

# PROPOSED MULTI-FAMILY DEVELOPMENT

LOUISE BERRY DRIVE  
BROOKLYN, CONNECTICUT

PREPARED FOR:  
**SHANE POLLOCK**

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LEGEND	
●	IRON PIN TO BE SET
○	IRON PIN FOUND
○ DH	DRILL HOLE FOUND
□ CB	CATCH BASIN
∅	UTILITY POLE
---100---	EXISTING CONTOURS
(100)	PROPOSED CONTOURS
—#—	INLAND WETLANDS FLAG
—B—	BUILDING SETBACK LINE
—S—	EXISTING SANITARY SEWER LINE
—W—	EXISTING WATER LINE
○○○○○○○○	STONE WALL
○ ○ ○ ○	STONE WALL REMAINS
=====	SILT FENCE

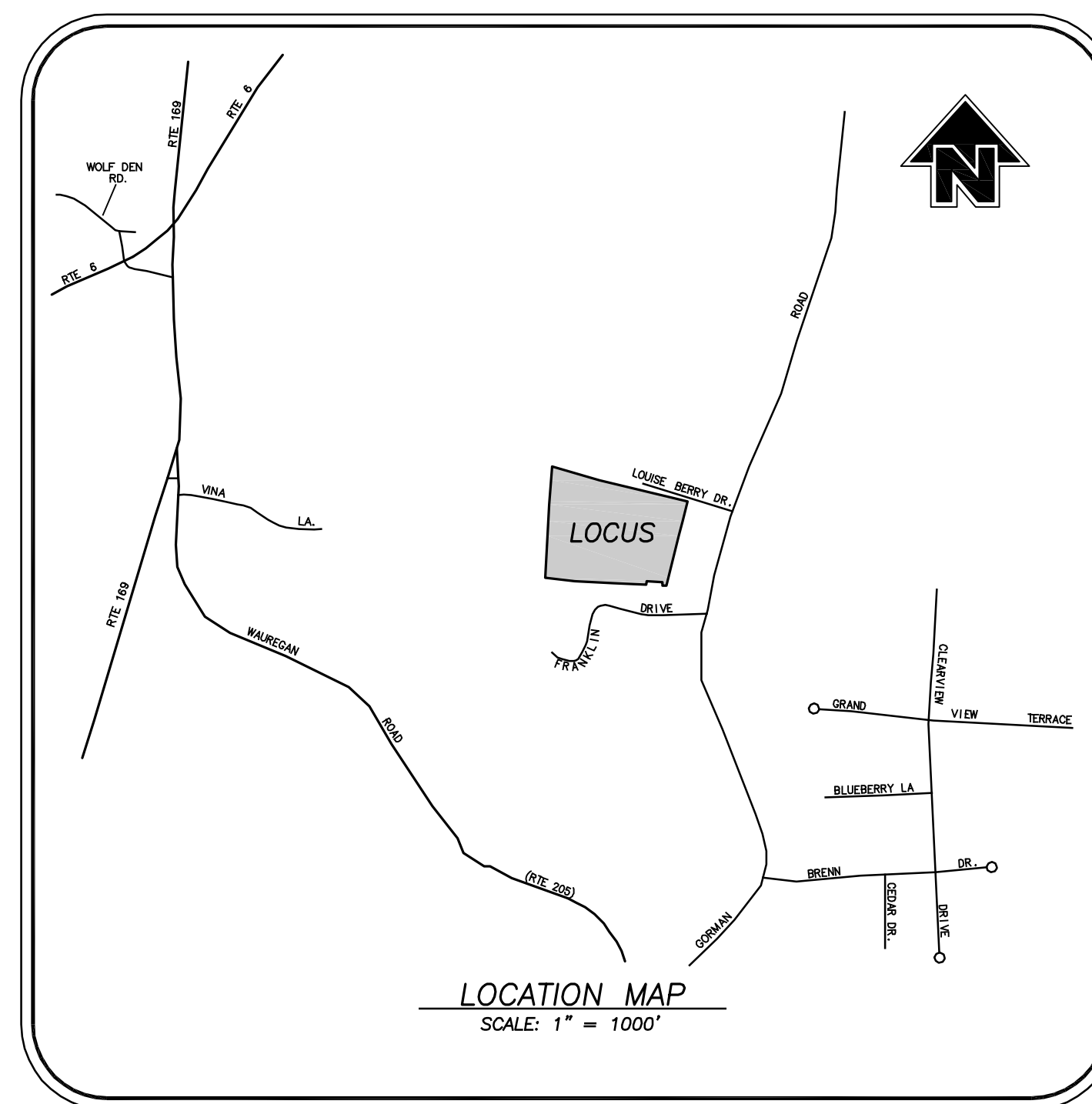


TABLE OF ZONING REQUIREMENTS		
ZONE = RA*		
	REQUIRED	PROVIDED
Lot Area	2 Acres	13.497 Acres
Front Yard Setback	50'	53.4'
Side Yard Setback	40'	48'
Rear Yard Setback	50'	257'
Building Height	35' Max.	<35'
Lot Frontage	150'	948'

\*Multi-family development in accordance with Section 6.E.

PREPARED BY:

REVISIONS	
DATE	DESCRIPTION
8/24/2020	PER TOWN REVIEW

**Killingly Engineering Associates**  
Civil Engineering & Surveying  
114 Westcott Road  
P.O. Box 421  
Killingly, Connecticut 06241  
(860) 779-7299  
www.killinglyengineering.com

April 23, 2020

FOR REVIEW ONLY  
NOT FOR CONSTRUCTION

APPROVED BY THE BROOKLYN  
PLANNING AND ZONING COMMISSION

FINAL APPROVAL DATE: \_\_\_\_\_

CHAIRMAN \_\_\_\_\_ DATE: \_\_\_\_\_

EXPIRATION DATE: \_\_\_\_\_

Per Sec. 8.26c of the Connecticut General Statutes, as amended, approval automatically expires \_\_\_\_\_ if all public improvements required by this plan are not completed by that date.

ENDORSED BY THE BROOKLYN INLAND  
WETLANDS COMMISSION

CHAIRMAN \_\_\_\_\_ DATE \_\_\_\_\_

\_\_\_\_\_

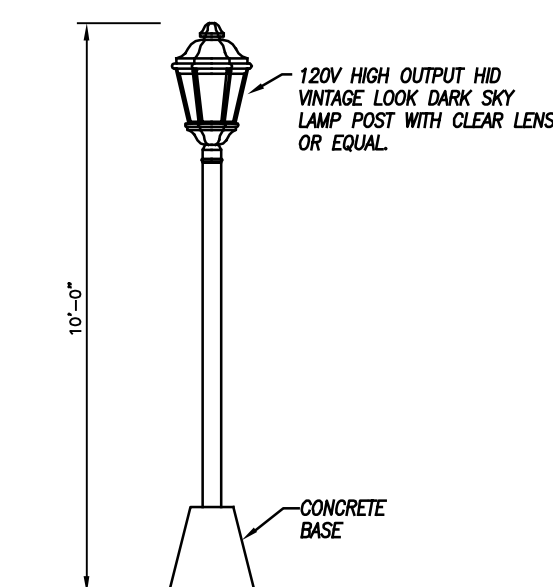
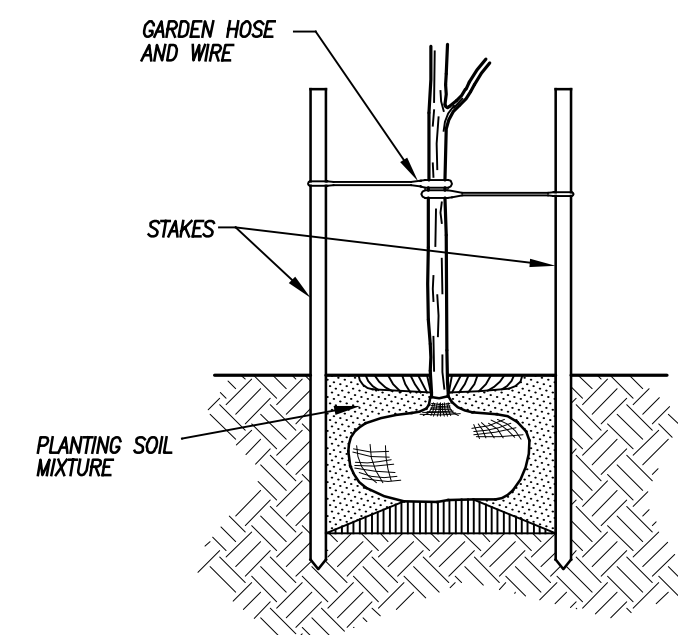
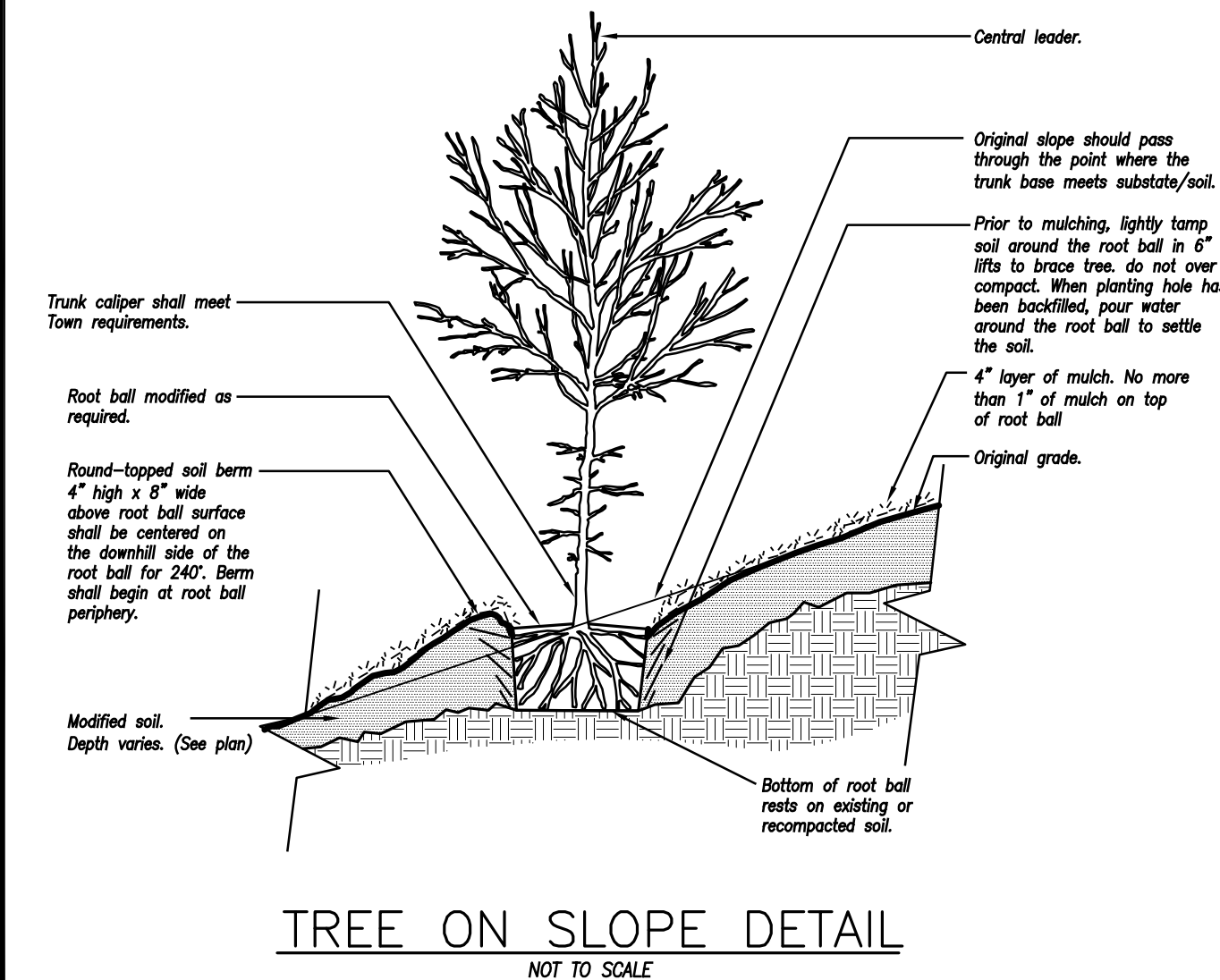
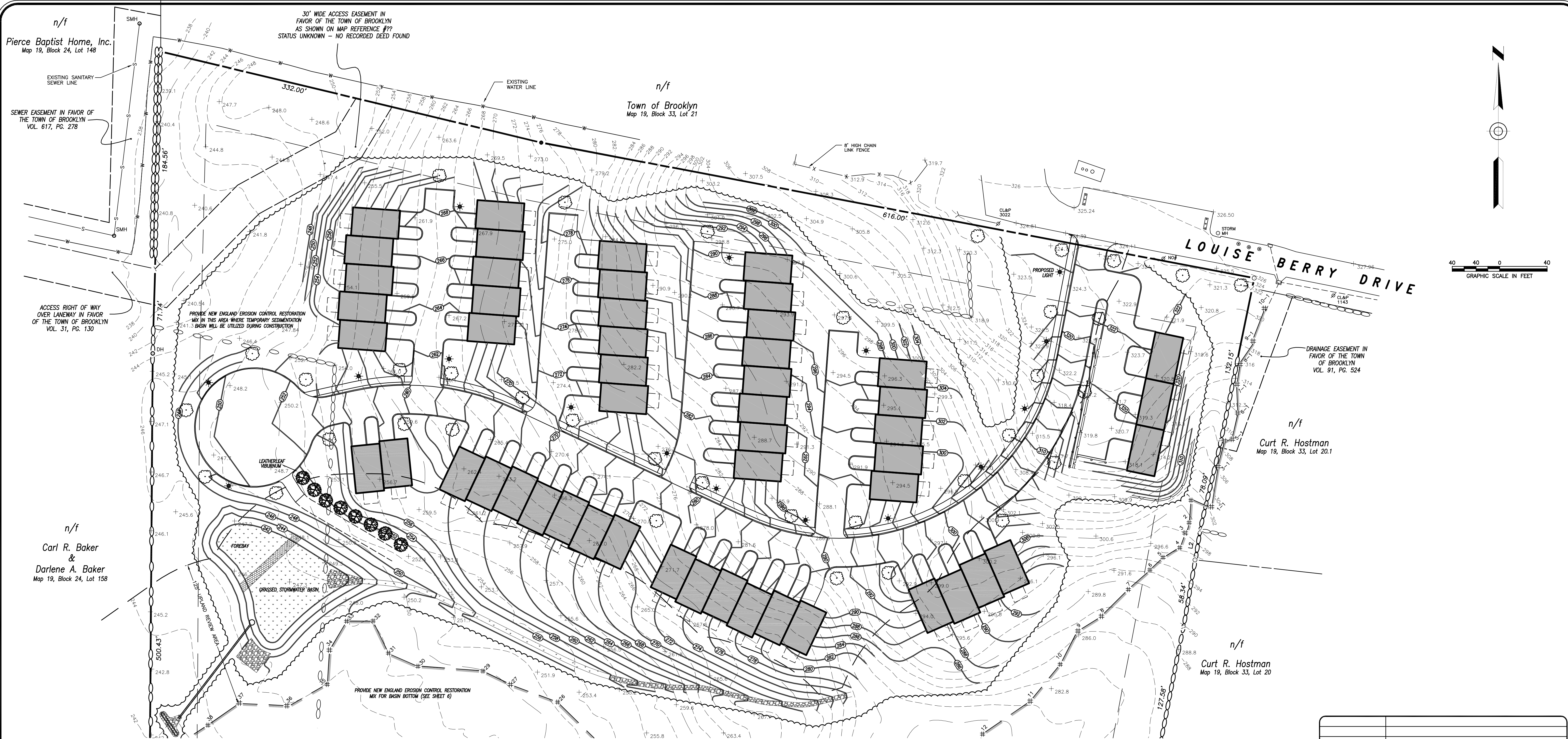
NORMAND THIBEAULT, JR., P.E. No. 22834 DATE \_\_\_\_\_





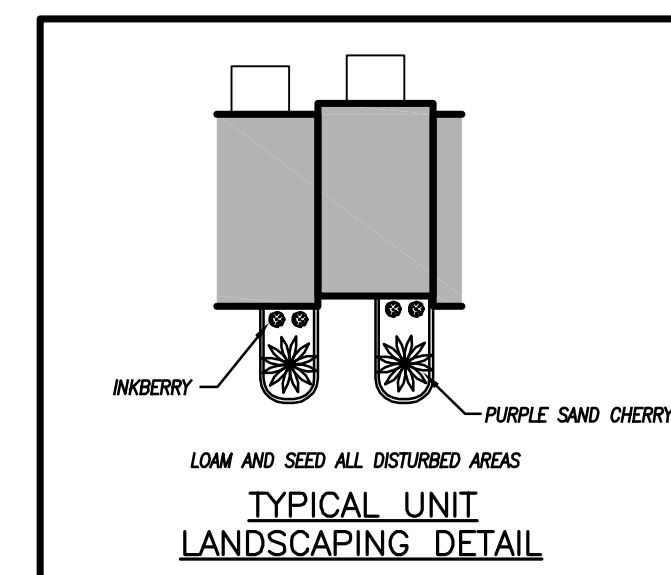






LANDSCAPE SCHEDULE		
BOTANICAL NAME	COMMON NAME	SIZE
Cornus kousa	Korean Flowering Dogwood Pink	2.5" cal.
Cornus kousa chinensis	Korean Flowering Dogwood White	2.5" cal.
Ilex glabra	Inkberry 'Shamrock'	1 gal.
Prunus x cistena	Purple Sand Cherry	1 gal.
Viburnum rhytidophyllum	Leatherleaf Viburnum	4'

NOTE: Alternate pink & white dogwood trees along street



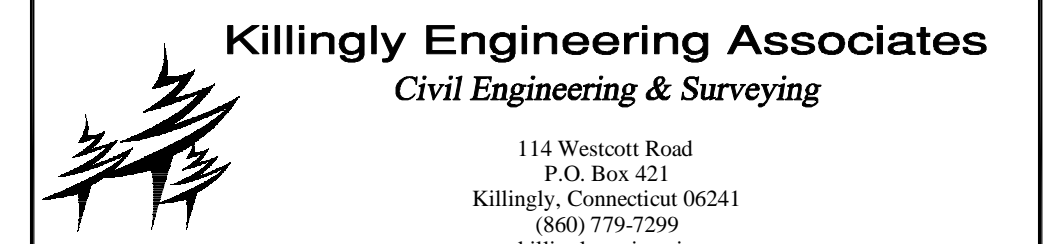
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#### LAYOUT & LANDSCAPING PLAN

PREPARED FOR

SHANE POLLOCK

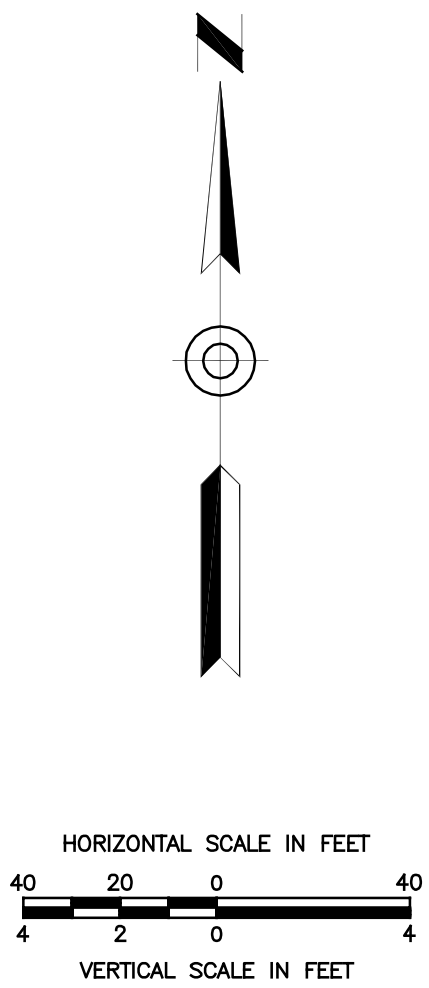
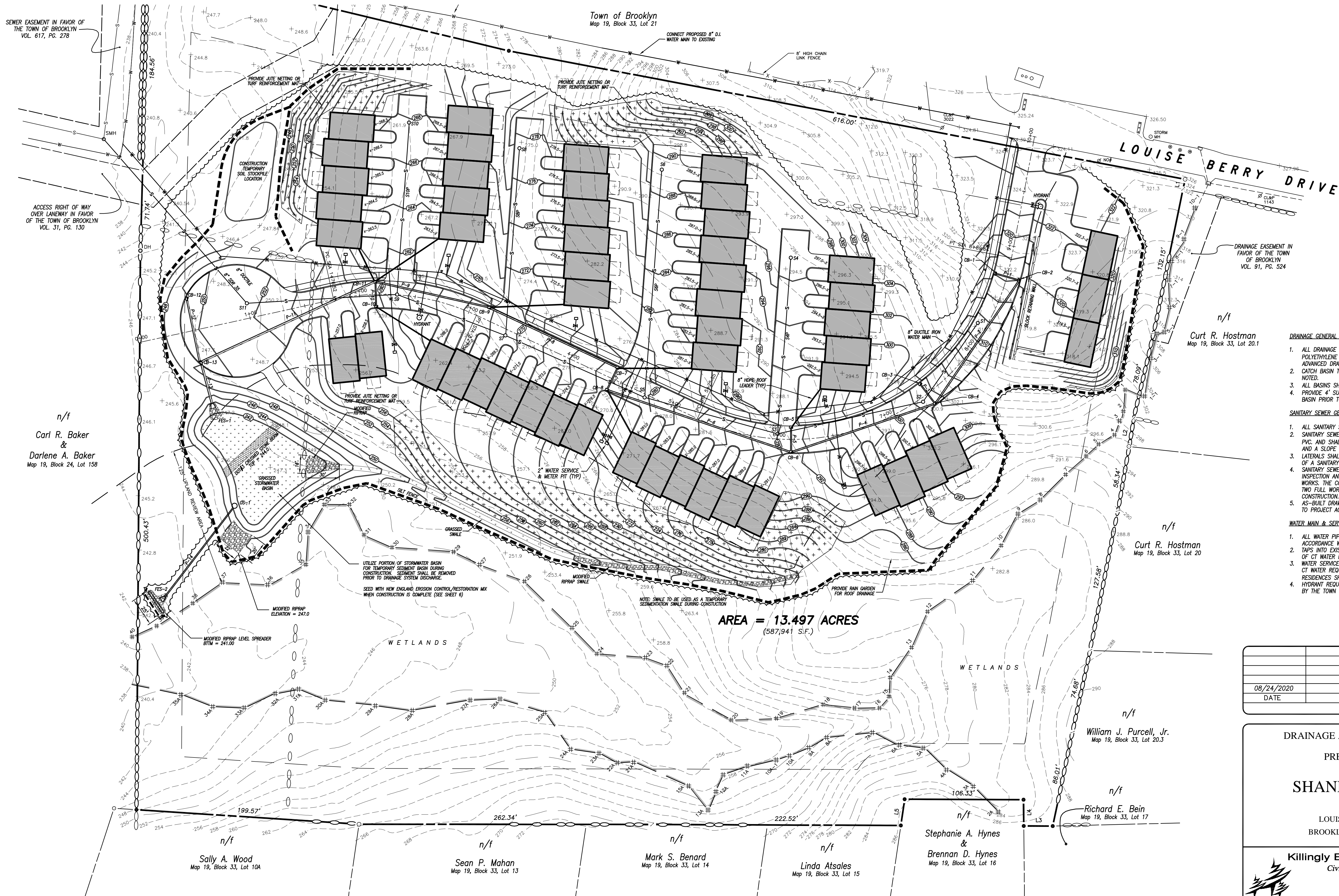
LOUISE BERRY DRIVE  
BROOKLYN, CONNECTICUT



DATE: 4/23/2020	DRAWN: DNE
SCALE: 1" = 40'	DESIGN: NET
SHEET: 4 OF 9	CHK BY: ---
DWG. No: CLIENT FILE	JOB No: 20014

NORMAND E. THIBEAULT, JR., P.E.  
LIC #PEN 0022834





- DRAINAGE GENERAL NOTES:**
1. ALL DRAINAGE PIPE SHALL BE CORRUGATED HIGH DENSITY POLYETHYLENE (HDPE), SMOOTH INTERIOR AS MANUFACTURED BY ADVANCED DRAINAGE SOLUTIONS OR APPROVED EQUAL.
  2. CATCH BASIN TOPS SHALL BE TYPE "C" UNLESS OTHERWISE NOTED.
  3. ALL BASINS SHALL BE INSTALLED WITH 2' SUMPS.
  4. PROVIDE 4" SUMP AND HOODED OUTLET AT TERMINATION CATCH BASIN PRIOR TO DISCHARGE INTO STORMWATER BASIN.
- SANITARY SEWER GENERAL NOTES:**
1. ALL SANITARY SEWER MAINS SHALL BE 8" SDR 35 PVC.
  2. SANITARY SEWER LATERALS TO RESIDENCES SHALL BE 4" SDR 35 PVC AND SHALL BE INSTALLED WITH A MINIMUM 42" OF COVER AND A SLOPE OF 2%.
  3. LATERALS SHALL NOT BE INSTALLED DIRECTLY TO OR WITHIN 5' OF A SANITARY MANHOLE.
  4. SANITARY SEWER SYSTEM CONSTRUCTION IS SUBJECT TO INSPECTION AND APPROVAL BY THE DEPARTMENT OF PUBLIC WORKS. THE CONTRACTOR SHALL NOTIFY THE CITY A MINIMUM OF TWO FULL WORKING DAYS PRIOR TO THE START OF ANY CONSTRUCTION.
  5. AS-BUILT DRAWINGS SHALL BE SUBMITTED AND APPROVED PRIOR TO PROJECT ACCEPTANCE.
- WATER MAIN & SERVICES:**
1. ALL WATER PIPE SHALL BE CLASS 52 DUCTILE IRON PIPE IN ACCORDANCE WITH CT WATER REQUIREMENTS.
  2. TAPS INTO EXISTING MAINS SHALL BE UNDER THE SUPERVISION OF CT WATER REPRESENTATIVES.
  3. WATER SERVICE CONNECTIONS TO THE WATER MAIN SHALL BE PER CT WATER REQUIREMENTS. SERVICES FROM SHUT OFF VALVES TO RESIDENCES SHALL BE 1" HDPE.
  4. HYDRANT REQUIREMENTS AND LOCATIONS SHALL BE DETERMINED BY THE TOWN OF BROOKLYN FIRE MARSHAL.

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DRAINAGE AND UTILITIES PLAN

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LOUISE BERRY DRIVE  
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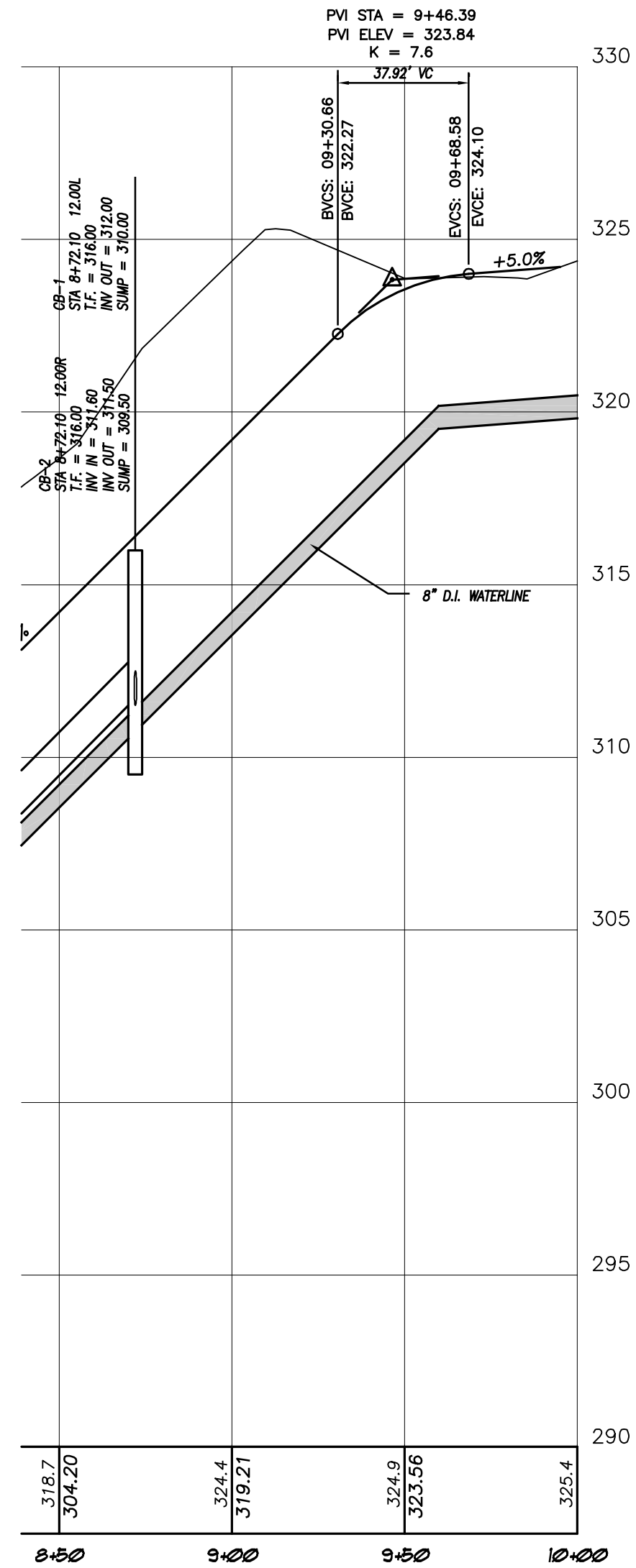
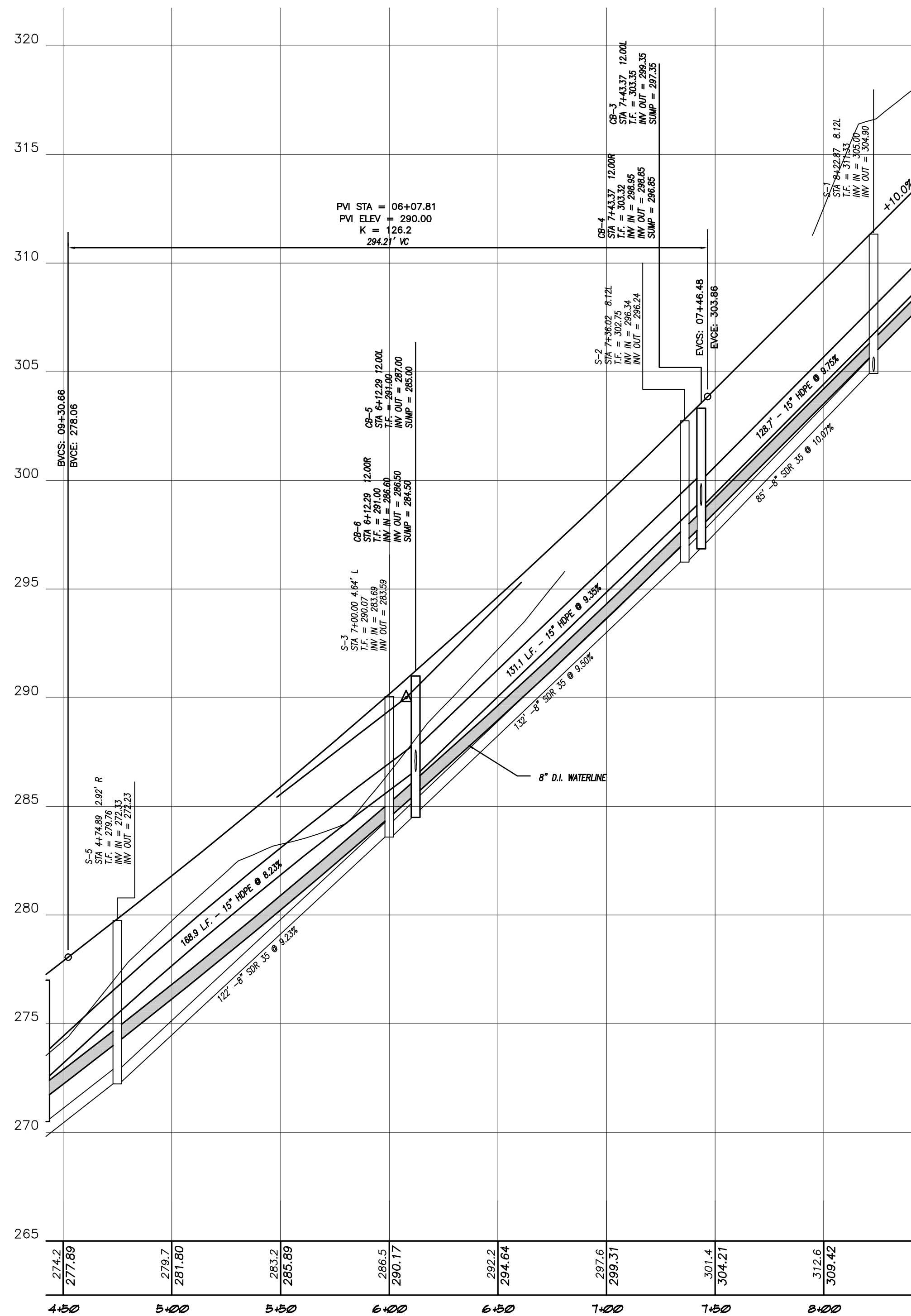
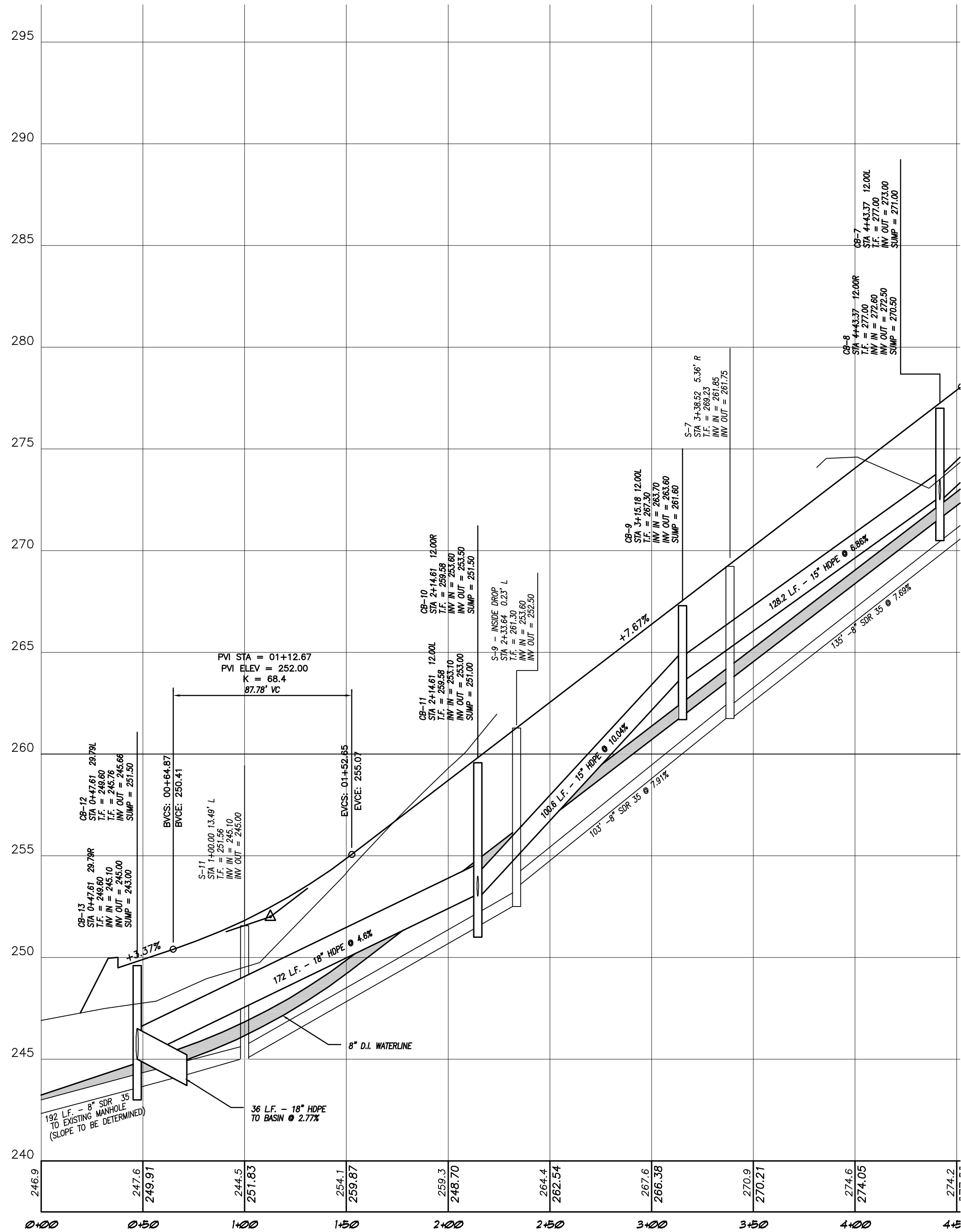
DRAINAGE PIPE SCHEDULE				
LABEL	LENGTH	SLOPE	DIAMETER	MATERIAL
P1	20'	2.0%	12"	HDPE
P2	128.7'	9.75%	15"	HDPE
P3	20'	2.0%	12"	HDPE
P4	131.1'	9.35%	15"	HDPE
P5	20'	2.0%	12"	HDPE
P6	168.9'	8.23%	15"	HDPE
P7	20'	2.0%	15"	HDPE
P8	128.2'	2.96%	15"	HDPE
P9	20'	2.0%	15"	HDPE
P10	20'	1.0%	12"	HDPE
P11	172'	4.6%	18"	HDPE
P12	58'	1.1%	15"	HDPE
P13	36'	2.77%	18"	HDPE
P14	100'	0.50%	15"	HDPE

SANITARY STRUCTURE SCHEDULE		
LABEL	T.F	F/Levt
S4	296.50	292.50
S6	289.20	285.20
S8	277.50	273.50
S10	267.80	263.80

SANITARY PIPE SCHEDULE		
LABEL	LENGTH	SLOPE
S4P	155'	5.68%
S6P	201'	6.42%
S8P	165'	7.06%
S10P	201'	5.07%

FLARED END SECTIONS		
FES-1	INV = 244.00	18" HDPE
FES-2	INV = 242.00	15" HDPE

OUTLET STRUCTURE (OS-1)		
SEE DETAIL SHEET		



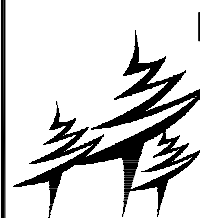
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# DRAINAGE AND UTILITIES PLAN

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EROSION AND SEDIMENT CONTROL PLAN:

REFERENCE IS MADE TO:

1. Connecticut Guidelines for Soil Erosion and Sediment Control 2002 (2002 Guidelines).
2. U.S.D.A. N.R.C.S. Web Soil Survey.

DEVELOPMENT CONTROL PLAN:

1. Development of the site will be performed by the Contractor, who will be responsible for the installation and maintenance of erosion and sediment control measures required throughout construction.
2. The sedimentation control mechanisms shall remain in place from start of construction until permanent vegetation has been established. The representative for the Town of Brooklyn will be notified when sediment and erosion control structures are initially in place. Any additional soil & erosion control measures requested by the Town or its agent, shall be installed immediately. Once the proposed development, seeding and planting have been completed, the representative shall again be notified to inspect the site. The control measures will not be removed until this inspection is complete.
3. All stripping is to be confined to the immediate construction area. Topsoil shall be stockpiled so that slopes do not exceed 2 to 1. A hay bale sediment barrier is to surround each stockpile and a temporary vegetative cover shall be provided.
4. Dust control will be accomplished by spraying with water. The application of calcium chloride is not permitted adjacent to wetland resource areas or within 100' of these areas.
5. The proposed planting schedule is to be adhered to during the planting of disturbed areas throughout the proposed construction site.
6. Final stabilization of the site is to follow the procedures outlined in "Permanent Vegetative Cover". If necessary a temporary vegetative cover is to be provided until a permanent cover can be applied.

SILT FENCE INSTALLATION AND MAINTENANCE:

1. Dig a 6" deep trench on the uphill side of the barrier location.
2. Position the posts on the downhill side of the barrier and drive the posts 1.5 feet into the ground.
3. Lay the bottom 6" of the fabric in the trench to prevent undermining and backfill.
4. Inspect and repair barrier after heavy rainfall.
5. Inspections will be made at least once per week and within 24 hours of the end of a storm with a rainfall amount of 0.5 inch or greater to determine maintenance needs.
6. Sediment deposits are to be removed when they reach a height of 1 foot behind the barrier or half the height of the barrier and are to be deposited in an area which is not regulated by the Inland wetlands commission.
7. Replace or repair the fence within 24 hours of observed failure. Failure of the fence has occurred when sediment fails to be retained by the fence because:
  - the fence has been overtopped, undercut or bypassed by runoff water,
  - the fence has been moved out of position (knocked over), or
  - the geotextile has decomposed or been damaged.

HAY BALE INSTALLATION AND MAINTENANCE:

1. Bales shall be placed as shown on the plans with the ends of the bales tightly abutting each other.
2. Each bale shall be securely anchored with at least 2 stakes and gaps between bales shall be wedged with straw to prevent water from passing between the bales.
3. Inspect bales at least once per week and within 24 hours of the end of a storm with a rainfall amount of 0.5 inches or greater to determine maintenance needs.
4. Remove sediment behind the bales when it reaches half the height of the bale and deposit in an area which is not regulated by the Inland Wetlands Commission.
5. Replace or repair the barrier within 24 hours of observed failure. Failure of the barrier has occurred when sediment fails to be retained by the barrier because:
  - the barrier has been overtopped, undercut or bypassed by runoff water,
  - the barrier has been moved out of position,
  - the hay bales have deteriorated or been damaged.

TEMPORARY VEGETATIVE COVER:

SEED SELECTION

Grass species shall be appropriate for the season and site conditions. Appropriate species are outlined in Figure TS-2 in the 2002 Guidelines.

TIMING CONSIDERATIONS

Seed with a temporary seed mixture within 7 days after the suspension of grading work in disturbed areas where the suspension of work is expected to be more than 30 days but less than 1 year.

SITE PREPARATION

Install needed erosion control measures such as diversions, grade stabilization structures, sediment basins and grassed waterways.

Grade according to plans and allow for the use of appropriate equipment for seedbed preparation, seeding, mulch application, and mulch anchoring.

SEEDBED PREPARATION

Loosen the soil to a depth of 3-4 inches with a slightly roughened surface. If the area has been recently loosened or disturbed, no further roughening is required. Soil preparation can be accomplished by tracking with a bulldozer, disking, harrowing, raking or dragging with a section of chain link fence. Avoid excessive compaction of the surface by equipment traveling back and forth over the surface. If the slope is tracked, the cleat marks shall be perpendicular to the anticipated direction of the flow of surface water.

If soil testing is not practical or feasible on small or variable sites, or where timing is critical, fertilizer may be applied at the rate of 300 pounds per acre or 7.5 pounds per 1,000 square feet of 10-10-10 or equivalent. Additionally, lime may be applied using rates given in Figure TS-1 in the 2002 Guidelines.

SEEDING

Apply seed uniformly by hand cyclone seeder, drill, outcumper type seeder or hydroseeder at a minimum rate for the selected species. Increase seeding rates by 10% when hydroseeding.

MULCHING

Temporary seedings made during optimum seeding dates shall be mulched according to the recommendations in the 2002 Guidelines. When seeding outside of the recommended dates, increase the application of mulch to provide 95%-100% coverage.

MAINTENANCE

Inspect seeded area at least once a week and within 24 hours of the end of a storm with a rainfall amount of 0.5 inch or greater for seed and mulch movement and rill erosion.

Where seed has moved or where soil erosion has occurred, determine the cause of the failure. Repair eroded areas and install additional controls if required to prevent recurrence of erosion.

Continue inspections until the grasses are firmly established. Grasses shall not be considered established until a ground cover is achieved which is mature enough to control soil erosion and to survive severe weather conditions (approximately 80% vegetative cover).

PERMANENT VEGETATIVE COVER:

Refer to Permanent Seeding Measure in the 2002 Guidelines for specific applications and details related to the installation and maintenance of a permanent vegetative cover. In general, the following sequence of operations shall apply:

1. Topsoil will be replaced once the excavation and grading has been completed. Topsoil will be spread at a minimum compacted depth of 4".
2. Once the topsoil has been spread, all stones 2" or larger in any dimension will be removed as well as debris.
3. Apply agricultural ground limestone at a rate of 2 tons per acre or 100 lbs. per 1000 s.f. Apply 10-10-10 fertilizer or equivalent at a rate of 300 lbs. per acre or 7.5 lbs. per 1000 s.f. Work lime and fertilizer into the soil to a depth of 4".
4. Inspect seedbed before seeding. If traffic has compacted the soil, retille compacted areas.
5. Apply the chosen grass seed mix. The recommended seeding dates are: April 1 to June 15 & August 15 - October 1.
6. Following seeding, firm seedbed with a roller. Mulch immediately following seeding. If a permanent vegetative stand cannot be established by September 30, apply a temporary cover on the topsoil such as netting, mat or organic mulch.

DEVELOPMENT SCHEDULE/SEQUENCE OF OPERATIONS:

1. Flag the limits of disturbance and schedule preconstruction meeting with Town of Brooklyn wetlands Agent.
2. Contact utility companies for scheduling installation of utilities and connections
3. Install the anti-tracking construction entrance.
4. Cut trees within the defined clearing limits and remove the cut wood.
5. Install perimeter erosion and sedimentation controls in accordance with the site development plan.
6. Chip brush and slash, stockpile chips for use on site or remove off site.
7. Box out driveway and stockpile topsoil in locations shown on the plans. Install erosion controls around stockpiles and apply temporary seeding.
8. Contact utility companies to coordinate water main and sanitary sewer connections. Install water and sanitary sewer lines beginning from the lowest elevation.
9. Excavate stormwater basin to be utilized as a temporary sedimentation basin during construction. Install drainage structures and pipe and provide inlet protection at catch basins.
10. Install and compact processed gravel for roadway base.
11. Remove tree stumps and dispose of at an approved disposal site. Alternatively, stumps may be chipped in place. No stumps shall be buried on site.
12. Strip and stockpile topsoil that is within the footprint of the site. Surround stockpile with silt fence or stacked haybales, and apply temporary seeding in accordance with recommended mixtures. Divert runoff around the perimeter of the stockpile.
13. Make all required cuts and fills. Establish the subgrade for the driveway as required and install additional erosion controls as necessary and as shown on the plans.
14. Inspect perimeter erosion and sedimentation controls weekly and after rain events in excess of 0.5". Repair any damaged controls and provide additional erosion control devices as necessary to address areas of concentrated runoff that may develop as a result of the construction activities. The contractor shall review discharge conditions with the design engineer or the Town of Brooklyn prior to installing additional erosion controls. Apply water as necessary for dust control.
15. Install utilities to edge of roadway.
16. Prepare sub-base for roadway for final grading.
17. Excavate for building footings, stockpile soil and pour footings & slab. Begin phased building construction.
18. Place topsoil where required and install any proposed landscaping upon completion of each building.
19. Install first course of pavement to each building as they are completed and required landscaping.
20. When the remainder of the site work is near completion, sweep all paved areas for the final course of paving. Inspect erosion controls and remove any accumulated sediment.
21. Install final course of pavement upon the completion of the final structure.
22. Fine grade, rake, seed and mulch to within 2' of the pavement.
23. Remove and dispose of all silt fence and hay bales after the site has been stabilized to the satisfaction of the Town of Brooklyn.

RESPONSIBLE PARTY FOR E&S MAINTENANCE:

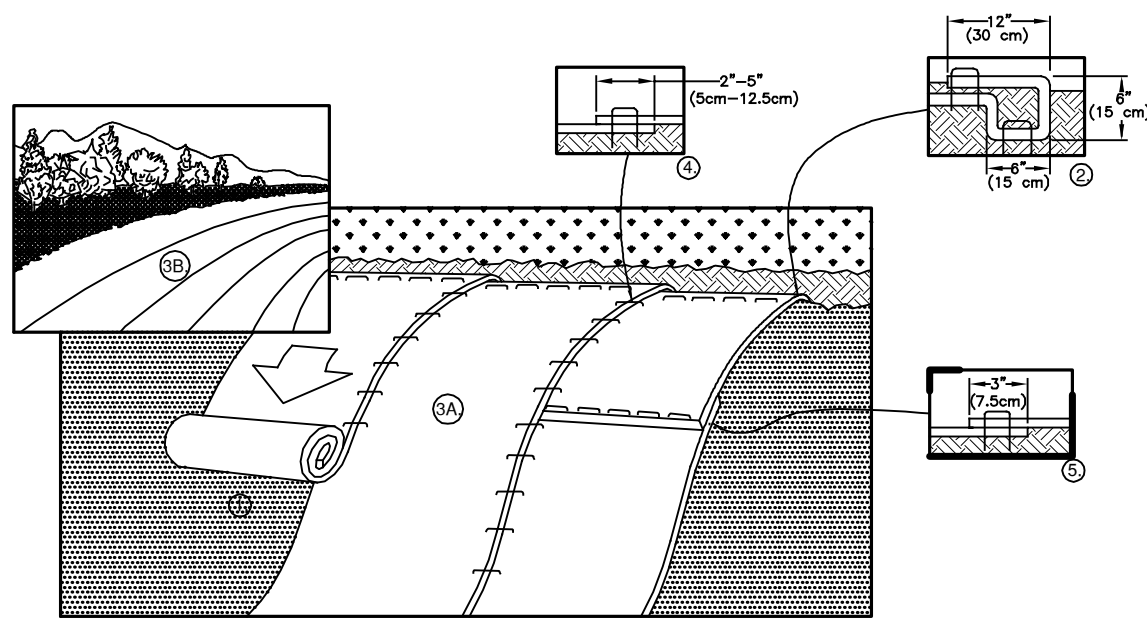
Shane Pollock  
101 Mackin Drive  
Griswold, CT 06351  
(860) 888-3129

CONSTRUCTION NOTES/GENERAL PROVISIONS

1. The locations of existing utilities are based upon visible field observations, record mapping and interviews with the property owner and abutting property owners. They are shown for informational purposes only. Contractor shall coordinate exploratory test hole excavation with the Engineer if necessary to verify and/or determine actual locations of some utilities & structures. It is the responsibility of the contractor to verify the location and elevation of all utilities. Contact "CALL BEFORE YOU DIG" at 1-800-922-4455, and obtain all applicable permits, prior to any excavation around utilities.
2. All existing site features not scheduled to remain shall be removed and disposed of in a proper manner, by the contractor.
3. All Materials and methods of construction shall conform to "State of Connecticut, Department of Transportation, Standard Specifications for Roads, Bridges and Incidental Construction, Form 817", and supplements thereto.
4. The Contractor shall obtain copies of all regulatory agency permits from the Owner prior to any site disturbance.
5. Unless otherwise noted on the plans, the contractor shall use the geometry provided on the construction plans. Benchmark information shall be provided to the contractor by the Owner or the Owner's surveyor. Any discrepancies between field measurements and construction plan information shall be brought to the attention of the Engineer or Surveyor immediately.
6. The Contractor shall not revise elevations or locations of items shown on the plans without written consent of the project Engineer or Surveyor.
7. The Contractor shall protect benchmarks, property corners, and other survey monuments from damage or displacement. If a marker needs to be removed, it shall be referenced by a licensed land surveyor and replaced as necessary by the same.
8. The Contractor shall be responsible for preparing and compacting base for proposed pavement. Owner shall provide general fill to establish subgrade - contractor shall spread and compact required processed aggregate
9. The entire project site shall be thoroughly cleaned at the completion of the work. Clean all installed paved areas, accumulated silt and sediment shall be removed from the stormwater system, silt fence removed and disposed of, excess construction materials removed, plus all adjacent areas affected by the construction activities as directed by the Owner or the jurisdictional Agency.

NOTES:

1. PLACE GRAVEL BAG BARRIER ON GENTLY SLOPING STREET, WHERE WATER CAN POND AND ALLOW SEDIMENT TO SEPARATE FROM RUNOFF.
2. USE SAND BAGS OF WOVEN GEOTEXTILE FABRIC (NOT BURLAP) AND FILL WITH 1/2 INCH (OR SMALLER) GRAVEL. BAGS MUST BE LAYERED SUCH THAT NO GAPS ARE EVIDENT.
3. INSPECT BARRIERS AND REMOVE SEDIMENT AFTER EACH STORM EVENT. SEDIMENT AND GRAVEL MUST BE REMOVED FROM THE TRAVELED WAY IMMEDIATELY.
4. WHEN INSTALLING CURB INLET PROTECTION DEVICES, NEVER BLOCK THE CURB INLET.



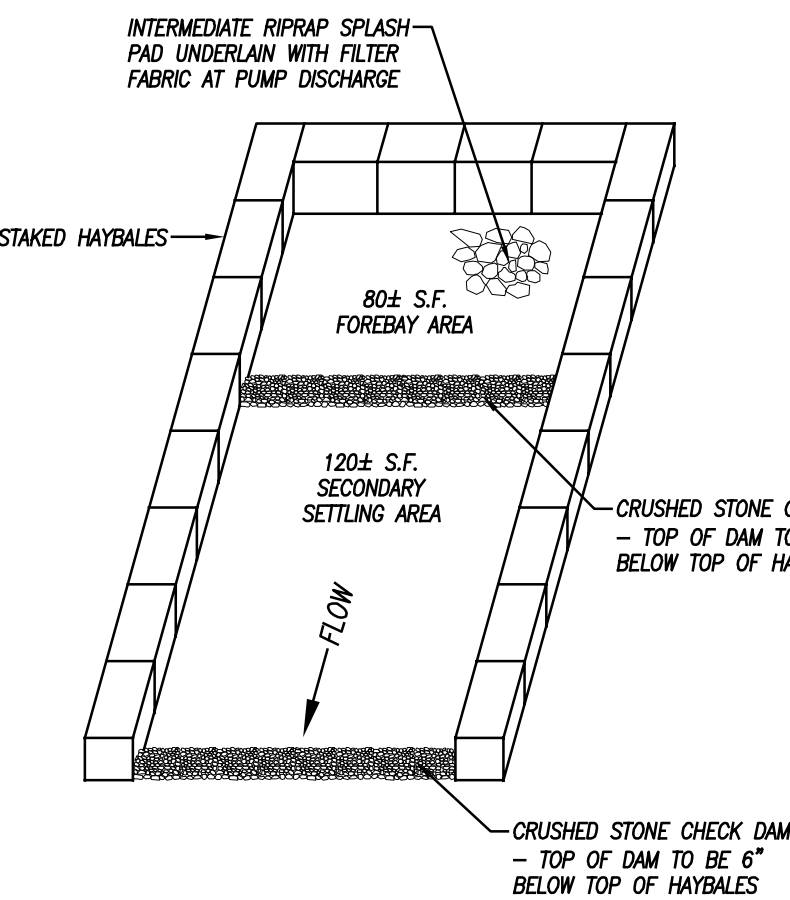
1. PREPARE SOIL BEFORE INSTALLING BLANKETS, INCLUDING ANY NECESSARY APPLICATION OF LIME, FERTILIZER, AND SEED. NOTE: WHEN USING CELL-TO-SEED DO NOT SEED PREPARED AREA. CELL-TO-SEED MUST BE INSTALLED WITH PAPER SIDE DOWN.
2. BEGIN AT THE TOP OF THE SLOPE BY ANCHORING THE BLANKET IN A 6" (15cm) DEEP X 6" (15cm) WIDE TRENCH WITH APPROXIMATELY 12" (30cm) OF BLANKET EXTENDED BEYOND THE UP-SLOPE PORTION OF THE TRENCH. ANCHOR THE BLANKET WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" (30cm) APART IN THE BOTTOM OF THE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING. APPLY TO COMPACTED SOIL AND FOLD REMAINING 12" (30cm) PORTION OF BLANKET BACK OVER SEED AND COMPACTED SOIL. SECURE BLANKET OVER COMPACTED SOIL WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" (30cm) APART ACROSS THE WIDTH OF THE BLANKET.
3. ROLL THE BLANKETS (A) DOWN OR (B) HORIZONTALLY ACROSS THE SLOPE. BLANKETS WILL UNROLL WITH APPROPRIATE SIDE AGAINST THE SOIL SURFACE. ALL BLANKETS MUST BE SECURELY FASTENED TO SOIL SURFACE BY PLACING STAPLES/STAKES IN APPROPRIATE LOCATIONS AS SHOWN IN THE STAPLE PATTERN GUIDE. WHEN USING OPTIONAL DOT SYSTEM, STAPLES/STAKES SHOULD BE PLACED THROUGH EACH OF THE COLORED DOTS CORRESPONDING TO THE APPROPRIATE STAPLE PATTERN.
4. THE EDGES OF PARALLEL BLANKETS MUST BE STAPLED WITH APPROXIMATELY 12" (30cm) OVERLAP DEPENDING ON BLANKET TYPE. TO ENSURE PROPER SEAM ALIGNMENT, PLACE THE EDGE OF THE OVERLAPPING BLANKET (BLANKET BEING INSTALLED ON TOP) EVEN WITH THE COLORED SEAM SWITCH ON THE PREVIOUSLY INSTALLED BLANKET.
5. CONSECUTIVE BLANKETS SLOPED DOWN THE SLOPE MUST BE PLACED END OVER END (SHINGLE STYLE) WITH AN APPROXIMATE 3" (7.5cm) OVERLAP. STAPLE THROUGH OVERLAPPED AREA, APPROXIMATELY 12" (30cm) APART ACROSS ENTIRE BLANKET WIDTH.

NOTES:

1. IN LOOSE SOIL CONDITIONS, THE USE OF STAPLE OR STAKE LENGTHS GREATER THAN 6" (15cm) MAY BE NECESSARY TO PROPERLY SECURE THE BLANKETS.
2. TURF REINFORCEMENT MAT SHALL BE NORTH AMERICAN GREEN P-3000 OR APPROVED EQUIVALENT.

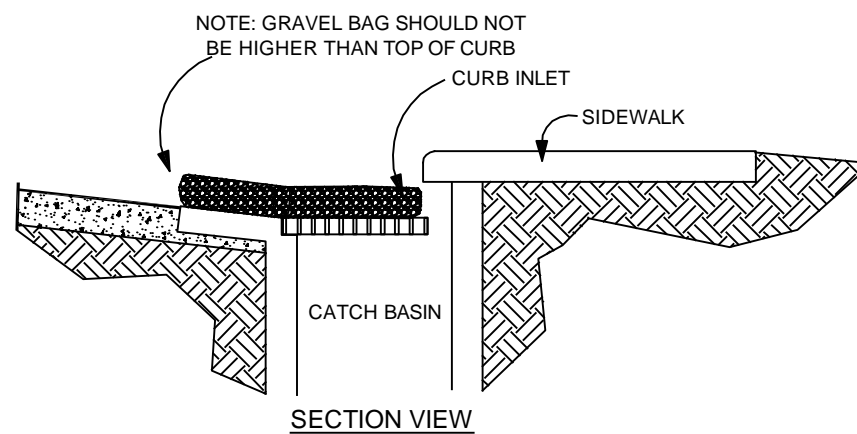
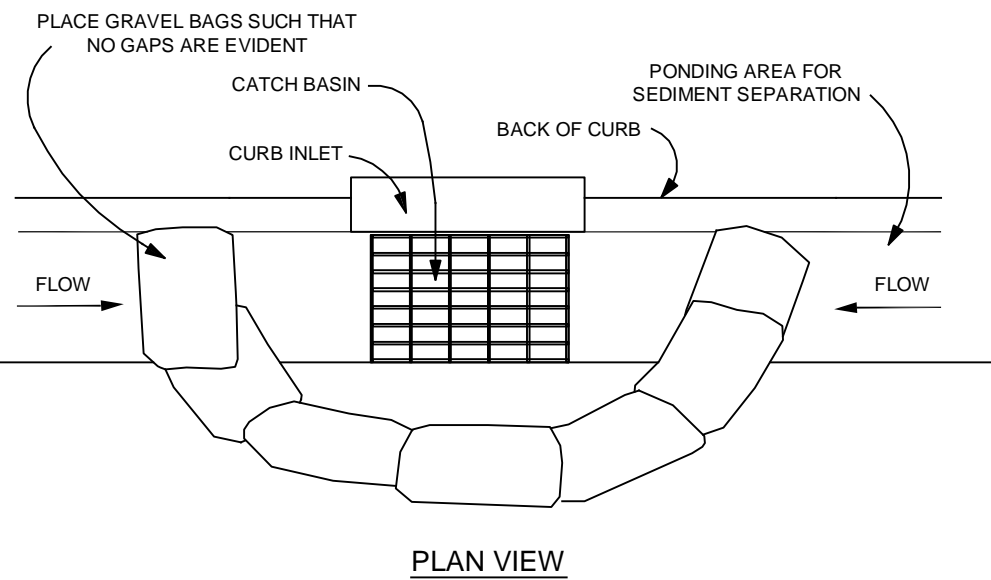
TURF REINFORCEMENT MAT INSTALLATION

NOT TO SCALE

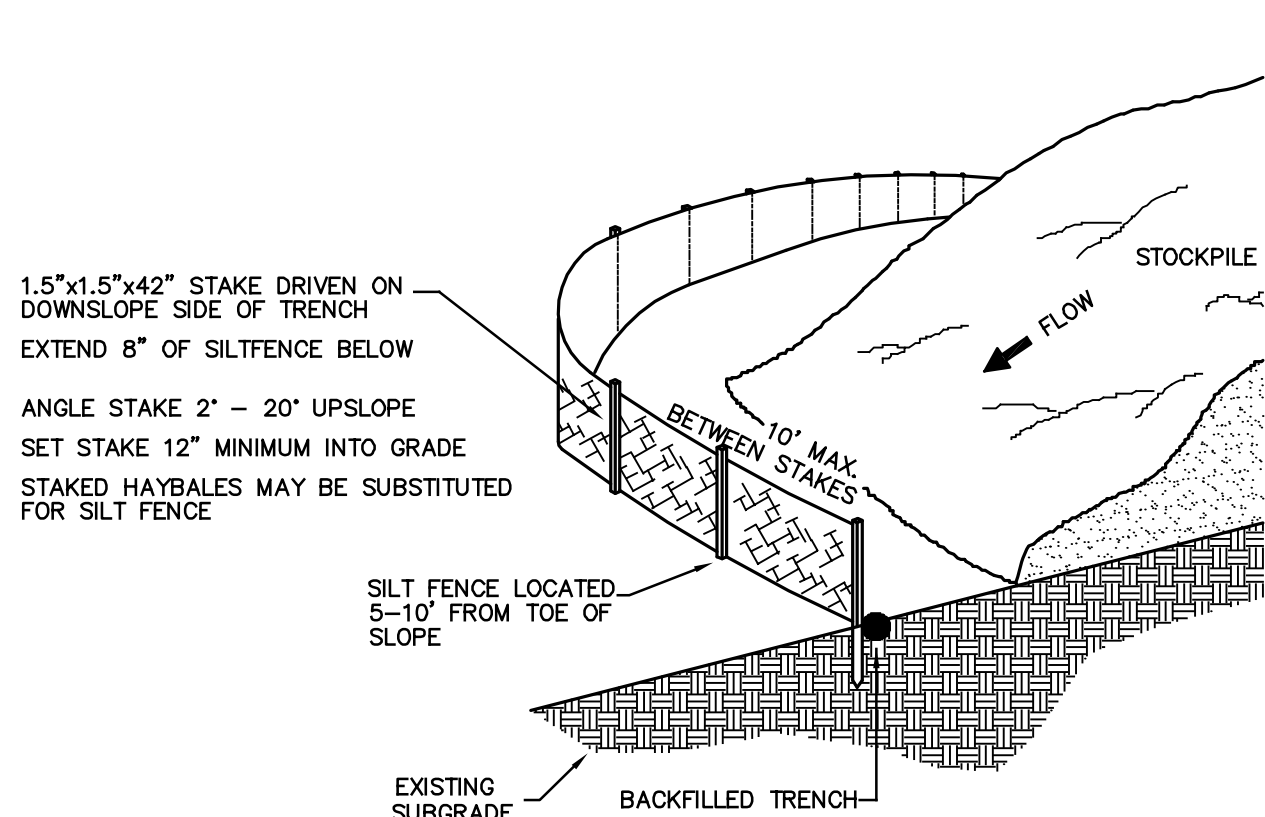


PUMPING OUTLET BASIN

NOT TO SCALE

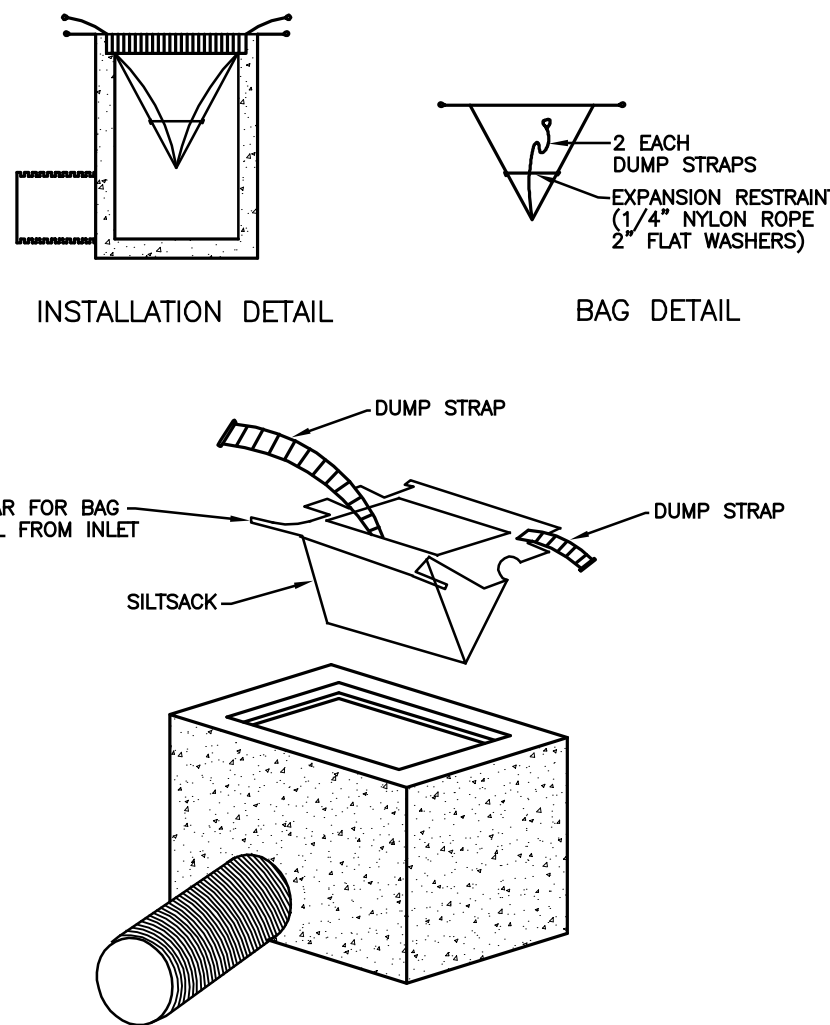


STANDARD GRAVEL BAG CURB INLET PROTECTION



SILT FENCE @ TOE OF SLOPE APPLICATION

NOT TO SCALE

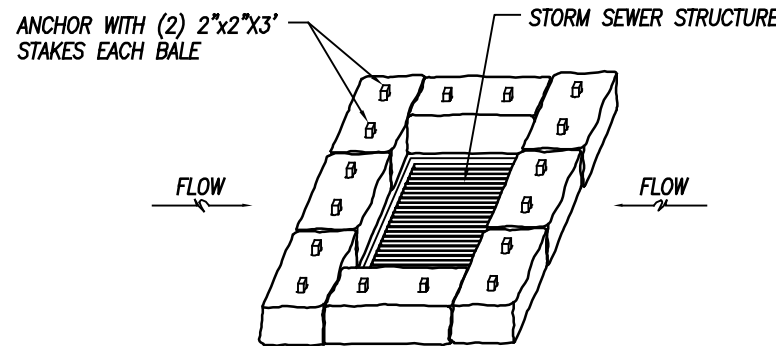


INLET SEDIMENT CONTROL DEVICE

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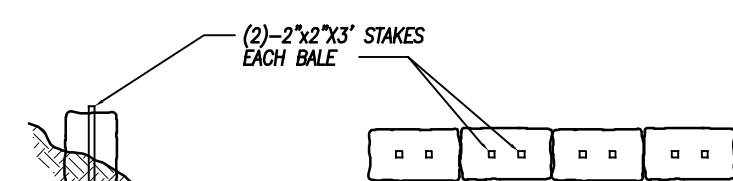
INSTALLATION & MAINTENANCE

1. Install as directed by manufacturer.
2. Inspect the catch basin sediment device at least once a week (preferably twice) and after rainfall events of 0.5" or greater.
3. Remove sediment when the siltsack is 1/2 full. Sediment shall be deposited in an area which is not regulated by the Inland Wetlands Commission.
4. Replace or repair within 24-hours of observed failure. Failure may include:
  - Overtopping, or bypassed by runoff water.
  - The geotextile has decomposed or has been damaged.



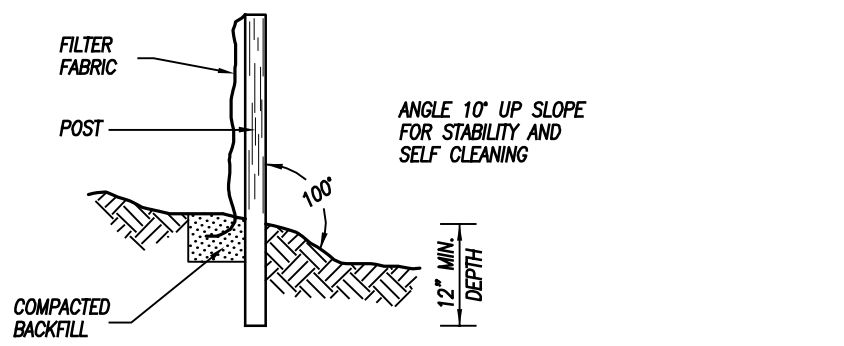
HAYBALE INSTALLATION AT CATCH BASIN

NOT TO SCALE



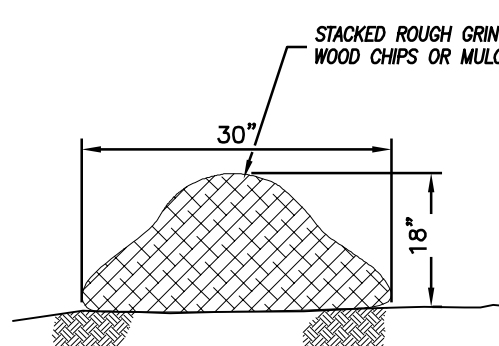
HAYBALE BARRIER

NOT TO SCALE



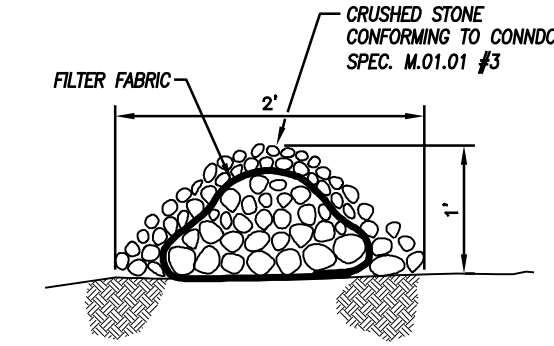
SILT FENCE

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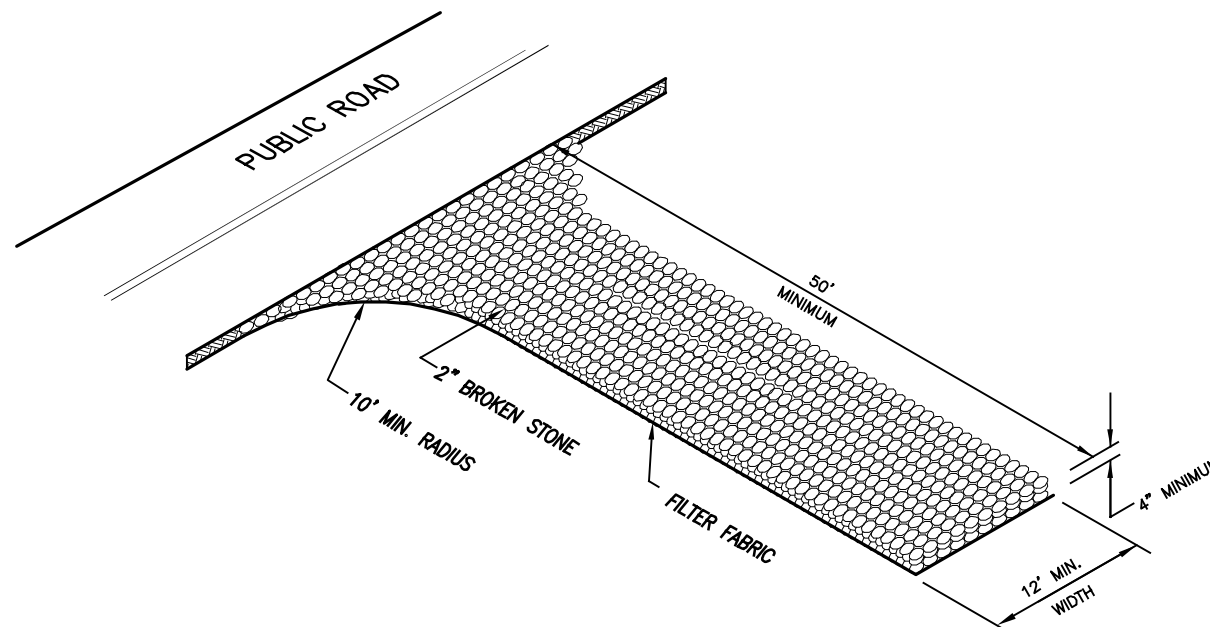
WOOD CHIP BERM

NOT TO SCALE



STONE CHECK DAM

NOT TO SCALE



CONSTRUCTION ENTRANCE

NOT TO SCALE

08/24/2020	PER TOWN REVIEW
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	REVISIONS

DETAIL SHEET

PREPARED FOR

SHANE POLLOCK

LOUISE BERRY DRIVE  
BROOKLYN, CONNECTICUT

Killingly Engineering Associates  
Civil Engineering & Surveying

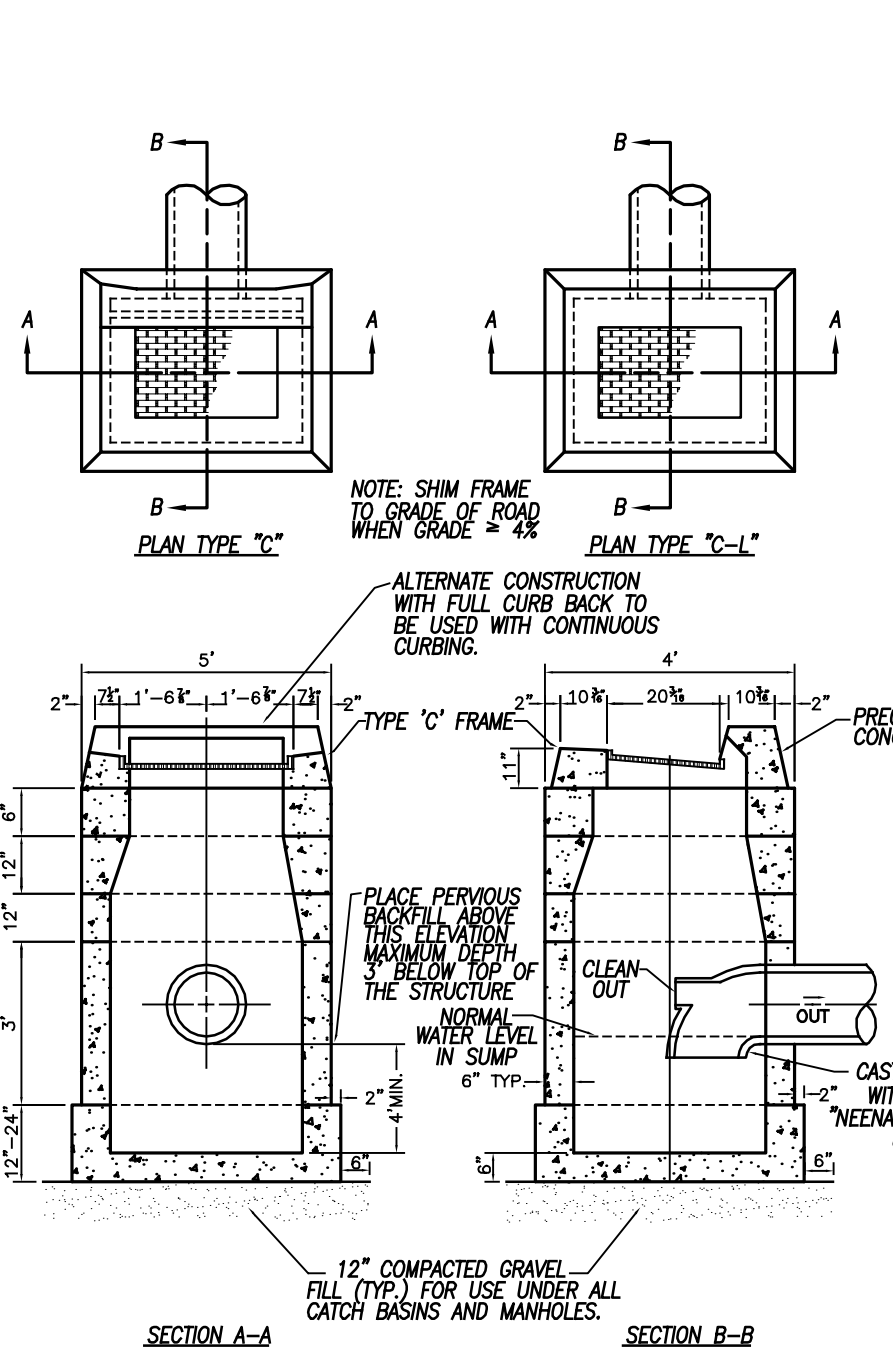


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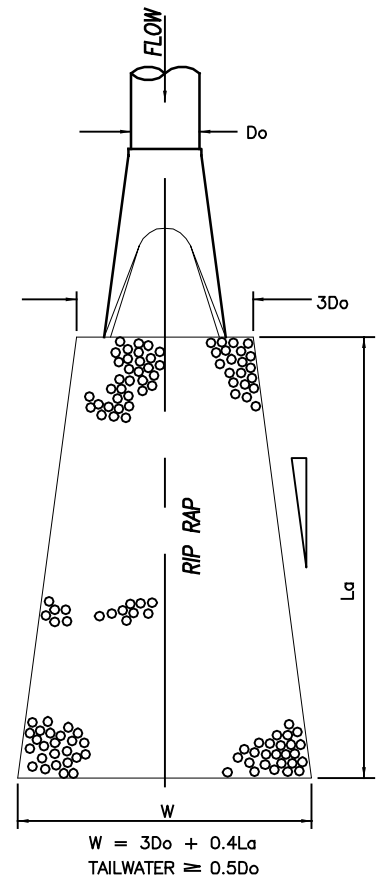
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SHEET: 7 OF 9	CHK BY: ---
DWG. No: CLIENT FILE	JOB No: 20014

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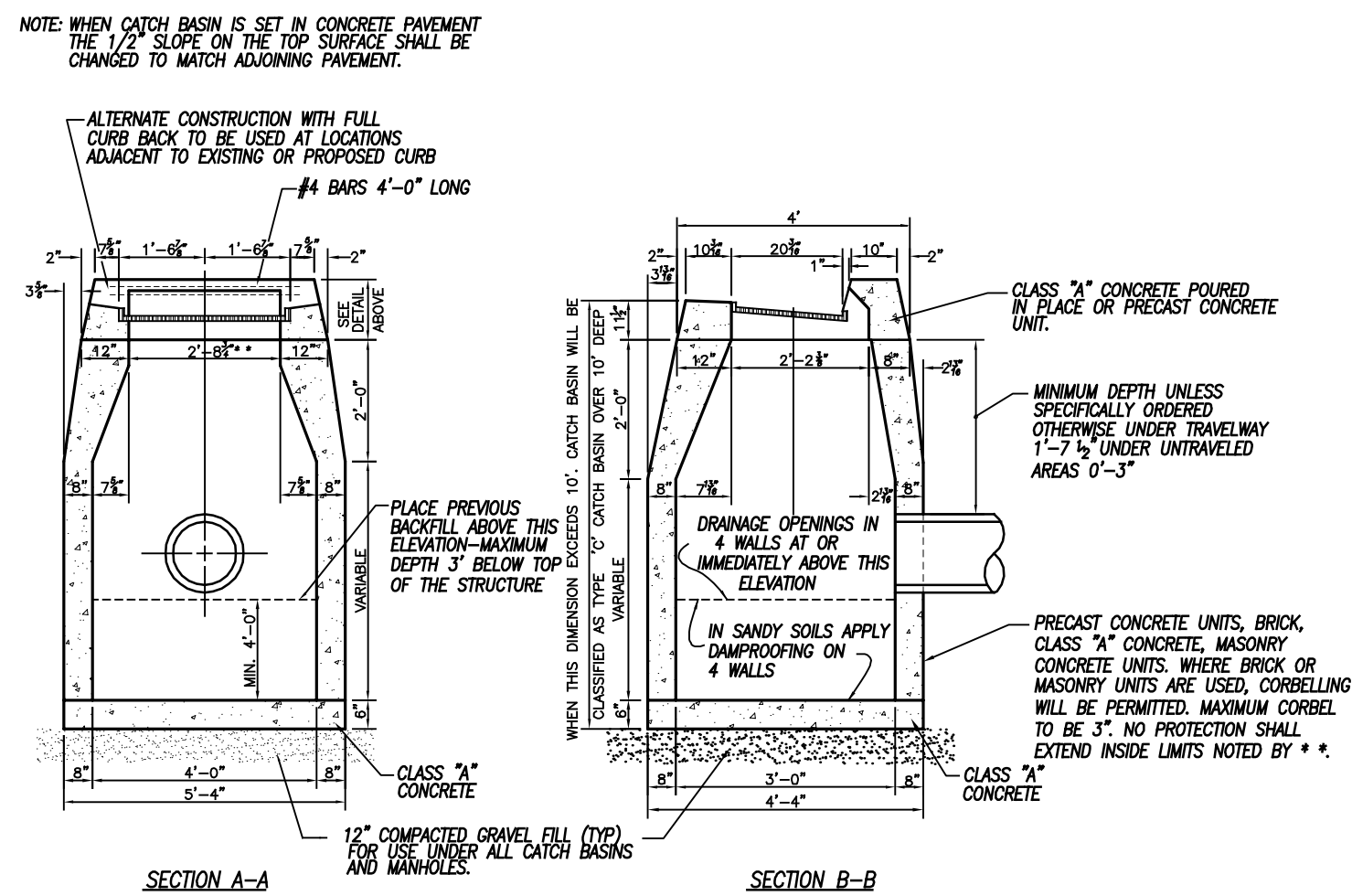




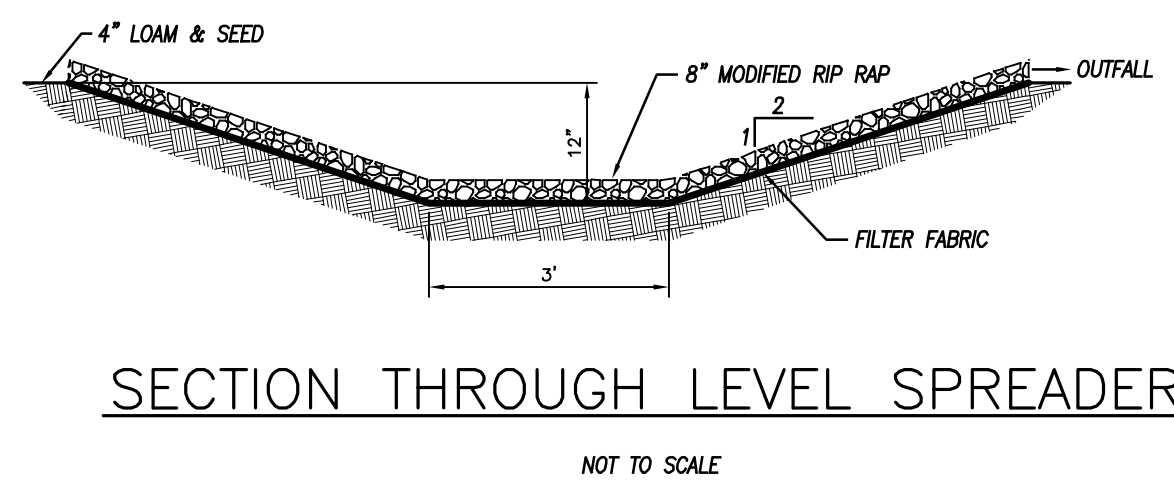
HOODED CATCH BASIN DETAIL  
NOTE: TO BE INSTALLED AT FINAL CATCH BASIN WITH OUTLET TO STORMWATER BASIN



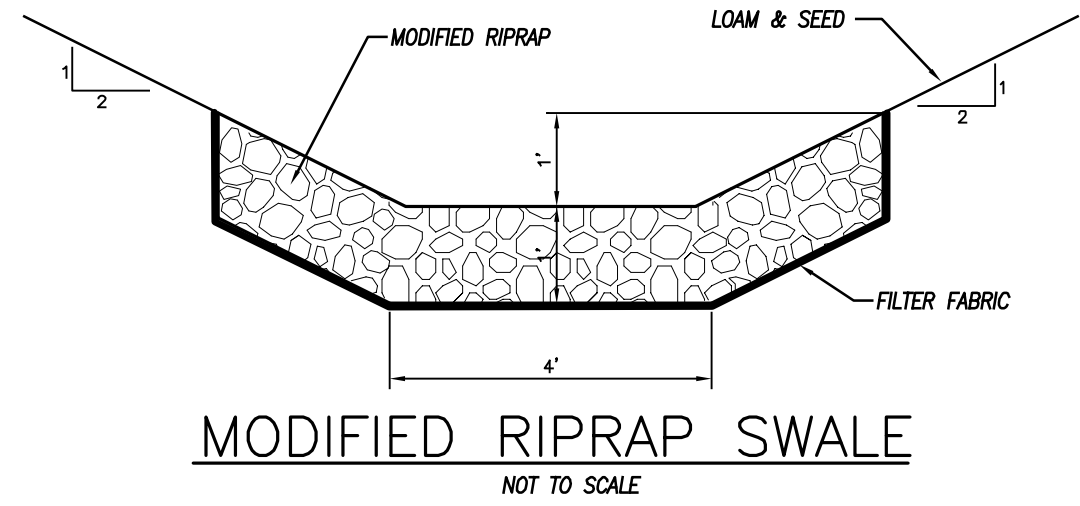
RIP RAP OUTFALL  
NOT TO SCALE



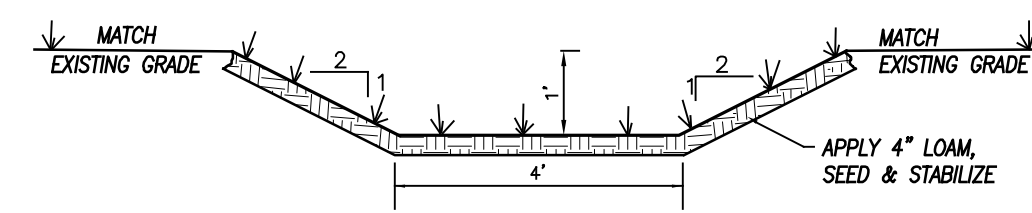
TYPE 'C' CATCH BASIN DETAIL  
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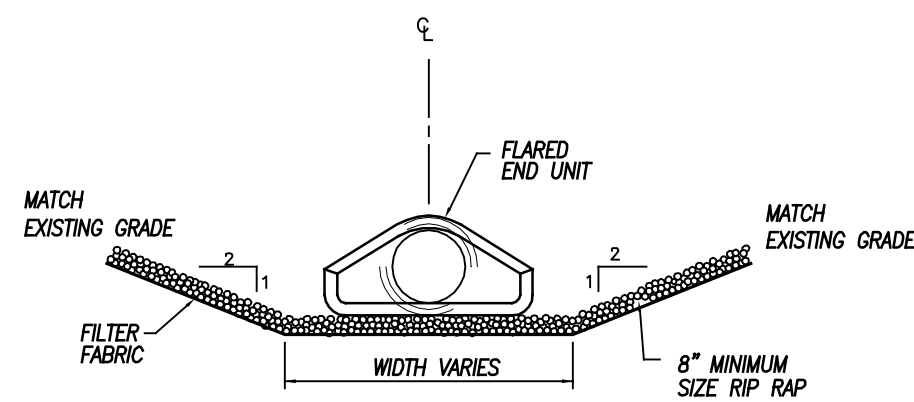
SECTION THROUGH LEVEL SPREADER  
NOT TO SCALE



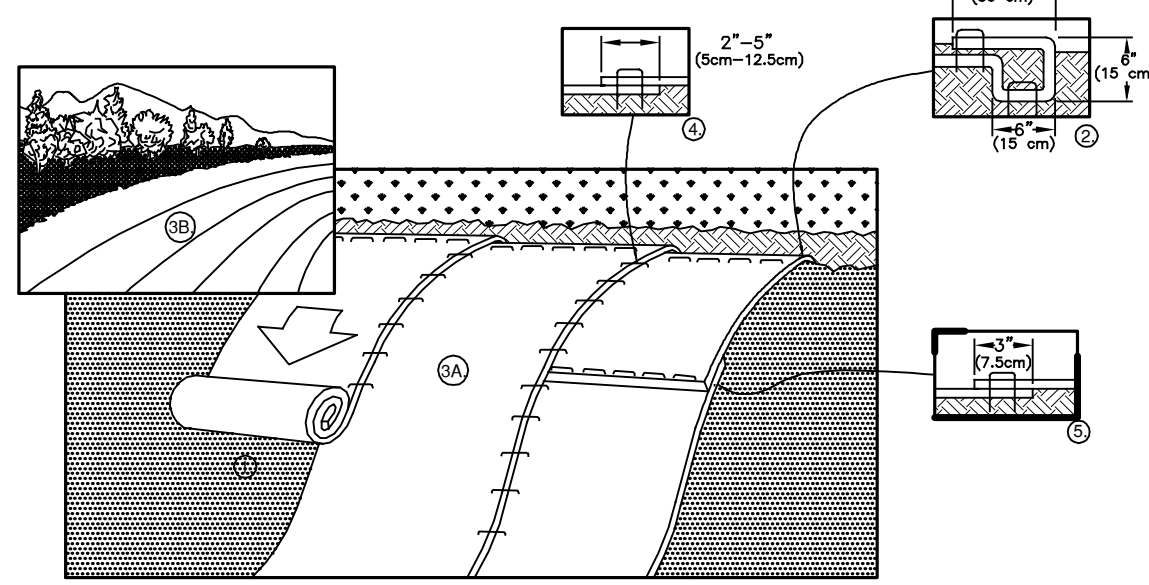
MODIFIED RIPRAP SWALE  
NOT TO SCALE



GRASS LINED SWALE  
NOT TO SCALE

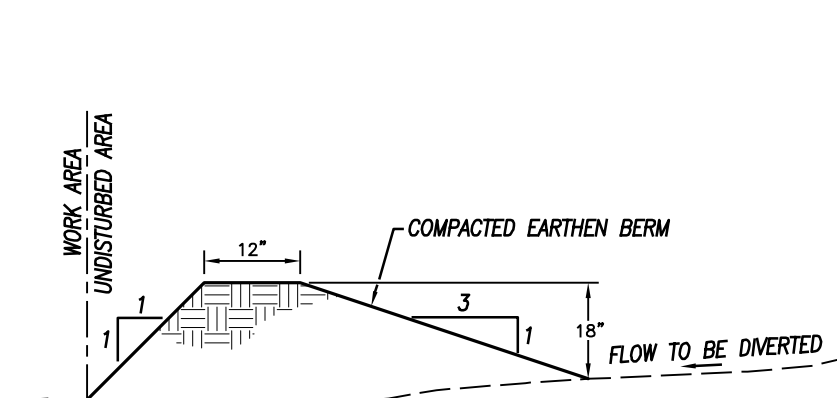


SECTION  
NOT TO SCALE

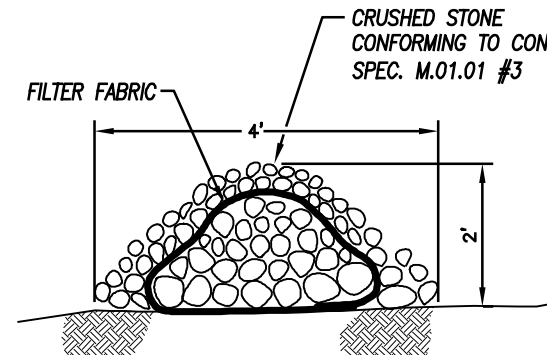


1. PREPARE SOIL BEFORE INSTALLING BLANKETS, INCLUDING ANY NECESSARY APPLICATION OF LIME, FERTILIZER, AND SEED. NOTE: WHEN USING CELL-O-SEED DO NOT SEED PREPARED AREA. CELL-O-SEED MUST BE INSTALLED WITH PAPER SIDE DOWN.
  2. BEGIN AT THE TOP OF THE SLOPE BY ANCHORING THE BLANKET IN A 6" (150mm) DEEP X 6" (150mm) WIDE TRENCH WITH APPROXIMATELY 12" (300mm) OF BLANKET EXTENDING BEYOND THE UP-SLOPE PORTION OF THE TRENCH. ANCHOR THE BLANKET WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" (300mm) APART IN THE BOTTOM OF THE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING. APPLY SEED TO COMPACTED SOIL AND FOR REMAINING 12" (300mm) PORTION OF BLANKET BACK OVER SEED AND COMPACTED SOIL. SECURE BLANKET OVER COMPACTED SOIL WITH A ROW OF STAPLES/STAKES SPACED APPROXIMATELY 12" (300mm) APART ACROSS THE WIDTH OF THE BLANKET.
  3. ROLL THE BLANKETS (A) DOWN OR (B) HORIZONTALLY ACROSS THE SLOPE. BLANKETS WILL UNROLL WITH APPROPRIATE SIDE AGAINST THE SOIL SURFACE. ALL BLANKETS MUST BE SECURELY FASTENED TO SOIL SURFACE BY PLACING STAPLES/STAKES ON BLANKET TYPE. TO ENSURE PROPER SEAM ALIGNMENT, PLACE THE EDGE OF THE OVERLAPPING BLANKET (BLANKET BEING INSTALLED ON TOP) EVEN WITH THE COLORED SEAM STITCH ON THE PREVIOUSLY INSTALLED BLANKET.
  4. THE EDGES OF PARALLEL BLANKETS MUST BE STAPLED WITH APPROXIMATELY 2'-5" (600-1250mm) OVERLAP DEPENDING ON BLANKET TYPE. IN APPROPRIATE LOCATIONS AS SHOWN IN THE STAPLE PATTERN GUIDE. WHEN USING OPTIONAL DOT SYSTEM, STAPLES/STAKES SHOULD BE PLACED THROUGH EACH OF THE COLORED DOTS CORRESPONDING TO THE APPROPRIATE STAPLE PATTERN.
  5. CONSECUTIVE BLANKETS SPICED DOWN THE SLOPE MUST BE PLACED END OVER END (SHINGLE STYLED) WITH AN APPROXIMATE 4" (7.5cm) OVERLAP. STAPLE THROUGH OVERLAPPED AREA, APPROXIMATELY 12" (300mm) APART ACROSS ENTIRE BLANKET WIDTH.
- NOTES:
1. IN LOOSE SOIL CONDITIONS, THE USE OF STAPLE OR STAKE LENGTHS GREATER THAN 6" (150mm) MAY BE NECESSARY TO PROPERLY SECURE THE BLANKETS.
  2. TURF REINFORCEMENT MAT SHALL BE NORTH AMERICAN GREEN BIOMAT 50-150BN OR APPROVED BIODEGRADABLE EQUIVALENT.

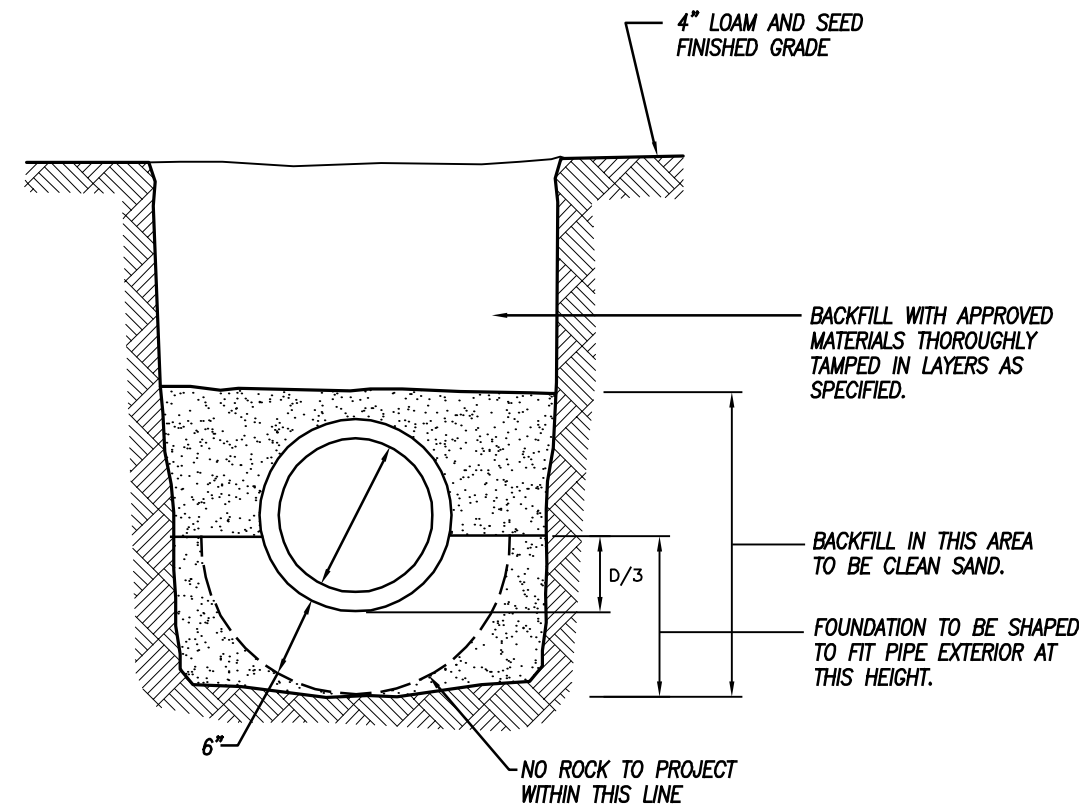
TURF REINFORCEMENT MAT INSTALLATION  
NOT TO SCALE



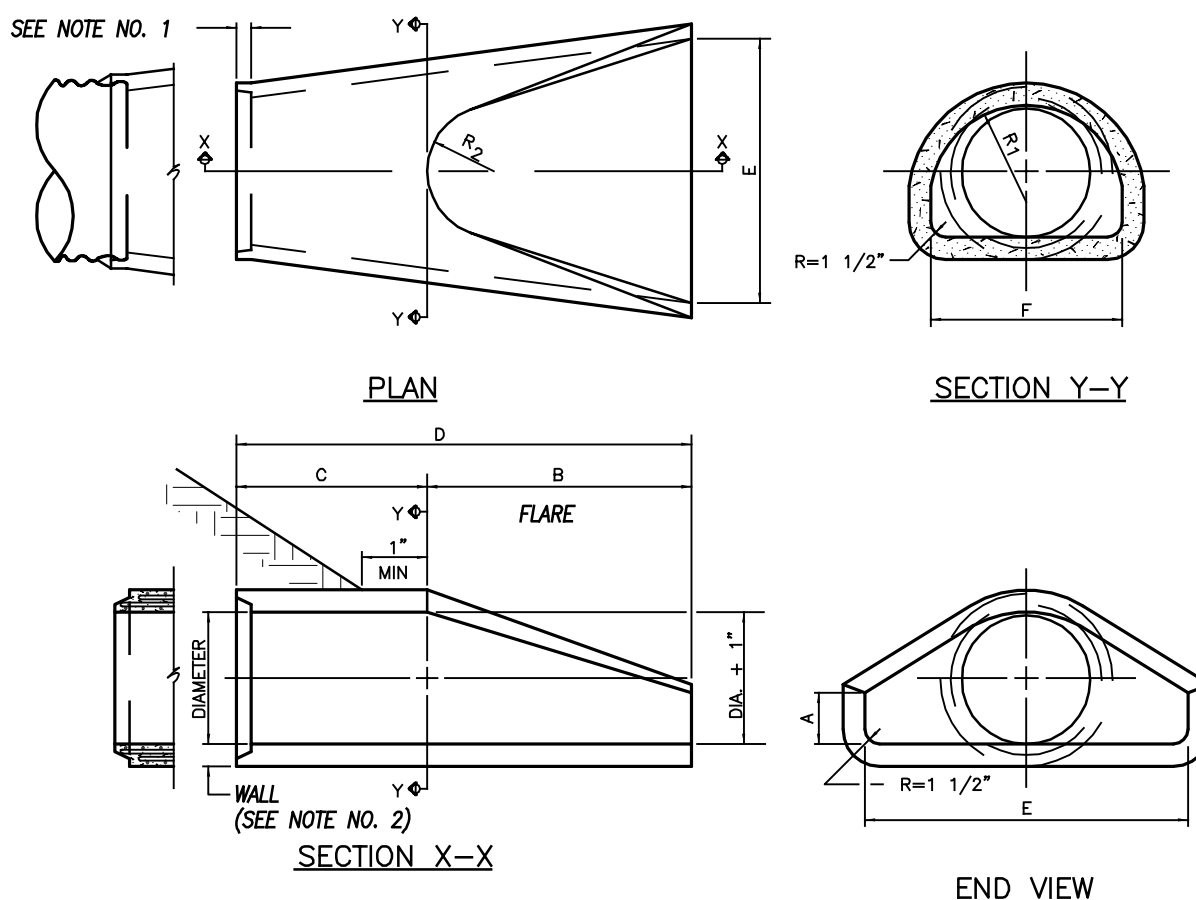
TEMPORARY DIVERSION  
NOT TO SCALE



STONE BERM  
NOT TO SCALE



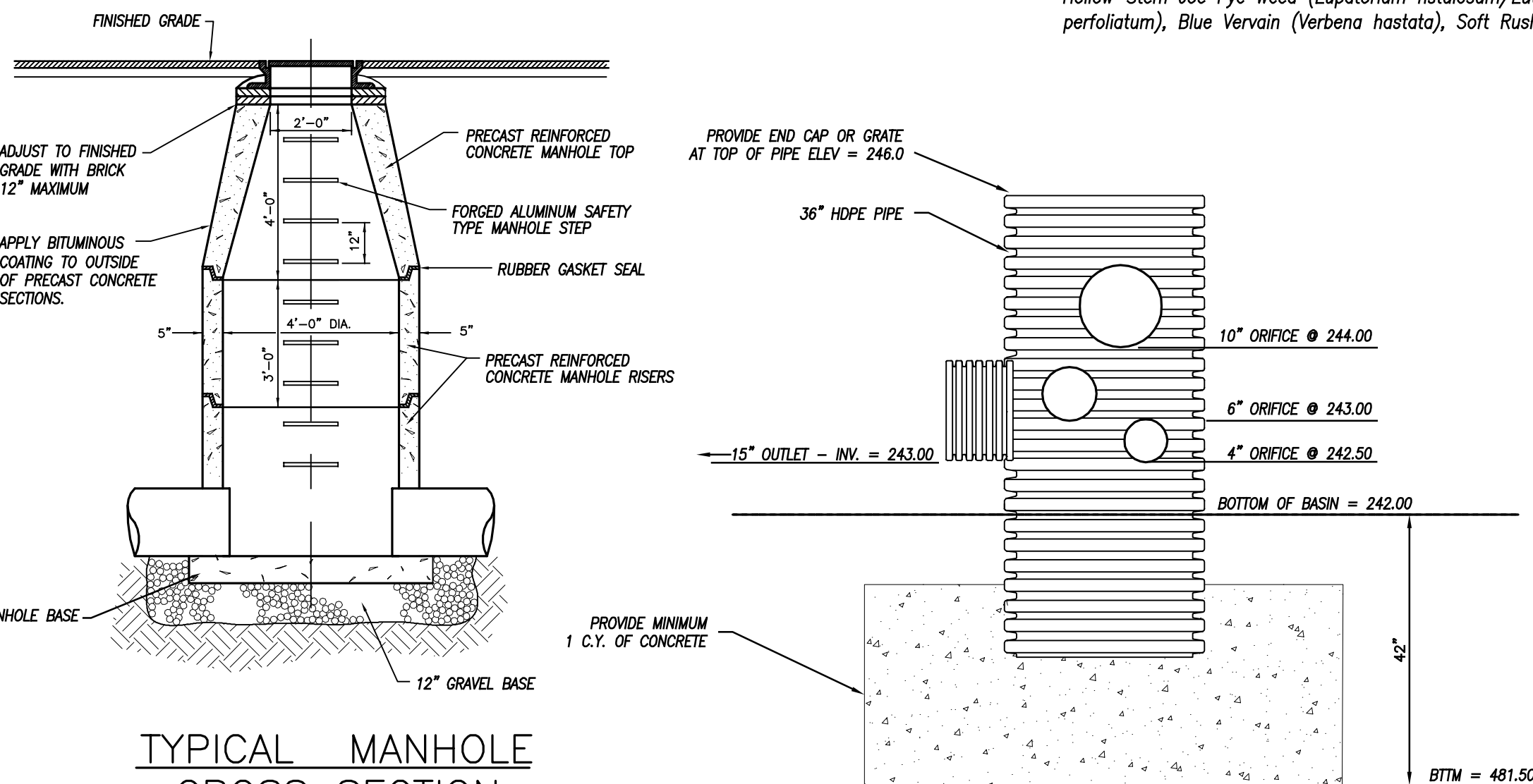
STORM DRAIN PIPE IN TRENCH DETAIL  
NOT TO SCALE



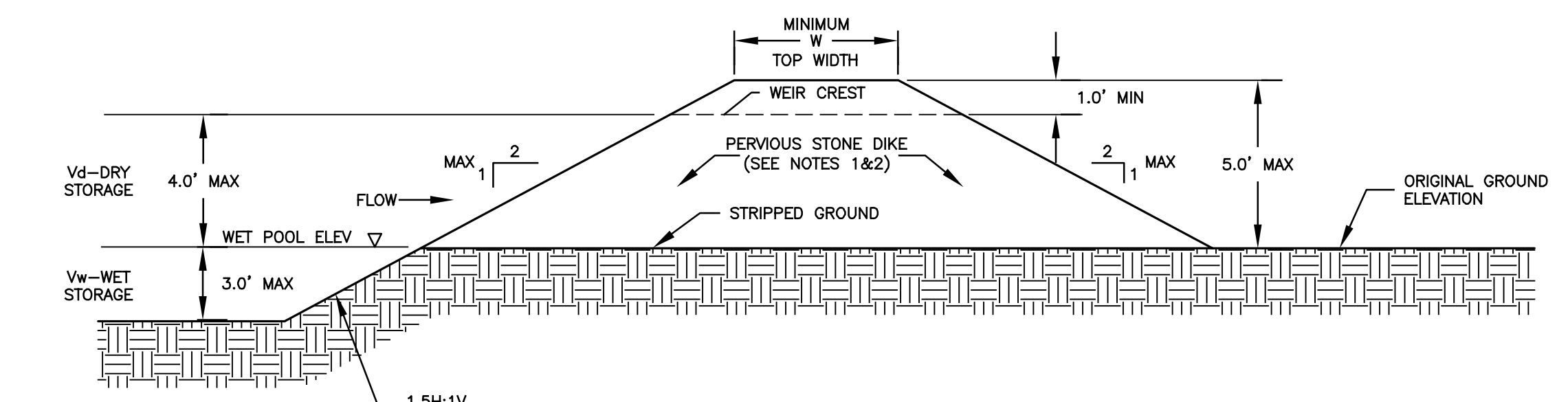
- NOTE:
1. JOINTS SHALL CONFORM TO PIPE INSTALLED
  2. WALL THICKNESS SHALL CONFORM TO PIPE THICKNESS

DIMENSIONS FOR HDPE CULVERT END								
DIA.	A	B	C	D	E	F	R <sub>1</sub>	R <sub>2</sub>
12"	4"	2'-0"	4'-0 3/8"	6'-0 3/8"	2'-0"	1'-7 1/8"	10 1/4"	9"
15"	6"	2'-3"	3'-10"	6'-1"	2'-0"	2'-0 5/8"	1'-0 1/2"	11"
18"	8"	2'-3"	3'-10"	6'-1"	3'-0"	2'-5"	1'-3 1/2"	1'-0"
21"	8"	2'-11"	3'-2"	6'-1"	3'-0"	2'-7 1/2"	1'-4"	1'-1"
24"	9 1/2"	3'-7 1/2"	2'-4"	6'-1 1/2"	4'-0"	2'-8 3/8"	1'-4 5/8"	1'-2"
30"	1'-0"	4'-6"	1'-7 3/4"	6'-1 3/4"	5'-0"	3'-1"	1'-6 1/2"	1'-3"
36"	1'-3"	5'-3"	2'-10 3/4"	6'-1 3/4"	6'-0"	3'-11 1/8"	2'-0 5/8"	1'-8"
42"	1'-8"	6'-3"	2'-11"	6'-2"	6'-6"	4'-5 7/8"	2'-3 1/2"	1'-10"
48"	2'-0"	6'-0"	2'-2"	6'-2"	7'-0"	4'-8 1/2"	2'-4 1/2"	1'-10"
54"	2'-3"	5'-5"	2'-11"	6'-4"	7'-6"	5'-5 1/2"	2'-9 1/8"	2'-0"
60"	2'-6"	5'-0"	3'-3"	6'-3"	8'-0"	6'-0 1/2"	3'-0 1/8"	2'-0"

FLARED END SECTION  
NOT TO SCALE



TYPICAL MANHOLE CROSS SECTION  
NOT TO SCALE



TEMPORARY SEDIMENT TRAP EMBANKMENT CROSS SECTION  
NOT TO SCALE

TOP WIDTH VS. HEIGHT  
H = HEIGHT OF EMBANKMENT  
W = TOP WIDTH OF EMBANKMENT

H (ft)	W (ft)
1.5	2.0
2.0	2.0
2.5	2.5
3.0	2.5
3.5	3.0
4.0	3.0
4.5	4.0
5.0	4.5

NOTES:

1. ALL CONSTRUCTION AND MATERIALS SHALL BE IN ACCORDANCE WITH THE 2002 CONNECTICUT GUIDELINES FOR SOIL AND EROSION CONTROL SECTIONS 5-11-25 THRU 5-11-29.
2. PVIOUS STONE DIKE SHALL BE CONSTRUCTED OF MODIFIED RIPRAP (CTDOT M.12.02) WITH #3 STONE ON FACE (CTDOT M.01.01).
3. NON-OVERFLOW PORTIONS AND ABUTMENTS OF TEMPORARY SEDIMENT TRAPS MAY BE CONSTRUCTED OF ENGINEER APPROVED BACKFILL COMPACTED IN 9" LAYERS. USE ONLY MATERIAL FOR THE EMBANKMENT THAT IS FREE FROM EXCESSIVE ORGANICS, DEBRIS, ROCKS OVER 6" IN DIAMETER OR OTHER UNSUITABLE MATERIALS.
4. IF, IN THE JUDGEMENT OF THE ENGINEER, MATERIALS FROM ON-SITE EXCAVATION ACTIVITIES ARE NOT SUITABLE FOR CONSTRUCTION OF SEDIMENT TRAP EMBANKMENTS, MATERIALS SHALL BE IMPORTED TO THE SITE.
5. EARTHEN EMBANKMENTS SHALL BE STABILIZED WITH TEMPORARY SEEDING, PERMANENT SEEDING OR STONE SLOPE PROTECTION IMMEDIATELY AFTER INSTALLATION.
6. TEMPORARY SEDIMENT TRAP(S) SHALL BE INSPECTED AT LEAST ONCE PER WEEK AND WITHIN 24 HOURS OF THE END OF A STORM OF 0.5 INCHES OF RAINFALL OR GREATER. REMOVE ACCUMULATED SEDIMENT WHEN ONE HALF OF THE MINIMUM WET STORAGE VOLUME HAS BEEN FILLED. DISPOSE OF REMOVED SEDIMENT IN A SUITABLE AREA AND IN SUCH A MANNER THAT IT WILL NOT ERODE.

### SEED MIX REQUIREMENTS:

AREA	SPECIES	SEEDING RATE (lbs/acre)
Mowed & maintained banks	Creeping Red Fescue (Pennlawn, Wintergreen)	20
	Bird's-foot Trefoil (Empire, Viking) with inoculant	8
	Tall Fescue (Kentucky 31)	20
	TOTAL	48
Unmowed banks & slopes	Tall Fescue (Kentucky 31)	20
	Flatpea (Lathco) with inoculant	30
	TOTAL	50
Diversions & channels	Creeping Red Fescue (Pennlawn, Wintergreen)	20
	Redtop (Sreker, Common)	2
	Tall Fescue (Kentucky 31)	20
	TOTAL	42
Lawns & high maintenance areas	Turf type Tall Fescue	TOTAL 150

\*\*\*Alternative seed mixes may be used. Alternative seed mix selections shall be in accordance with Figures PS-2 and PS-3 in the 2002 Guidelines for Soil Erosion and Sediment Control or as specified by and coordinated with the landscape designer.

### New England Erosion Control/Restoration Mix For Detention Basins and Moist Sites

The New England Erosion Control/Restoration Mix for Detention Basins and Moist Sites contains a selection of native grasses and wildflowers designed to colonize generally moist, recently disturbed sites where quick growth of vegetation is desired to stabilize the soil surface. It is an appropriate seed mix for ecologically sensitive restorations that require stabilization as well as long-term establishment of native vegetation. This mix is particularly appropriate for detention basins that do not hold standing water for extended periods. Many of the plants in this mix can tolerate infrequent inundation, but not constant flooding. The mix may be applied by hand, by mechanical spreader, or by hydro-seeder. After sowing, lightly rake, roll or cultipack to insure good seed to soil contact. Best results are obtained with a Spring or late Summer seeding. Late Fall and Winter dormant seeding requires an increase in the application rate. A light mulching of clean, weed-free straw is recommended.

SPECIES: Riverbank Wild Rye (*Elymus riparius*), Creeping Red Fescue (*Festuca rubra*), Little Bluestem (*Schizachyrium scoparium*), Big Bluestem (*Andropogon gerardii*), Switch Grass (*Panicum virgatum*), Upland Bentgrass (*Agrostis perennans*), Nodding Bur Marigold (*Bidens cernua*), Hollow-Stem Joe Pye Weed (*Eupatorium fistulosum*/Eutrochium fistulosum), New England Aster (*Aster novae-angliae*), Boneset (*Eupatorium perfoliatum*), Blue Vervain (*Verbena hastata*), Soft Rush (*Juncus effusus*), Wool Grass (*Scirpus cyperinus*).</P>

08/24/2020	PER TOWN REVIEW
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	REVISIONS

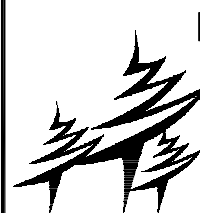
### DETAIL SHEET 2

PREPARED FOR

SHANE POLLOCK

LOUISE BERRY DRIVE  
BROOKLYN, CONNECTICUT

Killingly Engineering Associates  
Civil Engineering & Surveying

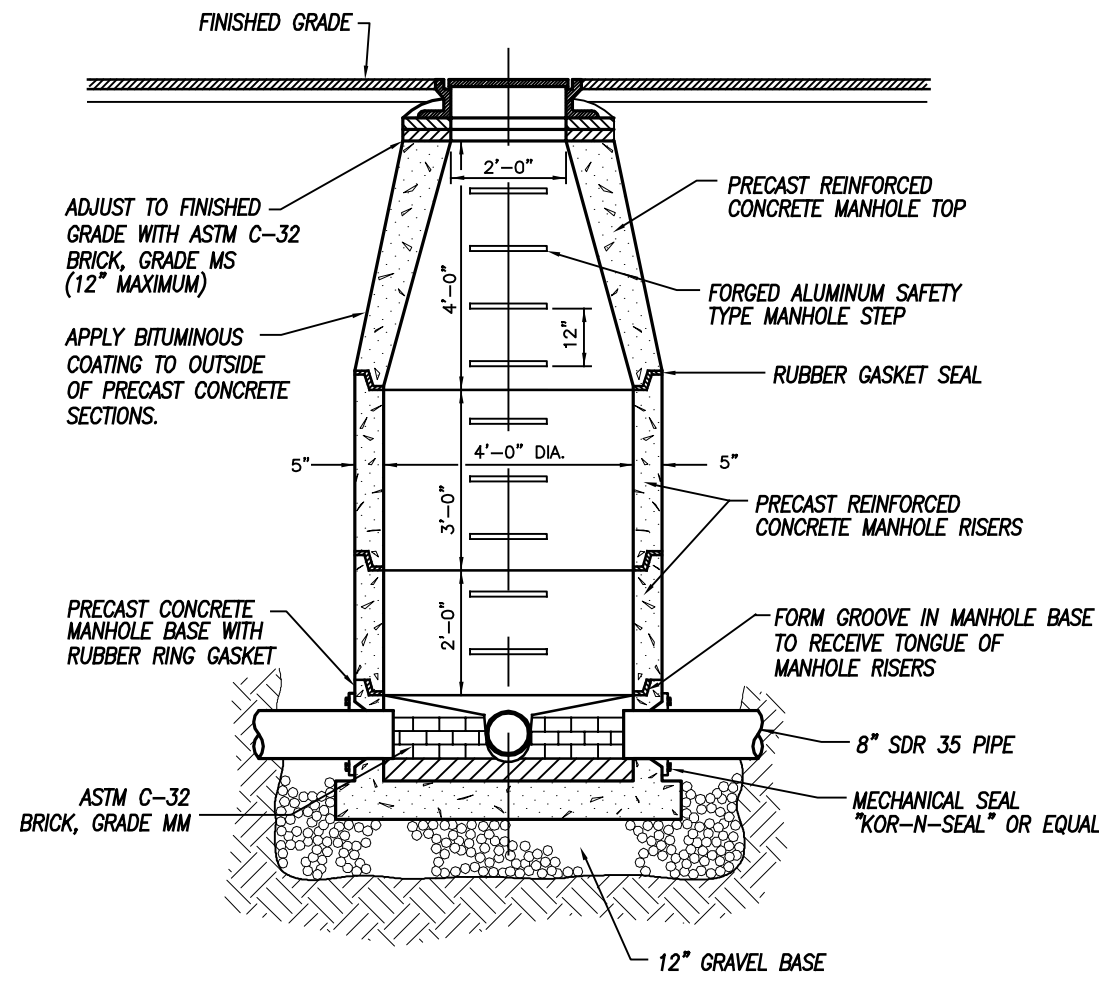


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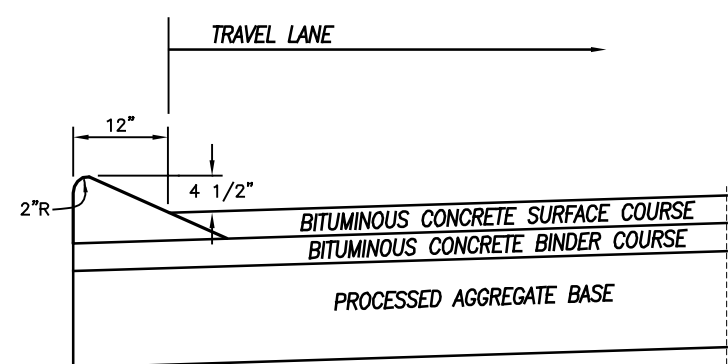
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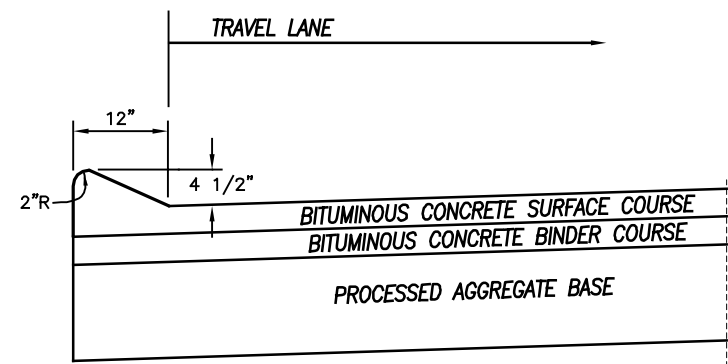




TYPICAL SANITARY MANHOLE  
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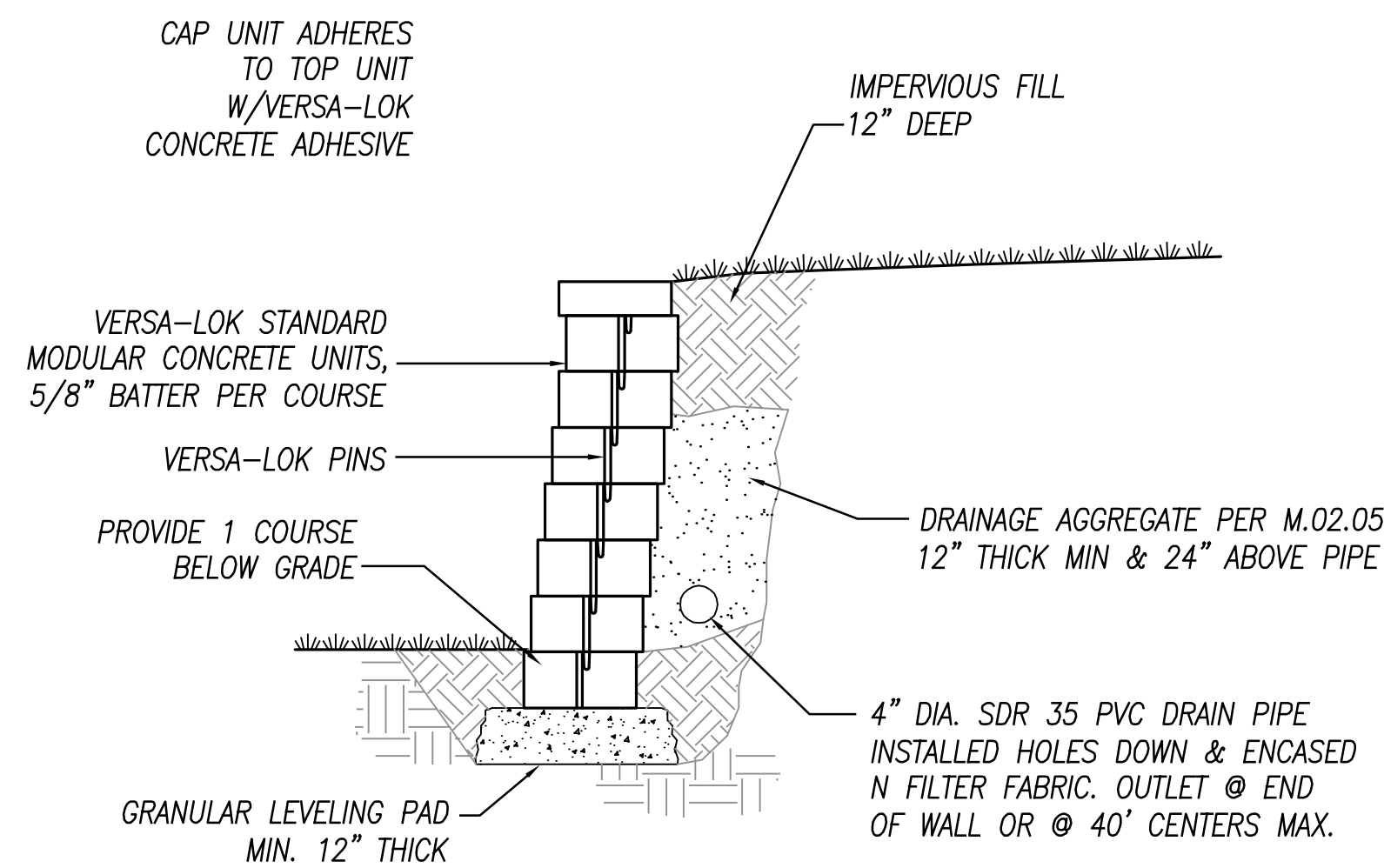


ALTERNATE 1 - CURB ON BINDER

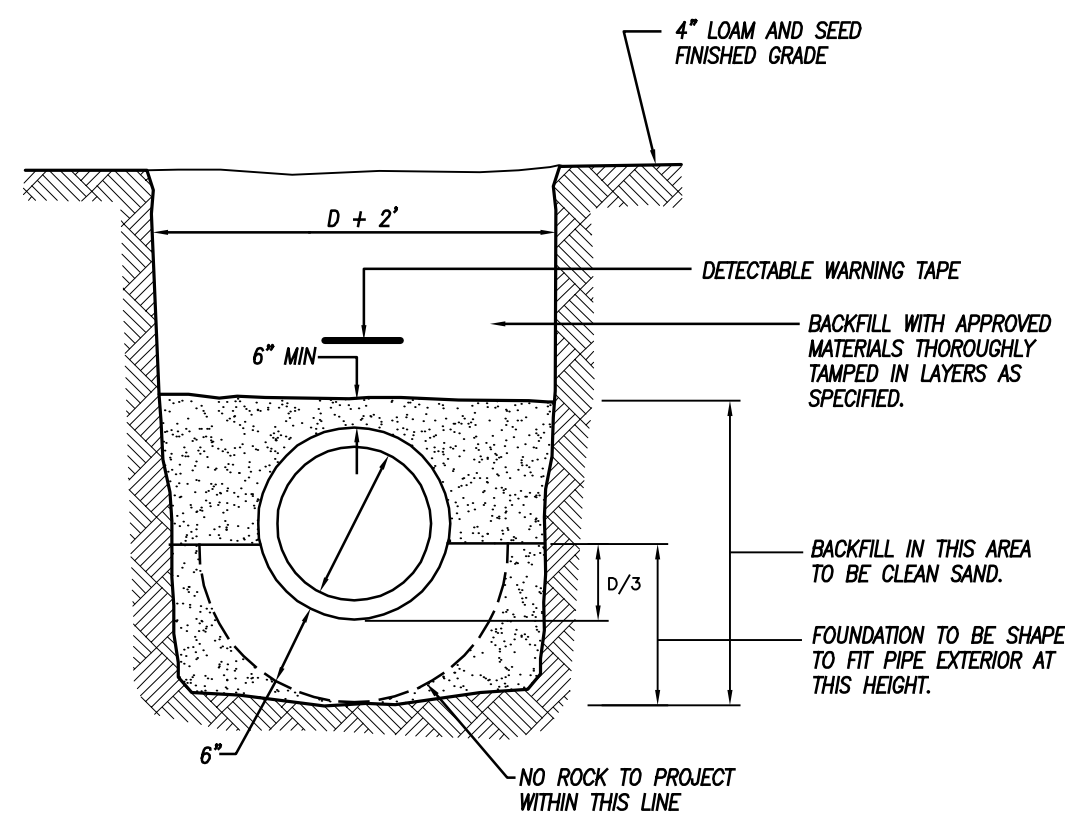


ALTERNATE 2 - MONOLITHIC CONSTRUCTION

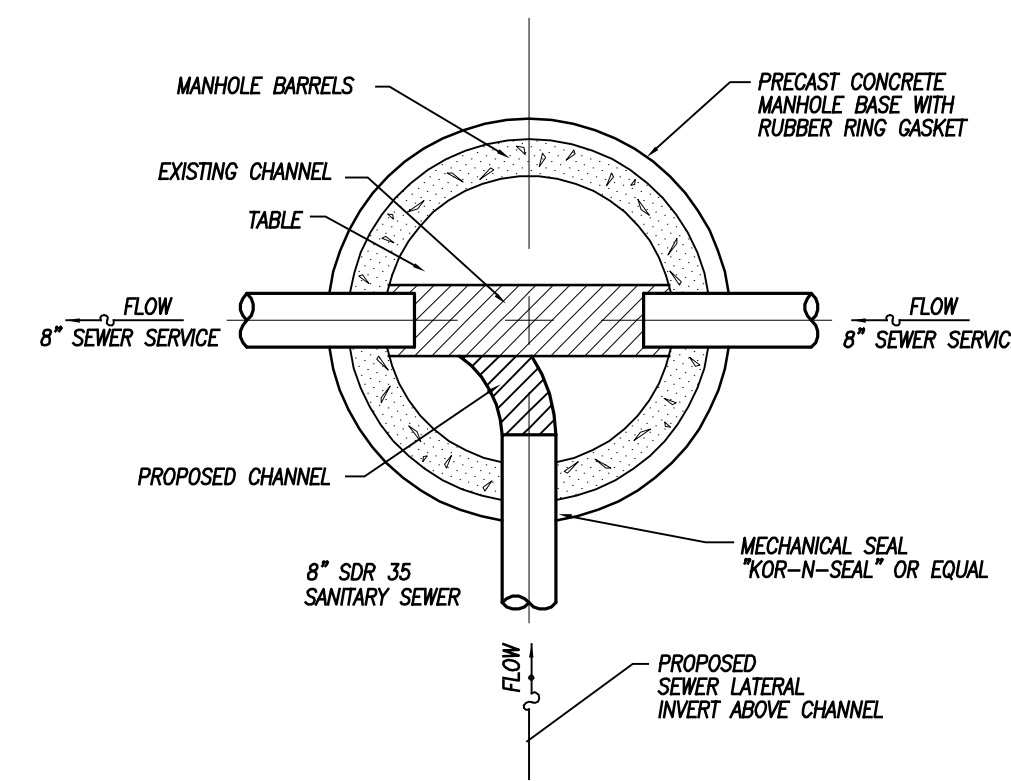
CAPE COD CURBING  
NOT TO SCALE



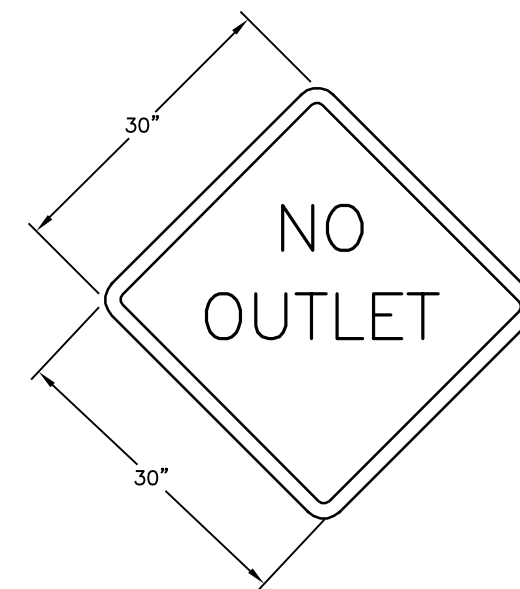
TYPICAL SECTION-UNREINFORCED RETAINING WALL  
VERSA-LOK OR APPROVED EQUAL



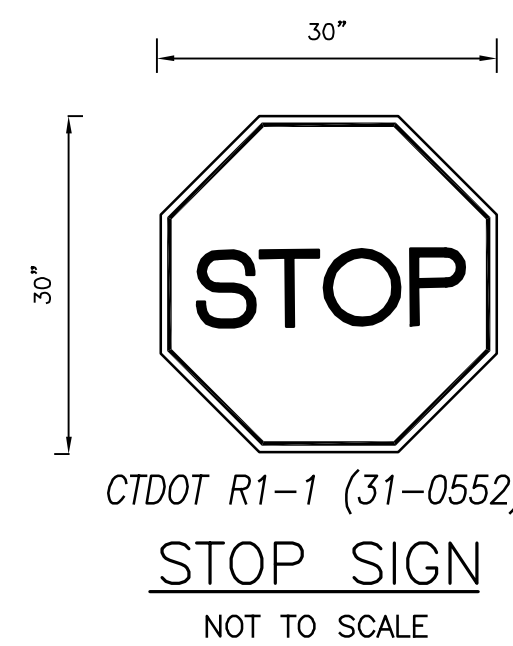
SANITARY SEWER  
PIPE IN TRENCH DETAIL  
NOT TO SCALE



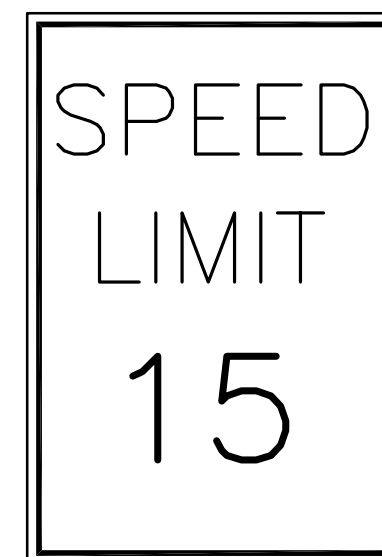
SEWER CONNECTION  
AT MANHOLE  
NOT TO SCALE



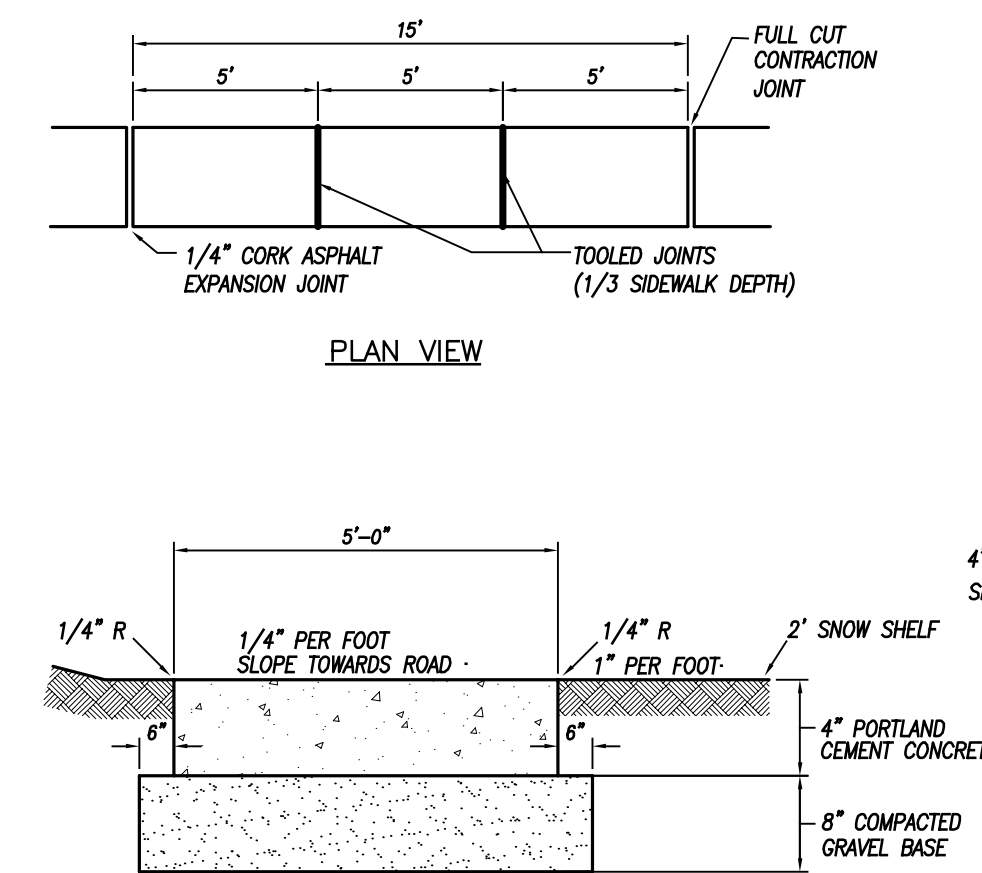
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CTDOT W14-2 (41-4605)  
SETON #44851



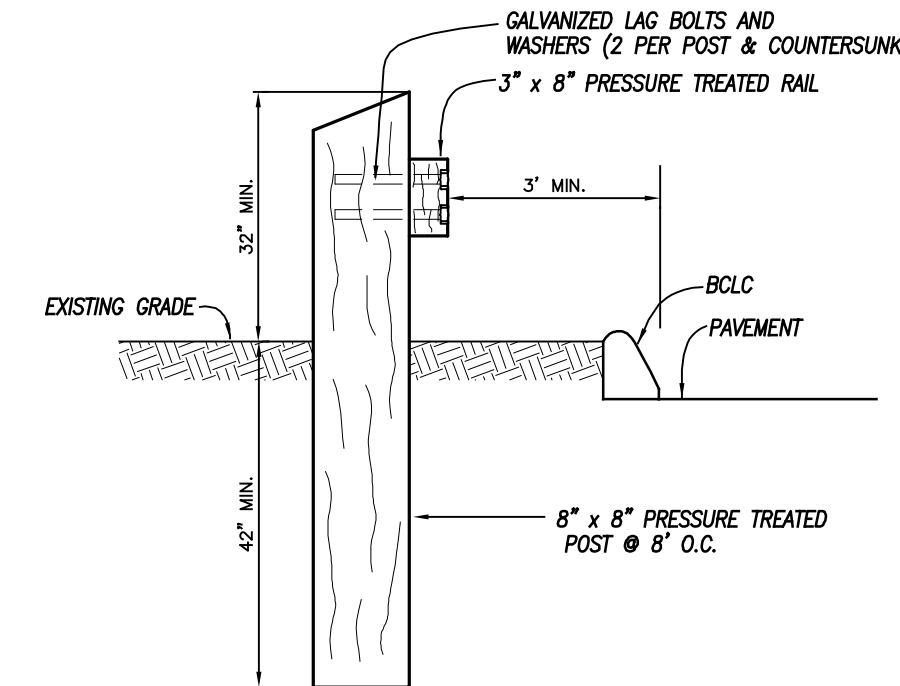
CTDOT R1-1 (31-0552)  
STOP SIGN  
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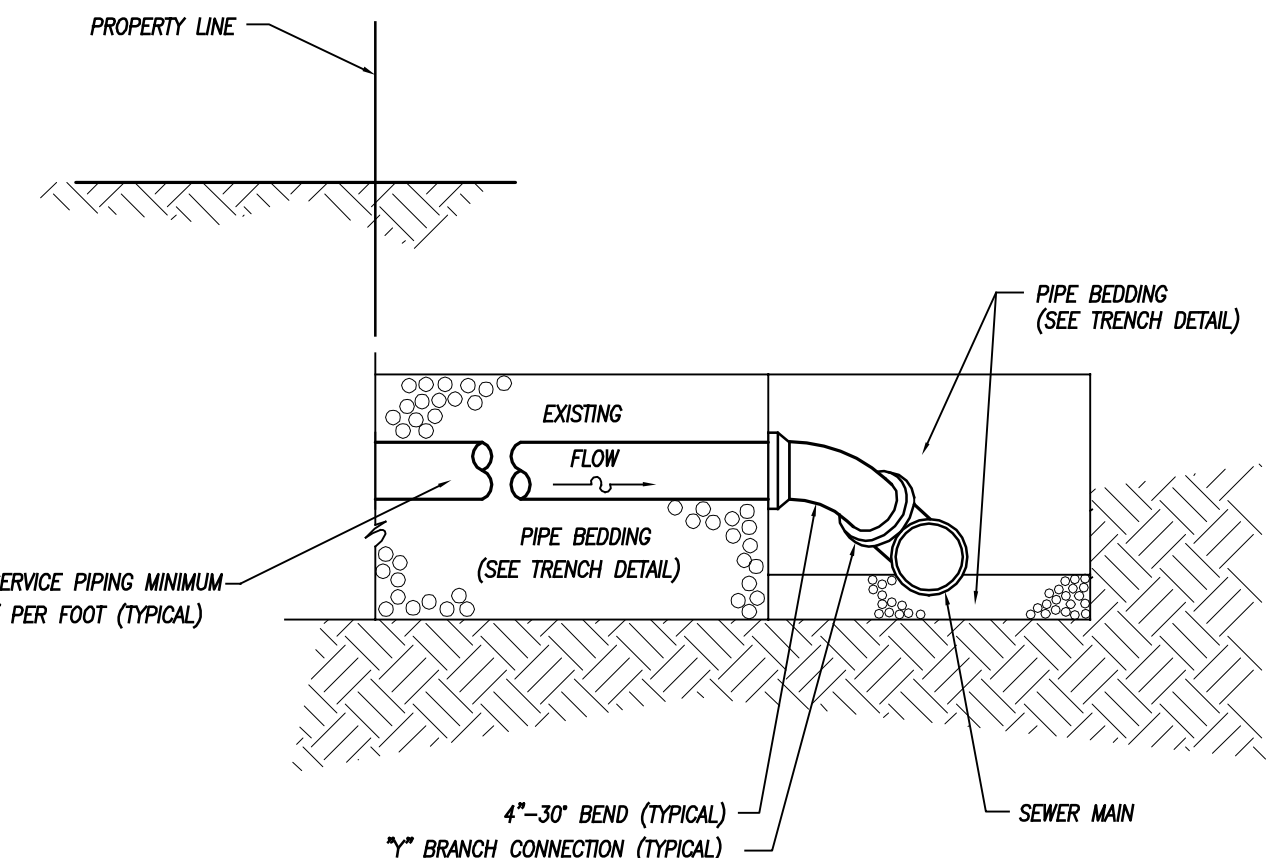
SPEED LIMIT SIGN DETAIL  
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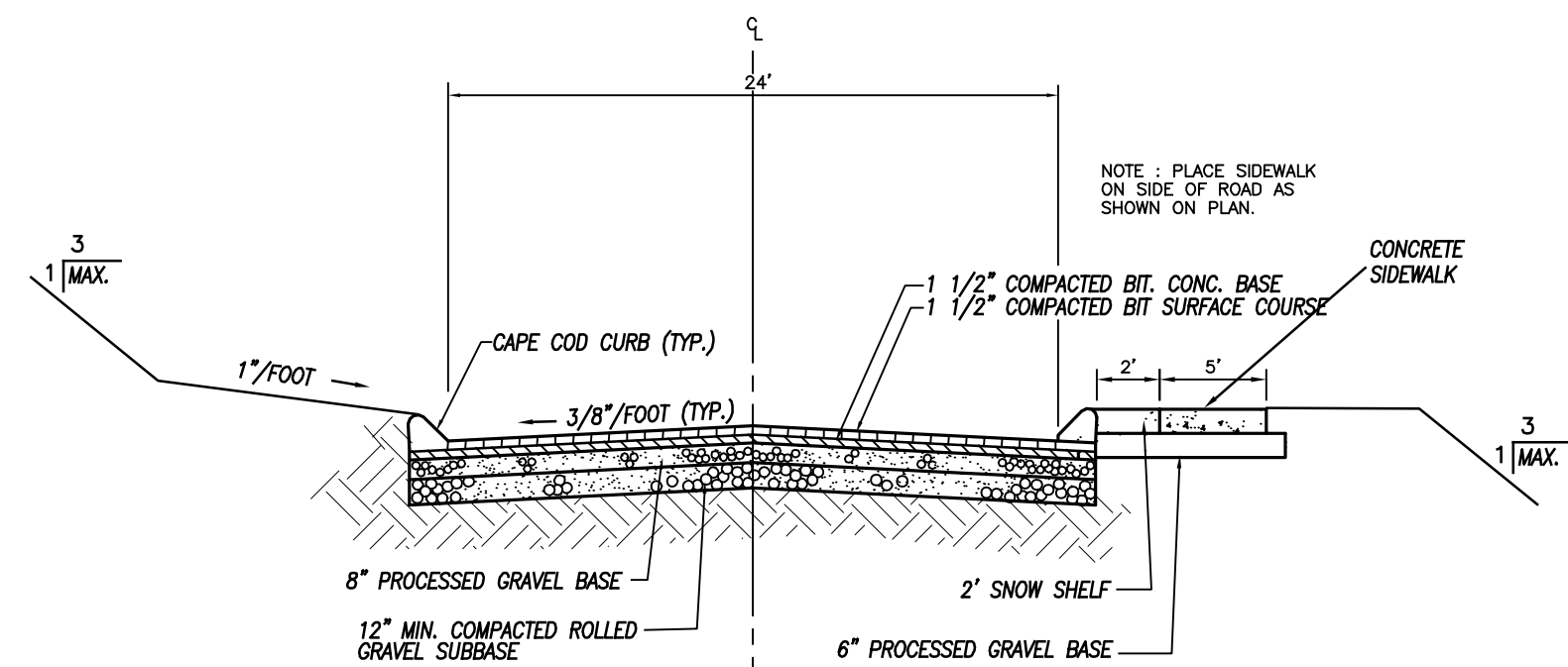
CONCRETE SIDEWALK DETAIL  
NOT TO SCALE



WOOD GUIDE RAIL  
NOT TO SCALE  
POST SHALL BE CERTIFIED 0.6 CCF PRESERVATIVE RETENTION RATE, ANPA CATEGORY UC4C



SEWER CONNECTION DETAIL  
NOT TO SCALE

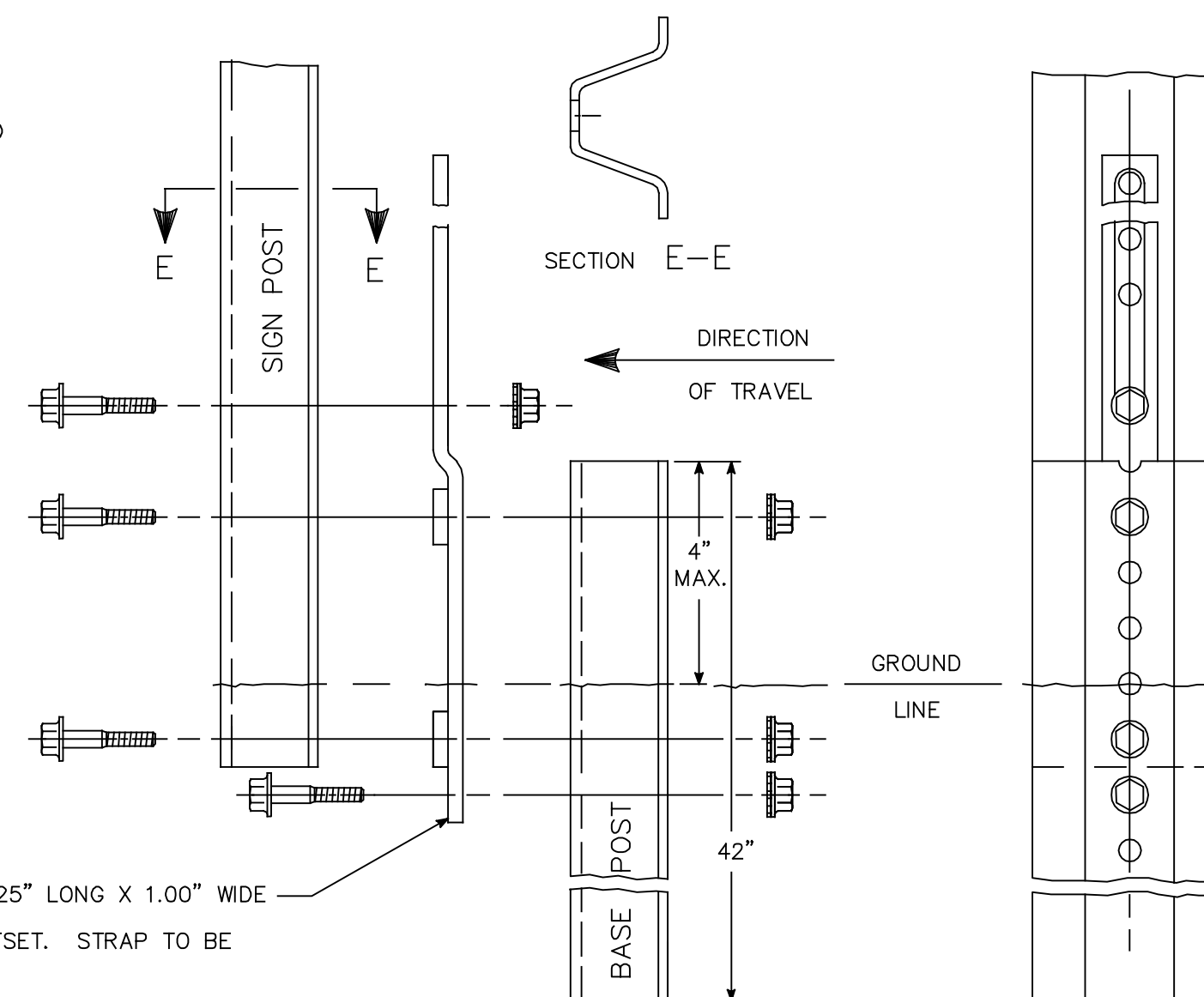


ROADWAY CROSS SECTION  
NOT TO SCALE

BOLTS - HEX HEAD, INTEGRAL FLANGE CONFORMING TO ASTM A354. -18 UNC X 1.75", GRADE BC FOR 3.00 LBS./FT. POSTS -18 UNC X 2.0", GRADE BD FOR 4.00 LB./FT. POSTS.

NUTS -18 UNC HEX HEAD, INTEGRAL FLANGE CONFORMING TO ASTM A563, GRADE DH.

LOCKWASHERS - HEAVY DUTY EXTERNAL TYPE.



RETAINER-SPACER STRAP 17.125" LONG X 1.00" WIDE X .375" THICK WITH .375" OFFSET. STRAP TO BE GALVANIZED TO ASTM A 123.

BREAKAWAY TYPE I INSTALLATION - FOR 3 & 4 LB. POSTS

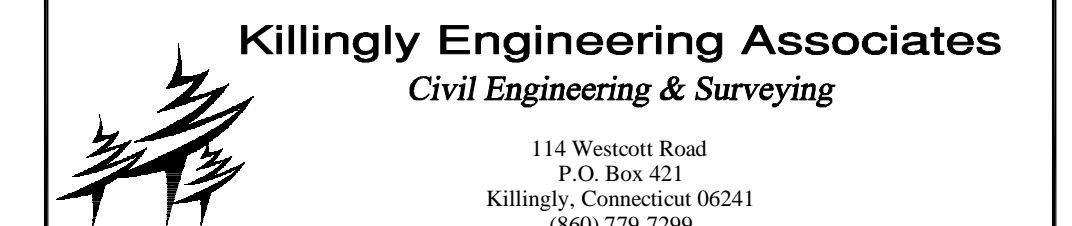
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DETAIL SHEET 3

PREPARED FOR

SHANE POLLOCK

LOUISE BERRY DRIVE  
BROOKLYN, CONNECTICUT



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