

GENERAL NOTES

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GENERAL NOTES

LAKE COUNTY
LAK-20-22.916/VARIOUS

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B. PART 6, PERFORMANCE TEST (10 DAY TEST) SHALL BE MODIFIED ONLY AS FOLLOWS:

1. THE LIST OF MAJOR MALFUNCTIONS IN 632.07-6 SHALL BE EXPANDED TO INCLUDE:
 - A. FAILURE OF LOCAL CONTROLLER TO CONTROL TRAFFIC SAFELY AND IN CONFORMANCE WITH THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.
 - B. FAILURE OF THE MASTER CONTROLLER (WITH SYSTEM MONITOR) TO CORRECTLY SUPERVISE AND CONTROL THE SYSTEM, OR TO ACCEPT AND PROCESS TRAFFIC DATA FROM THE FIELD OR TO PROPERLY REPORT SYSTEM STATUS AND MALFUNCTIONS.
 - C. FAILURE OF MORE THAN TWO INTERSECTIONS, IN ANY 24-HOUR PERIOD, TO FUNCTION COMPLETELY IN THE MANNER CALLED FOR IN THE SPECIFICATION WITHOUT LOSS OF COMMUNICATION OR REVERTING TO STANDBY OPERATION.
 - D. FAILURE OF ANY SINGLE INTERSECTION MORE THAN 3 TIMES DURING A 5 DAY PERIOD TO FUNCTION COMPLETELY IN THE MANNER CALLED FOR IN THE SPECIFICATION WITHOUT LOSS OF COMMUNICATION OR REVERTING TO STANDBY OPERATION.
 - E. A SOFTWARE ERROR WHICH CAUSES THE SYSTEM TO CEASE TO OPERATE THE TRAFFIC CONTROL SYSTEM OR CAUSES AN UNSAFE CONDITION ON THE STREET.
 - F. THE APPEARANCE OF ANY PROBLEM WHICH, IN THE OPINION OF THE ENGINEER, HAS A SIGNIFICANT EFFECT UPON THE RELIABILITY, SAFETY OR OPERATION ON THE SYSTEM.
2. DURING THE 10-DAY PERFORMANCE TEST THE ENGINEER OR THE TRAINED REPRESENTATIVES OF THE CITY, SHALL EXERCISE THE SYSTEM AND DOCUMENT THE PERFORMANCE OF ALL SPECIFIED FEATURES, AND ANY OTHER EVENTS WHICH COULD BE EXPECTED TO OCCUR IN AN OPERATIONAL TRAFFIC CONTROL SYSTEM INCLUDING THE SIMULATION OF FAILURES.

PAYMENT FOR SPECIAL: CENTRAL OFFICE MONITOR WILL BE MADE AT THE CONTRACT UNIT PRICE FOR EACH CENTRAL OFFICE MONITOR IN PLACE AND FULLY OPERATIONAL AS SHOWN IN THE PLANS.

633 CONTROLLER ITEM, MISC.: TRAINING

THE CONTRACTOR SHALL SUPPLY TRAINING FOR CITY DESIGNATED PERSONNEL. THE TRAINING SHALL INCLUDE OPERATION OF THE CENTRAL COMPUTER AND FIELD EQUIPMENT, MAINTENANCE OF ALL FIELD EQUIPMENT AND ASSISTANCE IN SYSTEM PARAMETER DEVELOPMENT. THE TRAINING PROGRAM SHALL BE AS FOLLOWS:

LOCAL CONTROL EQUIPMENT CONSTRUCTION TRAINING SHALL CONSIST OF AT LEAST EIGHT (8) HOURS OF INSTRUCTION FOR UP TO FIVE PERSONS. TRAINING SESSIONS WILL BE HELD IN CITY PROVIDED FACILITIES. TRAINING WILL INCLUDE THOROUGH FAMILIARIZATION WITH THE FOLLOWING FIELD EQUIPMENT:

- A. LOCAL CONTROLLERS
- B. INTERSECTION MULTIPLEX AND TELEMETRY AND MODEM UNITS
- C. CONTROLLER ACCESSORIES AND AUXILIARY EQUIPMENT

THE COURSES SHALL ALSO COVER GENERAL FIELD MAINTENANCE AND TROUBLE-SHOOTING PROCEDURES AND TESTING PROCEDURES, AS WELL AS THE PROPER USE OF SYSTEM MAINTENANCE ACCESSORIES TO CHECK THE ABOVE LISTED COMPONENTS.

TRAFFIC RESPONSIVE MASTER CONTROLLER TRAINING SHALL CONSIST OF AT LEAST EIGHT (8) HOURS OF INSTRUCTION FOR UP TO FIVE CITY DESIGNATED PERSONS. TRAINING SESSIONS SHALL BE HELD AT THE SYSTEM SUPPLIER'S FACILITIES OR THE CITY'S FACILITIES AND SHALL BE HELD IN CONJUNCTION WITH THE BENCH MARK TEST.

CENTRAL SOFTWARE TRAINING SHALL INCLUDE ALL ITEMS NECESSARY TO SET UP THE MONITORING OF INTERSECTION CONTROLLERS. THERE SHALL BE 24 HOURS OF TRAINING FOR UP TO FIVE (5) PERSONS. IT SHALL ALSO INCLUDE INSTRUCTION IN METHODS OF PREPARING TIMING SETTINGS, CHOOSING SYSTEM AND INTERSECTION PARAMETERS, LOADING TIMING PLANS AND OTHER PARAMETERS, INCLUDING TRAFFIC RESPONSIVE OPERATION, AND OTHER FUNCTIONS WHICH WILL BE NECESSARY TO IMPLEMENT AND FINE TUNE SYSTEM OPERATION. FINALLY, IT SHALL INCLUDE GENERAL MAINTENANCE AND TROUBLE SHOOTING PROCEDURES FOR THE MASTER CONTROL DEVICE.

MAINTENANCE TRAINING (FIELD EQUIPMENT) SHALL CONSIST OF AT LEAST EIGHT (8) HOURS OF INSTRUCTION FOR UP TO FIVE PERSONS. TRAINING SESSIONS SHALL BE HELD IN CITY FACILITIES. IT SHALL COVER MAINTENANCE AND TROUBLE SHOOTING TECHNIQUES FOR ALL FIELD EQUIPMENT AND THE USE OF SYSTEM MAINTENANCE ACCESSORIES.

THE CONTRACTOR SHALL PROVIDE ALL COURSE MATERIALS FOR ALL TRAINING SESSIONS, INCLUDING OPERATION MANUALS, REPAIR MANUALS, TEST EQUIPMENT, DEMONSTRATION MATERIALS, AND OTHER MATERIALS FOR DEVICES TO ASSURE A USEFUL SESSION. INSTRUCTORS SHALL BE KNOWLEDGEABLE ON THE OPERATION OF THE SYSTEM PROVIDED AND BE CAPABLE OF EFFICIENTLY AND ACCURATELY PRESENTING THIS KNOWLEDGE TO THE TRAINEES.

THE COST OF TRAINING, INCLUDING COURSE MATERIALS, TRAVEL OR SUBSISTENCE, IF REQUIRED, AND RELATED COSTS, SHALL BE ENTIRELY BORNE BY THE CONTRACTOR.

PAYMENT FOR 633 CONTROLLER ITEM, MISC.: TRAINING WILL BE MADE AT THE CONTRACT PRICE AS A LUMP SUM FOR ALL TRAINING COMPLETELY SUPPLIED AND ACCEPTED, INCLUDING COURSE MATERIALS, TRAVEL OR SUBSISTENCE AND RELATED COSTS.

633 CONTROLLER ITEM, MISC.: FURNISH SPARE CONTROLLER TIMERS

THE CONTRACTOR SHALL FURNISH ONE (1) 4 PHASE, ONE (1) 8 PHASE TIMERS, TWO (2) MMU'S AND ONE (1) ON-STREET MASTER TIMER AS SPARE UNITS TO THE CITY. THE TIMERS SHALL BE COMPLETE WITH TBC AND TELEMETRY BOARDS. THE TIMERS SHALL BE COMPLETELY COMPATIBLE WITH THE EXACT "CLOSED LOOP" SYSTEM SUPPLIED.

PAYMENT FOR 633 CONTROLLER ITEM MISC.: FURNISH SPARE CONTROLLER TIMERS WILL BE MADE AT THE CONTRACT PRICE AS A LUMP SUM FOR ALL TIMERS COMPLETELY SUPPLIED AND ACCEPTED.

632 REMOVAL OF TRAFFIC SIGNAL INSTALLATION

TRAFFIC SIGNAL INSTALLATIONS, INCLUDING SIGNAL HEADS, CABLE, MESSENGER WIRE, POLES, MAST ARMS, CABINET, CONTROLLER, PULLBOX, ETC., SHALL BE REMOVED IN ACCORDANCE WITH 632.25 AND AS INDICATED ON THE PLANS. REMOVED ITEMS SHALL BE STORED ON THE PROJECT FOR SALVAGE BY THE CITY IN ACCORDANCE WITH THE LISTING GIVEN HEREIN. ANY ITEMS NOT DESIGNATED FOR SALVAGE, AND/OR ANY ITEMS NOT SALVAGED BY THE CITY BY THE COMPLETION DATE SHALL BE DISPOSED OF BY THE CONTRACTOR AT HIS EXPENSE.

THE FOLLOWING ITEMS SHALL BE STORED FOR SALVAGE:

1. CONTROLLERS, CABINETS & DETECTOR UNITS
2. VEHICULAR SIGNAL HEADS
3. PEDESTRIAN SIGNAL HEADS

THE FOLLOWING ITEMS SHALL BE DISPOSED OF BY THE CONTRACTOR:

1. CABLE & MESSENGER WIRE
2. POLES, WOOD OR STEEL
3. MAST ARMS
4. PULLBOXES

PULLBOXES SHALL BE REMOVED ENTIRELY WITH BACKFILLING, RESTORATION OF SURFACES AND DISPOSAL OF SURPLUS MATERIAL IN ACCORDANCE WITH 603.09.

632 SIGNALIZATION, MISC.: FOUNDATION TEST HOLE

IF UNDERGROUND OBSTRUCTIONS ARE ENCOUNTERED THAT PRECLUDE THE USE OF THE STANDARD OR ALTERNATE FOUNDATION DESIGNS, THE CONTRACTOR SHALL PROVIDE THE ENGINEER WITH COMPLETE INFORMATION REGARDING THE OBSTRUCTION, INCLUDING TYPE (I.E. UTILITY), SIZE, DEPTH AND LATERAL CLEARANCES TO THE SIDES OF THE FOUNDATION EXCAVATION. THE FOUNDATION HOLE SHALL BE COVERED WITH A STEEL PLATE UNTIL THE ENGINEER DETERMINES IF A NEW FOUNDATION LOCATION WILL BE REQUIRED. IF DIRECTED BY THE ENGINEER, THE CONTRACTOR SHALL BACKFILL AND COMPACT THE HOLE AND SHALL RESTORE THE SURFACE AS DESCRIBED IN "RESTORATION OF DISTURBED AREAS".

THE CONTRACTOR SHALL BE COMPENSATED FOR THE FOUNDATION HOLES THAT MUST BE ABANDONED. PAYMENT FOR ALL LABOR, MATERIALS, EQUIPMENT, TOOLS AND OTHER INCIDENTALS, INCLUDING BACKFILL, COMPACTING AND SURFACE RESTORATION, SHALL BE MADE AT THE CONTRACT UNIT PRICE BID FOR "ITEM 632 - SIGNALIZATION, MISC.; FOUNDATION TEST HOLE" FOR THE NUMBER EXCAVATED AND BACKFILLED. AN ESTIMATED QUANTITY OF 25 HAVE BEEN RESERVED AS CONTINGENCY QUANTITY FOR USE AS DESCRIBED HEREIN.

659 SEEDING AND MULCHING, AS PER PLAN

THIS ITEM SHALL CONSIST OF SEEDING, MULCHING, REGRADING, FURNISHING AND PLACING TOPSOIL, FERTILIZER, LIMING AND WATERING IN ACCORDANCE WITH ITEM 659 IN THE ODOT CONSTRUCTION AND MATERIAL SPECIFICATIONS. IT SHALL BE USED WHERE EXISTING WALK IS TO BE REMOVED.

ALL DISTURBED AREAS RESULTING FROM THE CONSTRUCTION OF THIS PROJECT SHALL BE SEEDED AND MULCHED. THE AREAS TO BE SEEDED SHALL BE FREE OF ALL STONES 25MM OR GREATER IN ANY DIMENSION AND SHALL HAVE A SMOOTH SURFACE. 75MM OF TOPSOIL MEETING THE REQUIREMENTS OF ITEM 653 OF THE ODOT SPECS SHALL BE ADDED TO BRING THE SURFACE TO THE FINISHED GRADE. COMMERCIAL FERTILIZER OF 12:12:12 FORMULA SHALL BE APPLIED EVENLY TO THE SURFACE AT THE RATE OF 9.1 KILOGRAMS PER 93 SQUARE METERS AND INCORPORATED TO A DEPTH OF NOT LESS THAN 51MM. LIMING SHALL BE PROVIDED WHEN REQUIRED.

BEFORE SOWING GRASS SEED, THE GROUND MUST BE REASONABLY SMOOTH, FRIABLE, FREE OF STONES, ROCKS, FOREIGN MATERIAL AND OF EVEN TEXTURE. SEED SHALL NOT BE SOWN WHEN THE SOIL IS MUDDY, BAKED HARD OR WHEN THE WIND IS BLOWING SO STRONGLY AS TO PREVENT EVEN DISTRIBUTION. SEED MIXTURE SHALL BE 34-35 PERCENT KENTUCKY BLUEGRASS, 24-25 PERCENT CREEPING RED FESCUE, 9-10 PERCENT PENNLAWN RED FESCUE, 12-13 PERCENT FIESTA RYEGRASS, 6-7 PERCENT DASHER RYEGRASS, 5-6 PERCENT BLAZER RYEGRASS AND SHALL BE SOWN AT THE RATE OF 1.82 KILOGRAMS PER 93 SQUARE METERS. FOR AREAS HAVING HEAVY SHADE (55% OR MORE), ADD 4.54 KILOGRAMS OF MUSTANG FESCUE OR APPROVED EQUAL TO EACH 22.7 KILOGRAMS OF SPECIFIED SEED MIX.

ALL SEEDS ARE TO BE FURNISHED PACKAGED OR BAGGED AND SHALL BE APPROPRIATELY TAGGED AS TO THE CONTENT AND PROPORTIONS. SEEDS THAT ARE MORE THAN ONE (1) YEAR OLD, SHALL NOT BE PERMITTED.

632 PHONE DROP

THIS ITEM OF WORK SHALL CONSIST OF SUPPLYING A TELEPHONE DROP TO THE TRAFFIC SIGNAL CONTROLLER AT THE INTERSECTION(S) SHOWN IN THE PLANS, INCLUDING ANY REQUIRED CONDUIT, CONDUIT RISER, TRENCH, SHIELDED 2/C CABLE, LIGHTNING ARRESTOR AND TERMINAL CONNECTIONS IN THE CABINET NECESSARY TO CONNECT TELEPHONE SERVICE TO A MODEM. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO MAKE ARRANGEMENTS WITH THE LOCAL TELEPHONE COMPANY TO HAVE TELEPHONE SERVICE DROP INSTALLED AT THE LOCATION(S) SHOWN IN THE PLANS. THE CONTRACTOR SHALL ASSUME ALL BILLING RESPONSIBILITIES FOR THE PHONE DROP UNTIL COMPLETION OF THE 10 DAY PERFORMANCE TEST.

PAYMENT FOR ITEM 632 PHONE DROP WILL BE AT THE CONTRACT UNIT PRICE BID PER EACH, COMPLETE AND IN PLACE.