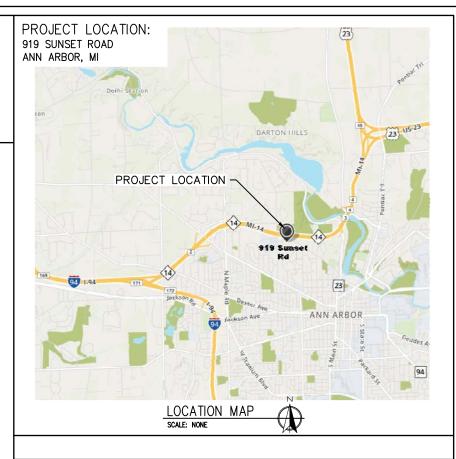
CITY OF ANN ARBOR, MI WATER TREATMENT SERVICES UNIT ROOFING & RESTORATION PROJECTS

SHEET INDEX

ROOFING SECTION RESTORATION SECTION SHEET TITLE SHEET TITLE SHEET NO. SHEET NO. C-01 - COVER SHEET E-0 - RESTORATION NOTES SP-1 - SITE PLAN - WATER TREATMENT PLANT E-01 - QUANTITY SUMMARY CORE BUILDINGS RP-1 - ROOFING REPLACEMENT PLAN - WATER TREATMENT PLANT E-02 - QUANTITY SUMMARY EAST ADDITIONS RP-1A - ROOFING REPLACEMENT PLAN - WATER TREATMENT PLANT - WEST RP-1B - ROOFING REPLACEMENT PLAN - WATER TREATMENT PLANT - EAST E-03 - QUANTITY SUMMARY OUTBUILDINGS E-04 - QUANTITY SUMMARY OUTSTATIONS RP-2 - ROOFING REPLACEMENT PLAN - BARTON PUMPING STATION E-1 - CONTROL ROOM - WEST ELEVATION RP-3 - ROOFING REPLACEMENT PLAN - INDUSTRIAL PUMPING STATION E-2A - TOWER - ELEVATIONS RP-4 - ROOFING REPLACEMENT PLAN - NORTH CAMPUS PUMPING STATION E-2B - TOWER - ELEVATIONS RP-5 - ROOFING REPLACEMENT PLAN - LIBERTY PUMPING STATION E-2C - TOWER - ELEVATIONS RP-6 - ROOFING REPLACEMENT PLAN - SUPERIOR HYDROELECTRIC BUILDING E-3A - TOWER PENTHOUSE - ELEVATIONS D-01 - CONSTRUCTION PROFILE - METAL DECK, TWO LAYERS INSULATION, COVERBOARD, AND FULLY E-3B - TOWER PENTHOUSE - ELEVATIONS E-4A - FILTER GALLERY - ELEVATIONS ADHERED EPDM ROOFING MEMBRANE D-02 - CONSTRUCTION PROFILE - METAL DECK, TWO LAYERS MECH. ATTACHED INSULATION, AND FULLY E-4B - FILTER GALLERY - ELEVATIONS E-4C - FILTER GALLERY - ELEVATIONS ADHERED EPDM ROOFING MEMBRANE D-03 - CONSTRUCTION PROFILE - CONCRETE DECK, VAPOR RETARDER, TWO LAYERS INSULATION, COVERBOARD, AND FULLY ADHERED EPDM ROOFING MEMBRANE E-4D - FILTER GALLERY - ELEVATIONS E-4E - FILTER GALLERY - ELEVATIONS D-04 - CONSTRÚCTION PROFILE - CONCRETE DECK, VAPOR RETARDER, TWO LAYERS INSULATION, AND E-4F - FILTER GALLERY - ELEVATIONS FULLY ADHERED EPDM ROOFING MEMBRANE E-4G - FILTER GALLERY - ELEVATIONS D-05 - SECUREMENT: INSULATION FASTENER PATTERN E-4H - FILTER GALLERY SCREEN WALL - ELEVATIONS D-06 - FIELD OF ROOF INSULATION ADHESIVE PLACEMENT E-5 - CARBON BUILDING - ELEVATIONS E-6 - RAPID MIX BUILDING - ELEVATIONS D-07 - WOOD BLOCK FASTENING PATTERN D-08 - TERMINATION BAR E-7A - ADMINISTRATION BUILDING - ELEVATIONS E-7B - ADMINISTRATION BUILDING - ELEVATIONS D-09 - METAL DECK IN-FILL E-7C - ADMINISTRATION BUILDING - ELEVATIONS D-10 - CONCRETE DECK OPENING INFILL D-11 - CONCRETE DECK OPENING COVER PLATE E-7D - ADMINISTRATION BUILDING - ELEVATIONS E-8A - WHS BUILDING - ELEVATIONS E-8B - WHS BUILDING - ELEVATIONS D-12 - ROOF DRAIN D-13 - HANGING GUTTER E-9A - FILTER PRESS - ELEVATIONS D-14 - HANGING GUTTER AT FILTER GALLERY D-15 - THROUGH-WALL SCUPPER E-9B - FILTER PRESS - ELEVATIONS D-16 - CLERESTORY WINDOW FLASHING E-9C - FILTER PRESS - ELEVATIONS D-17 - SKYLIGHT FLASHING E-10A - CALCINER BUILDING - ELEVATIONS E-10B - CALCINER BUILDING - ELEVATIONS D-18 - FIELD-FABRICATED SINGLE-PLY PENETRATION FLASHING D-19 - PENETRATION POCKET E-10C - CALCINER BUILDING - ELEVATIONS D-20 - CURB WITH REMOVABLE CAP E-10D - CALCINER BUILDING - ELEVATIONS E-11A - EQ BUILDING - ELEVATIONS D-21 - CURB WITH NON-REMOVABLE CAP D-22 - CONCEALED COPING PLATE E-11B - EQ BUILDING - ELEVATIONS D-23 - TWO PIECE METAL COPING TRANSITION E-12A - OZONE BUILDING - ELEVATIONS D-24 - METAL COPING CORNER TRANSITION MANUFACTURED FROM A SINGLE PIECE OF METAL E-12B - OZONE BUILDING - ELEVATIONS D-25 - METAL COPING CAP AND BASE FLASHING E-12C - OZONE BUILDING - ELEVATIONS D-26 - LIMESTONE COPING AND FLASHING E-13 - MAINTENANCE BUILDING - ELEVATIONS E-14 - RE-CARB BUILDING - ELEVATIONS D-27 - LIMESTONE COPING AND STAINLESS STEEL COUNTERFLASHING D-27A - LIMESTONE COPING AND SHEET METAL CLOSURE E-15 - GENERATOR BUILDING - ELEVATIONS E-16 - AMMONIA BUILDING - ELEVATIONS D-28 - ROOF TO WALL EXPANSION JOINT FLASHING D-29 - EXISTING COPPER THROUGH WALL FLASHING AND METAL PANEL WALL E-17A - BARTON PUMPING STATION - ELEVATIONS D-30 - EXPANSION JOINT - ROOF TO ROOF FIELD FABRICATED E-17B - BARTON PUMPING STATION - ELEVATIONS D-31 - EXPANSION JOINT WITH STANDING SEAM METAL COVER E-18 - INDUSTRIAL PUMPING STATION - ELEVATIONS D-32 - FREE-FLOATING FASCIA SYSTEM E-19 - NORTH CAMPUS PUMPING STATION - ELEVATIONS D-33 - SCUPPER THROUGH ROOF EDGE E-20 - LIBERTY PUMPING STATION - ELEVATIONS D-34 - ROOF LEVEL WINDOW AND BASE FLASHING E-21 - SUPERIOR HYDROELECTRIC - ELEVATIONS D-35 - FREE-FLOATING FASCIA SYSTEM AT PENTHOUSE RSD-1 - PARAPET WALL DETAILS D-35A - SCUPPER THROUGH ROOF EDGE AT PENTHOUSE RSD-2 - BUILDING CORNER PLAN DETAILS D-36 - THROUGH WALL SCUPPER AT FILTER GALLERY RSD-3 - SECTION DETAILS D-37 - NOT USED RSD-4 - CONCRETE REPAIR - VERTICAL D-38 - NOT USED RSD-5 - CRACK INJECTION REPAIR RSD-6 - ISOLATED BRICK REPLACEMENT D-39 - REGLET COUNTERFLASHING, 2 PIECE D-40 - SURFACE MOUNTED COUNTERFLASHING, 1 PIECE RSD-7 - TYPICAL TUCK POINTING D-41 - NON-PENETRATING PIPE SUPPORT RSD-8 - TYPICAL SEALANT JOINT D-42 - SOLDERED RAIN COLLAR RSD-9 - CRACK SEALING D-43 - WALKWAY PAD INSTALLATION RSD-10 - WEATHER SEAL (JOINT) D-44 - WET INSULATION REPLACEMENT RSD-11 - TYPICAL WET SEAL RSD-12 - SEALANT AT MULLION INTERSECTION - HORIZONTAL RSD-13 - SEALANT AT WINDOW SILL

INTERIOR RENOVATION DRAWING INDEX ON A.100



STEC PROJECT No.: T18074

CLIENT PROJECT No.: ITB #: 4533

PROJECT DESCRIPTION / NOTES: ROOFING, BUILDING RESTORATION AND INTERIOR RENOVATION WORK

VICINITY MAP:



Ξ 473 Airport 34119 W. Twelve Mile Totall

> TRUCTURAL PROJECT WATER TREATMENT 'n RCHITECTURAL OF ANN ARBOR

2018 AF CITY (

REVISIONS / ADDENDA:

SHEET

N.T.S. APPROVED BY:

K.E.T. DRAWN BY:

K.L.E.

DATE:

NOVEMBER, 2018 PROJECT NUMBER:

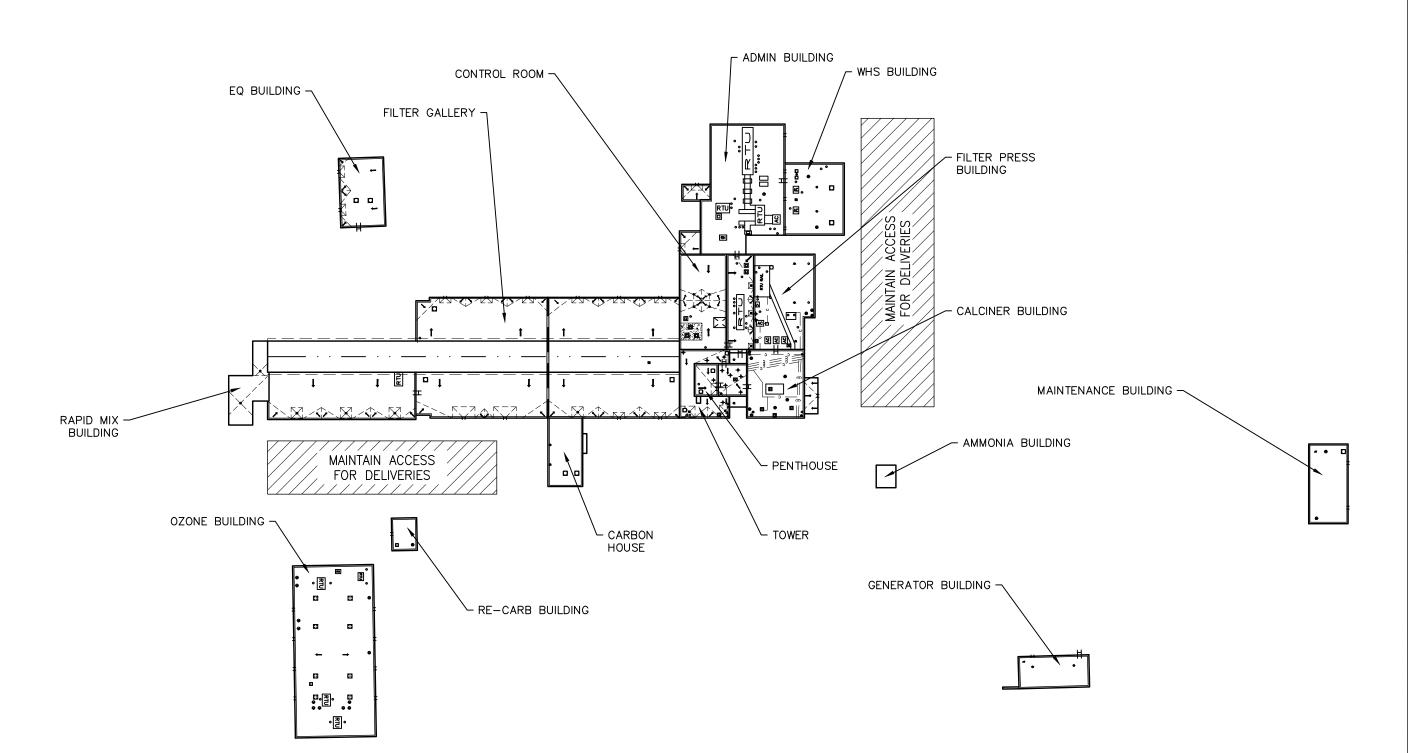
T18074.RFG DRAWING NUMBER:

C-1

SCALE:

RSD-14 - CLERESTORY WINDOW REPLACEMENT DETAIL





Structure | Geg.

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SITE PLAN
WATER TREATMENT PLANT
2018 ARCHITECTURAL / STRUCTURAL PROJECT
CITY OF ANN ARBOR — WATER TREATMENT

REVISIONS / ADDENDA:

SCALE:

N.T.S.

APPROVED BY:

K.E.T.

DRAWN BY:

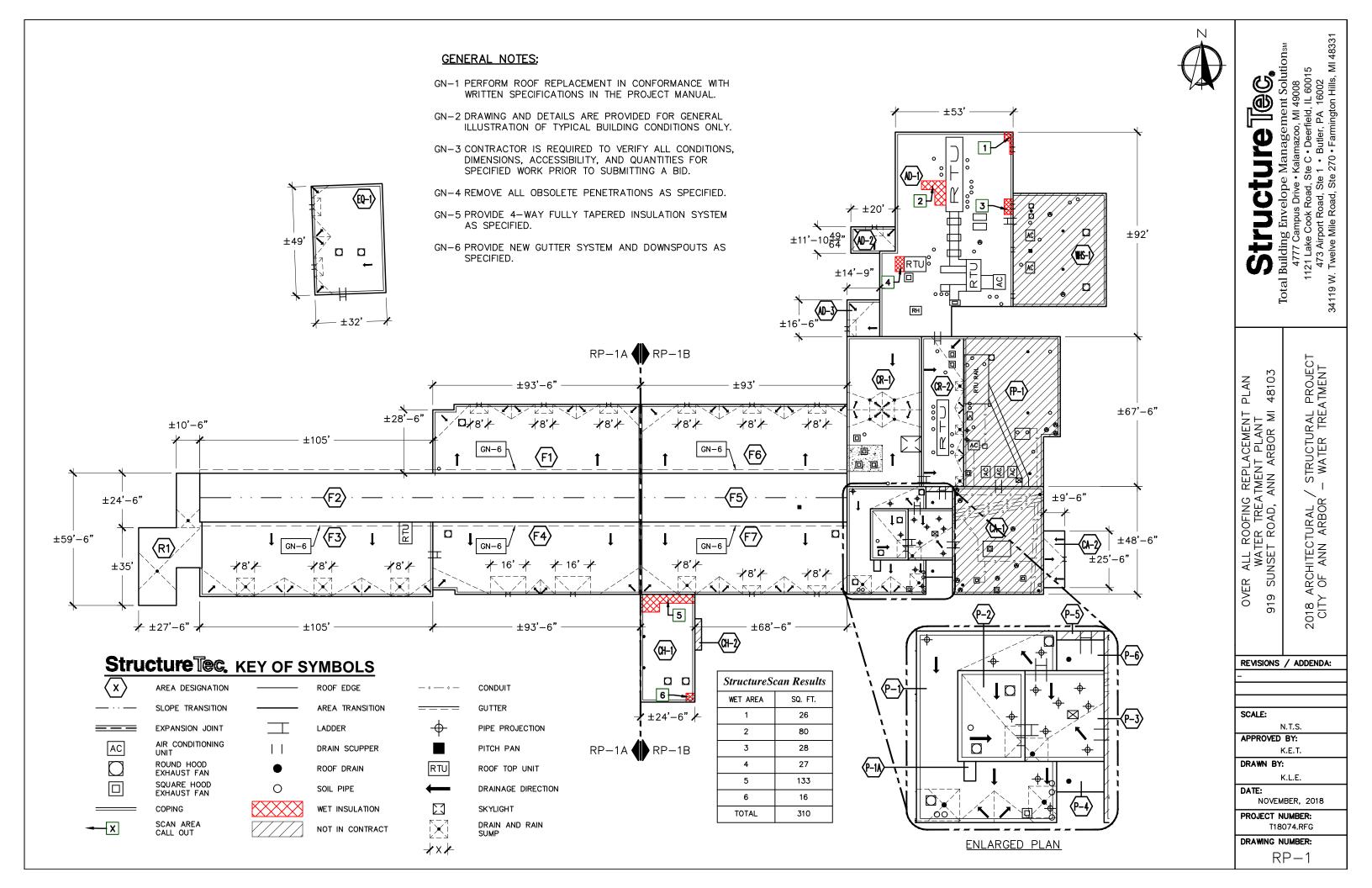
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PROJECT NUMBER:

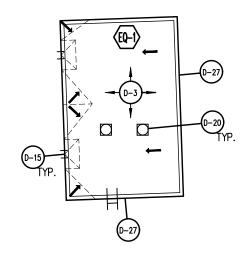
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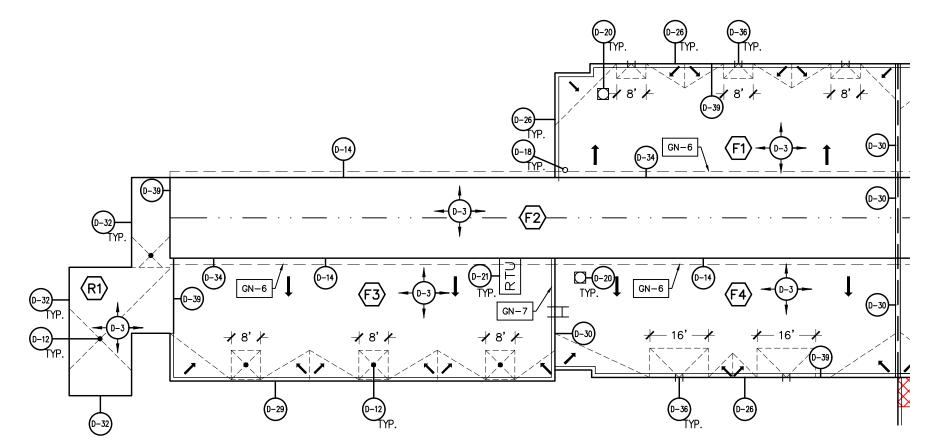
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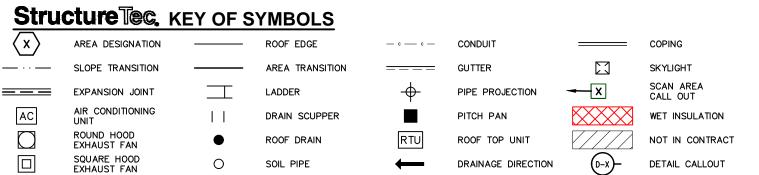
SP-1



- GN-1 PERFORM ROOF REPLACEMENT IN CONFORMANCE WITH WRITTEN SPECIFICATIONS IN THE PROJECT MANUAL.
- GN-2 DRAWING AND DETAILS ARE PROVIDED FOR GENERAL ILLUSTRATION OF TYPICAL BUILDING CONDITIONS ONLY.
- GN-3 CONTRACTOR IS REQUIRED TO VERIFY ALL CONDITIONS, DIMENSIONS, AND DETERMINE QUANTITIES FOR SPECIFIED WORK PRIOR TO SUBMITTING A BID.
- GN-4 REMOVE ALL OBSOLETE PENETRATIONS AS SPECIFIED.
- GN-5 PROVIDE 4-WAY FULLY TAPERED INSULATION SYSTEM AS SPECIFIED.
- GN-6 PROVIDE NEW GUTTER SYSTEM AND DOWNSPOUTS AS SPECIFIED.
- GN-7 REMOVE SECTION OF MASONRY PARAPET WALL TO BELOW LEVEL OF ROOF DECK; PROVIDE EXPANSION JOINT AT NEW ROOF SYSTEM.









Management Solution **Total Building**

473 Airport | 34119 W. Twelve Mile

STRUCTURAL PROJECT . WATER TREATMENT 48103 ROOFING REPLACEMENT PLAN WATER TREATMENT PLANT SUNSET ROAD, ANN ARBOR MI 2018 ARCHITECTURAL CITY OF ANN ARBOR თ

REVISIONS / ADDENDA:

SCALE: N.T.S.

APPROVED BY: K.E.T.

DRAWN BY: K.L.E.

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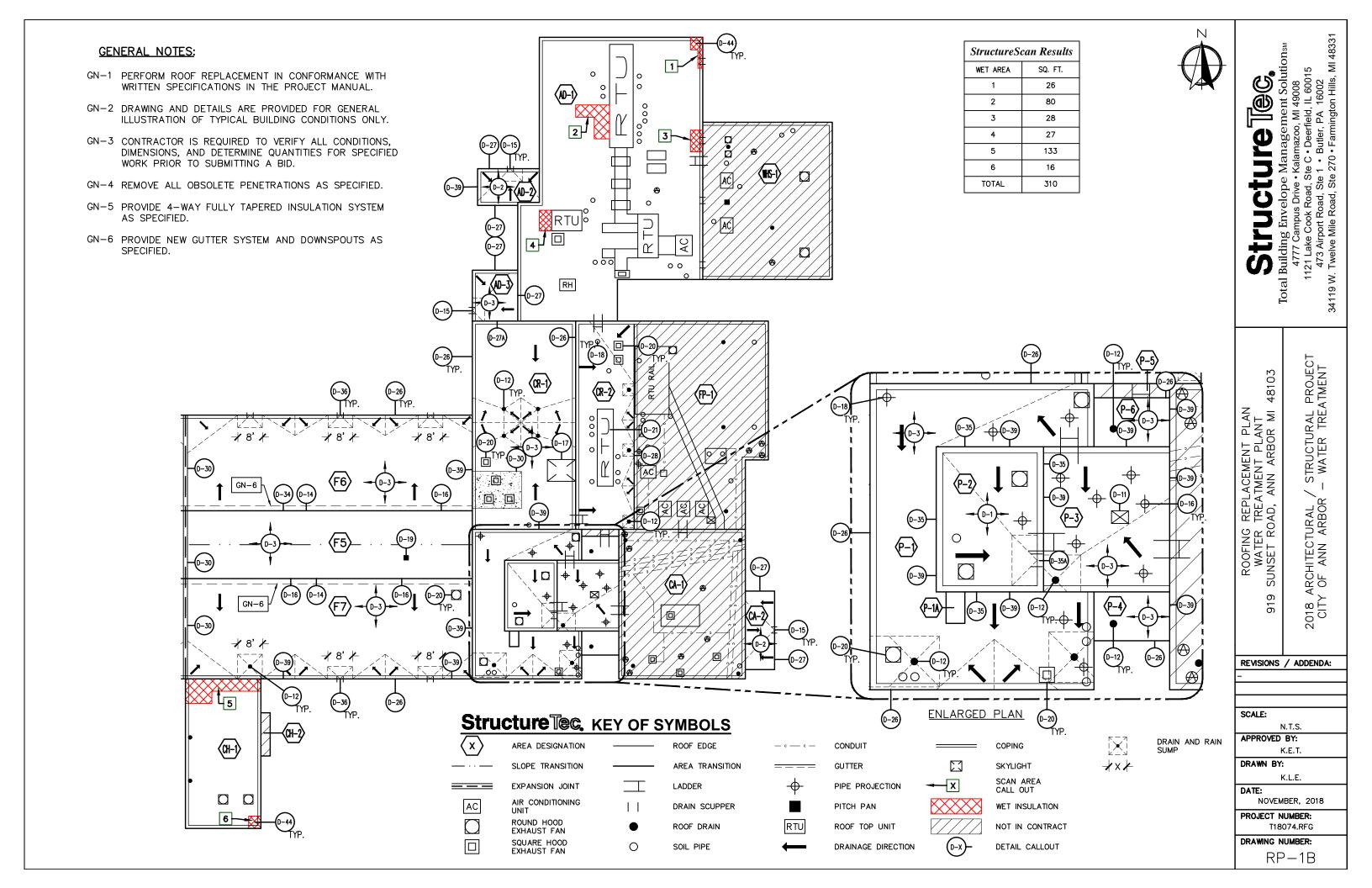
DRAIN AND RAIN

SUMP

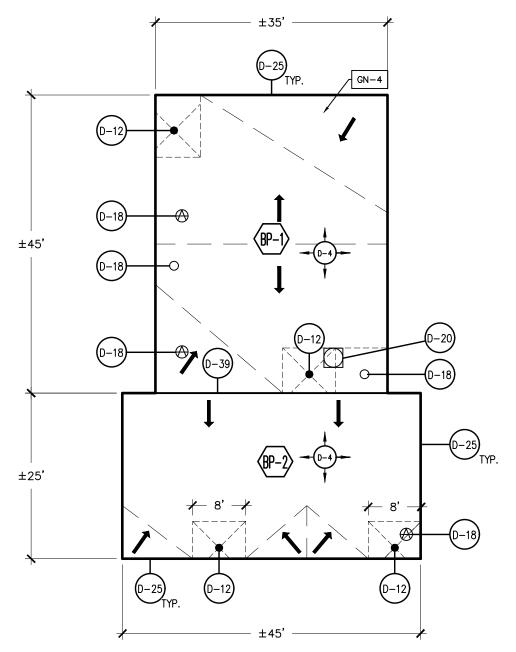
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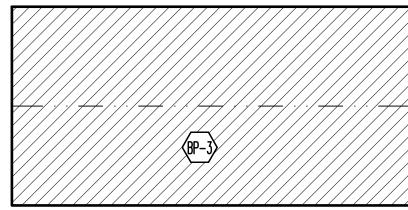
NOVEMBER, 2018 PROJECT NUMBER: T18074.RFG

DRAWING NUMBER: RP-1A



- GN-1 PERFORM ROOF REPLACEMENT IN CONFORMANCE WITH WRITTEN SPECIFICATIONS IN THE PROJECT MANUAL.
- GN-2 DRAWING AND DETAILS ARE PROVIDED FOR GENERAL ILLUSTRATION OF TYPICAL BUILDING CONDITIONS ONLY.
- GN-3 CONTRACTOR IS REQUIRED TO VERIFY ALL CONDITIONS, DIMENSIONS, AND DETERMINE QUANTITIES FOR SPECIFIED WORK PRIOR TO SUBMITTING A
- GN-4 PROVIDE 4-WAY FULLY TAPERED INSULATION SYSTEM AS SPECIFIED





Structure TeG. KEY OF SYMBOLS



AREA DESIGNATION SLOPE TRANSITION

DRAINAGE DIRECTION

ROUND HOOD EXHAUST FAN





DETAIL CALLOUT

ROOF EDGE

STACK PROJECTION

ROOF DRAIN

DRAIN AND RAIN SUMP

NOT IN CONTRACT

e Management SolutionsM • Kalamazoo, MI 49008 Ste C • Deerfield, IL 60015 Total Building Envelope 4777 Campus Drive • 1121 Lake Cook Road, S 1121 Lake Cook Roa 473 Airport Road, 34119 W. Twelve Mile Road,

48103

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ROOFING REPLACEMENT PLAN BARTON PUMPING STATION HURON RIVER DRIVE, ANN ARBOR

STRUCTURAL PROJECT - WATER TREATMENT 2018 ARCHITECTURAL / CITY OF ANN ARBOR

REVISIONS / ADDENDA:

010

SCALE:

N.T.S. APPROVED BY: K.E.T.

DRAWN BY:

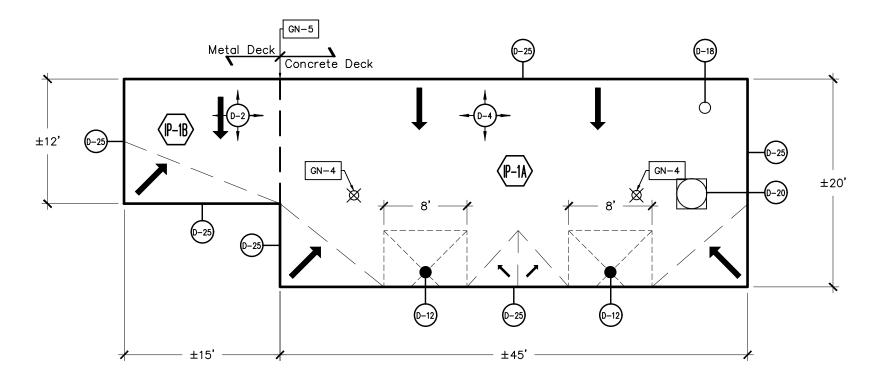
K.L.E. DATE:

NOVEMBER, 2018 PROJECT NUMBER: T18074.RFG

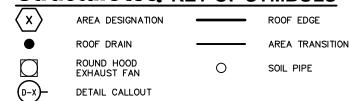
DRAWING NUMBER:

RP-2

- GN-1 PERFORM ROOF REPLACEMENT IN CONFORMANCE WITH WRITTEN SPECIFICATIONS IN THE PROJECT MANUAL.
- GN-2 DRAWING AND DETAILS ARE PROVIDED FOR GENERAL ILLUSTRATION OF TYPICAL BUILDING CONDITIONS ONLY.
- GN-3 CONTRACTOR IS REQUIRED TO VERIFY ALL CONDITIONS, DIMENSIONS, AND DETERMINE QUANTITIES FOR SPECIFIED WORK PRIOR TO SUBMITTING A BID
- GN-4 REMOVE OBSOLETE PENETRATIONS AS SPECIFIED.
- GN-5 THIS LINE SEPARATES METAL DECKING FROM CONCRETE DECKING. REFER TO SPECIFICATIONS FOR INSULATION FASTENING REQUIREMENTS PER DECK TYPE.



Structure Tec. KEY OF SYMBOLS



* * x

OBSOLETE PIPE PROJECTION

SUMP

DRAINAGE DIRECTION DRAIN AND RAIN

DRAWING NUMBER: RP-3

Total Building Envelope Management SolutionsM 4777 Campus Drive • Kalamazoo, MI 49008 1121 Lake Cook Road, Ste C • Deerfield, IL 60015

48104 STRUCTURAL PROJECT - WATER TREATMENT ₹ ROOF REPLACEMENT PLAN INDUSTRIAL PUMPING STATION INDUSTRIAL HWY, ANN ARBOR 2018 ARCHITECTURAL / CITY OF ANN ARBOR

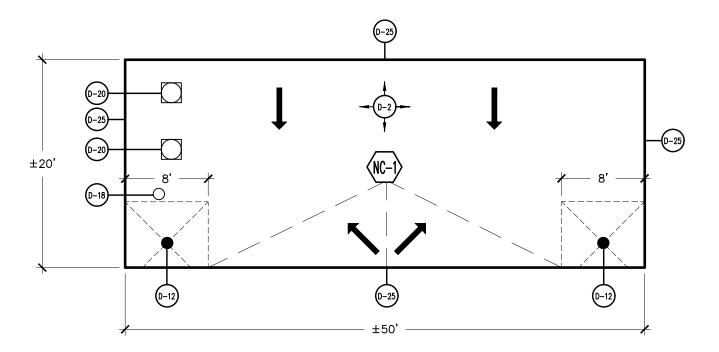
473 Airport F 34119 W. Twelve Mile

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1990

REVISIONS / ADDENDA:
-
SCALE:
N.T.S.
APPROVED BY:
K.E.T.
DRAWN BY:
K.L.E.
DATE:
NOVEMBER, 2018
PROJECT NUMBER:
T18074.RFG

- GN-1 PERFORM ROOF REPLACEMENT IN CONFORMANCE WITH WRITTEN SPECIFICATIONS IN THE PROJECT MANUAL.
- GN-2 DRAWING AND DETAILS ARE PROVIDED FOR GENERAL ILLUSTRATION OF TYPICAL BUILDING CONDITIONS ONLY.
- GN-3 CONTRACTOR IS REQUIRED TO VERIFY ALL CONDITIONS, DIMENSIONS, AND DETERMINE QUANTITIES FOR SPECIFIED WORK PRIOR TO SUBMITTING A BID.



Structure Teg. KEY OF SYMBOLS

AREA DESIGNATION ROOF EDGE ROOF DRAIN AREA TRANSITION ROUND HOOD 0 SOIL PIPE EXHAUST FAN

DETAIL CALLOUT

* * X

STACK PROJECTION DRAINAGE DIRECTION DRAIN AND RAIN

Total Building Envelope Management Solutions 4777 Campus Drive • Kalamazoo, MI 49008 1121 Lake Cook Road, Ste C • Deerfield, IL 60015 473 Airport Road, Ste 1 • Butler, PA 16002 34119 W. Twelve Mile Road, Ste 270 • Farmington Hills, MI 48331

STRUCTURAL PROJECT - WATER TREATMENT 2018 ARCHITECTURAL / CITY OF ANN ARBOR

ROOF REPLACEMENT PLAN NORTH CAMPUS PUMPING STATION 1800 BEAL AVENUE, ANN ARBOR MI 48105

REVISIONS / ADDENDA:

SCALE: N.T.S. APPROVED BY:

K.E.T. DRAWN BY:

K.L.E.

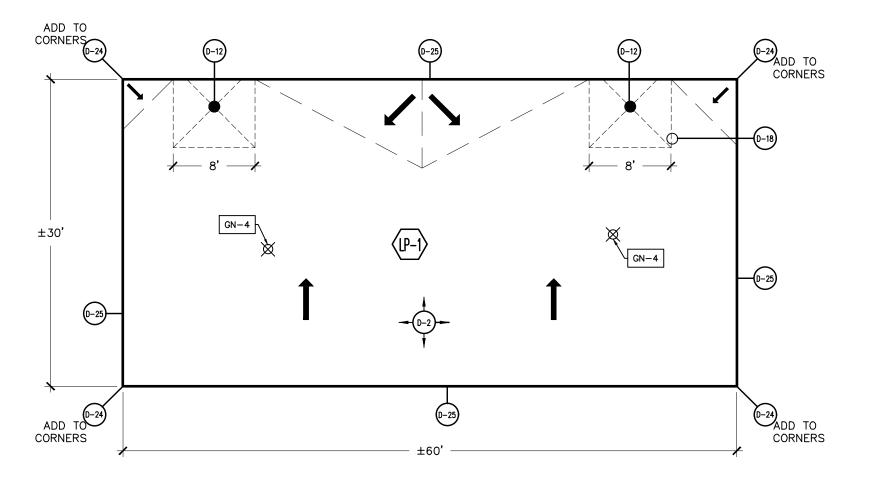
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NOVEMBER, 2018 PROJECT NUMBER: T18074.RFG

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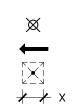
RP-4

- PERFORM ROOF REPLACEMENT IN CONFORMANCE WITH WRITTEN SPECIFICATIONS IN THE PROJECT MANUAL.
- GN-2DRAWING AND DETAILS ARE PROVIDED FOR GENERAL ILLUSTRATION OF TYPICAL BUILDING CONDITIONS ONLY.
- GN-3 CONTRACTOR IS REQUIRED TO VERIFY ALL CONDITIONS, DIMENSIONS, AND DETERMINE QUANTITIES FOR SPECIFIED WORK PRIOR TO SUBMITTING A BID
- GN-4 REMOVE OBSOLETE PENETRATIONS AS SPECIFIED.



Structure TeG. KEY OF SYMBOLS

AREA DESIGNATION ROOF EDGE ROOF DRAIN AREA TRANSITION 0 SOIL PIPE DETAIL CALLOUT



OBSOLETE PIPE PROJECTION DRAINAGE DIRECTION DRAIN AND RAIN SUMP

e Management Solutions_M • Kalamazoo, MI 49008 ; Ste C • Deerfield, IL 60015 te 1 • Butler, PA 16002 Total Building Envelope 4777 Campus Drive • 1121 Lake Cook Road, S 1121 Lake Cook 473 Airport R 34119 W. Twelve Mile R

48103 STRUCTURAL PROJECT - WATER TREATMENT ₹ ROOF REPLACEMENT PLAN LIBERTY PUMPING STATION LIBERTY STREET, ANN ARBOR 2018 ARCHITECTURAL / CITY OF ANN ARBOR

REVISIONS / ADDENDA:

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SCALE: N.T.S.

APPROVED BY: K.E.T.

DRAWN BY: K.L.E.

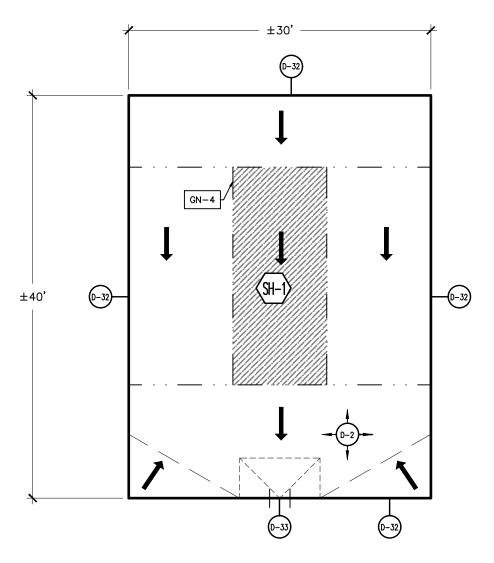
DATE:

NOVEMBER, 2018 PROJECT NUMBER:

T18074.RFG DRAWING NUMBER:

RP-5

- PERFORM ROOF REPLACEMENT IN CONFORMANCE WITH WRITTEN GN-1 SPECIFICATIONS IN THE PROJECT MANUAL.
- GN-2DRAWING AND DETAILS ARE PROVIDED FOR GENERAL ILLUSTRATION OF TYPICAL BUILDING CONDITIONS ONLY.
- GN-3 CONTRACTOR IS REQUIRED TO VERIFY ALL CONDITIONS, DIMENSIONS, AND DETERMINE QUANTITIES FOR SPECIFIED WORK PRIOR TO SUBMITTING A BID
- REMOVE ELEVATED ROOF SECTION, ASSOCIATED EYE BOLTS AND METAL FLASHINGS.



Structure Teg. KEY OF SYMBOLS

AREA DESIGNATION SLOPE TRANSITION

SECTION TO BE

REMOVED



AREA TRANSITION DETAIL CALLOUT

ROOF EDGE

* * X

DRAINAGE DIRECTION

GUTTER

DRAIN AND RAIN SUMP

DATE:

NOVEMBER, 2018 PROJECT NUMBER: T18074.RFG

0009

SCALE:

APPROVED BY:

DRAWN BY:

REVISIONS / ADDENDA:

N.T.S.

K.E.T.

K.L.E.

RP-6

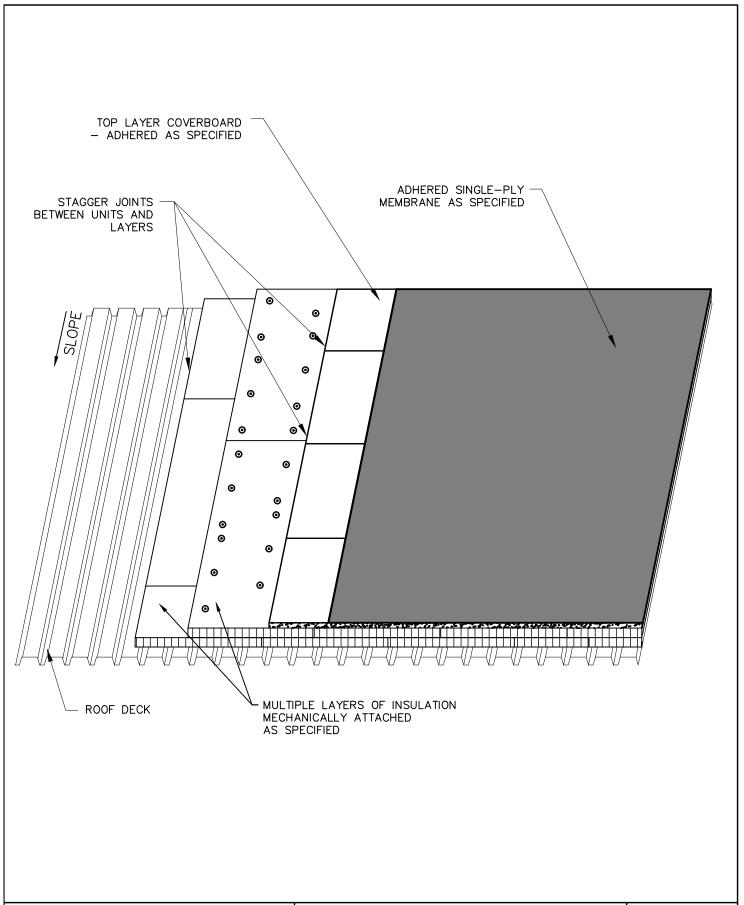
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1121 Lake Cook Road, Ste C • Deerfield, IL 60015
473 Airport Road, Ste 1 • Butler, PA 16002
34119 W. Twelve Mile Road, Ste 270 • Farmington Hills, MI 48331

48198

ROOF REPLACEMENT PLAN SUPERIOR HYDROELECTRIC BUILDING FIRST STREET, SUPERIOR TOWNSHIP, MI

STRUCTURAL PROJECT - WATER TREATMENT 2018 ARCHITECTURAL / CITY OF ANN ARBOR



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CONSTRUCTION PROFILE — METAL DECK, TWO LAYERS INSULATION, COVERBOARD, AND FULLY ADHERED EPDM ROOFING MEMBRANE

2018 ARCHITECTURAL / STRUCTURAL PROJECT CITY OF ANN ARBOR — WATER TREATMENT

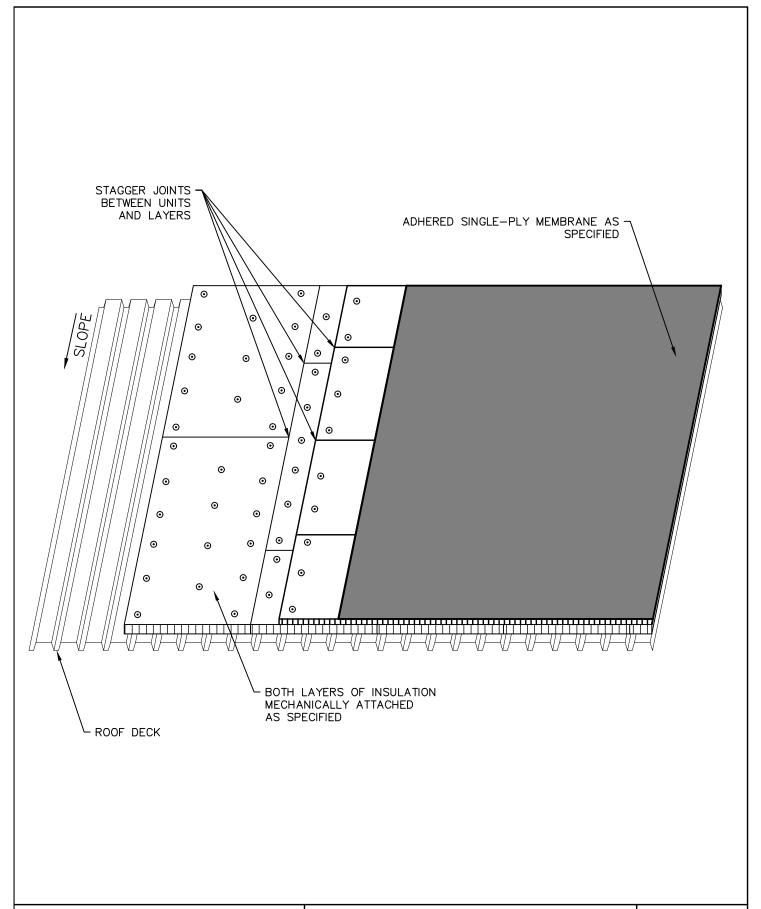
SCALE: N.T.S.

APPROVED BY: K.E.T.

DRAWN BY: K.L.E.

DATE: NOVEMBER, 2018

PROJECT # T18074.RFG/RST3



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473 Airport Road, Ste 1 • Butler, PA 16002

34119 W. Twelve Mile Road, Ste 270 • Farmington Hills, MI 4833

CONSTRUCTION PROFILE — METAL DECK TWO COURSES MECH. ATTACHED INSULATION AND FULLY ADHERED SINGLE—PLY ROOFING

2018 ARCHITECTURAL / STRUCTURAL PROJECT CITY OF ANN ARBOR — WATER TREATMENT

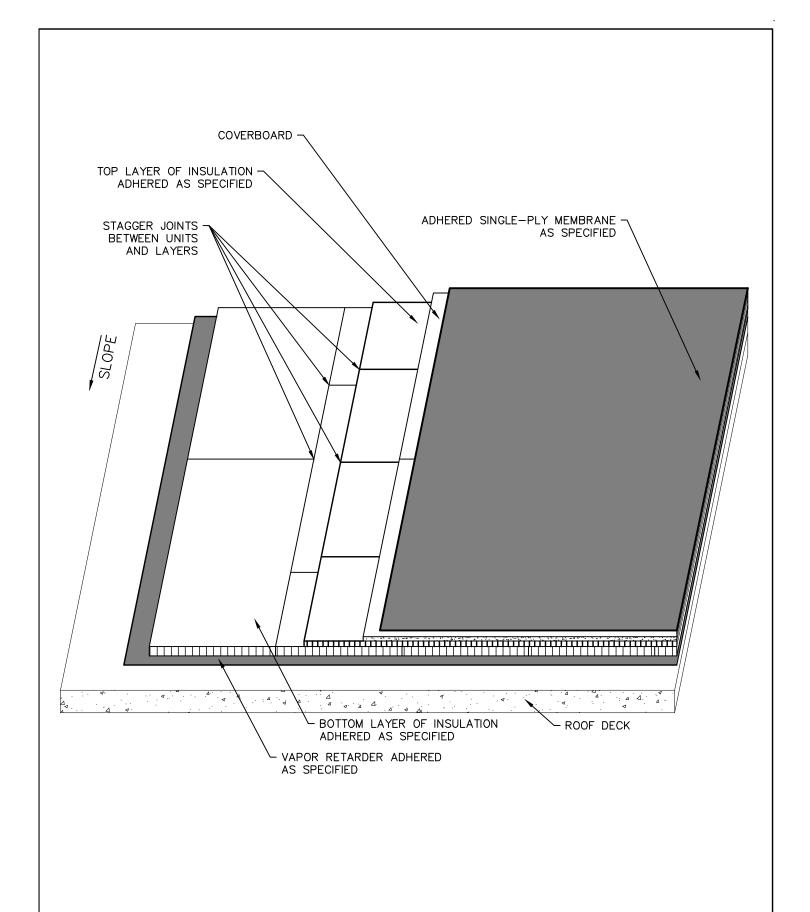
SCALE: N.T.S.

APPROVED BY: K.E.T.

DRAWN BY: K.L.E.

DATE: NOVEMBER, 2018

PROJECT # T18074.RFG/RST3



Total Building Envelope Management Solutions

4777 Campus Drive • Kalamazoo, MI 49008

1121 Lake Cook Road, Ste C • Deerfield, IL 60015

473 Airport Road, Ste 1 • Butler, PA 16002

34119 W. Twelve Mile Road, Ste 270 • Farmington Hills, MI 4833

CONSTRUCTION PROFILE — CONCRETE DECK TWO COURSES INSULATION AND FULLY ADHERED SINGLE—PLY ROOFING

2018 ARCHITECTURAL / STRUCTURAL PROJECT CITY OF ANN ARBOR — WATER TREATMENT

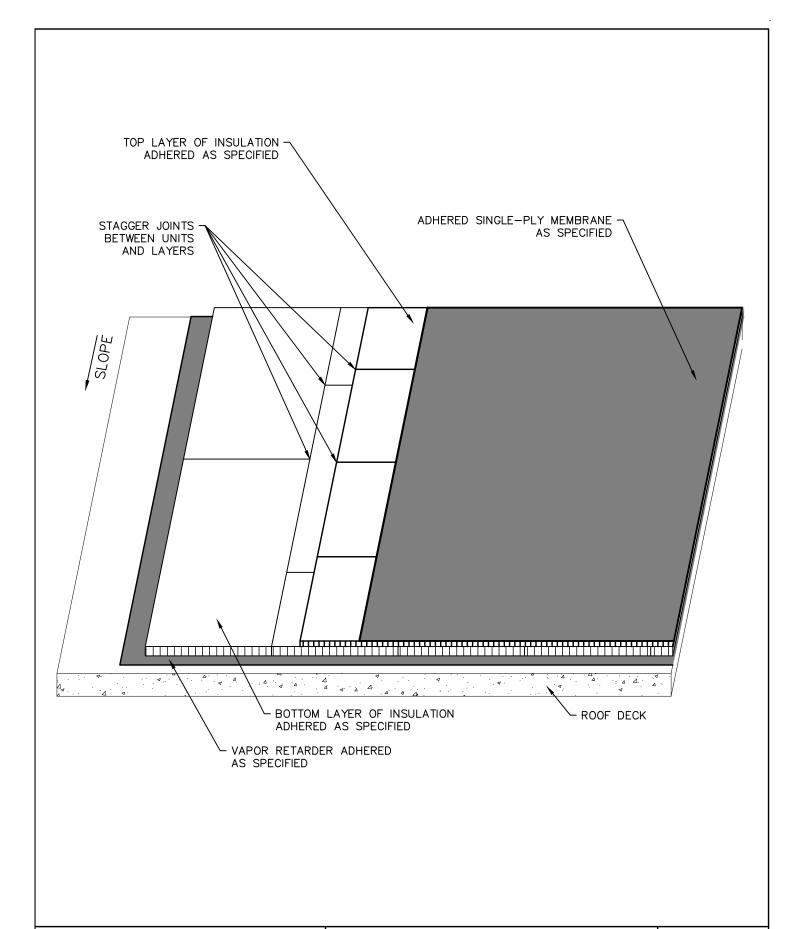
SCALE: N.T.S.

APPROVED BY: K.E.T.

DRAWN BY: K.L.E.

DATE: NOVEMBER, 2018

PROJECT #: T18074.RFG/RST3



Total Building Envelope Management Solutions
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1121 Lake Cook Road, Ste C • Deerfield, IL 60015
473 Airport Road, Ste 1 • Butler, PA 16002
34119 W. Twelve Mile Road, Ste 270 • Farmington Hills, MI 48331

CONSTRUCTION PROFILE — CONCRETE DECK TWO COURSES INSULATION AND FULLY ADHERED SINGLE—PLY ROOFING

2018 ARCHITECTURAL / STRUCTURAL PROJECT CITY OF ANN ARBOR — WATER TREATMENT

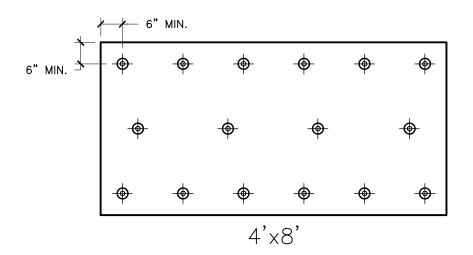
SCALE: N.T.S.

APPROVED BY: K.E.T.

DRAWN BY: K.L.E.

DATE: NOVEMBER, 2018

PROJECT # T18074.RFG/RST3



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1121 Lake Cook Road, Ste C • Deerfield, IL 60015
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34119 W. Twelve Mile Road, Ste 270 • Farmington Hills, MI 48331

SECUREMENT: INSULATION FASTENER PATTERN

2018 ARCHITECTURAL / STRUCTURAL PROJECT CITY OF ANN ARBOR — WATER TREATMENT

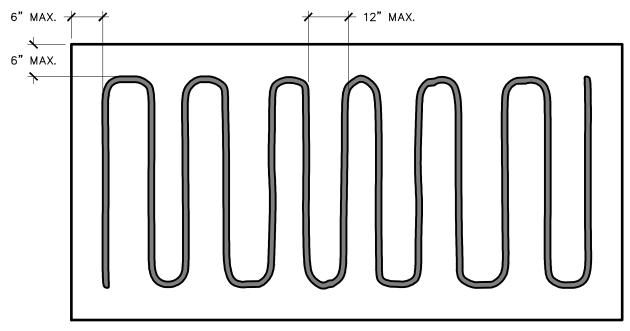
SCALE: N.T.S.

APPROVED BY: K.E.T.

DRAWN BY: K.L.E.

DATE: NOVEMBER, 2018

PROJECT # T18074.RFG/RST3



<u>4'x8'</u>

NOTE: ADHESIVE PLACEMENT AT PERIMETER AND CORNERS OF ROOF AS SPECIFIED.

Structure Tec.

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1121 Lake Cook Road, Ste C • Deerfield, IL 60015
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34119 W. Twelve Mile Road, Ste 270 • Farmington Hills, MI 48331

FIELD OF ROOF INSULATION ADHESIVE PLACEMENT

2018 ARCHITECTURAL / STRUCTURAL PROJECT CITY OF ANN ARBOR — WATER TREATMENT

SCALE: N.T.S.

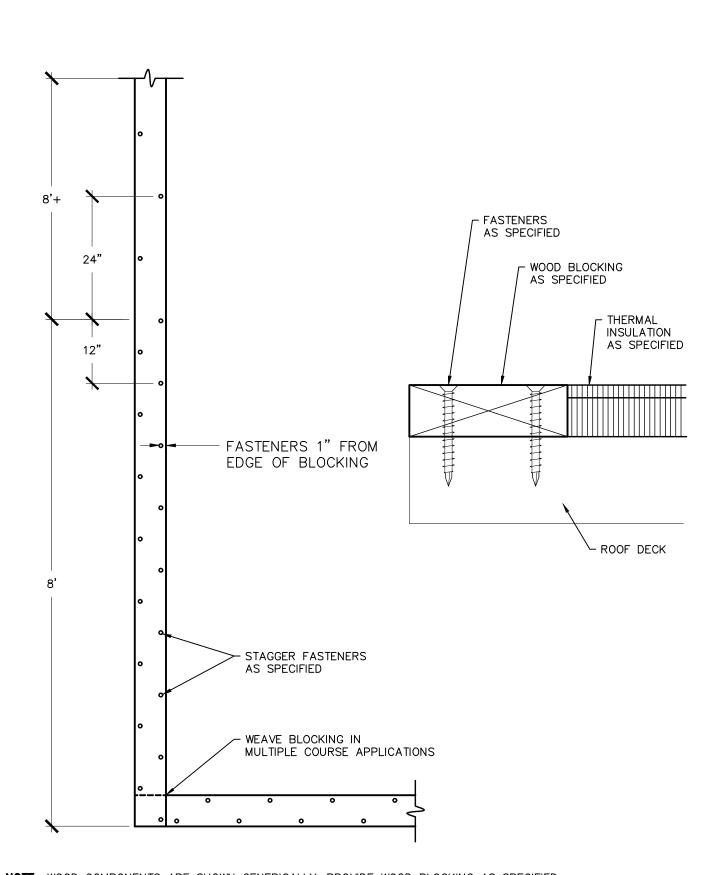
APPROVED BY: K.E.T.

DRAWN BY: K.L.E.

DATE: NOVEMBER, 2018

PROJECT # 118074.RFG/RS13

□-6



NOTE: WOOD COMPONENTS ARE SHOWN GENERICALLY. PROVIDE WOOD BLOCKING AS SPECIFIED.

Structure Tec.

Total Building Envelope Management SolutionsM
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1121 Lake Cook Road, Ste C • Deerfield, IL 60015
473 Airport Road, Ste 1 • Butler, PA 16002
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WOOD BLOCK FASTENING PATTERN

2018 ARCHITECTURAL / STRUCTURAL PROJECT CITY OF ANN ARBOR — WATER TREATMENT

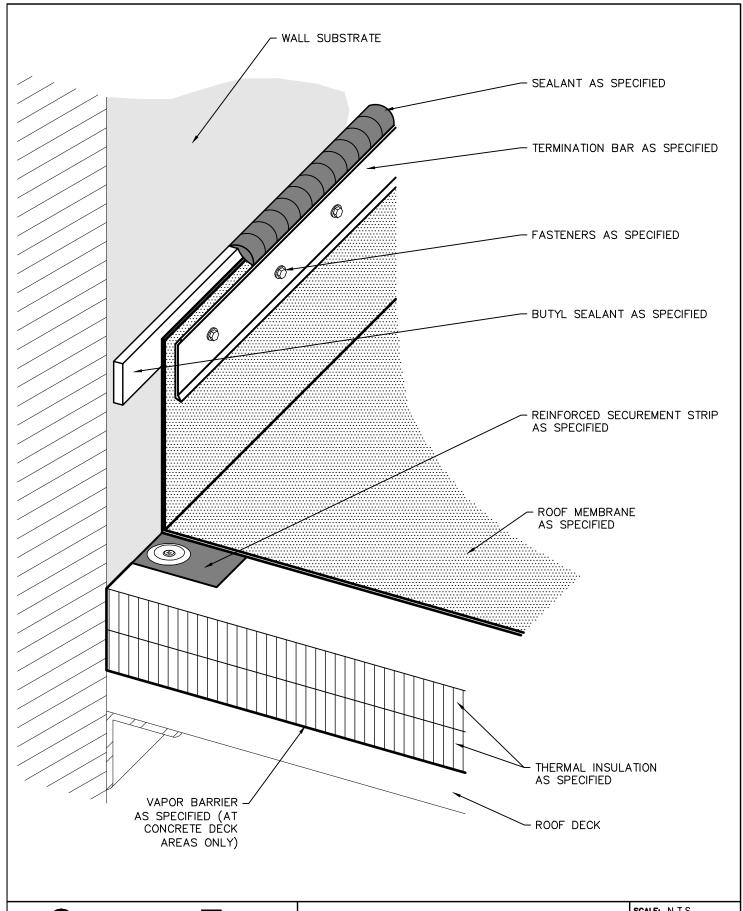
SCALE: N.T.S.

APPROVED BY: K.E.T.

DRAWN BY: K.L.E.

DATE: NOVEMBER, 2018

PROJECT # T18074.RFG/RST3



Total Building Envelope Management Solutionsm 4777 Campus Drive • Kalamazoo, MI 49008 1121 Lake Cook Road, Ste C • Deerfield, IL 60015 473 Airport Road, Ste 1 • Butler, PA 16002 34119 W. Twelve Mile Road, Ste 270 • Farmington Hills, MI 48331

TERMINATION BAR

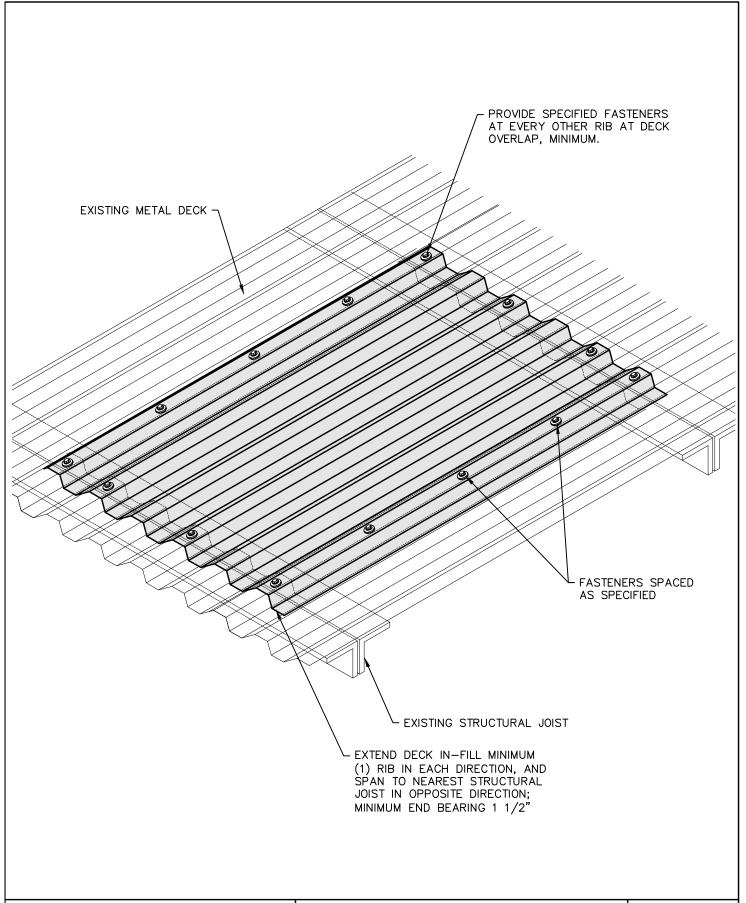
2018 ARCHITECTURAL / STRUCTURAL PROJECT CITY OF ANN ARBOR — WATER TREATMENT

SCALE: N.T.S.

APPROVED BY: K.E.T.

DRAWN BY: K.L.E.

DATE: NOVEMBER, 2018 PROJECT # T18074.RFG/RST3



Total Building Envelope Management Solutions
4777 Campus Drive • Kalamazoo, MI 49008
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METAL DECK IN-FILL

2018 ARCHITECTURAL / STRUCTURAL PROJECT CITY OF ANN ARBOR — WATER TREATMENT

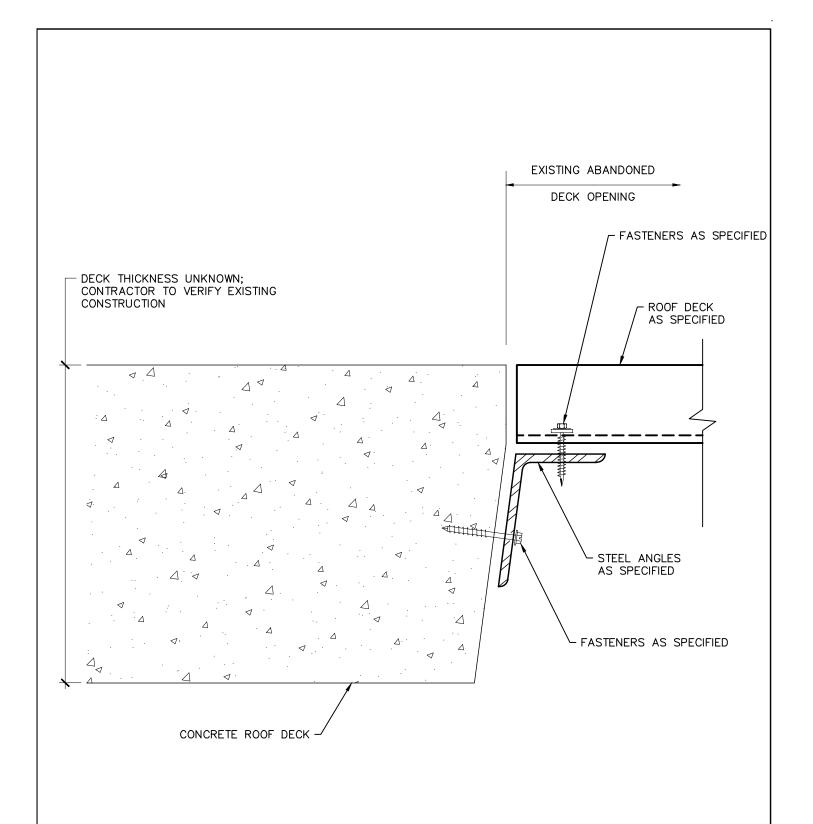
SCALE: N.T.S.

APPROVED BY: K.E.T.

DRAWN BY: K.L.E.

DATE: NOVEMBER, 2018

PROJECT # T18074.RFG/RST3



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CONCRETE DECK OPENING INFILL

2018 ARCHITECTURAL / STRUCTURAL PROJECT CITY OF ANN ARBOR — WATER TREATMENT

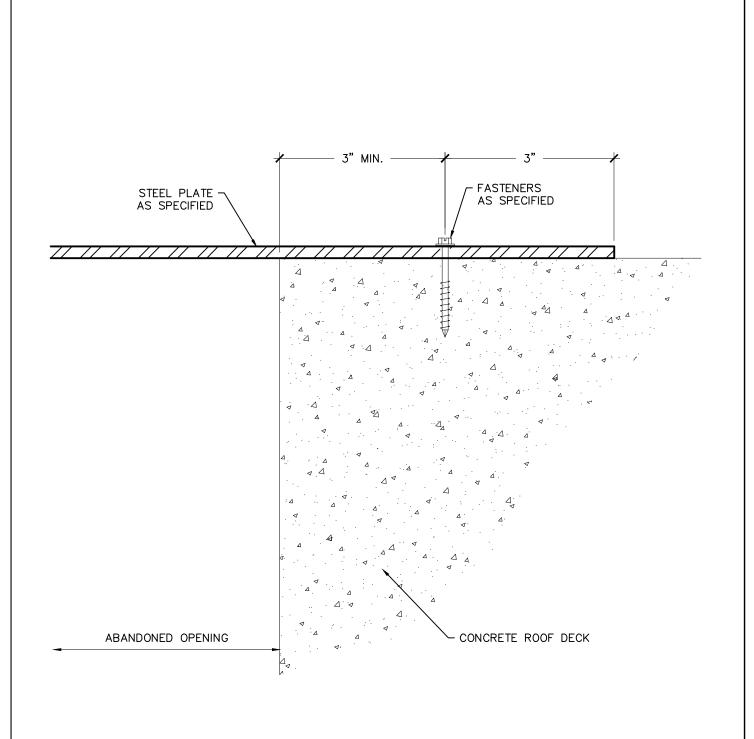
SCALE: N.T.S.

APPROVED BY: K.E.T.

DRAWN BY: K.L.E.

DATE: NOVEMBER, 2018

PROJECT # T18074.RFG/RST3



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CONCRETE DECK OPENING COVER PLATE

2018 ARCHITECTURAL / STRUCTURAL PROJECT CITY OF ANN ARBOR — WATER TREATMENT

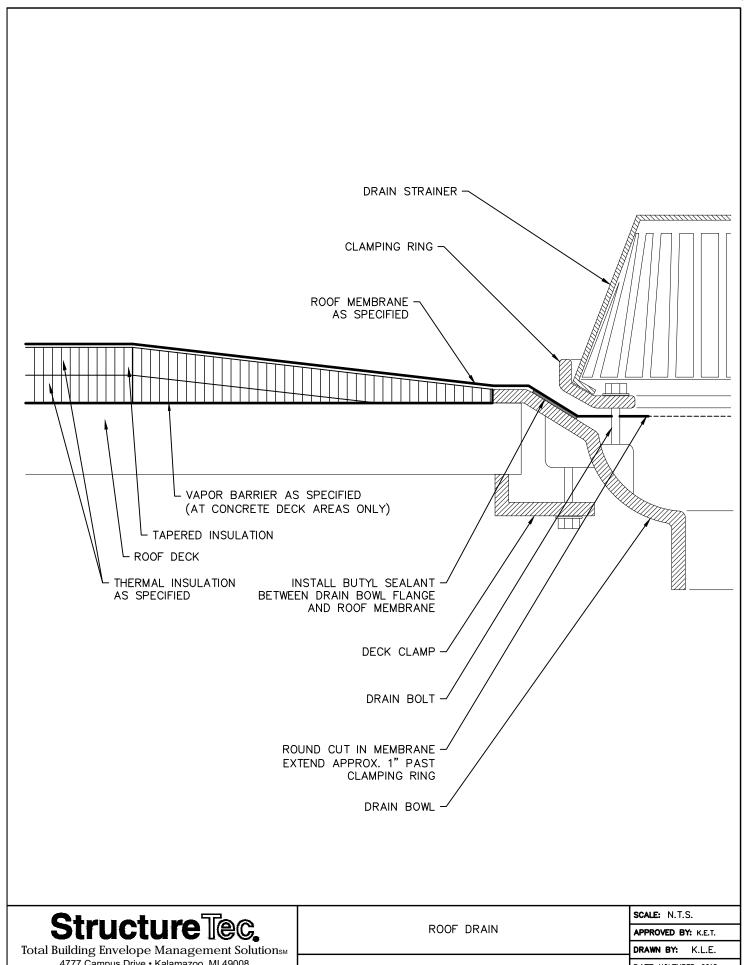
SCALE: N.T.S.

APPROVED BY: K.E.T.

DRAWN BY: K.L.E.

DATE: NOVEMBER, 2018

PROJECT # T18074.RFG/RST3

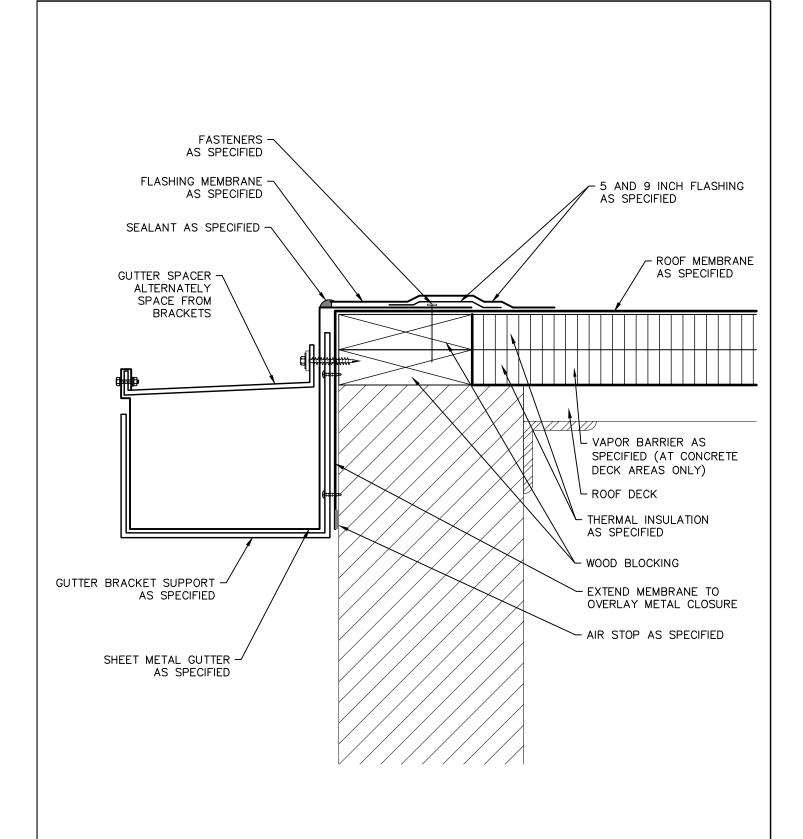


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2018 ARCHITECTURAL / STRUCTURAL PROJECT CITY OF ANN ARBOR — WATER TREATMENT

DATE: NOVEMBER, 2018

PROJECT # T18074.RFG/RST3



NOTE:

WOOD COMPONENTS ARE SHOWN GENERICALLY, PROVIDE WOOD BLOCKING AS SPECIFIED. REFER TO SECTION 7620 FOR GUTTER DIMENSIONS.

Structure Tec.

Total Building Envelope Management Solutions
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HANGING GUTTER

2018 ARCHITECTURAL / STRUCTURAL PROJECT CITY OF ANN ARBOR — WATER TREATMENT

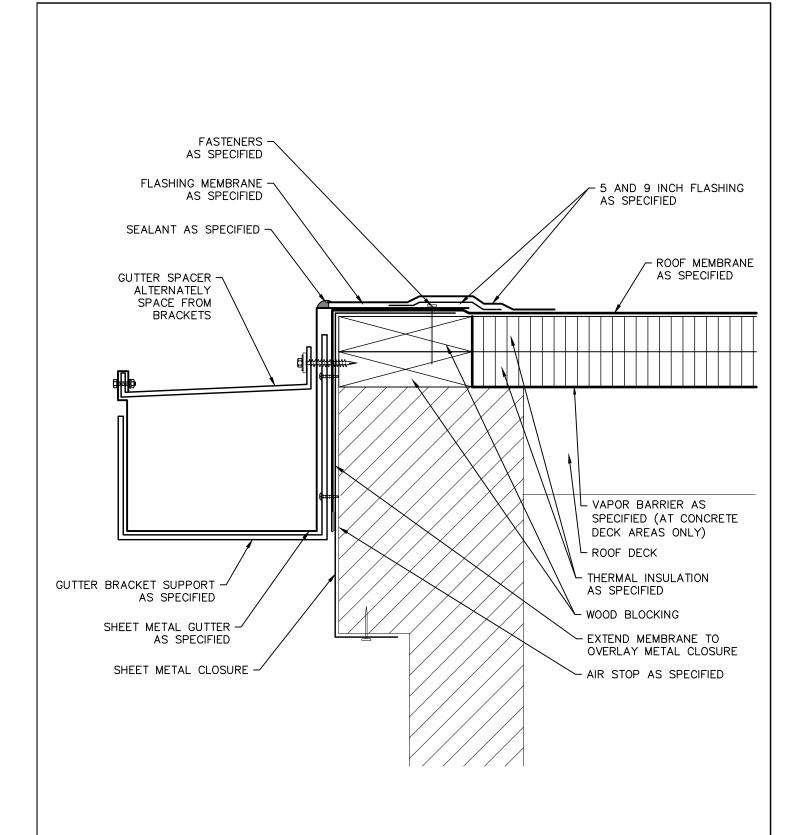
SCALE: N.T.S.

APPROVED BY: K.E.T.

DRAWN BY: K.L.E.

DATE: NOVEMBER, 2018

PROJECT # T18074.RFG/RST3



NOTE:

WOOD COMPONENTS ARE SHOWN GENERICALLY, PROVIDE WOOD BLOCKING AS SPECIFIED. REFER TO SECTION 7620 FOR GUTTER DIMENSIONS.

Structure Tec.

Total Building Envelope Management Solutions
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1121 Lake Cook Road, Ste C • Deerfield, IL 60015
473 Airport Road, Ste 1 • Butler, PA 16002
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HANGING GUTTER AT FILTER GALLERY

APPROVED BY: K.E.T.

SCALE: N.T.S.

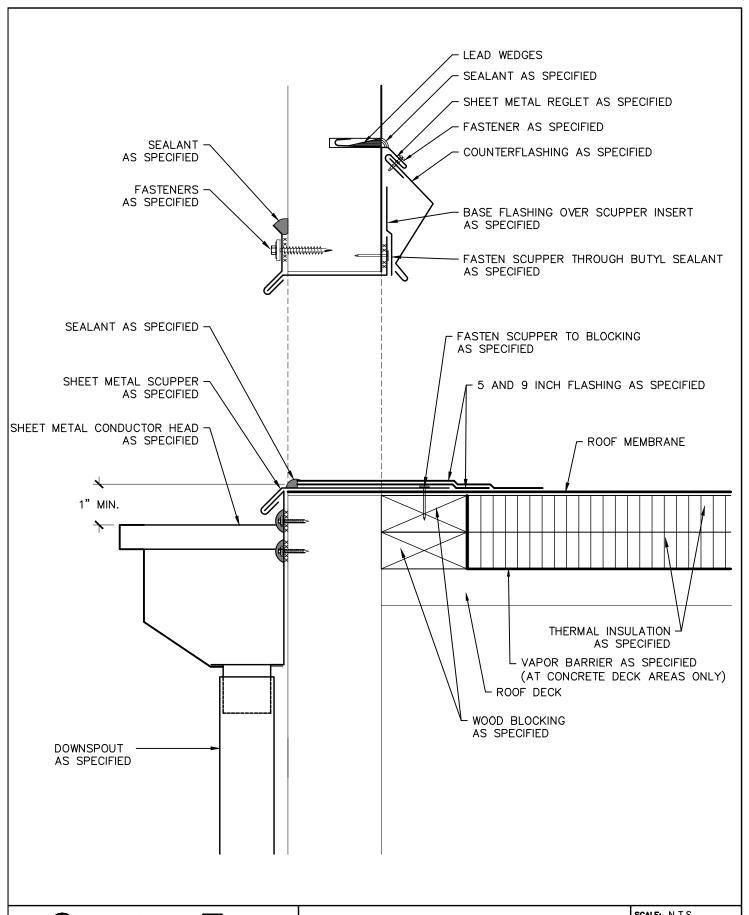
DRAWN BY:

2018 ARCHITECTURAL / STRUCTURAL PROJECT CITY OF ANN ARBOR — WATER TREATMENT

DATE: NOVEMBER, 2018

PROJECT #: T18074.RFG/RST3

K.L.E.



Total Building Envelope Management Solutionsm 4777 Campus Drive • Kalamazoo, MI 49008 1121 Lake Cook Road, Ste C • Deerfield, IL 60015 473 Airport Road, Ste 1 • Butler, PA 16002 34119 W. Twelve Mile Road, Ste 270 • Farmington Hills, MI 48331

THROUGH-WALL SCUPPER

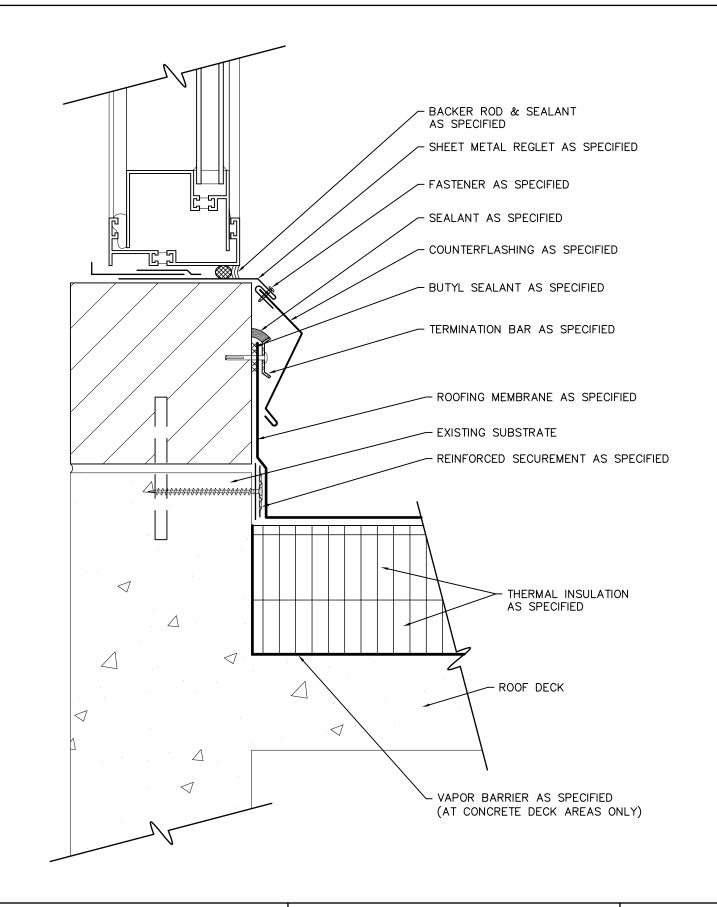
2018 ARCHITECTURAL / STRUCTURAL PROJECT CITY OF ANN ARBOR — WATER TREATMENT

SCALE: N.T.S.

APPROVED BY: K.E.T.

K.L.E. DRAWN BY:

DATE: NOVEMBER, 2018 PROJECT # T18074.RFG/RST3



Total Building Envelope Management Solutionsm

4777 Campus Drive • Kalamazoo, MI 49008
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CLERESTORY WINDOW FLASHING

2018 ARCHITECTURAL / STRUCTURAL PROJECT CITY OF ANN ARBOR — WATER TREATMENT

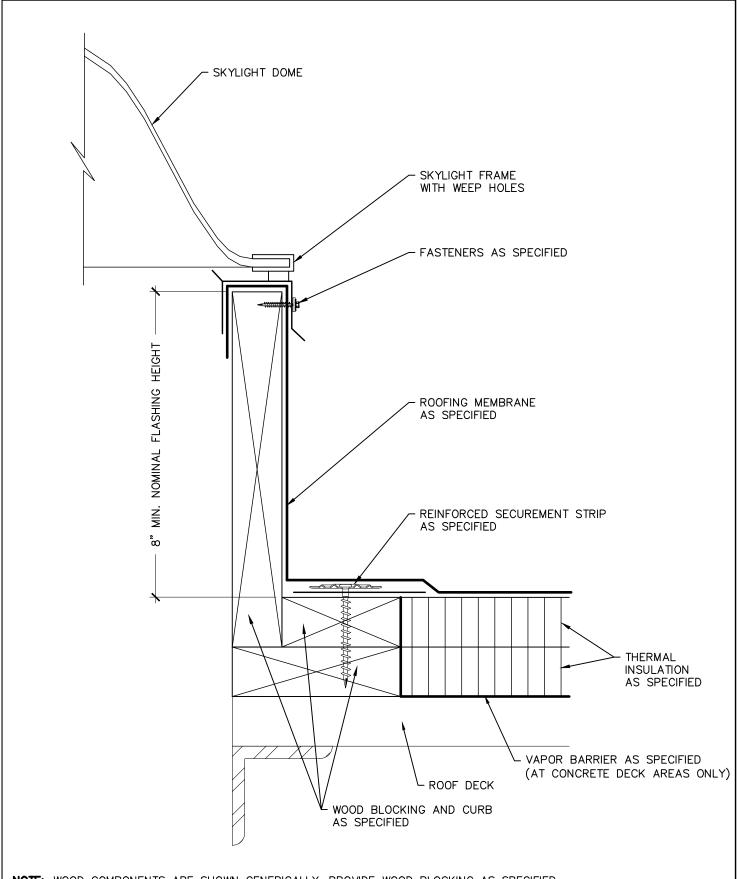
SCALE: N.T.S.

APPROVED BY: K.E.T.

DRAWN BY: K.L.E.

DATE: NOVEMBER, 2018

PROJECT # T18074.RFG/RST3



NOTE: WOOD COMPONENTS ARE SHOWN GENERICALLY, PROVIDE WOOD BLOCKING AS SPECIFIED.

Structure Tec.

Total Building Envelope Management SolutionsM
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34119 W. Twelve Mile Road, Ste 270 • Farmington Hills, MI 48331

SKYLIGHT FLASHING

2018 ARCHITECTURAL / STRUCTURAL PROJECT CITY OF ANN ARBOR — WATER TREATMENT

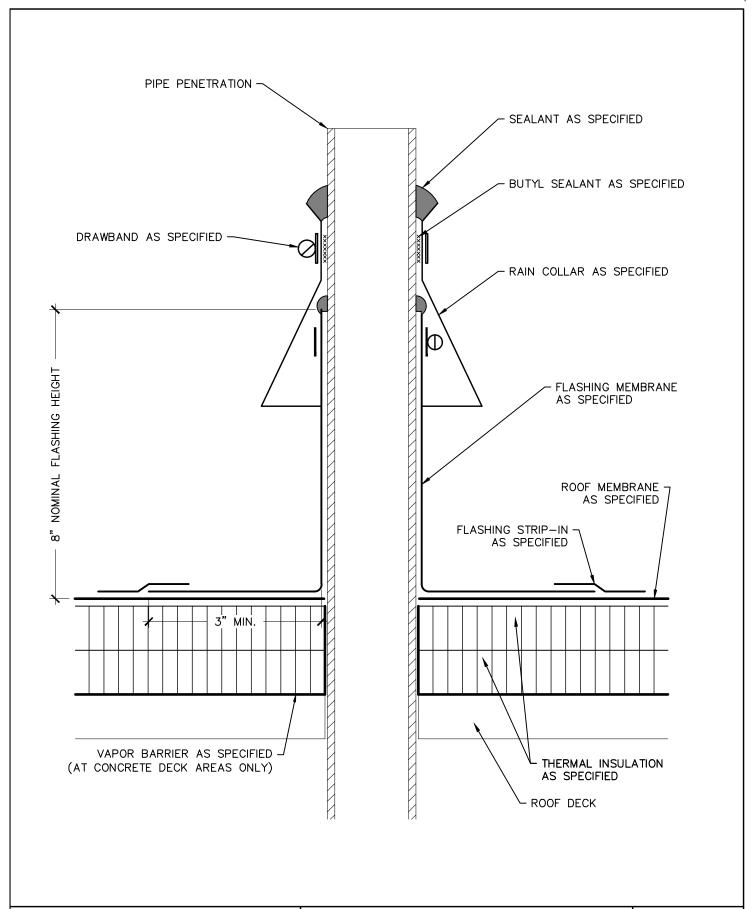
APPROVED BY: K.E.T.

DRAWN BY: K.L.E.

DATE: NOVEMBER, 2018

PROJECT #: T18074.RFG/RST3

D 17



Total Building Envelope Management Solutions
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FIELD—FABRICATED SINGLE—PLY PENETRATION FLASHING

2018 ARCHITECTURAL / STRUCTURAL PROJECT CITY OF ANN ARBOR — WATER TREATMENT

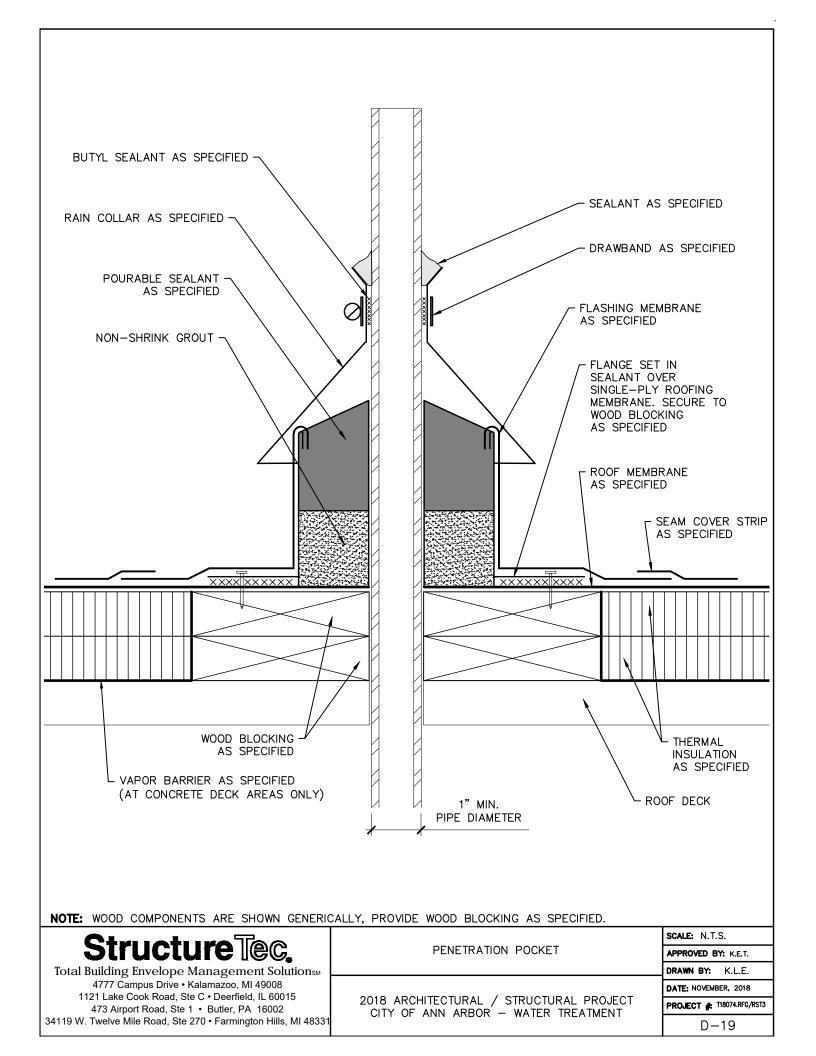
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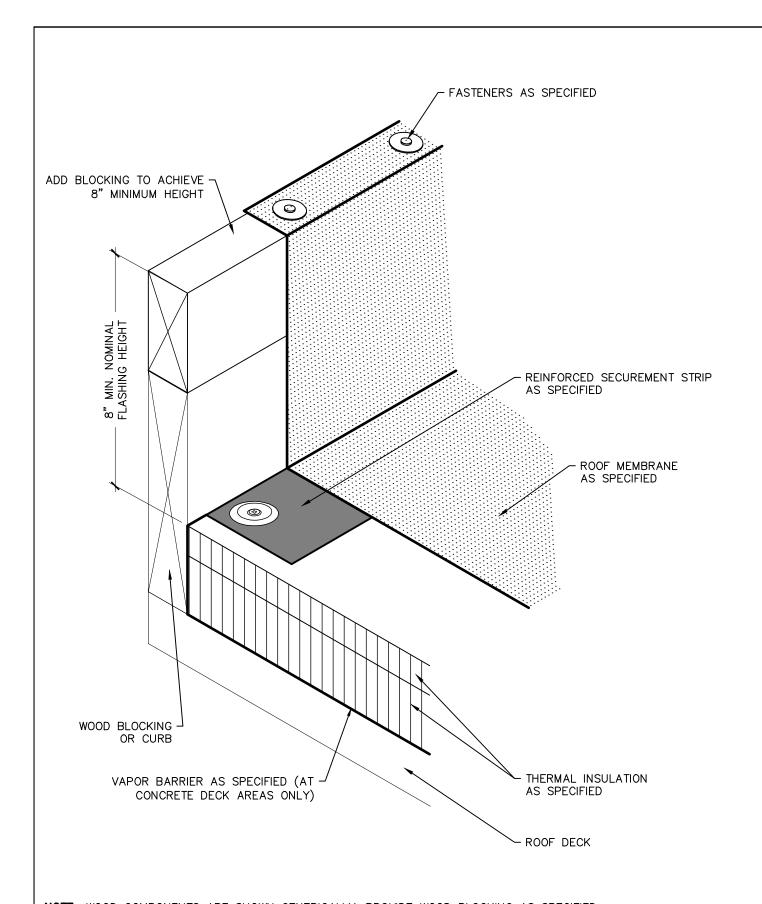
APPROVED BY: K.E.T.

DRAWN BY: K.L.E.

DATE: NOVEMBER, 2018

PROJECT # T18074.RFG/RST3





NOTE: WOOD COMPONENTS ARE SHOWN GENERICALLY, PROVIDE WOOD BLOCKING AS SPECIFIED.

Structure Tec.

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34119 W. Twelve Mile Road, Ste 270 • Farmington Hills, MI 48331

CURB WITH REMOVABLE CAP

2018 ARCHITECTURAL / STRUCTURAL PROJECT CITY OF ANN ARBOR — WATER TREATMENT

SCALE: N.T.S.

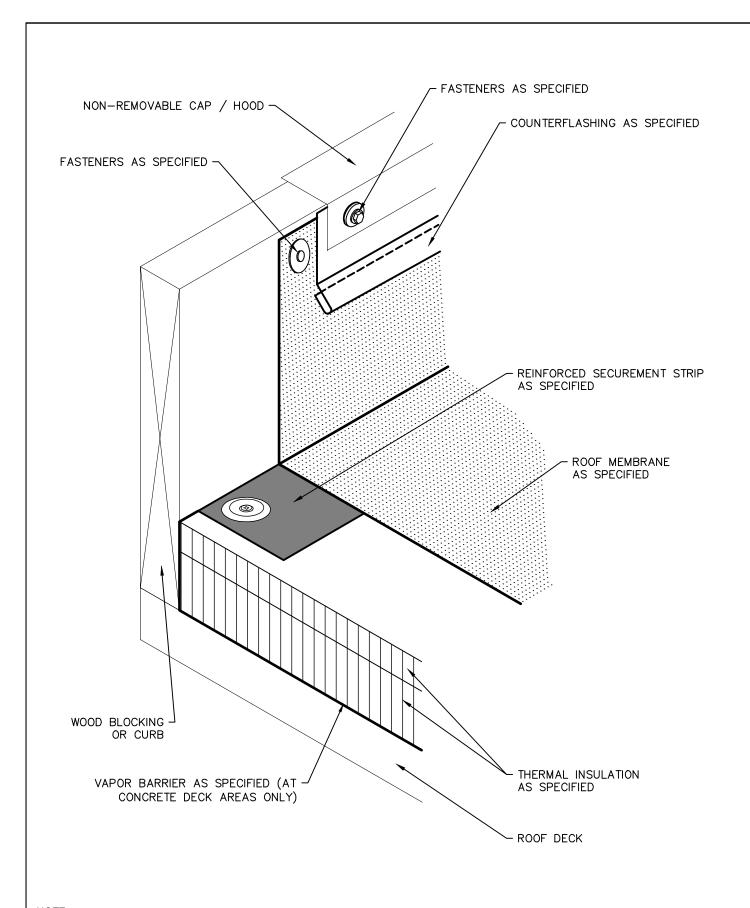
DRAWN BY:

APPROVED BY: K.E.T.

DATE: NOVEMBER, 2018

PROJECT # T18074.RFG/RST3

K.L.E.



NOTE: WOOD COMPONENTS ARE SHOWN GENERICALLY, PROVIDE WOOD BLOCKING AS SPECIFIED.

Structure Tec.

Total Building Envelope Management Solutions
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CURB WITH NON-REMOVABLE CAP

2018 ARCHITECTURAL / STRUCTURAL PROJECT CITY OF ANN ARBOR — WATER TREATMENT

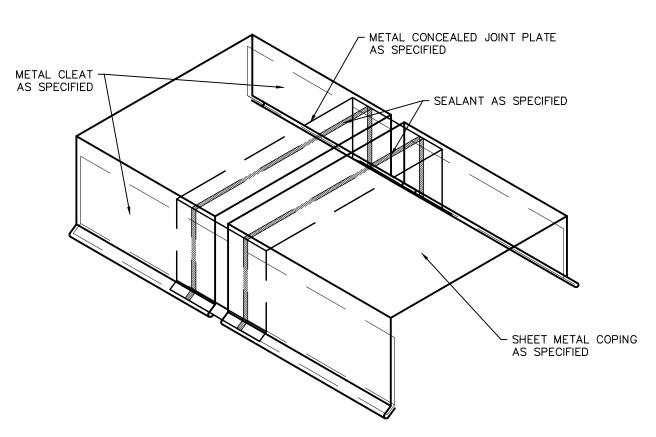
SCALE: N.T.S.

APPROVED BY: K.E.T.

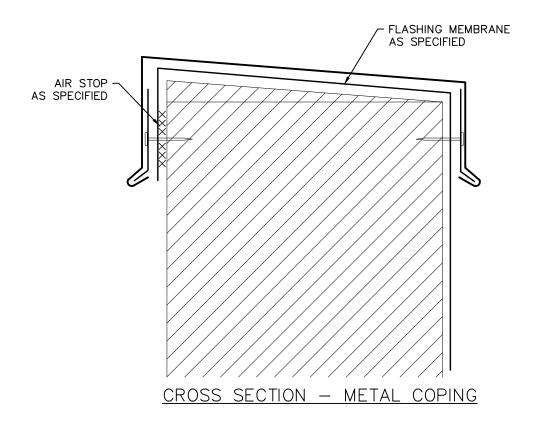
DRAWN BY: K.L.E.

DATE: NOVEMBER, 2018

PROJECT # T18074.RFG/RST3



CONCEALED JOINT PLATE



Structure Tec.

Total Building Envelope Management Solutions
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CONCEALED COPING PLATE

2018 ARCHITECTURAL / STRUCTURAL PROJECT CITY OF ANN ARBOR — WATER TREATMENT

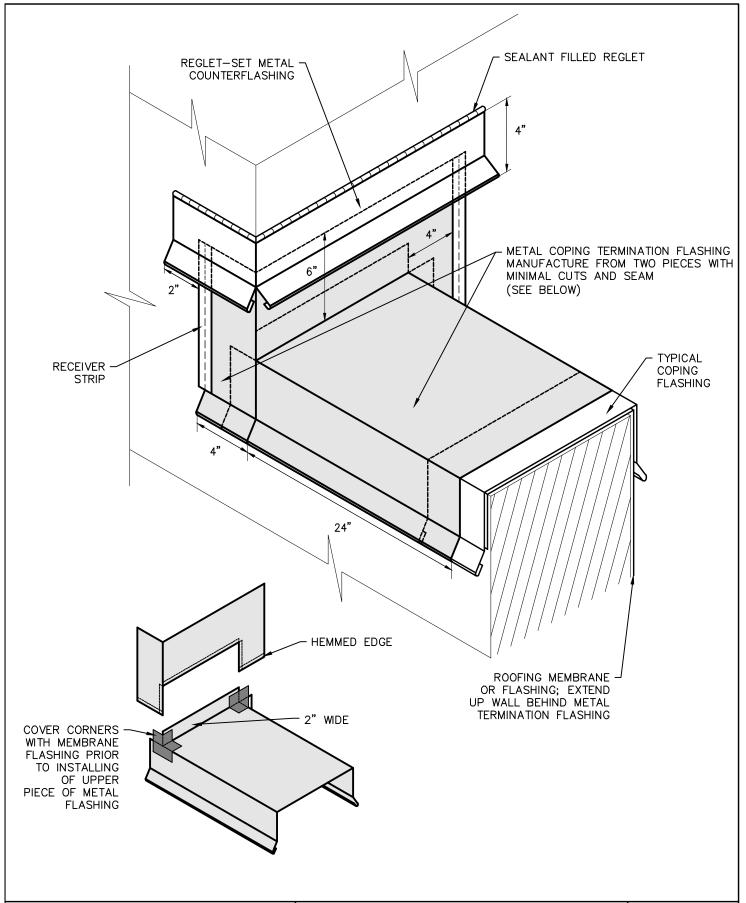
SCALE: N.T.S.

APPROVED BY: K.E.T.

DRAWN BY: K.L.E.

DATE: NOVEMBER, 2018

PROJECT # 118074.RFG/RST3
D−22



Total Building Envelope Management Solutions
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TWO PIECE METAL COPING TERMINATION

2018 ARCHITECTURAL / STRUCTURAL PROJECT CITY OF ANN ARBOR — WATER TREATMENT

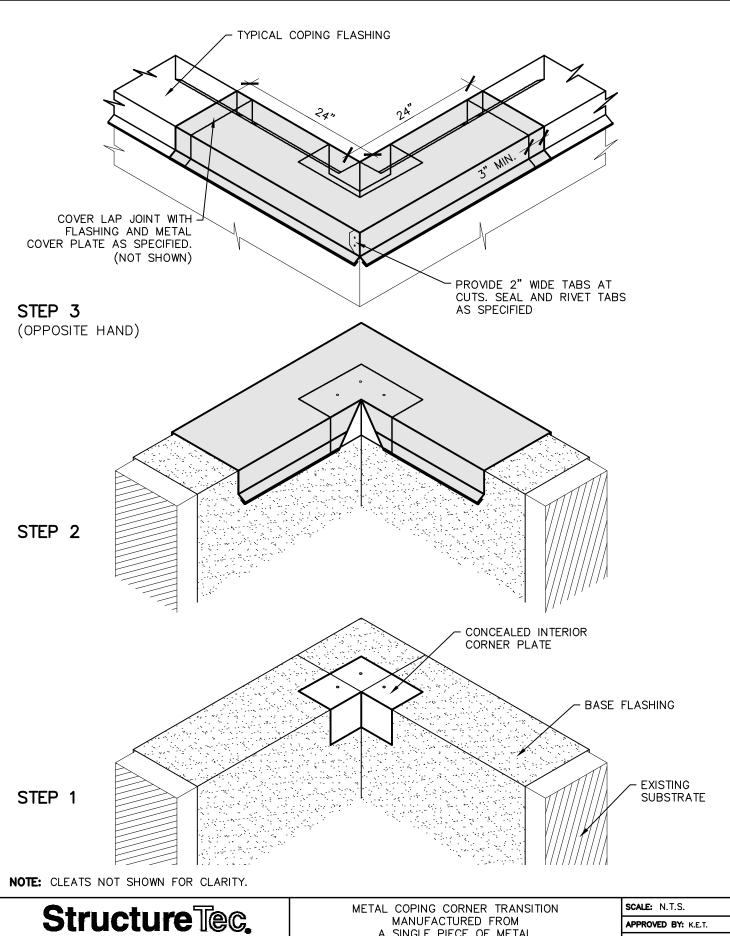
SCALE: N.T.S.

APPROVED BY: K.E.T.

DRAWN BY: K.L.E.

DATE: NOVEMBER, 2018

PROJECT #: T18074.RFG/RST3



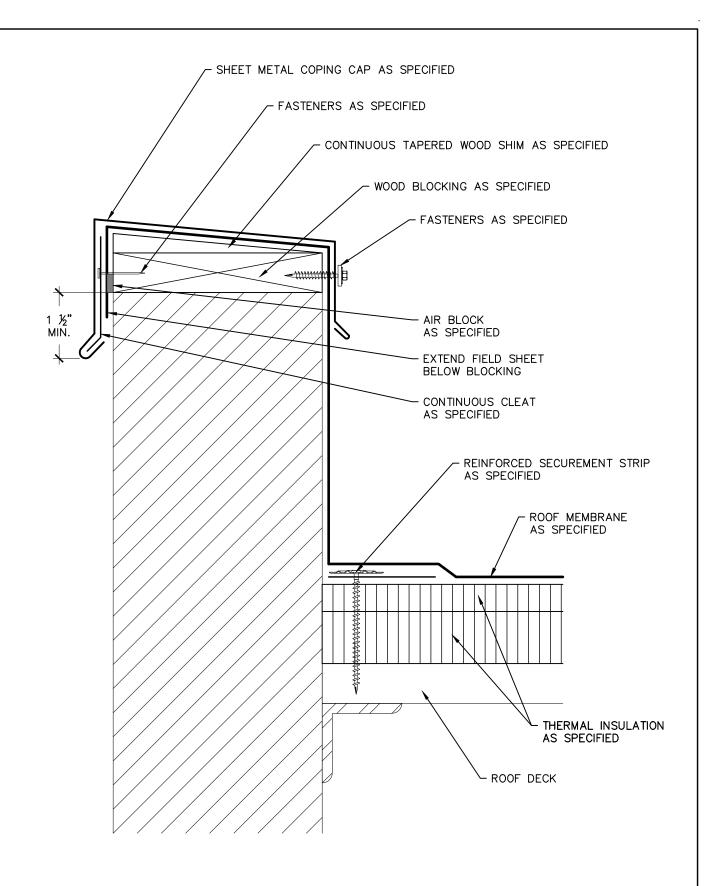
Total Building Envelope Management Solutionsm 4777 Campus Drive • Kalamazoo, MI 49008 1121 Lake Cook Road, Ste C • Deerfield, IL 60015 473 Airport Road, Ste 1 • Butler, PA 16002 34119 W. Twelve Mile Road, Ste 270 • Farmington Hills, MI 48331 A SINGLE PIECE OF METAL

2018 ARCHITECTURAL / STRUCTURAL PROJECT CITY OF ANN ARBOR — WATER TREATMENT

DRAWN BY: K.L.E.

DATE: NOVEMBER, 2018

PROJECT # T18074.RFG/RST3



NOTE: WOOD COMPONENTS ARE SHOWN GENERICALLY, PROVIDE WOOD BLOCKING AS SPECIFIED.

Structure Tec.

Total Building Envelope Management Solutions

4777 Campus Drive • Kalamazoo, MI 49008

1121 Lake Cook Road, Ste C • Deerfield, IL 60015

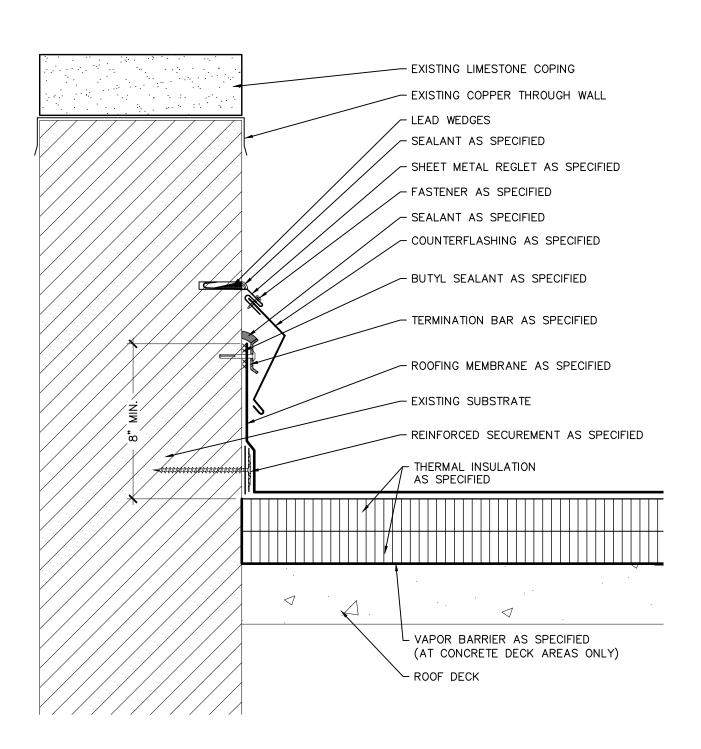
473 Airport Road, Ste 1 • Butler, PA 16002

34119 W. Twelve Mile Road, Ste 270 • Farmington Hills, MI 4833

METAL COPING CAP AND BASE FLASHING

2018 ARCHITECTURAL / STRUCTURAL PROJECT CITY OF ANN ARBOR — WATER TREATMENT

SCALE: N.T.S.
APPROVED BY: K.E.T.
DRAWN BY: K.L.E.
DATE: NOVEMBER, 2018
PROJECT # T18074.RFG/RST3
D-25



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34119 W. Twelve Mile Road, Ste 270 • Farmington Hills, MI 4833

LIMESTONE COPING AND FLASHING

2018 ARCHITECTURAL / STRUCTURAL PROJECT CITY OF ANN ARBOR — WATER TREATMENT

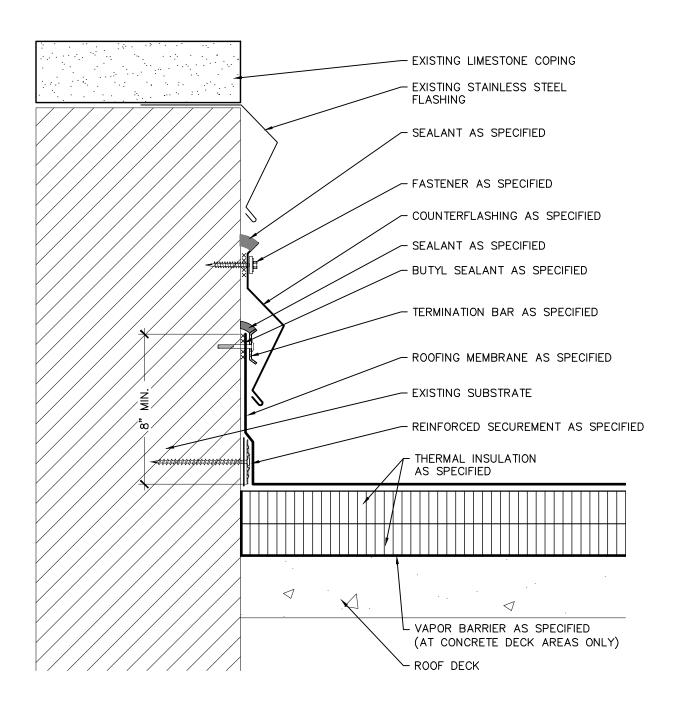
SCALE: N.T.S.

APPROVED BY: K.E.T.

DRAWN BY: K.L.E.

DATE: NOVEMBER, 2018

PROJECT #: 118074.RFG/RST3



Total Building Envelope Management Solutions

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LIMESTONE COPING AND STAINLESS COUNTERFLASHING

2018 ARCHITECTURAL / STRUCTURAL PROJECT CITY OF ANN ARBOR — WATER TREATMENT

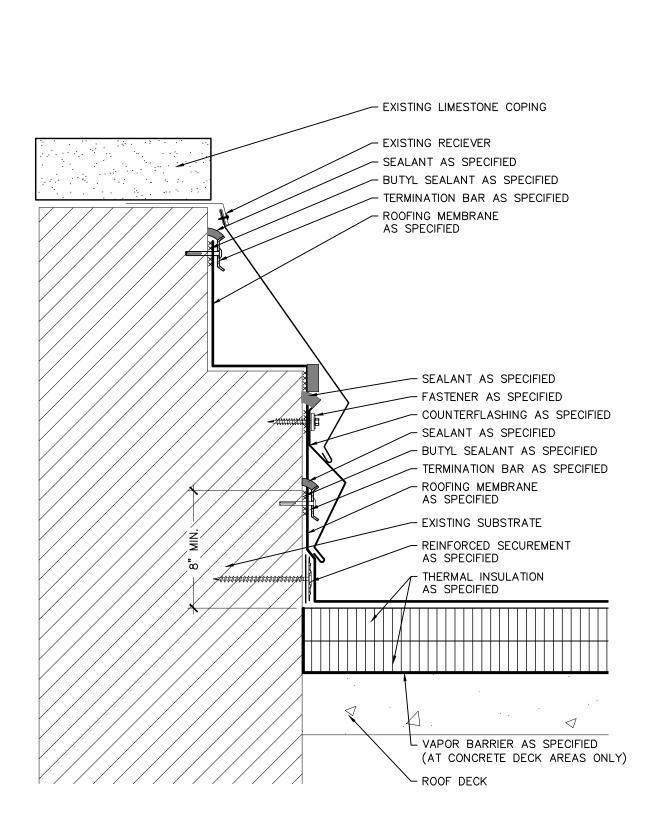
SCALE: N.T.S.

APPROVED BY: K.E.T.

DRAWN BY: K.L.E.

DATE: NOVEMBER, 2018

PROJECT # T18074.RFG/RST3



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LIMESTONE COPING AND SHEET METAL CLOSURE

2018 ARCHITECTURAL / STRUCTURAL PROJECT CITY OF ANN ARBOR — WATER TREATMENT

SCALE: N.T.S.

APPROVED BY: K.E.T.

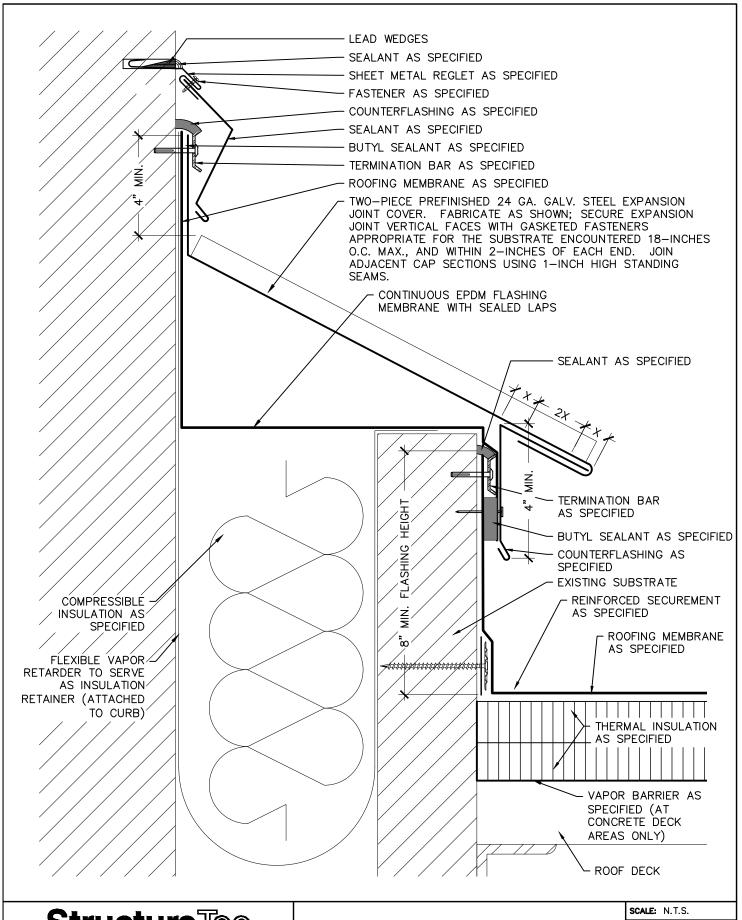
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DRAWN BY: K.L.E.

DATE: NOVEMBER, 2018

PROJECT # T18074.RFG/RST3

D-27A



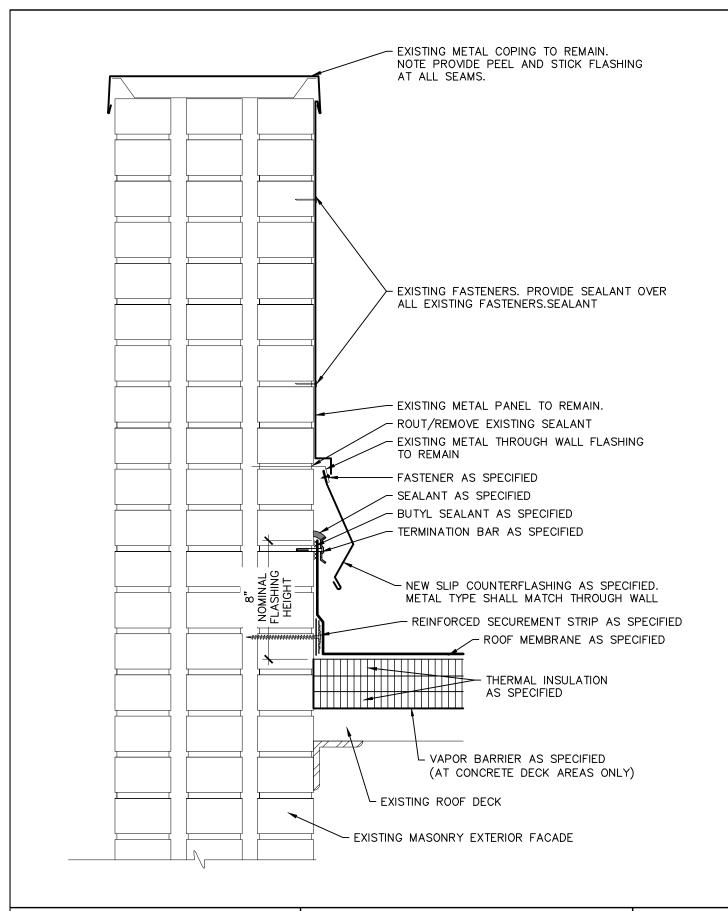
Total Building Envelope Management Solutionsm 4777 Campus Drive • Kalamazoo, MI 49008 1121 Lake Cook Road, Ste C • Deerfield, IL 60015 473 Airport Road, Ste 1 • Butler, PA 16002 34119 W. Twelve Mile Road, Ste 270 • Farmington Hills, MI 4833 ROOF TO WALL EXPANSION JOINT FLASHING

2018 ARCHITECTURAL / STRUCTURAL PROJECT CITY OF ANN ARBOR — WATER TREATMENT

APPROVED BY: K.E.T.

DRAWN BY: K.L.E.

DATE: NOVEMBER, 2018 PROJECT # T18074.RFG/RST3



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EXISTING COPPER THROUGH WALL FLASHING AND METAL PANEL WALL

2018 ARCHITECTURAL / STRUCTURAL PROJECT CITY OF ANN ARBOR — WATER TREATMENT

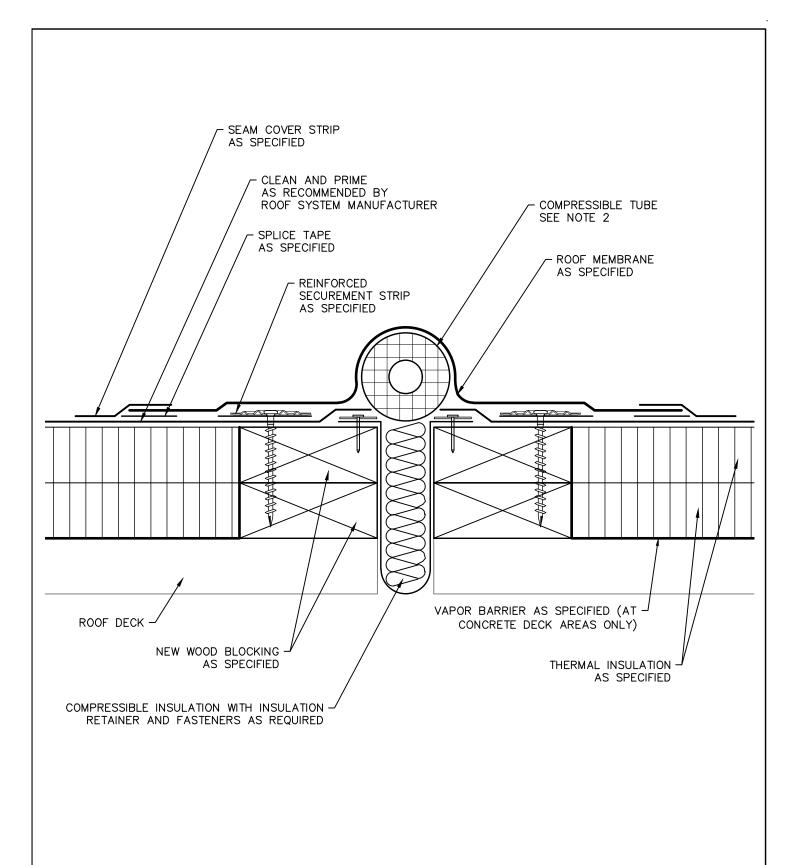
SCALE: N.T.S.

APPROVED BY: K.E.T.

DRAWN BY: K.L.E.

DATE: NOVEMBER, 2018

PROJECT #: T18074.RFG/RST3



NOTE:

- 1. WOOD COMPONENTS ARE SHOWN GENERICALLY, PROVIDE WOOD BLOCKING AS SPECIFIED.
- 2. COMPRESSIBLE TUBE DIAMETER MUST EXCEED THE DECK OPENING BY 50% OR DESIGNED MOVEMENT (WHICHEVER IS GREATER).

Stru	ıctuı	eTec.

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EXPANSION JOINT — ROOF TO ROOF FIELD FABRICATED

2018 ARCHITECTURAL / STRUCTURAL PROJECT CITY OF ANN ARBOR — WATER TREATMENT

SCALE: N.T.S.

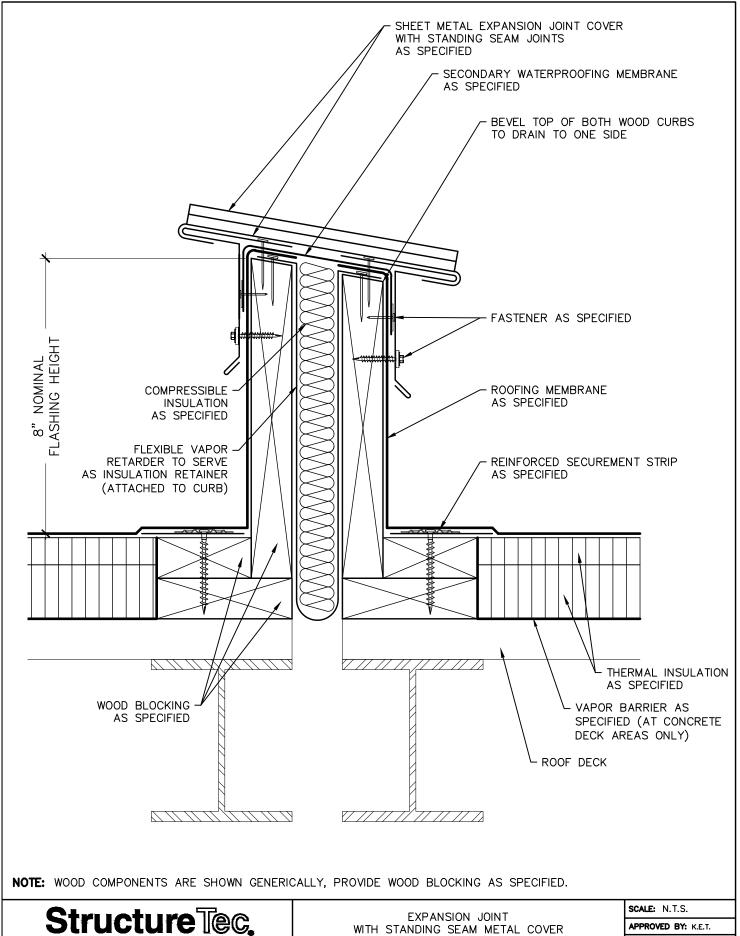
APPROVED BY: K.E.T.

DRAWN BY: K.L.E.

DATE: NOVEMBER, 2018

PROJECT #: T18074.RFG/RST3

D 70



Total Building Envelope Management Solutions
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473 Airport Road, Ste 1 • Butler, PA 16002

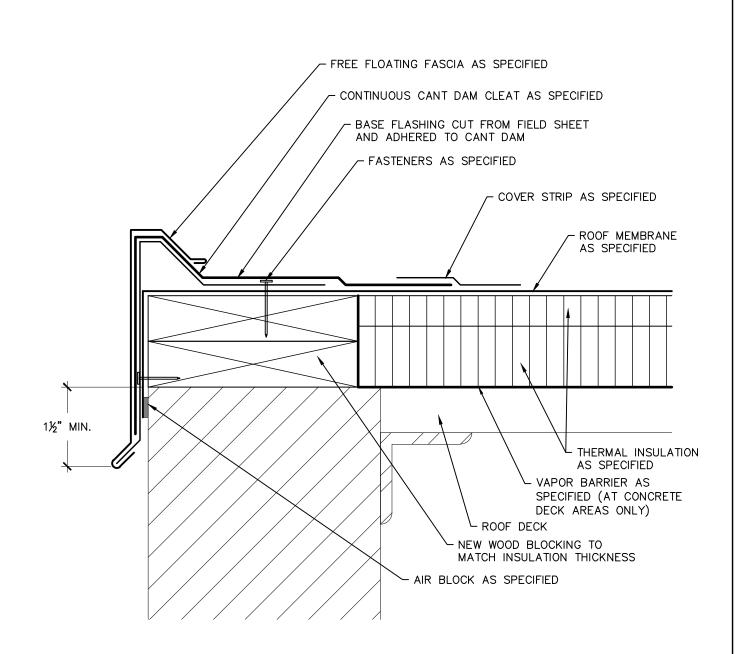
34119 W. Twelve Mile Road, Ste 270 • Farmington Hills, MI 48331

2018 ARCHITECTURAL / STRUCTURAL PROJECT CITY OF ANN ARBOR — WATER TREATMENT

DRAWN BY: K.L.E.

DATE: NOVEMBER, 2018

PROJECT #: T18074.RFG/RST3



Total Building Envelope Management SolutionsM
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34119 W. Twelve Mile Road, Ste 270 • Farmington Hills, MI 48331

FREE-FLOATING FASCIA SYSTEM

2018 ARCHITECTURAL / STRUCTURAL PROJECT CITY OF ANN ARBOR — WATER TREATMENT

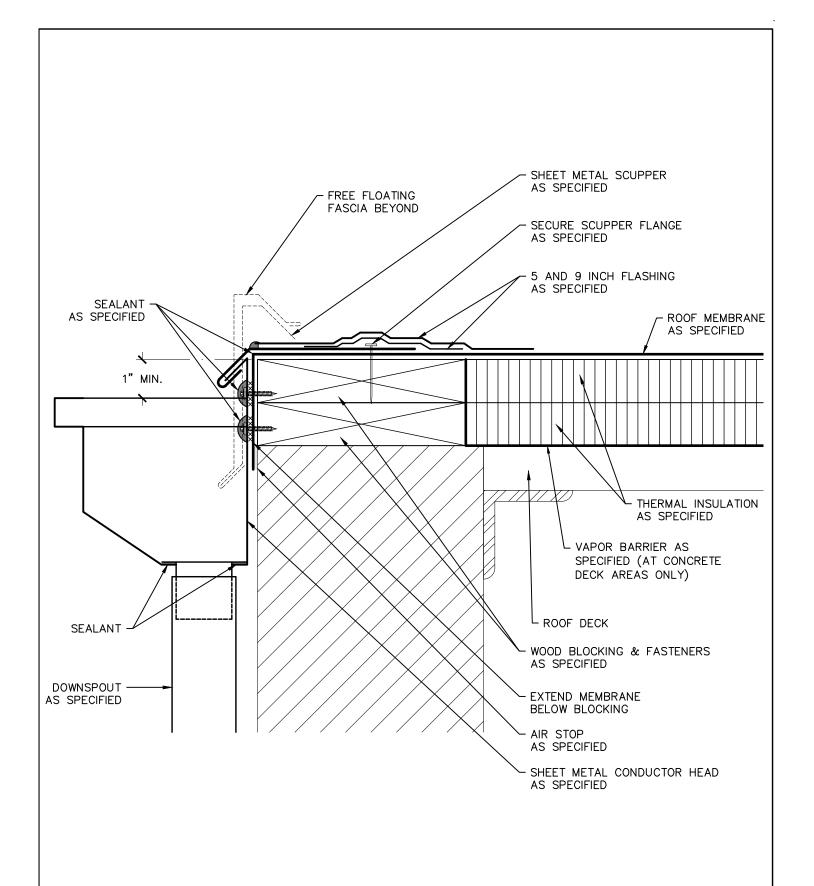
SCALE: N.T.S.

APPROVED BY: K.E.T.

DRAWN BY: K.L.E.

DATE: NOVEMBER, 2018

PROJECT # 118074.RFG/RST3
D−32



NOTE: WOOD COMPONENTS ARE SHOWN GENERICALLY, PROVIDE WOOD BLOCKING AS SPECIFIED.

Structure Tec.

Total Building Envelope Management Solutions
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34119 W. Twelve Mile Road, Ste 270 • Farmington Hills, MI 48331

SCUPPER THROUGH ROOF EDGE

2018 ARCHITECTURAL / STRUCTURAL PROJECT CITY OF ANN ARBOR — WATER TREATMENT

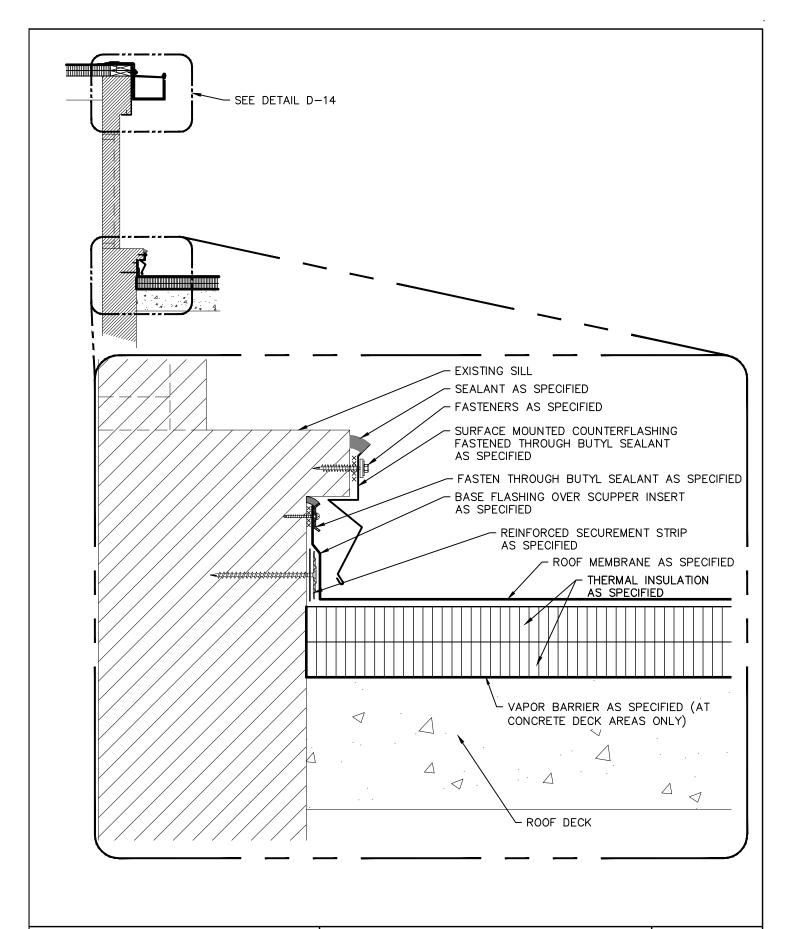
SCALE: N.T.S.

APPROVED BY: K.E.T.

DRAWN BY: K.L.E.

DATE: NOVEMBER, 2018

PROJECT # T18074.RFG/RST3



Total Building Envelope Management Solutions

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ROOF LEVEL WINDOW AND BASE FLASHING

2018 ARCHITECTURAL / STRUCTURAL PROJECT CITY OF ANN ARBOR — WATER TREATMENT

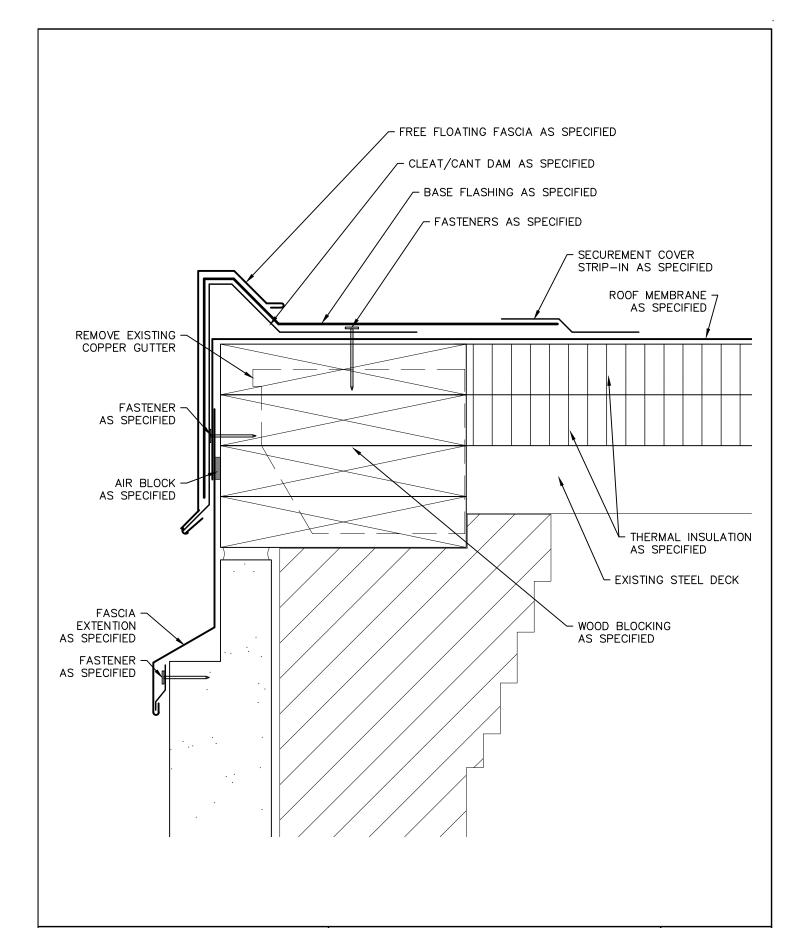
SCALE: N.T.S.

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PROJECT #: 118074.RFG/RST3



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FREE FLOATING FASCIA SYSTEM

2018 ARCHITECTURAL / STRUCTURAL PROJECT CITY OF ANN ARBOR — WATER TREATMENT

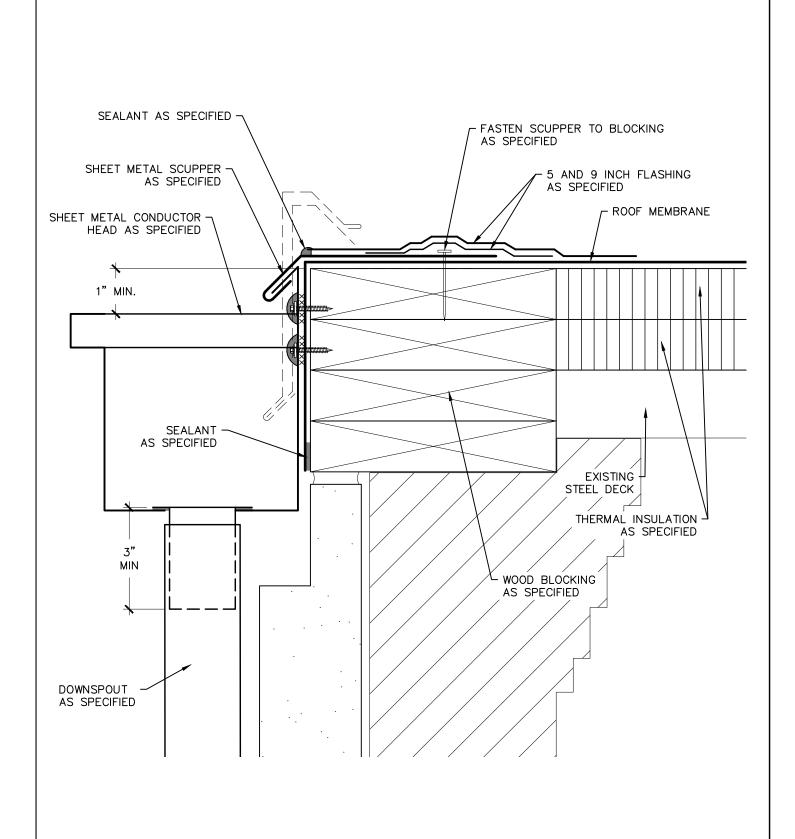
SCALE: N.T.S.

APPROVED BY: K.E.T.

DRAWN BY: K.L.E.

DATE: NOVEMBER, 2018

PROJECT #: T18074.RFG/RST3



NOTE: FIELD VERIFY SCUPPER DIMENSIONS

Structure Tec.

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2018 ARCHITECTURAL / STRUCTURAL PROJECT CITY OF ANN ARBOR — WATER TREATMENT

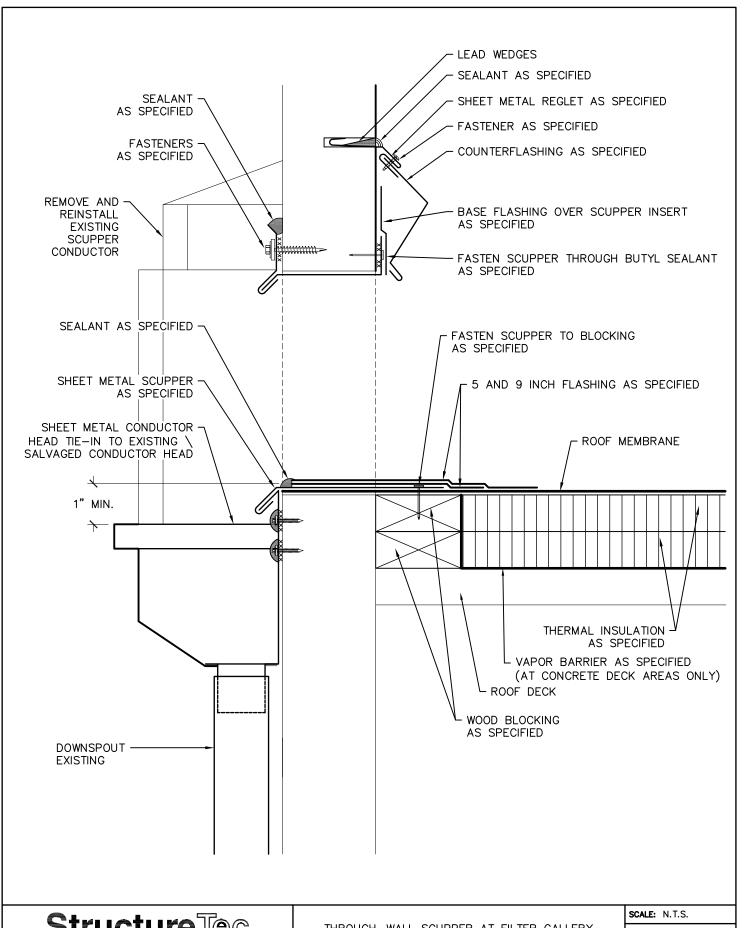
SCALE: N.T.S.

APPROVED BY: K.E.T.

DRAWN BY:

DATE: NOVEMBER, 2018

PROJECT # T18074.RFG/RST3 D - 35A



Total Building Envelope Management Solutionsm

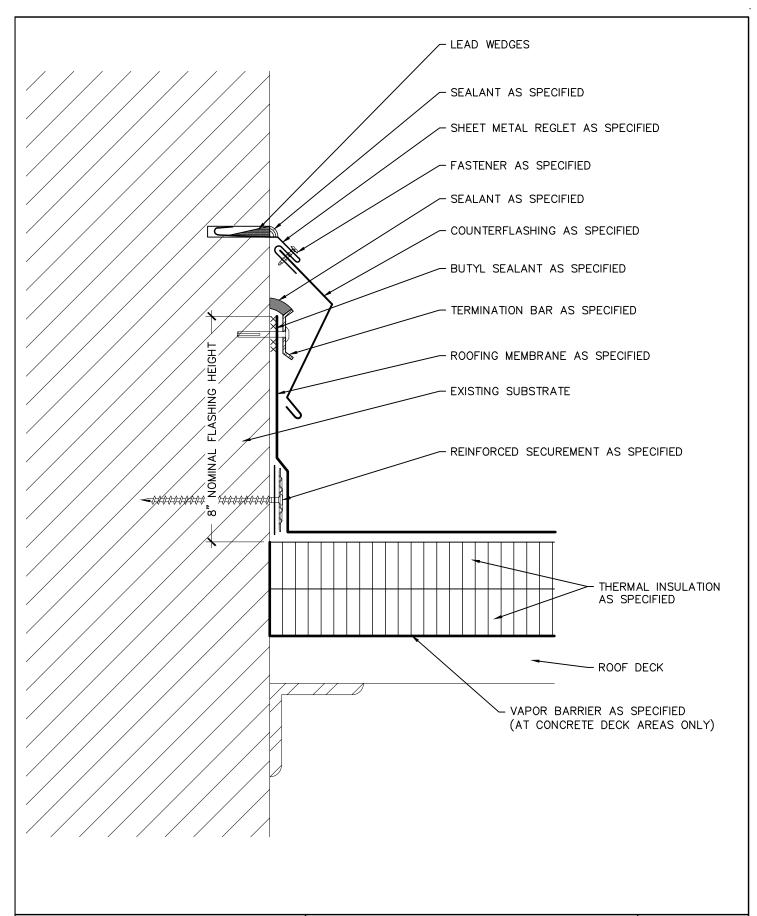
4777 Campus Drive • Kalamazoo, MI 49008 1121 Lake Cook Road, Ste C • Deerfield, IL 60015 473 Airport Road, Ste 1 • Butler, PA 16002 34119 W. Twelve Mile Road, Ste 270 • Farmington Hills, MI 48331 THROUGH-WALL SCUPPER AT FILTER GALLERY

2018 ARCHITECTURAL / STRUCTURAL PROJECT CITY OF ANN ARBOR — WATER TREATMENT

APPROVED BY: K.E.T.

DRAWN BY: K.L.E.

DATE: NOVEMBER, 2018 PROJECT #: T18074.RFG/RST3



Total Building Envelope Management Solutions

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473 Airport Road, Ste 1 • Butler, PA 16002

34119 W. Twelve Mile Road, Ste 270 • Farmington Hills, MI 4833

REGLET COUNTERFLASHING, 2 PIECE

2018 ARCHITECTURAL / STRUCTURAL PROJECT CITY OF ANN ARBOR — WATER TREATMENT

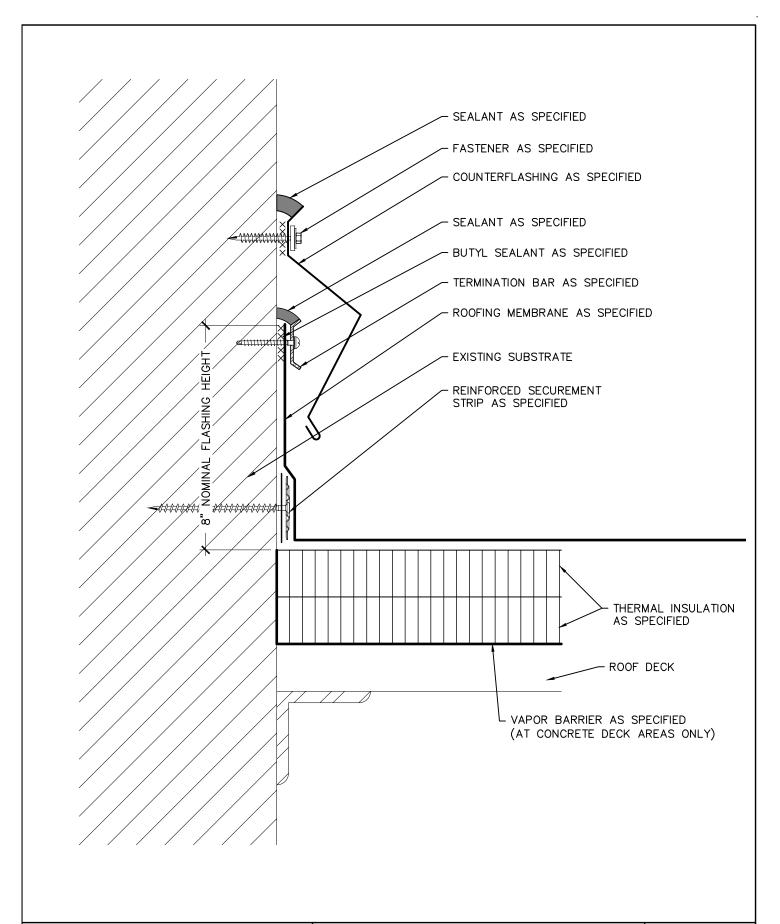
SCALE: N.T.S.

APPROVED BY: K.E.T.

DRAWN BY: K.L.E.

DATE: NOVEMBER, 2018

PROJECT # T18074.RFG/RST3



Total Building Envelope Management Solutions
4777 Campus Drive • Kalamazoo, MI 49008
1121 Lake Cook Road, Ste C • Deerfield, IL 60015
473 Airport Road, Ste 1 • Butler, PA 16002
34119 W. Twelve Mile Road, Ste 270 • Farmington Hills, MI 4833

SURFACE MOUNTED COUNTERFLASHING, 1 PIECE

2018 ARCHITECTURAL / STRUCTURAL PROJECT CITY OF ANN ARBOR — WATER TREATMENT

SCALE: N.T.S.

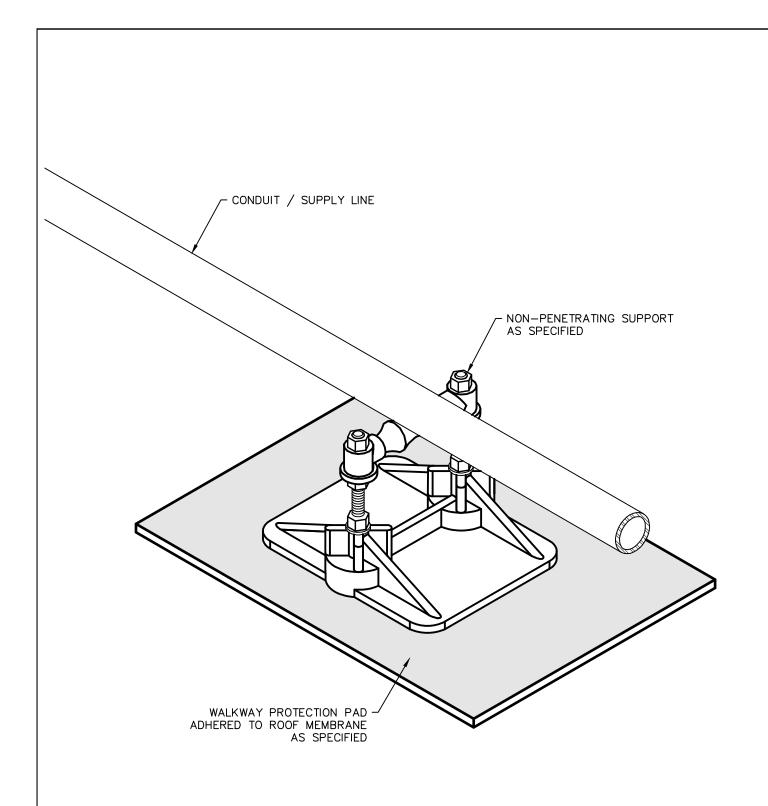
APPROVED BY: K.E.T.

DRAWN BY: K.L.E.

DATE: NOVEMBER, 2018

PROJECT #: T18074.RFG/RST3

D-40



Total Building Envelope Management Solutions
4777 Campus Drive • Kalamazoo, MI 49008
1121 Lake Cook Road, Ste C • Deerfield, IL 60015
473 Airport Road, Ste 1 • Butler, PA 16002
34119 W. Twelve Mile Road, Ste 270 • Farmington Hills, MI 48331

NON-PENETRATING PIPE SUPPORT

2018 ARCHITECTURAL / STRUCTURAL PROJECT CITY OF ANN ARBOR — WATER TREATMENT

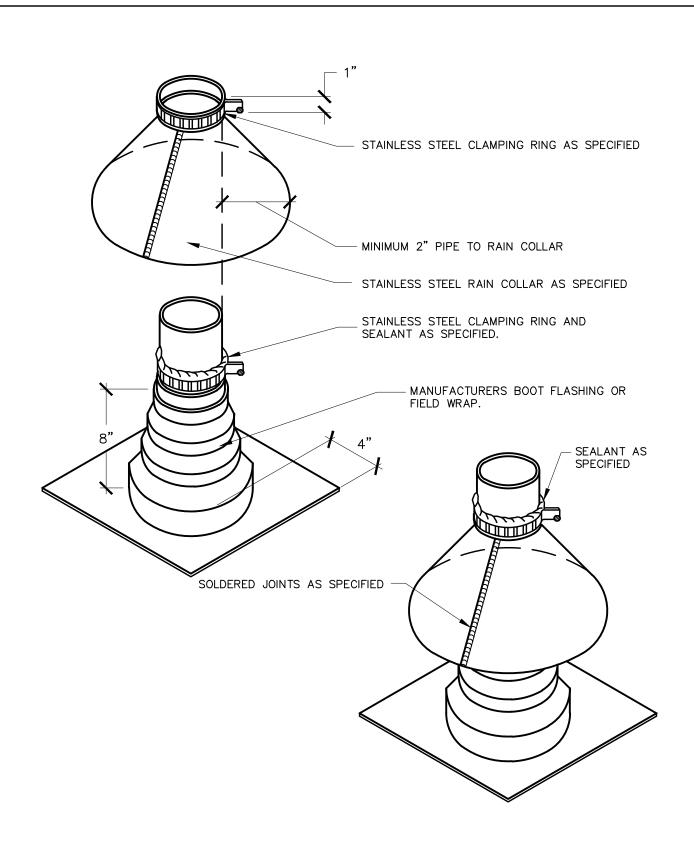
SCALE: N.T.S.

APPROVED BY: K.E.T.

DRAWN BY: K.L.E.

DATE: NOVEMBER, 2018

PROJECT #: T18074.RFG/RST3



NOTE: ALL JOINTS MUST BE SOLDERED

Structure Tec.

Total Building Envelope Management Solutions

4777 Campus Drive • Kalamazoo, MI 49008

1121 Lake Cook Road, Ste C • Deerfield, IL 60015

473 Airport Road, Ste 1 • Butler, PA 16002

34119 W. Twelve Mile Road, Ste 270 • Farmington Hills, MI 4833

SOLDERED RAIN COLLAR

2018 ARCHITECTURAL / STRUCTURAL PROJECT CITY OF ANN ARBOR — WATER TREATMENT

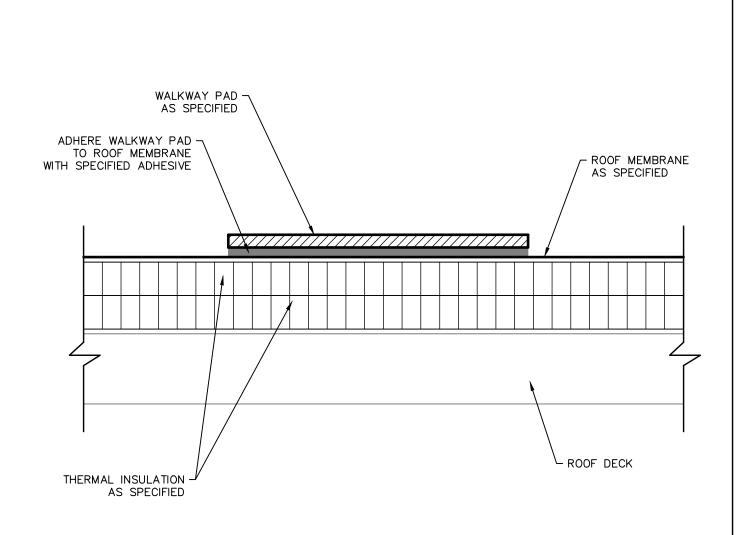
SCALE: N.T.S.

APPROVED BY: K.E.T.

DRAWN BY: K.L.E.

DATE: NOVEMBER, 2018

PROJECT # T18074.RFG/RST3



Total Building Envelope Management Solutionsm 4777 Campus Drive • Kalamazoo, MI 49008 1121 Lake Cook Road, Ste C • Deerfield, IL 60015 473 Airport Road, Ste 1 • Butler, PA 16002 34119 W. Twelve Mile Road, Ste 270 • Farmington Hills, MI 48331

WALKWAY PAD INSTALLATION

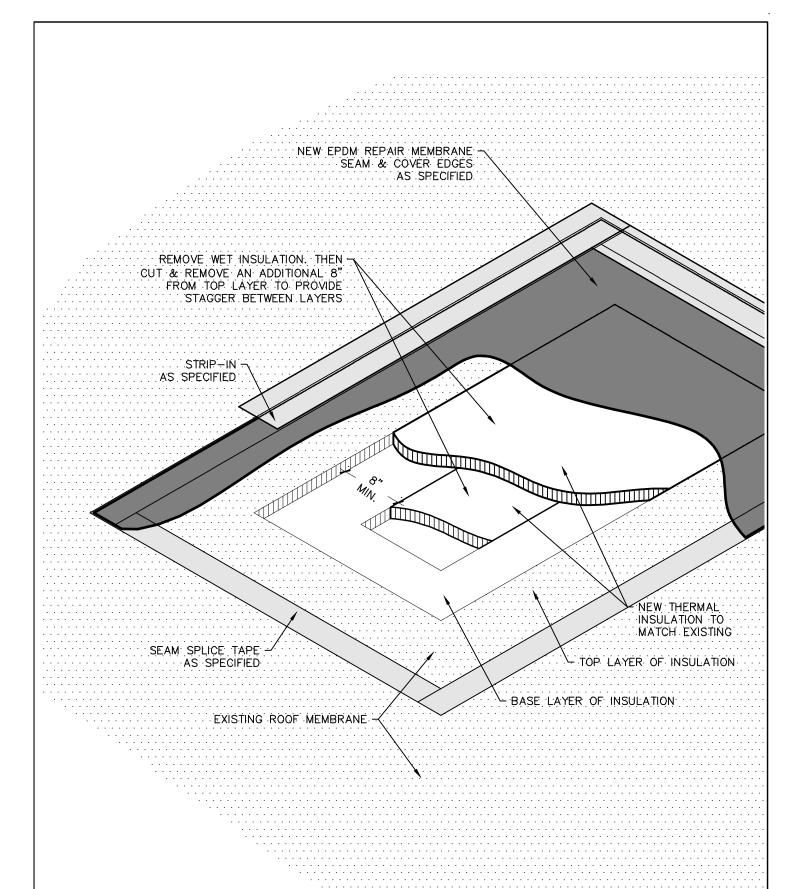
2018 ARCHITECTURAL / STRUCTURAL PROJECT CITY OF ANN ARBOR — WATER TREATMENT

SCALE: N.T.S. APPROVED BY: K.E.T.

DRAWN BY:

K.L.E.

DATE: NOVEMBER, 2018 PROJECT # T18074.RFG/RST3



Total Building Envelope Management Solutions
4777 Campus Drive • Kalamazoo, MI 49008
1121 Lake Cook Road, Ste C • Deerfield, IL 60015
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WET INSULATION REPLACEMENT

2018 ARCHITECTURAL / STRUCTURAL PROJECT CITY OF ANN ARBOR — WATER TREATMENT

SCALE: N.T.S.

APPROVED BY: K.E.T.

DRAWN BY: K.L.E.

DATE: NOVEMBER, 2018

PROJECT #: T18074.RFG/RST3

D-44

GENERAL NOTES:

- 1. PERFORM MASONRY RESTORATION IN CONFORMANCE WITH WRITTEN SPECIFICATIONS IN THE PROJECT MANUAL.
- DRAWING AND DETAILS ARE PROVIDED FOR GENERAL ILLUSTRATION OF TYPICAL BUILDING CONDITIONS ONLY.
- 3. CONTRACTOR IS REQUIRED TO VERIFY ALL CONDITIONS, DIMENSIONS, AND QUANTITIES FOR SPECIFIED WORK PRIOR TO SUBMITTING A BID.

LEGEND:

AREA OF 100% JOINT RESTORATION



AREA OF MASONRY REBUILD

RESTORATION NOTES

AT EXTERIOR FACE OF WALL, RE-POINT ALL MORTAR JOINTS AT DESIGNATED AREA ON DRAWINGS IN ACCORDANCE WITH DETAIL RSD-7 AND SPECIFICATIONS. REPLACE ALL CRACKED/SPALLED BRICK UNITS IN ACCORDANCE WITH DETAIL RSD-6 AND SPECIFICATIONS PER UNIT PRICE AND ALLOWANCE. REBUILD UNSTABLE BRICK MASONRY AREAS IN ACCORDANCE WITH DETAIL RSD-6 AND SPECIFICATIONS PER UNIT PRICE AND ALLOWANCE. SEAL ALL WALL PENETRATIONS. SPECIFIC REPAIRS AND LOCATIONS TO BE DETERMINED BY ARCHITECT UPON ACCESS TO WALL.

- AT EXTERIOR FACE OF WALL, RE-POINT ALL

 CRACKED/WEATHERED MORTAR JOINTS AT DESIGNATED

 AREA ON DRAWINGS IN ACCORDANCE WITH DETAIL RSD-7

 AND SPECIFICATIONS PER UNIT PRICE AND ALLOWANCE.

 REPLACE ALL CRACKED/SPALLED BRICK UNITS IN

 ACCORDANCE WITH DETAIL RSD-6 AND SPECIFICATIONS

 PER UNIT PRICE AND ALLOWANCE. REBUILD UNSTABLE

 BRICK MASONRY AREAS IN ACCORDANCE WITH DETAIL

 RSD-6 AND SPECIFICATIONS PER UNIT PRICE AND

 ALLOWANCE. SEAL ALL WALL PENETRATIONS. SPECIFIC

 REPAIRS AND LOCATIONS TO BE DETERMINED BY

 ARCHITECT UPON ACCESS TO WALL.
- AT ROOF—SIDE FACE OF PARAPET WALL FROM COPING TO CONCRETE DECK, RE—POINT ALL MORTAR JOINTS AT DESIGNATED AREA ON DRAWINGS IN ACCORDANCE WITH DETAIL RSD—7 AND SPECIFICATIONS. REPLACE ALL CRACKED/SPALLED BRICK UNITS IN ACCORDANCE WITH DETAIL RSD—6 AND SPECIFICATIONS PER UNIT PRICE AND ALLOWANCE. REBUILD UNSTABLE BRICK MASONRY AREAS IN ACCORDANCE WITH DETAIL RSD—6 AND SPECIFICATIONS PER UNIT PRICE AND ALLOWANCE. SEAL ALL WALL PENETRATIONS. SPECIFIC REPAIRS AND LOCATIONS TO BE DETERMINED BY ARCHITECT UPON ACCESS TO WALL.
- AT ROOF-SIDE FACE OF PARAPET WALL FROM COPING TO CONCRETE DECK, RE-POINT ALL CRACKED/WEATHERED MORTAR JOINTS AT DESIGNATED AREA ON DRAWINGS IN ACCORDANCE WITH DETAIL RSD-7 AND SPECIFICATIONS PER UNIT PRICE AND ALLOWANCE. REPLACE ALL CRACKED/SPALLED BRICK UNITS IN ACCORDANCE WITH DETAIL RSD-6 AND SPECIFICATIONS PER UNIT PRICE AND ALLOWANCE. REBUILD UNSTABLE BRICK MASONRY AREAS IN ACCORDANCE WITH DETAIL RSD-6 AND SPECIFICATIONS PER UNIT PRICE AND ALLOWANCE. SEAL ALL WALL PENETRATIONS. SPECIFIC REPAIRS AND LOCATIONS TO BE DETERMINED BY ARCHITECT UPON ACCESS TO WALL.
- REBUILD MASONRY PARAPET WALL AT DESIGNATED AREAS ON DRAWINGS IN ACCORDANCE WITH DETAILS 1/RSD-1 AND 2/RSD-1 AND SPECIFICATIONS.
- REMOVE, SALVAGE, AND RE-INSTALL LIMESTONE COURSINGS (TWO) AND COPINGS AT DESIGNATED AREAS ON DRAWINGS IN ACCORDANCE WITH 2/RSD-3 AND SPECIFICATIONS. REPAIR ALL CRACKED LIMESTONE UNITS WITH PINS AND EPOXY PER SPECIFICATIONS.
- REMOVE, SALVAGE, AND RE-INSTALL LIMESTONE COURSING (ONE) AND COPINGS AT DESIGNATED AREAS ON DRAWINGS IN ACCORDANCE WITH 3/RSD-3 AND SPECIFICATIONS.

 REPAIR ALL CRACKED LIMESTONE UNITS WITH PINS AND EPOXY PER SPECIFICATIONS.
- RESTORE EXITING STEEL LINTEL AND PROVIDE NEW THROUGH-WALL FLASHING IN ACCORDANCE WITH DETAIL 1/RSD-1 AND SPECIFICATIONS.
- REBUILD MASONRY WALL AT BUILDING CORNER AND PROVIDE VERTICAL EXPANSION JOINTS IN ACCORDANCE WITH DETAILS 1/RSD-2 AND 2/RSD-2 AND SPECIFICATIONS.

- PROVIDE NEW SEALANT AT

 EXPANSION/CONTROL/CONSTRUCTION/PANEL JOINT IN
 ACCORDANCE WITH DETAIL RSD-10 AND SPECIFICATIONS.
- PROVIDE NEW SEALANT AT EXISTING CRACK IN MASONRY OR CONCRETE WALL IN ACCORDANCE WITH DETAIL RSD-9 AND SPECIFICATIONS PER UNIT PRICE AND ALLOWANCE.
- PROVIDE NEW SEALANT AT ALL GLAZING JOINTS IN WINDOW SYSTEM IN ACCORDANCE WITH DETAILS RSD-11 AND RSD-12 AND SPECIFICATIONS.
- PROVIDE NEW SEALANT AND BACKER ROD AT ALL PERIMETER JOINTS AROUND WINDOW OR DOOR SYSTEM IN ACCORDANCE WITH DETAIL RSD-13 AND SPECIFICATIONS.
- PROVIDE PATCH REPAIR AT DELAMINATED AREAS OF CONCRETE OR PRECAST WALL IN ACCORDANCE WITH DETAIL RSD-4 AND SPECIFICATIONS PER UNIT PRICE AND ALLOWANCE. SPECIFIC REPAIRS AND LOCATIONS TO BE DETERMINED BY ARCHITECT UPON ACCESS TO WALL.
- PROVIDE CRACK INJECTION REPAIR AT CRACKS IN CONCRETE/PRECAST WALL IN ACCORDANCE WITH DETAIL RSD-5 AND SPECIFICATIONS PER UNIT PRICE AND ALLOWANCE. SPECIFIC REPAIRS AND LOCATIONS TO BE DETERMINED BY ARCHITECT UPON ACCESS TO WALL.
- PROVIDE PARTIAL DEPTH PATCH OR DUTCHMAN REPAIR

 (

 1 SF) IN ACCORDANCE WITH SPECIFICATIONS PER UNIT

 PRICE AND ALLOWANCE. SPECIFIC REPAIRS AND

 LOCATIONS TO BE DETERMINED BY ARCHITECT UPON

 ACCESS TO WALL.
- REVISE EXISTING OPENING AND REPLACE EXISTING
 WINDOWS WITH NEW ALUMINUM FRAME WINDOWS WITH
 INSULATED GLASS IN ACCORDANCE WITH DETAIL RSD—14
 AND SPECIFICATIONS. NEW WINDOWS TO MATCH EXISTING
 IN FRAME COLOR, SIZE AND CONFIGURATION. NEW
 WINDOW SYSTEM TO HAVE THERMALLY—BROKEN SUB—SILL
 OR SILL RECEPTOR WITH END DAMS AND WEEPS.
- CLEAN AND PREPARE CONCRETE SURFACES AT DESIGNATED AREAS ON DRAWINGS AND APPLY AN ELASTOMERIC COATING IN ACCORDANCE WITH SPECIFICATIONS.
- CLEAN AND PREPARE LIMESTONE/BRICK MASONRY
 SURFACES AT DESIGNATED AREAS ON DRAWINGS AND
 APPLY AN CLEAR PENETRATING SEALER IN ACCORDANCE
 WITH SPECIFICATIONS.
- PROVIDE A THOROUGH RESTORATION CLEANING OF MASONRY SURFACES AT DESIGNATED AREAS ON DRAWINGS IN ACCORDANCE WITH SPECIFICATIONS.
- SCRAPE AND PAINT EXPOSED STEEL AT DESIGNATED AREAS ON DRAWING IN ACCORDANCE WITH SPECIFICATIONS.
- SEAL ALL PENETRATIONS AT DESIGNATED AREAS ON DRAWINGS.

Structure | Composite | Compos

WATER TREATMENT PLANT CITY OF ANN ARBOR SUNSET RD. ANN ARBOR, MI 48103

REVISIONS / ADDENDA:

SCALE: N.T.S.

APPROVED BY: C.A.H.

DRAWN BY:
R.M.K.F.

DATE: NOVEMBER 2018

PROJECT NUMBER: T18074

DRAWING NUMBER:

SERION SE	Building	Elevation	R1-TP (SF)	R1-BR (SF)	R1.1-TP (SF)	R1.1-BR (SF)	R2-TP (SF)	R2-BR (SF)	R2.1-TP (SF)	R2.1-BR (SF)	R3 (LF)	R4 (LF)	R5 (LF)	R6 (LF)	R7 (LF)	R8 (LF)	R9 (LF)	R10 (LF)	R11 (LF)	R12 (SF)	R13 (LF)	R14 (SF)	R15 (SF)	R16 (SF)	R17 (SF)	R18 (SF)	R19 (SF)	R20
MATHEMAN 1												1,7 (2,7	1,5 (2,7	110 (21)	107 (217)	110 (21)	1,5 (2.7					1,21 (51)			1,17 (51)			
South Company Compan	SCREEN WALL														-							-			-			
March Marc					-	-									-													
Correction Sign Correction Sign Si					0	0									-			-	-	0	-	-						
MINISTER MATERIAL		-		0	100	50	0	0	-0	0			0		0	0	0		0	10	10	0	0					
Mary		TOTAL	0	0	100	30	0	0	0	U	0		-0		-0			0		10	10				0	630		0
Personal P	CONTROL ROOM	West	243	20	100	10	131	10	-		-		62		-	-	10	-	-	2	5	-	-	=	-	695	-	INCLUDED
Test		North	-			-		10		-	-		53	-	-	-	5	-	-	-	-	-	-	-	-		-	INCLUDED
Test		Partial North	56	10	25	10	114		-				12		-	24		-	-	-	-	-	-	_		-		INCLUDED
THE PART Sept. S		East	-	-		-	252	20	-		-		62			-		-	-		-	-	-	-		_	-	INCLUDED
Memory 100 150 1		TOTAL	299	30	125	20	497	40	0	0	0	0	189	0	0	24	15	0	0	2	5	0	0		0	695	0	0
Memory 100 150 1																												
North 15 26 20 20 32 25 50	TOWER									•	-				55	-						-		-	-		-	
Berl 122 308 50 506 226 548 549 540									-	•	-				-	-					-	-	-	-	-		-	
PATHOLOGY North 110 660 660 100 100 861 970 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		-								•	-			19	21	-		90	114		-	-	-	-	-		-	
Merch 14								-	-	-	-			-		-				-		-	-		-		-	INCLUDED
West 143 6 500 130 1- 1- 1- 1- 1- 1- 1- 1		TOTAL	1170	600	600	1200	841	350	0	0	0	0	136	82	76	0	35	389	405	0	0	0	0	0_	0	4644	0	0
West 143 6 500 130 1- 1- 1- 1- 1- 1- 1- 1	DENTHOUSE	Nouth	114	0	100	100								4			-	20	20			2			114	250		INCLUDED
South 114 200 	PENTHOUSE																											
Earl 107		-		-									-			-	_											
TOTAL SISE 200 3800 200 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0														0	-			32	23	•								
FATTER GALLETY South 1484 100 100 50 435 50						-	0	0	-0	-0		-	0	16	0	0		2/1	80	0			0					INCLUDED
North 1484 300 300 50 455 50 - 93 110 - 84 - 26 10 600 594 10 20 - - 3342 - NALURED		TOTAL	310	200	300	230	0	U	0	U	0	0	-0	10			20	- 04	- 80	0	0	12	0	0	316	14//		0
Partial West 1 338 20	FILTER GALLERY	South	-	-	300	100	-		200	50	-		-	98	<u>-</u>	26	10	537	437		-	-		<u>-</u>	-	2252		INCLUDED
Partial West 2		North	1484	100	100	50	435	50	-	-	93	100		84	-	26	10	660	534	10	20	-		-	-	3142	-	INCLUDED
CLERESTORY South		Partial West 1	338	20	-	-	129	10		=	_	30		9	-		_	60	34					-		464	-	INCLUDED
CLRESTORY South		Partial West 2		-	20	5	-		-	-		-			-	12			-			-		-				INCLUDED
North Nort		TOTAL	1822	120	420	155	564	60	200	50	93	130	0	191	0	64	20	1257	1005	10	20	0	0	0	0	5858	0	0
Next	CLERESTORY	South	-			-			-		_	-			-	15	10	715	418	10			165	798			-	INCLUDED
CARSON HOUSE North 285 220		North	-	-		-	-		-	-	_	-			-	15	10	715	418	10	-		165	798			-	INCLUDED
CARBON HOUSE North 285 20		West	-	-		-	-		-			-			-	_	2	-	-	2	-			60			-	INCLUDED
East 32 10		TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	30	22	1430	836	22	0	0	330	1656	0		0	0
East 32 10																												
Nest 32 10	CARBON HOUSE												-	5		-												
TOTAL 349 40 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0					-		-	-	-	•	-	-	-	-	-	-	-	-	•	-	-	•	-		-			
CARBON HOUSE ALT South 202 20						-	-		-	-		-	-		-	-	40	-	-		-	-			-	-		
California Bid Item No. 4) East 159 50 - - - - - - - - -	CARRON HOUSE ALT				0	0	0	0	0	0	0	0	0	-5		0				0	0	0	0	0	0	0		
West 159 50 - - - - - 19 - 10 172 150 - - - - INCLUDED TOTAL 520 120 0 0 0 0 0 0 0 0 47 26 0 25 316 369 0									•															-				
TOTAL 520 120 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	(Alternate bid item No. 4)												-															
RAPID MIX North - - 50 10 -					•					Δ		-	_															
South - - 50 10 - </td <td></td> <td>TOTAL</td> <td>520</td> <td>120</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> <td>4/</td> <td>26</td> <td></td> <td>25</td> <td>316</td> <td>369</td> <td>0</td> <td>0</td> <td>0</td> <td>- 0</td> <td></td> <td>0</td> <td>-0</td> <td></td> <td></td>		TOTAL	520	120	0	0	0	0	0	0	0	0	0	4/	26		25	316	369	0	0	0	- 0		0	-0		
South - - 50 10 - </td <td>RAPID MIX</td> <td>North</td> <td></td> <td>-</td> <td>50</td> <td>10</td> <td>-</td> <td>-</td> <td></td> <td>-</td> <td></td> <td>-</td> <td>-</td> <td>4</td> <td>-</td> <td>15</td> <td></td> <td>-</td> <td>14</td> <td>-</td> <td>-</td> <td>-</td> <td></td> <td></td> <td></td> <td></td> <td>-</td> <td>INCLUDED</td>	RAPID MIX	North		-	50	10	-	-		-		-	-	4	-	15		-	14	-	-	-					-	INCLUDED
East 25 5		-											-		-										-			
West 100 20 15 - 15 - 13 - 47 54 NCLUDED																												
														15														
				0			0					0	0		0		0						0			0		

Structure | Color | Co

CORE BUILDINGS QUANTITY SUMMARY

WATER TREATMENT PLANT CITY OF ANN ARBOR SUNSET RD. ANN ARBOR, MI 919

48103

REVISIONS / ADDENDA:

SCALE:

N.T.S.

APPROVED BY:

C.A.H.

DRAWN BY: R.M.K.F.

DATE:

NOVEMBER 2018

PROJECT NUMBER: T18074

DRAWING NUMBER:

E - 0.1

Building		D1 TD (CF)	D1 DD /CT	R1.1-TP (SF)	R1.1-BR (SF)	R2-TP (SF)	R2-BR (SF)	R2.1-TP (SF)	D2 1 DD /CF\	D2 /LEV	D4 /LEV	DE (LE)	DC (LE)	D7 /LE\	DO (LE)	DO (HE)	D10 (HT)	D11 /HF	D12 /CE)	D12 /FF	D14 (CT)	R15 (SF)	D1C (CF)	D17 /CF)	D10 /CT\	D10 /CT\	
	Elevation	R1-TP (SF)	R1-BR (SF)	K1.1-1P (SF)	KI.I-BK (SF)	RZ-11 (3F)	KZ-DK (SF)	RZ.1-1P (SF)	R2.1-BR (SF)	R3 (LF)	R4 (LF)	R5 (LF)	R6 (LF)	R7 (LF)	R8 (LF)	R9 (LF)	R10 (LF)	R11 (LF)	R12 (SF)	R13 (LF)	R14 (SF)	KT2 (2L)	R16 (SF)	R17 (SF)	R18 (SF)	R19 (SF)	R20
ADMINISTRATION	Partial East 1	-	-		-	-	-	-		_		-		-	72		=	-		-	-		-	-	-	-	=
	Partial East 2	-	•	-	-	•		-	•		-	-		-	218		-	-		•	-		-	•		-	-
	Partial North 1	-	-	-	-	-			-		-			-	553		-			-	-		=			-	-
	Partial North 2	-	-	=	-	-		-	=		-			-	115		-	16		-			-			-	=
	West	-	-		<u>-</u>	-		-	=		-			-	821	10	-	-		-	10		-			-	
	South	-		-	-			-	•	-	-			-	23		-	-		-			-	-	-	-	-
	TOTAL	0	0	0	0	0	0	0	0	0	0		0	0	1802	10	0	16	0	0	10	0	0	0	0	0	0
WHS	South	-	-		-	-	-		-		-	-		-	402		-	_	-	-	-		-	-		-	-
	East	-		<u>-</u>	<u>-</u>			-	<u>-</u>		-				339		=	-		-	-		-			-	-
	North	-	-	<u>-</u>	<u>-</u>	-		-	=		-			-	260		-			-	-		-			-	=
	TOTAL	0	0	0	0	0	0	0	0				0	0	1001		0	0	0	0	0	0		0	\	0	0
																											1
FILTER PRESS	West	-			<u>-</u>			-			-	_		-	712	5	<u>-</u>	18	5	10	5		-			-	INCLUDED
	East	- · · · · · · · · · · · · · · · · · · ·	-	50	10	-		<u>-</u>	<u>.</u>		-		26	<u>-</u>	792	5	38	110	5	10	5		-			48	INCLUDED
	South	-	-	25	5			=			-		4		36	5	<u>=</u>	18	5	10	5		-			-	INCLUDED
	North	-	-	50	10						-		12	-	503	5	-		5	10	5		-			-	INCLUDED
	TOTAL	0	0	125	25	0	0	0	0	0	0	0	42	0	2043	20	38	146	20	40	20		0	0	0	48	0
CALCINER	West	-	-			-		-	-		-	-		-	251	5	-	-	5	10	5		<u>=</u>			-	INCLUDED
	North	-	-	50	10	-			•		-			-	258	5	-		5	10	5		-	-		-	INCLUDED
	South	-		25	5	-		-	-		=	-		-	524	5	-	52	5	10	5		<u> </u>			=	INCLUDED
	East	-	-	20	10	-					-				587	5	<u> </u>	144	5	10	5		-			30	INCLUDED
	TOTAL	0	0	95	25	0	0	0	0	0	0	0	0	0	1620	20	0	196	20	40	20	0	_0_	0	0	30	0

Structure (Control Building Envelope Management Solutions 4777 Campus Drive • Kalamazoo, MI 49008
1121 Lake Cook Road, Ste C • Deerfield, IL 60015
473 Airport Road, Ste 1 • Butler, PA 16002
34119 W. Twelve Mile Road, Ste 270 • Farmington Hills, MI 48331

QUANTITY SUMMARY - EAST ADDITION BUILDINGS

WATER TREATMENT PLANT CITY OF ANN ARBOR 919 SUNSET RD. ANN ARBOR, MI

48103

REVISIONS / ADDENDA:

SCALE:

N.T.S.

APPROVED BY:

C.A.H.

DRAWN BY: R.M.K.F.

DATE:

NOVEMBER 2018

PROJECT NUMBER: T18074

DRAWING NUMBER:

E-0.2

Building	Elevation	R1-TP (SF)	R1-BR (SF)	R1.1-TP (SF)	R1.1-BR (SF)	R2-TP (SF)	R2-BR (SF)	R2.1-TP (SF)	R2.1-BR (SF)	R3 (LF)	R4 (LF)	R5 (LF)	R6 (LF)	R7 (LF)	R8 (LF)	R9 (LF)	R10 (LF)	R11 (LF)	R12 (SF)	R13 (LF)	R14 (SF)	R15 (SF)	R16 (SF)	R17 (SF)	R18 (SF)	R19 (SF)	R20
EQ BUILDING	North		-		-				-	-		-		-	86	-	-						-	-	-	-	INCLUDED
	East	-	-			-			-		-				193		-	120						-			INCLUDED
	South	-	-			-			-		-			-	86		-	77		-	-		-			-	INCLUDED
	West	-	-		-			-	-		-			-	194		-	96		-	-		-			-	INCLUDED
	TOTAL	0	0	0	0	0	0	0	0	0	0	0		0	559	0	0	293	0	0	0		0	0	0	0	0
OZONE BUILDING	West		-		-	-	-	-	-	-	-	-		-	721		-	119		-	-		-	-	-	-	INCLUDED
	South	-	-		-			-	•		-			-	343		-	72	-	-	-	-	-	-	-	-	INCLUDED
	East	-	-		-	-	-		÷	-		-		-	721	-	-	137	-		-	-	-	-	-	-	INCLUDED
	North	-	-	-	-		-	-	-		-			-	373		-	98		-	-		-			-	INCLUDED
	TOTAL	0	0	0	0	0	0	0	0	0	_0_			0	2158	0	0	426	0	0	0		0	0	0	0	0
MAINTENANCE	North	-	-	-	-		-	-	•		-	-	_	-	117		-	32		-	-		-	-		-	INCLUDED
	West	-			-	-		-			-	-		-	117		-	36		-	-		-	-		64	INCLUDED
	South			-	-	-			•		-	-		-	218	-	-	32	-	-	-		-	-	-	-	INCLUDED
	East				-					-	-			-	218		-		-	-	-		-		-	-	INCLUDED
	TOTAL	0	0	0	0	0	0	0	0	0	0_	0	0	0_	670	0	0	100	0	0	0	0_	0_	0	0	64	0
RECARB	North	-		-	-	-		-	=		-	-		-	65		-	29		-	-		-			-	INCLUDED
	South	-	•	-	-	-	-	-	•		-			-	65		-			-	-		-	-		-	INCLUDED
	West	-			-	-	-	-	•		-	-		-	73		-			-	-		-			-	INCLUDED
	East			-	-	-		-		-	-	-		-	73	-	-			-	-		-	-		-	INCLUDED
	TOTAL	0	0	0	0	0	0	0	0	0	0	0_	0	0_	276	0	0	29	0	0	0	0	0	0	0	0	0
GENERATOR	West	-			-							-	-	-	72	-	-	27		<u>-</u>			-	-		_	INCLUDED
	South	-	-		-	-	-	-	-		-	-	-		246	-	-		-	-	-	-	-	-		-	INCLUDED
	East		-		-		-	-	-	-	_	-		_	102		-	-	-	-	-	-	-	-	_	-	INCLUDED
	North	-	-		-		-	-							219	-	-	-			-		-	-	-	-	INCLUDED
	TOTAL	0	0	0	0	0	0	0	0	0	_0	_0	_0	_0_	639	0	0	27	0	0	0		0	0	0		0
AMMONIA	North	-	-	-	-	-	•		-	-	-	-		-	-	-	-	-	-	-	-		-	-		-	-
	South	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	-	-	-	-	-	-	-	-		-
	West	-	-	-	-	-	•		•	-	-	-		-		-	-	-	-	-	-		-	-		-	-
	East	-	-	-	-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-		-		-	-	-
	TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0

Structure (Control of San Steel)

Total Building Envelope Management Solutions
4777 Campus Drive • Kalamazoo, MI 49008
1121 Lake Cook Road, Ste C • Deerfield, IL 60015
473 Airport Road, Ste 1 • Butler, PA 16002
34119 W. Twelve Mile Road, Ste 270 • Farmington Hills, MI 48331

OUT BUILDINGS QUANTITY SUMMARY

WATER TREATMENT PLANT CITY OF ANN ARBOR SUNSET RD. ANN ARBOR, MI 919

48103

REVISIONS / ADDENDA:

SCALE:

N.T.S.

APPROVED BY:

C.A.H.

DRAWN BY: R.M.K.F.

DATE: NOVEMBER 2018

PROJECT NUMBER: T18074

DRAWING NUMBER: E - 0.3

Building	Elevation	R1-TP (SF)	R1-BR (SF)	R1.1-TP (SF)	R1.1-BR (SF)	R2-TP (SF)	R2-BR (SF)	R2.1-TP (SF)	R2.1-BR (SF)	R3 (LF)	R4 (LF)	R5 (LF)	R6 (LF)	R7 (LF)	R8 (LF)	R9 (LF)	R10 (LF)	R11 (LF)	R12 (SF)	R13 (LF)	R14 (SF)	R15 (SF)	R16 (SF)	R17 (SF)	R18 (SF)	R19 (SF)	R20
BARTON PUMPING ST	West	-	-	25	5	-	-	-		-	-	-		-			-	-			-			-			-
	East	-		25	5			-		_							-	-		-			-				
	South		-	25	5	-		-	-	_		-			-		-	-			-		-	-		-	-
	North	-	-	25	5	-		-				-			-			-			-		-			-	
	TOTAL	0	0	100	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	_0_	0	0	0	0
INDUSTRIAL PUMPING ST	East	300	5		-	-		-		_	-	-		-	-		-	-	-	-	_		-			-	INCLUDED
	West	130	5	10	0	-	-		-		-		4	-			-	33		-	-		-				INCLUDED
	South	481	10	10	0	=		-			-		31	-	14		-	81		-			-			-	INCLUDED
	North	430	10	10	0	-		-			-	-	31	-	14		-	88		-	-		-	-			INCLUDED
	TOTAL	1341	30	30	0		0	0	0	0	0	0	66	0	28	0	0	202	0	0	0	0	0	0	0		0
NORTH CAMPUS PUMP ST	West		-	25	5	-		-			-			-			-			-			-			-	INCLUDED
	South	-	-	50	10	-	-	-	<u>=</u>		-			-			-	37		-			-	-		-	INCLUDED
	East	-	•	25	5	-	-	-			-		9	-			-	27		-	-		-	-	-	-	INCLUDED
	North	-	-	50	10	-		-	-	-	-	_		-	43		-	-		-	-	-	-			-	INCLUDED
	TOTAL	0	0	150	30	0	0	0	0	0	0	0	9	0	43	0	0	64	0	0	0	_0_	0	0	0	0	0
LIBERTY PUMP STATION	East	-	-	25	5	-	-	-	-	-	-		-	-	-	_	-	-		-	-			-	-	-	INCLUDED
	South	-	-	50	10	-		-			-			-	_		-			-	-	-	-	_		-	INCLUDED
	West	-	-	25	5	-		-	-	-	-	-		-	-		-	-		-	-		-			-	INCLUDED
	North	-	-	20	10	-		-	-	-	-	-		-	-		-	68		-	-		-	-		-	INCLUDED
	TOTAL	0	0	120	30	0	0	0	0	0	0	0	0	0	0	0	0	68	0	0		0		0	0	0	0
SUPERIOR PUMP STATION			*					-		-	-	-		-	34	-	-	40	5	10	-		520	-	-	-	INCLUDED
	North		•	•	-	•	•	-	•	-	-	-	-	-	109	-	-	-	5	10	-	-	1000	-	-	-	INCLUDED
	West	•	-		•	-		-	•		-	-		-	34	-	-	16	5	10	-		570	-		-	INCLUDED
	South	•	-		-	-	-	-		-	-	-	-	-	65	-	-	•	5	10		-	660	-	-	-	INCLUDED
	TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	242	0	0	-56	20	40	0	0	2750	0	0	0	0

Structure (Control of San Steel)

Total Building Envelope Management Solutions
4777 Campus Drive • Kalamazoo, MI 49008
1121 Lake Cook Road, Ste C • Deerfield, IL 60015
473 Airport Road, Ste 1 • Butler, PA 16002
34119 W. Twelve Mile Road, Ste 270 • Farmington Hills, MI 48331

- OUTSTATIONS QUANTITY SUMMARY

WATER TREATMENT PLANT CITY OF ANN ARBOR SUNSET RD. ANN ARBOR, MI 919

48103

REVISIONS / ADDENDA:

SCALE:

N.T.S.

APPROVED BY:

C.A.H.

DRAWN BY: R.M.K.F.

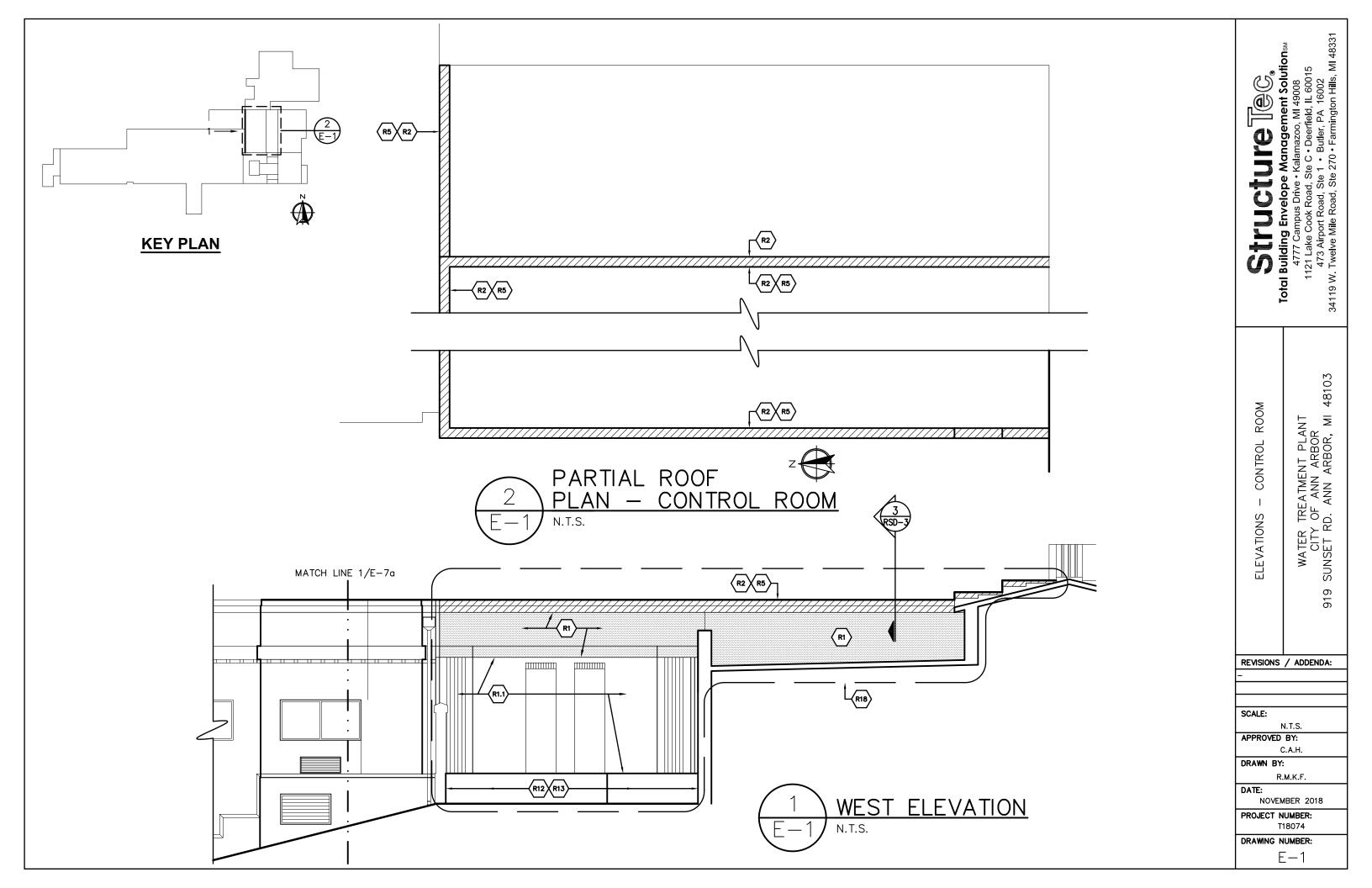
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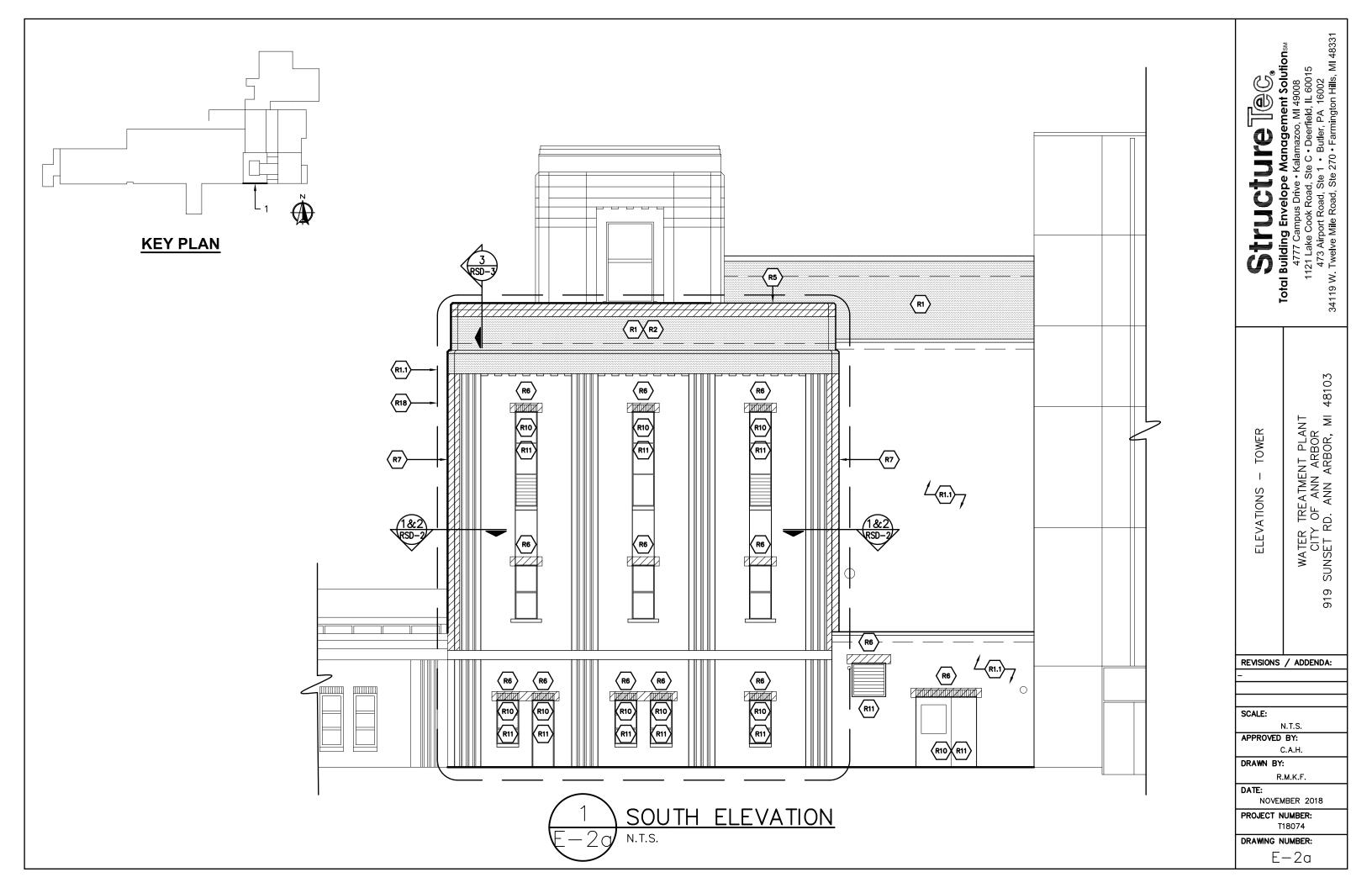
NOVEMBER 2018

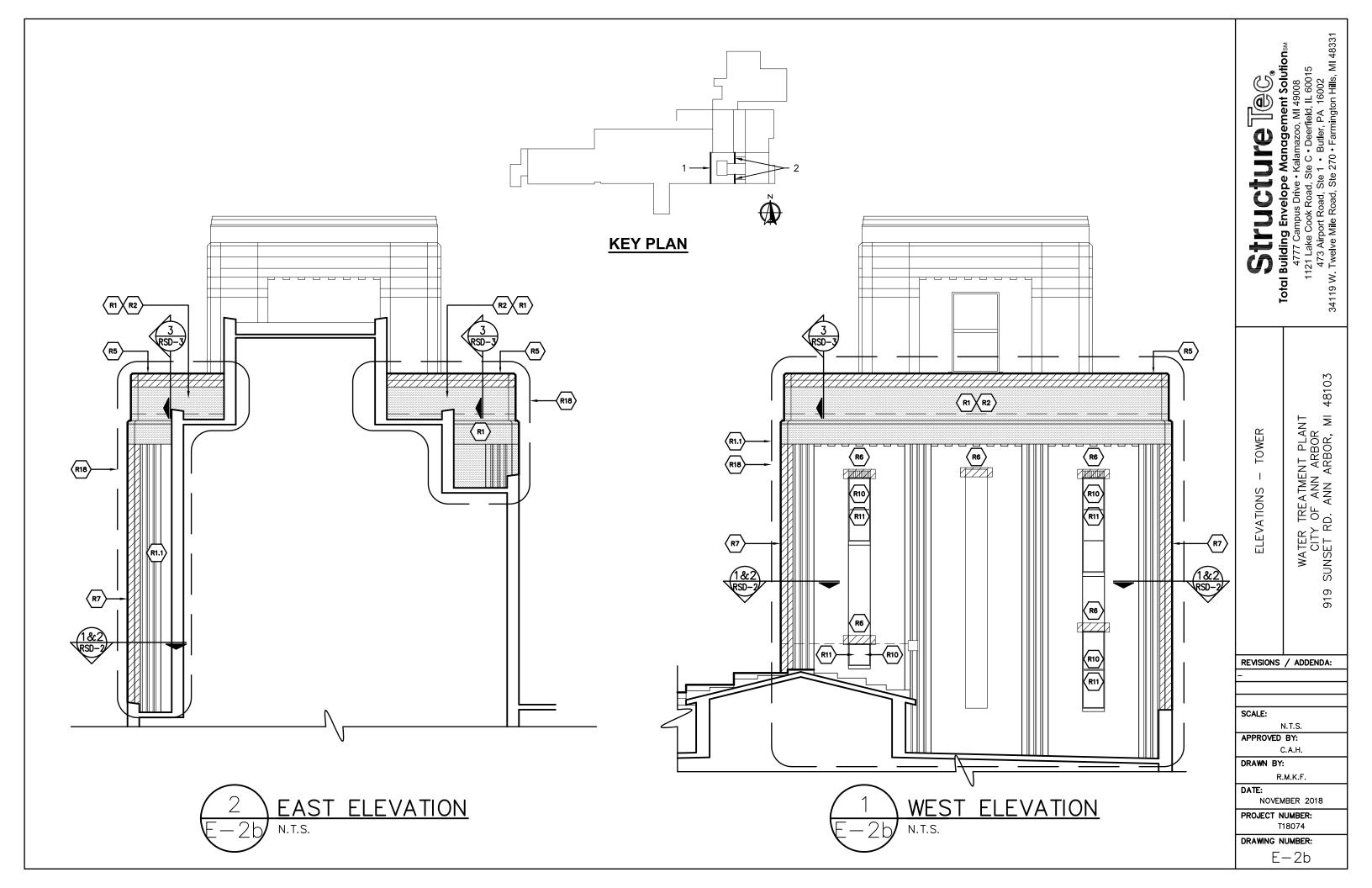
PROJECT NUMBER: T18074

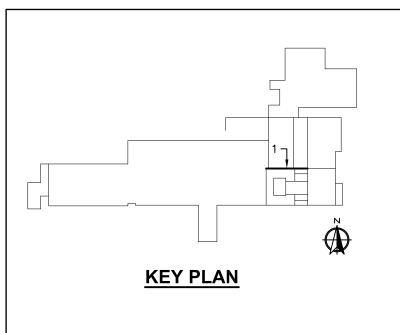
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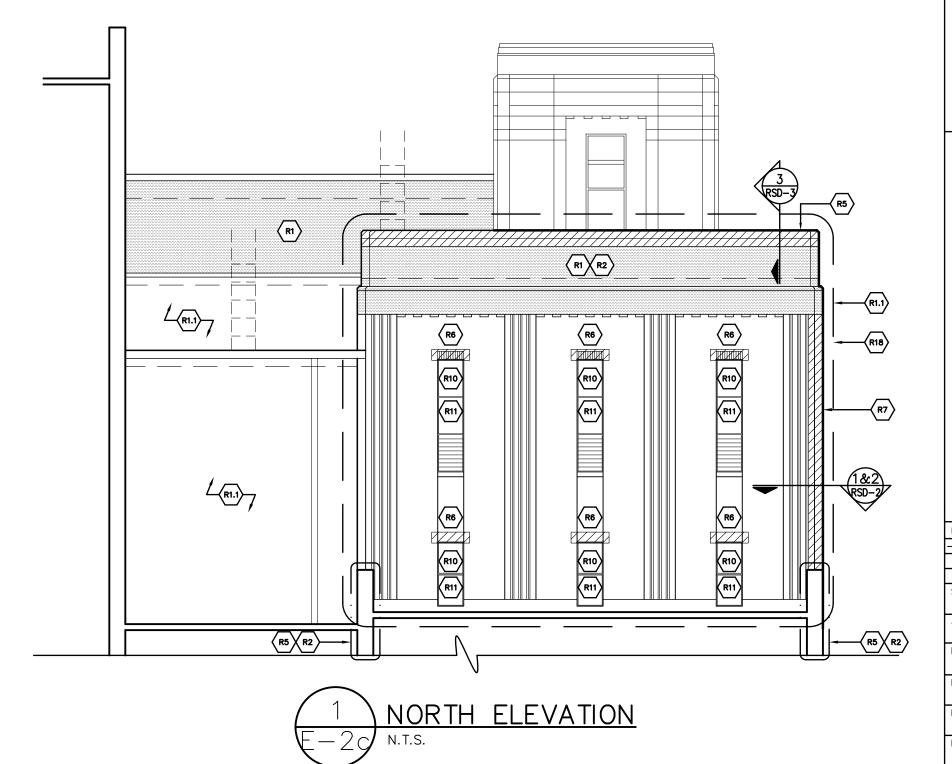
E - 0.4











Structure (Control of Sunday Structure)

Total Building Envelope Management Solutions
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473 Airport Road, Ste 1 • Butler, PA 16002
34119 W. Twelve Mile Road, Ste 270 • Farmington Hills, MI 48331

TOWER

ELEVATIONS

WATER TREATMENT PLANT CITY OF ANN ARBOR SUNSET RD. ANN ARBOR, MI 48103 919

REVISIONS / ADDENDA:

SCALE: N.T.S.

APPROVED BY:

C.A.H.

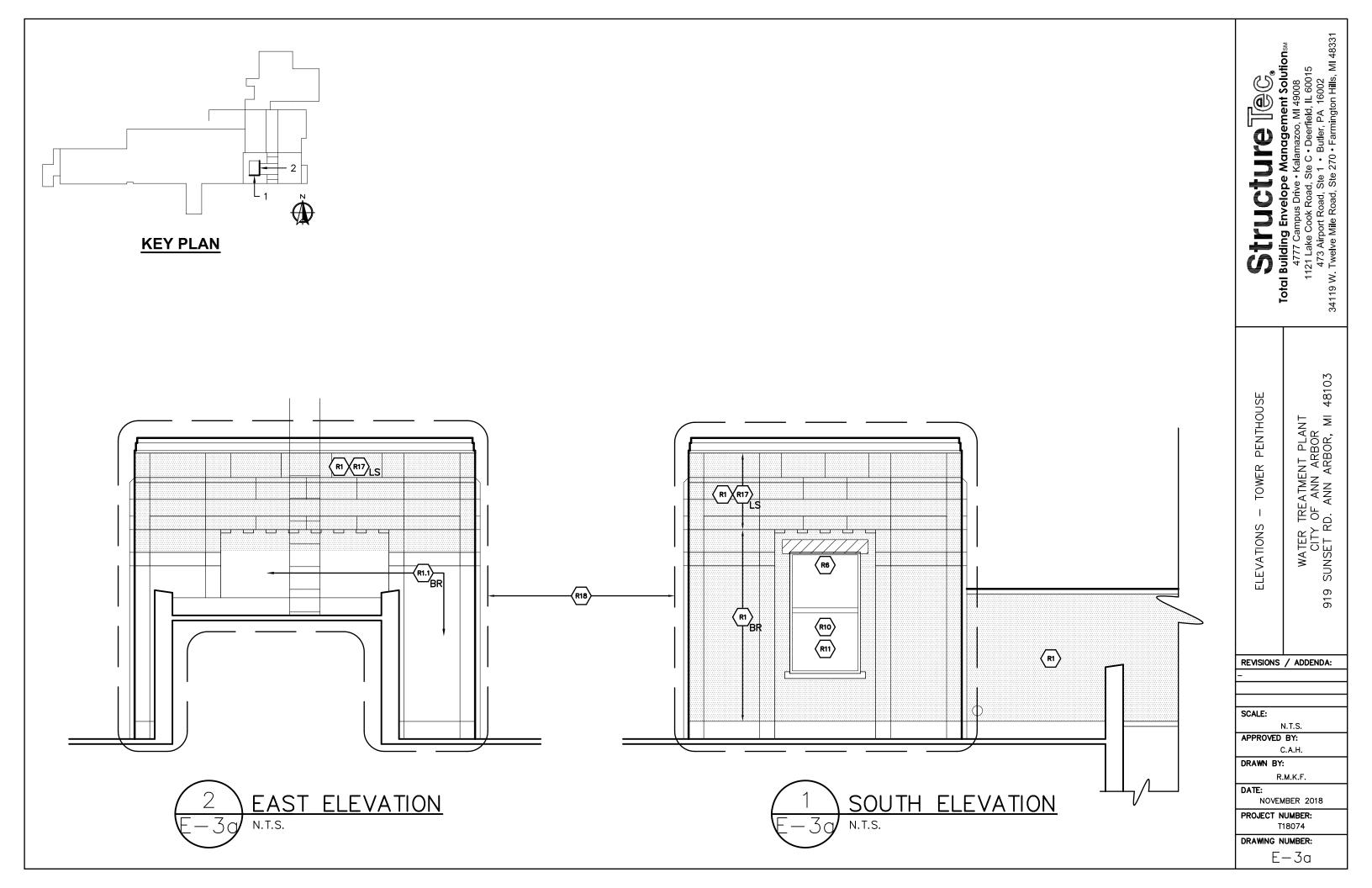
DRAWN BY: R.M.K.F.

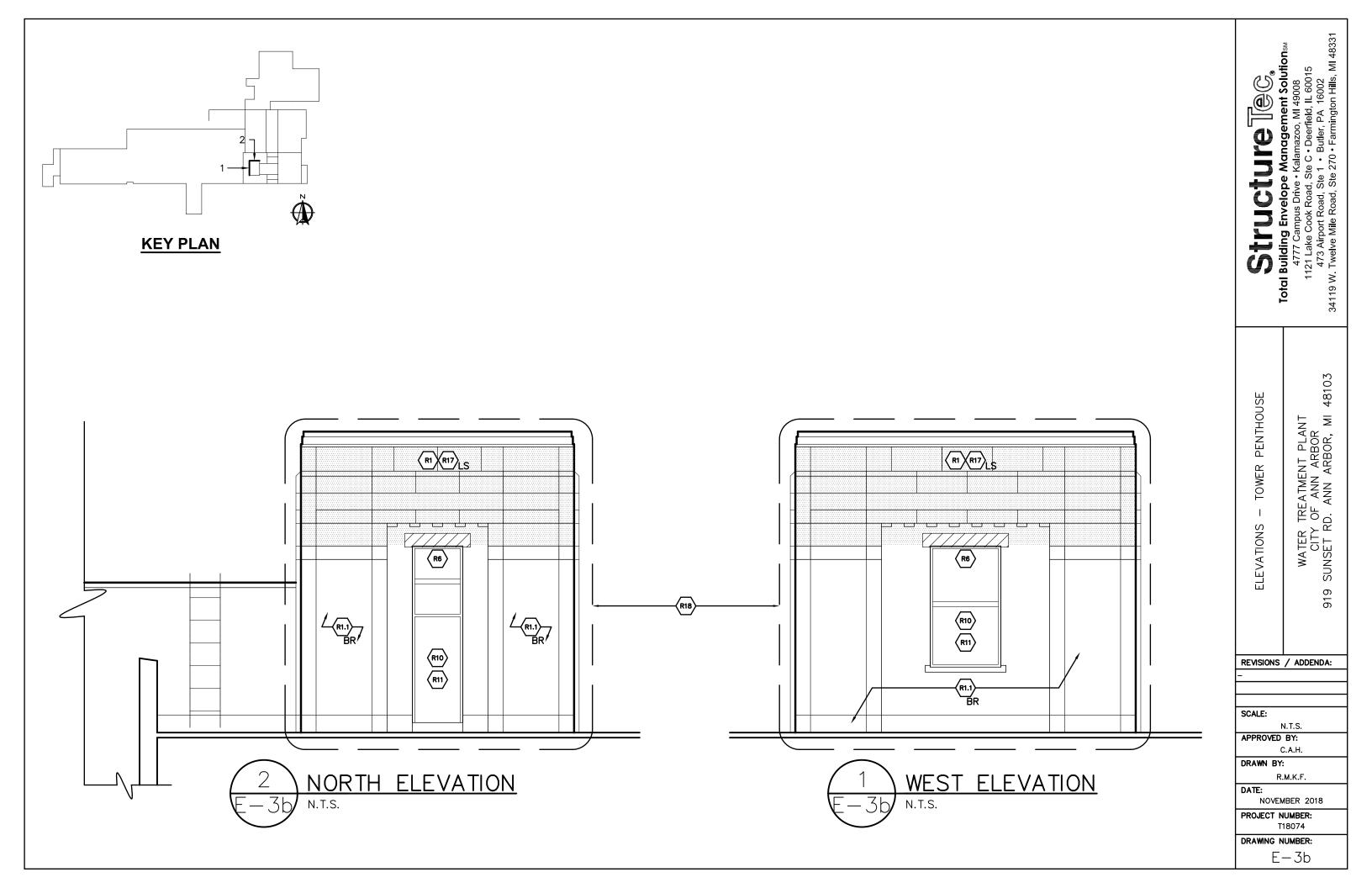
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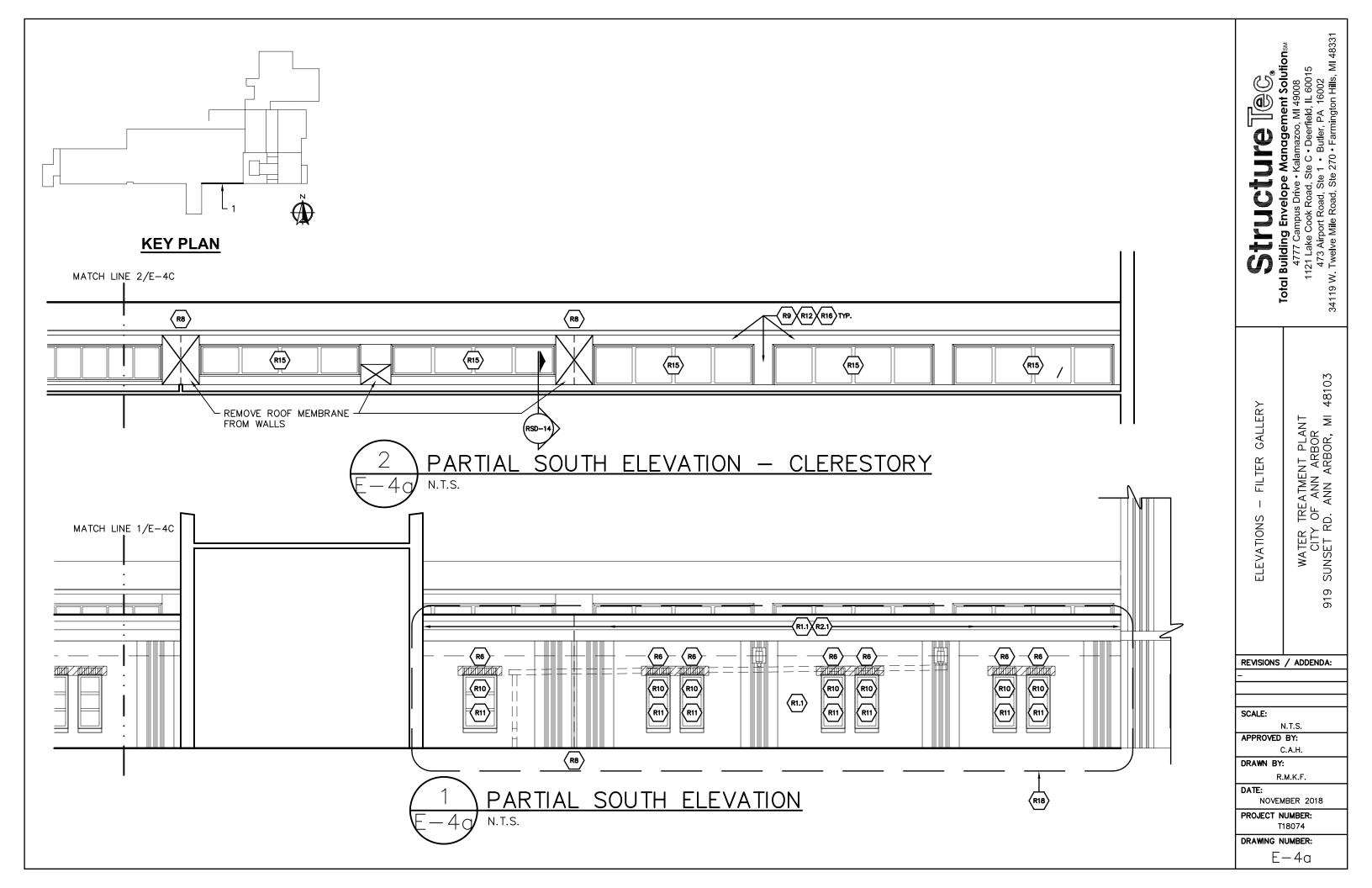
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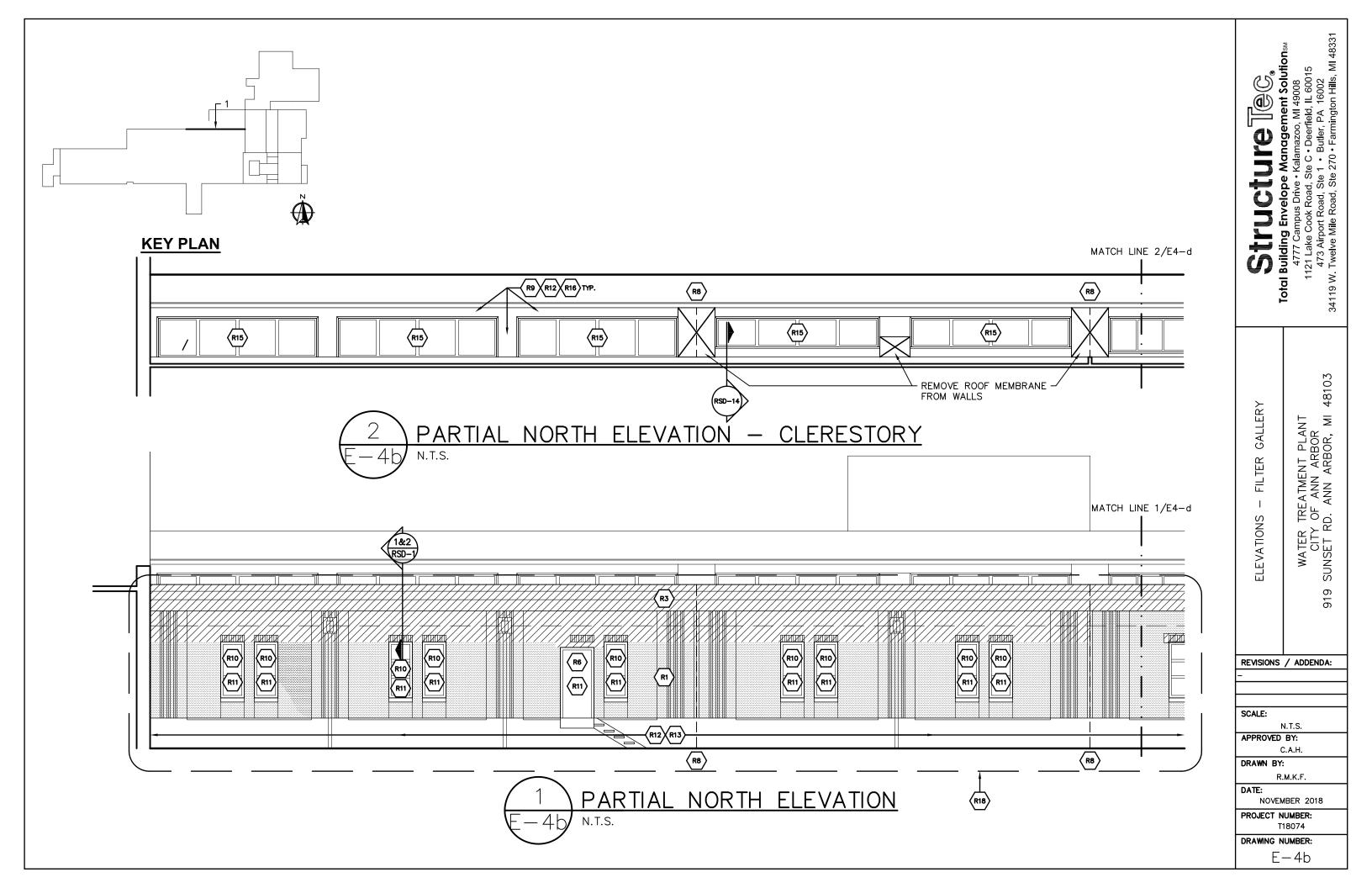
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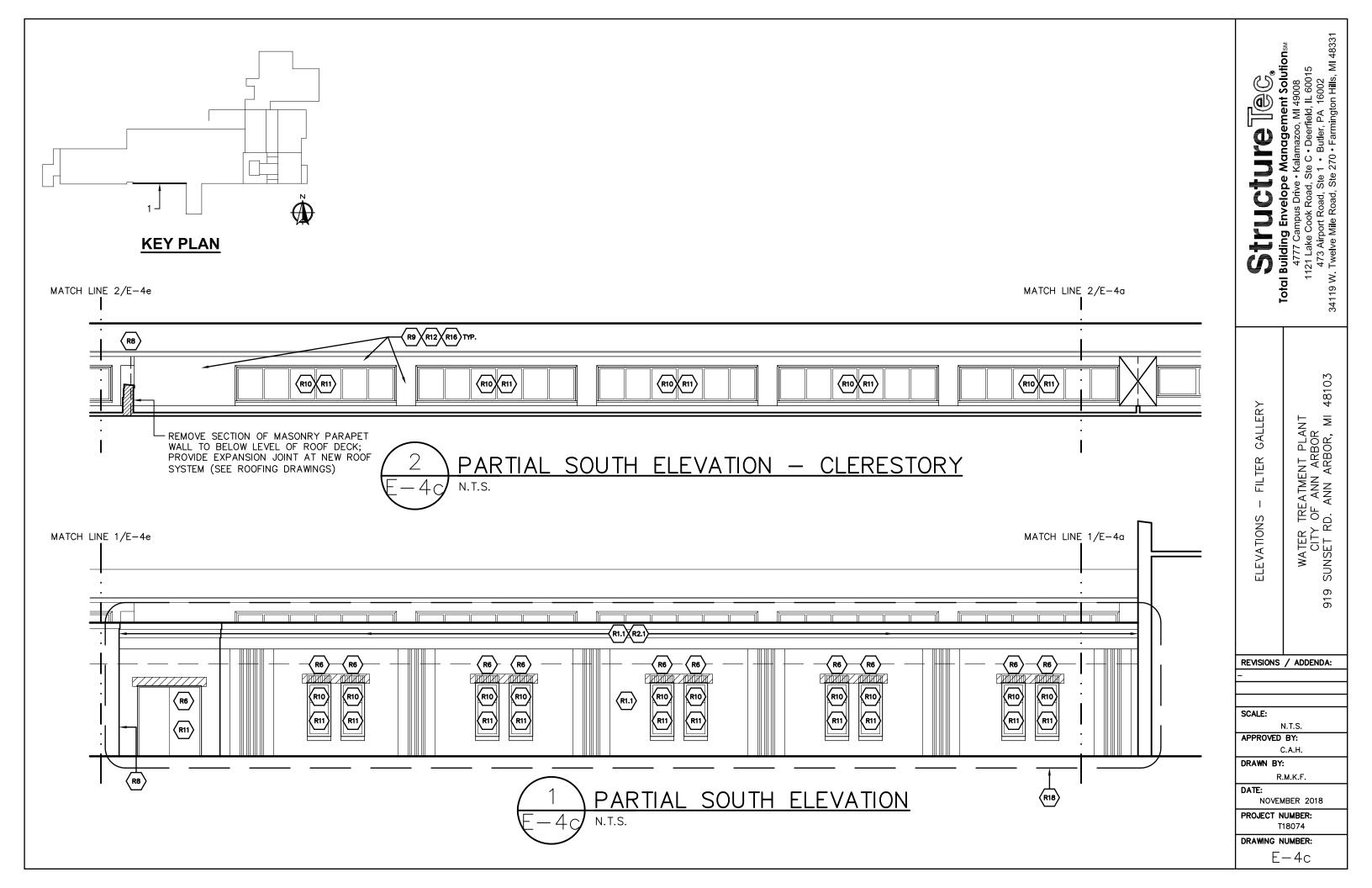
E-2c

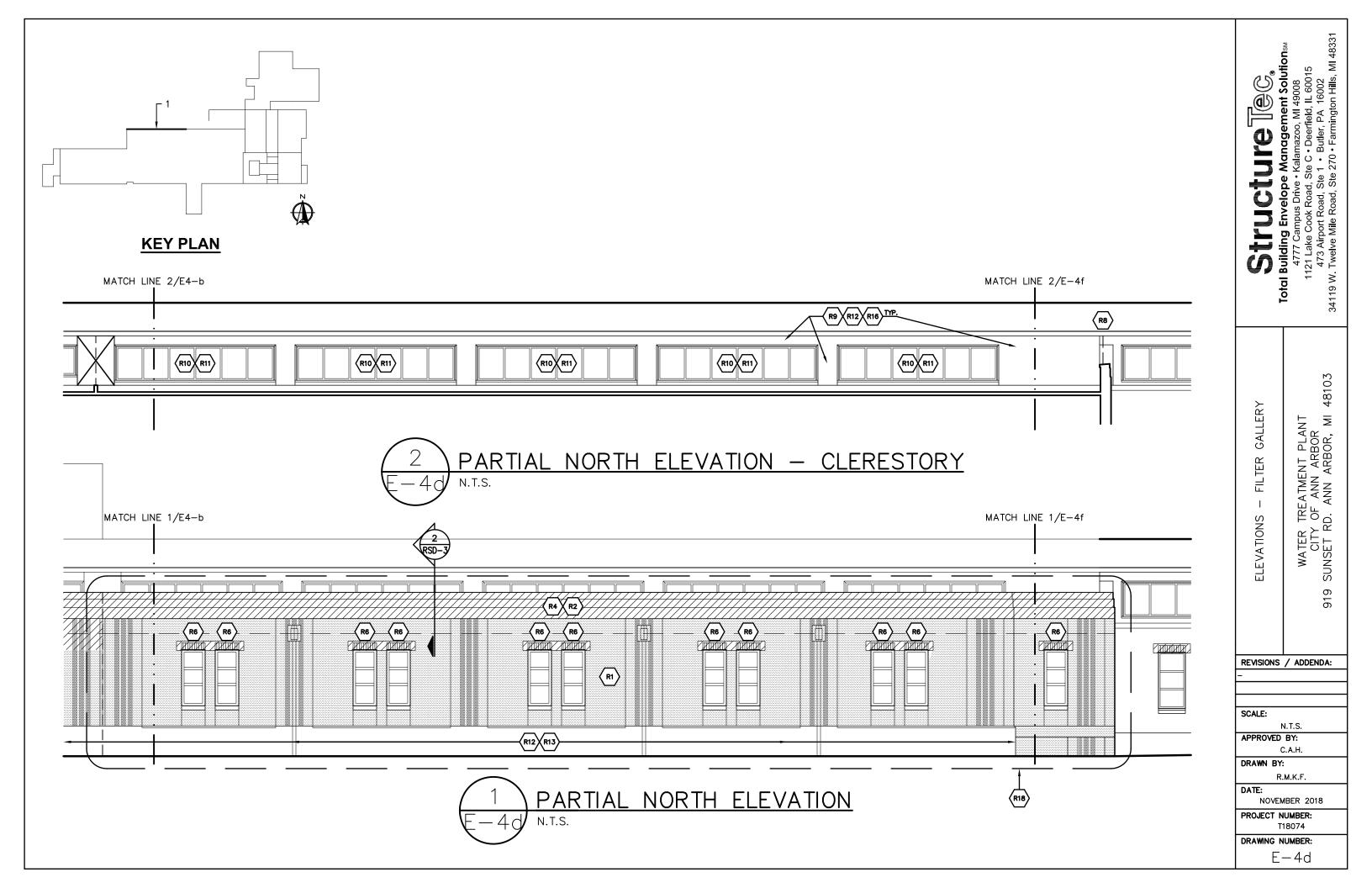


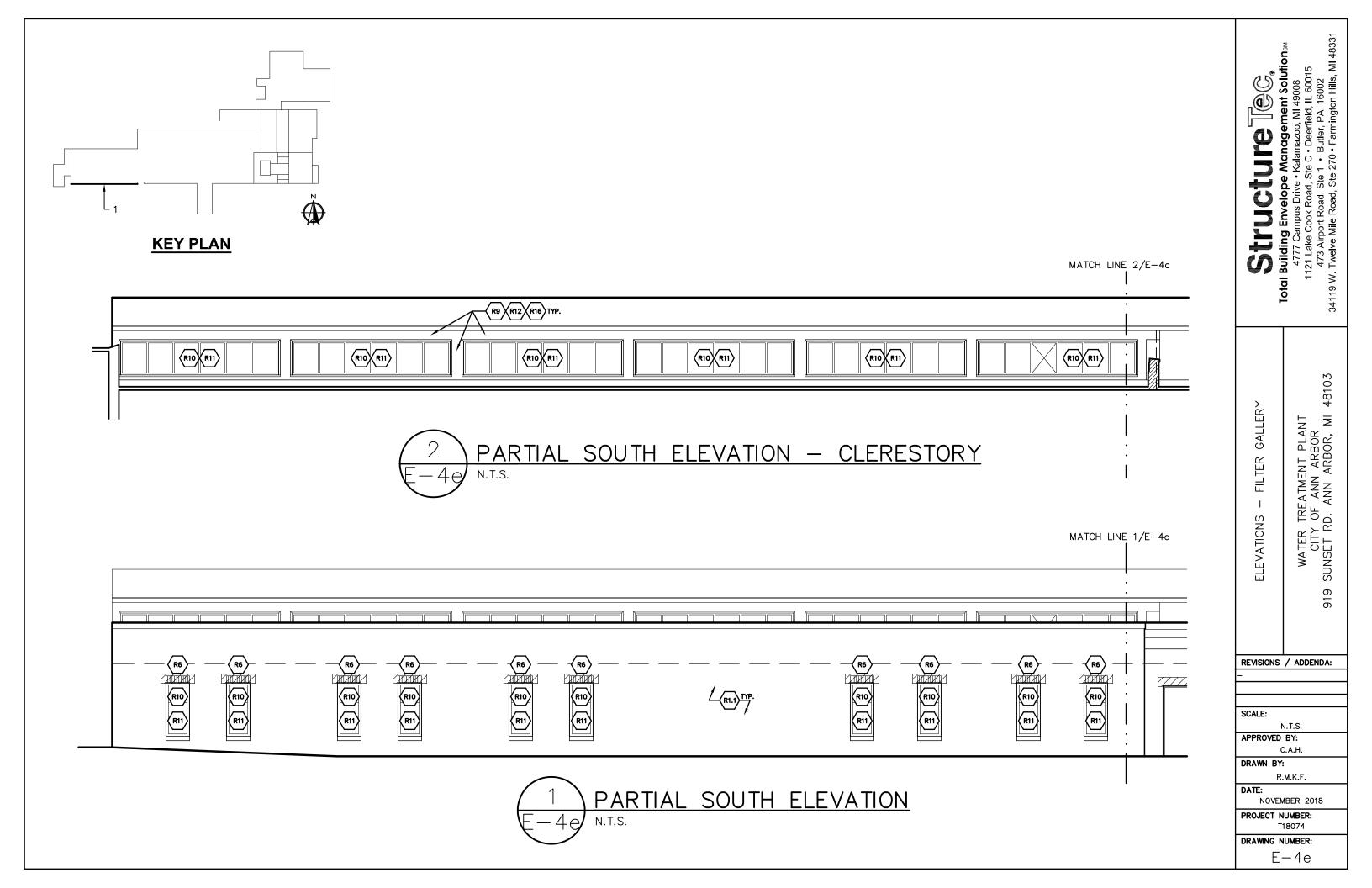


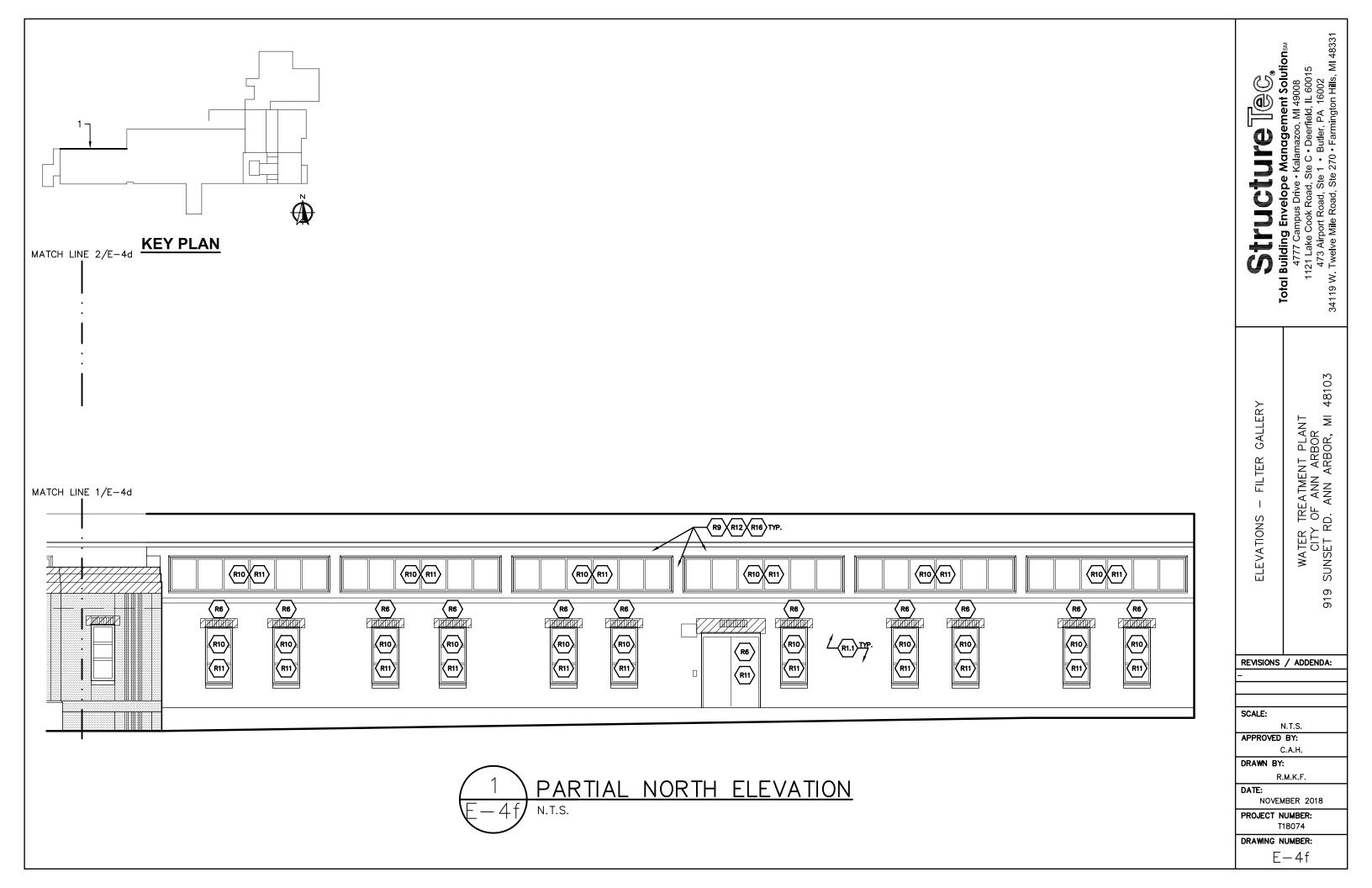


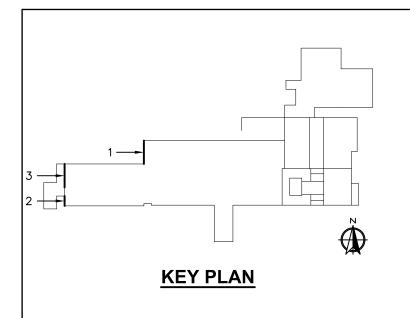


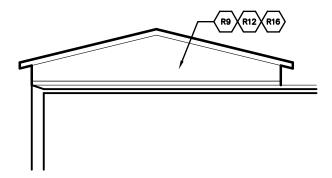




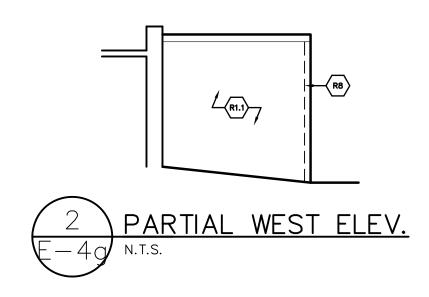


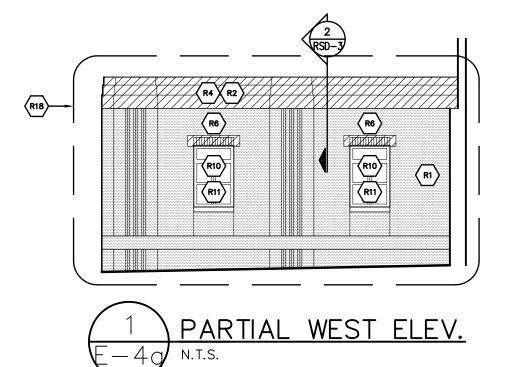






WEST ELEVATION - CLERESTORY





Total Building Envelope Management SolutionsM 4777 Campus Drive • Kalamazoo, MI 49008 1121 Lake Cook Road, Ste C • Deerfield, IL 60015 473 Airport Road, Ste 1 • Butler, PA 16002 34119 W. Twelve Mile Road, Ste 270 • Farmington Hills, MI 48331

FILTER GALLERY ELEVATIONS

WATER TREATMENT PLANT CITY OF ANN ARBOR SUNSET RD. ANN ARBOR, MI

48103

REVISIONS / ADDENDA:

SCALE:

N.T.S.

APPROVED BY:

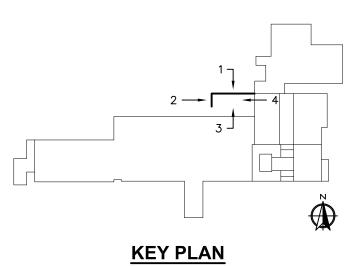
C.A.H.

DRAWN BY:

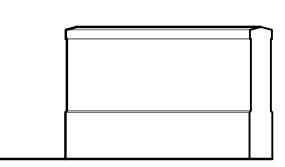
DATE: NOVEMBER 2018

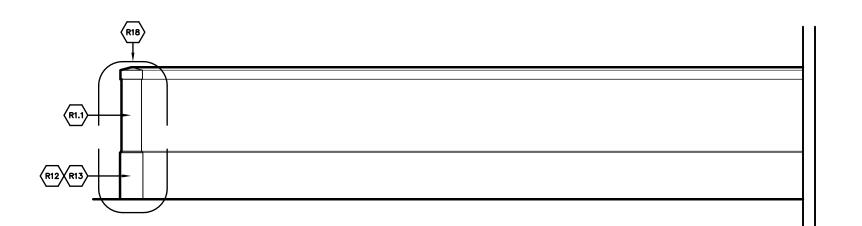
PROJECT NUMBER: T18074

DRAWING NUMBER: E-4g



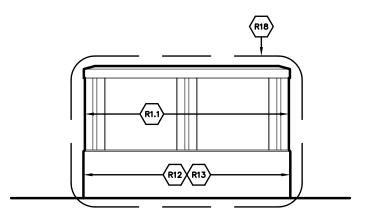


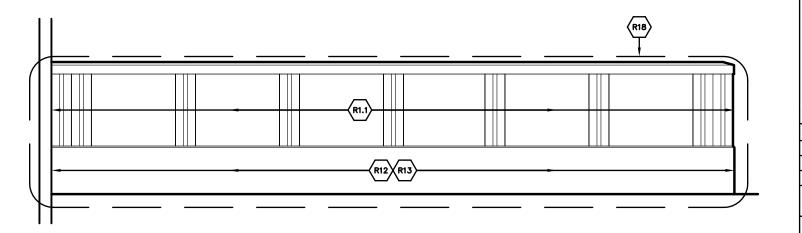




EAST ELEVATION - SCREEN WALL

SOUTH ELEVATION - SCREEN WALL





ELEVATION - SCREEN WALL N.T.S.

NORTH ELEVATION - SCREEN WALL

4777 Campus Drive • Kalamazoo, MI 49008 1121 Lake Cook Road, Ste C • Deerfield, IL 60015 473 Airport Road, Ste 1 • Butler, PA 16002 34119 W. Twelve Mile Road, Ste 270 • Farmington Hills, MI 48331 Structure Regenerity Solutions

SCREEN WALL - FILTER GALLERY

WATER TREATMENT PLANT CITY OF ANN ARBOR SUNSET RD. ANN ARBOR, MI 48103

REVISIONS / ADDENDA:

SCALE:

ELEVATIONS

N.T.S. APPROVED BY: C.A.H.

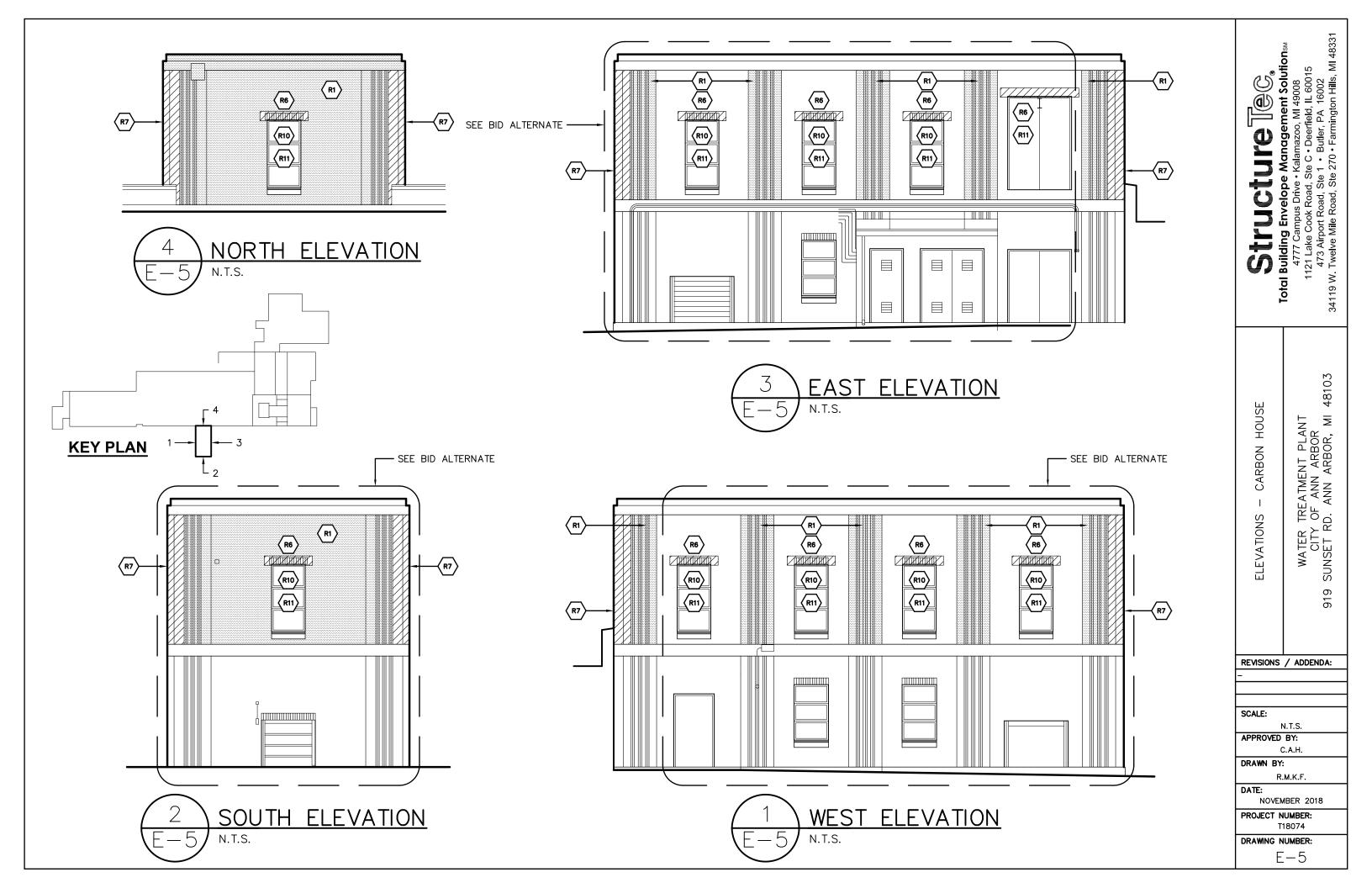
DRAWN BY: R.M.K.F.

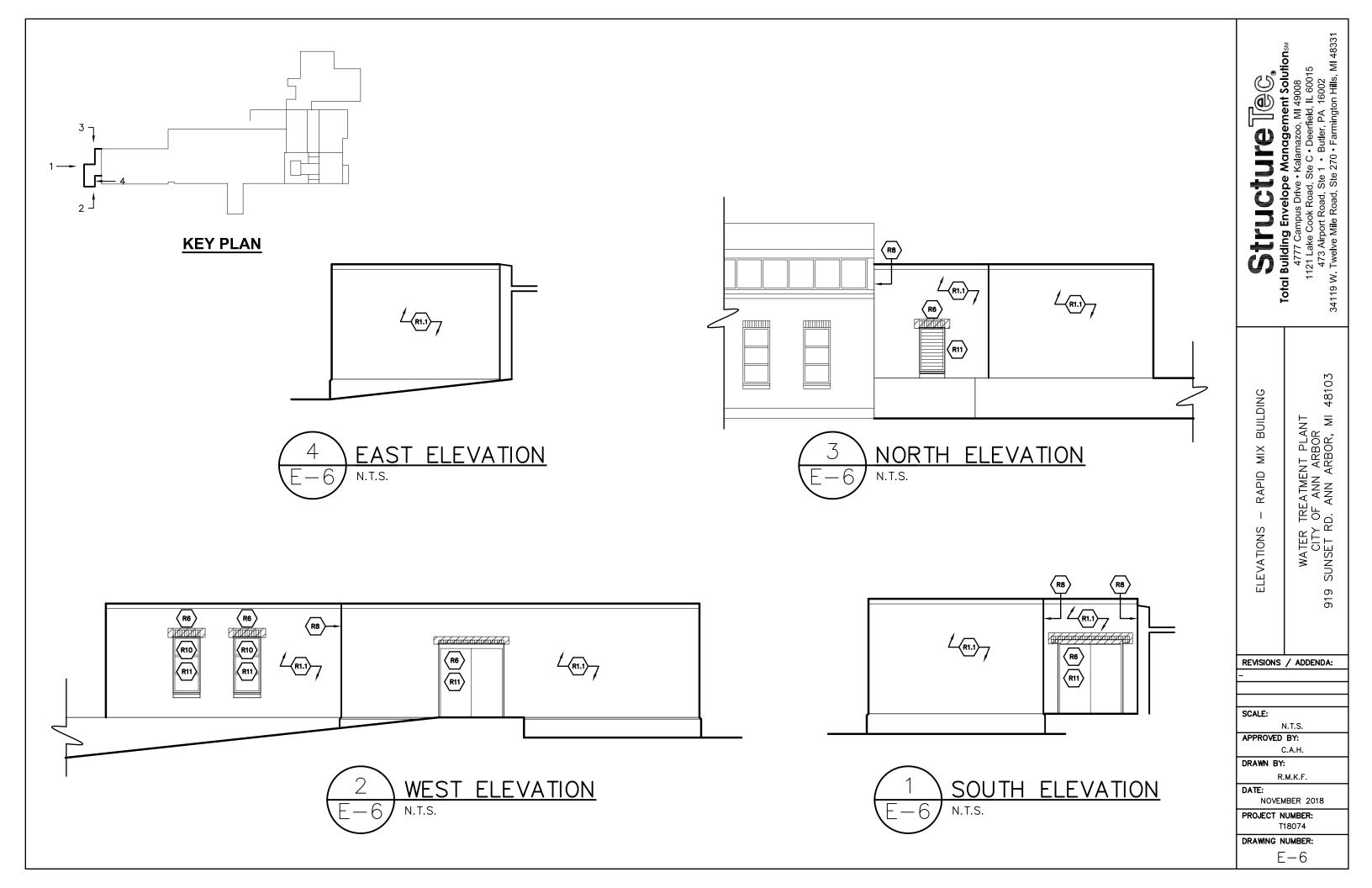
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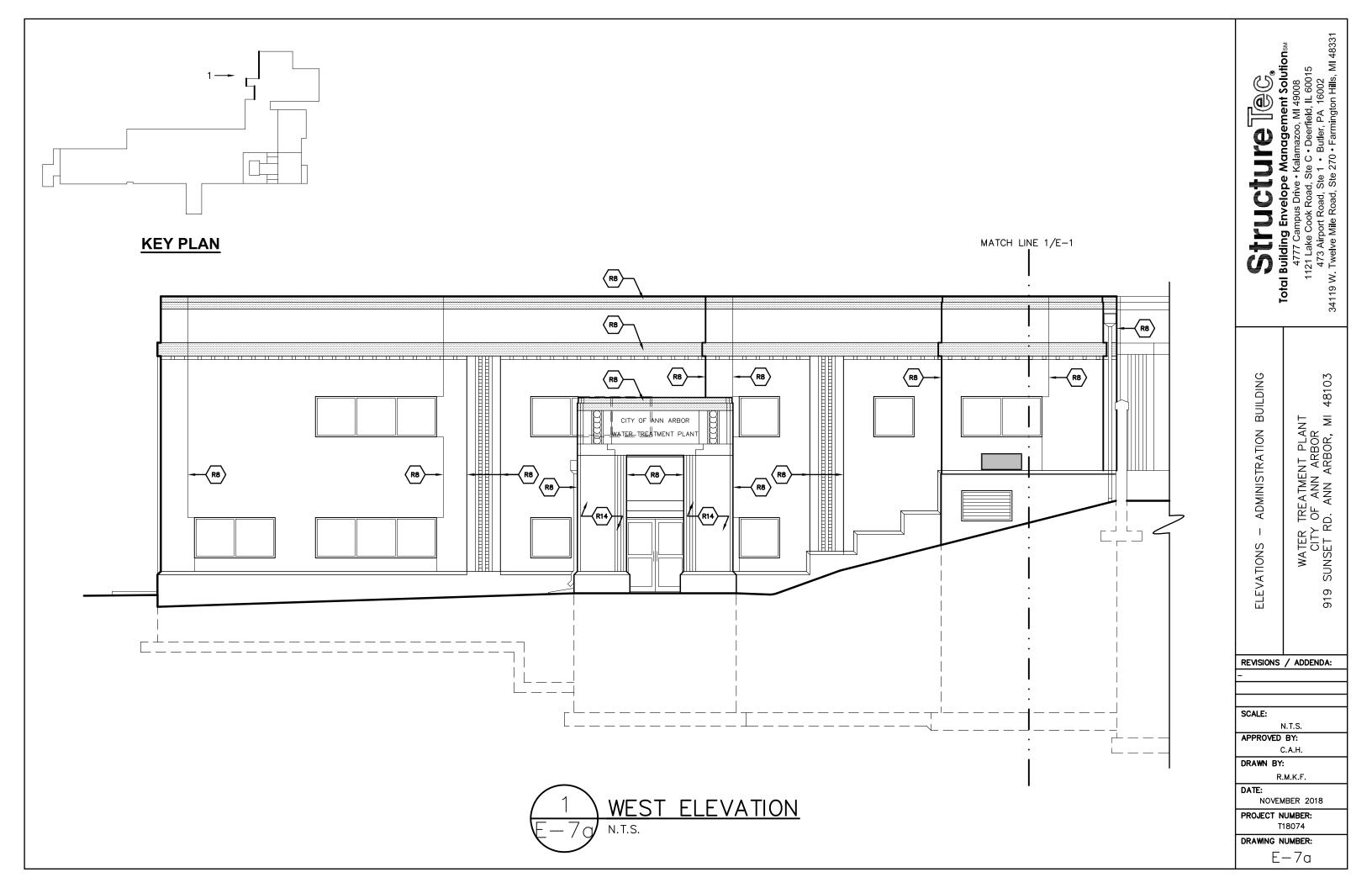
NOVEMBER 2018

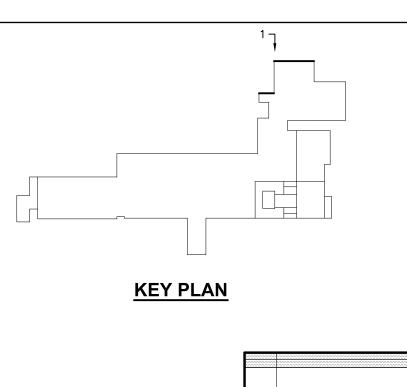
PROJECT NUMBER: T18074

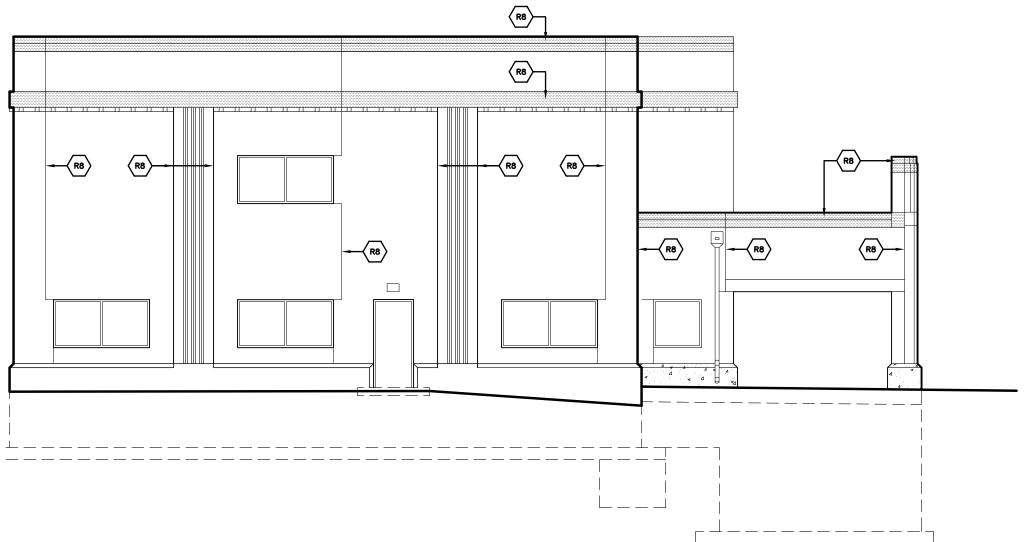
DRAWING NUMBER: E-4h













Structure (Control of Structure)

Total Building Envelope Management Solutions
4777 Campus Drive • Kalamazoo, MI 49008
1121 Lake Cook Road, Ste C • Deerfield, IL 60015
473 Airport Road, Ste 1 • Butler, PA 16002
34119 W. Twelve Mile Road, Ste 270 • Farmington Hills, MI 48331

ELEVATIONS - ADMINISTRATION BUILDING

WATER TREATMENT PLANT CITY OF ANN ARBOR 919 SUNSET RD. ANN ARBOR, MI

48103

ISIONS / ADDENDA

SCALE:

N.T.S.

APPROVED BY:

C.A.H.

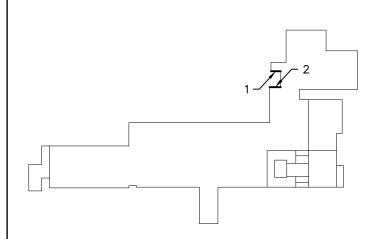
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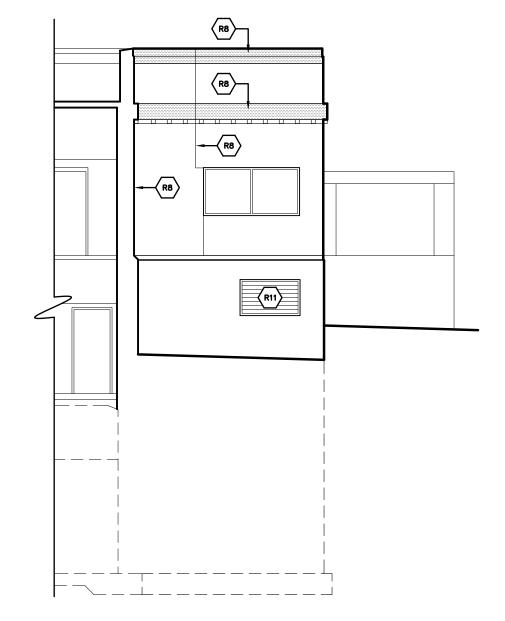
DATE:

NOVEMBER 2018

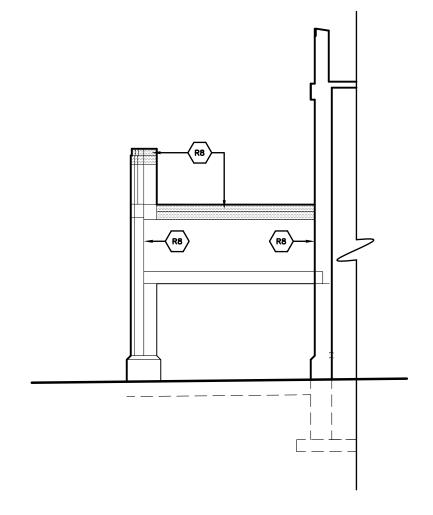
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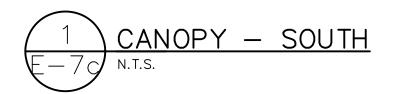
DRAWING NUMBER: E-7b





PARTIAL NORTH ELEV.
N.T.S.





Structure (Control of Sunday Structure)

Total Building Envelope Management Solutions

4777 Campus Drive • Kalamazoo, MI 49008

1121 Lake Cook Road, Ste C • Deerfield, IL 60015

473 Airport Road, Ste 1 • Butler, PA 16002

34119 W. Twelve Mile Road, Ste 270 • Farmington Hills, MI 48331

ELEVATIONS - ADMINISTRATION BUILDING

WATER TREATMENT PLANT CITY OF ANN ARBOR 919 SUNSET RD. ANN ARBOR, MI

48103

REVISIONS / ADDENDA:

SCALE:

N.T.S.

APPROVED BY:

C.A.H.

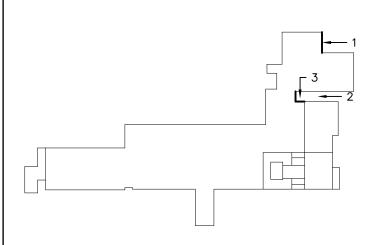
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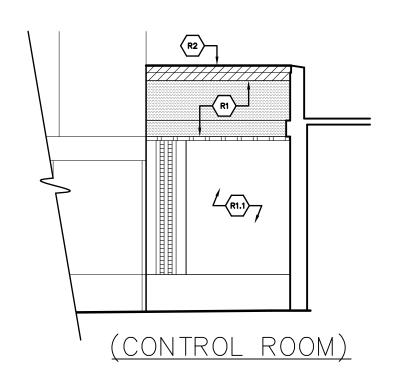
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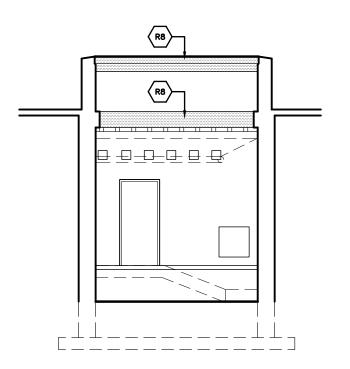
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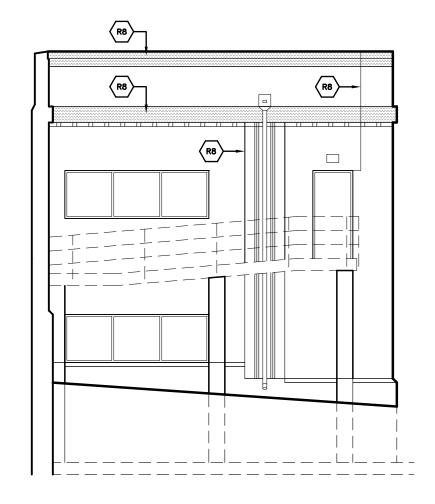
PROJECT NUMBER: T18074

DRAWING NUMBER:















Structure [@@.

Total Building Envelope Management Solutionsw
4777 Campus Drive • Kalamazoo, MI 49008
1121 Lake Cook Road, Ste C • Deerfield, IL 60015
473 Airport Road, Ste 1 • Butler, PA 16002
34119 W. Twelve Mile Road, Ste 270 • Farmington Hills, MI 48331

ELEVATIONS — ADMINISTRATION BUILDING
WATER TREATMENT PLANT

WATER TREATMENT PLANT CITY OF ANN ARBOR 919 SUNSET RD. ANN ARBOR, MI

48103

REVISIONS / ADDENDA:

SCALE:

N.T.S.

APPROVED BY:

C.A.H.

DRAWN BY:

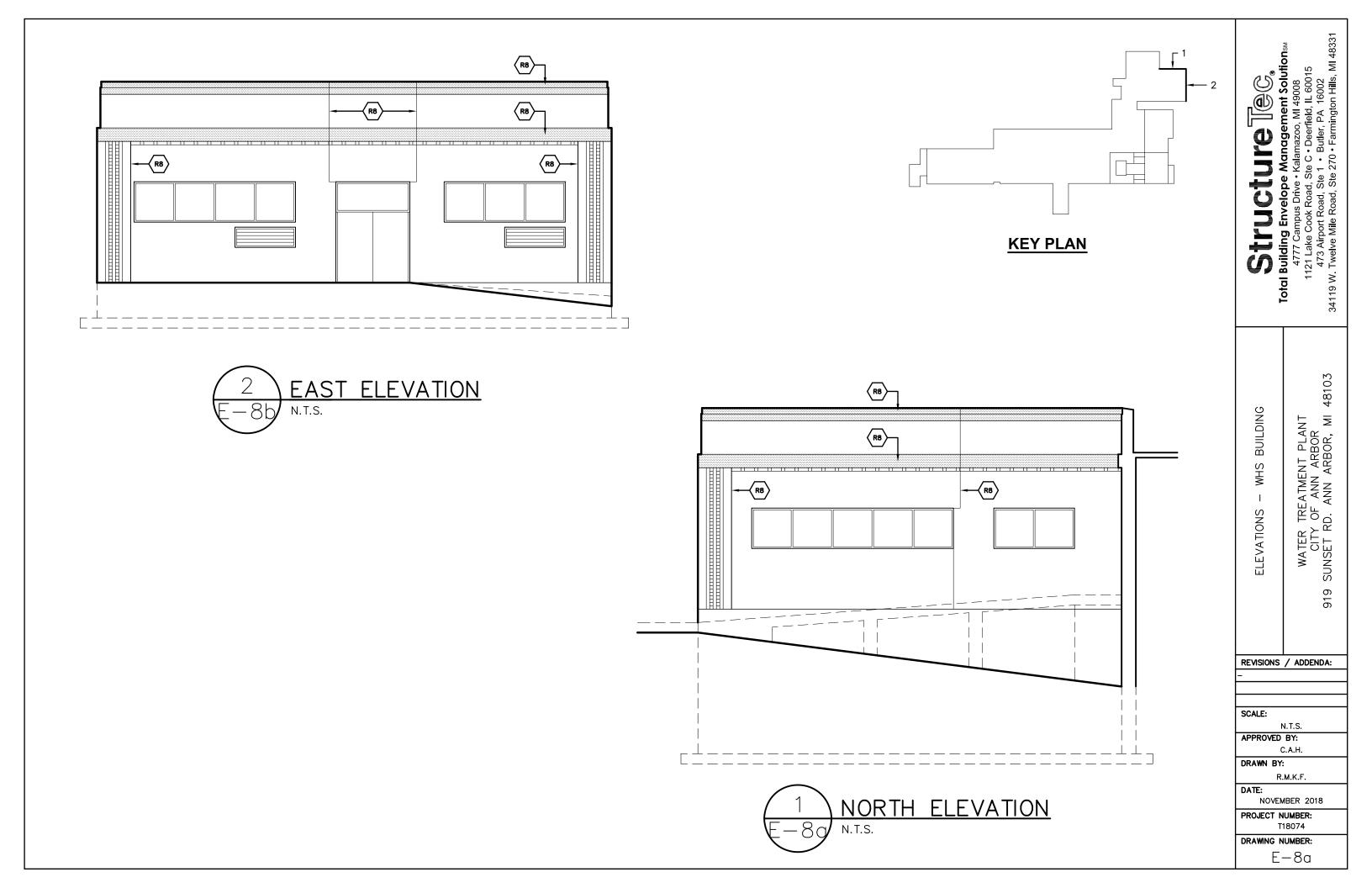
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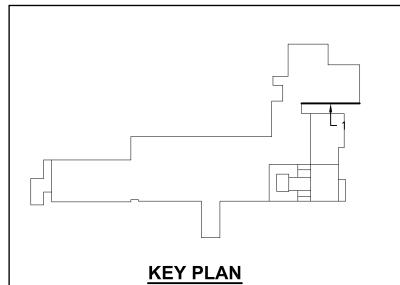
DATE: NOVEMBER 2018

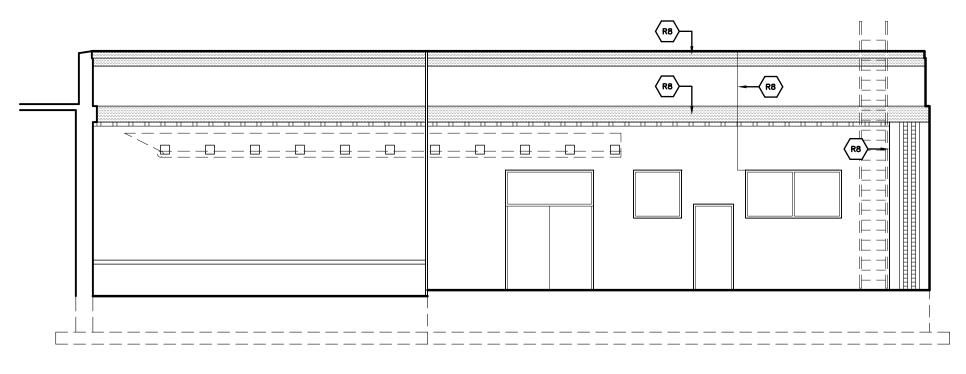
PROJECT NUMBER: T18074

DRAWING NUMBER:

E-7d









Structure (Control of Structure)

Total Building Envelope Management Solutions
4777 Campus Drive • Kalamazoo, MI 49008
1121 Lake Cook Road, Ste C • Deerfield, IL 60015
473 Airport Road, Ste 1 • Butler, PA 16002
34119 W. Twelve Mile Road, Ste 270 • Farmington Hills, MI 48331

WHS BUILDING ELEVATIONS

WATER TREATMENT PLANT CITY OF ANN ARBOR SUNSET RD. ANN ARBOR, MI 919

48103

REVISIONS / ADDENDA:

SCALE:

N.T.S.

APPROVED BY:

C.A.H. DRAWN BY:

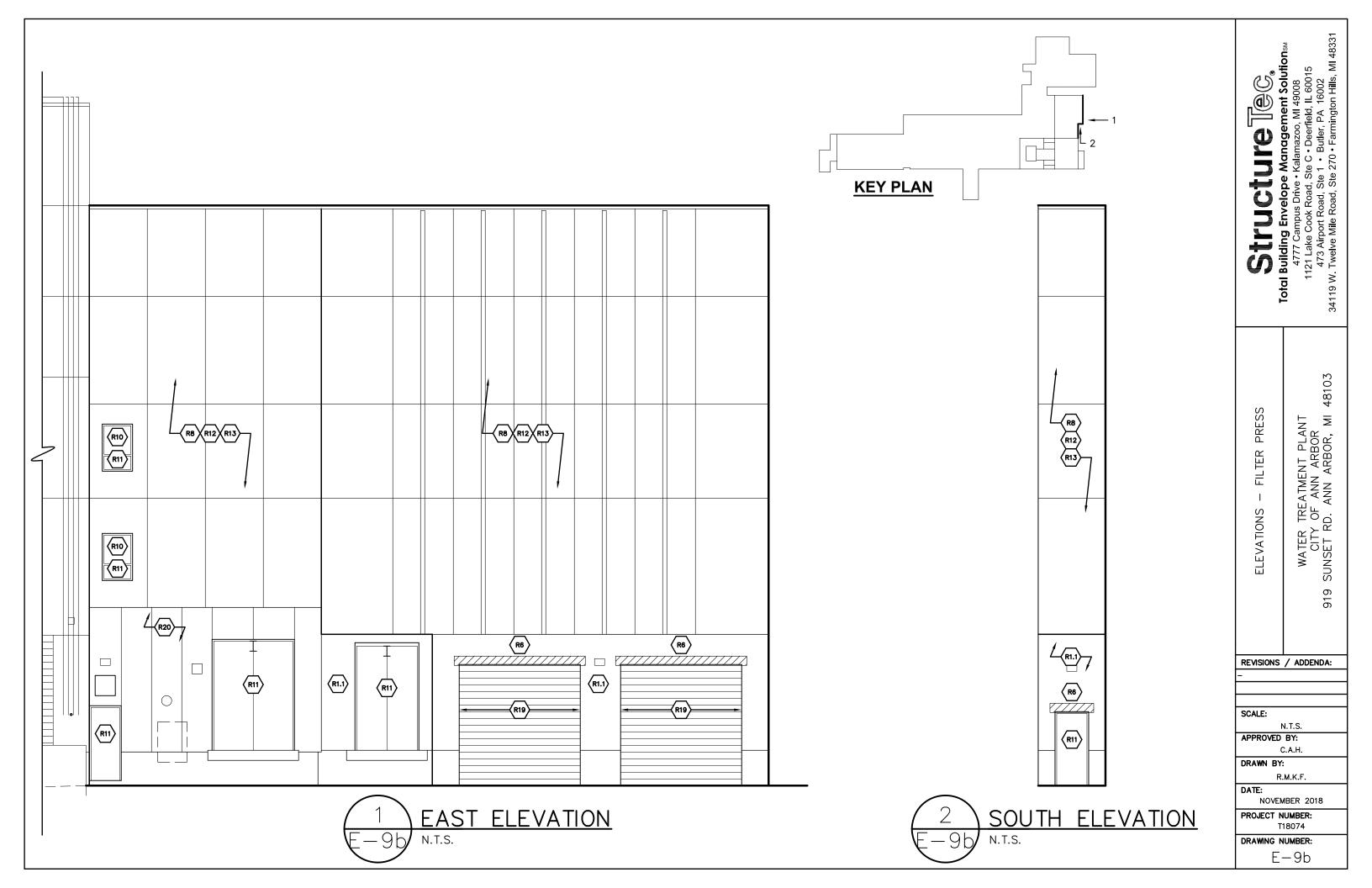
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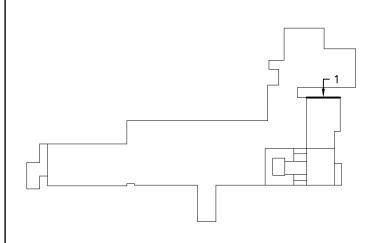
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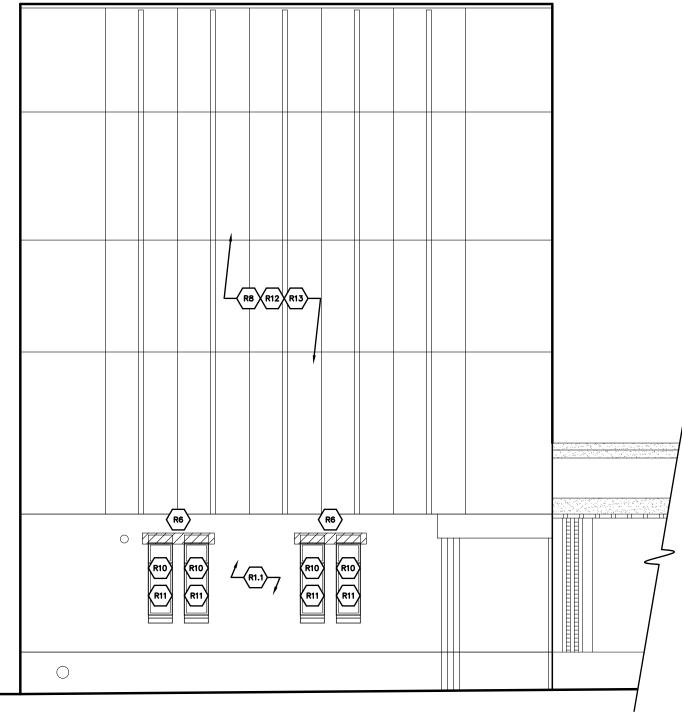
DRAWING NUMBER:

E-8b











Structure | Color | Co

ELEVATIONS — FILTER PRESS

WATER TREATMENT PLANT CITY OF ANN ARBOR 919 SUNSET RD. ANN ARBOR, MI 48103

REVISIONS / ADDENDA:

SCALE:

N.T.S.

APPROVED BY:

C.A.H.

DRAWN BY:

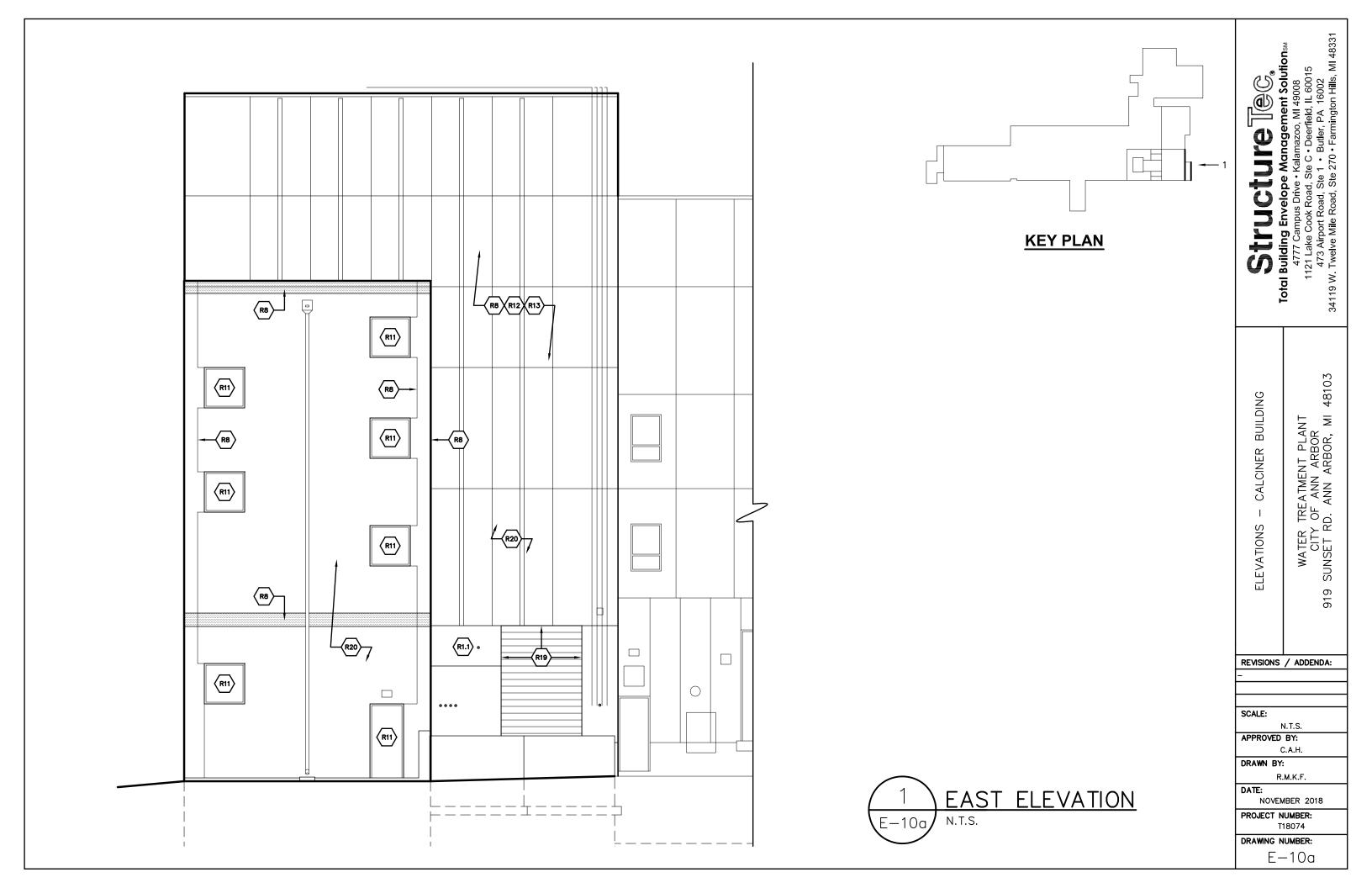
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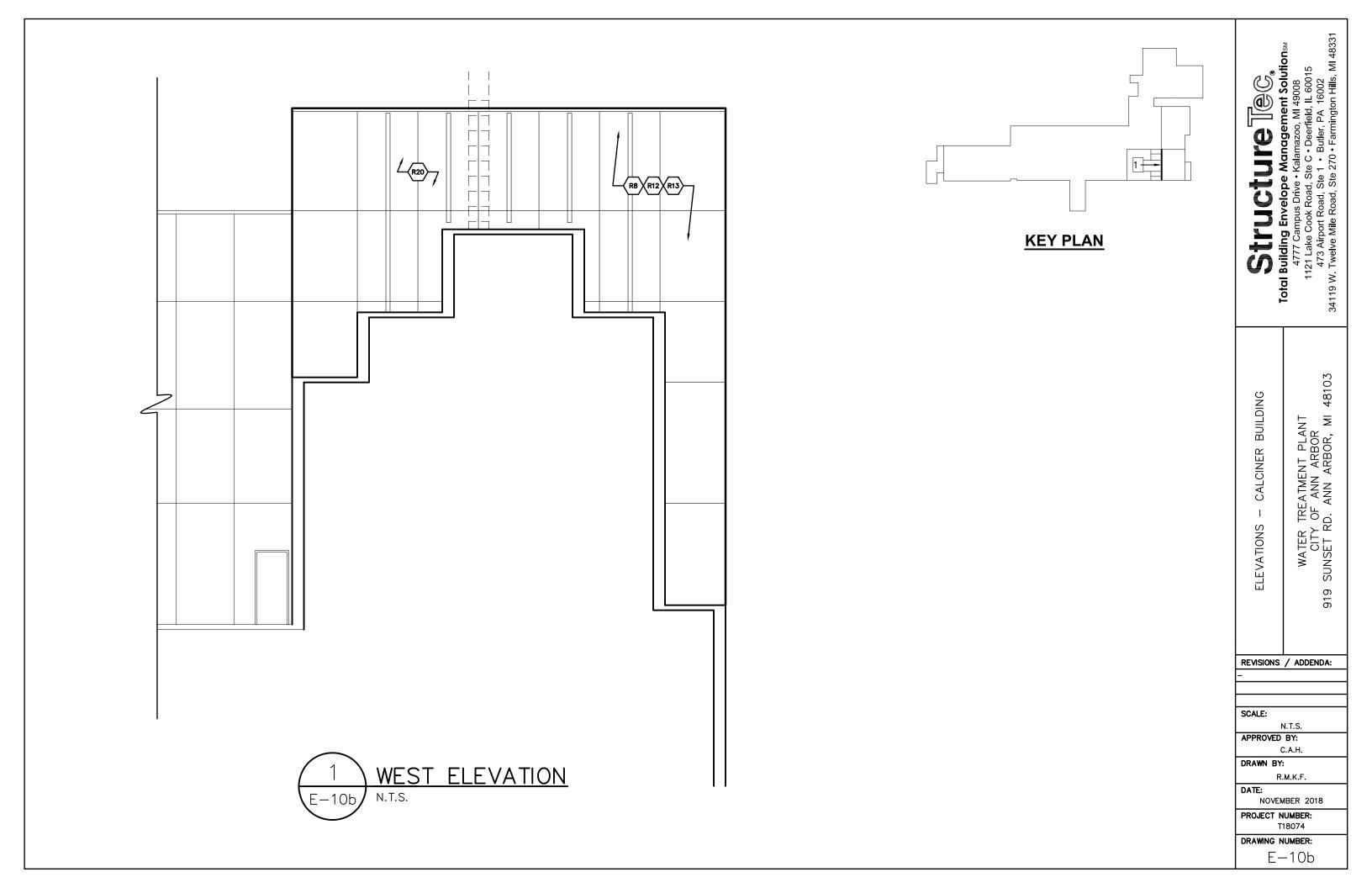
DATE: NOVEMBER 2018

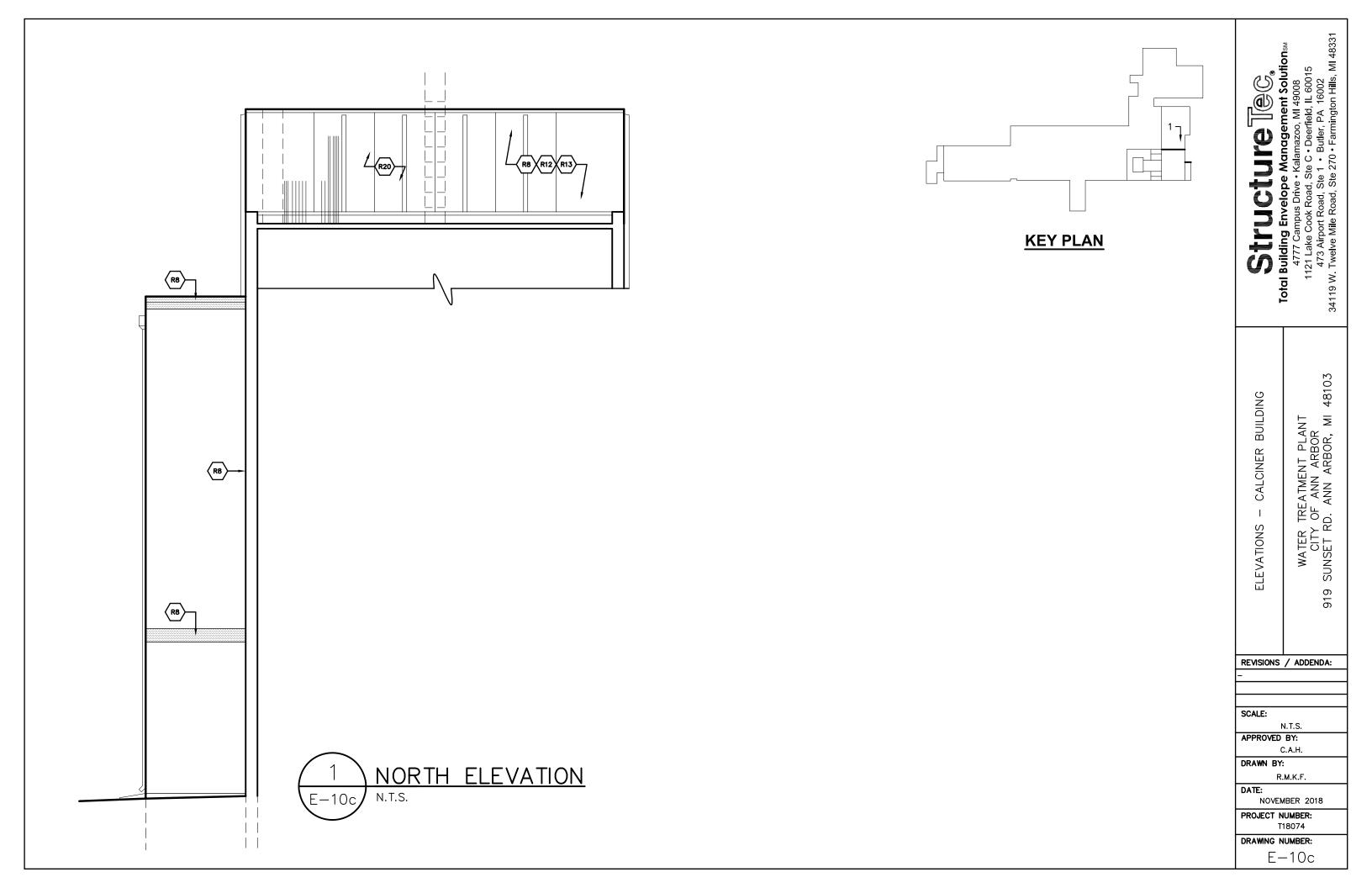
PROJECT NUMBER: T18074

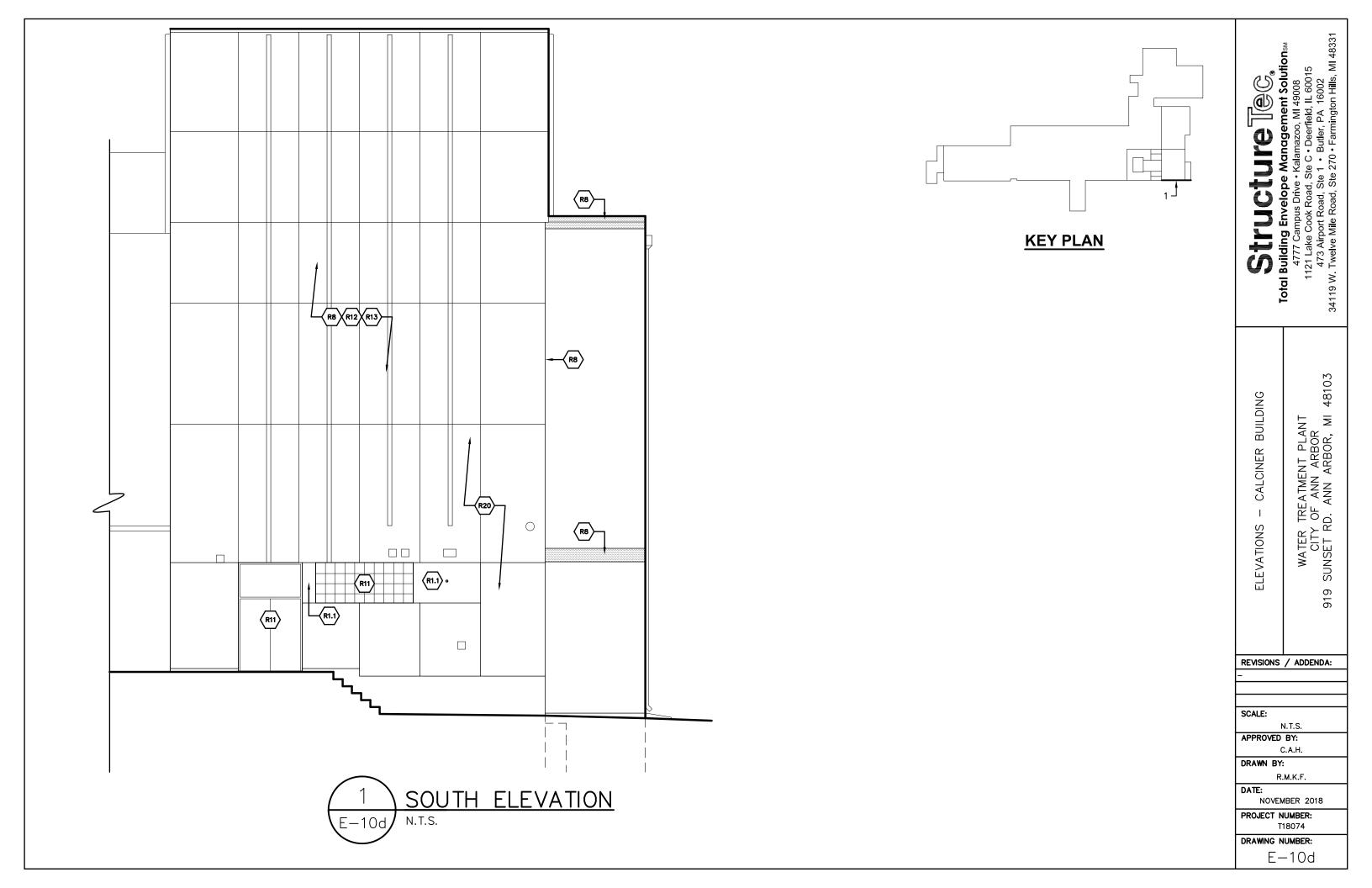
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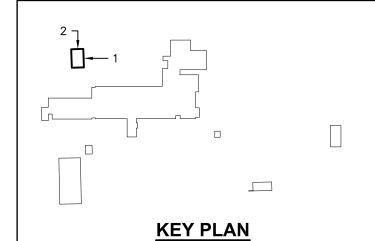
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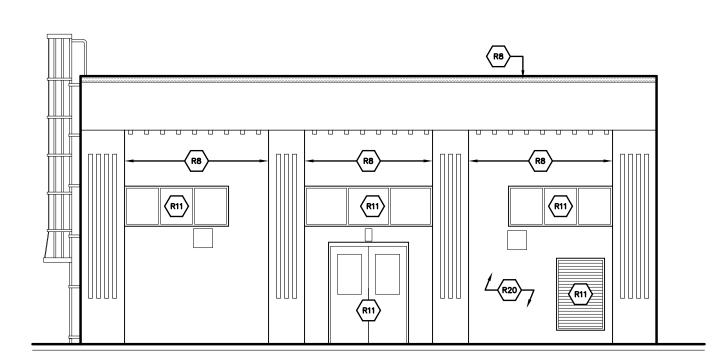


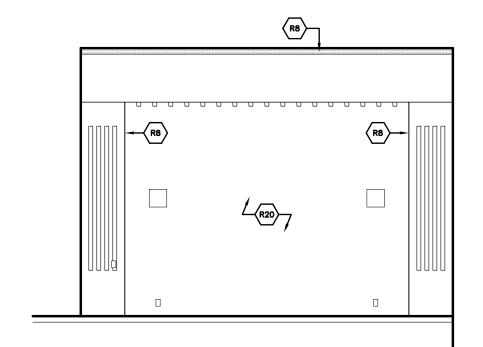












1 EAST ELEVATION N.T.S.

NORTH ELEVATION
N.T.S.

Structure (Control of Sunday Structure)

Total Building Envelope Management Solutions
4777 Campus Drive • Kalamazoo, MI 49008
1121 Lake Cook Road, Ste C • Deerfield, IL 60015
473 Airport Road, Ste 1 • Butler, PA 16002
34119 W. Twelve Mile Road, Ste 270 • Farmington Hills, MI 48331

ELEVATIONS — EQ BUILDING

WATER TREATMENT PLANT CITY OF ANN ARBOR 919 SUNSET RD. ANN ARBOR, MI

48103

REVISIONS / ADDENDA:

SCALE:

N.T.S.

APPROVED BY:

C.A.H.

DRAWN BY:

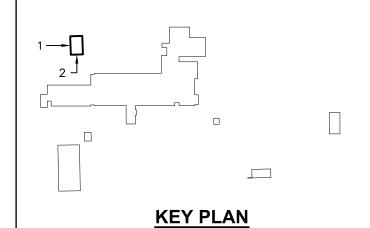
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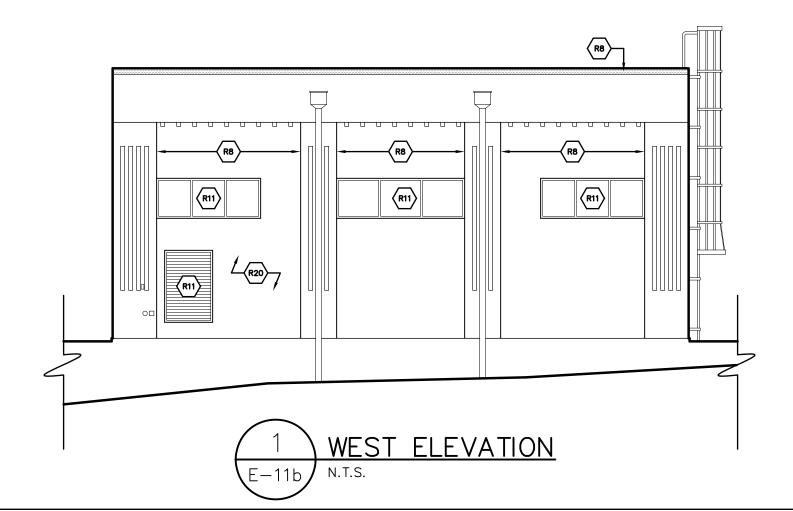
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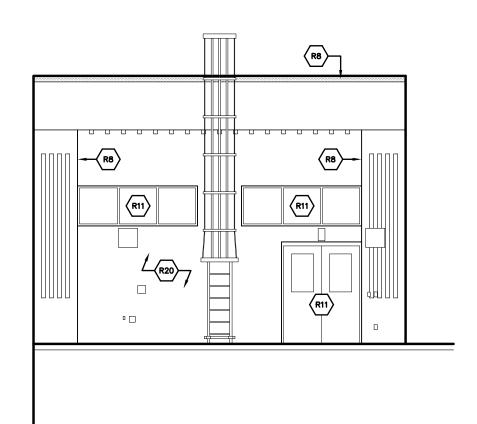
PROJECT NUMBER: T18074

DRAWING NUMBER:

E-11a







2 SOUTH ELEVATION N.T.S.

Structure (Control of Structure)

Total Building Envelope Management Solutions
4777 Campus Drive • Kalamazoo, MI 49008
1121 Lake Cook Road, Ste C • Deerfield, IL 60015
473 Airport Road, Ste 1 • Butler, PA 16002
34119 W. Twelve Mile Road, Ste 270 • Farmington Hills, MI 48331

ELEVATIONS — EQ BUILDING

WATER TREATMENT PLANT CITY OF ANN ARBOR 919 SUNSET RD. ANN ARBOR, MI

48103

REVISIONS / ADDENDA:

SCALE:

N.T.S.

APPROVED BY:

C.A.H.

DRAWN BY:

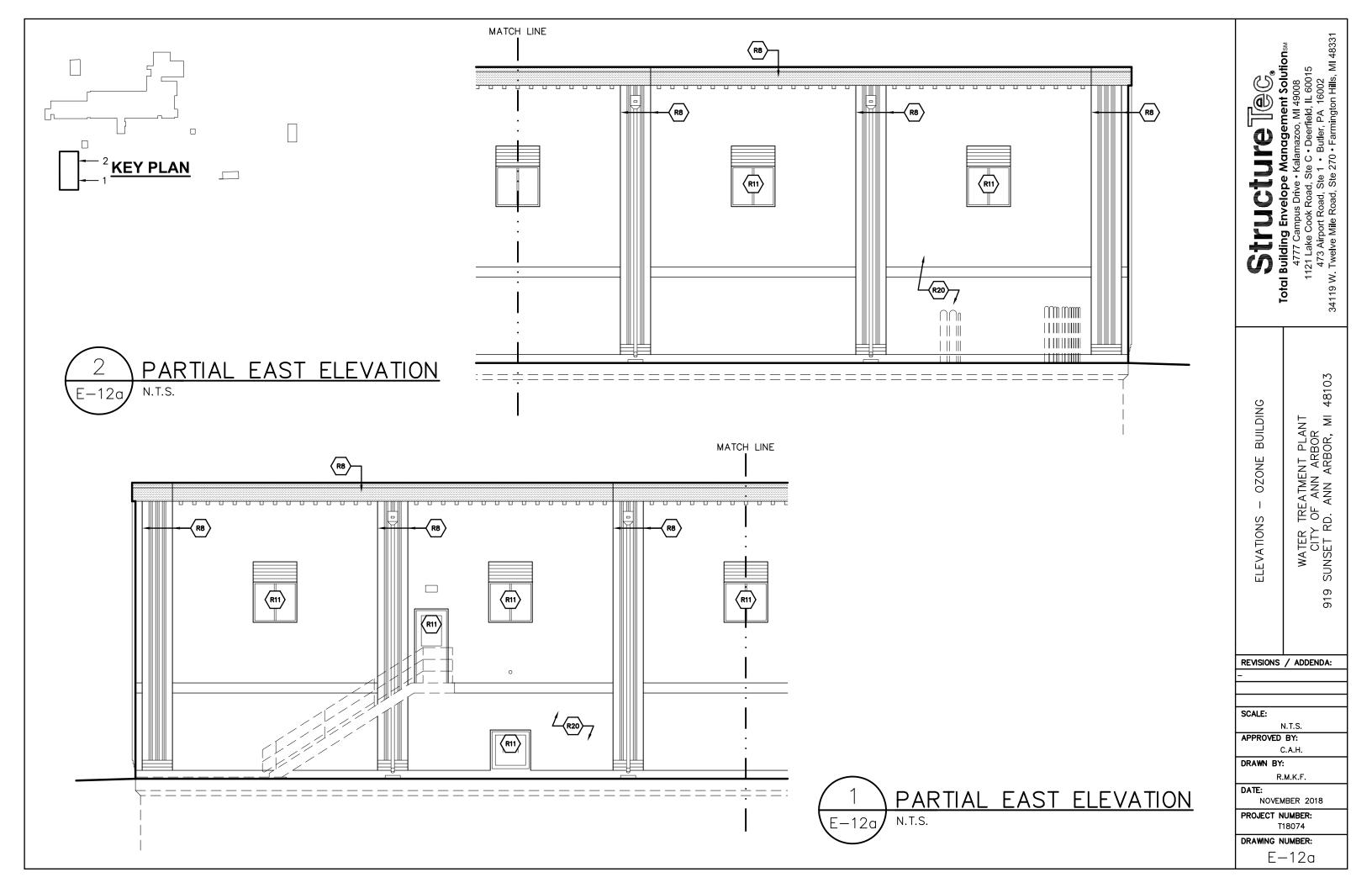
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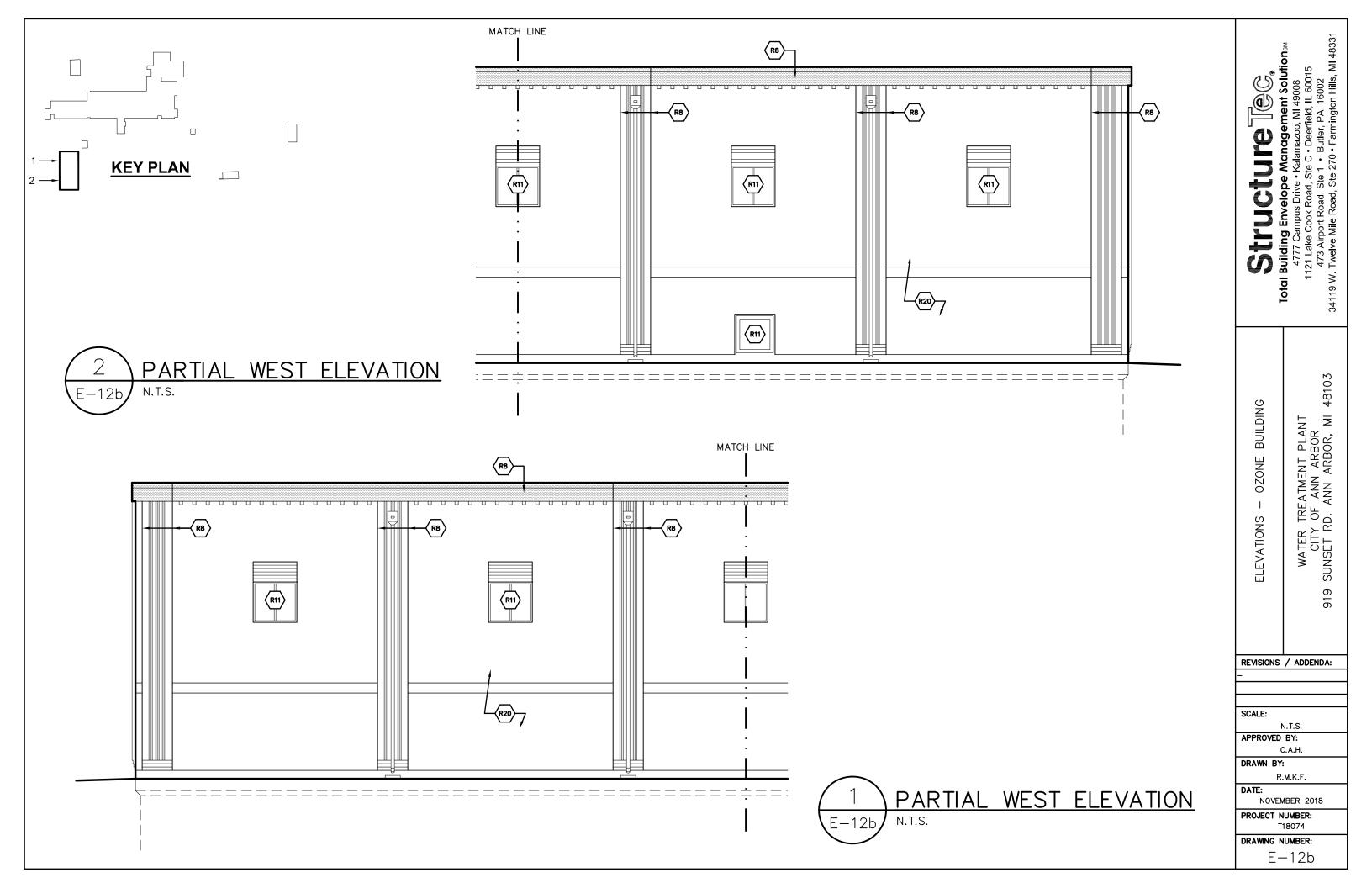
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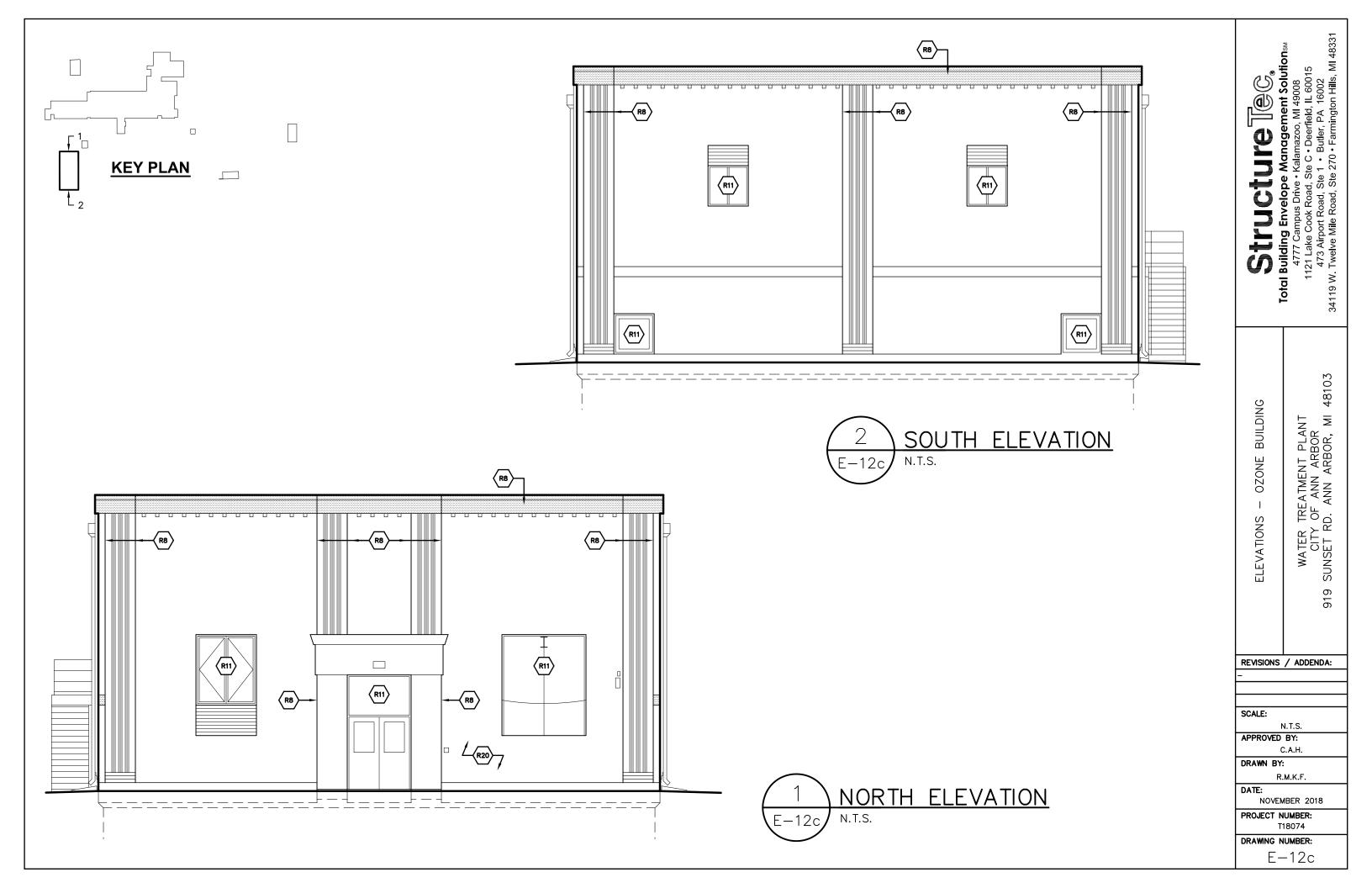
NOVEMBER 2018

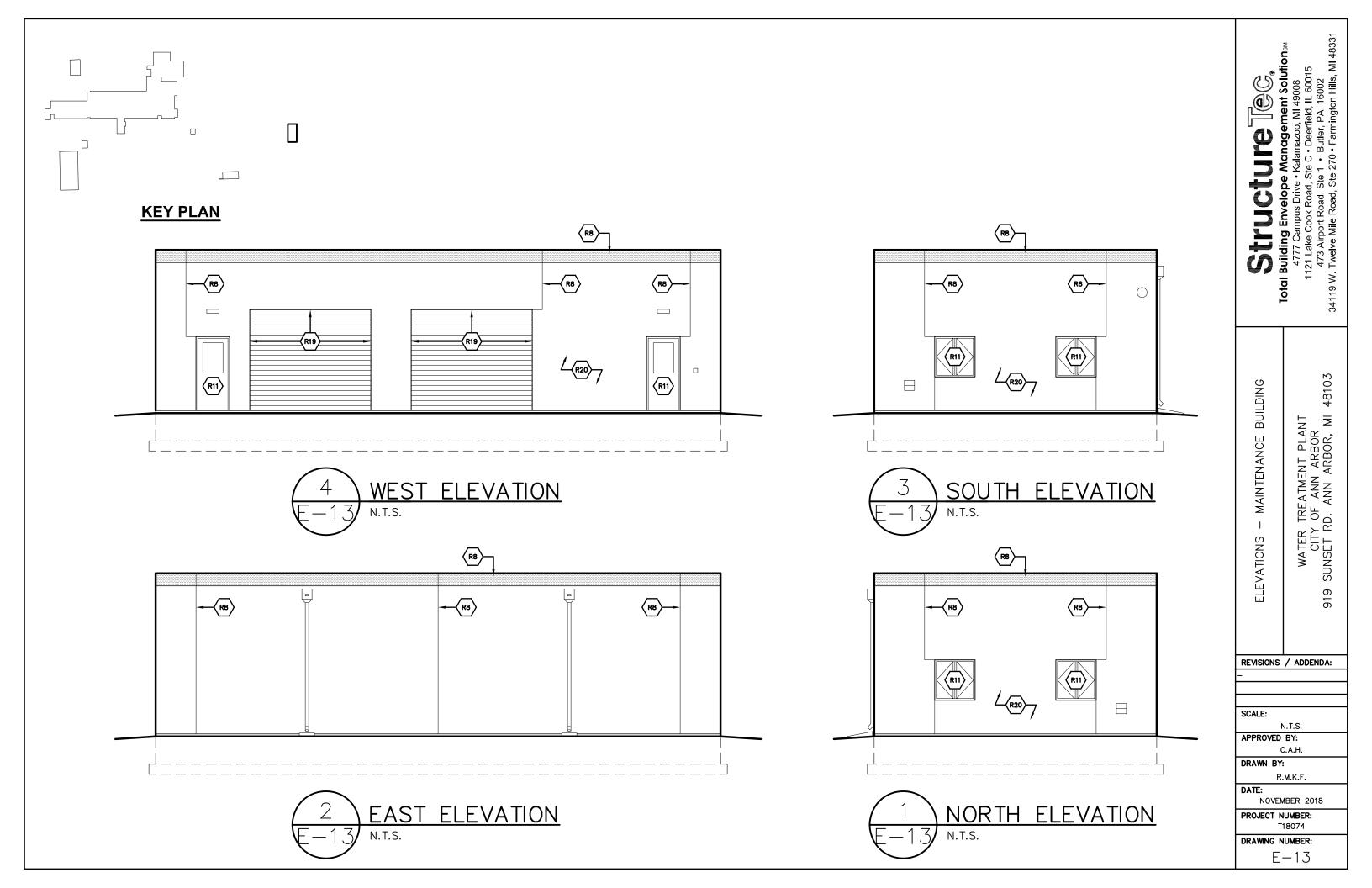
PROJECT NUMBER: T18074

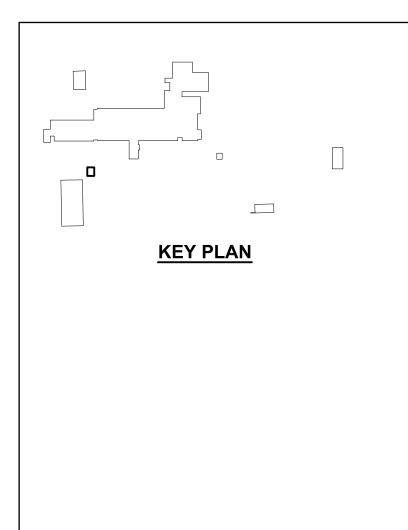
DRAWING NUMBER: E-11b

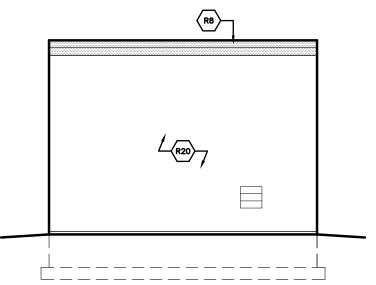




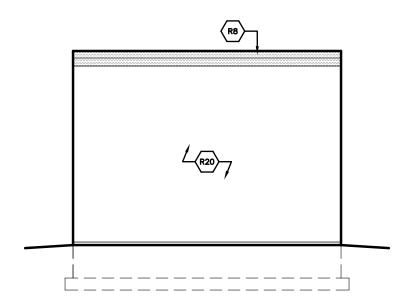




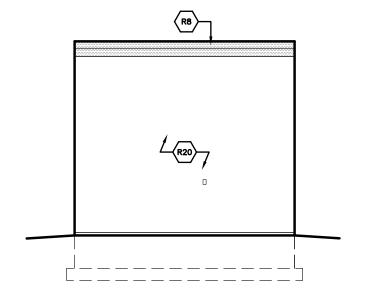




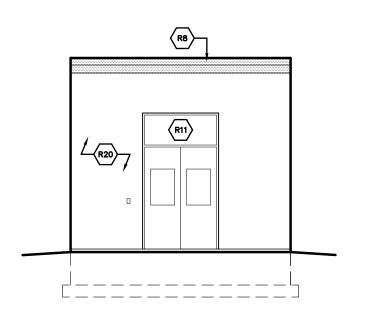














4777 Campus Drive • Kalamazoo, MI 49008 1121 Lake Cook Road, Ste C • Deerfield, IL 60015 473 Airport Road, Ste 1 • Butler, PA 16002 34119 W. Twelve Mile Road, Ste 270 • Farmington Hills, MI 48331 Structure Record Solutions

48103 WATER TREATMENT PLANT CITY OF ANN ARBOR SUNSET RD. ANN ARBOR, MI

RE-CARB BUILDING

ELEVATIONS

919

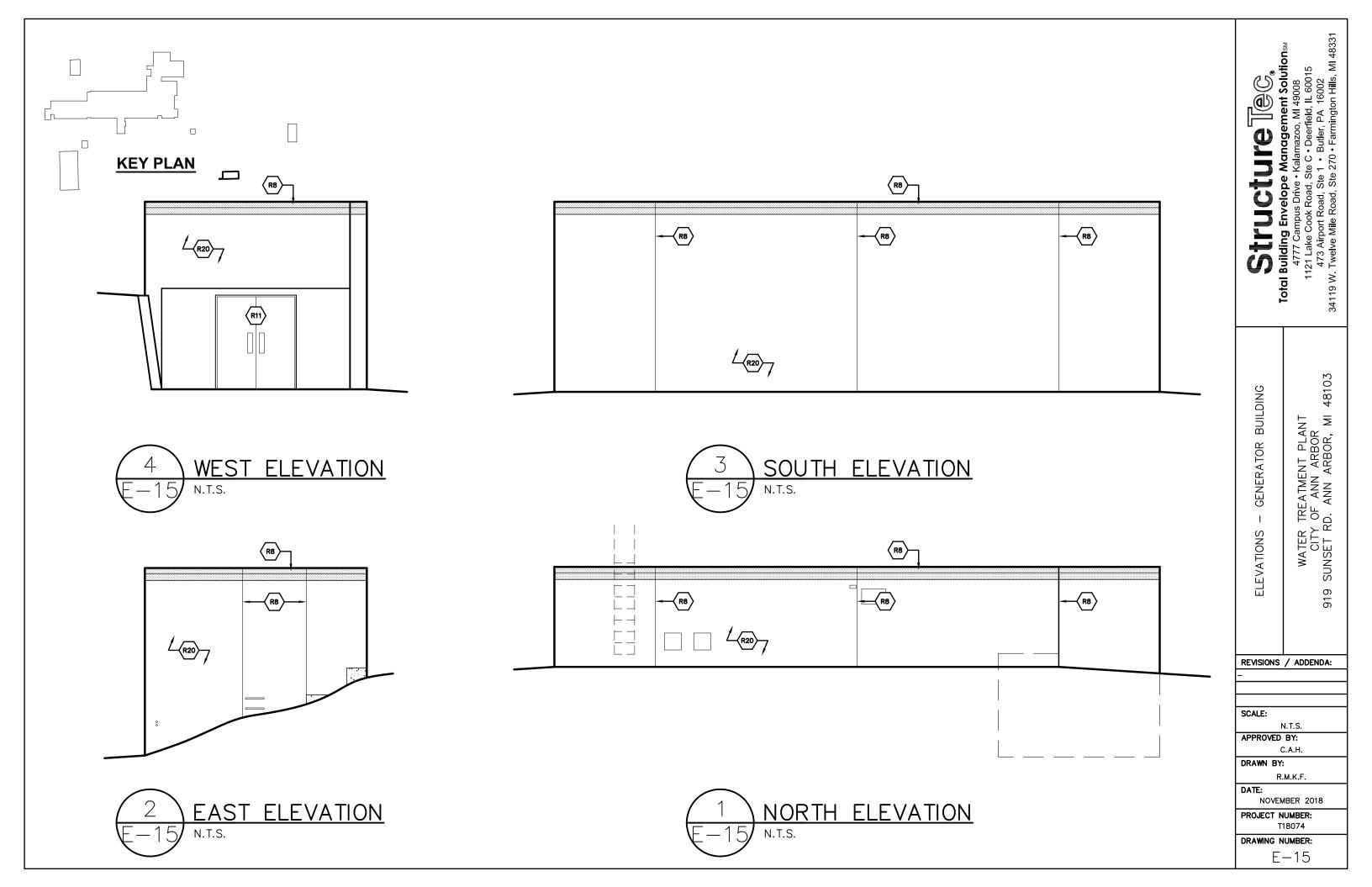
REVISIONS / ADDENDA:
1
SCALE:
N.T.S.
APPROVED BY:
C.A.H.

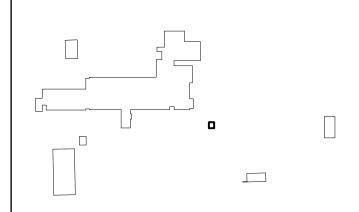
DRAWN BY: R.M.K.F.

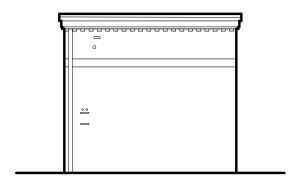
DATE: NOVEMBER 2018

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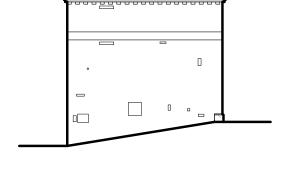
E - 14





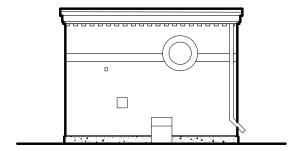




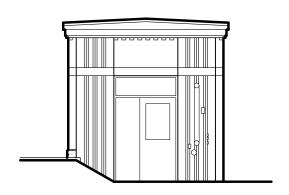




NOTE: NO EXTERIOR WALL RESTORATION PROPOSED.









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48103

WATER TREATMENT PLANT CITY OF ANN ARBOR SUNSET RD. ANN ARBOR, MI

919

AMMONIA BUILDING ELEVATIONS -

REVISIONS / ADDENDA:

SCALE:

N.T.S.

APPROVED BY:

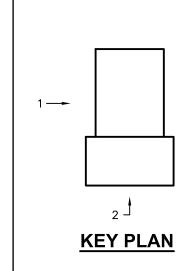
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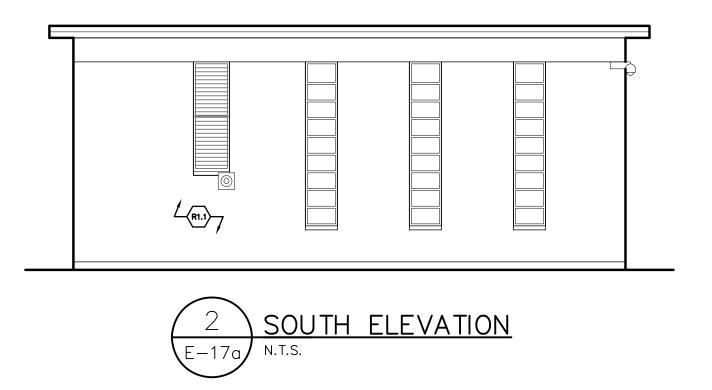
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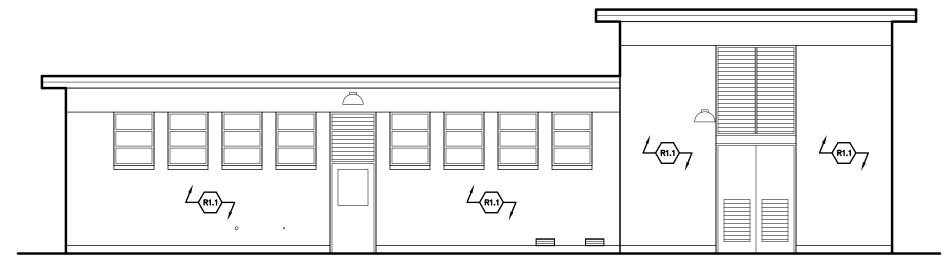
PROJECT NUMBER: T18074

DRAWING NUMBER:

E-16







1 WEST ELEVATION N.T.S.

Structure (Control of Structure)

Total Building Envelope Management Solutions
4777 Campus Drive • Kalamazoo, MI 49008
1121 Lake Cook Road, Ste C • Deerfield, IL 60015
473 Airport Road, Ste 1 • Butler, PA 16002
34119 W. Twelve Mile Road, Ste 270 • Farmington Hills, MI 48331

ELEVATIONS — BARTON PUMPING STATION

48103

BARTON PUMPING STATION CITY OF ANN ARBOR 1010 HURON RIVER DR. ANN ARBOR, MI

REVISIONS / ADDENDA:

SCALE:

N.T.S.

APPROVED BY:

C.A.H.

DRAWN BY:

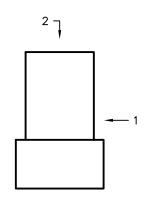
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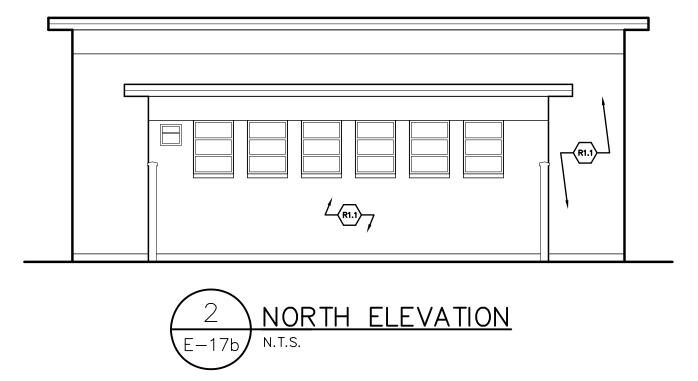
NOVEMBER 2018

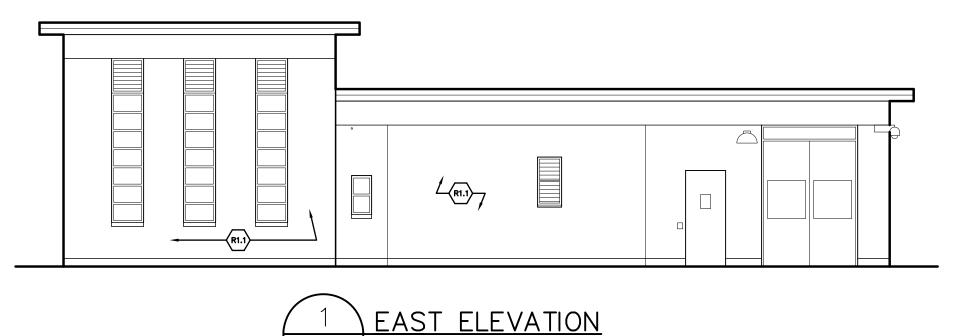
PROJECT NUMBER: T18074

DRAWING NUMBER:

E-17a







Structure (Control of Structure)

Total Building Envelope Management Solutions
4777 Campus Drive • Kalamazoo, MI 49008
1121 Lake Cook Road, Ste C • Deerfield, IL 60015
473 Airport Road, Ste 1 • Butler, PA 16002
34119 W. Twelve Mile Road, Ste 270 • Farmington Hills, MI 48331

ELEVATIONS — BARTON PUMPING STATION

BARTON PUMPING STATION
CITY OF ANN ARBOR
1010 HURON RIVER DR. ANN ARBOR, MI

48103

REVISIONS / ADDENDA

SCALE:

N.T.S.

APPROVED BY:

C.A.H.

DRAWN BY:

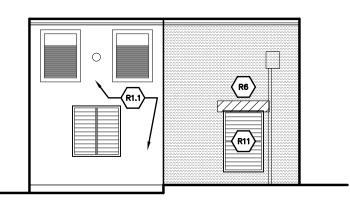
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DATE: NOVEMBER 2018

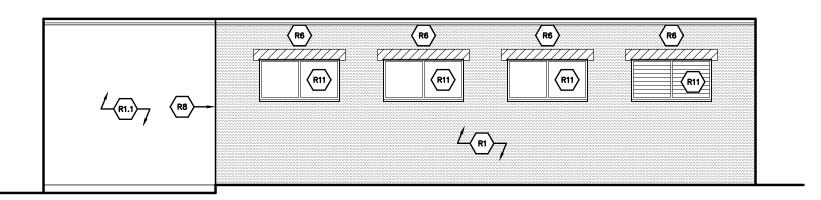
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DRAWING NUMBER: E-17b

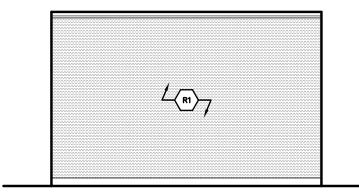
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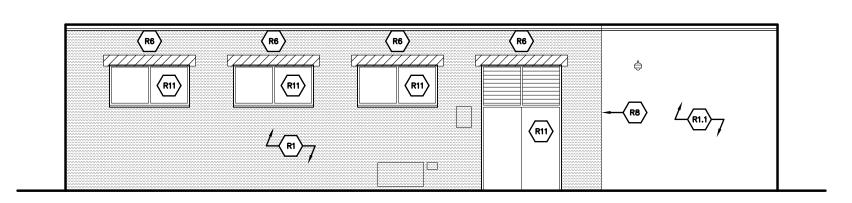














Structure (Control of Sunday Structure)

Total Building Envelope Management Solutions
4777 Campus Drive • Kalamazoo, MI 49008
1121 Lake Cook Road, Ste C • Deerfield, IL 60015
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34119 W. Twelve Mile Road, Ste 270 • Farmington Hills, MI 48331

48104

- INDUSTRIAL PUMPING STATION ELEVATIONS

INDUSTRIAL PUMPING STATION CITY OF ANN ARBOR INDUSTRIAL HWY. ANN ARBOR, MI

Ś

1990

N.T.S.

APPROVED BY:

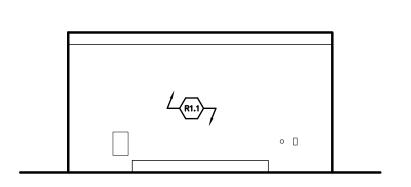
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NOVEMBER 2018

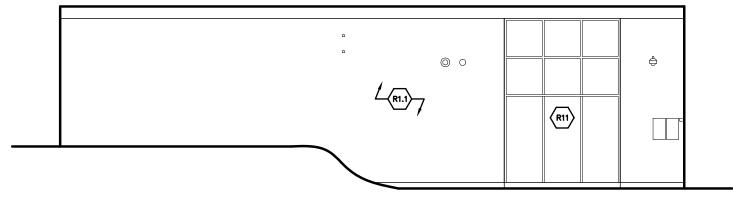
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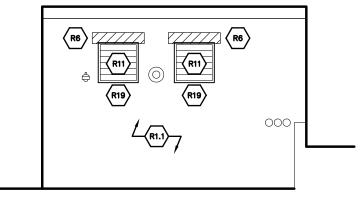
E - 18



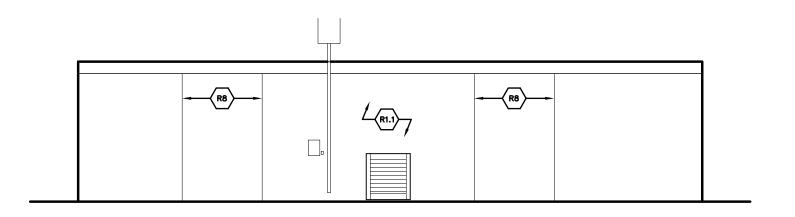
4 WEST ELEVATION E-19 N.T.S.



SOUTH ELEVATION E-19 N.T.S.



2 EAST ELEVATION N.T.S.





Structure (Control of Sunday Structure)

Total Building Envelope Management Solutions
4777 Campus Drive • Kalamazoo, MI 49008
1121 Lake Cook Road, Ste C • Deerfield, IL 60015
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ELEVATIONS — NORTH CAMPUS PUMPING STATION

NORTH CAMPUS PUMPING STATION CITY OF ANN ARBOR 1800 BEAL AVE. ANN ARBOR, MI 48105

EVISIONS / ADDENDA

SCALE:

N.T.S.

APPROVED BY:

C.A.H.

DRAWN BY:

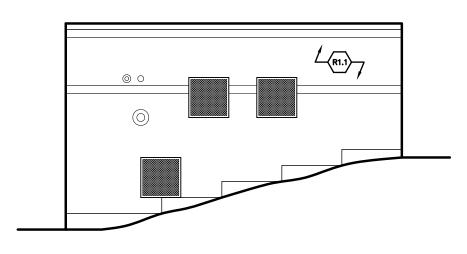
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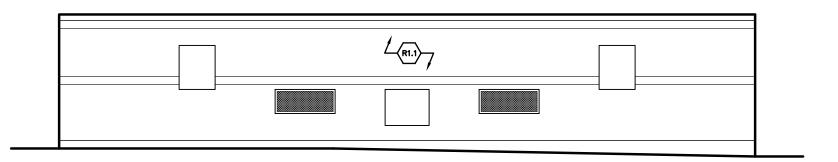
NOVEMBER 2018

PROJECT NUMBER: T18074

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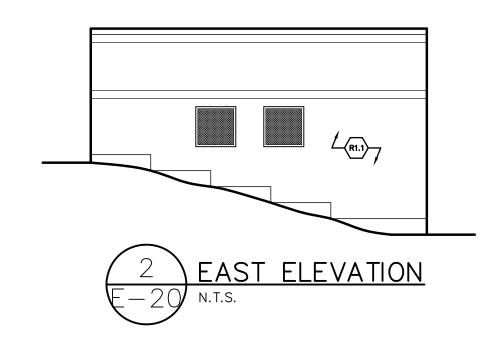
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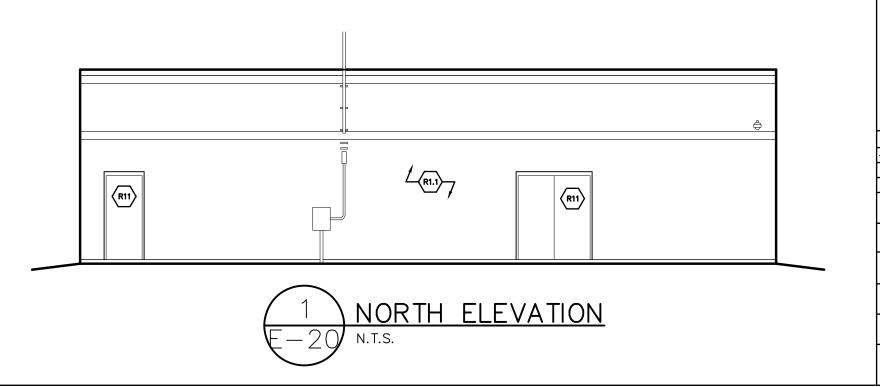












Structure (%)

Total Building Envelope Management Solutions

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1121 Lake Cook Road, Ste C • Deerfield, IL 60015
473 Airport Road, Ste 1 • Butler, PA 16002
34119 W. Twelve Mile Road, Ste 270 • Farmington Hills, MI 48331

- LIBERTY PUMPING STATION

ELEVATIONS

48103

LIBERTY PUMPING STATION CITY OF ANN ARBOR 2675 WEST LIBERTY ST. ANN ARBOR, MI

/ISIONS / ADDENDA

SCALE: N.T.S. APPROVED BY:

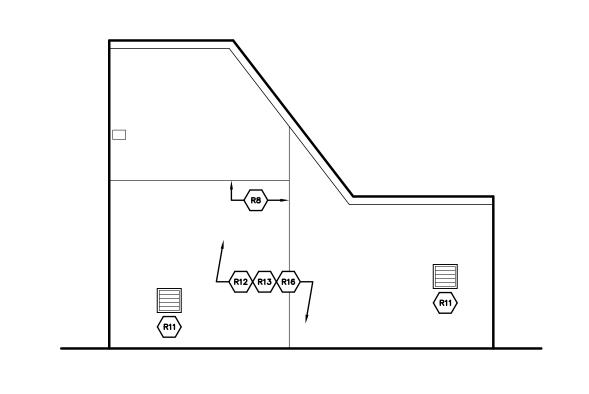
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R.M

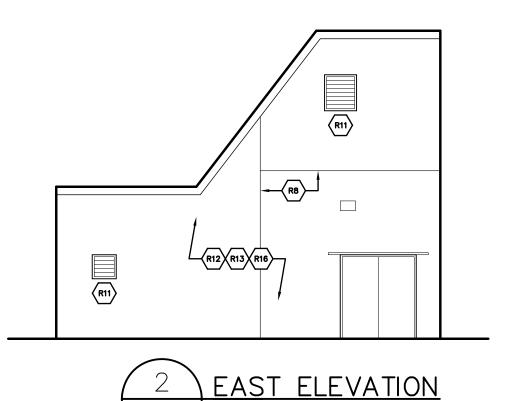
NOVEMBER 2018

PROJECT NUMBER: T18074

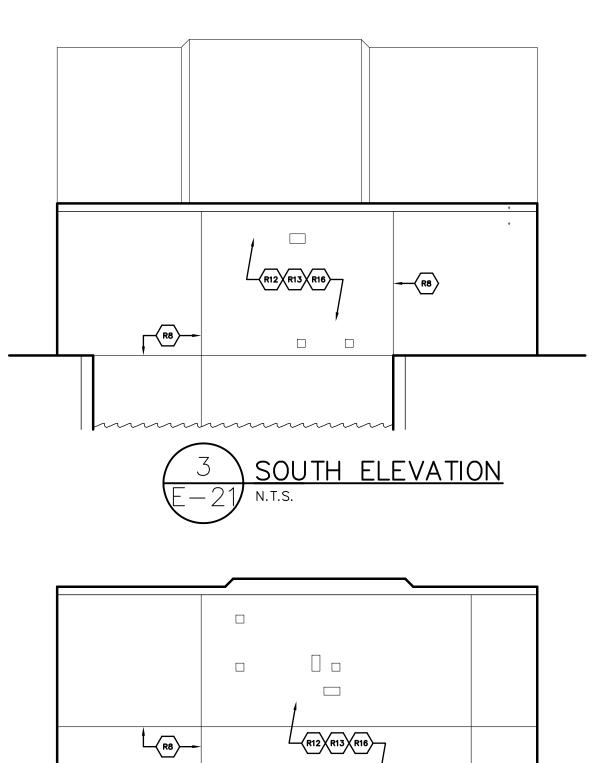
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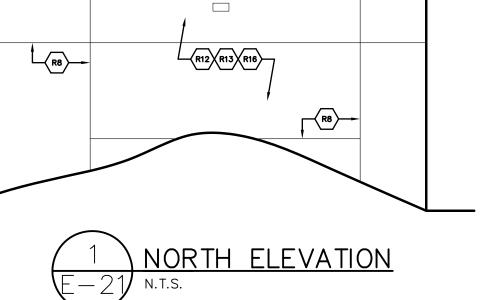






N.T.S.





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SUPERIOR HYDRO ELECTRIC BUILDING SUPERIOR HYDROELECTRIC BUILDING CITY OF ANN ARBOR RST ST. SUPERIOR CHARTER TWP., MI ELEVATIONS

48198

FIRST

0009 REVISIONS / ADDENDA:

N.T.S.

APPROVED BY:

C.A.H.

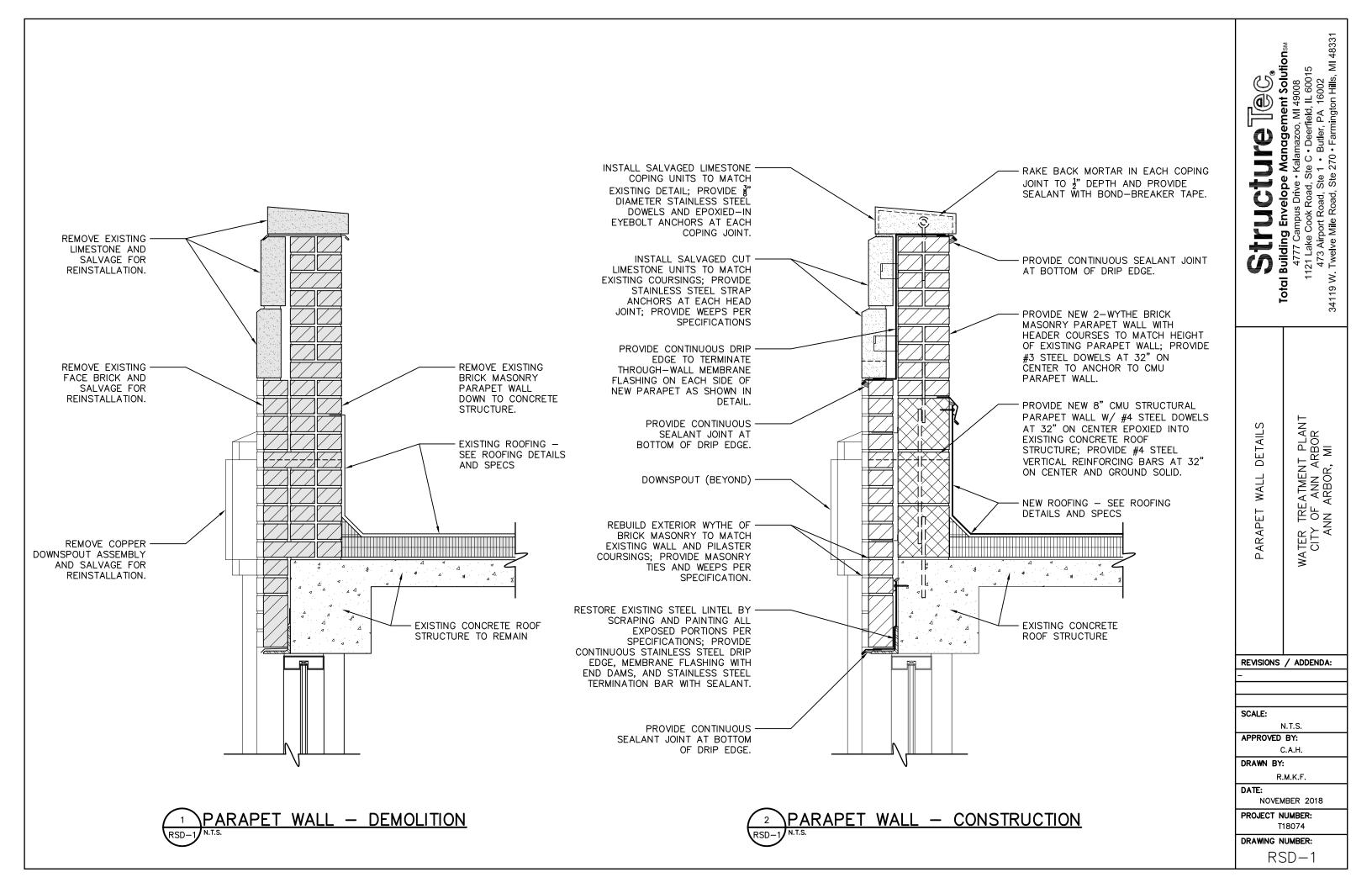
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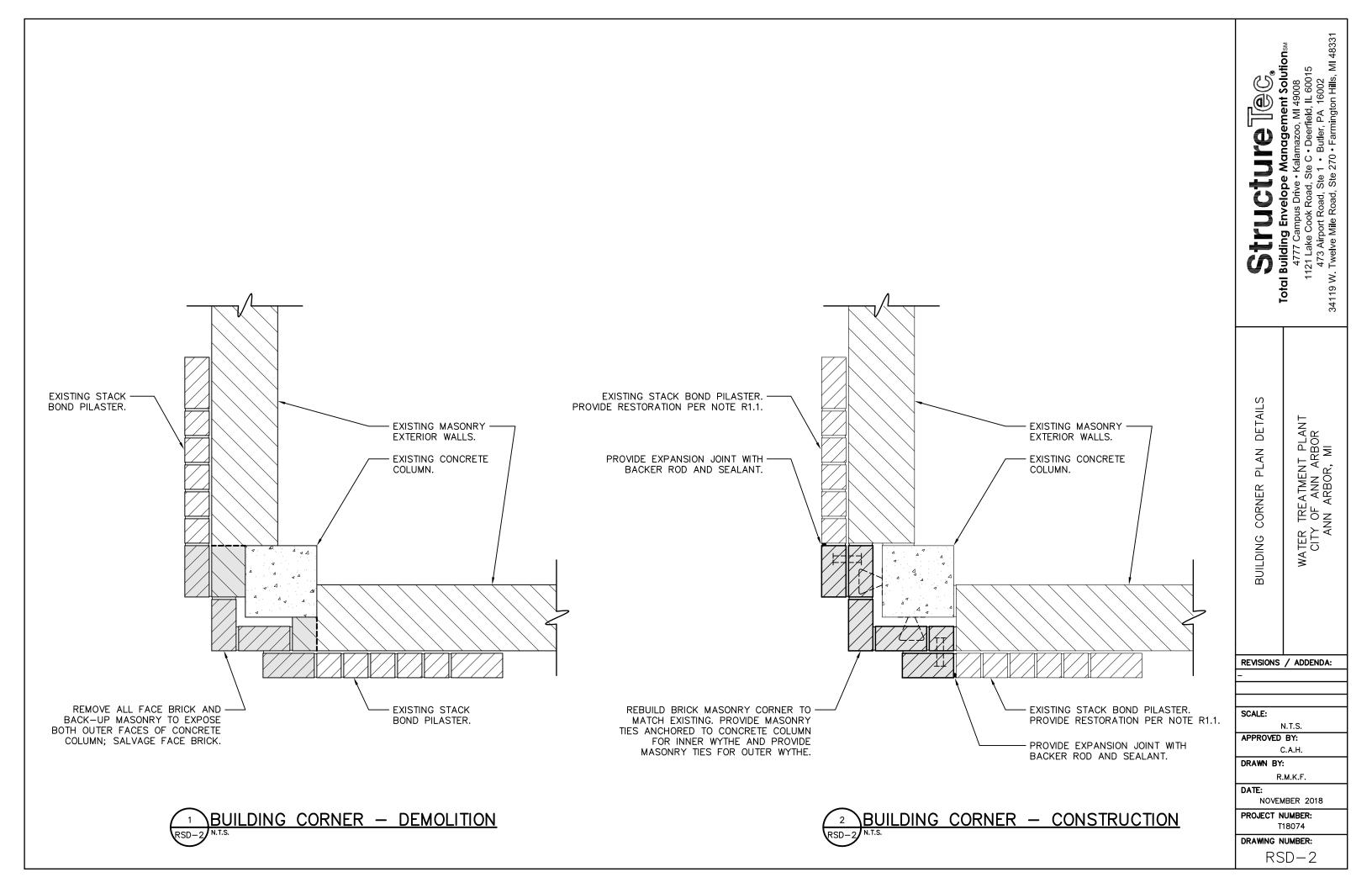
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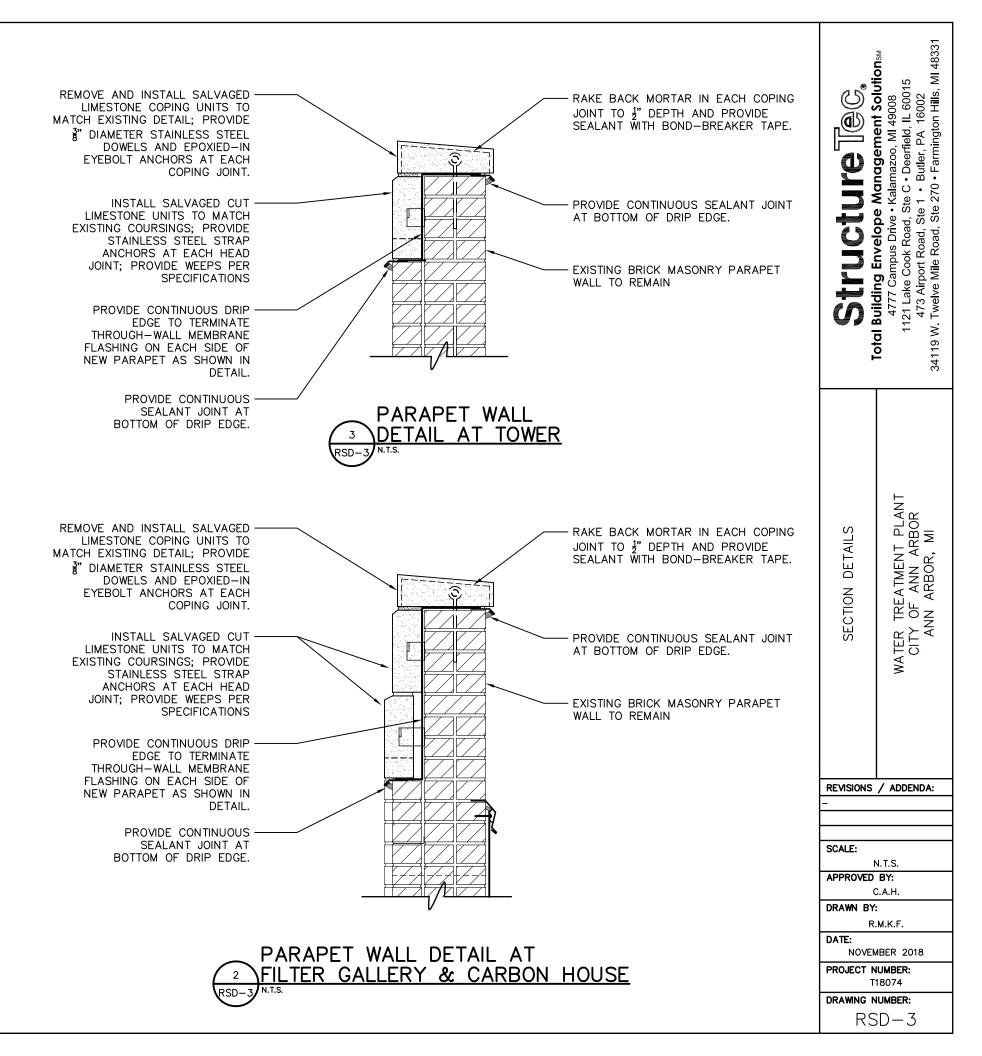
PROJECT NUMBER: T18074

DRAWING NUMBER:

E - 21







EXISTING WALL AND PILASTER
COURSINGS; PROVIDE MASONRY
TIES AND WEEPS PER
SPECIFICATION.

REMOVE 4 BRICK COURSES (MINIMUM)
ALONG THE LENGTH OF EXISTING
STEEL LINTEL / SHELF ANGLE

RESTORE EXISTING STEEL LINTEL BY
SCRAPING AND PAINTING ALL
EXPOSED PORTIONS PER
SPECIFICATIONS; PROVIDE
CONTINUOUS STAINLESS STEEL DRIP

PROVIDE CONTINUOUS SEALANT JOINT AT BOTTOM OF DRIP EDGE.

EDGE, MEMBRANE FLASHING WITH

TERMINATION BAR WITH SEALANT.

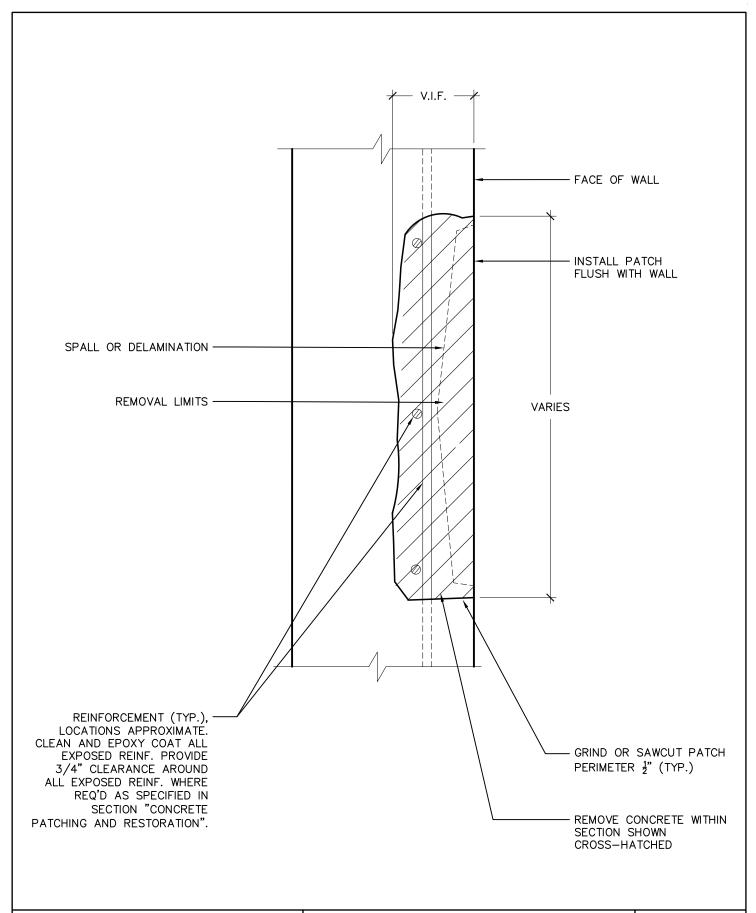
END DAMS, AND STAINLESS STEEL

REBUILD EXTERIOR WYTHE OF

BRICK MASONRY TO MATCH

EXISTING WINDOW SYSTEM

1 TYPICAL LINTEL DETAIL
RSD-3 N.T.S.



Structure Tec.

Total Building Envelope Management Solutionsm

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CONCRETE REPAIR - VERTICAL

2018 ARCHITECTURAL / STRUCTURAL PROJECT CITY OF ANN ARBOR — WATER TREATMENT

SCALE: N.T.S.

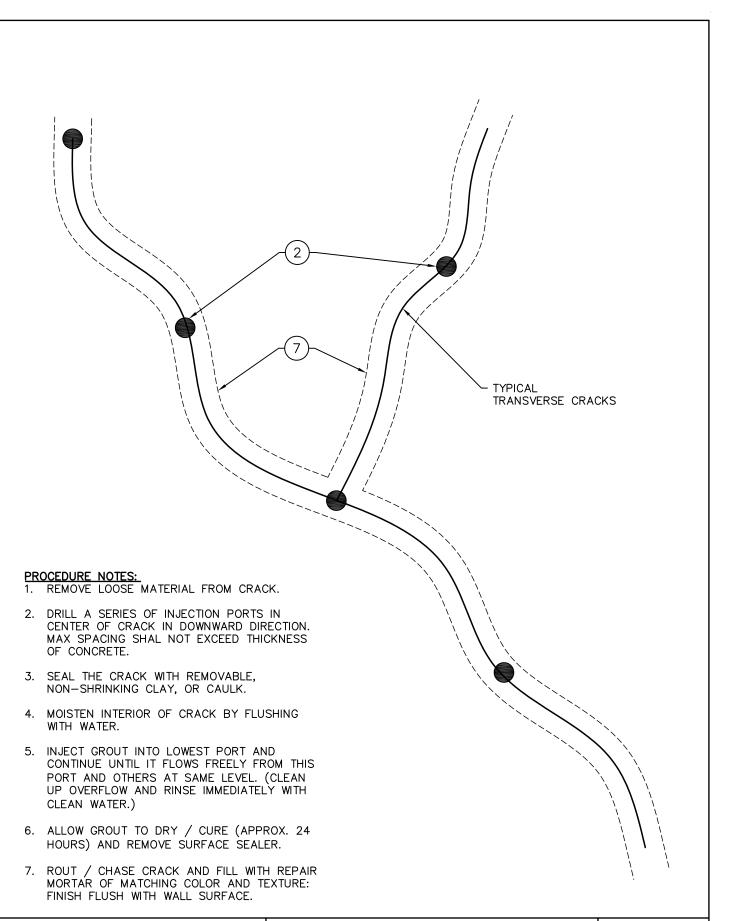
APPROVED BY: K.E.T.

DRAWN BY: R.M.K.F.

DATE: NOVEMBER, 2018

PROJECT # T18074.RFG/RST3

RSD-4



Structure Tec.

Total Building Envelope Management Solutionsm

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CRACK INJECTION REPAIR
TRANSVERSE / VERTICAL CRACKS

2018 ARCHITECTURAL / STRUCTURAL PROJECT CITY OF ANN ARBOR - WATER TREATMENT

SCALE: N.T.S.

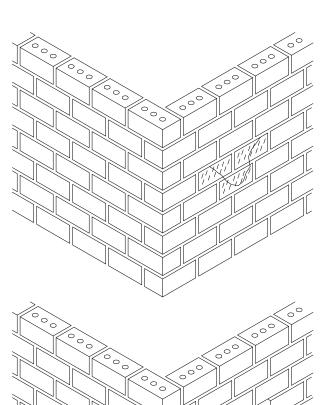
APPROVED BY: K.E.T.

DRAWN BY: R.M.K.F.

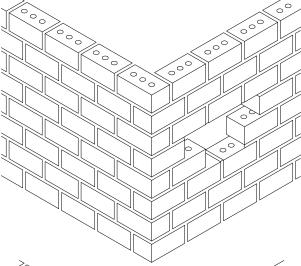
DATE: NOVEMBER, 2018

PROJECT #: T18074.RFG/RST3

RDS-5

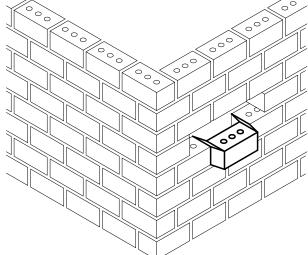


A) EXISTING DAMAGED BRICK UNITS



B) REMOVE DAMAGED EXISTING BRICK

UNITS AND MORTAR WITH MOTOR DRIVEN SAWS
AND HAND TOOLS. PROVIDE SHORING AS
REQUIRED TO PREVENT MOVEMENT OF THE
REMAINING MASONRY. DO NOT DAMAGE
ADJACENT BRICK UNITS THAT ARE TO REMAIN.
REPLACE ALL UNITS / MASONRY DAMAGED BY
THE REMOVAL PROCESS AT NO ADDITIONAL
COST TO THE OWNER.



C) BUTTER REPLACEMENT UNITS AND
SET INTO PLACE. FILL ALL HEAD AND BED JOINTS
WITH MORTAR. TOOL MORTAR TO MATCH EXISTING.

Structure Tec.

Total Building Envelope Management Solutionsm

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1121 Lake Cook Road, Ste C • Deerfield, IL 60015
473 Airport Road, Ste 1 • Butler, PA 16002
34119 W. Twelve Mile Road, Ste 270 • Farmington Hills, MI 48331

ISOLATED BRICK REPLACEMENT

TOOL/TED BRIOK NET E/TOEMENT

2018 ARCHITECTURAL / STRUCTURAL PROJECT CITY OF ANN ARBOR - WATER TREATMENT

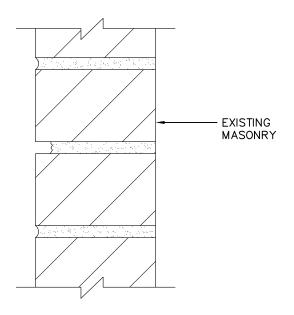
SCALE: N.T.S.

APPROVED BY: K.E.T.

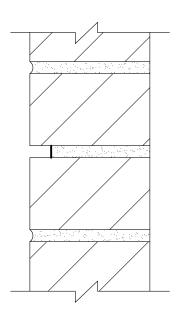
DRAWN BY: R.M.K.F.

DATE: NOVEMBER, 2018

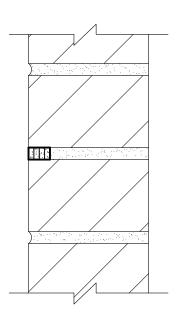
PROJECT # T18074.RFG/RST3



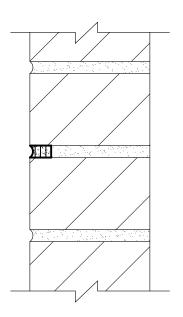
A) EXISTING DETERIORATED MORTAR JOINT



B) CUT BACK EXISTING MORTAR TO A UNIFORM DEPTH (MIN. 1")



C) PLACE TUCK-POINTING
MORTAR IN ¼" LAYERS,
CONSOLIDATING EACH LAYER



D) TOOL JOINT TO MATCH ORIGINAL PROFILE

Total Building Envelope Management Solutionsm

4777 Campus Drive • Kalamazoo, MI 49008 1121 Lake Cook Road, Ste C • Deerfield, IL 60015 473 Airport Road, Ste 1 • Butler, PA 16002 34119 W. Twelve Mile Road, Ste 270 • Farmington Hills, MI 48331 TYPICAL TUCKPOINTING

2018 ARCHITECTURAL / STRUCTURAL PROJECT CITY OF ANN ARBOR — WATER TREATMENT

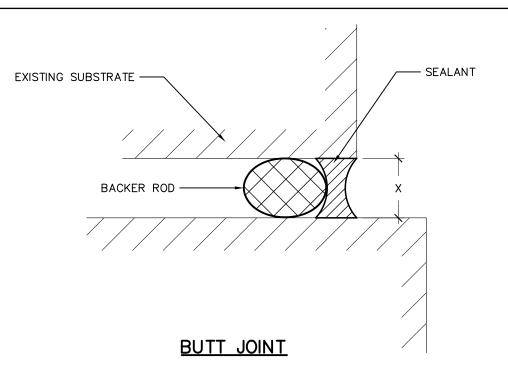
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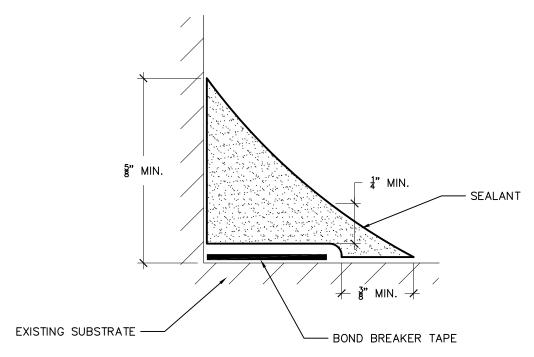
APPROVED BY: K.E.T.

DRAWN BY: R.M.K.F.

DATE: NOVEMBER, 2018

PROJECT #: T18074.RFG/RST3





FILLET JOINT

Structure Teg.

Total Building Envelope Management Solutionsm

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TYPICAL SEALANT JOINT

2018 ARCHITECTURAL / STRUCTURAL PROJECT CITY OF ANN ARBOR — WATER TREATMENT

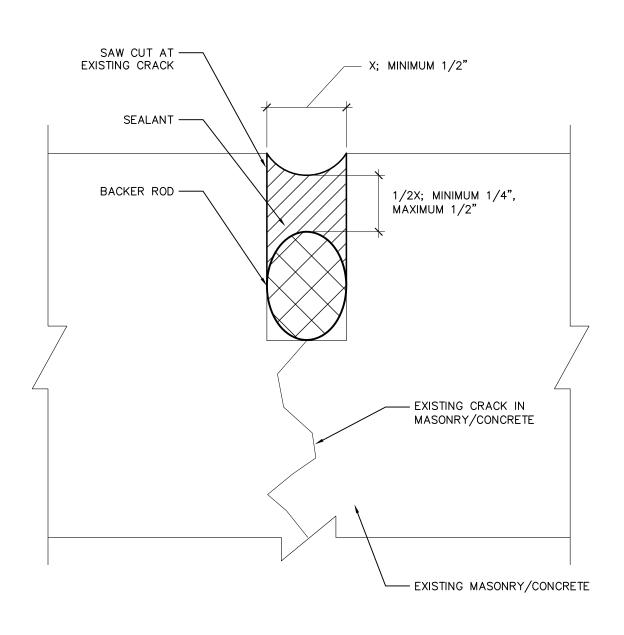
SCALE: N.T.S.

APPROVED BY: K.E.T.

DRAWN BY: R.M.K.F.

DATE: NOVEMBER, 2018

PROJECT # T18074.RFG/RST3



Total Building Envelope Management Solutionsm

4777 Campus Drive • Kalamazoo, MI 49008
1121 Lake Cook Road, Ste C • Deerfield, IL 60015
473 Airport Road, Ste 1 • Butler, PA 16002
34119 W. Twelve Mile Road, Ste 270 • Farmington Hills, MI 48331

CRACK SEALING

2018 ARCHITECTURAL / STRUCTURAL PROJECT CITY OF ANN ARBOR — WATER TREATMENT

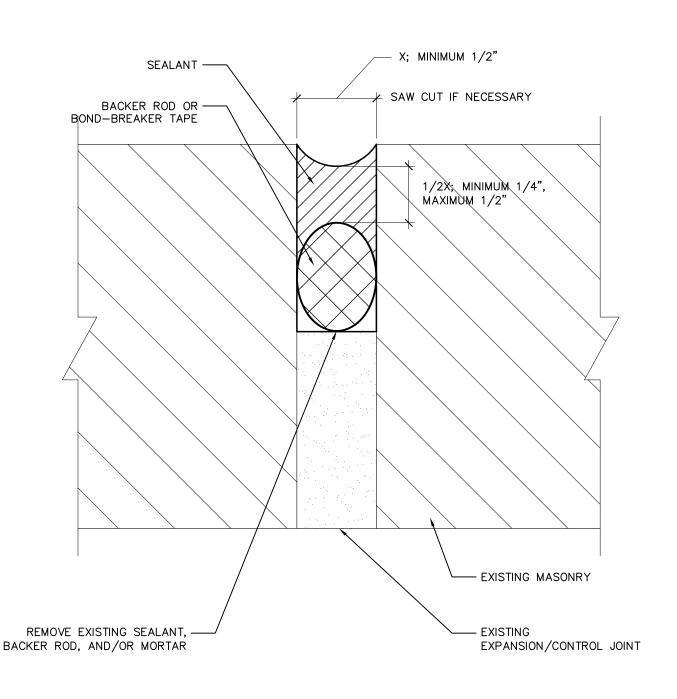
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Total Building Envelope Management Solutionsm

4777 Campus Drive • Kalamazoo, MI 49008 1121 Lake Cook Road, Ste C • Deerfield, IL 60015 473 Airport Road, Ste 1 • Butler, PA 16002 34119 W. Twelve Mile Road, Ste 270 • Farmington Hills, MI 48331 WEATHERSEAL (JOINT)

2018 ARCHITECTURAL / STRUCTURAL PROJECT CITY OF ANN ARBOR — WATER TREATMENT

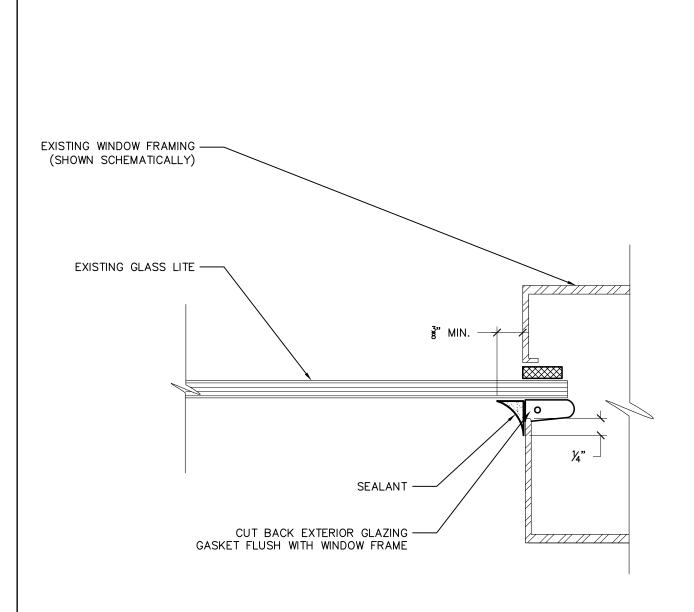
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DATE: NOVEMBER, 2018

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Total Building Envelope Management Solutionsm

4777 Campus Drive • Kalamazoo, MI 49008 1121 Lake Cook Road, Ste C • Deerfield, IL 60015 473 Airport Road, Ste 1 • Butler, PA 16002 34119 W. Twelve Mile Road, Ste 270 • Farmington Hills, MI 48331 TYPICAL WET SEAL

2018 ARCHITECTURAL / STRUCTURAL PROJECT CITY OF ANN ARBOR — WATER TREATMENT

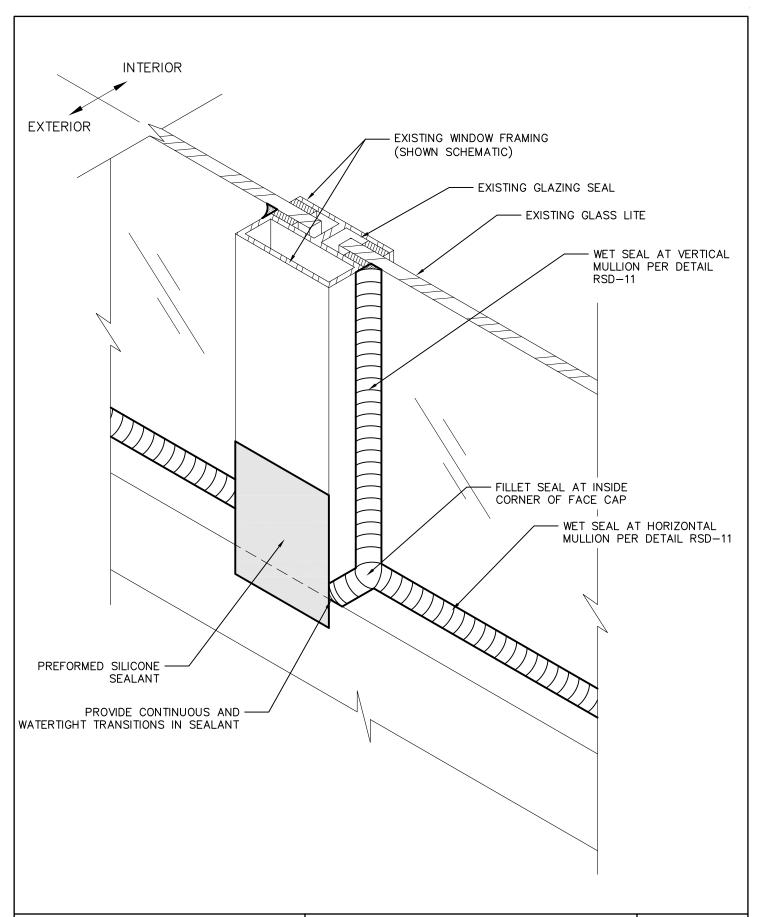
SCALE: N.T.S.

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PROJECT # T18074.RFG/RST3



Total Building Envelope Management Solutionsm

4777 Campus Drive • Kalamazoo, MI 49008
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SEALANT AT MULLION INTERSECTION - HORZ.

2018 ARCHITECTURAL / STRUCTURAL PROJECT CITY OF ANN ARBOR — WATER TREATMENT

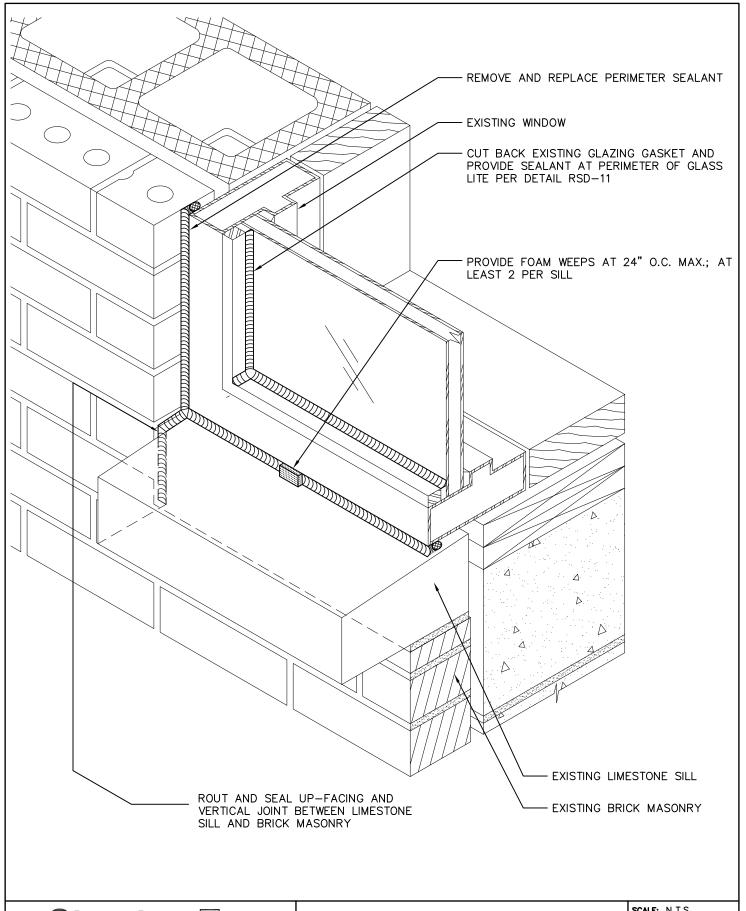
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PROJECT # T18074.RFG/RST3



Total Building Envelope Management Solutionsm

4777 Campus Drive • Kalamazoo, MI 49008 1121 Lake Cook Road, Ste C • Deerfield, IL 60015 473 Airport Road, Ste 1 • Butler, PA 16002 34119 W. Twelve Mile Road, Ste 270 • Farmington Hills, MI 48331 SEALANT AT WINDOW SILL

2018 ARCHITECTURAL / STRUCTURAL PROJECT CITY OF ANN ARBOR — WATER TREATMENT

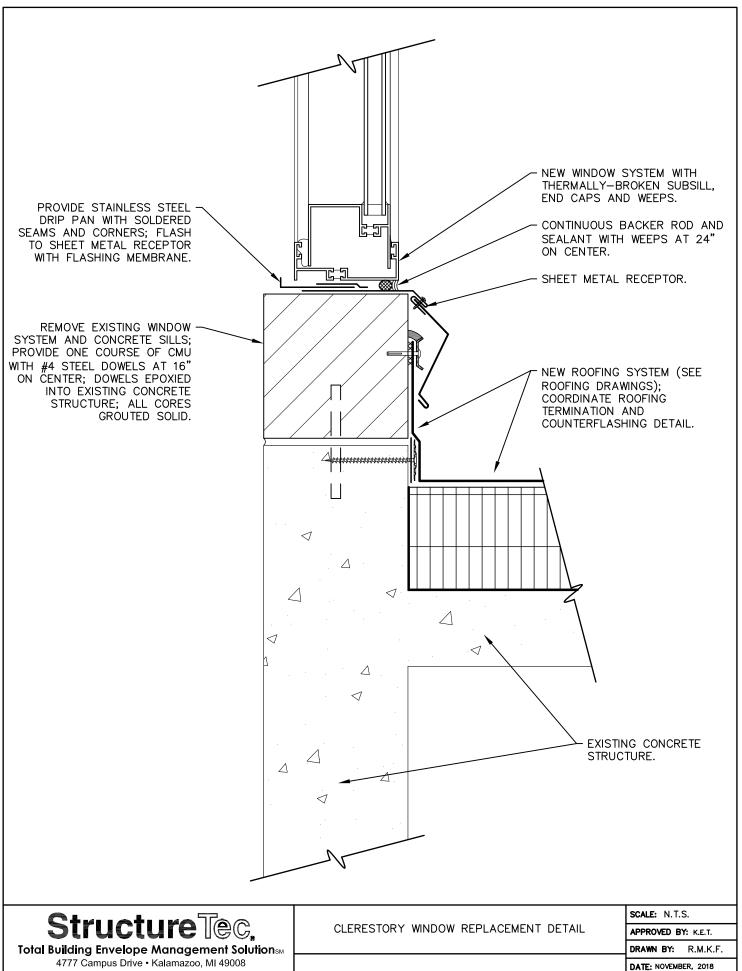
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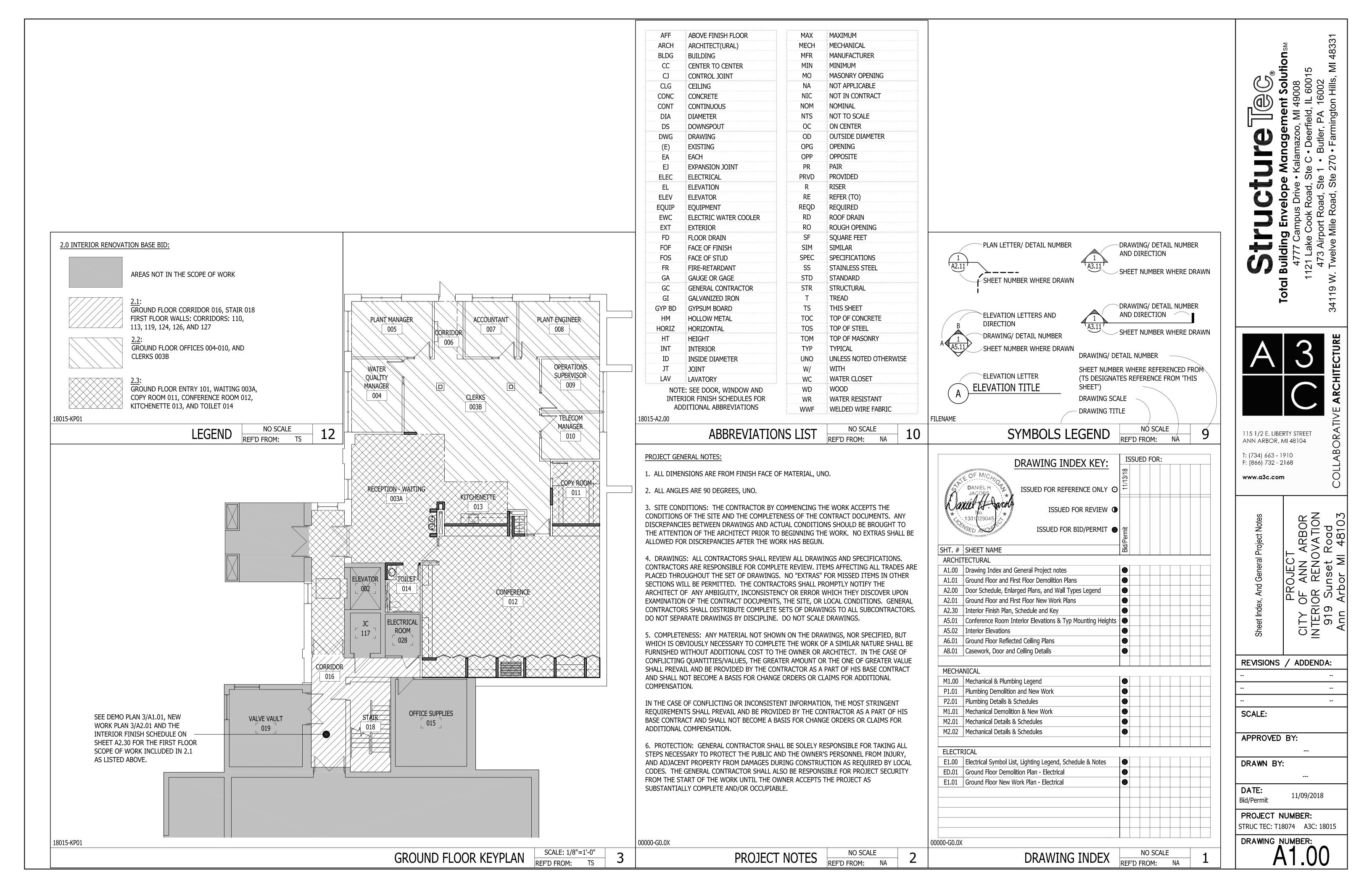
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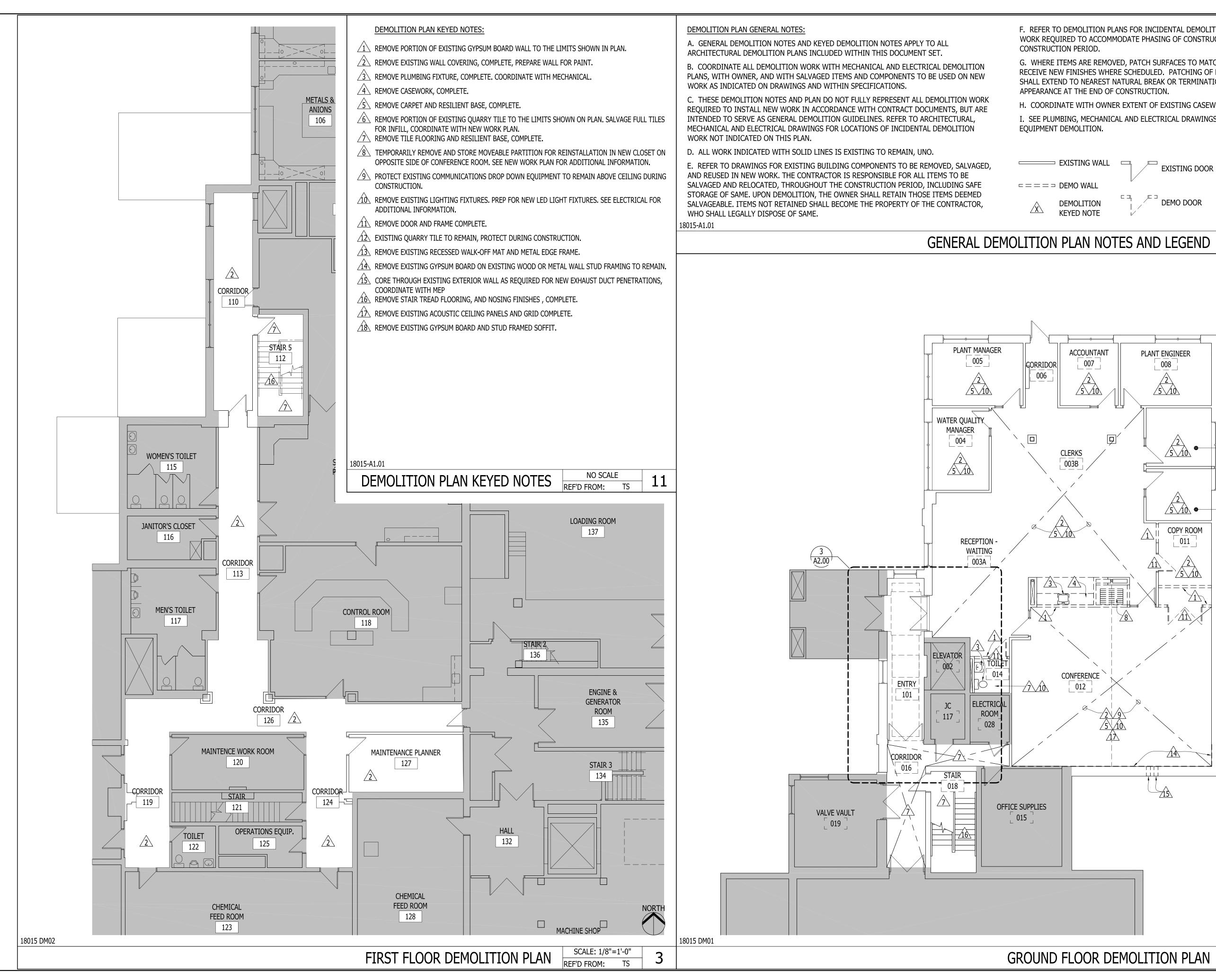


1121 Lake Cook Road, Ste C • Deerfield, IL 60015 473 Airport Road, Ste 1 • Butler, PA 16002 34119 W. Twelve Mile Road, Ste 270 • Farmington Hills, MI 48331

2018 ARCHITECTURAL / STRUCTURAL PROJECT CITY OF ANN ARBOR — WATER TREATMENT

PROJECT #: T18074.RFG/RST3



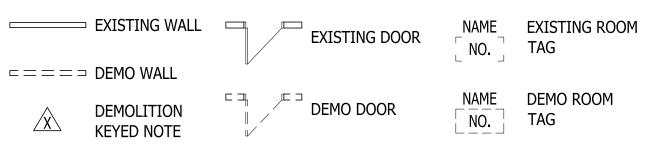


F. REFER TO DEMOLITION PLANS FOR INCIDENTAL DEMOLITION WORK OR TEMPORARY WORK REQUIRED TO ACCOMMODATE PHASING OF CONSTRUCTION OPERATIONS DURING CONSTRUCTION PERIOD.

G. WHERE ITEMS ARE REMOVED, PATCH SURFACES TO MATCH ADJACENT SURFACES OR TO RECEIVE NEW FINISHES WHERE SCHEDULED. PATCHING OF NEW OR EXISTING FINISHES SHALL EXTEND TO NEAREST NATURAL BREAK OR TERMINATION FOR A CLEAN, UNBLEMISHED APPEARANCE AT THE END OF CONSTRUCTION.

H. COORDINATE WITH OWNER EXTENT OF EXISTING CASEWORK AND SHELVING TO REMAIN.

I. SEE PLUMBING, MECHANICAL AND ELECTRICAL DRAWINGS FOR EXTENT OF FIXTURE AND EQUIPMENT DEMOLITION.



PLANT ENGINEER

800

<u>/5\/10\</u>

COPY ROOM

011

GENERAL DEMOLITION PLAN NOTES AND LEGEND

ACCOUNTANT

007

<u>/5\/10\</u>

CLERKS

003B

CONFERENCE 012

OPERATIONS

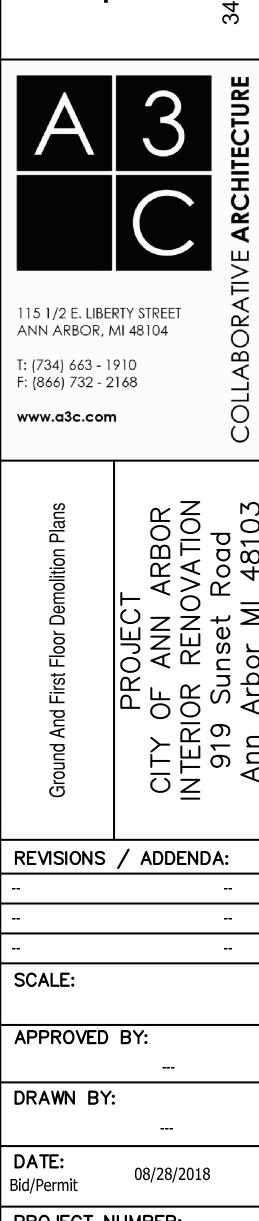
SUPERVISOR

009

TELECOM

MANAGER

010



ARBOR VATION Road 48103

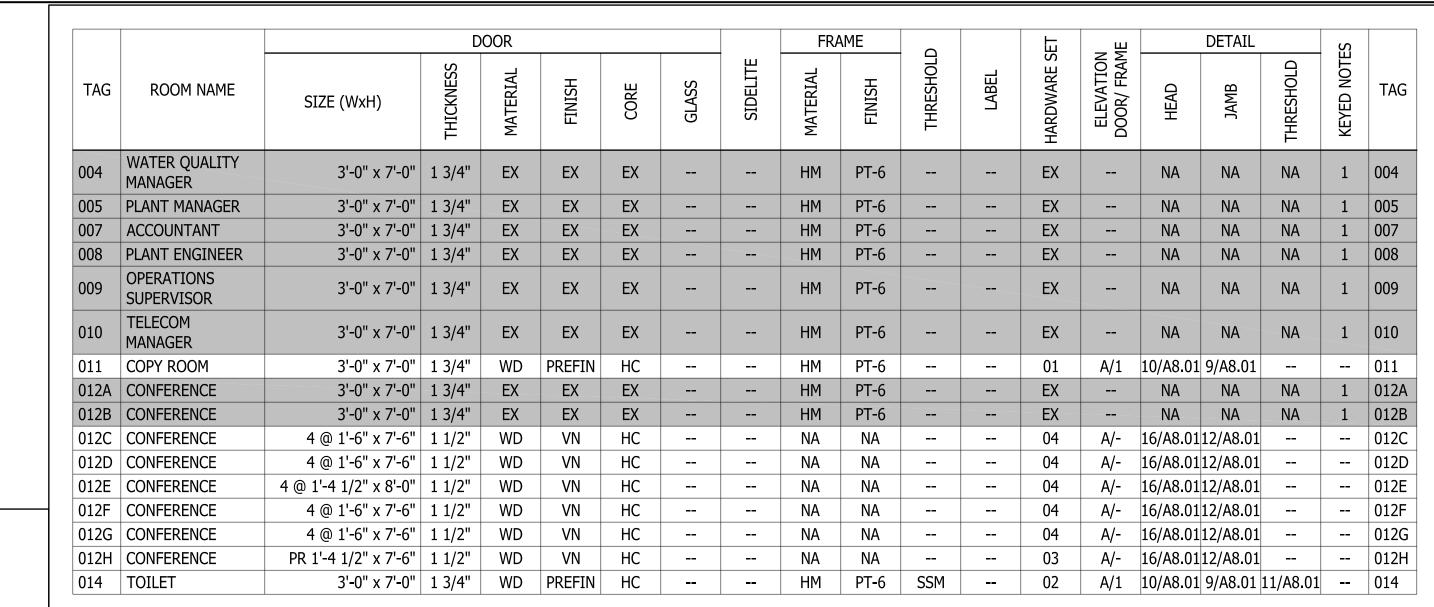
REVISIONS / ADDENDA:

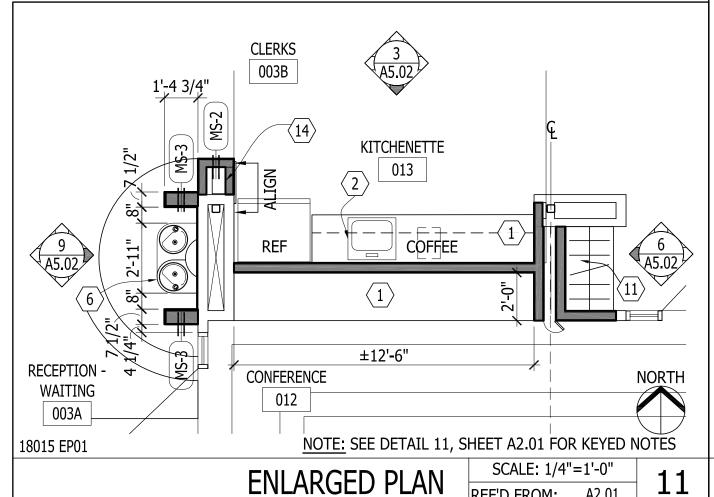
PROJECT NUMBER: STRUC TEC: T18074 A3C: 18015

DRAWING NUMBER:

NORTH

REF'D FROM:





DOOR SCHEDULE NOTES:

EXISTING DOOR AND FRAME TO REMAIN UNCHANGED, PAINT DOOR FRAME PT-6

ABBREVIATIONS:

PAIR - CLEAR PRE-FINISHED EXISTING SOLID SURFACE MATERIAL WOOD

- NOT APPLICABLE VN VENEER, CLEAR FINISH

 PAINT 18015 DRS

SEE DOOR SCHED 2" SEE DOOR 2" SCHED TYPE 'A' TYPE '1'

DOOR AND FRANE TYPES

DOOR SCHEDULE AND NOTES

115 1/2 E. LIBERTY STREET REF'D FROM: A2.01 ANN ARBOR, MI 48104

T: (734) 663 - 1910 F: (866) 732 - 2168 www.a3c.com

elop

Building

34119

COLLABORA

REVISIONS / ADDENDA:

SCALE:

APPROVED BY:

DRAWN BY:

DATE: Bid/Permit

PROJECT NUMBER: STRUC TEC: T18074 A3C: 18015

08/28/2018

DRAWING NUMBER: A2.00

		RECEPTION - WAITING 003A
		ELEVATOR 002
L	REMOVE PARTIAL TILE AT WALL AND FIRST FULL TILE FROM WALL ON ALL SIDES	ENTRY 101 JC 117 ELECTRICAL ROOM 028
	NOTE: SEE DETAIL 11, ON SHEET A1.01 FOR KEYED NOTES	CORRIDOR 016
RTH	18015 EP01	STAIR 018

DEMOLITION ENLARGED PLAN

| SCALE: 1/4"=1'-0" | REF'D FROM: A1.01

		WALL TYPES LE	EGEND			
FRAMING	CLADDING	FIRE RATING	UL DESIGN	SOUND RATING	INSULATION	SPECIAL NOTES
3-5/8" X 25 GA. (Minimum) METAL STUDS, 16" O.C., FROM FLOOR TO 3" ABOVE CEILING HEIGHT. EXTEND EVERY THIRD STUD AT 48" O.C. TO STRUCTURE ABOVE AND BRACE LATERALLY TO STRUCTURE ABOVE AT 48" O.C.	ONE (1) LAYER 5/8" REGULAR GYPSUM BOARD, EACH SIDE, FROM FLOOR TO 3" ABOVE CEILING HEIGHT.	NA	NA	45 STC	3-1/2" ACOUSTICAL BATT INSULATION	REFER TO REFLECTED CEILING PLANS FOR CEILING HEIGHTS; OMIT ACOUSTICAL INSULATION AT WING WALLS WHERE STC RATING IS NOT POSSIBLE.
3-5/8" X 25 GA. (Minimum) METAL STUDS, 16" O.C., FROM FLOOR TO 3" ABOVE CEILING HEIGHT. EXTEND EVERY THIRD STUD AT 48" O.C. TO STRUCTURE ABOVE AND BRACE LATERALLY TO STRUCTURE ABOVE AT 48" O.C.	ONE (1) LAYER 5/8" REGULAR GYPSUM BOARD, ONE SIDE, FROM FLOOR TO 3" ABOVE CEILING HEIGHT.	NA	NA	NA	NA	REFER TO REFLECTED CEILING PLANS FOR CEILING HEIGHTS.
6" X 25 GA. METAL STUDS, 16" O.C., FROM FLOOR TO 3" ABOVE CEILING HEIGHT. EXTEND EVERY THIRD STUD AT 48" O.C. TO STRUCTURE ABOVE AND BRACE LATERALLY TO STRUCTURE ABOVE AT 48" O.C.	ONE (1) LAYER 5/8" REGULAR GYPSUM BOARD, EACH SIDE, FROM FLOOR TO 3" ABOVE CEILING HEIGHT.	NA	NA	NA	NA	REFER TO REFLECTED CEILING PLANS FOR CEILING HEIGHTS.
STUD DEPTH TO SUIT X 25 GA. (Minimum) METAL STUDS, 16" O.C., FULL HEIGHT OF EXISTING WALL OPENING	GYPSUM BOARD, OF TYPE AND THICKNESS TO SUIT	MATCH EXISTING ADJACENT WALL RATING	N/A	MATCH EXISTING ADJACENT WALL RATING	MATCH EXISTING ADJACENT WALL INSULATION	MATCH EXISTING ADJACENT WALL THICKNESS, SOUND RATING, FIRE RATING, AND FINISH
	3-5/8" X 25 GA. (Minimum) METAL STUDS, 16" O.C., FROM FLOOR TO 3" ABOVE CEILING HEIGHT. EXTEND EVERY THIRD STUD AT 48" O.C. TO STRUCTURE ABOVE AND BRACE LATERALLY TO STRUCTURE ABOVE AT 48" O.C. 3-5/8" X 25 GA. (Minimum) METAL STUDS, 16" O.C., FROM FLOOR TO 3" ABOVE CEILING HEIGHT. EXTEND EVERY THIRD STUD AT 48" O.C. TO STRUCTURE ABOVE AND BRACE LATERALLY TO STRUCTURE ABOVE AT 48" O.C. 6" X 25 GA. METAL STUDS, 16" O.C., FROM FLOOR TO 3" ABOVE CEILING HEIGHT. EXTEND EVERY THIRD STUD AT 48" O.C. TO STRUCTURE ABOVE AND BRACE LATERALLY TO STRUCTURE ABOVE AT 48" O.C. STUD DEPTH TO SUIT X 25 GA. (Minimum) METAL STUDS, 16" O.C., FULL	3-5/8" X 25 GA. (Minimum) METAL STUDS, 16" O.C., FROM FLOOR TO 3" ABOVE CEILING HEIGHT. EXTEND EVERY THIRD STUD AT 48" O.C. TO STRUCTURE ABOVE AND BRACE LATERALLY TO STRUCTURE ABOVE CEILING HEIGHT. EXTEND EVERY THIRD STUD AT 48" O.C., FROM FLOOR TO 3" ABOVE CEILING HEIGHT. EXTEND EVERY THIRD STUD AT 48" O.C. 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18015-PTS WALL TYPES LEGEND REF'D FROM:

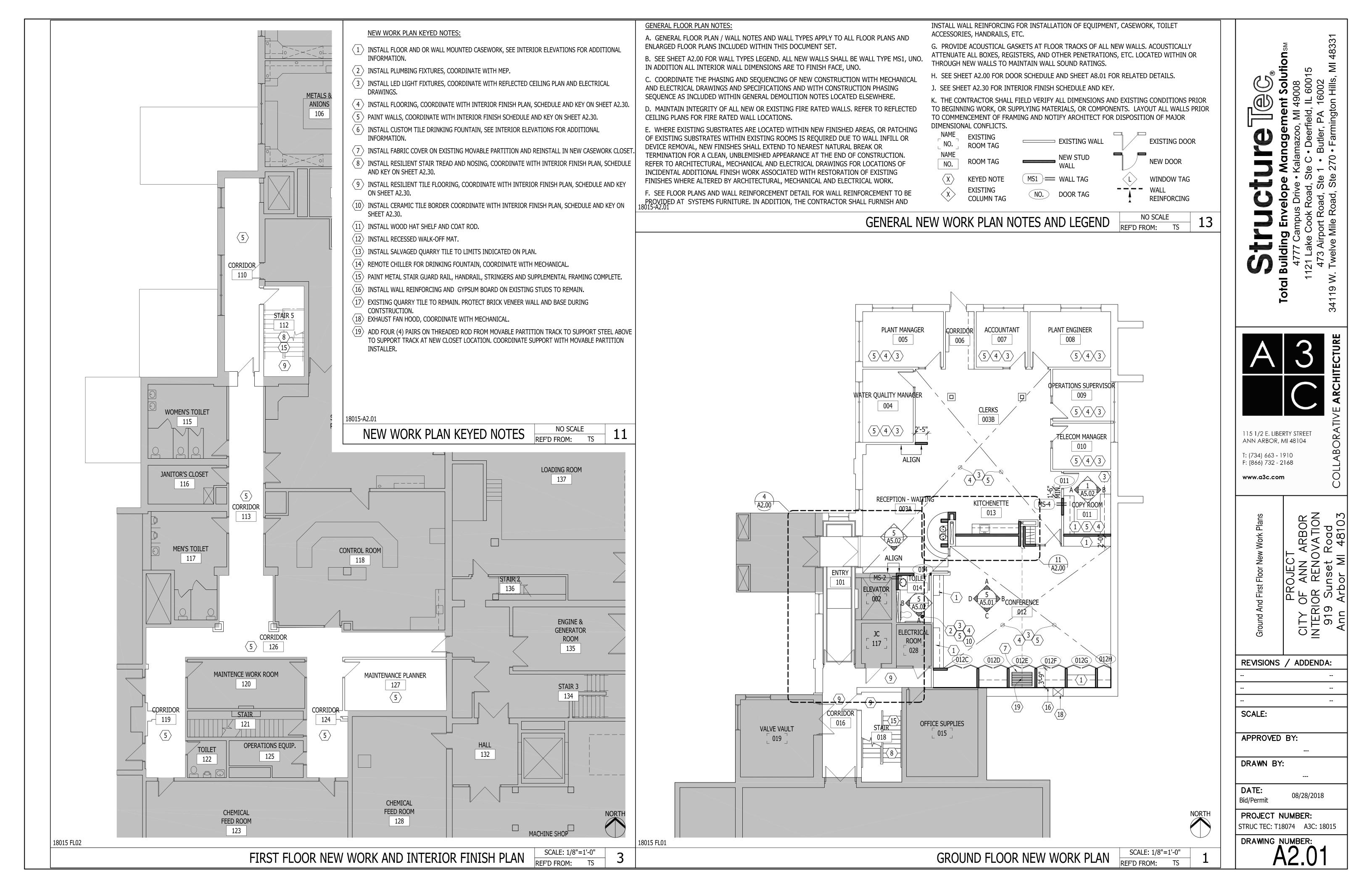
	REF'D FROM: A2.01 I
RECEPTION - WAITING 003A	RECEPTION - WAITING 003A
ELEVATIOR ODZ	ELEVATOR O02 TOILET 014
JC SLECTRICAL ROOM O28	PARTIAL TILE AT WALL AND FIRST FULL TILE FROM WALL ON ALL SIDES PARTIAL TILE AT WALL AND FIRST FULL 12 12 12 117 ELECTRICAL ROOM 028
NOTE: SEE DETAIL 11, ON SHEET A2.01 FOR KEYED NOTES CORRIDOR 016 STAIR 018	NOTE: SEE DETAIL 11, ON SHEET A1.01 FOR KEYED NOTES CORRIDOR 016 NORTH 018

ENLARGED PLAN

SCALE: 1/4"=1'-0"

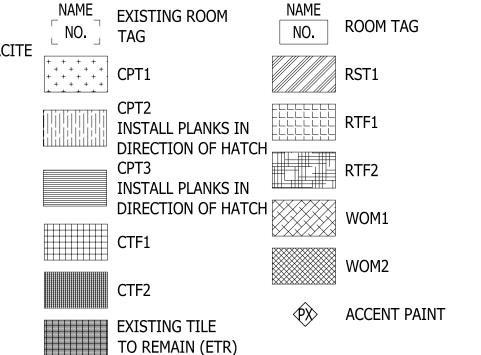
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18015 EP01

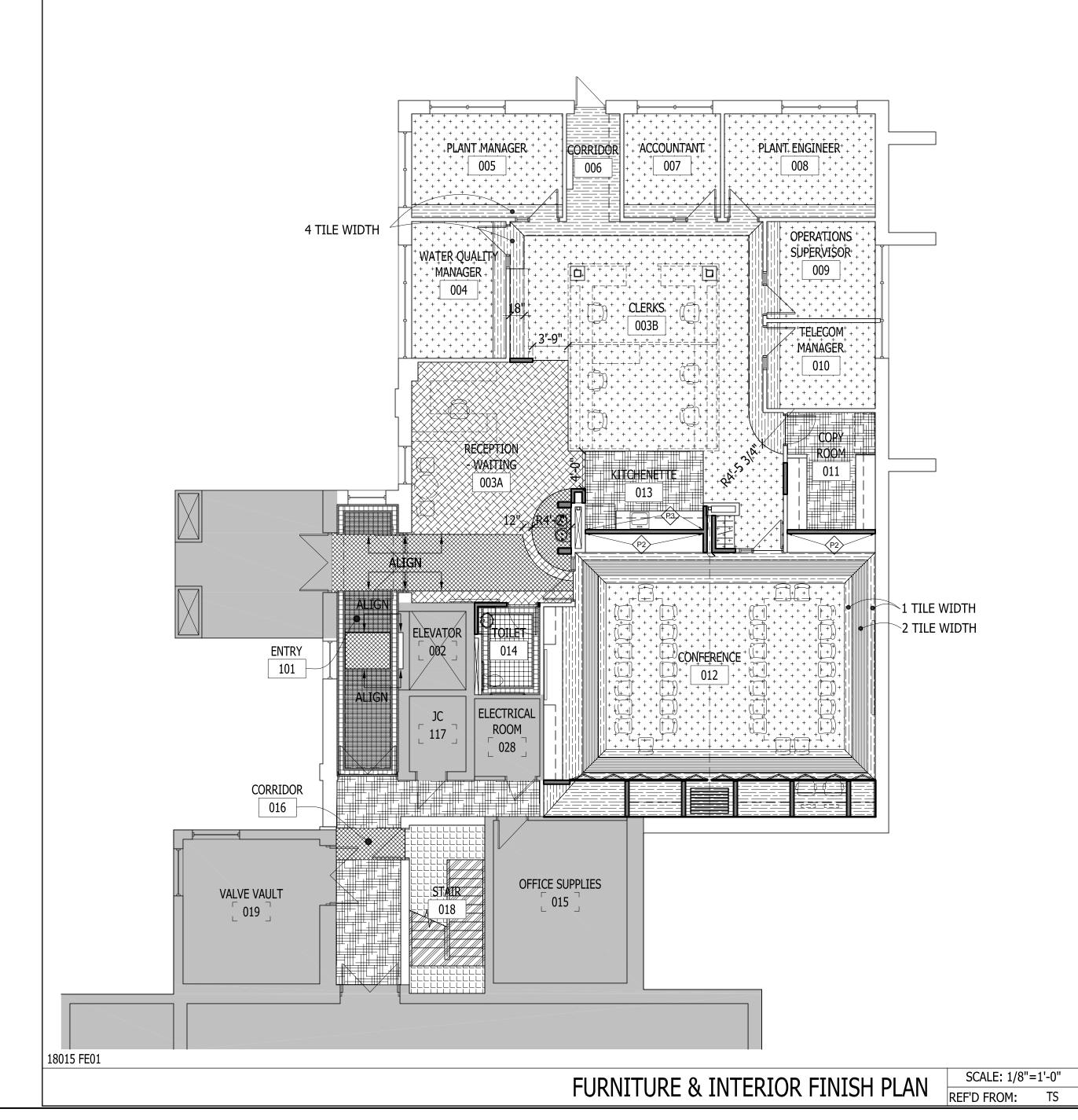




- 1. ALL EXPOSED CONDUIT, ELECT. BOXES, PIPES AND BUILDING FRAMING SHALL BE PAINTED TO MATCH ADJACENT SURFACE
- 2. PROVIDE FLOOR TRANSITIONS AS FOLLOWS:
- RTF TO CPT OR WOM: JOHNSONITE COLOR MOONROCK, PROFILE: CTA-XX-A WOM TO TOILET ROOM: SOLID SURFACE THRESHOLD, BEVELED TO PROVIDE SMOOTH TRANSITION, COLOR: CORIAN ANTHRACITE WOM TO EXISTING CERAMIC TILE/VESTIBULE TILE: JOHNSONITE SLIM LINE SLT-XX-F. COLOR BLACK
- 3. ALL WOOD DOORS EXISTING TO REMAIN EXCEPT AT CONFERENCE 012. CONFERENCE ENTRY DOORS TO BE PAINTED P6 BOTH SIDES. NEW DOOR FOR TOILET 014 TO BE PAINTED P6 BOTH SIDES.
- 4. SEE PLAN FOR ACCENT PAINT LOCATIONS NEEDING CLARIFIED FROM SCHEDULE.
- 5. VERTICAL CASEWORK FINISH & CONFERENCE BI-FOLD DOORS TO BE NATURAL ASH
- 6. PROVIDE DEDUCT ALTERNATE FOR A NON-MOTAWI SOLUTION FOR CTW1, CTW2, CTW4, & CTB1 AS FOLLOWS:
- CTW1: DALTILE CERAMIC TILE, NATURAL HUES, 2"X2" COLOR IVORY CTW2: CEPAC TILE, QUAD: 1"X1", COLOR QUA 2M (MATTE) (BLACK)
- CTW4: DALTILE CERAMIC TILE, NATURAL HUES, 2"X2" COLORS "STARLIGHT" AND "ATLANTIS". SEE ELEVATION FOR RANDOM MOSAIC PATTERN.
- CTB1: DALTILE CERAMIC TILE, NATURAL HUES, 6"X6" COLOR "BLACK" QH45.(CONTACT: KELLY REICH: 734.787.7332)
- 7. GROUT USED FOR FOUNTAIN ALCOVE (CTW1-CTW4 AND CTB1) TO BE TEC POWERGROUT COLOR TBD BASED ON SAMPLE SUBMITTALS/DETERMINATION OF DEDUCT ALTERNATE.



FINISH NOTES	NO SCALE		15
LTINTOL INOLES	REF'D FROM:	TS	TO



ROOM	FLO	OR	CEILING		WALLS					EOUS	
NO. NAME	TYPE	BASE	TYPE	NORTH	EAST	SOUTH	WEST	DOOR FRAME	VERTICAL LAMINATE	COUNTER	REMARKS
101 ENTRY	CTF1, CTF2, ETR, WOM2	ETR	ETR	ETR	ETR	ETR	ETR	P6			SALVAGE AND REUSE EXISTING QUARRY TILE FOR PATCHING AS REQUIRED FOR NEW LAYOUT
002 ELEVATOR	ETR		ETR	ETR	ETR	ETR	ETR	ETR			
03A RECEPTION - WAITING	WOM1, WOM2	RB1, CTB1	ETR	P4, CTW1,2	P1, CTW2-4	P1, CTW1,2	P1	P6			CTB1 AT FOUNTAIN AREA ONLY. SEE ELEVATIONS
03B CLERKS	CPT1, 2	RB1	ETR	P1	P1	P1	P1	P6			
004 WATER QUALITY MANAGER	CPT1, 2	RB1	ETR	P4	P1	P1	P1	P6			
005 PLANT MANAGER	CPT1, 2	RB1	ETR	P4	P1	P1	P1	P6			
006 CORRIDOR	CPT2	RB1	ETR	P1	P1	P1	P1	P6			
007 ACCOUNTANT	CPT1,2	RB1	ETR	P1	P3	P1	P1	P6			
008 PLANT ENGINEER	CPT1,2	RB1	ETR	P5	P2	P2	P2	P6			
009 OPERATIONS SUPERVISOR	CPT1,2	RB1	ETR	P3	P1	P1	P1	P6			
010 TELECOM MANAGER	CPT1,2	RB1	ETR	P5	P1	P1	P1	P6			
011 COPY ROOM	RTF2	RB1	ETR	P1	P1	P4	P1	P6		PL1	
012 CONFERENCE	CPT1,2,3	WB1	ACT1, P7	P1,P2	P1	P1	P1	P6		SSM1, PL1	PL1 AT DESK NOOK ONLY. APPLY OPF1 TO EXISTIN PARTITION. BI FOLD DOORS TO HAVE ASH VENEER
013 KITCHENETTE	RTF2	RB1	ETR, P7	P1	P1	P3	P1			SSM1	
014 TOILET	CTF1,2	CTB2	P7	P1	P1	P1, CTW5	P4,CTW5	P6		SSM2	
016 CORRIDOR	WOM2, RTF2	RB1	ETR	P1	P1	P1	P1	P6			
018 STAIR	RTF1, RST1	RB1	ETR	P4	P1	P1	P4	P6			INCLUDE RTF1 UNDER STAIR AT FIRST FLOOR
110 CORRIDOR	ETR	RB1	ETR	P1	P1	P1	P1	ETR			EXISITNG CERAMIC WALL TILE TO REMAIN UNPAIN
CORRIDOR	ETR	RB1	ETR	P1	P1	P1	P1	ETR			EXISITNG CERAMIC WALL TILE TO REMAIN UNPAIN
119 CORRIDOR	ETR	RB1	ETR	P1	P1	P1	P1	ETR			EXISITNG CERAMIC WALL TILE TO REMAIN UNPAIN
124 CORRIDOR	ETR	RB1	ETR	P1	P1	P1	P1	ETR			EXISITNG CERAMIC WALL TILE TO REMAIN UNPAIN
126 CORRIDOR	ETR	RB1	ETR	P1	P1	P1	P1	ETR			EXISITNG CERAMIC WALL TILE TO REMAIN UNPAIN
127 MAINTENANCE PLANNER	ETR	RB1	ETR	P1	P1	P1	P1	ETR			EXISITNG CERAMIC WALL TILE TO REMAIN U

CODE	MATERIAL	MANUFACTURER	STYLE	COLOR	SIZE	MFR CODE	CONTACT	NOTES
ACT1	ACOUSTICAL CEILING	ARMSTRONG	OPTIMA TEGULAR	WHITE	24"X24"	3251		WHITE 얆 GRID
	TILE						KRISTIE BELEGRIN:	
CPT1 	CARPET TILE	SHAW CONTRACT	LINEWEIGHT TILE	GRAPHITE	18" x 36"	5T114-13510	419-346-5481	INSTALL ASHLAR
CPT2	CARPET TILE	INTERFACE	ON LINE	PEPPER	25cm x 1m	138700AK00-103788	KATIE HAUSER: 330-603-0608	INSTALL ASHLAR
СРТ3	CARPET TILE	INTERFACE	ON LINE	FOG	25cm x 1m	138700AK00-105259	KATIE HAUSER: 330-603-0608	INSTALL ASHLAR
CTB1	CERAMIC TILE (BASE)	MOTAWI	STANDARD GLAZE FIELD TILE	BLACK MATTE OR BLACK GLOSSY	6" X 6"			
CTB2	CERAMIC TILE BASE	AMERICAN OLEAN	GLAZED WALL TILE	LIGHT SMOKE	6"X6" COVE	004	KATHLEEN SOMERVELL: 248-467-4362	USE TEC POWERGROUT COLOR 949 SILVERADO
CTF1	CERAMIC TILE FLOOR	SENECA TILES	QUARRY PAVERS	LAMBSWOOL	6" x 6"		MEGAN LYONS: 614-403-2227	USE TEC POWERGROUT COLOR 941 RAVEN
CTF2	CERAMIC TILE FLOOR	ALFALUX	OLIMPIA	LAVAGNA	2" x 2" MOSAIC		MEGAN LYONS: 614-403-2227	USE TEC POWERGROUT COLOR 941 RAVEN
CTW1	CERAMIC TILE WALL	MOTAWI	STANDARD GLAZE FIELD TILE	CREAM MATTE, CLEAR GLOSSY, BAY LEAF MATTE, OR CELEDON GLOSSY	2"X2"X 5/8"			CONTRACTOR TO PROVIDE A SET OF FULL GLAZE SAMPLES (3 OF EACH) C EACH COLOR INDICATED FOR FINAL SELECTION.
CTW2	CERAMIC TILE WALL	MOTAWI	STANDARD GLAZE FIELD TILE	BLACK MATTE OR BLACK GLOSSY	1"X1"X ⁵ 8"			CONTRACTOR TO PROVIDE A SET OF FULL GLAZE SAMPLES (3 OF EACH) CEACH COLOR INDICATED FOR FINAL SELECTION.
CTW3A	CERAMIC TILE WALL	MOTAWI	FOOTLIGHTS, BORDER A, PALE GREEN	PALE GREEN	3"X6" X ⁵ 8"	3638 PG		SEE ELEVATION FOR INSTALL LOCATION. CONTRACTOR TO PROVIDE A SAMPLE FOR FINAL COORDINATION
CTW3B	CERAMIC TILE WALL	MOTAWI	FOOTLIGHTS, BORDER B, PALE GREEN	PALE GREEN	3"X6" X 5"	3639 PG		SEE ELEVATION FOR INSTALL LOCATION
CTW4	CERAMIC TILE WALL	MOTAWI	STANDARD GLAZE FIELD TILE	CADET BLUE MATTE	2"X2" X 5"	5194		CONTRACTOR TO PROVIDE A SET O FULL GLAZE SAMPLES FOR FINAL COORDINATION
CTW5	CERAMIC TILE WALL	AMERICAN OLEAN	GLAZED WALL TILE	LIGHT SMOKE	6"X6"	0004	KATHLEEN SOMERVELL: 248-467-4362	USE TEC POWERGROUT COLOR 949 SILVERADO
P1	PAINT	SHERWIN WILLIAMS	EGGSHELL	STEAMED MILK		SW7554	1-800-474-3794	
P2	PAINT	SHERWIN WILLIAMS	EGGSHELL	DORIAN GRAY		SW7017	1-800-474-3794	
⊃3 	PAINT	SHERWIN WILLIAMS	EGGSHELL	GREEN ONYX		SW9128	1-800-474-3794	
P4	PAINT	SHERWIN WILLIAMS	EGGSHELL	POOLHOUSE		SW7603	1-800-474-3794	
P5	PAINT	SHERWIN WILLIAMS	EGGSHELL	INKY BLUE		SW9149	1-800-474-3794	
P6	PAINT	SHERWIN WILLIAMS	SEMI-GLOSS	IRON ORE		SW7069	1-800-474-3794	DOOR FRAMES AND STAIR RAIL
P7	PAINT	SHERWIN WILLIAMS	FLAT	HIGH REFLECTIVE WHITE		SW7757	1-800-474-3794	CEILINGS
PL1	PLASTIC LAMINATE	WILSONART		STEEL MESH		4879-38	SUE KAMPS: 616-291-1430	COUNTERS IN COPY ROOM AND ON CONFERENCE ROOM HIDDEN TABLE
RB1	RESILIENT BASE	JOHNSONITE RUBBER	COVE COIL BASE	GATEWAY	0'-4"	TA4	JOYCE SEAL: 330-801-8210	
RST1	RESILIENT STAIR TREAD/RISER	JOHNSONITE RUBBER	1 PIECE STAIR/TREAD COMBO - HAMMERED (HTR)	MYSTIQUE MICROTONE SPECKLED	SEE PLANS	HNSP-LG7	JOYCE SEAL: 330-801-8210	INCLUDE VISUALLY IMPAIRED SOLID COLOR RUBBER INSERT, COLOR #84 BLUE JEANS
RTF1	RESILIENT TILE FLOOR	JOHNSONITE - RUBBER	HAMMERED	QUENCHED MICROTONE SPECKLED	24" x 24" x 2MM THICK	HNSP-LB6	JOYCE SEAL: 330-801-8210	USED AT LANDINGS
RTF2	RESILIENT TILE FLOOR	MANNINGTON	AMTICO CITY BLOCK	SCALE	18" x 18"	ANT205	NANCY KINNET (440) 666.3896	
SSM1	SOLID SURFACE MATERIAL	CORIAN		LAVA ROCK	0'-0 1/2"		JOHN LENZ: 248-767-3369	
SSM2	SOLID SURFACE MATERIAL	CORIAN		(ALMOND) BONE			JOHN LENZ: 248-767-3369	INTEGRAL SINK TO MATCH
OPF1	OPERABLE PARTITION FABRIC	MDC	PHOENIX	THUNDER	4'-6"	MPT3004-4537	REBECCA KNOREK: 419-450-7875	RE-UPHOLSTER DIVIDER IN CONFERENCE ROOM
WB1	WOOD BASE		ASH	(NATURAL)	4"H WITH EASED EDGE AT TOP			SEE ARCHITECTURAL FOR FINISH
WOM1	WALK-OFF MAT	INTERFACE	STEP REPEAT SR899	KHAKI	1388602500-104919	50CM x 50CM	KATIE HAUSER: 330-603-0608	IN ENTRY AND WAITING AREA. INSTALL MONOLITHIC.
WOM2	WALK-OFF MAT	MOHAWK	STEP IN STYLE II	OBSIDIAN	QL312-989	24" x 24"	TODD ACCHIONE: 248-946-2410	IN ENTRY AND WAITING AREA. QUARTER TURN INSTALLATION.



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REVISIONS / ADDENDA:

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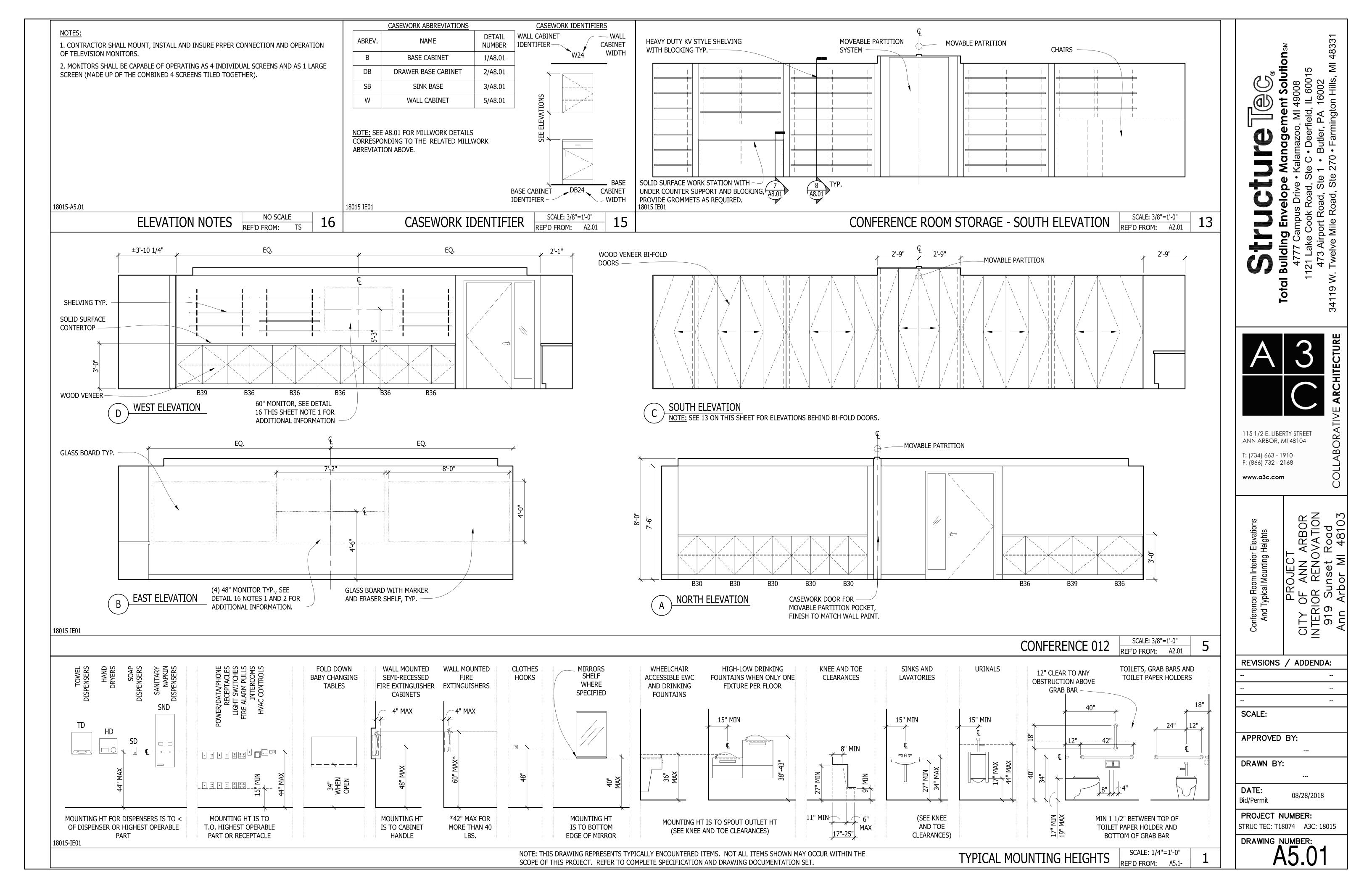
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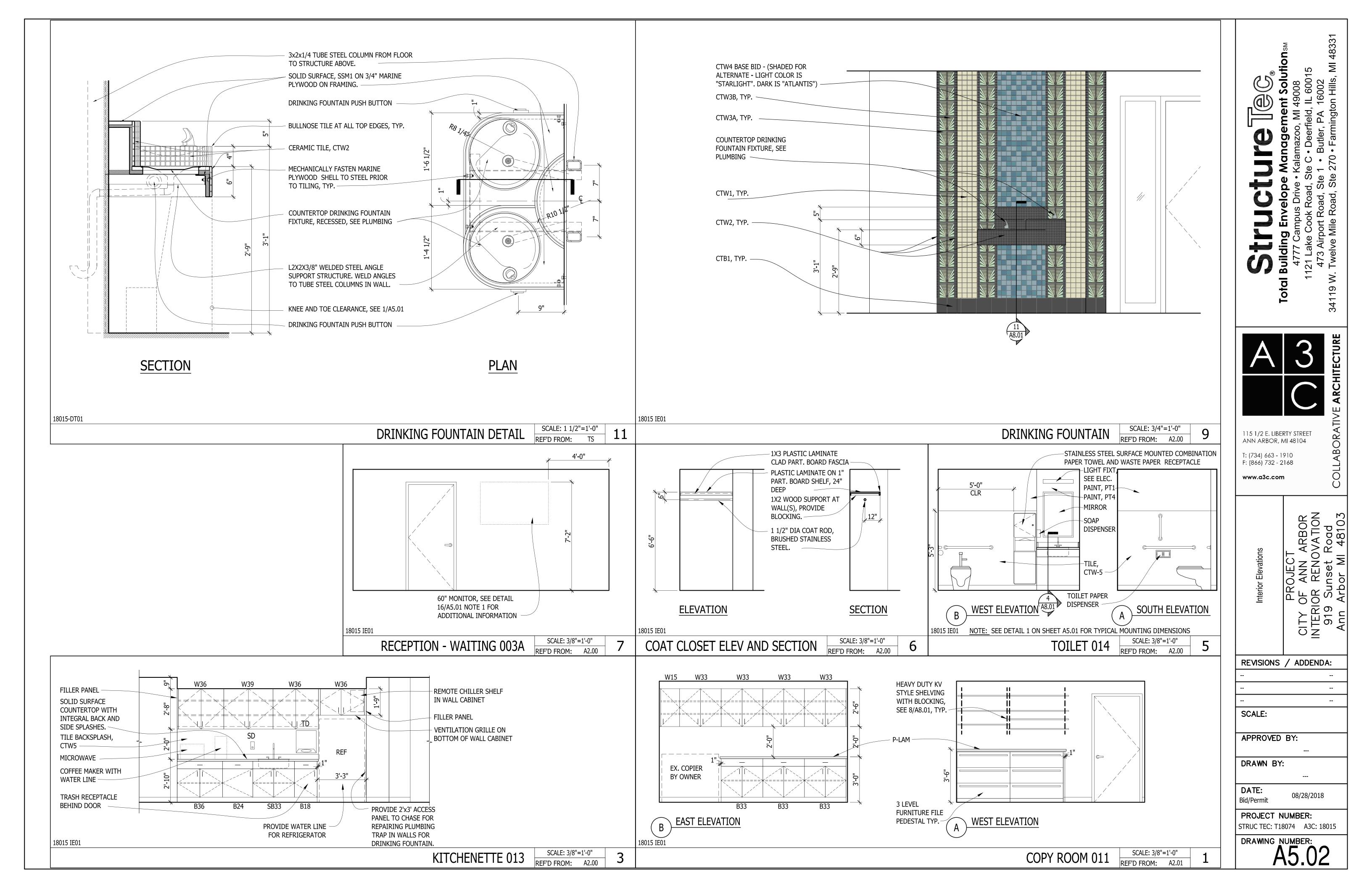
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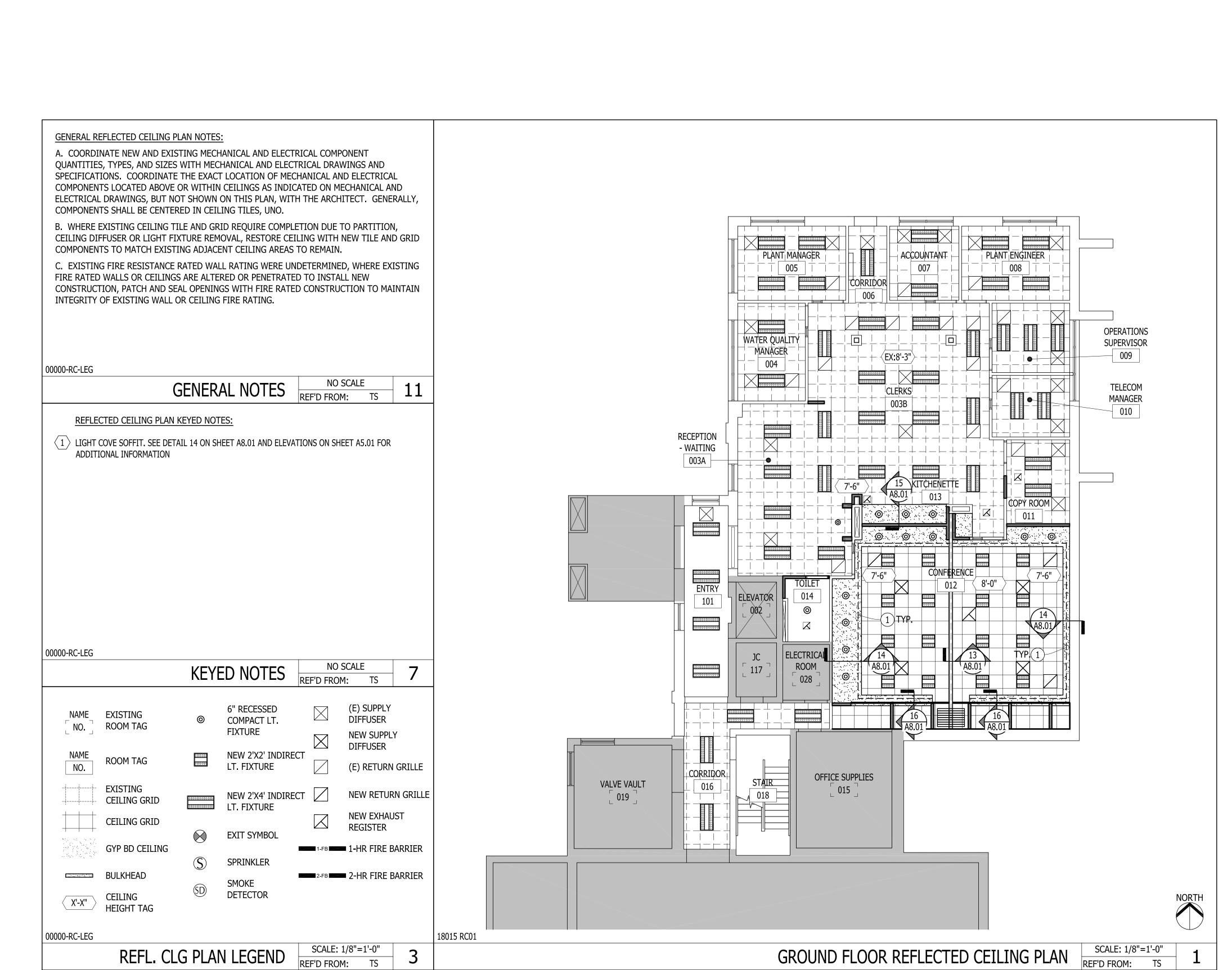
STRUC TEC: T18074 A3C: 18015

INTERIOR FINISH SCHEDULE AND KEY: FLOOR 1 & FLOOR 2 | NO SCALE | REF'D FROM: TS

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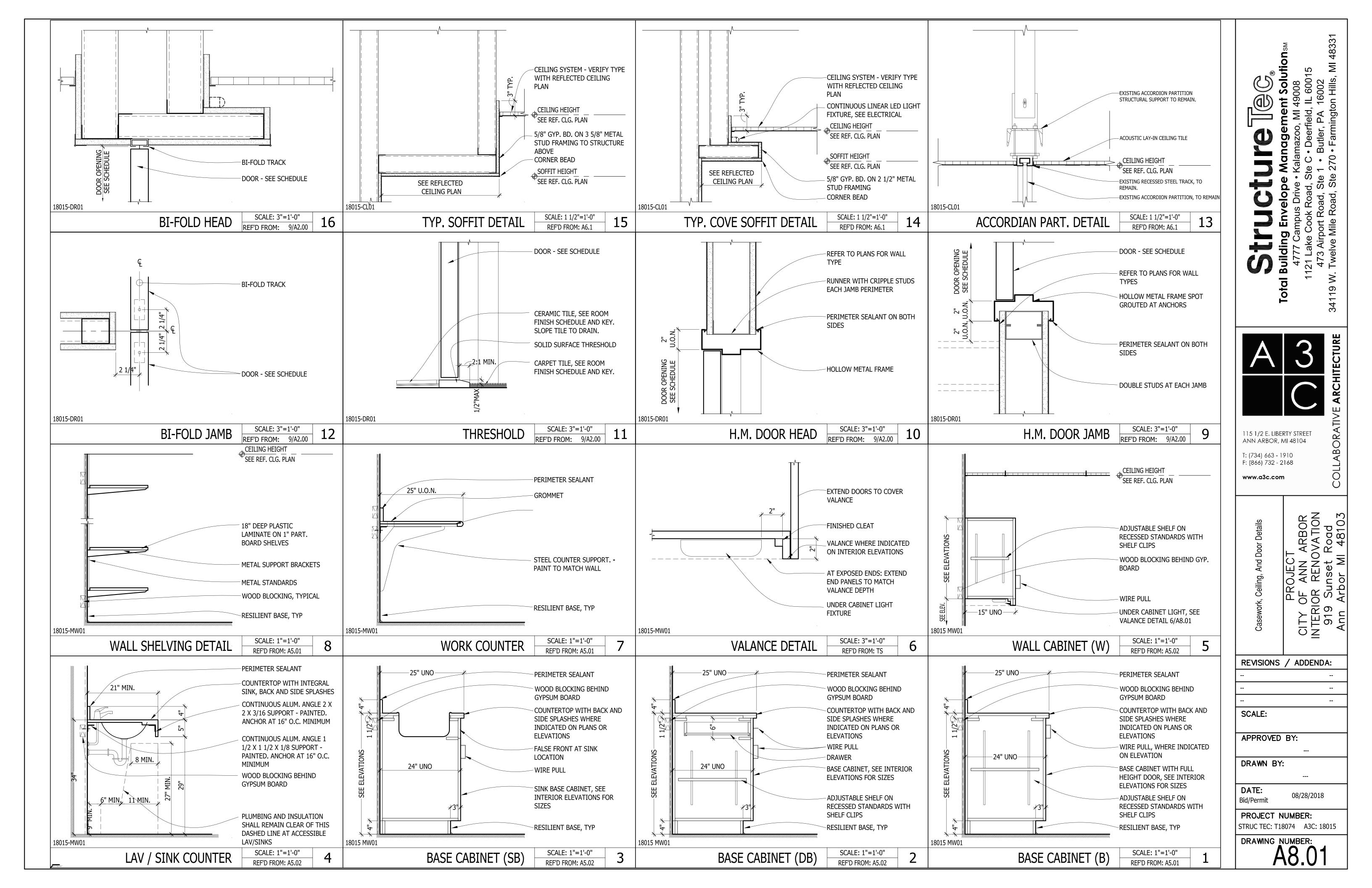
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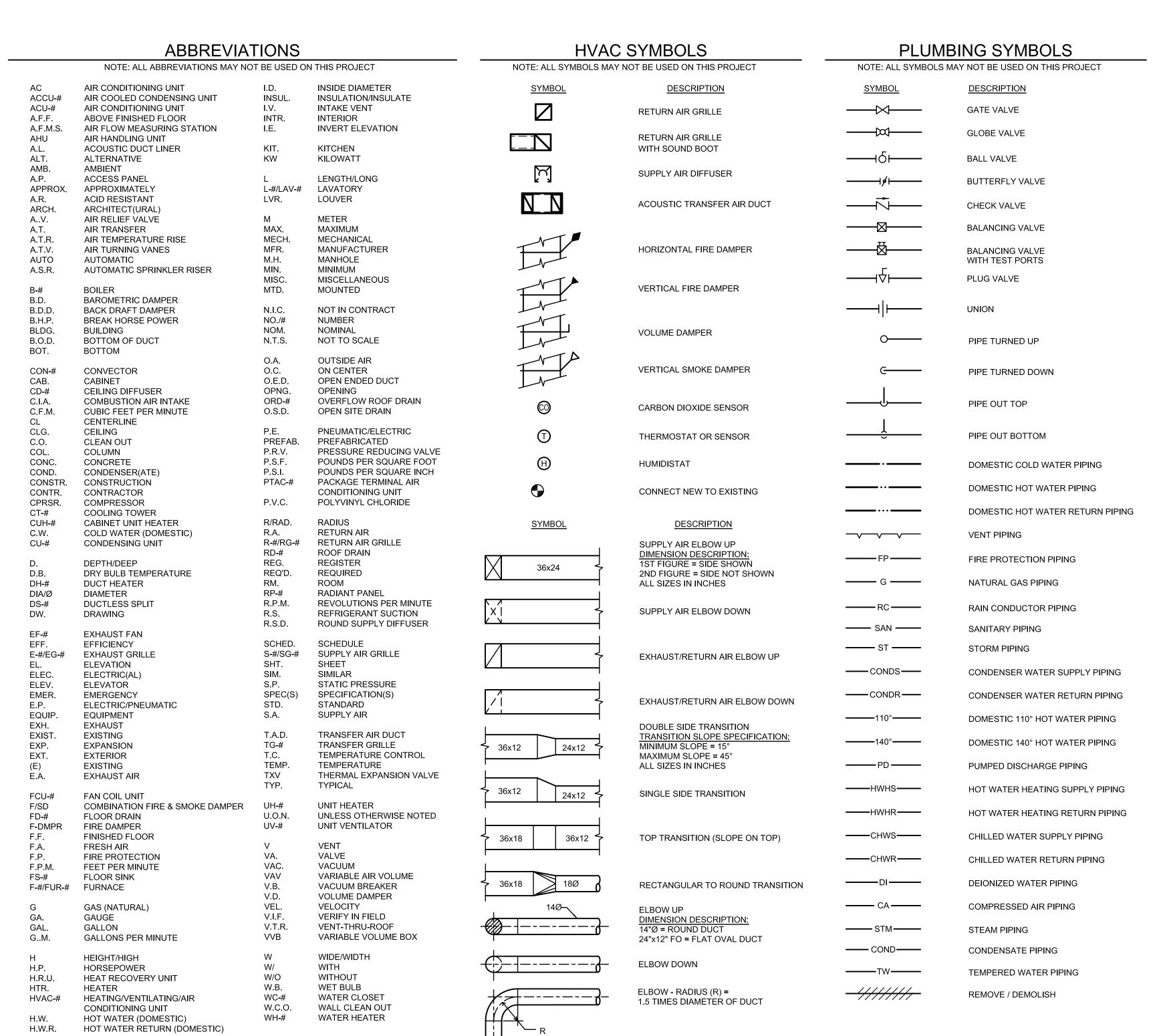
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DRAWING NUMBER: A6.01





NOTES (APPLICABLE AS REQUIRED)

PLUMBING GENERAL NOTES:

- 1. SEE ARCHITECTURAL DRAWINGS FOR EXACT LOCATION OF ALL NEW PLUMBING FIXTURES.
- 2. ALL PLUMBING RELATED CORING THROUGH FLOORS SHALL BE BY PLUMBING CONTRACTOR.
- 3. COORDINATE ALL NEW LOCATIONS, SIZES AND ELEVATIONS OF SLEEVES THROUGH WALLS SLABS AND FOUNDATIONS WITH STRUCTURAL DRAWINGS AND EXISTING FIELD CONDITIONS.
- 4. COORDINATE ALL PIPE ROUTING WITH SITE CONDITIONS, EQUIPMENT MANUFACTURER RECOMMENDATIONS AND ALL OTHER TRADES TO AVOID INTERFERENCES. PROVIDE ACCESS AROUND ALL NEW EQUIPMENT PER MANUFACTURERS RECOMMENDATIONS.
- 5. ALL OVERHEAD DOMESTIC WATER PIPING SHALL BE INSULATED AND LABELED IN ACCORDANCE WITH THE SPECIFICATION REQUIREMENTS.
- 6. ALL PIPING SHALL BE CONCEALED IN WALLS, CEILING SPACES OR ARCHITECTURAL SOFFITS.
- 7. CONTRACTOR SHALL MAINTAIN ADEQUATE CLEARANCES (PER N.E.C.) ABOVE AND AROUND ANY NEW ELECTRICAL PANELS, EQUIPMENT AND TRANSFORMERS WHEN ROUTING OVERHEAD DOMESTIC WATER AND STORM PIPING.
- 8. FAUCETS AND PLUMBING FIXTURES SHALL BE OF WATER CONSERVATION TYPE AND COMPLY WITH THE STATE OF MICHIGAN ENERGY STANDARDS.
- 9. RUN ALL BELOW FLOOR SANITARY PIPING LARGER THAN 2" AT 1/8" PER FOOT MINIMUM PITCH UNLESS NOTED OTHERWISE. SANITARY PIPING LESS THAN 2" SHALL BE PITCHED AT 1/4" PER FOOT MINIMUM, UNLESS NOTED OTHERWISE.

MECHANICAL GENERAL NOTES:

- 1. COORDINATE NEW DUCTWORK WITH BUILDING STRUCTURAL CONDITIONS. EQUIPMENT MANUFACTURER RECOMMENDATIONS AND ALL OTHER TRADES TO AVOID INTERFERENCES.
- 2. PROVIDE ACCESS AROUND ALL NEW EQUIPMENT PER MANUFACTURERS RECOMMENDATIONS.
- 3. ALL MECHANICAL RELATED CORING THROUGH WALLS AND FLOORS SHALL BE BY MECHANICAL CONTRACTOR. SEAL ALL PENETRATIONS THROUGH RATED WALLS AND FLOORS WITH U.L. RATED CAULK SEALANT IN ACCORDANCE WITH THE SPECIFICATION REQUIREMENTS.
- 4. ALL DUCTWORK SHALL BE ROUTED AS HIGH AS POSSIBLE ABOVE CEILINGS OR IN ARCHITECTURAL SOFFITS, WHERE INDICATED ON
- 5. COORDINATE ROUTING WITH ARCHITECTURAL AND STRUCTURAL TRADES TO AVOID INTERFERENCES.
- 6. ALL NEW DUCT SIZES TO DIFFUSERS SHALL MATCH NECK SIZE OF DIFFUSER OR GRILLE.
- 7. COORDINATE EXACT LOCATIONS OF DIFFUSERS AND RETURN GRILLES WITH ARCHITECTURAL AND ELECTRICAL REFLECTED CEILING PLANS AND ARCHITECTURAL INTERIOR ELEVATIONS.
- 8. COORDINATE ALL T-STAT SENSOR HEIGHTS ABOVE FINISHED FLOOR WITH ARCHITECTURAL TRADES.
- 9. BALANCE AIR SYSTEMS TO VALUES INDICATED ON DRAWINGS.
- 10. ALL FLEXIBLE DUCTWORK SHALL BE LIMITED TO 5'-0" MAXIMUM LENGTH FROM HARD DUCT CONNECTION TO ROUND NECK SUPPLY AIR DIFFUSERS. FLEX DUCT APPROVED ABOVE ACCESSIBLE CEILING

FIRE PROTECTION NOTES:

1. THE FIRE PROTECTION / SPRINKLER SYSTEM IS EXISTING AND IN PLACE. ANY NEW AND / OR RELOCATIONS OF EXISTING HEADS AND PIPING, AS REQUIRED TO ACCOMMODATE THE SPACE LIGHTING AND CEILING REQUIREMENTS, SHALL BE IN ACCORDANCE WITH THE FIRE INSURANCE UNDERWRITERS INCLUDING THE REQUIREMENTS OF THE N.F.P.A. - 13 (WITH RELATED SECTIONS) AND THE LOCAL FIRE MARSHAL (WHEN APPLICABLE).

DEMOLITION SYMBOLS

NOTE: ALL SYMBOLS MAY NOT BE USED ON THIS PROJECT

DESCRIPTION <u>SYMBOL</u> EXISTING SERVICE AND OR EQUIPMENT TO BE EXISTING SERVICE AND OR EQUIPMENT TO REMAIN. NEW SERVICE AND OR EQUIPMENT EXISTING SERVICE TO BE CAPPED DEMOLITION LIMIT AND POINT OF NEW CONNECTION. OR EQUIPMENT. (R&R) RELOCATED EQUIPMENT (E) **EXISTING** NEW

- COORDINATE SHUT-DOWN OF ANY SYSTEM WITH THE BUILDING SERVICES PERSONNEL PRIOR TO SYSTEM
- 3. FIELD VERIFY EXACT SIZE AND LOCATION OF ALL EXISTING
- 4. WHERE DAMAGE OCCURS DURING DEMOLITION, THE CONTRACTOR SHALL REPAIR AS REQUIRED SO AS TO BE COMPATIBLE WITH EXISTING.
- 5. WHERE DUCT AND/OR PIPE INSULATION HAS BEEN
- 6. ALL ITEMS DEMOLISHED SHALL BE REMOVED FROM THE SITE AND DISPOSED OF PROPERLY, UNLESS NOTED
- 7. LIMITS OF DEMOLITION ARE INDICATED ON THE DRAWINGS. SHOULD EXISTING FIELD CONDITIONS REQUIRE MODIFICATIONS OF THESE LIMITS FOR THE PROPER INSTALLATION OF NEW WORK, THE CONTRACTOR SHALL
- 8. CAP AND SEAL AIRTIGHT ALL UNUSED OPENINGS ON THE





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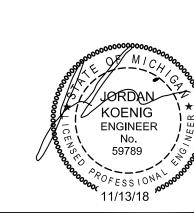
NEW CONNECTION TO EXISTING SERVICE AND

REMOVE AND RELOCATE EXISTING EQUIPMENT.

BALANCE TO INDICATED CFM AIRFLOW

GENERAL DEMOLITION NOTES:

- SHUT-DOWN.
- 2. REMOVE (INCLUDING DISCONNECTION OF) MECHANICAL SERVICE AS INDICATED AND/OR DESCRIBED ALONG WITH PIPING, HANGERS, SUPPORTS, CONTROLS AND ALL RELATED ACCESSORIES.
- SERVICES PRIOR TO DEMOLITION.
- DAMAGED, THE CONTRACTOR SHALL REPAIR AS REQUIRED SO AS TO BE COMPATIBLE WITH EXISTING.
- OTHERWISE.
- BE RESPONSIBLE FOR SUCH MODIFICATIONS.
- RETURN AND SUPPLY DUCTWORK.





WORK ARE PERMITTED UNLESS WRITTEN APPROVAL IS GRANTED BY MECHANICAL ELECTRICAL ENGINEERING CONSULTANTS, PC.

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REVISIONS / ADDENDA:

VG DATE: 11/09/18

PROJECT NUMBER: STRUC TEC: A3C: 18015

DRAWING NUMBER:



GENERAL NOTES:

- DRAWINGS ARE DIAGRAMMATIC. THE MECHANICAL
 WORK SHALL BE FIELD VERIFIED BEFORE PROCEEDING.
- 2. ALL MATERIALS AND WORKMANSHIP SHALL COMPLY WITH ALL APPLICABLE CODES, SPECIFICATIONS AND STATE LAWS.
- 3. REFER TO MECHANICAL SPECIFICATIONS AND DETAILS FOR OTHER REQUIREMENTS.
- 4. THE CONTRACTOR SHALL PROVIDE ALL MISCELLANEOUS SUPPORT STEEL, ETC. FOR THE PROPER INSTALLATION OF ALL MECHANICAL SYSTEMS.
- 5. ALL ITEMS ON NEW WORK PLAN SHALL BE CONSIDERED NEW UNLESS NOTED.

KEYED NOTES - DEMOLITION

- REMOVE FIXTURES WITH ALL RELATED PIPING, VALVES ETC. AND EXTEND SERVICES TO NEW LOCATION.
- 2) SHADED AREA NOT IN THE SCOPE OF WORK (TYPICAL).

KEYED NOTES - NEW WORK

- PROVIDE NEW FIXTURE, REWORK AND/OR EXTEND WATER, WASTE AND VENT FROM EXISTING LOCATION. SEE SCHEDULE FOR TYPE AND MODEL NUMBER. COORDINATE IN THE FIELD AND ARCHITECTURAL DRAWINGS FOR OTHER REQUIREMENTS IF ANY.
- 2 1½" NEW WASTE TO EXISTING WASTE SERVICE IN STUD SPACE.
- 1½" VENT, AND ½" CW. FROM EXISTING SERVICES TO NEW EWC IN CEILING SPACE.
- $\overline{\langle 4 \rangle}$ SHADED AREA NOT IN THE SCOPE OF WORK (TYPICAL).
- PROVIDE CW TO COFFEE AND ICE MAKER. SEE SINK DETAIL P2.01.

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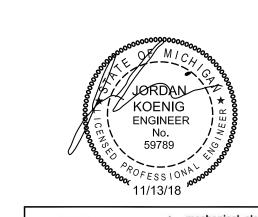
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	PLUMBING FIXTURE SCHEDULE												
MARK	ITEM	ITEM ADA DESCRIPTION ACCESSORIES					PIPE CONNECTION SIZES						
WARK	I I CIVI	ADA	DESCRIPTION	ACCESSORIES	W	٧	CW	HW	NOTES				
WC-1	WALL MTD. WATER CLOSET	X	KOHLER Kingston Toilet Bowl Model #K-4325-L	Flushometer: KOHLER Tripoint Model #K-10956-SV Toilet Seat: KOHLER Stronghold Model #K-4731-GC Toilet & Seat Color: White	4"	2"	1-1/4"						
LAV-1	LAVATORY	Х	Integral Corian Sink Bowl By Architect and Architectural Millwork Refer to Architectural Schedule & Drawings For Size and Color	Lavatory Faucet: KOHLER Triton Bowe Center Set Bathroom Sink Faucet with Wristblade Handles Model #K-400T20-5AKL p-Trap: Provide with Check Stops, P-Trap Covers	1-1/2"	1-1/2"	1/2"	1/2"	1				
SINK-1	SINGLE BOWL COUNTERTOP SINK	X	Just-MFG SLX-2019-16-GR 20"X16" (3) Holes	Faucet / Spray: Just-J-990-LS/WF Food Waste Disposer: Model #Insinkerator Badger 5xp, 1/2 HP (Heavy Duty Motor). P-Trap, Check Stops.	1-1/2"	1-1/2"	1/2"	1/2"	2,3				
MX-1	THERMOSTATIC MIXING VALVE		WATTS USG-B	ASSE 1070 Thermostatic Mixing Valve		-	1/2"	1/2"					
EWC-1	ELECTRIC WATER COOLER	Х	ELKAY Countertop Fountain Stainless Steel - Model #DRKR14RC For Countertop and Surround Reference Architectural Drawing	Chiller: ELKAY Remote Chiller Non-Filtered 2 GPH Model #ER21Y - Shelf Mounted above Refrigerator. Filter: ELKAY Aqua Sentry Filter System Kit Model #LF2	1-1/2"	1-1/2"	1/2"		2				

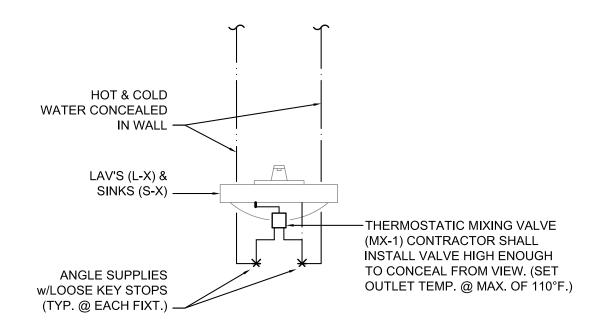
APPROVED PLUMBING FIXTURE MANUFACTURERS: AMERICAN STANDARD, CRANE, TOTO, ELKAY, KOHLER, ZURN, FIAT, FLORESTONE, MUSTEE. APPROVED PLUMBING HARDWARE MANUFACTURERS: AMERICAN STANDARD, DELTA, KOHLER, CHICAGO, SLOAN, ZURN, TOTO.

(FIXTURES TO BE INSTALLED IN ACCORDANCE WITH THE LATEST EDITION OF "THE BARRIER FREE DESIGN REQUIREMENTS OF THE MICHIGAN CONSTRUCTION CODE".)

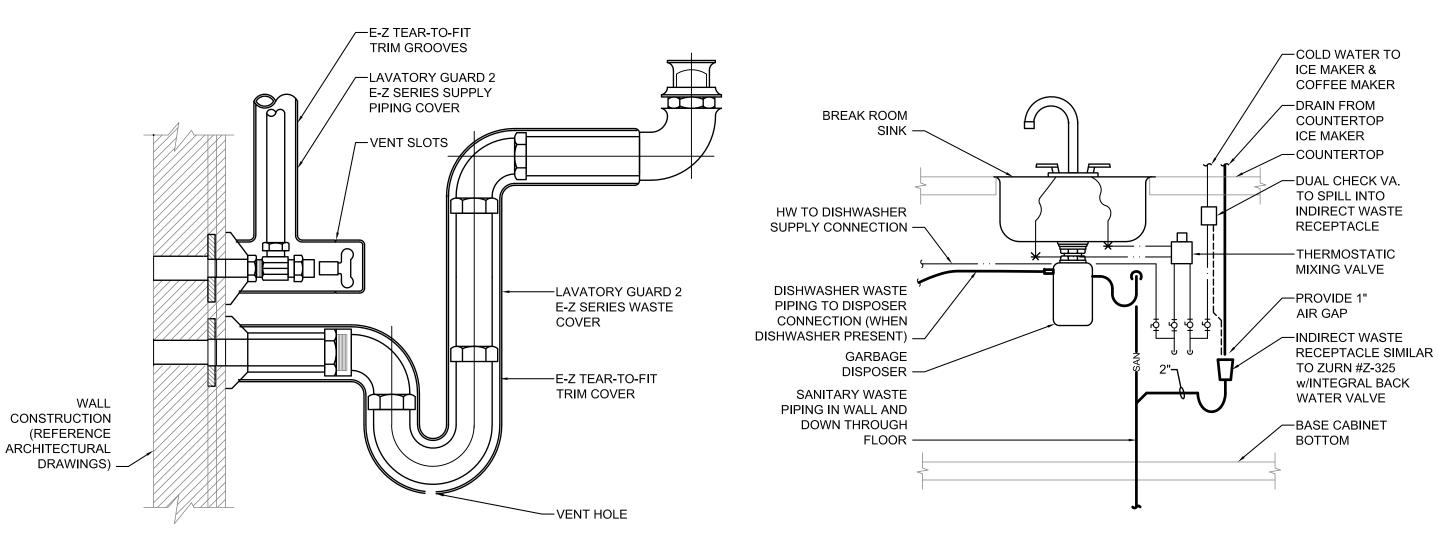
1. PROVIDE PLASTIC TYPE PIPE COVERS EQUAL TO TRUEBRO "LAV GUARD" ON ALL ACCESSIBLE LAVATORIES AND SINKS.

2. COORDINATE WITH ARCHITECT FOR OTHER REQUIREMENTS.

3. PROVIDE SPECIFIED MANUFACTURE SUGGESTED MATCHING ACCESSORIES, AND/OR SUITABLE REINFORCEMENT FOR ALL WALL SUPPORTS.

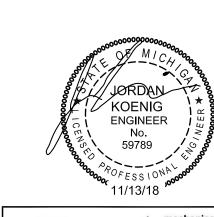


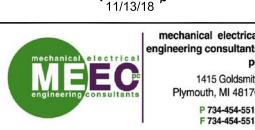
THERMOSTATIC MIXING VALVE DETAIL



TYPICAL LAVATORY PROTECTION / INSULATION

KITCHENETTE ROOM SINK PIPING DETAIL





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VERIFY ALL WORK AND SHALL NOTIFY THE ARCHITECT IMMEDIATELY OF ANY DISCREPANCIES IN THE DOCUMENTS BEFORE PROCEEDING. FAILURE TO DO SO WILL RESULT IN THE CONTRACTOR TAKING FULL RESPONSIBILITY AND LIABILITY FOR SAID DISCREPANCIES. NOTICE: THIS DRAWING AND THE DESIGN ARE THE PROPERTY OF MECHANICAL ELECTRICAL ENGINEERING CONSULTANTS, PC AND NO ALTERATIONS AND/OR TRANSFERS OF WORK ARE PERMITTED UNLESS WRITTEN APPROVAL IS GRANTED BY MECHANICAL ELECTRICAL ENGINEERING CONSULTANTS, PC.

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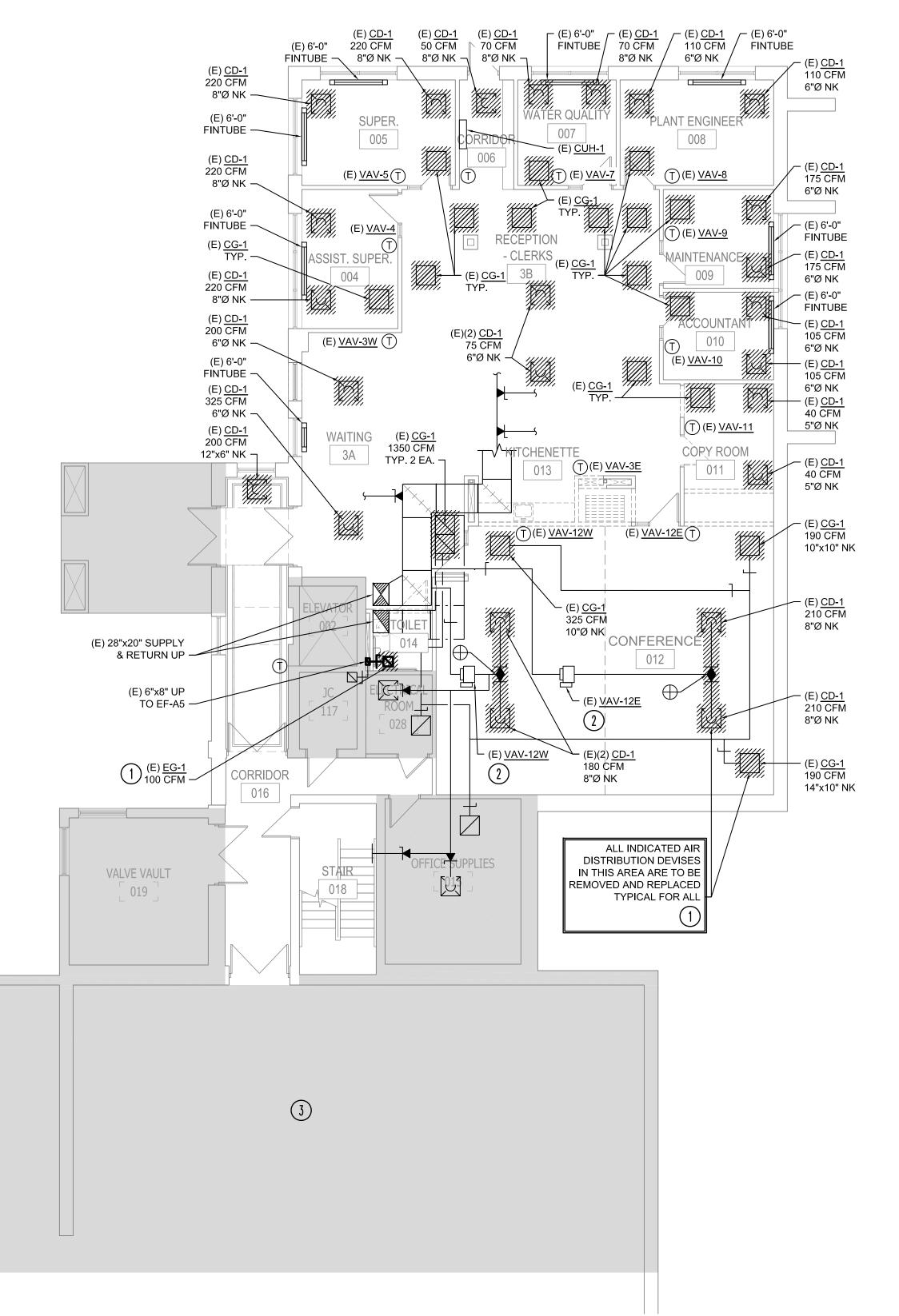
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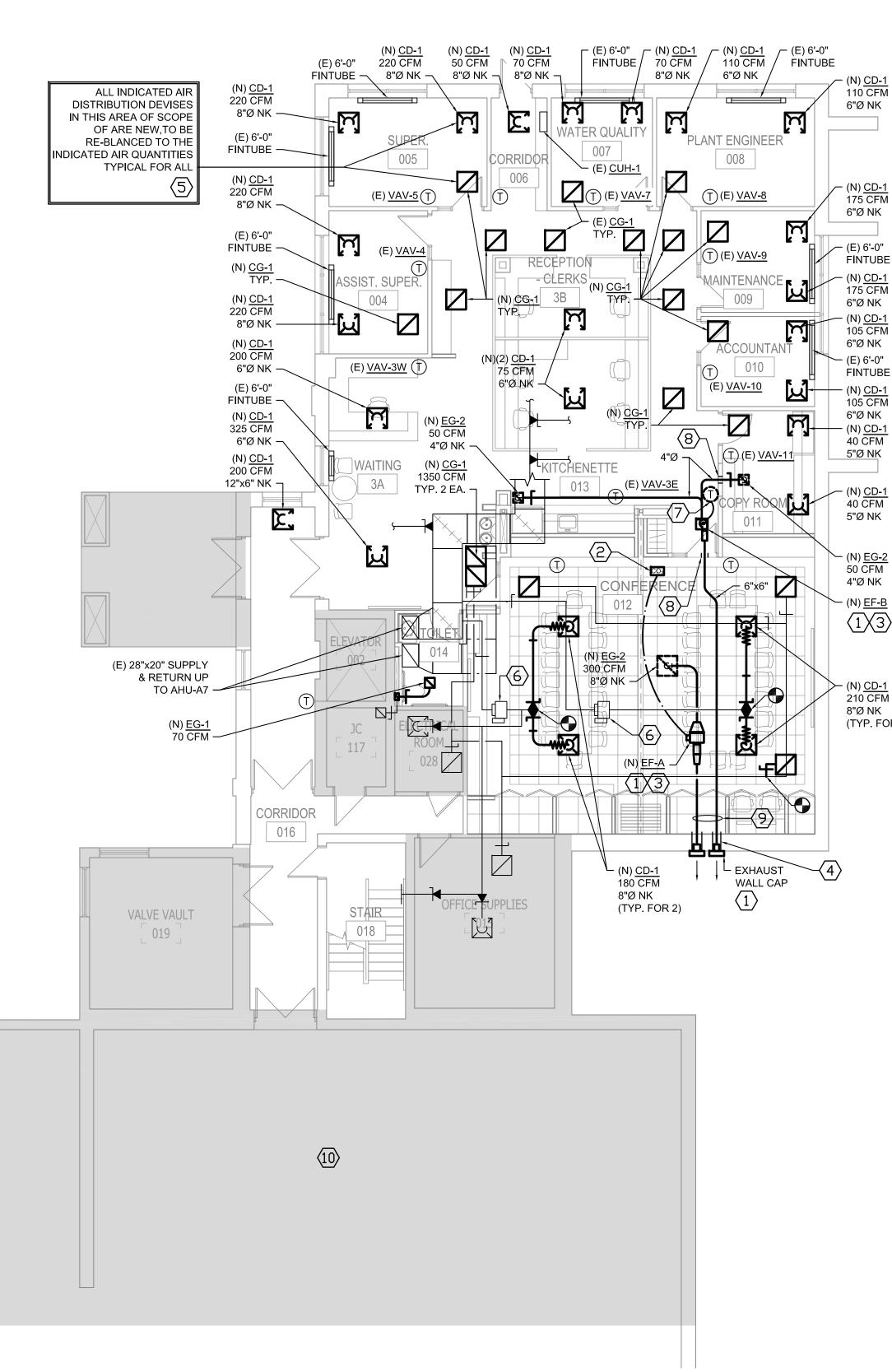
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GROUND FLOOR NEW WORK PLAN - MECHANICAL

GENERAL NOTES:

- 1. DRAWINGS ARE DIAGRAMMATIC. THE MECHANICAL
- 2. ALL MATERIALS AND WORKMANSHIP SHALL COMPLY WITH ALL APPLICABLE CODES, SPECIFICATIONS AND
- 3. REFER TO MECHANICAL SPECIFICATIONS AND DETAILS FOR OTHER REQUIREMENTS.
- 5. ALL ITEMS ON NEW WORK PLAN SHALL BE CONSIDERED NEW UNLESS NOTED.
- REMOVE AIR DISTRIBUTION DEVICE AND REPLACE WITH
- $(\ \mathfrak{Z}\)$ SHADED AREA NOT IN THE SCOPE OF WORK (TYPICAL).

KEYED NOTES - NEW WORK

- $\langle 1 \rangle$ SEE DETAIL (TYPICAL).
- CO₂ SENSOR TO ENERGIZE EF-A AND SET PER ASHRAE STANDARDS (REFER TO CONTROL DIAGRAM).
- NEW AIR DISTRIBUTION DEVICE, SEE SCHEDULE FOR TYPE AND MODEL NUMBER (TYPICAL FOR ALL).
- (6) RE-BALANCE EXISTING TERMINAL BOX TO INDICATED CFM.
- $\langle 7 \rangle$ EXHAUST FAN TIMER CONTROL.
- $\langle 10
 angle$ SHADED AREA NOT IN THE SCOPE OF WORK (TYPICAL).

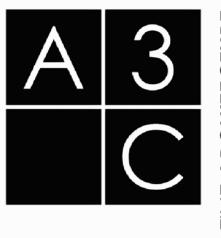
- WORK SHALL BE FIELD VERIFIED BEFORE PROCEEDING.
- STATE LAWS.
- 4. THE CONTRACTOR SHALL PROVIDE ALL MISCELLANEOUS SUPPORT STEEL, ETC, FOR THE PROPER INSTALLATION OF ALL MECHANICAL SYSTEMS.

KEYED NOTES - DEMOLITION

- NEW. SEE NEW WORK THIS SHEET. COORDINATE IN FIELD FOR AS BUILT CONDITIONS (TYPICAL FOR ALL).
- (2) SEE NEW WORK FOR OTHER REQUIREMENTS.

- $\langle 3 \rangle$ SEE SCHEDULE FOR CONTROL AND INTERLOCKING.
- $\langle 4
 angle$ SEE ARCHITECT FOR PENETRATION MEANS & METHODS.

- SEE DUCT PENETRATION DETAIL FOR OTHER REQUIREMENTS. SEE ARCHITECT DRAWINGS FOR COORDINATION.
- SAME SIZE OF EXHAUST FAN DISCHARGE DUCT CONNECTION. (SEE FAN MANUFACTURE TYPICAL).



115 1/2 E. LIBERTY STREET ANN ARBOR, MI 48104

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ANN ARBOR RENOVATION Inset Road oor MI 48103

REVISIONS / ADDENDA:

BID / PERMIT

SCALE:

APPROVED BY:

FP

DRAWN BY: VG

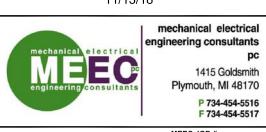
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PROJECT NUMBER: STRUC TEC:

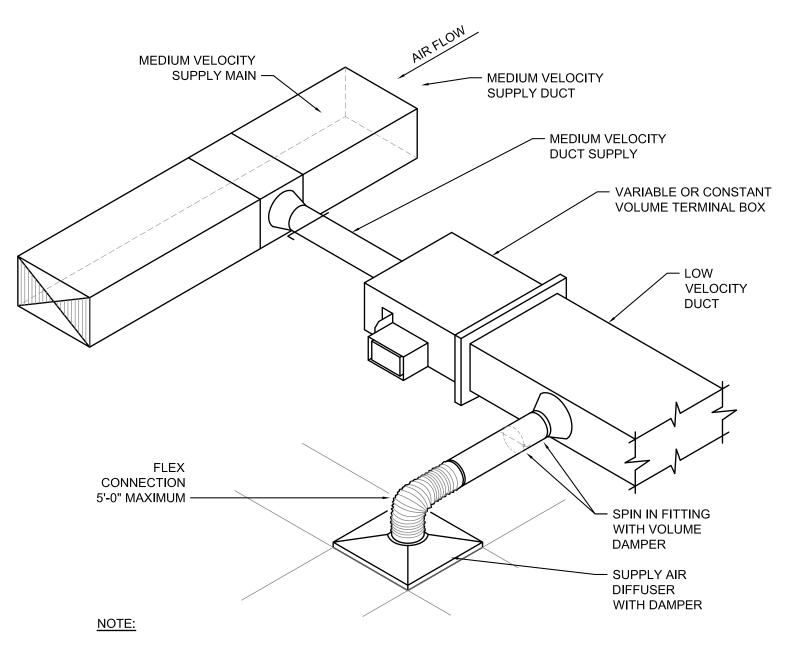
11/09/18

DRAWING NUMBER:

KOENIG ENGINEER

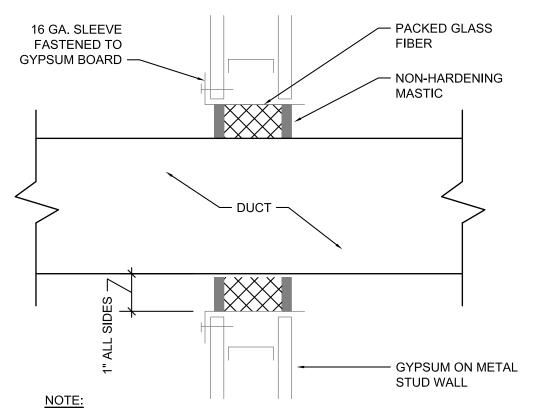


THIS DRAWING IS DIAGRAMMATIC AND SHOULD BE USED TO DETERMINE THE DESIGN INTENT. THE CONTRACTOR SHALL FIELD VERIFY ALL WORK AND SHALL NOTIFY THE ARCHITECT IMMEDIATELY OF ANY DISCREPANCIES IN THE DOCUMENTS BEFORE PROCEEDING. FAILURE TO DO SO WILL RESULT IN THE CONTRACTOR TAKING FULL RESPONSIBILITY AND LIABILITY FOR SAID DISCREPANCIES. NOTICE: THIS DRAWING AND THE DESIGN ARE THE PROPERTY OF MECHANICAL ELECTRICAL ENGINEERING CONSULTANTS, PC AND NO ALTERATIONS AND/OR TRANSFERS OF WORK ARE PERMITTED UNLESS WRITTEN APPROVAL IS GRANTED BY MECHANICAL ELECTRICAL ENGINEERING CONSULTANTS, PC.



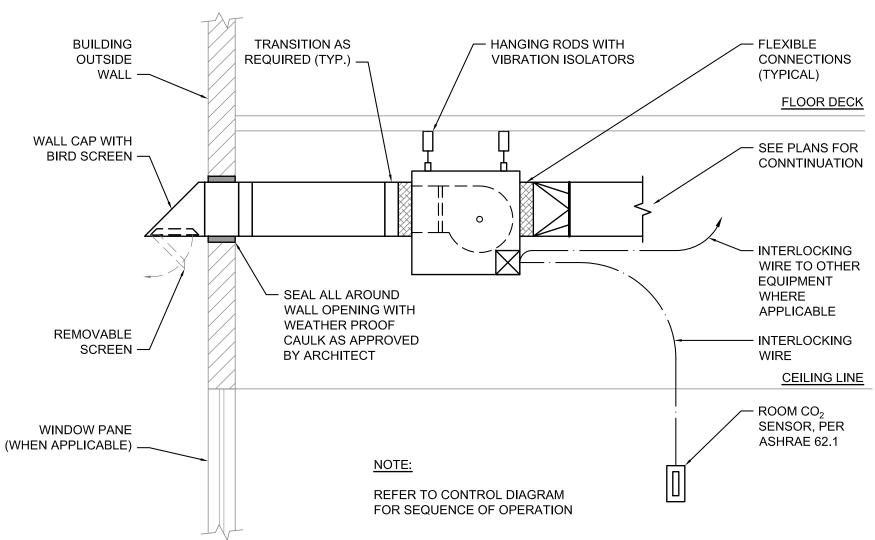
- 1. FOR RUN-OUT PIPE SIZES AND DUCT CONNECTIONS TO BOXES SEE SCHEDULES.
- 2. THE FIRST TAKE-OFF FROM BOXES SHALL BE A MINIMUM OF 3'-0" DOWN STREAM OF BOX OUTLET.

TYPICAL TERMINAL VOLUME BOX DETAIL (FOR REFERENCE ONLY)



1. COORDINATE WITH ARCHITECTURAL TRADES TO FRAME WALL OPENINGS LARGER THAN 14" WIDE OR WHERE METAL STUD MUST BE CUT TO INSTALL DUCT

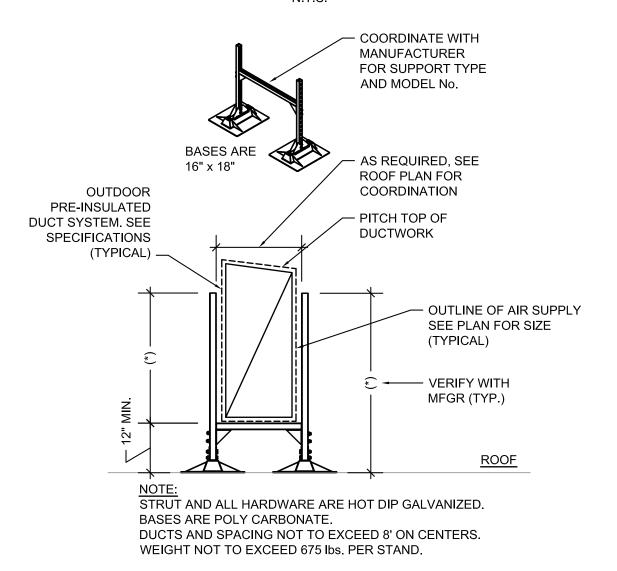
DUCT SEAL AT NON RATED WALLS



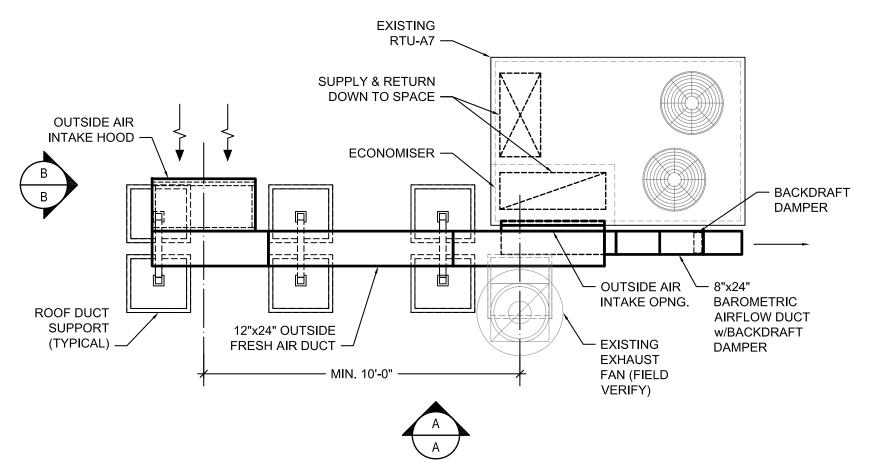
TYPICAL FAN ASSEMBLY FOR EXHAUST APPLICATION (NOTE: SEE SCHEDULE FOR SPECIFIC AND/OR OTHER ACCESSORIES)

SUPPORT WIRE FROM STRUCTURE ABOVE SUPPLY DUCT CONICAL SPIN-IN WITH VOLUME DAMPER - FLEX DUCT, MAXIMUM LENGTH = 5'-0" – DRAW BAND 2" WIDE SADDLE -— SUPPLY DIFFUSER FLEXIBLE DUCT ELBOW SUPPORT —

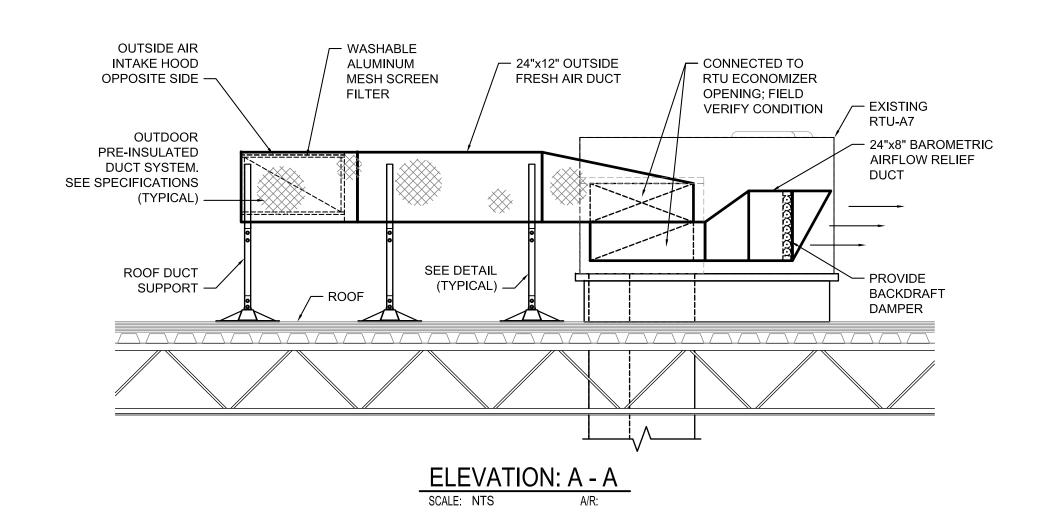
TYPICAL SUPPLY DIFFUSER ASSEMBLY DETAIL

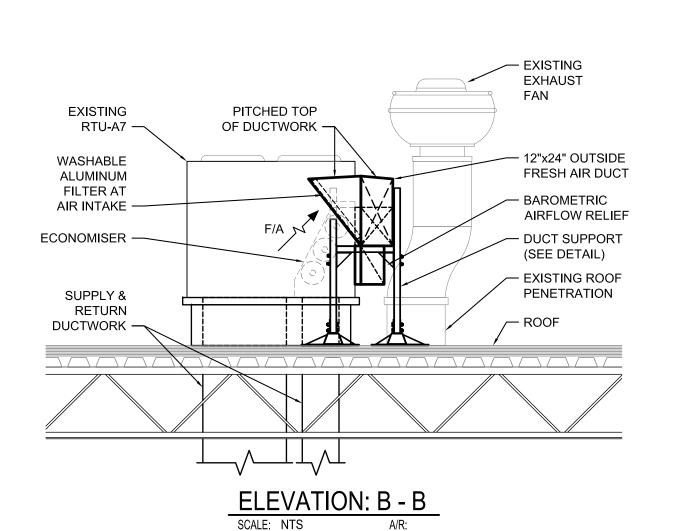


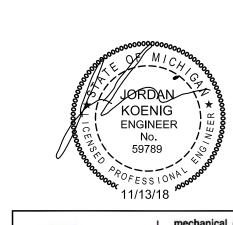
DUCT SUPPORT DETAIL



PLAN: EXISTING RTU w/NEW OUTSIDE AIR DUCTWORK DETAIL

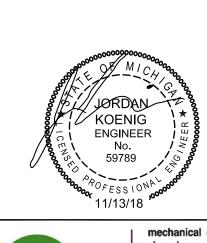








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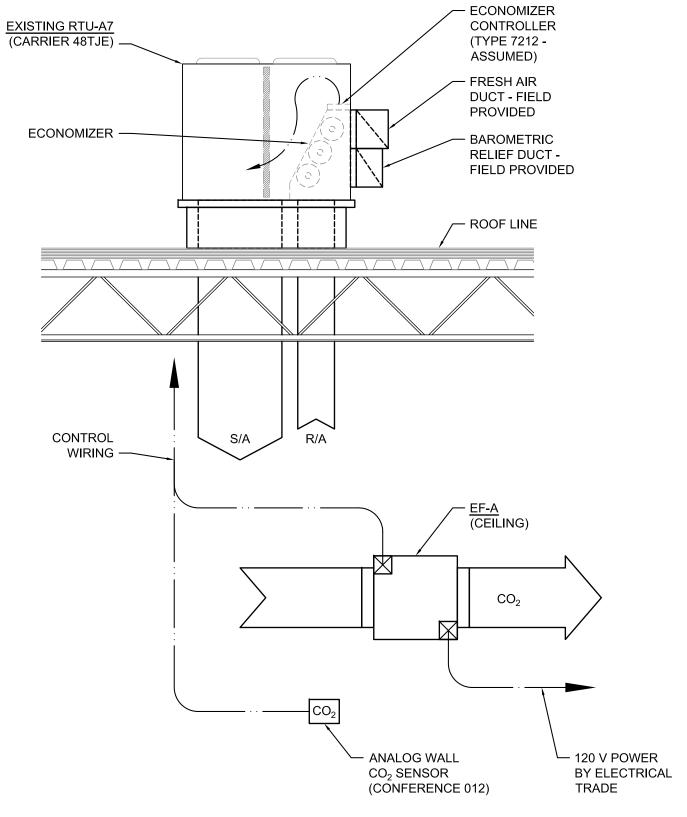
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ANN ARBOR RENOVATION Inset Road oor MI 48103 CITY OF INTERIOR 919 Su Ann Arb

REVISIONS / ADDENDA: BID / PERMIT 11/12/18 SCALE: APPROVED BY: FP DRAWN BY: VG DATE: 11/09/18

A3C: 18015 DRAWING NUMBER:



VENTILATION CONTROL DIAGRAM

RTU ECONOMIZER & EF SEQUENCE OF OPERATION:

- 1. THE SPACE CO_2 (ANALOG OUTPUT) SHALL BE CONNECTED TO THE EXISTING ECONOMIZER CONTROLLER.
- 2. WHEN THE ROOM CO₂ EXCEED ASHRAE 62.1 SETTINGS, SHALL OVERRIDE THE ECONOMIZER, AND ENERGIZE THE ROOM EXHAUST FAN, ECONOMIZER SHALL MODULATE OPEN TO MEET FRESH AIR REQUIREMENTS.
- 3. UNDER NORMAL ROOM OCCUPANCY:
- A) THE ECONOMIZER SHALL BE OPEN TO MAINTAIN A MINIMUM POSITION OF <18% OF TOTAL AIR SUPPLY.

B) EF-A SHALL BE IN "OFF" MODE.

	OUTDOOR AIR CALCULATION SCHEDULE												
MARK	ROOM NAME	TOTAL AREA SQ. FT. (Az)	OCCUPANCY CLASSIFICATION	AREA OUTDOOR AIRFLOW RATE (Ra) CFM/SQ. FT.	AREA OUTDOOR AIR (Ra) x (Az) CFM	ACTUAL OCCUPANT DENSITY	ZONE POPULATION (Pz=Az(#/1000)) PEOPLE	PEOPLE OUTDOOR AIRFLOW RATE (Rp) CFM/PERSON	OCCUPANT OUTDOOR AIR (Rp) x (Pz) CFM	BREATHING ZONE OUTDOOR AIR (Vbz=RpPz+RaAz) CFM	ZONE AIR DISTRIBUTION EFFECTIVENESS (Ez)	ZONE OUTDOOR AIRFLOW REQUIRED (Voz=Vbz/Ez) CFM	TOTAL OUTDOOR AIR PROVIDED WITHIN ZONE CFM
1	CONF. RM. #012	1010	CONF RM	0.06	61	34	34.3	5	171.7	232.3	0.8	290.4	
1	CORRIDOR #006, #016	810	CORRIDOR	0.06	49	0	0.0	5	0.0	48.6	0.8	60.8	
1	WAITING #3A	415	MAIN LOBBY	0.06	25	3	1.2	5	6.2	31.1	0.8	38.9	
1	KITCHENETTE #013	120	COFFEE STATION	0.12	14	1	0.1	7.5	0.9	15.3	0.8	19.1	
1	COPY RM. #011	115	COPY RM.	0.06	7	1	0.1	5	0.6	7.5	0.8	9.3	
1	RECEPTION #3B	300	RECEPTION	0.06	18	10	3.0	5	15.0	33.0	0.8	41.3	
1	OFFICE #4,#5,#7,#8,#9,#10	840	OFFICE SPACE	0.06	50	6	5.0	5	25.2	75.6	0.8	94.5	
1	OFFICE SUPPLY #15	250	STORAGE	0.12	30	0	0.0	0	0.0	30.0	0.8	37.5	
												554	560

PER THE 2015 INTERNATIONAL MECHANICAL CODE TABLE 403.3.1.1 THE SPACES WITHIN THIS SCHEDULE MEET OR EXCEED THE REQUIREMENTS FOR OUTDOOR AIR FLOW RATE.

VENTILATION CALCULATION SCHEDULE										
		TABLE 2A REQUIREMENTS ROOM CEILING ROOM								
ROOM NAME	ROOM NUMBER	AREA (SQ. FT)	AREA DESIGNATION	HEIGHT (FT.)	VOLUME (FT3)	AIR MOVEMENT RELATIONSHIP TO ADJACENT AREA	MINIMUM AIR CHANGES OF O.A. PER HOUR	ALL AIR EXHAUSTED DIRECTLY TO OUTDOORS	DESIGN EXHAUST AIR (CFM)	MIN. REQUIRED SUPPLY AIR (CFM)
TOILET ROOM	014	60	TOILET ROOM	8	480	IN	8	YES	64	70
JAN. ROOM	117	60	JAN. ROOM	8	480	IN	8	YES	64	70
TOTAL										140

1. SCHEDULE BASED ON THE 2012 MICHIGAN MECHANICAL CODE. 2. ROOMS NOT INDICATED IN TABLE 2A ARE CALCULATED PER 2015MICHIGAN MECHANICAL CODE SECTION 403.3.

	EXHAUST FAN SCHEDULE											
MARK	MANUFACTURER	MODEL NUMBER	AREA SERVED	LOCATION	AIRFLOW (CFM)	EXTERNAL S.P.	FAN (RPM)	FAN (BHP)	FAN (HP)	SONES	ELECTRICAL	NOTES
EF-A	соок	GN-520	SEE PLANS	PLENUM	311	0.500	1200	171		2.5	115V / 1PH	1,2,3,4,6,7
EF-B	соок	GC-144	SEE PLANS	PLENUM	108	0.500	1100	98		2.0	115V / 1PH	1,2,3,4,5,7

(APPROVED EQUAL: GREENHECK, ACME, COOK, PENN, TWIN CITY, RUPP

- 1. FAN SHALL HAVE AMCA SEAL & BE U.L. CERTIFIED.
- 2. SAFETY DISCONNECT SWITCH. 3. PROVIDE DUCT MOUNTED GRAVITY BACKDRAFT DAMPER.
- 4. PROVIDE MOUNTING HARDWARE AND VIBRATION ISOLATORS.
- 5. FAN CONTROLLED BY TIMER. 6. FAN CONTROLLED BY ROOM'S CO₂ SENSOR
- 7. PROVIDE WALL EXHAUST CAP SEE MANUFACTURE FOR TYPE AND MODEL NUMBER.

	GRILLES REGISTERS AND DIFFUSERS SCHEDULE									
MARK	MANUFACTURER	MODEL NUMBER	NECK SIZE	DIFFUSER SIZE	FINISH	MOUNTING TYPE	CONSTRUCTION	ACCESSORY	NOTES	
CD-1	TITUS	OMNI	SEE PLAN	SEE PLAN	STD	LAY-IN	STEEL	DPR	1	
CG-1	TITUS	OMNI	SEE PLAN	SEE PLAN	STD	LAY-IN	ALUMINUM	DPR	1, 2	
EG-1	TITUS	50F	SEE PLAN	SEE PLAN	STD	SURFACE	ALUMINUM	DPR	1, 2	
EG-2	TITUS	50F	SEE PLAN	SEE PLAN	STD	LAY-IN	ALUMINUM	DPR	1, 2	

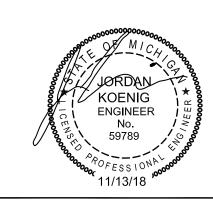
(APPROVED EQUAL: TITUS, PRICE)

NOTES:

1. REFER TO REFLECTED CEILING PLAN FOR LOCATIONS. PROVIDE ALL ACCESSORIES NEEDED TO PROPERLY MOUNT DEVICES. 2. 1/2"x1/2"x1/2" ALUMINUM EGGCRATE GRID.

DUCTWORK APPLICATION SCHEDULE									
AIR SYSTEM	<u>MATERIAL</u>	DESIGN PRESSURE CLASSIFICATION (INCHED, WG)							
SUPPLY AIR DOWNSTREAM OF AIR TERMINAL UNITS	LINED GALVANIZED STEEL	+ 2							
TOILET ROOM EXHAUST, JANITOR'S CLOSET EXHAUST	GALVANIZED STEEL	- 2							
RETURN AIR	GALVANIZED STEEL - LINED GALVANIZED STEEL WHERE INDICATED ON DRAWINGS	- 2							
OUTSIDE AIR INTAKE PLENUMS (*)	DOUBLE WALL LINED GALVANIZED STEEL PANELS	- 6							

* PITCH DUCTWORK TO LOW POINTS AS INDICATED ON THE DRAWINGS.





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PR(CITY OF INTERIOR 919 Sul Ann Arb

NTS

FP

CP

11/09/18

A3C: 18015

11/12/18

REVISIONS / ADDENDA:

BID / PERMIT

SCALE:

APPROVED BY:

DRAWN BY:

DATE:

COMBINATION MOTOR STARTER

CONDUIT RUN IN WALL OR ABOVE CEILING

MOTOR CONNECTION

LIGHTING PANELBOARD

POWER PANELBOARD

BRANCH CIRCUIT HOMERUN

TRANSFORMER

PANEL BOARD MAIN BREAKER	· · · · · · · · · · · · · · · · · · ·			VOLTAGE <u>120/208V. 3Ø 4W.</u> MAIN LUGS				SYM. A.I.C. MIN. 10,000			MOUNTING SURFACE	
EXISTING PANEL				CKT	CKT	СКТ	CKT	LOAD - V.A.				
LOAD SERVED	Α	В	С	BRKR	#	#	BRKR	Α	В	С		LOAD SERVED
ENTRY VAULT LIGHTS	265			20	1	2	20					SSMP
	200				·		20				COMP. RACK	
016, 3A. LIGHTS		575		20	3	4	20		1800		COPY MACHINE	
004, 005, 007, 008, 009, 010, 011 LTS			928	20	5	6	20	222		396	CONF.	RM. 012 WEST LIGHTS
RECEPT. 1 CLERKS 3B. LIGHTS	572			20	7	8	20 20	360 540			2 RECEPT. 3 RECEPT.	
CONF. RM. 012 EAST LIGHTS		340		20	9	10	20				ELEVATOR LIGHTS	
S.W. AREAS				20	11	12	20				CONF. RM. RECEPTACLES	
N.W. OFFICE RECEPTACLES	1800			20	13	14	20				EAST OFFICE RECEPTACLES	
WEST JUNCTION BOX SYST. FURN.		1000		20	15	16	20				EAST JUNCTION BOX SYST. FURN	
RECEIVING GATE OPERATOR					17	18	20				PAF	RKING LOT LIGHTS
				1 /	40		20	1600				MONITORS
] /	19	20	20				CO	NF. RM. PRINTER
				/	21	22	20					B. UNIT HEATER - 2
							20				CONF. RM. S.E.	
CABINET HEATER - 1				20	23	24	20				N.E. OFFICES RECEPTACLES	
EAST OFFICE RECEPTACLES				20	25	26	20				ENTRY DOOR OP CONTROL	
PARKING LOT GATE OPERATOR				/	27	28	20		880		WATER COOLER BATHROOM	
				29 30 20 1200			DISHWASHER					
				$V_{}$	31	32	20				EHS MAG METER	
WHS MAG METER				20	33	34	20				STAIRWELL LIGHTS	
ELEVATOR PIT COFFEE & MICRO.				20	35	36	20				BASE LEVEL SMOKE DETECTOR	
a. CONF. RM. CORD REEL CTR b. C.R. CTR				20	37	38	20				TELEPHONE & FILE SERVER	
a. C.R. CORD REEL CTR. b. C.R. C.R. E				20 20	39	40	20		269		EF-A, EF-B	
a. C.R. CORD REEL N.E. b. C.R. PROJECTOR TV				20 20	41	42	20 20				CONF. RM. RECEPT. S. EAST FIT LIME SYST. WATER FLOW	
LOAD DESCRIPTION	DEMAND FACTOR D.F.			VOLT-AMPS								
				CONNECTED			DEMAND					TOTAL DEMAND LOAD
LIGHTING												25% LIGHTING LOAD
RECEPTACLES												SPARE
SMALL MOTORS												
MISC. EQUIPMENT				1			1					DESIGN LOAD
												DESIGN AMPS
	TOTAL						† 				 	

LIGHTING FIXTURES SCHEDULE

DESCRIPTION AND MANUFACTURER LAMP TYPE

"A" 2' X 2' RECESSED VOLUMETRIC LUMINAIRE WITH HI-EFFICIENCY LED (LIGHT EMITTING 4000 LUMEN OUTPUT DIODE) LIGHT SOURCE, LINEAR FACETED REFLECTOR CAVITY AND REGRESSED TWO- LED ARRAY, 4000K PIECE REFRACTOR SYSTEM TO OBSCURE THE LED IMAGES. OPTICAL FILM TO CONCEAL LED IMAGES AND PROVIDE EVEN ILLUMINATION. LONG-LIFE LEDS SHALL PROVIDE 50,000 HOUR LAMP LIFE. LED DRIVER SHALL DELIVER FULL RANGE DIMMING FROM 0-10 VOLT SIGNAL LITHONIA #2VTL2-40L-ADP-EZ1-LP840 OR EQUAL BY LIGHTOLIER, COOPER OR HUBBELL LIGHTING

- "AX" 2' X 2' RECESSED VOLUMETRIC LUMINAIRE WITH HI-EFFICIENCY LED (LIGHT EMITTING 4000 LUMEN OUTPUT DIODE) LIGHT SOURCE, LINEAR FACETED REFLECTOR CAVITY AND REGRESSED TWO- LED ARRAY, 4000K PIECE REFRACTOR SYSTEM TO OBSCURE THE LED IMAGES. OPTICAL FILM TO CONCEAL LED IMAGES AND PROVIDE EVEN ILLUMINATION. LONG-LIFE LEDS SHALL PROVIDE 50,000 HOUR LAMP LIFE. LED DRIVER SHALL DELIVER FULL RANGE DIMMING FROM 0-10 VOLT SIGNAL. FIXTURE TO INCLUDE 1400 LUMEN EMERGENCY LIGHTING BATTERY PACK. PROVIDE AN UN-SWITCHED HOT LEAD TO BATTERY PACK FOR VOLTAGE SENSING OF NORMAL POWER. LITHONIA #2VTL2-40L-ADP-EZ1-LP840-EL14
- OR EQUAL BY LIGHTOLIER, COOPER OR HUBBELL LIGHTING RECESSED LIGHT EMITTING DIODE DOWNLIGHT WITH OPEN CLEAR ALZAK SEMI-1-1500 LUMEN OUTPUT SPECULAR REFLECTOR, 6" APERTURE WITH CLEAR TRIM FLANGE. LIGHT ENGINE 4000K LED LAMP AND DRIVER ACCESSIBLE FROM ABOVE OR BELOW CEILING. CLASS P. THERMALLY PROTECTED DRIVER. SINGLE FUSE.

GOTHAM #EVO-35/15-6AR-MD-EZ1-SF-MVOLT OR EQUAL BY LIGHTOLIER, COOPER OR HUBBELL LIGHTING

LITHONIA #2VTL4-40L-ADP-EZ1-LP840-EL14

OR EQUAL BY LIGHTOLIER, COOPER OR HUBBELL LIGHTING

OR EQUAL BY LIGHTOLIER, COOPER OR HUBBELL LIGHTING

FOR VOLTAGE SENSING OF NORMAL POWER.

POSSINI EURO EXETER #5T767

DUAL-LITE #PG-P-HTR

GLASS SHADE, BRUSHED NICKEL HOUSING, DIMMIBLE,

TYPE

"C" 2' X 4' RECESSED VOLUMETRIC LUMINAIRE WITH HI-EFFICIENCY LED (LIGHT EMITTING 4000 LUMEN OUTPUT DIODE) LIGHT SOURCE, LINEAR FACETED REFLECTOR CAVITY AND REGRESSED TWO- LED ARRAY, 4000K PIECE REFRACTOR SYSTEM TO OBSCURE THE LED IMAGES. OPTICAL FILM TO CONCEAL LED IMAGES AND PROVIDE EVEN ILLUMINATION. LONG-LIFE LEDS SHALL PROVIDE 50,000 HOUR LAMP LIFE. LED DRIVER SHALL DELIVER FULL RANGE DIMMING FROM 0-10 VOLT SIGNAL. LITHONIA #2VTL4-40L-ADP-EZ1-LP840

OR EQUAL BY LIGHTOLIER, COOPER OR HUBBELL LIGHTING "CX" 2' X 4' RECESSED VOLUMETRIC LUMINAIRE WITH HI-EFFICIENCY LED (LIGHT EMITTING 4000 LUMEN OUTPUT DIODE) LIGHT SOURCE, LINEAR FACETED REFLECTOR CAVITY AND REGRESSED TWO- LED ARRAY, 4000K PIECE REFRACTOR SYSTEM TO OBSCURE THE LED IMAGES. OPTICAL FILM TO CONCEAL LED IMAGES AND PROVIDE EVEN ILLUMINATION. LONG-LIFE LEDS SHALL PROVIDE 50,000 HOUR LAMP LIFE. LED DRIVER SHALL DELIVER FULL RANGE DIMMING FROM 0-10 VOLT SIGNAL. FIXTURE TO INCLUDE 1400 LUMEN EMERGENCY LIGHTING BATTERY PACK. PROVIDE AN UN-SWITCHED HOT LEAD TO BATTERY PACK FOR VOLTAGE SENSING OF NORMAL POWER.

"D" 2' X 4' RECESSED VOLUMETRIC LUMINAIRE WITH HI-EFFICIENCY LED (LIGHT EMITTING 4000 LUMEN OUTPUT DIODE) LIGHT SOURCE, LINEAR FACETED REFLECTOR CAVITY AND REGRESSED TWO- LED ARRAY, 4000K PIECE REFRACTOR SYSTEM TO OBSCURE THE LED IMAGES. OPTICAL FILM TO CONCEAL LED IMAGES AND PROVIDE EVEN ILLUMINATION. LONG-LIFE LEDS SHALL PROVIDE 50,000 HOUR LAMP LIFE. LED DRIVER SHALL DELIVER FULL RANGE DIMMING FROM 0-10 VOLT SIGNAL. FIXTURE SHALL BE FURNISHED WITH DRY WALL CEILING ADAPTER WITH TRIM KIT. LITHONIA #2VTL4-40L-ADP-EZ1-LP840-DGA24/VT

"E" 2' X 4' RECESSED VOLUMETRIC LUMINAIRE WITH HI-EFFICIENCY LED (LIGHT EMITTING 6000 LUMEN OUTPUT DIODE) LIGHT SOURCE, LINEAR FACETED REFLECTOR CAVITY AND REGRESSED TWO- LED ARRAY, 4000K PIECE REFRACTOR SYSTEM TO OBSCURE THE LED IMAGES. OPTICAL FILM TO CONCEAL LED IMAGES AND PROVIDE EVEN ILLUMINATION. LONG-LIFE LEDS SHALL PROVIDE 50,000 HOUR LAMP LIFE. LED DRIVER SHALL DELIVER FULL RANGE DIMMING FROM 0-10 VOLT SIGNAL. LITHONIA #2VTL4-60L-ADP-EZ1-LP840

OR EQUAL BY LIGHTOLIER, COOPER OR HUBBELL LIGHTING "EX" 2' X 4' RECESSED VOLUMETRIC LUMINAIRE WITH HI-EFFICIENCY LED (LIGHT EMITTING 6000 LUMEN OUTPUT DIODE) LIGHT SOURCE, LINEAR FACETED REFLECTOR CAVITY AND REGRESSED TWO- LED ARRAY, 4000K PIECE REFRACTOR SYSTEM TO OBSCURE THE LED IMAGES. OPTICAL FILM TO CONCEAL LED IMAGES AND PROVIDE EVEN ILLUMINATION. LONG-LIFE LEDS SHALL PROVIDE 50,000 HOUR LAMP LIFE. LED DRIVER SHALL DELIVER FULL RANGE DIMMING FROM 0-10 VOLT SIGNAL. FIXTURE TO INCLUDE 1400 LUMEN EMERGENCY LIGHTING BATTERY PACK. PROVIDE AN UN-SWITCHED HOT LEAD TO BATTERY PACK

LITHONIA #2VTL4-60L-ADP-EZ1-LP840-EL14 OR EQUAL BY LIGHTOLIER, COOPER OR HUBBELL LIGHTING 24" L. LED VANITY LUMINAIRE MOUNTED ABOVE MIRROR ON WALL. RECTANGULAR 1600 LUMEN LED

"N" STATIC WHITE LIGHT EMITTING DIODE RIBBON 1.5 WATTS PER FOOT WITH 18 LEDs PER FOOT FLEXIBLE TAPE. LENGTH BETWEEN CUTTABLE POINTS APPROX. 3.9 INCHES WHITE, 3500K 0-10V. WITH CHANNEL, INSTALLATION TO INCLUDE REQUIRED 24V, LED DRIVER, EXACT LENGTH OF TAPE TO BE DETERMINED IN FIELD FOLLOWING CONSTRUCTION OF LIGHT COVE BY ARCHITECTURAL TRADES. ACOLYTE LED RIBBONLYTE #RBH1-1.5-35 WITH 12VOLT DRIVER AND AC2F CHANNEL OR APPROVED EQUAL.

"O" UNDER CABINET LED LUMINAIRE 40" LONG. 2700K, LED ECON-O-LITE #E-UCA09A-40L927W

WALL MOUNTED EDGE LIT EXIT SIGN WITH 18 GA. HOUSING AND INJECTION MOLDED RED LED ILLUMINATION HIGH-IMPACT ACRLIC PANEL FACE. EXTRUDED PLATE IN BRUSHED ALUMINUM. RED 6" LETTERS, CLEAR BACKGROUND. SINGLE FACE WITH CHEVRONS AS INDICATED ON PLANS. WITH FLAT TRIM. SELF-TEST AND DIAGNOSTIC. LINE VOLTAGE 120 VOLT.

LIGHTALARMS #SPLEDN-A-RC-Z-##-ID "EM" LED EMERGENCY LIGHTING SCONCE FOR WET LOCATIONS. CAST ALUMINUM FULLY 4-HIGH OUTPUT LED GASKETED WITH ACRYLIC LENS. POWDER COATED PAINT. TOTAL LIGHT OUTPUT OF 405 LUMENS. SELF POWERED UNIT FOR INPUT OPERATING VOLTAGE OF 120/277 VOLT SEALED MAINTENANCE FREE NICAD BATTERY WITH BATTERY CHARGER WITH SELF-TESTING, SELF-DIAGNOSTICS. UNIT TO INCLUDE INTERNAL HEATER FOR LOW TEMPERATURE OPERATION FROM -220°F TO 120°F.

LIGHTING FIXTURE NOTES

- 1. ALTERNATE LIGHTING MANUFACTURERS EQUIPMENT SHALL BE SIMILAR IN PERFORMANCE, PHYSICAL APPEARANCE AND CONSTRUCTION TO BE CONSIDERED AS EQUAL TO UNITS SPECIFIED.
- 2. ALTERNATE LIGHTING FIXTURE TYPES PROPOSED TO BE SUBSTITUTED BY BIDDING CONTRACTOR MUST BE PRE-APPROVED DURING BIDDING. CONTRACTOR, OR LIGHTING REPRESENTATIVE SHALL EMAIL ALL SUCH REQUESTS WITH FIXTURE CUTS TO ENGINEER AT LEAST ONE WEEK PRIOR TO SUBMITTING BIDS. ENGINEER SHALL REVIEW THE PROPOSED ALTERNATE LIGHTING FIXTURES AND ISSUE A WRITTEN ACCEPTANCE OR DENIAL BY RETURN EMAIL. VERBAL APPROVAL WILL NOT BE ACCEPTABLE.
- 3. ALL SHOP DRAWINGS SUBMITTED AFTER AWARD OF CONTRACT FOR LIGHTING FIXTURES WHICH WERE NOT PRE-APPROVED WILL BE REJECTED.
- 4. FIXTURES SIMILAR IN DESIGN, CONSTRUCTION AND PHOTOMETRIC CHARACTERISTICS MANUFACTURED BY LITHONIA LIGHTING, COOPER, LIGHTOLIER, HUBBLELL ARE ACCEPTABLE ALTERNATES TO THOSE FIXTURES SPECIFIED.
- 5. LIGHT EMITTING DIODE (LED) LAMPS AND FIXTURES: ALL LED LIGHT ENGINES (COMBINATIONS OF DIODES, DRIVER, HEAT SINK, HOUSING AND OPTICS), WHETHER SCREW-IN OR HARDWIRED, SHALL MEET ALL OF THE FOLLOWING CRITERIA:
- A. THE RATED DRIVER INPUT WATTAGE AND TOTAL NUMBER OF LEDS SHALL BE PUBLISHED BY THE MANUFACTURER FOR EACH SCHEDULED FIXTURE UNIT (DRIVER AND LED COMBINATION) AND SHALL BE THE SAME WATTAGE USED IN THE FIXTURE LISTED IN THE LIGHT FIXTURE SCHEDULE.
- B. LED FIXTURES SHALL INCLUDE A SACRIFICIAL SURGE PROTECTION DEVICE DESIGNED SPECIFICALLY TO PROTECT LED LIGHT FIXTURES FROM HIGH VOLTAGE AND / OR HIGH-AMPERAGE ELECTRICAL SURGES ASSOCIATED WITH LIGHTNING STRIKES, SPIKES ASSOCIATED WITH MOTOR STARTING, ETC. 100V - 277VAC, SPD SHALL BE INSTALLED IN THE LIGHT FIXTURE JUNCTION BOX AND WIRED INTO THE AC LINE TO
- C. LED LAMPS AND FIXTURES SHALL CARRY A SAFETY CERTIFICATION BY AN APPROVED TESTING LABORATORY (UL. CE. ETL. ETC).
- D. LED LAMPS AND FIXTURES SHALL BE APPROVED AND LISTED UNDER EITHER ENERGY STAR OR DESIGN LIGHTS CONSORTIUM.
- E. DESIGN LIGHTS CONSORTIUM: LED LUMINAIRES SHALL BE TESTED IN ACCORDANCE WITH THE APPROVED INDUSTRY MEASUREMENT STANDARD, IESNA LM-79, THE "APPROVED METHOD FOR THE ELECTRICAL AND PHOTOMETRIC MEASUREMENTS OF SOLID STATE LIGHTING PRODUCTS"; AND IESNA LM-80 "MEASURING LUMEN MAINTENANCE OF LED LIGHT SOURCES".
- F. COLOR STABILITY SHALL BE WARRANTED TO MAINTAIN COLOR PROPERTIES OF NO MORE THAN A COLOR SHIFT OF 200K OVER A 5 YEAR PERIOD.
- F. COLOR RENDERING INDEX (CRI) OF LED LAMPS SHALL BE 80 OR ABOVE.
- G. LAMP LIFE SHALL EXCEED 50,000 HOURS.
- H. SHALL BE DIMMABLE DOWN TO 5% UNLESS OTHERWISE NOTED.
- I. INSTALLATION:
- 1) LIGHT FIXTURES SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
- J. ARCHITECTURAL DRAWINGS, WHERE APPLICABLE, SHALL BE USED FOR EXACT LOCATION OF LIGHT FIXTURES.

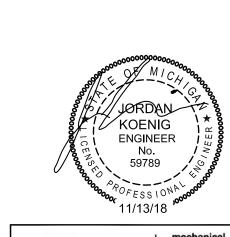
GENERAL NOTES:

WHERE APPLICABLE.

- 1. THE CONTRACTOR SHALL ABIDE BY ALL FEDERAL, STATE, AND/OR LOCAL CODES. IF A DISCREPANCY BETWEEN CODES OCCURS, THE MOST STRINGENT SHALL PREVAIL.
- 2. THE CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS PRIOR TO THE COMMENCEMENT OF ANY WORK. SHOULD DISCREPANCIES BE DISCOVERED, THE CONTRACTOR SHALL VERIFY INTENT WITH THE ENGINEER/OWNER BEFORE PROCEEDING.
- 3. COORDINATE LOCATIONS OF ALL CEILING MOUNTED DEVICES WITH OTHER TRADES PRIOR TO INSTALLATION.
- 4. COORDINATE ALL ROUGH-IN REQUIREMENTS FOR OWNER FURNISHED EQUIPMENT WITH THE OWNER PRIOR TO BEGINNING WORK, THESE DRAWINGS ARE BASED ON THE BEST INFORMATION AVAILABLE DURING THE DESIGN PHASE OF THE PROJECT.
- 5. COORDINATE WITH MILLWORK CONTRACTOR TO DETERMINE THE EXACT LOCATION OF OUTLETS BEING PLACED IN MILLWORK.
- 6. ALL DEVICES ARE TO BE FLUSH MOUNTED UNLESS NOTED OTHERWISE.
- 7. DEVICES NOTED "GFI" SHALL INCLUDE GROUND FAULT INTERRUPTING
- 8. DEVICES NOTED "WP" SHALL BE WEATHERPROOF, "WHILE-IN-USE" TYPE
- 9. DEVICES NOTED "NL" SHALL BE NIGHT LIGHTS. PROVIDE UN-SWITCHED BRANCH CIRCUIT CONDUCTORS TO EACH FIXTURE.
- 10. ELECTRICAL CONTRACTOR SHALL PROVIDE SAFETY DISCONNECT SWITCHES
- 11. MULTI-WIRE BRANCH CIRCUITS SHALL BE PROVIDED WITH THE MEANS TO SIMULTANEOUSLY DISCONNECT ALL UNGROUNDED CONDUCTORS AT THE POINT WHERE THE BRANCH CIRCUIT ORIGINATES. REFER TO 2014 NEC 210.4 (B). THIS APPLIES TO ALL MULTI-WIRE BRANCH CIRCUITS SUPPLYING ANY

FOR ALL MECHANICAL AND PLUMBING EQUIPMENT.

- 12. DEDICATED NEUTRAL CONDUCTORS SHALL BE CONSIDERED CURRENT-CARRYING CONDUCTORS, HOMERUNS CONTAINING MORE THAN THREE CURRENT-CARRYING CONDUCTORS SHALL BE DERATED IN ACCORDANCE WITH THE 2014 NEC.
- 13. BRANCH CIRCUIT HOMERUN CONDUCTORS SHALL BE SIZED IN ACCORDANCE WITH THE 2014 NEC. THE MAXIMUM ALLOWABLE VOLTAGE DROP ON A FEEDER IS 2% AND THE MAXIMUM ALLOWABLE VOLTAGE DROP ON A BRANCH CIRCUIT IS 3%. PROVIDE BRANCH CIRCUIT CONDUCTORS SIZED TO ENSURE THE TOTAL VOLTAGE DROP FROM THE SOURCE TO THE POINT OF UTILIZATION IS LESS THAN OR EQUAL TO 5%.





THIS DRAWING IS DIAGRAMMATIC AND SHOULD BE USED TO DETERMINE THE DESIGN INTENT. THE CONTRACTOR SHALL FIELD VERIFY ALL WORK AND SHALL NOTIFY THE ARCHITECT IMMEDIATELY OF ANY DISCREPANCIES IN THE DOCUMENTS BEFORE PROCEEDING. FAILURE TO DO SO WILL RESULT IN THE CONTRACTOR TAKING FULL RESPONSIBILITY AND LIABILITY FOR SAID DISCREPANCIES. NOTICE: THIS DRAWING AND THE DESIGN ARE THE PROPERTY OF MECHANICAL ELECTRICAL ENGINEERING CONSULTANTS, PC AND NO ALTERATIONS AND/OR TRANSFERS OF WORK ARE PERMITTED UNLESS WRITTEN APPROVAL IS GRANTED BY MECHANICAL ELECTRICAL ENGINEERING CONSULTANTS, PC.

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REVISIONS / ADDENDA: BID / PERMIT 11/12/18 SCALE:

APPROVED BY: J.E.

DRAWN BY:

DATE:

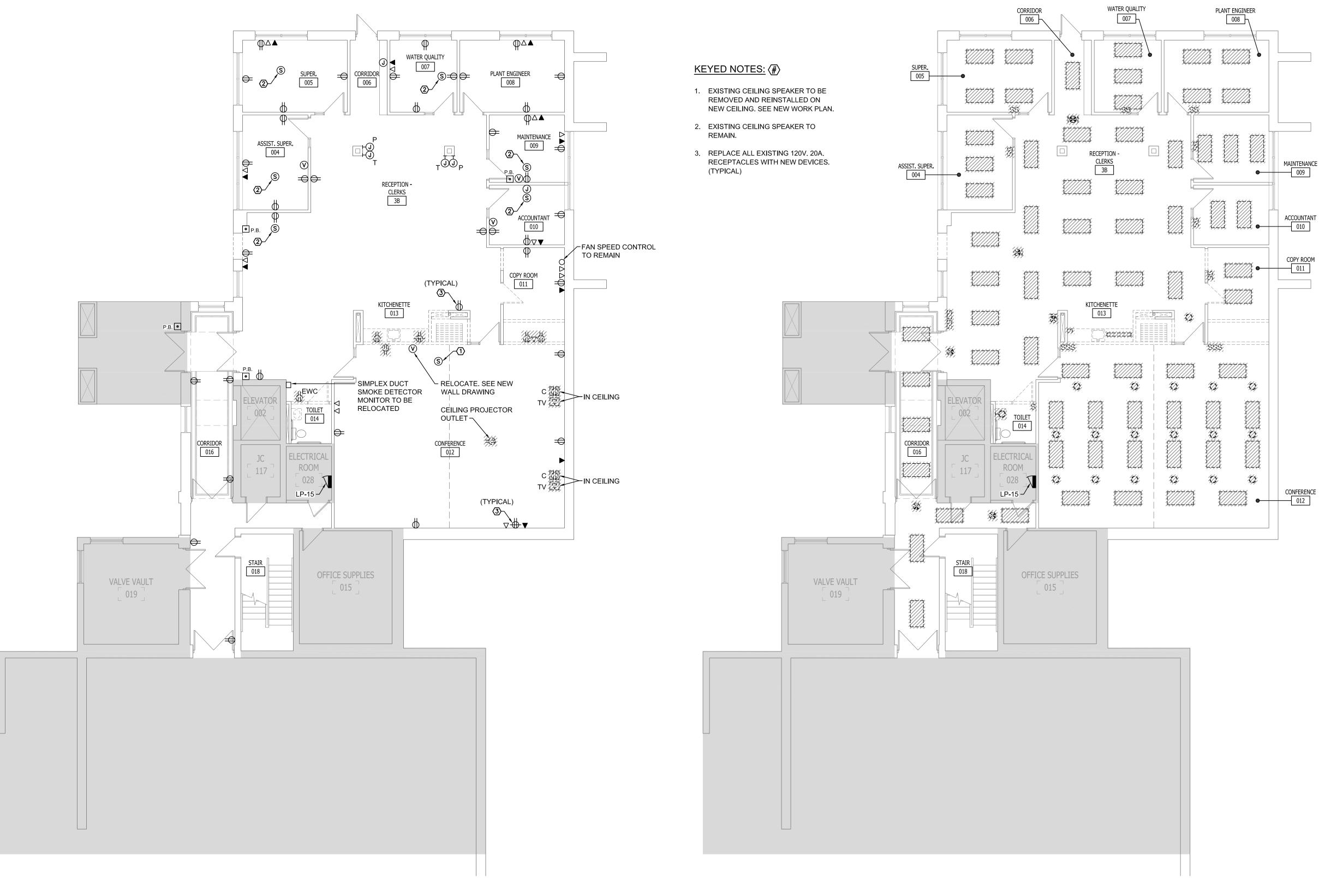
Plymouth, MI 48170 P 734-454-551 F 734-454-551

PROJECT NUMBER: STRUC TEC: A3C: 18015

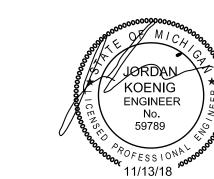
DRAWING NUMBER:

J.L.

10/23/2018



GROUND FLOOR DEMOLITION PLAN - POWER



mechanical electrical engineering consultants 1415 Goldsmith Plymouth, MI 48170 P 734-454-5516 F 734-454-5517

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DATE: 10/23/2018 PROJECT NUMBER: STRUC TEC:

DRAWN BY:

DRAWING NUMBER:

J.E.

J.L.

REVISIONS / ADDENDA:

BID / PERMIT

SCALE:

APPROVED BY:

COLLABORATIVE ARCHITECTURE

PROJECT
CITY OF ANN ARBOR
INTERIOR RENOVATION
919 Sunset Road
Ann Arbor MI 48103

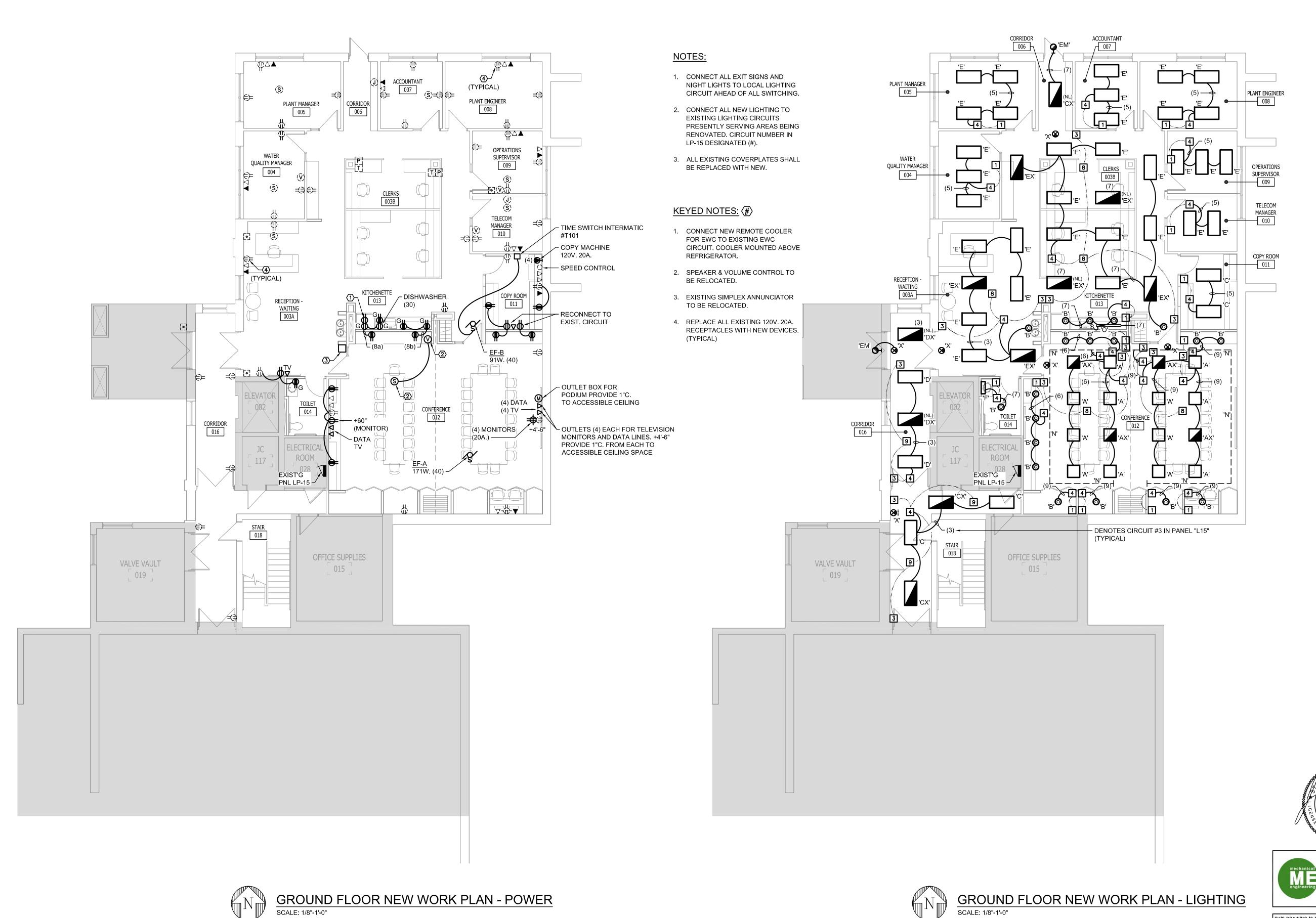
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GROUND FLOOR DEMOLITION PLAN - LIGHTING
SCALE: 1/8"-1'-0"



TIVE ARCHITECTURE

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J.E.

REVISIONS / ADDENDA: BID / PERMIT

SCALE:

KOENIG ENGINEER

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APPROVED BY:

DRAWN BY:

J.L. DATE:

10/23/2018

PROJECT NUMBER: STRUC TEC:

DRAWING NUMBER: E1.01

GROUND FLOOR NEW WORK PLAN - LIGHTING
SCALE: 1/8"-1'-0"