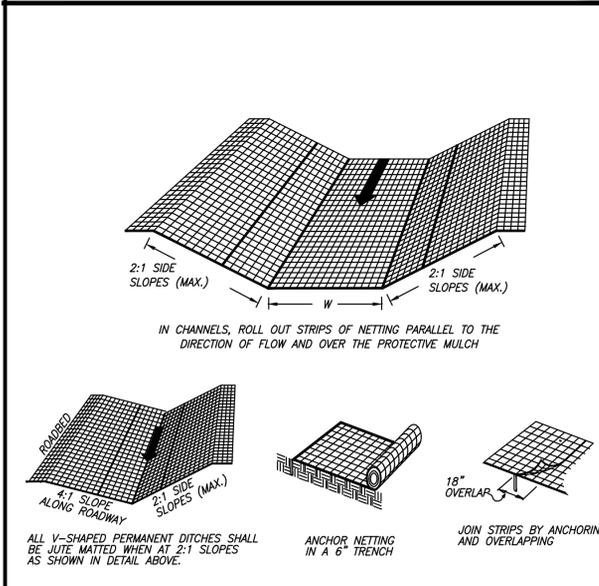
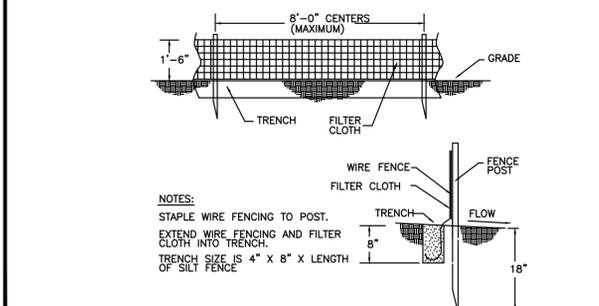


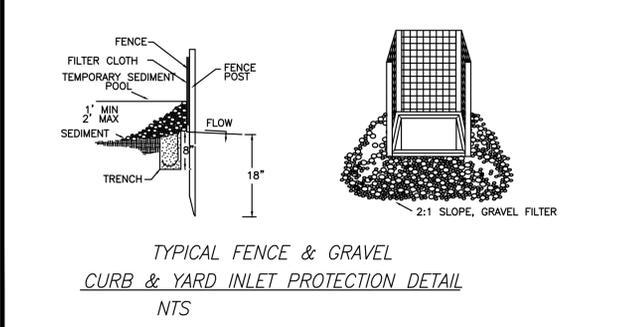
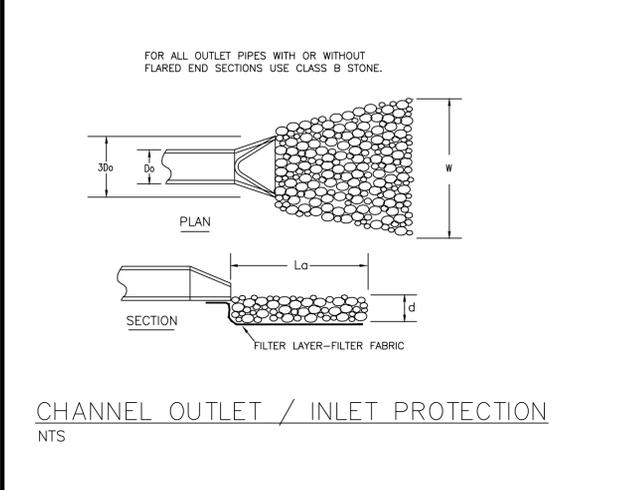
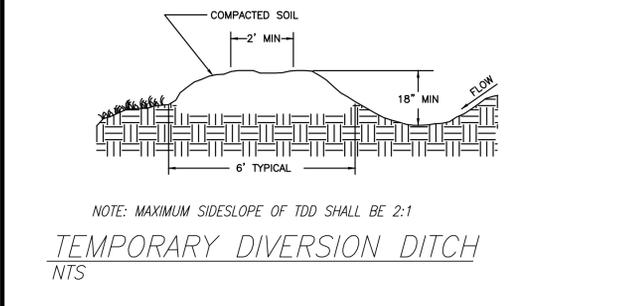
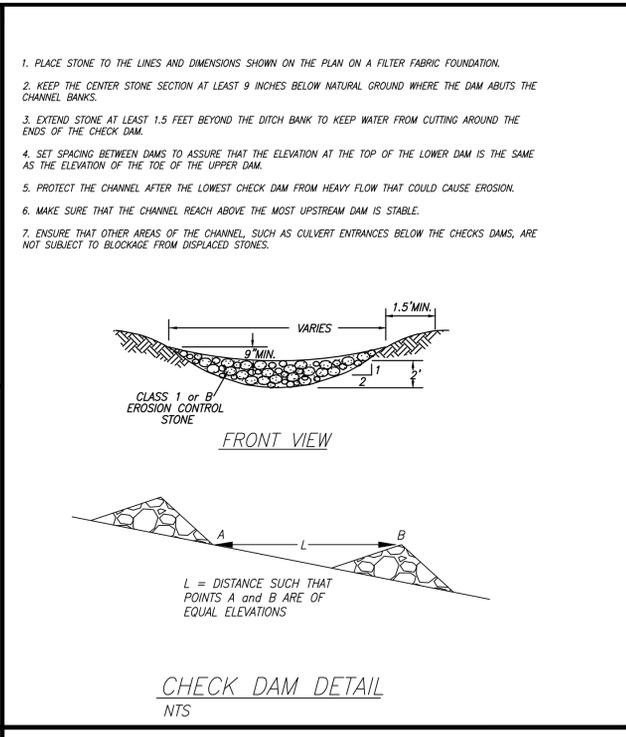
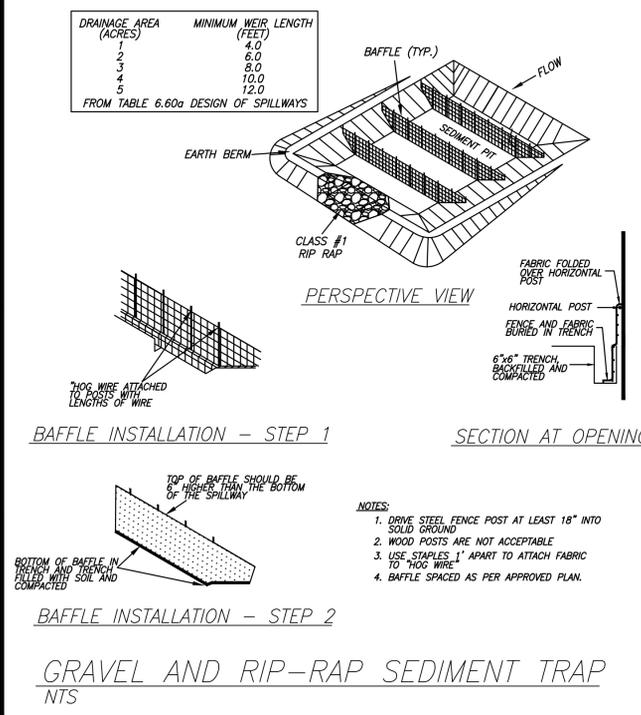
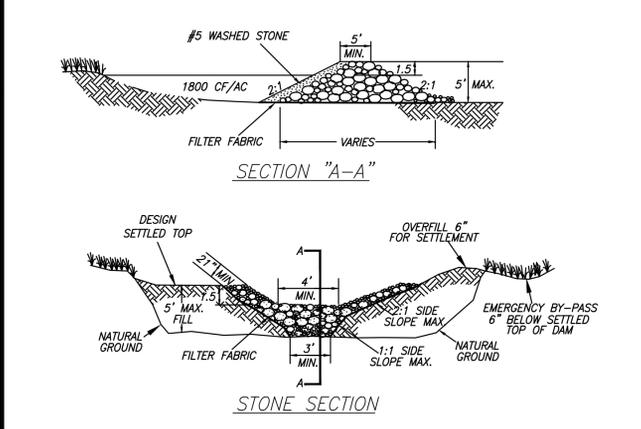
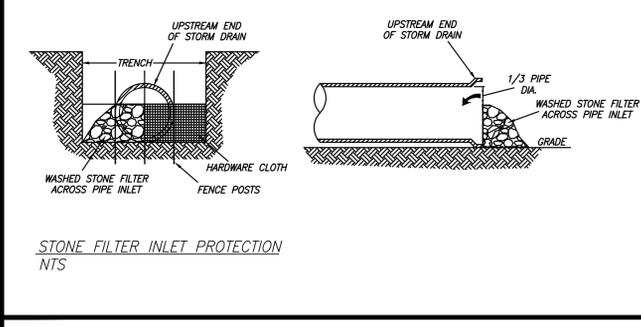
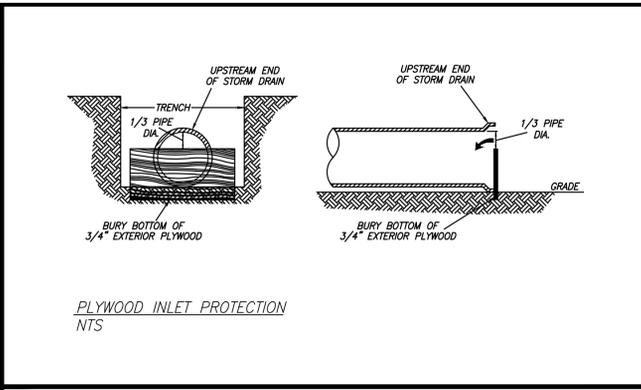
TYPICAL CONSTRUCTION ENTRANCE PAD
NTS



TYPICAL JUTE MESH LINED DITCH
NTS



TYPICAL SILT FENCE DETAIL
NTS



Erosion and Sediment Control Construction Phasing.
General Notes
1. The project is to be constructed in three phases.
2. The Erosion and sediment control plan sheet 7 shows the overall plan with drainage areas. Denuded areas identified for the 3 phases of construction
3. Sheet 8 shows separate construction phases as Phase I, Phase II and Phase III. Phase I construction will include partial grading of phase II which includes the grading of lots 29 and lot 30. The top soil storage area for phase I shall stay protected and be used for phase II.

Construction of Phase I:
NOTE: In construction of phase I, installation of the skimmer sediment basin/detention basin shall be coordinated with construction staging. Contractor shall review phase I construction Sequence and the 4 steps for construction of skimmer sediment basin/detention basin.

- Construction of phase I of the project comprises of construction of road including grading, drainage, sidewalk and asphalt pavement. It includes partial grading of phase II road and lots 29 and lot 30. The excavation from phase II road shall be used for construction phase I road embankment
- Silt Fence Installation: Silt fence as shown on the Erosion and Sediment Control plans Phase I shall be installed first. Clear enough area to install all silt fence and silt stone filters including silt fence around wetland area as shown on the plan
- Install Construction Entrance as shown on the approved plans
- Installation of Skimmer Sediment Basin/Detention Pond: After completing installation of silt fence on the project limits of phase one begin installation of skimmer sediment basin. The sediment basin shall be used for erosion and sediment control purposes and at the end of phase I construction, sediment basin shall be converted to retention pond to control the first 1/2" of runoff for the whole project.
- The drainage basin/retention pond shall be installed in 4 steps. Step 1 and step 2 shall be installed before the start of any grading operation on phase I in order to prepare it for erosion and sediment control of phase I. Step 3 and step 4 shall be installed at the later stages of phase I to convert drainage basin into retention pond. (See construction steps 1-4 on this plan)
- Begin construction operations including clearing and grubbing, grading, slopes and side ditches.
- Install temporary diversion ditches to divert runoff from denuded area to the skimmer sediment basin with check dams as shown on the approved plans. Diversion ditches shall be adjusted as grading operations progress.
- Stabilize disturbed area on Phase I. All slopes greater than 3:1 shall be stabilized within 7 days. Other areas shall be stabilized within 14 days.
- Remove temporary pipe and stabilize disturbed area caused by removal operation (See step 4B of Skimmer sediment basin/detention basin construction)
- Install pavement, clean debris, seed and mulch and stabilize remaining disturbed area
- Clean skimmer sediment basin. Remove skimmer and open detention basin for normal operations
- Stabilize area included in phase II used as part of phase I. Keep erosion control devices that were installed in phase I and maintain them as required until work on phase II begins

Step 1. Installation of Temporary 18" pipe (See Erosion and Control plan sheet 8 of 10).

- Install silt fence as shown on plan step 1
- Install temporary pipe across the road
- Extend pipe to outside denuded area. The temporary pipe function is to divert clean runoff water away from construction area.
- Silt fence shall be installed above the temporary pipe on both ends to confine construction area runoff

Step 2. Installation of Skimmer Sediment Basin/Detention Pond Install embankment/excavation of skimmer sediment basin as shown on plan step 2. Embankment slopes shall be Min. 2:1 specified in the Erosion and Sediment Control Design and Construction Standards Manual.

- Install embankment as shown on erosion control plan step 2
- Install skimmer and emergency spillway as per approved design plans
- Seed and mulch all denuded area caused by the construction of skimmer sediment basin/detention pond. Ground stabilization shall be installed within 7 days on slopes exceeding 3:1

Note: (Step 3 shall be installed in the later stages of grading operations)

Step 3. Installation of permanent detention basin drainage structure and spread level while keeping skimmer sediment basin in operation:

- Keep skimmer and emergency spillway in operation
- Isolate corner of the sediment basin as shown on the approved plans, step 3.
- Construct the permanent detention basin drainage structure as shown on the plans
- Construct level spreader as per plan details

Step 4A. Construction of 24" pipe and Drainage Structure at the inlet of pipe:

- Construct 24" RCP across the road at the location as shown on the approved plans
- Construct drainage structure at the inlet of 24" RCP. Construction shall be as per approved plan details.
- Install inlet protection device on drainage structure
- Keep system inactive to out of project runoff until all road grading operation is completed and disturbed area of the project stabilized

Step 4B. Removal of temporary pipe:

- Remove temporary pipe
- Stabilize all disturbed area caused by removal of temporary pipe
- After completion of wall grading clean skimmer sediment basin/detention basin and stabilize all denuded area on the project
- Remove skimmer and open detention pond for detention operations.

Construction of Phase II:

- Construction of phase II of the project comprises of construction of road including grading, drainage, sidewalk and asphalt pavement. Partial grading of phase II was completed as a part of phase I. The stock pile designated for phase I shall be also used for phase II as shown on plan.
- Silt Fence Installation: Silt fence as shown on the Erosion and Sediment Control plans Phase II shall be installed first. Any silt fence installed as a part of phase I shall be inspected and repaired. Clear enough area to install all silt fence and silt stone filters.
- Install Construction Entrance as shown on the approved plans.
- Install sediment pits 2.1 and 2.2 as shown on the locations as shown on plans per erosion and sediment control details.
- Begin construction operations including clearing and grubbing, grading, water & sewer, slopes and side ditches.
- Install temporary diversion ditches to divert runoff from denuded area to sediment pits with check dams as shown on the approved plans. Diversion ditches shall be adjusted as grading operations progress.
- All slopes greater than 3:1 shall be stabilized within 7 days. Other areas shall be stabilized within 14 days.
- Install pavement, clean debris, seed and mulch and stabilize remaining disturbed area.
- Stabilize all disturbed area before removing erosion and sediment control devices.

Construction of Phase III

- Construction of phase III of the project comprises of construction water and sewer, road including grading, drainage, sidewalk and asphalt pavement.
- Silt Fence Installation: Silt fence as shown on the Erosion and Sediment Control plans Phase III shall be installed first. Isolate phase III on the completed area of phase II by silt fence. Clear enough area to install all silt fence and silt stone filters.
- Install Construction Entrance as shown on the approved plans.
- Install sediment pits 3.1 and 3.2 as shown on the locations as shown on plans per erosion and sediment control details.
- Begin construction operations including clearing and grubbing, grading, water & sewer, slopes and side ditches.
- Install temporary diversion ditches to divert runoff from denuded area to sediment traps with check dams as shown on the approved plans. Diversion ditches shall be adjusted as grading operations progress.
- All slopes greater than 3:1 shall be stabilized within 7 days. Other areas shall be stabilized within 14 days.
- Install pavement, clean debris, seed and mulch and stabilize remaining disturbed area.
- Stabilize all disturbed area before removing erosion and sediment control devices.

11/14/2016

PRELIMINARY PLAN
DO NOT USE FOR CONSTRUCTION FOR REVIEW BY LOCAL OFFICIALS AND STATE OF NORTH CAROLINA.

SAMIR W. BAHHO, PE
CIVIL & STRUCTURAL ENGINEERING SERVICES, PLLC.
4612 KAPLAN DRIVE
RALEIGH, NORTH CAROLINA 27606
BUSINESS LICENSE P-0637

WHISPERING MEADOWS SUBDIVISION
OWNER: WINDSTAR PROPERTIES, LLC.
EROSION & SEDIMENT CONTROL
CHAFFAM COUNTY NORTH CAROLINA

DETAILS

NO.	DATE	DESCRIPTION	BY	FILE
1	10.04.11	DESIGN AND CONSTRUCTION PHASING PLAN	SWB	REB
2	10.13.11	EROSION AND SEDIMENT CONTROL COMMENTS	SWB	REB

REVISIONS

DATE: 10.04.11 SCALE: NOTED

DESIGNED: SWB CHECKED: SWB

DRAWN: REB APPROVED: WM

SHEET: E&S DETAILS 9 OF 10

CAD FILE: WM

PROJECT NO: 2011.09