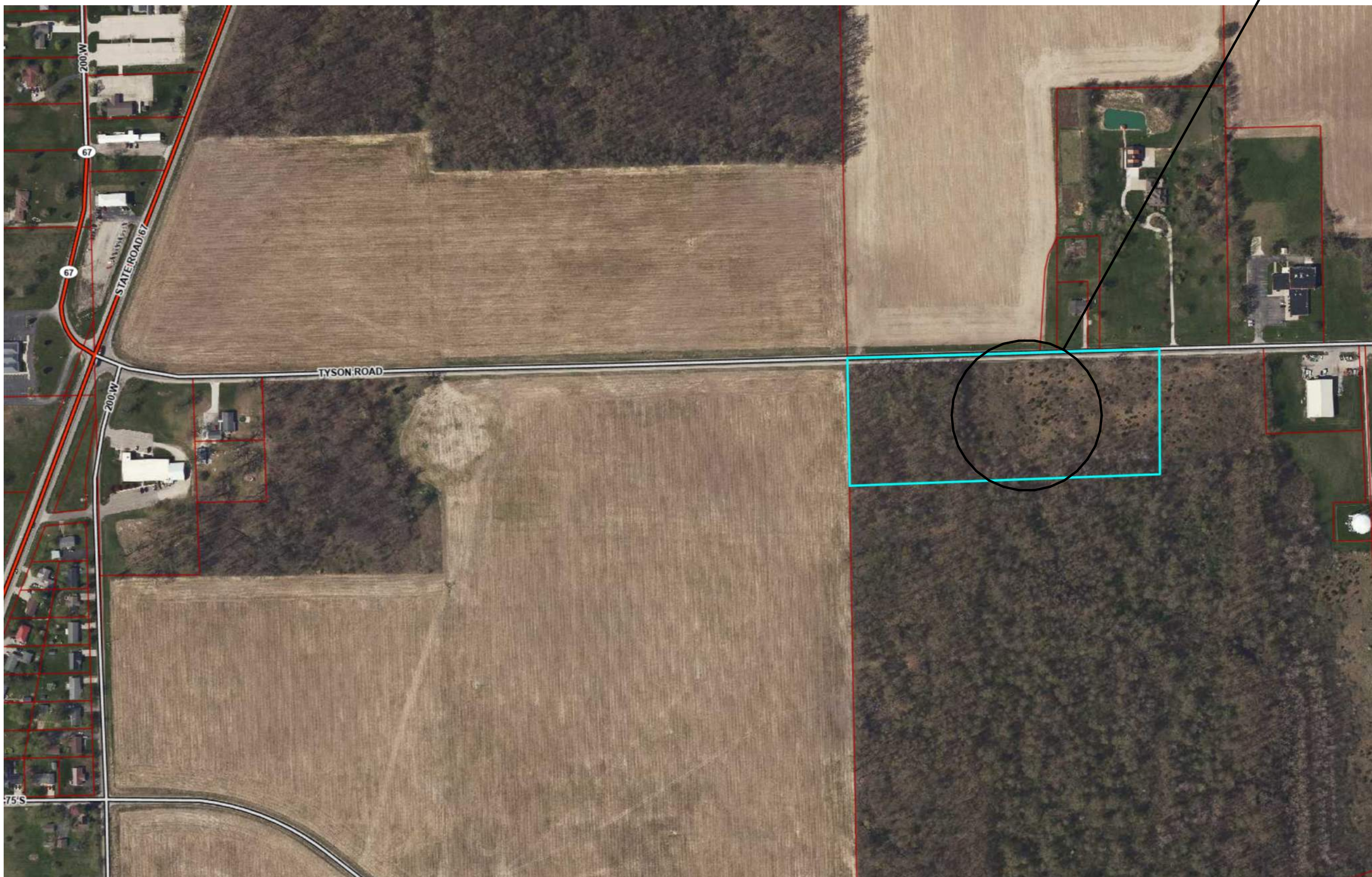


NEW 60' X 140' RECYCLING FACILITY FOR:

JAY COUNTY SOLID WASTE MANAGEMENT DISTRICT

WAYNE TOWNSHIP, JAY COUNTY, INDIANA

THIS DOCUMENT IS TO SERVE FOR "NEW" STRUCTURE DOCUMENTED
HERE-IN ONLY AT ADDRESS LISTED. ALL OTHER STRUCTURAL AND CIVIL
DESIGN OUTSIDE OF THE SCOPE OF THESE DRAWINGS BY OTHERS.



BUILDING DATA

BUILDING USE: WAREHOUSE
OCCUPANCY GROUP: S-1
CONSTRUCTION TYPE: VB
HEIGHT ALLOWED: 40'-00"
ACTUAL HEIGHT: 25'-3"
AREA ALLOWED: 9,000 SQ. FT.
BUILDING AREA: 8,233 SQ. FT.
8,233 < 9,000

SHEET LIST	
SHEET NUMBER	SHEET NAME
T01	COVER PAGE
C01	SITE PLAN
C02	EXISTING CONDITION
C03	PROPOSED SURFACE
C04	DRAINAGE PLAN & UTILITIES
C05	EROSION CONTROL
C06	EROSION CONTROL DETAILS
C07	UTILITY DETAILS
C08	UTILITY DETAILS (CONT.)
F01	FOUNDATION PLAN
F02	FOUNDATION DETAILS
F03	TRUCK RAMP FOUNDATION DETAILS
F04	CONCRETE NOTES
A01	FLOOR PLAN
A02	FIRE & LIFE SAFETY PLAN
A03	SECTION VIEWS & DETAILS
A04	SECTION VIEWS & DETAILS (CONT.)
A05	ADA BATHROOM SECTION VIEWS & DETAILS
A06	ROOF FRAMING PLAN
A07	ELEVATIONS
E01	ELECTRICAL PLAN
E02	ELECTRICAL PANEL
M01	MECHANICAL PLAN
P01	PLUMBING PLAN
P02	PLUMBING ISOMETRIC
G01	GENERAL NOTES

DESIGN LOADS

- BUILDING CODE:
2012 INTERNATIONAL BUILDING CODE
2014 INDIANA BUILDING CODE
- A) SNOW LOADS:
I) GROUND SNOW (p/g).....20 PSF
II) DRIFTING SNOW ON LOWER ROOF
(*TRUSS DESIGNER SHALL ACCOUNT FOR SNOW DRIFT REQUIREMENTS*).....SEE DETAIL 2/A03 & 2/A04
- B) ROOF LOADS:
I) ROOF LIVE.....20 PSF
II) DEAD LOAD.....8 PSF
III) COLLATERAL LOAD.....2 PSF
- C) FLOOR LOADS:
I) LIVE LOAD:
i) STORAGE AREAS.....125 PSF
II) DEAD LOAD.....10 PSF
- D) WIND LOAD:
115 MPH
CAT. II
EXPOSURE C

MSS Engineering, LLC

ENGINEERING, CONSULTING & DESIGN

414 W 5th St., Auburn, IN 46706

Phone: (260) 267-7414

Email: tamcdaniel@mssengineer.com

Travis A. McDaniel, PE



PROJECT LOCATION:
WEST TYSON ROAD
PORTLAND, IN 47371

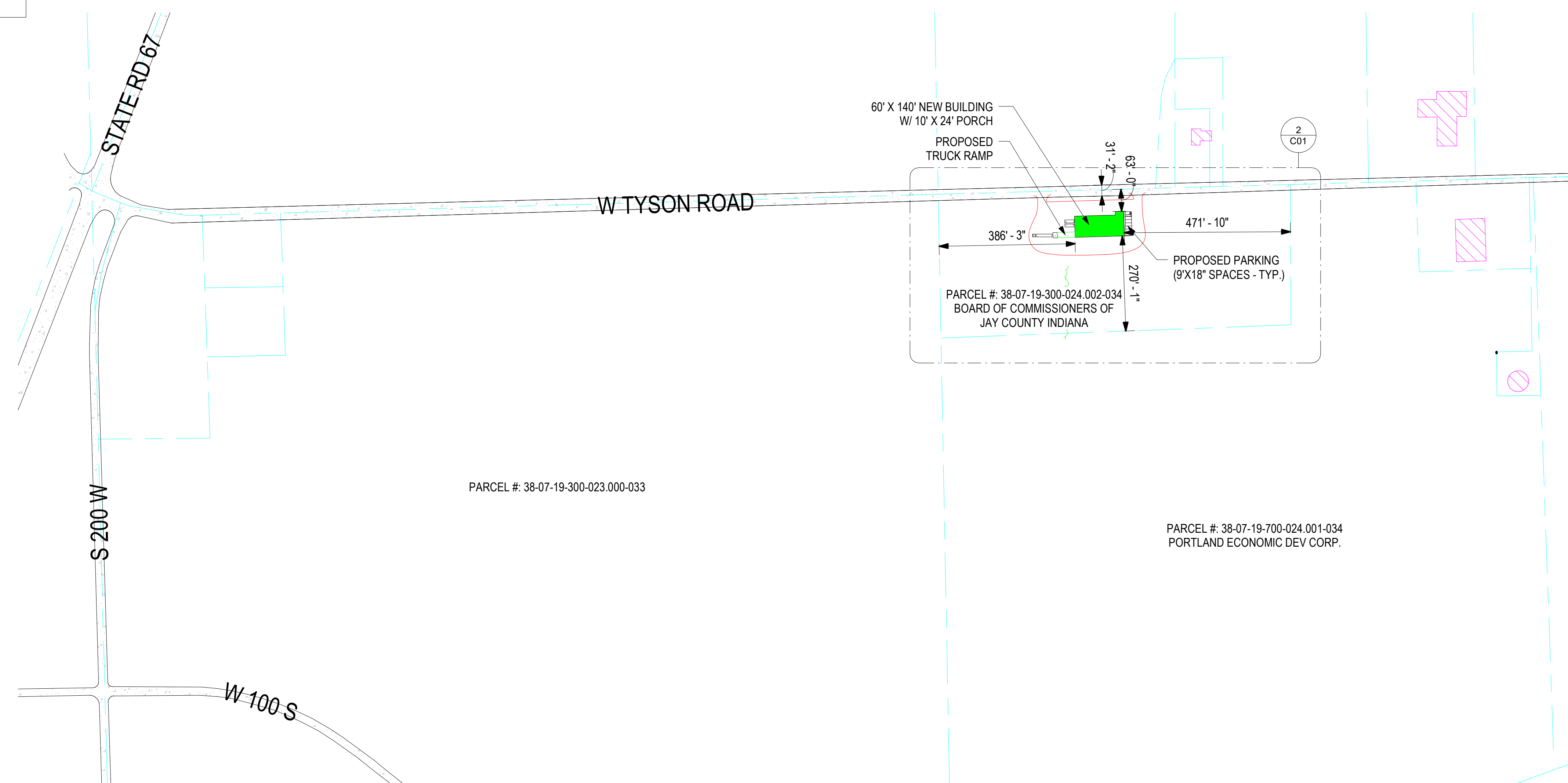
PROJECT NAME: 60' X 140' RECYCLING FACILITY DESIGN (IN)	DRAWING TITLE: COVER PAGE
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REVISIONS:			
NO.	DATE	DESCRIPTION	BY

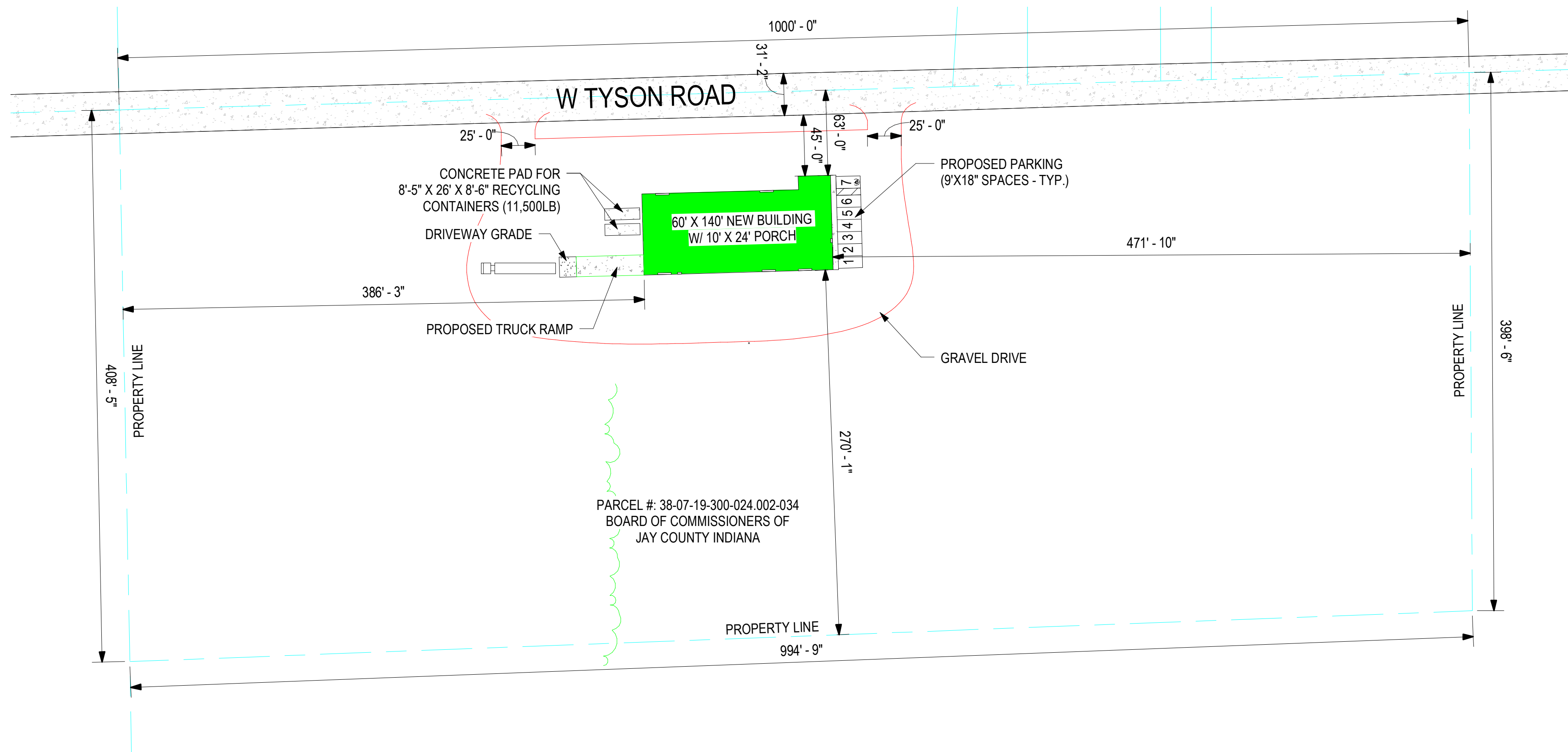
JOB NUMBER:
25.484.071

DRAWN BY: TAM	ENGINEERED BY: TAM
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START DATE: 06/03/25
PROGRESS DATE:
CERTIFIED DATE: 12/12/25
SCALE:
PAGE NUMBER:

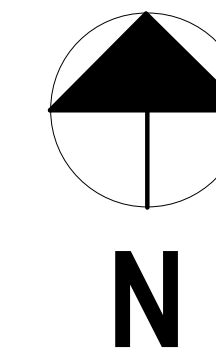


1 SITE PLAN
1" = 200'-0"



② ENLARGED SITE PLAN
1" = 60'-0"

NOTE: DIMENSIONS ARE APPROXIMATE. REFER TO PROFESSIONAL SURVEY FOR PRECISE LOT LINE LAYOUT. INFORMATION PROVIDED GATHERED FROM PUBLIC RECORDS.



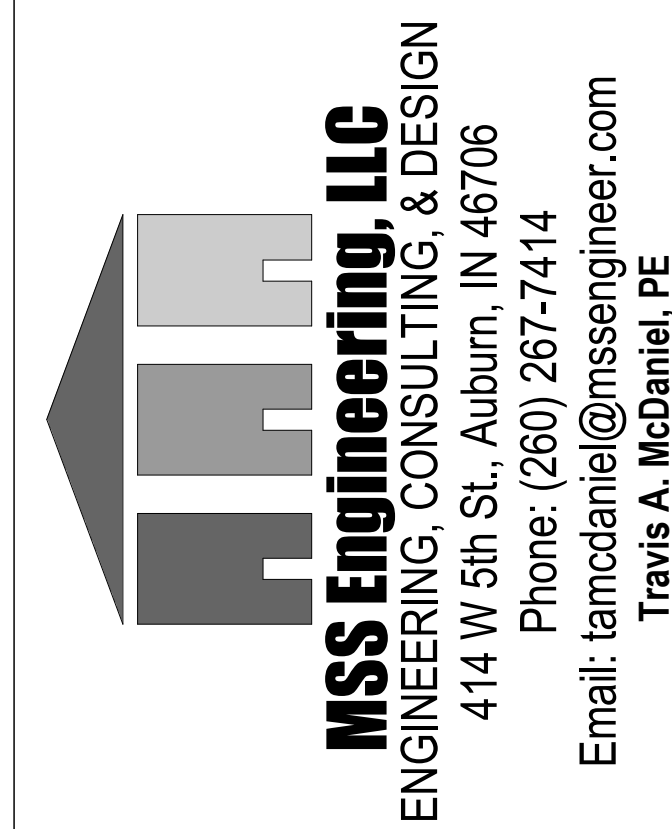
LINETYPE LEGEND	
	NEW BUILDING
	EXISTING BUILDING
	PROPERTY LINE
	SETBACK
	SURFACE EDGE
	PARKING LOT LINE
	FENCE
	SOIL REGION
	DEMO
	OVERHEAD
	TELECOM/DATA
	SWALE
	ELECTRIC
	GAS PIPE
	WATER PIPE
	SANITARY PIPE
	STORM PIPE
	EROSION CONTROL
	LINE OF DISTURBANCE
	NATIONAL POLLUTION DISCHARGE ELIMINATION SYSTEM BOUNDARY
	PROPOSED CONTOUR
	EXISTING CONTOUR
	EXISTING ELECTRIC
	EXISTING GAS PIPE
	EXISTING WATER PIPE
	EXISTING STORM PIPE
	EXISTING SANITARY PIPE
	EXISTING FENCE

○ LINETYPE LEGEND
1" = 20'-0"

REGION LEGEND

	NEW BUILDING
	EXISTING BUILDING
	DRIVEWAY/SIDEWALKS/ROADS
	WATER
	RIP RAP
	TEMPORARY SEEDING
	PERMANENT SEEDING
	ZONE AE (FLOODWAY)
	ZONE AE

○ REGION LEGEND
1/4" = 1'-0"



PROJECT LOCATION:
WEST TYSON ROAD
PORTLAND, IN 47371

PROJECT NAME:
60' X 140' RECYCLING
FACILITY DESIGN (IN)

DRAWING TITLE:
SITE PLAN

REVISIONS:

NO.	DATE	DESCRIPTION	BY
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JOB NUMBER:
25.484.071

DRAWN
BY: TAM

ENGINEERED
BY: TAM

START DATE:	06/03/25
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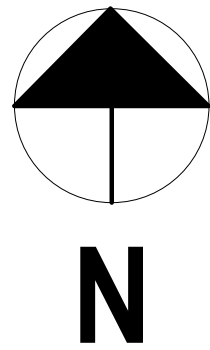
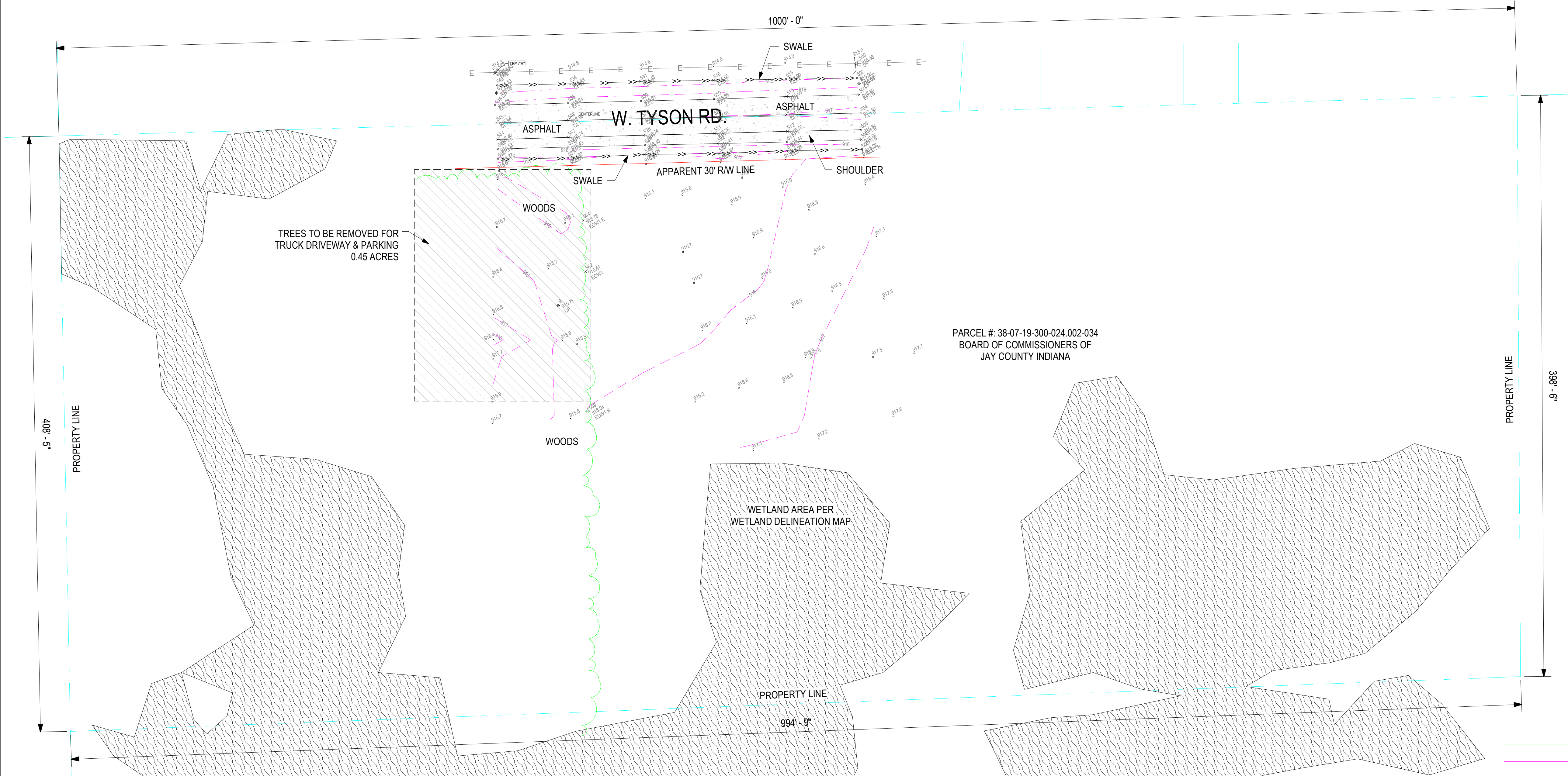
PROGRESS DATE:

CERTIFIED DATE: 12/12/25

SCALE: As indicated

PAGE NUMBER:

REV.



1 EXISTING CONDITIONS
1" = 40'-0"

- REGION LEGEND**
- NEW BUILDING
 - EXISTING BUILDING
 - DRIVEWAY/SIDEWALKS/ROADS
 - WATER
 - RIP RAP
 - TEMPORARY SEEDING
 - PERMANENT SEEDING
 - ZONE AE (FLOODWAY)
 - ZONE AE

1/4" = 1'-0"

- SYMBOL LEGEND**
- MANHOLE
 - DRYWELL
 - SANITARY SEWER CLEANOUT
 - WATER VALVE
 - GAS VALVE
 - FIRE HYDRANT
 - SPOT ELEVATION
 - SIGN POST
 - LIGHT POST
 - SPRINKLER
 - BOLLARD
 - DOWNSPOUT
 - DECIDUOUS TREE
 - UTILITY POLE
 - GUY ANCHOR
 - LIGHT POLE w. MAST ARM

1/4" = 1'-0"

- LINETYPE LEGEND**
- NEW BUILDING
 - EXISTING BUILDING
 - PROPERTY LINE
 - SETBACK
 - SURFACE EDGE
 - PARKING LOT LINE
 - FENCE
 - SOIL REGION
 - DEMO
 - OVERHEAD
 - TELECOM/DATA
 - SWALE
 - ELECTRIC
 - GAS PIPE
 - WATER PIPE
 - SANITARY PIPE
 - STORM PIPE
 - EROSION CONTROL
 - LINE OF DISTURBANCE
 - NATIONAL POLLUTION DISCHARGE ELIMINATION SYSTEM BOUNDARY
 - PROPOSED CONTOUR
 - EXISTING CONTOUR
 - EXISTING ELECTRIC
 - EXISTING GAS PIPE
 - EXISTING WATER PIPE
 - EXISTING STORM PIPE
 - EXISTING SANITARY PIPE
 - EXISTING FENCE

1" = 20'-0"

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Travis A. McDaniel, PE



PROJECT LOCATION:
WEST TYSON ROAD
PORTLAND, IN 47371

PROJECT NAME:
60" X 140" RECYCLING
FACILITY DESIGN (IN)

DRAWING TITLE:
EXISTING CONDITION

REVISIONS:

NO.	DATE	DESCRIPTION	BY
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JOB NUMBER:
25.484.071

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START DATE: 06/03/25

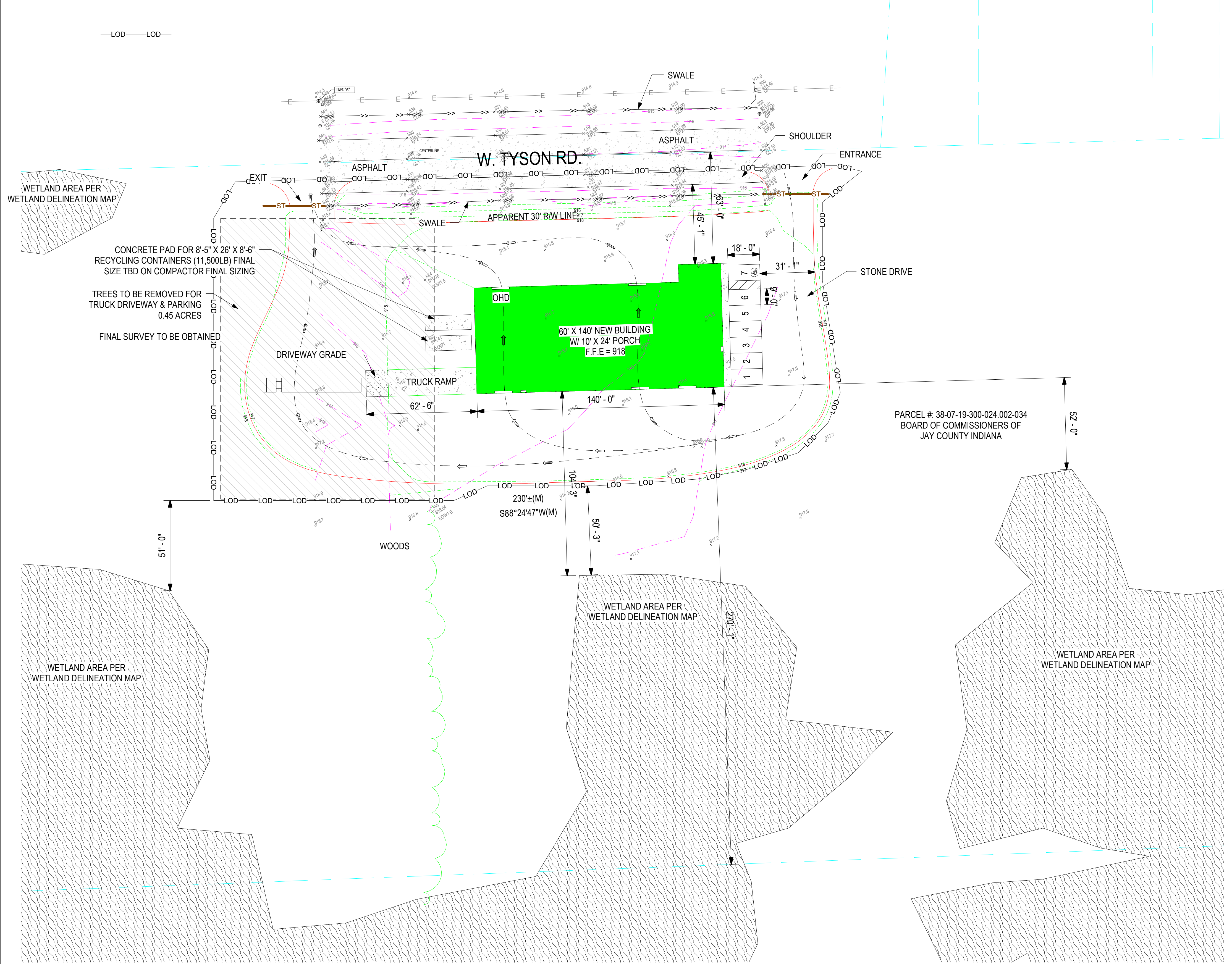
PROGRESS DATE:

CERTIFIED DATE: 12/12/25

SCALE: As indicated

PAGE NUMBER:

REV.



1 PROPOSED SURFACE
1" = 30'-0"

SYMBOL LEGEND

- MANHOLE
- DRYWELL
- SANITARY SEWER CLEANOUT
- WATER VALVE
- GAS VALVE
- FIRE HYDRANT
- SPOT ELEVATION
- SIGN POST
- LIGHT POST
- SPRINKLER
- BOLLARD
- DOWNSPOUT
- DECIDUOUS TREE
- UTILITY POLE
- GUY ANCHOR
- LIGHT POLE w. MAST ARM

SYMBOL LEGEND
1/4" = 1'-0"

REGION LEGEND

- NEW BUILDING
- EXISTING BUILDING
- DRIVEWAY/SIDEWALKS/ROADS
- WATER
- RIP RAP
- TEMPORARY SEEDING
- PERMANENT SEEDING
- ZONE AE (FLOODWAY)
- ZONE AE

REGION LEGEND
1/4" = 1'-0"

LINETYPE LEGEND

- NEW BUILDING
- EXISTING BUILDING
- PROPERTY LINE
- SETBACK
- SURFACE EDGE
- PARKING LOT LINE
- FENCE
- SOIL REGION
- DEMO
- OVERHEAD
- TELECOM/DATA
- SWALE
- ELECTRIC
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- WATER PIPE
- SANITARY PIPE
- STORM PIPE
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- LINE OF DISTURBANCE
- NATIONAL POLLUTION DISCHARGE ELIMINATION SYSTEM BOUNDARY
- PROPOSED CONTOUR
- EXISTING CONTOUR
- EXISTING ELECTRIC
- EXISTING GAS PIPE
- EXISTING WATER PIPE
- EXISTING STORM PIPE
- EXISTING SANITARY PIPE
- EXISTING FENCE

LINETYPE LEGEND
1" = 20'-0"

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PROJECT LOCATION:
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PORTLAND, IN 47371

PROJECT NAME:
60' X 140' RECYCLING
FACILITY DESIGN (IN)

DRAWING TITLE:
PROPOSED SURFACE

REVISIONS:

NO.	DATE	DESCRIPTION	BY
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JOB NUMBER:
25.484.071

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ENGINEERED BY: TAM

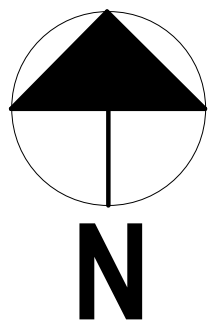
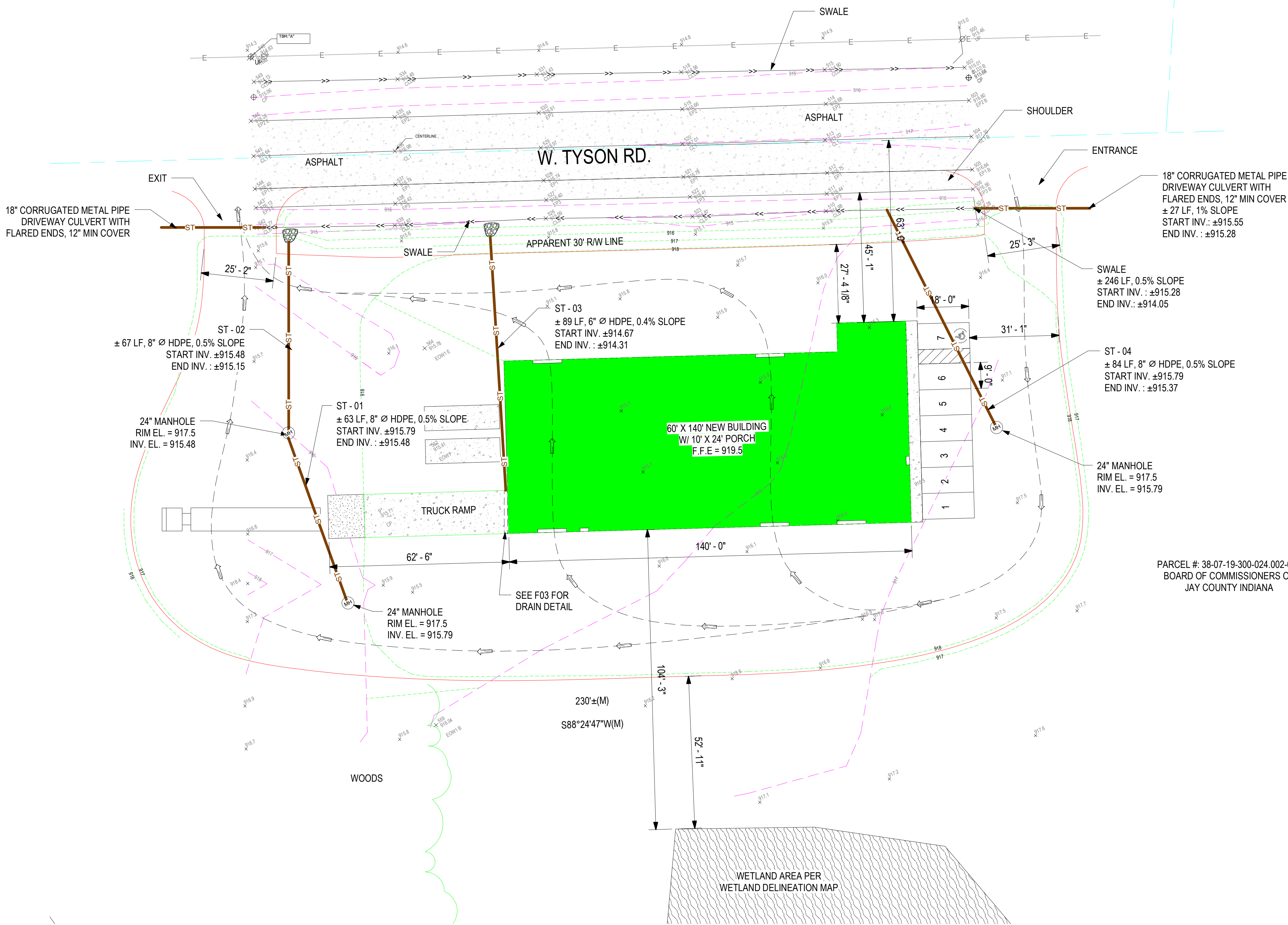
START DATE: 06/03/25

PROGRESS DATE:

CERTIFIED DATE: 12/12/25

SCALE: As indicated

PAGE NUMBER:



SYMBOL LEGEND

- MANHOLE
 - DRYWELL
 - SANITARY SEWER CLEANOUT
 - WATER VALVE
 - GAS VALVE
 - FIRE HYDRANT
 - SPOT ELEVATION
 - SIGN POST
 - LIGHT POST
 - SPRINKLER
 - BOLLARD
 - DOWNSPOUT
 - DECIDUOUS TREE
 - UTILITY POLE
 - GUY ANCHOR
 - LIGHT POLE w. MAST ARM
- SYMBOL LEGEND
1/4" = 1'-0"

REGION LEGEND

- NEW BUILDING
 - EXISTING BUILDING
 - DRIVEWAY/SIDEWALKS/ROADS
 - WATER
 - RIP RAP
 - TEMPORARY SEEDING
 - PERMANENT SEEDING
 - ZONE AE (FLOODWAY)
 - ZONE AE
- REGION LEGEND
1/4" = 1'-0"

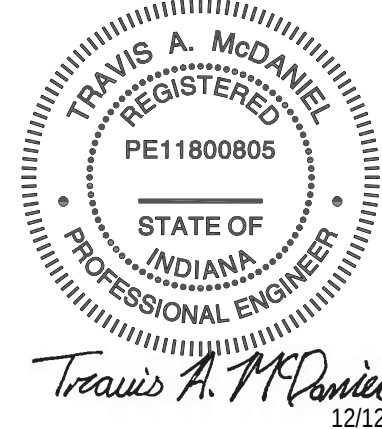
LINETYPE LEGEND

- NEW BUILDING
- EXISTING BUILDING
- PROPERTY LINE
- SETBACK
- SURFACE EDGE
- PARKING LOT LINE
- FENCE
- SOIL REGION
- DEMO
- OVERHEAD
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- EXISTING ELECTRIC
- EXISTING GAS PIPE
- EXISTING WATER PIPE
- EXISTING STORM PIPE
- EXISTING SANITARY PIPE
- EXISTING FENCE

LINETYPE LEGEND
1" = 20'-0"

1 DRAINAGE PLAN & UTILITIES
1" = 20'-0"

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Travis A. McDaniel, PE



PROJECT LOCATION:
WEST TYSON ROAD
PORTLAND, IN 47371

PROJECT NAME:
60' X 140' RECYCLING
FACILITY DESIGN (IN)

DRAWING TITLE:
DRAINAGE PLAN &
UTILITIES

REVISIONS:

NO.	DATE	DESCRIPTION	BY
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JOB NUMBER:
25.484.071

DRAWN
BY: TAM

ENGINEERED
BY: TAM

START DATE: 06/03/25

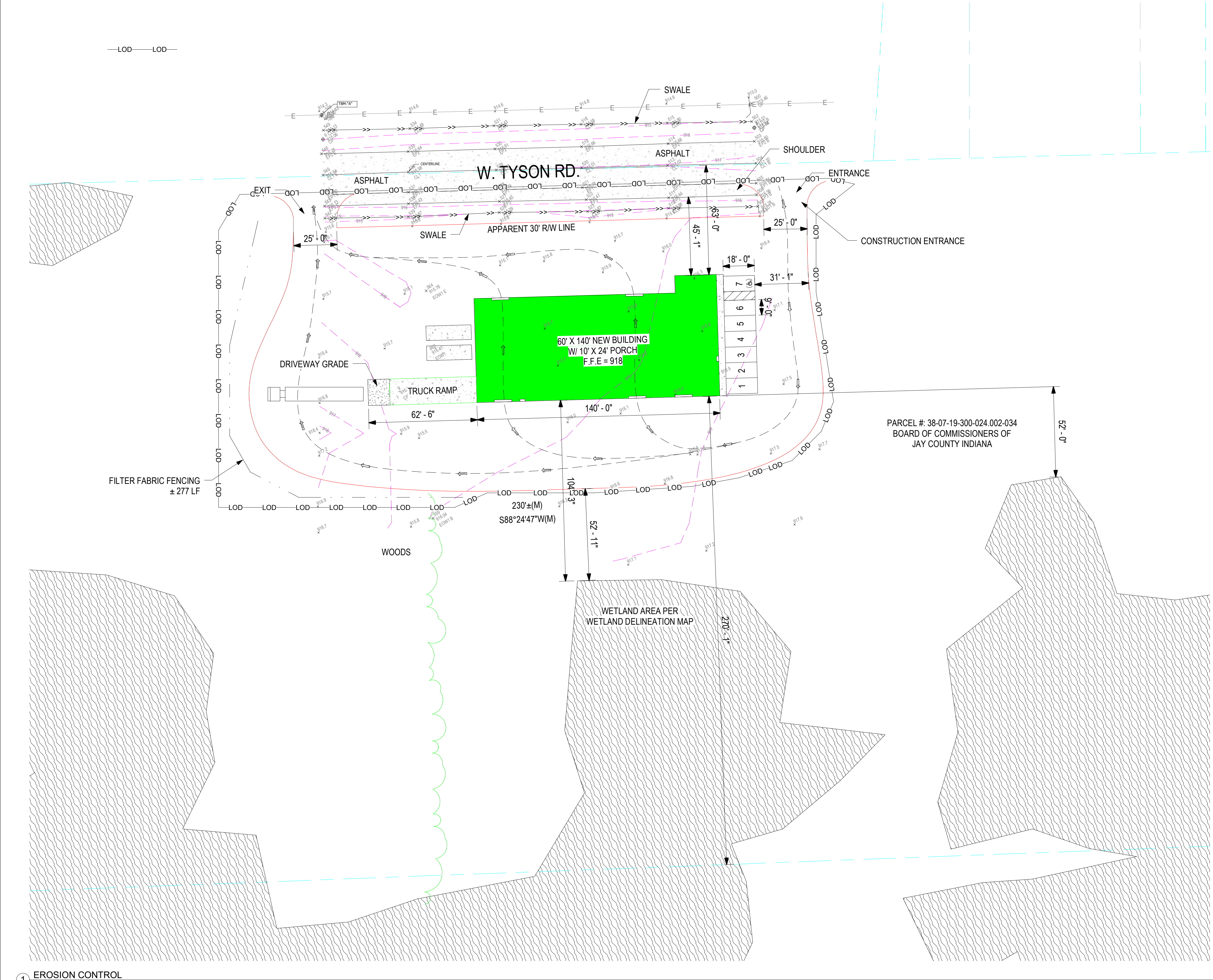
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CERTIFIED DATE: 12/12/25

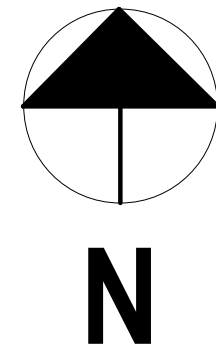
SCALE: As indicated

PAGE NUMBER:

REV.



1 EROSION CONTROL
1" = 30'-0"



SYMBOL LEGEND

- MANHOLE
 - DRYWELL
 - SANITARY SEWER CLEANOUT
 - WATER VALVE
 - GAS VALVE
 - FIRE HYDRANT
 - SPOT ELEVATION
 - SIGN POST
 - LIGHT POST
 - SPRINKLER
 - BOLLARD
 - DOWNSPOUT
 - DECIDUOUS TREE
 - UTILITY POLE
 - GUY ANCHOR
 - LIGHT POLE w. MAST ARM
- SYMBOL LEGEND
1/4" = 1'-0"

REGION LEGEND

- NEW BUILDING
 - EXISTING BUILDING
 - DRIVEWAY/SIDEWALKS/ROADS
 - WATER
 - RIP RAP
 - TEMPORARY SEEDING
 - PERMANENT SEEDING
 - ZONE AE (FLOODWAY)
 - ZONE AE
- REGION LEGEND
1/4" = 1'-0"

LINETYPE LEGEND

- NEW BUILDING
- EXISTING BUILDING
- PROPERTY LINE
- SETBACK
- SURFACE EDGE
- PARKING LOT LINE
- FENCE
- SOIL REGION
- DEMO
- OVERHEAD
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- EXISTING ELECTRIC
- EXISTING GAS PIPE
- EXISTING WATER PIPE
- EXISTING STORM PIPE
- EXISTING SANITARY PIPE
- EXISTING FENCE

LINETYPE LEGEND
1" = 20'-0"

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Travis A. McDaniel, PE



PROJECT LOCATION:
WEST TYSON ROAD
PORTLAND, IN 47371

PROJECT NAME:
60' X 140' RECYCLING
FACILITY DESIGN (IN)

DRAWING TITLE:
EROSION CONTROL

REVISIONS:

NO.	DATE	DESCRIPTION	BY
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JOB NUMBER:
25.484.071

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ENGINEERED BY: TAM

START DATE: 06/03/25

PROGRESS DATE:

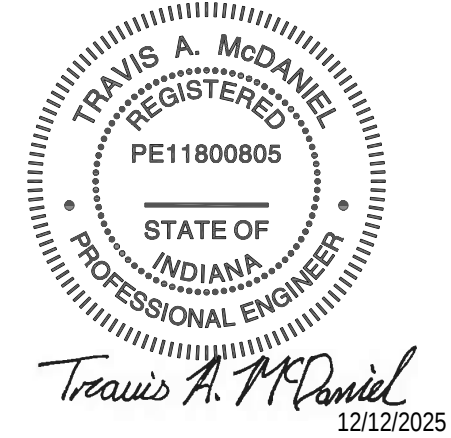
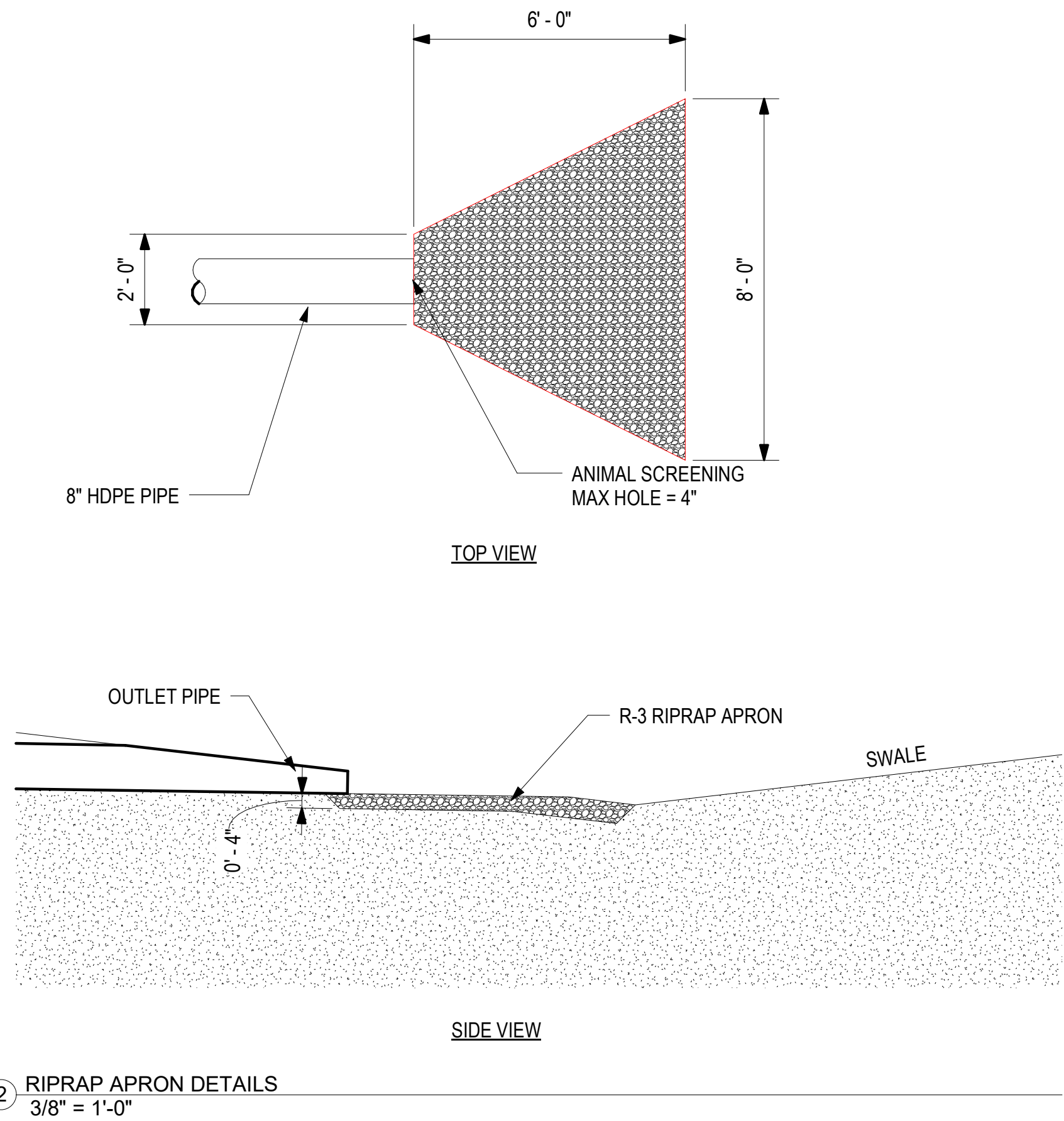
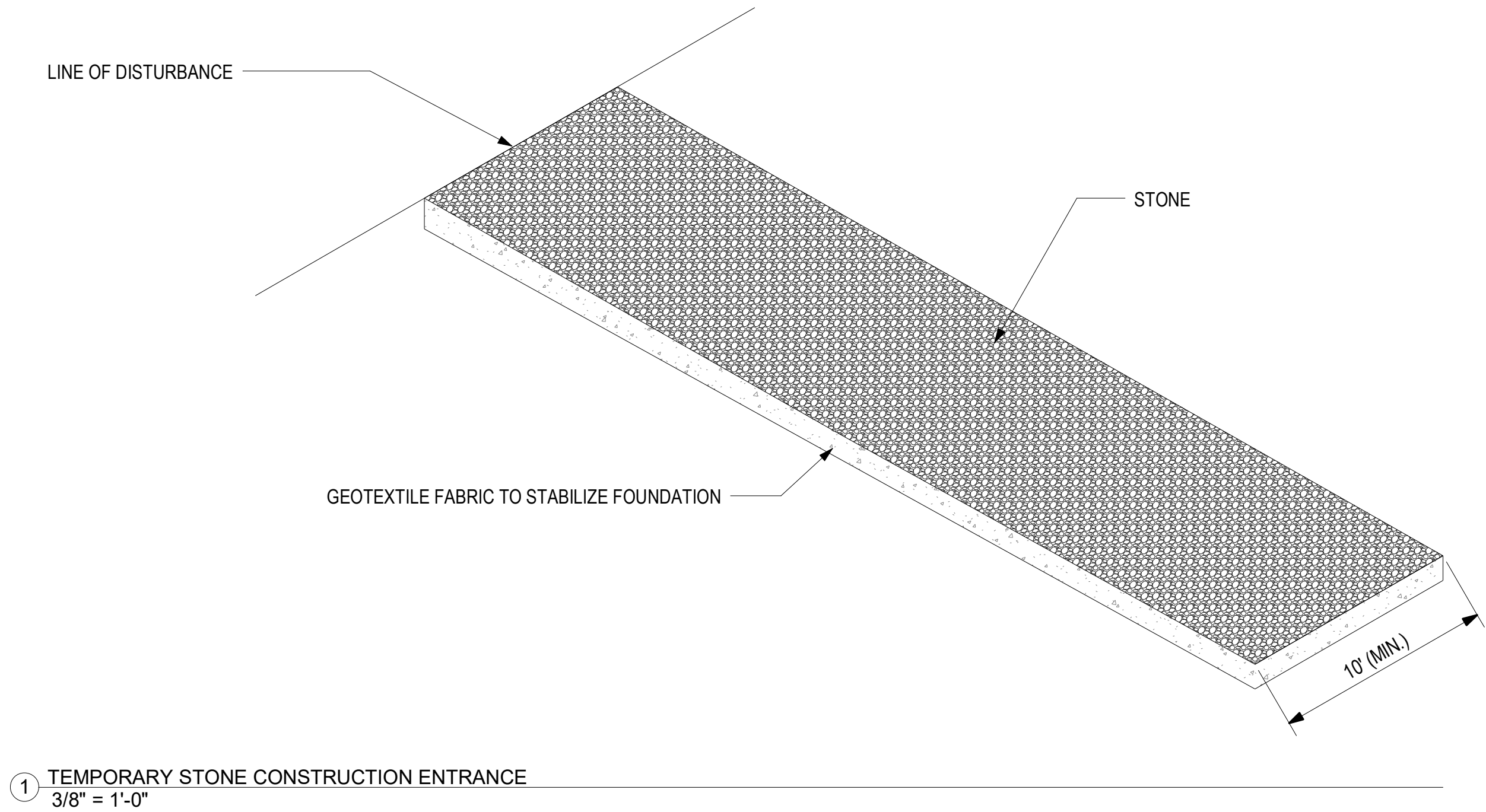
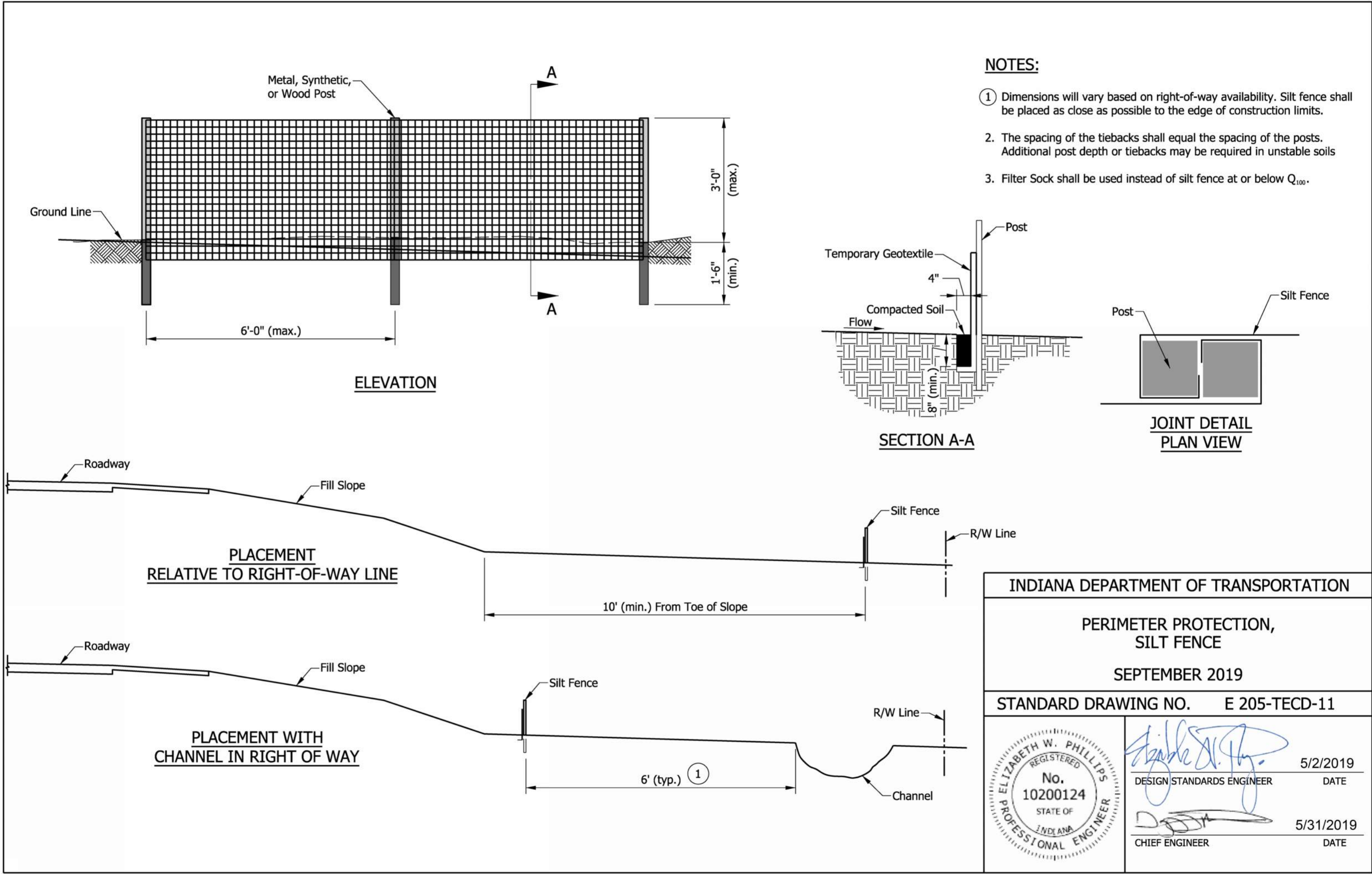
CERTIFIED DATE: 12/12/25

SCALE: As indicated

PAGE NUMBER:

C05 OF C08 SHEETS

REV.



PROJECT LOCATION:
WEST TYSON ROAD
PORTLAND, IN 47371

PROJECT NAME:
60' X 140' RECYCLING
FACILITY DESIGN (IN)

DRAWING TITLE:
EROSION CONTROL
DETAILS

REVISIONS:

NO.	DATE	DESCRIPTION	BY
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JOB NUMBER:
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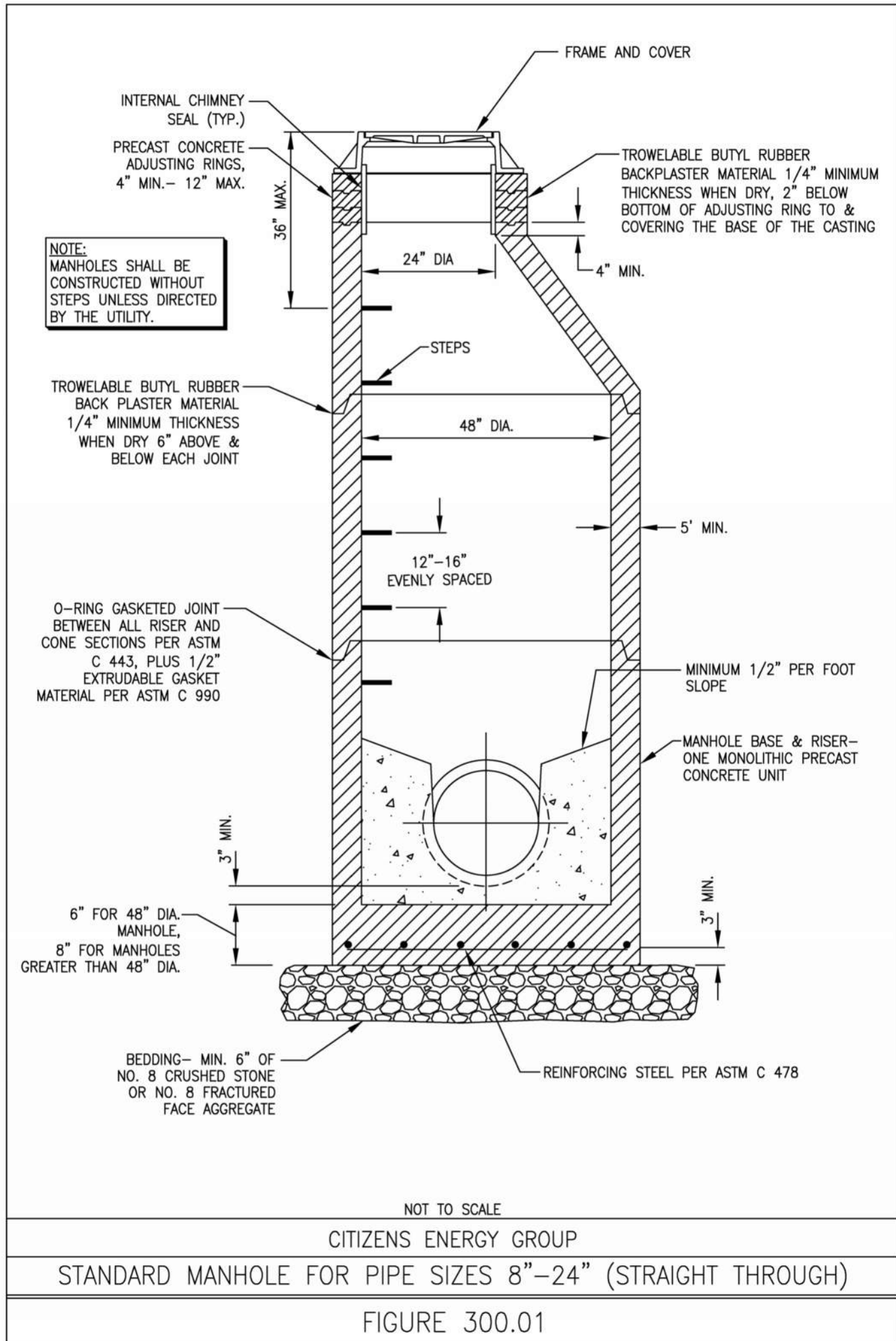
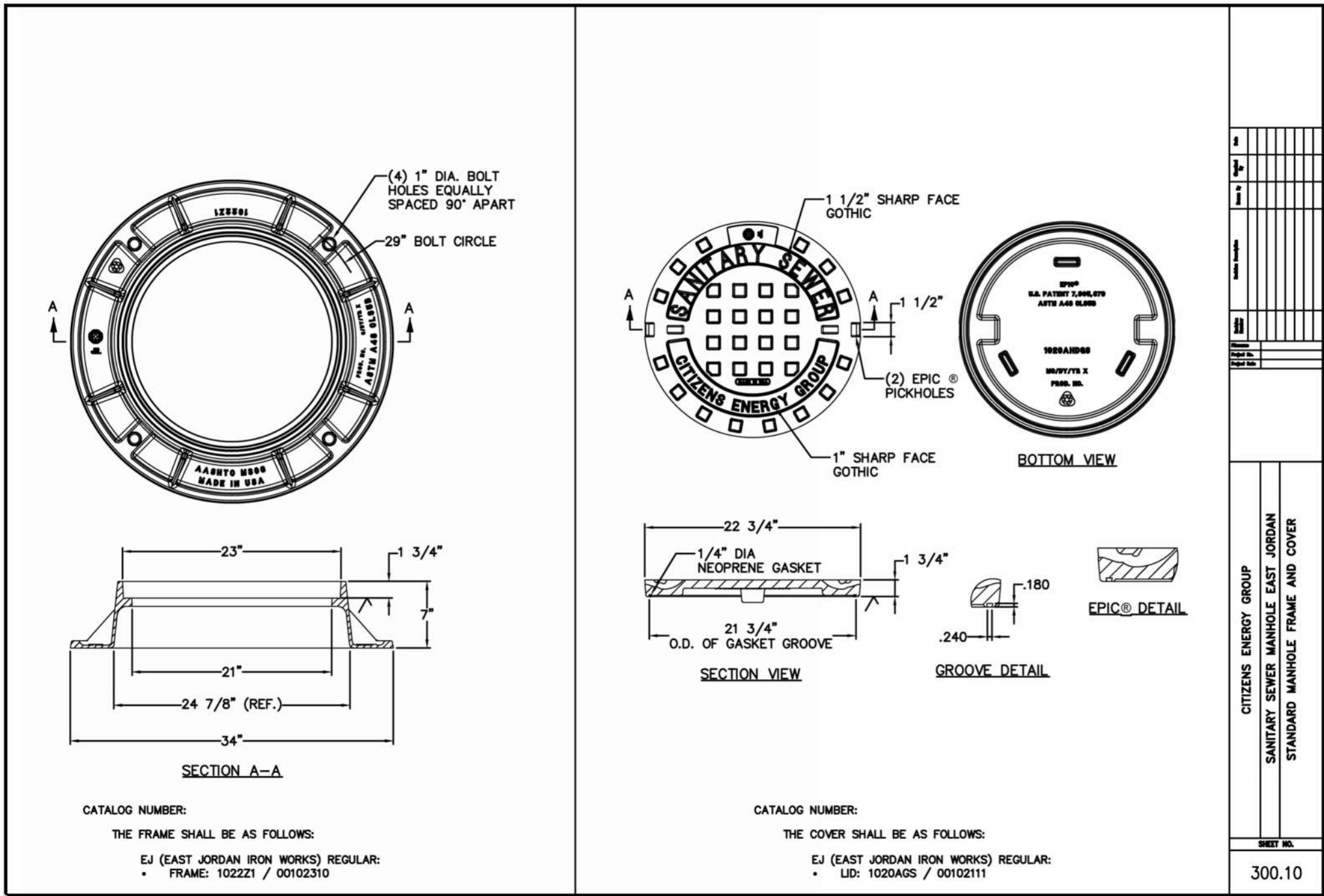
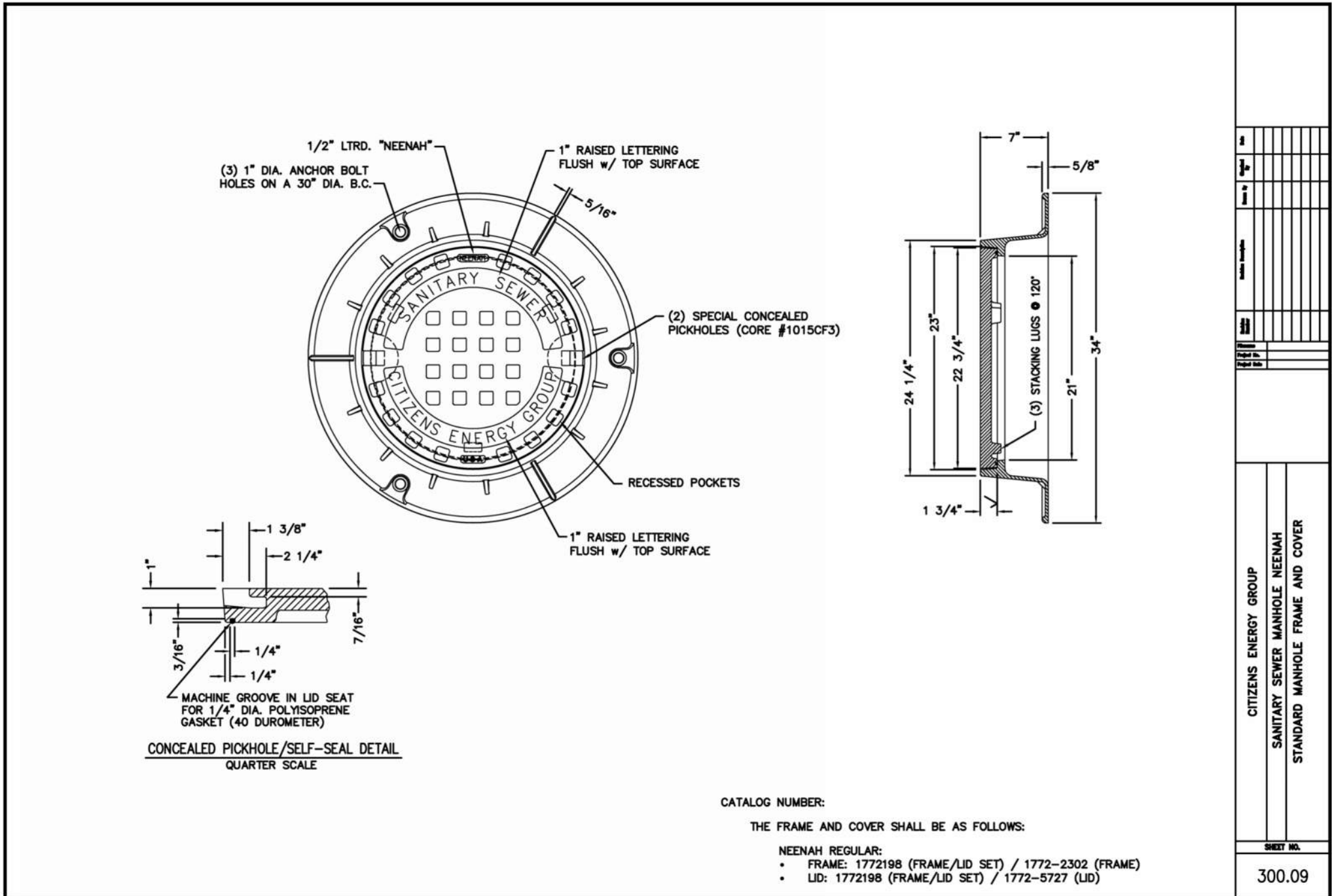
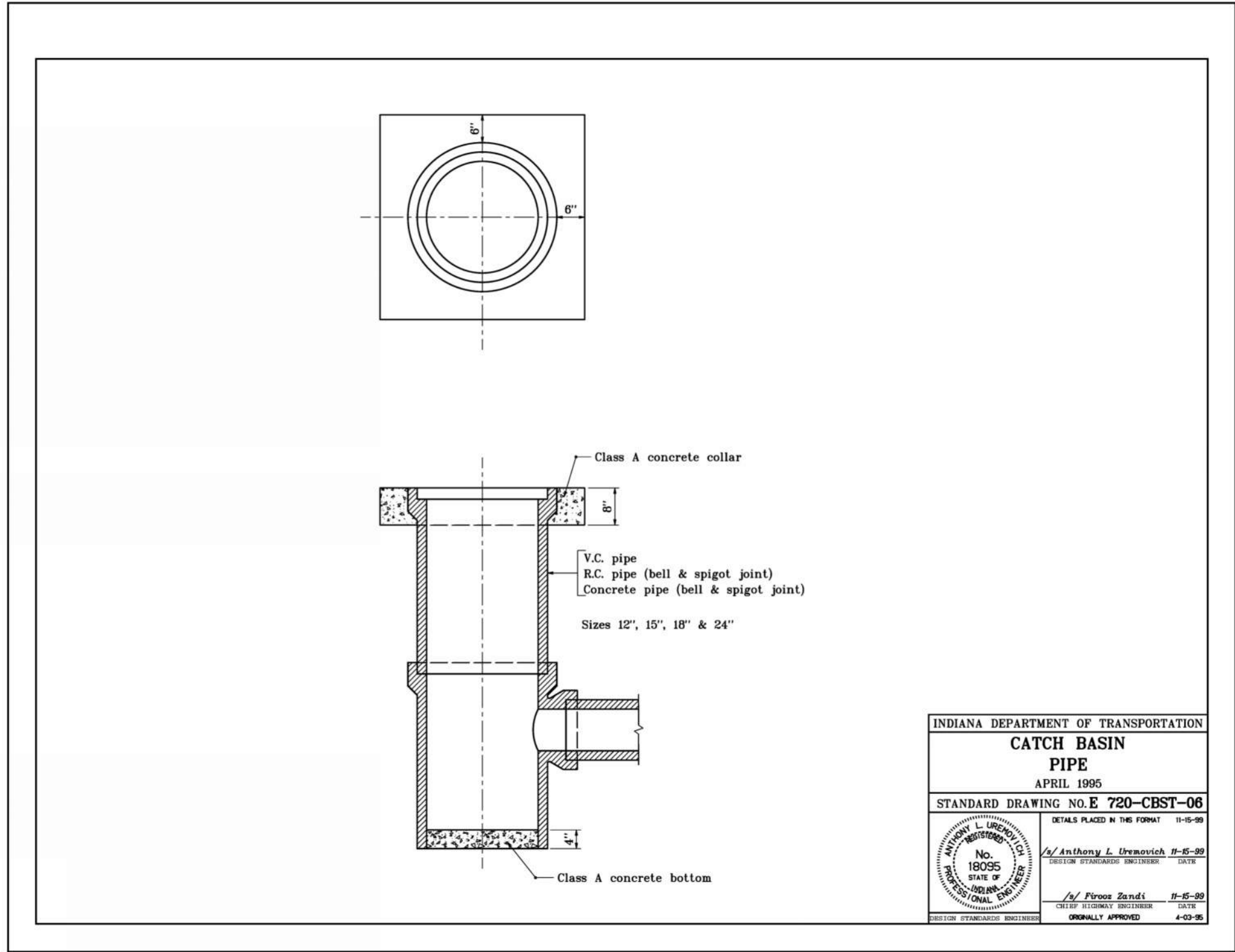
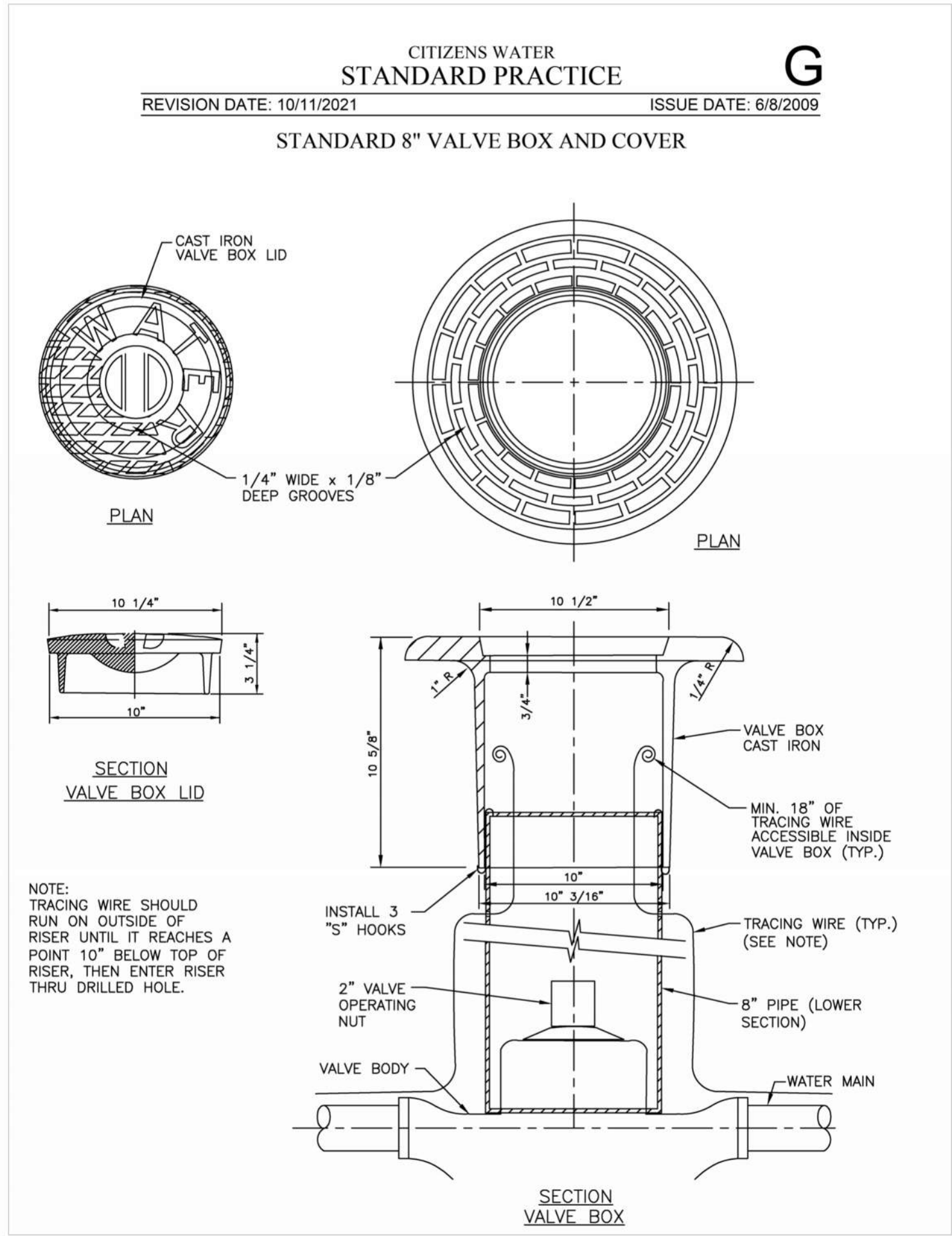
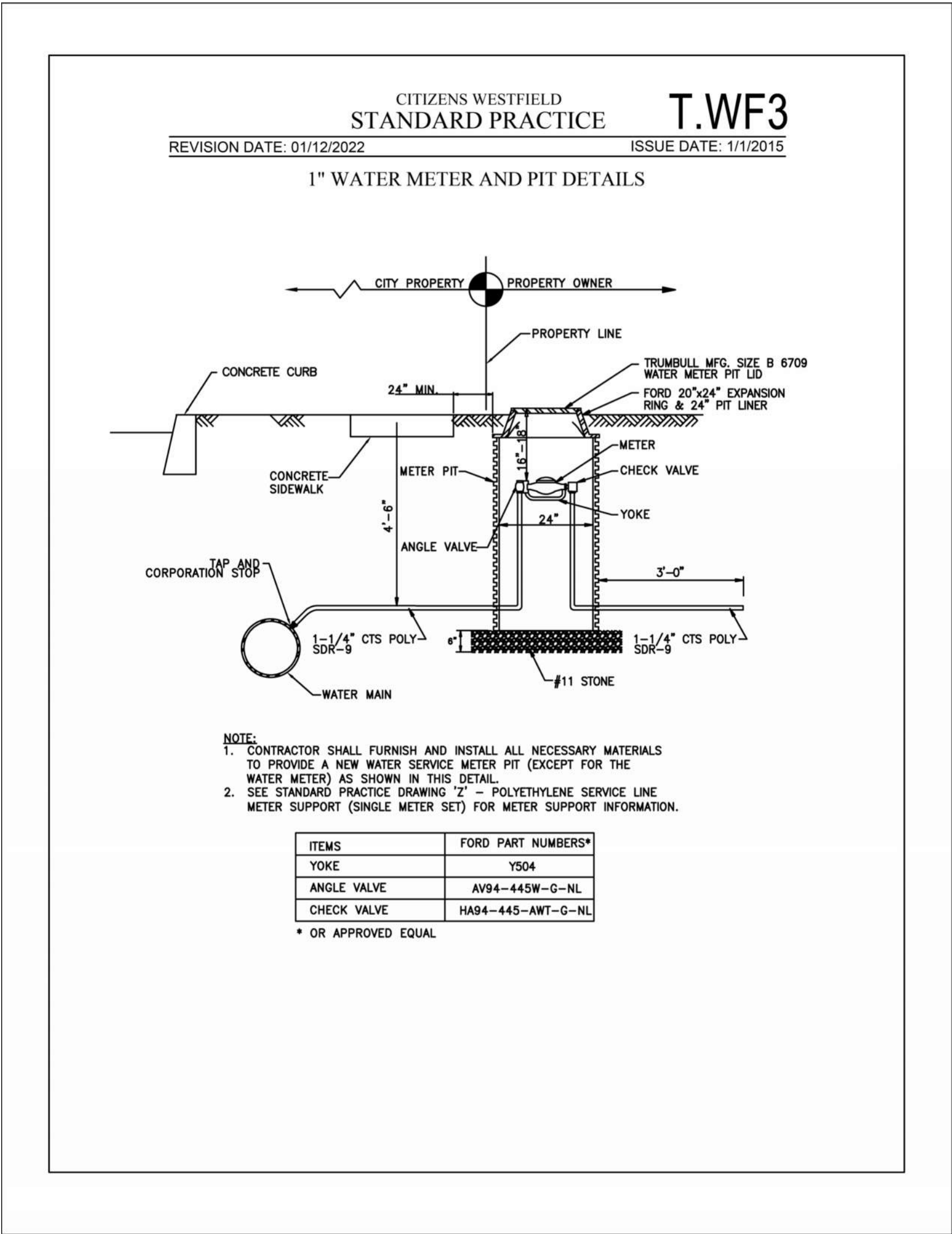
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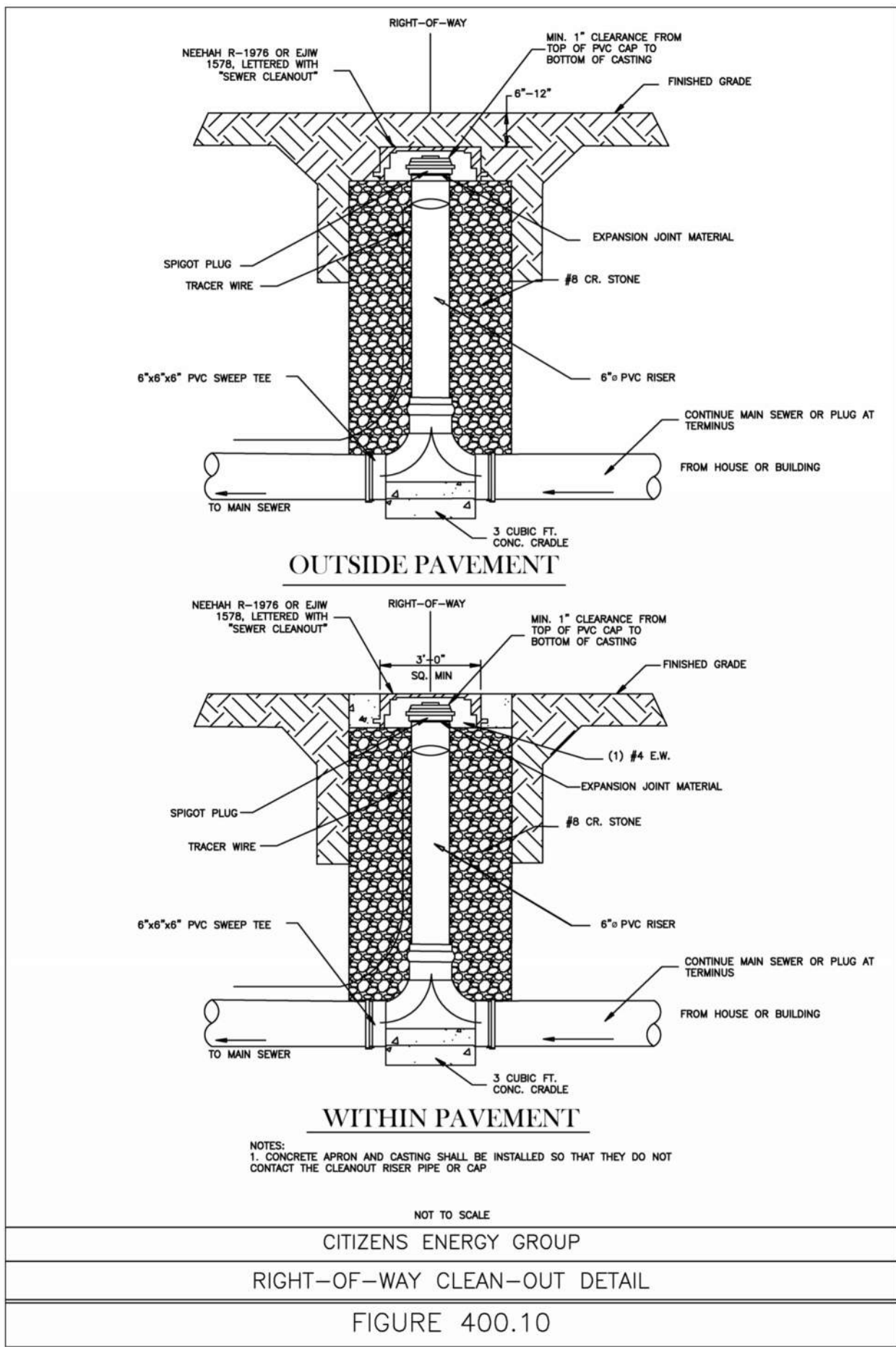
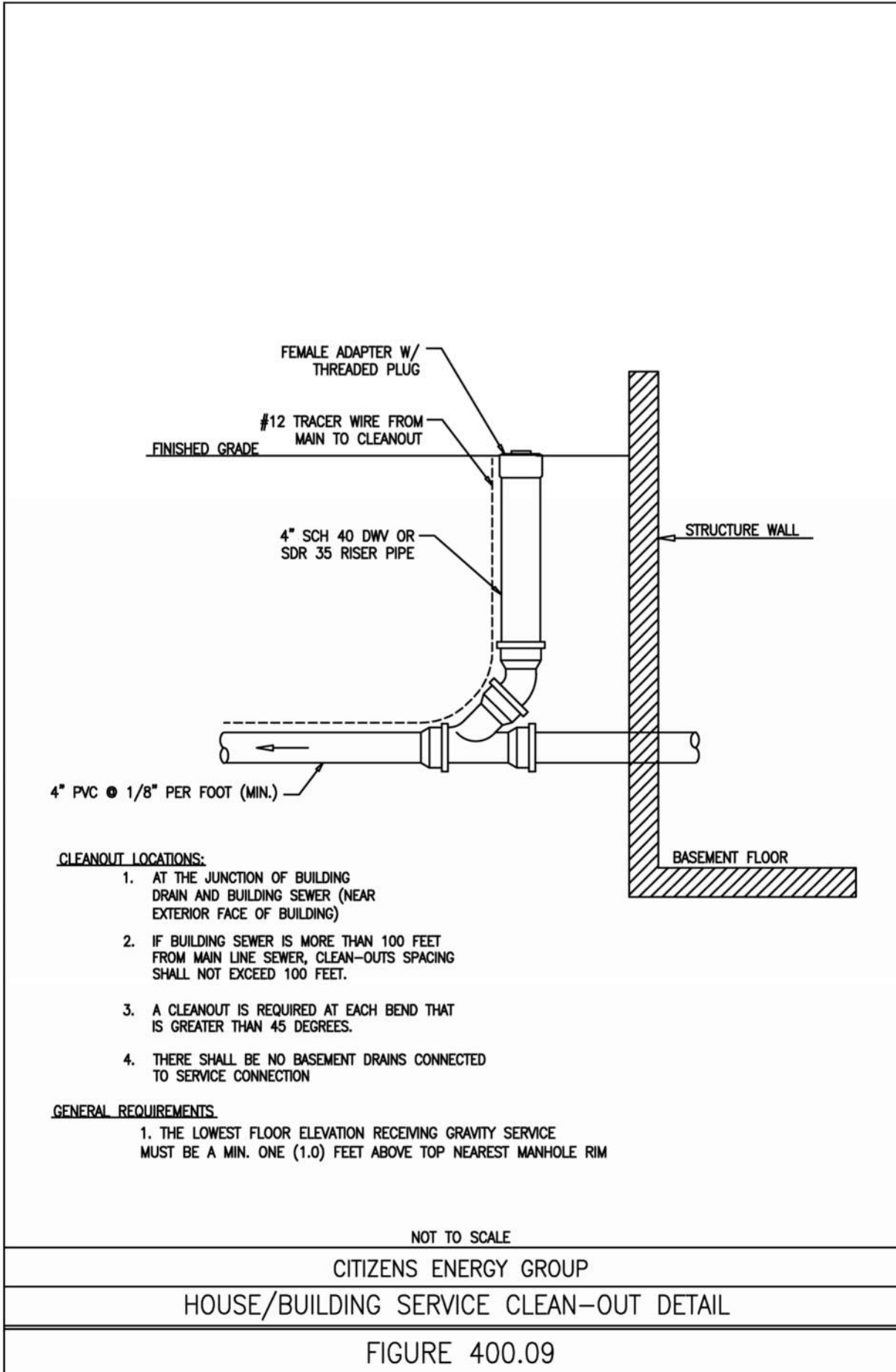
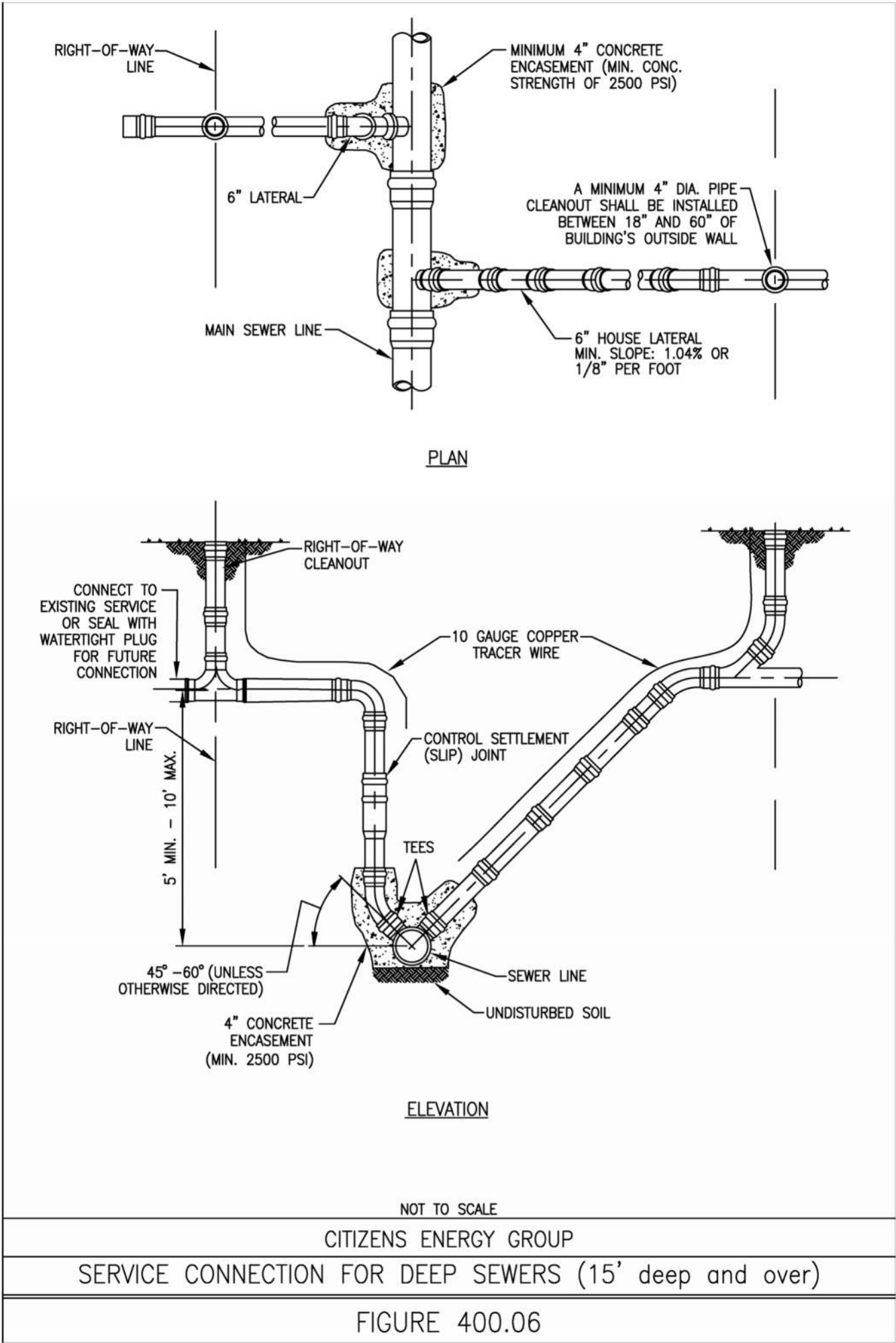
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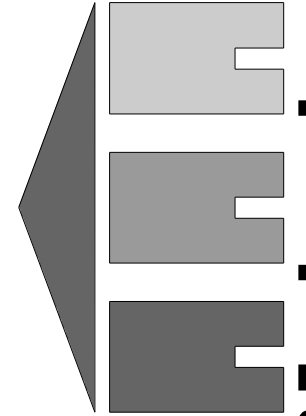
CERTIFIED DATE: 12/12/25

SCALE: 3/8" = 1'-0"

PAGE NUMBER:







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PROJECT LOCATION:
WEST TYSON ROAD
PORTLAND, IN 47371

PROJECT NAME:
60' X 140' RECYCLING
FACILITY DESIGN (IN)

DRAWING TITLE:
UTILITY DETAILS
(CONT.)

REVISIONS:

NO.	DATE	DESCRIPTION	BY
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JOB NUMBER:
25.484.071

DRAWN BY: TAM	ENGINEERED BY: TAM
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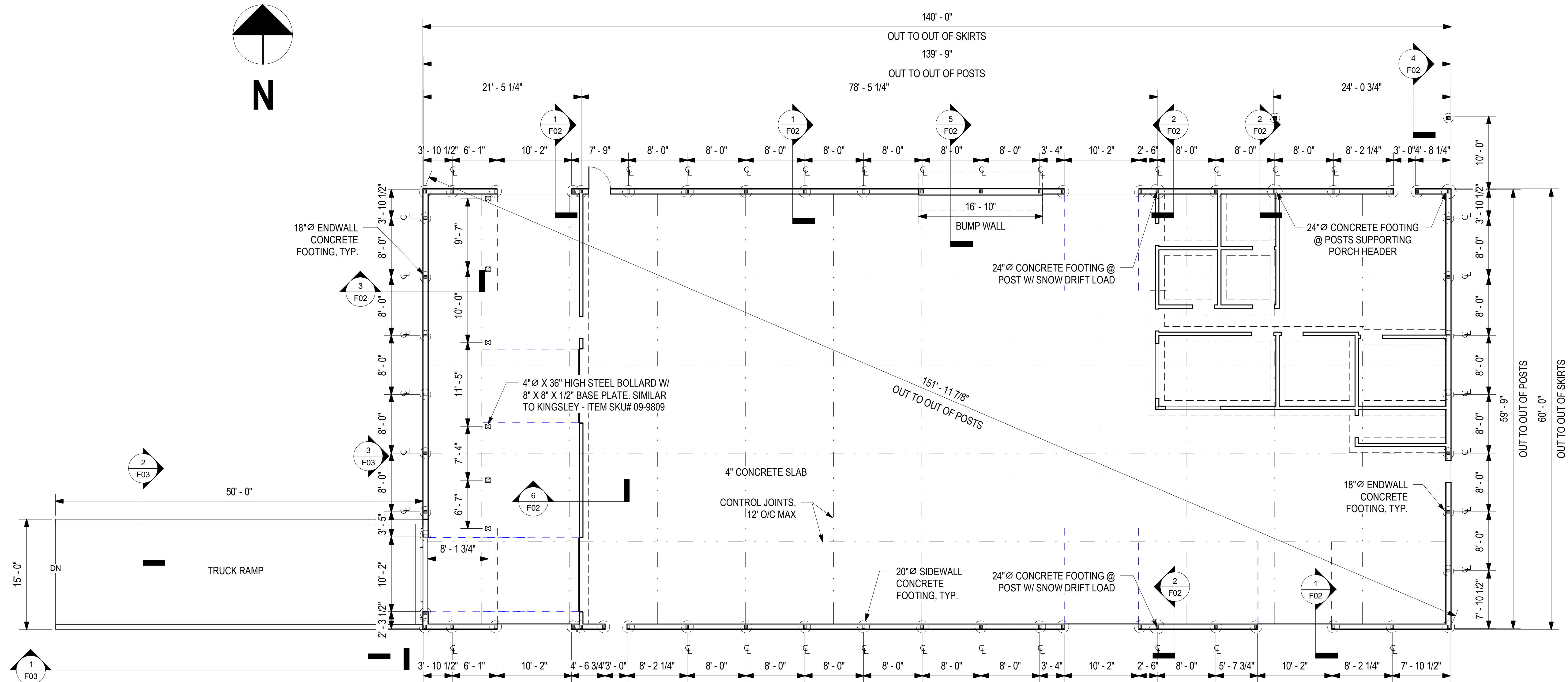
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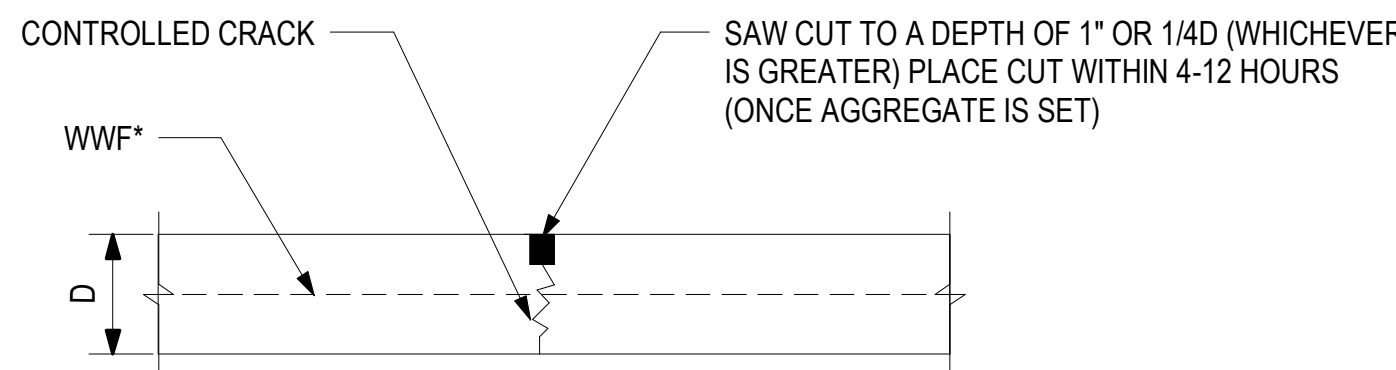
SCALE:

PAGE NUMBER:



1 FOUNDATION PLAN
1/8" = 1'-0"

*NOTE:
EVERY OTHER BAR SHALL EXTEND THROUGH CONTROL JOINTS. CUT ONE HALF OF HORIZONTAL STEEL AT THESE LOCATIONS



3 CONTROL JOINT DETAIL
1 1/2" = 1'-0"

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60' X 140' RECYCLING
FACILITY DESIGN (IN)

DRAWING TITLE:
FOUNDATION PLAN

REVISIONS:

NO.	DATE	DESCRIPTION	BY
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JOB NUMBER:
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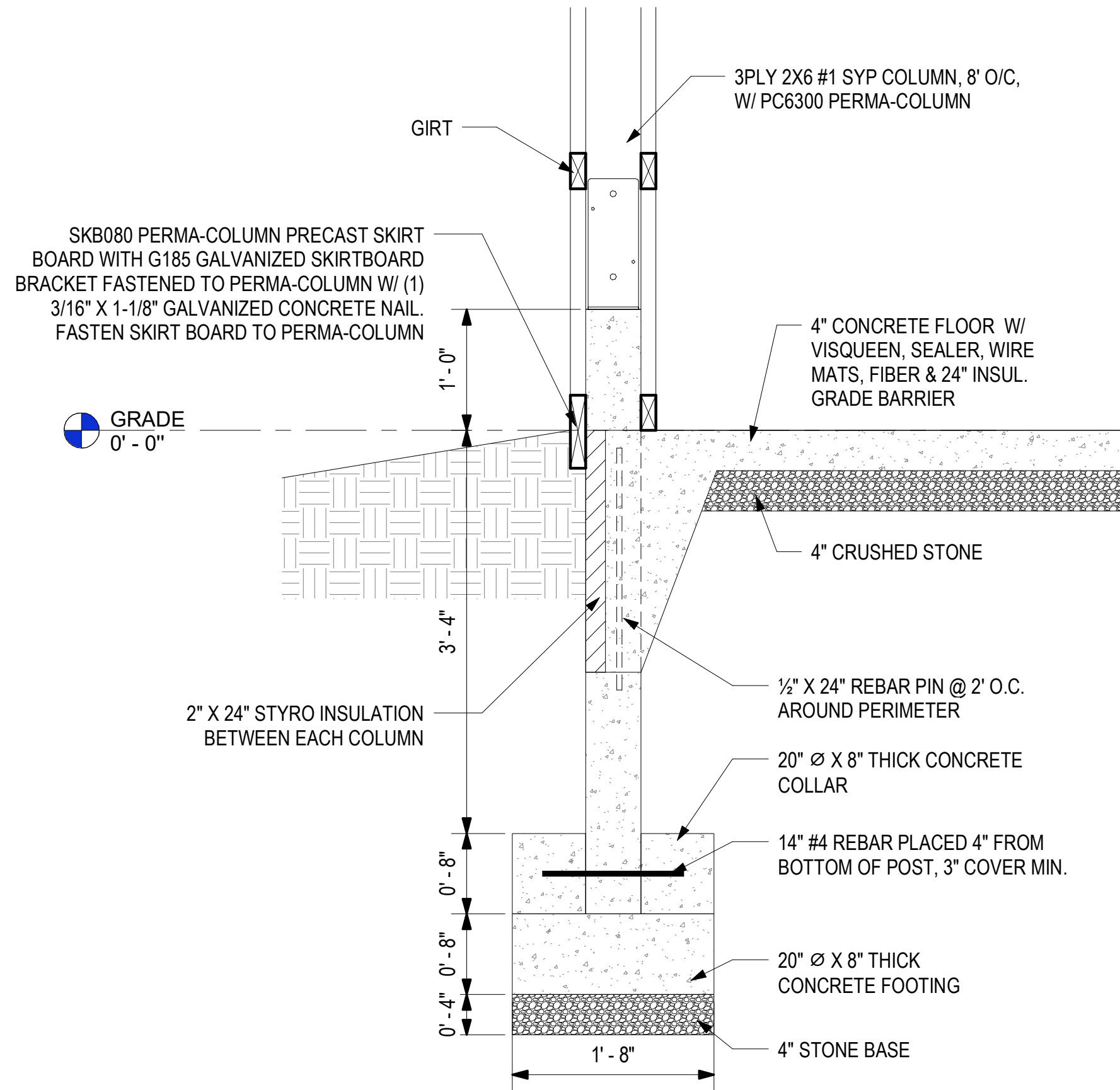
SCALE: As indicated

PAGE NUMBER:

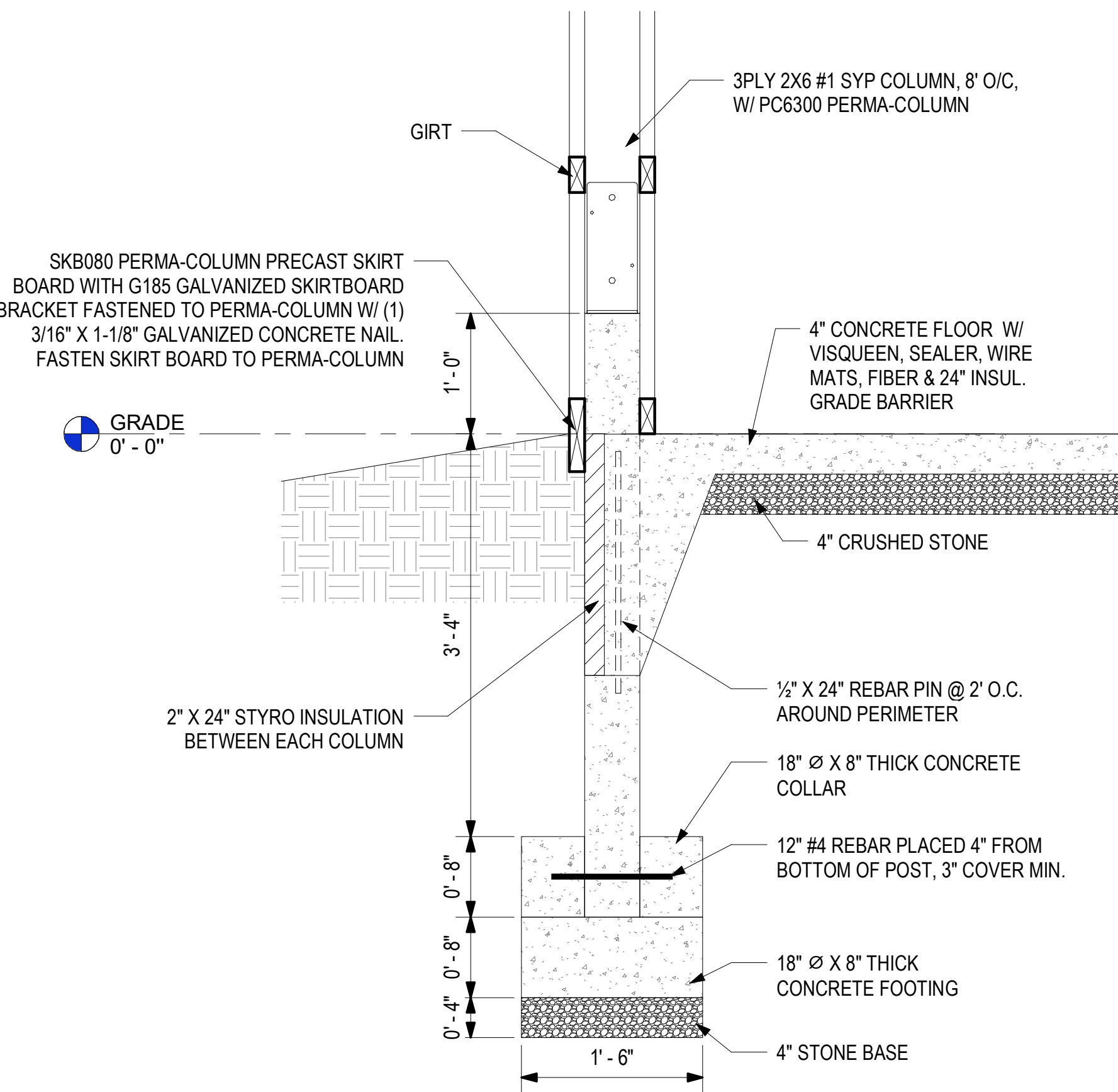
F01 OF F04 SHEETS

REV.

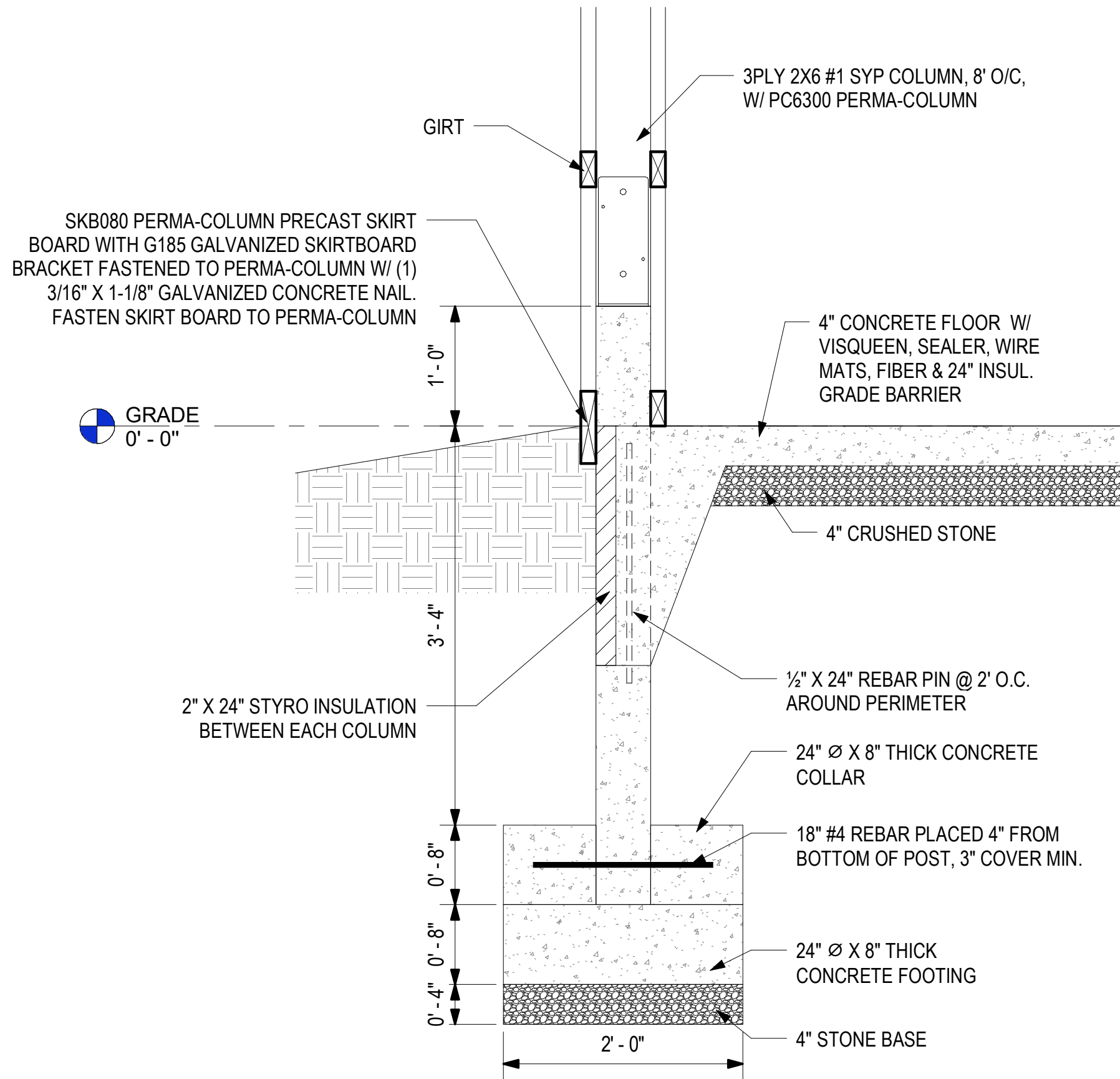
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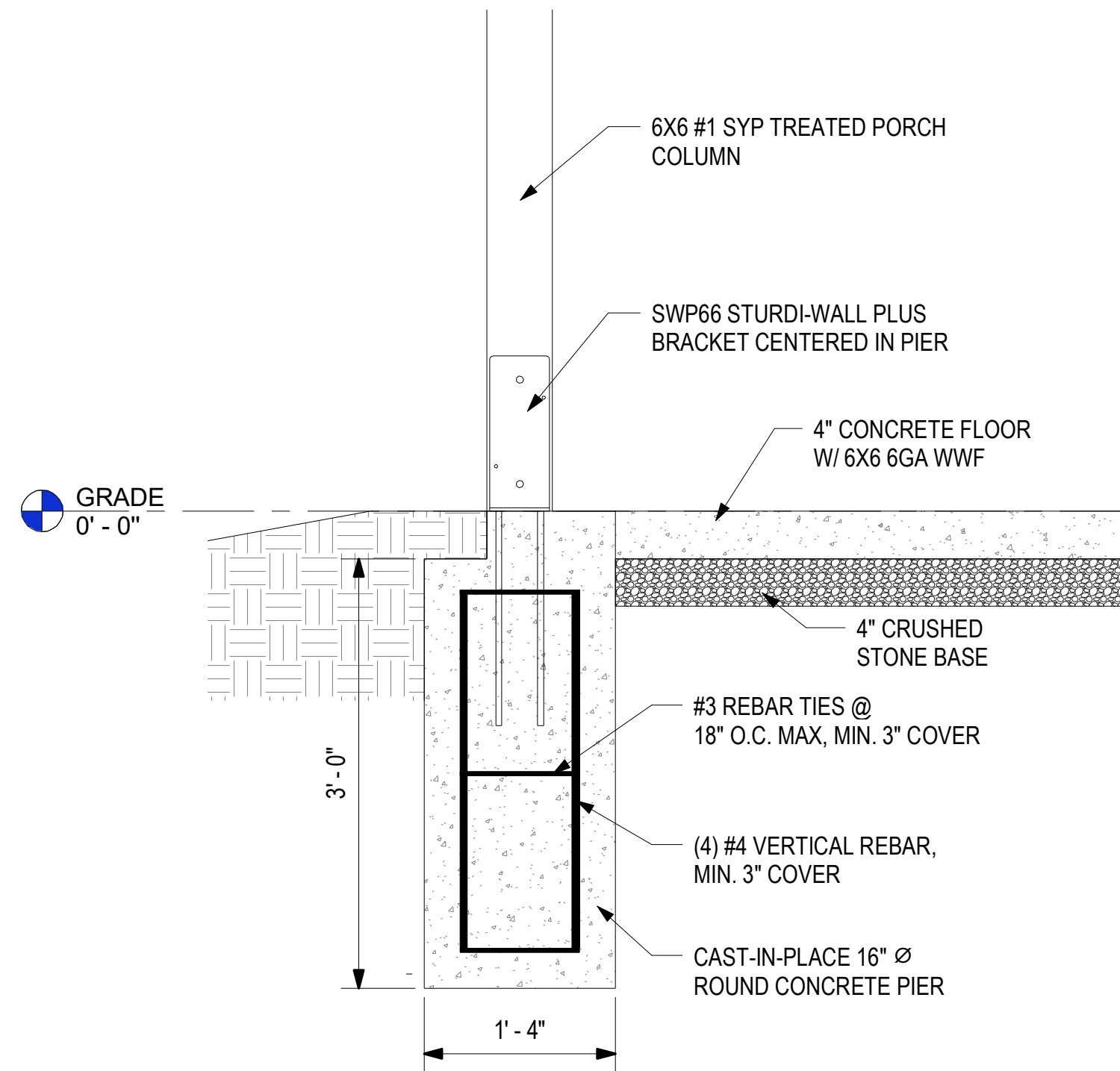
① TYP. SIDEWALL COLUMN & OHD COLUMN FOUNDATION DETAIL
1" = 1'-0"



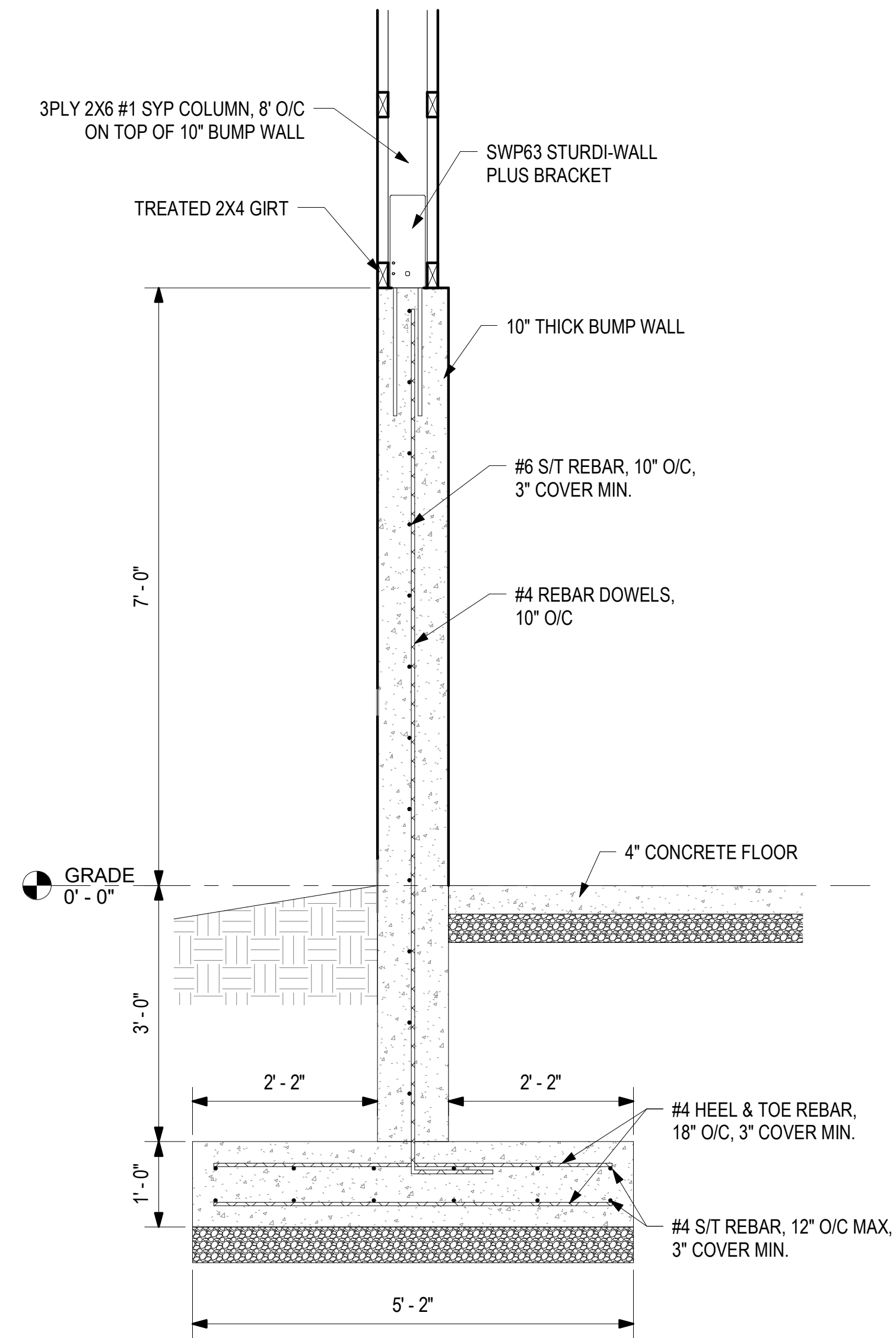
③ TYP. ENDWALL COLUMN FOUNDATION DETAIL
1" = 1'-0"



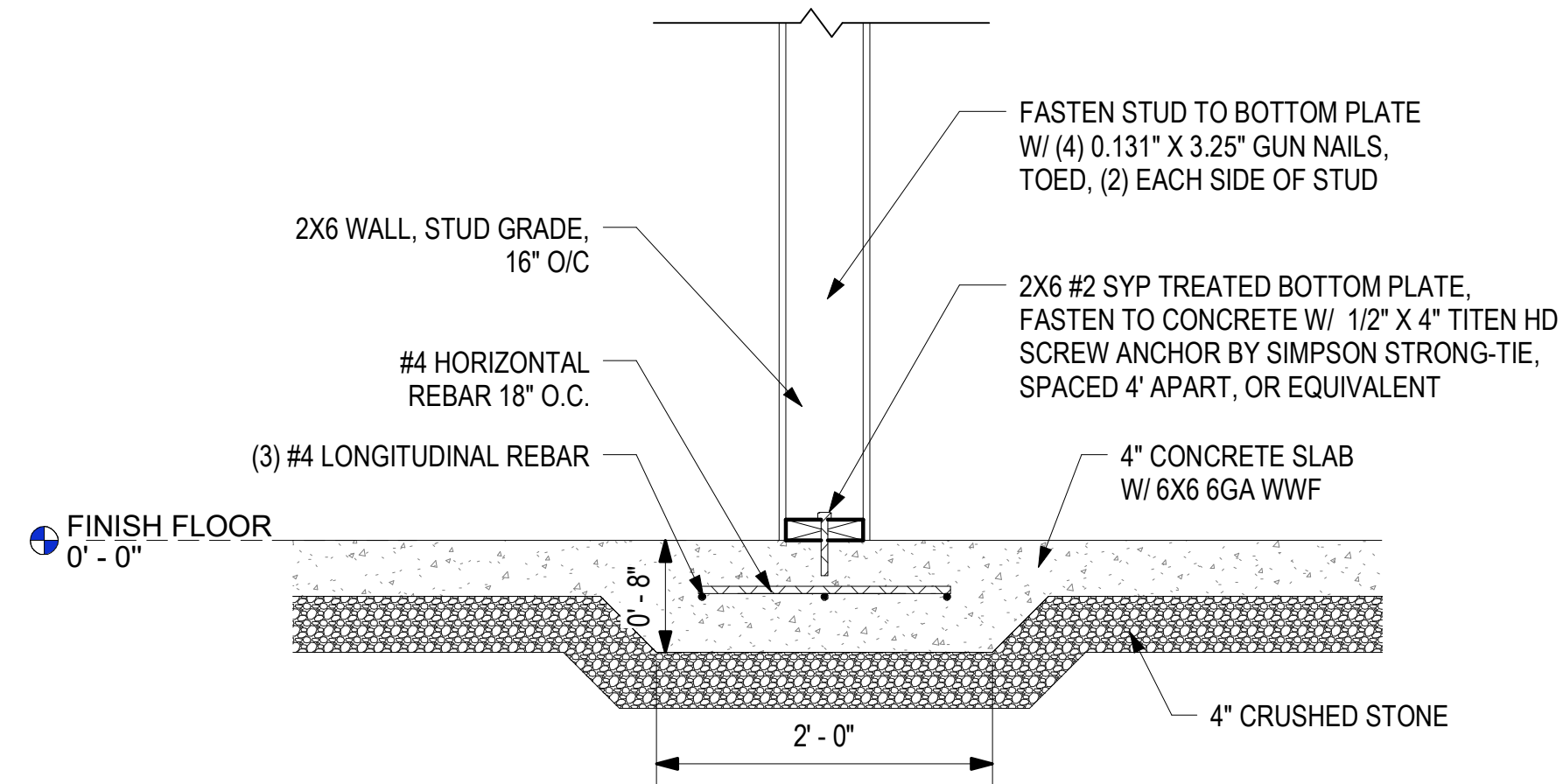
② SIDEWALL COLUMN W/ SNOW DRIFT & COLUMN SUPPORTING PORCH FOUNDATION DETAIL
1" = 1'-0"



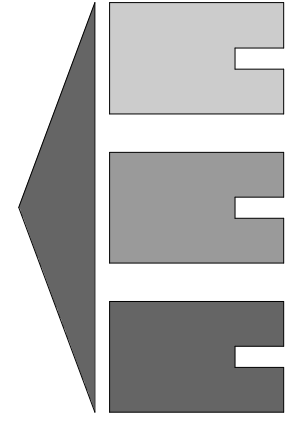
④ PORCH COLUMN SOLID CONCRETE FOOTING
1" = 1'-0"



⑤ BUMP WALL FOUNDATION DETAIL
3/4" = 1'-0"



⑥ INTERIOR 2X6 WALL FOUNDATION DETAIL
1" = 1'-0"



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ENGINEERING, CONSULTING & DESIGN
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PROJECT LOCATION:
WEST TYSON ROAD
PORTLAND, IN 47371

PROJECT NAME:
60' X 140' RECYCLING
FACILITY DESIGN (IN)

DRAWING TITLE:
FOUNDATION DETAILS

REVISIONS:

NO.	DATE	DESCRIPTION	BY
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JOB NUMBER:
25.484.071

DRAWN BY: TAM

ENGINEERED BY: TAM

START DATE: 06/03/25

PROGRESS DATE:

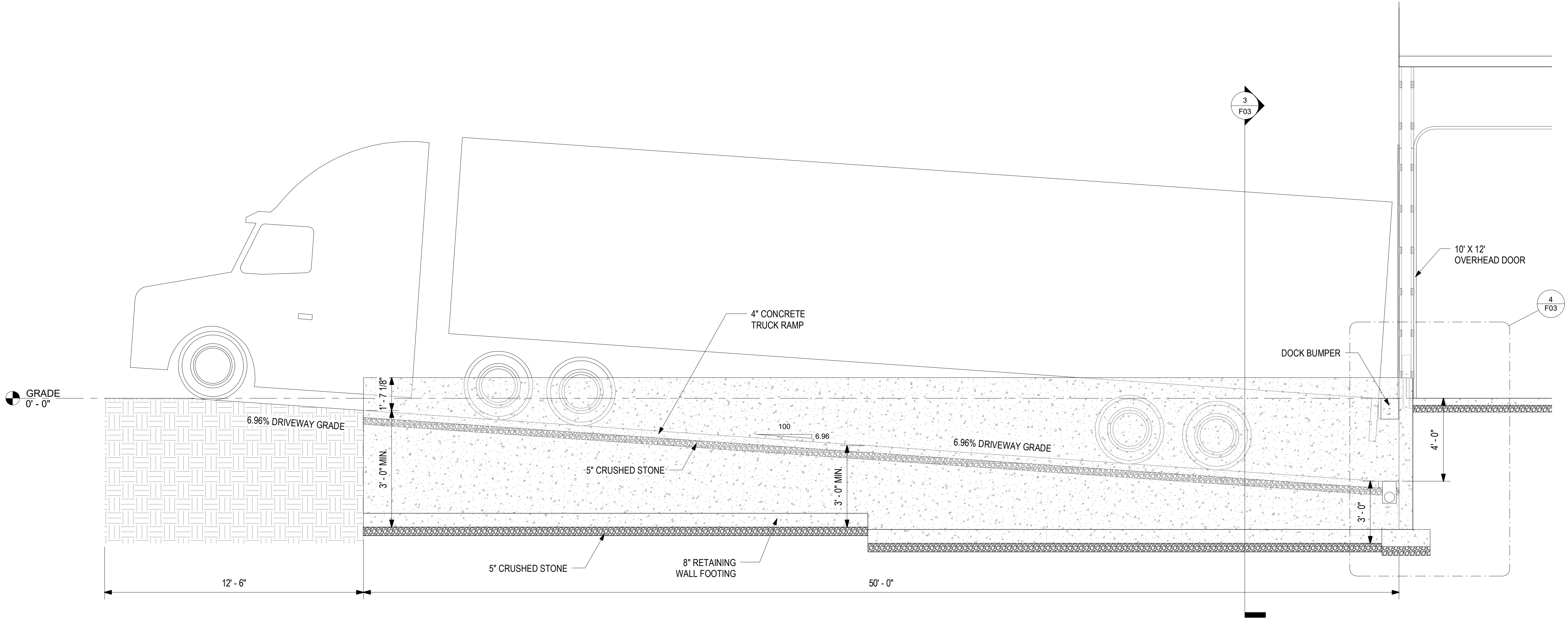
CERTIFIED DATE: 12/12/25

SCALE: As indicated

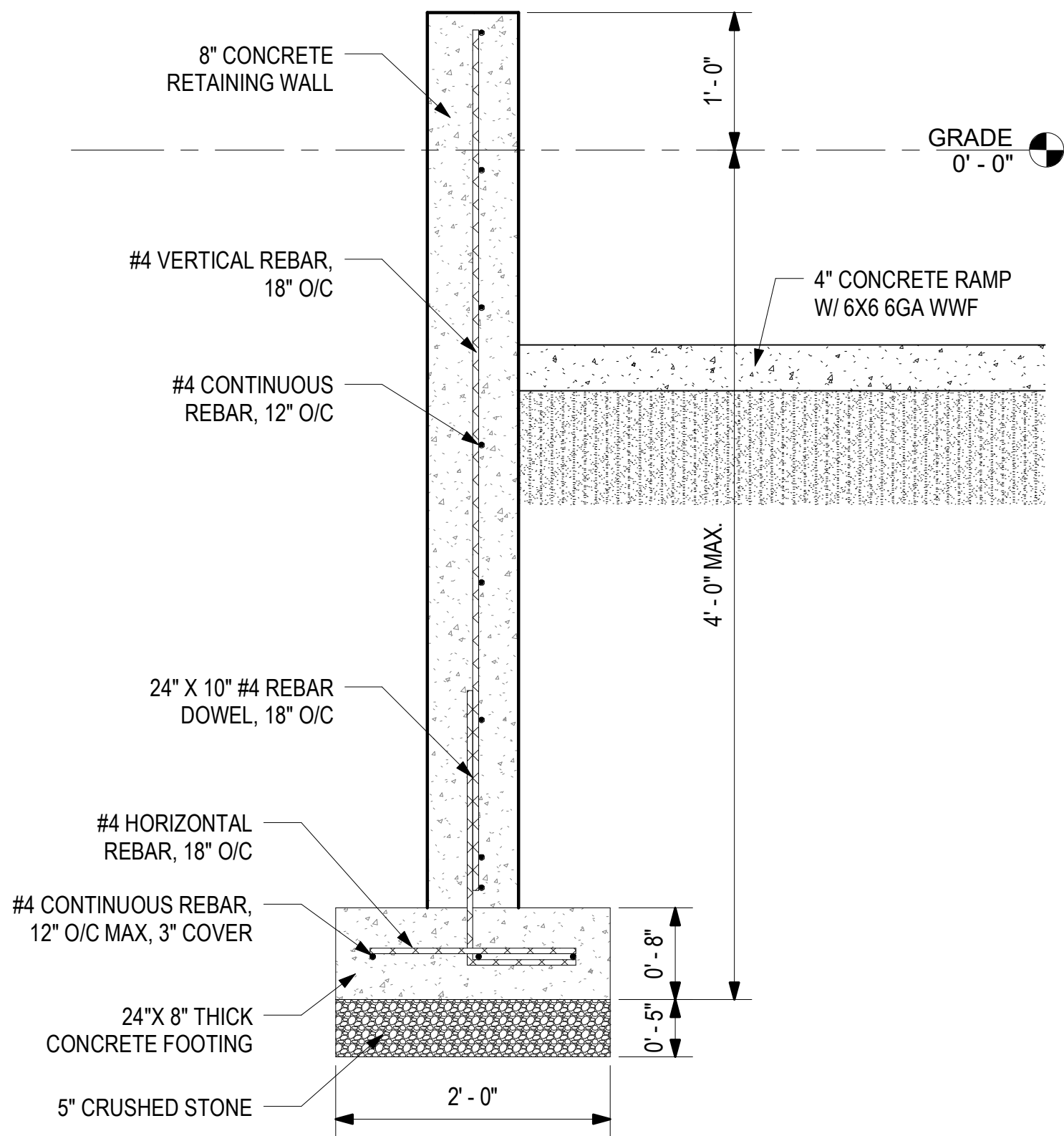
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F02 OF F04 SHEETS

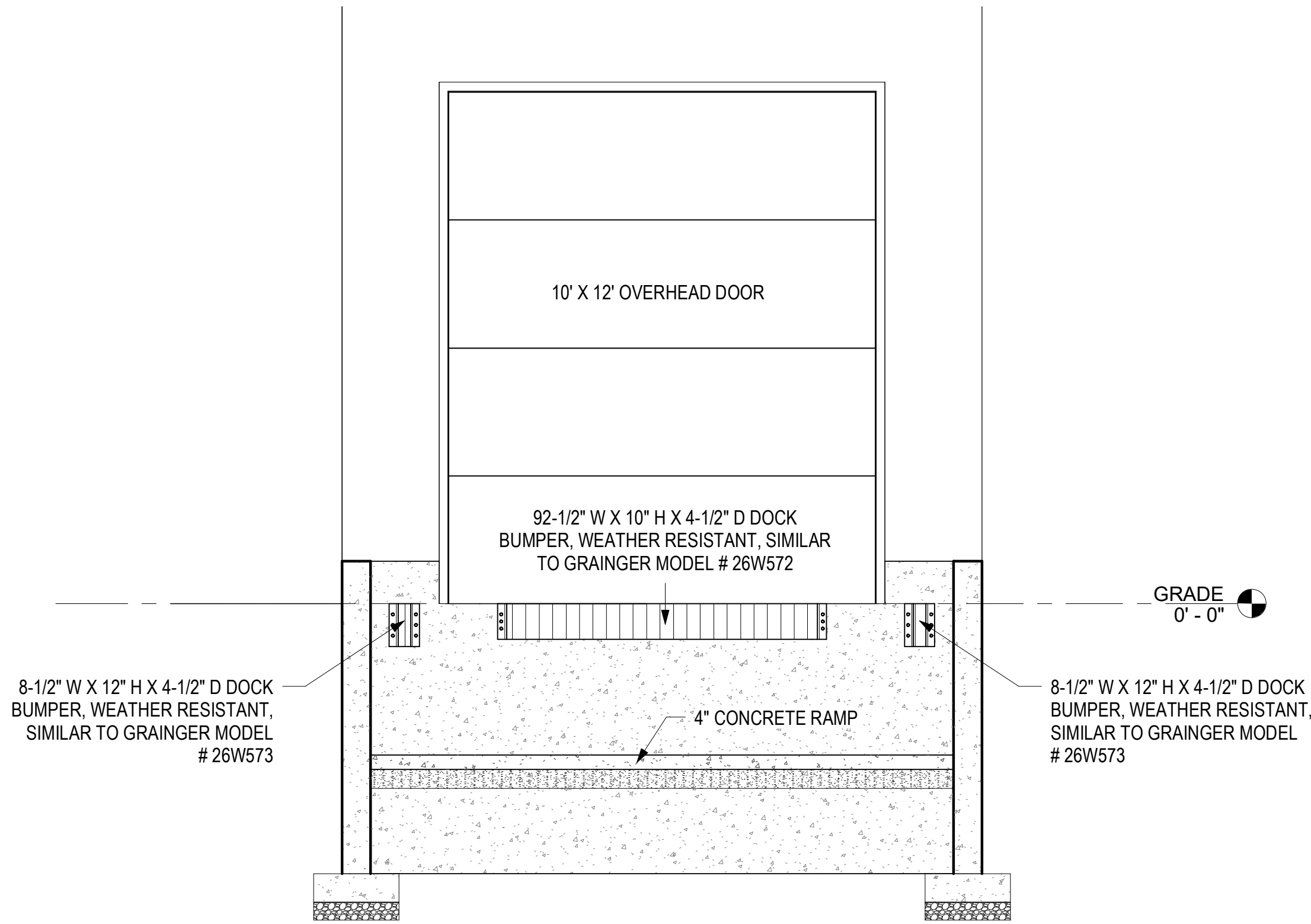
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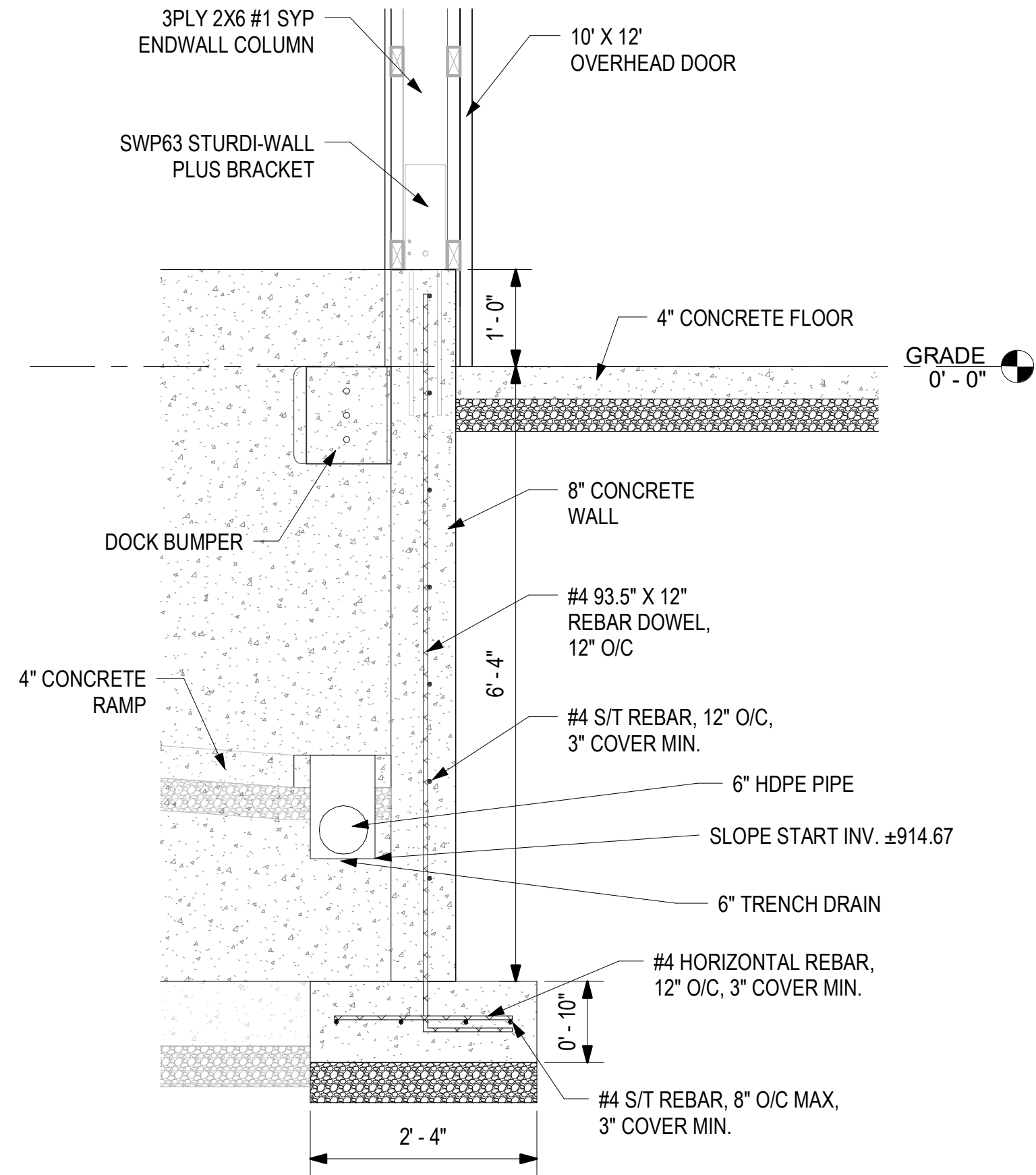
1 TRUCK RAMP SECTION VIEW
3/8" = 1'-0"



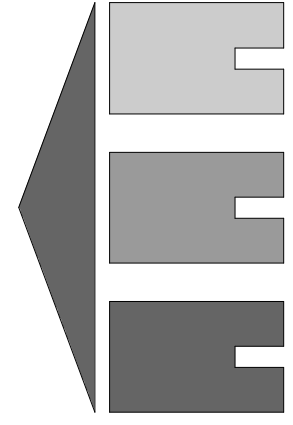
2 TRUCK RAMP RETAINING WALL FOUNDATION DETAIL
1" = 1'-0"



3 TRUCK RAMP FRONT VIEW
3/8" = 1'-0"



4 ENDWALL FOUNDATION DETAIL AT LOADING DOCK
3/4" = 1'-0"



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PROJECT LOCATION:
WEST TYSON ROAD
PORTLAND, IN 47371

PROJECT NAME:
60' X 140' RECYCLING
FACILITY DESIGN (IN)

DRAWING TITLE:
TRUCK RAMP
FOUNDATION DETAILS

REVISIONS:

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CONCRETE DESIGN NOTE:
(FULL CONCRETE NOTE CAN BE PROVIDED AS REQUESTED.)

1) SCOPE

ALL CONCRETE DESIGNS ARE THE INTERPRETATION OF MSS ENGINEERING, LLC. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING THAT ALL DESIGNS MEET ALL APPLICABLE BUILDING CODES AND REGULATIONS. THE CONTRACTOR SHALL NOTIFY MSS ENGINEERING OF "SITE SPECIFIC" CODE REGULATIONS PRIOR TO ANY WORK BEING PERFORMED. ALL CONCRETE WORK SHALL CONFORM TO SPECIFICATIONS SET FORTH BY THE AMERICAN CONCRETE INSTITUTE (ACI).

2) CONCRETE MATERIALS & MIXTURE REQUIREMENTS

CONCRETE SHALL BE OF AIR ENTRAINED PORTLAND CEMENT WITH A MINIMUM COMPRESSIVE STRENGTH OF 3000 PSI IN 28 DAYS AND 3" TO 4" SLUMP. (UNLESS NOTED OTHERWISE)

A. CEMENTITIOUS MATERIALS:
CEMENT SHALL BE PORTLAND CEMENT CONFORMING TO ASTM C-150, TYPE I. ALL CEMENTITIOUS MATERIAL AND THE COMBINATION OF THESE MATERIALS SHALL BE INCLUDED IN CALCULATING THE W/CM OF THE CONCRETE MIXTURE.

B. AGGREGATES
THE AGGREGATE SHALL BE CRUSHED LIMESTONE OR A MSS ENG. APPROVED EQUIVALENT AND BE FREE OF CHEMICALS, COATINGS, OR OTHER MATERIALS WHICH AFFECT THE BONDING OF THE CEMENT PASTE. NORMAL-WEIGHT AGGREGATE SHALL CONFORM TO ASTM C33 WITH A MAXIMUM SIZE OF 1 1/4". LIGHT-WEIGHT AGGREGATE SHALL CONFORM TO ASTM C330

C. WATER
WATER SHALL BE CLEAN, POTABLE, AND FREE FROM ACIDS, ALKALIS, OR ORGANIC MATERIAL. MIXING WATER SHALL CONFORM TO ASTM C1602.

D. ADMIXTURES
AIR-ENTRAINMENT: ASTM C260
WATER REDUCTION AND SETTING TIME MODIFICATION: ASTM C494
PRODUCING FLOWING CONCRETE: ASTM C1017
INHIBITING CHLORIDE-INDUCED CORROSION: ASTM C1582

E. STEEL FIBER REINFORCEMENT
STEEL FIBER REINFORCEMENT USED FOR SHEAR RESISTANCE SHALL BE DEFORMED, CONFORM TO ASTM A820, AND HAVE A LENGTH-TO-DIAMETER RATIO OF AT LEAST 50 AND NOT EXCEEDING 100.

F. CONCRETE MIXTURE REQUIREMENTS (UNLESS NOTED OTHERWISE)

- MINIMUM COMPRESSIVE STRENGTH (F'/c): 3000 PSI

- TEST AGE FOR COMPRESSIVE STRENGTH: 28 DAYS

- MAXIMUM WATER /CEMENT RATIO (W/CM): 0.45

- MAXIMUM SIZE OF COURSE AGGREGATE LESS THAN LEAST OF (I), (II), (III):

(I) ONE-FIFTH THE NARROWEST DIMENSION BETWEEN SIDES OF FORMS

(II) ONE-THIRD THE DEPTH OF SLABS

(III) THREE-FOURTHS THE MINIMUM SPECIFIED CLEAR SPACING BETWEEN INDIVIDUAL REINFORCING BARS OR WIRES, BUNDLES OF BARS, PRESTRESSED REINFORCEMENT, INDIVIDUAL TENDONS, BUNDLED TENDONS, OR DUCTS

3) CONCRETE PRODUCTION & CONSTRUCTION

A. CONCRETE PLACEMENT & CONSOLIDATION:

- DEBRIS AND ICE SHALL BE REMOVED FROM SPACES TO BE OCCUPIED BY CONCRETE BEFORE PLACEMENT.

- STANDING WATER SHALL BE REMOVED FROM PLACE OF DEPOSIT BEFORE CONCRETE IS PLACED.

- MASONRY FILLER UNITS THAT WILL BE IN CONTACT WITH CONCRETE SHALL BE PREWETTED PRIOR TO PLACING CONCRETE.

- EQUIPMENT USED TO CONVEY CONCRETE FROM THE MIXER TO THE LOCATION OF FINAL PLACEMENT SHALL HAVE CAPABILITIES TO ACHIEVE THE PLACEMENT REQUIREMENTS.

- CONCRETE SHALL NOT BE PUMPED THROUGH PIPE MADE OF ALUMINUM OR ALUMINUM ALLOYS.

- CONCRETE SHALL BE PLACED IN ACCORDANCE WITH THE FOLLOWING:

- AT A RATE TO PROVIDE AN ADEQUATE SUPPLY OF CONCRETE AT THE LOCATION OF PLACEMENT.

- AT A RATE SO CONCRETE AT ALL TIMES HAS SUFFICIENT WORKABILITY SUCH THAT IT CAN BE CONSOLIDATED BY THE INTENDED METHODS.

- WITHOUT SEGREGATION OR LOSS OF MATERIALS.

- WITHOUT INTERRUPTIONS SUFFICIENT TO PERMIT LOSS OF WORKABILITY BETWEEN SUCCESSIVE PLACEMENTS THAT WOULD RESULT IN COLD JOINTS.

- DEPOSITED AS NEAR TO ITS FINAL LOCATION AS PRACTICABLE TO AVOID SEGREGATION DUE TO REHANDLING OR FLOWING.

- CONCRETE THAT HAS BEEN CONTAMINATED OR HAS LOST ITS INITIAL WORKABILITY TO THE EXTENT THAT IT CAN NO LONGER BE CONSOLIDATED BY THE INTENDED METHODS SHALL NOT BE USED.

- RETEMPERING CONCRETE IN ACCORDANCE WITH THE LIMITS OF ASTM C94 SHALL BE PERMITTED.

- AFTER STARTING, CONCRETING SHALL BE CARRIED ON AS A CONTINUOUS OPERATION UNTIL THE COMPLETION OF A PANEL OR SECTION, AS DEFINED BY ITS BOUNDARIES OR PREDETERMINED JOINTS.

- CONCRETE SHALL BE CONSOLIDATED BY SUITABLE MEANS DURING PLACEMENT AND SHALL BE WORKED AROUND REINFORCEMENT AND EMBEDMENTS AND INTO CORNERS OF FORMS.

- TOP SURFACES OF VERTICALLY FORMED LIFTS SHALL BE GENERALLY LEVEL.

B. CURING CONCRETE:

- CONCRETE, OTHER THAN HIGH-EARLY-STRENGTH, SHALL BE MAINTAINED AT A TEMPERATURE OF AT LEAST 50°F AND IN A MOIST CONDITION FOR AT LEAST THE FIRST 7 DAYS AFTER PLACEMENT, EXCEPT IF ACCELERATED CURING IS USED.

- HIGH-EARLY-STRENGTH CONCRETE SHALL BE MAINTAINED AT A TEMPERATURE OF AT LEAST 50°F AND IN A MOIST CONDITION FOR AT LEAST THE FIRST 3 DAYS AFTER PLACEMENT, EXCEPT IF ACCELERATED CURING IS USED.

- ACCELERATED CURING TO ACCELERATE STRENGTH GAIN AND REDUCE TIME OF CURING IS PERMITTED USING HIGH-PRESSURE STEAM, STEAM AT ATMOSPHERIC PRESSURE, HEAT AND MOISTURE. IF ACCELERATED CURING IS USED, THE FOLLOWING SHALL APPLY:

- COMPRESSIVE STRENGTH AT THE LOAD STAGE CONSIDERED SHALL BE AT LEAST THE STRENGTH REQUIRED AT THAT LOAD STAGE.

- ACCELERATED CURING SHALL NOT IMPAIR THE DURABILITY OF THE CONCRETE.

- PROCEDURES FOR PROTECTING AND CURING CONCRETE SHALL BE CONSIDERED ADEQUATE IF (I) OR (II) ARE SATISFIED:

(I) AVERAGE STRENGTH OF FIELD-CURED CYLINDERS AT TEST AGE DESIGNATED FOR DETERMINATION OF F'/c IS EQUAL TO OR AT LEAST 85 PERCENT OF THAT OF COMPANION STANDARD-CURED CYLINDERS.

(II) AVERAGE STRENGTH OF FIELD-CURED CYLINDERS AT TEST AGE EXCEEDS F'/c BY MORE THAN 500 PSI.

C. CONCRETING IN COLD WEATHER:

- ADEQUATE EQUIPMENT SHALL BE PROVIDED FOR HEATING CONCRETE MATERIALS AND PROTECTING CONCRETE DURING FREEZING OR NEAR-FREEZING WEATHER.

- FROZEN MATERIALS OR MATERIALS CONTAINING ICE SHALL NOT BE USED.

- FORMS, FILLERS, AND GROUND WITH WHICH CONCRETE IS TO COME IN CONTACT SHALL BE FREE FROM FROST AND ICE.

- CONCRETE MATERIALS AND PRODUCTION METHODS SHALL BE SELECTED SO THAT THE CONCRETE TEMPERATURE AT DELIVERY COMPLIES WITH THE SPECIFIED TEMPERATURE LIMITS.

D. CONCRETING IN HOT WEATHER:

- CONCRETE MATERIALS AND PRODUCTION METHODS SHALL BE SELECTED SO THAT THE CONCRETE TEMPERATURE AT DELIVERY COMPLIES WITH THE SPECIFIED TEMPERATURE LIMITS.

- HANDLING, PLACING, PROTECTION, AND CURING PROCEDURES SHALL LIMIT CONCRETE TEMPERATURES OR WATER EVAPORATION THAT COULD REDUCE STRENGTH, SERVICEABILITY, AND DURABILITY OF THE MEMBER OR STRUCTURE.

E. CONSTRUCTION, CONTRACTION, & ISOLATION JOINTS:

- JOINT LOCATIONS OR JOINT DETAILS NOT SHOWN OR THAT DIFFER FROM THOSE INDICATED IN CONSTRUCTION DOCUMENTS SHALL BE SUBMITTED FOR REVIEW BY THE LICENSED DESIGN PROFESSIONAL.

- EXCEPT FOR PRESTRESSED CONCRETE, CONSTRUCTION JOINTS IN FLOOR AND ROOF SYSTEMS SHALL BE LOCATED WITHIN THE MIDDLE THIRD OF SPANS OF SLABS, BEAMS, AND GIRDERS.

- CONSTRUCTION JOINTS IN GIRDERS SHALL BE OFFSET A DISTANCE OF AT LEAST TWO TIMES THE WIDTH OF INTERSECTING BEAMS, MEASURED FROM THE FACE OF THE INTERSECTING BEAM.

- CONSTRUCTION JOINTS SHALL BE CLEANED AND LAITANCE REMOVED BEFORE NEW CONCRETE IS PLACED.

- SURFACE OF CONCRETE CONSTRUCTION JOINTS SHALL BE INTENTIONALLY ROUGHENED.

- IMMEDIATELY BEFORE NEW CONCRETE IS PLACED, CONSTRUCTION JOINTS SHALL BE PREWETTED AND STANDING WATER REMOVED.

4) REINFORCEMENT MATERIALS & CONSTRUCTION REQUIREMENTS

ALL REINFORCING STEEL SHALL BE NEW BILLET STEEL CONFORMING TO ASTM A615 GRADE 60, UNLESS INDICATED OTHERWISE ON THE DRAWING. ALL REINFORCING STEEL SHALL BE DEFORMED REINFORCEMENT. WELDED WIRE FABRIC SHALL BE ELECTRICALLY WELDED COLD-DRAWN WIRE OF GAUGE AND MESH SIZE SHOWN ON THE DRAWING, AND SHALL CONFORM TO ASTM A185, DEFORMED TYPE.

A. GENERAL:

- MILL TEST REPORTS FOR REINFORCEMENT SHALL BE SUBMITTED.

- NONPRESTRESSED REINFORCEMENT WITH RUST, MILL SCALE, OR A COMBINATION OF BOTH SHALL BE CONSIDERED SATISFACTORY, PROVIDED A HAND-WIRE-BRUSHED REPRESENTATIVE TEST SPECIMEN OF THE REINFORCEMENT COMPLIES WITH THE APPLICABLE ASTM SPECIFICATION FOR THE MINIMUM DIMENSIONS (INCLUDING HEIGHT OF DEFORMATIONS) AND WEIGHT PER UNIT LENGTH.

- PRESTRESSING REINFORCEMENT SHALL BE FREE OF MILL SCALE, PITTING, AND EXCESSIVE RUST. A LIGHT COATING OF RUST SHALL BE PERMITTED.

- AT THE TIME CONCRETE IS PLACED, REINFORCEMENT TO BE BONDED SHALL BE CLEAN OF ICE, MUD, OIL, OR OTHER DELETERIOUS COATINGS THAT DECREASE BOND.

5) ANCHORING TO CONCRETE

POST-INSTALLED ANCHORS SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS. POST-INSTALLED ADHESIVE ANCHORS SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S PRINTED INSTALLATION INSTRUCTIONS (MPII)

6) FORMWORK

A. DESIGN OF FORMWORK:

- DESIGN OF FORMWORK SHALL CONSIDER (I) THROUGH (V):

(I) METHOD OF CONCRETE PLACEMENT.

(II) RATE OF CONCRETE PLACEMENT.

(III) CONSTRUCTION LOADS, INCLUDING VERTICAL, HORIZONTAL, AND IMPACT.

(IV) AVOIDANCE OF DAMAGE TO PREVIOUSLY CONSTRUCTED MEMBERS.

(V) FOR POST-TENSIONED MEMBERS, ALLOWANCE FOR MOVEMENT OF THE MEMBER DURING APPLICATION OF THE PRESTRESSING FORCE WITHOUT DAMAGE TO THE MEMBER.

- FORMWORK FABRICATION AND INSTALLATION SHALL RESULT IN A FINAL STRUCTURE THAT CONFORMS TO SHAPES, LINES, AND DIMENSIONS OF THE MEMBERS AS REQUIRED BY THE CONSTRUCTION DOCUMENTS.

- FORMWORK SHALL BE SUFFICIENTLY TIGHT TO INHIBIT LEAKAGE OF PASTE OR MORTAR.

- FORMWORK SHALL BE BRACED OR TIED TOGETHER TO MAINTAIN POSITION AND SHAPE.

B. REMOVAL OF FORMWORK:

- BEFORE STARTING CONSTRUCTION, THE CONTRACTOR SHALL DEVELOP A PROCEDURE AND SCHEDULE FOR REMOVAL OF FORMWORK AND INSTALLATION OF RESHORES, AND SHALL CALCULATE THE LOADS TRANSFERRED TO THE STRUCTURE DURING THIS PROCESS.

- STRUCTURAL ANALYSIS AND CONCRETE STRENGTH REQUIREMENTS USED IN PLANNING AND IMPLEMENTING THE FORMWORK REMOVAL AND RESHORE INSTALLATION SHALL BE FURNISHED BY THE CONTRACTOR TO THE LICENSED DESIGN PROFESSIONAL AND TO THE BUILDING OFFICIAL, WHEN REQUESTED.

- NO CONSTRUCTION LOADS SHALL BE PLACED ON, NOR ANY FORMWORK REMOVED FROM, ANY PART OF THE STRUCTURE UNDER CONSTRUCTION EXCEPT WHEN THAT PORTION OF THE STRUCTURE IN COMBINATION WITH REMAINING FORMWORK HAS SUFFICIENT STRENGTH TO SUPPORT SAFELY ITS WEIGHT AND LOADS PLACED THEREON AND WITHOUT IMPAIRING SERVICEABILITY.

- SUFFICIENT STRENGTH SHALL BE DEMONSTRATED BY STRUCTURAL ANALYSIS CONSIDERING ANTICIPATED LOADS, STRENGTH OF FORMWORK, AND AN ESTIMATE OF IN-PLACE CONCRETE STRENGTH.

- THE ESTIMATE OF IN-PLACE CONCRETE STRENGTH SHALL BE BASED ON TESTS OF FIELD-CURED CYLINDERS OR ON OTHER PROCEDURES TO EVALUATE CONCRETE STRENGTH APPROVED BY THE LICENSED DESIGN PROFESSIONAL AND, WHEN REQUESTED, APPROVED BY THE BUILDING OFFICIAL.

- FORMWORK SHALL BE REMOVED IN SUCH A MANNER NOT TO IMPAIR SAFETY AND SERVICEABILITY OF THE STRUCTURE.

- CONCRETE EXPOSED BY FORMWORK REMOVAL SHALL HAVE SUFFICIENT STRENGTH NOT TO BE DAMAGED BY THE REMOVAL.

- FORMWORK SUPPORTS FOR POST-TENSIONED MEMBERS SHALL NOT BE REMOVED UNTIL SUFFICIENT POST-TENSIONING HAS BEEN APPLIED TO ENABLE POST-TENSIONED MEMBERS TO SUPPORT THEIR DEAD LOAD AND ANTICIPATED CONSTRUCTION LOADS.

- NO CONSTRUCTION LOADS EXCEEDING THE COMBINATION OF SUPERIMPOSED DEAD LOAD PLUS LIVE LOAD INCLUDING REDUCTION SHALL BE PLACED ON ANY UNSHORED PORTION OF THE STRUCTURE UNDER CONSTRUCTION, UNLESS ANALYSIS INDICATES ADEQUATE STRENGTH TO SUPPORT SUCH ADDITIONAL LOADS AND WITHOUT IMPAIRING SERVICEABILITY.

7) CONCRETE EVALUATION & ACCEPTANCE

A. GENERAL:

- A STRENGTH TEST SHALL BE THE AVERAGE OF THE STRENGTHS OF AT LEAST TWO 6 X 12 IN. CYLINDERS OR AT LEAST THREE 4 X 8 IN. CYLINDERS MADE FROM THE SAME SAMPLE OF CONCRETE AND TESTED AT 28 DAYS OR AT TEST AGE DESIGNATED FOR FC'.

- THE TESTING AGENCY PERFORMING ACCEPTANCE TESTING SHALL COMPLY WITH ASTM C1077.

- QUALIFIED FIELD TESTING TECHNICIANS SHALL PERFORM TESTS ON FRESH CONCRETE AT THE JOB SITE, PREPARE SPECIMENS FOR STANDARD CURING, PREPARE SPECIMENS FOR FIELD CURING, IF REQUIRED, AND RECORD THE TEMPERATURE OF THE FRESH CONCRETE WHEN PREPARING SPECIMENS FOR STRENGTH TESTS.

- QUALIFIED LABORATORY TECHNICIANS SHALL PERFORM REQUIRED LABORATORY TESTS.

- ALL REPORTS OF ACCEPTANCE TESTS SHALL BE PROVIDED TO THE LICENSED DESIGN PROFESSIONAL, CONTRACTOR, CONCRETE PRODUCER, AND, IF REQUESTED, TO THE OWNER AND THE CODE OFFICIAL.

B. FREQUENCY OF TESTING:

- SAMPLES FOR PREPARING STRENGTH TEST SPECIMENS OF EACH CONCRETE MIXTURE PLACED EACH DAY SHALL BE TAKEN IN ACCORDANCE WITH (I) THROUGH (III):

(I) AT LEAST ONCE A DAY.

(II) AT LEAST ONCE FOR EACH 150 YD3 OF CONCRETE.

(III) AT LEAST ONCE FOR EACH 5000 FT2 OF SURFACE AREA FOR SLABS OR WALLS.

- ON A GIVEN PROJECT, IF TOTAL VOLUME OF CONCRETE IS SUCH THAT FREQUENCY OF TESTING WOULD PROVIDE FEWER THAN FIVE STRENGTH TESTS FOR A GIVEN CONCRETE MIXTURE, STRENGTH TEST SPECIMENS SHALL BE MADE FROM AT LEAST FIVE RANDOMLY SELECTED BATCHES OR FROM EACH BATCH IF FEWER THAN FIVE BATCHES ARE USED.

- IF THE TOTAL QUANTITY OF A GIVEN CONCRETE MIXTURE IS LESS THAN 50 YD3, STRENGTH TESTS ARE NOT REQUIRED IF EVIDENCE OF SATISFACTORY STRENGTH IS SUBMITTED TO AND APPROVED BY THE CODE OFFICIAL.

C. ACCEPTANCE CRITERIA FOR STANDARD-CURED SPECIMENS:

- SPECIMENS FOR ACCEPTANCE TESTS SHALL BE IN ACCORDANCE WITH (I) AND (II):

(I) SAMPLING OF CONCRETE FOR STRENGTH TEST SPECIMENS SHALL BE IN ACCORDANCE WITH ASTM C172.

(II) CYLINDERS FOR STRENGTH TESTS SHALL BE MADE AND STANDARD-CURED IN ACCORDANCE WITH ASTM C31 AND TESTED IN ACCORDANCE WITH ASTM C39.

- STRENGTH LEVEL OF A CONCRETE MIXTURE SHALL BE ACCEPTABLE IF (I) AND (II) ARE SATISFIED:

(I) EVERY ARITHMETIC AVERAGE OF ANY THREE CONSECUTIVE STRENGTH TESTS EQUALS OR EXCEEDS F'/c.

(II) NO STRENGTH TEST FALLS BELOW F'/c' BY MORE THAN 500 PSI IF F'/c' IS 5000 PSI OR LESS; OR BY MORE THAN 0.10F'/c' IF F'/c' EXCEEDS 5000 PSI.

- IF EITHER OF THE REQUIREMENTS ARE NOT SATISFIED, STEPS SHALL BE TAKEN TO INCREASE THE AVERAGE OF SUBSEQUENT STRENGTH RESULTS

- REQUIREMENTS FOR INVESTIGATING LOW STRENGTH-TEST RESULTS SHALL APPLY IF THE REQUIREMENTS OF (II) ARE NOT MET

8) INSPECTION

A. GENERAL:

- CONCRETE CONSTRUCTION SHALL BE INSPECTED AS REQUIRED BY THE GENERAL BUILDING CODE.

- IN THE ABSENCE OF GENERAL BUILDING CODE INSPECTION REQUIREMENTS, CONCRETE CONSTRUCTION SHALL BE INSPECTED THROUGHOUT THE VARIOUS WORK STAGES BY OR UNDER THE SUPERVISION OF A LICENSED DESIGN PROFESSIONAL OR BY A QUALIFIED INSPECTOR IN ACCORDANCE WITH THE PROVISIONS OF THIS SECTION.

- THE LICENSED DESIGN PROFESSIONAL, A PERSON UNDER THE SUPERVISION OF A LICENSED DESIGN PROFESSIONAL, OR A QUALIFIED INSPECTOR SHALL VERIFY COMPLIANCE WITH CONSTRUCTION DOCUMENTS.

- FOR CONTINUOUS CONSTRUCTION INSPECTION OF SPECIAL MOMENT FRAMES, QUALIFIED INSPECTORS UNDER THE SUPERVISION OF THE LICENSED DESIGN PROFESSIONAL RESPONSIBLE FOR THE STRUCTURAL DESIGN OR UNDER THE SUPERVISION OF A LICENSED DESIGN PROFESSIONAL WITH DEMONSTRATED CAPABILITY TO SUPERVISE INSPECTION OF THESE ELEMENTS SHALL INSPECT PLACEMENT OF REINFORCEMENT AND CONCRETE.

B. INSPECTION REPORTS:

- INSPECTION REPORTS SHALL DOCUMENT INSPECTED ITEMS AND BE DEVELOPED THROUGHOUT EACH CONSTRUCTION WORK STAGE BY THE LICENSED DESIGN PROFESSIONAL, PERSON UNDER THE SUPERVISION OF A LICENSED DESIGN PROFESSIONAL, OR QUALIFIED INSPECTOR. RECORDS OF THE INSPECTION SHALL BE PRESERVED BY THE PARTY PERFORMING THE INSPECTION FOR AT LEAST 2 YEARS AFTER COMPLETION OF THE PROJECT.

- INSPECTION REPORTS SHALL DOCUMENT (I) THROUGH (IV):

(I) GENERAL PROGRESS OF THE WORK.

(II) ANY SIGNIFICANT CONSTRUCTION LOADINGS ON COMPLETED FLOORS, MEMBERS, OR WALLS.

(III) THE DATE AND TIME OF MIXING, QUANTITY, PROPORTIONS OF MATERIALS USED, APPROXIMATE PLACEMENT LOCATION IN THE STRUCTURE, AND RESULTS OF TESTS FOR FRESH AND HARDENED CONCRETE PROPERTIES FOR ALL CONCRETE MIXTURES USED IN THE WORK.

(IV) CONCRETE TEMPERATURES AND PROTECTION GIVEN TO CONCRETE DURING PLACEMENT AND CURING WHEN THE AMBIENT TEMPERATURE FALLS BELOW 40°F OR RISES ABOVE 95°F.

- TEST REPORTS SHALL BE REVIEWED TO VERIFY COMPLIANCE IF ASTM A615 DEFORMED REINFORCEMENT IS USED TO RESIST EARTHQUAKE-INDUCED FLEXURE, AXIAL FORCES, OR BOTH IN SPECIAL MOMENT FRAMES, SPECIAL STRUCTURAL WALLS, AND COMPONENTS OF SPECIAL STRUCTURAL WALLS INCLUDING COUPLING BEAMS AND WALL PIERS.

C. ITEMS REQUIRING INSPECTION:

UNLESS OTHERWISE SPECIFIED, ITEMS REQUIRING VERIFICATION AND INSPECTION SHALL BE CONTINUOUSLY OR PERIODICALLY INSPECTED IN ACCORDANCE WITH THE FOLLOWING REQUIREMENTS:

- ITEMS REQUIRING CONTINUOUS INSPECTION SHALL INCLUDE (I) THROUGH (IV):

(I) PLACEMENT OF CONCRETE.

(II) TENSIONING OF PRESTRESSING STEEL AND GROUTING OF BONDED TENDONS.

(III) INSTALLATION OF ADHESIVE ANCHORS IN HORIZONTAL OR UPWARDLY INCLINED ORIENTATIONS TO RESIST SUSTAINED TENSION LOADS IN ACCORDANCE WITH 17.8.2.4 AND WHERE REQUIRED AS A CONDITION OF THE ANCHOR ASSESSMENT IN ACCORDANCE WITH ACI 355.4.

(IV) REINFORCEMENT FOR SPECIAL MOMENT FRAMES.

- ITEMS REQUIRING PERIODIC INSPECTION SHALL INCLUDE (I) THROUGH (VII):

(I) PLACEMENT OF REINFORCEMENT, EMBEDMENTS, AND POST-TENSIONING TENDONS.

(II) CURING METHOD AND DURATION OF CURING FOR EACH MEMBER.

(III) CONSTRUCTION AND REMOVAL OF FORMS AND RESHORING.

(IV) SEQUENCE OF ERECTION AND CONNECTION OF PRECAST MEMBERS.

(V) VERIFICATION OF IN-PLACE CONCRETE STRENGTH BEFORE STRESSING POST-TENSIONED REINFORCEMENT AND BEFORE REMOVAL OF SHORES AND FORMWORK FROM BEAMS AND STRUCTURAL SLABS.

(VI) INSTALLATION OF CAST-IN ANCHORS, EXPANSION ANCHORS, AND UNDERCUT ANCHORS IN ACCORDANCE WITH ACI 17.8.2.

(VII) INSTALLATION OF ADHESIVE ANCHORS WHERE CONTINUOUS INSPECTION IS NOT REQUIRED IN ACCORDANCE WITH ACI 17.8.2.4 OR AS A CONDITION OF THE ASSESSMENT IN ACCORDANCE WITH ACI 355.4.

PROJECT LOCATION:

WEST TYSON ROAD
PORTLAND, IN 47371

PROJECT NAME:

60' X 140' RECYCLING
FACILITY DESIGN (IN)

DRAWING TITLE:

CONCRETE NOTES

REVISIONS:

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TAM

ENGINEERED BY:

TAM

START DATE:

06/03/25

PROGRESS DATE:

CERTIFIED DATE:

12/12/25

SCALE:

PAGE NUMBER:

F04 OF F04 SHEETS

REV.

←

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Travis A. McDaniel, PE

REGISTERED

PE11800805

STATE OF INDIANA

PROFESSIONAL ENGINEER

Travis A. McDaniel

12/12/2025

PROJECT LOCATION:

WEST TYSON ROAD
PORTLAND, IN 47371

PROJECT NAME:

60' X 140' RECYCLING
FACILITY DESIGN (IN)

DRAWING TITLE:

CONCRETE NOTES

REVISIONS:

NO.	DATE	DESCRIPTION	BY
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JOB NUMBER:

25.484.071

DRAWN BY:

TAM

ENGINEERED BY:

TAM

START DATE:

06/03/25

PROGRESS DATE:

CERTIFIED DATE:

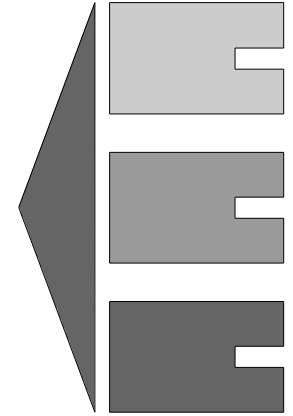
12/12/25

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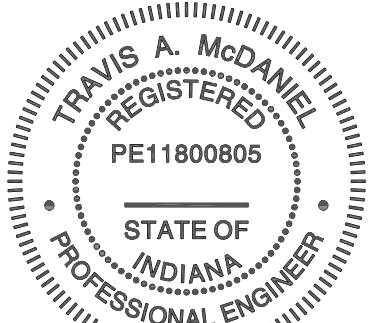
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F04 OF F04 SHEETS

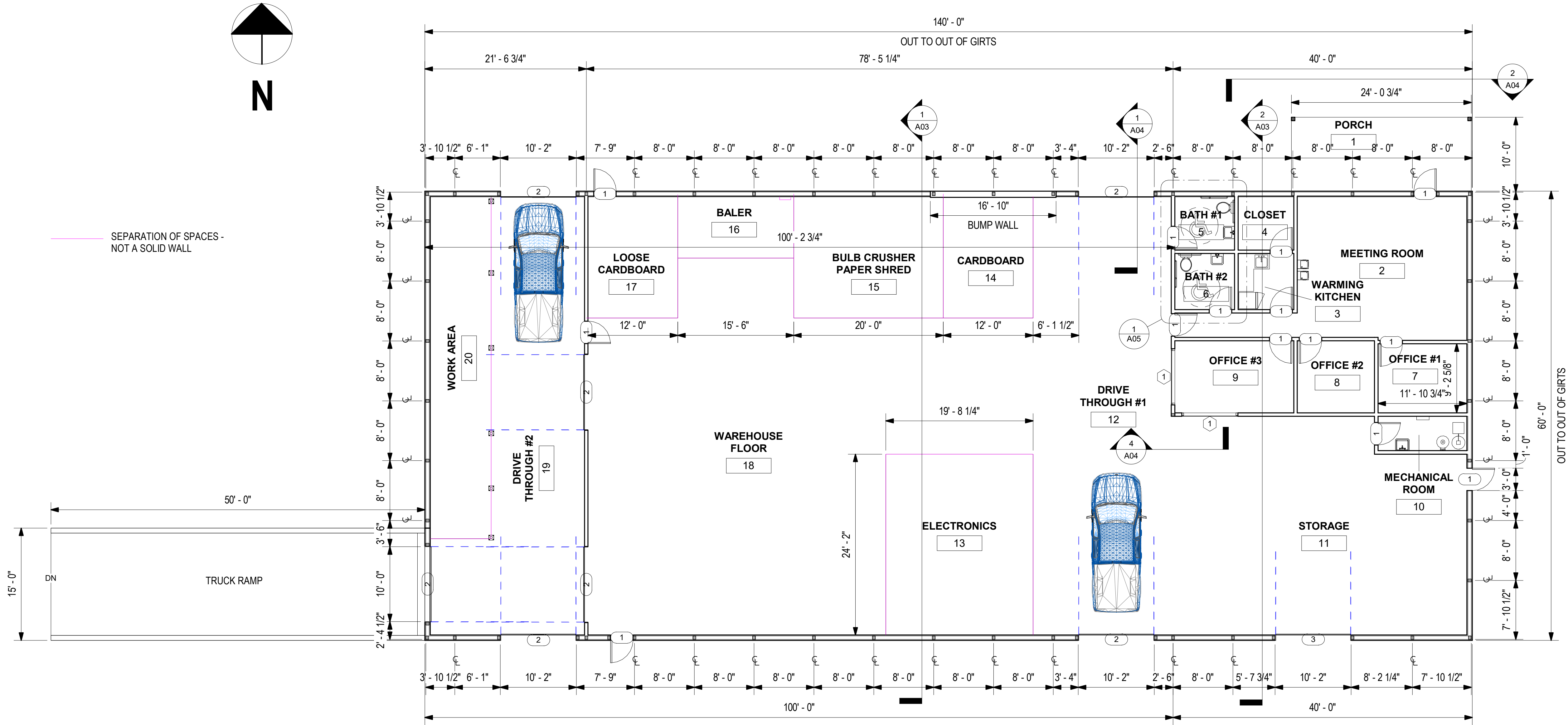
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Travis A. McDaniel
12/12/2025

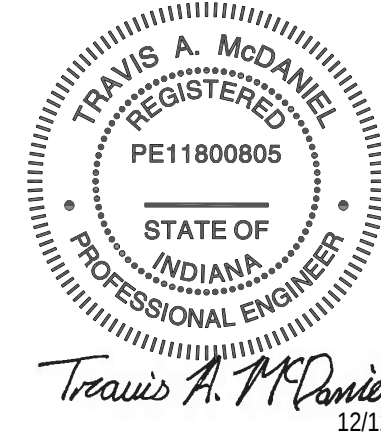


1 FLOOR PLAN
1/8" = 1'-0"

DOOR SCHEDULE		
MARK	TYPE	COUNT
1	36" x 80" - MAN DOOR	14
2	10' x 12' - OVERHEAD DOOR	7
3	10' x 10' - OVERHEAD DOOR	1

WINDOW SCHEDULE		
MARK	TYPE	COUNT
1	84" x 48" - PICTURE WINDOW	2

ROOM SCHEDULE				
NUMBER	NAME	AREA	LOAD FACTOR	OCCUPANT LOAD
1	PORCH	237 SF		
2	MEETING ROOM	485 SF	50 SF	10
3	WARMING KITCHEN	56 SF	100 SF	1
4	CLOSET	53 SF	300 SF	1
5	BATH #1	57 SF	100 SF	1
6	BATH #2	60 SF	100 SF	1
7	OFFICE #1	110 SF	100 SF	2
8	OFFICE #2	99 SF	100 SF	2
9	OFFICE #3	153 SF	100 SF	2
10	MECHANICAL ROOM	55 SF	300 SF	1
11	STORAGE	1092 SF	500 SF	3
12	DRIVE THROUGH #1	1082 SF	500 SF	3
13	ELECTRONICS	476 SF	500 SF	2
14	CARDBOARD	193 SF	500 SF	1
15	BULB CRUSHER PAPER SHRED	324 SF	500 SF	1
16	BALER	128 SF	500 SF	1
17	LOOSE CARDBOARD	195 SF	500 SF	1
18	WAREHOUSE FLOOR	2168 SF	500 SF	5
19	DRIVE THROUGH #2	836 SF	500 SF	2
20	WORK AREA	373 SF	500 SF	1
GRAND TOTAL		8233 SF		41



PROJECT LOCATION:
WEST TYSON ROAD
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PROJECT NAME:
60' X 140' RECYCLING
FACILITY DESIGN (IN)

DRAWING TITLE:
FLOOR PLAN

REVISIONS:

NO.	DATE	DESCRIPTION	BY
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JOB NUMBER:
25.484.071

DRAWN BY: BMK

ENGINEERED BY: TAM

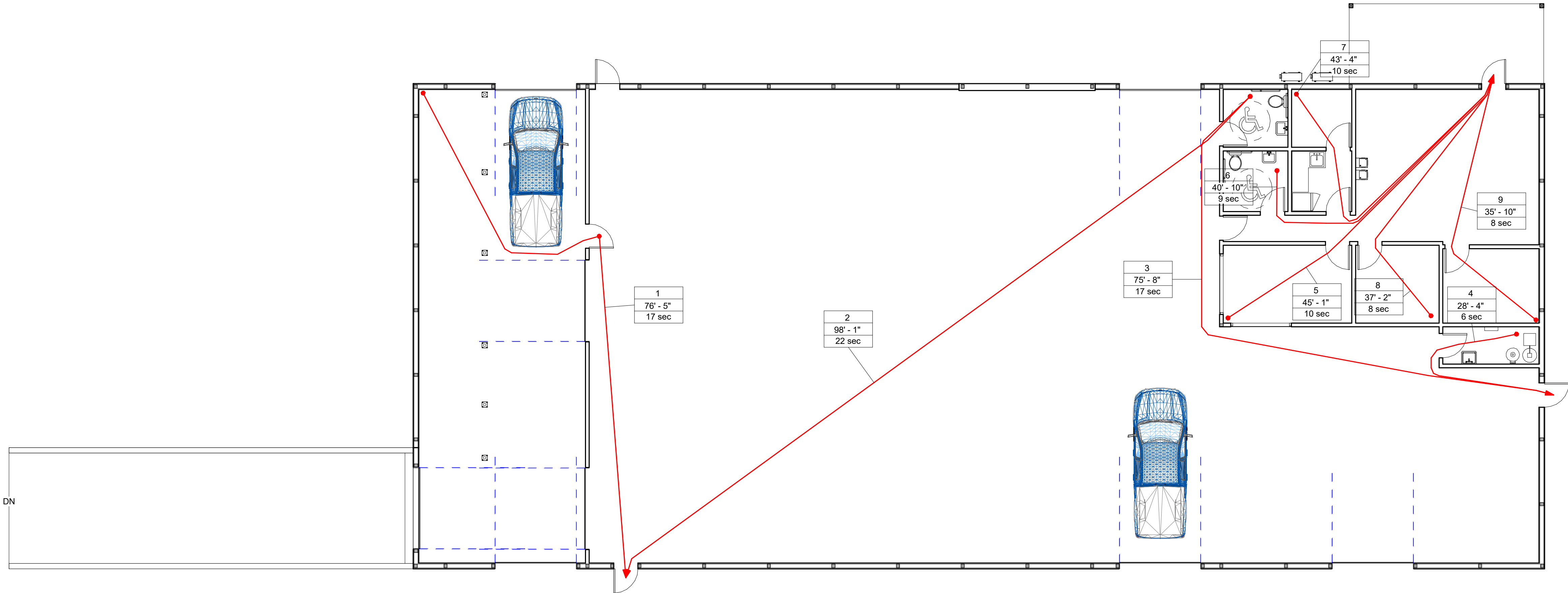
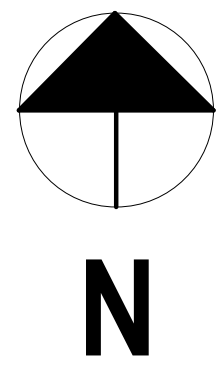
START DATE: 06/03/25

PROGRESS DATE:

CERTIFIED DATE: 12/12/25

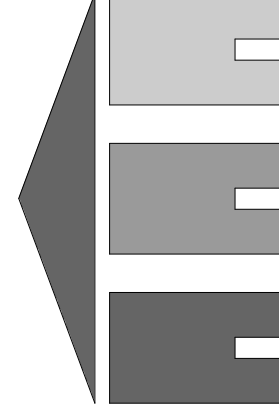
SCALE: 1/8" = 1'-0"

PAGE NUMBER:



1 FIRE & LIFE SAFETY PLAN
1/8" = 1'-0"

PATH OF TRAVEL SCHEDULE			
MARK	LENGTH	SPEED	TIME
1	76' - 5 11/32"	3.0 mph	17.4 s
2	98' - 1 7/32"	3.0 mph	22.3 s
3	75' - 8 9/32"	3.0 mph	17.2 s
4	28' - 4 1/4"	3.0 mph	6.4 s
5	45' - 1 7/16"	3.0 mph	10.3 s
6	40' - 10 1/8"	3.0 mph	9.3 s
7	43' - 4 1/16"	3.0 mph	9.8 s
8	37' - 1 17/32"	3.0 mph	8.4 s
9	35' - 10 11/32"	3.0 mph	8.2 s



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PORTLAND, IN 47371

PROJECT NAME:
60' X 140' RECYCLING
FACILITY DESIGN (IN)

DRAWING TITLE:
FIRE & LIFE SAFETY
PLAN

REVISIONS:

NO.	DATE	DESCRIPTION	BY
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JOB NUMBER:
25.484.071

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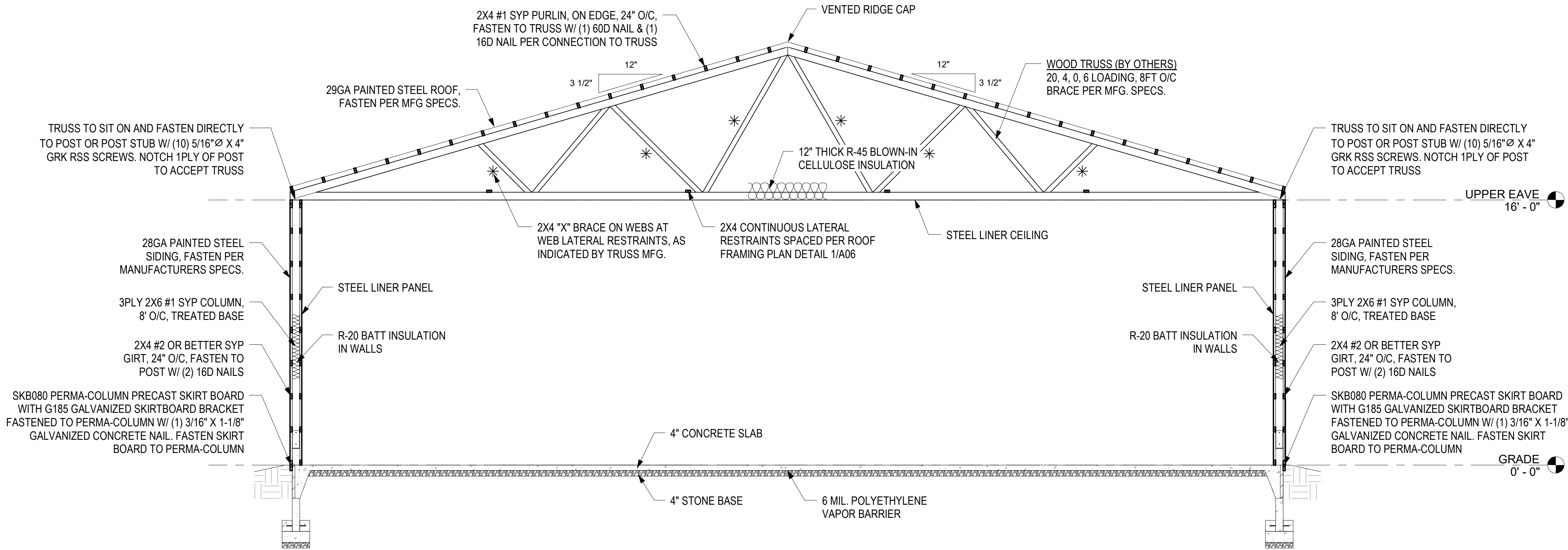
START DATE: 06/03/25

PROGRESS DATE:

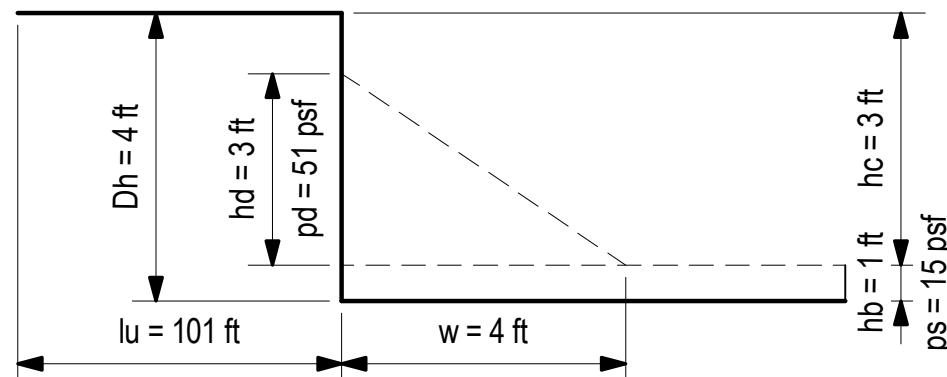
CERTIFIED DATE: 12/12/25

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

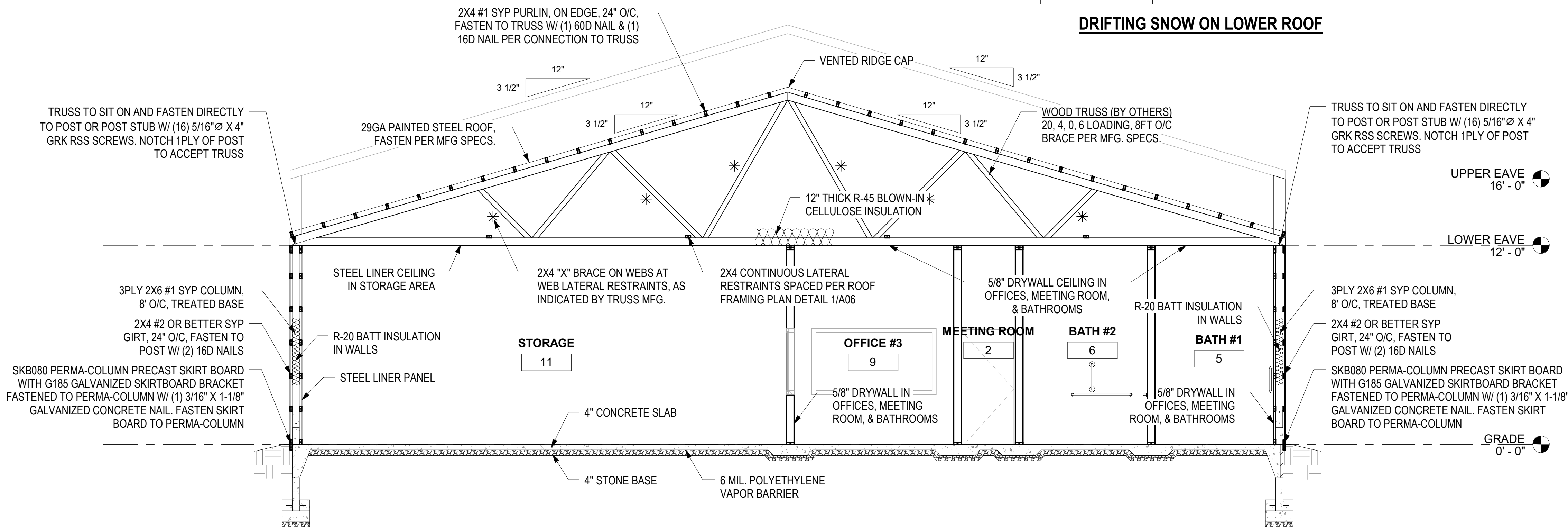
PAGE NUMBER:



1 BUILDING CROSS SECTION
1/4" = 1'-0"



DRIFTING SNOW ON LOWER ROOF



2 LOWER BUILDING CROSS SECTION
1/4" = 1'-0"



PROJECT LOCATION:
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60' X 140' RECYCLING
FACILITY DESIGN (IN)

DRAWING TITLE:
SECTION VIEWS &
DETAILS

REVISIONS:

NO.	DATE	DESCRIPTION	BY
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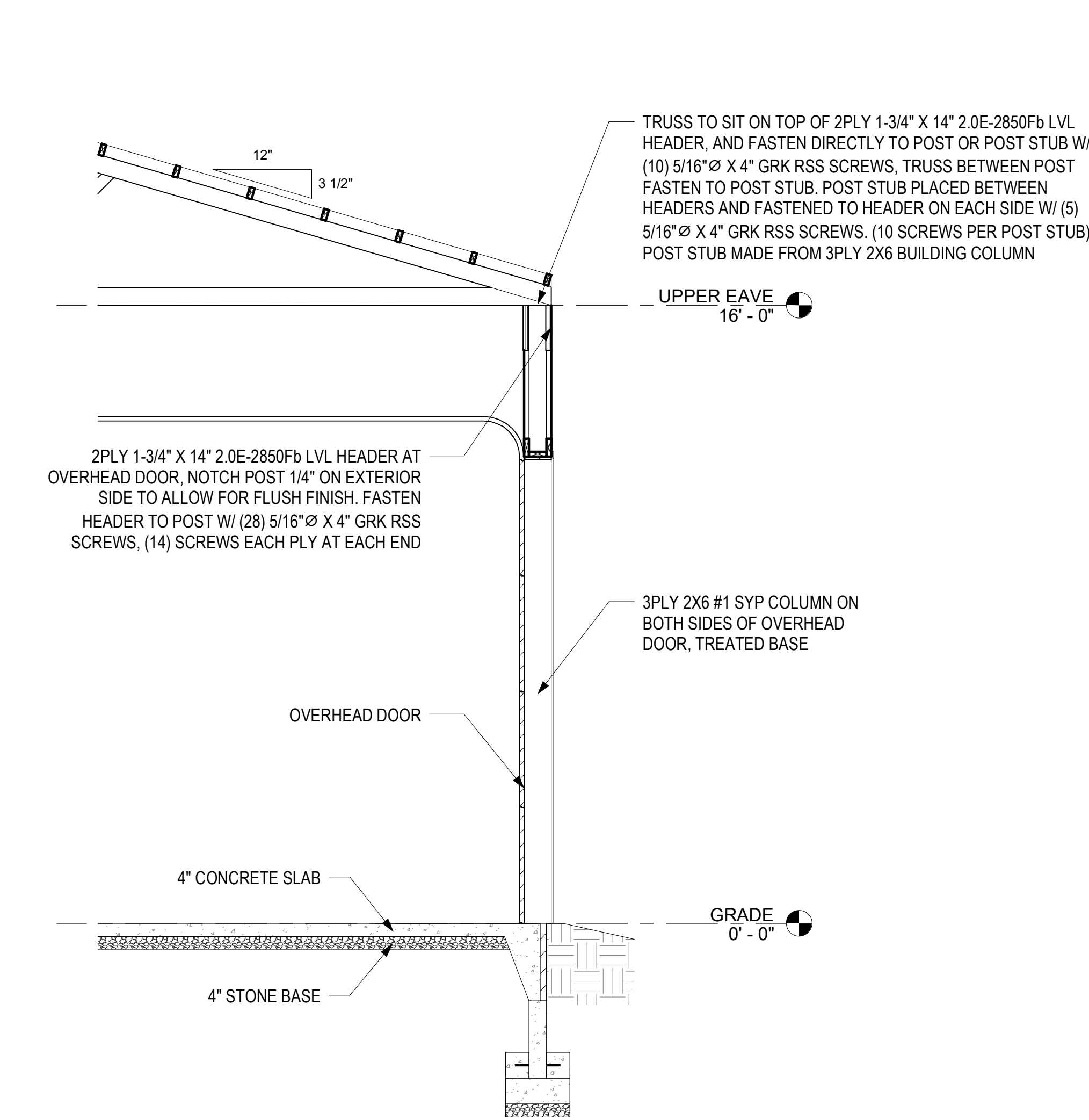
START DATE: 06/03/25

PROGRESS DATE:

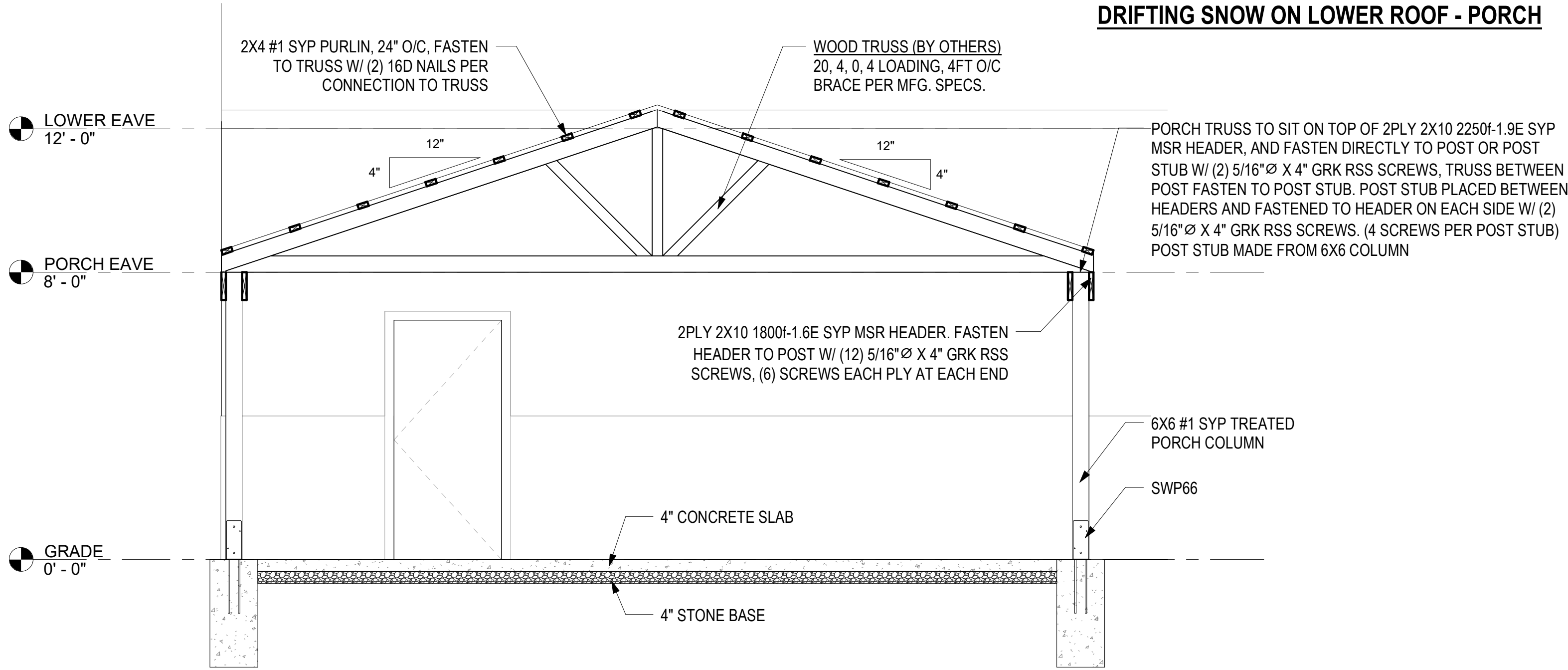
CERTIFIED DATE: 12/12/25

SCALE: As indicated

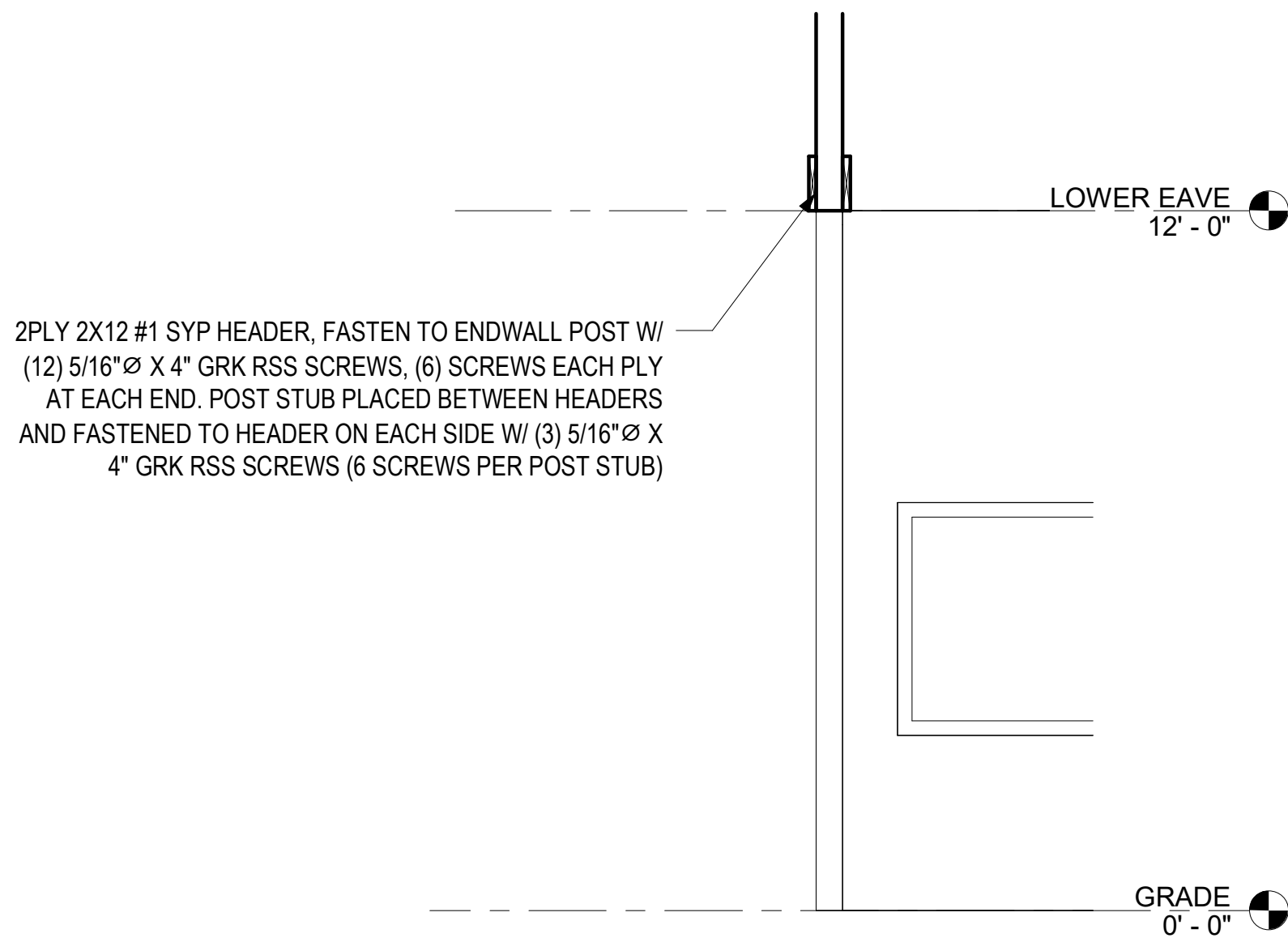
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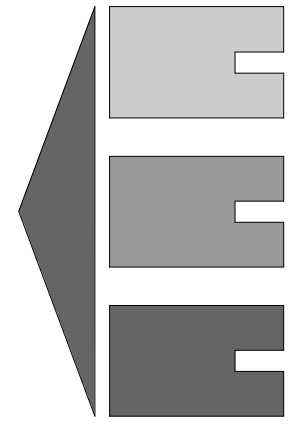
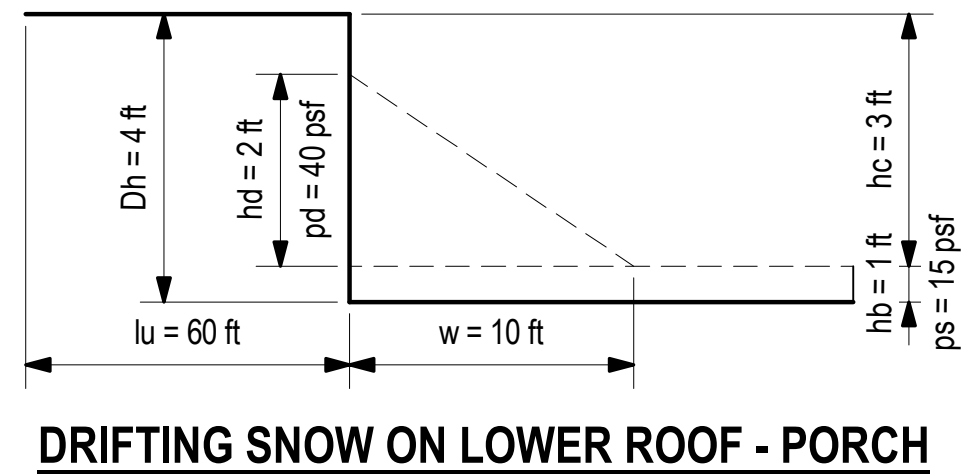
① OVERHEAD DOOR HEADER DETAIL
3/8" = 1'-0"



② PORCH SECTION DETAIL
3/8" = 1'-0"



④ HEADER DETAIL AT TRANSITION WALL
3/8" = 1'-0"



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FACILITY DESIGN (IN)

DRAWING TITLE:
SECTION VIEWS &
DETAILS (CONT.)

REVISIONS:

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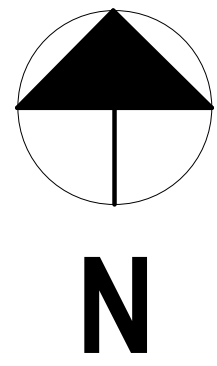
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PROGRESS DATE:

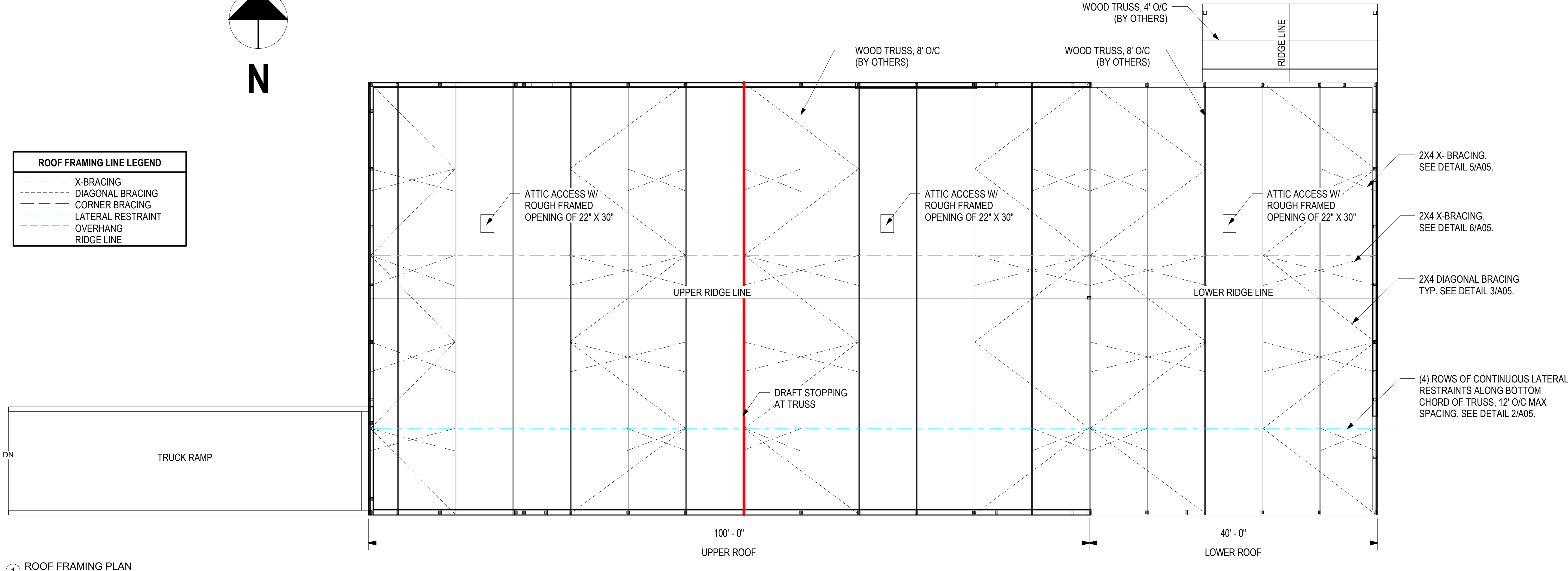
CERTIFIED DATE: 12/12/25

SCALE: 3/8" = 1'-0"

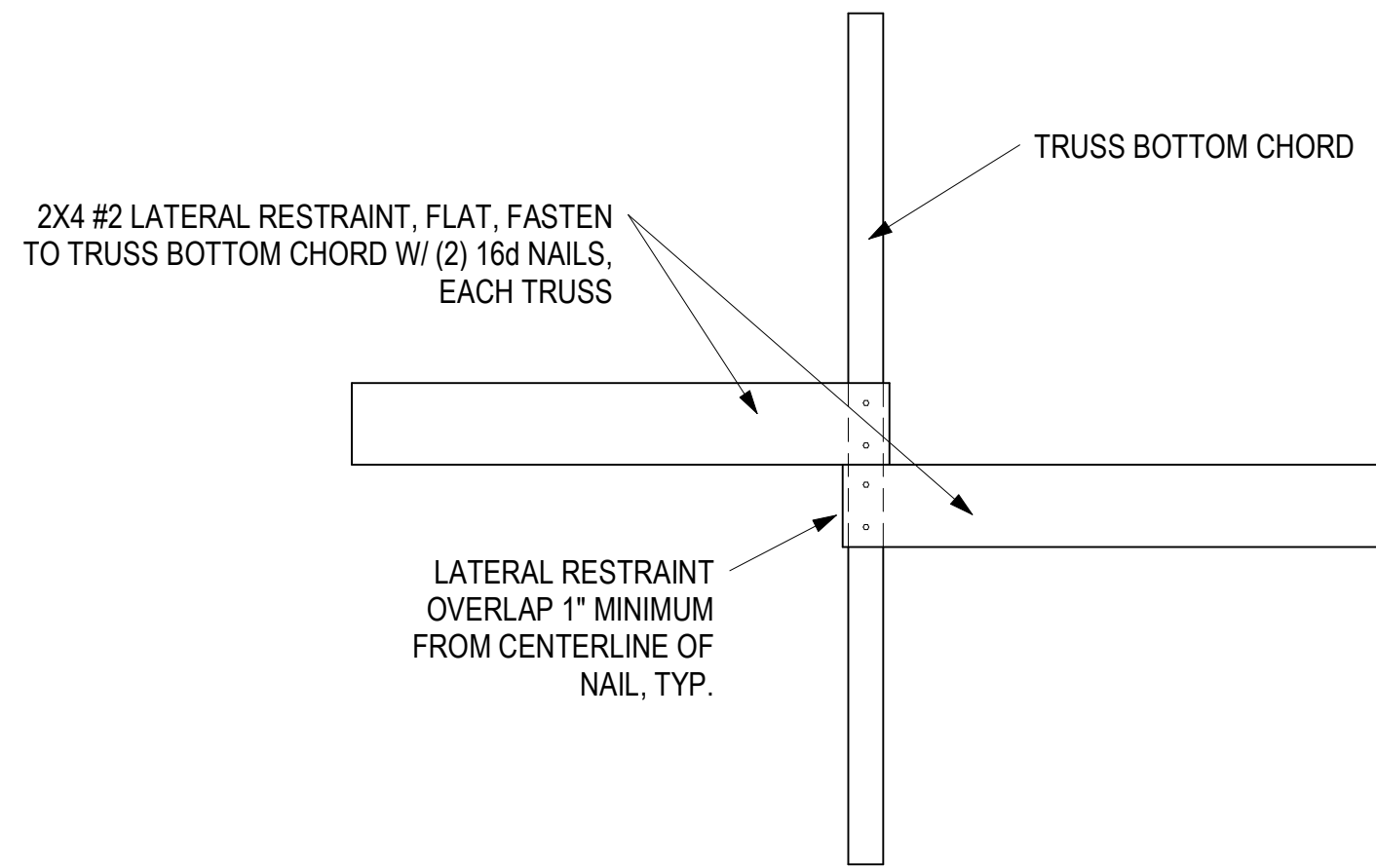
PAGE NUMBER:



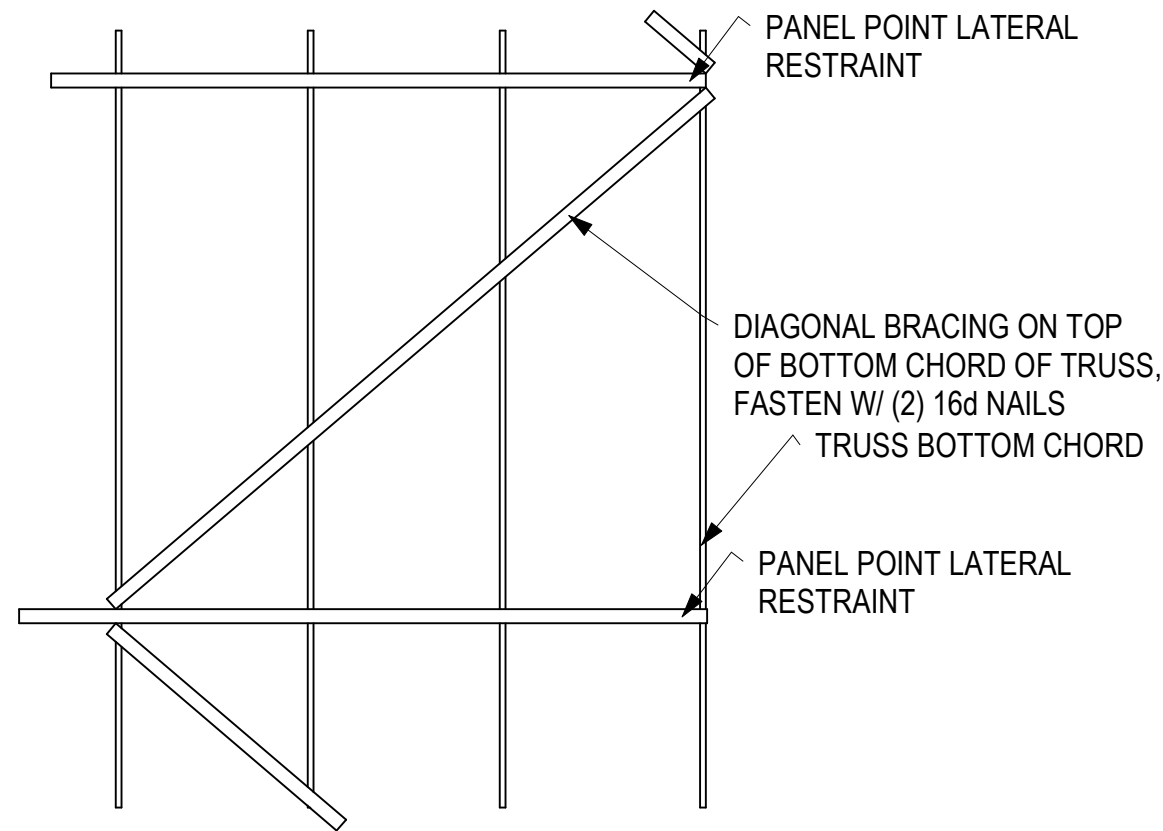
ROOF FRAMING LINE LEGEND	
	X-BRACING
	DIAGONAL BRACING
	CORNER BRACING
	LATERAL RESTRAINT
	OVERHANG
	RIDGE LINE



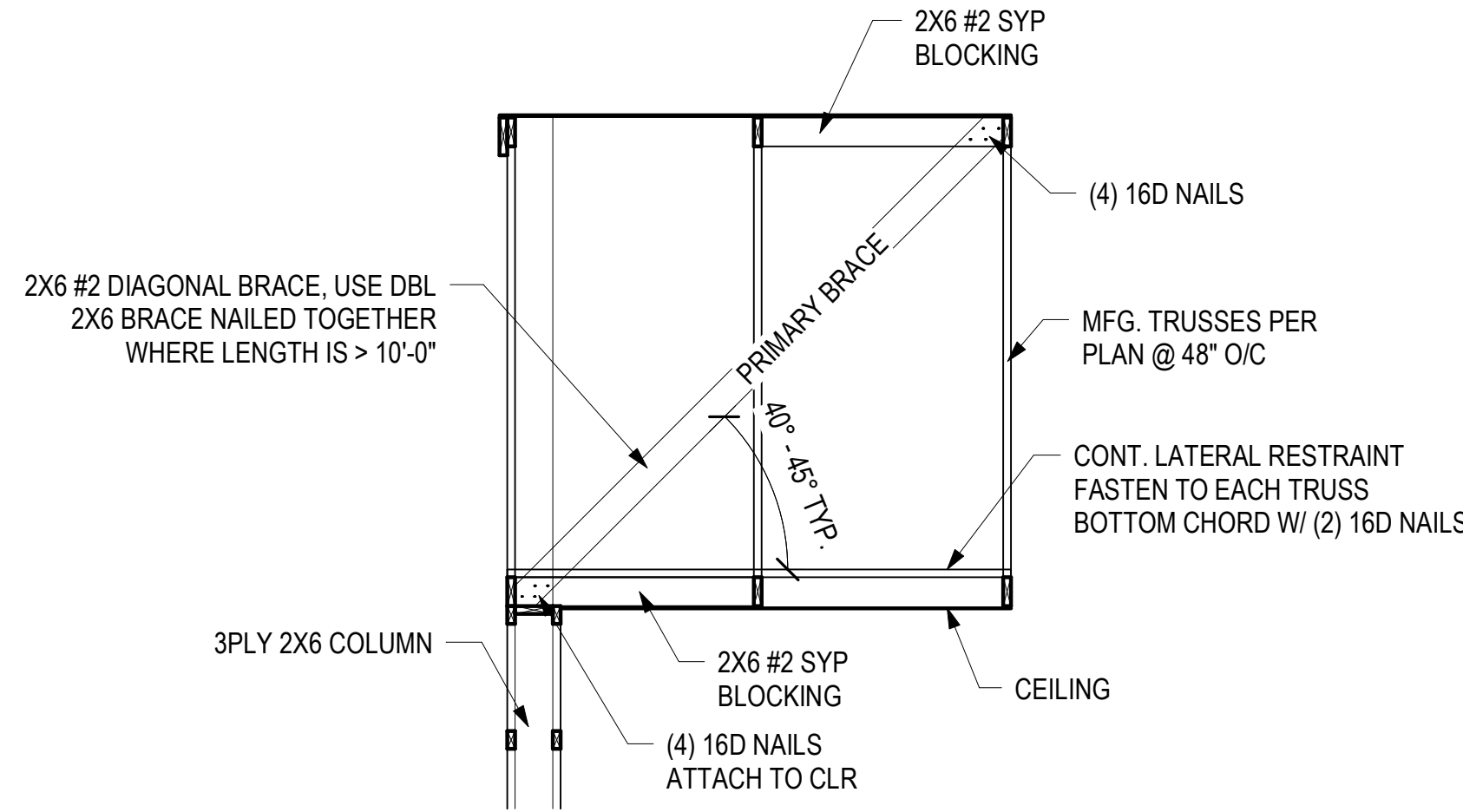
1 ROOF FRAMING PLAN
1/8" = 1'-0"



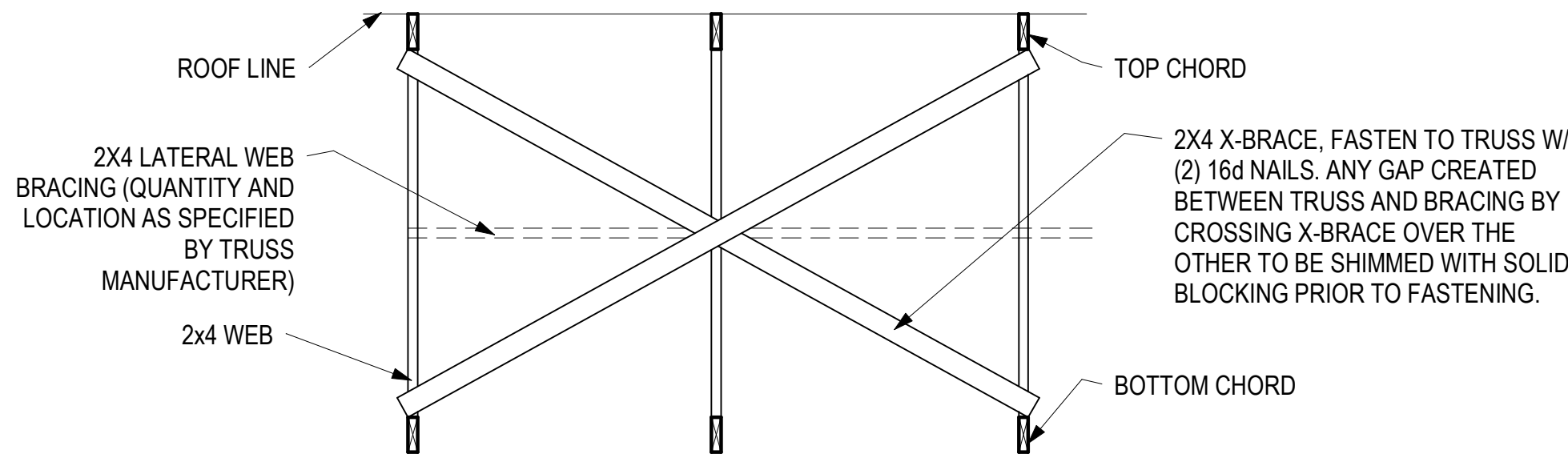
2 LATERAL RESTRAINT END LAP DETAIL
1 1/2" = 1'-0"



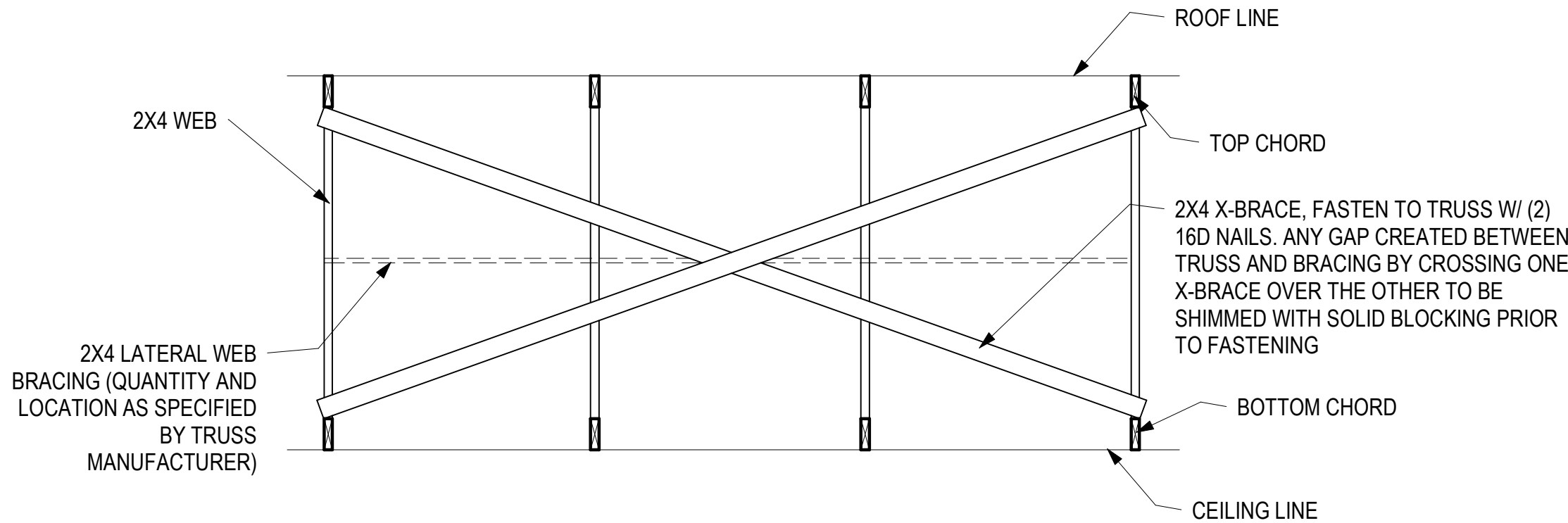
3 DIAGONAL BRACING DETAIL
1/4" = 1'-0"



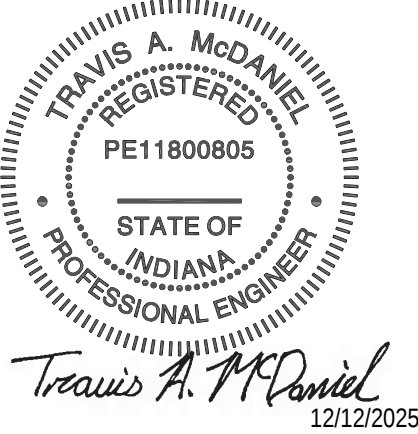
4 GABLE END WALL BRACE
3/8" = 1'-0"



5 X-BRACING DETAIL - ACROSS (3) TRUSSES
1/2" = 1'-0"



6 X-BRACING DETAIL - ACROSS (4) TRUSSES
1/2" = 1'-0"



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FACILITY DESIGN (IN)

DRAWING TITLE:
ROOF FRAMING PLAN

REVISIONS:

NO.	DATE	DESCRIPTION	BY
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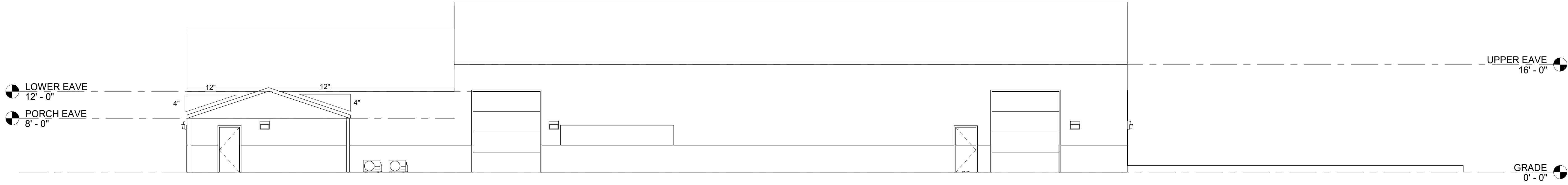
PROGRESS DATE:

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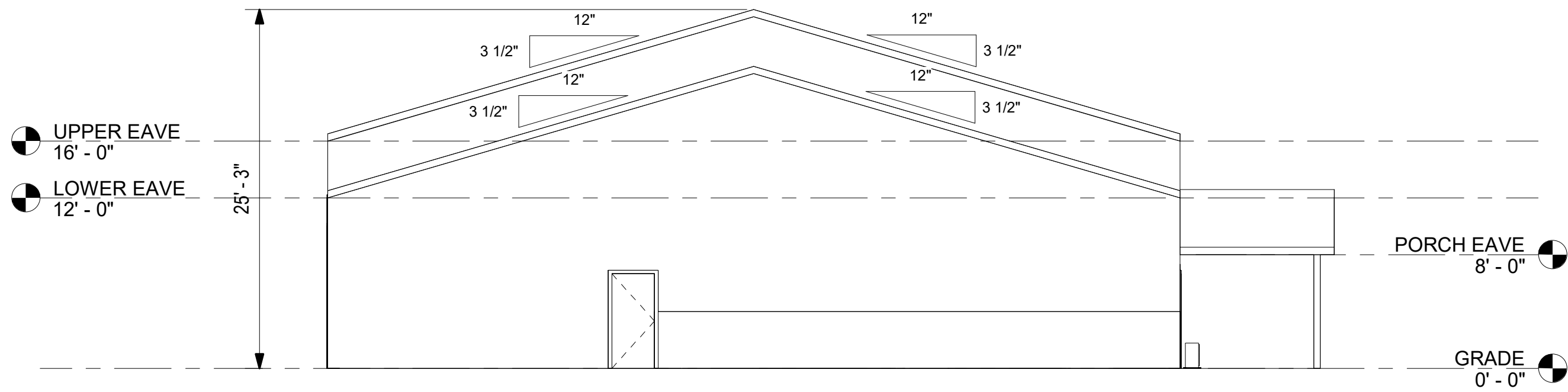
REV.



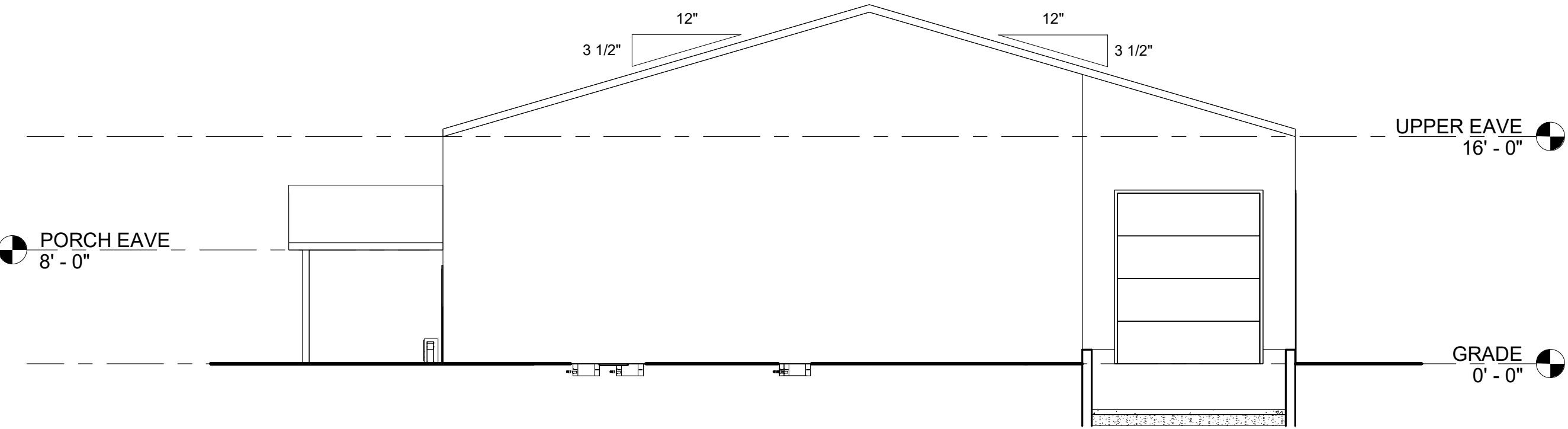
① NORTH VIEW LOOKING SOUTH
1/8" = 1'-0"



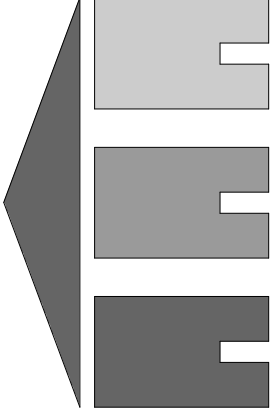
② SOUTH VIEW LOOKING NORTH
1/8" = 1'-0"



③ EAST VIEW LOOKING WEST
1/8" = 1'-0"



④ WEST VIEW LOOKING EAST
1/8" = 1'-0"



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FACILITY DESIGN (IN)

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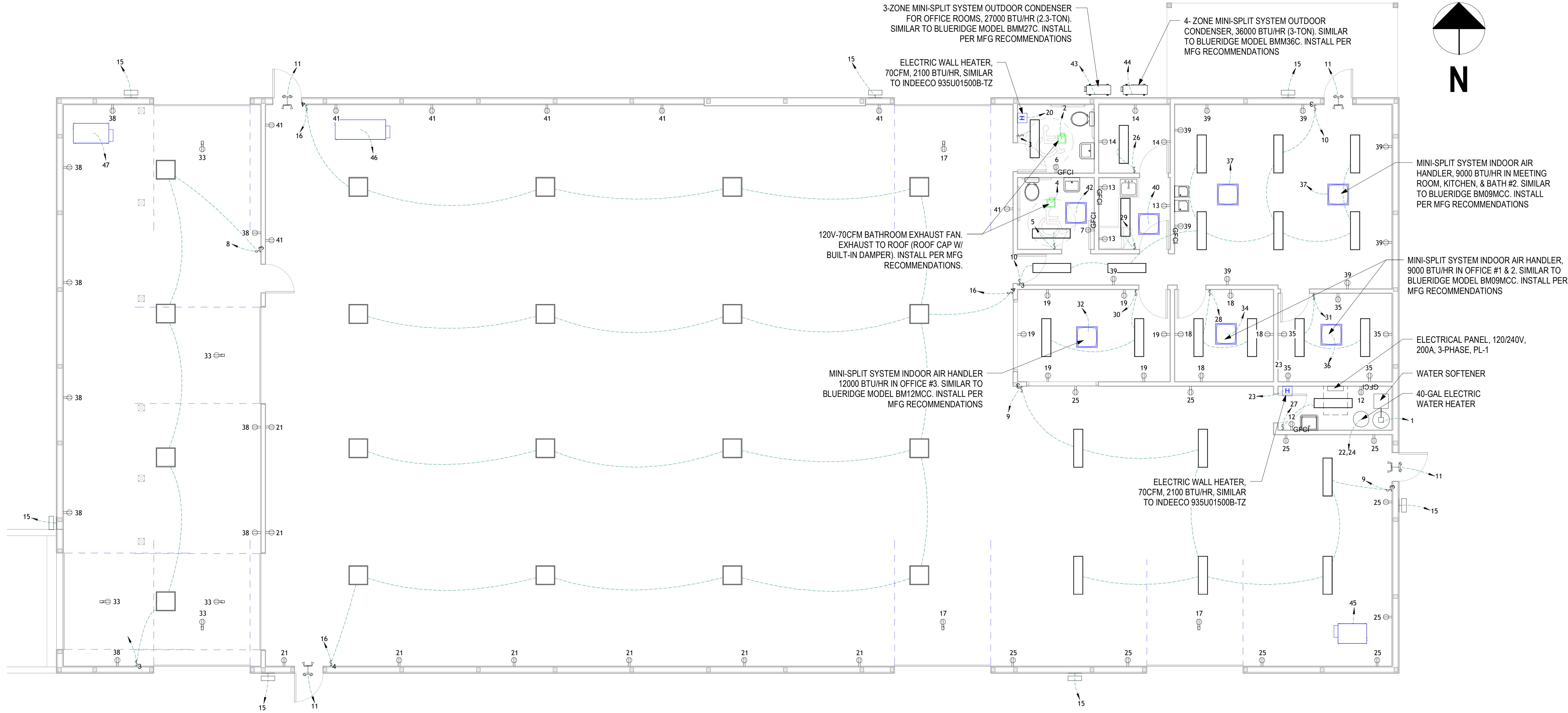
START DATE: 06/03/25

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CERTIFIED DATE: 12/12/25

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

PAGE NUMBER:



1 ELECTRICAL PLAN
3/16" = 1'-0"

ELECTRICAL SYMBOL LEGEND	
OUTLETS	
	DUPLEX RECEPTACLE
	DUPLEX RECEPTACLE, GFCI
	220 VOLT RECEPTACLE
	WIFI ACCESS
	TELEPHONE OUTLET
SWITCHES	
	SINGLE POLE SWITCH
	OCCUPANCY SENSOR SWITCH
	3-WAY SWITCH
	WALL SWITCH DIMMER 0-10V
	WALL OCCUPANCY/DIMMER SWITCH
	CEILING 360 DEGREE MOTION SENSOR

ELECTRICAL SYMBOL LEGEND
1/4" = 1'-0"

LIGHT FIXTURE SYMBOL LEGEND & SCHEDULE	
	2' X 2' HIGH BAY LED FIXTURE, 210 WATT, 5000K, 28560 LUMENS. SIMILAR TO SYLVANIA VALUELED LNHIBA3A/210UNVD850/22W/WH/L7
	1' X 4' PANEL LED, CEILING OR SURFACE MOUNT LIGHT FIXTURE, 55 WATT, SIMILAR TO SYLVANIA LEDVANCE PANELFV055UNHD8SC224FMWHG1
	20 WATT LED EXTERIOR WALL MOUNTED LIGHT FIXTURE (WALL PACK) WITH PHOTOCELL. SIMILAR TO SYLVANIA LEDVANCE WALPAKN9AS040UNHD8SC2BZPE
	SELF-POWERED EMERGENCY EXIT LIGHT W/ DUAL HEAD AND REMOTE. EXTERIOR DUAL HEAD (NEAR THE DOOR) EMERGENCY LIGHTING & CHARGER WITH EMERGENCY BATTERY BACKUP FOR A DURATION OF NOT LESS THAN 1-1/2 HOURS.

LIGHT FIXTURE SYMBOL LEGEND & SCHEDULE
1/4" = 1'-0"

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60' X 140' RECYCLING
FACILITY DESIGN (IN)

DRAWING TITLE:
ELECTRICAL PLAN

REVISIONS:

NO.	DATE	DESCRIPTION	BY
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JOB NUMBER:
25.484.071

DRAWN BY: HN

ENGINEERED BY: HN

START DATE: 06/03/25

PROGRESS DATE:

CERTIFIED DATE: 12/12/25

SCALE: As indicated

PAGE NUMBER:

Branch Panel: PL-1

Location: MECHANICAL ROOM 10

Supply From:

Mounting: Surface

Enclosure:

Volts: 120/240 Wye

Phases: 3

Wires: 4

A.I.C. Rating:

Mains Type:

Mains Rating: 200 A

MCB Rating: 200 A

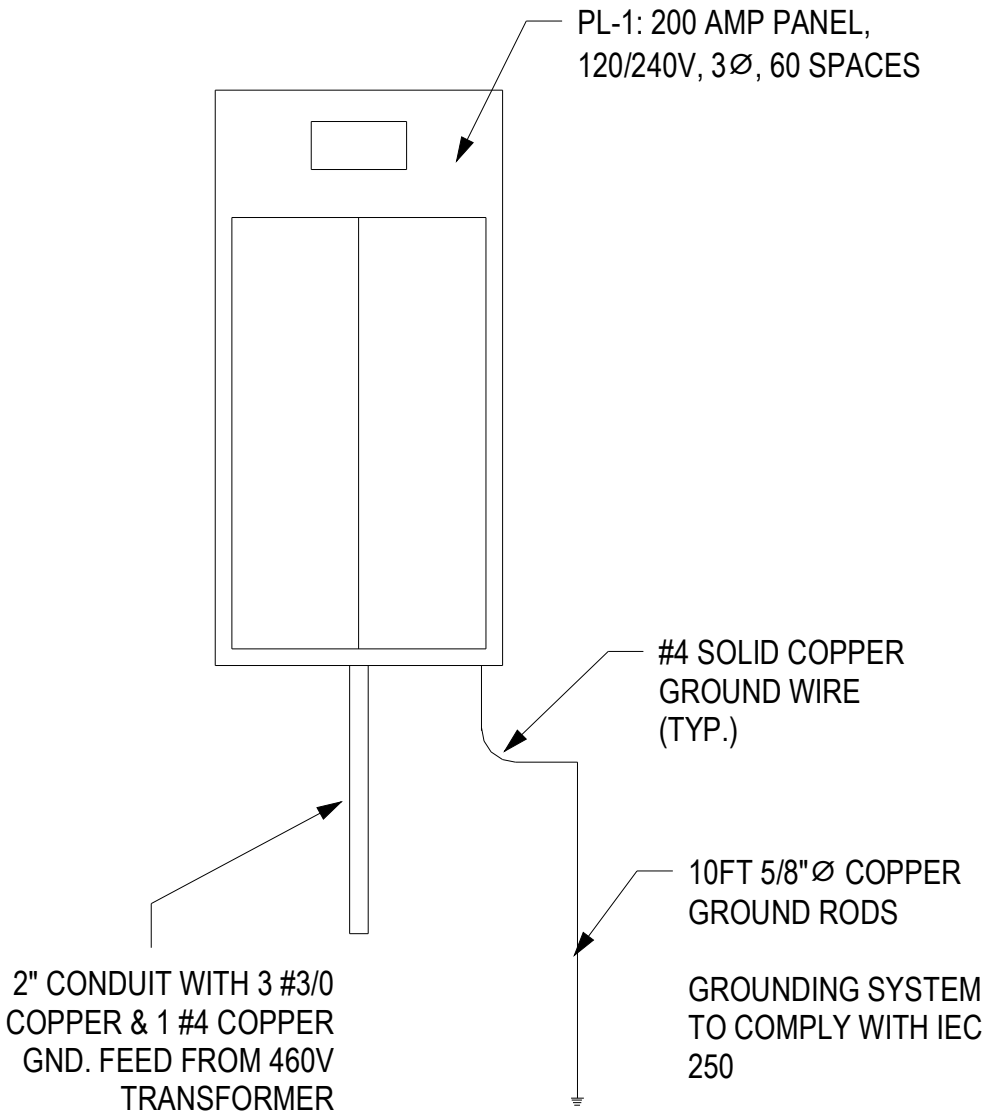
Notes:

CKT	Circuit Description	Trip	Poles	A	B	C	Poles	Trip	Circuit Description	CKT	
1	WATER SOFTENER	20 A	1	10 VA	120 VA			1	20 A	BATHROOM EXHAUST FAN - BATH #1	2
3	LIGHTING - BATH #1	20 A	1		40 VA	120 VA		1	20 A	BATHROOM EXHAUST FAN - BATH #2	4
5	LIGHTING - BATH #2	20 A	1			40 VA	180 VA	1	20 A	GFCI RECEPTACLE - BATH #1	6
7	GFCI RECEPTACLE - BATH #2	20 A	1	180 VA	840 VA			1	20 A	LIGHTING - DRIVE THROUGH #2 & WORK AREA	8
9	LIGHTING - STORAGE AREA	20 A	1		240 VA	320 VA		1	20 A	LIGHTING - MEETING ROOM	10
11	EMERGENCY EXIT SIGNS	20 A	1			400 VA	360 VA	1	20 A	GFCI RECEPTACLES - MECHANICAL ROOM	12
13	RECEPTACLES - WARMING KITCHEN	20 A	1	720 VA	540 VA			1	20 A	RECEPTACLES - CLOSET	14
15	EXTERIOR WALLPACK LIGHTING	20 A	1		490 VA	3360 VA		1	20 A	LIGHTING - DRIVE THROUGH #1 & WAREHOUSE FLOOR	16
17	OVH DOOR RECEPTACLES - DRIVE THROUGH #1 &...	20 A	1			540 VA	720 VA	1	20 A	RECEPTACLES - OFFICE #2	18
19	RECEPTACLES - OFFICE #3	20 A	1	1080 VA	1500 VA			1	20 A	WALL HEATER - BATH #1	20
21	RECEPTACLES - WAREHOUSE (SOUTH WALL)	20 A	1		1440 VA	2250 VA		2	20 A	ELECTRIC WATER HEATER	22
23	WALL HEATER - MECHANICAL ROOM	20 A	1			1500 VA	2250 VA	--	--		24
25	RECEPTACLES - STORAGE AREA	20 A	1	1800 VA	40 VA			1	20 A	LIGHTING - CLOSET	26
27	LIGHTING - MECHANICAL ROOM	20 A	1		40 VA	80 VA		1	20 A	LIGHTING - OFFICE #2	28
29	LIGHTING - WARMING KITCHEN	20 A	1			40 VA	80 VA	1	20 A	LIGHTING - OFFICE #3	30
31	LIGHTING - OFFICE #1	20 A	1	80 VA	5096 VA			1	30 A	MINI-SPLIT INDOOR AIR HANDLER - OFFICE #3	32
33	OVH DOOR RECEPTACLES - DRIVE THROUGH #2 & DOCK	20 A	1		900 VA	5096 VA		1	30 A	MINI-SPLIT INDOOR AIR HANDLER - OFFICE #2	34
35	RECEPTACLES - OFFICE #1	20 A	1			900 VA	5096 VA	1	30 A	MINI-SPLIT INDOOR AIR HANDLER - OFFICE #1	36
37	MINI-SPLIT INDOOR AIR HANDLERS - MEETING ROOM	30 A	1	10192 VA	1620 VA			1	20 A	RECEPTACLES - DRIVE THROUGH #2 & WORK AREA	38
39	RECEPTACLES - MEETING ROOM	20 A	1		1620 VA	5096 VA		1	30 A	MINI-SPLIT INDOOR AIR HANDLER - WARMING KITCHEN	40
41	RECEPTACLES - WAREHOUSE (NORTH WALL)	20 A	1			1440 VA	5096 VA	1	30 A	MINI-SPLIT INDOOR AIR HANDLER - BATH #2	42
43	3-ZONE MINI-SPLIT OUTDOOR CONDENSER	20 A	1	3140 VA	3140 VA			1	20 A	4-ZONE MINI-SPLIT OUTDOOR CONDENSER	44
45	UNIT HEATER - STORAGE	20 A	1		1392 VA	1392 VA		1	20 A	UNIT HEATER - WAREHOUSE FLOOR	46
47	UNIT HEATER - DRIVE THROUGH #2 & WORK AREA	20 A	1			1392 VA					48
49											50
51											52
53											54
55											56
57											58
59											60
		Total Load:		30050 VA	23363 VA	19615 VA					
		Total Amps:		250 A	195 A	163 A					

Legend:

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals
Appliance - Dwelling Unit	4510 VA	100.00%	4510 VA	
HVAC	6520 VA	100.00%	6520 VA	Total Conn. Load: 72947 VA
Heating	3000 VA	100.00%	3000 VA	Total Est. Demand: 69666 VA
Lighting - Dwelling Unit	5200 VA	72.50%	3770 VA	Total Conn.: 175 A
Lighting - Exterior	490 VA	125.00%	613 VA	Total Est. Demand: 168 A
Other	39848 VA	100.00%	39848 VA	
Receptacle	14040 VA	85.61%	12020 VA	
Lighting	400 VA	100.00%	400 VA	

Notes:



POWER RISER DIAGRAM
NOT TO SCALE

MAIN BREAKERS TO BE 50,000 AIC RATED
ALL BREAKERS TO BE 10,000 AIC RATED

WIRE AND CONDUIT SIZE SCHEDULE

AMPS	WIRE SIZE	CONDUIT SIZE
20A	#12	3/4"
25A	#10	3/4"
30A	#10	3/4"
35A	#8	1"
50A	#8	1"
60A	#6	1"
85A	#4	1 1/4"
100A	#3	1 1/2"
200A	#3/0 THHN	2"

INSULATION TYPE FOR 75° C THHN OR THWN
DEPENDING ON LOCATION AND ALL
EQUIPMENT AND TERMINATIONS. ANY OTHER
DIFFERENCES IN INSTALLATIONS SHALL BE
GIVEN TO PLAN REVIEW AND PROVIDE
CATALOG CUT SHEETS.

←

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PROJECT NAME:
60' X 140' RECYCLING
FACILITY DESIGN (IN)

DRAWING TITLE:
ELECTRICAL PANEL

REVISIONS:

NO.	DATE	DESCRIPTION	BY
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JOB NUMBER:
25.484.071

DRAWN BY: HN	ENGINEERED BY: HN
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PROGRESS DATE:

CERTIFIED DATE: 12/12/25

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ELECTRICAL GENERAL NOTES:

- THE ELECTRICAL CONTRACTOR SHALL VERIFY EXISTING POWER SOURCE AND PROVIDE ALL MATERIALS AND LABOR AND PAY ALL COST TO PROVIDE COMPLETE ELECTRICAL POWER TO THE NEW BUILDING FROM THE POWER SOURCE.
2. ALL ELECTRICAL WORK SHALL BE PERFORMED IN STRICT ACCORDANCE WITH THE IBC, NFPA 70 (INDIANA ELECTRIC CODE - IEC), LATEST EDITION, WITH ADOPTED STATE AMENDMENTS. ALL WORK PERFORMED SHALL BE DONE SO IN A GOOD WORKMANSHIP TYPE MANNER AND IN ACCORDANCE WITH ALL LOCAL CODES AND INSPECTIONS.
3. NO CIRCUIT OR FEEDER SHALL EXCEED 3% VOLTAGE DROP.
4. ANY CONDUCTORS RUNNING UNDERGROUND (SERVICE, FEEDERS, BRANCH CIRCUITS, ETC.) TO HAVE "WET LOCATION" RATING IN ACCORDANCE WITH THE REQUIREMENTS OF THE NEC, SECTION 310-8.
5. ALL WIRING SHALL BE IN EMT CONDUIT WHERE EXPOSED & MC WHERE CONCEALED, 100% COPPER, UNLESS OTHERWISE NOTED ON THE DRAWINGS. WIRES SHALL BE SIZED ACCORDINGLY TO THE NEC ARTICLE 310-15.
6. SPLICES SHALL BE MADE ONLY AT ACCESSIBLE LOCATIONS, OUTLET BOXES, PANELBOARDS, JUNCTION BOXES, ETC. TERMINAL CONNECTIONS AND SPLICES IN ALL WIRE #6 AND LARGER SHALL BE MADE WITH APPROVED SOLDERLESS CONNECTORS, PROPERLY INSULATED AND TAPED WHERE NECESSARY. IN SMALLER WIRES ALL SPLICES SHALL BE MADE WITH EITHER APPROVED SOLDERLESS CONNECTORS OR SHALL BE SOLDERED AND TAPED AS REQUIRED TO INSURE PROPER INSULATION.
7. ELECTRICAL BOXES AND FITTINGS SHALL COMPLY WITH UL STANDARD #50, 514-SERIES AND 886 AND NEMA STANDARDS PUBLICATIONS #051, 052 AND PUBLICATION 250.
8. WIRING DEVICES SHALL COMPLY WITH NEC, UL 20, 486A, 498 AND 943, IEEE STANDARD 241 AND NEMA STANDARDS PUBLICATION NO. WD1, WD2 AND WD5.
9. RECEPTACLES SHALL BE GENERAL DUTY TYPE, 2-POLE, 3-WIRE, GROUNDED, 20 AMPS, 125 VOLTS. RECEPTACLES SHALL BE INSTALLED 18" ABOVE FINISH FLOOR, UNLESS OTHERWISE NOTED.
10. SWITCHES SHALL BE GENERAL DUTY, 20 AMPS, 120-277 VOLTS.
11. FIXTURE SUPPORTS SHALL BE PROVIDED IN ACCORDANCE WITH THE REQUIREMENTS OF THE NEC, ARTICLE 700.
12. ALL EQUIPMENT SHALL BEAR THE UL LABEL AND BE INSTALLED ACCORDING TO THE LATEST EDITION OF THE NEC.
13. SERVICE EQUIPMENT SHALL BE SUITABLE FOR SHORT-CIRCUIT CURRENT AVAILABLE AT ITS SUPPLY TERMINALS AS PER NEC ARTICLE 230-90.
14. LIGHTING FIXTURES SHALL COMPLY WITH NEC, NEMA, UL AND IES (APPLICABLE ARTICLES).
15. EMERGENCY MEANS OF EGRESS LIGHTING WITH BATTERY BACKUP POWER SHALL PROVIDE EMERGENCY ILLUMINATION FOR A DURATION OF NOT LESS THAN 1.5 HOURS MINIMUM, WITHOUT THE VOLTAGE APPLIED TO THE LOAD FALLING BELOW 87.5% OF NORMAL. LOCAL AUTHORITY SHALL FIELD VERIFY AND LOCATE ADDITIONAL FIXTURES IF NEEDED.
16. PROVIDE MANUFACTURER'S RECOMMENDED LAMPS FOR ALL FIXTURES AND CLEAN AND REPLACE BURNED OUT LAMPS AT SUBSTANTIAL COMPLETION.
17. ELECTRICAL DEVICES SUCH AS SWITCHES, RECEPTACLES, ETC. THAT PENETRATE A FIREWALL, MUST BE IN ACCORDANCE WITH SECTION 711 OF THE IBC.
18. ALL DISCONNECTS AND CIRCUIT BREAKERS SHALL BE MARKED FOR IDENTIFICATION.
19. OPERATING HANDLE OF THE SWITCH OR CIRCUIT BREAKER, WHEN IN ITS HIGHEST POSITION, WILL NOT BE MORE THAN 6'-7" ABOVE THE FINISH FLOOR OR PLATFORM.
20. PROVIDE A BONDING JUMPER AT THE WATER METER AND AT WATER HEATER.
21. THE ELECTRICAL CONTRACTOR WILL PROVIDE DESIGN NUMBER AND MANUFACTURER'S CUT SHEETS TO THE LOCAL BUILDING DEPARTMENT WHEN WIRING METHODS, WHICH WILL PENETRATE THROUGH FIRE RESISTANT RATED WALLS, PARTITIONS, FLOORS, OR CEILINGS, AND INCLUDE APPROVED METHODS TO MAINTAIN THE RESISTANCE RATING.
22. THE ELECTRICAL CONTRACTOR WILL NEED TO PROVIDE MANUFACTURER'S ELECTRICAL FIXTURE CUT SHEETS TO THE LOCAL BUILDING DEPARTMENT, IF REQUIRED.
23. WP = WEATHER PROOF COVERS TO BE TYPE THAT REMAIN WATERTIGHT WHILE A CORD IS PLUGGED IN.
24. THE EMERGENCY EXIT AND LIGHTING PACKS NEED TO BE TAKEN OFF THE LOCAL LIGHTING CIRCUIT AHEAD OF THE LOCAL SWITCHING CIRCUIT. NEC ART. 700.12(F) THIS MUST BE NOTED IN THE NOTES AND/OR PLAN. THE EMERGENCY CIRCUIT THAT IS SHOWN GOING TO A DEDICATED BREAKER IS ONLY ALLOWED BY THE EXCEPTION IF THREE (3) OR MORE LIGHTING CIRCUITS ARE IN THE SAME AREA AND THE BREAKERS ARE LOCKED ON.
25. EXIT SIGNS DO NOT EXCEED 5 WATTS PER FACE
26. BUILDING TO HAVE AUTOMATIC CONTROLS TO SHUT OFF ALL BUILDING LIGHTING.
27. AUTOMATIC LIGHTING CONTROLS FOR EXTERIOR LIGHTING INSTALLED.
28. INDEPENDENT LIGHTING CONTROLS INSTALLED PER APPROVED LIGHTING PLANS AND ALL MANUAL CONTROLS READILY ACCESSIBLE AND VISIBLE TO OCCUPANTS.
29. SEPARATE LIGHTING CONTROL DEVICES FOR SPECIFIC USES INSTALLED PER APPROVED LIGHTING PLANS.
30. BALLASTED ONE AND THREE LAMP FIXTURES WITH ≥ 30 W/LAMP HAVE TWO LAMP TANDEM WIRED BALLASTS WHEN ≥ 2 FIXTURES IN THE SAME SPACE ON SAME CONTROL.
31. FURNISHED AS BUILT DRAWINGS FOR ELECTRICAL POWER SYSTEMS WITHIN 30 DAYS OF SYSTEM ACCEPTANCE.
32. FURNISHED O&M INSTRUCTIONS FOR SYSTEMS AND EQUIPMENT TO THE BUILDING OWNER OR DESIGNATED REPRESENTATIVE.
33. ADDITIONAL INTERIOR LIGHTING POWER ALLOWED FOR SPECIAL FUNCTIONS PER THE APPROVED LIGHTING PLANS AND IS AUTOMATICALLY CONTROLLED AND SEPARATED FROM GENERAL LIGHTING.
34. EXTERIOR GROUNDS LIGHTING OVER 100W PROVIDES >60 LM/W UNLESS ON MOTION SENSOR OR FIXTURE IS EXEMPT FROM SCOPE OF CODE OR FROM EXTERNAL LPD.

MECHANICAL GENERAL NOTES:

- MECHANICAL CONTRACTOR TO FURNISH ALL LABOR, MATERIAL, AND EQUIPMENT REQUIRED FOR THE COMPLETION AND OPERATION ON ALL SYSTEMS IN THIS SECTION OF WORK. ALL MECHANICAL WORK SHALL BE IN STRICT ACCORDANCE WITH INTERNATIONAL MECHANICAL CODE (IMC), LATEST EDITION INCLUDING ADOPTED INDIANA AMENDMENTS, ASHRAE, SMACNA, NFPA, AND EPA. THE APPLICABLE PORTIONS OF THE SPECIFICATIONS ARE INCLUDED AS PART OF THIS SPECIFICATION. ALL INSTALLATIONS SHALL BE PERFORMED IN A GOOD WORKMANLIKE MANNER.
2. ALL EQUIPMENT, PIPING, VENTS, ETC., EXTENDING THROUGH WALLS & ROOF SHALL BE FLASHED, COUNTER FLASHED IN A WATERPROOF MANNER.
3. ALL HVAC EQUIPMENT TO BE INSULATED PER MANUFACTURERS REQUIREMENTS.
4. MAINTAIN MINIMUM 10" BETWEEN OUTDOOR AIR INTAKES AND EXHAUST FAN DISCHARGE, PLUMBING, VENT, ETC.
5. ALL CONTROL WIRING & CONDUIT SHALL COMPLY WITH NEC.
6. DO NOT SCALE DRAWINGS.
7. CONTRACTOR SHALL VISIT THE JOB SITE AND BE FAMILIAR WITH ALL PROJECT CONDITIONS PRIOR TO FABRICATING ANY EQUIPMENT, ETC. NO ALLOWANCES WILL BE MADE FOR CONTRACTOR UNFAMILIARITY WITH PROJECT CONDITIONS.
8. OUTDOOR AIR AND EXHAUST SYSTEMS HAVE MOTORIZED DAMPERS THAT AUTOMATICALLY SHUT WHEN NOT IN USE AND MEET MAXIMUM LEAKAGE RATES. CHECK GRAVITY DAMPERS ARE ALLOWED.
9. INSULATION EXPOSED TO WEATHER PROTECTED FROM DAMAGE. INSULATION OUTSIDE OF THE CONDITIONED SPACE AND ASSOCIATED WITH COOLING SYSTEMS IS VAPOR RETARDANT.
10. FURNISHED HVAC AS-BUILT DRAWINGS SUBMITTED WITHIN 90 DAYS OF SYSTEM ACCEPTANCE.
11. FURNISHED O&M MANUALS FOR HVAC SYSTEMS WITHIN 90 DAYS OF SYSTEM ACCEPTANCE.
12. AN AIR AND/OR HYDRONIC SYSTEM BALANCING REPORT TO BE PROVIDED FOR HVAC SYSTEMS SERVING ZONES >5,000FT² OF CONDITIONED AREA.
13. HVAC CONTROL SYSTEMS HAVE BEEN TESTED TO ENSURE PROPER OPERATION, CALIBRATION AND ADJUSTMENT OF CONTROLS.
14. FREEZE PROTECTION AND SNOW/ICE MELTING SYSTEM SENSORS FOR FUTURE CONNECTION TO CONTROLS.
15. VENTILATION FANS >0.75 HP HAVE AUTOMATIC CONTROLS TO SHUT OFF FAN WHEN NOT REQUIRED.
16. HVAC PUMPING SYSTEMS > 10 HP DESIGNED FOR VARIABLE FLUID FLOW.
17. HEATING TO EACH ZONE IS CONTROLLED BY A THERMOSTAT CONTROL.
18. THERMOSTAT CONTROLS SHALL HAVE A 5°F DEADBAND.
19. TEMPERATURE CONTROLS SHALL HAVE SETPOINT OVERLAP RESTRICTIONS WHERE NECESSARY.
20. HVAC SYSTEM SHALL BE EQUIPPED W/ AT LEAST (1) AUTOMATIC SHUTDOWN CONTROL.
21. HUMIDIFICATION AND DEHUMIDIFICATION SHALL NOT BE SET TO ALLOW FOR SIMULTANEOUS OPERATION.
22. ELECTRIC MOTORS MEET REQUIREMENTS WHERE APPLICABLE.
23. SETBACK CONTROLS ALLOW AUTOMATIC RESTART AND TEMPORARY OPERATION AS REQUIRED FOR MAINTENANCE.
24. HVAC DUCTS AND PLENUMS TO BE INSULATED AND THICKNESS SHOWN.
25. KITCHEN HOODS >= 5,000 CFM HAVE MAKE UP AIR >=50% OF EXHAUST AIR VOLUME.

SYSTEM OPERATING NOTES:

1. DUCTWORK OPERATING >3" W.C. REQUIRES LEAK TESTING
2. DEMAND CONTROL VENTILATION PROVIDED FOR SPACES >500FT2 AND >40 PEOPLE/1000FT2
OCCUPANT DENSITY AND SERVED BY SYSTEMS WITH AIR SIDE ECONOMIZER, AUTO MODULATING
OUTSIDE AIR DAMPER CONTROL, OR DESIGN AIRFLOW >3000 CFM.
3. DEHUMIDIFICATION CONTROLS PROVIDED TO PREVENT REHEATING, RECOOLING, MIXING OF HOT
AND COLD AIRSTREAMS OR CONCURRENT HEATING AND COOLING OF THE SAME AIRSTREAM.
4. MINIMUM EQUIPMENT EFFICIENCY: CENTRAL FURNACE (GAS) 80% EF. (OR 78% AFUE)
SINGLE PACKAGE UNIT: 13 SEER
5. DUCTS AND PLENUMS SEALED BASED ON STATIC PRESSURE AND LOCATION.
6. HOT WATER SYSTEM SIZED PER MANUFACTURER'S SIZING GUIDE.
7. HOT GAS BYPASS LIMITED TO:
 <= 240 kBTU/h - 50%
 > 240 kBTU/h - 25%

PLUMBING GENERAL NOTES:

1. PLUMBING SYSTEM INSTALLATION SHALL FOLLOW ALL STATE AND LOCAL CODE IN ADDITION TO THE INTERNATIONAL BUILDING CODE (IBC), INTERNATIONAL PLUMBING CODE (IPC), AND GOOD WORKMANSHIP BY A LICENSED PROFESSIONAL.
2. SERVICE HOT WATER PIPING SYSTEMS TO BE INSULATED WHERE PIPING IS INSTALLED UNDER A SLAB, VERIFICATION MAY NEED TO OCCUR DURING FOUNDATION INSPECTION.
3. TEMPERATURE CONTROLS INSTALLED ON SERVICE WATER HEATING SYSTEMS ($\leq 120^{\circ}\text{F}$ TO MAXIMUM TEMPERATURE FOR INTENDED USE).
4. HEAT TRAPS INSTALLED ON NON-CIRCULATING STORAGE WATER TANKS.
5. PUBLIC LAVATORY FAUCET WATER TEMPERATURE $\leq 110^{\circ}\text{F}$.

SANITARY NOTES:

1. WHEREVER A HORIZONTAL DRAINAGE PIPE, A BUILDING DRAIN, OR A BUILDING SEWER CHANGES DIRECTION, A JOINT NO MORE THAN 45° SHALL BE USED.
2. ALL FIXTURES SHALL BE EQUIPT WITH A P-TRAP.
3. ALL SANITARY LINES SHALL BE NON-PRESSURIZED SANITARY PVC OR BETTER.

BUILDING ENVELOPE NOTES:

1. ALL SOURCES OF AIR LEAKAGE IN BUILDING THERMAL ENVELOPE SHALL BE SEALED, CAULKED, GASKETED, WEATHER STRIPPED OR WRAPPED WITH MOISTURE VAPOR-PERMEABLE WRAPPING MATERIAL TO MINIMIZE AIR LEAKAGE.
2. INSULATION SHALL BE INSTALLED IN SUBSTANTIAL CONTACT WITH THE INSIDE SURFACE SEPARATING CONDITIONED SPACE FROM UNCONDITIONAL SPACE.
3. BELOW AND ABOVE GRADE WALL INSULATION TO BE INSTALLED PER MANUFACTURER'S INSTRUCTIONS.
4. INSULATION IN CONTACT WITH THE GROUND SHALL HAVE $\leq 0.3\%$ WATER ABSORPTION RATE PER ASTM C272.
5. BUILDING ENVELOPE INSULATION TO BE LABELED WITH R-VALUE OR INSULATION CERTIFICATE PROVIDING R-VALUE AND OTHER RELEVANT DATA.
6. ROOF INSULATION INSTALLED PER MANUFACTURER'S INSTRUCTIONS. BLOWN OR POURED LOOSE-FILL INSULATION TO BE INSTALLED ONLY WHERE THE CEILING SLOPE IS $\leq 3:12$.
7. EXTERIOR INSULATION SHALL BE PROTECTED FROM DAMAGE WITH A PROTECTIVE MATERIAL. VERIFICATION FOR EXPOSED FOUNDATION INSULATION MAY NEED TO OCCUR DURING FOUNDATION INSPECTION.
8. INSULATION INTENDED TO MEET THE ROOF INSULATION REQUIREMENTS CANNOT BE INSTALLED ON TOP OF A SUSPENDED CEILING.
9. FOUNDATION VENTS DO NOT INTERFERE WITH INSULATION.
10. FENESTRATION PRODUCTS SHALL BE RATED IN ACCORDANCE WITH NRFC AND CERTIFIED AS TO PERFORMANCE LABELS ON CERTIFICATES PROVIDED.
11. STEEL ROOF SHALL MEET OR EXCEED SOLAR REFLECTANCE OF 0.70 AND THERMAL EMITTANCE OF 0.75 OR SRI OF 82.
12. ATTICS AND MECHANICAL ROOMS TO PROTECT INSULATION WHEN ADJACENT TO ATTIC OR EQUIPMENT ACCESS.
13. EAVES ARE TO BE BAFFLED TO DEFLECT AIR TO ABOVE THE INSULATION.
14. RECESSED EQUIPMENT INSTALLED IN BUILDING ENVELOPE ASSEMBLIES DOES NOT COMPRESS THE ADJACENT INSULATION.
15. HIGH-ALBEDO ROOFS TO MEET SOLAR REFLECTANCE OF 0.70 AND THERMAL EMITTANCE OF 0.75 OR SRI OF 82.
16. SLAB EDGE INSULATION INSTALLED PER MANUFACTURERS INSTRUCTIONS.
17. WEATHERSEALS INSTALLED ON ALL LOADING DOCK CARGO DOORS.
18. FLOOR INSULATION INSTALLED PER MANUFACTURER'S INSULATION.

PROJECT LOCATION:

WEST TYSON ROAD
PORTLAND, IN 47371

PROJECT NAME:

60' X 140' RECYCLING
FACILITY DESIGN (IN)

DRAWING TITLE:
GENERAL NOTES

REVISIONS:

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