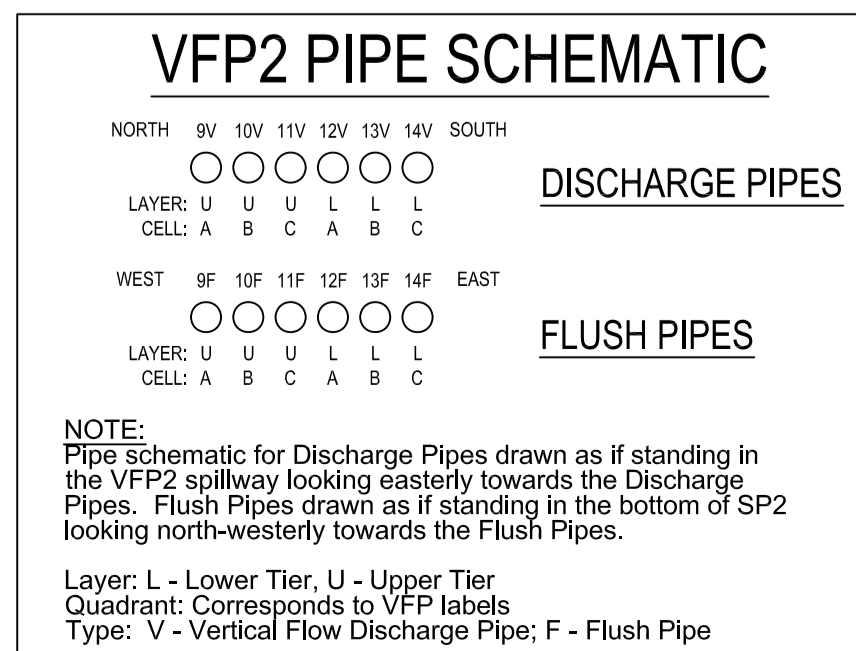
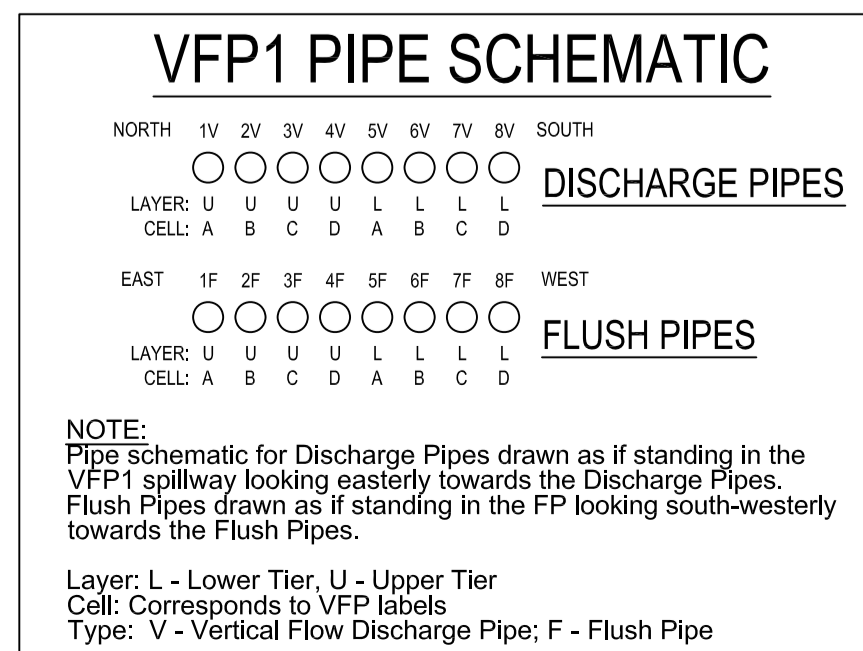


**PASSIVE TREATMENT SYSTEM SUMMARY CHART**

COMPONENT	DESCRIPTION	COMMENTS
COLL. POND	3,700 SF COLLECTION POND	EXISTING POND COLLECTING DISCHARGE 10A
COLL. DITCH	300 FT COLLECTION DITCH	COLLECT DIFFUSE SEEPS ALONG TOE OF SPOIL (DISCHARGE 10B) AND CONVEY TO FOREBAY
FOREBAY	1,900 SF FOREBAY	COLLECTS COMBINED DISCHARGES AND PARTICULATE SETTLING FACILITY
VFP1	900 T VERTICAL FLOW POND	2 TIERED UNDERDRAIN/FLUSH SYSTEM INCL. 4 INVID. OUTLET CELLS PER TIER; 90% CCE LS CELLS
FP	15,000 CF FLUSH POND	NON-DISCHARGING FLUSH POND FOR VFP1 INCL. DRAW-DOWN DEVICE AND EMERGENCY SPILLWAY
SP1	11,300 SF SETTLING POND	PARTICULATE SETTLING FACILITY
VFP2	800 T VERTICAL FLOW POND	2 TIERED UNDERDRAIN/FLUSH SYSTEM INCL. 3 INVID. OUTLET CELLS PER TIER; 90% CCE LS CELLS
SP2	4,300 SF SETTLING POND	PARTICULATE SETTLING FACILITY WITH DIRECTIONAL BAFFLE
HFLB	800 T HORIZONTAL FLOW LIMESTONE BED	MANGANESE REMOVAL AND ALKALINITY GENERATOR



**LEGEND**

- CONTOUR - INDEX
- CONTOUR - INTERMEDIATE
- PASSIVE SYSTEM STRUCTURE
- WATER
- PENNDOT RIGHT-OF-WAY
- PROPERTY LINE (APPX.)
- DIRT/UNIMPROVED ROAD
- DIRECTIONAL BAFFLE (CURTAIN-TYPE)
- STRUCTURE (SOLID IF DWELLING)
- △ RIP RAP SPILLWAY
- △ SURVEY MARKER (WITH ELEVATION)
- 4" SCH 40 PVC PERFORATED LATERAL - LOWER TIER
- 4" SCH 40 PVC PERFORATED LATERAL - UPPER TIER
- 4" SCH 40 PVC SOLID PIPE - LOWER TIER
- 4" SCH 40 PVC SOLID PIPE - UPPER TIER
- 6" SCH 40 PVC SOLID PIPE - LOWER TIER
- 6" SCH 40 PVC SOLID PIPE - UPPER TIER
- 6" SCH 40 PVC PERFORATED PIPE
- 6" SCH 40 PVC SOLID PIPE
- 4" SCH 40 PVC SOLID PIPE
- DIVERSION DITCH
- △ WATER SAMPLE POINT
- AS-BUILT CROSS SECTION

**Notes:**

As-Built EDM survey by Earthtech, Inc., Johnstown, PA with additional information from site inspections provided by BioMost, Inc.  
This as-built is a reasonable representation of actual field conditions.  
Location of anti-seep collars is approximate.  
Base map provided by PA DEP, BMR, as prepared by Gwin Engineers, Altoona, PA. Aerial photography dated 03-14-95. Contract No. CN 94-48.  
Property lines shown are approximate only. Locations based on Butler County Tax Assessment Maps: 2F-36 & 3F-16.  
Location and size of oil well are approximate.  
Water surface areas and elevations subject to change based on passive component permeability and/or spillway outlet conditions, and/or other factors.  
All pipe perforations are 5/8" unless otherwise noted.  
All pipe is Schedule 40, solid core, pressure-rated PVC unless otherwise noted.

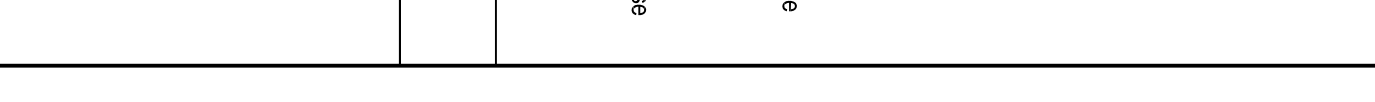
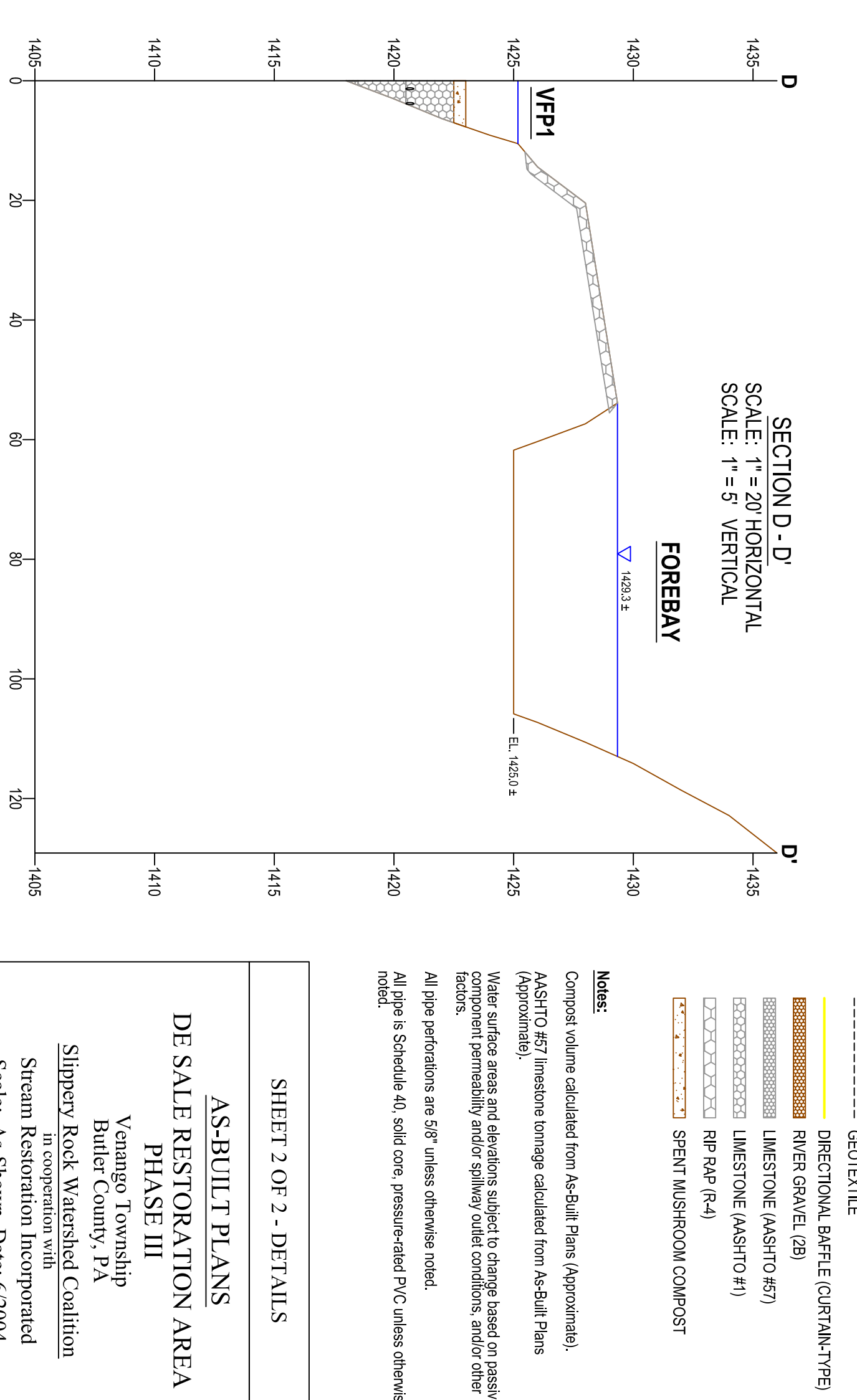
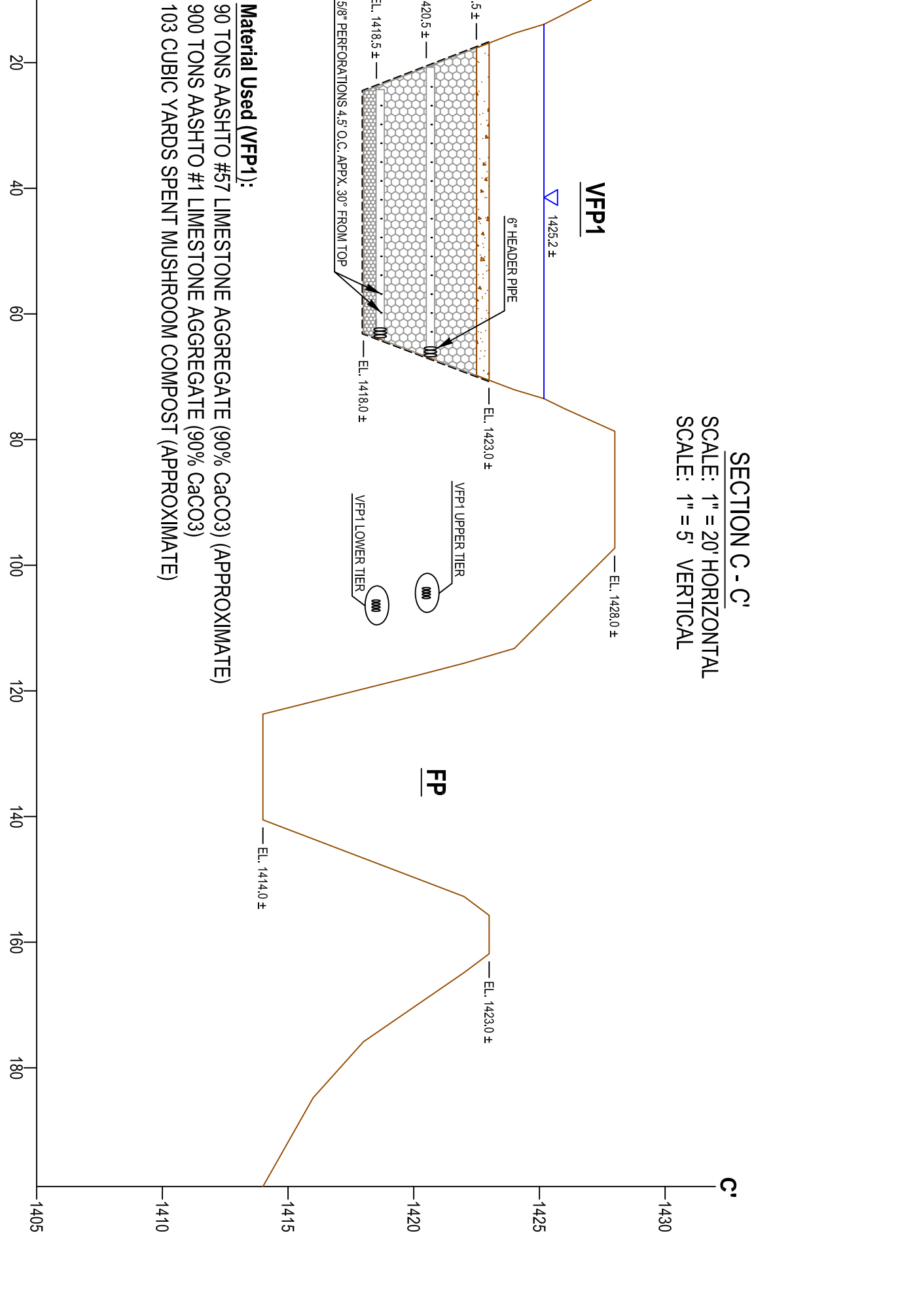
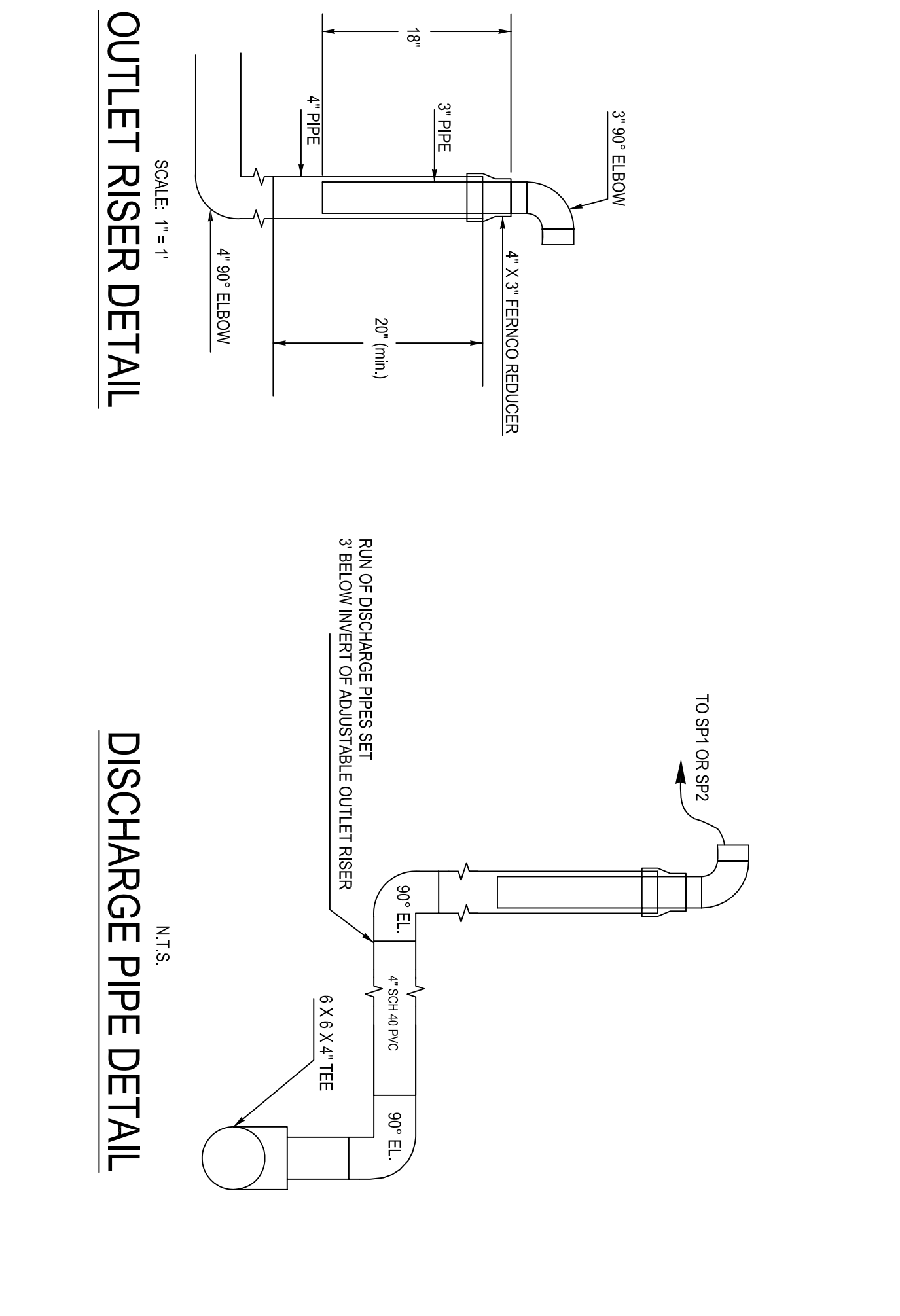
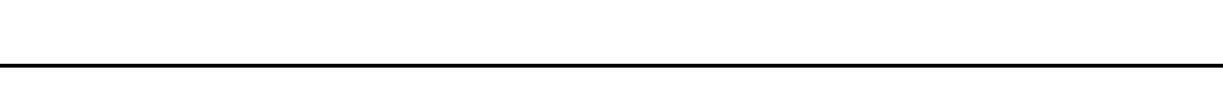
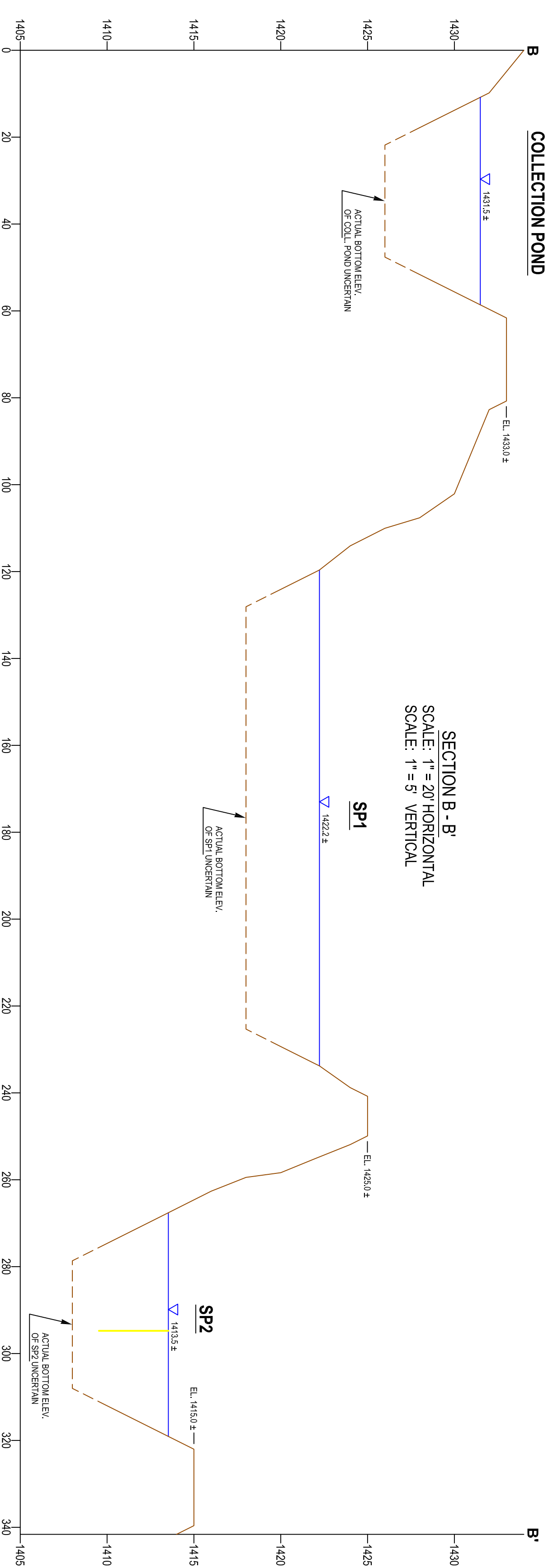
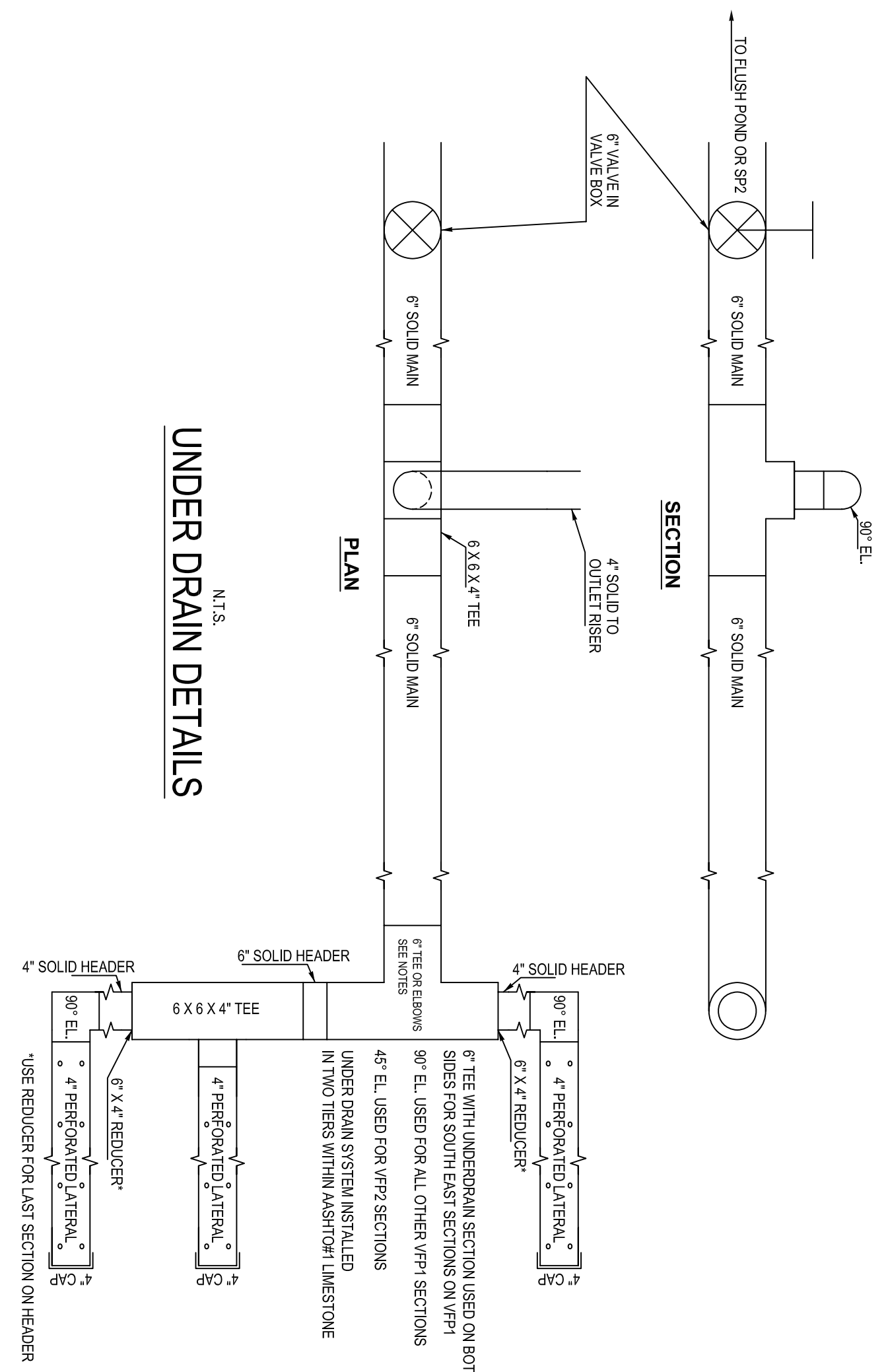
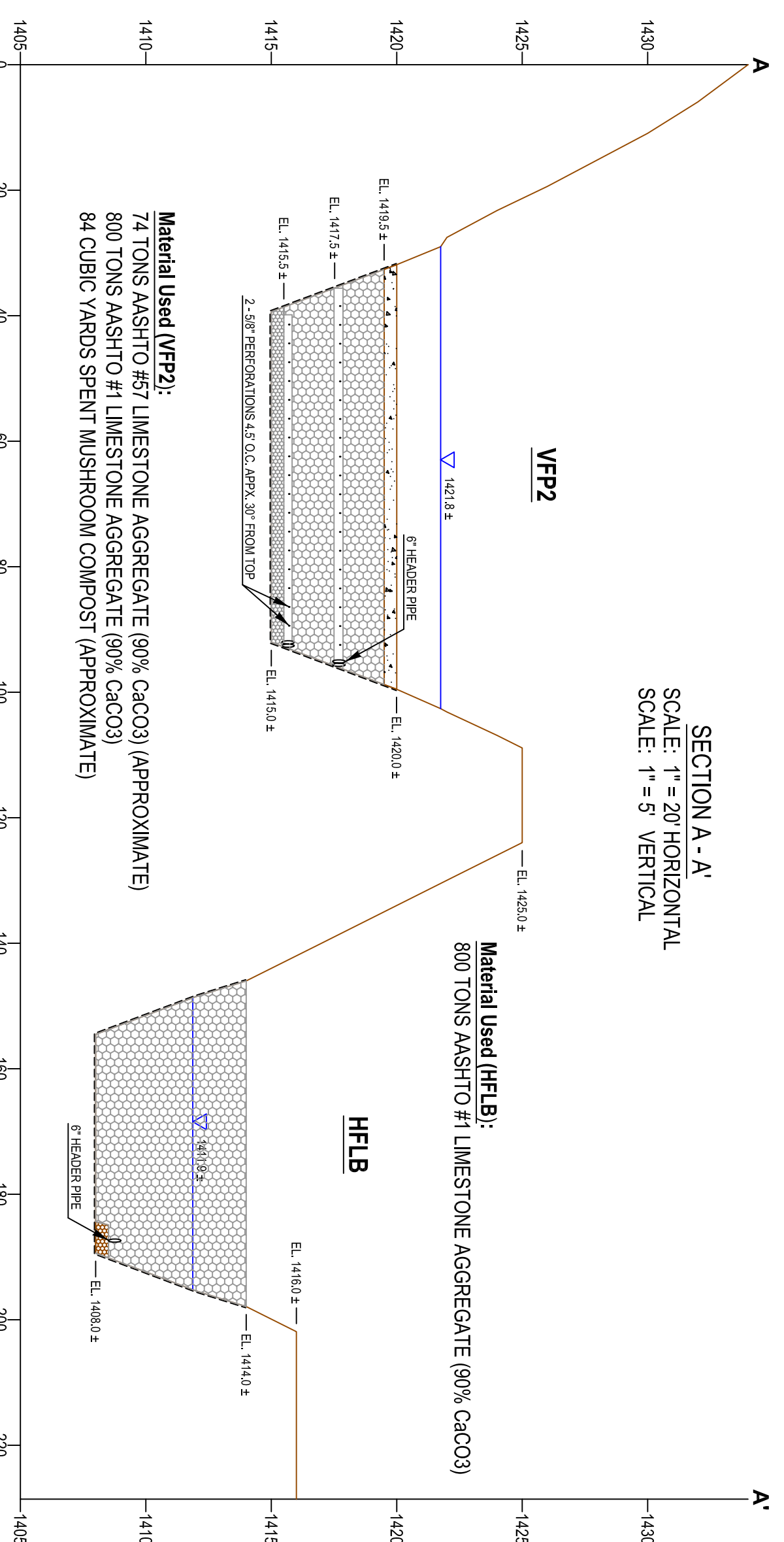
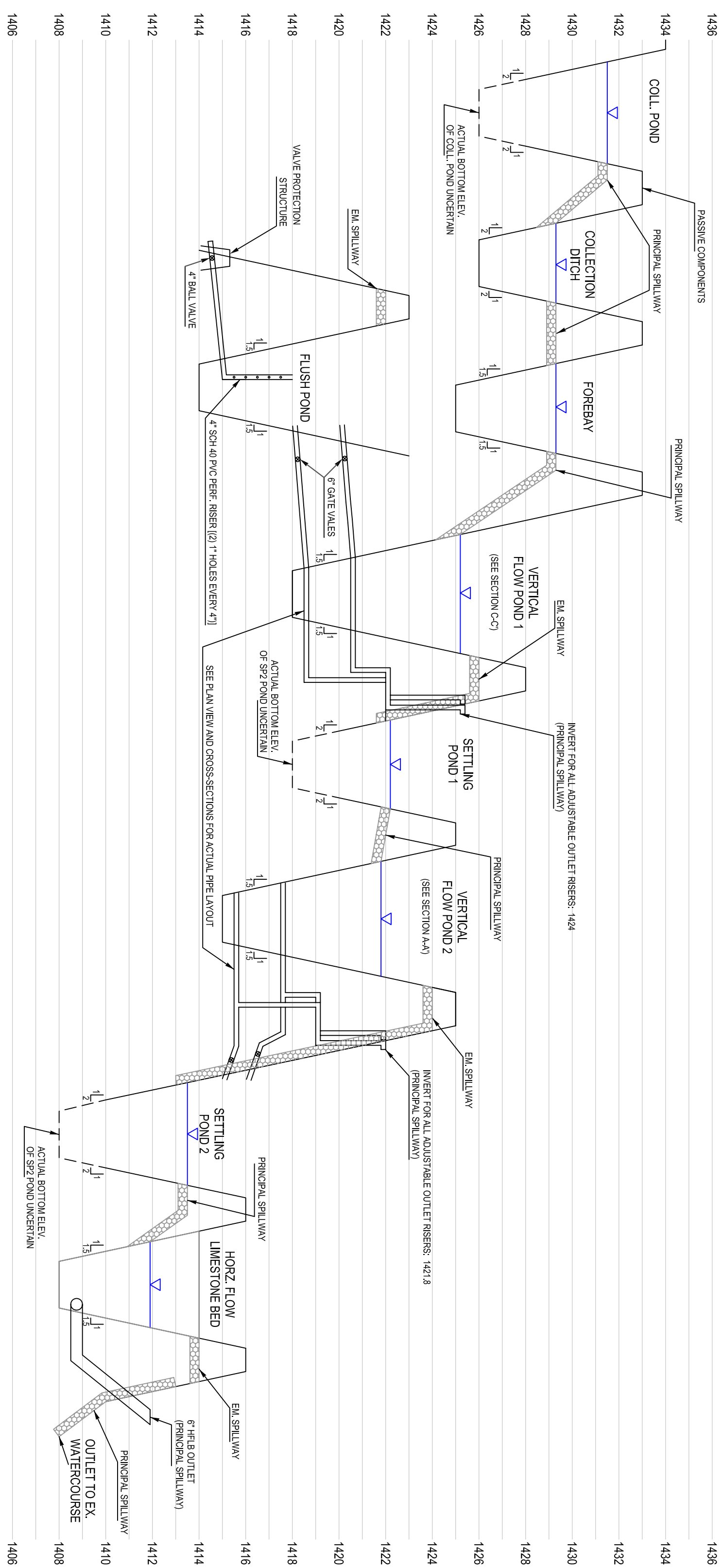


SHEET 1 OF 2 - PLAN VIEW

**AS-BUILT PLANS**  
**DE SALE RESTORATION AREA**  
**PHASE III**  
Venango Township  
Butler County, PA  
Slippery Rock Watershed Coalition  
in cooperation with  
Stream Restoration Incorporated  
Scale: 1" = 30' Date: 6/2004  
BioMost, Inc., Cranberry Twp., PA

# ELEVATION SCHEMATIC

▽ WATER ELEVATION ARE APPROXIMATE AND VARY BASED ON PASSIVE COMPONENT PERMEABILITY AND/OR SRAWLWAY OUTLET CONDITIONS, AND/OR OTHER FACTORS.



### LEGEND

- GROUND SURFACE
- - - - - GEOTEXTILE
- ▬ DIRECTIONAL BAFFLE (CURTAIN-TYPE)
- ▨ RIVER GRAVEL (ZB)
- ▧ LIMESTONE (ASHTO #57)
- ▦ LIMESTONE (ASHTO #1)
- ▤ RIP RAP (R-4)
- ▣ SPENT MUSHROOM COMPOST

**Notes:**  
 Composite volume calculated from As-Built Plans (Approximate).  
 ASHTO #57 limestone tonnage calculated from As-Built Plans (Approximate).  
 Water surface areas and elevations subject to change based on passive component permeability and/or srawlway outlet conditions, and/or other factors.  
 All pipe perforations are 5/8" unless otherwise noted.  
 All pipe is Schedule 40, solid core, pressure-rated PVC unless otherwise noted.

**Material Used (VFP1):**  
 900 TONS ASHTO #1 LIMESTONE AGGREGATE (90% CaCO3) (APPROXIMATE)  
 103 CUBIC YARDS SPENT MUSHROOM COMPOST (APPROXIMATE)

**Material Used (VFP2):**  
 74 TONS ASHTO #57 LIMESTONE AGGREGATE (90% CaCO3) (APPROXIMATE)  
 800 TONS ASHTO #1 LIMESTONE AGGREGATE (90% CaCO3)  
 84 CUBIC YARDS SPENT MUSHROOM COMPOST (APPROXIMATE)

**Material Used (HFLB):**  
 800 TONS ASHTO #1 LIMESTONE AGGREGATE (90% CaCO3)

**AS-BUILT PLANS**  
**DE SALE RESTORATION AREA**  
**PHASE III**  
 Venango Township  
 Butler County, PA  
 Slippery Rock Watershed Coalition  
 In cooperation with  
 Stream Restoration Incorporated  
 Scale: As-Shown, Date: 6/2004  
 Brinkley, Inc., Chambersburg, PA, PA