Effective Designs for the
Administration of Federal Elections

Section 4: Full-face DRE ballots

June 2007

U.S. Election Assistance Commission

Full-face direct-recording electronic (DRE) ballots

This section has three parts: (1) planning process information; (2) one-language full-face DRE ballot design best practices; and (3) additional samples.

Planning
The Planning section (pages 4.4–4.5) outlines how to incorporate resources into your ballot development and production process; in what areas those resources may be of assistance; and when those activities should occur. It also offers tips on possible challenges and opportunities. These suggestions apply to both one-language and two-language ballots.

Design
Best practice samples are illustrated in full and by component. These samples and components are accompanied by production specifications and discussion notes.

Samples
Additional best practice samples, including a one-color version, appear on pages 4.23–4.25.

Electronic versions of these files are available at www.eac.gov, and specific instructions on how to use the electronic files are included on page 4.22. The electronic files are available in two formats, one of which can be edited.

Election officials are encouraged to partner with their vendors and production partners to review the voluntary design recommendations in this document as early as possible.

Voter audience
This section details interface solutions for voters able to interact with a full-face DRE touch screen input. Ballot instructions, labels, and navigation, written in simple language, support comprehension by voters at a third-grade reading level.

Full-face DRE specifications are based on information design principles, optical scan primary research findings, and accessibility requirements cited in 2005 Voluntary Voter System Guidelines (VVSG) section 3.2.

Areas of further study
System solutions for alternative input/output variations (combining tactile, audio, and visual toolsets).

Suggestions for best practices

The general election voter information prototypes shown on the following pages are based on VVSG, Americans with Disabilities Act guidelines (ADA), research findings, and information design principles.

— Emphasize voter needs over administrative and vendor requirements.

— Use simple language for all content. Studies show that clear and concise writing is beneficial to voters at all literacy levels. Rewriting instructions ballot instructions and voter information materials using simple language increases usability and, on the voter's behalf, accuracy.

— Use one language per ballot, which is recommended practice. To meet usability standards, display no more than two languages simultaneously.

— Use upper- and lowercase sans serif type, set left aligned at the sizes outlined in the specifications, for readability. Avoid setting text in a centered alignment. Avoid setting text in all capital letters. Minimize the number of fonts used.

— Use color functionally and consistently. Color can draw the reader's attention and emphasize important information. The use of color cannot be the sole means of conveying information or making distinctions. Another noncolor mode must complement color use, such as contrast, icon, text style, etc. (see VVSG).

— When clarifying instructions and processes, use accurate diagrams to describe voting technology and equipment.

— Use instructional icons only. Universally recognized icons such as arrows are acceptable and encouraged.

Research findings

Detailed findings that support ballot design best practices can be found in section 6 and section 7.

Planning process

The planning table on the following page outlines additional resources and steps that can be taken to ensure that ballot content and design best address voter needs.

These recommendations are based on the best practices in Cook County, Illinois, and the pilot test in Nebraska.

Planning goals

These additional resources can help ensure that:

— Content is easily understood by voters, including those with low vision and literacy issues.

— The visual organization and presentation of the content supports ease of use and confidence in the process.

— Any necessary translations are accurate and sensitive to cultural differences in language and expression.

Planning value by role/resource

— S*imple-language expert* ensures that instructions and other ballot content are written in the most effective manner to help all voters (not just low-literacy voters) understand and follow instructions, and feel confident that they have properly cast their ballots.

— *Information designer* organizes the ballot content—text, graphics, illustrations— in a manner that is clear, simple, and functional, and that supports and enhances the voter's comprehension of the content and voting process. (Note: The design field is very broad; it is important to work with a designer who has expertise in the organization and presentation of complex information.)

— *Usability expert* works with the information designer to develop review, testing, and revision processes that improve the ballot's overall effectiveness, accuracy, and usability.

— *Translator* ensures proper grammatical, syntactic, and structural character of the content, and appropriate use of local dialect variations. Accurate translations are vital for non-English speaking voters, and online translations are often misleading, unclear, or simply wrong (for Spanish translations, see EAC document "Glossary of Key Election Terminology, English-Spanish, 2007").

— *Cultural expert* reviews translated material to ensure that the translations are accurate and culturally relevant, and that their visual presentation is appropriate.

Production steps before election cycle

Resources	Planning, design, and usability activities	Tips
1. Election Official	Use the current election to establish a baseline for future work. Get voter feedback before starting, not just afterward. Establish an approval process/team. Determine who must sign off on improvements at each phase.	
2. Election Official	Choose an objective, professional resource to take ownership of information design challenges. Simultaneously hire a designer and a usability professional who can offer additional feedback. Partner with a policy advisor who can help guide design improvements through the necessary legislative processes.	Whenever possible, hire a local person who will be able to meet with officials and the extended production team (vendors, printers, etc.). Provide the designer with poll worker training, as well as any feedback from voters or poll workers. Provide the designer with a complete list of current election documents and legal requirements.
3. Designer and Usability Expert	Review and become familiar with election design standards and recommendations. Understand variance between EAC best practices and local requirements for poll worker and voter materials.	
4. Election Official	Estimate value of design improvements. Gauge impact of the redesign process during the next election planning cycle.	

Resources during election cycle

Resources	Content development activities	Tips
Simple-Language Expert	Edit final English-language content for low-literacy voters.	
Translator	Translate content for non-English-speaking voters.	Understand the translator's requirements before the election: data formats, time line, etc. Have a third-party expert review the translated materials after the initial draft. Legal advisors may need to review the materials after simple language and design have been incorporated.
Alternative Language/ Cultural Expert	Review translated content in each alternative language for cultural relevancy.	Translation services may not be aware of possible cultural sensitivities of translated material.
Designer	Election official provides designer with final content for different materials, in English and other languages, after they have been reviewed by simple language and cultural experts.	

Design

On pages 4.7–4.21, design best practices for a general election one-language ballot are illustrated. Production specifications and discussion notes are provided—including typeface,* type size, leading, line weights, tint fills, and distances between elements.

The ballot content used in these samples was originally developed by the National Institute of Standards and Technology (NIST) to illustrate a "moderately complex" ballot. Although it is impossible to cover every ballot scenario, most general election ballot layout issues can be addressed using these designs.
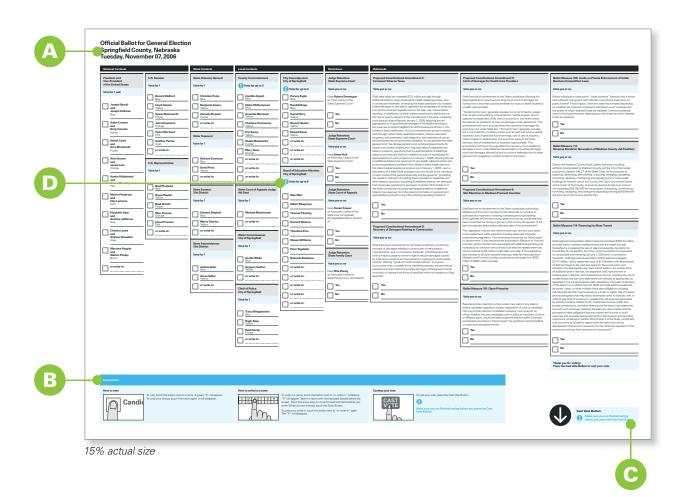
Components
As illustrated on the following page, a full-face DRE ballot has four basic component content areas:

A Election information (e.g., jurisdiction, general election, and date)

B Ballot instructions

C Ballot navigation, in this ballot type, refers to highlighting casting step

D Questions, including contests, retentions, and ballot measures

Each of these components is illustrated at its full size, and production specifications are included. Specifications are numbered from **1** through **6**.

Designers can apply specifications in this section to other paper ballot formats, such as absentee, emergency, and primary election ballots.

---

*The EAC does not endorse any specific product or vendor. The best practices illustrated throughout this document do not rely on specific software, products, or vendors. For copyright reasons, the EAC cannot supply election officials with the fonts used in the InDesign files. They are available from numerous suppliers.

15% actual size

1

Official Ballot for General Election
Springfield County, Nebraska
Tuesday, November 07, 2006

75% actual size

Election information specifications

Information defining the specifics of the election should be placed above the left column of the face of every ballot page outside the area used by the voter and the scanner. Content should include the statement "Official Ballot," along with election type, location, and date. Local laws may require that additional information be included.

1 Information

On ballots with space constraints, election information may be set at a minimum size. For ballots with more available space, larger type is encouraged.

Minimum size type for all: Univers 65 Bold, size 18 pt., leading 20 pt., tracking -20, 100% black, left aligned.

Maximum size type for title: Univers 65 Bold, size 36 pt., leading 40 pt., tracking -20, 100% black, left aligned.

Maximum size type for location and date: Univers 65 Bold, size 30 pt., leading 34 pt., tracking -20, 100% black, left aligned.

Discussion

Although this is important content, it should not be set so large that it affects the amount of room left for instructions and ballot content actually used by the voter.
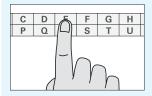
①

Instructions

②
③

How to vote

④

To vote, touch the button next to a name. A green "X" will appear. To undo your choice, touch the button again. It will disappear.

⑤

How to write in a name

C	D		F	G	H
P	Q		S	T	U

To write in a name, touch the button next to "or write-in." A blinking "X" will appear. Type in a name with the keyboard directly below the screen. Touch the arrow keys to move forward and backward as you write. When you are finished, touch the Enter Button.

To undo your write-in, touch the button next to "or write-in" again. The "X" will disappear.

Casting your vote

CAST VOTE

To cast your vote, press the Cast Vote Button.

!

Make sure you are finished voting before you press the Cast Vote Button.

⑥

all 50% actual size

Ballot instruction specifications

Specifications for each instruction element are referenced by number below.

① Main head

This header defines the complete instructions area for the voter.

Fill: 100% process cyan, 0.75″ height, extends full width of the instructions area.

Type: Univers 65 Bold, size 14 pt., leading 16 pt., tracking -20, 100% white, left aligned, set 0.2″ from left edge of fill, centered between top and bottom of fill.

② Background fill

4.5 pt. white line between background tint and main head. 4.5 pt. white line between each instruction.

Fill: 10% process cyan, extends full width of the column and 0.2″ above all instructions and 0.2″ below the longest instruction.

③ Subhead

Begins 0.2″ below top of fill.

Type: Univers 65 Bold, size 14 pt., leading 16 pt., tracking -20, 100% black, left aligned, set 0.2″ from left edge of fill.

④ Illustration

Begins 0.2″ below bottom of title.

Size: 0.2″ inset from column width on both sides; height determined by most effective display of illustration (typically 1.5″ to 3″).

Stroke: 0.75 pt. line, 100% black.

⑤ Instruction text

Begins 0.2″ from the right edge of illustration.

Type: Univers 45 Light, size 14 pt., leading 17 pt., tracking -20, 100% black, left aligned, set 0.2″ from left edge of fill.

⑥ Alerts

These should be used only for critical instructions, such as actions that may invalidate a voter's ballot. Begins 0.2″ below baseline of instruction content.

Attention icon: 0.375″ diameter, 100% process cyan, set 0.2″ from right edge of illustration.

Type: Univers 45 Bold, size 14 pt., leading 17 pt., tracking -20, 100% process cyan, left aligned, set 0.2″ from left edge of illustration and 0.2″ below Attention icon.

Discussion

The decision to apply color only to instructions is the result of feedback from optical scan ballot usability testing and literacy experts.

Depending on the printer, paper used, and other production variables, the percentages specified for fills (e.g., 10% process cyan) may need to be adjusted. The vendor should provide a test sample for review.

Illustrative diagrams that accurately reflect the ballot type and equipment further clarify instructions and processes.

These illustrations are available at www.eac.gov.

Informational icons are used to draw attention to unique or important areas of the ballot or to improve the voter's ability to scan dense information.

Political party icons are not encouraged as literacy experts and design professionals believe they simply confuse many voters.

①

② **Thank you for voting!**
       Press the Cast Vote Button to cast your vote.

       Cast Vote Button

③   ❗ **Make sure you are finished voting**
                before you press the Cast Vote Button.

④

⑤ **National Contests**

all 75% actual size

Ballot navigation specifications

Specifications for each instruction element are referenced by number below.

1 Instruction fill

Navigational instructions should be placed at the end of the final column, to tell the voter what to do next.

Fill: 10% process cyan, extends full width of the column and 0.2″ above and below all content.

2 Instruction content

Begins 0.2″ below top of fill.

Type: Univers 65 Bold, size 14 pt., leading 16 pt., tracking -20, 100% black, left aligned, set 0.2″ from left edge of fill, centered between top and bottom of fill.

3 Alerts

These should be employed only for critical instructions, such as actions that may invalidate a voter's ballot. Begins 0.2″ below baseline of instruction content.

Attention icon: 0.375″ diameter, 100% process cyan, set 0.2″ from left edge of fill.

Type: Univers 45 Bold, size 14 pt., leading 16 pt., tracking -20, 100% process cyan, left aligned, set 0.2″ below instruction content and 0.2″ below Attention icon.

4 Cast Vote arrow

Use the Cast Vote arrow to designate the location of the Cast Vote Button below the ballot.

Cast Vote arrow icon: 1.5″ diameter, 100% black, set 1.0″ above the bottom edge of the ballot, directly above the Cast Vote Button.

5 Contest head

This header defines each separate contest area for the voter; it begins at the top of the column.

Fill: 100% black, extends full width of the contest area, using multiple columns if necessary, 0.2″ above topmost ascender, and 0.2″ below lowest baseline of type.

Type: Univers 65 Bold, size 14 pt., leading 16 pt., tracking -20, 100% white, left aligned, set 0.2″ from left edge of fill, centered between top and bottom of fill.

Discussion

These ballot navigation guides help indicate important steps.

Depending on the printer, paper used, and other production variables, the percentages specified for fills (e.g., 10% process cyan) may need to be adjusted. The vendor should provide a test sample for review.

Informational icons such as arrows and exclamation points can be used to draw attention to unique or important areas of the ballot, or to improve the voter's ability to scan dense information.

These informational icons are available at www.eac.gov.

The decision to apply color only to instructions is the result of feedback from optical scan ballot usability testing and literacy experts.

1
2 **President and Vice-President of the United States**

Vote for 1 pair
3

[ ] **Joseph Barchi and Joseph Hallaren**
Blue

[ ] **Adam Cramer and Greg Vuocolo**
Yellow

[ ] **Daniel Court and Amy Blumhardt**
Purple

[ ] **Alvin Boone and James Lian**
Orange

[ ] **Austin Hildebrand and James Garritty**
Pink

[ ] **Martin Patterson and Clay Lariviere**
Gold

[ ] **Elizabeth Harp and Antoine Jefferson**
Gray

[ ] **Charles Layne and Andrew Kowalski**
Aqua

U.S. Senator

Vote for 1

[ ] **Dennis Weiford**
Blue

[ ] **Lloyd Garriss**
Yellow

[ ] **Sylvia Wentworth**
Purple

[ ] **John Hewetson**
Orange

[ ] **Victor Martinez**
Pink

[ ] **Heather Portier**
Gold

[ ] **or write-in:**

U.S. Representative

Vote for 1

[ ] **Brad Plunkard**
Blue

[ ] **Bruce Reeder**
Yellow

[ ] **Brad Schott**
Purple

[ ] **Glen Tawney**
Orange

[ ] **Carroll Forrest**
Pink

[ ] **or write-in:**

Board of Education Member: City of Springfield

(!) **Vote for up to 5**   **4**

[ ] **Alex Marr**

[ ] **Albert Musgrove**

[ ] **Thomas Fleming**

[ ] **Harriett Watson**

[ ] **Theodore Fina**

[ ] **Steven Williams**

[ ] **Peter Sigelakis**

[ ] **Deborah Barkelow**

[ ] **or write-in:**

[ ] **or write-in:**

[ ] **or write-in:**

[ ] **or write-in:**

[ ] **or write-in:**
----

all 75% actual size

Contest question specifications

Contest question components include borders that separate contests, titles, special instructions, candidate/ticket information, and choices.

1 Border

This border defines the top, left, and bottom sides of the contest component.

Top line: 4.5 pt. line, 100% black, extends full width of the column.

Left line: 1.5 pt. line, 100% black.

Bottom line: 1.5 pt. line, 100% black, extends full width of the column; placed 0.2″ below last content in column.

2 Contest title

This header defines each contest question; it begins directly below the top border.

Fill: 15% black, extends full width of the column, 0.2″ above topmost ascender, and 0.2″ below lowest baseline of type.

Type: Univers 65 Bold, size 14 pt., leading 16 pt., tracking -20, 100% black, left aligned, set 0.2″ from left edge of fill, centered between top and bottom of fill.

3 Contest instructions

This area defines each contest's instructions; it begins directly below the header.

Fill: 10% process cyan, extends full width of the column, 0.2″ above topmost ascender, and 0.2″ below lowest baseline of type.

Type: Univers 65 Bold, size 14 pt., leading 16 pt., tracking -20, 100% black, left aligned, set 0.2″ from left edge of fill, centered between top and bottom of fill.

4 Special instructions

When new or modified instructions are introduced, they should be called out to alert the voter. These are set identically to standard contest instructions, with the addition of an Attention icon.

Fill: 10% process cyan, extends full width of the column, 0.2″ above topmost ascender, and 0.2″ below lowest baseline of type.

Attention icon: 0.375″ diameter, 100% process cyan, set 0.2″ from left edge of fill, centered between top and bottom of fill.

Type: Univers 65 Bold, size 14 pt., leading 16 pt., tracking -20, 100% black, left aligned, set 0.2″ from left edge of icon, centered between top and bottom of fill.

Discussion

Informational icons such as exclamation points and arrows are offered to draw attention to unique or important areas of the ballot or to improve the voter's ability to scan dense information.

These informational icons are available at www.eac.gov.

The use of political party icons is not encouraged as literacy experts and design professionals believe they simply confuse many voters.

The decision to apply color only to instructions is the result of feedback from optical scan ballot usability testing and literacy experts.

Depending on the printer, paper used, and other production variables, the percentages specified for fills (e.g., 10% process cyan) may need to be adjusted. The vendor should provide a test sample for review.

The phrase "Vote for 1 pair" is recommended best practice by simple language experts.

U.S. Senator

Vote for 1

⑤ ☐ **Dennis Weiford**
⑥   Blue

☐ **Lloyd Garriss**
  Yellow

☐ **Sylvia Wentworth**
  Purple

☐ **John Hewetson**
  Orange

☐ **Victor Martinez**
  Pink

☐ **Heather Portier**
  Gold

⑦ ☐ **or write-in:**
  -

U.S. Senator

Vote for 1

☐ **Dennis Weiford**
  Blue

☐ **Lloyd Garriss**
  Yellow

☐ **Sylvia Wentworth**
  Purple

☐ **John Hewetson**
  Orange

☐ **Victor Martinez**
  Pink

☐ **Heather Portier**
  Gold

☐ **or write-in:**
  -

U.S. Representative

Vote for 1

☐ **Brad Plunkard**
  Blue

☐ **Bruce Reeder**
  Yellow

☐ **Brad Schott**
  Purple

☐ **Glen Tawney**
  Orange

☐ **Carroll Forrest**
  Pink

☐ **or write-in:**
  -

Board of Education Member: City of Springfield

❗ Vote for up to 5

☐ **Alex Marr**

☐ **Albert Musgrove**

☐ **Thomas Fleming**

☐ **Harriett Watson**

☐ **Theodore Fina**

☐ **Steven Williams**

☐ **Peter Sigelakis**

☐ **Deborah Barkelow**

☐ **or write-in:**
  -

☐ **or write-in:**
  -

☐ **or write-in:**
  -

☐ **or write-in:**
  -

☐ **or write-in:**
  -

all 75% actual size

Contest question specifications, *continued*

❺ Candidate information

First name begins 0.2″ below bottom of instructions fill; on ballots with set selection locations, the distance may need to be greater. Subsequent names should begin 0.2″ below separation line of previous candidate. Names should be set as close as possible to the selection location.

Name type: Univers 65 Bold, size 14 pt., leading 16 pt., tracking -20, 100% black, left aligned.

Party type: Univers 45 Light, size 14 pt., leading 16 pt., tracking -20, 100% black, left aligned. On contests with a two-person ticket, the word "and" should be placed alone on a separate line between the two candidate names.

❻ Separation line

Each candidate option should be followed by a line to clearly define it, even if it is the final option in a particular contest. Line should be placed no less than 0.2″ below the bottom of candidate information; on ballots with set selection locations, the distance may need to be greater. Line should also be located 0.2″ above top of following candidate name, if applicable.

Line: 0.375 pt. line, 100% black, extends full width of column area allowed for candidates.

❼ Write-in

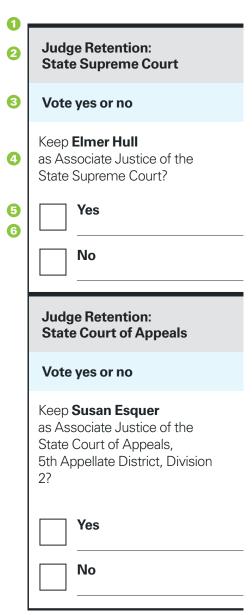Begins 0.2″ below final line of previous candidate.

Type: Univers 65 Bold, size 14 pt., leading 16 pt., tracking -20, 100% black, left aligned.

Write-in line: 0.75 pt. line, dashed 4 pt./4 pt., 100% black, extends full width of column area allowed for candidates.

Discussion

All candidates in any given contest should be given the same amount of vertical space. If a candidate's name must break onto a second line, the vertical space for all candidates should be changed to match.

Place the selection square to the left of the candidate/ticket name as shown on page 4.16.

①

②   **Judge Retention:**
         State Supreme Court

③   **Vote yes or no**

         Keep **Elmer Hull**
④   as Associate Justice of the
         State Supreme Court?

⑤   ☐ **Yes**
⑥
         ☐ **No**

         Judge Retention:
         State Court of Appeals

         Vote yes or no

         Keep **Susan Esquer**
         as Associate Justice of the
         State Court of Appeals,
         5th Appellate District, Division
         2?

         ☐ **Yes**

         ☐ **No**

75% actual size

Retention question specifications

Retention questions include borders that separate each question, titles, special instructions, the question, and the choices.

1 Border

This border defines the top, left, and bottom sides of the question.

Top: 3.0 pt. line, 100% black, extends full width of the column.

Left: 1.5 pt. line, 100% black.

Bottom: 1.5 pt. line, 100% black, extends full width of the column; placed 0.2″ below last content in column.

2 Retention title

This header defines each retention question; it begins directly below the top border.

Fill: 15% black, extends full width of the column, 0.2″ above topmost ascender, and 0.2″ below lowest baseline of type.

Type: Univers 65 Bold, size 14 pt., leading 16 pt., tracking -20, 100% black, left aligned, set 0.2″ from left edge of fill, centered between top and bottom of fill.

3 Retention instructions

This area defines each question's instructions; it begins directly below the header.

Fill: 10% process cyan, extends full width of the column, 0.2″ above topmost ascender, and 0.2″ below lowest baseline of type.

Type: Univers 65 Bold, size 14 pt., leading 16 pt., tracking -20, 100% black, left aligned, set 0.2″ from left edge of fill, centered between top and bottom of fill.

4 Retention content

Presents the retention question clearly to the voter; the judge's name should be bold to add emphasis. Begins 0.2″ below bottom of instructions fill.

Content type: Univers 45 Light, size 14 pt., leading 17 pt., tracking -20, 100% black, left aligned.

Name type: Univers 65 Bold, size 14 pt., leading 17 pt., tracking -20, 100% black, left aligned.

5 Retention selection options

First selection option should begin 0.2″ below baseline of content; on ballots with set selection locations, the distance may need to be greater. Subsequent options should begin 0.2″ below final line of the previous option. Options should be set as close as possible to the selection location.

Option type: Univers 65 Bold, size 14 pt., leading 16 pt., tracking -20, 100% black, left aligned.

6 Separation line

Each selection option should be followed by a line to clearly define it, even if it is the final option in a particular question. Line should be placed 0.2″ below baseline of selection option; on ballots with set selection locations, the distance may need to be greater. Line should also be located 0.2″ above top of following option, if applicable.

Line: 0.375 pt. line, 100% black, extends full width of column area allowed for selection options.

Discussion

The decision to apply color only to instructions is the result of feedback from optical scan ballot usability testing and literacy experts.

Depending on the printer, paper used, and other production variables, the percentages specified for fills (e.g., 10% process cyan) may need to be adjusted. The vendor should provide a test sample for review.
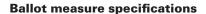
All names in any given retention question should be given the same amount of vertical space. If a candidate's name must break onto a second line, the vertical space for all candidates should be changed to match.

Place the selection square to the left of the judge's name as shown on page 4.18.

①

② **Ballot Measure 106: Limits on Private Enforcement of Unfair Business Competition Laws**

③ **Vote yes or no**

④ Allows individual or class action "unfair business" lawsuits only if actual loss suffered; only government officials may enforce these laws on public's behalf. Fiscal Impact: Unknown state fiscal impact depending on whether the measure increases or decreases court workload and the extent to which diverted funds are replaced. Unknown potential costs to local governments, depending on the extent to which diverted funds are replaced.

⑤ ☐ **Yes**

⑥ ☐ **No**

Ballot Measure 111:
Revenue Bonds for Renovation of Madison County Jail Facilities

Vote yes or no

Directs the Madison County Public Safety Authority, a building authority incorporated by Madison County and the City of Ijamsville pursuant to Section 346.27 of the State Code, for the purpose of acquiring, destroying, demolishing, improving, enlarging, equipping, furnishing, repairing, maintaining and operating one or more public buildings for the joint use of the County, the City or any school district which is part of the County, to issue its revenue bonds in an amount not exceeding $29,700,000 for the purpose of acquiring, constructing, furnishing, equipping, renovating and expanding existing jail facilities for the joint use of the County and the City.

☐ **Yes**

☐ **No**

75% actual size

Ballot measure specifications

Ballot measure components include borders that separate each question, titles, instructions, the question, and the choices.

1 Border

This border defines the top, left, and bottom sides of the question.

Top: 3.0 pt. line, 100% black, extends full width of the ballot measure area.

Left: 1.5 pt. line, 100% black.

Bottom: 1.5 pt. line, 100% black, extends full width of the ballot measure area; placed 0.2″ below last content in ballot measure area.

2 Ballot measure title

This header defines each separate ballot measure question; it begins directly below the top border.

Fill: 15% black, extends full width of the ballot measure area, 0.2″ above topmost ascender, and 0.2″ below lowest baseline of type.

Type: Univers 65 Bold, size 14 pt., leading 16 pt., tracking -20, 100% black, left aligned, set 0.2″ from left edge of fill, centered between top and bottom of fill.

3 Ballot measure instructions

This area defines each question's instructions; it begins directly below the header.

Fill: 10% process cyan, extends full width of the ballot measure area, 0.2″ above topmost ascender, and 0.2″ below lowest baseline of type.

Type: Univers 65 Bold, size 14 pt., leading 16 pt., tracking -20, 100% black, left aligned, set 0.2″ from left edge of fill, centered between top and bottom of fill.

4 Ballot measure content

Presents the ballot measure question clearly to the voter; it begins 0.2″ below bottom of instructions fill, set 0.2″ from left border. In a two-column ballot measure area, space for text should extend to 0.2″ from the right edge of the ballot measure area. In a three-column ballot measure area, the space for text should extend no wider than 6″.

Content type: Univers 45 Light, size 14 pt., leading 17 pt., tracking -20, 100% black, left aligned.

5 Ballot measure selection options

First selection option should begin 0.2″ below baseline of content; on ballots with set selection locations, the distance may need to be greater. Subsequent options should begin 0.2″ below final line of previous option. Options should be set as close as possible to the selection location, ideally in the left-most column of the ballot measure area.

Option type: Univers 65 Bold, size 14 pt., leading 16 pt., tracking -20, 100% black, left aligned.

6 Separation line

Each selection option should be followed by a line to clearly define it, even if it is the final option in a particular question. Line should be placed 0.2″ below baseline of selection option; on ballots with set selection locations, the distance may need to be greater. Line should also be located 0.2″ above top of following option, if applicable.

Line: 0.375 pt. line, 100% black, extends full width of ballot measure area allowed for selection options.

Discussion

A primary voter criticism of ballots is the length and complexity of ballot measures. It is imperative that these questions be written in the simplest language possible. Many jurisdictions also provide summaries.

The typesetting of the ballot measure text is critical. Too many or too few characters per line inhibit legibility and comprehension. The goal should be 40–60 characters per line. Research indicates that many users find line lengths of more than 60 characters or less than 20 characters hard to read.

There is a direct relationship between type size and line spacing (leading). Lines of type that are too close together or too far apart inhibit legibility and comprehension. Ballot measure content in these best practices is set at 14 points, with 3 points of leading.

The decision to apply color only to instructions is the result of feedback from optical scan ballot usability testing and literacy experts.

Depending on the printer, paper used, and other production variables, the percentages specified for fills (e.g., 10% process cyan) may need to be adjusted. The vendor should provide a test sample for review.

Samples

Full-face DRE ballot design best practices samples appear on pages 4.23–4.25. For the one-color version, specifications that vary from those outlined in the Design section are detailed opposite the example.

The ballot content used in these samples was originally developed by the National Institute of Standards and Technology to illustrate a "moderately complex" ballot. Although it is impossible to cover every ballot scenario, most general election ballot layout issues can be addressed using this content.

Electronic files
The electronic files that were used to create these best practices are available at www.eac.gov.

They are provided in two formats: Acrobat (.pdf) and InDesign (.indd).*

Each item has a unique identification number and file name. For example, the Acrobat file of the illustration on the next page is "FullFace_1L_VersionA.pdf."
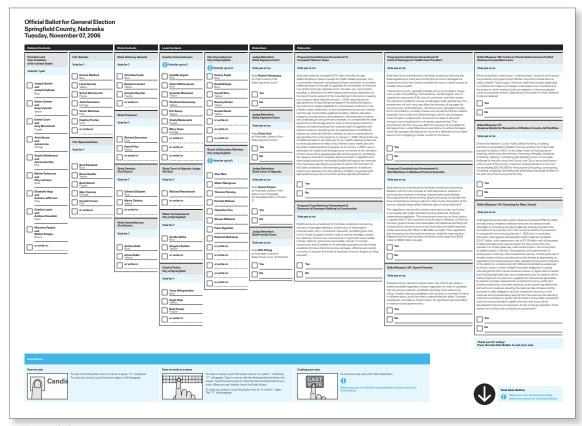
How to work with the samples and electronic files
The Acrobat files can be printed on an office printer (depending on paper size), or by a local vendor with digital printing capabilities (printing firms and copy shops often have digital printing capabilities). Printed versions of these samples will serve as an important reference during the ballot design and production process.

InDesign files are template files that can be edited. The illustrative diagrams used in the InDesign files are also available at www.eac.gov. These files end with ".eps" and can also be edited. Access to Adobe InDesign page layout software and to software that can edit .eps files (e.g., Adobe Illustrator) is necessary. Working with a designer who has access to—and expertise in—these software programs is recommended.

Alternatively, these items can be recreated in other page layout programs using the production specifications provided on pages 4.6–4.21; the Acrobat .pdf files as a visual guide; and, if appropriate, the illustration files provided. Using nonlayout programs, such as those commonly used to write text-only documents, is not appropriate or recommended.

*The EAC does not endorse any specific product or vendor. The best practices illustrated throughout this document do not rely on specific software, products, or vendors. For copyright reasons, the EAC cannot supply election officials with the fonts used in the InDesign files. They are available from numerous suppliers.
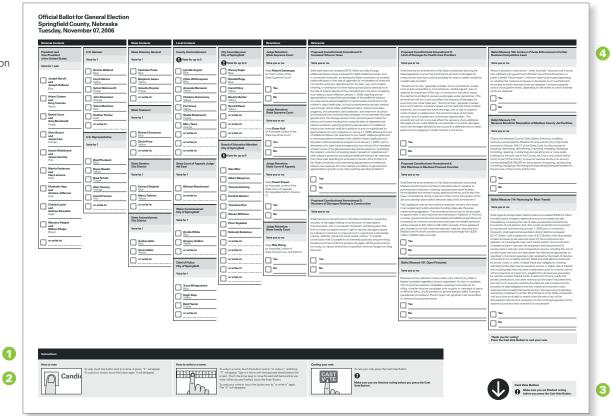
File name

FullFace_1L_VersionA

See pages 4.8–4.21
for additional production
specifications.

Official Ballot for General Election
Springfield County, Nebraska
Tuesday, November 07, 2006

15% actual size

File name

FullFace_1L_1Color

See pages 4.8–4.21 for additional production specifications.

15% actual size

One-color version specifications

If circumstances dictate that ballots be printed in only
one color, certain adjustments should be made to the
specifications.

1 Instruction title
Rather than process cyan, this title should be
100% black.

2 Instructional fills
For all background fills, change from process cyan
to 10% black. This includes the fills used with all
ballot instructions, all question instructions, and all
navigational instructions.

3 Alert and navigation icons
For all background fills, change from process cyan
to 10% black. This includes the fills used with all
ballot instructions, all question instructions, and all
navigational instructions.

4 Question titles
To create appropriate contrast from question
instructions, all question header fills should be 20%
black rather than the 15% used on two-color ballots.