SITE IMPROVEMENTS

for

JACKSON PARK

TENNIS COURTS

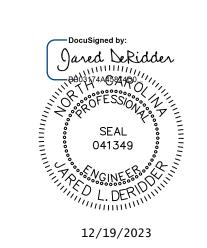
HENDERSON COUNTY NORTH CAROLINA

WGLA Engineering

WGLA ENGINEERING, PLLC
724 5th AVENUE WEST
HENDERSONVILLE, NC 2873
(828) 687-7177
WGLA.COM
NC LICENSE P-1342

JACKSON PARK TENNIS COURT REPLACEMENT

HENDERSONVILLE
HENDERSON COUNTY
NORTH CAROLINA



	REVISIONS
DATE	DESCRIPTION



PROJECT N

12-19-23

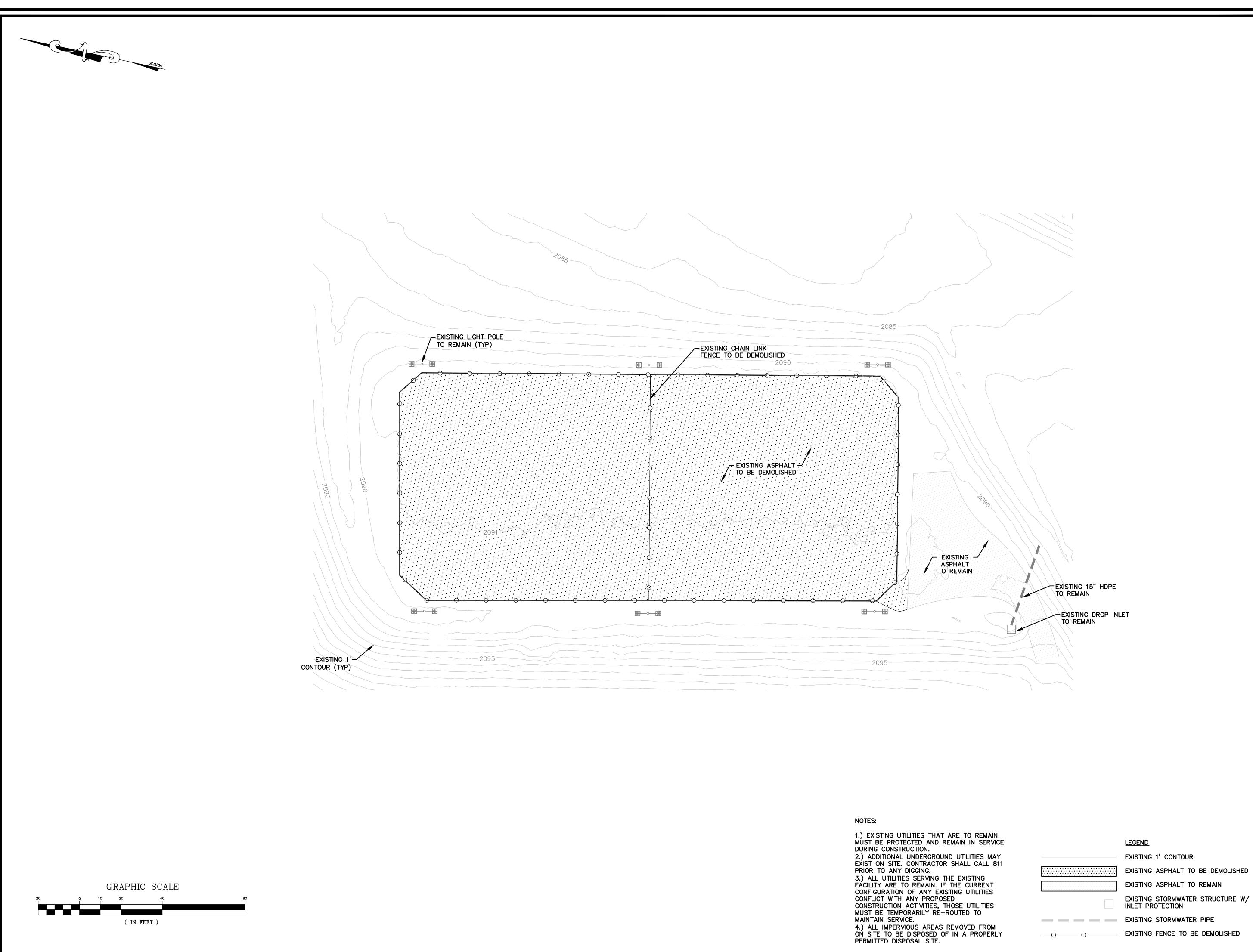
COVER

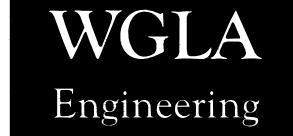
SCALE: AS NOTED

SITE PLANS

C-100 EXISTING CONDITIONS AND DEMOLITION
C-200 SITE PLAN
C-300-303 GRADING DRAINAGE AND EROSION CONTROL DETAILS
C-700 PAVING AND SPOTS PLAN

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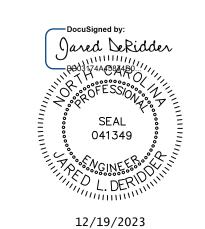




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JACKSON PARK **TENNIS COURT** REPLACEMENT

HENDERSONVILLE HENDERSON COUNTY NORTH CAROLINA



REVISIONS DATE DESCRIPTION



PROJECT NUMBER:

EXISTING CONDITIONS AND DEMOLITION

23185 12-19-23

C-100

PLAN

SCALE: 1"=20'

HINON

NOTES:

1.) MEASURES BEYOND THOSE SHOWN ON THE PLANS SHOULD BE APPROVED BY THE OWNER.

2.) CONTRACTOR SHALL MAINTAIN ALL EROSION CONTROL MEASURES THROUGHOUT THE LIFE OF THE PROJECT.

3.) THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL FIELD STAKING NECESSARY FOR THE CONSTRUCTION OF THE PROJECT. THE ENGINEER WILL PROVIDE THE CONTRACTOR WITH AN ELECTRONIC COPY OF THE DESIGN FOR STAKING PURPOSES. HOWEVER ALL ELECTRONIC INFORMATION SHOULD BE COORDINATED WITH THE PLANS.

4.) CONTRACTOR SHALL REMOVE ALL EROSION CONTROL MEASURES AT COMPLETION OF PROJECT, AFTER SITE HAS STABILIZED AND RESTORE TO FINAL GRADE.

5.) ALL STORM DRAINAGE INLETS SHALL HAVE GRAVEL INLET PROTECTION INSTALLED AROUND THEM AS SOON AS THEY ARE INSTALLED.

6.) CONTRACTOR SHALL ENSURE NO SILT ENTERS INTO THE EXISTING STREETS. IF SILT OR DEBRIS ENTERS THE EXISTING STREETS, THEN THE CONTRACTOR MUST IMMEDIATELY REMOVE THE SILT OR DEBRIS AT THE CONTRACTORS EXPENSE.

7.) UTILITIES MAY BE EXISTING THAT ARE NOT DEPICTED ON THIS PLAN. CONTRACTOR SHALL LOCATE AND FIELD VERIFY ALL EXISTING UTILITIES WITHIN PROJECT AREA.

8.) ANY BORROW OR WASTE SITE USED SHALL BE PROPERLY PERMITTED.

9.) NO SLOPES SHALL BE CONSTRUCTED STEEPER THAN A 2:1 AND SLOPES STEEPER THAN A 4:1 SHALL BE SEEDED AND MATTED WITH NORTH AMERICAN GREEN SC-150 OR APPROVED EQUAL.

10.) CONTRACTOR TO ESTABLISH PERMANENT GROUND COVER / LAWN PRIOR TO CLOSEOUT AND APPROVAL OF FINAL PAYMENT. SEE SEEDING SPECIFICATIONS FOR DETAILS.

GENERAL STORMWATER NOTES:

1.) ALL STORMWATER PIPES SHALL BE HDPE WITH SMOOTH INTERIOR WALL, WITH BELL AND SPIGOT ENDS AND SOIL TIGHT JOINTS, UNLESS OTHERWISE NOTED ON PLANS.

2.) ALL PENETRATIONS INTO STORMWATER STRUCTURES SHALL BE REPAIRED PROPERLY INSIDE AND OUTSIDE WITH BRICK AND OR NON-SHRINK GROUT.

3.) GIVEN PIPE LENGTHS ARE BASED ON HORIZONTAL DISTANCES BETWEEN STORMWATER STRUCTURES. CONTRACTOR SHALL FACTOR IN SLOPES WHEN ORDERING PIPE AND ORDER ADDITIONAL LENGTH AS NECESSARY.

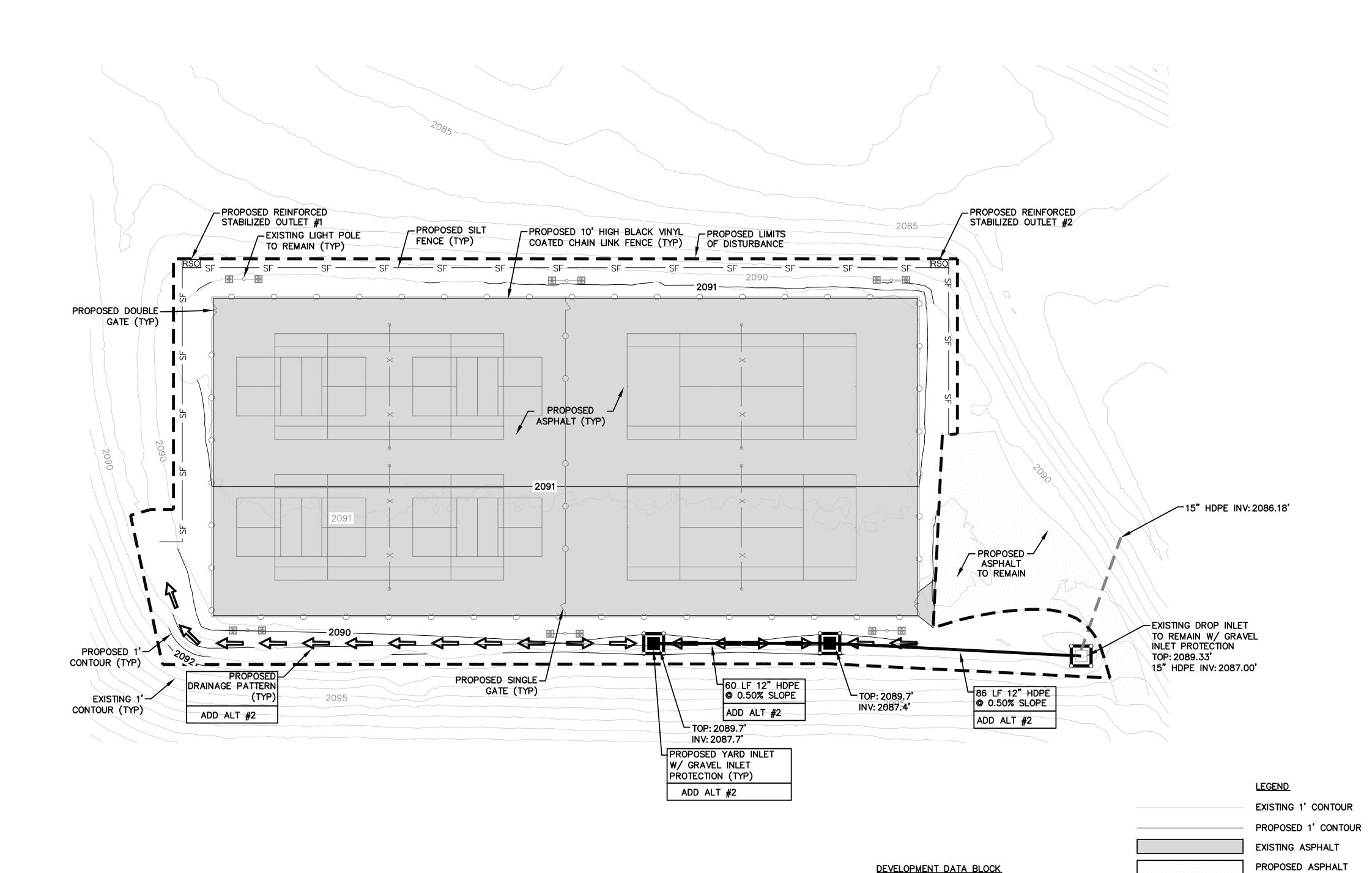
4.) CONTRACTOR TO ENSURE THAT ALL EXISTING AND PROPOSED STORM DRAINAGE STRUCTURES, PIPES AND GRADES WILL PROVIDE POSITIVE DRAINAGE PRIOR TO INSTALLATION.

DISTURBED AREA

 $0.87 \text{ ACRES } \pm$

GRAPHIC SCALE

(IN FEET)



NAME & LOCATION OF PROJECT:

PROPERTY OWNERS

CONTACT PERSON:

PIN NUMBERS:

ENGINEER:

PROJECT AREA:

PARCEL SIZE:

JACKSON PARK TENNIS COURTS

BRYAN RHODES - CAPITAL PROJECTS

BRHODES@HENDERSONCOUNTYNC.GOV

HENDERSONVILLE, NC 28792

801 4TH AVE EAST

HENDERSON COUNTY

JARED DERIDDER, P.E.

WGLA ENGINEERING, PLLC

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724 5TH AVENUE WEST

9578-28-0466

828-694-6554

0.87 + /- ACRES

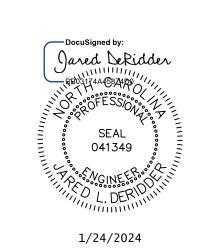
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JACKSON PARK TENNIS COURT REPLACEMENT

HENDERSONVILLE
HENDERSON COUNTY
NORTH CAROLINA



REVISIONS

DATE DESCRIPTION

Know what's below.

Call before you dig.

PROJECT NUMBER:

DATE:

EXISTING STORMWATER STRUCTURE

PROPOSED STORMWATER STRUCTURE

W/ INLET PROTECTION

W/ INLET PROTECTION

PROPOSED FENCE

PROPOSED SILT FENCE

PROPOSED REINFORCED STABILIZED OUTLET

EXISTING STORMWATER PIPE

PROPOSED STORMWATER PIPE

PROPOSED OUTLET PROTECTION

PROPOSED LIMITS OF DISTURBANCE

PROPOSED DRAINAGE PATTERN

SITE PLAN 23185

12-19-23

C-200

SCALE: 1"=20'

MAXIMUM RECOMMENDED COVER BASED ON VECHICLE LOADING CONDITIONS CLASS II CLASS III CLASS I COMPACTED | DUMPED | 95% 90% 95% 25 (11.3m)(5.5m)(7.6m)(5.5m)20 29 20 (13.4m)(6.1m) (8.8m) (6.1m) | (6.4m) (150mm)22 (4.6m) (6.7m) | (4.6m) | (9.8m)(5.5m)(7.9m) (5.5m)(11.6m)24 $(5.2m) \mid (7.3m) \mid$ (10.7m) $(5.2m) \mid (5.2m)$ (300mm)(11.6m)(5.2m)(7.6m) (5.2m)24 (11.0m)(7.3m) (5.2m) | (5.2m) (450 mm)(5.2m)(4.0m) (6.1m) (4.0m) (4.3m) (600mm) (8.5m)(8.5m)(4.0m)(6.1m) l (4.0m) l 750mm` (7.9m)(3.7m)(5.5m) (4.0m)(900mm)(4.0m)(3.4m)(4.9m)(3.4m)~1050mm (7.0m) $(3.4m) \mid (5.2m) \mid (3.4m)$ (7.6m)17 $(3.4m) \mid (5.2m)$ 1500mm) (7.6m)(3.4m)

- FILL HEIGHT TABLE GENERATED USING AASHTO SECTION 12, LOAD RESISTANCE FACTOR DESIGN (LRFD) PROCEDURE WITH THE FOLLOWING ASSUMPTIONS: NO HYDROSTATIC PRESSURE.
- UNIT WEIGHT OF SOIL (Ys) = 120 PCF

BE REPLACED PROMPTLY.

PREPARED AND SEEDED.

NOTES:

- . ALL PIPE SYSTEMS SHALL BE INSTALLED IN ACCORDANCE WITH ASTM D2321, "STANDARD PRACTICE FOR UNDERGROUND INSTALLATION OF THERMOPLASTIC PIPE FOR SEWERS AND OTHER
- 2. MEASURES SHOULD BE TAKEN TO PREVENT MIGRATION OF NATIVE FINES INTO BACKFILL MATERIAL, WHEN REQUIRED.

GRAVITY FLOW APPLICATIONS", LATEST ADDITION

- B. FOUNDATION: WHERE THE TRENCH BOTTOM IS UNSTABLE, THE CONTRACTOR SHALL EXCAVATE TO A DEPTH REQUIRED BY THE ENGINEER AND REPLACE WITH SUITABLE MATERIAL AS SPECIFIED BY THE ENGINEER. AS AN ALTERNATIVE AND AT THE DISCRETION OF THE DESIGN ENGINEER, THE TRENCH BOTTOM MAY BE STABILIZED USING A GEOTEXTILE MATERIAL.
- 4. BEDDING: SUITABLE MATERIAL SHALL BE CLASS I, II OR III. THE CONTRACTOR SHALL PROVIDE DOCUMENTATION FOR MATERIAL SPECIFICATION TO ENGINEER. UNLESS OTHERWISE NOTED BY THE ENGINEER, MINIMUM BEDDING THICKNESS SHALL BE 4" (100mm) FOR 4"-24" (100mm-600mm); 6" (150mm) FOR 30"-60" (750mm-1500mm).
- 5. INITIAL BACKFILL: SUITABLE MATERIAL SHALL BE CLASS I, II OR III IN THE PIPE ZONE EXTENDING TO THE CROWN OF PIPE. THE CONTRACTOR SHALL PROVIDE DOCUMENTATION FOR MATERIAL SPECIFICATION TO ENGINEER. MATERIAL SHALL BE INSTALLED AS REQUIRED IN ASTM D2321, LATEST EDITION.
- 6. MINIMUM COVER: MINIMUM COVER, H, IN NON-TRAFFIC APPLICATIONS (GRASS OR LANDSCAPE AREAS) IS 12" FROM THE TOP OF PIPE TO GROUND SURFACE. ADDITIONAL COVER MAY BE REQUIRED TO PREVENT FLOTATION. FOR TRAFFIC APPLICATIONS MINIMUM COVER. H. IS 12" UP TO 48" DIAMETER PIPE AND 24" OF COVER FOR 60" DIAMETER PIPE, MEASURED FROM TOP OF PIPE TO BOTTOM OF FLEXIBLE PAVEMENT OR TO TOP OF RIGID PAVEMENT FOR TRAFFIC APPLICATIONS WITH LESS THAN FOUR FEET OF COVER, EMBEDMENT OF THE PIPE SHALL BE USING ONLY A CLASS I OR CLASS II BACKFILL.

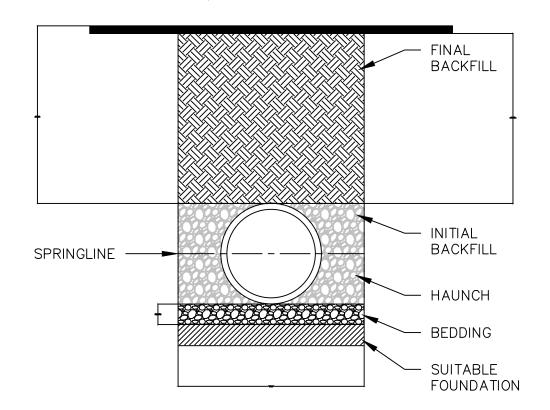
STEEL POST— -HARDWARE CLOTH BETWEEN WIRE FENCING-POSTS AND COVERED BY STONE (IF APPLICABLE) WASHED STONE -(NCDOT #5 OR #57) FENCING

INSPECT SEDIMENT FENCES A T LEAST ONCE A WEEK AND AFTER EACH RAINFALL. MAKE ANY REQUIRED REPAIRS IMMEDIATELY. SHOULD THE FABRIC OF A SEDIMENT FENCE COLLAPSE, TEAR, DECOMPOSE OR BECOME INEFFECTIVE REPLACE IT PROMPTLY.REMOVE SEDIMENT DEPOSIT AS NECESSARY TO PROVIDE ADEQUATE STORAGE VOLUME FOR THE NEXT RAIN AND TO REDUCE PRESSURE ON THE FENCE. TAKE CARE TO AVOID UNDERMINING THE FENCE DURING CLEANOUT. REMOVE ALL FENCING MATERIALS AND UNSTABLE SEDIMENT DEPOSITS AND BRING THE AREA TO GRADE AND STABILIZE IT AFTER THE CONTRIBUTING DRAINAGE AREA HAS BEEN PROPERLY STABILIZED.

MINIMUM RECOMMENDED COVER BASED ON **VEHICLE LOADING CONDITIONS***

	SURFACE LIVE LOADING CONDITION		
PIPE DIAM.	H-25	HEAVY CONSTRUCTION (75T AXLE LAOD) *	
12" - 48"	12"	48"	
(300mm – 1200mm)	(305mm)	(1219mm)	
60"	24"	60"	
(1500mm)	(610mm)	(1524mm)	

* VEHICLES IN EXCESS OF 75T MAY REQUIRE ADDITIONAL COVER **SEE BACKFILL REQUIREMENTS IN NOTE 6.



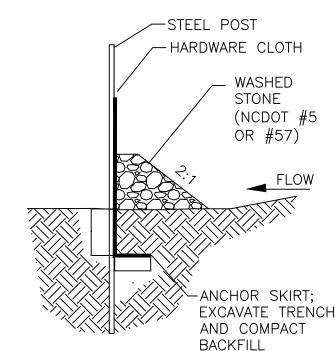
SILT FENCE IS REMOVED SHALL BE DRESSED TO CONFORM TO THE EXISTING GRADE,

RECOMMENDED MINIMUM TRENCH WIDTHS

	MIN. TRENCH WIDTH
4"	21"
(100mm)	(533mm) 23"
6"	23"
(150mm) 8"	(584mm) 26"
8"	26"
(200mm) 10"	(660mm) 28"
	28"
(250mm) 12"	(711mm) 30"
12"	30"
(300mm) 15"	(762mm) 34"
15"	34" \
(375mm) 18"	(864mm) 39"
18"	39"
(450mm) 24"	(991mm) 48"
24"	48"
(600mm) 30"	(1219mm)
30"	56"
(750mm) 36"	(1422mm) 64"
36"	
(900mm) 42"	(1626mm)
42"	72"
(1050mm) 48"	(1829mm) 80"
48"	80"
(1200mm) 60"	(2032mm) 96"
(1500mm)	(2438mm)

GENERAL NOTES:

- 1. SEDIMENT FILTER OUTLET HARDWARE CLOTH SHALL BE 24" HIGH AND STONE SHALL BE A MINIMUM OF 12" HIGH.
- 2. HARDWARE CLOTH SHALL BE ANCHORED TO THE STEEL POSTS SECURELY USING APPROPRIATE ANCHORS. HARDWARE CLOTH SHALL BE KEYED IN A MINIMUM OF 12 INCHES IN LENGTH AND BACKFILLED PROPERLY AS SHOWN IN ABOVE DETAIL. HARDWARE CLOTH TO BE SAME AS STD. #30.09 (19 GAUGE, 1/4" SPACING).
- 3. POSTS SHALL BE NO MORE THAN 4 FEET APART.
- 4. SITE OUTLETS AT LOW AREAS IN CONJUNCTION WITH AND ALONG LONG RUNS OF SILT FENCE AT INTERVALS NO CLOSER THAN 100 FEET. DRAINAGE AREA TO OUTLETS SHALL NOT EXCEED 1/4 ACRE.
- 5. EQUIVALENT ALTERNATIVES MAY BE USED WITH PRIOR CITY APPROVAL.



HDPE TRENCH DETAIL

12-20-2022

12-20-2022 NOT TO SCALE 6' MAX. STEEL POST W/ SAFETY CAP — **GENERAL NOTES:** WOVEN FILTER FABRIC BE USED WHERE SILT WOVEN FILTER FABRIC-FENCE IS TO REMAIN FOR A PERIOD OF MORE THAN 30 DAYS. 2. STEEL POSTS SHALL BE 5'-0" IN HEIGHT AND BE OF THE SELF-FASTENER ANGLE STEEL TYPE. TURN SILT FENCE UP SLOPE AT ENDS. ORANGE SAFETY FENCE IS REQUIRED AT BACK OF SILT FENCE WHEN GRADING IS ADJACENT TO SWIM BUFFERS, STREAMS OR WETLANDS (REFER TO SWIM BUFFER GUIDELINES). THE COLOR ORANGE IS RESERVED FOR VISUAL IDENTIFICATION OF ENVIRONMENTALLY SENSITIVE AREAS. DRAINAGE AREA CAN NOT BE GREATER THAN 1/4 ACRE PER 100 FT OF FENCE. SLOPE LENGTHS CAN NOT EXCEED CRITERIA SHOWN IN TABLE 6.62A NORTH CAROLINA EROSION AND SEDIMENT CONTROL PLANNING AND DESIGN MANUAL. DO NOT INSTALL SEDIMENT FENCE ACROSS STREAMS, DITCHES, WATERWAYS OR OTHER AREAS OF CONCENTRATED FLOW. W/ SAFETY CAP <u>MAINTENANCE NOTES:</u> . FILTER BARRIERS SHALL BE INSPECTED BY THE FINANCIALLY RESPONSIBLE PARTY OR HIS AGENT IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING / FILTER FABRIC PROLONGED RAINFALL. ANY REPAIRS NEEDED SHALL BE MADE IMMEDIATELY.

SILT FENCE

NOT TO SCALE

SHOULD THE FABRIC DECOMPOSE OR BECOME INEFFECTIVE PRIOR TO THE END OF THE EXPECTED USABLE LIFE AND THE BARRIER STILL IS NECESSARY, THE FABRIC SHALL 3. SEDIMENT DEPOSITS SHOULD BE REMOVED WHEN DEPOSITS REACH APPROX. HALF THE HEIGHT OF THE BARRIER. ANY SEDIMENT DEPOSITS REMAINING IN PLACE AFTER THE ANCHOR SKIRT EXCAVATE TRENCH AND COMPACT BACKFILL

REINFORCED STABILIZED OUTLET

NOT TO SCALE

EXCAVATE TRENCH

DISPOSABLE MATERIALS: CLEARING AND GRUBBING WASTES SHALL BE REMOVED FROM THE SITE AND PROPERLY DISPOSED OF BY THE CONTRACTOR AT THEIR EXPENSE, UNLESS OTHERWISE SPECIFIED.

UNDER LAWNS AND PLANTING AREAS BEYOND 10' FROM BUILDING: 95% OF STANDARD PROCTOR.

16 GAUGE WIRE MESH

12-20-2022

GENERAL CONSTRUCTION NOTES

STANDARD PROCTOR ASTM D 698.

DEPTH OF FILL.

IN THE UPPER 2'.

LEAVING THE SITE.

WITH 1 MESH OPENINGS.

GRADING OR OTHER WORK ITEMS TO BE APPROVED BY THE ENGINEER OR OWNER.

INLET PROTECTION

DROP INLET

NOT TO SCALE

ALL WORK AND CONSTRUCTION ACTIVITIES ON THE PROJECT SITE SHALL COMPLY WITH ALL APPLICABLE OSHA

2. THE ENGINEER AND OWNER RESERVE THE RIGHT TO MODIFY PROJECT WORK ITEMS (INCLUDING GRADING) AS DEEMED

THE CONTRACTOR SHALL COMPLY WITH THE GEOTECHNICAL REPORT FOR THE PLACEMENT OF FILL AND COMPACTION

A. PLACE THE MATERIAL IN SUCCESSIVE HORIZONTAL LAYERS NOT EXCEEDING 8" FOR THE FULL WIDTH OF THE CROSS

C. EACH LAYER OF FILL SHALL BE SPREAD EVENLY AND SHALL BE COMPACTED TO ITS SPECIFIED DENSITY AS DETERMINED

EMBANKMENT SLOPES SHALL BE CONSTRUCTED BY FILLING ONE (1) FOOT BEYOND THE PROPOSED FINISHED SLOPE SURFACE FOR EACH LIFT. COMPACTION EQUIPMENT SHALL WORK TO THE EDGE OF EACH LIFT. AFTER THE ENTIRE FILL IS

A. STRUCTURAL FILL UNDER BUILDINGS AND WITHIN 10'OF BUILDING PERIMETER, 100% OF STANDARD PROCTOR THE ENTIRE

B. UNDER WALKS, DRIVES, PADS, AND PAVED AREAS: 95% OF STANDARD PROCTOR EXCEPT 100% OF STANDARD PROCTOR

4. ALL EROSION CONTROL DEVICES SUCH AS SILT FENCES, DIVERSIONS, SEDIMENT TRAPS, ETC. SHALL BE MAINTAINED IN

WORKABLE CONDITIONS FOR THE LIFE OF THE PROJECT AND SHALL BE REMOVED AT THE COMPLETION OF THE PROJECT ONLY WITH THE ENGINEER'S APPROVAL. SEE THE NPDES REQUIREMENTS ON THIS PLAN SHEET FOR MORE DETAIL. IF DURING THE

LIFE OF THE PROJECT A STORM CAUSES SOIL EROSION WHICH CHANGES THE FINISHED GRADES OR CREATES "GULLIES" AND "WASHED AREAS", THESE SHALL BE REPAIRED BY THE CONTRACTOR AT NO EXTRA COST. THE CONTRACTOR SHALL ADHERE TO THE APPROVED EROSION CONTROL PLAN AND TAKE ANY ADDITIONAL MEASURES NECESSARY TO PREVENT SEDIMENT FROM

BACKFILL IN TRENCHES: COMPLY WITH COMPACTION REQUIREMENTS FOR THE AREA THROUGH WHICH THE TRENCH RUNS.

D. SLOPED GROUND SURFACES STEEPER THAN ONE VERTICAL TO FOUR HORIZONTAL, ON WHICH FILL IS TO BE PLACED,

PLACED AND COMPACTED, THE OUTSIDE FOOT OF THE SLOPE SHALL BE TRIMMED TO THE DESIGN SLOPE WITH A DOZER.

UNLESS INDICATED ON THE DRAWINGS, NO FILL SLOPES SHALL BE STEEPER THAN 2 HORIZONTAL TO 1 VERTICAL.

B. FILL SHALL BE PLACED ONLY WHEN IT IS WITHIN 3% OF ITS OPTIMUM MOISTURE CONTENT AS DETERMINED BY A

NECESSARY FOR THE SUCCESSFUL COMPLETION OF THE PROJECT. THE CONTRACTOR MAY SUGGEST ADJUSTMENTS TO

REGULATIONS AND REQUIREMENTS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO MAINTAIN A SAFE WORK SITE.

REQUIREMENTS. IF NO REPORT IS AVAILABLE, THE FOLLOWING MINIMUM STANDARDS SHALL APPLY:

SHALL BE STEPPED OR BENCHED SUCH THAT FILL MATERIAL WILL BOND TO THE EXISTING SURFACES.

BY STANDARD PROCTOR ASTM D 698 BEFORE NEW LAYERS ARE PLACED AND COMPACTED.

SOLID WASTES TO BE REMOVED SUCH AS SIDEWALKS, CURBS, PAVEMENT, ETC. MAY BE PLACED IN SPECIFIED DISPOSAL AREAS IF PERMITTED BY THE APPROPRIATE AGENCIES AND APPROVED BY THE OWNER. THIS MATERIAL SHALL BE SPREAD AND MIXED WITH DIRT ELIMINATING ALL VOIDS. THIS MATERIAL SHALL HAVE A MINIMUM COVER OF 2'. THE CONTRACTOR SHALL MAINTAIN SPECIFIED COMPACTION REQUIREMENTS IN THESE AREAS. WHEN DISPOSAL SITES ARE NOT PROVIDED, THE CONTRACTOR SHALL REMOVE THIS WASTE FROM THE SITE AND PROPERLY DISPOSE OF IT AT THEIR EXPENSE. ABANDONED UTILITIES SUCH AS CULVERTS, WATER PIPE, HYDRANTS, CASTING, PIPE APPURTENANCES, UTILITY POLES,

ETC. SHALL BE THE PROPERTY OF THE SPECIFIED UTILITY AGENCY OR COMPANY HAVING JURISDICTION. BEFORE THE CONTRACTOR CAN REMOVE, DESTROY, SALVAGE, RE-USE, SELL OR STORE FOR THEIR OWN USE ANY ABANDONED UTILITY, THEY MUST PRESENT TO THE OWNER WRITTEN PERMISSION FROM THE UTILITY INVOLVED. D. UNLESS OTHERWISE NOTED ON THE PLANS, BURNING WILL NOT BE ALLOWED ON THIS PROJECT. SHOULD BURNING BE ALLOWED BY THE OWNER, IT IS THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN ALL NECESSARY PERMITS (AT THEIR EXPENSE)

6. UNLESS OTHERWISE SPECIFIED, ALL BASE, PAVING, CURBING AND OTHER CONCRETE WORK SHALL CONFORM TO THE LOCAL MUNICIPALITY OR NCDOT SPECIFICATIONS FOR CONSTRUCTION. ALL WATER AND SEWER CONSTRUCTION SHALL CONFORM TO THE LOCAL UTILITY REQUIREMENTS AND/OR THE NCDENR MINIMUM STANDARDS.

7. IN THE EVENT EXCESSIVE GROUND WATER OR SPRINGS ARE ENCOUNTERED WITHIN THE LIMITS OF CONSTRUCTION, THE CONTRACTOR SHALL INSTALL NECESSARY UNDERDRAINS AND STONE AS DIRECTED BY THE ENGINEER. ALL WORK SHALL BE PAID BASED UPON THE UNIT PRICES UNLESS OTHERWISE SPECIFIED.

8. THE CONTRACTOR IS RESPONSIBLE FOR THE COORDINATION OF ADJUSTMENT OF ALL UTILITY SURFACE ACCESSES (INCLUDING MANHOLE COVERS, VALVE BOXES, ETC.) WHETHER HE PERFORMS THE WORK OR THE UTILITY COMPANY PERFORMS

9. THE CONTRACTOR SHALL CONTROL ALL "DUST" BY PERIODIC WATERING AND SHALL PROVIDE ACCESS AT ALL TIMES FOR PROPERTY OWNERS WITHIN THE PROJECT AND FOR EMERGENCY VEHICLES. ALL OPEN DITCHES AND HAZARDOUS AREAS SHALL BE CLEARLY MARKED IN ACCORDANCE WITH OSHA REGULATIONS.

10. ALL AREAS OF EXPOSED SOIL SHALL BE SEEDED, FERTILIZED AND MULCHED ACCORDING TO THE SPECIFICATIONS. THE FINISHED SURFACE SHALL BE TO GRADE AND SMOOTH, FREE OF ALL ROCKS LARGER THAN 3", EQUIPMENT TRACKS, DIRT CLODS, BUMPS, RIDGES, AND GOUGES PRIOR TO SEEDING. THE SURFACE SHALL BE LOOSENED TO A DEPTH OF 1"+/- TO ACCEPT SEED. THE CONTRACTOR SHALL NOT PROCEED WITH SEEDING OPERATIONS WITHOUT FIRST OBTAINING THE ENGINEER'S APPROVAL OF THE GRADED SURFACE. ALL SEEDING SHALL BE PERFORMED BY A MECHANICAL "HYDRO-SEEDER" THE ENGINEER PRIOR TO SEEDING MUST APPROVE HAND SEEDING ON ANY AREA.

11. GRADED SLOPES AND FILLS SHALL BE PROTECTED WITH ROLLED EROSION CONTROL PRODUCT IF COMPLETED OUTSIDE OF OPTIMUM GERMINATION SEASON WHEN UNFAVORABLE WEATHER CONDITIONS PREVENT ESTABLISHMENT OF VEGETATIVE GROUND

GENERAL CONSTRUCTION NOTES

12-20-2022 NOT TO SCALE

AND FOLLOW ALL APPLICABLE RULES AND REGULATIONS.



WGLA ENGINEERING, PLLC 724 5th AVENUE WEST HENDERSONVILLE, NC 28739 (828) 687-7177 WGLA.COM NC LICENSE P-1342

METAL POSTS AT 4' O.C. MAX.

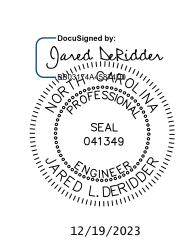
5' LONG MIN. 24" DEEP.

1.33 LB/LINEAR FT. STEEL, MIN.

__NO. 57 STONE

JACKSON PARK **TENNIS COURT** REPLACEMENT

HENDERSONVILLE HENDERSON COUNTY NORTH CAROLINA



REVISIONS	
DESCRIPTION	

DATE

<u>ណា</u>
now what's below. Call before you dig.

23185

12-19-23

PROJECT NUMBER:

GRADING, DRAINAGE AND **EROSION CONTROL DETAILS**

C-300

SCALE: AS NOTED

SEEDING SPECIFICATIONS

TEMPORARY COVER

CONTRACTOR SHALL FURNISH AND APPLY LIME AND FERTILIZER TO THE SOIL AS REQUIRED TO PROVIDE SATISFACTORY CONDITIONS FOR SEED GERMINATION.

A NORTH CAROLINA DEPARTMENT OF AGRICULTURE SOILS TEST OR EQUAL SHALL BE OBTAINED FOR ALL AREAS TO BE SEEDED. RECOMMENDED FERTILIZER AND pH ADJUSTING PRODUCTS SHALL BE INCORPORATED INTO APPLICABLE AREAS BASED ON THE TEST RESULTS.

THESE MATERIALS SHALL BE SPREAD UNIFORMLY OVER THE AREA TO BE PLANTED. THE SOIL SHALL BE TILLED TO A DEPTH OF 3 - 4 INCHES WITH EQUIPMENT APPROVED BY THE ENGINEER.

TEMPORARY COVER

B. TEMPORARY COVER

SEEDING — CONTRACTOR SHALL SELECT A QUICK GROWING GRASS WITH HIGH SEEDING VIGOR THAT IS SUITED TO THE AREA, THE TIME OF PLANTING, AND THAT WILL NOT INTERFERE WITH PLANT TO BE SOWN LATER FOR PERMANENT COVER.

MAY THROUGH AUGUST

SUNDANGRASS 50 LB / AC OR GERMAN MILLET 40 LB / AC

SEPT. THROUGH APRIL

RYEGRAIN 120 LB / AC

ALL SEEDS SHALL HAVE BEEN TESTED NOT MORE THAN 6 MONTHS PRIOR TO THE DATE OF SEEDING.

CONTRACTOR SHALL APPLY SEED UNIFORMLY BY HAND, CYCLONE SEEDER, DRILL, CULTIPACKER SEEDER, OR HYDRAULICALLY.

A SLURRY MIXTURE OF WATER, FERTILIZER, SEED AND CELLULOSE FIBER MULCH IS ACCEPTABLE ON THIS PROJECT.

IN ORDER TO REDUCE DAMAGE FROM WATER RUN-OFF AND IMPROVE MOISTURE CONDITIONS FOR SEEDLINGS. A MULCH MATERIAL SHALL BE FURNISHED WHEN TEMPORARY SEEDING IS TO BE DONE. ACCEPTABLE MATERIALS ARE: -DRY UNCHOPPED, UNWEATHERED SMALL GRAIN STRAW OR HAY FREE OF SEEDS OF COMPETING PLANTS - 1-2 TONS /

-WOOD FIBER (EXCELSIOR)

-WOOD CELLULOSE FIBER - 500 LBS / ACRE WITHOUT STRAW

-JUTE MATTING

II. PERMANENT COVER

A. CONTRACTOR SHALL FURNISH AND APPLY

1- A NORTH CAROLINA DEPARTMENT OF AGRICULTURE SOILS TEST OR EQUAL SHALL BE OBTAINED FOR ALL AREAS TO BE SEEDED. RECOMMENDED FERTILIZER AND pH ADJUSTING PRODUCTS SHALL BE INCORPORATED INTO APPLICABLE AREAS BASED ON THE TEST RESULTS.

2- 2.3 LBS / 1000 SF OF KENTUCKY 31 TALL FESCUE (100 LBS / ACRE)

IN THE MANNER DESCRIBED ABOVE IN PARTS 1, 2 AND 3.

APPLY NURSE CROP AS FOLLOWS:

MAY 1 - AUG 15 - 10 LBS / AC GERMAN MILLET OR - 15 LBS / AC SUNDANGRASS

AUG 15 - MAY 1 - 40 LBS / AC RYE (GRAIN)

B. SEEDING DATES: KY.31 TALL FESCUE

(BELOW 2500' ELEV) AUG 20 - SEPT 15 MARCH 1 - MAY 1

(ABOVE 2500' ELEV)

JULY 15 - AUG 30

MARCH 5 - MAY 15

APPLY 4000 LB / AC OF GRAIN STRAW SUITABLY TACKED DOWN. ADD NETTING TO STEEP SLOPES AND STAPLE PER MANUFACTURERS RECOMMENDATIONS

III. SOIL PREPARATION

A. GENERAL REQUIREMENTS 1-PREPARATION FOR PRIMARY/PERMANENT STABILIZATION SHALL NOT BEGIN UNTIL ALL CONSTRUCTION AND UTILITY WORK WITHIN THE PREPARATION AREA IS COMPLETE. HOWEVER, IT MAY BE NECESSARY TO PREPARE FOR NURSE CROPS PRIOR TO COMPLETION OF CONSTRUCTION AND INSTALLATION OF UTILITIES.

2-A NORTH CAROLINA DEPARTMENT OF AGRICULTURE SOILS TEST (OR EQUAL) SHALL BE OBTAINED FOR ALL AREAS TO BE SEEDED. SPRIGGED, SODDED OR PLANTED. RECOMMENDED FERTILIZER AND PH ADJUSTING PRODUCTS SHALL BE INCORPORATED INTO THE PREPARED AREAS AND BACKFILL MATERIAL PER THE TEST.

3-ALL AREAS TO BE SEEDED OR PLATED SHALL BE TILLED OR RIPPED TO A DEPTH OF 4". RIPPING CONSISTS OF CREATING FISSURES IN A CRISS-CROSS PATTERN OVER THE ENTIRE SURFACE AREA USING AN IMPLEMENT THAT WILL NOT GLAZE THE SIDE WALLS OF THE FISSURES. SITE PREPARATION THAT DOES NOT COMPLY WITH THESE DOCUMENTS SHALL NOT BE ACCEPTABLE. THE DEPTH OF SOIL PREPARATION MAY BE ESTABLISHED AS A RANGE BASED ON THE APPROVAL OF THE REVIEW AGENCY. ONCE TILLED OR RIPPED ACCORDING TO THE APPROVED PLAN, ALL AREAS ARE TO BE RETURNED TO FINAL GRADE. pH MODIFIERS AND/OR OTHER SOIL AMENDMENTS SPECIFIED IN THE SOIL TESTS CAN BE ADDED DURING THE SOIL PREPARATION PROCEDURE OR AS DESCRIBED BELOW.

4-ALL STONES LARGER THAN 3" ON ANY SIDE, STICKS, ROOTS, AND OTHER EXTRANEOUS MATERIALS THAT SURFACE DURING THE BED PREPARATION SHALL BE REMOVED.

B. AREAS TO BE SEEDED

1-TILL OR DISC THE PREPARED AREAS TO BE SEEDED TO A MINIMUM DEPTH OF 4". REMOVE STONES LARGER THAN 3" ON ANY SIDE, STICKS, ROOTS, AND OTHER EXTRANEOUS MATERIALS THAT SURFACE. IF NOT INCORPORATED IN THE RIPPING PROCESS, ADD pH MODIFIERS AND FERTILIZERS AT THE RATE SPECIFIED.

2-RECOMPACT THE AREA UTILIZING A CULTIPACKER ROLLER. THE FINISHED GRADE SHALL BE SMOOTH EVEN SOIL SURFACE WITH LOOSE, UNIFORMLY FINE TEXTURE. ALL RIDGES AND DEPRESSIONS SHALL BE REMOVED AND FILLED TO PROVIDE THE APPROVED SURFACE DRAINAGE. SEEDING THE GRADED AREAS IS TO BE DONE IMMEDIATELY AFTER FINISHED GRADES ARE OBTAINED AND SEEDBED PREPARATION IS COMPLETE.

C. AREAS TO BE SPRIGGED, SODDED, AND/OR PLANTED

1-AT THE TIME OF PLANTING, TILL OR DISC THE PREPARED AREA TO A DEPTH OF 4"-6" BELOW THE APPROVED FINISHED GRADE. REMOVE ALL STONES LARGER THAN 3" ON ANY SIDE, STICKS, ROOTS AND OTHER EXTRANEOUS MATERIALS THAT SURFACE. IF NOT INCORPORATED DURING THE RIPPING PROCESS, ADD pH MODIFIERS, FERTILIZER AND OTHER RECOMMENDED SOIL AMENDMENTS.

2-RECOMPACT THE AREA UTILIZING A CULTIPACKER ROLLER AND PREPARE FINAL GRADES AND DESCRIBED ABOVE. INSTALL SPRIGS, SOD AND PLANTS AS DIRECTED IMMEDIATELY AFTER FINE GRADING IS COMPLETE. MULCH, MAT AND/OR TACK AS SPECIFIED.

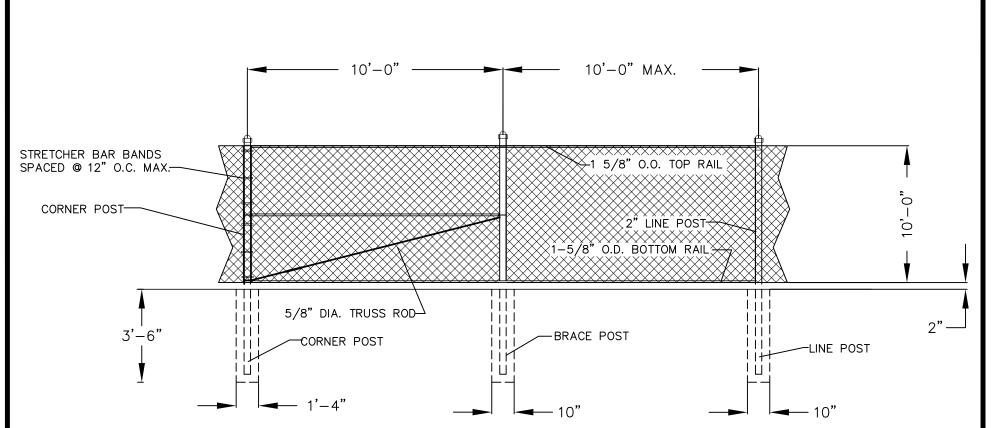
IV. CLOSEOUT

1-REFER TO NCG01 REQUIREMENTS AND CONSTRUCTION SEQUENCE FOR GROUND STABILIZATION TIMEFRAMES.

2-CONTRACTOR RESPONSIBLE FOR ESTABLISHING GROUND COVER PRIOR TO CLOSE OUT OF EROSION CONTROL PERMIT OR ACCEPTANCE BY OWNER. GROUND COVER WILL BE CONSIDERED ESTABLISHED WHEN ALL EXPOSED SOILS HAVE BEEN STABILIZED WITH A PERMANENT PERENNIAL VEGETATIVE COVER WITH A DENSITY OF 80% WITH NO CONTIGUOUS BARE AREAS GREATER THAN ONE SQUARE YARD. VEGETATION DENSITY SHALL BE DETERMINED BY THE ENGINEER OR EROSION CONTROL INSPECTOR.

3-MULTIPLE SEEDING EFFORTS BY THE CONTRACTOR MAY BE REQUIRED FOR PORTIONS OF OR THE ENTIRE SITE TO ESTABLISH SUITABLE GROUND COVER.

SEEDING SPECIFICATIONS

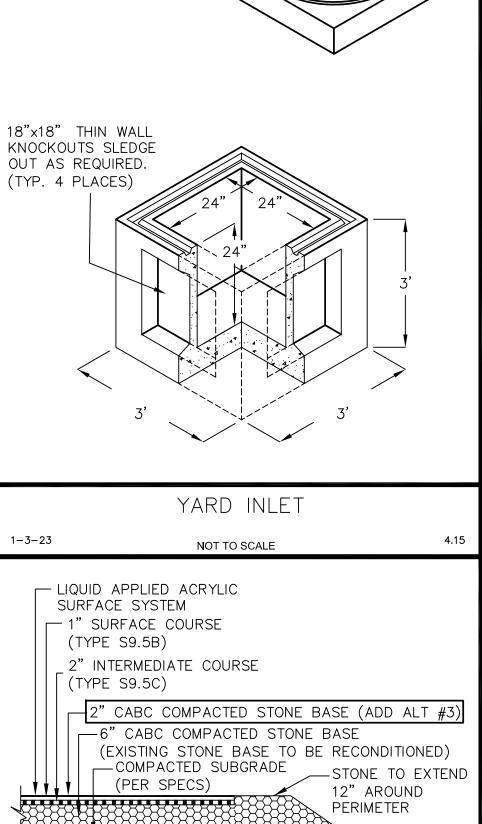


CHAIN LINK FENCING NOTES:

- 1.) ALL CHAIN LINK FENCING SHALL BE PER NCDOT 866.01. 2.) ALL CHAIN LINK FENCING SHALL BE BLACK VINYL COATED.
- 3.) ALL GATES SHALL BE 4' SINGLE SWING GATES, UNLESS
- OTHERWISE NOTED ON PLANS, 5.) ALL LOCKING DEVICES SHALL BE APPROVED BY THE OWNER.
- 6.) NO BARBED WIRE MAY BE INSTALLED.

FENCE NOTES:

- . FABRIC TO BE ATTACHED TO HORIZONTAL RAILS W/TIE WIRES @ 24" O.C. MAX.
- 2. FABRIC TO BE ATTACHED TO TENSION WIRE
- W/HOG RINGS @ 24"O.C. MAX.
- 3. FABRIC TO BE ATTACHED TO LINE POSTS W/TENSION BANDS @ 12"O.C. MAX.
- 4. TOP OF RAIL TO TOP OF FABRIC SHALL
- 5. ALL CORNER GATE POST, RAILS & BRACES SHALL BE SCHEDULE 40 GALVANIZED STEEL



ASPHALT COURT

STANDARD DUTY

NOT TO SCALE

1-5-23

PRECAST CONCRETE LID W/

OR APPROVED EQUAL

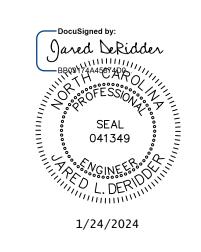
NEENAH FOUNDRY R-4370-3 15" ROUND FRAME AND GRATE

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JACKSON PARK **TENNIS COURT** REPLACEMENT

HENDERSONVILLE HENDERSON COUNTY NORTH CAROLINA



REVISIONS DATE DESCRIPTION

> Know what's **below**. Call before you dig.

PROJECT NUMBER

GRADING, DRAINAGE AND

23185

12-19-23

EROSION CONTROL DETAILS

C-301

SCALE: AS NOTED

-NET POST NET TIGHTNER -SEE DETAIL FOR PAVEMENT CENTER STRAP STRUCTURE ANCHOR _ 3" MIN 24" ∠24" Ø 4,000 PSI CONCRETE FOOTING 4' MIN -SLEEVE **←** 24" **←**

CHAIN LINK FENCE

NOT TO SCALE

CENTER STRAP NET POST

NOT TO SCALE

12-14-23

NOT TO SCALE

TENNIS NET

FOUNDATIONS

PART III SELF-INSPECTION, RECORDKEEPING AND REPORTING

SECTION A: SELF-INSPECTION

Self-inspections are required during normal business hours in accordance with the table below. When adverse weather or site conditions would cause the safety of the inspection personnel to be in jeopardy, the inspection may be delayed until the next business day on which it is safe to perform the inspection. In addition, when a storm event of equal to or greater than 1.0 inch occurs outside of normal business hours, the self-inspection shall be performed upon the commencement of the next business day. Any time when inspections were delayed shall be noted in the Inspection Record.

Inspect (during normal business hours)		Inspection records must include:		
(1) Rain gauge maintained in good working order	Daily	Daily rainfall amounts. If no daily rain gauge observations are made during weekend holiday periods, and no individual-day rainfall information available, record the cumulative rain measurement for those attended days (and this will determine if a site inspection needed). Days on which no rainfall occurred shall be recorde "zero." The permittee may use another rain-monitoring deapproved by the Division.		
(2) E&SC Measures	At least once per 7 calendar days and within 24 hours of a rain event \geq 1.0 inch in 24 hours	 Identification of the measures inspected, Date and time of the inspection, Name of the person performing the inspection, Indication of whether the measures were operating properly, Description of maintenance needs for the measure, Description, evidence, and date of corrective actions taken. 		
(3) Stormwater discharge outfalls (SDOs)	At least once per 7 calendar days and within 24 hours of a rain event \geq 1.0 inch in 24 hours	 Identification of the discharge outfalls inspected, Date and time of the inspection, Name of the person performing the inspection, Evidence of indicators of stormwater pollution such as oil sheen, floating or suspended solids or discoloration, Indication of visible sediment leaving the site, Description, evidence, and date of corrective actions taken. 		
(4) Perimeter of site	At least once per 7 calendar days and within 24 hours of a rain event > 1.0 inch in 24 hours	 If visible sedimentation is found outside site limits, then a record of the following shall be made: 1. Actions taken to clean up or stabilize the sediment that has left the site limits, 2. Description, evidence, and date of corrective actions taken, an 3. An explanation as to the actions taken to control future releases. 		
(5) Streams or wetlands onsite or offsite (where accessible)	At least once per 7 calendar days and within 24 hours of a rain event \geq 1.0 inch in 24 hours	If the stream or wetland has increased visible sedimentation or a stream has visible increased turbidity from the construction activity, then a record of the following shall be made: 1. Description, evidence and date of corrective actions taken, and 2. Records of the required reports to the appropriate Division Regional Office per Part III, Section C, Item (2)(a) of this permit		
(6) Ground stabilization measures	After each phase of grading	 The phase of grading (installation of perimeter E&SC measures, clearing and grubbing, installation of storm drainage facilities, completion of all land-disturbing activity, construction or redevelopment, permanent ground cover). Documentation that the required ground stabilization measures have been provided within the required timeframe or an assurance that they will be provided as soon as possible. 		

NOTE: The rain inspection resets the required 7 calendar day inspection requirement.

PART III SELF-INSPECTION, RECORDKEEPING AND REPORTING

SECTION B: RECORDKEEPING

1. E&SC Plan Documentation

The approved E&SC plan as well as any approved deviation shall be kept on the site. The approved E&SC plan must be kept up-to-date throughout the coverage under this permit. The following items pertaining to the E&SC plan shall be kept on site and available for inspection at all times during normal business hours.

Item to Document	Documentation Requirements
(a) Each E&SC measure has been installed and does not significantly deviate from the locations, dimensions and relative elevations shown on the approved E&SC plan.	Initial and date each E&SC measure on a copy of the approved E&SC plan or complete, date and sign an inspection report that lists each E&SC measure shown on the approved E&SC plan. This documentation is required upon the initial installation of the E&SC measures or if the E&SC measures are modified after initial installation.
(b) A phase of grading has been completed.	Initial and date a copy of the approved E&SC plan or complete, date and sign an inspection report to indicate completion of the construction phase.
(c) Ground cover is located and installed in accordance with the approved E&SC plan.	Initial and date a copy of the approved E&SC plan or complete, date and sign an inspection report to indicate compliance with approved ground cover specifications.
(d) The maintenance and repair requirements for all E&SC measures have been performed.	Complete, date and sign an inspection report.
(e) Corrective actions have been taken to E&SC measures.	Initial and date a copy of the approved E&SC plan or complete, date and sign an inspection report to indicate the completion of the corrective action.

2. Additional Documentation to be Kept on Site

In addition to the E&SC plan documents above, the following items shall be kept on the site and available for inspectors at all times during normal business hours, unless the Division provides a site-specific exemption based on unique site conditions that make this requirement not practical:

- (a) This General Permit as well as the Certificate of Coverage, after it is received.
- (b) Records of inspections made during the previous twelve months. The permittee shall record the required observations on the Inspection Record Form provided by the Division or a similar inspection form that includes all the required elements. Use of electronically-available records in lieu of the required paper copies will be allowed if shown to provide equal access and utility as the hard-copy records.

3. Documentation to be Retained for Three Years

All data used to complete the e-NOI and all inspection records shall be maintained for a period of three years after project completion and made available upon request. [40 CFR 122.41]

PART II, SECTION G, ITEM (4) DRAW DOWN OF SEDIMENT BASINS FOR MAINTENANCE OR CLOSE OUT

Sediment basins and traps that receive runoff from drainage areas of one acre or more shall use outlet structures that withdraw water from the surface when these devices need to be drawn down for maintenance or close out unless this is infeasible. The circumstances in which it is not feasible to withdraw water from the surface shall be rare (for example, times with extended cold weather). Non-surface withdrawals from sediment basins shall be allowed only when all of the following criteria have been met:

- (a) The E&SC plan authority has been provided with documentation of the non-surface withdrawal and the specific time periods or conditions in which it will occur. The non-surface withdrawal shall not commence until the E&SC plan authority has approved these items,
- (b) The non-surface withdrawal has been reported as an anticipated bypass in accordance with Part III, Section C, Item (2)(c) and (d) of this permit,
- (c) Dewatering discharges are treated with controls to minimize discharges of pollutants from stormwater that is removed from the sediment basin. Examples of appropriate controls include properly sited, designed and maintained dewatering tanks, weir tanks, and filtration systems,
- (d) Vegetated, upland areas of the sites or a properly designed stone pad is used to the extent feasible at the outlet of the dewatering treatment devices described in Item (c) above,
- (e) Velocity dissipation devices such as check dams, sediment traps, and riprap are provided at the discharge points of all dewatering devices, and
- (f) Sediment removed from the dewatering treatment devices described in Item (c) above is disposed of in a manner that does not cause deposition of sediment into waters of the United States.

PART III SELF-INSPECTION, RECORDKEEPING AND REPORTING

SECTION C: REPORTING

1. Occurrences that Must be Reported

Permittees shall report the following occurrences:

- (a) Visible sediment deposition in a stream or wetland.
- (b) Oil spills if:
- They are 25 gallons or more,
- They are less than 25 gallons but cannot be cleaned up within 24 hours,
- They cause sheen on surface waters (regardless of volume), or
- They are within 100 feet of surface waters (regardless of volume).
- (c) Releases of hazardous substances in excess of reportable quantities under Section 311 of the Clean Water Act (Ref: 40 CFR 110.3 and 40 CFR 117.3) or Section 102 of CERCLA (Ref: 40 CFR 302.4) or G.S. 143-215.85.
- (d) Anticipated bypasses and unanticipated bypasses.
- (e) Noncompliance with the conditions of this permit that may endanger health or the environment.

2. Reporting Timeframes and Other Requirements

After a permittee becomes aware of an occurrence that must be reported, he shall contact the appropriate Division regional office within the timeframes and in accordance with the other requirements listed below. Occurrences outside normal business hours may also be reported to the Department's Environmental Emergency Center personnel at (800) 858-0368.

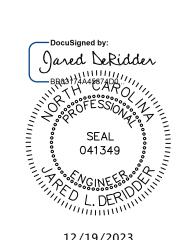
Occurrence	Reporting Timeframes (After Discovery) and Other Requirements
(a) Visible sediment deposition in a stream or wetland	 Within 24 hours, an oral or electronic notification. Within 7 calendar days, a report that contains a description of the sediment and actions taken to address the cause of the deposition. Division staff may waive the requirement for a written report on a case-by-case basis. If the stream is named on the NC 303(d) list as impaired for sediment-related causes, the permittee may be required to perform additional monitoring, inspections or apply more stringent practices if staff determine that additional requirements are needed to assure compliance with the federal or state impaired-waters conditions.
(b) Oil spills and release of hazardous substances per Item 1(b)-(c) above	 Within 24 hours, an oral or electronic notification. The notification shall include information about the date, time, nature, volume and location of the spill or release.
(c) Anticipated bypasses [40 CFR 122.41(m)(3)]	 A report at least ten days before the date of the bypass, if possible. The report shall include an evaluation of the anticipated quality and effect of the bypass.
(d) Unanticipated bypasses [40 CFR 122.41(m)(3)]	 Within 24 hours, an oral or electronic notification. Within 7 calendar days, a report that includes an evaluation of the quality and effect of the bypass.
(e) Noncompliance with the conditions of this permit that may endanger health or the environment[40 CFR 122.41(I)(7)]	 Within 24 hours, an oral or electronic notification. Within 7 calendar days, a report that contains a description of the noncompliance, and its causes; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time noncompliance is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance. [40 CFR 122.41(I)(6). Division staff may waive the requirement for a written report on a case-by-case basis.

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JACKSON PARK TENNIS COURT REPLACEMENT

HENDERSONVILLE
HENDERSON COUNTY
NORTH CAROLINA



REVISIONS
DATE DESCRIPTION

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12-19-23

PROJECT N

EFFECTIVE: 04/01/19

DATE:

GRADING, DRAINAGE
AND
EROSION CONTROL
DETAILS

C-302

SCALE: AS NOTED

NCG01 SELF-INSPECTION, RECORDKEEPING AND REPORTING

GROUND STABILIZATION AND MATERIALS HANDLING PRACTICES FOR COMPLIANCE WITH THE NCG01 CONSTRUCTION GENERAL PERMIT

Implementing the details and specifications on this plan sheet will result in the construction activity being considered compliant with the Ground Stabilization and Materials Handling sections of the NCG01 Construction General Permit (Sections E and F, respectively). The permittee shall comply with the Erosion and Sediment Control plan approved by the delegated authority having jurisdiction. All details and specifications shown on this sheet may not apply depending on site conditions and the delegated authority having jurisdiction

SECTION E: GROUND STABILIZATION

Required Ground Stabilization Timeframes			
Site Area Description		Stabilize within this many calendar days after ceasing land disturbance	Timeframe variations
(a)	Perimeter dikes, swales, ditches, and perimeter slopes	7	None
(b)	High Quality Water (HQW) Zones	7	None
(c)	Slopes steeper than 3:1	7	If slopes are 10' or less in length and are not steeper than 2:1, 14 days are allowed
(d)	Slopes 3:1 to 4:1	14	-7 days for slopes greater than 50' in length and with slopes steeper than 4:1 -7 days for perimeter dikes, swales, ditches, perimeter slopes and HQW Zones -10 days for Falls Lake Watershed
(e)	Areas with slopes flatter than 4:1	14	-7 days for perimeter dikes, swales, ditches, perimeter slopes and HQW Zones -10 days for Falls Lake Watershed unless there is zero slope

Note: After the permanent cessation of construction activities, any areas with temporary ground stabilization shall be converted to permanent ground stabilization as soon as practicable but in no case longer than 90 calendar days after the last land disturbing activity. Temporary ground stabilization shall be maintained in a manner to render the surface stable against accelerated erosion until permanent ground stabilization is achieved.

GROUND STABILIZATION SPECIFICATION

Stabilize the ground sufficiently so that rain will not dislodge the soil. Use one of the tochniques in the table below:

techniques in the table below:		
Temporary Stabilization	Permanent Stabilization	
 Temporary grass seed covered with straw or other mulches and tackifiers Hydroseeding Rolled erosion control products with or without temporary grass seed Appropriately applied straw or other mulch Plastic sheeting 	 Permanent grass seed covered with straw or other mulches and tackifiers Geotextile fabrics such as permanent soil reinforcement matting Hydroseeding Shrubs or other permanent plantings covered with mulch Uniform and evenly distributed ground cover sufficient to restrain erosion Structural methods such as concrete, asphalt or retaining walls Rolled erosion control products with grass seed 	

POLYACRYLAMIDES (PAMS) AND FLOCCULANTS

- Select flocculants that are appropriate for the soils being exposed during construction, selecting from the NC DWR List of Approved PAMS/Flocculants.
- 2. Apply flocculants at or before the inlets to Erosion and Sediment Control Measures.
- Apply flocculants at the concentrations specified in the NC DWR List of Approved *PAMS/Flocculants* and in accordance with the manufacturer's instructions.
- 4. Provide ponding area for containment of treated Stormwater before discharging
- Store flocculants in leak-proof containers that are kept under storm-resistant cover or surrounded by secondary containment structures.

EQUIPMENT AND VEHICLE MAINTENANCE

- Maintain vehicles and equipment to prevent discharge of fluids.
- 2. Provide drip pans under any stored equipment.
- 3. Identify leaks and repair as soon as feasible, or remove leaking equipment from the
- Collect all spent fluids, store in separate containers and properly dispose as hazardous waste (recycle when possible).
- 5. Remove leaking vehicles and construction equipment from service until the problem has been corrected.
- Bring used fuels, lubricants, coolants, hydraulic fluids and other petroleum products to a recycling or disposal center that handles these materials.

LITTER. BUILDING MATERIAL AND LAND CLEARING WASTE

- 1. Never bury or burn waste. Place litter and debris in approved waste containers.
- 2. Provide a sufficient number and size of waste containers (e.g dumpster, trash receptacle) on site to contain construction and domestic wastes.
- Locate waste containers at least 50 feet away from storm drain inlets and surface waters unless no other alternatives are reasonably available.
- 4. Locate waste containers on areas that do not receive substantial amounts of runoff from upland areas and does not drain directly to a storm drain, stream or wetland.
- 5. Cover waste containers at the end of each workday and before storm events or provide secondary containment. Repair or replace damaged waste containers.
- 6. Anchor all lightweight items in waste containers during times of high winds.
- Empty waste containers as needed to prevent overflow. Clean up immediately if containers overflow.
- Dispose waste off-site at an approved disposal facility.
- On business days, clean up and dispose of waste in designated waste containers.

PAINT AND OTHER LIQUID WASTE

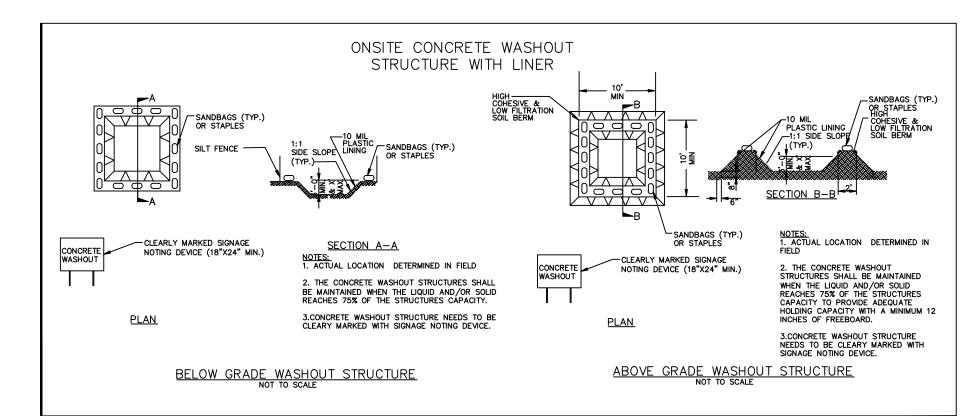
- 1. Do not dump paint and other liquid waste into storm drains, streams or wetlands.
- 2. Locate paint washouts at least 50 feet away from storm drain inlets and surface waters unless no other alternatives are reasonably available.
- Contain liquid wastes in a controlled area.
- Containment must be labeled, sized and placed appropriately for the needs of site.
- Prevent the discharge of soaps, solvents, detergents and other liquid wastes from construction sites.

PORTABLE TOILETS

- 1. Install portable toilets on level ground, at least 50 feet away from storm drains, streams or wetlands unless there is no alternative reasonably available. If 50 foot offset is not attainable, provide relocation of portable toilet behind silt fence or place on a gravel pad and surround with sand bags.
- 2. Provide staking or anchoring of portable toilets during periods of high winds or in high foot traffic areas.
- 3. Monitor portable toilets for leaking and properly dispose of any leaked material. Utilize a licensed sanitary waste hauler to remove leaking portable toilets and replace with properly operating unit.

EARTHEN STOCKPILE MANAGEMENT

- Show stockpile locations on plans. Locate earthen-material stockpile areas at least 50 feet away from storm drain inlets, sediment basins, perimeter sediment controls and surface waters unless it can be shown no other alternatives are reasonably available.
- Protect stockpile with silt fence installed along toe of slope with a minimum offset of five feet from the toe of stockpile.
- Provide stable stone access point when feasible.
- Stabilize stockpile within the timeframes provided on this sheet and in accordance with the approved plan and any additional requirements. Soil stabilization is defined as vegetative, physical or chemical coverage techniques that will restrain accelerated erosion on disturbed soils for temporary or permanent control needs.



CONCRETE WASHOUTS

- Do not discharge concrete or cement slurry from the site.
- Dispose of, or recycle settled, hardened concrete residue in accordance with local and state solid waste regulations and at an approved facility.
- Manage washout from mortar mixers in accordance with the above item and in addition place the mixer and associated materials on impervious barrier and within lot perimeter silt fence.
- Install temporary concrete washouts per local requirements, where applicable. If an alternate method or product is to be used, contact your approval authority for review and approval. If local standard details are not available, use one of the two types of temporary concrete washouts provided on this detail.
- Do not use concrete washouts for dewatering or storing defective curb or sidewalk sections. Stormwater accumulated within the washout may not be pumped into or discharged to the storm drain system or receiving surface waters. Liquid waste must be pumped out and removed from project.
- Locate washouts at least 50 feet from storm drain inlets and surface waters unless it can be shown that no other alternatives are reasonably available. At a minimum, install protection of storm drain inlet(s) closest to the washout which could receive spills or overflow.
- Locate washouts in an easily accessible area, on level ground and install a stone entrance pad in front of the washout. Additional controls may be required by the
- Install at least one sign directing concrete trucks to the washout within the project limits. Post signage on the washout itself to identify this location.
- Remove leavings from the washout when at approximately 75% capacity to limit overflow events. Replace the tarp, sand bags or other temporary structural components when no longer functional. When utilizing alternative or proprietary products. follow manufacturer's instructions.
- 10. At the completion of the concrete work, remove remaining leavings and dispose of in an approved disposal facility. Fill pit, if applicable, and stabilize any disturbance caused by removal of washout.

HERBICIDES, PESTICIDES AND RODENTICIDES

- Store and apply herbicides, pesticides and rodenticides in accordance with label restrictions.
- Store herbicides, pesticides and rodenticides in their original containers with the label, which lists directions for use, ingredients and first aid steps in case of accidental poisoning.
- 3. Do not store herbicides, pesticides and rodenticides in areas where flooding is possible or where they may spill or leak into wells, stormwater drains, ground water or surface water. If a spill occurs, clean area immediately.
- 4. Do not stockpile these materials onsite.

HAZARDOUS AND TOXIC WASTE

- 1. Create designated hazardous waste collection areas on-site.
- 2. Place hazardous waste containers under cover or in secondary containment.
- Do not store hazardous chemicals, drums or bagged materials directly on the ground.

EFFECTIVE: 04/01/19

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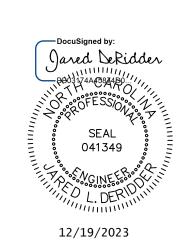
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JACKSON PARK **TENNIS COURT** REPLACEMENT

HENDERSONVILLE HENDERSON COUNTY NORTH CAROLINA



REVISIONS DATE DESCRIPTION



23185

12-19-23

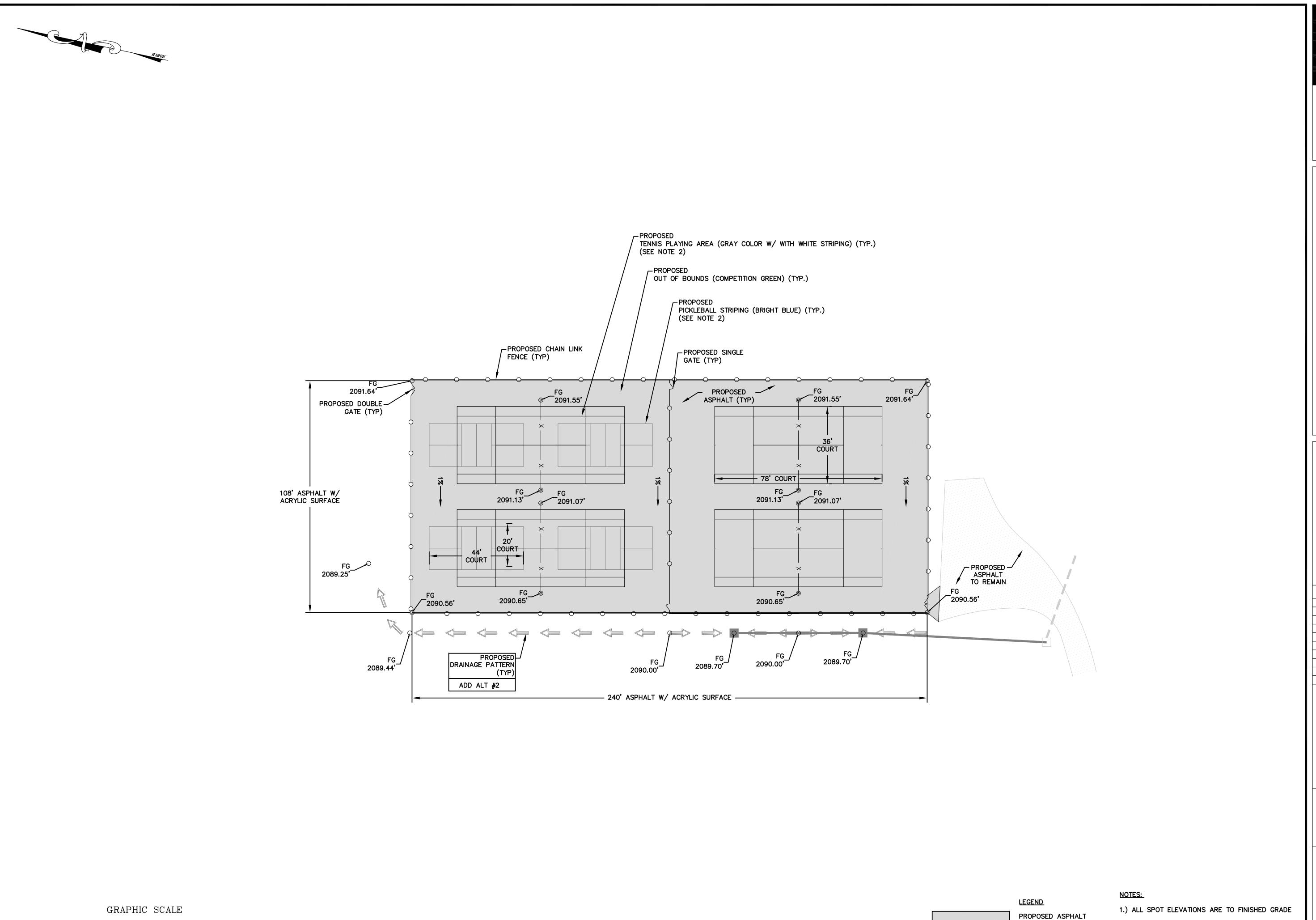
GRADING, DRAINAGE AND **EROSION CONTROL DETAILS**

C-303

SCALE: AS NOTED

NCG01 GROUND STABILIZATION AND MATERIALS HANDLING

(IN FEET)

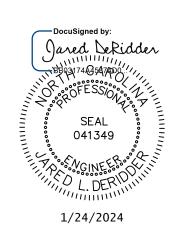


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HENDERSONVILLE HENDERSON COUNTY NORTH CAROLINA



REVISIONS

DATE DESCRIPTION



PROJECT NUMBER:

23185 12-19-23

PAVING AND SPOT ELEVATIONS

C-700

SCALE: 1"=20'

2.) ALL COURT STRIPES ARE TO BE 2-INCH WIDE

TEXTURIZED PLAYING LINES (COLOR AS NOTED)

ABBREVIATION LEGEND:

FG = FINISHED GRADE

EXISTING ASPHALT

— PROPOSED FENCE