

CAUTION!!

THE LOCATIONS OF ALL EXISTING UNDERGROUND UTILITIES SHOWN ON THIS PLAN ARE BASED UPON ABOVE GROUND EVIDENCE (INCLUDING, BUT NOT LIMITED TO, MANHOLES, INLETS, CALL DC ONE CALL "DOC" AT 1-800-257-7777 48 HOURS VALVES, AND MARKS MADE UPON THE GROUND BY OTHERS) AND ARE SPECULATIVE IN NATURE. THERE MAY ALSO BE OTHER EXISTING UNDERGROUND UTILITIES FOR WHICH THERE IS NO ABOVE GROUND EVIDENCE OR FOR WHICH NO ABOVE GROUND EVIDENCE WAS OBSERVED. THE EXACT LOCATIONS OF TO COMMENCING EXCAVATION. THE EXCAVATOR IS SAID EXISTING UNDERGROUND UTILITIES SHALL BE VERIFIED BY RESPONSIBLE FOR COMPLIANCE WITH REQUIREMENTS OF THE

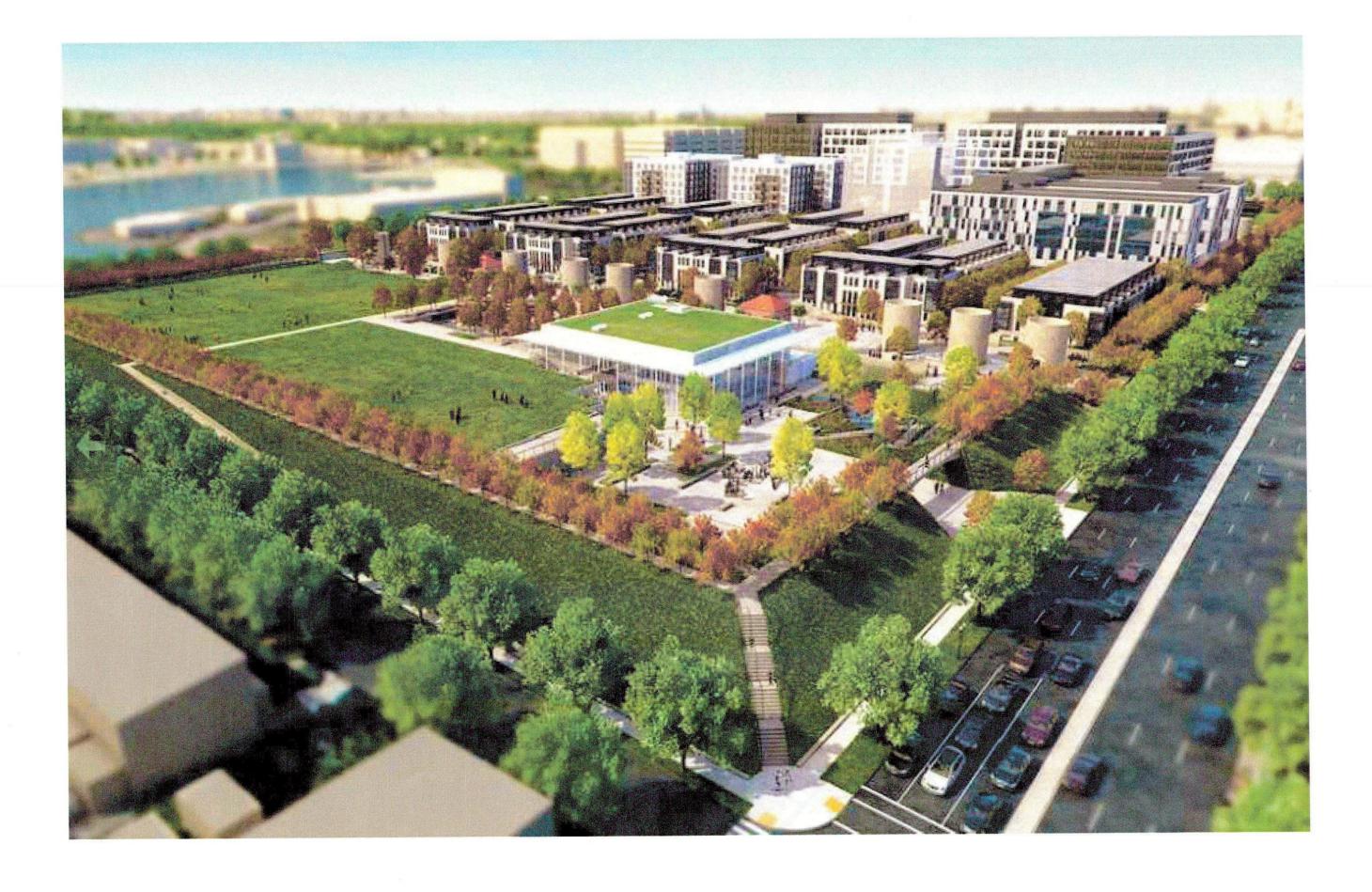
MISS UTILITY

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PRIOR TO THE START OF WORK. THE EXCAVATOR MUST NOTIFY ALL PUBLIC UTILITY COMPANIES WITH UNDER GROUND FACILITIES IN THE AREA OF PROPOSED EXCAVATION AND HAVE THOSE FACILITIES LOCATED BY THE UTILITY COMPANIES PRIOR THE CONTRACTOR PRIOR TO ANY AND ALL CONSTRUCTION. DISTRICT OF COLUMBIA CODES AND REGULATIONS.

McMILLAN RESERVOIR SITE DEVELOPMENT PACKAGE LOT 800

SUPPORT OF EXCAVATION FOR DEMOLITION PERMIT PACKAGE 3





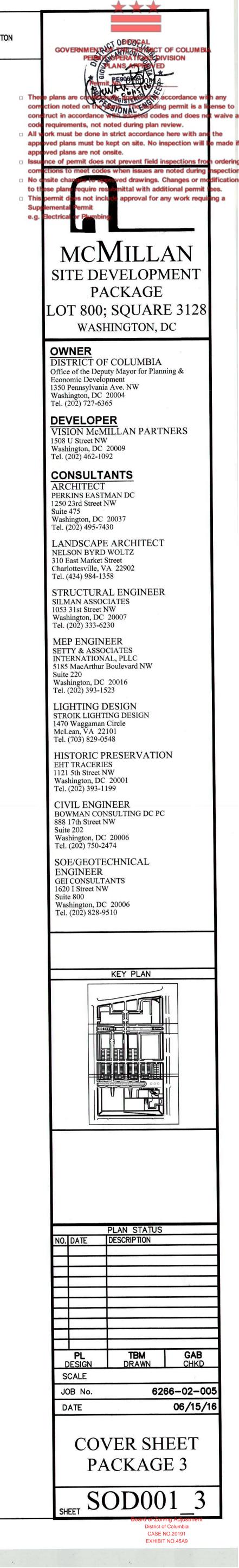




LIST OF DRAWINGS

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COVER SHEET **GENERAL NOTES & SEQUENCE** OVERALL SITE PLAN KEY SITE UTILITY PLAN PLAN SECTIONS SECTIONS PLAN AND SECTIONS



GENERAL NOTES:

- 1. CONTACT THE UTILITY OWNERS FOR ASSISTANCE IN LOCATING AND REMOVING/RELOCATING ALL UTILITIES THAT ARE FOUND TO BE IN CONFLICT WITH THE PROPOSED WORK. CONTACT "MISS UTILITY" AS REQUIRED BY LAW PRIOR TO BEGINNING WORK AND FIELD LOCATE EXISTING UTILITIES PRIOR TO INSTALLATION OF SHORING SYSTEM. CONTRACTOR SHALL REMOVE OR RELOCATE ALL OVERHEAD LINES TO PROVIDE OSHA REQUIRED CLEARANCES FOR THE DRILL RIG AND CRANE UTILIZED TO INSTALL THE SOLDIER PILES AND TIEBACKS. 2. MAINTAIN ANY EXISTING UTILITIES REQUIRED TO REMAIN; KEEP IN SERVICE AND PROTECT AGAINST DAMAGE
- DURING DEMOLITION OPERATIONS. 3. DISCONNECT AND SEAL ANY ABANDONED UTILITIES BEFORE STARTING DEMOLITION OPERATIONS. COORDINATE
- ALL WORK WITH LOCAL UTILITY COMPANIES HAVING JURISDICTION. 4. THIS SUPPORT OF EXCAVATION FOR DEMOLITION PACKAGE IS FOR PERMITTING PURPOSES ONLY. THE FINAL DESIGN AND DETAILING OF THE SHEETING AND SHORING SYSTEM SHALL BE DESIGNED BY GEI, HIRED BY
- OTHERS TO COMPLETE THE DESIGN. 5. PRIOR TO THE START OF WORK, CONDITION SURVEYS SHALL BE PERFORMED OF ALL STRUCTURES TO BE SUPPORTED AND ADJACENT STRUCTURES TO REMAIN. NOTIFY GEI IF CONDITIONS ARE FOUND TO DIFFER SIGNIFICANTLY FROM THOSE INDICATED ON THESE DRAWINGS REQUIRING MODIFICATIONS TO THE DEMOLITION
- 6. INSTRUMENTATION OF ALL STRUCTURES IDENTIFIED IN THE SPECIFICATIONS TO BE MONITORING SHALL BE INSTALLED AND BASELINED PRIOR TO THE START OF WORK.
- 7. DIMENSIONS AND ELEVATIONS OF EXISTING CONSTRUCTION GIVEN IN STRUCTURAL DRAWINGS ARE BASED ON INFORMATION CONTAINED IN VARIOUS ORIGINAL DESIGN AND CONSTRUCTION DOCUMENTS PROVIDED BY THE OWNER, AND LIMITED FIELD OBSERVATIONS AND MEASUREMENTS. THE CONTRACTOR SHALL VERIFY ALL INFORMATION PERTAINING TO EXISTING CONDITIONS BY ACTUAL MEASUREMENT AND OBSERVATION AT THE SITE ALL DISCREPANCIES BETWEEN ACTUAL CONDITIONS AND THOSE SHOWN IN THE CONTRACT DOCUMENTS SHALL BE REPORTED TO THE ENGINEER OF RECORD FOR EVALUATION BEFORE THE AFFECTED CONSTRUCTION IS PUT IN PLACE.
- 8. THE CONTRACT DRAWINGS AND SPECIFICATIONS ARE COMPLEMENTARY. THESE NOTES HIGHLIGHT RATHER THAN REPLACE THE SPECIFICATIONS.
- 9. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH OSHA REGULATIONS. 10. A SAFETY HANDRAIL SHALL BE INSTALLED ALONG THE TOP OF THE SOLDIER PILE AND LAGGING WALL. DETAILS OF HANDRAILS ARE NOT SHOWN ON THESE DRAWINGS AND ARE THE RESPONSIBILITY OF THE CONTRACTOR.
- 11. INSTALL TEMPORARY CHAIN LINK SECURITY FENCING OUTSIDE OF EXCAVATIONS TO REPLACE ANY AREAS
- WHERE EXISTING SECURITY FENCING IS REMOVED TO FACILITATE THE WORK.
- 12. ALL SPECIAL INSPECTIONS REQUIRED BY THE DC BUILDING CODE SHALL BE PERFORMED. 13. ANY PERMITS REQUIRED FOR ROAD CLOSURES AND MANAGEMENT OF TRAFFIC IS THE RESPONSIBILITY OF THE CONTRACTOR.

STRUCTURAL STEEL

- 1. ALL STRUCTURAL STEEL SHALL COMPLY WITH THE LATEST EDITION OF THE FOLLOWING STANDARDS: a. AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC): MANUAL OF STEEL CONSTRUCTION. b. AMERICAN WELDING SOCIETY (AWS): STRUCTURAL WELDING CODE - STEEL (AWS D1.1). 2. ALL STRUCTURAL STEEL SHALL CONFIRM TO THE FOLLOWING SPECIFICATIONS:
- a. SOLDIER PILES: ASTM A572 (FY=50 KSI).
- b. WALERS: ASTM A36 (FY=36 KSI). c. ALL OTHER STEEL COMPONENTS: ASTM A36 (FY=36 KSI).
- 3. ALL WELDING SHALL BE PERFORMED BY AWS D1.1 CERTIFIED WELDERS.

CONCRETE AND FLOWABLE FILL

- 1. ALL CONCRETE WORK SHALL CONFORM TO THE LATEST EDITION OF THE FOLLOWING STANDARD: AMERICAN CONCRETE INSTITUTE (ACI), BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE (ACI 318).
- 2. CONCRETE SHALL HAVE A 28-DAY COMPRESSIVE STRENGTH (F'C) EQUAL TO 4,000 PSI.
- 3. MAINTAIN A MINIMUM COVER OF 3 INCHES FOR SOLDIER PILES. 4. LOW STRENGTH FLOWABLE FILL SHALL HAVE A 28-DAY COMPRESSIVE STRENGTH BETWEEN 50 AND 250 PSI.

SOLDIER PILE INSTALLATION

- 1. SOLDIER PILES SHALL BE INSTALLED IN 30-INCH DIAMETER DRILLED HOLES. DRILLED-IN PILES SHALL BE INSTALLED IN THE FOLLOWING MANNER: a. DRILL 30-INCH HOLE TO THE PLANNED TIP ELEVATION. UTILIZE TEMPORARY STEEL CASING IF HOLE
- STABILITY BECOMES A PROBLEM, OR IF WATER IS ENCOUNTERED DURING DRILLING. b. CLEAN OUT THE HOLE TO ENSURE LESS THAN 1 INCH OF DRILL CUTTINGS AND/OR 1 FOOT OF WATER
- REMAIN AT THE BOTTOM OF THE DRILL HOLE. C.LOWER SOLDIER PILE INTO HOLE AND HOLD IN PLACE WITH TEMPORARY BRACING.
- ABOVE THE PROPOSED EXCAVATION LEVEL.

TIMBER LAGGING

- 1. TIMBER LAGGING SHALL BE HAVE A MINIMUM ALLOWABLE BENDING STRESS OF 1,200 PSI AND ALLOWABLE SHEAR STRESS OF 175 PSI.
- 2. LAGGING BOARDS SHALL BE ROUGH CUT, FULL DIMENSION, 3-INCH THICK. 3. BACKFILL ALL VOIDS BEHIND LAGGING BOARDS WITH HAND COMPACTED SOIL IMMEDIATELY AFTER EACH BOARD
- IS INSTALLED. 4. EXCAVATION ADJACENT TO SOLDIER PILE AND LAGGING WALLS SHALL NOT EXTEND MORE THAN 3 FEET UNSUPPORTED BELOW THE BOTTOM OF THE LOWEST LAGGING BOARD.

TIEBACKS

- TIEBACKS SHALL BE CONFORM TO ASTM A722 (FY=150 KSI).
- 2. DO NOT WELD IN THE VICINITY OF THE ANCHOR BARS
- DO NOT USE ANCHORS AS A GROUND FOR WELDING. 4. NUTS, WASHERS, BEARING PLATES, AND COUPLERS SHALL BE SIZED PER BAR MANUFACTURER RECOMMENDATIONS.
- 5. TIEBACKS SHALL BE INSTALLED WITH THE LENGTH AND DIAMETER INDICATED ON THESE DRAWINGS. 6. USE CENTRALIZERS TO INSTALL THE TIEBACK ANCHORS WITHIN 1 INCH OF THE CENTER OF THE DRILLED
- HOLE. 7. DRILLING METHODS SHALL BE SELECTED BY THE CONTRACTOR SUCH THAT DRILL HOLES REMAIN STABLE AND DO NOT PROMOTE MINING OR LOOSENING OF THE SOIL AROUND THE DRILL HOLE AND RESULT IN THE
- MINIMUM DIAMETER SHOWN ON THESE DRAWINGS. 8. SINCE CONSTRUCTION EQUIPMENT IS NOT ALLOWED TO OPERATE ON TOP OF THE EMPTY FILTER CELLS, ALL TIEBACKS ARE ANTICIPATED TO BE INSTALLED FROM A PLATFORM SUPPORTED BY A CONSTRUCTION CRANE. ALTERNATIVELY. THE OUTER BAY OF THE FILTERS CAN BE FILLED WITH FLOWABLE FILL TO ALLOW FOR THE TIEBACK EQUIPMENT TO OPERATE ON TOP OF THE FILTER.
- 9. INSTALL TIEBACKS PERPENDICULAR TO THE SOLDIER PILE AND LAGGING WALL, UNLESS NOTED OTHERWISE. 10. PERFORM PERFORMANCE AND PROOF TESTING ONCE THE GROUT HAS REACHED THE DESIGN COMPRESSIVE STRENGTH FOLLOWING THE PROCEDURE DEFINED ON THESE DRAWINGS AND FOLLOWING THE PROCEDURES DEFINED IN "RECOMMENDATIONS FOR PRESTRESSED ROCK AND SOIL ANCHORS, FOURTH EDITION (2014)" BY
- THE POST-TENSION INSTITUTE. 11. ALL TIEBACKS SHALL BE LOCKED OFF AT 100 PERCENT OF THE DESIGN LOAD.

GROUTING

- 1. GROUT SHALL BE A STABLE NEAT CEMENT GROUT WITH A MINIMUM COMPRESSIVE STRENGTH (F'C) OF 4,000 PSI.
- 2. THE GROUTING EQUIPMENT USED SHALL BE HIGH SHEAR AND PRODUCE A GROUT FREE OF LUMPS AND UNMIXED CEMENT.
- 3. THE GROUTING EQUIPMENT SHALL BE SIZED TO ENABLE EACH TIEBACK TO BE GROUTED IN ONE CONTINUOUS
- OPERATION FROM THE BOTTOM OF THE DRILL HOLE TO THE TOP OF THE HOLE. 4. THE SPECIFIC GRAVITY SHALL BE MEASURED USING A MUD BALANCE FOR EACH BATCH PRODUCTION AND SHALL BE BETWEEN 1.8 AND 1.9.
- 5. A SET OF 6 GROUT CUBES SHALL BE PREPARED FOR COMPRESSIVE STRENGTH TESTING FOR EACH 30 CUBIC YARDS OF GROUT PLACED WITH A MINIMUM OF ONE SET PER DAY.

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DISTRICT OF COLUMBIA CODES AND REGULATIONS. Cad file name: X: \2015\1517010 - Vision McMillan Reservoir \CAD \Design \Working \Design Packages \Package 1 \S0D002_1 - General Notes_Pk 1.dwg 6/14/2016

d.FILL HOLE WITH CONCRETE BELOW THE FINAL EXCAVATION LEVEL AND WITH LOW STRENGTH FLOWABLE FILL

TIEBACK TESTING

- 1. CONDUCT PERFORMANCE TEST ON A MINIMUM OF 5 PERCENT OF THE TOTAL NUMBER OF TIEBACKS SPACED RANDOMLY OVER THE WALL LENGTH INCLUDING TESTS IN THE UPPER AND LOWER TIEBACK LOCATIONS. CONDUCT PERFORMANCE TEST IN THE PRESENCE OF THE ENGINEER BY INCREMENTALLY LOADING AND UNLOADING THE ANCHOR IN ACCORDANCE WITH THE FOLLOWING SCHEDULE:
- P = DESIGN LOAD (SEE TIEBACK SCHEDULE)
- L = LOCK OFF LOAD = 100 PERCENT OF THE DESIGN LOADAL = ALIGNMENT LOAD = NOT EXCEED 5 PERCENT OF THE DESIGN LOAD
- AL, 0.25P
- AL, 0.25P, 0.50P AL, 0.25P, 0.50P, 0.75P
- AL, 0.25P, 0.50P, 0.75P, 1.00P
- AL, 0.25P, 0.50P, 0.75P, 1.00P, 1.25P AL, 0.25P, 0.50P, 0.75P, 1.00P, 1.25P, 1.50P, HOLD FOR 1 HOUR TO MEASURE CREEP.
- UNLOAD AND LOCK OFF AT L.
- 2. PROOF TEST EACH ANCHOR WHICH IS NOT PERFORMANCE TESTED BY INCREMENTALLY LOADING AND UNLOADING THE ANCHOR IN ACCORDANCE WITH THE FOLLOWING SCHEDULE;
- AL, 0.25P, 0.50P, 0.75P, 1.00P, 1.25P, 1.50P, HOLD FOR 15 MIN TO MEASURE CREEP UNLOAD AND LOCK OFF AT L.
- 3. TIEBACK TESTS SHALL BE CONSIDERED ACCEPTABLE WHEN:
- a.A CREEP RATE LESS THAN 0.04 INCH PER LOG CYCLE OF TIME BETWEEN THE 1 AND 10 MINUTE READING IS OBSERVED. IF MORE THAN 0.04 INCHES IS OBSERVED IN THE 10 MINUTE LOG CYCLE, THEN A CREEP RATE LESS THAN 0.08 INCH PER LOG CYCLE OF THE TIME BETWEEN 6 AND 60 MINUTE READINGS AND THE CREEP RATE IS LINEAR OR DECREASING THROUGHOUT THE CREEP TEST LOAD HOLD PERIOD IS ALSO ACCEPTABLE.
- b. THE TOTAL MOVEMENT AT THE MAXIMUM TEST LOAD MUST EXCEED 80 PERCENT OF THE THEORETICAL ELASTIC ELONGATION OF THE TEST TIEBACK UNBONDED LENGTH BUT BE LESS THAN 100% OF THIS LENGTH PLUS 50% OF THE TENDON BOND LENGTH PLUS THE JACK LENGTH.
- 4. FOR ALL ANCHORS, AFTER TRANSFERRING THE LOCK-OFF LOAD, AND PRIOR TO REMOVING THE JACK. PERFORM AN INITIAL LIFT-OFF TEST ON EACH ANCHOR. IF THE INITIAL LIFT-OFF LOAD DIFFERS BY MORE THAN 5% OF THE LOCK-OFF LOAD, PROOF TEST THE ANCHOR AGAIN.
- 5. FOR EACH ANCHOR, WHICH REQUIRED AN ADDITIONAL PROOF TEST DUE TO THE INITIAL LIFT-OFF TEST VARYING BY MORE THAN 5% FROM THE LOCK OFF LOAD, PERFORM A DEFERRED LIFT OFF TEST A MINIMUM OF TWO (2) HOURS AFTER THE LOAD HAS BEEN LOCKED OFF. IF THE DEFERRED LIFT-OFF LOAD IS LESS THAN THE LOCK-OFF LOAD BY MORE THAN 5%, THE ANCHOR IS UNACCEPTABLE AND SHALL BE REPLACED AS DIRECTED BY THE ENGINEER AT NO COST TO THE OWNER.
- 6. ANCHORS WHICH DO NOT MEET THE ACCEPTANCE CRITERIA WILL BE UNACCEPTABLE AND MUST BE REPLACED OR AN ADDITIONAL TIEBACK MUST BE ADDED. APPROVAL MUST BE GIVEN BY THE ENGINEER. TEMPORARY SLOPES

- 1. TEMPORARY SLOPES USED IN CONNECTION WITH SOLDIER PILE AND LAGGING WALLS SHALL NOT BE STEEPER THAN 1.5H:1V. 2. TEMPORARY SLOPES USED AS THE SOLE SHORING SYSTEM ADJACENT TO ROADWAYS AND SIDEWALKS SHALL
- NOT BE STEEPER THAN 2H:1V. 3. TEMPORARY JERSEY-STYLE VEHICLE BARRIERS SHALL BE INSTALLED AT THE TOP OF ALL SLOPES ADJACENT
- TO ROADWAYS AND SIDEWALKS EXCEEDING 3 FEET IN HEIGHT. 4. ALL SLOPES USED ADJACENT TO ROADWAYS AND SIDEWALKS AND ANY SLOPES THAT WILL REMAIN EXPOSED FOR DURATIONS EXCEED 3 MONTHS SHALL BE STABILIZED UTILIZING SEEDING, EROSION CONTROL MATS, OR REINFORCED POLYETHYLENE SHEETS TO PREVENT LOCALIZED EROSION OF SLOPES.

TOLERANCES

- 1. SOLDIER PILES SHALL BE INSTALLED WITHIN 6 INCHES OF THE LOCATION SHOWN ON THESE DRAWINGS AND WITHIN 1 DEGREE OF PLUMB. 2. ELEVATION OF TIEBACK HEADS SHALL BE WITHIN 3 INCHES OF THE LOCATION SHOWN ON THESE DRAWINGS.
- 3. INCLINATION OF TIEBACKS SHALL BE WITHIN 3 DEGREES OF THE ANGLE SHOWN ON THESE DRAWINGS.
- 4. ORIENTATION OF TIEBACKS IN PLAN SHALL BE WITHIN 3 DEGREES OF PERPENDICULAR TO THE SOLDIER PILE AND LAGGING WALL.

DESIGN CRITERIA

- 1. CONSTRUCTION EQUIPMENT IS NOT PERMITTED TO BE OPERATED ON TOP OF THE EMPTY FILTERS
- 2. SEE SUPPORT OF EXCAVATION FOR DEMOLITION CALCULATION PACKAGE FOR SPECIFIC DESIGN INFORMATION AND SOIL DESIGN PARAMETERS. 3. A MINIMUM SURCHARGE PRESSURE OF 250 PSF WAS UTILIZED FOR THE DESIGN OF ALL SUPPORT OF
- EXCAVATION SYSTEMS TO MODEL TYPICAL ROADWAY TRAFFIC BEHIND WALLS. 4. A CONSTRUCTION SURCHARGE PRESSURE OF 650 PSF WAS UTILIZED FOR THE DESIGN OF ALL SUPPORT OF EXCAVATION THAT WILL HAVE CONSTRUCTION EQUIPMENT OPERATING BEHIND THE WALL EITHER DURING CONSTRUCTION OF THE SUPPORT OF EXCAVATION SYSTEM OR DURING DEMOLITION OF THE FILTER CELLS
- THE CURRENT SUPPORT OF EXCAVATION UTILIZED THIS CONSTRUCTION SURCHARGE FOR THE SUPPORT OF EXCAVATION WALLS THAT HAVE TIEBACKS INSTALLED.
- 5. STOCKPILING OF EXCAVATED SOIL OR CONCRETE DEBRIS ARE NOT PERMITTED BEHIND THE SUPPORT OF EXCAVATION WALLS OR AT THE TOP OF THE TEMPORARY SOIL SLOPES.

PROPOSED SEQUENCE OF DEMOLITION:

- 1. THE SUPPORT OF EXCAVATION SYSTEM PRESENTED ON THESE DRAWINGS ARE BASED ON THE SUGGESTED SUPPORT OF EXCAVATION SEQUENCE FOR DEMOLITION PROVIDED. MODIFICATIONS OF THIS SEQUENCE SHALL BE EVALUATED BY THE ENGINEER TO ENSURE THAT MODIFICATIONS TO THE SUPPORT OF EXCAVATION SYSTEM ARE NOT REQUIRED. THE SEQUENCE OF DEMOLITION OF THE FILTERS IS THE RESPONSIBILITY OF THE CONTRACTOR.
- 2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO ANY ADJACENT STRUCTURES TO REMAIN. THE USE OF EXPLOSIVES WILL NOT BE PERMITTED.
- 4. CONDUCT DEMOLITION OPERATIONS AND THE REMOVAL OF DEBRIS TO ENSURE MINIMUM INTERFERENCE WITH ROADS, STREETS, WALKS AND OTHER ADJACENT OCCUPIED OR USED FACILITIES.
- 5. DO NOT CLOSE OR OBSTRUCT STREET, WALKS OR OTHER OCCUPIED OR USED FACILITIES WITHOUT PERMISSION FROM AUTHORITIES HAVING JURISDICTION. 6. BEFORE COMMENCING ANY ALTERATION OR DEMOLITION WORK, SUBMIT FOR REVIEW BY THE OWNER. A SCHEDULE SHOWING THE COMMENCEMENT, THE ORDER, AND THE COMPLETION DATES FOR THE VARIOUS
- PARTS OF THIS WORK. 7. CONTRACTOR WILL TAKE FULL PRECAUTIONS TO PROTECT WORKMAN, PASSERSBY OR ANY OTHER PERSONS FROM FALLING DEBRIS AND OTHER HAZARDS OF DEMOLITION OPERATIONS.
- 8. CONTRACTOR WILL MAKE SUCH EXPLORATIONS AND PROBES AS ARE NECESSARY TO ASCERTAIN ANY REQUIRED PROTECTIVE MEASURES BEFORE PROCEEDING WITH DEMOLITION AND REMOVAL. GIVE PARTICULAR ATTENTION TO SHORING AND BRACING REQUIREMENTS AS TO PREVENT ANY DAMAGE TO EXISTING CONSTRUCTION.
- 9. CONSTRUCTION AND ADEQUACY OF THE SHORING SHALL BE THE ENTIRE RESPONSIBILITY OF THE CONTRACTOR.

SUPPORT OF EXCAVATION MONITORING PLAN FOR PACKAGE 1:

- 1. PRIOR TO BEGINNING WORK, CONDUCT PRE-CONSTRUCTION CONDITION SURVEYS OF ALL STRUCTURES WITHIN THE ZONE OF INFLUENCE OF THE EXCAVATIONS. THE ZONE OF INFLUENCE SHOULD BE CONSIDERED TO EXTEND A DISTANCE EQUAL TO THE MAXIMUM DEPTH OF EXCAVATION REQUIRED FOR DEMOLITION.
- 2. STRUCTURAL MONITORING POINTS SHALL BE INSTALLED ALONG THE TOP OF THE SUPPORT OF EXCAVATION SYSTEM AT NO GREATER THAN 50 FEET APART TO MONITOR HORIZONTAL AND VERTICAL MOVEMENTS OF THE PILES.
- 3. NOTIFY THE ENGINEER IF LATERAL MOVEMENT IS MEASURED EQUAL TO 1% OF THE MAXIMUM EXCAVATION DEPTH TO DETERMINE IF MITIGATION MEASURES SHALL BE DEVELOPED FOR REINFORCING THE SUPPORT OF EXCAVATION SYSTEM.

CONSTRAINTS AND ASSUMPTIONS SPECIFIC TO PERMIT PACKAGE 1:

- 1. CELL 14 MUST REMAIN IN SERVICE AND SHOULD BE ASSUMED THAT IT WILL FILL UP WITH WATER DURING THE DEMOLITION.
- 2. CELL 14 CAN HANDLE VERY LIMITED VERTICAL AND LATERAL DEFLECTION OF THE COMMON DIVIDING WALL DUE TO THE UNREINFORCED ARCHES ROOF STRUCTURE.
- 3. THE OUTSIDE WALL ALONG SERVICE COURT NO. 2 WILL BE REMOVED.
- 4. SERVICE COURT NO. 2 MUST REMAIN OPEN TO VEHICULAR TRAFFIC DURING DEMOLITION.
- 5. THE SAND BINS, REGULATOR HOUSES, AND SAND WASHER STRUCTURES MUST NOT BE DAMAGED DURING DEMOLITION.
- 6. MICHIGAN AVENUE NW AND 1ST STREET NW MUST NOT BE DAMAGED DURING THE DEMOLITION WORK 7. 1ST STREET NW IS CURRENTLY CLOSED TO THE PUBLIC AND WILL REMAIN CLOSED DURING DEMOLITION, BUT CAN BE USED FOR THE INSTALLATION OF THE SHORING SYSTEM REQUIRED FOR DEMOLITION.

PROPOSED SUPPORT OF EXCAVATION SEQUENCE FOR DEMOLITION FOR PERMIT PACKAGE 1:

- 1. FILL THE EASTERN BAY OF FILTER 13 FROM COMMON DIVIDING WALL TO THE INSIDE FACE OF ADJACENT PIER COLUMN LINE WITH LOW STRENGTH FLOWABLE FILL.
- 2. INSTALL SOLDIER PILES ALONG SERVICE COURT NO. 2 ON THE OUTSIDE OF THE EXISTING SERVICE COURT WALL OF THE FILTERS. 3. INSTALL TEMPORARY BRACE BETWEEN SERVICE COURT WALL AND SOLDIER PILES WITH A MAXIMUM SPACING
- OF 20 FEET.
- 4. INSTALL SOLDIER PILES ALONG THE TOP OF THE SLOPE BEHIND THE FILTERS ALONG 1ST AVENUE NW. 5. INSTALL SOLDIER PILES ALONG THE TOP OF THE SLOPE BEHIND THE FILTERS ALONG MICHIGAN AVENUE NW.
- 6. WITH A SMALL EXCAVATOR OPERATING ON TOP OF THE FILLED-IN EASTERN BAY OF FILTER 13, REMOVE SOIL ALONG THE TOP OF THE PIER COLUMN LINE AND FOR A WIDTH OF 14 FEET OVER FILTER 13 TO THE NEXT INTERIOR PIER COLUMN LINE.
- 7. DEMOLISH THE TOP OF THE ARCH SECTION OF THE EASTERN BAY OF FILTER 13.
- 8. EXCAVATE SOIL ALONG 1ST AVE NW AND MICHIGAN AVE NW WHILE INSTALLING TIMBER LAGGING. INSTALL UPPER TIEBACK FOR THESE SOLDIER PILE AND LAGGING WALLS WHERE REQUIRED.
- 10. CONTINUE EXCAVATING DOWN TO EL 165' WHILE INSTALLING TIMBER LAGGING FOR THE SOLDIER PILE AND LAGGING WALLS ALONG 1ST AVE NW AND MICHIGAN AVE NW.
- 11. INSTALL THE LOWER TIEBACKS FOR THESE SOLDIER PILE AND LAGGING WALLS WHERE REQUIRED. 12. INSTALL TEMPORARY BRACE BETWEEN TOP OF EXTERIOR FILTER WALL AND SOLDIER PILES WITH A MAXIMUM
- SPACING OF 20 FEET. 13. CONTINUE EXCAVATING EXTERIOR WALLS ALONG 1ST AVE NW AND MICHIGAN AVE NW WHILE INSTALLING
- TIMBER LAGGING FOR THE SOLDIER PILE AND LAGGING WALLS. 14. EXCAVATE SOIL DOWN TO THE BOTTOM OF THE SERVICE COURT WALL BETWEEN SOLDIER PILE AND LAGGING WALL WHILE INSTALLING TIMBER LAGGING.
- 15. BEGIN DEMOLITION OF THE FILTERS. SUGGESTED METHOD OF DEMOLITION WOULD BE TO KNOCK IN THE TOP OF THE FILTERS STARTING IN ONE CORNER AND THEN DEMOLISH OUTSIDE WALLS WORKING TOWARDS THE OTHER END OF THE STRUCTURE.

