MIAMI-DADE AVIATION DEPARTMENT
CONCOURSE E SATELLITE
APM BRIDGE REHABILITATION PROJECT

MDAD PROJECT NO. AB003A

MIAMI-DADE COUNTY
2100 NW 42ND AVENUE,
MIAMI, FLORIDA 33126

BID SET

March, 2024

MIAMI-DADE COUNTY

DANIELLA LEVINE CAVA MAYOR

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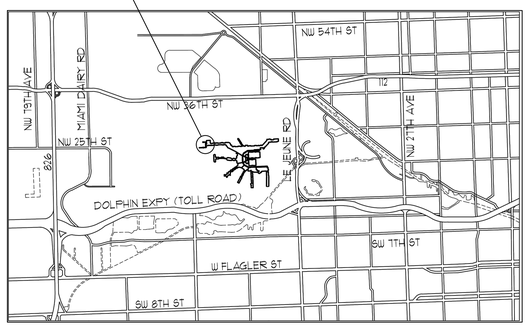
INDEX OF SHEETS

G0	COVER AND INDEX
G1	SAFETY AND STAGING NOTES
G2	MOT PLAN / SITE PLAN / STAGING AREA
G3	SITE ACCESS PLAN
S1	GENERAL NOTES
S2	GENERAL PLAN AND ELEVATION
S3	FRAMING PLAN AND BEARING LAYOUT (1 OF 6)
S4	FRAMING PLAN AND BEARING LAYOUT (2 OF 6)
S5	FRAMING PLAN AND BEARING LAYOUT (3 OF 6)
S6	FRAMING PLAN AND BEARING LAYOUT (4 OF 6)
S7	FRAMING PLAN AND BEARING LAYOUT (5 OF 6)
S8	FRAMING PLAN AND BEARING LAYOUT (6 OF 6)
S9	BEARING DATA TABLE (1 OF 2)
S10	BEARING DATA TABLE (2 OF 2)
S11	BEARING DETAILS (1 OF 2)
S12	BEARING DETAILS (2 OF 2)
S13	JACKING DETAILS (1 OF 4)
S14	JACKING DETAILS (2 OF 4)
S15	JACKING DETAILS (3 OF 4)
S16	JACKING DETAILS (4 OF 4)
S17	JACKING STIFFENER DETAILS
S18	CONSTRUCTION SEQUENCE
S19	DECK REPAIR DETAILS
S20	STEEL REPAIR DETAILS
S21	SUBSTRUCTURE REPAIR DETAILS
BX1-1 THRU BX1-50	EXISTING STRUCTURES PLANS

MIAMI INTERNATIONAL AIRPORT
CONCOURSE E SATELLITE



LOCATION MAP

JIMIN HUANG LICENSE No 66797 STATE OF FLORIDA PROFESSIONAL ENGINEER

Jimin Huang
2024.03.13
07:53:53-04'00'

This item has been digitally signed and sealed by JIMIN HUANG on the date adjacent to the seal. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

ENGINEER OF RECORD: JIMIN HUANG
FL PE NO. 66797

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DESIGNED BY:	JD
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CHECKED BY:	JH
SUBMITTED BY:	JH
SIZE: ANSI F	-

ISSUE DATE: 05/25/2022
SOLICITATION NO.:
CONTRACT NO.: -

MIAMI-DADE AVIATION DEPARTMENT
MIAMI INTERNATIONAL AIRPORT
MIAMI-DADE COUNTY
P.O. BOX 592075 MIAMI, FL. 33159

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3250 WEST COMMERCIAL BOULEVARD, SUITE 100
FORT LAUDERDALE, FL 33309

MIAMI INTERNATIONAL AIRPORT
CONCOURSE "E" SATELLITE
APM BRIDGE REHABILITATION PROJECT
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COVER AND INDEX

SHEET ID
G0

SAFETY AND STAGING NOTES:

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROVISION, INSTALLATION AND MAINTENANCE OF ALL TRAFFIC CONTROL AND SAFETY DEVICES, IN ACCORDANCE WITH SPECIFICATIONS OUTLINED IN FEDERAL AVIATION ADMINISTRATION (FAA) IN ADDITION, THE CONTRACTOR IS RESPONSIBLE FOR THE RESETTING OF ALL TRAFFIC CONTROL AND INFORMATIONAL SIGNING REMOVED DURING CONSTRUCTION PERIOD.
2. CONTRACTOR TO RESTORE TO ITS ORIGINAL CONDITION AT NO EXTRA COST THE SERVICE ROAD(S) USED FOR ACCESS UPON COMPLETION.
3. CONTRACTOR TO ENSURE THROUGH DOCUMENTATION, EXHIBITS AND SIGNAGE THAT DIRECT EMPLOYED AND CONTRACTED PERSONNEL AND VEHICLE OPERATOR ARE AWARE OF CONSTRUCTION SITE LIMITS AND TO STAY AWAY FROM ADJACENT AIRCRAFT OPERATING PAVEMENTS ON RUNWAYS AND TAXIWAYS.
4. THE AIRPORT WILL BE IN OPERATION DURING THE CONSTRUCTION OF THIS PROJECT. COORDINATION OF WORK WITH MDAD IS MANDATORY SO AS TO MINIMIZE IMPACTS ON AIRPORT OPERATIONS. OPERATION OF THE AIRPORT IS OF THE UPPER MOST IMPORTANCE. WHEN THERE IS A CONFLICT BETWEEN OPERATION OF THE AIRPORT AND CONSTRUCTION, OPERATION OF THE AIRPORT WILL HAVE PRIORITY.
5. DURING THE CONSTRUCTION OF THIS PROJECT, BEARING REPLACEMENT AND JACKING WILL ONLY BE ALLOWED WITHOUT TRAIN LOADS. THE CONTRACTORS SHALL COORDINATE WITH THE AIRPORT ON THE SCHEDULE WITHOUT TRAIN RUNNING FOR JACKING AND BEARING REPLACEMENT ACTIVITIES.
6. THE CONTRACTORS SHALL ARRANGE THEIR WORK AND SHALL PLACE AND DISPOSE OF THE MATERIALS BEING USED SO AS NOT TO INTERFERE WITH THE OPERATIONS OF OTHER CONTRACTORS WORKING WITHIN THE PROJECT AREA. ALL CONTRACTORS SHALL COORDINATE THEIR WORK WITH THE OTHER CONTRACTORS IN AN ACCEPTABLE MANNER AND SHALL PERFORM THE WORK IN PROPER SEQUENCE.
7. THE CONTRACTORS SHALL GIVE CONSTANT ATTENTION TO THE WORK TO FACILITATE THE PROGRESS THEREOF, AND THEY SHALL COOPERATE WITH THE MDAD CONSTRUCTION ADMINISTRATOR, AIRPORT PERSONNEL AND WITH OTHER CONTRACTORS IN EVERY WAY POSSIBLE.
8. EACH CONTRACTOR INVOLVED SHALL ASSUME ALL LIABILITY, FINANCIAL OR OTHERWISE, IN CONNECTION WITH THEIR CONTRACT AND SHALL PROTECT AND SAVE HARMLESS THE OWNER AND ENGINEER FROM ANY AND ALL DAMAGES OR CLAIMS THAT MAY ARISE BECAUSE OF INCONVENIENCES, DELAYS, OR LOSS EXPERIENCED BY THEM BECAUSE OF THE PRESENCE AND OPERATIONS OF OTHER CONTRACTORS WORKING WITHIN THE LIMITS OF THIS PROJECT.
9. MDAD RESERVES THE RIGHT TO REQUEST SUBMISSION BY THE CONTRACTOR IN WRITING OF THE QUALIFICATIONS AND EXPERIENCE OF THE PERSON IDENTIFIED BY THE CONTRACTOR AS THEIR SUPERINTENDENT OR PERSON IN RESPONSIBLE CHARGE OF THE WORK. MDAD FURTHER RESERVES THE RIGHT TO DEMAND THE IMMEDIATE REPLACEMENT OF ANY CONTRACTOR'S SUPERINTENDENT DEEMED NOT TO HAVE ADEQUATE QUALIFICATIONS AND/OR EXPERIENCE TO SUCCESSFULLY RUN THIS PROJECT IN A MANNER ACCEPTABLE TO MDAD.
10. PERMITS: THE CONTRACTOR MUST OBTAIN APPROPRIATE PERMITS FROM THE PROPER GOVERNMENT AGENCIES FOR ACCESS TO, AND TO USE THEIR ROAD FOR DELIVERY OF MATERIALS AND EQUIPMENT TO THE SITE. ANY DAMAGE TO OFF-SITE OR ON-SITE ROADS SHALL BE REPAIRED BY THE CONTRACTOR AT HIS EXPENSE.
11. COORDINATION: THE FAA MAY BE WORKING IN / NEAR THE PROJECT AREA DURING CONSTRUCTION. CONTRACTOR SHALL COOPERATE AND NOT INTERFERE WITH THE FAA OR THEIR CONTRACTORS.
12. MOBILIZATION/STAGING AREA: AREAS WILL BE MADE AVAILABLE FOR CONTRACTOR'S MOBILIZATION AND STORAGE AS SHOWN ON SHEET G2. THE BEFORE AND AFTER CONDITION OF THIS AREA SHALL BE JOINTLY INSPECTED BY THE CONTRACTOR AND MDAD CONSTRUCTION ADMINISTRATION REPRESENTATIVE. THE STAGING AREAS SHALL BE RESTORED TO THEIR ORIGINAL CONDITIONS, UPON COMPLETION OF THE PROJECT. MDAD SHALL DOCUMENT THE AREAS PRIOR TO USE BY THE CONTRACTOR TO RECORD THE PRECONSTRUCTION CONDITION. RESTORATION OF THE STAGING AREA SHALL BE AT THE CONTRACTOR'S EXPENSE. EMPLOYEE PARKING SHALL BE PERMITTED IN THE DESIGNATED PARKING AREA ONLY.
13. VEHICLES: NO PRIVATE VEHICLES ARE ALLOWED ON ANY MDAD AIRPORT OPERATIONS AREAS. ALL VEHICLES, EXCEPT FOR THOSE UNDER CONTINUOUS ESCORT AND CONSTRUCTION VEHICLES MUST DISPLAY A DECAL OR SIGN WITH THE AGENCY NAME AND/OR LOGO IN CONTRASTING COLORS, ON BOTH SIDES OF THE VEHICLE THAT IS READABLE AT A DISTANCE OF NO LESS THAN 250 FT. NOTE: CONSTRUCTION VEHICLES ARE DEFINED AS THOSE VEHICLES THAT ARE NOT ELIGIBLE FOR REGISTRATION TO OPERATE ON PUBLIC ROADWAYS.
14. SAFETY: THE CONTRACTOR SHALL CONDUCT HIS ACTIVITIES IN A SAFE MANNER AS SPECIFIED ON THIS SHEET, AND IN ACCORDANCE WITH FEDERAL AVIATION ADMINISTRATION (FAA) ADVISORY CIRCULAR 150/5370 (LATEST EDITION), "OPERATIONAL SAFETY ON AIRPORTS DURING CONSTRUCTION."
15. CONSTRUCTION LIMITS: ALL CONTRACTOR VEHICLES AND TRAFFIC (UNLESS OTHERWISE AUTHORIZED) SHALL REMAIN WITHIN THE DESIGNATED CONSTRUCTION LIMITS OR HAUL ROUTES.
16. THE CONTRACTOR SHALL ACQUAINT ALL OF HIS EMPLOYEES WITH THE AIRPORT ACTIVITY AND OPERATIONS THAT ARE INHERENT TO THE AIRPORT AND SHALL CONDUCT HIS CONSTRUCTION ACTIVITIES TO CONFORM TO ALL ROUTINE AND EMERGENCY AIR TRAFFIC REQUIREMENTS AND GUIDELINES FOR SAFETY.
17. IF THE PROJECT INCLUDES WORK WITHIN ANY RESTRICTED AREA, ALL CONTRACTOR VEHICLES NOT DESIGNATED FOR USE ON PUBLIC ROADS (I.E. HEAVY EARTHMOVING EQUIPMENT, ETC.) SHALL DISPLAY IN FULL VIEW ABOVE THE VEHICLE A 3' X 3' OR LARGER, ORANGE AND WHITE CHECKERBOARD FLAG, WITH EACH CHECKERBOARD COLOR BEING 1' SQUARE. UNLESS OPERATING IN THE DESIGNATED VEHICLE DRIVING LANES, ANY VEHICLE OPERATING IN THE RESTRICTED AREAS OF THE AIRPORT, TO INCLUDE THOSE UNDER ESCORT, SHALL BE EQUIPPED WITH, AND UTILIZE A FLASHING AMBER (YELLOW) DOME-TYPE OR 4-WAY HAZARD FLASHER TYPE LIGHTS. THE DOME-TYPE LIGHTS MUST BE MOUNTED ON TOP OF THE VEHICLE AND OF SUCH INTENSITY TO CONFORM TO LOCAL CODES FOR MAINTENANCE AND EMERGENCY VEHICLES. VEHICLES OPERATING WITHIN THE RESTRICTED AREAS SHALL BE MARKED WITH A SIGN ON BOTH SIDES OF THE VEHICLE IDENTIFYING THE CONTRACTOR'S NAME.
18. MATERIAL AND EQUIPMENT STORAGE SHALL BE LOCATED AS SHOWN ON SHEET G2. THE CONTRACTOR SHALL ADVISE ALL MATERIAL SUPPLIERS OF THE DELIVERY ROUTES TO BE USED FOR THE DELIVERY OF EQUIPMENT, MATERIALS, OR SUPPLIES. THE CONTRACTOR SHALL ALSO ADVISE THE SUPPLIERS THAT THERE WILL BE SET DELIVERY HOURS AND THEY WILL NOT BE ACCEPTED AT ANY OTHER TIME. DELIVERY HOURS WILL BE FROM 8:00 A.M. TO 4:00 P.M. WEEKDAYS, UNLESS PRIOR ARRANGEMENTS WITH AIRPORT PERSONNEL ARE MADE 48 HOURS IN ADVANCE. ANY DELIVERIES NOT MADE DURING THESE HOURS STATED WILL BE TURNED AWAY BY AIRPORT PERSONNEL. A REPRESENTATIVE OF THE CONTRACTOR MUST BE PRESENT FOR DELIVERY OF MATERIALS. MATERIALS AND EQUIPMENT NOT USED SHALL BE STORED OR PARKED IN AREAS DESIGNATED BY THE MDAD CONSTRUCTION ADMINISTRATION REPRESENTATIVE AND OUTSIDE OF THE RIGHT-OF-WAY AND TAXIWAY OBJECT FREE AREA. THE CONTRACTOR SHALL BE RESPONSIBLE FOR RESTRICTING HIS/HER EQUIPMENT AND PERSONNEL TO THE IMMEDIATE VICINITY OF CONSTRUCTION AND TO AUTHORIZED AREAS, AND SHALL TAKE SUCH PRECAUTIONS, AT HIS OWN EXPENSE, WHICH IS NECESSARY TO ASSURE COMPLIANCE WITH THESE REQUIREMENTS.
19. WHERE PROJECT ACCESS REQUIRES TRAVEL ON OR ACROSS RUNWAYS, RAMP AREAS, TAXIWAYS, OR AIRCRAFT APRONS, THE CONTRACTOR SHALL PROVIDE ADEQUATE PERSONNEL AND EQUIPMENT TO MAINTAIN SUCH SURFACES TO REMAIN CLEAR OF DEBRIS. AT A MINIMUM, A VACUUM TYPE POWER BROOM SHALL BE PRESENT AT EACH ACTIVE AIRFIELD CROSSING OF A MOVEMENT AREA. AT NO TIME SHALL THE CONTRACTOR'S VEHICLES OR PERSONNEL BE ALLOWED TO ENTER OR CROSS ACTIVE RUNWAYS AND TAXIWAYS WITHOUT PROPER AUTHORIZATION AND ESCORT BY AUTHORIZED PERSONNEL.
20. THE CONTRACTOR SHALL MAINTAIN HIS WORK AREAS FREE FROM DUST, DIRT AND DEBRIS THAT IN THE OPINION OF THE MDAD CONSTRUCTION ADMINISTRATION REPRESENTATIVE AND AIRPORT PERSONNEL WILL ADVERSELY AFFECT AIRPORT OPERATIONS. A VACUUM TYPE POWER BROOM SHALL BE ON SITE AT ALL TIMES.
21. ALL AIRCRAFT TRAFFIC ON RUNWAYS, RAMP AREAS, TAXIWAYS AND APRONS SHALL HAVE PRIORITY OVER CONTRACTOR'S VEHICLE TRAFFIC. THE AIRPORT RESERVES THE RIGHT TO ORDER THE CONTRACTOR AT ANY TIME TO VACATE ANY AREA NECESSARY TO MAINTAIN SAFE AIRCRAFT OPERATIONS. NO ADDITIONAL PAYMENT WILL BE MADE TO THE CONTRACTOR FOR SUCH INTERRUPTIONS TO THE ACTIVITIES.
22. NO RUNWAY, TAXIWAY, RAMP AREA, APRON OR AIRPORT ROADWAY SHALL BE CLOSED WITHOUT APPROVAL OF THE AUTHORITY TO ENABLE NECESSARY "NOTICE TO AIRMEN" (NOTAM) OR ADVISORIES TO AIRPORT SERVICE OR TENANTS. REQUESTED CLOSINGS SHALL BE DIRECTED TO THE MDAD CONSTRUCTION ADMINISTRATION REPRESENTATIVE OR AIRPORT PERSONNEL AT LEAST 72 HOURS IN ADVANCE.
23. NO EXPLOSIVES OR BURNING OF DEBRIS WILL BE PERMITTED ON THE JOBSITE.
24. EQUIPMENT AND STOCKPILED MATERIALS SHALL BE CONSTRAINED IN A MANNER TO PREVENT MOVEMENT RESULTING FROM AIRCRAFT JET BLAST OR WIND CONDITIONS.
25. ALL MATERIALS AND EQUIPMENT WHEN NOT IN USE SHALL BE PLACED IN APPROVED AREAS WHERE THEY WILL NOT CONSTITUTE A HAZARD TO AIRCRAFT OPERATIONS AND NOT PENETRATE CLEARANCE SURFACES OR OBSTRUCT LINE OF SIGHT FROM THE CONTROL TOWER TO ACTIVE AIRFIELD PAVEMENTS.
26. ALL UNSTABLE MATERIAL AND CONSTRUCTION DEBRIS SHALL BE DISPOSED OF OFF AIRPORT PROPERTY UNLESS DIRECTED OTHERWISE BY THE MDAD CONSTRUCTION ADMINISTRATION REPRESENTATIVE OR AIRPORT PERSONNEL.
27. THE CONTRACTOR SHALL KEEP A LIST OF EQUIPMENT MAXIMUM HEIGHTS FOR USE IN DETERMINING CLEARANCES TO AIRPORT IMAGINARY SURFACES.
28. CONTRACTOR SHALL INSTALL AND MAINTAIN FOR THE DURATION OF THE PROJECT ALL "TRUCK ENTERING HIGHWAY" SIGNS. THE SIGNS MUST BE IN ACCORDANCE WITH THE STATE OF FLORIDA MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES AND WILL BE PLACED/INSTALLED WHERE AND AS DIRECTED BY AIRPORT PERSONNEL.
29. DEBRIS, WASTE, AND LOOSE MATERIALS (INCLUDING DUST AND DIRT) CAPABLE OF CAUSING DAMAGE TO AIRCRAFT LANDING GEARS, PROPELLERS OR BEING INGESTED INTO JET ENGINES SHALL NOT BE ALLOWED ON OR ADJACENT TO ACTIVE AIRCRAFT MOVEMENT AREAS. MATERIALS OBSERVED TO BE WITHIN THESE AREAS SHALL BE REMOVED IMMEDIATELY BY THE CONTRACTOR.
30. THE CONTRACTOR SHALL PROVIDE THE PHONE NUMBERS OF THREE PERSONNEL, INCLUDING THE PROJECT SUPERINTENDENT, WHO MAY BE IN CALL 24 HOURS A DAY.
31. PENETRATION OF OBSTACLE FREE ZONE(S) (OFZ), RUNWAY APPROACH SURFACE(S), GLIDE SLOPE CRITICAL AREA(S) AND LOCALIZER CRITICAL AREA(S) IS NOT PERMITTED DURING ACTIVE OPERATION OF THESE AREAS AND FACILITIES. THE CONTRACTOR SHALL BE AWARE OF THE STATUS OF EACH FACILITY DURING THE VARIOUS PHASES OF THE WORK AND SHALL KEEP EMPLOYEES, EQUIPMENT AND MATERIALS OUT OF ACTIVE FACILITY OPERATIONS.
32. ANY SITUATION THAT, IN THE OPINION OF THE MDAD CONSTRUCTION ADMINISTRATION REPRESENTATIVE OR AIRPORT PERSONNEL, CONSTITUTES A HAZARD TO OPERATIONS OF THE AIRPORT WILL IMMEDIATELY CAUSE WORK AND ACTIVITY TO CEASE UNTIL THE SITUATION IS RECTIFIED.
33. CONTRACTOR SHALL SUBMIT A CONSTRUCTION SAFETY AND PHASING PLAN (CSPP) FOR APPROVAL IN COMPLIANCE WITH FAA AC 150/5370-2 (LATEST EDITION).
34. CONTRACTOR SHALL SUBMIT A CONTRACTOR'S SAFETY PLAN COMPLIANCE DOCUMENT (SPCD) FOR APPROVAL IN COMPLIANCE WITH FAA AC 150/5370-2 (LATEST EDITION).

FIRE PROTECTION NOTES:

1. ALL FIRE PROTECTION REFERENCES NOTED BELOW ARE FROM THE FLORIDA FIRE PREVENTION CODE (2018 EDITION), NFPA, UNLESS OTHERWISE NOTED.
2. CONTRACTOR SHALL PROVIDE LIFE SAFETY AND EMERGENCY ACTION PLANS TO THE MIAMI-DADE BUILDING DEPARTMENT FOR APPROVAL. REFER TO NFPA 101:4.6.10. CONSTRUCTION, REPAIR, AND IMPROVEMENT OPERATIONS. SECTION 4.8 EMERGENCY ACTION PLAN. NFPA 101 - CHAPTER 43: BUILDING REHABILITATION, LIFE SAFETY PLAN.
3. PROJECT IS CLASSIFIED AS A RENOVATION IN ACCORDANCE WITH NFPA 101 SECTION 43.2.2.1.2.
4. CONTRACTOR SHALL COMPLY WITH NFPA 1: CHAPTER 16: SAFEGUARDING CONSTRUCTION, ALTERATION AND DEMOLITION OPERATIONS; 16.3: FIRE PROTECTION; 16.4: SAFEGUARDING CONSTRUCTION AND ALTERATIONS OPERATIONS; SECTION 16.4.2 AND 16.4.2.1 TEMPORARY SEPARATION WALLS & UNOBSTRUCTED EGRESS; 16.4.3. FIRE PROTECTION DURING CONSTRUCTION.
5. CONTRACTOR SHALL COMPLY WITH NFPA 1:5.3.3.8 FOR ANY DEMOLITION WORK - SAFEGUARDS DURING BUILDING CONSTRUCTION, ALTERATION, AND DEMOLITION OPERATIONS; 16.5 - FIRE SAFETY DURING DEMOLITION; 12.7.4 - SMOKE BARRIER USED AS A FIRE BARRIER; AND NFPA 241 AND NFPA 51B: SAFEGUARDING CONSTRUCTION AND FIRE PREVENTION TOOLKIT
6. CONTRACTOR SHALL COMPLY WITH THE FOLLOWING NFPA CODES FOR FIRE SAFETY DURING DEMOLITION: NFPA 1, 16.5 FIRE SAFETY DURING DEMOLITION; 16.2.2.4.1. TRASH CHUTE SAFETY PLAN; 16.2.2.4.1.1 FIRE WATCH; 16.3 FIRE PROTECTION.
7. CONTRACTOR SHALL PROVIDE PLANS INDICATING ALL MEANS OF EGRESS FROM EACH WORK AREA TO A PUBLIC WAY (PARKING LOT, OR ENCLOSED STAIR)TO THE MIAMI-DADE BUILDING DEPARTMENT FOR APPROVAL. SHOW ALL SURFACES AND PROVIDE DETAILS OF ALL CHANGES OF ELEVATION.
8. QUESTIONS, CONTACT MDFR-ALSB@MIAMIDADE.GOV

This item has been digitally signed and sealed by WILLIAM BOWDOIN on the date adjacent to the seal. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

WILLIAM ANDERSON BOWDOIN LICENSE No 77574 STATE OF FLORIDA PROFESSIONAL ENGINEER

William A Bowdoin

ENGINEER OF RECORD: WILLIAM BOWDOIN
FL PE NO. 77574

MIAMI-DADE AVIATION DEPARTMENT
MIAMI INTERNATIONAL AIRPORT
MIAMI-DADE COUNTY
P.O. BOX 592075 MIAMI, FL. 33159

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3250 WEST COMMERCIAL BOULEVARD, SUITE 100
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MARK	DESCRIPTION	DATE

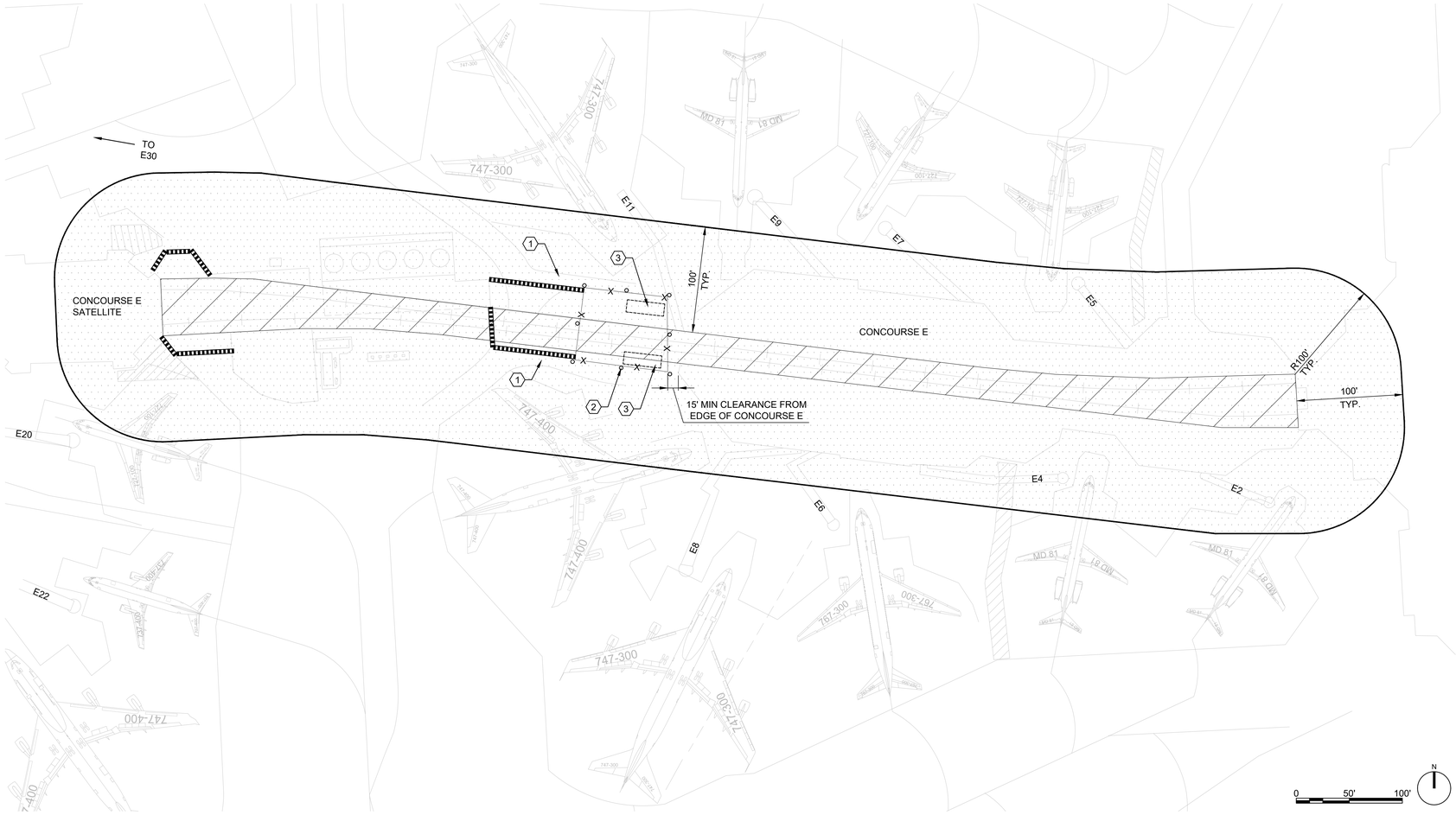
DESIGNED BY: RD | ISSUE DATE: 05/25/2022
DRAWN BY: RD | SOLICITATION NO.: -
CHECKED BY: WB | CONTRACT NO.: -
SUBMITTED BY: WB | -
SIZE: ANSI F | -

MIAMI INTERNATIONAL AIRPORT
CONCOURSE E SATELLITE
APM BRIDGE REHABILITATION PROJECT
MDAD PROJECT NUMBER: AB003A

SAFETY AND STAGING NOTES

SHEET ID
G1

BID SET

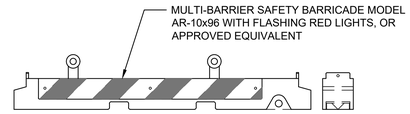


LEGEND

- PROJECT LOCATION
- 100' WELDING IMPACT ZONE
- LOW PROFILE BARRICADES SEE DETAIL 1 ON THIS SHEET
- X FENCE ENCLOSURE FOR CONTRACTOR'S STAGING AREA

SHEET KEYNOTES

1. MAINTAIN A MIN. 10' VEHICULAR ACCESS PATH TO AREAS BELOW CONCOURSE 'E' AT ALL TIMES
2. RED HAZARD LIGHTS AT 40' O/C. MAX. MOUNTED ON FENCE ALONG CONTRACTOR'S STAGING AREA ENCLOSURE
3. SUGGESTED CONTRACTOR'S TRAILERS LOCATION



NOTES:

1. ATTACH ONE STEADY-BURN, SELF-POWERED RED OBSTRUCTION LIGHT TO EACH BARRICADE. BARRICADE TO BE PLACED 20' ON CENTER. THERE WILL BE NO DIRECT PAYMENT FOR FURNISHING, MAINTAINING, OR REMOVAL OF THIS BARRICADE ASSEMBLY.
2. ALL BARRICADES SHALL BE MOVED AT LEAST ONCE A WEEK AND THE CONTRACTOR SHALL SWEEP THE DEBRIS THAT HAS ACCUMULATED AND REMOVE THE DEBRIS FROM SITE. THE BARRICADES SHALL THEN BE REPLACED AT THE APPROPRIATE LOCATION.
3. ALL BARRICADE LIGHTING SHALL BE VERIFIED BY THE CONTRACTOR FOR PROPER OPERATION AT THE BEGINNING AND END OF EACH DAY BEFORE CONTRACTOR BEGINS AND CEASES OPERATION.

1 LOW LEVEL AIRFIELD BARRICADE DETAIL
SCALE: NTS

MAINTENANCE OF TRAFFIC & TRAFFIC CONTROL REQUIREMENTS

A. GENERAL REQUIREMENTS:

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ALL THE MANPOWER AND TRAFFIC CONTROL DEVICES NECESSARY TO ASSURE SAFE TRAFFIC CONTROL OPERATIONS AND THE SAFETY OF MIA OPERATIONS AND ITS OCCUPANTS.
2. THE CONTRACTOR SHALL MAINTAIN TRAFFIC CONTROL DURING THE ENTIRE DURATION OF THIS PROJECT.
3. THE CONTRACTOR SHALL COMPLY WITH SECTION 102 OF THE FDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION (MOST CURRENT EDITION), AS AMENDED, THE ROADWAY AND TRAFFIC DESIGN STANDARDS.
4. THE CONTRACTOR SHALL AT ALL TIME ADHERE TO MDAD REQUIREMENTS AND TO THOSE REQUIREMENTS SET FORTH IN THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (M.U.T.C.D.) AND FLORIDA DEPARTMENT OF TRANSPORTATION (FDOT) STANDARD INDEX 600 IN EFFECT AT THE TIME OF CONSTRUCTION.
5. THE CONTRACTOR SHALL EMPLOY A SAFETY SUPERINTENDENT AND NECESSARY ASSISTANTS WHO SHALL BE IN ATTENDANCE AT THE PROJECT SITE DURING THE PERFORMANCE OF THE WORK TO IMPLEMENT AND MONITOR ALL SAFETY PROVISIONS OF THIS PROJECT.
6. THE CONTRACTOR SHALL SUBMIT 'MAINTENANCE OF TRAFFIC PLANS' FOR REVIEW AND APPROVAL BY MDAD. THE ITEMS LISTED BELOW SHALL BE CONSIDERED WHEN PREPARING 'MAINTENANCE OF TRAFFIC PLANS.'
7. TRAFFIC DISRUPTIONS WHICH ARE NOT SHOWN BY THE TRAFFIC PLAN, BUT ARE NECESSARY TO CONSTRUCT THE PROJECT, SHALL BE SUBMITTED IN WRITING TO MDAD, 48 HOURS PRIOR TO COMMENCEMENT OF WORK. THIS SUBMITTAL SHALL INCLUDE SKETCHES, CALCULATIONS AND OTHER DATA REQUIRED BY MDAD.
8. ALL EQUIPMENT (E.G. COMPRESSORS, GENERATORS, ETC.) USED BY THE CONTRACTOR NEEDS TO BE PRE-APPROVED BY AIRSIDE OPERATIONS IN ORDER TO PREVENT CONDITIONS THAT MAY PRESENT A FIRE HAZARD DUE TO NEARBY FUEL TANKS AND FUELING APPARATUS.
9. THE CONTRACTOR IS TO PROVIDE AIR SIDE OPERATIONS WITH ACCESS TO A RESPONSIBLE, KNOWLEDGEABLE PARTY AVAILABLE ON A 24HR. BASIS BY TELEPHONE.
10. THE CONTRACTOR IS RESPONSIBLE FOR DAILY INSPECTION AND MAINTENANCE FOR PROPER FUNCTION OF AIL SAFETY DEVICES AND PAVEMENT MARKINGS.
11. THE CONTRACTOR IS RESPONSIBLE FOR ENSURING THE SAFETY OF HIS PERSONNEL & AIRPORT PERSONNEL WORKING ON AND AROUND THE "BRIDGE STRUCTURE". THE CONTRACTOR SHALL ENSURE THAT NO OBJECTS MATERIALS, TOOLS AND DEBRIS CAN FALL FROM THE SHUTTLE STRUCTURE TO THE GROUND BELOW OR ON TO THE ROOF STRUCTURE OF THE MECHANICAL BUILDINGS BETWEEN COLUMN LINES S - 7G.

B. SHUTTLE TRAIN OPERATION:

1. FOR THE CONSTRUCTION OF THE PROJECT, APM TRAIN OPERATIONS WILL BE SUSPENDED FOR A PERIOD NO MORE THAN 4 MONTHS (120 DAYS) TO ALLOW THE CONTRACTOR FULL ACCESS TO THE GUIDEWAY. CONTRACTOR SHALL PROVIDE A DETAILED CONSTRUCTION SCHEDULE IDENTIFYING THE SHUTDOWN PERIOD TO THE MIAMI DADE AVIATION DEPARTMENT (MDAD) FOR APPROVAL BEFORE PERFORMING ANY CONSTRUCTION WORK.
2. WORK REQUIRING ACCESS TO THE GUIDEWAY, NOT COMPLETED DURING THE 4-MONTH SHUTOWN, CAN ONLY BE PERFORMED WHILE TRAIN OPERATIONS ARE DOWN. CONTRACTOR IS REQUIRED TO COORDINATE WITH MDAD AND THE APM OPERATING CONTRACTOR TO SCHEDULE ACCESS TO THE GUIDEWAY. TRAIN OPERATIONS FOR BOTH GUIDEWAYS ARE DOWN BETWEEN THE HOURS OF MIDNIGHT AND 4:00 A.M. UNLESS NOTED OTHERWISE. WORK REQUIRING ACCESS TO THE GUIDEWAY TRACKS SHALL BE DONE BETWEEN THESE HOURS AND ACCESS TO THE GUIDEWAY NEEDS TO BE COORDINATED AND APPROVED BY MDAD AND THE APM OPERATING CONTRACTOR PRIOR TO ENTERING THE GUIDEWAY.
3. WHEN WORK HAS BEEN PERFORMED ON GUIDEWAYS, THE CONTRACTOR SHALL INSURE THAT ALL MATERIAL, TOOLS, EQUIPMENT, ETC., NOT POSITIVELY ATTACHED TO THE STRUCTURE, ARE REMOVED FROM THE WORK AREA BEFORE THE SHUTTLE RESUMES NORMAL FUNCTIONING. TO THIS END, THE CONTRACTOR WILL PERFORM SAFETY INSPECTIONS, IN COORDINATION WITH TRAIN OPERATING ENTITY PERSONNEL, OF THE GUIDEWAY AT THE END OF EACH WORK SESSION AND BEFORE THE SHUTTLE GOES BACK INTO OPERATION. THE CONTRACTOR IS TO MAINTAIN A LOG OF ALL INSPECTIONS.

C. CONTRACTOR'S STAGING AREA:

1. ALL CONTRACTOR EQUIPMENT IS TO BE CONTAINED WITHIN THE STAGING AREA WHEN NOT IN USE.
2. THE CONTRACTOR IS TO PROVIDE AND MAINTAIN A 6' HIGH CHAIN LINK FENCE AROUND THE STAGING AREA. RED HAZARD LIGHTS SHOULD BE MOUNTED ON THE FENCE @ 40' CENTERS (MAX.).
3. THE STAGING AREA TO TO BE CLEANED ON A DAILY BASIS FOR FOREIGN OBJECTS DAMAGE (FOD) PREVENTION.

D. VEHICULAR TRAFFIC INTERRUPTIONS:

1. THE ROADWAY BETWEEN GATES E20 AND E30:
   A MINIMUM OF ONE LANE OF TRAFFIC UNDER THE SHUTTLE BRIDGE MUST BE MAINTAINED BETWEEN THE HOURS OF 6:00 A.M. AND 10:00 P.M. BOTH TRAFFIC LANES CAN BE CLOSED BETWEEN THE HOURS OF 10:00 P.M. AND 6:00 A.M. FLAG PERSONNEL IS REQUIRED IN THIS AREA AT ALL TIMES WHEN TRAFFIC IS LIMITED.
2. THE CENTER ROADWAY UNDER THE SHUTTLE BRIDGE BETWEEN GATES E8 AND E11:
   A MINIMUM OF ONE LANE OF TRAFFIC MUST BE MAINTAINED BETWEEN THE HOURS OF 6:00 A.M. AND 10:00 P.M. BOTH LANES MAY BE CLOSED FROM 10:00 P.M. TO 6:00 A.M. FLAG PERSONNEL IS REQUIRED TO THIS AREA AT ALL TIMES WHEN TRAFFIC IS LIMITED.
3. THE CONTRACTOR IS TO MAINTAIN AT LEAST ONE LANE OF CROSS TRAFFIC UNDER THE BRIDGE, AND IS TO MAINTAIN ACCESS FOR AIRPORT RESCUE AND FIRE FIGHTING EQUIPMENT AT ALL TIMES.
4. USE RED FLASHING LIGHTS ON LOW PROFILE BARRICADES TO IDENTIFY ANY "TEMPORARY" TRAFFIC RESTRICTIONS OR ALTERATIONS.

E. WELDING RESTRICTIONS:

1. THE CONTRACTOR IS TO OBTAIN HOT PERMITS FOR ALL WELDING ACTIVITIES. HOT PERMITS ARE ISSUED BY THE FIRE DEPARTMENT ON A DAILY BASIS. COORDINATE WITH AIRPORT PERSONNEL AS REQUIRED.
2. THE CONTRACTOR IS TO NOTIFY AND COORDINATE WITH AIRSIDE OPERATIONS ALL WELDING ACTIVITIES.
3. WELDING MAY NOT BE PERFORMED WITHIN 100' FROM A PARKED AIRPLANE OR FUELING OPERATION. ANY WELDING WHICH NEEDS TO TAKE PLACE WITHIN THIS 100' "WELDING IMPACT AREA" MUST BE SCHEDULED, COORDINATED AND APPROVED BY AIRSIDE OPERATIONS.

F. GATE CLOSINGS:

1. AIRPORT OPERATIONS MUST BE MAINTAINED AT ALL TIMES. GATE CLOSING WILL BE COORDINATED FOR WELDING ACTIVITIES. WELDING THAT REQUIRES CLOSING OF GATES MUST BE SCHEDULED FOR NIGHT TIME, AND MUST BE SCHEDULED, COORDINATED, AND APPROVED BY AIRSIDE OPERATIONS.
   MINIMUM 48 HOURS NOTIFICATION IS REQUIRED

G. F.O.D. (FOREIGN OBJECT DAMAGE) PREVENTION:

1. THE CONTRACTOR IS TO TAKE ALL PRECAUTIONS TO INSURE THAT THERE ARE NO UNSECURED "FOREIGN OBJECTS" WITHIN THE WORK OR STAGING AREAS.
2. DAMAGE TO AIR CRAFTS CAUSED BY OBJECTS GENERATED BY CONSTRUCTION ACTIVITIES SHALL BE CONTRACTOR'S RESPONSIBILITY.

This item has been digitally signed and sealed by WILLIAM BOWDOIN on the date adjacent to the seal. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

WILLIAM ANDERSON BOWDOIN LICENSE No 77574 STATE OF FLORIDA PROFESSIONAL ENGINEER

William A Bowdoin

ENGINEER OF RECORD: WILLIAM BOWDOIN
FL PE NO. 77574

MARK	DESCRIPTION	DATE

DESIGNED BY:	RD	ISSUE DATE:	05/25/2022
DRAWN BY:	RD	SOLICITATION NO.:	-
CHECKED BY:	WB	CONTRACT NO.:	-
SUBMITTED BY:	WB		
SIZE: ANSI F	-		

MIAMI-DADE AVIATION DEPARTMENT
MIAMI INTERNATIONAL AIRPORT
AIM
P.O. BOX 592075 MIAMI, FL. 33159

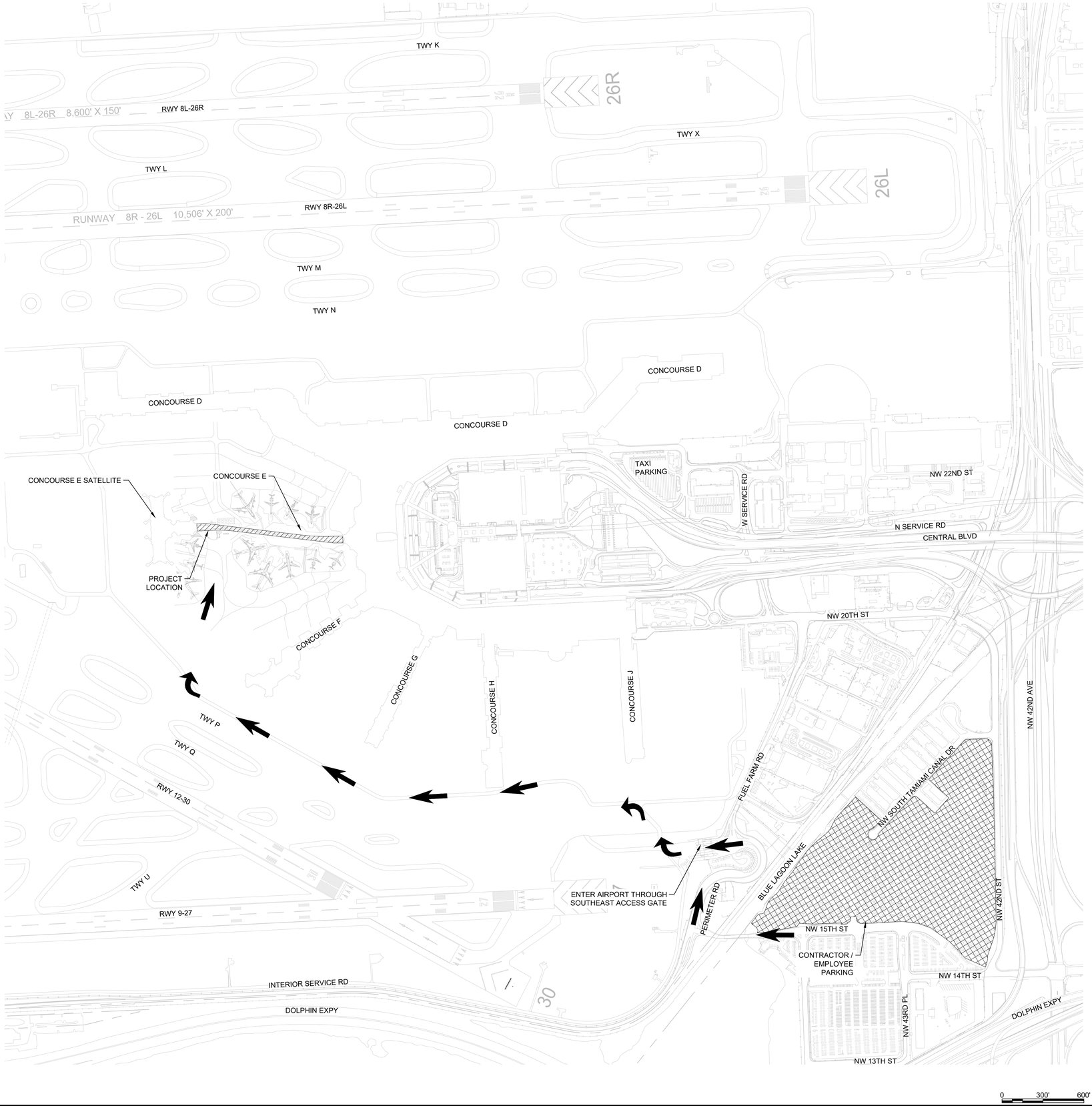
HDR
3250 WEST COMMERCIAL BOULEVARD, SUITE 100
FORT LAUDERDALE, FL 33309

MAIMI INTERNATIONAL AIRPORT
CONCOURSE "E" SATELLITE
APM BRIDGE REBUILTATION PROJECT
MDAD PROJECT NUMBER: AB003A

MOT PLAN / SITE PLAN / STAGING AREA

SHEET ID
G2

BID SET



LEGEND

- HAUL/ACCESS ROUTE
- PROJECT LOCATION
- CONTRACTOR/EMPLOYEE PARKING

GENERAL NOTES

1. ALL COSTS FOR CONTROLLING DUST OR POLLUTANTS TO THE AIR OF ANY KIND SHALL BE CONSIDERED INCIDENTAL TO THE PROJECT AND NO SEPARATE PAY ITEM SHALL BE PROVIDED.

2. HAUL ROADS TO BE USED UNDER THIS PROJECT SHALL BE THOSE INDICATED ON THE DRAWINGS OR OTHERWISE SPECIFICALLY AUTHORIZED BY THE OWNER. IN GENERAL, THE CONTRACTOR SHALL CONFINE EQUIPMENT AND HAULING TO THE AREAS UNDER CONSTRUCTION. NO DEBRIS SHALL BE ALLOWED ON THE ROADWAYS OR AIRPORT PAVED SURFACES. ACTIVE TAXIWAYS SHALL BE KEPT FREE OF DEBRIS AT ALL TIMES. CONTRACTOR SHALL MAINTAIN VACUUM SWEEPERS ON SITE FOR THAT USE. OTHER PAVEMENTS SHALL BE CLEANED BY THE CONTRACTOR DAILY, AND AS REQUIRED, USING VACUUM SWEEPERS TO KEEP ALL ACCESS AND CONSTRUCTION AREAS CLEAR OF SOILS, CLODS OR OTHER DEBRIS.

3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR RESTORING ALL AIRPORT SERVICE ROADS TO THEIR PRECONSTRUCTION CONDITION WHERE SUCH ROADS ARE USED BY THE CONTRACTOR FOR HAULING OPERATIONS.

4. THE CONTRACTOR SHALL NOT PERMIT ANY UNAUTHORIZED PERSONNEL OR TRAFFIC ON THE SITE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR TRAFFIC CONTROL TO AND FROM THE VARIOUS CONSTRUCTION AREAS ON THE SITE. THE CONTRACTOR IS RESPONSIBLE FOR THE IMMEDIATE CLEAN-UP OF ANY DEBRIS DEPOSITED AT THE PROJECT SITE AND ALONG ANY ROAD AS A RESULT OF HIS/HER CONSTRUCTION TRAFFIC. DIRECTIONAL SIGNAGE AT THE ACCESS GATE AND ALONG THE DELIVERY ROUTE TO THE STORAGE AREA OR WORK SITE SHALL BE APPROVED BY THE OWNER. ALL CONTRACTOR'S MATERIAL ORDERS FOR DELIVERY TO THE SITE SHALL BE DIRECTED TO THE ACCESS POINTS IDENTIFIED.

5. RUBBER TIRED VEHICLES ONLY SHALL BE ALLOWED ON EXISTING AIRPORT PAVEMENT WHICH IS TO REMAIN.

6. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE OFF-SITE ROUTES (STATE HIGHWAYS, COUNTY ROADS OR CITY STREETS) WITH THE APPROPRIATE OWNER WHO HAS JURISDICTION OVER THE AFFECTED ROUTE.

7. ALL CONTRACTOR VEHICLES AND TRAFFIC SHALL REMAIN WITHIN THE DESIGNATED CONSTRUCTION AREAS, STAGING AREAS OR HAUL ROUTES.

8. NO CONTRACTOR VEHICLES ARE TO CROSS ACTIVE RUNWAYS, NAVAID CRITICAL AREAS, TAXIWAYS AND APPROACH CLEAR ZONES UNLESS THE ESCORT IS UNDER THE DIRECT CONTROL OF THE AIRPORT GROUND CONTROLLER. IT SHALL BE UNDERSTOOD BY THE CONTRACTOR THAT AIRPORT TRAFFIC ON RUNWAYS, TAXIWAYS AND APRONS SHALL HAVE PRIORITY OVER CONTRACTOR'S TRAFFIC.

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WILLIAM ANDERSON BOWDOIN LICENSE No 77574 STATE OF FLORIDA PROFESSIONAL ENGINEER

William A Bowdoin

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MIAMI-DADE AVIATION DEPARTMENT
MIAMI INTERNATIONAL AIRPORT
MIAMI-DADE COUNTY, FLORIDA
P.O. BOX 592075 MIAMI, FL. 33159

HDR
3250 WEST COMMERCIAL BOULEVARD, SUITE 100
FORT LAUDERDALE, FL 33309

MIAMI INTERNATIONAL AIRPORT
CONCOURSE E SATELLITE
APM BRIDGE REHABILITATION PROJECT
MDAD PROJECT NUMBER: AB003A

SITE ACCESS PLAN

SHEET ID
G3

BID SET

GENERAL STRUCTURAL NOTES

GENERAL:

1. GENERAL SPECIFICATIONS: MIAMI-DADE AVIATION DEPARTMENT DIVISION 1 AND COMMISSIONING STANDARD TECHNICAL SPECIFICATIONS, MARCH 2010 EDITION.

   OPERATIONAL DIRECTIVE NO. 21-03: REQUIREMENTS, SAFETY PROTOCOLS AND PRECAUTIONS FOR WORK PERFORMED ON OR NEAR THE AUTOMATED PEOPLE MOVER SYSTEMS AT MIAMI INTERNATIONAL AIRPORT.

   MDAD AND FDOT STANDARD TECHNICAL SPECIFICATIONS.

2. THE SCOPE OF THE BRIDGE REHABILITATION INCLUDES REPLACING BEARINGS UNDER THE GUIDEWAY STEEL BEAMS, CONCRETE DECK AND SUBSTRUCTURE SPALL AND DELAMINATION REPAIRS, CONCRETE DECK CRACK REPAIR, AND EXPANSION JOINT REPAIR. JACKING OF THE STRUCTURES FOR BEARING REPLACEMENT AND RELATED WORK TO GAIN ACCESS TO EXISTING STRUCTURES ARE INCLUDED IN THE SCOPE. ADJUSTMENT, REPAIR, OR REPLACEMENT OF JOINTS, CONCRETE OR STEEL COMPONENTS ON THE EXISTING BRIDGE OR BUILDING STRUCTURES IN ORDER TO PERFORM THE BRIDGE REHABILITATION WORK ARE INCLUDED IN THE SCOPE. UNLESS NOTED ON THE PLANS, PAINTING OF THE EXISTING STEEL STRUCTURE IS NOT PART OF THE SCOPE.

3. THE DRAWINGS ARE INTENDED TO SHOW THE GENERAL ARRANGEMENT, DESIGN AND EXTENT OF THE WORK AND ARE PARTLY DIAGRAMMATIC.THEY ARE NOT INTENDED TO BE SCALED FOR ROUGHING MEASUREMENTS, OR TO SERVE AS SHOP DRAWINGS OR PORTIONS THEREOF.

4. ALL DETAILS AND SECTIONS SHOWN ON THE DRAWINGS ARE INTENDED TO BE TYPICAL AND SHALL BE CONSTRUED TO APPLY TO ANY SIMILAR SITUATION ELSEWHERE ON THE PROJECT, EXCEPT WHERE A DIFFERENT DETAIL IS SHOWN.

5. THE CONTRACTOR AND ALL SUBCONTRACTORS SHALL PERFORM A SURVEY OF THE BRIDGE SUPERSTRUCTURE AND SUBSTRUCTURE AND IDENTIFY ALL LOCATIONS IN NEED OF REPAIR. THE SURVEY SHALL BE INCLUDED IN CONTRACT DURATION AND PERFORMED IN THE PRESENCE OF THE ENGINEER PRIOR TO COMMENCING ANY WORK. VERIFY ALL BRIDGE CONDITIONS AND DIMENSIONS AT THE JOB SITE AND AS SHOWN ON THE DRAWINGS. THEY SHALL REPORT ANY ERRORS OR INCONSISTENCIES IN THE ABOVE TO THE ENGINEER BEFORE COMMENCING WORK.THE CONTRACTOR AND SUBCONTRACTORS SHALL LAY OUT THEIR WORK FROM ESTABLISHED REFERENCE POINTS AND BE RESPONSIBLE FOR ALL LINES, ELEVATIONS AND MEASUREMENTS IN CONNECTION WITH THEIR WORK.

6. PROTECTION:
   A. THE CONTRACTOR IS RESPONSIBLE AND SHALL COMPLY WITH THE REQUIREMENTS OF THE SOUTH FLORIDA BUILDING CODE AND ALL LOCAL, STATE AND FEDERAL LAWS. THE ENGINEER AND HIS EMPLOYEES ARE NOT RESPONSIBLE FOR SAFETY PROCEDURES ON THIS PROJECT. THIS IS THE CONTRACTOR'S RESPONSIBILITY.
   B. PROVIDE ALL SHORING, BRACING AND SHEETING AS REQUIRED FOR THE PROPER EXECUTION OF THE WORK. REMOVE FROM SITE WHEN THE WORK IS COMPLETED.
   C. PROVIDE AND MAINTAIN GUARD LIGHTS AT ALL BARRICADES, RAILINGS, OBSTRUCTIONS IN THE STREETS, ROADS OR SIDEWALKS AND ALL TRENCHES OR PITS ADJACENT TO PUBLIC WALKS OR ROADS.
   D. AT ALL TIMES PROVIDE PROTECTION AGAINST WEATHER (RAIN, WIND, STORMS OR HEAT) SO AS TO MAINTAIN ALL WORK, MATERIALS, APPARATUS AND FIXTURES FREE FROM DAMAGE.
   E. THE CONTRACTOR SHALL PAY FOR ALL DAMAGES TO ADJACENT STRUCTURES, ROOFS, SIDEWALKS AND TO STREETS OR OTHER PUBLIC PROPERTY OR TO ANY PUBLIC UTILITIES.
   F. AT THE END OF THE DAYS WORK, COVER ALL WORK LIKELY TO BE DAMAGED. ANY WORK DAMAGED BY FAILURE TO PROVIDE PROTECTION SHALL BE REMOVED AND REPLACED WITH NEW WORK AT THE CONTRACTOR'S EXPENSE.

7. CONTRACTOR AGREES THAT HE WILL HOLD OWNER, ENGINEERS AND/OR ANY OF THEIR EMPLOYEES OR AGENTS HARMLESS FROM ANY AND ALL DAMAGE AND CLAIMS WHICH MAY ARISE BY REASON OF ANY NEGLIGENCE ON PART OF CONTRACTOR, ANY OF HIS SUBCONTRACTORS AND/OR SUBCONTRACTORS, MATERIALS AND EQUIPMENT SUPPLIERS AND/OR ANY OF THEIR EMPLOYEES OR AGENTS, IN PERFORMANCE OF THIS CONTRACT AND, IN CASE ANY ACTION IS BROUGHT THEREFORE AGAINST OWNER, ENGINEERS AND/OR ANY OF THEIR EMPLOYEES OR AGENTS, CONTRACTOR SHALL ASSUME FULL RESPONSIBILITY FOR DEFENSE THEREOF, AND UPON HIS FAILURE TO DO SO ON PROPER NOTICE, OWNER, ENGINEERS AND/OR ANY OF THEIR EMPLOYEES OR AGENTS RESERVE THE RIGHT TO DEFEND SUCH ACTION AND CHARGE ALL COSTS THEREOF TO CONTRACTOR.

8. IF ANY ERRORS OR OMISSIONS APPEAR IN THE DRAWINGS, SPECIFICATIONS OR OTHER DOCUMENTS THE CONTRACTOR SHALL NOTIFY THE ENGINEER IN WRITING OF SUCH OMISSIONS OR ERRORS PRIOR TO PROCEEDING WITH ANY WORK WHICH APPEARS IN QUESTION. IN THE EVENT OF THE CONTRACTOR'S FAILING TO GIVE SUCH NOTICE, HE SHALL BE HELD RESPONSIBLE FOR THE RESULTS OF ANY SUCH ERRORS OR OMISSIONS AND THE COST OF RECTIFYING THE SAME.

9. THE CONTRACTOR SHALL USE THE STRUCTURAL DRAWINGS TOGETHER WITH FIELD SURVEY RESULTS AND AS-BUILT DRAWINGS TO LOCATE STRUCTURAL OR NON-STRUCTURAL COMPONENTS, SUCH AS DIMENSIONS, IN THE PROJECT. POTENTIAL CONFLICTS SHALL BE TRANSMITTED TO THE ENGINEER BEFORE PROCEEDING WITH THE WORK.

10. SUBMIT SHOP DRAWINGS FOR ENGINEER REVIEW AND APPROVAL BEFORE STARTING ANY FABRICATION AND RELATED CONSTRUCTION WORK.

11. NO SHOP DRAWINGS SHALL BE SUBMITTED FOR ENGINEER REVIEW UNTIL AFTER THEY HAVE BEEN REVIEWED AND NOTED FOR CONSTRUCTION METHOD, DIMENSIONING AND OTHER TRADE REQUIREMENTS BY THE CONTRACTOR AND STAMPED WITH THE CONTRACTOR'S APPROVAL SEAL. ENGINEER ASSUMES NO RESPONSIBILITY FOR DIMENSIONS, QUANTITIES, ERRORS OR OMISSIONS AS A RESULT OF CHECKING AND REVIEWING ANY SHOP DRAWINGS. ANY ERRORS OR OMISSIONS MUST BE MADE GOOD BY CONTRACTOR, IRRESPECTIVE OF RECEIPT, CHECKING OR REVIEW OF DRAWINGS BY ENGINEER AND EVEN THOUGH WORK IS DONE IN ACCORDANCE WITH SUCH DRAWINGS.

12. VERIFICATION OF EXISTING CONDITIONS: AS THE REMODELING AND/OR REHABILITATION OF AN EXISTING STRUCTURE REQUIRES THAT CERTAIN ASSUMPTIONS BE MADE REGARDING EXISTING CONDITIONS, AND BECAUSE SOME OF THESE ASSUMPTIONS MAY NOT BE VERIFIABLE WITHOUT EXPENDING ADDITIONAL AND POSSIBLE INAPPROPRIATE AND/OR UNJUSTIFIABLE SUMS OF MONEY, OR DESTROYING OTHERWISE ADEQUATE OR SERVICEABLE PORTIONS OF THE BUILDING, EXPOSING THE BUILDING INTERIOR TO THE ELEMENTS, AND/OR DISRUPTING AIRPORT OPERATIONS. THEREFORE, THE ENGINEER HEREIN MAKES IT CLEAR THAT NOT HAVING VERIFIED CERTAIN CONDITIONS, OR HAVING MADE CALCULATED ASSUMPTIONS, IS NOT AN ACT OF NEGLIGENCE, IRRESPONSIBILITY, OR AN ATTEMPT TO TRANSFER RESPONSIBILITY TO THE CONTRACTOR. IT IS, INSTEAD, OUR BEST EFFORT AT DESCRIBING THE EXISTING CONDITIONS AND HOW TO ADDRESS THEM, AND THIS IS OUR NOTICE TO THE CONTRACTOR TO PRICE HIS WORK IN SUCH A MANNER AS TO ASSUME POSSIBLE IRREGULARITIES AND TO LOWER THE COST OF DEALING WITH SAME WITHOUT ADDITIONAL COST TO OWNER, WHEN DIFFERENT TO THAT SHOWN. IN SUCH CASE(S), THE ENGINEER REMAINS AVAILABLE TO WORK OUT ALTERNATES, IF DEEMED NECESSARY AND APPROPRIATE (AT THE SOLE DISCRETION OF THE ENGINEER), FOR AN ACCEPTABLE ALTERNATE DETAIL OR OTHER ADDRESSING OF A CONDITION.THE ABOVE PROCEDURE IS OPINED TO BE A NECESSARY APPROACH TO SUCH SITUATIONS TO MINIMIZE INCONSISTENCIES IN BID AMOUNTS, ENCOURAGE CONTRACTOR SITE VISITS AND CLARIFICATIONS PRIOR TO BIDDING, AND AS AN ATTEMPT TO BE AS FAIR TO ALL CONTRACTORS BIDDING ON PROJECT, AS POSSIBLE, GIVEN THE CIRCUMSTANCES.

13. WHERE CRITICAL DIMENSIONS CANNOT BE DETERMINED FROM THE PLANS, OR WHERE NEW WORK ADJOINS EXISTING CONSTRUCTION, OR WHERE ONE MATERIAL ADJOINS AN IN-PLACE MATERIAL, CONTRACTOR SHALL TAKE FIELD MEASUREMENTS AS REQUIRED TO COMPLETE SHOP DRAWINGS AND INSTALLATION. REPORT ANY DISCREPANCIES EXCEEDING 3% BETWEEN FIELD MEASURED DIMENSIONS AND SCALED DRAWING DIMENSIONS TO ENGINEER BEFORE PROCEEDING WITH THE WORK. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY COSTS OR DELAY IF CRITICAL DIMENSIONS ARE NOT VERIFIED WITH THE DIMENSIONS MEASURED IN THE FIELD AND TIMELY INFORMING THE ENGINEER FOR DISCREPANCIES. THE CRITICAL DIMENSIONS INCLUDE BUT ARE NOT LIMITED TO EXISTING BEARING HEIGHTS AND COMPONENT DIMENSIONS AND LOCATIONS, LONGITUDINAL SLOPES OF THE GUIDEWAY STRUCTURES AT SUPPORTS, EXISTING CAP AND COLUMN SIZES AND REINFORCING LOCATIONS, EXPANSION JOINT OPENING DIMENSIONS, LOCATIONS AND LENGTHS, AND CONCRETE SPALLING AND CRACK REPAIR LIMITS FOR DECK, CAPS, COLUMNS AND ABUTMENTS.

14. DURING ANY STRENGTHENING WORK OR BEARING REPLACEMENT, THE CONTRACTOR SHALL MONITOR POTENTIAL CRACKING OF SLABS, PIER CAPS AND COLUMNS, POTENTIAL SETTLEMENT OF THE PIERS, AND UNUSUAL DEFORMATIONS AND DAMAGES IN BRIDGE SUPERSTRUCTURE AND ADJACENT STRUCTURES. THE CONTRACTOR IS RESPONSIBLE TO REPORT ANY UNUSUAL STRUCTURAL BEHAVIOR TO THE ENGINEER AND STOP WORKING IMMEDIATELY. THE CONTRACTOR SHALL REPAIR ANY DAMAGES TO THE EXISTING STRUCTURES AT NO COST TO MIA AND MDAD.

15. PLANS, SECTIONS AND DETAILS DO NOT SHOW ALL EXISTING CONDITIONS. THE BRIDGE STRUCTURE IS USED TO SUPPORT A VARIETY OF COMPONENTS AND SYSTEMS SUCH AS REFRIGERANT LINES, ELECTRICAL CONDUIT, CABLE TRAYS, CLADDING, PLATFORM STRUCTURES, ETC. SOME OR ALL OF THESE COMPONENTS AND SYSTEMS WILL INTERFERE WITH THE WORK IN THIS CONTRACT. IT IS THE CONTRACTOR'S RESPONSIBILITY TO LOCATE, IDENTIFY, PROTECT AND, WHERE IN CONFLICT WITH THE WORK, TO WORK WITH MDAD'S AUTHORITIES TO TEMPORARILY REMOVE OR RELOCATE THESE ITEMS WITHOUT ADVERSELY AFFECTING THEIR INTENDED PURPOSE NOR AIRPORT OPERATIONS SERVED BY CONFLICTING COMPONENTS. ANY REMOVAL OF BUILDING ITEMS INCLUDING JOINTS IN BUILDING AREA TO GAIN ACCESS TO BRIDGE AND BUILDING STRUCTURE COMPONENTS SUCH AS ABUTMENTS, COLUMNS, DIAPHRAGMS, STRUCTURAL STEELS, JOINTS, AND BEARINGS SHALL BE REPLACED AT CONTRACTOR'S EXPENSE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ALLOCATE SUFFICIENT FUNDING AND TIME IN HIS BID PRICE TO COVER ANY AND ALL WORK DESCRIBED ABOVE.

16. DURING CONSTRUCTION, THE CONTRACTOR SHALL NOT DAMAGE ANY BUILDINGS (INCLUDING ROOFS, WALLS AND JOINTS ETC.), UTILITIES, RUNNING SURFACE (TRACK) , PULLING CABLE, AND ANY OTHER AUTOMATED PEOPLE MOVER (APM) HARDWARE SURROUNDING OR ATTACHED TO THE BRIDGE STRUCTURES. ANY DAMAGE TO THOSE ATTACHMENTS OR STRUCTURES SHALL BE REPAIRED BY THE CONTRACTOR AT NO COST TO THE AIRPORT, APM OPERATING CONTRACTOR, OR MIAMI DADE AVIATION DEPARTMENT (MDAD).

17. ALL WORK RELATED TO UTILITIES (PIPES, CONDUITS, GLYCOL CHILLING PIPES, ETC.) ATTACHED TO THE BRIDGE STRUCTURES SHALL BE COORDINATED WITH THE AIRPORT UTILITY DEPARTMENT AND THE APM OPERATING CONTRACTOR (LEITNER-POMA) DURING THE PRE-BID MEETING. WORK FOR RELOCATING OR ADJUSTING THE UTILITIES ARE TO BE PERFORMED BY OTHERS AND THE COSTS ARE NOT TO BE INCLUDED IN THIS CONTRACT.

18. ALL WORK RELATED TO THE APM RUNNING SURFACE EXPANSION JOINTS, PULLING CABLE, OR ANY OTHER APM HARDWARE ALONG THE BRIDGE STRUCTURE SHALL BE COORDINATED WITH THE APM OPERATING CONTRACTOR (LEITNER-POMA) DURING THE PRE-BID MEETING. WORK FOR DISSEMBLING/ADJUSTING RAIL EXPANSION JOINTS (RUNNING SURFACE), RELEASING THE PULLING CABLE, OR REMOVAL OF OTHER APM HARDWARE ARE TO BE PERFORMED BY OTHERS AND THE COSTS ARE NOT TO BE INCLUDED IN THIS CONTRACT.

19. CONTRACTOR'S WORK SCHEDULE SHALL TAKE INTO ACCOUNT THE TIME REQUIRED BY MIA UTILITY DEPARTMENT AND THE APM OPERATING CONTRACTOR TO REMOVE OR RELOCATE THE NECESSARY UTILITY OR APM HARDWARE ATTACHED ALONG THE BRIDGE STRUCTURE.

20. CONTRACTOR SHALL SUBMIT A SIGNED AND SEALED SPECIAL INSPECTOR FORM FOR CONCRETE REPAIR (M-D CODE, SECTION 8-22) AND STEEL CONNECTIONS.

21. CONTRACTOR SHALL PROVIDE AS-BUILT DRAWINGS AS REVISION TO PERMIT AFTER ALL WORK IS DONE WITH THE NEW AND MODIFIED REPAIR NEEDED TO BE DONE AS PER SPECIFIC SITE CONDITIONS FOUND DURING THE REPAIR PROCESS.

22. SHOP DRAWINGS SHALL BE SUBMITTED FOR STRUCTURAL STEEL, REPLACEMENT BEARINGS, AND TEMPORARY SUPPORTS. CALCULATIONS SHALL BE PROVIDED FOR THE DESIGNS OF REPLACEMENT BEARINGS AND TEMPORARY SUPPORTS / JACKING FRAMES IN THE SHOP DRAWINGS. SUBMIT SHOP DRAWINGS FOR CORING AND INSTALLATION OF POST-TENSIONING BARS IN THE PIER CAP. SUBMIT SHOP DRAWINGS FOR EXPANSION JOINT REPAIR / REPLACEMENT, CONCRETE REPAIRS FOR SUPERSTRUCTURE AND SUBSTRUCTURE ELEMENTS. SHOP DRAWINGS SHALL BE SIGNED AND SEALED BY A PROFESSIONAL ENGINEER IN FLORIDA.

23. SPAN JACKING: THE JACKING DETAILS IN THESE PLANS ARE FOR BIDDING PURPOSES ONLY. THE CONTRACTOR SHALL OBTAIN A SPECIALTY ENGINEER TO DESIGN THE COMPLETE JACKING SYSTEM FOR REPLACING THE BEARINGS AND BE SUBMITTED THROUGH SIGNED AND SEALED SHOP DRAWING FOR REVIEW AND APPROVAL BY THE ENGINEER AND MDAD.

STRUCTURAL DESIGN CRITERIA & NOTES:

1. DESIGN SPECIFICATIONS:
   MIA DESIGN GUIDELINE MANUAL, MARCH 2018 EDITION.
   AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS (AASHTO), LRFD BRIDGE DESIGN SPECIFICATIONS, 9TH EDITION.

2. DESIGN METHOD: LOAD AND RESISTANCE FACTOR DESIGN METHOD (LRFD) USING STRENGTH, SERVICE AND FATIGUE LIMIT STATES.

3. STRUCTURAL IMPROVEMENTS SHOWN ON PLANS ARE BASED ON THE FOLLOWING ANALYSIS CRITERIA:
   WALKWAY LIVE LOAD. . . . . 100 P.S.F.
   TRAIN PASSENGER LOAD. . . . . 66 PASSENGERS/CAR
   TRAIN VELOCITY. . . . . 43 MPH
   WIND VELOCITY. . . . . 170 MPH

4. UNLESS NOTED ON PLANS, ALL STRUCTURAL STEEL TO BE DOMESTIC (ASTM A709 GRADE 50).

5. HIGH STRENGTH BOLTS (ASTM F3125, GRADE A325 TYPE 1) TO BE 3/4" DIAMETER, UNLESS OTHERWISE SPECIFIED. PROVIDE MATCHING H.S. NUTS AND WASHERS.

6. ANCHOR BOLTS: ANCHOR BOLTS SHALL BE IN ACCORDANCE WITH ASTM F1554 GRADE 105. THE ANCHOR BOLTS, NUTS AND WASHERS SHALL BE HOT-DIP GALVANIZED IN ACCORDANCE WITH SPECIFICATIONS.

7. ALL WELDING TO BE IN ACCORDANCE WITH AMERICAN RAILWAY ENGINEERING ASSOCIATION (AREA) AND (AWS) "STRUCTURAL WELDING CODE – STEEL", D1.5, BRIDGE WELDING CODE. WELDING ELECTRODES, WELDING PROCESS, MINIMUM PREHEAT AND INTERPASS TEMPERATURES TO BE IN ACCORDANCE WITH THE AWS SPECIFICATIONS. ANY STRUCTURAL STEEL DAMAGED IN WELDING TO BE REPLACED OR ACCEPTABLY REINFORCED. ALL FULL PENETRATION GROOVE WELDS TO BE SUBJECT TO RADIOGRAPHIC, MAGNETIC PARTICLE, ULTRASONIC, AND LIQUID PENETRANT INSPECTION CONDUCTED BY AN INDEPENDENT TESTING AGENCY PAID BY THE CONTRACTOR. RUSTPROOF ALL FIELD WELDS WITH HEAVY DUTY RUSTPROOFING PAINT.

8. ALL CONNECTIONS TO BE FIELD AND SHOP WELDED AND TO DEVELOP MEMBER IN SHEAR. (U.O.N.)

9. STEEL BEARING ON STEEL TO BE WELDED THERETO.

10. VERIFICATION AND CERTIFICATION OF ALL WELDING FOR THE PROJECT TO BE MADE BY A REGISTERED WELDING INSPECTOR EMPLOYED BY THE CONTRACTOR FOR THIS PURPOSE. COPIES OF ALL WELDING REPORTS TO BE TRANSMITTED TO THE SPECIAL INSPECTOR FOR THE PROJECT AS SOON AS THEY ARE COMPLETED.

11. DIMENSIONS: ALL DIMENSIONS IN THE PLANS ARE MEASURED IN FEET, EITHER HORIZONTALLY OR VERTICALLY, UNLESS OTHERWISE NOTED.

12. CONCRETE COVER: CONCRETE COVER DIMENSIONS SHOWN IN THE PLANS DO NOT INCLUDE PLACEMENT AND FABRICATION TOLERANCES UNLESS SHOWN AS "MINIMUM COVER". SEE TSP FOR ALLOWABLE TOLERANCES.

13. CONSTRUCTION JOINTS: CONSTRUCTION JOINTS WILL BE PERMITTED ONLY AT LOCATIONS INDICATED ON THE PLANS. ADDITIONAL JOINTS OR ALTERATIONS TO THOSE SHOWN IN THE PLANS SHALL REQUIRE WRITTEN APPROVAL OF THE ENGINEER.

14. CHAMFERS: PROVIDE 3/4" CHAMFER ON ALL EXPOSED SURFACES, UNLESS NOTED OTHERWISE.

15. PREPARE STEEL SURFACES TO A SSPC-SP3 "POWER TOOL FINISH" AND APPLY TWO COATS OF ALUMINUM EPOXY MASTIC (GRAY COLOR) ON ALL STEEL AREAS IN CONTACT WITH NEW BEARINGS PRIOR TO INSTALLATION.

16. DETECTABLE LEVELS OF HEAVY METALS HAVE BEEN FOUND WITH LOCATION SAMPLED. A SUMMARY OF RESULTS IS PROVIDED HERE. FOLLOW ALL LOCAL, STATE, AND FEDERAL REGULATION AND REQUIREMENTS WHILE WORKING ON STEEL STRUCTURE. WORK SHALL BE PERFORMED IN ACCORDANCE WITH RENOVATION, REPAIR, AND PAINTING (RRP) RULE BY EPA.

SAMPLE NO.	COLOR	CONDITION	LEAD (mg/kg)	CADMIUM (mg/kg)	CHROMIUM (mg/kg)	ARSENIC (mg/kg)
001	LIGHT GRAY	INTACT	140	1.9	120	BRL
002	LIGHT GRAY	INTACT	150	BRL	140	BRL
003	LIGHT GRAY	INTACT	49,000	BRL	160	4.4
004	LIGHT GRAY	INTACT	410	1.3	860	BRL

* BELOW REPORTING LIMITS (BRL) – INDICATES THE ANALYTE WAS NOT DETECTED AT THE REPORTING LIMIT.

TECHNICAL SPECIAL PROVISION

THE FDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION (2023-24 EDITION) APPLY TO THE PROJECT WHENEVER APPLICABLE. SEE BELOW FOR SELECTED SECTIONS.

THE REFERENCED FDOT SPECIFICATIONS CAN BE DOWNLOADED FROM FDOT WEBSITE: https://www.fdot.gov/programmanagement/implemented/specbooks/ (FDOT SP)

SECTION 5: CONTROL OF THE WORK

SECTION 6: CONTROL OF MATERIALS

SECTION 7: LEGAL REQUIREMENTS AND RESPONSIBILITY TO THE PUBLIC

SECTION 8: PROSECUTION AND PROGRESS

SECTION 100: CONSTRUCTION EQUIPMENT – GENERAL REQUIREMENTS

SECTION 103: TEMPORARY WORK STRUCTURES

SECTION 104: PREVENTION, CONTROL, AND ABATEMENT OF EROSION AND WATER POLLUTION

SECTION 105: CONTRACTOR QUALITY CONTROL GENERAL REQUIREMENTS

SECTION 107: LITTER REMOVAL AND MOWING

SECTION 108: MONITOR EXISTING STRUCTURES

SECTION 110: CLEANING AND GRUBBING

SECTION 400: CONCRETE STRUCTURES

SECTION 411: EPOXY INJECTION OF CRACKS IN CONCRETE STRUCTURES

SECTION 413: SEALING CRACKS AND CONCRETE STRUCTURE SURFACES

SECTION 415: REINFORCING FOR CONCRETE

SECTION 416: INSTALLATION OF POST-INSTALLED ANCHOR SYSTEMS AND DOWELS FOR STRUCTURAL APPLICATIONS IN CONCRETE ELEMENTS.

SECTION 458: BRIDGE DECK JOINTS

SECTION 460: STRUCTURAL STEEL AND MISCELLANEOUS METALS

SECTION 462: POST-TENSIONING

SECTION 560: COATING NEW STRUCTURES STEEL

SECTION 562: REPAIR OF GALVANIZED SURFACES

SECTION 901 COARSE AGGREGATE

SECTION 902: FINE AGGREGATE

SECTION 921: PORTLAND CEMENT AND BLENDED CEMENT

SECTION 923: WATER FOR CONCRETE

SECTION 924: ADMIXTURES FOR CONCRETE

SECTION 925: CURING MATERIALS FOR CONCRETE

SECTION 926: EPOXY COMPOUNDS

SECTION 929: SUPPLEMENTARY CEMENTITIOUS MATERIALS

SECTION 930: MATERIALS FOR CONCRETE REPAIR

SECTION 932: NONMETALLIC ACCESSORY MATERIALS FOR CONCRETE PAVEMENT AND CONCRETE STRUCTURES

SECTION 934: NON-SHRINK GROUT

SECTION 937: POST-INSTALLED ANCHOR SYSTEMS FOR STRUCTURAL APPLICATIONS IN CONCRETE ELEMENTS

SECTION 962: STRUCTURAL STEEL AND MISCELLANEOUS METAL ITEMS (OTHER THAN ALUMINUM)

SECTION 967: COMPONENTS FOR GUARDRAIL

SECTION 975: STRUCTURAL COATING MATERIALS

IN ADDITION TO FDOT STANDARD SPECIFICATIONS, SECTION T402 RESTORING SPALLED CONCRETE USING SHOTCRTE IS ALSO APPLICABLE TO THE CONSTRUCTION OF THE PROJECT. SEE PROJECT SPECIFICATION DOCUMENT FOR DETAILS.

ABBREVIATIONS:

E	=	EXPANSION BEARING
F	=	FIXED BEARING
I	=	INTEGRAL PIER
E.J.	=	EXPANSION JOINT
U.N.O	=	UNLESS NOTED OTHERWISE
E.F.	=	EACH FACE
N.F.	=	NEAR FACE
F.F.	=	FAR FACE
ABUT.	=	ABUTMENT

Jimin Huang
2024.03.13
07:54:18-04'00'

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ENGINEER OF RECORD: JIMIN HUANG
FL PE NO. 66797

MIAMI-DADE COUNTY

MARK	DESCRIPTION	DATE
		8/30/22

DESIGNED BY: JD | ISSUE DATE: 05/25/2022
DRAWN BY: EC | SOLICITATION NO.: -
CHECKED BY: JH | CONTRACT NO.: -
SUBMITTED BY: JH
SIZE: ANSI F | -

MIAMI-DADE AVIATION DEPARTMENT
MIAMI INTERNATIONAL AIRPORT
P.O. BOX 592075 MIAMI, FL. 33159

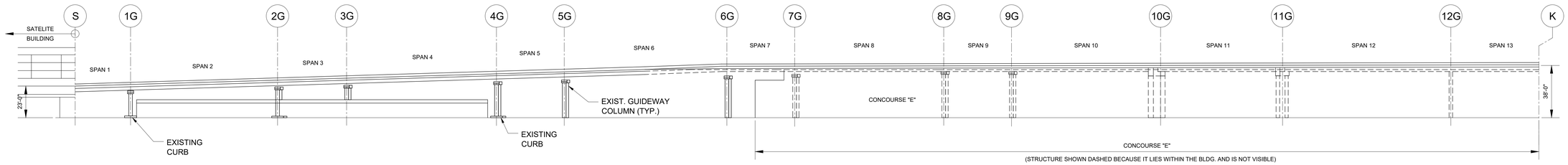
FDR
3250 WEST COMMERCIAL BOULEVARD, SUITE 100
FORT LAUDERDALE, FL. 33309

MIAMI INTERNATIONAL AIRPORT
AIRPORT WIDE
APM BRIDGE REHABILITATION PROJECT
MDAD PROJECT NUMBER: AB003A

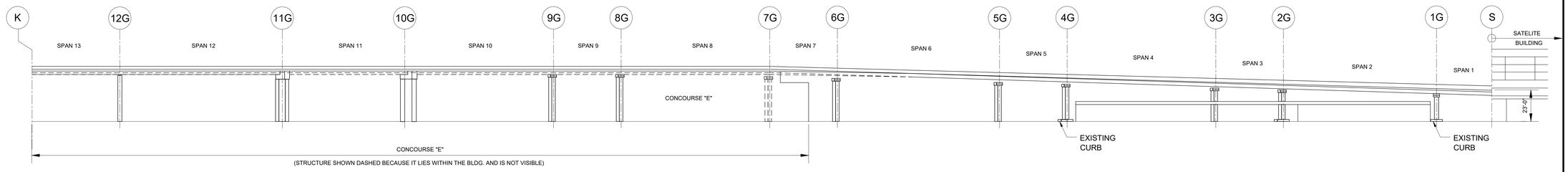
GENERAL NOTES

SHEET ID
S1

BID SET



SCHEMATIC SOUTH ELEVATION



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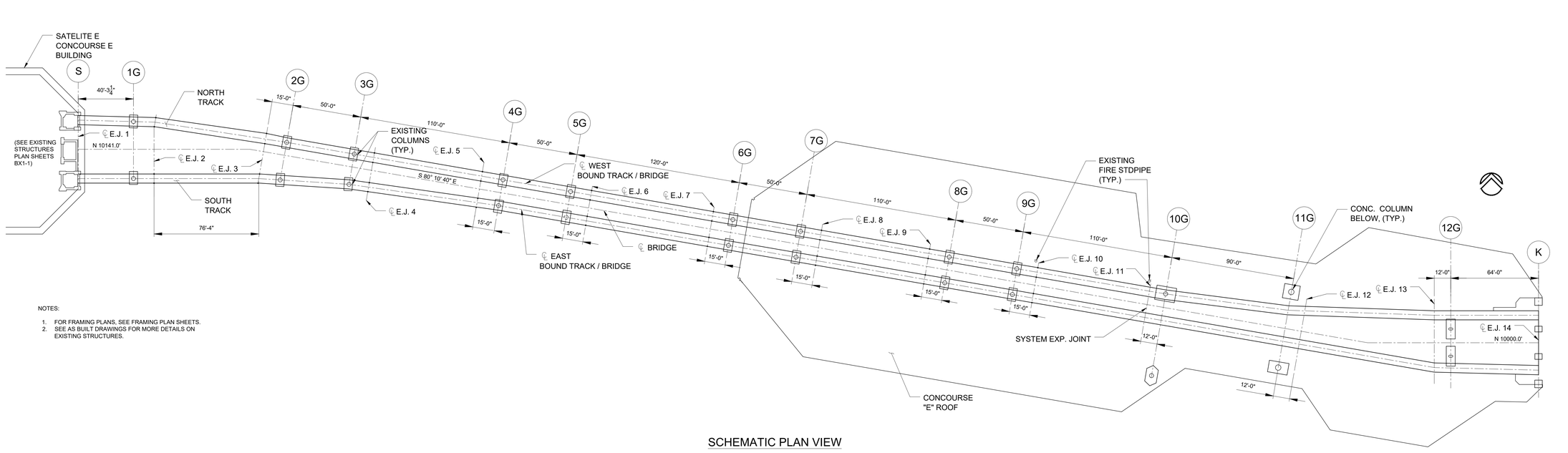

NOTES:

1. FOR FRAMING PLANS, SEE FRAMING PLAN SHEETS.
2. SEE AS BUILT DRAWINGS FOR MORE DETAILS ON EXISTING STRUCTURES.

SCHEMATIC PLAN VIEW

MARK	DESCRIPTION	DATE

DESIGNED BY:	JD
DRAWN BY:	EC
CHECKED BY:	JH
SUBMITTED BY:	JH
SIZE: ANSI F	-
ISSUE DATE:	05/25/2022
SOLICITATION NO.:	-
CONTRACT NO.:	-

MIAMI-DADE AVIATION DEPARTMENT
MIAMI INTERNATIONAL AIRPORT
AIRPORT DEVELOPMENT OFFICE
P.O. BOX 592075 MIAMI, FL. 33159

HDR
3250 WEST COMMERCIAL BOULEVARD, SUITE 100
FORT LAUDERDALE, FL 33309

MIAMI INTERNATIONAL AIRPORT
CONCOURSE "E" SATELLITE
APM BRIDGE REHABILITATION PROJECT
MDAD PROJECT NUMBER: AB003A

GENERAL PLAN AND ELEVATION

SHEET ID
S2

JIMIN HUANG LICENSE No 66797 STATE OF FLORIDA PROFESSIONAL ENGINEER

Jimin Huang
2024.03.13
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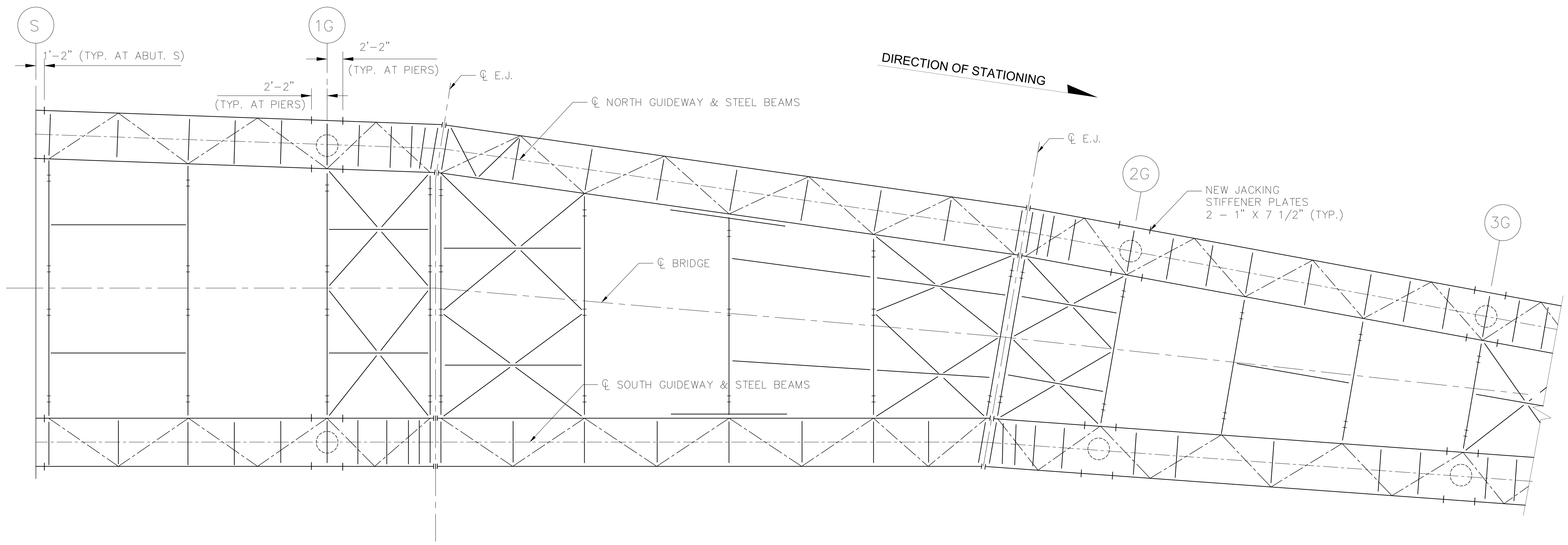
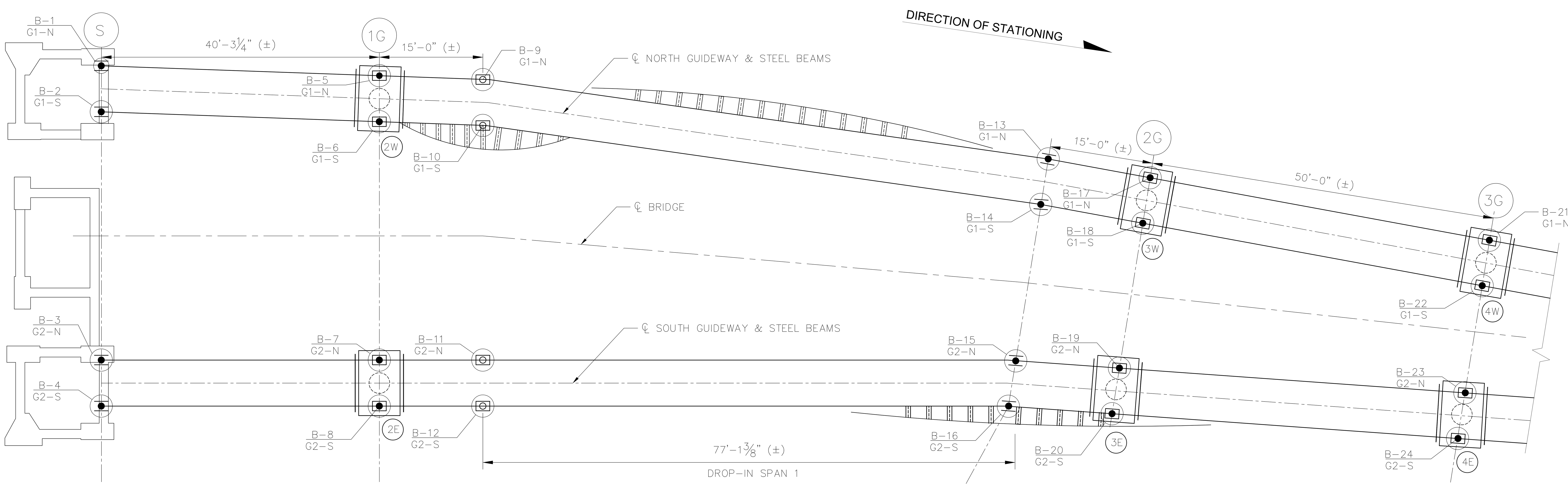
ENGINEER OF RECORD: JIMIN HUANG
FL PE NO. 66797

BID SET

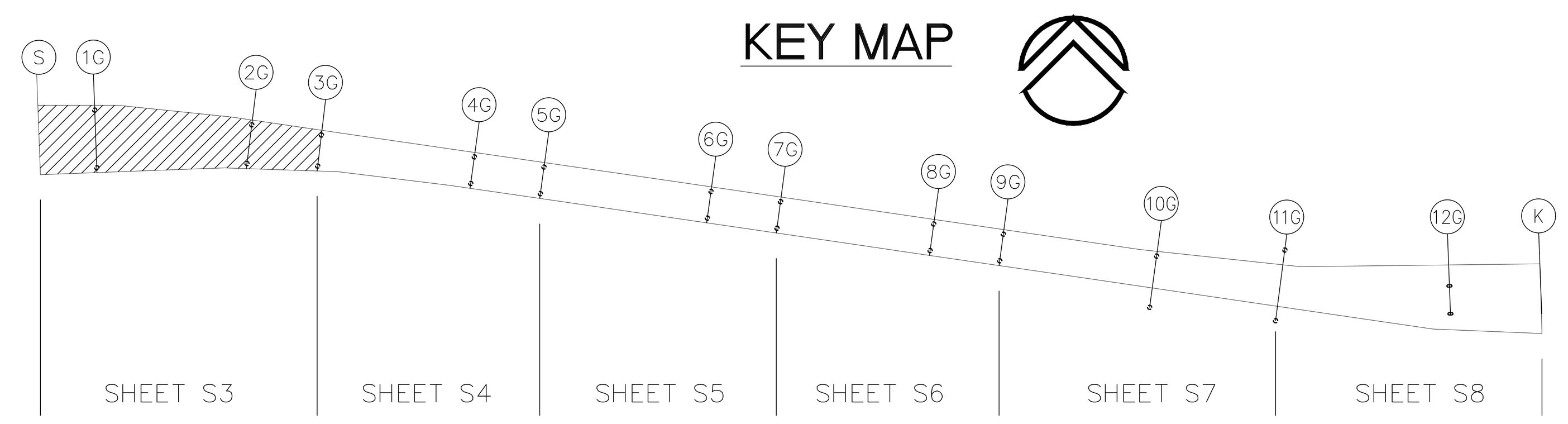


FRAMING PLAN



SCHEMATIC BEARING LAYOUT

KEY MAP



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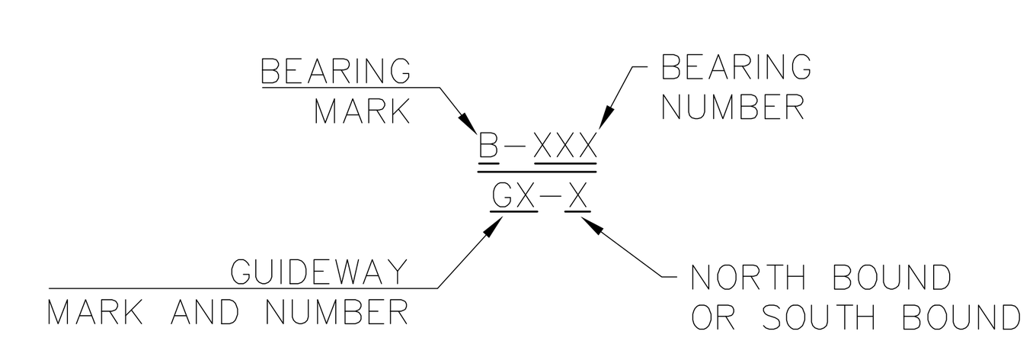

2. LABELS (2E) TO (13E) AND (2W) TO (13W) REFER TO THE PIER IDENTIFICATIONS MARKED ON EXISTING STRUCTURES.

LEGEND:

- TYPE I BEARING (GUIDED LONGITUDINALLY AS SHOWN)
- TYPE II BEARING (FIXED)
- TYPE III BEARING (FIXED)
- PIER CAP TO BE STRENGTHENED (SEE SHEET S12)

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JIMIN HUANG LICENSE No 66797 STATE OF FLORIDA PROFESSIONAL ENGINEER

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ENGINEER OF RECORD: JIMIN HUANG
FL PE NO. 66797

MARK | DESCRIPTION | DATE

ISSUE DATE: 05/25/2022
SOLICITATION NO.: -
CONTRACT NO.: -
DESIGNED BY: JD
DRAWN BY: EC
CHECKED BY: JH
SUBMITTED BY: JH
SIZE: ANSI F

MIAMI-DADE AVIATION DEPARTMENT
MIAMI INTERNATIONAL AIRPORT
MIAMI-DADE COUNTY
P.O. BOX 592075 MIAMI, FL 33159

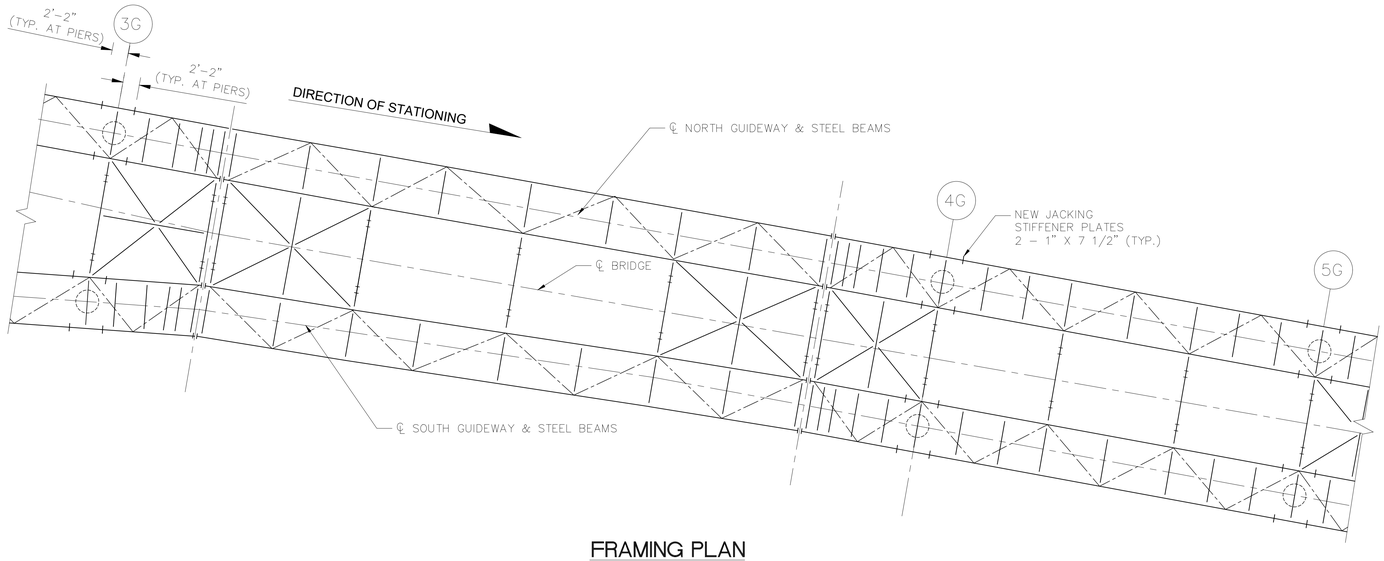
3250 WEST COMMERCIAL BOULEVARD, SUITE 100
FORT LAUDERDALE, FL 33309

MAIMI INTERNATIONAL AIRPORT
CONCOURSE "E" SATELLITE
APM BRIDGE REHABILITATION PROJECT
MDAD PROJECT NUMBER: AB003A

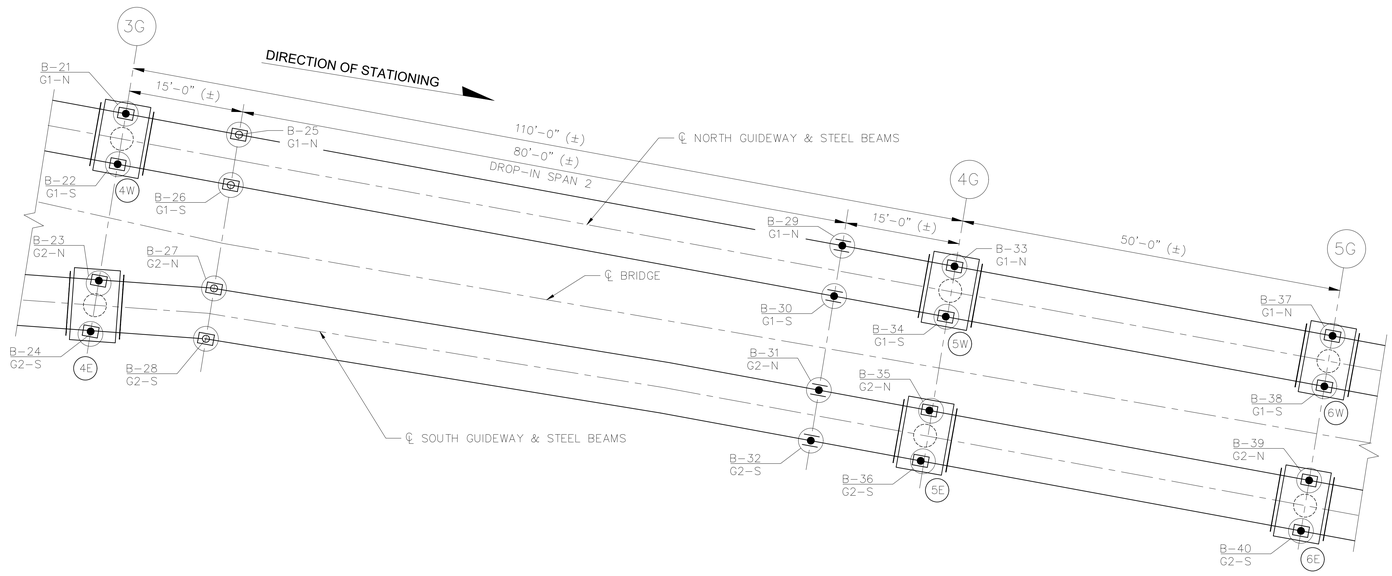
FRAMING PLAN AND BEARING LAYOUT (1 OF 6)

SHEET ID
S3

BID SET

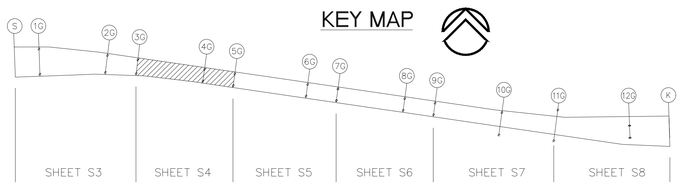


FRAMING PLAN



SCHEMATIC BEARING LAYOUT

KEY MAP



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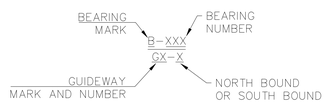
1. TYPICAL BEARINGS ARE DESIGNATED AS:



2. LABELS (2E) TO (13E) AND (2W) TO (13W) REFER TO THE PIER IDENTIFICATIONS MARKED ON EXISTING STRUCTURES.

LEGEND:

- TYPE I BEARING (GUIDED LONGITUDINALLY AS SHOWN)
- TYPE II BEARING (FIXED)
- TYPE III BEARING (FIXED)
- PIER CAP TO BE STRENGTHENED (SEE SHEET S12)

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JIMIN HUANG LICENSE No 66797 STATE OF FLORIDA PROFESSIONAL ENGINEER

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ENGINEER OF RECORD: JIMIN HUANG
FL PE NO. 66797

MARK	DESCRIPTION	DATE

DESIGNED BY:	JD
DRAWN BY:	EC
CHECKED BY:	JH
SUBMITTED BY:	JH
SIZE: ANSI F	-

ISSUE DATE: 05/25/2022
SOLICITATION NO.: -
CONTRACT NO.: -

MIAMI-DADE AVIATION DEPARTMENT
MIAMI INTERNATIONAL AIRPORT
P.O. BOX 592075 MIAMI, FL. 33159

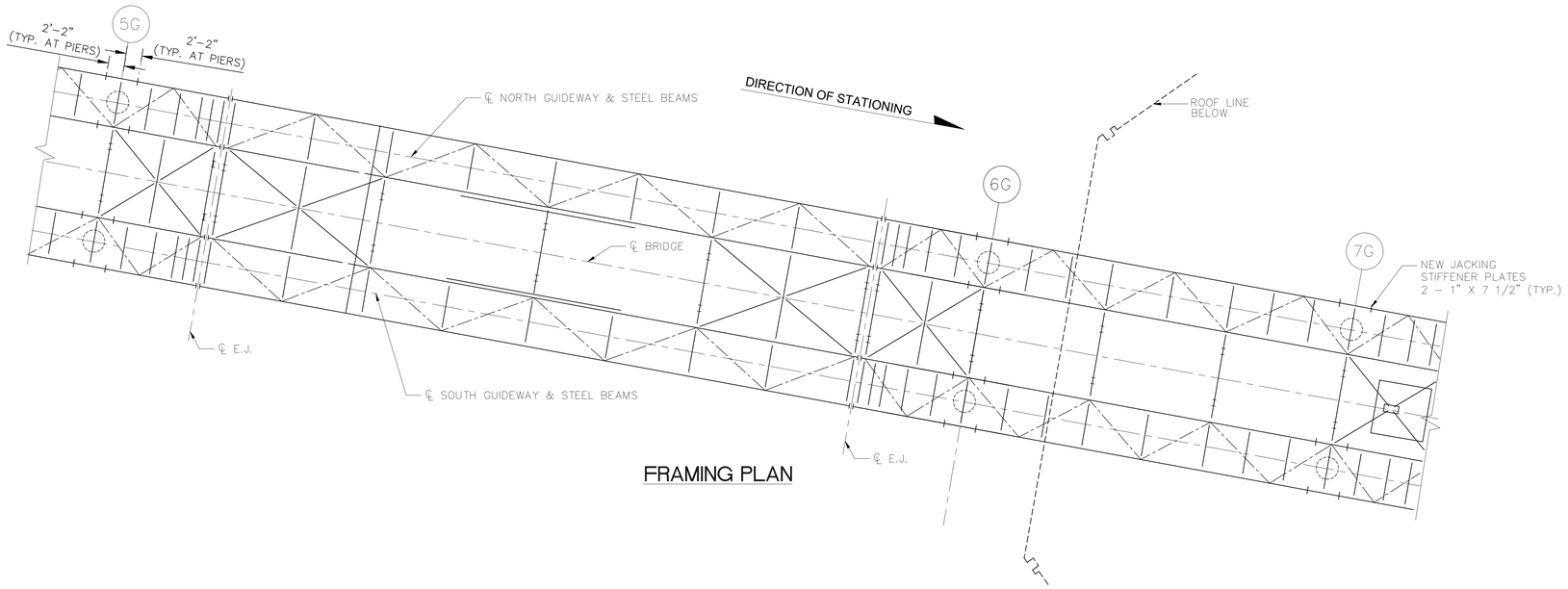
HDR
3250 WEST COMMERCIAL BOULEVARD, SUITE 100
FORT LAUDERDALE, FL. 33309

MIAMI INTERNATIONAL AIRPORT
CONCOURSE E SATELLITE
APM BRIDGE REHABILITATION PROJECT
MDAD PROJECT NUMBER: AB003A

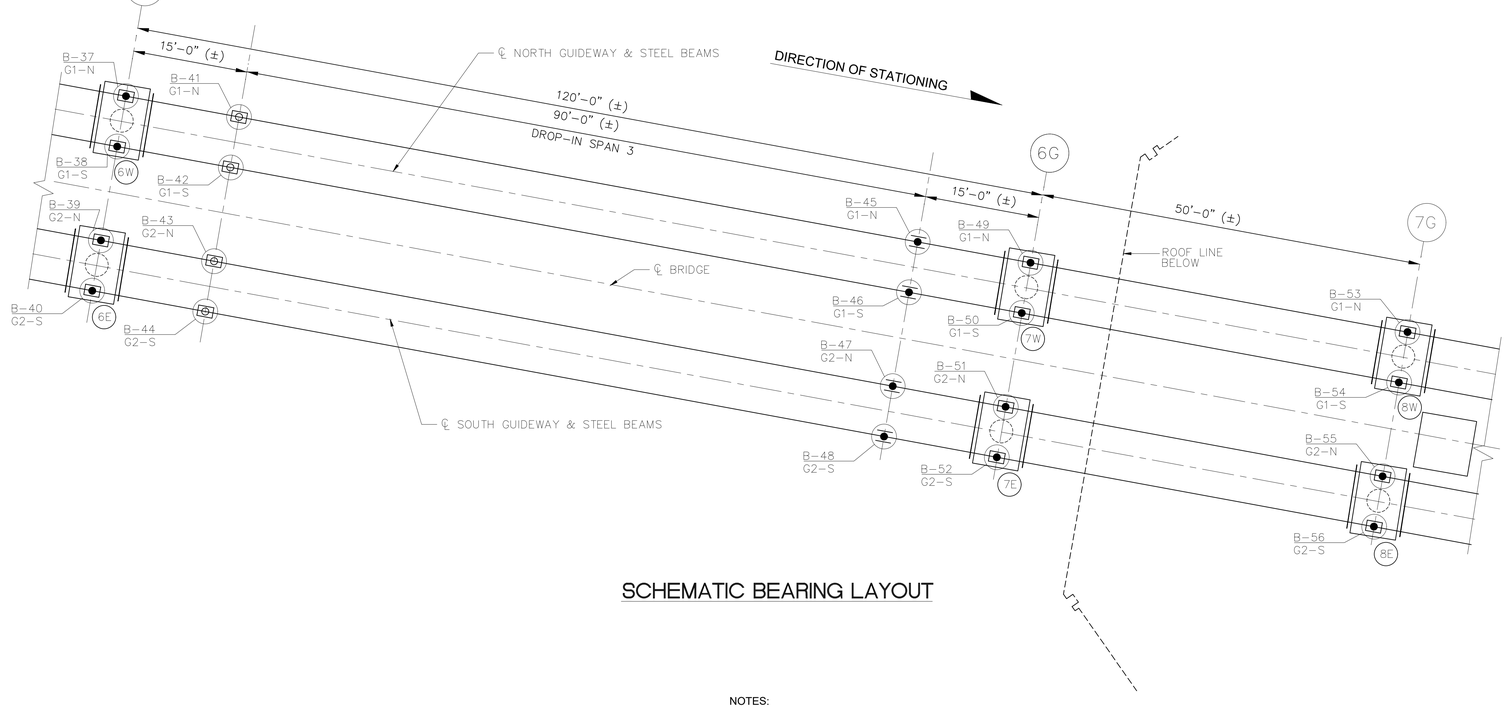
FRAMING PLAN AND BEARING LAYOUT
(2 OF 6)

SHEET ID
S4

BID SET

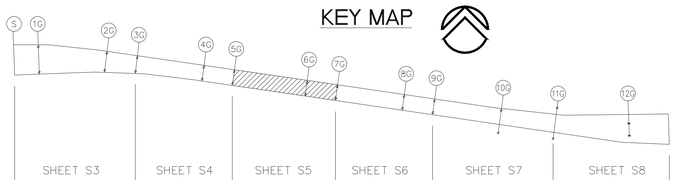


FRAMING PLAN



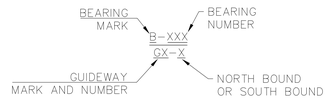
SCHEMATIC BEARING LAYOUT

KEY MAP



NOTES:

1. TYPICAL BEARINGS ARE DESIGNATED AS:



2. LABELS (2E) TO (13E) AND (2W) TO (13W) REFER TO THE PIER IDENTIFICATIONS MARKED ON EXISTING STRUCTURES.

LEGEND:

- TYPE I BEARING (GUIDED LONGITUDINALLY AS SHOWN)
- TYPE II BEARING (FIXED)
- TYPE III BEARING (FIXED)
- PIER CAP TO BE STRENGTHENED (SEE SHEET S12)

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JIMIN HUANG LICENSE No 66797 STATE OF FLORIDA PROFESSIONAL ENGINEER

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ENGINEER OF RECORD: JIMIN HUANG
FL PE NO. 66797

MIAMI-DADE COUNTY

MARK	DESCRIPTION	DATE

DESIGNED BY:	JD
DRAWN BY:	EC
CHECKED BY:	JH
SUBMITTED BY:	JH
ISSUE DATE:	05/25/2022
SOLICITATION NO.:	-
CONTRACT NO.:	-
SIZE:	ANSI F

MIAMI-DADE AVIATION DEPARTMENT
MIAMI INTERNATIONAL AIRPORT
P.O. BOX 592075 MIAMI, FL. 33159

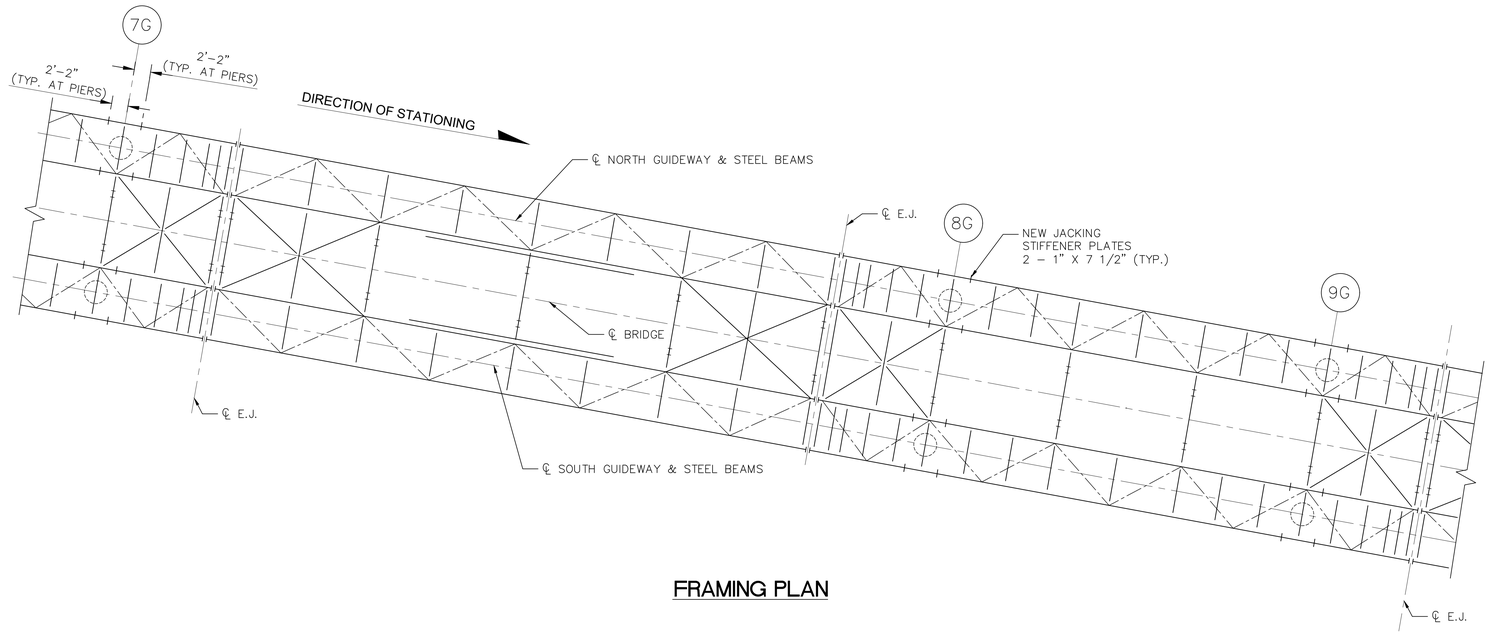
HDR
3250 WEST COMMERCIAL BOULEVARD, SUITE 100
FORT LAUDERDALE, FL 33309

MAIMI INTERNATIONAL AIRPORT
CONCOURSE "E" SATELLITE
APM BRIDGE REHABILITATION PROJECT
MDAD PROJECT NUMBER: AB003A

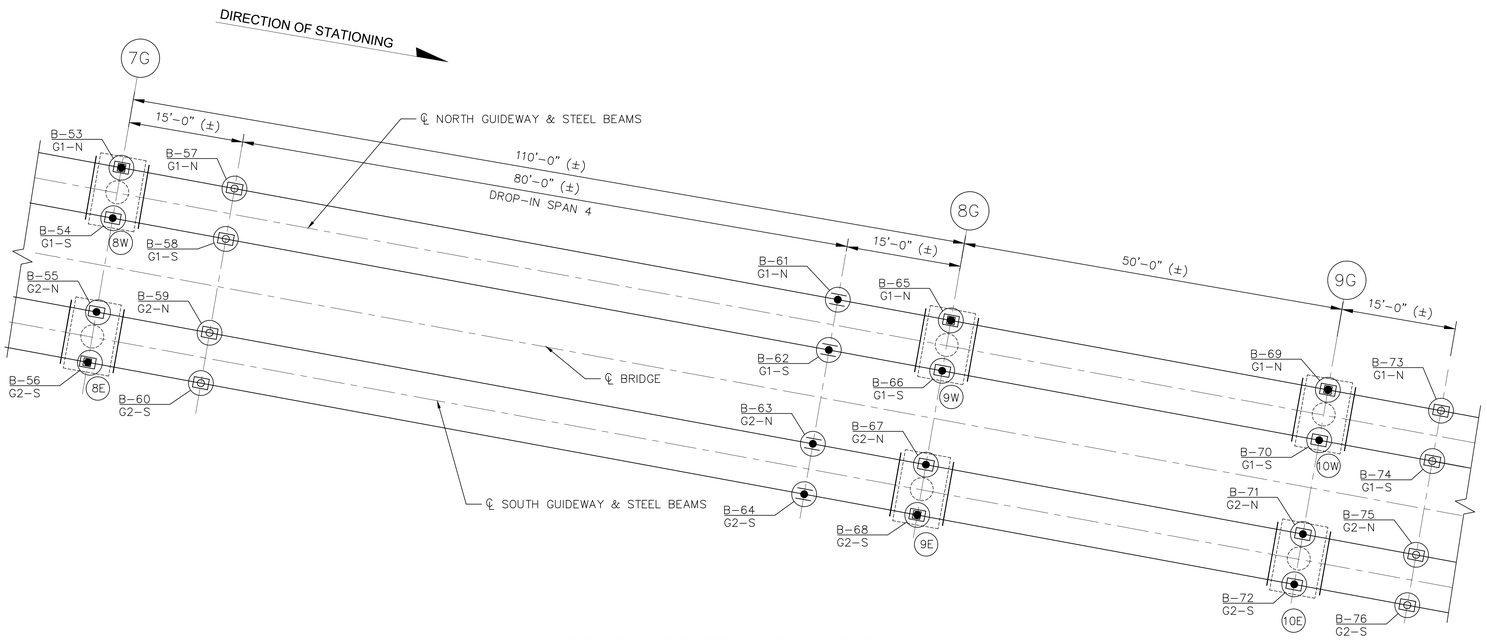
FRAMING PLAN AND BEARING LAYOUT
(3 OF 6)

SHEET ID
S5

BID SET

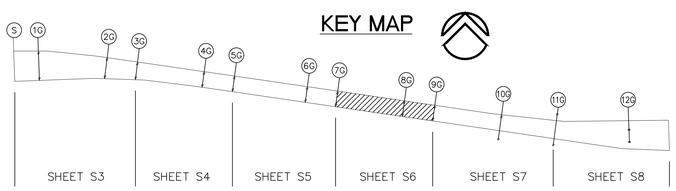


FRAMING PLAN



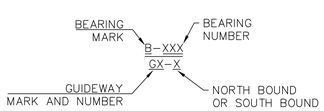
SCHEMATIC BEARING LAYOUT

KEY MAP



NOTES:

1. TYPICAL BEARINGS ARE DESIGNATED AS:



2. LABELS (2E) TO (13E) AND (2W) TO (13W) REFER TO THE PIER IDENTIFICATIONS MARKED ON EXISTING STRUCTURES.

LEGEND:

- TYPE I BEARING (GUIDED LONGITUDINALLY AS SHOWN)
- TYPE II BEARING (FIXED)
- TYPE III BEARING (FIXED)
- | | PIER CAP TO BE STRENGTHENED (SEE SHEET S12)

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JIMIN HUANG LICENSE No 66797 STATE OF FLORIDA PROFESSIONAL ENGINEER

Jimin Huang
2024.03.13
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ENGINEER OF RECORD: JIMIN HUANG
FL PE NO. 66797

MIAMI-DADE AVIATION DEPARTMENT
MIAMI INTERNATIONAL AIRPORT
P.O. BOX 592075 MIAMI, FL. 33159

HDR
3250 WEST COMMERCIAL BOULEVARD, SUITE 100
FORT LAUDERDALE, FL 33309

MARK	DESCRIPTION	DATE

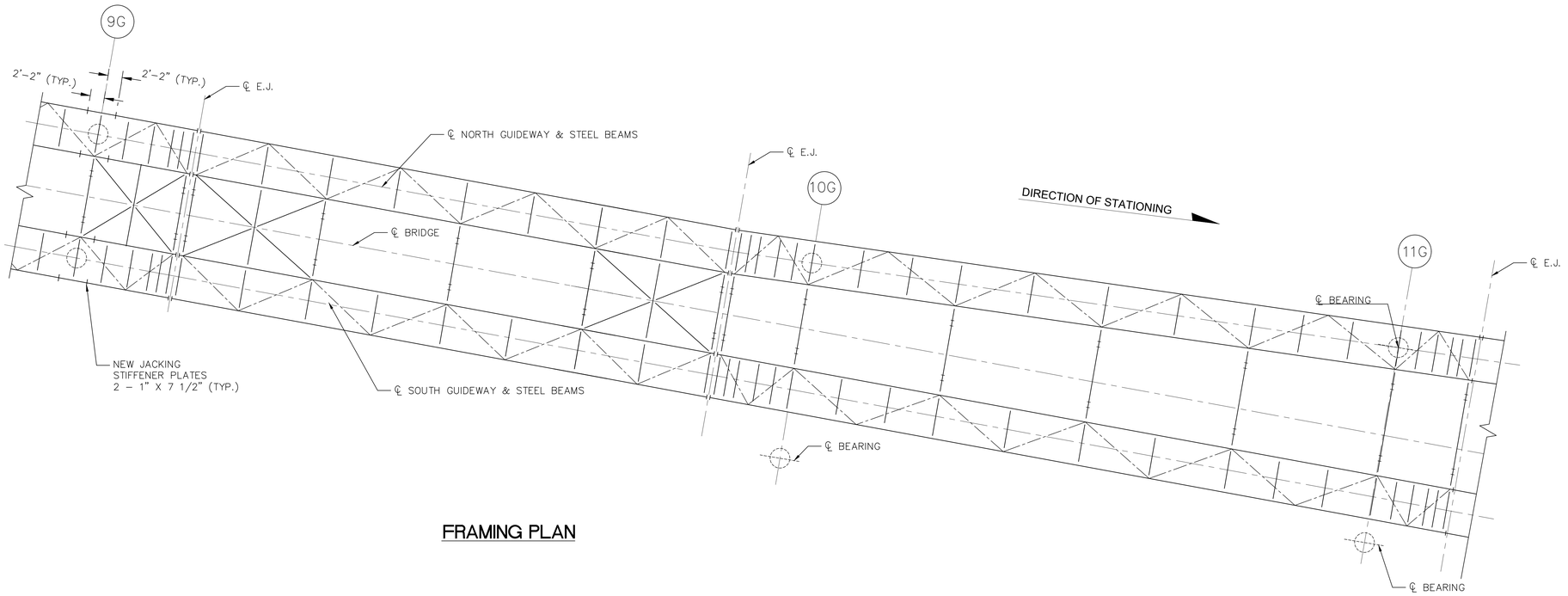
DESIGNED BY:	JD
DRAWN BY:	EC
CHECKED BY:	JH
SUBMITTED BY:	JH
ISSUE DATE:	05/25/2022
SOLICITATION NO.:	-
CONTRACT NO.:	-
SIZE:	ANSI F

MIAMI INTERNATIONAL AIRPORT
CONCOURSE E SATELLITE
APM BRIDGE REHABILITATION PROJECT
MDAD PROJECT NUMBER: AB003A

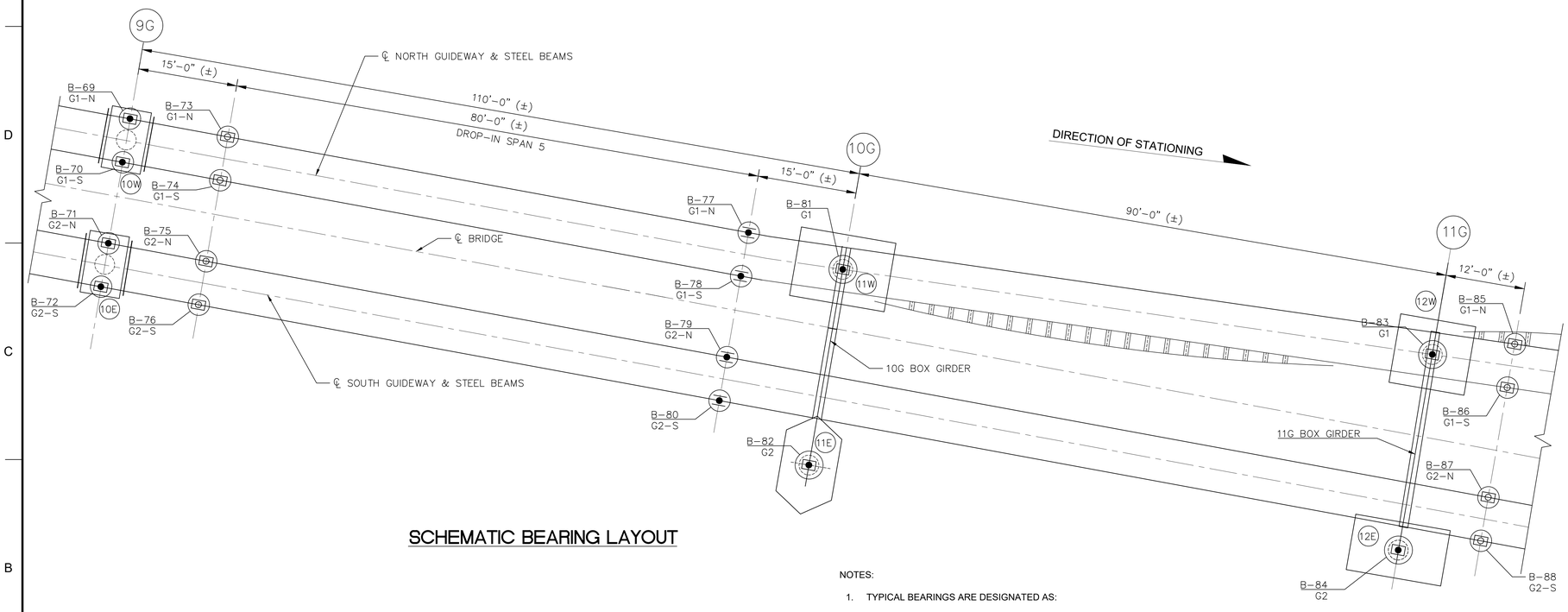
FRAMING PLAN AND BEARING LAYOUT
(4 OF 6)

SHEET ID
S6

BID SET

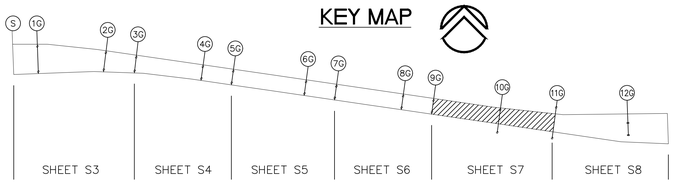


FRAMING PLAN



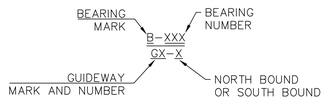
SCHEMATIC BEARING LAYOUT

KEY MAP



NOTES:

1. TYPICAL BEARINGS ARE DESIGNATED AS:



2. LABELS (2E) TO (13E) AND (2W) TO (13W) REFER TO THE PIER IDENTIFICATIONS MARKED ON EXISTING STRUCTURES.
3. LOCATIONS OF PIERS 10G AND 11G COLUMNS SHOWN ON THE SHEET ARE APPROXIMATE AND ARE BASED ON FIELD CONDITION. THE COLUMN SPACING FOR PIERS 10G AND 11G ON AS-BUILT PLANS DIDN'T REFLECT THE ACTURAL FIELD CONDITION. THE CONTRACTOR SHALL VERIFY THE COLUMN LOCATIONS AND ASSOCIATED STRUCTURE CONFIGURATIONS AND DIMENSIONS BASED ON A SURVEY.

LEGEND:

- TYPE I BEARING (GUIDED LONGITUDINALLY AS SHOWN)
- TYPE II BEARING (FIXED)
- TYPE III BEARING (FIXED)
- | | PIER CAP TO BE STRENGTHENED (SEE SHEET S12)

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JIMIN HUANG LICENSE No 66797 STATE OF FLORIDA PROFESSIONAL ENGINEER

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ENGINEER OF RECORD: JIMIN HUANG
FL PE NO. 66797

MARK	DESCRIPTION	DATE

DESIGNED BY: JD
DRAWN BY: EC
CHECKED BY: JH
SUBMITTED BY: JH
ISSUE DATE: 05/25/2022
SOLICITATION NO.: -
CONTRACT NO.: -
SIZE: ANSI F -

MIAMI-DADE AVIATION DEPARTMENT
MIAMI INTERNATIONAL AIRPORT
MIAMI-DADE COUNTY
P.O. BOX 592075 MIAMI, FL 33159

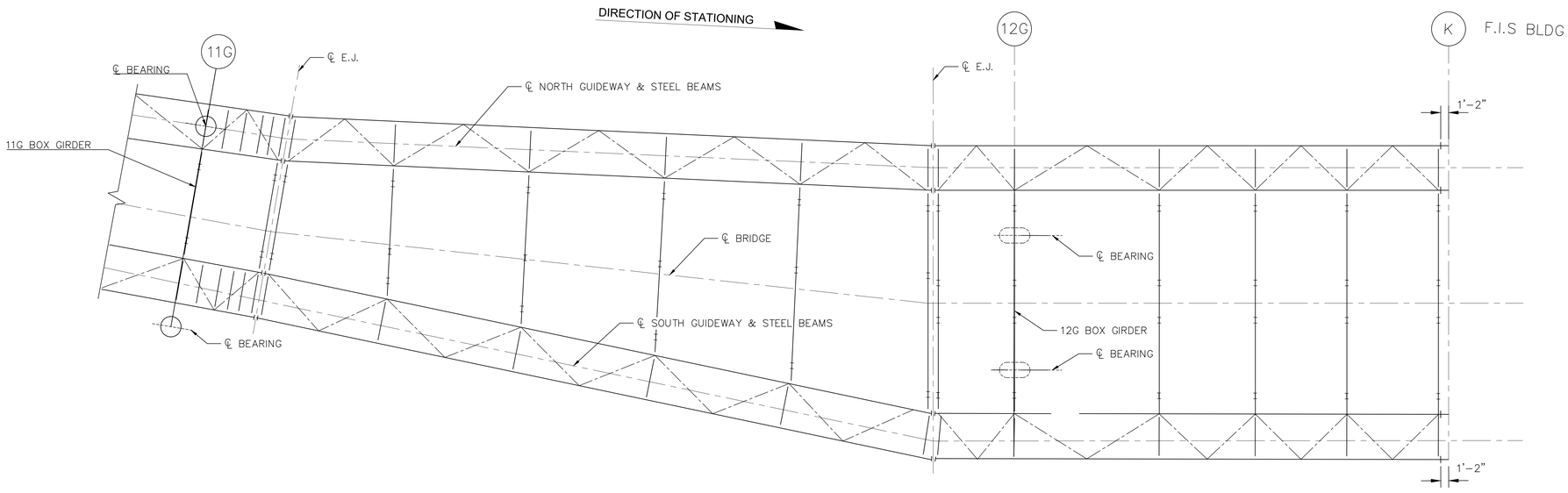
HDR
3250 WEST COMMERCIAL BOULEVARD, SUITE 100
FORT LAUDERDALE, FL 33309

MAIMI INTERNATIONAL AIRPORT
CONCOURSE "E" SATELLITE
APM BRIDGE REHABILITATION PROJECT
MDAD PROJECT NUMBER: AB003A

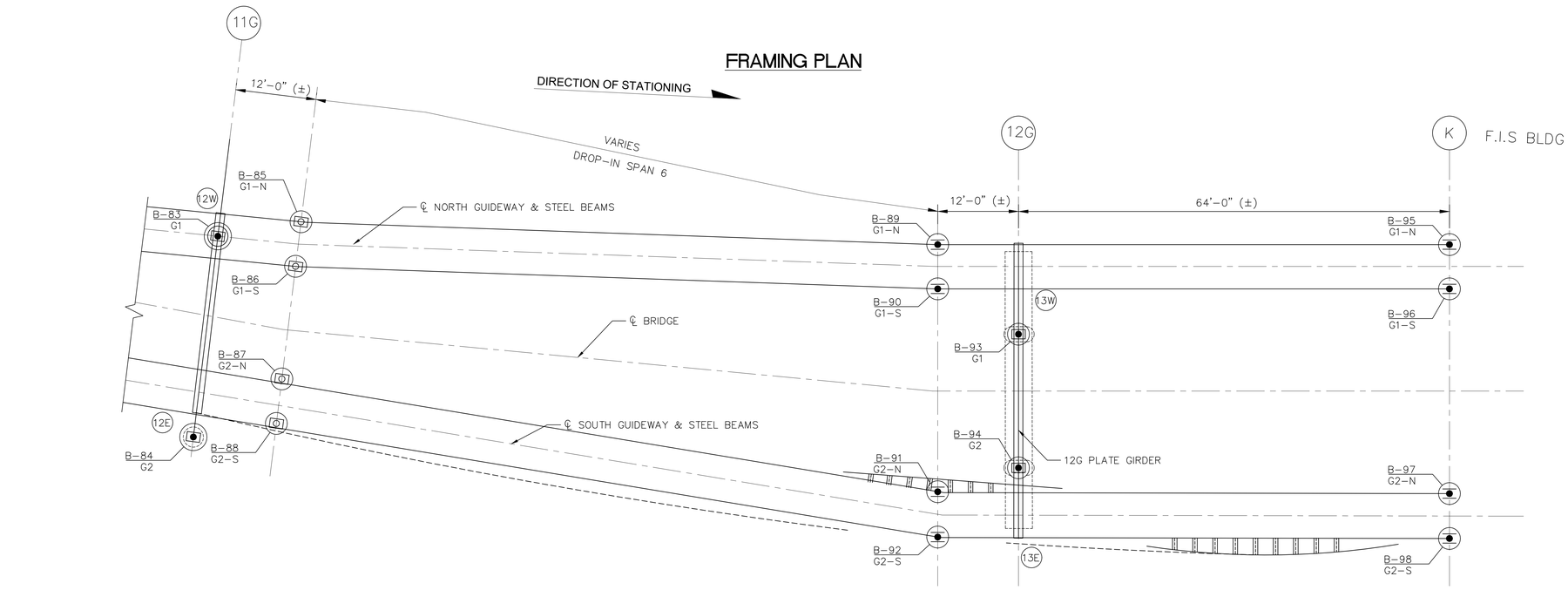
FRAMING PLAN AND BEARING LAYOUT
(5 OF 6)

SHEET ID
S7

BID SET

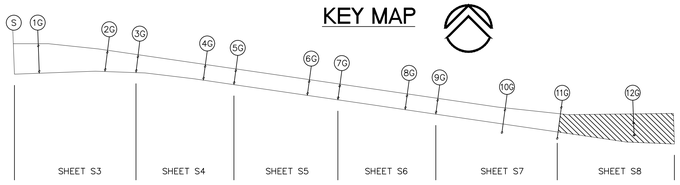


FRAMING PLAN



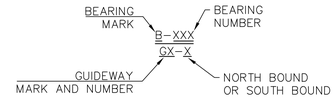
SCHEMATIC BEARING LAYOUT

KEY MAP



NOTES:

1. TYPICAL BEARINGS ARE DESIGNATED AS:



2. LABELS (2E) TO (3E) AND (2W) TO (3W) REFER TO THE PIER IDENTIFICATIONS MARKED ON EXISTING STRUCTURES.

3. LOCATIONS OF PIER11G COLUMNS SHOWN ON THE SHEET ARE APPROXIMATE AND ARE BASED ON FIELD CONDITION. THE COLUMN SPACING FOR PIER 11G ON AS-BUILT PLANS DIDN'T REFLECT THE ACTURAL FIELD CONDITION. THE CONTRACTOR SHALL VERIFY THE COLUMN LOCATION AND ASSOCIATED STRUCTURE CONFIGURATIONS AND DIMENSIONS BASED ON A SURVEY.

LEGEND:

- TYPE I BEARING (GUIDED LONGITUDINALLY AS SHOWN)
- TYPE II BEARING (FIXED)
- TYPE III BEARING (FIXED)

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07:55:03-04'00'

ENGINEER OF RECORD: JIMIN HUANG
FL PE NO. 66797

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DESIGNED BY: JD
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ISSUE DATE: 05/25/2022
SOLICITATION NO.: -
CONTRACT NO.: -

MIAMI-DADE AVIATION DEPARTMENT
MIAMI INTERNATIONAL AIRPORT
MIAMI-DADE COUNTY
P.O. BOX 592075 MIAMI, FL. 33159

HDR
3250 WEST COMMERCIAL BOULEVARD, SUITE 100
FORT LAUDERDALE, FL 33309

MAIMI INTERNATIONAL AIRPORT
CONCOURSE "E" SATELLITE
APM BRIDGE REHABILITATION PROJECT
MDAD PROJECT NUMBER: AB003A

FRAMING PLAN AND BEARING LAYOUT (6 OF 6)

SHEET ID
S8

BID SET

BEARING DATA TABLE

BEARING ID	LOCATION	GIRDER	BEVELED BEARING PLATE AND MASONRY PLATE DIMENSIONS								ANCHOR BOLT DATA			BEARING PAD DATA			
			A (INCHES)	B (INCHES)	C (INCHES)	D (INCHES)	E (INCHES)	F (INCHES)	T (INCHES)	α (DEGREES)	ANCHOR BOLT DIAMETER (INCHES)	DIM.H (INCHES)	DIM.S (INCHES)	DIM.W (INCHES)	DIM.L (INCHES)	NO. OF INTERNAL LAYERS N	TOTAL HEIGHT H (INCHES)
B-1	ABUT. S	G1-N	1 1/4	1 1/2	1 1/4	1 1/2	15	33	0 3/8	90	2	2 1/4	3 1/4	10	10	1	1 5/32
B-2		G1-S	1 1/4	1 1/2	1 1/4	1 1/2	15	33	0 3/8	90	2	2 1/4	3 1/4	10	10	1	1 5/32
B-3		G2-N	1 1/4	1 1/2	1 1/4	1 1/2	15	33	0 3/8	90	2	2 1/4	3 1/4	10	10	1	1 5/32
B-4		G2-S	1 1/4	1 1/2	1 1/4	1 1/2	15	33	0 3/8	90	2	2 1/4	3 1/4	10	10	1	1 5/32
B-5	1G	G1-N	0 5/8	1	0 5/8	1	22	28	0 1/2	90	1 5/8	1 7/8	1 7/8	15	15	2	1 21/32
B-6		G1-S	0 5/8	1	0 5/8	1	23	28	0 1/2	90	2 7/8	3 1/8	3 1/8	16	16	2	1 21/32
B-7		G2-N	0 5/8	1	0 5/8	1	23	28	0 1/2	90	2 7/8	3 1/8	3 1/8	16	16	2	1 21/32
B-8		G2-S	0 5/8	1	0 5/8	1	22	28	0 1/2	90	1 5/8	1 7/8	1 7/8	15	15	2	1 21/32
B-9	DROP-IN SPAN 1	G1-N	0 3/8	0 5/8	0 3/8	0 5/8	13	13	0 3/8	90	--	--	--	10	10	2	1 15/32
B-10		G1-S	0 3/8	0 5/8	0 3/8	0 5/8	13	13	0 3/8	90	--	--	--	10	10	2	1 15/32
B-11		G2-N	0 3/8	0 5/8	0 3/8	0 5/8	13	13	0 1/2	90	--	--	--	10	10	2	1 15/32
B-12		G2-S	0 3/8	0 5/8	0 3/8	0 5/8	13	13	0 3/8	90	--	--	--	10	10	2	1 15/32
B-13*	DROP-IN SPAN 1	G1-N	0 3/8	0 5/8	0 3/8	0 5/8	13	13	0 3/8	90	--	--	--	10	10	1	1 5/32
B-14*		G1-S	0 3/8	0 5/8	0 3/8	0 5/8	13	13	0 3/8	90	--	--	--	10	10	1	1 5/32
B-15*		G2-N	0 3/8	0 5/8	0 3/8	0 5/8	13	13	0 3/8	90	--	--	--	10	10	1	1 5/32
B-16*		G2-S	0 3/8	0 5/8	0 3/8	0 5/8	13	13	0 3/8	90	--	--	--	10	10	1	1 5/32
B-17	2G	G1-N	0 3/8	1 1/4	0 3/8	1 1/4	22	28	0 1/2	90	1 5/8	1 7/8	1 7/8	15	15	2	1 21/32
B-18		G1-S	0 3/8	1 1/4	0 3/8	1 1/4	23	28	0 1/2	90	2 1/2	2 3/4	2 3/4	16	16	2	1 21/32
B-19		G2-N	0 3/8	1 1/4	0 3/8	1 1/4	23	28	0 1/2	90	2 1/2	2 3/4	2 3/4	16	16	2	1 21/32
B-20		G2-S	0 3/8	1 1/4	0 3/8	1 1/4	22	28	0 1/2	90	1 5/8	1 7/8	1 7/8	15	15	2	1 21/32
B-21	3G	G1-N	0 3/8	1 1/4	0 3/8	1 1/4	21	28	0 1/2	90	1 5/8	1 7/8	1 7/8	14	14	2	1 21/32
B-22		G1-S	0 3/8	1 1/4	0 3/8	1 1/4	22	28	0 1/2	90	2	2 1/4	2 1/4	15	15	2	1 21/32
B-23		G2-N	0 3/8	1 1/4	0 3/8	1 1/4	22	28	0 1/2	90	2	2 1/4	2 1/4	15	15	2	1 21/32
B-24		G2-S	0 3/8	1 1/4	0 3/8	1 1/4	21	28	0 1/2	90	1 5/8	1 7/8	1 7/8	14	14	2	1 21/32
B-25	DROP-IN SPAN 2	G1-N	0 3/8	0 7/8	0 3/8	0 7/8	13	13	0 5/8	90	--	--	--	10	10	2	1 15/32
B-26		G1-S	0 3/8	0 7/8	0 3/8	0 7/8	13	13	0 5/8	90	--	--	--	10	10	2	1 15/32
B-27		G2-N	0 3/8	0 7/8	0 3/8	0 7/8	13	13	0 1/2	90	--	--	--	10	10	2	1 15/32
B-28		G2-S	0 3/8	0 7/8	0 3/8	0 7/8	13	13	0 1/2	90	--	--	--	10	10	2	1 15/32
B-29*	DROP-IN SPAN 2	G1-N	0 3/8	0 7/8	0 3/8	0 7/8	13	13	0 3/8	90	--	--	--	10	10	1	1 5/32
B-30*		G1-S	0 3/8	0 7/8	0 3/8	0 7/8	13	13	0 1/2	90	--	--	--	10	10	1	1 5/32
B-31*		G2-N	0 3/8	0 7/8	0 3/8	0 7/8	13	13	0 3/8	90	--	--	--	10	10	1	1 5/32
B-32*		G2-S	0 3/8	0 7/8	0 3/8	0 7/8	13	13	0 3/8	90	--	--	--	10	10	1	1 5/32
B-33	4G	G1-N	0 3/8	1 1/4	0 3/8	1 1/4	21	28	0 1/2	90	1 5/8	1 7/8	1 7/8	14	14	2	1 21/32
B-34		G1-S	0 3/8	1 1/4	0 3/8	1 1/4	22	28	0 1/2	90	2	2 1/4	2 1/4	15	15	2	1 21/32
B-35		G2-N	0 3/8	1 1/4	0 3/8	1 1/4	22	28	0 1/2	90	2	2 1/4	2 1/4	15	15	2	1 21/32
B-36		G2-S	0 3/8	1 1/4	0 3/8	1 1/4	21	28	0 1/2	90	1 5/8	1 7/8	1 7/8	14	14	2	1 21/32
B-37	5G	G1-N	0 3/8	1 1/4	0 3/8	1 1/4	22	28	0 1/2	90	1 5/8	1 7/8	1 7/8	15	15	2	1 21/32
B-38		G1-S	0 3/8	1 1/4	0 3/8	1 1/4	23	28	0 1/2	90	2	2 1/4	2 1/4	16	16	2	1 21/32
B-39		G2-N	0 3/8	1 1/4	0 3/8	1 1/4	23	28	0 1/2	90	2	2 1/4	2 1/4	16	16	2	1 21/32
B-40		G2-S	0 3/8	1 1/4	0 3/8	1 1/4	22	28	0 1/2	90	1 5/8	1 7/8	1 7/8	15	15	2	1 21/32
B-41	DROP-IN SPAN 3	G1-N	0 3/8	0 7/8	0 3/8	0 7/8	13	13	0 3/8	90	--	--	--	10	10	2	1 15/32
B-42		G1-S	0 3/8	0 7/8	0 3/8	0 7/8	13	13	0 3/4	90	--	--	--	10	10	2	1 15/32
B-43		G2-N	0 3/8	0 7/8	0 3/8	0 7/8	13	13	0 3/4	90	--	--	--	10	10	2	1 15/32
B-44		G2-S	0 3/8	0 7/8	0 3/8	0 7/8	13	13	0 3/8	90	--	--	--	10	10	2	1 15/32
B-45*	DROP-IN SPAN 3	G1-N	0 3/8	0 7/8	0 3/8	0 7/8	13	13	0 3/8	90	--	--	--	10	10	1	1 5/32
B-46*		G1-S	0 3/8	0 7/8	0 3/8	0 7/8	13	13	0 3/8	90	--	--	--	10	10	1	1 5/32
B-47*		G2-N	0 3/8	0 7/8	0 3/8	0 7/8	13	13	0 3/8	90	--	--	--	10	10	1	1 5/32
B-48*		G2-S	0 3/8	0 7/8	0 3/8	0 7/8	13	13	0 3/8	90	--	--	--	10	10	1	1 5/32
B-49	6G	G1-N	0 3/8	1 1/4	0 3/8	1 1/4	21	28	0 1/2	90	1 5/8	1 7/8	1 7/8	14	14	2	1 21/32
B-50		G1-S	0 3/8	1 1/4	0 3/8	1 1/4	22	28	0 1/2	90	2	2 1/4	2 1/4	15	15	2	1 21/32
B-51		G2-N	0 3/8	1 1/4	0 3/8	1 1/4	22	28	0 1/2	90	2	2 1/4	2 1/4	15	15	2	1 21/32
B-52		G2-S	0 3/8	1 1/4	0 3/8	1 1/4	21	28	0 1/2	90	1 5/8	1 7/8	1 7/8	14	14	2	1 21/32
B-53	7G	G1-N	0 3/8	1 1/4	0 3/8	1 1/4	21	28	0 1/2	90	1 5/8	1 7/8	1 7/8	14	14	2	1 21/32
B-54		G1-S	0 3/8	1 1/4	0 3/8	1 1/4	22	28	0 1/2	90	2	2 1/4	2 1/4	15	15	2	1 21/32
B-55		G2-N	0 3/8	1 1/4	0 3/8	1 1/4	22	28	0 1/2	90	2	2 1/4	2 1/4	15	15	2	1 21/32
B-56		G2-S	0 3/8	1 1/4	0 3/8	1 1/4	21	28	0 1/2	90	1 5/8	1 7/8	1 7/8	14	14	2	1 21/32
B-57	DROP-IN SPAN 4	G1-N	0 1/2	0 3/4	0 1/2	0 3/4	13	13	0 3/8	90	--	--	--	10	10	2	1 15/32
B-58		G1-S	0 1/2	0 3/4	0 1/2	0 3/4	13	13	0 3/8	90	--	--	--	10	10	2	1 15/32
B-59		G2-N	0 1/2	0 3/4	0 1/2	0 3/4	13	13	0 1/2	90	--	--	--	10	10	2	1 15/32
B-60		G2-S	0 1/2	0 3/4	0 1/2	0 3/4	13	13	0 5/8	90	--	--	--	10	10	2	1 15/32
B-61*	DROP-IN SPAN 4	G1-N	0 1/2	0 3/4	0 1/2	0 3/4	13	13	0 3/8	90	--	--	--	10	10	1	1 5/32
B-62*		G1-S	0 1/2	0 3/4	0 1/2	0 3/4	13	13	0 3/8	90	--	--	--	10	10	1	1 5/32
B-63*		G2-N	0 1/2	0 3/4	0 1/2	0 3/4	13	13	0 5/8	90	--	--	--	10	10	1	1 5/32
B-64*		G2-S	0 1/2	0 3/4	0 1/2	0 3/4	13	13	0 5/8	90	--	--	--	10	10	1	1 5/32
B-65	8G	G1-N	0 3/4	0 3/4	0 3/4	0 3/4	21	28	0 1/2	90	1 5/8	1 7/8	1 7/8	14	14	2	1 21/32
B-66		G1-S	0 3/4	0 3/4	0 3/4	0 3/4	22	28	0 1/2	90	2	2 1/4	2 1/4	15	15	2	1 21/32
B-67		G2-N	0 3/4	0 3/4	0 3/4	0 3/4	22	28	0 1/2	90	2	2 1/4	2 1/4	15	15	2	1 21/32
B-68		G2-S	0 3/4	0 3/4	0 3/4	0 3/4	21	28	0 1/2	90	1 5/8	1 7/8	1 7/8	14	14	2	1 21/32
B-69	9G	G1-N	0 3/4	0 3/4	0 3/4	0 3/4	21	28	0 1/2	90	1 5/8	1 7/8	1 7/8	14	14	2	1 21/32
B-70		G1-S	0 3/4	0 3/4	0 3/4	0 3/4	22	28	0 1/2	90	2	2 1/4	2 1/4	15	15	2	1 21/32
B-71		G2-N	0 3/4	0 3/4	0 3/4	0 3/4	22	28	0 1/2	90	2	2 1/4	2 1/4	15	15	2	1 21/32

* PTFE AND STAINLESS STEEL PLATES ARE REQUIRED FOR THE BEARINGS. THE HEIGHT OF THE PTFE AND STAINLESS STEEL PLATES, 9/32" IN TOTAL, IS NOT INCLUDED IN THE TOTAL HEIGHT "H" SHOWN IN THE TABLE.

NOTES:

1. FOR BEARING DETAILS SEE BEARING DETAILS SHEETS.
2. SEE FRAMING PLAN AND BEARING LAYOUT SHEETS FOR SUPPORT AND BEARING LOCATIONS.
3. FOR OTHER NOTES SEE BEARING DATA TABLE (2 OF 2) SHEET.

JIMIN HUANG LICENSE No 66797 STATE OF FLORIDA PROFESSIONAL ENGINEER

Jimin Huang
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ENGINEER OF RECORD: JIMIN HUANG
FL PE NO. 66797

MIAMI-DADE AVIATION

MARK	DESCRIPTION	DATE

DESIGNED BY: JD
DRAWN BY: EC
CHECKED BY: JH
SUBMITTED BY: JH
ISSUE DATE: 05/25/2022
SOLICITATION NO.: -
CONTRACT NO.: -
SIZE: ANSI F -

MIAMI-DADE AVIATION DEPARTMENT
MIAMI INTERNATIONAL AIRPORT
P.O. BOX 592075 MIAMI, FL. 33159

HDR
3250 WEST COMMERCIAL BOULEVARD, SUITE 100
FORT LAUDERDALE, FL 33309

MIAMI INTERNATIONAL AIRPORT
CONCOURSE "H" SATELLITE
APM BRIDGE REHABILITATION PROJECT
MDAD PROJECT NUMBER: ABI003A

BEARING DATA TABLE (1 OF 2)

SHEET ID
S9

BID SET

BEARING DATA TABLE

BEARING ID	LOCATION	GIRDER	BEVELED BEARING PLATE AND MASONRY PLATE DIMENSIONS								ANCHOR BOLT DATA			BEARING PAD DATA			
			A (INCHES)	B (INCHES)	C (INCHES)	D (INCHES)	E (INCHES)	F (INCHES)	T (INCHES)	α (DEGREES)	ANCHOR BOLT DIAMETER (INCHES)	DIM.H (INCHES)	DIM.S (INCHES)	DIM.W (INCHES)	DIM.L (INCHES)	NO. OF INTERNAL LAYERS N	TOTAL HEIGHT H (INCHES)
B-72		G2-S	0 3/4	0 3/4	0 3/4	0 3/4	21	28	0 1/2	90	1 5/8	1 7/8	1 7/8	14	14	2	1 21/32
B-73		G1-N	0 3/4	0 1/2	0 3/4	0 1/2	13	13	0 3/8	90	--	--	--	10	10	2	1 15/32
B-74	DROP-IN SPAN 5	G1-S	0 3/4	0 1/2	0 3/4	0 1/2	13	13	0 1/2	90	--	--	--	10	10	2	1 15/32
B-75		G2-N	0 3/4	0 1/2	0 3/4	0 1/2	13	13	0 3/8	90	--	--	--	10	10	2	1 15/32
B-76		G2-S	0 3/4	0 1/2	0 3/4	0 1/2	13	13	0 3/8	90	--	--	--	10	10	2	1 15/32
B-77*		G1-N	0 3/4	0 1/2	0 3/4	0 1/2	13	13	0 3/8	90	--	--	--	10	10	1	1 5/32
B-78*	DROP-IN SPAN 5	G1-S	0 3/4	0 1/2	0 3/4	0 1/2	13	13	0 3/8	90	--	--	--	10	10	1	1 5/32
B-79*		G2-N	0 3/4	0 1/2	0 3/4	0 1/2	13	13	0 3/8	90	--	--	--	10	10	1	1 5/32
B-80*		G2-S	0 3/4	0 1/2	0 3/4	0 1/2	13	13	0 3/8	90	--	--	--	10	10	1	1 5/32
B-81	10G	N	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
B-82		S	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
B-83	11G	N	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
B-84		S	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
B-85		G1-N	0 1/2	0 3/4	0 1/2	0 3/4	13	13	0 3/8	90	--	--	--	10	10	2	1 15/32
B-86	DROP-IN SPAN 6	G1-S	0 1/2	0 3/4	0 1/2	0 3/4	13	13	0 3/8	90	--	--	--	10	10	2	1 15/32
B-87		G2-N	0 1/2	0 3/4	0 1/2	0 3/4	13	13	0 1/2	90	--	--	--	10	10	2	1 15/32
B-88		G2-S	0 1/2	0 3/4	0 1/2	0 3/4	13	13	0 3/8	90	--	--	--	10	10	2	1 15/32
B-89*		G1-N	0 1/2	0 3/4	0 1/2	0 3/4	13	13	0 3/8	90	--	--	--	10	10	1	1 5/32
B-90*	DROP-IN SPAN 6	G1-S	0 1/2	0 3/4	0 1/2	0 3/4	13	13	0 3/8	90	--	--	--	10	10	1	1 5/32
B-91*		G2-N	0 1/2	0 3/4	0 1/2	0 3/4	13	13	0 3/8	90	--	--	--	10	10	1	1 5/32
B-92*		G2-S	0 1/2	0 3/4	0 1/2	0 3/4	13	13	0 3/8	90	--	--	--	10	10	1	1 5/32
B-93	12G	N	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
B-94		S	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
B-95	F.I.S. BLDG	G1-N	0 1/2	0 1/2	0 1/2	0 1/2	14	28	0 5/8	90	1	1 1/4	2 3/8	10	10	2	1 15/32
B-96		G1-S	0 1/2	0 1/2	0 1/2	0 1/2	14	28	0 5/8	90	1	1 1/4	2 3/8	10	10	2	1 15/32
B-97		G2-N	0 1/2	0 1/2	0 1/2	0 1/2	14	28	0 5/8	90	1	1 1/4	2 3/8	10	10	2	1 15/32
B-98		G2-S	0 1/2	0 1/2	0 1/2	0 1/2	14	28	0 5/8	90	1	1 1/4	2 3/8	10	10	2	1 15/32

* PTFE AND STAINLESS STEEL PLATES ARE REQUIRED FOR THE BEARINGS. THE HEIGHT OF THE PTFE AND STAINLESS STEEL PLATES, 9/32" IN TOTAL, IS NOT INCLUDED IN THE TOTAL HEIGHT "H" SHOWN IN THE TABLE.

NOTES:

1. THE SIZES OF THE BEARING PLATES SHOWIN IN THE TABLE ARE BASED ON THE INFORMATION FROM THE INSPECTION REPORT. THE CONTRACTOR IS RESPONSIBLE TO FIELD VERIFY THE ACTURAL HEIGHTS OF EXISTING BEARINGS AND SIZE THE PLATES FOR THE NEW BEARINGS SO THAT THE NEW BEARING HEIGHTS MATCH EXISTING BEARING HEIGHTS.
2. SEE FRAMING PLAN AND BEARING LAYOUT SHEETS FOR SUPPORT AND BEARING LOCATIONS.
3. SEE BEARING DETAILS SHEETS FOR BEARING AND ANCHOR BOLT DETAILS.
4. SEE JACKING DETAILS SHEETS FOR JACKING DETAILS AND REQUIREMENTS.
5. NO BEARING REPLACEMENT IS REQUIRED FOR BEARINGS AT PIERS 10G, 11G AND 12G.

JIMIN HUANG LICENSE No 66797 STATE OF FLORIDA PROFESSIONAL ENGINEER

Jimin Huang
2024.03.13
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ENGINEER OF RECORD: JIMIN HUANG
FL PE NO. 66797

MIAMI-DADE AVIATION DEPARTMENT
MIAMI INTERNATIONAL AIRPORT
AIM MIA INTERNATIONAL AIRPORT
P.O. BOX 592075 MIAMI, FL. 33159

HDR
3250 WEST COMMERCIAL BOULEVARD, SUITE 100
FORT LAUDERDALE, FL 33309

DESIGNED BY: JD
DRAWN BY: EC
CHECKED BY: JH
SUBMITTED BY: JH
ISSUE DATE: 05/25/2022
SOLICITATION NO.: -
CONTRACT NO.: -
SIZE: ANSI F -

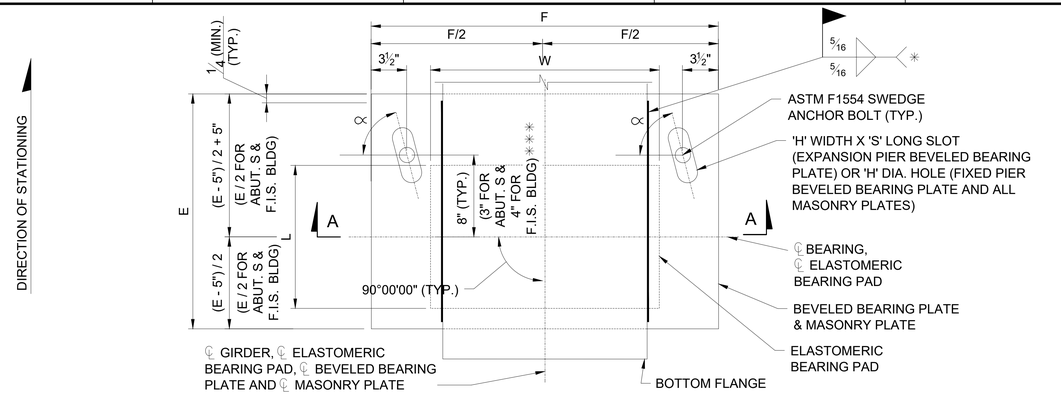
MARK	DESCRIPTION	DATE

MIAMI INTERNATIONAL AIRPORT
CONCOURSE 'E' SATELLITE
APM BRIDGE REHABILITATION PROJECT
MDAD PROJECT NUMBER: AB003A

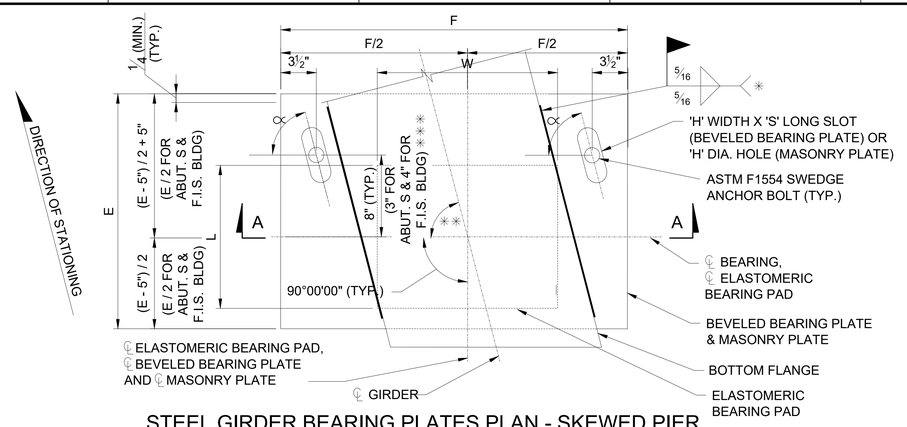
BEARING DATA TABLE (2 OF 2)

SHEET ID
S10

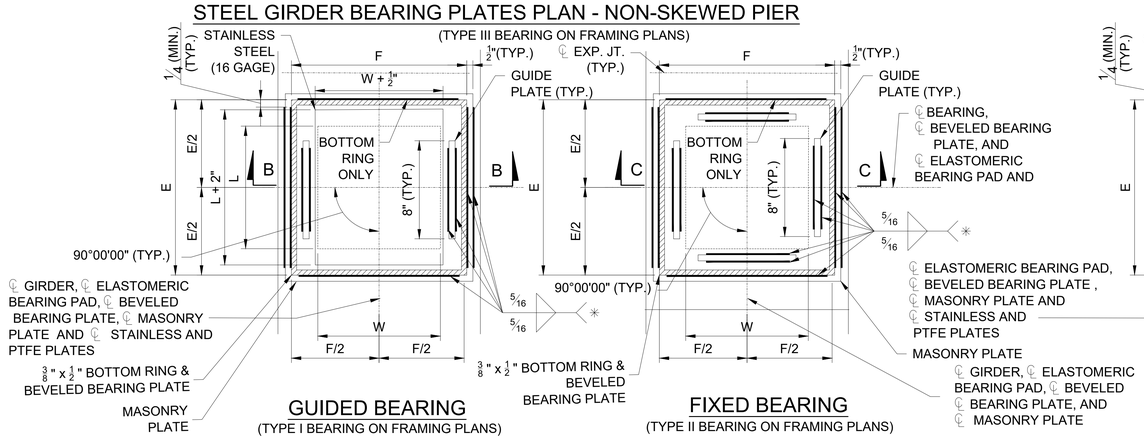
BID SET



STEEL GIRDER BEARING PLATES PLAN - NON-SKEWED PIER

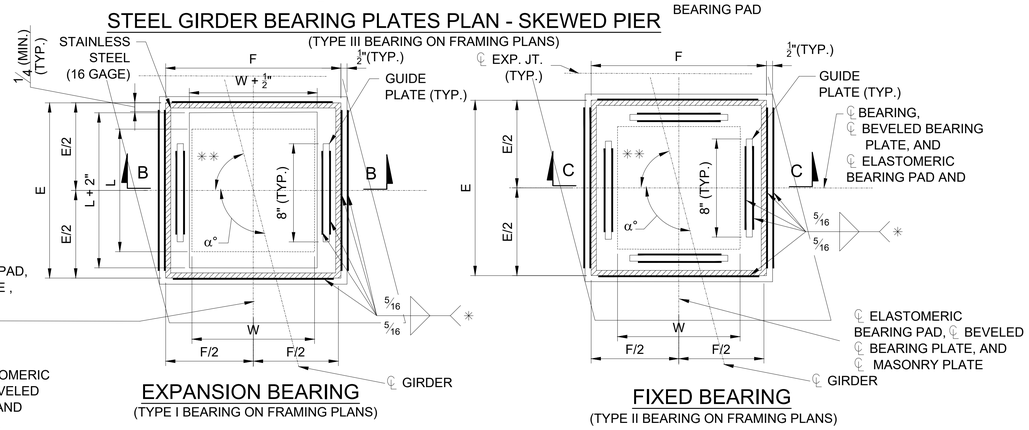


STEEL GIRDER BEARING PLATES PLAN - SKEWED PIER



GUIDED BEARING
(TYPE I BEARING ON FRAMING PLANS)

FIXED BEARING
(TYPE II BEARING ON FRAMING PLANS)

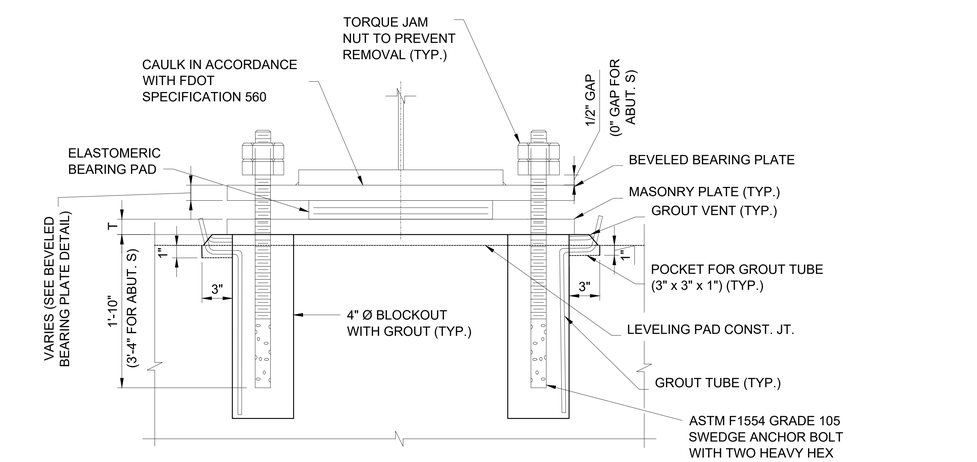


EXPANSION BEARING
(TYPE I BEARING ON FRAMING PLANS)

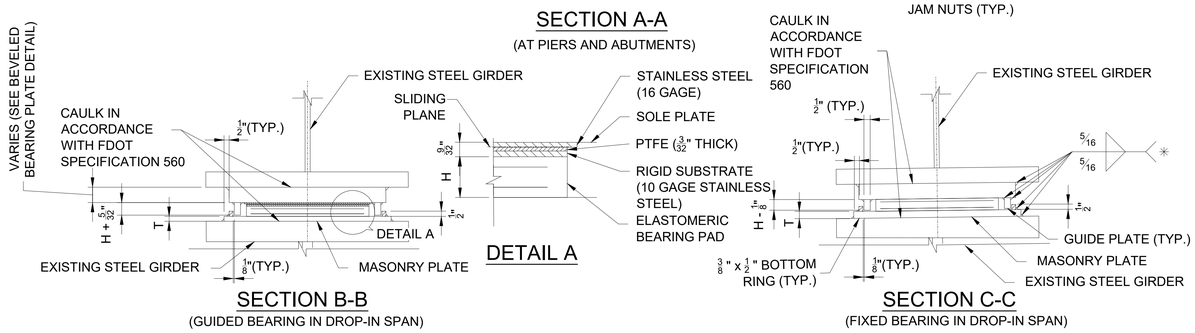
FIXED BEARING
(TYPE II BEARING ON FRAMING PLANS)

STEEL GIRDER BEARING PLATES PLAN - NON-SKEWED EXPANSION JOINT

STEEL GIRDER BEARING PLATES PLAN - SKEWED EXPANSION JOINT



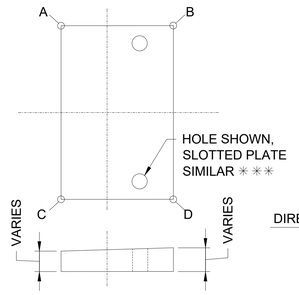
SECTION A-A
(AT PIERS AND ABUTMENTS)



DETAIL A

SECTION B-B
(GUIDED BEARING IN DROP-IN SPAN)

SECTION C-C
(FIXED BEARING IN DROP-IN SPAN)



BEVELED BEARING PLATE DETAIL

✳ IT IS PERMISSIBLE TO FIELD WELD BETWEEN EXISTING GIRDER AND NEW BEARING PLATES.REMOVE THE PAINT AT THE EXISTING FLANGE PLATES OR OR COVER PLATES. ALL INTERFACES BETWEEN BEARING PLATES AND EXISTING GIRDER PLATES OR COVER PLATES MUST BE CLEAN AND FREE OF GREASE. SHOP WELD SHALL BE USED BETWEEN NEW STEEL COMPONENTS.

✳✳ FOR GIRDER ℄ TO BEARING ℄ SKEW, SEE FRAMING PLAN SHEETS.

✳✳✳ FOR BEARINGS AT ABUT. S AND F.I.S. BLDG, PROVIDE 4 ANCHOR BOLTS SYMMETRICAL ABOUT ℄ BEARING. NUMBER OF SLOTTED HOLES IN BEVELED BEARING PATE AND MASONRY PLATE SHALL MATCH THE NUMBER OF ANCHOR BOLTS. FOR EACH BEARING AT ABUT. S, THE ANCHOR BOLTS AND BEVELED BEARING PLATE SHALL BE DESIGNED FOR A FACTORED UPLIFT FORCE OF 45 KIPS AND A SERVICE UPLIFT FORCE OF 26 KIPS.

DIRECTION OF STATIONING

NOTES:

1. ANCHOR BOLTS AT EXPANSION END SHALL BE CENTERED IN THE SLOTS AT 70° F.
2. DESIGN TEMPERATURE RANGE : 110° F (MAX.) TO 30° F (MIN.).
3. SEE FRAMING PLAN (1 OF 6) FOR ABUT. S AT THE SATELITE E CONCOURSE E BUILDING.
4. SEE FRAMING PLAN (6 OF 6) FOR F.I.S BLDG. LOCATION.
5. SEE BEARING DETAILS (2 OF 2) SHEET FOR ADDITIONAL BEARING DETAILS FOR PIERS 10G,11G, AND 12G.
6. SEE SHEET S-17 FOR FIELD WELD REQUIREMENTS.

ANCHOR BOLT NOTES:

1. BLOCKOUT HOLE SHALL BE FREE OF DEBRIS PRIOR TO GROUTING. THE BLOCKOUTS SHALL BE GROUTED WITH A NON-SHRINK GROUT CONFORMING TO SPECIAL SPECIFICATIONS AND HAVING A MINIMUM STRENGTH OF 6,000 PSI.
2. CONTRACTOR SHALL VERIFY THE LOCATIONS OF THE ANCHOR BOLTS TO CLEAR THE CROSS-FRAMES FOR DRILLING.
3. FOR BEARINGS AT ABUT. S AND F.I.S. BLDG, IN ADDITION TO THE TWO ANCHOR BOLTS SHOWN, TWO MORE ANCHOR BOLTS SHALL BE PROVIDED AND 4 ANCHOR BOLTS AT EACH BEARING SHALL BE SYMMETRICAL ABOUT THE CENTERLINE OF BEARING.
4. IF THE TOTAL BEARING HEIGHT EXCEEDS THE GAP BETWEEN THE BOTTOM OF THE EXISTING GIRDER AND THE TOP OF THE CONCRETE SUPPORT, THE CONCRETE AT THE BOTTOM OF THE BEARING MAY BE REMOVED TO A DEPTH NO MORE THAN 1 1/2" WITHIN THE CONCRETE COVER TO THE REBAR IN ORDER TO LOWER THE MASONRY PLATE. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR ENGINEER'S APPROVAL PRIOR TO CONSTRUCTION.

MARK	DESCRIPTION	DATE

DESIGNED BY:	JD
DRAWN BY:	EC
CHECKED BY:	JH
SUBMITTED BY:	JH
ISSUE DATE:	05/25/2022
SOLICITATION NO.:	-
CONTRACT NO.:	-
SIZE:	ANSI F

MIAMI-DADE AVIATION DEPARTMENT
MIAMI INTERNATIONAL AIRPORT
4 MIA CARGO COURT
P.O. BOX 592075 MIAMI, FL. 33159

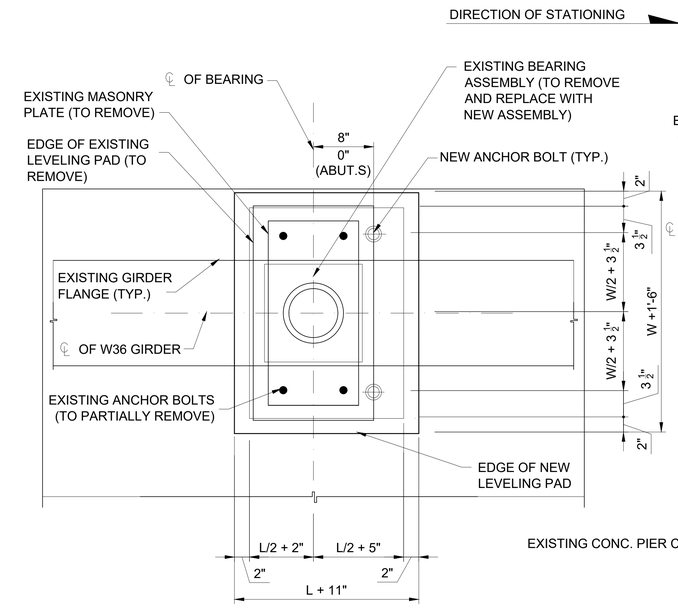
HDR
3250 WEST COMMERCIAL BOULEVARD, SUITE 100
FORT LAUDERDALE, FL 33309

MAIMI INTERNATIONAL AIRPORT
SATELLITE 'E' SATELLITE
APM BRIDGE REMOVAL/ TAXIWAY PROJECT
MDAD PROJECT NUMBER: ABD03A

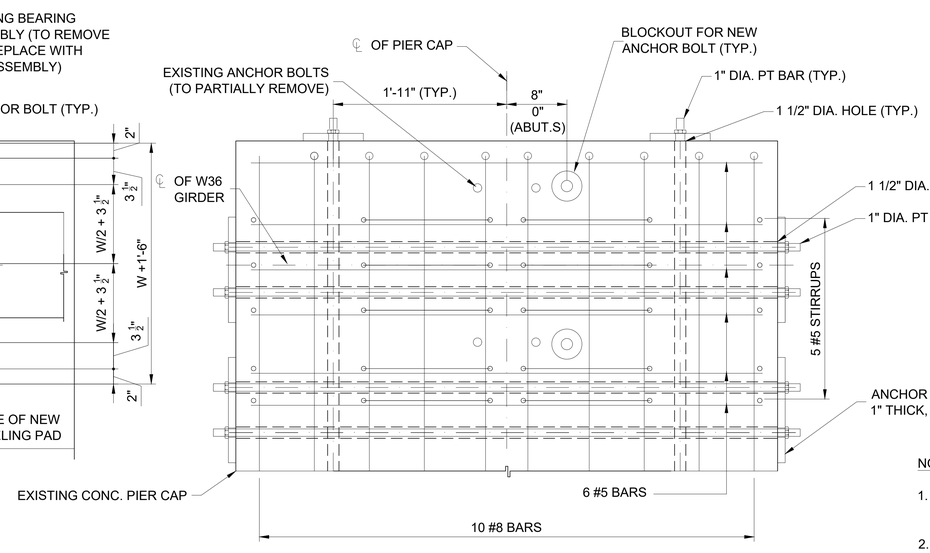
BEARING DETAILS (1 OF 2)

SHEET ID
S11

BID SET



PLAN



PLAN
(EXISTING REINFORCING DETAIL)

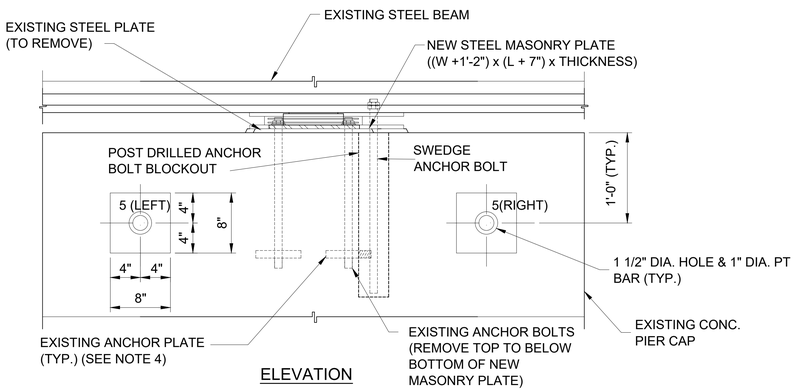
PT BAR DATA TABLE			
PIERS	CAPS *	NUMBER OF PT BARS PER CAP	PT BAR LOCATIONS
1G	2W & 2E	10	1,2,3,4,5
2G	3W & 3E	8	1,2,4,5
3G	4W & 4E	8	1,2,4,5
4G	5W & 5E	8	1,2,4,5
5G	6W & 6E	8	1,2,4,5
6G	7W & 7E	8	1,2,4,5
7G	8W & 8E	8	1,2,4,5
8G	9W & 9E	8	1,2,4,5
9G	10W & 10E	8	1,2,4,5

* SEE FRAMING PLAN AND BEARING LAYOUT SHEETS FOR CAP LOCATIONS.

** USE 8" X 8" ANCHOR PLATES FOR SINGLE PT BAR . USE 8" X 1'-2" ANCHOR PLATES FOR A PAIR OF PT BARS.

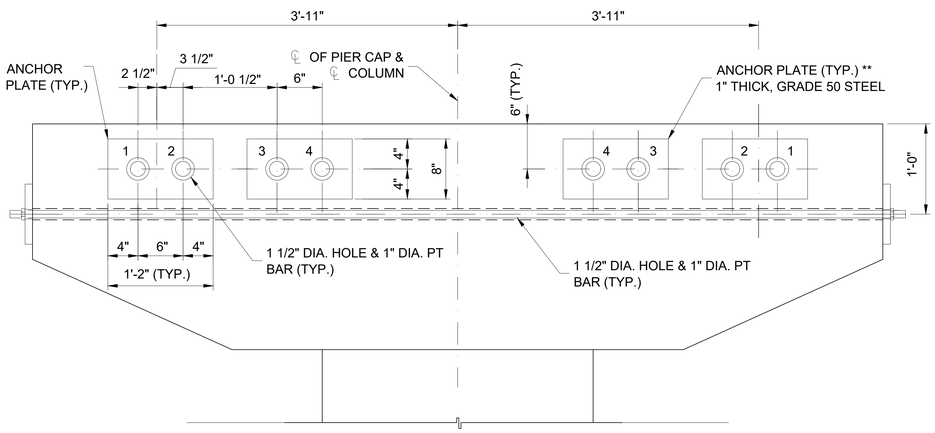
NOTES FOR PIER CAP STRENGTHENING:

1. DRILL 1 1/2" HOLES IN THE EXISTING PIER CAP. FIELD SURVEY THE LOCATIONS OF THE EXISTING BARS AND AVOID DAMAGING EXISTING REINFORCING DURING DRILLING. LOCATIONS OF THE HOLES MAY BE ADJUSTED PER ENGINEER'S APPROVAL.
2. INSTALL 1" DIA. POST-TENSIONING (PT) BARS AND GROUT THE DUCTS FOLLOWING MANUFACTURER'S INSTRUCTION.
3. THE PT BARS SHALL HAVE A MIN. YIELD STRENGTH OF 150 KSI AND BE STRESSED TO 0.6 FPU.
4. AFTER BEARING REPLACEMENT, PT BARS REMAIN WITH CORROSION PROTECTION IN PLACE. USE TYPE 10 ANCHORAGE PROTECTION PER FDOT STANDARD INDEX 462-002.
5. SHOP DRAWING SHALL BE SUBMITTED FOR THE PT BARS, ANCHOR PLATES, STRESSING PROCEDURE, GROUTING REQUIREMENTS, CORROSION PROTECTION METHOD AND MATERIALS, AND SUPPORT CALCULATIONS.
6. SEQUENCE OF CONSTRUCTION:
   STEP 1: CORING OF THE CAP AT PT BAR LOCATION NO. 5 (LEFT), INSTALL AND STRESS PT BAR.
   STEP 2: CORING OF THE CAP AT PT BAR LOCATION NO. 5 (RIGHT). INSTALL AND STRESS PT BAR.
   STEP 3: GROUTING PT BARS AT LOCATION NO. 5.
   STEP 4: CORING OF THE CAP AT PT BAR LOCATIONS NO. 1 AND NO. 2, INSTALL AND STRESS PT BARS.
   STEP 5: CORING OF THE CAP AT PT BAR LOCATIONS NO. 3 AND NO. 4, INSTALL AND STRESS PT BARS.
   STEP 6: GROUTING PT BARS AT LOCATIONS NO. 1~4.
7. THE CONTRACTOR SHALL SURVEY THE EXISTING CAP REBAR LOCATIONS AND DETERMINE IF ANY POTENTIAL CONFLICTS EXIST BETWEEN THE EXISTING REBAR AND CORE HOLES. SUBMIT THE SURVEY AND REVISED DRILLING LOCATIONS FOR ENGINEER'S APPROVAL PRIOR TO DRILLING.



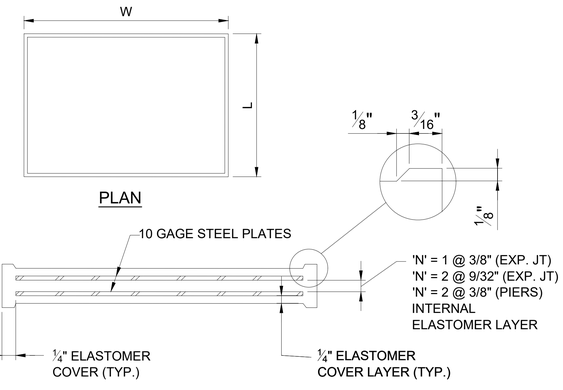
ELEVATION

MASONRY PLATE AND ANCHOR BOLT REPLACEMENT DETAIL
(FOR BEARING AT PIERS AND ABUTMENTS ONLY)



ELEVATION

PIER CAP STRENGTHENING DETAIL



TYPICAL SECTION

BEARING PAD DETAILS

NOTES:

1. BEARING PAD SHOWN IS DESIGNED IN ACCORDANCE WITH AASHTO LRFD SPECIFICATIONS METHOD "B". BEARING PADS SHALL MEET LEVEL II ACCEPTANCE CRITERIA IN ACCORDANCE WITH SPECIAL SPECIFICATIONS.
2. NEOPRENE IN ALL BEARING PADS SHALL HAVE A SHEAR MODULUS OF 150 PSI.
3. STEEL PLATES IN ELASTOMERIC BEARINGS SHALL CONFORM TO ASTM A1011 GRADE 36, TYPE 1.
4. VARIATIONS IN PAD DIMENSIONS WILL BE ALLOWED PROVIDED REVISED PADS WILL MEET SPECIAL SPECIFICATIONS AND ARE APPROVED BY THE ENGINEER.
5. FOR ADDITIONAL NOTES, SEE BEARING DETAILS (1 OF 2) SHEET.

BEARING REPLACEMENT PROCEDURE:

1. SHOP DRAWINGS SHALL BE SUBMITTED FOR JACKING PLAN FOR ENGINEER'S REVIEW AND APPROVAL. SHOP DRAWINGS SHALL BE SIGNED AND SEALED BY A PROFESSIONAL ENGINEER IN FLORIDA.
2. PROCEED JACKING OPERATIONS AT PIERS ONLY AFTER THE PIER CAPS HAVE BEEN STRENGTHENED. JACK THE BRIDGE AT EACH SUPPORT ALONG THE BEARING LINE SIMULTANEOUSLY TO TRANSFER SUPERSTRUCTURE LOADS TO JACKS. SEE JACKING DETAILS SHEETS FOR JACKING NOTES AND DETAILS..
3. FOR BEARINGS AT PIERS AND END BENTS, PARTIALLY CUT EXISTING ANCHOR BOLTS AT PIERS AND REMOVE EXISTING BEARING ASSEMBLY INCLUDING EXISTING SOLE PLATE AND EXISTING MASONRY PLATE (S). FOR BEARINGS AT EXPANSION JOINTS, REMOVE THE WELD BETWEEN THE EXISTING BEARING AND THE STEEL GIRDER AND REMOVE THE EXISTING BEARINGS.
4. FOR BEARINGS AT PIERS AND END BENTS, POST-DRILL BLOCKOUTS FOR NEW ANCHOR BOLTS FOLLOWING MANUFACTURER'S RECOMMENDATIONS FOR GROUT OR EPOXY ANCHORS. IT IS ACCEPTABLE TO DRILL THROUGH EXISTING ANCHOR PLATES IF IN CONFLICT. PRIOR TO PLACING AN ORDER FOR NEW BEARING PLATES AND POST-DRILLING OPERATION, THE CONTRACTOR SHALL SURVEY THE EXISTING REBAR LOCATIONS AND DETERMINE IF ANY POTENTIAL CONFLICTS EXIST BETWEEN THE EXISTING REBAR AND NEW ANCHOR BOLTS. SUBMIT THE SURVEY AND REVISED DRILLING LOCATIONS FOR ENGINEER'S APPROVAL PRIOR TO BEARING FABRICATION. AVOID DAMAGING EXISTING CAP REBAR IF POSSIBLE. IN CASE EXISTING REARS ARE CUT OFF, CONTACT THE ENGINEER FOR AN EVALUATION IF A REPAIR IS NEEDED. REMOVE EXISTING CONCRETE FOR BLOCKOUTS WITHIN TOP CAP CONCRETE COVER AND INSTALL GROUT TUBE AND GROUT VENT.
5. FOR BEARINGS AT PIERS AND END BENTS, CONSTRUCT NEW LEVELING PAD ADJACENT TO EXISTING LEVELING PAD (DEMOLISH AND RECONSTRUCT PART OF THE EXISTING LEVELING PAD AS NEEDED TO ENSURE THE NEW LEVELING PAD AND EXISTING HAVE SAME TOP ELEVATION). THE LEVELING PAD SHALL HAVE A MIN. CONCRETE STRENGTH OF 5 KSI AND WITH NON-SHRINKAGE GROUT OR EPOXY. AT EACH ANCHOR BOLT LOCATION, NEW LEVELING PAD SHALL BE POURED AROUND A SLEEVE WHICH EXTENDS THE ANCHOR BOLT BLOCKOUT. AVOID DAMAGE OF GROUT TUBE AND GROUT VENT WHILE POURING NEW LEVELING PAD.
6. FOR BEARINGS AT PIERS AND END BENTS, POST-DRILL BLOCKOUTS FOR NEW ANCHOR BOLTS FOLLOWING MANUFACTURER'S RECOMMENDATIONS FOR GROUT OR EPOXY ANCHORS. AVOID DAMAGING EXISTING CAP REBAR IF POSSIBLE. IN CASE EXISTING REBAR ARE CUT OFF, CONTACT THE ENGINEER FOR AN EVALUATION IF A REPAIR IS NEEDED.
7. INSTALL NEW BEARING ASSEMBLY INCLUDING SOLE PLATE, MASONRY PLATE AND ANCHOR BOLTS (FOR BEARINGS AT PIERS AND END BENTS). ADJUST BEARING FOR TEMPERATURE AND WELD THE SOLE PLATE TO THE EXISTING STEEL GIRDER ON MIN. TWO SIDES WITH A MIN. WELD SIZE OF 5/16". FOR BEARINGS AT EXPANSION JOINTS, WELD THE NEW BEARINGS TO THE EXISTING STEEL GIRDER WITH A MIN. WELD SIZE OF 5/8" ON MIN. TWO SIDES.
8. LOWER THE JACKS AND TRANSFER THE SUPERSTRUCTURE LOADS TO NEW BEARINGS.
9. FOR BEARINGS AT PIERS AND END BENTS, GROUT THE NEW ANCHOR BOLTS PER MANUFACTURE'S RECOMMENDATIONS.

JIMIN HUANG LICENSE No 66797 STATE OF FLORIDA PROFESSIONAL ENGINEER

Jimin Huang
2024.03.13
07:55:31-04'00'

This item has been digitally signed and sealed by JIMIN HUANG on the date adjacent to the seal. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

ENGINEER OF RECORD: JIMIN HUANG
FL PE NO. 66797

MIAMI-DADE COUNTY

MARK	DESCRIPTION	DATE

DESIGNED BY:	JD	ISSUE DATE:	05/25/2022		
DRAWN BY:	EC	SOLICITATION NO.:	-		
CHECKED BY:	JH	CONTRACT NO.:	-		
SUBMITTED BY:	JH		-		
SIZE: ANSI F					

MIAMI-DADE AVIATION DEPARTMENT
MIAMI INTERNATIONAL AIRPORT
4X/ X92075
P.O. BOX 592075 MIAMI, FL. 33159

HDR
3250 WEST COMMERCIAL BOULEVARD, SUITE 100
FORT LAUDERDALE, FL. 33309

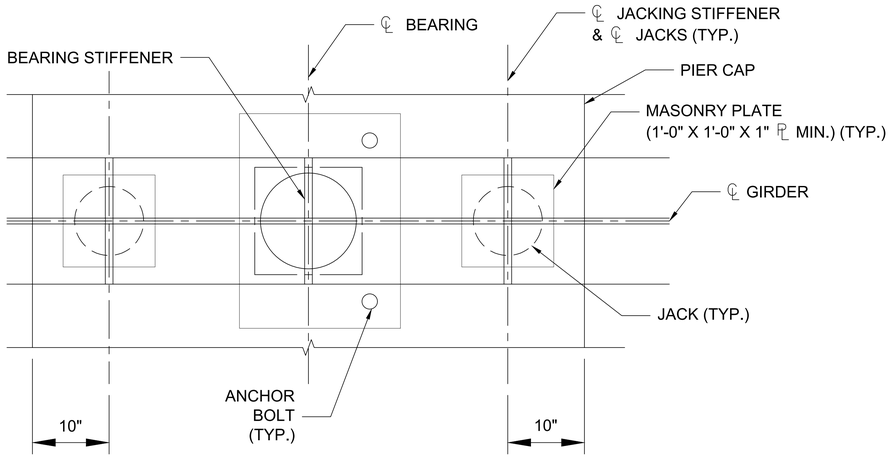
MIAMI INTERNATIONAL AIRPORT
NON-MOVEMENT AREA PROJECT
APM BRIDGE REHABILITATION PROJECT
MDAD PROJECT NUMBER: AB003A

BEARING DETAILS (2 OF 2)

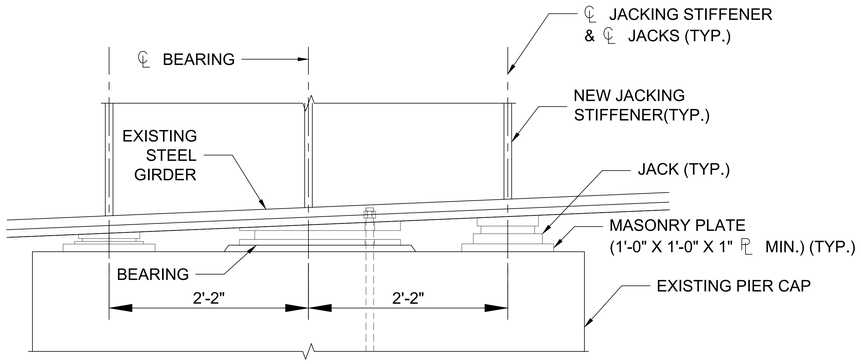
SHEET ID
S12

BID SET

DIRECTION OF STATIONING



PLAN VIEW (AT PIERS)



ELEVATION VIEW (AT PIERS)

JACKING NOTES:

1. JACKING OF THE SUPERSTRUCTURE AND EQUIPMENT REQUIRED THEREOF (JACKS, SHIMS, BEVELED JACKING PLATES AND TEMPORARY SUPPORT TOWER) ARE INCLUDED IN THIS CONTRACT.
2. JACKING DETAILS, EQUIPMENT AND DATA SHOWN ON THE DRAWINGS ARE FOR REFERENCE. THE CONTRACTOR MAY SUBMIT ALTERNATIVE JACKING DETAILS IN THE SHOP DRAWINGS FOR ENGINEER'S APPROVAL.
3. BEARING REPLACEMENT AND JACKING WILL ONLY BE ALLOWED WITHOUT TRAIN LOADS.
3. LIMIT TOTAL JACKING MOVEMENT TO $\frac{1}{2}$" MAXIMUM.
4. LOCATE JACKS UNDER JACKING STIFFENERS ONLY. BEVELED JACKING PLATES SHALL BE UTILIZED TO PROVIDE A LEVEL JACKING SURFACE.
5. JACKING OPERATION SHALL BE PERFORMED SIMULTANEOUSLY FOR ALL JACKS ALONG A LINE OF SUPPORT (PIER). A COMMON PRESSURE MANIFOLD SHALL BE USED THAT UTILIZES THE EQUAL VOLUME OR EQUAL DISPLACEMENT METHOD TO ELIMINATE DIFFERENTIAL JACKING ALONG A LINE OF SUPPORT. RELATIVE MOVEMENT BETWEEN ADJACENT GIRDERS SHALL NOT EXCEED $\frac{1}{8}$".
6. ALL JACKS SHALL BE EQUIPPED WITH LOCKING RINGS TO MAINTAIN THE DESIRED JACKING HEIGHT DURING THE JACKING OPERATION.
7. JACKING LOAD CAN CONSIDER 1.3 DEAD LOAD WITHOUT TRAIN RUNNING. THE CONTRACTOR SHALL MONITOR THE JACKING LOADS AT ALL JACK LOCATIONS. THE MAX JACKING LOADS MAY NOT EXCEED 120% OF THE PREDICTED JACKING LOADS SHOWN IN THE TABLE. CONTACT THE ENGINEER FOR REVIEW AND APPROVAL FOR A JACKING LOAD EXCEEDING 120% OF THE PREDICTED JACKING LOADS.
8. MONITOR THE EXISTING BRIDGE STRUCTURE DURING ANY JACKING OPERATION FOR SETTLEMENT, STRUCTURAL STEEL DAMAGE AND POTENTIAL CONCRETE CRACKING. THE CONTRACTOR SHALL IMMEDIATELY STOP JACKING OPERATION FOR UNUSUAL STRUCTURAL BEHAVIOR.
9. FOR JACKING AT ABUTMENT SUPPORT, SEE JACKING DETAILS (2 OF 4) SHEET.
10. FOR JACKING AT EXPANSION JOINTS, SEE JACKING DETAILS (3 OF 4) SHEET.
11. NO BEARING REPLACEMENT IS REQUIRED FOR BEARINGS AT PIERS 10G, 11G AND 12G.

TABLE OF JACKING LOADS (AT PIERS)							TABLE OF JACKING LOADS (AT PIERS)						
PIER	LOCATION	DEAD LOAD (KIPS)	LIVE LOAD (KIPS)	TOTAL LOAD (KIPS)	NO. OF JACKS REQ'D. PER BEARING	MIN. JACK CAPACITY (TONS)	PIER/SPAN	LOCATION	DEAD LOAD (KIPS)	LIVE LOAD (KIPS)	TOTAL LOAD (KIPS)	NO. OF JACKS REQ'D. PER BEARING	MIN. JACK CAPACITY (TONS)
1G	G1-N	101	134	235	2	59	1G	G2-N	191	123	314	2	79
1G	G1-S	198	131	329	2	82	1G	G2-S	91	133	224	2	56
2G	G1-N	92	127	219	2	55	2G	G2-N	142	124	266	2	67
2G	G1-S	142	129	271	2	68	2G	G2-S	93	131	224	2	56
3G	G1-N	77	129	206	2	52	3G	G2-N	112	117	229	2	58
3G	G1-S	111	122	233	2	59	3G	G2-S	85	135	220	2	55
4G	G1-N	81	127	208	2	52	4G	G2-N	108	125	233	2	59
4G	G1-S	102	125	227	2	57	4G	G2-S	79	131	211	2	53
5G	G1-N	77	120	197	2	49	5G	G2-N	123	121	243	2	61
5G	G1-S	146	145	291	2	73	5G	G2-S	85	141	226	2	57
6G	G1-N	95	132	227	2	57	6G	G2-N	122	130	252	2	63
6G	G1-S	120	130	250	2	62	6G	G2-S	91	136	227	2	57
7G	G1-N	82	130	212	2	53	7G	G2-N	106	119	224	2	56
7G	G1-S	107	121	228	2	57	7G	G2-S	81	135	216	2	54
8G	G1-N	80	126	206	2	52	8G	G2-N	106	124	231	2	58
8G	G1-S	105	124	229	2	58	8G	G2-S	82	133	215	2	54
9G	G1-N	85	130	215	2	54	9G	G2-N	110	121	231	2	59
9G	G1-S	109	123	232	2	58	9G	G2-S	84	137	221	2	56
10G	G1	--	--	--	--	--	10G	G2	--	--	--	--	--
11G	G1	--	--	--	--	--	11G	G2	--	--	--	--	--
12G	G1	--	--	--	--	--	12G	G2	--	--	--	--	--

ENGINEER OF RECORD: JIMIN HUANG
FL PE NO. 66797

MARK | DESCRIPTION | DATE

DESIGNED BY: JD | ISSUE DATE: 05/25/2022
DRAWN BY: EC | SOLICITATION NO.: -
CHECKED BY: JH | CONTRACT NO.: -
SUBMITTED BY: JH
SIZE: ANSI F -

MIAMI-DADE AVIATION DEPARTMENT
MIAMI INTERNATIONAL AIRPORT
P.O. BOX 592075 MIAMI, FL. 33159

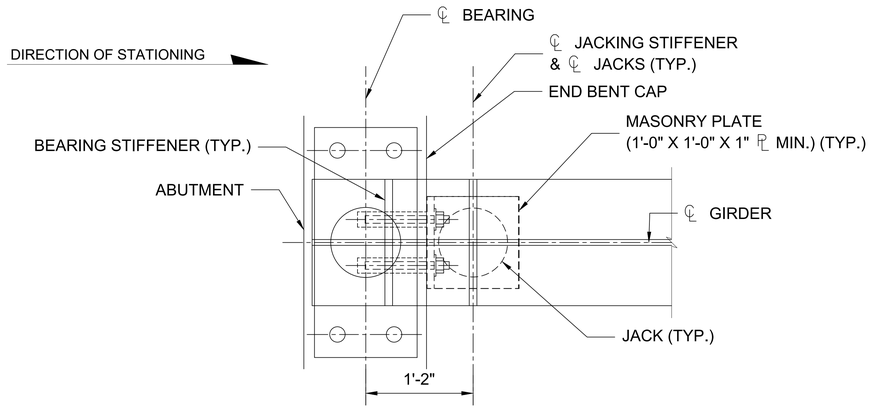
HDR
3250 WEST COMMERCIAL BOULEVARD, SUITE 100
FORT LAUDERDALE, FL 33309

MIAMI INTERNATIONAL AIRPORT
CONCOURSE SATELLITE
APM BRIDGE REHABILITATION PROJECT
MDAD PROJECT NUMBER: AB003A

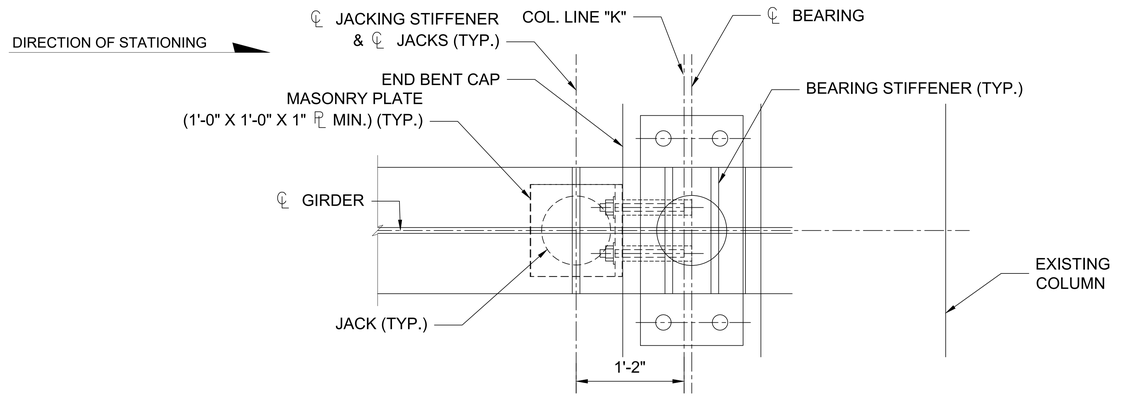
JACKING DETAILS (1 OF 4)

SHEET ID
S13

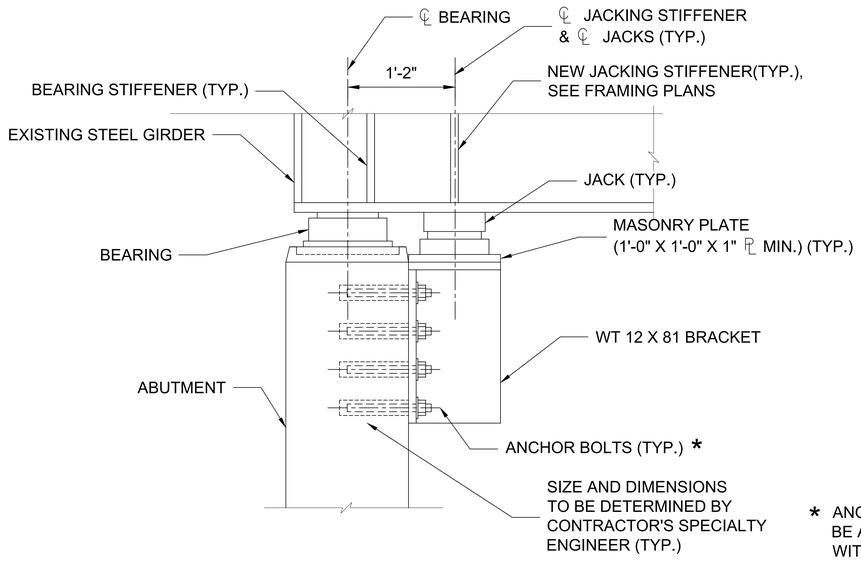
BID SET



PLAN VIEW (AT ABUT. S)

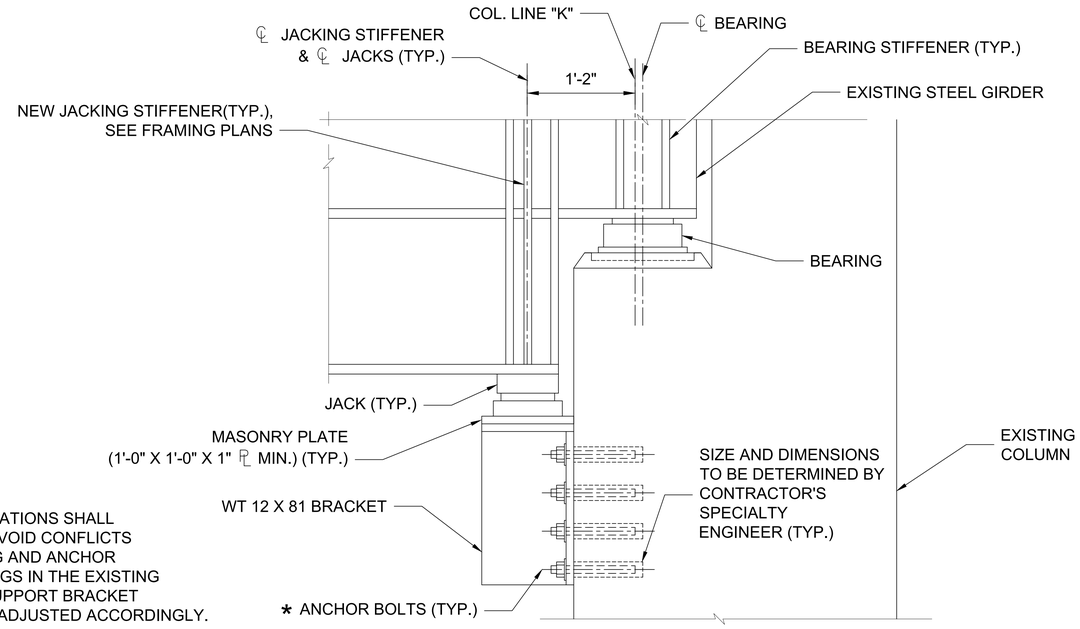


PLAN VIEW (AT F.I.S. BLDG)



ELEVATION VIEW (AT ABUT. S)

* ANCHOR BOLT LOCATIONS SHALL BE ADJUSTED TO AVOID CONFLICTS WITH REINFORCING AND ANCHOR BOLTS FOR BEARINGS IN THE EXISTING ABUTMENT CAP. SUPPORT BRACKET DETAILS SHALL BE ADJUSTED ACCORDINGLY.

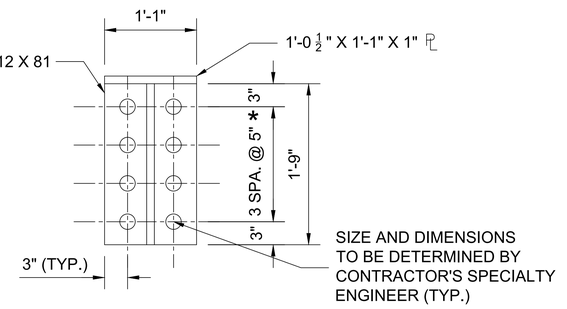


ELEVATION VIEW (AT F.I.S. BLDG)

TABLE OF JACKING LOADS (AT END SUPPORTS)						
PIER	LOCATION	DEAD LOAD (KIPS)	LIVE LOAD (KIPS)	TOTAL LOAD (KIPS)	NO. OF JACKS REQ'D. PER BEARING	MIN. JACK CAPACITY (TONS)
ABUT. S	G1-N	8	43	51	1	25
ABUT. S	G1-S	21	45	66	1	33
ABUT. S	G2-N	23	41	64	1	32
ABUT. S	G2-S	5	47	52	1	26
F.I.S. BLDG	G1-N	16	55	71	1	36
F.I.S. BLDG	G1-S	36	56	92	1	46
F.I.S. BLDG	G2-N	37	60	97	1	48
F.I.S. BLDG	G2-S	15	58	73	1	37

NOTES:

1. FOR JACKING NOTES, SEE JACKING DETAILS (1 OF 4).
2. FOR JACKING AT PIERS, SEE JACKING DETAILS (1 OF 4).
3. FOR JACKING AT IN-SPAN SUPPORTS, SEE JACKING DETAILS (3 OF 4).
4. IN LIEU OF UTILIZING A STEEL BRACKET MOUNTED ON THE CAP TO SUPPORT THE JACK, IT IS ACCEPTABLE TO SUPPORT THE JACKS ON TEMPORARY SUPPORT TOWERS. STEEL BRACKETS OR TEMPORARY SUPPORT TOWERS SHALL BE DESIGNED BY CONTRACTOR'S SPECIALTY ENGINEER. SUBMIT DRAWINGS AND CALCULATIONS IN THE SHOP DRAWINGS.
5. JACKING STIFFENER LOCATIONS AT F.I.S. BLDG SHALL BE FIELD VERIFIED TO AVOID CONFLICTS WITH EXISTING SHEAR STIFFENERS.
6. HOLD-DOWN DEVICE IS REQUIRED FOR EACH BEARING AT ABUT. S TO RESIST A MIN. SERVICE UPLIFT OF 23 KIPS AND A MIN. STRENGTH UPLIFT OF 45 KIPS.



SUPPORT BRACKET DETAILS

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MIAMI-DADE AVIATION DEPARTMENT
MIAMI INTERNATIONAL AIRPORT
MIA BUILDING, 4TH FLOOR
P.O. BOX 592075 MIAMI, FL. 33159

HDR
3250 WEST COMMERCIAL BOULEVARD, SUITE 100
FORT LAUDERDALE, FL 33309

MARK	DESCRIPTION	DATE

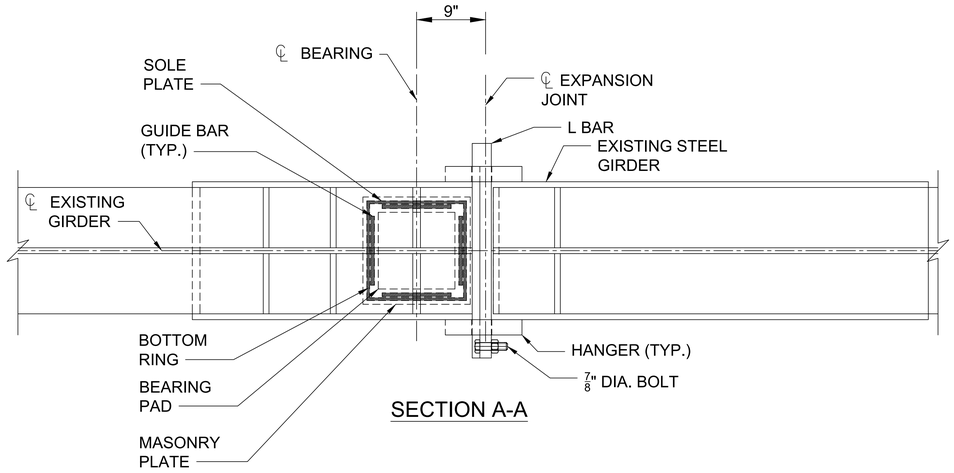
DESIGNED BY: JD
DRAWN BY: EC
CHECKED BY: JH
SUBMITTED BY: JH
ISSUE DATE: 05/25/2022
SOLICITATION NO.: -
CONTRACT NO.: -
SIZE: ANSI F -

MAIMI INTERNATIONAL AIRPORT
CONCOURSE 'G' SATELLITE
APM BRIDGE REHABILITATION PROJECT
MDAD PROJECT NUMBER: AB003A

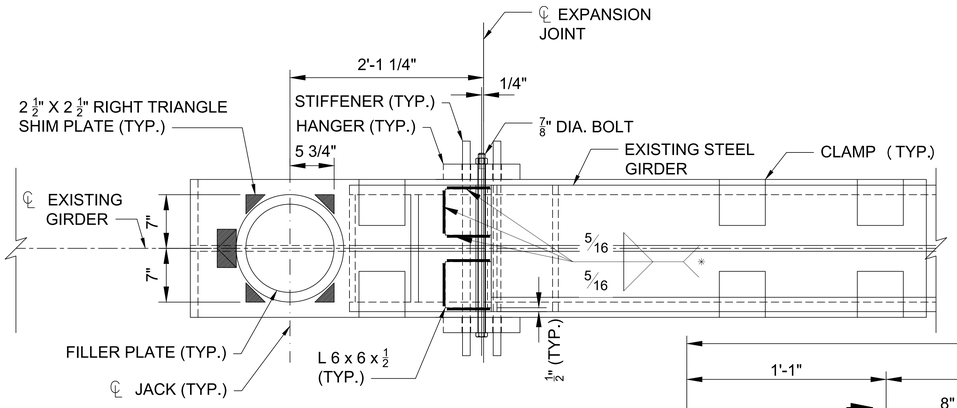
JACKING DETAILS (2 OF 4)

SHEET ID
S14

BID SET



SECTION A-A

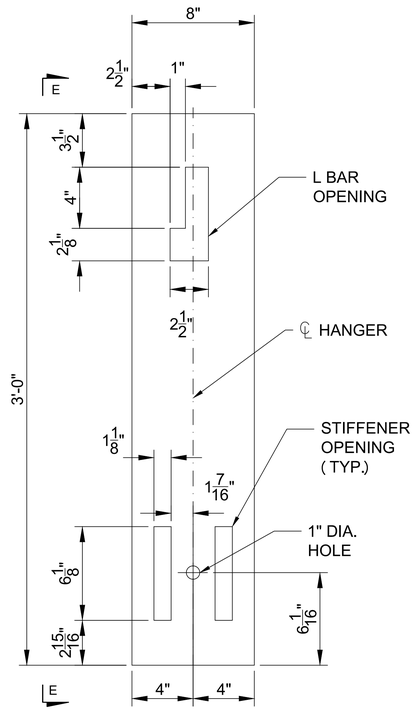


SECTION B-B

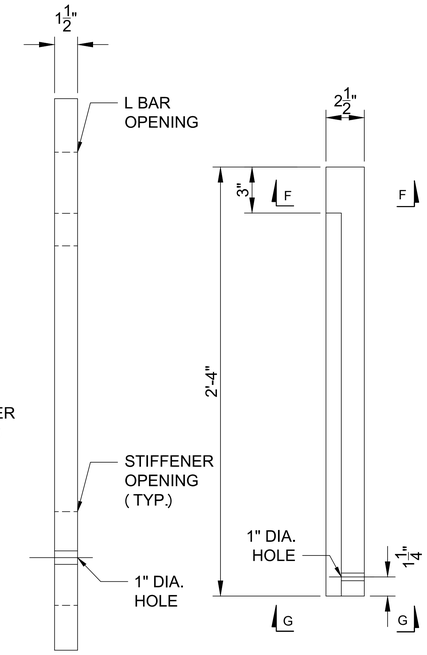
* FIXED BEARING SHOWN ; EXPANSION BEARING SIMILAR EXCEPT REMOVING LEFT AND RIGHT GUIDE BARS

** FREYSSINET FLAT JACK OR EQUIVALENT

*** IT IS PERMISSIBLE TO FIELD WELD.

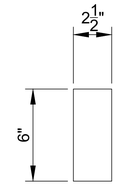


ELEVATION

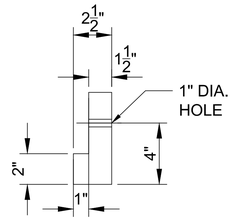


VIEW E-E

PLAN



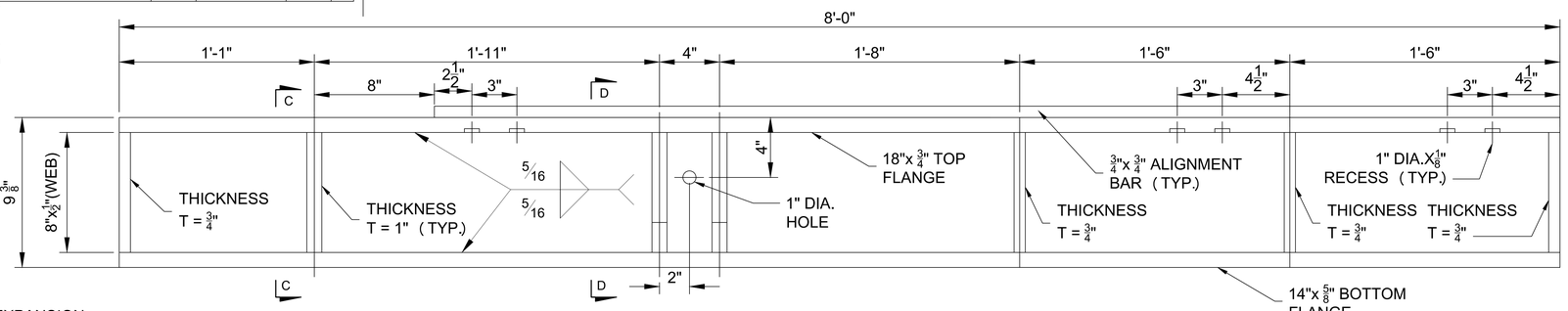
SECTION F-F



VIEW G-G

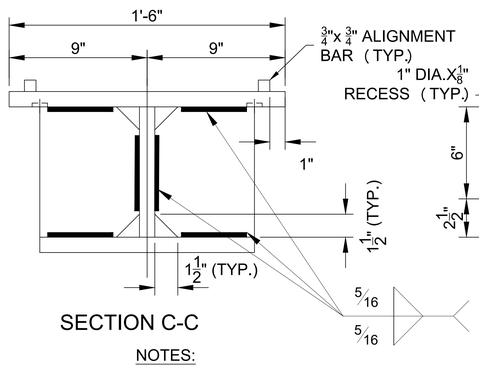
HANGER DETAILS

L BAR DETAILS

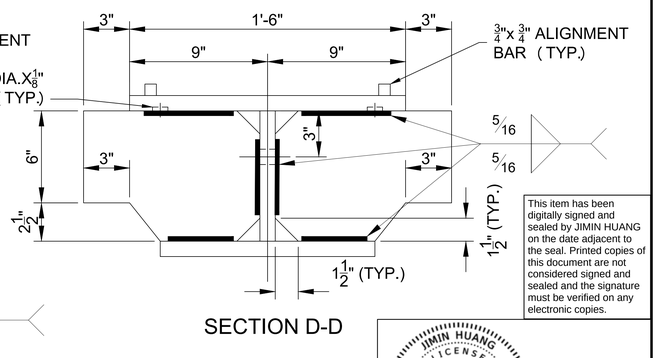


JACKING BEAM ELEVATION

ELEVATION VIEW (AT EXPANSION JOINTS)



SECTION C-C



SECTION D-D

NOTES:

1. FOR JACKING NOTES, SEE JACKING DETAILS (1 OF 4) SHEET.
2. FOR SECTION H-H, OTHER DETAILS OF JACKING AT EXPANSION JOINTS, AND NOTES, SEE JACKING DETAILS (4 OF 4) SHEET.

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ENGINEER OF RECORD: JIMIN HUANG
FL PE NO. 66797

MIAMI-DADE AVIATION DEPARTMENT
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P.O. BOX 592075 MIAMI, FL. 33159

HDR
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FORT LAUDERDALE, FL 33309

MARK	DESCRIPTION	DATE

DESIGNED BY: JD
DRAWN BY: EC
CHECKED BY: JH
SUBMITTED BY: JH
ISSUE DATE: 05/25/2022
SOLICITATION NO.: -
CONTRACT NO.: -
SIZE: ANSI F -

MAIMI INTERNATIONAL AIRPORT
CONCOURSE "F" SATELLITE
APM BRIDGE REBUILTATION PROJECT
MDAD PROJECT NUMBER: AB003A

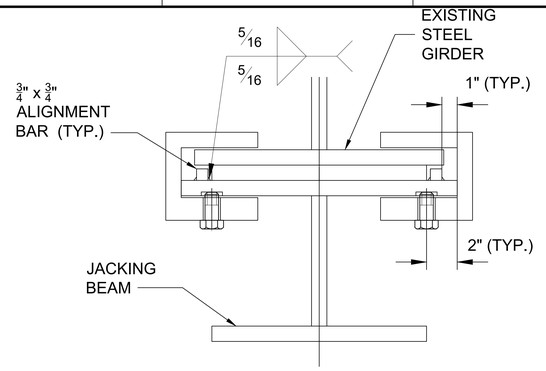
JACKING DETAILS (3 OF 4)

SHEET ID
S15

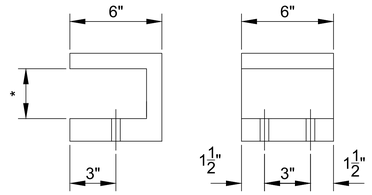
BID SET

TABLE OF JACKING LOADS (AT EXPANSION JOINTS)						
DROP-IN SPAN (UP OR DOWN STATION)	LOCATION	DEAD LOAD (KIPS)	LIVE LOAD (KIPS)	TOTAL LOAD (KIPS)	NO. OF JACKS REQ'D. PER BEARING	MIN. JACK CAPACITY (TONS)
1 (UP)	G1-N	50	73	123	1	62
1 (UP)	G1-S	73	70	143	1	72
1 (DOWN)	G1-N	49	73	122	1	61
1(DOWN)	G1-S	67	70	137	1	69
2 (UP)	G1-N	41	77	118	1	59
2 (UP)	G1-S	50	66	117	1	59
2 (DOWN)	G1-N	42	74	115	1	58
2 (DOWN)	G1-S	49	62	111	1	56
3 (UP)	G1-N	46	81	128	1	64
3 (UP)	G1-S	64	81	145	1	73
3 (DOWN)	G1-N	50	83	133	1	67
3 (DOWN)	G1-S	59	69	128	1	64
4 (UP)	G1-N	41	74	116	1	58
4 (UP)	G1-S	48	61	110	1	55
4 (DOWN)	G1-N	42	78	120	1	60
4 (DOWN)	G1-S	49	65	114	1	57
5 (UP)	G1-N	43	76	119	1	60
5 (UP)	G1-S	50	62	112	1	56
5 (DOWN)	G1-N	42	81	122	1	61
5 (DOWN)	G1-S	50	62	112	1	56
6 (UP)	G1-N	63	85	149	1	75
6 (UP)	G1-S	83	74	158	1	79
6 (DOWN)	G1-N	53	81	134	1	67
6 (DOWN)	G1-S	105	81	186	1	93

TABLE OF JACKING LOADS (AT EXPANSION JOINTS)						
DROP-IN SPAN (UP OR DOWN STATION)	LOCATION	DEAD LOAD (KIPS)	LIVE LOAD (KIPS)	TOTAL LOAD (KIPS)	NO. OF JACKS REQ'D. PER BEARING	MIN. JACK CAPACITY (TONS)
1 (UP)	G2-N	70	67	137	1	69
1 (UP)	G2-S	44	74	119	1	59
1 (DOWN)	G2-N	62	61	123	1	62
1 (DOWN)	G2-S	47	74	121	1	61
2 (UP)	G2-N	49	62	111	1	56
2 (UP)	G2-S	41	77	119	1	60
2 (DOWN)	G2-N	49	63	112	1	56
2 (DOWN)	G2-S	41	79	120	1	60
3 (UP)	G2-N	59	64	123	1	62
3 (UP)	G2-S	49	87	135	1	68
3 (DOWN)	G2-N	59	67	126	1	63
3 (DOWN)	G2-S	50	86	136	1	68
4 (UP)	G2-N	48	60	108	1	54
4 (UP)	G2-S	41	78	119	1	60
4 (DOWN)	G2-N	49	64	112	1	56
4 (DOWN)	G2-S	41	80	122	1	61
5 (UP)	G2-N	50	61	111	1	56
5 (UP)	G2-S	44	80	123	1	62
5 (DOWN)	G2-N	55	67	122	1	61
5 (DOWN)	G2-S	39	78	117	1	58
6 (UP)	G2-N	90	79	169	1	85
6 (UP)	G2-S	67	90	157	1	79
6 (DOWN)	G2-N	106	80	186	1	93
6 (DOWN)	G2-S	61	88	150	1	75



SECTION H-H



* THICKNESS OF BOTTOM FLANGE + 2"

CLAMP DETAILS

NOTES:

1. FOR JACKING NOTES, SEE JACKING DETAILS (1 OF 4) SHEET.
2. FOR JACKING AT PIERS, SEE JACKING DETAILS (1 OF 4) SHEET.
3. FOR JACKING AT END BENTS, SEE JACKING DETAILS (2 OF 4) SHEET.
4. FOR SECTION H-H LOCATION, SEE JACKING DETAILS (3 OF 4) SHEET.
5. STEEL FOR HANGER, L BAR, AND JACKING BEAM SHALL BE ASTM A709 GRADE HPS70W. OTHER STEEL COMPONENTS IN THE JACKING BEAM (ANGLES, SHIM PLATES, CLAMPS, FILLER PLATE ETC.) ARE ASTM A709 GRADE 36 OR GRADE 50.
6. SEE JACKING STIFFENER DETAILS SHEET FOR FIELD WELD REQUIREMENTS FOR ANGLES WELDED TO THE EXISTING STEEL GIRDERS AT THE EXPANSION JOINT LOCATIONS.
7. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR JACKING BEAM ASSEMBLY FOR ENGINEER'S APPROVAL. THE SHOP DRAWINGS SHALL INCLUDE MATERIALS, DETAILS, AND SUPPORT CALCULATIONS. THE STEEL MATERIAL GRADE AND DIMENSIONS FOR HANGER, L BAR AND JACKING BEAM SHALL NOT BE CHANGED UNLESS WITH ENGINEER'S APPROVAL. THE CONTRACTOR MAY SUBMIT ALTERNATIVE JACKING DETAILS THROUGH A CSI FOR THE APPROVAL OF THE ENGINEER AND MDAD.
8. THE JACKING BEAM DETAILS SHOWN ON THE DRAWINGS ARE TYPICAL DETAILS. THE CONTRACTOR SHALL SURVEY THE DIMENSIONS OF THE EXISTING GIRDERS AT EACH JACKING LOCATION AND DEVELOP SPECIFIC DETAILS TO MAKE SURE THE JACKING BEAMS FIT THE GEOMETRY OF THE EXISTING GIRDERS. THE JACKING BEAM DETAILS PROVIDED IN THE SHOP DRAWINGS SHALL CONSIDER (1) VARIED CLEARANCE BETWEEN THE BOTTOM OF THE GIRDER AND TOP OF THE EXISTING ROOF, (2) VARIED ELEVATIONS AND GAPS BETWEEN ADJACENT STEEL GIRDERS, AND (3) VARIED GIRDER LONGITUDINAL ALIGNMENTS AT THE EXPANSION JOINTS (AS AN EXAMPLE, ADJACENT GIRDERS AT BEARING B-5 ARE NOT ALONG A STRAIGHT LINE AT THE BEARING LOCATION). THE CONTRACTOR'S CONSTRUCTION SCHEDULE SHALL CONSIDER THE TIME REQUIRED FOR CONDUCTING A SURVEY, DEVELOPING SHOP DRAWING, SHOP DRAWING REVIEWS, AND FABRICATION OF THE JACKING BEAMS. THE SUBMITTED SHOP DRAWINGS WILL NOT BE ACCEPTED IF NOT MEETING ENGINEER'S DESIGN INTENT AND NOT MEETING DESIGN REQUIREMENTS.
9. CLEAR THE UTILITIES HANGED ON THE EXISTING STEEL GIRDERS IN CONFLICT WITH THE JACKING BEAMS PRIOR TO THE INSTALLATION OF THE JACKING BEAM ASSEMBLY.
10. WEIGHT OF EACH 8-FOOT JACKING BEAM (EXCLUDING HANGER AND L BAR) IS APPROXIMATELY 860 LBS. FOR THE STORAGE OR MOVEMENT OF JACKING BEAMS ON EXISTING ROOFS (WHEN APPLICABLE), THE CONTRACTOR SHALL USE MEANS AND METHODS TO DISTRIBUTE / SPREAD THE WEIGHT OF JACKING BEAM TO AVOID THE DAMAGE OF EXISTING ROOF IF NECESSARY. ANY ROOF DAMAGE SHALL BE REPAIRED BY THE CONTRACTOR AT NO COST TO THE MDAD AND MIA.

JIMIN HUANG LICENSE No 66797 STATE OF FLORIDA PROFESSIONAL ENGINEER

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ENGINEER OF RECORD: JIMIN HUANG
FL PE NO. 66797

MIA MIAMI-DADE COUNTY

MARK	DESCRIPTION	DATE

DESIGNED BY: JD
DRAWN BY: EC
CHECKED BY: JH
SUBMITTED BY: JH
ISSUE DATE: 05/25/2022
SOLICITATION NO.: -
CONTRACT NO.: -
SIZE: ANSI F

MIAMI-DADE AVIATION DEPARTMENT
MIAMI INTERNATIONAL AIRPORT
MIAMI-DADE COUNTY
P.O. BOX 592075 MIAMI, FL 33159

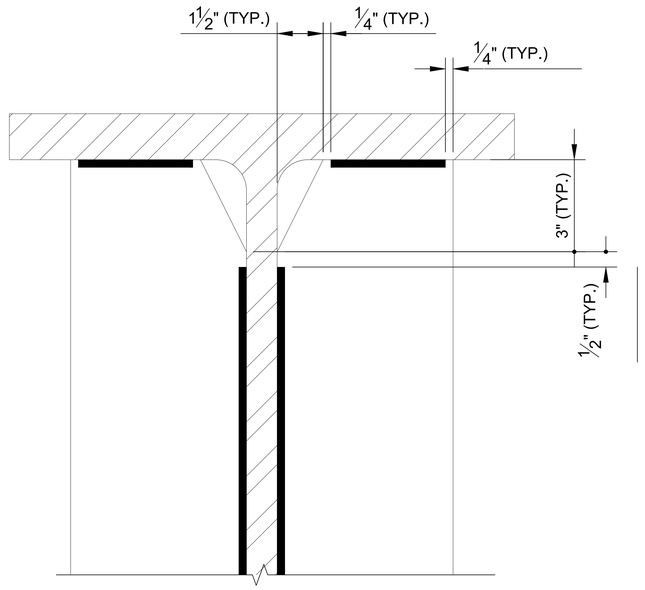
HDR
3250 WEST COMMERCIAL BOULEVARD, SUITE 100
FORT LAUDERDALE, FL 33309

MIAMI INTERNATIONAL AIRPORT
CONCOURSE E SATELLITE
APM BRIDGE REHABILITATION PROJECT
MDAD PROJECT NUMBER: AB003A

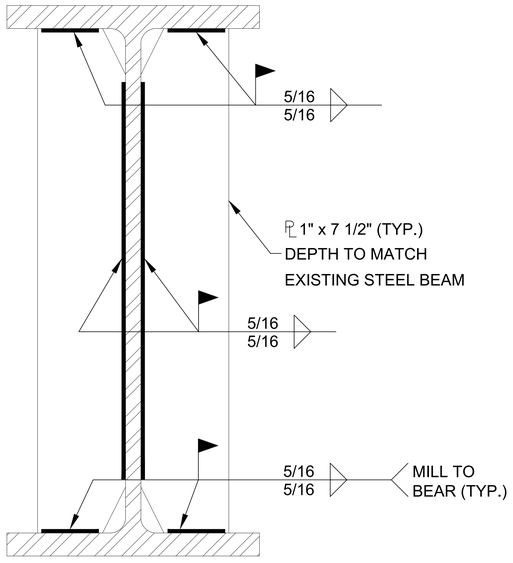
JACKING DETAILS (4 OF 4)

SHEET ID
S16

BID SET



STIFFENER WELD TERMINATIONS
AND CLIP DETAIL



JACKING STIFFENERS
(W36 BEAM WITH OR WITHOUT COVER PLATES)

FIELD WELD NOTES

1. SHOP DRAWINGS SHALL BE SUBMITTED FOR FIELD WELD OF THE STIFFENERS TO THE EXISTING STEEL GIRDERS.
2. PRIOR TO THE BEGINNING OF ANY WELDING A WELD PROCEDURE SPECIFICATION (WPS) AND SUPPORTING PROCEDURE QUALIFICATION RECORD (PQR) SHALL BE SUBMITTED FOR REVIEW AND APPROVAL BY THE ENGINEER AND MDAD.
3. ALL WELDING SHALL BE PERFORMED BY QUALIFIED WELDERS THAT COMPLY WITH THE APPROPRIATE CODE, MATERIAL AND POSITION.
4. ALL WELDING SHALL BE VISUALLY INSPECTED BY AN AMERICAN WELDING SOCIETY (AWS) CERTIFIED WELDING INSPECTOR (CWI). A REPORT SHALL BE ISSUED BY THE INSPECTOR THAT IS STAMPED AND DATED STATING THAT ALL WELDING HAS BEEN COMPLETED IN COMPLIANCE WITH THE CONTRACT DOCUMENTS AND THE APPROPRIATE CODE.
5. IF NON-DESTRUCTIVE TESTING OTHER THAN VISUAL IS REQUIRED, QUALIFIED TECHNICIANS SHALL PERFORM THE WORK AS SPECIFIED BY THE AWS CODE SHOWN ON THE GENERAL NOTES SHEET.
6. IF REMOVAL OF EXISTING WELDS IS REQUIRED, SUBMIT SHOP DRAWINGS FOR THE METHOD AND PROCEDURE FOR WELD REMOVAL.

NOTES:

1. SEE FRAMING PLANS FOR LOCATIONS OF JACKING STIFFENERS.
2. STIFFENER STEEL SHALL BE ASTM A572 GRADE 50.
3. JACKING STIFFENERS MAY BE INSTALLED WITH TRAIN RUNNING. PROVIDE TEMPORARY SUPPORT OR TEMPORARY SUPPORT TOWER AT THE JACKING STIFFENER LOCATION WHEN NEW STIFFENER IS WELDED TO EXISTING GIRDER.
4. PAINT THE REPLACEMENT ANGLE WITH A HIGH-PERFORMANCE PAINT AND WITH A COLOR MATCHING THE EXISTING STEEL STRUCTURE BASED ON FDOT STANDARD SPECIFICATIONS.

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ENGINEER OF RECORD: JIMIN HUANG
FL PE NO. 66797

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SIZE: ANSI F -

MIAMI-DADE AVIATION DEPARTMENT
MIAMI INTERNATIONAL AIRPORT
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MIAMI INTERNATIONAL AIRPORT
CONCOURSE 'F' SATELLITE
APM BRIDGE REHABILITATION PROJECT
MDAD PROJECT NUMBER: AB003A

JACKING STIFFENER DETAILS

SHEET ID
S17

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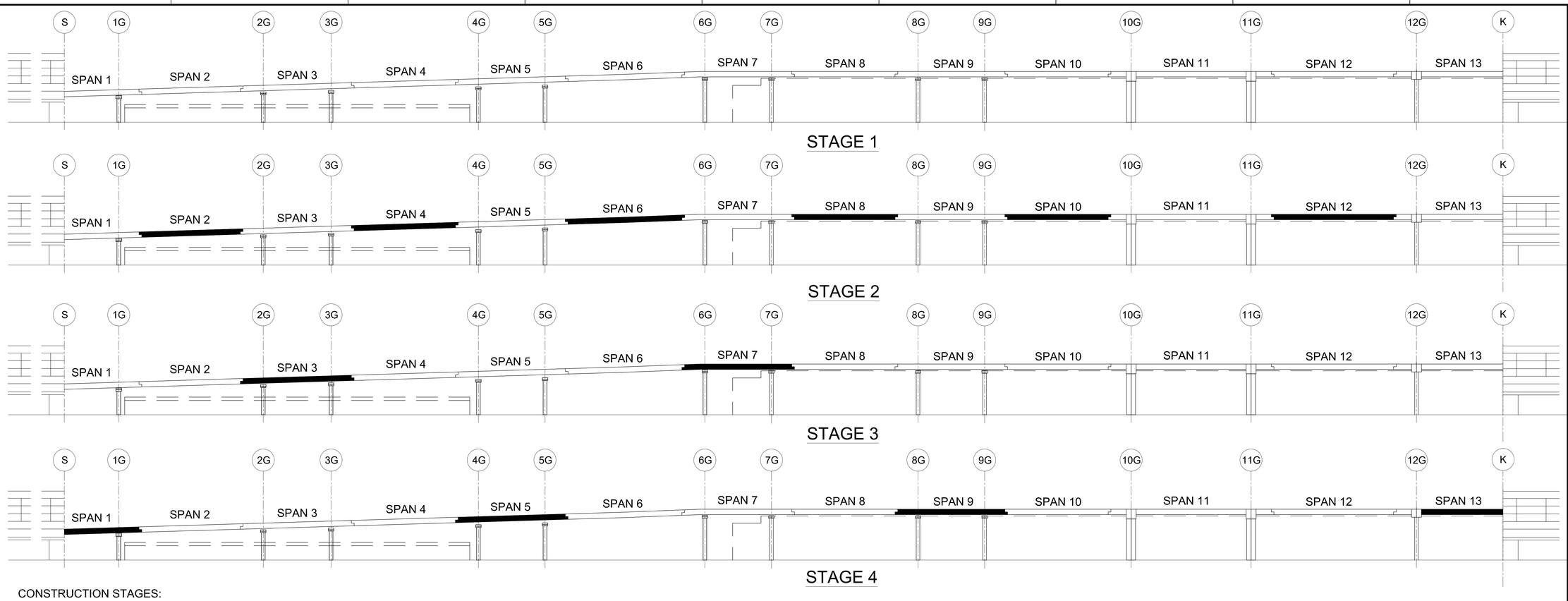

CONSTRUCTION STAGES:

STAGE 1:

STEP 1: CORE HOLES IN THE EXISTING PIER CAPS AND INSTALL POST-TENSIONING (PT) BARS IN THE CAPS. STRESS PT BARS AS REQUIRED ON PLANS AND GROUT PT DUCTS PER SPECIFICATIONS. INSTALL JACKING STIFFENERS AND DRILL HOLES FOR ANCHOR BOLTS AT PIER LOCATIONS WITH NO TRAIN RUNNING ON THE TRACKS. INSTALL TEMPORARY JACKING FRAMES OR TEMPORARY SUPPORTS AT BOTH ABUTMENTS. THE WORK IN THIS STEP CAN BE PERFORMED DURING NIGHT CLOSURES PRIOR TO TRAIN SHUTDOWN PERIOD.

STEP 2: AFTER APM SYSTEM IS SHUT DOWN FOR CONSTRUCTION, RELEASE HANGERS FOR THE UTILITIES INCLUDING PIPES AND APM HARDWARE COMPONENTS ATTACHED TO THE BRIDGE STRUCTURES. PROVIDE NECESSARY SUPPORTS TO THE UTILITIES AS NEEDED TO AVOID ANY DAMAGE. RELEASE UTILITY CONNECTIONS AT PIER SUPPORTS TO ALLOW AN UPWARD MOVEMENT OF AT LEAST 1".

STEP 3: RELEASE TRACKS AT EACH EXPANSION JOINT TO BE DISCONTINUOUS ACROSS THE JOINT. TRACKS SHOULD BE FREE TO MOVE AT THE JOINT TO ALLOW AN UPWARD MOVEMENT OF AT LEAST 1".

STAGE 2:

STEP 1: INSTALL JACKING BEAMS AT EXPANSION JOINT LOCATIONS AS NEEDED.

STEP 2: JACK DROP-IN SPANS IN SPANS 2, 4, 6, 8, AND 12. THE CONTRACTOR CAN JACK AND REPLACE BEARINGS FOR ONE SPAN AT A TIME OR JACK AND REPLACE BEARINGS IN MULTIPLE SPANS AT THE SAME TIME DEPENDING ON THE RESOURCES AVAILABLE AND PROJECT SCHEDULE. FOR JACKING EACH SPAN, EACH END OF EACH DROP-IN SPAN SHALL BE JACKED UP SIMULTANEOUSLY WITH A MINIMUM OF 4 JACKING BEAMS UTILIZED. PRIOR TO JACKING, VERIFY
ALL UTILITY CONNECTIONS TO THE DROP-IN SPAN ARE CLEARED FOR AN UPWARD MOVEMENT. AFTER JACKING UP THE BEAMS, SECURE THE BEAMS WITH SHIM SUPPORTS AND LATERAL RESTRAINTS FOR STABILITY.

STEP 3: BREAK WELDS BETWEEN THE EXISTING BEARING AND THE EXISTING STEEL GIRDERS WITH A GRINDER AND INSTALL NEW BEARING ASSEMBLY.

STEP 4: RELEASE THE JACKS AND RESTORE ASSOCIATED UTILITY CONNECTIONS.

STAGE 3:

STEP 1: JACK EXISTING GIRDERS OVER PIERS, SPAN 3 AND / OR SPAN 7. THE CONTRACTOR CAN JACK AND REPLACE BEARINGS FOR ONE SPAN AT A TIME OR JACK AND REPLACE BEARINGS FOR BOTH SPANS AT THE SAME TIME DEPENDING ON THE RESOURCES AVAILABLE AND PROJECT SCHEDULE. FOR JACKING EACH SPAN OVER PIERS, THE ENTIRE SPAN SHALL BE JACKED UP SIMULTANEOUSLY WITH A MINIMUM OF 16 JACKS UTILIZED. PRIOR TO JACKING, VERIFY ALL UTILITY CONNECTIONS TO THE SPAN ARE CLEARED FOR AN UPWARD MOVEMENT. AFTER JACKING UP THE BEAMS, SECURE THE BEAMS WITH SHIM SUPPORTS AND LATERAL RESTRAINTS FOR STABILITY.

STEP 2: BREAK THE WELDS BETWEEN THE EXISTING BEARING AND THE EXISTING STEEL GIRDERS WITH A GRINDER, CUT THE EXISTING ANCHOR BOLTS AND REMOVE THE EXISTING BEARING ASSEMBLY AND THE CONCRETE PEDESTALS BELOW. POUR NEW CONCRETE PEDESTAL WITH RAPID HARDENING CONCRETE. AFTER THE CONCRETE REACHING A MINIMUM STRENGTH OF 4 KSI, INSTALL NEW BEARING ASSEMBLY.

STEP 3: RELEASE JACKS AND RESTORE ASSOCIATED UTILITY CONNECTIONS. GROUT ANCHOR BOLT BLOCKOUTS.

STAGE 4:

STEP 1: REPEAT STEPS IN STAGE 3 FOR SPANS 1, 5, 9, AND 13 EXCEPT FOR ADDITIONAL STEPS FOR SPANS 1 AND 13 BELOW.

STEP 2: FOR SPAN 1, AT ABUTMENT S, PRIOR TO JACKING SPAN 1 AND PORTION OF SPAN 2 OVER PIER 1G, RELEASE ANCHOR BOLTS AT ABUTMENT S AND PROVIDE TEMPORARY HOLD-DOWN FOR STABILITY.

STEP 3: FOR SPAN 13, ONLY JACK THE EXISTING GIRDER FROM THE ABUTMENT AND NO JACKING REQUIRED AT PIER 12G.

CONSTRUCTION NOTES:

1. PRIOR TO SUBMIT SHOP DRAWINGS FOR NEW BEARING ASSEMBLY, THE CONTRACTOR MUST SURVEY THE EXISTING BRIDGE TO DETERMINE REQUIRED BEARING SIZES TO MATCH THE EXISTING BEARING HEIGHT AS WELL AS LONGITUDINAL AND TRANSVERSE SLOPES AT THE BEARING LOCATIONS. AFTER BEARING REPLACEMENT, THE NEW BEARING ASSEMBLY SHALL NOT CHANGE ANY GEOMETRY OF THE EXISTING GIRDERS INCLUDING ELEVATIONS AND SLOPES AT THE BEARING LOCATIONS WITHIN A TOLERANCE OF ± 0.05" FOR GIRDER ELEVATIONS AND ±0.0015 RAD FOR LONGITUDINAL AND TRANSVERSE SLOPES. THE NEW BEARING PADS SHALL BE LOADED UNIFORMLY AFTER REPLACEMENT.

2. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL SURVEY ALL UTILITIES ATTACHED TO THE EXISTING BRIDGES AND PROVIDE SHOP DRAWINGS ON MEANS AND METHODS FOR RELEASING UTILITIES INCLUDING THOSE HANGED UNDER THE BRIDGE AND ALSO THE PIPES AND CONDUITS ATTACHED TO THE BRIDGE. THE SHOP DRAWINGS SHALL INCLUDE SKETCHES SHOWING THE UTILITY AFFECTED AND ALSO SUPPORT CALCULATIONS TO ALLOW THEM TO BE RELEASED FOR AN UPWARD MOVEMENT OF AT LEAST 1" WITHOUT DAMAGING THE ATTACHMENTS OR THE EXISTING GIRDER. RELEASING APM COMPONENTS AND/OR TRACKS DURING JACKING OPERATION IS NOT INCLUDED IN THE CONTRACT. THE CONTRACTOR SHALL COORDINATE WITH MIA APM MAINTENANCE ON THE SCHEDULE OF RELEASING APM COMPONENTS AND/OR TRACKS FOR JACKING PRIOR TO THE TRAIN SHUTDOWN PERIOD.

3. THE CONTRACTOR'S SPECIALTY ENGINEER IS RESPONSIBLE FOR DETERMINING THE NEED FOR TEMPORARY BRACES, TEMPORARY SHORING, HOLD CRANES, ETC. TO ENSURE STABILITY OF THE STRUCTURES DURING ALL STAGES OF CONSTRUCTION.

4. THE CONTRACTOR'S SPECIALTY ENGINEER IS RESPONSIBLE FOR THE DESIGN AND DETAILING OF TEMPORARY BLOCKING, GIRDER END RESTRAINTS, AND ANY SUPPORT SYSTEM USED FOR LOCAL STABILITY.

5. EXCEPT FOR BEARING REPLACEMENT STAGES ON THE SHEET, OTHER REPAIR WORK SHOWN ON THE PLANS CAN BE PERFORMED PRIOR, DURING, OR AFTER THE TRAIN SHUTDOWN PERIOD.

6. REMOVE WELDING WITH A GRINDER OR USING OTHER METHOD APPROVED BY THE ENGINEER.

JIMIN HUANG LICENSE No 66797 STATE OF FLORIDA PROFESSIONAL ENGINEER

Jimin Huang
2024.03.13
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ENGINEER OF RECORD: JIMIN HUANG
FL PE NO. 66797

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MIAMI-DADE AVIATION DEPARTMENT
MIAMI INTERNATIONAL AIRPORT
MIAMI-DADE COUNTY, FLORIDA
P.O. BOX 592075 MIAMI, FL. 33159

HDR
3250 WEST COMMERCIAL BOULEVARD, SUITE 100
FORT LAUDERDALE, FL. 33309

MIAMI INTERNATIONAL AIRPORT
AUTOMATED PEOPLE MOVER SYSTEM
APM BRIDGE REHABILITATION PROJECT
MDAD PROJECT NUMBER: AB003A

CONSTRUCTION SEQUENCE

MARK	DESCRIPTION	DATE

DESIGNED BY: JD
DRAWN BY: EC
CHECKED BY: JH
SUBMITTED BY: JH
ISSUE DATE: 05/25/2022
SOLICITATION NO.: -
CONTRACT NO.: -
SIZE: ANSI F -

SHEET ID
S18

BID SET

NOTES FOR SPALL REPAIR:

1. PRIOR TO REPAIR, VISUAL INSPECTION OF THE DECK BY THE CONTRACTOR AND THE ENGINEER IS REQUIRED. IF CONDITION DIFFERING FROM THOSE IDENTIFIED IN THE INSPECTION REPORT AND DETAILS PROVIDED IN THE PLANS ARE ENCOUNTERED, NOTIFY THE ENGINEER IN ACCORDANCE WITH THE SPECIFICATIONS.

2. ALL SURFACES TO BE REPAIRED MUST BE CLEAN, SOUND AND FREE OF CHLORIDE CONTAMINATED MOISTURE, OIL AND GREASE. REMOVE DUST, RESIDUE, MARINE GROWTH, LAITANCE, CURING COMPOUNDS, WAXES, IMPREGNATION, FOREIGN PARTICLES AND OTHER BOND INHIBITING MATERIALS FROM THE SURFACE BY MEDIA BLASTING. CHIP OFF AREAS THAT HAVE BEEN SATURATED WITH OIL OR GREASE TO SOUND NON-CONTAMINATED CONCRETE. AREAS THAT MAY TRAP AIR ARE TO BE TRIMMED OR VENTED. IF AREAS BECOME CONTAMINATED AFTER INITIAL CLEANING, THEY MUST BE RE-CLEANED PRIOR TO APPLY THE REPAIR MATERIAL.

3. CONTRACTOR SHALL USE EXTREME CAUTION NOT TO DAMAGE EXISTING REINFORCING STEEL. REINFORCING STEEL.IF ANY REINFORCING STEEL IS DAMAGED, THE CONTRACTOR SHALL NOTIFY THE ENGINEER FOR ADDITIONAL INSTRUCTION ON THE APPLICABLE REPAIR. ANY REINFORCING STEEL IS DAMAGED BY THE CONTRACTOR IS TO BE REPAIRED AT NO COST TO THE COUNTY. REMAINING REINFORCING STEEL MUST DISPLAY ACCEPTABLE BONDING WITH EXISTING CONCRETE. IF BONDING IS LOST OR DAMAGED, ADDITIONAL REINFORCING STEEL SHALL BE EXPOSED UNTIL BONDED UNDAMAGED REINFORCING STEEL IS REACHED. EXISTING EPOXY COATING (IF EXISTS) NEED BE RESTORED.

4. PROVIDE AN AGGREGATE-FRACTURED SURFACE WITH AN APPROXIMATE SURFACE PROFILE AMPLITUDE OF $\frac{1}{8}$" BY USE OF SCRABBLER OR OTHER APPROPRIATE MEANS AS NECESSARY.

5. REMOVE CONCRETE FOR SPALLS BY SAW CUTTING AROUND SPALLS ($\frac{1}{2}$" MIN. TO 1" MAX). ACHIEVE REMAINING REMOVAL DEPTH BY MEDIA BLASTING OR OTHER METHOD ACCEPTABLE TO THE ENGINEER. PREPARE A DETERIORATED CONCRETE REMOVAL TEST SECTION PRIOR TO REMOVING THE DETERIORATED CONCRETE FOR REVIEW AND APPROVAL BY THE ENGINEER.

6. IF THE EXISTING REINFORCEMENT HAS LOST MORE THAN 20% OF ITS CROSS SECTION, A NEW BAR OF EQUAL SIZE (DIAMETER) SHALL BE DRILLED AND EPOXIED WITH AN EMBEDDED LENGTH OF AT LEAST 6" AND PLACED PARALLEL TO EXISTING REINFORCING WITH A SPLICE LENGTH APPROVED BY THE ENGINEER, OR CUT THE EXISTING REBAR AND SPLICED WITH NEW REBAR WITH MECHANICAL COUPLERS. THE NEW REBAR MATERIAL SHALL BE ASTM A615 GRADE 60. IN NO CASE SHALL ANY REBAR BE PLACED WITH A COVER LESS THAN EXISTING COVER. IF THE EXISTING REBAR IS EPOXY-COATED, PROVIDE NEW REBAR WITH EPOXY COATING.

7. IF MORE THAN HALF OF THE PERIMETER OF A REINFORCING BAR IS EXPOSED OR THE BOND AROUND THE BAR IS BROKEN, CHIP ADDITIONAL SOUND CONCRETE TO PROVIDE A MINIMUM OF 1" CLEARANCE AROUND EXISTING REINFORCING STEEL AND REMOVE ANY CORROSION FROM EXPOSED REINFORCING STEEL.

8. PRIOR TO APPLYING REPAIR MATERIAL, WET EXPOSED CONCRETE SURFACES WITH CLEAN, POTABLE WATER. SUBSTRATE SHALL BE SATURATED SURFACE DRY. APPLY AN APPROVED BONDING AGENT TO THE EXPOSED CONCRETE SURFACES.

9. PLACE FORM WORK. FORM WORK MAY BE SUPPORTED BY STAINLESS STEEL INSERTS WHERE REQUIRED. STAINLESS STEEL INSERTS WILL BE LOCATED IN SOUND CONCRETE AND MAY REMAIN IN PLACE. STAINLESS STEEL INSERTS LEFT IN PLACE SHALL BE RECESSED AND PATCHED. IF APPLICABLE, SUBMIT THE MATERIAL OF STAINLESS STEEL INSERTS FOR ENGINEER'S APPROVAL PRIOR TO CONSTRUCTION.

10. PLACEMENT OF FORMS AND POURING SHALL BE COMPLETED AS SOON AS IS PRACTICAL AFTER MEDIA BLASTING AND BEFORE ANY OTHER CONTAMINATING SITUATION OCCURS (72 HOURS MAX.).

11. THE CONTRACTOR SHALL ADHERE TO THE REQUIREMENTS OF THE TECHNICAL SPECIAL PROVISIONS FOR CONCRETE RESTORATION WITH LATEX MODIFIED PORTLAND CEMENT MORTAR/CONCRETE. PLACE THE LATEX MODIFIED PORTLAND CEMENT MORTAR/CONCRETE IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS, TO OVERBUILD AS SHOWN IN DETAIL A.

12. FOR SPALLS IN WHICH FORMWORK IS NOT NEEDED, THE REPAIR MATERIAL CAN BE PLACED BY HAND AND TROWELED TO MATCH THE ORIGINAL SECTION. DEFECTS IN THE BASE CONCRETE SUCH AS BROKEN PIECES, VOIDS, HONEYCOMB, CORROSION, ETC. MUST BE REMOVED.

13. CURE PER TECHNICAL SPECIAL PROVISIONS OR CURE AT MANUFACTURER'S REQUIREMENTS.

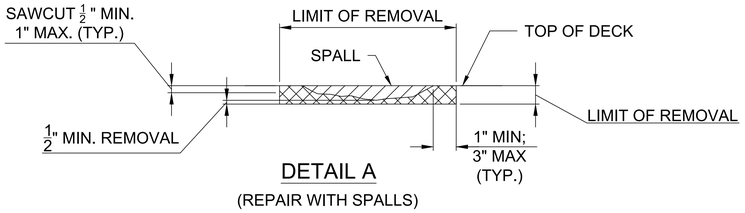
14. WHEN SURFACE TO BE REPAIRED EXCEEDS 25% OF THE ELEMENT, REPAIR ONLY 25% OF THE ELEMENT AT A TIME.

15. IRREGULAR SHAPE OF BOUNDARY OF LOOSE AND/OR DELAMINATED CONCRETE IS RECOMMENDED TO BE REPAIRED WITH A RECTANGULAR SHAPE OR A COMBINATION OF RECTANGULAR SHAPES.

TABLE OF DECK SPALL DEFICIENCIES

SPAN NO.	LOCATION *	LENGTH (IN.)	WIDTH (IN.)	DEPTH (IN.)
8	WB BRIDGE, 2 FT. FROM JOINT NO. 9	12	9	1 1/4
8	EB BRIDGE, 30 FT. FROM JOINT NO. 8	14	27	1/2
9	EB BRIDGE, 50 FT. FROM JOINT NO. 9	8	7	1/2
9	WB BRIDGE, 13 FT. FROM JOINT NO. 10	4	7	1

* SEE GENERAL PLAN AND ELEVATION SHEET FOR SPAN AND JOINT LOCATIONS



DETAIL A

(REPAIR WITH SPALLS)

NOTES FOR CRACK REPAIR

1. PRIOR TO REPAIR, VISUAL INSPECTION OF THE DECK CRACKS BY THE CONTRACTOR AND THE ENGINEER IS REQUIRED. IF CONDITIONS DIFFERING FROM THOSE IDENTIFIED IN THE INSPECTION REPORT AND DETAILS PROVIDED IN THE PLANS ARE ENCOUNTERED, NOTIFY THE ENGINEER IN ACCORDANCE WITH SPECIAL SPECIFICATIONS.

2. THE CONTRACTOR SHALL PERFORM A THOROUGH SURVEY OF THE EXHIBITED CRACK IN THE DECK AND SUBMIT THE CRACK MAPPING TO THE ENGINEER.

3. EPOXY INJECT AND SEAL THE CRACKS BASED ON FDOT SPECIFICATIONS.

TABLE OF DECK CRACK DEFICIENCIES

ABUTMENT NO.	LOCATION	LENGTH (IN.)	WIDTH (IN.)
1	30 FT. FROM ABUTMENT NO.1 BETWEEN TRACKS	30	1/16
1	NEAR ABUTMENT NO.1 4 LONGITUDINAL CRACKS AND 4 DIAGONAL CRACKS	UP TO 36	UP TO 1/8

NOTES FOR EXPANSION JOINT REPAIR AND REPLACEMENT:

1. PRIOR TO REPAIR, VISUAL INSPECTION OF THE DECK EXPANSION JOINTS BY THE CONTRACTOR AND THE ENGINEER IS REQUIRED. IF CONDITIONS DIFFERING FROM THOSE IDENTIFIED IN THE INSPECTION REPORT AND DETAILS PROVIDED IN THE PLANS ARE ENCOUNTERED, NOTIFY THE ENGINEER IN ACCORDANCE WITH SPECIAL SPECIFICATIONS.

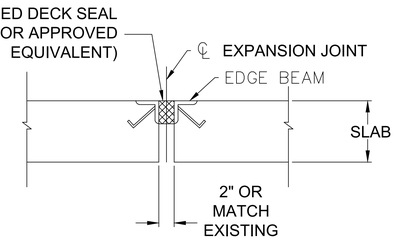
2. CLEAN AND REPLACE ALL EXPANSION JOINTS. REPAIR EXISTING JOINT HEADER FOR ANY SPALLING, CRACKS AND DETERIORATION. REPAIR OR REPLACE EXPANSION JOINT EDGE BEAM (IF APPLICABLE) FOR ANY DAMAGES DUE TO CORROSION OR DETERIORATION.

3. REMOVE EXISTING JOINT SEAL AND CLEAN THE JOINTS.

4. INSTALL NEW JOINT SEAL. SEE MIA DESIGN GUIDELINE MANUAL SECTION 079200 FOR ADDITIONAL JOINT SEALANTS REQUIREMENTS.

5. FOR EB BRIDGE JOINT 9, CLEAN AND REMOVE CORROSION FROM THE JOINT METAL HEADER.

6. SHOP DRAWINGS SHALL BE SUBMITTED FOR ENGINEER'S APPROVAL INCLUDING JOINT AND SEALER MATERIALS, REPAIR DETAILS AND PROCEDURE, NEW JOINT DETAILS AND INSTALLATION REQUIREMENTS, AND ANY OTHER APPLICABLE SUPPORT DOCUMENTS. SHOP DRAWINGS SHALL BE SIGNED AND SEALED BY A PROFESSIONAL ENGINEER IN FLORIDA.



EXPANSION JOINT DETAIL

(WALKWAY OR ROADBED SLABS)

JIMIN HUANG LICENSE No 66797 STATE OF FLORIDA PROFESSIONAL ENGINEER

Jimin Huang
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ENGINEER OF RECORD: JIMIN HUANG
FL PE NO. 66797

MIAMI-DADE COUNTY

MARK	DESCRIPTION	DATE

DESIGNED BY: JD
DRAWN BY: EC
CHECKED BY: JH
SUBMITTED BY: JH
ISSUE DATE: 05/25/2022
SOLICITATION NO.: -
CONTRACT NO.: -
SIZE: ANSI F

MIAMI-DADE AVIATION DEPARTMENT
MIAMI INTERNATIONAL AIRPORT
MIAMI-DADE COUNTY, FLORIDA
P.O. BOX 592075 MIAMI, FL. 33159

3250 WEST COMMERCIAL BOULEVARD, SUITE 100
FORT LAUDERDALE, FL 33309

MAIMI INTERNATIONAL AIRPORT
CONCOURSE E SATELLITE
APM BRIDGE REHABILITATION PROJECT
MDAD PROJECT NUMBER: AB003A

DECK REPAIR DETAILS

SHEET ID
S19

BID SET

NOTES FOR BOLTED STEEL ANGLE REPAIR:

1. TEMPORALLY SUPPORT THE CROSS GIRDER WITH CONTRACTOR' MEANS AND METHOD.
2. REMOVE ALL THE BOLTS ON THE DAMAGED ANGLE.
3. CLEAN THE CONNECTION.
4. INSTALL REPLACEMENT ANGLE WITH REPLACEMENT BOLTS. THE REPLACEMENT ANGLE AND BOLTS SHALL MATCH THE SIZES OF THE EXISTING ANGLE AND BOLTS PRIOR TO THE REPAIR.
5. PAINT THE REPLACEMENT ANGLE AND BOLTS WITH A HIGH-PERFORMANCE PAINT AND WITH A COLOR MATCHING THE EXISTING STEEL STRUCTURE BASED ON FDOT SPECIFICATIONS.

NOTES FOR WELDED STEEL ANGLE REPAIR:

1. TEMPORALLY SUPPORT THE CROSS GIRDER AND BRACE MEMBER WITH CONTRACTOR' MEANS AND METHOD.
2. REMOVE THE WELDS ON THE DAMAGED ANGLE.
3. CLEAN THE CONNECTION ESPECIALLY FOR WELDING AREA.
4. FIELD WELD REPLACEMENT ANGLE WITH WELD SIZE AND WELD LENGTH MATCHING EXISTING CONDITION PRIOR TO THE REPAIR.
5. PAINT THE REPLACEMENT ANGLE WITH A HIGH-PERFORMANCE PAINT AND WITH A COLOR MATCHING THE EXISTING STEEL STRUCTURE BASED ON FDOT SPECIFICATIONS.

NOTES FOR STEEL MEMBER REPAIR

1. THE CONTRACTOR SHALL CONDUCT A SURVEY ON THE EXISTING BRIDGE TO IDENTIFY ANY DEFECTS ON STRUCTURAL STEEL. NOTIFY THE ENGINEER FOR ADDITIONAL STRUCTURAL MEMBERS NEED REPAIR AND NOT COVERED IN THE INSPECTION REPORT. DAMAGED STRUCTURAL MEMBERS SHALL BE REPLACED WITH NEW MEMBERS WITH EQUIVALENT OR GREATER STRUCTURAL CAPACITIES. RELATED COSTS SHALL BE INCLUDED IN THE BID PRICE.

TABLE OF STEEL COMPONENT DEFICIENCIES	
SUPPORT NO.	LOCATION AND DESCRIPTION
SPAN 4	CROSS GIRDER 6 AT CONNECTION TO GIRDER 1, THE WEST ANGLE EXHIBITS A VERTICAL CRACK / FRACTURE 6" LONG X 1/32" WIDE WITH CORROSION BLEED-OUT, EMANATING FROM THE BOTTOM OF THE ANGLE.
PIER 6	AT GIRDER 1, CROSS BRACING CONNECTING ANGLE IS DETACHED ALONG ITS FULL HEIGHT (5") AND FULL LENGTH (12"), CREATING A GAP 1/2" AT THE BOTTOM.

MIAMI-DADE COUNTY

MARK	DESCRIPTION	DATE

DESIGNED BY: JD
DRAWN BY: EC
CHECKED BY: JH
SUBMITTED BY: JH
ISSUE DATE: 05/25/2022
SOLICITATION NO.: -
CONTRACT NO.: -
SIZE: ANSI F -

MIAMI-DADE AVIATION DEPARTMENT
MIAMI INTERNATIONAL AIRPORT
AIRPORT OPERATIONS
P.O. BOX 592075 MIAMI, FL. 33159

HDR
3250 WEST COMMERCIAL BOULEVARD, SUITE 100
FORT LAUDERDALE, FL 33309

MIAMI INTERNATIONAL AIRPORT
CONCOURSE 'E' SATELLITE
APM BRIDGE REHABILITATION PROJECT
MDAD PROJECT NUMBER: ABI003A

STEEL REPAIR DETAILS

SHEET ID
S20

JIMIN HUANG LICENSE No 66797 STATE OF FLORIDA PROFESSIONAL ENGINEER

Jimin Huang
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ENGINEER OF RECORD: JIMIN HUANG
FL PE NO. 66797

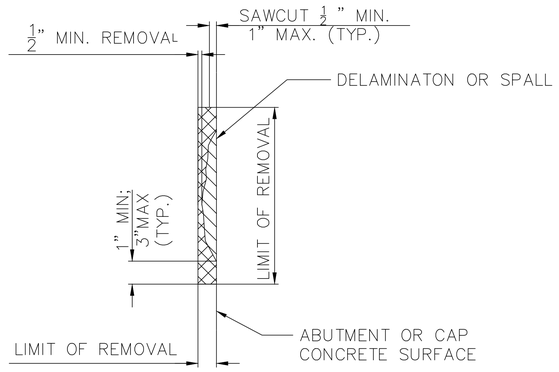
BID SET

NOTES FOR DELAMINATION OR SPALL REPAIR:

1. PRIOR TO REPAIR, VISUAL INSPECTION OF THE SUBSTRUCTURE BY THE CONTRACTOR AND THE ENGINEER IS REQUIRED. IF CONDITIONS DIFFERING FROM THOSE IDENTIFIED IN THE INSPECTION REPORT AND DETAILS PROVIDED IN THE PLANS ARE ENCOUNTERED, NOTIFY THE ENGINEER IN ACCORDANCE WITH THE SPECIFICATIONS.
2. TEMPORARILY UNINSTALL ANY UTILITIES MOUNTED ON THE DAMAGED CONCRETE SURFACE IF EXISTED AND IN CONFLICT WITH THE REPAIR. AVOID ANY DAMAGE OF THE UTILITIES SUCH AS CONDUITS, PULL BOX, JUNCTION BOX, ETC.
3. ALL SURFACES TO BE REPAIRED MUST BE CLEAN, SOUND AND FREE OF CHLORIDE CONTAMINATED MOISTURE, OIL AND GREASE. REMOVE DUST, RESIDUE, MARINE GROWTH, LAITANCE, CURING COMPOUNDS, WAXES, IMPREGNATION, FOREIGN PARTICLES AND OTHER BOND INHIBITING MATERIALS FROM THE SURFACE BY MEDIA BLASTING. CHIP OFF AREAS THAT HAVE BEEN SATURATED WITH OIL OR GREASE TO SOUND NON-CONTAMINATED CONCRETE. AREAS THAT MAY TRAP AIR ARE TO BE TRIMMED OR VENTED. IF AREAS BECOME CONTAMINATED AFTER INITIAL CLEANING, THEY MUST BE RE-CLEANED PRIOR TO APPLY THE REPAIR MATERIAL.
4. CONTRACTOR SHALL USE EXTREME CAUTION NOT TO DAMAGE EXISTING REINFORCING STEEL. REINFORCING STEEL.IF ANY REINFORCING STEEL IS DAMAGED, THE CONTRACTOR SHALL NOTIFY THE ENGINEER FOR ADDITIONAL INSTRUCTION ON THE APPLICABLE REPAIR. ANY REINFORCING STEEL IS DAMAGED BY THE CONTRACTOR IS TO BE REPAIRED AT NO COST TO THE COUNTY. REMAINING REINFORCING STEEL MUST DISPLAY ACCEPTABLE BONDING WITH EXISTING CONCRETE. IF BONDING IS LOST OR DAMAGED, ADDITIONAL REINFORCING STEEL SHALL BE EXPOSED UNTIL BONDED UNDAMAGED REINFORCING STEEL IS REACHED. DAMAGED EXISTING EPOXY COATING NEEDS BE RESTORED.
5. PROVIDE AN AGGREGATE-FRACTURED SURFACE WITH AN APPROXIMATE SURFACE PROFILE AMPLITUDE OF $\frac{1}{8}$" BY USE OF SCRABBLER OR OTHER APPROPRIATE MEANS AS NECESSARY.
6. REMOVE CONCRETE FOR SPALLS BY SAW CUTTING AROUND SPALLS ($\frac{1}{2}$" MIN. TO 1" MAX). ACHIEVE REMAINING REMOVAL DEPTH BY MEDIA BLASTING OR OTHER METHOD ACCEPTABLE TO THE ENGINEER. PREPARE A DETERIORATED CONCRETE REMOVAL TEST SECTION PRIOR TO REMOVING THE DETERIORATED CONCRETE FOR REVIEW AND APPROVAL BY THE ENGINEER.
7. IF THE EXISTING REINFORCEMENT HAS LOST MORE THAN 20% OF ITS CROSS SECTION, A NEW BAR OF EQUAL SIZE (DIAMETER) SHALL BE DRILLED AND EPOXIED WITH AN EMBEDDED LENGTH AND/OR LAP SPLICE AS INDICATED IN THESE PLANS. IN NO CASE SHALL ANY REBAR BE PLACED WITH A COVER LESS THAN EXISTING COVER.
8. IF MORE THAN HALF OF THE PERIMETER OF A REINFORCING BAR IS EXPOSED OR THE BOND AROUND THE BAR IS BROKEN, CHIP ADDITIONAL SOUND CONCRETE TO PROVIDE A MINIMUM OF 1" CLEARANCE AROUND EXISTING REINFORCING STEEL AND REMOVE ANY CORROSION FROM EXPOSED REINFORCING STEEL.
9. PRIOR TO APPLYING REPAIR MATERIAL, WET EXPOSED CONCRETE SURFACES WITH CLEAN, POTABLE WATER. SUBSTRATE SHALL BE WATER SATURATED, SURFACE DRY, APPLY AN APPROVED BONDING AGENT TO THE EXPOSED CONCRETE SURFACES.
10. PLACE FORM WORK. FORM WORK MAY BE SUPPORTED BY STAINLESS STEEL INSERTS WHERE REQUIRED. STAINLESS STEEL INSERTS WILL BE LOCATED IN SOUND CONCRETE AND MAY REMAIN IN PLACE. STAINLESS STEEL INSERTS LEFT IN PLACE SHALL BE RECESSED AND PATCHED.
11. PLACEMENT OF FORMS AND POURING SHALL BE COMPLETED AS SOON AS IS PRACTICAL AFTER MEDIA BLASTING AND BEFORE ANY OTHER CONTAMINATING SITUATION OCCURS (72 HOURS MAX.).
12. THE CONTRACTOR SHALL ADHERE TO THE REQUIREMENTS OF THE TECHNICAL PROVISIONS FOR CONCRETE RESTORATION WITH LATEX MODIFIED PORTLAND CEMENT MORTAR/CONCRETE. PLACE THE LATEX MODIFIED PORTLAND CEMENT MORTAR/CONCRETE IN ACCORDANCE WITH THE MANUFACTURE'S RECOMMENDATIONS, TO OVERBUILD AS SHOWN IN DETAIL A.
13. FOR SPALLS IN WHICH FORMWORK IS NOT NEEDED, THE REPAIR MATERIAL CAN BE PLACED BY HAND AND TROWELED TO MATCH THE ORIGINAL SECTION. DEFECTS IN THE BASE CONCRETE SUCH AS BROKEN PIECES, VOIDS, HONEYCOMB, CORROSION, ETC. MUST BE REMOVED.
14. CURE PER TECHNICAL SPECIAL PROVISIONS OR CURE AT MANUFACTURER'S REQUIREMENTS.
15. WHEN SURFACE TO BE REPAIRED EXCEEDS 25% OF THE ELEMENT, REPAIR ONLY 25% OF THE ELEMENT AT A TIME.
16. IRREGULAR SHAPE OF BOUNDARY OF LOOSE AND/OR DELAMINATED CONCRETE IS RECOMMENDED TO BE REPAIRED WITH A RECTANGULAR SHAPE OR A COMBINATION OF RECTANGULAR SHAPES.
17. IF APPLICABLE, MOUNT UTILITIES BACK TO CONCRETE SURFACE AFTER CONCRETE REPAIR IS COMPLETE.

TABLE OF SUBSTRUCTURE DELAMINATION / SPALL DEFICIENCIES

SUPPORT NO.	LOCATION	WIDTH (IN.)	HEIGHT (IN.)	DEPTH (IN.)
ABUTMENT 1-E	DELAMINATIONS AT THE TOP SECTION OF ABUTMENT 1-E	126	42	--
ABUTMENT 1-W	DELAMINATIONS ON ABUTMENT 1-W ADJACENT TO GIRDER 1	16	6	--
PIER 6	DELAMINATIONS ON THE EAST AND WEST FACE OF CAP 6, EB BRIDGE	6	17	--
PIER 4	DELAMINATIONS ON THE EAST FACE OF CAP 4, EB BRIDGE	12	13	--
PIER 5	SPALL ON THE NW QUADRANT OF COLUMN 5-W	8	9	1/2



DETAIL A
(REPAIR WITH DELAMINATIONS OR SPALLS)

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JIMIN HUANG LICENSE No 66797 STATE OF FLORIDA PROFESSIONAL ENGINEER

Jimin Huang
2024.03.13
07:56:30-04'00'

ENGINEER OF RECORD: JIMIN HUANG
FL PE NO. 66797

MIAMI-DADE AVIATION DEPARTMENT
MIAMI INTERNATIONAL AIRPORT
MIA 2075 DEPT
P.O. BOX 592075 MIAMI, FL 33159

HDR
3250 WEST COMMERCIAL BOULEVARD, SUITE 100
FORT LAUDERDALE, FL 33309

MIAMI INTERNATIONAL AIRPORT
CONCOURSE E SATELLITE
APM BRIDGE REHABILITATION PROJECT
MDAD PROJECT NUMBER: AB003A

SUBSTRUCTURE REPAIR DETAILS

SHEET ID
S21

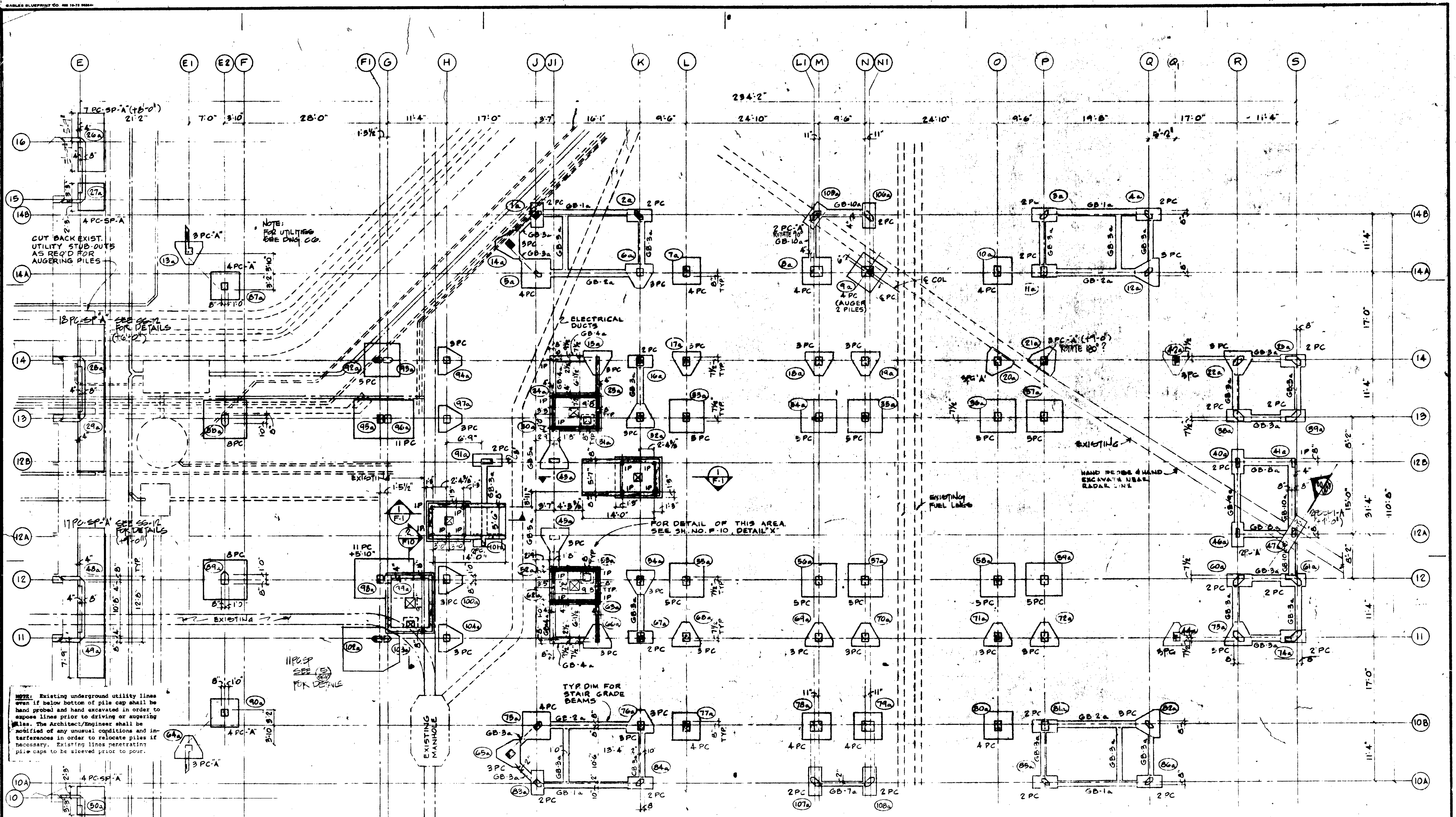
MARK	DESCRIPTION	DATE

DESIGNED BY: JD
DRAWN BY: EC
CHECKED BY: JH
SUBMITTED BY: JH
ISSUE DATE: 05/25/2022
SOLICITATION NO.: -
CONTRACT NO.: -
SIZE: ANSI F -

BID SET

BX1-1

GABLES BLUEPRINT CO.



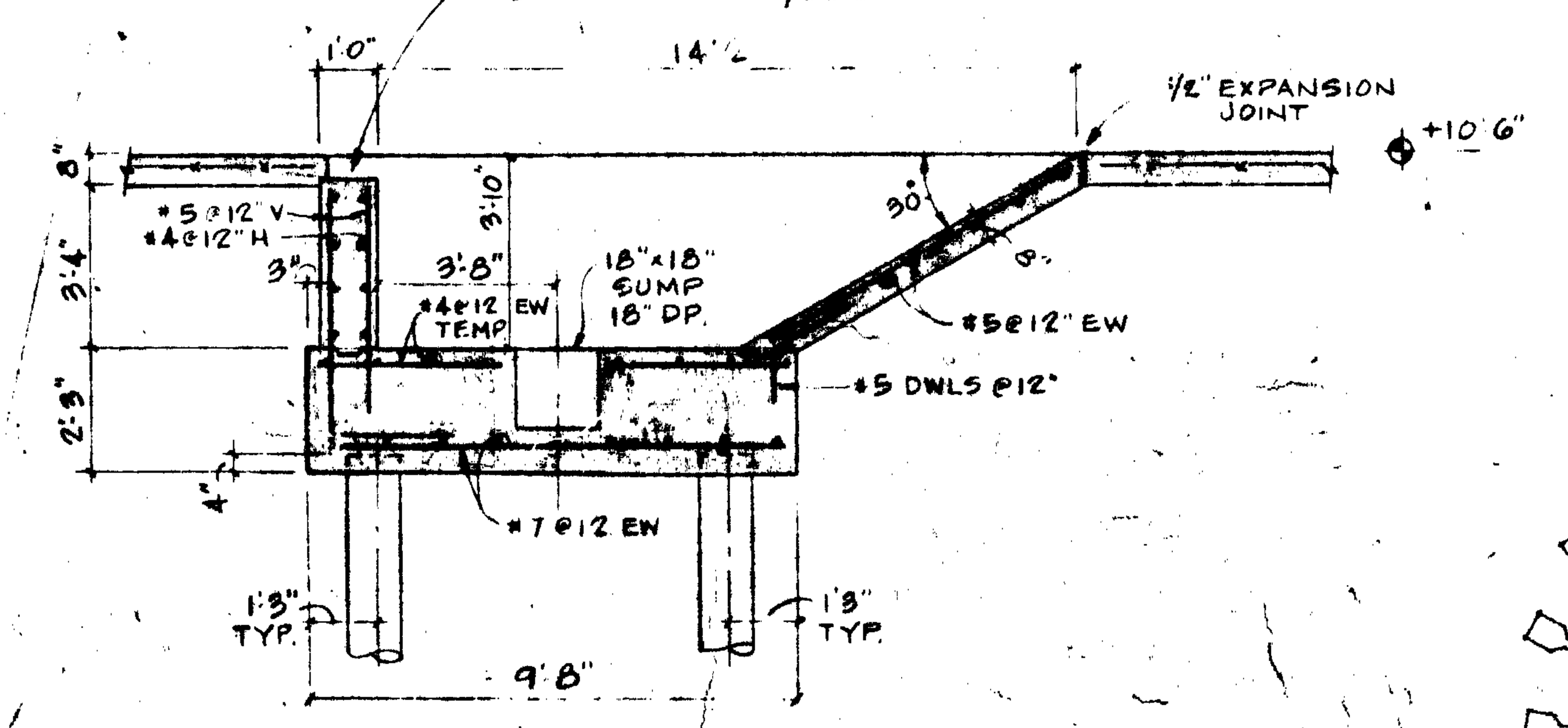
FOUNDATION PLAN
1/8" = 1'-0"

NOTE:
1- VERIFY ALL BUILDING & UTILITY LINES.
2- SEE SHEET Nº 'C-2' FOR PAVEMENT & GRADING PLAN.
3- CENTERLINE OF COLUMNS AND PILE CAPS SHALL COINCIDE UNLESS OTHERWISE NOTED.
4- ELEVATION AT TOP OF PILE CAPS SHALL BE AT +8'-6" UNLESS OTHERWISE NOTED
◯ = COLUMN MARK
5- SEE DWG F-10 FOR PILE CAP DETAILS & GRADE BEAM BAR PLACING DIAGRAM
6- SEE DWG SS-7 FOR COL. DIM. & REINF.
7- ═══ ═══ DENOTES EXISTING UNDERGROUND UTILITIES
═ ═ ═ ═ ═ DENOTES NEW UNDERGROUND UTILITIES
8- PILE CAPS INDICATED WITH "A" SUFFIX (4 PC-"A") IDENTIFY AUGERED PILE FOUNDATIONS
9- PILING NOT AUGERED TYPE SHALL BE CAST-IN-PLACE DRIVEN STEEL SHELL (SEE SPECIFICATIONS). SEE SHEET F-10 FOR PILE CAP DETAILS.

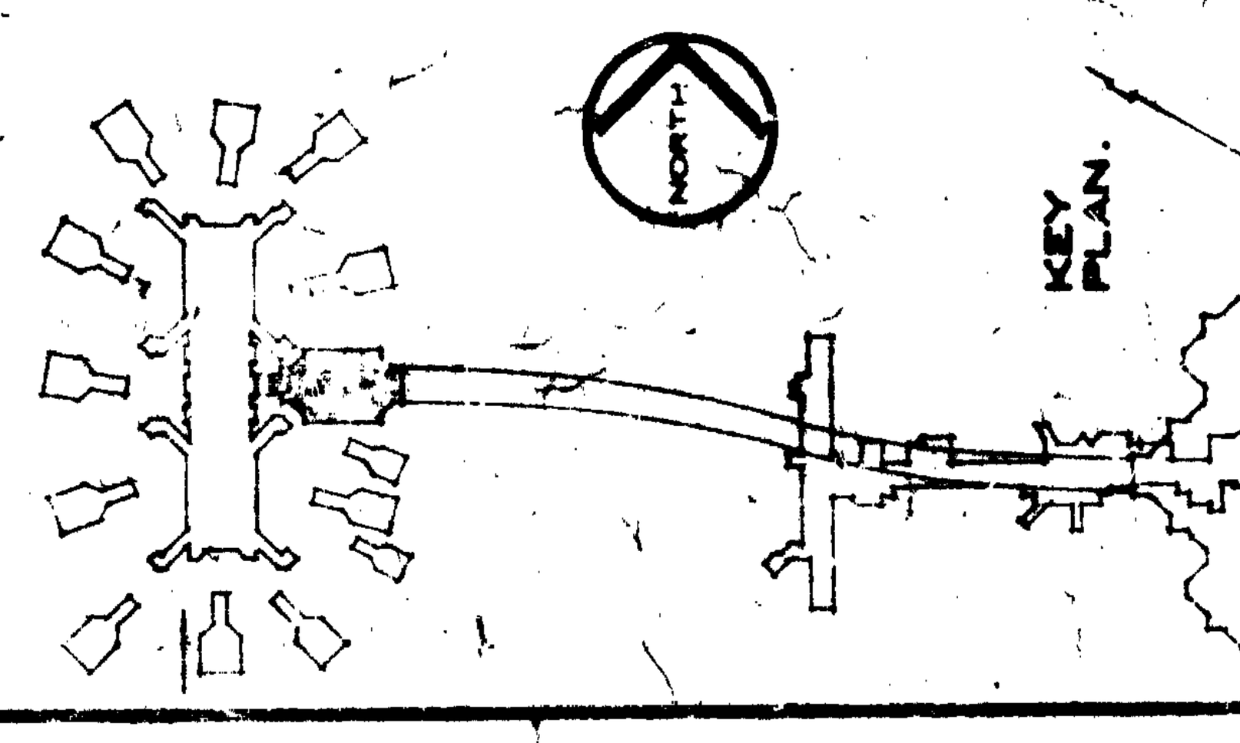
NOTE: FOR BEAM PLACING DIAGRAM, SEE DWG SS-7

GRADE BEAM SCHEDULE

MARK	ELEV TOP OF BEAM	SIZE	REINF BOTT	REINF TOP	#3 TIES NO.	#3 TIES SPACING (EA. END)	REMARKS
GB-1a	+8'-6"	12×20	2-11	2-6		#4 TIES @ 6" c/c	
GB-2a	+8'-6"	16×20	3-10	3-5		#4 TIES @ 6" c/c	
GB-3a	+8'-6"	12×20	2-6	2-6		@ 8" c/c	
GB-4a	+8'-6"	12×24	2-5	2-6		@ 8" c/c	
GB-5a	+8'-6"	20×24	3-5	3-5		@ 8" c/c	
GB-6a	+8'-6"	33½×20	5-6	5-5		@ 8" c/c	
GB-7a	+8'-6"	10×10	2-5	2-5		@ 10" c/c	
GB-8a	+8'-6"	16×20	3-6	3-5		@ 8" c/c	
GB-9a	+8'-6"	12×20	2-7	2-5		@ 8" c/c	
GB-10a	+8'-6"	16×20	*3-7	*3-7		#5 @ 8" c/c	* CONTINUOUS



SECTION 1/F-1, SS-1
1/8" = 1'-0"



Scanning America DCAD 00002315

HOR

SATELLITE TRANSIT SHUTTLE
MIAMI INTERNATIONAL AIRPORT
DADE COUNTY AVIATION DEPARTMENT
D.C.A.D. CONTRACT 4-14-2B

Harry, Oppenheimer, Ross, and Associates. Architecture, Engineering, and Planning. 2780 Douglas Road, Coral Gables, Florida 33134.

SHUTTLE STATION FOUNDATION PLAN
Scale: AS SHOWN

Date: JULY 10, 1975

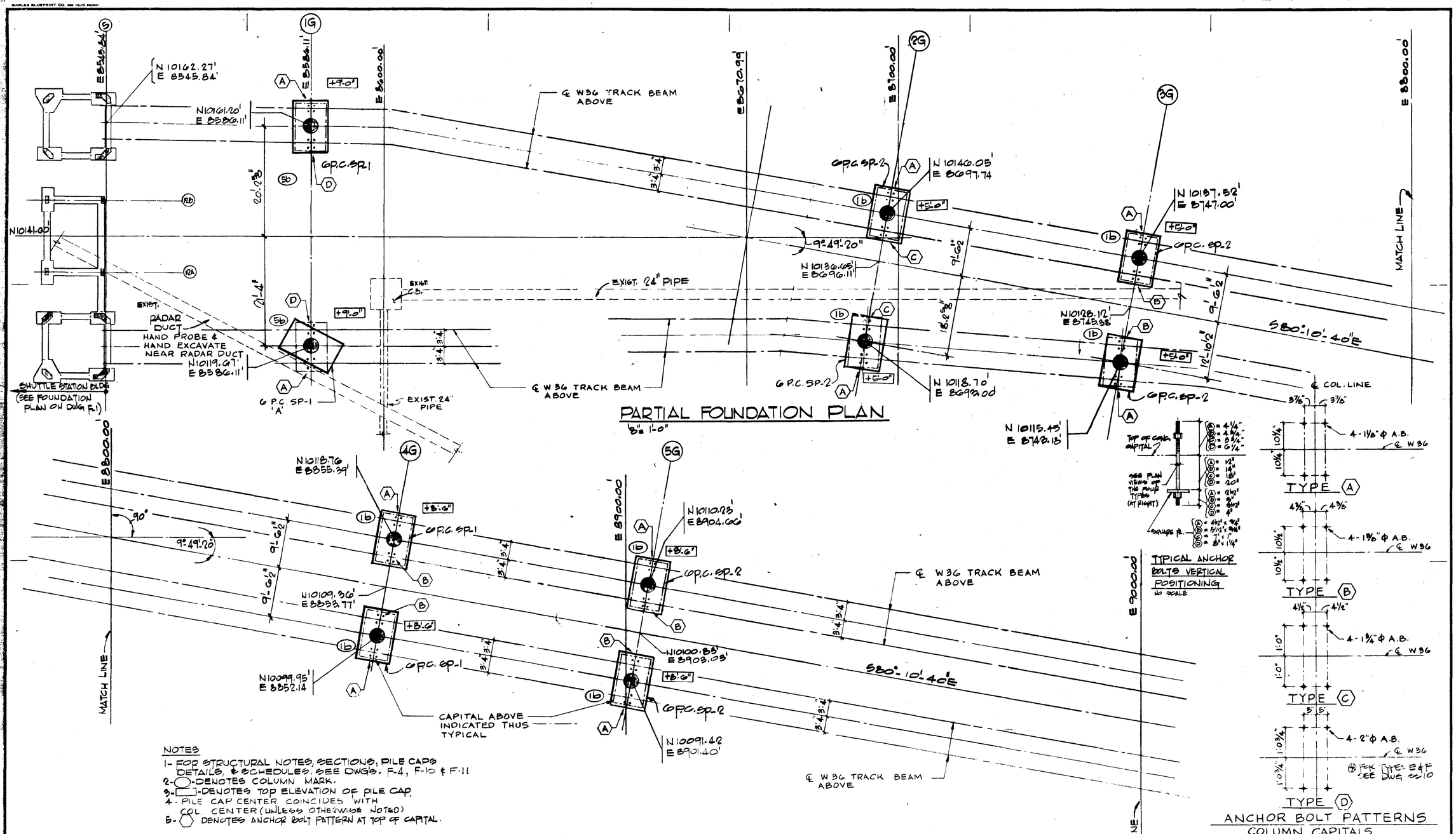
Revisions: AS BUILT 7 JUNE 79

Sheet F-1
SCHEDULE II

218-9

PARTIAL FOUNDATION PLAN

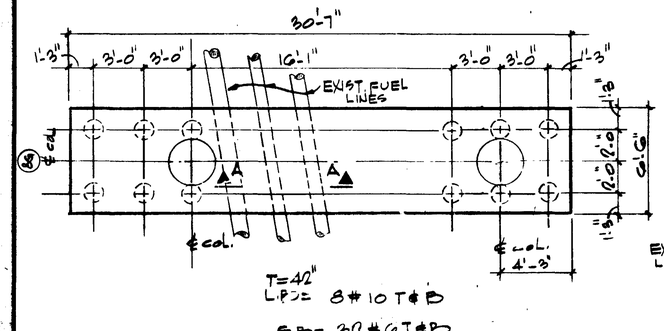
3/8" = 1'-0"



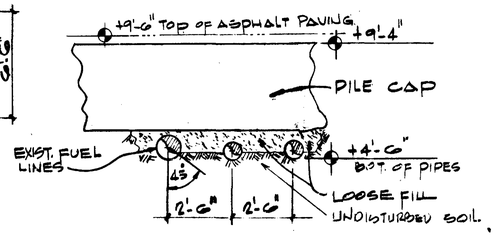
NOTES

1- FOR STRUCTURAL NOTES, SECTIONS, PILE CAPS DETAILS, & SCHEDULES, SEE DWGS. F-4, F-10 & F-11
2- ◯ -DENOTES COLUMN MARK.
3- [ ] -DENOTES TOP ELEVATION OF PILE CAP
4- PILE CAP CENTER COINCIDES WITH COL CENTER (UNLESS OTHERWISE NOTED)
5- ⬡ DENOTES ANCHOR BOLT PATTERN AT TOP OF CAPITAL.

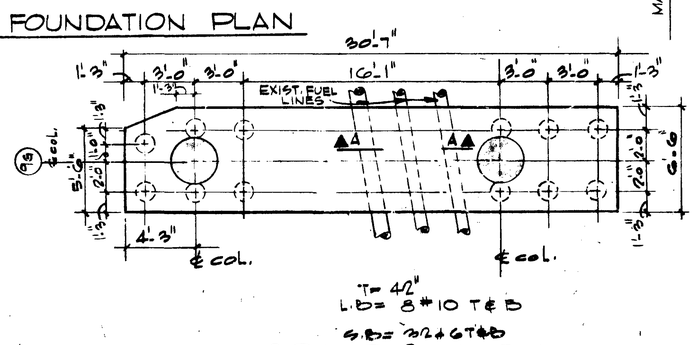
NOTE: Existing underground utility lines even if below bottom of pile cap shall be hand probed and hand excavated in order to expose lines prior to driving or augering piles. The Architect/Engineer shall be notified of any unusual conditions and interferences in order to relocate piles if necessary. Existing lines penetrating pile caps to be sleeved prior to pour.



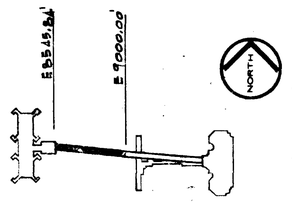
12 P.C. SP-1 DETAIL



SECTION A-A



12 P.C. SP-2 DETAIL



KEY PLAN

SATELLITE TRANSIT SHUTTLE

MIAMI INTERNATIONAL AIRPORT
DADE COUNTY AVIATION DEPARTMENT
D.C.A.D. CONTRACT 4-14-2B

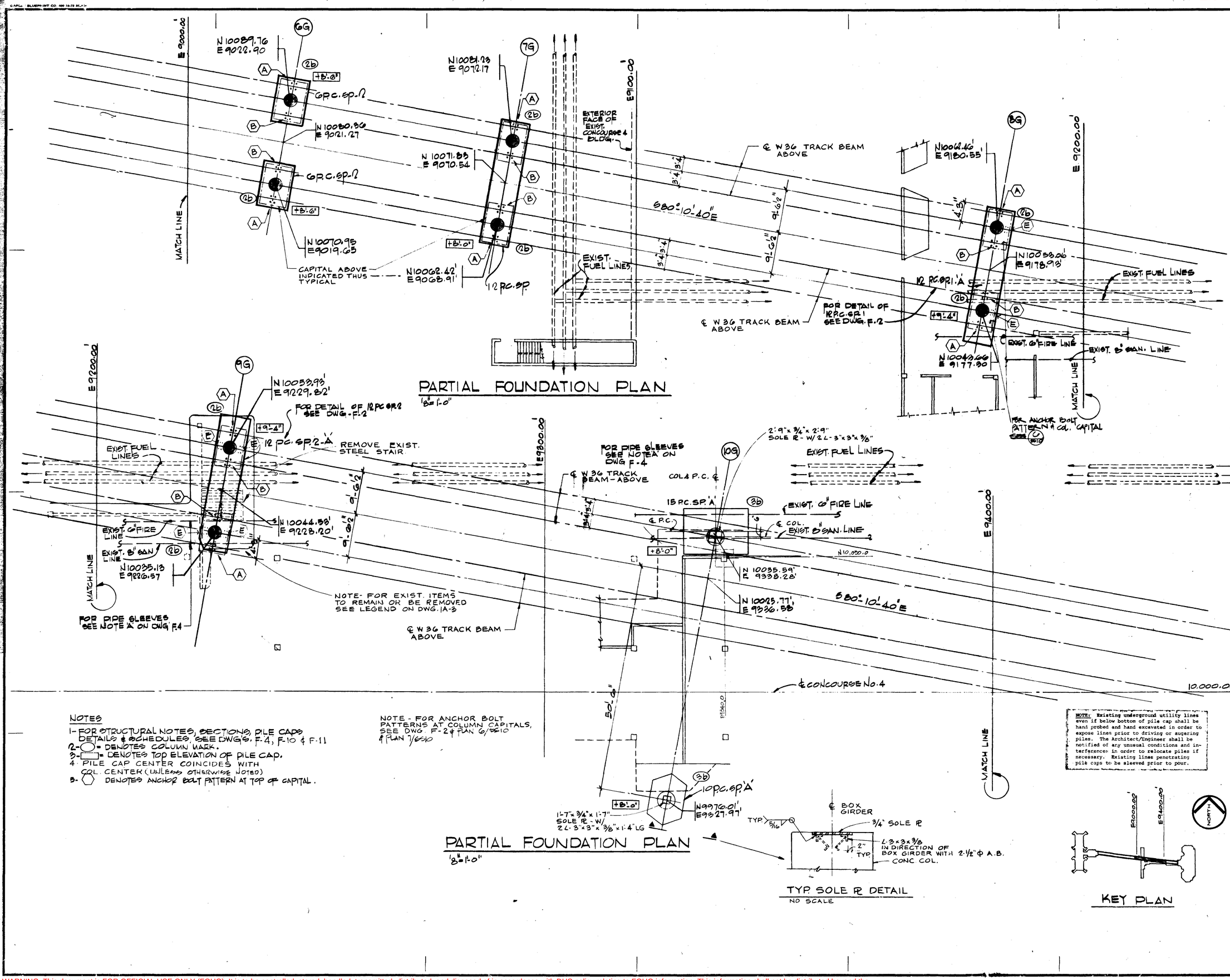
Harry, Oppenheimer, Ross, and Associates. Architecture, Engineering, and Planning, 2780 Douglas Road, Coral Gables, Florida 33134.

GUIDEWAY FOUNDATION PLAN 8545E. TO 8000 E.
Scale: AS SHOWN
Date JULY 10, 1975
Revisions AS BUILT JUNE '76

Sheet F 2 SCHEDULE II

218-9

BX1-3



PARTIAL FOUNDATION PLAN

1/8"=1-0"

PARTIAL FOUNDATION PLAN

1/8"=1-0"

NOTES

1- FOR STRUCTURAL NOTES, SECTIONS, PILE CAPS DETAILS & SCHEDULES, SEE DWG'S. F-4, F-10 & F-11
2-◯= DENOTES COLUMN MARK.
3-□= DENOTES TOP ELEVATION OF PILE CAP.
4- PILE CAP CENTER COINCIDES WITH COL. CENTER (UNLESS OTHERWISE NOTED)
5- ⬡ DENOTES ANCHOR BOLT PATTERN AT TOP OF CAPITAL.

NOTE - FOR ANCHOR BOLT PATTERNS AT COLUMN CAPITALS, SEE DWG. F-2 & PLAN 6/E510 & PLAN 7/E510

NOTE: Existing underground utility lines even if below bottom of pile cap shall be hand probed and hand excavated in order to expose lines prior to driving or augering piles. The Architect/Engineer shall be notified of any unusual conditions and interferences in order to relocate piles if necessary. Existing lines penetrating pile caps to be sleeved prior to pour.

TYP. SOLE PL DETAIL
NO SCALE

KEY PLAN

HOR

SATELLITE TRANSIT SHUTTLE
MIAMI INTERNATIONAL AIRPORT
DADE COUNTY AVIATION DEPARTMENT
D.C.A.D. CONTRACT 4-14-2B

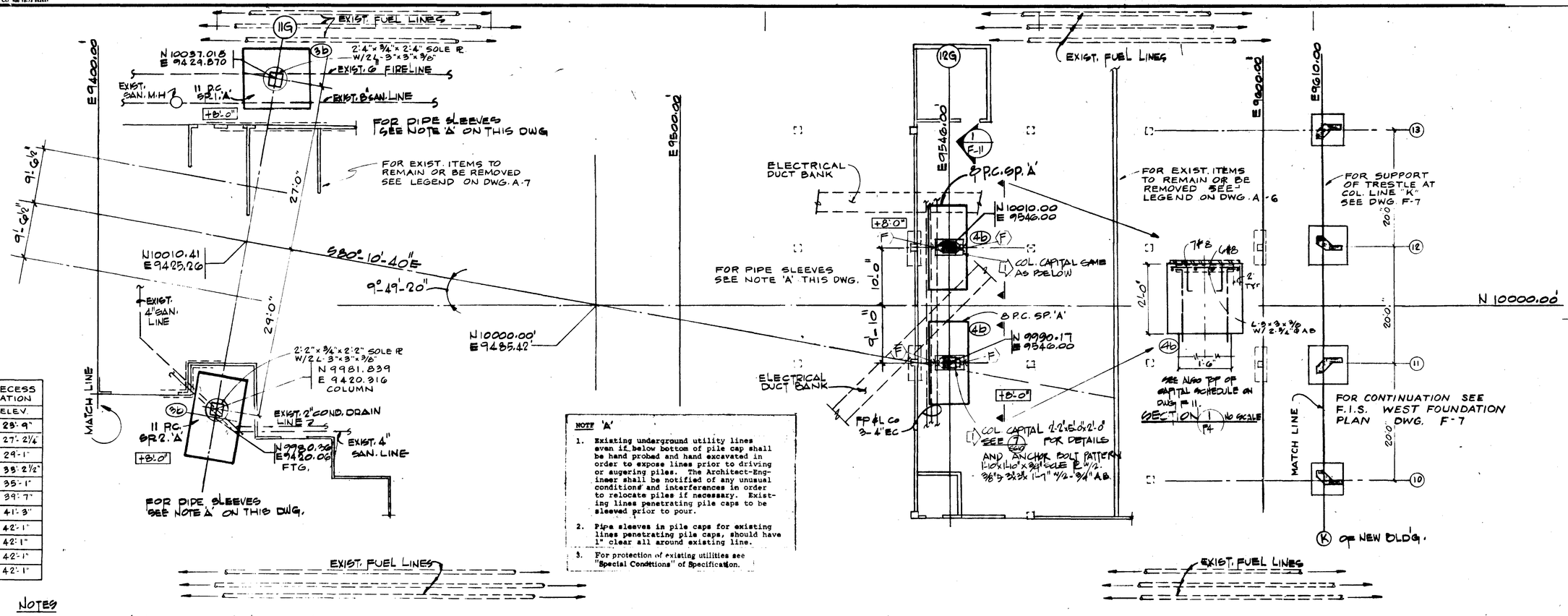
Harry, Oppenheimer, Ross, and Associates. Architecture, Engineering, and Planning. 2780 Douglas Road, Coral Gables, Florida 33134.

GUIDEWAY FOUNDATION PLAN 9000E. TO 9400E
Scale - As shown
Date JULY 10, 1975
Revisions AS BUILT JUNE 76

Sheet F 3 SCHEDULE II

2/8-9

BX1-4



COL.	RECESS ELEV.
1G	+ 25'-9"
2G	+ 27'-2¼"
3G	+ 29'-1"
4G	+ 33'-2½"
5G	+ 35'-1"
6G	+ 39'-7"
7G	+ 41'-3"
8G	+ 42'-1"
9G	+ 42'-1"
10G	+ 42'-1"
11G	+ 42'-1"

NOTE 'A'

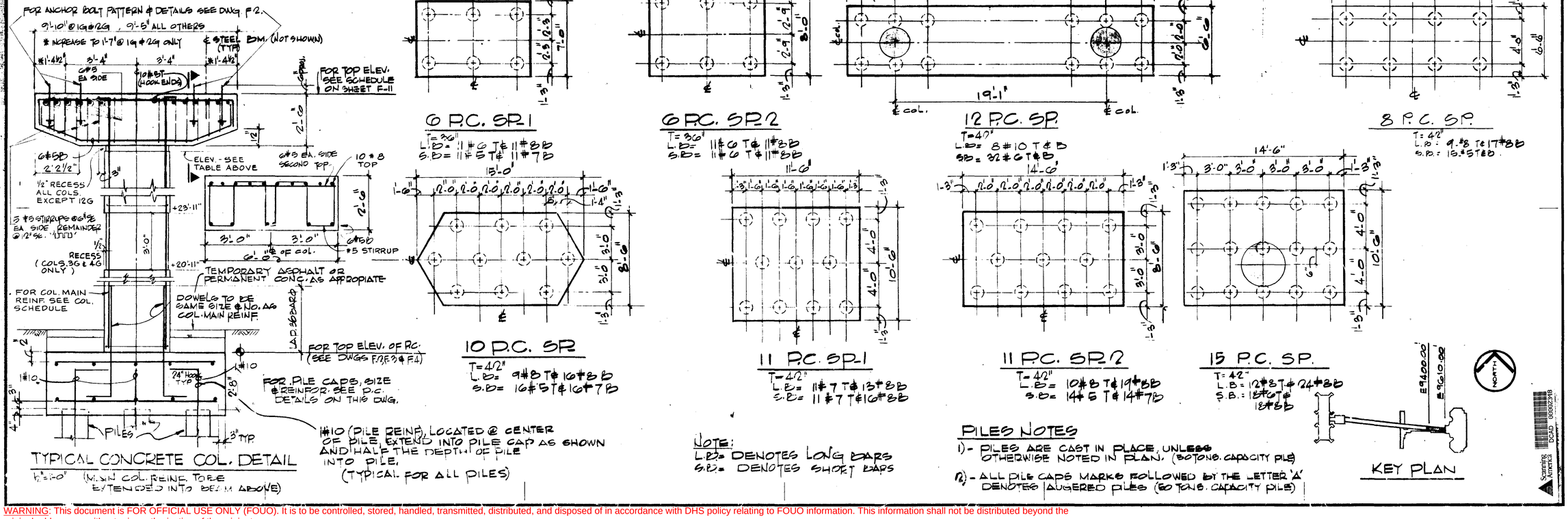
1. Existing underground utility lines even if below bottom of pile cap shall be hand probed and hand excavated in order to expose lines prior to driving or augering piles. The Architect-Engineer shall be notified of any unusual conditions and interferences in order to relocate piles if necessary. Existing lines penetrating pile caps to be sleeved prior to pour.
2. Pipe sleeves in pile caps for existing lines penetrating pile caps, should have 1" clear all around existing line.
3. For protection of existing utilities see "Special Conditions" of Specification.

NOTES

1- FOR STRUCTURAL NOTES, SECTIONS, & SCHEDULES SEE DWG. S-4, F-10 & F-11
2- ○ = DENOTES COLUMN MARK.
3- □ = DENOTES TOP ELEVATION OF PILE CAP.
4- PILE CAP CENTER COINCIDES WITH COL. CENTER (UNLESS OTHERWISE NOTED
5- ⬡ DENOTES ANCHOR BOLT PATTERN AT TOP OF CAPITAL.

PARTIAL FOUNDATION PLAN

1/8"=1'-0"



TYPICAL CONCRETE COL. DETAIL

½"=1'-0" (MAIN COL. REINF. TO BE EXTENDED INTO BEAM ABOVE)

NOTE:
L.B.= DENOTES LONG BARS
S.B.= DENOTES SHORT BARS

PILES NOTES

1) - PILES ARE CAST IN PLACE, UNLESS OTHERWISE NOTED IN PLAN. (80 TONS. CAPACITY PILE)
2) - ALL PILE CAPS MARKS FOLLOWED BY THE LETTER 'A' DENOTES AUGERED PILES (60 TONS. CAPACITY PILE)

KEY PLAN

HOR

SATELLITE - SHUTTLE
MIAMI INTERNATIONAL AIRPORT
DADE COUNTY AVIATION DEPARTMENT
D.C.A.D. CONTRACT 4-14-2B

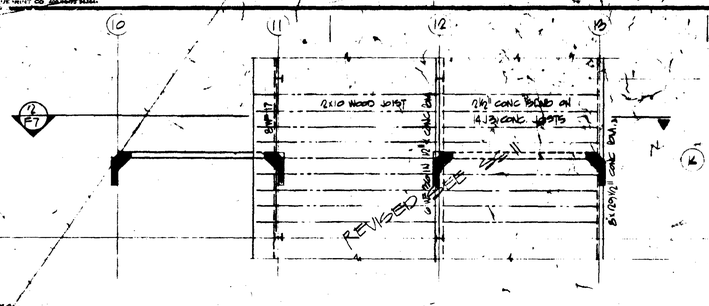
Harry Oppenheimer, Ross, and Associates, Architecture, Engineering, and Planning, 2780 Douglas Road, Coral Gables, Florida 33134.

GUIDEWAY FOUNDATION PLAN 9400E. TO 9600E.
Scale: AS SHOWN
Date JULY 10, 1975
Revisions AS BUILT

Sheet F 4 SCHEDULE II

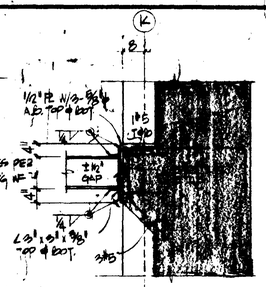
216-9

BX1-5

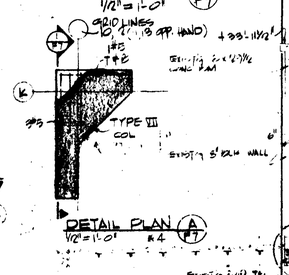


NOTES:
1 - FOR FLASHING ETC. SEE DWG. A-5.
2 - FOR ELEVATIONS SEE SECT. 2/F7.
3 - #4

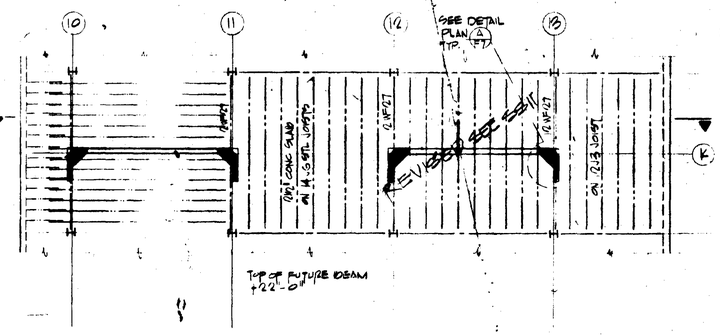
PARTIAL EXISTING 3rd FLR FRAMING (ROOF) PLAN
~~W/NEW COLS @ GRID K SHOWN~~ → REVISED SEE 2/6811



SECTION (1/F7)
1½" = 1'-0"

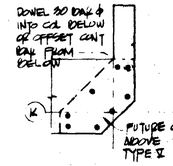


DETAIL PLAN (A/F7)
#4
1½" = 1'-0"

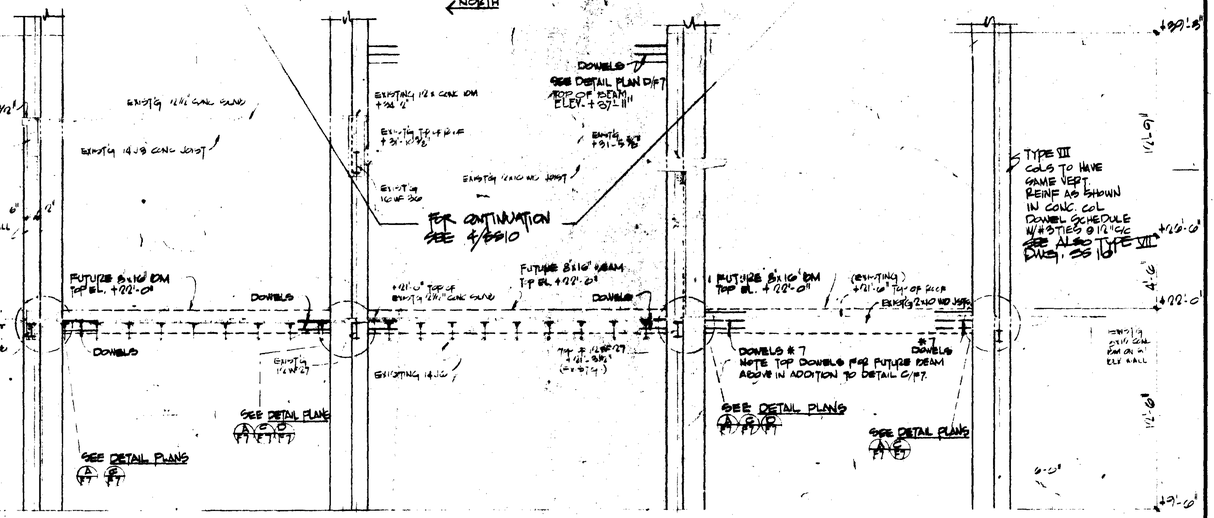


NOTES:
1 - FOR FLASHING ETC. SEE DWG. A-5.
2 - FOR ELEVATIONS, SEE SECT. 2/F7
3 - #4

PARTIAL EXISTING 12th FLR FRAMING PLAN
~~W/NEW COLS @ GRID K SHOWN~~ → REVISED SEE 2/6811

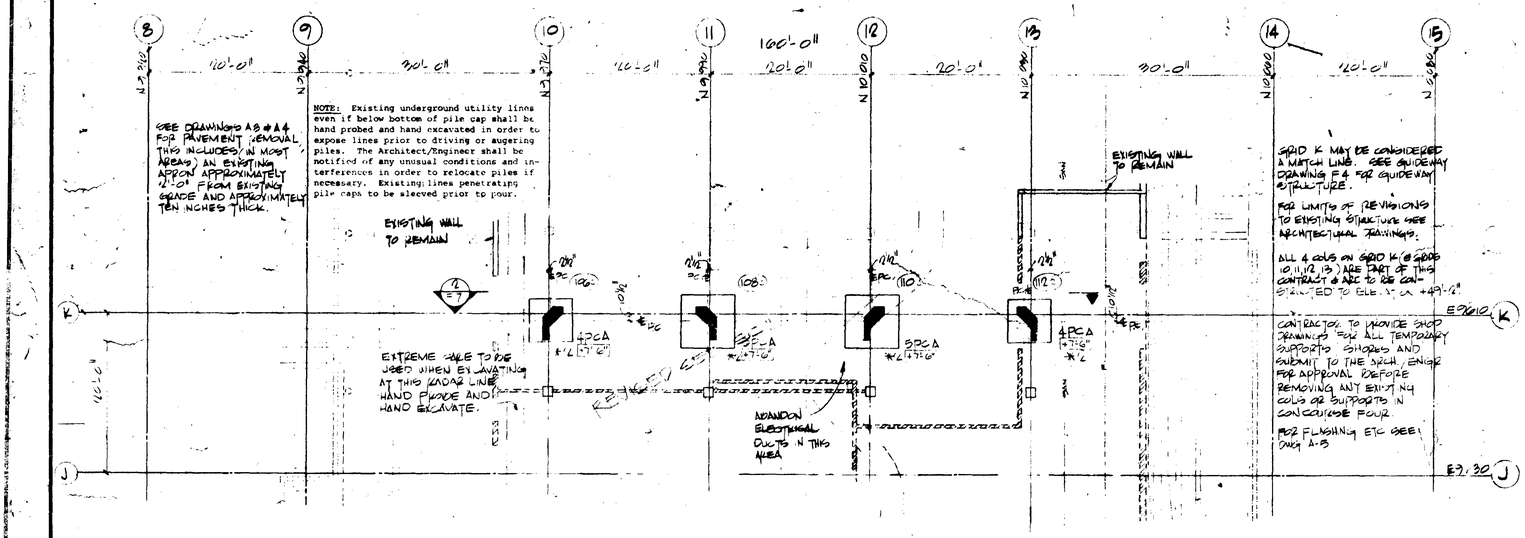


DETAIL PLAN (E/F7)
1½" = 1'-0"
← NORTH



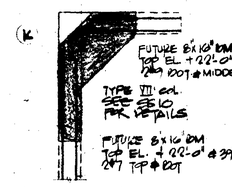
← NORTH
SECTION (2/F7)
¼" = 1'-0"

NOTE: SECTION CUT FROM WEST SIDE FACING EAST.



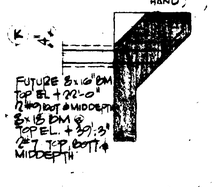
REVISED - SEE 1/6811

+GRID LINES 10, 12, 11, (3 OPPOSITE HAND)

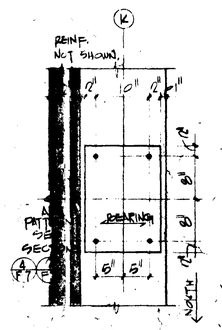


DETAIL PLAN (C/F7)
1½" = 1'-0" #4

+GRID LINES 12, 11 OPPOSITE HAND

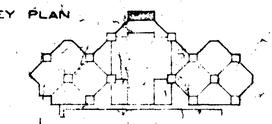


DETAIL PLAN (D/F7)
1½" = 1'-0" #4



DETAIL PLAN (D/F7)
1" = 1'-0"

KEY PLAN



NOTES:
1 - FOR GENERAL NOTES SEE DRAWING F10.
#2 - ⊕ COL = PILE CAP ⊕ DOES NOT SHOW GRID LINE FOR COL TYPE I & II & III
3 - ALL PILE CAP MARKS FOLLOWED BY THE LETTER 'A' DENOTES AUGERED PILES.
4 - ALL PLAN VIEWS HAVE THE SAME NORTHING, UNLESS NOTED OTHERWISE.
5 - FOR PAVEMENT REMOVAL SEE DWG. A5 & A4.
6 - FOR ITEMS TO REMAIN & EXISTING ITEMS TO BE REMOVED AND NEW WORK SEE LEGEND ON DWG. A6
7 - #7 DOWELS TOP IN ADDITION TO DETAIL PLAN C/F7 FOR FUTURE BM. @ GRIDS 10-11 @ +122'-0"

HOK

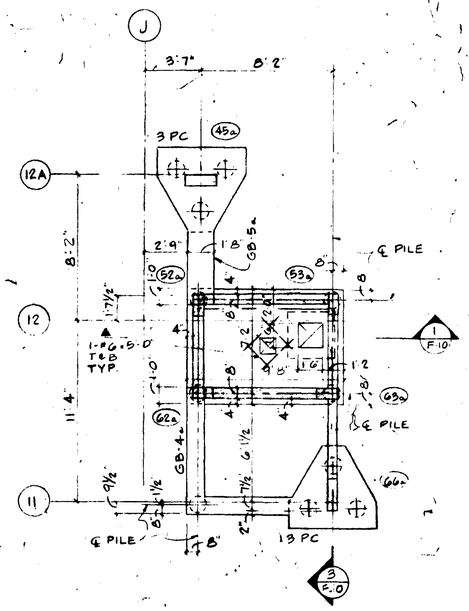
SATELLITE TRANSIT SHUTTLE
MIAMI INTERNATIONAL AIRPORT
DADE COUNTY, AVIATION DEPARTMENT
D.C.A.D. CONTRACT 4-14-2B

Harry, Oppenheimer, Ross, and Associates. Architecture, Engineering, and Planning. 2780 Douglas Road Coral Gables, Florida 33134.

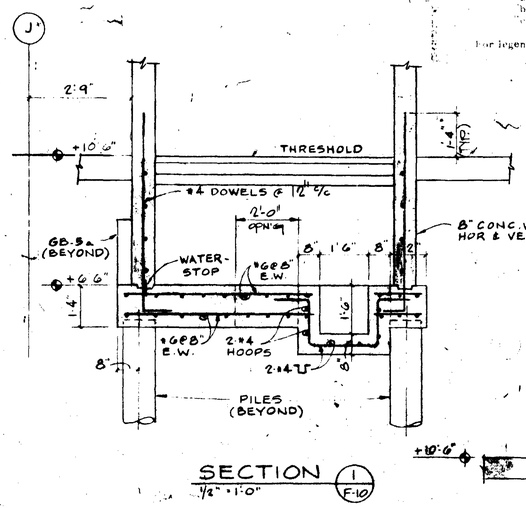
F.I.S. WEST FOUNDATION PLAN
SCALE: AS SHOWN
Date: JULY 10, 1975
Revisions: As Built 7 JUNE 76

Sheet F 7
SCHEDULE 1

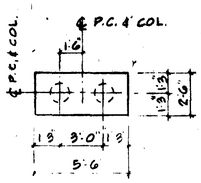
218-9



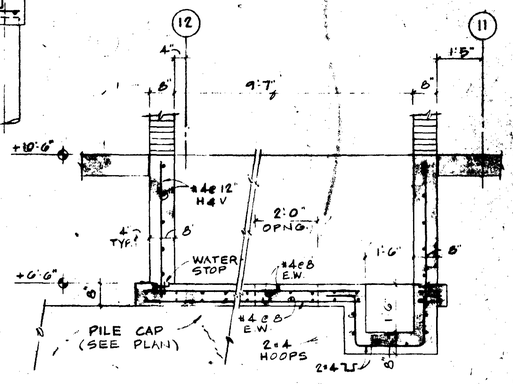
DETAIL - "X"
1/4" = 1'-0"



SECTION (1/F-10)
1/2" = 1'-0"



2 P.C.
DEPTH : 24"
5 # 7 L.W. BOT
6 # 5 S.W. BOT



SECTION (2/F-1)
1/2" = 1'-0"

GENERAL NOTES

CONCRETE:

Shall be a mix designed for ultimate strength type concrete in accordance with ACI 613-54 Tentative Recommendations, with a minimum 28 day compressive strength of 3000 psi, except shuttle guideway columns, capitals and load bearing walls, which shall be 4,000 psi at 28 days.

All concrete shall contain an engineer approved water reducing and retarding admixture conforming to ASTM C494-68 Type 'D'.

All concrete for elevator pits, escalator pits, baggage conveyor tunnels or other pits of similar application shall be integrally waterproofed with Hydratite Topping or engineer approved equal in accordance with manufacturers recommendations. Provide waterstops in all construction joints below grade in reinforced concrete walls.

REINFORCING STEEL:

Shall be deformed bars, free from loose rust and scale, and to Standard Specifications for Deformed Billet Steel Bars for Concrete Reinforcement, ASTM A615-68, Grade 60. Ties, anchors, stirrups shall conform to ASTM A615-68, Grade 40 unless otherwise noted.

Lap all bar splices 36 bar diameters unless otherwise noted. Bend all horizontal wall bars 12" around all corners. All bars shall be detailed and fabricated following the requirements of ACI 315-65, Placing of bars shall conform to CRSI Recommended Practices for Placing Reinforcing Bars.

Minimum concrete cover on reinforcing bars shall be as follows, unless noted otherwise:

concrete beams and columns	1½"
formed surfaces exposed to weather and/or earth	2"
concrete deposited against ground	3"

All exposed column dowels to be provided with mechanical protection consisting of a 55 gallon drum or equivalent filled with sand to cover 1'-0" above top of dowels.

Legs of foundation cranes to be galvanized.

STRUCTURAL STEEL:

Structural steel shall conform to the A.I.S.C. Specification for the Design Fabrication and Erection of Structural Steel for Buildings, lastest edition, (A-7, A-36, A-440, see also specification).

Welding to be done by a certified arc welder using the lastest approved A.W.S. techniques.

All steel beam connections not detailed to be designed per lastest A.I.S.C. specifications.

FOUNDATION:

Piles shall be driven steel shell or augered cast-in-place.

Piles shall be 14" nom diameter (minimum) driven steel shell or 16" diameter augered cast-in-place piles with a minimum of 50 ton safe bearing capacity. Augered piles are noted in pln. by "A" following the pile or pile cap mark. Tension piles, where noted on plans, shall be reinforced with 1 #10 to mid depth of pile, all other piles to have 1 #7 x 6'-0" per pile extended 3'-0" minimum into pile.

Existing utility lines, even if below the bottom of the pile cap, shall be exposed prior to driving or augering piles. The Architect/Engineer shall be notified of any interference and its approval obtained before proceeding with driving or augering piles.

EXISTING CONSTRUCTION:

Contractor shall verify existing construction prior to bid submittal. Proper shoring and paving, as required, is to be provided to maintain undisturbed operation of the second floor during execution of this contract. Shop drawings for temporary shoring and bracing of existing construction shall be submitted for approval. See Drawings A-3 and A-4 for pavement removal. This includes (in most areas) an existing curb approximately 1'-0" from existing grade and approximately 10" thick. Refer to Specification Section 16B for submittal and approval by the Architect/Engineer and D.C.A.D. of shop drawings and calculations for temporary shoring.

Contractor shall protect from damage all existing foundations and underground utilities during installation of new foundations.

SHOP DRAWING:

All reinforcing steel, temporary shoring and structural steel shop drawings shall be submitted to the Architect/Engineer for approval. No fabrication or placement shall take place until an approved and/or corrected set of shop drawings are returned to the respective parties concerned.

OPENINGS IN SLABS, BEAMS AND WALLS:

All openings shall be located, sized and reinforced as shown on the plans and details with the exception of small openings and/or sleeves of a size that will not displace nor interrupt the continuity of the reinforcing. Any alterations require the approval of the Architect/Engineer. No openings shall be placed or cut into slabs, beams or walls without the express consideration and approval of the Architect/Engineer.

Mechanical, electrical or plumbing contractor to locate openings and sleeves in concrete prior to concrete pour.

SYMBOLS:

Denotes column mark

Denotes top of pile cap elevation

Number of section
Sheet number where section is detailed

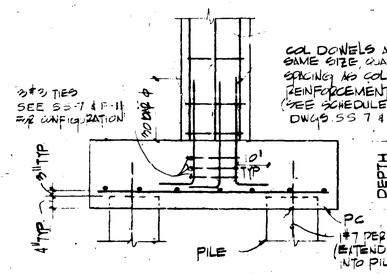
Number of section
Sheet number where section is cut

SYMBOLS: (continued)

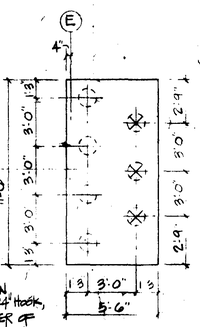
The lower case letter "a", "b" or "c" following structural marks denote the location of that member as follows:

"a" Satellite Shuttle Station
"b" Guideway
"c" Federal Inspection Services Building

For legend of existing facilities see Architectural Sheet A-6.

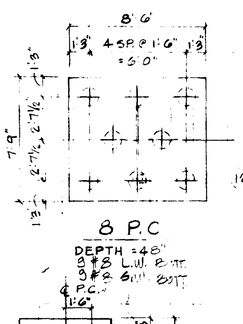


TYPICAL COL. SPLICE DETAIL
NO SCALE
FOR TYPICAL GUIDEWAY COL. SPLICE DETAIL SEE F4.

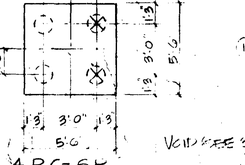


7 P.C. SP
DEPTH : 30"
12 # 8 S.W. TOP & BOT
11 # 8 L.W. BOT
6 ⊗ 6 L.W. TOP

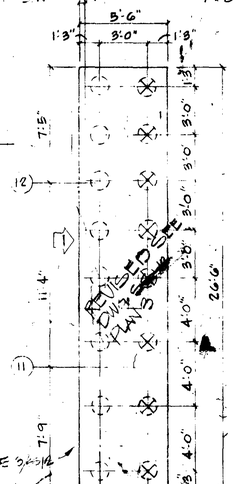
⊗ INDICATES TENSION PILES - FOR SPECIAL REINF. SEE NOTE ON "TYP. COL. SPLICE DETAIL @ LEFT.

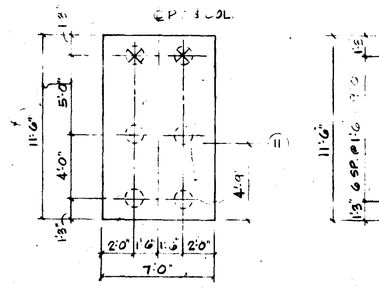


8 P.C.
DEPTH = 48"
9 # 8 L.W. BOT
9 # 8 S.W. BOT

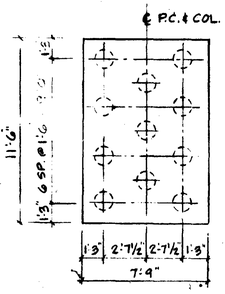


4 P.C-SP
DEPTH = 30"
6 # 6 S.W.
6 # 6 L.W.

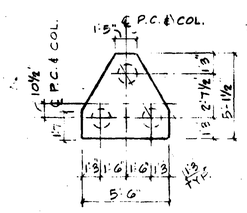




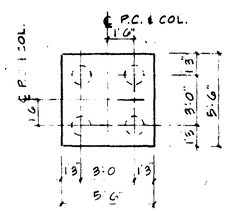
6 P.C.
VOID SEE 5/S10



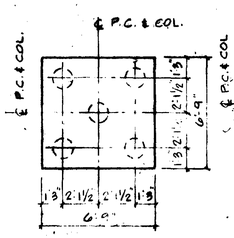
11 P.C.
DEPTH : 42"
9 # 9 L.W.
13 # 8 S.W.



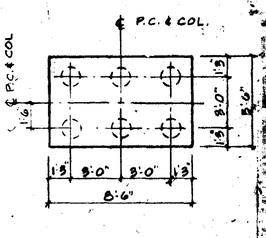
3 P.C.
DEPTH : 24"
6 # 6 3 BANDS



4 P.C.
DEPTH : 28"
8 # 7 L.W.
8 # 7 S.W.

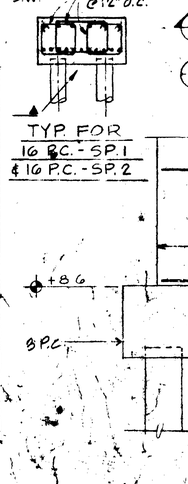


5 P.C.
DEPTH : 32"
7 # 8 L.W.
7 # 8 S.W.



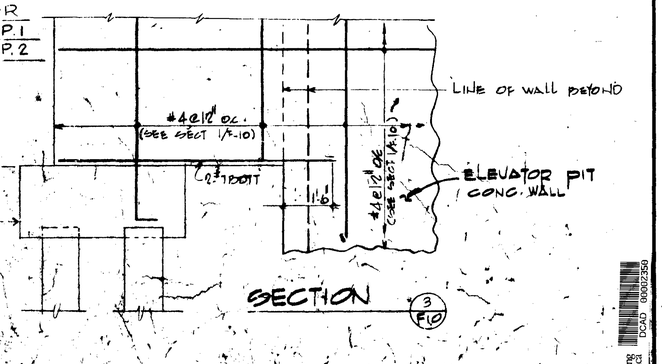
6 P.C.
DEPTH = 36"
6 # 10 L.W.
6 # 7 S.W.

VOID SEE 6/S10



TYP. FOR
16 P.C. - SP.1
& 16 P.C. - SP.2

VOID SEE 6/S10



SECTION (3/F-10)

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SATELLITE TRANSIT SHUTTLE
MIAMI INTERNATIONAL AIRPORT
DADE COUNTY AVIATION DEPARTMENT
D.C.A.D. CONTRACT 4-14-2B

Date JULY 10, 1975

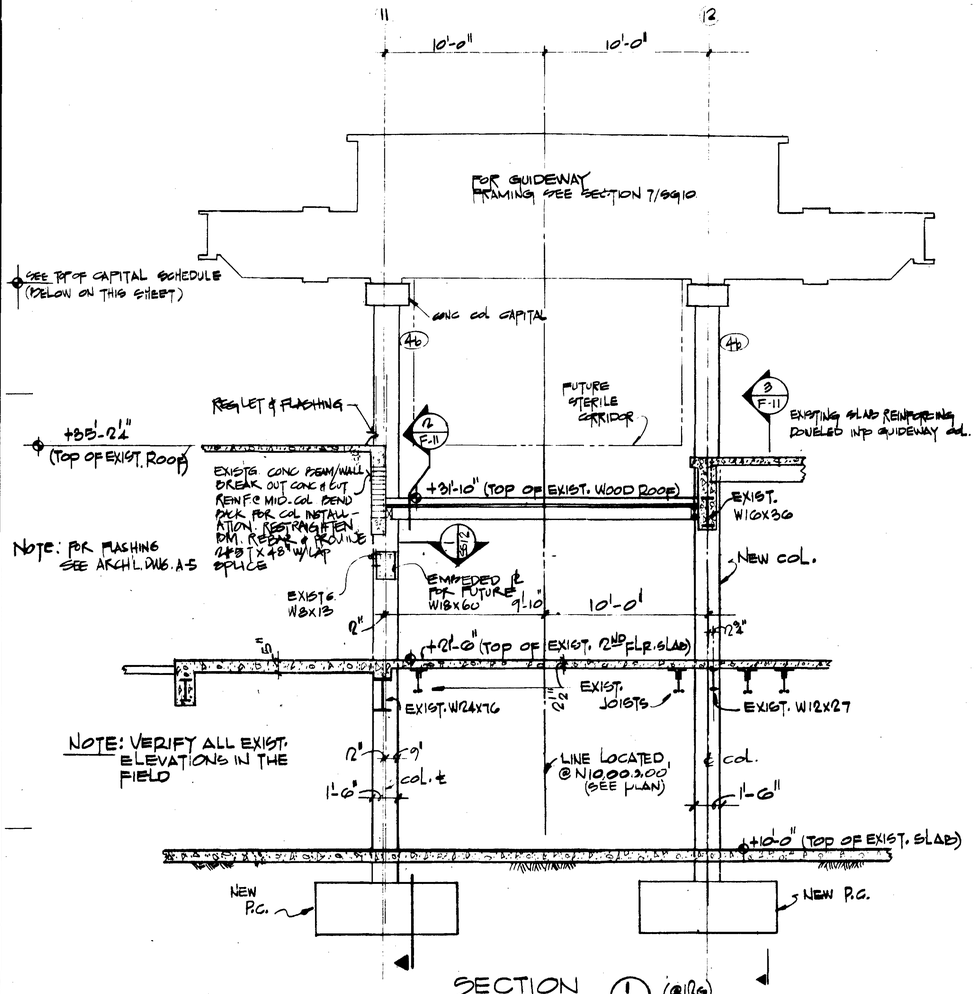
GENERAL AND TYPICAL DETAILS
Scale: AS SHOWN

Revisions A-3 REVISED

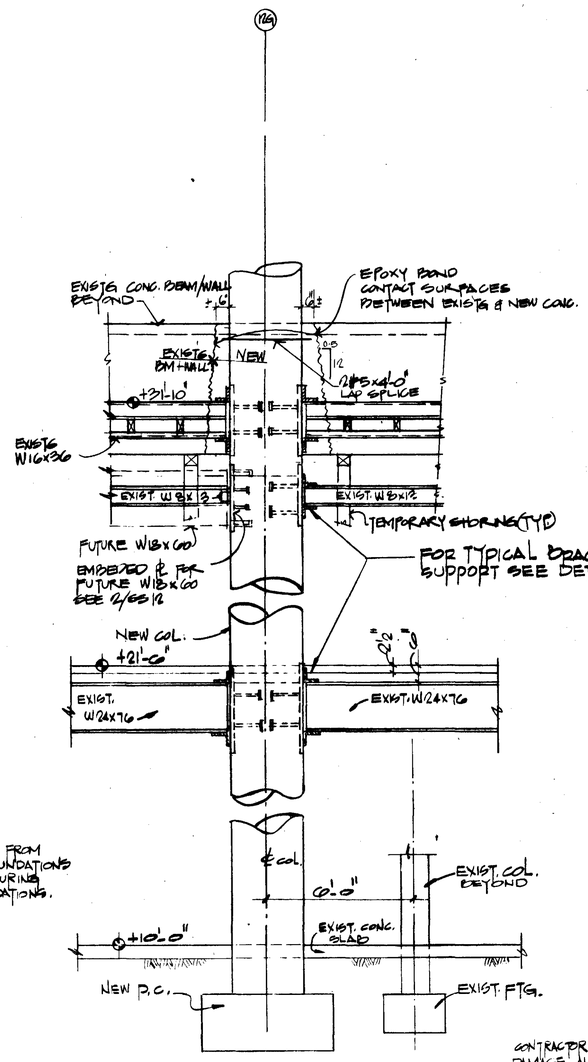
Sheet F 10 SCHEDULE V

DCAD 08002356

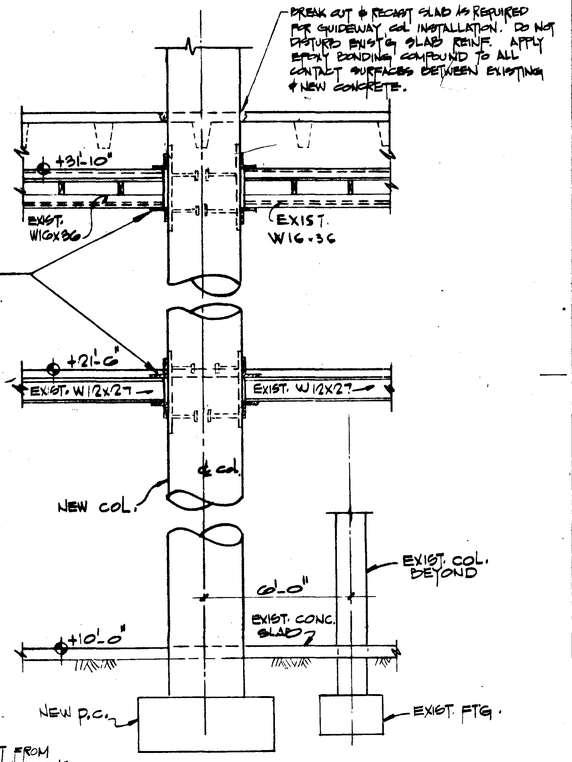
Scanning Artifacts



SECTION 1 (@12G) F-4
4"=1'-0"



CONTRACTOR SHALL PROTECT FROM DAMAGE ALL EXISTING FOUNDATIONS & UNDERGROUND UTILITIES DURING INSTALLATION OF NEW FOUNDATIONS.



CONTRACTOR SHALL PROTECT FROM DAMAGE ALL EXISTING FOUNDATIONS & UNDERGROUND UTILITIES DURING INSTALLATION OF NEW FOUNDATIONS.

SECTION 2 F-11
1"=1'-0"

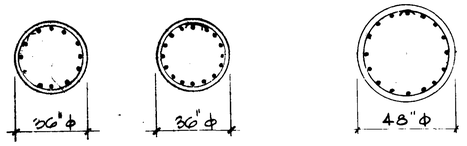
SECTION 3 F-11
1"=1'-0"

COLUMN SCHEDULE

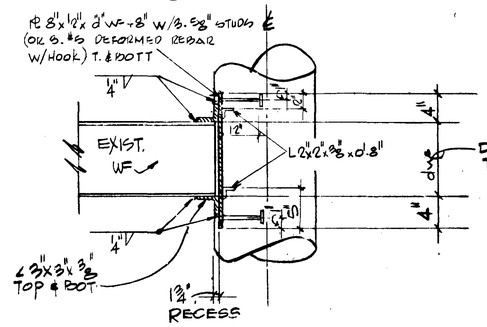
COLUMN MARK	1b	2b	3b	4b	5b
ANCHOR BOLTS (@ TOP OF COL CAPITAL)	SEE DETAIL ON DWG. F-2	SEE DETAIL ON DWG. F-2	SEE DETAIL ON DWG. F-2	SEE DETAIL ON DWG. F-2	SEE DETAIL ON DWG. F-2
REINF. Top of P.C.	36" ϕ 12#10 VERT. #4@12 TIES	36" ϕ 16-#10 VERT. #4@16 TIES	48" ϕ 16-#10 VERT. #5@30 TIES	36"x18" 16-#9 #4@16 TIES	36" ϕ 24-#10 VERT. #4@10 TIES
DOWELS TO BE SAME SIZE & NO. AS COL MAIN REINFORC.					

ELEVATION - TOP OF CAPITAL

GRID LINE	1G	2G	3G	4G	5G	6G	7G	8G	9G	10G	11G	12G
NORTH	+27'-4"	+30'-9"	+32'-7½"	+36'-8⅛"	+39'-6⅝"	+42'-5⅞"	+44'-5⅛"	+45'-7½"	+45'-7½"	+43'-4½"	+43'-5¼"	+44'-10⅞"
SOUTH	+27'-4"	+30'-8¾"	+32'-7⅜"	+36'-8⅛"	+38'-6⅜"	+42'-5⅞"	+44'-5⅛"	+45'-7½"	+45'-7⅛"	+43'-6⅜"	+43'-5⅜"	+44'-11⅛"



COL. 1b COL. 2b COL. 3b COL. 4b COL. 5b



TYPICAL DETAIL 'A' (BRACKET SUPPORT)
1"=1'-0" (SHOWN ONE SIDE ONLY FOR CLARITY)

SATELLITE TRANSIT SHUTTLE
MIAMI INTERNATIONAL AIRPORT
DADE COUNTY AVIATION DEPARTMENT
D.C.A.D. CONTRACT 4-14

Harry Oppenheimer, Ross, and Associates, Architecture, Engineering, and Planning, 2780 Douglas Road, Coral Gables, Florida 33134.

GUIDEWAY SECTIONS AND DETAILS
Scale: AS SHOWN
Date JULY 10 1975
Revisions
A/E Initial 7 JUNE 79

Sheet F 11 SCHEDULE II
218-9

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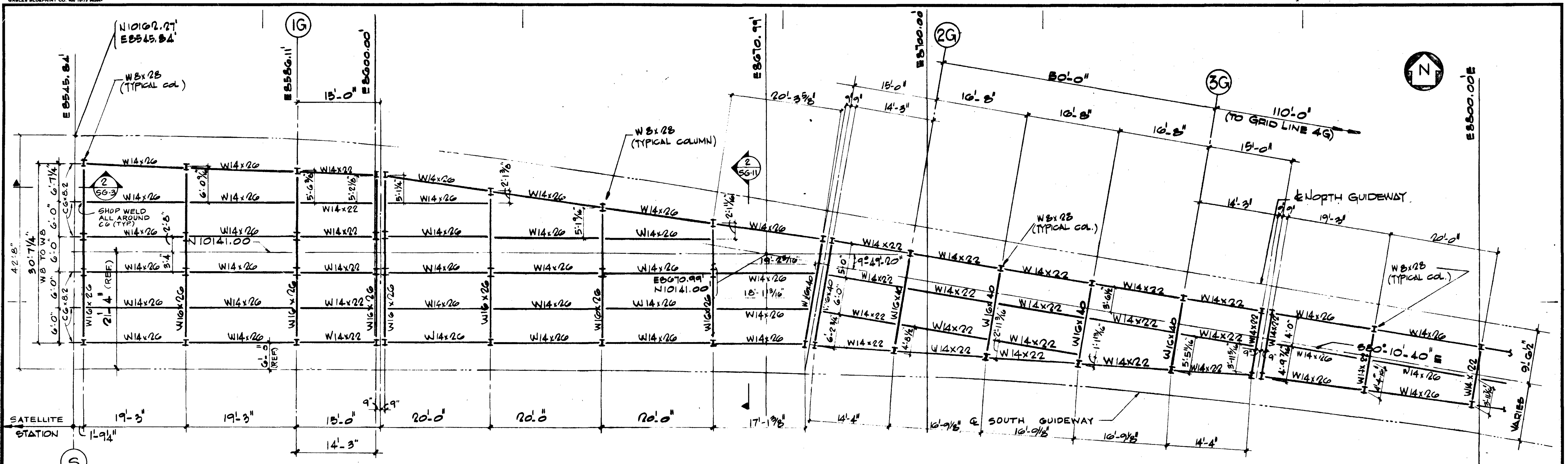
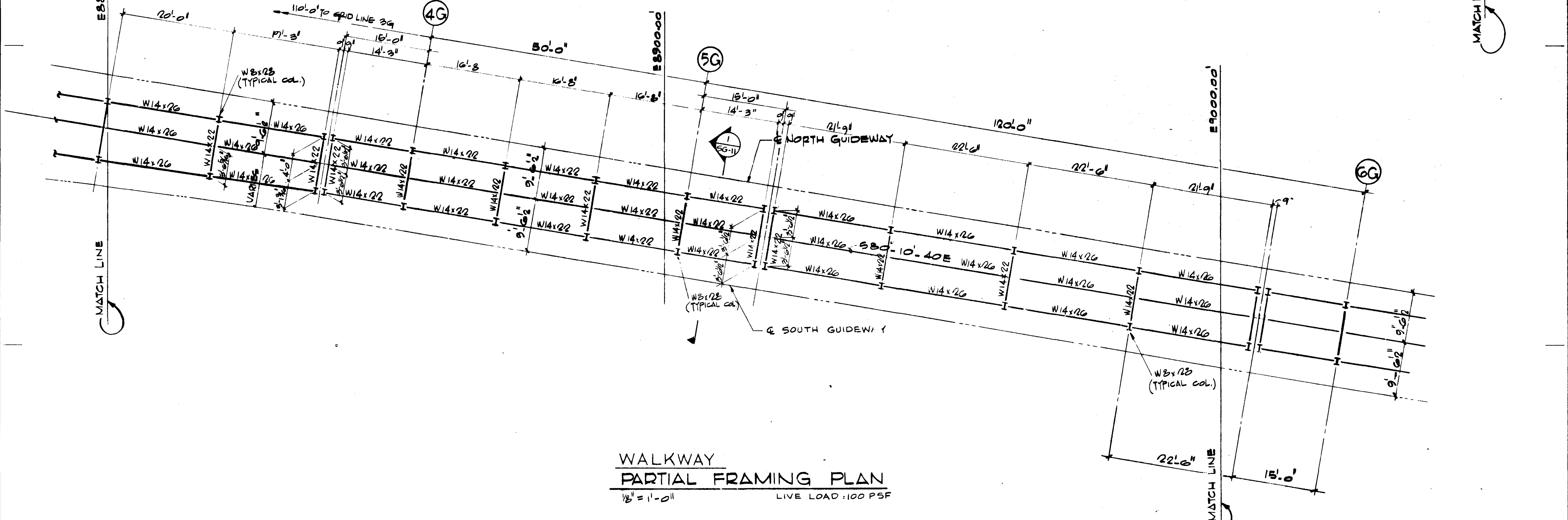
BX1-8



WALKWAY

PARTIAL FRAMING PLAN

1/8" = 1'-0" LIVE LOAD = 100 PSF



WALKWAY

PARTIAL FRAMING PLAN

1/8" = 1'-0" LIVE LOAD : 100 PSF

NOTE: DIMENSIONS SHOWN ARE IN HORIZONTAL PLANE. SEE TABLE (SHEET SG-6) TO DETERMINE TRUE DIMENSIONS
SHOP DWGS BY MUSSELMAN STEEL ARE A VALUABLE SUPPLEMENT

HOR

SATELLITE TRANSIT SHUTTLE

MIAMI INTERNATIONAL AIRPORT
DADE COUNTY AVIATION DEPARTMENT
D.C.A.D. CONTRACT 4-14-2B

Harry, Oppenheimer, Ross, and Associates. Architecture, Engineering, and Planning. 2780 Douglas Road, Coral Gables, Florida 33134.

GUIDEWAY STRUCTURE
WALKWAY FRAMING PLAN
SATELLITE STATION TO 6G
Scale: AS NOTED

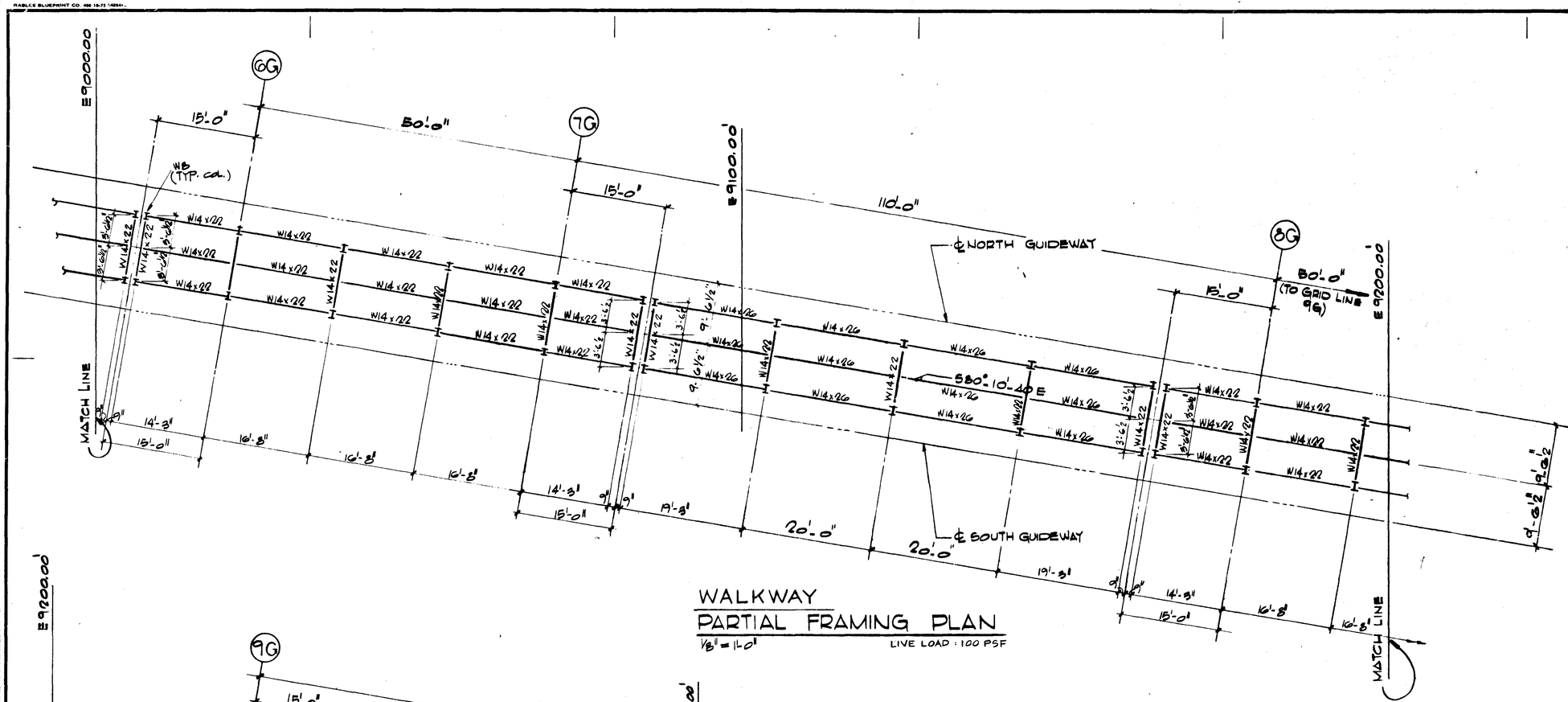
Date JULY 10, 1975

Revisions AS BUILT JUNE '77

Sheet SG-1

SCHEDULE II

218-9



WALKWAY
PARTIAL FRAMING PLAN
1/8" = 1'-0" LIVE LOAD : 100 PSF

WALKWAY
PARTIAL FRAMING PLAN
1/8" = 1'-0" LIVE LOAD : 100 PSF

HOR

SATELLITE TRANSIT SHUTTLE
MIAMI INTERNATIONAL AIRPORT
DADE COUNTY AVIATION DEPARTMENT
D.C.A.D. CONTRACT 4-14-2B

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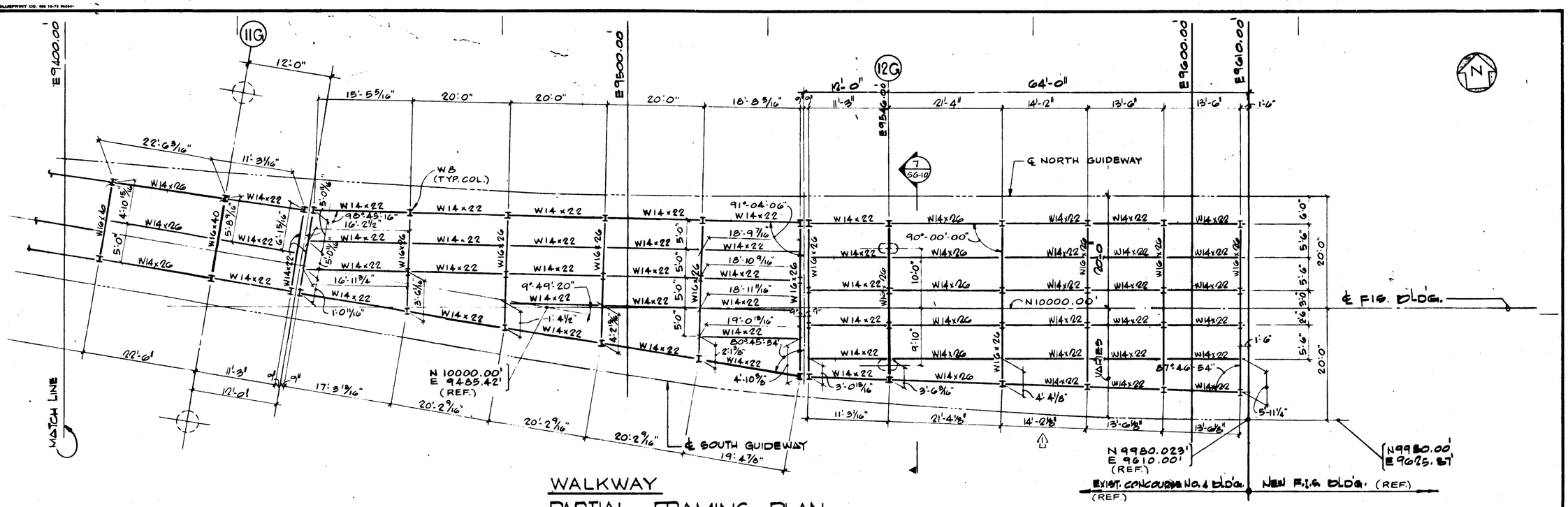
GUIDEWAY STRUCTURE
WALKWAY 6G TO 11G
FRAMING PLAN
Scale: AS NOTED

Date JULY 10, 1975

Revisions AS BUILT 7 JUNE 79

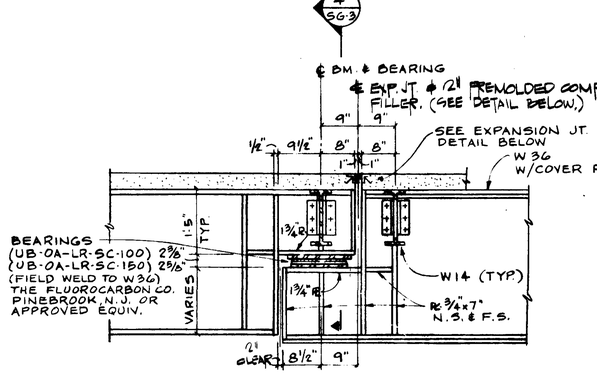
Sheet
SG-2
SCHEDULE II

Scanning Marker DOAD 08/02/2013



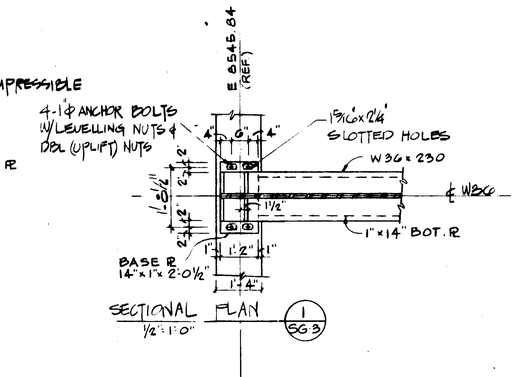
WALKWAY
PARTIAL FRAMING PLAN

1/8"=1'-0" LIVE LOAD = 100 PSF



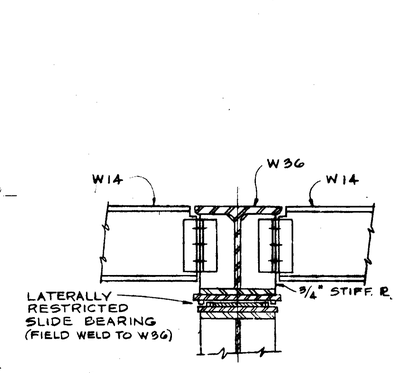
TYPICAL EXPANSION JOINT DETAIL

¾"=1'-0"



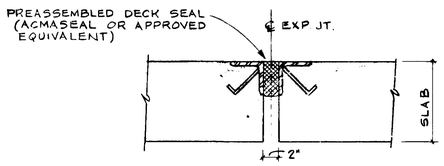
SECTIONAL PLAN 1 SG-3

1/2"=1'-0"



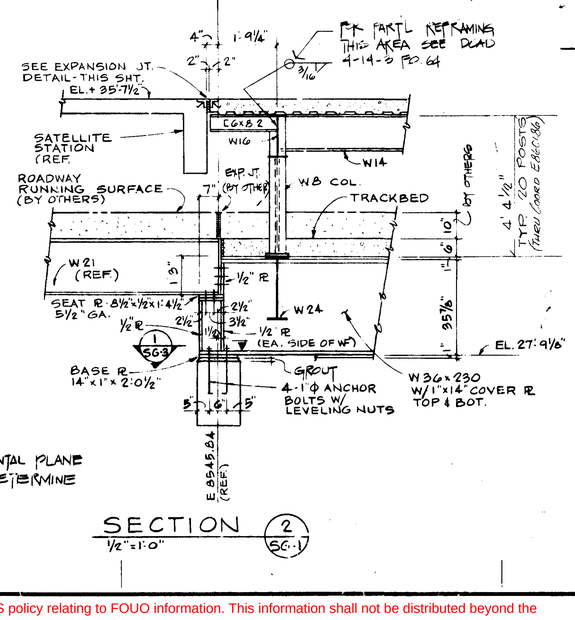
SECTION 4 SG-3

1"=1'-0"



EXPANSION JOINT DETAIL
WALKWAY AND ROADBED SLABS

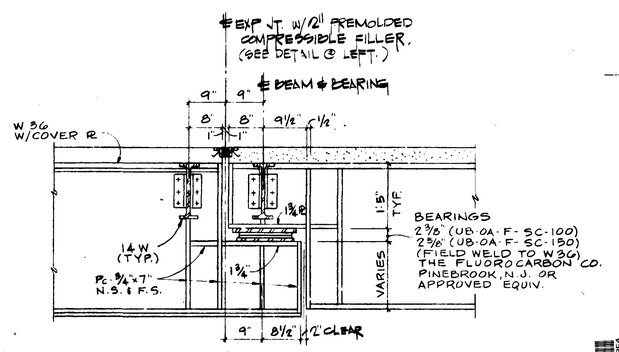
NO SCALE



NOTE: DIMENSIONS SHOWN ARE IN HORIZONTAL PLANE SEE TABLE (SHEET SG-6) TO DETERMINE TRUE DIMENSIONS

SECTION 2 SG-1

1/2"=1'-0"



TYPICAL FIXED BEARING DETAIL

¾"=1'-0"

HOR

SATELLITE TRANSIT SHUTTLE
MIAMI INTERNATIONAL AIRPORT
DADE COUNTY AVIATION DEPARTMENT
D.C.A.D. CONTRACT 4-14-2B

Harry, Oppenheimer, Ross, and Associates. Architecture. Engineering. and Planning. 2780 Douglas Road, Coral Gables, Florida 33134.

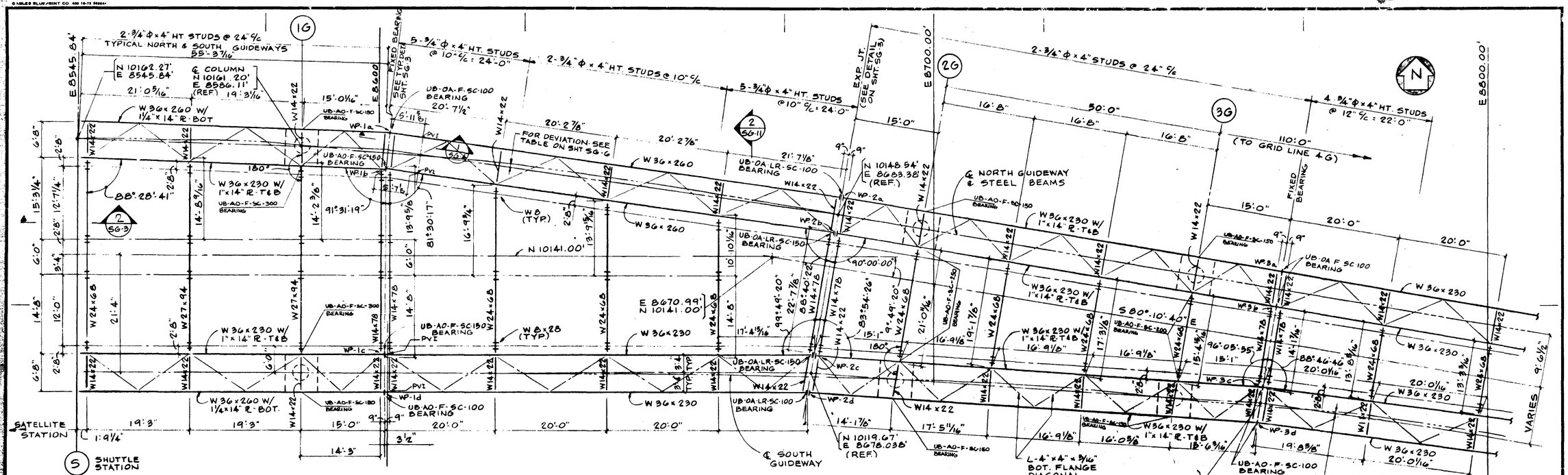
GUIDEWAY STRUCTURE
FRAMING PLAN
& DETAILS: 11G TO F/S BLDG
Scale: AS NOTED

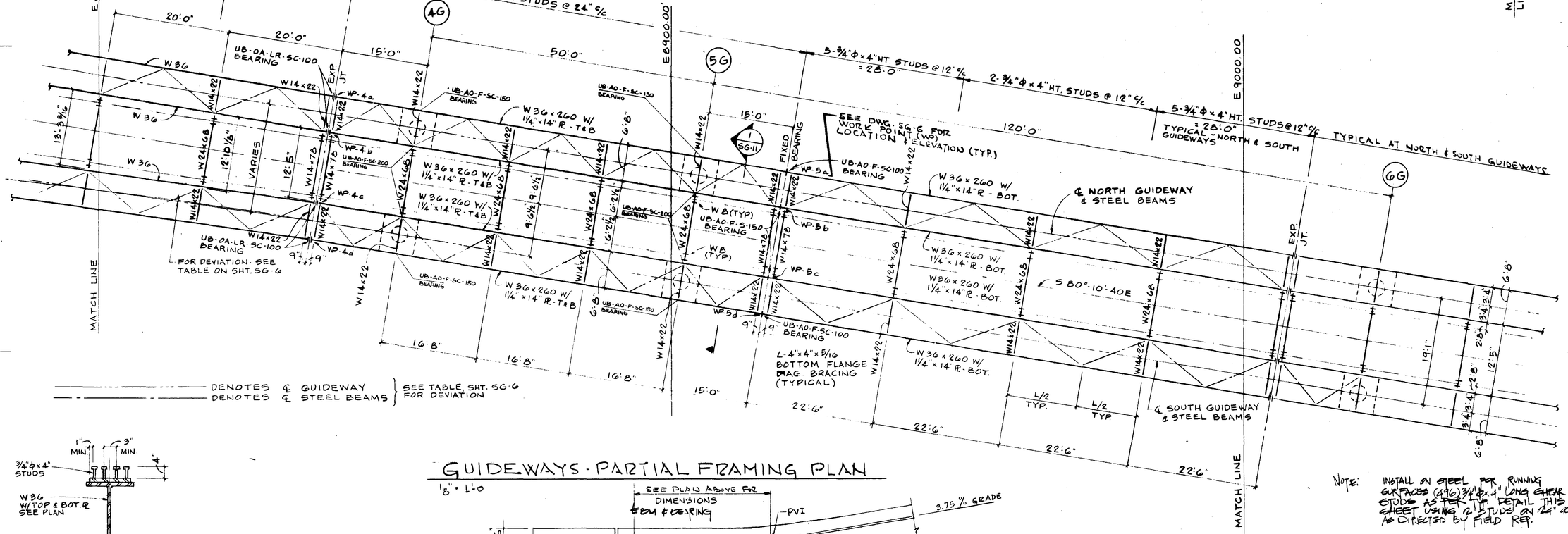
Revisions	Date
AS BUILT June 79	JULY 10 1975

Sheet
SG-3
SCHEDULE II

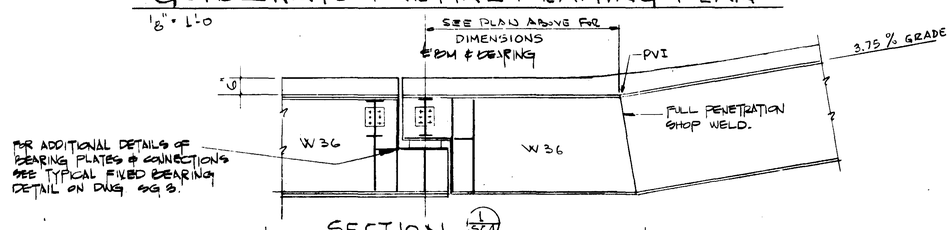
Scanning America DCAD 08002354

BX1-11





TYPICAL SHEAR STUD INSTALLATION DETAIL
NO SCALE



SECTION 1/SG-4
1/2" = 1'-0"

GUIDEWAYS - PARTIAL FRAMING PLAN
1/8" = 1'-0"

NOTE: DIMENSIONS SHOWN ARE IN HORIZONTAL PLANE SEE TABLE (SHEET SG-6) TO DETERMINE TRUE DIMENSIONS.

NOTE: INSTALL ON STEEL FOR RUNNING SURFACES (4@6) 3/4" Φ x 4" LONG SHEAR STUDS AS PER TYP. DETAIL THIS SHEET USING 2 STUDS ON 24" ℄ AS DIRECTED BY FIELD REP.

SATELLITE TRANSIT SHUTTLE
MIAMI INTERNATIONAL AIRPORT
DADE COUNTY AVIATION DEPARTMENT
D.C.A.D. CONTRACT 4-14-2B

Harry Oppenheimer, Ross, and Associates, Architecture, Engineering, and Planning, 2780 Douglas Road, Coral Gables, Florida 33134.

GUIDEWAY STRUCTURE FRAMING PLAN SATELLITE STATION TO ℄ G
Scale: AS NOTED

Date: JULY 10, 1975

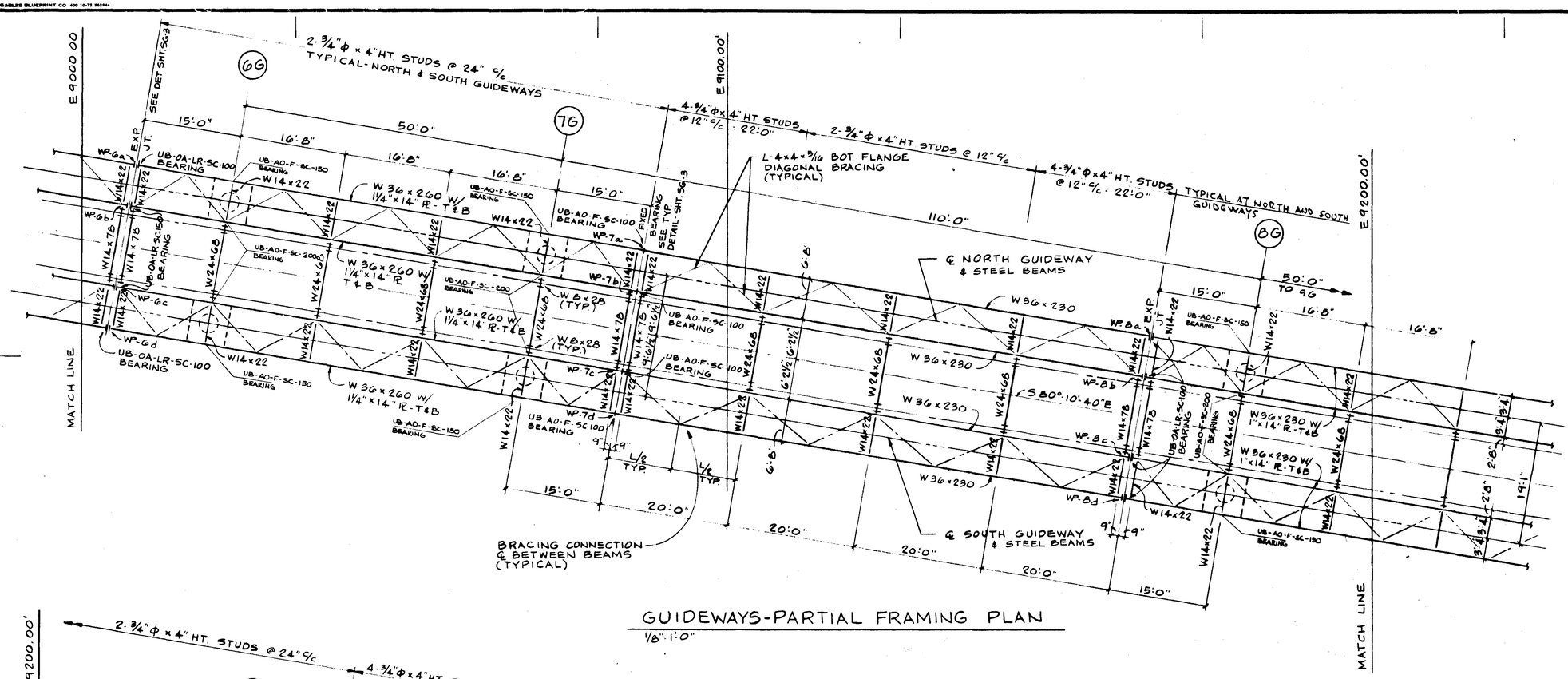
Revisions: AS BUILT DRAWING

Sheet SG-4
SCHEDULE II

218-9

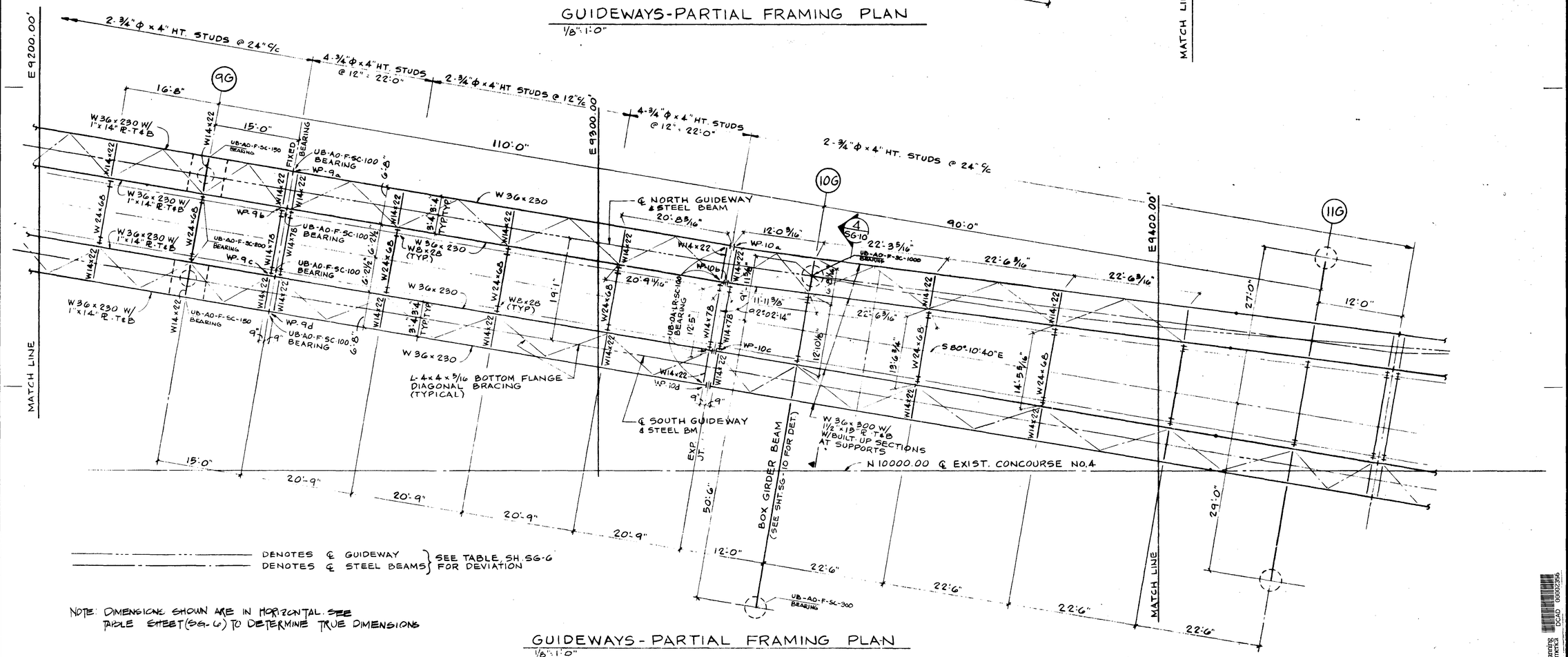
Scanning America DCAD 080002505

BX1-12



GUIDEWAYS-PARTIAL FRAMING PLAN

1/8": 1'-0"



DENOTES ℄ GUIDEWAY
DENOTES ℄ STEEL BEAMS
} SEE TABLE SH. SG-6 FOR DEVIATION

NOTE: DIMENSIONS SHOWN ARE IN HORIZONTAL. SEE TABLE SHEET (SG-6) TO DETERMINE TRUE DIMENSIONS

GUIDEWAYS - PARTIAL FRAMING PLAN

1/8": 1'-0"

SATELLITE TRANSIT SHUTTLE

MIAMI INTERNATIONAL AIRPORT
DADE COUNTY AVIATION DEPARTMENT
D.C.A.D. CONTRACT 4-14-2B

Harry, Oppenheimer, Ross, and Associates, Architecture, Engineering, and Planning, 2780 Douglas Road, Coral Gables, Florida 33134.

GUIDEWAYS STRUCTURE GUIDEWAYS FRAMING PLAN
Scale: AS NOTED

Date JULY 10, 1975

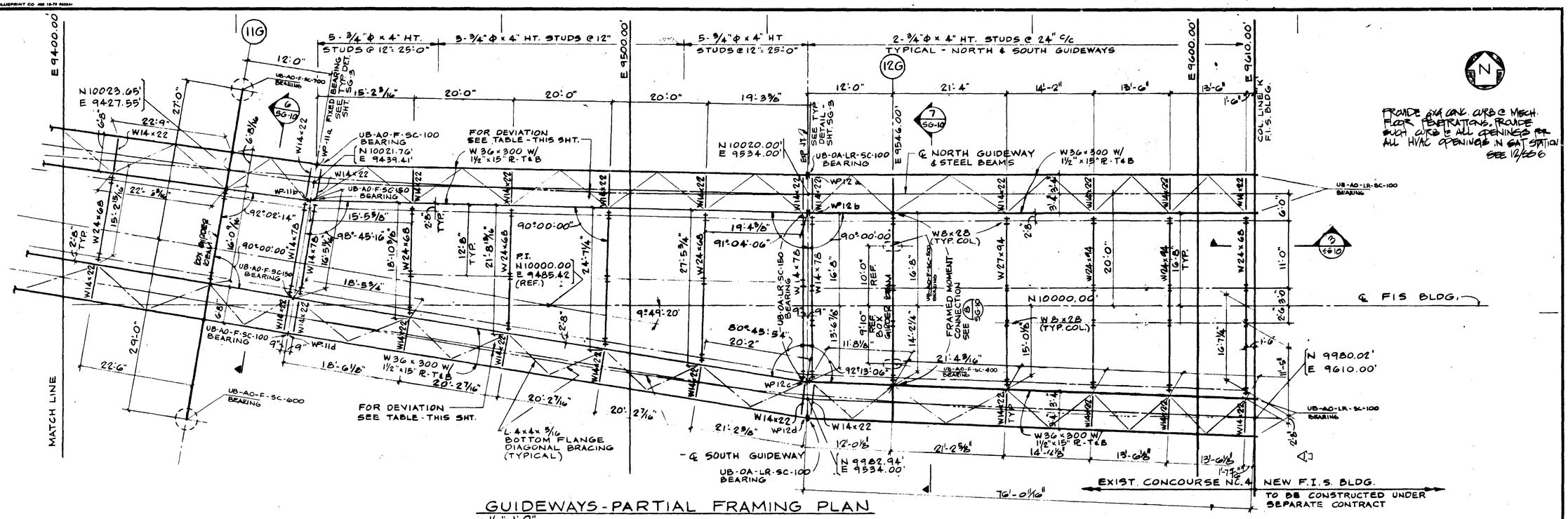
Revisions AS BUILT DRAWING

Sheet SG-5

SCHEDULE II

2/0-9

BX1-13

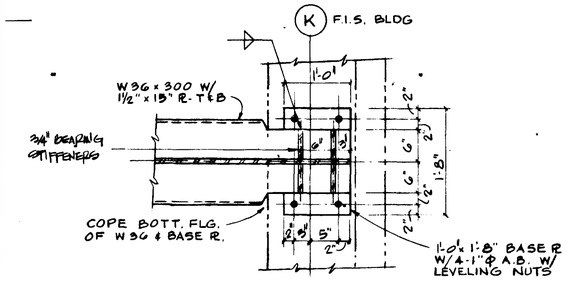


GUIDEWAYS - PARTIAL FRAMING PLAN

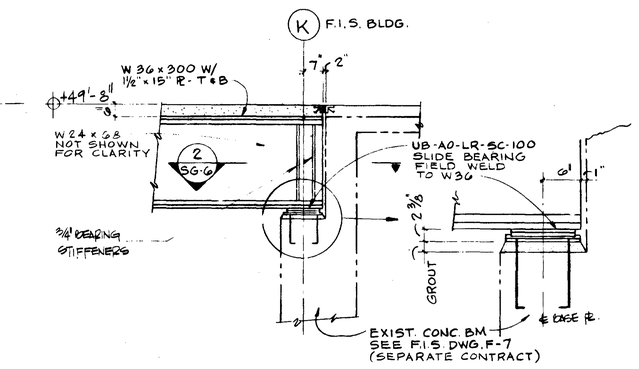
1/8" = 1'-0"

——— · ——— · ——— DENOTES ℄ GUIDEWAY

——— — ——— — ——— DENOTES ℄ STEEL BEAMS



VOID - SEE 2/SS10



VOID - SEE 3/SS10

HORIZONTAL DEVIATION
(FROM ℄ STEEL TRACK BEAMS TO ℄ GUIDEWAY)

LOCATION		COORDINATE ℄ BMS. NORTH	COORDINATE ℄ BMS. EAST	GUIDEWAY STATION (FT.)	DEVIATION (FT.)
NORTH GUIDEWAY - WEST	COL. S (STA.)	10162.270	8543.840	0+11.62	.000
	+10	10162.004	8555.836	0+21.62	.145 N
	+20	10161.739	8565.833	0+31.61	.187 N
	+30	10161.473	8575.829	0+41.82	.093 N
	1G+0	10161.200	8586.110	0+51.90	.158 S
	+10	10160.934	8596.106	0+61.89	.357 S
	+15	10160.801	8601.110	0+66.88	.816 S
	+25	10059.928	8611.001	0+76.86	.233 S
	+35	10057.855	8620.892	0+86.85	.195 N
	+45	10056.382	8630.783	0+96.85	.470 N
	+55	10054.908	8640.674	1+06.86	.596 N
	+65	10053.435	8650.564	1+16.86	.586 N
	+75	10051.962	8660.455	1+26.86	.474 N
	+85	10050.489	8670.346	1+36.86	.290 N
	+97.751	10148.011	8682.958	1+49.62	.000
SOUTH GUIDEWAY - WEST	1G+0	10119.667	8586.110	0+57.33	.000
	+5	10119.667	8591.110	0+62.33	.000
	+15	10119.667	8601.110	0+72.33	.000
	+25	10119.667	8611.110	0+82.33	.000
	+35	10119.667	8621.110	0+92.33	.000
	+41.241	10119.667	8627.351	0+98.57	.000
	+45	10119.667	8631.110	1+02.33	.000
	+55	10119.667	8641.110	1+12.33	.009 S
	+65	10119.667	8651.110	1+22.33	.045 S
	+75	10119.667	8661.110	1+32.33	.129 S
	+85	10119.667	8671.110	1+42.33	.281 S
	+91.837	10119.667	8677.947	1+49.16	.433 S
	2G-15	10119.667	8677.947	1+49.16	.433 S
	-10	10119.345	8682.937	1+54.15	.251 S
	+0	10118.695	8683.002	1+64.23	.040 N
	+10	10118.050	8702.981	1+74.23	.229 N
	+20	10117.406	8712.920	1+84.24	.317 N
	+30	10116.761	8722.840	1+94.24	.306 N
	+40	10116.117	8732.919	2+04.24	.193 N
	3G+0	10115.453	8743.184	2+14.53	.025 S
	+10	10114.808	8753.163	2+24.52	.339 S
	+15	10114.481	8758.239	2+29.60	.538 S
	+25	10112.985	8768.127	2+39.59	.147 S
	+35	10111.490	8778.014	2+49.59	.144 N
	+45	10109.994	8787.902	2+59.59	.335 N
	+55	10108.498	8797.789	2+69.59	.427 N
	+65	10107.003	8807.677	2+79.59	.420 N
	+75	10105.507	8817.564	2+89.59	.333 N
	+85	10104.012	8827.452	2+99.59	.185 N
	+95.019	10102.813	8837.358	3+09.62	.004 N

HORIZONTAL DEVIATION
(FROM ℄ STEEL TRACK BEAMS TO ℄ GUIDEWAY)

LOCATION		COORDINATE ℄ BMS. NORTH	COORDINATE ℄ BMS. EAST	GUIDEWAY STATION (FT.)	DEVIATION (FT.)
NORTH GUIDEWAY - EAST	10G-12	10037.215	9326.387	8+02.62	.003 S
	-7	10036.536	9331.348	8+07.62	.164 S
	-0	10035.588	9338.284	8+14.63	.390 S
	+10	10034.233	9348.192	8+24.64	.672 S
	+20	10032.879	9358.100	8+34.65	.890 S
	+30	10031.524	9368.008	8+44.65	1.020 S
	+40	10030.170	9377.915	8+54.64	1.056 S
	+50	10028.815	9387.823	8+64.65	.991 S
	+60	10027.461	9397.731	8+74.66	.826 S
	+70	10026.106	9407.639	8+84.66	.561 S
	+80	10024.752	9417.547	8+94.66	.196 S
	11G+0	10023.390	9427.510	9+04.70	.271 N
	+07	10022.442	9434.445	9+11.69	.656 N
	+12	10021.764	9439.407	9+16.68	.961 N
	+22	10021.578	9449.405	9+26.66	.474 N
	+32	10021.391	9459.404	9+36.65	.087 N
	+42	10021.205	9469.402	9+46.65	.200 S
	+52	10021.018	9479.400	9+56.65	.387 S
	+62	10020.832	9489.398	9+66.66	.478 S
	+72	10020.645	9499.379	9+76.66	.471 S
	+82	10020.459	9509.395	9+86.66	.391 S
	+92	10020.272	9519.393	9+96.66	.255 S
	+102	10020.086	9529.391	10+06.66	.085 S
	+106.609	10020.000	9534.000	10+11.27	.000
SOUTH GUIDEWAY - EAST	11G+12	9998.965	9436.461	9+16.31	.006
	+22	9997.360	9445.391	9+26.31	.102 S
	+32	9995.755	9455.202	9+36.31	.205 S
	+42	9994.150	9465.072	9+46.31	.307 S
	+52	9992.545	9474.943	9+56.61	.405 S
	+62	9990.941	9484.813	9+66.61	.474 S
	+72	9989.336	9494.685	9+76.61	.482 S
	+82	9987.731	9504.554	9+86.61	.397 S
	+92	9986.126	9514.424	9+96.61	.191 S
	+102	9984.521	9524.294	10+06.80	.164 N
	12G-12	9982.943	9534.000	10+16.61	.662 N
	-7	9982.750	9539.005	10+21.61	.359 N
	-0	9982.479	9546.000	10+28.60	.001 N
	+10	9982.092	9555.993	10+38.59	.380 S
	+20	9981.705	9565.985	10+48.60	.607 S
	+30	9981.318	9575.978	10+58.60	.681 S
	+40	9980.931	9585.970	10+68.65	.605 S
	+50	9980.544	9595.963	10+78.64	.407 S
	+60	9980.157	9605.955	10+88.64	.117 S
	+64.05	9980.000	9610.000	10+92.68	.020 N

WORKING POINTS
STEEL TRACK BEAMS

WORKING POINT	TOP OF STEEL ELEVATION	COORDINATES NORTH	COORDINATES EAST
WP-1a	30.83	10164.128	8601.401
1b	30.83	10157.453	8601.168
1c	30.83	10123.000	8601.110
1d	30.83	10116.334	8601.110
WP-2a	33.68	10181.902	8683.488
2b	33.68	10145.320	8682.428
2c	33.68	10123.000	8678.085
2d	33.68	10116.334	8677.839
WP-3a	36.72	10188.248	8762.354
3b	36.72	10131.680	8761.216
3c	36.72	10117.798	8758.596
3d	36.72	10111.164	8757.882
WP-4a	39.72	10124.601	8841.182
4b	39.72	10118.032	8840.045
4c	39.72	10105.797	8837.927
4d	39.72	10099.229	8836.789
WP-5a	42.72	10110.955	8920.009
5b	42.72	10104.387	8918.872
5c	42.72	10092.152	8916.754
5d	42.72	10085.583	8915.617
WP-6a	46.10	10095.602	9008.690
6b	46.10	10089.033	9007.553
6c	46.10	10076.798	9005.435
6d	46.10	10070.230	9004.298
WP-7a	48.66	10081.954	9087.517
7b	48.66	10075.386	9086.380
7c	48.66	10063.151	9084.262
7d	48.66	10056.582	9083.125
WP-8a	49.17	10068.307	9166.345
8b	49.17	10061.738	9165.208
8c	49.17	10049.503	9163.090
8d	49.17	10042.935	9161.953
WP-9a	49.17	10054.659	9245.172
9b	49.17	10048.091	9244.035
9c	49.17	10035.856	9241.917
9d	49.17	10029.287	9240.780
WP-10a	49.17	10040.510	9326.897
10b	49.17	10033.920	9325.877
10c	49.17	10021.696	9323.701
10d	49.17	10015.128	9322.563
WP-11a	49.17	10025.093	9439.665
11b	49.17	10018.435	9439.149
11c	49.17	10002.252	9436.013
11d	49.17	9995.678	9434.909
WP-12a	49.17	10023.333	9534.031
12b	49.17	10016.667	9533.969
12c	49.17	9986.268	9534.314
12d	49.17	9979.618	9533.686

NOTE: DIMENSIONS SHOWN ARE IN HORIZONTAL PLANE. SEE TABLE ABOVE TO DETERMINE TRUE DIMENSIONS

HOR

SATELLITE TRANSIT SHUTTLE
MIAMI INTERNATIONAL AIRPORT
DADE COUNTY AVIATION DEPARTMENT
D.C.A.D. CONTRACT 4-14-2B

Harry Carpenheimer, Ross, and Associates, Architecture, Engineering, and Planning, 2780 Douglas Road, Coral Gables, Florida 33134.

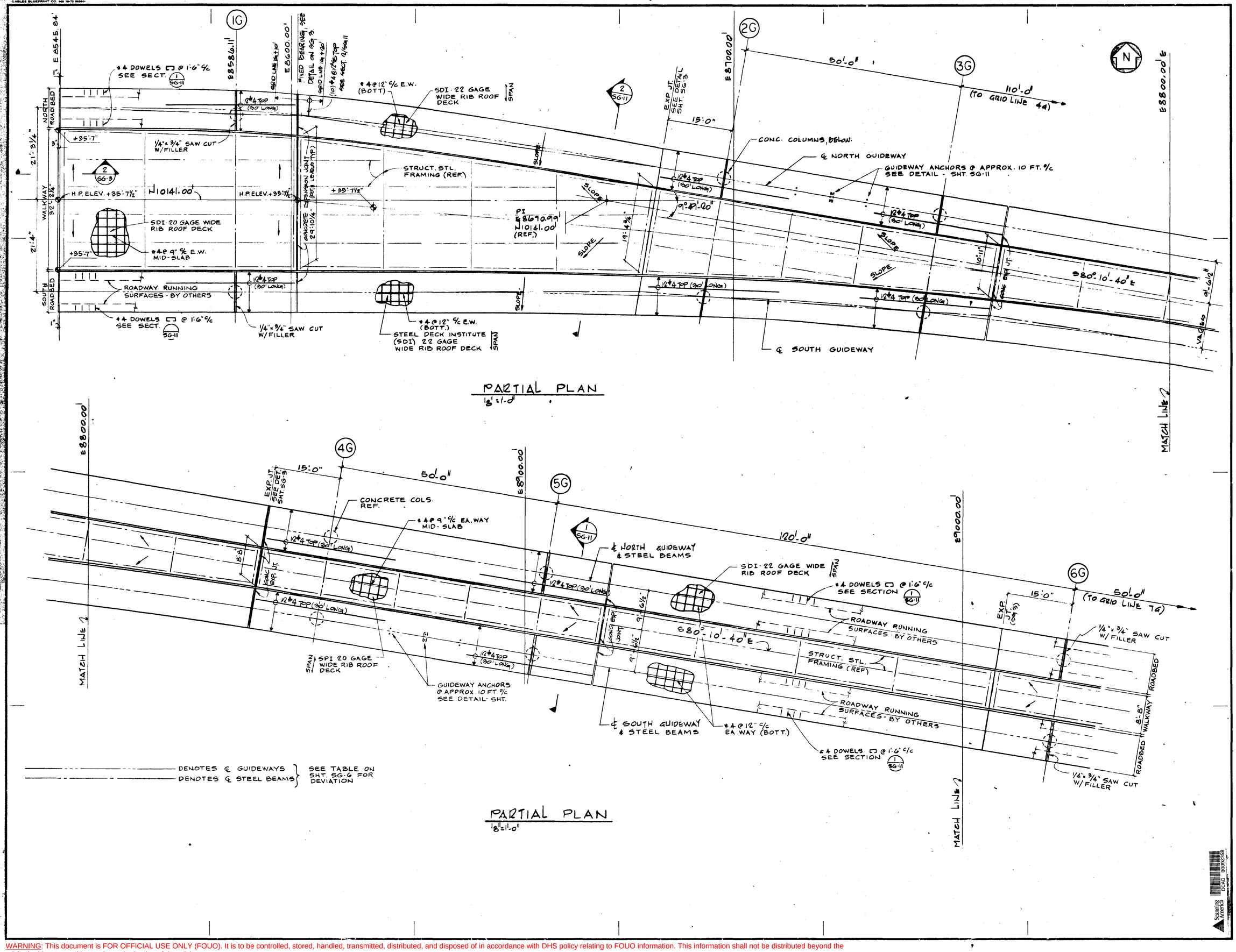
Date	Revisions
JULY 10, 1975	AS BUILT JUNE 79

GUIDEWAY STRUCTURE - GUIDEWAYS FRAMING PLAN & SECTION 11G TO F.I.S. BLDG.
Scale: AS NOTED
Drawn: D.J. WHITE

Sheet SG-6
SCHEDULE II

218-9

BX1-14



PARTIAL PLAN
1/8" = 1'-0"

PARTIAL PLAN
1/8" = 1'-0"

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DADE COUNTY AVIATION DEPARTMENT
D.C.A.D. CONTRACT 4-14-2B

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GUIDEWAY STRUCTURE, FOUNDATION & SLABS SATELLITE STATION TO 6G
Scale: AS NOTED

Date JULY 10, 1975

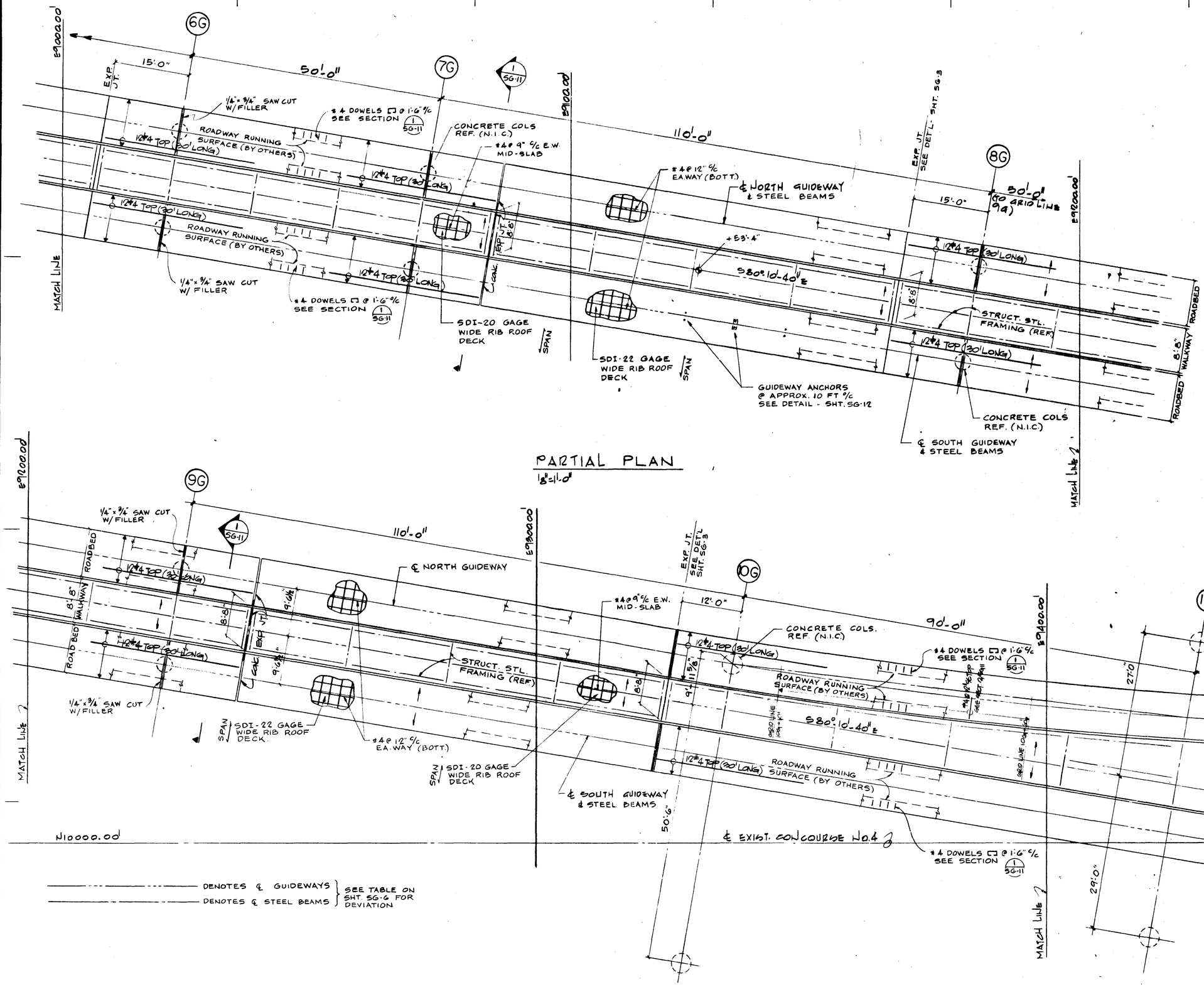
Revisions AS BUILT JUNE 79

Sheet SG-7

SCHEDULE II

2/8-9

BX1-15



PARTIAL PLAN
1/8"=1'-0"

PARTIAL PLAN
1/8"=1'-0"

HOR

SATELLITE TRANSIT SHUTTLE
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DADE COUNTY AVIATION DEPARTMENT
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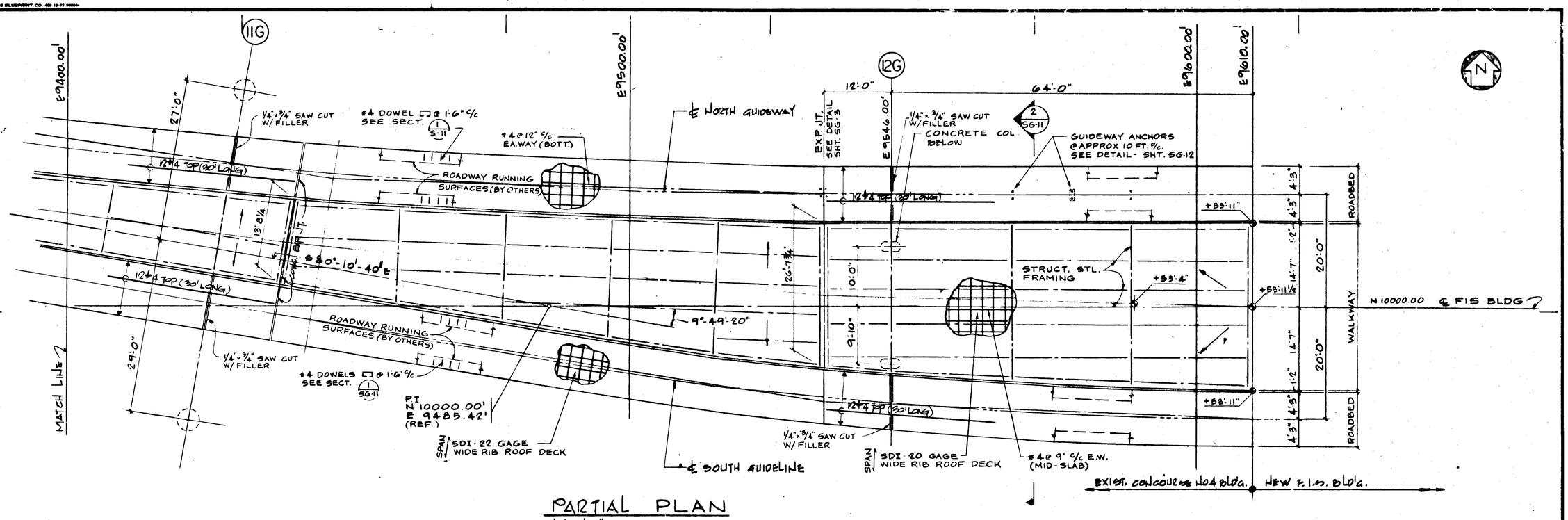
GUIDEWAY STRUCTURE, ROADBED AND WALKWAY SLABS
Scale: AS NOTED
Date JULY 10, 1975
Revisions AS BUILT JUNE '19

Sheet
SG-8
SCHEDULE II

Scanning Americas DCAD 08002359



PARTIAL PLAN

1/8" = 1'-0"

HOR

SATELLITE TRANSIT SHUTTLE

MIAMI INTERNATIONAL AIRPORT
DADE COUNTY AVIATION DEPARTMENT
D.C.A.D. CONTRACT 4-14-23

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GUIDEWAY STRUCTURE - GATEWAY AND WALKWAY SLABS
INDEX PLAN AND BUILDING
Scale: AS NOTED

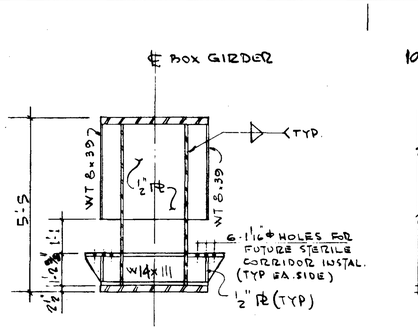
Date JULY 10, 1975

Revisions
As Built June '79

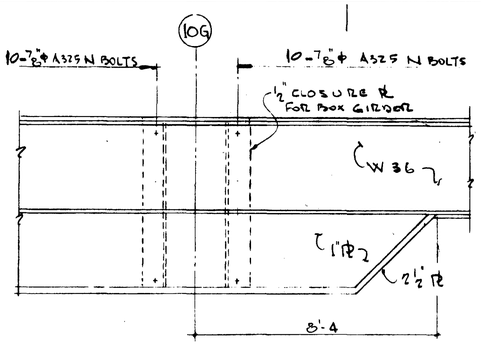
Sheet
SG-9
SCHEDULE II

212-9

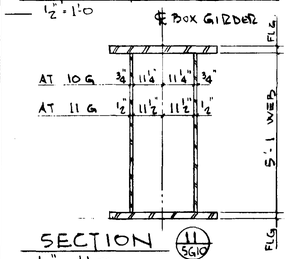
BX1-17



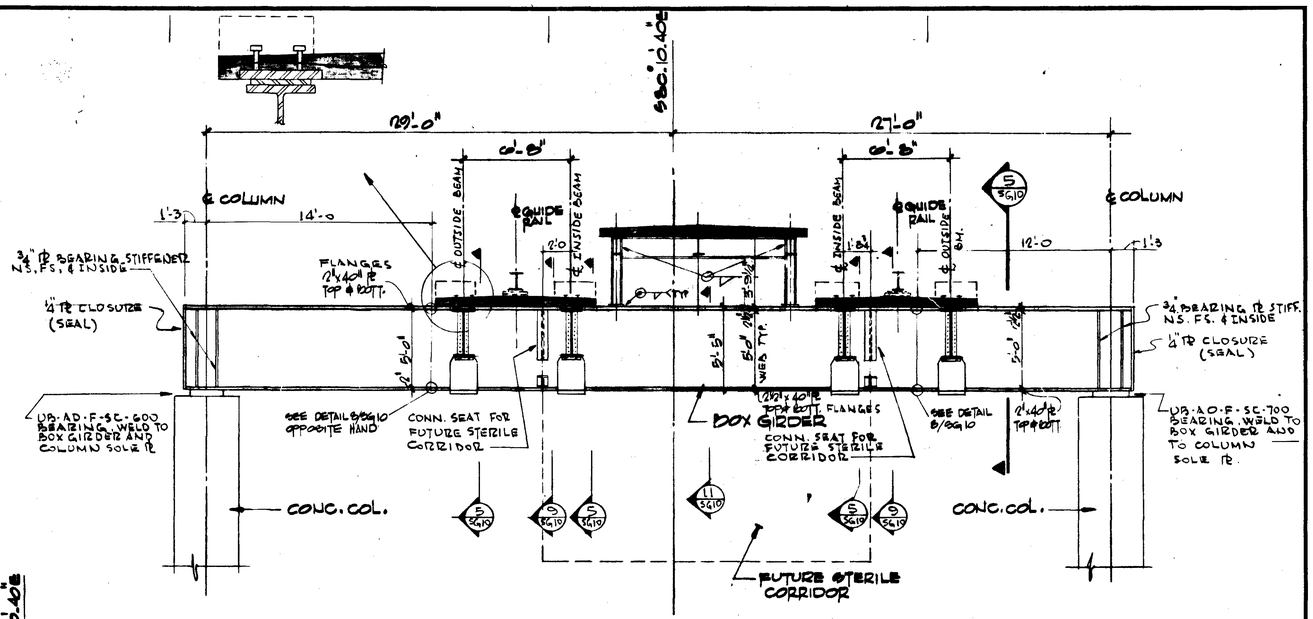
SECTION (9 SG10)
TYP. CONN. SEAT FOR FUTURE STERILE CORRIDOR
½" = 1'-0



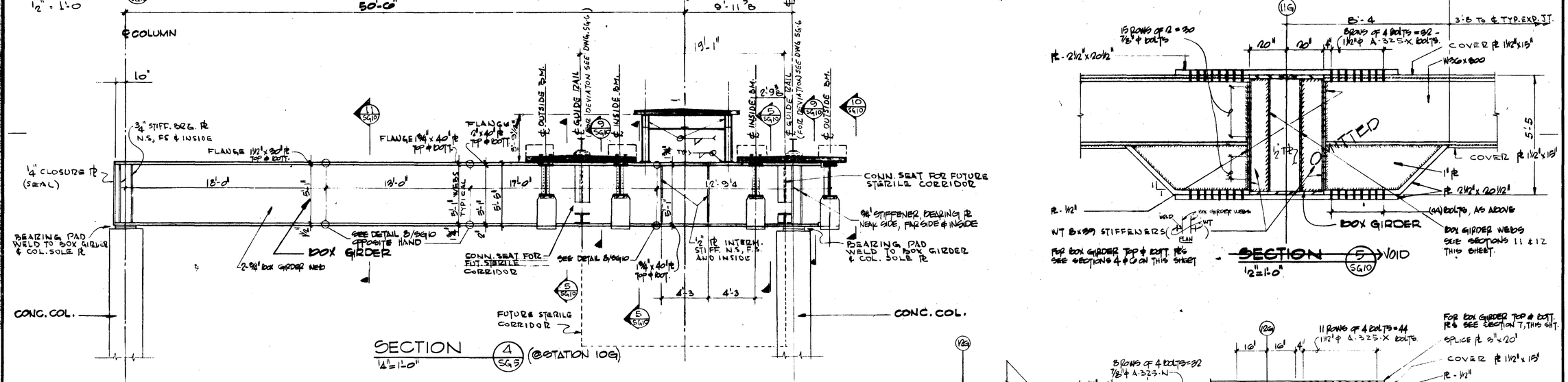
SECTION (10 SG10)
½" = 1'-0



SECTION (11 SG10)
½" = 1'-0

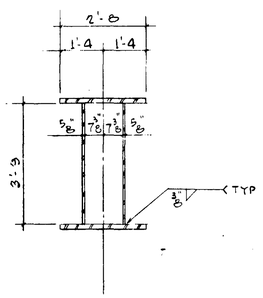


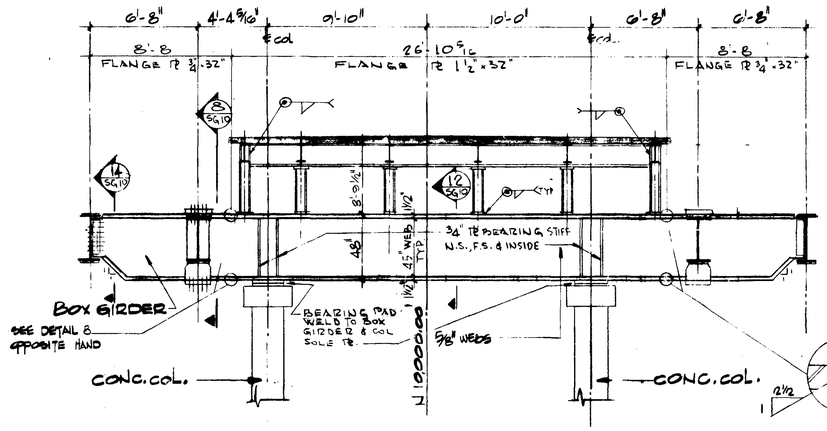
SECTION (6 SG6) (@STATION 11G)
¼"=1'-0"



SECTION (4 SG5) (@STATION 10G)
¼"=1'-0"

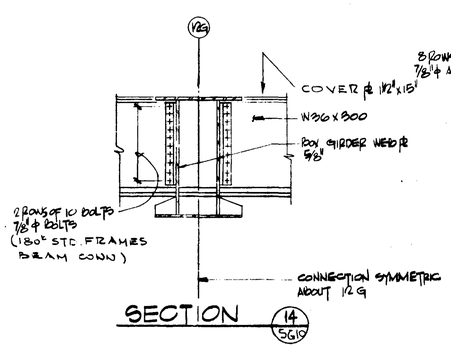
SECTION (5 SG10)
½"=1'-0"



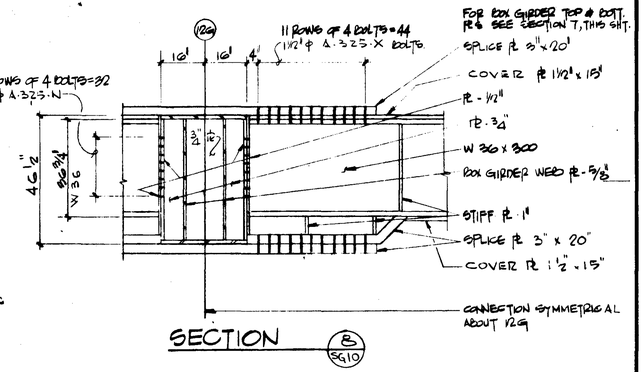


SECTION (12 SG10)
½" = 1'-0"

SECTION (7 SG6) (@STATION 12G)
¼"=1'-0"



SECTION (14 SG10)



SECTION (8 SG10)

DETAIL 8
3/8"=1'-0"
INVERT FOR TOP PL.

SATELLITE TRANSIT SHUTTLE
MIAMI INTERNATIONAL AIRPORT
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D.C.A.D. CONTRACT 4-14-2B

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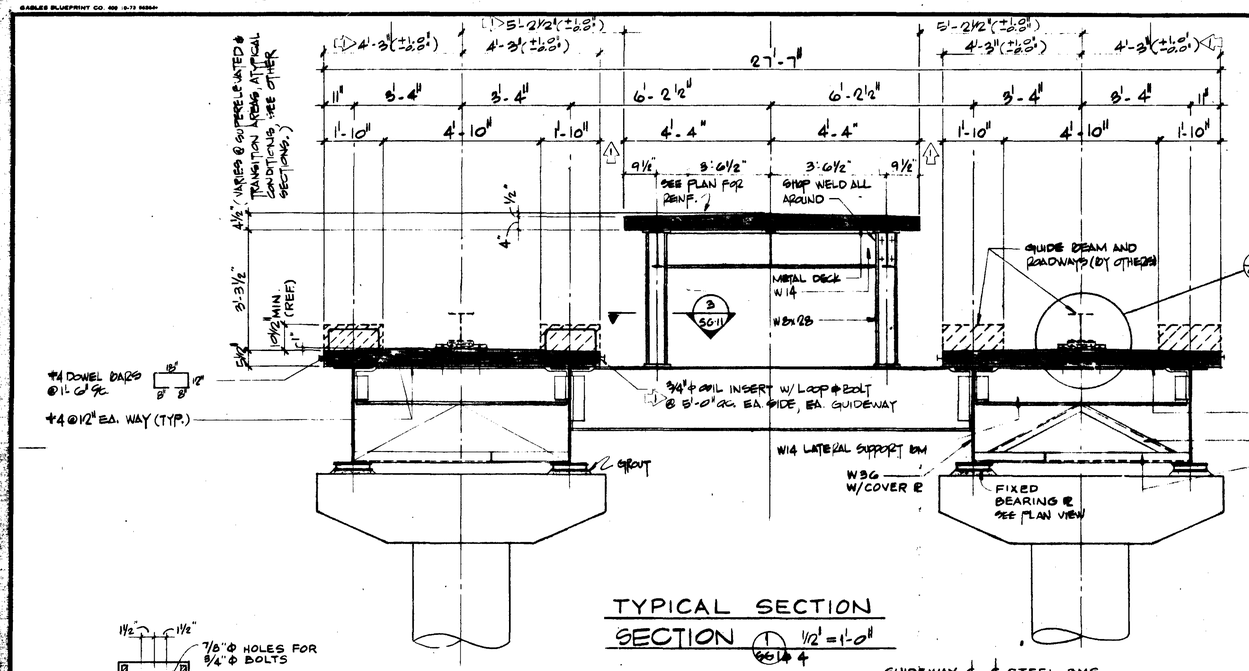
GUIDEWAY STRUCTURE
BOX GIRDER GUIDEWAYS
SUPPORTS SECTIONS & DETAILS
Scale: AS NOTED

Date: JULY 10, 1975

Revisions: AS BUILT JUNE 76

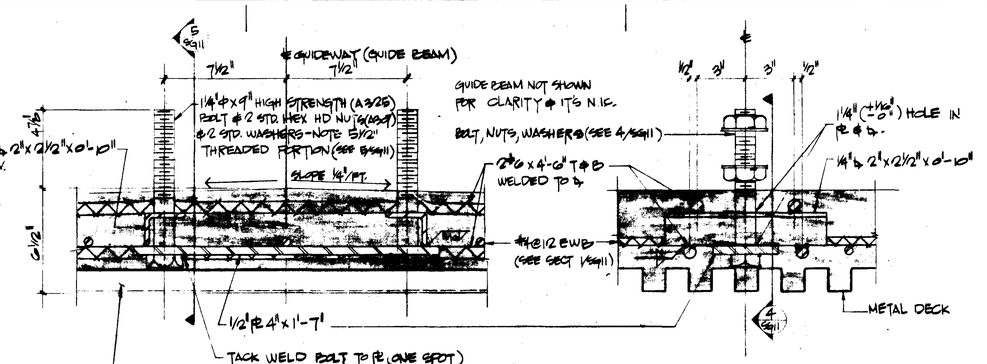
Sheet
SG-10
SCHEDULE II

2B-9



TYPICAL SECTION

SECTION (1) SG11 1½" = 1'-0"

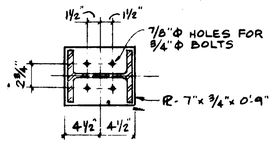


GUIDEBEAM ANCHOR DETAIL - PER QUANTITY & LOCATIONS SEE WESTINGHOUSE DRAWINGS

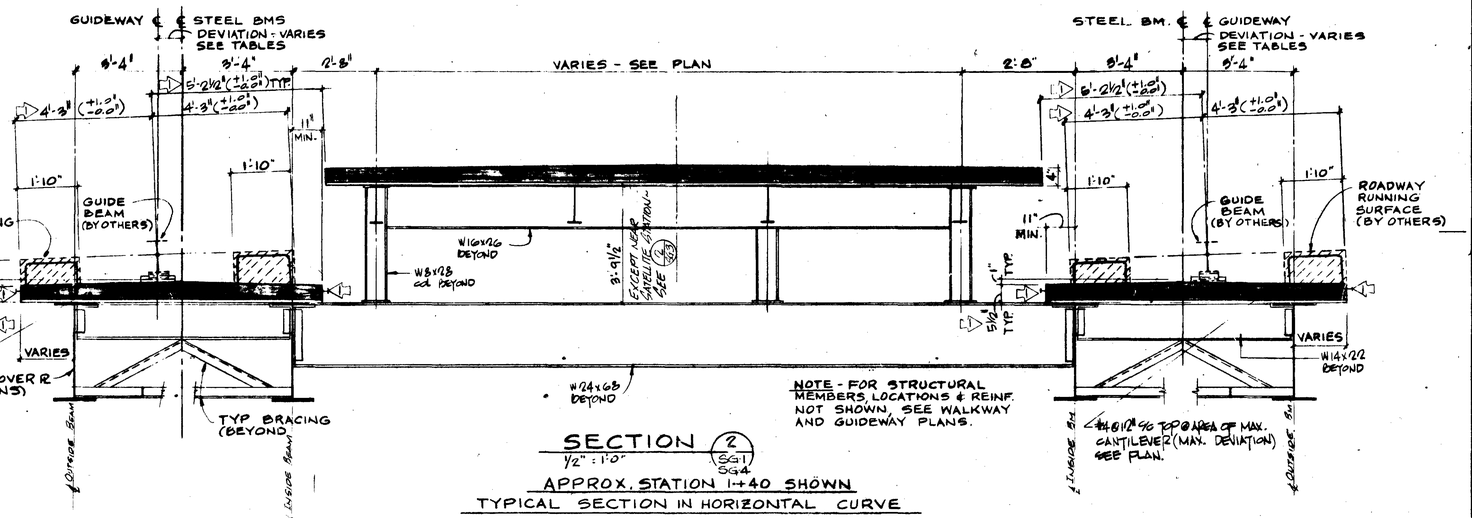
SECTION (4) 3"=1'-0"

CONTRACTOR TO COORDINATE ANCHOR INSTALLATION WITH WESTINGHOUSE ELECTRIC CORP.

SECTION (5) 3"=1'-0"



SECTION (3) SG11 1½"=1'-0"



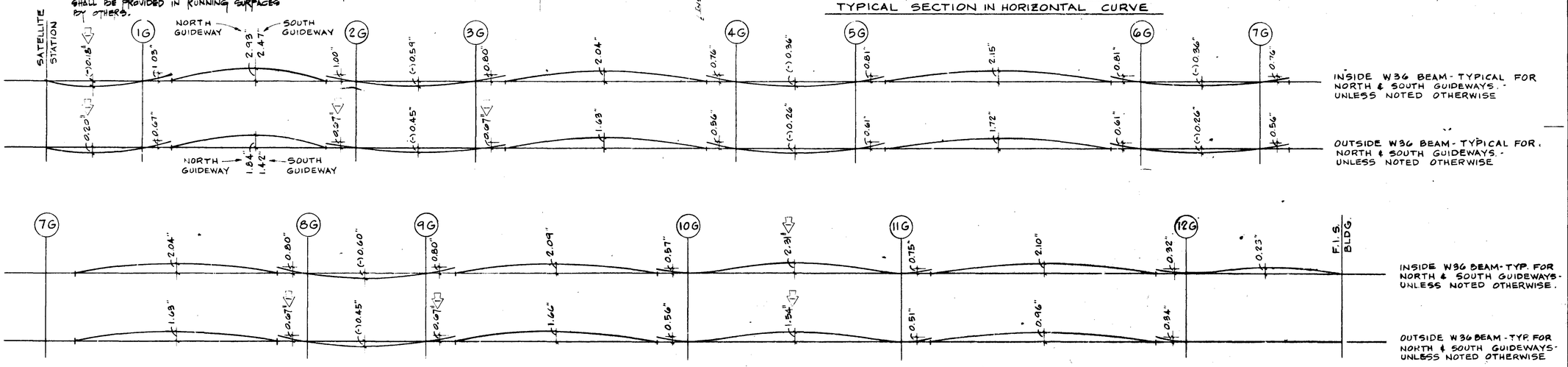
SECTION (2) SG1 SG4 1/2" = 1'-0"

APPROX. STATION 1+40 SHOWN

TYPICAL SECTION IN HORIZONTAL CURVE

CAMBER NOTES

1. THE CAMBER SPECIFIED IS FOR FINAL FABRICATED MID-LENGTH OR ENDS. CAMBER WILL APPROXIMATE A SIMPLE REGULAR CURVE BETWEEN THE POINTS INDICATED
2. THE CAMBER SPECIFIED IS A MINIMUM VALUE. TOLERANCES SHALL BE PER AISC-1-125 & 126
3. CAMBER IS FOR DEAD LOADS PLUS ONE-HALF LIVE LOADS (THREE CARS) NOTE: CAMBER SHALL BE PROVIDED IN RUNNING SURFACES BY OTHERS.



ELEVATIONS - GUIDEWAY BEAM CAMBER

NO SCALE

SATELLITE TRANSIT SHUTTLE
MIAMI INTERNATIONAL AIRPORT
DADE COUNTY AVIATION DEPARTMENT
D.C.A.D. CONTRACT 4-14-2B

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GUIDEWAYS - STRUCTURE & DETAILS - SECTION
Scale: AS NOTED
Date JULY 10, 1975
Revisions 10 JAN 76 AS BUILT 7 JUNE '79

Sheet SG-11
SCHEDULE II

218-9

BX1-19

SATELLITE TRANSIT
MIAMI INTERNATIONAL AIRPORT
DADE COUNTY AVIATION DEPARTMENT
D.C.A.D. CONTRACT 4-14-2B

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EXISTING APRON EQUIPMENT ROOM

EXISTING STRUCTURE

LINE OF EXISTING CURB

SEE THIS SHEET DETAIL 'X' TYP.

8" THICK CONC. SLAB REINF BY 4x4-W4xW4 WWF OVER 12" COMPACTED BASE

DETAIL 'Y'

EXISTING APRON EQUIPMENT ROOM

6½" THICKEN SLAB SEE TYP DET THIS SHEET

4'-7⅛" DEEP SLOT FOR ESCALATOR SEE DETAIL ON DWG. 55-6

NOTE- FOR FINISHED FLOOR ELEV & SLOPES, SEE ARCHITECTURAL DRAWINGS.

8" THICK CONCRETE SLAB REINF. BY 4x4 - W4xW4 WWF OVER 12" COMPACTED BASE (SEE ALSO SPECIFICATION)

TYP. THICKENED EDGE AROUND PERIMETER

FIRST FLOOR FRAMING PLAN
1/8" = 1'-0"

GENERAL STRUCTURAL NOTES

Concrete: Shall have a minimum 28 day compressive strength of 3000 p.s.i.

Reinforcing: Shall be deformed bars, free from loose rust and scale, and conforming to Standard Specifications for Deformed Billet Steel Bars for Concrete Reinforcing, ASTM A 615-68, Grade 60, ties, anchors and stirrups shall conform to ASTM A 615-68, Grade 40.

Reinforcing: Cover as follows:

	Second Floor	Third Floor Thru. Roof
Columns	1½"	1½"
Beams	1½"	1½"
Joists	1½"	1"
Slabs	1"	3/4"

8" x 8" Precast concrete lintel with two No. 5 bars top and bottom are minimum for openings up to 6'-0". Provide 8" minimum bearing each side of opening.

See slab opening notes on F-1.0

TYPICAL FLOOR SLAB AT WALL DETAIL
1" = 1'-0"

TYP. THICKEN SLAB

TYP. CONTROL JOINT
3" = 1'-0"

DETAIL 'Y'
3/4" = 1'-0"

TYPICAL FTG @ NON-BEARING CONC BLK WALL

DETAIL 'X'
TYP. @ COLS. 26, 27a, 28a, 29a, 48, 49a, 50a, 51a
3/4" = 1'-0"

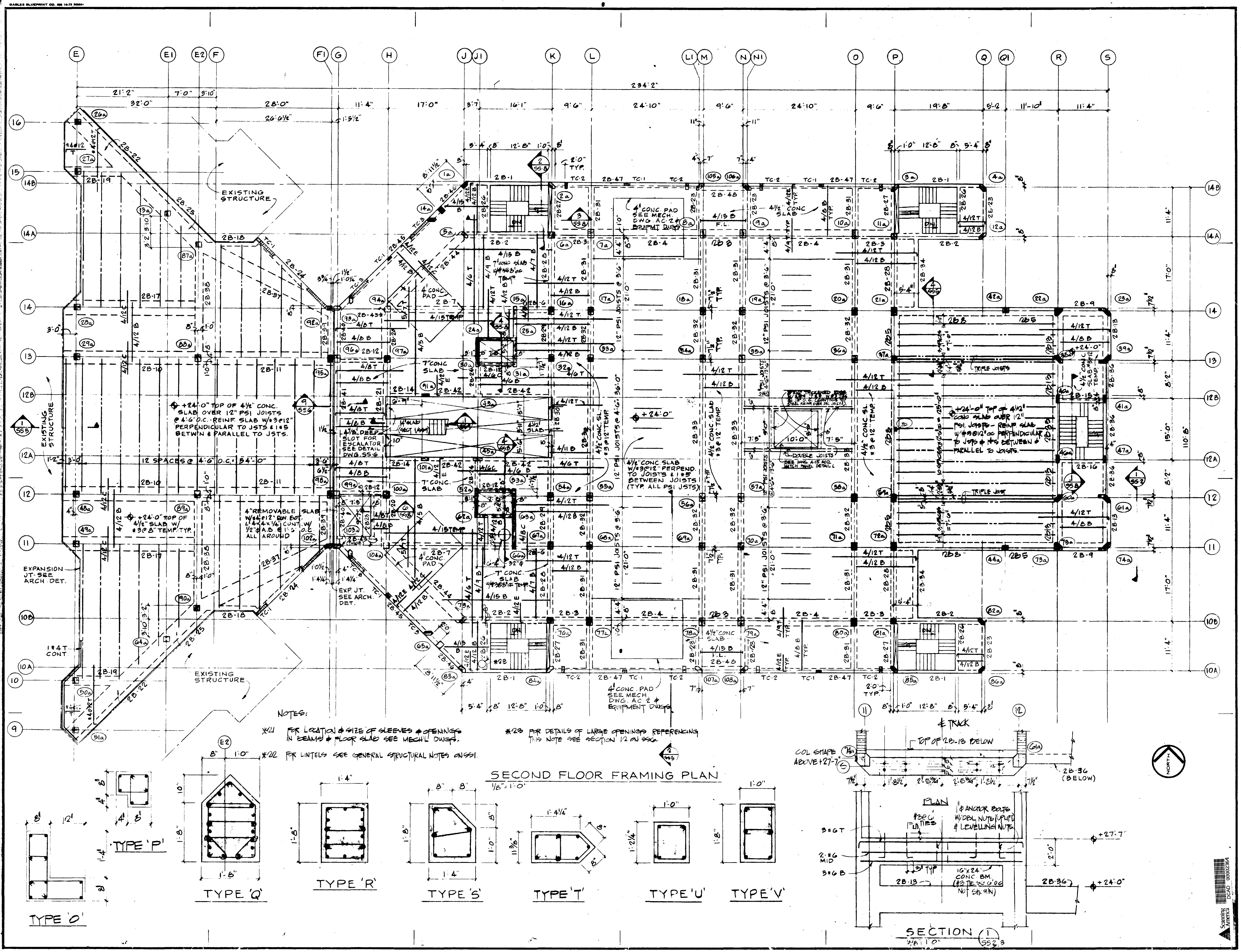
Date	JULY 10, 1975
TRANSIT STATION SATELLITE	
FIRST FLOOR PLAN	
Scale AS SHOWN	
Revisions	AS OF 7 JUNE 75

Sheet
SS-1
SCHEDULE II

28-9

BX1-20

GABLES BLUEPRINT CO.



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SATELLITE TRANSIT SHUTTLE
MIAMI INTERNATIONAL AIRPORT
DADE COUNTY AVIATION DEPARTMENT
D.C.A.D. CONTRACT 4-14-2B

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TRANSIT STATION SATELLITE
SECOND FLR. FRAMING PLAN
Scale AS SHOWN

Date JULY 10, 1975

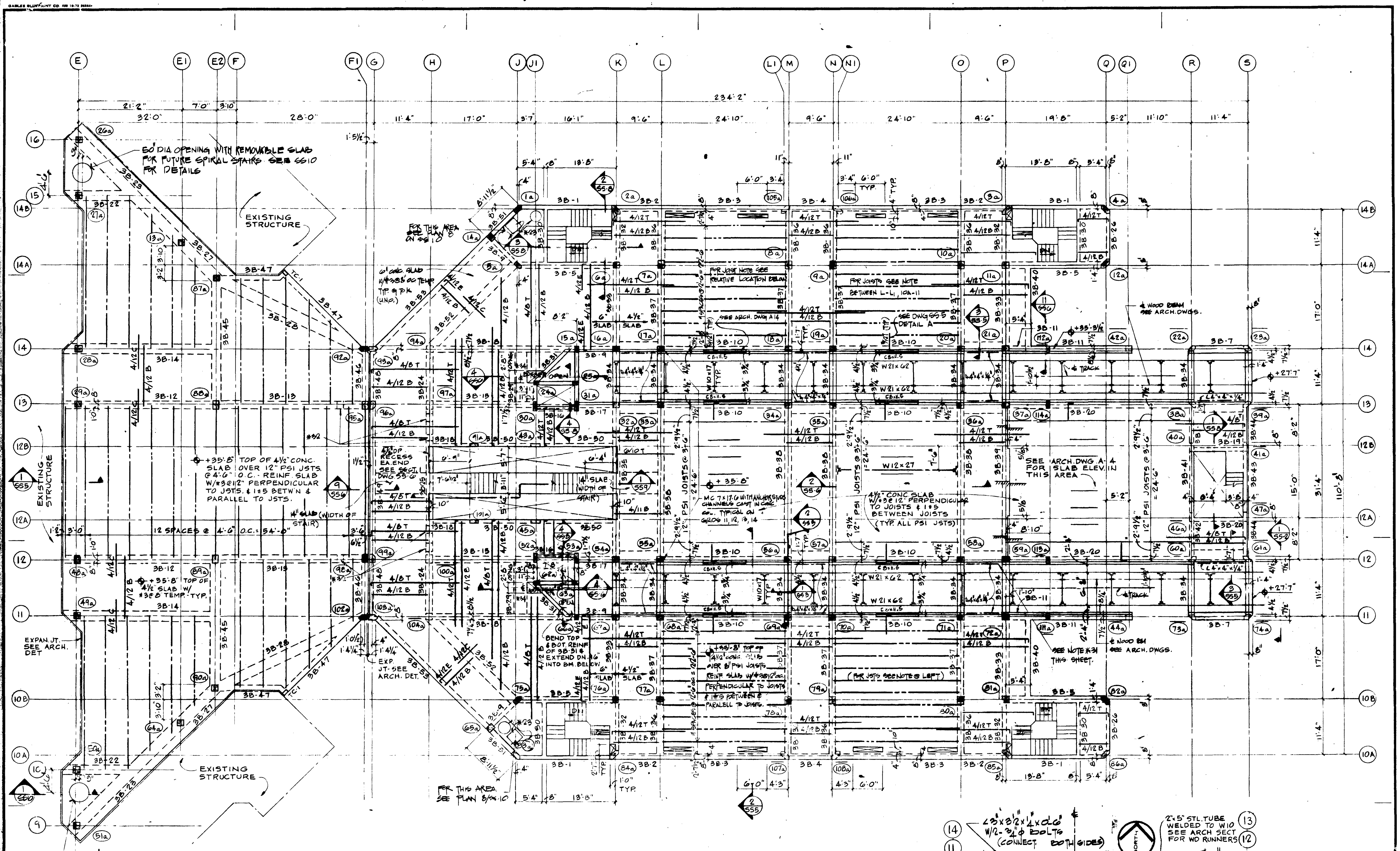
Revisions AS BUILT JUNE 79

Sheet SS-2

SCHEDULE II

DCAD 00002364

Scanning America



THIRD FLOOR FRAMING PLAN

1/8" : 1'-0"

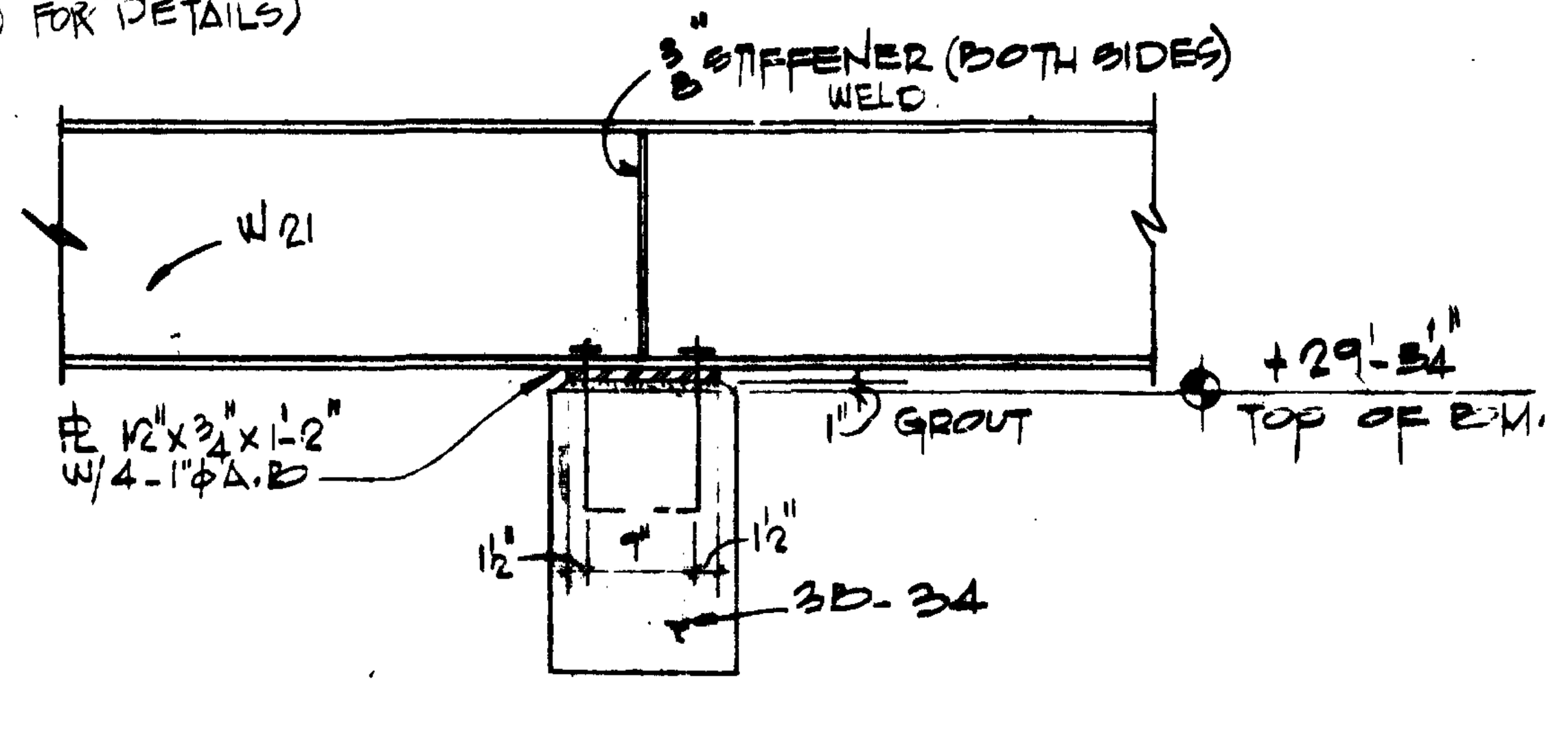
NOTES

#31 On third floor along grid lines 11, 12, 13, and 14, the contractor is to exercise extreme care to assure a level floor to match train floor. The columns must be plumb and of constant width and proper relation to track guides.

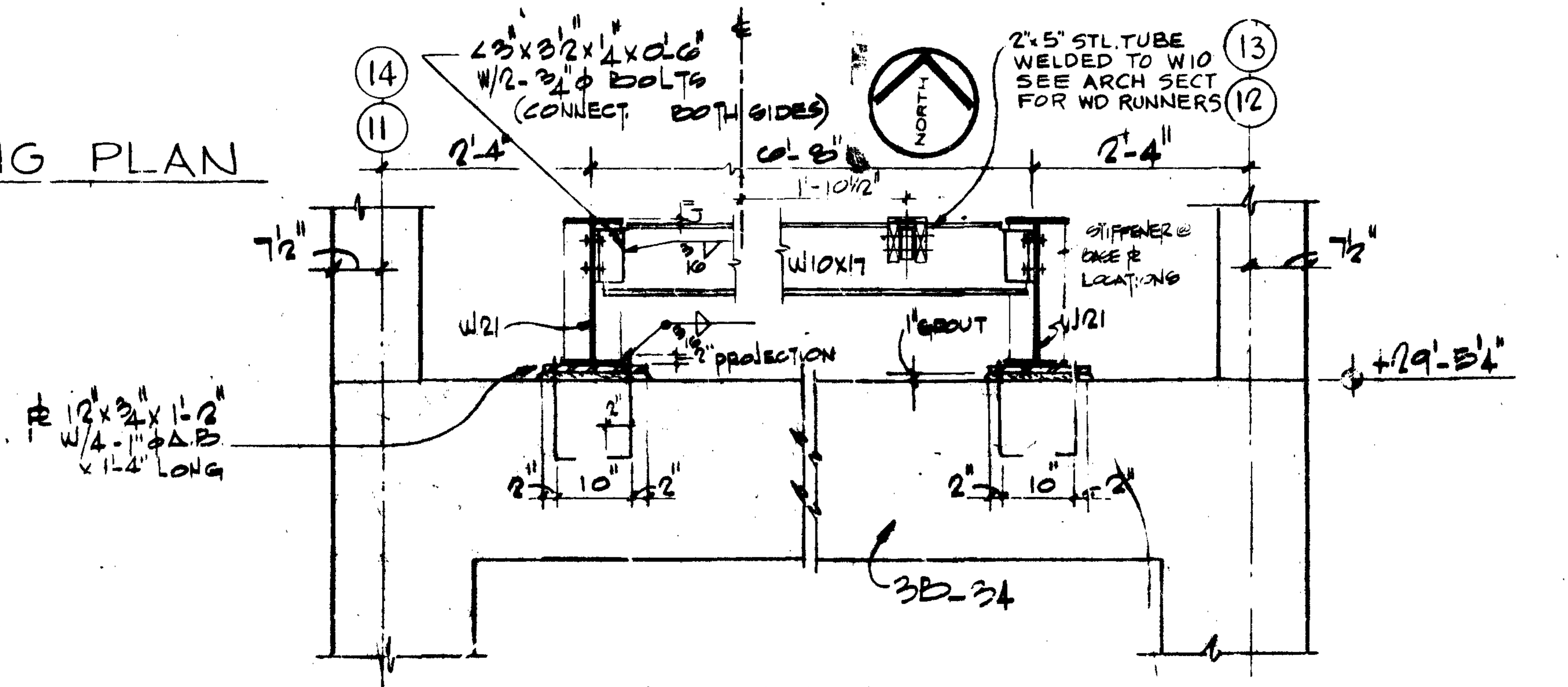
#32 For location and size of sleeves and openings in beams and floor slab, see Mechanical Drawings.

#33 For lintels see General Structural Notes on SS1.

#34 For detail plan of buffers (mounted to both 3B29's) see Partial Plan "A" on SS6.



SECTION 1/SS3
3/4" = 1'-0"



SECTION 2/SS3
3/4" = 1'-0"

HOF

SATELLITE TRANSIT SHUTTLE
MIAMI INTERNATIONAL AIRPORT
DADE COUNTY AVIATION DEPARTMENT
D.C.A.D. CONTRACT 4-14-2B

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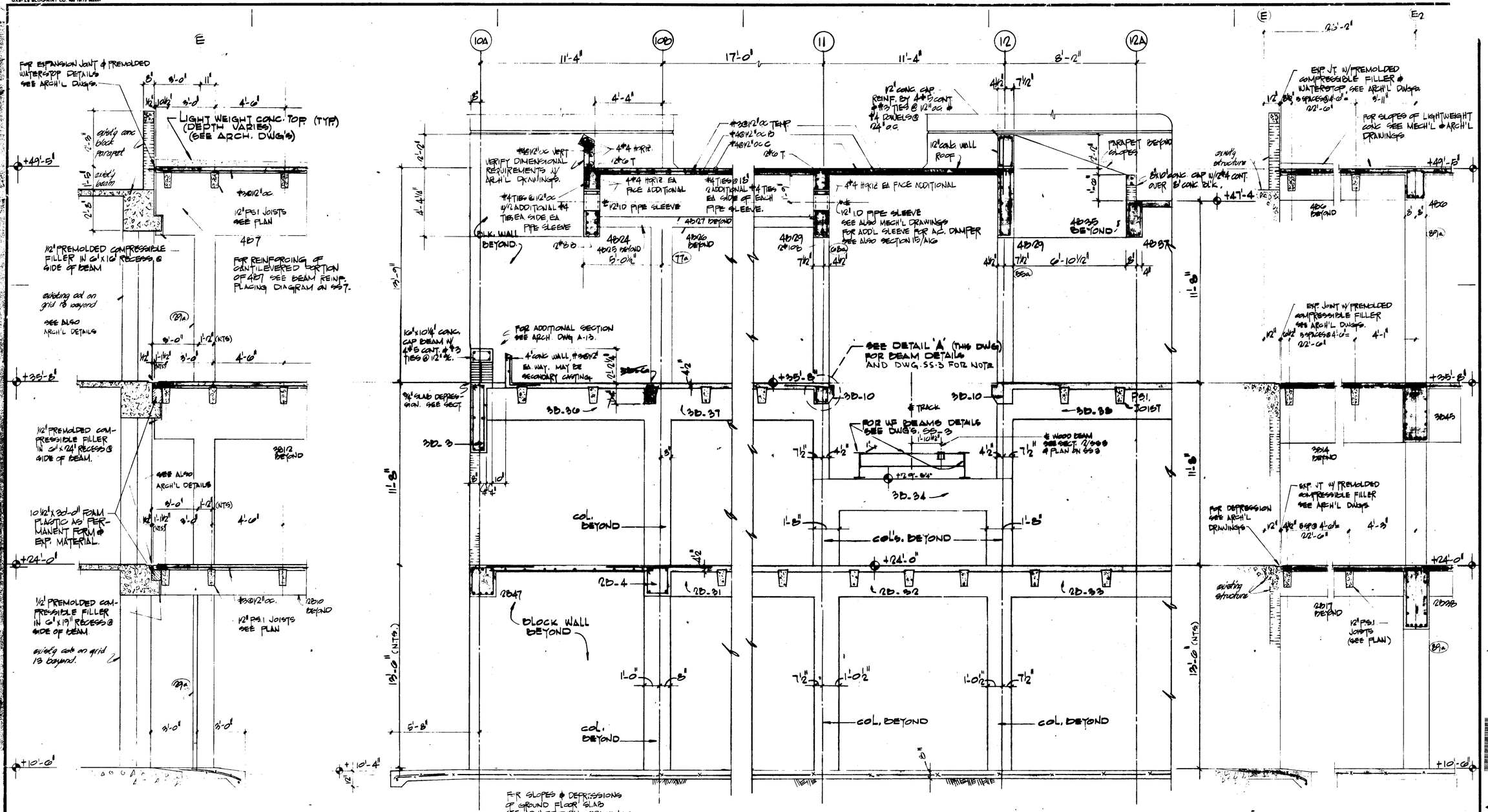
TRANSIT STATION - SATELLITE
THIRD FLR. FRAMING PLAN
Scale AS SHOWN
Date JULY 10, 1975
Revisions AS BUILT JUNE '79

Sheet SS-3

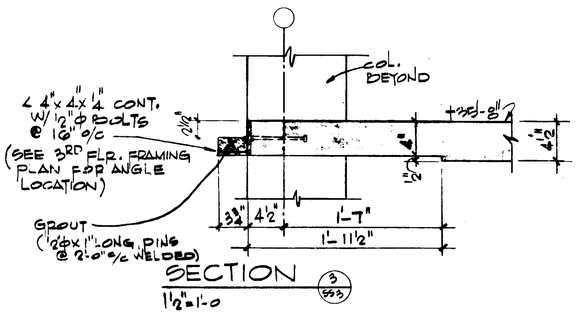
SCHEDULE II

DCAD 00002366

216-9

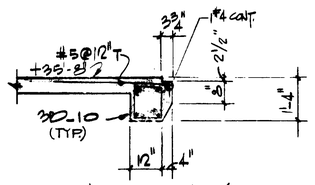


SECTION 1 (SS2) 3/8"=1'-0" 3#4

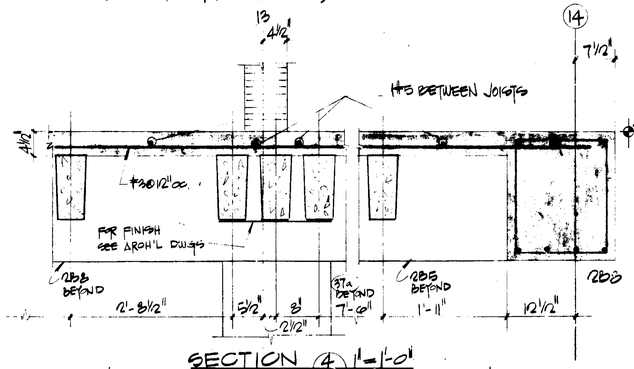


SECTION 3 (SS3) 1 1/2"=1'-0"

SECTION 2 (SS1,2&3) 3/8"=1'-0" (SIMILAR OPPOSITE SIDE)

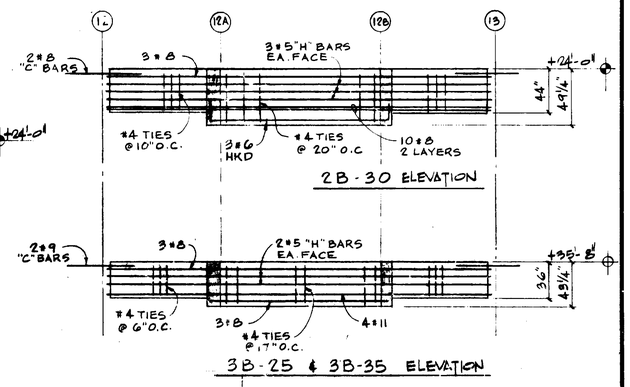


DETAIL 'A' 1/2"=1'-0"



SECTION 4 1"=1'-0"

SECTION 5 3/8"=1'-0"



Harry, Oppenheimer, Ross, and Associates. Architecture, Engineering, and Planning. 2780 Douglas Road, Coral Gables, Florida 33134.

SATELLITE TRANSIT SHUTTLE

MIAMI INTERNATIONAL AIRPORT
DADE COUNTY AVIATION DEPARTMENT
D.C.A.D. CONTRACT 4-14-2B

Scanning Artifacts DCAD 00082367

TRANSIT STATION SATELLITE
SECTIONS & DETAILS
Scale AS SHOWN
Date JULY 10, 1975
Revisions AS BUILT JUNE '79

Sheet SS-5
SCHEDULE

2E-9

BX1-23

FOR WATERSTOP AND EXPANSION JOINT SEE ARCHITECTURAL DETAILS

FOR SLOPING LIGHTWEIGHT CONC SEE ARCH'L & MECH'L DRAWINGS.

+61'-0" +49'-6" +35'-8" +24'-0"

#3@12"oc

5B05 5B06 4B07 BEYOND

DEPRESSION FOR COVER PL SEE ARCH DWGS

12" PSI JST.

SEE SCHEDULE FOR SIZE & REINF.

TYP.

#3@12"

#3@12"OC.

4'-6" 3'-0" 1'-1"

12 SPACES @ 4'-6" = 54'-0"

#4@8"oc T
#3@12"oc TEMP

#4@12"oc B

3B49 3B13 BEYOND

+35'-8"

SECTION (10a) NO SCALE

SHEAR FRICTION BARS (SCHEDULE 3/SS6)

3 x h1

h1 h2

CANTILEVERED (SUPPORTING) BEAM

SUPPORTED BEAM

SHEAR FRICTION BARS (SEE SCHEDULE 3/SS6)

CANTILEVERED BEAM (SUPPORTING)

SUPPORTED BEAM

3 x h2

+24'-0"

#4@8"oc T
#3@12"oc TEMP

#4@8"oc B

2B11 BEYOND 2B41

PLAN (10) NO SCALE ALL

8" 1½" EXP JT

SHEAR FRICTION BARS SEE SCHED 3/SS6

TOP BARS

BOT BARS

SUPPORTING BEAM

SUPPORTED BEAM

SECTION (8a) NO SCALE

h+12 BAR ø

SHEAR FRICTION BARS (SEE SCHED 3/SS6)

2.5h

h

SECTION (9) 3/8"=1'-0" ALL

SHEAR FRICTION BARS - SEE SCHEDULE 3/SS6

1½ CLEAR

BOT. BARS

SUPPORTED BEAM

SECTION (7a) NO SCALE SS6

2d BAR ø

SUPPORTED BEAM

℄ WIDTH OF SUPPORTED BEAM

NOTE: REINFORCING NOT SHOWN IS SUBORDINATE TO THAT SPECIFIED ABOVE & IS OMITTED GRAPHICALLY FOR CLARITY ONLY.

NOTE: FOR SHEAR FRICTION REINF. SEE SCHEDULE 3/SS6 FOR ALL OTHER REINF SEE BEAM SCHEDULE ON DWG. SS7 AND FRAMING PLANS.

SECTION (8) NO SCALE ALL

SECTION (7) NO SCALE ALL

SHEAR FRICTION ADD'L REINFORCING

SUPPORTING BEAM MARK	REINF.	REFERENCE	REMARK	SUPPORTED BEAM
2B02	3#5	SECT 6		4B19
2B38	2#7	6		2B17
2B1 2B02	3#5	6		2B26
2B30		7		2B42
2B12 2B8		6		2B24
2B23	3#5	7		3B02
3B45	3#7	8		2B14
3B39	3#5	7		3B50
4B1 3B05		6		3B30
3B05 3B10		8		3B40
4B1	3#5	7		4B05
4B20 (N-S)	3#10	7	(N-S) NORTH-SOUTH	4B26 EW
4B16	3#5	8		4B13
4B18	3#5	8		4B13
4B35	3#5	8		4B37
4B35	3#6	7		4B38
4B37	3#6	7		4B38
4B31 4B42	3#5	8		4B42
4B20 4B42	3#5	SECT 7		4B13
4B15	2#9	PLAN 10		4B23 24
4B24 4B29	3#5	SECT 7		4B27
4B43	2#9	PLAN 10		4B23 4B24
4B39	3#6	SECT 7		4B36
4B34		7		4B19
5B11		8		5B13
5B20	3#5	8		5B18 5B22
5B18	3#6	SECT 7		5B21
5B21	2#7	PLAN 10		5B26 5B25
5B28	3#6	SECT 8		5B27
5B12	2#5	SECT 7		5B13

SCHEDULE (3) ALL

10" RECESS IN BEAM FOR ESCALATOR TRUSS BEARING. (FOR LENGTH OF RECESS SEE PLANS) W/6"x⅜" CONT. PL. AND ¾"ø BOLT @ 2'-0" o/c CONTRACTOR TO VERIFY W/MANUFACTURER'S SPECIFICATION

4 7/8"

FOR SIZE & REINF. OF BEAM SEE PLAN & SCHEDULE SEE ALSO SECTION 1/SS9.

SECTION (1) NO SCALE SS9

(12A, 12B, OR 13)

+49'-6" +47'-4" 2'-1"

#4@12"oc E
#3@12"oc TEMP
#4@12"oc B

SEE PLAN

4B39 BEYOND 4B43

SECTION (5) 1½"=1'-0" SS4 & SS9

+35'-8"

3RD FLR.

4½" 2'-4" 2'-4"

3B-38

PL 8"x4"x 1/4" (TYP. EA. SIDE OF BEAMS)

L 3½"x 3½"x ¼" W/2-¾"ø (EA. SIDE OF BEAMS)

BOLTS THRU & ¾"ø PIPE SLEEVE

3B-38

W12x27 (SEE SEPERATE PLAN FOR LOCATION)

24'-10"

8" 8" 1'-4"

SECTION (2) 1½"=1'-0" SS3

2'-9½" L PL - 17" x 2'-7½" PROVIDED & INSTALLED BY WESTINGHOUSE (GROUT BY OTHERS)

8"x8" CONC. CAP TYP. @ TOP & SIDE OF OPNG. W/12 #5 DOT. @ TOP & #3@12"cl (5" BEARING EA. SIDE OF OPN'G)

3'-2½" x 2'-4" OPNG.

BLOCK WALL

FOR ACCESS OPNG AND REMOVABLE PL SEE PARTIAL PLAN 'A'

3D-31

+35'-8"

℄ OF BUFFER

PL (BY OTHERS)

1½"ø x 3½"x2½" CONT. SEE SECT. 3/A1G.

PL 8"x8"x1"x 2'-10" LONG W/⅝"ø BOLTS @ 8½"o/c (4 CENTERED @ OPN'G)

3D29

SEE SECT 6/SS6.

EDGE OF BUFFER

2'-0" (NTS)

3½" 9'-7½"

8" CONC. WALL W/#4@10" E.W.

(BUFFER SUPPORT) SECTION (4) SS3 & 6 ½"=1'-0"

NOTE: 2 BUFFER SUPPORTS ARE REQUIRED SEE PLAN ON SS3 1/2, GRIDS 11 TO 12 & 13 TO 14 & PARTIAL PLAN 'A' @ RIGHT.

GRIDS 12 & 13

BUFFER 1'-0"

4'-2" 12½" 3½" 2" 2"

4-1¾"ø THR'D STUDS (TO MATCH BUFFER)

2'-9½" L PL - 17" x 2'-7½" PROVIDED & INSTALLED BY OTHERS (W/ STUDS & 2¼" ø HOLES)

4-1¾"ø A.B. (A36G) x 1'-8" W/1¾-5 U.N.C.-2A THREAD x 4" LONG W/ NUTS & LOCK WASHERS & 1"PL - 7"x7" (GT'L)

PARTIAL PLAN 'A' ½"=1'-0"

FOR DIMENSIONS, PL'S & SLAB DEPRESSION SEE SECTS. 3/A1G, 1/A1G FOR MOUNTING PL (BY OTHERS) SEE BUFFER MANUFACTURER'S SPECIFICATION

SECTION (6) 3/4"=1'-0" SS3 & SS6

3¾" 4½" 7½" 1¼"

+35'-8"

(21a BEYOND)

FUTURE 4½" CONC

5½" 6"

#5 CONT #4@12"oc

3B11 3B40 BEYOND

(21a BEYOND)

4" 12"

(14)

SECTION (11) 1"=1'-0" SS3

(12) BEYOND

(J1)

2" 11½"

12" 10"

5'-8"

5B09 BELOW

#2@12"oc

5"x½"x 1'-0" PL (BELOW) W/1½"ø A36@7"o.c.

3D-31 (UP-TURN BEAM)

½" ℄ BUFFER

ACCESS OPENING W/1½" ST'L COVER PL (PL NOT SHOWN FOR CLARITY)

¼"ø ST'L PL - 2'-4" CONT

BLOCK-WALL NOT SHOWN FOR CLARITY

¼"ø 3½"x2½" CONT SEE SECT 3/A1G @ 12/A1G.

GRIDS 12 & 13

SECTION (12) SS2

@ CIRCUMFERENCE OF OPN'G PROVIDE ¼" STEEL BAND W/⅜"ø x 4" STUDS @ 12"oc

4'x4' CONC. CURB IN SECONDARY POUR W/#4 CONT. (TYP.)

@ SQUARE OPENINGS PROVIDE STANDARD WEIGHT STRUCTURAL CHANNEL FRAME W/⅜"ø x 4" STUDS @ 12"oc

ADD 2#5 TOP & BOTT. DIAGONAL BARS PLUS REINF INTERRUPTED ADDED TO ALL SIDES OF OPN'G (TYP)

THIS SLAB OPENING DETAIL APPLIES ONLY TO OPENINGS REFERENCING NOTE 3 ON SHEET SS2 (#23)

FOR SIZE & LOCATION OF THESE OPENINGS SEE MECHANICAL DRAWINGS.

HOR

SATELLITE TRANSIT SHUTTLE
MIAMI INTERNATIONAL AIRPORT
DADE COUNTY AVIATION DEPARTMENT
D.C.A.D. CONTRACT 4-14-2B

Harry, Oppenheimer, Ross, and Associates. Architecture, Engineering, and Planning. 2780 Douglas Road, Coral Gables, Florida 33134.

Scanning America DCAD 08802368

TRANSIT STATION SATELLITE
SECTIONS & DETAILS
Scale As shown

Revisions	Date
As Built June 12	JULY 10, 1975

Sheet
SS-6
SCHEDULE II

218-9

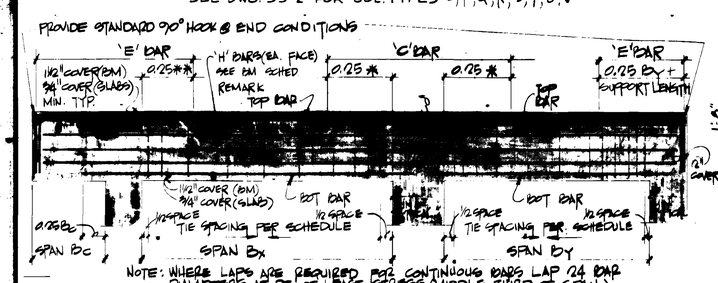
BX1-24

TRANSIT SHUTTLE STATION ("a")-CONCRETE COLUMN SCHEDULE

MARK (SUFFIX "a" OMITTED) / ELEV.	7, 10 77, 80	8, 9 78, 79	34, 35 36, 56 57, 58	33, 55	37, 59	16, 17 18, 19 20, 21 67, 68 69, 70 71, 72	32, 54	24, 25 30, 31 52, 53 62, 63	41, 47	2, 3 4, 84 85, 86	1, 83	12, 82	5, 75	14, 65	38, 60	22, 73	6, 11 76, 81	43, 45	40, 46	15, 66	23, 39 61, 74	42, 44	26 27 28 29 48, 49 50, 51	101	13 64	88 89	87 90	95 98	96 99	92 93 102 103	94 104	97 100	111 112*	113 114	105 106 107 108	109 110	91
ELEV. ROOF +69'-8"	+69'-8"																																	
PENTH'SE +61'-0"	ALT 'F' GR6 #3 TIES @ 10" OC		ALT 'F' GR6 #3 TIES @ 10" OC		ALT 'F' GR6 #3 TIES @ 10" OC																		TYPE 'P' #5 #3 TIES @ 10" OC		ALT 'X' GR8 #3 TIES @ 10" OC		ALT 'X' GR8 #3 TIES @ 10" OC				ALT 'B' W12 4#7 #3 TIES @ 10" OC	ALT 'B' W12 4#7 #3 TIES @ 10" OC	ALT 'B' W12 4#7 #3 TIES @ 10" OC	TYPE 'F' #5 #3 TIES @ 10" OC
ROOF STAIR ROOF																																		
MAIN ROOF +49'-5"																																		
(4TH FLR)																																		
3rd FLR +25'-8"																																		
+19'-5½"																																		
2nd FLR +12'-0"	16"x 20" TYPE 'A', G#7, #3 TIES @ 16" O.C.	27"x 20" TYPE 'A', G#7, #3 TIES @ 16" O.C.	16"x 20" TYPE 'A', G#8, #3 TIES @ 16" O.C.	16"x 20" TYPE 'A', G#8, #3 TIES @ 16" O.C.	16"x 20" TYPE 'A', G#9, #3 TIES @ 16" O.C.	16"x 20" TYPE 'A', G#7, #3 TIES @ 16" O.C.	16"x 20" TYPE 'A', G#7, #3 TIES @ 16" O.C.	8"x 16" TYPE 'B', 4-#6, #3 TIES @ 8" O.C.	8"x 20" TYPE 'I', 4-#7, #3 TIES @ 8" O.C.	TYPE 'C', 4-#7 & 2-#5, #3 TIES @ 11" O.C.	TYPE 'K', 7-#10, #3 TIES @ 11" O.C.	TYPE 'C', 4-#8 & 2-#5, #3 TIES @ 11" O.C.	TYPE 'Q', 13-#10, #3 TIES @ 11" O.C.	16"x 20" - TYPE 'A', G#7, #3 TIES @ 16" O.C.	TYPE 'C', 4-#7 & 2-#5, TYPE J G#6, #3 TIES @ 11" O.C.	TYPE 'C', 4-#9 & TYPE 'K', 2-#5, #3 TIES @ 11" O.C.	16"x 16", TYPE 'O', 4-#8, #3 TIES @ 16" O.C.	TYPE 'G'	TYPE 'G', 6-#6	TYPE 'G', 6-#7 - #3 #8" O.C. #27.7"	TYPE 'E', 4-#9 & 4-#5, #3 TIES @ 5" O.C.	TYPE 'J', G#9, #3 TIES @ 11" O.C.	TYPE 'A' - G#6 - #3 TIES @ 12" O.C.	TYPE 'F' G#6 - #3 TIES @ 12" O.C.	DETAIL 'K' DWG. SS-1	16"x 16" TYPE 'D' - 4-#8, #3 TIES @ 16" O.C.	8"x 24" GR6 #3 TIES @ 8" OC	TYPE 'P' #5 #3 TIES @ 8" OC	16"x 16" TYPE 'D', 4-#8, #3 TIES @ 16" O.C.	16"x 20' TYPE 'A' G#8	16"x 20' TYPE 'K', 16-#8, #3 TIES @ 16" O.C.	16"x 20' TYPE 'A', G#9, #3 TIES @ 16" O.C.	16"x 20' TYPE 'R', 14-#9, #3 TIES @ 16" O.C.	16"x 16' TYPE 'D', 4-#8, #3 TIES @ 16" O.C.	16"x 20' TYPE 'R', 14-#9, #3 TIES @ 16" O.C.	16"x 20' TYPE 'S', 6-#9, #3 TIES @ 16" O.C.	TYPE 'T' - 7-#7, #3 TIES @ 11" O.C.	TYPE 'L', 9-#9	16"x 16", TYPE 'D' - 4-#8, #3 TIES @ 16" O.C.	16"x 20' TYPE 'A' - G#7, #3 TIES @ 16" O.C.	TYPE 'U' 4-#7, #3 TIES @ 12" OC	TYPE 'U' 4-#8, #3 TIES @ 12" OC	TYPE 'C' 4-#7 & 2-#5, #3 TIES @ 11" OC	16"x 24" GR6 #3 TIES @ 10" OC	8"x 24" GR6 #3 TIES @ 8" OC	TYPE 'F', #5 #3 TIES @ 8" OC
1ST. FLR +10'-6"																																		
TOP OF PC.																																		

SEE DWG. SS-2 FOR COL. TYPES O, P, Q, R, S, T, U, V

PROVIDE STANDARD 90° HOOK @ END CONDITIONS



NOTE: WHERE LAPS ARE REQUIRED FOR CONTINUOUS BARS LAP 24 BAR DIAMETERS AT PT. OF LEAST STRESS (MIDDLE THIRD OF SPAN).

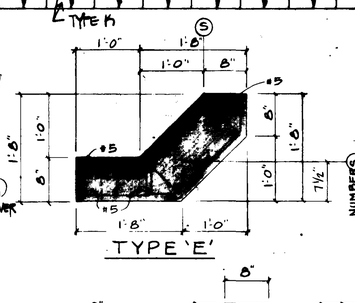
* SPAN B_X OR B_Y WHICHEVER IS GREATER ** SPAN B_X OR B_Y WHICHEVER IS GREATER

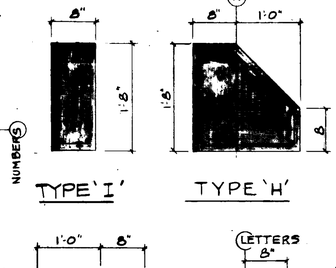
TYPICAL BEAM & ONE WAY SLAB REINFORCING PLACING DIAGRAM

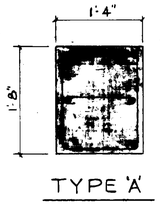
BAR SIZE → 4/12 B_X ← BAR SPACING

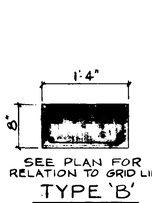
REINF. SYMBOL EXAMPLE AS SHOWN IN PLAN

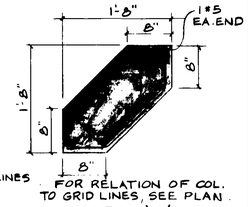
B = BOTTOM BAR
T = TOP BAR
C = 'L' BAR OVER INTERIOR SUPPORT
E = 'E' BAR @ NON-CONTINUOUS END
M = MIDDEPTH BAR

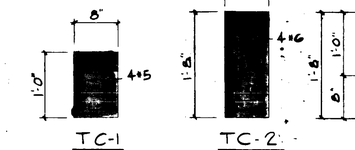


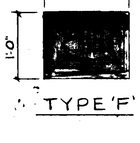


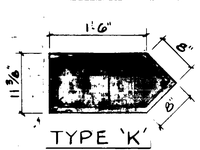


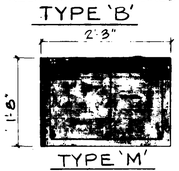


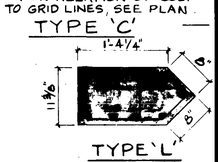


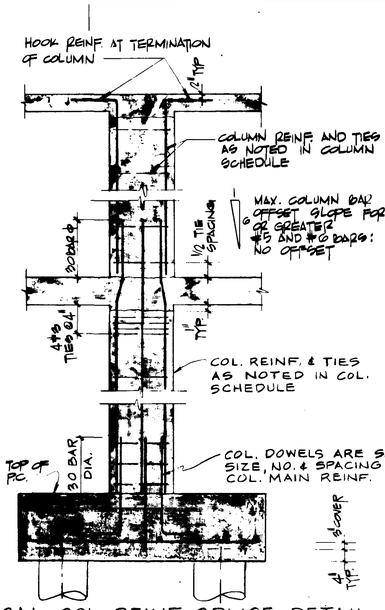












TYPICAL COL. REINF. SPLICE DETAIL
NO SCALE

SECOND FLOOR CONC. BEAM SCHEDULE

MARK	TOP EL	SIZE"	REINFORCING BOT	REINFORCING TOP	C	E	#3 TIES (UNO) @ SPACING ℄	REMARKS
2B 1	+24'-0"	8x24	2#10	2#7			8"	SECT 2/SS5B
2B 2		16x24	3#6	3#6			11"	SECT 2/SS5B
2B 3		20x24	3#6	3#6			11"	
2B 4		20x24	3#6	3#6			11"	SECT 2/SS5B
2B 5		20x24	3#8	2#7	G#9		11"	
2B 6		16x24	4#5	3#8			11"	
2B 7		16x24	5#8	3#8	2#8		#4@6" REMAINDER @ 10" OC	SECT 4/SS5B
2B 8		20x24	4#9	2#7	G#9	2#7	REMAINDER @ 10" OC	
2B 9		20x24	6#8	2#7			10"	
2B 10		36x23½	5#9	4#10	6#10		2-#4@11"	* SEE SECT. 1/SS5B
2B 11	+24'-0"	36x23½	7#9	4#10	6#10	2#9	2-#4@10"	
2B 12	+23'-9½"	8x24	2#6	2#5			10"	* SEE SECT. 4/SS5B
2B 13	+14'-0"	24x24	3#7	3#7			10"	* CONT 2EIN"
2B 14		8x44"	2#6	2#7	1#6		18"	3#5 H
2B 15		8x24	2#6	2#5			10"	SECT 1/SS4B
2B 16		8x24	2#6	2#5			10"	SECT 1/SS5B
2B 17		36x23½	7#9	4#9			2-#4@11"	SCH 3/SS5B
2B 18		12x23½	2#6	2#6			12"	
2B 19		20x23½	2#8	2#8			10"	SCH 3/SS5B
2B 20		24x24	3#8	3#8	2#8		#4@11"	SECT 2/SS5B
2B 21		16x44	2#8	3#8	2#5		3#5H EA FACE	
2B 22		36x23½	6#9	4#9	7#9	3#9	2-#4@11"	SCH 3/SS5B
2B 23		8x24	2#6	2#5			10"	SECT 1/SS5B
2B 24		12x24	2#6	2#6			10"	
2B 25		36x23½	6#9	4#9	7#9		#4@11"	
2B 26		8x24	2#6	2#5			10"	
2B 27		8x24	2#5	2#5			10"	
2B 28		16x24	3#7	3#8			11"	
2B 29		16x24	3#7	3#8	2#8		11"	
2B 30		16 - 44/49¼	SEE ELEV. - DWG. SS-5					
2B 31		16x24	2#7	2#5			10"	
2B 32		16x24	2#8	2#11			10"	
2B 33		16x24	2#9 #10	2#5			10@5" SPACINGS @ 10"	
2B 34		12x24	4#6	2#5			10"	
2B 35		16x24	2#7	2#5			10"	
2B 36		8x24	2#6	2#5			10"	
2B 37		36x23½	8#9	4#9	7#9	3#9	2-#4@11"	
2B 38		20x49¼	5#9	3#9		2#9	#4@16"	3#5H SECT 5/SS5, 9/SS5B
2B 39		8x24	2#7	2#7			11"	
2B 40		8x24	2#7	4#7			11"	
2B 41		16x24	3#7	3#7			11"	
2B 42		8x24	2#8	2#8	1#8		11"	
2B 43		16x7	4#8	3#8			11"	
2B 44	+24'-0"	22½x24	4#9	3#6			#4@11"	

THIRD FLOOR CONC. BEAM SCHEDULE

MARK	TOP EL	SIZE"	REINFORCING BOT	REINFORCING TOP	C	E	#3 TIES (UNO) @ SPACING	REMARKS
3B 1	+35.5'	8x28	2#9	2#5			#4@6" REMAINDER @ 12" OC	SECT 2/SS5B
3B 2		12x54¼	2#8	2#8			24"	3#3 H
3B 3		12x54¼	2#8	2#8			11"	3#3 H SECT 2/SS5B
3B 4		12x54¼	2#8	2#8			24"	3#3 H
3B 5		16x18	2#8	2#8		1#9	8"	SECT 2/SS5B
3B 6		8x16	4#8	2#8			16"	SECT 2/SS5B VOID
3B 7		16x28	2#7	2#7			11"	
3B 8		16x18	3#7	2#8	3#9		#4@5" OC	
3B 9		12x18	3#5	2#5		1#6	9"	
3B 10	+35.5'	12x16	2#7	2#7		1#7	14"	SEE SECT. 4/SS5B
3B 11	+35.5'	12x24	3#8	2#5			11"	SEE SECT. 3/SS5B
3B 12	+35.5'	20x43¼	5#8	3#8	4#8		#4@12"	3#5 H
3B 13		20x43¼	5#8	3#8	4#8	2#8	#4@8"	3#5 H
3B 14		20x28	6#10	3#8		2#8	#4@6" OC	3#5 H
3B 15		16x18	4#8	2#8	2#8	2#7	11"	
3B 16		8x18	2#10	2#5			12"	SECT 4/SS5B
3B 17		12x28	2#7	2#5			12"	
3B 18		8x43¼	2#6	2#6			13"	
3B 19		8x28	1#8	2#5			12"	SECT 1/SS5B
3B 20		12x10	2#8	2#10			12"	SECT 1/SS5B
3B 21	NOTE	16x28	2#11	2#5			10"	VOID
3B 22		20x24	2#8	2#8			10"	
3B 23		28x28	5#8	5#8	3#8	2#8	#4@10" OC	3#5 H
3B 24		16x28	2#7	2#5			12"	
3B 25		16 x 36/43¼	SEE ELEV. - DWG. SS-5					
3B 26		8x28	2#10	2#5			14"	
3B 27		28x36	5#8	5#8	3#8	2#8	#4@10" OC	3#5 H
3B 28		27x36	5#10	5#8	3#8	2#8	#4@10" OC	3#5 H
3B 29		20x24	2#8	2#8			#4@8" OC	1#8 H SECT 4/SS5B
3B 30	35.5'	8x24	2#7	2#5			12"	SECT 3/SS5B
3B 31	34'-4"	8x28	2#8	2#5			8"	SECT 4/SS5B, 4/SS5B
3B 32	35'-5"	8x28	2#8	2#5			24"	SECT 3/SS5B
3B 33		16x18	3#8	2#8	2#8	2#7	8"	
3B 34	21.5'/4	16x24	2#7	2#8			8"	SECT 2/SS3
3B 35		16 x 36/43¼	SEE ELEV. - DWG. SS-5					
3B 36		16x18	2#8	2#10	3#10		8"	
3B 37		16x18	2#8	2#10	3#10		8"	
3B 38		16x28		3#10	2#10		#4@8" OC	SECT 2/SS6B, 1/SS9
3B 39		16x28	3#9	3#10	2#9		12"	
3B 40		16x28	2#8	2#10			12"	
3B 41		8x28	2#7	2#10	1#10		12"	
3B 42			2#10	2#5	1#5		12"	
3B 43			2#10	2#5	1#5		12"	
3B 44	+35.5'	8x28	2#8	2#5			12"	

FOURTH LEVEL CONC BEAM SCHEDULE

MARK	TOP EL	SIZE"	REINFORCING BOT	REINFORCING TOP	C	E	#3 TIES (UNO) @ SPACING	REMARKS
4B 1	+47'-5"	28x36	3#10	3#5		3#9	#4@6" REMAINDER @ 12" OC	SHEAR FRICTION (SF) SCH 3/SS6
4B 2		28x36	3#8	3#11			12" OC	* 'C' BARS FROM 4B1
4B 3		27x36	3#11	3#5		3#9	10@5" OC REMAINDER @ 12" OC	* SECTION 1/SS4B
4B 4		28x52¼	4#10	3#10			12" OC	* CONT -3#11
4B 5		16x24	2#7	2#5		2#5	12" OC	* DEF. SCH 3/SS6
4B 6		8x44	4#11	4#10			#4@6" REMAINDER @ 12" OC	* SF, S.H 3/SS10, SECT 5/SS5
4B 7		28x36	4#11	2#7		3#9	#4@6" REMAINDER @ 12" OC	* 3#11 H
4B 8		8x16	4#5	4#10			10" OC	
4B 9		16x24	4#10	2#7			#4@6" REMAINDER @ 12" OC	* CONT. TYPE 4B10 SECT 4/SS5B BEND DOWN INTO COL.
4B 10		8x24	2#7	2#8			10" OC	* CONT -3#11 H
4B 11		28x52¼	2#10	2#10			10" OC	* 4 LAYERS - 3#9 H
4B 12		16x52¼	2#10	2#10	1#10	1#10	8" OC	* 3#5 H
4B 13		8x28	2#10	2#5			8" OC	SECT 3/SS5B
4B 14		8x28	2#10	2#5	1#5		8" OC	SECT 4/SS5B
4B 15		8x28	2#10	2#10	1#10	1#10	8" OC	SECT 4/SS4B
4B 16		8x24	2#10	2#5			8" OC	SECT 4/SS5B
4B 17		16x10	2#5	2#5		2#5	5" OC	
4B 18		8x28	2#7	2#5			8" OC	SECT 4/SS5B
4B 19		8x28	2#10	2#5	2#10	1#5	8" OC	
4B 20		16x52¼	2#9	2#5		2#8	10" OC	* 3#8 H, SECT 1/SS9
4B 21		8x52¼	2#7	2#5		1#5	10" OC	* 3#8 H, SECT 3/SS5B
4B 22		16x52¼	2#9	2#5	* 1#7	2#7	9" OC	* CONT. NTS 4B-21 - 3#8 H
4B 23		16x52¼	3#10	* 3#8		2#8	10" OC	* CONT FROM 4B-24 - 3#8 H
4B 24		12x52¼	2#8	2#5	1#9		12" OC	* SECT 4/SS5B
4B 25		16x39¼	3#9	5#9		* 2#8	9" OC	* SEE WINDOW 5/SS5B NOT TO SCALE
4B 26		16x39¼	2#8	5#9		2#8	12" OC	
4B 27		16x39¼	2#8	2#5		2#8	12" OC	* (SF), SCH 3/SS6
4B 28		12x52¼	2#7	* 2#9			12" OC	* SECT 1/SS9, 3#5 H
4B 29		12x52¼	2#8	2#8	1#9		12" OC	* SECTION 4/SS5B
4B 30		8x52¼	2#8	* 2#9			#4@12" OC	* CONT FROM 4B-31
4B 31		12x52¼	2#8	2#10			#4@8" OC	* 4 LAYER - 3#8 H
4B 32		12x52¼	2#8	* 2#9			#4@12" OC	* CONT FROM 4B-30
4B 33	33.5'	12x52¼	2#8	* 2#9			#4@8" OC	* 3#11 H LAYER - 3#11 H
4B 34	47'-4"	20x52¼	* 3#11	4#11			#4@8" OC	* SECT 1/SS9
4B 35	47'-4"	20x52¼	4#11	4#10			#4@8" OC	* SECT 3/SS9, 1/SS9B
4B 36	47'-4"	20x52¼	4#11	2#7			#4@8" OC	* SECT 1/SS9
4B 37	47'-4"	20x52¼	2#8	* 2#9			#4@8" OC	* SECT 1/SS9, 4/SS9
4B 38	47'-4"	20x52¼	* 2#8	* 2#9			#4@8" OC	* CONT N. 4B-39
4B 39	47'-5"	20x52¼	3#10	3#10			9" OC	* 3#8 H
4B 40		16x52¼	2#10	* 3#7			9" OC	* CONT FROM 4B39 - 3#8 H
4B 41		16x39¼	2#8	2#5			12" OC	* CONT FROM 4B40
4B 42		8x52¼	2#8	2#5		2#8	10" OC	* 3#8 H
4B 43		16x52¼	2#8	2#8			12" OC	SECT 5/SS6

FIFTH LEVEL CONCRETE BEAM SCHEDULE

MARK	TOP EL	SIZE (INCHES)	REINFORCING BOT	REINFORCING TOP	C	E	#3 TIES (UNO) @ SPACING	REMARKS
5B 1	+61'-0"	12x24	4-#11	4-#7			12" OC	* BUNDLED IN PAIRS
5B 2		8x12x24	2#10	2#10		#10	12" OC	
5B 3		16x12x24	2#10	2#10		#5	12" OC	* SHEAR FRICTION (SF) SCH 3/SS6
5B 4		16x12x24	3#10	* 2#10			12" OC	* CONT FROM 3B5
5B 5		8x12x24	2#10	2#5	2#10		#4@6" REMAINDER @ 12" OC	SECT 9/SS6B
5B 6		12x12x24	6#11	2#5	2#10		#4@6" REMAINDER @ 12" OC	
5B 7		8x16	2#10	2#5			10" OC	SECT 4/SS5B
5B 8		8x16	2#10	2#5		#5	10" OC	SECT 4/SS5B
5B 9	+61'-0"	8x16	2#10	2#5		#5	10" OC	SECT 3/SS5B
5B 10	+62'-8"	12x16x18	2#9	2#5			12" OC	* SF 3#9 H
5B 11	+61'-0"	12x16x18	2#9	2#5	5#9		REM @ 12" OC	* SECTION 1/SS9
5B 12		12x12	2#9	2#5			12" OC	
5B 13		*	1#10	1#10				* SECTION 7/SS9
5B 14	+61'-0"	*	2#8	2#8			10" OC	* SECTION 1/SS9
5B 15	+62'-8"	12x40¼	2#10	* 2#7			12" OC	* CONT FROM 5B10 - 3#8 H SECT 4/SS9
5B 16	+62'-8"	12x40¼	2#10	2#5	2#7		12" OC	* 3#8 H
5B 17	+61'-0"	12x40¼	2#10	* 2#8			12" OC	* CONT FROM 5B16, SECT 4/SS9
5B 18		12x12x24	2#8	2#5	3#8		12" OC	
5B 19		12x12x24	2#10	2#5			12" OC	
5B 20		16x12x24	2#11	2#10		#10	REM @ 12" OC	* BUNDLED IN PAIRS, SECT 1/SS9
5B 21		12x12x24	* 2#7	* 2#10			8" OC	* CONTINUOUS
5B 22		12x12x24	* 2#7	* 2#10			8" OC	* CONTINUOUS
5B 23		16x12x24	3#11	2#5	2#11		26@5" 25@6" REM @ 12" OC	
5B 24		16x12x24	2#8	2#5		2#7	12" OC	* SECTION 1/SS6A2
5B 25		12x12x24	2#7	* 2#8			12" OC	* CONTINUOUS FROM 5B26
5B 26		12x12x24	2#10	2#5	2#8		14" OC	
5B 27		8x12x24	2#7	2#5			12" OC	
5B 28		8x12x24	2#10	2#5		#5	6@8" OC, REM @ 12" OC	* (SF) SCH 3/SS6
5B 29	+61'-0"	12x12x24	4#10	* 2#11			#4@12" OC	* BUNDLED IN PAIRS
2B 45	+24'-0"	12x24	* 6#10	3#7			#4@10"	* 2 LAYERS
2B 46		8x24	2#6	2#6			11"	
2B 47		12x24	4#8	3#9	2#9		#4@8"	
2B 48	+24'-0"	20x24	4#8	3#9	2#9		8"	
3B 45	+35.5'	20x30	6#10	3#8		2#8	#4@12" OC	1#5 H, SECT 3/SS5B
3B 46		8x24	2#6	2#6			12"	
3B 47		12x20	2#6	2#6			12"	
3B 48		8x24	4#7	2#7			11"	
3B 49		16x24	3#7	3#7			11"	SECT 2/SS6B
3B 50		8x28	2#6	2#6			13"	
3B 51		8x24	2#6	2#6			11"	
3B 52		22½x18	* 3#7	3#6		2#6	7"	* B&T BOT MOST LAYER
3B 53	+35.5'	12x28	3#10	2#8		1#8	13"	

HOR

SATELLITE TRANSIT SHUTTLE
MIAMI INTERNATIONAL AIRPORT
DADE COUNTY AVIATION DEPARTMENT
D.C.A.D. CONTRACT 4-14-2B

Harry, Oppenheimer, Ross, and Associates. Architecture, Engineering, and Planning. 2780 Douglas Road, Coral Gables, Florida 33134.

TRANSIT STATION SATELLITE
SCHED., GEN. NOTES & DET.
Scale AS SHOWN

Date JULY 10, 1975

Revisions
As Built June 79

Sheet
SS-7
SCHEDULE II

SECTION (4) 3/16"=1'-0"

SECTION (3) 3/16"=1'-0"

SECTION (2) 3/16"=1'-0"

SECTION (1) 3/16"=1'-0"

SECTION (B/SS3) 1"=1'-0"

SECTION (C/SS2) 1"=1'-0"

TRASH CHUTE DOES NOT OCCUR BETWEEN GRIDS 13 & 14 OTHERWISE THIS SECTION IS APPLICABLE OPPOSITE HAND.

STAIR #1 AS SHOWN, STAIR #4 SAME EXCEPT FOR GRID LETTERS; STAIRS 2 & 3 ARE OPPOSITE HAND, SEE PLAN FOR GRID LETTERS

STAIR #1, SEE NOTE ON SECTION 3/SS5.

STAIRS (FOR REINF SEE SECT 2/SS5)

SEE ALSO SECTION 3/A12

HOR

SATELLITE TRANSIT SHUTTLE
MIAMI INTERNATIONAL AIRPORT
DADE COUNTY AVIATION DEPARTMENT
D.C.A.D. CONTRACT 4-14-2B

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TRANSIT STATION SATELLITE STAIRS SECTIONS & DETAILS	Date JULY 10, 1975
Scale	
Revisions AS BUILT JUNE 79	

Sheet SS-8 SCHEDULE II

218-9

ALTERNATE FRAMING (FROM SS-A2) SHOWN. FOR PRIMARY CONSTRUCTION (BASE BID) SEE ARCHIT'L DRAWINGS & SS-4.

#5 VERT EA SIDE, EA FACE 1'-8" x 2'-0" EA FACE @ EA CORNER (TYP)

FOR SIZE & LOCATION OF SCUPPERS SEE MECH'L & ARCH'L DRAWINGS. MAINTAIN 1½" CONC. COVER

BASE BID, SEE ARCH'L DRAWINGS

ALTERNATE FRAMING (FROM SS-A2) SHOWN FOR PRIMARY CONSTN SEE ARCHITECTURAL DRAWINGS & SS-4.

10 TREADS @ 11.25" = 9'-4¾"

10 TREADS @ 11.25" = 9'-4¾"

10"ST. (12¼ CVR, 4 #5 BARS) TYP

AMBER STAIR SPAN 1½"

EXTEND TO 2841

NOTE: THIS SECTION IS CUT @ TWO PLANES, SEE PLAN FOR LOCATION OF EACH SECTION PLANE.

SECTION (1) 3/8"=1'-0"

FACE OF RISER

HOLD EXTENT OF DEPRESSION TO MINIMUM LENGTH REQUIRED TO INSTALL LIGHTING FIXTURE.

FOR LIGHT REQUIREMENTS SEE ARCH'L & ELECTRICAL DRAWINGS.

SECTION (9) 1"=1'-0"

FOR 8" CONC BLOCK PARAPET AROUND SKYLIGHT (W/ 8"x 8" CONC CAP REINF BY 12#4 CONT.) SEE ARCH'L DRAWINGS.

SECTION (8) 3/8"=1'-0"

TOP OF ELEV. ROOM BEYOND

SECTION (7) 3/8"=1'-0"

TOP OF PARAPET BEYOND

PARAPET WALL AROUND SKYLIGHT

TOP OF ELEV. ROOM BEYOND

THIS IS NOT TOP OF 4034 & SLND BEYOND, BUT TOP OF LOW WALL ONLY

NON-STRUCTURAL LOW WALLS SHOWN FOR CLARITY.

TOP OF 4034 & HIGH 4TH FLOOR SLND BEYOND

TOP PARA CONTINUOUS FROM 4029

NOTE: SECT 5/SS9 DOES NOT APPLY ABOVE - SEE PLAN FOR APPLICABLE CONDITION.

SECTION (12) 3/8"=1'-0"

NON-STRUCTURAL PARAPET AROUND INTERIOR HORIZONTAL WINDOW SHOWN FOR CLARITY.

FOR ALTERNATE FRAMING (SEE PLAN DWG SS-A1) STAIR AS SHOWN IN SECT. 4/SS9

THIS SECTION SHOWS ALTERNATE FRAMING AS DESCRIBED IN PLANS ON DWGS SSA1 & SSA2 FOR 4TH LEVEL ROOF SEE ARCH'L SECTIONS.

SECTION (13) 3/8"=1'-0"

TOP OF SLAB BEYOND, CONC BLOCK PARAPET NOT SHOWN

45° ELBOWS SEE PLAN G/SS9

4"ø (1.0") RWL SLOPE DN ¼"/FT.

SECTION (4) 1"=1'-0"

REFLECTED PLAN (6) 1"=1'-0"

(FOURTH FL. FLOOR FRAMING)

SECTION (5) 1"=1'-0"

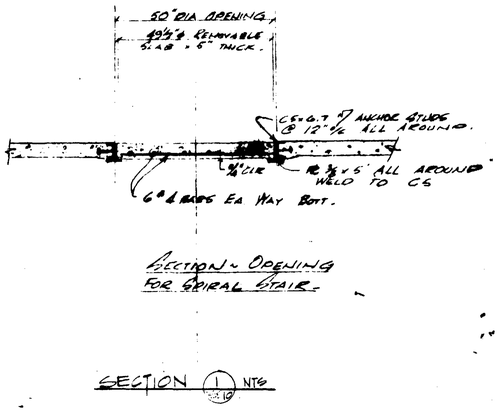
SATELLITE TRANSIT · SHUTTLE
MIAMI INTERNATIONAL AIRPORT
DADE COUNTY AVIATION DEPARTMENT
D.C.A.D. CONTRACT 4-14-2B

Harry, Oppenheimer, Ross, and Associates, Architecture, Engineering, and Planning, 2780 Douglas Road, Coral Gables, Florida 33134.

TRANSIT STATION SATELLITE
STAIR SECTIONS & DETAILS
Scale
Date JULY 10, 1975
Revisions AS BUILT 7 JUNE 79

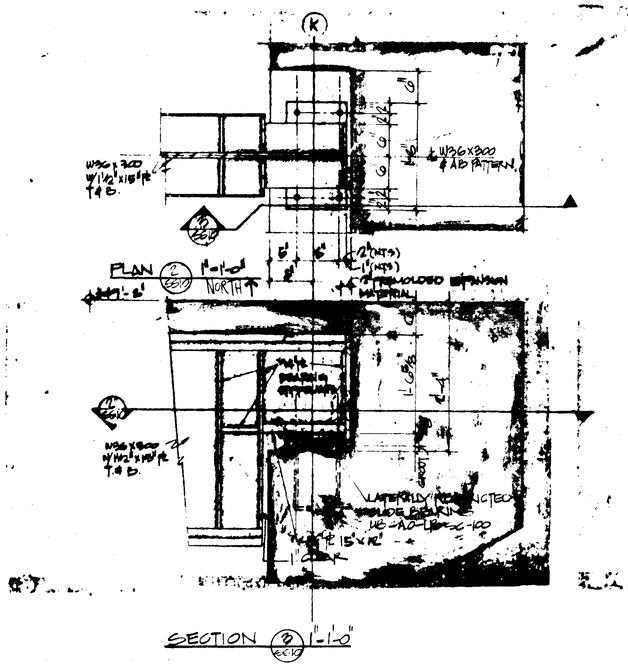
Sheet SS-9
SCHEDULE II
218-9

Scanning America DCAD 00082371

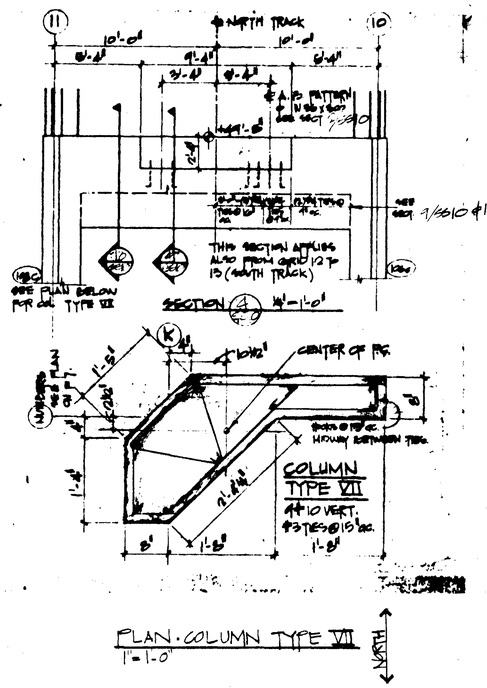


SECTION - OPENING FOR SPIRAL STAIR -

SECTION 1 NTS

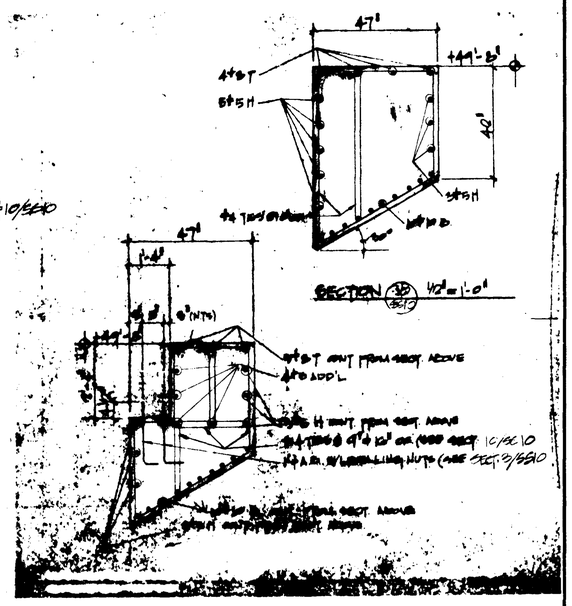


SECTION 2 1"=1'-0"



PLAN - COLUMN TYPE VII
1"=1'-0"

NORTH



SATELLITE TRANSIT SHUTTLE

MIAMI INTERNATIONAL AIRPORT
DADE COUNTY AVIATION DEPARTMENT
D.C.A.D. CONTRACT 4-14-2B

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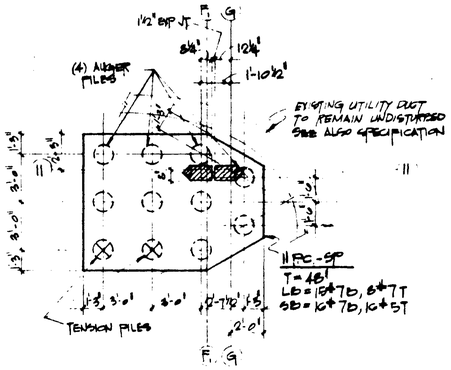
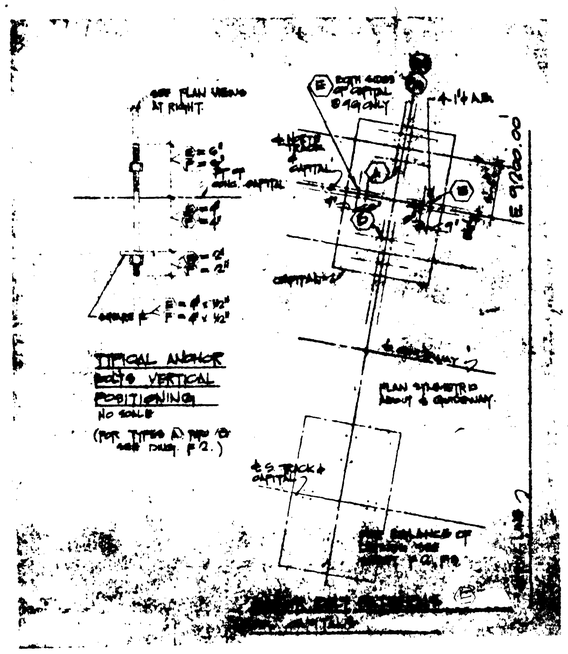
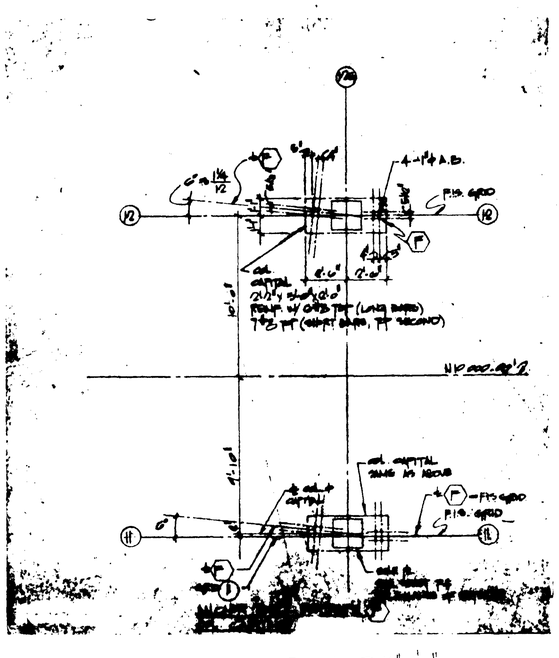


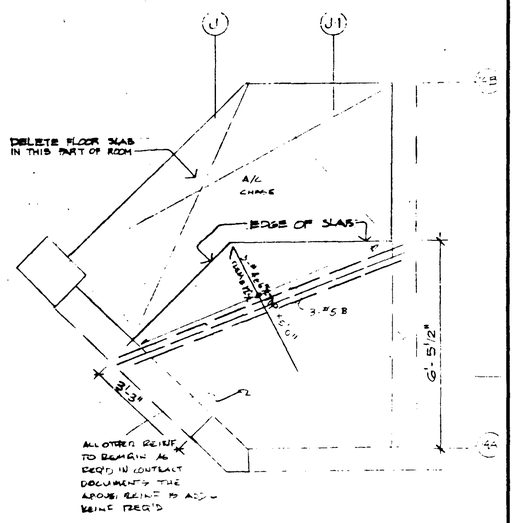
DETAIL PLAN 5 ¼"=1'-0"



DETAIL PLAN 6 ¼"=1'-0" NORTH



DETAIL PLAN 7 ¼"=1'-0" NORTH



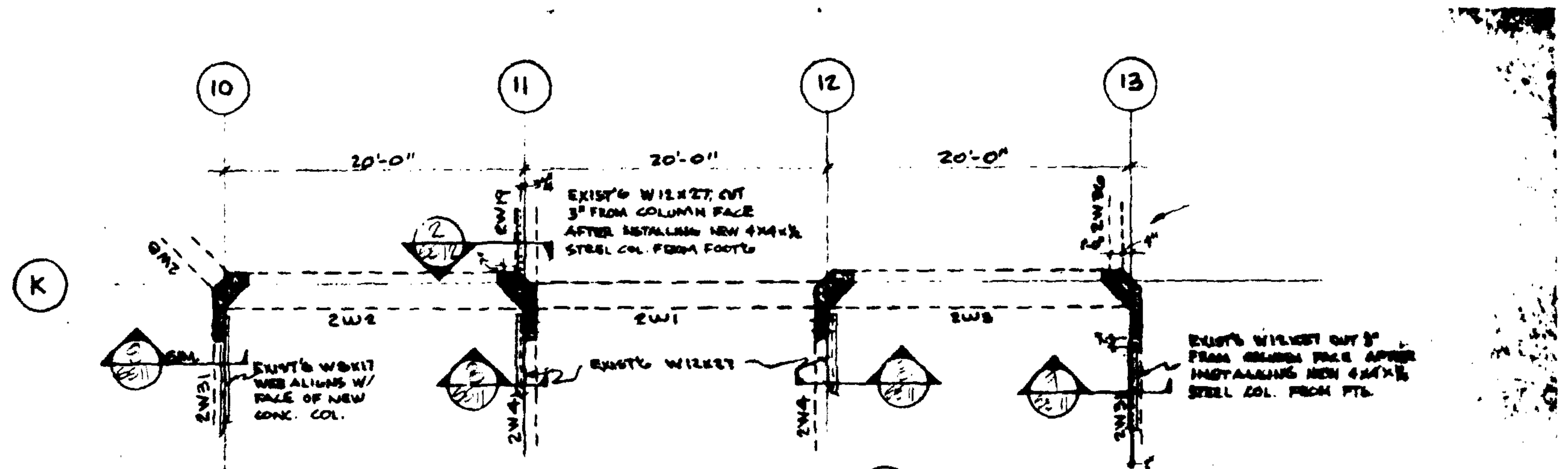
PLAN - ROOMS # 302 AND 403
ROOMS # 306 AND 409 (SIMILAR OPPOSITE HAND)

PLAN 8 ½"=1'-0" NORTH

SECTIONS & DETAILS
Scale AS SHOWN
Revisions
8 - 7 JUNE 74

Sheet
SS-10
SCHEDULE II

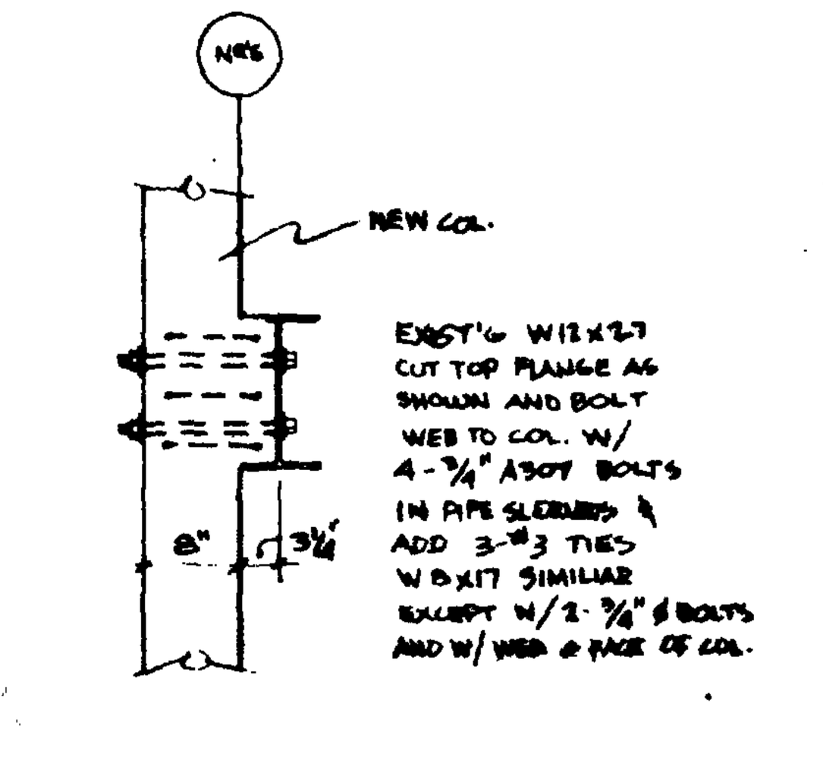
BX1-28



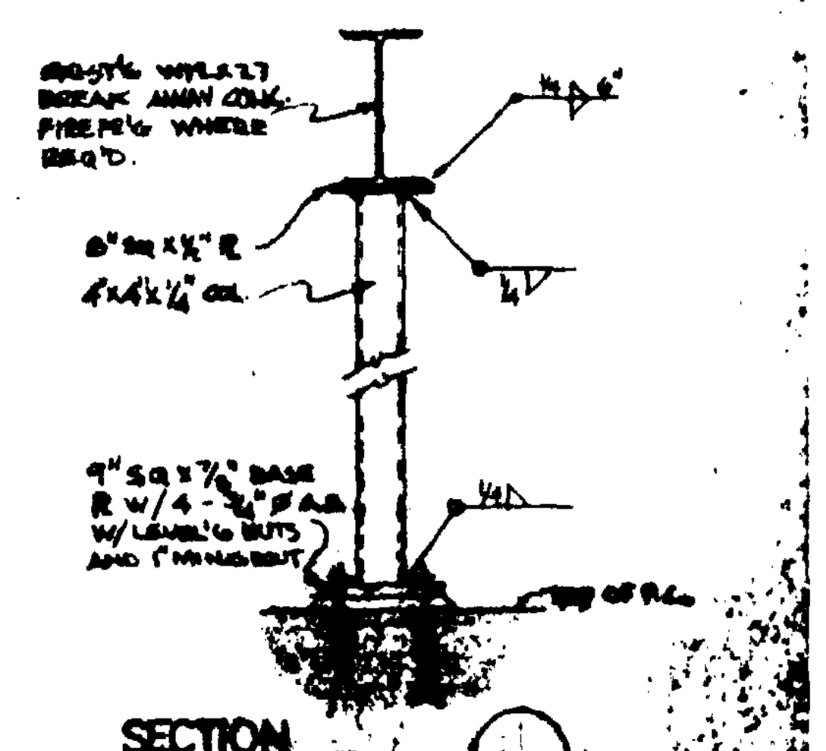
PARTIAL FLOOR PLAN 2/SS11
SCALE ⅛"=1'-0" 2ND LEVEL

SCHEDULE 7/SS11

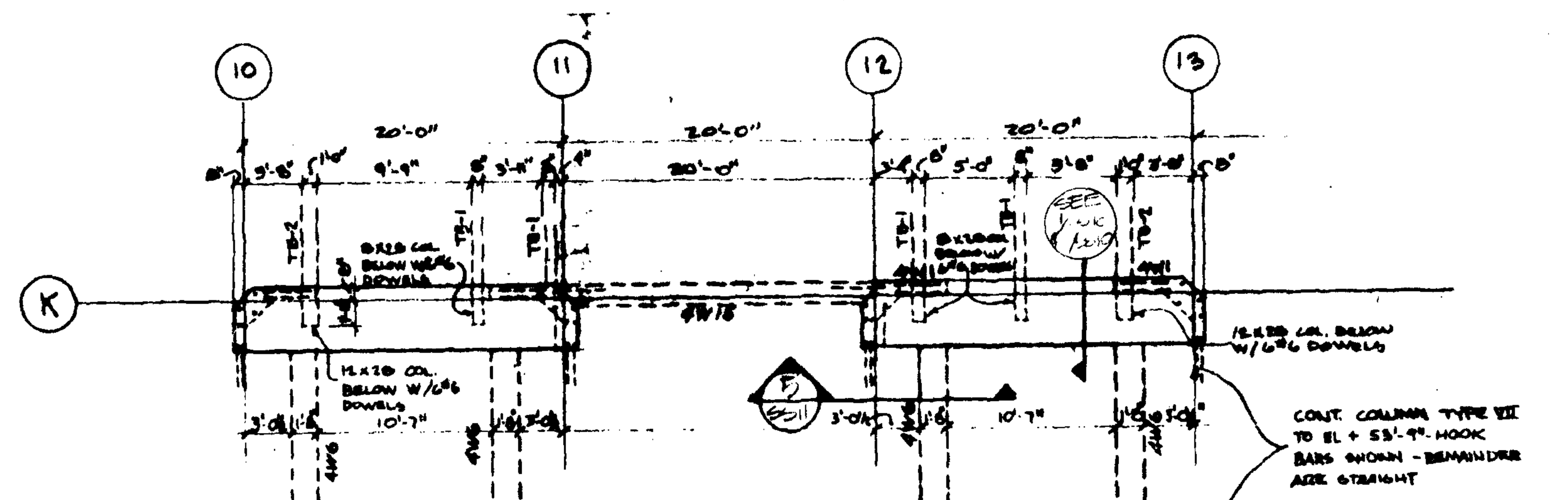
MARK	TOP SLAB EL.	SIZE OF FUTURE BEAM	TOP REINF DOWEL	TOTAL DOWELS	BOT REINF DOWELS	REMARKS
2W1	21'-6"	20x18½	2#10	4#6#	2#10#	#FROM 2W2 =2W3
2W2	21'-6"	28x18½	3#10	6#6*	3#10	*3 EA. LAYER
2W3	21'-6"	28x20½	3#10	6#6*	3#10	*3 EA. LAYER
2W4	22'-0	8x24	2#8	4#5	2#8	
2W8	21'-6	17x26¼	2#6	4#4	2#6	
2WR	21'-6"	15x18½	2#6	4#5	2#9	
2W31	21'-6"	8x26¼	2#6	4#5	2#7	
2W36	21'-6"	12x26¼	3#6	4#5	3#5	



SECTION 3/SS11



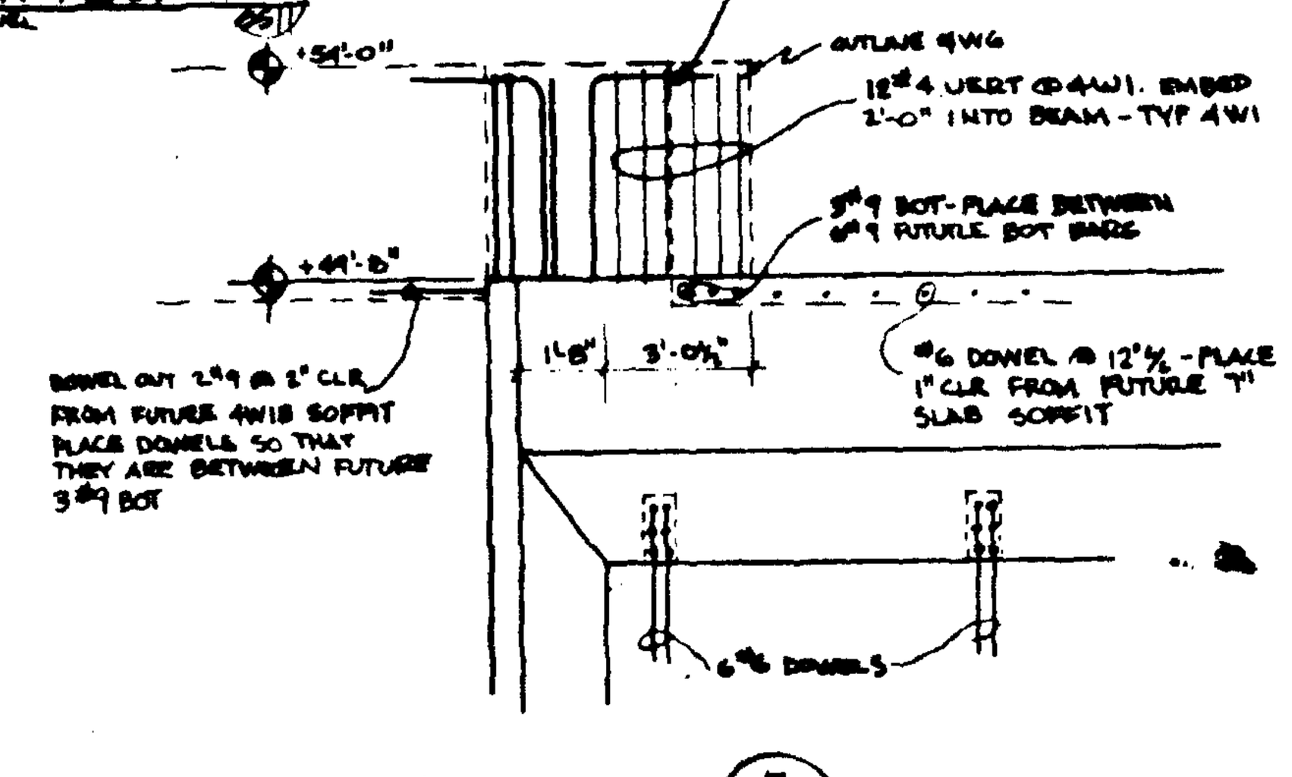
SECTION 1/SS11



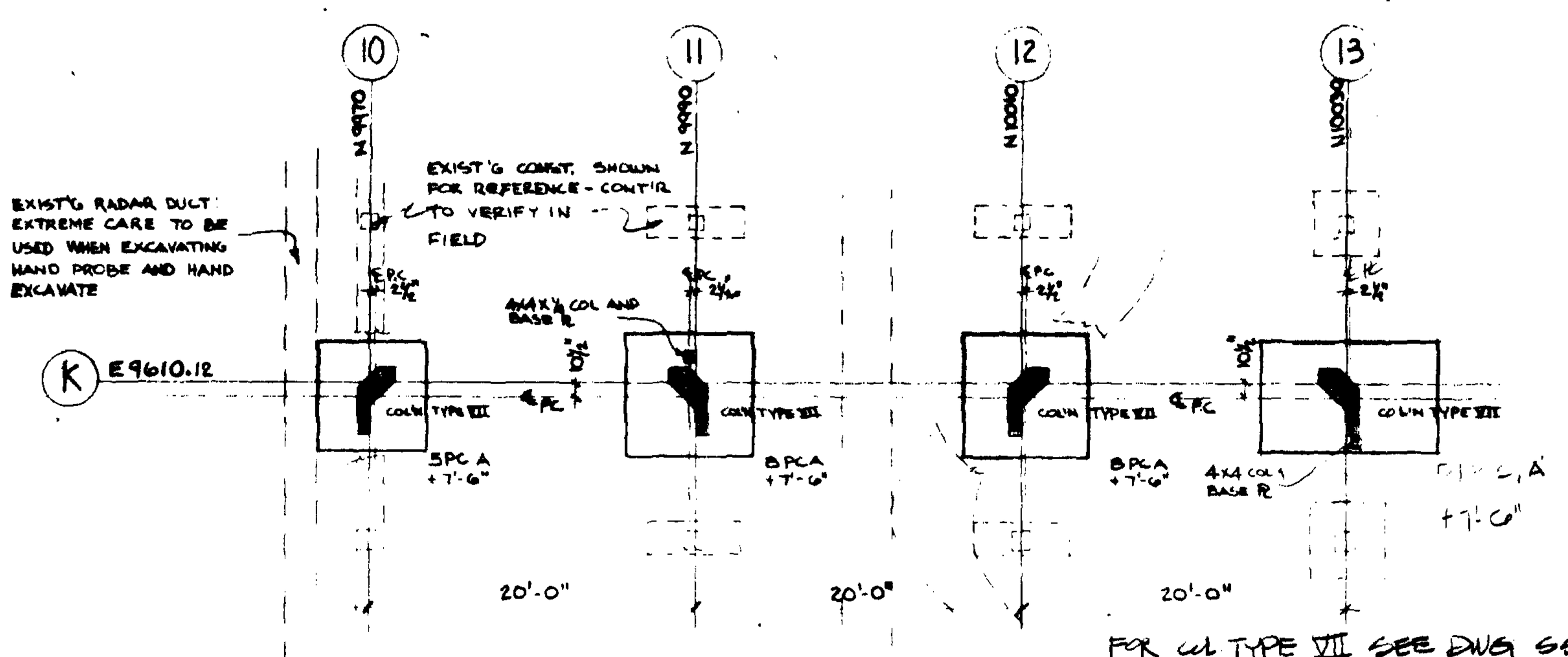
PARTIAL FLOOR PLAN 4/SS11
SCALE ⅛"=1'-0" 4TH LEVEL

SCHEDULE 6/SS11

BEAM MARK	TOP ELEV. DM.	SIZE OF FUTURE BEAM	TOP REINF DOWEL	BOT REINF DOWEL	REMARKS
4W1	54'-0	8x52	—	—	12#4 VERT DOWELS
4W6	54'-0	20x69	—	3#9	SEE SECT. THIS SHEET
4W15	54'-0	12x57	—	2#9	SEE SECT. THIS SHEET
TB-1	45'-9"	8x12	2#5	2#5	
TB-2	45'-9"	12x12	2#6	2#6	

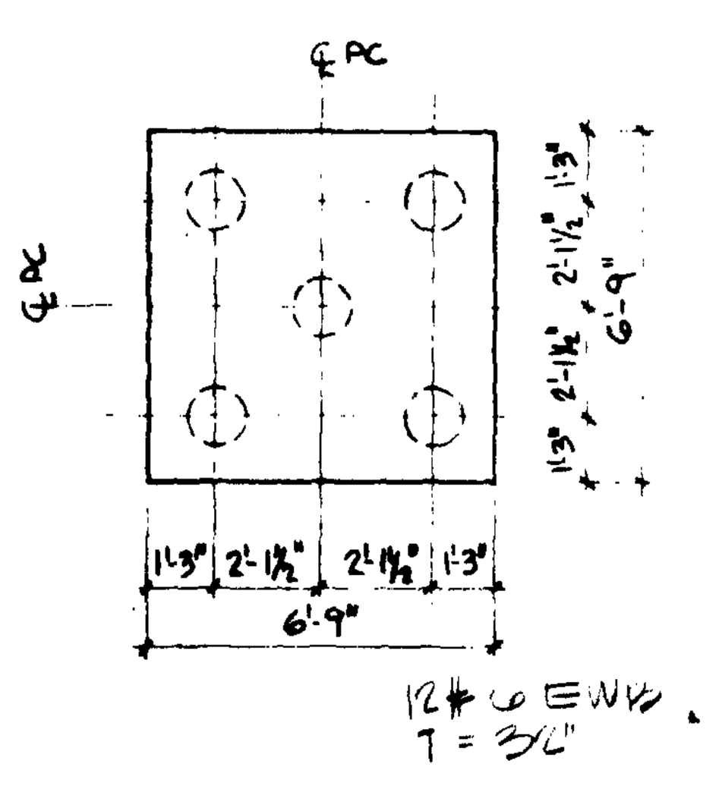


SECTION 5/SS11
SCALE ¼"=1'-0"

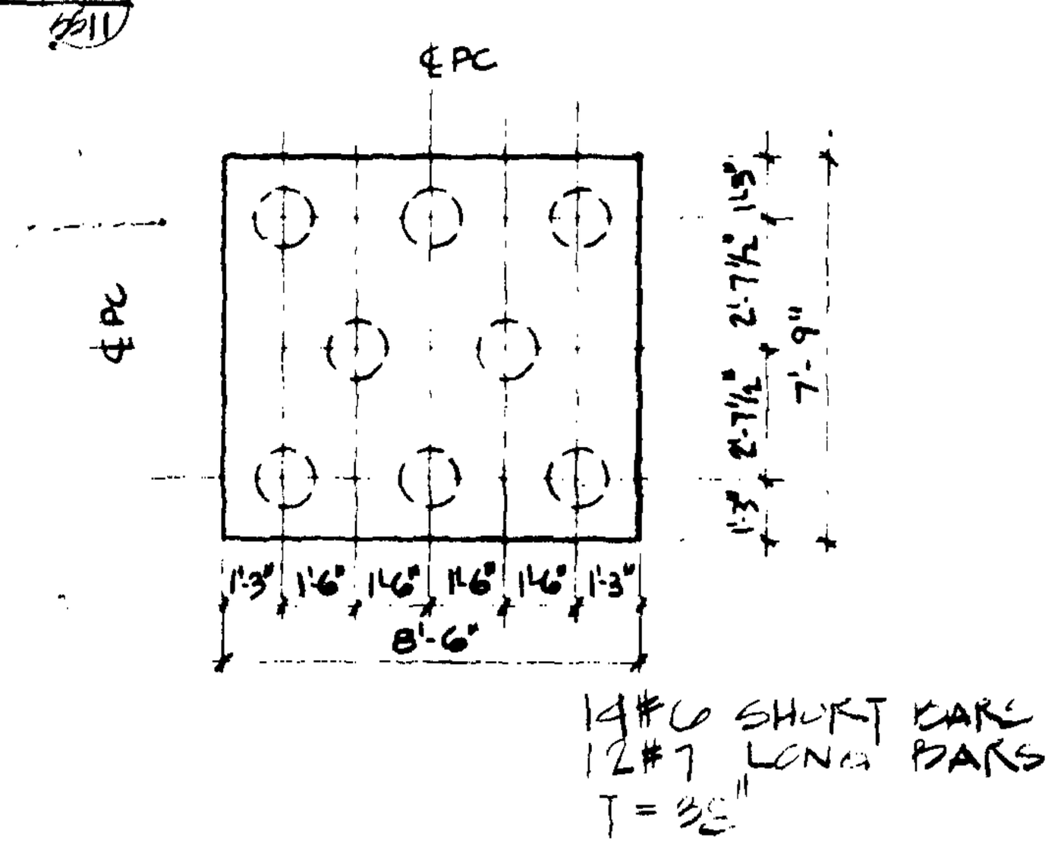


PARTIAL FOUNDATION PLAN 1/SS11
SCALE ⅛"=1'-0"

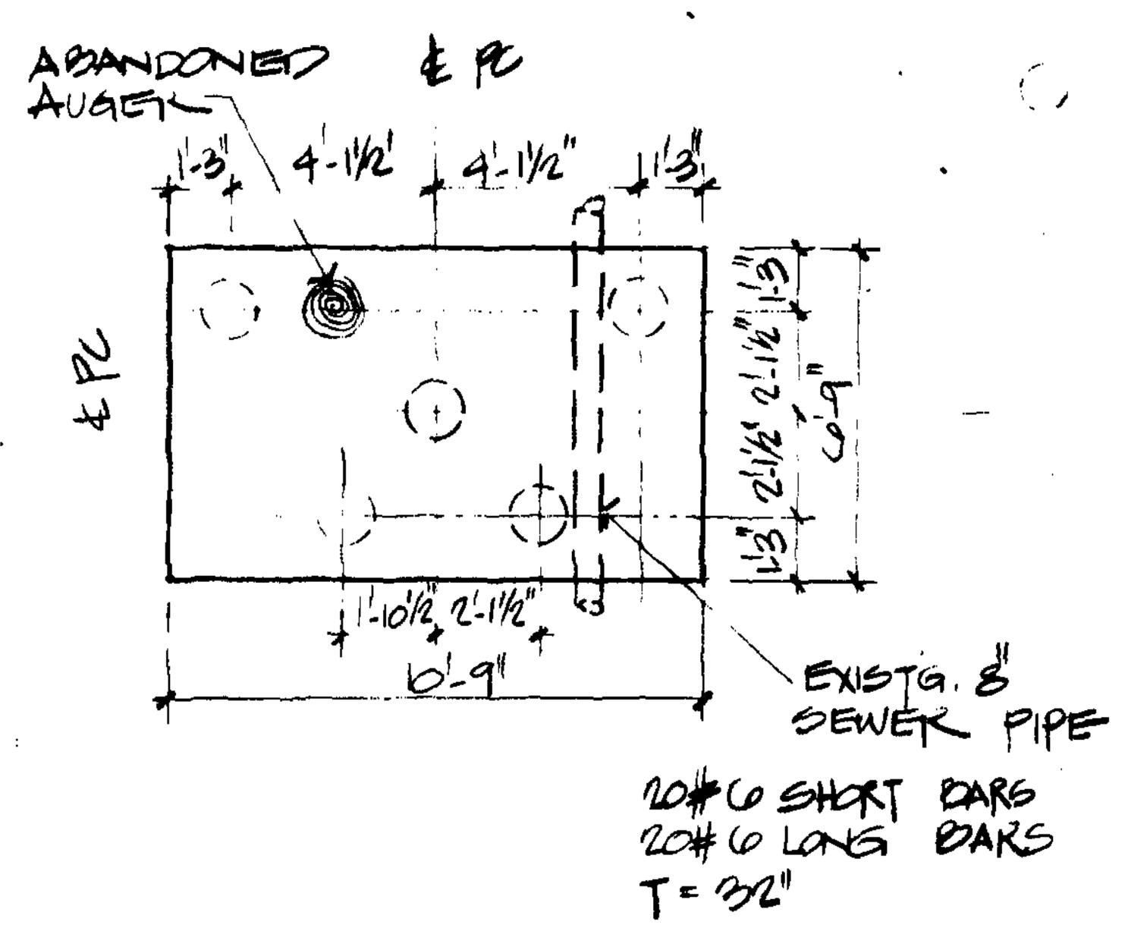
FOR col TYPE VII SEE DWG SS10



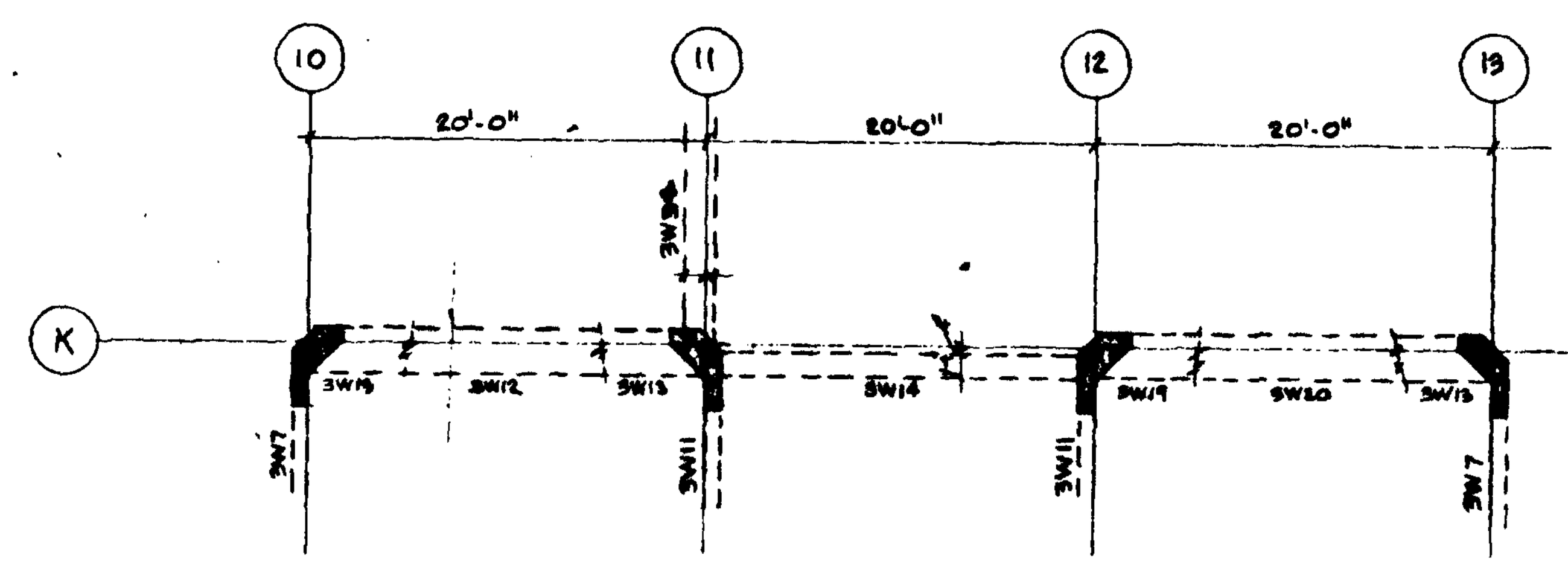
5 P.C. A
PLAN 14/SS11 ¼"=1'-0"



8 P.C. A
PLAN 13/SS11 ¼"=1'-0"



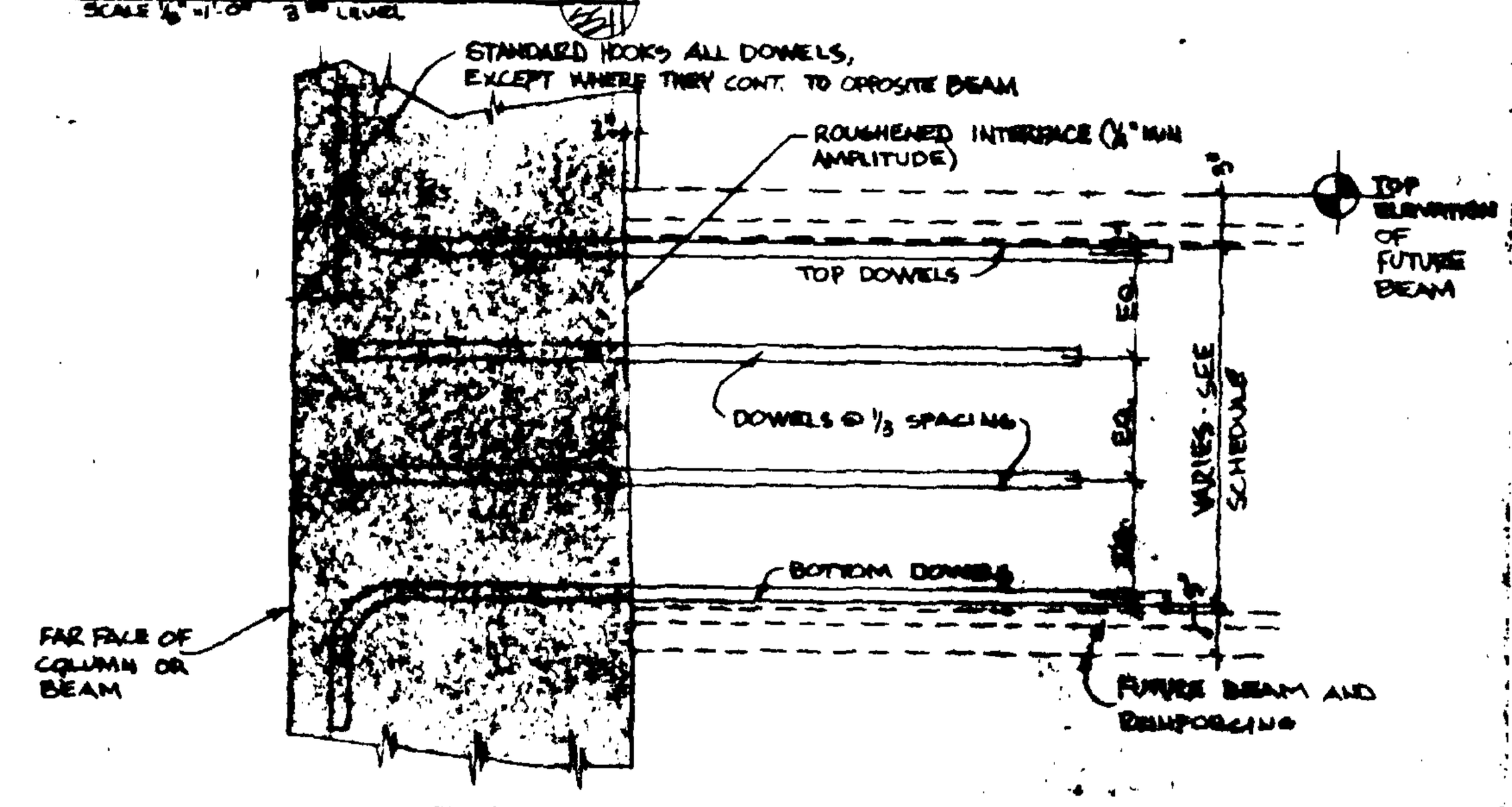
5 PC SP'A'
PLAN 12/SS11 ¼"=1'-0"



PARTIAL FLOOR PLAN 3/SS11
SCALE ⅛"=1'-0" 3RD LEVEL

SCHEDULE 10/SS11

BEAM MARK	TOP ELEV. BM.	SIZE OF FUTURE BEAM	TOP REINF DOWELS	TOTAL DOWELS	BOT. REINF. DOWELS	REMARKS
3W7	39'-3	8x24	2#6	4#4	2#8	
3W11	38'-8	8x28	2#7	4#5	2#10	
3W12	31'-5	28x32	3#9	4#8	3#9	
3W13	39'-3	28x24	3#6	4#6	3#6	
3W14	38'-5	16x24	3#6	4#6	3#9	
3W19	39'-3	28x24	3#6	4#7	3#6	
3W20	31'-5	28x32	4#9	6#8#	4#9	#3 EA. LAYER
3W34	38'-5	18x24	3#6	4#5	2#7	



TYPICAL DOWEL PLACEMENT DETAIL 11/SS11

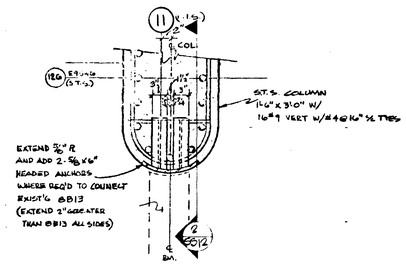
HOR

SATELLITE TRANSIT SHUTTLE
MIAMI INTERNATIONAL AIRPORT
DADE COUNTY AVIATION DEPARTMENT
D.C.A.D. CONTRACT 4-14-2B

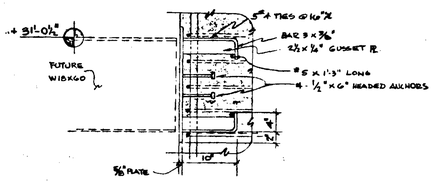
Harry, Oppenheimer, Ross, and Associates. Architecture, Engineering, and Planning. 2780 Douglas Road, Coral Gables, Florida 33134.

SECTIONS & DETAILS
Scale AS SHOWN
Date
Revisions AS BUILT JUNE '71

Sheet SS-11
SCHEDULE II
210-9



PLAN 1/2012 1"=1'-0"



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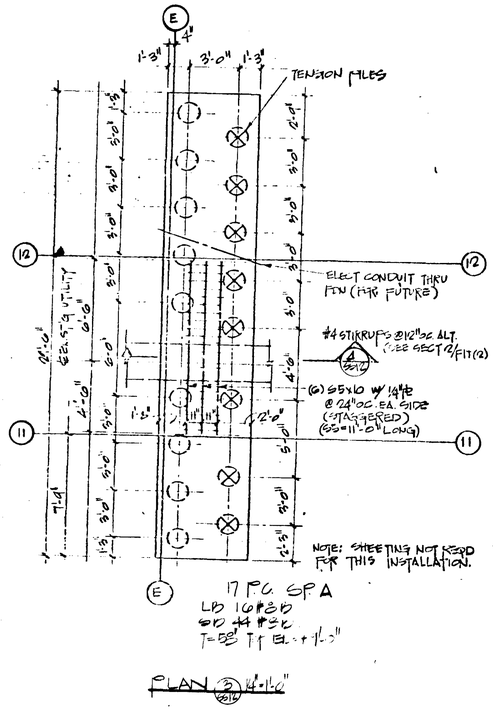
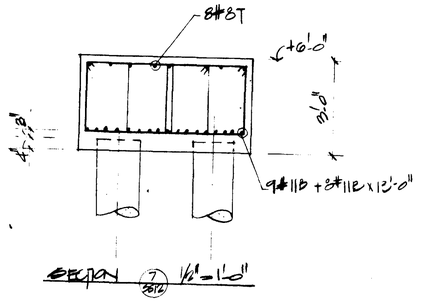


PLAN 3/2012 1/4"=1'-0"



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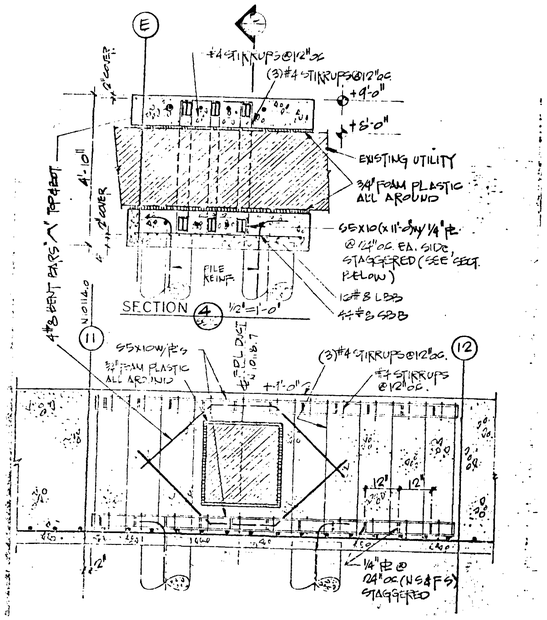

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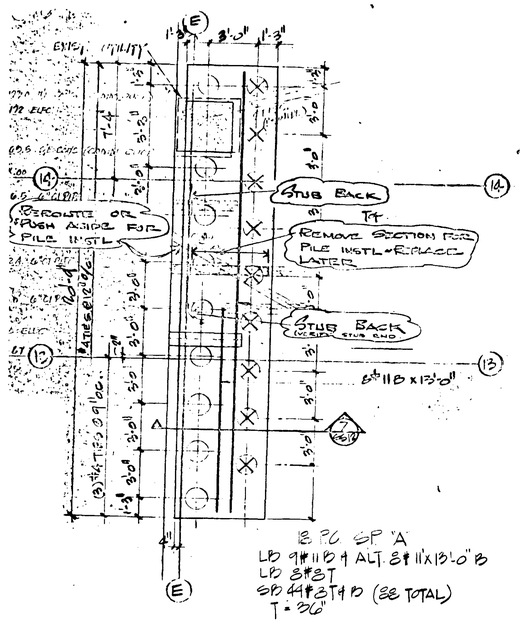
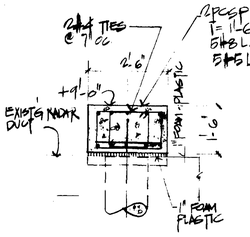
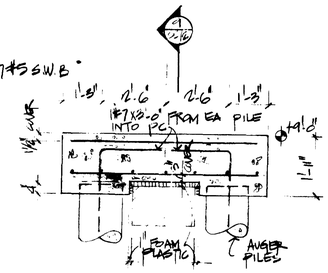


PLAN 6/2012 1/4"=1'-0"



SECTION 9/2012 1½"=1'-0"



SECTION 8/2012 1½"=1'-0"

HOR

SATELLITE TRANSIT SHUTTLE
MIAMI INTERNATIONAL AIRPORT
DADE COUNTY AVIATION DEPARTMENT
D.C.A.D. CONTRACT 4-14-2B

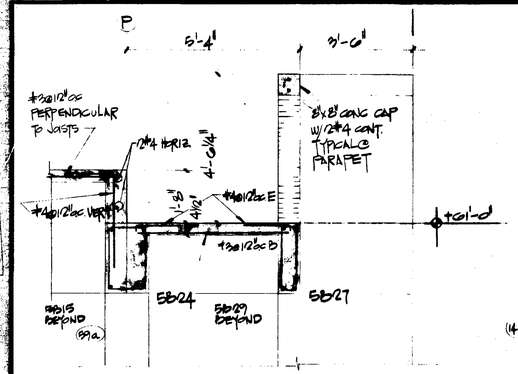
Harry, Oppenheimer, Ross, and Associates, Architecture, Engineering, and Planning, 2780 Douglas Road, Coral Gables, Florida 33134.

SECTIONS & DETAILS	Date
Scale AS SHOWN	
Revisions	
AS BUILT	

Sheet SS-12

SCHEDULE II

218-9



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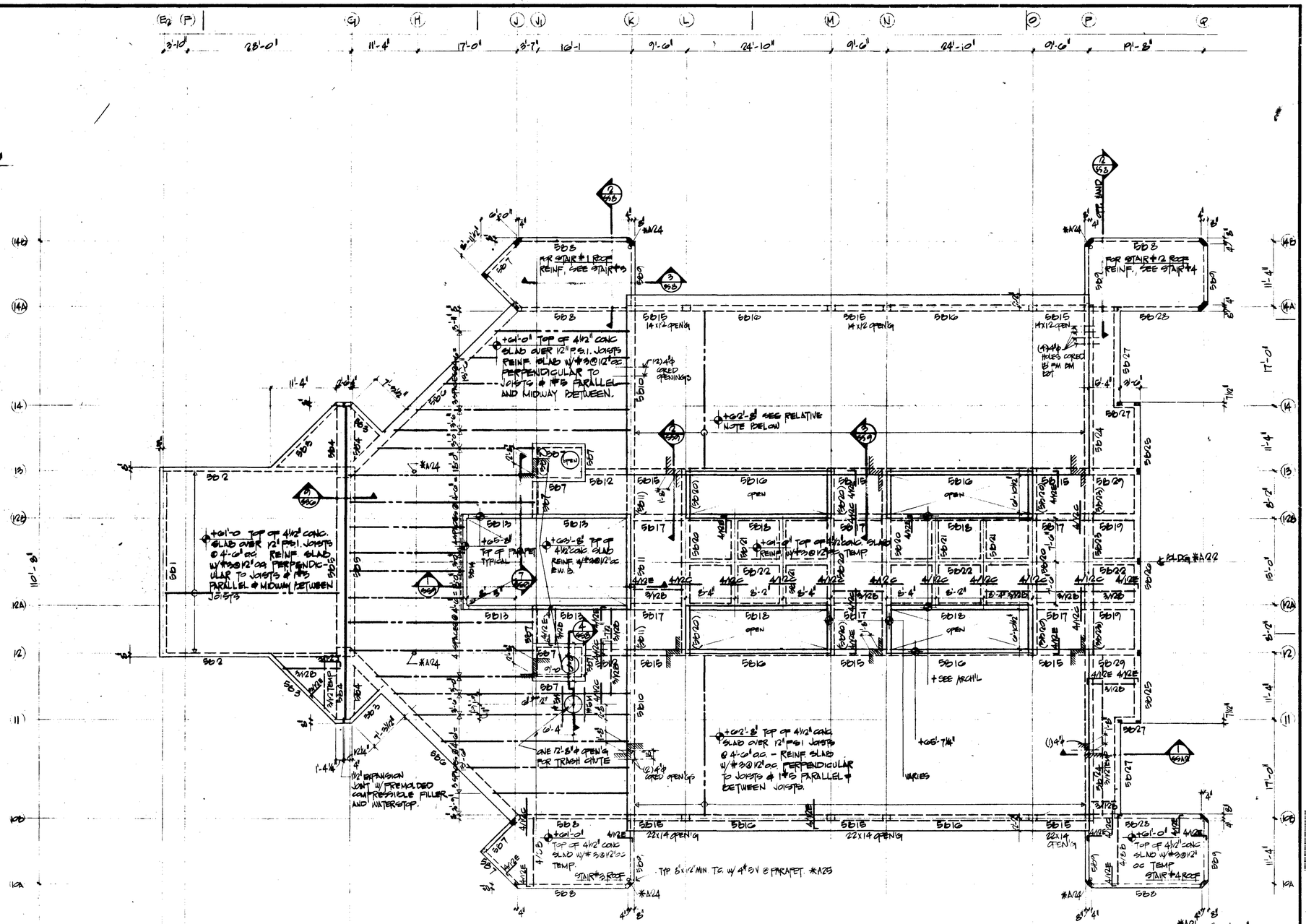

PLAN *A21 1/8" = 1'-0"

FIFTH LEVEL (ROOF)

NOTES *A23

*A21 THE ABOVE PLAN IS AN ALTERNATE TO THE ROOFS OF ELEVATION + 61'-0" SHOWN ON DRAWING SS4. THE ABOVE FRAMING IS INTENDED AS AN OPTION OR ALTERNATE, NOT AN ADDITION.

*A22 THIS FRAMING PLAN IS SYMMETRIC ABOUT THE EAST-WEST & EXCEPT AS NOTED - DATA ON NORTH HALF OF BUILDING ALSO APPLIES TO SOUTH HALF AND VICE-VERSA

*A23 FOR GENERAL STRUCTURAL NOTES SEE DWG SS1.

*A24 FOR ROOF DRAIN SCUPPERS & SLOPES OF LIGHT-WEIGHT CONC SEE MECH'L & ARCH'L DRAWINGS.

*A25 8" THICK IN-SITU CONC PARAPETS ARE SHOWN IN PLAN. FOR CONC. BLOCK PARAPETS W/ 8"x8" CONC CAP (REINF. BY (4)#5 CONT.) SEE ARCH'L DRAWINGS.

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SATELLITE TRANSIT SHUTTLE
MIAMI INTERNATIONAL AIRPORT
DADE COUNTY AVIATION DEPARTMENT
D.C.A.D. CONTRACT 4-14-2B

Harry Oppenheimer, Ross, and Associates, Architecture, Engineering, and Planning, 2780 Douglas Road, Coral Gables, Florida 33134.

TRANSIT STATION SATELLITE 5th. LEVEL FRAMING PLAN

Date JULY 10, 1975

Scale

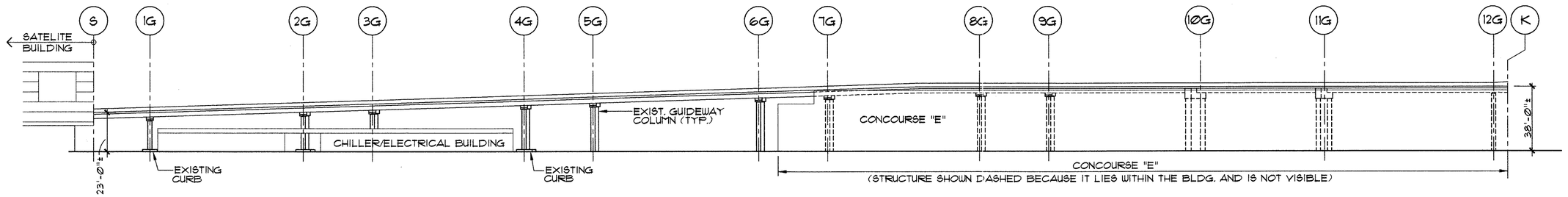
Revisions AS BUILT JUNE 79

Sheet SS-A2

SCHEDULE II

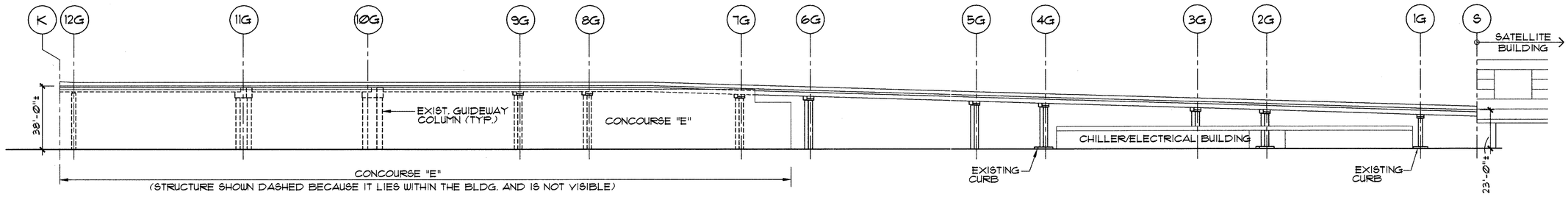
218-9

BX1-31



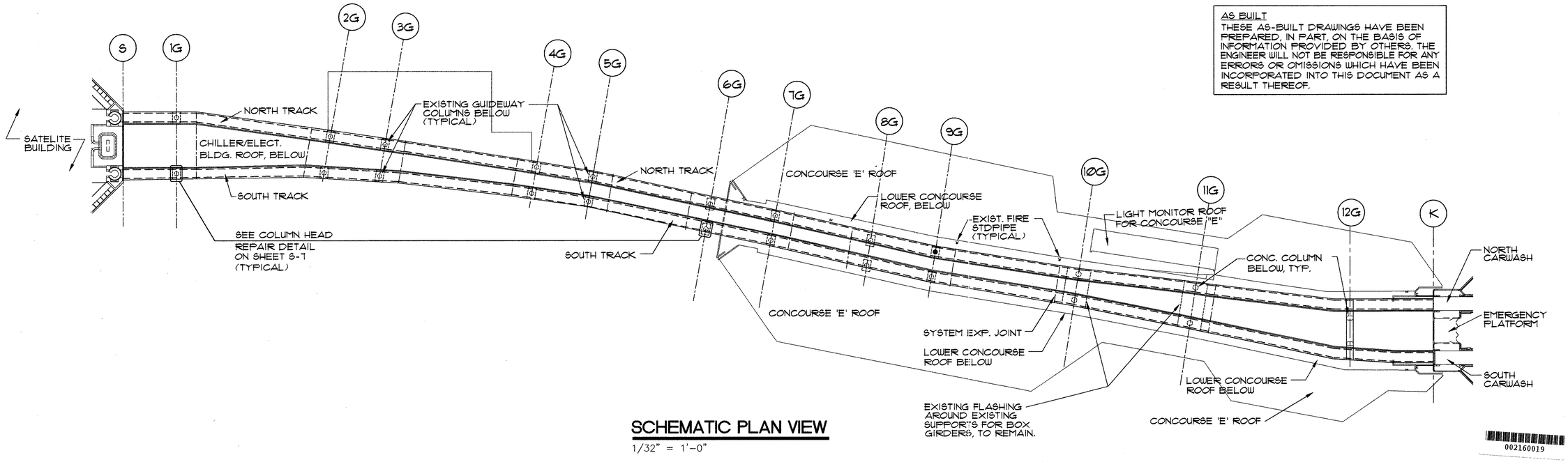
SCHEMATIC SOUTH ELEVATION

1/32" = 1'-0"



SCHEMATIC NORTH ELEVATION

1/32" = 1'-0"



AS BUILT

THESE AS-BUILT DRAWINGS HAVE BEEN PREPARED, IN PART, ON THE BASIS OF INFORMATION PROVIDED BY OTHERS. THE ENGINEER WILL NOT BE RESPONSIBLE FOR ANY ERRORS OR OMISSIONS WHICH HAVE BEEN INCORPORATED INTO THIS DOCUMENT AS A RESULT THEREOF.

SCHEMATIC PLAN VIEW

1/32" = 1'-0"

SCHEMATIC PLAN VIEW AND ELEVATIONS

1/32" = 1'-0"

002160019

no.	date	revisions	by

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phone (305) 446-3351
Luis M. Rodriguez, P.E. #21352

CONCOURSE "E" STS PEOPLE MOVER BRIDGE REPAIRS
DCAD PROJECT NUMBER A017B

TELEPHONE NUMBER (305) 869 4016
DADE COUNTY, FLORIDA

PROJECT MANAGER: BYRON DOWELL
MIAMI INTERNATIONAL AIRPORT

date	drawn by	checked by
10-31-97		

file number 9538

drawing 3

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BX1-32

AS BUILT

N

SCALE:
1"=40'

GENERAL NOTES

CONTRACTOR TO PATCH AND REPAIR PER SPECIFICATIONS OPENING CREATED ON EXPOSED BY WORK WITHIN THE SCOPE OF THIS PROJECT INCLUDING STRUCTURAL MEMBER, PIPING, CONDUIT PENETRATIONS AT EXISTING BUILDING SURFACES.

POLLUTION CONTROL

DURING ALL CLEANING OPERATIONS, THE CONTRACTOR SHALL ISOLATE THE IMMEDIATE AREA OF THE GUIDEWAY STRUCTURE WITH APPROPRIATE CONTAINMENT DEVICES (CANVASES, TARPAULINS, PLASTIC DRAPES) TO ENSURE COMPLIANCE WITH CURRENT GOVERNMENT AIR AND WATER POLLUTION REGULATIONS, SOIL POLLUTION GUIDELINES AND TO PROTECT PEDESTRIAN AND VEHICULAR TRAFFIC. DURING CLEANING OPERATIONS CONTAINMENT SCREENS SHALL BE ERECTED TO PREVENT ANY MATERIAL FROM DAMAGING PROPERTY. UNDER NO CIRCUMSTANCES SHALL ANY DEBRIS BE ALLOWED TO FALL OUTSIDE CONTAINMENT.

IF ANY ACCIDENTAL SPILL OCCURS, THE CONTRACTOR SHALL CONTACT DCAD CONSTRUCTION INSPECTION OFFICE FOR IMMEDIATE EVALUATION. THE CONTRACTOR IS RESPONSIBLE FOR ANY CLEANUP DUE TO ACCIDENTAL SPILL, OVERSPRAY, ETC., AND ALL WORK AND LIABILITY ASSOCIATED WITH THE CLEANUP EFFORT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROPER CLASSIFICATION, PACKAGING, STORAGE, TRANSPORTATION, AND DISPOSAL OF ALL DEBRIS, IN ACCORDANCE WITH SSPC GUIDE 7 (DIS) GUIDE FOR THE DISPOSAL OF LEAD-CONTAMINATED SURFACE PREPARATION DEBRIS AND CURRENT GOVERNMENT REGULATIONS AND GUIDELINES. THE CONTRACTOR SHALL SUBMIT A WRITTEN POLLUTION CONTROL PROGRAM AT THE PRE-CONSTRUCTION CONFERENCE WHICH EFFECTIVELY AND CLEARLY COMMUNICATES THE MEANS FOR COMPLYING WITH ALL ENVIRONMENTAL GOVERNMENT REGULATIONS AND POLLUTION CONTROL PROVISIONS. THIS PROGRAM SHALL INCLUDE, BUT NOT BE LIMITED TO, DETAIL CALCULATIONS FOR VENTILATION EQUIPMENT SIZING AND APPROPRIATE CROSS DRAFT VELOCITY, MATERIAL SELECTION, AND CONTAINMENT SYSTEM WIND LOAD.

AMBIENT AIR QUALITY COMPLIANCE: THE CONTRACTOR SHALL COMPLY WITH 40 CFR 50, "NATIONAL PRIMARY AND SECONDARY AMBIENT AIR QUALITY STANDARDS" (NAAQS) AND THE CLEAN AIR ACTS OF 1977 AND 1990. DO NOT EXCEED 150 UG/M3 OF FUGITIVE RESPIRABLE DUST EMISSIONS AVERAGED OVER A 24 HOUR PERIOD.

IDENTIFICATION OF WASTE

THE CONTRACTOR IS RESPONSIBLE FOR THE LEGAL DISPOSAL OF ALL HAZARDOUS AND NON-HAZARDOUS WASTE.

THE CONTRACTOR SHALL SUBMIT THE NAME, ADDRESS, AND QUALIFICATIONS OF TRANSPORTER AND TREATMENT FACILITY, AND PROPOSED TREATMENT AND DISPOSAL METHODS FOR APPROVAL BY THE ENGINEER BEFORE THE TRANSPORTATION, TREATMENT, OR DISPOSAL OF ANY HAZARDOUS WASTE.

HAZARDOUS WASTE SHALL BE TRANSPORTED FROM THE TEMPORARY STORAGE AREA TO AN APPROVED HAZARDOUS WASTE TREATMENT FACILITY IN ACCORDANCE WITH 40 CFR 263, STANDARDS APPLICABLE TO TRANSPORTERS OF HAZARDOUS WASTES.

THE CONTRACTOR SHALL ENSURE HAZARDOUS WASTE IS PROPERLY TREATED TO MEET ALL GOVERNMENTAL REGULATIONS PRIOR TO DISPOSAL. DCAD SHALL BE PROVIDED WITH ALL WASTE MANIFESTS, CERTIFICATES OF DISPOSAL, AND OTHER APPLICABLE DOCUMENTS WITHIN 21 DAYS OF EACH SHIPMENT.

LBP.
NOTE: IT HAS BEEN DETERMINED THAT THE EXISTING PAINT SYSTEM ON THESE STRUCTURES **CONTAINS LEAD.**

THE CONTRACTOR SHALL BE AWARE THAT LEAD-BASED PAINT(LBP)IS PRESENT ON THE STRUCTURAL STEEL MEMBERS ASSOCIATED WITH THE CONCOURSE E SHUTTLE. LIMITED REMOVAL OF LBP FROM AFFECTED SURFACES HAS PREVIOUSLY BEEN PERFORMED AT ACCESSIBLE LOCATIONS WHERE SCHEDULED CONSTRUCTION ACTIVITIES WOULD LIKELY HAVE DISTURBED THE PAINT. SHOULD ADDITIONAL AREAS BE IMPACTED DURING THE COURSE OF CONSTRUCTION WHERE LBP HAS NOT PROPERLY BEEN REMOVED, THE CONTRACTOR SHALL MAKE PROVISIONS TO WORK AROUND THESE AREAS AND COORDINATE WITH THE ON-SITE PROJECT MANAGER/ENGINEER TO HAVE THE AREA PROPERLY ABATED. CONTRACTOR SHALL PROVIDE 24 HOUR NOTICE TO ON-SITE PROJECT MANAGER/ ENGINEER FOR SCHEDULING AND PERFORMANCE OF SUCH ABATEMENT.

CONTAINMENT SYSTEM

THE CONTRACTOR SHALL CONSTRUCT, ERECT, AND MAINTAIN A CONTAINMENT SYSTEM THAT ENSURES COMPLIANCE OF ALL FEDERAL, STATE AND LOCAL GOVERNMENT ENVIRONMENTAL AND WORKER SAFETY REGULATIONS. AT THE TIME OF THE PRE-CONSTRUCTION CONFERENCE, THE CONTRACTOR SHALL SUBMIT AS PART OF THE WRITTEN POLLUTION CONTROL PROGRAM, FOR APPROVAL BY THE DEPARTMENT, SHOP DRAWINGS DETAILING CONTAINMENT SCREEN ERECTION AND CONTAINMENT MATERIAL SAMPLES.

IN THE EVENT THE CONTRACTOR VIOLATES ANY ENVIRONMENTAL GOVERNMENT REGULATIONS OR FAILS TO PROPERLY EXECUTE ANY POLLUTION CONTROL PROVISIONS, THE ENGINEER SHALL HAVE THE AUTHORITY TO IMMEDIATELY CEASE ALL OPERATIONS ASSOCIATED WITH THE INFRACTION. OPERATIONS WILL ONLY RESUME AFTER WRITTEN PROPOSED CORRECTIVE PROCEDURES HAVE BEEN SUBMITTED TO AND APPROVED BY THE ENGINEER.

THE CONTRACTOR SHALL ALSO COMPLY WITH THE FOLLOWING PROVISIONS FORM THE CODE OF FEDERAL REGULATIONS END THE ENVIRONMENTAL PROTECTION AGENCY, AT A MINIMUM, AND ALL REQUIREMENTS CONTAINED IN THE CLEAN AIR ACTS OF 19977 AND 1990:

CODE OF REDRAL REGULATIONS

NUMBER	TOPIC
29 CFR 1910.134	WORKER LEVELS OF EXPOSURE TO HAZARDOUS WASTE
29 CFR 1910.252	USE OF RESPIRATORS
29 CFR1926.62	OSHA INTERIM FINAL RULE "LEAD"
40 CFR 261.24	IDENTIFIES MATERIAL CONTAINING 5 PPM OR OF LEACHABLE LEAD AS HAZARDOUS WASTE AND PROHIBITS DISPOSAL IN LANDFILLS.
APPENDIX B	REFERENCE METHOD FOR THE DETERMINATION OF TOTAL SUSPENDED PARTICULATE MATTER IN THE AIR (HIGH VOLUME METHOD)
APPENDIX G	REFERENCE METHOD FOR THE DETERMINATION OF TOTAL SUSPENDED PARTICULATE MATTER COLLECTED FROM AMBIENT AIR
APPENDIX J	REFERENCE METHOD FOR THE DETERMINATION OF PARTICULATE MATTER AS PM 10 IN THE ATMOSPHERE (HIGH VOLUME METHOD)
40 CFR 58	AMBIENT AIR QUALITY SURVEILLANCE (PM 10 MONITORING)
40 CFR 122	ADMINISTERED PERMIT PROGRAM: THE NATIONAL DISCHARGE ELIMINATION SYSTEM
40 CFR 261.24	TRANSPORTATION AND DISPOSAL OF LEAD
40 CFR 263.268	LEAD CONTAMINATED WASTE

ENVIROMENTAL PROTECTION AGENCY

NUMBER	TOPIC
1311	TOXICITY CHARACTERISTICS LEACHING PROCEDURES
3050	LEAD CONTAMINATION OF THE GROUND
SW 846	TEST METHODS FOR EVALUATING SOLID WASTE PHYSICAL/CHEMICAL TESTS

WORKER SAFETY

CLADDING ON THE GUIDEWAY HAS BEEN REMOVED PARTIALLY DUE TO OTHER CONTRACT WORK, THEREFORE CONTRACTORS SHALL SURVEY THE WORK AREA PRIOR TO START OF WORK, TO DETERMINE CONFINED SPACE PERMIT NEEDS. SHOULD IT BE NECESSARY TO ISSUE A CONFINED SPACE PERMIT, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL MATERIALS, LABOR AND EQUIPMENT RELATED TO THIS WORK, IN ADDITION TO THE PERMITTING PROCESS. OSHA 1926.21(b) (6) i AND ii.

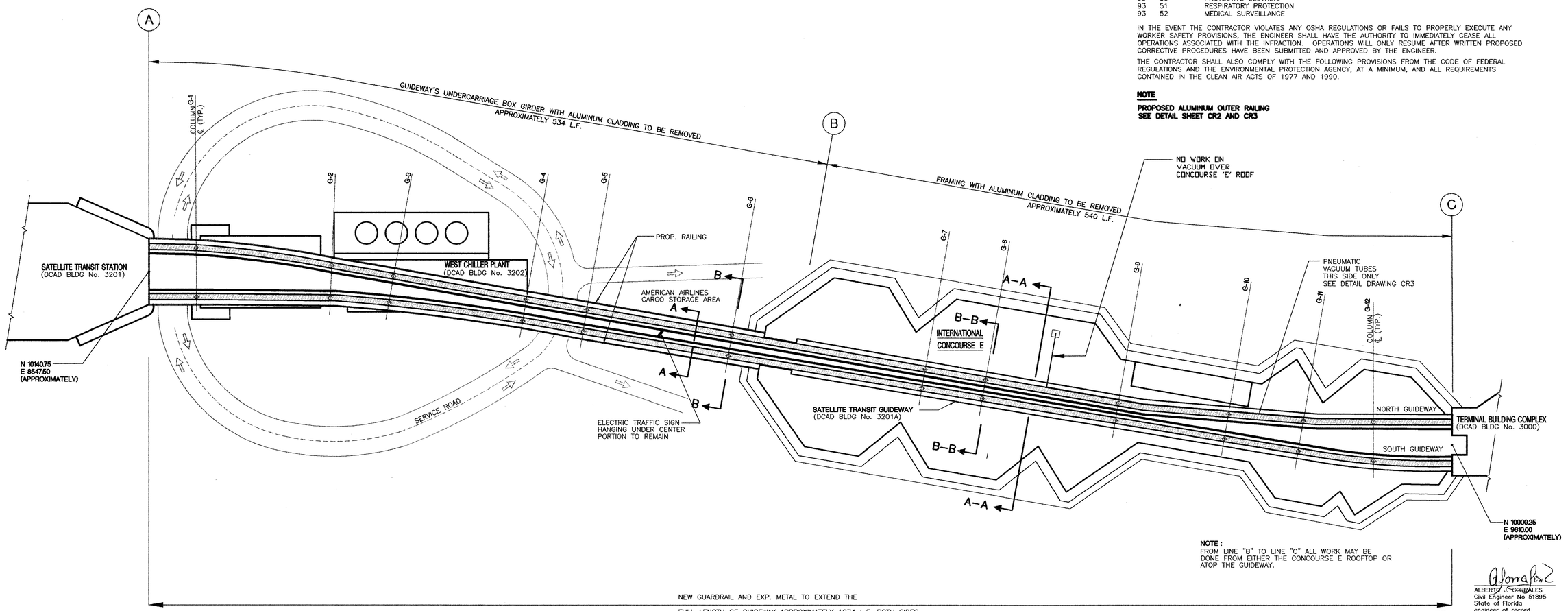
ALL APPLICABLE GOVERNMENTAL REGULATIONS TO ENSURE WORKER SAFETY SHALL BE FOLLOWED. OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) GUIDELINES FOR THIS PROJECT INCLUDE:

FACT SHEET NO.	TOPIC
93 47	WORKER PROTECTION
93 48	ENGINEERING CONTROLS
93 49	HOUSEKEEPING AND PERSONAL (PROTECTION) HYGIENE PRACTICES
93 50	PROTECTIVE CLOTHING
93 51	RESPIRATORY PROTECTION
93 52	MEDICAL SURVEILLANCE

IN THE EVENT THE CONTRACTOR VIOLATES ANY OSHA REGULATIONS OR FAILS TO PROPERLY EXECUTE ANY WORKER SAFETY PROVISIONS, THE ENGINEER SHALL HAVE THE AUTHORITY TO IMMEDIATELY CEASE ALL OPERATIONS ASSOCIATED WITH THE INFRACTION. OPERATIONS WILL ONLY RESUME AFTER WRITTEN PROPOSED CORRECTIVE PROCEDURES HAVE BEEN SUBMITTED AND APPROVED BY THE ENGINEER.

THE CONTRACTOR SHALL ALSO COMPLY WITH THE FOLLOWING PROVISIONS FROM THE CODE OF FEDERAL REGULATIONS AND THE ENVIRONMENTAL PROTECTION AGENCY, AT A MINIMUM, AND ALL REQUIREMENTS CONTAINED IN THE CLEAN AIR ACTS OF 1977 AND 1990.

NOTE
PROPOSED ALUMINUM OUTER RAILING SEE DETAIL SHEET CR2 AND CR3



NOTE :
FROM LINE "B" TO LINE "C" ALL WORK MAY BE DONE FROM EITHER THE CONCOURSE E ROOFTOP OR ATOP THE GUIDEWAY.

002160020

ALBERTO J. GORBALES
Civil Engineer No 51895
State of Florida
engineer of record
for the firm
6-9-00
Date

no.	date	revisions	by

C.A.P. ENGINEERING CONSULTANTS, Inc.
100 MIRACLE MILE, SUITE 300 CORAL GABLES, FLORIDA 33134
(305) 445-5494 Fax 445-5494

CONCOURSE "E" STS PEOPLE MOVER BRIDGE REPAIRS
DCAD PROJECT NUMBER A017B
TELEPHONE NUMBER (305) 869 4016
DADE COUNTY, FLORIDA
PROJECT MANAGER, BYRON DOWELL
MIAMI INTERNATIONAL AIRPORT

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CR1

of 20

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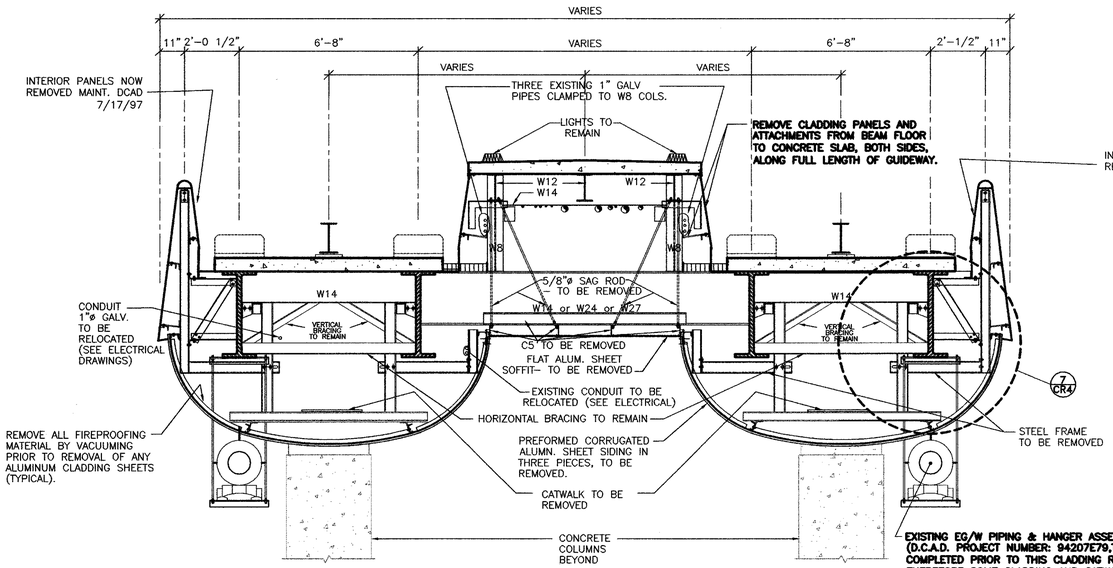

SECTION A

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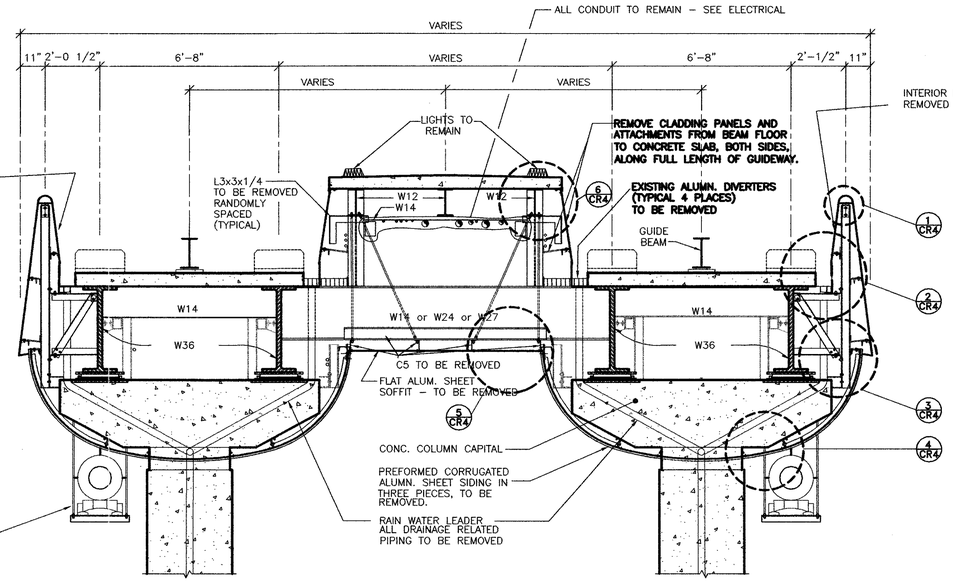


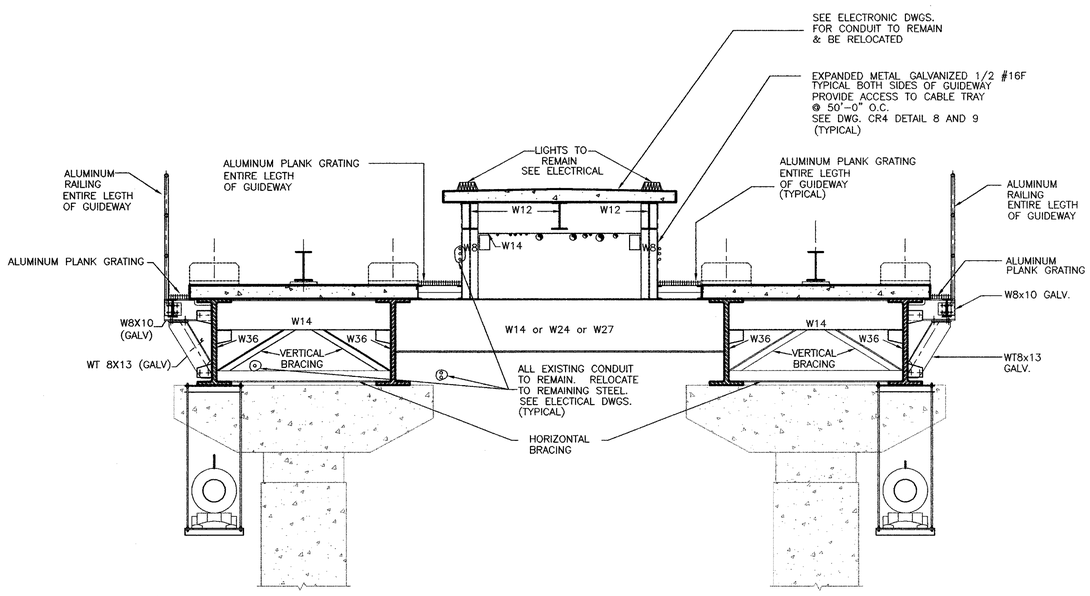
SECTION B

SCALE: 3/8"=1'-0"

LEGEND

1 CR4 — DETAIL NUMBER / SHEET NUMBER

EXISTING TRANSIT GUIDEWAY



SECTION A-A

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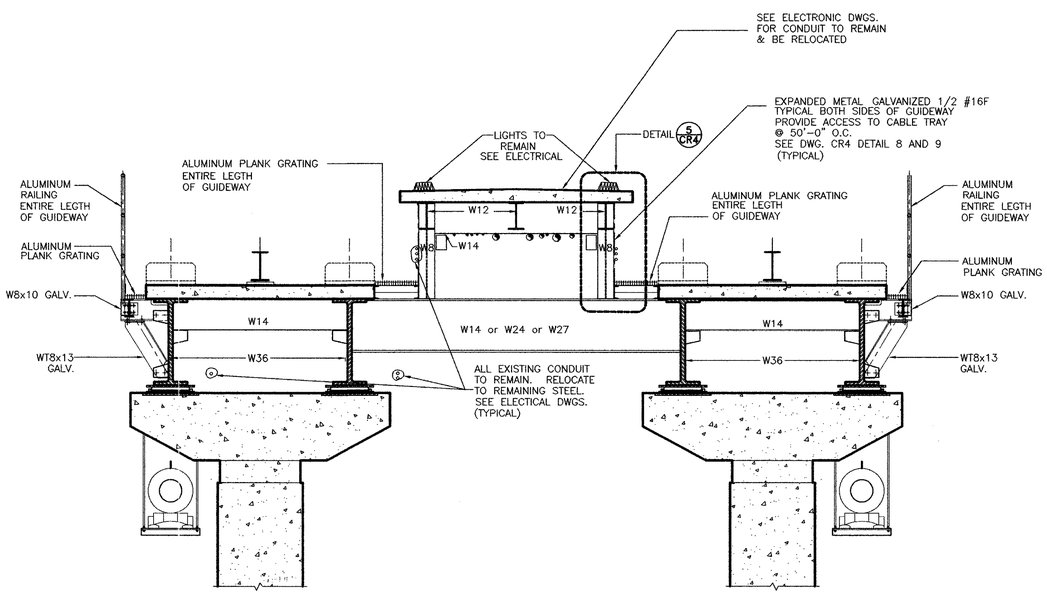


SECTION B-B

SCALE: 3/8"=1'-0"

AS BUILT

PROPOSED TRANSIT GUIDEWAY

ALBERTO J. CORRALES
Civil Engineer No 51895
State of Florida
engineer of record
for the firm
6-9-00
Date

002160021

no.	revisions	date	by

C.A.P. ENGINEERING CONSULTANTS, Inc.
100 MIRACLE MILE, SUITE 300 CORAL GABLES, FLORIDA 33134
(305) 461-3494 Fax 461-3494

CONCOURSE "E" STS PEOPLE MOVER BRIDGE REPAIRS
DCAD PROJECT NUMBER A017B
TELEPHONE NUMBER (305) 869 4016
DADE COUNTY, FLORIDA
PROJECT MANAGER: BYRON DOWELL
MIAMI INTERNATIONAL AIRPORT

date	drawn by	checked by
7-18-97	J.S.	D.A.

file number: -

drawing: CR2

of 20

BX1-34

ALUMINUM HANDRAIL GENERAL NOTES:

MISCELLANEOUS NOTES

1) UNLESS OTHERWISE NOTED AS "PRESENT FIELD CONDITIONS," ALL PLANS, SECTIONS AND DETAILS WERE DEVELOPED FROM "SATELLITE TRANSIT SHUTTLE" ORIGINAL DESIGN PLANS DATED FEBRUARY 19, 1979, D.C.A.D. CONTRACT NO. 4-14-2B PREPARED BY HARRY, OPPENHEIMER, ROSS AND ASSOCIATES (HOR).

2) THE CONSTRUCTION OF THE EXISTING ETHYL GLYCOL WATER (EG/W) PIPING AND HANGER ASSEMBLY DESIGNED BY WOLFBERG ALVAREZ AND PARTNERS IS COMPLETED.

3) AS NOTED, DETAIL 7 ON SHEET CR4 IS AN APPROXIMATE REPRESENTATION OF THE PRESENT GIRDER CONFIGURATION. NO FORMAL SURVEY OF THE PRESENT "AS-BUILT" GIRDER CONFIGURATION HAS BEEN PERFORMED. THE CONTRACTOR IS RESPONSIBLE FOR EVALUATING FIELD CONDITIONS BY VISITING THE SITE PRIOR TO BID.

4) SUBMIT ANY MANUFACTURER'S DATA AND SHOP DRAWINGS FOR APPROVAL BY THE CONSTRUCTION INSPECTION ENGINEER BEFORE ANY WORK COMMENCES.

5) THE CONTRACTOR SHALL GIVE 48 HOURS ADVANCE NOTICE TO D.C.A.D. AND THE CONSTRUCTION INSPECTION ENGINEER CONCERNING THE CONTRACTOR'S WORK SCHEDULE INCLUDING BUT NOT LIMITED TO LIMITS OF DAILY WORK AND HOURS OF THE DAYS TO BE WORKED. IN ADDITION, THE CONTRACTOR SHALL GIVE WEEKLY SUBMITTALS OF DAILY CONSTRUCTION PROGRESS REPORTS TO THE CONSTRUCTION INSPECTION ENGINEER.

6) THE EXPANDED GALV. METAL TO BE INSTALLED UNDER CENTER CONCRETE SLAB (EMERGENCY WALKWAY) SHALL RUN ALONG THE FULL LENGTH OF THE GUIDEWAY, BOTH SIDES. THE EXPANDED GALV. METAL MATERIAL AND SUPPORTS SHALL BE AS PER CONTRACTOR'S SHOP DRAWING AFTER ENGINEER'S APPROVAL.

STRUCTURAL STEEL

1) STRUCTURAL STEEL SHALL BE FABRICATED AND ERECTED IN ACCORDANCE WITH THE LATEST AISC STEEL CONSTRUCTION MANUAL AND SHALL CONFORM TO LATEST ASTM A36 SPECIFICATIONS. BOLTS TO CONFORM TO ASTM A325. ALL WELDING SHALL BE PERFORMED BY CERTIFIED WELDERS.

2) ALL CONNECTIONS SHALL DEVELOP THE STRENGTH OF THE PART BEING CONNECTED. SHOP CONNECTIONS SHALL BE WELDED. FIELD CONNECTIONS SHALL BE BOLTED UNLESS OTHERWISE NOTED ON THE PLAN.

3) ALL STEEL AND BOLTS TO BE ALUMINIZED, HOT-DIP GALVANIZED OR ELECTRO-GALVANIZED.

4) SUBMIT SHOP DRAWINGS FOR APPROVAL PRIOR TO FABRICATION OR ERECTION OF STRUCTURAL STEEL.

ALUMINUM HANDRAIL NOTES

WORK INCLUDED
FURNISH AND INSTALL ALUMINUM PIPE RAILINGS AND COMPONENTS.
FURNISH GALVANIZED STEEL BOLTS FOR CONNECTION W/ BOLT INSULATOR.

SUBMITTALS
INDICATE COMPONENT DETAILS, MATERIALS, FINISHES, CONNECTION AND JOINING METHODS, AND THE RELATIONSHIP TO ADJOINING WORK.
SUBMIT MANUFACTURER'S INSTALLATION INSTRUCTIONS.

MATERIALS AND FINISHES
ALUMINUM
EXTRUDED PIPE: ALLOY 6063-832

RAILING SYSTEM
RAILING SYSTEM SHALL BE PERMANENTLY ANCHORED.

RAIL AND POSTS
FABRICATE RAILS AND POSTS FROM ANODIZED ALUMINUM, 6063-832 WITH NOMINAL SIZE OF 1 1/2 INCH OUTSIDE DIAMETER, SCHEDULE 40.

FITTINGS
FITTINGS SHALL BE OF WROUGHT MATERIAL OF ALUMINUM. TEE-FITTINGS AND ELBOWS WHICH ARE FABRICATED FROM MORE THAN ONE PIECE SHALL BE OF WELDED CONSTRUCTION WITH NO WELD MARKS VISIBLE WHEN THE FITTING IS INSTALLED.

CONNECTOR SLEEVES
INTERNAL CONNECTOR SLEEVES SHALL BE OF EXTRUDED ALUMINUM.

MOUNTING FLANGES
HEAVY DUTY FLOOR FLANGE SHALL BE OF CAST ALUMINUM WITH A SOLID ALUMINUM REINFORCING BAR.

TOE BOARD
TOE BOARD SHALL BE OF EXTRUDED ALUMINUM.

HANDRAIL BRACKETS
ALUMINUM

FABRICATION
FORM ALL CHANGES IN RAIL DIRECTION BY MITER ELBOWS.
CUT MATERIAL SQUARE AND REMOVE BURRS FROM ALL EXPOSED EDGES, WITH NO CHAMFER.
MAKE EXPOSED JOINTS BUTT TIGHT AND FLUSH.
CLOSE EXPOSED ENDS OF PIPE BY USE OF APPROPRIATE END CAP.
VERIFY DIMENSIONS ON SITE PRIOR TO SHOP FABRICATION.

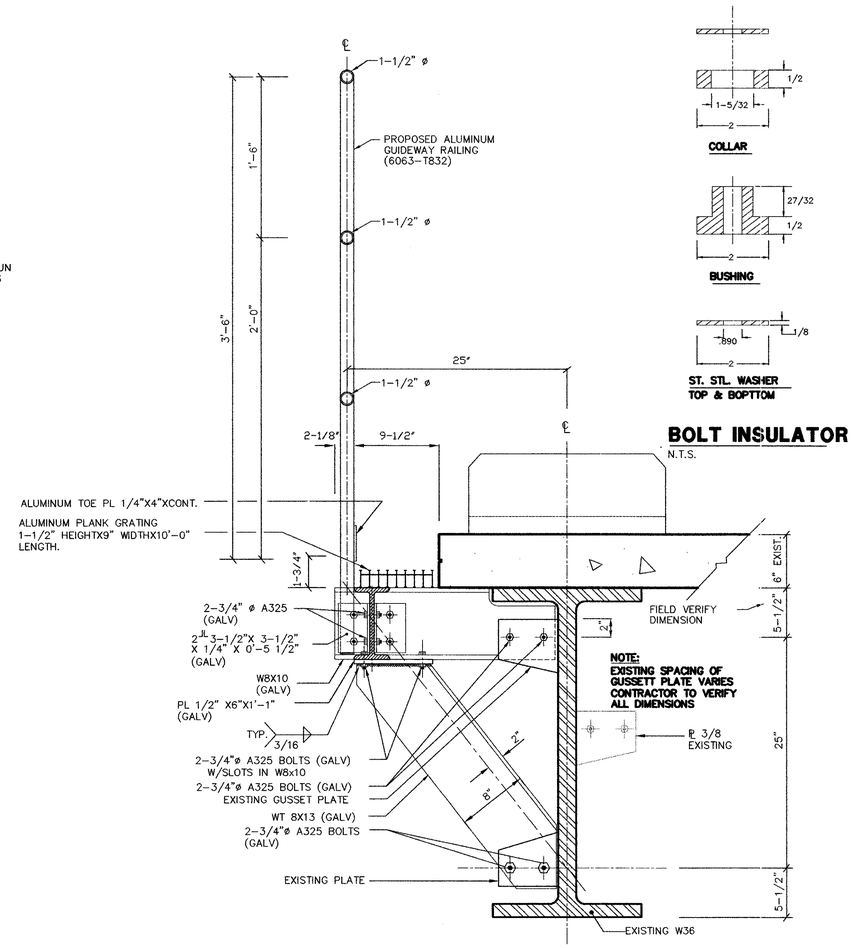
DISSIMILAR METALS
ALL STEEL COMPONENT IN CONTACT WITH ALUMINUM SHALL BE ALUMINIZED, HOT-DIP GALVANIZED, OR ELETRO-GALVANIZED.

INSTALLATION
INSTALL IN ACCORDANCE WITH SHOP DRAWINGS.
EXPANSION JOINTS SHALL BE PROVIDED AS NEEDED TO ALLOW FOR THERMAL EXPANSION OR CONTRACTION. EXPANSION JOINTS SHOULD BE PROVIDED FOR

STRUCTURE PROVIDES EXPANSION JOINTS. IF A JOINT IS PROVIDED EVERY 20 FEET, THE WIDTH OF THE GAP SHOULD ALLOW 1/8" EXPANSION FOR EACH 40°F OF EXPECTED TEMPERATURE RISE. TO MAKE AN EXPANSION JOINT, THE INTERNAL CONNECTOR SLEEVE IS LEFT UNATTACHED AT ONE END SO THAT IT IS FREE TO MOVE IN AND OUT OF THE PIPE.
CONTINUOUS RUNS IN EXCESS OF 40 FEET OR AT PLACES WHERE BUILDING AND BRIDGE

REPAIR OF DEFECTIVE WORK
REMOVE STAINED OR OTHERWISE DEFECTIVE WORK AND REPLACE WITH MATERIAL THAT MEETS SPECIFICATION REQUIREMENTS.

AS BUILT

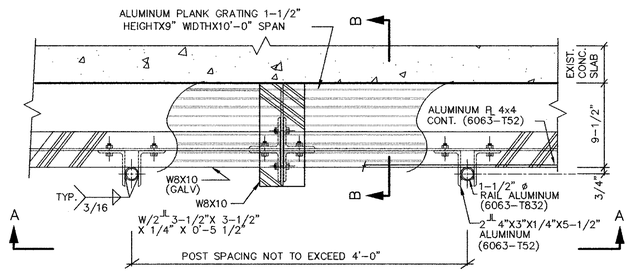


SECTION B-B

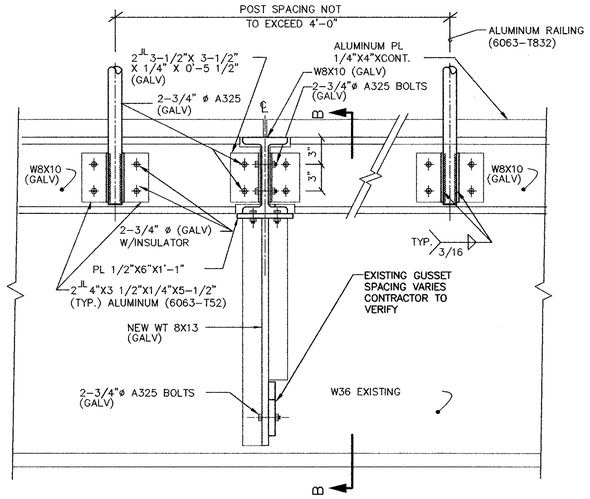
BOLT INSULATOR

N.T.S.

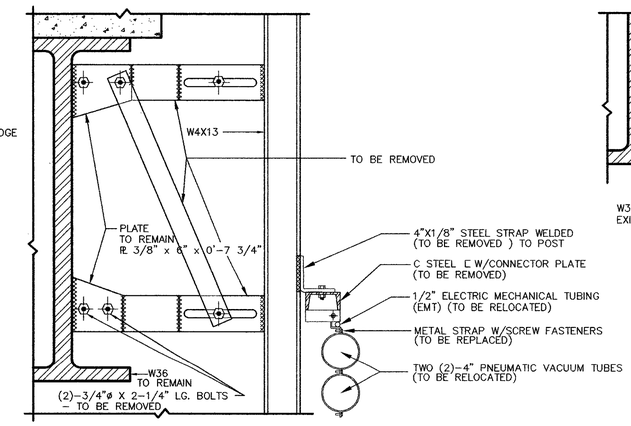
NOTE: ALL STEEL ITEMS TO BE ALUMINIZED, HOT DIP GALVANIZED OR ELECTRO GALVANIZED STEEL



TOP VIEW



ELEVATION A-A



EXISTING

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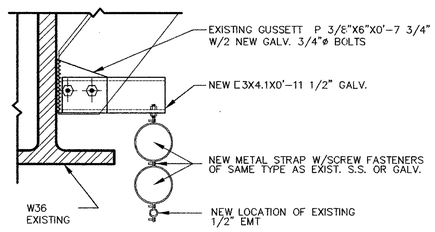


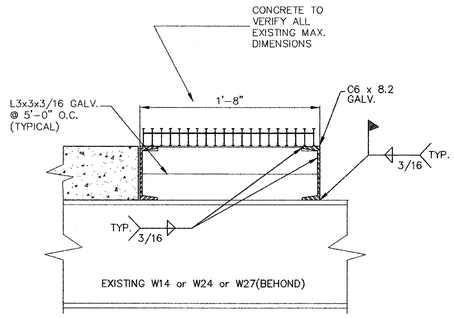
PROPOSED

SCALE: 1-1/2"=1'-0"

DUAL VACUUM PIPES ATTACHMENT

PROPOSED ALUMINUM OUTER RAILING

1'=1-1/2"



DETAIL AT MID-SPAN

ALUMINUM PLANK GRATING FRAMING DETAIL

SCALE: 1-1/2"=1'-0"

002160022

ALBERTO J. COBRALES
Civil Engineer No 51895
State of Florida
engineer of record
for the firm
6-9-00
Date

no.	date	revisions	by

C.A.P. ENGINEERING CONSULTANTS, Inc.
200 MIRACLE MILE, SUITE 300 CORAL GABLES, FLORIDA 33134
(305) 447-0404 Fax 447-0404

CONCOURSE 'E' STS PEOPLE MOVER BRIDGE REPAIRS
DCAD PROJECT NUMBER A017B
TELEPHONE NUMBER (3051 869 4016
DADE COUNTY, FLORIDA
PROJECT MANAGER: BYRON DOWELL
MIAMI INTERNATIONAL AIRPORT

date	drawn by	checked by
7-06-97	GL.	GA.

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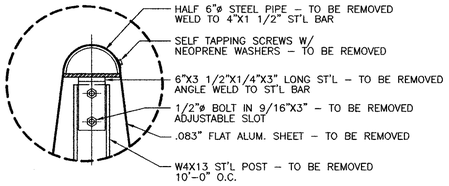
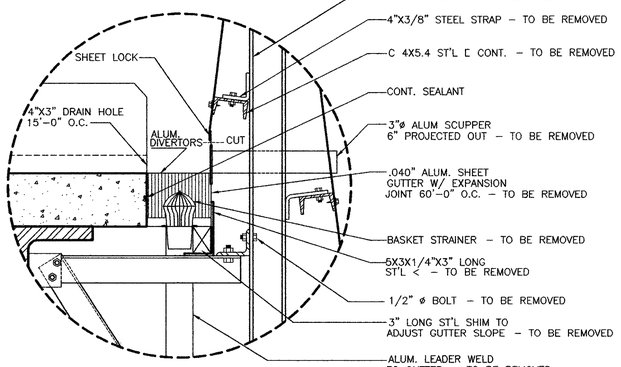
drawing
CR3
of 20

BX1-35



DETAIL - 1

SCALE: 1–1/2"=1'–0"



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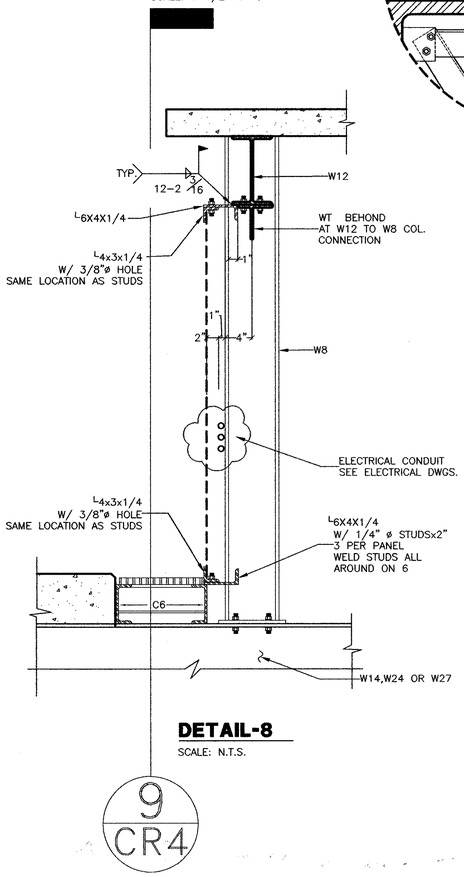
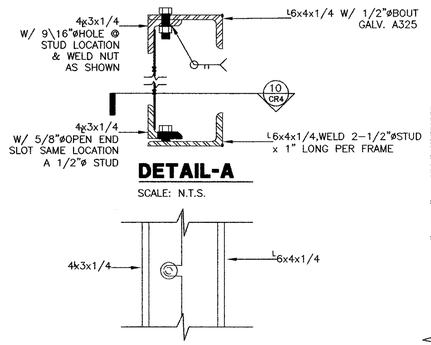


DETAIL-8

SCALE: N.T.S.

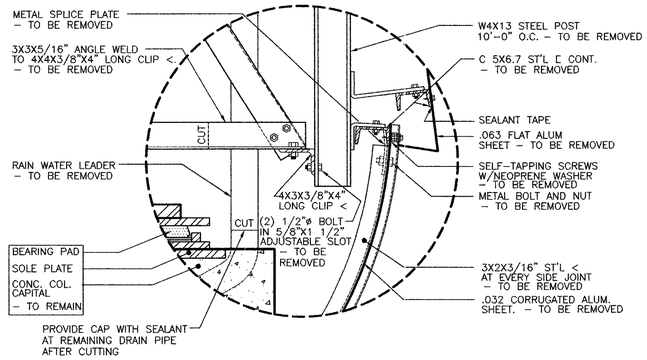


DETAIL-A

SCALE: N.T.S.

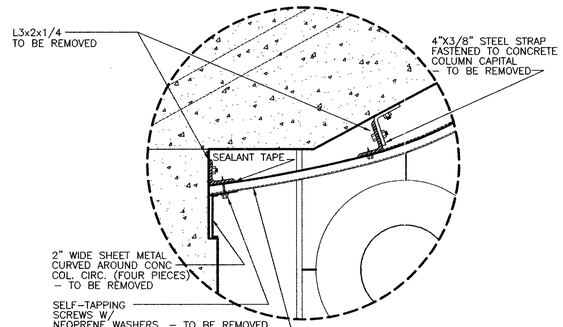
DETAIL 10

SCALE: N.T.S.



DETAIL - 3

SCALE: 1–1/2"=1'–0"



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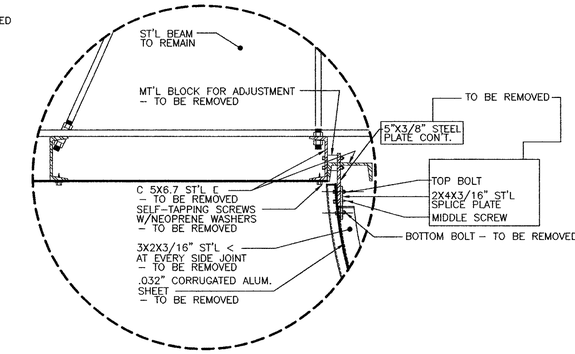
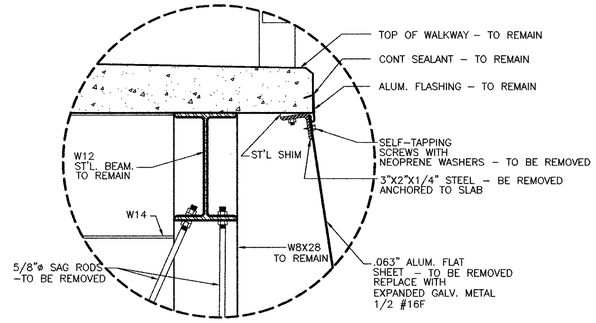
SCALE: 1–1/2"=1'–0"



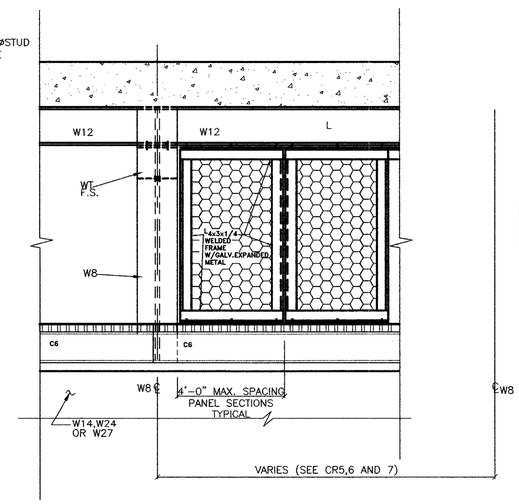
DETAIL - 5

SCALE: 1–1/2"=1'–0"



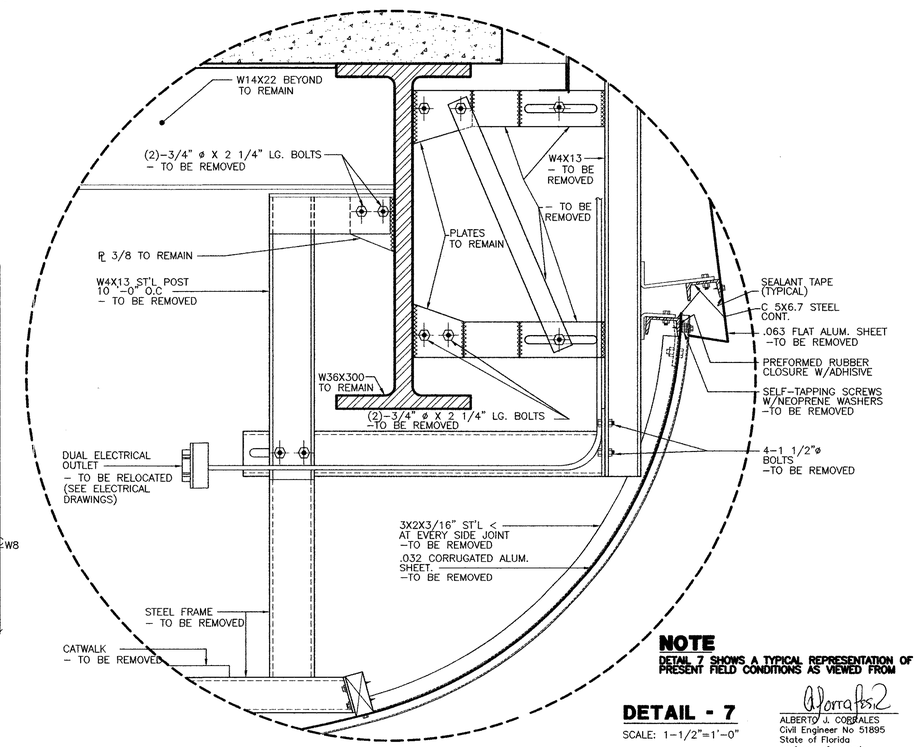
DETAIL - 6

SCALE: 1–1/2"=1'–0"



SECTION-9

SCALE: N.T.S.



DETAIL - 7

SCALE: 1–1/2"=1'–0"

NOTE
DETAIL 7 SHOWS A TYPICAL REPRESENTATION OF PRESENT FIELD CONDITIONS AS VIEWED FROM

002160024

ALBERTO J. CORRALES
Civil Engineer No 51895
State of Florida
engineer of record
for the firm
6-9-00
Date

AS BUILT

no.	date	revisions	by

C.A.P. ENGINEERING CONSULTANTS, Inc.
700 HORACE HILL SUITE 300 CORAL GABLES, FLORIDA 33134
(305) 447-0494 Fax 447-0494

CONCOURSE 'E' STS PEOPLE MOVER BRIDGE REPAIRS
DCAD PROJECT NUMBER A017B
TELEPHONE NUMBER (305) 869 4016
DADE COUNTY, FLORIDA
PROJECT MANAGER, BYRON DOWELL
MIAMI INTERNATIONAL AIRPORT

date	drawn by	checked by
7-28-97	D.L.	D.A.

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CR4

of 20

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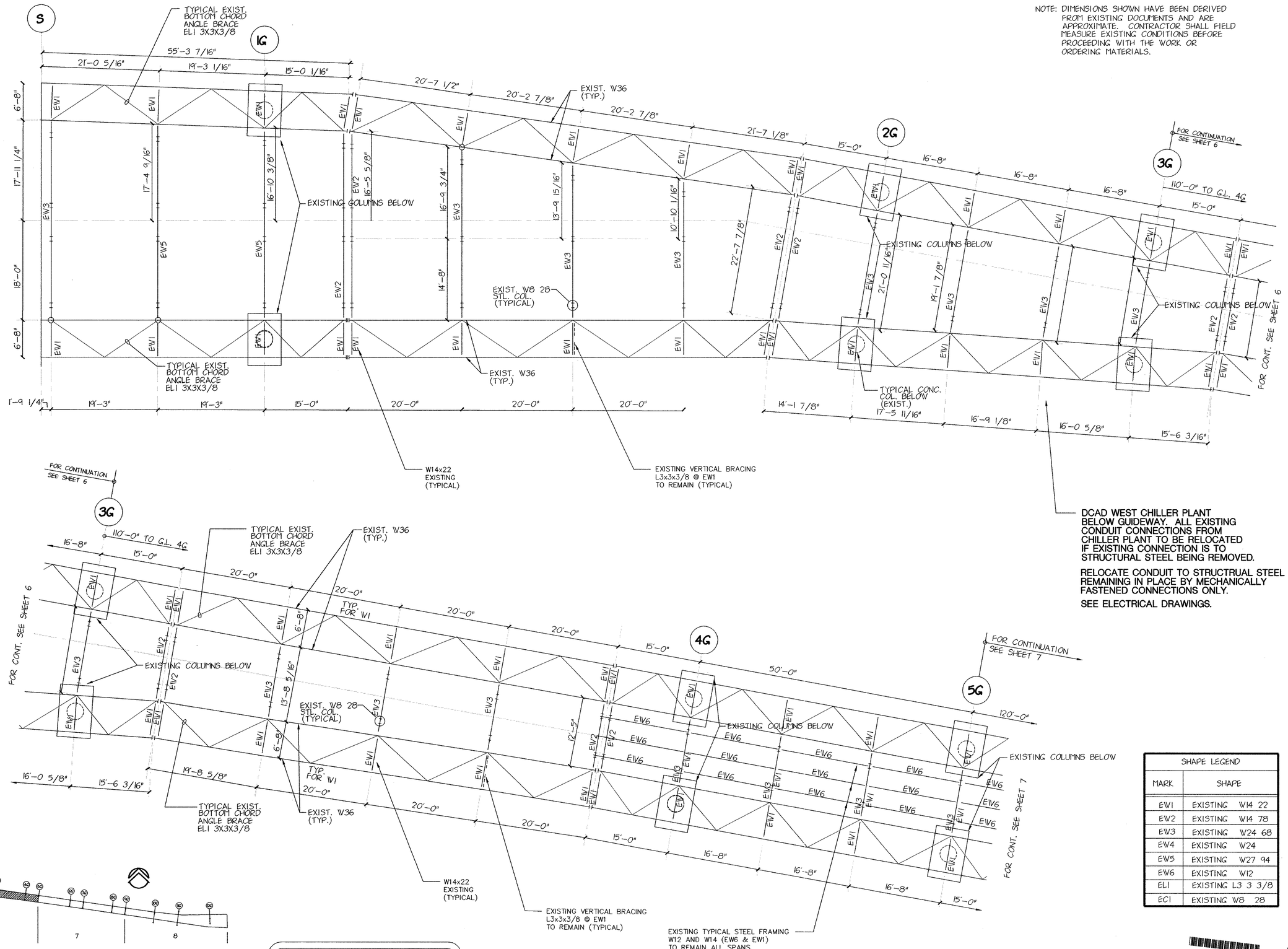

SHAPE LEGEND	
MARK	SHAPE
EW1	EXISTING W14 22
EW2	EXISTING W14 78
EW3	EXISTING W24 68
EW4	EXISTING W24
EW5	EXISTING W27 94
EW6	EXISTING W12
EL1	EXISTING L3 3 3/8
EC1	EXISTING W8 28

AS BUILT

PLAN VIEW STRUCTURAL STEEL TO REMAIN

1/8" = 1'-0"

002160025

ALBERTO J. CORRALES
Civil Engineer No 51885
State of Florida
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6-9-00
Date

no.	date	revisions	by

C.A.P. ENGINEERING CONSULTANTS, Inc.
301 MIRACLE MILE, SUITE 300 CORAL GABLES, FLORIDA 33134
(305) 445-2484 Fax 445-2494
PROJECT MANAGER: DENNIS DUDUYAN, P.E. CO0046-5484

CONCOURSE "E" STS PEOPLE MOVER BRIDGE REPAIRS
DCAD PROJECT NUMBER A017B
PROJECT MANAGER: BYRON DOWELL
MIAMI INTERNATIONAL AIRPORT
TELEPHONE NUMBER (305) 869 4016
DADE COUNTY, FLORIDA

date	drawn by	checked by
10-31-97	DA.	

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CR5

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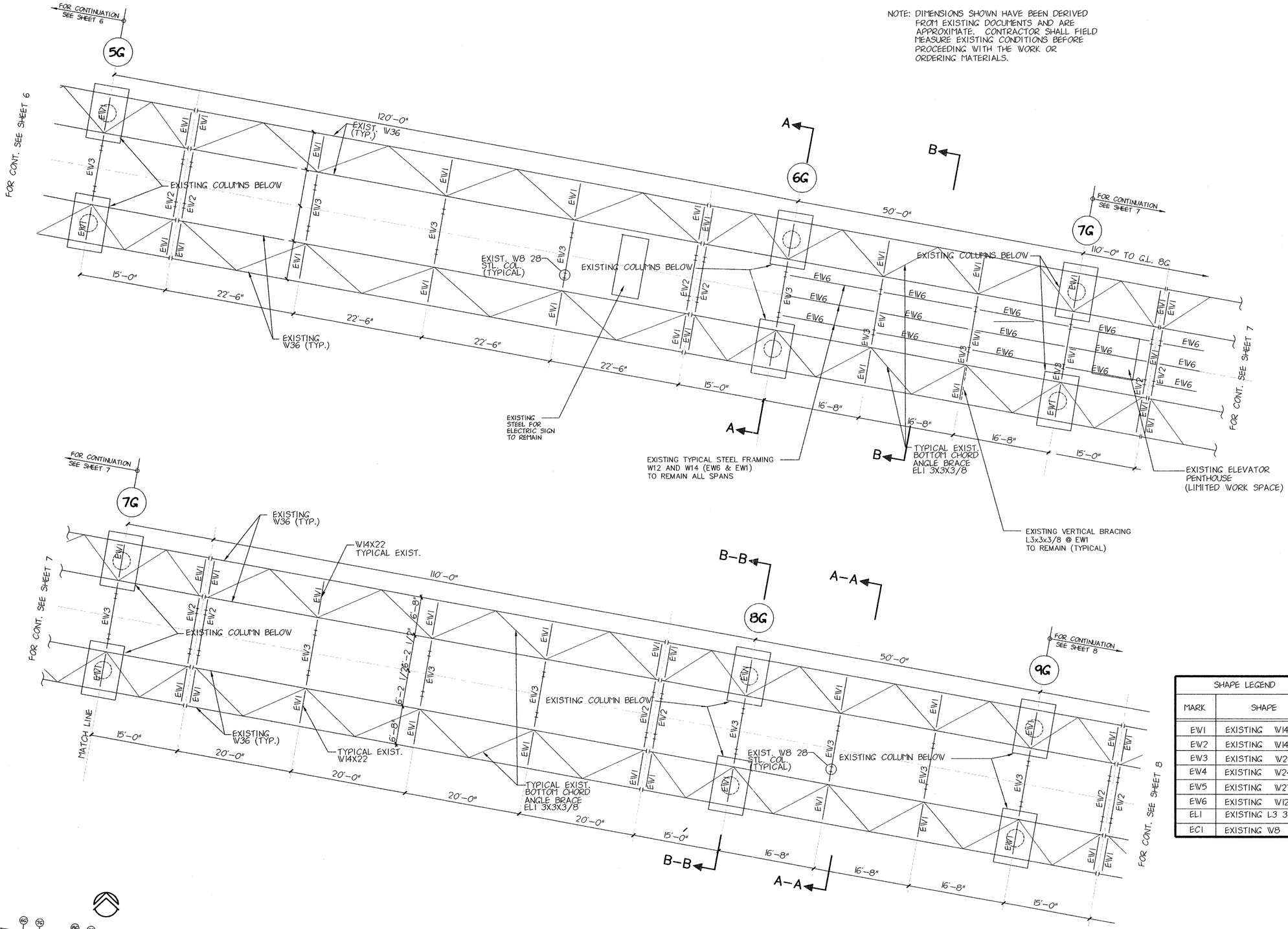
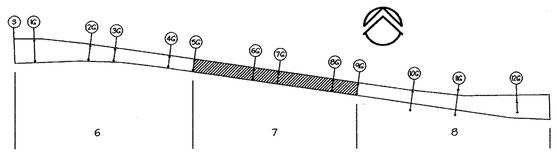


NOTE: DIMENSIONS SHOWN HAVE BEEN DERIVED FROM EXISTING DOCUMENTS AND ARE APPROXIMATE. CONTRACTOR SHALL FIELD MEASURE EXISTING CONDITIONS BEFORE PROCEEDING WITH THE WORK OR ORDERING MATERIALS.

SHAPE LEGEND	
MARK	SHAPE
EW1	EXISTING W14 22
EW2	EXISTING W14 78
EW3	EXISTING W24 68
EW4	EXISTING W24
EW5	EXISTING W27 94
EW6	EXISTING W12
EL1	EXISTING L3 3 3/8
EC1	EXISTING W8 28



AS BUILT

002160026

PLAN VIEW
STRUCTURAL STEEL TO REMAIN

1/8" = 1'-0"

ALBERTO J. CORRALES
Civil Engineer No 51895
State of Florida
engineer of record
for the firm
6-9-00
Date

no.	date	revisions	by

C.A.P. ENGINEERING CONSULTANTS, Inc.
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(305) 461-5444 Fax 461-5444
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CONCOURSE "E" STS PEOPLE MOVER BRIDGE REPAIRS
DCAD PROJECT NUMBER A0178

TELEPHONE NUMBER (305) 869 4016
DADE COUNTY, FLORIDA

PROJECT MANAGER: BYRON DOWELL
MIAMI INTERNATIONAL AIRPORT

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CR6

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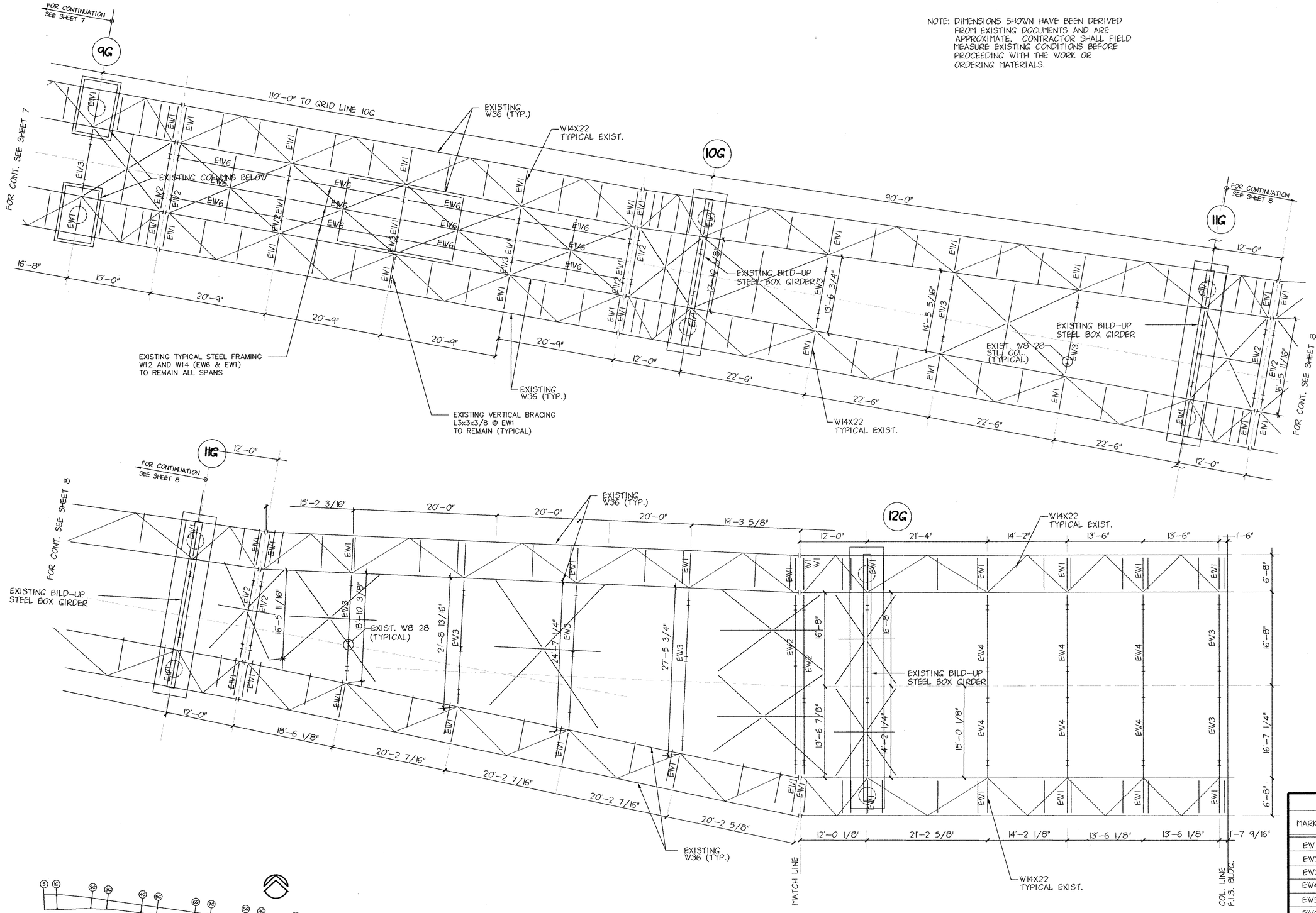

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SHAPE LEGEND	
MARK	SHAPE
EW1	EXISTING W14 22
EW2	EXISTING W14 78
EW3	EXISTING W24 68
EW4	EXISTING W24
EW5	EXISTING W27 94
EW6	EXISTING W12
EL1	EXISTING L3 3 3/8
EC1	EXISTING W8 28

AS BUILT

PLAN VIEW
STRUCTURAL STEEL TO REMAIN
1/8" = 1'-0"

002160027

ALBERTO J. CORRALES
Civil Engineer NO. 51895
State of Florida
engineer of record
for the firm
6-9-00
Date

no.	date	revisions	by

C.A.P. ENGINEERING CONSULTANTS, Inc.
100 MIRACLE MILE, SUITE 300 CORAL GABLES, FLORIDA 33134
PHONE: (305) 443-4944 FAX: 443-4944
PROJECT MANAGER: DENNIS QUINTANA, P.E. C2005461-5484

CONCOURSE "E" STS PEOPLE MOVER BRIDGE REPAIRS
DCAD PROJECT NUMBER A017B
TELEPHONE NUMBER (305) 869 4016
PROJECT MANAGER: BYRON DOWELL
MIAMI INTERNATIONAL AIRPORT

date	10-21-97	
drawn by	B.S.	
checked by	D.S.	
file number		
drawing	CR7	

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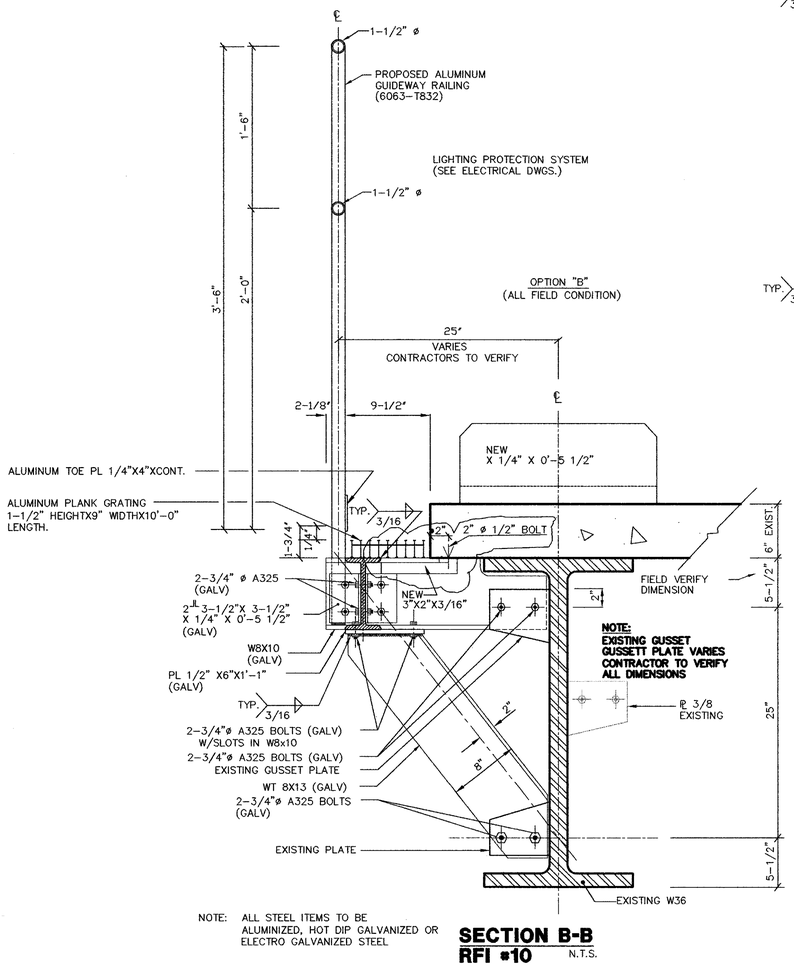
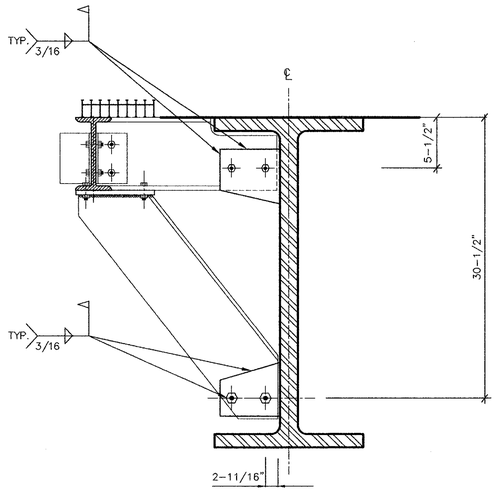


NOTE: ALL STEEL ITEMS TO BE ALUMINIZED, HOT DIP GALVANIZED OR ELECTRO GALVANIZED STEEL

SECTION B-B
RFI #10 N.T.S.



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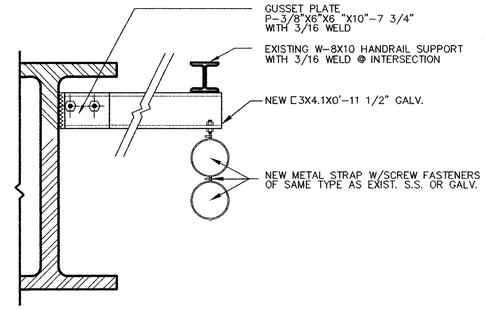
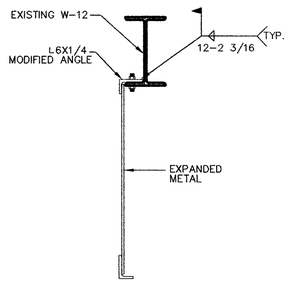
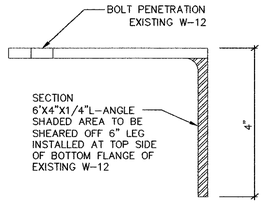
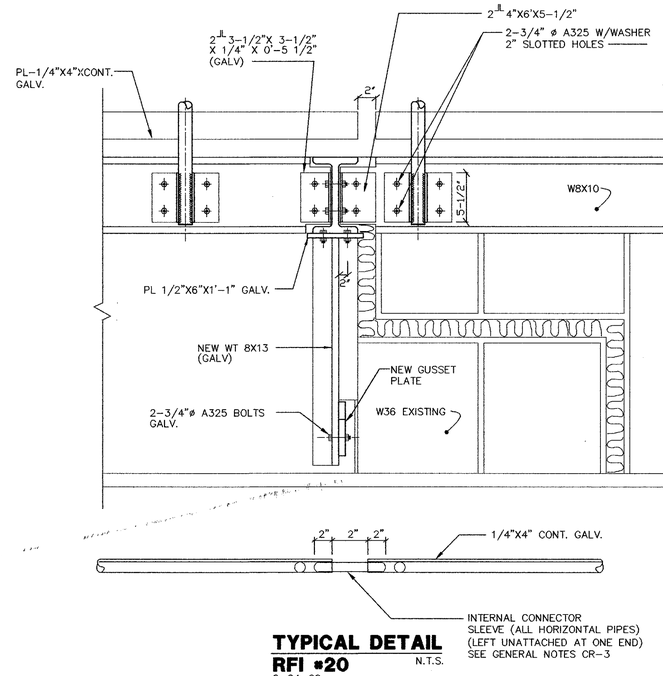


SECT. 13
SCALE: N.T.S.





SECTIONS
EXP. METAL FRAME
SCALE: N.T.S.



TYPICAL DETAIL
RFI #20 N.T.S.
6-24-99

AS BUILT

no.	date	revisions	by

C.A.P. ENGINEERING CONSULTANTS, Inc.
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(305) 461-8181 Fax (305) 461-8141

CONCOURSE 'E' STS PEOPLE MOVER BRIDGE REPAIRS
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TELEPHONE NUMBER (305) 869 4016
DADE COUNTY, FLORIDA
PROJECT MANAGER: BYRON DOWELL
MIAMI INTERNATIONAL AIRPORT

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7-26-97	GL	GA

file number
-

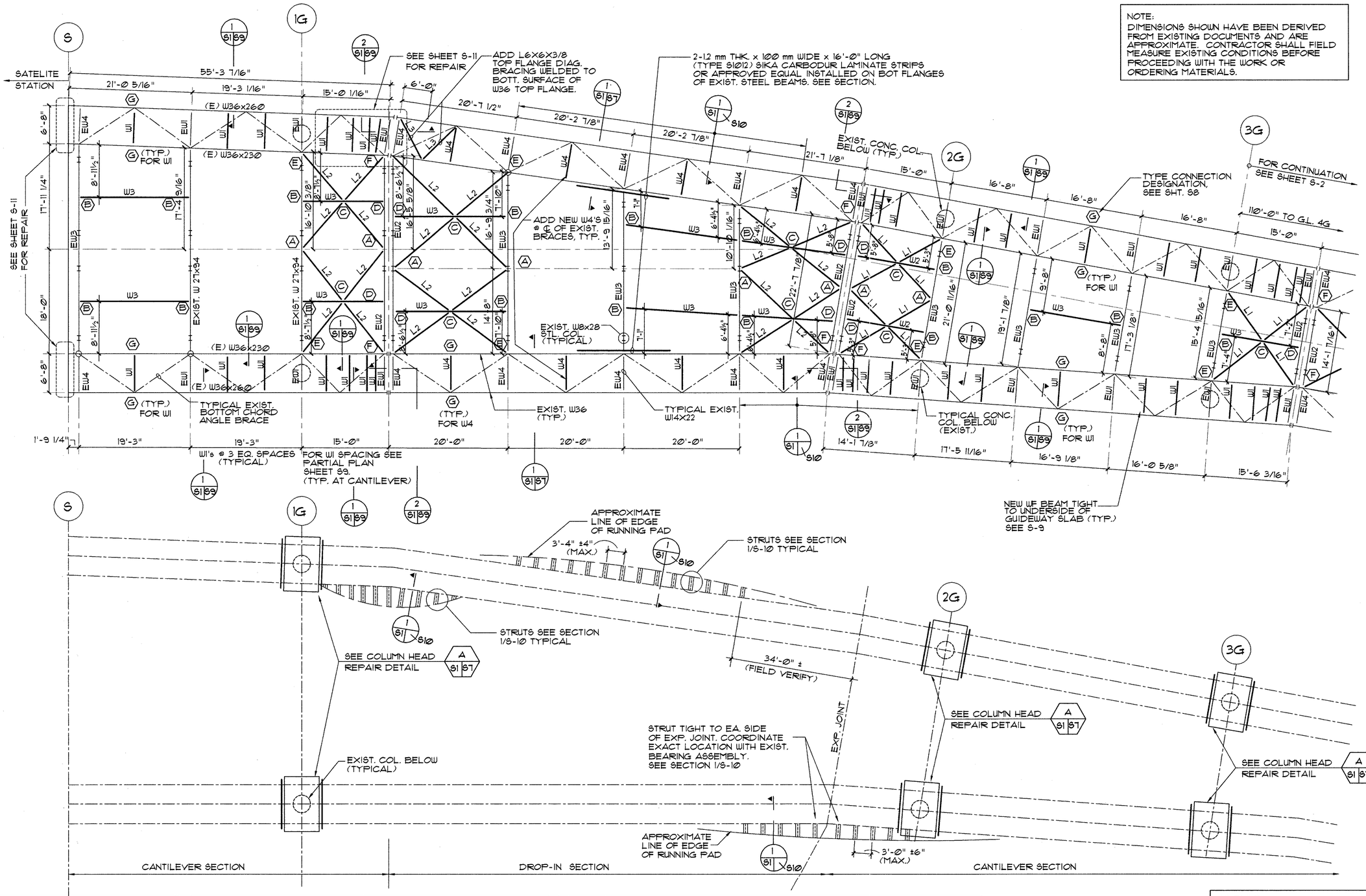
drawing **CR3 A**
of 20

A Corrales 2
ALBERTO J. CORRALES
Civil Engineer No 51895
State of Florida
engineer of record
for the firm
6-9-00
Date

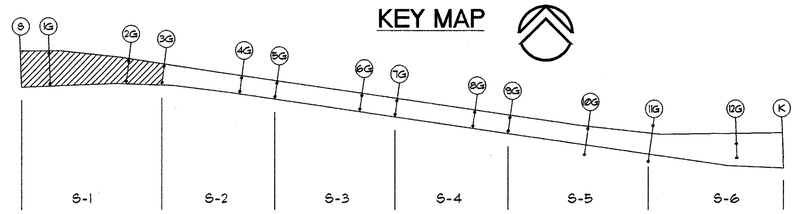
002160023

BX1-40

NOTE:
DIMENSIONS SHOWN HAVE BEEN DERIVED FROM EXISTING DOCUMENTS AND ARE APPROXIMATE. CONTRACTOR SHALL FIELD MEASURE EXISTING CONDITIONS BEFORE PROCEEDING WITH THE WORK OR ORDERING MATERIALS.



KEY MAP



CONNECTION LEGEND	
MARK	CONNECTION DETAIL
A, B, C, D, E, F, G	MARK A THRU G — S1 | S8

SHAPE LEGEND			
MARK	SHAPE (NEW BMS.)	MARK	SHAPE (EXISTING BMS.)
W1	W14x22 (*) (SEE SECT. 1/S9 & 2/S9)	EW1	EXISTING W14x22 (*) (SEE SECT. 1/S9 & 2/S9)
W2	W12x16	EW2	EXISTING W14x78
W3	W12x22	EW3	EXISTING W24x68
W4	W14x22	EW4	EXISTING W14x22
L1	L4x4x5/16		
L2	L5x5x5/16	(*) SEE ANCHOR PLATE DETAIL, SHEET S9	
L3	L6x6x3/8		

AS BUILT
THESE AS-BUILT DRAWINGS HAVE BEEN PREPARED, IN PART, ON THE BASIS OF INFORMATION PROVIDED BY OTHERS. THE ENGINEER WILL NOT BE RESPONSIBLE FOR ANY ERRORS OR OMISSIONS WHICH HAVE BEEN INCORPORATED INTO THIS DOCUMENT AS A RESULT THEREOF.

PLAN VIEW STRUCTURAL BRACING / COLUMN CAP REPAIRS GUIDEWAY LEVEL (S-3G)

1/8" = 1'-0"

002160028

no.	date	revisions	by

lawrence f. BRILL, inc.
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Luis M. Rodriguez, P.E. #62332

CONCOURSE "E" STS PEOPLE MOVER BRIDGE REPAIRS
DCAD PROJECT NUMBER A017B

PROJECT MANAGER: BYRON DOWELL
MIAMI INTERNATIONAL AIRPORT

TELEPHONE NUMBER (305) 869 4016
DADE COUNTY, FLORIDA

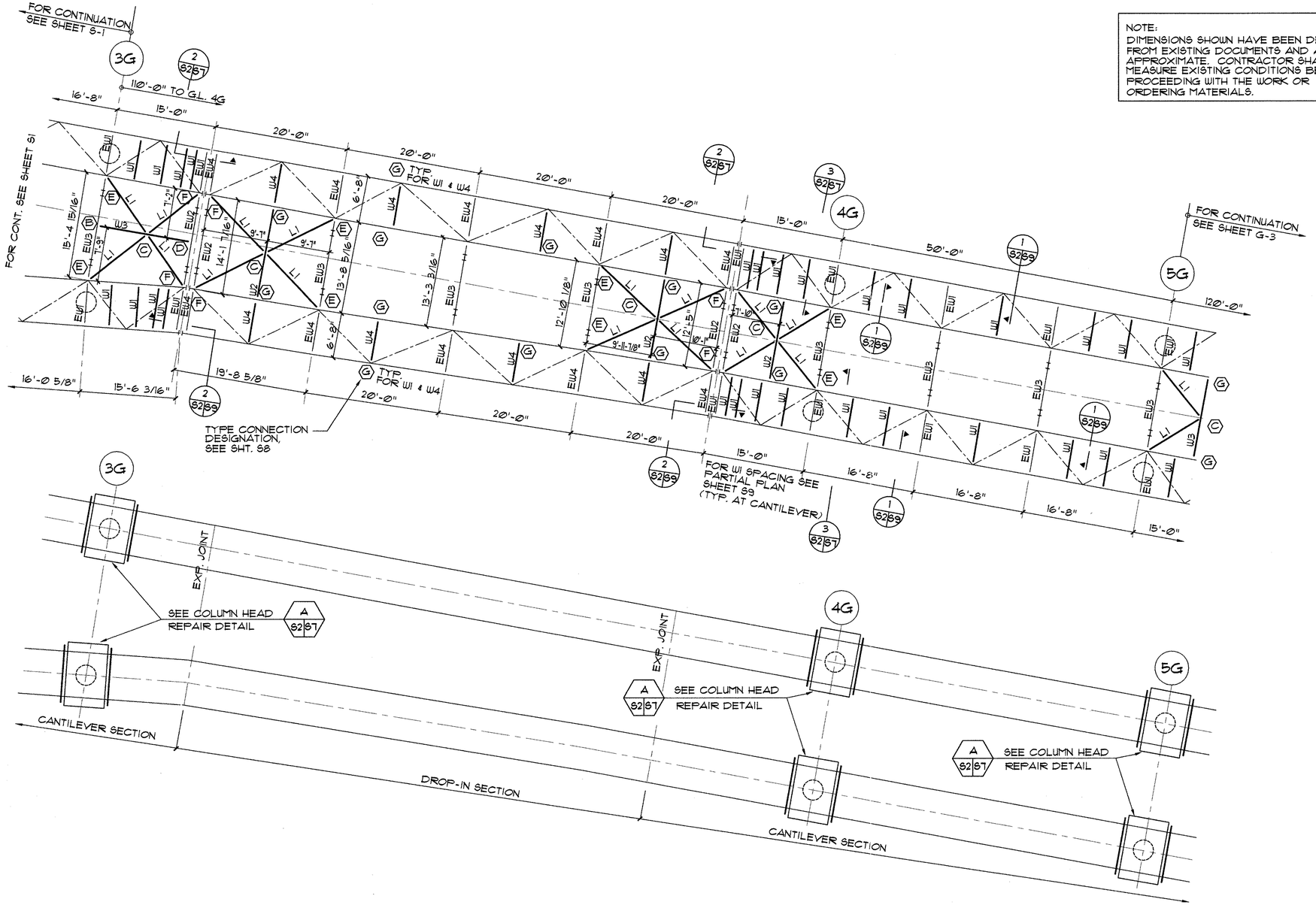
date	3-5-98		
drawn by	A.J.	checked by	A.S. / L.R.

file number 9538

drawing S1

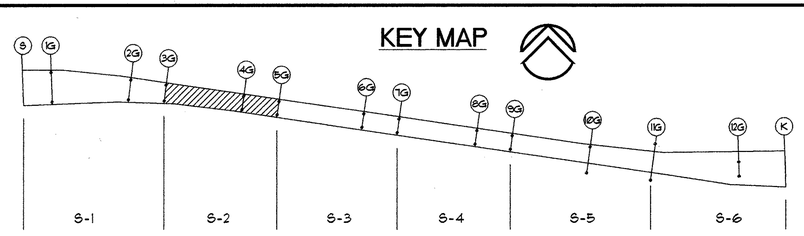
S:\GS\9538\NEWS1.DWG Mon Jun 05 10:56:47 2000

BX1-41



NOTE:
DIMENSIONS SHOWN HAVE BEEN DERIVED FROM EXISTING DOCUMENTS AND ARE APPROXIMATE. CONTRACTOR SHALL FIELD MEASURE EXISTING CONDITIONS BEFORE PROCEEDING WITH THE WORK OR ORDERING MATERIALS.

KEY MAP



CONNECTION LEGEND	
MARK	CONNECTION DETAIL
C D E F G	MARK S2|S8

SHAPE LEGEND			
MARK	SHAPE (NEW BMS.)	MARK	SHAPE (EXISTING BMS.)
W1	W14x22 (*) (SEE SECT. 1/S9 & 2/S9)	EW1	EXISTING W14x22 (*) (SEE SECT. 1/S9 & 2/S9)
W2	W12x16	EW2	EXISTING W14x78
W3	W12x22	EW3	EXISTING W24x68
W4	W14x22	EW4	EXISTING W14x22
L1	L4x4x5/16		(*) SEE ANCHOR PLATE DETAIL, SHEET S9

AS BUILT
THESE AS-BUILT DRAWINGS HAVE BEEN PREPARED, IN PART, ON THE BASIS OF INFORMATION PROVIDED BY OTHERS. THE ENGINEER WILL NOT BE RESPONSIBLE FOR ANY ERRORS OR OMISSIONS WHICH HAVE BEEN INCORPORATED INTO THIS DOCUMENT AS A RESULT THEREOF.

002160029

STRUCTURAL BRACING / COLUMN CAP REPAIRS GUIDEWAY LEVEL (3G-5G)

1/8" = 1'-0"

no.	date	revisions	by

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(305) 445-3334
Luis N. Rodriguez, P.E. #62132

CONCOURSE "E" STS PEOPLE MOVER BRIDGE REPAIRS
DCAD PROJECT NUMBER A017B

PROJECT MANAGER: BYRON DOWELL
MIAMI INTERNATIONAL AIRPORT

TELEPHONE NUMBER (305) 869 4016
DADE COUNTY, FLORIDA

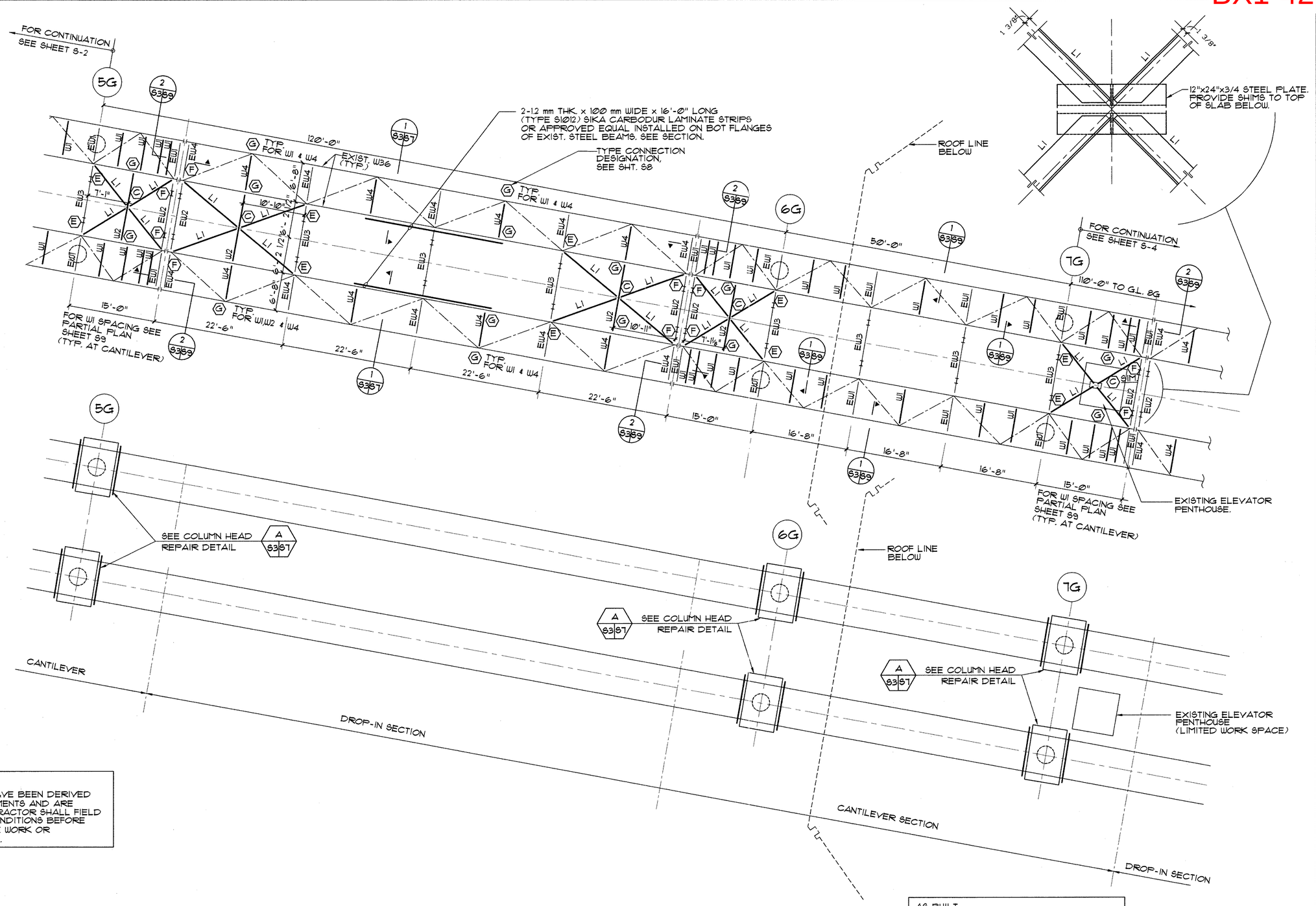
date	3-5-98
drawn by	A.J.
checked by	AS/LR.

file number 9538

drawing S2

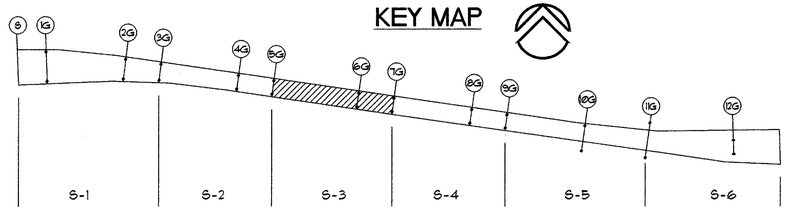
S:\GS\95SBRIDGE\S2.DWG Mon Jun 05 11:00:03 2000

BX1-42



NOTE:
DIMENSIONS SHOWN HAVE BEEN DERIVED FROM EXISTING DOCUMENTS AND ARE APPROXIMATE. CONTRACTOR SHALL FIELD MEASURE EXISTING CONDITIONS BEFORE PROCEEDING WITH THE WORK OR ORDERING MATERIALS.

KEY MAP



CONNECTION LEGEND	
MARK	CONNECTION DETAIL
C, E, F, G	MARK / S3|S8

SHAPE LEGEND			
MARK	SHAPE (NEW BMS.)	MARK	SHAPE (EXISTING BMS.)
W1	W14x22 (*) (SEE SECT. 1/S9 & 2/S9)	EW1	EXISTING W14x22 (*) (SEE SECT. 1/S9 & 2/S9)
W2	W12x16	EW2	EXISTING W14x78
W3	W12x22	EW3	EXISTING W24x68
W4	W14x22	EW4	EXISTING W14x22
L1	L4x4x5/16		
			(*) SEE ANCHOR PLATE DETAIL, SHEET. S9

AS BUILT
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STRUCTURAL BRACING / COLUMN CAP REPAIRS GUIDEWAY LEVEL (5G-7G)

1/8" = 1'-0"

002160030

no.	date	revisions	by

lawrence f. BRILL inc.
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Luis M. Rodriguez, P.E. #62132

CONCOURSE "E" STS PEOPLE MOVER BRIDGE REPAIRS
DCAD PROJECT NUMBER A017B

TELEPHONE NUMBER (305) 869 4016
DADE COUNTY, FLORIDA

PROJECT MANAGER: BYRON DOWELL
MIAMI INTERNATIONAL AIRPORT

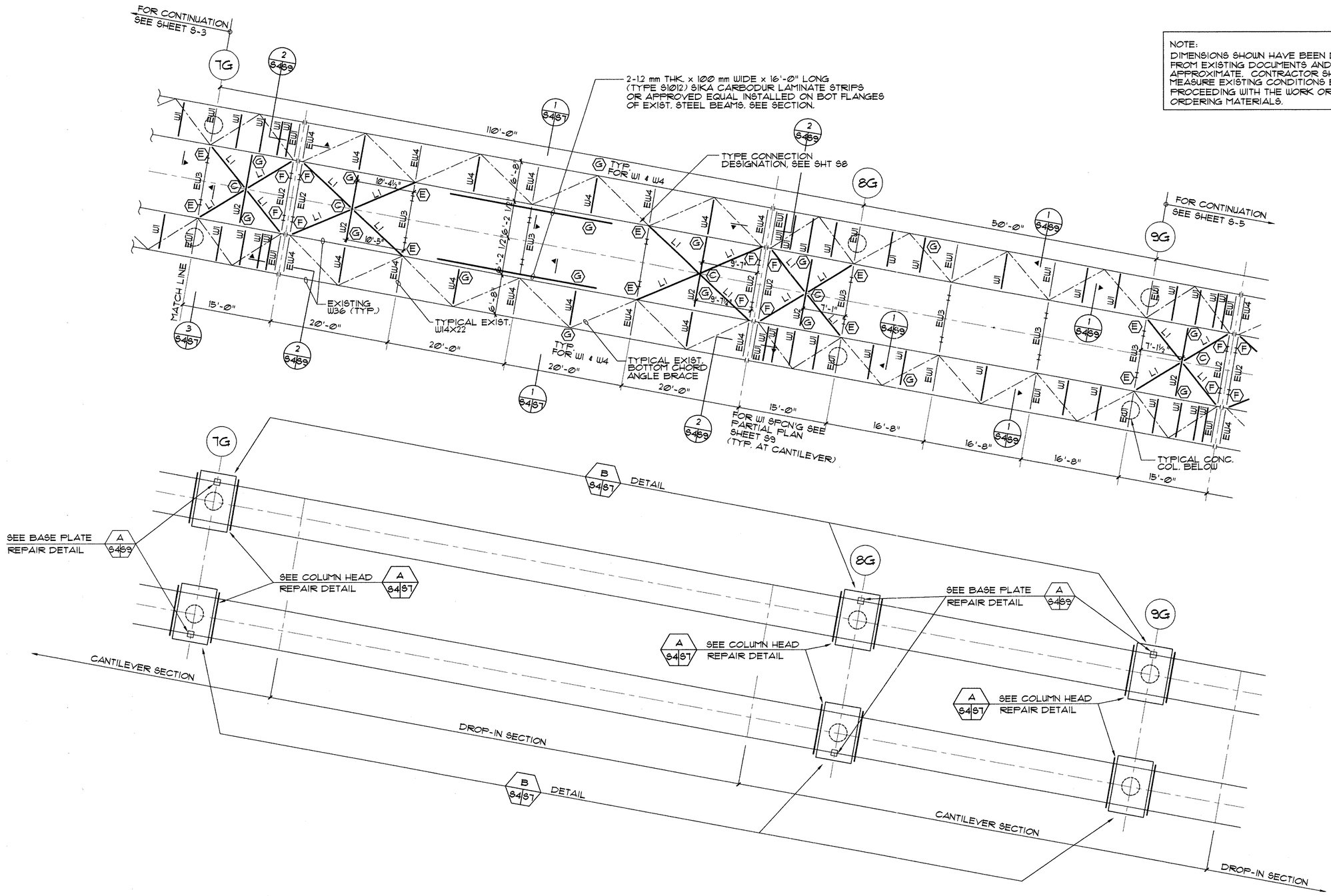
date	drawn by	checked by
3-5-98	A.J.	A.S. / L.R.

file number
9538

drawing
S3

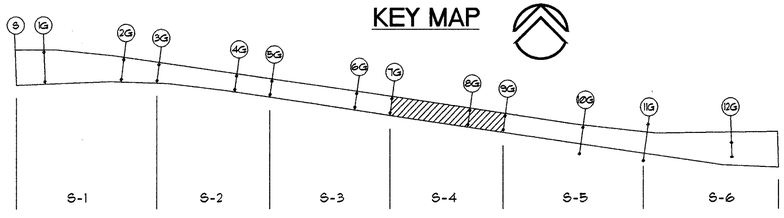
S:\DGN\9538NEW\S3.DWG Mon Jun 05 11:03:41 2000

BX1-43



NOTE:
DIMENSIONS SHOWN HAVE BEEN DERIVED FROM EXISTING DOCUMENTS AND ARE APPROXIMATE. CONTRACTOR SHALL FIELD MEASURE EXISTING CONDITIONS BEFORE PROCEEDING WITH THE WORK OR ORDERING MATERIALS.

KEY MAP



CONNECTION LEGEND	
MARK	CONNECTION DETAIL
C, E, F, G	MARK S4/S8

SHAPE LEGEND			
MARK	SHAPE (NEW BMS.)	MARK	SHAPE (EXISTING BMS.)
W1	W14x22 (*) (SEE SECT. 1/S9 & 2/S9)	EW1	EXISTING W14x22 (*) (SEE SECT. 1/S9 & 2/S9)
W2	W12x16	EW2	EXISTING W14x78
W3	W12x22	EW3	EXISTING W24x68
W4	W14x22	EW4	EXISTING W14x22
L1	L4x4x5/16		(*) SEE ANCHOR PLATE DETAIL, SHEET. S9

AS BUILT
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STRUCTURAL BRACING / COLUMN CAP REPAIRS GUIDEWAY LEVEL (7G-9G)

1/8" = 1'-0"

002160031

CONCOURSE "E" STS PEOPLE MOVER BRIDGE REPAIRS
DCAD PROJECT NUMBER A017B

PROJECT MANAGER: BYRON DOWELL
MIAMI INTERNATIONAL AIRPORT

TELEPHONE NUMBER (305) 869 4016
DADE COUNTY, FLORIDA

Lawrence F. Rodriguez, P.E. #62132
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coral gables, florida 33134
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no.	date	revisions	by

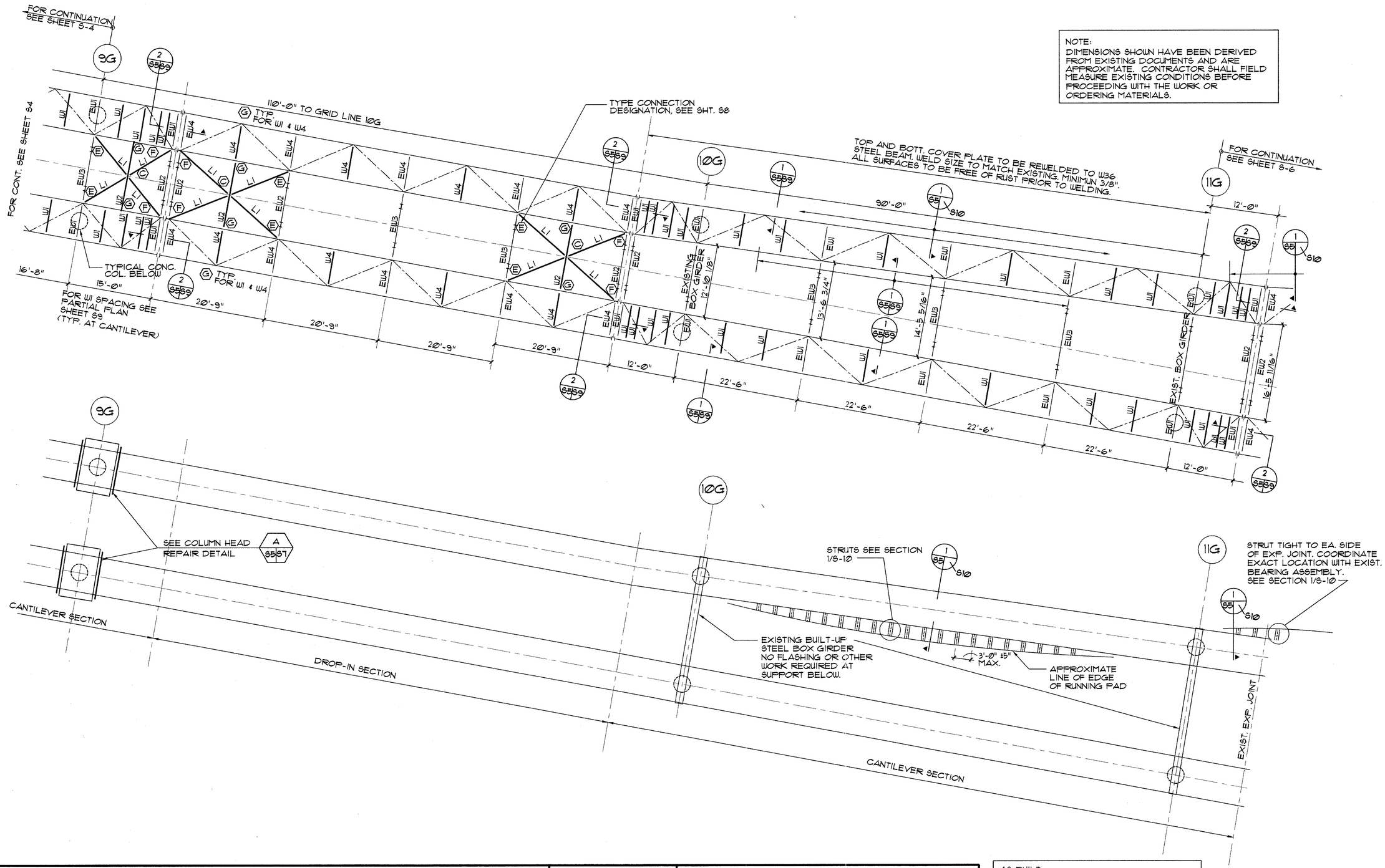
date	3-5-98	
drawn by	A.J.	
checked by	A.S. / L.R.	

file number 9538

drawing S4

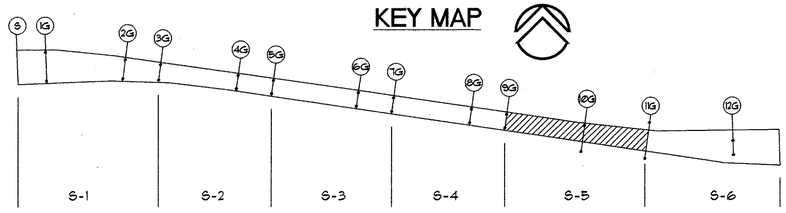
S:\DGS\9538REVS4.DWG Mon Jun 05 11:06:21 2000

BX1-44



NOTE:
DIMENSIONS SHOWN HAVE BEEN DERIVED FROM EXISTING DOCUMENTS AND ARE APPROXIMATE. CONTRACTOR SHALL FIELD MEASURE EXISTING CONDITIONS BEFORE PROCEEDING WITH THE WORK OR ORDERING MATERIALS.

KEY MAP



CONNECTION LEGEND	
MARK	CONNECTION DETAIL
C, E, F, G	MARK → S5|S8

SHAPE LEGEND			
MARK	SHAPE (NEW BMS.)	MARK	SHAPE (EXISTING BMS.)
W1	W14x22 (*) (SEE SECT. 1/S9 & 2/S9)	EW1	EXISTING W14x22 (*) (SEE SECT. 1/S9 & 2/S9)
W2	W12x16	EW2	EXISTING W14x78
W3	W12x22	EW3	EXISTING W24x68
W4	W14x22	EW4	EXISTING W14x22
L1	L4x4x5/16		(*) SEE ANCHOR PLATE DETAIL, SHEET S9

AS BUILT
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STRUCTURAL BRACING / COLUMN CAP REPAIRS GUIDEWAY LEVEL (9G-11G)

1/8" = 1'-0"

002160032

no.	date	revisions	by

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Luis M. Rodriguez, P.E. #62132

CONCOURSE "E" STS PEOPLE MOVER BRIDGE REPAIRS
DCAD PROJECT NUMBER A017B

TELEPHONE NUMBER (305) 869 4016
DADE COUNTY, FLORIDA

PROJECT MANAGER: BYRON DOWELL
MIAMI INTERNATIONAL AIRPORT

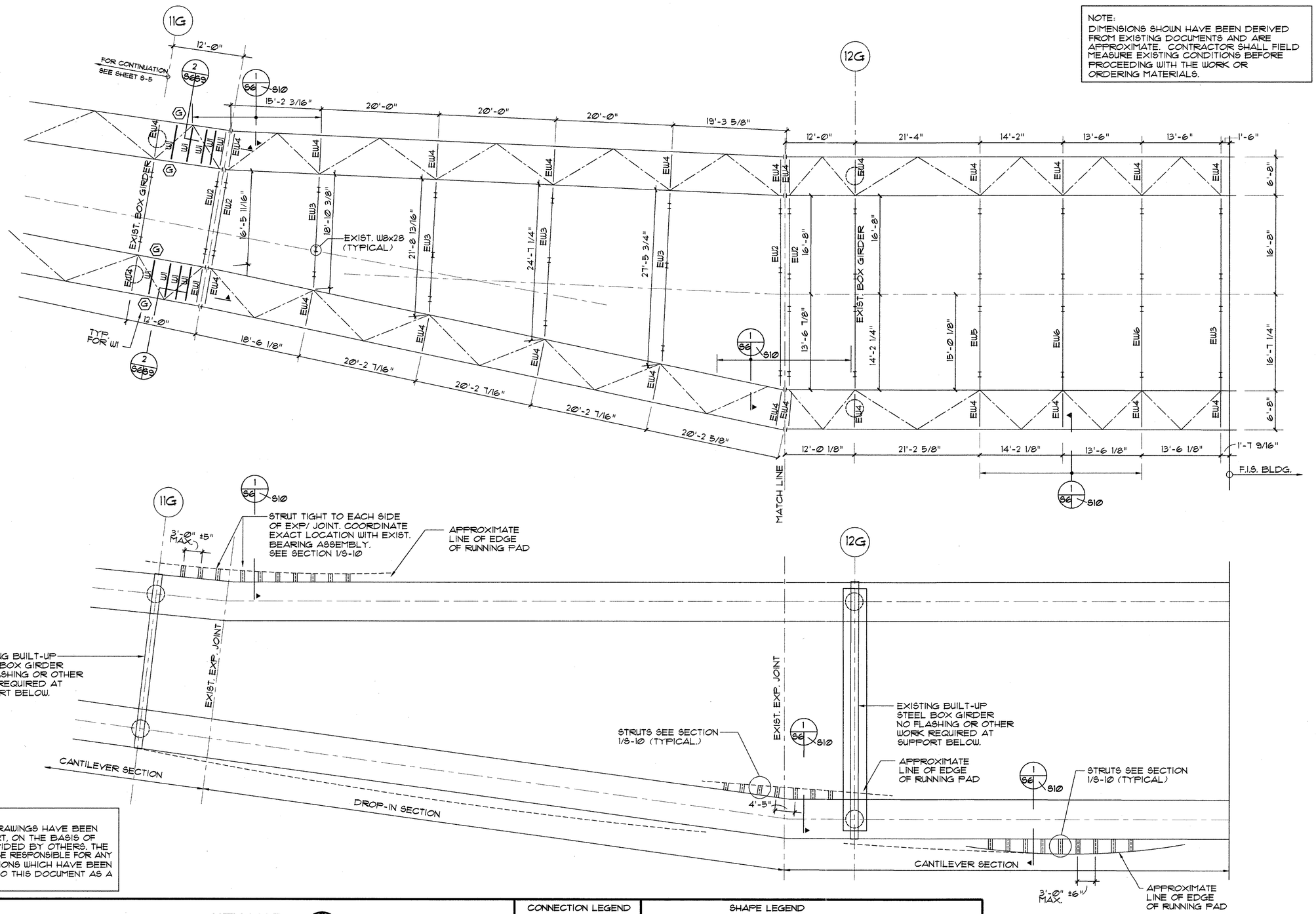
date	3-5-98
drawn by	A.J.
checked by	A.S. / L.R.

file number 9538

drawing S5

S:\GS\9538NEW\S5.DWG Mon Jun 05 11:11:07 2000

NOTE:
DIMENSIONS SHOWN HAVE BEEN DERIVED FROM EXISTING DOCUMENTS AND ARE APPROXIMATE. CONTRACTOR SHALL FIELD MEASURE EXISTING CONDITIONS BEFORE PROCEEDING WITH THE WORK OR ORDERING MATERIALS.



AS BUILT
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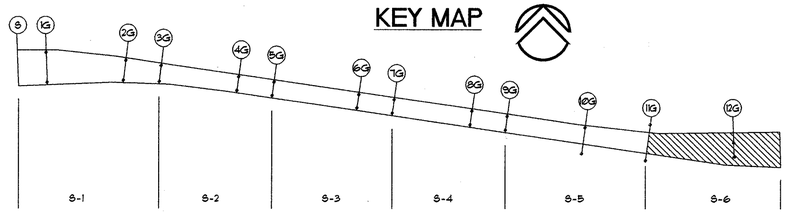
KEY MAP



CONNECTION LEGEND	
MARK	CONNECTION DETAIL
G	MARK S6/S8

SHAPE LEGEND			
MARK	SHAPE (NEW BMS.)	MARK	SHAPE (EXISTING BMS.)
W1	W14x22 (*) (SEE SECT. 1/S9 & 2/S9)	EW1	EXISTING W14x22 (*) (SEE SECT. 1/S9 & 2/S9)
W2	W12x16	EW2	EXISTING W14x78
W3	W12x22	EW3	EXISTING W24x68
W4	W14x22	EW4	EXISTING W14x22
		EW5	EXISTING W27x94
		EW6	EXISTING W24x94
L1	L4x4x5/16		(*) SEE ANCHOR PLATE DETAIL, SHEET. S9
L2	L5x5x5/16		

STRUCTURAL BRACING / COLUMN CAP REPAIRS GUIDEWAY LEVEL (11G-K)

1/8" = 1'-0"

002160033

no.	date	revisions	by

lawrence f. BRILL inc.
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2301 ponce de leon boulevard
coral gables, florida 33134
phone (305) 446-3391
Luis M. Rodriguez, P.E. #62382

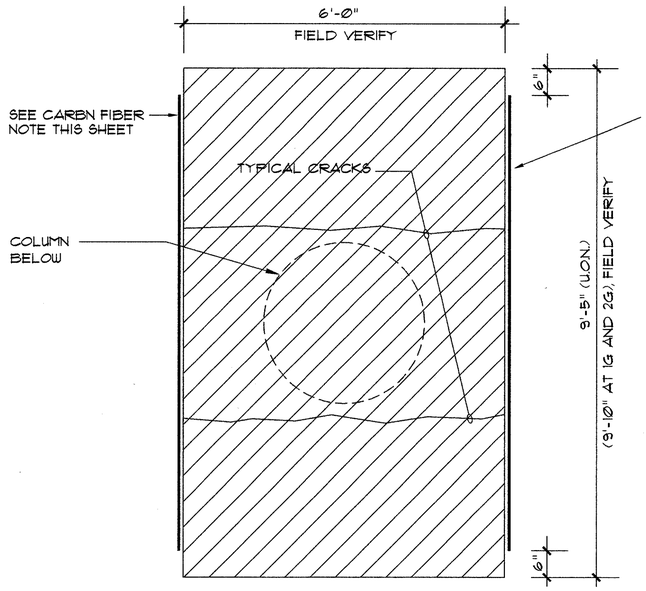
CONCOURSE "E" STS PEOPLE MOVER BRIDGE REPAIRS
DCAD PROJECT NUMBER A017B
TELEPHONE NUMBER (305) 869 4016
DADE COUNTY, FLORIDA
PROJECT MANAGER: BYRON DOWELL
MIAMI INTERNATIONAL AIRPORT

date	drawn by	checked by
3-5-98	A.J.	AS./L.R.

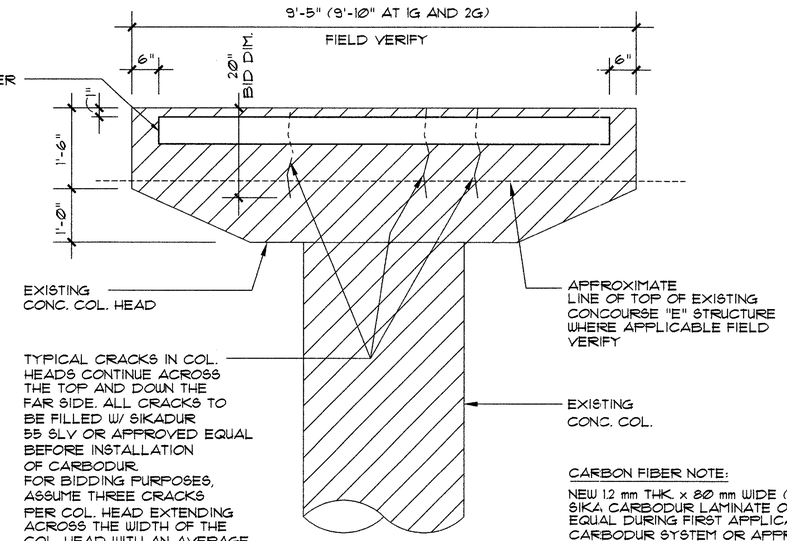
file number 9538

drawing S6

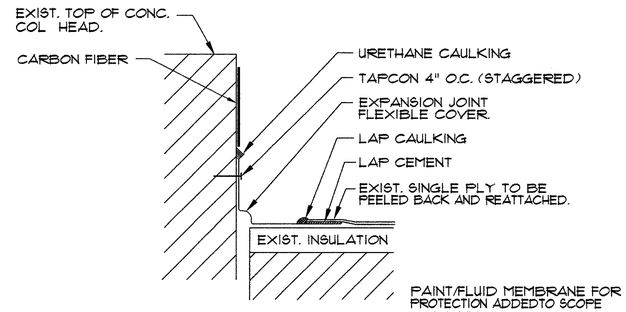
S:\GS\9538\EWS6.DWG Mon Jun 05 11:12:38 2000



PLAN



ELEVATION



APPROVED ROOFING DETAIL

N.T.S.

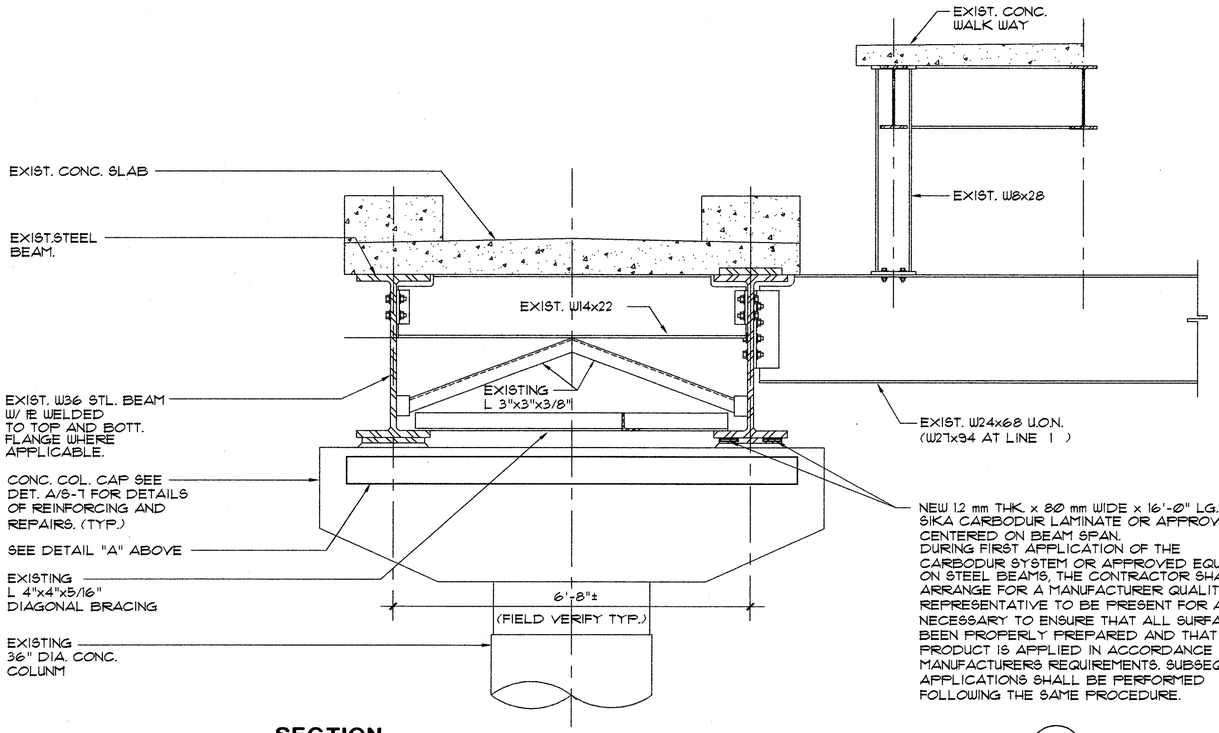
COLUMN HEAD REPAIR DETAIL (TYPICAL OF 26)

3/4" = 1'-0"

S1 THRU S5 — A / S7

CARBON FIBER NOTE:

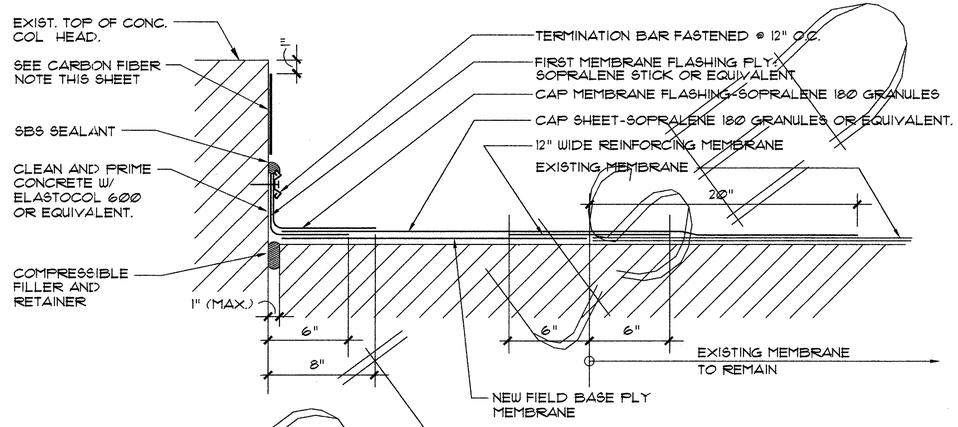
NEW 1.2 mm THK. x 80 mm WIDE (TYPE S812) SIKA CARBODUR LAMINATE OR APPROVED EQUAL DURING FIRST APPLICATION OF THE CARBODUR SYSTEM OR APPROVED EQUAL ON CONCRETE, THE CONTRACTOR SHALL ARRANGE FOR A MANUFACTURER QUALITY CONTROL REPRESENTATIVE TO BE PRESENT FOR AS LONG AS NECESSARY TO ENSURE THAT ALL SURFACES HAVE BEEN PROPERLY PREPARED AND THAT THE PRODUCT IS APPLIED IN ACCORDANCE WITH MANUFACTURERS REQUIREMENTS. SUBSEQUENT APPLICATIONS SHALL BE PERFORMED FOLLOWING THE SAME PROCEDURE.



SECTION

3/4" = 1'-0"

S1,S2,S4 — 1 / S7



NOTE:

FLASHING DETAIL IS LIMITED TO COLUMN HEADS PENETRATING CONCOURSE ROOF AT COLUMN LINES 1G, 2G AND 3G.

NOTE: ALL PRODUCTS SHOWN OR APPROVED EQUAL INSTALLED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.

TYPICAL COL. HEAD FLASHING DETAIL — B / S4 AT

N.T.S.

AS BUILT

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STRUCTURAL DETAILS

002160034

no.	date	revisions	by

Lawrence F. BRILL Inc.
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2300 Ponce de Leon Boulevard
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phone (305) 448-2338
Luis M. Rodriguez, P.E. #32334

CONCOURSE "E" STS PEOPLE MOVER BRIDGE REPAIRS
DCAD PROJECT NUMBER A017B

PROJECT MANAGER: BYRON DOWELL
MIAMI INTERNATIONAL AIRPORT

TELEPHONE NUMBER (305) 869 4016
DADE COUNTY, FLORIDA

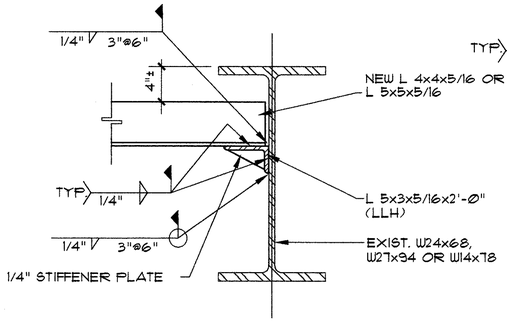
date	drawn by	checked by
3-5-98	A.J.	AS / LR.

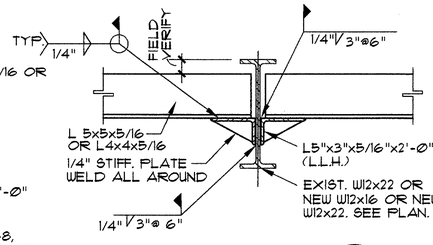
file number **9538**

drawing **S7**

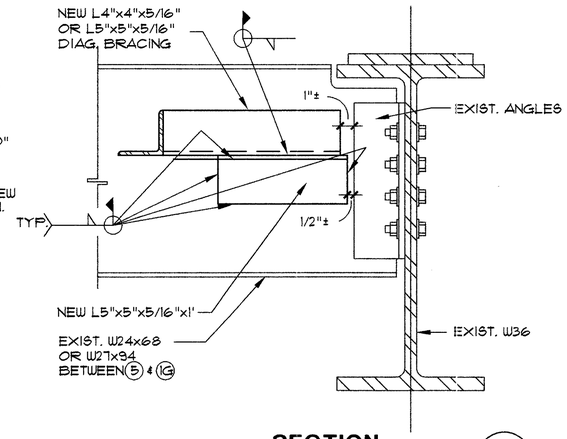
S:\QS\9538NEW\S7.DWG Mon Jun 05 11:16:09 2000

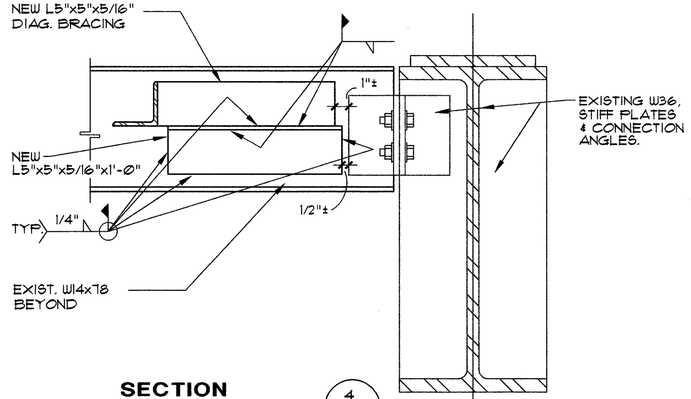
BX1-47





SECTION 2 S8|S8
1 1/2" = 1'-Ø"

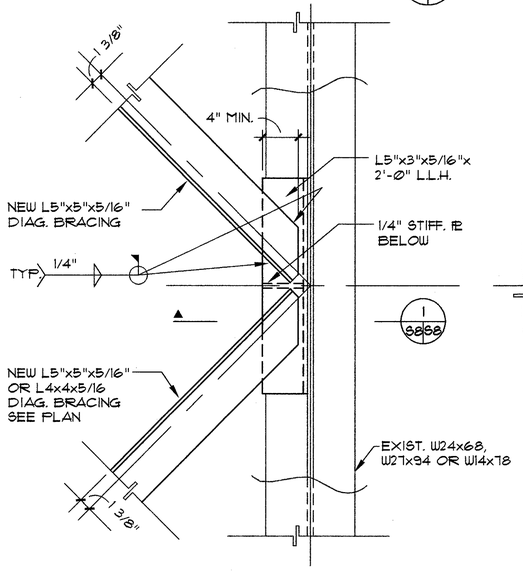




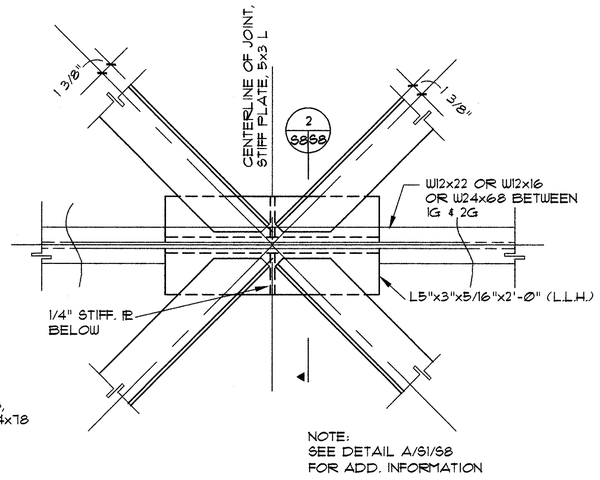
SECTION 3 S8|S8
1 1/2" = 1'-Ø"

SECTION 4 S8|S8
1 1/2" = 1'-Ø"

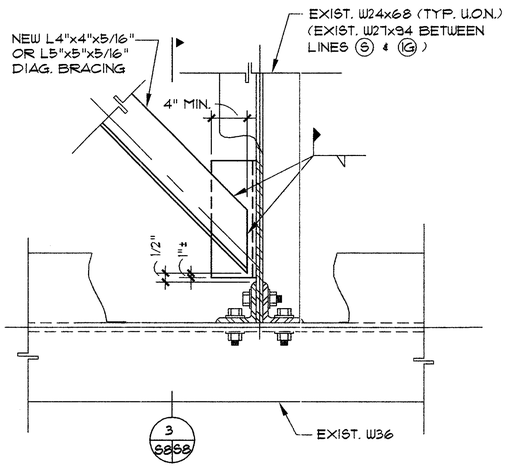
SECTION 1 S8|S8
1 1/2" = 1'-Ø"



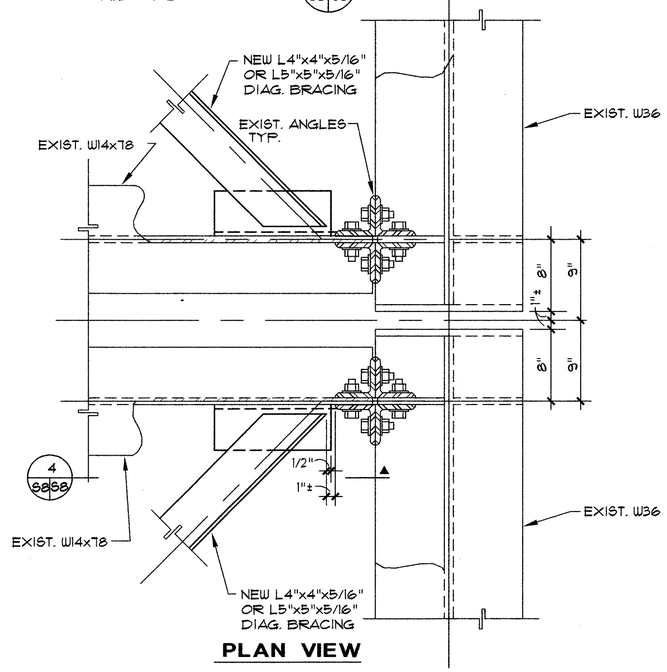
PLAN VIEW



PLAN VIEW



PLAN VIEW



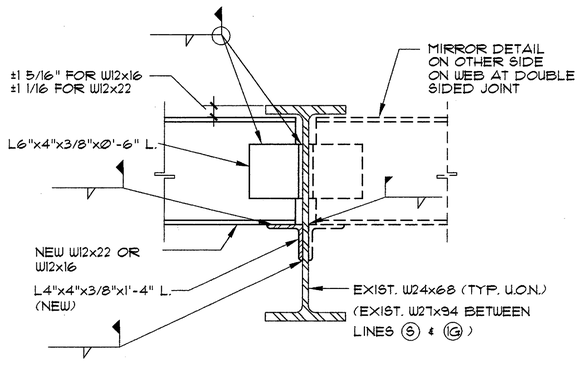
PLAN VIEW

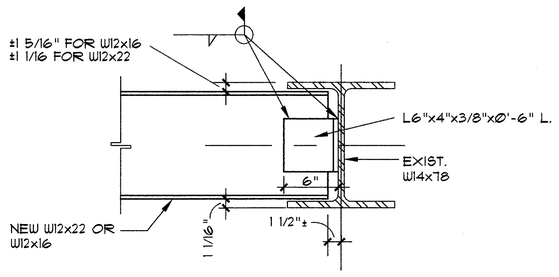
CONNECTION DETAIL A S8
1 1/2" = 1'-Ø" (A) ON PLAN VIEW
S1, S6

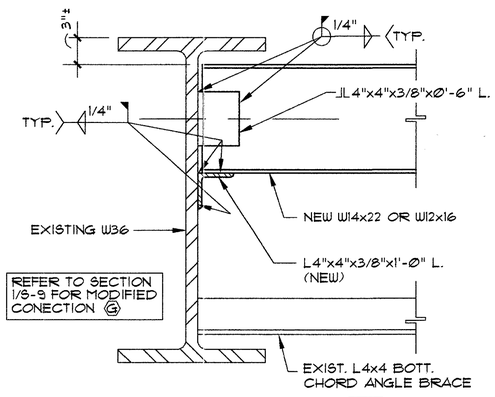
CONNECTION DETAIL C S8
1 1/2" = 1'-Ø" (C) ON PLAN VIEW
S1 THRU S6

CONNECTION DETAIL E S8
1 1/2" = 1'-Ø" (E) ON PLAN VIEW
S1 THRU S6

CONNECTION DETAIL F S8
1 1/2" = 1'-Ø" (F) ON PLAN VIEW
S1 THRU S6







CONNECTION DETAIL B S8
1 1/2" = 1'-Ø" (B) ON PLAN VIEW
S1, S6

CONNECTION DETAIL D S8
1 1/2" = 1'-Ø" (D) ON PLAN VIEW
S1 THRU S6

CONNECT. DETAIL G S8
1 1/2" = 1'-Ø" (G) ON PLAN VIEW
S1 THRU S6

NOTE:
FIELD BURNING OR DRILLING OF EXISTING MEMBERS FOR ERECTION BOLTS FOR CONSTRUCTION IS NOT ALLOWED

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002160035

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no.	date	revisions	by

CONCOURSE "E" STS PEOPLE MOVER BRIDGE REPAIRS
DCAD PROJECT NUMBER A017B

PROJECT MANAGER: BYRON DOWELL
MIAMI INTERNATIONAL AIRPORT

TELEPHONE NUMBER (305) 869 4016
DADE COUNTY, FLORIDA

date	drawn by	checked by
3-5-98	A.J.	A.S. / L.R.

file number 9538

drawing S8

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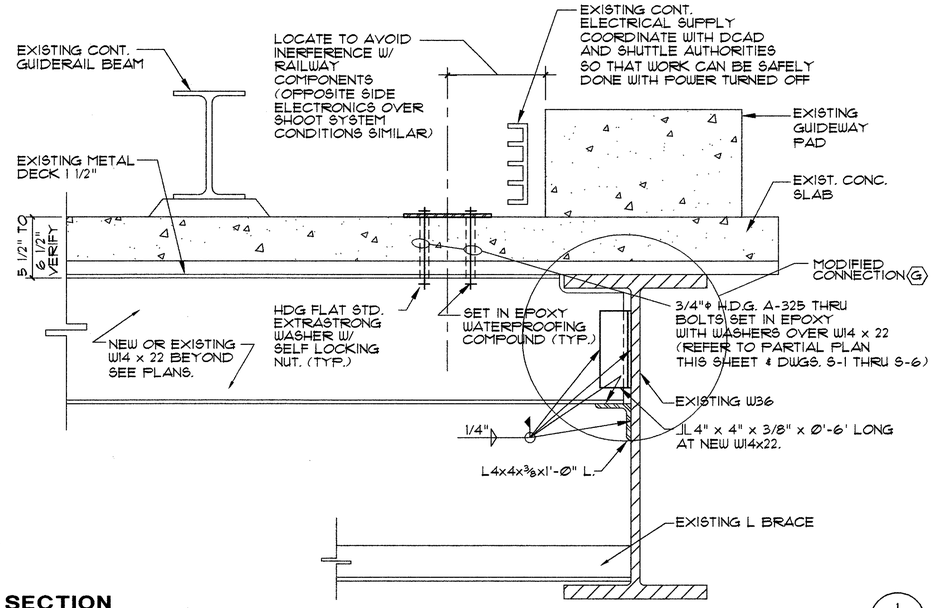

SECTION

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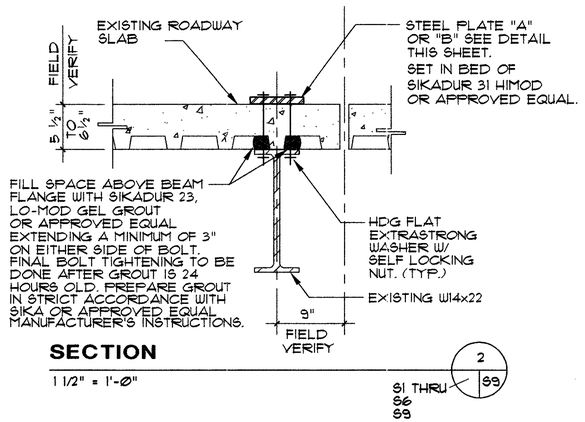
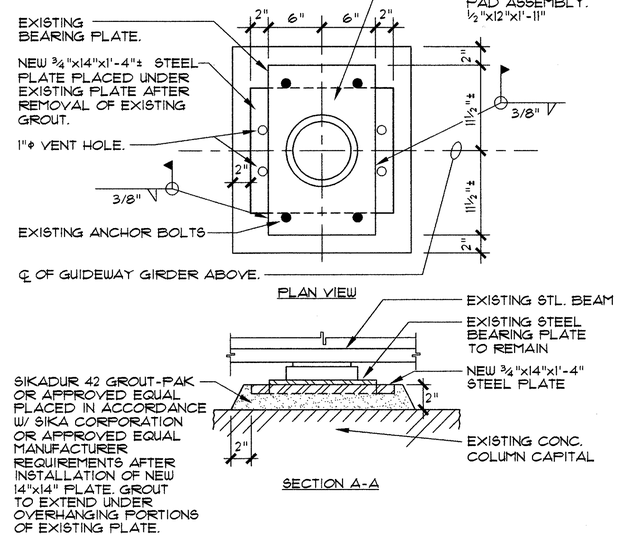
1 S9 — S1 THRU S5 S9



SECTION

1 1/2" = 1'-0"

2 S9 — S1 THRU S6 S9



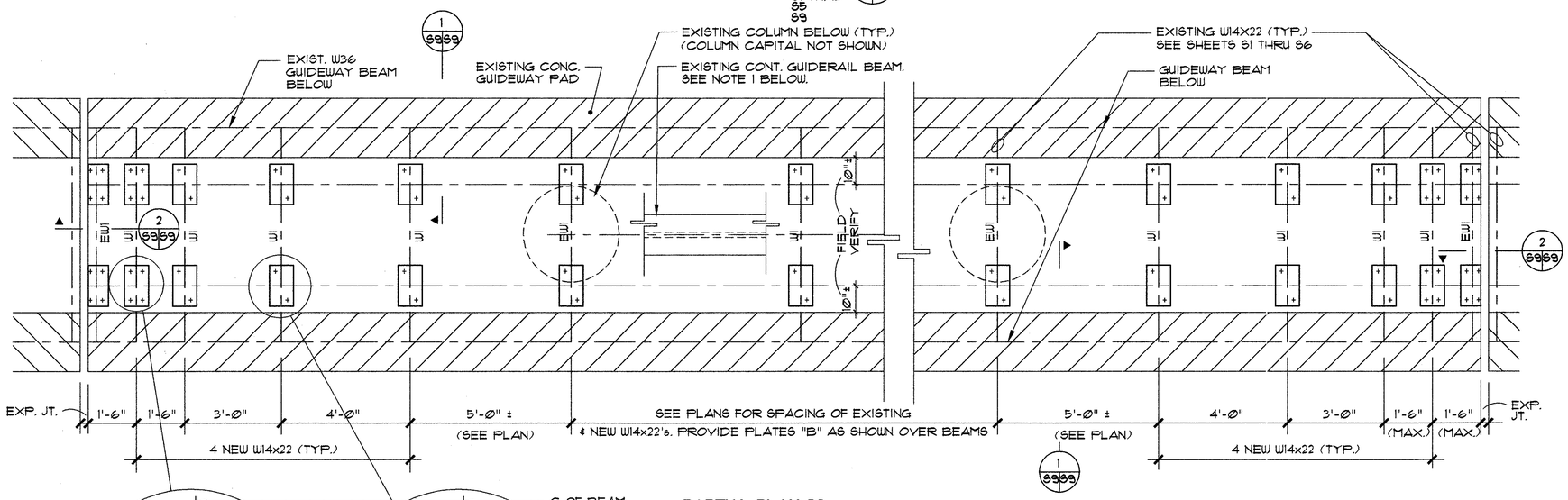
BASE PLATE REPAIR DETAIL

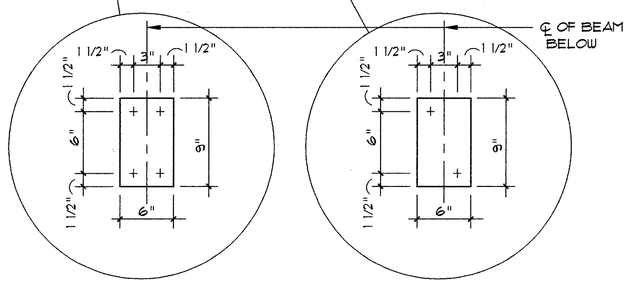
A S4 S9

N.T.S. (TYP. OF 5, FIELD VERIFY)

BASE PLATE REPAIR SEQUENCE:

1. REMOVE ALL RUST FROM EXISTING PLATES AND BOLTS FOR ALL BEARING ASSEMBLIES AT ALL LOCATIONS. SCHEDULE INSPECTION TO DETERMINE EXTENT OF DAMAGE.
2. FOLLOWING INSPECTION, AT LOCATIONS WHERE COMPLETE BASE PLATE REPAIR IS REQUIRED, SUPPORT GIRDER ON BOTH SIDES OF EXISTING BEARING PLATE.
3. REMOVE EXISTING GROUT COMPLETELY.
4. INSTALL NEW ADDITIONAL ¾" PLATE
5. PLACE SIKADUR 42 GROUT-PAK OR APPROVED EQUAL.
6. SHUTTLE MUST BE OUT OF SERVICE DURING THIS PERIOD UNTIL GROUT HAS REACHED DESIGN STRENGTH. COORDINATE THIS SHUTTLE DOWN TIME WITH OWNER.
7. UPON COMPLETION OF WORK FIELD PRIME ALL EXPOSED STRUCTURAL STEEL COMPONETS AT ALL LOCATIONS.





PARTIAL PLAN S9
DISTRIBUTION OF STEEL ANCHOR PLATES OVER W14X22 (W1 + EW1) BEAMS TYPICAL OF EACH CANTILEVER SECTION

N.T.S. (SEE PLANS FOR ADDITIONAL INFORMATION)

NOTES:

1. GUIDEWAY CENTER, GUIDERAIL AND ELECTRICAL SYSTEMS, ETC., NOT SHOWN FOR CLARITY. CONTRACTOR SHALL TAKE SPECIAL ATTENTION TO RETAIN THE INTEGRITY OF THE EXISTING OVERSHOOT FLAT SYSTEM AND ALL OTHER OPERATING SYSTEMS OF THE GUIDEWAY. ANY DAMAGE WILL BE REPAIRED AT THE EXPENSE OF THE CONTRACTOR.
2. HDG = HOT DIPPED GALVANIZED
3. W1 DENOTES NEW STL. BM. W14x22
4. EW1 DENOTES EXIST. STL. BM. W14x22
5. ALL DIMENSIONS FIELD VERIFY PRIOR TO FABRICATION.
6. ALL NUTS USED TO TIGHTEN PLATES "A" AND "B" WITHIN A GIVEN TYPICAL PARTIAL PLAN AS SHOWN ABOVE MUST REMAIN OFF THEIR BOLTS UNTIL SUCH TIME AS THEY ALL CAN BE TIGHTENED FULLY DURING A PERIOD OF SHUTTLE INACTIVITY.

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DCAD PROJECT NUMBER A017B
PROJECT MANAGER: BYRON DOWELL
MIAMI INTERNATIONAL AIRPORT
TELEPHONE NUMBER (305) 869 4016
DADE COUNTY, FLORIDA

date	3-8-99	
drawn by	A.J.	
checked by	A.B. / L.B.	

file number 9538

drawing S9

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GENERAL STRUCTURAL NOTES

GENERAL:

1. THE DRAWINGS ARE INTENDED TO SHOW THE GENERAL ARRANGEMENT, DESIGN AND EXTENT OF THE WORK AND ARE PARTLY DIAGRAMMATIC. THEY ARE NOT INTENDED TO BE SCALED FOR ROUGHING-IN MEASUREMENTS, OR TO SERVE AS SHOP DRAWINGS OR PORTIONS THEREOF.
2. ALL DETAILS AND SECTIONS SHOWN ON THE DRAWINGS ARE INTENDED TO BE TYPICAL AND SHALL BE CONSTRUED TO APPLY TO ANY SIMILAR SITUATION ELSEWHERE ON THE PROJECT, EXCEPT WHERE A DIFFERENT DETAIL IS SHOWN.
3. THE CONTRACTOR AND ALL SUBCONTRACTORS SHALL VERIFY ALL GRADES, LINES, LEVELS, CONDITIONS AND DIMENSIONS AT THE JOB SITE AND AS SHOWN ON THE DRAWINGS. THEY SHALL REPORT ANY ERRORS OR INCONSISTENCIES IN THE ABOVE TO THE ARCHITECT/ENGINEER (A/E) BEFORE COMMENCING WORK. THE CONTRACTOR AND SUBCONTRACTORS SHALL LAY OUT THEIR WORK FROM ESTABLISHED REFERENCE POINTS AND BE RESPONSIBLE FOR ALL LINES, ELEVATIONS AND MEASUREMENTS IN CONNECTION WITH THEIR WORK.
4. PROTECTION:
   - A. THE CONTRACTOR IS RESPONSIBLE AND SHALL COMPLY WITH THE REQUIREMENTS OF THE SOUTH FLORIDA BUILDING CODE AND ALL LOCAL, STATE AND FEDERAL LAWS. THE ENGINEER AND HIS EMPLOYEES ARE NOT RESPONSIBLE FOR SAFETY PROCEDURES ON THIS PROJECT. THIS IS THE CONTRACTOR'S RESPONSIBILITY.
   - B. PROVIDE ALL SHORING, BRACING AND SHEETING AS REQUIRED FOR THE PROPER EXECUTION OF THE WORK. REMOVE FROM SITE WHEN THE WORK IS COMPLETED.
   - C. PROVIDE AND MAINTAIN GUARD LIGHTS AT ALL BARRICADES, RAILINGS, OBSTRUCTIONS IN THE STREETS, ROADS OR SIDEWALKS AND ALL TRENCHES OR PITS ADJACENT TO PUBLIC WALKS OR ROADS.
   - D. AT ALL TIMES PROVIDE PROTECTION AGAINST WEATHER (RAIN, WIND, STORMS OR HEAT) SO AS TO MAINTAIN ALL WORK, MATERIALS, APPARATUS AND FIXTURES FREE FROM DAMAGE.
   - E. THE CONTRACTOR SHALL PAY FOR ALL DAMAGES TO ADJACENT STRUCTURES, ROOFS, SIDEWALKS AND TO STREETS OR OTHER PUBLIC PROPERTY OR TO ANY PUBLIC UTILITIES.
   - F. AT THE END OF THE DAYS WORK, COVER ALL WORK LIKELY TO BE DAMAGED. ANY WORK DAMAGED BY FAILURE TO PROVIDE PROTECTION SHALL BE REMOVED AND REPLACED WITH NEW WORK AT THE CONTRACTOR'S EXPENSE.
5. CONTRACTOR AGREES THAT HE WILL HOLD OWNER, ENGINEERS AND/OR ANY OF THEIR EMPLOYEES OR AGENTS HARMLESS FROM ANY AND ALL DAMAGE AND CLAIMS WHICH MAY ARISE BY REASON OF ANY NEGLIGENCE ON PART OF CONTRACTOR, ANY OF HIS SUBCONTRACTORS AND/OR SUBCONTRACTORS, MATERIALS AND EQUIPMENT SUPPLIERS AND/OR ANY OF THEIR EMPLOYEES OR AGENTS, IN PERFORMANCE OF THIS CONTRACT AND, IN CASE ANY ACTION IS BROUGHT THEREFORE AGAINST OWNER, ENGINEERS AND/OR ANY OF THEIR EMPLOYEES OR AGENTS, CONTRACTOR SHALL ASSUME FULL RESPONSIBILITY FOR DEFENSE THEREOF AND UPON HIS FAILURE TO DO SO ON PROPER NOTICE, OWNER, ENGINEERS AND/OR ANY OF THEIR EMPLOYEES OR AGENTS RESERVE THE RIGHT TO DEFEND SUCH ACTION AND CHARGE ALL COSTS THEREOF TO CONTRACTOR.
6. IF ANY ERRORS OR OMISSIONS APPEAR IN THE DRAWINGS, SPECIFICATIONS OR OTHER DOCUMENTS THE CONTRACTOR SHALL NOTIFY THE ENGINEER IN WRITING OF SUCH OMISSIONS OR ERRORS PRIOR TO PROCEEDING WITH ANY WORK WHICH APPEARS IN QUESTION. IN THE EVENT OF THE CONTRACTOR'S FAILING TO GIVE SUCH NOTICE, HE SHALL BE HELD RESPONSIBLE FOR THE RESULTS OF ANY SUCH ERRORS OR OMISSIONS AND THE COST OF RECTIFYING THE SAME.
7. THE CONTRACTOR SHALL USE THE STRUCTURAL DRAWINGS TOGETHER WITH THE ARCHITECTURAL DRAWINGS TO LOCATE STEPPED FOOTINGS, DEPRESSED SLABS, SLOPES, DRAINS, OUTLETS, RECESSES, OPENINGS, REGLETS, BOLT SETTING, SLEEVES, DIMENSIONS, ETC. POTENTIAL CONFLICTS SHALL BE TRANSMITTED TO THE A/E BEFORE PROCEEDING WITH THE WORK.
8. SUBMIT ONE SEPIA AND ONE PRINT OF SHOP DRAWINGS FOR A/E REVIEW BEFORE STARTING FABRICATION.
9. NO SHOP DRAWINGS SHALL BE SUBMITTED FOR A/E REVIEW UNTIL AFTER THEY HAVE BEEN REVIEWED AND NOTED FOR CONSTRUCTION METHOD, DIMENSIONING AND OTHER TRADE REQUIREMENTS BY THE CONTRACTOR AND STAMPED WITH THE CONTRACTOR'S APPROVAL SEAL. ENGINEER ASSUMES NO RESPONSIBILITY FOR DIMENSIONS, QUANTITIES, ERRORS OR OMISSIONS AS A RESULT OF CHECKING AND REVIEWING ANY SHOP DRAWINGS. ANY ERRORS OR OMISSIONS MUST BE MADE GOOD BY CONTRACTOR, IRRESPECTIVE OF RECEIPT, CHECKING OR REVIEW OF DRAWINGS BY ENGINEER AND EVEN THOUGH WORK IS DONE IN ACCORDANCE WITH SUCH DRAWINGS.
10. VERIFICATION OF EXISTING CONDITIONS: AS THE REMODELING AND/OR REHABILITATION OF AN EXISTING STRUCTURE REQUIRES THAT CERTAIN ASSUMPTIONS BE MADE REGARDING EXISTING CONDITIONS, AND BECAUSE SOME OF THESE ASSUMPTIONS MAY NOT BE VERIFIABLE WITHOUT EXPENDING ADDITIONAL AND POSSIBLE INAPROPRIATE AND/OR UNJUSTIFIABLE SUMS OF MONEY, OR DESTROYING OTHERWISE ADEQUATE OR SERVICEABLE PORTIONS OF THE BUILDING, EXPOSING THE BUILDING INTERIOR TO THE ELEMENTS, AND/OR DISRUPTING AIRPORT OPERATIONS, THEREFORE, THE A/E HEREIN MAKES IT CLEAR THAT NOT HAVING VERIFIED CERTAIN CONDTIONS, OR HAVING MADE CALCULATED ASSUMPTIONS, IS NOT AN ACT OF NEGLIGENCE, IRRESPONSIBILITY, OR AN ATTEMPT TO TRANSFER RESPONSIBILITY TO THE CONTRACTOR. IT IS, INSTEAD, OUR BEST EFFORT AT DESCRIBING THE EXISTING CONDITIONS AND HOW TO ADDRESS THEM, AND THIS IS OUR NOTICE TO THE CONTRACTOR TO PRICE HIS WORK IN SUCH A MANNER AS TO ASSUME POSSIBLE IRREGULARITIES AND TO LOWER THE COST OF DEALING WITH SAME WITHOUT ADDITIONAL COST TO OWNER, WHEN DIFFERENT TO THAT SHOWN. IN SUCH CASE(S) THE A/E REMAINS AVAILABLE TO WORK OUT ALTERNATES, IF DEEMED NECESSARY AND APPROPRIATE (AT THE SOLE DISCRETION OF THE A/E), FOR AN ACCEPTABLE ALTERNATE DETAIL OR OTHER ADDRESSING OF A CONDITION.
    THE ABOVE PROCEDURE IS OPINED TO BE A NECESSARY APPROACH TO SUCH SITUATIONS TO MINIMIZE INCONSISTENCIES IN BID AMOUNTS, ENCOURAGE CONTRACTOR SITE VISITS AND CLARIFICATIONS PRIOR TO BIDDING, AND AS AN ATTEMPT TO BE AS FAIR TO ALL CONTRACTORS BIDDING ON PROJECT, AS POSSIBLE, GIVEN THE CIRCUMSTANCES.
11. THE REVIEW OF ALL STRUCTURAL SUBMITTALS BY THE STRUCTURAL ENGINEER OF RECORD SHALL BE TO INSURE THAT HIS INTENT HAS BEEN UNDERSTOOD AND THAT THE SPECIFIED CRITERIA HAVE BEEN USED. A COPY OF ALL STRUCTURAL SUBMITTALS WILL BE RETAINED FOR RECORD KEEPING PURPOSES ONLY.
12. WHERE CRITICAL DIMENSIONS CANNOT BE DETERMINED FROM THE PLANS, OR WHERE NEW WORK ADJOINS EXISTING CONSTRUCTION, OR WHERE ONE MATERIAL ADJOINS AN IN-PLACE MATERIAL, CONTRACTOR SHALL TAKE FIELD MEASUREMENTS AS REQUIRED TO COMPLETE SHOP DRAWINGS AND INSTALLATION. REPORT ANY DISCREPANCIES EXCEEDING 3% BETWEEN FIELD MEASURED DIMENSIONS AND SCALED DRAWING DIMENSIONS TO ARCHITECT BEFORE PROCEEDING WITH THE WORK.
13. WHERE A LINE OF STRUCTURE, OPENING LOCATION, OR DIMENSION IS CRITICAL AND BASED ON THE REQUIREMENTS OF ANOTHER TRADE OR SUBCONTRACTOR, THAT SUBCONTRACTOR SHALL SUBMIT A SHOP DRAWING WITH THE REQUIRED DIMENSIONAL INFORMATION UPON WHICH THE CONTRACTOR SHALL BASE THE LAYOUT AND CONSTRUCTION.
14. PLANS, SECTIONS AND DETAILS DO NOT SHOW ALL EXISTING CONDITIONS. THE BRIDGE STRUCTURE OF THE SHUTTLE IS USED TO SUPPORT A VARIETY OF COMPONENTS AND SYSTEMS SUCH AS REFRIGERANT LINES, ELECTRICAL CONDUIT, CABLE TRAYS, CLADDING, ETC. SOME OR ALL OF THESE COMPONENTS AND SYSTEMS WILL INTEREFERE WITH THE WORK IN THIS CONTRACT. IT IS THE CONTRACTOR'S RESPONSIBILITY TO LOCATE, IDENTIFY, PROTECT AND, WHERE IN CONFLICT WITH THE WORK, TO WORK WITH DCAD'S AUTHORITIES TO TEMPORARILY REMOVE OR RELOCATE THESE ITEMS WITHOUT ADVERSELY AFFECTING THEIR INTENDED PURPOSE NOR AIRPORT OPERATIONS SERVED BY CONFLICTING COMPONENTS. IT IS ALSO THE CONTRACTOR'S RESPONSIBILITY TO ALLOCATE SUFFICIENT FUNDING AND TIME IN HIS BID PRICE TO COVER ANY AND ALL WORK DESCRIBED ABOVE.

STRUCTURAL DESIGN CRITERIA:

STRUCTURAL IMPROVEMENTS SHOWN ON PLANS ARE BASED ON THE FOLLOWING ANALYSIS CRITERIA:

WALKWAY LIVE LOAD	100 P.S.F.
TRAIN PASSENGER LOAD	66 PASSENGERS/CAR
TRAIN VELOCITY	21 MPH
WIND VELOCITY	30 MPH

STRUCTURAL & MISCELLANEOUS STEEL:

(SHOP DRAWINGS REQUIRED)

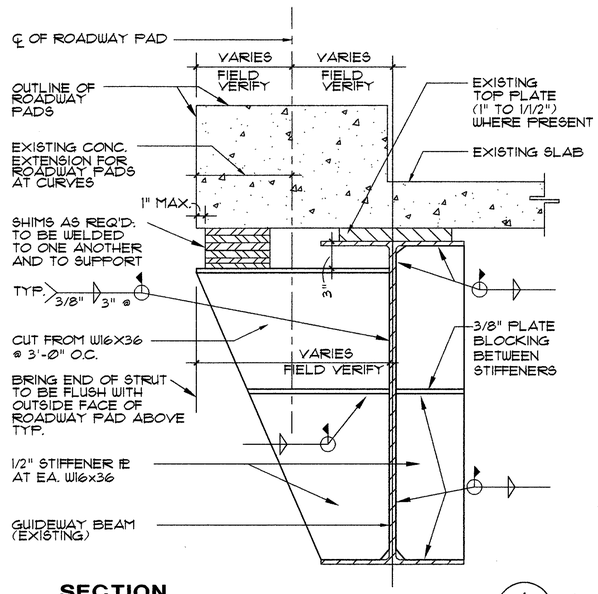
1. ALL STRUCTURAL STEEL TO BE DOMESTIC A.S.T.M. A-36 FY=36 MIN. K.S.I.).
2. HIGH STRENGTH BOLTS (ASTM-A325) TO BE 3/4" DIAMETER, UNLESS OTHERWISE SPECIFIED. PROVIDE MATCHING H.S. NUTS AND WASHERS.
3. ALL WELDING TO BE IN ACCORDANCE WITH AMERICAN RAILWAY ENGINEERING ASSOCIATION (AREA) AND (AWS) "STRUCTURAL WELDING CODE - STEEL", D1.1, 1986 AND AS INDICATED ON THE STRUCTURAL DRAWINGS. WELDING ELECTRODES, WELDING PROCESS, MINIMUM PREHEAT AND INTERPASS TEMPERATURES TO BE IN ACCORDANCE WITH THE AWS SPECIFICATIONS. ANY STRUCTURAL STEEL DAMAGED IN WELDING TO BE REPLACED OR ACCEPTABLY REINFORCED. ALL FULL PENETRATION GROOVE WELDS TO BE SUBJECT TO RADIOGRAPHIC, MAGNETIC PARTICLE, ULTRASONIC, AND LIQUID PENETRANT INSPECTION CONDUCTED BY AN INDEPENDENT TESTING AGENCY, PAID BY THE OWNER. RUSTPROOF ALL FIELD WELDS WITH HEAVY DUTY RUSTPROOFING PAINT.
4. ALL CONNECTIONS TO BE FIELD AND SHOP WELDED AND TO DEVELOP MEMBER IN SHEAR. (U.O.N.)
5. SPLICE LOCATIONS TO BE REVIEWED BY A/E.
6. STEEL BEARING ON STEEL TO BE WELDED THERETO.
7. SHOP COAT ALL STRUCTURAL STEEL WITH RUSTOLEUM "769" RED PRIMER OR APPROVED EQUAL (U.O.N.).
8. SUBMIT ONE SEPIA AND ONE PRINT OF SHOP DRAWINGS FOR ENGINEER'S REVIEW BEFORE STARTING FABRICATION.
9. VERIFICATION AND CERTIFICATION OF ALL WELDING FOR THE PROJECT TO BE MADE BY A REGISTERED WELDING INSPECTOR EMPLOYED BY THE CONTRACTOR FOR THIS PURPOSE. COPIES OF ALL WELDING REPORTS TO BE TRANSMITTED TO THE SPECIAL INSPECTOR FOR THE PROJECT AS SOON AS THEY ARE COMPLETED.

BRIDGE BEARINGS NOTE:

1. ALL FABRICATED BRIDGE BEARINGS AT COLUMN CAPS AND ENDS OF SPANS ARE TO BE PROTECTED FROM DAMAGE FROM CONSTRUCTION OPERATIONS FOR THE DURATION OF THE PROJECT. BEARING SIDE AND ROTATION SURFACES SHALL BE MASKED DURING STEEL AND PAINTING OPERATIONS IN VICINITY OF WORK IN PROGRESS TO ENSURE CONTAMINATION DOES NOT OCCUR. UPON COMPLETION OF WORK, HIGH PRESSURE AIR SHALL BE USED TO BLOW SURFACES AND CUPS OF BEARINGS CLEAN. FOLLOWING CLEANING, A COATING OF SILICON SEALANT, DOW # 732 BY DOW-CORNING OR APPROVED EQUAL SHALL BE APPLIED TO BEARINGS IN ACCORDANCE WITH MANUF. RECOMMENDATIONS.

TEMPORARY HANGING SYSTEM NOTE:

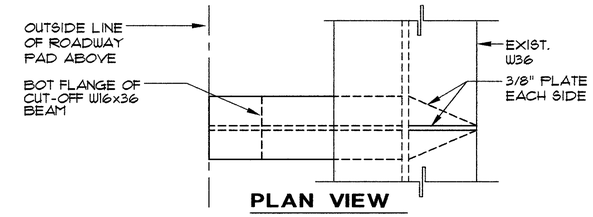
1. THE CONTRACTOR IS REQUIRED TO EMPLOY A FLORIDA REGISTERED P.E. FOR THE DESIGN OF ALL TEMPORARY HANGING SYSTEMS TO FACILITATE CONSTRUCTION.



SECTION

1 1/2" = 1'- 0"

S1,S5,S6 S10



PLAN VIEW

1 1/2" = 1'- 0"

STRUT ASSEMBLY AT RUNWAY DEVIATION

1 1/2" = 1'- 0"

NOTE: TO BE INSTALLED AT LOCATIONS WHERE ℄ DEVIATION OF WHEEL RUNNING PAD EXCEEDS 12" FROM ℄ OF W36 SUPPORT BEAM. CONTRACTOR TO PROVIDE FOR ALL MEASURING TO LOCATE AND SIZE STRUT ASSEMBLIES. POSITIONS SHOWN ON DESIGN DRAWINGS ARE FOR GENERAL REFERENCE ONLY. FOR BID PURPOSES 10 EA. STRUTS PROVIDING 9" TO 15" DEVIATION SUPPORT SHALL BE USED.

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STRUCTURAL NOTES

002160037

no.	date	revisions	by

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CONCOURSE "E" STS PEOPLE MOVER BRIDGE REPAIRS
DCAD PROJECT NUMBER A017B

PROJECT MANAGER: BYRON DOWELL
MIAMI INTERNATIONAL AIRPORT

TELEPHONE NUMBER (305) 869 4016
DADE COUNTY, FLORIDA

date	drawn by	checked by
3-5-98	A.J.	A.S./L.R.

file number 9538

drawing **S10**

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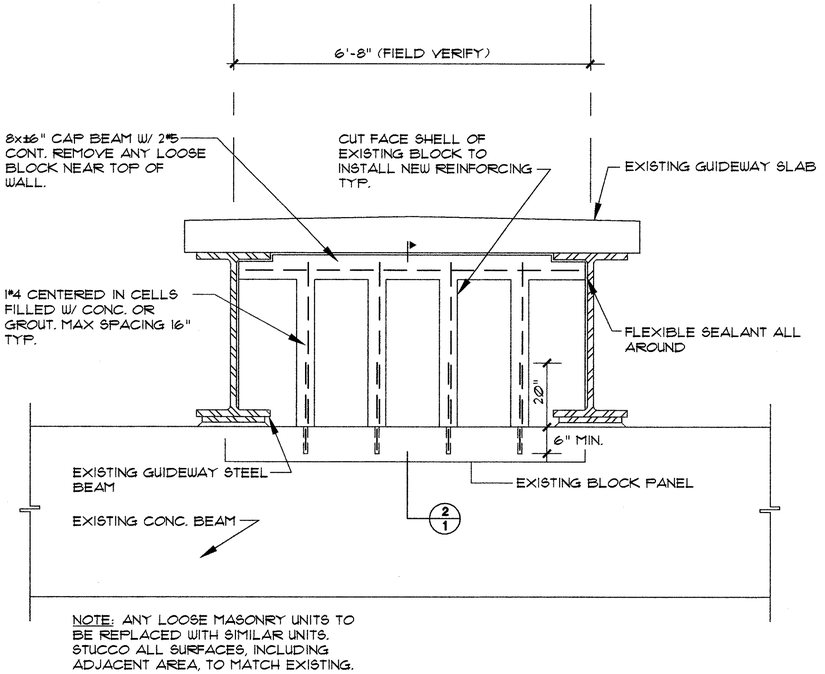
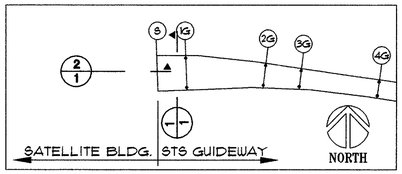
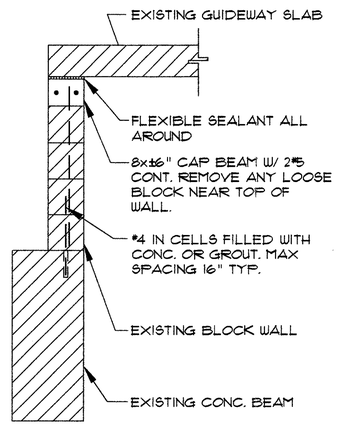


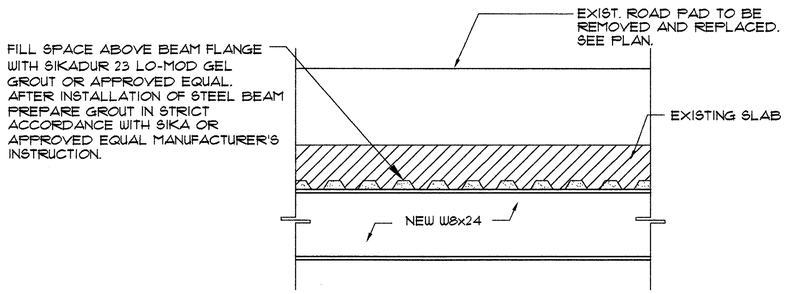
SECTION
3/4" = 1'-0"
1/1



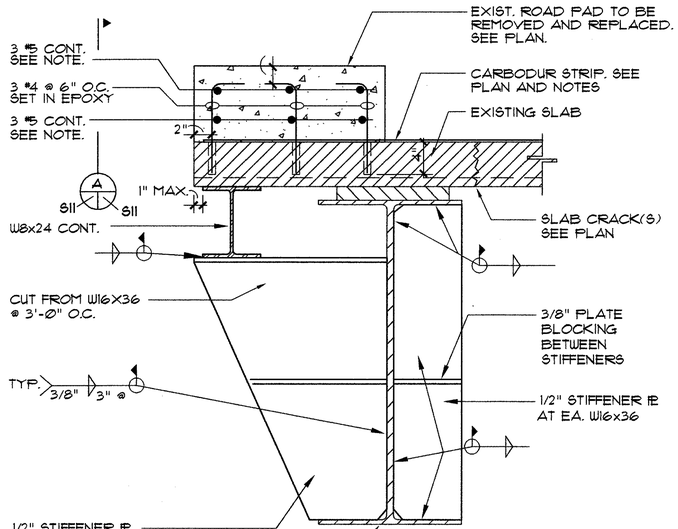
KEY PLAN



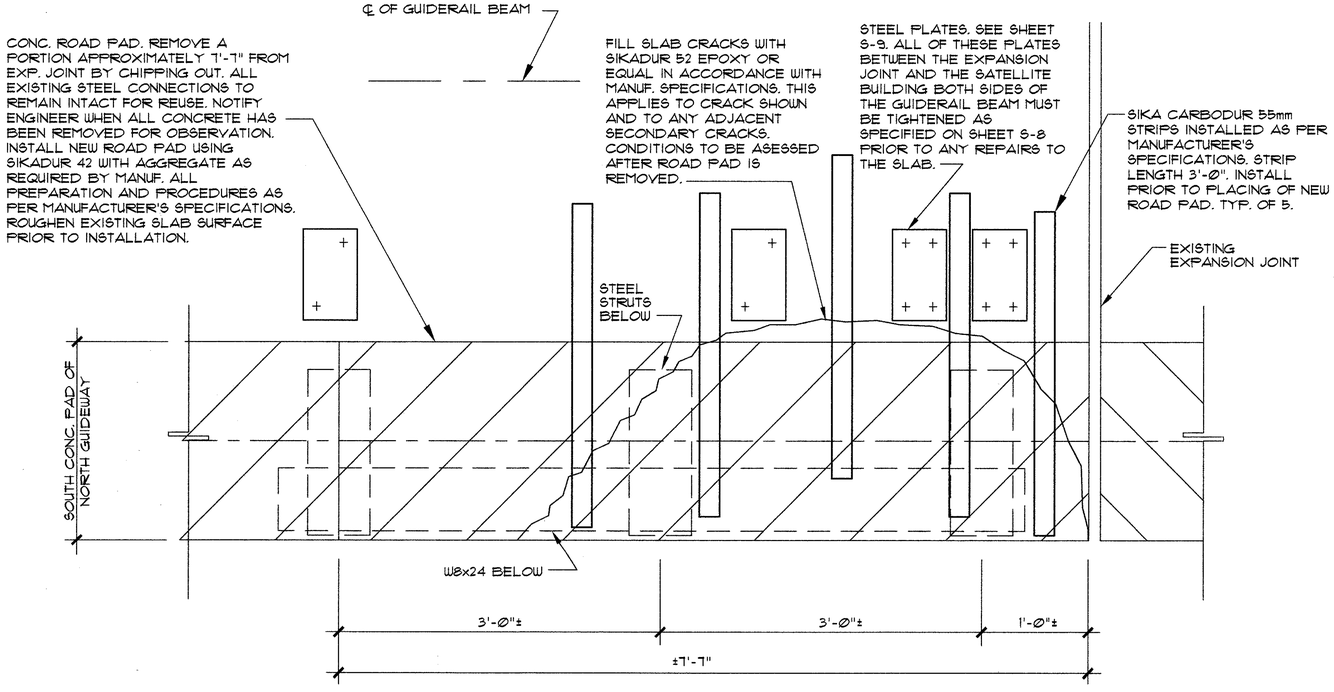
SECTION
3/4" = 1'-0"
2/1



ELEVATION
1 1/2" = 1'- 0"



SECTION
1 1/2" = 1'- 0"
1/S11



PLAN
1 1/2" = 1'- 0"

NORTH

AS BUILT
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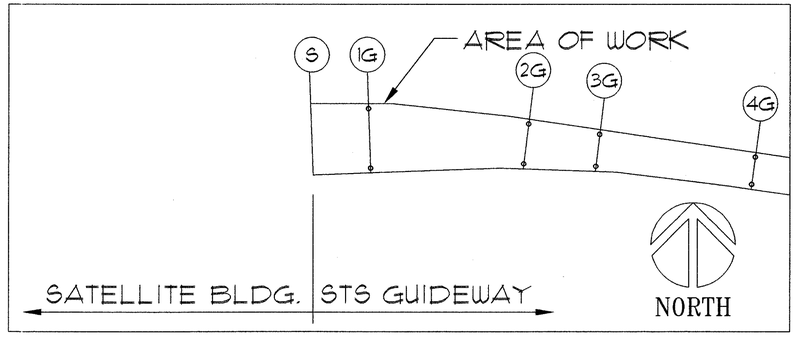

REPAIRS TO EXISTING ROADWAY KEY PLAN

002160038

no.	date	revisions	by

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MIAMI INTERNATIONAL AIRPORT

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12-11-98	A.J.	A.S./L.R.

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drawing
S11

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