SITE TECHNOLOGY, INC.
786 Seasons Road, Stow, Ohio 44224
Phone: (330) 688-9800 Fax: (330) 688-9010
Email: Matt@sitetechnologyinc.com

SLOPE VISUAL

Slope and Planarity (ITF CS 03/03)

Ideally, a tennis court should be a flat surface lying in a single horizontal plane. The court may be sloped for drainage, but the single plane of the surface should always be maintained.

The slope should be oriented to minimise its effect on play. Thus, where a court must be sloped for drainage, a slope from side-to-side is preferred (see Figure 6). If necessary, the slope can be from end-to-end.

The slope is determined by measuring the ratio of change in elevation to horizontal distance. Planarity is measured relative to a hypothetical plane parallel to the slope of the court.

Figure 6. Preferred orientation of slope (side-to-side), if necessary.

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ASPHALT PAVEMENT GUIDELINES

Traditionally, guidelines have suggested simply that the finished surface of a tennis court should not vary more than x inches and y feet from a true plane. In actuality, there are at least four separate measures that can be made for the accuracy of the installation of a hard surface court:

Slope—Asphalt courts are sloped in a true plane a minimum of .83% (1:120) to a maximum of 1.00% (1:100). Side to side is the preferred direction of slope; however, it can also be end to end or corner to corner if side to side cannot be achieved. Consideration should be given to sloping indoor courts slightly to aid in removal of water when washing the courts.

Planarity—Planarity is the degree to which a surface is constructed as designed in one true plane. The surface also must be located at the designed elevation and slope because the elevation and grade of the surface tie it into the drainage system. According to the ITF, the finished court should not vary more than +/- 3/8" from the designed elevation within the Primary Playing Area. Planarity and slope are commonly measured with a transit or laser level.

Evenness—In order to drain properly and to be acceptable for play, a surface must be smooth and regular, lacking humps and dips. An even surface will not cause ball deflection or create a player tripping hazard. As a measure of evenness, the surface should not vary more than 1/4" in 10' when measured in any direction using a straightedge.

Small Irregularities—Small deviations over a large distance that fall within the evenness standard will not affect player movement or ball bounce, but small deviations over a short distance, such as those caused by irregular seams, expanded aggregate or roller marks, may affect play. For that reason, a third measure—no deviation in the asphalt surface greater than 1/8" in 18"—should be considered.

Once construction of the asphalt pavement is completed, the asphalt should be allowed to thoroughly cure. Color coatings won't bond effectively or evenly to an inadequately cured surface. Curing may take from 14 to 30 days, depending upon site conditions and weather conditions, composition of the asphalt and the recommendations of the manufacturer of the surface coating.

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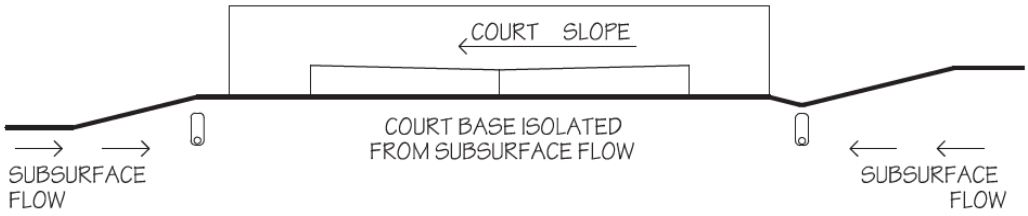
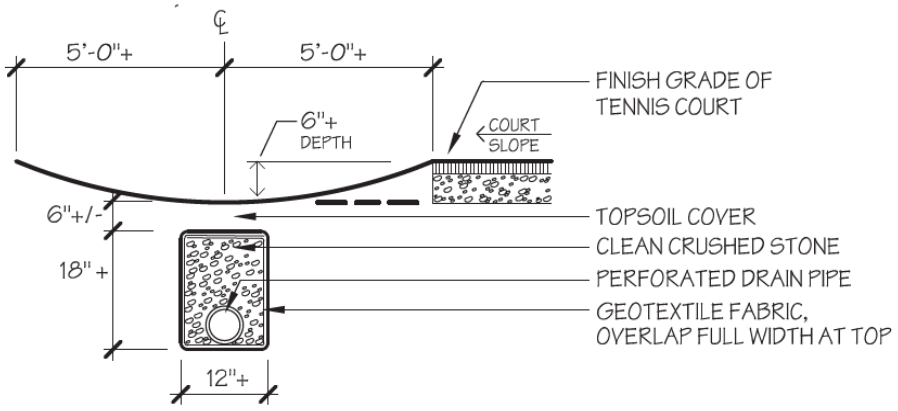
SUBSURFACE DRAINAGE



TYPICAL SUBSURFACE DRAIN LOCATION

NOTE:
GRASS SWALE SLOPED AT
1% MINIMUM RECOMMENDED



SECTION GRAVEL FRENCH DRAIN
AT EDGE OF TENNIS COURT

SUBSURFACE DRAINAGE AT COURT EDGES

NOT TO SCALE

06DRAIN2.AVL.11

DRAWINGS ARE ILLUSTRATIVE ONLY AND ASBA AND USTA ACCEPT NO RESPONSIBILITY FOR THEIR USE.

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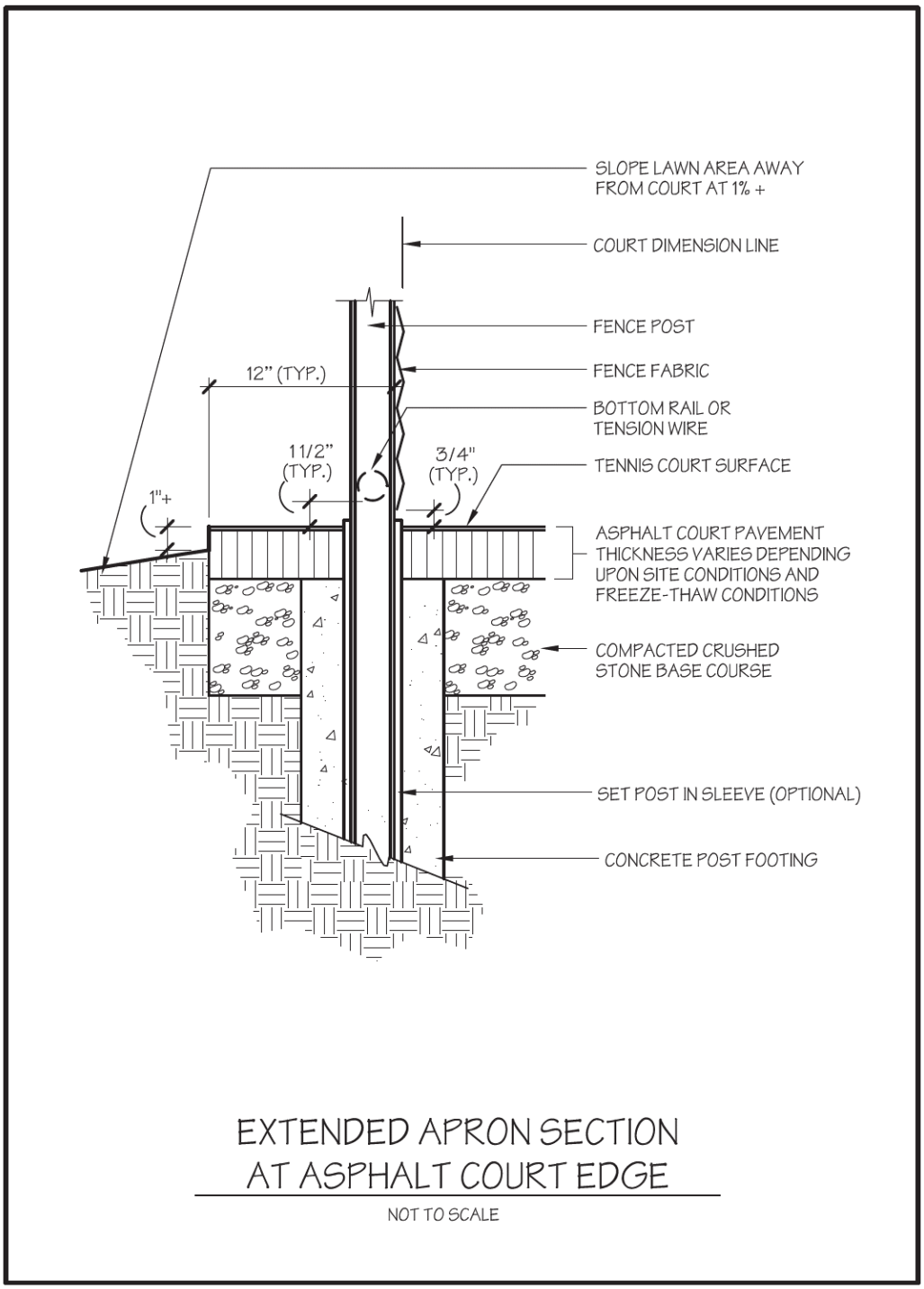
ASPHALT COURT EDGE WITH FENCE



EXTENDED APRON SECTION
AT ASPHALT COURT EDGE

NOT TO SCALE

25EDGE2.AVL.11

DRAWINGS ARE ILLUSTRATIVE ONLY AND ASBA AND USTA ACCEPT NO RESPONSIBILITY FOR THEIR USE.

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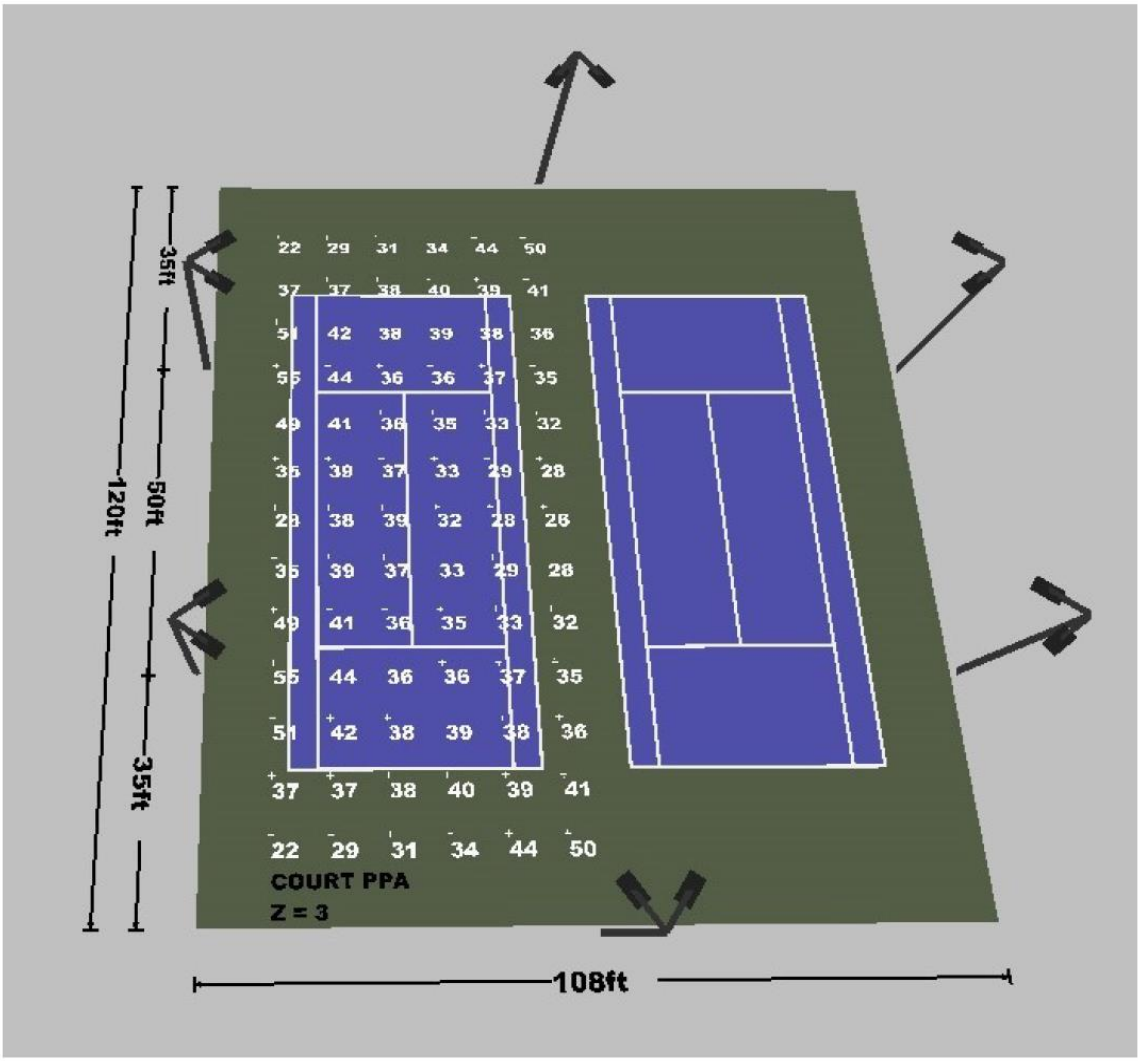
LIGHTING - 108' X 120' - 2 COURTS - 6 POLES - 12 FIXTURES

LED CourtBlade



All light levels are maintained footcandle levels at 3-foot above court.

108 x 120 / 6 Fixtures Per Court Perimeter Retrofit

- 528W
- 58,977 Initial Lumens
- 30' Mounting Height
- 0.9 Light Loss Factor (LLF)

Primary Playing Area (PPA)
Average Maintained — 37.22
PPA Max : Min — 2.50
PPA Coefficient of Variation (CV) - 0.18
PPA Uniformity Gradient (UG) - 1.68

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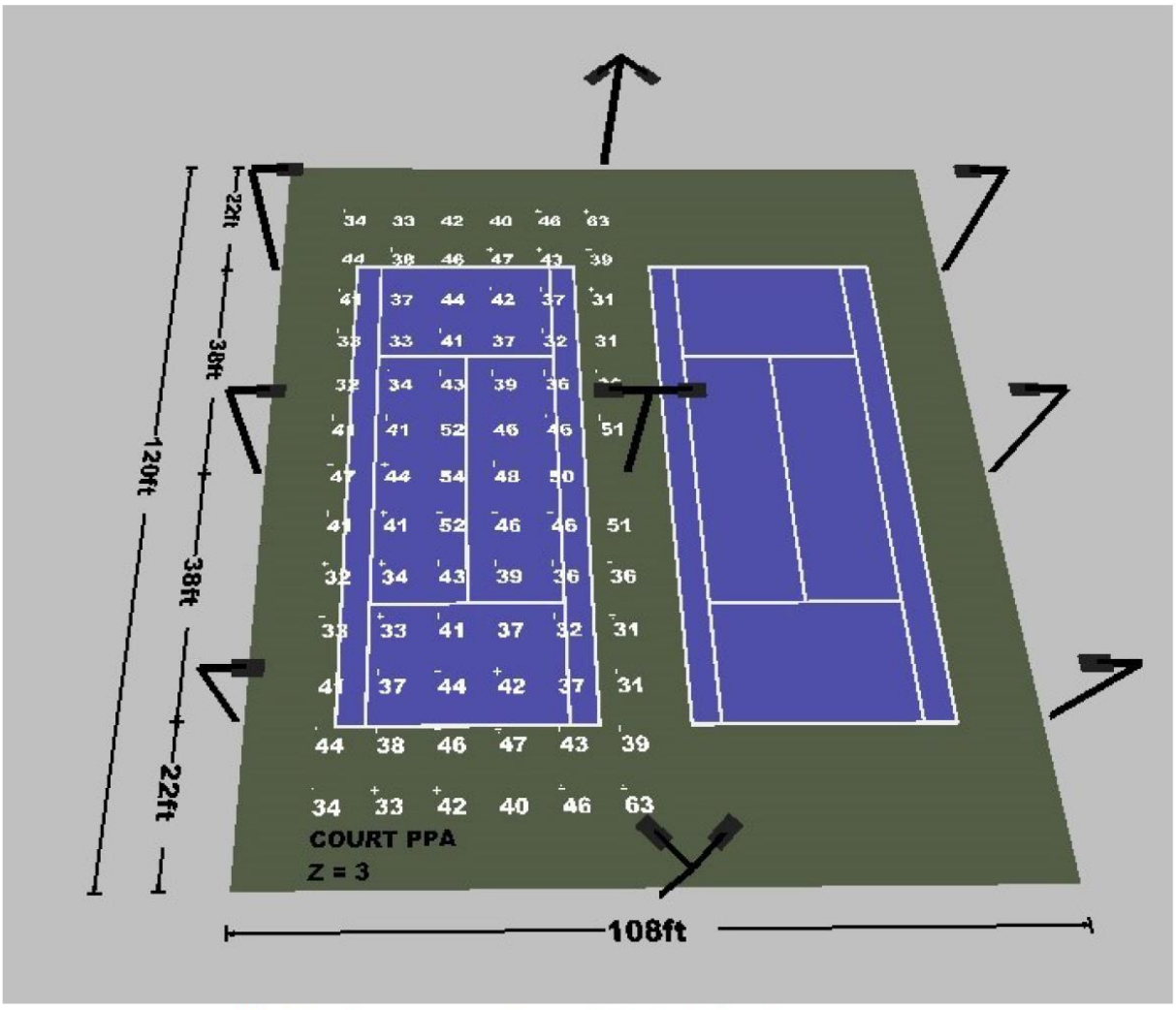
LIGHTING - 108' X 120' - 2 COURTS - 9 POLES - 12 FIXTURES

LED CourtBlade



All light levels are maintained footcandle levels at 3-foot above court.

108 x 120 / 6 Fixtures Per Court

- 528W
- 58,977 Initial Lumens
- 24' Mounting Height
- 0.9 Light Loss Factor (LLF)

Primary Playing Area (PPA)
Average Maintained — 40.84
PPA Max : Min — 2.03
PPA Coefficient of Variation (CV) - 0.17
PPA Uniformity Gradient (UG) - 1.62

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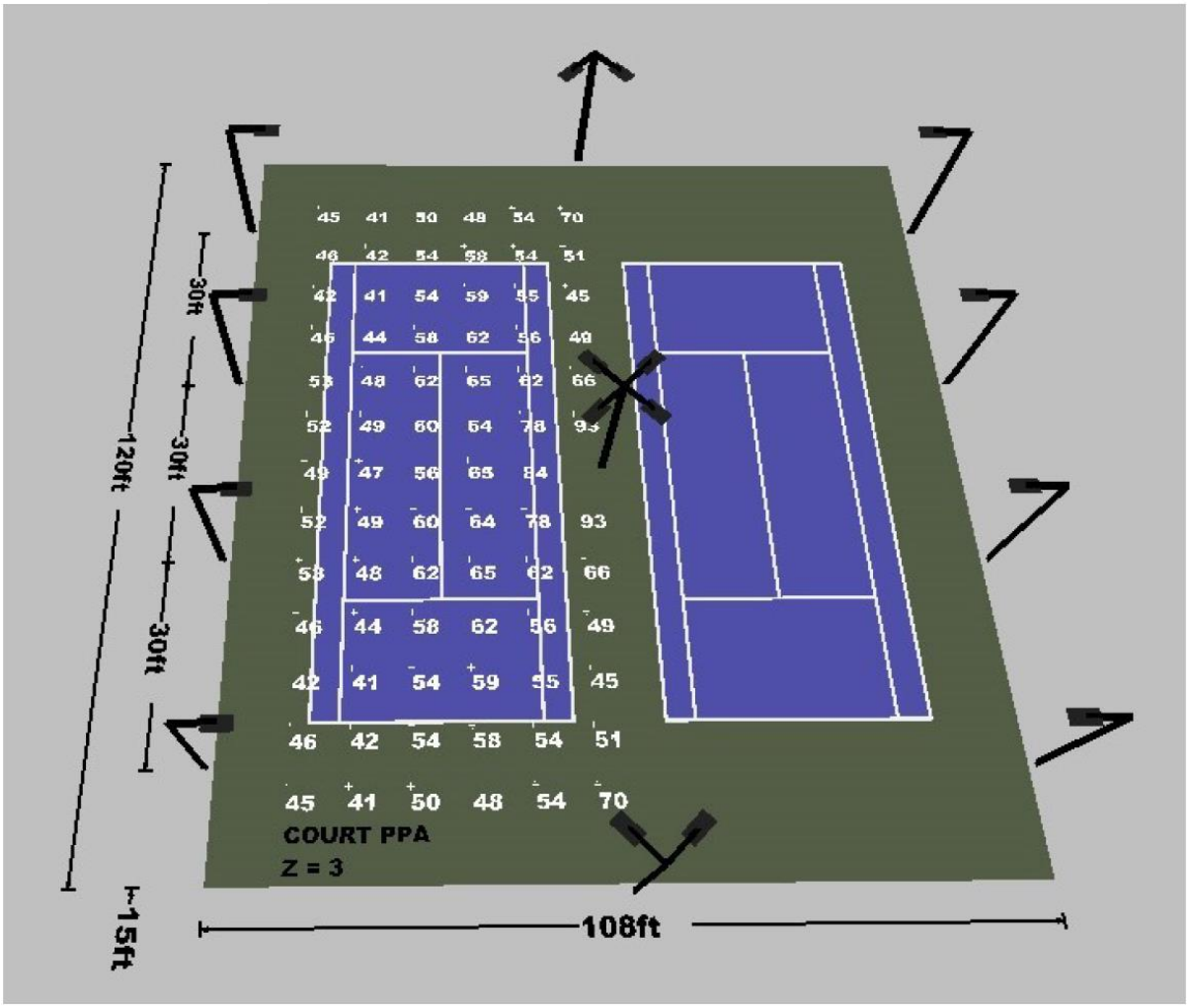
LIGHTING - 108' X 120' - 2 COURTS - 11 POLES - 16 FIXTURES

LED CourtBlade



All light levels are maintained footcandle levels at 3-foot above court.

108 x 120 / 8 Fixtures Per Court

- 528W
- 58,977 Initial Lumens
- 24' Mounting Height
- 0.9 Light Loss Factor (LLF)

Primary Playing Area (PPA)
Average Maintained — 55.23
PPA Max : Min — 2.27
PPA Coefficient of Variation (CV) - 0.20
PPA Uniformity Gradient (UG) - 1.41