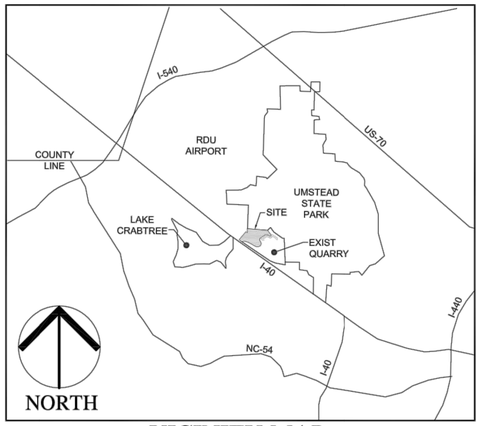
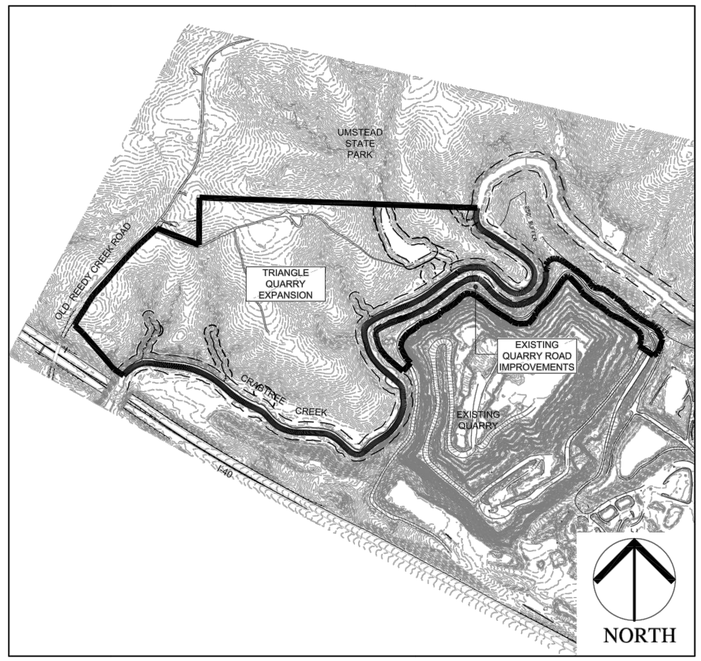
TRIANGLE QUARRY - RDU EXPANSION

EROSION CONTROL PLAN

WAKE COUNTY, NORTH CAROLINA



VICINITY MAP NTS



VICINITY MAP

SCALE: 1" = 500'

SITE DATA

1.	DEVELOPMENT NAME:	TRIANGLE QUARRY – RDU EXPANSION
2.	WAKE COUNTY P.I.N.s:	PORTION OF 0767–32–4317 PORTION OF 0766–80–9143
3.	WATERSHED:	NEUSE RIVER BASIN
4.	DISTURBED AREA	62.0 ACRES
5.	FEMA INFORMATION	THE PROPERTY CONTAINS FEMA 100–YR FLOOD PLAIN PER FLOOD INSURANCE RATE MAP 3720076600J, PANEL 0766 EFFECTIVE DATE MAY 2, 2006.
6.	DEVELOPER:	WAKE STONE CORPORATION PO BOX 190 KNIGHTDALE NC 27545 PHONE: 919–266–1100

DRAWING INDEX

SITE 1	COVER SHEET
SITE 2	OVERALL EROSION CONTROL PLAN SHEET 1 OF 2
SITE 3	OVERALL EROSION CONTROL PLAN SHEET 2 OF 2
SITE 4	NEW QUARRY EXPANSION – PHASE 1 EROSION CONTROL PLAN SHEET 1 OF 2
SITE 5	NEW QUARRY EXPANSION – PHASE 1 EROSION CONTROL PLAN SHEET 2 OF 2
SITE 6	NEW QUARRY EXPANSION – PHASE 2 EROSION CONTROL PLAN SHEET 1 OF 2
SITE 7	NEW QUARRY EXPANSION – PHASE 2 EROSION CONTROL PLAN SHEET 2 OF 2
SITE 8	EXISTING QUARRY ROAD IMPROVEMENTS SHEET 1 OF 2
SITE 9	EXISTING QUARRY ROAD IMPROVEMENTS SHEET 2 OF 2
SITE 10	DETAILS
SITE 11	DETAILS

PROJECT NARRATIVE

THE PURPOSE OF THIS CONSTRUCTION ACTIVITY IS TO CLEAR THE SITE (WEST OF CRABTREE CREEK) TO ACCOMMODATE THE MINING OPERATION, AND TO IMPROVE THE EXISTING MINING ROAD (EAST OF CRABTREE CREEK).

NPDES NOTES:

1. SEDIMENT BASIN OUTLET STRUCTURES:
   SEDIMENT BASINS AND TRAPS WITH DRAINAGE AREAS OF ONE ACRE OR GREATER SHALL USE OUTLET STRUCTURES THAT WITHDRAW WATER FROM THE SURFACE.

NEW QUARRY EXPANSION CONSTRUCTION SCHEDULE

PHASE 1

1. OBTAIN LAND–DISTURBING / MINING PERMIT.
2. PROCEED WITH TIMBERING OPERATIONS. NO STUMP REMOVAL IS ALLOWED. INSTALL GRAVEL CONSTRUCTION ENTRANCE, TEMPORARY DIVERSIONS, SILT FENCE, SEDIMENT BASINS OR OTHER MEASURES AS SHOWN ON THE APPROVED PLAN. CLEAR ONLY AS NECESSARY TO INSTALL THESE DEVICES. SEED TEMPORARY DIVERSIONS, BERMS AND BASINS IMMEDIATELY AFTER CONSTRUCTION.

* CONSTRUCTION OF THE DIVERSION CHANNEL ON THE EASTERN SIDE, ADJACENT TO CRABTREE CREEK, SHALL BE CONSTRUCTED IN AN EXPEDIENT MANNER, AND VEGETATION ESTABLISHED IMMEDIATELY AFTER CONSTRUCTION. ENSURE SILT FENCE AT TOE OF SLOPE IS INSTALLED AND FUNCTIONING AT ALL TIMES.

3. BEGIN CLEARING AND GRUBBING. MAINTAIN DEVICES AS NEEDED.
4. PROCEED TO PHASE 2.

PHASE 2

5. RELOCATE THE CONSTRUCTION ENTRANCE AS SHOWN ON PLAN.
6. BEGIN CONSTRUCTION OF PERMANENT BERM. INSTALL RCP CROSS PIPES AS SHOWN ON PLAN.
7. STABILIZE BERM AS AREAS ARE BROUGHT UP TO FINISH GRADE WITH VEGETATION. SEED AND MULCH DENUDED AREAS PER GROUND STABILIZATION TIME FRAMES.
8. ALL REMAINING PERMANENT EROSION CONTROL DEVICES SUCH AS VELOCITY DISSIPATERS SHOULD BE INSTALLED NOW.
9. MAINTAIN DEVICES AS NEEDED. RELOCATE EROSION CONTROL DEVICES AS NEEDED TO ACCOMMODATE CONSTRUCTION.
10. NO EROSION CONTROL MEASURES SHALL BE REMOVED WITHOUT THE APPROVAL OF THE ENVIRONMENTAL ENGINEER.
11. NCDEQ OR NCDEMLR RESERVE THE RIGHT TO REQUIRE THE CONTRACTOR TO PROVIDE ADDITIONAL EROSION CONTROL MEASURES SHOULD THE PLAN OR ITS IMPLEMENTATION PROVE TO BE INADEQUATE.
12. STABILIZE SITE AS AREAS ARE BROUGHT UP TO FINISH GRADE WITH VEGETATION. SEED AND MULCH DENUDED AREAS WITHIN (21) CALENDAR DAYS OF COMPLETION OF ANY PHASE OF CONSTRUCTION. PERMANENT GROUND COVER SHALL BE INSTALLED ON ALL DISTURBED AREAS WITHIN 15 WORKING DAYS OR 90 CALENDAR DAYS (WHICHEVER IS SHORTER) FOLLOWING COMPLETION OF CONSTRUCTION OR DEVELOPMENT.

EXISTING QUARRY ROAD IMPROVEMENTS CONSTRUCTION SCHEDULE

PHASE 1

1. OBTAIN LAND–DISTURBING / MINING PERMIT.
2. PROCEED WITH TIMBERING OPERATIONS. NO STUMP REMOVAL IS ALLOWED. INSTALL TEMPORARY DIVERSIONS, SILT FENCE, SEDIMENT BASINS OR OTHER MEASURES AS SHOWN ON THE APPROVED PLAN. CLEAR ONLY AS NECESSARY TO INSTALL THESE DEVICES. SEED TEMPORARY DIVERSIONS, BERMS AND BASINS IMMEDIATELY AFTER CONSTRUCTION.
3. BEGIN CLEARING AND GRUBBING. MAINTAIN DEVICES AS NEEDED.
4. PROCEED TO PHASE 2.

PHASE 2

5. BEGIN EXPANSION OF EXISTING QUARRY ROAD. INSTALL CONCRETE BLOCK WALLS WHEN REQUIRED AS FILLING OCCURS. STABILIZE AS AREAS ARE BROUGHT UP TO FINISH GRADE WITH VEGETATION. SEED AND MULCH DENUDED AREAS PER GROUND STABILIZATION TIME FRAMES.
6. ALL REMAINING PERMANENT EROSION CONTROL DEVICES SUCH AS VELOCITY DISSIPATERS SHOULD BE INSTALLED NOW.
7. MAINTAIN DEVICES AS NEEDED. RELOCATE EROSION CONTROL DEVICES AS NEEDED TO ACCOMMODATE CONSTRUCTION.
8. NO EROSION CONTROL MEASURES SHALL BE REMOVED WITHOUT THE APPROVAL OF THE ENVIRONMENTAL ENGINEER.
9. NCDEQ OR NCDEMLR RESERVE THE RIGHT TO REQUIRE THE CONTRACTOR TO PROVIDE ADDITIONAL EROSION CONTROL MEASURES SHOULD THE PLAN OR ITS IMPLEMENTATION PROVE TO BE INADEQUATE.
10. STABILIZE SITE AS AREAS ARE BROUGHT UP TO FINISH GRADE WITH VEGETATION. SEED AND MULCH DENUDED AREAS WITHIN (21) CALENDAR DAYS OF COMPLETION OF ANY PHASE OF CONSTRUCTION. PERMANENT GROUND COVER SHALL BE INSTALLED ON ALL DISTURBED AREAS WITHIN 15 WORKING DAYS OR 90 CALENDAR DAYS (WHICHEVER IS SHORTER) FOLLOWING COMPLETION OF CONSTRUCTION OR DEVELOPMENT.

PERMANENT GROUND STABILIZATION TIMELINE

Table 3: 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 the 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 the Falls Lake Watershed unless there is zero slope.

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

PLD

PIEDMONT LAND DESIGN, LLP

8522–204 SIX FORKS ROAD
RALEIGH, NORTH CAROLINA 27615
919.845.7600 PHONE
919.845.7703 FAX
ENGR. FIRM LICENSE #F–0843

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 030858 MICHAEL S. SCHNEIDER 3/16/2020

TRIANGLE QUARRY
RDU EXPANSION

OLD REEDY CREEK ROAD
RALEIGH, NORTH CAROLINA

ISSUED: **16 MAR 2020**

REVISIONS:

DRAWN BY: **MLS**
CHECKED BY: **MLS**

PROJECT: **WSRDUQ**

COVER

DWG. NO. **SITE 1**

COMPILED BY PHOTOGRAMMETRIC METHODS

WAKE STONE CORPORATION

Wake Stone Corporation
Triangle Quarry
Wake County
Mining Permit No. 92-10
Site Plan Map
2020 Mining Permit Modification
(Adding RDU Mineral Lease)
Last Revised: April 2, 2020

DATE OF PHOTOGRAPHY: 03-17-2019	REVISION No.:
Map Prepared by: L. Cole Atkins, Geologist	SHEET No.: 11 of 27

COMPILED BY PHOTOGRAMMETRIC METHODS

WAKE STONE CORPORATION

Wake Stone Corporation
Triangle Quarry
Wake County
Mining Permit No. 92-10
Site Plan Map
2020 Mining Permit Modification
(Adding RDU Mineral Lease)
Last Revised: April 2, 2020

DATE OF PHOTOGRAPHY: 03-17-2019	REVISION No.:
Map Prepared by: L. Cole Atkins, Geologist	SHEET No.: 12 of 27

PLD

PIEDMONT LAND DESIGN, LLP
8522-204 SIX FORKS ROAD
RALEIGH, NORTH CAROLINA 27615
919.845.7600 PHONE
919.845.7703 FAX
FIRM LICENSE #F-0843

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 030881 MARK T. SCHEIDT 3/16/2020

TRIANGLE QUARRY
RDU EXPANSION

OLD REEDY CREEK ROAD
RALEIGH, NORTH CAROLINA

ISSUED: 16 MAR 2020

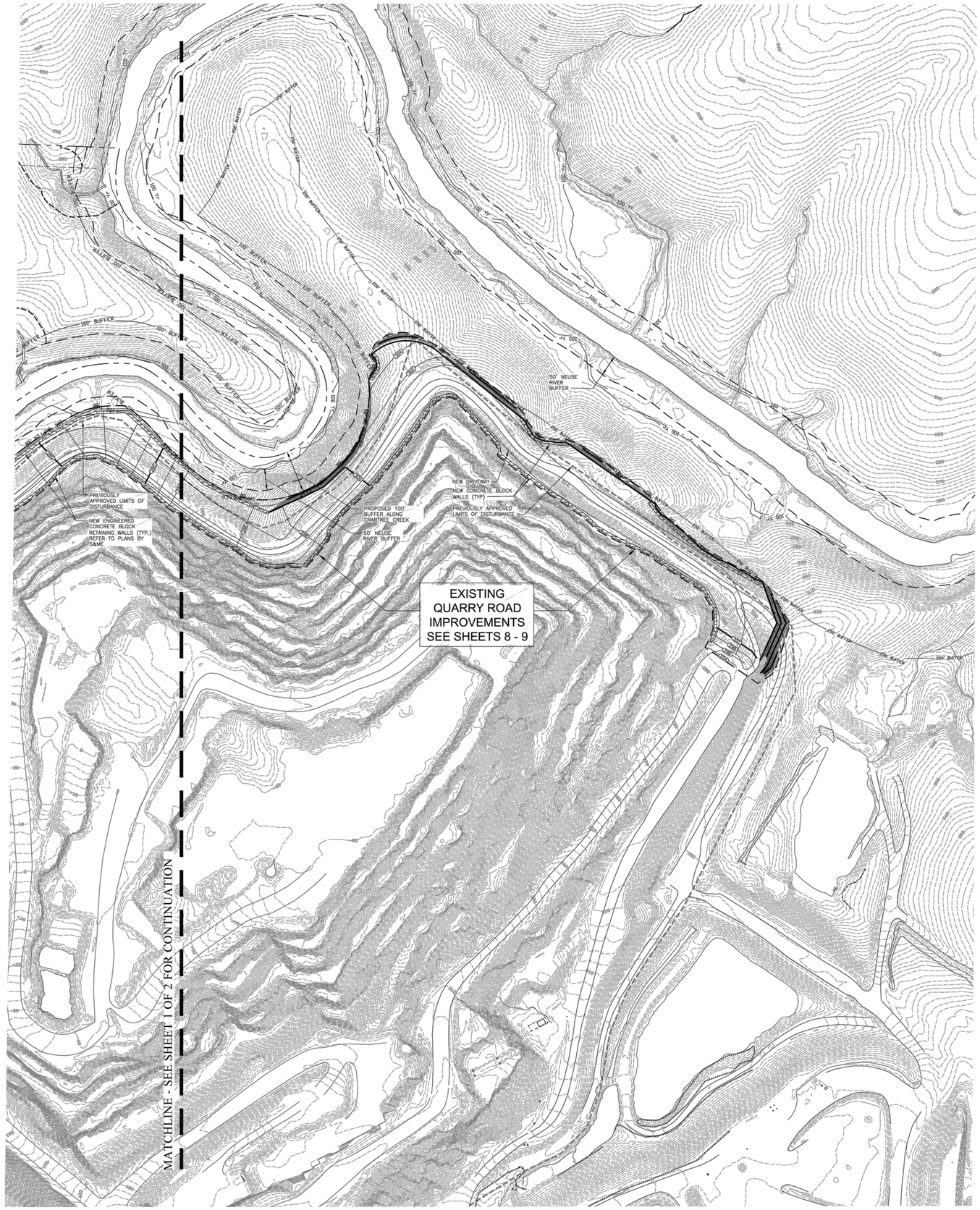
REVISIONS:

DRAWN BY: MLS
CHECKED BY: MLS

PROJECT: WSRDUQ

OVERALL EROSION CONTROL PLAN
SHEET 1 OF 2

DWG. NO. SITE 2



NORTH

0 100 200 300

SCALE IN FEET : 1"=100'

PLD

PIEDMONT LAND DESIGN, LLP
8522-204 SIX FORKS ROAD
RALEIGH, NORTH CAROLINA 27615
919.845.7600 PHONE
919.845.7703 FAX
ENGR. FIRM LICENSE #F-0843

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 030866 MARK T. SCHRIER 3/16/2020

TRIANGLE QUARRY

222 STAR LANE
RALEIGH, NORTH CAROLINA

ISSUED: 16 MAR 2020

REVISIONS:

DRAWN BY: MLS
CHECKED BY: MLS

PROJECT: WSRDUQ

OVERALL EROSION CONTROL PLAN
SHEET 2 OF 2

DWG. NO. SITE 3

COMPILED BY PHOTOGRAMMETRIC METHODS

WAKE STONE CORPORATION

Wake Stone Corporation
Triangle Quarry
Wake County
Mining Permit No. 92-10
Site Plan Map
2020 Mining Permit Modification
(Adding RDU Mineral Lease)
Last Revised: April 2, 2020

DATE OF PHOTOGRAPHY: 03-17-2019	REVISION No.:
Map Prepared by: L. Cole Atkins, Geologist	SHEET No.: 13 of 27

MATCHLINE - SEE SHEET 2 OF 2 FOR CONTINUATION

LIMITS OF DISTURBANCE
TEMPORARY DIVERSION DITCH
SILT FENCE
SELF-IMPOSED 50' UNDISTURBED BUFFER

DASHED LINE DENOTES LIMITS OF DISTURBANCE

WEIR LOCATION
ENERGY DISSIPATER CLASS B RIP-RAP 4'L x 4'W x 18" THICK
2.5"ø SKIMMER W/1.9"ø ORIFICE
COIR BAFFLES
24" SLOPE DRAIN (OR MULTIPLE WITH EQUIVALENT AREA)

TEMPORARY BASIN #2
BOTTOM ELEV=314.0
SPILLWAY=20' LONG @ ELEV=316.0
BERM=318.0

NOTE:
SEDIMENT BASIN TO REMAIN DURING BERM CONSTRUCTION

ROCK CONSTRUCTION ENTRANCE DURING CLEARING AND EROSION CONTROL INSTALLATION. THIS ENTRANCE TO BE RELOCATED DURING PERMANENT BERM INSTALLATION TO LOCATION ON PHASE 2 EROSION CONTROL PLAN.

TEMPORARY BASIN #1
BOTTOM ELEV=308.0
SPILLWAY=20' LONG @ ELEV=310.0
BERM=312.0

NOTE:
SEDIMENT BASIN TO REMAIN DURING BERM CONSTRUCTION

50' BUFFER FROM STREAM MINING PERMIT STIPULATED
STREAM 4A
STREAM 4
WEIR LOCATION
ENERGY DISSIPATER CLASS B RIP-RAP 4'L x 4'W x 18" THICK
2.5"ø SKIMMER W/1.9"ø ORIFICE
COIR BAFFLES
30" SLOPE DRAIN (OR MULTIPLE WITH EQUIVALENT AREA)

DIVERSION DITCH 2
DIVERSION LEADING TO BASIN # 4 SHALL HAVE THE MINIMUM DIMENSIONS:
BOTTOM WIDTH=3'
DEPTH=2'
ALL DIVERSIONS SHALL BE LINED WITH STRAW W/NETTING PER DETAIL ON DETAIL SHEET.

WETLAND 1
50' BUFFER FROM WETLAND

STREAM 5 (NON-BUFFERED)
50' BUFFER FROM STREAM MINING PERMIT STIPULATED (EACH SIDE)

CRABTREE CREEK
PROPOSED 100' BUFFER ALONG CRABTREE CREEK (EACH SIDE)
50' NEUSE RIVER STREAM BUFFER (EACH SIDE)

I-40

NORTH

0 60 120 180
SCALE IN FEET : 1"=60'

EROSION CONTROL LEGEND

- LIMITS OF DISTURBANCE
- TEMPORARY DIVERSION DITCH
- SF — SILT FENCE
- SILT FENCE OUTLET
- CHECK DAM

COMPILED BY PHOTOGRAMMETRIC METHODS

WAKE STONE CORPORATION

Wake Stone Corporation
Triangle Quarry
Wake County
Mining Permit No. 92-10
Site Plan Map
2020 Mining Permit Modification
(Adding RDU Mineral Lease)
Last Revised: April 2, 2020

DATE OF PHOTOGRAPHY: 03-17-2019	REVISION No.:
Map Prepared by: L. Cole Atkins, Geologist	SHEET No.: 14 of 27

PLD

PIEDMONT LAND DESIGN, LLP
8522-204 SIX FORKS ROAD
RALEIGH, NORTH CAROLINA 27615
919.845.7600 PHONE
919.845.7703 FAX
ENGR. FIRM LICENSE #F-0843

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 030855 MICHAEL L. SCHNEIDER 3/16/2020

TRIANGLE QUARRY
RDU EXPANSION

OLD REEDY CREEK ROAD
RALEIGH, NORTH CAROLINA

ISSUED: 16 MAR 2020

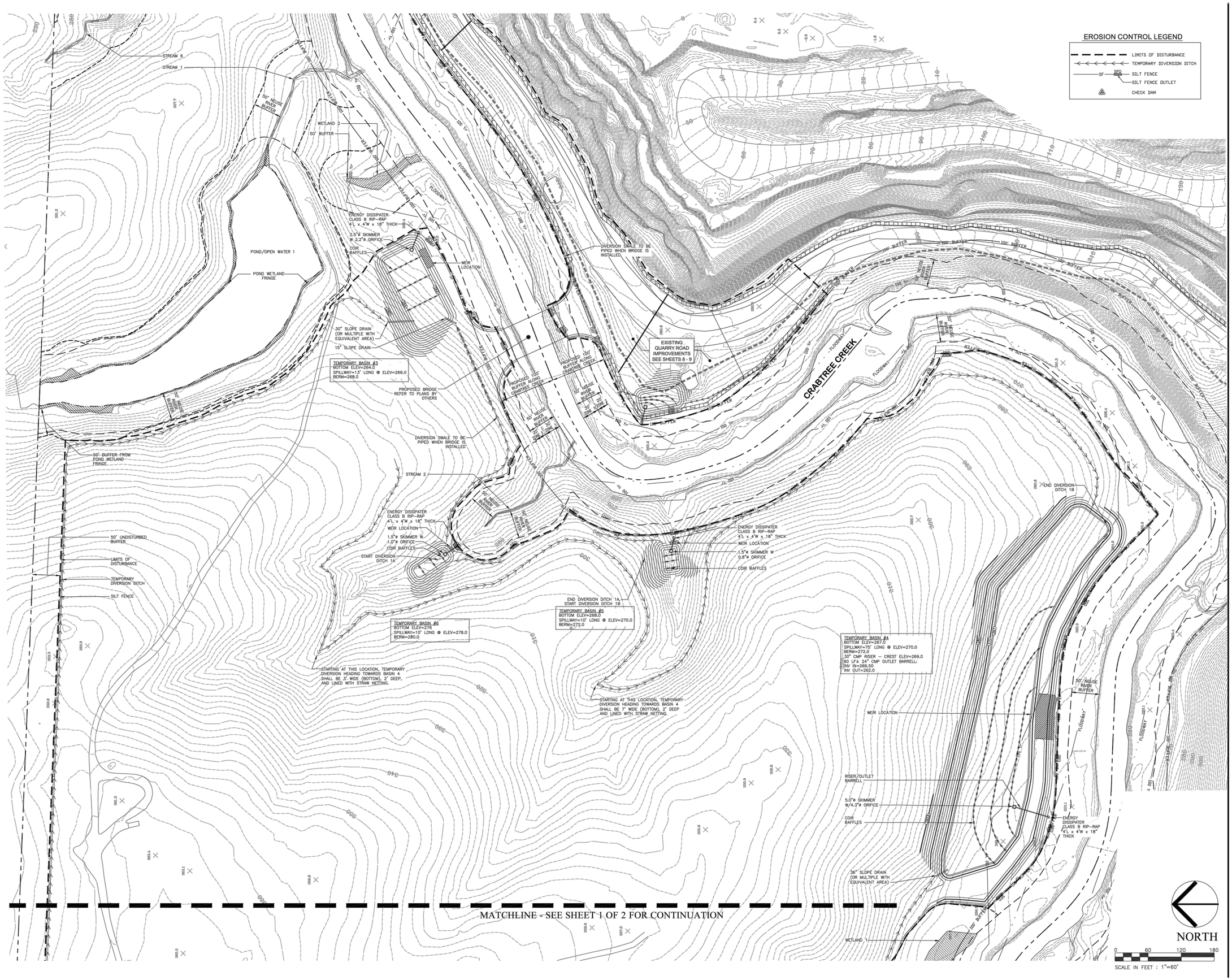
REVISIONS:

DRAWN BY: MLS
CHECKED BY: MLS

PROJECT: WSRDUQ

NEW QUARRY EXPANSION
PHASE 1 EROSION CONTROL PLAN
1 OF 2

DWG. NO. SITE 4



PLD

PIEDMONT LAND DESIGN, LLP
8522-204 SIX FORKS ROAD
RALEIGH, NORTH CAROLINA 27615
919.845.7600 PHONE
919.845.7703 FAX
ENGR. FIRM LICENSE #F-0843

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 030858 MICHAEL L. SCHIERLING 3/16/2020

TRIANGLE QUARRY
RDU EXPANSION

OLD REEDY CREEK ROAD
RALEIGH, NORTH CAROLINA

ISSUED: 16 MAR 2020

REVISIONS:

DRAWN BY: MLS
CHECKED BY: MLS

PROJECT: WSRDUQ

NEW QUARRY EXPANSION
PHASE 1 EROSION CONTROL PLAN
2 OF 2

DWG. NO. SITE 5

COMPILED BY PHOTOGRAMMETRIC METHODS

WAKE STONE CORPORATION

Wake Stone Corporation
Triangle Quarry
Wake County
Mining Permit No. 92-10
Site Plan Map
2020 Mining Permit Modification
(Adding RDU Mineral Lease)
Last Revised: April 2, 2020

DATE OF PHOTOGRAPHY: 03-17-2019	REVISION No.:
Map Prepared by: L. Cole Atkins, Geologist	SHEET No.: 15 of 27

MATCHLINE - SEE SHEET 2 OF 2 FOR CONTINUATION

REMOVE TEMPORARY DIVERSION DITCH WHEN CONSTRUCTION OF BERM BEGINS. ENSURE SILT FENCE IS IN PLACE AS SHOWN.

SELF-IMPOSED 50' UNDISTURBED BUFFER

DASHED LINE DENOTES LIMITS OF DISTURBANCE.

WEIR LOCATION
ENERGY DISSIPATER CLASS B RIP-RAP 4'L x 4'W x 18" THICK
2.5"ø SKIMMER W/1.9"ø ORIFICE
COIR BAFFLES
24" SLOPE DRAIN (OR MULTIPLE WITH EQUIVALENT AREA)

TEMPORARY BASIN #2
BOTTOM ELEV=314.0
SPILLWAY=20' LONG @ ELEV=316.0
BERM=318.0

NOTE:
SEDIMENT BASIN TO REMAIN DURING BERM CONSTRUCTION

ENERGY DISSIPATER CLASS 1-RIP-RAP 10'L x 4'W x 24" THICK
176 LF 15" RCP @ 10.51%
INV. IN. = 342.00
INV. OUT=323.50
ROCK PIPE INLET PROTECTION

FES-3
FES-4

TEMPORARY BASIN #1
BOTTOM ELEV=308.0
SPILLWAY=20' LONG @ ELEV=310.0
BERM=312.0

NOTE:
SEDIMENT BASIN TO REMAIN DURING BERM CONSTRUCTION

50' BUFFER FROM STREAM MINING PERMIT STIPULATED
STREAM 4A
STREAM 4
WEIR LOCATION
ENERGY DISSIPATER CLASS B RIP-RAP 4'L x 4'W x 18" THICK
2.5"ø SKIMMER W/1.9"ø ORIFICE
COIR BAFFLES
30" SLOPE DRAIN (OR MULTIPLE WITH EQUIVALENT AREA)
ENERGY DISSIPATER CLASS 1 RIP-RAP 10'L x 4'W x 24" THICK
140 LF 15" RCP @ 9.98%
INV. IN =345.00
INV. OUT=331.00
ROCK PIPE INLET PROTECTION

FES-1
FES-2

ROCK CONSTRUCTION ENTRANCE
TEMPORARY 15" PIPE IN EXISTING DITCH

DIVERSION DITCH 2
DIVERSION LEADING TO BASIN # 4 SHALL HAVE THE MINIMUM DIMENSIONS:
BOTTOM WIDTH=3'
DEPTH=2'
ALL DIVERSIONS SHALL BE LINED WITH STRAW W/NETTING PER DETAIL ON DETAIL SHEET.

WETLAND 1
50' BUFFER FROM WETLAND

STREAM 5 (NON-BUFFERED)
50' BUFFER FROM STREAM MINING PERMIT STIPULATED (EACH SIDE)

50' NEUSE RIVER BUFFER

CRABTREE CREEK
FLOODWAY
FLOODWAY FRINGE
100' BUFFER
100' Yr

PROPOSED 100' BUFFER ALONG CRABTREE CREEK (EACH SIDE)
50' NEUSE RIVER STREAM BUFFER (EACH SIDE)

I-40

NORTH

0 60 120 180
SCALE IN FEET : 1"=60'

EROSION CONTROL LEGEND

- LIMITS OF DISTURBANCE
- TEMPORARY DIVERSION DITCH
- SF — SILT FENCE
- SFO — SILT FENCE OUTLET
- CHECK DAM

COMPILED BY PHOTOGRAMMETRIC METHODS

WAKE STONE CORPORATION

Wake Stone Corporation
Triangle Quarry
Wake County
Mining Permit No. 92-10
Site Plan Map
2020 Mining Permit Modification
(Adding RDU Mineral Lease)
Last Revised: April 2, 2020

DATE OF PHOTOGRAPHY: 03-17-2019	REVISION No.:
Map Prepared by: L. Cole Atkins, Geologist	SHEET No.: 16 of 27

PLD

PIEDMONT LAND DESIGN, LLP
8522-204 SIX FORKS ROAD
RALEIGH, NORTH CAROLINA 27615
919.845.7600 PHONE
919.845.7703 FAX
ENGR. FIRM LICENSE #F-0843

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 030858 MICHAEL L. SCHIMPF 3/16/2020

TRIANGLE QUARRY
RDU EXPANSION

OLD REEDY CREEK ROAD
RALEIGH, NORTH CAROLINA

ISSUED: 16 MAR 2020

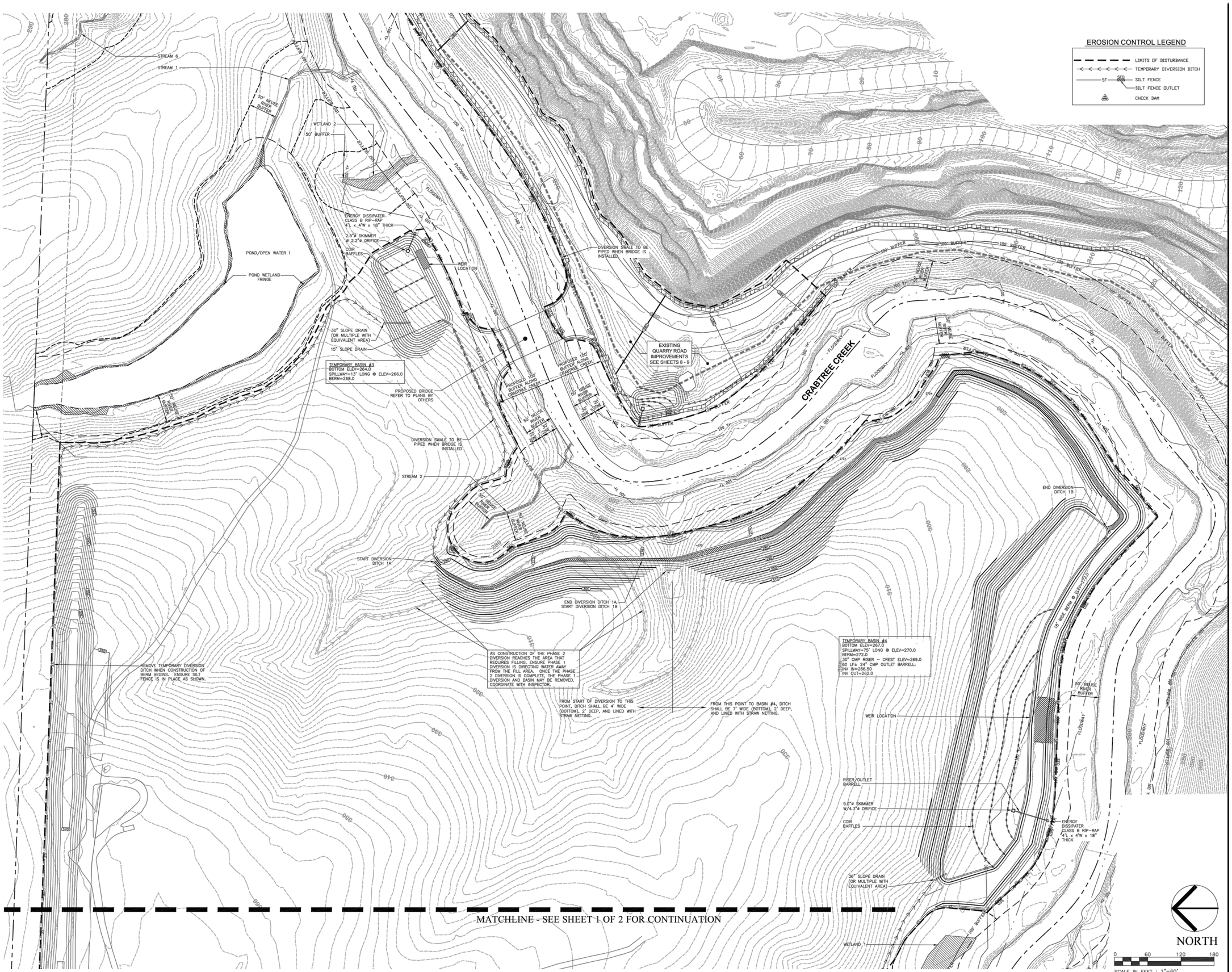
REVISIONS:

DRAWN BY: MLS
CHECKED BY: MLS

PROJECT: WSRDUQ

NEW QUARRY EXPANSION
PHASE 2 EROSION CONTROL PLAN
1 OF 2

DWG. NO. SITE 6



PLD

PIEDMONT LAND DESIGN, LLP
8522-204 SIX FORKS ROAD
RALEIGH, NORTH CAROLINA 27615
919.845.7600 PHONE
919.845.7703 FAX
ENGR. FIRM LICENSE #F-0843

NORTH CAROLINA PROFESSIONAL SEAL 030858 ENGINEER MICHAEL L. SCHIEFER 3/16/2020

TRIANGLE QUARRY
RDU EXPANSION

OLD REEDY CREEK ROAD
RALEIGH, NORTH CAROLINA

ISSUED: 16 MAR 2020

REVISIONS:

DRAWN BY: MLS
CHECKED BY: MLS

PROJECT: WSRDUQ

NEW QUARRY EXPANSION
PHASE 2 EROSION CONTROL PLAN
2 OF 2

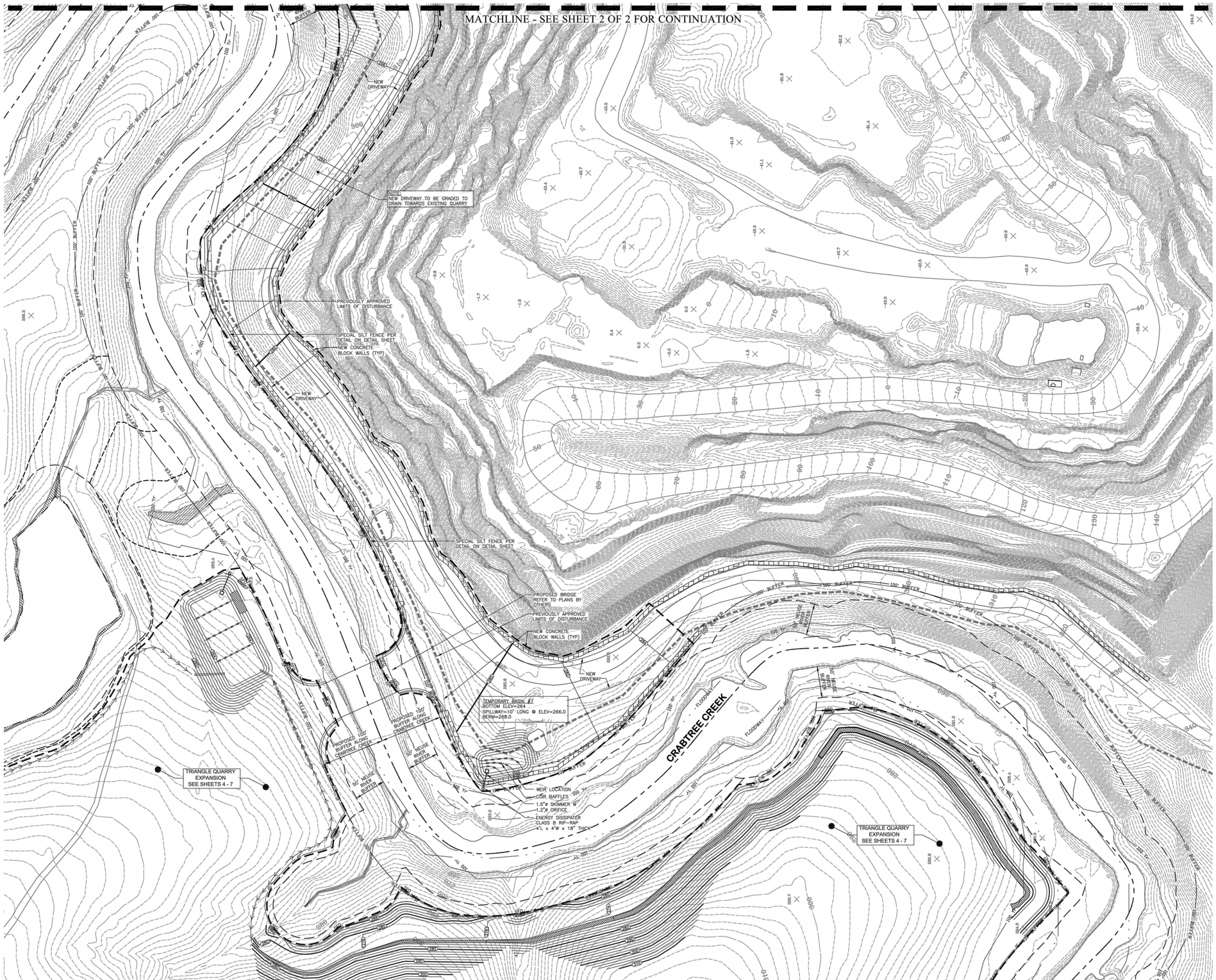
DWG. NO. SITE 7

COMPILED BY PHOTOGRAMMETRIC METHODS

WAKE STONE CORPORATION

Wake Stone Corporation
Triangle Quarry
Wake County
Mining Permit No. 92-10
Site Plan Map
2020 Mining Permit Modification
(Adding RDU Mineral Lease)
Last Revised: April 2, 2020

DATE OF PHOTOGRAPHY: 03-17-2019	REVISION No.:
Map Prepared by: L. Cole Atkins, Geologist	SHEET No.: 17 of 27



EROSION CONTROL LEGEND

- LIMITS OF DISTURBANCE
- TEMPORARY DIVERSION DITCH
- SF — SILT FENCE
- SFO — SILT FENCE OUTLET
- CHECK DAM

NORTH

0 60 120 180

SCALE IN FEET : 1"=60'

PLD

PIEDMONT LAND DESIGN, LLP
8522-204 SIX FORKS ROAD
RALEIGH, NORTH CAROLINA 27615
919.845.7600 PHONE
919.845.7703 FAX
ENGR. FIRM LICENSE #F-0843

NORTH CAROLINA PROFESSIONAL SEAL 030858 ENGINEER MICHAEL L. SCHIERLING 3/16/2020

TRIANGLE QUARRY
RDU EXPANSION

OLD REEDY CREEK ROAD
RALEIGH, NORTH CAROLINA

ISSUED: 16 MAR 2020

REVISIONS:

DRAWN BY: MLS
CHECKED BY: MLS

PROJECT: WSRDUQ

EXISTING QUARRY ROAD IMPROVEMENTS 1 OF 2

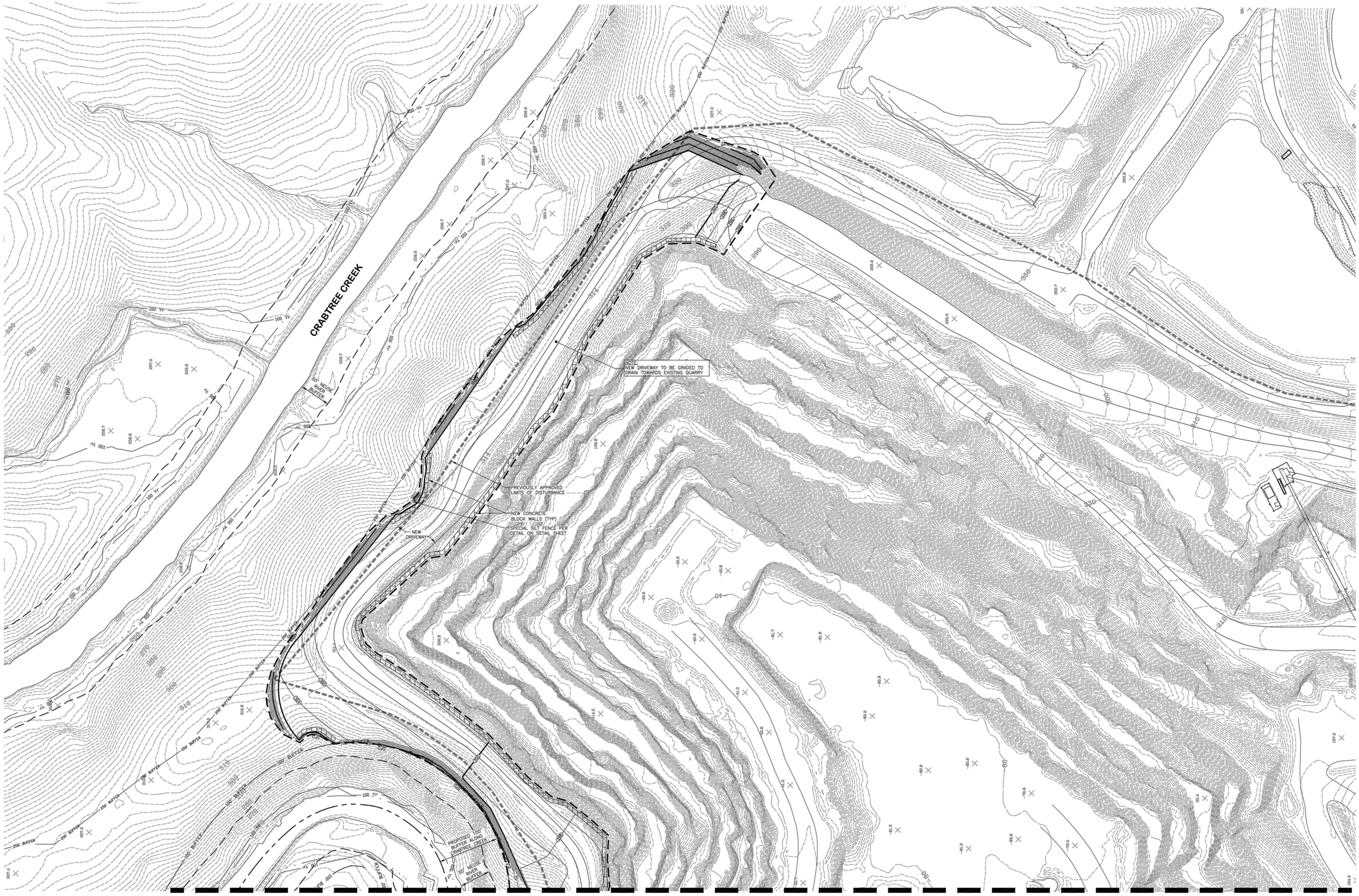
DWG. NO. SITE 8

COMPILED BY PHOTOGRAMMETRIC METHODS

WAKE STONE CORPORATION

Wake Stone Corporation
Triangle Quarry
Wake County
Mining Permit No. 92-10
Site Plan Map
2020 Mining Permit Modification
(Adding RDU Mineral Lease)
Last Revised: April 2, 2020

DATE OF PHOTOGRAPHY: 03-17-2019	REVISION No.:
Map Prepared by: L. Cole Atkins, Geologist	SHEET No.: 18 of 27



MATCHLINE - SEE SHEET 1 OF 2 FOR CONTINUATION

EROSION CONTROL LEGEND

- LIMITS OF DISTURBANCE
- TEMPORARY DIVERSION DITCH
- SF — SFD — SILT FENCE
- SILT FENCE OUTLET
- CHECK DAM

NORTH

0 60 120 180

SCALE IN FEET : 1"=60'

PLD

PIEDMONT LAND DESIGN, LLP
8522-204 SIX FORKS ROAD
RALEIGH, NORTH CAROLINA 27615
919.845.7600 PHONE
919.845.7703 FAX
ENGR. FIRM LICENSE #F-0843

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 030865 MICHAEL L. SCHEIDT 3/16/2020

TRIANGLE QUARRY RDU EXPANSION

OLD REEDY CREEK ROAD RALEIGH, NORTH CAROLINA

ISSUED: **16 MAR 2020**

REVISIONS:

DRAWN BY: **MLS**
CHECKED BY: **MLS**

PROJECT: **WSRDUQ**

EXISTING QUARRY ROAD IMPROVEMENTS 2 OF 2

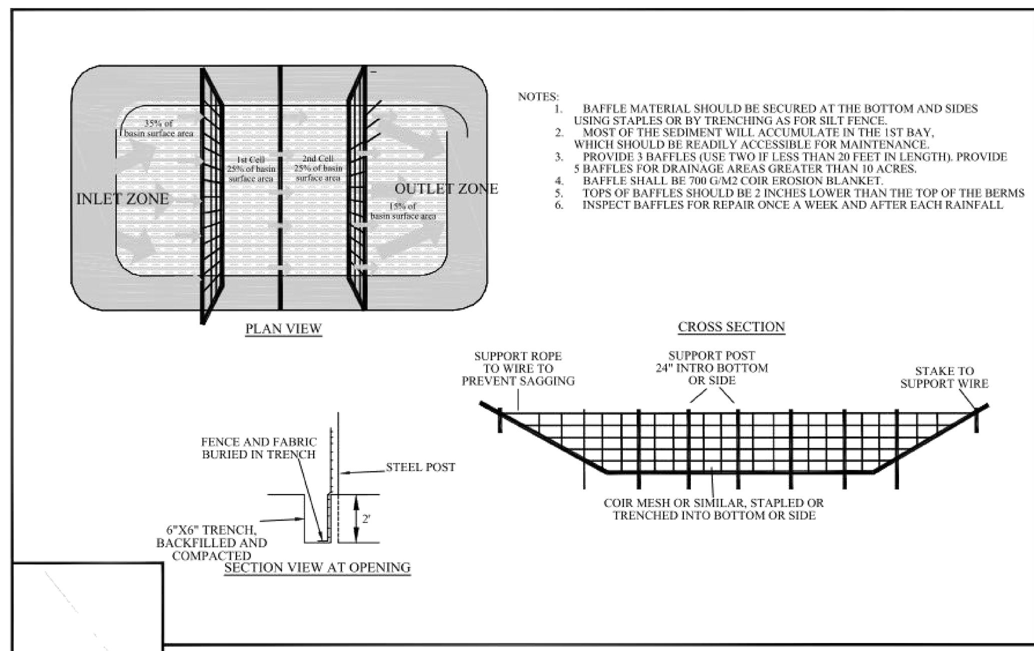
DWG. NO. **SITE 9**

COMPILED BY PHOTOGRAMMETRIC METHODS

WAKE STONE CORPORATION

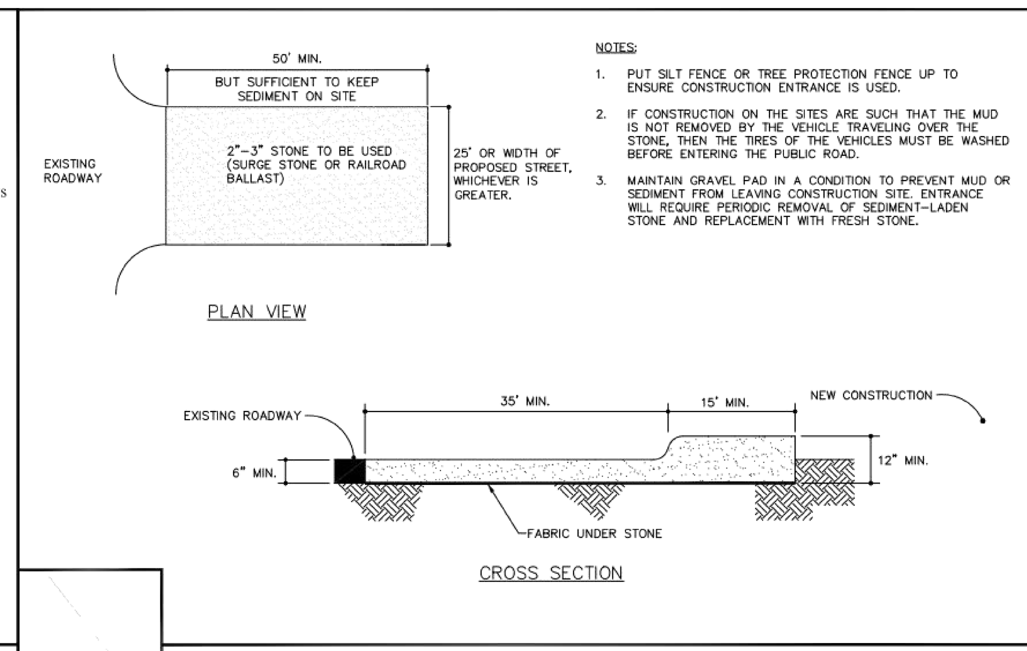
Wake Stone Corporation
Triangle Quarry
Wake County
Mining Permit No. 92-10
Site Plan Map
2020 Mining Permit Modification
(Adding RDU Mineral Lease)
Last Revised: April 2, 2020

DATE OF PHOTOGRAPHY: 03-17-2019	REVISION No.:
Map Prepared by: L. Cole Atkins, Geologist	SHEET No.: 19 of 27



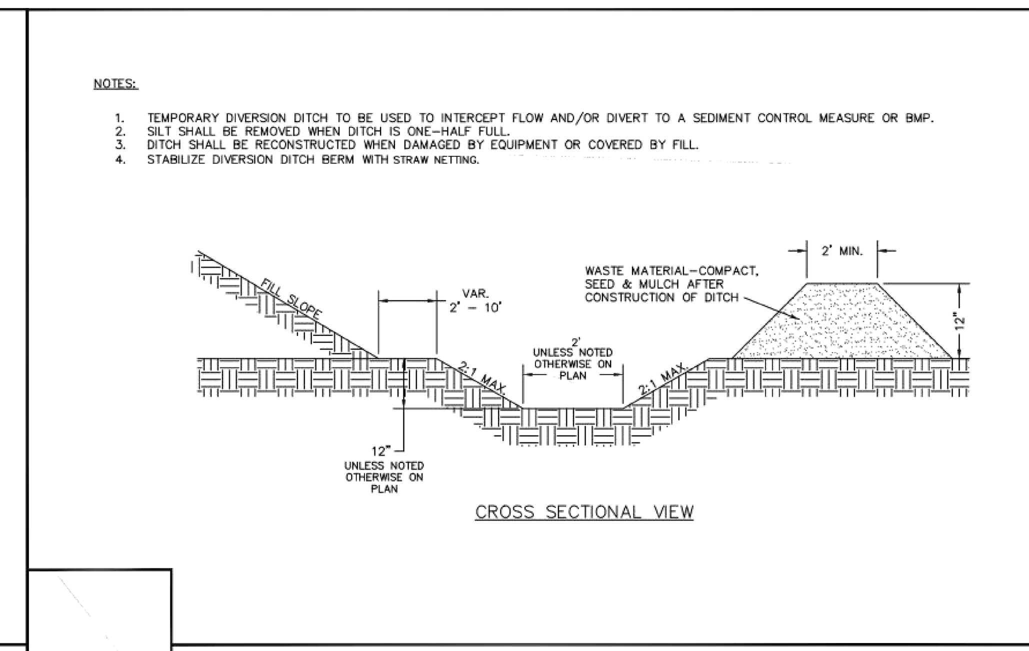
NOTES:
1. BAFFLE MATERIAL SHOULD BE SECURED AT THE BOTTOM AND SIDES USING STAPLES OR BY TRENCHING AS FOR SILT FENCE.
2. MOST OF THE SEDIMENT WILL ACCUMULATE IN THE 1ST BAY, WHICH SHOULD BE READILY ACCESSIBLE FOR MAINTENANCE.
3. PROVIDE 3 BAFFLES (USE TWO IF LESS THAN 20 FEET IN LENGTH). PROVIDE 5 BAFFLES FOR DRAINAGE AREAS GREATER THAN 10 ACRES.
4. BAFFLE SHALL BE 700 G/M2 COIR EROSION BLANKET.
5. TOPS OF BAFFLES SHOULD BE 2 INCHES LOWER THAN THE TOP OF THE BERMS.
6. INSPECT BAFFLES FOR REPAIR ONCE A WEEK AND AFTER EACH RAINFALL.

STANDARD BAFFLES DETAIL



NOTES:
1. PUT SILT FENCE OR TREE PROTECTION FENCE UP TO ENSURE CONSTRUCTION ENTRANCE IS USED.
2. IF CONSTRUCTION ON THE SITES ARE SUCH THAT THE MUD IS NOT REMOVED BY THE VEHICLE TRAVELING OVER THE STONE, THEN THE TIRES OF THE VEHICLES MUST BE WASHED BEFORE ENTERING THE PUBLIC ROAD.
3. MAINTAIN GRAVEL PAD IN A CONDITION TO PREVENT MUD OR SEDIMENT FROM LEAVING CONSTRUCTION SITE. ENTRANCE WILL REQUIRE PERIODIC REMOVAL OF SEDIMENT-LADEN STONE AND REPLACEMENT WITH FRESH STONE.

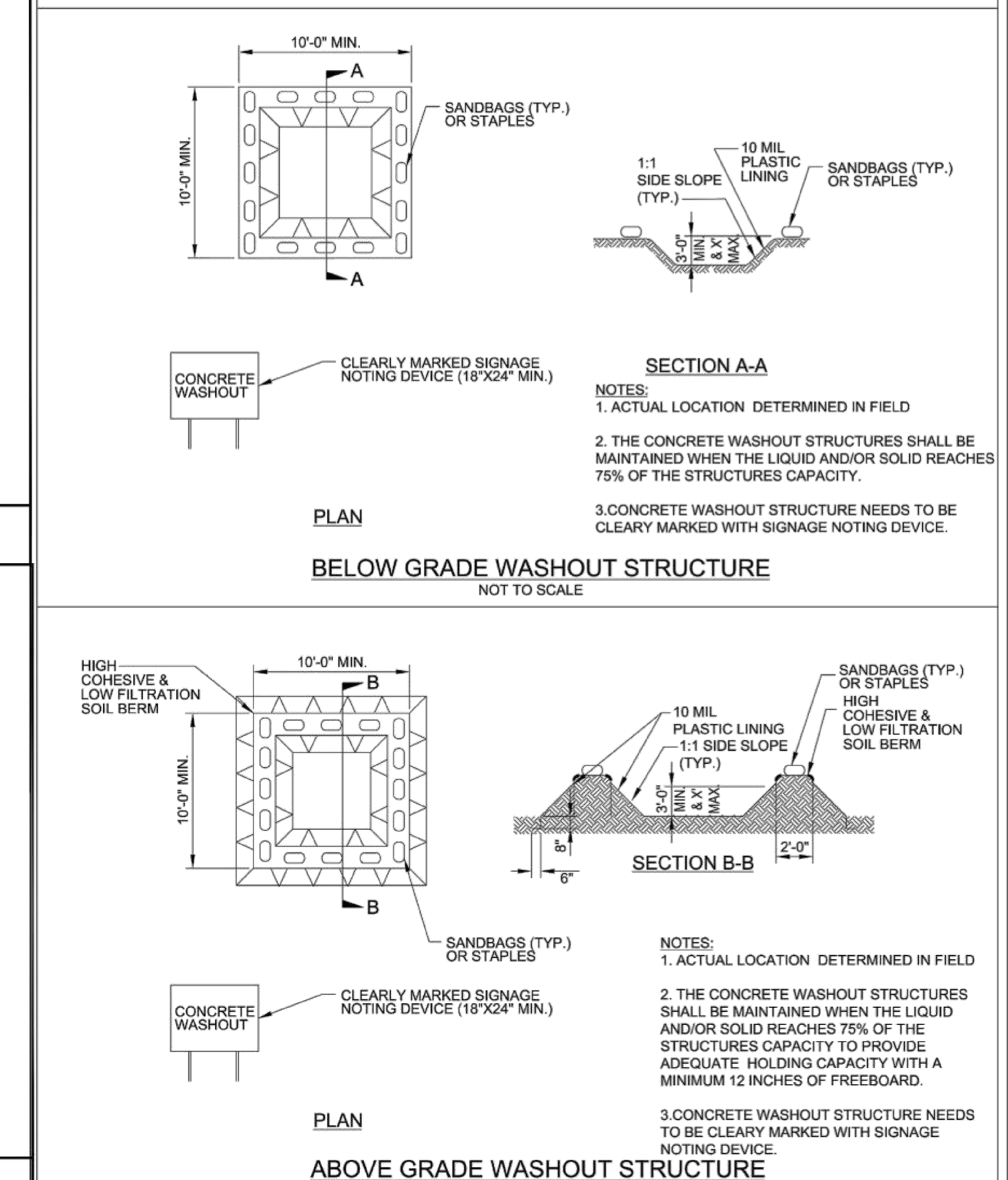
STANDARD CONSTRUCTION ENTRANCE



NOTES:
1. TEMPORARY DIVERSION DITCH TO BE USED TO INTERCEPT FLOW AND/OR DIVERT TO A SEDIMENT CONTROL MEASURE OR BMP.
2. SILT SHALL BE REMOVED WHEN DITCH IS ONE-HALF FULL.
3. DITCH SHALL BE RECONSTRUCTED WHEN DAMAGED BY EQUIPMENT OR COVERED BY FILL.
4. STABILIZE DIVERSION DITCH BERM WITH STRAW NETTING.

STANDARD TEMPORARY DIVERSION DITCH

ONSITE CONCRETE WASHOUT STRUCTURE WITH LINER



SECTION A-A

NOTES:
1. ACTUAL LOCATION DETERMINED IN FIELD
2. THE CONCRETE WASHOUT STRUCTURES SHALL BE MAINTAINED WHEN THE LIQUID AND/OR SOLID REACHES 75% OF THE STRUCTURES CAPACITY.
3. CONCRETE WASHOUT STRUCTURE NEEDS TO BE CLEARY MARKED WITH SIGNAGE NOTING DEVICE.

PLAN

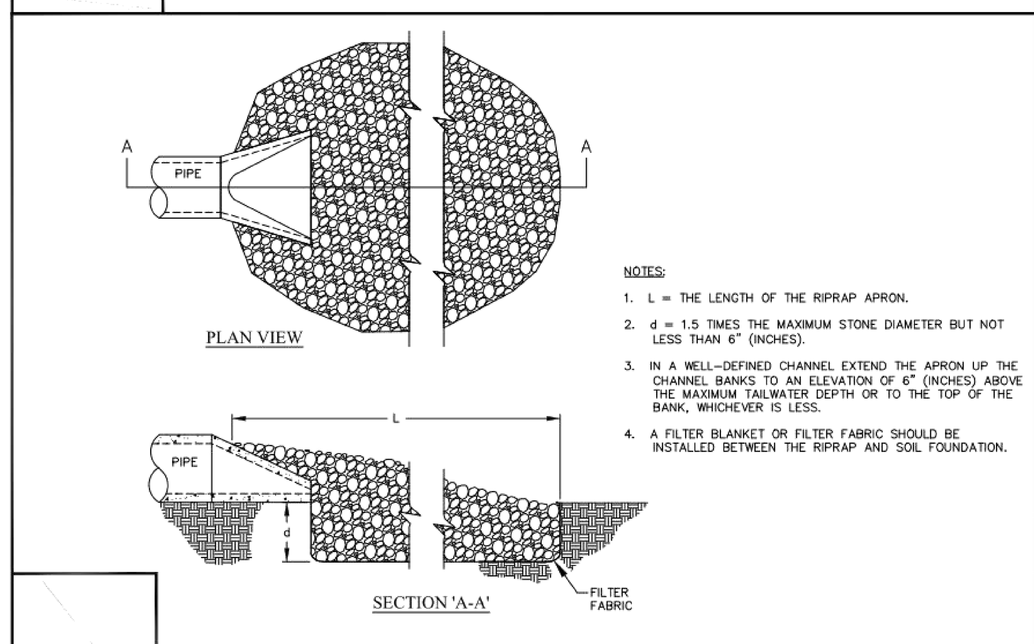
BELOW GRADE WASHOUT STRUCTURE
NOT TO SCALE

SECTION B-B

NOTES:
1. ACTUAL LOCATION DETERMINED IN FIELD
2. THE CONCRETE WASHOUT STRUCTURES SHALL BE MAINTAINED WHEN THE LIQUID AND/OR SOLID REACHES 75% OF THE STRUCTURES CAPACITY TO PROVIDE ADEQUATE HOLDING CAPACITY WITH A MINIMUM 12 INCHES OF FREEBOARD.
3. CONCRETE WASHOUT STRUCTURE NEEDS TO BE CLEARY MARKED WITH SIGNAGE NOTING DEVICE.

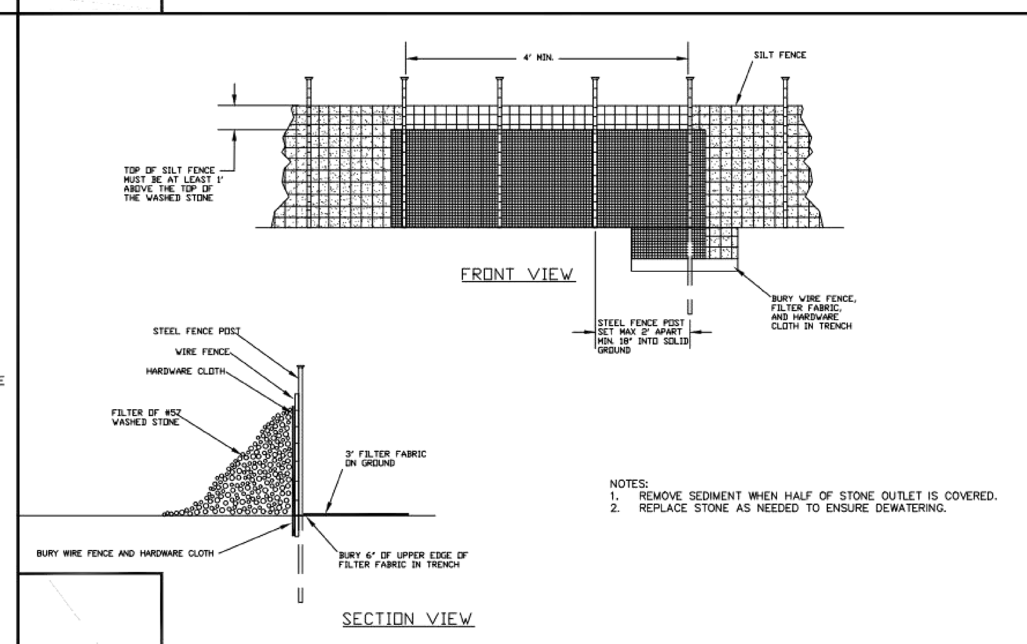
PLAN

ABOVE GRADE WASHOUT STRUCTURE
NOT TO SCALE



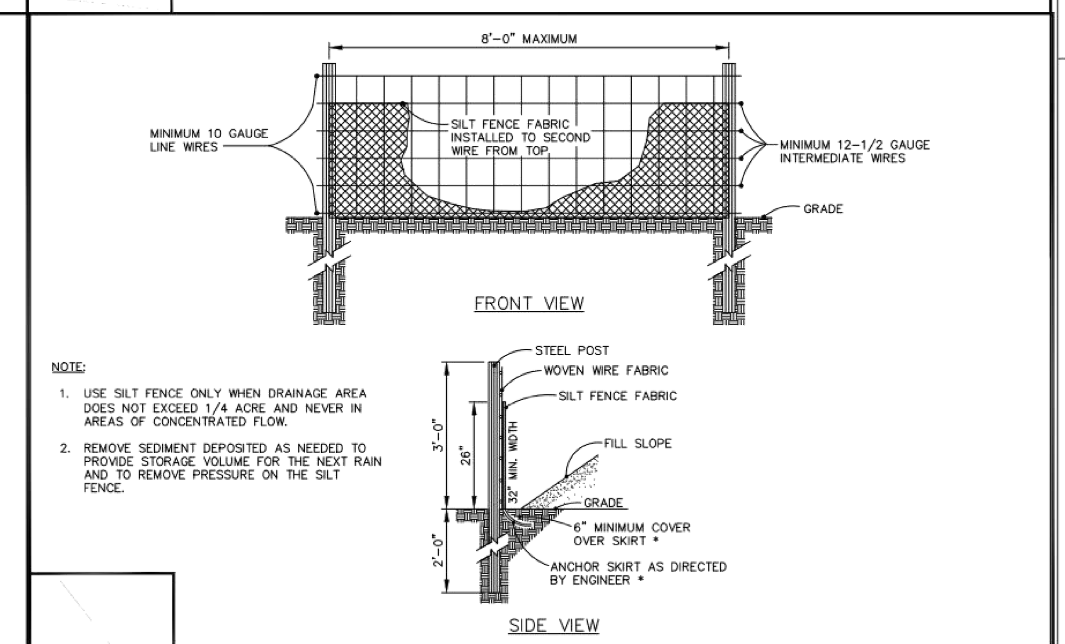
NOTES:
1. L = THE LENGTH OF THE RIPRAP APRON.
2. d = 1.5 TIMES THE MAXIMUM STONE DIAMETER BUT NOT LESS THAN 6" (INCHES).
3. IN A WELL-DEFINED CHANNEL EXTEND THE APRON UP THE CHANNEL BANKS TO AN ELEVATION OF 6" (INCHES) ABOVE THE MAXIMUM TAILWATER DEPTH OR TO THE TOP OF THE BANK, WHICHEVER IS LESS.
4. A FILTER BLANKET OR FILTER FABRIC SHOULD BE INSTALLED BETWEEN THE RIPRAP AND SOIL FOUNDATION.

STANDARD PIPE OUTLET TO WELL-DEFINED CHANNEL



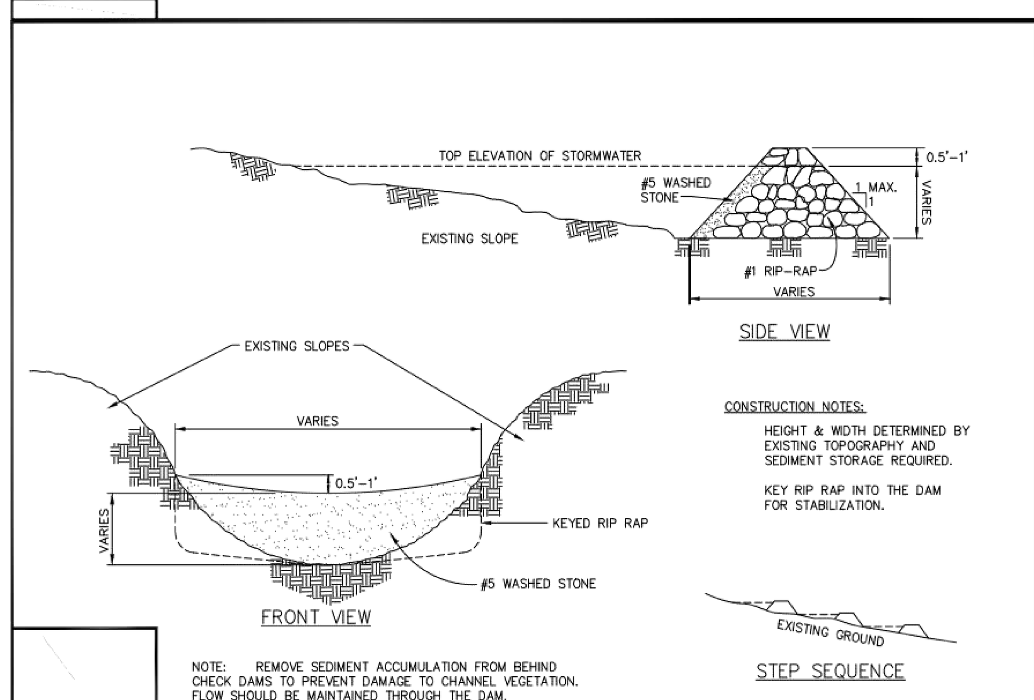
NOTES:
1. REMOVE SEDIMENT WHEN HALF OF STONE OUTLET IS COVERED.
2. REPLACE STONE AS NEEDED TO ENSURE DEWATERING.

STANDARD SILT FENCE OUTLET



NOTE:
1. USE SILT FENCE ONLY WHEN DRAINAGE AREA DOES NOT EXCEED 1/4 ACRE AND NEVER IN AREAS OF CONCENTRATED FLOW.
2. REMOVE SEDIMENT DEPOSITED AS NEEDED TO PROVIDE STORAGE VOLUME FOR THE NEXT RAIN AND TO REMOVE PRESSURE ON THE SILT FENCE.

STANDARD TEMPORARY SILT FENCE

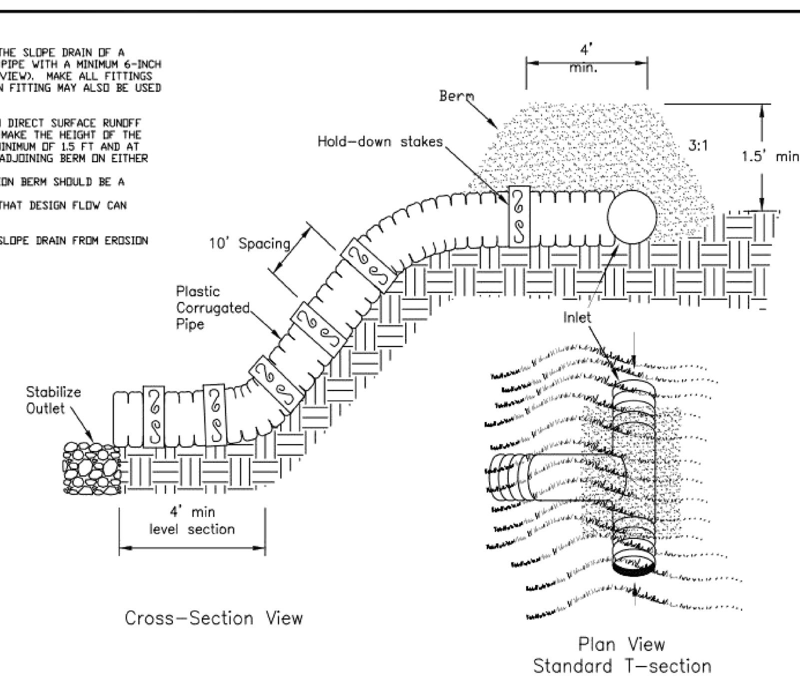


CONSTRUCTION NOTES:
HEIGHT & WIDTH DETERMINED BY EXISTING TOPOGRAPHY AND SEDIMENT STORAGE REQUIRED.
KEY RIP RAP INTO THE DAM FOR STABILIZATION.

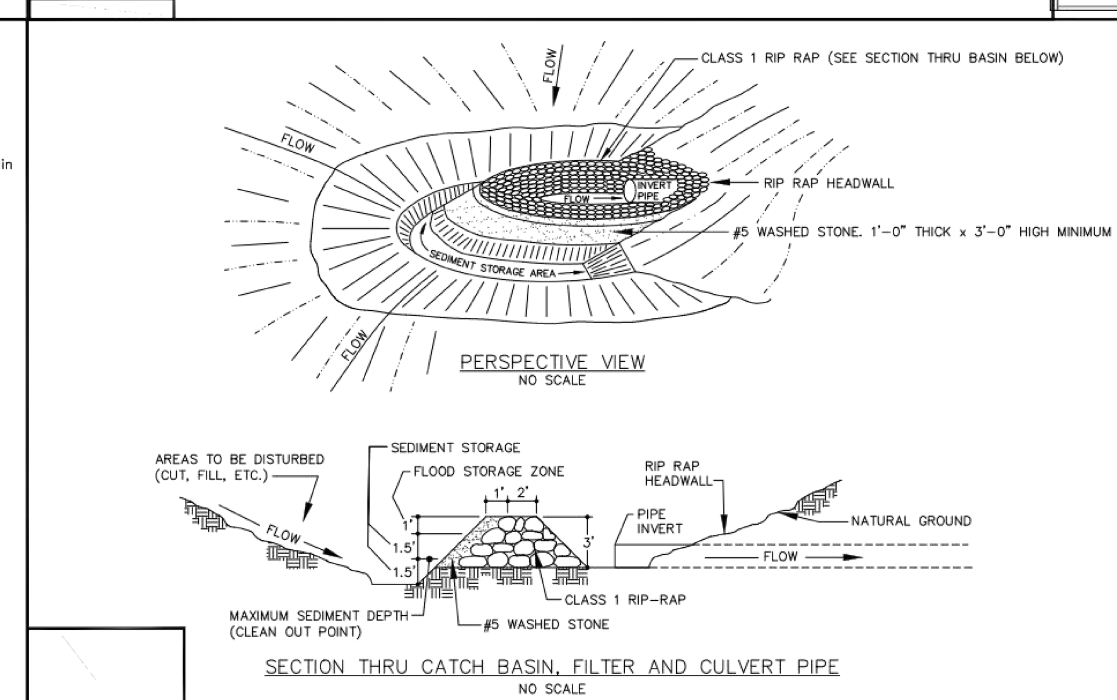
NOTE: REMOVE SEDIMENT ACCUMULATION FROM BEHIND CHECK DAMS TO PREVENT DAMAGE TO CHANNEL VEGETATION. FLOW SHOULD BE MAINTAINED THROUGH THE DAM.

STANDARD CHECK DAM

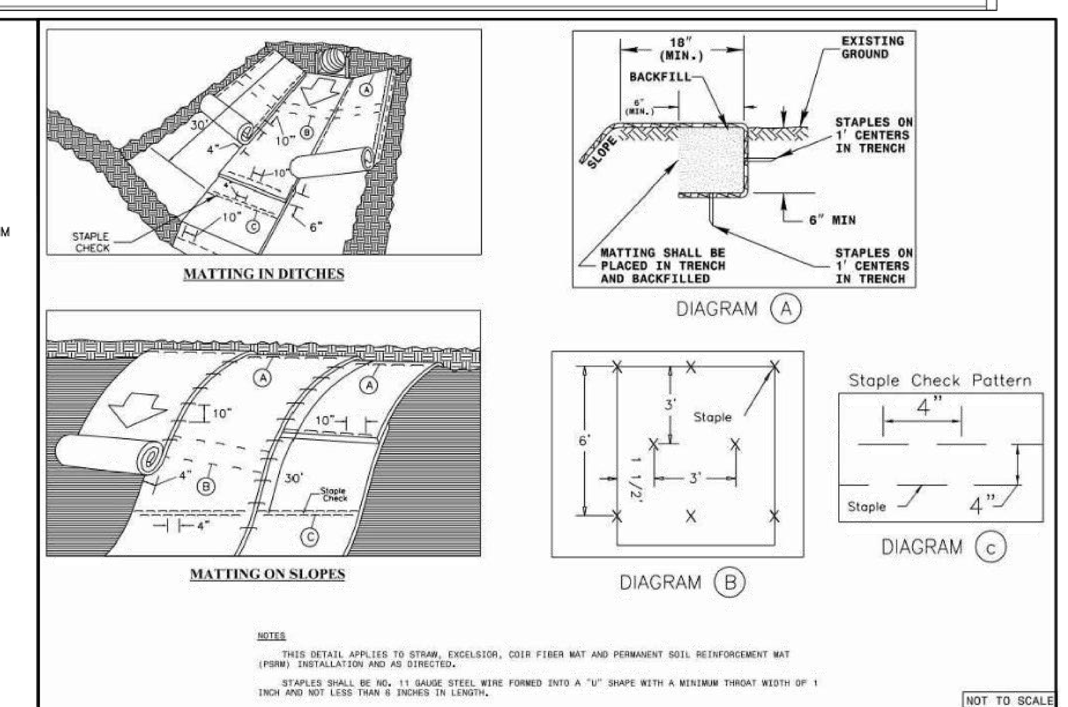
NOTES:
1. CONSTRUCT THE ENTRANCE TO THE SLOPE DRAIN OF A STANDARD FLARED-END SECTION OF PIPE WITH A MINIMUM 6-INCH METAL TOE PLATE (CROSS-SECTION VIEW). MAKE ALL FITTINGS WATERTIGHT. A STANDARD T-SECTION FITTING MAY ALSO BE USED AT THE INLET.
2. USE AN EARTHEN DIVERSION TO DIRECT SURFACE RUNOFF INTO THE TEMPORARY SLOPE DRAIN. MAKE THE HEIGHT OF THE BERM OVER THE DRAIN CONDUIT A MINIMUM OF 1.5 FT AND AT LEAST 6 INCHES HIGHER THAN THE ADJOINING BERM ON EITHER SIDE.
THE LOWEST POINT OF THE DIVERSION BERM SHOULD BE A MINIMUM OF 1 FT ABOVE THE TOP OF THE DRAIN SO THAT DESIGN FLOW CAN FREELY ENTER THE PIPE.
3. PROTECT THE OUTLET OF THE SLOPE DRAIN FROM EROSION WITH RIPRAP DISSIPATOR.



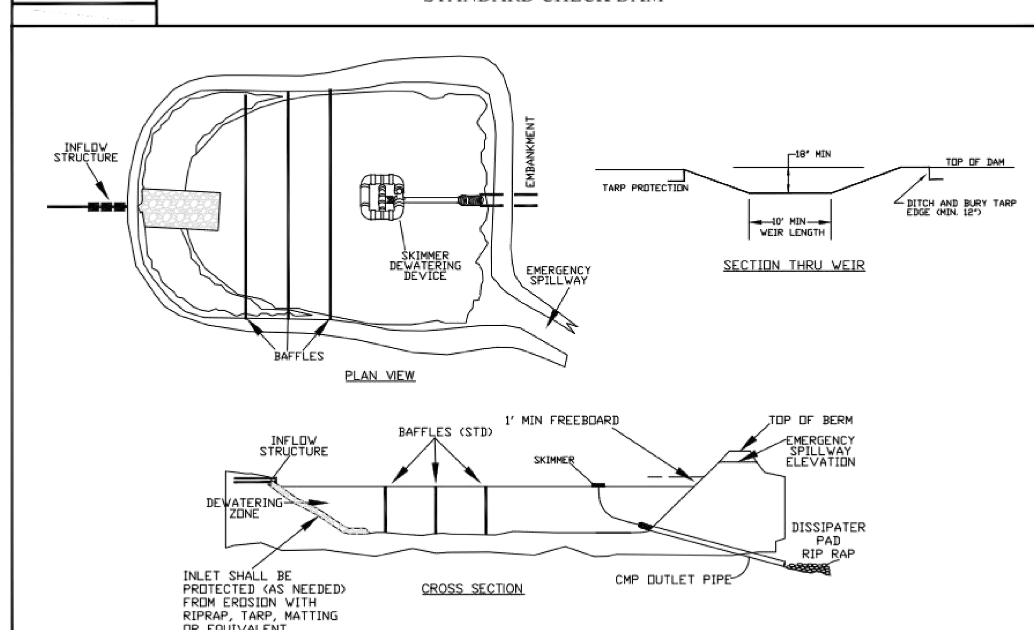
STANDARD TEMPORARY SLOPE DRAIN



STANDARD HORSESHOE INLET PROTECTION

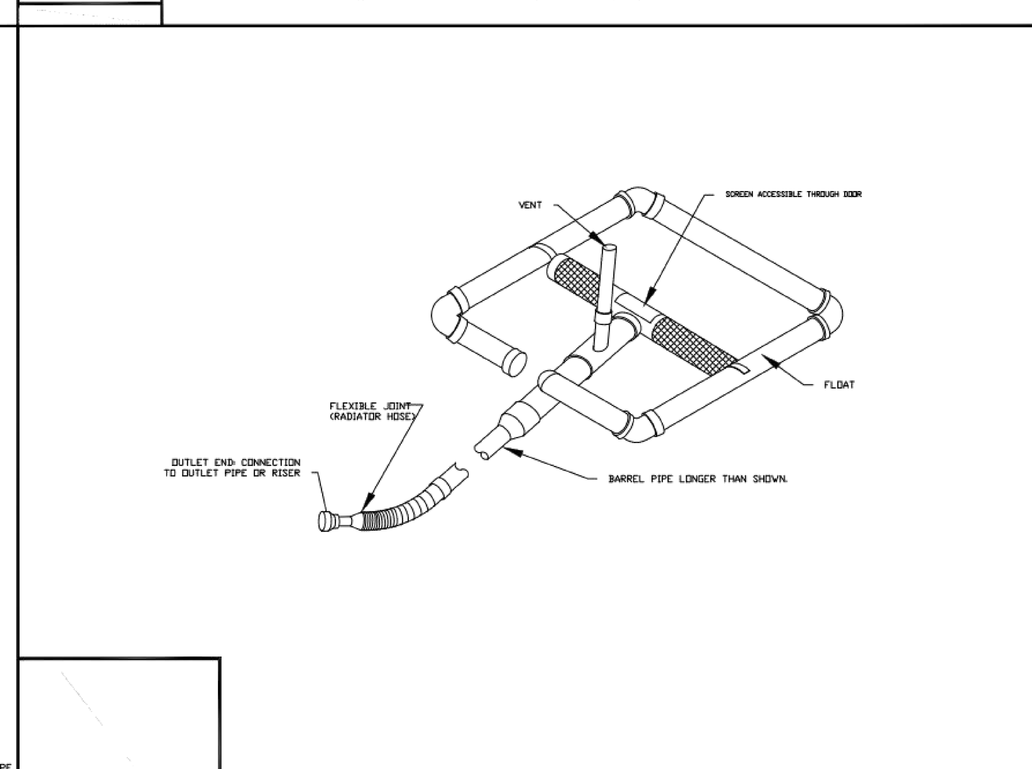


JUTE MAT INSTALLATION ON SLOPES AND DITCHES

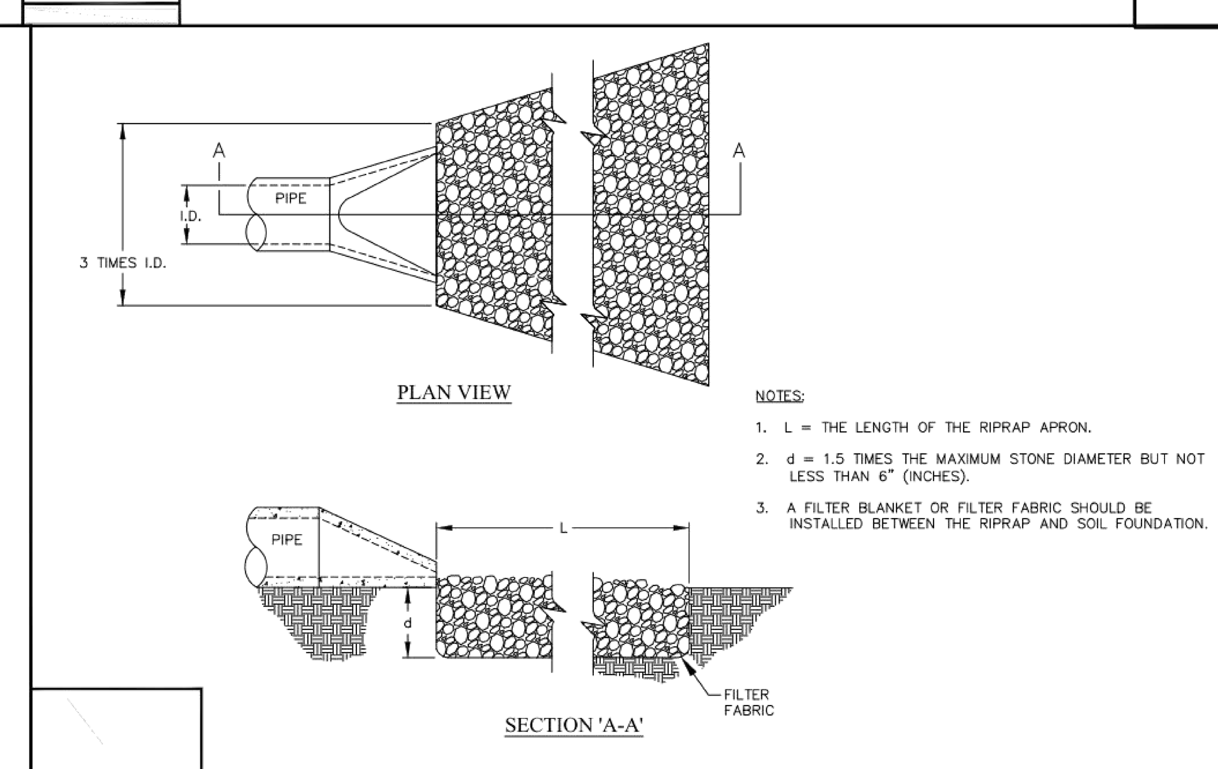


NOTES:
1) BASIN SHOULD BE CLEANED OUT WHEN CAPACITY REACHES AN ELEVATION REPRESENTING THAT THE BASIN IS HALF-FULL.
2) THE TARP USED TO PROTECT THE WEIR SHALL BE THE WIDTH SPECIFIED. THE LENGTH OF THE TARP SHALL BE ACCORDING TO AVAILABLE SUPPLY. IF MULTIPLE TARPS ARE TO BE USED, THEN TARPS SHALL BE OVERLAPPED AT LEAST 12". THE UPSTREAM 12" TARP SHALL OVERLAP THE DOWNSTREAM TARP. THE TARP SHALL BE 50 MIL. HEAVY DUTY SILVER TARPAULINS OR EQUIVALENT FOR U.V. RESISTANCE.
3) PROVIDE A MINIMUM OF THREE POROUS BAFFLES TO EVENLY DISTRIBUTE FLOW ACROSS THE BASIN, REDUCING TURBULENCE.
4) BAFFLE MATERIAL MUST BE SECURED AT THE BOTTOM AND SIDES USING STAPLES OR BY TRENCHING AS FOR A SILT FENCE.
5) MOST OF THE SEDIMENT WILL ACCUMULATE IN THE FIRST BAY, SO THIS SHOULD BE READILY AVAILABLE FOR MAINTENANCE.
6) DURING THE CONSTRUCTION PHASE OF THE PROJECT, PERMANENT STORMWATER RISER SHALL ONLY DEWATER FROM THE TOP OF PIPE.
7) POND SHALL NOT BE CONVERTED FOR STORMWATER USE UNTIL APPROVED BY ENVIRONMENTAL ENGINEER.

STANDARD SKIMMER BASIN



STANDARD SKIMMER DETAIL



NOTES:
1. L = THE LENGTH OF THE RIPRAP APRON.
2. d = 1.5 TIMES THE MAXIMUM STONE DIAMETER BUT NOT LESS THAN 6" (INCHES).
3. A FILTER BLANKET OR FILTER FABRIC SHOULD BE INSTALLED BETWEEN THE RIPRAP AND SOIL FOUNDATION.

STANDARD PIPE OUTLET TO FLAT AREA
NO WELL-DEFINED CHANNEL

PLD
PIEDMONT LAND DESIGN, LLP
8522-204 SIX FORKS ROAD
RALEIGH, NORTH CAROLINA 27615
919.845.7600 PHONE
919.845.7703 FAX
ENGR. FIRM LICENSE #F-0843

TRIANGLE QUARRY
RDU EXPANSION
OLD REEDY CREEK ROAD
RALEIGH, NORTH CAROLINA

ISSUED: 16 MAR 2020

REVISIONS:

DRAWN BY: MLS
CHECKED BY: MLS

PROJECT: WSRDUQ

DETAILS

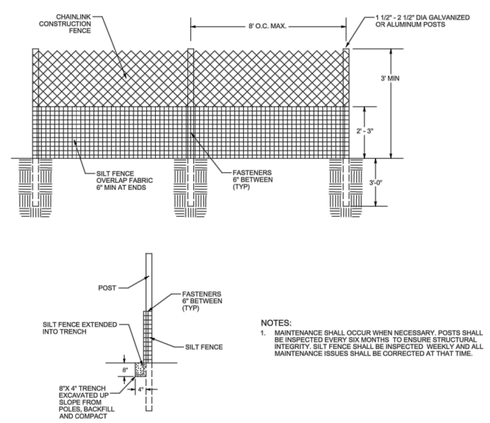
DWG. NO. SITE 10

COMPILED BY PHOTOGRAMMETRIC METHODS

WAKE STONE CORPORATION

Wake Stone Corporation
Triangle Quarry
Wake County
Mining Permit No. 92-10
Site Plan Map
2020 Mining Permit Modification
(Adding RDU Mineral Lease)
Last Revised: April 2, 2020

DATE OF PHOTOGRAPHY: 03-17-2019 | REVISION No.:
Map Prepared by: L. Cole Atkins, Geologist | SHEET No.: 20 of 27



NOTES:
1. MAINTENANCE SHALL OCCUR WHEN NECESSARY. POSTS SHALL BE INSPECTED EVERY SIX MONTHS TO ENSURE STRUCTURAL INTEGRITY. SILT FENCE SHALL BE INSPECTED WEEKLY AND ALL MAINTENANCE ISSUES SHALL BE CORRECTED AT THAT TIME.

SPECIAL SILT FENCE

NPDES Stormwater Discharge Permit for Construction Activities (NCGO1)
NCDENR/Division of Water Quality
NEW STABILIZATION TIMEFRAMES
(Effective Aug. 3, 2011)

SITE AREA DESCRIPTION	STABILIZATION	TIMEFRAME EXCEPTIONS
Perimeter dikes, swales, ditches, 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' in length.
All other areas with slopes flatter than 4:1	14 days	None, except for perimeters and HQW Zones.

Seedbed Preparation:

1. Chisel compacted areas and spread topsoil three inches deep over adverse soil conditions, if available.
2. Rip the entire area to six inches deep.
3. Remove all loose rock, roots and other obstructions, leaving surface reasonably smooth and uniform.
4. Apply agricultural lime, fertilizer and superphosphate uniformly and mix with soil (see mixture below).
5. Continue tillage until a well-pulverized, firm, reasonably uniform seedbed is prepared four to six inches deep.
6. Seed on a freshly prepared seedbed and cover seed lightly with seeding equipment or cultipack after seeding.
7. Mulch immediately after seeding and anchor mulch.
8. Inspect all seeded areas and make necessary repairs or reseedings within the planting season, if possible. If stand should be more than 60% damaged, re-establish following the original lime, fertilizer and seeding rates.
9. Consult S&EC Environmental Engineers on maintenance treatment and fertilization after permanent cover is established.

Mixture

Agricultural Limestone	2 tons/acre (3 tons/acre in clay soils)
Fertilizer	1,000 lbs/acre – 10-10-10
Superphosphate	500 lbs/acre – 20% analysis
Mulch	2 tons/acre – small grain straw
Anchor	Asphalt emulsion at 300 gals/acre

Seeding Schedule

For Shoulders, Side Ditches, Slopes (Max 3:1):

Date	Type	Planting Rate
Aug 15– Nov 1	Tall Fescue	300 lbs/acre
Nov 1– Mar 1	Tall Fescue & Abruzzi Rye	300 lbs/acre
Mar 1–Apr 15	Tall Fescue	300 lbs/acre
Apr 15– Jun 30	Hulled Common Bermudagrass	25 lbs/acre
Jul 1– Aug 15	Tall Fescue AND Browntop Millet or Sorghum-Sudan Hybrids***	125 lbs/acre (Tall Fescue); 35 lbs/acre (Browntop Millet); 30 lbs/acre (Sorghum-Sudan Hybrids)

For Shoulders, Side Ditches, Slopes (3:1 to 2:1):

Date	Type	Planting Rate
Mar 1– Jun 1	Sericea Lespedeza (scarified) and use the following combinations:	50 lbs/acre (Sericea Lespedeza);
Mar 1– Apr 15	Add Tall Fescue	120 lbs/acre
Mar 1– Jun 30	Or add Weeping Love grass	10 lbs/acre
Mar 1– Jun 30	Or add Hulled Common Bermudagrass	25 lbs/acre
Jun 1– Sept 1	Tall Fescue AND Browntop Millet or Sorghum-Sudan Hybrids***	120 lbs/acre (Tall Fescue); 35 lbs/acre (Browntop Millet); 30 lbs/acre (Sorghum-Sudan Hybrids)
Sept 1– Mar 1	Sericea Lespedeza (unhulled – unscarified) AND Tall Fescue	70 lbs/acre (Sericea Lespedeza); 120 lbs/acre (Tall Fescue)
Nov 1– Mar 1	AND Abruzzi Rye	25 lbs/acre

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 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

1. 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.
3. 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 offsite.
5. Store flocculants in leak-proof containers that are kept under storm-resistant cover or surrounded by secondary containment structures.

EQUIPMENT AND VEHICLE MAINTENANCE

1. 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 project.
4. 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.
6. 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.
3. 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.
7. Empty waste containers as needed to prevent overflow. Clean up immediately if containers overflow.
8. Dispose waste off-site at an approved disposal facility.
9. On business days, clean up and dispose of waste in designated waste containers.

PAINT AND OTHER LIQUID WASTE

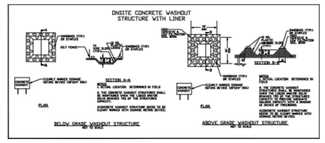
1. Do not dump paint and other liquid waste into storm drains, streams or wetlands.
2. Locate paint washouts at least 50 feet away from storm drain inlets and surface waters unless no other alternatives are reasonably available.
3. Contain liquid wastes in a controlled area.
4. Containment must be labeled, sized and placed appropriately for the needs of site.
5. 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

1. 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.
2. Protect stockpile with silt fence installed along toe of slope with a minimum offset of five feet from the toe of stockpile.
3. Provide stable stone access point when feasible.
4. 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

1. Do not discharge concrete or cement slurry from the site.
2. Dispose of, or recycle settled, hardened concrete residue in accordance with local and state solid waste regulations and at an approved facility.
3. 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.
4. 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.
5. 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.
6. 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.
7. 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 approving authority.
8. 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.
9. 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

1. Store and apply herbicides, pesticides and rodenticides in accordance with label restrictions.
2. 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.
3. Do not store hazardous chemicals, drums or bagged materials directly on the ground.

NCG01 GROUND STABILIZATION AND MATERIALS HANDLING | EFFECTIVE: 04/01/19

PLD
PIEDMONT LAND DESIGN, LLP
8522–204 SIX FORKS ROAD
RALEIGH, NORTH CAROLINA 27615
919.845.7600 PHONE
919.845.7703 FAX
ENGR. FIRM LICENSE #F–0843

NORTH CAROLINA PROFESSIONAL SEAL 030855 ENGINEER RICHARD L. SCHMALZ 3/16/2020

TRIANGLE QUARRY
RDU EXPANSION

OLD REEDY CREEK ROAD
RALEIGH, NORTH CAROLINA

ISSUED: 16 MAR 2020

REVISIONS:

DRAWN BY: MLS
CHECKED BY: MLS

PROJECT: WSRDUQ

DETAILS

DWG. NO. SITE 11

COMPILED BY PHOTOGRAMMETRIC METHODS

WAKE STONE CORPORATION

Wake Stone Corporation
Triangle Quarry
Wake County
Mining Permit No. 92-10
Site Plan Map
2020 Mining Permit Modification
(Adding RDU Mineral Lease)
Last Revised: April 2, 2020

DATE OF PHOTOGRAPHY: 09-17-2019 | REVISION No.:
Map Prepared by: L. Cole Atkins, Geologist | SHEET No.: 21 of 27