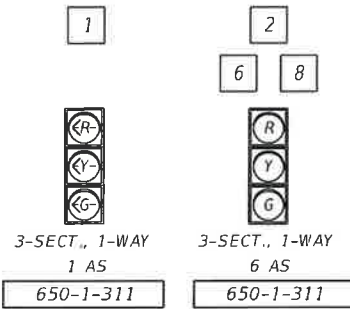


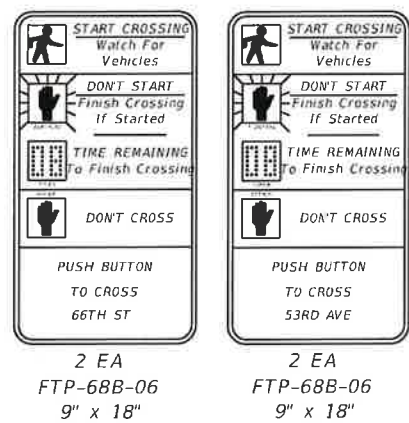
SIGNAL HEAD DETAILS



PEDESTRIAN SIGNAL HEAD DETAILS



PEDESTRIAN DETECTOR SIGN



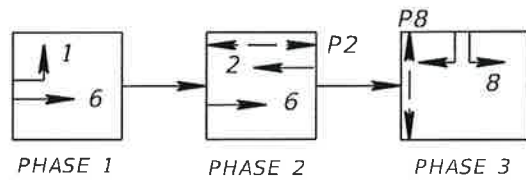
LEGEND

- DZ-X DETECTION ZONE (VIRTUAL LOOPS) (40' x 6') POSITIONED 2' BEYOND STOP BAR
- DZ-X DETECTION ZONE (VIRTUAL LOOPS) (20' x 6') POSITIONED 2' BEYOND STOP BAR
- VD VIDEO VEHICLE DETECTOR

REMOVAL ITEMS

- 690-10 6 EA
- 690-34-1 2 EA
- 690-50 1 EA
- 690-80 1 EA
- 690-90 1 PI
- 690-100 1 PI

SIGNAL OPERATING PLAN 12



66th St W
5200

66th St W
5200

53rd Ave W
6500 6600

SIGNALIZATION NOTES:

- ALL STATIONS AND OFFSETS ARE BASED ON @ CONSTRUCTION OF 53RD AVE W.
- SEE GUIDE SIGN WORKSHEETS FOR STREET NAME SIGN DETAILS.
- POWER SERVICE METER BASE AND DISCONNECT SHALL BE INSTALLED ON THE CONCRETE SERVICE POLE AS SHOWN ON THE PLANS AND PER INDEX NUMBERS 17504 AND 17736.
- TIMINGS ARE INITIAL AND MAY REQUIRE ADJUSTMENTS AS DIRECTED BY THE ENGINEER.

CONTROLLER OPERATIONS:

- MAJOR STREET IS 53RD AVE W. (MOVEMENTS 2 AND 6) AND MINOR STREET IS 66TH ST W. (MOVEMENT 8).
- WHILE IN FLASH MODE, MOVEMENTS 2 & 6 SHALL FLASH YELLOW. ALL OTHER MOVEMENTS SHALL FLASH RED.
- CONTROLLER CABINET SHALL BE WIRED FOR S.O.P 10. CONTROLLER SHALL OPERATE WITH S.O.P 12 (AS SHOWN.)

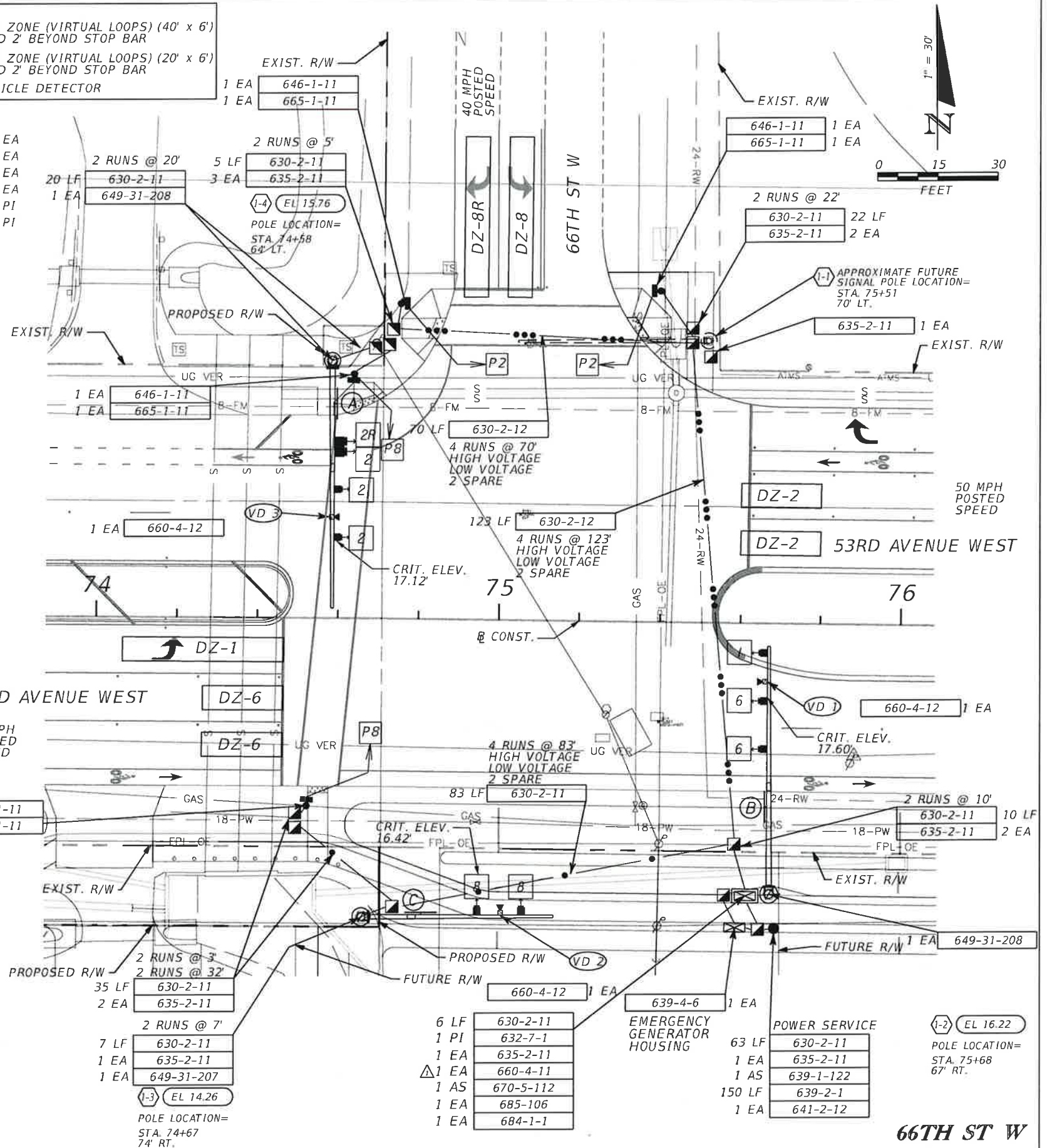
CONTROLLER TIMINGS

| TIMING FUNCTION | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|------------------|-----|-----|---|---|---|-----|---|-----|
| MOVEMENT NUMBER | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| MINIMUM GREEN | 7 | 20 | - | - | - | 20 | - | 7 |
| EXTENSION | 3 | 3 | - | - | - | 3 | - | 3 |
| MAXIMUM GREEN 1 | 20 | 50 | - | - | - | 50 | - | 30 |
| MAXIMUM GREEN 2 | - | - | - | - | - | - | - | - |
| YELLOW CLEARANCE | 5.1 | 5.1 | - | - | - | 5.1 | - | 4.4 |
| ALL RED | 2 | 2 | - | - | - | 2 | - | 2 |
| PEDESTRIAN WALK | - | 7 | - | - | - | - | - | 7 |
| PED. CLEARANCE | - | 14 | - | - | - | - | - | 28 |
| RECALL | - | MIN | - | - | - | MIN | - | - |

VIDEO VEHICLE DETECTION ASSIGNMENTS

| VIDEO DETECTION | DETECTION ZONE | DELAY TIME (SECS.) |
|-----------------|----------------|--------------------|
| VD 1 | DZ-1, DZ-6 | |
| VD 2 | DZ-8 | 8 |
| VD 3 | DZ-2 | |

DELAY TIME IS INITIAL AND MAY REQUIRE FIELD ADJUSTING AS DIRECTED BY THE ENGINEER.



| No. | REVISIONS | DATE | BY |
|-----|-------------------------------|-----------|----|
| | REVISED QUANTITY FOR 660-4-11 | 3/24/2015 | EL |

HDR Engineering, Inc.
2601 Cattlemen Road
Suite 400
Sarasota, FL 34232-6233
FBPR Certificate of
Authorization No. 4213

| DATE | PROJECT NO. |
|-----------|-------------|
| 11/7/2014 | 6082960 |

Manatee County
MANATEE COUNTY
PUBLIC WORKS

| DESIGN ENGINEER | FL. LICENSE NO. |
|-----------------|-----------------|
| BIJAN BEHZADI | 43868 |

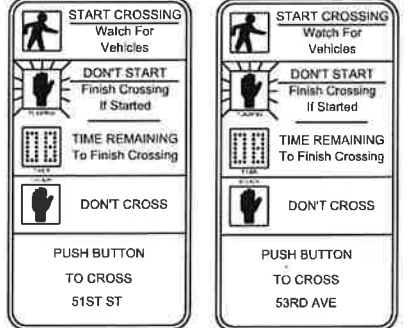
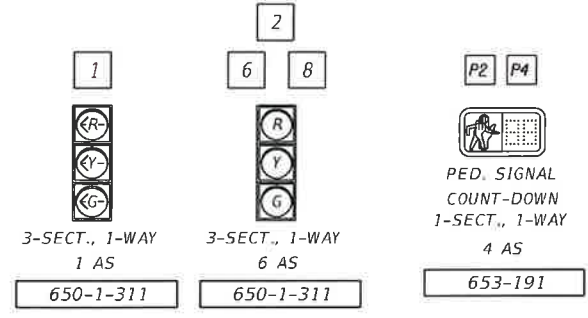
SIGNALIZATION PLAN

| SHEET NO. |
|-----------|
| T-5 |

SIGNAL HEAD DETAILS

PEDESTRIAN SIGNAL HEAD DETAILS

PEDESTRIAN DETECTOR SIGN



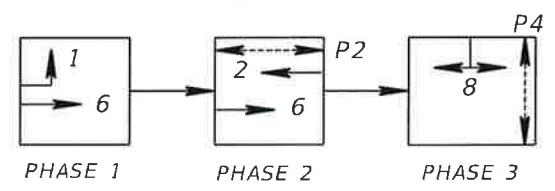
LEGEND

- DZ-x DETECTION ZONE (VIRTUAL LOOPS) (40' x 6') POSITIONED 2' BEYOND STOP BAR
- DZ-x DETECTION ZONE (VIRTUAL LOOPS) (20' x 6') POSITIONED 2' BEYOND STOP BAR
- VD VIDEO VEHICLE DETECTOR

REMOVAL ITEMS

| | |
|----------|------|
| 690-10 | 6 EA |
| 690-34-1 | 2 EA |
| 690-50 | 1 EA |
| 690-80 | 1 EA |
| 690-90 | 1 PI |
| 690-100 | 1 PI |

SIGNAL OPERATING PLAN 12



51st St W 5200

51st St W 5200

53rd Ave W 5000 5100

SIGNALIZATION NOTES:

- ALL STATIONS AND OFFSETS ARE BASED ON CONSTRUCTION OF 53rd AVE W.
- SEE GUIDE SIGN WORKSHEETS FOR STREET NAME SIGN DETAILS.
- POWER SERVICE METER BASE AND DISCONNECT SHALL BE INSTALLED ON THE CONCRETE SERVICE POLE AS SHOWN ON THE PLANS AND PER INDEX NUMBERS 17504 AND 17736.
- TIMINGS ARE INITIAL AND MAY REQUIRE ADJUSTMENTS AS DIRECTED BY THE ENGINEER.

CONTROLLER OPERATIONS:

- MAJOR STREET IS 53rd AVE W. (MOVEMENTS 2 AND 6) AND MINOR STREET IS 51st ST W. (MOVEMENT 8).
- WHILE IN FLASH MODE, MOVEMENTS 2 & 6 SHALL FLASH YELLOW. ALL OTHER MOVEMENTS SHALL FLASH RED.
- CONTROLLER CABINET SHALL BE WIRED FOR S.O.P 10. CONTROLLER SHALL OPERATE WITH S.O.P 12 (AS SHOWN.)

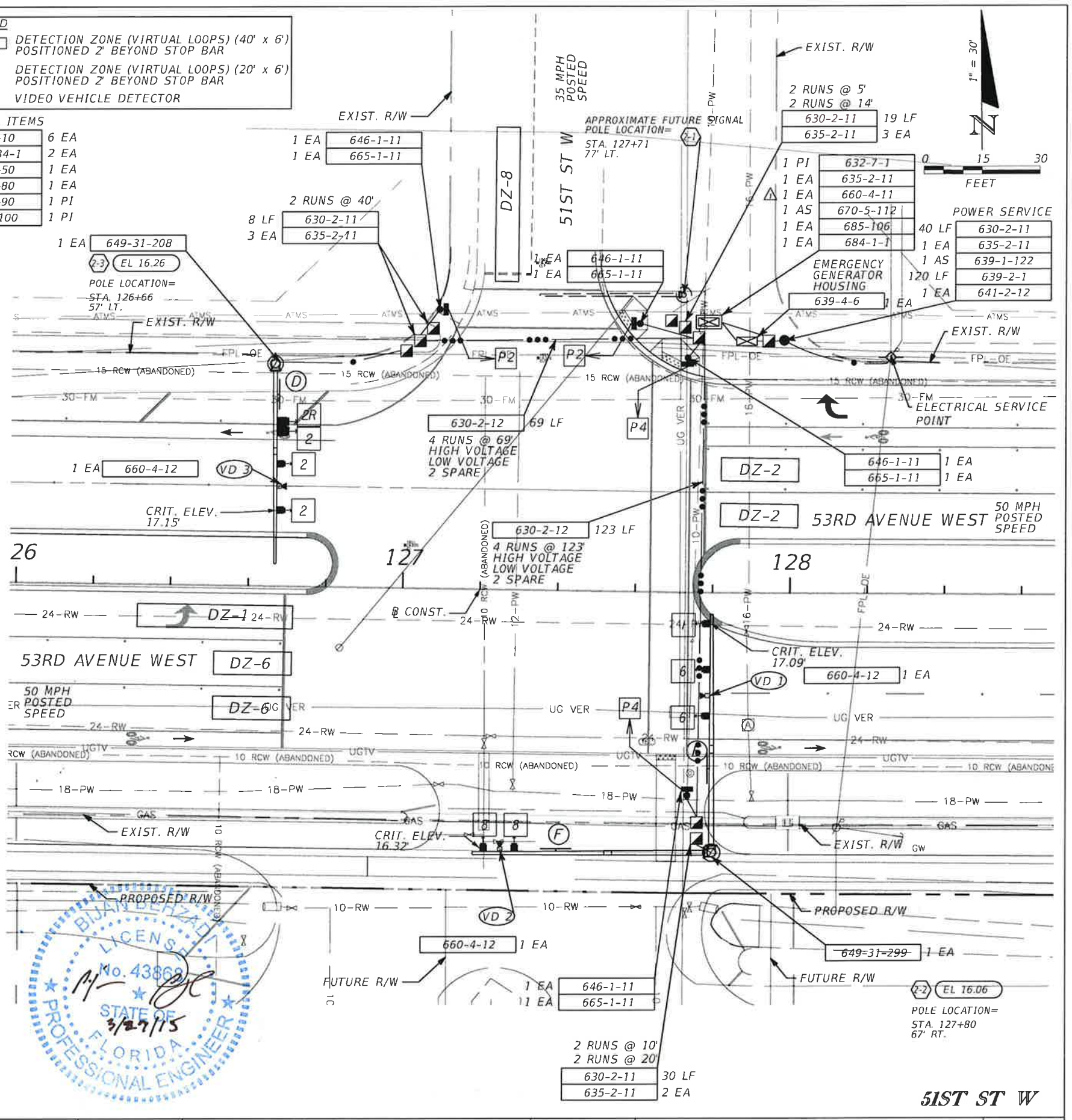
CONTROLLER TIMINGS

| TIMING FUNCTION | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|------------------|-----|-----|---|----|---|-----|---|----|
| MOVEMENT NUMBER | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| MINIMUM GREEN | 7 | 20 | - | - | - | 20 | - | 7 |
| EXTENSION | 3 | 3 | - | - | - | 3 | - | 3 |
| MAXIMUM GREEN 1 | 20 | 50 | - | - | - | 50 | - | 30 |
| MAXIMUM GREEN 2 | - | - | - | - | - | - | - | - |
| YELLOW CLEARANCE | 5.1 | 5.1 | - | - | - | 5.1 | - | 4 |
| ALL RED | 2 | 2 | - | - | - | 2 | - | 2 |
| PEDESTRIAN WALK | - | 8 | - | 8 | - | - | - | - |
| PED. CLEARANCE | - | 12 | - | 29 | - | - | - | - |
| RECALL | - | MIN | - | - | - | MIN | - | - |

VIDEO VEHICLE DETECTION ASSIGNMENTS

| VIDEO DETECTION | DETECTION ZONE | DELAY TIME (SECS.) |
|-----------------|----------------|--------------------|
| VD 1 | DZ-1, DZ-6 | |
| VD 2 | DZ-8 | 8 |
| VD 3 | DZ-2 | |

DELAY TIME IS INITIAL AND MAY REQUIRE FIELD ADJUSTING AS DIRECTED BY THE ENGINEER.



| <p>REVISIONS</p> <table border="1"> <thead> <tr> <th>No.</th> <th>REVISIONS</th> <th>DATE</th> <th>BY</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table> | No. | REVISIONS | DATE | BY | | | | | <p>REVISOR</p> <table border="1"> <thead> <tr> <th>EL</th> <th>SCALE</th> </tr> </thead> <tbody> <tr> <td> </td> <td>AS NOTED</td> </tr> </tbody> </table> | EL | SCALE | | AS NOTED | <p>DESIGNED BY</p> <p>EL</p> <p>DRAWN BY</p> <p>EL</p> <p>CHECKED BY</p> <p>BB</p> | <p>HDR</p> <p>HDR Engineering, Inc. 2601 Cattlemen Road Suite 400 Sarasota, FL 34232-6233 FBPR Certificate of Authorization No. 4213</p> | <p>DATE</p> <p>11/7/2014</p> <p>PROJECT NO.</p> <p>6082960</p> | <p>MANATEE COUNTY PUBLIC WORKS</p> <p>MANATEE COUNTY FLORIDA</p> | <p>DESIGN ENGINEER</p> <p>BIJAN BEHZADI</p> <p>FL. LICENSE NO.</p> <p>43868</p> | <p>SIGNALIZATION PLAN</p> | <p>SHEET NO.</p> <p>T-6</p> |
|--|-----------|-----------|------|----|--|--|--|--|--|----|-------|--|----------|--|--|--|--|---|---------------------------|-----------------------------|
| No. | REVISIONS | DATE | BY | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | |
| EL | SCALE | | | | | | | | | | | | | | | | | | | |
| | AS NOTED | | | | | | | | | | | | | | | | | | | |