

**LEGEND**

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| DMS   | DIGITAL MESSAGE SIGN   |
| ATS   | ATTACHED TO STRUCTURE  |
| ITS   | INTELLIGENT TRAFFIC SYSTEM   |
| FO    | FIBER OPTIC  |
| PVC   | POLYVINYL CHLORIDE   |
| HDPE  | HIGHT DENSITY POLYETHELYN  |
| S.S.  | STAINLESS STEEL  |
| SM    | SINGLE MODE  |
| MM    | MULTI MODE   |
| PTZ   | PAN TILT ZOOM  |
| CCTV  | CLOSED CIRCUIT TELEVISION  |
| VD    | VEHICLE DETECTOR   |
|       | EXISTING HANDHOLE  |
|       | EXISTING DOUBLE HANDHOLE   |
|       | EXISTING CONTROLLER CABINET  |
|       | EXISTING SERVICE INSTALLATION  |
|       | EXISTING CONDUIT   |
|       | EXISTING JUNCTION BOX  |
|       | EXISTING SIGN TRUSS  |
|       | EXISTING HIGHWAY LIGHTING UNIT   |
|       | EXISTING UNDERGROUND LIGHTING CABLES   |
|       | PROPOSED HANDHOLE  |
|       | PROPOSED DOUBLE HANDHOLE   |
|       | PROPOSED CONTROLLER CABINET  |
|       | PROPOSED CONDUIT: "UNDRGRD" UNDERGROUND OR "AT ST" ATTACHED TO STRUCTURE, SIZE SPECIFIED |
|       | PROPOSED SERVICE INSTALLATION  |
|       | PROPOSED CCTV CAMERA   |
|       | PROPOSED JUNCTION BOX, SIZE SPECIFIED  |
|       | PROPOSED PULL BOX, SIZE SPECIFIED  |
|       | PROPOSED LIGHT POLE, SIZE SPECIFIED  |
|       | PROPOSED RADAR VEHICLE DETECTOR  |
|       | PROPOSED DMS SIGN  |
| E-HH  | EXISTING HANDHOLE  |
| E-DHH | EXISTING DOUBLE HANDHOLE   |
| E-JB  | EXISTING JUNCITON BOX  |
| E-PB  | EXISTING PULL BOX  |
| P-HH  | PROPOSED HANDHOLE  |
| P-DHH | PROPOSED DOUBLE HANDHOLE   |
| P-JB  | PROPOSED JUNCTION BOX  |
| P-PB  | PROPOSED PULL BOX  |

**GENERAL NOTES**

- CCTV ARE LOCATION SENSITIVE. PROPOSED EQUIPMENT LOCATIONS ARE APPROXIMATE TO ENSURE THE OPTIMUM FIELD OF VIEW. ACTUAL LOCATIONS SHALL BE DETERMINED IN THE FIELD BY THE CONTRACTOR, PER THE MANUFACTURER REPRESENTATIVES' RECOMMENDATIONS AND THE ENGINEER'S APPROVAL. MR. JEFF ABEL OR MRS. LINDA LEONARD OF BUREAU OF OPERATIONS SHALL BE CONTACTED FOR ACTUAL CAMERA LOCATION VERIFICATION.
- ALL MATERIALS SUPPLIED SHALL CONFORM TO SECTION 106 OF THE STANDARD SPECIFICATIONS FOR CONTROL OF MATERIALS.
- THE CONTROLLER CABINETS AND JUNCTION BOXES SHALL BE UNPAINTED ALUMINUM SHEET METAL UNLESS OTHERWISE SPECIFIED ON THE PLANS.
- UNDERGROUND CABLE MARKING TAPE SHALL BE INSTALLED IN ACCORDANCE WITH ARTICLES 810.04A AND 1066.05 OF THE STANDARD SPECIFICATIONS.
- THE CONTRACTOR SHALL NOT DRILL ANY HOLES IN THE BEAMS, DECK, OR SUBSTRUCTURE OF THE BRIDGE. UNLESS OTHERWISE APPROVED BY THE ENGINEER.
- ALL GROUND RODS SUPPLIED FOR THIS PROJECT SHALL BE IN ACCORDANCE WITH ARTICLE 1087.01 EXCEPT THAT THEY SHALL BE 3/4 " DIAMETER X 12'-0" LONG. ALL CONNECTIONS TO GROUND RODS SHALL BE MADE VIA EXOTHERMIC WELD, COMPRESSION CLAMPS WILL NOT BE ALLOWED.
- COORDINATION WITH THE DEPARTMENT'S BUREAU OF OPERATIONS IS REQUIRED BEFORE ANY TRENCHING SHALL BE DONE TO LOCATE HIGHWAY LIGHTING/PUMP STATION/ITS FACILITIES AND TO COORDINATE OTHER FIELD ACTIVITIES.
- BENDING RADIUS OF FIBER OPTIC CABLE SHALL EXCEED SIX (6) INCHES. PER MANUFACTURER'S STANDARD.
- ALL HANDHOLES SHALL BE CONSTRUCTED OF PORTLAND CEMENT CONCRETE PER SECTION 814 OF THE STANDARD SPECIFICATIONS. THE LEGEND ON THE COVER SHALL BE "ITS". SLOPE HANDHOLE TO MATCH FINAL GRADE ELEVATION.
- ALL UTILITIES AND DRAINAGE STRUCTURES SHALL BE LOCATED IN THE FIELD PRIOR TO ANY ATTEMPT TO CONSTRUCT ANY COMPONENT OF THE VARIOUS CCTV CAMERA SYTEMS AND VEHICLE DETECTION SYSTEMS. THE COST FOR LOCATING DRAINAGE STRUCTURES SHALL NOT BE PAID FOR SEPARATELY, BUT SHALL BE INCIDENTAL TO THE VARIOUS ITS EQUIPMENT.
- A 9-1-1 ADDRESS MUST BE OBTAINED FROM THE ST. CLAIR COUNTY 9-1-1 COORDINATOR PRIOR TO OBTAINING ELECTRIC/ TELEPHONE SERVICE AT THE PROJECT LOCATIONS. THE CONTRACTOR SHALL NOTIFY THE RESIDENT ENGINEER/TECHNICIAN A MINIMUM OF SIX WEEKS IN ADVANCE OF THE ANTICIPATED DATE THAT ELECTRIC/TELEPHONE SERVICE WILL BE REQUIRED IN ORDER THAT THE NECESSARY ADDRESS CAN BE OBTAINED. IF THERE ARE ANY QUESTIONS REGARDING THE ABOVE, CONTACT THE 9-1-1 COORDINATOR AT 618-277-7668, EXT.102 FOR ST. CLAIR COUNTY.
- ALL FIBER BACKBONE CONDUIT SHALL BE PLACED A MINIMUM OF 5' FROM EDGE OF PAVEMENT OR AS INDICATED ON THE PLAN SHEETS OR PER FIELD ENGINEER'S RECOMMENDATION.
- FIELD MEASUREMENTS ARE REQUIRED TO VERIFY DIMENSIONS OF EXISTING STRUCTURES PRIOR TO ORDERING MOUNTING HARDWARE.
- FIBER OPTIC CABLE PULL TENSION WILL BE LIMITED BY PROVIDING JUNCTION BOXES OR HANDHOLES AT INTERVALS NO GREATER THAN 750 FEET.
- A 1/4" DIA. NYLON ROPE SHALL BE INSTALLED IN ALL CONDUIT RUNS. THE COST OF PULL ROPE SHALL BE INCLUDED IN THE PROPOSED ELECTRIC CABLE INSTALLATION AND /OR FIBER OPTIC IN THAT CONDUIT.
- PULL BOX TO BE PAID FOR WITH CORRESPONDING JUNCTION BOX PAY ITEM.

| FIELD EQUIPMENT NUMBERING SYSTEM |  |
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| EXAMPLE : 006402.8W.12D          |  |
| <b>0064</b>                      | DESIGNATES HIGHWAY WHERE FIELD EQUIPMENT IS LOCATED.   |
| <b>006402.8</b>                  | DESIGNATES MILE MARKER WHERE FIELD EQUIPMENT IS LOCATED.   |
| <b>006402.8W</b>                 | DESIGNATES DIRETION VIDEO DETECTOR IS MONITORING TRAFFIC OR DIRECTION TRAFFIC IS TRAVELLING TO RECEIVE DMS MESSAGE.                  |
| <b>006402.8W.12</b>              | NUMBER ASSIGNED TO THAT FIELD EQUIPMENT  |
| <b>006402.8W.12D</b>             | A = ALL DIRECTIONS<br>D = VEHICLE DETECTION<br>C = CAMERA (P/T/Z SURVEILLANCE)<br>H = HAR SIGNAGE WITH BEACON<br>R = RADAR DETECTION |

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 BONDHJUD  
 11-04-2011 16:58:48  
 TENG & ASSOCIATES, INC.  
 ENGINEERS/ARCHITECTS/PLANNERS  
 CHICAGO, ILLINOIS