CITY OF MILWAUKEE
FRANK P. ZEIDLER MUNICIPAL BUILDING
2012 EXTERIOR WALLS REPAIR
841 NORTH BROADWAY
MILWAUKEE, WISCONSIN 53202
ZS$_{LLC}$ Project No: 7049

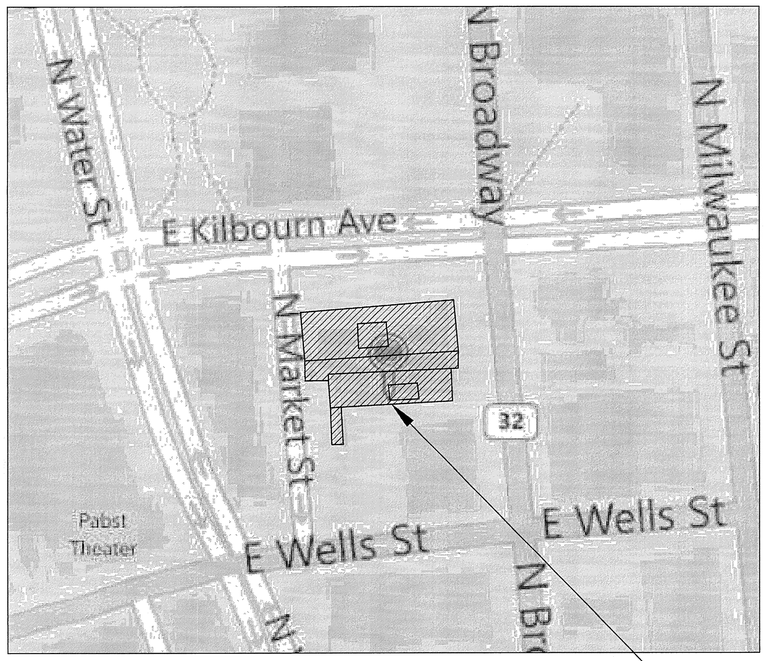
OWNER:
CITY OF MILWAUKEE
841 NORTH BROADWAY
MILWAUKEE, WI 53202

ENGINEER:
ZIAD SALAMEH, LLC (ZS$_{LLC}$)
10501 WEST RESEARCH DRIVE, SUITE G101
MILWAUKEE, WI 53226

WISCONSIN
ZIAD M. SALAMEH
E-28920
MENOMONEE FALLS
WI
PROFESSIONAL ENGINEER

3/8/2012

LOCATION MAP:



FRANK P. ZEIDLER MUNICIPAL BUILDING

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CITY OF MILWAUKEE PROJECT NO. BU110110702

APPROVED:

SUPERVISER IN CHARGE — 3/9/12

DIRECTOR — 3.9.12

COMMISSIONER OF PUBLIC WORKS — 3-11-12

FOR: CITY OF MILWAUKEE
FRANK P. ZEIDLER MUNICIPAL BUILDING
2012 FACADE REPAIR

ISSUE DATE: FEBRUARY 29, 2012		
REVISION	NUMBER	DATE

ZS$_{LLC}$
CONSTRUCTION CONSULTING
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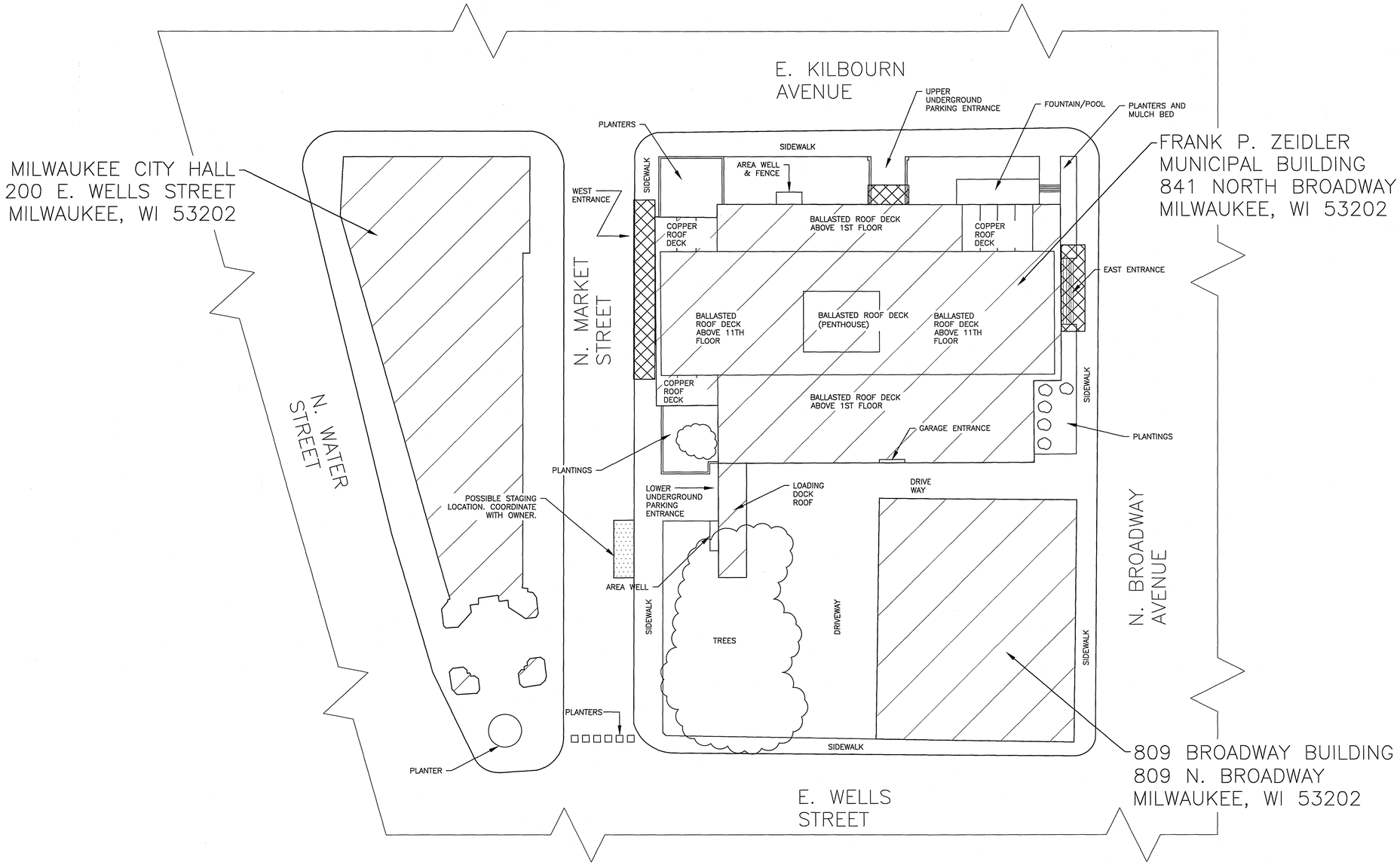
PROJECT # 7049
SHEET:



= PROTECTIVE CANOPY LOCATION

= POSSIBLE STAGING LOCATION

SITE UTILIZATION PLAN
1/32" = 1'-0"

TRUE NORTH

NOTE IN REGARD TO EXISTING CONDITIONS

INFORMATION SHOWN ON THESE DRAWINGS, WITH RESPECT TO EXISTING CONDITIONS, TO THE BEST OF OUR KNOWLEDGE, REPRESENT THE GENERAL AND CURRENT FIELD CONDITIONS. ZSLLC MAKES NO WARRANTY AS TO THE COMPLETENESS OR ACCURACY OF ANY AND ALL EXISTING CONDITIONS SHOWN ON THESE DRAWINGS. CONTRACTOR(S) SHALL VERIFY ALL EXISTING CONDITIONS RELATED TO THE NEW WORK AND REPORT TO THE ENGINEER FOR REVIEW ANY DISCREPANCIES BEFORE PERFORMING ANY WORK. ANY WORK PERFORMED PRIOR TO ENGINEER REVIEW AND SUBSEQUENT RESOLUTION OF DISCREPANCIES BY THE ENGINEER IS SUBJECT TO REMOVAL AND REPLACEMENT AT NO ADDITIONAL COST OR BURDEN TO THE CONTRACT.

GENERAL PROJECT NOTES

THE FOLLOWING GENERAL NOTES SHALL APPLY UNLESS NOTED OTHERWISE ON PLANS:

1. ALL DESIGN AND CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE WISCONSIN ENROLLED COMMERCIAL BUILDING CODE.
2. CONTRACTOR IS RESPONSIBLE FOR VERIFICATION AND COORDINATION OF ALL DIMENSIONS SHOWN ON THESE DRAWINGS WITH THE EXISTING CONDITIONS PRIOR TO BEGINNING WORK.
3. CONTRACTOR SHALL REPORT IMMEDIATELY TO THE ENGINEER ANY DIMENSION(S) OR DISCREPANCIES BETWEEN THESE DRAWINGS AND ACTUAL EXISTING CONDITIONS. AFTER REPORTING THE DISCREPANCIES VERBALLY, A WRITTEN REPORT SHOULD PROMPTLY FOLLOW. CONTRACTOR SHALL CEASE WORK IN THE AFFECTED AREA UNTIL DIRECTED BY THE ENGINEER.
4. THE CONTRACTOR SHALL PROVIDE THE MEANS AND THE METHODS AND EQUIPMENT FOR PROTECTING THE BUILDING, ALL MATERIALS, AND PERSONNEL FROM FIRE OR OTHER DAMAGE PRIOR TO STARTING WORK. THE CONTRACTOR SHALL SUBMIT THE METHODS AND EQUIPMENT IN WRITING AND OBTAIN THE OWNER'S APPROVAL PRIOR TO STARTING WORK. FIRE PROTECTION AND PROVISIONS DURING THE CONSTRUCTION PERIOD SHALL BE IN ACCORDANCE WITH ALL LAWS AND REGULATIONS, INCLUDING BUT NOT LIMITED TO, THE LATEST N.F.P.A. REGULATIONS, OSHA, STATE OF WISCONSIN AND CITY OF MILWAUKEE REQUIREMENTS.
5. THE CONTRACTOR SHALL COMPLY WITH ALL SAFETY, HEALTH LAWS AND REGULATIONS.
6. THE CONTRACTOR SHALL PROVIDE ALL SHORING, BRACING, SHEATHING, AND OTHER NECESSARY EQUIPMENT, MATERIALS AND PERMITS AS REQUIRED FOR SAFETY AND PROPER EXECUTION OF THE WORK.
7. EXECUTION OF WORK WILL INVOLVE CONSIDERATION FOR ALLOWING THE OWNER TO CONTINUE THE OPERATION OF THE BUILDING AND THE BUSINESS IN THE ADJACENT FACILITIES. PRIOR TO THE AWARD OF THE CONTRACT, THE CONSTRUCTION SCHEDULE PREPARED BY THE CONTRACTOR SHALL BE SUBMITTED TO THE OWNER AND COORDINATED WITH THE FACILITY MANAGEMENT. OWNERS' APPROVAL OF THE PROPOSED SCHEDULE SHALL PRECEDE THE CONTRACT
8. THE CONTRACTOR SHALL REVIEW ALL EXISTING CONDITIONS TO DETERMINE ALL SERVICES (ELECTRICAL AND MECHANICAL) AFFECTED BY THE REPAIR WORK. THE CONTRACTOR SHALL MAKE NECESSARY TEMPORARY CONNECTIONS TO MAINTAIN EXISTING SERVICES TO ALL AREAS OF THE BUILDING DIRECTLY AND INDIRECTLY AFFECTED BY THE WORK. THE CONTRACTOR SHALL SUBMIT THE METHODS AND SCHEDULE OF CONNECTIONS TO THE OWNER FOR APPROVAL PRIOR TO BEGINNING WORK.
9. AS THE WORK PROGRESSES, THE CONTRACTOR SHALL PRODUCE "AS-BUILT" DRAWINGS AND SPECIFICATIONS FOR THE INSTALLATION OF ALL REPAIR ITEMS UNDER THE CONTRACT. THE ENGINEER WILL PROVIDE THE GENERAL CONTRACTOR WITH A SET OF REPRODUCIBLE PLANS FOR THIS PURPOSE. THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING THE AS-BUILT DRAWINGS ACCORDING TO THE JOB PROGRESS. EACH PAY-REQUEST SUBMITTED BY THE CONTRACTOR SHALL BE ACCOMPANIED BY A COPY OF THE UPDATED AS-BUILT DRAWINGS.

GENERAL SITE UTILIZATION PLAN NOTES:

1. THE SITE UTILIZATION PLAN HAS BEEN ASSEMBLED FROM SEVERAL DOCUMENTS PROVIDED BY THE CITY. IT IS NOT A SURVEYED PLAN
2. VERIFY LOCATION AND CONSTRUCTION OF UNDER SIDEWALK VAULTS PRIOR TO CONSTRUCTING SCAFFOLDING. SIDEWALK MAY NEED TO BE SHORED FOR SCAFFOLDING OR LIFT USE. SUBMIT CALCULATIONS OF SIDEWALK CAPACITY BEFORE STAGING IS ERECTED.
3. GENERAL CONTRACTOR TO DOCUMENT EXISTING SITE AND CREATE PLANS TO RESTORE SITE TO DOCUMENTED PRE-CONSTRUTION CONDITIONS FOLLOWING COMPLETION OF EXTERIOR RESTORATION OF FRANK P. ZEIDLER MUNICIPAL BUILDING. SUBMIT DOCUMENTATION AND PLANS TO OWNER FOR REVIEW.

FOR: CITY OF MILWAUKEE
FRANK P. ZEIDLER MUNICIPAL BUILDING

2012 FACADE REPAIR

ISSUE DATE:		FEBRUARY 29, 2012
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PROJECT # 7049

SHEET: 2 OF 12

NOTE IN REGARD TO EXISTING CONDITIONS

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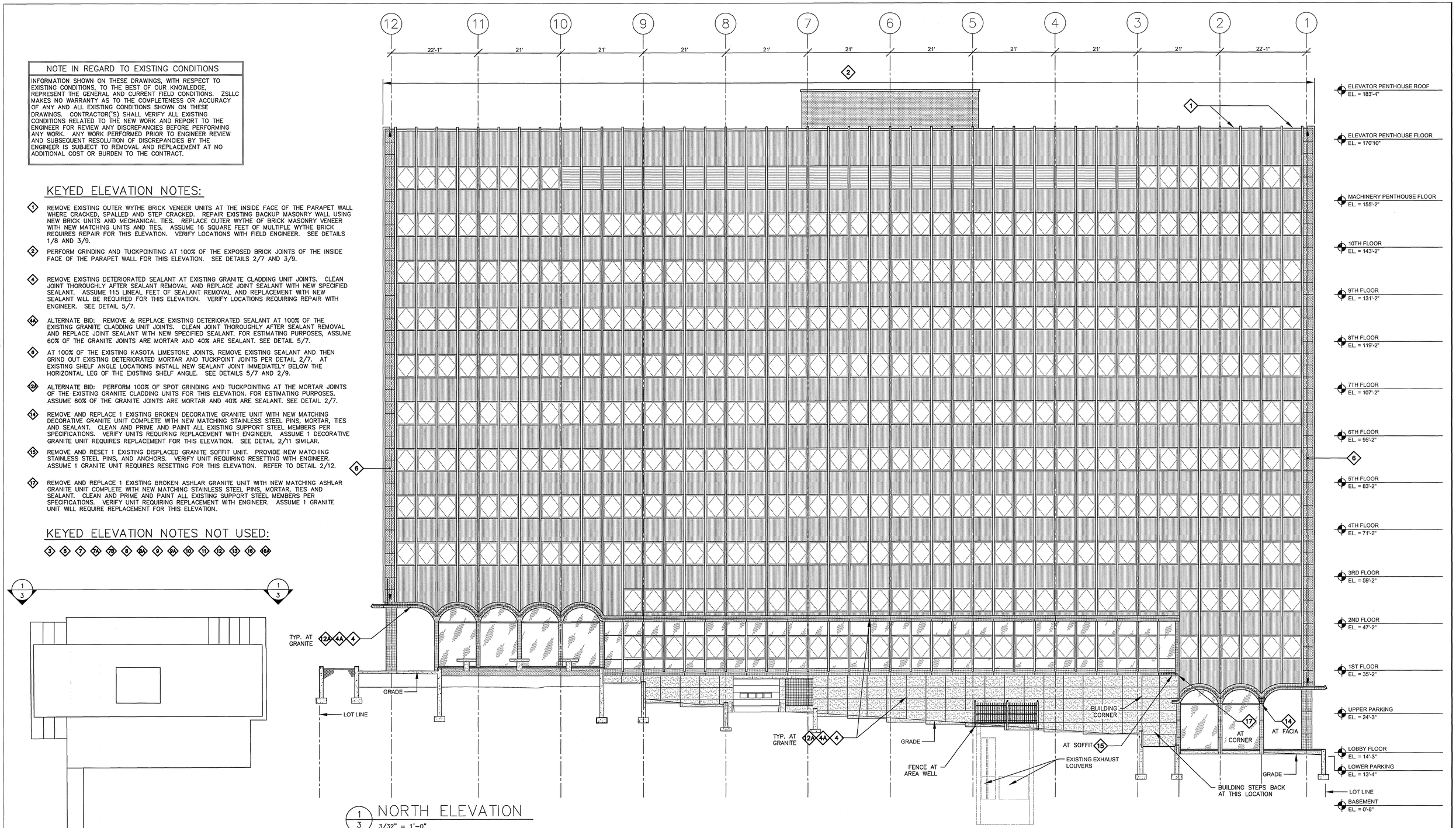
KEYED ELEVATION NOTES:

1. REMOVE EXISTING OUTER WYTHE BRICK VENEER UNITS AT THE INSIDE FACE OF THE PARAPET WALL WHERE CRACKED, SPALLED AND STEP CRACKED. REPAIR EXISTING BACKUP MASONRY WALL USING NEW BRICK UNITS AND MECHANICAL TIES. REPLACE OUTER WYTHE OF BRICK MASONRY VENEER WITH NEW MATCHING UNITS AND TIES. ASSUME 16 SQUARE FEET OF MULTIPLE WYTHE BRICK REQUIRES REPAIR FOR THIS ELEVATION. VERIFY LOCATIONS WITH FIELD ENGINEER. SEE DETAILS 1/8 AND 3/9.
2. PERFORM GRINDING AND TUCKPOINTING AT 100% OF THE EXPOSED BRICK JOINTS OF THE INSIDE FACE OF THE PARAPET WALL FOR THIS ELEVATION. SEE DETAILS 2/7 AND 3/9.
4. REMOVE EXISTING DETERIORATED SEALANT AT EXISTING GRANITE CLADDING UNIT JOINTS. CLEAN JOINT THOROUGHLY AFTER SEALANT REMOVAL AND REPLACE JOINT SEALANT WITH NEW SPECIFIED SEALANT. ASSUME 115 LINEAL FEET OF SEALANT REMOVAL AND REPLACEMENT WITH NEW SEALANT WILL BE REQUIRED FOR THIS ELEVATION. VERIFY LOCATIONS REQUIRING REPAIR WITH ENGINEER. SEE DETAIL 5/7.
4A. ALTERNATE BID: REMOVE & REPLACE EXISTING DETERIORATED SEALANT AT 100% OF THE EXISTING GRANITE CLADDING UNIT JOINTS. CLEAN JOINT THOROUGHLY AFTER SEALANT REMOVAL AND REPLACE JOINT SEALANT WITH NEW SPECIFIED SEALANT. FOR ESTIMATING PURPOSES, ASSUME 60% OF THE GRANITE JOINTS ARE MORTAR AND 40% ARE SEALANT. SEE DETAIL 5/7.
6. AT 100% OF THE EXISTING KASOTA LIMESTONE JOINTS, REMOVE EXISTING SEALANT AND THEN GRIND OUT EXISTING DETERIORATED MORTAR AND TUCKPOINT JOINTS PER DETAIL 2/7. AT EXISTING SHELF ANGLE LOCATIONS INSTALL NEW SEALANT JOINT IMMEDIATELY BELOW THE HORIZONTAL LEG OF THE EXISTING SHELF ANGLE. SEE DETAILS 5/7 AND 2/9.
12A. ALTERNATE BID: PERFORM 100% OF SPOT GRINDING AND TUCKPOINTING AT THE MORTAR JOINTS OF THE EXISTING GRANITE CLADDING UNITS FOR THIS ELEVATION. FOR ESTIMATING PURPOSES, ASSUME 60% OF THE GRANITE JOINTS ARE MORTAR AND 40% ARE SEALANT. SEE DETAIL 2/7.
14. REMOVE AND REPLACE 1 EXISTING BROKEN DECORATIVE GRANITE UNIT WITH NEW MATCHING DECORATIVE GRANITE UNIT COMPLETE WITH NEW MATCHING STAINLESS STEEL PINS, MORTAR, TIES AND SEALANT. CLEAN AND PRIME AND PAINT ALL EXISTING SUPPORT STEEL MEMBERS PER SPECIFICATIONS. VERIFY UNITS REQUIRING REPLACEMENT WITH ENGINEER. ASSUME 1 DECORATIVE GRANITE UNIT REQUIRES REPLACEMENT FOR THIS ELEVATION. SEE DETAIL 2/11 SIMILAR.
15. REMOVE AND RESET 1 EXISTING DISPLACED GRANITE SOFFIT UNIT. PROVIDE NEW MATCHING STAINLESS STEEL PINS, AND ANCHORS. VERIFY UNIT REQUIRING RESETTING WITH ENGINEER. ASSUME 1 GRANITE UNIT REQUIRES RESETTING FOR THIS ELEVATION. REFER TO DETAIL 2/12.
17. REMOVE AND REPLACE 1 EXISTING BROKEN ASHLAR GRANITE UNIT WITH NEW MATCHING ASHLAR GRANITE UNIT COMPLETE WITH NEW MATCHING STAINLESS STEEL PINS, MORTAR, TIES AND SEALANT. CLEAN AND PRIME AND PAINT ALL EXISTING SUPPORT STEEL MEMBERS PER SPECIFICATIONS. VERIFY UNIT REQUIRING REPLACEMENT WITH ENGINEER. ASSUME 1 GRANITE UNIT WILL REQUIRE REPLACEMENT FOR THIS ELEVATION.

KEYED ELEVATION NOTES NOT USED:

3 5 7 7A 7B 8 8A 9 9A 10 11 12 13 16 16A



1/3 NORTH ELEVATION
3/32" = 1'-0"

KEY PLAN

TRUE

DETAIL SYMBOLS:

- *Existing aluminum panel*
- *Existing concrete*
- *Existing brick masonry in elevation*
- *Existing granite type 1 stone (black)*
- *Existing granite type 2 stone (red)*
- *Existing kasota limestone masonry*
- *Existing gypsum*
- *Existing aluminum louver*

FOR: CITY OF MILWAUKEE – ZEIDLER MUNICIPAL BUILDING
841 NORTH BROADWAY
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2012 EXTERIOR WALLS REPAIR

ISSUE DATE: FEBRUARY 29, 2012

REVISION	NUMBER	DATE

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PROJECT # 7049

SHEET: 3 OF 12

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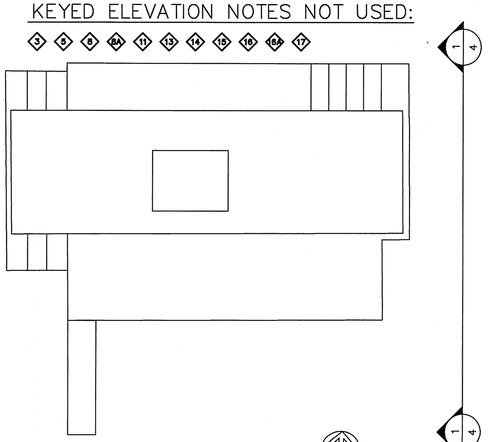
KEYED ELEVATION NOTES:

1. REMOVE EXISTING OUTER WYTHE BRICK VENEER UNITS AT THE INSIDE FACE OF THE PARAPET WALL WHERE CRACKED, SPALLED AND STEP CRACKED. REPAIR EXISTING BACKUP MASONRY WALL USING NEW BRICK UNITS AND MECHANICAL TIES. REPLACE OUTER WYTHE OF BRICK MASONRY VENEER WITH NEW MATCHING UNITS AND TIES. ASSUME 9 SQUARE FEET OF MULTIPLE WYTHE BRICK REQUIRES REPAIR FOR THIS ELEVATION. VERIFY LOCATIONS WITH FIELD ENGINEER. SEE DETAILS 1/8 AND 3/9.
2. PERFORM GRINDING AND TUCKPOINTING AT 100% OF THE EXPOSED BRICK JOINTS OF THE INSIDE FACE OF THE PARAPET WALL FOR THIS ELEVATION. SEE DETAILS 2/7 AND 3/9.
4. REMOVE EXISTING DETERIORATED SEALANT AT EXISTING GRANITE CLADDING UNIT JOINTS. CLEAN JOINT THOROUGHLY AFTER SEALANT REMOVAL AND REPLACE JOINT SEALANT WITH NEW SPECIFIED SEALANT. ASSUME 250 LINEAL FEET OF SEALANT REMOVAL AND REPLACEMENT WITH NEW SEALANT WILL BE REQUIRED FOR THIS ELEVATION. VERIFY LOCATIONS REQUIRING REPAIR WITH ENGINEER. SEE DETAIL 5/7.
4A. ALTERNATE BID: REMOVE & REPLACE EXISTING DETERIORATED SEALANT AT 100% OF THE EXISTING GRANITE CLADDING UNIT JOINTS. CLEAN JOINT THOROUGHLY AFTER SEALANT REMOVAL AND REPLACE JOINT SEALANT WITH NEW SPECIFIED SEALANT. FOR ESTIMATING PURPOSES, ASSUME 60% OF THE GRANITE JOINTS ARE MORTAR AND 40% ARE SEALANT. SEE DETAIL 5/7.
6. AT 100% OF THE EXISTING KASOTA LIMESTONE JOINTS, REMOVE EXISTING SEALANT AND THEN GRIND OUT EXISTING DETERIORATED MORTAR AND TUCKPOINT JOINTS PER DETAIL 2/7. AT EXISTING SHELF ANGLE LOCATIONS INSTALL NEW SEALANT JOINT IMMEDIATELY BELOW THE HORIZONTAL LEG OF THE EXISTING SHELF ANGLE. SEE DETAILS 5/7 AND 2/9.
7. REMOVE, SALVAGE AND RESET A TOTAL OF 15 EXISTING OUT-OF-PLANE KASOTA LIMESTONE CLADDING UNITS PER DETAILS 1/9, 2/9 AND 1/10. ASSUME 11 UNITS WILL REQUIRE REMOVAL, SALVAGE AND RESETTING. ASSUME 4 UNITS WILL REQUIRE REMOVAL AND EPOXY INJECTION REPAIR AND RESETTING. SEE 1/7 FOR CRACK INJECTION. VERIFY UNIT LOCATIONS WITH ENGINEER.
7A. ALTERNATE BID: REMOVE, REPLACE AND RESET A TOTAL OF 15 EXISTING OUT-OF-PLANE KASOTA LIMESTONE CLADDING UNITS WITH NEW MATCHING UNITS PER DETAILS 1/9, 2/9 AND 2/10. VERIFY UNIT LOCATIONS WITH ENGINEER.
7B. ALTERNATE BID: REMOVE, SALVAGE AND RESET A TOTAL OF 15 EXISTING OUT-OF-PLANE KASOTA LIMESTONE CLADDING UNITS PER DETAILS 1/9, 2/9 AND 2/10. ASSUME 11 UNITS WILL REQUIRE REMOVAL, SALVAGE AND RESETTING. ASSUME 4 UNITS WILL REQUIRE REMOVAL AND FULL REPLACEMENT WITH NEW MATCHING UNITS INSTEAD OF EPOXY CRACK INJECTION.
9. REPAIR EXISTING CRACKED GRANITE CLADDING UNITS BY EPOXY INJECTION ACCORDING TO DETAIL 1/7. ASSUME 3 GRANITE CLADDING UNITS REQUIRE EPOXY INJECTION CRACK REPAIR FOR THIS ELEVATION. VERIFY UNIT LOCATIONS WITH ENGINEER.
9A. ALTERNATE BID: REMOVE AND REPLACE 3 EXISTING CRACKED GRANITE CLADDING UNITS WITH NEW MATCHING GRANITE UNITS COMPLETE WITH NEW STAINLESS STEEL ANCHORS, TIES, PINS AND MORTAR ACCORDING TO DETAILS 3/8, 2/11 AND 3/11. ASSUME 3 UNITS REQUIRE REMOVAL AND REPLACEMENT FOR THIS ELEVATION. VERIFY UNIT LOCATIONS WITH ENGINEER.
10. REMOVE, SALVAGE AND RESET EXISTING DISPLACED GRANITE CLADDING UNITS. REPAIR EXISTING BRICK BACK UP WALL WITH NEW MATCHING BRICK UNITS AND MORTAR. REINSTALL SALVAGED GRANITE CLADDING UNIT USING STAINLESS STEEL PINS, WALL TIES AND MORTAR. ASSUME 2 UNITS FOR THIS ELEVATION. SEE DETAILS 2/11 AND 3/11 SIMILAR. VERIFY UNIT LOCATIONS WITH ENGINEER.
12. PERFORM APPROXIMATELY 30 LINEAL FEET OF SPOT GRINDING AND TUCKPOINTING AT THE MORTAR JOINTS OF THE EXISTING GRANITE CLADDING UNITS FOR THIS ELEVATION. VERIFY UNIT LOCATIONS WITH ENGINEER. SEE DETAIL 2/7.
12A. ALTERNATE BID: PERFORM 100% OF SPOT GRINDING AND TUCKPOINTING AT THE MORTAR JOINTS OF THE EXISTING GRANITE CLADDING UNITS FOR THIS ELEVATION. FOR ESTIMATING PURPOSES, ASSUME 60% OF THE GRANITE JOINTS ARE MORTAR AND 40% ARE SEALANT. SEE DETAIL 2/7.

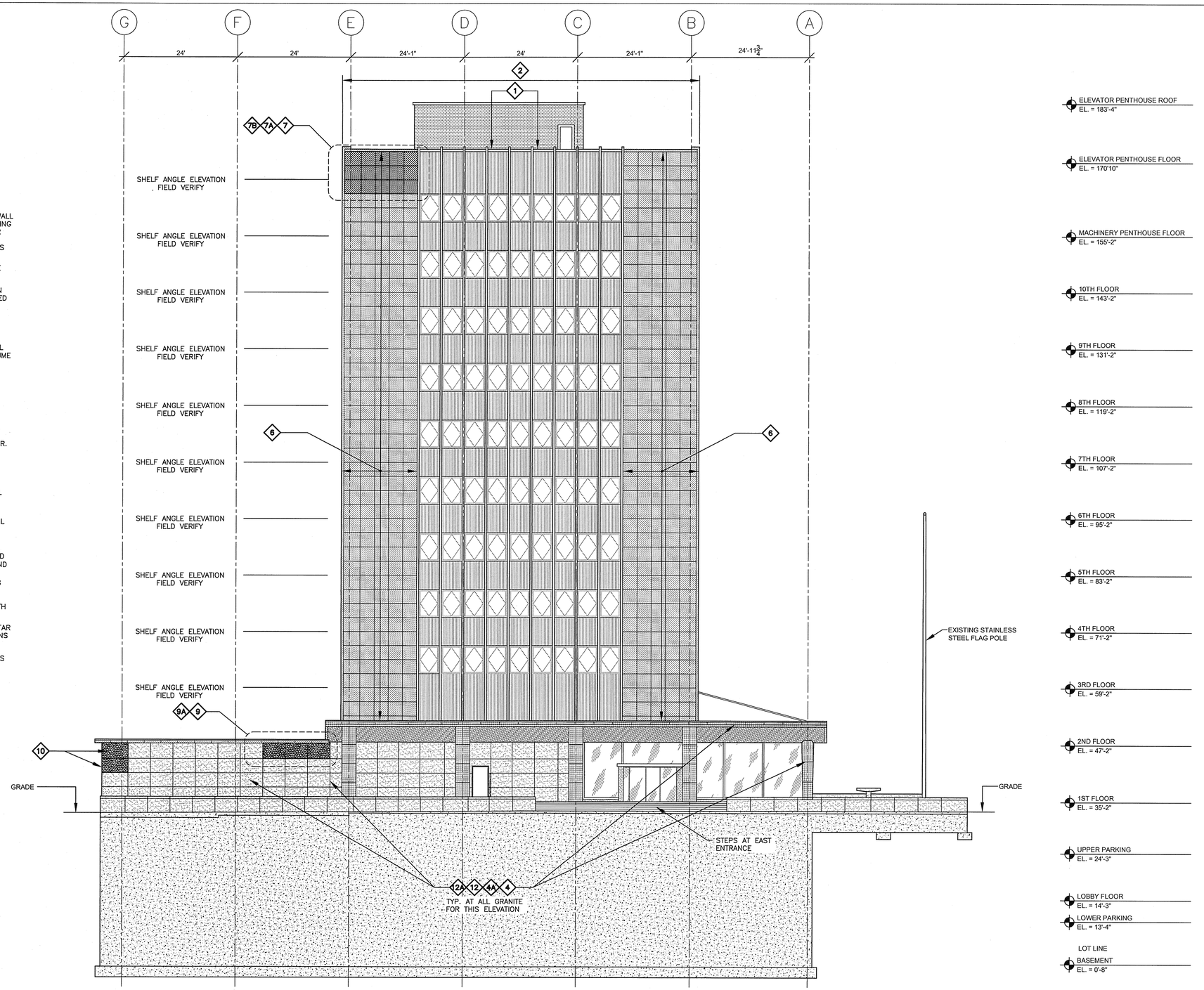
KEYED ELEVATION NOTES NOT USED:

3 5 8 8A 11 13 14 15 16 16A 17



KEY PLAN

TRUE NORTH



1/4 EAST ELEVATION

3/32" = 1'-0"

DETAIL SYMBOLS:

- *Existing aluminum panel*
- *Existing concrete*
- *Existing brick masonry in elevation*
- *Existing granite type 1 stone (black)*
- *Existing granite type 2 stone (red)*
- *Existing kasota limestone masonry*
- *Existing gypsum*
- *Existing aluminum louver*

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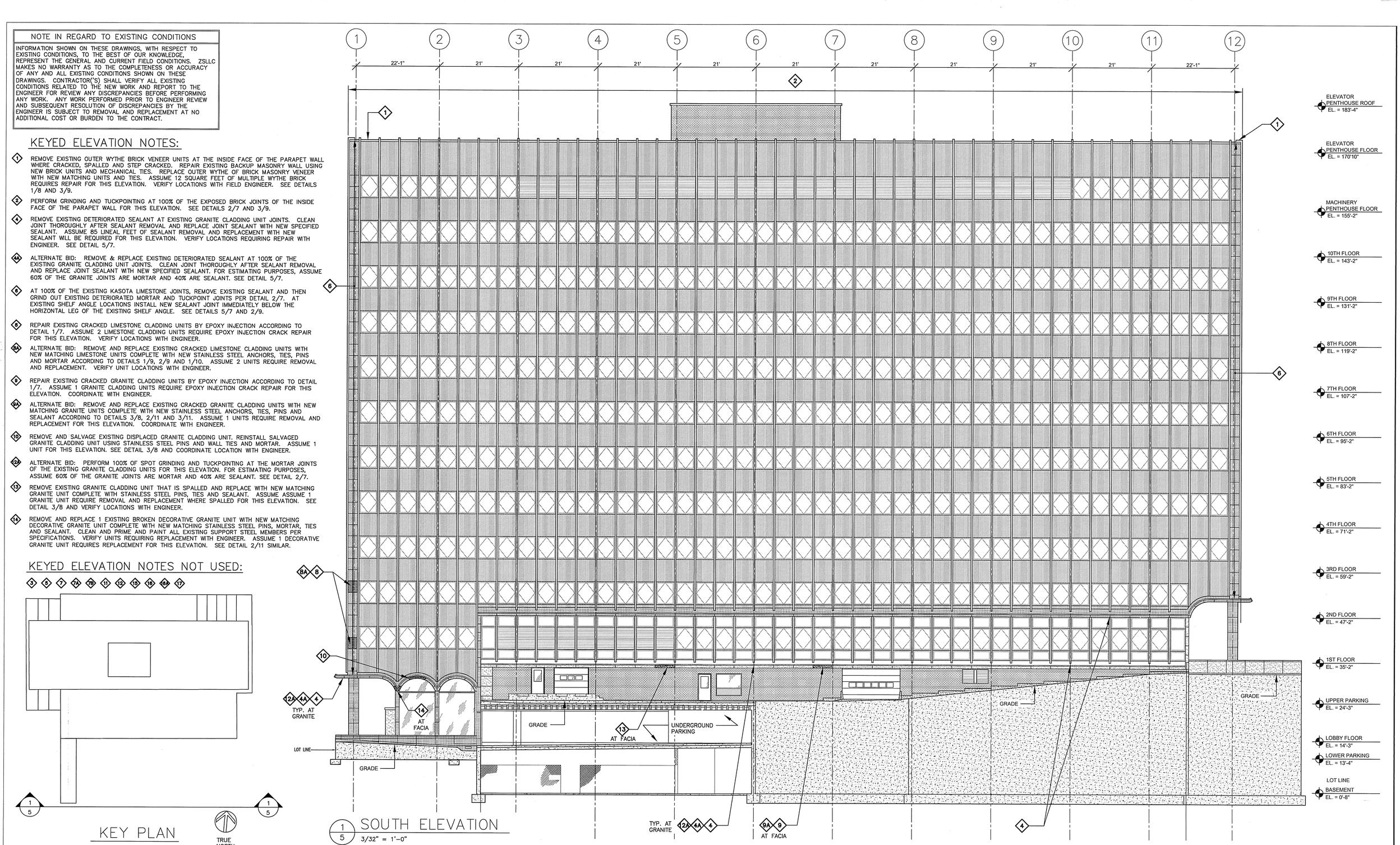
2. PERFORM GRINDING AND TUCKPOINTING AT 100% OF THE EXPOSED BRICK JOINTS OF THE INSIDE FACE OF THE PARAPET WALL FOR THIS ELEVATION. SEE DETAILS 2/7 AND 3/9.
4. REMOVE EXISTING DETERIORATED SEALANT AT EXISTING GRANITE CLADDING UNIT JOINTS. CLEAN JOINT THOROUGHLY AFTER SEALANT REMOVAL AND REPLACE JOINT SEALANT WITH NEW SPECIFIED SEALANT. ASSUME 85 LINEAL FEET OF SEALANT REMOVAL AND REPLACEMENT WITH NEW SEALANT WILL BE REQUIRED FOR THIS ELEVATION. VERIFY LOCATIONS REQUIRING REPAIR WITH ENGINEER. SEE DETAIL 5/7.
4A. ALTERNATE BID: REMOVE & REPLACE EXISTING DETERIORATED SEALANT AT 100% OF THE EXISTING GRANITE CLADDING UNIT JOINTS. CLEAN JOINT THOROUGHLY AFTER SEALANT REMOVAL AND REPLACE JOINT SEALANT WITH NEW SPECIFIED SEALANT. FOR ESTIMATING PURPOSES, ASSUME 60% OF THE GRANITE JOINTS ARE MORTAR AND 40% ARE SEALANT. SEE DETAIL 5/7.
6. AT 100% OF THE EXISTING KASOTA LIMESTONE JOINTS, REMOVE EXISTING SEALANT AND THEN GRIND OUT EXISTING DETERIORATED MORTAR AND TUCKPOINT JOINTS PER DETAIL 2/7. AT EXISTING SHELF ANGLE LOCATIONS INSTALL NEW SEALANT JOINT IMMEDIATELY BELOW THE HORIZONTAL LEG OF THE EXISTING SHELF ANGLE. SEE DETAILS 5/7 AND 2/9.
8. REPAIR EXISTING CRACKED LIMESTONE CLADDING UNITS BY EPOXY INJECTION ACCORDING TO DETAIL 1/7. ASSUME 2 LIMESTONE CLADDING UNITS REQUIRE EPOXY INJECTION CRACK REPAIR FOR THIS ELEVATION. VERIFY LOCATIONS WITH ENGINEER.
8A. ALTERNATE BID: REMOVE AND REPLACE EXISTING CRACKED LIMESTONE CLADDING UNITS WITH NEW MATCHING LIMESTONE UNITS COMPLETE WITH NEW STAINLESS STEEL ANCHORS, TIES, PINS AND MORTAR ACCORDING TO DETAILS 1/9, 2/9 AND 1/10. ASSUME 2 UNITS REQUIRE REMOVAL AND REPLACEMENT. VERIFY UNIT LOCATIONS WITH ENGINEER.
9. REPAIR EXISTING CRACKED GRANITE CLADDING UNITS BY EPOXY INJECTION ACCORDING TO DETAIL 1/7. ASSUME 1 GRANITE CLADDING UNITS REQUIRE EPOXY INJECTION CRACK REPAIR FOR THIS ELEVATION. COORDINATE WITH ENGINEER.
9A. ALTERNATE BID: REMOVE AND REPLACE EXISTING CRACKED GRANITE CLADDING UNITS WITH NEW MATCHING GRANITE UNITS COMPLETE WITH NEW STAINLESS STEEL ANCHORS, TIES, PINS AND SEALANT ACCORDING TO DETAILS 3/8, 2/11 AND 3/11. ASSUME 1 UNITS REQUIRE REMOVAL AND REPLACEMENT FOR THIS ELEVATION. COORDINATE WITH ENGINEER.
10. REMOVE AND SALVAGE EXISTING DISPLACED GRANITE CLADDING UNIT. REINSTALL SALVAGED GRANITE CLADDING UNIT USING STAINLESS STEEL PINS AND WALL TIES AND MORTAR. ASSUME 1 UNIT FOR THIS ELEVATION. SEE DETAIL 3/8 AND COORDINATE LOCATION WITH ENGINEER.
12A. ALTERNATE BID: PERFORM 100% OF SPOT GRINDING AND TUCKPOINTING AT THE MORTAR JOINTS OF THE EXISTING GRANITE CLADDING UNITS FOR THIS ELEVATION. FOR ESTIMATING PURPOSES, ASSUME 60% OF THE GRANITE JOINTS ARE MORTAR AND 40% ARE SEALANT. SEE DETAIL 2/7.
13. REMOVE EXISTING GRANITE CLADDING UNIT THAT IS SPALLED AND REPLACE WITH NEW MATCHING GRANITE UNIT COMPLETE WITH STAINLESS STEEL PINS, TIES AND SEALANT. ASSUME ASSUME 1 GRANITE UNIT REQUIRE REMOVAL AND REPLACEMENT WHERE SPALLED FOR THIS ELEVATION. SEE DETAIL 3/8 AND VERIFY LOCATIONS WITH ENGINEER.
14. REMOVE AND REPLACE 1 EXISTING BROKEN DECORATIVE GRANITE UNIT WITH NEW MATCHING DECORATIVE GRANITE UNIT COMPLETE WITH NEW MATCHING STAINLESS STEEL PINS, MORTAR, TIES AND SEALANT. CLEAN AND PRIME AND PAINT ALL EXISTING SUPPORT STEEL MEMBERS PER SPECIFICATIONS. VERIFY UNITS REQUIRING REPLACEMENT WITH ENGINEER. ASSUME 1 DECORATIVE GRANITE UNIT REQUIRES REPLACEMENT FOR THIS ELEVATION. SEE DETAIL 2/11 SIMILAR.

KEYED ELEVATION NOTES NOT USED:

3 5 7 7A 7B 11 12 15 16 16A 17



1/5 SOUTH ELEVATION
3/32" = 1'-0"

KEY PLAN

TRUE NORTH

DETAIL SYMBOLS:

- *Existing aluminum panel*
- *Existing concrete*
- *Existing brick masonry in elevation*
- *Existing granite type 1 stone (black)*
- *Existing granite type 2 stone (red)*
- *Existing kasoto limestone masonry*
- *Existing gypsum*
- *Existing aluminum louver*

FOR: CITY OF MILWAUKEE – ZEIDLER MUNICIPAL BUILDING
841 NORTH BROADWAY
MILWAUKEE, WISCONSIN

2012 EXTERIOR WALLS REPAIR

ISSUE DATE: FEBRUARY 29, 2012

REVISION	NUMBER	DATE

ZSLLC
CONSTRUCTION CONSULTING AND FORENSIC ENGINEERING
10501 West Research Drive, Suite G101
Milwaukee, Wisconsin 53226
Phone: 414-727-5000 www.ZSLLC-US.com Fax: 414-727-6666

PROJECT # 7049

SHEET: 5 OF 12

KEYED ELEVATION NOTES:

1. REMOVE EXISTING OUTER WYTHE BRICK VENEER UNITS AT THE INSIDE FACE OF THE PARAPET WALL WHERE CRACKED, SPALLED AND STEP CRACKED. REPAIR EXISTING BACKUP MASONRY WALL USING NEW BRICK UNITS AND MECHANICAL TIES. REPLACE OUTER WYTHE OF BRICK MASONRY VENEER WITH NEW MATCHING UNITS AND TIES. ASSUME 16 SQUARE FEET OF MULTIPLE WYTHE BRICK REQUIRES REPAIR FOR THIS ELEVATION. VERIFY LOCATIONS WITH FIELD ENGINEER. SEE DETAILS 1/8 AND 3/9.

2. PERFORM GRINDING AND TUCKPOINTING AT 100% OF THE EXPOSED BRICK JOINTS OF THE INSIDE FACE OF THE PARAPET WALL FOR THIS ELEVATION. SEE DETAILS 2/7 AND 3/9.

4. REMOVE EXISTING DETERIORATED SEALANT AT EXISTING GRANITE CLADDING UNIT JOINTS. CLEAN JOINT THOROUGHLY AFTER SEALANT REMOVAL AND REPLACE JOINT SEALANT WITH NEW SPECIFIED SEALANT. ASSUME 810 LINEAL FEET OF SEALANT REMOVAL AND REPLACEMENT WITH NEW SEALANT WILL BE REQUIRED FOR THIS ELEVATION. COORDINATE LOCATIONS REQUIRING REPAIR WITH ENGINEER. SEE DETAIL 5/7.

4A. ALTERNATE BID: REMOVE & REPLACE EXISTING DETERIORATED SEALANT AT 100% OF THE EXISTING GRANITE CLADDING UNIT JOINTS. CLEAN JOINT THOROUGHLY AFTER SEALANT REMOVAL AND REPLACE JOINT SEALANT WITH NEW SPECIFIED SEALANT. FOR ESTIMATING PURPOSES, ASSUME 60% OF THE GRANITE JOINTS ARE MORTAR AND 40% ARE SEALANT. SEE DETAIL 5/7.

6. AT 100% OF THE EXISTING KASOTA LIMESTONE JOINTS, REMOVE EXISTING SEALANT AND THEN GRIND OUT EXISTING DETERIORATED MORTAR AND TUCKPOINT JOINTS PER DETAIL 2/7. AT EXISTING SHELF ANGLE LOCATIONS INSTALL NEW SEALANT JOINT IMMEDIATELY BELOW THE HORIZONTAL LEG OF THE EXISTING SHELF ANGLE. SEE DETAILS 5/7 AND 2/9.

8. REPAIR EXISTING CRACKED LIMESTONE CLADDING UNITS BY EPOXY INJECTION ACCORDING TO DETAIL 1/7. ASSUME 9 LIMESTONE CLADDING UNITS REQUIRE EPOXY INJECTION CRACK REPAIR FOR THIS ELEVATION. VERIFY LOCATIONS OF CRACKED UNITS WITH ENGINEER.

8A. ALTERNATE BID: REMOVE AND REPLACE 9 EXISTING CRACKED LIMESTONE CLADDING UNITS WITH NEW MATCHING LIMESTONE UNITS COMPLETE WITH NEW STAINLESS STEEL ANCHORS, TIES, PINS AND MORTAR ACCORDING TO DETAILS 1/9, 2/9 AND 1/10. ASSUME 4 SHELF ANGLE SUPPORTED UNITS AND 5 INTERMEDIATE UNITS REQUIRE REMOVAL AND RESETTING. VERIFY UNIT LOCATIONS WITH ENGINEER.

9. REPAIR EXISTING CRACKED GRANITE CLADDING UNITS BY EPOXY INJECTION ACCORDING TO DETAIL 1/7. ASSUME 4 GRANITE CLADDING UNITS REQUIRE EPOXY INJECTION CRACK REPAIR FOR THIS ELEVATION. VERIFY UNIT LOCATIONS WITH ENGINEER.

9A. ALTERNATE BID: REMOVE AND REPLACE EXISTING CRACKED GRANITE CLADDING UNITS WITH NEW MATCHING GRANITE UNITS COMPLETE WITH NEW STAINLESS STEEL ANCHORS, TIES, PINS AND MORTAR ACCORDING TO DETAILS 3/8, 2/11 AND 3/11. ASSUME 4 UNITS REQUIRE REMOVAL AND REPLACEMENT FOR THIS ELEVATION. VERIFY UNIT LOCATIONS WITH ENGINEER.

10. REMOVE, SALVAGE AND RESET EXISTING DISPLACED GRANITE CLADDING UNITS. REPAIR EXISTING BRICK BACK UP WALL WITH NEW MATCHING BRICK UNITS AND MORTAR. REINSTALL SALVAGED GRANITE CLADDING UNIT USING STAINLESS STEEL PINS, WALL TIES AND MORTAR. ASSUME 3 UNITS FOR THIS ELEVATION. SEE 3/8, 2/11 AND 3/11. VERIFY UNIT LOCATIONS WITH ENGINEER.

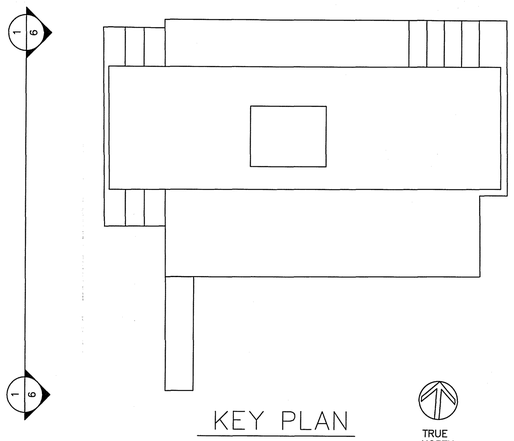
12A. ALTERNATE BID: PERFORM 100% OF SPOT GRINDING AND TUCKPOINTING AT THE MORTAR JOINTS OF THE EXISTING GRANITE CLADDING UNITS FOR THIS ELEVATION. FOR ESTIMATING PURPOSES, ASSUME 60% OF THE GRANITE JOINTS ARE MORTAR AND 40% ARE SEALANT. SEE DETAIL 2/7.

16. PATCH 3 EXISTING KASOTA LIMESTONE CLADDING UNITS WITH SPECIFIED PATCHING MATERIAL PER DETAIL 4/7. VERIFY UNIT LOCATIONS WITH ENGINEER.

16A. ALTERNATE BID: REMOVE EXISTING KASOTA LIMESTONE CLADDING UNITS THAT ARE SPALLED AND REPLACE WITH NEW MATCHING LIMESTONE UNITS COMPLETE WITH STAINLESS STEEL PINS, TIES AND MORTAR ACCORDING TO DETAILS 1/9, 2/9 AND 1/10. ASSUME 3 UNITS REQUIRE REMOVAL AND REPLACEMENT WHERE SPALLED FOR THIS ELEVATION. VERIFY UNIT LOCATIONS WITH ENGINEER.

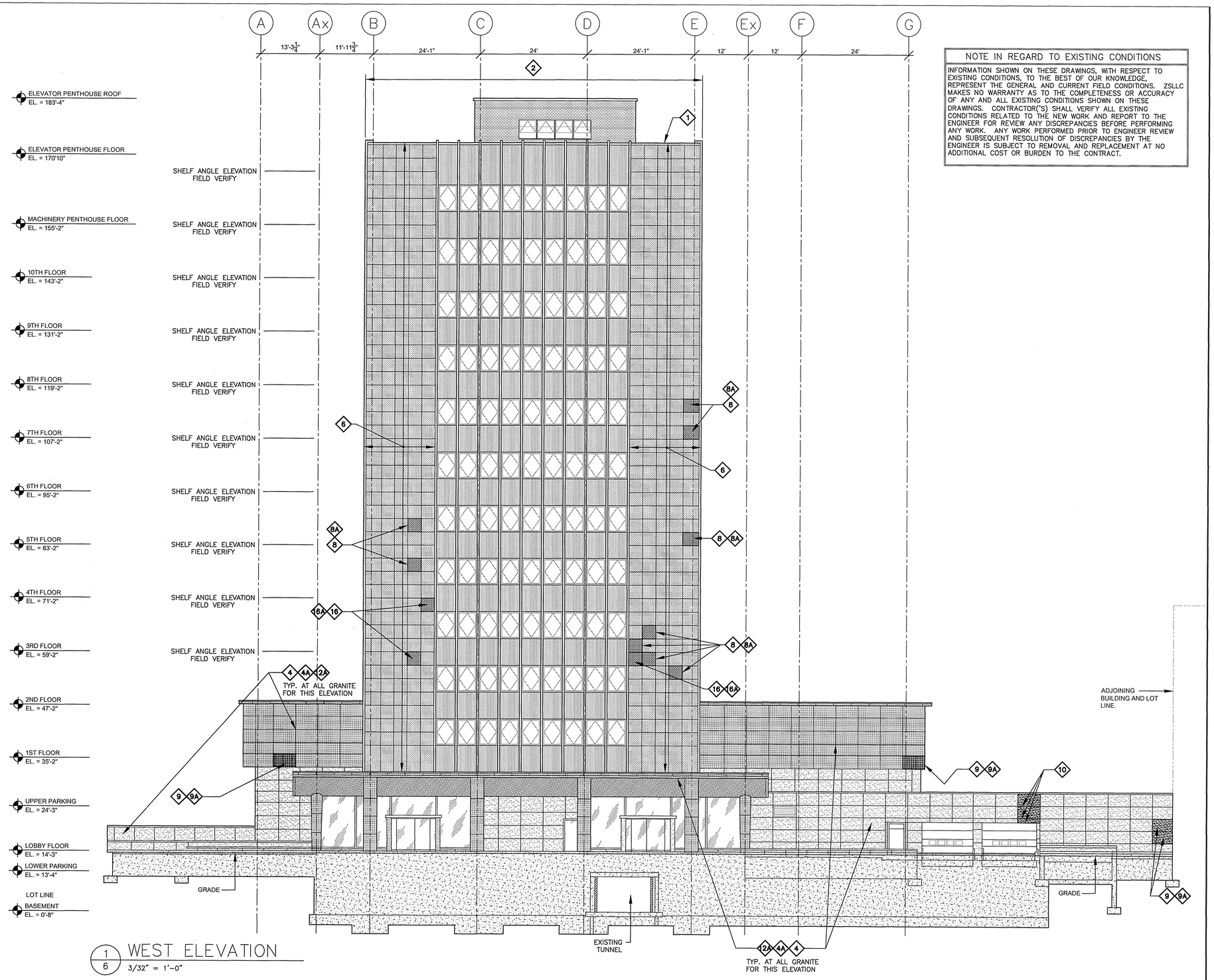
KEYED ELEVATION NOTES NOT USED:

3 5 7 11A 11B 12 13 14 15 17



KEY PLAN

TRUE NORTH



1/6 WEST ELEVATION

3/32" = 1'-0"

NOTE IN REGARD TO EXISTING CONDITIONS

INFORMATION SHOWN ON THESE DRAWINGS, WITH RESPECT TO EXISTING CONDITIONS, TO THE BEST OF OUR KNOWLEDGE, REPRESENT THE GENERAL AND CURRENT FIELD CONDITIONS. ZSLLC MAKES NO WARRANTY AS TO THE COMPLETENESS OR ACCURACY OF ANY AND ALL EXISTING CONDITIONS SHOWN ON THESE DRAWINGS. CONTRACTOR('S) SHALL VERIFY ALL EXISTING CONDITIONS RELATED TO THE NEW WORK AND REPORT TO THE ENGINEER FOR REVIEW ANY DISCREPANCIES BEFORE PERFORMING ANY WORK. ANY WORK PERFORMED PRIOR TO ENGINEER REVIEW AND SUBSEQUENT RESOLUTION OF DISCREPANCIES BY THE ENGINEER IS SUBJECT TO REMOVAL AND REPLACEMENT AT NO ADDITIONAL COST OR BURDEN TO THE CONTRACT.

DETAIL SYMBOLS:

- *Existing aluminum panel*
- *Existing concrete*
- *Existing brick masonry in elevation*
- *Existing granite type 1 stone (black)*
- *Existing granite type 2 stone (red)*
- *Existing kasoto limestone masonry*
- *Existing gypsum*
- *Existing aluminum louver*

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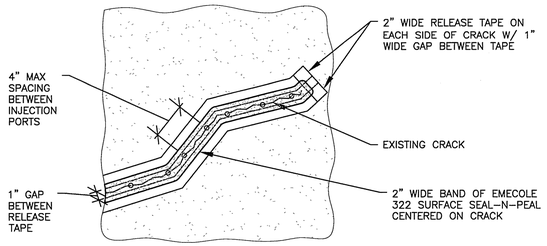
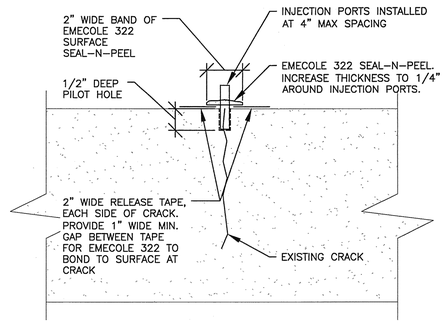


ELEVATION AT CRACK REPAIR



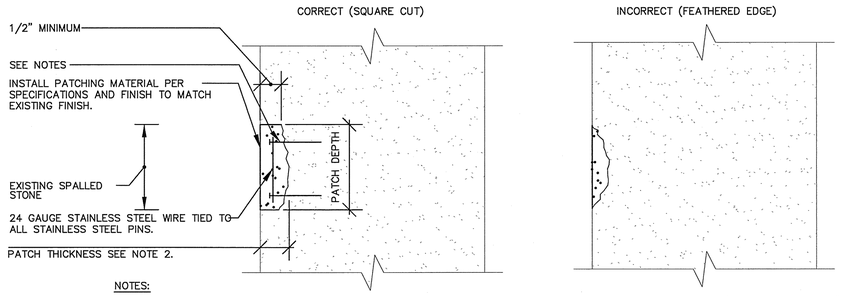
SECTION AT INJECTION PORT

ANTICIPATED EPOXY INJECTION REPAIR SEQUENCE:

1. PREPARE SURFACE FOR EMECOLE 322 SEAL–N–PEEL APPLICATION PER MANUFACTURER'S RECOMMENDATION FOR A MINIMUM OF 1" WIDTH ON EACH SIDE OF THE CRACK.
2. DRILL 1/2" DEEP PILOT HOLES CENTERED ON CRACK FOR INJECTION PORT INSTALLATION. SPACE PILOT HOLES AT 4" O/C MAX. SPACING.
3. INSTALL RELEASE TAPE EACH SIDE OF CRACK AS SHOWN ON DETAILS.
4. INSERT INJECTION PORTS INTO PILOT HOLES. BUTTER INSERTED END OF INJECTION PORT WITH EMECOLE 322.
5. APPLY 1/8" THICK BAND OF EMECOLE 322 OVER CRACK AND OVERLAPPING RELEASE TAPE. AT INJECTION PORTS INCREASE THICKNESS OF EMECOLE 322 TO 1/4". ALLOW EMECOLE 322 TO CURE PER MANUFACTURER'S RECOMMENDATIONS.
6. INJECT SIKADUR 52 EPOXY RESIN ADHESIVE INTO INJECTION PORTS STARTING AT LOWEST PORT AND WORKING UPWARD. INJECT ADHESIVE UNDER STEADY PRESSURE UNTIL EPOXY COMES OUT OF THE PORT ABOVE. SEAL INJECTED PORT AND REPEAT INJECTION AT NEXT PORT AND CONTINUE PROCESS UNTIL ALL OF THE PORTS HAVE BEEN INJECTED. ALLOW SIKADUR 52 TO CURE PER MANUFACTURER'S RECOMMENDATIONS.
7. DRILL OUT INJECTION PORTS AND REMOVE EMECOLE 322 FROM REPAIR SURFACE.
8. FILL DRILLED HOLES WITH APPROVED, UV RESISTANT SEALANT WHICH MATCHES COLOR OF MATERIAL SURFACE.

1/7 CRACK REPAIR/ EPOXY INJECTION DETAIL

NOT TO SCALE



NOTES:

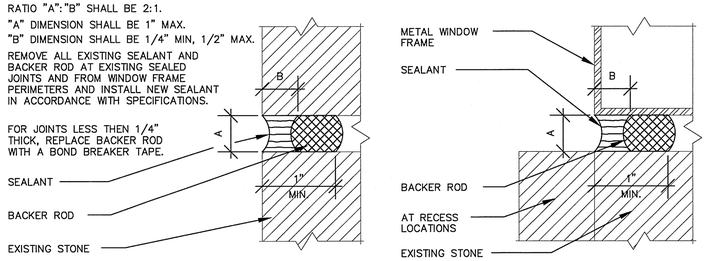
1. FOR PATCH DEPTHS GREATER OR EQUAL TO 3", PROVIDE 1/8" DIAMETER STAINLESS STEEL PINS WITH MINIMUM 1" EMBEDDMENT AT 3" ON CENTER EACH WAY (3" GRID PATTERN). TIE ALL STAINLESS STEEL PINS WITH 24 GAUGE STAINLESS STEEL WIRE.
2. FOR SPALL THICKNESSES OF 1/2" OR GREATER, PROVIDE 1/8" DIAMETER STAINLESS STEEL PINS IN A 3"x3" GRID PATTERN OFFSET 1/2" FOR EACH 1/2" OF SPALL THICKNESS. TIE EACH LAYER WITH 24 GAUGE STAINLESS STEEL WIRE.
3. SEE 2/10 FOR RECOMMENDED REPAIR GEOMETRY LAYOUT FOR SPALLS.

4/7 STONE PATCH DETAIL FOR SMALL NON–STRUCTURAL SPALLS

NOT TO SCALE (WHERE APPLICABLE)

NOTES:

1. INSTALL ALL NEW BACKER ROD AND ELASTOMERIC SEALANT AS BELOW. BACKER ROD SHALL BE SET USING A BACKER ROD SETTING TOOL CALIBRATED FOR THE DEPTH INDICATED.
2. RATIO "A":"B" SHALL BE 2:1.
3. "A" DIMENSION SHALL BE 1" MAX.
4. "B" DIMENSION SHALL BE 1/4" MIN, 1/2" MAX.
5. REMOVE ALL EXISTING SEALANT AND BACKER ROD AT EXISTING SEALED JOINTS AND FROM WINDOW FRAME PERIMETERS AND INSTALL NEW SEALANT IN ACCORDANCE WITH SPECIFICATIONS.
6. FOR JOINTS LESS THEN 1/4" THICK, REPLACE BACKER ROD WITH A BOND BREAKER TAPE.

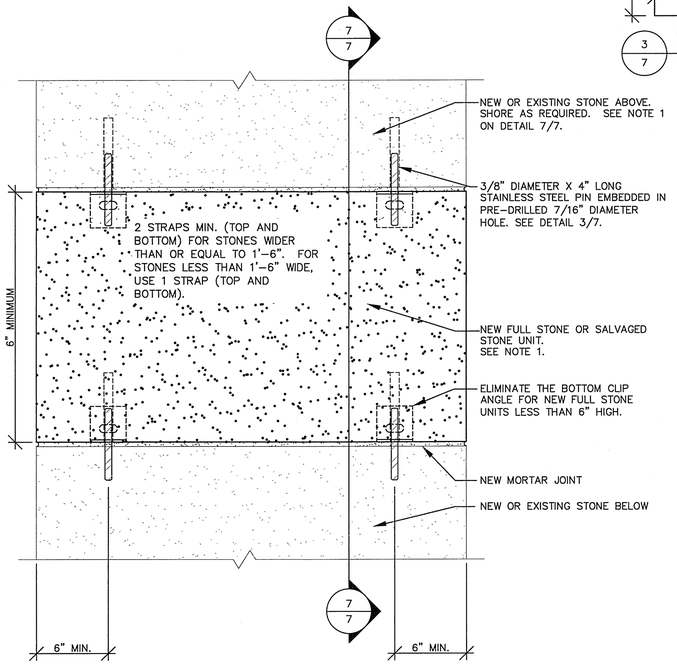


MASONRY SEALANT JOINT

METAL FRAME PERIMETER

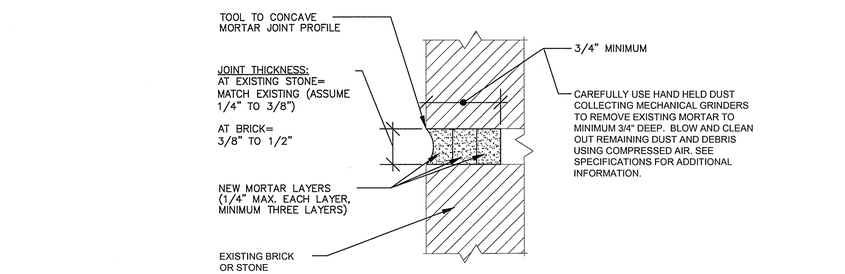
5/7 TYPICAL SEALANT JOINT DETAILS

NOT TO SCALE TYPICAL



6/7 STONE REPLACEMENT DETAIL, STONE RESETTING

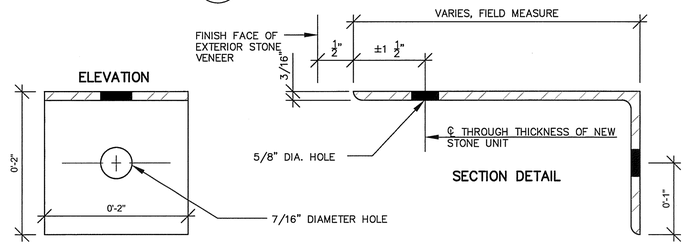
NOT TO SCALE (ELEVATION VIEW)



–TAKE CAUTION TO NOT CHIP EDGES OF STONE WHILE REMOVING EXISTING MORTAR.

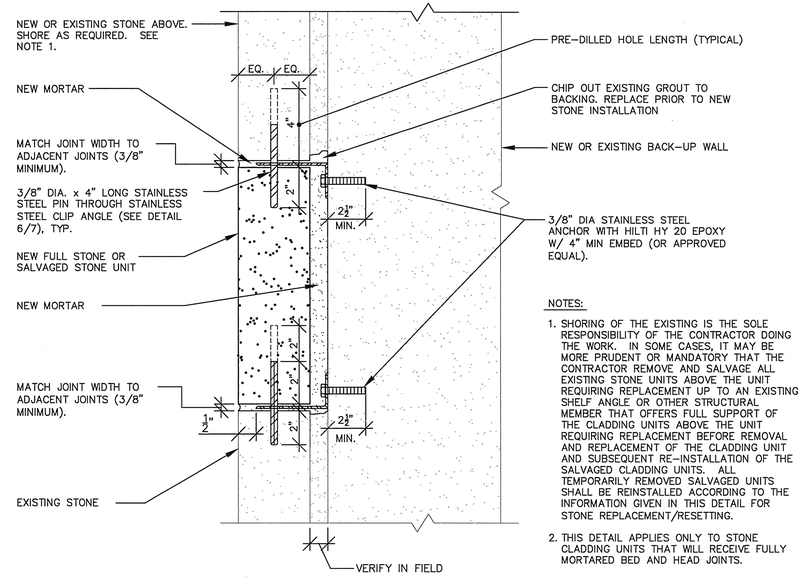
2/7 TYPICAL MORTAR JOINT TUCKPOINTING DETAIL

NOT TO SCALE



3/7 STAINLESS STEEL STONE CLIP ANGLE AND STONE WALL TIE DETAIL

12" = 1'–0"



NOTES:

1. SHORING OF THE EXISTING IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR DOING THE WORK. IN SOME CASES, IT MAY BE MORE PRUDENT OR MANDATORY THAT THE CONTRACTOR REMOVE AND SALVAGE ALL EXISTING STONE UNITS ABOVE THE UNIT REQUIRING REPLACEMENT UP TO AN EXISTING SHELF ANGLE OR OTHER STRUCTURAL MEMBER THAT OFFERS FULL SUPPORT OF THE CLADDING UNITS ABOVE THE UNIT REQUIRING REPLACEMENT BEFORE REMOVAL AND REPLACEMENT OF THE CLADDING UNIT AND SUBSEQUENT RE–INSTALLATION OF THE SALVAGED CLADDING UNITS. ALL TEMPORARILY REMOVED SALVAGED UNITS SHALL BE REINSTALLED ACCORDING TO THE INFORMATION GIVEN IN THIS DETAIL FOR STONE REPLACEMENT/RESETTING.
2. THIS DETAIL APPLIES ONLY TO STONE CLADDING UNITS THAT WILL RECEIVE FULLY MORTARED BED AND HEAD JOINTS.

7/7 SECTION AT STONE REPLACEMENT, STONE RESETTING

NOT TO SCALE (SECTION VIEW)

DETAIL SYMBOLS

Existing aluminum panel	Existing granite type 1 stone masonry	Existing kasota limestone masonry	Existing granite type 2 stone masonry	Existing aluminum louver
Existing concrete	Existing concrete block masonry	New concrete	New concrete block masonry	Existing brick masonry in elevation
Existing brick masonry	Existing steel in x–section	New brick masonry	New steel in x–section	

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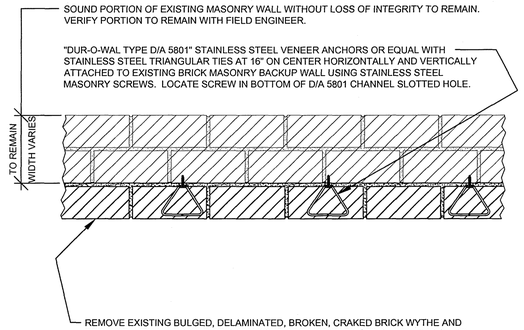
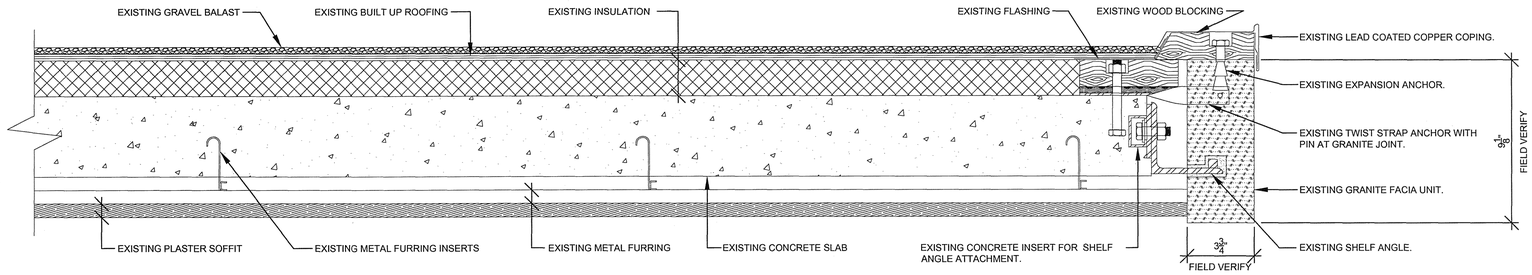


1/8 PLAN VIEW TYPICAL BRICK REPLACEMENT WALL REPAIR DETAIL

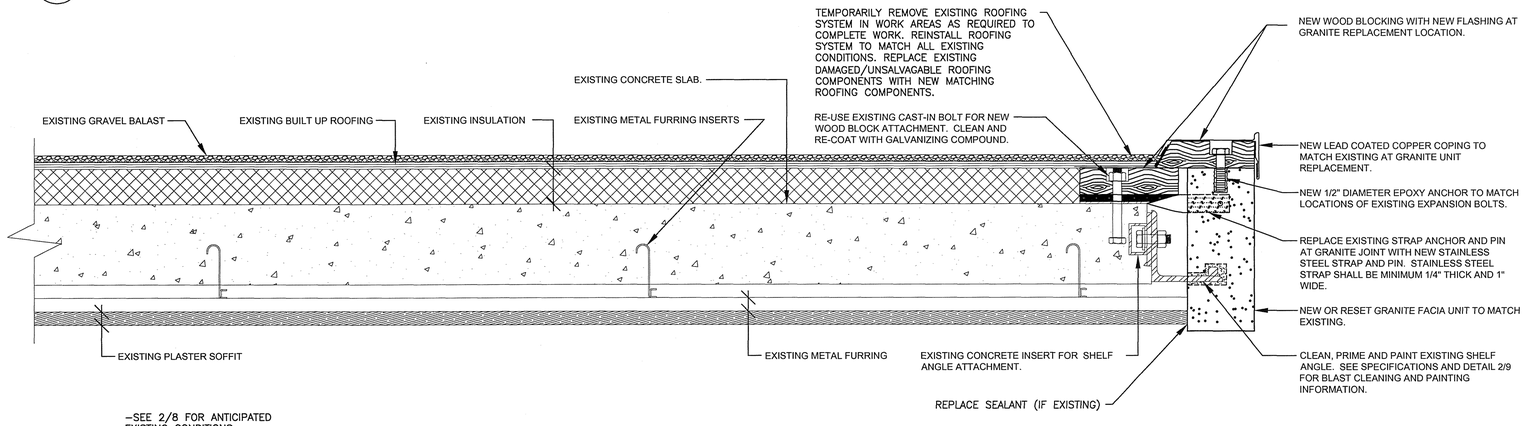
1-1/2" = 1'-0"



2/8 EXISTING SECTION THROUGH OVERHANG

3" = 1'-0"

NOTE:
SIMILAR CONDITIONS EXIST AT SOUTH OVERHANG. FIELD VERIFY.



-SEE 2/8 FOR ANTICIPATED EXISTING CONDITIONS.

3/8 SECTION AT GRANITE FACIA REPLACEMENT/RESETTING

3" = 1'-0"

DETAIL SYMBOLS

Existing aluminum panel	Existing granite type 1 stone masonry	Existing kasota limestone masonry	Existing granite type 2 stone masonry	Existing aluminum louver
Existing concrete	Existing concrete block masonry	New concrete	New concrete block masonry	Existing brick masonry in elevation
Existing brick masonry	Existing steel in x-section	New brick masonry	New steel in x-section	

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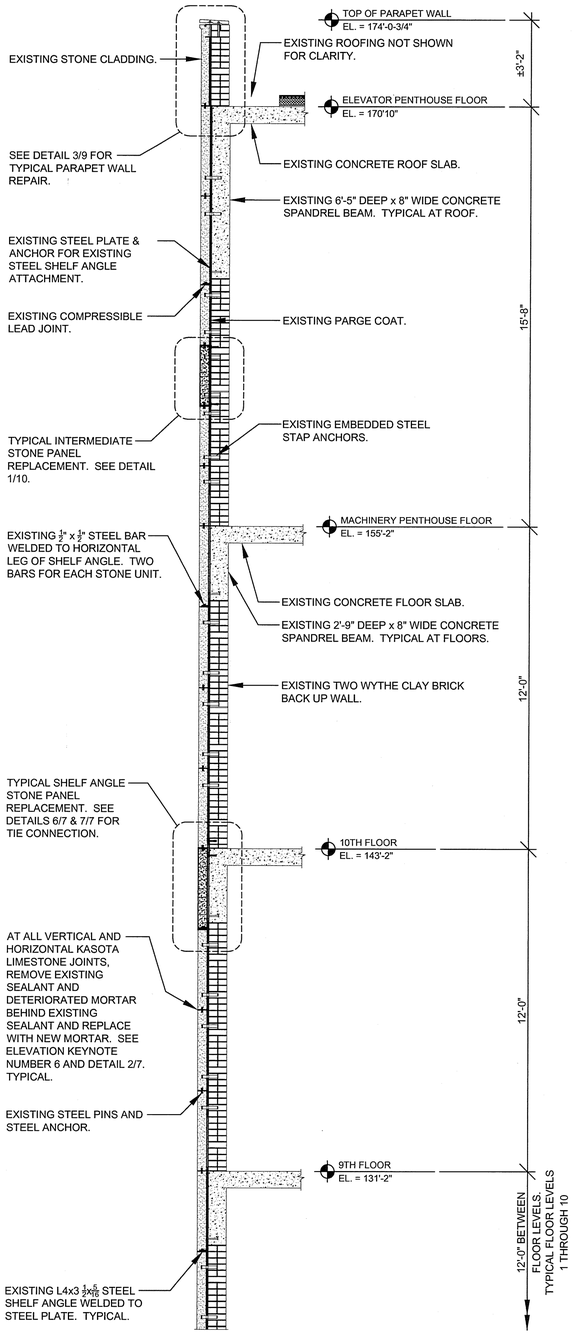
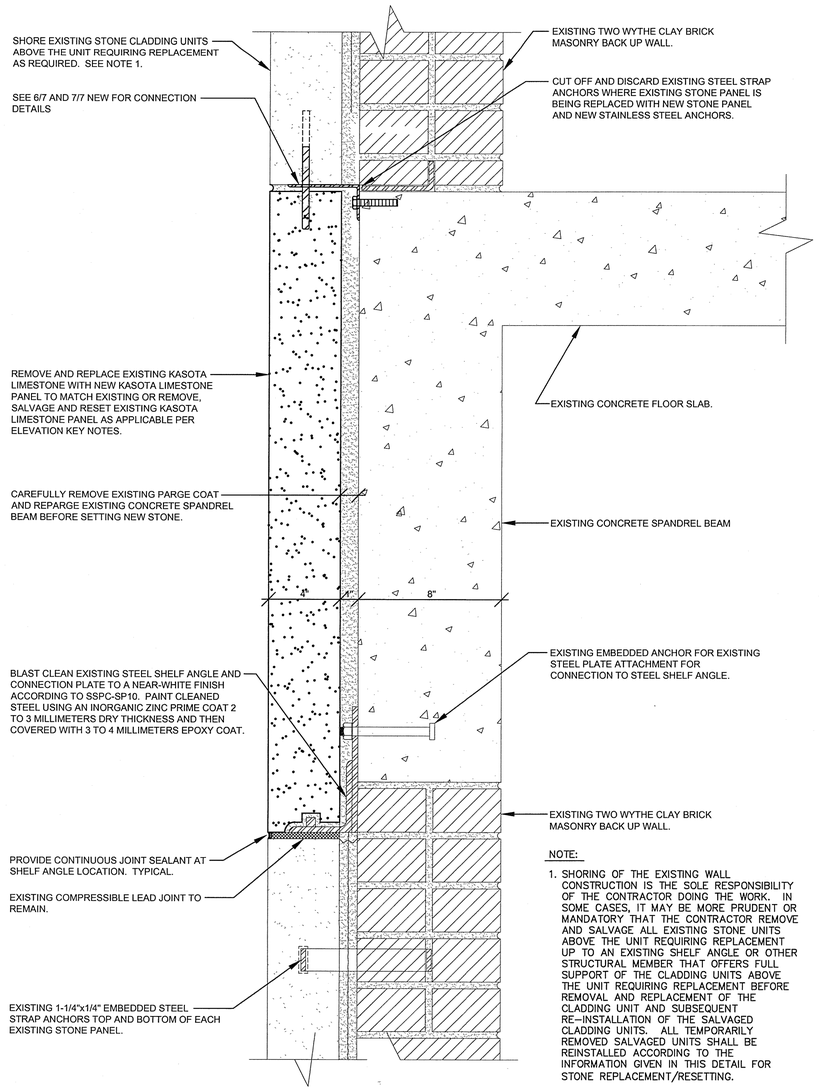


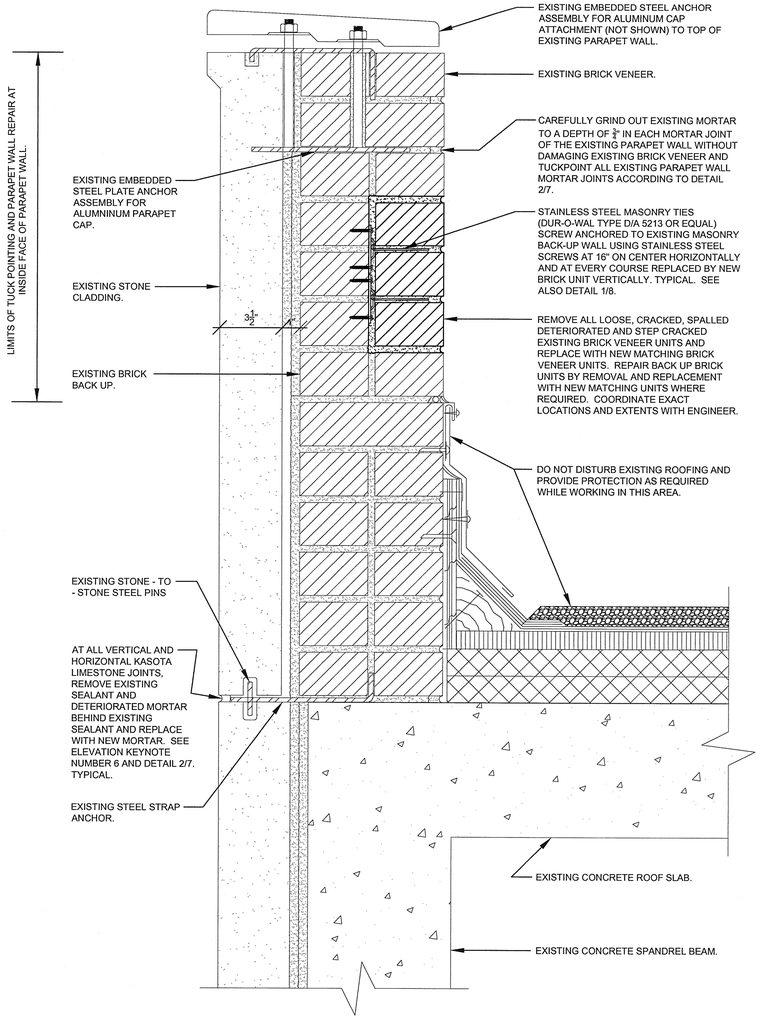
1/9 TYPICAL WALL SECTION DETAIL
3/8" = 1'–0"



NOTE:

1. SHORING OF THE EXISTING WALL CONSTRUCTION IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR DOING THE WORK. IN SOME CASES, IT MAY BE MORE PRUDENT OR MANDATORY THAT THE CONTRACTOR REMOVE AND SALVAGE ALL EXISTING STONE UNITS ABOVE THE UNIT REQUIRING REPLACEMENT UP TO AN EXISTING SHELF ANGLE OR OTHER STRUCTURAL MEMBER THAT OFFERS FULL SUPPORT OF THE CLADDING UNITS ABOVE THE UNIT REQUIRING REPLACEMENT BEFORE REMOVAL AND REPLACEMENT OF THE CLADDING UNIT AND SUBSEQUENT RE–INSTALLATION OF THE SALVAGED CLADDING UNITS. ALL TEMPORARILY REMOVED SALVAGED UNITS SHALL BE REINSTALLED ACCORDING TO THE INFORMATION GIVEN IN THIS DETAIL FOR STONE REPLACEMENT/RESETTING.

2/9 TYPICAL SHELF ANGLE STONE REPLACEMENT/RESETTING DETAIL
3" = 1'–0"



3/9 PARAPET WALL REPAIR DETAIL
3" = 1'–0"

DETAIL SYMBOLS

- Existing aluminum panel
- Existing concrete
- Existing brick masonry
- Existing granite type 1 stone masonry
- Existing concrete block masonry
- Existing steel in x–section
- Existing kasota limestone masonry
- New concrete
- New brick masonry
- Existing granite type 2 stone masonry
- New concrete block masonry
- New steel in x–section
- Existing aluminum louver
- Existing brick masonry in elevation

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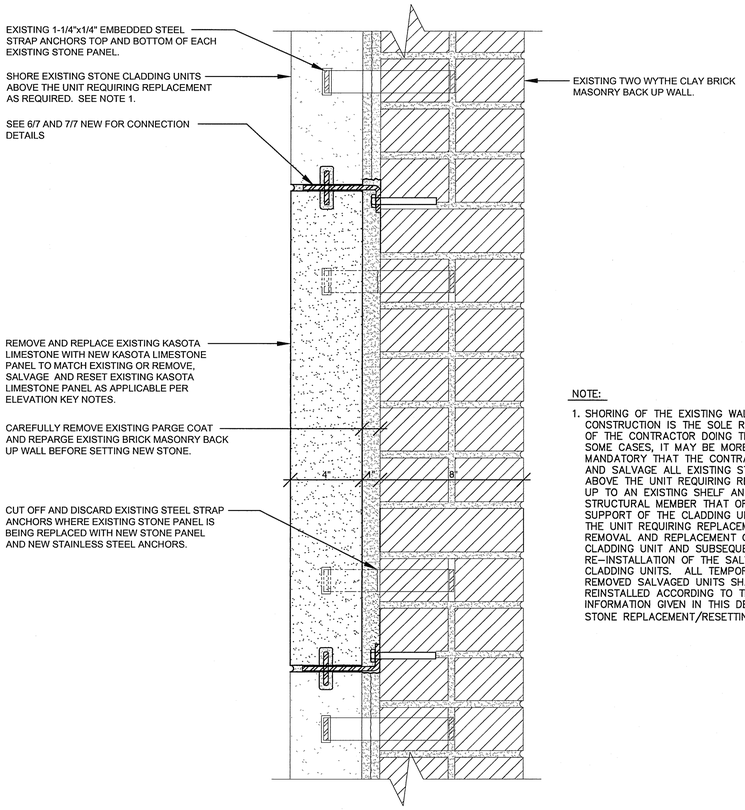
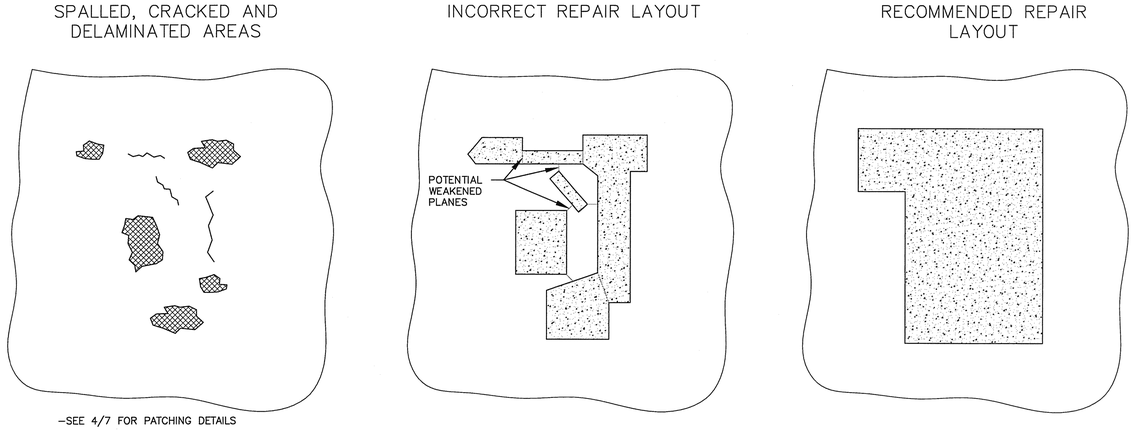


NOTE:

1. SHORING OF THE EXISTING WALL CONSTRUCTION IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR DOING THE WORK. IN SOME CASES, IT MAY BE MORE PRUDENT OR MANDATORY THAT THE CONTRACTOR REMOVE AND SALVAGE ALL EXISTING STONE UNITS ABOVE THE UNIT REQUIRING REPLACEMENT UP TO AN EXISTING SHELF ANGLE OR OTHER STRUCTURAL MEMBER THAT OFFERS FULL SUPPORT OF THE CLADDING UNITS ABOVE THE UNIT REQUIRING REPLACEMENT BEFORE REMOVAL AND REPLACEMENT OF THE CLADDING UNIT AND SUBSEQUENT RE-INSTALLATION OF THE SALVAGED CLADDING UNITS. ALL TEMPORARILY REMOVED SALVAGED UNITS SHALL BE REINSTALLED ACCORDING TO THE INFORMATION GIVEN IN THIS DETAIL FOR STONE REPLACEMENT/RESETTING.

1/10 TYPICAL INTERMEDIATE STONE REPLACEMENT/RESETTING DETAIL

3" = 1'-0"



-SEE 4/7 FOR PATCHING DETAILS

2/10 REPAIR GEOMETRY LAYOUT DETAIL

1" = 1'-0"

DETAIL SYMBOLS

- Existing aluminum panel
- Existing granite type 1 stone masonry
- Existing kasota limestone masonry
- Existing granite type 2 stone masonry
- Existing aluminum louver
- Existing concrete
- Existing concrete block masonry
- New concrete
- New concrete block masonry
- Existing brick masonry in elevation
- Existing brick masonry
- Existing steel in x-section
- New brick masonry
- New steel in x-section

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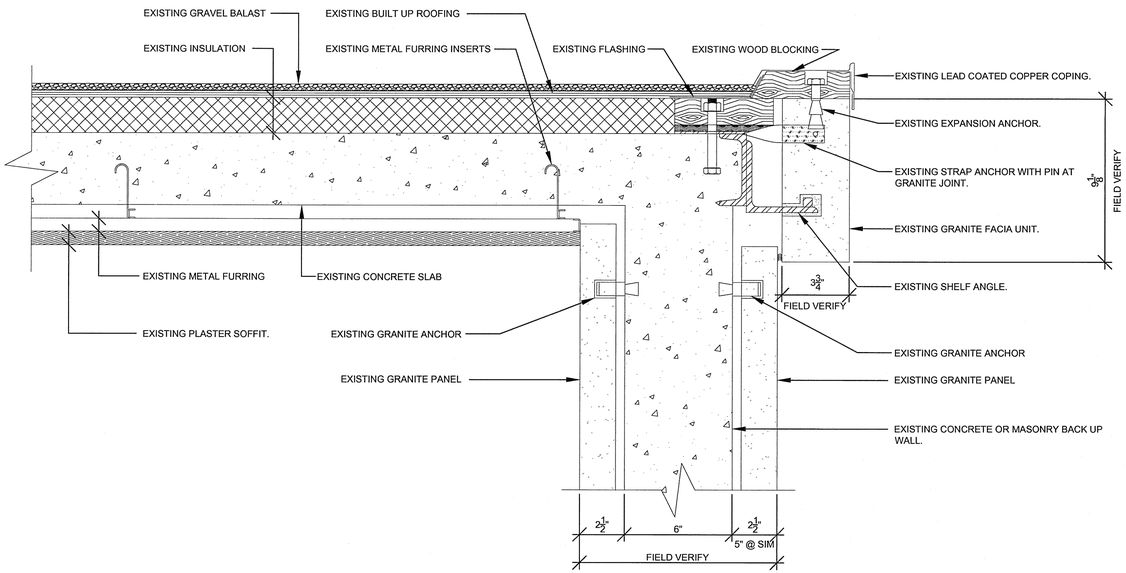
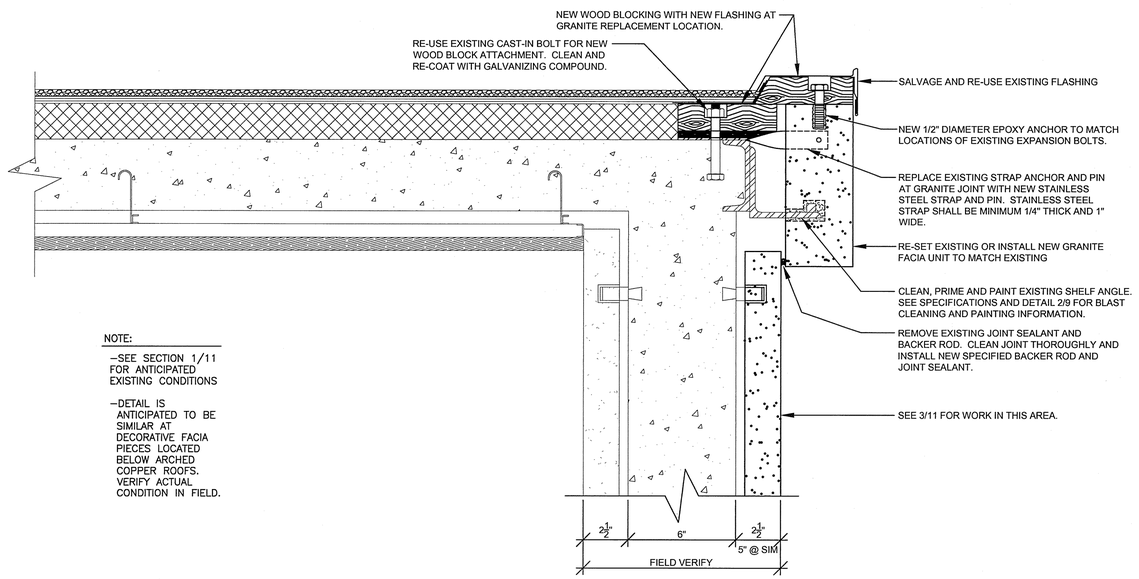


1/11 TYPICAL EXISTING SECTION THROUGH GRANITE WALL PANELS

3" = 1'–0"



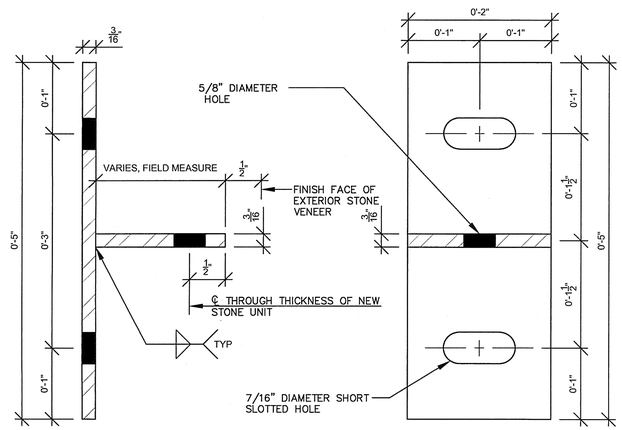
NOTE:

–SEE SECTION 1/11 FOR ANTICIPATED EXISTING CONDITIONS

–DETAIL IS ANTICIPATED TO BE SIMILAR AT DECORATIVE FACIA PIECES LOCATED BELOW ARCHED COPPER ROOFS. VERIFY ACTUAL CONDITION IN FIELD.

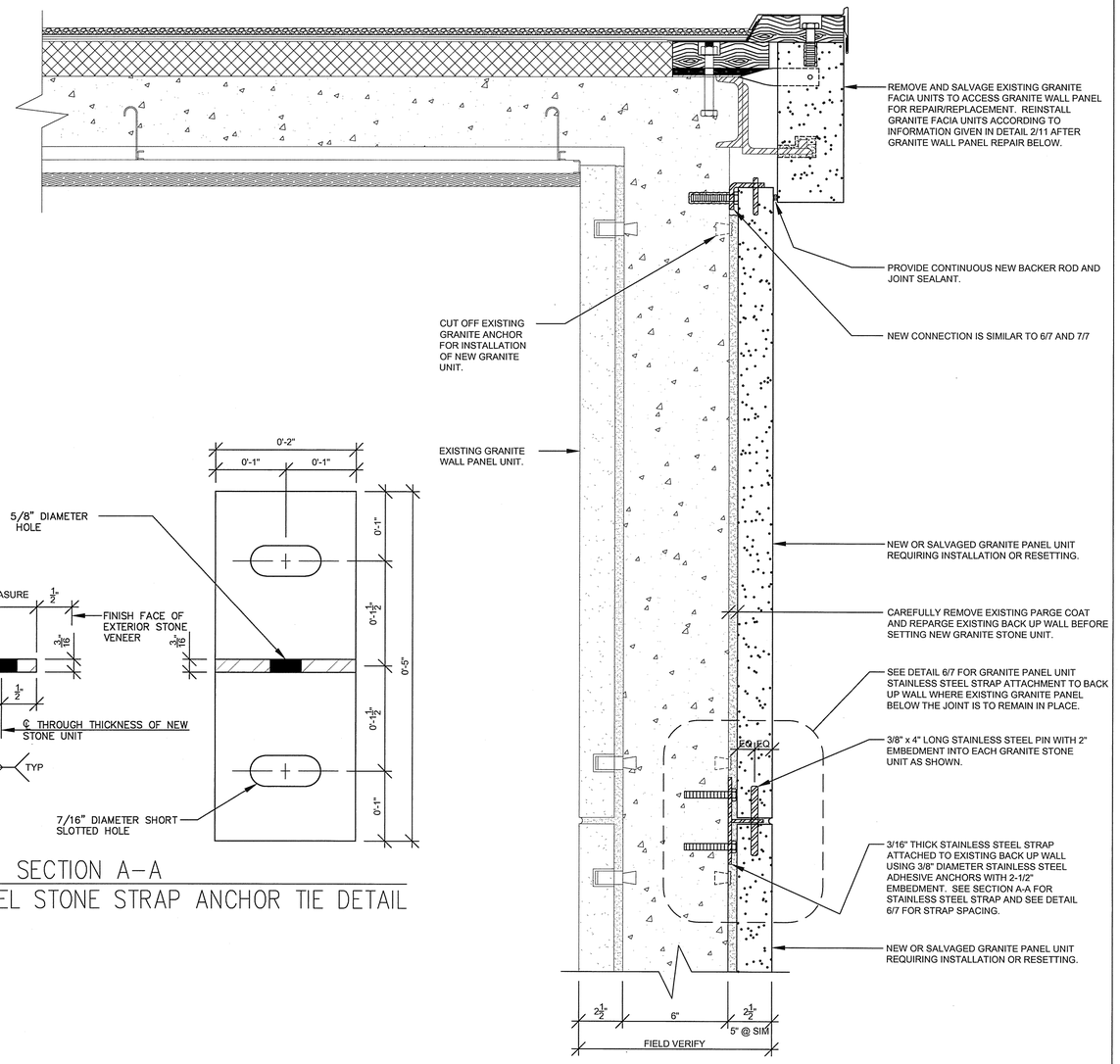
2/11 SECTION AT GRANITE FACIA REPLACEMENT/RESETTING

3" = 1'–0"



SECTION A–A

STAINLESS STEEL STONE STRAP ANCHOR TIE DETAIL



3/11 SECTION AT GRANITE WALL PANEL REPLACEMENT/RESETTING

3" = 1'–0"

DETAIL SYMBOLS

- Existing aluminum panel
- Existing granite type 1 stone masonry
- Existing kasota limestone masonry
- Existing granite type 2 stone masonry
- Existing aluminum louver
- Existing concrete
- Existing concrete block masonry
- New concrete
- New concrete block masonry
- Existing brick masonry in elevation
- Existing brick masonry
- Existing steel in x-section
- New brick masonry
- New steel in x-section

FOR: CITY OF MILWAUKEE – ZEIDLER MUNICIPAL BUILDING
841 NORTH BROADWAY
MILWAUKEE, WISCONSIN

2012 EXTERIOR WALLS REPAIR

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REVISION	NUMBER	DATE

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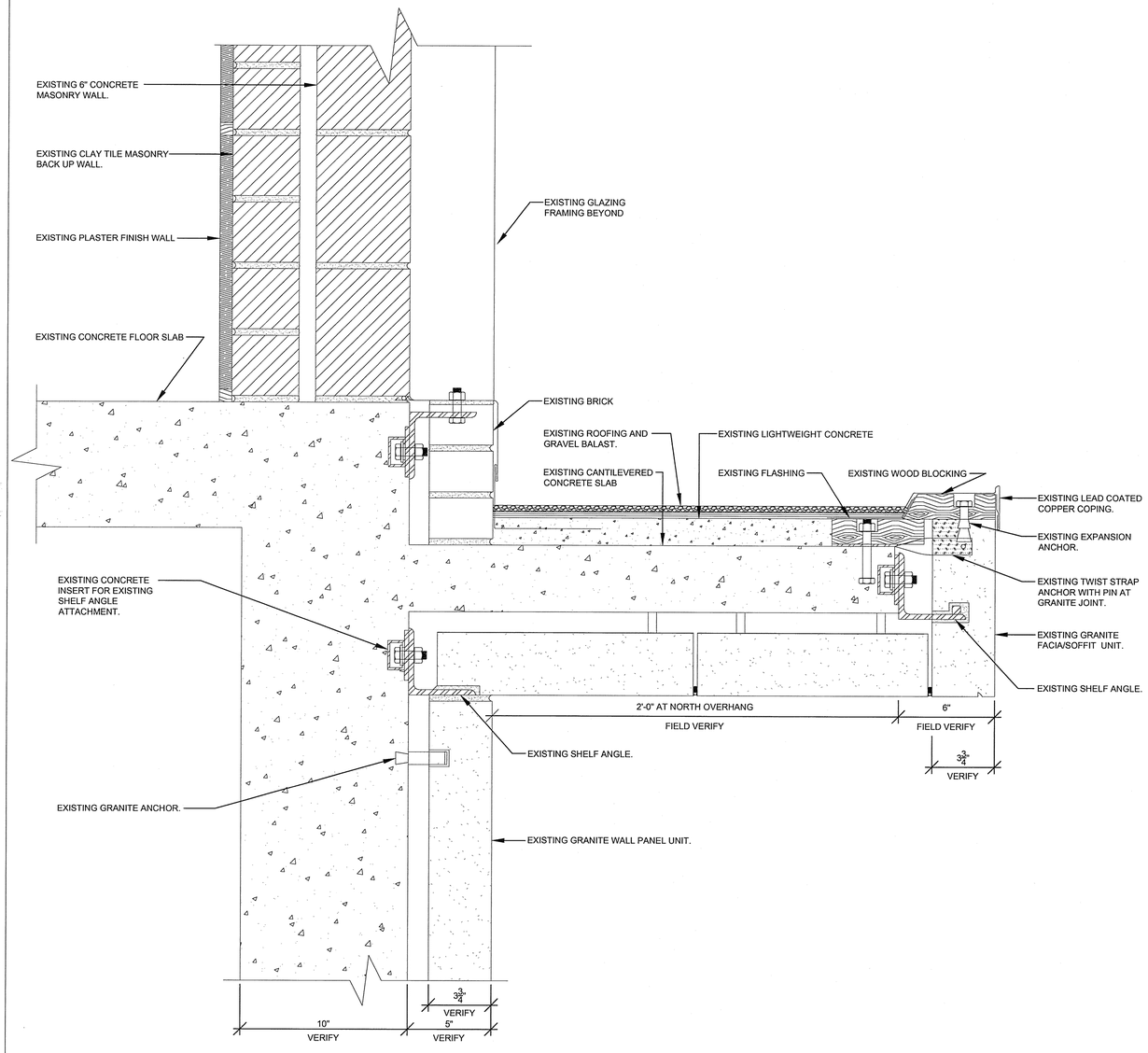
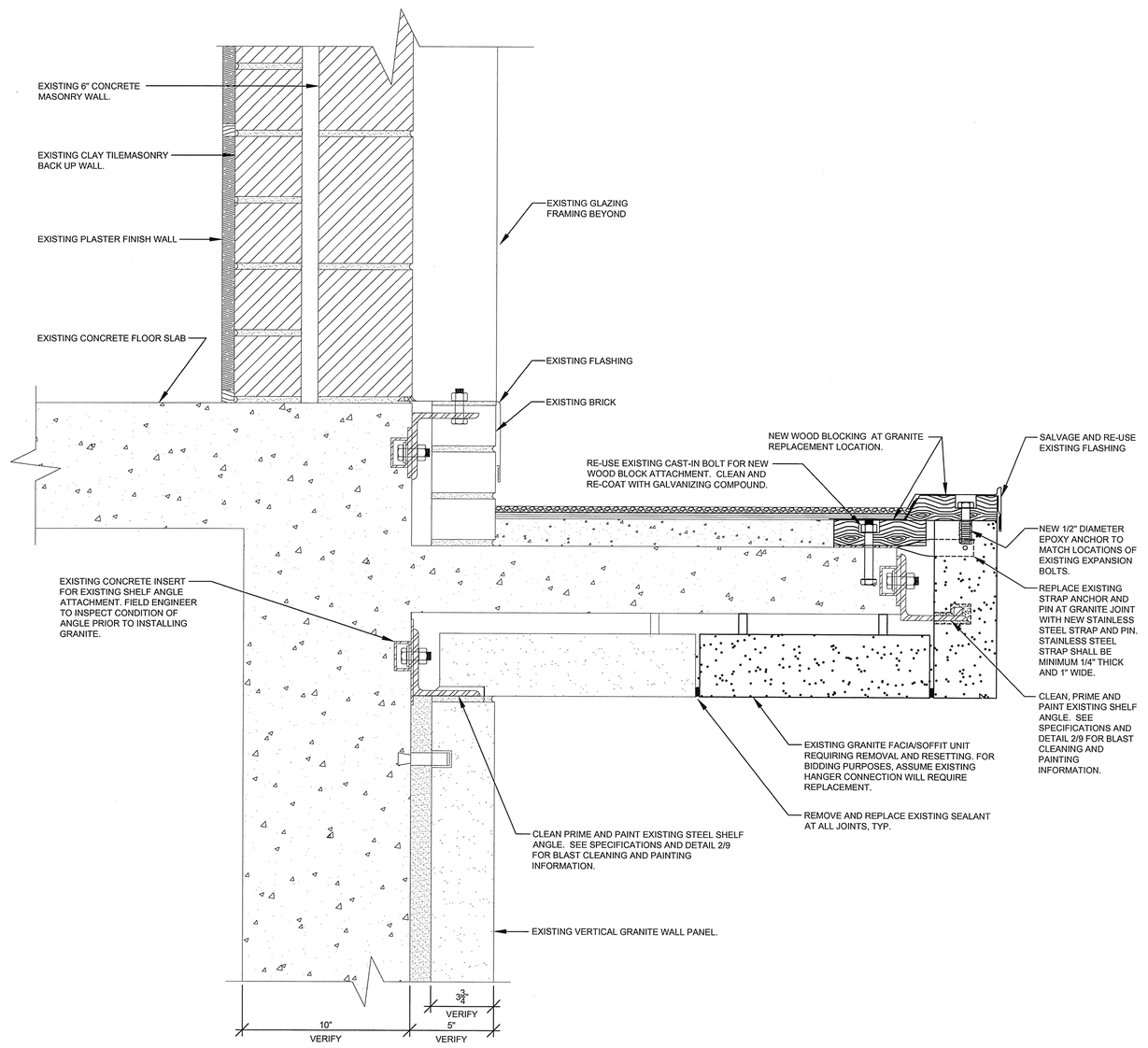
PROJECT # 7049

SHEET: 11 OF 12



1/12 EXISTING SECTION THROUGH NORTH LOWER OVERHANG

3" = 1'-0"



–SEE SECTION 1/12 FOR ANTICIPATED EXISTING CONDITIONS

2/12 SECTION AT GRANITE FACIA–SOFFIT REPLACEMENT/RESETTING

3" = 1'-0"

DETAIL SYMBOLS

- Existing aluminum panel
- Existing concrete
- Existing brick masonry
- Existing granite type 1 stone masonry
- Existing concrete block masonry
- Existing steel in x-section
- Existing kasota limestone masonry
- New concrete
- New brick masonry
- Existing granite type 2 stone masonry
- New concrete block masonry
- New steel in x-section
- Existing aluminum louver
- Existing brick masonry in elevation

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