McGill ASSOCIATES

1984 2014 ENGINEERING & LANDSCAPE ARCHITECTURE

Permit No.	Scan Date	DIN
4504T-TRANSFER-1998	**June 9, 2014**	**21215**

RECEIVED

JUN -5 2014

SOLID WASTE SECTION
ASHEVILLE REGIONAL OFFICE

June 4, 2014

Mr. Larry Frost
North Carolina Department of Environment and Natural Resources
Division of Waste Management
2090 US Highway 70
Swannanoa, North Carolina 28778

RE: Request for Permit Modification
Truck Turnaround Improvements
Henderson County Transfer Station
4504T-TRANSFER-1998
Henderson County, North Carolina

Dear Mr. Frost:

On behalf of Henderson County, McGill Associates is pleased to make this submittal for a modification to the existing operating permit for the Stoney Mountain Road Transfer Station in Henderson County. The County has been experiencing pavement failure issues in locations where trucks are turning to cross the existing scales. The attached drawings show the existing asphalt being demolished, with concrete paving and compacted aggregate base course installed to match existing ground elevations. This will provide a more durable surface to allow the County to have extended life and usage of the existing scales. Other improvements include installation of bollards to provide safer entry and exit from the scales, reconfiguring existing scale equipment, and provisions to allow additional equipment to be installed at a later date. Also included in this submittal for your records is a copy of the erosion control plan we will be submitting to Land Quality for the addition of a sediment basin. Revisions to the existing facility site plan and operations plan will be submitted under a separate cover to include these modifications and others the County may pursue.

55 Broad Street
Asheville, North Carolina 28801

P.O. Box 2259
Asheville, North Carolina 28802

ph: 828.252.0575
f: 828.252.2518

www.mcgillengineers.com

We appreciate your assistance with this important project for Henderson County. Please do not hesitate to contact us should you require additional information.

Sincerely,
McGILL ASSOCIATES, P.A.

SCOTT BURWELL, PE
Project Engineer

Enclosures

cc: Marcus Jones, PE, Henderson County, w/o enc
Greg Wiggins, Henderson County, w/o enc
Mark Cathey, PE, McGill Associates, w/o enc

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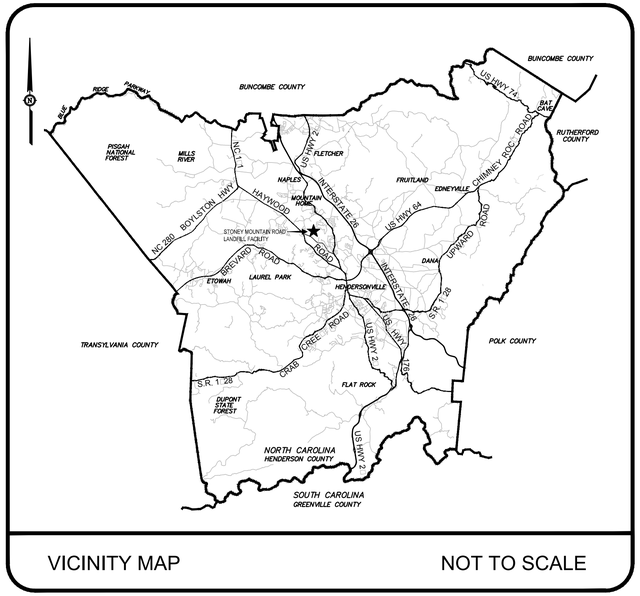
STONEY MOUNTAIN ROAD LANDFILL
TRUC□ TURNAROUND IMPROVEMENTS
HENDERSON COUNTY

HENDERSON COUNTY, NORTH CAROLINA



VICINITY MAP NOT TO SCALE

SCHEDULE OF DRAWINGS

G-001 . . . . . COVER SHEET

CD-101 . . . .E□ISTING CONDITIONS AND DEMOLITION PLAN

C-101 . . . . . SITE PLAN

C-□01 . . . . . MISCELLANEOUS DETAILS

C-□02 . . . . . MISCELLANEOUS DETAILS

S-101 . . . . .TRUC□ TURNAROUND SLAB PLAN

S-201 . . . . .TRUC□ TURNAROUND SLAB DETAILS

JUNE 2014

McGill ASSOCIATES
ENGINEERING·PLANNING·FINANCE
55 BROAD STREET ASHEVILLE, NC 28801 PH. (828) 252-0575 FIRM LICENSE # C-0459

Y:\2013\13.00733 - Henderson County SMRLF CIP\Design\Solid Waste\Drawings\Tru □ Turnaround\13.00733 G-001 Co ver-Details.dwg 6/2/2014 2:17 PM BRIAN WHITMAN

PLAN

GRAPHIC SCALE 1 INCH = 20 FEET

SANITARY SEWER MANHOLE
TOP EL: 2192.74'
8" PVC I.E. IN: 2185.95'
8" PVC I.E. OUT: 2187.58'

CATCH BASIN
TOP EL: 2188.85'
24" CMP I.E. IN: 2184.14'
36" RCP I.E. OUT: 2183.95'

CATCH BASIN
TOP EL: 2191.10'
18" CMP I.E. IN: 2187.35'
24" CMP I.E. OUT: 2187.28'

CATCH BASIN
TOP EL: 2188.84'
12" CMP I.E.: 2185.96'
24" CMP I.E.: 2185.45'
24" CMP I.E.: 2184.53'

EXISTING PAVEMENT

EXISTING 6" BOLLARD (TO REMAIN)

EXISTING VALVE AND WATER SERVICE (TO REMAIN)

EXISTING SCALE (TO REMAIN)

PROPOSED REMOVE AND RELOCATE 190 LF OF EXISTING FENCE

PROPOSED REMOVE EXISTING METERS, VALVES, AND BROKEN BOLLARDS. COORDINATE WITH OWNER FOR RETURN OF METERS AND VALVES.

PROPOSED SAWCUT AND REMOVE EXISTING ASPHALT

PROPOSED REMOVE EXISTING GRAVEL AND RE-USE FOR ABC STONE PAVING. CONTRACTOR SHALL RECEIVE PRIOR APPROVAL FROM ENGINEER FOR ACCEPTABILITY OF MATERIAL.

STONEY MOUNTAIN ROAD
S.R. 1383

PROPOSED DEMOLITION LEGEND

SURFACE TO BE DOMILISHED AND REMOVED

STRUCTURE TO BE DEMOLISHED AND REMOVED/RELOCATED

811 Know what's below. Call before you dig.
N.C. One-Call Center
Dial 811 or 1-800-632-4949

NOTE: LOCATIONS OF EXISTING UTILITIES AS SHOWN ARE APPROXIMATE ONLY. EXACT LOCATIONS ARE TO BE VERIFIED IN THE FIELD BY THE CONTRACTOR.

NO.	DATE	BY	REVISION DESCRIPTION

McGill ASSOCIATES
ENGINEERING·PLANNING·FINANCE
55 BROAD STREET ASHEVILLE, NC 28801 PH: (828) 252-0575 FIRM LICENSE # C-0459

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 039177 SCOTT E. BURNETT

STONEY MOUNTAIN ROAD LANDFILL
TRUC TURNAROUND IMPROVEMENTS
HENDERSON COUNTY
HENDERSON COUNTY, NORTH CAROLINA

JOB NO.: 13.00733
DATE: MARCH 2014
DESIGNED BY: SB
CADD BY: BS
DESIGN REVIEW: ____
CONST. REVIEW: ____
FILE NAME: 13.00733 CD-101, C-101.dwg

EXISTING CONDITIONS AND DEMOLITION PLAN

SHEET
CD-101

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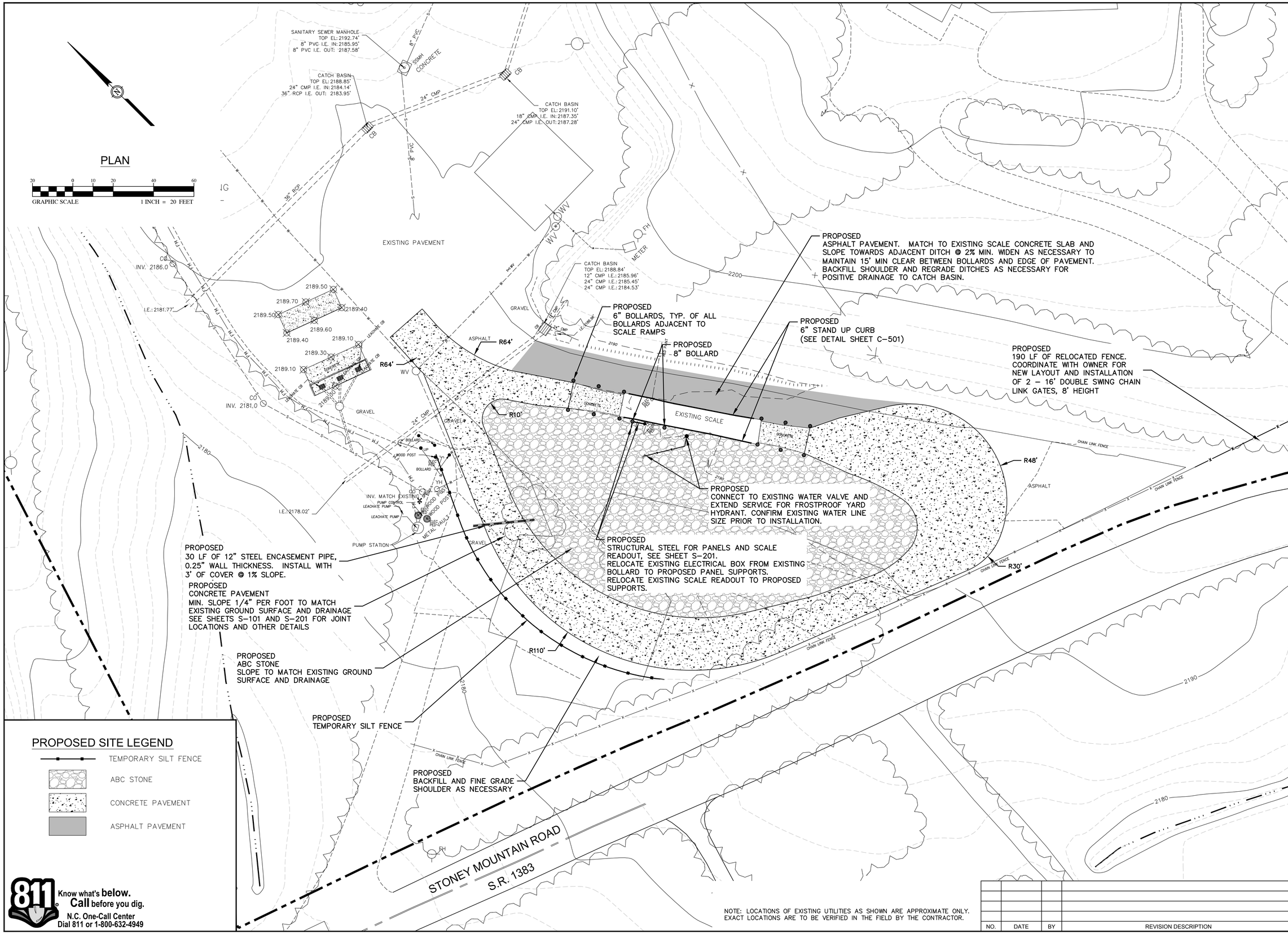

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SITE PLAN

SHEET
C-101

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GENERAL CONSTRUCTION NOTES

REVISION DATE - JUNE 16, 200□

1. FINISH GRADE TOLERANCES SHALL BE AS NOTED IN THE SPECIFICATIONS. THE ENGINEER MAY MAKE GRADE CHANGES AS REQUIRED IN THE FIELD WITHOUT EFFECTING THE UNIT BID PRICES.

2. UNLESS OTHERWISE STATED, ALL FILL AREAS SHALL BE CONSTRUCTED IN LAYERS OF 8" MAXIMUM THICKNESS, WITH WATER ADDED OR SOIL CONDITIONED TO THE OPTIMUM MOISTURE CONTENT AS DETERMINED BY THE ENGINEER AND COMPACTED WITH A SHEEP'S FOOT ROLLER TO A COMPACTION EQUAL TO OR GREATER THAN 95% (100% IN THE TOP 2' OF THE SUB GRADE BELOW ROADWAYS AND PARKING LOTS) OF THE DENSITY OBTAINED BY COMPACTING A SAMPLE OF THE MATERIAL IN ACCORDANCE WITH THE STANDARD PROCTOR METHOD OF MOISTURE-DENSITY RELATIONSHIP TEST, ASTM D698 OR AASHTO-99 UNLESS SPECIFIED IN OTHER SPECIFICATIONS.

3. ENTIRE AREA TO BE GRADED SHALL BE CLEARED AND GRUBBED. NO FILL SHALL BE PLACED ON ANY AREA NOT CLEARED AND GRUBBED.

4. ALL SOIL EROSION CONTROL MEASURES REQUIRED BY THE DRAWINGS SHALL BE PERFORMED PRIOR TO GRADING, CLEARING OR GRUBBING. ALL EROSION CONTROL DEVICES SUCH AS SILT FENCES, ETC., SHALL BE MAINTAINED IN WORKABLE CONDITION FOR THE LIFE OF THE PROJECT AND SHALL BE REMOVED AT THE COMPLETION OF THE PROJECT ONLY ON THE ENGINEER'S APPROVAL. PAYMENT SHALL BE CONSIDERED INCIDENTAL TO CLEARING AND GRUBBING. IF DURING THE LIFE OF THE PROJECT, A STORM CAUSES SOIL EROSION WHICH CHANGES FINISH GRADES OR CREATES "GULLIES" AND "WASHED AREAS", THESE SHALL BE REPAIRED AT NO EXTRA COST, AND ALL SILT WASHED OFF OF THE PROJECT SITE ONTO ADJACENT PROPERTY SHALL BE REMOVED AS DIRECTED BY THE ENGINEER AT NO EXTRA COST.

5. DISPOSABLE MATERIAL

   A. CLEARING AND GRUBBING WASTES SHALL BE REMOVED FROM THE SITE AND PROPERLY DISPOSED OF BY THE CONTRACTOR AT HIS EXPENSE, UNLESS SPECIFIED OTHERWISE.

   B. SOLID WASTES TO BE REMOVED, SUCH AS SIDEWALKS, CURBS, PAVEMENT, ETC., MAY BE PLACED IN SPECIFIC DISPOSAL AREAS DELINEATED ON THE PLANS OR REMOVED FROM THE SITE AS REQUIRED BY THE SPECIFICATIONS. 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 HIS EXPENSE.

   C. ABANDONED UTILITIES SUCH AS CULVERTS, WATER PIPE, HYDRANTS, CASTINGS, PIPE APPURTENANCES, UTILITY POLES, ETC., SHALL BE THE PROPERTY OF THE SPECIFIC UTILITY AGENCY, OR COMPANY HAVING JURISDICTION. BEFORE THE CONTRACTOR CAN REMOVE, DESTROY, SALVAGE, REUSE, SELL OR STORE FOR HIS OWN USE ANY ABANDONED UTILITY, HE MUST PRESENT TO THE OWNER WRITTEN PERMISSION FROM THE UTILITY INVOLVED.

6. THE CONTRACTOR IS RESPONSIBLE FOR THE COORDINATION OF ADJUSTMENT OF ALL UTILITY SURFACE ACCESSES WHETHER HE PERFORMS THE WORK OR A UTILITY COMPANY PERFORMS THE WORK.

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

8. ALL AREAS WHERE THERE IS EXPOSED DIRT 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 ±4"-6" 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". HAND SEEDING SHALL BE AUTHORIZED ON AN AREA BY AREA APPROVAL BY THE ENGINEER. DISTURBED AREAS SHOULD THEN BE MATTED WITH SHORT-TERM PHOTODEGRADABLE EROSION CONTROL MATTING.

9. <u>SEED AND MULCH DENUDED AREA WITHIN 15 DAYS AFTER FINISHED GRADE ARE ESTABLISHED</u>. SEED AND SOIL AMENDMENTS SHALL BE PLACED ON A PREPARED SEEDBED AT THE FOLLOWING RATES PER ACRE. STRAW MULCH SHALL BE TACKED WITH TACKING AGENT APPLIED BY HYDROSEEDER.

LIME	4,000 LBS
FERTILIZER (10-10-10)	1,000 LBS
KY-31 FESCUE (POA PRATENSIS)	100 LBS
STRAW MULCH	60-80 BALES
FOR SUMMER SEEDING ADD TO THE ABOVE:	
GERMAN MILLET (SETARIA ITALICA)	40 LBS
SMALL-STEMMED SUDAN GRASS (SORGHUM BICOLOR)	50 LBS
FOR WINTER SEEDING ADD TO THE ABOVE:	
RYE GRAIN (SECASE CEREALE)	120 LBS

IF HYDROSEEDING, WOOD CELLULOSE MAY BE USED IN ADDITION TO STRAW MULCH AT THE RATE OF 1,000 LBS PER ACRE.

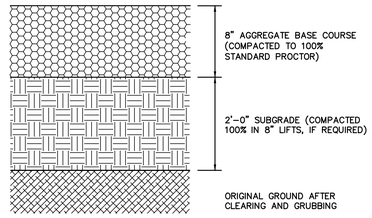
ALL SEEDING SHALL BE MAINTAINED, WATERED ETC.., UNTIL A PERMANENT VEGETATIVE GROUND COVER IS ESTABLISHED OVER ALL DISTURBED AREAS.

<u>FOR ALL SLOPES 2:1 OR STEEPER ADD TO THE ABOVE:</u>

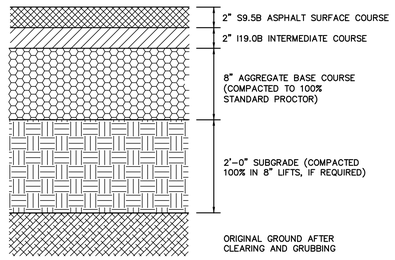
PURE LIVE SEED SWITCHGRASS	4 LBS
SERICEA LESPEDEZA	2 LBS
BROWNTOP MILLET OR PEARL MILLET (PENNISETUM GLAUCUM)	8 LBS
GRAIN SORGHUM (SORGHUM BICOLOR (L.) MOENCH SSP. BICOLOR)	2 LBS

<u>ALL SLOPES 2:1 OR STEEPER SHALL BE COVERED BY EROSION CONTROL MATTING.</u>

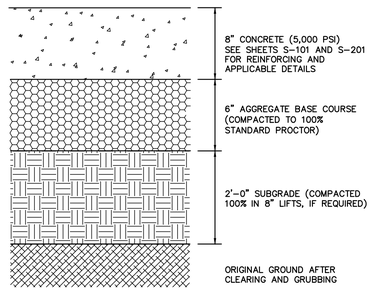
10. CONTRACTOR SHALL VERIFY ALL ELEVATIONS BEFORE INSTALLATION OF FACILITIES.



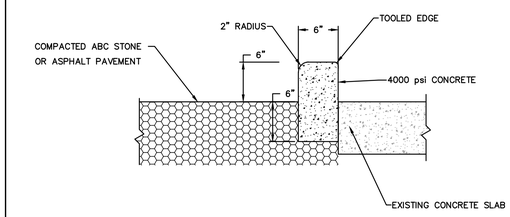
ABC STONE PAVING SECTION



ASPHALT PAVING SECTION

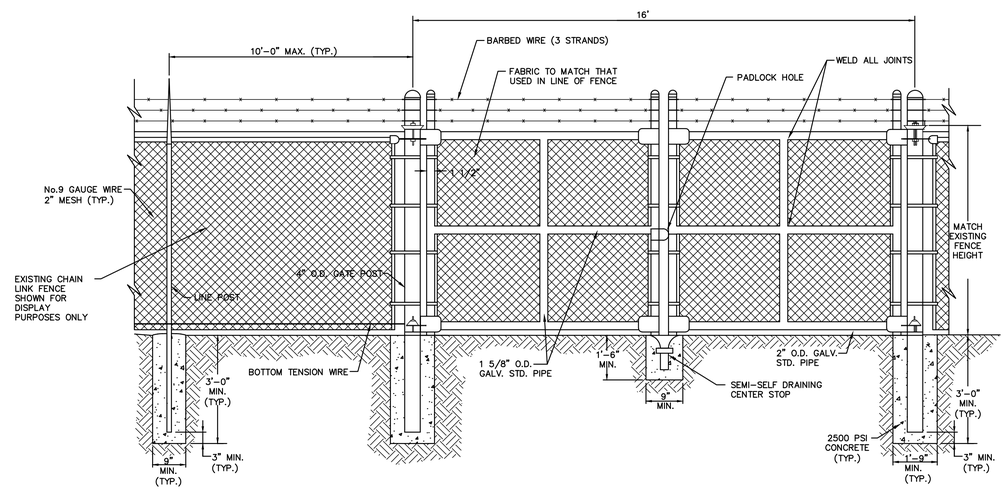


CONCRETE PAVING SECTION



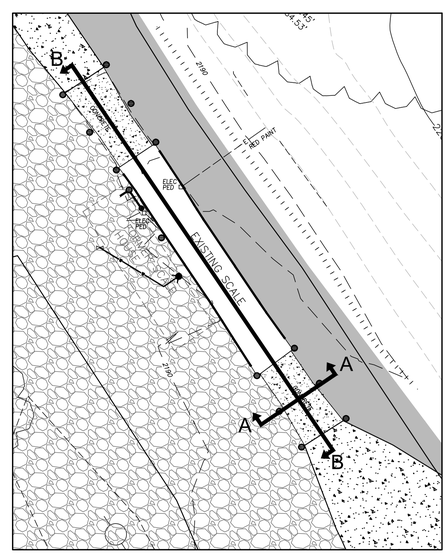
STAND-UP CONCRETE CURB

NOT TO SCALE



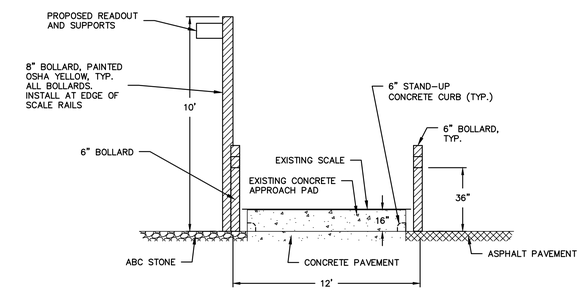
CHAIN LIN□ FENCE AND DOUBLE GATE DETAIL

N.T.S.



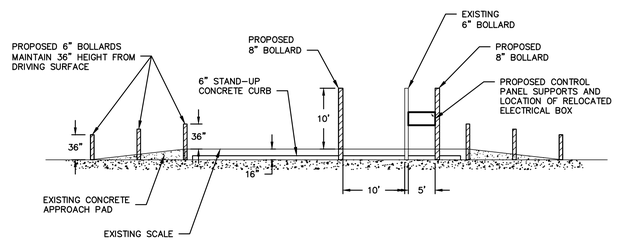
TRUC□ SCALE

GRAPHIC SCALE 1 INCH = 20 FEET



SECTION A-A

N.T.S.



SECTION B-B

N.T.S.

811 Know what's **below.** **Call** before you dig.
N.C. One-Call Center
Dial 811 or 1-800-632-4949

NO.	DATE	BY	REVISION DESCRIPTION

McGill ASSOCIATES
ENGINEERING·PLANNING·FINANCE
55 BROAD STREET ASHEVILLE, NC 28801 PH. (828) 252-0575 FIRM LICENSE # C-0459

NORTH CAROLINA PROFESSIONAL SEAL 039177 ENGINEER SCOTT E. BUSH

STONEY MOUNTAIN ROAD LANDFILL
TRUC□ TURNAROUND IMPROVEMENTS
HENDERSON COUNTY
HENDERSON COUNTY, NORTH CAROLINA

JOB NO.: 13.00733
DATE: MARCH, 2014
DESIGNED BY: SB
CADD BY: BS
DESIGN REVIEW: ____
CONST. REVIEW: ____
FILE NAME: 13.00733 C-001 Cover-Details.dwg

MISCELLANEOUS DETAILS

SHEET
C-501

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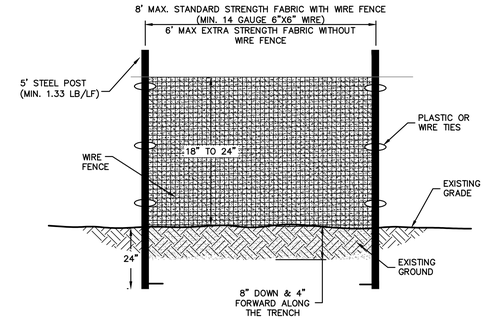
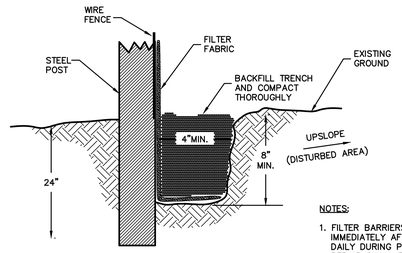


SECTION VIEW



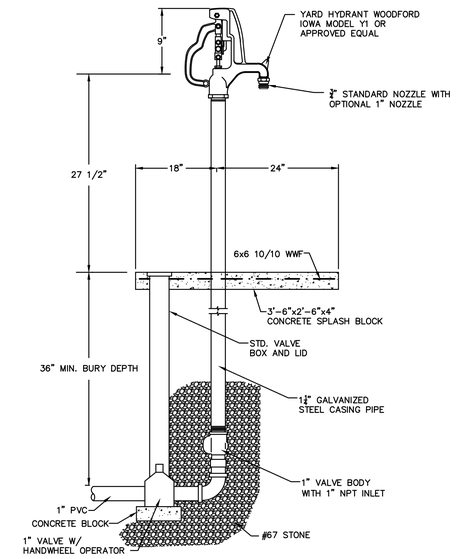
SLOPE	SLOPE LENGTH(FT)	MAXIMUM AREA(SQFT)
<2%	100	10,000
2 TO 5%	75	7,500
5 TO 10%	50	5,000
10 TO 20%	25	2,500
>20%	15	1,500

NOTES:

1. FILTER BARRIERS SHALL BE INSPECTED IMMEDIATELY AFTER EACH RAINFALL AND DAILY DURING PROLONGED RAINFALL. REPAIR SHALL BE MADE AS NECESSARY.
2. FABRIC SHALL BE REPLACED PROMPTLY IF FOUND TO BE IN DISREPAIR.
3. SEDIMENT DEPOSITS SHALL BE REMOVED AFTER EACH STORM EVENT AND WHEN DEPOSITS REACH APPROXIMATELY 1/3 HEIGHT OF BARRIER.
4. REFERENCE NCDENR LAND QUALITY SECTION DESIGN MANUAL: 6.62.

SEDIMENTATION/SILT FENCE

REVISION DATE - NOVEMBER 3, 2008



FROSTPROOF YARD HYDRANT

MODIFIED FOR THIS PROJECT

Know what's **below.**
Call before you dig.
N.C. One-Call Center
Dial 811 or 1-800-632-4949

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NORTH CAROLINA PROFESSIONAL SEAL 039177 ENGINEER SCOTT E. BURNETT

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TRUC TURNAROUND IMPROVEMENTS
HENDERSON COUNTY
HENDERSON COUNTY, NORTH CAROLINA

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FILE NAME: 13.00733 G-001 Cover-Details.dwg

MISCELLANEOUS DETAILS

SHEET
C-502

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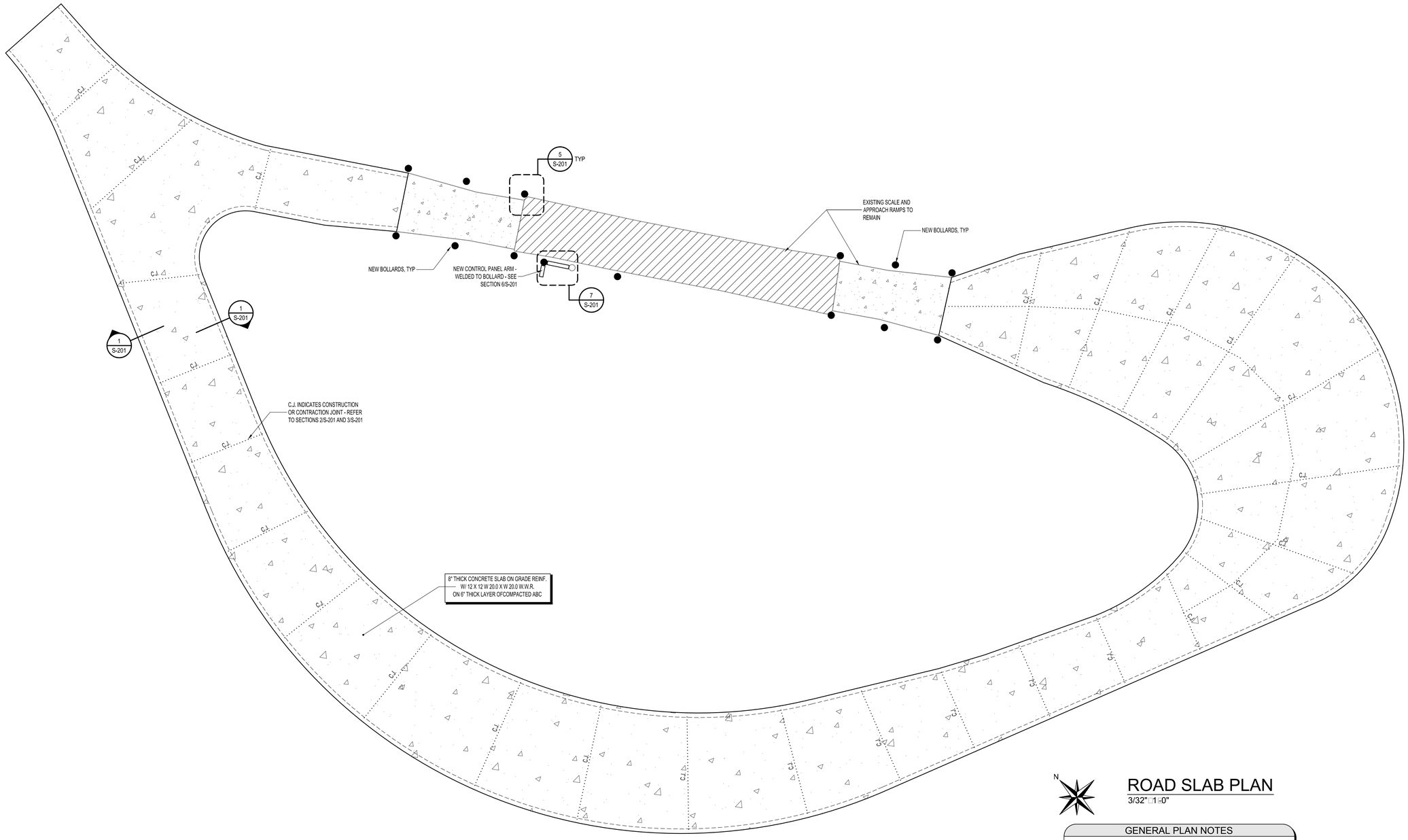

N

ROAD SLAB PLAN

3/32"□1=0"

GENERAL PLAN NOTES

1. REFER TO CIVIL DRAWINGS FOR ALL PLAN DIMENSIONS, TYPICAL.
2. REFER TO CIVIL DRAWINGS FOR SPECIFIC LOCATIONS OF ALL BOLLARDS.

KLOESEL
Engineering, PA
License C-1207
8 Magnolia Avenue Suite 100
Asheville, North Carolina 28801
(828)-255-0780

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55 BROAD STREET ASHEVILLE, NC PH. (828) 252-0575 FIRM LICENSE # C-0459

NORTH CAROLINA PROFESSIONAL SEAL 14320 ENGINEER E.J. KLOESEL 5-19-14

STONEY MOUNTAIN ROAD LANDFILL TRUC□
TURNAROUND IMPROVEMENTS

HENDERSON COUNTY

HENDERSON COUNTY, NORTH CAROLINA

JOB NO.: 13.00733
DATE: MARCH 2014
SCALE: AS NOTED
DESIGNED BY: EJK
CADD BY: KN
DESIGN REVIEW: EJK
CONST. REVIEW: ---
FILE NAME: 20131470 S-101

TRUC□ TURNAROUND
SLAB PLAN

SHEET
S-101

STRUCTURAL NOTES for the TRUCK TURNAROUND IMPROVEMENTS FOR HENDERSON COUNTY

A. GENERAL

1. The structure is designed in accordance with the North Carolina State Building Code – 2012 Edition (2009 International Building Code with current North Carolina amendments).

B. FOUNDATION

1. All slabs shall be founded on undisturbed soil or a controlled fill having a bearing capacity of 2,500 psf.

C. CONCRETE

1. Concrete in the following areas shall have natural sand fine aggregate and normal weight coarse aggregates conforming to ASTM C33, Type I Portland Cement conforming to ASTM C150, and shall have the following minimum compressive strength (f'c) at 28 days:

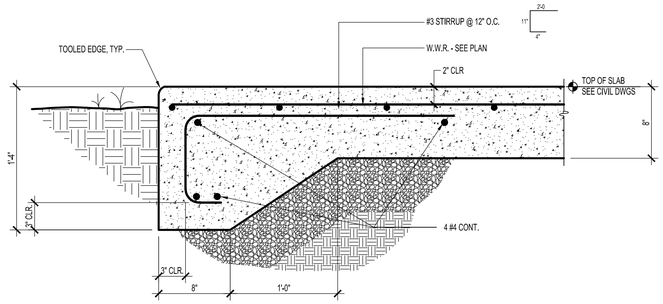
   New Truck Turnarpound Slab:
   Maximum 28 Day Shrinkage Test Results of 0.03% in accordance with the Modified ASTM C157
   Minimum 28 Day Compressive Strength (f'c) = 5000psi
   Cement type: 1
   Flyash: 15%-25% flyash by weight of cement
   Maximum Water / Cementitious Material Ratio (W/CM): 0.40
   Nominal Size of Coarse Aggregate: 3/4" normal weight
   Total Air Content: 6% ('F2' exposure)
   Admixtures: high range water reducing admixture (super-plasticizer)
   Slump: 3"-5" (prior to adding super-plasticizer) 5"-7" (after adding super-plasticizer)
   Curing Method and Time: wet cure for 14 days using 'UltraCure NCF' curing blanket manufactured by McTech Group, or approved equivalent.
2. All concrete shall be made in accordance with approved design mixes as required for the job.
3. Concrete that arrives at the jobsite with a slump greater than 5" shall be rejected. Concrete with a slump less than 3" shall have an approved super-plasticizer added such that the minimum 3" slump may be achieved. The addition of water at the jobsite, beyond that held-back at the concrete plant, for the purpose of increasing the slump is prohibited.
4. Schedule of Concrete Finishes:
   Turnaround slab on grade_____Non-Slip Broom Finish
   Exterior steps and sidewalks _____Non-slip Broom Finish.
5. The Contractor shall be responsible for furnishing and installing anchor bolts, clips, inserts, connection plates, sleeves, slots, and other required items in accordance with the Contract Drawings, and in cooperation with other trades prior to placing the concrete.

D. CONCRETE REINFORCEMENT

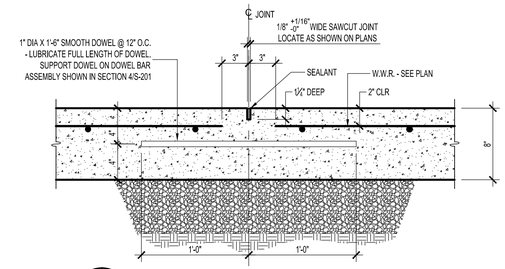
1. Concrete reinforcement bars shall conform to ASTM A615, Grade 60. Reinforcement designated as continuous shall lap 36 bar diameters at splices, unless noted otherwise.
2. Welded Wire Reinforcement shall conform to ASTM A185. Reinforcement shall be furnished in flat sheets. Lap one full mesh.
3. All concrete reinforcement bars and WWR shall be accurately and securely tied and anchored in place to prevent dislocation during the concrete placement operation.
4. Provide 1 - #4 reinforcement bar X 4'-0" at re-entrant corners and around the perimeter of rectangular holes in the slab, unless otherwise noted. Place bar diagonal to the corner with 1" clearance from the top and the side of the slab at the corner.
5. Minimum concrete cover protection for reinforcement bars shall conform to the American Concrete Institute Committee 318, Section 7.7, unless noted otherwise.

E. STRUCTURAL STEEL

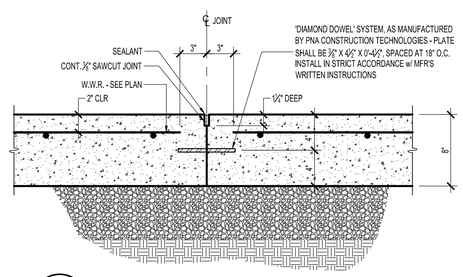
1. Structural steel angles, channels, and plates shall conform to ASTM A36, grade 36 unless otherwise noted.
2. Structural steel tubing shall conform to ASTM A500, Grade B, f_y = 46 ksi.
3. Structural steel pipe shall conform to ASTM A53, Type E or S, Grade B, f_y=35 ksi.
4. Anchor Bolts shall be headed and conform to ASTM F1554, grade 36.
5. **All exterior exposed ferrous metal structures shall be hot-dip galvanized after fabrication, unless otherwise noted.**
6. Fabrication and erection of all structural steel shall be in accordance with the latest AISC Specifications.
7. Welding shall conform to the American Welding Society Standard D1.1. Electrodes for shop and field welds shall conform to AWS A5.1 or AWS 5.5, Class E70XX, low hydrogen, unless noted otherwise. Only welders who have been qualified by tests as prescribed in the referenced Standards to perform the type of work required shall make welds.
8. Splicing of structural steel members where not detailed on the Contract Documents is prohibited without the prior approval of the Structural Engineer as to the location, type of splice, and connection to be made.
9. Encase all structural steel below grade with concrete with a minimum coverage of 3".



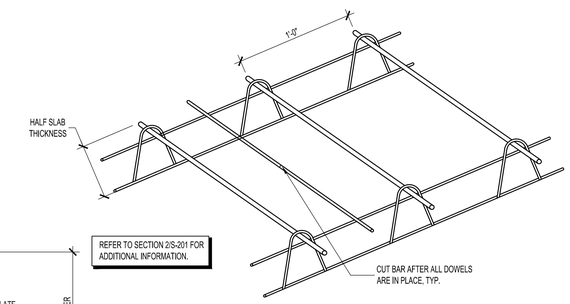
1 / 1 1/2 S-201 SLAB TURNDOWN SECTION



2 / 1 1/2 S-201 SLAB ON GRADE CONTRACTION JOINT

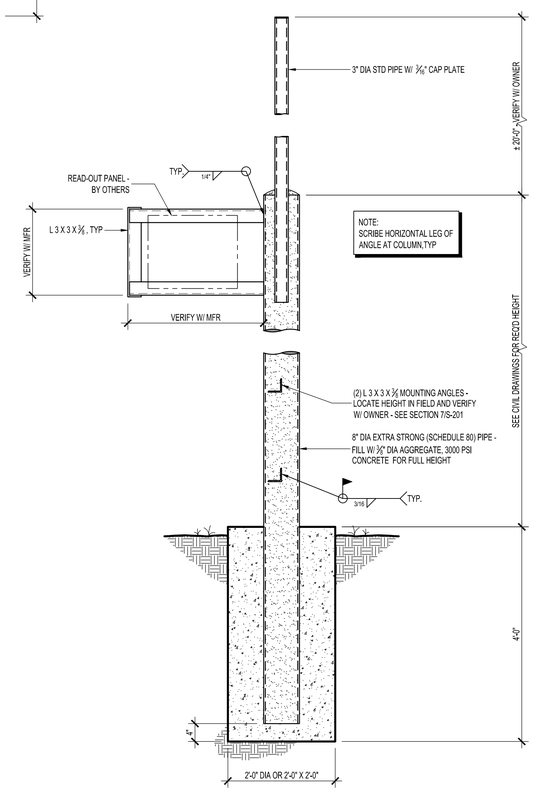


3 / 1 1/2 S-201 SLAB ON GRADE CONSTRUCTION JOINT

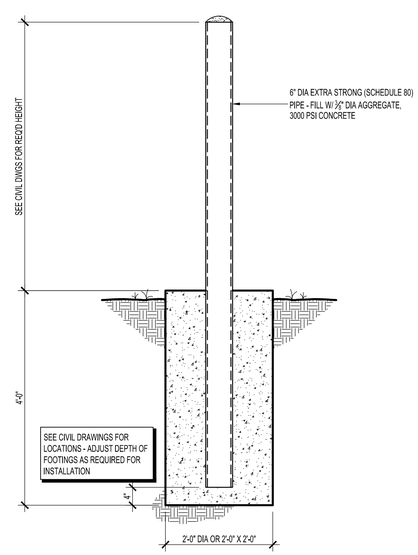


REFER TO SECTION 2/S-201 FOR ADDITIONAL INFORMATION.

4 / 1 1/2 S-201 DOWEL BAR ASSEMBLY

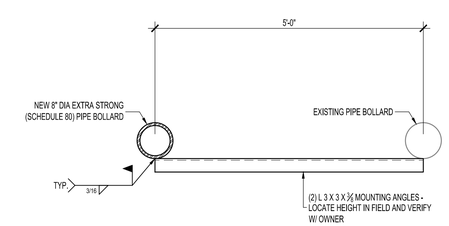


6 / 3/4 S-201 SECTION AT SUPPORT FOR READ-OUT PANEL



SEE CIVIL DRAWINGS FOR LOCATIONS - ADJUST DEPTH OF FOOTINGS AS REQUIRED FOR INSTALLATION

5 / 3/4 S-201 SECTION AT STEEL PIPE BOLLARD



7 / 3/4 S-201 PLAN VIEW AT BOLLARDS

KLOESEL Engineering, PA
License C-1207
8 Magnolia Avenue Suite 100
Asheville, North Carolina 28801
(828)-255-0780

NO.	DATE	BY	REVISION DESCRIPTION

McGill ASSOCIATES
ENGINEERING · PLANNING · FINANCE
55 BROAD STREET ASHEVILLE, NC PH. (828) 252-0575 FIRM LICENSE # C-0459

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 14320 ENGINEER E.J. KLOESEL 5-19-14

STONEY MOUNTAIN ROAD LANDFILL TRUC□ TURNAROUND IMPROVEMENTS
HENDERSON COUNTY
HENDERSON COUNTY, NORTH CAROLINA

JOB NO.: 13.00733
DATE: MARCH 2014
SCALE: AS NOTED
DESIGNED BY: EJK
CADD BY: KN
DESIGN REVIEW: EJK
CONST. REVIEW: ___
FILE NAME: 20131470 S-101

TRUC□ TURNAROUND SLAB DETAILS

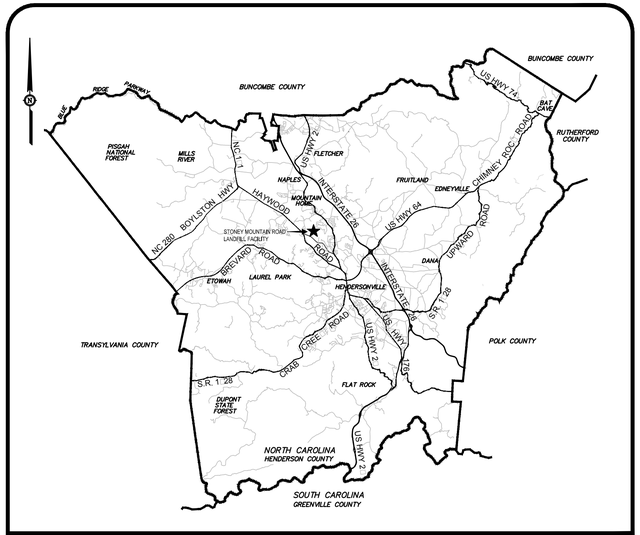
SHEET
S-201

SEDIMENT BASIN AND PIPE REPLACEMENT HENDERSON COUNTY LANDFILL

HENDERSON COUNTY

HENDERSON COUNTY, NORTH CAROLINA

County Manager: Steve Wyatt
County Engineer: Marcus Jones, PE



VICINITY MAP NOT TO SCALE

SCHEDULE OF DRAWINGS

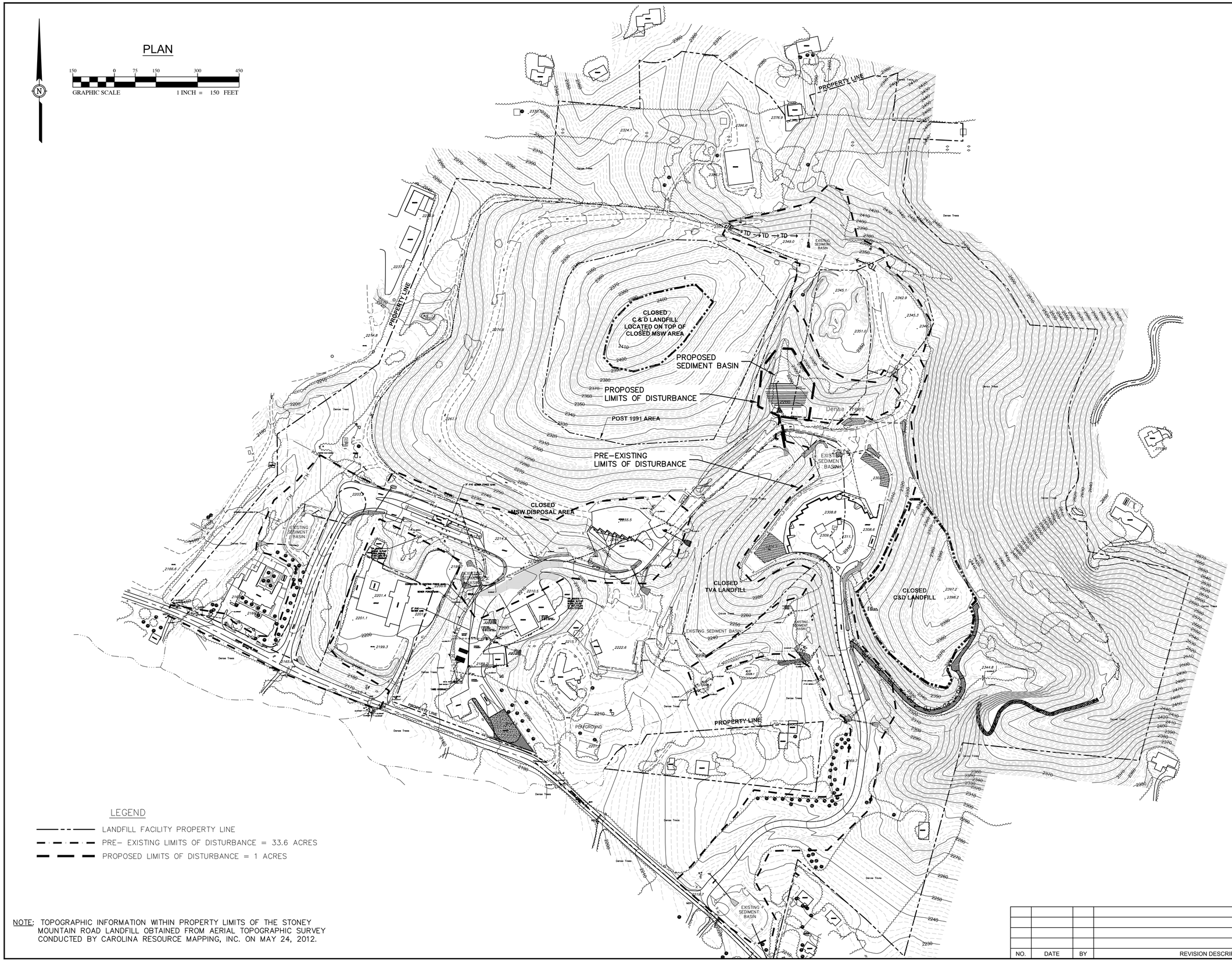
G-001 . . . . . COVER SHEET
C-101 . . . . . OVERALL MAP
C-102 . . . . . GRADING AND EROSION CONTROL PLAN
C-□01 . . . . . MISCELLANEOUS DETAILS
C-□02 . . . . . MISCELLANEOUS DETAILS

NORTH CAROLINA PROFESSIONAL SEAL 059177 ENGINEER SCOTT E. BURWELL

JUNE 2014

McGill ASSOCIATES
ENGINEERING · PLANNING · FINANCE
55 BROAD STREET ASHEVILLE, NC 28801 PH. (828) 252-0575 FIRM LICENSE # C-0459

Y:\2013\13.00733 - Henderson County SMRLF CIP\Design\Solid Waste\Drawings\Sediment Pond\13.00733 SED BASIN G-001 Co er-Details.dwg 6/2/2014 11:44 AM BRIAN WHITMAN



LEGEND

- LANDFILL FACILITY PROPERTY LINE
- PRE- EXISTING LIMITS OF DISTURBANCE = 33.6 ACRES
- PROPOSED LIMITS OF DISTURBANCE = 1 ACRES

NOTE: TOPOGRAPHIC INFORMATION WITHIN PROPERTY LIMITS OF THE STONEY MOUNTAIN ROAD LANDFILL OBTAINED FROM AERIAL TOPOGRAPHIC SURVEY CONDUCTED BY CAROLINA RESOURCE MAPPING, INC. ON MAY 24, 2012.

NO.	DATE	BY	REVISION DESCRIPTION

McGill ASSOCIATES
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55 BROAD STREET ASHEVILLE, NC 28801 PH. (828) 252-0575 FIRM LICENSE # C-0459

NORTH CAROLINA PROFESSIONAL SEAL 049177 ENGINEER SCOTT E. BURNETT

SEDIMENT BASIN AND
PIPE REPLACEMENT
HENDERSON COUNTY LANDFILL

HENDERSON COUNTY

HENDERSON COUNTY, NORTH CAROLINA

JOB NO.: 13.00733
DATE: MAY 2014
DESIGNED BY: SEB
CADD BY: SEB
DESIGN REVIEW: ____
CONST. REVIEW: ____
FILE NAME:
13.00733-SED BASIN.dwg

OVERALL MAP

FIGURE
C-101

Y:\2013\13.00733 - Henderson County SMRLF CIP\Design\Solid Waste\Drawings\Sediment Pond\13.00733-SED BASIN.dwg 6/2/2014 11:- 4 AM BRIAN WHITMAN

APPROXIMATE LIMITS OF EXISTING WASTE

PROPOSED SEDIMENT BASIN

PROPOSED POROUS BAFFLES (TYP.)

PROPOSED 4" SKIMMER WITH 2.75" ORIFICE

PROPOSED 24" ALUMINIZED CMP RISER BARREL TOP: 2094.0

PROPOSED 12' WIDE ACCESS BERM

PROPOSED 24" ALUMINIZED CMP INV. IN: 2090.0 INV. OUT: 2078.0

PROPOSED CONTOUR (TYP.)

PROPOSED LIMITS OF DISTURBED AREA (1.0 AC.)

EXISTING STREAM

PROPOSED RIPRAP APRON LENGTH: 20' WIDTH: 22'

Dense Trees

PROPOSED TEMPORARY SILT FENCE (TYP.)

EXISTING CONTOUR (TYP.)

I.E.: 2272.33'

PROPOSED REPLACE EXISTING 24" CMP PIPE WITH 36" HDPE PIPE WITH WATERTIGHT JOINTS @ 2% MINIMUM SLOPE. VERIFY ELEVATIONS AND LENGTH PRIOR TO CONSTRUCTION.

DIRT

APPROXIMATE LIMITS OF EXISTING WASTE

EXISTING RIPRAP APRON (TO REMAIN)

EXISTING SEDIMENT BASIN

2293.8

PROPOSED EROSION CONTROL AND STORM DRAINAGE LEGEND

- LIMITS OF DISTURBED AREA
- TEMPORARY SILT FENCE
- STORM DRAINAGE PIPE
- POROUS BAFFLE

PLAN

GRAPHIC SCALE 1 INCH = 20 FEET

NO.	DATE	BY	REVISION DESCRIPTION

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NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 039177 SCOTT E. BURNETT

SEDIMENT BASIN AND PIPE REPLACEMENT
HENDERSON COUNTY LANDFILL

HENDERSON COUNTY

HENDERSON COUNTY, NORTH CAROLINA

JOB NO.: 13.00733
DATE: MAY 2014
DESIGNED BY: SEB
CADD BY: SEB
DESIGN REVIEW: ____
CONST. REVIEW: ____
FILE NAME: 13.00733-SED BASIN.dwg

GRADING AND EROSION CONTROL PLAN

FIGURE

C-102

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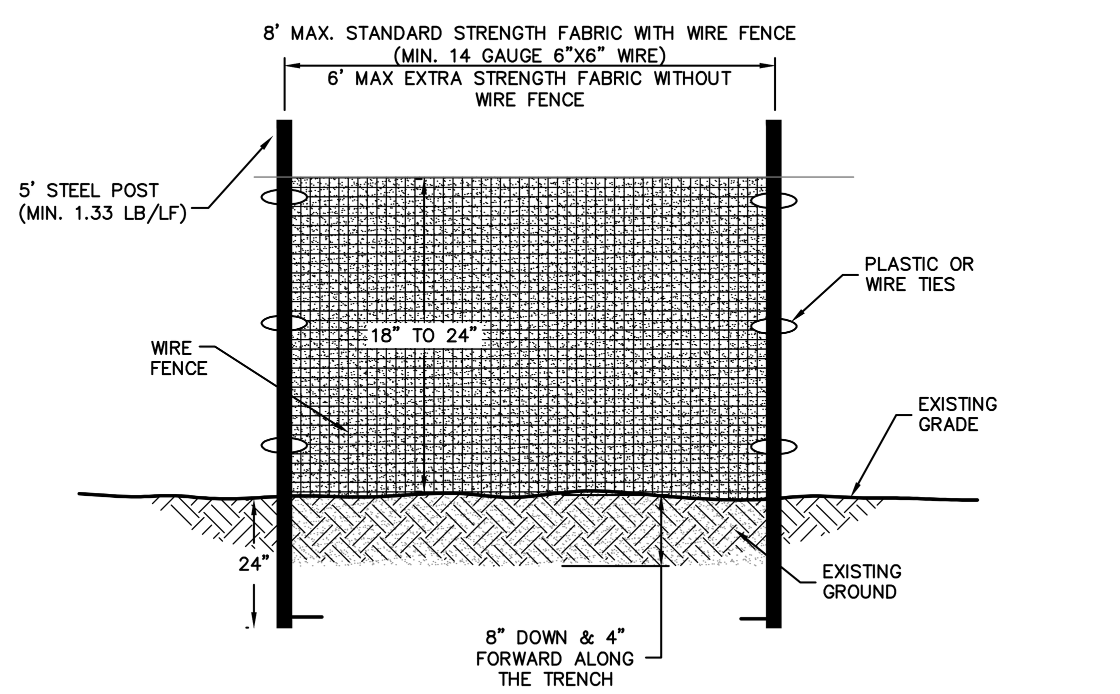
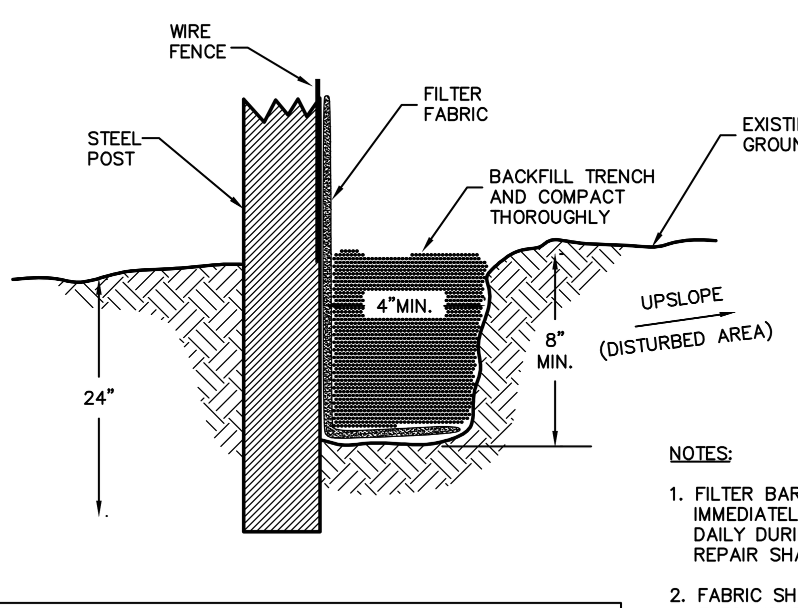


SECTION VIEW



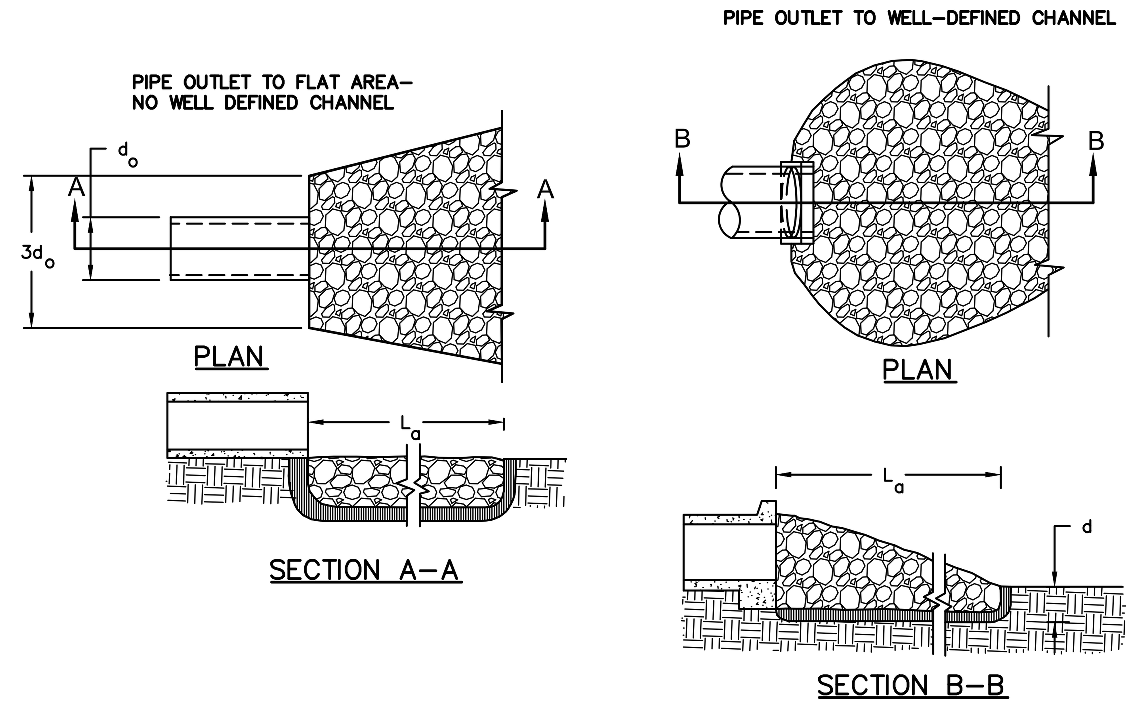
NOTES:

1. FILTER BARRIERS SHALL BE INSPECTED IMMEDIATELY AFTER EACH RAINFALL AND DAILY DURING PROLONGED RAINFALL. REPAIR SHALL BE MADE AS NECESSARY.
2. FABRIC SHALL BE REPLACED PROMPTLY IF FOUND TO BE IN DISREPAIR.
3. SEDIMENT DEPOSITS SHALL BE REMOVED AFTER EACH STORM EVENT AND WHEN DEPOSITS REACH APPROXIMATELY 1/3 HEIGHT OF BARRIER.
4. REFERENCE NCDENR LAND QUALITY SECTION DESIGN MANUAL: 6.62.

SLOPE	SLOPE LENGTH(FT)	MAXIMUM AREA(SQFT)
<2%	100	10,000
2 TO 5%	75	7,500
5 TO 10%	50	5,000
10 TO 20%	25	2,500
>20%	15	1,500

SEDIMENTATION/SILT FENCE

REVISION DATE - NOVEMBER 3, 2008



NOTES

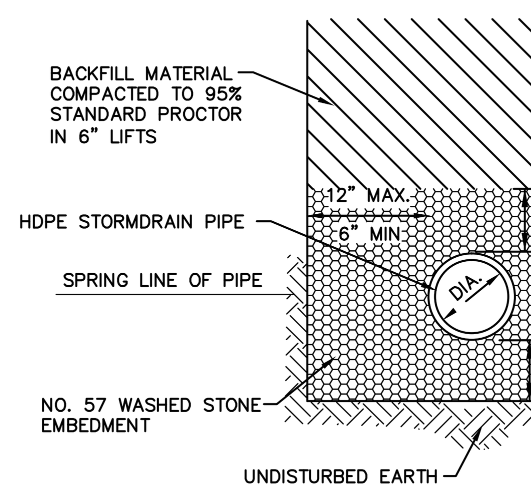
1. La IS THE LENGTH OF THE RIPRAP APRON
2. d= 1.5 TIMES THE MAXIMUM STONE DIAMETER BUT NOT LESS THAN 6".
3. IN A WELL–DEFINED CHANNEL EXTEND THE APRON UP THE CHANNEL BANKS TO AN ELEVATION OF 6" ABOVE THE MAXIMUM TAILWATER DEPTH OR TO THE TOP OF THE BANK, WHICHEVER IS LESS.
4. FILTER FABRIC SHOULD BE INSTALLED BETWEEN THE RIPRAP AND SOIL FOUNDATION.
5. REFERENCE NCDENR LAND QUALITY SECTION DESIGN MANUAL: 6.41.

RIPRAP APRON SIZING (PER FIG. 8.06a)

OUTLET No.	PIPE DIAMETER (Do)	3 x Do	APRON LENGTH (La)	APRON WIDTH (W=Do+La)	RIPRAP SIZE (d_{50}xTHICKNESS)
1	24"	6'	20'	22'	14" x 21"

OUTLET PROTECTION

NOT TO SCALE
REVISION DATE - NOVEMBER 3, 2008



STANDARD EXCAVATION

NOTES:
1. CONSTRUCTION OF TRENCHES SHALL COMPLY WITH ALL FEDERAL, STATE AND LOCAL SAFETY AND HEALTH REGULATIONS WHICH HAVE JURISDICTION AT THE PROJECT SITE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO BE FAMILIAR WITH THE APPLICABLE REGULATIONS AND FOLLOW THEM ACCORDINGLY.

2. PAYMENT FOR ROCK EXCAVATION AND SELECT BACKFILL IN TRENCH SHALL BE FOR ACTUAL QUANTITIES AND SHALL NOT EXCEED THE WIDTH OF TRENCH SHOWN ON THIS DETAIL.

TYPICAL TRENCHING DETAIL HDPE PIPE WITH WASHED STONE EMBEDMENT

NOT TO SCALE
REVISION DATE - NOVEMBER 3, 2008

NORTH CAROLINA LAND □UALITY SECTION EROSION CONTROL NOTES

REVISION DATE - OCTOBER, 2012

GENERAL: ALL EROSION CONTROL MEASURES ARE TO BE PERFORMED IN STRICT ACCORDANCE WITH REQUIREMENTS OF THE NORTH CAROLINA DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES, DIVISION OF LAND RESOURCES, LAND QUALITY SECTION. THE FOLLOWING CONSTRUCTION SEQUENCE SHALL BE COMPLIED WITH FOR ALL WORK.

1. – PRIOR TO BEGINNING WORK ON THE PROJECT THE CONTRACTOR SHALL OBTAIN FROM THE OWNER A COPY OF THE "EROSION AND SEDIMENT CONTROL APPROVAL" FROM THE NORTH CAROLINA DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES, DIVISION OF LAND QUALITY, OR THE LOCAL AUTHORIZED PROGRAM. THE APPROVAL NOTICE MUST BE AVAILABLE ON–SITE DURING ALL GRADING AND CONSTRUCTION ACTIVITIES.

2. – INSTALL ALL EROSION CONTROL MEASURES AS REQUIRED BY THE NORTH CAROLINA DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES, DIVISION OF LAND RESOURCES, LAND QUALITY SECTION.

NOTE: ALL UTILITY INSTALLATION WITHIN 25' OF A RIVER OR STREAM BANK SHALL BE INSTALLED PER STREAM PROTECTION DURING EXCAVATION DETAIL. SEEDING AND MULCHING SHALL BE COMPLETED DAILY IN AREAS NOTED AS STREAM PROTECTION AREAS. SILT FENCE IN THESE AREAS SHALL NOT BE INSTALLED CLOSER THAN 5' FROM CREEK BANK UNLESS FIELD CONDITIONS PREVENT SUFFICIENT CLEARANCE. ALL SILT FENCES SHALL BE INSPECTED AND CLEANED AS NEEDED AFTER EACH RAIN.

3. – NO WORK SHALL BE PERFORMED IN STREAM FROM OCTOBER 15 TO APRIL 15 (TO ACCOMMODATE COE AND DWQ RECOMMENDATIONS CONCERNING WORK IN TROUT WATERS.)

4. – CONTRACTOR IS TO PLACE PERMANENT STAKES MARKING CLEARLY THE 25' BUFFER FOR STREAMS WHERE SHOWN ON THE PLANS AND THE MARKERS ARE TO BE VISIBLE AT ALL TIMES DURING CONSTRUCTION.

5. – OBTAIN CERTIFICATE OF COMPLIANCE THROUGH ON–SITE INSPECTION BY A REPRESENTATIVE OF THE NORTH CAROLINA DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES, DIVISION OF LAND RESOURCES, LAND QUALITY SECTION.

6. – CONSTRUCTION SHALL BE LIMITED TO 2000' OF CONTIGUOUS ROAD CORRIDOR UNTIL ALL CUTS, FILLS, AND DITCHES ARE STABILIZED FOR THAT 2000' SECTION. UPON STABILIZATION OF THAT SECTION ANOTHER 2000' SECTION CAN BE CONSTRUCTED AND STABILIZED.

7. – ALL STREAM CROSSINGS AND PERENNIAL STREAMS WILL BE ALIGNED WITH THE NATURAL STREAM PATTERNS ABOVE AND BELOW THE PROPOSED ROAD. ARCH CULVERTS WILL BE USED AND FOOTERS WILL BE CONSTRUCTED IN UNDISTURBED BANKS AWAY FROM THE STREAM FLOW.

8. – PROCEED WITH GRADING, CLEARING AND GRUBBING. NOTE: NO OFF SITE DISPOSAL OF MATERIAL IS ALLOWED UNLESS THE DISPOSAL SITE HAS AN APPROVED EROSION CONTROL PLAN.

9. – SEED AND PLACE EROSION CONTROL MATTING ON ALL CUT AND FILL SLOPES THAT ARE NOT ROCK IMMEDIATELY UPON COMPLETION OF SLOPE STABILIZATION.

10. – ALL TEMPORARY STREAM AND CREEK CROSSINGS FOR EQUIPMENT DURING CONSTRUCTION SHALL BE MADE USING TEMPORARY BRIDGES. NO STREAM BANK OR STREAM BED DISTURBANCE SHALL BE ALLOWED FOR EQUIPMENT CROSSINGS.

11. – SEED AND MULCH DENUDED AREA WITHIN 15 DAYS AFTER FINISHED GRADE ARE ESTABLISHED. SEED AND SOIL AMENDMENTS SHALL BE PLACED ON A PREPARED SEEDBED AT THE FOLLOWING RATES PER ACRE. STRAW MULCH SHALL BE TACKED WITH TACKING AGENT APPLIED BY HYDROSEEDER.

LIME	4,000 LBS
FERTILIZER (10–10–10)	1,000 LBS
KY–31 FESCUE (POA PRATENSIS)	100 LBS
STRAW MULCH	60–80 BALES

FOR SUMMER SEEDING ADD TO THE ABOVE:

GERMAN MILLET (SETARIA ITALICA)	40 LBS
SMALL–STEMMED SUDAN GRASS (SORGHUM BICOLOR)	50 LBS

FOR WINTER SEEDING ADD TO THE ABOVE:

RYE GRAIN (SECASE CEREALE)	120 LBS

IF HYDROSEEDING, WOOD CELLULOSE MAY BE USED IN ADDITION TO STRAW MULCH AT THE RATE OF 1,000 LBS PER ACRE.

ALL SEEDING SHALL BE MAINTAINED, WATERED ETC.., UNTIL A PERMANENT VEGETATIVE GROUND COVER IS ESTABLISHED OVER ALL DISTURBED AREAS.

FOR ALL SLOPES 2:1 OR STEEPER ADD TO THE ABOVE:

PURE LIVE SEED SWITCHGRASS	4 LBS
SERICEA LESPEDEZA	2 LBS
BROWNTOP MILLET OR PEARL MILLET (PENNISETUM GLAUCUM)	8 LBS
GRAIN SORGHUM (SORGHUM BICOLOR (L.) MOENCH SSP. BICOLOR)	2 LBS

ALL SLOPES 2:1 OR STEEPER SHALL BE COVERED BY EROSION CONTROL MATTING.

NATIVE SEEDING:

THE CORRECT SEEDBED pH IS 5.5 TO 6.5.

APPLY ZERO NITROGEN AT PLANTING.

INCORPORATE SOIL AMENDMENTS INTO TOPSOIL/ROOT ZONE BEFORE SEEDING.

FIRM SEEDBED BEFORE SEEDING (TRAVEL WITH DOZER CLEATS).

SEEDING DEPTH FOR ALL NATIVE SSP. EXCEPT E.GAMAGRASS (TRIPSACUM DACTYBIDES) NEED TO BE 1/4" – 1/2". GREATER DEPTHS CAUSE HIGH SEED MORTALITY.

SPECIALIZED SEEDING IMPLEMENTS ARE REQUIRED. SEED MIXES AND RATES TO MATCH SEEDER USED. A NO–TILL, DROP SEEDER OR BROADCASTER WITH PRECISION METERING TO CONTROL SMALL SEED FLOW AND PICKER WHEEL AGITATORS TO HANDLE FLUFFY SEED ARE BEST SUITED FOR NATIVE SEED.

NATIVE PLANT SEEDING MI□ FOR STREAM OR RIVERBAN□ STABILI□ATION

SEEDING FOR STREAM OR RIVERBANK STABILIZATION SHALL BE A MIXTURE OF NATIVE GRASSES, PLANTS AND TREES. NATIVE PLANT MIX SHALL INCLUDE THE FOLLOWING:

GRASSES – BIG BLUESTEM (ANDROPOGAN GERARDII), INDIAN GRASS (SORGASTRUM NUTANS), LITTLE BLUESTEM (SCHIZACHYRIUM SCOPARIUM), SWITCHGRASS (PANICUM VIRGATUM). 15 LBS/ACRE EACH
AUGUST THRU MAY – GREENRYE (SECALE CEREALE) 25 LBS/ACRE EACH
MAY 1 THRU AUGUST – MILLET (PENNISETUM GLLAUCUM) 25 LBS/ACRE EACH

TREES – SILKY DOGWOOD (CORNUS AMONUM), SILKY WILLOW (SALIX SERICEA), HAZEL ALDER (ALMUS SERRULATA) AND ELDERBERRY (SAMBUEUS CANADENSIS)

NATIVE PLANT MIX VARIATIONS SHALL BE APPROVED BY ENGINEER.

NOTE: NO FERTILIZER SHALL BE USED WITHIN 10' OF TOP OF STREAM OR RIVER BANK.

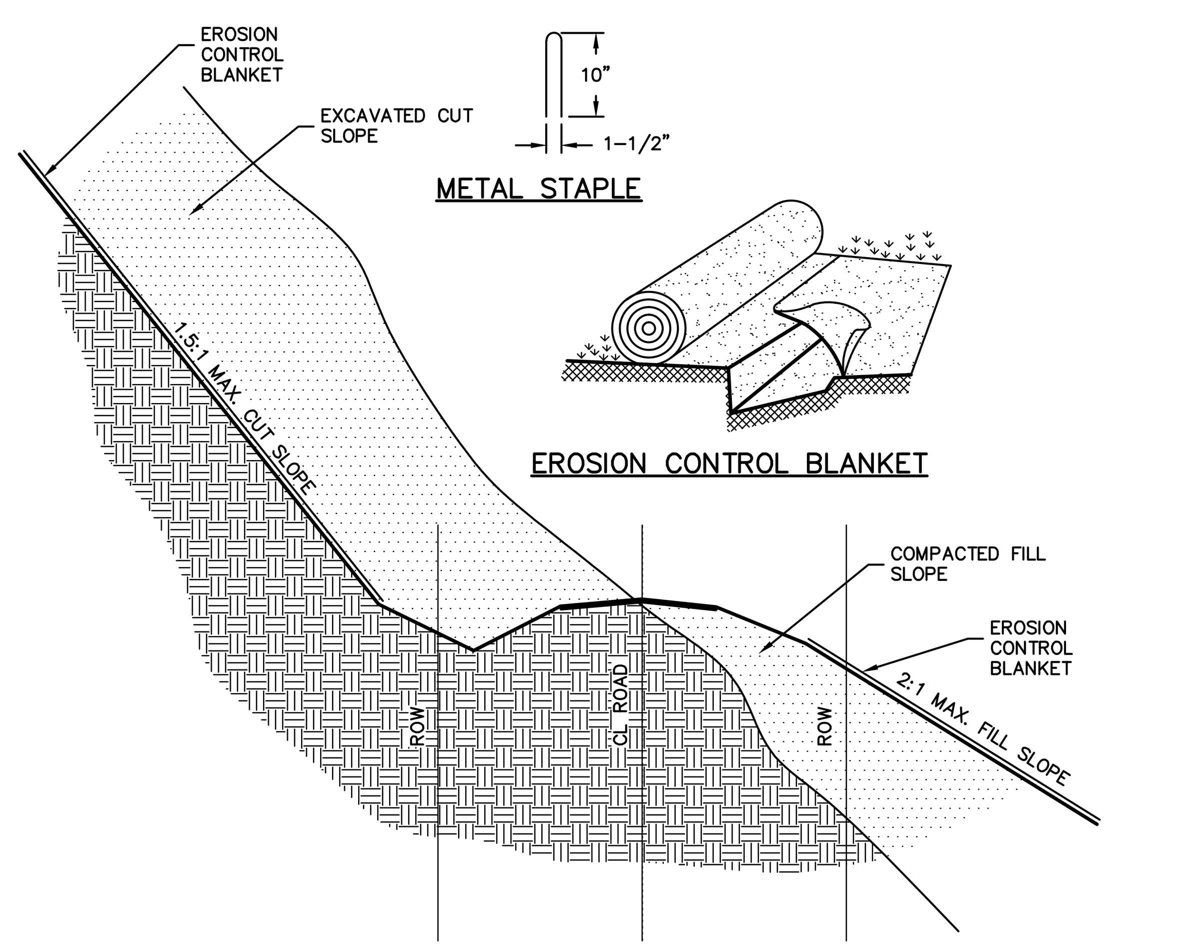
NPDES PERMITS - NOTE -FOR PROJECTS RE□UIRING NPDES PERMITS, THE FOLLOWING STABILI□ATION SCHEDULE SHALL APPLY:

SITE AREA DESCRIPTION	STABILIZATION TIMEFRAME	STABILIZATION TIMEFRAME EXCEPTIONS
PERIMETER DIKES, SWALES DITCHES AND SLOPES	7 DAYS	NONE
HIGH QUALITY WATER (HQW) ZONES	7 DAYS	NONE
SLOPES STEEPER THAN 3:1	7 DAYS	IF SLOPES ARE 10' OR LESS IN LENGTH AND ARE NOT STEEPER THAN 2:1, 14 DAYS ARE ALLOWED
SLOPES 3:1 OR FLATTER	14 DAYS	7–DAYS FOR SLOPES GREATER THAN 50 FEET IN LENGTH
ALL OTHER AREAS WITH SLOPES FLATTER THAN 4:1	14 DAYS	NONE (EXCEPT FOR PERIMETERS AND HQW ZONES)

12. – MAINTAIN SOIL EROSION CONTROL MEASURES UNTIL PERMANENT GROUND COVER IS ESTABLISHED.

13. – REMOVE SOIL EROSION CONTROL MEASURES AND STABILIZE THESE AREAS.

14. – REQUEST FINAL APPROVAL BY THE NORTH CAROLINA DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES, DIVISION OF LAND RESOURCES, LAND QUALITY SECTION.

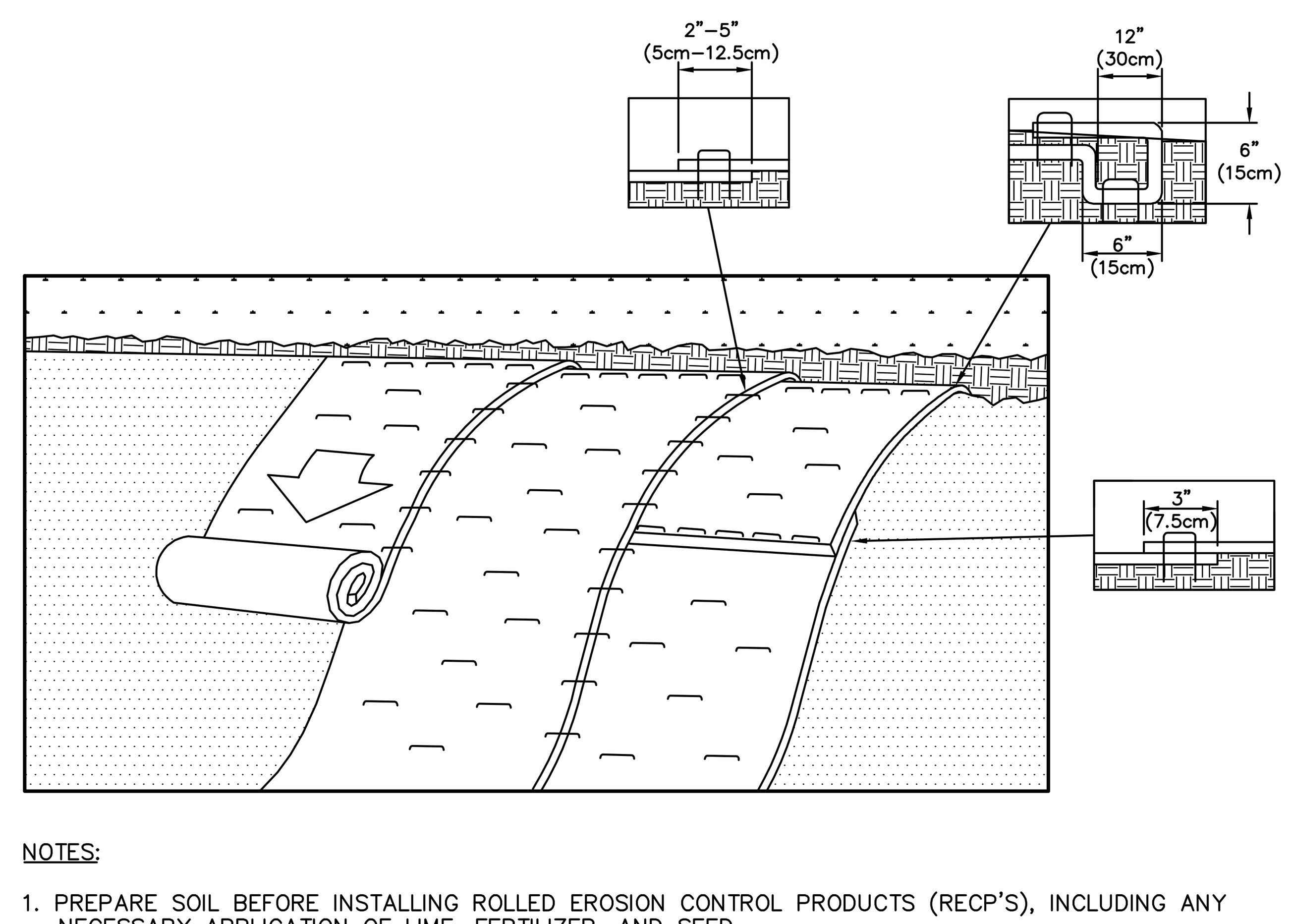


NOTES:

1. INSTALLATION OF MATTING SHALL CONFORM TO MANUFACTURER'S REQUIREMENTS.
2. SEE GRADING PLAN FOR LOCATIONS OF CUT AND FILL SLOPES.
3. MATTING SHALL BE: NORTH AMERICAN GREEN SC150, AMERICAN EXCELSIOR EROSION CONTROL BLANKET, OR EQUAL, INSTALL ON ALL DISTURBED SLOPES (CHOSEN PRODUCT MUST BE RATED FOR SLOPES 2:1 TO 1:1).
4. ALLOW 3" MIN. OVERLAP BETWEEN PARALLEL STRIPS.
5. BURY THE TOP END OF THE MAT IN A TRENCH 4" OR MORE IN DEPTH. TAMP THE TRENCH FULL OF SOIL. SECURE WITH ROW OF STAPLES, 10" SPACING, 4" DOWN FROM THE TRENCH. OVERLAP END OF TOP STRIP 4" AND STAPLE.

SLOPE STABILI□ATION WITH MATTING

REVISION DATE - NOVEMBER 3, 2008



NOTES:

1. PREPARE SOIL BEFORE INSTALLING ROLLED EROSION CONTROL PRODUCTS (RECP'S), INCLUDING ANY NECESSARY APPLICATION OF LIME, FERTILIZER, AND SEED.
2. BEGIN AT THE TOP OF THE SLOPE BY ANCHORING THE RECP'S IN A 6" DEEP X 6" WIDE TRENCH WITH APPROXIMATELY 12" OF RECP'S EXTENDED BEYOND THE UP–SLOPE PORTION OF THE TRENCH. ANCHOR THE RECP'S WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" APART IN THE BOTTOM OF THE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING. APPLY SEED TO COMPACTED SOIL AND FOLD REMAINING 12" PORTION OF RECP'S BACK OVER SEED AND COMPACTED SOIL. SECURE RECP'S OVER COMPACTED SOIL WITH A ROW OF STAPLES/STAKES SPACED APPROXIMATELY 12" APART ACROSS THE WIDTH OF THE RECP'S.
3. ROLL THE RECP'S DOWN OR HORIZONTALLY ACROSS THE SLOPE. RECP'S WILL UNROLL WITH APPROPRIATE SIDE AGAINST THE SOIL SURFACE. ALL RECP'S MUST BE SECURELY FASTENED TO SOIL SURFACE BY PLACING AND SPACING STAPLES/STAKES IN APPROPRIATE LOCATIONS PER MANUFACTURER RECOMMENDATIONS.
4. THE EDGES OF PARALLEL RECP'S MUST BE STAPLED WITH APPROXIMATELY 2"–5" OVERLAP DEPENDING ON RECP'S TYPE.
5. CONSECUTIVE RECP'S SPLICED DOWN THE SLOPE MUST BE PLACED END OVER END (SHINGLE STYLE) WITH AN APPROXIMATE 3" OVERLAP. STAPLE THROUGH OVERLAPPED AREA, APPROXIMATELY 12" APART ACROSS ENTIRE RECP'S WIDTH.
6. IN LOOSE SOIL CONDITIONS, THE USE OF STAPLE OR STAKE LENGTHS GREATER THAN 6" MAY BE NECESSARY TO PROPERLY SECURE THE RECP'S.

STAPLE/ROLL INSTALLATION

REVISION DATE - NOVEMBER 3, 2008

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NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 039177 SCOTT E. BURWELL 6-2-14

SEDIMENT BASIN AND PIPE REPLACEMENT
HENDERSON COUNTY LANDFILL
HENDERSON COUNTY
HENDERSON COUNTY, NORTH CAROLINA

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DESIGN REVIEW: ____
CONST. REVIEW: ____
FILE NAME: 13.00733 SED BASIN G-001 Co□er-Details.dwg

MISCELLANEOUS DETAILS

SHEET
C-501

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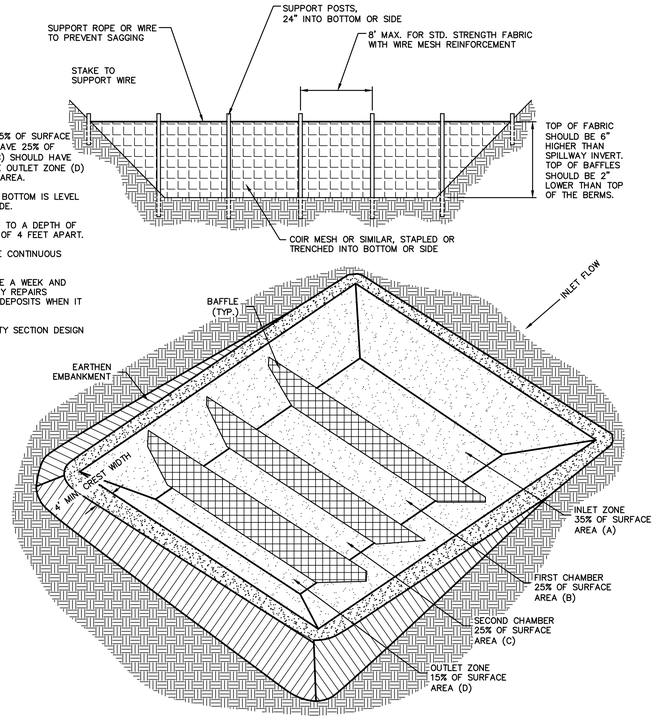
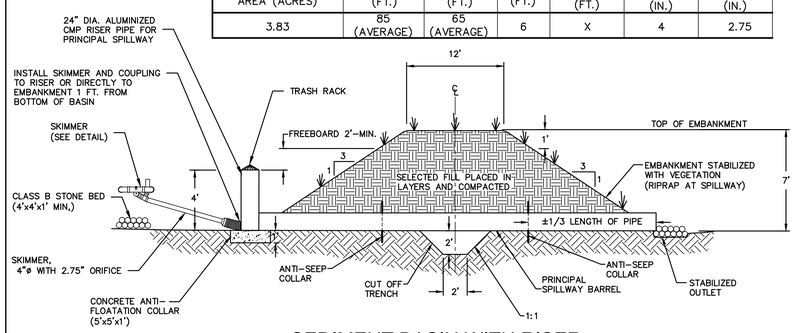
NOTES:

1. INLET ZONE (A) SHOULD HAVE 35% OF SURFACE AREA. FIRST CELL (B) SHOULD HAVE 25% OF SURFACE AREA, SECOND CELL (C) SHOULD HAVE 25% OF SURFACE AREA AND THE OUTLET ZONE (D) SHOULD HAVE 15% OF SURFACE AREA.
2. GRADE THE BASIN SO THAT THE BOTTOM IS LEVEL FRONT TO BACK AND SIDE TO SIDE.
3. STEEL POSTS SHOULD BE DRIVEN TO A DEPTH OF 24 INCHES, SPACED A MAXIMUM OF 4 FEET APART.
4. DO NOT SPLICE FABRIC. USE ONE CONTINUOUS PIECE ACROSS BASIN.
5. INSPECT BAFFLES AT LEAST ONCE A WEEK AND AFTER EACH RAINFALL. MAKE ANY REPAIRS IMMEDIATELY. REMOVE SEDIMENT DEPOSITS WHEN IT REACHES HALF FULL.
6. REFERENCE NCDENR LAND QUALITY SECTION DESIGN MANUAL: 6.65.



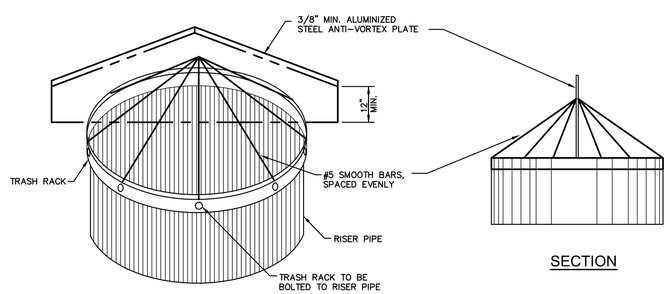
POROUS BAFFLES FOR TEMPORARY SEDIMENT TRAPS AND SEDIMENT/S□IMMER BASINS

POTENTIAL DISTURBED AREA (ACRES)	LENGTH (FT.)	WIDTH (FT.)	DEPTH (FT.)	WEIR LENGTH (FT.)	SKIMMER SIZE (IN.)	ORIFICE SIZE (IN.)
3.83	85 (AVERAGE)	65 (AVERAGE)	6	X	4	2.75



SEDIMENT BASIN WITH RISER

REVISION DATE - JANUARY 2014

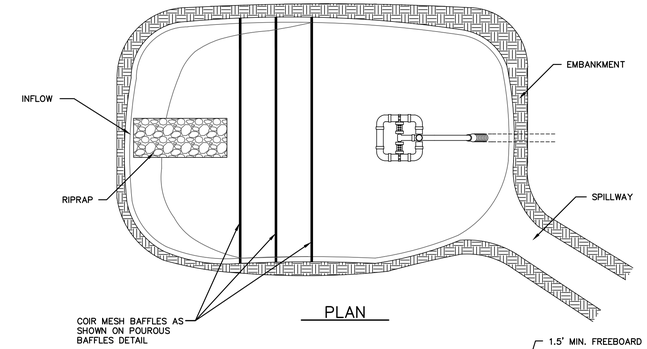


TRASH RACK WITH ANTI-VORTEX PLATE DETAIL

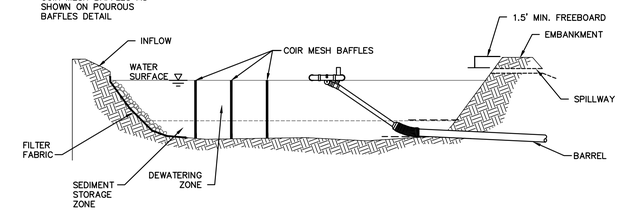
REVISION DATE - MARCH 5, 2010

MAINTENANCE SCHEDULE

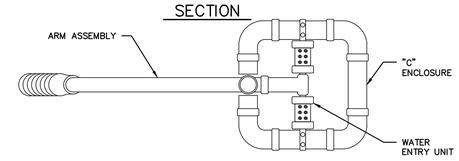
1. AT A MINIMUM, TEMPORARY SKIMMER BASINS SHALL BE INSPECTED WEEKLY AND AFTER EACH RAINFALL EVENT GREATER THAN 1/2-INCH.
2. REMOVE SEDIMENT AND RESTORE BASIN TO ITS ORIGINAL DIMENSIONS WHEN THE SEDIMENT HAS ACCUMULATED TO ONE-THIRD THE DESIGN DEPTH OF THE TRAP.
3. PLACE THE SEDIMENT THAT IS REMOVED IN A DESIGNATED DISPOSAL AREA AND REPLACE THE CONTAMINATED PART OF THE GRAVEL FACING. DISPLACED RIP-RAP SHALL BE REPLACED IMMEDIATELY.
4. CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ACCESS WITHIN LIMITS OF DISTURBED AREA TO ALL SKIMMER BASINS FOR MAINTENANCE DURING CONSTRUCTION AND REMOVAL UPON PROJECT COMPLETION.



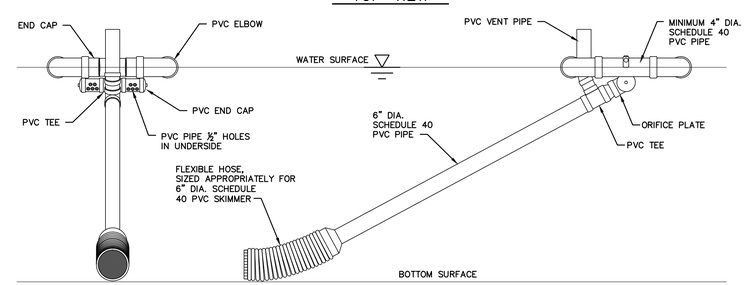
PLAN



SECTION



TOP VIEW



END VIEW

FRONT VIEW

NOTE:

ALL SLOPES WILL BE SEEDED AND MATTED (NAG SC150 OR APPROVED EQUAL) AT THE CONCLUSION OF CONSTRUCTION, PER DETAIL ON SHEET C-501.

SKIMMER BASIN SCHEDULE

BASIN#	TOP BERM ELEV. □FT□	BERM WIDTH □FT□	BARREL SI□E □IN□	BARREL INV. IN ELEV. □t□	BARREL INV. OUT ELEV. □t□	AVG. LENGTH □FT□	AVG. WIDTH □FT□	AVG. DEPTH □FT□	S□IMMER ORIFICE SI□E □IN□
1	2096.2	12'	24"	2094.0	2090.0	85	65	6'	2.75"

S□IMMER DETAIL

Know what's below. Call before you dig.
N.C. One-Call Center
Dial 811 or 1-800-632-4949

NO.	DATE	BY	REVISION DESCRIPTION

McGill ASSOCIATES
ENGINEERING·PLANNING·FINANCE
55 BROAD STREET ASHEVILLE, NC 28801 PH. (828) 252-0575 FIRM LICENSE # C-0459

NORTH CAROLINA PROFESSIONAL SEAL 039177 ENGINEER SCOTT E. BURNETT

SEDIMENT BASIN AND PIPE REPLACEMENT
HENDERSON COUNTY LANDFILL
HENDERSON COUNTY
HENDERSON COUNTY, NORTH CAROLINA

JOB NO.: 13.00733
DATE: MAY 2014
DESIGNED BY: SEB
CADD BY: BAS
DESIGN REVIEW: ____
CONST. REVIEW: ____
FILE NAME: 13.00733 SED BASIN G-001 Co. er-Details.dwg

MISCELLANEOUS DETAILS

SHEET
C-502

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