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| STATE PROJECT | PARTIAL | SHEET NO. |
|---------------|---------|-----------|

This figure presents a comprehensive set of design drawings for precast concrete pile bents, intended for use with 60'-0" I-beam spans. The primary drawing is the PLAN-END BENT, which shows the overall dimensions and reinforcement layout for a bent supporting two spans. It includes details for battered piles, chamfers, and various reinforcement bars (#4, #5, #6, #8, #9) with their respective lengths and spacings. Other views include SECTION A-A, SECTION C-C, SECTION B-B, SECTION AT E TYPE I, SECTION D-D, and ELEVATION-END BENT. These sections provide cross-sectional views of the bent, showing the arrangement of reinforcement bars, the placement of battered piles, and the connection between the bent and the bridge deck. The ELEVATION-END BENT shows the side view of the bent, highlighting the battered piles and the reinforcement layout. The PLAN view shows the top-down view of the bent, indicating the location of the piles and the reinforcement bars. The figure also includes several tables and notes:

- GENERAL NOTES:** Construction specifications refer to the latest approved Louisiana Department of Highways Standard Specifications. Design specifications are based on A.A.S.H.O. Std. Specs. for Highway Bridges, 1953 as amended to Dec. 31, 1955. Live Load: H20-S16-44 (Modified). Reinforcement bars shall be Intermediate or Hard Grade, A.S.T.M. A or Rail Steel, A.S.T.M. A16. All dimensions to reinforcing steel are to bar centers. All exposed corners to be chamfered unless otherwise noted. Concrete and steel in SIDEWALK CURB FLARE and HANDRAIL FLARE are included in Bent Cap Quantities and are to be paid for as part of Bent. Wing Walls are detailed for 44'-0" Crown. Quantities computed assuming use of 18" Piles. To provide for future extension of Bridge the End Bent is designed for same loads as Int. Bents.
- AVERAGE PILE LOADS:**
  - End Bent: 35.4 Tons
  - Int. Bent 6 Piles: 35.4 Tons
  - Int. Bent 7 Piles: 30.3 Tons
- TYPE OF END BENT REQUIRED:**

| END BENT | GROUND TO GRADE FEET            | SUB SOIL | BATTERED PILES |   |
|----------|---------------------------------|----------|----------------|---|
| TYPE 1   | 0-5                             | Poor     | 0              |   |
|          | 0-8                             | Good     | 0              |   |
| TYPE 2   | 5-10                            | Poor     | 2              |   |
|          | 8-16                            | Good     | 2              |   |
| TYPE 3   | When called for on General Plan |          |                | 3 |
- QUANTITIES - ONE BENT:**

| ITEM        | CLASS "A" CONCRETE | DEFORMED REINF. STEEL | FABRICATED CARBON STEEL |
|-------------|--------------------|-----------------------|-------------------------|
| END TYPE 1  | 15.43 Cu. Yds.     | 2273 Lbs.             | 340 Lbs.                |
| END TYPE 2  | 6.93 Cu. Yds.      | 2664 Lbs.             | 340 Lbs.                |
| END TYPE 3  | 17.08 Cu. Yds.     | 2059 Lbs.             | 340 Lbs.                |
| INT. 6 PILE | 6.25 Cu. Yds.      | 1079 Lbs.             | -                       |
| INT. 7 PILE | 6.21 Cu. Yds.      | 1065 Lbs.             | -                       |

The figure also includes a STANDARD PLAN PRECAST CONCRETE PILE BENTS FOR 60'-0" I-BEAM SPANS, LIVE LOAD H20-S16-44 MODIFIED, 28'-0" ROADWAY, 1'-6" SIDEWALKS. The plan shows the bent cap, the piles, and the reinforcement layout. The figure is dated 11-18-59 and is prepared by S.E. Jones & Associates, Inc., with a check by J.W. Jones and a trace by G.I. Jones. The project is for the STATE OF LOUISIANA DEPARTMENT OF HIGHWAYS.

**PLAN**

**ELEVATION-END BENT**

**ELEVATION-INTERMEDIATE BENT**

**SECTION A-A**

**SECTION B-B**

**SECTION C-C**

**SECTION D-D**

**TYPE OF END BENT REQUIRED**

| END BENT | GROUND TO GRADE FEET            | SUB SOIL | BATTERED PILES |
|----------|---------------------------------|----------|----------------|
| TYPE 1   | 0-5                             | Poor     | 0              |
|          | 0-8                             | Good     | 0              |
| TYPE 2   | 5-10                            | Poor     | 2              |
|          | 8-16                            | Good     | 2              |
| TYPE 3   | When called for on General Plan |          |                |

**QUANTITIES - ONE BENT**

| ITEM        | CLASS "A" CONCRETE | DEFORMED REINF. STEEL | FABRICATED CARBON STEEL |
|-------------|--------------------|-----------------------|-------------------------|
| END TYPE 1  | 15.43 Cu. Yds.     | 2273 Lbs.             | 340 Lbs.                |
| END TYPE 2  | 6.93 Cu. Yds.      | 2664 Lbs.             | 340 Lbs.                |
| END TYPE 3  | 17.08 Cu. Yds.     | 2059 Lbs.             | 340 Lbs.                |
| INT. 6 PILE | 6.25 Cu. Yds.      | 1079 Lbs.             | —                       |
| INT. 7 PILE | 6.21 Cu. Yds.      | 1065 Lbs.             | —                       |

**GENERAL NOTES:**

CONSTRUCTION SPECIFICATIONS: Latest approved to Dept. of Highways Standard Specifications.

DESIGN SPECIFICATIONS: A.A.S.H.O. Std. Specs. for Highway Bridges, 1953 as amended to Dec. 31, 1955.

Live Load: H20-S16-44 (Modified).

Reinforcement bars shall be Intermediate or Hard Grade, A.S.T.M. A or Rail Steel, A.S.T.M. A16.

All dimensions to reinforcing steel are to bar centers.

All exposed corners to be chamfered  $\frac{1}{2}$ " unless otherwise noted.

Concrete and steel in SIDEWALK CURB FLARE and HANDRAIL FLARE are included in Bent Cap Quantities and are to be paid for as part of Bent.

Wing Walls are detailed for 44'-0" Crown.

Quantities computed assuming use of 18" Piles.

To provide for future extension of Bridge the End Bent is designed for same loads as Int. Bents.

**AVERAGE PILE LOADS**

End Bent 35.4 Tons

Int. Bent 6 Piles 35.4 Tons

Int. Bent 7 Piles 30.3 Tons

**PLAN**

**ELEVATION-END BENT**

**ELEVATION-INTERMEDIATE BENT**

**SECTION A-A**

**SECTION B-B**

**SECTION C-C**

**SECTION D-D**

**QUANTITIES - ONE BENT**

| ITEM        | CLASS "A" CONCRETE | DEFORMED REINFORCING STEEL | FABRICATED CARBON STEEL |
|-------------|--------------------|----------------------------|-------------------------|
| END TYPE 1  | 15.43 Cu. Yds.     | 2273 Lbs.                  | 340 Lbs.                |
| END TYPE 2  | 6.93 Cu. Yds.      | 2664 Lbs.                  | 340 Lbs.                |
| END TYPE 3  | 17.08 Cu. Yds.     | 2059 Lbs.                  | 340 Lbs.                |
| INT. 6 PILE | 6.25 Cu. Yds.      | 1079 Lbs.                  | —                       |
| INT. 7 PILE | 6.21 Cu. Yds.      | 1065 Lbs.                  | —                       |

**TYPE OF END BENT REQUIRED**

| END BENT | GROUND TO GRADE FEET            | SUB SOIL | BATTERED PILES |
|----------|---------------------------------|----------|----------------|
| TYPE 1   | 0-5                             | Poor     | 0              |
|          | 0-8                             | Good     | 0              |
| TYPE 2   | 5-10                            | Poor     | 2              |
|          | 8-16                            | Good     | 2              |
| TYPE 3   | When called for on General Plan |          |                |

**GENERAL NOTES:**

CONSTRUCTION SPECIFICATIONS: Latest approved to Dept. of Highways Standard Specifications.

DESIGN SPECIFICATIONS: A.A.S.H.O. Std. Specs. for Highway Bridges, 1953 as amended to Dec. 31, 1955.

Live Load: H20-S16-44 (Modified).

Reinforcement bars shall be Intermediate or Hard Grade, A.S.T.M. A or Rail Steel, A.S.T.M. A16.

All dimensions to reinforcing steel are to bar centers.

All exposed corners to be chamfered  $\frac{1}{2}$ " unless otherwise noted.

Concrete and steel in SIDEWALK CURB FLARE and HANDRAIL FLARE are included in Bent Cap Quantities and are to be paid for as part of Bent.

Wing Walls are detailed for 44'-0" Crown.

Quantities computed assuming use of 18" Piles.

To provide for future extension of Bridge the End Bent is designed for same loads as Int. Bents.

**AVERAGE PILE LOADS**

End Bent 35.4 Tons

Int. Bent 6 Piles 35.4 Tons

Int. Bent 7 Piles 30.3 Tons

**PLAN-END BENT**

**ELEVATION-END BENT**

**ELEVATION-INTERMEDIATE BENT**

**SECTION A-A**

**SECTION B-B**

**SECTION C-C**

**SECTION D-D**

**SECTION E**

**SECTION F**

**SECTION G**

**SECTION H**

**SECTION I**

**SECTION J**

**SECTION K**

**SECTION L**

**SECTION M**

**SECTION N**

**SECTION O**

**SECTION P**

**SECTION Q**

**SECTION R**

**SECTION S**

**SECTION T**

**SECTION U**

**SECTION V**

**SECTION W**

**SECTION X**

**SECTION Y**

**SECTION Z**

**QUANTITIES - ONE BENT**

| ITEM        | CLASS "A" CONCRETE | DEFORMED REINF. STEEL | FABRICATED CARBON STEEL |
|-------------|--------------------|-----------------------|-------------------------|
| END TYPE 1  | 15.43 Cu. Yds.     | 2273 Lbs.             | 340 Lbs.                |
| END TYPE 2  | 6.93 Cu. Yds.      | 2664 Lbs.             | 340 Lbs.                |
| END TYPE 3  | 17.08 Cu. Yds.     | 2059 Lbs.             | 340 Lbs.                |
| INT. 6 PILE | 6.25 Cu. Yds.      | 1079 Lbs.             | —                       |
| INT. 7 PILE | 6.21 Cu. Yds.      | 1065 Lbs.             | —                       |

**PILE LOADS**

| PILE | End Bent  | Int. Bent 6 Piles | Int. Bent 7 Piles |
|------|-----------|-------------------|-------------------|
| 1    | 35.4 Tons | 35.4 Tons         | 30.3 Tons         |

**PLAN-END BENT**

**ELEVATION-END BENT**

**ELEVATION-INTERMEDIATE BENT**

**SECTION A-A**

**SECTION B-B**

**SECTION C-C**

**SECTION D-D**

**SECTION E**

**SECTION F**

**SECTION G**

**SECTION H**

**SECTION I**

**SECTION J**

**SECTION K**

**SECTION L**

**SECTION M**

**SECTION N**

**SECTION O**

**SECTION P**

**SECTION Q**

**SECTION R**

**SECTION S**

**SECTION T**

**SECTION U**

**SECTION V**

**SECTION W**

**SECTION X**

**SECTION Y**

**SECTION Z**

**QUANTITIES - ONE BENT**

| ITEM        | CLASS "A" CONCRETE | DEFORMED REINF. STEEL | FABRICATED CARBON STEEL |
|-------------|--------------------|-----------------------|-------------------------|
| END TYPE 1  | 15.43 Cu. Yds.     | 2273 Lbs.             | 340 Lbs.                |
| END TYPE 2  | 6.93 Cu. Yds.      | 2664 Lbs.             | 340 Lbs.                |
| END TYPE 3  | 17.08 Cu. Yds.     | 2059 Lbs.             | 340 Lbs.                |
| INT. 6 PILE | 6.25 Cu. Yds.      | 1079 Lbs.             | —                       |
| INT. 7 PILE | 6.21 Cu. Yds.      | 1065 Lbs.             | —                       |

**PILE LOADS**

| PILE | End Bent  | Int. Bent 6 Piles | Int. Bent 7 Piles |
|------|-----------|-------------------|-------------------|
| 1    | 35.4 Tons | 35.4 Tons         | 30.3 Tons         |

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| STATE PROJECT | PARISH | SHEET NO. |
|---------------|--------|-----------|

This figure presents a comprehensive set of design drawings for precast concrete pile bents, intended for use with 60'-0" I-beam spans. The primary drawing is the PLAN-END BENT, which shows the overall dimensions and reinforcement layout for a bent supporting two spans. It includes details for battered piles, chamfers, and various reinforcement bars (#4, #5, #6, #8, #9). Other views include ELEVATION-END BENT, ELEVATION-INTERMEDIATE BENT, and several cross-sections (A-A, B-B, C-C, D-D) showing the internal structure and reinforcement. A detailed reinforcement schedule is provided at the bottom right, listing quantities for one bent and one pile. The plan view also shows the arrangement of piles and the location of the bent relative to the bridge spans.

**PLAN-END BENT**

**ELEVATION-END BENT**

**ELEVATION-INTERMEDIATE BENT**

**CROSS SECTIONS:** SECTION A-A, SECTION B-B, SECTION C-C, SECTION D-D

**REINFORCEMENT SCHEDULE:**

| ITEM        | CLASS "A" CONCRETE | DEFORMED REINF. STEEL | FABRICATED CARBON STEEL |
|-------------|--------------------|-----------------------|-------------------------|
| END TYPE 1  | 15.43 Cu. Yds.     | 2273 Lbs.             | 340 Lbs.                |
| END TYPE 2  | 6.93 Cu. Yds.      | 2664 Lbs.             | 340 Lbs.                |
| END TYPE 3  | 17.08 Cu. Yds.     | 2059 Lbs.             | 340 Lbs.                |
| INT. G PILE | 6.25 Cu. Yds.      | 1079 Lbs.             | -                       |
| INT. T PILE | 6.21 Cu. Yds.      | 1065 Lbs.             | -                       |

**GENERAL NOTES:**

- CONSTRUCTION SPECIFICATIONS: Latest approved by Dept. of Highways Standard Specifications.
- DESIGN SPECIFICATIONS: A.A.S.H.O. Std. Specs. for Highway Bridges, 1953 as amended to Dec. 31, 1955.
- Live Load: H20-S16-44 (Modified).
- Reinforcement bars shall be Intermediate or Hard Grade, A.S.T.M. A or Rail Steel, A.S.T.M. A16.
- All dimensions to reinforcing steel are to bar centers.
- All exposed corners to be chamfered unless otherwise noted.
- Concrete and steel in SIDEWALK CURB FLARE and HANDRAIL FLARE are included in Bent Cap Quantities and are to be paid for as part of Bent.
- Wing Walls are detailed for 44'-0" Crown.
- Quantities computed assuming use of 18" dia. Piles.
- To provide for future extension of Bridge the End Bent is designed for same loads as Int. Bents.

**AVERAGE PILE LOADS**

| Pile Type         | End Bent  | Int. Bent & Piles | Int. Bent & Piles |
|-------------------|-----------|-------------------|-------------------|
| End Bent          | 35.4 Tons | -                 | -                 |
| Int. Bent & Piles | -         | 35.4 Tons         | -                 |
| Int. Bent & Piles | -         | -                 | 30.3 Tons         |

**PLAN**

**ELEVATION-END BENT**

**ELEVATION-INTERMEDIATE BENT**

**SECTION A-A**

**SECTION B-B**

**SECTION C-C**

**SECTION D-D**

**TYPE OF END BENT REQUIRED**

| END BENT | GROUND TO GRADE FEET            | SUB SOIL | BATTERED PILES |
|----------|---------------------------------|----------|----------------|
| TYPE 1   | 0-5                             | Poor     | 0              |
|          | 0-8                             | Good     | 0              |
| TYPE 2   | 5-10                            | Poor     | 2              |
|          | 8-16                            | Good     | 2              |
| TYPE 3   | When called for on General Plan |          |                |

**QUANTITIES - ONE BENT**

| ITEM        | CLASS "A" CONCRETE | DEFORMED REINF. STEEL | FABRICATED CARBON STEEL |
|-------------|--------------------|-----------------------|-------------------------|
| END TYPE 1  | 15.43 Cu. Yds.     | 2273 Lbs.             | 340 Lbs.                |
| END TYPE 2  | 6.93 Cu. Yds.      | 2664 Lbs.             | 340 Lbs.                |
| END TYPE 3  | 17.08 Cu. Yds.     | 2059 Lbs.             | 340 Lbs.                |
| INT. 6 PILE | 6.25 Cu. Yds.      | 1079 Lbs.             | —                       |
| INT. 7 PILE | 6.21 Cu. Yds.      | 1065 Lbs.             | —                       |

**GENERAL NOTES:**

CONSTRUCTION SPECIFICATIONS: Latest approved to Dept. of Highways Standard Specifications.

DESIGN SPECIFICATIONS: A.A.S.H.O. Std. Specs. for Highway Bridges, 1953 as amended to Dec. 31, 1955.

Live Load: H20-S16-44 (Modified).

Reinforcement bars shall be Intermediate or Hard Grade, A.S.T.M. A or Rail Steel, A.S.T.M. A16.

All dimensions to reinforcing steel are to bar centers.

All exposed corners to be chamfered  $\frac{1}{2}$ " unless otherwise noted.

Concrete and steel in SIDEWALK CURB FLARE and HANDRAIL FLARE are included in Bent Cap Quantities and are to be paid for as part of Bent.

Wing Walls are detailed for 44'-0" Crown.

Quantities computed assuming use of 18" Piles.

To provide for future extension of Bridge the End Bent is designed for same loads as Int. Bents.

**AVERAGE PILE LOADS**

End Bent 35.4 Tons

Int. Bent 6 Piles 35.4 Tons

Int. Bent 7 Piles 30.3 Tons

|               |        |           |
|---------------|--------|-----------|
| STATE PROJECT | PARISH | SHEET NO. |
|---------------|--------|-----------|

This figure presents a comprehensive set of engineering drawings for precast concrete pile bents, designed for 60'-0" I-beam spans, live load H20-S16-44 modified, and 28'-0" roadways with 1'-6" sidewalks. The drawings include plan-end bent, elevation-end bent, section A-A, section B-B, section C-C, section D-D, and various reinforcement details. Key components shown are:

- PLAN-END BENT:** Shows the overall dimensions and reinforcement layout for the end bent, including chamfers, battered piles, and symmetrical design about the roadway centerline.
- ELEVATION-END BENT:** Provides vertical dimensions and reinforcement details for the end bent, showing the crown to match the bridge slab and chamfered corners.
- SECTION A-A:** Details the cross-section of the bent, showing reinforcement bars (#4, #6, #8) and dimensions for the cap and piles.
- SECTION B-B:** Shows the cross-section of the bent, highlighting the reinforcement for the cap and piles.
- SECTION C-C:** Illustrates the cap reinforcement for Type 2 bents, showing the arrangement of reinforcement bars.
- SECTION D-D:** Details the cross-section of the bent, showing reinforcement bars and dimensions for the cap and piles.
- REINFORCEMENT DETAILS:** Includes detailed views of reinforcement bars (#4, #6, #8) and their placement within the bent structure.

The drawings also include a table titled "TYPE OF END BENT REQUIRED" which specifies the required type of bent based on ground conditions and pile configuration. Additionally, there is a table titled "QUANTITIES - ONE BENT" providing the quantities of materials needed for one bent.

| END BENT | GROUND TO GRADE FEET            | SUB SOIL | BATTERED PILES |
|----------|---------------------------------|----------|----------------|
| TYPE 1   | 0-5                             | Poor     | 0              |
|          | 0-8                             | Good     | 0              |
| TYPE 2   | 5-10                            | Poor     | 2              |
|          | 8-16                            | Good     | 2              |
| TYPE 3   | When called for on General Plan |          |                |

| ITEM         | CLASS "A" CONCRETE | DEFORMED REINF. STEEL | FABRICATED CARBON STEEL |
|--------------|--------------------|-----------------------|-------------------------|
| END TYPE 1   | 15.43 Cu. Yds.     | 2273 Lbs.             | 340 Lbs.                |
| END TYPE 2   | 6.93 Cu. Yds.      | 2664 Lbs.             | 340 Lbs.                |
| END TYPE 3   | 17.08 Cu. Yds.     | 2059 Lbs.             | 340 Lbs.                |
| INT. G. PILE | 6.25 Cu. Yds.      | 1079 Lbs.             | -                       |
| INT. 7 PILE  | 6.21 Cu. Yds.      | 1065 Lbs.             | -                       |

**GENERAL NOTES:**

- CONSTRUCTION SPECIFICATIONS: Latest approved by Dept. of Highways Standard Specifications.
- DESIGN SPECIFICATIONS: A.A.S.H.O. Std. Specs. for Highway Bridges, 1953 as amended to Dec. 31, 1955.
- Live Load: H20-S16-44 (Modified).
- Reinforcement bars shall be Intermediate or Hard Grade, A.S.T.M. A or Rail Steel, A.S.T.M. A16.
- All dimensions to reinforcing steel are to bar centers.
- All exposed corners to be chamfered unless otherwise noted.
- Concrete and steel in SIDEWALK CURB FLARE and HANDRAIL FLARE are included in Bent Cap Quantities and are to be paid for as part of Bent.
- Wing Walls are detailed for 44'-0" Crown.
- Quantities computed assuming use of 18" dia. Piles.
- To provide for future extension of Bridge the End Bent is designed for same loads as Int. Bents.

**AVERAGE PILE LOADS**

| End Bent  | Int. Bent & Piles | Int. Bent 7 Piles |
|-----------|-------------------|-------------------|
| 35.4 Tons | 35.4 Tons         | 30.3 Tons         |

**STANDARD PLAN PRECAST CONCRETE PILE BENTS FOR 60'-0" I-BEAM SPANS LIVE LOAD H20-S16-44 MODIFIED 28'-0" ROADWAY 1'-6" SIDEWALKS**

DESIGNED: [Signature] CHECKED: [Signature] TRACED: [Signature]

DATE: [Date] BY: [Name]

BRIDGE DESIGN SECTION

**PLAN**

**ELEVATION-END BENT**

**ELEVATION-INTERMEDIATE BENT**

**SECTION A-A**

**SECTION B-B**

**SECTION C-C**

**SECTION D-D**

**TYPE OF END BENT REQUIRED**

| END BENT | GROUND TO GRADE FEET            | SUB SOIL | BATTERED PILES |
|----------|---------------------------------|----------|----------------|
| TYPE 1   | 0-5                             | Poor     | 0              |
|          | 0-8                             | Good     | 0              |
| TYPE 2   | 5-10                            | Poor     | 2              |
|          | 8-16                            | Good     | 2              |
| TYPE 3   | When called for on General Plan |          |                |

**QUANTITIES - ONE BENT**

| ITEM        | CLASS "A" CONCRETE | DEFORMED REINF. STEEL | FABRICATED CARBON STEEL |
|-------------|--------------------|-----------------------|-------------------------|
| END TYPE 1  | 15.43 Cu. Yds.     | 2273 Lbs.             | 340 Lbs.                |
| END TYPE 2  | 6.53 Cu. Yds.      | 2664 Lbs.             | 340 Lbs.                |
| END TYPE 3  | 17.08 Cu. Yds.     | 2059 Lbs.             | 340 Lbs.                |
| INT. 6 PILE | 6.25 Cu. Yds.      | 1079 Lbs.             | —                       |
| INT. 7 PILE | 6.21 Cu. Yds.      | 1065 Lbs.             | —                       |

**GENERAL NOTES:**

CONSTRUCTION SPECIFICATIONS: Latest approved to Dept. of Highways Standard Specifications.

DESIGN SPECIFICATIONS: A.A.S.H.O. Std. Specs. for Highway Bridges, 1953 as amended to Dec. 31, 1955.

Live Load: H20-S16-44 (Modified).

Reinforcement bars shall be Intermediate or Hard Grade, A.S.T.M. A or Rail Steel, A.S.T.M. A16.

All dimensions to reinforcing steel are to bar centers.

All exposed corners to be chamfered  $\frac{1}{2}$ " unless otherwise noted.

Concrete and steel in SIDEWALK CURB FLARE and HANDRAIL FLARE are included in Bent Cap Quantities and are to be paid for as part of Bent.

Wing Walls are detailed for 44'-0" Crown.

Quantities computed assuming use of 18" Piles.

To provide for future extension of Bridge the End Bent is designed for same loads as Int. Bents.

**AVERAGE PILE LOADS**

End Bent 35.4 Tons

Int. Bent 6 Piles 35.4 Tons

Int. Bent 7 Piles 30.3 Tons

[illegible]

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|---------------|--------|-----------|
| STATE PROJECT | PARISH | SHEET NO. |
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This figure presents a comprehensive set of engineering drawings for precast concrete pile bents, designed for 60'-0" I-beam spans, live load H20-S16-44 modified, and 28'-0" roadways with 1'-6" sidewalks. The drawings include plan-end bent, elevation-end bent, section A-A, section B-B, section C-C, section D-D, and various reinforcement details.

The main drawing shows the PLAN-END BENT, which includes dimensions for the bridge deck (7'-0" wide), abutments (16'-3" long), and piles (5'-3" apart). It also shows the location of battered piles and the crown to match the bridge slab. The ELEVATION-END BENT shows the vertical profile of the bent, including the crown, chamfer, and pile locations. The sections A-A, B-B, C-C, and D-D provide cross-sectional views of the bent, showing the arrangement of reinforcement bars (e.g., #4 Bars T<sub>1</sub>, #4 Bars T<sub>2</sub>, #4 Bars U, #4 Bars V, #4 Bars X, #4 Bars Y, #4 Bars Z, #4 Bars S, #4 Bars R, #4 Bars Q, #4 Bars P, #4 Bars O, #4 Bars N, #4 Bars M, #4 Bars L, #4 Bars K, #4 Bars J, #4 Bars I, #4 Bars H, #4 Bars G, #4 Bars F, #4 Bars E, #4 Bars D, #4 Bars C, #4 Bars B, #4 Bars A) and their lengths. Section A-A shows the bent at the end of the bridge, while sections B-B, C-C, and D-D show the bent at intermediate points.

The reinforcement details include:

- #4 Bars T<sub>1</sub>, #4 Bars T<sub>2</sub>: Top reinforcement bars, 22'-7" long.
- #4 Bars U, #4 Bars V: Side reinforcement bars, 22'-7" long.
- #4 Bars X, #4 Bars Y, #4 Bars Z: Bottom reinforcement bars, 22'-7" long.
- #4 Bars S, #4 Bars R, #4 Bars Q, #4 Bars P, #4 Bars O, #4 Bars N, #4 Bars M, #4 Bars L, #4 Bars K, #4 Bars J, #4 Bars I, #4 Bars H, #4 Bars G, #4 Bars F, #4 Bars E, #4 Bars D, #4 Bars C, #4 Bars B, #4 Bars A: Vertical reinforcement bars, 22'-7" long.

The GENERAL NOTES specify that the construction specifications are based on the latest approved by the Dept. of Highways Standard Specifications, 1953 as amended to Dec. 31, 1955. The design specifications are A.A.S.H.O. Std. Specs. for Highway Bridges, 1953 as amended to Dec. 31, 1955. The live load is H20-S16-44 (Modified). Reinforcement bars shall be Intermediate or Hard Grade, A.S.T.M. A or Rail Steel, A.S.T.M. A16. All dimensions to reinforcing steel are to bar centers. All exposed corners to be chamfered 1/2" unless otherwise noted. Concrete and steel in SIDEWALK CURB FLARE and HANDRAIL FLARE are included in Bent Cap Quantities and are to be paid for as part of Bent. Wing Walls are detailed for 44'-0" Crown. Quantities computed assuming use of 18" dia. Piles. To provide for future extension of Bridge the End Bent is designed for same loads as Int. Bents.

AVERAGE PILE LOADS:  
End Bent 35.4 Tons  
Int. Bent 6 Piles 35.4 Tons  
Int. Bent 7 Piles 30.3 Tons

TYPE OF END BENT REQUIRED

| END BENT | GROUND TO GRADE FEET            | SUB SOIL | BATTERED PILES |
|----------|---------------------------------|----------|----------------|
| TYPE 1   | 0-5                             | Poor     | 0              |
|          | 0-8                             | Good     | 0              |
| TYPE 2   | 5-10                            | Poor     | 2              |
|          | 8-16                            | Good     | 2              |
| TYPE 3   | When called for on General Plan |          | 3              |

QUANTITIES - ONE BENT

| ITEM        | CLASS "A" CONCRETE | DEFORMED REINF. STEEL | FABRICATED CARBON STEEL |
|-------------|--------------------|-----------------------|-------------------------|
| END TYPE 1  | 15.43 Cu. Yds.     | 2273 Lbs.             | 340 Lbs.                |
| END TYPE 2  | 6.93 Cu. Yds.      | 2664 Lbs.             | 340 Lbs.                |
| END TYPE 3  | 17.08 Cu. Yds.     | 2059 Lbs.             | 340 Lbs.                |
| INT. 6 PILE | 6.25 Cu. Yds.      | 1079 Lbs.             | -                       |
| INT. 7 PILE | 6.21 Cu. Yds.      | 1065 Lbs.             | -                       |

STANDARD PLAN PRECAST CONCRETE PILE BENTS FOR 60'-0" I-BEAM SPANS LIVE LOAD H20-S16-44 MODIFIED 28'-0" ROADWAY 1'-6" SIDEWALKS

DESIGNED: [Signature] CHECKED: [Signature] TRACED: [Signature]  
DATE: [Date] DESCRIPTION: [Description] BY: [By]

**PLAN-END BENT**

**ELEVATION-END BENT**

**ELEVATION-INTERMEDIATE BENT**

**SECTION A-A**

**SECTION B-B**

**SECTION C-C**

**SECTION D-D**

**SECTION E**

**SECTION F**

**SECTION G**

**SECTION H**

**SECTION I**

**SECTION J**

**SECTION K**

**SECTION L**

**SECTION M**

**SECTION N**

**SECTION O**

**SECTION P**

**SECTION Q**

**SECTION R**

**SECTION S**

**SECTION T**

**SECTION U**

**SECTION V**

**SECTION W**

**SECTION X**

**SECTION Y**

**SECTION Z**

**QUANTITIES - ONE BENT**

| ITEM        | CLASS "A" CONCRETE | DEFORMED REINFORCING STEEL | FABRICATED CARBON STEEL |
|-------------|--------------------|----------------------------|-------------------------|
| END TYPE 1  | 15.43 Cu. Yds.     | 2273 Lbs.                  | 340 Lbs.                |
| END TYPE 2  | 6.93 Cu. Yds.      | 2664 Lbs.                  | 340 Lbs.                |
| END TYPE 3  | 17.08 Cu. Yds.     | 2059 Lbs.                  | 340 Lbs.                |
| INT. 6 PILE | 6.25 Cu. Yds.      | 1079 Lbs.                  | —                       |
| INT. 7 PILE | 6.21 Cu. Yds.      | 1065 Lbs.                  | —                       |

**PILE LOADS**

| PILE | End Bent  | Int. Bent 6 Piles | Int. Bent 7 Piles |
|------|-----------|-------------------|-------------------|
| 1    | 35.4 Tons | 35.4 Tons         | 30.3 Tons         |

[illegible][illegible][illegible]

**PLAN**

**ELEVATION-END BENT**

**ELEVATION-INTERMEDIATE BENT**

**SECTION A-A**

**SECTION B-B**

**SECTION C-C**

**SECTION D-D**

**GENERAL NOTES:**

- CONSTRUCTION SPECIFICATIONS: Latest approved to Dept. of Highways Standard Specifications.
- DESIGN SPECIFICATIONS: A.A.S.H.O. Std. Specs. for Highway Bridges, 1953 as amended to Dec. 31, 1955.
- Live Load: H20-S16-44 (Modified).
- Reinforcement bars shall be Intermediate or Hard Grade, A.S.T.M. A or Rail Steel, A.S.T.M. A16.
- All dimensions to reinforcing steel are to bar centers.
- All exposed corners to be chamfered  $\frac{1}{2}$ " unless otherwise noted.
- Concrete and steel in SIDEWALK CURB FLARE and HANDRAIL FLARE are included in Bent Cap Quantities and are to be paid for as part of Bent.
- Wing Walls are detailed for 44'-0" Crown.
- Quantities computed assuming use of 18" Piles.
- To provide for future extension of Bridge the End Bent is designed for same loads as Int. Bents.

| TYPE OF END BENT REQUIRED |                                 |          |                |
|---------------------------|---------------------------------|----------|----------------|
| END BENT                  | GROUND TO GRADE FEET            | SUB SOIL | BATTERED PILES |
| TYPE 1                    | 0-5                             | Poor     | 0              |
|                           | 0-8                             | Good     | 0              |
| TYPE 2                    | 5-10                            | Poor     | 2              |
|                           | 8-16                            | Good     | 2              |
| TYPE 3                    | When called for on General Plan |          |                |

| QUANTITIES - ONE BENT |                    |                       |                         |
|-----------------------|--------------------|-----------------------|-------------------------|
| ITEM                  | CLASS "A" CONCRETE | DEFORMED REINF. STEEL | FABRICATED CARBON STEEL |
| END TYPE 1            | 15.43 Cu. Yds.     | 2273 Lbs.             | 340 Lbs.                |
| END TYPE 2            | 6.93 Cu. Yds.      | 2664 Lbs.             | 340 Lbs.                |
| END TYPE 3            | 17.08 Cu. Yds.     | 2059 Lbs.             | 340 Lbs.                |
| INT. 6 PILE           | 6.25 Cu. Yds.      | 1079 Lbs.             | —                       |
| INT. 7 PILE           | 6.21 Cu. Yds.      | 1065 Lbs.             | —                       |

**STANDARD PLAN**

**PRECAST CONCRETE PILE BENTS**

FOR 60'-0" I-BEAM SPANS

LIVE LOAD H20-S16-44 MODIFIED

28'-0" ROADWAY 1'-6" SIDEWALKS

DESIGNED *Tridings* CHECKED *Chalkin* TRACED *C.H. G.*

DATE *11-18-59* DESCRIPTION *Bridge Design Section* BY *S.H.*

REVISIONS

STATE OF LOUISIANA

DEPARTMENT OF HIGHWAYS

**PLAN**

**ELEVATION-END BENT**

**ELEVATION-INTERMEDIATE BENT**

**SECTION A-A**

**SECTION B-B**

**SECTION C-C**

**SECTION D-D**

**GENERAL NOTES:**

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- DESIGN SPECIFICATIONS: A.A.S.H.O. Std. Specs. for Highway Bridges, 1953 as amended to Dec. 31, 1955.
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**STANDARD PLAN**

**PRECAST CONCRETE PILE BENTS**

FOR 60'-0" I-BEAM SPANS

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