

## **MODIFIED HYDROCOURT CONSTRUCTION SPECIFICATIONS NEW COURTS SUBGRADES AS SPECIFIED**

**SUBGRADE:** The sub-base should be constructed of a suitable, clean, and compactable material. The material should be compacted to a rate of 95% of maximum compaction. The subgrade can either be, sloped from SIDE to SIDE, or END to END on a true plane of 0.28% (1" in 30'). When applicable a thin stone screening layer should be laid between the sub-base and the HydroCourt liner material to act as a cushion. A flat sub-grade is not recommended. The slope of the subgrade may be increased to facilitate drainage in special situations such as a sunken court or a desert environment. In such situations slope should never exceed 1" in 30' (.042%) and written authorization from Har-Tru, LLC is required.

Conversion from "HARD" surfaced court to HydroCourt subgrade can be accomplished by the additional placement of fill material. Fill material should be clean, compactable to a rate of 95%, and sloped 0.28%. Fill areas must be able to support a curbing system. Additional reinforcement may be needed to stabilize such a system.

**CURB:** Curb around entire court area will be a minimum height of 6" above sub-grade in END to END and SIDE to SIDE configuration. In both cases the curb parallels the 1" in 30' slope sub-grade. This assumes that the 1" thick HydroBlend Layer will be placed so that ½" is above the top of the curb to aid in proper run-off of storm water.

***Note: When hand screening stone screenings and surface, the curb heights should be ½" lower then listed above.***

**CELL CONFIGURATION:** Cells (20'x60') shall be arranged perpendicular to the slope of the court with three cells on each half court. Channel for access pipes will be provided during placement of liners and stone screenings.

**ACCESS PIPES & WATER CONTROLS:** Water feed pipes must be level or planar to a degree of not more than a 0.28% slope to allow free flow of water and prevent airlocks in pipes. Water control boxes will be set below subgrade at the low end of the court on stable surface (concrete, stone, bricks), and connected to an acceptable drainage system. If cells are at different levels the pipes may enter the control boxes at different levels.

Control Boxes should be set so that the bottom of the box is 6" below the top of the center panel pipe in the connected cell. Control Boxes may be "stair-stepped" to better accommodate changes in elevation. These boxes may be placed together and ease of both use and installation.

Water feed pipes must be attached to both the control box and its corresponding liner using bulkhead fittings with gasketing material on both sides of the connection. This assures a water-tight fit.

**LINER:** Liners to be 20 mil or greater polyethylene or equivalent.

**STONE SCREENINGS:** Stone screenings to have approximate top size of ¼" and no more than 4% dust content passing #200 mesh. Screening samples should be approved by manufacturer prior to installation. Stone screening should be placed to a minimum depth of 5 ½" after compaction.

***Note: Stone to be non-soluble (be cautious of some limestone).***

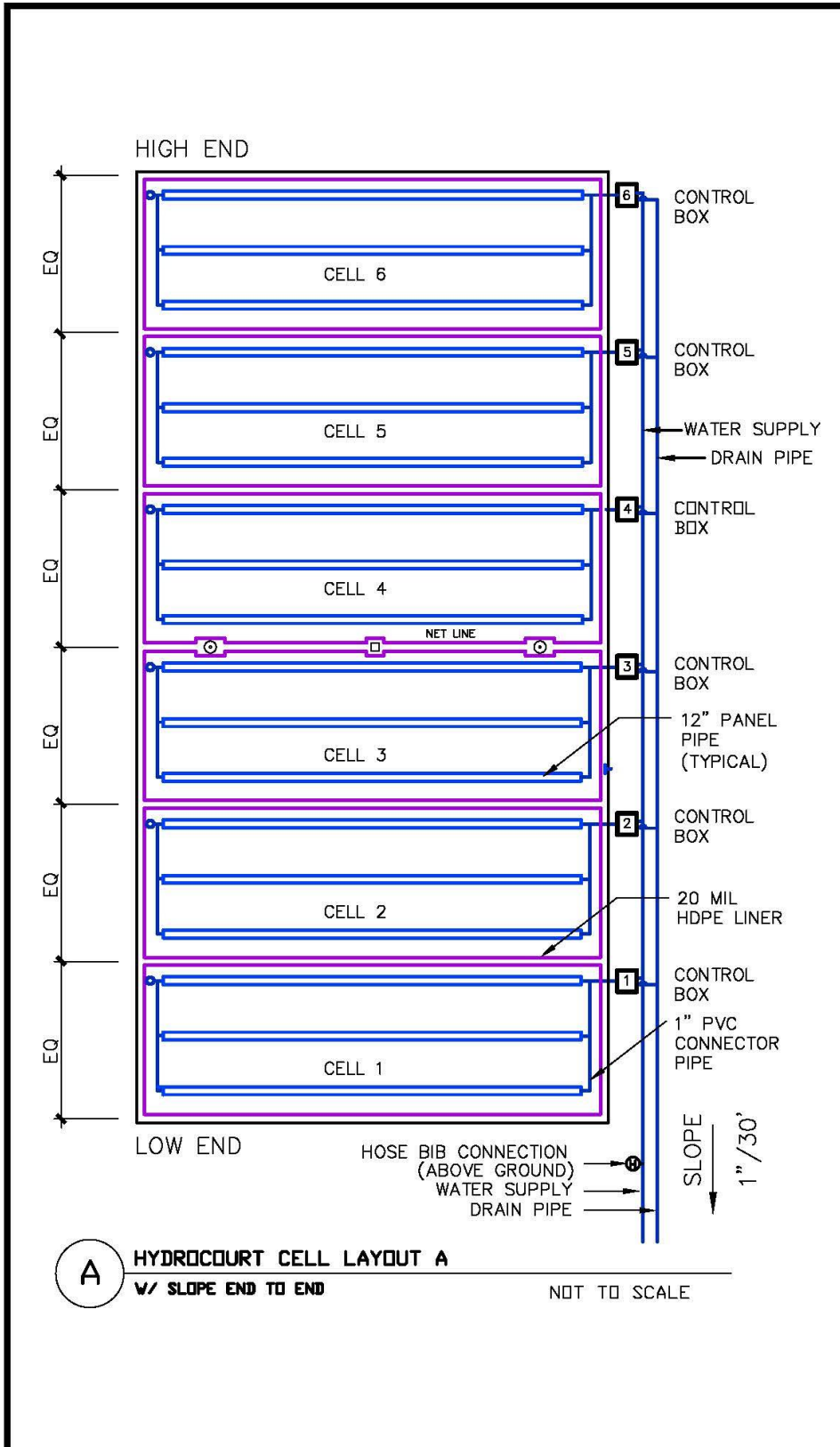
When selecting the proper stone screening material, terms such as "concrete or asphalt sand", "manufactured sand", and "washed screenings" are often used to describe proper material needed. Please check with Har-Tru, LLC to assure that the screening material is suitable.

**DISTRIBUTION OF WATER:** Water is distributed through a series of 3 panel pipes within the cell. These pipes are placed asymmetrically directly on top of the cell liner to account of the uneven effects of gravity as it acts upon the water table, and are connected to the water feed pipe by the way of 1" sch. 40 PVC pipe and fittings.

**PANEL PIPE:** The panel pipe is approximately 1 ½" thick and 12" wide. It is constructed of HDPE and contains lateral pillars to maintain strength and rigidity, and should withstand forces of 4000 lbs/sq.in. The panel pipe used should be factory wrapped in a filtering geotextile and should be capped and coupled as necessary with factory made fittings.

**SURFACE MATERIAL:** HAR-TRU HYDROBLEND surface material to be installed at a depth of 1 ¼ " which compacts to approximately 1". This material should be placed so that ½" of the surface is above the top of the curb and ½" is below.






FEED PIPE ON HIGH END OF EACH CELL. VENT ON HIGH END OF EACH CELL.

**HAR-TRU SPORTS**

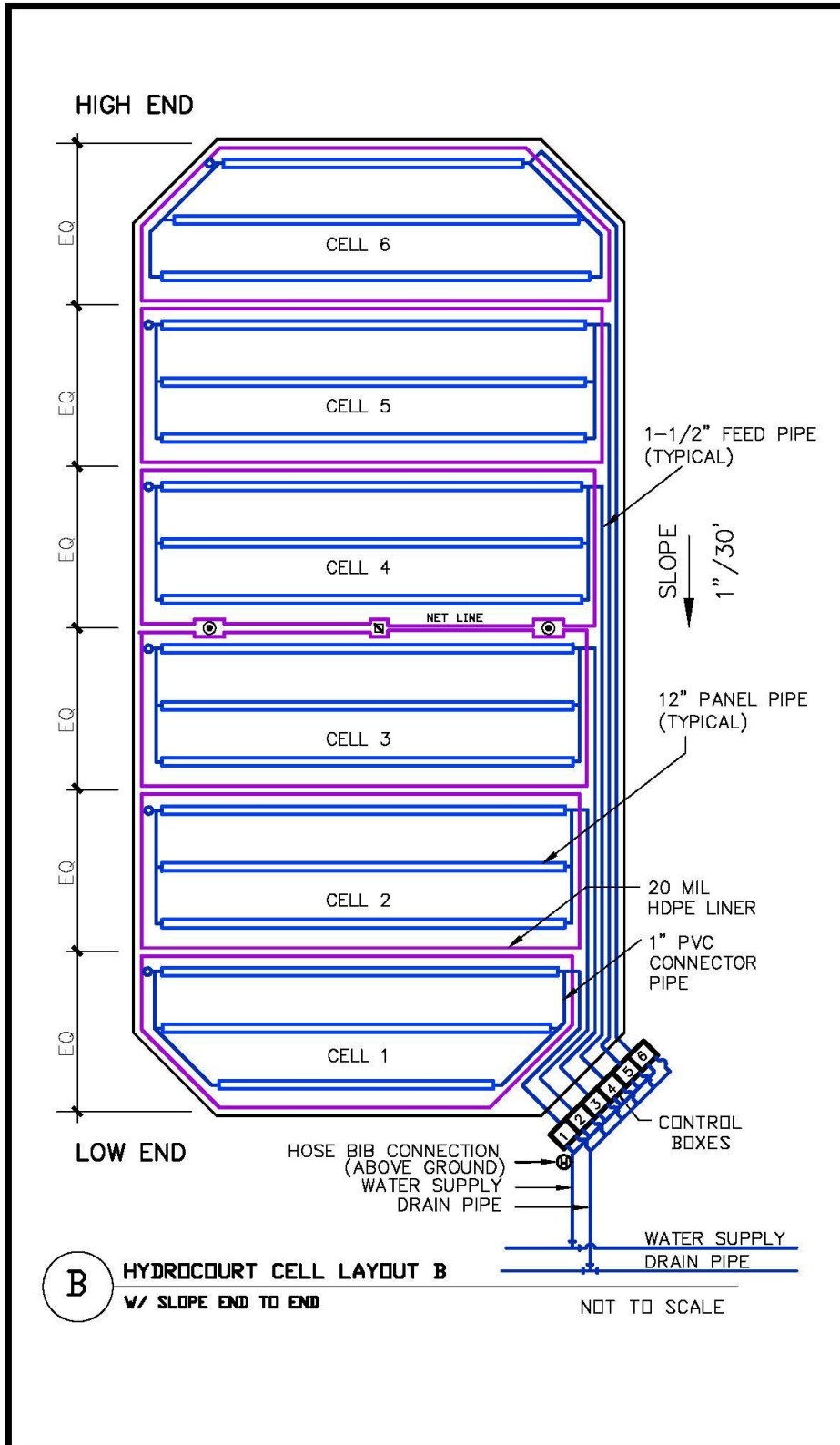
2200 OLD IVY RD. SUITE 100  
 CHARLOTTESVILLE, VIRGINIA 22903

**HYDROCOURT - LAYOUT A**



A HAR-TRU® PRODUCT

**HDC-1**



FEED PIPE ON HIGH END OF EACH CELL. VENT ON  
HIGH END OF EACH CELL.

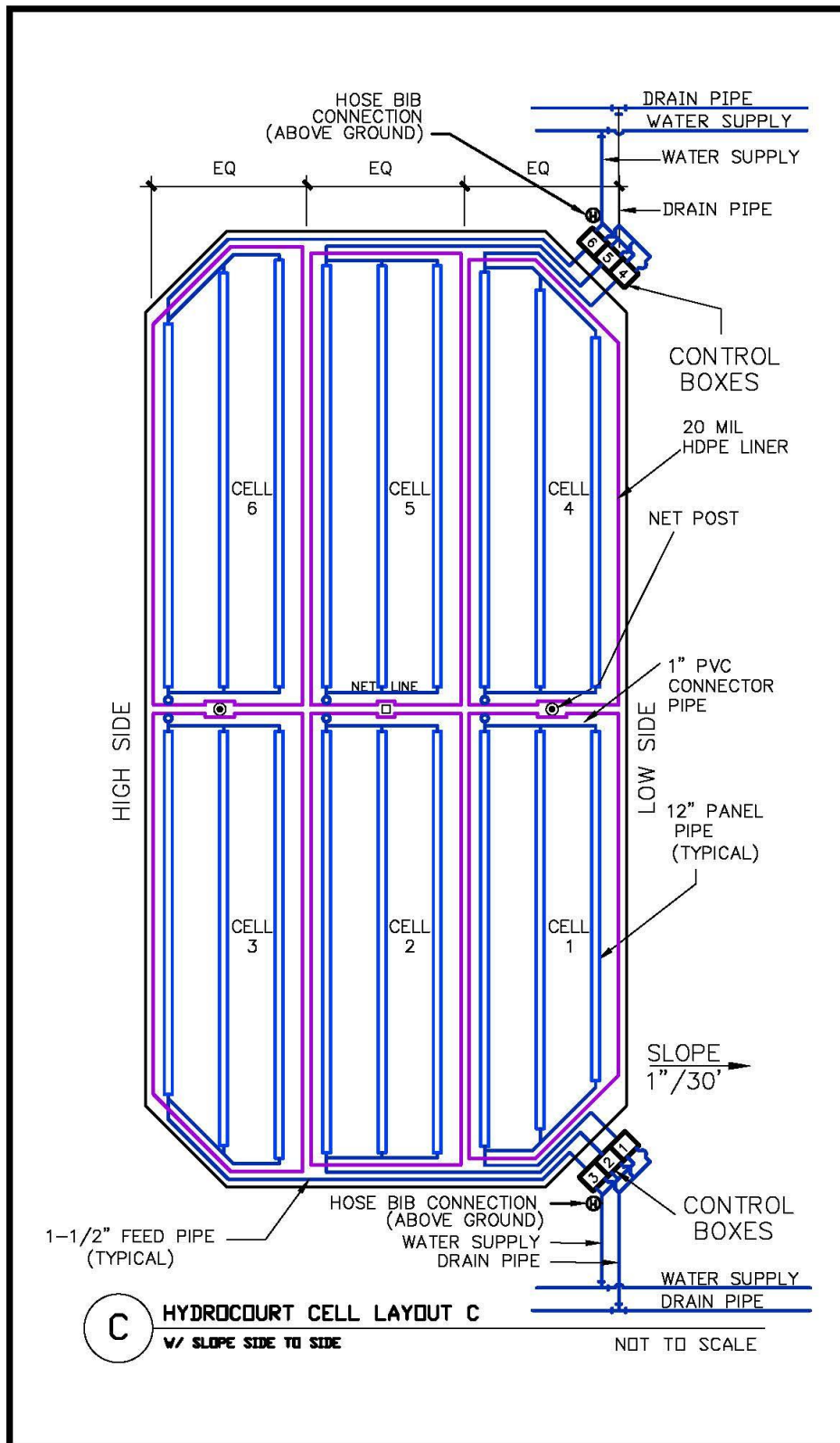
**HDC-2**

**HAR-TRU SPORTS**

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**HYDROCOURT - LAYOUT B**





FEED PIPE ON HIGH SIDE OF EACH CELL. VENT ON HIGH SIDE OF EACH CELL.

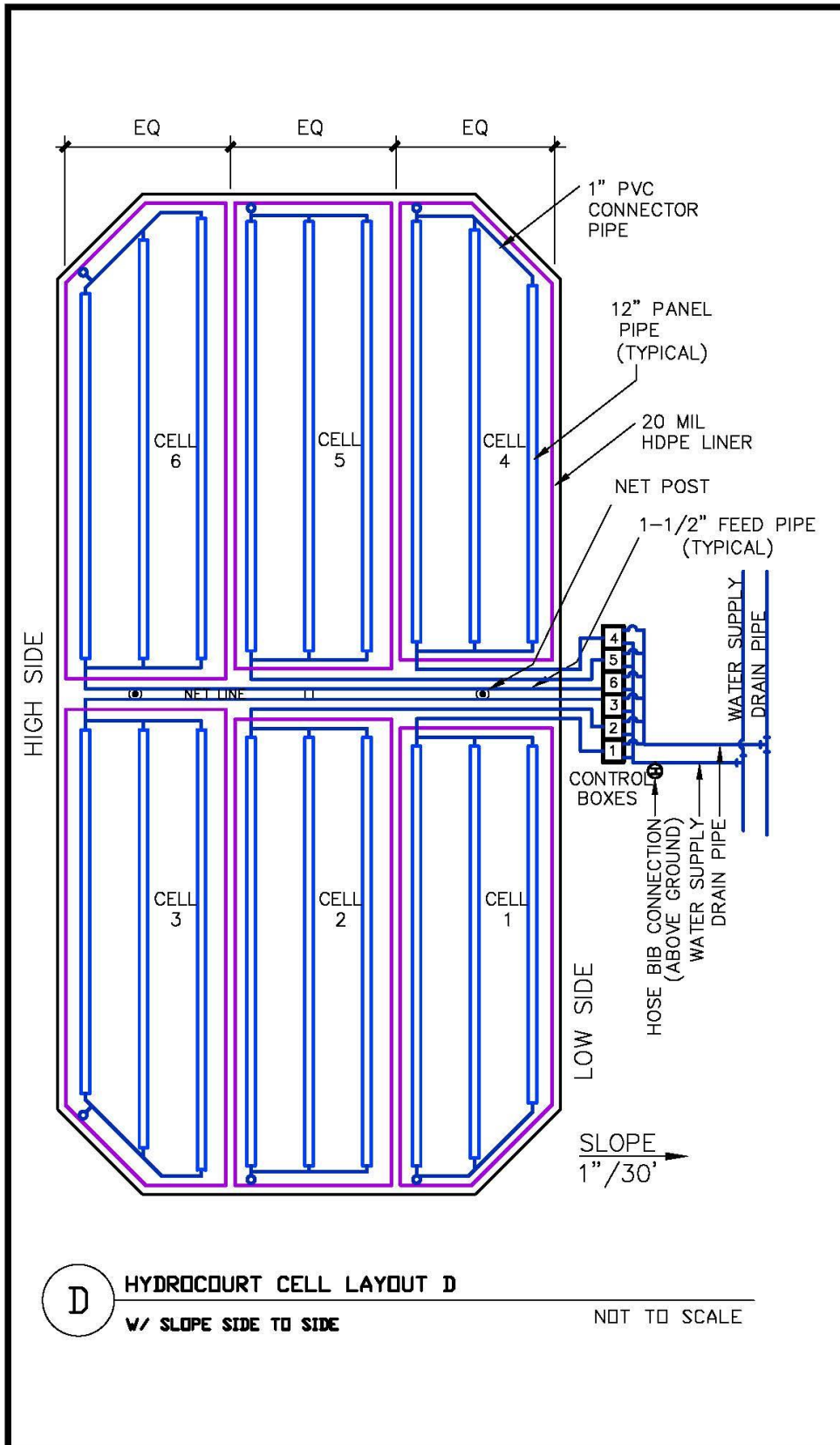
**HAR-TRU SPORTS**

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**HYDROCOURT - LAYOUT C**



**HDC-3**

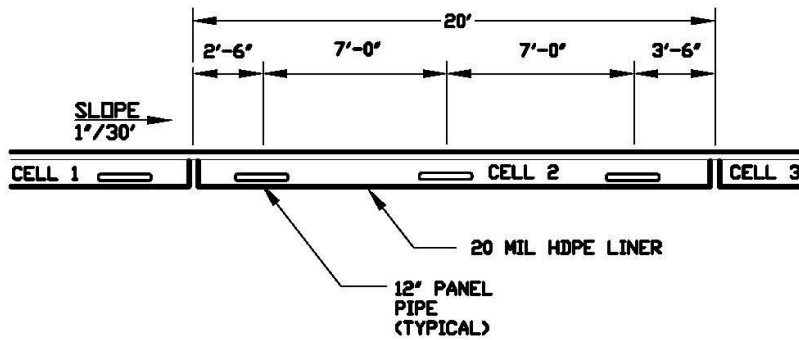


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**HYDROCOURT - LAYOUT D**

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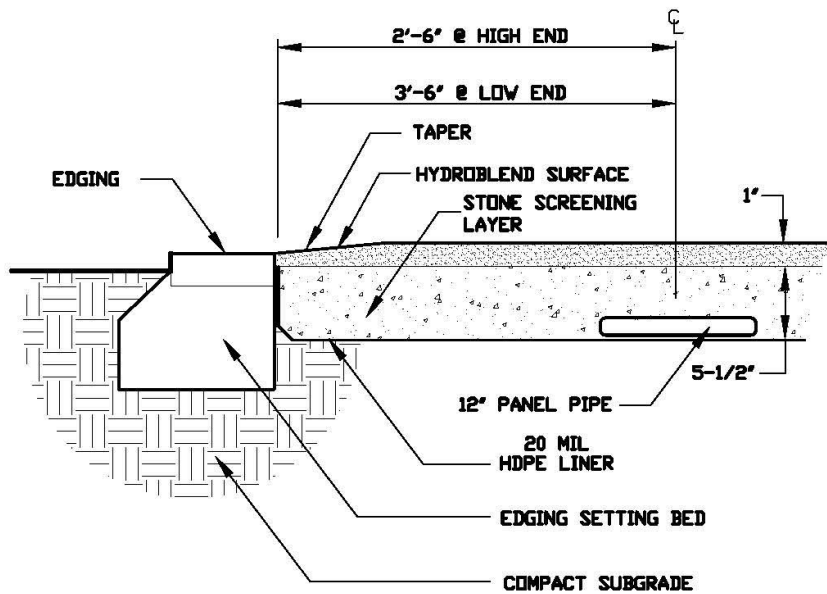
**HDC-4**



1

**SECTION - TYPICAL CELL**

NOT TO SCALE



2

**DETAIL - CELL @ EDGE**

NOT TO SCALE

**HAR-TRU SPORTS**2200 OLD IVY RD, SUITE 100  
CHARLOTTESVILLE, VIRGINIA 22903**HYDROCOURT - DETAILS****HYDRO  
COURT**

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### **Guideline for Modified HydroCourt Screenings**

<b>Sieve Size</b>	<b>% Passing</b>
<b>3/8"</b>	<b>100</b>
<b>#4</b>	<b>96</b>
<b>#8</b>	<b>82</b>
<b>#16</b>	<b>65</b>
<b>#30</b>	<b>45</b>
<b>#50</b>	<b>25</b>
<b>#100</b>	<b>10</b>
<b>#200</b>	<b>4</b>

**The above is a guideline for screenings to be used on the Modified HydroCourt System.  
A representative sample of the screenings should be sent to Har-Tru, LLC for approval prior to use.**