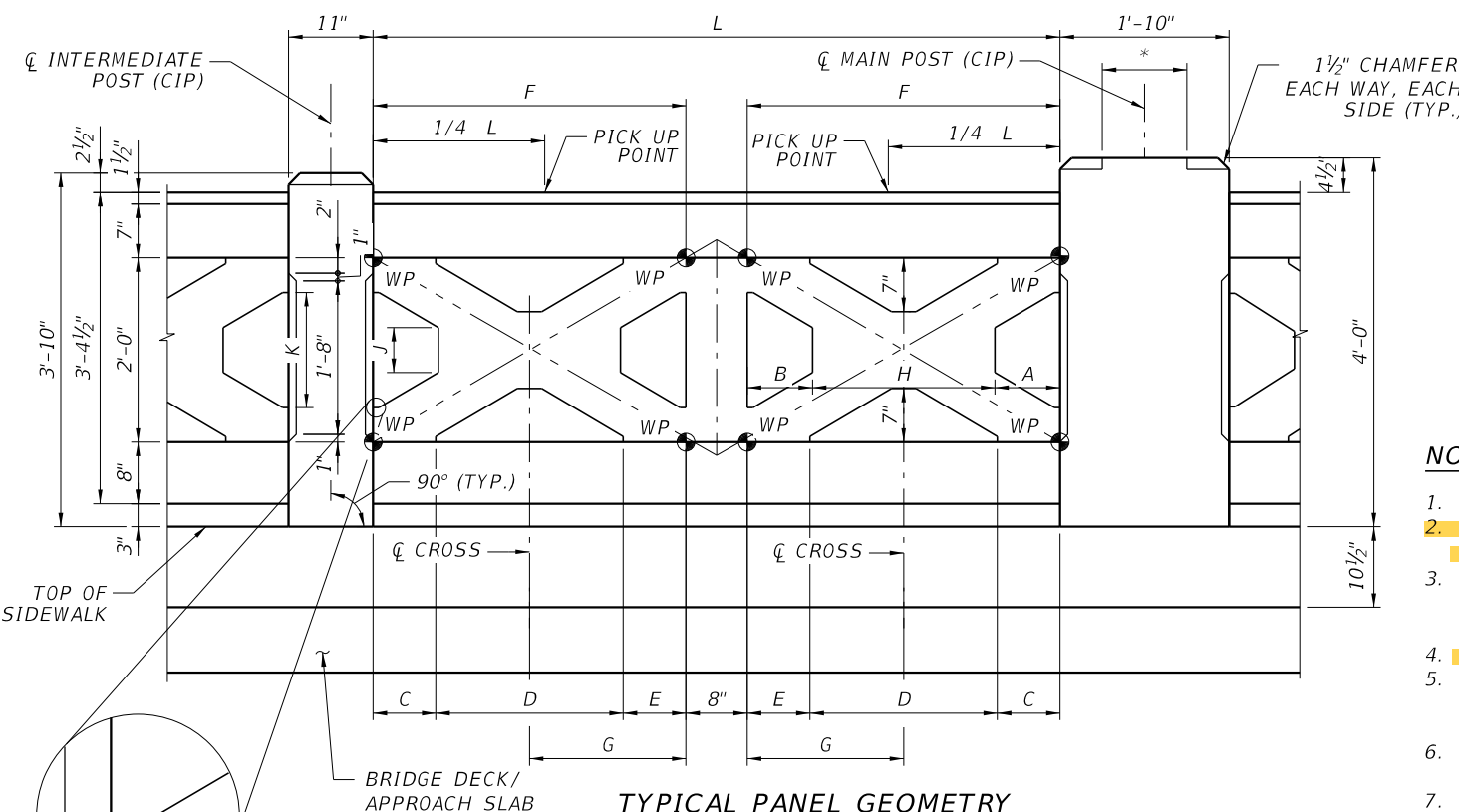


RAILING ELEVATION

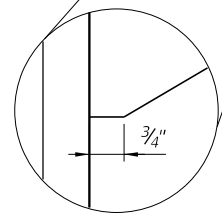
* 11" PEDESTAL CENTERED ON POSTS SUPPORTING LIGHT POLES.



TYPICAL PANEL GEOMETRY

NOTE: THE DIMENSIONS SHOWN APPLY TO BOTH CROSSES IN THE PANEL.

TYPICAL CORNER DETAIL



BRIDGE	PANEL TYPE	SPAN LENGTH (FT)	L	A	B	C	D	E	F	G	H	J	K
			(FT)	(IN)	(IN)	(IN)	(FT)	(IN)	(FT)	(FT)	(FT)	(IN)	(FT)
12	1	49.750	6.060	8.09	8.09	7.22	1.493	7.22	2.696	1.348	1.348	3.28	1.150
3 TO 8	2	51.583	6.310	8.46	8.46	7.46	1.578	7.46	2.821	1.411	1.411	3.42	1.167
12	3	52.000	6.393	8.59	8.59	7.54	1.606	7.54	2.863	1.432	1.432	3.46	1.172
9	4	53.500	6.595	8.89	8.89	7.74	1.674	7.74	2.964	1.482	1.482	3.56	1.184
2, 12	5	53.583	6.740	9.11	9.11	7.88	1.723	7.88	3.037	1.518	1.518	3.62	1.192
2	6	53.750	6.631	8.95	8.95	7.77	1.686	7.77	2.982	1.491	1.491	3.57	1.186
12	7	54.250	6.571	8.86	8.86	7.72	1.666	7.72	2.952	1.476	1.476	3.55	1.183
9, 11	8	54.833	6.774	9.16	9.16	7.91	1.734	7.91	3.054	1.527	1.527	3.63	1.194
11, 12	9	55.500	6.881	9.32	9.32	8.02	1.770	8.02	3.107	1.554	1.554	3.68	1.199
3 TO 8	10	59.500	7.452	10.18	10.18	8.59	1.961	8.59	3.393	1.696	1.696	3.87	1.225
10*	11	81.833	6.432	8.65	8.65	7.58	1.619	7.58	2.883	1.441	1.441	3.48	1.174
APPR. SLABS	12	30.000	5.896	7.84	7.84	7.07	1.437	7.07	2.615	1.307	1.307	3.19	1.138

* FOR TRAFFIC RAILING IN BASCULE SPAN IN BRIDGE 10, SEE BRIDGE 10 PLANS.

NOTES:

1. REINFORCING BAR IN PRECAST PANELS IS ASTM A615 GRADE 60 AND IN CIP POSTS IS ASTM A615 GRADE 75.
2. FOR CONCRETE MATERIAL PROPERTIES OF THE PRECAST RAILINGS AND CAST-IN-PLACE POSTS, SEE GENERAL NOTES, SHEET B-8.
3. THE MAXIMUM SIZE OF AGREGATE IN THE CONCRETE MIX FOR THE PRECAST PANELS AND CIP POSTS SHALL BE 3/8". CONCRETE SHALL BE PROPORTIONATED TO ACHIEVE A SLUMP OF 8 INCHES (± 1 INCH), MEASURED IN ACCORDANCE WITH ASTM C143.
4. ALL RAILING CONCRETE SURFACE SHALL HAVE A CLASS V FINISH COATING.
5. THE CONTRACTOR SHALL SUBMIT RAILING PANEL LAYOUT AND SHOP DRAWINGS SHOWING DETAILED INDIVIDUAL PANEL GEOMETRY FOR REVIEW PRIOR TO FABRICATION. PANELS SHALL BE SHOP MARKED FOR PLACEMENT AND ORIENTATION PURPOSES.
6. ALL PRECAST CONCRETE RAILING PANELS TO BE PRECAST CONCRETE MANUFACTURED UNDER PLANT CONTROL CONDITIONS.
7. THE APPLICABLE SPAN LENGTH SHOWN DOES NOT INCLUDE THE EXPANSION JOINT WIDTH FOR END SPANS.
8. THE APPLICABLE SPAN LENGTH OF 30 FEET APPLIES TO APPROACH SLABS.
9. HORIZONTAL DIMENSIONS SHOWN. DETAIL DIMENSIONS SHALL ACCOUNT FOR THE ACTUAL BRIDGE PROFILE. IT IS THE CONTRACTOR RESPONSIBILITY TO FIELD VERIFY ACTUAL DIMENSIONS AS REQUIRED FOR DETAILING, FABRICATION, AND ERECTION.
10. AT PIERS 4 AND 7 IN BRIDGE 12, WHERE OPEN JOINTS ARE PROVIDED, 11"x11" POSTS ARE USED AT BOTH SIDES OF THE OPEN JOINTS.
11. CONDUITS AND DRAIN ARE REQUIRED ONLY AT POSTS SUPPORTING LIGHT POLES. SEE LIGHTING PLANS.
12. FOR WIDTH OF OPEN JOINT, SEE SUPERSTRUCTURE DETAILS (EXPANSION JOINT DATA TABLE) IN EACH BRIDGE PLAN SET.

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

EAC CONSULTING, INC.
 5959 WATERFORD DISTRICT DRIVE, SUITE 410
 MIAMI, FLORIDA 33126
 PH: 305-265-5400
 CA# 7011

DESIGNED BY	NAME	DATE	DRAWN BY	NAME	DATE
HA	HA	11/25	EP	EP	11/25
CHECKED BY	FL/KTL	11/25	CHECKED BY	HA	11/25
SUPERVISED BY	K. T. LIN, P.E.				

DEPARTMENT OF TRANSPORTATION AND PUBLIC WORKS
 HIGHWAY BRIDGE ENGINEERING DIVISION
 OVERTOWN TRANSIT VILLAGE
 701 NW 1ST CT, MIAMI, FL. 33136

BRIDGE RAILING (1 OF 3)

GENERAL NOTES

(FOR ALL BRIDGES EXCEPT BRIDGE 13)

1. GOVERNING STANDARDS AND CONSTRUCTION SPECIFICATIONS:

- A. FLORIDA DEPARTMENT OF TRANSPORTATION (FDOT), FY 2024-25 STANDARD PLANS AND REVISED INDEX DRAWINGS AS APPENDED HEREIN.
- B. CONSTRUCTION TO BE IN ACCORDANCE WITH THE FLORIDA DEPARTMENT OF TRANSPORTATION (FDOT) STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, FY 2024-25, EXCEPT AS SUPPLEMENTED OR AMENDED BY THE CONTRACT PLANS, SUPPLEMENTAL SPECIFICATIONS OR SPECIAL PROVISIONS.

2. DESIGN SPECIFICATIONS:

- A. FDOT STRUCTURES MANUAL DATED JANUARY 2025.
- B. AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, 9TH EDITION, 2020, AND ALL SUBSEQUENT INTERIMS.
- C. AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS (AASHTO) LOAD AND RESISTANCE FACTOR (LRFD) MOVABLE HIGHWAY BRIDGE DESIGN SPECIFICATIONS, 2ND EDITION AND ALL SUBSEQUENT INTERIMS.
- D. FLORIDA BUILDING CODE, 8TH EDITION (2023) FOR CONTROL HOUSE.
- E. AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS FOR GFRP-REINFORCED CONCRETE, 2ND EDITION, 2018. THE DESIGN OF GFRP BARS WAS BASED ON A RESISTANCE FACTOR OF 0.75 FOR THE EXTREME LIMIT STATES.

3. VERTICAL DATUM:

- A. ELEVATIONS ARE IN FEET AND ARE BASED ON THE NORTH AMERICAN VERTICAL DATUM NAVD88.

4. ENVIRONMENTAL CLASSIFICATION:

- A. SUPERSTRUCTURE: EXTREMELY AGGRESSIVE
- B. SUBSTRUCTURE: EXTREMELY AGGRESSIVE

5. DESIGN METHODOLOGY:

- A. LOAD AND RESISTANCE FACTOR DESIGN (LRFD) METHOD USING STRENGTH, SERVICE, EXTREME EVENT, AND FATIGUE LIMIT STATES.
- B. OPERATIONAL IMPORTANCE FACTOR = 1.0 FOR ALL BRIDGES.

6. STRUCTURAL ANALYSIS PROGRAMS:

- A. LEAP BRIDGE CONCRETE CE V21
- B. MIDAS/CIVIL 2020 VERSION 3.2

7. DESIGN LOADINGS:

- A. DEAD LOADS:
 - a. UNIT WEIGHT OF REINFORCED CONCRETE 150 PCF
 - b. UNIT WEIGHT OF STEEL 490 PCF
 - c. TRAFFIC RAILING 315 PLF
 - d. SIDEWALK 850 PLF
NO ALLOWANCE INCLUDED FOR DECK FUTURE WEARING SURFACE. DYNAMIC LOAD ALLOWANCE OF 20% APPLIED TO DEAD LOAD FOR ELEMENTS SUBJECT TO MOVEMENT (NOT COMBINED WITH LIVE LOAD).
- B. TRAFFIC RAILING:
 - a. DISTRIBUTION OF LOADING IS IN ACCORDANCE WITH THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS.
 - b. DESIGN FOR TL-3 LOADING IN ACCORDANCE WITH THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS.
- C. LIVE LOAD:
 - a. VEHICULAR LOADS HL-93
 - b. DYNAMIC LOAD ALLOWANCE 0.33
 - c. PEDESTRIAN LOADS 75 PSF
 - d. PEDESTRIAN (OBSERVATION DECK): 90 PSF
 - e. BASCULE PIER FLOORS
 - i. CONTROL LEVEL 50 PSF
 - ii. DECK/ENTRY LEVEL 75 PSF
 - iii. PIT, MACHINERY AND TRUNNION LEVEL 125 PSF
- D. SEISMIC DESIGN:
 - a. DESIGN IS IN ACCORDANCE WITH THE FDOT STRUCTURES DESIGN GUIDELINES.
- E. WIND LOADS:
 - a. APPLICATION IS PER FDOT STRUCTURES DESIGN GUIDELINES SECTION 2.4.

F. THERMAL FORCES:

- a. TEMPERATURES AND TEMPERATURE VARIATIONS FOR DESIGN OF CONCRETE STRUCTURES (DEGREES FAHRENHEIT (°F)):
 - i. TEMPERATURE HIGH 105°F
 - ii. TEMPERATURE MEAN 70°F
 - iii. TEMPERATURE LOW 35°F
 - iv. TEMPERATURE RANGE 70°F
 - v. THERMAL COEFFICIENT 0.0000060/°F
- b. FOR THERMAL FORCES ON THE BASCULE SPAN, REFER TO THE TEMPERATURE EFFECTS STATED IN THE BASCULE LEAF NOTES ON SHEET B10-167.

G. SHIP IMPACT (ONLY APPLICABLE TO THE BASCULE SPAN IN BRIDGE 10):

- a. TRANSVERSE DIRECTION (PARALLEL TO NAVIGATION CHANNEL) TO BE DETERMINED
- b. LONGITUDINAL DIRECTION (PERPENDICULAR TO NAVIGATION CHANNEL) TO BE DETERMINED

H. LIVE LOAD DISTRIBUTION VALUES:

- a. DISTRIBUTION VALUES ARE IN ACCORDANCE WITH THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS.

I. WAVE LOAD:

- a. DESIGN IS IN ACCORDANCE WITH AASHTO GUIDE SPECIFICATIONS FOR BRIDGES VULNERABLE TO COASTAL STORM 2008, WITH 2023 INTERIMS.
- b. WAVE LOADS FOR STRUCTURE DESIGN ARE BASED ON THE BRIDGE HYDRAULICS REPORT PREPARED BY INTERA INCORPORATED, DATED MARCH 2023.
- c. BRIDGE STRUCTURES ARE DESIGNED AS "CRITICAL/ESSENTAIL" WITH A LOAD WAVE FACTOR OF 1.75.

J. CONSTRUCTION LOADS:

- a. FINISHING MACHINE LOADS: 13 KIPS
- b. FINISHING MACHINE WHEEL LOCATION BEYOND EDGE OF DECK OVERHANG: 6 INCHES
- c. CONSTRUCTION LIVE LOADS: 20 PSF EXTENDED OVER THE ENTIRE BRIDGE WIDTH AND 50-FEET IN LONGITUDINAL LENGTH CENTERED ON THE FINISHING MACHINE.
- d. REMOVABLE DECK CANTILEVER TIMBER FORMS WITH OVERHANG BRACKETS: 15 PSF.
- e. LIVE LOAD AT OR NEAR THE OUTSIDE EDGE OF DECK DURING DECK CASTING: 75 PLF APPLIED AS A MOVING LOAD OVER A LENGTH OF 20 FEET.
- f. CONSTRUCTION INACTIVE DESIGN WIND SPEED: 90 MPH.
- g. VELOCITY PRESSURE EXPOSURE COEFFICIENT (KZ): 1.14.
- h. CONSTRUCTION ACTIVE DESIGN WIND SPEED: 30 MPH.

K. UTILITIES:

NO ALLOWANCE FOR UTILITY LOADS HAS BEEN INCLUDED IN THE DESIGN. THE UTILITIES EMBEDDED UNDER THE SIDEWALKS ARE INCLUDED AS EQUIVALENT TO WEIGHT OF CONCRETE.

8. DIMENSIONS:

- A. ALL DIMENSIONS ARE MEASURED HORIZONTALLY AND VERTICALLY UNLESS NOTED OTHERWISE.
- B. ALL DIMENSIONS ARE IN FEET UNLESS OTHERWISE NOTED.
- C. ALL DIMENSIONS AND JOINT OPENINGS IN THE STRUCTURE ARE MEASURED AT MEAN TEMPERATURE OF 70 °F.

9. CONCRETE MATERIALS:

- A. MATERIAL STRENGTHS ARE TO BE IN ACCORDANCE WITH THE APPLICABLE DESIGN SPECIFICATIONS AND AS NOTED BELOW.
- B. SEE "BASCULE LEAF NOTES" AND "BASCULE PIER NOTES" SHEETS FOR BASCULE SPAN CONCRETE REQUIREMENTS.

COMPONENT	TYPE	FDOT CLASS	28-DAY COMPRESSION STRENGTH (PSI)	
DRILLED SHAFTS	C.I.P.	IV (DRILLED SHAFTS)	4000	(3)(4)
ABUTMENT END BENT CAPS	C.I.P.	IV	5500	(1)
PIER CAPS	C.I.P.	IV	5500	(1)
PRECAST BEAMS	PRECAST	VI	8500	(2)
DIAPHRAGMS	C.I.P.	IV	5500	(2)(3)
BLOCKOUT	C.I.P.	IV	5500	(2)
DECK	C.I.P.	IV	5500	(2)(3)
APPROACH SLAB	C.I.P.	IV (BRIDGE DECK)	5500	(2)
SIDEWALK	C.I.P.	IV	5500	(2)(3)
RAILING	PRECAST	V	6500	(2)(3)
RAILING POSTS	C.I.P.	IV	5500	(2)(3)
DECK (TEMP. BRIDGE)	C.I.P.	II (BRIDGE DECK)	4500	
APPROACH SLAB (TEMP. BRIDGE)	C.I.P.	II (BRIDGE DECK)	4500	
RAILING (TEMP. BRIDGE)	C.I.P.	II	3400	

- (1) HIGHLY REACTIVE POZZOLAN REQUIRED (SILICA FUME, METAKAOLIN OR ULTRAFINE FLY ASH PER STANDARD SPECIFICATION SECTION 346).
- (2) CALCIUM NITRATE (CNI) CORROSION INHIBITOR ADMIXTURE REQUIRED @ 4.5 GALLONS PER CUBIC YARD.
- (3) SURFACE RESISTIVITY TEST SHALL BE PERFORMED AT 28 DAYS OF THE CONCRETE AND THE TEST RESULTS SHALL BE ≥ 29 KΩ-CM.
- (4) HIGHLY REACTIVE POZZOLAN REQUIRED (USE METAKAOLIN OR ULTRAFINE FLY ASH PER STANDARD SPECIFICATION SECTION 346. SILICA FUME NOT PERMITTED).

B. CONCRETE COVER (UNLESS NOTED OTHERWISE IN THE PLANS):

CAST-IN-PLACE SUPERSTRUCTURE (TOP OF DECK)	2 1/2"
CAST-IN-PLACE SUPERSTRUCTURE (BOTTOM OF DECK)	2"
CAST-IN-PLACE SUPERSTRUCTURE (DIAPHRAGM)	2"
CAST-IN-PLACE SIDEWALK	2"
PRECAST BEAMS (BOTTOM AND SIDES OF BEAM)	2"
PRECAST BEAMS (TOP SURFACE OF BEAM TOP FLANGE)	3/4"
CAST-IN-PLACE SUBSTRUCTURE (INTERNAL SURFACES)	3"
CAST-IN-PLACE SUBSTRUCTURE (EXTERNAL SURFACES CAST AGAINST EARTH AND SURFACES IN CONTACT WITH WATER)	4 1/2"
CAST-IN-PLACE SUBSTRUCTURE (FORMED SURFACES NOT IN CONTACT WITH WATER)	4"
CAST-IN-PLACE SUBSTRUCTURE (TOP OF BEAM PEDESTALS)	2"
DRILLED SHAFTS	6"

- C. CONCRETE COVER DIMENSIONS SHOWN IN THE PLANS DO NOT INCLUDE PLACEMENT AND FABRICATION TOLERANCES UNLESS SHOWN AS "MINIMUM COVER". SEE FDOT STANDARD SPECIFICATIONS FOR ALLOWABLE TOLERANCES. ALL DIMENSIONS PERTAINING TO THE LOCATION OF REINFORCING STEEL ARE TO CENTERLINE OF BAR EXCEPT WHERE CLEAR DIMENSION IS NOTED TO FACE OF CONCRETE.
- D. CONCRETE EDGES: UNLESS OTHERWISE SPECIFIED, CHAMFER EXPOSED EDGES AS FOLLOWS:
 - a. PEDESTALS 3/4"
 - b. END BENT AND PIER CAPS 3/4"
 - c. ALL OTHER EXPOSED EDGES 3/4"
- E. CONSTRUCTION JOINTS WILL BE PERMITTED ONLY AT LOCATIONS INDICATED ON PLANS. ADDITIONAL CONSTRUCTION JOINTS OR ALTERATIONS TO THOSE SHOWN SHALL REQUIRE WRITTEN APPROVAL OF THE ENGINEER. ALL CONSTRUCTION JOINTS SHALL BE INTENTIONALLY ROUGHENED TO AN AMPLITUDE OF 1/4".

BRIDGE NOS. 874460, 874461, 874463, 874465, 874466, 874471, 874472, 874473, 874474, 874477 & 874481

REVISIONS

DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION



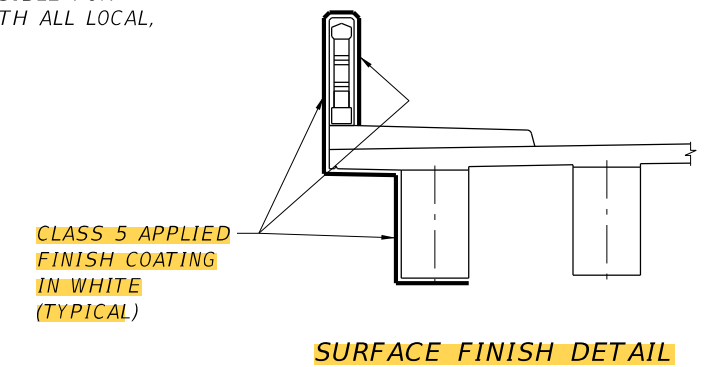
DESIGNED BY	NAME	DATE	DRAWN BY	NAME	DATE
CHECKED BY	HA	11/25	CHECKED BY	HA	11/25
SUPERVISED BY:	K. T. LIN, P.E.				



GENERAL NOTES (CONTINUED)
(FOR ALL BRIDGES EXCEPT BRIDGE 13)

- 10. REINFORCING BARS (UNLESS NOTED OTHERWISE IN THE PLANS):
 - A. SEAWALL AND RETAINING WALLS SHALL CONFORM TO ASTM A615, GRADE 60.
 - B. FOR THE MATERIAL SPECIFICATIONS OF THE DRILLED SHAFT REINFORCING BARS, SEE B-14.
 - C. REINFORCING BARS IN ALL COMPONENTS OF END BENTS AND PIERS IN BRIDGES 2 TO 9, 11, AND 12 AND ABUTMENTS IN BRIDGE 10 (INCLUDING CAPS, BACKWALLS, CHEEKWALLS, SHEAR KEYS, AND PEDESTALS) EXCEPT DRILLED SHAFTS SHALL CONFORM TO STAINLESS STEEL ASTM A955, GRADE 75. DOWEL BARS THAT EXTEND FROM THE TOP OF THE END BENT/ABUTMENT BACKWALL INTO THE APPROACH SLAB (BAR 6E10 IN THE PLANS) SHALL BE GLASS FIBER REINFORCED POLYMER (GFRP), ASTM D7957. REINFORCING BARS IN BASCULE PIERS IN BRIDGE 10 SHALL BE ASTM A615, GRADE 60.
 - D. NON-PRESTRESSED REINFORCEMENT IN PRECAST BEAMS SHALL CONFORM TO THE GLASS FIBER REINFORCED POLYMER (GFRP), ASTM D7957.
 - E. BRIDGE DECK, DIAPHRAGMS, RAILING, SIDEWALK, AND APPROACH SLAB REINFORCEMENT SHALL CONFORM TO ASTM A615, GRADE 60.
- 11. PRESTRESSING STRANDS FOR PRECAST CONCRETE BEAMS SHALL BE ASTM A1114, GRADE 240, LOW-RELAXATION, STAINLESS STEEL STRANDS.
- 12. STAY IN PLACE DECK FORMS:
 - A. STAY IN PLACE DECK FORMS ARE NOT PERMITTED.
- 13. UTILITIES:
 - A. FOR PLAN LOCATIONS OF EXISTING UTILITIES SEE PLAN AND ELEVATION SHEETS.
 - B. CONTACT SUNSHINE STATE ONE CALL OF FLORIDA, INC. AS REQUIRED BY CHAPTER 556 OF THE FLORIDA STATUTES.
 - C. VERIFY LOCATION OF UTILITIES BEFORE COMMENCING CONSTRUCTION.
 - D. RELOCATION OF UTILITIES AND POSSIBLE CONFLICTS WILL BE COORDINATED AND RESOLVED BY THE CONTRACTOR WITH RESPECTIVE UTILITY OWNERS. THIS WORK BY THE CONTRACTOR WILL BE CONSIDERED INCIDENTAL TO THE CONTRACT AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.
- 14. EXISTING BRIDGE CONSTRUCTION CONSIDERATIONS:
 - A. DIMENSION VERIFICATION: GENERAL LAYOUT LOCATION AND ELEVATIONS ARE BASED ON SURVEY DATA. NOTIFY THE ENGINEER OF ANY DISCREPANCIES BEFORE COMMENCING CONSTRUCTION.
- 15. ENVIRONMENTAL:
 - A. THERE ARE SEAGRASSES WITHIN THE VICINITY OF THE PROJECT. NOTE THAT, AT A MINIMUM, SEAGRASSES ARE KNOWN TO OCCUR IN AREAS WITH DEPTH SHALLOWER THAN 6 FEET FROM MEAN HIGH WATER LEVEL. COORDINATE WORK ACTIVITIES WITH THE COUNTY TO AVOID ANY IDENTIFIED SEAGRASSES.
 - B. INSTALLATION OF NEW ELECTRICAL COMPONENTS WILL REQUIRE A CERTIFICATION FROM THE CONTRACTOR THAT NO ASBESTOS CONTAINING MATERIALS WERE USED IN THE NEW WORK.
- 16. BRIDGE CONSTRUCTION SEQUENCE:
 - A. WORK PHASING AND PROGRESSION OF THE WORK SHALL BE IN ACCORDANCE WITH THE TEMPORARY TRAFFIC CONTROL PLANS LOCATED IN THE ROADWAY PLANS AND THE NOTES ON THE CONSTRUCTION PHASING DRAWINGS.
 - B. THE FULL RESPONSIBILITY REMAINS WITH THE CONTRACTOR FOR THE IDENTIFICATION AND DEVELOPMENT OF ALL CONSTRUCTION STEPS, PROCEDURES, AND SEQUENCES IN ORDER TO PROVIDE A COMPLETE INSTALLATION OF THE BRIDGE IN ACCORDANCE WITH THE CONTRACT DOCUMENTS, UNLESS OTHERWISE RESTRICTED OR NOTED.
 - C. BRIDGE CONSTRUCTION CANNOT COMMENCE UNTIL ALL UTILITIES CURRENTLY ATTACHED TO BRIDGES HAVE BEEN PERMANENTLY OR TEMPORARILY RELOCATED. FOR UTILITIES THAT HAVE BEEN RELOCATED SUB-AQUEOUSLY, AN AS-BUILT OF THE UTILITY LOCATION WILL BE PROVIDED TO THE CONTRACTOR TO AID IN DRILLED SHAFT INSTALLATION.
- 17. BRIDGE DEMOLITION:
 - A. THE CONTRACTOR SHALL SUBMIT A BRIDGE DEMOLITION PLAN SIGNED AND SEALED BY A FLORIDA LICENSED PROFESSIONAL ENGINEER TO THE ENGINEER FOR APPROVAL. THE PLAN SHALL ADDRESS EQUIPMENT, METHODS AND PROCEDURES, AND SCHEDULES FOR DEMOLITION INCLUDING SPECIAL REQUIREMENTS FOR MOT.

- B. THE EXISTING RIPRAP IN FRONT OF THE END BENTS AND AROUND THE PIERS WILL REMAIN. THE CONTRACTOR SHALL MINIMIZE THE INTERFERENCE WITH RIPRAP UNLESS IT IS IN CONFLICT WITH THE NEW FOUNDATION CONSTRUCTION, WHERE PRACTICAL REMOVAL OF THE RIPRAP IS ALLOWED.
- C. EXISTING FOUNDATION THAT IS IN CONFLICT WITH NEW FOUNDATION SHALL BE REMOVED COMPLETELY. EXISTING FOUNDATION NOT IN CONFLICT WITH THE NEW FOUNDATION SHALL BE CUT 2'-0" MINIMUM BELOW THE EXISTING GROUND LEVEL.
- D. THE EXISTING BRIDGES CONTAIN HAZARDOUS MATERIALS. TERRACON CONSULTANTS, INC. CONDUCTED A PRE-RENOVATION ASBESTOS AND LEAD PAINT SURVEY ON JULY 10, 2025. SUSPECT ASBESTOS-CONTAINING MATERIALS (ACM) AND LEAD-CONTAINING MATERIALS (LCM) WERE COLLECTED AND ANALYZED (REFER TO "PRE-RENOVATION ASBESTOS SURVEY AND LEAD PAINT REPORT. VENETIAN CAUSEWAY BRIDGES. JULY 18, 2025. REPORT NUMBER 34257191"). LABORATORY ANALYSIS SHOWED THAT NONE OF THE MATERIALS SAMPLED CONTAINED ASBESTOS. HOWEVER, LEAD-CONTAINING PAINT WAS DETECTED IN THE SAMPLES COLLECTED FROM BRIDGES 2-12. ANY ADDITIONAL SUSPECT LCP OR ACM IDENTIFIED DURING DEMOLITION SHOULD BE ASSUMED LCP OR ACM UNTIL SAMPLING AND ANALYSIS CAN CONFIRM OR REFUTE THEIR PRESENCE. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING PROPER DISPOSAL OF WASTE MATERIALS COLLECTED IN ACCORDANCE WITH ALL LOCAL, STATE, AND FEDERAL REQUIREMENTS.
- 18. IN-WATER WORK:
 - A. DRILLED SHAFT CONSTRUCTION AND OTHER IN-WATER WORK SHALL BE PERFORMED DURING DAYLIGHT HOURS ONLY TO MINIMIZE EFFECTS TO AQUATIC SPECIES THAT MAY TRAVERSE OR MOVE THROUGH THE AREA AT NIGHT.
 - B. THE CONTRACTOR SHALL PROTECT AND PREVENT THE SUBAQUEOUS UTILITIES FROM DAMAGES FROM BARGE SPUDS AND ALL CONSTRUCTION ACTIVITIES.
- 19. SHOP DRAWINGS:
 - A. PROVIDE SHOP DRAWINGS FOR ALL PRECAST BEAMS, BEARING PADS, AND PRECAST RAILINGS FOR REVIEW AND APPROVAL.
- 20. **SURFACE FINISH NOTES:**
 - A. PROVIDE CLASS V APPLIED FINISH COATING IN WHITE COLOR TO EXPOSED CONCRETE SURFACES AS DENOTED IN THE SURFACE FINISH DETAIL.
 - B. SUBMIT THE FEDERAL COLOR CODE FOR THE BRIDGE SURFACE FINISH COATING IN THE SHOP DRAWINGS FOR ENGINEER REVIEW AND APPROVAL.
 - C. FOR THE SURFACE FINISH OF THE BASCULE BRIDGE, REFER TO THE BASCULE PIER NOTES AND THE SURFACE FINISH DETAILS PROVIDED IN THE BRIDGE 10 (B10-SERIES) SHEETS
- 21. LANDSCAPE:
 - FOR TREES POTENTIALLY IN CONFLICT WITH THE BRIDGE CONSTRUCTION, REFER TO THE LANDSCAPE PLANS FOR THEIR DISPOSITION.
- 22. SUBSTRUCTURE CONSTRUCTION:
 - DEWATERING MAY BE REQUIRED FOR END BENT CONSTRUCTION, AND WATERTIGHT FORMWORK MAY BE REQUIRED FOR PIER CAP CONCRETE PLACEMENT.
- 23. HURRICANE PREPARATION:
 - THE CONTRACTOR SHALL SECURE ALL LOOSE DEBRIS, CONSTRUCTION MATERIALS, EQUIPMENT, AND BARGE AT LEAST 24 HOURS PRIOR TO THE FORECASTED ARRIVAL OF A TROPICAL STORM OR HURRICANE.
- 24. MONITORING AND PROTECTION OF EXISTING STRUCTURES:
 - A. THE CONTRACTOR SHALL HIRE A SPECIALTY ENGINEER TO PROVIDE GROUND VIBRATION MONITORING FOR ALL OPERATIONS PRODUCING SIGNIFICANT GROUND VIBRATIONS, INCLUDING EXCAVATION OR CONSTRUCTING RETAINING WALLS, DRILLED SHAFTS AND SHEET PILES INSTALLATION, BRIDGE DEMOLITION, AND HEAVY EQUIPMENT WORK, IN ACCORDANCE WITH FDOT SPECIFICATIONS.
 - B. MONITOR ALL SENSITIVE STRUCTURES, EXISTING BRIDGE FOUNDATIONS, SEAWALLS, ADJACENT BUILDINGS, WITHIN THE DISTANCE SPECIFIED IN FDOT SPECIFICATIONS, SECTION 108-2.
 - C. SEE ADDITIONAL NOTES ON THE BRIDGE "DRILLED SHAFT DATA TABLE" SHEET AND THE WALL "RETAINING WALLS GENERAL NOTES" SHEET FOR CONTROL OF VIBRATION AND SETTLEMENT DURING INSTALLATION OF DRILLED SHAFTS AND INSTALLATION AND/OR EXTRACTION OF SHEET PILES, RESPECTIVELY.
- 25. PAY ITEM NOTES:
 - A. PAY ITEM NUMBER 455-122-5, EXCAVATION UNCLASSIFIED SHAFT, 48" DIA. SHALL INCLUDE THE COST OF SHAFT INSPECTION DEVICE OR AN APPROVED ALTERNATIVE DOWN-HOLE CAMERA AS WELL AS ALL OTHER WORK REQUIRED FOR NONREDUNDANT DRILLED SHAFTS.
 - B. PAY ITEM J 10-3, REMOVAL OF EXISTING STRUCTURES, SHALL INCLUDE ALL COSTS ASSOCIATED WITH PERMIT APPLICATION, AND HAZARDOUS MATERIAL REMOVAL AND DISPOSAL.



BRIDGE NOS. 874460, 874461, 874463, 874465, 874466, 874471, 874472, 874473, 874474, 874477 & 874481

REVISIONS							
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY

EAC
EAC Consulting, Inc.
5959 WATERFORD DISTRICT DRIVE, SUITE 410
MIAMI, FLORIDA 33126
PH: 305-265-5400
CA # 7011

DESIGNED BY	NAME	DATE	DRAWN BY	NAME	DATE
	KTL	11/25		EP	11/25
CHECKED BY	NAME	DATE	CHECKED BY	NAME	DATE
	HA	11/25		HA	11/25
SUPERVISED BY: K. T. LIN, P.E.					

MIAMI-DADE COUNTY
DEPARTMENT OF TRANSPORTATION AND PUBLIC WORKS
HIGHWAY BRIDGE ENGINEERING DIVISION
OVERTOWN TRANSIT VILLAGE
701 NW 1ST CT, MIAMI, FL. 33136

GENERAL NOTES (2 OF 3)

GENERAL NOTES (CONTINUED)

(FOR BRIDGE 10 BASCULE-SPAN 2)

22. STRUCTURAL STEEL (U.N.O.)

- A. MAIN LOAD CARRYING MEMBERS: (*) ASTM A709 GRADE 50.
- B. BRACING MEMBERS: ASTM A709 GRADE 36.
- C. HOLLOW STRUCTURAL SHAPES AND PIPE MEMBERS: ASTM A500 GRADE B.
- D. ANCILLARY MEMBERS: (**) ASTM A992 GRADE 36.
- E. CHARPY V-NOTCH: ALL MEMBERS SUBJECTED TO TENSILE STRESSES IDENTIFIED AS MAIN LOAD CARRYING MEMBERS SHALL BE TESTED IN ACCORDANCE WITH SPECIFICATIONS SECTION 962.

(*) MAIN LOAD CARRYING MEMBER DESIGNATIONS:

- PRIMARY TENSION MEMBERS (PTMs)
- NON-REDUNDANT STEEL TENSION MEMBERS (NSTMs)

(**) ANCILLARY MEMBERS:

- EXPANSION JOINT ASSEMBLIES (U.N.O.)
- LADDERS

23. STRUCTURAL STEEL BOLTING

- A. MAKE ALL FIELD CONNECTIONS WITH 7/8" DIAMETER HIGH STRENGTH BOLTS IN ACCORDANCE WITH ASTM F3125 GRADE A325 (U.N.O.) THREADS SHALL BE EXCLUDED FROM THE SHEAR PLANE ADJACENT TO THE NUT FOR PLATE THICKNESSES OF 3/4" OR GREATER. PLACE BOLT HEADS ON THE EXTERIOR/EXPOSED FACE OF THE MEMBERS.
- B. MECHANICALLY GALVANIZE BOLTS, NUTS AND WASHERS PER ASTM B695 CLASS 50.
- C. OVER-TAP NUTS TO MINIMUM REQUIRED FOR FASTENER ASSEMBLY, AND COAT WITH LUBRICANT CONTAINING A VISIBLE DYE.
- D. PASSIVATE FASTENERS WITH A NON-CHROMATE CONVERSION PROCESS PER ASTM B940.
- E. TENSION INDICATOR WASHERS ARE NOT PERMITTED.
- F. CONNECTIONS ARE CONSIDERED SLIP CRITICAL WITH CLASS "A" SURFACE CONDITION (0.33 MIN. SLIP-COEFFICIENT) (U.N.O.).

24. ANCHOR BOLTS

- A. ANCHOR ELEMENTS SUBJECT TO HEAVY LOADS AND/OR CYCLIC LOADS, INCLUDING MACHINERY BASES, TRAFFIC SIGNAL MAST ARMS, LIGHT POLES AND TRAFFIC RAILING POSTS, WITH HIGH-STRENGTH PRELOADED ANCHORS PER ASTM A193 GRADE B7 (U.N.O.). MACHINERY BASES ANCHORED WITH UNDERCUT ANCHORS PER TECHNICAL SPECIAL PROVISIONS T468.
- B. ANCHOR ANCILLARY STRUCTURES, INCLUDING ACCESS STAIRS, PLATFORMS, PEDESTRIAN RAILING AND OTHER LIGHTLY LOADED ELEMENTS NOT SUBJECT TO CYCLIC LOADS, WITH STAINLESS STEEL ANCHORS PER ASTM A276 TYPE 316.
- C. TYPE HSHV HIGH-STRENGTH EPOXY ADHESIVE IS PERMITTED ONLY FOR USE IN HORIZONTAL APPLICATIONS, NOT SUBJECT TO SUSTAINED TENSION. WHERE SPECIFIED IN THE PLANS, USE IN ACCORDANCE WITH SPECIFICATIONS SECTIONS 416 AND 937.

25. STAINLESS STEEL

- A. STAINLESS STEEL PLATES, SHAPES, OR BOLTS SHALL BE A276, TYPE 316 (U.N.O.).

26. METAL COATINGS

- A. BASCULE SPAN STRUCTURAL STEEL SURFACES SHALL RECEIVE INTERMEDIATE (SEAL) AND FINISH COATS IN ACCORDANCE WITH SECTION 560 OF THE SPECIFICATIONS.
- B. WHERE SPECIFIED, HOT-DIP GALVANIZE STEEL SHAPES, PLATES AND WELDMENTS AFTER FABRICATION IN ACCORDANCE WITH ASTM A123 AND BOLTS, NUTS AND WASHERS IN ACCORDANCE WITH ASTM A153. WHERE SPECIFIED, PAINT HOT DIP GALVANIZED SURFACES. PREPARE HOT-DIP GALVANIZED SURFACES TO BE PAINTED IN ACCORDANCE WITH ASTM D6386 AND APPLY INTERMEDIATE AND FINISH (TOP) COATS IN ACCORDANCE WITH SECTION 560 OF THE SPECIFICATIONS.
- C. FINISH PAINT COLORS SHALL BE PER THE "SURFACE FINISH DETAILS". SUBMIT COLORS TO ENGINEER FOR APPROVAL.

27. METALS FABRICATION

- A. MAKE ALL SHOP SPLICES IN WEB PLATES AND FLANGES, PRIOR TO WELDING WEBS TO FLANGES. SHOW ALL SHOP SPLICES ON THE SHOP DRAWINGS.
- B. SHOP ASSEMBLIES ARE REQUIRED IN ACCORDANCE WITH SPECIFICATIONS SECTION 460 AND TECHNICAL SPECIAL PROVISION T465.
- C. ENDS OF MAIN GIRDERS, FLOOR BEAMS, DIAPHRAGMS, AND BEARING STIFFENERS SHALL BE VERTICAL AFTER DEAD LOAD IS APPLIED.
- D. PERFORM WELDING, WELD INSPECTION, AND NON-DESTRUCTIVE TESTING ON WELDS IN ACCORDANCE WITH AASHTO/AWS D1.5 BRIDGE WELDING CODE (U.N.O.) PERFORM WELDING, WELD INSPECTION, AND NON-DESTRUCTIVE TESTING ON WELDS FOR ANCILLARY MEMBERS, HOLLOW STRUCTURAL SHAPES, AND PIPE MEMBERS IN ACCORDANCE WITH AWS D1.1 STRUCTURAL WELDING CODE. FILLET WELD SIZES NOT SHOWN ON PLANS SHALL BE 5#16". WELD ELECTRODES SHALL BE E70XX (U.N.O.).
- E. MAKE ALL GROOVE WELDS COMPLETE JOINT PENETRATION (CJP) (U.N.O.). CJP DETAILS ARE AT THE FABRICATOR'S DISCRETION, SUBJECT TO AWS REQUIREMENTS. WHERE BACKING BARS ARE PERMITTED TO REMAIN, THAT SHALL BE MADE CONTINUOUS THE FULL LENGTH OF THE WELD. MAKE BACKING BAR SPLICES WITH CJP BUTT WELDS AND VERIFY WELD QUALITY WITH ULTRASONIC INSPECTION PRIOR TO USE. BACKING BARS SHALL MEET ALL MATERIAL AND TOUGHNESS REQUIREMENTS OF THE STRUCTURAL STEEL TO WHICH IT IS ATTACHED.
- F. PERFORM WELDING, WELD INSPECTION AND NON-DESTRUCTIVE TESTING FOR STAINLESS STEEL IN ACCORDANCE WITH AWS D1.6 STRUCTURAL WELDING CODE - STAINLESS STEEL.
- G. PERFORM WELDING, WELD INSPECTION, AND NON-DESTRUCTIVE TESTING FOR ALUMINUM IN ACCORDANCE WITH AWS D1.2 STRUCTURAL WELDING CODE - ALUMINUM. WELDING SHALL BE WITH ALLOY ER 5356, ER 5556 OR ER 5183 WELD FILLER (U.N.O.).

REVISIONS

DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

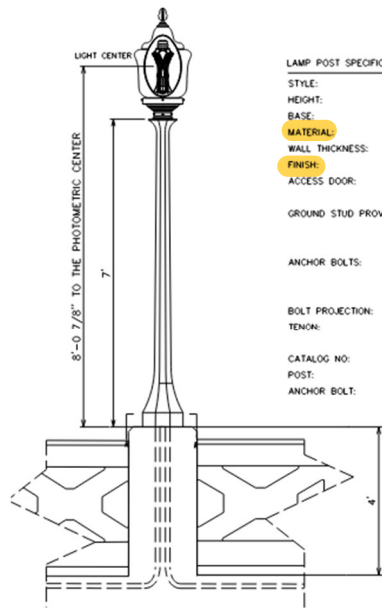


EAC CONSULTING, INC.
5959 WATERFORD DISTRICT
DRIVE, SUITE 410
MIAMI, FLORIDA 33126
PH: 305-265-5400
CA # 7011

DESIGNED BY	NAME	DATE	DRAWN BY	NAME	DATE



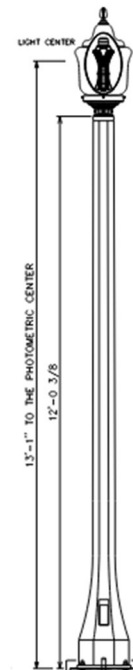
DEPARTMENT OF TRANSPORTATION AND PUBLIC WORKS
HIGHWAY BRIDGE ENGINEERING DIVISION
OVERTOWN TRANSIT VILLAGE
701 NW 1ST CT, MIAMI, FL. 33136



LAMP POST SPECIFICATIONS

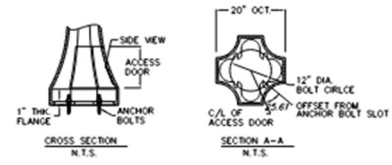
STYLE: ARCADIAN ALUMINUM POST
 HEIGHT: 7'-0"
 BASE: 11" OCTAGONAL
MATERIAL: CAST ALUMINUM ALLOY ANSI 356 PER A.S.T.M.
 WALL THICKNESS: 3/8" MINIMUM
FINISH: POWDER COAT-RIVER TEXTURE GLOSS BLACK
 ACCESS DOOR: LOCATED IN BASE SECURED WITH TAMPER PROOF HEX SOCKET SECURITY MACHINE SCREWS
 GROUND STUD PROVISIONS: DRILL AND TAP INSIDE WALL OF BASE OPPOSITE ACCESS DOOR TO ACCOMMODATE A 1/4"-20 GROUND STUD (STUD BY OTHERS)
 ANCHOR BOLTS: (4) 3/4" DIA. X 24" LONG + 3" HOOK (FULLY GALVANIZED WITH 1 GALVANIZED NUT AND 1 WASHER PER BOLT) 3" REQUIRED
 BOLT PROJECTION: 3 1/2" DIA X 2" HIGH
 TENON:
 CATALOG NO: APSARC-11-07.00-TN3.50-2.00-CU
 POST: 325/INW
 ANCHOR BOLT:

TYPICAL ALUMINUM LIGHT POLE TOP BRIDGE MOUNT INSTALLATION DETAIL
 N.T.S.



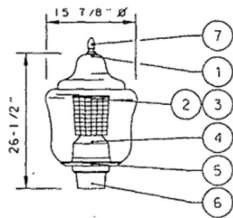
LAMP POST SPECIFICATIONS

DESCRIPTION: ARCADIAN ALUMINUM POST
 HEIGHT: 12'-0 3/8"
 PHOTOMETRIC CENTER: 13'-1"
 BASE: 20" OCTAGONAL (FLAT TO FLAT)
MATERIAL: CAST ALUMINUM ALLOY ANSI 356 PER A.S.T.M. B26-95
FINISH: POWDER COAT-RIVER TEXTURE GLOSS BLACK
 ACCESS DOOR: LOCATED IN BASE SECURED WITH 1/4"-20 ST. STL. HEX SOCKET SECURITY TAMPER PROOF SCREWS (4) 3/4" DIA. X 24" LONG + 3 HOOK (FULLY GALVANIZED WITH 1 GALVANIZED NUT AND 1 WASHER PER BOLT)
 ANCHOR BOLT: DECORATIVE CAST 356 ALUMINUM, MECHANICALLY ASSEMBLED
 FINIAL: 3 1/2" DIA X 2" HIGH TENON
 TENON:



THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING SIGNED AND SEALED STRUCTURAL PLANS AND CALCULATIONS FOR THE ENTIRE DECORATIVE LIGHTING SYSTEM, INCLUDING BOTH THE FOUNDATION DESIGN AND THE CONNECTIONS DESIGN (LUMINAIRE-TO-ARM, ARM-TO-UPRIGHT, AND UPRIGHT-TO-FOUNDATION CONNECTIONS). THE CONTRACTOR SHALL PROVIDE PLANS AND CALCULATIONS SIGNED AND SEALED BY A FLORIDA-LICENSED PROFESSIONAL ENGINEER WHICH DEMONSTRATE THAT THE DECORATIVE LIGHT FIXTURES HAVE BEEN DESIGNED IN ACCORDANCE WITH THE MDC STANDARDS

9) Proposed Bridge Mounted Pole and Luminaire.



DESCRIPTION OF COMPONENT

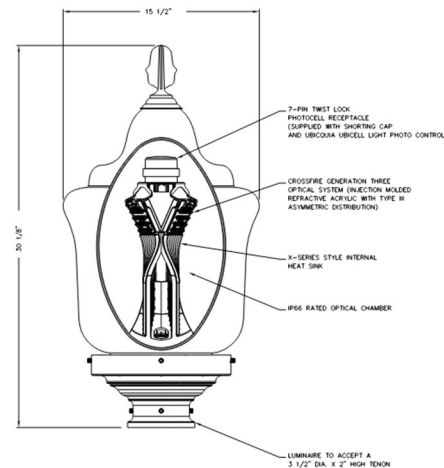
1. GLOBE: ONE-PIECE MOLDED ACRYLIC "ACORN" TYPE.
2. LAMP: 100 WATT OR 150 WATT (AS SPECIFIED), HPS SOURCE, MEDIUM OR MOCUL BASE, CLEAR.
3. OPTICS: A ROUND PRISMATIC BOROSILICATE THERMORESISTANT REFRACTOR, TYPE 3 (ASYMMETRICAL) DISTRIBUTION.
4. BALLAST: 100 WATT OR 150 WATT (AS SPECIFIED) MAG RAG (LAG TYPE) HIGH POWER FACTOR OF 90% OR BETTER, PRIMARY VOLTAGE 240 VOLT, -30°F (-34°C) LAMP STARTING CAPACITY, C/W QUICK DISCONNECT PLUG.
5. LOCKING SYSTEM: "ROTOMATIC", MADE OF CAST ALUMINUM, QUATER TURN SYSTEM C/W 3 INDEPENDANT PRESSURE POINTS, PROVIDING SECURE ANCHORAGE.
6. HOUSING: MADE OF CAST ALUMINUM, MECHANICALLY SECURED.
7. FINIAL: MADE OF CAST ALUMINUM.

WIRING: INCLUDED, 6" (152mm) MINIMUM EXCEEDING FROM LUMINAIRE. GASKETING: NEOPRENE AND SILICONE GASKETING IS APPLIED. HARDWARE: ALL EXPOSED SREWS WILL BE STAINLESS STEEL. FINISH: AN APPLICATION OF A THERMOSETTING POLYESTER POWDER COAT PAINT, APPLIED BY MEANS OF AN ELECTROSTATIC PROCESS. COLOR TO BE BK TEXTURED.

LUMINAIRE DETAIL

N.T.S.

10) Proposed Concrete Ground Mounted Pole.



LUMINAIRE SPECIFICATIONS:

STYLE: DUNMORE X-SERIES LED
 HEIGHT: 30 1/8"
 WIDTH: 15 1/2" DIAMETER
MATERIAL: CAST ALUMINUM ALLOY ANSI 356 PER A.S.T.M. B26-95
FINISH: POWDER COAT - RIVER TEXTURE GLOSS BLACK
 GLOBE: TYPE III REFRACTIVE OPTICS (ASYMMETRIC DISTRIBUTION)
 LAMPING: 40 OR 50 WATT LED SYSTEM WITH HOUSE SIDE SHIELD (HSS)
 VOLTAGE: ELECTRONIC WIRE AT 120-277
 COLOR TEMP.: 3000K (WARM WHITE)
 OPTICS: TYPE II REFRACTIVE OPTICS (ASYMMETRIC DISTRIBUTION)
 SURGE: 20KV SURGE PROTECTION
 FINIAL: DECORATIVE CAST 356 ALUMINUM, MECHANICALLY ASSEMBLED
 40W: DDM-LED40-L18-30-CR3-Y507-MS
 50W: DDM-LED50-L18-30-CR3-Y507-MS

11) Existing Luminaire from As Built 87100-3606.

12) Proposed Luminaire.