



**DeKalb County**  
**Department of Purchasing and Contracting**



October 24, 2016

**Invitation to Bid:** DeKalb County Government requests qualified individuals and firms with experience and certified expertise in Redan Park Two (2) Tennis Courts for DeKalb County, Georgia (**ITB No. 16-100780**).

For a copy of the Invitation To Bid, please contact: DeKalb County Department of Purchasing and Contracting, 2<sup>nd</sup> Floor, The Maloof Center, 1300 Commerce Drive, Decatur, Georgia 30030, telephone number (404) 371-7051, or visit our website at

[http://www.dekalbcountyga.gov/purchasing/pc\\_formal\\_solicitation\\_current\\_bids.html](http://www.dekalbcountyga.gov/purchasing/pc_formal_solicitation_current_bids.html). Invitation To Bids will be received at the above address until 3:00 p.m. on Thursday, November 17, 2016.

**Questions:** Questions must be submitted to the Department of Purchasing and Contracting via email to [ksingleton@dekalbcountyga.gov](mailto:ksingleton@dekalbcountyga.gov), no later than 3:00 p.m. eastern standard time on Thursday, November 10, 2016. Questions and requests for interpretation received by the Department of Purchasing and Contracting after this date will not receive a response or be the subject of addenda.

**Addenda:** Invitation to Bid and all addendums issued for this project may be found on DeKalb County's website, [http://www.dekalbcountyga.gov/purchasing/pc-fbr\\_current\\_bids.html](http://www.dekalbcountyga.gov/purchasing/pc-fbr_current_bids.html).

**LOCAL SMALL BUSINESS ENTERPRISE ORDINANCE**

It is the objective of the Chief Executive Officer and Board of Commissioners of DeKalb County to provide maximum practicable opportunity for all businesses to participate in the performance of government contracts, including Local Small Business Enterprises (LSBE), Minority Business Enterprises (MBE) and Women Business Enterprises (WBE). The County's *Schedule of Local Small Business Enterprise Participation, Minority Business Enterprise and Women Business Enterprise Opportunity Tracking Form* (Exhibit A) and *Letter of Intent to Perform as a Subcontractor or Provide Materials or Services* (Exhibit B) are included in the Request for Proposal, along with sample report forms (Exhibit C). The current DeKalb County List of Certified Vendors is found on the County website at <http://www.dekalbcountyga.gov/purchasing>. For details relative to DeKalb County's Local Small Business Enterprise Ordinance, contact the Contract Compliance Division at [contract@dekalbcountyga.gov](mailto:contract@dekalbcountyga.gov) or (404) 371-4795.

The County reserves the right to reject any and all bids, to waive informalities, and to re-advertise.

DeKalb County Department of Purchasing and Contracting

Kazonga Singleton  
Procurement Agent  
Department of Purchasing & Contracting

DR:KS





**DeKalb County  
Department of Purchasing and Contracting**

**Malool Administration Building, 1300 Commerce Drive, 2<sup>nd</sup> Floor, Decatur, Georgia 30030**

**October 24, 2016**

**INVITATION TO BID (ITB) NO. 16-100780**

**FOR**

**REDAN PARK TWO (2) TENNIS COURTS**

**DEKALB COUNTY, GEORGIA**

**Kazonga T Singleton, Procurement Agent, Phone: 404-371-2738  
Email: ktsingleton@dekalbcountyga.gov**

<b>FIRM'S NAME AND ADDRESS:</b> (Street, City, State and Zip Code. Type or print):   <b>Federal Tax ID No.</b>  <b>ARE YOU A DEKALB COUNTY FIRM? Yes ___ No ___</b>	<b>TELEPHONE AND FAX NUMBERS WITH AREA CODE:</b>  Phone:  Fax:  E-mail:
<b>SIGNATURE OF PERSON AUTHORIZED TO SIGN BID AND DATE:</b>	<b>SIGNER'S NAME AND TITLE (Type of Print):</b>

**THE RESPONSIBILITY FOR SUBMITTING A RESPONSE TO THIS BID TO THE DEPARTMENT OF PURCHASING AND CONTRACTING OF DEKALB COUNTY GOVERNMENT ON OR BEFORE THE STATED DATE AND TIME WILL BE SOLELY AND STRICTLY THE RESPONSIBILITY OF THE BIDDER.**



**TABLE OF CONTENTS**  
**FOR**  
**INVITATION TO BID NO. 16-100780**

<b>TITLE</b>	<b>PAGE NO.</b>
<b>INVITATION TO BID OVERVIEW</b>	<b>3</b>
<b>INVITATION TO BID PROCEDURES</b>	<b>4</b>
<b>GENERAL TERMS AND CONDITIONS</b>	<b>8</b>
<b>MINIMUM SPECIFICATIONS</b>	<b>19</b>
<b>EXHIBIT 1: REDAN TENNIS COURTS EXAMPLE</b>	<b>22</b>
<b>EXHIBIT 2: PARK BENCHES</b>	<b>24</b>
<b>EXHIBIT 3: TIDY-COURTS BASKET AND TRAY</b>	<b>25</b>
<b>EXHIBIT 4: SCOREBOARD</b>	<b>26</b>
<b>BID SCHEDULE</b>	<b>27</b>
<b>BID ACKNOWLEDGEMENT FORM</b>	<b>31</b>
<b>REQUIRED DOCUMENTS CHECKLIST AND ATTACHMENTS</b>	<b>32</b>
<b>ATTACHMENT M: AMERICAN SPORTS BUILDERS ASSOCIATIONS (ASBA) AND UNITED STATES TENNIS ASSOCIATION (USTA) STANDARDS</b>	<b>56-100</b>



**INVITATION TO BID OVERVIEW**

**A. PURPOSE:**

DeKalb County Government (the County) is soliciting bids for **ITB No.16-100780 Redan Park Two (2) Tennis Courts** from responsible contractors.

**B. GENERAL INFORMATION:**

**1. BID TIMETABLE:**

The anticipated schedule for the bid process is as follows:

- Date Issued.....**Monday, October 24, 2016.**
- Deadline for Submission of Questions.....**3:00 P.M. ET, Thursday, November 10, 2016.**
- Bid Opening.....**3:00 P.M. ET, Wednesday, November 17, 2016.**
- Bids Valid Until.....**Bids shall be valid for 90 days from and including the bid opening date.**

**Sealed bids are to be addressed and delivered to:**  
DeKalb County Department of Purchasing and Contracting  
Malooof Administration Building  
1300 Commerce Drive, 2<sup>nd</sup> Floor  
Decatur, Georgia 30030, not later than **3:00 P.M. ET, Thursday, November 17, 2016.**

Submit **one original bid package** (inclusive of the entire Invitation to Bid document and required documents) stamped “Original” and **two sealed identical copies** stamped “Copy” of the bid package to the address listed above.

**2. CONTACT PERSON:**

The contact person for this bid is **Kazonga T. Singleton, Procurement Agent**. General inquiries concerning the meaning or interpretation of this Invitation to Bid (ITB) may be requested from the contact person via telephone at **404-371-2738** or via email at **ktsingleton@dekalbcountyga.gov**. Questions and requests for information or clarification concerning the specifications in this ITB must be submitted to the above listed contact person via email no later than the date and time listed in the bid timetable. Questions and requests received after the above stated time or sent to anyone other than the listed contact person will not receive a response or be the subject of addenda.

**3. QUESTIONS:**

**All requests must be in writing.** Any explanation desired by a bidder regarding the meaning or interpretation of the Invitation to Bid, drawings, specifications, etc., must be requested in writing and with sufficient time allowed for a reply to reach bidders before the submission of their bids. If any statement in the bidding documents, specifications, plans, etc., appear ambiguous to Bidder, Bidder is specifically instructed to make a written request to the Department of Purchasing and Contracting as outlined *in* the preceding sentence. Any information given to a prospective bidder concerning an Invitation to Bid will be furnished to all prospective bidders, as an addenda to the Invitation, if such information is necessary to bidders in submitting bids on the Invitation or if the lack of such information would be prejudicial to uninformed bidders. Oral explanations or instructions given before the award of



the contract will not be binding. **No responses to requests, answers to specification questions, or additional information shall be supplied after “Thursday, November 10, 2016.”**

**4. ADDITIONAL INFORMATION/ADDENDA:**

The County will issue responses to inquiries and any other corrections or amendments it deems necessary in written addenda issued prior to the bid opening date. Bidders should not rely on any representations, statements or explanations other than those made in this ITB or in any addendum to this ITB. Where there appears to be a conflict between the ITB and any addenda issued, the last addendum issued will prevail. It is the responsibility of the Bidder to ensure awareness of all addenda issued for this solicitation. Please acknowledge the addenda and submit to the DeKalb County Department of Purchasing and Contracting as requested. Bidders may contact the above listed contact person to verify the number of addenda prior to submission. Addenda issued for this ITB will be posted on DeKalb County's website, [http://www.dekalbcountyga.gov/purchasing/pc\\_index\\_formal\\_solicitations.html](http://www.dekalbcountyga.gov/purchasing/pc_index_formal_solicitations.html). Bidder should regularly check the County's website for addenda.

## **INVITATION TO BID PROCEDURES**

**A. BIDDER INFORMATION:**

1. FAILURE TO RETURN ALL PAGES OF THIS INVITATION TO BID MAY RESULT IN BID BEING DEEMED NON-RESPONSIVE.
2. Minimum specifications are intended to be open and non-restrictive. Contractors are invited to inform the DeKalb County Department of Purchasing and Contracting whenever specifications or procedures appear not to be fair and open. Such information should be supplied as early in the procurement process as possible. Information received in less than five (5) days prior to the scheduled bid opening will not be acted upon unless the DeKalb County Department of Purchasing and Contracting rules that it is in the best interest of the County to consider.
3. Brand names and numbers when provided in solicitations are for reference and to establish a quality standard. Any reference to a brand name shall not be construed as restricting Bidders to that manufacturer (unless "no substitutes" is stated). Bids on equal items will be considered, provided the bid clearly describes the article offered and it is equal or better in quality and function and fully compatible with this requirement.
4. By submitting a bid, Bidder warrants that any goods or services supplied to DeKalb County Government meet or exceed the specifications set forth in this solicitation.
5. If any supplies, materials, and equipment are provided to the County under this solicitation, then such items shall be new and in first-class condition unless the solicitation specifically allows offers of used, reconditioned, or remanufactured items. If newly manufactured products are specified, such products shall be of recent origin and not previously used. No equipment of any type is acceptable if serial numbers or any other manufacturer's identification labels or marks have been removed, obliterated, or changed in any way. A Contractor delivering any such equipment to the County will be deemed to have breached the contract, and appropriate action will be taken by the DeKalb County Government Purchasing and Contracting Department.



6. Time of delivery is a part of the solicitation and an element of the contract that is to be awarded. If the Bidder cannot meet the required service delivery dates, a bid should not be submitted. Failure to deliver in accordance with the contract could result in the Contractor being declared in default.
7. Bid Withdrawal  
Bids may be withdrawn at any time prior to the bid opening. After bids have been publicly opened, withdrawal of bids shall be based upon Part 3, Section IV, F. within the DeKalb County Purchasing Policy.
8. Expenses of Preparing Responses to this ITB  
The County accepts no responsibility for any expenses incurred by the Bidders who submit bids in response to this ITB. Such expenses are to be borne exclusively by the Bidders.
9. It is the responsibility of each Bidder to ensure that its submission is received by 3:00 p.m. on the bid due date. The time/date stamp clock located in the Department of Purchasing & Contracting shall serve as the official authority to determine lateness of any bid. The bid opening time shall be strictly observed. Be aware that visitors to our offices will go through a security screening process upon entering the building. Bidders should plan enough time to ensure that they will be able to deliver their submission prior to our deadline. Late submissions, for whatever reason, will not be evaluated. Bidders should plan their deliveries accordingly. Telephone or fax bids will not be accepted.
10. Federal Work Authorization  
Pursuant to O.C.G.A. §13-10-91, the County cannot enter into a contract for the physical performance of services unless the Contractor, its Subcontractor(s) and sub-subcontractor(s), as that term is defined by state law, register and participate in the Federal Work Authorization Program to verify specific information on all new employees. The Bidder certifies that he/she has complied and will continue to comply throughout the contract term with O.C.G.A. §13-10-91 and any related and applicable Georgia Department of Labor Rule. Contractor agrees that in the event it employs or contracts with any Subcontractor(s) in connection with this contract, Contractor will secure from each Subcontractor an affidavit that certifies the Subcontractor's current and continuing compliance with O.C.G.A. §13-10-91 throughout the contract term. Each Subcontractor agrees that in the event it employs or contracts with any sub-subcontractor(s), each Subcontractor will secure from each sub-subcontractor an affidavit that certifies the sub-subcontractor's current and continuing compliance with O.C.G.A. §13-10-91 throughout the contract term.
11. LSBE Information
  - a. It is the objective of the Chief Executive Officer and Board of Commissioners of DeKalb County to provide maximum practicable opportunity for all businesses to participate in the performance of government contracts. The current DeKalb County List of Certified Vendors may be found on the County website at <http://www.dekalbcountyga.gov/purchasing/pdf/supplierList.pdf>
  - b. It is mandatory that the LSBE Information forms be completed and submitted with Bidder's response.
  - c. For further details regarding the DeKalb County Local Small Business Enterprise Ordinance, contact LSBE Program at [pcadmin-ops@dekalbcountyga.gov](mailto:pcadmin-ops@dekalbcountyga.gov) or (404) 371-7051.



**12. First Source Jobs Information**

The DeKalb County First Source Jobs Ordinance requires contractors or beneficiaries entering into any type of agreement with the County, including purchase orders, regardless of what they may be called, for the procurement or disposal of supplies, services, construction projects, professional or consultant services, which is funded in whole or part with County funds or County administered funds in which the contractor is to receive \$50,000 or more in County expenditures or committed expenditures and recipient of urban redevelopment action grants or community development block funds administered in the amount of \$50,000 or more make a good faith effort to hire DeKalb County residents for at least 50% of jobs using the First Source Registry (candidate database). The work to be performed under this contract is subject to the provisions of the DeKalb County First Source Jobs Ordinance.

For more information on the First Source Jobs Ordinance requirement, please contact DeKalb Workforce Development at [www.dekalbworkforce.org](http://www.dekalbworkforce.org) or 404-687-3400.

**13. Attention to General Terms and Conditions**

Bidders are cautioned to thoroughly understand and comply with all matters covered under the General Terms and Conditions section of this ITB. The successful Bidder(s) will enter into a contract approved by the County. The County's ITB document and attachments, subsequent County addenda, and the Bidder's response documents are intended to be incorporated into a contract. All Bidders should thoroughly review this document prior to submitting a bid. Any proposed revisions to the terms or language of this document must be submitted in writing with the bid. Since proposed revisions may result in a bid being rejected if the revisions are unacceptable to the County, bidders should review any proposed revisions with an officer of the firm having authority to execute the contract. No alterations can be made in the contract after award is made.

**14. Required Signatures**

Bids must be signed by an officer or agent of the firm having the authority to execute contracts.

**15. Ethics Rules**

Bidders are subject to the Ethics provision within the DeKalb County Purchasing Policy; the Organizational Act, Section 22A, the Code of DeKalb County; and the rules of Executive Order 2014-4. Any violations will be addressed, pursuant to these policies and rules.

To the extent that the Organizational Act, Section 22A, the Code of DeKalb County, and the rules of Executive Order 2014-4 allow a gift, meal, travel expense, ticket, or anything else of value to be purchased for a CEO employee by a contractor doing business with the County, the contractor must provide written disclosure, quarterly, of the exact nature and value of the purchase to the Chief Integrity Officer, if created, or the Finance Director or his/her designee. Every contractor conducting business with the County will receive a copy of these ethical rules at the time of execution of the contract.

**16. Business License**

Please provide a copy a valid company business license with your bid or upon award. Georgia companies are to submit a valid county or city business license. Contractors that are not Georgia companies are to provide a certificate of authority to transact business in the State of Georgia and a



copy of a valid business license issued by its home jurisdiction. If Bidder holds a professional certification which is licensed by the state of Georgia, then Bidder may submit a copy of its valid professional license with Bidder's bid or upon award unless the Minimum Specifications require submittal with the bid. Any license submitted in response to this ITB shall be maintained by the Contractor for the duration of the contract.

**B. BID SUBMITTAL:**

1. All bids should be completed in ink or typewritten. Errors should be crossed out and corrections entered in ink or typewritten adjacent to the error. The person signing the bid should initial corrections in ink.
2. Bidders shall complete and submit Attachment A - Required Documents Checklist and all documents responsive to this requirement with the bid submittal.
3. If applicable, provide evidence that the Bidder is a DeKalb County Firm.
4. Bids must be submitted in a sealed envelope(s) or box(es) with the Bidder's name and "ITB No. 16-100780 Redan Park Two (2) Tennis Courts" on the outside of each envelope or box. All Bidders delivering submittals via delivery services, please place the sealed bid envelope(s) or box(es) inside the delivery service envelope(s) or box(es). Bidders are responsible for informing any delivery service of all delivery requirements. No responsibility shall attach to the County for the premature opening of a submission not properly addressed and/or identified. The Decatur postmaster will not deliver certified or special delivery mail to specific addresses within DeKalb County Government.

**C. CONTRACT AWARD:**

1. Bids submitted will be evaluated and recommended for award to the lowest, responsive, and responsible Bidder(s).
2. The intent of this bid is to make an all-award; however, the County reserves the right to award by line item. The County may accept any item or group of items on any bid, whichever is in the best interest of DeKalb County.
3. The County reserves the right to reject any and all bids, to waive informalities, and to re-advertise.
4. The judgment of DeKalb County Purchasing and Contracting on matters, as stated above, shall be final.



**GENERAL TERMS AND CONDITIONS**

- A. In the event of a conflict between any provisions contained in any of the documents governing this transaction, the following shall be the order of precedence: Change Orders or modifications; the Contractor's accepted Response; and the County's ITB.
- B. The Contractor's services shall include all things, personnel, and materials necessary to provide the goods or services that are in compliance with the specifications as authorized by the County.
- C. Bidder extends to the County the option to renew the contract for two (2) additional one year terms, under the same price(s), terms and conditions, and in accordance with Paragraph L, *Term*.

**D. DELIVERY:**

- 1. Delivery of services or goods will commence within (120) calendar day upon request.

Bidder state agreement:                      Yes \_\_\_\_\_                      No \_\_\_\_\_

Contact Person: \_\_\_\_\_

Telephone Number: \_\_\_\_\_ Cellular Phone Number: \_\_\_\_\_

Address: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Alternate delivery time *may* be considered provided it is so stated. Bidder state alternate terms for delivery or services below.

\_\_\_\_\_

\_\_\_\_\_

- 2. All prices are to be firm, F.O.B. Destination, Freight Prepaid and Allowed. This shall include delivered, unloaded, and placed in designated place. Delivery must be made between 9:00 A.M. and 2:30 P.M. Monday through Friday, unless otherwise required. The successful bidder shall give a 24-hour prior notice of delivery to Department or Division calling in the order, and must ask for caller's telephone number as well as Purchase Order number and address, since 24-hour Notice of Delivery is required. The County will unload after prior notice.

**E. DELIVERIES BEYOND THE CONTRACTUAL PERIOD:**

This contract covers all requirements that may be ordered, as distinguished from delivered, during the contract term. This is for the purpose of providing continuity of supply by permitting the County to place orders as requirements arise in the normal course of supply operations. Accordingly, any order mailed (or received, if forwarded by other means than through the mail) to



the Contractor on or before the expiration date of the contract, and providing for delivery within the number of days specified in the contract, shall constitute a valid order.

**F. FOREIGN PRODUCTS:**

DeKalb County prefers to buy items produced and/or manufactured in the United States of America; however, foreign products may be considered provided it is so stated. Bidder certifies that items offered on this bid is/are manufactured and produced in the United States.

Yes \_\_\_\_\_ No \_\_\_\_\_

If "No", state the exact location of plant or facility where items will be produced:

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**G. COUNTY REQUIREMENT:**

The contract will be an "Indefinite Quantity" type with County requirements to be satisfied on an "as ordered" basis. The County makes no promise, real or implied, to order any quantity whatsoever. This invitation and resulting contract will provide for the normal requirements of DeKalb County, and contracts will be used as primary sources for the articles or services listed herein. Articles or services will be ordered from time to time in such quantities as may be needed. As it was impossible to determine the precise quantities of items described in this invitation that will be needed during the contract term, each contractor is obligated to deliver all articles and services that may be ordered during the contract term.

**H. WARRANTY AND/OR GUARANTY:**

Contractor warrants that its services under this Agreement shall be free of defects in materials and workmanship for a period of two (2) years. The Contractor shall not be liable for indirect, special, or exemplary damages. The Contractor shall be liable for direct damages.

**I. SAMPLES & TESTING:**

Samples of items, when required, must be submitted within the time specified, and unless otherwise specified by the County, at no expense to the County. If not destroyed by testing, samples will be returned at bidder's request and expense, unless otherwise specified by the Invitation to Bid. Since tests may require several days for completion, the County reserves the right to use a portion of any supplies before the results of the tests are known, without prejudice to any final adjustments, rejecting the unused portion of the delivery and payment will be made on an adjusted basis for the used portion. The costs of inspections and tests of any item which fails to meet the advertised specifications shall be borne by the bidder.

**J. LITERATURE:**

When the bidder proposes to furnish another product, he is required to furnish, with his bid, literature describing the item(s) being offered. Failure to furnish this literature may result in the bid being deemed non-responsive.



**K. SILENCE OF SPECIFICATIONS:**

The apparent silence of these specifications and any supplemental specifications as to any details, or the omission from it of a detailed description concerning any point, shall be regarded as meaning that only the best commercial practices are to prevail and that only materials of first quality and correct type, size and design are to be used. All workmanship is to be first quality. All interpretations of this specification shall be made upon the basis of this statement, with County interpretation to prevail.

**L. TERM:**

**Not applicable**

**M. PRICING:**

1. Alterations to the Bid Schedule may result in the Bidder being deemed non-responsive and his bid may be rejected.
2. **Price Reductions:** If at any time after the date of award, the Contractor makes a general price reduction in the comparable price of any article or service covered by the contract to customers generally, an equivalent price reduction based on similar quantities and/or considerations shall apply to the contract for the duration of the contract period (or until the price is further reduced). Such price reduction shall be effective at the same time and in the same manner as the reduction in the price to customers generally. An occasional sale at a lower price, or sale of distressed merchandise at a lower price, would not be considered a general price reduction under this paragraph. For purposes of this paragraph, a general price reduction shall mean any reduction in the price of an article or service offered:
  - To Contractor's customers.
  - In the Contractor's price schedule for the class of customers; i.e., wholesalers, jobbers, retailers, etc., which was used as the basis for bidding on this contract.

The Contractor shall invoice the County at such reduced price indicating on the invoice that the reduction is pursuant to General Terms and Conditions, paragraph I. as stated within the ITB.

3. **Price Escalation Clause:** During the life of the contract, the awarded bidder shall furnish price lists to the County for increases, and those of the bidder's supplier (e.g. factory) increases, as prices change. The bidder must also provide a list of the supplier's (e.g. factory's) previous price(s) to the County for purposes of comparison. Price changes will be in effect only after receipt and approval by the Director of the Department of Purchasing and Contracting. Price lists and changes thereto are to be furnished under the contract and without charge to the County. Catalogue(s) or Price List(s) must be submitted to the Department of Purchasing and Contracting, Maloof Administration Building, 1300 Commerce Drive, 2<sup>nd</sup> Floor, Decatur, Georgia 30030.
4. By submission of this bid, the bidder certifies, and in the case of a joint bid each party thereto certifies as to its own organization that in connection with this procurement:



- a. The prices in this bid have been arrived at independently, without consultation, communication, or agreement, for the purpose of restricting competition, as to any matter relating to such prices with any other bidder or with any competitor,
- b. Unless otherwise required by law, the prices which have been quoted in this bid have not been knowingly disclosed by the bidder and will not knowingly be disclosed by the bidder prior to opening, directly or indirectly to any other bidder or to any competitor: and
- c. No attempt has been made or will be made by the bidder to induce any other person or firm to submit or not to submit a bid for the purpose of restricting competition.

**N. PAYMENT:**

1. The County shall pay the Contractor based upon the accepted bid prices submitted by Bidder. Invoices should be signed by the Bidder or authorized delegate and must contain the authorizing DeKalb County Purchase Order (PO) or Contract Purchase Agreement (CPA) Number in order for payment to be processed. PO Number must also be on the delivery ticket.

A Contract Purchase Agreement is being issued in lieu of a formal contract. Any reference to a contract refers to the CPA.

2. Invoice(s) must be submitted as follows:

- a. A copy of the original invoice(s) must be submitted to the department requesting services.

DeKalb County Recreation, Parks and Cultural Affairs  
 Maloof Building  
 1300 Commerce Drive, 3rd Floor,  
 Decatur, Georgia 30030-3221

- b. Upon award, Prime Contractor(s) with Local Small Business Enterprise (LSBE) Subcontractor(s) shall enter utilization reports electronically at [www.dekalblsbe.info](http://www.dekalblsbe.info). Proof of payment to the LSBE Subcontractor must be uploaded and submitted. LSBE Subcontractors shall confirm receipt of payment from the Prime, electronically also, at [www.dekalblsbe.info](http://www.dekalblsbe.info).

3. The County's official payment terms are Net 30. Payment dates that fall on a weekend or on a holiday will be issued on the County's next business day.

**O. ACCURACY OF WORK:**

The Contractor shall be responsible for the accuracy of the Work and any error and/or omission made by the Contractor in any phase of the Work under this Agreement.

**P. ADDITIONAL WORK:**

The County shall in no way be held liable for any work performed under this section which has not first been approved in writing by the County in the manner required by applicable law and/or the terms of this Contract. The County may at any time order changes within the scope of the Work without invalidating the Contract upon seven (7) days written notice to the Contractor. The



Contractor shall proceed with the performance of any changes in the Work so ordered by the County unless such change entitles the Contractor to a change in Contract Price, and/or Contract Term, in which event the Contractor shall give the County written notice thereof within fifteen (15) days after the receipt of the ordered change, and the Contractor shall not execute such changes until it receives an executed Change Order from the County. No extra cost or extension of time shall be allowed unless approved by the County and authorized by execution of a Change Order. The parties' execution of any Change Order constitutes a final settlement of all matters relating to the change in the Work which is the subject of the Change Order. The County shall not be liable for payment for any work performed under this section which has not first been approved in writing by the County in the manner required by applicable law and/or the terms of this Contract.

**Q. OWNERSHIP OF DOCUMENTS:**

All documents, including drawings, estimates, specifications, and data are and remain the property of the County. The Contractor agrees that the County may reuse any and all plans, specifications, drawings, estimates, or any other data or documents described herein in its sole discretion without first obtaining permission of the Contractor and without any payment of any monies to the Contractor therefore. Any reuse of the documents by the County on a different site shall be at its risk and the Contractor shall have no liability where such documents are reused.

**R. RIGHT TO AUDIT:**

The County shall have the right to audit all books and records, including electronic records, relating or pertaining to this contract or agreement, including but not limited to all financial and performance related records, property, and equipment purchased in whole or in part with County funds and any documents or materials which support those records, kept under the control of the Contractor, including but not limited to those kept by the Contractor's employees, agents, assigns, successors and subcontractors. The County also has the right to communicate with Contractor's employees related to the audited records.

The Contractor shall maintain such books and records, together with such supporting or underlying documents and materials, for the duration of this contract and for seven (7) years after termination or expiration, including any and all renewals thereof. The books and records, together with supporting documents and materials shall be made available, upon request to the County or its designee, during normal business hours at the Contractor's office or place of business. In the event that no such locations is available, then the books, records and supporting documents shall be made available for audit at a time and location which is convenient for the County.

**S. SUCCESSORS AND ASSIGNS:**

The Contractor agrees it shall not sublet, assign, transfer, pledge, convey, sell, or otherwise dispose of the whole or any part of this Contract or his right, title, or interest therein to any person, firm, or corporation without the previous written consent of the County. If the County consents to any such assignment or transfer, then the Contractor binds itself, its partners, successors and assigns to all covenants of this Contract. Nothing contained in this Contract shall create, nor be interpreted to create privity, or any other relationship whatsoever, between the County and any person, or entity or than Contractor.



**T. REVIEWS AND ACCEPTANCE:**

Work performed by the Contractor shall be subject to review and acceptance in stages as required by the County. Acceptance shall not relieve the Contractor of its professional obligation to correct, at his own expense, any errors in the Work.

**U. TERMINATION OF AGREEMENT:**

The Contractor understands and agrees that the date of the beginning of Work, rate of progress, and time for completion of the Work are essential conditions of this Contract. Both parties may, for its own convenience and at its sole option, without cause and without prejudice to any other right or remedy of the party, elect to terminate the Contract by delivering to the other party, at the address listed in the Notices article of this Contract, a written notice of termination specifying the effective date of termination. Such notice shall be delivered to the other party at least thirty (30) days prior to the effective date of termination. If Contractor's services are terminated by the County, the termination will not affect any rights or remedies of the County then existing or which may thereafter accrue against Contractor or its surety. In case of termination of this Contract before completion of the Work, Contractor will be paid only for the portion of the Work satisfactorily performed through the effective date of termination as determined by the County. Neither party shall be entitled to recover lost profits, special, consequential or punitive damages, attorney's fees or costs from the other party to this Contract for any reason whatsoever. This Contract shall not be deemed to provide any third-party with any remedy, claim, right of action, or other right. The parties' obligations pursuant to this Section shall survive any acceptance of Work, or termination or expiration of this Contract.

**V. INDEMNIFICATION AGREEMENT:**

The Contractor shall be responsible from the execution date or from the time of the beginning of the Work, whichever shall be the earlier, for all injury or damage of any kind resulting from the Work, to persons or property, including employees and property of the County. The Contractor shall exonerate, indemnify, and save harmless the County, its elected officials, officers, employees, agents and servants, hereinafter collectively referred to in this Section as "the County Indemnitees," from and against all claims or actions based upon or arising out of any damage or injury (including without limitation any injury or death to persons and any damage to property) caused by or sustained in connection with the performance of this Contract or by conditions created thereby or arising out of or any way connected with Work performed under this Contract, as well as all expenses incidental to the defense of any such claims, litigation, and actions. Furthermore, Contractor shall assume and pay for, without cost to the County Indemnitees, the defense of any and all claims, litigation, and actions suffered through any act or omission of the Contractor, or any Subcontractor, or anyone directly or indirectly employed by or under the supervision of any of them. Notwithstanding any language or provision in this Contract, Contractor shall not be required to indemnify any County Indemnatee against claims, actions, or expenses based upon or arising out of the County Indemnatee's sole negligence. As between the County Indemnitees and the Contractor as the other party, the Contractor shall assume responsibility and liability for any damage, loss, or injury, including death, of any kind or nature whatever to person or property, resulting from any kind of claim made by Contractor's employees, agents, vendors, Suppliers or Subcontractors caused by or



resulting from the performance of Work under this Contract, or caused by or resulting from any error, omission, or the negligent or intentional act of the Contractor, vendors, Suppliers, or Subcontractors, or any of their officers, agents, servants, or employees. The Contractor shall defend, indemnify, and hold harmless the County Indemnitees from and against any and all claims, loss, damage, charge, or expense to which they or any of them may be put or subjected by reason of any such damage, loss, or injury. The Contractor expressly agrees to provide a full and complete defense against any claims brought or actions filed against the County Indemnitees, where such claim or action involves, in whole or in part, the subject of the indemnity contained in this Contract, whether such claims or actions are rightfully or wrongfully brought or filed. The County has the sole discretion to choose the counsel who will provide the defense. No provision of this Contract and nothing herein shall be construed as creating any individual or personal liability on the part of any elected official, officer, employee, agent or servant of the County, nor shall the Contract be construed as giving any rights or benefits hereunder to anyone other than the parties to this Contract. The parties' obligations pursuant to this Section shall survive any acceptance of Work, or termination or expiration of this Contract.

**W. INSURANCE REQUIREMENTS**

A. The Contractor shall, without expense to the County, provide certificates of insurance, and copies of signed insurance policies including declarations pages from companies that are authorized to engage in the insurance business in the state of Georgia and are otherwise acceptable to the County Finance Director or his/her designee, attached hereto as Attachment F, providing insurance coverage as follows:

(1) *Workers Compensation Insurance.* Statutory workers compensation insurance is to be provided in compliance with the requirements of Georgia law with limits not less than the following:

Employer's liability insurance by accident, each accident	\$1,000,000
Employer's liability insurance by disease, policy limit	\$1,000,000
Employer's liability insurance by disease, each employee	\$1,000,000

(2) *Commercial General Liability Insurance.* Commercial general liability insurance is to be provided with limits not less than the following:

- \$1,000,000 per occurrence for bodily injury and property damage liability
- \$1,000,000 personal and advertising injury liability
- \$2,000,000 general aggregate
- \$2,000,000 products-completed operations aggregate
- \$ 100,000 damage to rented premises (each occurrence)
- \$ 5,000 medical expense (any one person)

(3) *Umbrella or Excess Insurance.* Umbrella or excess insurance is to be provided with General Liability, Auto Liability and Employers Liability scheduled as underlying policies with limits not less than the following:

\$5,000,000 per occurrence



\$5,000,000 aggregate

- (4) *Comprehensive Automobile Liability Insurance.* Comprehensive automobile liability insurance with form coverage is to be provided for all owned, non-owned and hired vehicles with combined single limit of \$1,000,000. Automobile liability insurance shall be written on ISO Business Auto Coverage Form CA 0001 (1990 edition or later), or a substitute form providing equivalent coverage, and shall cover liability for bodily injury and property damage arising from the use or operation of any automobile, including those owned, hired or otherwise operated or used by or on behalf of Contractor. The policy must include Broadened Pollution Liability Endorsement CA9948 12 93.
- B. The County, its elected officials, officers, employees and agents, hereinafter referred to in this article and in the article entitled "Certificates of Insurance" as "the County and its officers" are to be named as additional insured on all policies of insurance except worker's compensation insurance with no cross suits exclusion. The County and its officers shall be included as additional insureds under commercial general liability and commercial umbrella insurance, for liabilities arising out of both the ongoing and completed operations of Contractor. Such additional insured coverage shall be endorsed to Contractor's policy by attachment of ISO Additional Insured Endorsement forms CG 20 10 10 01 (ongoing operations) and CG 20 37 10 01 (products-completed operations), or form(s) providing equivalent coverage.
- C. All coverages required of the Contractor will be primary over any insurance or self-insurance
- D. If the Contractor is a joint venture involving two (2) or more entities, then each independent entity will satisfy the limits and coverages specified here or the joint venture will be a named insured under each respective policy specified.
- E. In addition to procuring and maintaining commercial general liability insurance, automobile liability and commercial umbrella insurance, for the Contract Term, Contractor shall continue to procure and maintain the products-completed operations liability insurance coverage and commercial umbrella insurance after the Work is substantially complete for the entire Contract Term or for the applicable five-year statutory limitation, whichever is greater. For such period of time, all terms and conditions of such coverage shall remain unchanged, including the limits specified herein and the requirement to provide the County with coverage as an additional insured.
- F. Contractor agrees to waive all rights of subrogation and other rights of recovery against the County and its officers and shall cause each Subcontractor to waive all rights of subrogation for all coverage.
- G. Failure of the County to demand such certificate or other evidence of full compliance with these insurance requirements or failure of the County to identify a deficiency from evidence provided will not be construed as a waiver of the Contractor's obligation to maintain such coverage.



- H. Contractor understands and agrees that the purchase of insurance in no way limits the liability of the Contractor.

### **CERTIFICATES OF INSURANCE**

- B. Certificates shall state that the policy or policies shall not expire, be cancelled or altered without at least sixty (60) days prior written notice to the County. Policies and Certificates of Insurance listing the County and its officers as additional insured (except for workers' compensation insurance) shall conform to all terms and conditions (including coverage of the indemnification and hold harmless agreement) contained in this Contract.
- C. The Contractor agrees to name the County and its officers as additional insured on the commercial general liability insurance, using the ISO Additional Insured Endorsement forms CG20101001 (ongoing operations) and CG20371001 (products-completed operations) forms, or form(s) providing equivalent coverage.
- D. Certificates of Insurance must contain the policy number, policy limits, and policy expiration date of all policies issued in accordance with this Contract; the location and operations to which the insurance applies. Certificates must be provided annually for the duration of the project. If applicable, a specific statement must be included that blasting coverage is included to the extent such risk is present; that Contractor's protective coverage applies to any Subcontractor's operations; and Contractor's contractual liability insurance coverage applies to any Subcontractor.
- E. This insurance for the County as the additional insured shall be as broad as the coverage provided for the named-insured Contractor. It shall apply as primary insurance before any other insurance or self-insurance, including any deductible, non-contributory, and waiver of subrogation provided to the County as the additional insured.
- F. The Contractor shall be wholly responsible for securing certificates of insurance coverage as set forth above from all Subcontractors who are engaged in the Work.
- G. If the County shall so request, the Contractor will furnish the County for its inspection and approval such policies of insurance with all endorsements, or confirmed specimens thereof certified by the insurance company to be true and correct copies.
- H. Contractor shall be responsible and have the financial wherewithal to cover any deductibles or retentions included on the certificate of insurance.
- I. Such certificates should be sent to the County and must identify the "Certificate Holder" as follows:

DeKalb County, Georgia  
Director of Purchasing & Contracting  
The Maloof Center, 2<sup>nd</sup> Floor  
1300 Commerce Drive



Decatur, Georgia 30030

A. Copies of Required Insurance policies with Declarations Page(s) shall be attached hereto as Attachment I.

**X. GEORGIA LAWS GOVERN:**

The laws of the State of Georgia shall govern the construction of this Contract without regard for conflicts of laws. Should any provision of this Contract require judicial interpretation, it is agreed that the court interpreting or construing the same shall not apply a presumption that the terms hereof shall be more strictly construed against one party, by reason of the rule of construction, that a document is to be construed more strictly against the party who itself or through its agent prepared same; it being agreed that the agents of all parties have participated in the preparation hereof, and all parties have had an adequate opportunity to consult with legal counsel. In interpreting this Contract in its entirety, the printed provisions of this Contract, and any additions written or typed hereon, shall be given equal weight, and there shall be no inference by operation of law or otherwise; that any provision of this Contract shall be construed against either party hereto.

**Y. VENUE:**

This Agreement shall be deemed to have been made and performed in DeKalb County, Georgia. For the purposes of venue, all suits or causes of action arising out of this Agreement shall be brought in the courts of DeKalb County, Georgia.

**Z. COUNTY REPRESENTATIVE:**

The County may designate a representative through whom the Contractor will contact the County. In the event of such designation, said representative shall be consulted and his written recommendation obtained before any request for extra work is presented to the County. Payments to the Contractor shall be made only upon itemized bill submitted to and approved by said representative.

**AA. CONTRACTOR'S STATUS:**

The Contractor will supervise and direct the Work, including the Work of all Subcontractors. Only persons skilled in the type of work which they are to perform shall be employed. The Contractor shall, at all times, maintain discipline and good order among his employees, and shall not employ any unfit person or persons or anyone unskilled in the work assigned him. The relationship between the County and the Contractor shall be that of owner and independent contractor. Other than the consideration set forth herein, the Contractor, its officers, agents, servants, employees, and any Subcontractors shall not be entitled to any County employee benefits including, but not limited to social security, insurance, paid annual leave, sick leave, worker's compensation, free parking or retirement benefits. All services provided by Contractor shall be by employees of Contractor or its Subcontractors and subject to supervision by Contractor. No officer or employee of Contractor or any Subcontractor shall be deemed an officer or employee of the County. Personnel policies, tax responsibilities, social security payments, health insurance, employee benefits and other administrative policies, procedures or requirements applicable to the Work or services rendered under this Contract shall be those of the Contractor, not the County.



**BB. SOLE AGREEMENT:**

This Contract constitutes the sole contract between the County and the Contractor. The terms, conditions, and requirements of this Contract may not be modified. No verbal agreement or conversation with any officer, agent, or employee of the County, either before or after the award of the Contract, shall affect or modify any of the terms or obligations herein contained. No representations, oral or written, shall be binding on the parties unless expressly incorporated herein.

**CC. SEVERABILITY:**

If any provision of this Contract or the application thereof to any person or circumstance shall to any extent be held invalid, then the remainder of this Contract or the application of such provision to persons or circumstances, other than those as to which it is held invalid, shall not be affected thereby, and each provision of this Contract shall be valid and enforced to the fullest extent permitted by law.

**DD. NOTICES:**

Any notice or consent required to be given by or on behalf of any party hereto to any other party hereto shall be in writing and shall be sent to the Director of the Department of Purchasing and Contracting or to the Contractor or his authorized representative on the work site by (a) registered or certified United States mail, return receipt requested, postage prepaid, (b) personal delivery, or (c) overnight courier service. All notices sent to the addresses listed below shall be binding unless said address is changed in writing no less than fourteen days before such notice is sent. Future changes in address shall be effective upon written notice being given by the Contractor to the Director of the Department of Purchasing and Contracting or by the County to the Contractor's authorized representative via certified first class U.S. mail, return receipt requested. Such notices will be addressed as follows:

**If to the County:**

Chief Procurement Officer  
 Department of Purchasing and Contracting  
 Maloof Administration Building  
 1300 Commerce Drive, 2<sup>nd</sup> Floor  
 Decatur, Georgia 30030

**If to the Contractor:** Notices shall be sent to the contact information that is listed in the Bidder's Response to the ITB.

**EE. GEORGIA OPEN RECORDS ACT:**

Without regard to any designation made by the person or entity making a submission, DeKalb County considers all information submitted in response to this invitation or request to be a public record that will be disclosed upon request pursuant to the Georgia Open Records Act, O.C.G.A. §50-18-70 et seq., without consulting or contacting the Responder person or entity making the submission, unless a court order is presented with the submission. Bidders or Responders may wish to consult an attorney or obtain legal advice prior to making a submission.



## **MINIMUM SPECIFICATIONS**

### **GENERAL REQUIREMENTS:**

This project will be for the removal and installation of two (2) tennis courts located at Redan Park (example of the tennis courts can be reviewed on page 22, Exhibit 1: Redan Park Tennis Courts). Qualified contractors will be required to meet or exceed all of the specifications listed within this solicitation. The successful bidder shall furnish all labor, material and equipment necessary to perform all related services. Any work not stated within this solicitation shall be considered outside of the specifications and will need written consent by the County and an approved Change Order. All safety requirements shall be meet the OSHA, EM 385-1-1 Safety Standards, American Sports Builders Associations and United States Tennis Association Standards. The following instructions apply to the project and all work related within the solicitation.

### **Work Area Instructions and Guidelines:**

1. The courts shall be unoccupied during the course of working hours of 8:00 a.m. Until 6:00 p.m. Monday through Friday.
2. Access to the site shall be DeKalb County's normal business hours or stated by the designated project manager from the County.
3. Contractors shall review all sections of the solicitation to ensure all requirements are met.
4. Contractors shall verify existing conditions as applicable to their bid package. All information listed within this solicitation is an estimate in nature.
5. Contractors shall have an Activity Hazard Analysis (AHA) posted on-site detailing all work hazards and dangers. Each AHA shall designate the competent person for that feature of work. The AHA shall be reviewed and understood by all personnel working on the site.
6. Contractors shall take all means to avoid damage to County property and/or to public property performing any on-site work activities.
7. Contractors shall be responsible for the coordination of all deliveries to the work site.
8. Contractors shall obtain approval in advance for all lay down and on-site storage areas.
9. Contractors shall be responsible for securing the secure work site area, along with securing all materials related directly or indirectly left on-site.
10. Contractor shall clean work site to satisfaction of County Inspectors and use silt fencing as needed to control run off during construction.
11. Contractor shall remove any and all debris and seed along with pine straw the site as needed after the work has been completed.
12. Contractor shall be responsible to notify the local utility companies to identify underground utilities.
13. Contractor shall be responsible for damage to access route(s) or buried utilities (if any).
14. Contractor shall return the site to the original condition after the work is completed.
15. Contractor shall also use Tree Protection fencing on the job site.
16. Repair any damage to curb at Contractors expense.

### **Submittals:**

1. Type of Seating and related material and/or equipment.



**Project Schedule:**

1. All work shall be completed during normal working hours of 8:00 a.m. Until 6:00 p.m. Monday through Friday.
2. Contractors shall coordinate schedules for on-site activities with the DeKalb County designated project manager.

**STATEMENT OF WORK:**

The following statement of work consists of the demolition, installation, fencing, paving and grading of two (2) tennis courts at Redan Park. All labor, materials and equipment to perform all services shall be provided by the successful bidder.

**Tennis Courts Construction:**

Furnish all labor, materials and equipment to perform the following demolition and installation services:

<p><b>Redan Park Tennis Courts Description:</b>  <b>All safety requirements shall be meet the OSHA, EM 385-1-1 Safety Standards, American Sports Builders Associations and United States Tennis Association Standards.</b></p>
<p><b>Demolition:</b>  Demolish existing asphalt of two (2) tennis courts this shall include the following:</p> <ul style="list-style-type: none"> <li>• Removal of all existing asphalt</li> <li>• Fence post and footing embedded in the perimeter concrete head curb</li> <li>• Concrete head curb and fence post footings</li> <li>• Tennis courts net post and footing to be complete demolished</li> <li>• Proper disposal of demolished materials</li> <li>• Chain link fence &amp; existing fence post at top of the head curb shall be store on-site for pickup by the County.</li> </ul>
<p><b>Grading:</b></p> <ul style="list-style-type: none"> <li>• Remove all fencing, nets and net posts for pickup by DeKalb County.</li> <li>• Remove and recycle all asphalt.</li> <li>• Compact and re-grade existing stone base to achieve 95 % compaction and vertical fall of no more than 1 feet of every 10 feet.</li> </ul> <p><b>Erosion Control:</b></p> <ul style="list-style-type: none"> <li>• Install silt fencing around perimeter of job site to control sediment run off. Also, install safety construction fencing around job site to keep out interference.</li> </ul>
<p><b>Paving/Installation of Courts (All concrete shall be 3000psi):</b></p> <ul style="list-style-type: none"> <li>• Haul and lay equal to 4 inches of graded aggravated base (GAB) stone to sub-base.</li> <li>• A mechanical self-propelled paving machine, along with a laser guided motor grader to ensure an accurate surface.</li> <li>• Haul and lay 1-1/2 feet binder asphalt using 8.5 ton roller</li> <li>• Haul and lay 1 feet of type G or H asphalt using 2.5 ton roller.</li> <li>• Approx. 1,440 square yards (Double Court Pads-120 x 108 feet).</li> </ul>
<p><b>Surface System:</b></p> <ul style="list-style-type: none"> <li>• Flood court with water to test birdbaths (any area holding water greater than 1.95mm for two (2) hours shall be leveled with binder/re-surfacer and mixed with sand, acrylic patch binder.</li> </ul>



the entire court.

- Apply multiple coats ranging from two (2) to three (3) of fortified Plexipave acrylic color coat or approved equal to the surface.
- Paint tennis court lines with Plexipave textured line paint or approved equal.
- Tennis court lines as per the tennis rules and regulations are to be White.
- Install 2-7/8 inches net poles anchored in 24 inches diameters by 36 inches deep concrete footings, topped with asphalt.
- Install four (4) tapered double braided (top six rows) tennis nets with nylon center straps and ground anchors.
- Finish grade seed and straw disturbed area.
- US Open Blue/Light Green colors shall be apply by Plexipave, Deco Acrylic Playing Surface or approved equal.

**Fencing:**

Install the following fencing:

- 3 inches diameter color coated terminals and gateposts.
- 2-1/2 inches diameter color coated line posts.
- New 8 gauge 1-3/4 inches vinyl coated wire fabric.
- Color coated 1-5/8 inches top rail with 7 gauge ground tension wire.
- Two (2) 4 x 7 feet gates.
- 456 x 10 feet high vinyl coated chain link fence.

**Warranty:**

- Contractor warrants that its services under this Agreement shall be free of defects in materials and workmanship for a period of two (2) years. The Contractor shall not be liable for indirect, special, or exemplary damages. The Contractor shall be liable for direct damages.

**Additional Options:**

- Belson Outdoors - Recycled Plastic Malibu Bench - Portable Mount - Black Legs & Cedar Seating or approved equal. Product: Model P-660 - 6'L x 26.5"W x 33.25"H (see Exhibit 2).
- New top soil from new court shall be spread over old court foundation.
- Deliver and install two (2) Putterman Athletics - Sliding Scoreboard - PROSBPS07 or approved equal. This special scoreboard is fashioned from King ColorCore UV-treated polyethylene to be among the most durable tennis scoreboards in existence. The scoreboard attaches to the net post, rise up roughly 2' from the net post and features fully-enclosed scoring markers that can be used to score nearly any situation, including: Standard set scoring, Pro sets and 0 point tie break situations. (see Exhibit 3).
- Deliver and install two (2) Tidy-Courts comprised of two parts. The drink tray and the basket. Color is black (see attached pictures). Product: Putterman Athletics - Drink Tray - TIDITRAY-BLK; Basket - TIDIBASK-BLK. Basket and tray is made of high quality UV stabilized poly. Dimension: 19" Long x 11" Wide x 15" Height. (see Exhibit 4).
- Deliver and install 456 x9 feet tall windscreen around perimeter of court.
- Approx. 100 feet long by 4 feet wide new sidewalk to connect parking lot with tennis court.



**Exhibit 1: Redan Park Tennis Courts**





Redan Park  
Tennis Court Project

**Staging / Storage Locations\***



\* Please note that the contractor is responsible for securing their supplies. County will not be responsible. Contractor must return the disturbed areas to the original condition. Seed & straw applied where needed.



**Exhibit 2: Park Benches**



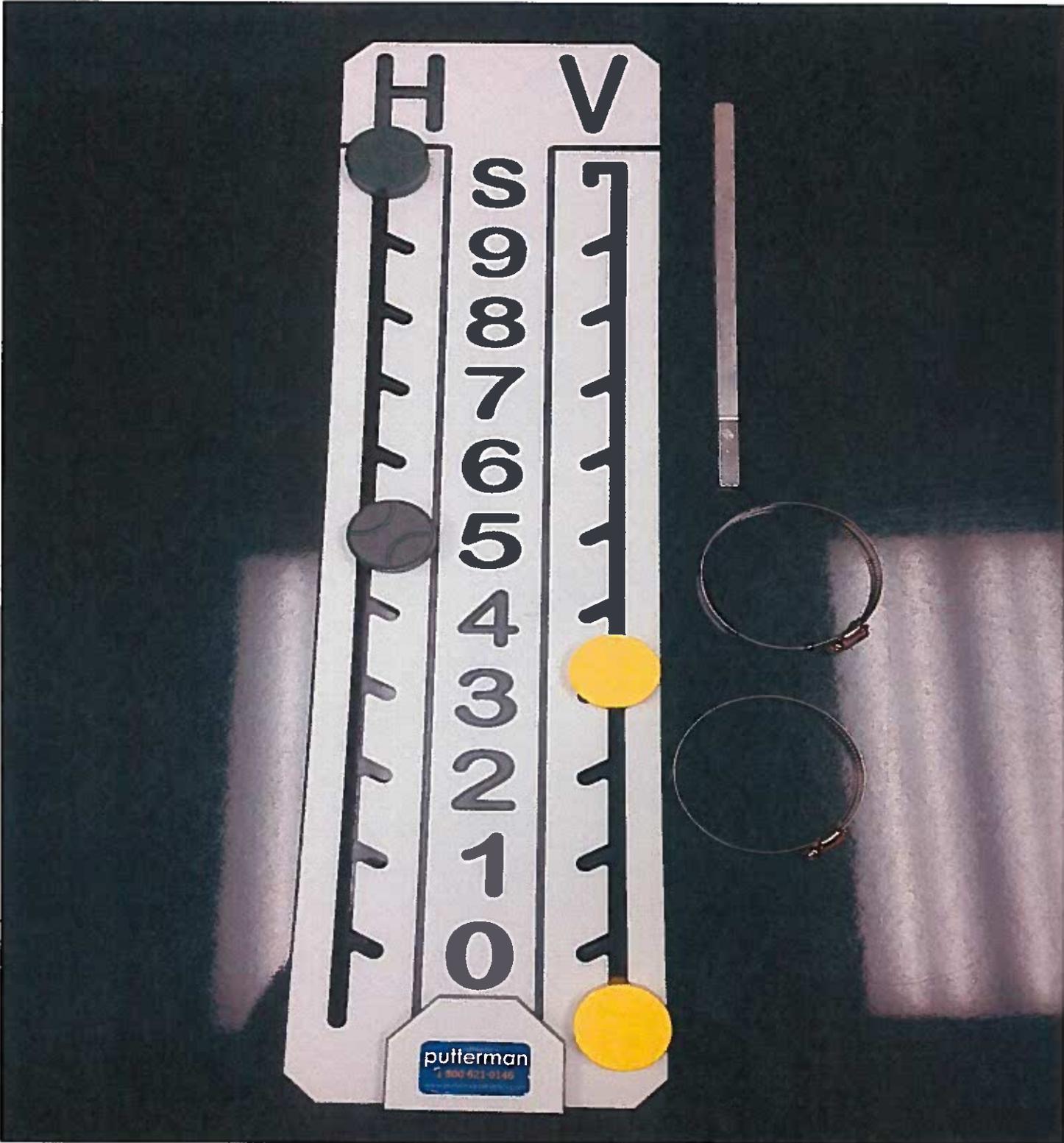


**Exhibit 3: Tidy-Courts Basket and Tray**





Exhibit 4: Scoreboard





**BID SCHEDULE**

ITEM NO.	ITEM DESCRIPTION	PRICE
1.	<p><b>Demolition:</b> Demolish existing asphalt of two (2) tennis courts this shall include the following:</p> <ul style="list-style-type: none"> <li>• Removal of all existing asphalt</li> <li>• Fence post and footing embedded in the perimeter concrete head curb</li> <li>• Concrete head curb and fence post footings</li> <li>• Tennis courts net post and footing to be complete demolished</li> <li>• Proper disposal of demolished materials</li> <li>• Chain link fence &amp; existing fence post at top of the head curb shall be store on-site for pickup by the County.</li> </ul>	<p>\$ _____</p>
2.	<p><b>Grading:</b></p> <ul style="list-style-type: none"> <li>• Remove all fencing, nets and net posts for pickup by DeKalb County.</li> <li>• Remove and recycle all asphalt.</li> <li>• Compact and re-grade existing stone base to achieve 95 % compaction and vertical fall of no more than 1 feet of every 10 feet.</li> </ul> <p><b>Erosion Control:</b></p> <ul style="list-style-type: none"> <li>• Install silt fencing around perimeter of job site to control sediment run off. Also, install safety construction fencing around job site to keep out interference.</li> </ul>	<p>\$ _____</p>
3.	<p><b>Paving/Installation of Courts (All concrete shall be 3000psi):</b></p> <ul style="list-style-type: none"> <li>• Haul and lay equal to 4 inches of graded aggravated base (GAB) stone to sub-base.</li> <li>• A mechanical self-propelled paving machine, along with a laser guided motor grader to ensure an accurate surface.</li> <li>• Haul and lay 1-1/2 feet binder asphalt using 8.5 ton roller</li> <li>• Haul and lay 1 feet of type G or H asphalt using 2.5 ton roller.</li> </ul> <p>Approx. 1,440 square yards (Double Court Pads- 120 x 108 feet).</p>	<p>\$ _____</p>



<p>4.</p>	<p><b>Surface System:</b></p> <ul style="list-style-type: none"> <li>• Flood court with water to test birdbaths (any area holding water greater than 1.95mm for two (2) hours shall be leveled with binder/re-surfacer and mixed with sand, acrylic patch binder.</li> <li>• Apply Two (2) applications of Plexipave acrylic resurfacer or approved equal over the entire court.</li> <li>• Apply multiple coats ranging from two (2) to three (3) of fortified Plexipave acrylic color coat or approved equal to the surface.</li> <li>• Paint tennis court lines with Plexipave textured line paint or approved equal.</li> <li>• Tennis court lines as per the tennis rules and regulations are to be White.</li> <li>• Install 2-7/8 inches net poles anchored in 24 inches diameters by 36 inches deep concrete footings, topped with asphalt.</li> <li>• Install four (4) tapered double braided (top six rows) tennis nets with nylon center straps and ground anchors.</li> <li>• Finish grade seed and straw disturbed area.</li> <li>• US Open Blue/Light Green colors shall be apply by Plexipave, Deco Acrylic Playing Surface or approved equal.</li> </ul>	<p>\$ _____</p>
<p>5.</p>	<p><b>Fencing:</b> Install the following fencing:</p> <ul style="list-style-type: none"> <li>• 3 inches diameter color coated terminals and gateposts.</li> <li>• 2-1/2 inches diameter color coated line posts.</li> <li>• New 8 gauge 1-3/4 inches vinyl coated wire fabric.</li> <li>• Color coated 1-5/8 inches top rail with 7 gauge ground tension wire.</li> <li>• Two (2) 4 x 7 feets gates.</li> <li>• 456 x 10 feet high vinyl coated chain link fence.</li> </ul>	<p>\$ _____</p>
<p>6.</p>	<p><b>Warranty:</b> Contractor warrants that its services under this Agreement shall be free of defects in materials and workmanship for a period of two (2) years. The Contractor shall not be liable for indirect, special, or exemplary damages. The Contractor shall be liable for direct damages.</p>	<p>\$ _____</p>
<p style="text-align: center;"><b>1-6 Total Price:</b></p>		<p>\$ _____</p>



7.	<p><b>Additional Options Cost:</b></p> <ul style="list-style-type: none"> <li>• Belson Outdoors - Recycled Plastic Malibu Bench - Portable Mount - Black Legs &amp; Cedar Seating or approved equal. Product: Model P-660 - 6'L x 26.5"W x 33.25"H (see Exhibit 2).</li> <li>• New top soil from new court shall be spread over old court foundation.</li> <li>• Deliver and install two (2) Putterman Athletics - Sliding Scoreboard - PROSBPS07 or approved equal. This special scoreboard is fashioned from King ColorCore UV-treated polyethylene to be among the most durable tennis scoreboards in existence. The scoreboard attaches to the net post, rise up roughly 2' from the net post and features fully-enclosed scoring markers that can be used to score nearly any situation, including: Standard set scoring, Pro sets and 0 point tie break situations. (see Exhibit 3).</li> <li>• Deliver and install two (2) Tidy-Courts comprised of two parts. The drink tray and the basket. Color is black (see attached pictures). Product: Putterman Athletics - Drink Tray - TIDITRAY-BLK; Basket - TIDIBASK-BLK. Basket and tray is made of high quality UV stabilized poly. Dimension: 19" Long x 11" Wide x 15" Height. (see Exhibit 4).</li> <li>• Deliver and install 456 x9 feet tall windscreen around perimeter of court.</li> <li>• Approx. 100 feet long by 4 feet wide new sidewalk to connect parking lot with tennis court.</li> </ul>	<p>\$ _____</p> <p>\$ _____</p> <p>\$ _____</p> <p>\$ _____</p> <p>\$ _____</p> <p>\$ _____</p>
<b>Grand Total Price:</b>		\$ _____

**Note to Bidder:**

**PAYMENT AND PERFORMANCE BOND:**

PAYMENT AND PERFORMANCE BONDS shall be issued by a surety company licensed to write bonds in the State of Georgia, listed in the most current U.S. Treasury Circular No. 570, and have a current A.M. Best rating of "A" (Excellent) with a Financial Size Category of XII or better. A letter from the bonding agent is required with the ITB submission verifying that the Applicant has a bonding capacity of at least two hundred seventy-five thousand (275,000) dollars.



1. Bond Surety Company (Applicant)  
Name:  
Mailing Address:  
City:  
State and Zip:  
Contact Person:  
Telephone and Fax:  
Email:
  
2. Bond Surety Company (Payment and Performance)  
Name:  
Mailing Address:  
City:  
State and Zip:  
Contact Person:  
Telephone and Fax:  
Email:

**REQUIRED DOCUMENTS DUE AT BID SUBMITTAL:**

1. Reference Forms
2. LSBE information

**DUE UPON AWARD:**

1. Business License
2. Insurance
3. Performance Bond
4. Payment Bond

**END OF SECTION**



**BID ACKNOWLEDGEMENT FORM**

I, the undersigned, acknowledge that I have read the Bid Document in its entirety and agree to conform to its every requirement. I further acknowledge that failure to prepare, submit, or execute this bid in the exact manner requested will be just cause to reject my entire bid.

\_\_\_\_\_  
Name of Business Entity Submitting Bid

\_\_\_\_\_  
Print Name and Title of Authorized Signer

\_\_\_\_\_  
Business Entity Street Address

\_\_\_\_\_  
Authorized Signature

\_\_\_\_\_  
Business Entity City, State and Zip Code

\_\_\_\_\_  
Contact Person's Phone Number

\_\_\_\_\_  
Business Entity County

\_\_\_\_\_  
Contact Person's E-mail Address

- Bidder acknowledges addendum(s): No. 1\_\_\_\_, No. 2\_\_\_\_, No. 3\_\_\_\_ (If Applicable)
- Bidder acknowledges that this bid is valid for 90 days from and including the bid opening date. \_\_\_\_\_(Initial)
- Bidder acknowledges that bid meets or exceeds minimum specifications. Any deviation from minimum specifications must be explained, in detail, by bidder as to how the bid does not meet the exact specifications. \_\_\_\_\_(Initial)
- Bidder acknowledgement of Revisions to the above Terms and Conditions:
  - No revisions \_\_\_\_\_(Initial)
  - There are revisions and they are included with the bid submittal \_\_\_\_\_(Initial)

The above acknowledgment must be properly signed and firmly attached to your bid. The acknowledgment becomes a part of your bid and without it your bid is not complete and will be subject to rejection.

**THIS PAGE MUST BE RETURNED WITH YOUR BID. FAILURE TO SUBMIT THIS COMPLETED FORM MAY RESULT IN YOUR BID BEING DEEMED NON-RESPONSIVE.**



**ATTACHMENT A**

**REQUIRED DOCUMENTS CHECKLIST**

Bidder shall complete and submit the following documents with their bid:  
 Check page numbers and correct numbers as necessary.

Bid Page No.	Title	Check This Box If Included With Bid
31	Bid Acknowledgement Form*	
32	Required Documents Checklist	
33	Contractor Reference and Release Form*	
35	Subcontractor Reference and Release Form, if applicable**	
37	Contractor Affidavit*	
38	Subcontractor Affidavit, if applicable**	
44-52	LSBE - Exhibits A and/or B of Attachment G*	

Bidder shall also submit a copy of the following required documents with the bid:

39	Performance Bond	
42	Payment Bond	

**\*If these mandatory forms are not completed and submitted with the bid, the bidder may be deemed non-responsive.**

**\*\*These forms are applicable if a subcontractor will be utilized to fulfill the requirements of this contract. If these forms are applicable, they must be completed and submitted along with the bid. Failure to submit these forms, if applicable, may result in the bidder being deemed non-responsive.**

I, the undersigned, acknowledge that I have included the requested documents as listed above.

\_\_\_\_\_  
 Printed Name

\_\_\_\_\_  
 Signature



**ATTACHMENT B**

**CONTRACTOR REFERENCE AND RELEASE FORM**

List below at least five (5) references, including company name, contact name, address, email address, telephone numbers and contract period who can verify your experience and ability to perform the type(s) of product(s)/ service(s) listed in the solicitation.

Company Name	Contract Period		
Contact Person Name and Title	Telephone Number (include area code)		
Complete Primary Address	City	State	Zip Code
Email Address	Fax Number (include area code)		
Project Name and Description			

Company Name	Contract Period		
Contact Person Name and Title	Telephone Number (include area code)		
Complete Primary Address	City	State	Zip Code
Email Address	Fax Number (include area code)		
Project Name and Description			

Company Name	Contract Period		
Contact Person Name and Title	Telephone Number (include area code)		
Complete Primary Address	City	State	Zip Code
Email Address	Fax Number (include area code)		
Project Name and Description			

Company Name	Contract Period		
Contact Person Name and Title	Telephone Number (include area code)		
Complete Primary Address	City	State	Zip Code



Email Address	Fax Number (include area code)		
Project Name and Description			
Company Name	Contract Period		
Contact Person Name and Title	Telephone Number (include area code)		
Complete Primary Address	City	State	Zip Code
Email Address	Fax Number (include area code)		
Project Name and Description			

**REFERENCE CHECK RELEASE STATEMENT**

You are authorized to contact the references provided above for purposes of this ITB.

Signed \_\_\_\_\_ Title \_\_\_\_\_  
 (Authorized Signature of Bidder)

Company Name \_\_\_\_\_ Date \_\_\_\_\_



**ATTACHMENT C**

**SUBCONTRACTOR REFERENCE AND RELEASE FORM**

List below at least three (3) references, including company name, contact name, address, email address, telephone numbers and contract period who can verify your experience and ability to perform the type(s) of product(s)/ service(s) listed in the solicitation.

Company Name		Contract Period		
Contact Person Name and Title		Telephone Number (include area code)		
Complete Primary Address		City	State	Zip Code
Email Address		Fax Number (include area code)		
Project Name and Description				
Company Name		Contract Period		
Contact Person Name and Title		Telephone Number (include area code)		
Complete Primary Address		City	State	Zip Code
Email Address		Fax Number (include area code)		
Project Name and Description				
Company Name		Contract Period		
Contact Person Name and Title		Telephone Number (include area code)		
Complete Primary Address		City	State	Zip Code
Email Address		Fax Number (include area code)		
Project Name and Description				
Company Name		Contract Period		
Contact Person Name and Title		Telephone Number (include area code)		
Complete Primary Address		City	State	Zip Code
Email Address		Fax Number (include area code)		
Project Name and Description				

**REFERENCE CHECK RELEASE STATEMENT**

You are authorized to contact the references provided above for purposes of this ITB.

Signed \_\_\_\_\_ Title \_\_\_\_\_  
 (Authorized Signature of Bidder)

Company Name \_\_\_\_\_ Date \_\_\_\_\_



**ATTACHMENT D****CONTRACTOR & SUBCONTRACTOR EVIDENCE OF COMPLIANCE:**

- (1) County contracts for the physical performance of services within the state of Georgia shall include the following provisions:
  - a. the contractor has registered with and is authorized to use the federal work authorization program to verify information on all newly hired employees or subcontractors;
  - b. by affidavit, the contractor must attest to the contractor's name, address, user identification number, date of authorization, and verification of the continual participation throughout the contract period, and
  - c. the affidavit shall become a part of the covered contract and must be attached.
- (2) No contractor or subcontractor who enters into a contract with the County shall enter into such a contract or subcontract in connection with the physical performance of services within Georgia unless the contractor or subcontractor registers and participates in the federal work authorization program to verify information of all newly hired employees. Any employee, contractor, or subcontractor of such contractor or subcontractor shall also be required to satisfy the requirements of O.C.G.A. § 13-10-91, as amended.
- (3) Upon contracting with a new subcontractor, a contractor or subcontractor shall, as a condition of any contract or subcontract entered into pursuant to O.C.G.A. § 13-10-91, as amended, agree to provide the County with notice of the identity of any and all subsequent subcontractors hired or contracted by the contractor or subcontractor. Such notice shall be provided within five (5) business days of entering into a contract or agreement for hire with any subcontractor. Such notice shall include an affidavit from each subsequent contractor attesting to the subcontractor's name, address, user identification number, and date of authorization to use the federal work authorization program.
- (4) An affidavit shall be considered an open public record; provided, however, that any information protected from public disclosure by federal law or by Article 4 of Chapter 28 of Title 50 shall be redacted. Affidavits shall be maintained by the County for five years from the date of receipt.
- (5) To verify compliance, the contractor agrees to participate in random audits conducted by the Commissioner of the Georgia Department of Labor. The results of the audits shall be published on the [www.open.georgia.gov](http://www.open.georgia.gov) website, and on the Department of Labor's website no later than December 31 of each year.
- (6) Any person who knowingly and willfully makes a false, fictitious, or fraudulent statement in an affidavit submitted pursuant to O.C.G.A. § 13-10-91 shall be guilty of a violation of Code § 16-10-20 and, upon conviction, shall be punished as provided in such section. Contractors and subcontractors convicted for false statements based on a violation of such section shall be prohibited from bidding on or entering into any public contract for twelve (12) months following such conviction.



**ATTACHMENT E**

**CONTRACTOR AFFIDAVIT**

By executing this affidavit, the undersigned verifies its compliance with O.C.G.A. § 13-10-91, as amended, stating affirmatively that the individual, firm or corporation which is contracting with DEKALB COUNTY, GA, a political subdivision of the State of Georgia, has registered with and is participating in a federal work authorization program\* [any of the electronic verification of work authorization programs operated by the United States Department of Homeland Security or any equivalent federal work authorization program operated by the United States Department of Homeland Security to verify information of newly hired employees, pursuant to the Immigration Reform and Control Act of 1986 (IRCA), P.L. 99-603, in accordance with the applicability provisions and deadlines established in O.C.G.A. § 13-10-91, as amended]. The affiant agrees to continue to use the federal work authorization program throughout the contract period.

The undersigned further agrees that, should it employ or contract with any subcontractor(s) in connection with the physical performance of services pursuant to this contract with the COUNTY, contractor will secure from such subcontractor(s) similar verification of compliance with O.C.G.A. § 13-10-91, as amended, on the Subcontractor Affidavit form. Contractor further agrees to maintain records of such compliance and provide a copy of each such verification to the COUNTY, within five (5) days from when the subcontractor(s) is retained to perform such service.

\_\_\_\_\_  
BY: Authorized Officer or Agent  
(Bidder's Name)

\_\_\_\_\_  
Federal Work Authorization  
Enrollment Date

\_\_\_\_\_  
Title of Authorized Officer or Agent of Bidder

\_\_\_\_\_  
Identification Number

\_\_\_\_\_  
Printed Name of Authorized Officer or Agent

\_\_\_\_\_  
Address (\* do not include a post office box)

SUBSCRIBED AND SWORN  
BEFORE ME ON THIS THE

\_\_\_\_\_ DAY OF \_\_\_\_\_, 20\_\_

\_\_\_\_\_  
Notary Public

My Commission Expires: \_\_\_\_\_



**ATTACHMENT F**

**SUBCONTRACTOR AFFIDAVIT**

By executing this affidavit, the undersigned verifies its compliance with O.C.G.A. § 13-10-91, as amended, stating affirmatively that the individual, firm, or corporation which is engaged in the physical performance of services under a contract with \_\_\_\_\_ name of contractor) on behalf of DEKALB COUNTY, GA, a political subdivision of the State of Georgia, has registered with and is participating in a federal work authorization program\* [any of the electronic verification of work authorization programs operated by the United States Department of Homeland Security or any equivalent federal work authorization program operated by the United States Department of Homeland Security to verify information of newly hired employees, pursuant to the Immigration Reform and Control Act of 1986 (IRCA), P.L. 99-603, in accordance with the applicability provisions and deadlines established in O.C.G.A. § 13-10-91, as amended]. The affiant agrees to continue to use the federal work authorization program throughout the contract period.]

BY: \_\_\_\_\_  
Authorized Officer or Agent  
(Bidder's Name)

\_\_\_\_\_  
Federal Work Authorization  
Enrollment Date

\_\_\_\_\_  
Title of Authorized Officer or Agent of Bidder

\_\_\_\_\_  
Identification Number

\_\_\_\_\_  
Printed Name of Authorized Officer or Agent

\_\_\_\_\_  
Address (\* do not include a post office box)

SUBSCRIBED AND SWORN  
BEFORE ME ON THIS THE

\_\_\_\_\_ DAY OF \_\_\_\_\_, 20\_\_

\_\_\_\_\_  
Notary Public  
My Commission Expires: \_\_\_\_\_



**ATTACHMENT G**  
(Consisting of 3 pages)  
**PERFORMANCE BOND**

**KNOW ALL MEN BY THESE PRESENTS** that \_\_\_\_\_ [Insert name of contractor] (hereinafter called the "Principal") and \_\_\_\_\_ [Insert name of surety] (hereinafter called the "Surety"), are held and firmly bound unto \_\_\_\_\_ County (hereinafter called the "County") and their successors and assigns, in the penal sum of \_\_\_\_\_ Dollars (\$ \_\_\_\_\_), lawful money of the United States of America, for the payment of which the Principal and the Surety bind themselves, their administrators, executors, successors, and assigns, jointly and severally, firmly by these presents.

**WHEREAS**, the Principal has entered, or is about to enter, into a certain written contract with the County, awarded by the DeKalb County Governing Authority on \_\_\_\_\_, which is incorporated herein by reference in its entirety (hereinafter called the "Contract"), for the \_\_\_\_\_ [insert Name of the Project], more particularly described in the Contract (hereinafter called the "Project"); and

**NOW, THEREFORE**, the conditions of this obligation are as follows, that if the Principal shall fully and completely perform all the undertakings, covenants, terms, conditions, warranties, and guarantees contained in the Contract, including all change orders, modifications, amendments, changes, deletions, additions, and alterations thereto that may hereafter be made, then this obligation shall be void; otherwise, it shall remain in full force and effect.

Whenever the Principal shall be, and declared by the County to be, in default under the Contract, the Surety shall promptly remedy the default as follows:

1. Complete the Contract in accordance with the terms and conditions; or
2. Obtain a Bid or Bids for completing the Contract in accordance with its terms and conditions, and upon determination by the Surety and the County of the lowest responsible bidder, arrange for a contract between such bidder and County and make available as the work progresses (even though there should be a default or succession of defaults under the Contract or contracts of completion arranged under this paragraph) sufficient funds to pay the cost of completion less the balance of the contract price; but not exceeding, including other costs and damages for which the Surety may be liable hereunder, the penal sum set forth in the first paragraph hereof, as may be adjusted, and the Surety shall make available and pay to the County the funds required by this Paragraph prior to the payment of the County of the balance of the contract price, or any portion thereof. The term "balance of the contract price," as used in this paragraph, shall mean the total amount payable by the County to the Contractor under the Contract, and any amendments thereto, less the amount paid by the County to the Contractor; or, at the option of the County; or
3. Allow County to complete the work and reimburse the County for all reasonable costs incurred in completing the work.

In addition to performing as required in the above paragraphs, the Surety shall indemnify and hold harmless the County from any and all losses, liability and damages, claims, judgments, liens, costs, and fees of every description, including reasonable attorney's fees, litigation costs and expert witness fees, which the County may incur, sustain, or suffer by reason of the failure or default on the part of the Principal in the performance of any or all of the terms, provisions, and requirements of the Contract, including any and all amendments and modifications thereto, or incurred by the County in making good any such failure to performance on the part of the Principal.

The Surety shall commence performance of its obligations and undertakings under this Bond promptly and without delay, after written notice from the County to the Surety.



The Surety hereby waives notice of any and all modifications, omissions, additions, changes, alterations, extensions of time, changes in payment terms, and any other amendments in or about the Contract, and agrees that the obligations undertaken by this bond shall not be impaired in any manner by reason of any such modifications, omissions, additions, changes, alterations, extensions of time, change in payment terms, and amendments.

The Surety hereby agrees that this Bond shall be deemed amended automatically and immediately, without formal or separate amendments hereto, upon any amendment to the Contract, so as to bind the Principal and Surety to the full and faithful performance of the Contract as so amended or modified, and so as to increase the penal sum to the adjusted Contract Price of the Contract.

The Surety's obligations under this bond include all of the Contractor's duties under the Contract, including without limitation its maintenance and guarantee obligations.

No right of action shall accrue on this bond to or for the use of any person, entity, or corporation other than the County and any other obligee named herein, or their executors, administrators, successors or assigns.

This Bond is intended to comply with O.C.G.A. §36-91-70, and shall be interpreted so as to comply with the minimum requirements thereof. However, in the event the express language of this Bond extends protection to the County beyond that contemplated by O.C.G.A. §36-91-70, or any other statutory law applicable to this Project, then the additional protection shall be enforced in favor of the County, whether or not such protection is found in the applicable statutes.

If any one or more of the provisions of this Bond are determined to be illegal or unenforceable by a court of competent jurisdiction, all other provisions shall remain effective.

IN WITNESS WHEREOF the undersigned have caused this instrument to be executed and their respective corporate seals to be affixed and attested by their duly authorized representatives this \_\_\_\_ day of \_\_\_\_\_, 20\_\_.

**PRINCIPAL**

By: \_\_\_\_\_ (SEAL)  
Signature of Principal

\_\_\_\_\_  
Print Name and Title of Authorized Signer

\_\_\_\_\_  
Print Name of Principal Business

**ATTEST:**

\_\_\_\_\_  
Corporate Secretary

**SURETY**

By: \_\_\_\_\_ (SEAL)  
Signature of Surety (by Power of Attorney)

\_\_\_\_\_  
Print Name and Title of Authorized Signer



Print Name of Surety Business

WITNESS:

---

*[Attach Original Power of Attorney]*



**ATTACHMENT H**  
(Consisting of 2 pages)  
**PAYMENT BOND**

**KNOW ALL MEN BY THESE PRESENTS** that \_\_\_\_\_ [Insert name of contractor] (hereinafter called the "Principal") and \_\_\_\_\_ [Insert name of surety] (hereinafter called the "Surety"), are held and firmly bound unto \_\_\_\_\_ County, (hereinafter called the "County"), its successors and assigns as obligee, in the penal sum of [Insert contract amount], lawful money of the United States of America, for the payment of which the Principal and the Surety bind themselves, their administrators, executors, successors, and assigns, jointly and severally, firmly by these presents.

**WHEREAS**, the Principal has entered, or is about to enter, into a certain written contract with the County, awarded by the DeKalb County Governing Authority on \_\_\_\_\_ [insert date of award] which is incorporated herein by reference in its entirety (hereinafter called the "Contract"), for the construction of a project known as [insert name of project], as more particularly described in the Contract (hereinafter called the "Project");

**NOW, THEREFORE**, the condition of this obligation is such that if the Principal shall promptly make payment to all persons working on or supplying labor or materials under the Contract, and any amendments thereto, with regard to labor or materials furnished and used in the Project, and with regard to labor or materials furnished but not so used, then this obligation shall be void; but otherwise it shall remain in full force and effect.

1. A "Claimant" shall be defined herein as any Subcontractor, person, party, partnership, corporation or other entity furnishing labor, services, or materials used, or reasonably required for use, in the performance of the Contract, without regard to whether such labor, services, or materials were sold, leased, or rented, and without regard to whether such Claimant is or is not in privity of contract with the Principal or any Subcontractor performing work on the Project, including, but not limited to, the following labor, services, or materials: water, gas, power, light, heat, oil, gasoline, telephone service, or rental of equipment directly applicable to the Contract.
2. In the event a Claimant files a claim against the County, or the property of the County, and the Principal fails or refuses to satisfy or discharge it promptly, the Surety shall satisfy or discharge the claim promptly upon written notice from the County, either by bond or as otherwise provided in the Contract.
3. The Surety hereby waives notice of any and all modifications, omissions, additions, changes, alterations, extensions of time, changes in payment terms, and any other amendments in or about the Contract and agrees that the obligations undertaken by this bond shall not be impaired in any manner by reason of any such modifications, omissions, additions, changes, alternations, extensions of time, changes in payment terms, and amendments.
4. The Surety hereby agrees that this Bond shall be deemed amended automatically and immediately, without formal or separate amendments hereto, upon any amendment or modification to the Contract, so as to bind the Principal and Surety, jointly and severally, to the full payment of any Claimant under the Contract, as amended or modified, provided only that the Surety shall not be liable for more than the penal sum of the Bond, as specified in the first paragraph hereof.
5. This Bond is made for the use and benefit of all persons, firms, and corporations who or which may furnish any materials or perform any labor for or on account of the construction to be performed or supplied under the Contract, and any amendments thereto, and they and each of them may sue hereon.
6. No action may be maintained on this Bond after one (1) year from the date the last services, labor, or materials were provided under the Contract by the Claimant prosecuting said action.
7. This Bond is intended to comply with O.C.G.A. §36-91-90, and shall be interpreted so as to comply with the minimum requirements thereof. However, in the event the express language of this Bond extends protection to the County beyond that contemplated by O.C.G.A. §36-91-90, or any other statutory law



applicable to this Project, then the additional protection shall be enforced in favor of the County, whether or not such protection is found in the applicable statutes.

IN WITNESS WHEREOF, the Principal and Surety have hereunto affixed their corporate seals and caused this obligation to be signed by their duly authorized representatives this \_\_\_\_ day of \_\_\_\_\_, 20\_\_.

**PRINCIPAL**

By: \_\_\_\_\_ (SEAL)  
Signature of Principal

\_\_\_\_\_  
Print Name and Title of Authorized Signer

\_\_\_\_\_  
Print Name of Principal Business

**ATTEST:**

\_\_\_\_\_  
Corporate Secretary

**SURETY**

By: \_\_\_\_\_ (SEAL)  
Signature of Surety (by Power of Attorney)

\_\_\_\_\_  
Print Name and Title of Authorized Signer

\_\_\_\_\_  
Print Name of Surety Business

**WITNESS:**

\_\_\_\_\_  
*[Attach Original Power of Attorney]*



**ATTACHMENT I**

**LSBE INFORMATION  
WITH EXHIBITS A – B**

**SCHEDULE OF LOCAL SMALL BUSINESS ENTERPRISE PARTICIPATION  
MINORITY BUSINESS ENTERPRISE AND WOMEN BUSINESS ENTERPRISE OPPORTUNITY  
TRACKING FORM**

The Chief Executive Officer and the Board of Commissioners of DeKalb County believe that it is important to encourage the participation of small and local businesses in the continuing business of County government; and that the participation of these types of businesses in procurement will strengthen the overall economic fabric of DeKalb County, contribute to the County’s economy and tax base, and provide employment to local residents. Therefore, the Chief Executive Officer and the Board of Commissioners have made the success of local small businesses a permanent goal of DeKalb County by implementing the Local Small Business Enterprise Ordinance.

**PROVISIONS OF LOCAL SMALL BUSINESS ENTERPRISE (LSBE) ORDINANCE**

Amount of LSBE Participation Required
20% of Total Award

	Request For Proposals (RFP)	Invitations To Bid (ITB)
LSBE Within DeKalb (LSBE-DeKalb)	Ten (10) Percentage Points	Ten (10) Percent Preference
LSBE Outside DeKalb (LSBE-MSA)	Five (5) Percentage Points	Five (5) Percent Preference

Certified Local Small Business Enterprises (LSBEs) located within DeKalb County and prime contractors utilizing LSBEs that are locally-based inside DeKalb County shall receive ten (10) percentage points in the initial evaluation of their response to any Request for Proposal and a ten (10) percent preference on all responses to any Invitation to Bid. Certified LSBEs located outside of DeKalb County but within the ten (10) County Metropolitan Statistical Area (MSA) consisting of Cherokee, Clayton, Cobb, DeKalb, Douglas, Fayette, Fulton, Gwinnett, Henry and Rockdale Counties shall receive five (5) percentage points in the initial evaluation of their response to any Request for Proposal and a five (5) percent preference on all responses to any Invitation to Bid.

For all qualified sealed solicitations, the Director of Purchasing and Contracting, DeKalb County Government, shall determine if the bidder/proposer has included written documentation showing that at least twenty percent (20%) of the total contract award will be performed by a certified LSBE. This written documentation shall be in the form of a notarized Schedule of LSBE Participation (Attached hereto as “Exhibit A”.) For all contracts, a signed letter of intent from all certified LSBEs describing the work, material, equipment and/or services to be performed or provided by the LSBE(s) and the agreed upon dollar value shall be due with the bid or proposal documents and included with “Exhibit A”. The certified vendor list establishes the group of Certified LSBE’s from which the bidder/proposer must solicit subcontractors for LSBE participation.



Contractors failing to meet the LSBE benchmark must document and demonstrate Good Faith Efforts in accordance with the attached "Checklist for Good Faith Efforts" portion of "Exhibit A." The notarized Schedule of LSBE Participation shall be due and submitted with each bid or proposal. Failure to achieve the LSBE benchmark or demonstrate good faith efforts shall result in a bid or proposal being rejected.

Upon award, Prime Contractors are required to submit a report detailing LSBE/Sub-Contractor usage with each request for payment and not less than on a monthly basis. Prime Contractors are also required to certify that all sub-contractors have been paid within seven (7) days of the Prime's receipt of payment from the County. Failure to provide requested reports/documentation may constitute a material breach of contract, entitling the County to terminate the Contract for default or pursue other remedies. LSBE sub-contractors must submit a detailed report of their sub-contracting activity for each County contract they participate in. Sample Report Forms are attached as "Exhibit C".

For eligible bids over \$5,000,000.00, The Director of Purchasing and Contracting or designee will determine if the Mentor-Protégé provision of the Ordinance will apply.

It is the objective of the Chief Executive Officer and Board of Commissioners of DeKalb County to provide maximum practicable opportunity for all businesses to participate in the performance of government contracts. To achieve this purpose, the County would like to track and record information about participating vendors. The attached "Exhibit A," also records who performs work and renders services to the County. Contractors are requested to indicate whether they are a LSBE-DeKalb or MSA and list the level of participation by subcontractors designated as such on each solicitation.



**EXHIBIT A**

**SCHEDULE OF LOCAL SMALL BUSINESS ENTERPRISE PARTICIPATION  
OPPORTUNITY TRACKING FORM**

As specified, Bidders and Proposers are to present the details of LSBE participation below:

PRIME BIDDER/PROPOSER \_\_\_\_\_

SOLICITATION NUMBER: 16-100780

TITLE OF UNIT OF WORK – **REDAN PARK TWO (2) TENNIS COURTS**

1. My firm, as the prime bidder/proposer on this unit of work, is a certified (check all that apply):  
 LSBE-DeKalb     LSBE-MSA
  
2. If you are a Certified LSBE-DeKalb or MSA, please indicate below the portion of work (including the percentage of the amount bid/proposal) that your firm will carry out directly:  
 \_\_\_\_\_
  
3. If the prime bidder/proposer is a joint venture, please describe below the nature of the joint venture and level of work and financial participation to be provided by the LSBE-DeKalb or MSA joint venture firm.  
 \_\_\_\_\_  
 \_\_\_\_\_
  
4. List the LSBE-DeKalb or MSA subcontractors and/or firms (including suppliers) to be utilized in of this contract, if awarded. No changes can be made in the subcontractors listed below without the prior written approval of the County. Please attach a signed letter of intent from all certified LSBEs describing the work, materials, equipment or services to be performed and/or provided and the agreed upon dollar value. A Letter of Intent form is attached hereto as "Exhibit B".

Name of Company	
Address	
Telephone	
Fax	
Contact Person	
Indicate all that apply and attach proof of certification: LSBE-DeKalb/LSBE-MSA	
Description of services to be performed	
Percentage of work or estimated contract award amount to be performed	



**EXHIBIT A, CONT'D**

Name of Company	
Address	
Telephone	
Fax	
Contact Person	
Indicate all that apply and attach proof of certification: LSBE-DeKalb/LSBE-MSA	
Description of services to be performed	
Percentage of work or estimated contract award amount to be performed	
Name of Company	
Address	
Telephone	
Fax	
Contact Person	
Indicate all that apply and attach proof of certification: LSBE-DeKalb/LSBE-MSA	
Description of services to be performed	
Percentage of work or estimated contract award amount to be performed	
Name of Company	
Address	
Telephone	
Fax	
Contact Person	
Indicate all that apply and attach proof of certification: LSBE-DeKalb/LSBE-MSA	
Description of services to be performed	
Percentage of work or estimated contract award amount to be performed	

Please attach additional pages, if necessary.

**EXHIBIT A, CONT'D**



**EXHIBIT A, CONT'D****DEKALB COUNTY LOCAL SMALL BUSINESS ENTERPRISE SCHEDULE OF PARTICIPATION  
OPPORTUNITY TRACKING FORM****Bidder/Proposer Statement of Compliance**

Bidder(s)/Proposer(s) hereby state that they have read and understand the requirements and conditions as set forth in the objectives and that reasonable effort were made to support the County in providing the maximum practicable opportunity for the utilization of LSBEs consistent with the efficient and economical performance of this contract. The Bidder and any subcontractors shall file compliance reports at reasonable times and intervals with the County in the form and to the extent prescribed by the Director of DeKalb County Purchasing and Contracting Department. Compliance reports filed at such times as directed shall contain information as to the employment practices, policies, programs and statistics of Contractors and their subcontractors.

**1. Non-Discrimination Policy**

- a. During the performance of this agreement, Contractor agrees to conform to the following Non-Discrimination Policy adopted by the County.
- b. Contractor shall not discriminate against any employee or applicant for employment because of race, color, religion, sex, national origin, or disability. The Contractor will take action to ensure that applicants are employed, and the employees are treated during employment without regard to their race, color, religion, sex, national origin, or disability. Such action shall include, but not be limited to, the following:
  - (1) Employment, upgrading, demotion or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. Contractor agrees to post in conspicuous places available to employees and applicants for employment, notices to be provided setting forth provisions of this non-discrimination clause.
  - (2) Contractor shall, in all solicitations or advertisements for employees placed by or on behalf of Contractor, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, national origin, or disability.
- c. Without limiting the foregoing, Contractor shall not discriminate on the basis of disability in the admission or access to, or treatment or employment in, the programs and activities, which form the subject of the contract. The Contractor will take action to ensure that applicants for participation in such programs and activities are considered without regard to disability. Such action shall include, but not be limited to, the following:
  - (1) Contractor agrees to post in conspicuous places available to participants in its programs and activities notices to be provided setting forth the provisions of this non-discrimination clause.
  - (2) Contractor shall, in all solicitations or advertisements for programs or activities, which are the subject of the contract, state that all qualified applicants will receive consideration for participation without regard to disability.

**2. Commitment**

The undersigned certifies that he/she has read, understands, and agrees to be bound by the bid specifications, including the accompanying Exhibits and other terms and conditions of the Invitation to



Bid and/or Request for Proposal regarding LSBE utilization. The undersigned further certifies that he/she is legally authorized by the bidder or responder to make the statements and representations in

**EXHIBIT A, CONT'D**

Exhibit A and that said statements and representations are true and correct to the best of his/her knowledge and belief. The undersigned will enter into formal agreement(s) with the LSBE(s) listed in this Exhibit A, which are deemed by the owner to be legitimate and responsible LSBEs. Said agreement(s) shall be for the work and contract with the County. The undersigned understands and agrees that if any of the statements and representations are made by the Bidder knowing them to be false, or if there is a failure of the successful Bidder (i.e., Contractor) to implement any of the stated agreements, intentions, objectives, goals and commitments set forth herein without prior approval of the County, then in any such events the contractor's act or failure to act, as the case may be, shall constitute a material breach of contract, entitling the County to terminate the Contract for default. The right to so terminate shall be in addition to, and not in lieu of, any other rights and remedies the County may have for other defaults under the Contract. Additionally, the Contractor will be subject to the loss of any future contract awards by the County for a period of one year.

Firm Name (Please Print):

\_\_\_\_\_

Firm's Officer: \_\_\_\_\_  
(Authorized Signature and Title Required) Date

Sworn to and Subscribed to before me this \_\_\_\_ day of \_\_\_\_\_, 201\_\_.

\_\_\_\_\_  
Notary Public  
My Commission Expires: \_\_\_\_\_







**ATTACHMENT K****FIRST SOURCE JOBS ORDINANCE ACKNOWLEDGEMENT**

Contract No. \_\_\_\_\_

The DeKalb County First Source Ordinance requires contractors or beneficiaries of eligible projects entering into any type of agreement with the County, including purchase orders, regardless of what they may be called, for the procurement or disposal of supplies, services, construction projects, professional or consultant services, which is funded in whole or part with County funds or County administered funds in which the contractor is to receive \$50,000 or more in County expenditures or committed expenditures and recipient of urban redevelopment action grants or community development block funds administered in the amount of \$50,000 or more to make a good faith effort to hire DeKalb County residents for at least 50% of jobs created using the First Source Registry (candidate database) within one hundred twenty (120) days of contract execution. The work to be performed under this contract is subject to the provisions of the DeKalb County First Source Jobs Ordinance. All contractors will be asked to submit an *Employment Roster* and/or copies of active payroll registers on a monthly basis to verify compliance. The undersigned acknowledges and agrees to comply with the provisions of the DeKalb County First Source Jobs Ordinance.

**CONTRACTOR OR BENEFICIARY INFORMATION:**\_\_\_\_\_  
Contractor or Beneficiary Name (Signature)\_\_\_\_\_  
Contractor or Beneficiary Name (Printed)\_\_\_\_\_  
Title\_\_\_\_\_  
Telephone\_\_\_\_\_  
Email\_\_\_\_\_  
Name of Business

Please answer the following questions:

1. How many job openings do you anticipate filling related to this contract? \_\_\_\_\_
2. How many incumbents/existing employees will retain jobs due to this contract?  
DeKalb Residents: \_\_\_\_\_ Non-DeKalb Residents: \_\_\_\_\_

Please return this form to DeKalb Workforce Development, fax (404) 687-4099 or email to [FirstSourceJobs@dekalbcountyga.gov](mailto:FirstSourceJobs@dekalbcountyga.gov).

DeKalb Workforce Development □ 774 Jordan Lane, Building #4, Decatur, GA 30033 □ (404) 687-3400 □ [www.dekalbworkforce.org](http://www.dekalbworkforce.org)  
An Equal Opportunity Employer/Program and auxiliary aids and services are available upon request to individuals with disabilities.



ATTACHMENT L**BUSINESS SERVICE REQUEST FORM**

Please note: Please complete one form for each position that you have available.

DATE: \_\_\_\_\_ FEDERAL TAX ID: \_\_\_\_\_

COMPANY NAME: \_\_\_\_\_

WEBSITE: \_\_\_\_\_

ADDRESS: \_\_\_\_\_

(WORKSITE ADDRESS IF DIFFERENT):

CONTACT NAME: \_\_\_\_\_

CONTACT PHONE: \_\_\_\_\_ CONTACT FAX: \_\_\_\_\_

CONTACT E-MAIL ADDRESS: \_\_\_\_\_

Are you a private employment agency or staffing agency?  YES  NO

**JOB DESCRIPTION: (PLEASE INCLUDE A COPY OF JOB DESCRIPTION)**

POSITION TITLE: \_\_\_\_\_

NUMBER OF POSITIONS AVAILABLE: \_\_\_\_\_ TARGET START DATE: \_\_\_\_\_

WEEKLY WORK HOURS: 20-30 hours  30-40 hours  Other

SPECIFIC WORK SCHEDULE:

SALARY RATE(OR RANGE):

PERM  TEMP  TEMP-TO-PERM  SEASONAL

PUBLIC TRANSPORTATION ACCESSIBILITY YES  NO

IF SCREENINGS ARE REQUIRED, SELECT ALL THAT APPLY:

CREDIT  DRUG  MVR  BACKGROUND  OTHER \_\_\_\_\_

Please return form to:

Business Relations Unit (First Source)  
774 Jordan Lane Bldg. #4  
Decatur, Ga. 30033  
Phone: (404) 687-3400  
[FirstSourceJobs@dekalbcountyga.gov](mailto:FirstSourceJobs@dekalbcountyga.gov)



**ATTACHMENT M:**

**AMERICAN SPORTS BUILDERS ASSOCIATIONS (ASBA) AND UNITED STATES TENNIS  
ASSOCIATION (USTA) STANDARDS**



# Hard Courts - Asphalt

According to one industry poll, about 70% of the tennis courts in the U.S. are hard courts— asphalt or concrete pavements, generally covered with an acrylic colored surface coating system. The coating system protects the court from the elements, enhances its appearance, and determines the playing characteristics of the court.

In general, hard courts, both asphalt and concrete, are low-maintenance and do not require daily care. For this reason, they are an ideal choice where an owner does not plan to supervise play, has limited time to care for the court, and/or where players will be keeping courts in use for all or most of the year in colder climates. Outdoors, rain does a natural cleaning on hard courts, though regularly sweeping or cleaning a court will help avoid stains that can occur when leaves or other debris are left lying on the surface. Mildew or algae, which are sometimes a problem in warmer, more humid regions, can be removed with a mild herbicide, with a bleach and water solution or with a pressure washer.

Asphalt courts are the most common type of tennis courts because they provide good value for the cost and are easy to care for; however, cracking is a natural part of the weathering and aging of asphalt. Post-tensioned concrete, on the other hand, while generally more expensive, is especially resistant to cracking.

Generally, a hard court produces a medium pace game. This speed can be adjusted according to the type of surface system that is applied. A smooth surface will increase ball skid and decrease the effect of spin, producing a faster game, while a highly-textured surface will reduce skid and enhance the effect of spin, producing a slower game.

## Asphalt Courts

Asphalt courts make up the majority of hard courts. Asphalt is a liquid material refined from petroleum. When liquid asphalt is mixed with graded stone aggregate, compacted and allowed to cure, it becomes asphaltic concrete, also known as asphalt or blacktop.

Liquid asphalt can be combined, mixed and delivered to a court via various processes. Asphalt courts usually are constructed using hot plant mix asphalt. Often the choice of a specific type of asphalt and stone aggregate is determined by soil or climatic conditions, by the availability of materials in the area or by the expertise of the contractor.

Asphalt is a flexible pavement, giving slightly with the ground's movement due to settling, to the action of water or to freeze-thaw activity. However, as asphalt weathers, it oxidizes, shrinks and hardens outdoors through exposure to UV degradation, making it less flexible and more subject to cracking.

Cracking is the most common problem with asphalt courts and occurs in all courts with age. Some cracking, particularly hairline cracking, can be expected with normal exposure to

weather and wear and with aging asphalt. These cracks will develop into larger cracks when exposed to weather or when water, vegetation or mold permeate the cracks, so they should be treated promptly. Sometimes cracks are caused by improper use of materials, improper construction or settlement in the subgrade.

Asphalt courts are built up in several layers. First the earthen subgrade is shaped, compacted and sloped according to the site plan. Next, a gravel base is installed, usually 4" to 6" in thickness. A commonly used size and grading requirement for gravel base materials is shown below:

<i>Seive</i>	<i>Percent Passing</i>
1-1/2"	100
3/4"	55-90
No. 4	25-60
No. 50	5-25
No. 200	3-12

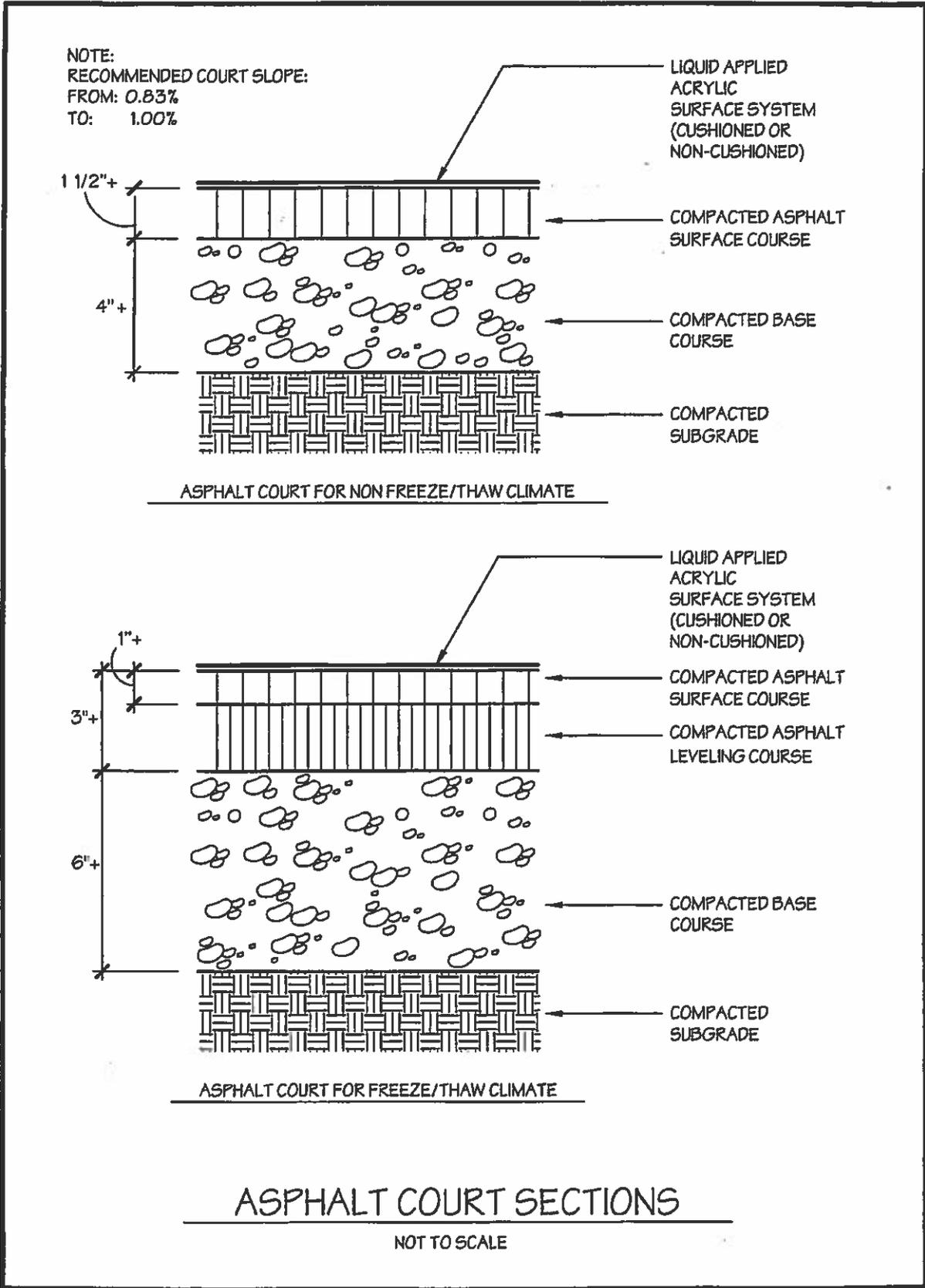
On top of the properly compacted gravel base, an intermediate course of asphalt is installed and compacted. The thickness of the intermediate course varies, based on the geographic location, but in most areas is about 1-1/2" to 2". A commonly used size and grading requirement for the intermediate course aggregate is shown below:

<i>Seive</i>	<i>Percent Passing</i>
2"	100
1-1/2"	90-100
1"	80-100
1/2"	50-85
No. 4	25-60
No. 8	20-50
No. 50	8-30
No. 200	4-12

Finally, a surface course of asphalt is spread and compacted to a uniform density and thickness. The thickness of the surface course is variable based on the geographic region; however, in most areas it varies from 1" to 1-1/2". A commonly used size and grading requirement for the surface course aggregate is shown below:

<i>Seive</i>	<i>Percent Passing</i>
1/2"	100
3/8"	80-100
No. 4	55-75
No. 8	30-60
No. 16	20-45
No. 30	15-35
No. 50	10-30
No. 200	4-10

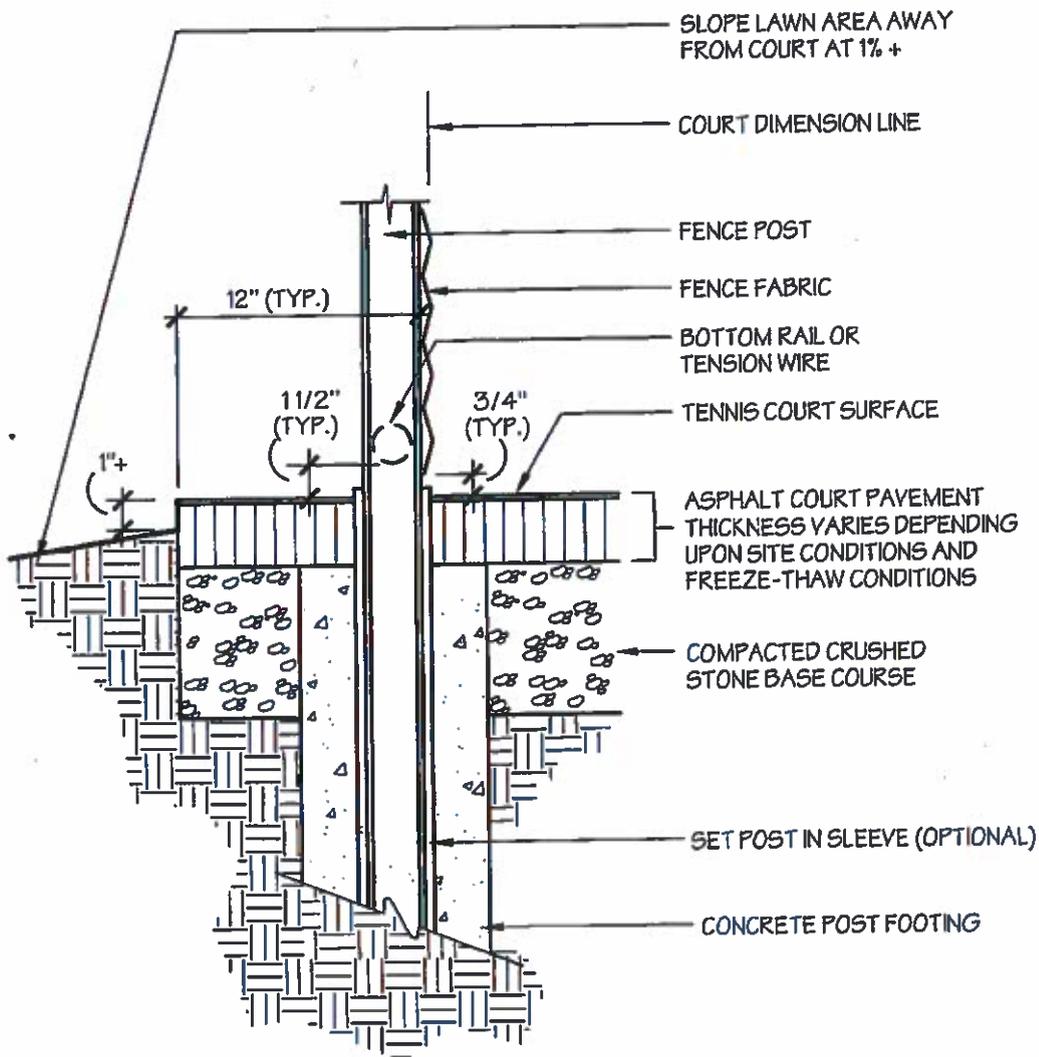
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24ASPH.AVL.11



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### EXTENDED APRON SECTION AT ASPHALT COURT EDGE

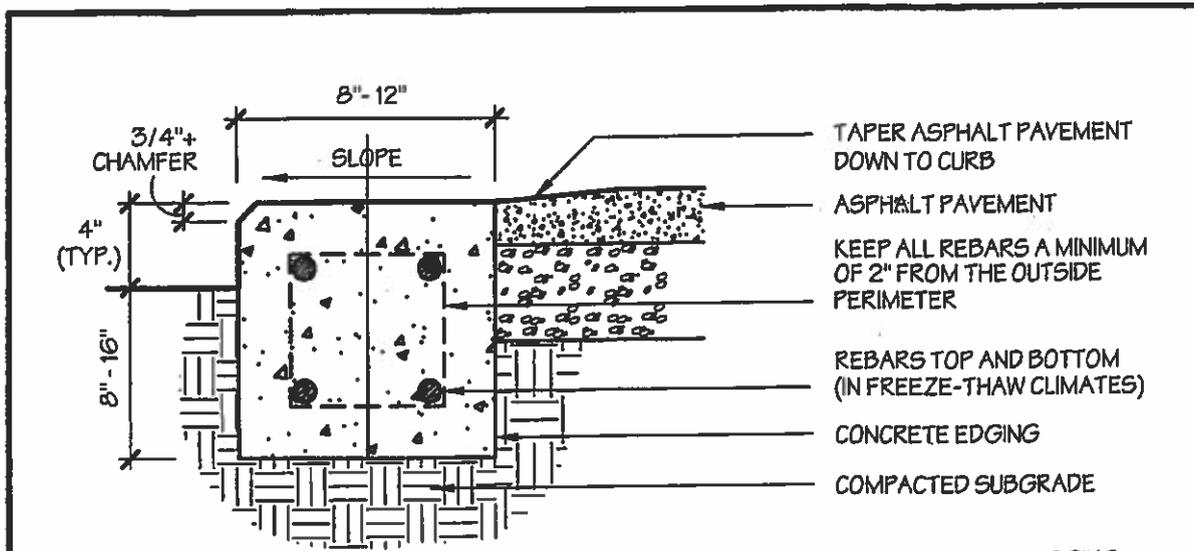
NOT TO SCALE

25EDGE2.AVL.11

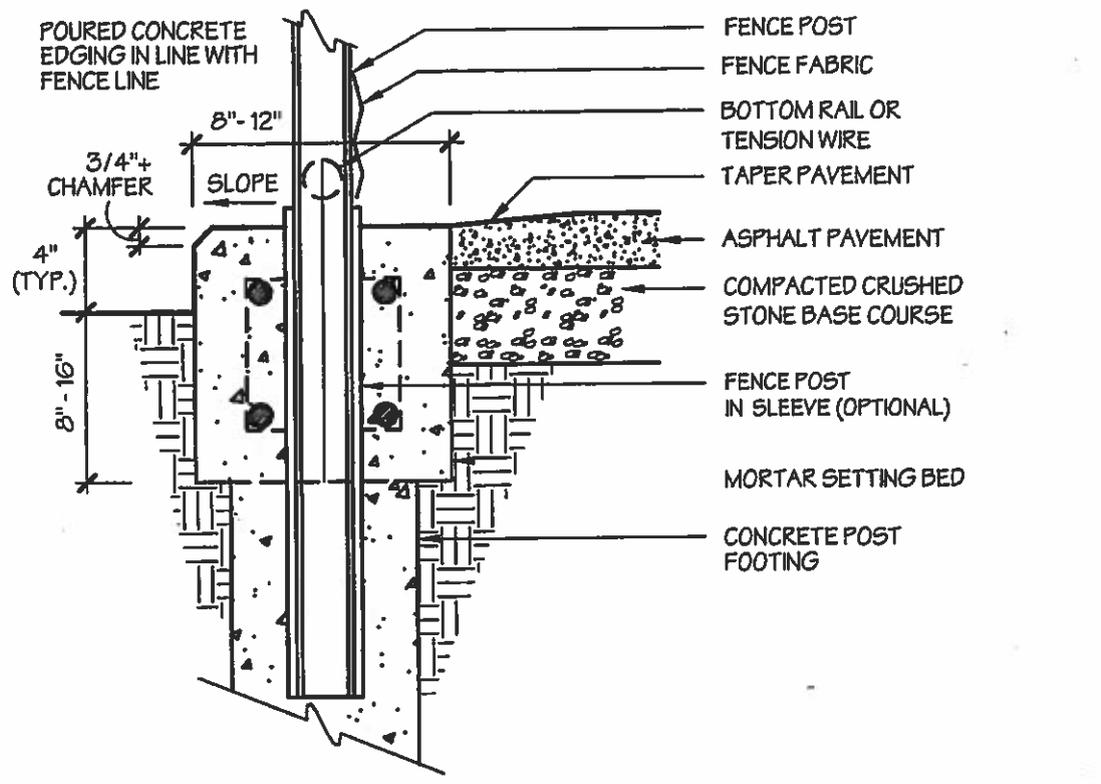


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SECTION - CONCRETE COURT EDGING



SECTION CONCRETE EDGING @ FENCE POST

**POURED CONCRETE EDGING  
FOR ASPHALT COURT**

NOT TO SCALE

65EDGE4.AVL.11



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

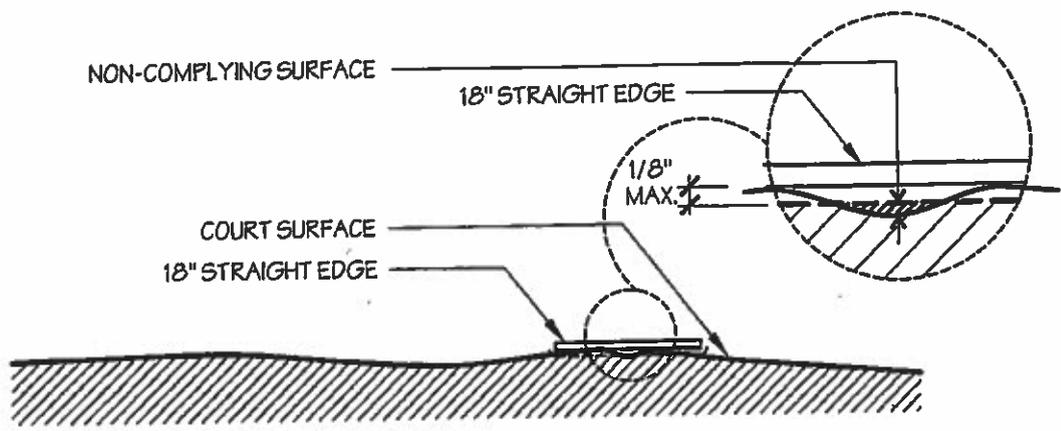
**Slope**—Asphalt courts are sloped in a true plane a **minimum** of .83% (1:120) to a maximum of 1.00% (1:100). Side to side is the preferred direction of slope; however, it can also be end to end or corner to corner if side to side cannot be achieved.

**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.

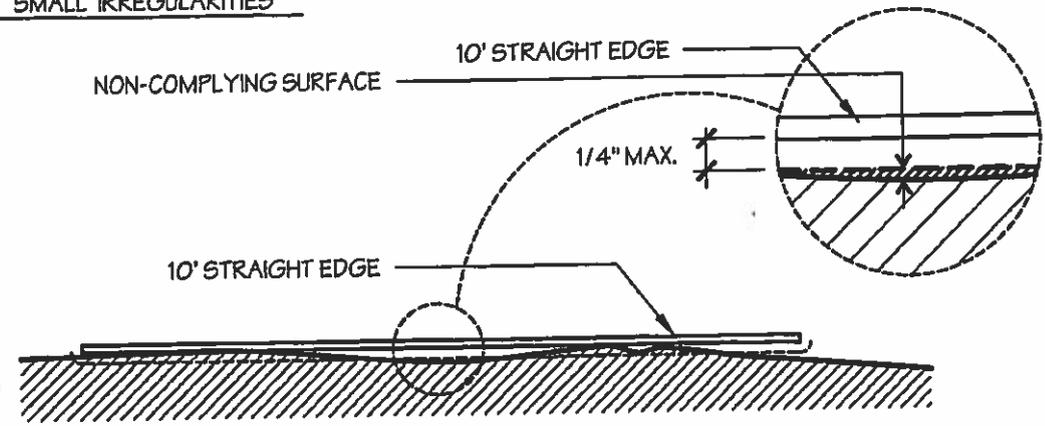
**Evenness**—In order to drain properly and to be acceptable for play, a surface must be smooth and regular, lacking humps and dips. An even surface will not cause ball deflection or create a player tripping hazard. As a measure of evenness, the surface should not vary more than 1/4" in 10' when measured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

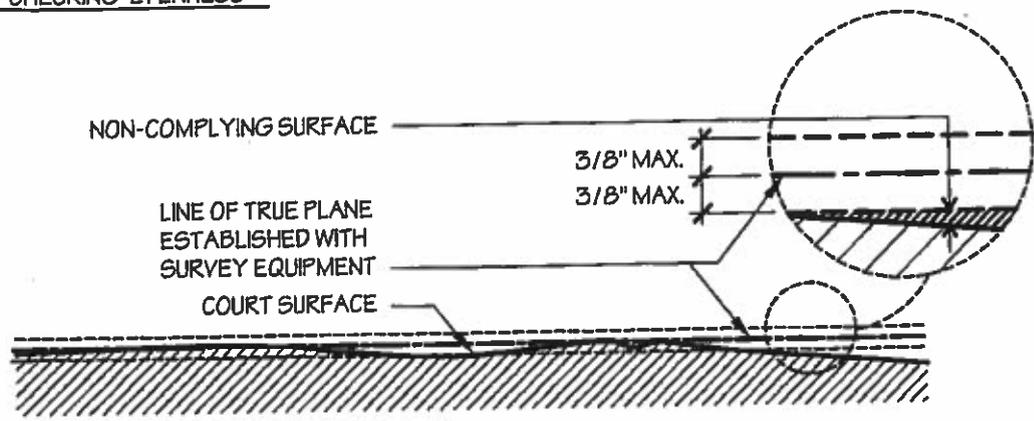
Once construction of the asphalt pavement is completed, the asphalt should be allowed to thoroughly cure. Color coatings won't bond effectively or evenly to an inadequately cured surface. Curing may take from 14 to 30 days, depending upon site conditions and weather conditions, composition of the asphalt and the recommendations of the manufacturer of the surface coating. A curing period of 14 to 30 days in summer conditions is typically recommended, the longer the better. It should be noted that, unlike coatings and sealers used in other applications, the surfacing systems used with tennis courts breathe; some curing and hardening will continue after surfacing.



SMALL IRREGULARITIES



CHECKING EVENNESS



CHECKING PLANARITY

**ILLUSTRATION OF HOW TO CHECK PLANARITY, EVENNESS & IRREGULARITIES**

NOT TO SCALE

27PELAVL.11



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# Net Posts and Nets

## Net Posts

According to *The Rules of Tennis*, net posts may be no more than 6" in diameter or 6" square and not higher than 1" above the net cable. Circular posts should be not less than 2-7/8" in diameter and square posts should be not less than 3" square.

Net posts are most commonly made of steel. A few manufacturers produce net posts made of aluminum to resist rusting. Wooden net posts and brass net posts also are available. Regardless of the material from which they are constructed, it is important that net posts be sufficiently strong to allow safe tensioning of the net. A minimum yield strength of 1,100 lbs. and a minimum tensile strength of 1,500 lbs. are recommended. At those minimums, the post will begin to bend at 1,100 lbs.; at 1,500 lbs. it will permanently deform.

Posts are equipped with screw-type, worm-gear or ratchet-type internal or external winding mechanisms to tighten the net. Some older courts are still equipped with net posts featuring lever action tightening mechanisms. These posts are considered a danger to players and should be replaced. The winding mechanisms on all net posts should have handles that can be removed or secured or which are set parallel to the post. Safety over-caps provide additional protection against injury. Internal wind posts cost more than external wind posts, but are both safer and more attractive.

Net posts may be permanently installed or they may be set in sleeves, making them removable and allowing for easy replacement. Net posts set in sleeves also make resurfacing and maintenance easier. Such installation may prevent the future need to dig up the post footing in order to replace bent, rusted or broken net posts. They should be positioned in the center of the footing.

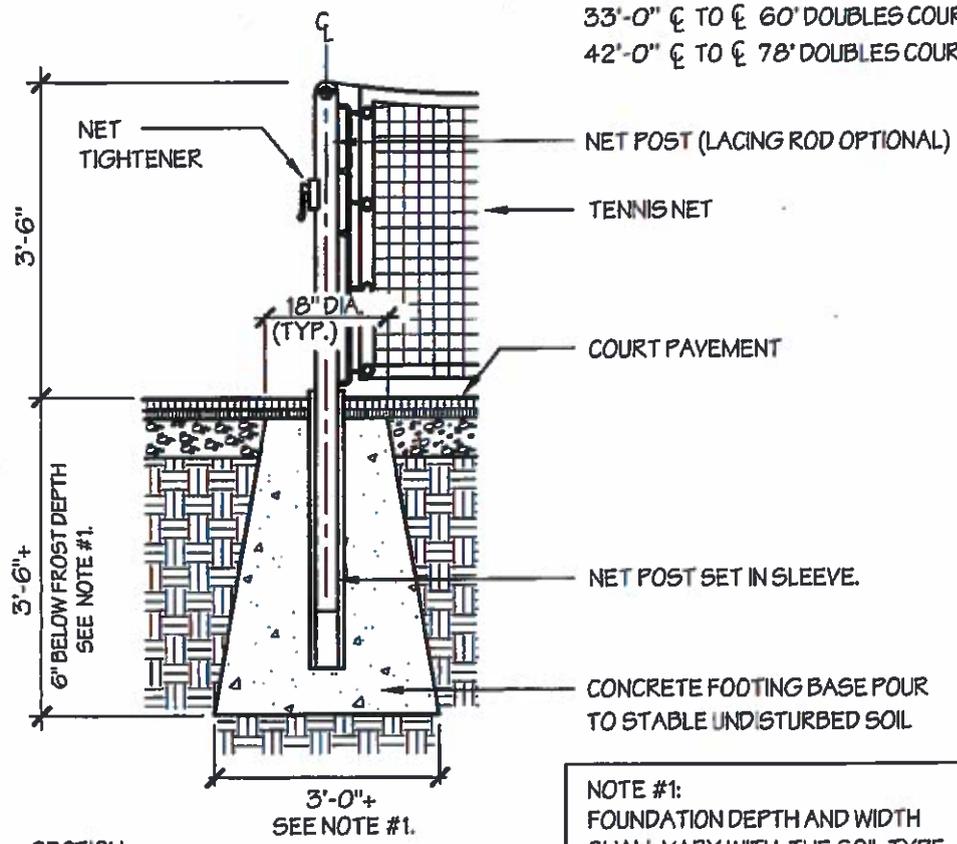
Net post footings may be round or square, or they may be round at the top tapering out to a square bottom. Round footings should be deeper to provide the same degree of stability as those tapered at the bottom. They may be dug by hand or with an auger. Footings should be 6" deeper than the local frost depth, but not less than 42" deep. The appropriate depth depends on the soil conditions and the amount of freeze-thaw activity at the site. The ground in which footings are set should be firm and unyielding.

Net cables typically have had a breaking strength of 1,900 lbs. to 2,600 lbs. Recently, manufacturers have been making stronger posts and cables. Footings must be engineered for the yield strength and the tensile strength of the particular post that will be used at the facility, which might be up to 3,600 lbs., and for the breaking strength of the specific cable, which might be up to 3,000 lbs.



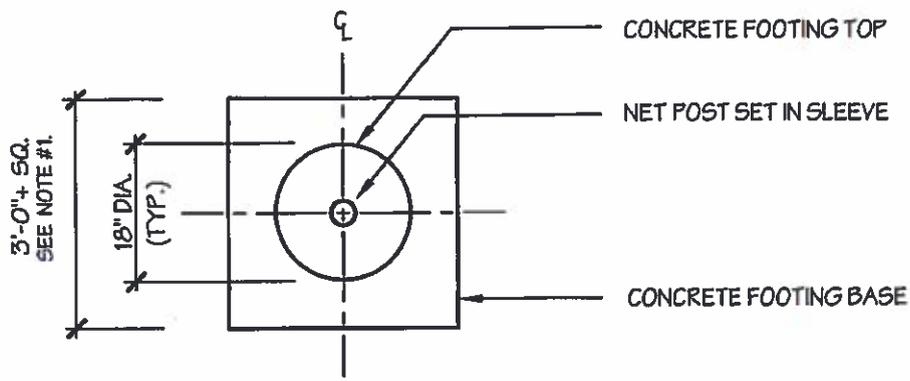
NET POST LOCATIONS:

- 33'-0"  $\phi$  TO  $\phi$  78' SINGLES COURT
- 33'-0"  $\phi$  TO  $\phi$  60' DOUBLES COURT
- 42'-0"  $\phi$  TO  $\phi$  78' DOUBLES COURT



NOTE #1:  
FOUNDATION DEPTH AND WIDTH SHALL VARY WITH THE SOIL TYPE AND STRENGTH OF THE NET POST

SECTION



PLAN

TENNIS NET POST FOOTING - PYRAMID SHAPE

NOT TO SCALE

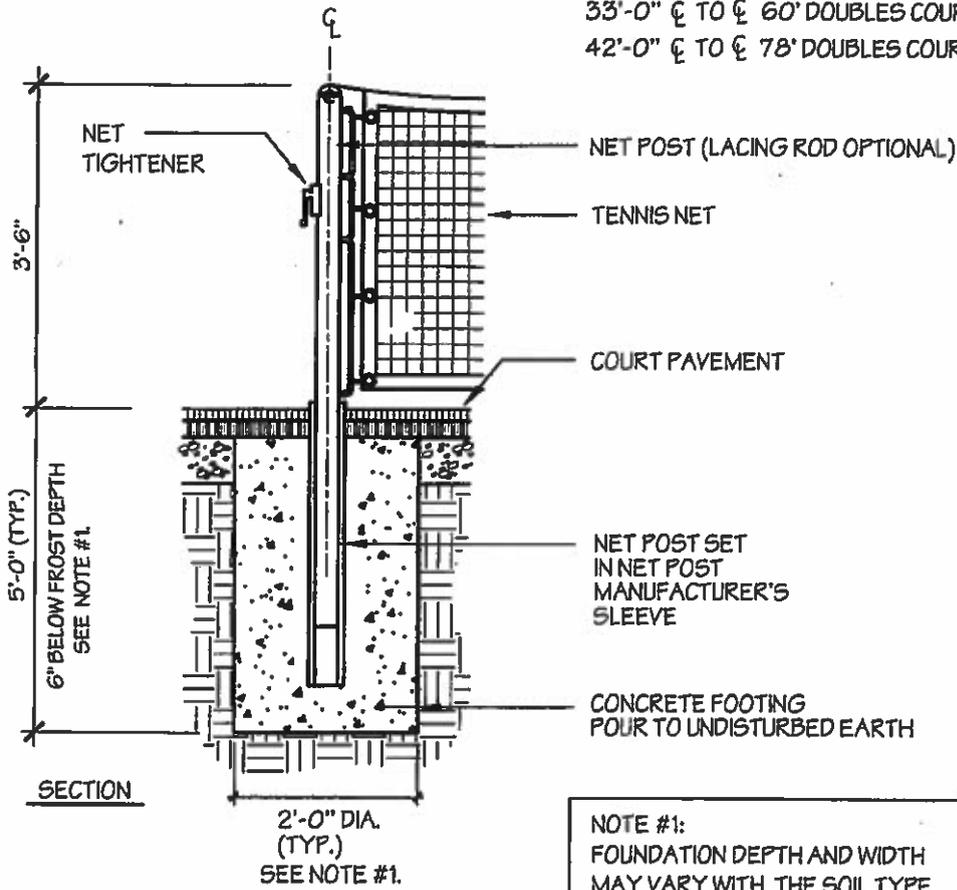
30NPOST1.AVL.11



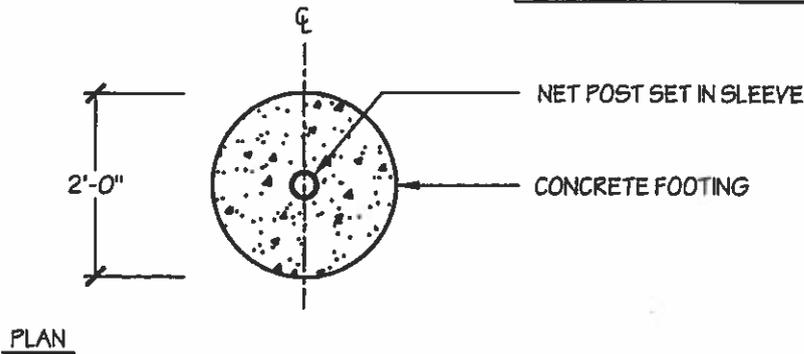
DRAWINGS ARE ILLUSTRATIVE ONLY AND ASBA AND USTA ACCEPT NO RESPONSIBILITY FOR THEIR USE.

NET POST LOCATIONS:

- 33'-0"  $\phi$  TO  $\phi$  78' SINGLES COURT
- 33'-0"  $\phi$  TO  $\phi$  60' DOUBLES COURT
- 42'-0"  $\phi$  TO  $\phi$  78' DOUBLES COURT



NOTE #1:  
FOUNDATION DEPTH AND WIDTH  
MAY VARY WITH THE SOIL TYPE  
AND STRENGTH OF THE NET POST



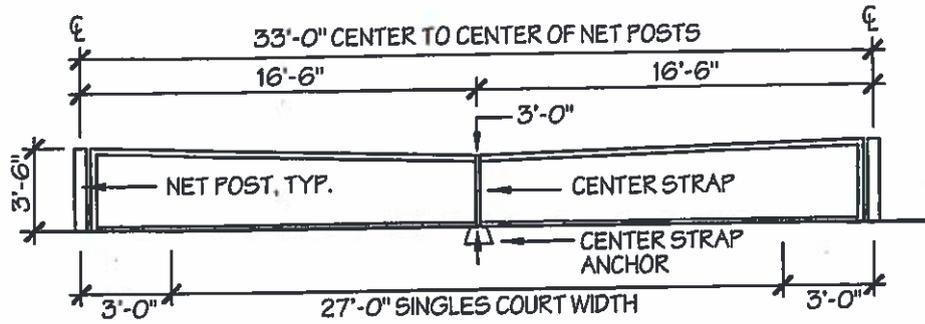
**TENNIS NET POST FOOTING - CYLINDER SHAPE**  
NOT TO SCALE

31NPOST2.AVL.11

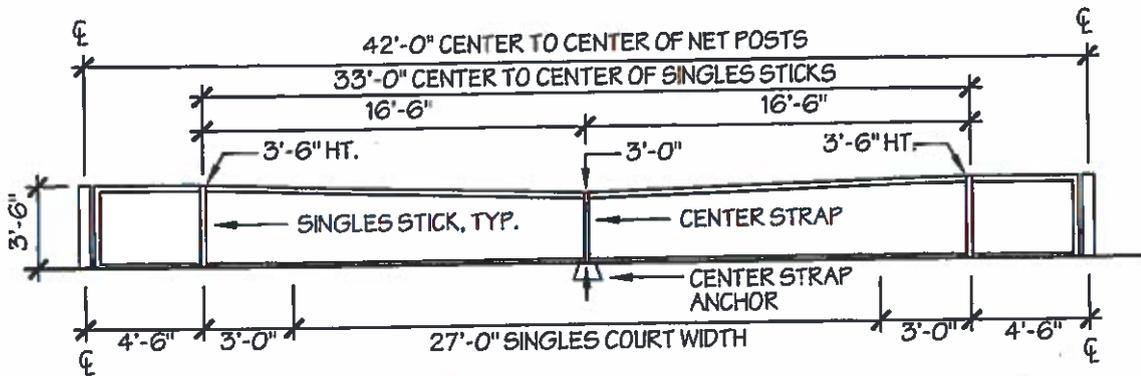


DRAWINGS ARE ILLUSTRATIVE ONLY AND ASBA AND USTA ACCEPT NO RESPONSIBILITY FOR THEIR USE.

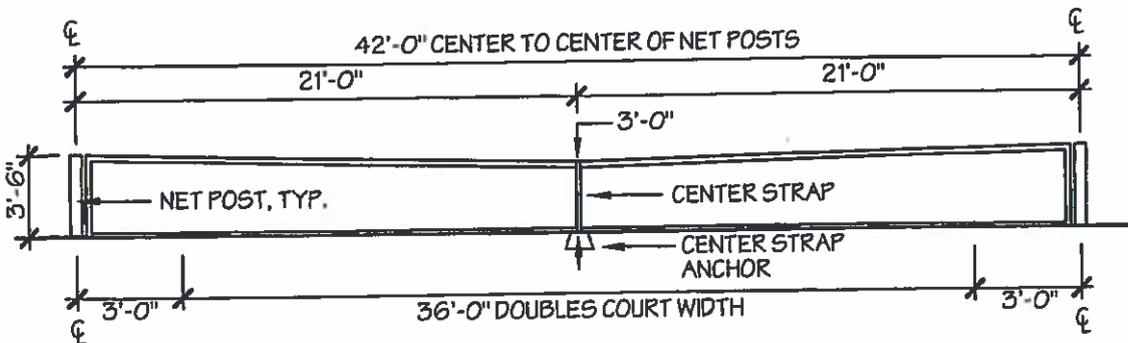
NOTE:  
 THE NET SHOULD BE INSTALLED  
 WITH A RECOMMENDED TENSION OF 400 LBS. - 550 LBS.



78' SINGLES COURT NET & 60' DOUBLES COURT NET



DOUBLES NET W/ SINGLES STICKS



DOUBLES NET

## TENNIS NET ELEVATIONS

NOT TO SCALE

32NETELEV.AVL.11



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



The preferred method is to set posts or sleeves prior to any paving or between asphalt courses to assure a continuous court surface. Precautions should be taken to prevent asphalt from spilling into sleeves and to protect the sleeves from being bent or damaged by paving equipment. Sleeve caps, tape or rags can be placed in sleeves for this purpose. On concrete courts, footings should be isolated from the slab with a continuous expansion joint.

Most commonly, sleeves are made of galvanized steel, stainless steel, aluminum, or PVC. PVC net post sleeves may melt when they come in contact with hot asphalt.

Net posts are set 42' apart for a doubles court. The measurement should be made from the center of one post to the center of the other. For tournament use, it is recommended that a second set of net post sleeves be installed 33' (center to center) apart for singles play and that a singles net be available. When singles posts and net are not available, in order to conform with the rules of tennis for singles play, the net must be supported at the required height of 3'6" by singles sticks set 3' outside the singles sideline. Marks may be painted on a hard court to indicate singles stick locations. A piece of line tape may be used for this purpose on a soft court. Singles sticks may be not more than 3" square or 3" in diameter. Singles sticks made of 1" round or square wood stock are commonly used for this purpose.

## Nets

A regulation doubles tennis net is 42' long and 3'6" high. A regulation singles net is the same height, but is 33' long. To satisfy the requirement that the net be 42" high at the post and 36" at the strap, some manufacturers offer a tapered net.

Both singles and doubles nets are made of 1-3/4" square mesh netting. The tensile strength of the twine used in nets ranges from 185 to 310 lbs., though a tensile strength of at least 275 lbs. is recommended. Traditional nets are black.

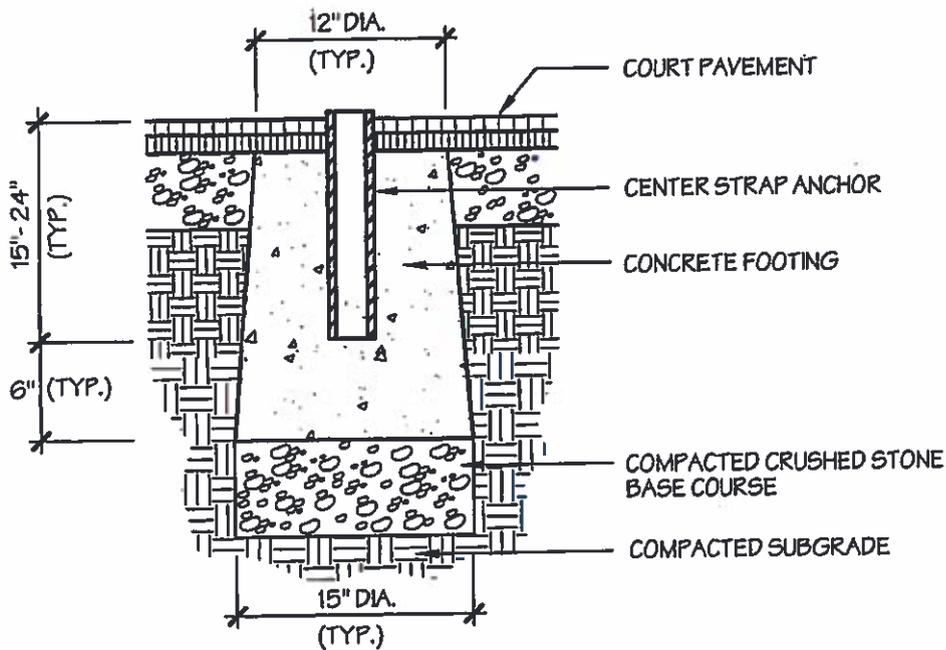
Tennis nets are made of synthetic materials including polyethylene, polyester and nylon. Polyethylene is most common; it provides good resistance to fading due to ultraviolet radiation and to other forms of weathering. Manufacturers are careful to build nets that conform to the Rules of Tennis.

When a net is properly installed, tautness will range from 400 to 500 lbs. Net height is commonly adjusted by winding the net to a height of about 39" at the center and using the center strap to pull the net down to 36". Nets are secured to the net posts using lacing rope or zip ties.

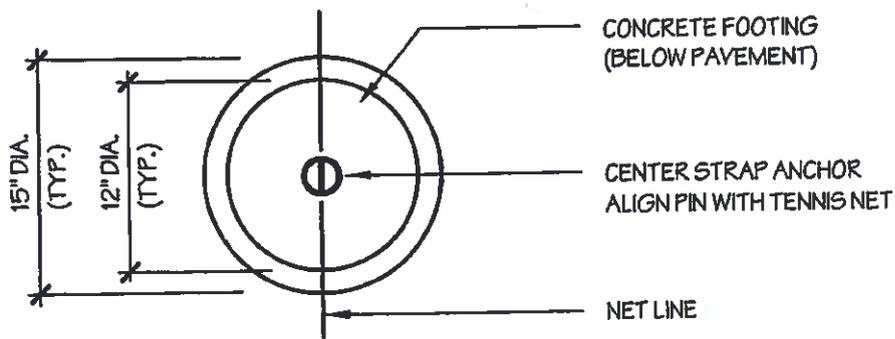
## Center Straps and Anchors

Center straps are used to ensure the center of the net is exactly 3' above the playing surface. Straps are height adjustable and are fitted into a ground anchor and must be white. Most straps are 2" wide polyester or nylon with a steel swivel hook at the bottom. A non-rusting swivel hook, though somewhat more expensive, may be desirable in corrosive environments.

NOTE:  
 IN AREAS SUSCEPTIBLE TO  
 FROST HEAVING, INCREASE  
 FOOTING DEPTH TO 24"+



SECTION



PLAN

## TENNIS NET CENTER STRAP ANCHOR

NOT TO SCALE

33CSTRAP.AVL.11



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

A center strap is attached to a center strap anchor set in a concrete footer usually measuring 12" in diameter with a minimum depth of 12". The anchor is fitted with a cross pin below the surface of the court. It is important that the top of the ground anchor be installed flush with the court surface and parallel with the net line to avoid twisting the strap. The cross pin in the ground anchor, to which the center strap is attached, should be resistant to rusting.



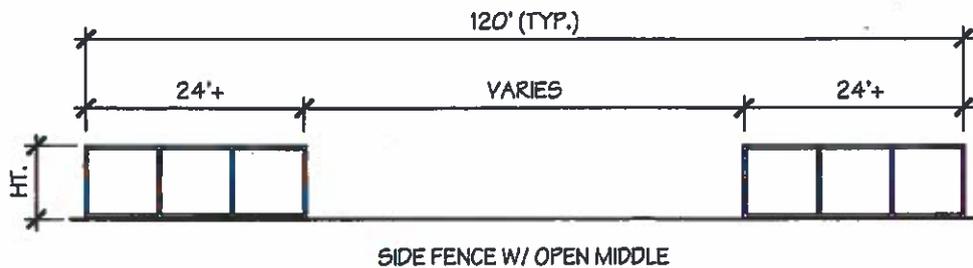
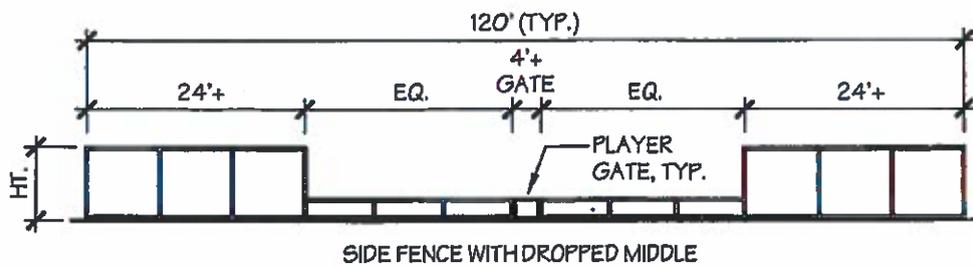
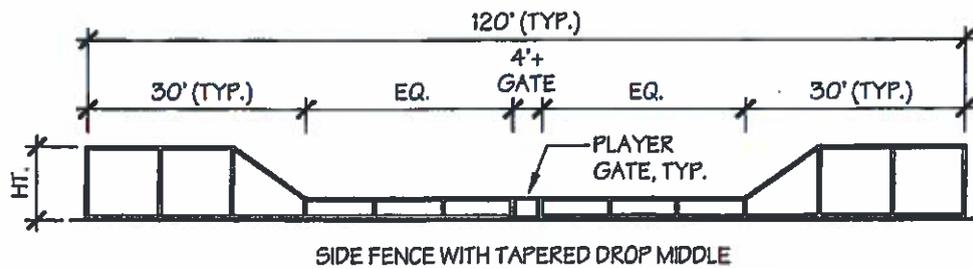
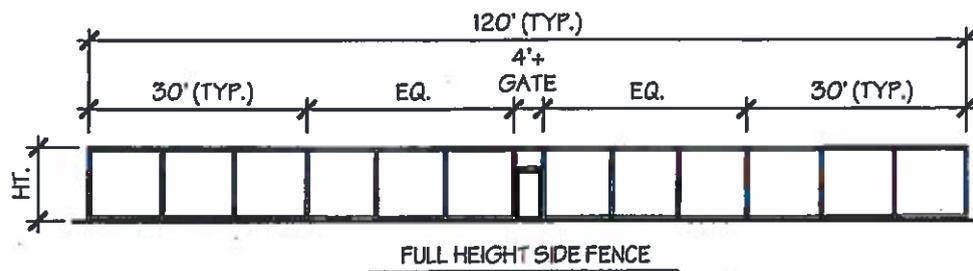
# Fencing

The purpose of fencing around a tennis court is to keep most balls within the court during play. Traditionally, tennis courts have been surrounded by fencing with an overall height of 10' to 12', with 10' fencing being standard. The height of fencing required in a particular project depends, to some degree, on the tennis court surface, since different surfaces have different bounce characteristics. Ten-foot fencing is used in most hard-court applications, while 8' fencing is probably adequate for most soft-court projects and for many residential courts. Where feasible, 8' fencing is aesthetically pleasing, less obtrusive and less expensive; additionally, it makes courts look larger. Five-foot fencing may be adequate for grass courts because of the low bounce. On the other hand, on rooftop courts or other locations where a ball that goes over the fence may be a hazard or cannot be retrieved, where retrieving such a ball would require an unwelcome intrusion on neighboring property, or at high elevations where the ball bounces higher due to the thin air, 12' fencing is recommended.

All-around fencing may be traditional, but it is not necessary for play. Unless fencing is required for security reasons or for safety, as on a small site where parking lots, water hazards or other obstructions are located nearby, when windscreens will be installed, where animals may wander across the court (deer, for example, are particularly hard on tennis court surfaces) or for rooftop courts, perimeter fencing entirely surrounding a court is not required. In fact, with all-around fencing, players feel as though they are playing in a cage. The best environment for tennis is one with the least amount of fencing required for the particular site and use.

For purposes of play, fencing is required across the back of the court and along each sideline from the corner 20' to 40' up the sidelines. The area up to 40' on either side of the net can be left open, or low fencing can be continued to contain rolling balls. A common configuration is to continue fencing 30' up each sideline with the middle 60' left open. These open configurations save money on fencing while providing enough fencing to keep all but a few balls within the court. They also improve visibility for spectators. Leaving an open section in the middle of the court provides room for shade shelters, benches and drinking fountains between courts and provides access for maintenance equipment.

An alternative to the traditional rectangular court features diagonally cut corners. Eliminating both fencing and surfacing for the unused corners, this type of fencing softens the look of the court and provides an area for landscaping. The diagonal corners also deflect balls back toward the center so that players do not have to retrieve them from deep in the corners. Typically, such corners are set at a 45° angle from fence to fence for all locations on courts of all sizes. Where two or more courts are installed in a bank, "Vs" are used between courts. This configuration also may be useful to maintain maximum court size on smaller sites or on sites with buildings or other obstructions.



HT - FENCE HEIGHT - VARIES BY SURFACE TYPE, USE AND SITE CONDITIONS

FENCE HEIGHTS COMMONLY USED:

- > 10'+ WHERE AREA OUTSIDE THE COURTS IS INACCESSIBLE (ROOFTOPS, ETC.)
- 10' +/- ASPHALT, CONCRETE & COURTS NEAR PROPERTY LINES, ROADS, ETC.
- 8' +/- CLAY, FAST DRY, & INFILLED TURF WITH ACCESSIBLE AREAS ADJACENT.
- 5' +/- NATURAL GRASS WITH EXTENDED AREAS BEHIND THE BASELINES.
- 42" +/- SPECTATOR STANDING ROOM AND WHERE GUARDRAILS ARE REQUIRED.
- 36" +/- BETWEEN COURTS AND ALONG SIDE LINES.
- 30" +/- IN FRONT OF FIXED SEATING.

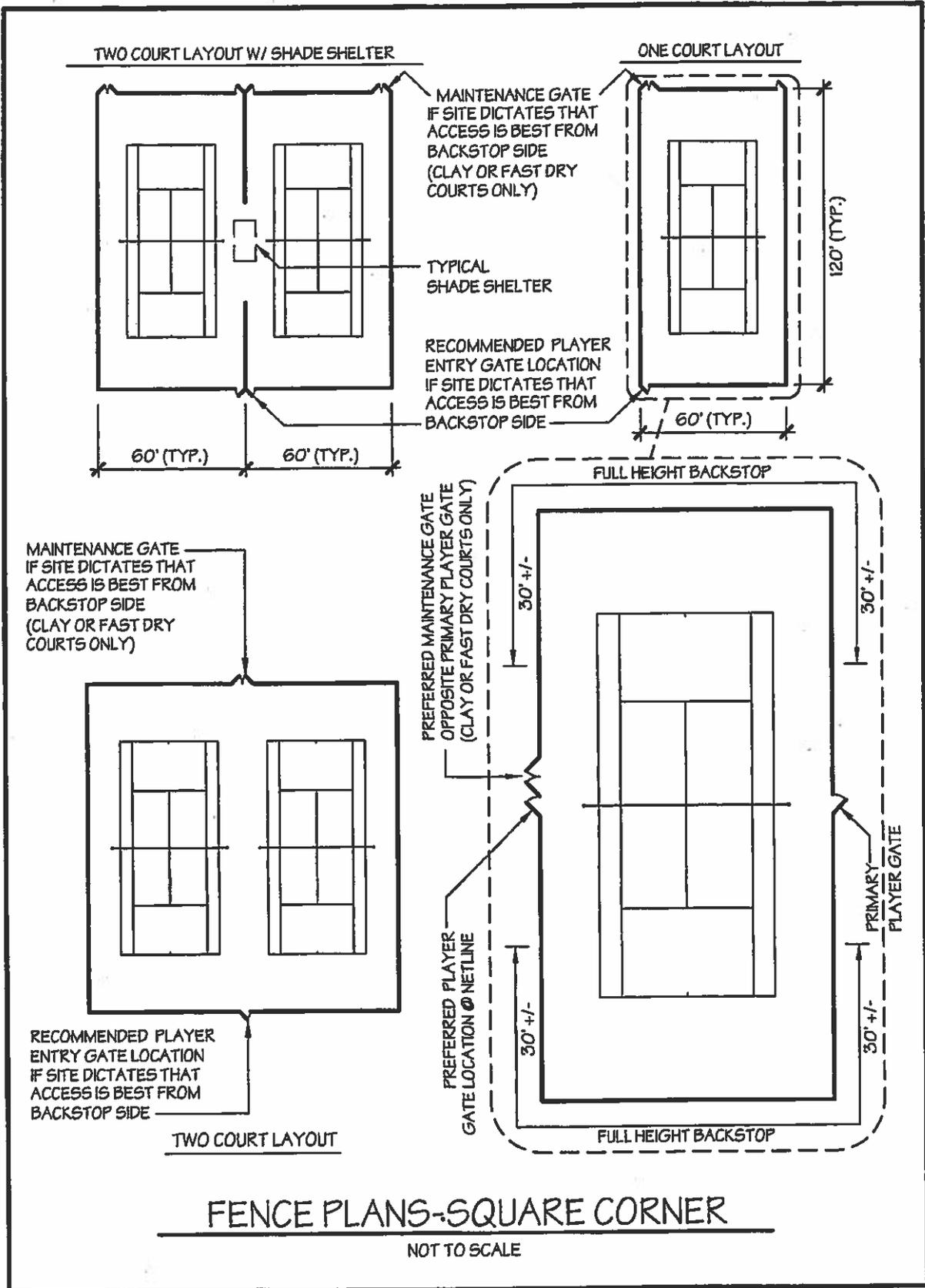
## SIDE FENCE ELEVATIONS.

NOT TO SCALE

38FENCELY.AVL.11



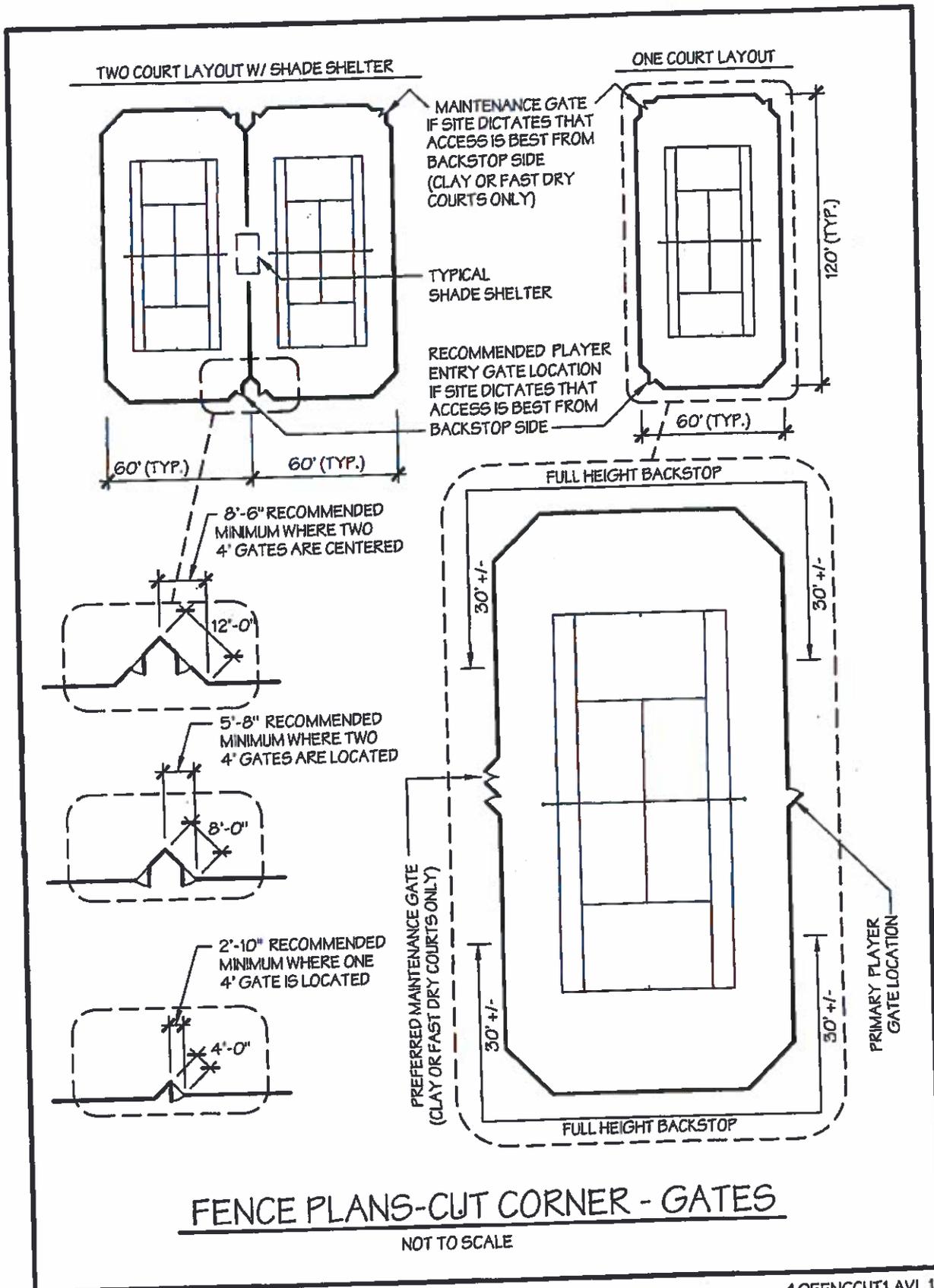
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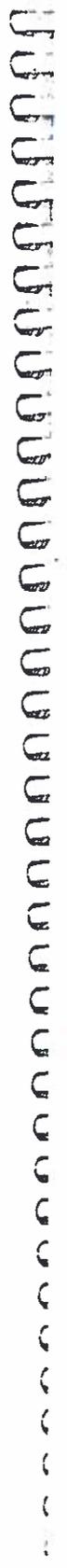
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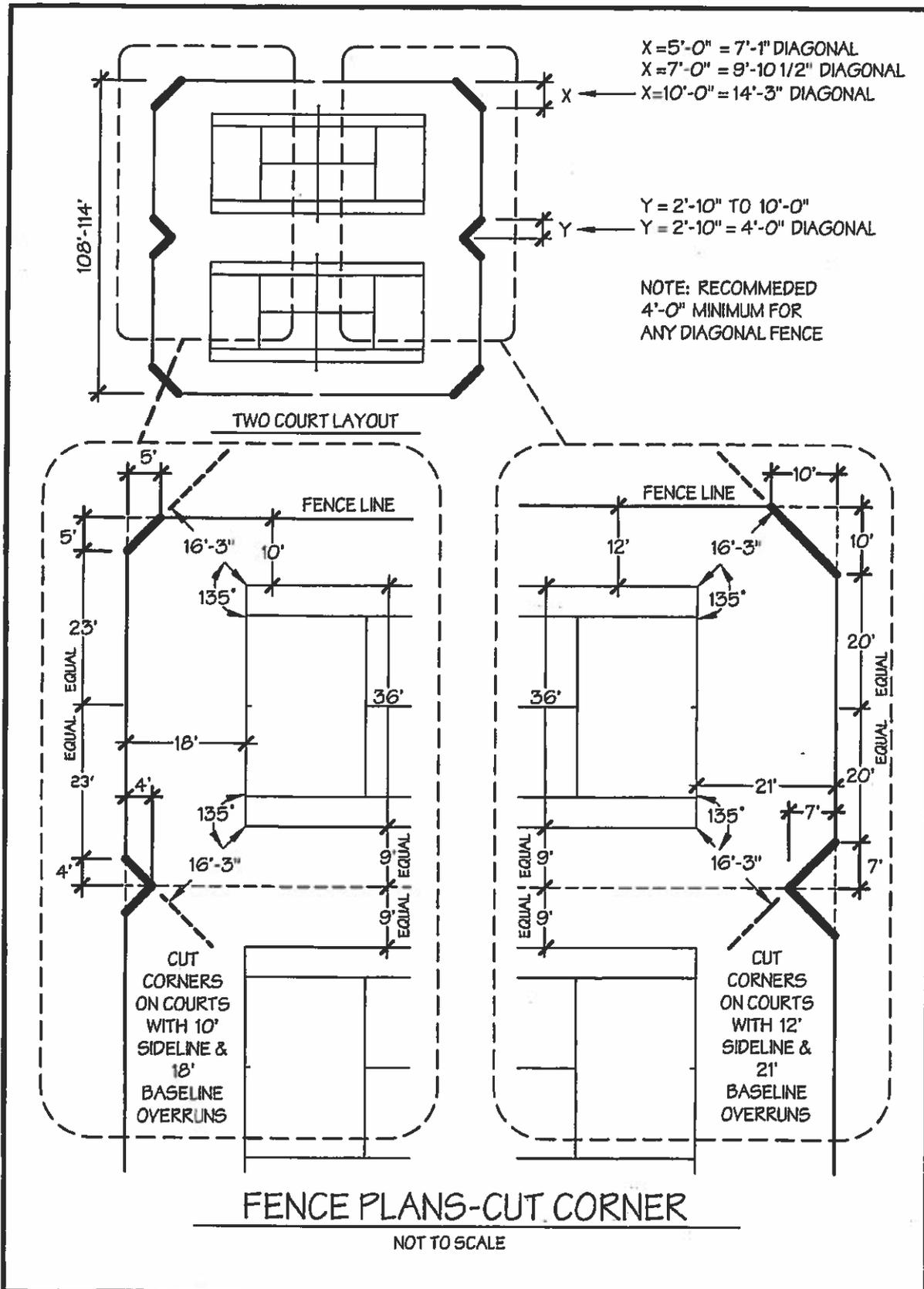


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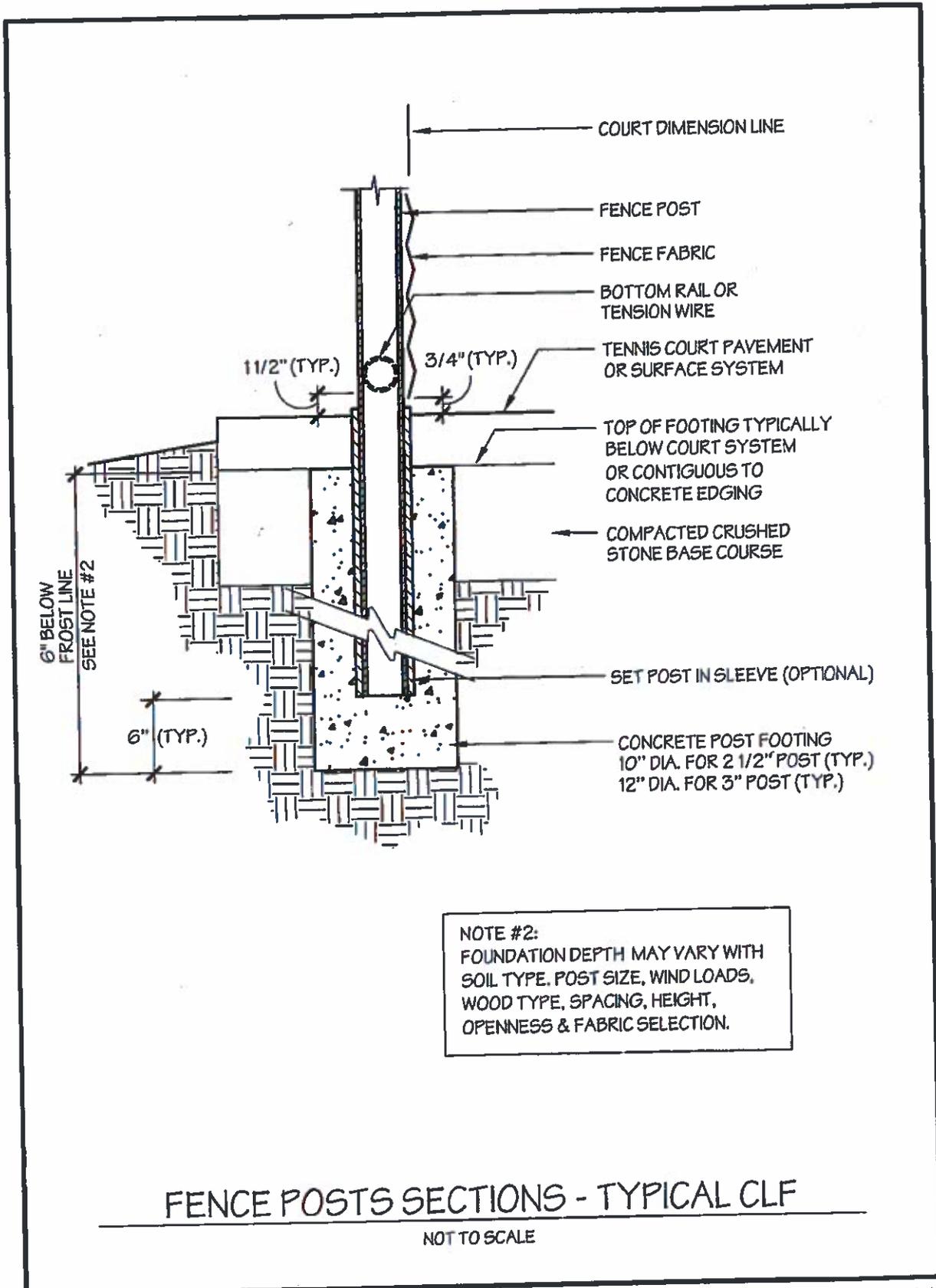




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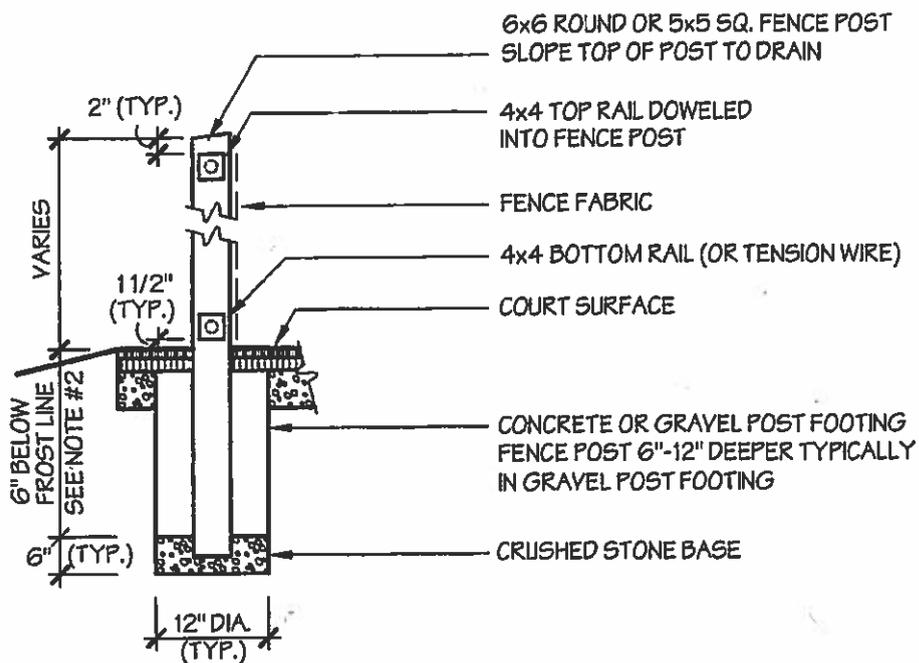


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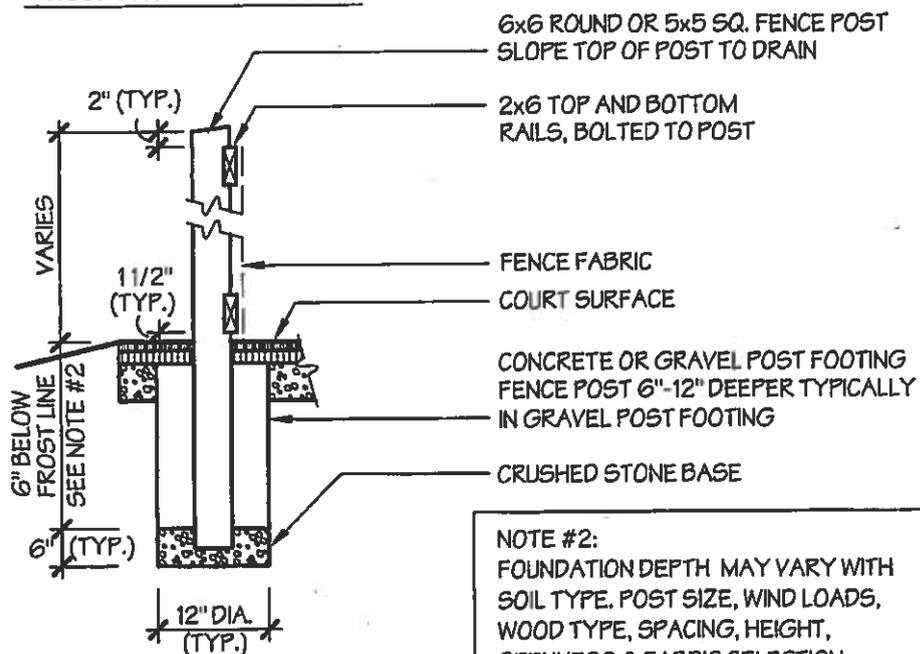


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WOOD FENCE W/ 4x4 RAILS



WOOD FENCE W/ 2x6 RAILS

NOTE #2:  
FOUNDATION DEPTH MAY VARY WITH SOIL TYPE, POST SIZE, WIND LOADS, WOOD TYPE, SPACING, HEIGHT, OPENNESS & FABRIC SELECTION.

## FENCE POSTS SECTIONS - TREATED WOOD

NOT TO SCALE

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The standard chain-link mesh size for tennis courts is 1-3/4". Mesh sizes larger than 1-3/4" have a tendency to allow balls to stick in them or even go through them. While 11-gauge mesh wire may be appropriate for residential applications, a 9-gauge mesh is more durable and less likely to deform due to use.

The fence mesh always should be affixed to the court side of the posts to prevent erratic ball bounces off posts, to reduce the potential of players injuring themselves running into posts and to facilitate the installation of windscreens.

A vinyl, polyester- or polyolefin-coated frame with similarly coated fabric is preferred, although galvanized frame and fabric are sometimes used when cost is a consideration. Coated fencing is more expensive than galvanized fencing, but provides benefits in terms of durability and aesthetics. Particularly in highly corrosive environments (such as inner-city areas where there is a high level of pollution, or in seaside areas where exposure to saltwater is hard on fencing), coated fencing is highly recommended. Fence coating comes in standard colors of green, black or brown; color-coated fences can help tennis courts to blend into their surroundings, enhancing their appearance.

Galvanized fencing and posts, if used, should be free from barbs or other projections, which sometimes occur in the galvanizing process. These sharp projections may constitute a player or spectator hazard. After a suitable period for oxidizing or after priming, galvanized fencing may be painted, or it may be covered with background curtains to reduce glare. As an alternative to galvanized fencing, the newer aluminized fencing and posts can be used.

Fencing, whether coated, galvanized or aluminized, should have selvages or edges, both top and bottom, bent double (knuckled) to prevent injuries and to minimize debris from collecting against the fence.

Sometimes coated fence fabric is combined with a galvanized framework. A galvanized fence framework may be painted to match coated fabric.

The framework for a 10' high fence should be engineered for the appropriate wind loads. All gate and terminal posts should be at least 2-1/2" square or 3" round posts. Line posts should be at least 2-1/2". These dimensions are nominal and actual dimensions are slightly smaller. If the fence is higher or if excessive loads (wind, snow, etc.) are expected, larger framing may be required.

All posts should be set on 10' centers or less. If windscreens are to be installed, consideration should be given to installing the line posts on 8' centers or less and/or to increasing the size of the line, gate and terminal posts to 3".

Fence fabric is attached to line posts with wires every 12". The fabric is attached to terminal and gate posts with tension bands and tension bars, 12" on center, one less than the height of the fence, but no fewer than three.

Fence posts should be set in cylindrical concrete footings not less than 10" in diameter (or four times the diameter of the post) and a minimum depth of 6" below the frost line but not less than 36" deep. The depth of the footing depends on soil conditions at the site and on the amount of freeze-thaw activity.

Top rails are usually installed on all chain-link fences for stability and appearance. The top rails pass through openings provided in loop caps and are joined together by sleeve couplings or swedges. The fence fabric is tied to the top rail at intervals of approximately 18".

Although mid rails are sometimes installed for stability, where 12' fencing is used or where strong wind or ice loads are expected, they can create a hazard if players run into the fence. A better alternative for stability on 8' and 10' fencing is to strengthen line and terminal posts and/or reduce the spacing. Where 12' fencing is required, an intermediate rail at 7' is preferable to a mid rail.

A bottom rail will help to keep the bottom selvage of the fence fabric from curling and will give the fence a neat, finished appearance. A bottom rail also may help to prevent players from sliding under the fence. In lieu of a bottom rail, a bottom tension wire is sometimes used. A tension wire is less expensive; however, it may pose a hazard to any player attempting to reach under the fence to retrieve a ball or to any player sliding under the fence. If neither a bottom rail nor a tension wire is used, it is likely the fence will curl up. Chain-link fabric should be knuckled at top and bottom to prevent injuries and to minimize debris from collecting against the fence.

An adequate number of gates should be installed to allow access to each court. Two gates at opposite corners are a plus, making it easy for players to retrieve balls that go over the fence. Gates should be 4' wide to accommodate sports wheelchairs. Gate openings of 4-1/2' are recommended to accommodate maintenance equipment. Where several soft courts are surrounded by a single enclosure, at least one double-swing gate a minimum of 8' wide is highly desirable. Such a large gate allows heavy equipment to enter the court for resurfacing. A large gate is usually unnecessary on a hard surface court since resurfacing is required only every few years.

Chain-link fabric or soft fence fabric such as windscreen or divider netting also can be installed on a wooden framework. Both weather-resistant untreated woods, such as cedar, and pressure-treated woods are used. The use of pressure-treated wood in ground causes some environmental concern; however, its manufacturers insist that when properly used, it shows no harmful effects to the environment. Despite that concern, treated wood posts are generally preferred for their resistance to damage caused by insects and microorganisms. Both age naturally to a grayish color, or they can be stained or painted.

When using wooden framework, at least a 4" x 4" post and a 4" x 4" rail, doweled into line posts, is required, with 6" x 6" preferred. When using round post and rail fencing, a minimum diameter of 4" should be used. Posts should be spaced a maximum of 8' to 10' on center and installed in the ground at least 30". In areas of freeze-thaw activity, installation 6" below the frost line, but not less than 30", is recommended.

Untreated wood posts most often are installed in gravel footings 12" in diameter, though concrete is sometimes used. Pressure-treated wood posts are installed in concrete footings; it is recommended that a 6" gravel base be installed at the bottom of the post.

When constructing a wooden fence, mid rails may be installed for support at the corners and ends, but are optional elsewhere. Bottom rails also are optional but help to keep the fence fabric taut and to give the fence a finished appearance. A bottom tension wire may be used in lieu of a bottom rail.

Once the wooden framework is constructed, fence fabric is stretched and secured to the frame with 1-1/2" galvanized staples or other fasteners.

Such non-traditional fencing aids the court in blending into its environment. Wood fences can be designed with custom lattice and decorative post caps and can be stained or painted to match surrounding structures. The use of soft fence fabric (windscreen fabric or divider netting), however, limits the use of accessories that are normally hung on fencing.



# Repair, Reconstruction and Renovation

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Tennis courts, if well-constructed and well-maintained, will need major repair or reconstruction only after many years of use. This chapter will concentrate on the repair and reconstruction of asphalt and concrete courts. However, the section on renovation will discuss cosmetic and aesthetic changes that can enhance all types of courts.

Before undertaking any major repairs, attention should be paid to current drainage systems. Improper drainage makes surface damage more likely and more severe, especially in areas of freeze-thaw activity. Wet soil under the court will expand and contract in response to temperature, causing the surface to heave or to collapse. Poor surface drainage also may cause dirt or silt to accumulate on the court surface or cause damage to color coating systems. Prior to making repairs, correction of poor drainage is required. Installation or repair of surface or subsurface drainage systems should correct drainage problems. Among the issues that might be considered are:

- Swales
- French drains
- Ground elevation adjacent to courts
- Sod and/or landscaping higher than court surface

In general, there are three levels of repair of asphalt and concrete courts:

1. **Repair and Recoating**—A court with a proper slope, planarity and drainage, showing some wear, stains, low or high areas, or cracking can be restored with repair and recoating. First, the court may need to be washed with a power washer to clean the surface and remove stains. Coatings that may be delaminating or bubbling will need to be removed down to the base. Next, any cracks or low areas should be repaired with patching compound. High areas, if any, should be leveled by scraping, milling or infrared heating and planing of the asphalt. Next, depending on the seriousness of deterioration or cracking and the number of repairs, one or more layers of acrylic resurfacer may be applied in repaired areas. Finally, the court should be recoated with multiple coats of an appropriate tennis court coating by a qualified contractor according to the manufacturer's instructions. It is also possible to install a control joint by saw-cutting under the net to relieve future structural cracking in the existing pavement.

2. **Overlays with Membranes or Stone Screenings**—If a court is badly cracked, it may be advisable to install a geotextile membrane or a layer of loose stone screenings to separate the old and new surfaces. Once the geotextile membrane or layer of stone screenings has been laid, an overlay of asphalt or concrete should be installed in lifts. Finally, the court should be recoated.
3. **Reconstruction**—A court that is badly heaved or depressed, one with major structural cracking, or one with improper drainage or slope may need to be reconstructed. Less extensive repair methods may extend the court's life for a short time, but ultimately only reconstruction will solve the causes of such severe problems. Reconstruction involves pulverizing and removing the old surface and regrading the subgrade or pulverizing and reusing the old surface as a new base. Because many courts built in the 1960s, 1970s and 1980s are now quite old and show serious signs of deterioration, reconstruction is common.

As an alternative to resurfacing or reconstruction, a court may be converted to a different type of surface. If the court has proper slope and drainage, it may be overlaid with a modular surface, a roll-down surface or an infilled turf system. A court with improper slope or major structural cracking may be converted to a soft court or to a post-tensioned concrete court.

Whenever resurfacing, overlay or reconstruction is contemplated, the decision as to which method should be undertaken is based on a number of factors:

- the degree of deterioration of the court
- the causes of that deterioration
- the owner's budget for repair
- the owner's expectations for the life of the repair

Whenever repair, resurfacing or overlay is chosen, it is important for an owner to realize that eventually cracks will reappear or new cracks will form. Therefore, if the owner expects a long-term solution, the court should be reconstructed. On the other hand, if funds are not available for reconstruction, all methods of repair will provide some additional life for the court and some methods of repair will extend the useful life of the court by many years. A design professional or an experienced tennis court builder can help an owner determine the level of restoration required, appropriate methods and realistic expectations for such projects.

## Asphalt Pavement Problems

### **Cracking**

The most common problem with asphalt courts is pavement cracking. Cracking of asphalt is caused, at least in part, by the natural tendency of asphalt to shrink as it weathers, oxidizes and ages. In addition, asphalt loses its flexibility as it ages, making it more brittle. Since outdoor courts are exposed to weathering, including expansion and contraction caused by temperature extremes, as asphalt becomes more brittle, cracking is inevitable.

One method of delaying or deterring cracking is the installation of control joints. This method makes use of the natural tendency of asphalt to crack where it is weakest. During construction, the asphalt pavement is saw-cut under the net and between courts in a multi-court project. These saw cuts provide a place for movement and shrinkage of the pavement when contraction occurs, preventing or minimizing the number and severity of cracks in other portions of the pavement. In addition, cracks from one court in a multi-court battery will stop at the control joint and will not travel to the adjacent court. The asphalt pavement is saw-cut two-thirds to three-quarters its thickness and the cut is filled with an elastomeric crack sealant. The sealant will require supplemental work every one to two years as it degenerates through expansion and contraction of the cracks.

Quality design and construction can minimize or delay cracking but cannot eliminate it. Once cracking begins, no matter how skillfully it is repaired, the cracks will reappear.

There are many types of asphalt cracks. An experienced contractor or design professional can help an owner determine the specific types and causes of cracking and can recommend a method of repair.

### ***Hairline Cracks***

Hairline cracks are small irregular cracks present over large areas of the court. They do not affect the play of the game. Such cracks may be caused by natural weathering or aging, by foreign matter in the asphalt or coating material, by improper application of coating, by improper asphalt mix design, or by stripping. If untreated, hairline cracks will develop into more serious types of cracks and will require more extensive repair.

### ***Alligator Cracking***

Alligator cracking is a pattern of interlocking cracks over the surface, resembling an alligator hide. Such cracking may vary in depth from a very faint surface pattern to full-depth cracking. Alligator cracking may be a sign of an inadequately prepared subgrade or of rolling a court when the asphalt is too thin or with a roller that is too heavy.

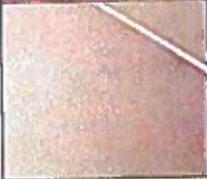
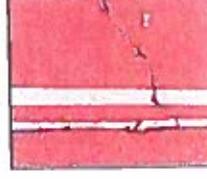
### ***Shrinkage Cracks***

Shrinkage cracks, or stress cracks, are a random pattern of interconnected cracks with irregular angles and sharp corners. They are small cracks, usually 1/16" or less. Shrinkage cracks may be caused by the weathering of the asphalt, by improper mix design or by issues with the acrylic or its application.

### ***Structural Cracks***

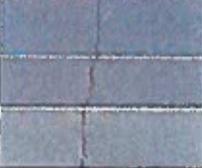
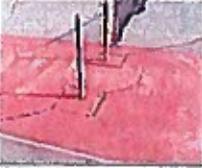
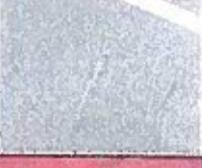
Structural cracks penetrate the asphalt pavement. They may result from the natural aging and shrinking of asphalt pavement, lack of proper sub-grade preparation, improper or lack of drainage, or non-uniform base or asphalt thickness/compaction. Often structural cracks appear as straight parallel lines running lengthwise on the court. Such structural cracks are almost always in the vicinity of the paving joints.

### COMMON TENNIS COURT PROBLEMS

	PROBLEM	DESCRIPTION	POSSIBLE CAUSES	POTENTIAL REMEDIES
<b>SURFACE PROBLEMS:</b>				
	<b>Fading</b>	Surface color is faded, washed out, or slightly chalky looking.	Oxidation of surface due to sun exposure, or defective surface material (very rare).	Acrylic resurfacing.
	<b>Normal Surface Wear</b>	Surface color is worn away. One may see previous surface finish beneath in cases of excessive wear.	Due to use and natural weathering.	Acrylic resurfacing.
	<b>Bubbles</b>	Soft humps or blisters in court surface varying in size from 1/4" to several feet in diameter. Isolated hollow sounding areas below court surface.	Excessive moisture below court pavement, standing water over court surface, poor surface or subsurface drainage outside court areas. Build-up of excessive acrylic surfacing layers.	Correction of drainage problems outside of court areas, leveling or regrading of pavement, patch or remove bubbled areas, acrylic surfacing.
	<b>Hairline Cracks</b>	Fine hairline cracks of variable lengths often occurring over entire court surface. Usually of shallow depth in the court surface and uppermost layer of pavement.	Sometimes natural aging or use of incompatible surface materials or solvent-type coatings, improper pavement seal coating, or improper pavement mix design.	Surface or pavement overlay treatments, and new acrylic surfacing. (These cracks have the potential to develop into structural cracks over longer periods of time.)
	<b>Alligator Cracking</b>	Alligator skin-like pattern of interconnected cracks usually in court surfacing and varying in depth. Often accompanied by loose particles of surface material.	Contamination of court surfacing during installation, use of incompatible surface materials of solvent-type coatings, improper pavement seal coating, or improper pavement mix design.	Surface or pavement overlay treatments, and new acrylic surfacing. These cracks have the potential to develop into structural cracks over longer periods of time and exposure.
	<b>Shrinkage or Stress Cracks</b>	Random pattern of interconnected cracks with sharp corners.	Too hot and too dry during installation, use of incompatible surface materials of solvent-type coatings, improper pavement seal coating, or improper pavement mix design.	Resurfacing. These cracks have the potential to develop into structural cracks over longer periods of time and exposure.
<b>CONCRETE PAVEMENT PROBLEMS:</b>				
	<b>Peeling</b>	Obvious loss of bonding of parts of the surface system from the concrete beneath.	When the concrete is improperly prepared and/or sealed before application of the surfacing system.	Removal of the loose surface material and proper preparation of the concrete before application of the acrylic resurfacing.
	<b>Raveling</b>	Pitting of the pavement, spalling or crumbling of surface and pavement.	Too much water in the concrete mix or overworking the concrete.	Remove inferior concrete and replace and apply new acrylic surfacing.
	<b>Structural Cracks</b>	Cracks which penetrate into the pavement often occurring in long straight or irregular lines. Most long cracks in concrete end up being structural.	Improperly constructed pavement joints thermal shock, heaving of base or subbase or improperly designed.	Surface or pavement overlay treatments, or reconstruction of court pavement and new acrylic surfacing, complete reconstruction of court for more severe cases.

\* Prepared by Alex Levitsky (GlobalTennisDesign.com) 2011

### COMMON TENNIS COURT PROBLEMS

	PROBLEM	DESCRIPTION	POSSIBLE CAUSES	POTENTIAL REMEDIES
	<b>ASPHALT PAVEMENT PROBLEMS:</b>			
	<i>Raveling</i>	Pock-marked pavement, spalling, or crumbling of surface and pavement.	Often due to segregation of aggregates in the asphalt mix, weakening that portion of the pavement.	Acrylic patching for small areas is possible. For larger problems, overlay treatments and new acrylic surfacing may be called for. For more severe cases, reconstruction of court pavement and new acrylic surfacing.
	<i>Heat Checking</i>	A sequence of angled cracks at regular intervals and following the direction of the roller.	Due to compaction of the asphalt that is too thin and rolling at the wrong temperature range.	Can be patched and covered with acrylic resurfacing, but cracks may reappear in 3-5 years. Overlays or reconstruction may be required on severe cases.
	<i>Structural Cracks</i>	Cracks which penetrate into the pavement often occurring in long straight lines or irregular patterns emanating from a clear point in the pavement, such as net or fence posts.	Improperly constructed pavement joints thermal shock, shrinkage of pavement due to oxidation, heaving of base or subbase, tree roots, improperly designed or constructed post footings.	Surface or pavement overlay treatments, or reconstruction of court pavement and new acrylic surfacing, complete reconstruction of court for more severe cases.
	<i>Reflection Cracks</i>	Cracks directly over the locations of the previous ones in the old asphalt in cases of overlays.	Due to the movement of the pavement beneath.	Overlay should be separated with a layer of material that allows the new material above to move independently of that beneath it. In severe cases, reconstruction is required.
	<i>Radial Cracks</i>	Cracks that are generated from the corners of concrete foundation or other irregularities in the court pavement.	Asphalt tends to shrink as it ages outdoors and it will crack at points of least resistance. Irregularities in shape and thickness are such points.	Cracks can be extended (by means of a saw cut) and patched with a flexible crack repair system and resurfaced. In severe cases, reconstruction may be required.
	<i>Dents &amp; Divets</i>	Imprints, scraps and gouges in the surface.	Due to impacts from tennis racquets, falling branches, dropped furniture and improperly used maintenance equipment.	Patched before resurfacing.
	<i>Birdbaths</i>	Randomly located elliptical, or elongated depressions 1/4" or less which tend to puddle and hold water after the rest of the court has dried.	Poor slope of the court pavement improper paving of the court, settling or upheaval of the court, pavement, base or subsurface.	Leveling, patching, or reguarding of pavement, patch or remove bubbled areas, acrylic surfacing.
	<i>Major Depressions &amp; Heaves</i>	Isolated vertical displacement of court pavement more than 1/4" above or below the surface.	Frost heaves, swelling of base or subsurface soils due to improper drainage, tree roots, or decomposition of organic matter in subgrade or court, poor compaction of base or subbase.	Usually complete reconstruction of the court pavement or in more severe cases, reconstruction or relocation of the entire court.
	<i>Rust Spots</i>	Orangy-brown, rust colored stains or streaking in random patterns over court surface.	Poor maintenance of court surface, contamination of court surface material during installation, presence of pyrites or iron deposits in court pavement mix.	Overlayment of court surfacing or repaving of court, and new acrylic surfacing, in minor cases removal of spots, patching and resurfacing.

\* Prepared by Alex Levitsky (GlobalTennisDesign.com) 2011

### ***Reflection Cracks***

Reflection cracks occur in asphalt surface overlays and mirror a crack pattern in the old pavement underneath. They are caused by movement in the pavement beneath the overlay or in the subgrade or, if present in an asphalt overlay of a concrete court, they may follow the joints or cracks in the original concrete slab.

### ***Radial Cracks***

Cracks sometimes appear at the point where concrete net post, light pole or fence post footings meet the asphalt court pavement. They occur because the concrete footing material and the asphalt court material expand and contract at different rates in response to temperature changes. Footing cracks can be avoided or minimized by using round post footings and by recessing the footing below asphalt courses, leaving a continuous asphalt finishing course.

### ***Stripping***

Stripping can be a problem in new asphalt. It shows up as many fine hairline cracks in the pavement. Stripping occurs when water gets into the asphalt mix with the aggregate and prevents the asphalt from adhering to the aggregate. Stripping may be caused by the presence of water in or on the aggregate. To minimize the likelihood of stripping, dry aggregate should be used. Some asphalt plants can provide anti-stripping agents. Where stripping occurs, depending on the degree, repairs may include everything from recoating to reconstruction.

### ***Heaving***

Heaving, or upheaval, is the result of localized movement of some portion of the pavement. In heaving, a portion of the pavement is pushed up, often by frost expansion or by the swelling of moisture-laden expansive soil beneath the court, cracking the asphalt pavement. Reconstruction is usually required to remedy major upheaval. However, prior to reconstruction, the cause of the upheaval should be identified and corrected or the condition will recur. Heaving may be caused by tree roots, water freezing and expanding under the asphalt, geologic conditions and other forms of vegetation. Asphalt impurities, including but not limited to wood chips and ferrous-based aggregate, can also cause localized heaving in the surface. This heaving sometimes appears as localized bumps in the surface. Proper repair of these surface imperfections would be grinding or removal of the impurity and patching.

### ***Raveling***

Raveling is the spalling or crumbling of the surface of a pavement, resulting in a pock-marked appearance. It is caused by oxidation of the surface as a result of prolonged wear and exposure to UV radiation.



## **Depressions**

There are several types of depressions in courts:

**Dents or divots** are small depressions, usually caused by racquets hitting the court, by chairs or other equipment on the court, by stones or keys or hard-soled street shoes. Such dents generally do not affect play. They can, however, be repaired individually, using patching material, or be corrected by resurfacing or by an overlay as part of a larger repair project.

**Birdbaths** are defined as any areas where standing water more than 1/16" deep (commonly measured using a nickel) remains after drainage of the area has ceased or after one hour at 70 degrees F. in sunlight. Such minor depressions delay play after a rain and may cause staining on the court as they dry.

**Major depressions**, accompanied by cracking of the pavement, are most often caused by insufficient compaction of the subgrade, decay of organic material beneath the court, or water under the court causing undermining in the subgrade. Reconstruction is usually required to remedy major depressions. However, prior to reconstruction, the cause of the collapse of the pavement should be identified and corrected or the condition will recur.

## **Rust Spots**

In some parts of the country, the crushed stone aggregate used to construct asphalt pavements may contain iron. If iron is present near the surface of the court, it will oxidize, forming rust spots or streaking. An asphalt overlay, using asphalt brought in from a plant without this problem, or a change of surface to a textile, modular or roll-down surface, will be required to correct this problem.

## **Asphalt Impurities**

In some parts of the country, the crushed stone or sand aggregate used in asphalt may contain clay balls, wood bits, or other forms of contamination. It is impossible to obtain a guarantee from an asphalt producer or supplier against the presence of this material, particularly if their source has a history of such inclusions. Also, since a producer's source of aggregate may vary from time to time, it is impossible to predict whether a particular batch of asphalt from a producer will contain deleterious materials or to rely on the fact that the asphalt from a given producer or supplier has not contained these materials in the past. In some parts of the country, asphalt plants may supply certificates stating that their asphalt is impurity-free.

If contaminated materials are present, over time, they may degrade, forming carbon dioxide and/or methane gas, creating bubbles in the surface coating or pitting in the surface. In most cases, these problems are minor and can be repaired using conventional patching methods.

Occasionally, in severe cases, an asphalt overlay, using aggregates from a different source, or a change of surface to a textile, modular or roll-goods surface, will be required to permanently correct this problem.

### **Bubbling in Acrylic Coatings**

Bubbles in the color coating on asphalt and concrete courts most often are caused by moisture between the pavement and the coating material. The moisture can come from any of several sources. Both asphalt and concrete are permeable pavements. Moisture trapped below the slab can be drawn up through the pavement or the water may come from the pavement itself if the slab is incompletely cured prior to the application of coating materials.

Whenever water is present on, in or beneath a tennis court pavement, heat from a warm day may draw the moisture upward to the surface where it vaporizes and expands. The trapped vapor then breaks the bond between the coating and the slab, forming a bubble. Bubbles also may form between layers of coating. Also, not allowing the acrylic products to fully dry between successive coats is a potential source of bubbling and/or coating failure.

Many modern coatings are semi-permeable and allow a small amount of moisture to escape. However, if larger amounts of moisture are present, if too many coats of surfacer have been applied, if the coats are too thick or if an impermeable coating material is used, the water cannot permeate the coating and bubbles are inevitable.

Rarely, bubbles may be caused by salt contamination during construction (from airborne salt, ground salt or salt in ground water) or by microbial action in which microscopic organisms produce carbon dioxide and/or methane gases forming bubbles.

Small bubbles may be punctured with an ice pick or nail and pressed down, which may make them re-adhere. Stepping down on bubbles only will be effective if there is still liquid or semi-dry binder under the bubble. If not, adhesive must be injected with a syringe to facilitate rebonding.

Large bubbles most likely will need to be cut out and patched with new materials. It may also be possible to reattach bubbles with a glue or adhesive injected with a syringe. Such patches are sometimes unsightly and bubbles may reappear. If the entire surface of the court shows bubbling or if bubbling recurs, one approach is to remove the coating by shot-blasting, hydroblasting or grinding, then recoating the court.

Installation of a vapor barrier or barriers in construction, construction of proper drainage, proper curing of the slab prior to coating and proper installation of coatings should prevent bubbling. When recoating an existing court, it is often better to remove old coats before applying new coating, since each additional layer of coating reduces the permeability of the surface, increasing the likelihood of bubbling.

## **Portland Cement Concrete Pavement Problems**

### **Cracking**

Most cracks in concrete courts are structural in nature, that is, they extend through the vertical profile of the slab. Such cracking is more common in reinforced concrete courts than in post-tensioned courts. For post-tensioned concrete construction, if the slab cracks, the tendons will hold the cracks together. The methods of repairing concrete cracks are similar to the methods of repairing asphalt cracks.

Epoxies and urethanes, while not commonly used in asphalt-based repairs, are used in the concrete industry to repair cracks, and these products may be considered for concrete tennis court repair as well. Use of pressure-injection of epoxies or urethanes can effectively fill small cracks in concrete courts.

Other options for cracked reinforced concrete courts include conversion to a post-tensioned concrete or fast dry court or installation of an infilled turf or modular surface over the cracked court.

### **Spalling**

Spalling is the excessive wearing and loss of surface material, forming holes or pits 1/4" to 2" deep, on the surface of a concrete slab. In concrete courts, spalling often is caused by the use of too much water in the concrete, initiating the finishing process too early, or by over-finishing the concrete surface, which may draw laitance to the surface, thereby weakening the surface structure.

Small areas of spalling can be chipped out with a hammer and chisel and filled with latex or epoxy patching material. A concrete patch should not be used since it will likely crack out again.

### **Peeling**

Peeling of the surface occurs when the acrylic coating fails to bond properly or loses its adhesion to the concrete slab. Concrete is difficult to coat due to the nature of the material. Even a well-constructed, properly coated court may show small areas of peeling. These areas should be touched up. More extensive peeling occurs when the concrete is improperly prepared prior to the application of the coating material, when concrete contains curing agents that reduce the bond between the coating and the concrete, or when water stands on the court surface.

Prior to repair of peeling areas, the cause of peeling must be determined. If peeling is determined to be caused by improper surface preparation, the peeling material should be removed, the surface prepared properly by hydro-blasting, shot-blasting or grinding. Surface repairs and recoating can then be applied to the concrete.

If the peeling is found to be caused by topically applied curing agents in the concrete, the curing agent may continue to prevent a proper bond between the coating and the concrete. Surface preparation by hydro-blasting, shot-blasting or grinding will be necessary to remove these curing agents prior to surface repairs and recoating.

If peeling is found to be caused by standing water, the cause of the standing water must be corrected prior to repair of the peeling area, after which the peeling area must be removed, the concrete surface prepared and new coating material applied.

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## Other Concrete Surface Problems

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### Alkali-Silica Reaction

Alkali-silica reaction (ASR) is a degradation of Portland cement concrete over time through a chemical reaction between the cement, which is highly alkaline, and reactive non-crystalline silica, which is found in many common aggregates used in concrete construction. The acid-based reaction converts the silica aggregate into a gel, causing serious expansion and cracking throughout the concrete structure. The gel also causes spalling and delamination of acrylic coatings on the court surface.

Three ways to minimize the effects of ASR include:

1. Utilize cement with low alkali metal content.
2. Utilize non-reactive silica aggregate. Some volcanic rock is susceptible to ASR and should not be used. Chert, quartzite, opal and strained quartzite crystals are other aggregates that contain reactive forms of silica. Most limestone does not have high levels of silica and is therefore a preferred concrete aggregate in the U.S.
3. Add very fine siliceous material such as pozzolan, silica fume, fly ash or metakaolin to the concrete mix to neutralize the high alkalinity of the cement. This material also forces the ASR to occur in early stages of concrete hardening and eliminates the expansive pressures caused by the reaction with larger reactive silica containing aggregate.

### Alkali-Carbonate Reaction

Alkali-carbonate reaction (ACR) is a degradation of Portland cement concrete over time through a chemical reaction between the cement, which is highly alkaline, and some reactive dolomite limestone-based aggregate. The result of this reaction is cone-shaped pop-outs in the surface of the concrete.

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## Repairing Pavement Problems

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### Crack Repairs

The appropriate method of crack repair depends on the type and size of the crack to be repaired, the underlying problems that caused the crack, and the available budget.

Most commonly, small cracks are treated with a crack filler. The crack is first cleaned and dried. A tack coat may be applied according to the manufacturer's instructions for mixing and drying. Next, the crack filler is worked into the crack with a putty knife or similar instrument. The crack must be filled; it cannot be merely covered. Pressure on the filler should be applied in all directions so that the crack repair material fills all spaces. Once the crack is completely filled, excess material on the surface is removed. When the crack filler has dried, the surface of the filled crack is smoothed to remove any ridges.

Another method of crack repair involves one of several proprietary systems. In these systems, a series of fabrics or membranes are used to bridge the crack. The repair is then covered with a color system. The crack in the court remains and may continue to expand; if so, the fabric or membrane is designed to flex and stretch as the pavement moves.

### **Birdbath Repairs**

Birdbaths, or low spots, can be repaired by patching. First, the court should be flooded and the birdbath marked with soapstone or chalk. Next, the area should be cleaned and allowed to dry. A tack coat should be applied to the area within the marked line. The birdbath should then be filled with a thin coat or several thin coats of patching material. The patch should be leveled with a straightedge and the area around the patch should be feathered and smoothed to meet the existing pavement. Finally, the patch should be allowed to cure, sanded or smoothed of all rough textures, and recoated according to the manufacturer's instructions.

### **Resurfacing**

Repairing many cracks and/or birdbaths may leave a court with an unattractive freckled appearance; resurfacing will correct such an unsightly condition. Resurfacing also will correct a surface with other cosmetic defects, shallow depressions or overall shallow cracking. First, the individual cracks are filled. Then, one or more coats of acrylic tennis court resurfacer are applied. This material, specially designed for tennis court resurfacing, helps fill minor imperfections in the surface and provides a smooth and uniform base for recoating.

### **Overlays with Membranes and/or Stone Screenings**

The application of a complete asphalt overlay is recommended where the surface is badly stained or aged or where there is poor planarity, incorrect slope or poor surface drainage. The nature and seriousness of problems with the existing court will determine the depth of the overlay. The minimum depth of the overlay should be 1" in the non-freeze-thaw climates or 1-1/2" in the freeze-thaw climates and twice the depth of the largest aggregate size in the asphalt mix.

Whenever an overlay is contemplated, the installation of an asphalt-saturated geotextile membrane or a layer of stone screenings between the old pavement and the overlay should be considered. These systems retard the transfer of cracks from the deteriorated playing surface to the new surface.

The use of geotextile membrane systems has become common in roadway resurfacing and has been adapted to tennis court applications. Before the membrane is applied, cracks and other surface irregularities are repaired. Then, the membrane is laid over the court. A single or double layer of membrane may be used. Some types of membranes are tack coat or adhesive-bonded to the old asphalt. Installation of a membrane will provide some resistance to reflective cracking, but not as much as a stone screenings layer.

A layer of stone screenings is effective in retarding the transfer of cracks from the old pavement to a new overlay. This process is particularly effective if there's vertical movement along the length of the existing pavement crack. A layer of processed stone is installed over the existing pavement to a depth of not less than 2". Consult a local tennis court contractor to determine the appropriate thickness.

After the installation of the membrane or the layer of stone screenings, it is necessary to select the type, thickness and number of layers of asphalt overlay, based upon climatic conditions, types of asphalt materials obtainable, surrounding topographical conditions and funding available.

Another option for repairing a deteriorated asphalt court is a post-tensioned concrete overlay. In that cracking in asphalt courts may come from inadequate preparation of the subgrade, poor drainage or other site conditions that might continue to exist, a site inspection should be conducted to ensure the asphalt court will provide sufficient support for the post-tensioned overlay. Next, a leveling course of 2" of sand and/or a double layer of polyethylene sheeting (if leveling is not required) may be used to reduce the friction between the cracked asphalt base and the slab as it is tensioned.

A significant benefit of either type of overlay is that it eliminates the need to dispose of the old asphalt, which is becoming increasingly expensive.

## **Reconstruction & Conversion of Asphalt & Concrete Tennis Courts**

As an alternative to repairing cracked or deteriorating asphalt and concrete courts, such courts may be reconstructed or converted to a different surface. A court with proper slope and drainage can be overlaid with a modular surface, a roll-down surface or an infilled turf system. Such systems can be installed quickly and will extend the useful life of the court without major disruption to the landscaping, fencing, net posts, etc.

A court that is badly heaved or sunken, one with serious cracking or one with improper drainage or slope may need to be reconstructed. Less extensive repair methods may extend the court's life for a short time, but ultimately, only reconstruction will solve the causes of such severe problems. Depending upon the type and seriousness of the problems evident in the court, reconstruction may require the removal of the existing asphalt or concrete pavement, the removal of poor base materials, addressing underlying issues with the subgrade or drainage, regrading, reconstruction of the base and pavement, and resurfacing.

When reconstruction of asphalt courts is undertaken, the existing pavement may be removed and disposed of, overlaid or pulverized and reused as the base for a new court. Disposing of old asphalt pavement is difficult since it is considered an environmental concern.

Some asphalt plants will accept old asphalt for recycling, but the "tipping fee" charged by those plants may make this option cost-prohibitive. Many landfills will not accept old asphalt and, in some locations, there simply is no place to take it.

For that reason, pulverization is sometimes chosen, in which case there are two options: cold-planing and full-depth pulverization. Cold-planing, frequently used in resurfacing highways, involves milling the pavement down a partial depth of the asphalt, then repaving back to the original elevation. In this option, neither the existing base nor the subgrade is reworked. Therefore, if problems exist in those areas, this method may not permanently solve issues with the court.

In a full-depth repair, however, the pavement is broken up and crushed with a rotary hammer mill, and mixed with the underlying aggregate base. Larger pieces are brought to the top where they can be reprocessed or removed. Once the old pavement and aggregate material are fully processed and mixed, the resulting new base is graded and compacted with a vibratory roller. Next a layer of clean, processed aggregate is added, fine-graded and compacted, after which a new pavement is constructed and surfaced. A full-depth repair is the most complete and the most expensive method of reconstructing a tennis court and the only way to completely address problems in the base. When reconstructing a court, fencing and net posts must be removed and reinstalled to the new surface and grade elevation.

Alternatively, following the reconstruction of the base, the court may be converted to a clay or fast dry court or to a post-tensioned concrete court.

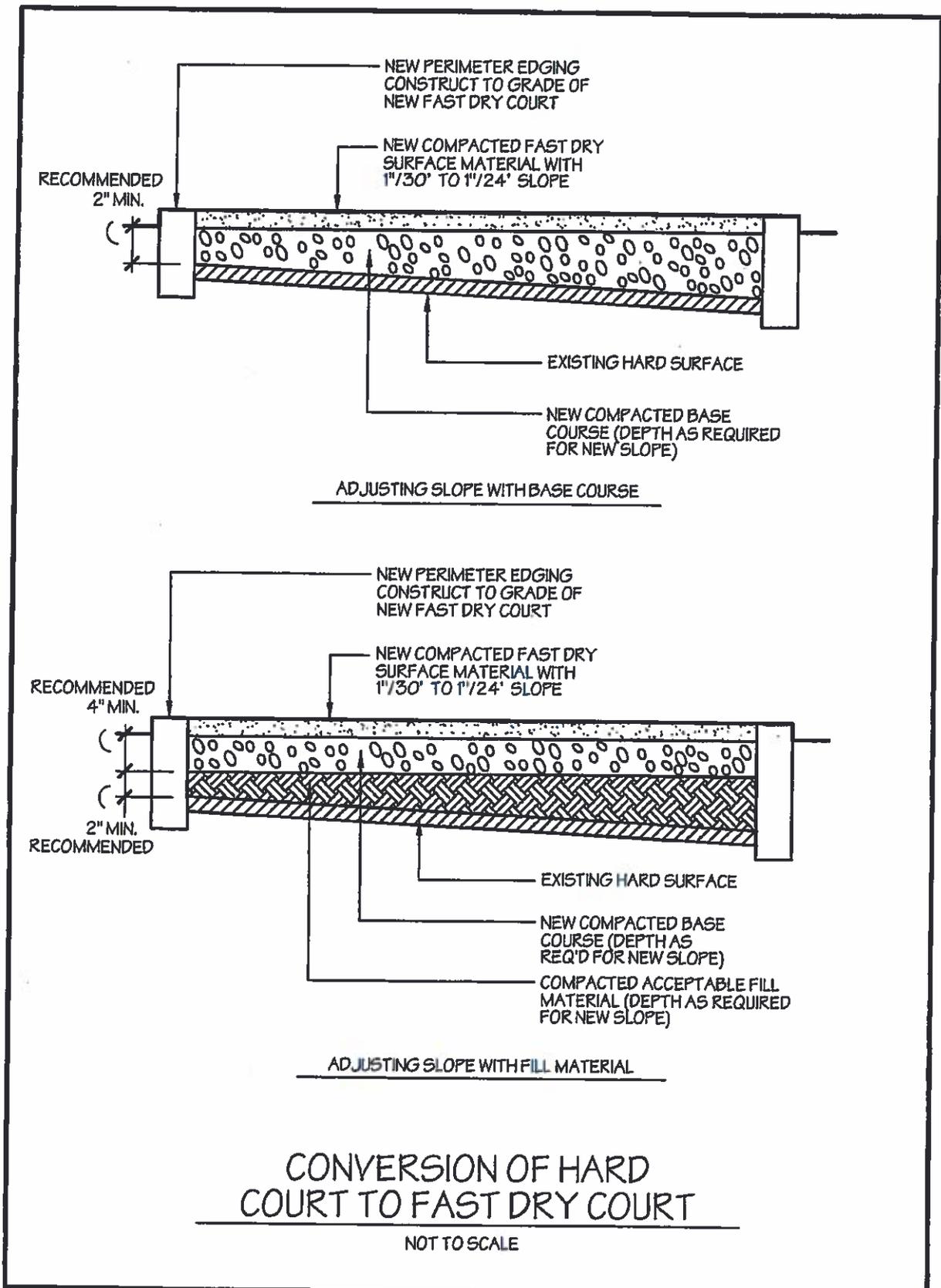
While asphalt can be pulverized in place or removed, concrete typically is removed or overlaid. Reinforced concrete is broken up with a hydraulic impact hammer (also called a ram hoe or hoe ram), but disposing of old concrete is difficult and costly because of the volume and weight of the debris. Also, the process of breaking up concrete for removal causes environmental concerns due to dust and water runoff. Removal of post-tensioned concrete is very dangerous and should be attempted only by a knowledgeable contractor. For all these reasons, concrete courts typically are overlaid; if the existing court is reinforced concrete, often it will be overlaid with a post-tensioned concrete court.

### **Repair of Infilled Turf Courts**

When infilled turf courts play inconsistently, it may be time to repair them. Repairs generally focus on the fill.

If the fill is compacted, power-brooming or scarifying may be all that is required. If the fill is contaminated and other efforts have failed to correct the condition, remove and discard the contaminated fill, clean the turf and add new fill.

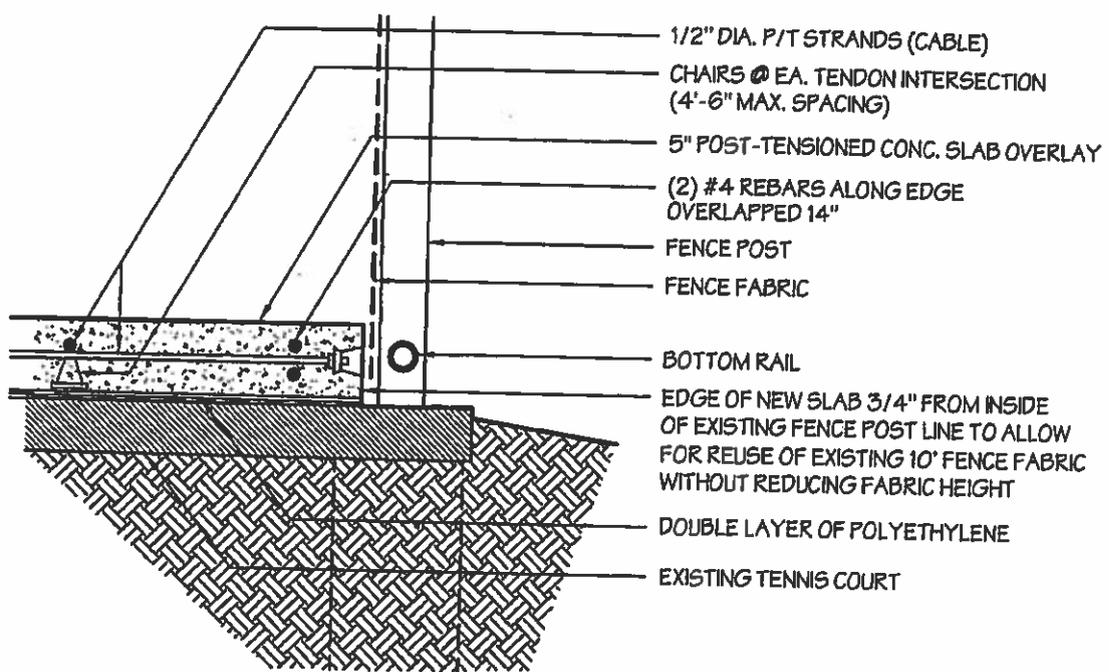
If seams are split, it may be possible to remove the fill in the area temporarily and re-glue the seam. Immediate and careful repair of split seams is recommended since they may constitute a tripping hazard.



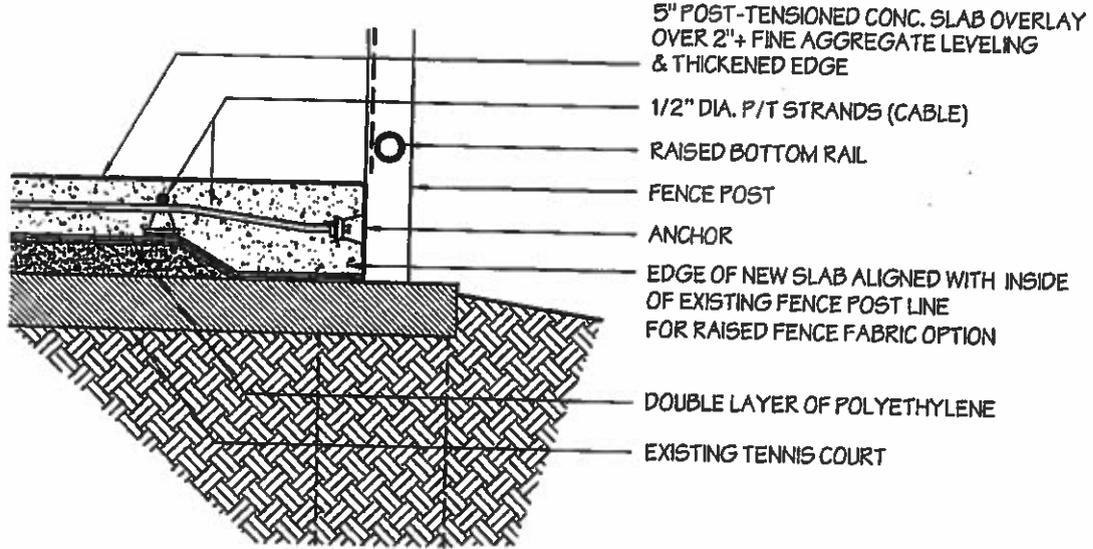
52CONVER1.AVL.11



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



OVERLAY ON POLYETHYLENE ONLY



OVERLAY ON FINE AGGREGATE LEVELING & POLYETHYLENE

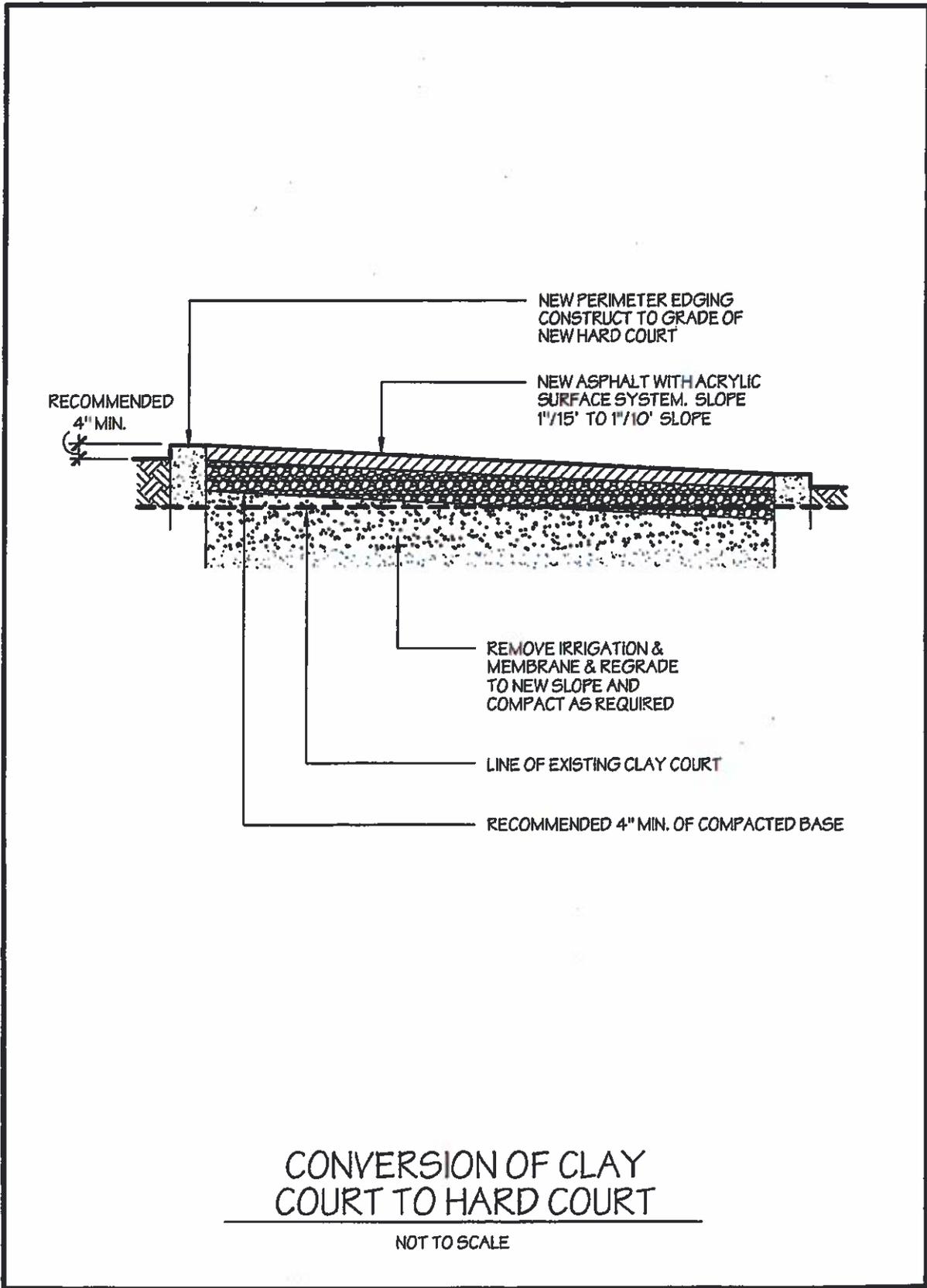
### OVERLAY OF HARD COURT WITH P/T CONCRETE SLAB

NOT TO SCALE



54OVERLAY.AVL.11

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



53CONVER2.AVL.11



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

When the pile on infilled turf courts is badly worn leading to bad bounces, poor footing or unacceptable appearance, it is time to replace the surface. While obvious wear may be localized, at the baselines or in the check area where players stop coming off a serve, for example, replacing just worn sections is not recommended since it is likely that the pile height on the new material will be higher than that on the rest of the court.

## **Repair of Clay Courts**

A clay court needs attention when it shows exposed aggregate or rutting, when it doesn't hold moisture or when it has excessive wear at the baselines or check area where a player stops when coming off a serve. Clay courts are repaired by the addition of surfacing material.

As with fast dry courts, prior to beginning a repair a core sample should be taken to ensure that the base is adequate. If the base is a source of drainage or compaction issues, then removal of the surface and reconstruction of the base will be required.

Once it has been determined that the base is properly constructed and stable, a repair of the surface can be undertaken. Often, the most difficult part of the repair will be finding a source of suitable natural clay. Clay for use on tennis courts is thick and putty-like. It is blended with sand and silt, not less than 25% or more than 50% clay, in proportions determined by local conditions. Its finished plasticity must be not less than 12% or more than 20%. The finished surface course must be not less than 3" in thickness. If a good source of clay cannot be found for surfacing a clay court, the surface can be repaired with processed crushed brick or fast dry surfacing material.

The contractor first will clean and scarify the existing surface. Next, the surface will be wet down to facilitate adhesion between the old and new materials. New material, whether clay or fast dry, will be spread, dragged, watered and rolled. Dragging, watering and rolling will be repeated until the surface is smooth, hard and uniform. A fine layer of clean sharp sand may be added prior to the last rolling. Lastly, the contractor will reinstall the lines using paint or synthetic line tapes.

The addition of a new lift of surfacing material most likely will necessitate adjustment in the height of the curb, net posts, irrigation heads, center anchor and fence.

## **Repair of Fast Dry Courts**

When a fast dry tennis court plays inconsistently, causes bad ball bounces or offers poor footing; when aggregate shows; or when the court has obvious high and low areas, it is time to undertake repairs. If the court irrigation is irregular—dry spots, wet spots, running water or water visible on the surface—after all attempts at adjustment, then the irrigation system needs attention.

Before undertaking work on the surface, take a core sample to examine the base and subgrade. If the subbase and base are adequate and the irrigation system demonstrates only localized issues, then the project will be a repair. If the subgrade is not compactable or is not providing proper drainage, if the owner seeks to replace above-surface irrigation with subsurface irrigation, or if problems with the surface are widespread, it may be necessary to renovate the court by removing the surface completely, correcting the subgrade, base or irrigation system and replacing the surface.

For a repair project, assess and, if necessary, correct any problems with the irrigation system. For a court with above-surface irrigation, if the sprinkler system is generally functioning well, now will be the time to clean and/or replace individual sprinkler heads. For a court with subsurface irrigation, a repair project may include replacing metering devices. Occasionally, irregularities, leaks or folds in the membrane liner, clogs in or collapse of the pipes may cause localized problems. The first step in the repair is to determine the cause by excavating with hand tools. Most often, the problem is isolated in a single cell and can be addressed by repairing or replacing that cell.

Whenever it is necessary to dig in the court, whether to examine the base or to repair a subsurface irrigation cell, it is important to restore the material and compact it consistently to blend it into the rest of the court.

## **Reconstruction and Conversion of Fast Dry Courts**

Occasionally, complete renovation may be required. The contractor will excavate all the colored surface material (usually gray/green or red) and dispose of it. This excavated material should not be used for tennis court projects.

Next, the contractor will excavate the aggregate base and, if it is uncontaminated, stockpile it for reuse. Blending the base into the existing subgrade also is an option, though this will cause a greater change in the elevation of the court and, almost certainly, require adjustment to the curb, net posts and fence. Once the site has been completely cleaned and regraded, it can be reconstructed just as a new court. The contractor will examine the irrigation system and correct any deficiencies. If the budget allows, consider replacing above-ground sprinkler systems with subsurface irrigation, which decreases maintenance and down time and improves surface consistency and performance. Then the stockpiled base material or new aggregate will be installed and, finally, new surfacing material will be installed, compacted and watered. Finally the contractor may install fence fabric, as necessary, and new line tapes.

Alternatively, the court may be surfaced with infilled turf or roll goods, or it may be converted to an asphalt or concrete court.

## **Drainage**

Improper drainage makes surface damage more likely and more severe, especially in areas of freeze-thaw activity. Wet soil under the court will expand and contract in response to temperature, causing the surface to heave or to collapse. Poor surface drainage also may cause dirt or silt to accumulate on the court surface or cause damage to color coating systems. Prior to making repairs, correction of poor drainage is required. Installation or repair of surface or subsurface drainage systems should correct drainage problems.

## **Renovation**

Renovating older tennis courts may involve more than repair or reconstruction of the court surface. A renovation may include an overall facelift, improvements to fencing and lighting, and/or upgrading amenities and accessories, creating a more attractive and user-friendly facility. Among the repairs to be considered are:

## **Redesign**

Older courts often were built in long banks side-to-side or back-to-back. Adding relatively few feet to one end of these banks often can make a tremendous difference. In long rows of side-to-side courts, a few additional feet at one end will allow courts to be reconfigured, after resurfacing, with more space between them. Installing low divider fencing between courts further improves the sense of player privacy and prevents balls from rolling from one court to another. Adding a little space in back-to-back courts can provide a walkway between two groups of courts.

## **Fencing**

Straightening the posts, rails and gates on an existing fence and replacing any damaged or missing parts is a good start for any court renovation. The structural integrity of bent posts may be compromised. It may be necessary to remove and replace some or all of these posts. If the fence fabric is in good condition, remove snags and tears and tighten the fabric on the frame. Consider painting the entire fence dark green or black to provide a better background and to blend into the environment. If the fabric is rusted, bent or torn, replace it with dark green or black vinyl-clad fabric. Repair and rehang gates.

Newer fencing alternatives reduce the institutional appearance of courts and go a long way toward creating a more pleasant atmosphere. Among the options are the installation of wooden fencing, soft fencing or diagonal corners, or reducing the height of the fence on the sides of the court.

## **Windscreens**

Windscreens, also called backdrop curtains, enhance play by blocking out noise and visual distractions and by providing a background against which players can better follow the ball. In addition, properly installed, they give a court a neat, finished look. Adding windscreens or replacing torn or faded windscreens greatly improves the appearance of a tennis facility.

## **Net Posts, Light Poles**

Net posts, light poles and other metal components can take on a new look if sanded and painted. If net posts are bent or if they are older lever-type posts, they should be replaced with modern posts, both for appearance and for player safety.

## **Nets and Center Straps**

A new net and center strap provide a fresh look at minimal cost.

## **Landscaping**

Adding landscaping to a tennis facility can turn it into a tennis garden. Hedges or vines may be used in lieu of backdrop curtains to screen out noise and visual distraction, reduce wind interference and to add to players' sense of privacy.

## **Lighting**

Old-style high-mount flood lighting can be replaced with modern, environmentally friendly low-mount lighting, which is more attractive and more efficient.

## **Subsurface Irrigation Systems**

Fast dry courts will require less maintenance if kept uniformly moist. A subsurface irrigation system added during a renovation will allow for less downtime for maintenance and can reduce the amount of water usage.

## **Amenities**

Shaded player seating, drinking fountains and practice lanes or practice equipment make any facility more playable. Adding walkways, benches, viewing areas, new signage and path lights create a comfortable, player-friendly, inviting ambience. Remember, tennis should be a social experience.

## **10 and Under Tennis Courts**

Thanks to a concerted effort by the USTA and the tennis industry, facilities of all types—both public and private, with hard courts or clay courts—are adding 36' and/or 60' courts for children to play and learn tennis. In some cases, these shorter courts are built new; in other cases, existing 78' courts are converted to shorter courts for kids. Another option is to add “blended” lines for 36' and 60' courts to existing 78' courts. For more information about 10 and Under Tennis and resources available, visit [www.usta.com](http://www.usta.com) or [www.10andundertennis.com](http://www.10andundertennis.com).