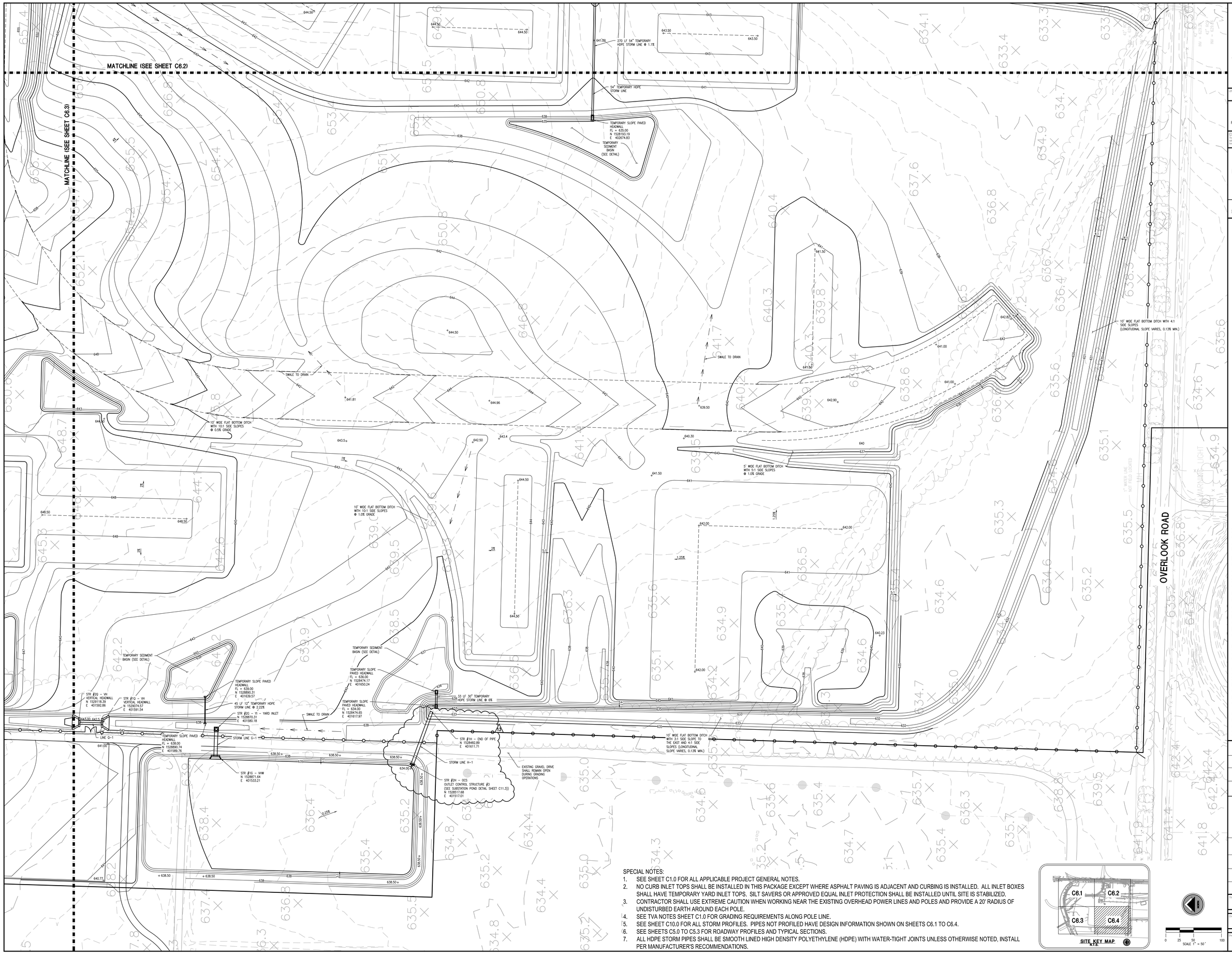

SPECIAL NOTES:

1. SEE SHEET C1.0 FOR ALL APPLICABLE PROJECT GENERAL NOTES.
2. NO CURB INLET TOPS SHALL BE INSTALLED IN THIS PACKAGE EXCEPT WHERE ASPHALT PAVING IS ADJACENT AND CURBING IS INSTALLED. ALL INLET BOXES SHALL HAVE TEMPORARY YARD INLET TOPS. SILT SAVERS OR APPROVED EQUAL INLET PROTECTION SHALL BE INSTALLED UNTIL SITE IS STABILIZED.
3. CONTRACTOR SHALL USE EXTREME CAUTION WHEN WORKING NEAR THE EXISTING OVERHEAD POWER LINES AND POLES AND PROVIDE A 20' RADIUS OF UNDISTURBED EARTH AROUND EACH POLE.
4. SEE TVA NOTES SHEET C1.0 FOR GRADING REQUIREMENTS ALONG POLE LINE.
5. SEE SHEET C10.0 FOR ALL STORM PROFILES. PIPES NOT PROFILED HAVE DESIGN INFORMATION SHOWN ON SHEETS C6.1 TO C6.4.
6. SEE SHEETS C5.0 TO C5.3 FOR ROADWAY PROFILES AND TYPICAL SECTIONS.
7. ALL HDPE STORM PIPES SHALL BE SMOOTH LINED HIGH DENSITY POLYETHYLENE (HDPE) WITH WATER-TIGHT JOINTS UNLESS OTHERWISE NOTED, INSTALL PER MANUFACTURER'S RECOMMENDATIONS.

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ALABAMA REGISTERED PROFESSIONAL No. 26754
7/12/2011

HUNTSVILLE The Heart of Alabama

MASS GRADING AND STORM DRAINAGE PLAN

REDSTONE GATEWAY - PACKAGE 1A

CITY OF HUNTSVILLE
HUNTSVILLE, ALABAMA

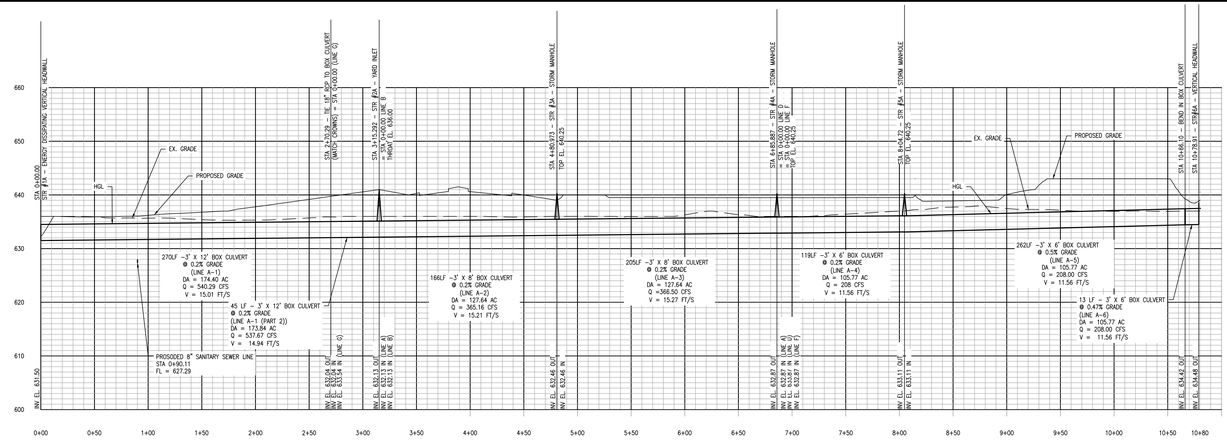
REV	DATE	DRAWN	CHECKED	DESCRIPTION
13	7/12/11	TRE	TAB	RESERVATION POND OUTLET
11	6/15/11	TRE	TAB	GRADING REVISION
10	6/7/2011	TRE	TAB	GRADING REVISION
3	5/4/2011	TRE	TAB	ADDED STORM LINE G-1

INIT.	DATE	CITY REVIEW	PE	DRAWING

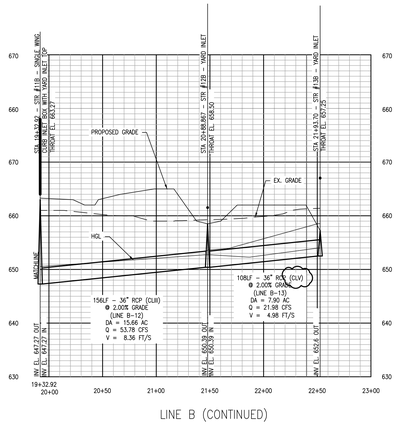
Date 12/16/2010

Designed By RAN | Drawn By BSJ

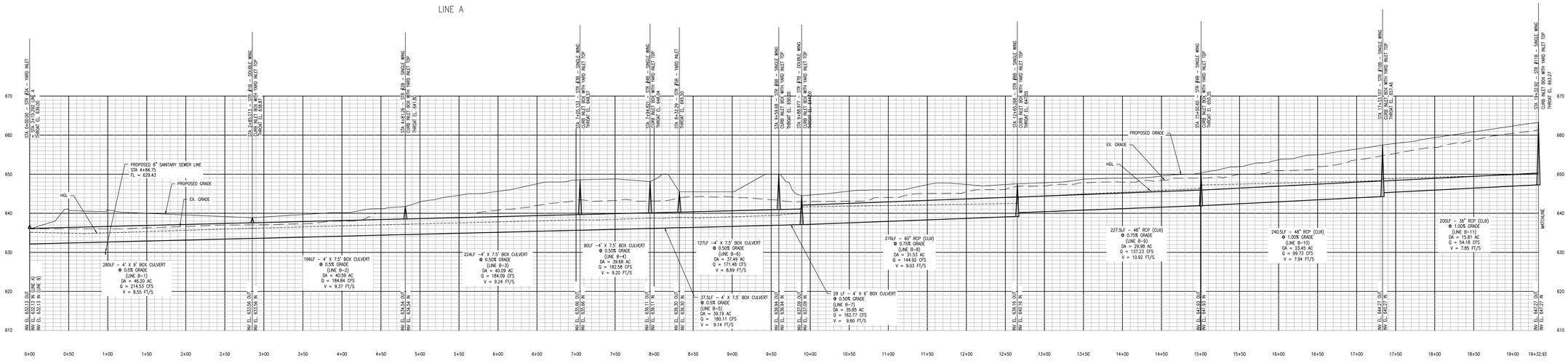
Sheet Number C6.4 | Sequence 22 of 44



LINE A



LINE B (CONTINUED)



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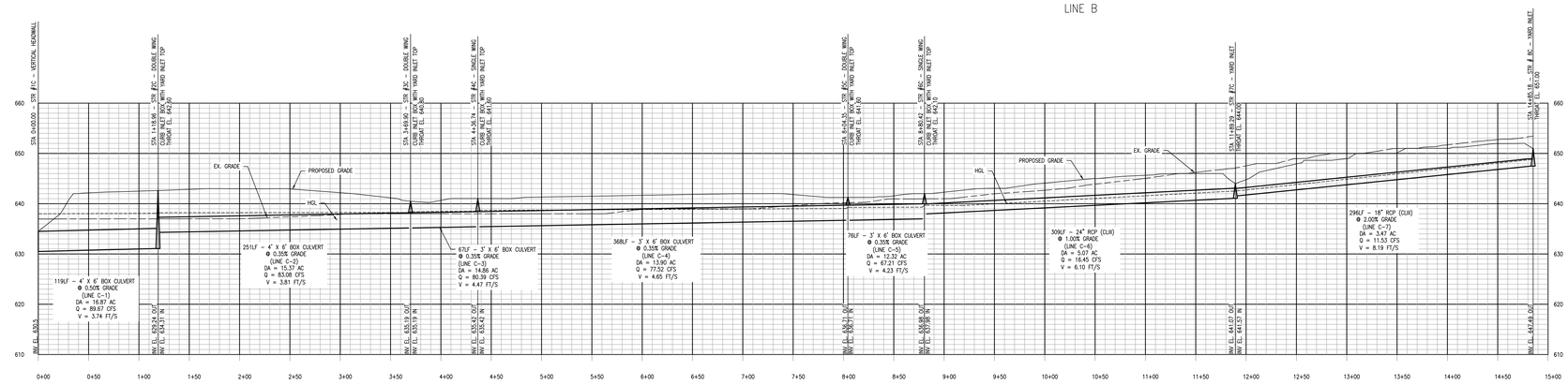

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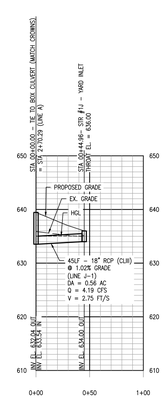

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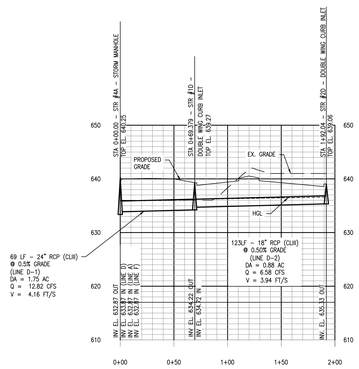
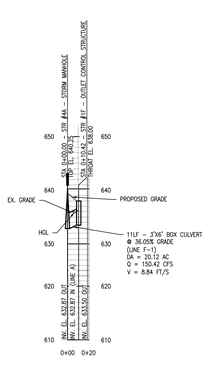


LINE D



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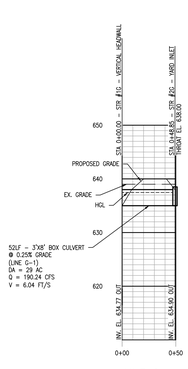
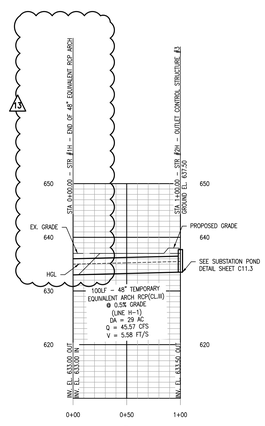


LINE G



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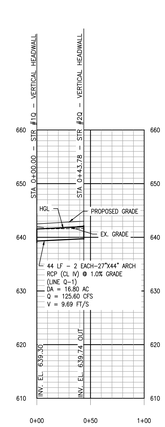
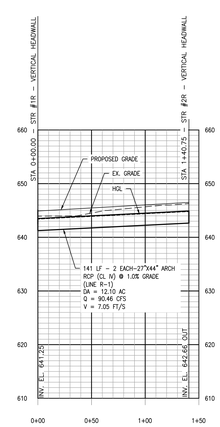


STORM LINE Q



STORM LINE R

SPECIAL NOTES:

1. PIPES SIZED FOR THE -25YR STORM EVENT.
2. SEE SHEETS C6.1 TO C6.4 FOR STORM PIPE LAYOUT INFORMATION AND GRADING.
3. INSTALL STORM LINE Q AND R WITH 18" SPACING BETWEEN PIPES.

SCALE:
1"=50' HORIZONTAL
1"=10' VERTICAL
HGL
EXISTING GRADE
PROPOSED GRADE
STORM SEWER

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ALABAMA REGISTERED No. 26754 PROFESSIONAL ENGINEER
7/12/2011

HUNTSVILLE The Heart of Alabama

STORM PROFILES

REDSTONE GATEWAY - PACKAGE 1A

CITY OF HUNTSVILLE
HUNTSVILLE, ALABAMA

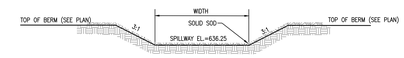
REV	DATE	DRAWN	CHECKED	DESCRIPTION
13	7/15/11	TBE	TAB	SEDIMENTATION POND OUTLET
12	6/17/2011	TBE	TAB	STORM LINES A & J
4	4/28/11	TBE	TAB	STORM LINE A REVISION
3	12/4/2001	TBE	TAB	STORM PROFILE REVISIONS

INIT.	DATE	CITY REVIEW	PE	DRAWING

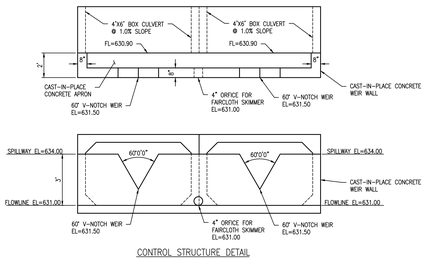
Date 12/16/2010

Checked By RAN | Drawn By BSJ

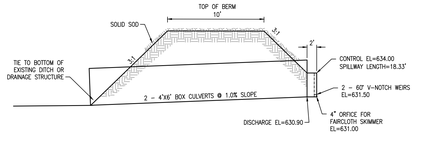
Sheet Number C10.0 | Sequence 35 of 44



EMERGENCY SPILLWAY DETAIL

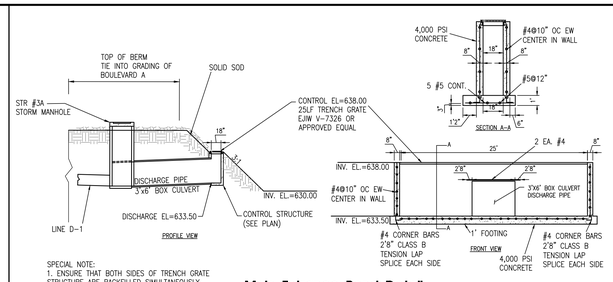


CONTROL STRUCTURE DETAIL



Large Pond Detail

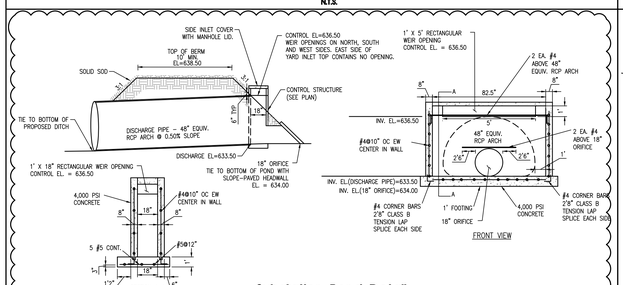
N.T.S.



SPECIAL NOTE:
1. ENSURE THAT BOTH SIDES OF TRENCH GRATE STRUCTURE ARE BACKFILLED SIMULTANEOUSLY.

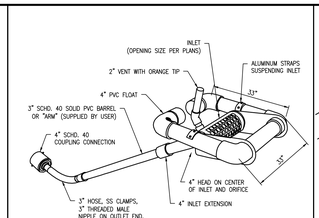
Main Entrance Pond Detail

N.T.S.



Substation Pond Detail

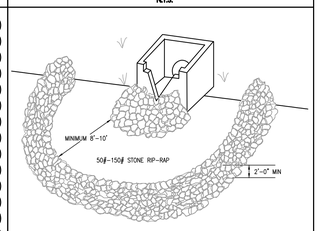
N.T.S.



NOTE:
1. SKIMMER SHOWN IN FLOATING POSITION.
2. INSTALL SKIMMER PER MANUFACTURER'S RECOMMENDATIONS.

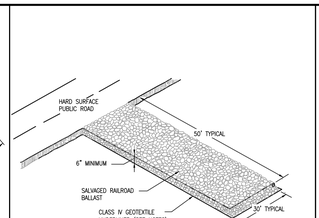
Faircloth Skimmer

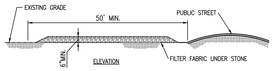
N.T.S.



Fr Stone Filter Ring

N.T.S.

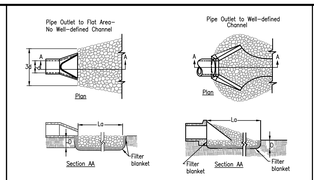




SPECIAL NOTES :
1. A STABILIZED PAD OF CRUSHED STONE SPREAD OVER FILTER FABRIC SHALL BE LOCATED WHERE TRAFFIC WILL BE ENTERING OR LEAVING A CONSTRUCTION SITE TO OR FROM A PUBLIC STREET. THE STONE SHALL BE SALVAGED BALLAST FROM RAILROAD DEMOLITION, FILTER FABRIC SHALL BE NONWOVEN GEOTEXTILE CLASS IV OR EQUAL.
2. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC STREETS OR EXISTING PAVEMENT. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT.
3. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC STREETS MUST BE REMOVED IMMEDIATELY BY STREET CLEANING (NOT FLUSHING). WHEN NECESSARY, WHEELS MUST BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTERING A PUBLIC STREET. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE WHICH DRAINS INTO AN APPROVED SEDIMENT BASIN.
4. IF THE PAD SLOPE TOWARDS THE ROAD EXCEEDS 2%, A DIVERSION RIDGE 6" - 8" HIGH WITH 3:1 SIDE SLOPES MUST BE CONSTRUCTED ACROSS THE FOUNDATION APPROXIMATELY 15' AWAY FROM THE ROAD AND DRAIN INTO A SEDIMENT TRAP OR BASIN.

CEP Construction Exit Pad

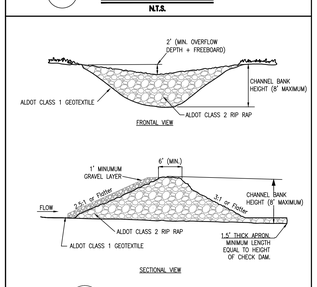
N.T.S.



SPECIAL NOTES:
1. RIP RAP DISCHARGE APRON SHALL BE INSTALLED AT A ZERO SLOPE.
2. A FILTER BLANKET OR FILTER FABRIC SHOULD BE INSTALLED BETWEEN THE RIPRAP AND SOIL FOUNDATION.
3. DEPTH OF APRON SHALL BE NO LESS THAN 6".
4. FOR DETERMINING APRON LENGTH, WIDTH, AND MEDIAN STONE SIZE, REFER TO FIGURES OP-2 AND OP-3 FROM THE LATEST ALABAMA EROSION CONTROL HANDBOOK.
5. THE GRADATION OF RIPRAP SHALL BE PER TABLES OP-2 AND OP-3 FROM THE LATEST ALABAMA EROSION CONTROL HANDBOOK.

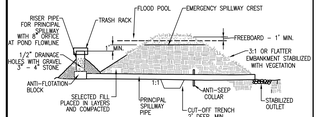
OP Outlet Protection

N.T.S.



Rd Rock Filter Dam

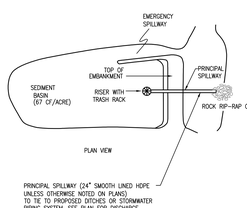
N.T.S.



CROSS SECTION

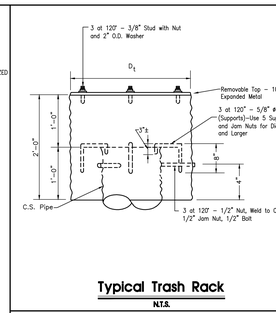
FILL HEIGHT	MINIMUM TOP WIDTH
LESS THAN 10 FT	8.0 FT
10 FEET TO 15 FT	10.0 FT

NOTES:
1. THE EMERGENCY SPILLWAY MUST BE CONSTRUCTED WITHIN A TOLERANCE OF 0.2 FEET.



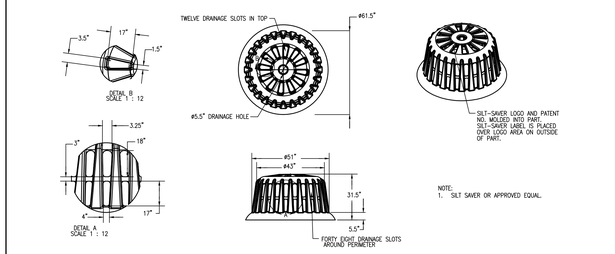
Sd3 Temporary Sediment Pond

N.T.S.



Typical Trash Rack

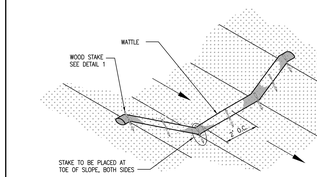
N.T.S.



NOTE:
1. SILT SAVER OR APPROVED EQUAL.

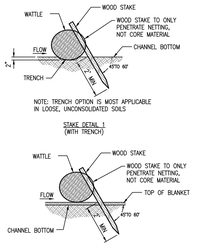
Silt Saver Round Frame P/N SS-100

N.T.S.



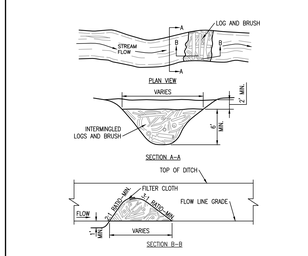
Wattle Spacing

REFER TO ALDOT SPECIAL DRAWING NO. ESC-300 FOR RECOMMENDED PLACEMENT INTERVAL BETWEEN WATTLES



CdW Wattle Check Dam

N.T.S.

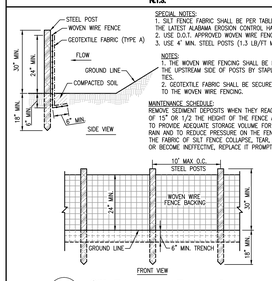


Lb Log and Brush Ditch Check Detail

N.T.S.

Sd3 Temporary Sediment Pond

N.T.S.



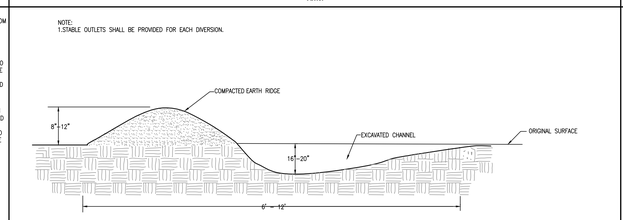
SPECIAL NOTES:
1. SILT FENCE FABRIC SHALL BE PER TABLE SB-1 FROM THE LATEST ALABAMA EROSION CONTROL HANDBOOK.
2. USE D.O.T. APPROVED WOVEN WIRE FENCE.
3. USE 4' MIN. STEEL POSTS (1.3 LB/FT MIN.).

NOTES:
1. THE WOVEN WIRE FENCING SHALL BE FASTENED TO THE UPSTREAM SIDE OF POSTS BY STAPLES OR WIRE TIES.
2. GEOTEXTILE FABRIC SHALL BE SECURELY FASTENED TO THE WOVEN WIRE FENCING.

MAINTENANCE SCHEDULE:
REMOVE SEDIMENT DEPOSITS WHEN THEY REACH A DEPTH OF 15" OR 1/2 THE HEIGHT OF THE FENCE AS INSTALLED TO PROVIDE ADEQUATE STORAGE VOLUME FOR THE NEXT RAIN AND TO REDUCE PRESSURE ON THE FENCE. SHOULD THE FABRIC OF SILT FENCE COLLAPSE, TEAR, DECOMPOSE OR BECOME INEFFECTIVE, REPLACE IT PROMPTLY.

SB Silt Fence - Type A

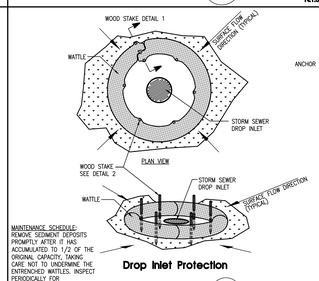
N.T.S.



NOTE:
1.STABLE OUTLETS SHALL BE PROVIDED FOR EACH DIVERSION.

Di Temporary Diversion Berm

N.T.S.

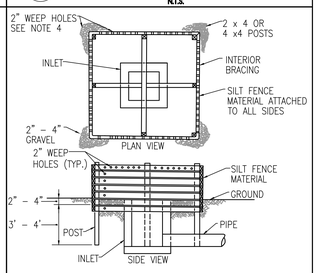


MAINTENANCE SCHEDULE:
REMOVE SEDIMENT DEPOSITS PROMPTLY AFTER IT HAS ACCUMULATED TO 1/2 OF THE ORIGINAL CAPACITY, TAKING CARE NOT TO UNDERMINE THE ENTRENCHED WATTLES. INSPECT PERIODICALLY FOR DETERIORATION OR DAMAGE FROM CONSTRUCTION ACTIVITIES. REPAIR DAMAGED BARRIER IMMEDIATELY.

NOTE:
WATTLES MAY BE A STRAW WATTLE, A MULCH WATTLE, OR APPROVED EQUAL. STONE WATTLES SHALL BE USED FOR CURB INLETS ADJACENT TO PAVING.

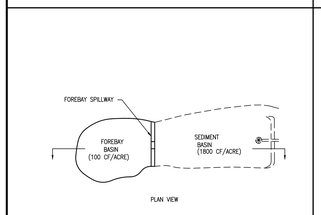
WIP Wattle Inlet Protection

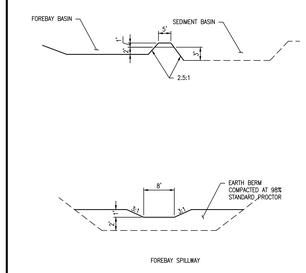
N.T.S.



Sd2 - B Inlet Protection

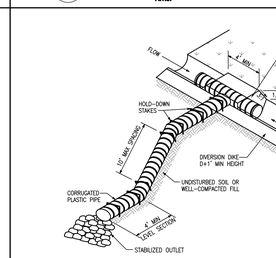
N.T.S.





Fb Forebay and Forebay Spillway FbS

N.T.S.

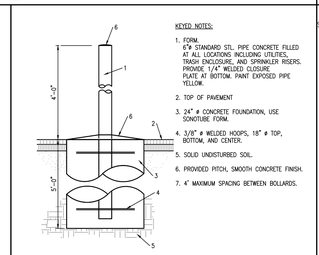


PIPE DIAMETER FOR TEMPORARY DOWN DRAIN	
MAXIMUM DRAINAGE AREA PER PIPE (ACRES)	PIPE DIAMETER (D) (INCHES)
0.5	12
1.5	18
2.5	21
3.5	24
5.0	30

SPECIAL NOTES :
1. MAXIMUM ALLOWABLE DRAINAGE AREA IS 5 ACRES.
2. EARTHEN DIVERSION DIKE SHOULD BE CONSTRUCTED IN ACCORDANCE WITH DIVERSION STANDARD. (SEE DETAIL)
3. HEIGHT OF DIVERSION DIKE SHOULD BE THE DIAMETER OF THE DISCHARGE PIPE + 1 FOOT (COMPACTED).
4. THE OUTLET OF THE DOWNDRAIN SHOULD BE PROTECTED FROM EROSION AS DETAILED IN THE OUTLET PROTECTION STANDARD. (SEE DETAIL)

TSD Temporary Slope Drain and Inlet Detail

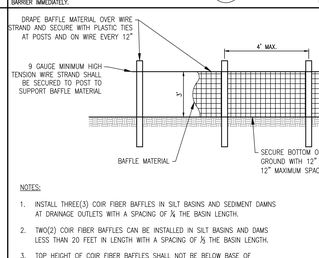
N.T.S.



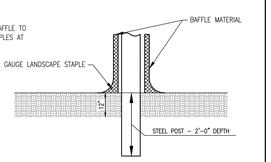
KEYED NOTES:
1. FORM, 6"ø STANDARD STL. PIPE CONCRETE FILLED AT ALL LOCATIONS INCLUDING UTILITIES, TRASH ENCLOSURE, AND SPRINKLER RISERS. PROVIDE 1/4" WELDED CLOSURE PLATE AT BOTTOM. PAINT EXPOSED PIPE YELLOW.
2. TOP OF PAVEMENT
3. 24" ø CONCRETE FOUNDATION, USE SONOTUBE FORM.
4. 3/8" ø WELDED HOOPS, 18" ø TOP, BOTTOM, AND CENTER.
5. SOLID UNDISTURBED SOIL.
6. PROVIDED PITCH, SMOOTH CONCRETE FINISH.
7. 4' MAXIMUM SPACING BETWEEN BOLLARDS.

Typical Pipe Bollard Guard

N.T.S.



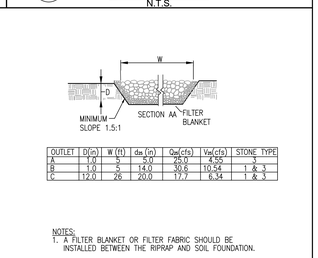
NOTES:
1. INSTALL THREE(3) COIR FIBER BAFFLES IN SILT BASINS AND SEDIMENT DAMNS AT DRAINAGE OUTLETS WITH A SPACING OF ¼ THE BASIN LENGTH.
2. TWO(2) COIR FIBER BAFFLES CAN BE INSTALLED IN SILT BASINS AND DAMS LESS THAN 20 FEET IN LENGTH WITH A SPACING OF ⅓ THE BASIN LENGTH.
3. TOP HEIGHT OF COIR FIBER BAFFLES SHALL NOT BE BELOW BASE OF EMERGENCY SPILLWAY ELEVATION.



BAFFLE MATERIAL SHALL BE SECURED TO THE BOTTOM AND SIDES OF BASIN USING 12" LANDSCAPE STAPLES.

Coir Fiber Baffle

N.T.S.

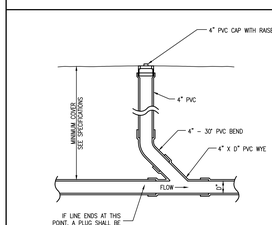


OUTLET	D(in)	W (ft)	da (in)	Qw(cfs)	Va(cfs)	STONE TYPE
A	1.0	5	5.0	25.0	4.55	3
B	1.0	5	14.0	30.6	10.54	1 & 3
C	12.0	26	20.0	17.7	6.34	1 & 3

NOTES:
1. A FILTER BLANKET OR FILTER FABRIC SHOULD BE INSTALLED BETWEEN THE RIPRAP AND SOIL FOUNDATION.

Rs Rock Riprap Channel Lining

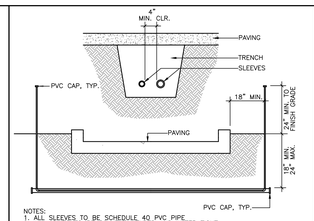
N.T.S.



NOTE: SEE UTILITY SHEET FOR PIPE MATERIAL SPECIFICATIONS

Standard Cleanout Detail

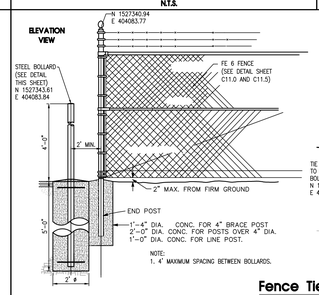
N.T.S.



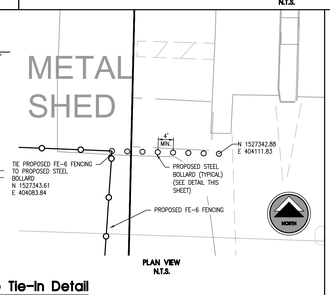
NOTES:
1. ALL SLEEVES TO BE SCHEDULE 40 PVC PIPE.
2. ALL JOINTS TO BE SOLVENT WELDED AND WATER TIGHT.
3. WHERE THERE IS MORE THAN ONE SLEEVE, EXTEND THE SMALLER SLEEVE TO 24-INCHES MIN. ABOVE FINISH GRADE.
4. MECHANICALLY TAMP TO 95% COMPACTION

Irrigation Sleeving Detail

N.T.S.



NOTE:
1. 4' MAXIMUM SPACING BETWEEN BOLLARDS.



Fence Tie-In Detail

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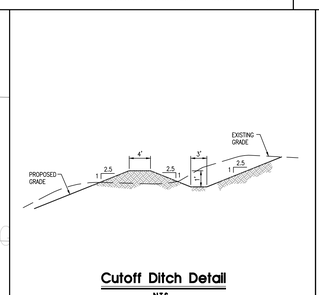

Cutoff Ditch Detail

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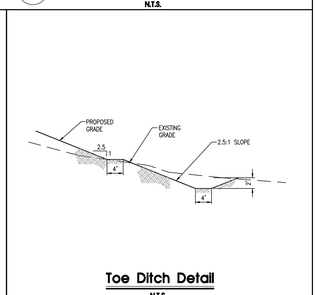

Toe Ditch Detail

N.T.S.

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ALABAMA REGISTERED No. 26754 PROFESSIONAL ENGINEER
7/12/2011
HUNTSVILLE The Heart of Alabama

CIVIL DETAILS
REDSTONE GATEWAY - PACKAGE 1A
CITY OF HUNTSVILLE
HUNTSVILLE, ALABAMA

REV	DATE	DRAWN	CHECKED	DESCRIPTION
13	7/13/11	TBB	TAB	SEDIMENTATION POND OUTLET
12	12/4/2011	TBB	TAB	POND DETAIL REVISIONS

TRAFFIC	ALDOT COV. REVIEW	PE	APPROVED

Date 12/16/2010
Checked By RAN
Drawn By BSJ
Sheet Number C11.3
Revision 39
Page 44