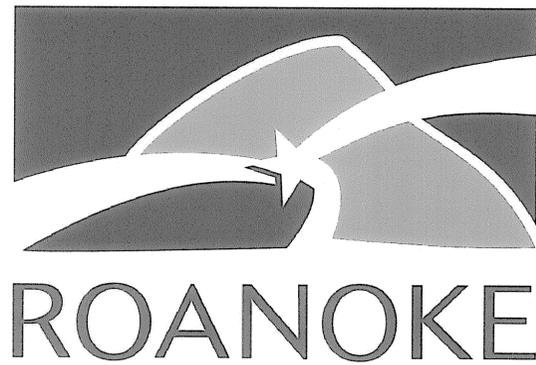
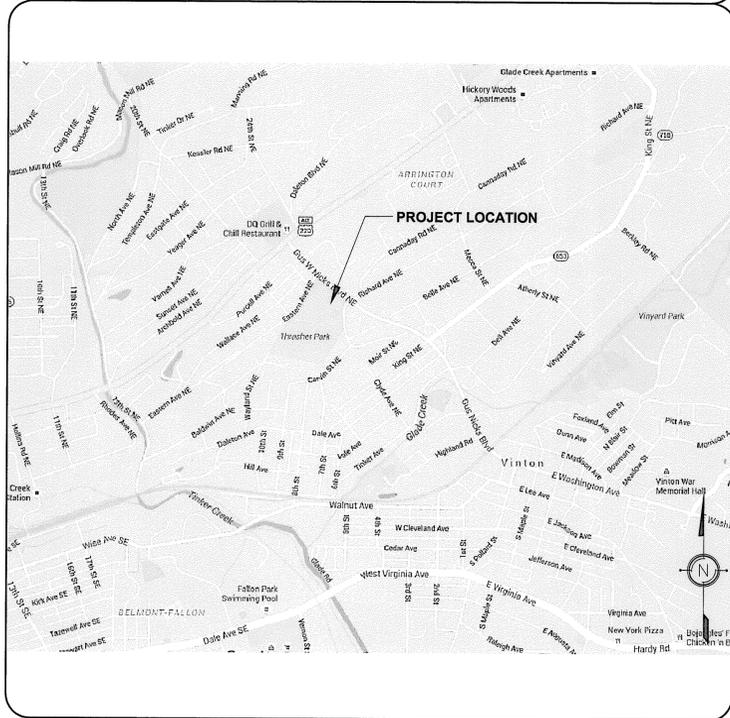


PROJECT LOCATION MAP

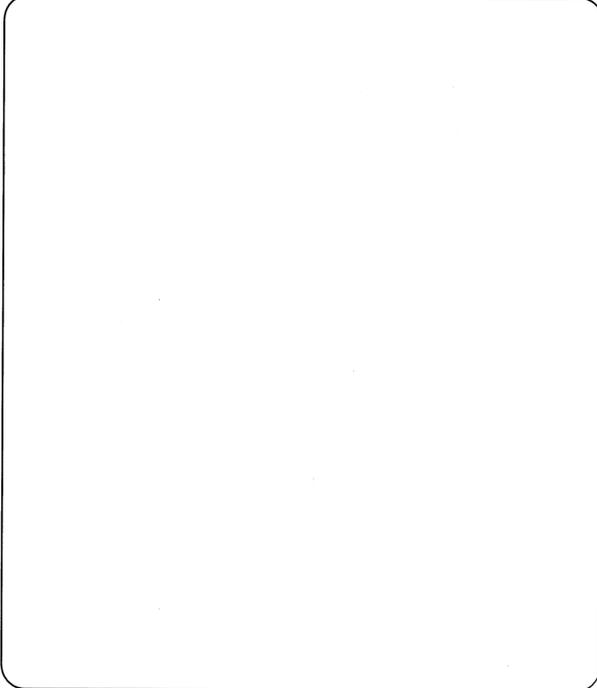


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INDEX OF SHEETS

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 S-1 REPAIR PLAN AND NOTES

LEGEND / ABBREVIATIONS



PROJECT NAME

THRASHER PARK
 COMMUNITY BUILDING
 BUILDING REPAIRS

PLAN NUMBER: _____

REVISION BY	DESCRIPTION:	DATE

APPROVED FOR CONSTRUCTION

<i>Brian Townsend</i> ASSISTANT CITY MANAGER FOR COMMUNITY DEVELOPMENT	<u>2-18-16</u> DATE
<i>[Signature]</i> DIRECTOR OF PARKS & RECREATION	<u>2-19-16</u> DATE
<i>[Signature]</i> PARKS & GREENWAYS PLANNER	<u>2/19/16</u> DATE
_____	_____ DATE

ADVERTISED DATE: _____

SET NUMBER: _____

SHEET NUMBER: 1 OF 3

DATE: Jan 5 2016

REVISIONS	▲	
	▲	
	▲	
	▲	

HUGHES ASSOCIATES
ARCHITECTS & ENGINEERS
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Building Repairs for
 Thrasher Park Community Building
 City of Roanoke Parks & Recreation
 930 Vinton Mill Court
 Roanoke, Va

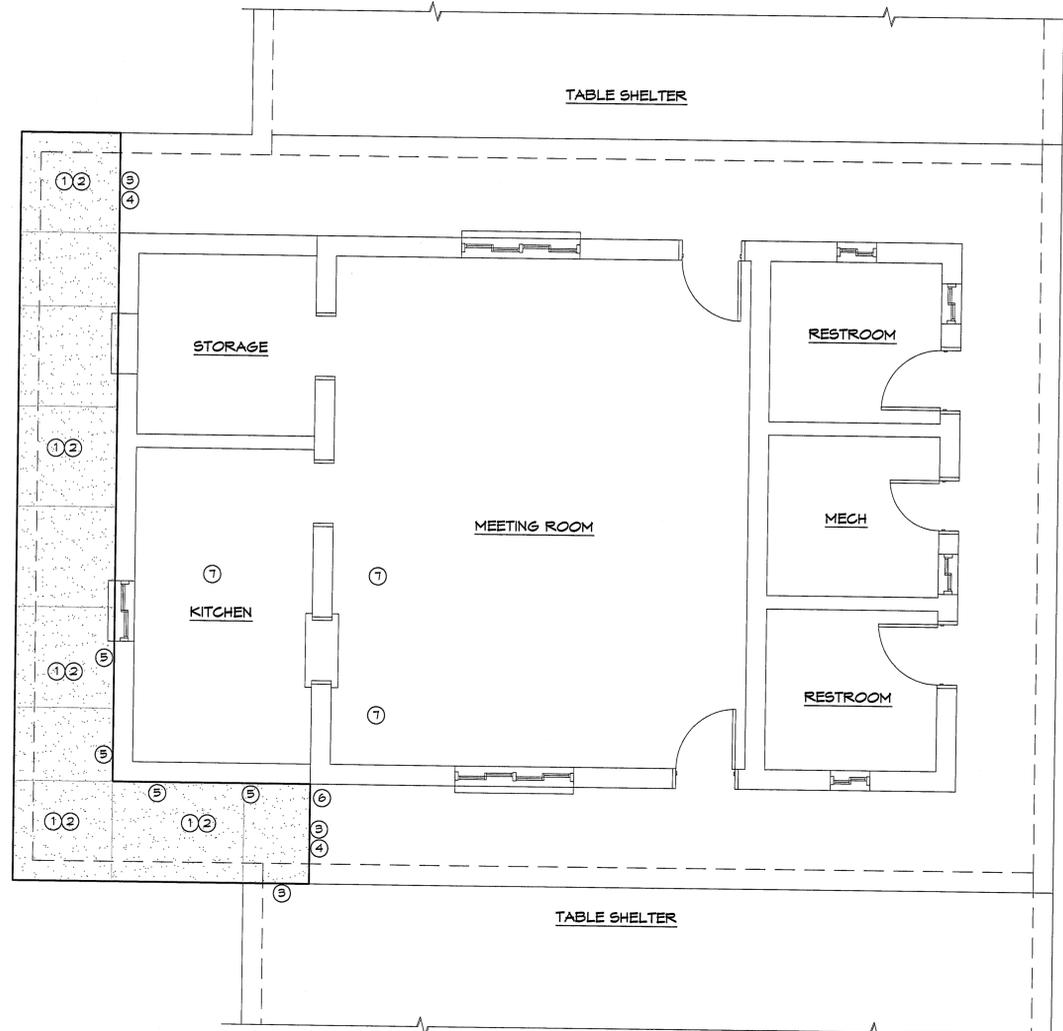
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 CHECKED BY: MIC

REPAIR
 PLANS AND
 NOTES

02/05/16
 MARTHA J. CHESTER
 Lic. No. 015761
 02/05/16
 ARCHITECT

COMMISSION No.
 15070
 SHEET
S-1

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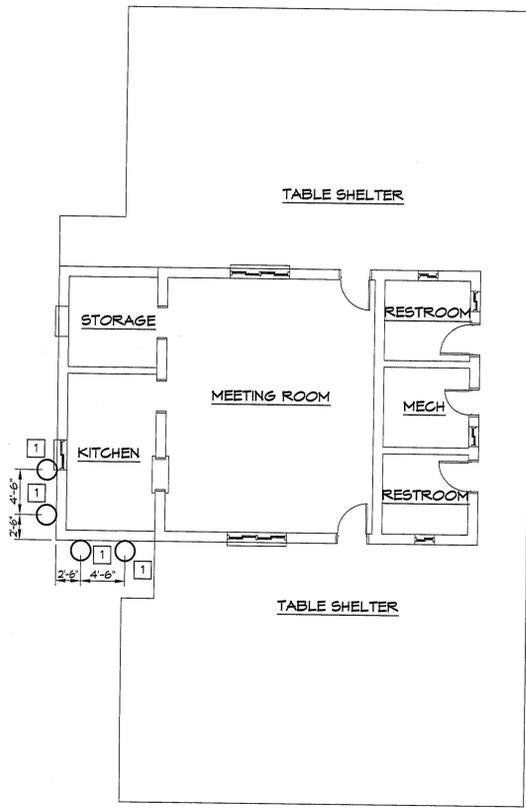
FLOOR PLAN - REPAIRS
 SCALE: 1/4" = 1'-0"



NEW WORK NOTES

- ① COMPACTED SUITABLE BACKFILL.
- ② NEW CONCRETE WALK WITH WELDED WIRE FABRIC OVER 4" OF STONE AND COMPACTED BACKFILL.
- ③ TIE NEW CONCRETE WALK IN FLUSH WITH EXISTING CONCRETE.
- ④ EXPANSION JOINT SEALANT AT NEW AND EXISTING.
- ⑤ RE-POINT MORTAR JOINTS ON EXTERIOR FACE OF BUILDING AS REQUIRED.
- ⑥ NEW BACKER ROD AND EXPANSION JOINT SEALANT IN EXISTING VERTICAL CONTROL JOINT.
- ⑦ PROVIDE TEMPORARY ROOF REPAIRS AND PATCHING AS REQUIRED AFTER BUILDING RECOVERY IS COMPLETED.

COMMONWEALTH OF VIRGINIA
 JAMES F. KINDER, JR.
 Lic. No. 015761
 02/05/16
 PROFESSIONAL ENGINEER



STRUCTURAL PLAN
 SCALE: 1/8" = 1'-0"



STRUCTURAL NOTES

- ① HELICAL PIER - EXACT LOCATION OF PIER SHALL BE FIELD VERIFIED BY HELICAL PIER CONTRACTOR.

HELICAL PIER SPECIFICATIONS

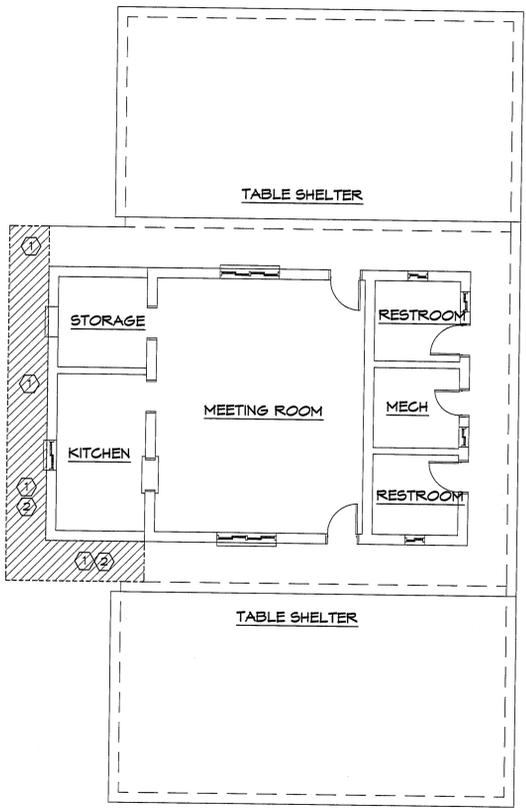
THE SOUTH CORNER OF THE COMMUNITY BUILDING REQUIRES UNDERPINNING TO STABILIZE THE STRUCTURE. THE INSTALLATION OF HELICAL PIERS WILL BE USED TO PROVIDE THE NECESSARY STABILIZATION. THE BUILDING WILL THEN NEED TO BE LIFTED TO RECOVER FROM THE SUSTAINED DIFFERENTIAL SETTLEMENT. THE STRUCTURAL PLAN SHOWS THE PROPOSED LOCATION OF A TOTAL OF FOUR (4) HELICAL PIERS FOR THIS BUILDING STABILIZATION AND RECOVERY PROJECT. BASED ON THE THE GEOTECHNICAL EXPLORATION REPORT PERFORMED BY DRAPER ADEN DATED 12/23/2015 FOR ROANOKE CITY PARKS & RECREATION IT IS DETERMINED THAT THE PIERS SHALL BE FOUNDED IN STRATUM 2. STRATUM 2 CONSISTS OF PARTIALLY WEATHERED ROCK AND IS LOCATED 5 TO 7 FEET BELOW THE EXISTING GROUND SURFACE. THE DEPTH AND CONSISTENCY OF STRATUM 2 CAN VARY FROM LOCATION TO LOCATION WITH RESPECT TO THE EXISTING BUILDING. HOWEVER, GIVEN THE TIGHT AREA OF THE SETTLEMENT AND THE PROPOSED HELICAL PIER PLACEMENT THE BELOW GRADE SOIL CONDITIONS SHOULD NOT VARY A GREAT DEAL FROM PIER LOCATION.

- THE HELICAL PIERS SHALL BE AS FOLLOWS:
- 1) 2 1/8" O.D. PIPE DIAMETER WITH A MINIMUM OF $F_y = 65$ KSI
 - 2) HELICAL BLADES SHALL BE A MINIMUM OF $F_y = 50$ KSI
 - 3) HELICAL PIER BRACKETS WITH STEEL PLATES WITH A MINIMUM OF $F_y = 50$ KSI AND A 3 1/2" O.D. GUIDE SLEEVE OF $F_y = 65$ KSI
 - 4) INSTALLED PIERS SHALL HAVE A MINIMUM ALLOWABLE WORKING AXIAL LOAD CAPACITY OF 15.0 KIPS EACH WITH A REQUIRED TORQUE OF APPROXIMATELY 3800 FT-LBS PER PIER.

BUILDING RECOVERY CAN BE ACCOMPLISHED BY USING THE INSTALLED PIERS FOR "JACKING" THE STRUCTURE. THE SETTLED AREA OF THE EXISTING BUILDING SHALL BE SLOWLY RAISED TO CLOSE THE EXISTING OPEN CRACKS AND VERTICAL CONTROL JOINT. THE AMOUNT OF ATTAINABLE RECOVERY WILL DEPEND LARGELY ON THE RESPONSE OF THE BUILDING STRUCTURE. THE TOTAL AMOUNT OF ATTAINABLE BUILDING RECOVERY SHALL BE AT THE DISCRETION OF THE PIER INSTALLER. EXCESSIVE FORCE SHALL NOT BE USED TO "FORCE CLOSE" THE OPEN JOINTS AS THIS COULD CAUSE ADDITIONAL STRUCTURAL DAMAGE TO OCCUR.

ONCE THE BUILDING RECOVERY IS COMPLETE ALL EXISTING MORTAR JOINTS THAT ARE CRACKED OR OPEN, THE CONTRACTOR SHALL REMOVE AND CLEAN OUT ALL LOOSE, BROKEN OR FRACTURED MORTAR MATERIAL TO CREATE CLEAN OPEN JOINTS. CONTRACTOR SHALL RE-POINT ALL OPEN JOINTS WITH MORTAR TO MATCH EXISTING.

ONCE FINAL BUILDING RECOVERY HAS BEEN ACHIEVED THE PIERS SHALL BE "LOCKED" DOWN, THE EXCAVATED AREA BACKFILLED WITH SUITABLE SOIL AND THE AREA RETURNED TO A CONDITION CONSISTENT WITH THE ADJACENT UNDISTURBED AREAS. PROVIDE TEMPORARY AND PERMANENT SEEDING TO THE DISTURBED AREA AS REQUIRED.



FLOOR PLAN - DEMO
 SCALE: 1/8" = 1'-0"



DEMO NOTES

- ① CONTRACTOR SHALL SAWCUT AND REMOVE CONCRETE WALK AS INDICATED.
- ② EXCAVATE AREA AND REMOVE UNSTABLE SOIL AS REQUIRED TO PREPARE FOR HELICAL PIER INSTALLATION. COORDINATE REQUIRED EXCAVATION WITH HELICAL PIER CONTRACTOR.

DEMO LEGEND

HATCHED AREA INDICATES AREA OF DEMOLITION AND REMOVAL OF MATERIAL

GENERAL DEMOLITION NOTES

CONTRACTOR IS RESPONSIBLE FOR PROPERLY DISPOSING OF ALL DEMOLITION DEBRIS AND MATERIAL DURING PROJECT DEMOLITION AND CONSTRUCTION.

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