F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
337	19R-1	LAKE	800	388
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

CONTRACT NO. 60997

SUGGESTED CONSTRUCTION SEQUENCE

1. PRIOR TO STAGE 3B UNDERCUTTING, CONSTRUCT SANITARY SEWER FROM EXISTING MANHOLE WS-04 THROUGH MANHOLE WS-03 AND WS-01. CORE TEMPORARY CONNECTION TO THE EXISTING LIFT STATION FOR PIPE WS-01. INSTALL CONCRETE BULKHEAD IN EXISTING SOUTH OUTLET OF MANHOLE WS-04, REMOVE EXISTING MANHOLE LS-05E, AND ABANDON EXISTING PIPING FROM MANHOLE WS-04 TO LS-05E TO ALLOW STAGE 3B UNDERCUT. PROVIDE CAPPED WYE IN PIPE WS-01 AS SHOWN FOR CONNECTION TO TEMPORARY PIPING IN STEP 6.

2. PRIOR TO STAGE 4A UNDERCUTTING, CONSTRUCT TEMPORARY GRAVEL DRIVEWAY AT WEST END OF PARKING LOT. SEE SANITARY SEWER RELOCATION PLAN, STA. 7+200 TO STA. 7+500 FOR DETAILS.

3. CONSTRUCT 450 mm SEWER BYPASS INCLUDING MANHOLES LS-01, LS-02, LS-03, AND TEMPORARY 450 mm PIPING FROM LS-03 TO THE EXISTING WET WELL. AT LS-03, ADD TEMPORARY PIPE PLUG IN WEST 450 mm OUTLET STUB TO NEW WET WELL.

4. CONSTRUCT NEW WET WELL AND MAKE CONNECTION TO MANHOLE LS-03, ADD TEMPORARY PLUG. CONSTRUCT 350 mm SEWER NORTH FROM NEW WET WELL TO A POINT APPROXIMATELY 3.9 m NORTH OF THE NEW WET WELL, AND CAP. CONSTRUCT VALVE VAULT, METER MANHOLE, AND INTERCONNECTING PIPING.

5. CONSTRUCT NEW 250 mm FORCE MAIN FROM NEW LIFT STATION TO LOCATION OF CONNECTION TO EXISTING. DO NOT MAKE CONNECTION TO EXISTING.

6. CONSTRUCT TEMPORARY PIPING FROM EXISTING MANHOLE LS-06E TO MANHOLE WS-01, AND FROM PIPE WS-01 TO THE 350 mm STUB CONSTRUCTED IN STEP 4. PROVIDE FITTING AND COUPLING AS REQUIRED FOR TEMPORARY CONNECTION. PLUG NEW TEMPORARY PIPING AT MANHOLE LS-06E AND NORTH INVERT AT NEW WET WELL UNTIL STEP 7.

7. COMPLETE INSTALLATION OF PUMPS, CONTROLS AND ELECTRICAL EQUIPMENT, JUST PRIOR TO STARTUP OF NEW LIFT STATION, BYPASS PUMP FROM MANHOLE LS-02 TO THE NEW WET WELL, REMOVE WEST PIPE PLUG IN MANHOLE LS-03, AND REMOVE TEMPORARY PIPING FROM MANHOLE LS-03 TO EXISTING WET WELL. ADD CONCRETE BULKHEAD TO NORTH OUTLET FROM MANHOLE LS-03. ALLOW FLOW FROM 450 mm SEWER TO FLOW INTO NEW WET WELL. REMOVE PLUGS FROM TEMPORARY PIPING AT MANHOLE LS-06E AND NORTH INVERT OF NEW WET WELL, AND PLUG EXISTING SOUTH INVERT AT MANHOLE LS-06E AND TEMPORARY WEST INVERT AT EXISTING WET WELL. ALL WASTEWATER IS NOW ROUTED TO THE NEW LIFT STATION VIA GRAVITY FLOW. MAKE CONNECTION TO EXISTING FORCE MAIN AND STARTUP THE NEW LIFT STATION.

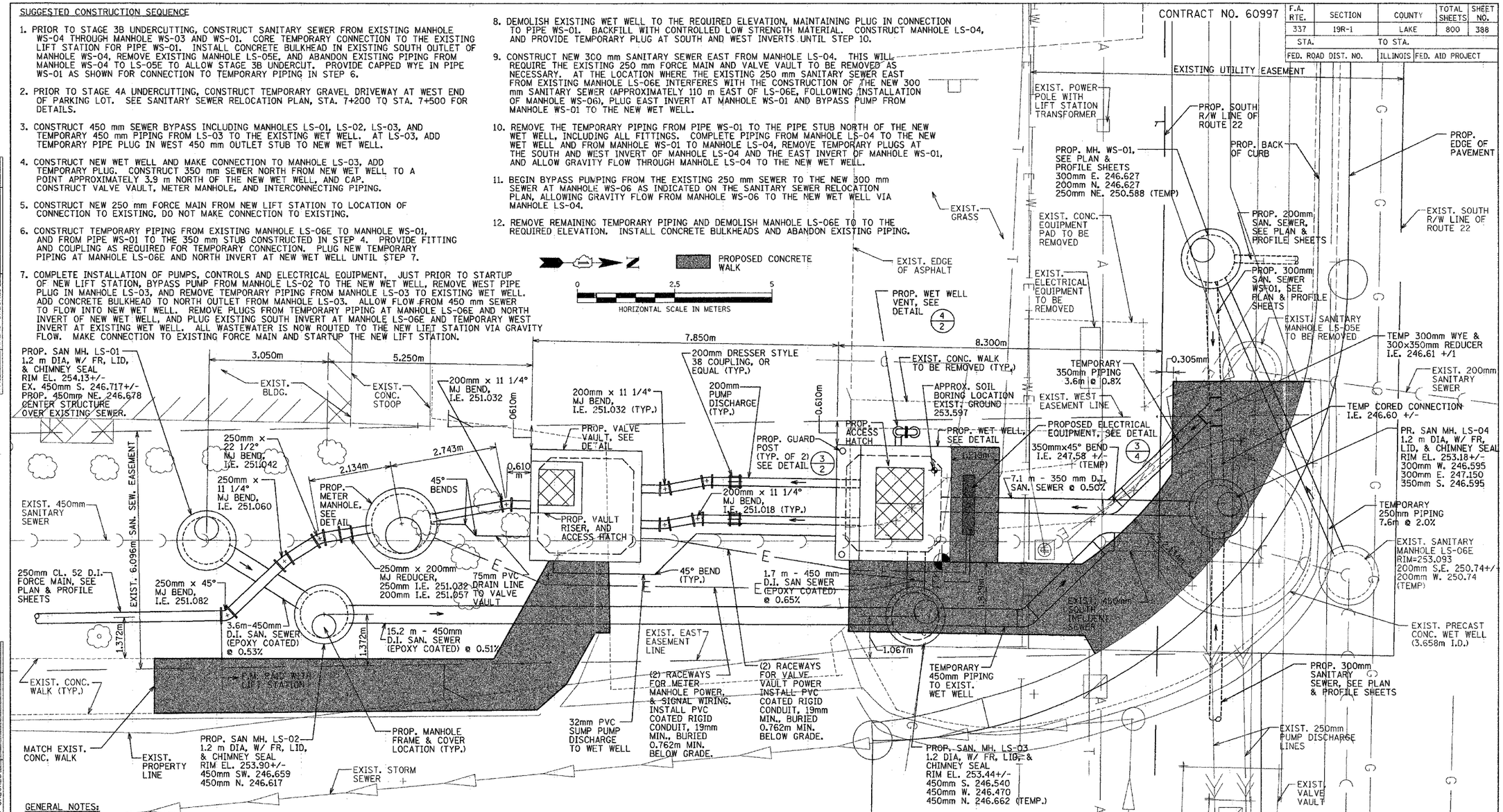
8. DEMOLISH EXISTING WET WELL TO THE REQUIRED ELEVATION, MAINTAINING PLUG IN CONNECTION TO PIPE WS-01. BACKFILL WITH CONTROLLED LOW STRENGTH MATERIAL. CONSTRUCT MANHOLE LS-04, AND PROVIDE TEMPORARY PLUG AT SOUTH AND WEST INVERTS UNTIL STEP 10.

9. CONSTRUCT NEW 300 mm SANITARY SEWER EAST FROM MANHOLE LS-04. THIS WILL REQUIRE THE EXISTING 250 mm FORCE MAIN AND VALVE VAULT TO BE REMOVED AS NECESSARY. AT THE LOCATION WHERE THE EXISTING 250 mm SANITARY SEWER EAST FROM EXISTING MANHOLE LS-06E INTERFERES WITH THE CONSTRUCTION OF THE NEW 300 mm SANITARY SEWER (APPROXIMATELY 110 m EAST OF LS-06E, FOLLOWING INSTALLATION OF MANHOLE WS-06), PLUG EAST INVERT AT MANHOLE WS-01 AND BYPASS PUMP FROM MANHOLE WS-01 TO THE NEW WET WELL.

10. REMOVE THE TEMPORARY PIPING FROM PIPE WS-01 TO THE PIPE STUB NORTH OF THE NEW WET WELL, INCLUDING ALL FITTINGS. COMPLETE PIPING FROM MANHOLE LS-04 TO THE NEW WET WELL AND FROM MANHOLE WS-01 TO MANHOLE LS-04, REMOVE TEMPORARY PLUGS AT THE SOUTH AND WEST INVERT OF MANHOLE LS-04 AND THE EAST INVERT OF MANHOLE WS-01, AND ALLOW GRAVITY FLOW THROUGH MANHOLE LS-04 TO THE NEW WET WELL.

11. BEGIN BYPASS PUMPING FROM THE EXISTING 250 mm SEWER TO THE NEW 300 mm SEWER AT MANHOLE WS-06 AS INDICATED ON THE SANITARY SEWER RELOCATION PLAN, ALLOWING GRAVITY FLOW FROM MANHOLE WS-06 TO THE NEW WET WELL VIA MANHOLE LS-04.

12. REMOVE REMAINING TEMPORARY PIPING AND DEMOLISH MANHOLE LS-06E TO TO THE REQUIRED ELEVATION. INSTALL CONCRETE BULKHEADS AND ABANDON EXISTING PIPING.



GENERAL NOTES:

1. THE SUGGESTED CONSTRUCTION SEQUENCE IS NOTED ABOVE. THIS SEQUENCE COORDINATES THE CONSTRUCTION OF THE NEW LIFT STATION, NEW FORCE MAIN, SANITARY SEWER RELOCATIONS, AND DEMOLITION OF EXISTING STRUCTURES. WORK IDENTIFIED IN THE SEQUENCE THAT IS NOT PART OF THE LUMP SUM "SANITARY SEWER LIFT STATION" PAY ITEM INCLUDES THE FOLLOWING:
   - CONSTRUCTION OF MANHOLES LS-01 THROUGH LS-04, INCLUSIVE
   - CONSTRUCTION OF 450mm SANITARY SEWER FROM MANHOLE LS-01 TO LIFT STATION
   - CONSTRUCTION OF 350mm SANITARY SEWER FROM MANHOLE LS-04 TO LIFT SATION
   - CONSTRUCTION OF 250mm FORCE MAIN SOUTH OF 45° BEND EAST OF MANHOLE LS-01 CONSTRUCTION OF 200mm SANITARY SEWER BETWEEN MANHOLES WS-04 (EX.) TO WS-03, WS-03 TO WS-01, AND WS-01 TO LS-04
   - ABANDONMENT OF EXISTING SANITARY SEWER BETWEEN EXISTING MANHOLES WS-04 AND LS-05E, INCLUDING S. BULKHEAD AT MANHOLE WS-04.
   - CONSTRUCTION OF 300mm SANITARY SEWER RUNNING EAST FROM MANHOLE LS-04, THE REMOVAL OF EXISTING 250mm FORCE MAIN EAST OF THE EXISTING VALVE VAULT, AND ALL BYPASS PUMPING NECESSARY FOR THE INSTALLATION OF THIS SEWER.

   CONTRACTOR MAY CHOOSE TO EXECUTE ALTERNATE CONSTRUCTION SEQUENCE FOR COMPLETING THE LIFT STATION WORK, HOWEVER, ALL TEMPORARY PIPING AND BYPASS PUMPING REQUIRED WILL BE CONSIDERED INCIDENTAL.

2. ALL RESTORATION ITEMS INCLUDING PAVEMENT REMOVAL & REPLACEMENT, SIDEWALK REMOVAL & REPLACEMENT, AND LAWN REPLACEMENT WILL BE MEASURED AND PAID FOR SEPARATELY FROM THE LUMP SUM "SANITARY SEWER LIFT STATION" PAY ITEM.

3. ALL DIMENSIONS TO PROPOSED STRUCTURES ARE MEASURED PERPENDICULAR AND PARALLEL TO THE NEW SOUTH RIGHT-OF-WAY LINE OF ROUTE 22, EXCEPT WHERE SHOWN PARALLEL TO THE EXISTING EAST EASEMENT LINE.

4. GEOTECHNICAL INVESTIGATION INDICATES THAT THE EXISTING SOIL IN THE IMMEDIATE VICINITY OF THE PROPOSED WET WELL IS NOT SUITABLE FOR SUPPORTING STRUCTURES OR PIPES DOWN TO A DEPTH OF 5.5 METERS (EL. 248.1 +/-). CONTRACTOR SHALL EXCAVATE DOWN TO SUITABLE SOILS AND INSTALL A CRUSHED STONE BASE BELOW THE PROPOSED VALVE VAULT AND METER MANHOLE. EXISTING SOIL BELOW PROPOSED WET WELL, MANHOLES LS-01 TO LS-04, AND THE 450mm SANITARY SEWER ARE EXPECTED TO BE ADEQUATE FOR CONSTRUCTION, CONTRACTOR SHALL VERIFY.

5. BACKFILL FOR LIFT STATION STRUCTURES AND PIPING BELOW PAVEMENT AREAS SHALL BE CRUSHED STONE, GRADATION CA-6. BACKFILL FOR LIFT STATION STRUCTURES AND PIPING BELOW LAWN AREAS SHALL BE CRUSHED STONE GRADATION CA-6, OR OTHER MATERIAL ACCEPTABLE TO ENGINEER.

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

ILLINOIS ROUTE 22
FROM US RTE 12 TO BEUSCHING RD

LIFT STATION RELOCATION 1/4
LIFT STATION SITE PLAN

DATE: 08/19/04 DRAWN BY: SRK CHECKED BY: JMB

FILE: h:\Jobs2003\20034005\CAD\IDOT_Trans\dgn\02\west\lift station\site_plan.dgn

ORIGINAL SURVEY	BY	DATE
SURVEYED		
PLOTTED		
TEMPLATE		
AREAS		
AREAS CHECKED		
NOTE BOOK		
NO.		

FINAL SURVEY	BY	DATE
SURVEYED		
PLOTTED		
TEMPLATE		
AREAS		
AREAS CHECKED		
NOTE BOOK		
NO.		

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