDU/COUNTY/). FERTILIZER SHALL BE APPLIED AT THE RATE OF 500 POUNDS PER ACRE OR 11 POUNDS PER 1,000 SQUARE FEET OF 10-10-10 OR EQUIVALENT WITH 50% WATER INSOLUBLE NITROGEN UNLESS A SOIL TEST INDICATES OTHERWISE, AND INCORPORATED INTO THE SURFACE 4 INCHES. IF FERTILIZER IS NOT INCORPORATED, APPLY ONE-HALF THE RATE DESCRIBED ABOVE DURING SEEDBED PREPARATION AND REPEAT ANOTHER ONE-HALF RATE APPLICATION OF THE SAME FERTILIZER WITHIN 3 TO 5 WEEKS AFTER SEEDING.

- WORK LIME AND FERTILIZER INTO THE TOPSOIL AS NEARLY AS PRACTICAL TO A DEPTH OF 4 INCHES WITH A DISC, SPRING-TOOTH HARROW, OR OTHER SUITABLE EQUIPMENT. THE FINAL HARROWING OR DISKING OPERATION SHOULD BE ON THE GENERAL CONTOUR. CONTINUE TILLAGE UNTIL A REASONABLE UNIFORM SEEDBED IS PREPARED.

- HIGH ACID PRODUCING SOILS. SOILS HAVING A pH OF 4 OR LESS OR CONTAINING IRON SULFIDE SHALL BE COVERED WITH A MINIMUM OF 12 INCHES OF SOIL HAVING A pH OF 5 OR MORE BEFORE INITIATING SEEDBED PREPARATION. SEE STANDARD FOR MANAGEMENT OF THE ACID-PRODUCING SOILS FOR SPECIFIC REQUIREMENTS.

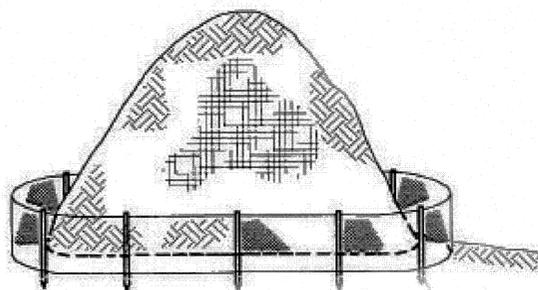
## PERMANENT SEEDING SPECIFICATIONS:

- APPLY FERTILIZER AND LIME IN THE SAME RATES AS DENOTED IN THE TEMPORARY SEEDING SPECIFICATIONS ABOVE.
- APPLY THE FOLLOWING SEED MIXTURE ONLY DURING SPECIFIED PLANTING DATES AT THE SPECIFIED RATES.
 

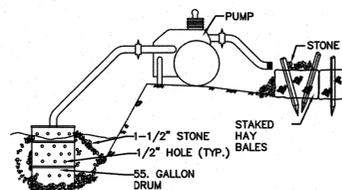
FINE FESCUE (BLEND)	130 LBS. PER ACRE
HARD FESCUE	45 LBS. PER ACRE
ORCHARD FESCUE	20 LBS. PER ACRE
STRONG CREEPING RED FESCUE OR KENTUCKY BLUEGRASS OR PERENNIAL RYEGRASS	5 LBS. PER ACRE
- APPLY MULCH AND MULCH ANCHORING AS SPECIFIED BELOW.

## SOIL EROSION AND SEDIMENT CONTROL NOTES:

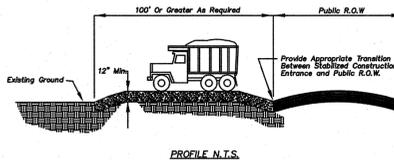
- ALL SOIL EROSION AND SEDIMENT CONTROL PRACTICES SHALL BE INSTALLED PRIOR TO ANY MAJOR SOIL DISTURBANCES, OR IN THEIR PROPER SEQUENCE AND MAINTAINED UNTIL PERMANENT PROTECTION IS ESTABLISHED.
- ANY DISTURBED AREAS THAT WILL BE LEFT EXPOSED MORE THAN 30 DAYS AND NOT SUBJECT TO CONSTRUCTION TRAFFIC, WILL IMMEDIATELY RECEIVE A TEMPORARY SEEDING. IF THE SEASON PREVENTS THE ESTABLISHMENT OF A TEMPORARY COVER, THE DISTURBED AREAS WILL BE MULCHED WITH STRAW, OR EQUIVALENT MATERIAL, AT A RATE OF TWO (2) TONS PER ACRE, ACCORDING TO NJ STATE STANDARDS.
- PERMANENT VEGETATION SHALL BE SEEDING OR SODED ON ALL EXPOSED AREAS WITHIN TEN (10) DAYS AFTER FINAL GRADING. MULCH WILL BE USED FOR PROTECTION UNTIL SEEDING IS ESTABLISHED.
- ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE NJ STATE STANDARDS FOR SOIL EROSION AND SEDIMENT CONTROL IN NEW JERSEY, 7TH EDITION LAST REVISED JANUARY 2014.
- A SUB-BASE COURSE WILL BE APPLIED IMMEDIATELY FOLLOWING ROUGH GRADING AND INSTALLATION OF IMPROVEMENTS IN ORDER TO STABILIZE STREETS, ROADS, DRIVEWAYS AND PARKING AREAS. IN AREAS WHERE NO UTILITIES ARE PRESENT, THE SUB-BASE SHALL BE INSTALLED WITHIN 15 DAYS OF PRELIMINARY GRADING.
- IMMEDIATELY FOLLOWING INITIAL DISTURBANCE OR ROUGH GRADING ALL CRITICAL AREAS SUBJECT TO EROSION (i.e. STEEP SLOPES, ROADWAY EMBANKMENTS) WILL RECEIVE A TEMPORARY SEEDING IN COMBINATION WITH STRAW MULCH OR A SUITABLE EQUIVALENT AT A RATE OF TWO (2) TONS PER ACRE, ACCORDING TO NJ STATE STANDARDS.
- ANY STEEP SLOPES RECEIVING PIPELINE INSTALLATION WILL BE BACKFILLED AND STABILIZED DAILY, AS THE INSTALLATION PROCEEDS (i.e. SLOPES GREATER THAN 3:1).
- TRAFFIC CONTROL STANDARDS REQUIRE THE INSTALLATION OF A 5'x30'x6" PAD OF 1 1/2" OR 2" STONE, AT ALL CONSTRUCTION DRIVEWAYS, IMMEDIATELY AFTER INITIAL SITE DISTURBANCE.
- THE SOMERSET-UNION SOIL CONSERVATION DISTRICT SHALL BE NOTIFIED IN WRITING 48 HOURS IN ADVANCE OF ANY LAND DISTURBING ACTIVITY.
- AT THE TIME WHEN THE SITE PREPARATION FOR PERMANENT VEGETATIVE STABILIZATION IS GOING TO BE ACCOMPLISHED, ANY SOIL THAT WILL NOT PROVIDE A SUITABLE ENVIRONMENT TO SUPPORT ADEQUATE VEGETATIVE GROUND COVER, SHALL BE REMOVED OR TREATED IN SUCH A WAY THAT IT WILL PERMANENTLY ADJUST THE SOIL CONDITIONS AND RENDER IT SUITABLE FOR VEGETATIVE GROUND COVER. IF THE REMOVAL OR TREATMENT OF THE SOIL WILL NOT PROVIDE SUITABLE CONDITIONS, NON-VEGETATIVE MEANS OF PERMANENT GROUND STABILIZATION WILL HAVE TO BE EMPLOYED. TOPSOIL SHOULD BE HANDLED ONLY WHEN IT IS DRY ENOUGH TO WORK WITHOUT DAMAGING THE SOIL STRUCTURE. A UNIFORM APPLICATION TO A DEPTH OF 5 INCHES (UNSETTLED) IS REQUIRED ON ALL SITES.
- IN THAT NUISA 4-24-39 ET SEQ., REQUIRES THAT NO CERTIFICATE OF OCCUPANCY BE ISSUED BEFORE THE PROVISIONS OF THE CERTIFIED PLAN FOR SOIL EROSION AND SEDIMENT CONTROL HAVE BEEN COMPLIED WITH FOR PERMANENT MEASURES. ALL SITE WORK FOR SITE PLANS AND ALL WORK AROUND INDIVIDUAL LOTS IN SUBDIVISIONS, WILL HAVE TO BE COMPLETED PRIOR TO THE DISTRICT ISSUING A REPORT OF COMPLIANCE FOR THE ISSUANCE OF A CERTIFICATE OF OCCUPANCY BY THE MUNICIPALITY.
- CONDUIT OUTLET PROTECTION MUST BE INSTALLED AT ALL REQUIRED OUTFALLS PRIOR TO THE DRAINAGE SYSTEM BECOMING OPERATIONAL.
- ANY CHANGES TO THE CERTIFIED SOIL EROSION AND SEDIMENT CONTROL PLAN WILL REQUIRE THE SUBMISSION OF REVISED SOIL EROSION AND SEDIMENT CONTROL PLANS TO THE DISTRICT FOR RE-CERTIFICATION. THE REVISED PLANS MUST MEET ALL CURRENT NJ STATE SOIL EROSION & SEDIMENT CONTROL STANDARDS.
- THE SOMERSET-UNION SOIL CONSERVATION DISTRICT SHALL BE NOTIFIED OF ANY CHANGES IN OWNERSHIP.
- MULCHING IN THE NJ STANDARDS IS REQUIRED FOR OBTAINING A CONDITIONAL REPORT OF COMPLIANCE. CONDITIONALS ARE ONLY ISSUED WHEN THE SEASON PROHIBITS SEEDING.
- CONTRACTOR IS RESPONSIBLE FOR KEEPING ALL ADJACENT ROADS CLEAN DURING LIFE OF CONSTRUCTION PROJECT.
- THE DEVELOPER SHALL BE RESPONSIBLE FOR REMEDIATING ANY EROSION OR SEDIMENT PROBLEMS THAT ARISE AS A RESULT OF ONGOING CONSTRUCTION AT THE REQUEST OF THE SOMERSET-UNION SOIL CONSERVATION DISTRICT.
- HYDRO SEEDING IS A TWO-STEP PROCESS. THE FIRST STEP INCLUDES SEED, FERTILIZER, LIME, ETC., ALONG WITH MINIMAL AMOUNTS OF MULCH TO PROMOTE CONSISTENCY, GOOD SEED TO SOIL CONTACT, AND GIVE A VISUAL INDICATION OF COVERAGE. UPON COMPLETION OF SEEDING OPERATION, HYDRO-MULCH SHOULD BE APPLIED AT A RATE OF 1500 LBS. PER ACRE IN SECOND STEP. THE USE OF HYDRO-MULCH, AS OPPOSED TO STRAW, IS LIMITED TO OPTIMUM SEEDING DATES AS LISTED IN THE NJ STANDARDS.



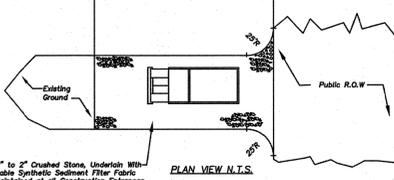
STOCKPILE DETAIL  
N.T.S.



DEWATERING DETAIL  
N.T.S.



PROFILES N.T.S.

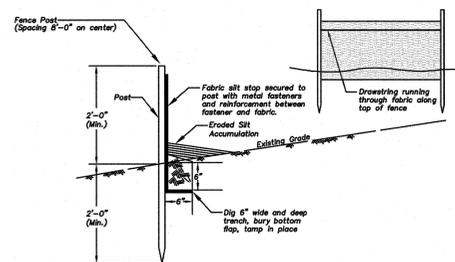


PLAN VIEW N.T.S.

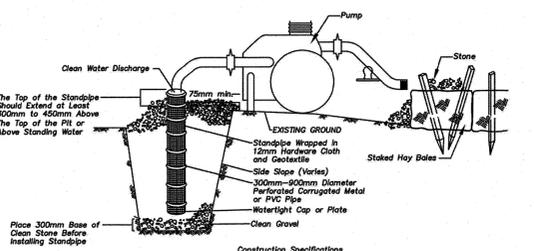
STABILIZED CONSTRUCTION ENTRANCE  
N.T.S.

## Requirements for Silt Fence:

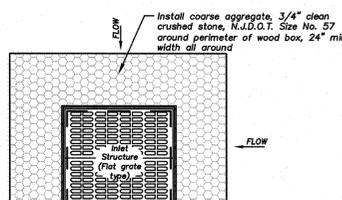
- Fence posts shall be spaced 8 feet center-to-center or closer. They shall extend at least 2 feet into the ground and extend at least 2 feet above ground. Posts shall be constructed of hardwood with a minimum diameter thickness of 1 1/2 inches.
- A metal fence with 6 inch or smaller openings and at least 2 feet high may be utilized, fastened to the fence posts, to provide reinforcement and support to the geo-textile fabric where space for other practices is limited and heavy sediment loading is expected.
- A geo-textile fabric, recommended for such use by the manufacturer, shall be buried at least 6 inches deep in the ground. The fabric shall extend at least 2 feet above the ground. The fabric must be securely fastened to the posts using a system consisting of metal fasteners (nails or staples) and a high strength reinforcement material (nylon webbing, grommets, webbing, etc.) placed between the post and the geo-textile fabric. The fastening system shall resist tearing away from the post. The fabric shall incorporate a drawstring in the top portion of the fence for added strength.



SITE STOP SEDIMENT BARRIER DETAIL  
N.T.S.

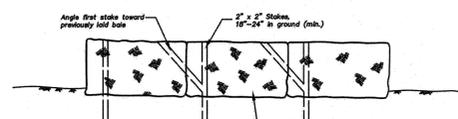


DEWATERING DETAIL  
N.T.S.

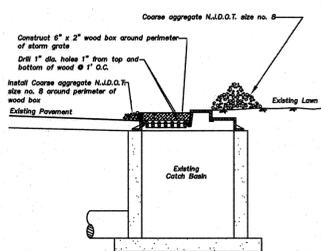


CONSTRUCTION NOTES:  
Inlet siltation protection to remain until completion of final grading and establishment of cover. Also, periodic checks must be made after each rainfall to excavate and remove excess sediment from around inlets.

PLAN



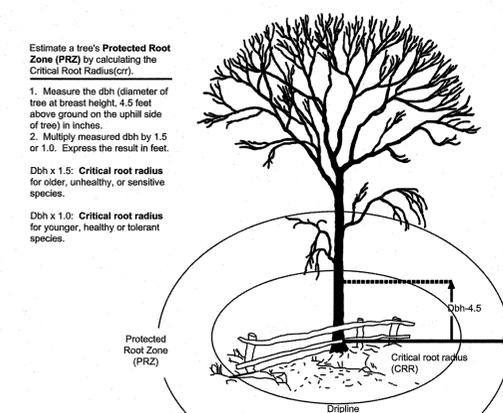
STRAW BALE SILTATION DIKE DETAIL  
N.T.S.



INLET & CATCH BASIN SILTATION PROTECTION DETAIL  
N.T.S.



INLET & CATCH BASIN FILTER  
N.T.S.



ROOT PROTECTION  
N.T.S.

## NON GROWING SEASON SOIL STABILIZATION:

DURING NON GROWING SEASONS EXPOSED SOILS SHOULD BE STABILIZED USING NON-VEGETATIVE MATERIALS SUCH AS UNROTTED SMALL-GRAIN STRAW OR SALT HAY AT A RATE OF 2.0 TO 2.5 TONS PER ACRE SPREAD UNIFORMLY AT 90 TO 115 POUNDS PER 1,000 SQUARE FEET AND ANCHORED WITH A MULCH ANCHORING TOOL. ORGANIC MULCH BINDERS, NETTING THE DOWNS OR OTHER SUITABLE MATERIALS AS APPROVED BY THE SOMERSET-UNION SOIL CONSERVATION DISTRICT.

\* SOMERSET-UNION SOIL CONSERVATION DISTRICT  
SOMERSET COUNTY 4-H CENTER  
308 MILLTOWN ROAD  
BRIDGEWATER, NJ 08807  
(908) 526-2701 PHONE  
(908) 526-7017 FAX

## SOIL COMPACTION EXEMPTION NOTE

AS DETERMINED BY THE STATE POLICY MAP, THE PROJECT AREA FALLS ENTIRELY WITHIN THE METROPOLITAN PLANNING AREA (PA1). UNDER EXISTING CONDITIONS, THE SITE IS NOT COVERED IN WOODY VEGETATION NOR REGROWTH. IN ACCORDANCE WITH NEW JERSEY STANDARD FOR LAND GRADING (REVISED 2017), NON WOODY VEGETATED PA1 AREAS FALL UNDER THE SOIL COMPACTION EXEMPTION LIST AS A "URBAN REDEVELOPMENT" AND IS DEFINED BY NJDEP AS "PREVIOUSLY DEVELOPED".

## This plan to be used for Soil Erosion and Sediment Control purposes only

NO.	REVISION PER SUSCD COMMENTS	DATE	LAK	SCB	RELEASED
1		8/20/25			

BOROUGH OF ROSELLE  
UNION COUNTY, NEW JERSEY

### WARINANCO PARK BASEBALL FIELD IMPROVEMENTS

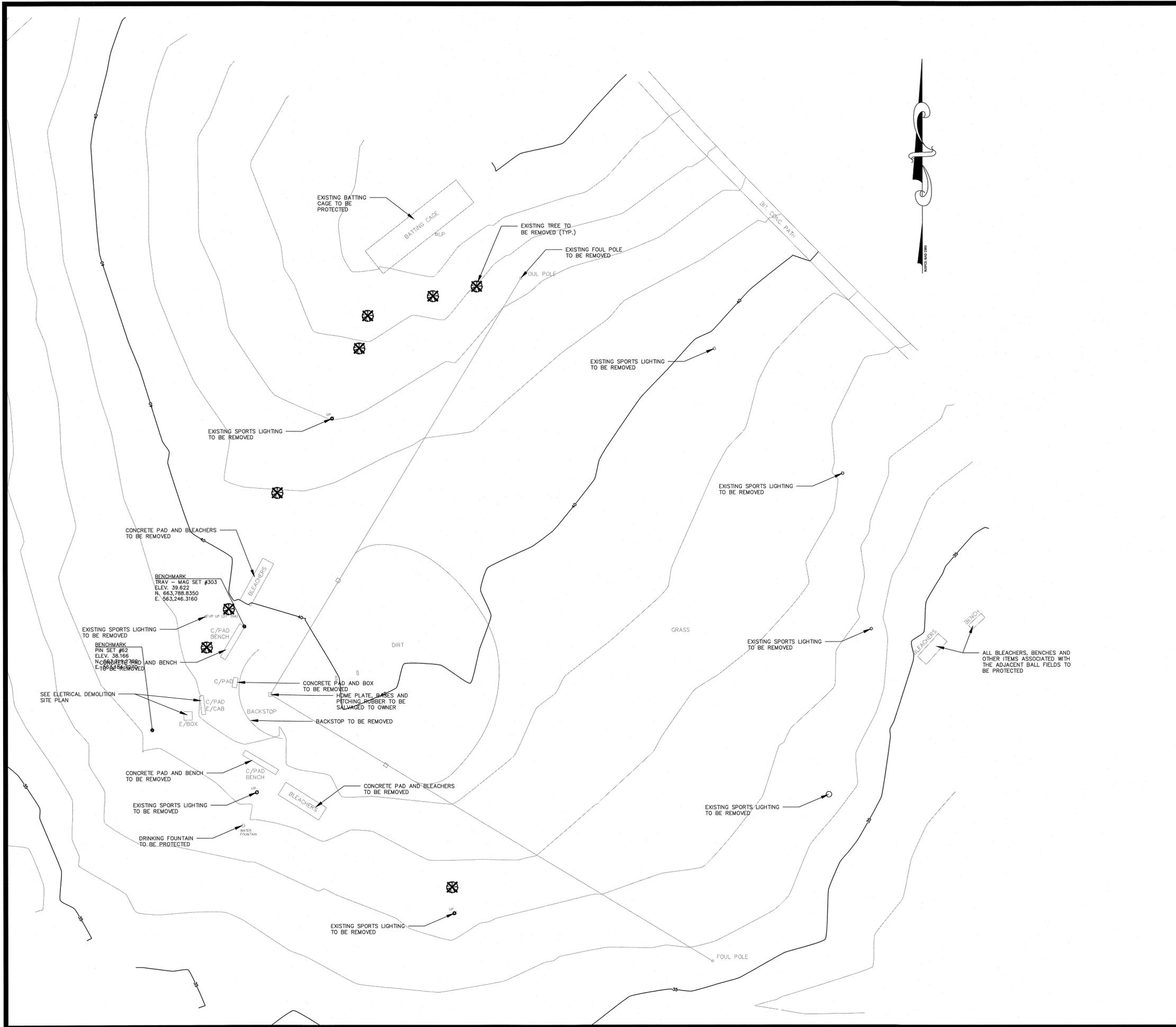
#### SOIL EROSION AND SEDIMENT CONTROL NOTES AND DETAILS

CONSULTING AND MUNICIPAL ENGINEERS (732) 462-7400  
NO CERTIFICATE OF AUTHORIZATION NO. 24GAB259900  
3341 BORDENTOWN AVENUE, PARLIN, NEW JERSEY 08859-1162 1460 ROUTE 9 SOUTH, HOWELL, NEW JERSEY 07731-1194

MICHAEL J. McCLELLAND P.E.  
NEW JERSEY PROFESSIONAL ENGINEER LIC. 32468

SCALE: As Shown  
DATE: August 2025  
DRAWN BY: LAK  
DESIGNED BY: LAK  
CHECKED BY: SHEET  
5 of 22

DRAWING NUMBER: 115.0000219.P03



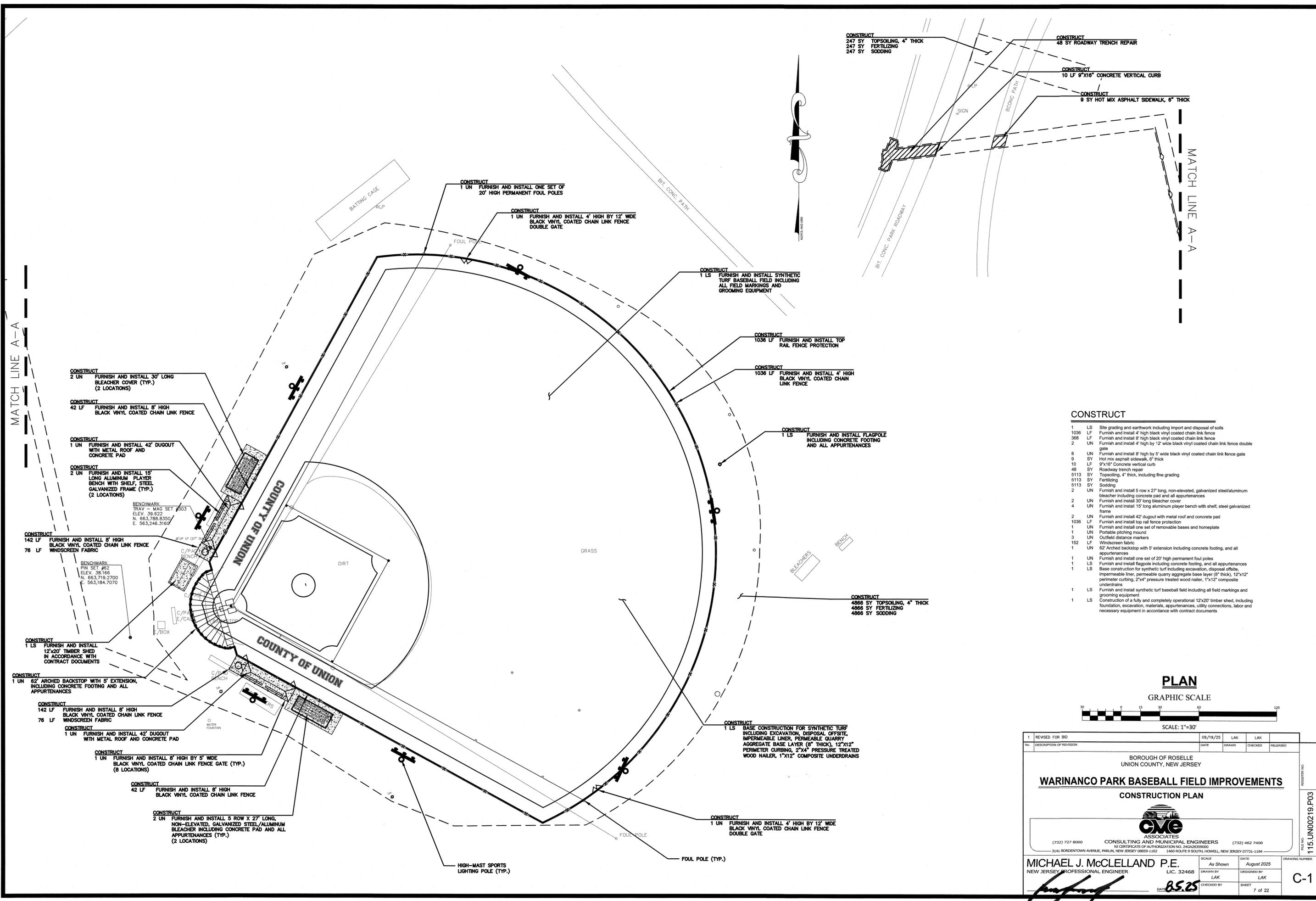
**PLAN**

GRAPHIC SCALE



SCALE: 1"=30'

No.	DESCRIPTION OF REVISION	DATE	DRAWN	CHECKED	RELEASED
BOROUGH OF ROSELLE UNION COUNTY, NEW JERSEY <b>WARINANCO PARK BASEBALL FIELD IMPROVEMENTS</b> <b>DEMOLITION PLAN</b>					
 <b>CME ASSOCIATES</b> CONSULTING AND MUNICIPAL ENGINEERS <small>(732) 727 8000 3141 BORDENTOWN AVENUE, PARLIN, NEW JERSEY 08859-1152 1460 ROUTE 9 SOUTH, HOWELL, NEW JERSEY 07731-1194 (732) 462 7400</small>					
<b>MICHAEL J. McCLELLAND P.E.</b> <small>NEW JERSEY PROFESSIONAL ENGINEER</small>		SCALE As Shown LAK	DATE August 2025 LAK	DRAWING NUMBER <b>DM-1</b>	
 <b>B.S. 25</b>		CHECKED 	SHEET 6 of 22	REGISTERED NO. <b>115 UN00219.P03</b>	



CONSTRUCT  
247 SY TOPSOILING, 4" THICK  
247 SY FERTILIZING  
247 SY SODDING

CONSTRUCT  
48 SY ROADWAY TRENCH REPAIR

CONSTRUCT  
10 LF 9"x16" CONCRETE VERTICAL CURB

CONSTRUCT  
9 SY HOT MIX ASPHALT SIDEWALK, 6" THICK

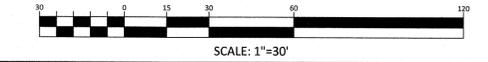
MATCH LINE A-A

MATCH LINE A-A

- CONSTRUCT**
- 1 LS Site grading and earthwork including import and disposal of soils
  - 1036 LF Furnish and install 4' high black vinyl coated chain link fence
  - 368 LF Furnish and install 8' high black vinyl coated chain link fence
  - 2 UN Furnish and install 4' high by 12' wide black vinyl coated chain link fence double gate
  - 8 UN Furnish and install 8' high by 5' wide black vinyl coated chain link fence gate
  - 9 SY Hot mix asphalt sidewalk, 6" thick
  - 10 LF 9"x16" concrete vertical curb
  - 48 SY Roadway trench repair
  - 5113 SY Topsoiling, 4" thick, including fine grading
  - 5113 SY Fertilizing
  - 5113 SY Sodding
  - 2 UN Furnish and install 5 row x 27' long, non-elevated, galvanized steel/aluminum bleacher including concrete pad and all appurtenances
  - 2 UN Furnish and install 30' long bleacher cover
  - 4 UN Furnish and install 15' long aluminum player bench with shelf, steel galvanized frame
  - 2 UN Furnish and install 42' dugout with metal roof and concrete pad
  - 1036 LF Furnish and install top rail fence protection
  - 1 UN Furnish and install one set of removable bases and homeplate
  - 1 UN Portable pitching mound
  - 3 UN Outfield distance markers
  - 152 LF Windscreen fabric
  - 1 UN 62' Arched backstop with 5' extension including concrete footing, and all appurtenances
  - 1 UN Furnish and install one set of 20' high permanent foul poles
  - 1 LS Furnish and install flagpole including concrete footing, and all appurtenances
  - 1 LS Base construction for synthetic turf including excavation, disposal offsite, impermeable liner, permeable quarry aggregate base layer (8" thick), 12"x12" perimeter curbing, 2"x4" pressure treated wood nailer, 1"x12" composite underdrains
  - 1 LS Furnish and install synthetic turf baseball field including all field markings and grooming equipment
  - 1 LS Construction of a fully and completely operational 12x20' timber shed, including foundation, excavation, materials, appurtenances, utility connections, labor and necessary equipment in accordance with contract documents

**PLAN**

GRAPHIC SCALE



1	REVISED FOR BID	09/19/25	LAK	LAK
NO.	DESCRIPTION OF REVISION	DATE	DRAWN	CHECKED

BOROUGH OF ROSELLE  
UNION COUNTY, NEW JERSEY

**WARINANCO PARK BASEBALL FIELD IMPROVEMENTS**  
CONSTRUCTION PLAN

(732) 727 8000 CONSULTING AND MUNICIPAL ENGINEERS (732) 462 7400  
NO. CERTIFICATE OF AUTHORIZATION NO. 24628255000  
3141 BORDENTOWN AVENUE, PARLIN, NEW JERSEY 08859-1162 1460 ROUTE 9 SOUTH, HOWELL, NEW JERSEY 07731-1194

**MICHAEL J. McCLELLAND P.E.**  
NEW JERSEY PROFESSIONAL ENGINEER  
LIC. 32468

SCALE: As Shown  
DATE: August 2025

DRAWN BY: LAK  
DESIGNED BY: LAK

CHECKED BY: LAK  
SHEET: 7 of 22

DRAWING NUMBER: C-1

FILE NO.: 115.UND0219.F03

- CONSTRUCT  
2 UN FURNISH AND INSTALL 30' LONG BLEACHER COVER (TYP.) (2 LOCATIONS)
- CONSTRUCT  
42 LF FURNISH AND INSTALL 8' HIGH BLACK VINYL COATED CHAIN LINK FENCE
- CONSTRUCT  
1 UN FURNISH AND INSTALL 42' DUGOUT WITH METAL ROOF AND CONCRETE PAD
- CONSTRUCT  
2 UN FURNISH AND INSTALL 15' LONG ALUMINUM PLAYER BENCH WITH SHELF, STEEL GALVANIZED FRAME (TYP.) (2 LOCATIONS)
- CONSTRUCT  
142 LF FURNISH AND INSTALL 8' HIGH BLACK VINYL COATED CHAIN LINK FENCE
- 76 LF WINDSCREEN FABRIC
- CONSTRUCT  
1 LS FURNISH AND INSTALL 12'x20' TIMBER SHED IN ACCORDANCE WITH CONTRACT DOCUMENTS
- CONSTRUCT  
1 UN 62' ARCHED BACKSTOP WITH 5' EXTENSION, INCLUDING CONCRETE FOOTING AND ALL APPURTENANCES
- CONSTRUCT  
142 LF FURNISH AND INSTALL 8' HIGH BLACK VINYL COATED CHAIN LINK FENCE
- 76 LF WINDSCREEN FABRIC
- CONSTRUCT  
1 UN FURNISH AND INSTALL 42' DUGOUT WITH METAL ROOF AND CONCRETE PAD
- CONSTRUCT  
1 UN FURNISH AND INSTALL 8' HIGH BY 5' WIDE BLACK VINYL COATED CHAIN LINK FENCE GATE (TYP.) (8 LOCATIONS)
- CONSTRUCT  
42 LF FURNISH AND INSTALL 8' HIGH BLACK VINYL COATED CHAIN LINK FENCE
- CONSTRUCT  
2 UN FURNISH AND INSTALL 5 ROW X 27' LONG, NON-ELEVATED, GALVANIZED STEEL/ALUMINUM BLEACHER INCLUDING CONCRETE PAD AND ALL APPURTENANCES (TYP.) (2 LOCATIONS)

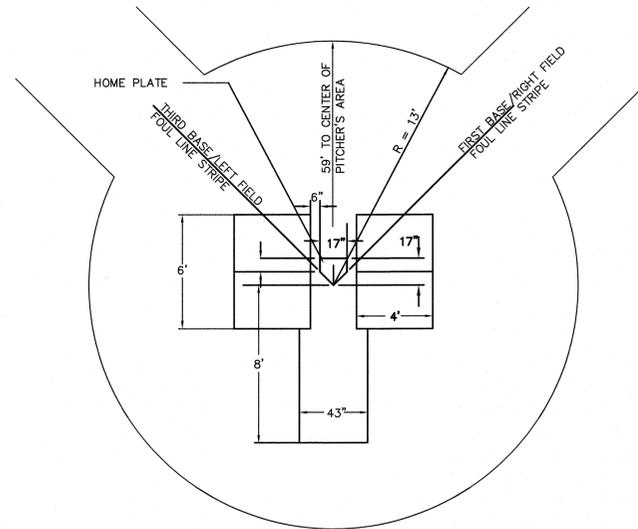
- CONSTRUCT  
1 LS FURNISH AND INSTALL SYNTHETIC TURF BASEBALL FIELD INCLUDING ALL FIELD MARKINGS AND GROOMING EQUIPMENT
- CONSTRUCT  
1036 LF FURNISH AND INSTALL TOP RAIL FENCE PROTECTION
- CONSTRUCT  
1036 LF FURNISH AND INSTALL 4' HIGH BLACK VINYL COATED CHAIN LINK FENCE
- CONSTRUCT  
1 LS FURNISH AND INSTALL FLAGPOLE INCLUDING CONCRETE FOOTING AND ALL APPURTENANCES
- CONSTRUCT  
4866 SY TOPSOILING, 4" THICK  
4866 SY FERTILIZING  
4866 SY SODDING
- CONSTRUCT  
1 LS BASE CONSTRUCTION FOR SYNTHETIC TURF INCLUDING EXCAVATION, DISPOSAL OFFSITE, IMPERMEABLE LINER, PERMEABLE QUARRY AGGREGATE BASE LAYER (8" THICK), 12"x12" PERIMETER CURBING, 2"x4" PRESSURE TREATED WOOD NAILER, 1"x12" COMPOSITE UNDERDRAINS
- CONSTRUCT  
1 UN FURNISH AND INSTALL 4' HIGH BY 12' WIDE BLACK VINYL COATED CHAIN LINK FENCE DOUBLE GATE

BENCHMARK  
TRAV - MAG SET #003  
ELEV. 39.622  
N. 663,788.8350  
E. 563,246.3160

BENCHMARK  
PIN SET #62  
ELEV. 38.166  
N. 663,719.2700  
E. 563,164.7070

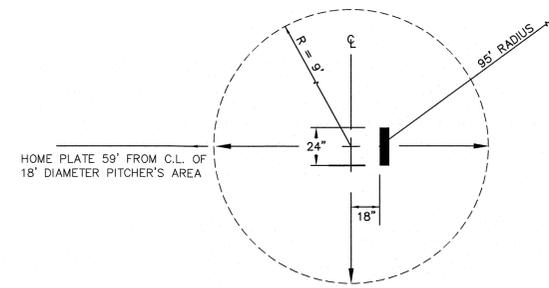
BENCHMARK  
TRAV - MAG SET #003  
ELEV. 39.622  
N. 663,788.8350  
E. 563,246.3160

BENCHMARK  
PIN SET #62  
ELEV. 38.166  
N. 663,719.2700  
E. 563,164.7070



**BALL FIELD – TREATMENT AROUND HOME PLATE**

N.T.S.

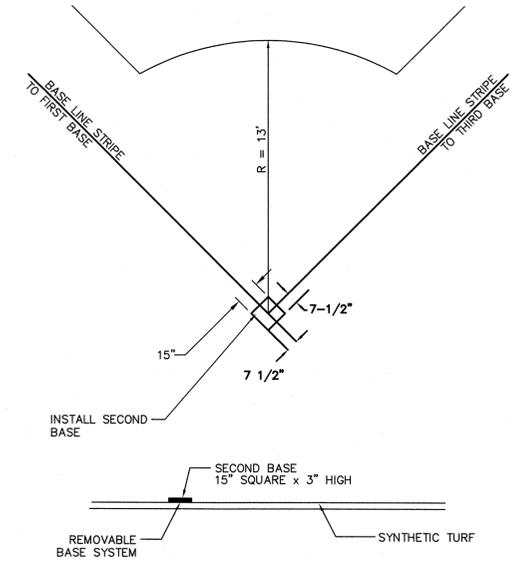


**NOTES:**

1. PITCHING AREA – A 18' DIAMETER CIRCLE, CENTER OF WHICH IS 59' FROM BACK OF HOME PLATE
2. LOCATE FRONT EDGE OF RUBBER 18" BEHIND CENTER OF MOUND
3. FRONT EDGE OF RUBBER TO BACK POINT OF HOME PLATE – 60'6"

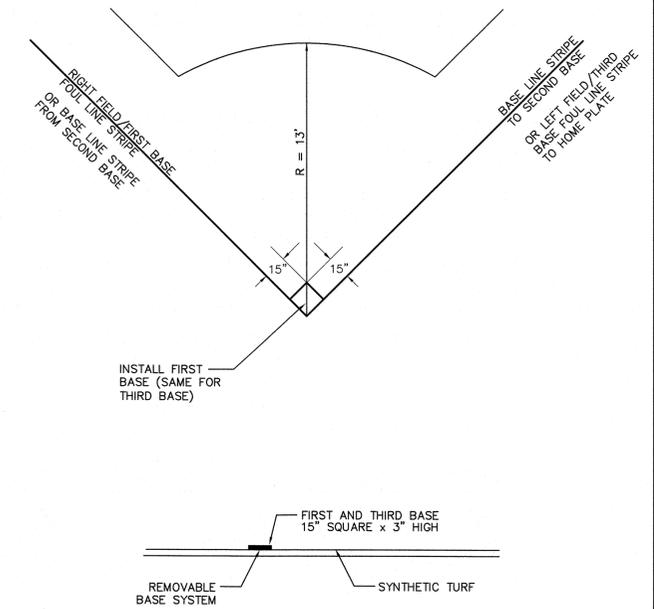
**BALL FIELD – PITCHER'S AREA DETAIL**

N.T.S.



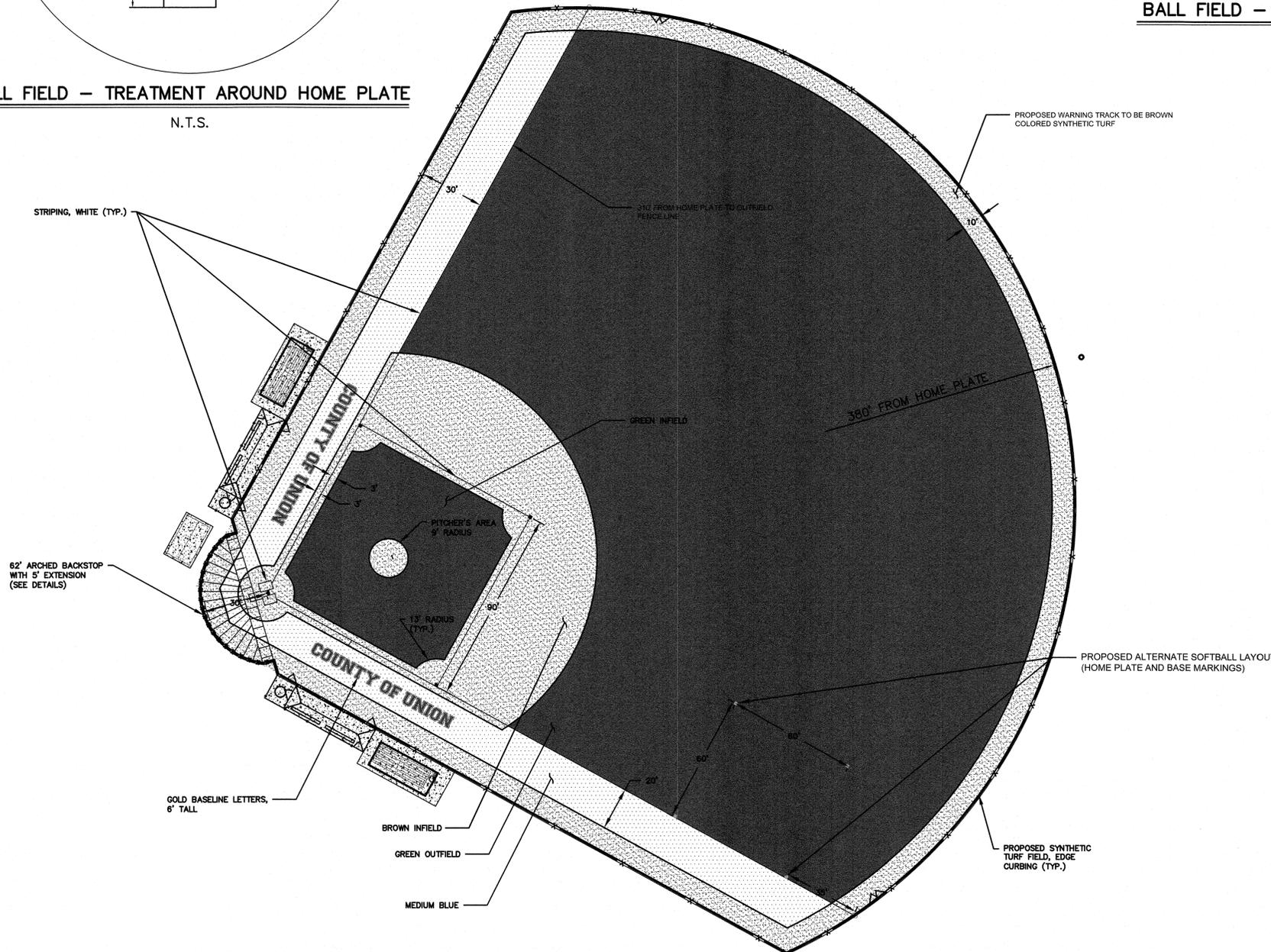
**BALL FIELD – TREATMENT AROUND SECOND BASE**

N.T.S.



**BALL FIELD – TREATMENT AROUND FIRST AND THIRD BASE**

N.T.S.



**PLAN**

GRAPHIC SCALE



SCALE: 1"=30'

NO.	REVISION	DATE	DRAWN	CHECKED	RELEASED
1	REVISED FOR BID	09/19/25	LAK	LAK	

BOROUGH OF ROSELLE  
UNION COUNTY, NEW JERSEY

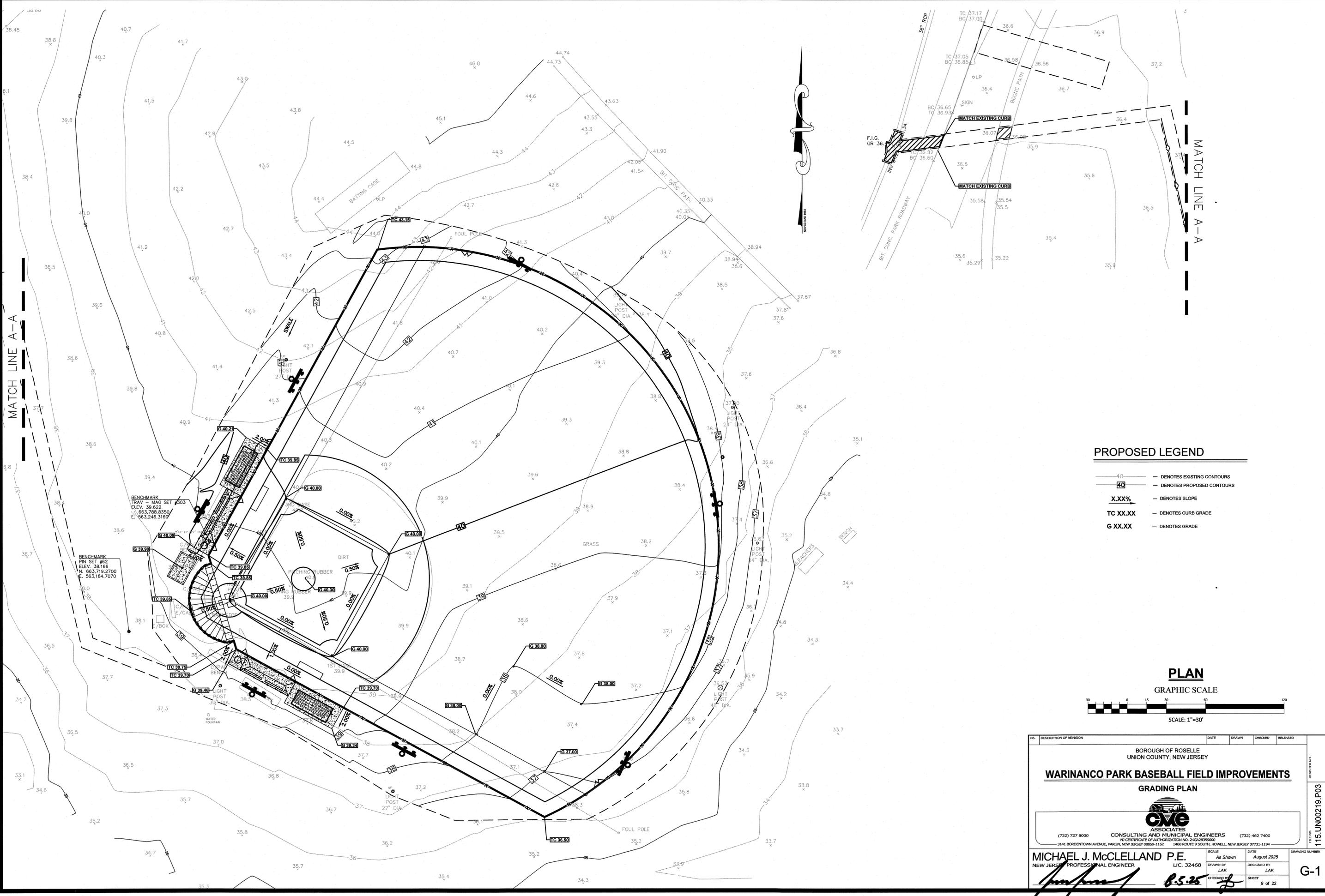
**WARINANCO PARK BASEBALL FIELD IMPROVEMENTS**

LAYOUT PLAN

**CME ASSOCIATES**  
CONSULTING AND MUNICIPAL ENGINEERS  
10 CERTIFICATE OF AUTHORIZATION NO. 346A38359000  
3141 BORDENTOWN AVENUE, PARLIN, NEW JERSEY 08859-1162 1460 ROUTE 9 SOUTH, HOWELL, NEW JERSEY 07731-1194 (732) 727-8000 (732) 462-7400

<b>MICHAEL J. McCLELLAND P.E.</b> NEW JERSEY PROFESSIONAL ENGINEER LIC. 32468		SCALE As Shown	DATE August 2025	DRAWING NUMBER L-1
DRAWN BY LAK		CHECKED BY LAK	SHEET 8 of 22	

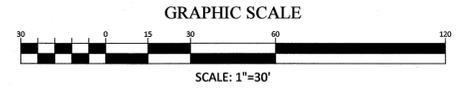
DATE: 8.25



**PROPOSED LEGEND**

- DENOTES EXISTING CONTOURS
- DENOTES PROPOSED CONTOURS
- DENOTES SLOPE
- DENOTES CURB GRADE
- DENOTES GRADE

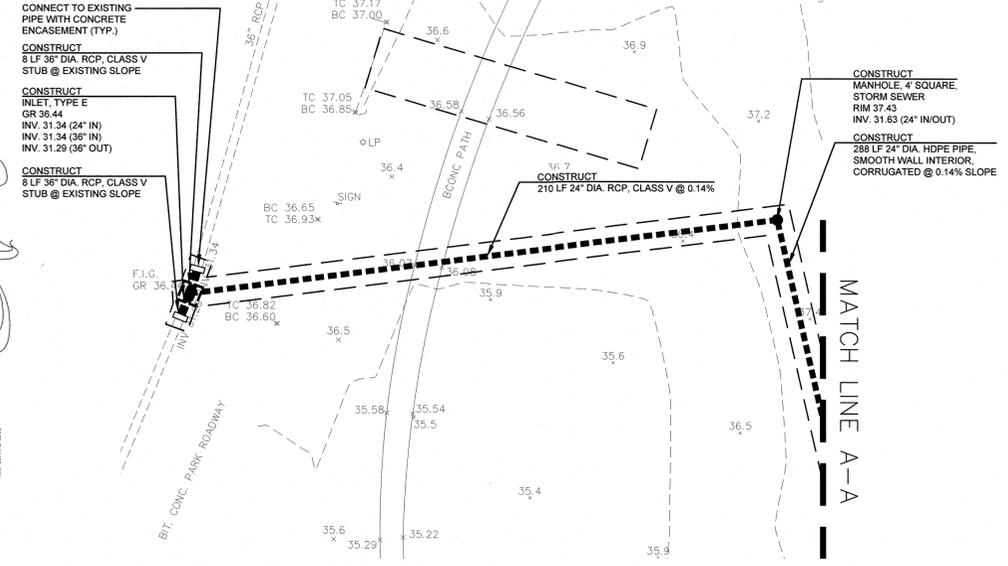
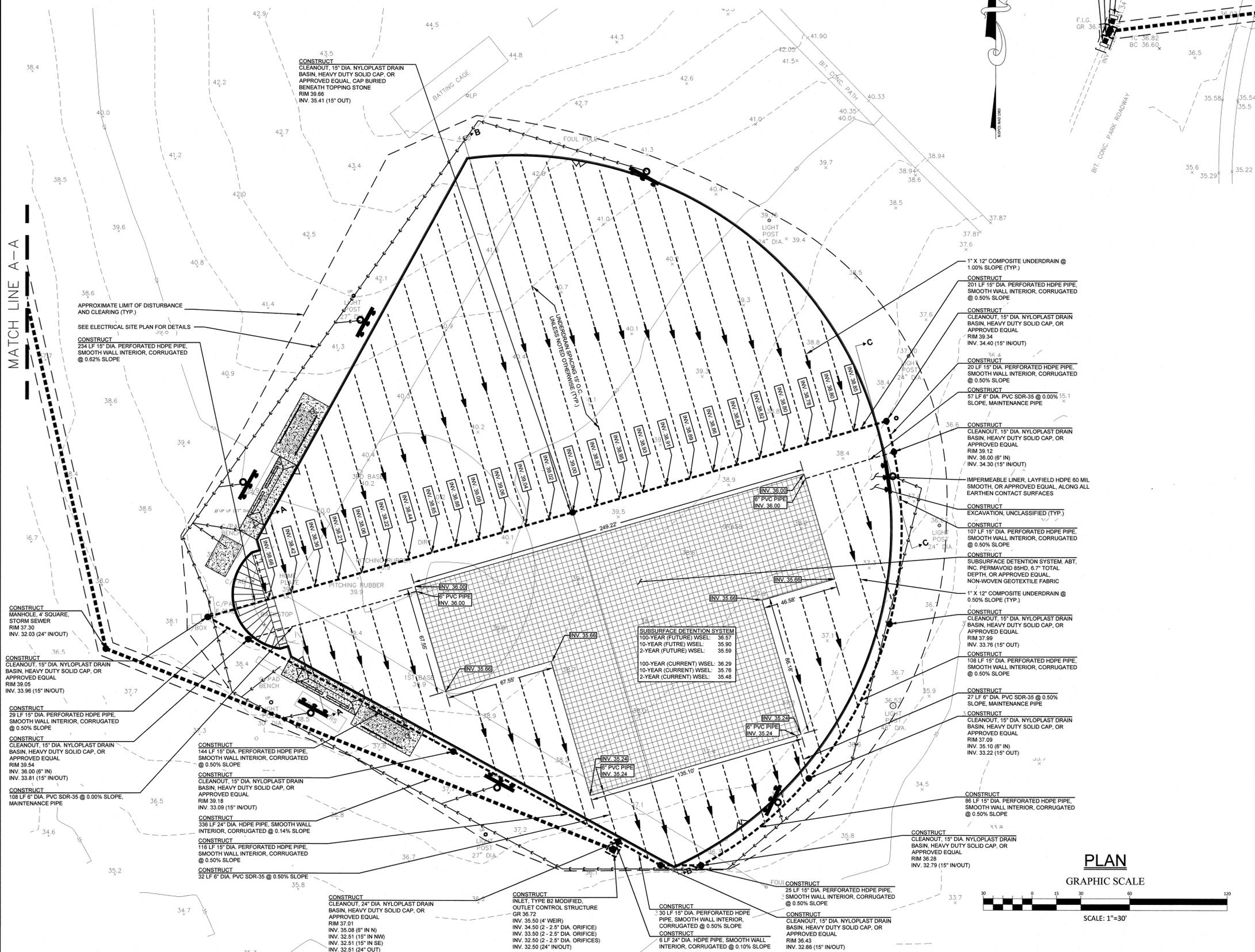
**PLAN**



No.	DESCRIPTION OF REVISION	DATE	DRAWN	CHECKED	RELEASED
BOROUGH OF ROSELLE UNION COUNTY, NEW JERSEY <b>WARINANCO PARK BASEBALL FIELD IMPROVEMENTS</b> <b>GRADING PLAN</b>					
 <b>CME ASSOCIATES</b> CONSULTING AND MUNICIPAL ENGINEERS <small>(732) 727 8000      3141 BORDERTOWN AVENUE, PARLIN, NEW JERSEY 08859-1142      3460 ROUTE 9 SOUTH, HOWELL, NEW JERSEY 07731-1194      (732) 462 7400</small>					
<b>MICHAEL J. McCLELLAND P.E.</b> <small>NEW JERSEY PROFESSIONAL ENGINEER</small>		<small>SCALE</small> As Shown		<small>DATE</small> August 2025	
		<small>DRAWN BY</small> LAK		<small>DESIGNED BY</small> LAK	
<small>REGISTRATION NO.</small> <b>115.U00219.P03</b>		<small>CHECKED BY</small> 		<small>SHEET</small> 9 of 22	
<b>G-1</b>					

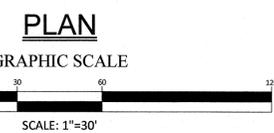
**CONSTRUCT**

- 5898 CY Excavation, unclassified
- 577 CY Dense graded aggregate for pipe trench
- 5242 CY Coarse aggregate, NDOT No. 57 stone, storage course, clean and washed
- 210 LF 24" dia. reinforced concrete pipe, class V
- 16 LF 36" dia. reinforced concrete pipe, class V
- 630 LF 24" dia. high density polyethylene pipe, smooth wall interior, corrugated
- 224 LF 6" dia. PVC SDR-35, storm sewer
- 1100 LF 15" dia. perforated high density polyethylene pipe, smooth wall interior, corrugated
- 10 UN Cleanout, 15" dia., storm sewer
- 1 UN Cleanout, 24" dia., storm sewer
- 2 UN Manhole, 4' square, storm sewer
- 1 UN Inlet, Type E
- 1 UN Inlet, Type B2 Modified, outlet control structure
- 1 LS Subsurface detention system, ABT, Inc. Permavoid 85HD, or approved equal
- 4 CY Miscellaneous concrete, class B



- EXISTING LEGEND:**
- DENOTES EXISTING MANHOLE
  - DENOTES EXISTING INLET
  - DENOTES EXISTING HYDRANT
  - DENOTES EXISTING SANITARY SEWER
  - DENOTES EXISTING STORM SEWER
  - DENOTES EXISTING MAILBOX
  - DENOTES EXISTING WATER VALVE
  - DENOTES EXISTING GAS VALVE
  - DENOTES EXISTING WATER MAIN
  - DENOTES EXISTING GAS MAIN
  - DENOTES EXISTING UNDERGROUND VERIZON
  - DENOTES EXISTING UNDERGROUND CABLEVISION
  - DENOTES EXISTING UNDERGROUND PSEG&ELEC.
  - DENOTES EXISTING TREE
  - DENOTES EXISTING FENCE
  - DENOTES EXISTING UTILITY POLE
  - DENOTES EXISTING GRADE
  - DENOTES EXISTING SIGN
  - DENOTES EXISTING RIGHT OF WAY
  - DENOTES EXISTING EASEMENT

- PROPOSED LEGEND:**
- DENOTES PROPOSED MANHOLE
  - DENOTES RECONSTRUCT MANHOLE
  - DENOTES PROPOSED INLET
  - DENOTES RECONSTRUCT INLET
  - DENOTES RESET INLET
  - DENOTES INLET SILTATION PROTECTION
  - DENOTES DIRECTION OF FLOW
  - DENOTES PROPOSED VALLEY GUTTER
  - DENOTES PROPOSED STORM SEWER
  - DENOTES PROPOSED SANITARY SEWER
  - DENOTES PROPOSED HANDHOLE
  - DENOTES REINFORCED CONCRETE DRIVEWAY RESTORATION AND 4" DGA BASE
  - DENOTES HOT MIX ASPHALT DRIVEWAY RESTORATION, AND 4" DGA BASE
  - DENOTES AGGREGATE DRIVEWAY RESTORATION
  - DENOTES PAVER DRIVEWAY OR WALKWAY RESTORATION
  - DENOTES AREA TO BE MILLED, EXISTING CRACK TO BE CLEANED AND SEALED, AND GEO COMPOSITE MATERIAL TO BE INSTALLED
  - DENOTES PROPOSED CONCRETE SIDEWALK AND DRIVEWAY APRON
  - DENOTES RESET MANHOLE
  - DENOTES AREA TO BE EXCAVATED AND RECEIVE 2" HMA SURFACE COURSE 9.5M64, 6" HMA BASE COURSE 19M64 AND 6" DGA BASE COURSE
  - DENOTES AREA TO BE MILLED AND RECEIVE MIN. 2" HMA SURFACE AND LEVELER COURSE, 9.5M64
  - DENOTES PROPOSED ROADWAY TRENCH REPAIR
  - DENOTES PROPOSED GRADE
  - DENOTES EXISTING TREE / SHRUB TO BE REMOVED
  - DENOTES PROPOSED CURB
  - DENOTES PROPOSED DETECTABLE WARNING SURFACE
  - DENOTES REMOVAL OF PAVEMENT UP TO 14" DEEP
  - DENOTES PROPOSED HYDRANT
  - DENOTES PROPOSED WATER MAIN
  - DENOTES PROPOSED WATER MAIN THRUST BLOCK
  - DENOTES CURB RAMP DETAIL REFERENCE
  - DENOTES DRIVEWAY RESTORATION
  - DENOTES WATER MAIN THRUST BLOCK
  - DENOTES CURB RAMP DETAIL REFERENCE
  - DENOTES DRIVEWAY RESTORATION



1. REVISED FOR BID NO. DESCRIPTION OF REVISION DATE DRAWN CHECKED REVISION	09/11/25 AMM SCB (732) 727 8000 CONSULTING AND MUNICIPAL ENGINEERS (732) 462 7400 NO CERTIFICATE OF AUTHORIZATION NO. 246282359000 1460 ROUTE 9 SOUTH, HOWELL, NEW JERSEY 07731-1194
BOROUGH OF ROSELLE UNION COUNTY, NEW JERSEY <b>WARINANCO PARK BASEBALL FIELD IMPROVEMENTS</b> DRAINAGE PLAN	
<b>MICHAEL J. McCLELLAND P.E.</b> NEW JERSEY PROFESSIONAL ENGINEER L.I.C. 32468 DATE: 8.5.25	
SCALE: As Shown DRAWN BY: JPB DESIGNED BY: SCB/JPB CHECKED BY: SCB SHEET: 10 of 22	
DRAWING NUMBER: 115_UN00219_P03 DR-1	

CONSTRUCT  
INLET, TYPE B2 MODIFIED,  
OUTLET CONTROL STRUCTURE  
RIM 36.72  
INV. 35.50 (4' WEIR)  
INV. 34.50 (2 - 2.5' ORIFICE)  
INV. 33.50 (2 - 2.5' ORIFICE)  
INV. 32.50 (2 - 2.5' ORIFICES)  
INV. 32.50 (24" IN/OUT)

CONSTRUCT  
CLEANOUT, 24" DIA., STORM SEWER,  
DRAIN BASIN, HEAVY DUTY SOLID CAP,  
OR APPROVED EQUAL  
RIM 37.01  
INV. 35.08 (6" IN N)  
INV. 32.51 (15" IN NW)  
INV. 32.51 (15" IN SE)  
INV. 32.51 (24" OUT)

CONSTRUCT  
MANHOLE, 4' SQUARE,  
STORM SEWER  
RIM 37.43  
INV. 31.63 (24" IN/OUT)

CONSTRUCT  
288 LF 24" DIA. HDPE  
PIPE, SMOOTH WALL  
INTERIOR,  
CORRUGATED @ 0.14%  
SLOPE

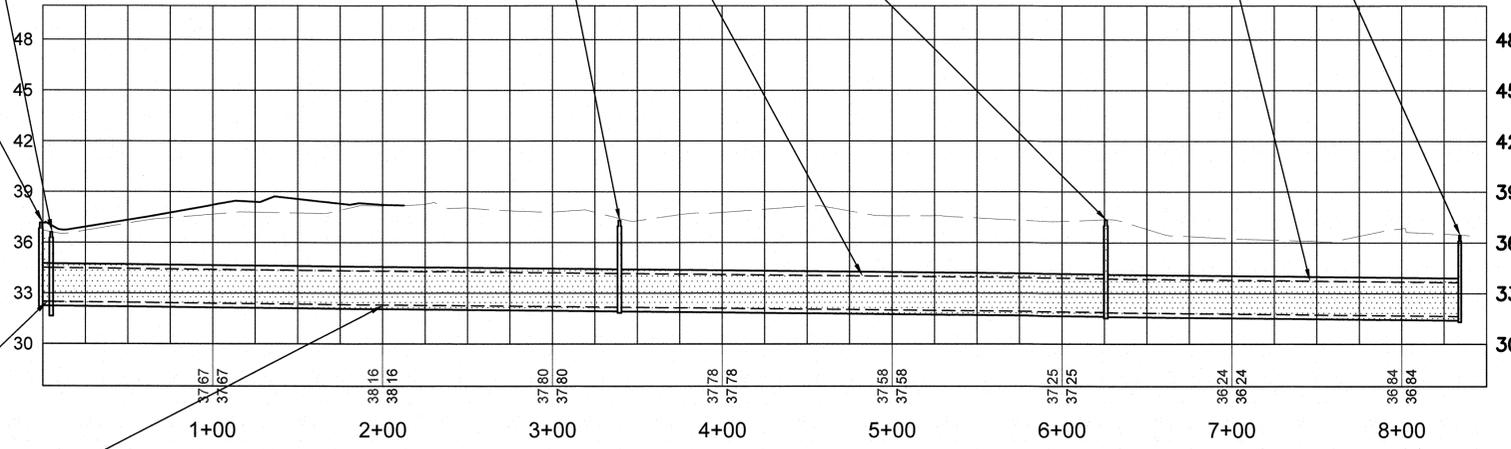
CONSTRUCT  
MANHOLE, 4' SQUARE,  
STORM SEWER  
RIM 37.30  
INV. 32.03 (24" IN/OUT)

CONSTRUCT  
INLET, TYPE E  
GR 36.44  
INV. 31.34 (24" IN)  
INV. 31.34 (36" IN)  
INV. 31.29 (36" OUT)

CONSTRUCT  
210 LF 24" DIA. RCP, CLASS V @  
0.14% SLOPE

CONSTRUCT  
6 LF 24" DIA. HDPE PIPE,  
SMOOTH WALL INTERIOR,  
CORRUGATED @ 0.10% SLOPE

CONSTRUCT  
336 LF 24" DIA. HDPE PIPE,  
SMOOTH WALL INTERIOR,  
CORRUGATED @ 0.14% SLOPE



### PROFILE A

SCALE: 1"=50' (HORZ.)  
1"=5' (VERT.)

1	REVISED FOR BID	09/11/25	AMM	SCB	ASB
DESCRIPTION OF REVISION		DATE	DRAWN	CHECKED	DESIGNED

BOROUGH OF ROSELLE  
UNION COUNTY, NEW JERSEY

**WARINANCO PARK BASEBALL FIELD IMPROVEMENTS**  
STORM SEWER PROFILES



ASSOCIATES  
**OVE**  
CONSULTING AND MUNICIPAL ENGINEERS

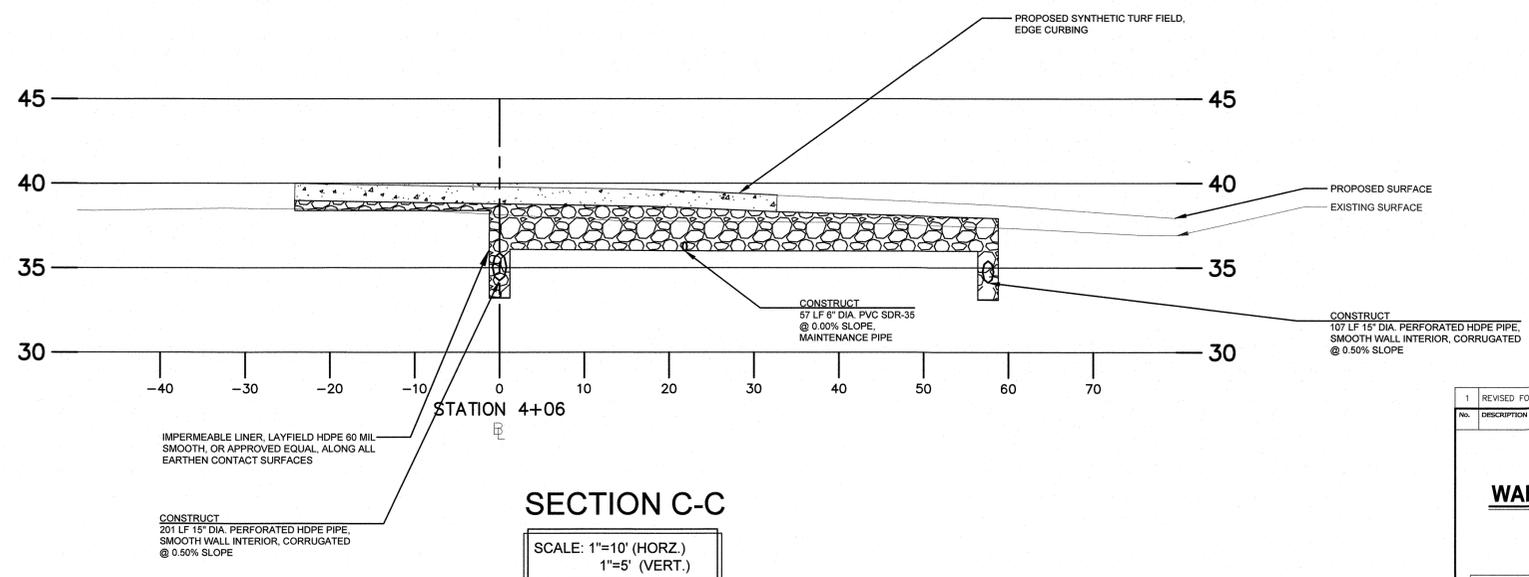
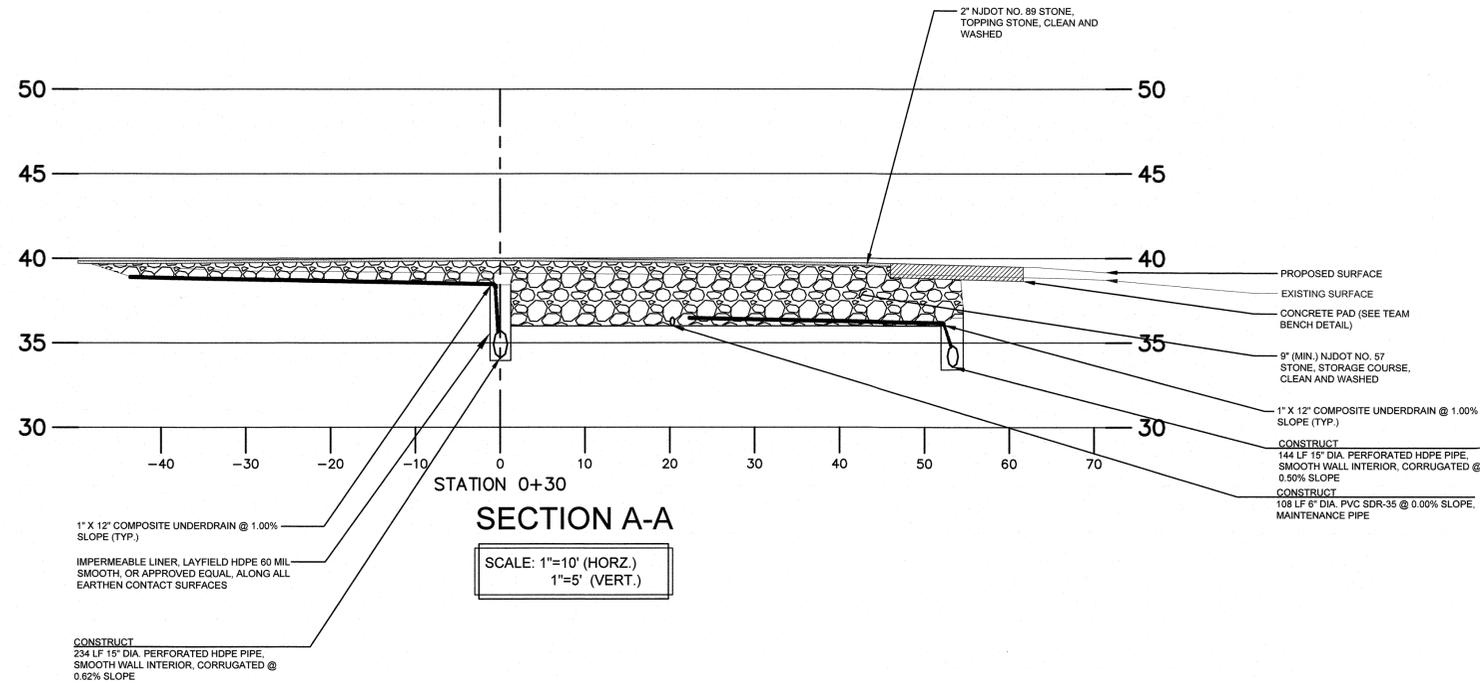
(732) 727 8000 3141 BORDENTOWN AVENUE, PARLIN, NEW JERSEY 08859-1162 (732) 462 7400 1460 ROUTE 9 SOUTH, HOWELL, NEW JERSEY 07731-1194

**MICHAEL J. McCLELLAND P.E.**  
NEW JERSEY PROFESSIONAL ENGINEER  
L.C. 32468

SCALE	As Shown	DATE	August 2025
DRAWN BY	AMM	DESIGNED BY	JPB
CHECKED BY	SCB	SHEET	11 of 22

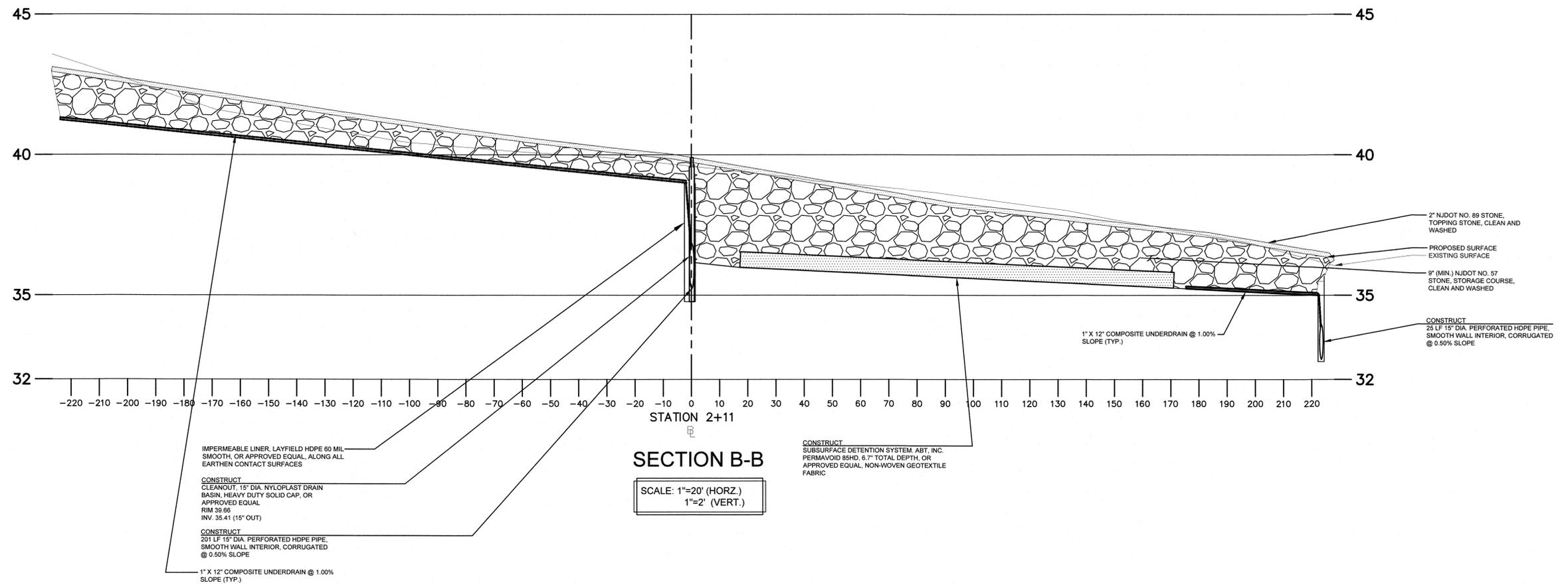
DRAWING NUMBER  
**SP-1**

REGISTERED NO.  
115.UN00219.P03



1	REVISED FOR BID	09/11/25	AMM	SCB	REL
No.	DESCRIPTION OF REVISION	DATE	DRAWN	CHECKED	RELEASED
BOROUGH OF ROSELLE UNION COUNTY, NEW JERSEY <b>WARINANCO PARK BASEBALL FIELD IMPROVEMENTS</b> CROSS SECTIONS (1 OF 2)					
 (732) 727 8000    CONSULTING AND MUNICIPAL ENGINEERS    (732) 462 7400 <small>NY CERTIFICATE OF AUTHORIZATION NO. 246A20359000</small> <small>3141 BORDENTOWN AVENUE, PARLIN, NEW JERSEY 08859-1162    1460 ROUTE 9 SOUTH, HOWELL, NEW JERSEY 07731-1194</small>					
<b>MICHAEL J. McCLELLAND P.E.</b> NEW JERSEY PROFESSIONAL ENGINEER		SCALE As Shown	DATE August 2025	DRAWING NUMBER <b>CS-1</b>	
L.I.C. 32468		DRAWN BY AMM	DESIGNED BY JPB	CHECKED BY SCB	SHEET 12 of 22
DATE <b>8.5.25</b>					

FILE NO. 115.UN00219.P03



1	REVISED FOR BID	09/11/25	AMM	SCB	REB
No.	DESCRIPTION OF REVISION	DATE	DRAWN	CHECKED	REBID
BOROUGH OF ROSELLE UNION COUNTY, NEW JERSEY <b>WARINANCO PARK BASEBALL FIELD IMPROVEMENTS</b> CROSS SECTIONS (2 OF 2)					
 ASSOCIATES CONSULTING AND MUNICIPAL ENGINEERS <small>(732) 727 8000 3141 BORDENTOWN AVENUE, PARLIN, NEW JERSEY 08859-1162</small> <small>(732) 462 7400 1460 ROUTE 9 SOUTH, HOWELL, NEW JERSEY 07731-1194</small>					
<b>MICHAEL J. McCLELLAND P.E.</b> NEW JERSEY PROFESSIONAL ENGINEER 		L.C. 32468 DATE 8.5.25		SCALE As Shown DATE August 2025 DRAWN BY AMM DESIGNED BY JPB CHECKED BY SCB SHEET 12A of 22	
					FILE NO. 1.15.UN00219.P03 DRAWING NUMBER CS-2

**ELECTRICAL GENERAL NOTES:**

- INSTALL ALL WORK IN ACCORDANCE WITH THE CURRENT NATIONAL ELECTRIC CODE AND ALL APPLICABLE STATE AND LOCAL CODES, WHERE THE PROJECT DRAWINGS AND/OR SPECIFICATIONS DIFFER FROM THE GOVERNING CODE THE MORE STRINGENT REQUIREMENTS WILL GOVERN THE INSTALLATION.
- CONTRACTOR SHALL PAY FOR ALL REQUIRED PERMITS AND LICENSES REQUIRED UNDER THIS CONTRACT.
- THE CONTRACTOR SHALL VISIT AND INSPECT THE PREMISES IN ORDER TO BE FAMILIAR WITH THE EXISTING SITE CONDITIONS WHICH MAY AFFECT THE INSTALLATION OF THE WORK SHOWN ON THE PROJECT DRAWINGS. NO ADDITIONAL COMPENSATION SHALL BE GRANTED FOR THE CONTRACTOR'S FAILURE TO VISIT AND INSPECT THE SITE.
- THE ELECTRICAL CONTRACTOR SHALL FURNISH AND INSTALL ALL WORK AS SHOWN ON THE PROJECT DRAWINGS AND SPECIFICATIONS WITH THE FOLLOWING UNDERSTANDINGS:
  - THE PROJECT DRAWINGS ARE ONLY DIAGRAMMATIC IN NATURE AND ARE INTENDED TO OUTLINE THE BASIC SYSTEMS TO BE PROVIDED. THEREFORE MINOR DETAILS AND APPURTENANCES MAY OR MAY NOT BE SHOWN. THE OMISSION OF A MINOR COMPONENT SHALL NOT RELIEVE THE CONTRACTOR OF THEIR RESPONSIBILITY TO FURNISH AND INSTALL ALL SUCH ITEMS NECESSARY TO PROVIDE A COMPLETE, OPERATIVE, AND CODE COMPLIANT SYSTEM TO THE OWNER. IF THERE ARE ANY DOUBTS TO THE EXTENT OR SCOPE OF WORK REQUIRED THE ENGINEER SHALL BE CONTACTED TO PROVIDE CLARIFICATION DURING THE BID PHASE.
  - THE PROJECT DRAWINGS SHOW INTENDED EQUIPMENT LOCATIONS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY MINOR ADJUSTMENTS OR RELOCATIONS NECESSARY DUE TO THE CHOICE OF EQUIPMENT AND COORDINATION CONFLICTS. ALL EQUIPMENT RELOCATIONS MUST BE APPROVED BY THE OWNER OR ENGINEER.
  - ALL SPORTS AND PATHWAY LIGHTING FACILITIES SHALL BE PURCHASED BY THE TOWNSHIP UNDER STATE CONTRACT AND INSTALLED BY MUSCO SPORTS LIGHTING, LLC AND THEIR SUBCONTRACTOR(S).
- WORK UNDER THIS CONTRACT INCLUDES THE FURNISHING OF EQUIPMENT, MATERIAL, TOOLS, TRANSPORTATION, SERVICES, SCAFFOLDING, SUPERVISION, LABOR AND OTHER APPURTENANCES REQUIRED FOR THE FABRICATION, INSTALLATION, OR APPLICATION AND COMPLETION OF THE WORK UNDER THIS SECTION AS SHOWN OR IMPLIED ON THE PROJECT DRAWINGS AND SPECIFICATIONS.
- ELECTRICAL CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS, DIMENSIONS, EXISTING UTILITY LOCATIONS, AND ELECTRICAL EQUIPMENT REQUIREMENTS PRIOR TO STARTING WORK.
- CONTRACTOR TO SUBMIT OUTSHEETS AND CALCULATIONS WHERE APPLICABLE FOR ANY EQUIPMENT OR DEVICES THAT DIFFER FROM THOSE SPECIFIED ON THE PROJECT DRAWINGS OR SPECIFICATIONS PRIOR TO THE START OF WORK.
- COORDINATE ALL WORK WITH THAT OF OTHER TRADES AFFECTING, OR EFFECTED BY, WORK OF THIS SECTION. COOPERATE WITH SUCH TRADES TO ASSURE THE STEADY PROGRESS OF ALL WORK UNDER THIS CONTRACT.
- ARRANGE ALL WORK TO PROCEED AS RAPIDLY AS POSSIBLE IN COOPERATION WITH OTHER TRADES. COOPERATE WITH OTHER TRADES TO HAVE ALL WORK RACEWAY, WIRING, ETC TO THE BEST ADVANTAGE.
- ALL EQUIPMENT, MATERIALS, INSTALLATIONS AND CONSTRUCTION ACTIVITIES SHALL COMPLY WITH ALL REQUIREMENTS OF THE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION WHEREVER THEY APPLY.
- CONTRACTOR SHALL BE RESPONSIBLE FOR PLANNING HIS OWN WORK AND FOR ANY DAMAGE CAUSED TO THE OWNER OR OTHER CONTRACTORS BY IMPROPER WORK EXECUTION OR PLACEMENT OF RACEWAYS, WIRING, AND EQUIPMENT.
- PROVIDE TEMPORARY LIGHTING AND POWER DURING CONSTRUCTION AS REQUIRED.
- MAINTAIN ELECTRIC SERVICE CONTINUITY TO ALL EQUIPMENT OUTSIDE OF CONSTRUCTION AREA. NOTIFY OWNER IN WRITING 48 HOURS IN ADVANCE OF ANTICIPATED UTILITY OUTAGES. OBTAIN WRITTEN PERMISSION TO CONDUCT ALL WORK REQUIRING AN OUTAGE.
- CONDUIT RUNS ARE DIAGRAMMATIC AND EQUIPMENT LOCATIONS ARE APPROXIMATE. ELECTRICAL CONTRACTOR IS TO ROUTE CONDUIT AND TO VERIFY EXISTING CONDITIONS IN THE FIELD.
- ALL CIRCUITS SHALL BE RUN IN RGS WHERE EXPOSED OR IN FRAMED PARTITIONS FROM THE PANEL BOARD TO DISCONNECT OR CONTROLLER, UNLESS OTHERWISE NOTED.
- ALL CONDUIT TERMINATING AT MOTORS, SOLENOID VALVES, VIBRATING DEVICES, DUCT AND PIPE MOUNTED SWITCHES AND DEVICES SHALL TERMINATE IN FLEXIBLE METAL CONDUIT FOR INDOOR EQUIPMENT OR LIQUID-TIGHT FLEXIBLE METAL CONDUIT FOR OUTDOOR EQUIPMENT OR IN DAMP OR WET LOCATIONS.
- ALL BRANCH CIRCUITS SHALL BE IN CONDUIT.
- ALL WIRING TO BE COPPER WITH 90V INSULATION. ALL WIRING TO #4 AND SMALLER SHALL BE TYPE THHN/THWN. ALL WIRING LARGER THAN #4 SHALL BE XHHW. ALL WIRING UNDERGROUND TO BE TYPE XHHW-2, UNLESS OTHERWISE NOTED.
- ALL POWER WIRING TO BE MINIMUM #12 AWG SIZE. ALL CONTROL WIRING TO BE #14 AWG UNLESS OTHERWISE NOTED.
- ALL CONDUIT TO BE 3/4" MINIMUM SIZE UNLESS OTHERWISE NOTED.
- WIRE ALL 20A CIRCUITS USING #12 AWG, ALL 30A CIRCUITS USING #10 AWG UNLESS OTHERWISE NOTED. #12 AWG SHALL BE MINIMUM POWER WIRE SIZE.
- SIZE BRANCH CIRCUITS, PANEL HOME RUNS, AND DEVICE CIRCUITING PER NEC 310-15. WHERE SINGLE PHASE 20A AND 30A BRANCH CIRCUITS EXCEED 100 FEET IN LENGTH INCREASE CONDUCTOR SIZE ONE SIZE FOR EVERY ADDITIONAL 100 FEET OF CONDUCTOR LENGTH UNLESS THE CONDUCTOR HAS ALREADY BEEN INCREASED DUE TO CONDUIT FILL DEGRADING. SUBMIT VOLTAGE DROP CALCULATIONS TO THE ENGINEER FOR APPROVAL.
- ALL BRANCH CIRCUITS ARE TO CONTAIN A GREEN COLORED EQUIPMENT GROUNDING CONDUCTOR SIZED PER NEC TABLE 250.95.
- GROUNDING AND BONDING OF ALL NON CURRENT CARRY METALLIC PARTS OF ALL ELECTRICAL EQUIPMENT AND ENCLOSURES INCLUDING CONDUITS, SUPPORTS, CONTROLLERS, RACEWAYS, TRANSFORMERS, ELECTRICAL PANELS, MOTOR FRAMES, ETC. INSTALLED OR CONNECTED UNDER THIS CONTRACT SHALL BE PROPERLY CONNECTED TO THE GROUNDING SYSTEM, REGARDLESS OF WHETHER OR NOT THE CONNECTIONS ARE SHOWN ON THE PROJECT DRAWINGS.
- ALL CIRCUITS SHALL NOT SHARE NEUTRALS UNLESS SHOWN OTHERWISE ON THE PROJECT DRAWINGS. EACH CIRCUIT SHALL BE ROUTED WITH ITS OWN DEDICATED NEUTRAL FROM OVER CURRENT PROTECTION DEVICE TO POINT OF CONNECTION AT EQUIPMENT.
- ALL ISOLATED GROUND CIRCUITS SHALL HAVE A DEDICATED #12 AWG CONDUCTOR INSTALLED IN ADDITION TO THE SAFETY GROUND CONDUCTOR.
- PROVIDE INSULATING BUSHINGS FOR CONDUCTOR PROTECTION AT CONDUIT TERMINATIONS.
- SEAL ALL FLOOR AND WALL PENETRATIONS TO MAINTAIN FIRE RATING OF WALL OR FLOOR. CONSULT SPECIFIED TECHNOLOGIES INC. PRODUCT AND APPLICATION GUIDE (OR EQUIVALENT) TO DETERMINE THE APPROPRIATE FIRE STOP SYSTEM TO BE UTILIZED FOR A GIVEN PENETRATION TYPE. PROVIDE PRODUCTS AND SEAL PENETRATION PER THE MANUFACTURER'S INSTRUCTIONS IN ORDER TO MAINTAIN THE LISTINGS OF THE SEALED PENETRATION. PROVIDE ALL NECESSARY DOCUMENTATION TO THE AUTHORITY HAVING JURISDICTION.
- BEFORE ENERGIZING OR STARTING ANY DEVICE OR PIECE OF EQUIPMENT VERIFY THAT IT HAS BEEN INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS. ADHERE TO ALL MANUFACTURER'S GUIDELINES AND START-UP REQUIREMENTS.
- ALL DISCONNECT SWITCHES, STARTERS, OPERATORS, AND ENCLOSURES SHALL BE UL LISTED AND/OR FACTORY MUTUAL (FM) APPROVED.
- LOCATE ELECTRICAL EQUIPMENT IN THE FIELD AS SPACE LIMITATIONS AND CONDITIONS PERMIT IN ORDER TO SATISFY MINIMUM WORKING SPACE OF NEC 110-26.
- PROVIDE MOUNTING FRAMES AND STRUCTURAL SUPPORT FROM PLATFORMS, FLOORS, AND CEILING STEEL AS REQUIRED FOR ELECTRICAL EQUIPMENT. STRUCTURAL SUPPORT SHALL BE CONSTRUCTED TO MAINTAIN A SAFETY FACTOR OF 4 WITH A 200 LB MINIMUM.
- LABEL ALL NEW ELECTRICAL EQUIPMENT AND PANELS WITH MINIMUM 1/2" LETTERS USING THERMAL TRANSFER LABEL SYSTEM. PROVIDE TYPE WRITTEN PANEL SCHEDULES FOR ALL PANEL BOARDS.
- CONTRACTOR TO FOLLOW ALL OWNER SITE AND SAFETY RULES. CONTRACTOR IS RESPONSIBLE FOR DAILY SITE CLEANING FOR THEIR ACTIVITIES. BROOM CLEAN DAILY AND REMOVE ALL CONSTRUCTION DEBRIS FROM THE BUILDING AND GROUNDS DAILY.
- CONTRACTOR SHALL CONDUCT A TEST OF THE EMERGENCY AND EGRESS LIGHTING WHEN REQUIRED BY THE UNION COUNTY.
- UPON COMPLETION PROVIDE AN ACCURATE "MARKED-UP" SET OF PROJECT DRAWINGS REFLECTING ALL FIELD CHANGES TO THE ENGINEER.
- ALL TRANSFORMER WINDINGS, PANEL BUSSES AND ALL CURRENT CARRYING COMPONENTS TO BE COPPER.
- ALL PANELS TO HAVE A MINIMUM SHORT CIRCUIT INTERRUPTING RATING OF 22,000 AAC UNLESS OTHERWISE NOTED.
- ALL UNDERGROUND CONDUIT TO BE PVC SCHEDULE 40 WITH EXPANSION COUPLINGS EVERY 100 FT, UNLESS OTHERWISE NOTED. CONTRACTOR SHALL PROVIDE PULL-IN LINE, TO BE PLACED IN CONDUIT DURING CONSTRUCTION.
- PROVIDE DISCONNECTS FOR ALL EQUIPMENT REQUIRED BY THE CURRENT EDITION OF THE NATIONAL ELECTRIC CODE.
- ALL ELECTRICAL DEVICES SHOWN, INCLUDING BUT NOT LIMITED TO, PANELBOARDS, CONDUITS AND HANDHOLES ARE SHOWN DIAGRAMMATICALLY FOR CLARITY.
- PREPARE SUBMITTALS FOR REVIEW BY ENGINEER. THE FOLLOWING LISTED ITEMS INDICATES THE MINIMUM REQUIRED SUBMITTALS:
  - RACEWAYS, CONNECTORS AND ACCESSORIES
  - CABLE, CONNECTORS, AND ACCESSORIES
  - SUPPORTING DEVICES, CONNECTORS, AND ACCESSORIES
  - GROUNDING AND BONDING, CONNECTORS, AND ACCESSORIES
  - PANELBOARDS
  - LIGHTING FIXTURES AND CONTROLS
  - WIRED DEVICES (E.G. RECEPTACLES, SWITCHES, BOXES, ETC.)
  - SHORT CIRCUIT STUDY AND ANALYSIS
  - REQUIRED TESTING SHEETS AND FACTORY WITNESS SHEETS
  - ADDITIONAL SUBMITTALS AS REQUIRED PER SPECIFICATIONS.

**ONE LINE LEGEND:**

- EXISTING EQUIPMENT, CONDUIT, & CONDUCTORS TO REMAIN.
- ////// EXISTING EQUIPMENT, CONDUIT, & CONDUCTORS TO BE REMOVED.
- NEW EQUIPMENT, CONDUIT & CONDUCTORS TO BE INSTALLED.

**INDEX OF ELECTRICAL DRAWINGS**

SHEET NO.	DWG NO.	DESCRIPTION
13 OF 22	E-01	ELECTRICAL NOTES, ABBREVIATIONS, AND SYMBOLS
14 OF 22	E-02	ELECTRICAL DEMOLITION SITE PLAN
15 OF 22	E-03	ELECTRICAL SINGLE LINE DIAGRAM AND PANEL SCHEDULE
16 OF 22	E-04	ELECTRICAL SITE PLAN
17 OF 22	E-05	ELECTRICAL DETAILS

**ABBREVIATIONS:**

- A / AMP AMPERAGE
- AC ALTERNATING CURRENT
- C CONDUIT
- CAB CABINET
- CB CIRCUIT BREAKER
- CKT(S) CIRCUIT(S)
- CP CONTROL PANEL
- D.S. DISCONNECT SWITCH
- DWG(S) DRAWING(S)
- ELEC ELECTRIC / ELECTRICAL
- GFCI GROUND FAULT CIRCUIT INTERRUPTER
- G / GND GROUND
- J / JB JUNCTION BOX
- KVA KILOVOLT-AMP
- KW KILOWATT
- N NEUTRAL
- NEMA NATIONAL ELECTRICAL MANUFACTURER ASSOCIATION
- N.T.S. NOT TO SCALE
- OHM OHMS
- P POLE(S)
- PH PHASE
- PNL PANEL / PANELBOARD
- RGS RIGID GALVANIZED STEEL SPECIFICATIONS
- S SITE LIGHT
- R TWIST LOCK CONNECTOR
- TYP. TYPICAL
- U.O.N. UNLESS OTHERWISE NOTED
- V VOLT
- VA VOLT-AMP
- W WATT
- XFMR TRANSFORMER
- SL SECURITY LIGHT FIXTURE

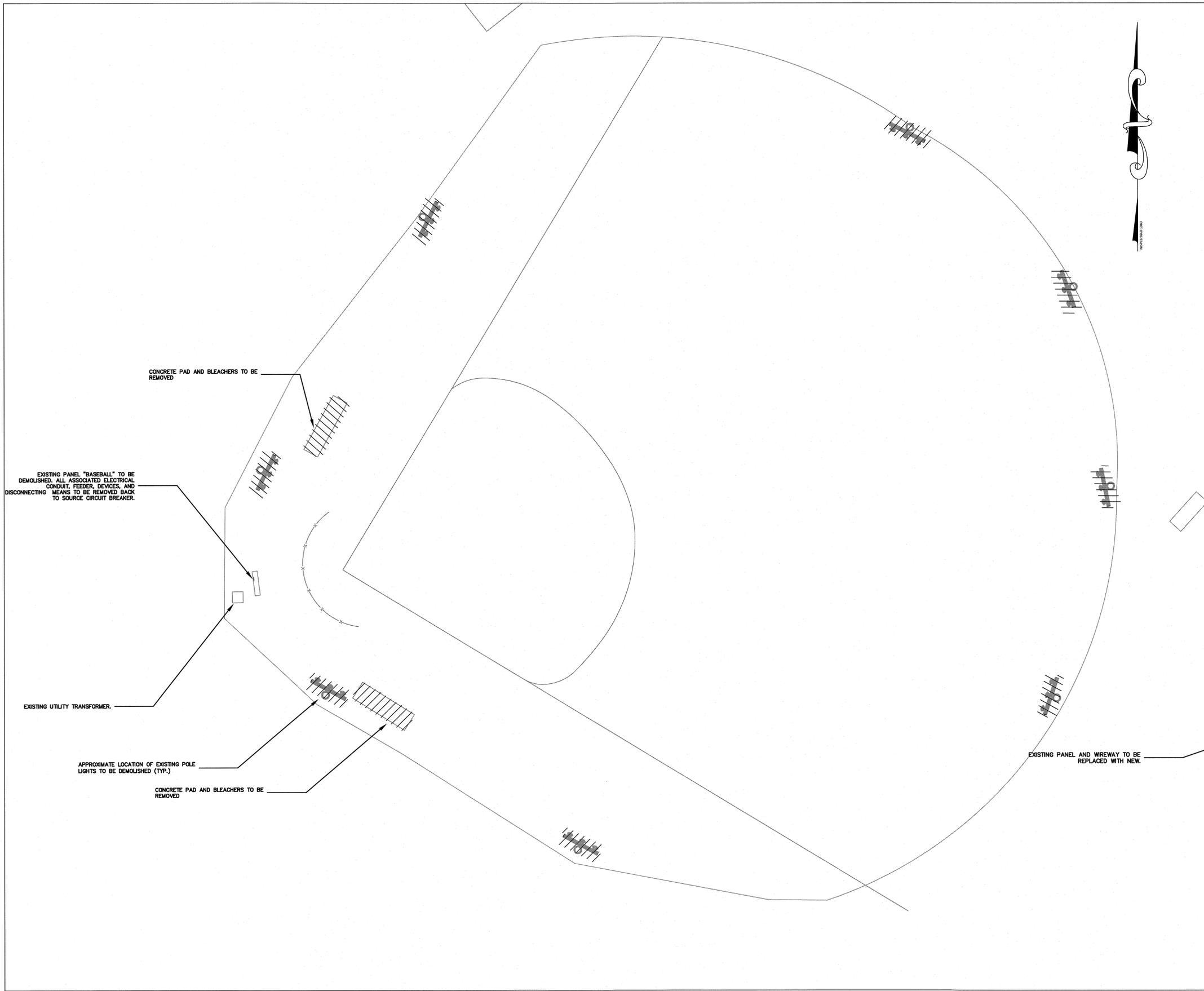
**ELECTRICAL SYMBOL LIST**

SYMBOL	DESCRIPTION
	PANEL BOARD
	CIRCUIT BREAKER
	JUNCTION BOX
	TWIST LOCK RECEPTACLE, 30AMP, 120VOLTS. # = AMP RATING
	LOCKOUT ACTION DUPLEX RECEPTACLE * GFCI-DENOTE GROUND FAULT CIRCUIT INTERRUPTER

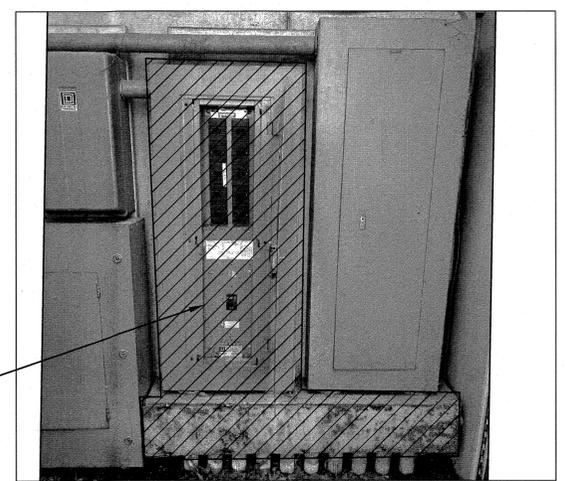
**LUMINAIRE SCHEDULE**

Symbol	POLE ID	Pole Height	Fixture Qty	Fixture mtg Height	Luminary Type	Lumens	Description	WATTS / FIXTURE
	A1,A2	70'	4	70'	TLC-LED-1200	150,000	FIXTURE TYPE SUMMARY: LED 5700K-75CRI	1170W
			1	35'	CREE OSQ	14,743		100W
	B1	80'	1	16'	TLC-BT-575	52,000	FIXTURE TYPE SUMMARY: LED 5700K-75CRI	575W
			2	80'	TLC-LED-1200	150,000		1170W
	B2	80'	3	80'	TLC-LED-1500	181,000	FIXTURE TYPE SUMMARY: LED 5700K-75CRI	1410W
			1	35'	CREE OSQ	14,743		100W
	C1	70'	2	16'	TLC-BT-575	52,000	FIXTURE TYPE SUMMARY: LED 5700K-75CRI	575W
			4	70'	TLC-LED-1200	150,000		1170W
	C2	70'	1	35'	CREE OSQ	14,743	FIXTURE TYPE SUMMARY: LED 5700K-75CRI	100W
			2	16'	TLC-BT-575	52,000		575W
	D1	70'	4	70'	TLC-LED-1200	150,000	FIXTURE TYPE SUMMARY: LED 5700K-75CRI	1170W
			1	35'	CREE OSQ	14,743		100W
			1	16'	TLC-BT-575	52,000		575W

NO.	DESCRIPTION OF REVISION	DATE	DRAWN	CHECKED	RELEASED
BOROUGH OF ROSELLE UNION COUNTY, NEW JERSEY <b>WARINANCO PARK BASEBALL FIELD IMPROVEMENTS</b> ELECTRICAL NOTES, ABBREVIATIONS, AND SYMBOLS					
 CONSULTING AND MUNICIPAL ENGINEERS (732) 727 8000      (732) 462 7400 3141 BORDENTOWN AVENUE, PARLIN, NEW JERSEY 08859-1162      1460 ROUTE 9 SOUTH, HOWELL, NEW JERSEY 07731-1194					
RICHARD S. LAFORTUNE, PE NEW JERSEY PROFESSIONAL ENGINEER L.C. 41600		MICHAEL J. McCLELLAND P.E. NEW JERSEY PROFESSIONAL ENGINEER L.C. 32468		SCALE: As Shown DATE: August 2025 DRAWN BY: YR DESIGNED BY: YR CHECKED BY: RSL SHEET: 13 OF 22	
DRAWING NUMBER: <b>E-01</b> FILE NO.: 115.UN00219.P03					



- NOTES:**
- CONTRACTOR IS RESPONSIBLE TO LOCATE ANY ADDITIONAL UTILITIES UNDERGROUND PRIOR TO COMMENCEMENT OF WORK. CONTRACTOR SHALL HAND DIG TRENCH WHEN CROSSING EXISTING UTILITIES LINES. IT IS CONTRACTOR RESPONSIBILITY FOR ANY REPAIR OR REPLACEMENT OF ANY SYSTEM DAMAGE DURING CONSTRUCTION.
  - CONTRACTOR IS RESPONSIBLE FOR COORDINATION BETWEEN ALL THE TRADES BEFORE COMMENCEMENT ANY EXCAVATION ACTIVITIES.
  - ALL EXISTING LIGHTING POLES ARE DESIGNATED FOR DEMOLITION. EXISTING POLE LOCATIONS ARE SHOWN FOR REFERENCE ONLY. DISCONNECT AND REMOVE ALL LIGHTING POLES. REMOVE WIRING BACK TO THE SOURCE OF SUPPLY AND TURN THE SUPPORTING BREAKER OFF AND LABEL AS A "SPARE".

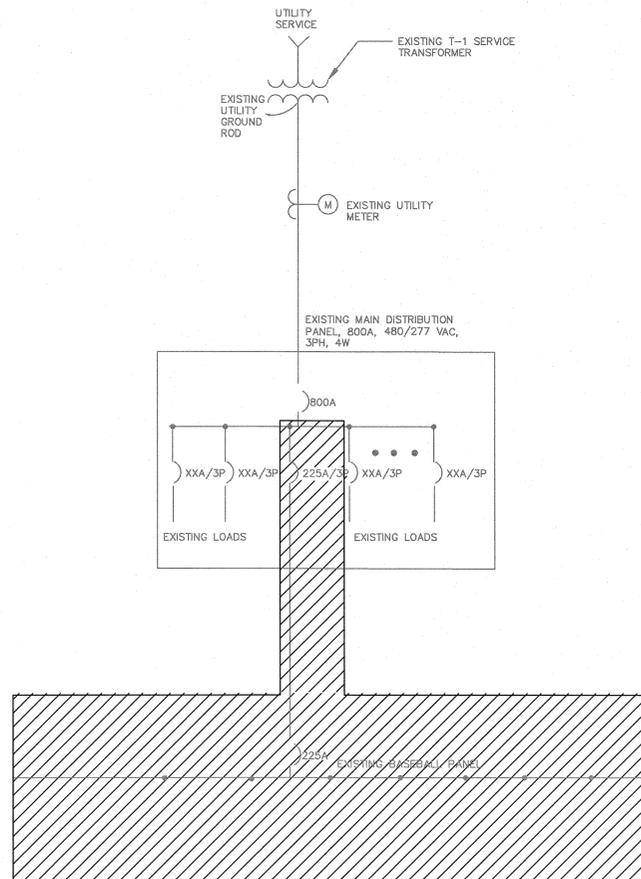


**ELEVATION VIEW**

**ELECTRICAL DEMOLITION PLAN**  
SCALE: 1"=25'

NO.	DESCRIPTION OF REVISION	DATE	DRAWN	CHECKED	RELEASED
BOROUGH OF ROSELLE UNION COUNTY, NEW JERSEY <b>WARINANCO PARK BASEBALL FIELD IMPROVEMENTS</b> ELECTRICAL DEMOLITION SITE PLAN					
 <b>CME ASSOCIATES</b> CONSULTING AND MUNICIPAL ENGINEERS <small>10 CERTIFICATE OF AUTHORIZATION NO. 246428355000</small> <small>3141 BORDENTOWN AVENUE, PARLIN, NEW JERSEY 08859-1162      1460 ROUTE 9 SOUTH, HOWELL, NEW JERSEY 07731-1194</small>					
RICHARD S. LAFORTUNE, PE NEW JERSEY PROFESSIONAL ENGINEER <small>LIC. 41600</small>		MICHAEL J. McCLELLAND P.E. NEW JERSEY PROFESSIONAL ENGINEER <small>LIC. 32468</small>		SCALE: As Shown DATE: August 2025	
<small>DRAWN BY: YR</small> <small>CHECKED BY: RSL</small>		<small>DESIGNED BY: YR</small> <small>DATE: 8/4/25</small>		<small>DESIGNED BY: YR</small> <small>CHECKED BY: RSL</small> <small>DATE: 8/5/25</small> <small>14 of 22</small>	

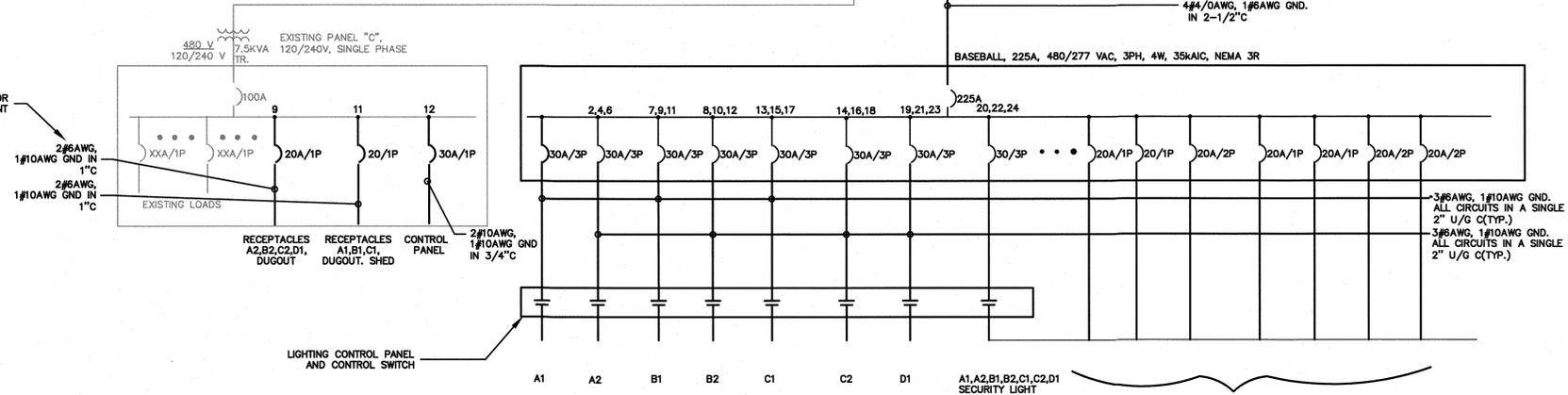
REGISTERED NO. 115-UN00219.P03  
 SHEET E-02



**SINGLE LINE DIAGRAM -- DEMOLITION**

N.T.S.

PROVIDE CABLE JUMPER AS REQUIRED FOR TERMINATION INTO EQUIPMENT



**NOTES:**  
 1. REFER PANEL SCHEDULE FOR NEW LOAD INFORMATION.  
 2. ADD NEW BREAKERS TO THE EXISTING SPARES IN THE PANEL BOARD "MDP".

**SINGLE LINE DIAGRAM -- NEW WORK**

N.T.S.

Panel Name:		NEW BASEBALL											
Location	MDP	Voltage	480/277V			A.I.C. Rating	42KAIC						
Supply From:	MDP	Phases	3Ø			Panel Rating	225A						
Mounting:	SURFACE	Wires	4W			Main Type:	MCB						
Enclosure:	NEMA 3R					Main Rating:	225A						
CKT CODE	Circuit Description	Poles	Trip	Load (KVA)	A	B	C	Load (KVA)	Trip	Poles	Circuit Description	CODE	CKT
1 4	A1 POLE LIGHT	3	30	2.510	2.510	2.510		2.510	30	3	A2 POLE LIGHT	4	2
3 4				2.510		2.510	2.510	2.510					
5 4				2.510			2.510	2.510					
7 4	B1 POLE LIGHT	3	30	3.181	3.181	3.877		3.877	30	3	B2 POLE LIGHT	4	8
9 4				3.181		3.181	3.877	3.877					
11 4				3.181			3.181	3.877					
13 4	C1 POLE LIGHT	3	30	2.510	2.510	3.228		3.228	20	3	C2 POLE LIGHT	4	14
15 4				2.510		2.510	3.228	3.228					
17 4				2.510			2.510	3.228					
19 4	D1 POLE LIGHT	3	30	2.510	2.510	0.227		0.227	30	3	SECURITY LIGHT FIXTURES A1, A2, B1, C1, B2, C2, D1	2	20
21 4				2.510		2.510	0.227	0.227					
23 4				2.510			2.510	0.227					
25 2	SPARE	1	20	0	0.000	0.000		0	20	1	SPARE	2	26
27 2	SPARE	1	20	0		0.000	0.000		20	1	SPARE	2	28
29 2	SPARE	1	20	0			0.000	0.000	20	1	SPARE	2	30
31 2	SPARE	1	20	0	0.000	0.000		0	20	1	SPARE	2	32
33 2	SPARE	1	20	0		0.000	0.000		20	1	SPARE	2	34
35 2	SPARE	1	20	0			0.000	0.000	20	1	SPARE	2	36
37 2	SPARE	1	20	0	0.000	0.000		0	20	1	SPARE	2	38
39 2	SPARE	1	20	0		0.000	0.000		20	1	SPARE	2	40
41 2	SPARE	1	20	0			0.000	0.000	20	1	SPARE	2	42
<b>DEMAND LOAD CALCULATIONS</b>				(KVA)	(Amps)								
1	CONTINUOUS (125%)	0.00	0.00		20.553	20.553		20.553			Total Load (KVA)		74.16
2	NON-CONTINUOUS (100%)	0.68	0.82		74.20	74.20		74.20			Total Amps / PH		74.16
3	RECEPTACLE	0.00	0.00										
4	LIGHTING (100%)	60.98	73.35										
	TOTAL	61.66	74.16										
Total Connected Load (KVA)				61.659	Total Connected Load (Amps)				74.16				
Total Est. Demand load (KVA)				61.659	Total Est. Demand Load (Amps)				74.16				

Notes: SHORT CIRCUIT RATING TO MATCH EXISTING UPSTREAM MAIN SERVICE PANEL. ADJUST PANEL RATING AS APPLICABLE TO ACCOMMODATE PANELBOARD RATING.

Panel Name:		C											
Location	OUTDOORS	Voltage	120/240V			A.I.C. Rating	EXISTING						
Supply From:	MDP	Phases	1Ø (SPLIT PHASE)			Panel Rating	100						
Mounting:	SURFACE	Wires	3W			Main Type:	MLO						
Enclosure:	NEMA 3R					Main Rating:	NA						
CKT CODE	Circuit Description	Poles	Trip	Load (VA)	A	B	Load (VA)	Trip	Poles	Circuit Description	CODE	CKT	
1 2	EXISTING CABINET HEATER	1	20	0	0	0	0	20	1	EXISTING CABINET RECEPTACLE	2	2	
3 2	EXISTING CABINET LIGHTS	1	20	0	0	0	0	20	1	EXISTING POLE LIGHTING REC BY PITCHING CAGE	2	4	
5 2	PATH LIGHTING TIMECLOCK	1	20	0	0	0	0	20	1	EXISTING POLE LIGHTING REC BY PITCHING CAGE	2	6	
7 2	FILD LIGHTING TIMECLOCK	1	20	0	0	0	0	20	1	EXISTING POLE LIGHTING REC BY PITCHING CAGE	2	8	
9 2	RECEPTACLES A2, B2, C2, D1, SOUTH DUGOUT	1	20	720	720	0	0	20	2	EXISTING LOAD	2	10	
11 2	RECEPTACLES A1, B1, C1, NORTH DUGOUT, SHED	1	20	720	720	0	0	20	1	NEW MUSCO CONTROL PANEL	2	12	
<b>DEMAND LOAD CALCULATIONS</b>				(KVA)	(Amps)								
1	CONTINUOUS (125%)	0.00	0.00		0.720	1.220		0.720		Total Load (KVA)		8.08	
2	NON-CONTINUOUS (100%)	1.94	8.08		8.00	10.17		8.00		Total Amps / PH		8.08	
3	RECEPTACLE	0.00	0.00										
4	LIGHTING (100%)	0.00	0.00										
	TOTAL	1.94	8.08										
Total Connected Load (KVA)				1.94	Total Connected Load (Amps)				8.08				

Note: 1. CONTRACTOR TO VERIFY PANEL LOADING PRIOR TO ADDING NEW CIRCUITS. COORDINATE AND CONFIRM PANEL LOADING WITH ENGINEER.  
 2. HIGHLIGHTED ARE THE NEW CONNECTIONS IN THIS JOB.  
 3. \* - PROVIDE GCFI RECEPTACLE.

BOROUGH OF ROSELLE  
 UNION COUNTY, NEW JERSEY

**WARINANCO PARK BASEBALL FIELD IMPROVEMENTS**  
 ELECTRICAL SINGLE LINE DIAGRAM AND PANEL SCHEDULE

**CME ASSOCIATES**  
 CONSULTING AND MUNICIPAL ENGINEERS  
 3141 BORDENTOWN AVENUE, PARLIN, NEW JERSEY 08859-1162 1460 ROUTE 9 SOUTH, HOWELL, NEW JERSEY 07731-1194

(732) 727 8000 (732) 462 7400

NO. DESCRIPTION OF REVISION DATE DRAWN CHECKED RELEASED

SCALE As Shown DATE August 2025

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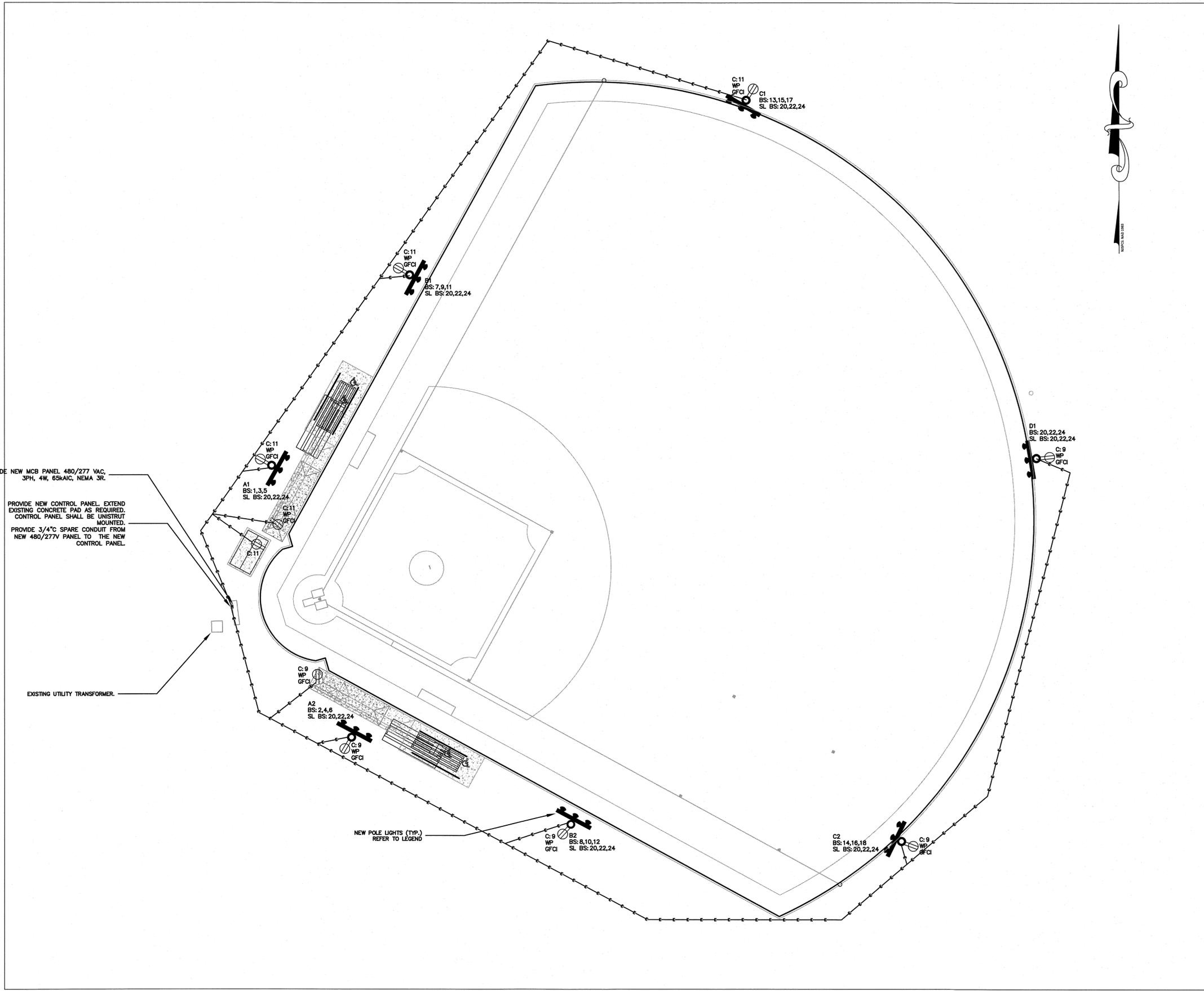
CHECKED BY RSL SHEET 15 of 22

REGISTERED NO. 115 UN00219.P03

E-03

**RICHARD S. LAFORTUNE, PE**  
 NEW JERSEY PROFESSIONAL ENGINEER  
 L.I.C. 41600  
*Richard Lafortune* DATE 8/4/25

**MICHAEL J. McCLELLAND P.E.**  
 NEW JERSEY PROFESSIONAL ENGINEER  
 L.I.C. 32468  
*Michael J. McClelland* DATE 8.5.25



- NOTES:**
1. CONTRACTOR IS RESPONSIBLE TO LOCATE ANY ADDITIONAL UTILITIES UNDERGROUND PRIOR TO COMMENCEMENT OF WORK. CONTRACTOR SHALL HAND DIG TRENCH WHEN CROSSING EXISTING UTILITIES LINES. IT IS CONTRACTOR RESPONSIBILITY FOR ANY REPAIR OR REPLACEMENT OF ANY SYSTEM DAMAGE DURING CONSTRUCTION.
  2. THE LIGHTS SHALL ALWAYS BE IN AUTO POSITION AND THE ON/OFF CONTROLS ARE CONTROLLED BY THE CLIENT USING "MANUFACTURER'S LIGHTING" MOBILE APPLICATION.
  3. ALL RECEPTACLES MUST BE WEATHERPROOF AND MUST HAVE LOCKABLE COVER.
  4. CONTRACTOR IS RESPONSIBLE FOR COORDINATION BETWEEN ALL THE TRADES BEFORE COMMENCEMENT ANY EXCAVATION ACTIVITIES.
  5. ROUTING OF CONDUIT IS APPROXIMATE. CONTRACTOR SHALL DETERMINE EXACT ROUTING UPON INSPECTION OF ACTUAL FIELD LOCATIONS OF UNDERGROUND UTILITIES AND PIPING AND COORDINATION WITH THE OWNER AND THE ENGINEER.
  6. HANDHOLE NUMBER AND LOCATION ARE APPROXIMATE. CONTRACTOR TO PROVIDE SUFFICIENT HANDHOLES TO SATISFY ACTUAL SITE CONDITIONS AND APPLICABLE CODES IN ORDER TO FURNISH A COMPLETE AND FUNCTIONAL SYSTEM.
  7. THE CONTRACTOR SHALL COORDINATE THE LOCATION OF LIGHT POLES / CONDUIT RUNS PRIOR TO CONSTRUCTION.
  8. RESTORATION OF AREAS DISTURBED SHALL BE IN ACCORDANCE WITH THE CONTRACT DOCUMENTS AND AS DIRECTED BY THE ENGINEER.
  9. EXPANSION COUPLINGS TO BE INSTALLED EVERY 100 FEET AND AT ALL BOXES.

**LEGEND:**

BS : # INDICATES CIRCUIT NUMBER IN BASEBALL PANEL SCHEDULE.  
 SL BS: # INDICATES CIRCUIT NUMBER IN BASEBALL PANEL SCHEDULE FOR SECURITY LIGHT FIXTURES.  
 C : # INDICATES CIRCUIT NUMBER IN PANEL "C" PANEL SCHEDULE.

REFER TO PANEL SCHEDULE AND SINGLE LINE FOR MORE INFO.

SWITCHING SCHEDULE	
FIELD/SWITCH DISCRPTION	SWITCHES
BASEBALL FIELD	1,2
BASEBALL FIELD	1
SOFTBALL FIELD	2
SOFTBALL FIELD	2
SECURITY	3

PROVIDE NEW MCB PANEL 480/277 VAC, 3PH, 4W, 65KAIC, NEMA 3R.

PROVIDE NEW CONTROL PANEL. EXTEND EXISTING CONCRETE PAD AS REQUIRED. CONTROL PANEL SHALL BE UNISTRUIT MOUNTED.

PROVIDE 3/4" SPARE CONDUIT FROM NEW 480/277V PANEL TO THE NEW CONTROL PANEL.

EXISTING UTILITY TRANSFORMER.

NEW POLE LIGHTS (TYP.) REFER TO LEGEND

CIRCUIT SUMMARY BY SWITCH							
SWITCH	ZONE DESCRIPTION	POLE ID	QTY OF FIXTURES	FLA	CONTACTOR SIZE (AMPS)	CABINET #	CONTACTOR
1	BASEBALL FIELD	A1	5	9.05	30	1	C1
	BASEBALL FIELD	A2	5	9.05	30	1	C2
	BASEBALL FIELD	B1	6	11.48	30	1	C3
	BASEBALL FIELD	C1	6	9.05	30	1	C4
2	SOFTBALL FIELD	B2	8	13.99	30	1	C5
	SOFTBALL FIELD	C2	7	11.65	30	1	C6
	SOFTBALL FIELD	D1	5	9.05	30	1	C7
3	SECURITY	A1,A2,B1,B2, C1,C2,D1	7	0.95	30	1	C8

THIS CONTROL SCHEME USES THREE SWITCHES, BASEBALL FIELD, SOFTBALL FIELD, & SECURITY. TO USE THE WHOLE LARGE FIELD, BOTH BASEBALL FIELD & SOFTBALL FIELD NEED TO BE TURNED ON. ONLY SOFTBALL FIELD SWITCH NEEDS TO BE TURNED ON FOR SOFTBALL FIELD.

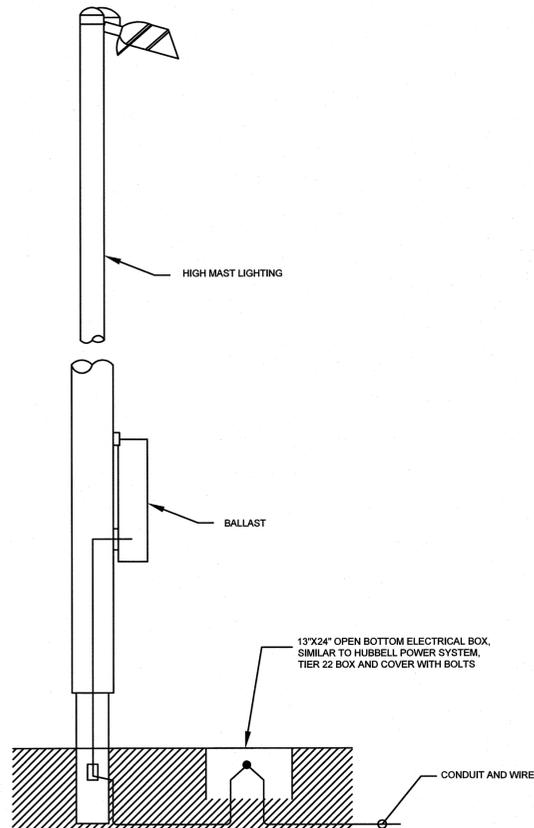
**ELECTRICAL SITE PLAN**  
 SCALE: 1"=25'

NO.	DESCRIPTION OF REVISION	DATE	DRAWN	CHECKED	RELEASED
BOROUGH OF ROSELLE UNION COUNTY, NEW JERSEY <b>WARINANCO PARK BASEBALL FIELD IMPROVEMENTS</b> ELECTRICAL SITE PLAN					
 <b>CME ASSOCIATES</b> CONSULTING AND MUNICIPAL ENGINEERS <small>3141 BORDENTOWN AVENUE, PARLIN, NEW JERSEY 08859-1162      1460 ROUTE 9 SOUTH, HOWELL, NEW JERSEY 07731-1194</small>					

**RICHARD S. LAFORTUNE, PE**  
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 LIC. 41600  
*Richard Lafortune* DATE: 8/4/25

**MICHAEL J. McCLELLAND P.E.**  
 NEW JERSEY PROFESSIONAL ENGINEER  
 LIC. 32468  
 SCALE: As Shown DATE: August 2025  
 DRAWN BY: YR DESIGNED BY: YR  
 CHECKED BY: RSL SHEET: 16 OF 22  
 DRAWING NUMBER: E-04

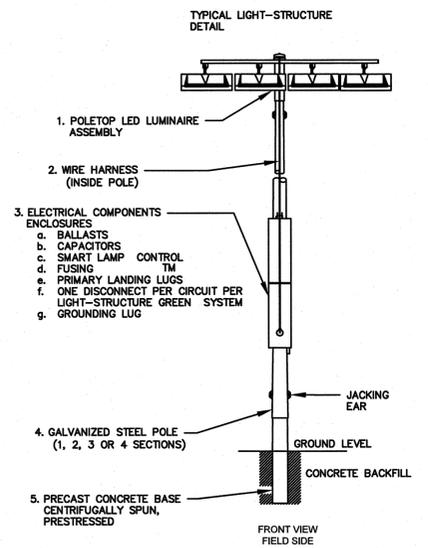
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**SPORTS LIGHTING POLE DETAIL - 1**  
NOT TO SCALE

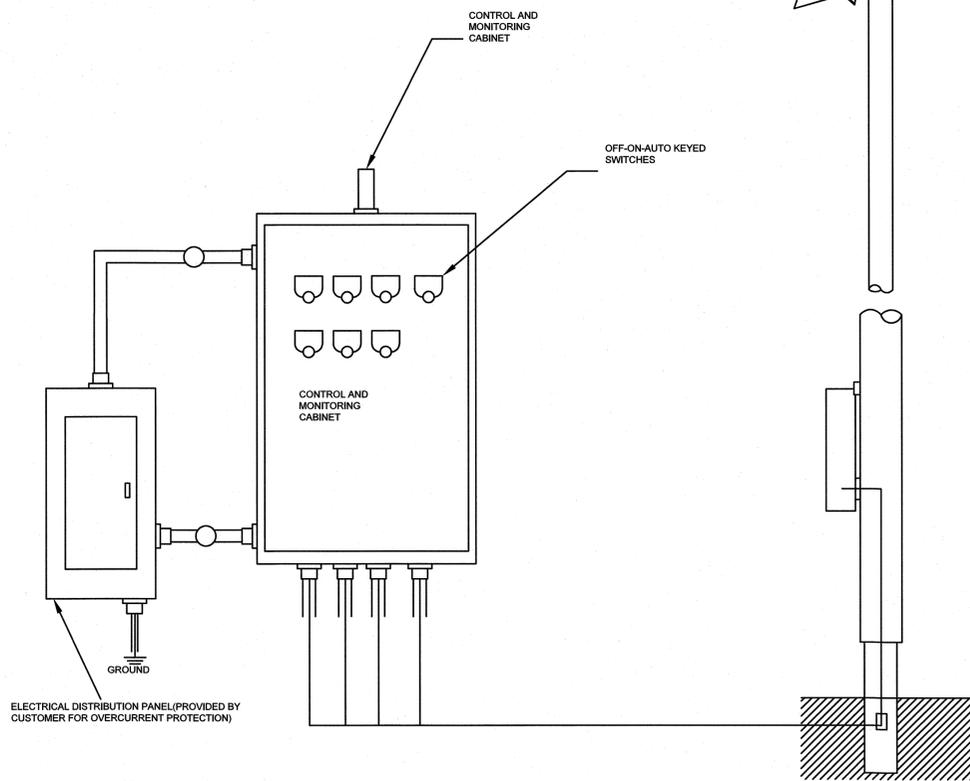
**LIGHTING GENERAL NOTES:**

1. THE CONTRACTOR SHALL FURNISH AND INSTALL LIGHTING IMPROVEMENTS INCLUDING LIGHT POLES, LIGHT FIXTURES, PENDANT STEMS, CONCRETE FOUNDATIONS AND LAMPS, IN ACCORDANCE WITH THE CONTRACT DOCUMENTS AND AS PER MANUFACTURER'S RECOMMENDATIONS.
2. THE CONTRACTOR SHALL FURNISH AND INSTALL MOUNTS, CONDUITS, WIRING, CONNECTIONS, ENCLOSURE, CIRCUITS, PANELS AND ALL APPURTENANCES NECESSARY TO ENERGIZE THE LIGHTING FACILITIES FOR THE SUBJECT SITE IMPROVEMENTS.
3. CONTRACTOR WILL PROVIDE THE LIGHT POLE FOUNDATION COMPLETE WITH CONDUITS FOR POWER/GROUNDING AND ANCHOR BOLTS. COORDINATE THE NUMBER AND SIZE OF POWER CONDUITS REQUIRED IN EACH FOUNDATION WITH THE ELECTRICAL SITE PLAN. ONE GROUNDING CONDUCTOR IS REQUIRED FOR EACH.
4. CONTRACTOR SHALL PROVIDE GROUND ROD AND MAKE CONNECTION TO GROUND STUD.
5. THE CONTRACTOR WILL NOT BE PERMITTED TO INSTALL ANY BASE PAVEMENT OR SIDEWALK ON THE PROJECT UNTIL IT HAS BEEN CONFIRMED THAT THE UNDERGROUND WIRING/CONDUITS HAVE BEEN INSTALLED IN THE AFFECTED AREAS. THE CONTRACTOR WILL NOT BE PERMITTED TO INSTALL THE TOP COURSE OF PAVEMENT OR ANY TOPSOIL UNTIL SUCH A TIME AS ALL ELECTRICAL WORK ON THE PROJECT HAS BEEN COMPLETED.
6. THE CONTRACTOR SHALL COORDINATE THE LOCATION OF LIGHT POLES/CONDUIT RUNS PRIOR TO CONSTRUCTION.
7. THE CONTRACTOR IS HEREBY ADVISED THAT A SOIL BORINGS RELATED TO THE LIGHTING FACILITIES HAVE BEEN PERFORMED AND ARE INCLUDED IN THE CONTRACT DOCUMENTS. THE CONTRACTOR MAY MAKE ALL NECESSARY ADDITIONAL INVESTIGATIONS INCLUDING SOIL BORINGS, TEST PITS OR BY OTHER ADEQUATE MEASURES TO SATISFY HIMSELF AS TO THE EXISTING SOIL CONDITIONS INCLUDING THE CHARACTER, GROUNDWATER ELEVATIONS AND AMOUNT OF VARIOUS CLASSES OF MATERIAL TO BE ENCOUNTERED IN THE WORK TO BE PERFORMED AND FOR THE DESIGN OF THE POLE FOUNDATIONS, PRIOR TO SUBMITTING A BID.

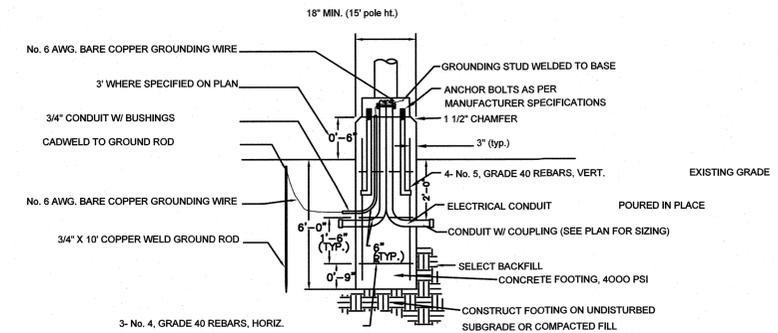


NOTE:  
1. PROVIDE 3/4" X 10' 0" COPPER CLAD STEEL GROUND ROD AND BOND TO EACH POLE PER MANUFACTURER'S REQUIREMENTS

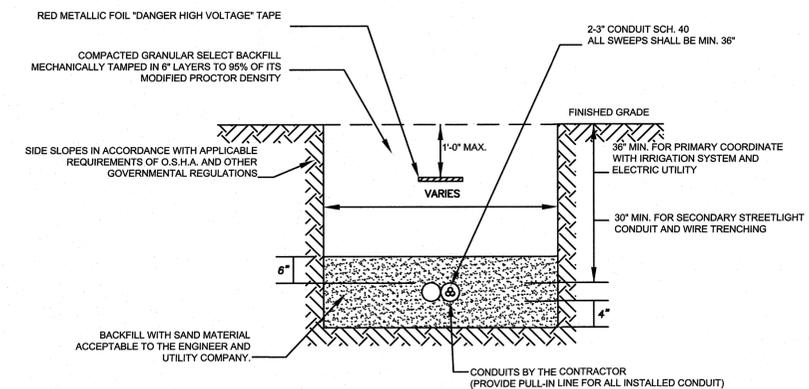
**SPORTS LIGHTING DETAIL - 2**  
NOT TO SCALE



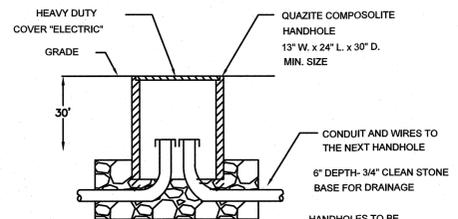
**CONTROL LINK-CONTROL AND MONITORING SYSTEM**  
NOT TO SCALE



**FOR REFERENCE ONLY CONCRETE FOOTING DETAIL-5**  
NOT TO SCALE



**TYPICAL TRENCHING DETAIL - 4**  
NOT TO SCALE



- NOTES:
1. UNDERGROUND HANDHOLE SHALL BE AN OPEN BOTTOM QUAZITE ENCLOSURE WITH GASKETS AS MANUFACTURED BY HUBBELL OR APPROVED EQUAL WITH VERTICAL DESIGN LOAD RATING OF 22,500 LBS (TIER 22).
  2. ALL COVERS SHALL BE DESIGNED TO BOLT DOWN WITH GASKETS TO REDUCE INCOMING FLUIDS AND WITH A PERMANENTLY MARKED LOGO "ELECTRIC" AS MANUFACTURED BY HUBBELL OR APPROVED EQUAL WITH VERTICAL DESIGN LOAD RATING OF 22,500 LBS (TIER 22).

**ELECTRICAL SITE LIGHTING HANDHOLE DETAIL - 3**  
NOT TO SCALE

NO.	DESCRIPTION OF REVISION	DATE	DRAWN	CHECKED	RELEASED
BOROUGH OF ROSELLE UNION COUNTY, NEW JERSEY <b>WARINANCO PARK BASEBALL FIELD IMPROVEMENTS</b> ELECTRICAL DETAILS					
 (732) 727 8000    CONSULTING AND MUNICIPAL ENGINEERS    (732) 462 7400 <small>10 CERTIFICATE OF AUTHORIZATION NO. 24640309000</small> <small>3141 BORDENTOWN AVENUE, PARLIN, NEW JERSEY 08859-1162    1460 ROUTE 9 SOUTH, HOWELL, NEW JERSEY 07731-1194</small>					

**RICHARD S. LAFORTUNE, PE**  
NEW JERSEY PROFESSIONAL ENGINEER  
LIC. 41600

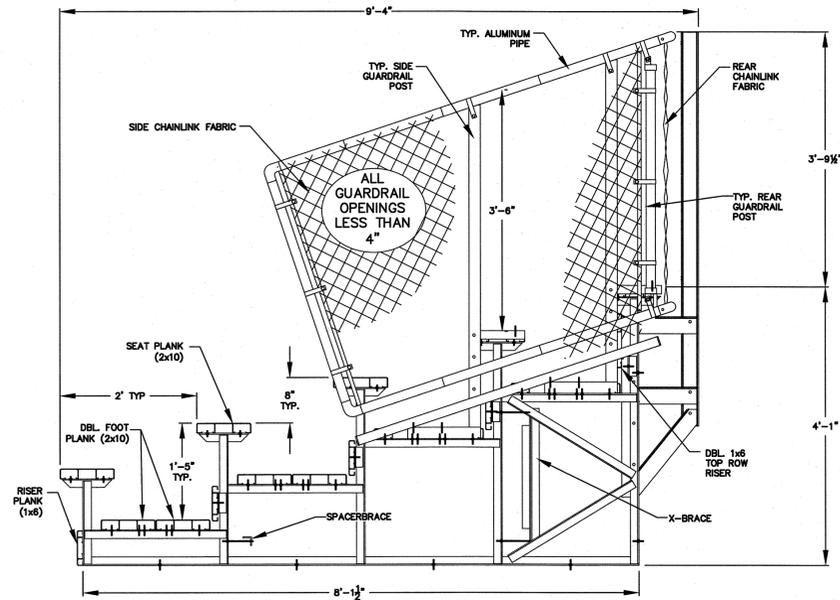
**MICHAEL J. McCLELLAND P.E.**  
NEW JERSEY PROFESSIONAL ENGINEER  
LIC. 32468

*Richard Lafortune* DATE: 8/4/25

SCALE: As Shown    DATE: August 2025  
DRAWN BY: YR    DESIGNED BY: YR  
CHECKED BY: RSL    SHEET: 17 of 22

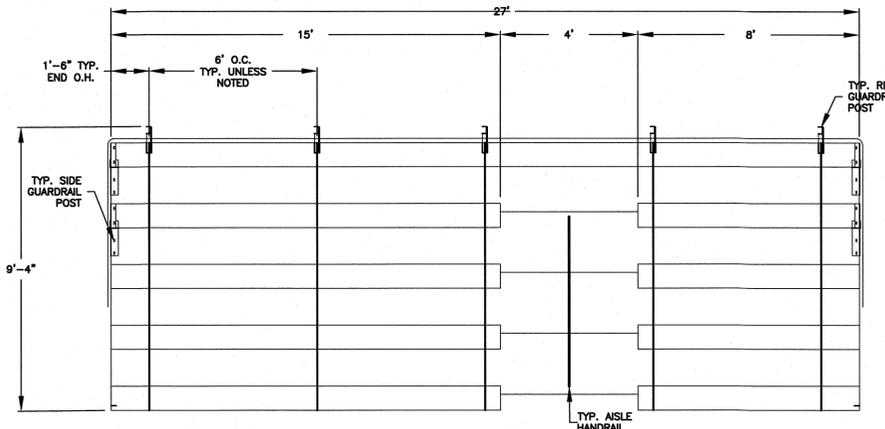
REGISTERED NO. 115.UN00219.P03

E-05



NOTE: BLEACHER SHALL HAVE DOUBLE FOOT PLANK, 1X6 RISER (ROWS 1-4), DBL 1X6 TOP ROW RISER, & CHAINLINK GUARDRAIL.

**5 ROW NON-ELEVATED BLEACHER (CROSS SECTION)**  
N.T.S.

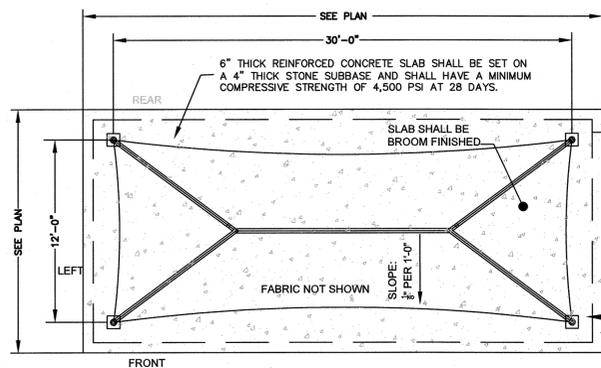


**5 ROW NON-ELEVATED BLEACHER (PLAN VIEW)**  
N.T.S.



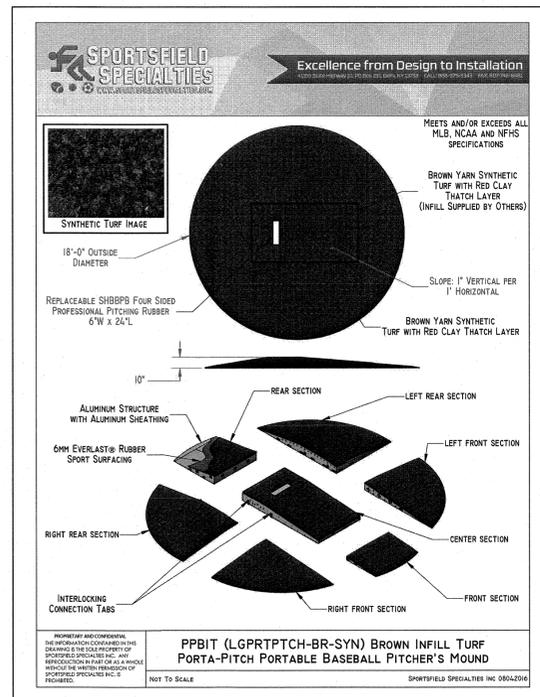
THIS IS A STRUCTURAL DESIGN-BUILD ITEM. SEE STRUCTURAL DESIGN-BUILD NOTES.

NOTE: TIMBER SHED SHALL BE CAPE COD STYLE FROM SOUTH JERSEY SHEDS AND GAZEBOS, OR APPROVED EQUAL.  
**12'X20' TIMBER SHED**  
N.T.S.



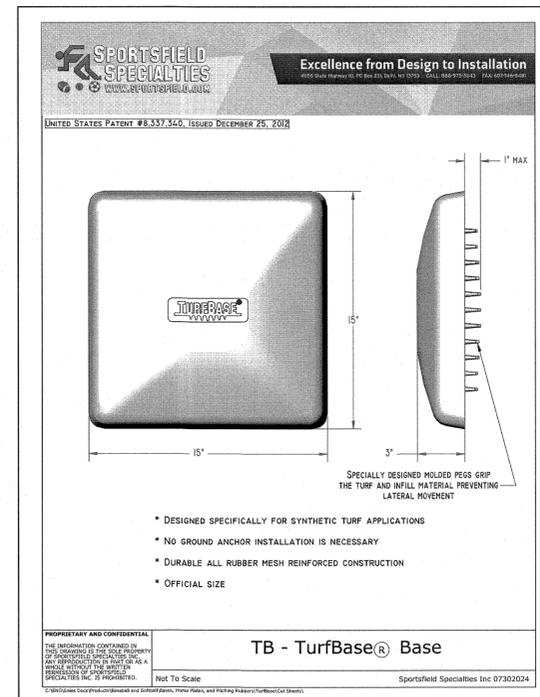
NOTE: COLUMNS, BASE PLATES AND FASTENERS SHALL BE PROVIDED AND INSTALLED PER MANUFACTURER'S REQUIREMENTS. BLEACHER CANOPY SHALL BE APOLLO SUNGUARD MODEL B3012P OR APPROVED EQUAL.

**BLEACHER COVER DETAIL**  
N.T.S.



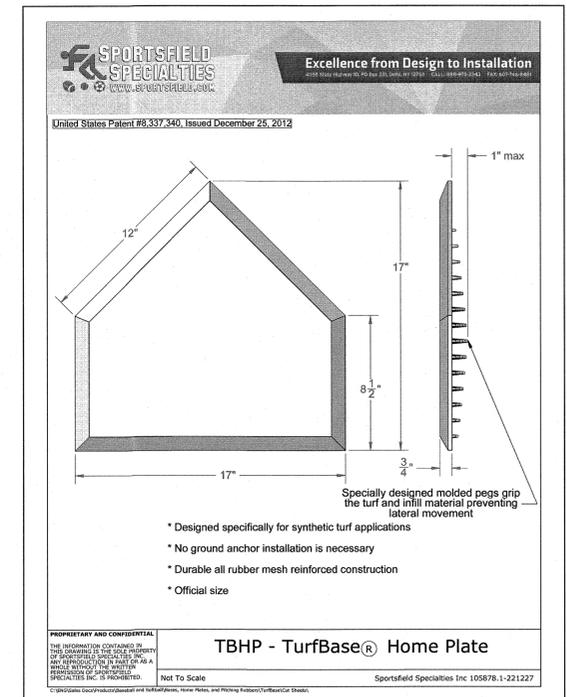
NOTE: PORTABLE PITCHING MOUND SHALL BE MODEL PPBIT FROM SPORTSFIELD SPECIALTIES, OR APPROVED EQUAL.

**PORTABLE PITCHING MOUND**  
N.T.S.



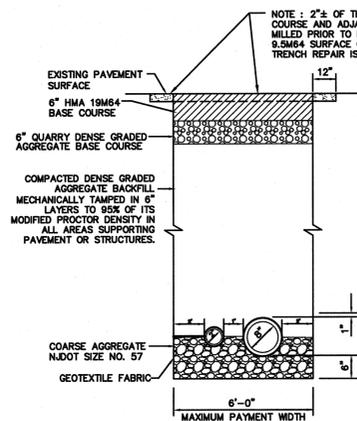
NOTE: PORTABLE BASEBALL BASES SHALL BE MODEL TBS FROM SPORTSFIELD SPECIALTIES, OR APPROVED EQUAL.

**PORTABLE BASEBALL BASES**  
N.T.S.

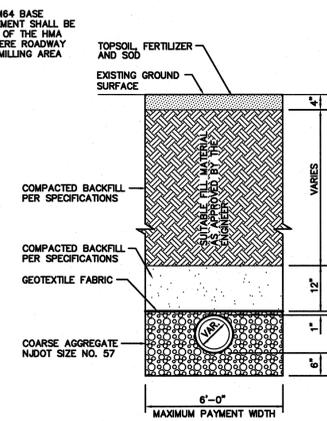


NOTE: PORTABLE HOMEPLATE SHALL BE MODEL PBHP FROM SPORTSFIELD SPECIALTIES, OR APPROVED EQUAL.

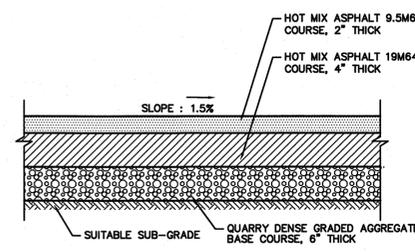
**PORTABLE HOMEPLATE**  
N.T.S.



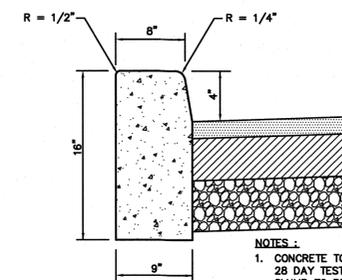
**ROADWAY TRENCH REPAIR**  
N.T.S.



**UNPAVED TRENCH REPAIR**  
N.T.S.

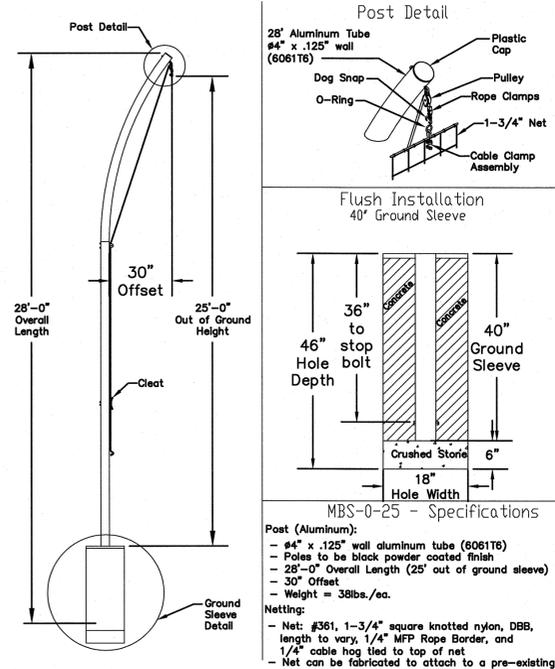


**HMA WALKWAY DETAIL**  
N.T.S.

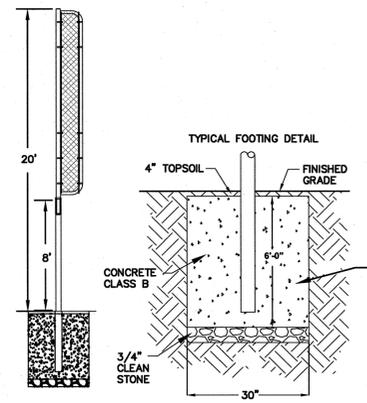


**TYPICAL 9' x 16' CURB DETAIL**  
N.T.S.

No.	DESCRIPTION OF REVISION	DATE	DRAWN	CHECKED	RELEASED
BOROUGH OF ROSELLE UNION COUNTY, NEW JERSEY <b>WARINANCO PARK BASEBALL FIELD IMPROVEMENTS</b> CONSTRUCTION DETAILS (1 OF 5)					
CONSULTING AND MUNICIPAL ENGINEERS NO. 3141 BORDENTOWN AVENUE, PARLIN, NEW JERSEY 08859-1162 1460 ROUTE 9 SOUTH, HOWELL, NEW JERSEY 07731-1194 (732) 727-8000 (732) 462-7400					
<b>MICHAEL J. McCLELLAND P.E.</b> NEW JERSEY PROFESSIONAL ENGINEER L.C. 32468			SCALE: As Shown DATE: August 2025 DRAWN BY: LAK DESIGNED BY: LAK SHEET: 18 of 22		
REGISTERED NO. 115 UN00219.P03 <b>CD-1</b>					



**MULTI-PURPOSE BALLSTOPPER SYSTEM DETAIL**  
N.T.S.

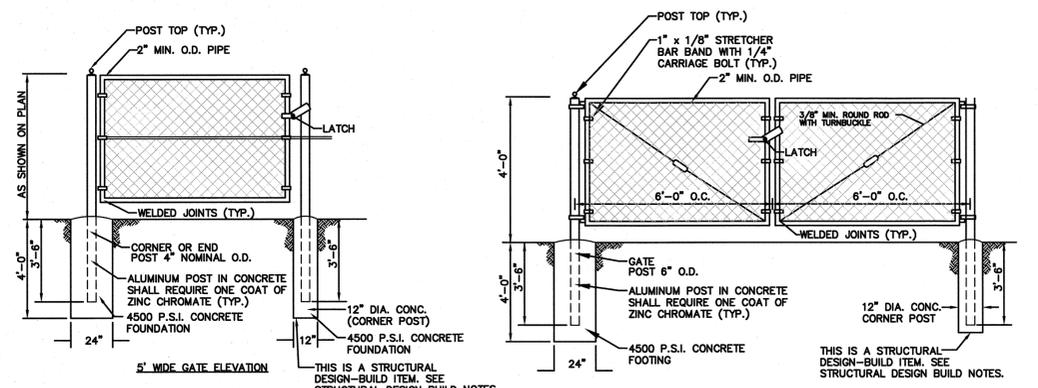


**FOUL POLE DETAIL**  
N.T.S.

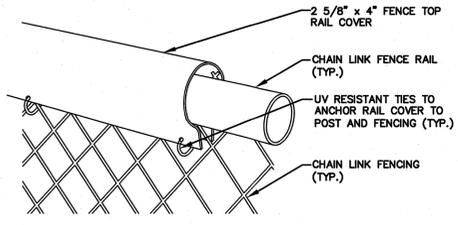
## 200

### OUTFIELD DISTANCE MARKERS

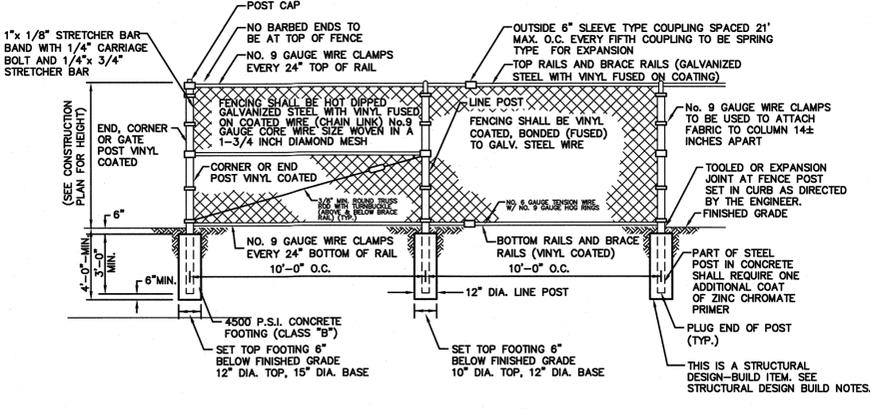
N.T.S.  
NOTES: OUTFIELD DISTANCE MARKERS SHALL BE AS PER BEACON ATHLETICS, OR APPROVED EQUAL.  
DISTANCE MARKERS SHALL BE INSTALLED ADJACENT TO THE LEFT FOUL POLE, RIGHT FOUL POLE AND IN CENTER FIELD ON THE OUTFIELD FENCE.



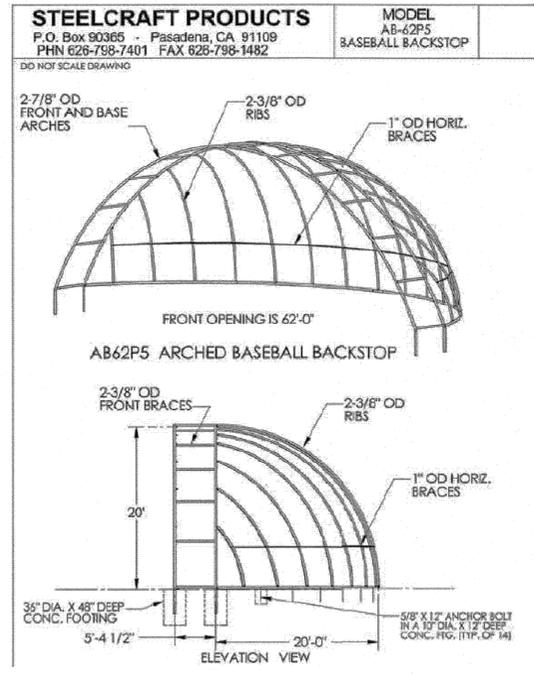
- NOTES:**
- ALL PIPE FRAMEWORK, HARDWARE, AND FENCE FABRIC SHALL BE VINYL FUSED ON TO HOT DIPPED GALVANIZED STEEL.
  - ALL POSTS & RAILS SHALL BE GALVANIZED SCHEDULE 40 STEEL PIPE AND PVC COATED.
  - ALL SELVAGES SHALL BE KNUCKLED.
  - REMOVE EXISTING ORGANIC SOILS FOR THE CONSTRUCTION OF FOOTINGS AS DIRECTED BY THE ENGINEER.
  - FENCE SIDE OF FABRIC AS DETAILED ON THE PLAN OR AS DIRECTED BY THE ENGINEER.
  - COLOR SHALL BE AS DIRECTED BY THE OWNER AND ENGINEER.



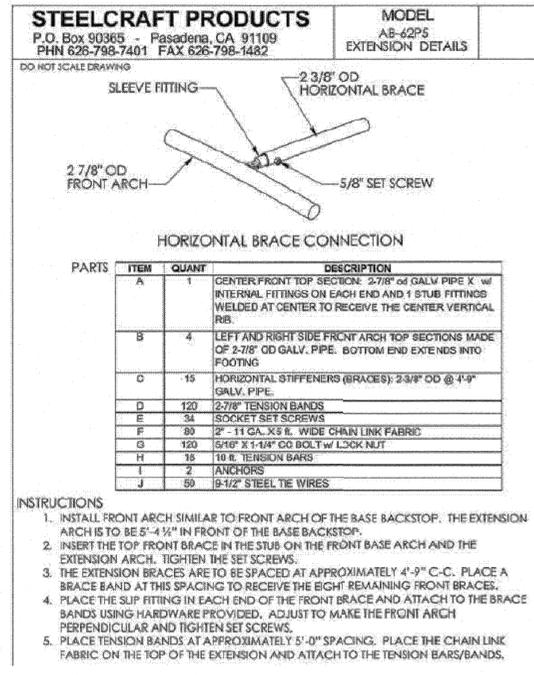
**FENCE TOP RAIL COVER**  
N.T.S.



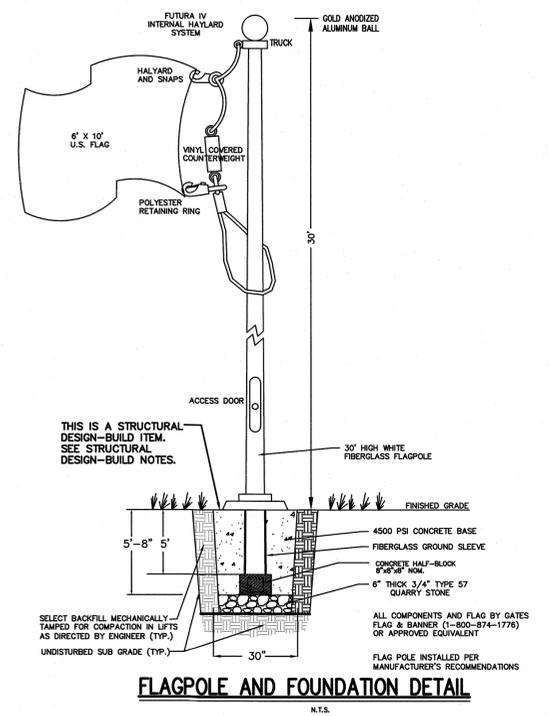
**VINYL COATED FUSED ON CHAIN LINK FENCE & GATE DETAILS**  
N.T.S.



**BASEBALL FIELD**  
**62' ARCHED BACKSTOP WITH 5' EXTENSION DETAIL**  
N.T.S.



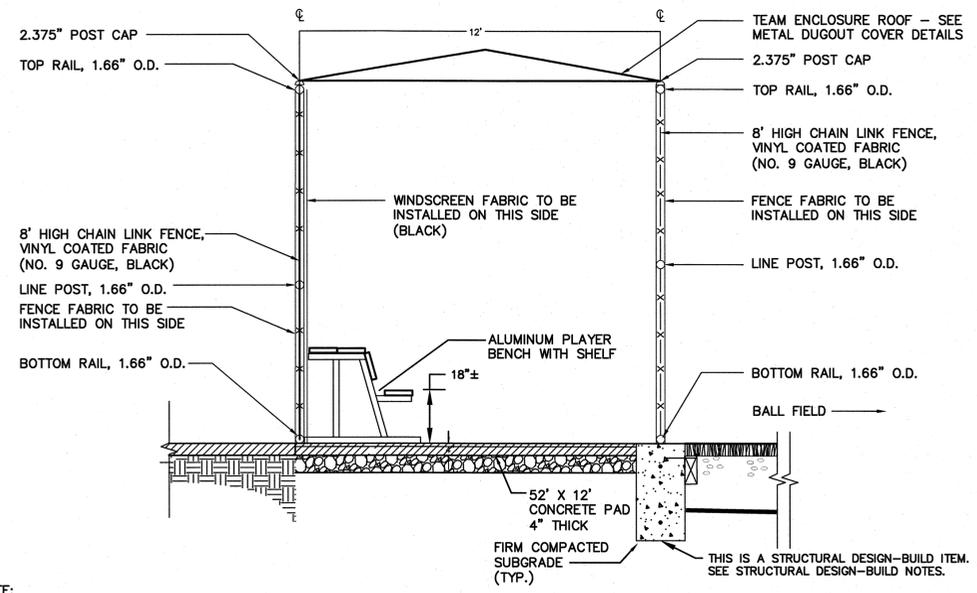
NOTE: BACKSTOP SHALL BE MODEL #LA-AB-6205 FROM L.A. STEELCRAFT, OR APPROVED EQUAL.



**FLAGPOLE AND FOUNDATION DETAIL**  
N.T.S.

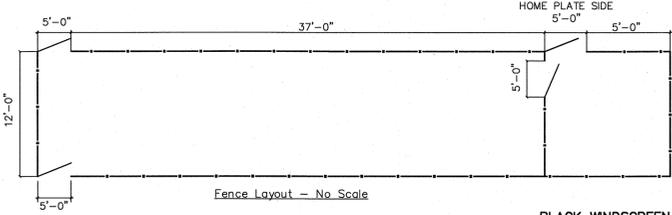
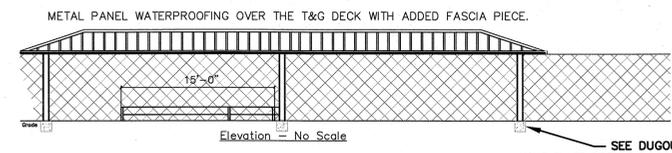
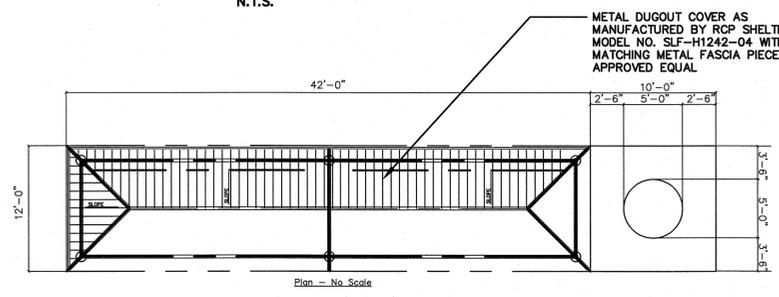
- STRUCTURAL DESIGN-BUILD NOTES:**
- THE CONTRACTOR IS HEREBY ADVISED THAT THESE DRAWINGS CONTAIN PRELIMINARY DESIGN LAYOUTS, SECTIONS AND/OR DETAILS FOR CERTAIN INDICATED STRUCTURES OR STRUCTURAL ELEMENTS THAT ARE TO BE CLASSIFIED AS "DESIGN-BUILD ITEMS" ON THIS PROJECT.
  - THE DETAILS FOR THESE DESIGN-BUILD ITEMS PROVIDE FOR MINIMUM DIMENSIONS AND MINIMUM REQUIREMENTS FOR THE FOUNDATION SUPPORT SYSTEM OF THESE STRUCTURES AND STRUCTURAL ELEMENTS THAT ARE TO BE DESIGNED. AS A PART OF THE BID FOR THIS PROJECT, THE CONTRACTOR WILL BE REQUIRED TO RETAIN THE SERVICES OF A LICENSED PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF NEW JERSEY TO DESIGN THE FOUNDATION SUPPORT SYSTEM FOR THESE STRUCTURES AND STRUCTURAL ELEMENTS.
  - THE CONTRACTOR'S ENGINEER WILL BE REQUIRED TO REVIEW THE PRELIMINARY DESIGN LAYOUTS, SECTIONS AND DETAILS FOR STRUCTURAL DESIGN LOADS, CODE COMPLIANCE AND CONSTRUCTION AND TO PERFORM A GEOTECHNICAL INTERPRETATION OF THE BORING LOGS PROVIDED IN THE PROJECT SPECIFICATIONS TO DEVELOP SOIL DESIGN PROPERTIES FOR THE DESIGN OF THE FOUNDATION SUPPORT SYSTEM OF THESE STRUCTURES AND STRUCTURAL ELEMENTS. THE PROPOSED SOIL DESIGN PROPERTIES DEVELOPED BY THE CONTRACTOR'S ENGINEER MUST BE SUBMITTED TO THE OWNER'S ENGINEER FOR REVIEW AND APPROVAL PRIOR TO PROCEEDING TO THE DESIGN OF THE FOUNDATION SUPPORT SYSTEMS.
  - THE CONTRACTOR'S ENGINEER WILL BE REQUIRED TO SUBMIT SIGNED AND SEALED DETAILED DESIGN CALCULATIONS, SHOP DRAWINGS AND/OR CATALOG CUTS TO THE OWNER'S ENGINEER FOR REVIEW AND APPROVAL FOR THE FOUNDATION SUPPORT SYSTEM FOR THESE STRUCTURES AND STRUCTURAL ELEMENTS. THE CONTRACTOR'S ENGINEER'S LAYOUT SHALL BE BASED ON THE PRELIMINARY LAYOUT SHOWN ON THESE DRAWINGS, WHENEVER POSSIBLE. IF THE CONTRACTOR'S ENGINEER RECOMMENDS THAT A MORE CONSERVATIVE FOUNDATION SUPPORT SYSTEM IS REQUIRED (I.E., A PILE-SUPPORTED FOUNDATION IN LIEU OF AN INDICATED SPREAD FOOTING FOUNDATION), THEN THE OWNER'S ENGINEER MUST BE NOTIFIED BY THE CONTRACTOR'S ENGINEER IN WRITING IMMEDIATELY FOR REVIEW AND APPROVAL PRIOR TO FABRICATION AND/OR CONSTRUCTION.
  - THE CONSTRUCTION OF THE FOUNDATION SUPPORT SYSTEM OF THESE STRUCTURES AND STRUCTURAL ELEMENTS WILL NOT BE PERMITTED WITHOUT APPROVED SIGNED AND SEALED CALCULATIONS AND SHOP DRAWINGS.
  - UPON APPROVAL BY THE OWNER'S ENGINEER, THE CONTRACTOR'S LICENSED PROFESSIONAL ENGINEER SHALL PROVIDE SIX (6) SETS OF SIGNED AND SEALED DETAILED DOCUMENTS TO THE OWNER'S ENGINEER FOR USE BY THE CONTRACTOR DURING CONSTRUCTION. THE COSTS ASSOCIATED WITH RETAINING A LICENSED PROFESSIONAL ENGINEER, INCLUDING PROVIDING THE REQUIRED DOCUMENTS, SHALL BE INCLUDED IN THE PRICE BID FOR THE FOUNDATION SUPPORT SYSTEM FOR THESE STRUCTURES AND STRUCTURAL ELEMENTS, INCLUDING ALL APPURTENANCES, AS DESCRIBED.
  - ALL REINFORCING STEEL BARS AND DOWELS SHALL BE ASTM A615 (GRADE 60).
  - ALL REINFORCING STEEL BARS AND DOWELS SHALL BE HOT-DIPPED GALVANIZED AFTER FABRICATION IN ACCORDANCE WITH ASTM A767. ELECTRO PLATED GALVANIZING IS NOT ACCEPTABLE AND WILL BE REJECTED.

NO.	DESCRIPTION OF REVISION	DATE	DRAWN	CHECKED	RELEASED
BOROUGH OF ROSELLE UNION COUNTY, NEW JERSEY <b>WARINANCO PARK BASEBALL FIELD IMPROVEMENTS</b> CONSTRUCTION DETAILS (2 OF 5)					
 <b>CME ASSOCIATES</b> CONSULTING AND MUNICIPAL ENGINEERS <small>NO. 2462859000</small> <small>3141 BORDENTOWN AVENUE, PARLIN, NEW JERSEY 08859-1162    1460 ROUTE 9 SOUTH, HOWELL, NEW JERSEY 07731-1194</small>					
(732) 727 8000			(732) 462 7400		
<b>MICHAEL J. McCLELLAND P.E.</b> <small>NEW JERSEY PROFESSIONAL ENGINEER</small>			<small>SCALE As Shown</small> <small>DATE August 2025</small> <small>DRAWN BY LAK</small> <small>DESIGNED BY LAK</small> <small>CHECKED BY [Signature]</small> <small>SHEET 19 of 22</small>		
<b>CD-2</b>					



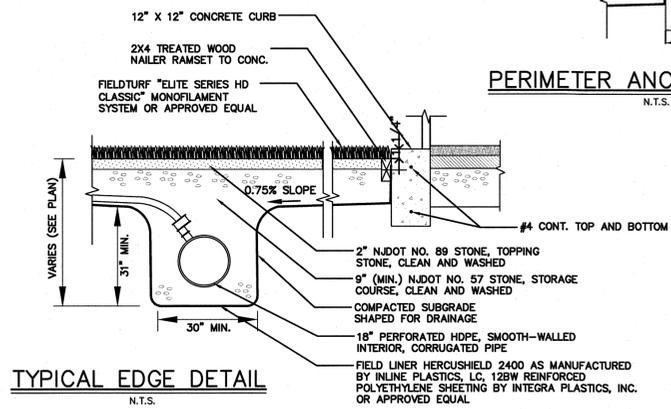
**TEAM BENCH DETAIL**  
N.T.S.

NOTE:  
15' PLAYER BENCH WITH SHELF TO BE MODEL #PBS-90 FROM JAYPRO SPORTS OR APPROVED EQUAL



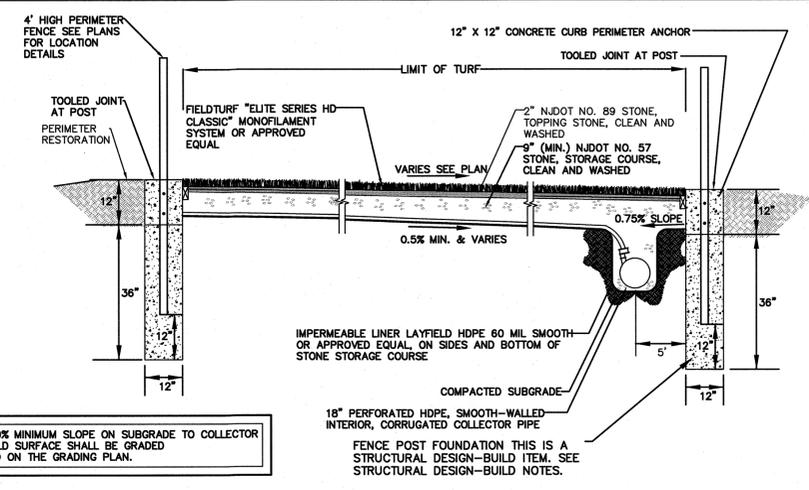
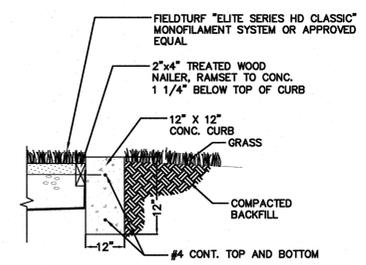
**BALL FIELD METAL DUGOUT COVER**  
N.T.S.

BLACK WINDSCREEN FABRIC TO BE INSTALLED ALONG THE REAR AND SIDES OF THE DUGOUT FENCE. WINDSCREEN FABRIC TO BE TUFFY WINDSCREEN BY AERFLO SPORTS OR APPROVED EQUAL

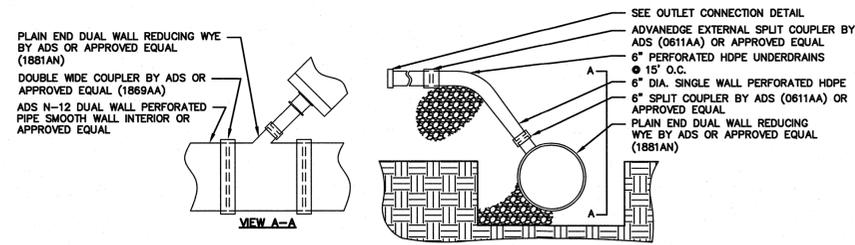


**TYPICAL EDGE DETAIL**  
N.T.S.

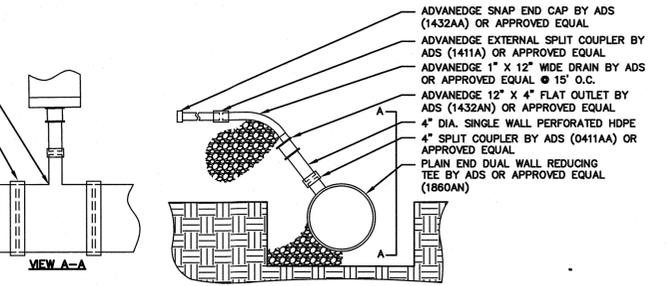
**PERIMETER ANCHOR DETAILS**  
N.T.S.



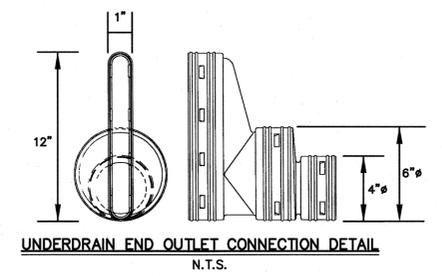
PROVIDE 0.50% MINIMUM SLOPE ON SUBGRADE TO COLLECTOR DRAINS. FIELD SURFACE SHALL BE GRADED AS INDICATED ON THE GRADING PLAN.



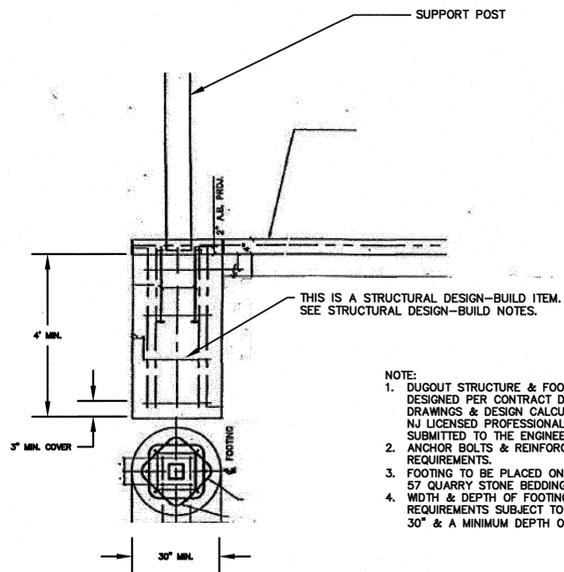
**6\"/>**



**1\"/>**



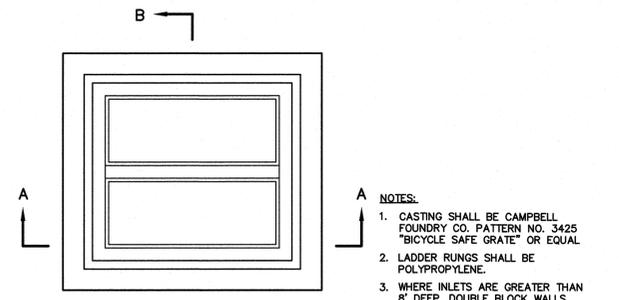
**UNDERDRAIN END OUTLET CONNECTION DETAIL**  
N.T.S.



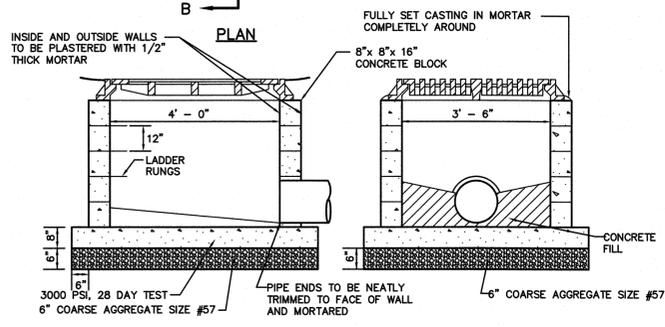
**DUGOUT FOOTING DETAIL**  
N.T.S.

NOTE:  
1. DUGOUT STRUCTURE & FOOTING SHALL BE DESIGNED PER CONTRACT DOCUMENTS. SHOP DRAWINGS & DESIGN CALCULATIONS CERTIFIED BY A NJ LICENSED PROFESSIONAL ENGINEER SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL.  
2. ANCHOR BOLTS & REINFORCEMENT PER DESIGN REQUIREMENTS.  
3. FOOTING TO BE PLACED ON 6\"/>

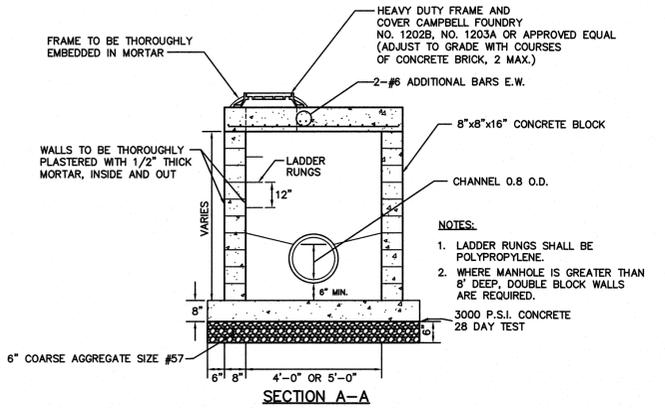
NO.	DESCRIPTION OF REVISION	DATE	DRAWN	CHECKED	RELEASED
BOROUGH OF ROSELLE UNION COUNTY, NEW JERSEY <b>WARINANCO PARK BASEBALL FIELD IMPROVEMENTS</b> CONSTRUCTION DETAILS (3 OF 5)					
 CONSULTING AND MUNICIPAL ENGINEERS (732) 727 8000      (732) 462 7400 3141 BORDENTOWN AVENUE, PARLIN, NEW JERSEY 08859-1102      1460 ROUTE 9 SOUTH, HOWELL, NEW JERSEY 07731-1194					
<b>MICHAEL J. McCLELLAND P.E.</b> NEW JERSEY PROFESSIONAL ENGINEER		SCALE As Shown	DATE August 2025	DRAWING NUMBER <b>CD-3</b>	
		DRAWN BY LAK	DESIGNED BY LAK	SHEET 20 of 22	



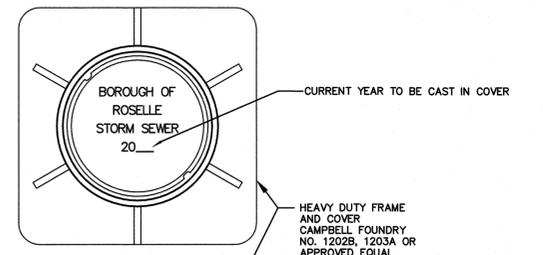
- NOTES:**
- CASTING SHALL BE CAMPBELL FOUNDRY CO. PATTERN NO. 3425 "BICYCLE SAFE GRATE" OR EQUAL.
  - LADDER RUNGS SHALL BE POLYPROPYLENE.
  - WHERE INLETS ARE GREATER THAN 8" DEEP, DOUBLE BLOCK WALLS ARE REQUIRED.



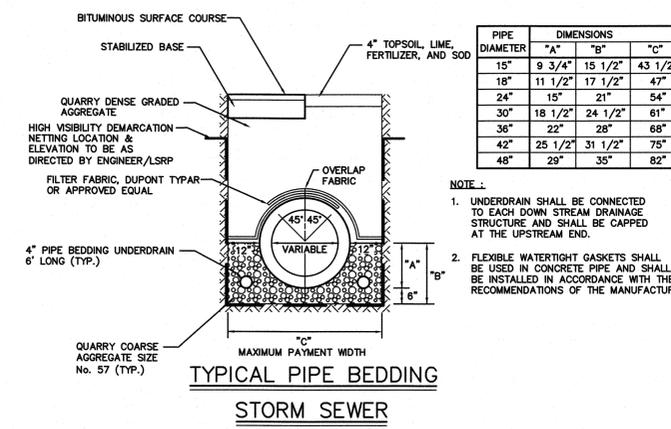
**SECTION A-A**  
**SECTION B-B**  
**INLET TYPE "E"**  
N.T.S.



**SECTION A-A**  
**4' OR 5' SQUARE MANHOLE DETAIL**  
N.T.S.

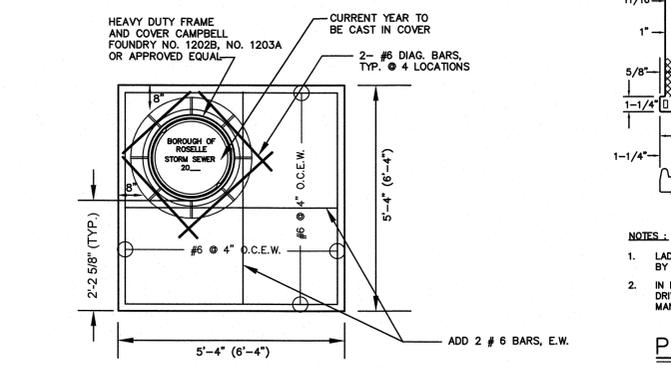


**TYPICAL STORM SEWER MANHOLE FRAME & COVER**  
N.T.S.

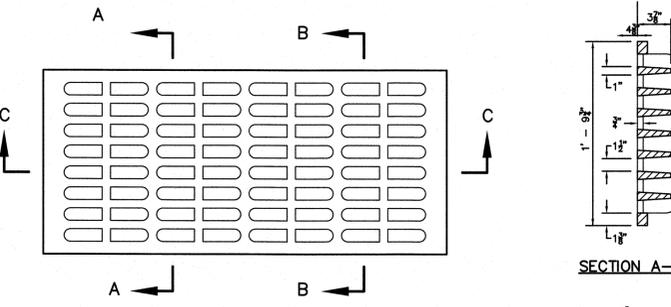


PIPE DIAMETER	DIMENSIONS		
	"A"	"B"	"C"
15"	9 3/4"	15 1/2"	43 1/2"
18"	11 1/2"	17 1/2"	47"
24"	15"	21"	54"
30"	18 1/2"	24 1/2"	61"
36"	22"	28"	68"
42"	25 1/2"	31 1/2"	75"
48"	29"	35"	82"

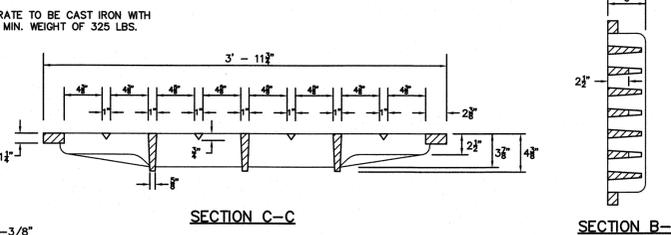
- NOTE 1:**
- UNDERDRAIN SHALL BE CONNECTED TO EACH DOWN STREAM DRAINAGE STRUCTURE AND SHALL BE CAPPED AT THE UPSTREAM END.
  - FLEXIBLE WATERTIGHT GASKETS SHALL BE USED IN CONCRETE PIPE AND SHALL BE INSTALLED IN ACCORDANCE WITH THE RECOMMENDATIONS OF THE MANUFACTURER.



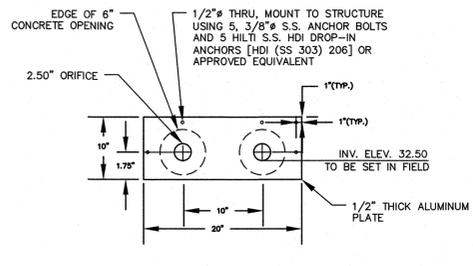
**PRECAST REINFORCED CONCRETE SLAB**  
**4' (OR 5') SQUARE MANHOLE ONLY**  
N.T.S.



**CONCRETE ENCASEMENT & CRADLE**  
N.T.S.

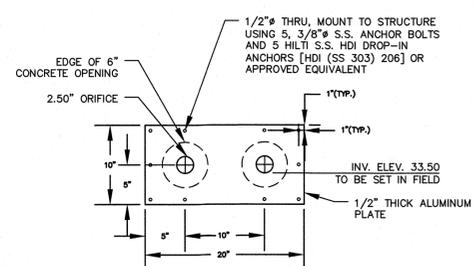


**BICYCLE SAFE GRATE**  
N.T.S.



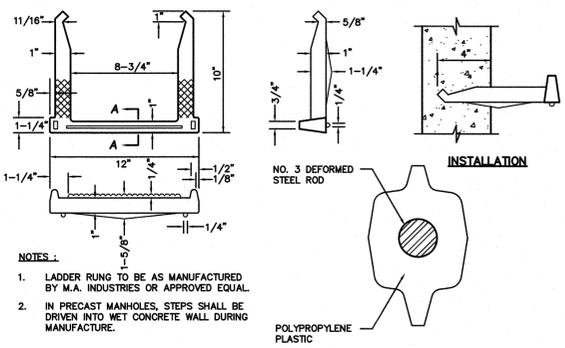
**ORIFICE PLATE #1 DETAIL**  
N.T.S.

- NOTES:**
- Plate - Width and Height will vary depending upon concrete opening size
  - Outlet - (2) 2.5" dia.
  - All welds continuous unless otherwise noted.



**ORIFICE PLATE #2 DETAIL**  
N.T.S.

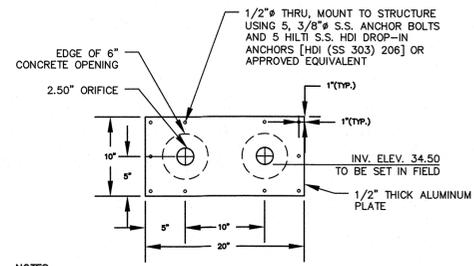
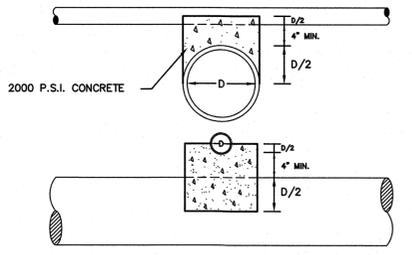
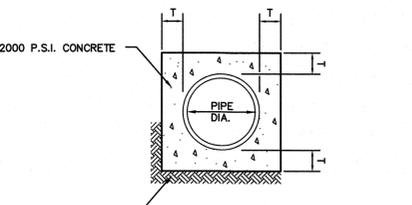
- NOTES:**
- Plate - Width and Height will vary depending upon concrete opening size
  - Outlet - (2) 2.5" dia.
  - All welds continuous unless otherwise noted.



**POLYPROPYLENE LADDER RUNG DETAIL**  
SECTION A-A  
N.T.S.

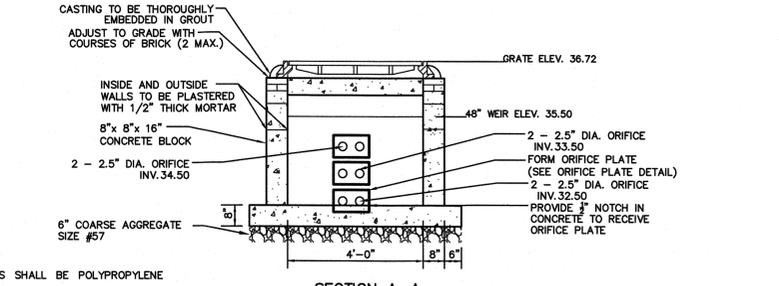
- NOTES:**
- LADDER RUNG TO BE AS MANUFACTURED BY M.A. INDUSTRIES OR APPROVED EQUAL.
  - IN PRECAST MANHOLES, STEPS SHALL BE DRIVEN INTO WET CONCRETE WALL DURING MANUFACTURE.

DIA.	DIMENSIONS												
	6"	8"	10"	12"	15"	18"	21"	24"	27"	30"	36"	42"	42"
T	5"	5.5"	5.5"	6"	6"	6"	6"	6"	7"	8"	9"	10"	12"



**ORIFICE PLATE #3 DETAIL**  
N.T.S.

- NOTES:**
- Plate - Width and Height will vary depending upon concrete opening size
  - Outlet - (2) 2.5" dia.
  - All welds continuous unless otherwise noted.



**INLET TYPE B2 MODIFIED, OUTLET CONTROL STRUCTURE**  
N.T.S.

- NOTES:**
- LADDER RUNGS SHALL BE POLYPROPYLENE AS PER DETAIL.

1	REVISED FOR BID	09/11/25	AMM	SCB	
No.	DESCRIPTION OF REVISION	DATE	DRAWN	CHECKED	DESIGNED

BOROUGH OF ROSELLE  
UNION COUNTY, NEW JERSEY

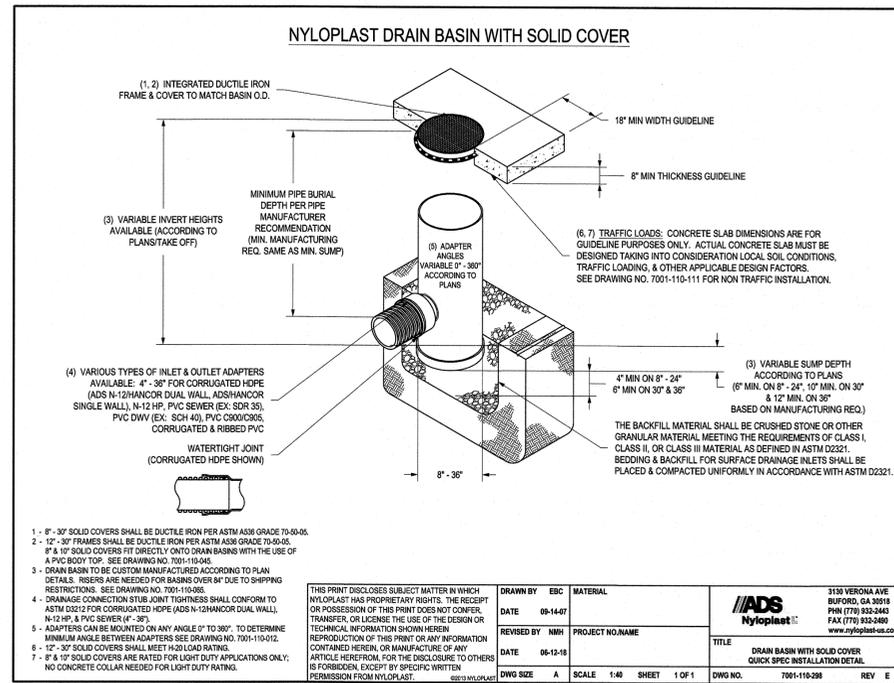
**WARINANCO PARK BASEBALL FIELD IMPROVEMENTS**  
CONSTRUCTION DETAILS (4 OF 5)

**CVE**  
ASSOCIATES  
CONSULTING AND MUNICIPAL ENGINEERS  
(732) 727 8000  
3141 BORDENTOWN AVENUE, PARLIN, NEW JERSEY 08859-1162

**MICHAEL J. McCLELLAND P.E.**  
NEW JERSEY PROFESSIONAL ENGINEER  
LIC. 32468

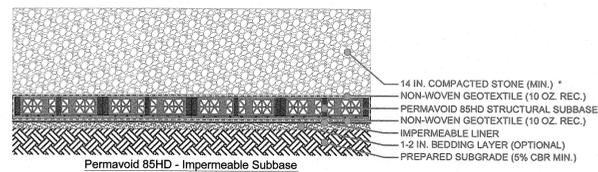
SCALE: As Shown  
DATE: August 2025  
DRAWN BY: LAK  
DESIGNED BY: LAK  
CHECKED BY: 8.5.25  
SHEET: 21 of 22

REGISTERED NO. 115.UN00219.P03  
FILE NO. CD-4



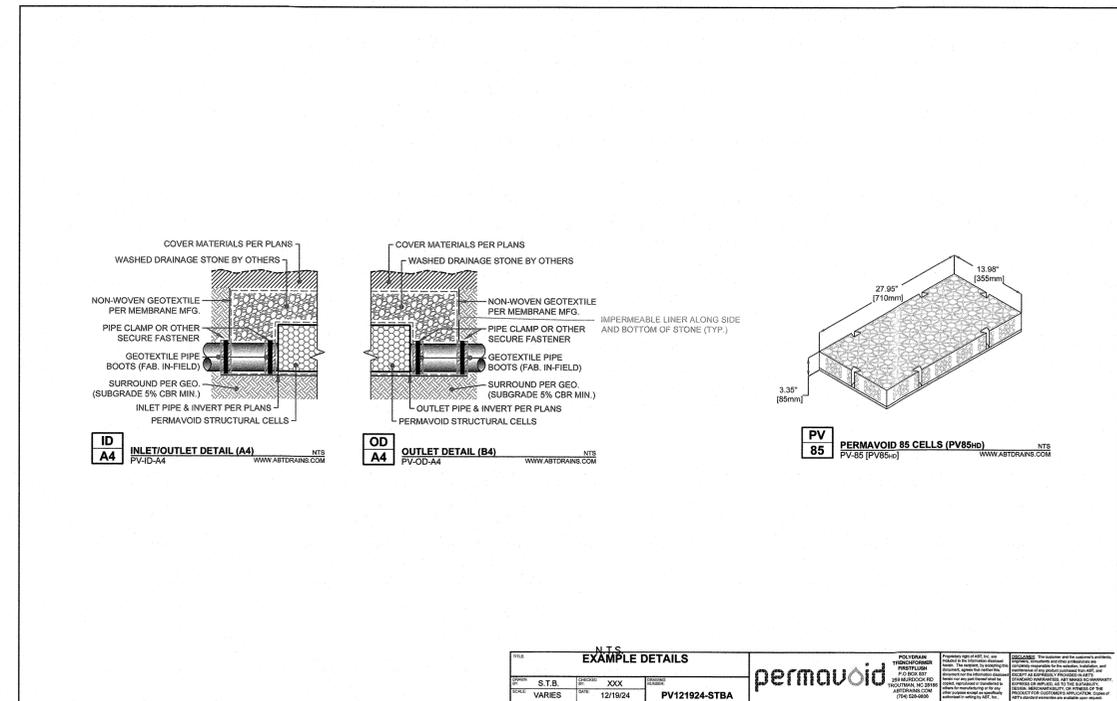
**NYLOPLAST DRAIN BASIN WITH SOLID COVER, OR APPROVED EQUAL (TYP.)**

N.T.S.



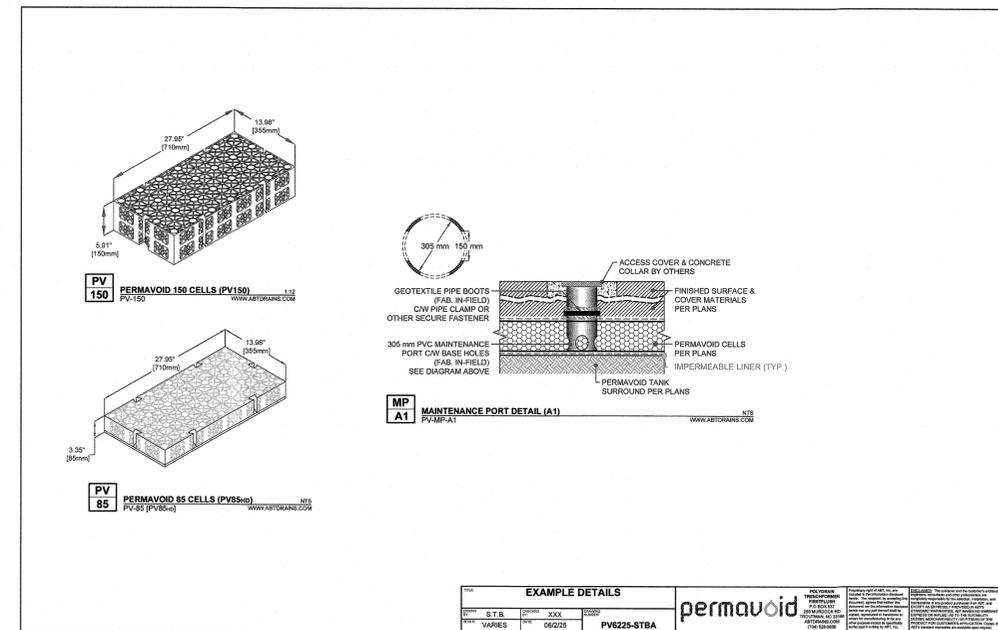
**ABT, INC PERMAVOID 85HD TYPICAL CROSS SECTION OR APPROVED EQUAL**

N.T.S.



**TYPICAL ABT, INC. PERMAVOID 85HD DETAIL & INLET/OUTLET CONNECTION OR APPROVED EQUAL**

N.T.S.



**TYPICAL ABT, INC. PERMAVOID 85HD INSPECTION PORT DETAIL OR APPROVED EQUAL**

N.T.S.

1	REVISED FOR BID	09/11/25	AMM	SCB	REL
No.	DESCRIPTION OF REVISION	DATE	DRAWN	CHECKED	REVISION

BOROUGH OF ROSELLE  
UNION COUNTY, NEW JERSEY

## WARINANCO PARK BASEBALL FIELD IMPROVEMENTS

### CONSTRUCTION DETAILS (5 OF 5)

**OXE ASSOCIATES**  
CONSULTING AND MUNICIPAL ENGINEERS  
(732) 727 8000    3141 BORDENTOWN AVENUE, PARLIN, NEW JERSEY 08859-1102    (732) 462 7400  
NJ CERTIFICATE OF AUTHORIZATION NO. 24GA28359000    1460 ROUTE 9 SOUTH, HOWELL, NEW JERSEY 07731-1194

**MICHAEL J. McCLELLAND P.E.**  
NEW JERSEY PROFESSIONAL ENGINEER  
L.I.C. 32468

SCALE: As Shown    DATE: August 2025  
DRAWN BY: LAK    DESIGNED BY: LAK  
CHECKED BY:    SHEET: 22 OF 22

DRAWING NUMBER: **CD-5**

FILE NO.: 115.UN00219.P03