# Suthurhan Thriendahip Tieague <br> Conceptual Approach for Revising the <br> Regular Season Scheduling Process 

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## SUMMARY

The SFL's current process for scheduling the regular season has the following attributes.

- Iterative process - Definite information is only required when it is needed. A good example of this is that the SFL does not require the actual team contact information until shortly before the game schedules are published while the final team and field information needed to develop the schedules are required about two weeks earlier.
- Potential errors are identified early in the process so that they can be corrected as soon as possible in order to minimize a disruption and unplanned rework.
- Field slot utilization is maximized - the goal is to have one field slot support two teams.
- Schedule conflicts for coaches with 2 teams are reduced.
- Schedules are developed so that there are no "scheduling gaps" in order to facilitate game official assignments.
- Clubs are allowed to adjust schedules to meet internal needs prior to the schedules being finalized.

Several clubs have recently questioned the process used by the SFL and requested the SFL to consider changing its process to provide the clubs more flexibility. Specifically, problems noted by the clubs with the current approach include the following.

- Clubs are required to commit to the number of teams that should be scheduled too early and that clubs should be allowed to finalize the number of teams much closer to the time that the games are actually played.
- Clubs are required to commit to field slots too early in the process and should be allowed to provide the actual time slots used much closer to the time the games are actually played and after other demands for fields are known by the clubs.

An informal review of the practices used by two travel leagues - National Capital Soccer League (NCSL) and Club Champions League (CCL) - found that most of the SFL clubs are still holding player registration for the SFL teams during the time that teams are being finalized and scheduling is being performed for these travel leagues. For example, NCSL requires the clubs to
register their teams around the middle of July for the fall season and the middle of February for the spring season. NCSL would have completed its schedules for club review by the first week in August for the Fall 2019 season. This compares with clubs being allowed to register SFL teams as late as August 15 and draft schedules being available for review less than 2 weeks later. For CCL games, our understanding is that the schedules may not be finalized until after the season starts since the member clubs work out key details of the game schedules, i.e., they do not use a centralized scheduling approach that is comparable to NCSL and SFL.

As with any system, the SFL's scheduling process involves a series of competing requirements and the SFL Commissioners believe that the current system maintains an adequate balance between the various requirements and should be maintained. However, the SFL has identified four (4) other alternatives that could be adopted for the clubs that change the relative importance of a given requirement and address at least some of the complaints with the current approach.

## BACKGROUND

The SFL currently uses an iterative approach when developing the regular season schedules. ${ }^{1}$ This approach is designed to (1) only require definitive information when it is required and (2) identify potential errors and problems as early as possible to reduce the impacts of errors made by the SFL and the clubs that are detected later in the process. The following sections discuss (1) the time frames and the key activities conducted within a given time frame by the current scheduling process, (2) key statistics relating to the Fall 2019 schedules such as teams needing to be paired, and (3) how the SFL's scheduling approach facilitates the pairing of teams to share time slots.

## Time Frames and Key Activities Conducted Under the Current Process

The SFL's process for scheduling regular season games is conducted in two phases - initial data gathering and actual schedule development.

- Initial Data Gathering - This phase begins on August 1 for the fall seasons and March 1 for the spring seasons. This phase is designed to gather most of the data needed to plan and support the game scheduling process. Examples of the data collected includes the initial team count and fields that will be used to support those teams. Clubs are allowed to modify this data, e.g., adding teams, changing divisions, changing field assignments, etc. prior to the scheduling development phase.
${ }^{1}$ An iterative process is one that makes progress through successive refinement (Mike Cohn). Similarly, it can also be viewed as a process for arriving at a decision or a desired result by repeating rounds of analysis or a cycle of operations. The objective is to bring the desired decision or result closer to discovery with each repetition or iteration (businessdictionary.com).
- Schedule Development - This phase develops and publishes the schedules. It also finalizes the team contact information. The process normally begins on August 15 for the fall seasons and March 15 for the spring seasons. When this phase begins, clubs are required to provide definitive information on the teams and fields that should be used to schedule the games. When this process begins, the clubs are not required to provide definitive team contact information. Rather, that data is collected after the draft schedules have been generated and ready for the clubs review which occurs less than two weeks prior to the first game weekend and about 10 days after the team and field data is finalized.

Attachment I explains the relationship of the time frames and activities conducted during each of the phases during the Fall 2019 season.

## Key Statistics Relating to the

## Regular Season Schedules

Developed for the Fall 2019 Season
The development of the regular season schedule requires a substantial amount of effort. The following provides some data relating to efforts expended for the Fall 2019 regular season schedules.

- Teams scheduled - 521 teams associated with 25 clubs - 12 age groups with all but 2 age groups having 2 divisions, i.e., the 521 teams were divided into 22 independent categories.
- Teams added after August 1 - 33 teams.
- Teams dropped after August 1 - 25 teams.
- Fields used - 84
- Teams associated with coaches that coached more than one team - 42 or more than 8 percent of the teams scheduled
- Teams that required manual pairing to share a time slot - 183 teams or about 35 percent of the teams. More than 98 percent of the teams that could be paired were paired to share a time slot.
- Scheduling groups -47
- About 68 percent contained three or more teams that needed to be paired.
- About 30 percent contained five or more teams that needed to be paired.
- About 17 percent contained seven or more teams that needed to be paired.
- Number of games scheduled - 2,084


## Scheduling Approach Used To Facilitate Team Pairing

The SFL has developed more than 235 standard schedules to support its regular season schedule development activities. These schedules are designed to handle a wide variety of conditions that include the following.

- Support scheduling group sizes ranging from five to 17 teams.
- Combining schedule groups so that travel times are reduced where possible while ensuring that no team plays another team twice during the regular season or to reduce the number of required Sunday games. For example, a 7-team scheduling group may be combined with a 10 team scheduling group to ensure that no team plays another team twice during the regular season or a 13 team scheduling group may be combined with a 9 team scheduling group so that no team is required to play Sunday games since all the teams in those two scheduling groups normally play their home games on Saturday.

The key to pairing teams using these various schedules is that each standard schedule only uses, for all practicable purposes ${ }^{2}$, only two types of home/away schedules - Home/Away and Home/Home/Away/Away. For example, a team using the Home/Away schedule will play its home games on weeks $1,3,5$, and 7 while its paired team will play its home games on weeks 2, 4,6 , and 8 . On the other hand, the team assigned to use a Home/Home/Away/Away schedule will play its home games on weeks $1,2,5$, and 6 and away games on weeks $3,4,7$, and 8 .

Utilizing only two types of Home/Away schedules for the majority of the standard schedules significantly increases the opportunities to pair teams in different scheduling groups. For example, assume a scheduling group contains 8 teams. Two teams will play in each of the 4 possible Home/Away schedules which provides two opportunities to pair the teams with teams in other scheduling groups. A great deal of effort was spent to use this standard approach when developing the standard schedules. Otherwise, attempting to pair teams would have been almost impossible using the existing resources.

[^0]While only using two types of Home/Away schedules greatly improves the ability to pair teams, its effectiveness is significantly reduced when a large number of teams must be paired. As noted elsewhere, almost 70 percent of the scheduling groups had 3 or more teams to be paired and about 35 percent of the teams needed to be paired in some fashion. Attachment II is an example of difficulties experienced in attempting to pair two teams when multiple teams within a scheduling group need to be paired.

## OPTIONS CONSIDERED

The primary drivers of the SFL's current schedule development time frames and deadlines are (1) when the clubs want to begin playing games and (2) the time needed to develop the schedules and notify the teams. As discussed elsewhere, the scheduling activities take about two weeks which is comparable to the time it takes NCSL to develop its schedules for review by the clubs. The key difference between NCSL and the SFL is that the SFL's schedules are developed much closer to the date the games are actually scheduled to begin - about 10 days before the first games are scheduled to be played.

The primary comments received on the current scheduling process relate to a desire for changes that would (1) reduce the current burden on the clubs to interact with the SFL and (2) reduce the time spent by the SFL to generate the season schedules which would allow the clubs more time to finalize their team and field submissions. However, as with any change, these modifications involve trade offs that can (1) affect the quality of the data used which increases the potential rework required and (2) may increase the work performed by the clubs. Regardless of the option selected, it will need to be applied to all clubs, i.e., clubs cannot choose which option they would like to adopt while another club desires another option.

Based on the trade offs associated with each option, the SFL Commissioners are recommending that the SFL continues its current approach since it (1) maximizes the use of the fields and (2) utilizes a process that, when implemented by the clubs, allows more time to identify and resolve problems associated with items such as team registration, team division assignment, and players being assigned to more than one team.

Four options were identified that appear to address the general concerns raises with the current scheduling process. A general description of the change, how it would be implemented, and some of the key advantages and disadvantages for each option are discussed below.

## Option 1 - Eliminate the Initial Club and Team Registration Process

## Overview of Change

Under this option, clubs would no longer be required to provide the club, team, and field information on August 1 for the fall season and March 1 for the spring season. Rather, the clubs would not have to provide any information until the SFL was ready to schedule the
games - August 15 for the fall season and March 15 for the spring season. If a club wanted the SFL to check its data, e.g., making sure that adequate time slots are available, the expected number of teams that it expects to register, etc., then it could submit its data early like it does under the current process.

## How It Would Work

- Under this option, the SFL would send out the current "registration information" on August 1 and March 1 rather than about 2 weeks earlier under the existing process. If a club opted to send in information earlier than the cut off, the normal process would be used, i.e., the SFL would notify the club of any errors that were detected so that they could be addressed prior to the August 15/March 15 cut off.
- On the cut off date, the SFL would use the team information available and begin the scheduling process. Errors made by the clubs or SFL would be handled using the following business rules.
- Teams not placed in the proper division - No changes would be allowed, i.e., the team would have to play in the division assigned.
- Missing or omitted teams - No changes would be allowed since the time to start the scheduling process had arrived.
- Inadequate number of teams to support two divisions registered - The SFL would place all teams in one division. Clubs would not be given an opportunity to add teams to a given division so that a two-team division structure could be used since the time to start the scheduling process had arrived.
- Inadequate field slots to support teams assigned to a given field - The club would be notified that inadequate field slots were provided to support the teams assigned to that field. The club would be given one day to provide the needed additional slots. If no additional slots are provided, the SFL will drop the necessary number of teams to fit the time slots. The decision on which team(s) to drop will be the last teams expected to use a given field. For example, assume that a club states that it would like the Under 14 Boys to use the last slots on a given field that does not have enough slots to support one team. The SFL would drop one Under 14 Boys team so that the remaining teams could use the existing slots. The club would be allowed to modify the team contacts so that the coaches with teams that were scheduled have the proper team contacts. However, it would not be allowed to provide additional time slots later to support the team(s) dropped or reschedule those games when the draft schedules were ready for review.


## Advantages and Disadvantages

- The primary advantage of this approach is that the clubs do not have to focus on the teams that they want to register and the fields they want to use to support those teams for about two weeks. This gives the clubs additional time to accept player registrations and identify the coaches for those teams.
- The primary disadvantage is that this approach introduces a "single point of failure" into the system. There is little if any time to correct mistakes made by the SFL or club "on the last day." History has shown that many clubs wait until the last minute to submit information and do not review the error reports or information returned in a timely manner. Examples of mistakes made in the past include the following.
- Clubs using the same team name for multiple teams in the same age group. When this information is loaded into the system, only one team is loaded rather than the two (or more) teams the club desires. Accordingly, teams would be inadvertently dropped with no means to add them back since the scheduling process had already started.
- Clubs assign fields that are inappropriate for the age group. This is particularly a problem in the fall when teams move from the U12 age group to the U13 age group. When this happens "at the last minute," then games may be scheduled on the incorrect field which requires clubs to manually reschedule those games once the draft schedules are prepared or teams get dropped since the club did not provide enough time slots on improper fields to support this team while field slots on the proper field were available.

Option 2 - Eliminate the Requirement to Provide a Master Player Roster Until One is Needed for the SFL Team Rosters That Are Distributed to the Teams

## Overview of Change

Currently the SFL requires teams to submit a Master Player Roster on March 15/August 15 showing the number of players assigned to each team. Eliminating this requirement would reduce the burden on the club to obtain the data, format it, and then submit it to the SFL. In addition, the clubs would no longer have to spend time responding to the SFL requests to confirm that the number of teams registered are viable or whether teams need to be added. Since the SFL does not retain this data, it would save everyone time and effort.

## How It Would Work

- The requirement to submit an initial Master Player Roster on March 15/August 15 would be removed.


## Advantages and Disadvantages

- The primary benefit is a reduction in the burden on the clubs and SFL in processing these submissions.
- The disadvantages to this option include the following.
- The initial review not only identifies teams that do not have enough players, it also identifies teams that the club believes it has registered but has not. This allows for the addition of teams omitted in error so it can be scheduled.
- The initial review identifies issues that the club needs to address prior to submission of the Master Player Roster used to generate the SFL Team Rosters and the clubs have more than two weeks to address any issues identified. These include (1) inconsistent team names used in the registration system and the teams registered with the SFL and (2) duplicate players between clubs. The latter is especially useful. However, it requires all the clubs to submit their Master Player Rosters. In the Fall 2019 season clubs representing more than 50 percent of the players participating in the SFL elected not to submit their initial Master Player Rosters. No duplicate players were identified which was different from the experience in previous seasons when almost all clubs did submit their initial rosters. When it came time to generate the SFL Team Rosters, almost all the player data was received near the dead line. This review identified multiple duplicate players between clubs. However, very little time was available to determine which team the player would actually play with so that the other club could remove that player from its Master Player Roster and the player be allowed to play in the week one games. This was again very different from the experience in prior seasons where very few duplicate players between clubs were identified when the SFL Team Rosters were developed.


## Option 3 - Maintain the Existing Scheduling Approach While Allowing the Clubs More Time to Perform the Functions Required by the SFL

## Overview of Change

This option focuses on the complaint that the SFL requires firm team commitments and field slots while the clubs are still trying to determine the number of teams it wants to register with the SFL and how it needs to use its fields for other programs, such as travel. The field issue is especially problematic for some clubs since the SFL's review of the draft field schedule is at the same time that the clubs are attempting to arrange fields for other programs.
Accordingly, its initial field commitments may need to be changed to support these other programs but the club does not yet know how to adjust the schedule by the time the SFL requires the draft schedule to be finalized. Accordingly, these comments relate to the need for the SFL to revise its processes to (1) allow the clubs more time to provide the team and
field information and (2) allow more time for the clubs to review the draft schedules so that changes can be made to accommodate competing demands for the limited available field space.

## How It Would Work

- No specific details were provided on how to address this complaint. The SFL Commissioners have reviewed the processes currently used to schedule teams and the current 2 week period seems reasonable. It is also consistent with the time used by NCSL to develop its schedules while (1) pairing teams to share time slots in almost all cases and (2) ensuring that teams play four home games in an eight-week season, but NCSL does not provide these benefits. Accordingly, the only way to delay the requirement for the clubs to submit specific information and give the clubs more time to review the draft schedules is to delay the start of the season's games. As noted elsewhere, the dates the SFL uses for its data submissions are basically derived from the date the clubs desire to start playing games - delaying the time when schedules are finalized results in delaying the season start date and number of games played.


## Advantages and Disadvantages

- The primary advantage to delaying the season start is that the clubs would have more time to address the needs of other programs. For example, assume that a club is trying to schedule its CCL games at the same time the SFL schedules are developed. They can focus on the CCL schedules and then have a much better idea of the field slots still available for its SFL teams.
- The primary disadvantage is that the SFL teams will have fewer regular season games since the field permits would still expire as they do now. Currently, the SFL teams are scheduled for at least 9 weekends in a normal season. This is consistent with NCSL which schedules between 8 and 9 games for a team during the season. Another potential issue is that by delaying the season start date to a later date, fewer games will have been played when it is time to begin the tournament scheduling which reduces the effectiveness of creating tournament divisions with teams of comparable abilities. Delaying the season start by two weeks would probably mean that the tournament would need to be eliminated and the current tournament weekend used for regular season games.


## Option 4 - Reduce the Time Spent by the SFL to Generate Season Schedules While Allowing the Clubs More Time to Perform the Functions Required by the SFL

## Overview of Change

This option also focuses on the complaint that the SFL requires firm team and field commitments while the clubs are still trying to determine the number of teams it wants to
register with the SFL and how it needs to use its fields for other programs, such as travel. By reducing the time spent by the SFL to schedule games, the clubs would have more time to (1) determine the number of teams that they want scheduled and (2) the field slots that should be used to support those teams. The SFL currently spends about 10 days to actually generate the draft game schedules. The vast majority of time is spent pairing teams to share time slots and reducing the scheduling conflicts for coaches with two teams. Eliminating these requirements, would allow the SFL to delay the team and field submission used to generate the schedules by a week. Using the Fall 2019 season as an example, the deadline for submitting team and field information would have been around Friday, August 24 at 6 PM with the draft schedules ready for review by the clubs on the following Monday morning. The clubs would still be given three days to review the schedules and resolve any field conflicts, e.g., too many games assigned to a field on a given week.

## How It Would Work

The schedule generation process would be reduced by one week. The SFL would take the club and field information submitted by the due date without question. Clubs missing this due date would not have any teams scheduled. Once the data submissions are received, the SFL would provide the following functions over the next two days.

- Break the teams into scheduling groups as done in the current process.
- Assign teams within a scheduling group that are "already paired" so that the standard schedules will pair those teams when the schedules are generated. About 350 teams in the Fall 2019 season would have been paired in this manner to share a time slot or did not need to be paired with another team. No pairing of teams between scheduling groups will be attempted. For example, assume that the first four teams in the initial list of teams assigned to a given scheduling group consists of Great Falls - Reston 1, Herndon 1, Herndon 2, and Sterling 1. The Herndon 1 and Herndon 2 teams would be placed in the standard schedule so that they would share a time slot, e.g., they would be placed as the number 1 and number 2 teams rather than the number 2 and number 3 teams. However, no efforts would be made to pair the Great Falls - Reston 1 team or Sterling 1 teams with other teams from the same club to share a time slot since they do not appear in that scheduling group.
- Minimal efforts will be made for coaches with two teams. An initial review will be conducted to try and ensure that their teams will be placed in the standard schedules so that both teams play at home on the same week.
- The SFL will assign initial game times for each of the games scheduled and the draft schedules will be released to the clubs for review. It will be up to the club to (1) determine what changes they want and (2) resolve any schedule issues such as too many games assigned to a field on a given day. For example, since teams between scheduling
groups are not paired, it is likely that an unequal number of games will be played on a given field each week. Assume that a club has eight teams and only four of those teams are within the same scheduling group. It is possible that on some weeks, two games will be played on the field while in other weeks three to six games are scheduled. It will be up to the club to decide how to resolve these situations in the three days allowed to review the draft schedules.
- The clubs will be given three days to review and make the necessary changes to the draft schedules and submit those to the SFL. At the end of the three-day period, the SFL will review the revised schedules to determine whether the schedules comply with the game schedule business rules on allowable time frames, e.g., no Saturday game starts prior to 8:30 AM or after 7:00 PM, no game date changes, game spacing, etc. Any games between teams from different clubs that do not comply with the business rules will be converted to an unscheduled game with the home team being assigned a scheduling forfeit. It will be up to the home team and club to work out an acceptable time and date for that game to be played after the season schedules are released.


## Advantages and Disadvantages

- This approach provides the clubs at least an additional week to finalize their teams and field slots and greatly reduces the burden placed on the clubs for its initial data submissions. In addition, if the clubs decide to delay the start of the season, then it would provide the clubs additional time to utilize field slots that may become available since the needs of other programs, such as travel, are better known.
- The disadvantages of this approach include the following.
- A single point of failure is introduced in the process. Errors made by the clubs or SFL in team registration would not be detected until after the schedules were generated and there would be no time to make any adjustments. Examples of these errors have been discussed elsewhere.
- Unless the season start date is delayed, it is unclear whether this approach would have some of the same issues or even compounds the problems with the current process of requiring the clubs to perform substantial activities prior to the start of the season when they are busy addressing the needs of their teams and other leagues.
- No efforts would be made to reduce the scheduling conflicts for coaches with two teams and information would not be available for the clubs to perform this on their own since the draft schedules would probably undergo significant changes.
- Many clubs only provide the number of field slots needed to support their teams, e.g., if a club has six teams playing in six different age groups and divisions that use the
same field, then only three slots are provided. Removing the pairing process of teams in differing scheduling groups provides a high probability that more games will be scheduled on a field than the field slots provided for most clubs. Accordingly, the clubs will have to spend more efforts to identify the additional field slots needed.


## Activities, Time Frames, and Process Used to Develop the Fall 2019 Regular Season Schedules

The following illustrates the activities and time frames for the development of the Fall 2019 regular season game schedules utilizing the current regular season game scheduling process.

| Event | Purpose/Desired Objective |
| :---: | :---: |
| August 1 - Clubs required to provide initial teams and field slots to support expected teams | - Provides an initial count of teams by division to (1) determine whether adequate support exists for two divisions and (2) assist the clubs in determining whether their division assignments need to be adjusted. <br> - Allows an assessment of whether the field slots provided support the expected teams to be registered - if inadequate, the club has time to identify additional slots so the number of teams the club desires to participate in the SFL can be scheduled. |
| August 15 - Clubs required to provide final teams and field slots to support the actual teams expected to be scheduled. In addition, an initial Master Player Roster is required to identify the number of players assigned to a given age group. | - Team assignments to fields validated to ensure that teams assigned to a given field fit within the slots provided. <br> - Validation that the scheduling order used for a given field is consistent with the teams assigned to that field, e.g., if the field is expected to support U14 Girls teams, then the order in which those games should appear on the schedule has been defined. <br> - Scheduling groups developed to minimize, where possible, (1) the amount of travel time for away games and (2) teams playing other teams from the same club when 3 or more teams from the club are placed in the same division. For example, assume that 4 teams from the same club are in the same division, the schedule would be designed so that the 4 teams would only have to play one or possibility two other teams from the same club if possible. <br> - Teams that need to be paired to share a time slot are identified. <br> - Master Player Roster data reviewed to evaluate whether an adequate number of players have registered to support the teams being scheduled. Dropping teams at this point does not cause the loss of games that occurs when it is found out that a team needs to be dropped after the schedules have been developed. |


| Event | Purpose/Desired Objective |
| :---: | :---: |
|  | - Master Player Roster data reviewed to identify teams assigned players but not registered which helps to identify any teams that were "missed" during the team registration process. <br> - Master Player Roster Summary generated and provided to clubs to help address future issues that may be present when the Master Player Roster is used later to generate the SFL Team Rosters. These include (1) identifying players assigned to more than one team (either between clubs or within the same club), (2) players assigned to teams that were not registered, i.e., team name assigned to the player is not a registered team (commonly referred to as team naming errors), and (3) players assigned to ineligible teams based on their birth dates, i.e., players shown as "playing down" and players shown as "playing up" more than the allowed age group. This is done so the clubs have time (at least 2 weeks) to resolve these issues prior to dead line for submitting the Master Player Rosters used to generate the SFL Team Rosters. |
| August 15/29 - Game schedules developed | - Teams paired to share time slots where possible. <br> - Coaches with two teams identified to determine what actions are needed to support reducing scheduling conflicts. While the SFL recommends that these teams play their home games on Sunday, very few clubs adopt this recommendation which means that additional work is needed to reduce schedule conflicts, e.g., making sure both teams play at home on the same weekend. <br> - Scheduling groups which have an odd number of teams but no team that plays its home games on Sunday are identified. The teams that will end up playing Sunday home games are then identified and the affected clubs are notified so that they can start working on acceptable fields and times for those games before they see the draft field schedules. <br> - Draft schedules developed and reviewed by SFL to (1) validate that the teams paired to share time slots produced the expected result and (2) changes needed to reduce conflicts for coaches with two teams. <br> - About 10 days after the scheduling process begins, the draft schedules are released to the clubs for review. |


| Event | Purpose/Desired Objective |
| :---: | :---: |
|  | - Clubs are allowed to make any changes that they may need for internal purposes. Clubs are given three to four days to make any desired changes. <br> - Clubs requested to finalize team contact information. |
| About two weeks after scheduling begins and about 10 days prior the first game weekend | - Schedules are finalized based on the changes desired by the clubs and released to the public pages on the web site. <br> - Season package prepared and finalized team contact information used to prepare team contact listing. <br> - Season package distributed electronically to the SFL Club Representatives. The team contact listing is extracted from this document and included as a separate document in the Email so that it can easily be used by the coaches. <br> - Season package sent to the printer for printing and mailing. |
| Wednesday preceding first game weekend (September 4) | - Deadline (6 PM) for club submission of the Master Player Rosters used to generate SFL Team Rosters. Many clubs wait until shortly before the deadline to submit their initial Master Player Rosters which gives limited time to resolve any issues such as (1) duplicate players between clubs, (2) assigning players to ineligible teams, i.e., players "playing down" and players "playing up" more than allowed, and (3) players assigned to teams that were not registered and scheduled. |
| Thursday morning preceding first game weekend (September 5) | - SFL Team Roster prepared and distributed to clubs. |
| September 7 | - First game weekend - about 3 weeks after the scheduling process began. |

## Attachment II

## Example of Difficulties In Pairing Teams <br> When Multiple Teams Need to Be Paired Within a Scheduling Group

The following is an example of the complexities that can be associated with pairing of teams as the pairing process progresses and the number of options are reduced.

## Schedule 1 - Annandale 4 Under 14 Boys

- Annandale 4 plays all its home games on Sunday. The scheduling business rules require this team to have a Home/Away schedule since (1) this was an odd team scheduling group and (2) this schedule would have this team play all Sunday home games. Otherwise, four other teams in that scheduling group, that normally do not play Sunday home games, would have been required to play Sunday games.
- Since the Annandale 4 Under 14 Boys team was expected to be paired with the Annandale 6 Under 19 Boys team to share a time slot, this meant that the Annandale 6 Under 19 Boys team would need to play an Away/Home schedule.


## Schedule 2 - Annandale 6 Under 19 Boys

- The Annandale 6 Under 19 Boys team was placed in a 16 -team scheduling group and more than 50 percent ( 9 teams) needed to be paired with teams in other scheduling groups. The standard schedule used for a 16 team scheduling group has three "slots" that provide the Away/Home schedule needed by the Annandale 6 team so it could be paired. Unfortunately, all of these "slots" were assigned to other teams that also needed an Away/Home schedule so that they could be paired with other teams from their club to share a time slot.
- Let us assume that a decision was made to switch the Loudoun 3 Under 19 Boys team with the Annandale 6 Under 19 Boys team so that the Annandale 6 team could be paired with the Annandale 4 Under 14 Boys team. This meant that (1) the two Annandale teams were now paired and (2) the Loudoun 3 Under 19 Boys team would be playing an Away/Away schedule. Since Loudoun 3 was expected to be paired with the Loudoun 5 Under 19 Boys team, the Loudoun 5 Under 19 Boys team, would need to be converted to use a Home/Home schedule to maintain this pairing.


## Schedule 3 - Loudoun 5 Under 19 Boys

- The Loudoun 5 Under 19 Boys team was paired with the Loudoun 1 Under 19 Boys team. The club did not assign these two teams to the same field so that a "natural" team pair would be created which is why it was paired with a team in another scheduling group. In
other words, these teams had to be paired "independently." In this case, the Loudoun 1 Under 19 Boys team was paired to share a field slot with the Loudoun 2 Under 19 Girls team. Accordingly, changing the Loudoun 1 Under 19 Boys team to use a Home/Home schedule, meant that the Loudoun 2 Under 19 Girls team needed to use an Away/Away schedule. The Loudoun 5 Under 19 Boys team and Loudoun 1 Under 19 Boys teams are now paired. However, the Loudoun 2 Under 19 Girls team now unpaired.


## Schedule 4 - Loudoun 2 Under 19 Girls

- The Loudoun 2 Under 19 Girls was placed in a 13-Team scheduling group that had 8 other teams that needed to be paired. Converting this team to use an Away/Away schedule meant that the Herndon 1 Under 19 Girls team would need to be converted to use a Home/Home schedule. The Herndon 1 Under 19 Girls team was paired to share a time slot with the Herndon 1 Under 16 Girls team. Accordingly, the Herndon 1 Under 16 Girls team would need to play an Away/Away schedule. The two Loudoun teams are now paired.


## Schedule 5 - Herndon 1 Under 16 Girls

- The Herndon 1 Under 16 Girls team was placed in a 16 team scheduling group that had 11 teams that needed to be paired. Fortunately, three teams in that group did not have to be paired with any other teams and one of those happened to be playing an Away/Away schedule so it could be swapped with the Herndon 1 team without affecting any other teams. The two Herndon teams are now paired.


[^0]:    2 For standard schedules that involve 10 or more teams, a third type of Home/Away schedule is used so that (1) a 10 team group can be scheduled so that no team has to play another team twice in an eight week season and (2) should the need arise, these two teams can be paired with teams from another scheduling group. Normally, two teams from the same club in a scheduling group are assigned to these schedules because of the difficulty in pairing them with other teams, i.e., the teams do not have to be paired with teams in any other scheduling group since they are sharing the same time slot.

