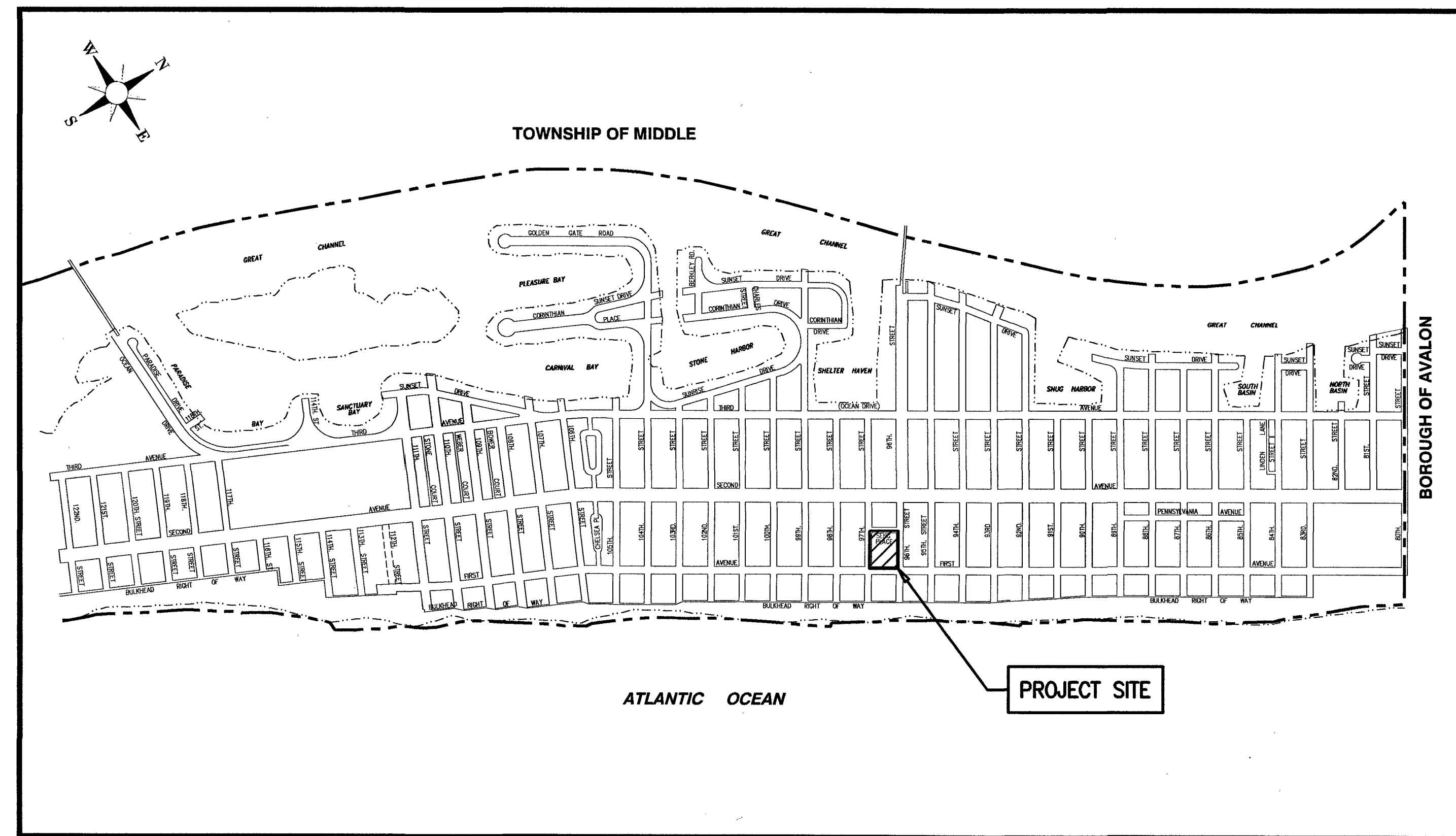
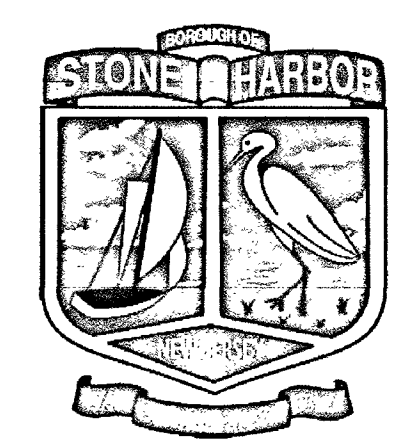


# 96TH STREET RECREATION COMPLEX IMPPROVEMENTS CONTRACT 1 PLAYGROUND INSTALLATION

<b>UTILITIES</b>	
<b>PUBLIC WORKS:</b>	STONE HARBOR PUBLIC WORKS DEPARTMENT MANNY PARADA, P.E., DIRECTOR 9508 SECOND AVENUE STONE HARBOR, NJ 08247 609-368-7311
<b>SEWER:</b>	STONE HARBOR PUBLIC WORKS DEPARTMENT MANNY PARADA, P.E., DIRECTOR 9508 SECOND AVENUE STONE HARBOR, NJ 08247 609-368-7311  CAPE MAY COUNTY M.U.A. THOMAS J. LAROCCO, P.E. 1523 ROUTE 9 NORTH, PO BOX 610 CAPE MAY COURT HOUSE, NJ 08210 609-465-9026
<b>WATER:</b>	STONE HARBOR PUBLIC WORKS DEPARTMENT MANNY PARADA, P.E., DIRECTOR 9508 SECOND AVENUE STONE HARBOR, NJ 08247 609-368-7311
<b>ELECTRIC:</b>	ATLANTIC CITY ELECTRIC COMPANY KEN ATWOOD 420 ROUTE 9 NORTH CAPE MAY COURT HOUSE, NJ 08210 609-463-3816
<b>CABLE:</b>	COMCAST CABLE QURAN OSIRIS 1846 NW BOULEVARD VINELAND, NJ 08360 800-934-6489
<b>GAS:</b>	SOUTH JERSEY GAS COMPANY JEREMIAH LIN 1708 ROUTE 9 NORTH CAPE MAY COURT HOUSE, NJ 08210 609-465-2900
<b>TELEPHONE:</b>	VERIZON ENGINEERING DEPARTMENT ERIC JOSEPH FUNK 10 TANSBORO ROAD, FLOOR 2 BERLIN, NJ 08009 856-626-4108
<b>COUNTY ROADS:</b>	CAPE MAY COUNTY PUBLIC WORKS ROBERT CHURCH, P.E. 4 MOORE ROAD CAPE MAY COURT HOUSE, NJ 08210 609-465-1035



**PROJECT LOCATION MAP**

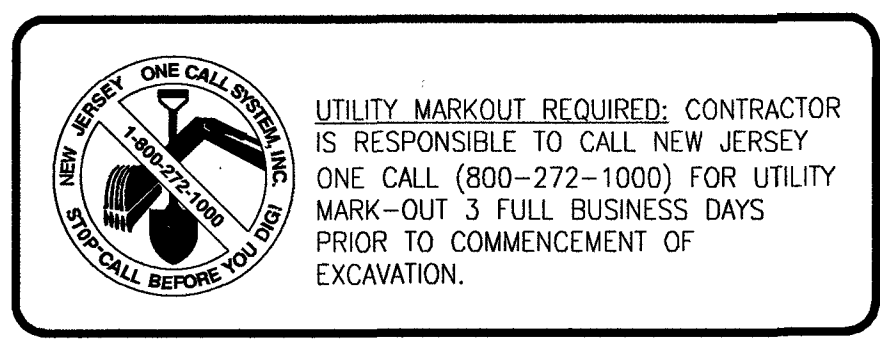


## BOROUGH OF STONE HARBOR CAPE MAY COUNTY, NEW JERSEY

2019 N.J.D.O.T. STANDARD SPECIFICATIONS FOR ROADWAY AND BRIDGE  
CONSTRUCTION SHALL GOVERN

<b>INDEX OF SHEETS</b>	
SHEET NO.	DESCRIPTION
1	TITLE SHEET
2	ESTIMATE OF QUANTITIES, NOTES AND LEGEND
3	EXISTING CONDITIONS/DEMOLITION PLAN
4	PROPOSED IMPROVEMENTS PLAN
5	PROPOSED GRADING PLAN
6	CONSTRUCTION DETAILS
7	SOIL EROSION AND SEDIMENT CONTROL PLAN

*STANDARD N.J.D.O.T. ROADWAY  
CONSTRUCTION-TRAFFIC CONTROL-BRIDGE  
CONSTRUCTION DETAILS BOOKLET, 2016  
ARE APPLICABLE TO THIS PROJECT  
EXCEPT FOR THOSE DETAILS CONTAINED  
HEREIN.*



<b>TITLE SHEET</b>			
<b>DeBlasio &amp; Associates</b> ENGINEERS, SURVEYORS AND PLANNERS			
4701 NEW JERSEY AVENUE WILDWOOD, NJ 08260 PHONE (609) 854-3311 FAX (609) 854-4323 WWW.DEBLASIOASSOC.COM Certification of Authorization No. 24GA28284900			
<b>96TH STREET RECREATION COMPLEX IMPROVEMENTS - CONTRACT 1 PLAYGROUND INSTALLATION BOROUGH OF STONE HARBOR CAPE MAY COUNTY, NEW JERSEY</b>			
Design: JAW	Drawn: JAW	Checked: MAD	Date: 9/24/2024
<b>MARC A. DEBLASIO, PE</b> <small>New Jersey License No. 41599</small> <small>Scale: AS NOTED Job No: SH-C-060 Sheet No: 1 of 7</small>			

NO.	DATE	APPR.	REVISION

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**LEGEND**

**GENERAL NOTES**

# ESTIMATE OF QUANTITIES

ITEM NO.	DESCRIPTION	UNIT	PLAN QUANTITY	IF & WHERE DIRECTED	CONTRACT QUANTITY	AS-BUILT QUANTITY
1	SITE EXCAVATION, FILLING AND GRADING	LUMP SUM	LUMP SUM	0	LUMP SUM	
2	CLEARING SITE	LUMP SUM	LUMP SUM	0	LUMP SUM	
3	MAINTENANCE AND PROTECTION OF SITE	LUMP SUM	LUMP SUM	0	LUMP SUM	
4	CONCRETE SIDEWALK, 4" THICK	S.Y.	238	12	250	
5	CONCRETE BASE COURSE, 4" THICK	S.Y.	712	38	750	
6	DOUBLE-SIDED PAVER RETAINING WALL, 33" HIGH	L.F.	115	15	130	
7	PLAYGROUND FABRIC SHADE STRUCTURE, FURNISH AND INSTALL	LUMP SUM	LUMP SUM	0	LUMP SUM	

- SITE CONSTRUCTION TO BE IN ACCORDANCE WITH NEW JERSEY STATE DEPARTMENT OF TRANSPORTATION STANDARDS FOR ROAD AND BRIDGE CONSTRUCTION, 2019 (LATEST ADDENDUM), WHICH SHALL GOVERN. 2016 STANDARD CONSTRUCTION DETAILS-ROADWAY-TRAFFIC-CONTROL-BRIDGE SHALL GOVERN. CONTRACTOR SHALL VERIFY THE LOCATION OF ANY UNDERGROUND ELECTRICAL CONDUIT AND IDENTIFY SAME PRIOR TO STARTING ANY EXCAVATION. THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS FROM THE TOWNSHIP, COUNTY, AND STATE AND SHALL PAY ALL FEES, INCLUDING THE INSPECTION FEES, AND IN GENERAL SHALL PROCURE ALL REQUIRED PERMITS, LICENSES, INSPECTIONS, PAY ALL CHARGES AND FEES, AND GIVE NOTICES NECESSARY FOR AND INCIDENTAL TO THE DUE AND LAWFUL PROSECUTION OF THE PROJECT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR RESTORING THE PAVING, TOPSOIL, FERTILIZING AND SEEDING ALL AREAS DISTURBED BY HIS ACTIVITIES. INSPECTION OF, OR FAILURE TO INSPECT ANY MATERIALS OR WORKMANSHIP, SHALL IN NO WAY RELIEVE THE CONTRACTOR OF HIS RESPONSIBILITY TO PERFORM THE WORK IN ACCORDANCE WITH APPLICABLE PLANS, SPECIFICATIONS, AND LAW.
- THE CONTRACTOR WILL PRESERVE AND PROTECT ALL EXISTING VEGETATION, SUCH AS TREES, SHRUBS, AND GRASS ON OR ADJACENT TO THE SITE, WHICH DO NOT REASONABLY INTERFERE WITH THE CONSTRUCTION AS MAY BE DETERMINED BY THE DESIGN ENGINEER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR UNAUTHORIZED CUTTING OR DAMAGING OF TREES AND SHRUBS, MATERIALS, OR TRACKING OF GRASS AREAS BY EQUIPMENT. CARE SHALL BE TAKEN BY THE CONTRACTOR IN FELLING TREES AUTHORIZED FOR REMOVAL TO AVOID ANY UNNECESSARY DAMAGE TO VEGETATION THAT IS TO REMAIN IN PLACE. THE CONTRACTOR SHALL BE LIABLE FOR OR MAY BE REQUIRED TO REPLACE OR RESTORE, AT HIS EXPENSE, ALL VEGETATION NOT PROTECTED AND PRESERVED AS REQUIRED HEREIN THAT MAY BE DESTROYED OR DAMAGED.
- THE CONTRACTOR SHALL ACKNOWLEDGE PRIOR TO CONSTRUCTION THAT HE/SHE HAS SATISFIED THEMSELVES AS TO THE NATURE AND LOCATION OF THE WORK, THE GENERAL AND LOCAL CONDITIONS, PARTICULARLY THOSE BEARING ON TRANSPORTATION, HANDLING AND STORAGE OF MATERIALS, THE CHARACTER OF THE EQUIPMENT AND FACILITIES NEEDED DURING THE PROSECUTION OF THE WORK AND ALL OTHER MATTERS WHICH CAN IN ANY WAY AFFECT THE WORK OR THE COST THEREOF UNDER THIS CONTRACT. ANY FAILURE OF THE CONTRACTOR TO ACQUAINT THEMSELVES WITH THE AVAILABLE INFORMATION CONCERNING THOSE CONDITIONS WILL NOT RELIEVE HIM FROM RESPONSIBILITY FOR ESTIMATING PROPERLY THE DIFFICULTIES OR COST OF SUCCESSFULLY PERFORMING THE WORK.
- ALL MATERIALS, METHODS, AND DETAILS OF IMPROVEMENT CONSTRUCTION SHALL CONFORM TO THE REGULATIONS OF BOROUGH OF STONE HARBOR, CAPE MAY COUNTY, AND/OR THE APPROPRIATE UTILITY COMPANY, WHICHEVER REGULATION TAKES PRECEDENCE.
- ALL CONCRETE FOR SIDEWALKS AND CURB SHALL BE OF A MIX TO ENSURE A 28 DAY STRENGTH OF 4,000 PSI AND HAVE A MINIMUM AIR CONTENT OF 5%.
- THE CONTRACTOR SHALL BE COMPLETELY RESPONSIBLE FOR ENSURING THAT ALL WORK PERFORMED CONFORMS TO ALL THE APPLICABLE STATUTES, REGULATIONS, ORDINANCES, AND STANDARDS OF GOVERNMENTAL BODIES HAVING JURISDICTION OVER SUCH WORK. THE RESPONSIBILITY SHALL INCLUDE, BUT NOT BE LIMITED TO, THE FOLLOWING:
  - CONFORMITY WITH THE APPROVED PLANS AS WELL AS STANDARDS AND SPECIFICATIONS OF THE BOROUGH OF STONE HARBOR.
  - CORRECTION OF ALL DEFECTS OF THE WORK, NO MATTER WHAT THE CAUSE, UNTIL THE DATE OF THE ACCEPTANCE, AND THEREAFTER, FOR THE PERIOD OF ANY GUARANTEE WHICH RUNS BEYOND THE DATE OF ACCEPTANCE.
  - SOLUTION OF ANY PROBLEM, UNFORESEEN AT THE TIME OF THE APPROVAL OF THE PLAN, WHICH MAY OR DO IMPAIR THE INTEGRITY OF ANY IMPROVEMENTS, INCLUDING PROBLEMS SUCH AS HIGH GROUND WATER, UNSTABLE SOIL, ETC.
- CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING PUBLIC SAFETY AND SECURING THE SITE AT ALL TIMES.
- CONTRACTOR SHALL BE RESPONSIBLE FOR KEEPING ALL PUBLIC RIGHTS OF WAY AND ADJACENT PROPERTIES CLEAN AND SAFE FROM EXCESSIVE DUST AND DEBRIS RESULTING FROM DEMOLITION AND/OR CONSTRUCTION.
- THE LOCATION OF ANY UTILITIES SHOWN ON THE PLANS ARE ONLY APPROXIMATE. THE CONTRACTOR SHALL EXERCISE EXTREME CAUTION PRIOR TO BEGINNING EXCAVATION OR COMMENCING CONSTRUCTION AND SHALL BE FULLY RESPONSIBLE FOR LOCATING ALL UNDERGROUND UTILITIES IN THE VICINITY OF THE PROJECT. NEW JERSEY ONE CALL WILL PROVIDE FOR ON-SITE DELINEATION OF EXISTING UTILITIES UPON REQUEST (1-800-272-1000).
- EXISTING MATERIALS DESIGNATED FOR REMOVAL SHALL BE REMOVED BY THE CONTRACTOR UNLESS OTHERWISE DIRECTED BY THE OWNER.
- DISTURBED AREAS SHALL BE RESTORED AS SOON AS PRACTICAL.
- THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY IF THERE ARE ANY DISCREPANCIES FOUND BETWEEN THE DRAWINGS AND SPECIFICATIONS AND THE SITE CONDITIONS. THE CONTRACTOR SHALL PROCEED AT HIS OWN RISK PRIOR TO THE RESOLUTION IF ANY DISCREPANCIES.
- THE CONTRACTOR SHALL COORDINATE WATER MAIN SHUT DOWNS WITH THE STONE HARBOR PUBLIC WORKS DEPARTMENT.
- SEPARATE PAYMENT WILL NOT BE MADE FOR CONSTRUCTION LAYOUT, SAWCUTTING, SOIL EROSION AND SEDIMENT CONTROL MEASURES, DUST CONTROL, DEWATERING, BY-PASS PUMPING, CLEANING AND RESTORATIONS, REMOVAL AND DISPOSAL OF EXCESS MATERIALS OR UNWANTED MATERIALS OR DEBRIS, UNDER LAYER PREPARATION, PRIME COAT, TACK COAT, RELOCATIONS OF SIGNS OR MAILBOXES, CONDUCTORS OR CONDUITS DAMAGED DURING CONSTRUCTION, OR ANY OTHER STRUCTURES ENCOUNTERED UNLESS OTHERWISE INDICATED ON THE PLANS.
- THE CONTRACTOR SHALL SUBMIT TO THE BOROUGH OF STONE HARBOR ASBUILTS PLANS AND SHALL IDENTIFY ALL CORRECTIONS THAT HAVE BEEN PERFORMED.
- LIMITS OF PAVING (L.O.P.) SHALL BE SAWCUT AND SEALED WITH HOT JOINT SEALER. PAYMENT FOR THIS WORK SHALL BE INCLUDED IN THE HMA SURFACE PAVING.

<b>EXISTING</b>	<b>PROPOSED</b>
TRAVERSE POINT	FIRE HYDRANT
FIRE HYDRANT	SIGN
SIGN	UTILITY POLE
UTILITY POLE	SPOT ELEVATION
SPOT ELEVATION	LIGHT POLE
LIGHT POLE	WATER METER
WATER METER	WATER VALVE
WATER VALVE	SANITARY CLEANOUT
WATER CURBSTOP/SHUT-OFF	"B" INLET
WATER VALVE	"A" INLET
GAS VALVE/SHUT-OFF	"E" INLET
SANITARY CLEANOUT	STORM MANHOLE
STREET SIGN	SANITARY MANHOLE
"B" INLET	CURBING
"A" INLET	CONCRETE
"E" INLET	STORM DRAINS
STORM MANHOLE	WATER MAIN
SANITARY MANHOLE	SANITARY MAN
ELECTRIC MANHOLE	GAS MAIN
TELEPHONE MANHOLE	ELECTRIC CONDUIT
CURBING	OVERHEAD WIRES
CONCRETE	PROPOSED CONTOUR
STORM DRAINS	(PROPOSED TOP OF CURB)
WATER MAIN	(PROPOSED GUTTER LINE)
SANITARY MAN	PROPOSED SALT FENCE
GAS MAIN	PROPOSED INLET PROTECTION
ELECTRIC CONDUIT	
FORCE MAIN	
OVERHEAD WIRES	
EXISTING CONTOUR	
RIGHT-OF-WAY LINE	
DECIDUOUS TREE	
EVERGREEN TREE	

**ESTIMATE OF QUANTITIES, NOTES AND LEGEND**

**DeBLASIO & ASSOCIATES**  
ENGINEERS, SURVEYORS AND PLANNERS

4701 NEW JERSEY AVENUE  
WILDWOOD, NJ 08260  
PHONE (609) 854-3311  
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Certification of Authorization No. 24GA28284900

**96TH STREET RECREATION COMPLEX IMPROVEMENTS - CONTRACT 1 PLAYGROUND INSTALLATION**  
BOROUGH OF STONE HARBOR  
CAPE MAY COUNTY, NEW JERSEY

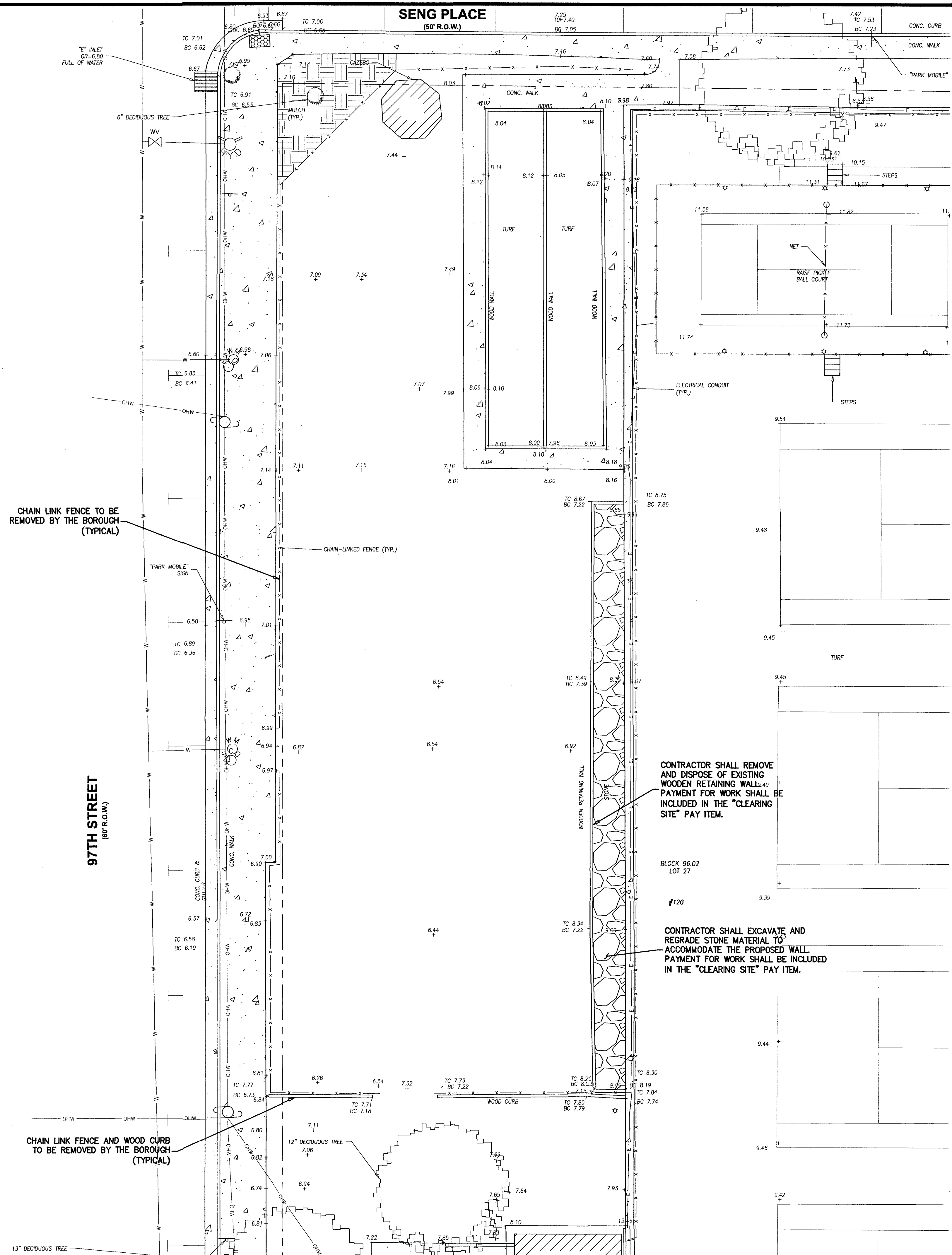
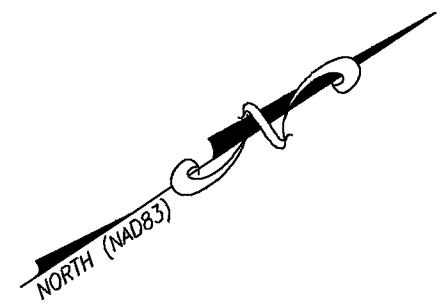
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*Marc A. DeBlasio* 9/24/2024  
DATE  
**MARC A. DEBLASIO, PE**  
New Jersey License No. 41599  
Scale: AS NOTED Job No.: SH-C-060 Sheet No.: 2 Total: 7





**PLAN**  
SCALE: 1"=10'

ITEM NO.	TO BE CONSTRUCTED	UNIT	PLAN QUANTITY	AS-BUILT QUANTITY
2	CLEARING SITE	LUMP SUM	LUMP SUM	

- SURVEY NOTES:**
- EXISTING TOPOGRAPHIC INFORMATION SHOWN WAS BASED ON A FIELD SURVEY PERFORMED BY DEBLASIO & ASSOCIATES, P.C. UNDER THE SUPERVISION OF HENRY V. ENGEL, N.J.P.L.S. NO. 35833, COMPLETED ON 07/23/2024.
  - ELEVATIONS SHOWN HEREON ARE IN FEET AND REFER TO THE NORTH AMERICAN VERTICAL DATUM OF 1988.
  - HORIZONTAL CONTROL IS REFERENCED TO THE NEW JERSEY STATE PLANE COORDINATE SYSTEM (NAD 1983).
  - PROPERTY AND RIGHT-OF-WAY LINES SHOWN ARE APPROXIMATE LOCATIONS BASED ON THE CURRENT TAX MAPS OF THE CITY OF STONE HARBOR, CAPE MAY COUNTY, NEW JERSEY. SAID LINES ARE SHOWN FOR GRAPHICAL INFORMATION ONLY AND HAVE NOT BEEN FIELD VERIFIED.

CONTRACTOR SHALL REMOVE AND DISPOSE OF EXISTING WOODEN RETAINING WALLS. PAYMENT FOR WORK SHALL BE INCLUDED IN THE "CLEARING SITE" PAY ITEM.

CONTRACTOR SHALL EXCAVATE AND REGRADE STONE MATERIAL TO ACCOMMODATE THE PROPOSED WALL. PAYMENT FOR WORK SHALL BE INCLUDED IN THE "CLEARING SITE" PAY ITEM.

CHAIN LINK FENCE TO BE REMOVED BY THE BOROUGH (TYPICAL)

CHAIN LINK FENCE AND WOOD CURB TO BE REMOVED BY THE BOROUGH (TYPICAL)

**EXISTING CONDITIONS/ DEMOLITION PLAN**

**DEBLASIO & ASSOCIATES**  
ENGINEERS, SURVEYORS AND PLANNERS

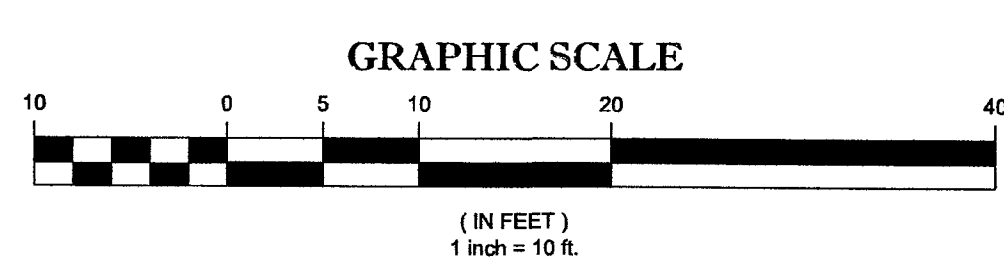
4701 NEW JERSEY AVENUE  
WILDWOOD, NJ 08260  
PHONE (609) 854-3311  
FAX (609) 854-4323  
WWW.DEBLASIOASSOC.COM  
Certification of Authorization No. 24GA28284900

**96TH STREET RECREATION COMPLEX IMPROVEMENTS - CONTRACT 1 PLAYGROUND INSTALLATION**  
BOROUGH OF STONE HARBOR  
CAPE MAY COUNTY, NEW JERSEY

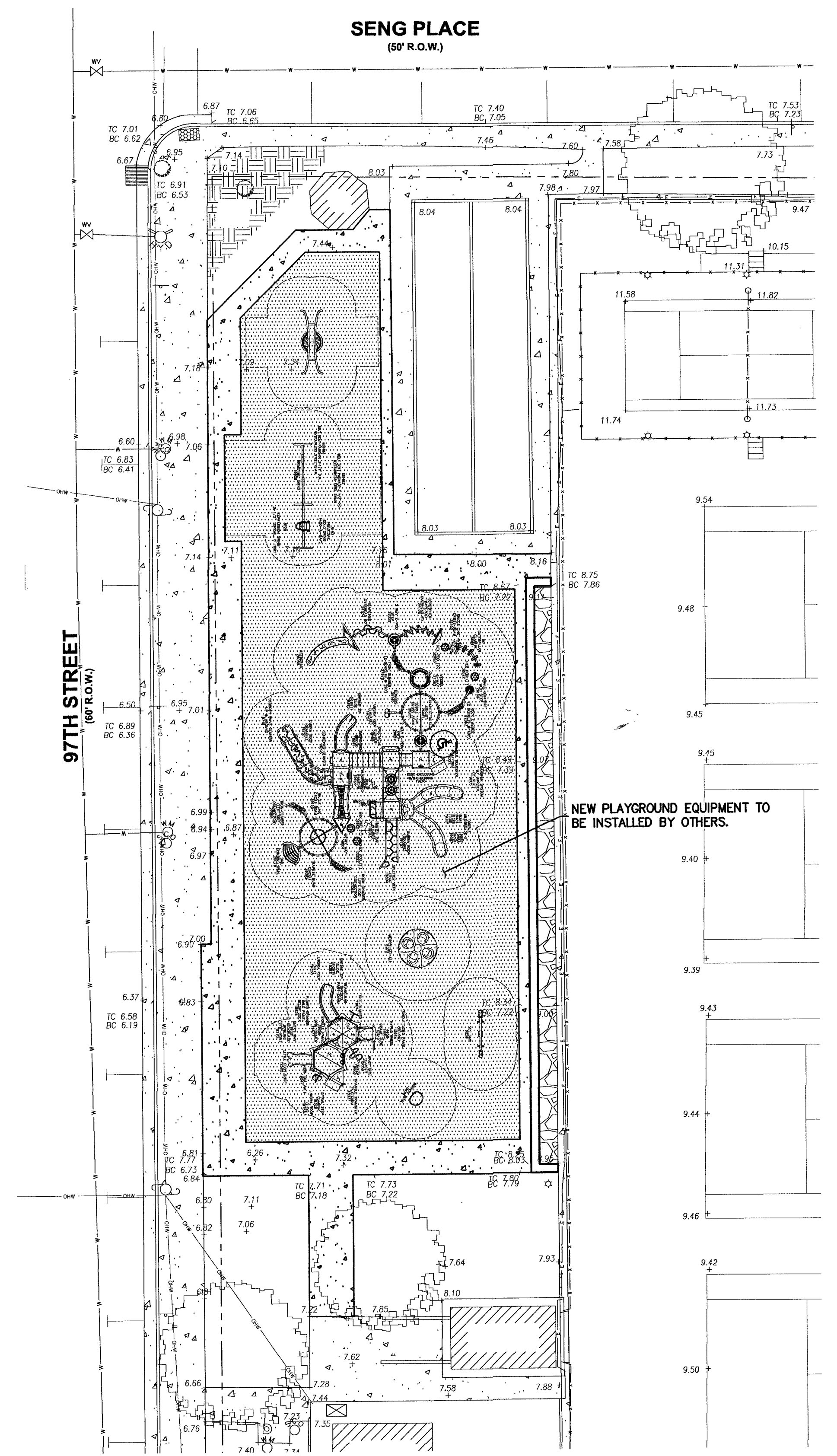
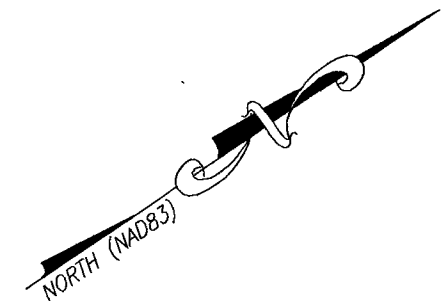
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*Marc A. DeBlasio* 9/24/2024  
**MARC A. DEBLASIO, PE** DATE

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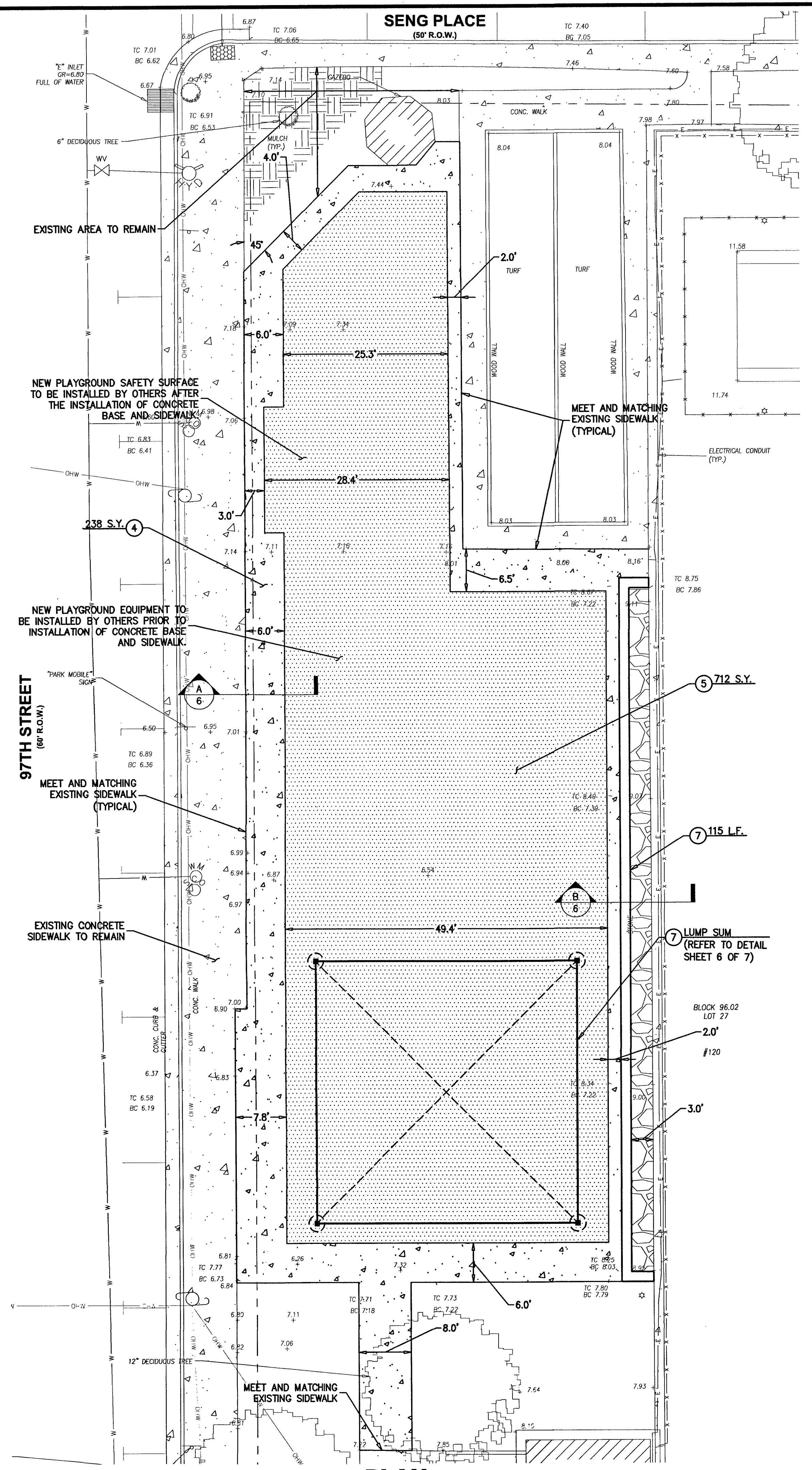
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**PLAN**

(FOR PLAYGROUND EQUIPMENT LAYOUT INFORMATION ONLY - NOT INCLUDED IN BID)

N.T.S.



**PLAN**

SCALE : 1"=10'

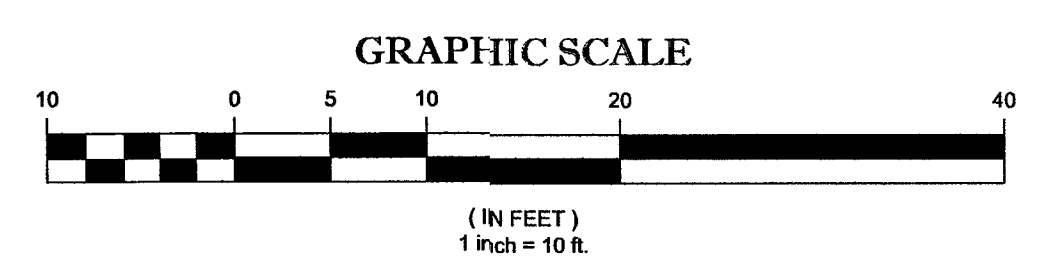
ITEM NO.	TO BE CONSTRUCTED	UNIT	PLAN QUANTITY	AS-BUILT QUANTITY
4	CONCRETE SIDEWALK, 4" THICK	S.Y.	238	
5	CONCRETE BASE COURSE, 4" THICK	L.F.	712	
6	DOUBLE-SIDED PAVER RETAINING WALL, 33" HIGH	L.F.	115	
7	PLAYGROUND FABRIC SHADE STRUCTURE, FURNISH AND INSTALL	LUMP SUM	LUMP SUM	

**LEGEND**

- PROPOSED CONCRETE SIDEWALK, 4" THICK
- PROPOSED CONCRETE BASE COURSE, 4" THICK

**SURVEY NOTES:**

1. EXISTING TOPOGRAPHIC INFORMATION SHOWN WAS BASED ON A FIELD SURVEY PERFORMED BY DEBLASIO & ASSOCIATES, P.C. UNDER THE SUPERVISION OF HENRY V. ENGEL, N.J.P.L.S. NO. 35833, COMPLETED ON 07/23/2024.
2. ELEVATIONS SHOWN HEREON ARE IN FEET AND REFER TO THE NORTH AMERICAN VERTICAL DATUM OF 1988.
3. HORIZONTAL CONTROL IS REFERENCED TO THE NEW JERSEY STATE PLANE COORDINATE SYSTEM (NAD 1983).
4. PROPERTY AND RIGHT-OF-WAY LINES SHOWN ARE APPROXIMATE LOCATIONS BASED ON THE CURRENT TAX MAPS OF THE CITY OF STONE HARBOR, CAPE MAY COUNTY, NEW JERSEY. SAID LINES ARE SHOWN FOR GRAPHICAL INFORMATION ONLY AND HAVE NOT BEEN FIELD VERIFIED.



NO.	DATE	APPR.	REVISION

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 NO. DATE APPR. REVISION  
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**MARC A. DEBLASIO, PE**  
 New Jersey License No. 41599  
 Scale: AS NOTED    Job No.: SH-C-060    Sheet No.: 4    Total: 7

**PROPOSED IMPROVEMENTS PLAN**

**DEBLASIO & ASSOCIATES**  
ENGINEERS, SURVEYORS AND PLANNERS

4701 NEW JERSEY AVENUE  
WILDWOOD, NJ 08260  
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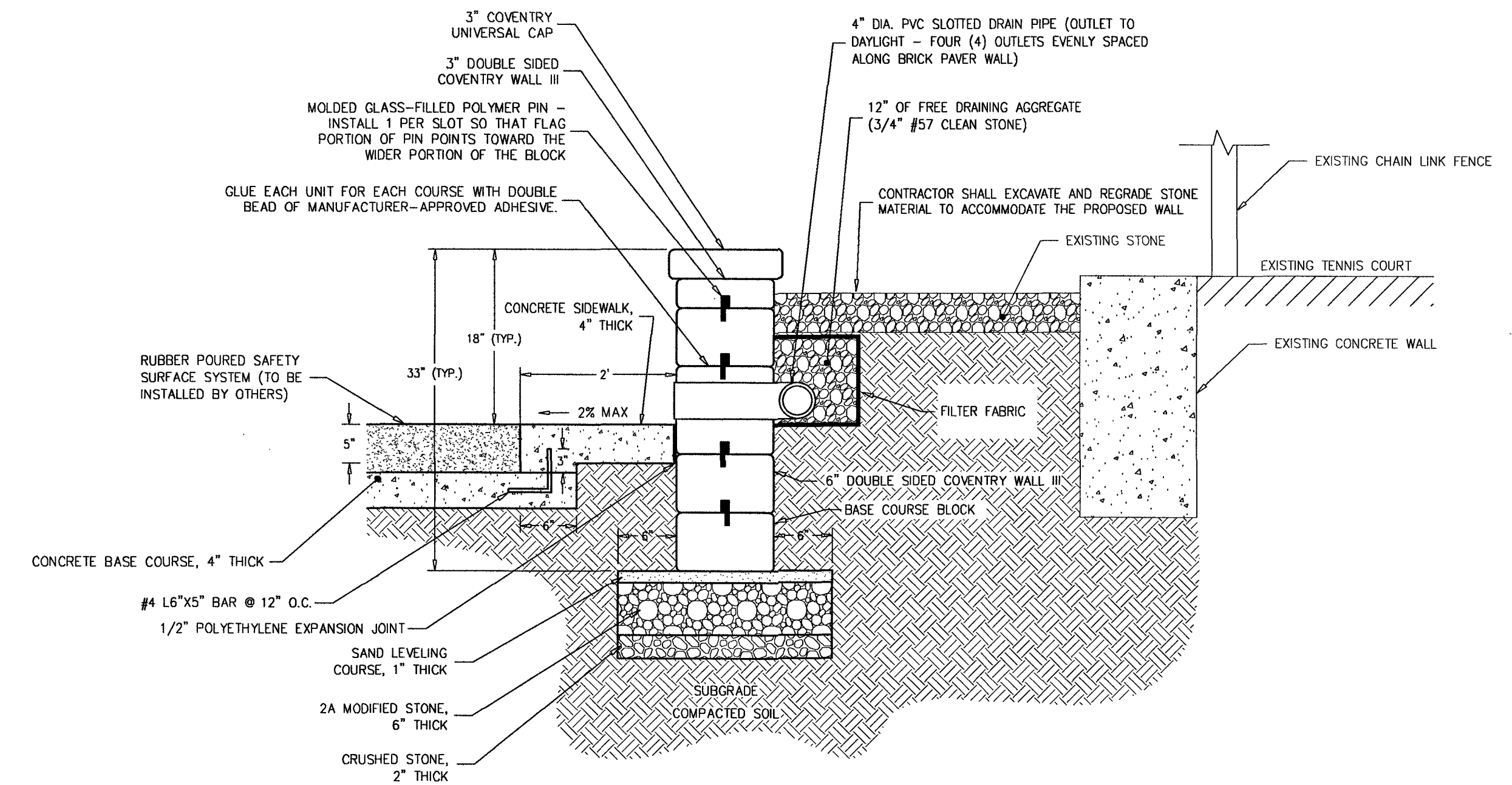
**96TH STREET RECREATION COMPLEX IMPROVEMENTS - CONTRACT 1 PLAYGROUND INSTALLATION**  
BOROUGH OF STONE HARBOR  
CAPE MAY COUNTY, NEW JERSEY

DESIGN: JAW    DRAWN: JAW    CHECK: MAD    DATE: 9/24/2024

*Marc DeBlasio* 9/24/2024  
MARC A. DEBLASIO, PE    DATE



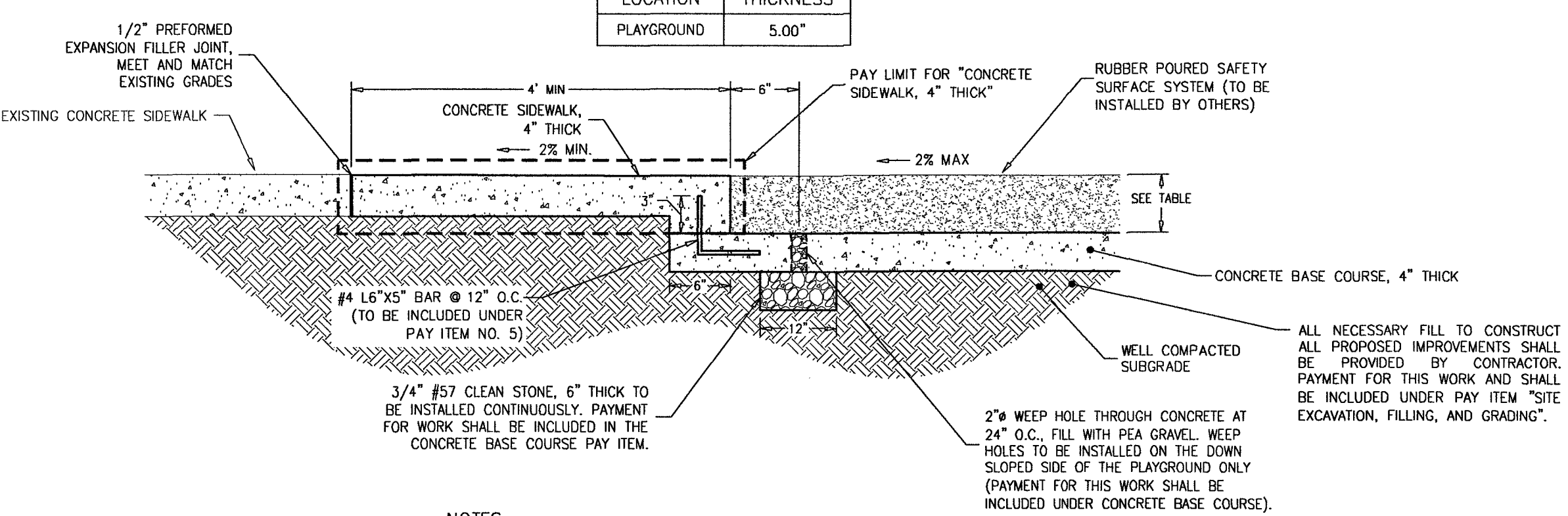




- NOTES:**
- PAVERS SHALL BE 6" HIGH BY 10" DEEP AND 3" HIGH BY 10" DEEP DOUBLE SIDED COVENTRY WALL III AS MANUFACTURED BY E.P. HENRY OR APPROVED EQUAL.
  - PAVER WALL COLOR SHALL BE PEWEE BLEND WITH MATCHING 3" CAP.
  - PLAYGROUND SAFETY SURFACE SHALL BE INSTALLED BY OTHERS.

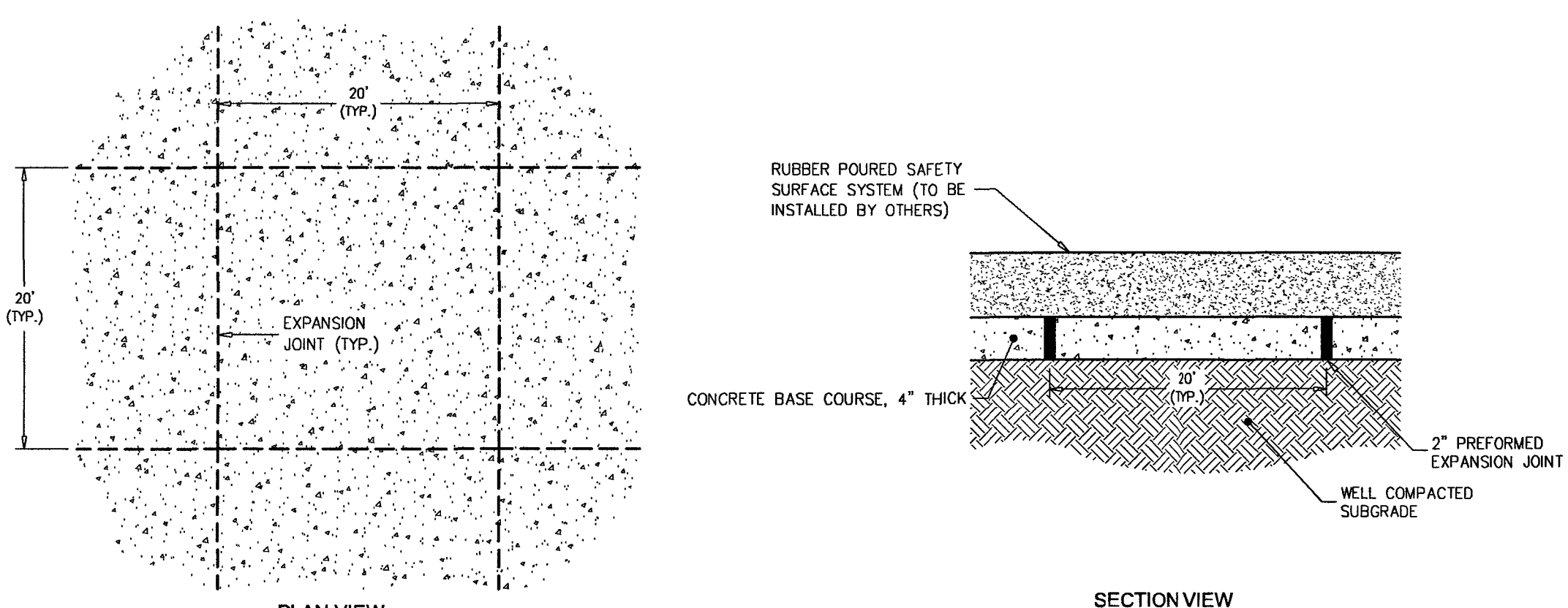
**TYPICAL PAVER WALL DETAIL** B  
6  
N.T.S.

SAFETY SURFACE	
LOCATION	THICKNESS
PLAYGROUND	5.00"

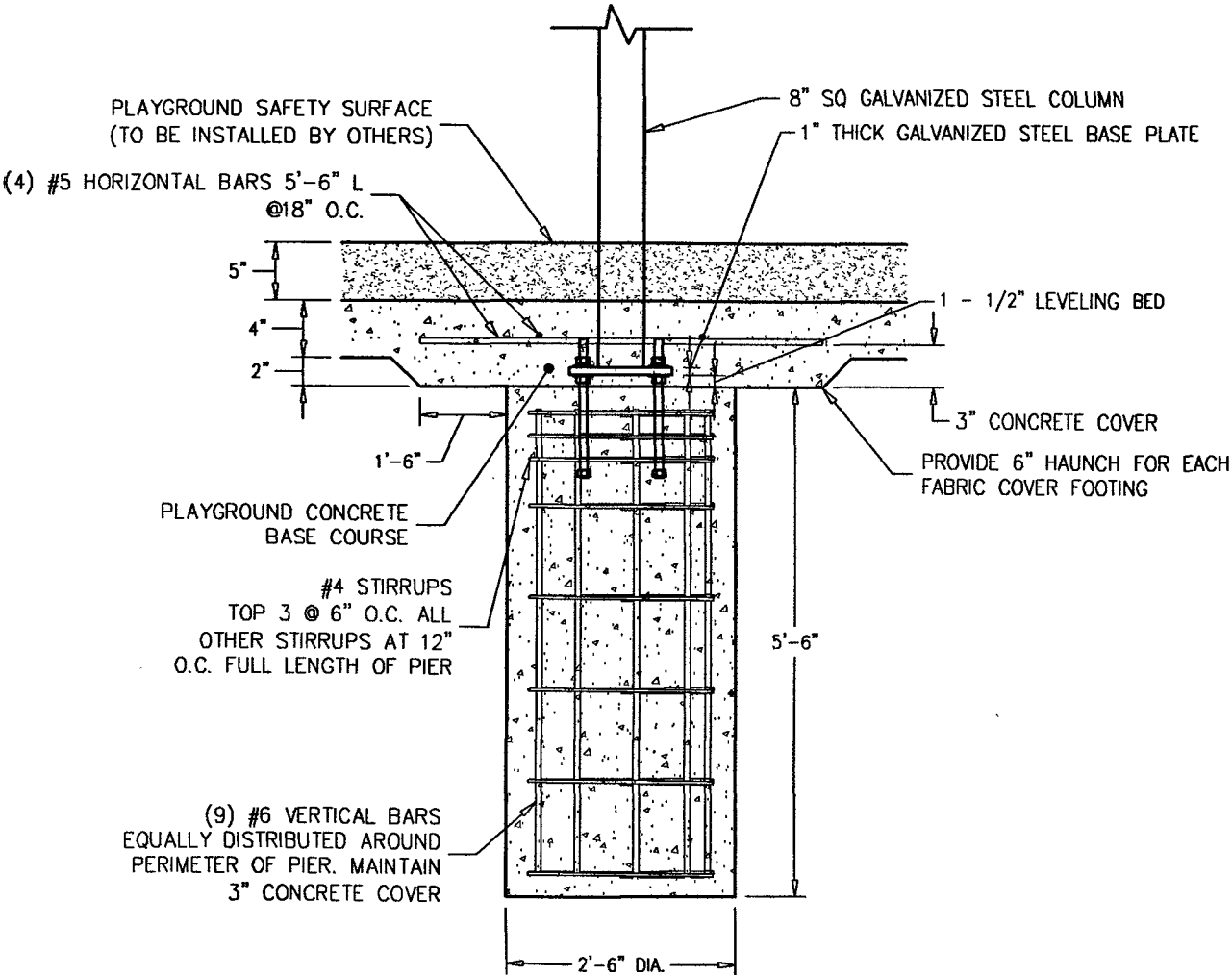
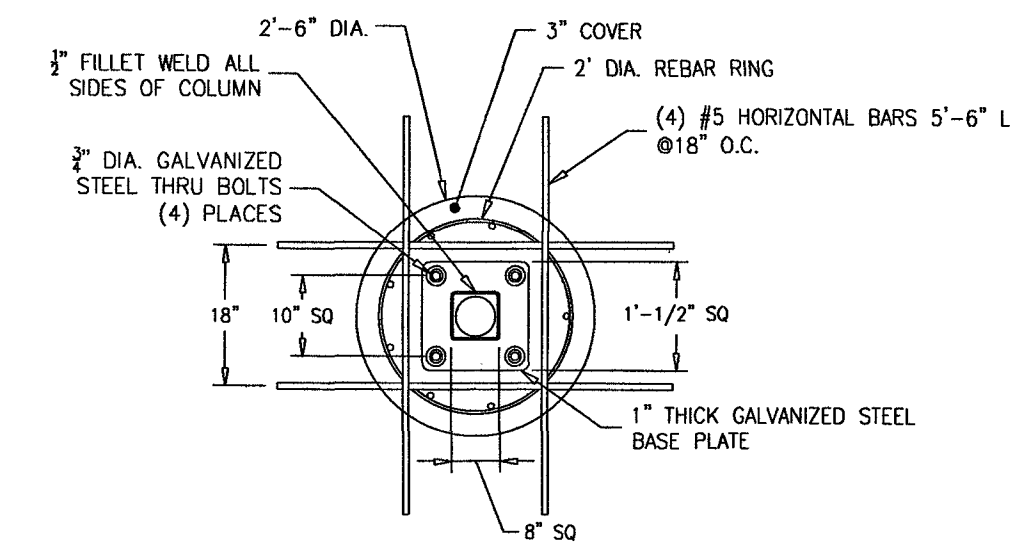


- NOTES:**
- REFER TO "CONCRETE BASE COURSE JOINT LAYOUT DETAIL."
  - REFER TO "CONCRETE SIDEWALK JOINT LAYOUT DETAIL."
  - THERE SHALL BE A BROOM FINISH WITH THE EDGES FINISHED WITH A SUITABLE TOOL.
  - WEEP HOLES TO BE INSTALLED ON THE DOWN SLOPED SIDE (SOUTH EDGE) OF THE PLAYGROUND ONLY.
  - PLAYGROUND SAFETY SURFACE SHALL BE INSTALLED BY OTHERS.
  - REBAR SHALL BE HOT-DIPPED GALVANIZED.

**PLAYGROUND SAFETY SURFACING & CONCRETE BASE COURSE DETAIL** A  
6  
N.T.S.

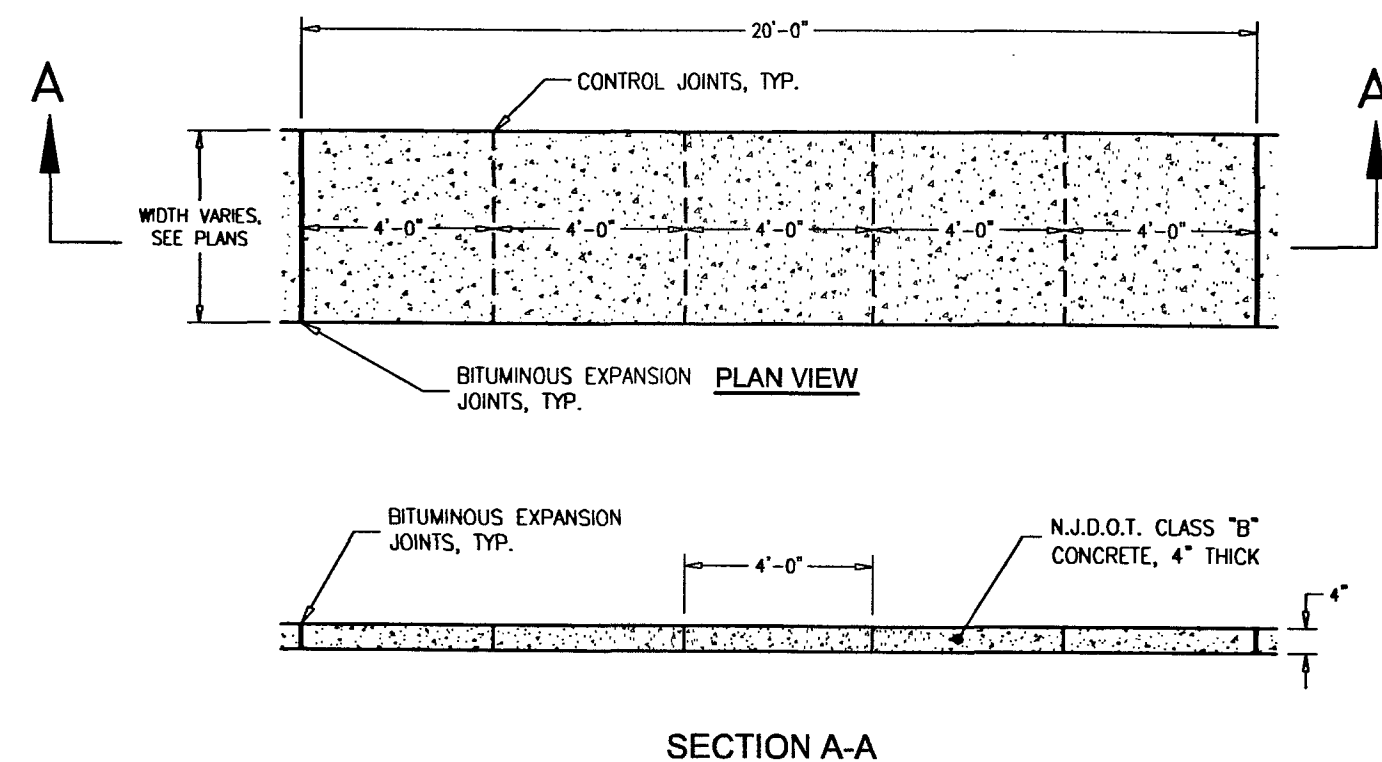


**CONCRETE BASE COURSE JOINT LAYOUT DETAIL**  
N.T.S.



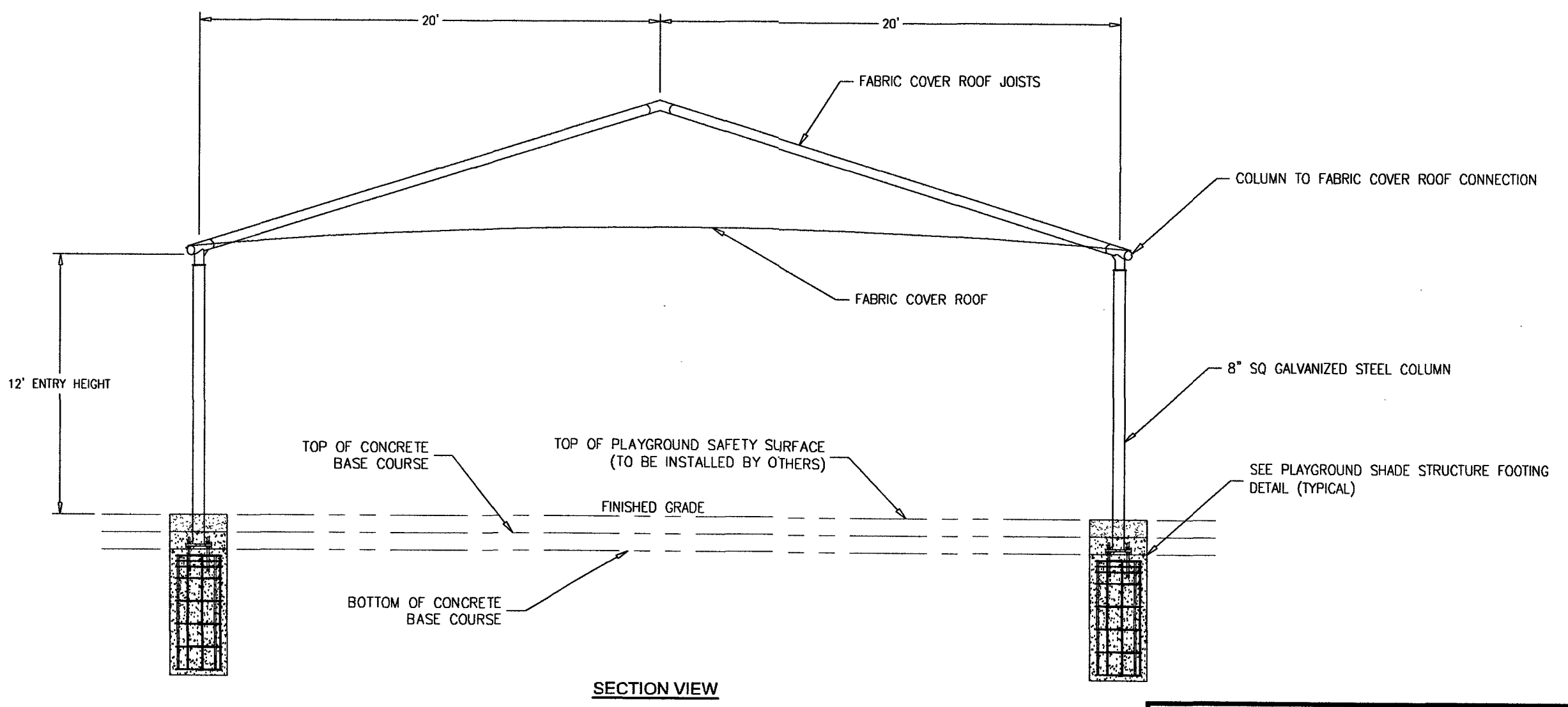
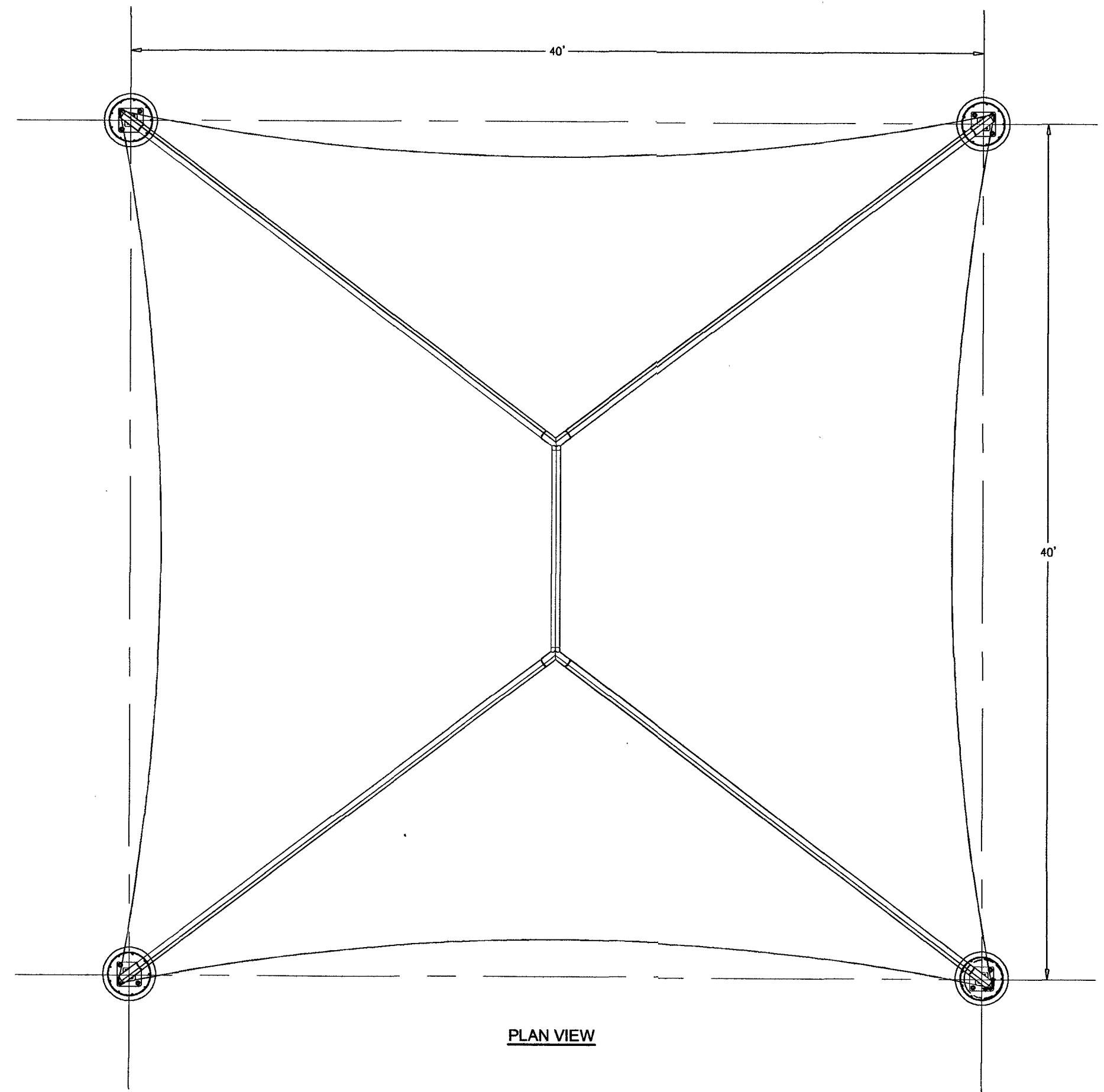
- NOTES:**
- THE DETAIL SHOWN IS FOR BIDDING PURPOSES ONLY AND IS NOT TO BE USED FOR CONSTRUCTION.
  - THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING SIGNED AND SEALED SHOP DRAWINGS FROM A NEW JERSEY LICENSED PROFESSIONAL ENGINEER AND SUBMIT TO THE ENGINEER PRIOR TO ORDERING MATERIALS AND CONSTRUCTION.
  - THE CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING THE REQUIRED FOOTINGS AND STEEL COLUMNS FOR THE PLAYGROUND FABRIC COVER.
  - PLAYGROUND SAFETY SURFACE SHALL BE INSTALLED BY OTHERS.
  - REBAR SHALL BE HOT-DIPPED GALVANIZED.

**PLAYGROUND SHADE STRUCTURE FOOTING DETAIL**  
N.T.S.



- NOTES:**
- A PREFORMED, BITUMINOUS EXPANSION JOINT 1/2" THICK AND EXTENDING THE FULL WIDTH OF THE WALK, UNBROKEN, SHALL BE INSTALLED EVERY 20 FEET. CONTROL JOINTS SHALL BE INSTALLED EVERY 4 FEET THE FULL WALK WIDTH.
  - THERE SHALL BE A BROOM FINISH WITH THE EDGES FINISHED WITH A SUITABLE TOOL.

**CONCRETE SIDEWALK JOINT LAYOUT DETAIL**  
N.T.S.



- NOTES:**
- THE DETAIL SHOWN IS FOR BIDDING PURPOSES ONLY AND IS NOT TO BE USED FOR CONSTRUCTION.
  - THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING SIGNED AND SEALED SHOP DRAWINGS FROM A NEW JERSEY LICENSED PROFESSIONAL ENGINEER AND SUBMIT TO THE ENGINEER PRIOR TO ORDERING MATERIALS AND CONSTRUCTION.
  - THE CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING THE REQUIRED FOOTINGS, FABRIC, STEEL COLUMNS, AND ALL ELSE NECESSARY FOR THE PLAYGROUND SHADE STRUCTURE.
  - PLAYGROUND SAFETY SURFACE SHALL BE INSTALLED BY OTHERS.

**PLAYGROUND SHADE STRUCTURE, 40' X 40' DETAIL**  
N.T.S.

NO.	DATE	APPR.	REVISION

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**CONSTRUCTION DETAILS**

**DeBlasio & Associates**  
ENGINEERS, SURVEYORS AND PLANNERS

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**96TH STREET RECREATION COMPLEX IMPROVEMENTS - CONTRACT 1 PLAYGROUND INSTALLATION**  
BOROUGH OF STONE HARBOR  
CAPE MAY COUNTY, NEW JERSEY

Design: JAW	Drawn: RGC/JAW	Check: MAD	Date: 9/24/2024
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Marc A. DeBlasio 9/24/2024  
MARC A. DEBLASIO, PE DATE  
New Jersey License No. 41599

Scale: AS NOTED	Job No: ST-C-050	Sheet No: 6	Total: 7
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**SOIL EROSION AND SEDIMENT CONTROL NOTES**

- ALL SOIL EROSION AND SEDIMENT CONTROL PRACTICES WILL BE INSTALLED IN ACCORDANCE WITH THE NJ STANDARDS FOR SOIL EROSION AND SEDIMENT CONTROL, AND WILL BE INSTALLED IN PROPER SEQUENCE AND MAINTAINED UNTIL PERMANENT PROTECTION IS ESTABLISHED. ANY DISTURBED AREA THAT IS LEFT UNPROTECTED FOR MORE THAN TEN (10) DAYS AND NOT SUBJECT TO CONSTRUCTION TRAFFIC SHALL IMMEDIATELY RECEIVE A TEMPORARY SEEDING. IF THE SEASON PROHIBITS TEMPORARY SEEDING, THE DISTURBED AREA WILL BE MULCHED WITH SALT HAY OR EQUIVALENT AND BOUND TO ACCORDANCE WITH THE NJ STANDARDS (I.E. PEG AND TWINE, MULCH NETTING, OR LIQUID MULCH BINDER).
- IMMEDIATELY FOLLOWING INITIAL DISTURBANCE OR ROUGH GRADING, ALL CRITICAL AREAS SUBJECT TO EROSION WILL RECEIVE A TEMPORARY SEEDING IN COMBINATION WITH STRAW MULCH OR A SUITABLE EQUIVALENT, AT A RATE OF 2 TONS PER ACRE, ACCORDING TO THE NJ STANDARDS.
- STABILIZATION SPECIFICATIONS:**
  - TEMPORARY SEEDING AND MULCHING:**
    - LIME - 90 LBS/1,000 SF GROUND LIMESTONE; FERTILIZER - 14 LBS/1,000 SF; 10-20-10 OR EQUIVALENT WORKED INTO SOIL A MINIMUM OF 4"
    - SEED - PERENNIAL RYEGRASS 100 LBS/ACRE OR OTHER APPROVED SEEDS; PLANT BETWEEN MARCH 1 AND MAY 15 OR BETWEEN AUGUST 15 AND OCTOBER 1
    - MULCH - SALT HAY OR SMALL GRAIN STRAW AT A RATE OF 70 TO 90 LBS/1,000 SF, TO BE APPLIED ACCORDING TO THE NJ STANDARDS. MULCH SHALL BE SECURED BY APPROVED METHODS (I.E. PEG AND TWINE, MULCH NETTING, OR LIQUID MULCH BINDER).
  - PERMANENT SEEDING AND MULCHING:**
    - LIME - 90 LBS/1,000 SF GROUND LIMESTONE; FERTILIZER - 14 LBS/1,000 SF; 10-20-10 OR EQUIVALENT WORKED INTO SOIL A MINIMUM OF 4"
    - SEED - PERENNIAL RYEGRASS 40 LBS/ACRE OR OTHER APPROVED SEEDS; PLANT BETWEEN MARCH 1 AND MAY 15 OR BETWEEN AUGUST 15 AND OCTOBER 1
    - MULCH - SALT HAY OR SMALL GRAIN STRAW AT A RATE OF 70 TO 90 LBS/1,000 SF, TO BE APPLIED ACCORDING TO THE NJ STANDARDS. MULCH SHALL BE SECURED BY APPROVED METHODS (I.E. PEG AND TWINE, MULCH NETTING, OR LIQUID MULCH BINDER).
- TEMPORARY BERMS ARE TO BE INSTALLED ON ALL CLEAR ROADWAYS AND EASEMENT AREAS IN ACCORDANCE WITH SECTION 4.21 OF THE NJ STANDARDS.
- THE SITE SHALL AT ALL TIMES BE GRADED AND MAINTAINED SUCH THAT ALL STORM-WATER RUN-OFF IS DIVERTED TO SOIL EROSION AND SEDIMENT CONTROL FACILITIES.
- ALL SEDIMENTATION STRUCTURES WILL BE INSPECTED AND MAINTAINED ON A REGULAR BASIS.
- STOCKPILES ARE NOT TO BE LOCATED WITHIN 50' OF A FLOODPLAIN, SLOPE, ROADWAY, OR DRAINAGE FACILITY. THE BASE OF ALL STOCKPILES SHOULD BE PROTECTED BY A HAY BALE BARRIER OR SEDIMENT FENCE.
- A CRUSHED STONE VEHICLE WHEEL-CLEANING BLANKET WILL BE INSTALLED WHEREVER A CONSTRUCTION ACCESS ROAD INTERSECTS ANY PAVED ROADWAY. SAID BLANKET WILL BE COMPOSED OF 2 1/2" CRUSHED STONE. 6" THICK, WILL BE AT LEAST 30' x 100' AND SHOULD BE UNDERLAIN WITH A SUITABLE SYNTHETIC SEDIMENT FILTER FABRIC AND MAINTAINED.
- MAXIMUM SIDE SLOPES OF ALL EXPOSED SURFACES SHALL NOT EXCEED 3:1 UNLESS OTHERWISE APPROVED BY THE DISTRICT.
- ALL DRIVEWAYS MUST BE STABILIZED WITH 2 1/2" CRUSHED STONE OR SUBBASE PRIOR TO INDIVIDUAL LOT CONSTRUCTION.
- PAVED ROADWAYS MUST BE KEPT CLEAN AT ALL TIMES.
- ALL CATCH BASIN INLETS WILL BE PROTECTED WITH A CRUSHED STONE OR FABRIC FILTER (FILTER DETAILS APPEAR ON THE PLAN).
- ALL STORM DRAINAGE OUTLETS WILL BE STABILIZED, AS REQUIRED, BEFORE THE DISCHARGE POINTS BECOME OPERATIONAL.
- ALL DEWATERING OPERATIONS MUST DISCHARGE DIRECTLY INTO A SEDIMENT FILTER AREA. THE SEDIMENT FILTER SHOULD BE COMPOSED OF A SUITABLE SEDIMENT FILTER FABRIC (SEE DETAIL).
- THE CAPE/ATLANTIC SOIL CONSERVATION DISTRICT MUST BE NOTIFIED, IN WRITING, AT LEAST 48 HOURS PRIOR TO ANY LAND DISTURBANCE.
- THE CAPE/ATLANTIC SOIL CONSERVATION DISTRICT MAY REQUEST ADDITIONAL MEASURES TO MINIMIZE ON OR OFF-SITE EROSION PROBLEMS DURING CONSTRUCTION.

**TEMPORARY VEGETATIVE COVER FOR SOIL STABILIZATION**

- SITE PREPARATION**
  - GRADE AS NEEDED AND FEASIBLE TO PERMIT THE USE OF CONVENTIONAL EQUIPMENT FOR SEEDBED PREPARATION, SEEDING, MULCH APPLICATION, AND MULCH ANCHORING.
  - INSTALL NEEDED EROSION CONTROL PRACTICES OR FACILITIES SUCH AS DIVERSIONS, GRADE STABILIZATION STRUCTURES, CHANNEL STABILIZATION MEASURES, SEDIMENT BASINS, AND WATERWAYS.
- SEEDBED PREPARATION**
  - APPLY LIMESTONE AND FERTILIZER. 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. APPLY LIMESTONE (EQUIVALENT TO 50% CALCIUM PLUS MAGNESIUM OXIDES) AS FOLLOWS:

SOIL TEXTURE	TONS/ACRE	LBS./1000 SQ. FT.
CLAY, CLAY LOAM, AND HIGH ORGANIC SOIL	3	135
SANDY LOAM, LOAM, SILT LOAM	2	90
LOAMY SAND, SAND	1	45

    - PULVERIZED DOLOMITIC LIMESTONE IS PREFERRED FOR MOST SOILS SOUTH OF THE NEW BRUNSWICK-TRENTON LINE.
  - 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 DISCING OPERATION SHOULD BE ON THE GENERAL CONTOUR. CONTINUE TILLAGE UNTIL A REASONABLY UNIFORM SEEDBED IS PREPARED.
  - INSPECT SEEDBED JUST BEFORE SEEDING. IF TRAFFIC HAS LEFT THE SOIL COMPACTED, THE AREA MUST BE RETILLED AS ABOVE.
  - SOILS HIGH ON SULFIDES OR HAVING A pH OF 4 OR LESS SHOULD BE MULCHED ONLY.
- SEEDING**
  - SEE TEMPORARY SEED MIXTURE FOR SPECIES AND APPLICATION RATES.
  - APPLY SEED UNIFORMLY BY HAND, CYCLONE(CENTRIFUGAL) SEEDER, DROP SEEDER, DRILL, CULTIPACKER SEEDER, OR HYDROSEEDER. MULCH SHALL NOT BE INCLUDED IN A HYDRO-SEEDER TANK WITH SEED. SEED SHALL BE INCORPORATED INTO THE SOIL BY RAKING OR DRAGGING. DEPTH OF SEED PLACEMENT MAY BE 1/4" INCH DEEPER ON COURSE TEXTURED SOIL.
  - AFTER SEEDING, FIRING THE SOIL SHALL BE PERFORMED WITH A CORRUGATED ROLLER WILL ASSURE GOOD SEED-TO-SOIL CONTACT, RESTORE CAPILLARITY, AND IMPROVE SEEDING EMERGENCE.
- MULCHING**

MULCHING IS REQUIRED ON ALL SEEDING.

  - MULCH MATERIALS SHOULD BE UNROTTED SMALL GRAIN STRAW, HAY FREE OF SEEDS, OR SALT HAY TO BE 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 MUST BE DOUBLE THE LOWER RATE. MULCH CHOPPER-BLOWERS MUST NOT GRIND THE MATERIAL.
  - SPREAD UNIFORMLY BY HAND OR MECHANICALLY SO THAT APPROXIMATELY 75% TO 95% 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.
  - MULCH ANCHORING SHOULD 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 CRISS-CROSS AND SQUARE PATTERN. SECURE TWINE AROUND EACH PEG WITH TWO OR MORE ROUND TURNS.
    - MULCH NETTING - STAPLE PAPER, JUTE, COTTON, OR PLASTIC NETTING 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.
  - WOOD-FIBER OR PAPER-FIBER MULCH AT THE RATE OF 1,500 POUNDS PER ACRE MAY BE APPLIED BY A HYDROSEEDER. USE IS LIMITED TO FLATTER SLOPES AND DURING OPTIMUM SEEDING PERIODS IN SPRING AND FALL.

**TEMPORARY SEEDING MIXTURE**

- THIS SEEDING MIXTURE IS COMPOSED OF A SINGLE SPECIES WHICH GERMINATES QUICKLY IN ORDER TO REDUCE SOIL EROSION UNTIL A PERMANENT VEGETATIVE COVER CAN BE COVER ESTABLISHED. A MIXTURE OF EQUAL QUALITY MAY BE SUBSTITUTED IF APPROVED BY OUR OFFICE.
- | %    | COMMON NAME        | BOTANICAL NAME |
|------|--------------------|----------------|
| 100% | PERENNIAL RYEGRASS | LOLIUM PERENNE |
- THE MINIMUM APPLICATION RATE FOR THIS SEEDING MIXTURE SHALL BE FOUR (4) POUNDS/1000 SQUARE FEET OR 160 POUNDS/ACRE.
- THE OPTIMAL SEEDING DATES FOR PERENNIAL RYEGRASS FOR CAPE-ATLANTIC REGION ARE 2/15 - 4/30 AND 8/15 - 10/30. SUMMER SEEDING SHALL BE PERFORMED ONLY IF ADEQUATE IRRIGATION IS PROVIDED TO ENSURE SUCCESSFUL GERMINATION.

**TEMPORARY SEEDING MIXTURE**

- THIS SEEDING MIXTURE IS COMPOSED OF DROUGHT-TOLERANT SPECIES WHICH CAN THRIVE WITH LOW MAINTENANCE. THE PROPRIETARY NAME OF THE MIXTURE IS RECLAIM CONSERVATION MIX-MOST FORMULA AS MANUFACTURED BY LOFTS, INC., BOUND BROOK, N.J. 08805, (800)526-3890. A MIXTURE OF EQUAL QUALITY MAY BE SUBSTITUTED IF APPROVED BY OUR OFFICE.
- | %  | COMMON NAME               | BOTANICAL NAME                           |
|----|---------------------------|--|
| 50 | CLEMFINE TALL FESCUE      | FESTUCA ARUNDINACEA "CLEMFINE"           |
| 20 | RELIANT HARD FESCUE       | FESTUCA LONGIFOLIA "RELIANT"             |
| 10 | JAMESTOWN CHEWINGS FESCUE | FESTUCA RUBRA VAR. COMMUTATA "JAMESTOWN" |
| 10 | PALMER PERENNIAL RYE      | LOLIUM PERENNE "PALMER"                  |
| 5  | WHITE CLOVER              | TRIFOLIUM REPENS                         |
| 5  | BLACKWELL SWITCHGRASS     | PANICUM VIRGATUM "BLACKWELL"             |
- THE MINIMUM APPLICATION RATE FOR THIS SEEDING MIXTURE SHALL BE FOUR (4) POUNDS/1000 SQUARE FEET OR 175 POUNDS/ACRE.
- THE OPTIMAL SEEDING DATES FOR MOST COOL SEASON GRASSES FOR CAPE-ATLANTIC REGION ARE 2/15 - 4/30 AND 8/15 - 10/30. SUMMER SEEDING SHALL BE PERFORMED ONLY IF ADEQUATE IRRIGATION IS PROVIDED TO ENSURE SUCCESSFUL GERMINATION.

**TEMPORARY SEEDING MIXTURE**

- THIS SEEDING MIXTURE IS COMPOSED OF MOISTURE-TOLERANT SPECIES WHICH CAN THRIVE WITH LOW MAINTENANCE. THE PROPRIETARY NAME OF THE MIXTURE IS RECLAIM CONSERVATION MIX-MOST FORMULA AS MANUFACTURED BY LOFTS, INC., BOUND BROOK, N.J. 08805, (800)526-3890. A MIXTURE OF EQUAL QUALITY MAY BE SUBSTITUTED IF APPROVED BY OUR OFFICE.
- | %  | COMMON NAME               | BOTANICAL NAME                 |
|----|---------------------------|--------------------------------|
| 55 | CLEMFINE TALL FESCUE      | FESTUCA ARUNDINACEA "CLEMFINE" |
| 10 | NASSAU KENTUCKY BLUEGRASS | POA PRATENSIS "NASSAU"         |
| 10 | PALMER PERENNIAL RYE      | LOLIUM PERENNE "PALMER"        |
| 10 | LASER POA TRIFOLIUM       | LASIUM TRIFOLIUM               |
| 5  | STREAKER REDTOP           | AGROSTIS ALBA "STREAKER"       |
| 5  | REED CANARY GRASS         | PHALARIS ARUNDINACEA           |
- THE MINIMUM APPLICATION RATE FOR THIS SEEDING MIXTURE SHALL BE FIVE (5) POUNDS/1000 SQUARE FEET OR 220 POUNDS/ACRE.
- THE OPTIMAL SEEDING DATES FOR MOST COOL SEASON GRASSES FOR CAPE-ATLANTIC REGION ARE 2/15 - 4/30 AND 8/15 - 10/30. SUMMER SEEDING SHALL BE PERFORMED ONLY IF ADEQUATE IRRIGATION IS PROVIDED TO ENSURE SUCCESSFUL GERMINATION.

**TEMPORARY SEEDING MIXTURE**

- THIS SEEDING MIXTURE IS COMPOSED OF DROUGHT-TOLERANT SPECIES WHICH CAN THRIVE WITH LOW MAINTENANCE. THE PROPRIETARY NAME OF THE MIXTURE IS RECLAIM CONSERVATION MIX-MOST FORMULA AS MANUFACTURED BY LOFTS, INC., BOUND BROOK, N.J. 08805, (800)526-3890. A MIXTURE OF EQUAL QUALITY MAY BE SUBSTITUTED IF APPROVED BY OUR OFFICE.
- | %  | COMMON NAME               | BOTANICAL NAME                           |
|----|---------------------------|--|
| 50 | CLEMFINE TALL FESCUE      | FESTUCA ARUNDINACEA "CLEMFINE"           |
| 20 | RELIANT HARD FESCUE       | FESTUCA LONGIFOLIA "RELIANT"             |
| 10 | JAMESTOWN CHEWINGS FESCUE | FESTUCA RUBRA VAR. COMMUTATA "JAMESTOWN" |
| 10 | PALMER PERENNIAL RYE      | LOLIUM PERENNE "PALMER"                  |
| 5  | WHITE CLOVER              | TRIFOLIUM REPENS                         |
| 5  | BLACKWELL SWITCHGRASS     | PANICUM VIRGATUM "BLACKWELL"             |
- THE MINIMUM APPLICATION RATE FOR THIS SEEDING MIXTURE SHALL BE FOUR (4) POUNDS/1000 SQUARE FEET OR 175 POUNDS/ACRE.
- THE OPTIMAL SEEDING DATES FOR MOST COOL SEASON GRASSES FOR CAPE-ATLANTIC REGION ARE 2/15 - 4/30 AND 8/15 - 10/30. SUMMER SEEDING SHALL BE PERFORMED ONLY IF ADEQUATE IRRIGATION IS PROVIDED TO ENSURE SUCCESSFUL GERMINATION.

**PERMANENT VEGETATIVE COVER FOR SOIL STABILIZATION**

- SITE PREPARATION**
  - GRADE AS NEEDED AND FEASIBLE TO PERMIT THE USE OF CONVENTIONAL EQUIPMENT FOR SEEDBED PREPARATION, SEEDING, MULCH APPLICATION, AND MAINTENANCE.
  - INSTALL NEEDED EROSION CONTROL PRACTICES OR FACILITIES SUCH AS DIVERSIONS, GRADE STABILIZATION STRUCTURES, CHANNEL STABILIZATION MEASURES, SEDIMENT BASINS, AND WATERWAYS.
- SEEDBED PREPARATION**
  - APPLY LIMESTONE AND FERTILIZER. 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. APPLY LIMESTONE (EQUIVALENT TO 50% CALCIUM PLUS MAGNESIUM OXIDES) AS FOLLOWS:

SOIL TEXTURE	TONS/ACRE	LBS./1000 SQ. FT.
CLAY, CLAY LOAM, AND HIGH ORGANIC SOIL	4	180
SANDY LOAM, LOAM, SILT LOAM	3	135
LOAMY SAND, SAND	2	90

    - PULVERIZED DOLOMITIC LIMESTONE IS PREFERRED FOR MOST SOILS SOUTH OF THE NEW BRUNSWICK-TRENTON LINE.
  - 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 DISCING OPERATION SHOULD BE ON THE GENERAL CONTOUR. CONTINUE TILLAGE UNTIL A REASONABLY UNIFORM SEEDBED IS PREPARED. ALL BUT CLAY OR SILTY SOILS AND COURSE SANDS SHOULD BE ROLLED TO FIRM THE SEEDBED WHERE FEASIBLE.
  - REMOVE FROM THE SURFACE ALL STONES TWO INCHES OR LARGER IN ANY DIMENSION. REMOVE ALL OTHER DEBRIS, SUCH AS WIRE, CABLE, TREE ROOTS, PIECES OF CONCRETE, CLOUDS, LUMPS, OR OTHER UNSUITABLE MATERIAL.
  - INSPECT SEEDBED JUST BEFORE SEEDING. IF TRAFFIC HAS LEFT THE SOIL COMPACTED, THE AREA MUST BE RETILLED AND FIRMED AS ABOVE.
- SEEDING**
  - SEE PERMANENT SEED MIXTURE FOR SPECIES AND APPLICATION RATES.
  - APPLY SEED UNIFORMLY BY HAND, CYCLONE(CENTRIFUGAL) SEEDER, DROP SEEDER, DRILL, CULTIPACKER SEEDER, OR HYDROSEEDER. MULCH SHALL NOT BE INCLUDED IN A HYDRO-SEEDER TANK WITH SEED. EXCEPT FOR DRILLED, HYDROSEEDER OR CULTIPACKED SEEDING, SHALL BE INCORPORATED INTO THE SOIL TO A DEPTH OF 1/4 TO 1/2 INCH. BY RAKING OR DRAGGING. DEPTH OF SEED PLACEMENT MAY BE 1/4" INCH DEEPER ON COURSE TEXTURED SOIL.
  - AFTER SEEDING, FIRING THE SOIL SHALL BE PERFORMED WITH A CORRUGATED ROLLER WILL ASSURE GOOD SEED-TO-SOIL CONTACT, RESTORE CAPILLARITY, AND IMPROVE SEEDING EMERGENCE.
- MULCHING**

MULCHING IS REQUIRED ON ALL SEEDING.

  - MULCH MATERIALS SHOULD BE UNROTTED SMALL GRAIN STRAW, HAY FREE OF SEEDS, OR SALT HAY TO BE 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 MUST BE DOUBLE THE LOWER RATE. MULCH CHOPPER-BLOWERS MUST NOT GRIND THE MATERIAL.
  - SPREAD UNIFORMLY BY HAND OR MECHANICALLY SO THAT APPROXIMATELY 75% TO 95% 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.
  - MULCH ANCHORING SHOULD 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 CRISS-CROSS AND SQUARE PATTERN. SECURE TWINE AROUND EACH PEG WITH TWO OR MORE ROUND TURNS.
    - MULCH NETTING - STAPLE PAPER, JUTE, COTTON, OR PLASTIC NETTING 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.
    - WOOD-FIBER OR PAPER-FIBER MULCH AT THE RATE OF 1,500 POUNDS PER ACRE MAY BE APPLIED BY A HYDROSEEDER. USE IS LIMITED TO FLATTER SLOPES AND DURING OPTIMUM SEEDING PERIODS IN SPRING AND FALL.

**PERMANENT SEEDING MIXTURE (DRY)**

- THIS SEEDING MIXTURE IS COMPOSED OF DROUGHT-TOLERANT SPECIES WHICH CAN THRIVE WITH LOW MAINTENANCE. THE PROPRIETARY NAME OF THE MIXTURE IS RECLAIM CONSERVATION MIX-DRY FORMULA AS MANUFACTURED BY LOFTS, INC., BOUND BROOK, N.J. 08805, (800)526-3890. A MIXTURE OF EQUAL QUALITY MAY BE SUBSTITUTED IF APPROVED BY OUR OFFICE.
- | %  | COMMON NAME               | BOTANICAL NAME                           |
|----|---------------------------|--|
| 50 | CLEMFINE TALL FESCUE      | FESTUCA ARUNDINACEA "CLEMFINE"           |
| 20 | RELIANT HARD FESCUE       | FESTUCA LONGIFOLIA "RELIANT"             |
| 10 | JAMESTOWN CHEWINGS FESCUE | FESTUCA RUBRA VAR. COMMUTATA "JAMESTOWN" |
| 10 | PALMER PERENNIAL RYE      | LOLIUM PERENNE "PALMER"                  |
| 5  | WHITE CLOVER              | TRIFOLIUM REPENS                         |
| 5  | BLACKWELL SWITCHGRASS     | PANICUM VIRGATUM "BLACKWELL"             |
- THE MINIMUM APPLICATION RATE FOR THIS SEEDING MIXTURE SHALL BE FOUR (4) POUNDS/1000 SQUARE FEET OR 175 POUNDS/ACRE.
- THE OPTIMAL SEEDING DATES FOR MOST COOL SEASON GRASSES FOR CAPE-ATLANTIC REGION ARE 2/15 - 4/30 AND 8/15 - 10/30. SUMMER SEEDING SHALL BE PERFORMED ONLY IF ADEQUATE IRRIGATION IS PROVIDED TO ENSURE SUCCESSFUL GERMINATION.

**PERMANENT SEEDING MIXTURE (MOIST)**

- THIS SEEDING MIXTURE IS COMPOSED OF MOISTURE-TOLERANT SPECIES WHICH CAN THRIVE WITH LOW MAINTENANCE. THE PROPRIETARY NAME OF THE MIXTURE IS RECLAIM CONSERVATION MIX-MOST FORMULA AS MANUFACTURED BY LOFTS, INC., BOUND BROOK, N.J. 08805, (800)526-3890. A MIXTURE OF EQUAL QUALITY MAY BE SUBSTITUTED IF APPROVED BY OUR OFFICE.
- | %  | COMMON NAME               | BOTANICAL NAME                 |
|----|---------------------------|--------------------------------|
| 55 | CLEMFINE TALL FESCUE      | FESTUCA ARUNDINACEA "CLEMFINE" |
| 10 | NASSAU KENTUCKY BLUEGRASS | POA PRATENSIS "NASSAU"         |
| 10 | PALMER PERENNIAL RYE      | LOLIUM PERENNE "PALMER"        |
| 10 | LASER POA TRIFOLIUM       | LASIUM TRIFOLIUM               |
| 5  | STREAKER REDTOP           | AGROSTIS ALBA "STREAKER"       |
| 5  | REED CANARY GRASS         | PHALARIS ARUNDINACEA           |
- THE MINIMUM APPLICATION RATE FOR THIS SEEDING MIXTURE SHALL BE FIVE (5) POUNDS/1000 SQUARE FEET OR 220 POUNDS/ACRE.
- THE OPTIMAL SEEDING DATES FOR MOST COOL SEASON GRASSES FOR CAPE-ATLANTIC REGION ARE 2/15 - 4/30 AND 8/15 - 10/30. SUMMER SEEDING SHALL BE PERFORMED ONLY IF ADEQUATE IRRIGATION IS PROVIDED TO ENSURE SUCCESSFUL GERMINATION.

**SPECIAL NOTES**

- TEMPORARY STABILIZATION - ALL EXPOSED AREAS NOT TO BE CONSTRUCTED UPON WITHIN 14 DAYS SHOULD RECEIVE TEMPORARY STABILIZATION. THE TEMPORARY SEEDING MIXTURES SHALL BE ANNUAL RYE GRASS AT A RATE OF 4 POUND PER 1000 SQ. FT. AND LIMED AT A RATE OF 45 LBS PER 1000 SQ. FT.
- PERMANENT STABILIZATION - ALL EXPOSED AREAS WHICH ARE TO BE PERMANENTLY VEGETATED SHOULD BE SEEDED WITHIN 7 DAYS OF FINAL GRADING, ACCORDING TO THE PERMANENT SEEDING SPECIFICATIONS.

**TOP SOILING**

- TOPSOIL SHOULD BE USED WHERE SOILS ARE: SANDS, GRAVELY SOILS, CLAYS, SILTY CLAYS, VERY SHALLOW, OR WHERE THEY ARE EXTREMELY ACID (LESS THAN PH4.0) OR SALTY (COND- ACTIVITY GREATER THAN 1.0 MILLIMHOS PER CENTIMETER), OR WHERE TOPSOIL IS AVAILABLE ON SITE AND ASSURANCE OF IMPROVED VEGETATIVE GROWTH IS DESIRED.
- MATERIALS**
    - TOPSOIL SHOULD BE FRIABLE AND LOAMY, FREE OF DEBRIS, OBJECTIONABLE WEEDS AND STORES, AND CONTAIN NO TOXIC SUBSTANCE THAT MAY BE HARMFUL TO PLANT GROWTH. A pH RANGE OF 5.0-7.5 IS ACCEPTABLE. SOLUBLE SALTS SHOULD NOT BE EXCESSIVE (CONDUCTIVITY LESS THAN 0.5 MILLIMHOS PER CENTIMETER). TOPSOIL HAULED IN FROM OFF SITE SHOULD HAVE A MINIMUM ORGANIC MATTER CONTENT OF 2.75 PERCENT. ORGANIC MATTER CONTENT MAY BE RAISED BY ADDITIVES.
  - STRIPPING AND STOCKPILING**
    - FIELD EXPLORATION SHOULD BE MADE TO DETERMINE WHETHER QUANTITY AND/OR QUALITY OF SURFACE SOIL JUSTIFIES STRIPPING.
    - STRIPPING SHOULD BE CONFINED TO THE IMMEDIATE CONSTRUCTION AREA.
    - WHERE FEASIBLE, LIME MAY BE APPLIED BEFORE STRIPPING AT A RATE DETERMINED BY SOIL TESTS TO BRING THE SOIL pH TO 6.5 IN LIEU OF SOIL TESTS, SEE LIME RATE GUIDE IN SEEDBED PREPARATION FOR PERMANENT VEGETATIVE COVER.
    - A 4-6 INCH STRIPPING DEPTH IS COMMON, BUT MAY VARY DEPENDING ON THE PARTICULAR SOIL.
    - STOCKPILES OF TOPSOIL SHOULD BE SITUATED SO AS NOT TO OBSTRUCT NATURAL DRAINAGE OR CAUSE OFF-SITE ENVIRONMENTAL DAMAGE.
    - STOCKPILES SHOULD BE VEGETATED IN ACCORDANCE WITH TEMPORARY SEEDING STANDARDS PREVIOUSLY DESCRIBED HEREIN.
  - SITE PREPARATION**
    - GRADE AS NEEDED AND FEASIBLE TO PERMIT THE USE OF CONVENTIONAL EQUIPMENT FOR SEEDBED PREPARATION, SEEDING, MULCH APPLICATION, AND MAINTENANCE.
    - SUBSOIL SHOULD BE TESTED FOR LIME REQUIREMENT AND LIMESTONE, IF NEEDED, SHOULD BE APPLIED TO BRING SOIL pH TO 6.5 AND INCORPORATED INTO THE SOIL AS NEARLY AS PRACTICAL TO A DEPTH OF 4 INCHES.
    - IMMEDIATELY PRIOR TO TOPSOIL DISTRIBUTION, THE SURFACE SHOULD BE SCARIFIED 6" - 12" WHERE THERE HAS BEEN SOIL COMPACTION.
    - EMPLOY NEEDED EROSION CONTROL PRACTICES SUCH AS DIVERSIONS, GRADE STABILIZATION STRUCTURES, CHANNEL STABILIZATION MEASURES, SEDIMENTATION BASINS, AND WATERWAYS.
  - APPLYING TOPSOIL**
    - TOPSOIL SHOULD BE HANDLED ONLY WHEN IT IS DRY ENOUGH TO WORK WITHOUT DAMAGING SOIL STRUCTURE, I.E., LESS THAN FIELD CAPACITY.
    - TOPSOIL SHALL BE APPLIED TO A UNIFORM DEPTH OF 5.0 INCHES (FIRMED IN PLACE).

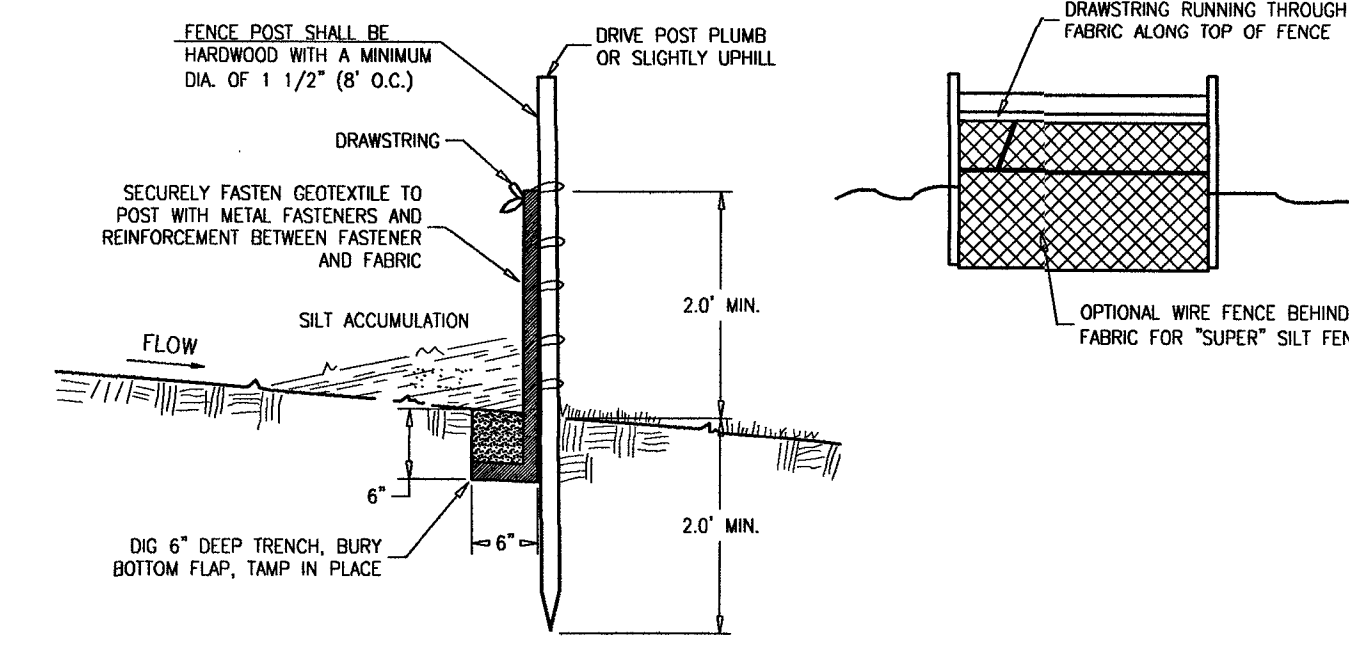
**DUST CONTROL**

- THE PURPOSE OF DUST CONTROL MEASURES IS TO PREVENT THE BLOWING AND MOVEMENT OF DUST FROM EXPOSED SOIL SURFACES. REDUCE ON-SITE AND OFF-SITE DAMAGE & HEALTH HAZARDS, AND IMPROVE TRAFFIC SAFETY.
  - MULCHES - REVIEW MULCHING NOTES ABOVE.
  - VEGETATIVE COVER - REVIEW NOTES ON TEMPORARY COVER.
  - SPRAY-ON ADHESIVES - ON MINERAL SOILS (NOT EFFECTIVE ON MUCK SOILS). KEEP TRAFFIC OFF THESE AREAS.
- MATERIAL**

MATERIAL	WATER DILUTION	TYPE OF NOZZLE	APPLY GALLON/ACRE
LATEX EMULSION	12.5:1	FINE SPRAY	235
RESIN IN WATER	4:1	FINE SPRAY	300
POLYACRYLAMIDE (PAM) - SPRAY ON		APPLY ACCORDING TO MANUFACTURER'S INSTRUCTIONS. MAY ALSO BE USED AS AN ADDITIVE TO SEDIMENT BASINS TO FLOCCULATE AND PREPITATE SUSPENDED COLLOIDS. SEE SEDIMENT BASIN STANDARD, PAGE 26-1.	
POLYACRYLAMIDE (PAM) - DRY SPREAD			
ACIDULATED SOY BEAN SOAP STICK	NONE	COARSE SPRAY	1200
- APPLICATION**
  - TO ROUGHEN SURFACE AND BRING CLODS TO THE SURFACE. THIS IS A TEMPORARY EMERGENCY MEASURE WHICH SHOULD BE USED BEFORE SOIL BLOWING STARTS. BEGIN FLOWING IN WINDWARD SIDE OF SITE. CHISEL-TYPE FLOWS SPACED ABOUT 12 INCHES APART, AND SPRING-TOOTHED HARROWS ARE EXAMPLES OF EQUIPMENT WHICH MAY PRODUCE THE DESIRED EFFECT.
  - SPRINKLING - SITE IS SPRINKLED UNTIL THE SURFACE IS WET.
  - BARRIERS - SOLID BOARD FENCES, SNOW FENCES, BURLAP FENCES, CRATE WALLS, BALES OF HAY AND SIMILAR MATERIAL CAN BE USED TO CONTROL AIR CURRENTS AND SOIL BLOWING.
  - STONE - COVER SURFACE WITH CRUSHED STONE OR COARSE GRAVEL.

**GENERAL NOTES:**

- A REPORT OF COMPLIANCE MUST BE OBTAINED FROM THE DISTRICT PRIOR TO RECEIVING A CERTIFICATE OF OCCUPANCY FROM THE MUNICIPALITY. A REQUEST FOR A DISTRICT INSPECTION FOR THE RELEASE OF A REPORT OF COMPLIANCE MUST BE MADE 5 WORKING DAYS IN ADVANCE. THIS APPLIES TO BOTH COMPLETE (FINAL) AND CONDITIONAL (TEMPORARY) CERTIFICATES. ALL STREETS AND UNITS MUST BE PROPERLY IDENTIFIED. A REPORT OF COMPLIANCE WILL NOT BE RELEASED FOR A UNIT IF IT CAN NOT BE IDENTIFIED. IDENTIFY ALL UNITS AT THE SITE BY BLOCK, LOT, AND STREET ADDRESS.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY EROSION OR SEDIMENTATION THAT MAY OCCUR BELOW STORMWATER OUTFALLS OR OFFSITE AS A RESULT OF CONSTRUCTION OF THE PROJECT.
- THE CONTRACTOR SHALL REMOVE ANY SEDIMENT THAT MAY BE SPILLED, DROPPED OR TRACKED OFF THE PROJECT SITE. ALL PAVED RIGHT-OF-WAYS ADJACENT TO THE PROJECT SITE MUST BE MAINTAINED IN A CLEAN, SWEEP CONDITION THROUGHOUT CONSTRUCTION.



- NOTES:**
- EXCAVATE A 6"x6" TRENCH ALONG THE LOWER PERIMETER OF THE SITE.
  - UNROLL THE SILT FENCE GEOTEXTILE AND POSITION THE POLES AGAINST THE BACK(DOWNSTREAM) WALL OF THE TRENCH.
  - LAY THE TOE-IN FLAP OF THE FABRIC ONTO THE UNDISTURBED BOTTOM OF THE TRENCH, BACKFILL THE TRENCH AND TAMP THE SOIL.

**SILT FENCE DETAIL OR APPROVED EQUAL**

N.T.S.



**SOILS MAP**

BOROUGH OF STONE HARBOR

**SOIL CLASSIFICATION:**

SOILS MAP PROVIDED BY WEB SOIL SURVEY, NATIONAL COOPERATIVE SOIL SURVEY, USDA NATIONAL RESOURCES CONSERVATION SERVICE

PROJECT IS IN: USPSBR - URBAN LAND-PSAMMENTS, WET SUBSTRATUM COMPLEX, 0 TO 2 PERCENT SLOPES, RARELY FLOODED

**SOIL EROSION & SEDIMENT CONTROL PLAN**

**DeBlasio & Associates**

ENGINEERS, SURVEYORS AND PLANNERS

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Certification of Authorization No. 2462A28284900

**96TH STREET RECREATION COMPLEX IMPROVEMENTS - CONTRACT 1 PLAYGROUND INSTALLATION**

BOROUGH OF STONE HARBOR  
CAPE MAY COUNTY, NEW JERSEY

Design: JAW  
Drawn: JAW  
Checked: MAD  
Date: 9/24/2024

MARC A. DEBLASIO, PE  
New Jersey License No. 41599  
Scale: AS NOTED  
Job No.: SH-060  
Sheet No.: 7  
Date: 9/24/2024

NO.	DATE	APPR.
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