Seattle Stormwater Manual Figure Redlines–

March 2026 Review Draft

Figure Redlines for Volume 1 – Project Minimum Requirements

March 2026 Review Draft

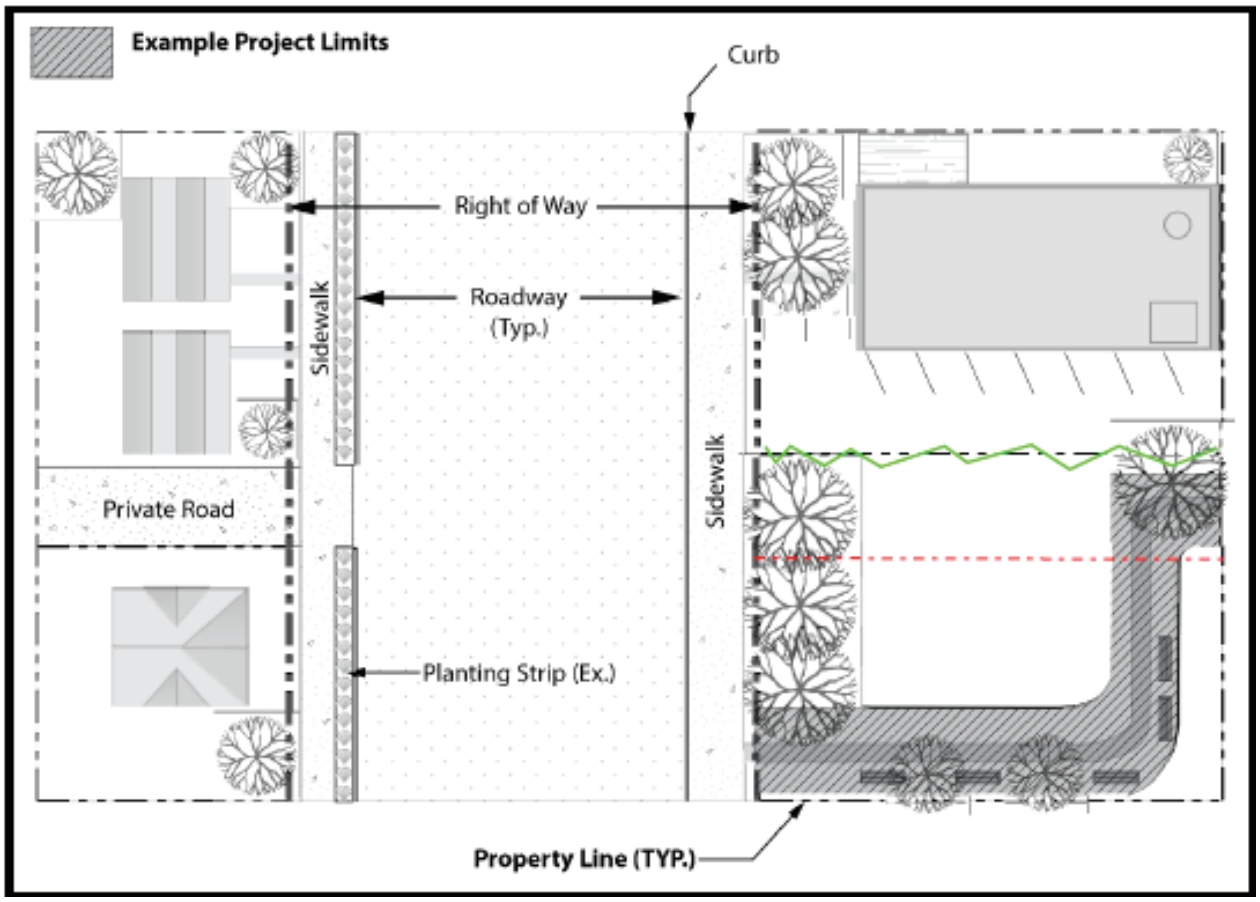

Figure 2.3. Trail Project Definition.

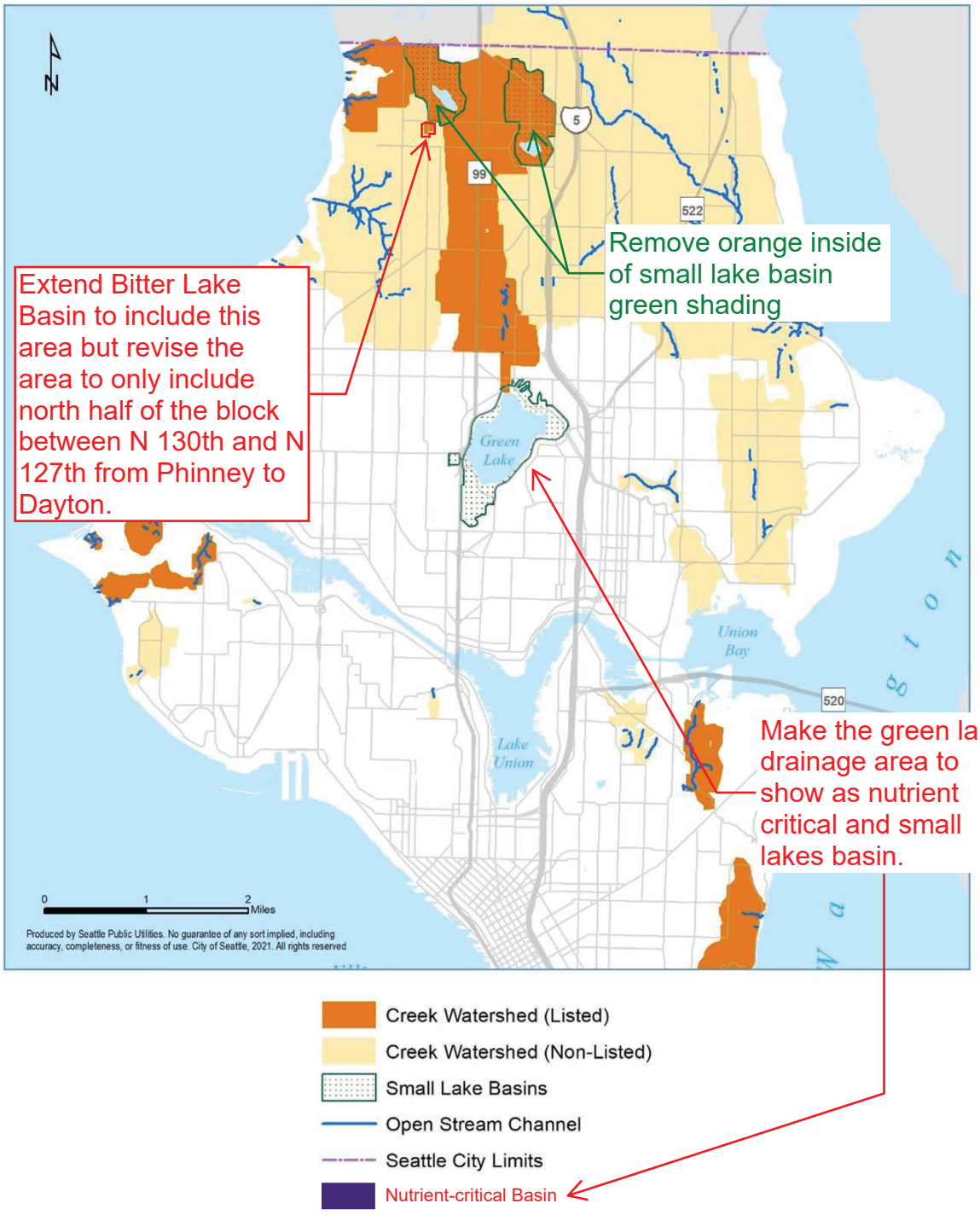

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Figure 2.6 North End Creek and Small Lake Basins

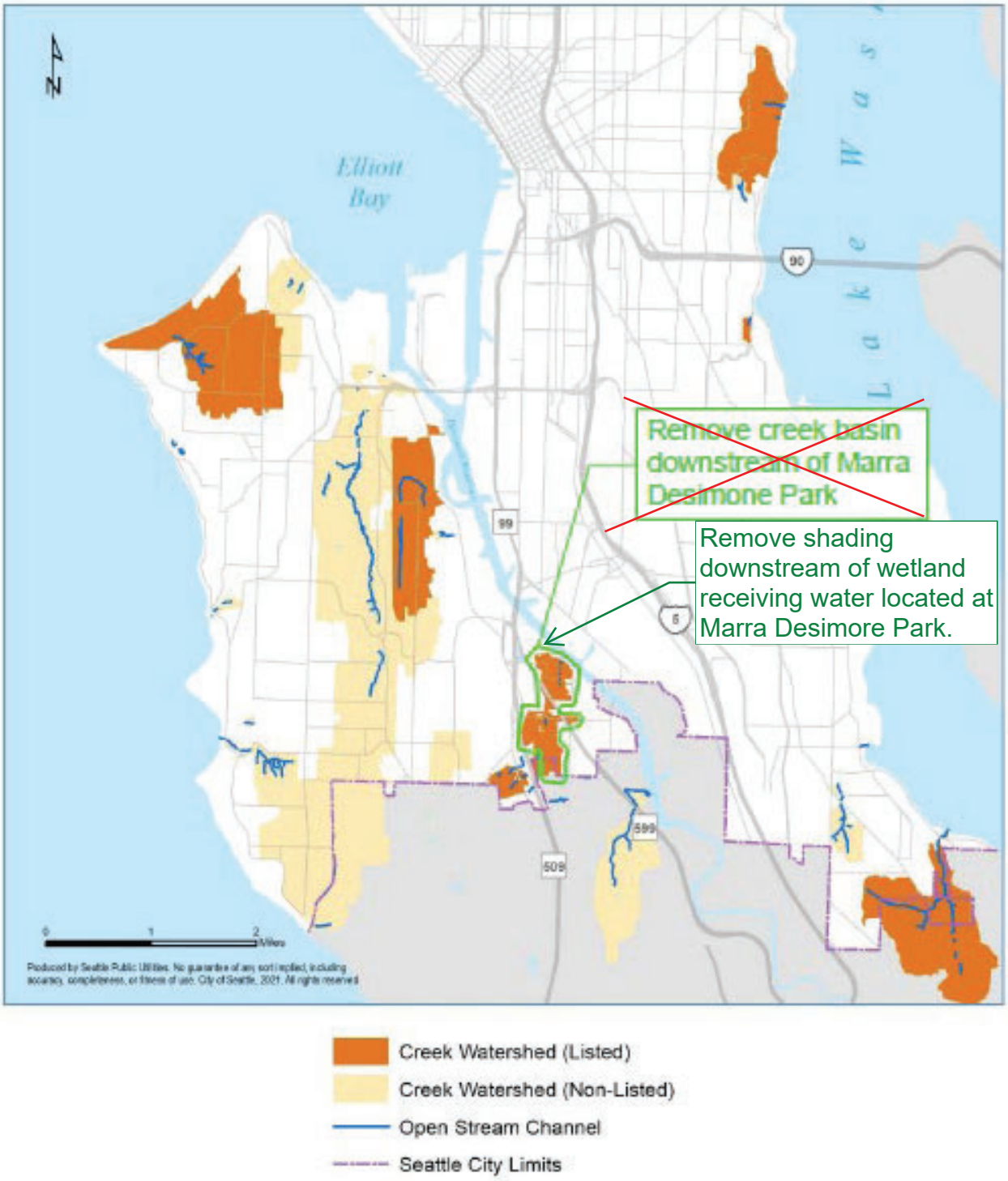


Figure 2.~~7~~ 6. South End Creek Basins.

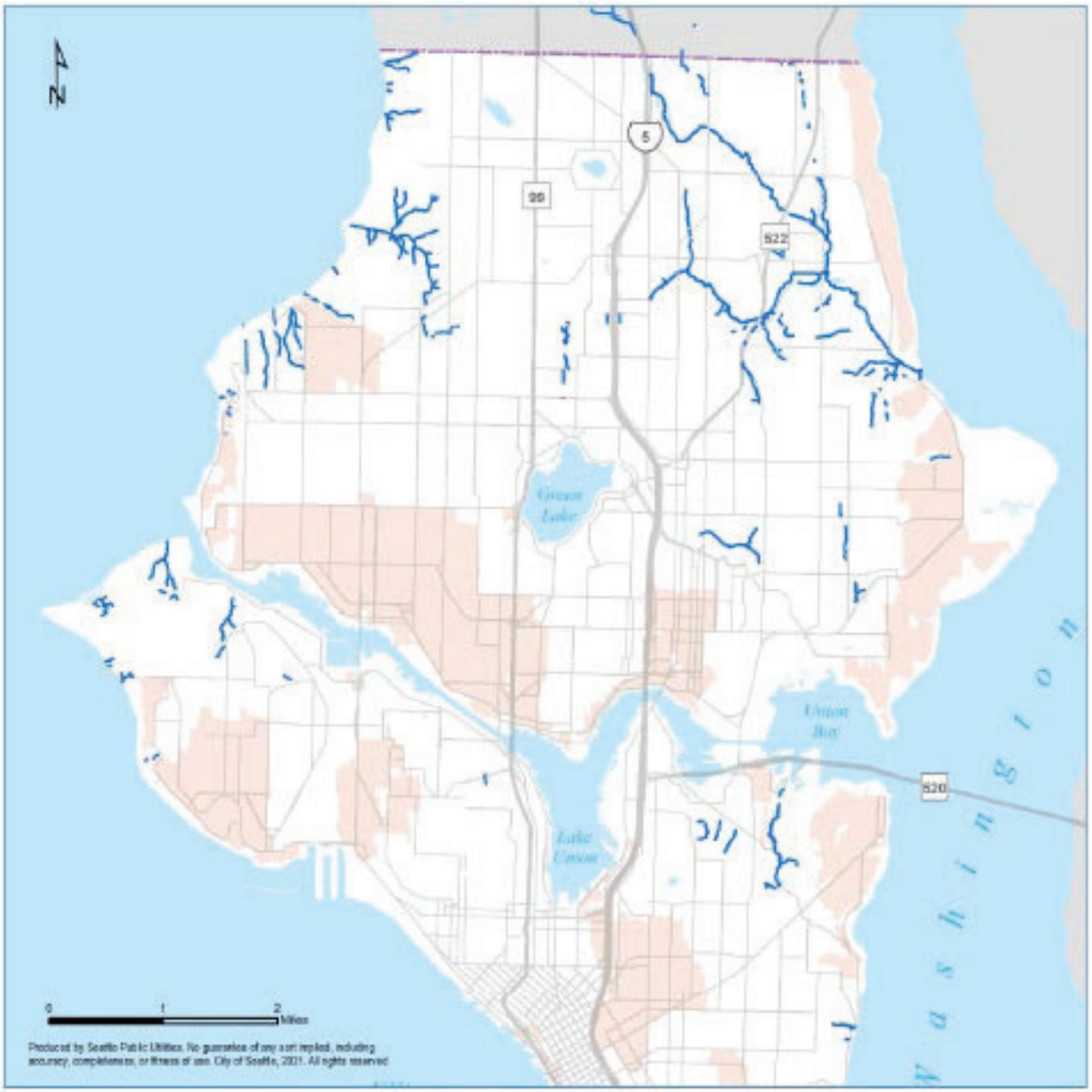


Figure 2.~~9~~8. North End Designated Receiving Water Drainage Areas.

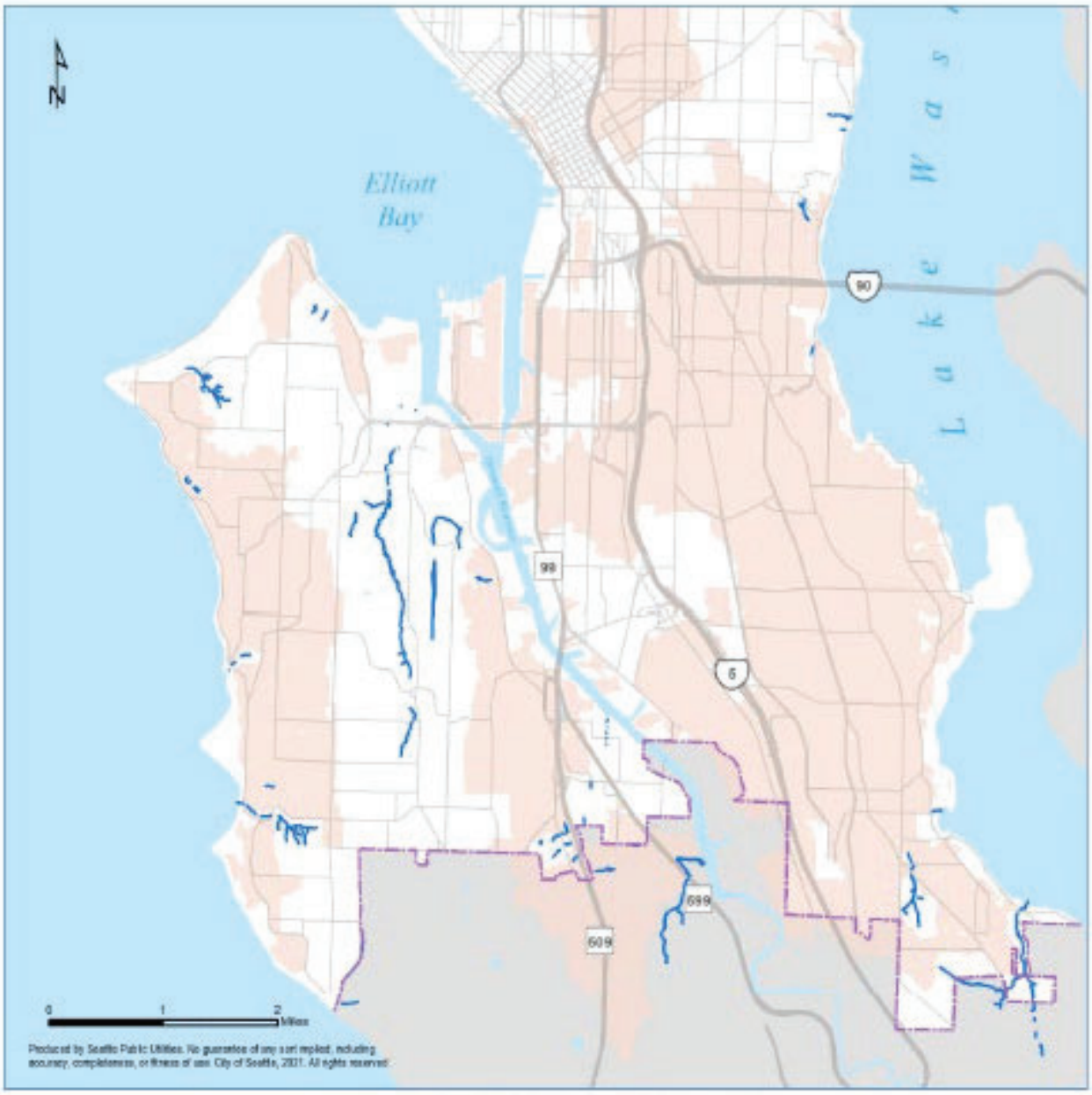


Figure 2.~~10~~9. South End Designated Receiving Water Drainage Areas.

Figure 2.~~11.~~10 Capacity-constrained Systems

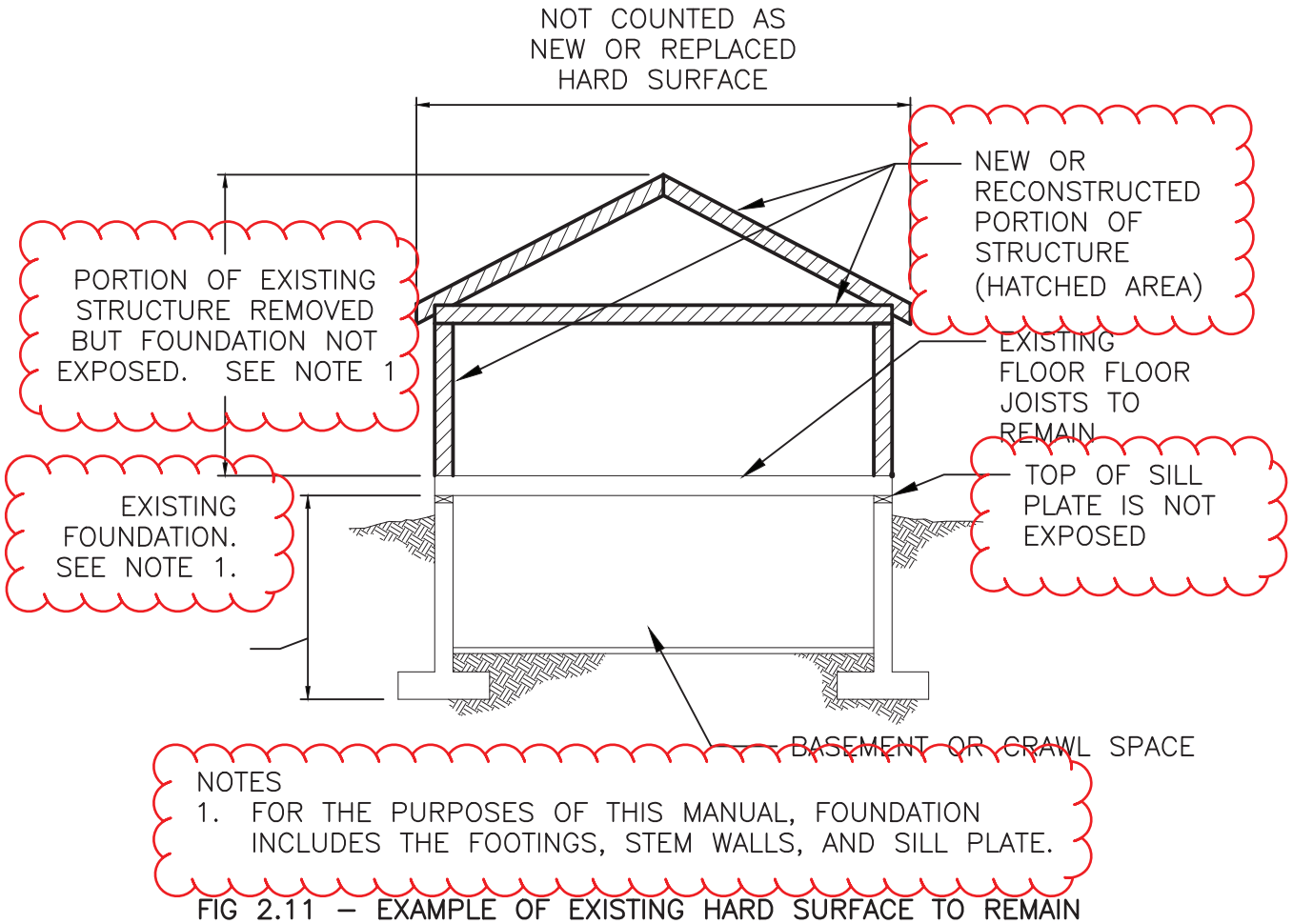


FIG 2.11 – EXAMPLE OF EXISTING HARD SURFACE TO REMAIN WITH EXISTING FLOOR JOISTS TO REMAIN

FIGURE 2.11

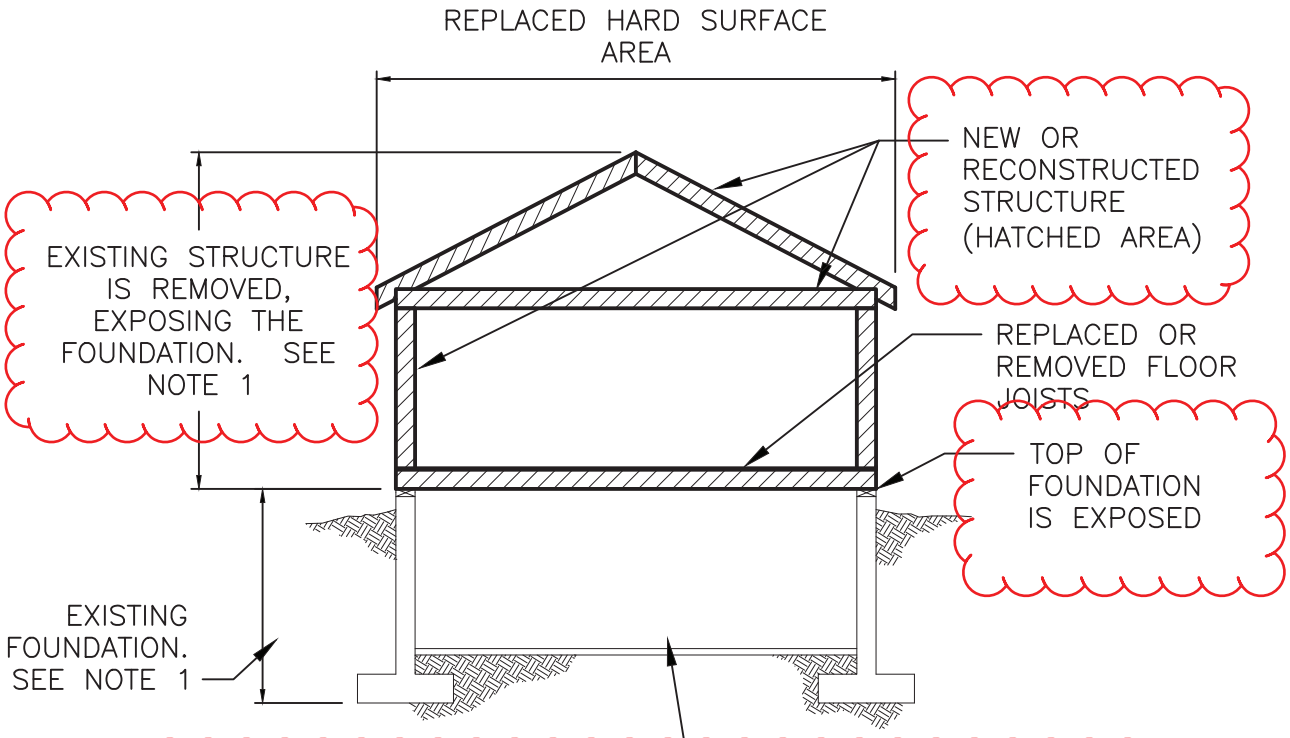


FIG 2.12 – EXAMPLE OF REPLACED HARD SURFACE WITH FLOOR JOISTS REMOVE OR REPLACED

FIGURE 2.12

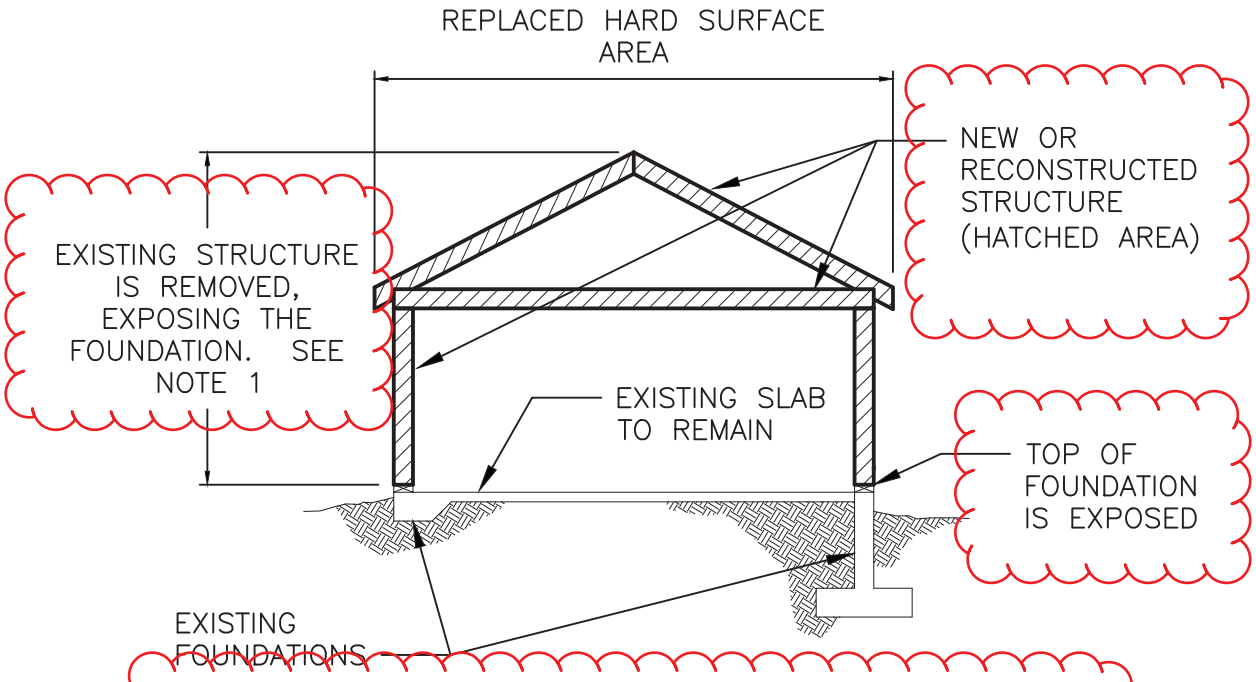
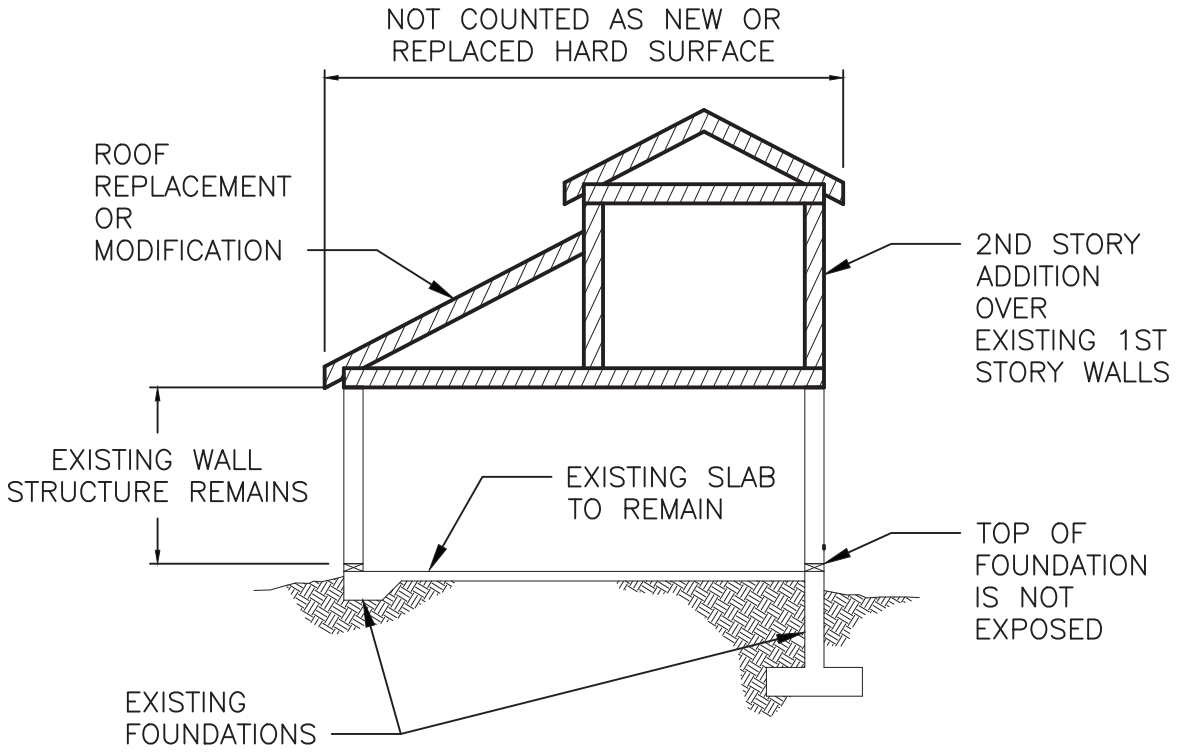


FIG 2.13 – EXAMPLE OF REPLACED HARD SURFACE WITH STRUCTURE REMOVED DOWN TO SLAB ON GRADE/FOOTINGS

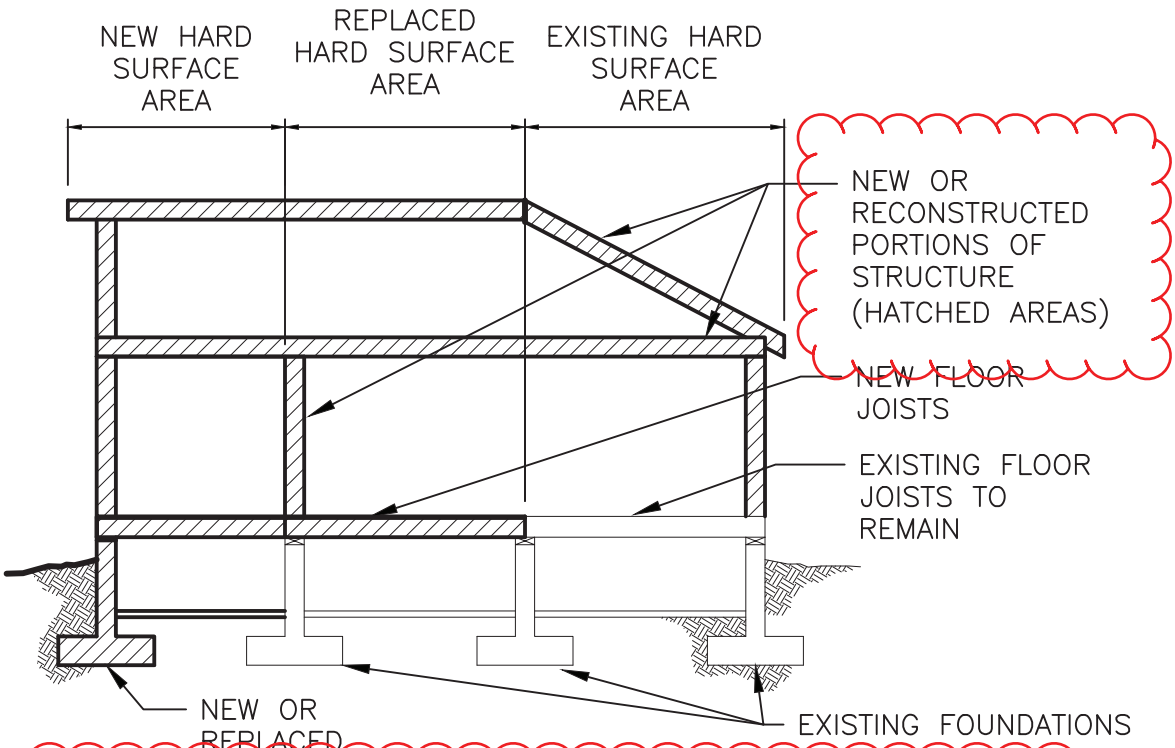
FIGURE 2.13



NOTES
1. FOR THE PURPOSES OF THIS MANUAL, FOUNDATION INCLUDES THE FOOTINGS, STEM WALLS, AND SILL PLATE.

FIG 2.14 – EXAMPLE OF EXISTING HARD SURFACE TO REMAIN WITH EXISTING 1ST FLOOR WALLS REMAINING

FIGURE 2.14



NOTES
1. FOR THE PURPOSES OF THIS MANUAL, FOUNDATION INCLUDES THE FOOTINGS, STEM WALLS, AND SILL PLATE.

FIG 2.15 – EXAMPLE WITH NEW, REPLACED AND EXISTING HARD SURFACES

FIGURE 2.15

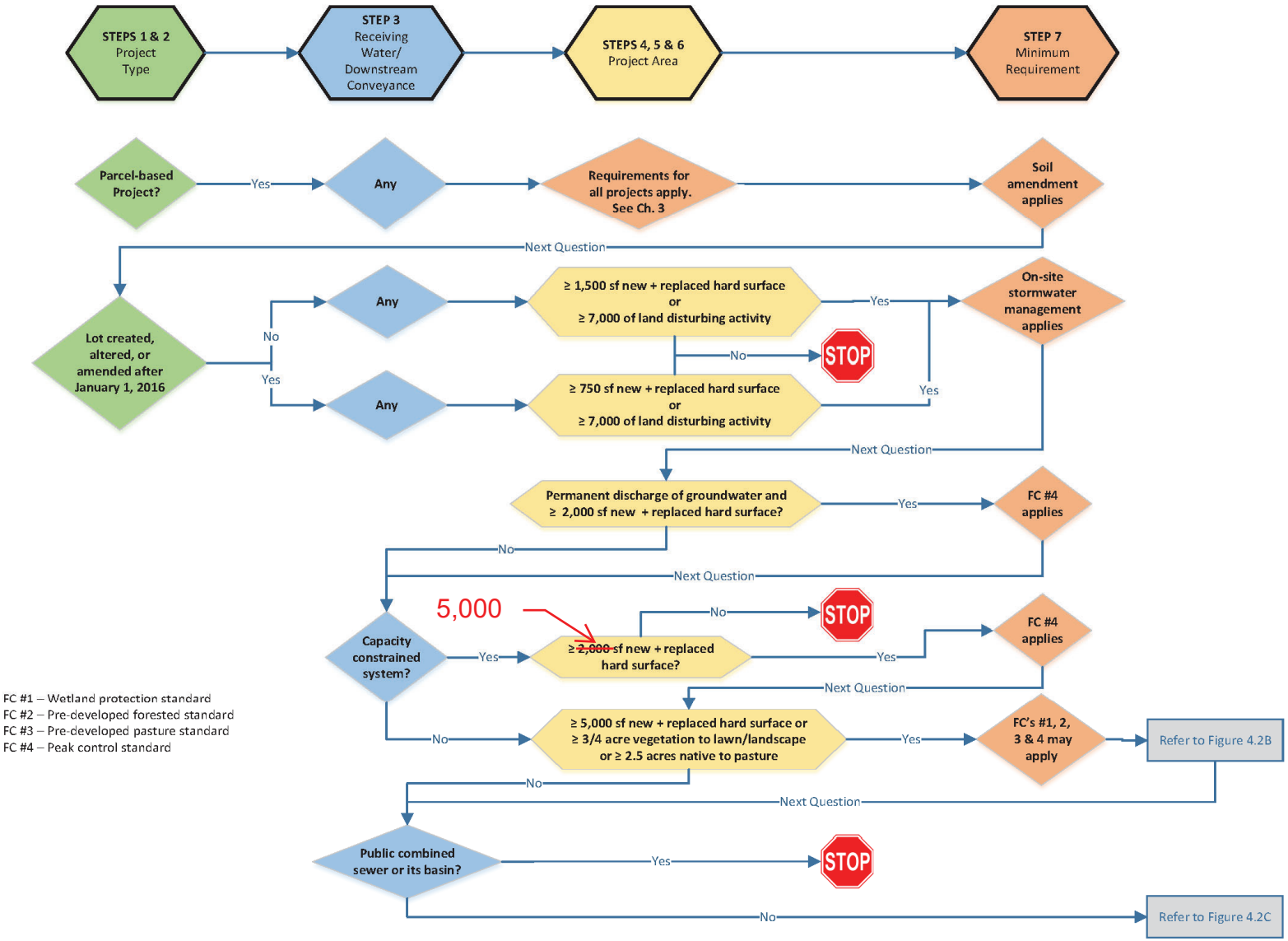


Figure 4.1~~2~~A. Project Minimum Requirements for Parcel-~~B~~based Projects.

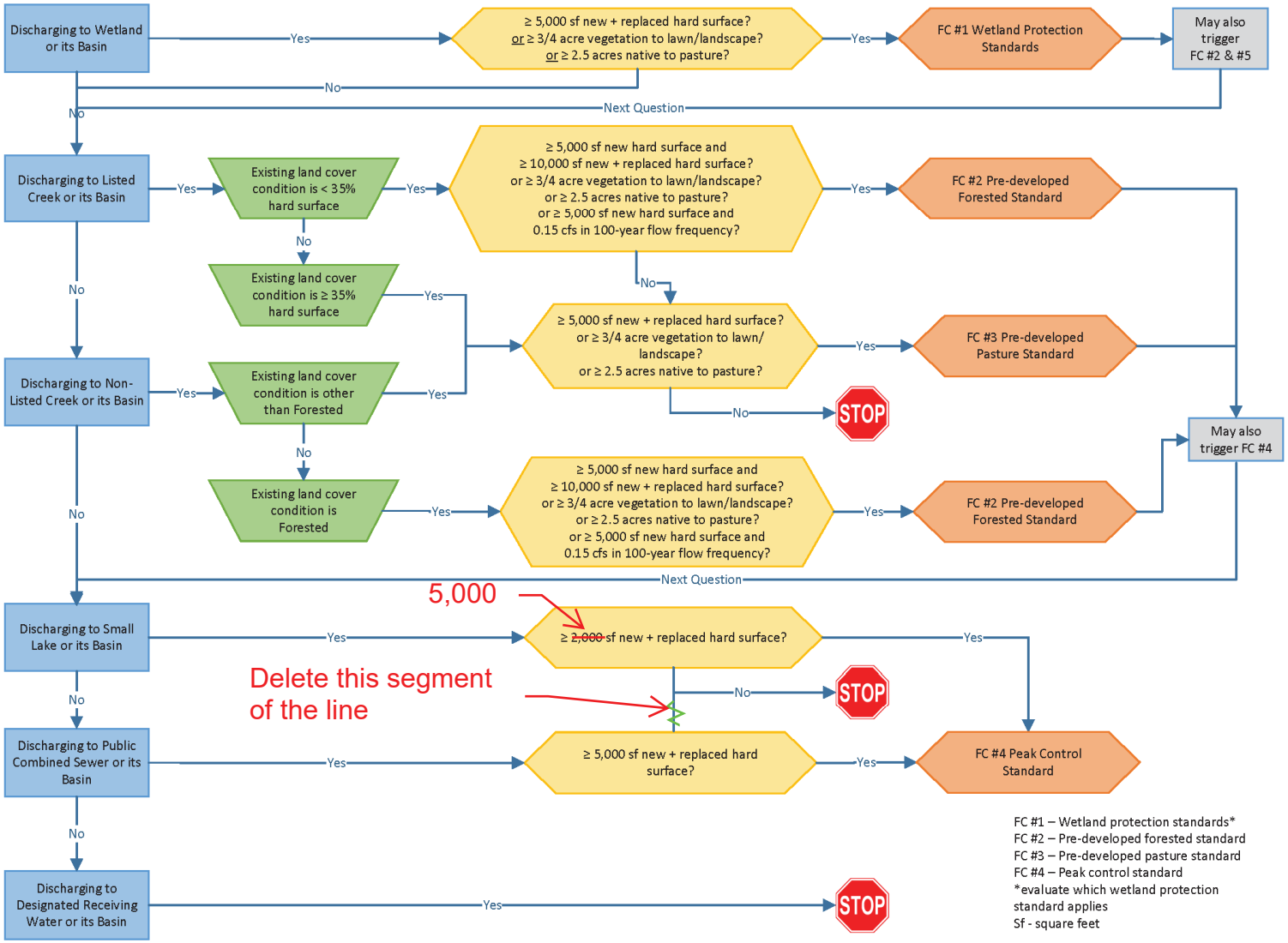


Figure 4.12B. Project Minimum Requirements for Parcel-Bbased Projects (continued).

1. At the time of this Stormwater Manual was developed, only the Green Lake Basin requires phosphorous-specific treatment in Seattle.

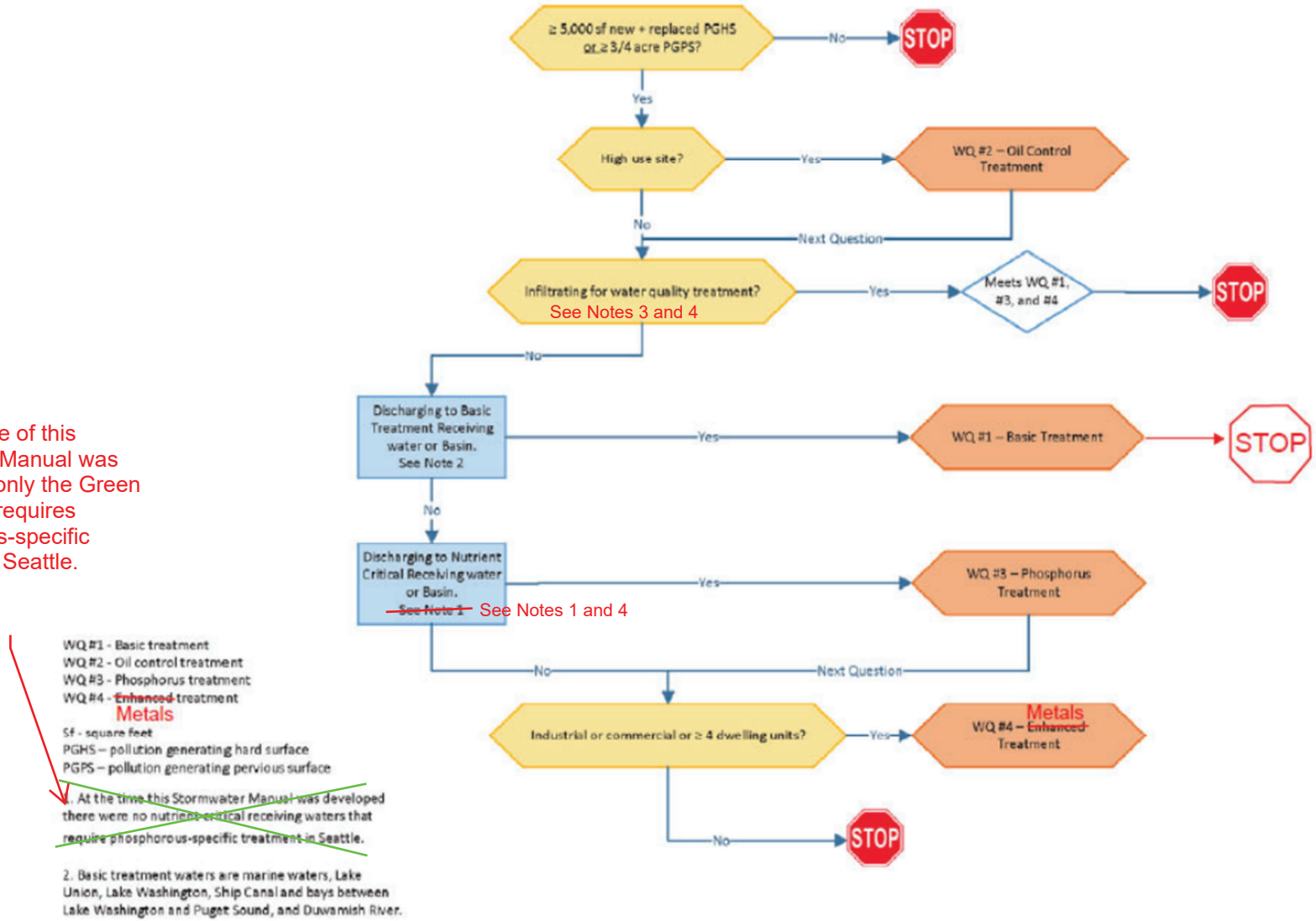
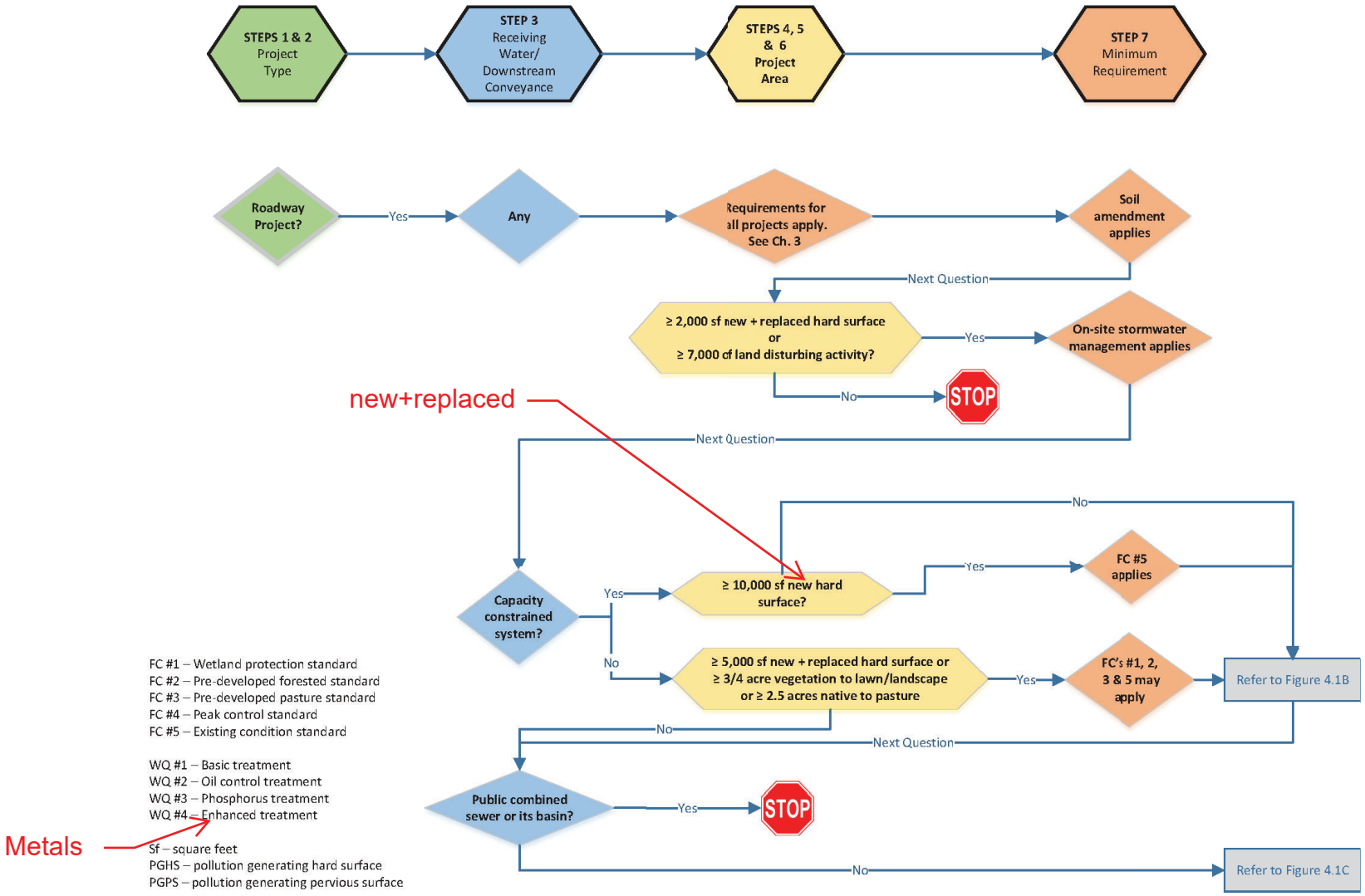


Figure 4.1~~2~~C. Project Minimum Requirements for Parcel-~~B~~based Projects (continued).

3. When using infiltration for Water Quality treatment, the underlying soils must meet the Soil Suitability Criteria in Volume 3, Section 4.5.2. (Note: see note 4 below about Soil Suitability Criteria for bioretention.)

4. Infiltrating or non-infiltration bioretention with an underdrain must not be used within 1/4 mile of water bodies that require phosphorous treatment unless using the High Performance Bioretention Soil Mix (HPBSM) and a polishing layer. Infiltrating bioretention without an underdrain can be used in these areas if the Soil Suitability Criteria are met or if the HPBSM and a polishing layer are used.



2

Figure 4.1A. Project Minimum Requirements for Roadway Projects.

Add note X:
Evaluate whether FC #1 applies to only the new hard surface or all new + replaced hard surfaces when new plus replaced hard surface is >10,000 sf:
If new hard surfaces total >50% of existing hard surfaces, FC#1 applies to new plus replaced hard surfaces. Otherwise, it applies to the total new hard surfaces.

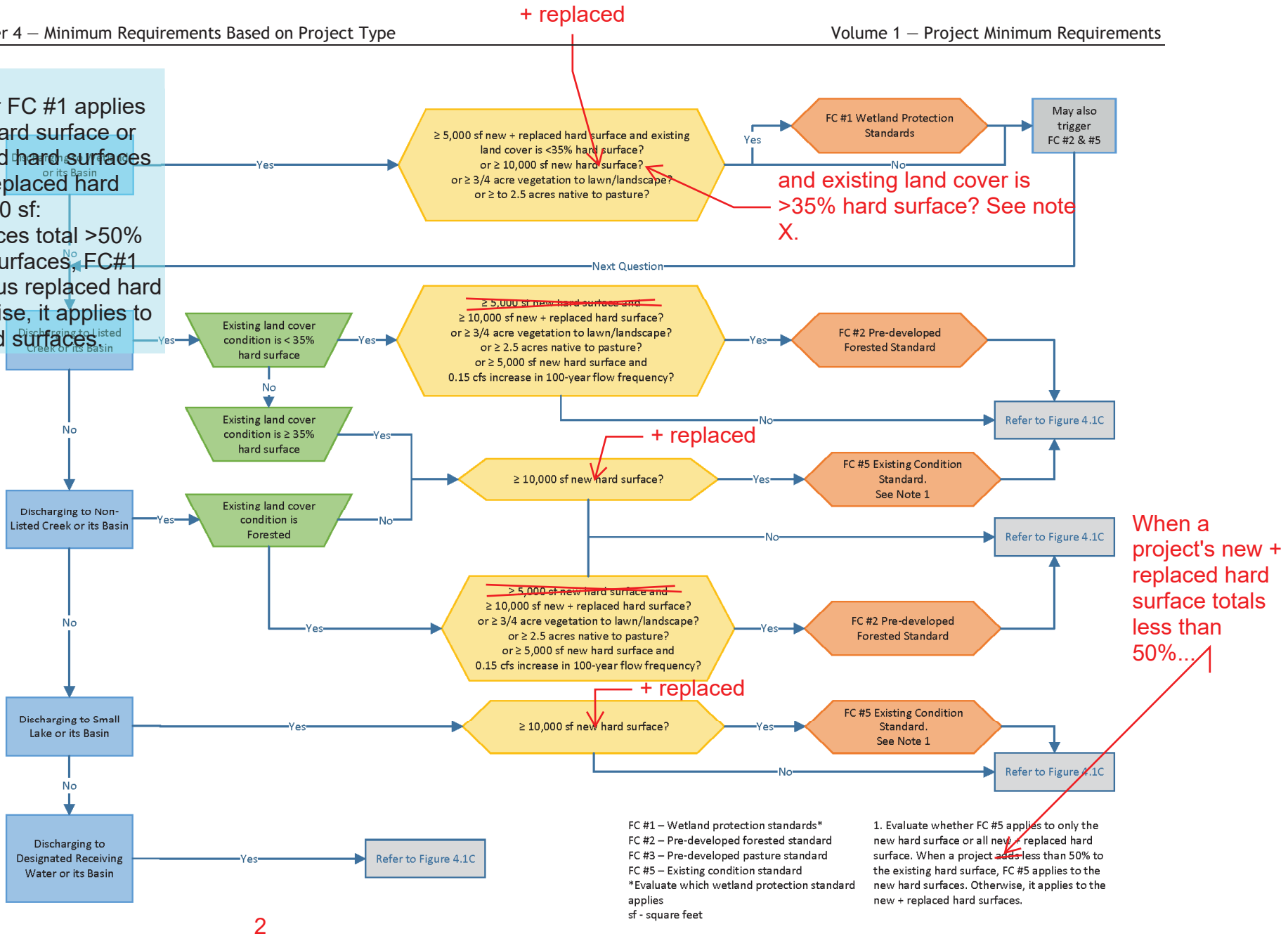
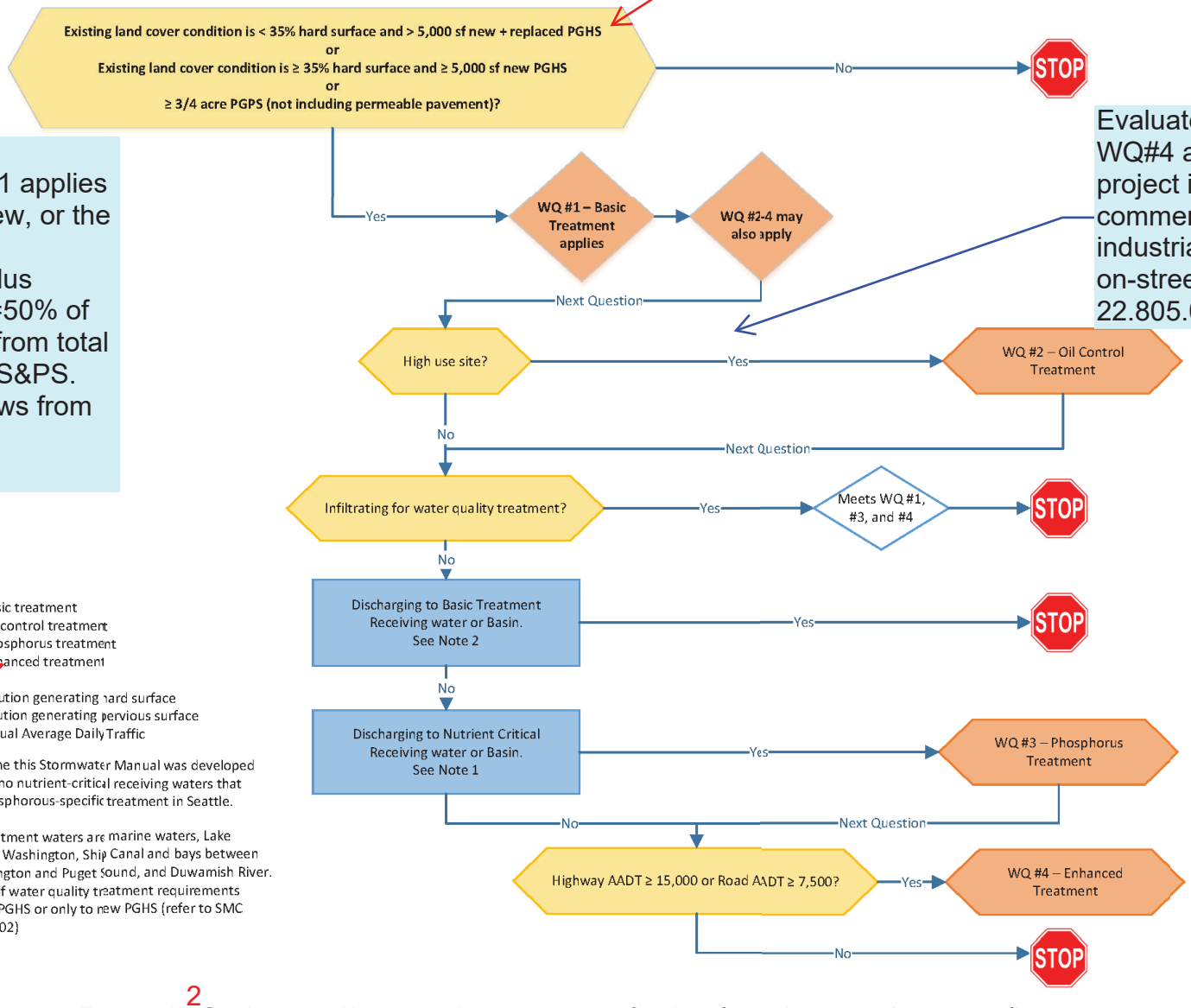


Figure 4.~~1~~2B. Project Minimum Requirements for Roadway Projects (continued).

+ replaced PGHS? See note Y.



Add note Y:
Evaluate whether WQ #1 applies to flows from only the new, or the total new plus replaced PGHS&PS. If the new plus replace PGHS totals >/=50% of existing HS, treat flows from total new plus replaced PGHS&PS. Otherwise, only treat flows from the new PGHS&PS.

Evaluate whe
WQ#4 applie
project is witl
commercial a
industrial zor
on-street par
22.805.090.E

WQ #1 - Basic treatment
WQ #2 - Oil control treatment
WQ #3 - Phosphorus treatment
WQ #4 - Enhanced treatment

metals

PGHS – pollution generating hard surface
PGPS – pollution generating pervious surface
AADT – Annual Average Daily Traffic

1. At the time this Stormwater Manual was developed there were no nutrient-critical receiving waters that require phosphorous-specific treatment in Seattle.

2. Basic treatment waters are marine waters, Lake Union, Lake Washington, Ship Canal and bays between Lake Washington and Puget Sound, and Duwamish River.
3. Evaluate if water quality treatment requirements apply to all PGHS or only to new PGHS (refer to SMC 22.805.060.02)

2

Figure 4.1C. Project Minimum Requirements for Roadway Projects (continued).

Figure Redlines for Volume 3 – Project Stormwater Control

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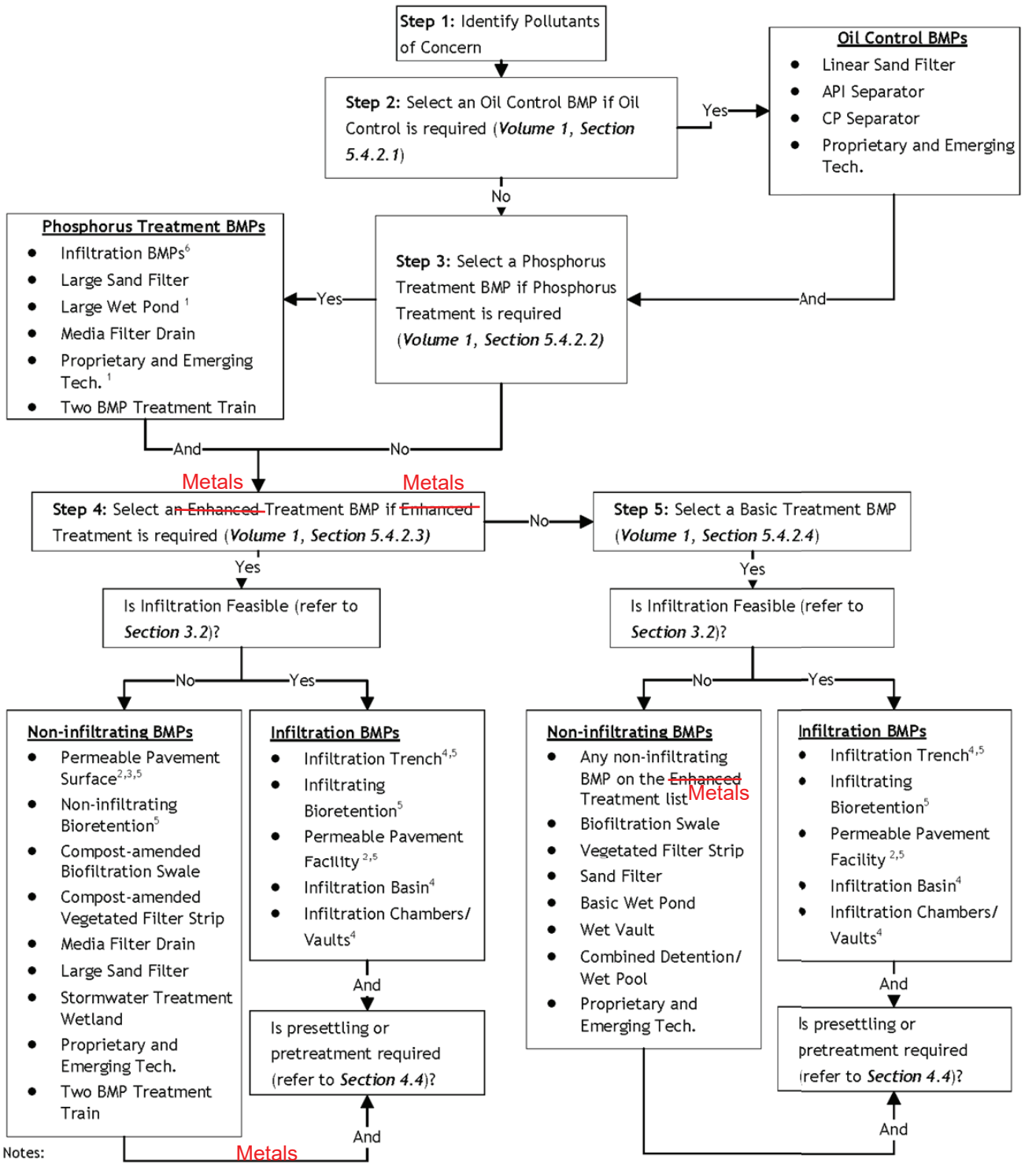


Notes:

1 - When Phosphorous Control and ~~Enhanced~~ Treatment are required, the Large Wet Pond and certain types of emerging technologies will not meet both types of treatment requirements. A different or an additional treatment BMP will be required to meet ~~Enhanced~~ Treatment.
Metals

2 - Underlying soil must meet the treatment soil requirements outlined in *Section 4.5.2* or a water quality treatment course must be included per *Section 5.4.6.5*.

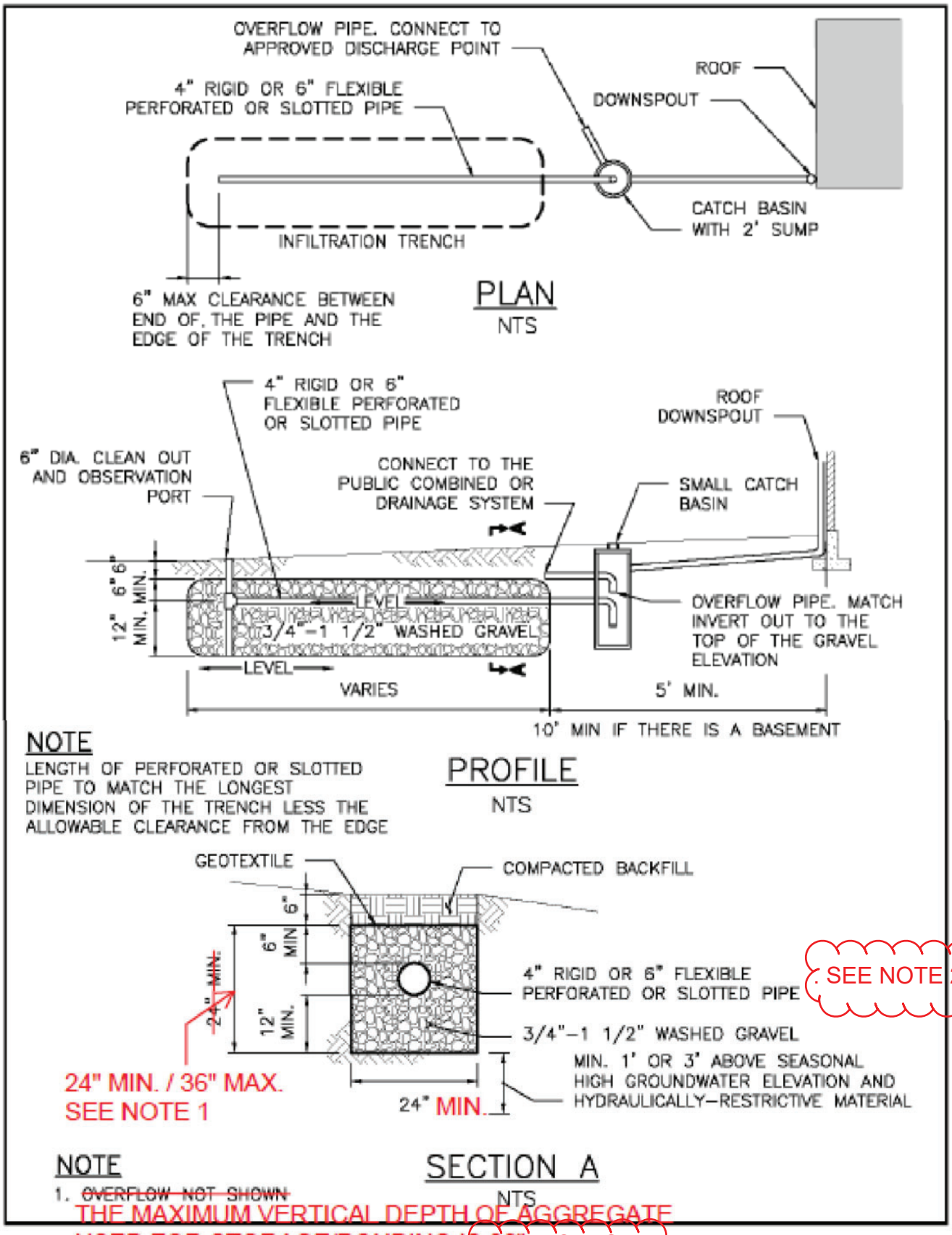
3 - Standard may be partially or completely achieved depending upon subgrade slope, infiltration rate of subgrade soil, and whether aggregate subbase is laid above or below surrounding grade.

4 - Soil suitability criteria (*Section 4.5.2*) and applicable drawdown requirements (*Section 4.5.1*) must be met.

5- BMP is on the On-site List (*Volume 1, Section 5.2*).

6. If the infiltration BMP is within ¼ mile of a phosphorus sensitive water (or tributary to that water), native soil must meet soil suitability criteria (Section 4.5.2) to be used to meet Phosphorus Treatment. If the infiltration BMP is a minimum of ¼ mile away, native soil does not have to meet the soil suitability criteria to be used to meet Phosphorus Treatment requirements if infiltration into the native soil is preceded by a Basic Treatment BMP.

Figure 3.2 Water Quality Treatment BMP Selection Flow Chart



. SEE NOTE 2

THE MAXIMUM VERTICAL DEPTH OF AGGREGATE USED FOR STORAGE/PONDING IS 36" INCHES.

Figure 5.8. Typical Infiltration Trench Receiving Concentrated Flow.

2. IF INFILTRATION TRENCH IS TRENCH IS 8 FEET WIDE OR WIDER, PROVIDE ADDITIONAL ROW/S OF PERFORATED OR SLOTTED PIPE SPACED AT NO MORE THAN 6 FEET ON-CENTER.

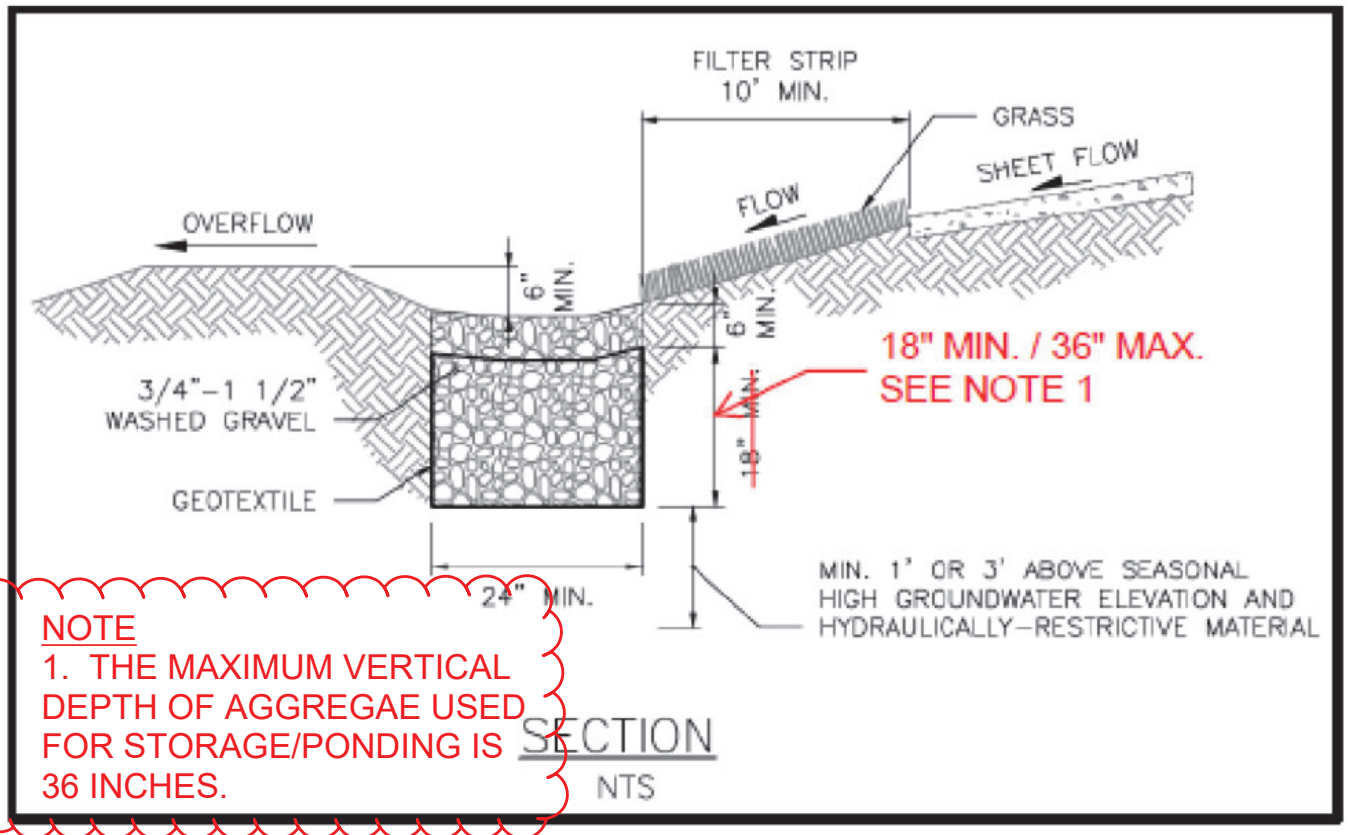


Figure 5.9. Typical Infiltration Trench Receiving Sheet Flow.

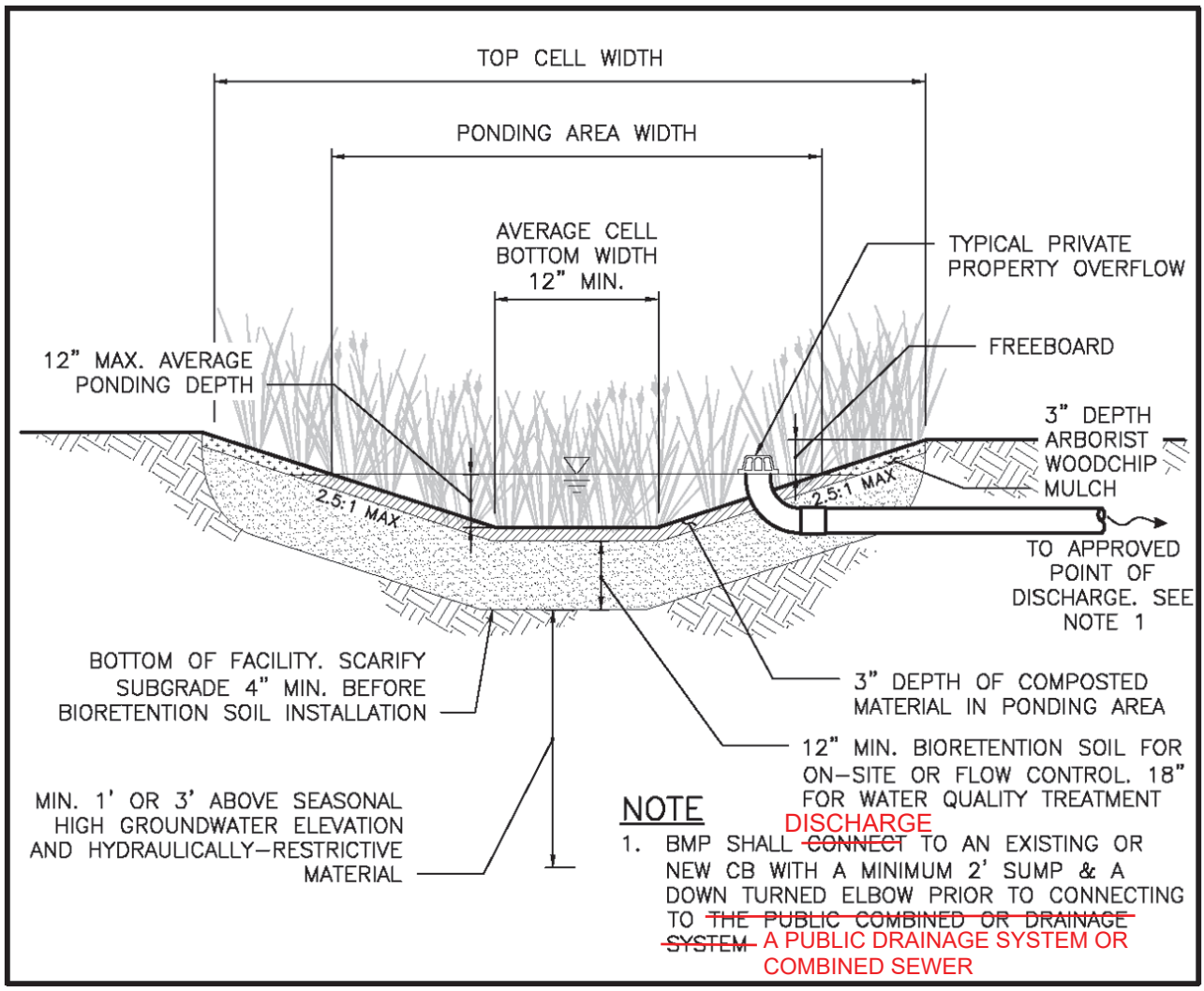


Figure 5.11.Infiltrating Bioretention Facility with Sloped Sides (without Underdrain).

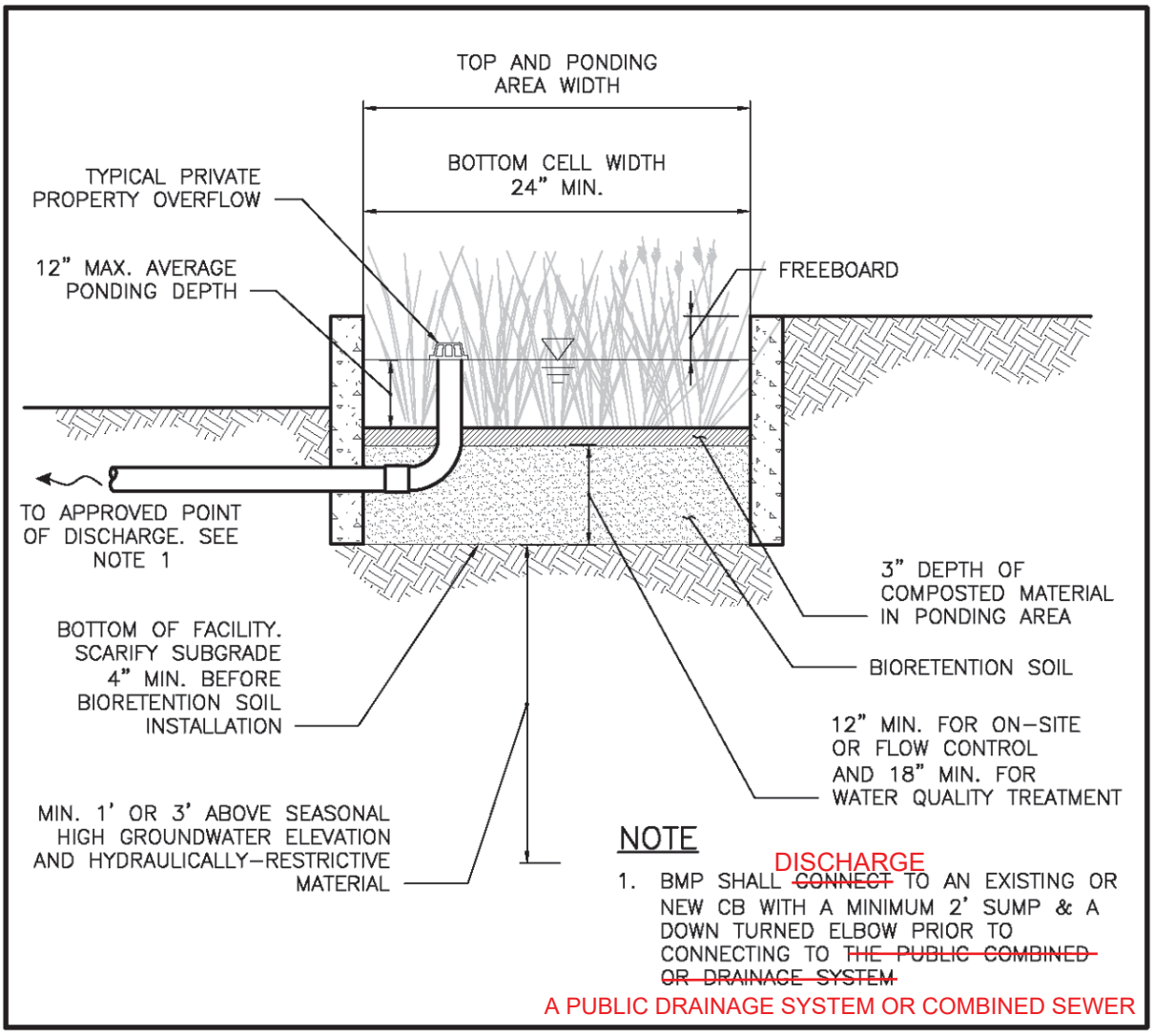


Figure 5.12.Infiltrating Bioretention Facility with Vertical Sides (without Underdrain).

2. Walls may be constructed of concrete, steel or fiberglass. Alternative material may be used with the permission of the director. Walls must be UV and corrosion resistant and able to withstand earth pressure if below ground.

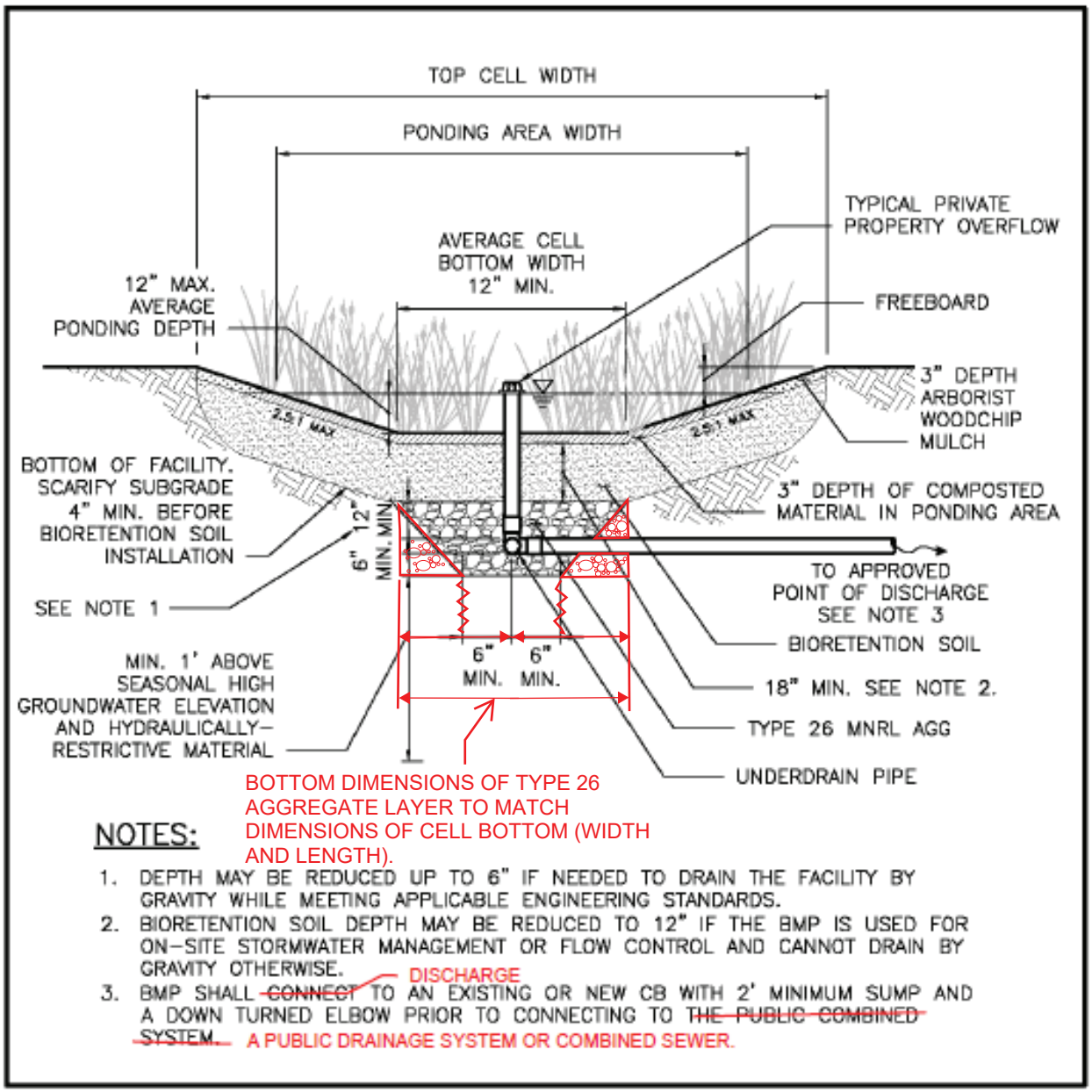


Figure 5.13. Infiltrating Bioretention Facility with Sloped Sides (with Underdrain).

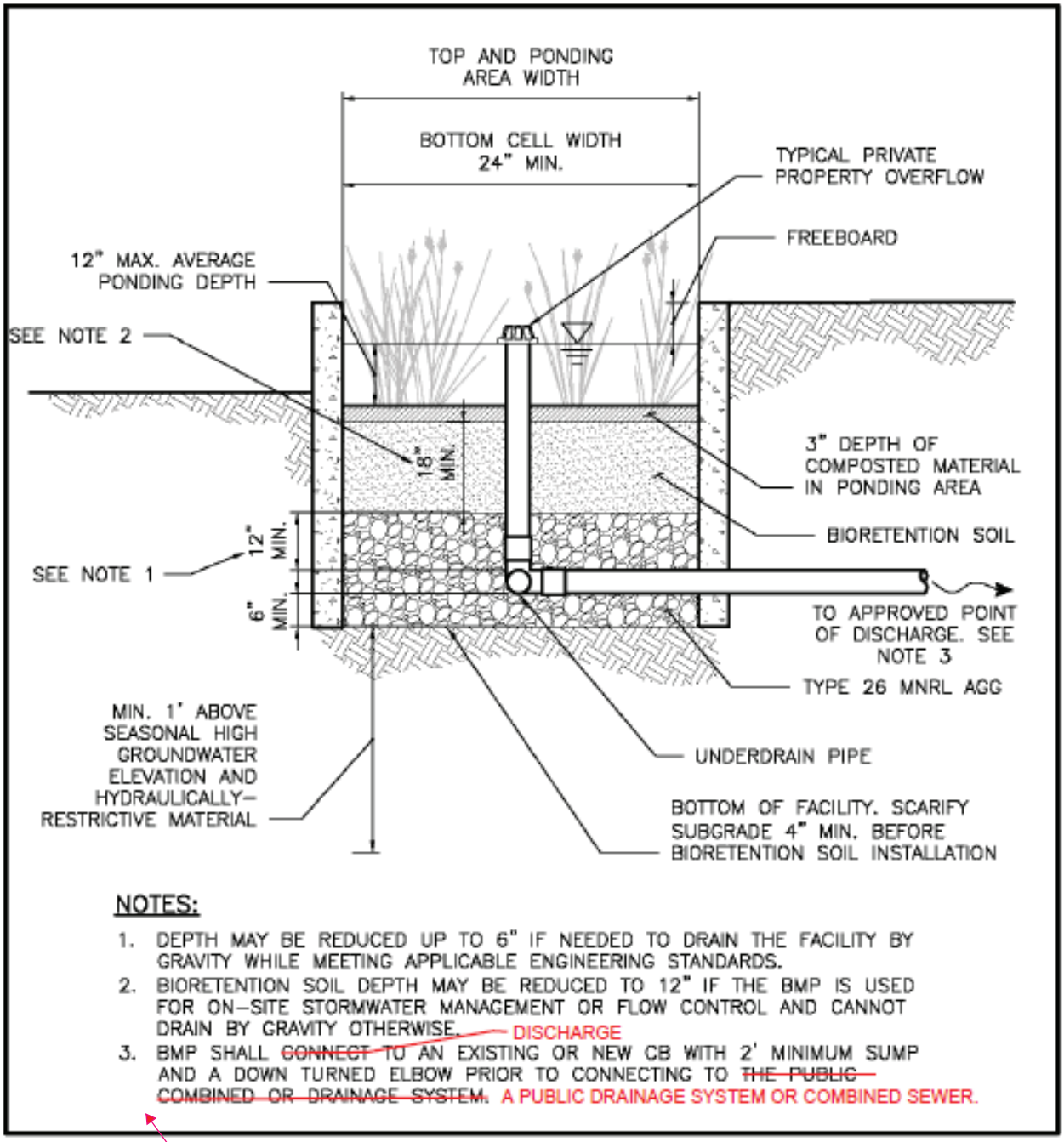
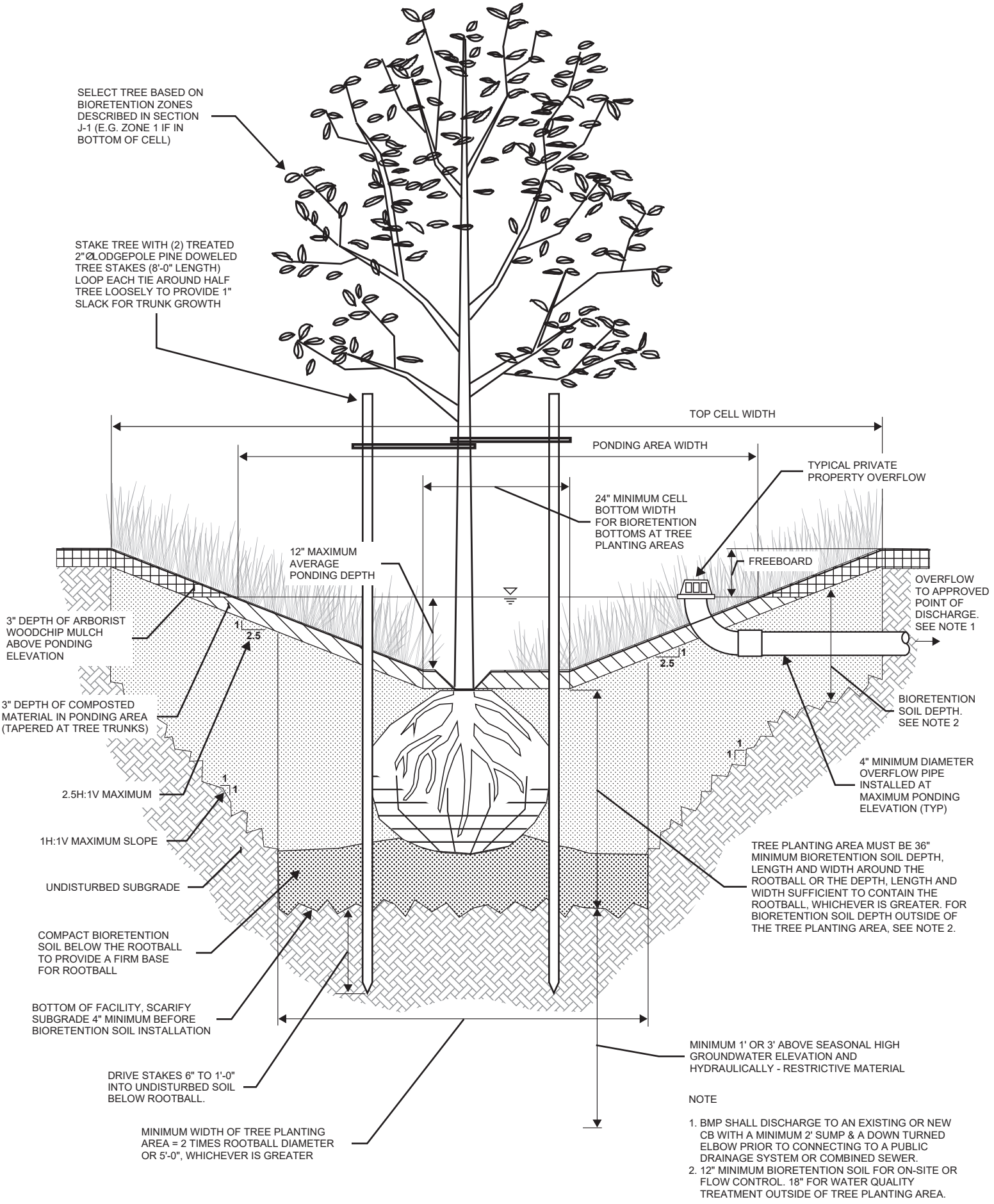


Figure 5.14. Infiltrating Bioretention Facility with Vertical Sides (with Underdrain).

4. Walls may be constructed from concrete, steel or fiberglass. Alternative material may be used with the permission of the director. Walls must be UV and corrosion resistant and able to withstand earth pressure if below ground.

Figure 5.16 Example of Infiltrating Bioretention Facility with Tree and Side Slopes (Without Underdrain)



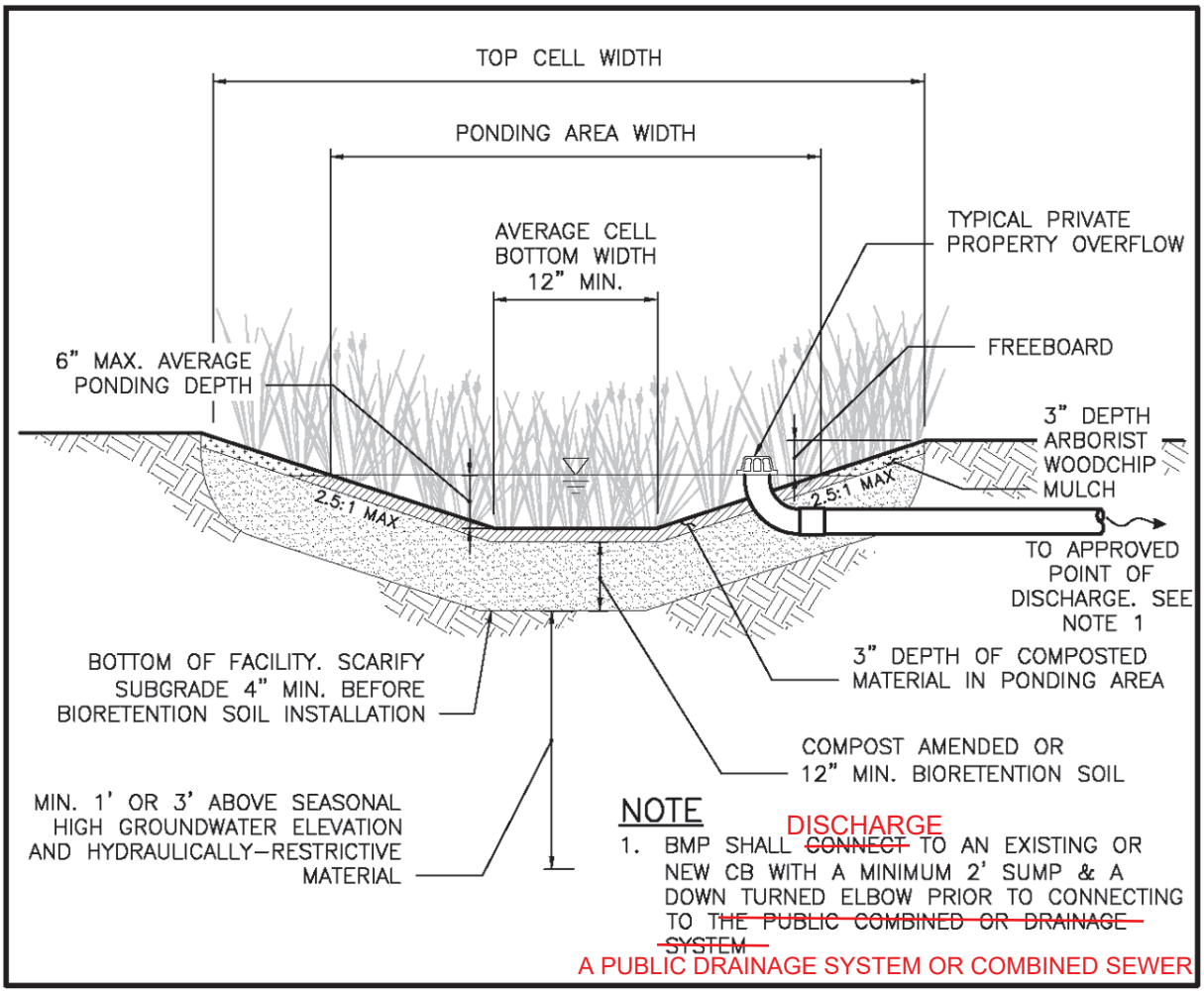


Figure 5.~~16.~~17 Typical Rain Garden.

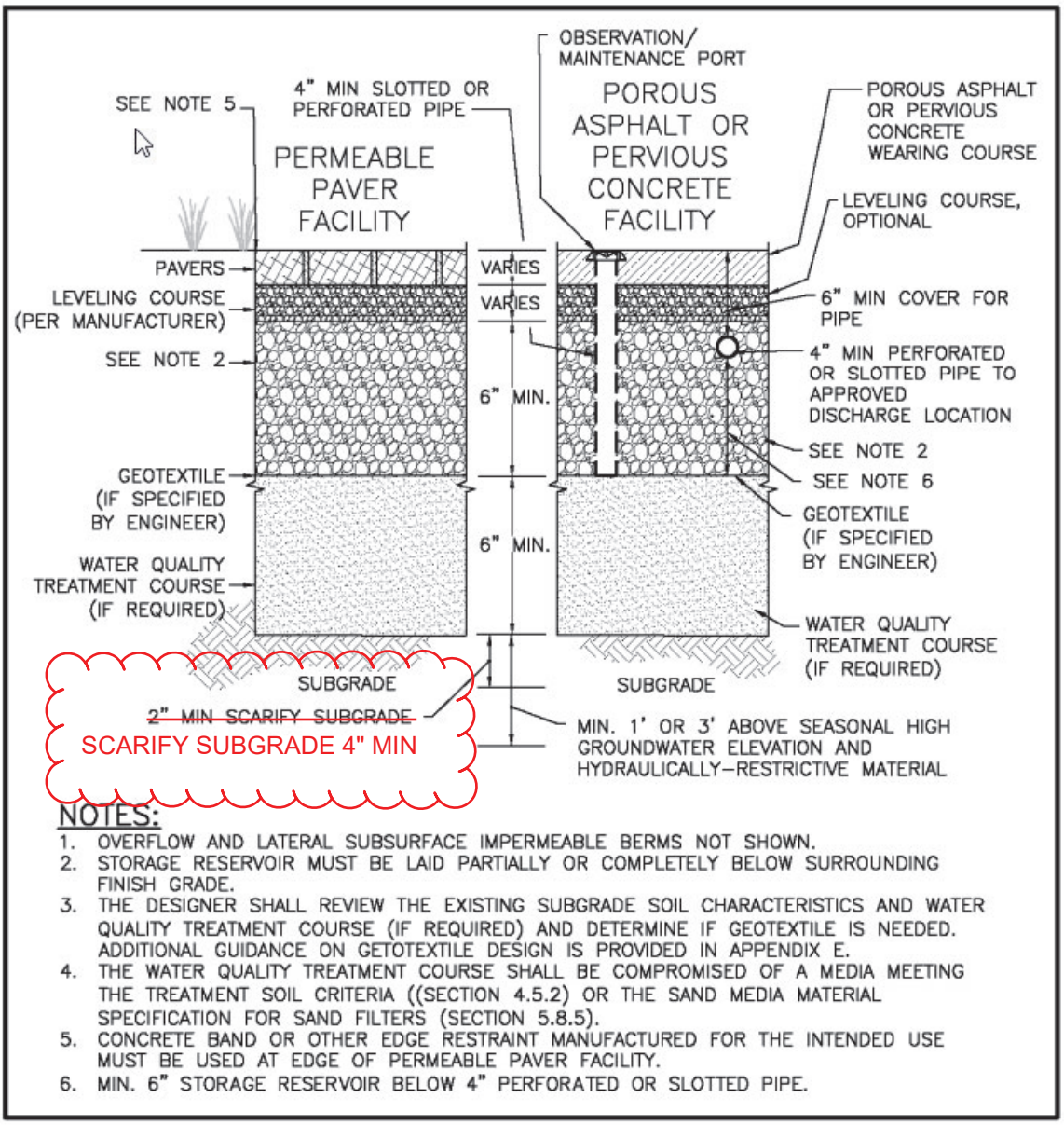


Figure 5.~~17.~~ Permeable Pavement Facility.

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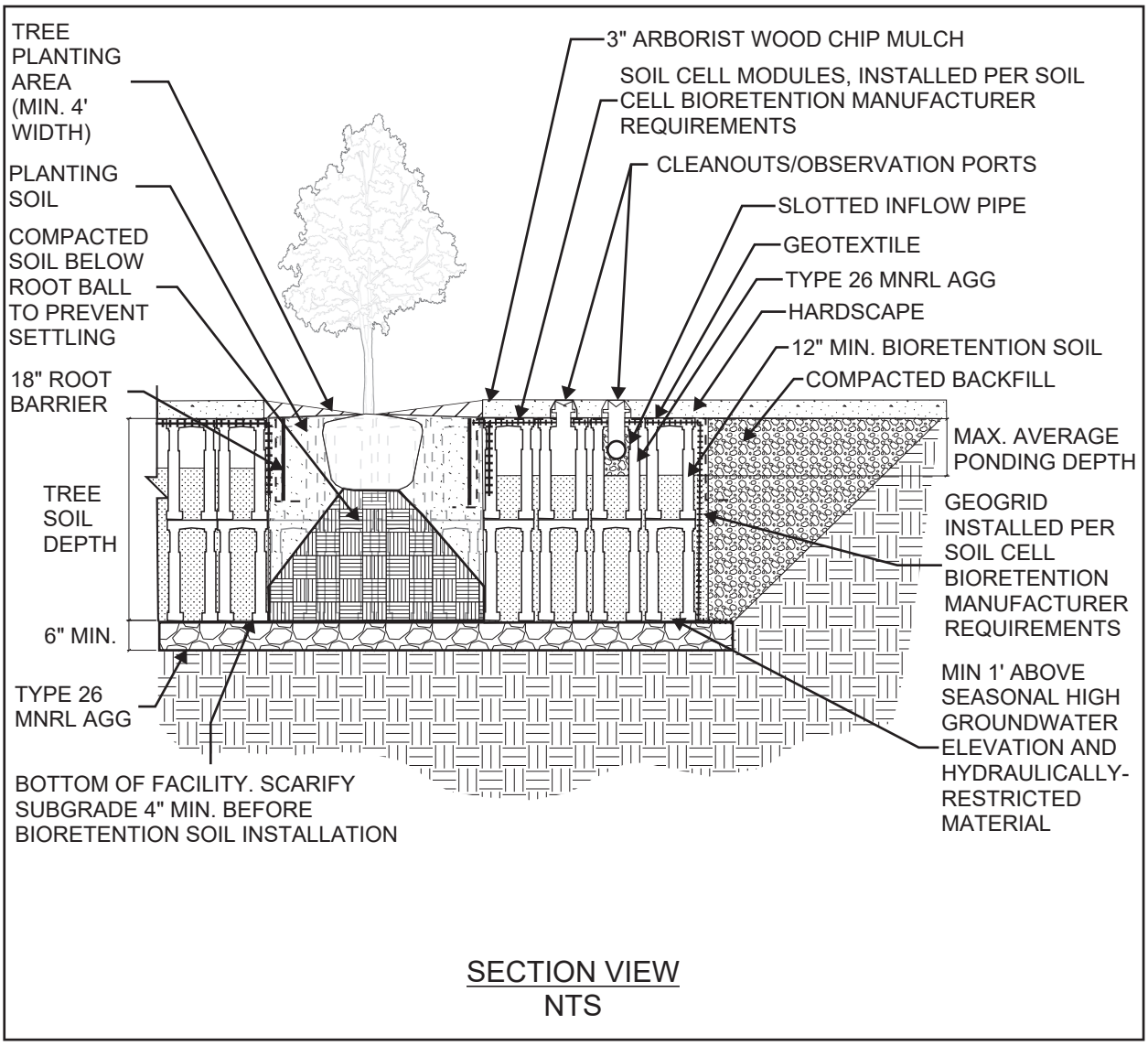
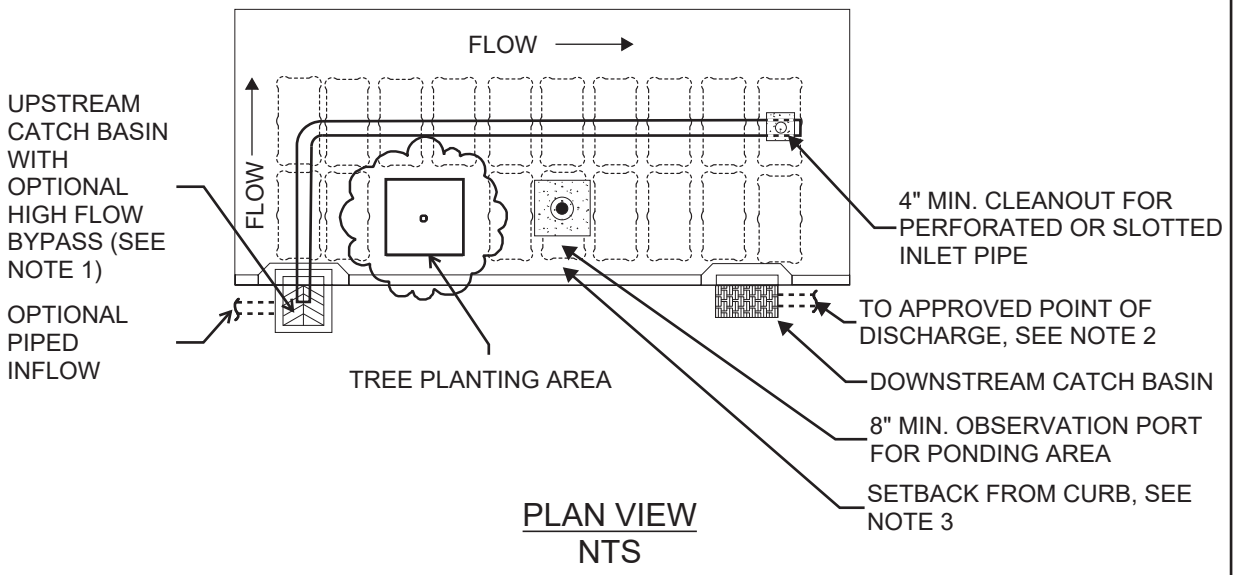


Figure 5.24. Example Infiltrating Soil Cell Bioretention (without Underdrain) Profile.

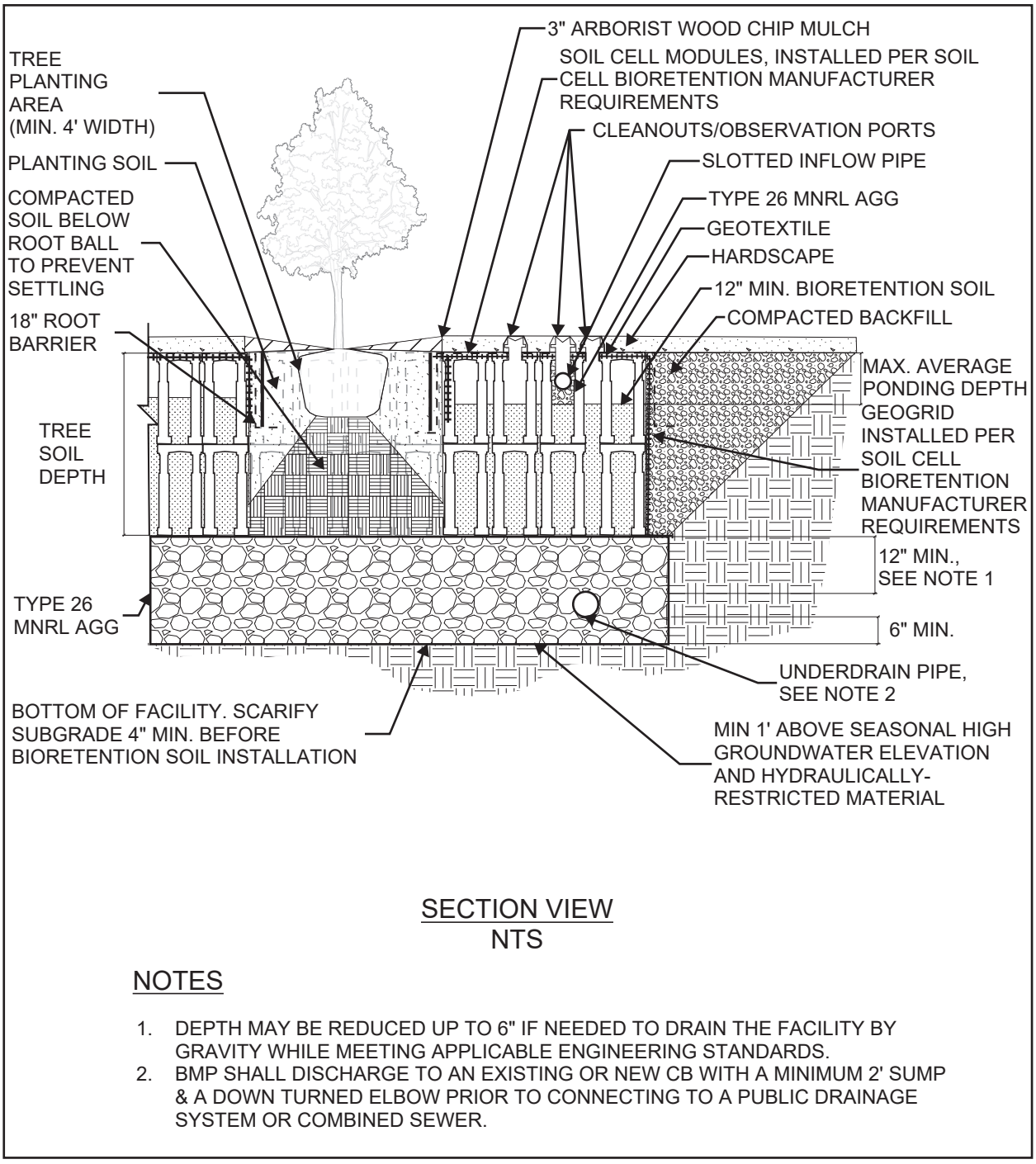


PLAN VIEW
NTS

NOTES

1. A HIGH FLOW BYPASS, FLOW SPLITTER , OR OTHER MEANS TO CONVEY OVERFLOWS TO AN APPROVED POINT OF DISCHARGE PER SECTION 4.3.3 IS REQUIRED. THIS FIGURE IS AN EXAMPLE WHERE THE UPSTREAM CATCH BASIN ACTS AS A HIGH FLOW BYPASS WITH OVERFLOW ROUTED TO A DOWNSTREAM CATCH BASIN VIA THE GUTTER LINE. THE TOP OF PONDING ELEVATION IS SET EQUAL TO THE RIM OF THE UPSTREAM CATCH BASIN. ALTERNATIVELY, AN OVERFLOW PIPE IN THE CATCH BASIN COULD BE SET WITH AN INVERT ELEVATION AT THE TOP OF PONDING.
2. BMP SHALL DISCHARGE TO AN EXISTING OR NEW CB WITH A MINIMUM 2' SUMP & A DOWN TURNED ELBOW PRIOR TO CONNECTING TO A PUBLIC DRAINAGE SYSTEM OR COMBINED SEWER.
3. WHEN SITING THIS BMP NEXT TO A ROADWAY, AN OFFSET MAY BE REQUIRED TO MINIMIZE LATERAL LOADS ON THE FACILITY AND/OR THE POTENTIAL FOR UNDERMINING OF THE PAVEMENT.

Figure 5.25. Example Infiltrating Soil Cell Bioretention (without Underdrain) Plan.

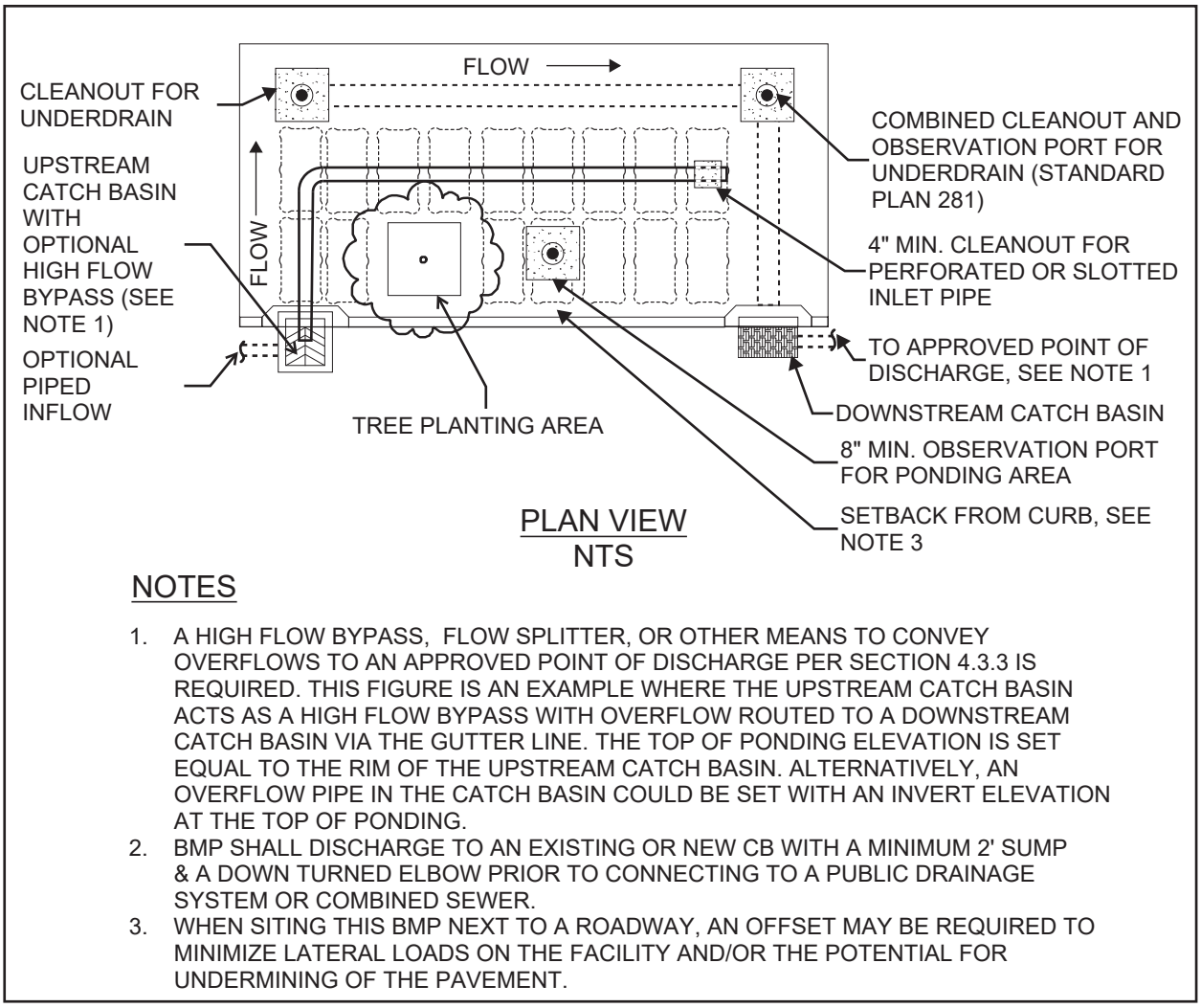


SECTION VIEW
NTS

NOTES

1. DEPTH MAY BE REDUCED UP TO 6" IF NEEDED TO DRAIN THE FACILITY BY GRAVITY WHILE MEETING APPLICABLE ENGINEERING STANDARDS.
2. BMP SHALL DISCHARGE TO AN EXISTING OR NEW CB WITH A MINIMUM 2' SUMP & A DOWN TURNED ELBOW PRIOR TO CONNECTING TO A PUBLIC DRAINAGE SYSTEM OR COMBINED SEWER.

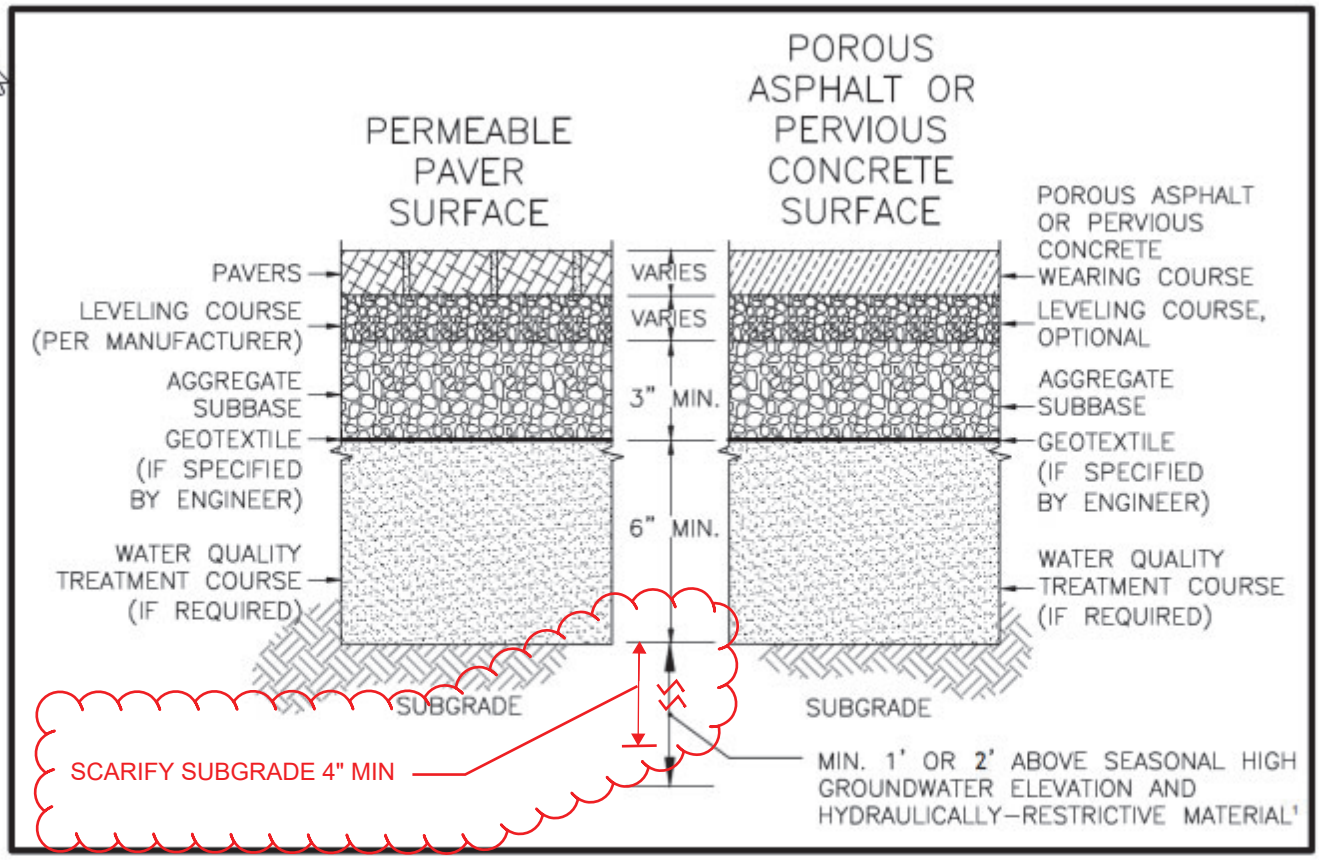
Figure 5.26. Example Infiltrating Soil Cell Bioretention (with Underdrain) Profile.



NOTES

1. A HIGH FLOW BYPASS, FLOW SPLITTER, OR OTHER MEANS TO CONVEY OVERFLOWS TO AN APPROVED POINT OF DISCHARGE PER SECTION 4.3.3 IS REQUIRED. THIS FIGURE IS AN EXAMPLE WHERE THE UPSTREAM CATCH BASIN ACTS AS A HIGH FLOW BYPASS WITH OVERFLOW ROUTED TO A DOWNSTREAM CATCH BASIN VIA THE GUTTER LINE. THE TOP OF PONDING ELEVATION IS SET EQUAL TO THE RIM OF THE UPSTREAM CATCH BASIN. ALTERNATIVELY, AN OVERFLOW PIPE IN THE CATCH BASIN COULD BE SET WITH AN INVERT ELEVATION AT THE TOP OF PONDING.
2. BMP SHALL DISCHARGE TO AN EXISTING OR NEW CB WITH A MINIMUM 2' SUMP & A DOWN TURNED ELBOW PRIOR TO CONNECTING TO A PUBLIC DRAINAGE SYSTEM OR COMBINED SEWER.
3. WHEN SITING THIS BMP NEXT TO A ROADWAY, AN OFFSET MAY BE REQUIRED TO MINIMIZE LATERAL LOADS ON THE FACILITY AND/OR THE POTENTIAL FOR UNDERMINING OF THE PAVEMENT.

Figure 5.27. Example Infiltrating Soil Cell Bioretention (with Underdrain) Plan.



[1] See Table C.3 of Appendix C to determine. Subsurface investigation is not required for permeable pavement surfaces, but subsurface investigation must be performed to demonstrate infeasibility due to lack of vertical separation.

Figure 5.~~25.~~ Permeable Pavement Surface.

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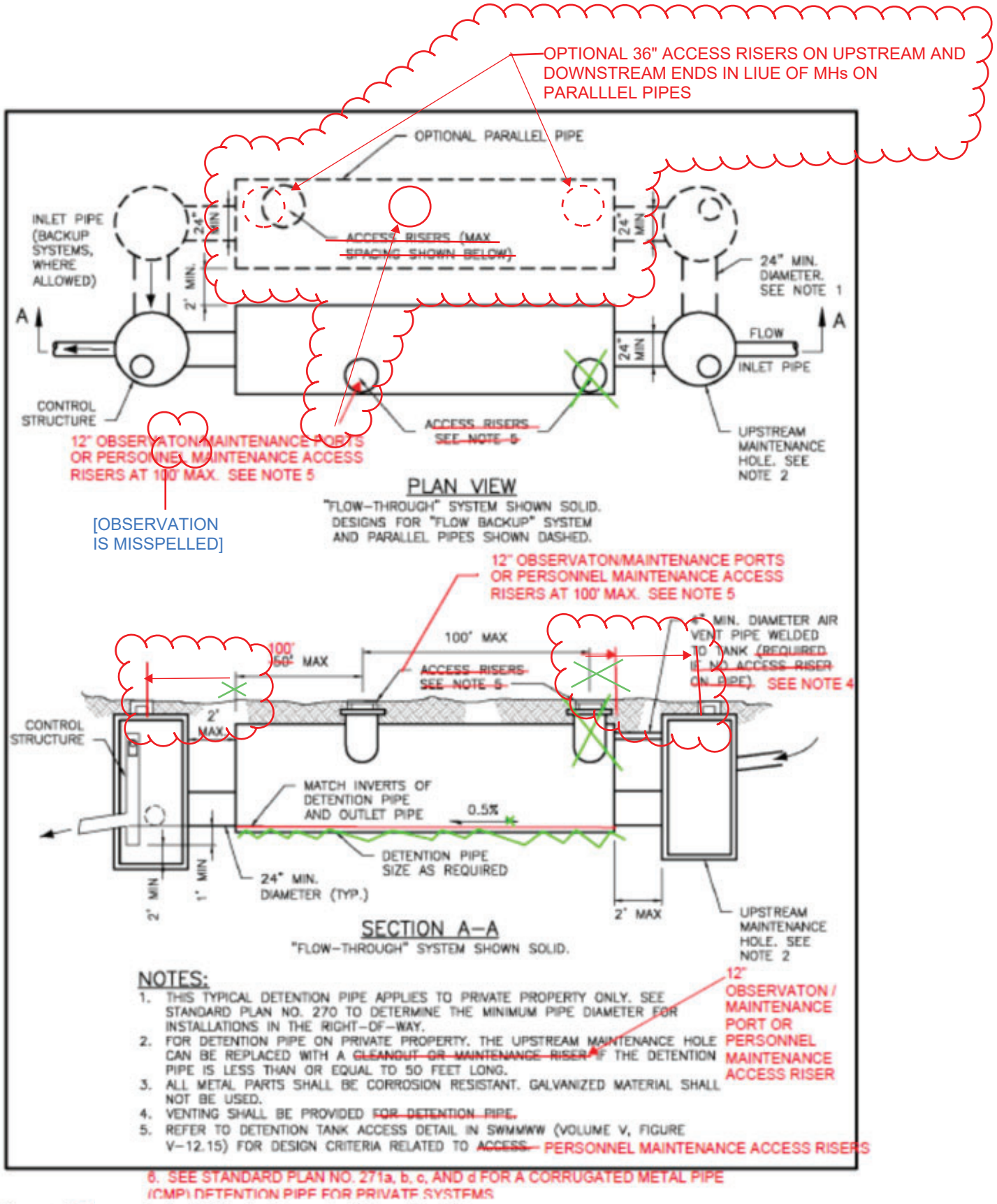


Figure 5.~~26~~ 31 Typical Private Property Detention Pipe.

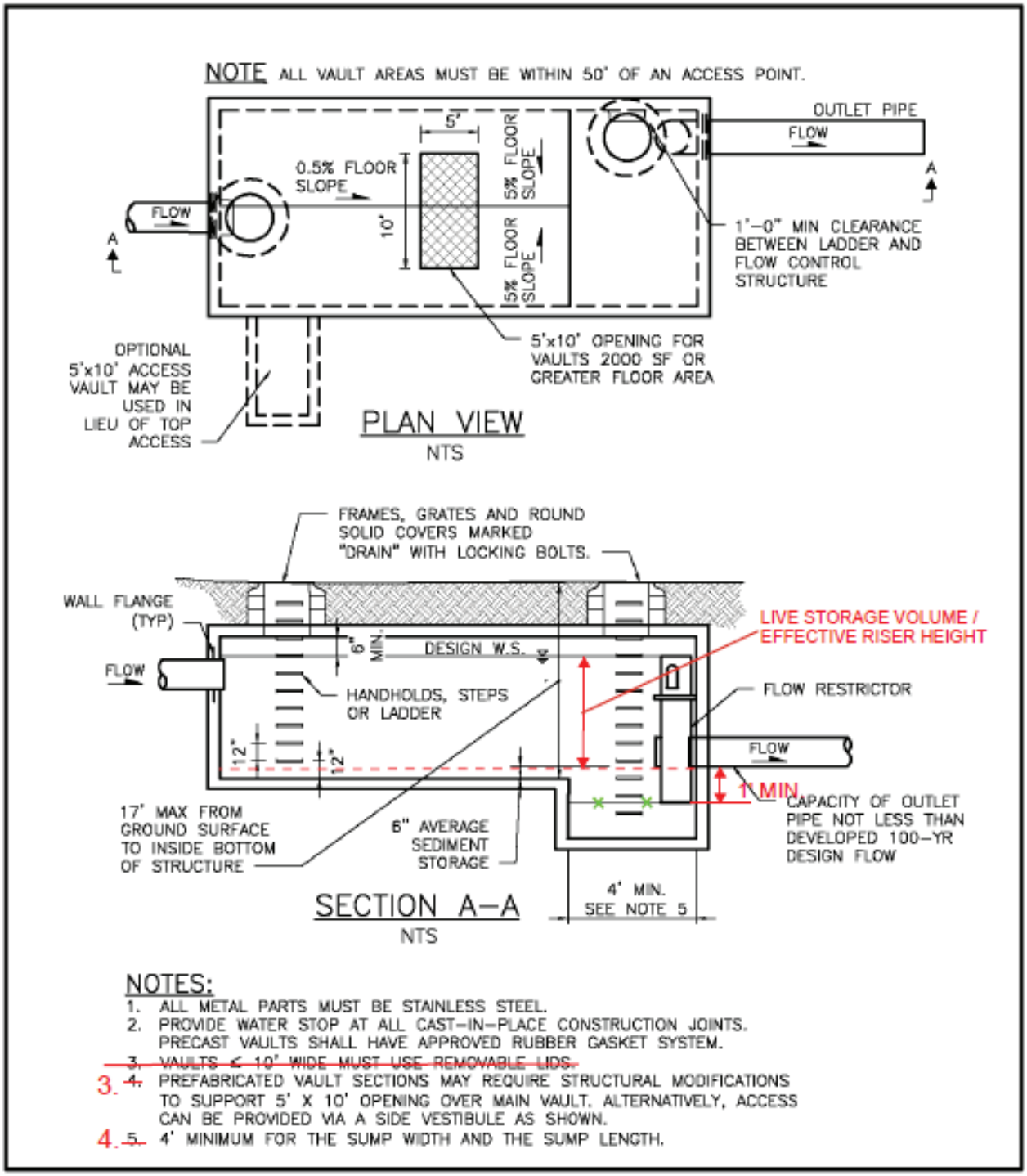


Figure 5.~~27~~32 Typical Detention Vault.

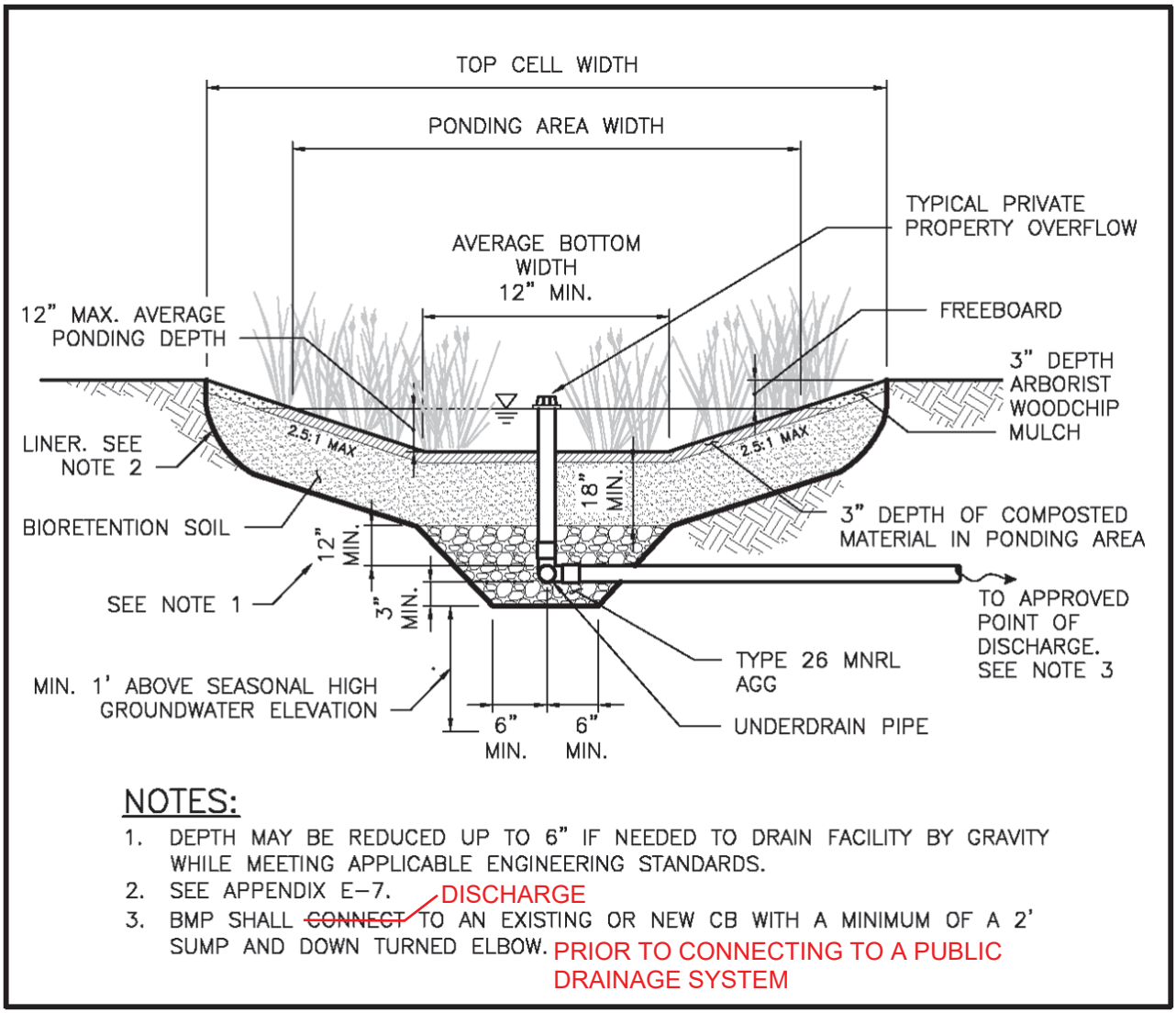
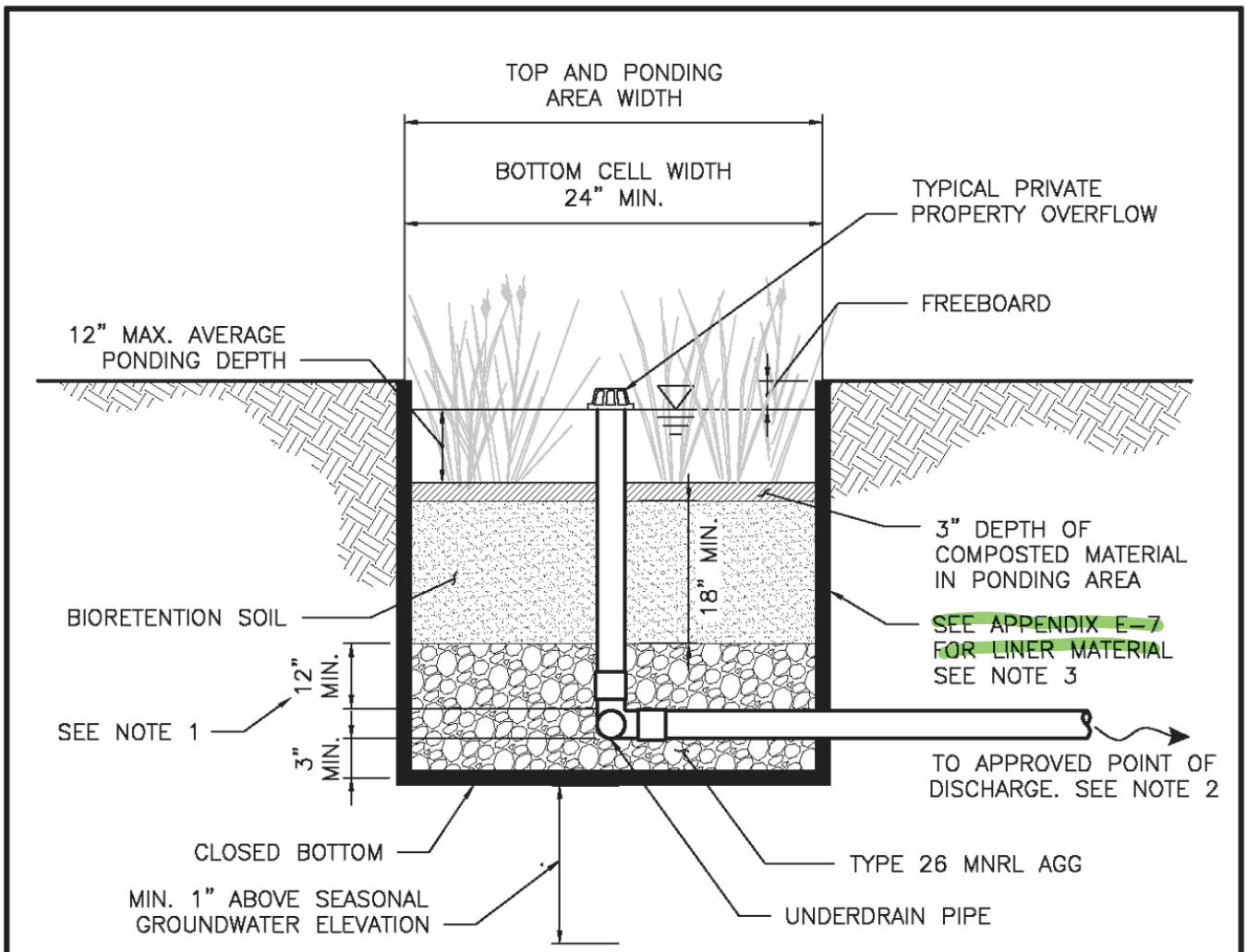


Figure 5.34.Non-infiltrating Bioretention Facility with Sloped Sides.



NOTES:

1. DEPTH MAY BE REDUCED UP TO 6" IF NEEDED TO DRAIN THE FACILITY BY GRAVITY WHILE MEETING APPLICABLE ENGINEERING STANDARDS.
2. BMP SHALL ~~CONNECT~~ TO AN EXISTING OR NEW CB WITH 2' MINIMUM SUMP AND A DOWN TURNED ELBOW. DISCHARGE
3. IN ADDITION, STRUCTURAL SUPPORT MAY BE REQUIRED SUCH AS CONCRETE ROCKERY, SHEETPILE OR SIMILAR TO SUPPORT THE VERTICAL WALLS.

Planter box may be constructed from concrete, steel or fiberglass. Alternative material may be used with the permission of the director. Box must also be water tight, UV and corrosion resistant and able to withstand earth pressures if below grade.

Figure 5.~~30~~35 Non-infiltrating Bioretention Facility with Vertical Sides.

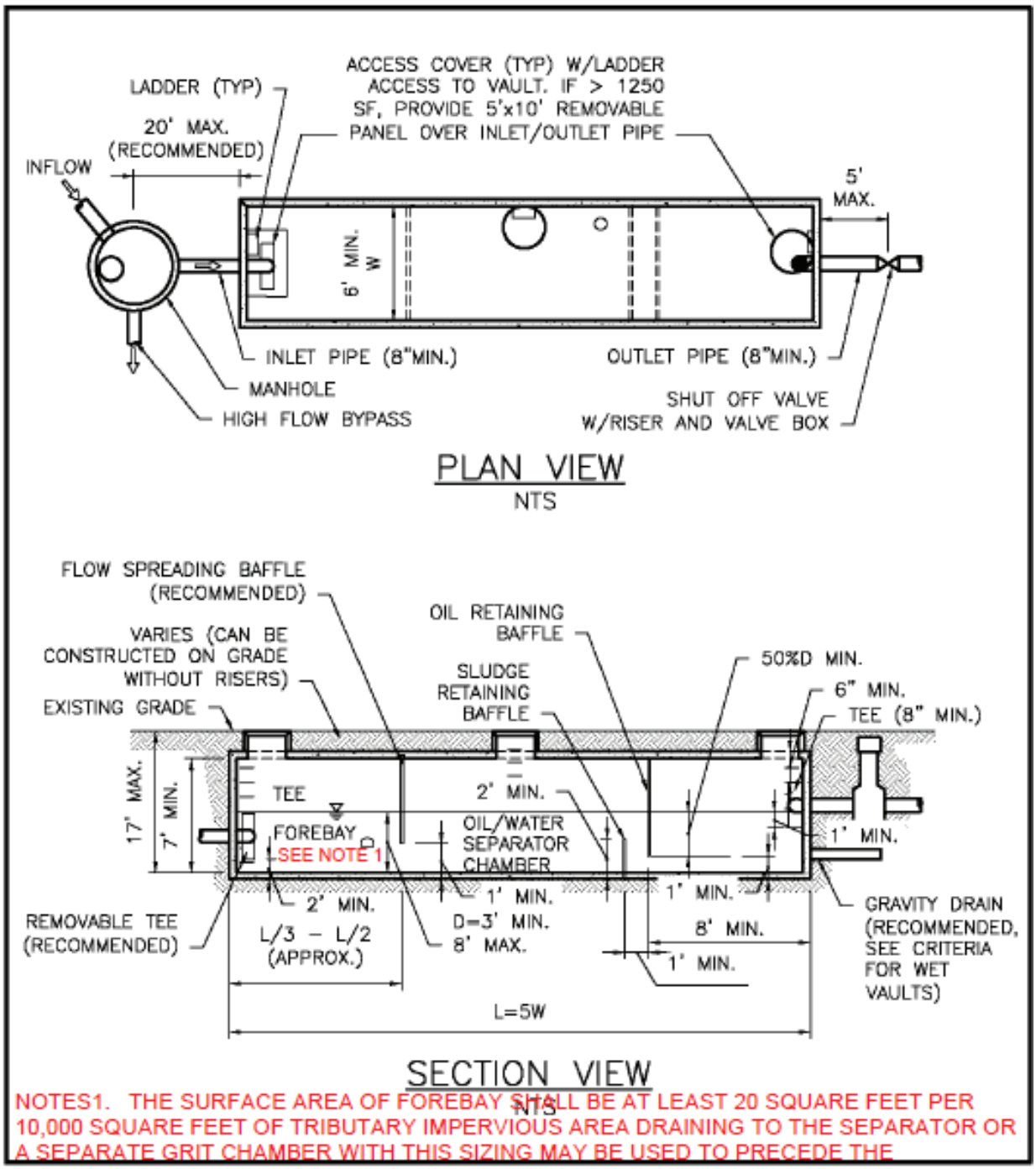


Figure 5.~~33~~ 38 Typical API (Baffle Type) Separator.

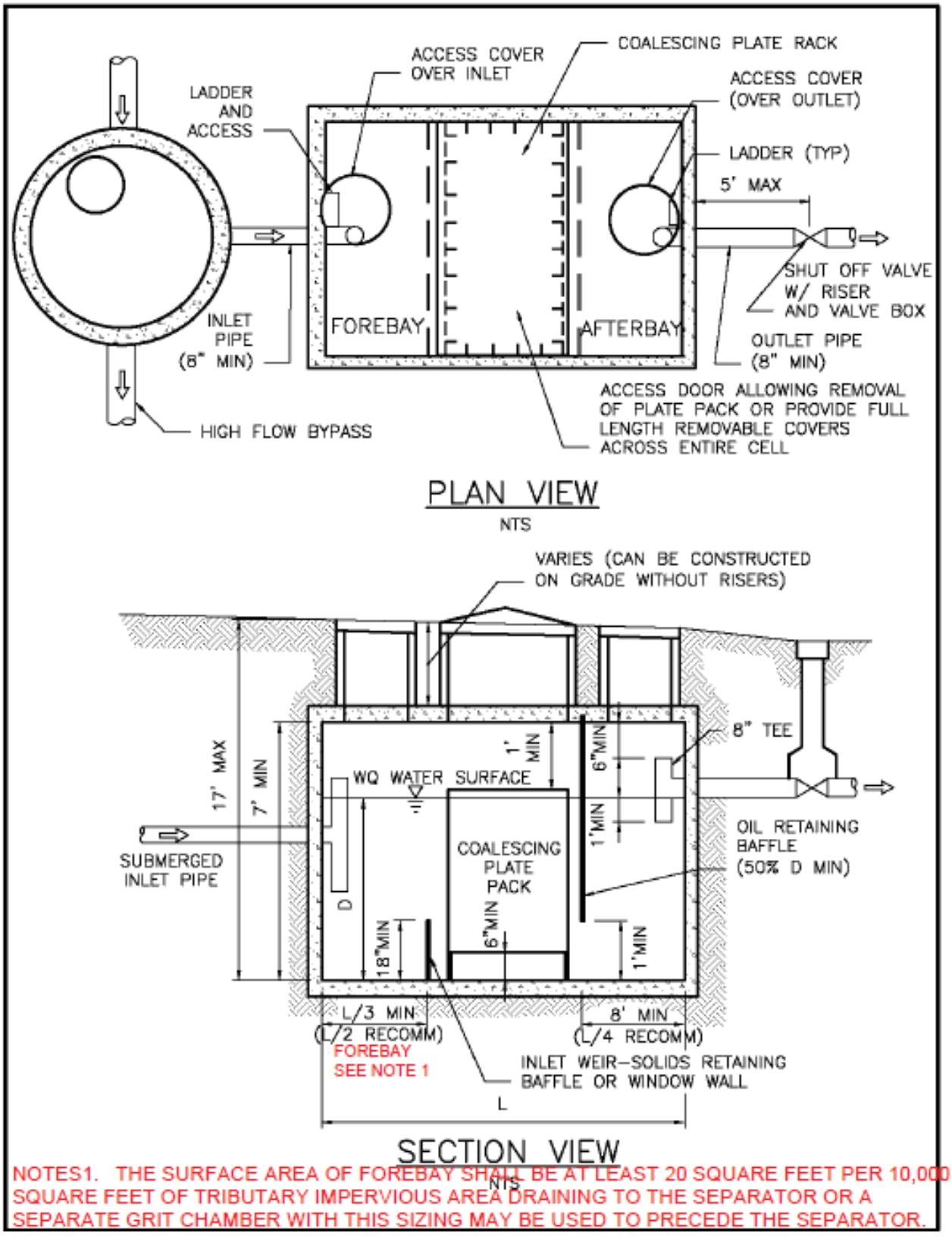
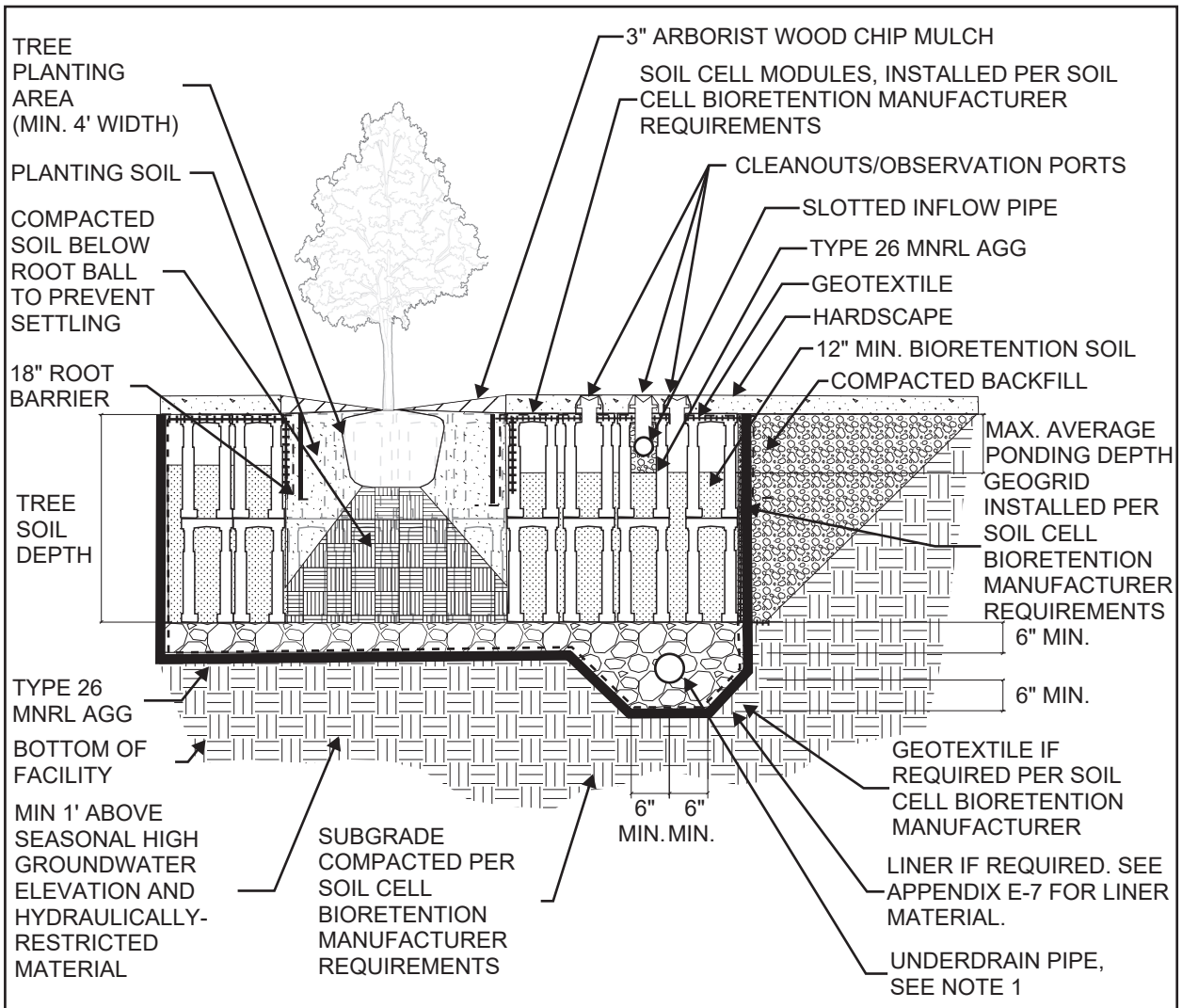


Figure 5.~~3439~~ Typical Coalescing Place Separator.

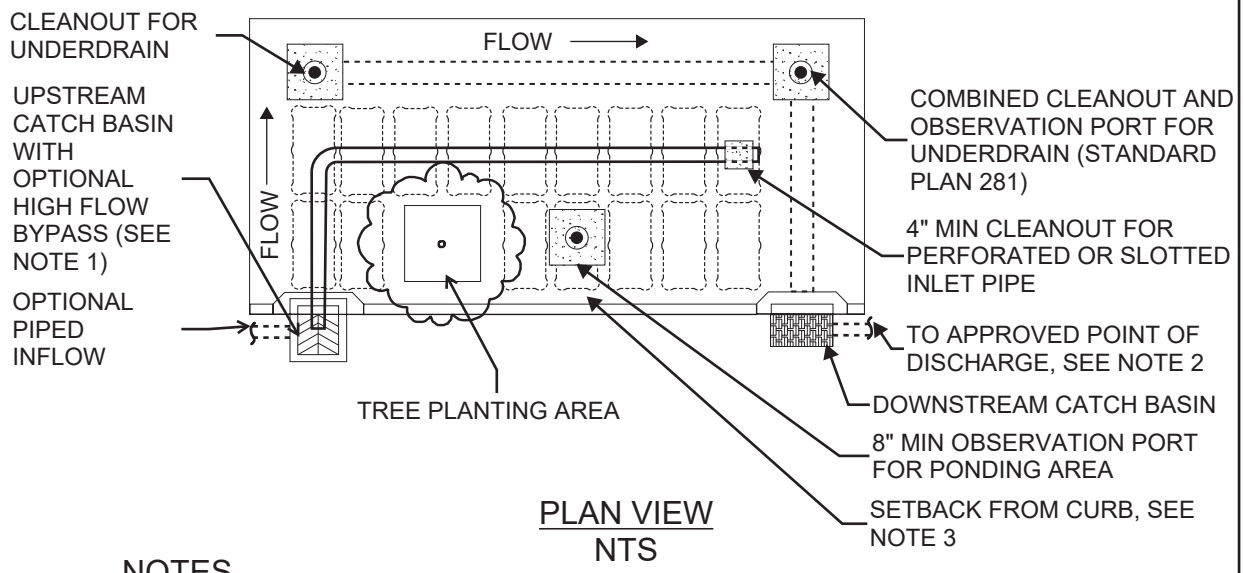


SECTION VIEW
NTS

NOTES

1. BMP SHALL DISCHARGE TO AN EXISTING OR NEW CB WITH A MINIMUM 2' SUMP & A DOWN TURNED ELBOW PRIOR TO CONNECTING TO A PUBLIC DRAINAGE SYSTEM OR COMBINED SEWER.

Figure 5.40. Example Non-infiltrating Soil Cell Bioretention Profile.



PLAN VIEW
NTS

NOTES

1. A HIGH FLOW BYPASS, FLOW SPLITTER , OR OTHER MEANS TO CONVEY OVERFLOWS TO AN APPROVED POINT OF DISCHARGE PER SECTION 4.3.3 IS REQUIRED. THIS FIGURE IS AN EXAMPLE WHERE THE UPSTREAM CATCH BASIN ACTS AS A HIGH FLOW BYPASS WITH OVERFLOW ROUTED TO A DOWNSTREAM CATCH BASIN VIA THE GUTTER LINE. THE TOP OF PONDING ELEVATION IS SET EQUAL TO THE RIM OF THE UPSTREAM CATCH BASIN. ALTERNATIVELY, AN OVERFLOW PIPE IN THE CATCH BASIN COULD BE SET WITH AN INVERT ELEVATION AT THE TOP OF PONDING.
2. BMP SHALL DISCHARGE TO AN EXISTING OR NEW CB WITH A MINIMUM 2' SUMP & A DOWN TURNED ELBOW PRIOR TO CONNECTING TO A PUBLIC DRAINAGE SYSTEM OR COMBINED SEWER.
3. WHEN SITING THIS BMP NEXT TO A ROADWAY, AN OFFSET MAY BE REQUIRED TO MINIMIZE LATERAL LOADS ON THE FACILITY AND/OR THE POTENTIAL FOR UNDERMINING OF THE PAVEMENT.

Figure 5.41. Example Non-infiltrating Soil Cell Bioretention Plan.

Figure Redlines for Volume 4 – Source Control

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Figure 2. Example of a labeled used cooking oil tote located on a level surface with a secure lid. (New Figure)

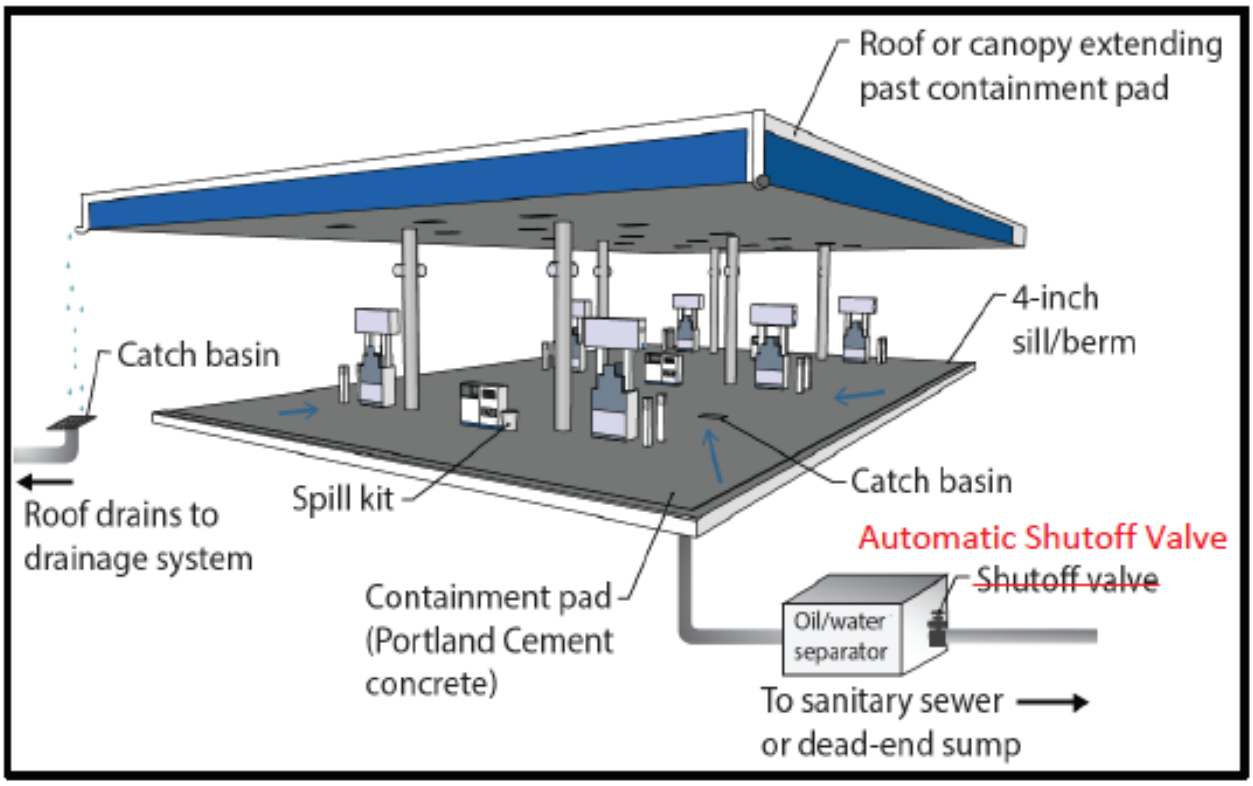
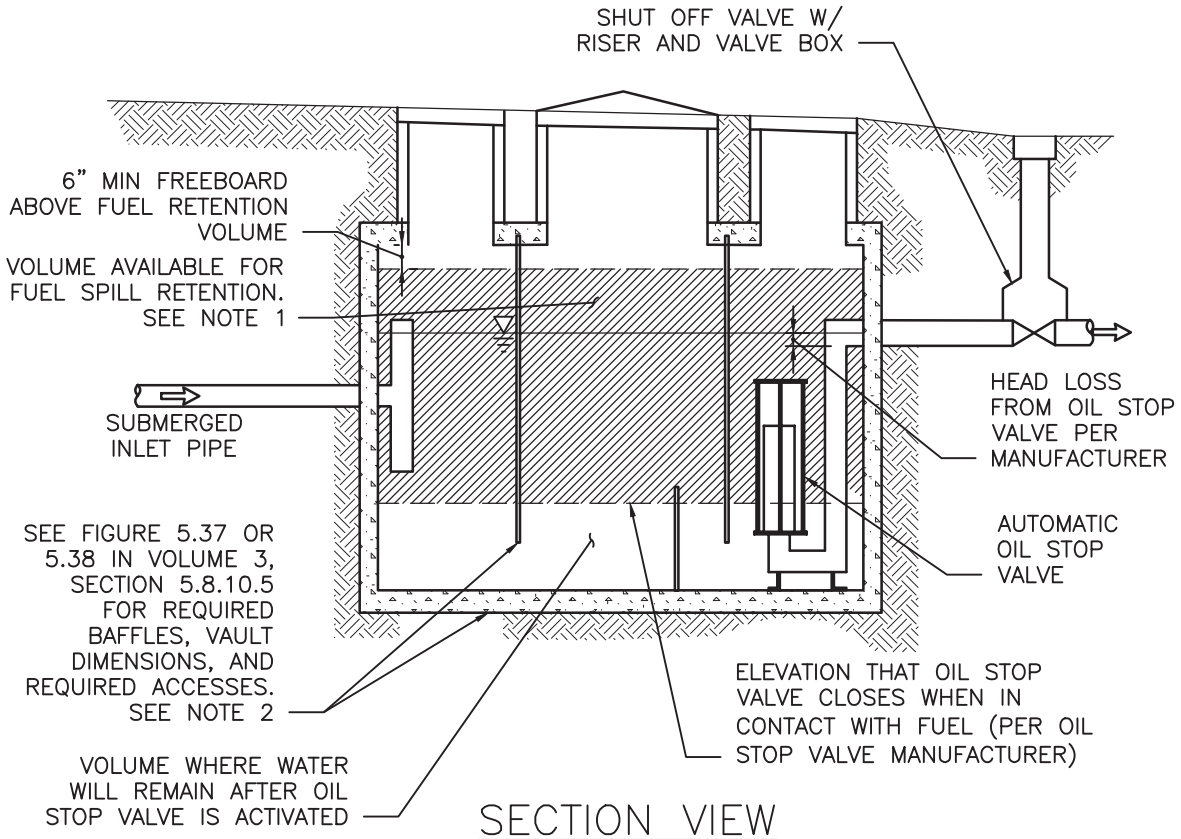


Figure ~~3~~4. Fueling Island Schematic.



SECTION VIEW

NTS

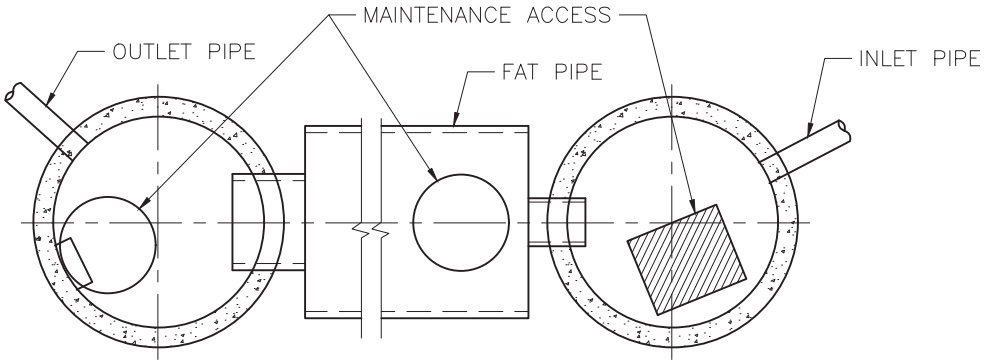
NOTES

1. THE VOLUME AVAILABLE FOR FUEL SPILL RETENTION MUST BE EQUAL TO OR GREATER THAN 15 MINUTES FOR THE FLOW RATE OF THE DISPENSING MECHANISM WITH HIGHEST THROUGH–PUT RATE OR 50 GALLONS, WHICHEVER IS GREATER.
2. FOR FUEL PADS WITH COVERS/ROOFS AND NO RUN–ON, THE SMALLEST AVAILABLE OIL/WATER VAULT THAT WILL RETAIN THE REQUIRED FUEL VOLUME MAY BE USED. IF THE OIL/WATER SEPARATOR RECEIVES STORMWATER, THEN IT MUST BE ALSO BE DESIGNED TO TREAT THE WATER QUALITY FLOWRATE DURING NORMAL OPERATION (I.E. WHEN THERE IS NOT A FUEL SPILL) PER THE REQUIREMENTS VOLUME 3, SECTION 5.8.10.

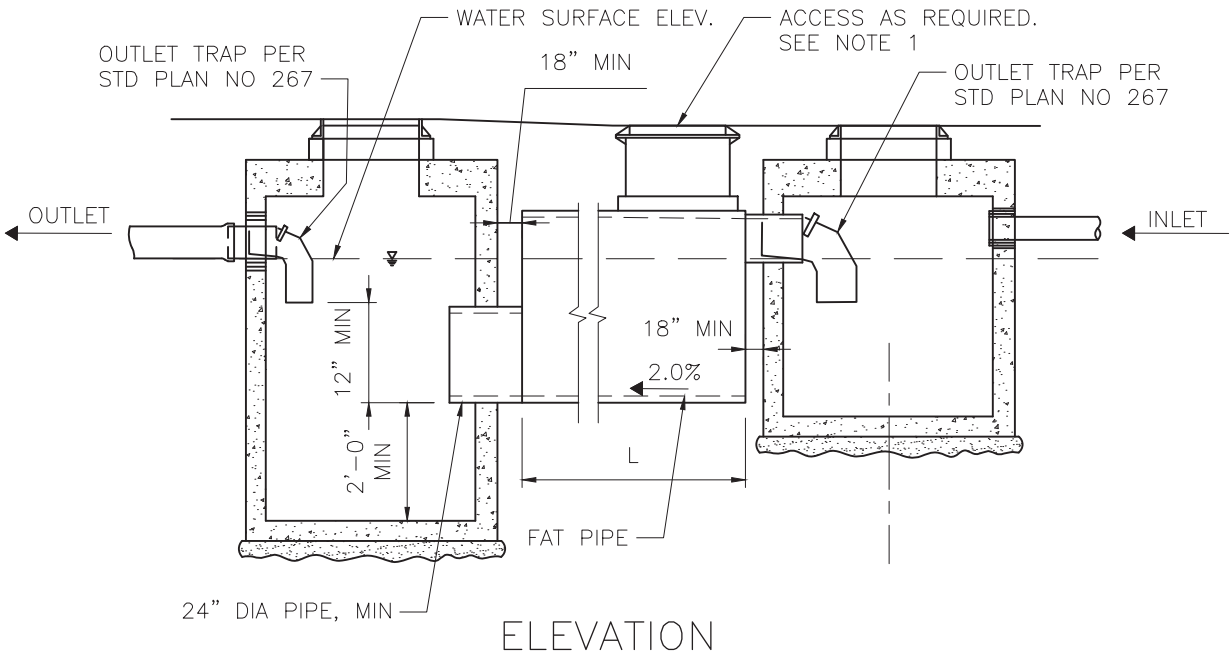
FIG 6 – OIL/WATER SEPARATOR FOR FUEL SPILL RETENTION

Figure Redlines for Appendix E

March 2026 Review Draft



PLAN



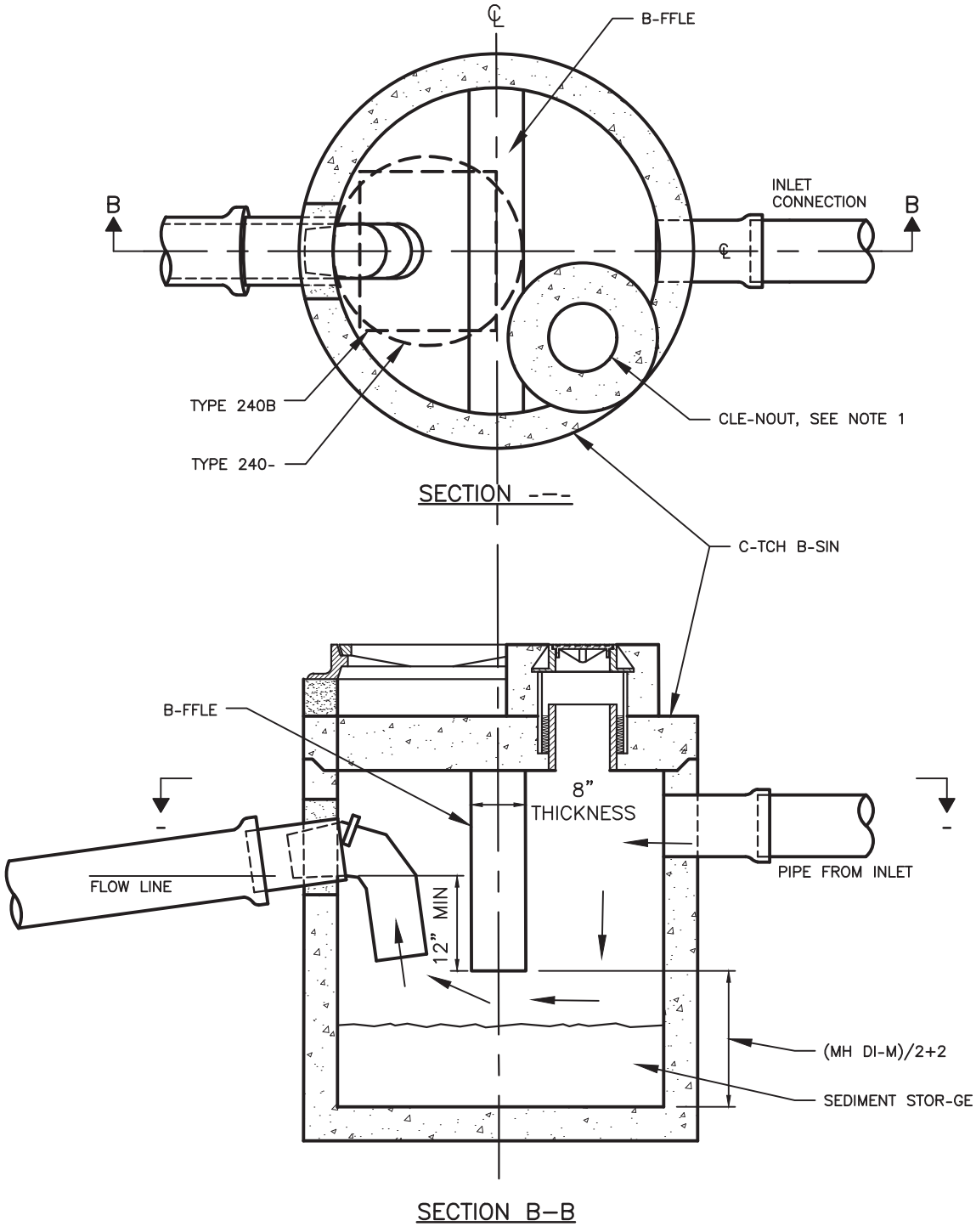
ELEVATION

NOTES:

1. REFER TO DETENTION TANK ACCESS DETAIL IN SWMMWW (VOLUME V, FIGURE V–13.15) FOR DESIGN CRITERIA RELATED TO ACCESS.

PRESETTLING FAT PIPE 1/61
NTS

Figure E.9. "Fat Pipe" Presettling Vault.



NOTES:

1. FOR CB LESS TH-N 60" DI-M, PROVIDE CLE-N–OUT -CCESS WITH FR-ME -ND COVER PER STD PL-N NO 280 ON THE INLET SIDE. STRUCTURE 60" DI-M OR GRE-TER MUST PROVIDE ST-ND-RD CB FR-ME -ND COVER ON BOTH SIDES OF THE B-FFLE FOR -CCESS.

Figure E.10. Catch Basin/Maintenance Hole with an Extended Sump and a Baffle.

EXTENDED SUMP

Figure Redlines for Appendix J

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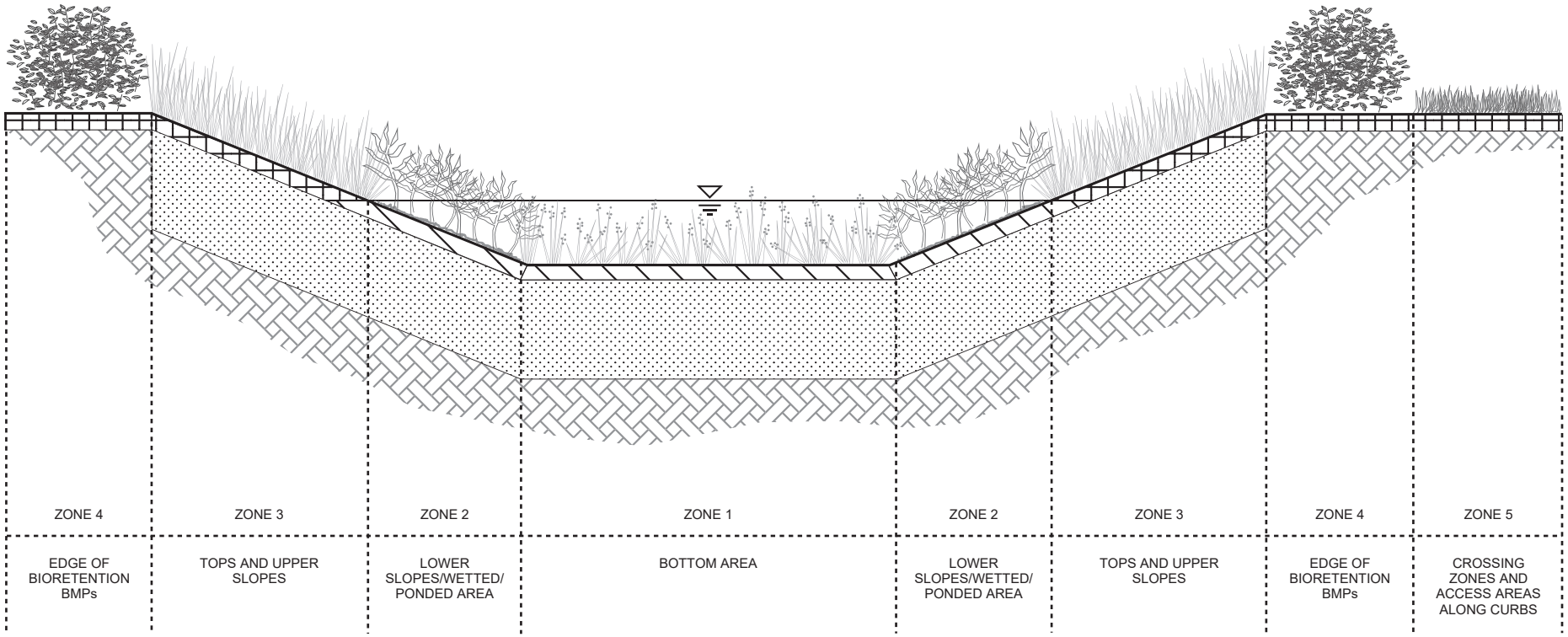

Figure J.1. Bioretention Planting Zones.