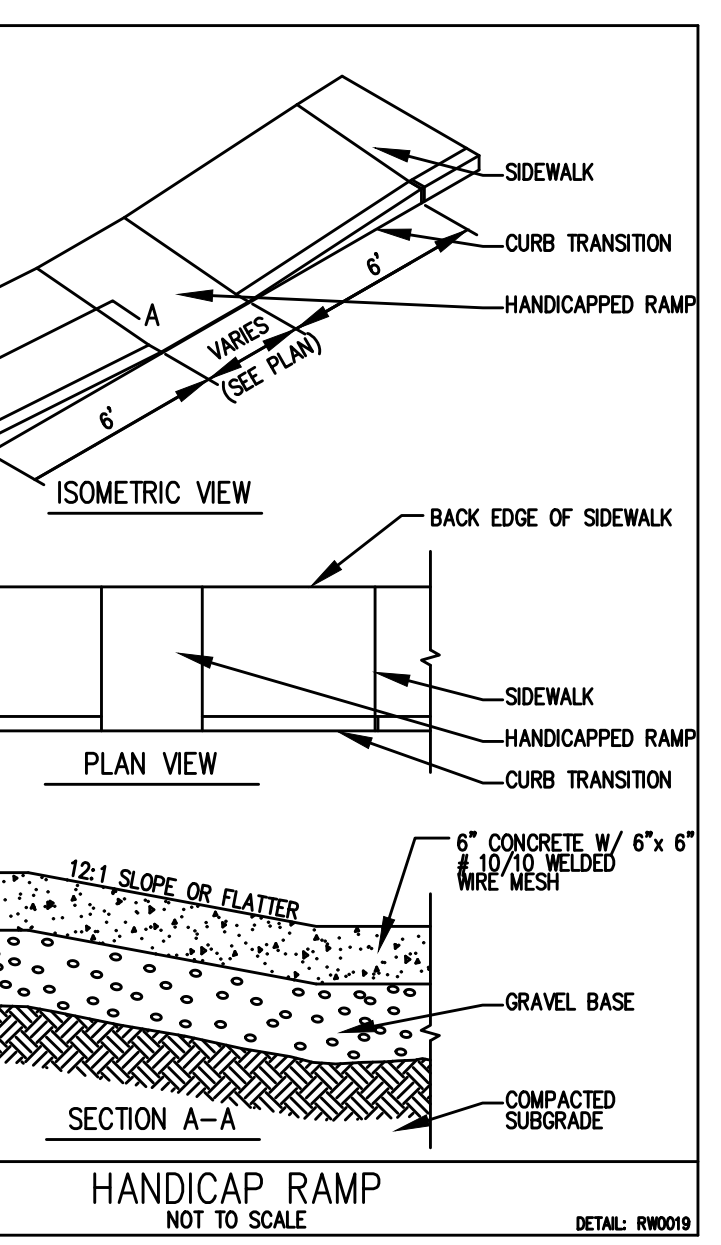
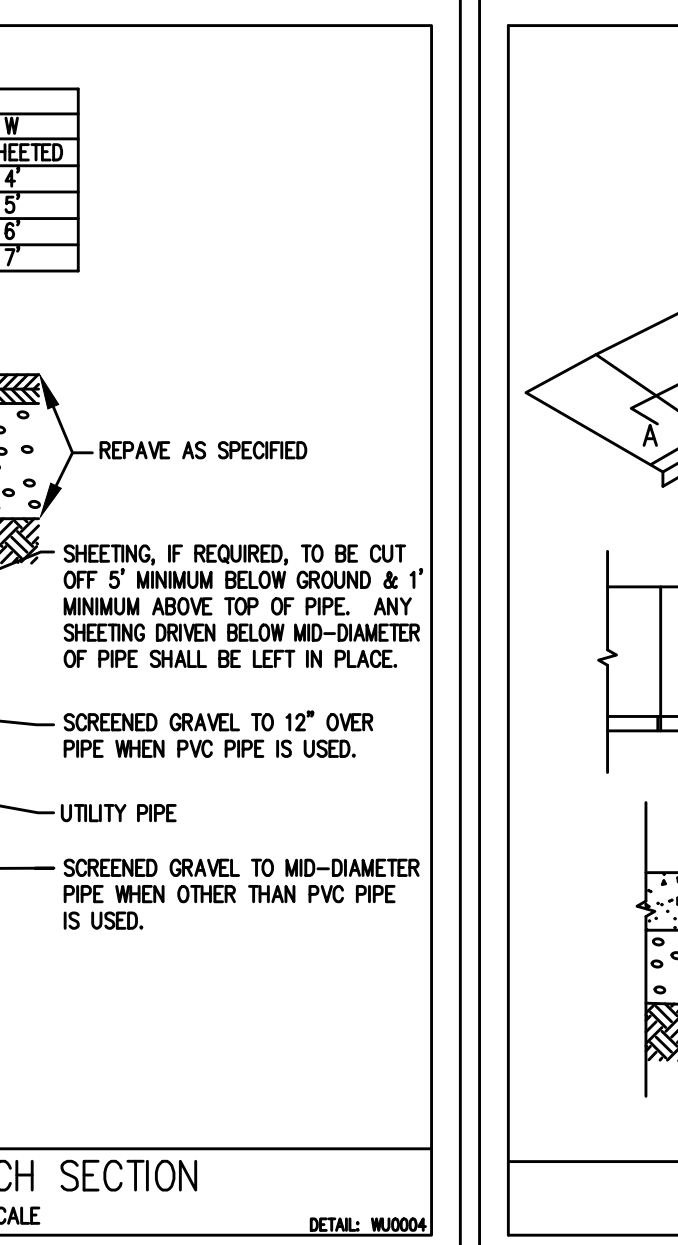
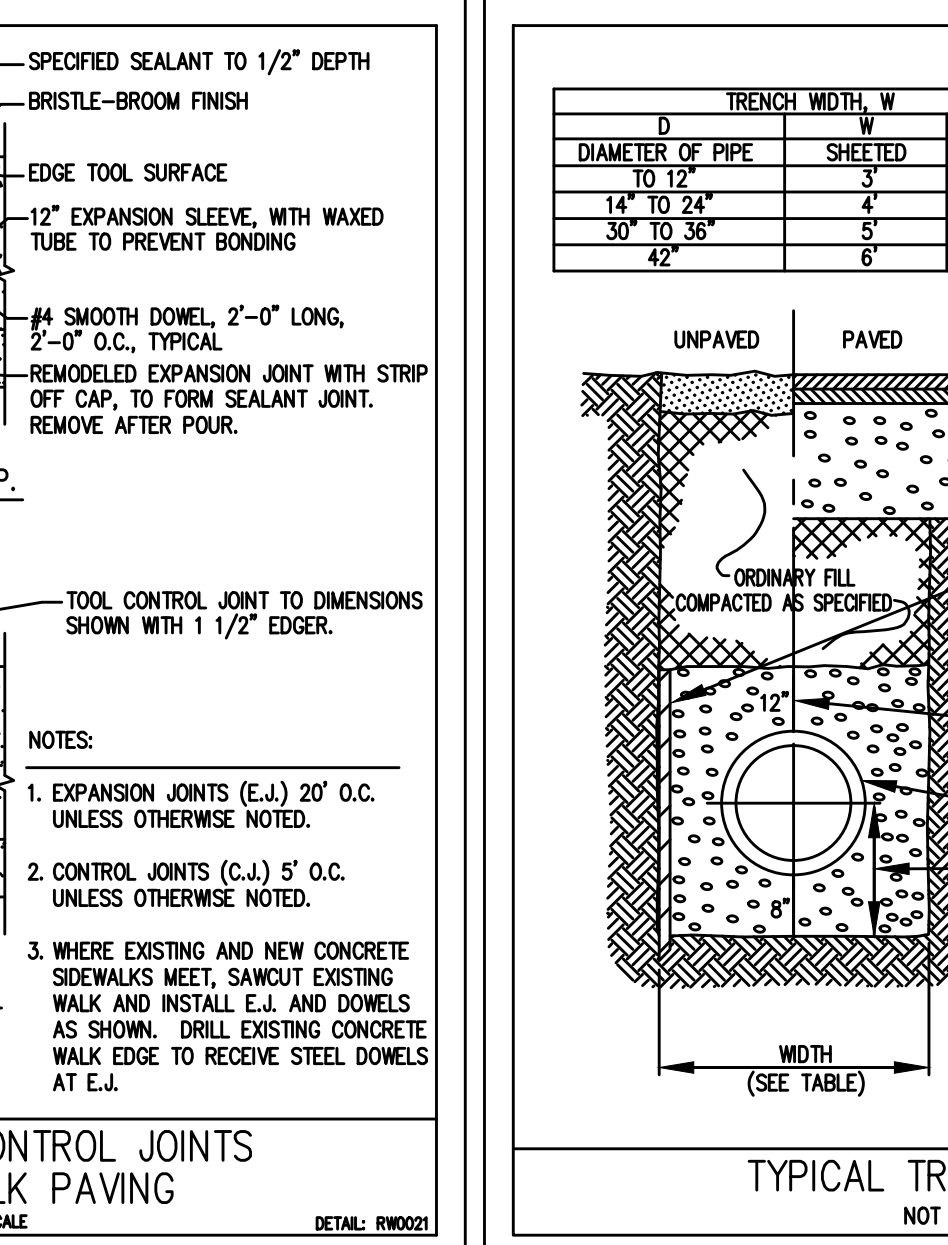
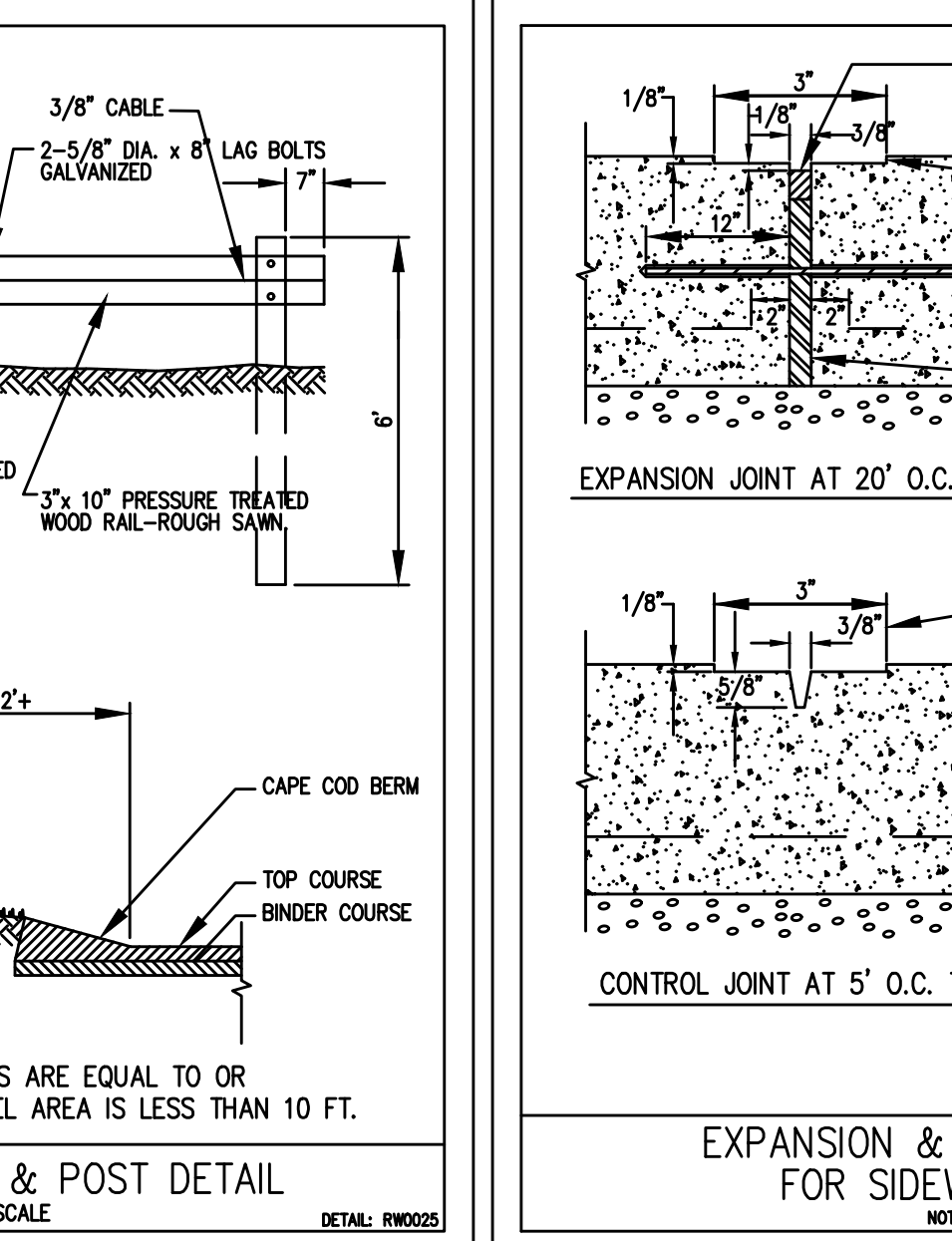
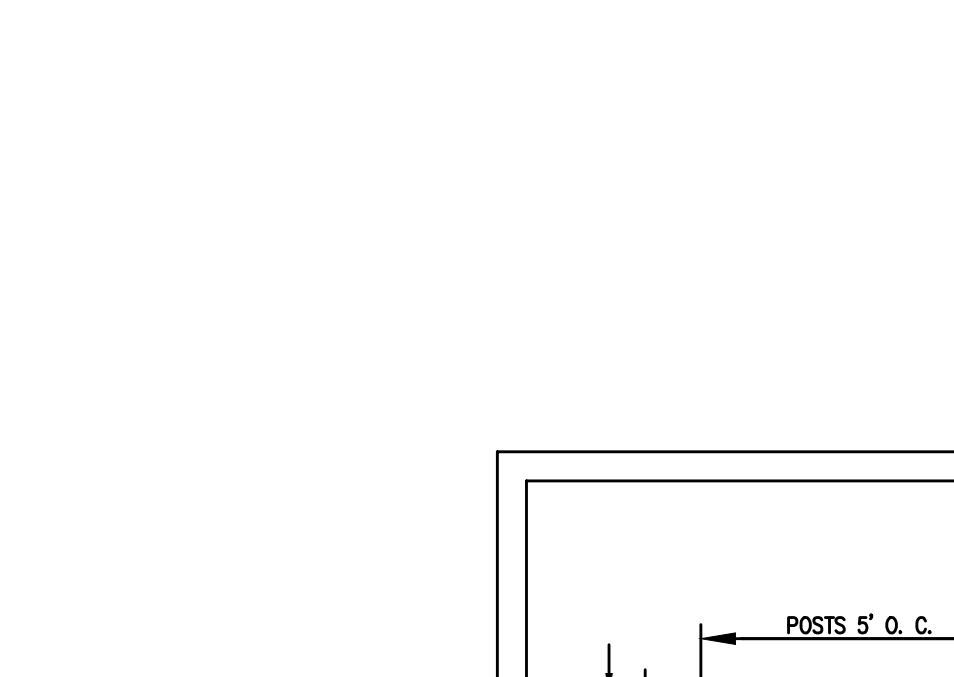
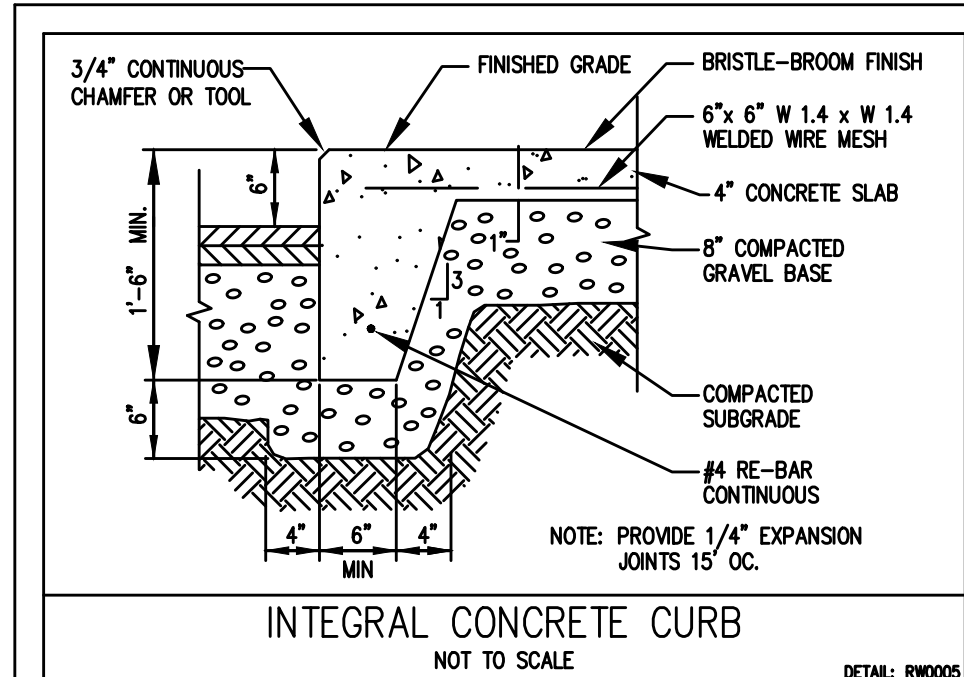
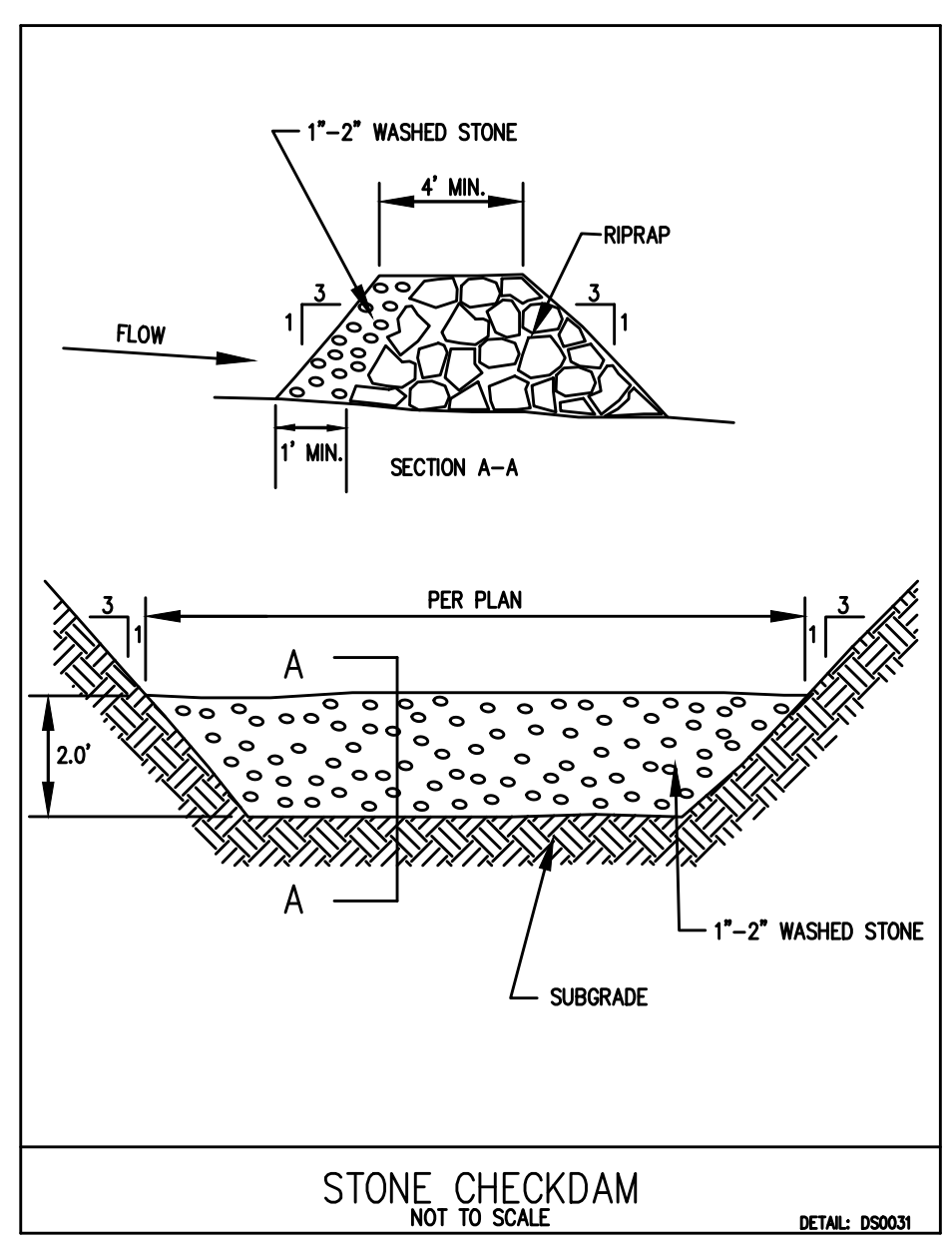
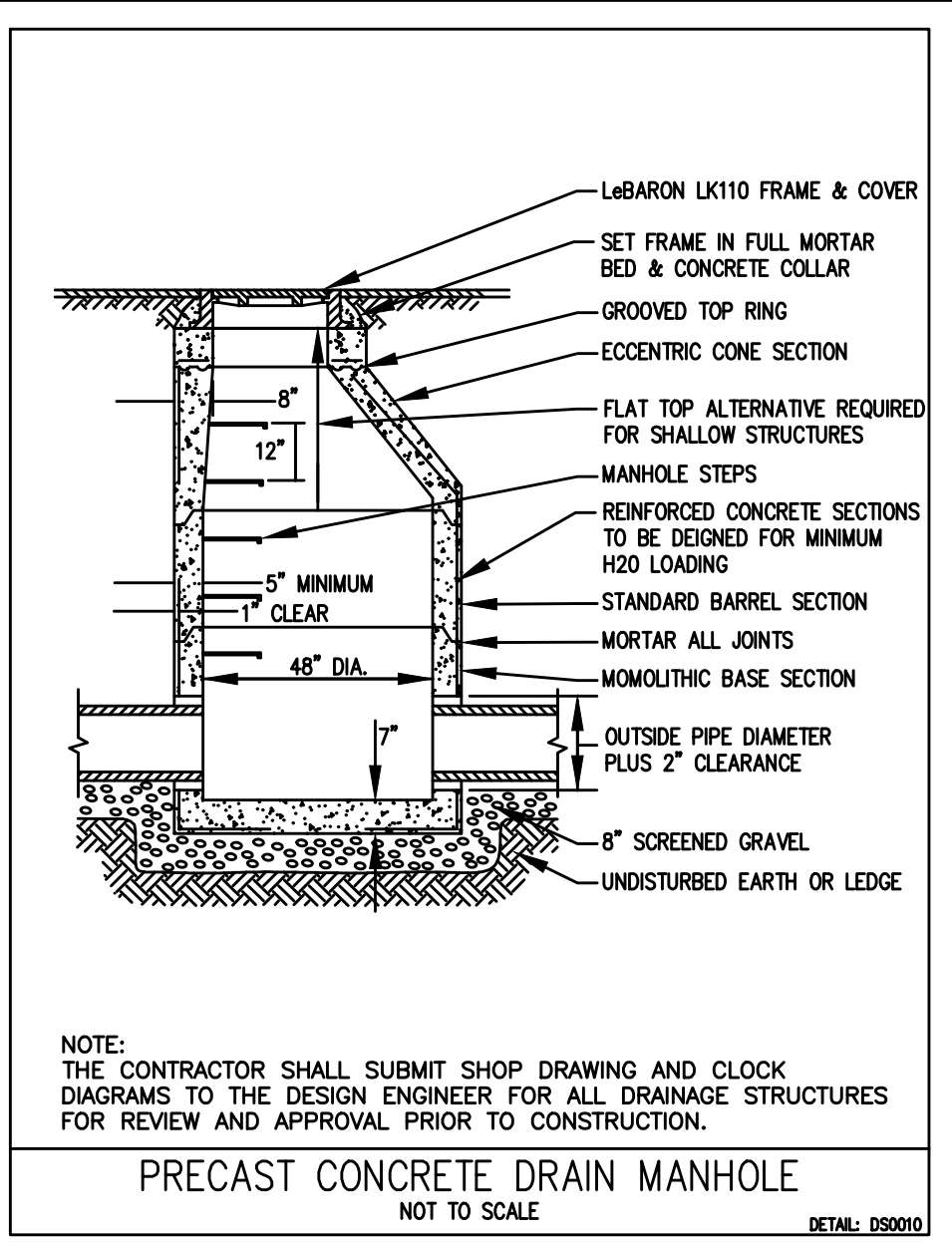
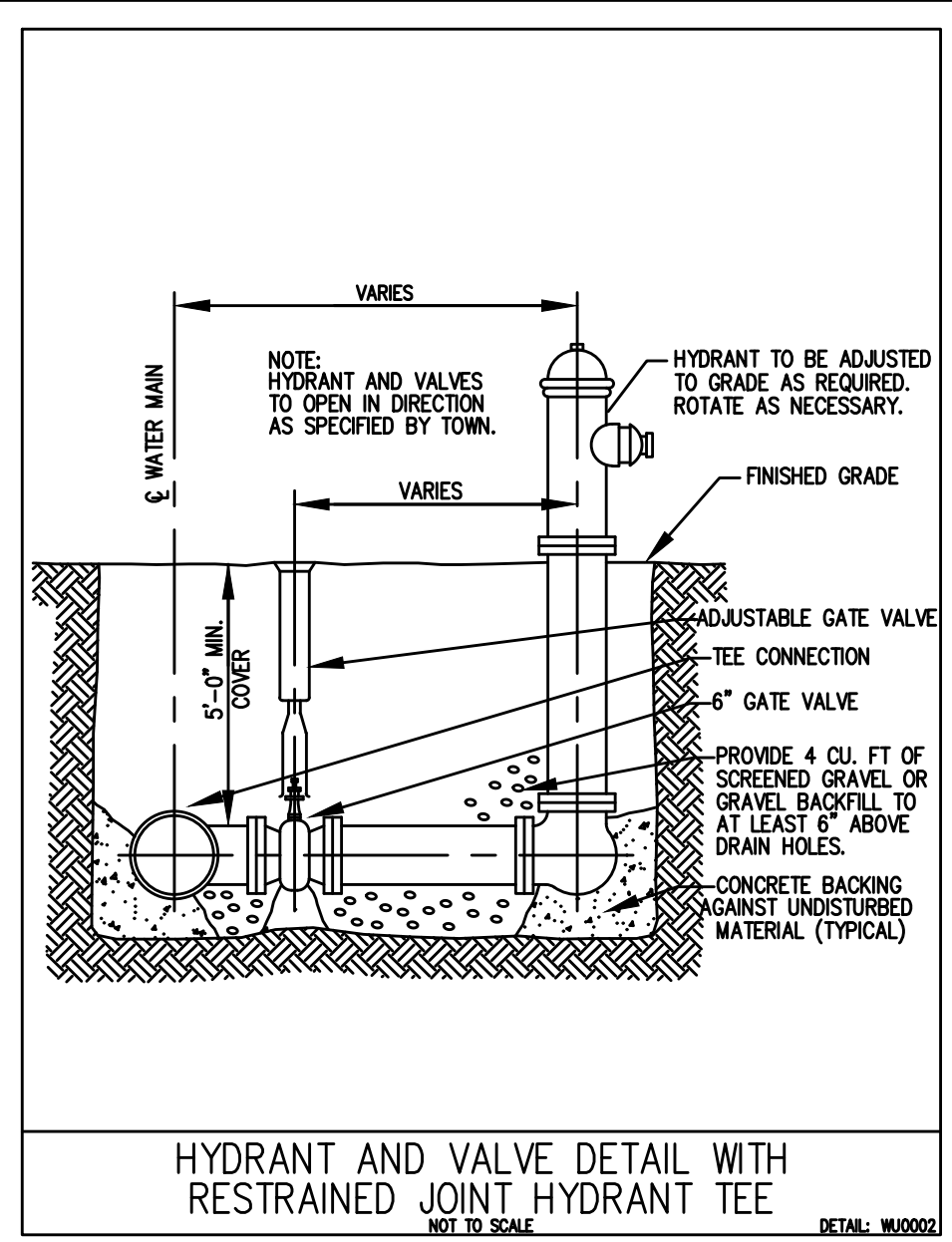
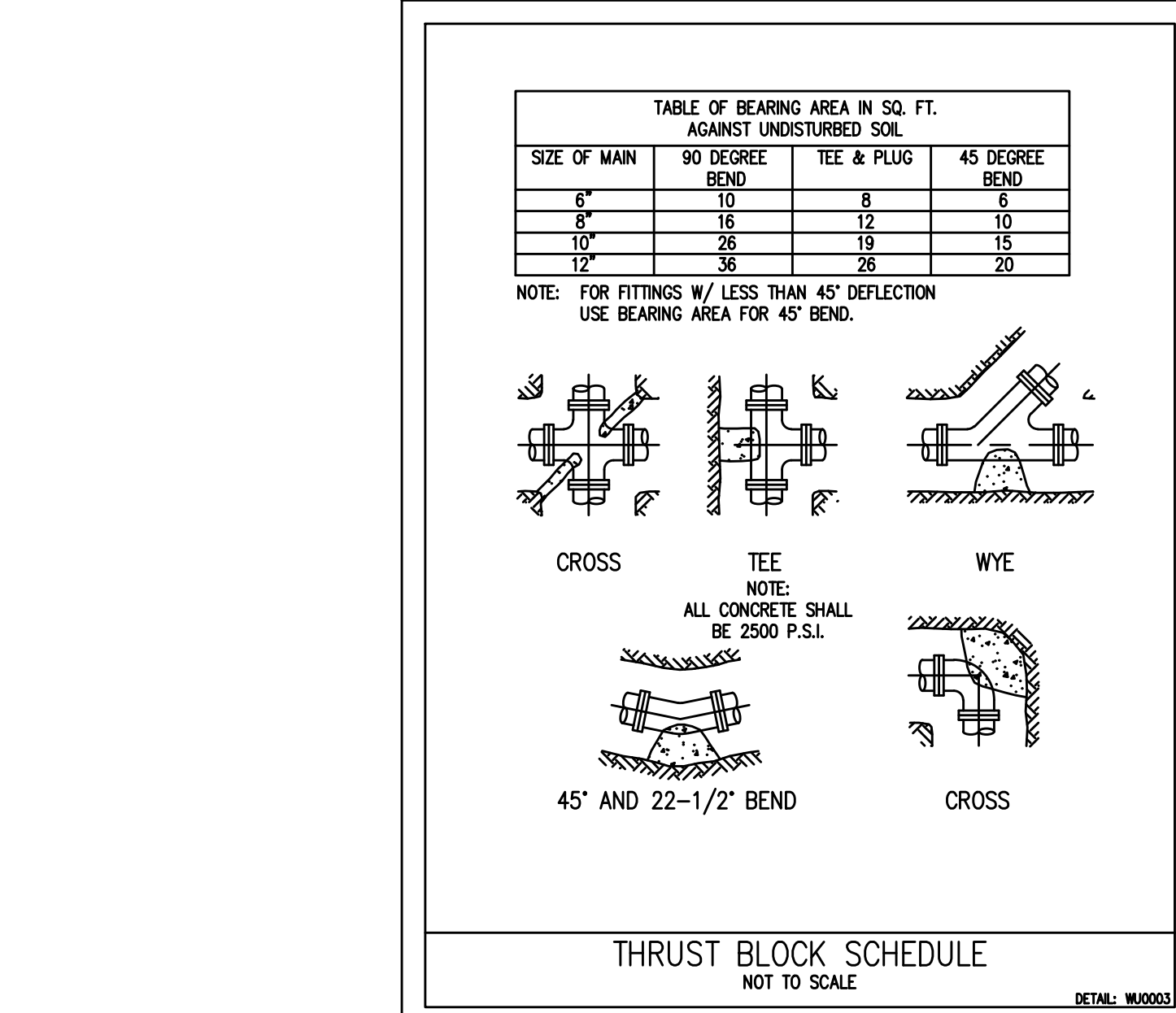
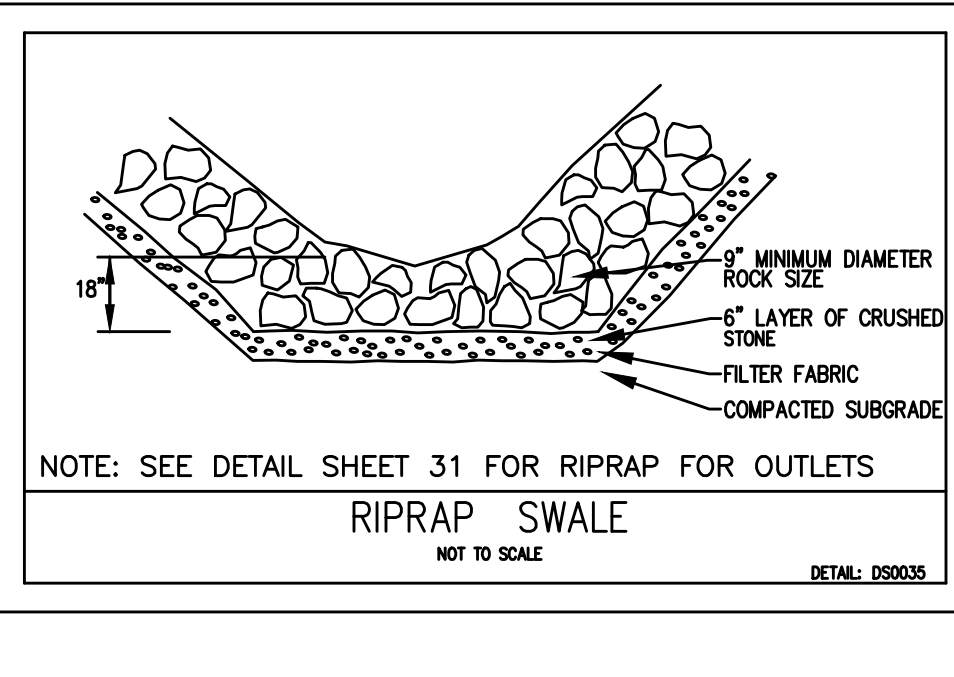
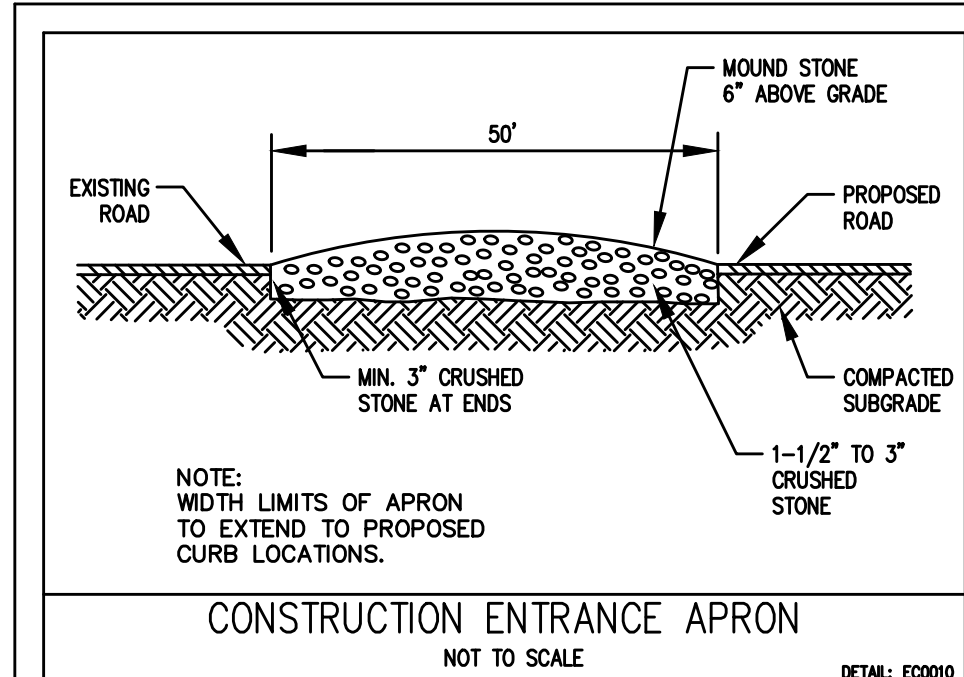
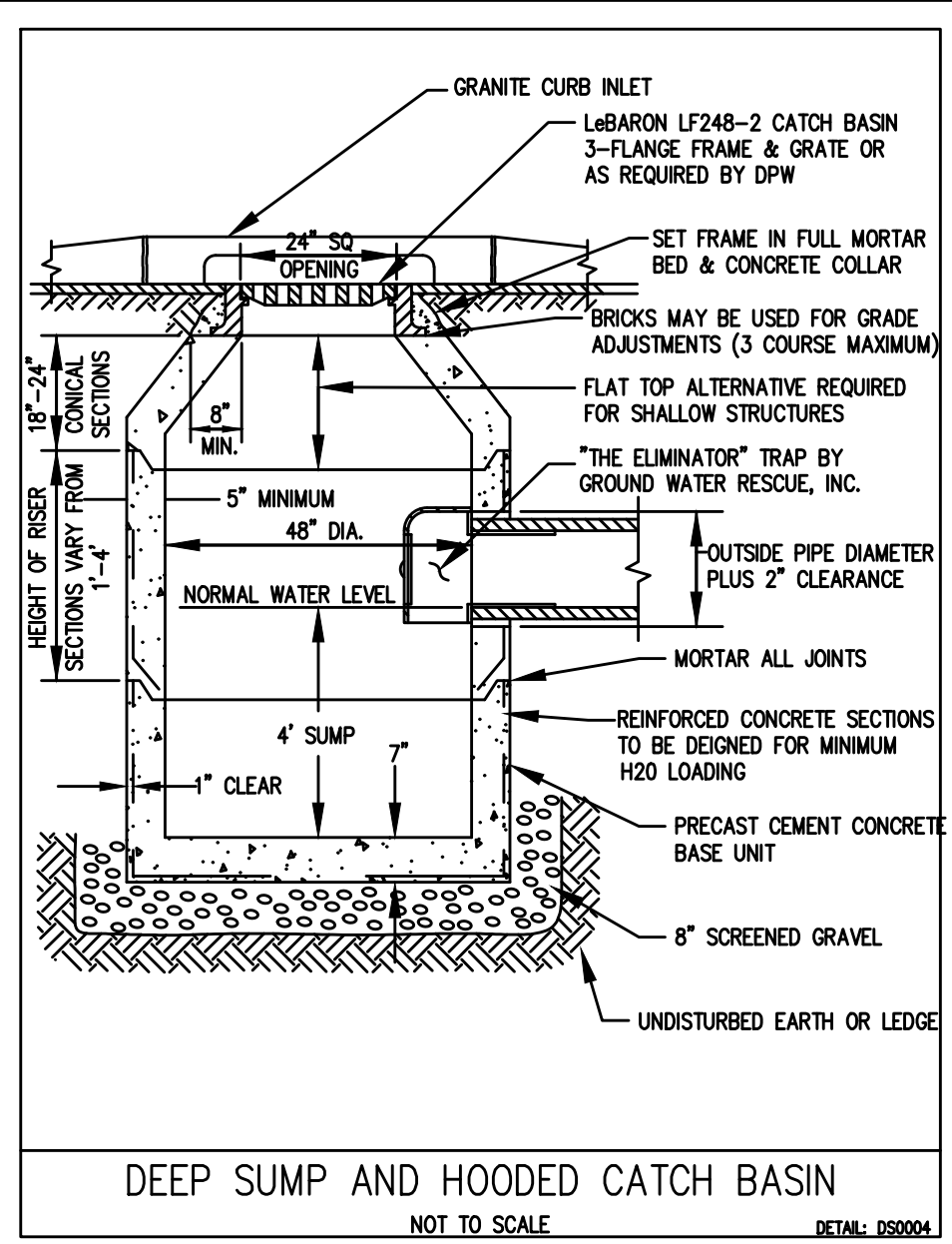
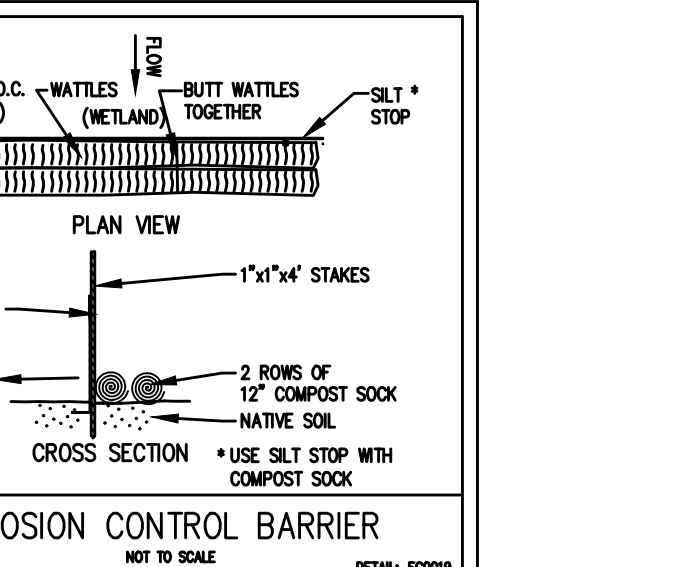
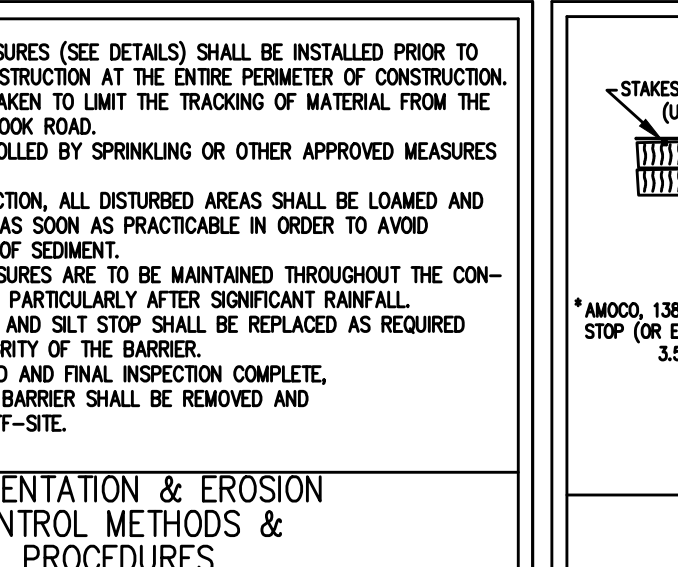
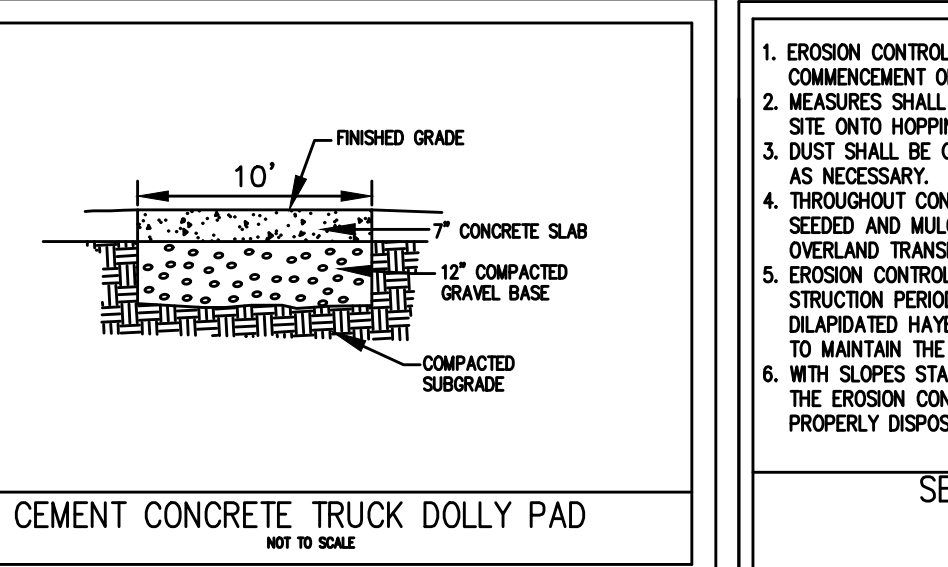
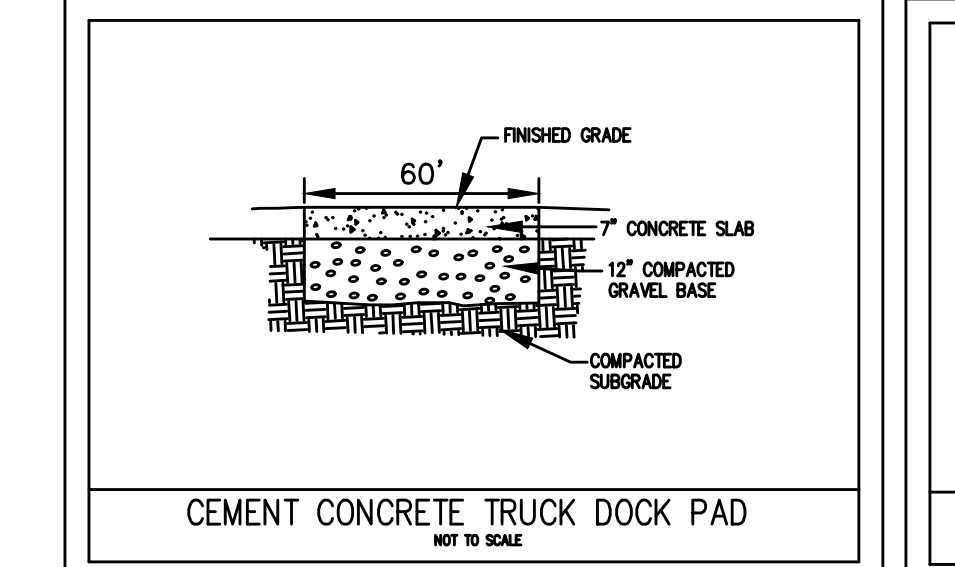
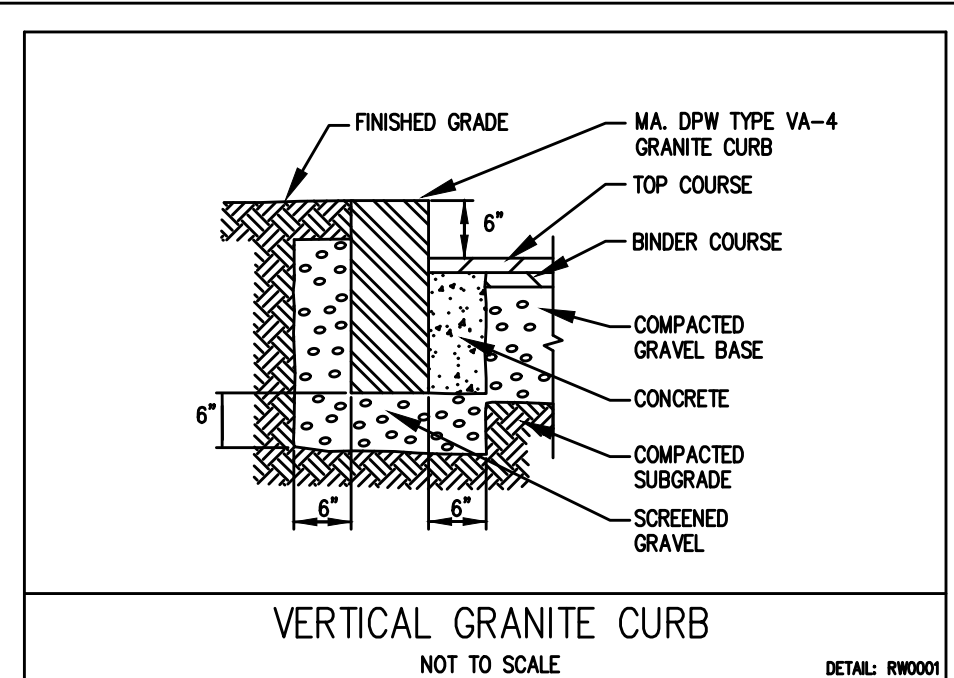
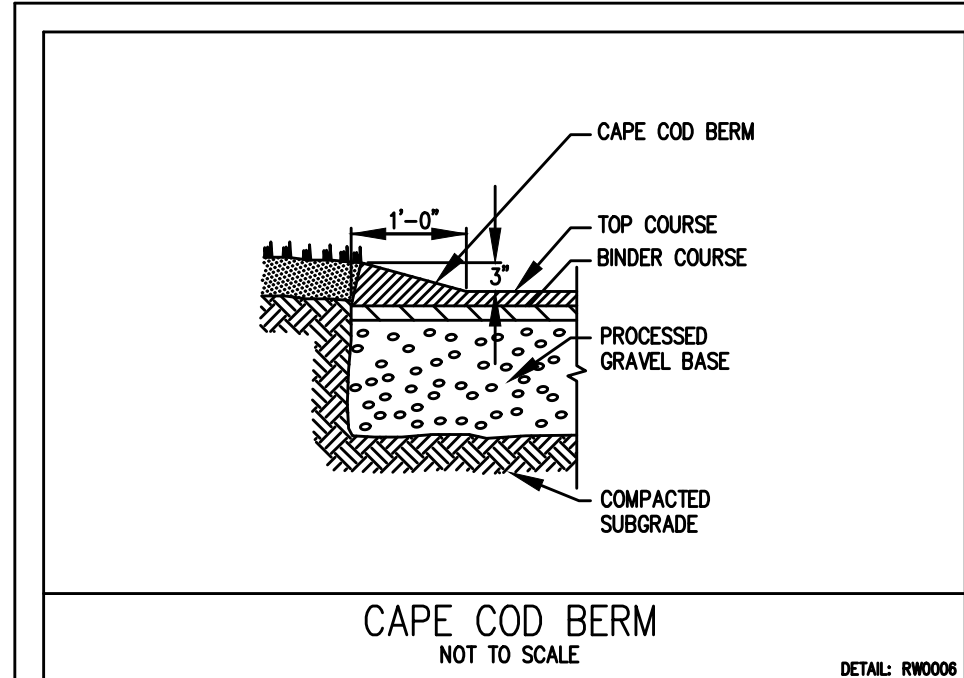
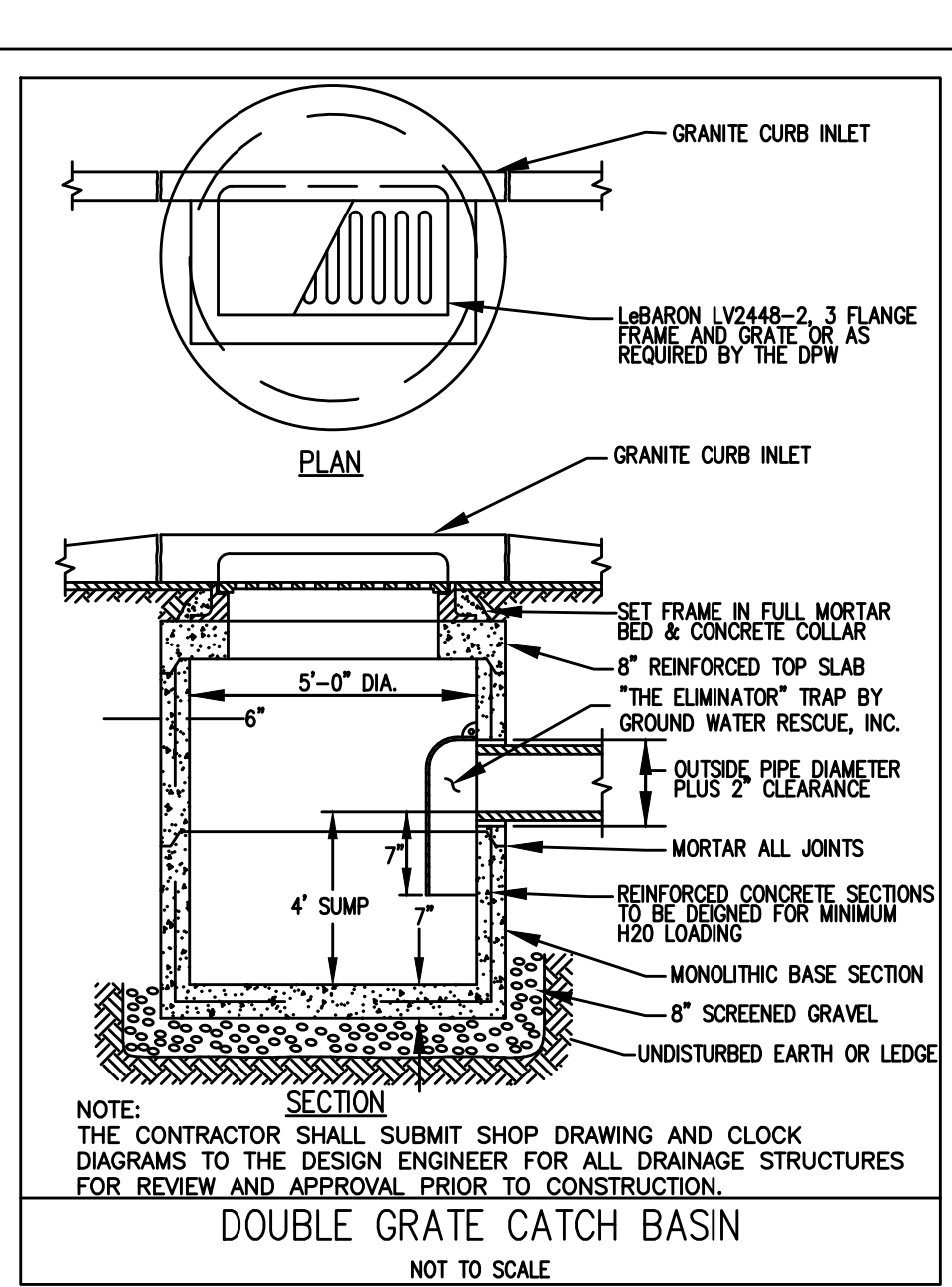
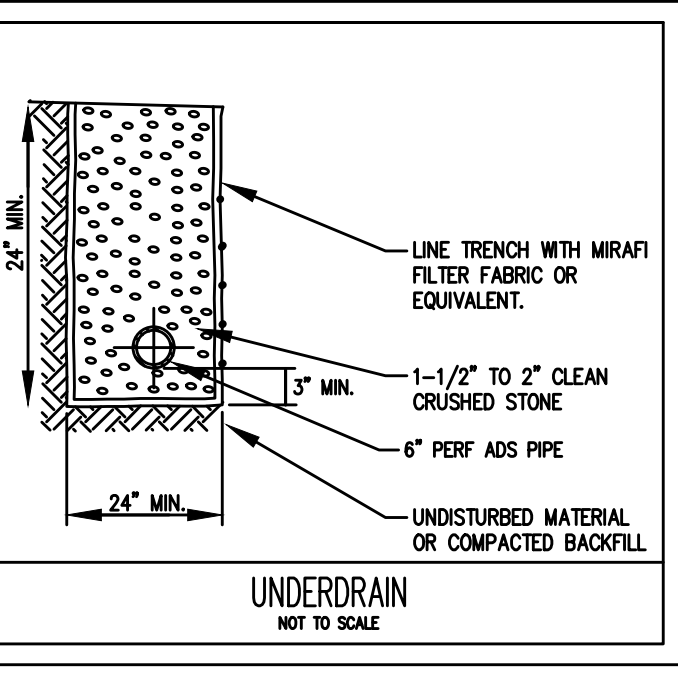
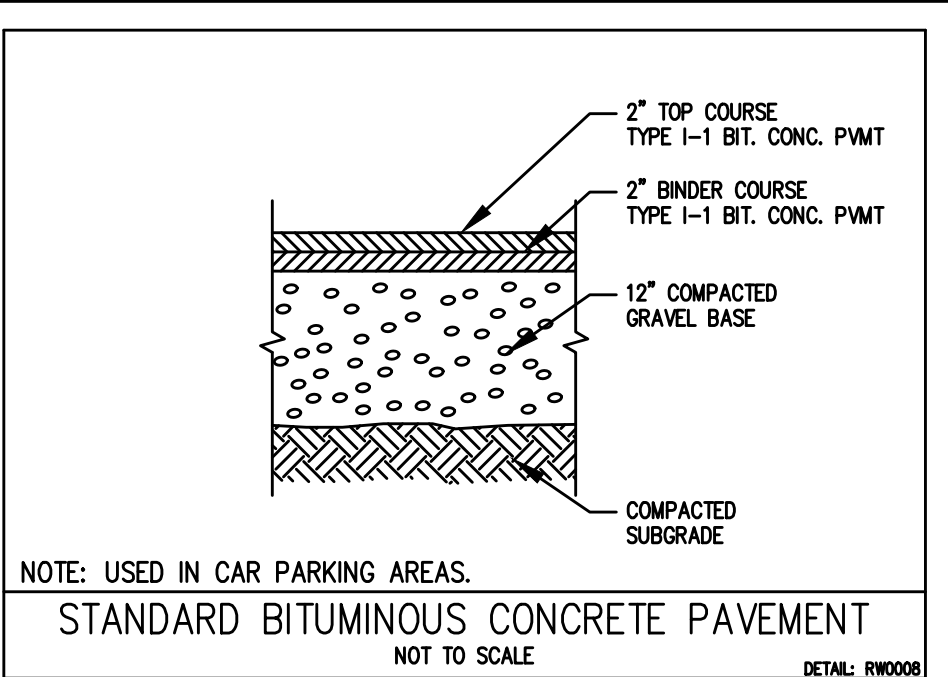
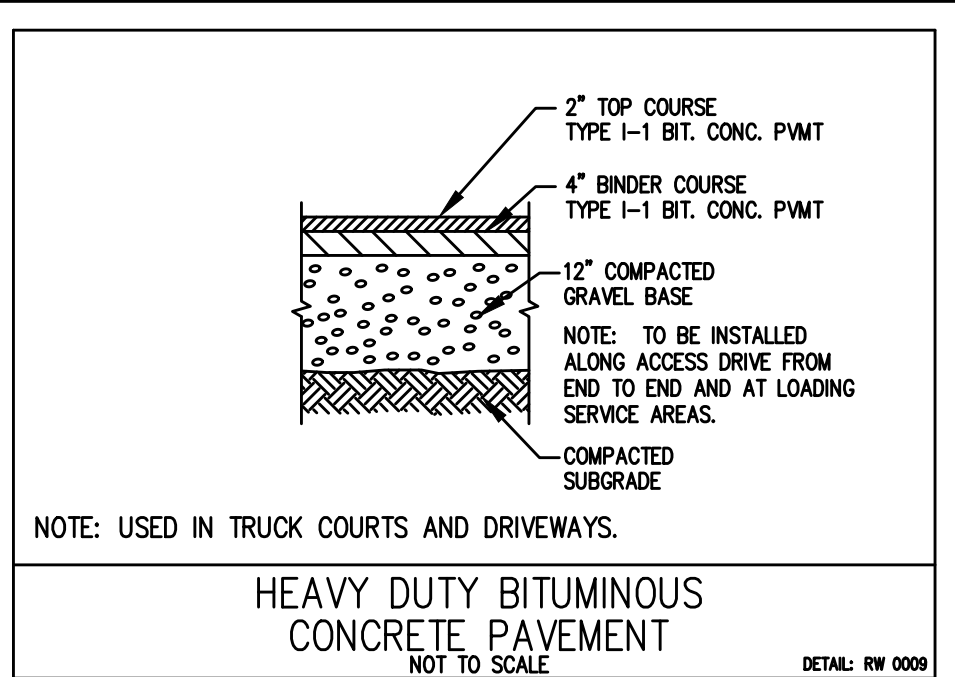
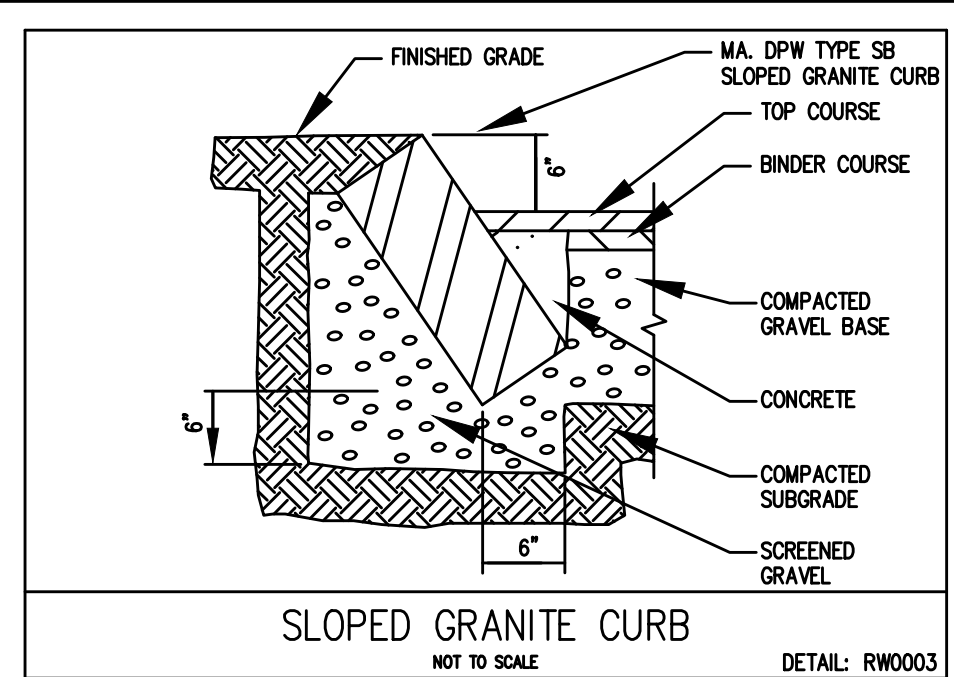
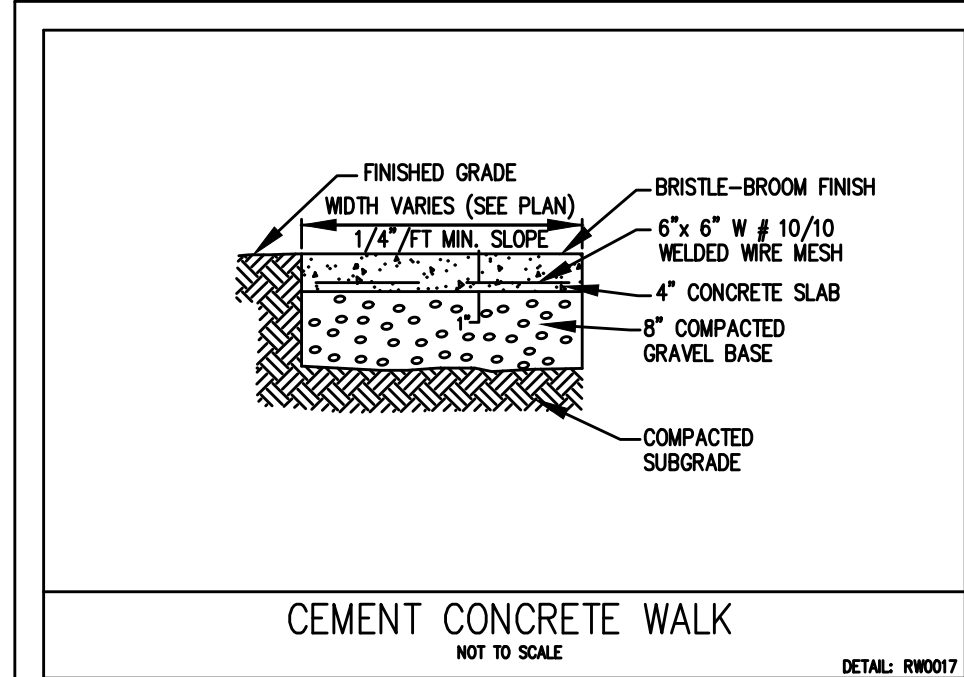


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DESIGN BY: WML
CHECK BY: PSB
APPROVED BY: PSB

REVISIONS	DATE	DESCRIPTION
4	4/13/21	PEER REVIEW COMMENTS
3	2/5/21	ISSUED FOR REVIEW
2	3/2/20	PEER REVIEW COMMENTS
1	2/5/20	PEER REVIEW COMMENTS
0	11/16/19	ISSUED FOR DISCUSSION

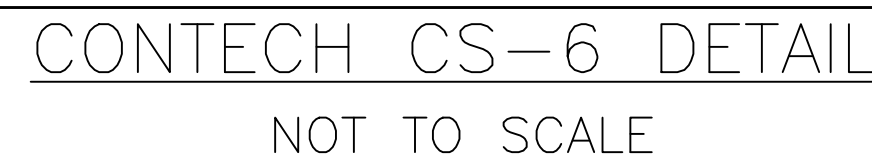
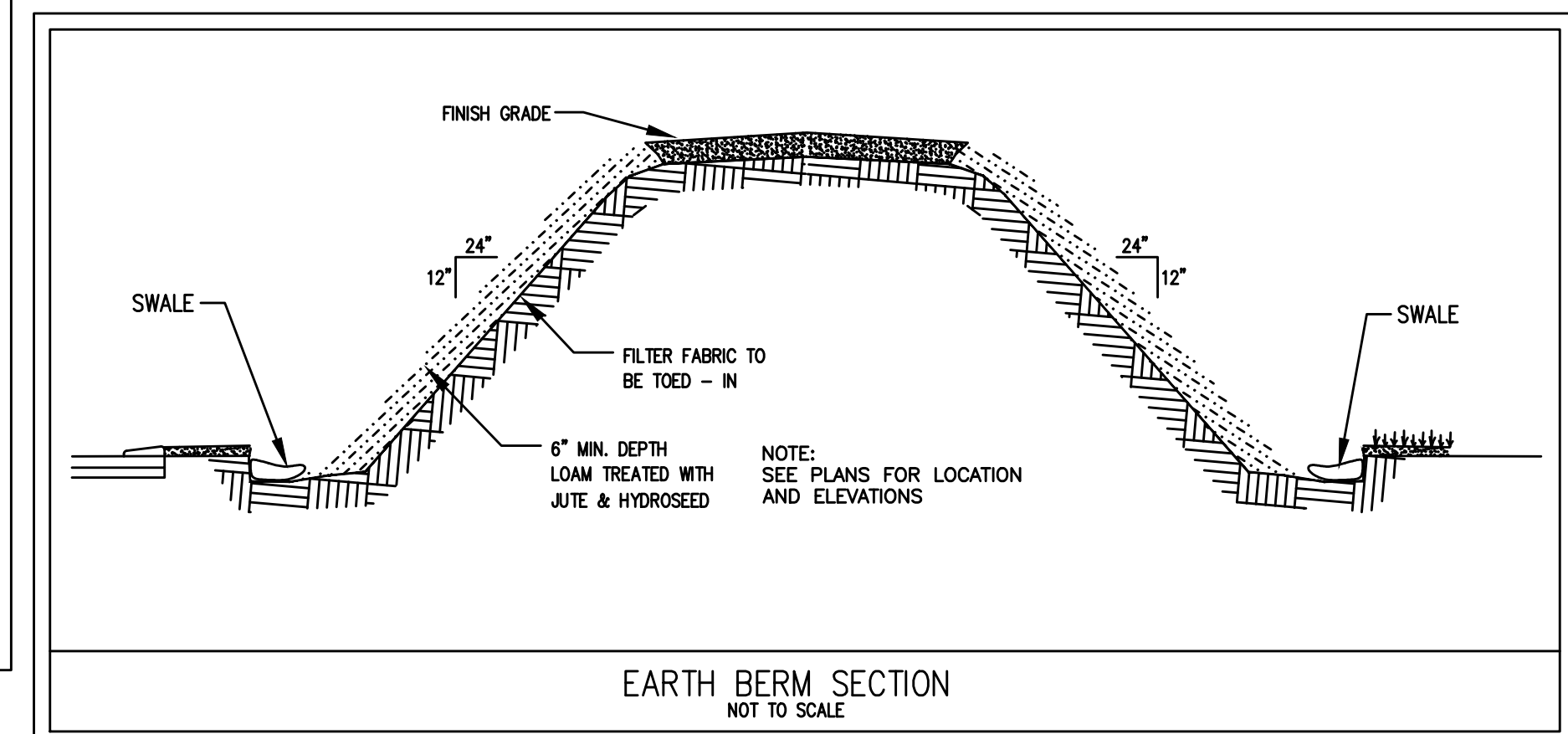
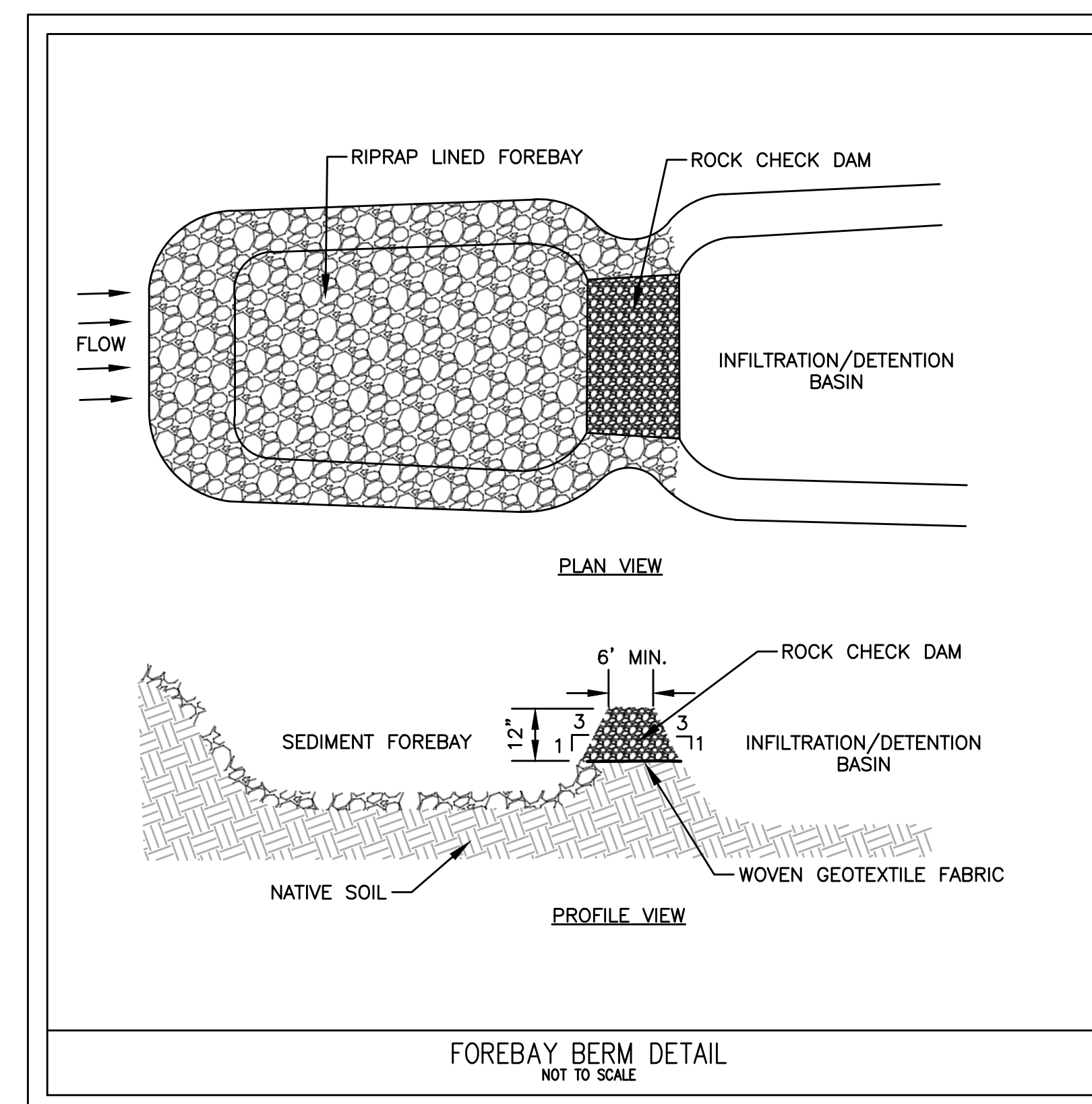
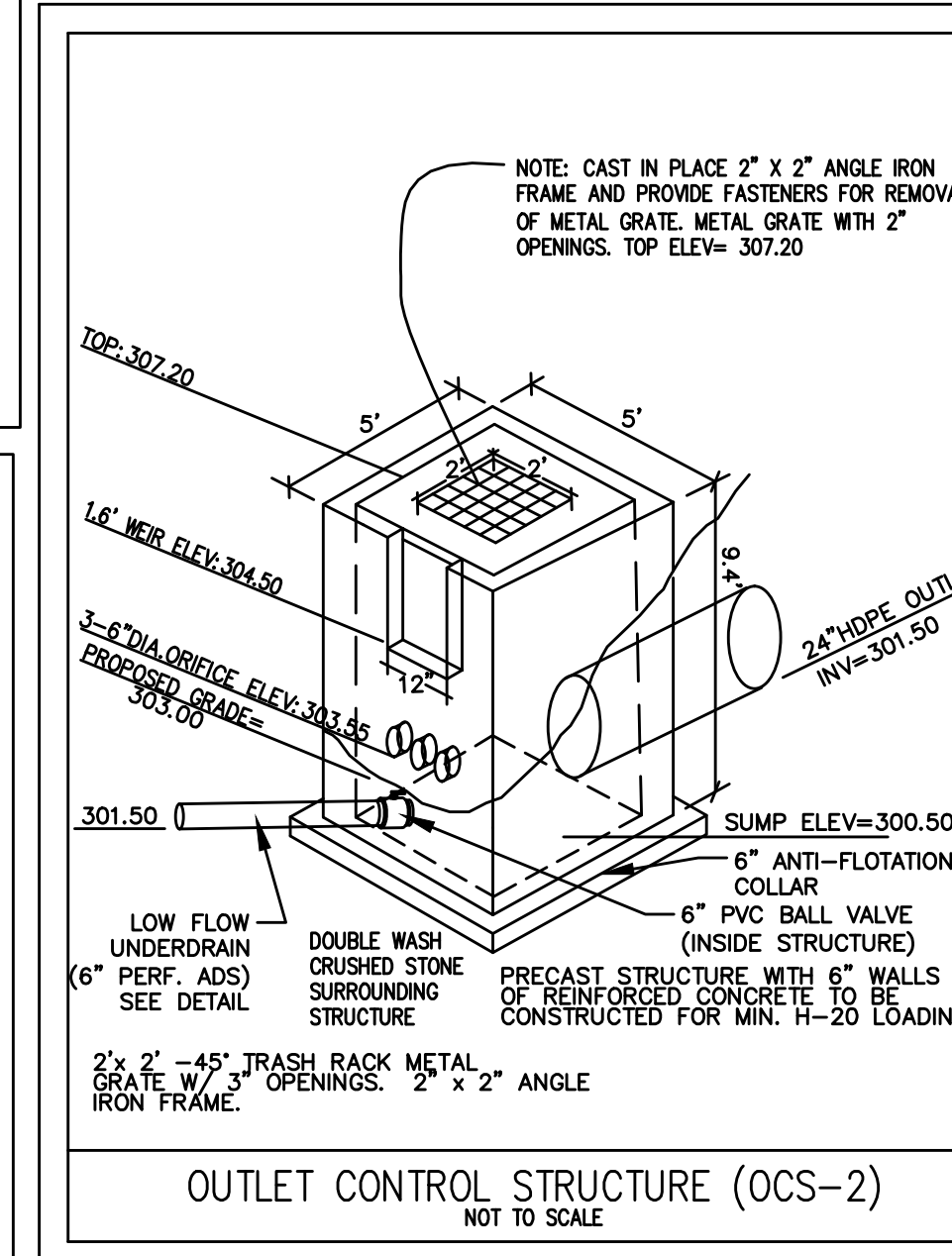
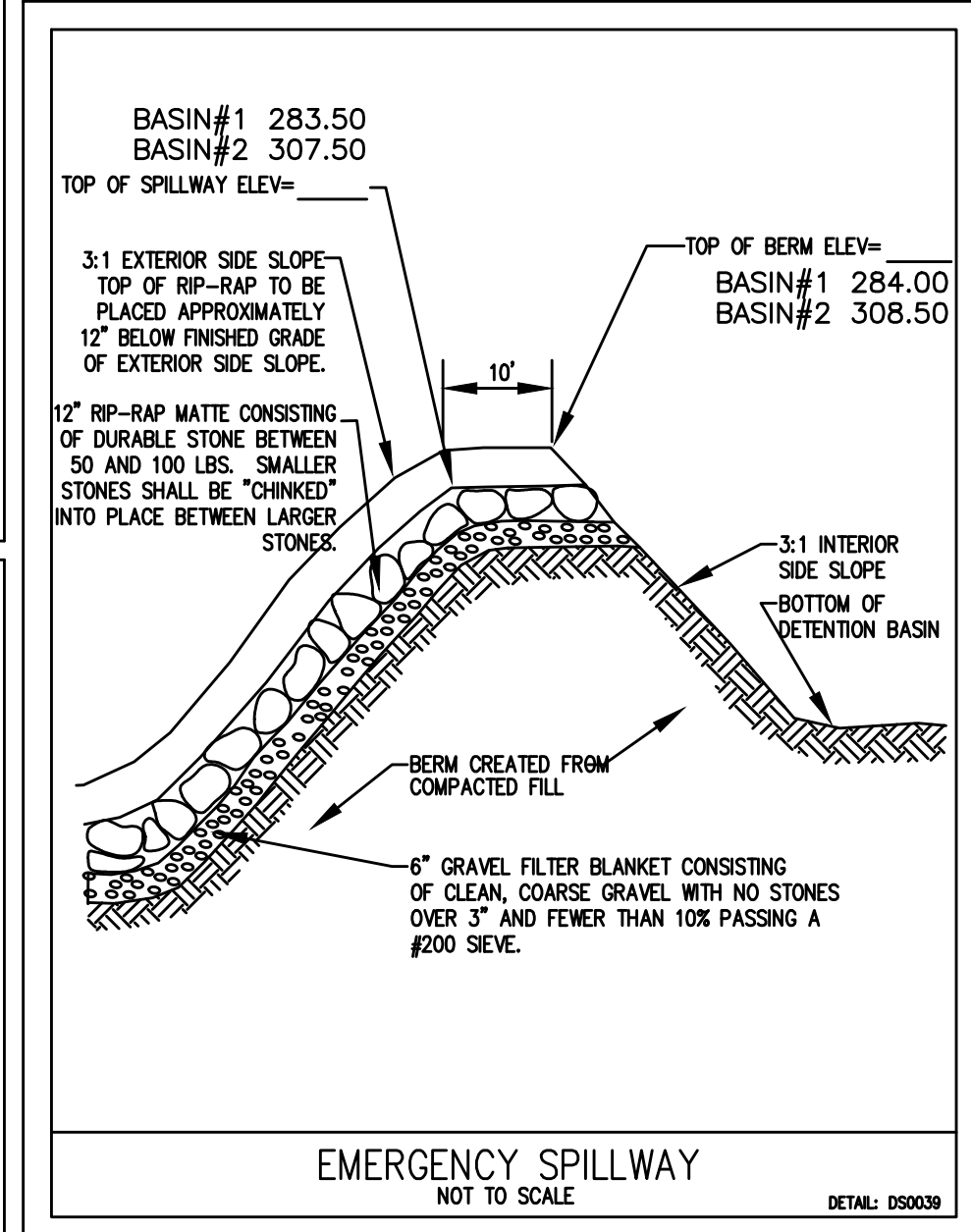
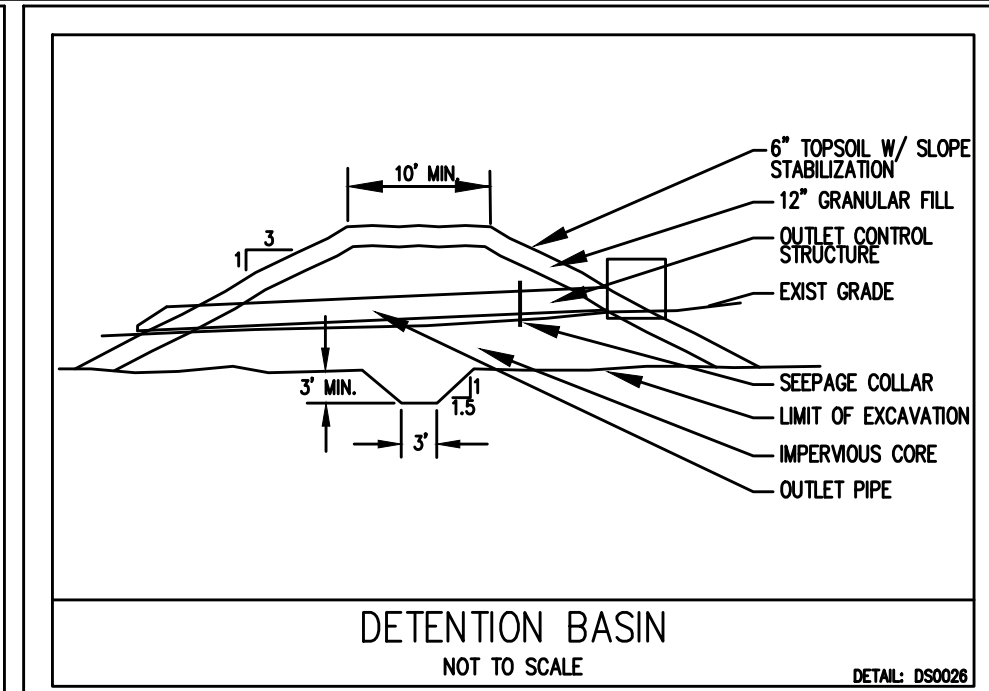
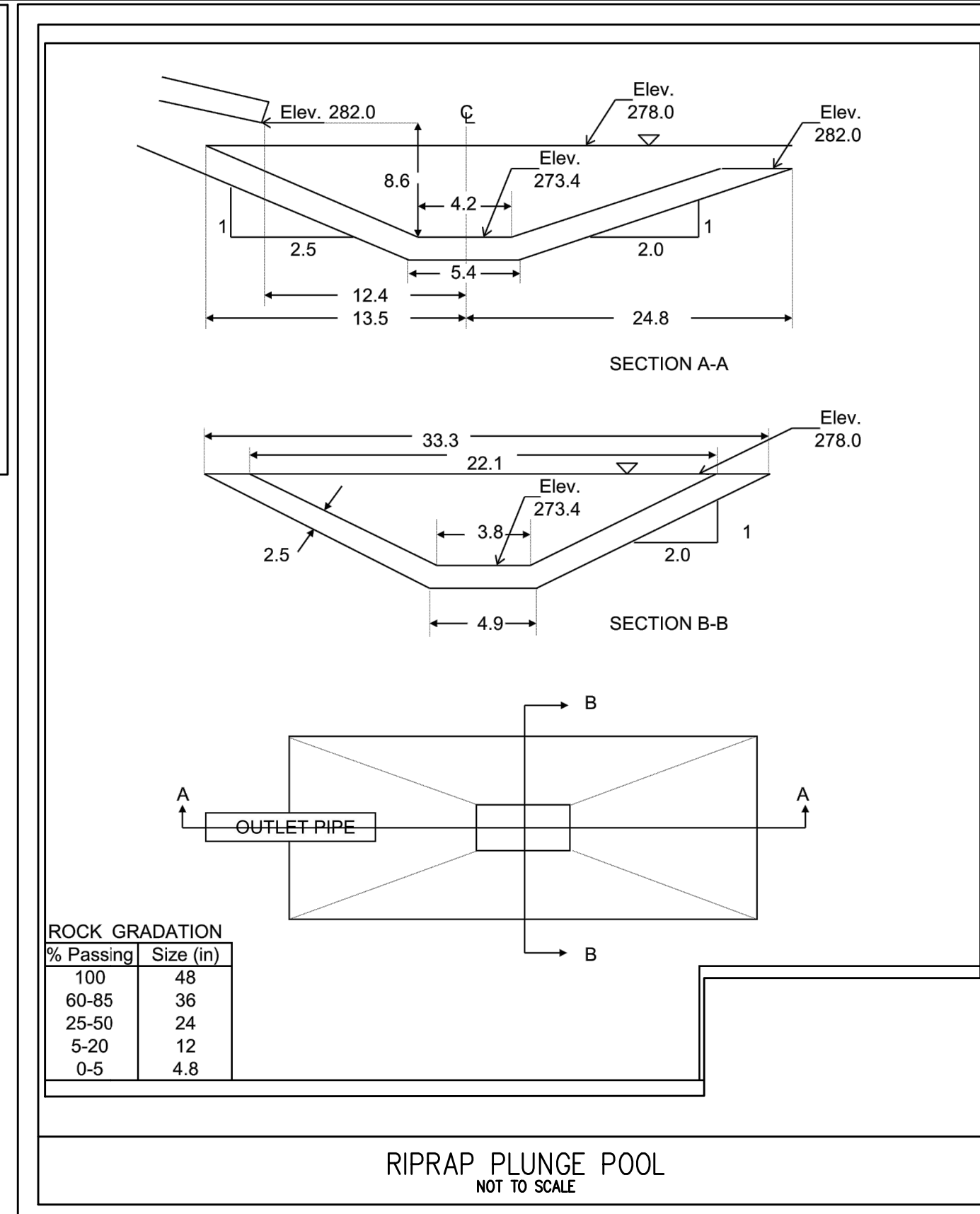
WALTER M. LEWINSKI
CIVIL
No. 33327
REGISTERED PROFESSIONAL ENGINEER

ENGINEERING DESIGN CONSULTANTS, INC.
Turnpike Road
Southborough, Massachusetts
ph:(508)480-0225 fax:(800)832-5781

555 HOPPING BROOK ROAD
HOLLISTON, MASSACHUSETTS
(MIDDLESEX COUNTY)

CONSTRUCTION DETAILS
555 HOPPING BROOK ROAD
HOLLISTON, MASSACHUSETTS
CRG INTEGRATED REAL ESTATE SOLUTIONS
200 Barr Harbor Drive
Conshohocken, PA 19248

FILE NO.: 3724 DETAILS
DATE: NOVEMBER 16, 2019
DEFINITE PLAN NO.: 28 & 36
28



ENGINEERING DESIGN CONSULTANTS, INC. SHALL NOT BE RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, TECHNIQUES, OR PROCEDURES UTILIZED BY THE CONTRACTOR, NOR FOR THE SAFETY OF PUBLIC OR CONTRACTORS EMPLOYEES, OR FOR THE FAILURE OF THE CONTRACTOR TO CARRY OUT THE WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.		REVISIONS	
ENGINEERING DESIGN CONSULTANTS, INC.'S LIABILITY FOR THIS PLAN IS LIMITED TO THE EXTENT OF ITS FEE LESS THIRD PARTY COSTS.		4	4/13/21
DESIGN BY: WML		3	2/5/21
CHECK BY: PSB		2	3/2/20
		1	2/5/20
DATE: 11/16/19			
DRWN BY: PSB		REV 4	DATE
			DESCRIPTION
			PEER REVIEW COMMENTS
			ISSUED FOR REVIEW
			PEER REVIEW COMMENTS
			PEER REVIEW COMMENTS
			ISSUED FOR DISCUSSION



PREPARED BY:

 Engineering Design Consultants, Inc.
Turnpike Road
Southborough, Massachusetts
ph:(508)480-0225 fax:(800)832-5781

PROJECT:

555 HOPPING BROOK ROAD
HOLLISTON, MASSACHUSETTS
(MIDDLESEX COUNTY)

TITLE: STORMWATER DETAILS
 555 HOPPING BROOK ROAD
 HOLLISTON, MASSACHUSETTS

OWNER/APPLICANT: CRG INTEGRATED REAL ESTATE SOLUTIONS
 200 Barr Harbor Drive
 Conshohocken, PA 19248

FILE NO: 3724 DETAILS

DATE: NOVEMBER 16, 2019

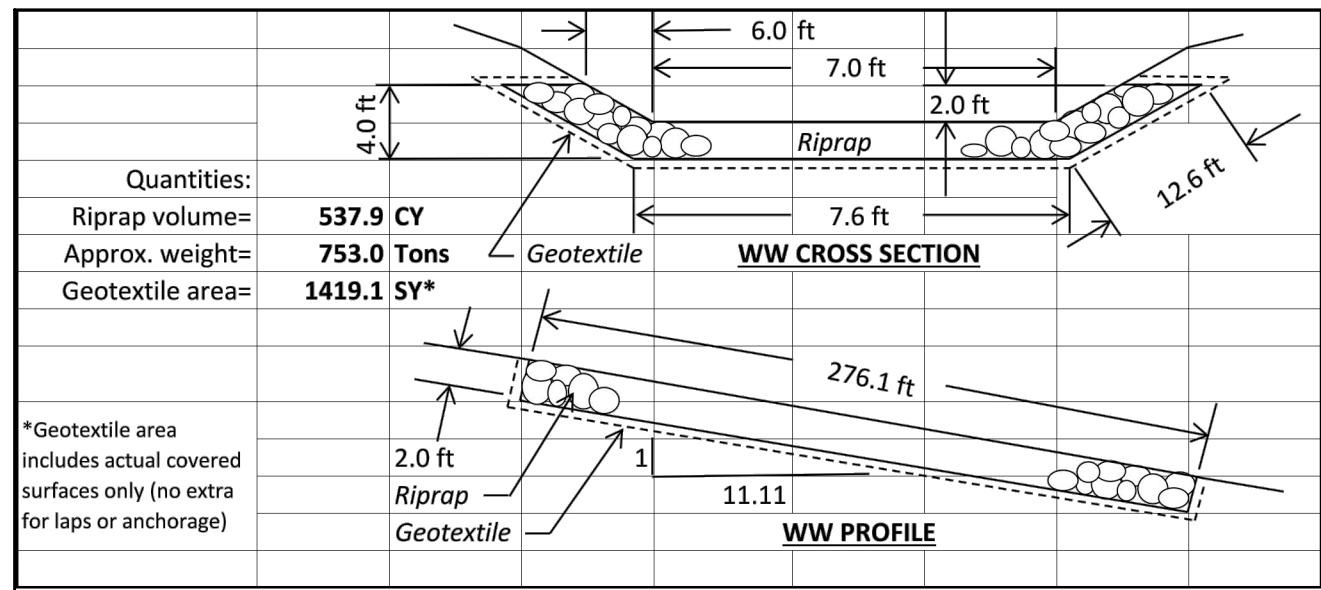
DEFINITIVE PLAN NO:

29 of 36

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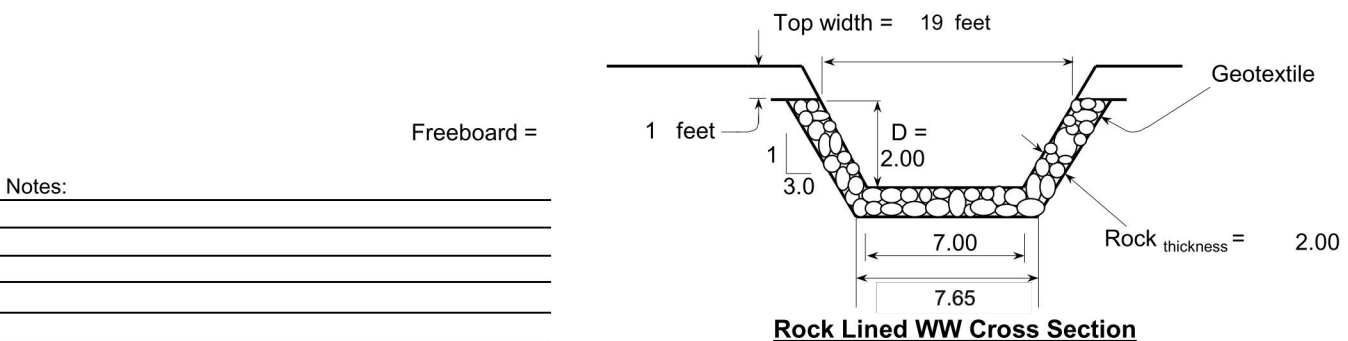
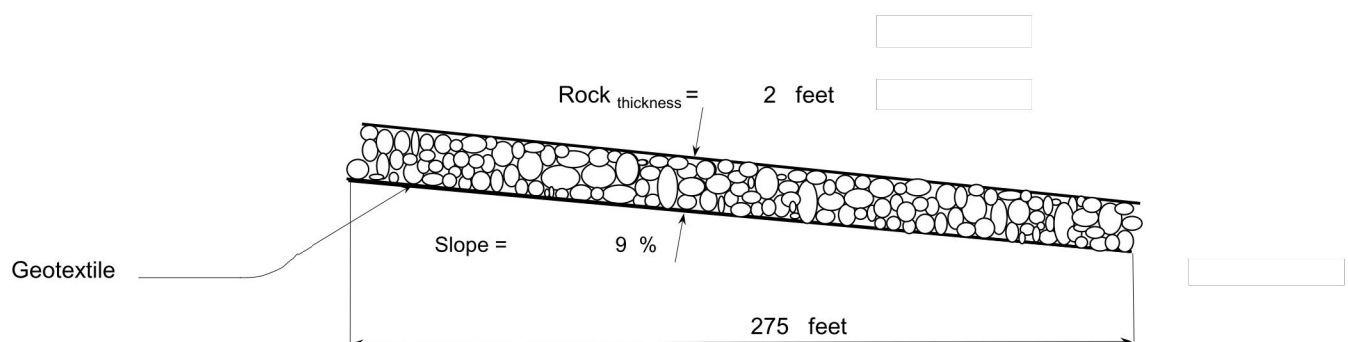
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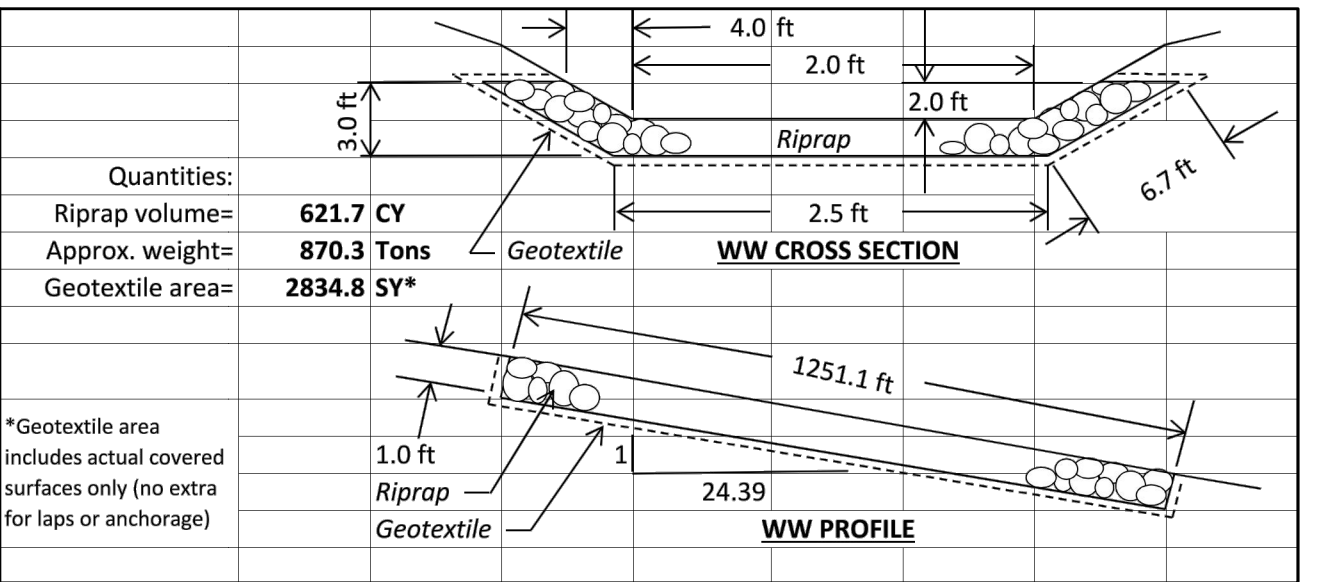
Design Values	Rock Gradation Envelope	Quantities
D ₅₀ dia. = 12.0 in. Rock _{min} thickness = 2.0 Feet.	% Passing Diameter, in. (weight, lbs.) D ₁₀₀ ----- 18 - 24 (413 - 978) D ₈₅ ----- 16 - 22 (269 - 713) D ₅₀ ----- 12 - 18 (122 - 413) D ₁₀ ----- 10 - 16 (63 - 269) Coefficient of Uniformity, (D ₆₀)/(D ₁₀) < 1.7	Rock = 538 yd ³ Geotextile (WCS-13)* = 1419 yd ²

Notes: * Geotextile Class I (Non-woven) shall be overlapped and anchored (18-in. minimum along sides and 24-in. minimum on the ends) --- quantity not included.



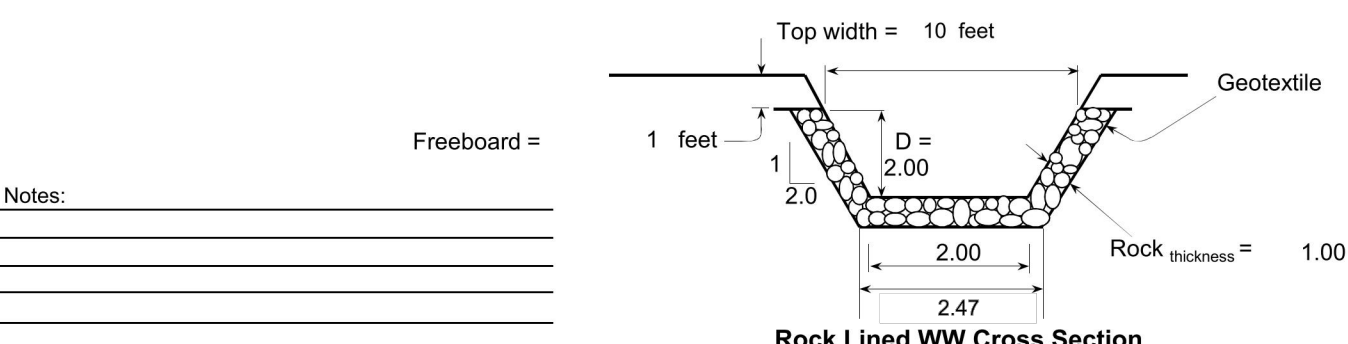
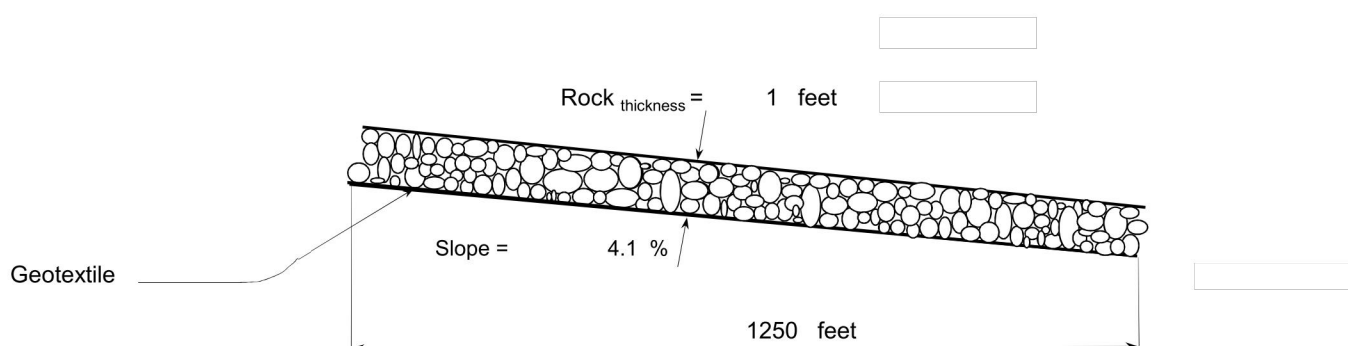
Profile, Cross Sections, and Quantities

RIPRAP FOR OUTLETS #4 & 5 COMBINED
NOT TO SCALE



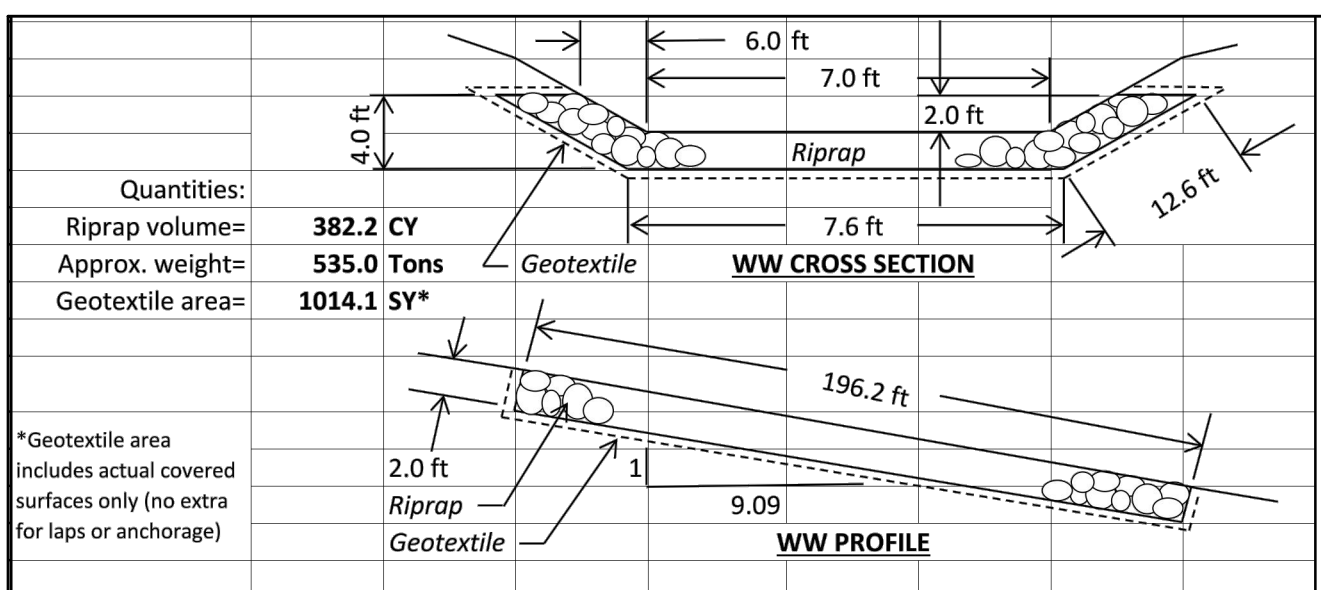
Design Values	Rock Gradation Envelope	Quantities
D ₅₀ dia. = 6.0 in. Rock _{min} thickness = 1.0 Feet.	% Passing Diameter, in. (weight, lbs.) D ₁₀₀ ----- 9 - 12 (52 - 122) D ₈₅ ----- 8 - 11 (34 - 89) D ₅₀ ----- 6 - 9 (15 - 52) D ₁₀ ----- 5 - 8 (8 - 34) Coefficient of Uniformity, (D ₆₀)/(D ₁₀) < 1.7	Rock = 622 yd ³ Geotextile (WCS-13)* = 2835 yd ²

Notes: * Geotextile Class I (Non-woven) shall be overlapped and anchored (18-in. minimum along sides and 24-in. minimum on the ends) --- quantity not included.



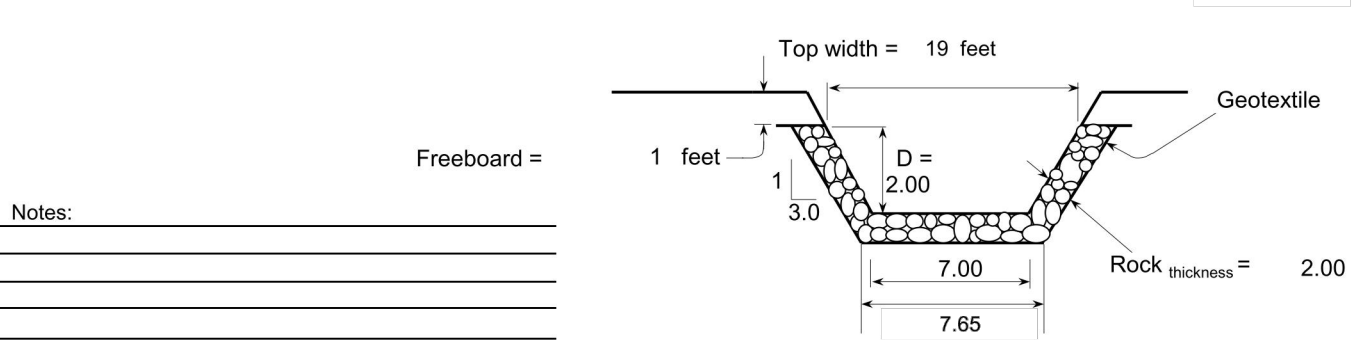
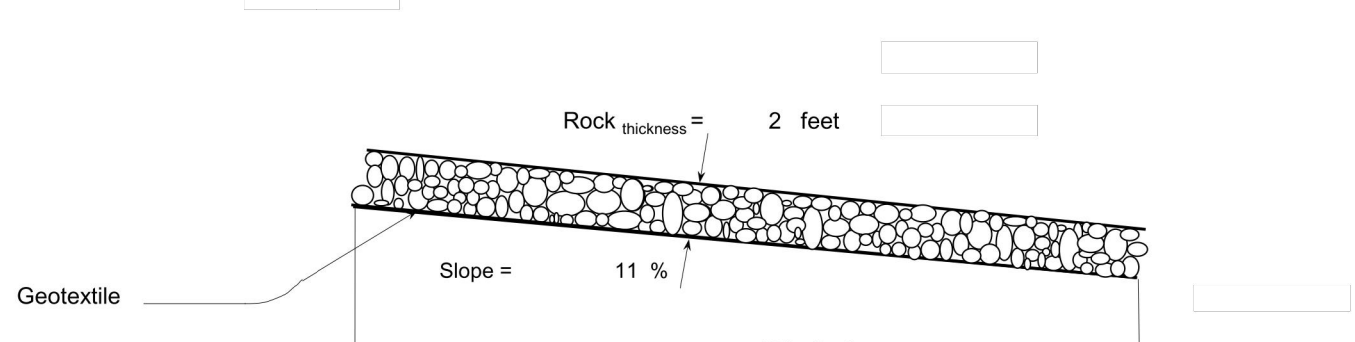
Profile, Cross Sections, and Quantities

RIPRAP SWALE AT BASE OF SOUTHEAST SIDE OF THE BERM ALONG MEDWAY ABUTTERS LINE
NOT TO SCALE



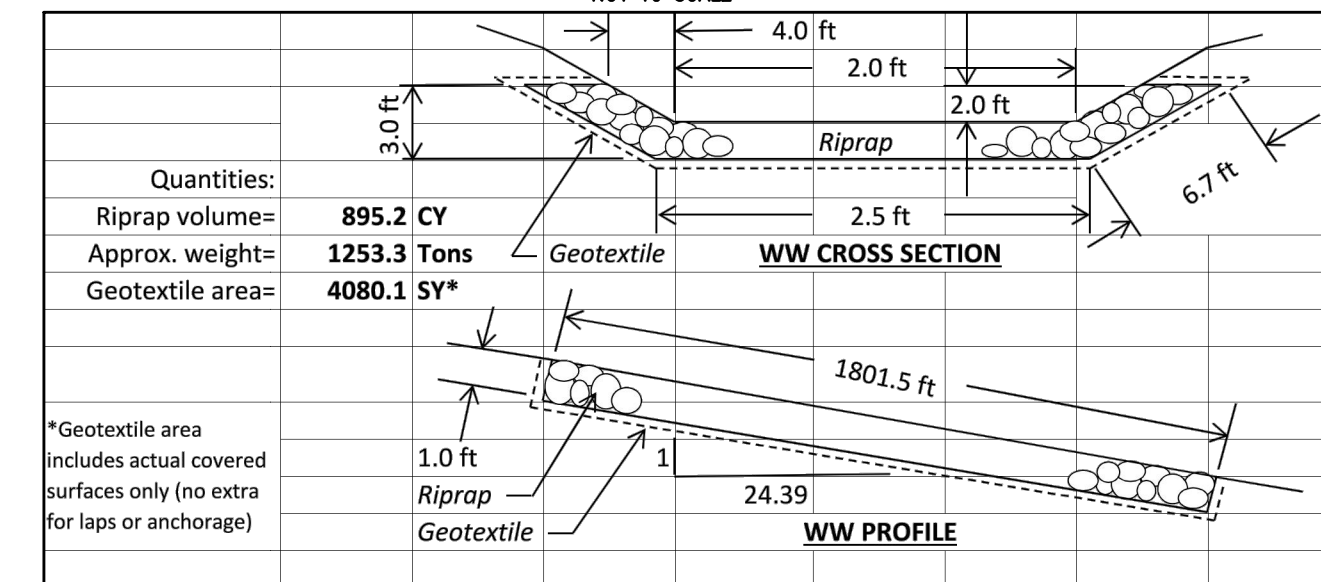
Design Values	Rock Gradation Envelope	Quantities
D ₅₀ dia. = 12.0 in. Rock _{min} thickness = 2.0 Feet.	% Passing Diameter, in. (weight, lbs.) D ₁₀₀ ----- 18 - 24 (413 - 978) D ₈₅ ----- 16 - 22 (269 - 713) D ₅₀ ----- 12 - 18 (122 - 413) D ₁₀ ----- 10 - 16 (63 - 269) Coefficient of Uniformity, (D ₆₀)/(D ₁₀) < 1.7	Rock = 382 yd ³ Geotextile (WCS-13)* = 1014 yd ²

Notes: * Geotextile Class I (Non-woven) shall be overlapped and anchored (18-in. minimum along sides and 24-in. minimum on the ends) --- quantity not included.



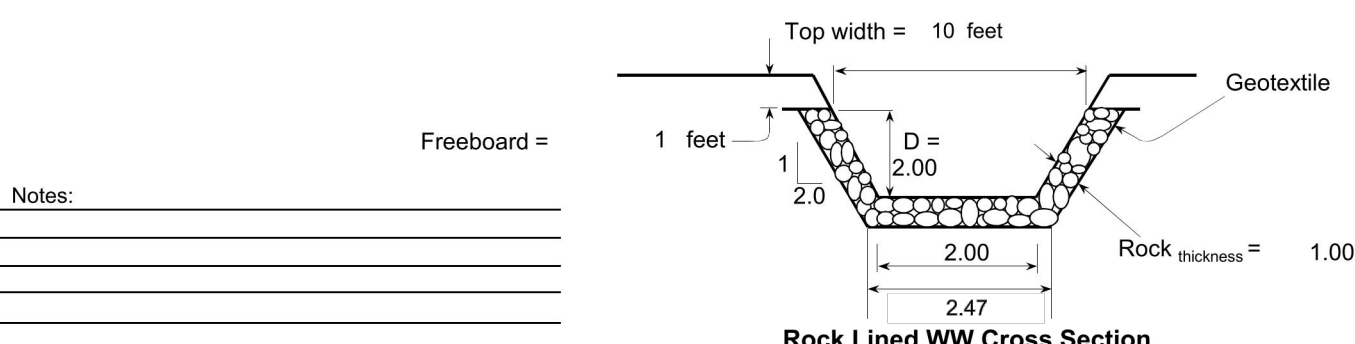
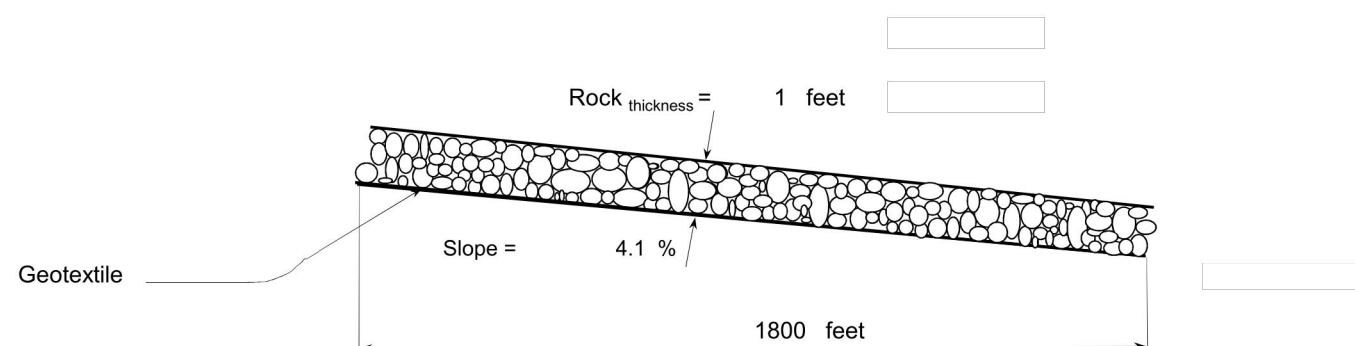
Profile, Cross Sections, and Quantities

RIPRAP FOR OUTLETS #6 & #7 COMBINED
NOT TO SCALE



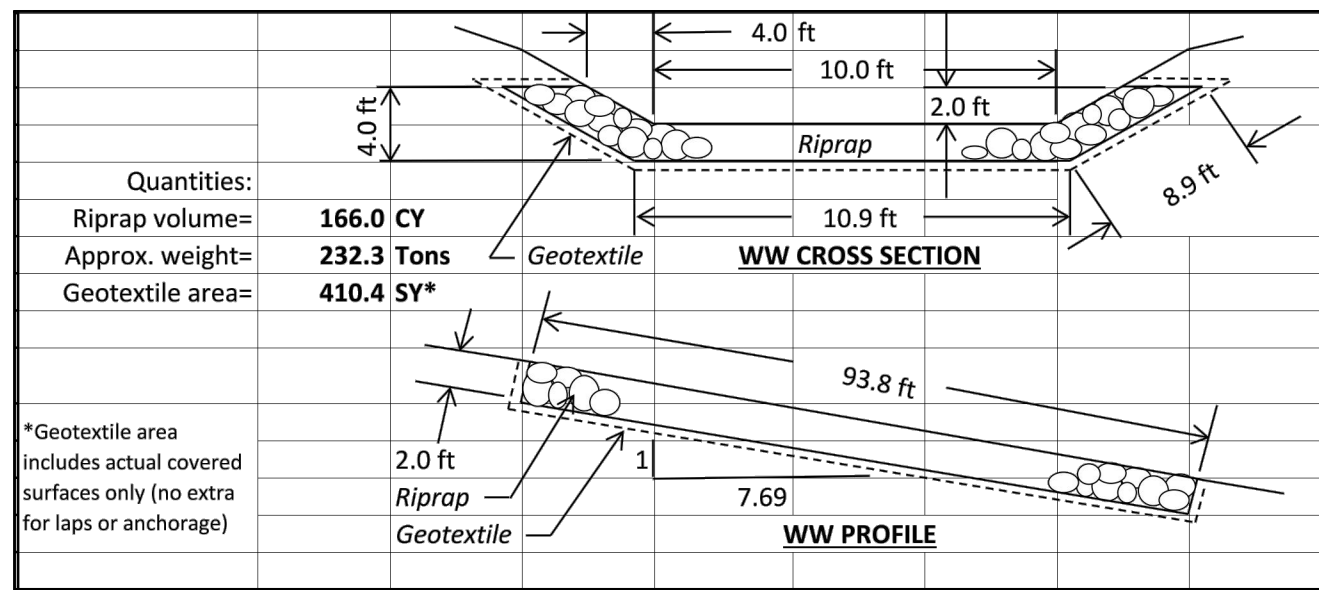
Design Values	Rock Gradation Envelope	Quantities
D ₅₀ dia. = 6.0 in. Rock _{min} thickness = 1.0 Feet.	% Passing Diameter, in. (weight, lbs.) D ₁₀₀ ----- 9 - 12 (52 - 122) D ₈₅ ----- 8 - 11 (34 - 89) D ₅₀ ----- 6 - 9 (15 - 52) D ₁₀ ----- 5 - 8 (8 - 34) Coefficient of Uniformity, (D ₆₀)/(D ₁₀) < 1.7	Rock = 895 yd ³ Geotextile (WCS-13)* = 4080 yd ²

Notes: * Geotextile Class I (Non-woven) shall be overlapped and anchored (18-in. minimum along sides and 24-in. minimum on the ends) --- quantity not included.



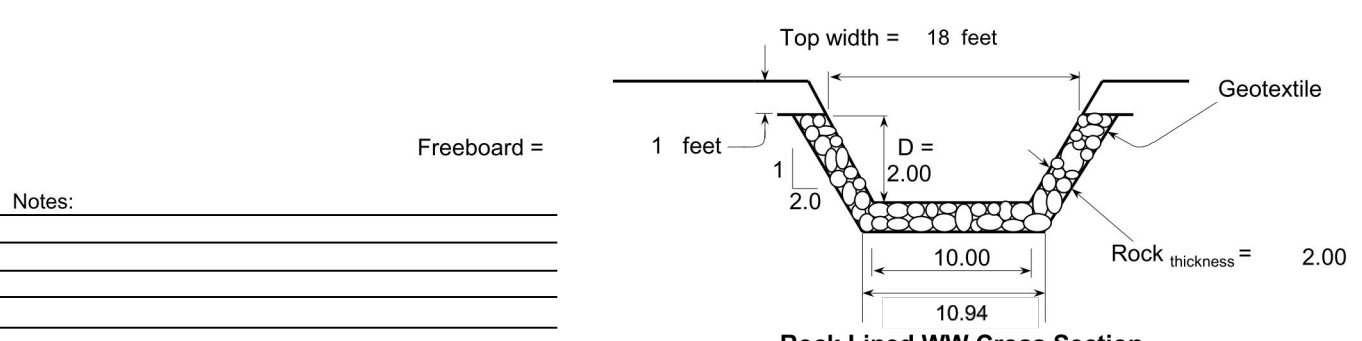
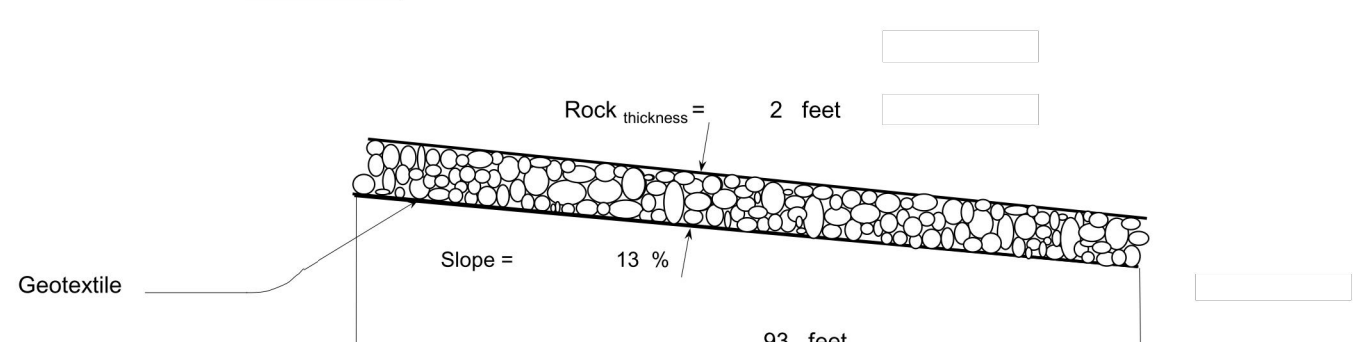
Profile, Cross Sections, and Quantities

RIPRAP SWALE AT BASE OF NORTHEAST SIDE OF THE BERM ALONG MEDWAY ABUTTERS LINE
NOT TO SCALE



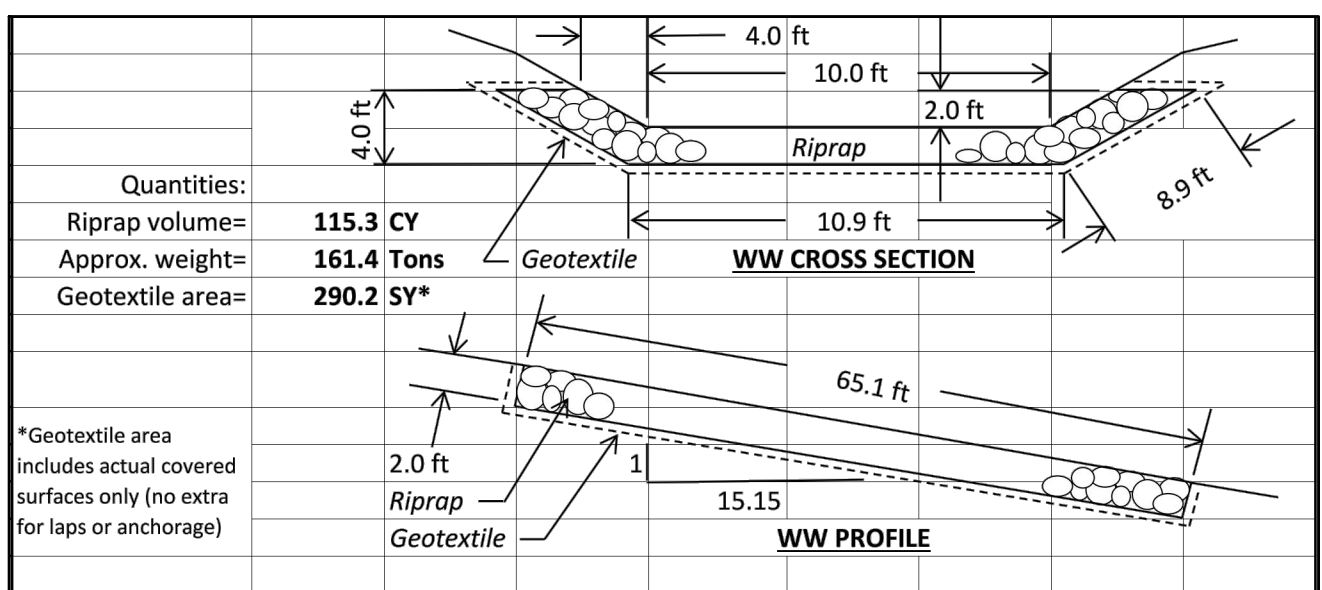
Design Values	Rock Gradation Envelope	Quantities
D ₅₀ dia. = 10.0 in. Rock _{min} thickness = 2.0 Feet.	% Passing Diameter, in. (weight, lbs.) D ₁₀₀ ----- 15 - 20 (239 - 566) D ₈₅ ----- 13 - 18 (155 - 413) D ₅₀ ----- 10 - 15 (71 - 239) D ₁₀ ----- 8 - 13 (36 - 155) Coefficient of Uniformity, (D ₆₀)/(D ₁₀) < 1.7	Rock = 166 yd ³ Geotextile (WCS-13)* = 410 yd ²

Notes: * Geotextile Class I (Non-woven) shall be overlapped and anchored (18-in. minimum along sides and 24-in. minimum on the ends) --- quantity not included.



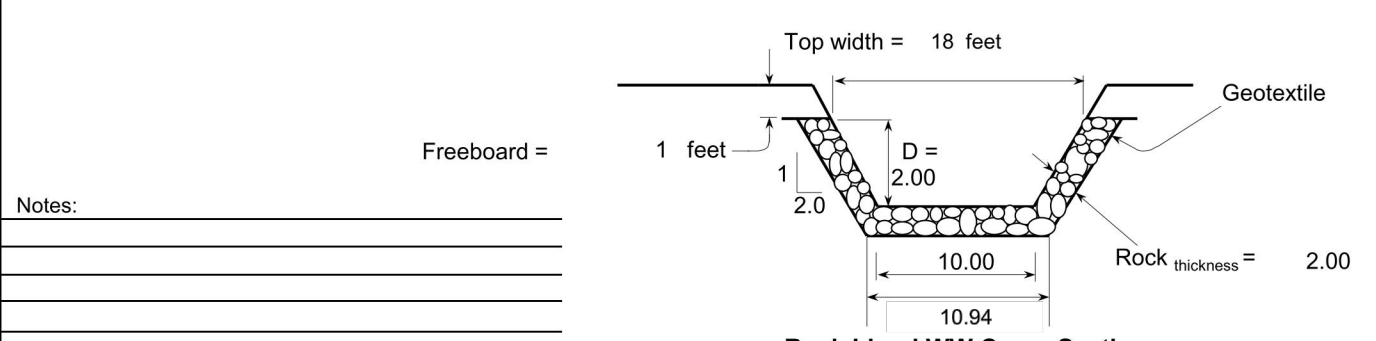
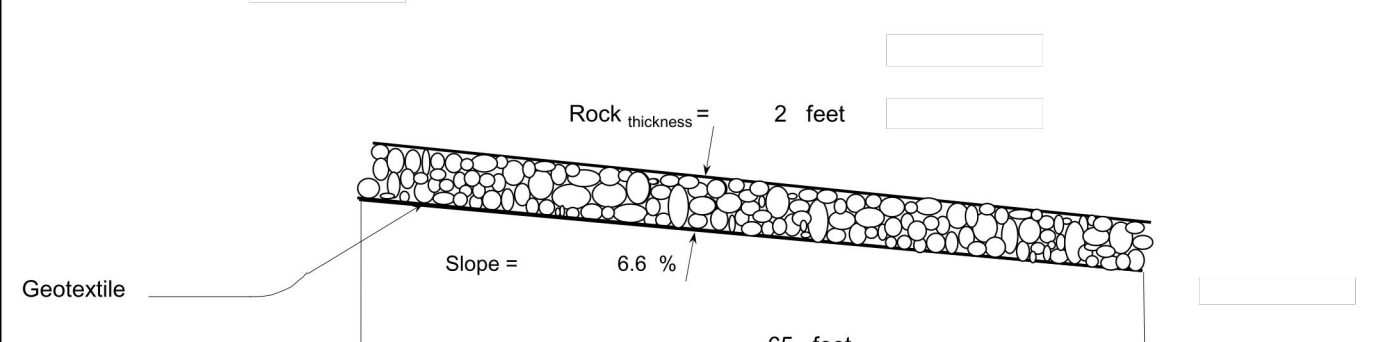
Profile, Cross Sections, and Quantities

RIPRAP FOR OUTLET CONTROL STRUCTURE #2
NOT TO SCALE



Design Values	Rock Gradation Envelope	Quantities
D ₅₀ dia. = 10.0 in. Rock _{min} thickness = 2.0 Feet.	% Passing Diameter, in. (weight, lbs.) D ₁₀₀ ----- 15 - 20 (239 - 566) D ₈₅ ----- 13 - 18 (155 - 413) D ₅₀ ----- 10 - 15 (71 - 239) D ₁₀ ----- 8 - 13 (36 - 155) Coefficient of Uniformity, (D ₆₀)/(D ₁₀) < 1.7	Rock = 115 yd ³ Geotextile (WCS-13)* = 290 yd ²

Notes: * Geotextile Class I (Non-woven) shall be overlapped and anchored (18-in. minimum along sides and 24-in. minimum on the ends) --- quantity not included.



Profile, Cross Sections, and Quantities

RIPRAP FOR OUTLET CONTROL STRUCTURE #1
NOT TO SCALE

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DRAWN BY: WML
CHECKED BY: PSB
APPROVED BY: PSB

REVISIONS
4 4/13/21
3 2/5/21
2 3/2/20
1 2/5/20
0 11/16/19

PEER REVIEW COMMENTS
ISSUED FOR REVIEW
PEER REVIEW COMMENTS
ISSUED FOR DISCUSSION



PREPARED BY:
EDC

Engineering Design Consultants, Inc.
Turnpike Road
Southborough, Massachusetts
ph:(508)480-0225 fax:(800)832-5781

PROJECT:

555 HOPPING BROOK ROAD
HOLLISTON, MASSACHUSETTS
(MIDDLESEX COUNTY)

TITLE:

STORMWATER DETAILS
555 HOPPING BROOK ROAD
HOLLISTON, MASSACHUSETTS

OWNER/APPLICANT:

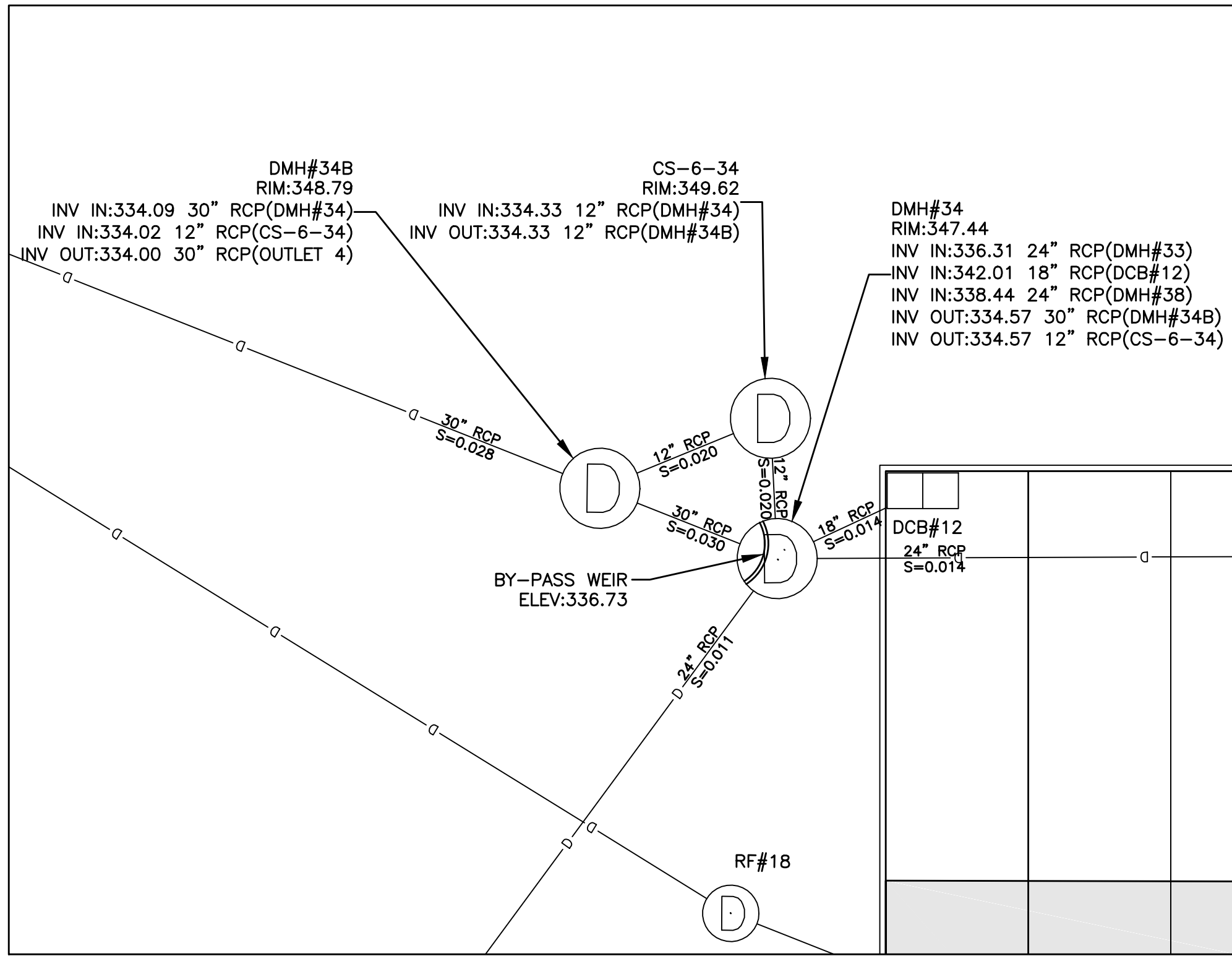
CRG INTEGRATED REAL ESTATE SOLUTIONS
200 Barr Harbor Drive
Conshohocken, PA 19248

FILE NO.: 3724 DETAILS

DATE: NOVEMBER 16, 2019

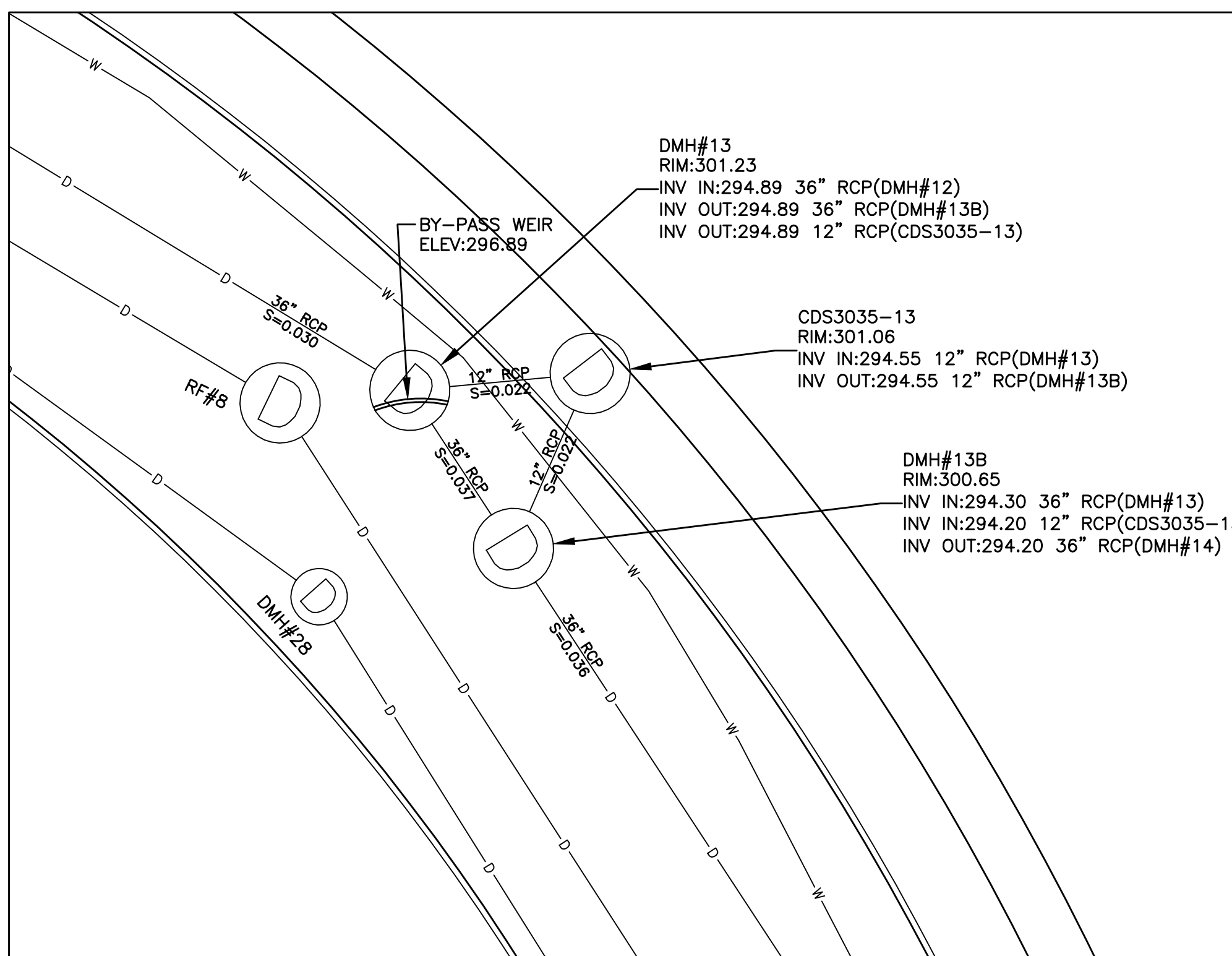
DEFINITE PLAN NO.:

30 of 36
30



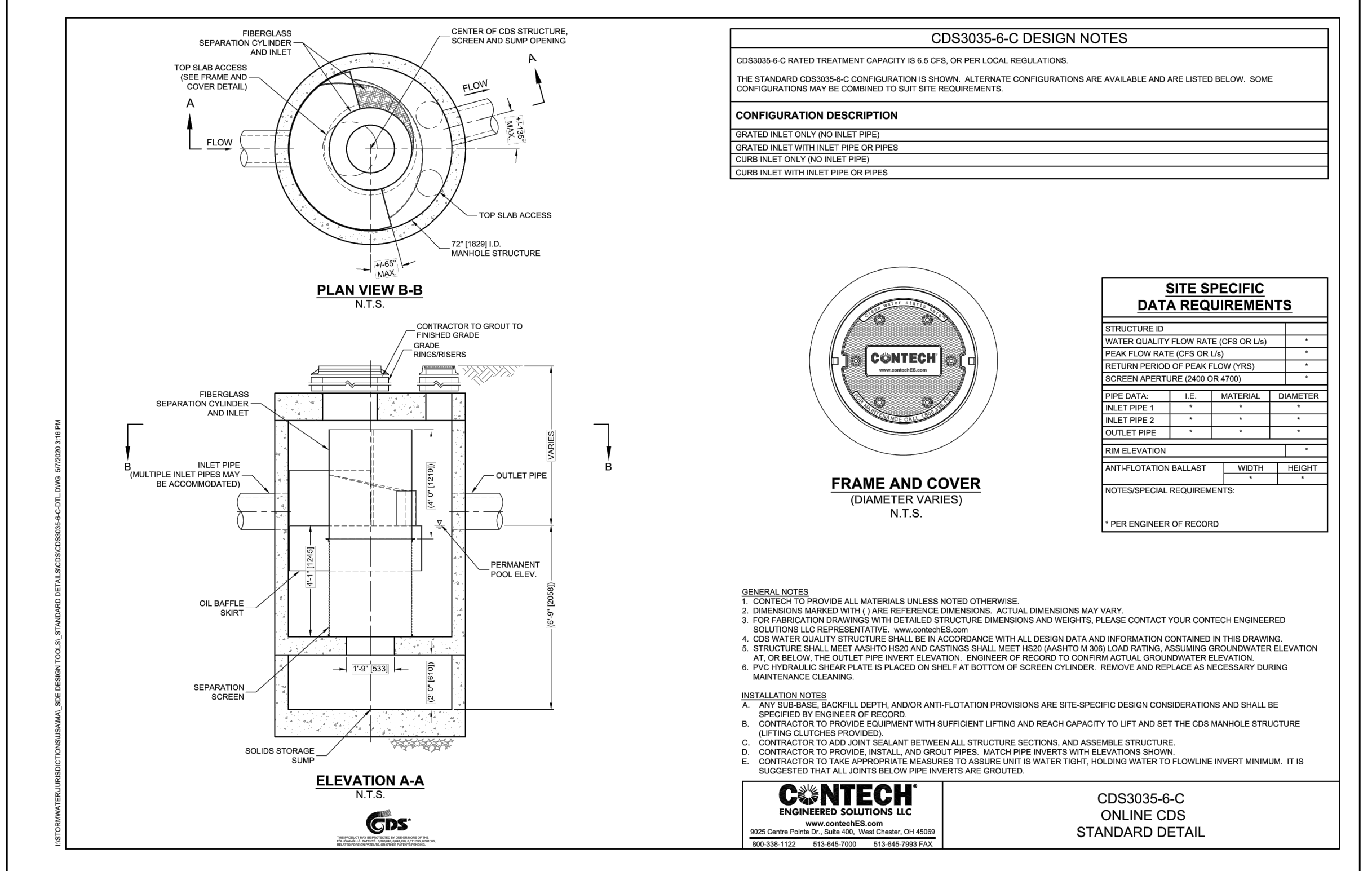
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SCALE: 1"=10'



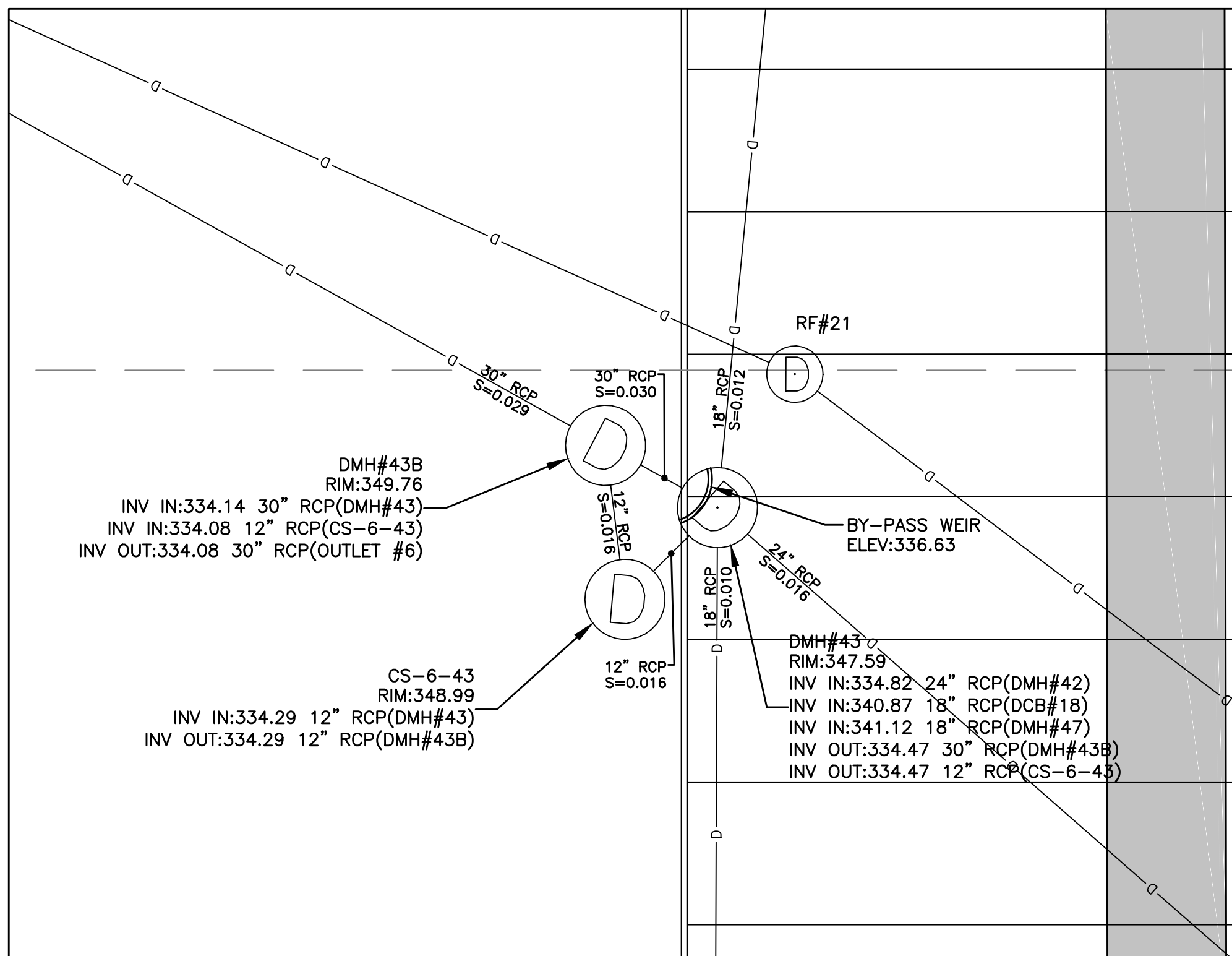
CONTECH CDS3035 WITH BYPASS DETAIL

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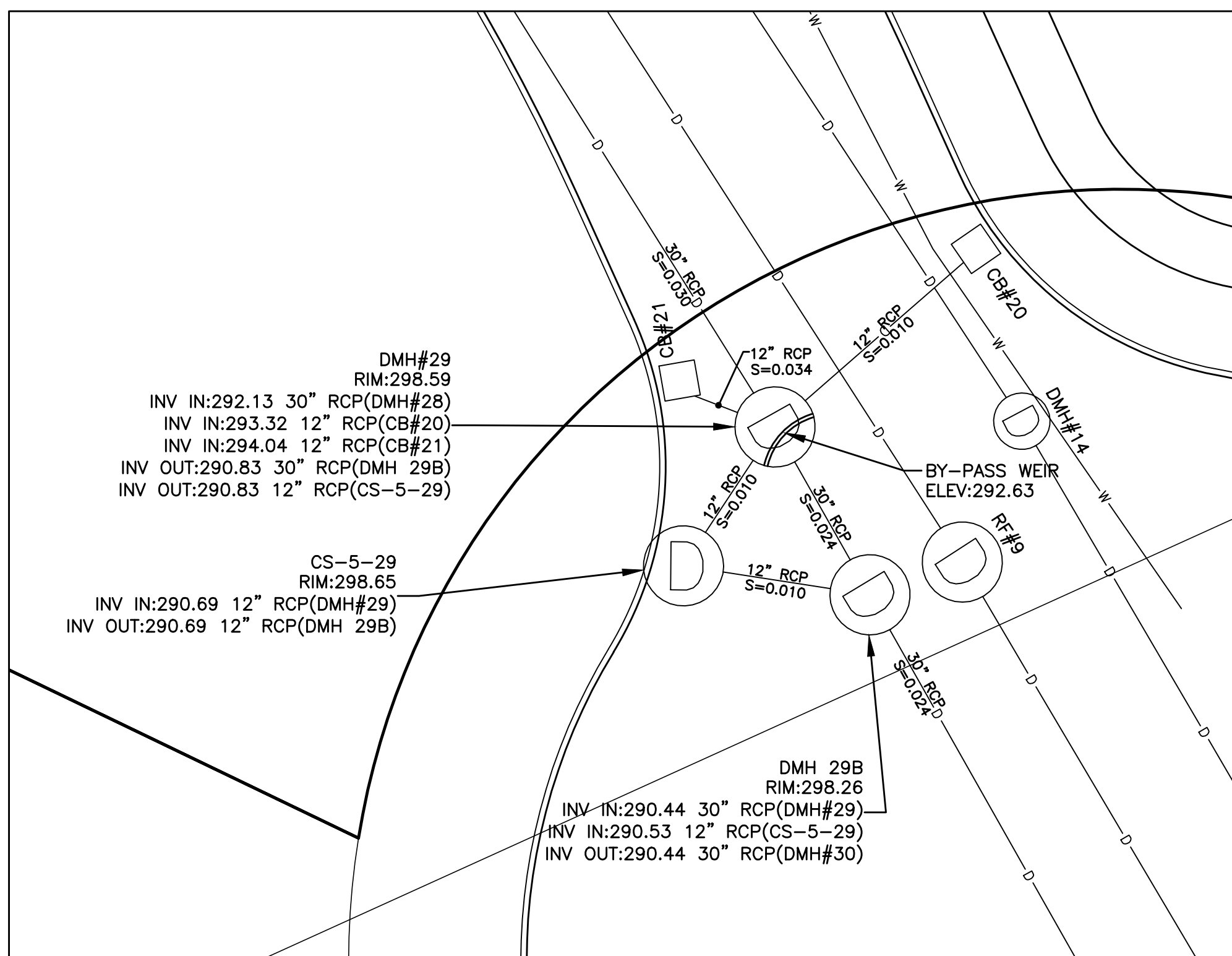
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NOT TO SCALE



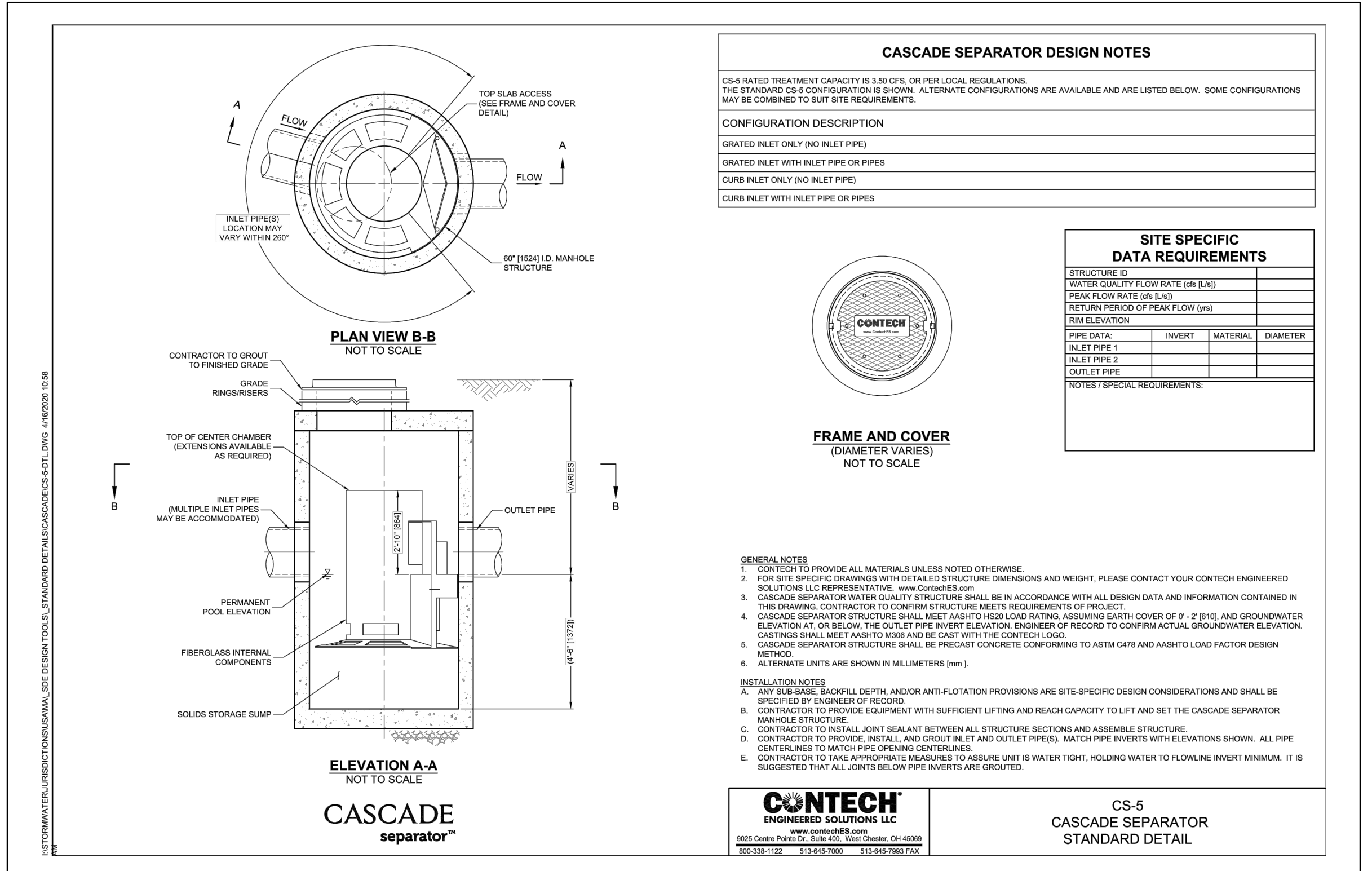
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SCALE: 1"=10'



CONTECH CDS2020 WITH BYPASS DETAIL

SCALE: 1"=10'



CONTECH CS-5 DETAIL

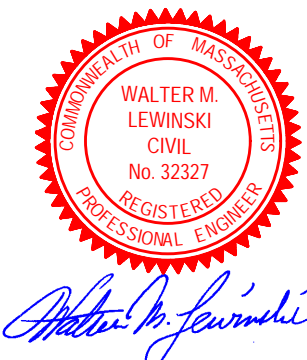
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REVISED BY	DATE	DESCRIPTION
WML	4/13/21	PEER REVIEW COMMENTS
PSB	2/5/21	ISSUED FOR REVIEW
PSB	3/2/20	PEER REVIEW COMMENTS
PSB	11/16/19	ISSUED FOR REVIEW

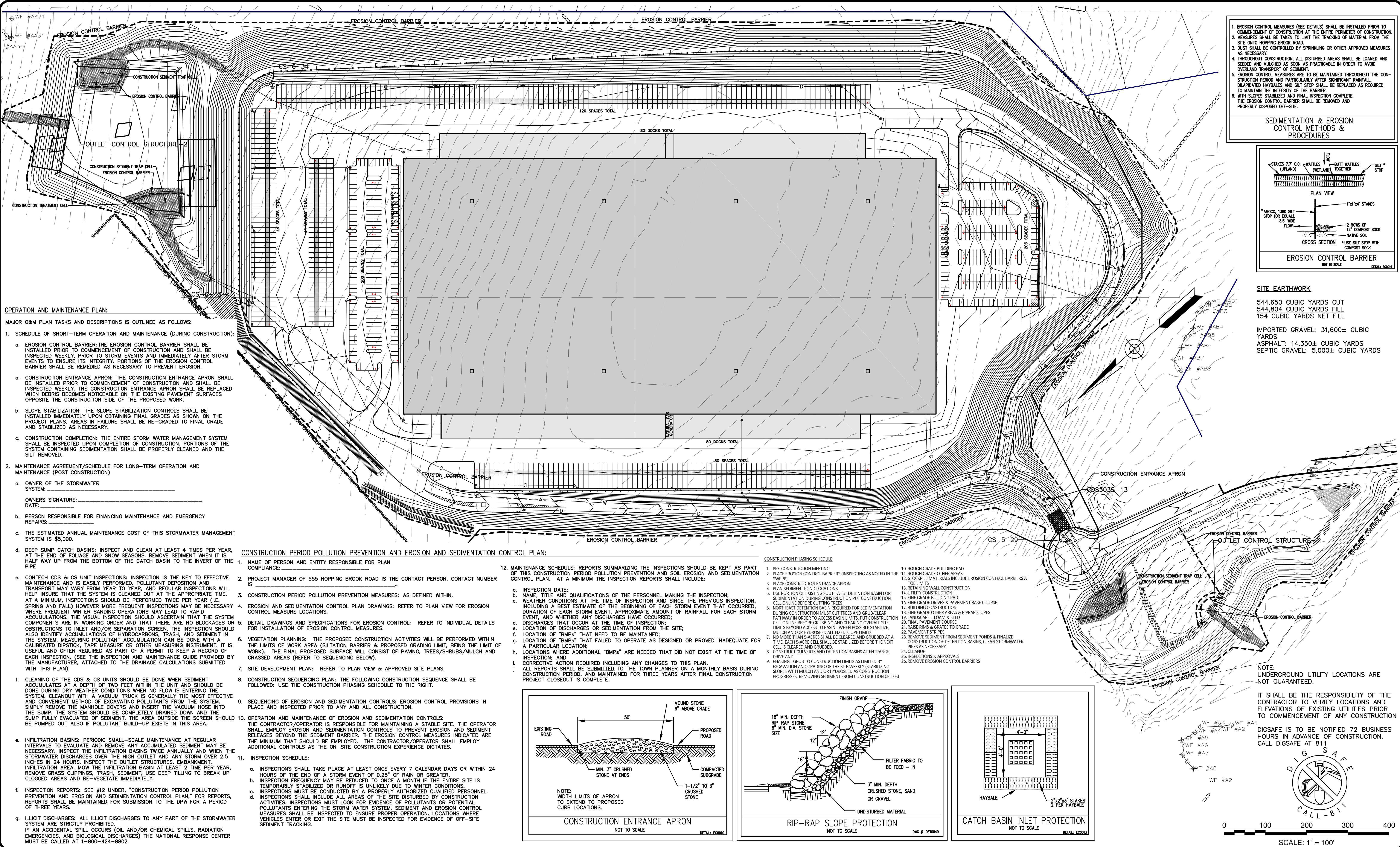


PREPARED BY:
Engineering Design Consultants, Inc.
 32 Turnpike Road
 Southborough, Massachusetts
 ph:(508) 480-0225 fax:(800)832-5781

PROJECT:
 555 HOPPING BROOK ROAD
 HOLLISTON, MASSACHUSETTS
 (MIDDLESEX COUNTY)

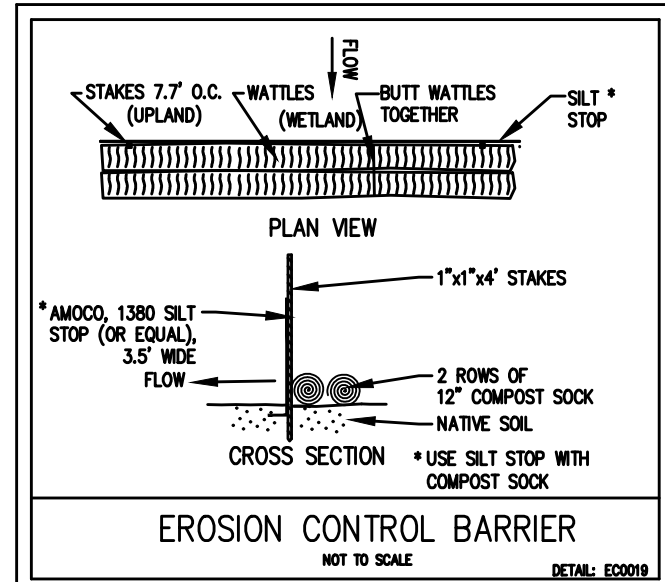
TITLE:
STORMWATER DETAILS
 555 HOPPING BROOK ROAD
 HOLLISTON, MASSACHUSETTS
 OWNER/APPLICANT:
 CRG INTEGRATED REAL ESTATE SOLUTIONS
 200 Barr Harbor Drive
 Conshohocken, PA 19248

FILE NO. 3724 DRAINAGE CONTECH
 DETAILS
 CONTECH DETAILS
 DATE: NOVEMBER 16, 2019
 DEFINITIVE PLAN NO.:
 31 of 36
31



1. EROSION CONTROL MEASURES (SEE DETAILS) SHALL BE INSTALLED PRIOR TO COMMENCEMENT OF CONSTRUCTION AT THE ENTIRE PERIMETER OF CONSTRUCTION.
2. MEASURES SHALL BE TAKEN TO LIMIT THE TRACKING OF MATERIAL FROM THE SITE ONTO HOPPING BROOK ROAD.
3. DUST SHALL BE CONTROLLED BY SPRINKLING OR OTHER APPROVED MEASURES AS NECESSARY.
4. THROUGHOUT CONSTRUCTION, ALL DISTURBED AREAS SHALL BE LOAMED AND SEEDED AND MULCHED AS SOON AS PRACTICABLE IN ORDER TO AVOID OVERLAND TRANSPORT OF SEDIMENT.
5. EROSION CONTROL MEASURES ARE TO BE MAINTAINED THROUGHOUT THE CONSTRUCTION PERIOD AND PARTICULARLY AFTER SIGNIFICANT RAINFALL. DISAPPEARED HAYBALES AND SILT STOP SHALL BE REPLACED AS REQUIRED TO MAINTAIN THE INTEGRITY OF THE BARRIER.
6. WITH SLOPES STABILIZED AND FINAL INSPECTION COMPLETE, THE EROSION CONTROL BARRIER SHALL BE REMOVED AND PROPERLY DISPOSED OFF-SITE.

SEDIMENTATION & EROSION CONTROL METHODS & PROCEDURES



SITE EARTHWORK

544,650 CUBIC YARDS CUT
544,804 CUBIC YARDS FILL
154 CUBIC YARDS NET FILL

IMPORTED GRAVEL: 31,600± CUBIC YARDS
ASPHALT: 14,350± CUBIC YARDS
SEPTIC GRAVEL: 5,000± CUBIC YARDS

OPERATION AND MAINTENANCE PLAN:

MAJOR O&M PLAN TASKS AND DESCRIPTIONS IS OUTLINED AS FOLLOWS:

1. SCHEDULE OF SHORT-TERM OPERATION AND MAINTENANCE (DURING CONSTRUCTION):

- a. EROSION CONTROL BARRIER: THE EROSION CONTROL BARRIER SHALL BE INSTALLED PRIOR TO COMMENCEMENT OF CONSTRUCTION AND SHALL BE INSPECTED WEEKLY. PRIOR TO STORM EVENTS AND IMMEDIATELY AFTER STORM EVENTS TO ENSURE ITS INTEGRITY. PORTIONS OF THE EROSION CONTROL BARRIER SHALL BE REMEDIATED AS NECESSARY TO PREVENT EROSION.
- b. CONSTRUCTION ENTRANCE APRON: THE CONSTRUCTION ENTRANCE APRON SHALL BE INSTALLED PRIOR TO COMMENCEMENT OF CONSTRUCTION AND SHALL BE INSPECTED WEEKLY. THE CONSTRUCTION ENTRANCE APRON SHALL BE REPLACED WHEN DEBRIS BECOMES NOTICEABLE ON THE EXISTING PAVEMENT SURFACES OPPOSITE THE CONSTRUCTION SIDE OF THE PROPOSED WORK.
- c. SLOPE STABILIZATION: THE SLOPE STABILIZATION CONTROLS SHALL BE INSTALLED IMMEDIATELY UPON OBTAINING FINAL GRADES AS SHOWN ON THE PROJECT PLANS. AREAS IN FAILURE SHALL BE RE-GRADED TO FINAL GRADE AND STABILIZED AS NECESSARY.
- d. CONSTRUCTION COMPLETION: THE ENTIRE STORM WATER MANAGEMENT SYSTEM SHALL BE INSPECTED UPON COMPLETION OF CONSTRUCTION. PORTIONS OF THE SYSTEM CONTAINING SEDIMENTATION SHALL BE PROPERLY CLEANED AND THE SILT REMOVED.

2. MAINTENANCE AGREEMENT/SCHEDULE FOR LONG-TERM OPERATION AND MAINTENANCE (POST CONSTRUCTION)

- a. OWNER OF THE STORMWATER SYSTEM:
- OWNERS SIGNATURE: _____
DATE: _____
- b. PERSON RESPONSIBLE FOR FINANCING MAINTENANCE AND EMERGENCY REPAIRS:
- c. THE ESTIMATED ANNUAL MAINTENANCE COST OF THIS STORMWATER MANAGEMENT SYSTEM IS \$5,000.

- d. DEEP SUMP CATCH BASINS: INSPECT AND CLEAN AT LEAST 4 TIMES PER YEAR, AT THE END OF FOLIAGE AND SNOW SEASONS. REMOVE SEDIMENT WHEN IT IS HALF WAY UP FROM THE BOTTOM OF THE CATCH BASIN TO THE INVERT OF THE PIPE.

- e. CONTECH CDS & CS UNIT INSPECTIONS: INSPECTION IS THE KEY TO EFFECTIVE MAINTENANCE AND IS EASILY PERFORMED. POLLUTANT DEPOSITION AND TRANSPORT MAY VARY FROM YEAR TO YEAR, AND REGULAR INSPECTIONS WILL HELP INSURE THAT THE SYSTEM IS CLEANED OUT AT THE APPROPRIATE TIME. AT A MINIMUM, INSPECTIONS SHOULD BE PERFORMED TWICE PER YEAR (I.E. SPRING AND FALL) HOWEVER MORE FREQUENT INSPECTIONS MAY BE NECESSARY WHERE FREQUENT WINTER SANDING OPERATIONS MAY LEAD TO RAPID ACCUMULATIONS. THE VISUAL INSPECTION SHOULD ASCERTAIN THAT THE SYSTEM COMPONENTS ARE IN WORKING ORDER AND THAT THERE ARE NO BLOCKAGES OR OBSTRUCTIONS TO INLET AND/OR SEPARATION SCREEN. THE INSPECTION SHOULD ALSO IDENTIFY ACCUMULATIONS OF HYDROCARBONS, TRASH, AND SEDIMENT IN THE SYSTEM. MEASURING POLLUTANT ACCUMULATION CAN BE DONE WITH A CALIBRATED DIPSTICK, TAPE MEASURE OR OTHER MEASURING INSTRUMENT. IT IS USEFUL AND OFTEN REQUIRED AS PART OF A PERMIT TO KEEP A RECORD OF EACH INSPECTION. SEE THE INSPECTION AND MAINTENANCE GUIDE PROVIDED BY THE MANUFACTURER, ATTACHED TO THE DRAINAGE CALCULATIONS SUBMITTED WITH THIS PLAN.

- f. CLEANING OF THE CDS & CS UNITS SHOULD BE DONE WHEN SEDIMENT ACCUMULATES AT A DEPTH OF TWO FEET WITHIN THE UNIT AND SHOULD BE DONE DURING DRY WEATHER CONDITIONS WHEN NO FLOW IS ENTERING THE SYSTEM. CLEANOUT WITH A VACUUM TRUCK IS GENERALLY THE MOST EFFECTIVE AND CONVENIENT METHOD OF EXCAVATING POLLUTANTS FROM THE SYSTEM. SIMPLY REMOVE THE MANHOLE COVERS AND INSERT THE VACUUM HOSE INTO THE SUMP. THE SYSTEM SHOULD BE COMPLETELY DRAINED DOWN AND THE SUMP FULLY EVACUATED OF SEDIMENT. THE AREA OUTSIDE THE SCREEN SHOULD BE PUMPED OUT ALSO IF POLLUTANT BUILD-UP EXISTS IN THIS AREA.

- g. INFILTRATION BASINS: PERIODIC SMALL-SCALE MAINTENANCE AT REGULAR INTERVALS TO EVALUATE AND REMOVE ANY ACCUMULATED SEDIMENT MAY BE NECESSARY. INSPECT THE INFILTRATION BASINS TWICE ANNUALLY AND WHEN THE STORMWATER DISCHARGES OVER THE HIGH OUTLET AND ANY STORM OVER 2.5 INCHES IN 24 HOURS, INSPECT THE OUTLET STRUCTURES, EMBANKMENT, INFILTRATION AREA. MOW THE INFILTRATION BASIN AT LEAST 2 TIME PER YEAR, REMOVE GRASS CLIPPINGS, TRASH, SEDIMENT, USE A DEEP TILLING TO BREAK UP CLOGGED AREAS AND RE-VEGETATE IMMEDIATELY.

- f. INSPECTION REPORTS: SEE #12 UNDER, "CONSTRUCTION PERIOD POLLUTION PREVENTION AND SEDIMENTATION CONTROL PLAN." FOR REPORTS, REPORTS SHALL BE MAINTAINED FOR SUBMISSION TO THE DPW FOR A PERIOD OF THREE YEARS.

- g. ILLICIT DISCHARGES: ALL ILLICIT DISCHARGES TO ANY PART OF THE STORMWATER SYSTEM ARE STRICTLY PROHIBITED. IF AN ACCIDENTAL SPILL OCCURS (OIL AND/OR CHEMICAL SPILLS, RADIATION EMERGENCIES, AND BIOLOGICAL DISCHARGES) THE NATIONAL RESPONSE CENTER MUST BE CALLED AT 1-800-424-8802.

CONSTRUCTION PERIOD POLLUTION PREVENTION AND EROSION AND SEDIMENTATION CONTROL PLAN:

1. NAME OF PERSON AND ENTITY RESPONSIBLE FOR PLAN COMPLIANCE: _____
2. PROJECT MANAGER OF 555 HOPPING BROOK ROAD IS THE CONTACT PERSON. CONTACT NUMBER IS _____
3. CONSTRUCTION PERIOD POLLUTION PREVENTION MEASURES: AS DEFINED WITHIN.
4. EROSION AND SEDIMENTATION CONTROL PLAN DRAWINGS: REFER TO PLAN VIEW FOR EROSION CONTROL MEASURE LOCATIONS.
5. DETAIL DRAWINGS AND SPECIFICATIONS FOR EROSION CONTROL: REFER TO INDIVIDUAL DETAILS FOR INSTALLATION OF EROSION CONTROL MEASURES.
6. VEGETATION PLANNING: THE PROPOSED CONSTRUCTION ACTIVITIES WILL BE PERFORMED WITHIN THE LIMITS OF WORK AREA (SILTATION BARRIER & PROPOSED GRADING LIMIT, BEING THE LIMIT OF WORK). THE FINAL PROPOSED SURFACE WILL CONSIST OF PAVING, TREES/SHRUBS/MULCH AND GRASSED AREAS (REFER TO SEQUENCING BELOW).
7. SITE DEVELOPMENT PLAN: REFER TO PLAN VIEW & APPROVED SITE PLANS.
8. CONSTRUCTION SEQUENCING PLAN: THE FOLLOWING CONSTRUCTION SEQUENCE SHALL BE FOLLOWED: USE THE CONSTRUCTION PHASING SCHEDULE TO THE RIGHT.
9. SEQUENCING OF EROSION AND SEDIMENTATION CONTROLS: EROSION CONTROL PROVISIONS IN PLACE AND INSPECTED PRIOR TO ANY AND ALL CONSTRUCTION.

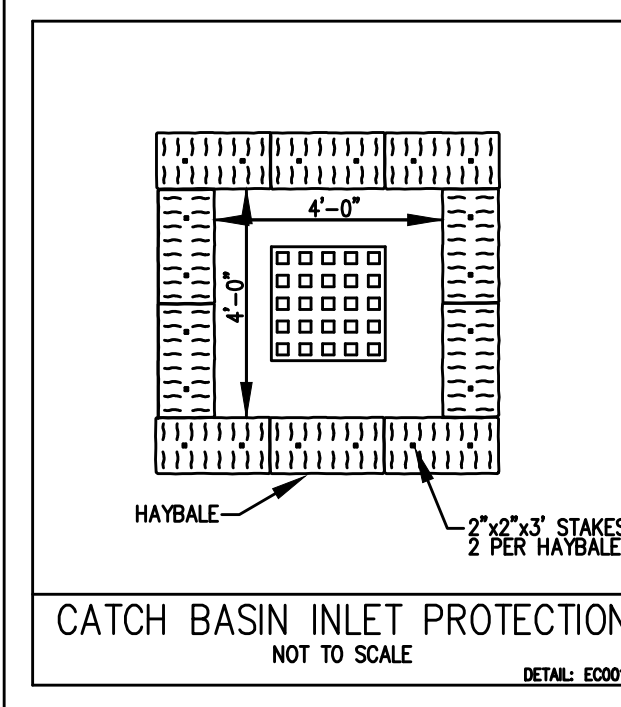
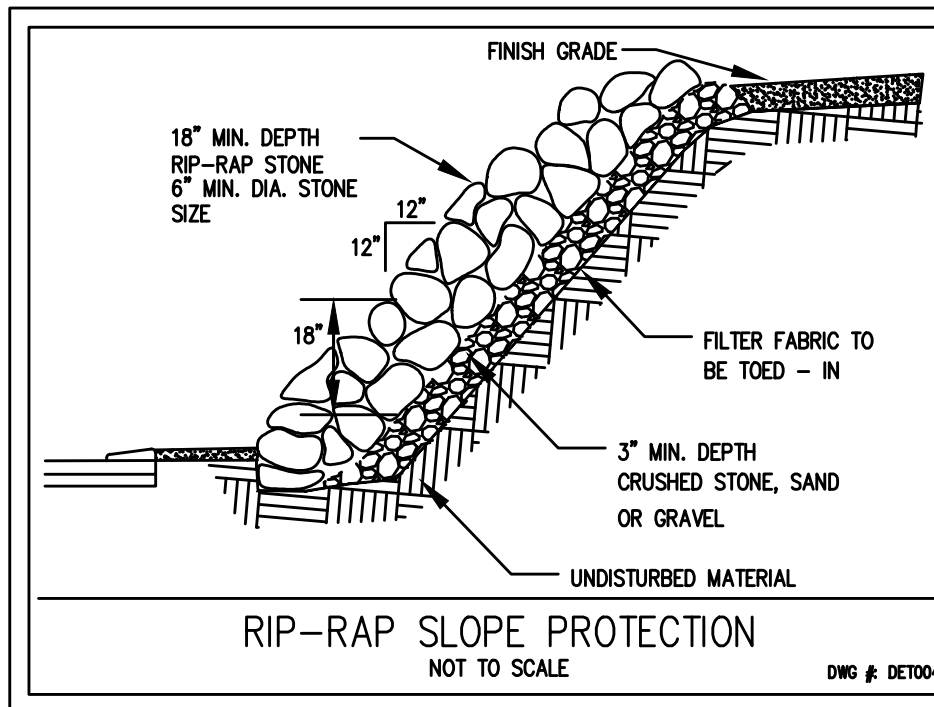
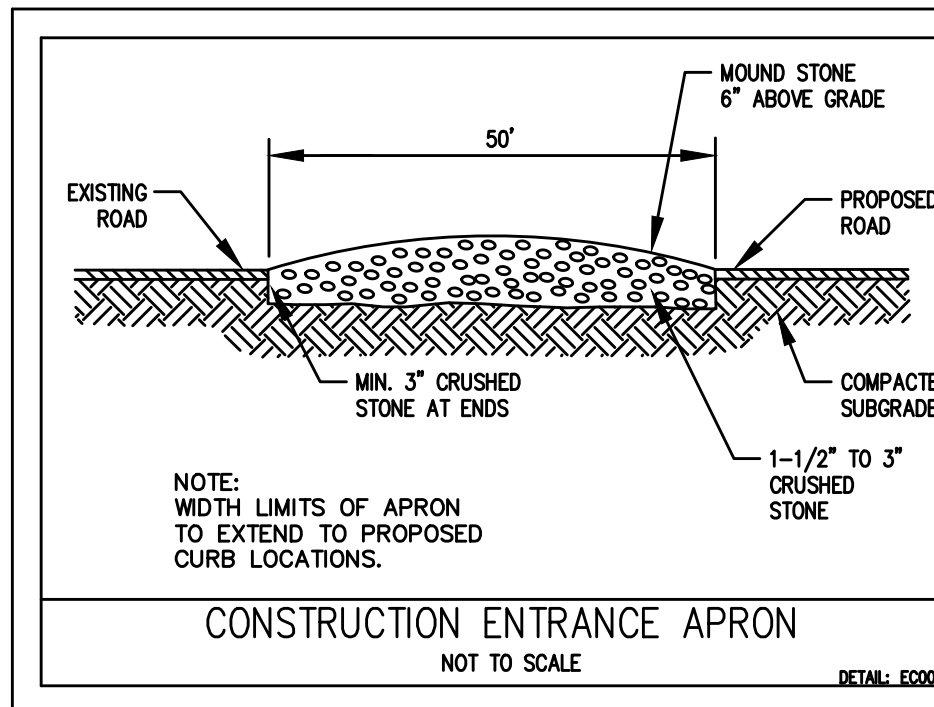
10. OPERATION AND MAINTENANCE OF EROSION AND SEDIMENTATION CONTROLS: THE CONTRACTOR/OPERATOR IS RESPONSIBLE FOR MAINTAINING A STABLE SITE. THE OPERATOR SHALL EMPLOY EROSION AND SEDIMENTATION CONTROLS TO PREVENT EROSION AND SEDIMENT RELEASES BEYOND THE SEDIMENT BARRIER. THE EROSION CONTROL MEASURES INDICATED ARE THE MINIMUM THAT SHOULD BE EMPLOYED. THE CONTRACTOR/OPERATOR SHALL EMPLOY ADDITIONAL CONTROLS AS THE ON-SITE CONSTRUCTION EXPERIENCE DICTATES.
11. INSPECTION SCHEDULE:

- a. INSPECTIONS SHALL TAKE PLACE AT LEAST ONCE EVERY 7 CALENDAR DAYS OR WITHIN 24 HOURS OF THE END OF A STORM EVENT OF 0.25" OF RAIN OR GREATER.
- b. INSPECTION FREQUENCY MAY BE REDUCED TO ONCE A MONTH IF THE ENTIRE SITE IS TEMPORARILY STABILIZED OR RUNOFF IS UNLIKELY DUE TO WINTER CONDITIONS.
- c. INSPECTIONS MUST BE CONDUCTED BY A PROPERLY AUTHORIZED QUALIFIED PERSONNEL.
- d. INSPECTIONS SHALL INCLUDE ALL AREAS OF THE SITE DISTURBED BY CONSTRUCTION ACTIVITIES. INSPECTIONS MUST LOOK FOR EVIDENCE OF POLLUTANTS OR POTENTIAL POLLUTANTS ENTERING THE STORM WATER SYSTEM. SEDIMENT AND EROSION CONTROL MEASURES SHALL BE INSPECTED TO ENSURE PROPER OPERATION. LOCATIONS WHERE VEHICLES ENTER OR EXIT THE SITE MUST BE INSPECTED FOR EVIDENCE OF OFF-SITE SEDIMENT TRACKING.

12. MAINTENANCE SCHEDULE: REPORTS SUMMARIZING THE INSPECTIONS SHOULD BE KEPT AS PART OF THIS CONSTRUCTION PERIOD POLLUTION PREVENTION AND SOIL EROSION AND SEDIMENTATION CONTROL PLAN. AT A MINIMUM THE INSPECTION REPORTS SHALL INCLUDE:
- a. INSPECTION DATE;
- b. NAME, TITLE AND QUALIFICATIONS OF THE PERSONNEL MAKING THE INSPECTION;
- c. WEATHER CONDITIONS AT THE TIME OF INSPECTION AND SINCE THE PREVIOUS INSPECTION, INCLUDING A BEST ESTIMATE OF THE BEGINNING OF EACH STORM EVENT THAT OCCURRED, DURATION OF EACH STORM EVENT, APPROXIMATE AMOUNT OF RAINFALL FOR EACH STORM EVENT, AND WHETHER ANY DISCHARGES HAVE OCCURRED;
- d. DISCHARGES THAT OCCUR AT THE TIME OF INSPECTION;
- e. LOCATION OF DISCHARGES OR SEDIMENTATION FROM THE SITE;
- f. LOCATION OF "BMPs" THAT NEED TO BE MAINTAINED;
- g. LOCATION OF "BMPs" THAT FAILED TO OPERATE AS DESIGNED OR PROVED INADEQUATE FOR A PARTICULAR LOCATION;
- h. LOCATIONS WHERE ADDITIONAL "BMPs" ARE NEEDED THAT DID NOT EXIST AT THE TIME OF INSPECTION; AND
- i. CORRECTIVE ACTION REQUIRED INCLUDING ANY CHANGES TO THIS PLAN.
- j. ALL REPORTS SHALL BE SUBMITTED TO THE TOWN PLANNER ON A MONTHLY BASIS DURING CONSTRUCTION PERIOD, AND MAINTAINED FOR THREE YEARS AFTER FINAL CONSTRUCTION PROJECT CLOSEOUT IS COMPLETE.

CONSTRUCTION PHASING SCHEDULE

1. PRE-CONSTRUCTION MEETING
2. PLACE EROSION CONTROL BARRIERS (INSPECTING AS NOTED IN THE SUPPLY)
3. PLACE CONSTRUCTION ENTRANCE APRON
4. PLAN SEDIMENT POND LOCATIONS
5. USE PORTION OF EXISTING SOUTHWEST DETENTION BASIN FOR SEDIMENTATION DURING CONSTRUCTION PUT CONSTRUCTION CELL ONLINE BEFORE CUTTING TREES
6. NORTHEAST DETENTION BASIN REQUIRED FOR SEDIMENTATION DURING CONSTRUCTION MUST CUT TREES AND GRUB/CLEAR PATHWAY IN ORDER TO ACCESS BASIN LIMITS. PUT CONSTRUCTION CELL ONLINE BEFORE GRUBBING AND CLEARING OVERALL SITE LIMITS BEYOND ACCESS TO BASIN - WHEN POSSIBLE STABILIZE, MULCH AND/OR HYDROSEED ALL EXPOSED SLOPE LIMITS
7. NO MORE THAN 5 ACRES SHALL BE CLEARED AND GRUBBED AT A TIME. EACH 5-ACRE CELL SHALL BE STABILIZED BEFORE THE NEXT CELL IS CLEARED AND GRUBBED
8. CONSTRUCT CULVERTS AND DETENTION BASINS AT ENTRANCE DRIVE
9. PHASING - GRUB TO CONSTRUCTION LIMITS AS LIMITED BY EXCAVATION AND GRADING OF THE SITE WEEKLY (STABILIZING SLOPES WITH MULCH AND/OR HYDROSEED AS CONSTRUCTION PROGRESSES, REMOVING SEDIMENT FROM CONSTRUCTION CELLS)
10. ROUGH GRADE BUILDING PAD
11. ROUGH GRADE OTHER AREAS
12. STOCKPILE MATERIALS INCLUDE EROSION CONTROL BARRIERS AT TOE LIMITS
13. RETAINING WALL CONSTRUCTION
14. UTILITY CONSTRUCTION
15. FINE GRADE BUILDING PAD
16. FINE GRADE DRIVE & PAVEMENT BASE COURSE
17. BUILDING CONSTRUCTION
18. FINE GRADE OTHER AREAS & RIPRAP SLOPES
19. LANDSCAPE - LOAM & SEED
20. FINAL PAVEMENT COURSE
21. RAISE RIMS & GRATES TO GRADE
22. PAVEMENT STRIPS
23. REMOVE SEDIMENT FROM SEDIMENT POND & FINALIZE CONSTRUCTION OF DETENTION BASINS, CLEAN STORMWATER PIPES AS NECESSARY
24. CLEANUP
25. INSPECTIONS & APPROVALS
26. REMOVE EROSION CONTROL BARRIERS



0 100 200 300 400
SCALE: 1" = 100'

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REVISED:		REVISED:	
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CHK'D BY:	PSB	2/5/21	ISSUED FOR REVIEW
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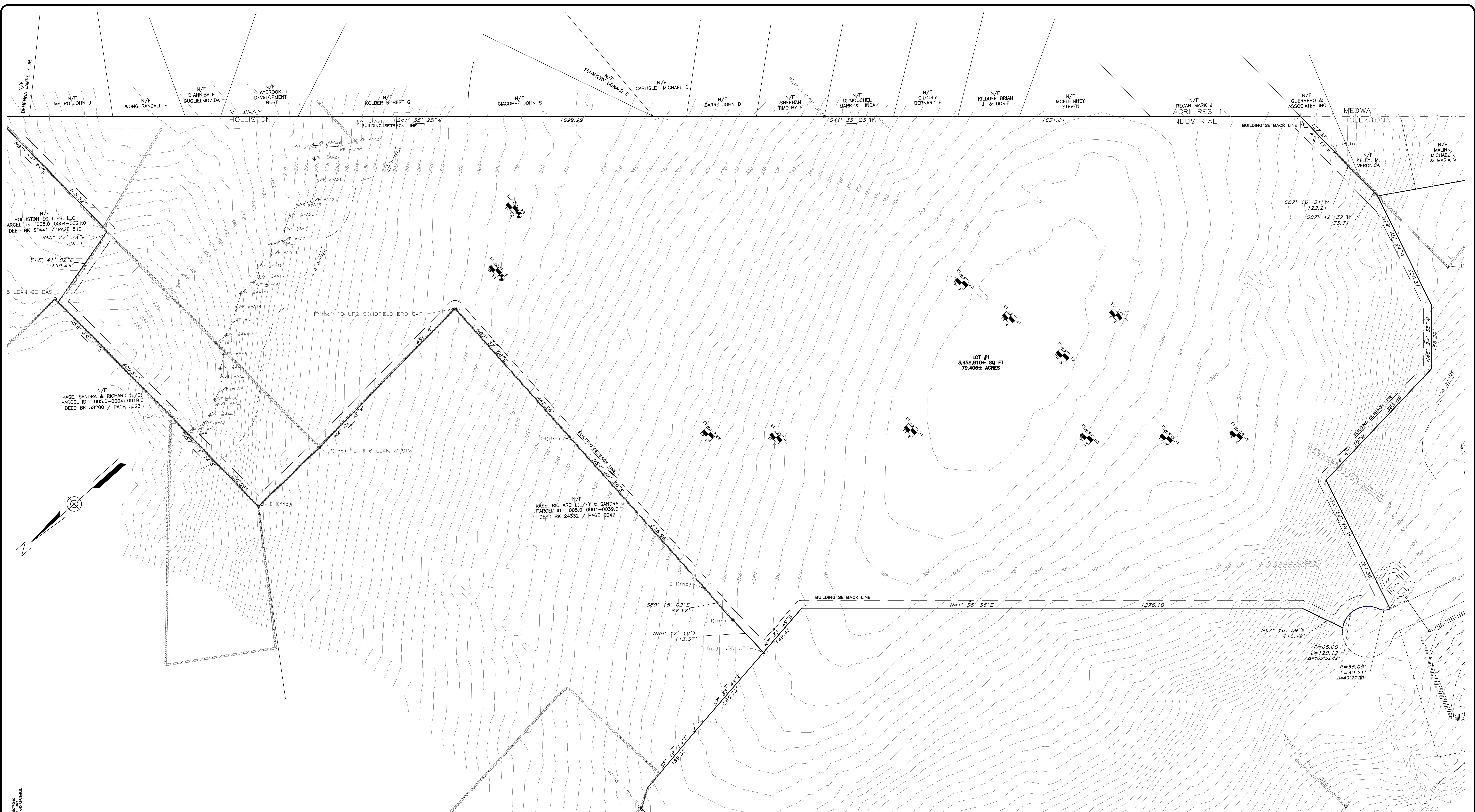
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555 HOPPING BROOK ROAD
HOLLISTON, MASSACHUSETTS
(MIDDLESEX COUNTY)

TITLE: STORMWATER POLLUTION PREVENTION PLAN
555 HOPPING BROOK ROAD
HOLLISTON, MASSACHUSETTS

OWNER/APPLICANT: CRG INTEGRATED REAL ESTATE SOLUTIONS
200 Barr Harbor Drive
Conshohocken, PA 19248

FILE NO: 3724 SWPPP
SWPPP
DATE: NOVEMBER 16, 2019
DEFINITE PLAN NO: 33 OF 36
33



SOIL TESTS PERFORMED BY: PETER BEIMS, ON OCTOBER 3&4, 2019.

DEEP HOLE: TP#1 ELEV. 368.4 6" A 36" Bw 120" C SAND 2.5/5/4 BOE REFUSAL SOIL CLASS: CLASS II OBSERVED GW: NONE	DEEP HOLE: TP#3 ELEV. 367.0 6" A 36" Bw 156" C SANDY LOAM 2.5/3/3 SAND 2.5/5/4 BOE REFUSAL SOIL CLASS: CLASS II OBSERVED GW: NONE	DEEP HOLE: TP#5 ELEV. 371.6 6" A 36" Bw 156" C SANDY LOAM 2.5/3/3 SAND 2.5/5/4 BOE REFUSAL SOIL CLASS: CLASS II OBSERVED GW: NONE	DEEP HOLE: TP#7 ELEV. 370.2 6" A 36" Bw 138" C SANDY LOAM 2.5/3/3 SAND 2.5/5/4 BOE REFUSAL SOIL CLASS: CLASS II OBSERVED GW: NONE	DEEP HOLE: TP#9 ELEV. 367.6 6" A 36" Bw 168" C SANDY LOAM 2.5/3/3 SAND 2.5/5/4 BOE REFUSAL SOIL CLASS: CLASS II OBSERVED GW: NONE	DEEP HOLE: TP#11 ELEV. 367.4 6" A 36" Bw 72" C SANDY LOAM 2.5/3/3 SAND 2.5/5/4 BOE REFUSAL SOIL CLASS: CLASS II OBSERVED GW: NONE
DEEP HOLE: TP#2 ELEV. 368.0 6" A 36" Bw 96" C SANDY LOAM 2.5/3/3 SAND 2.5/5/4 BOE REFUSAL SOIL CLASS: CLASS II OBSERVED GW: NONE	DEEP HOLE: TP#4 ELEV. 371.1 6" A 36" Bw 156" C SANDY LOAM 2.5/3/3 SAND 2.5/5/4 BOE REFUSAL SOIL CLASS: CLASS II OBSERVED GW: NONE	DEEP HOLE: TP#6 ELEV. 372.2 6" A 36" Bw 156" C SANDY LOAM 2.5/3/3 SAND 2.5/5/4 BOE REFUSAL SOIL CLASS: CLASS II OBSERVED GW: NONE	DEEP HOLE: TP#8 ELEV. 370.5 6" A 36" Bw 156" C SANDY LOAM 2.5/3/3 SAND 2.5/5/4 BOE REFUSAL SOIL CLASS: CLASS II OBSERVED GW: NONE	DEEP HOLE: TP#10 ELEV. 367.7 6" A 36" Bw 174" C SANDY LOAM 2.5/3/3 SAND 2.5/5/4 BOE REFUSAL SOIL CLASS: CLASS II OBSERVED GW: NONE	DEEP HOLE: TP#12 ELEV. 367.5 6" A 36" Bw 72" C SANDY LOAM 2.5/3/3 SAND 2.5/5/4 BOE REFUSAL SOIL CLASS: CLASS II OBSERVED GW: NONE



