

JOHNSON COUNTY CONSERVATION CEDAR RIVER CROSSING & SUTLIFF BRIDGE - WEST AREA IMPROVEMENTS

5473 SUTLIFF ROAD NE, SOLON, IOWA 52333

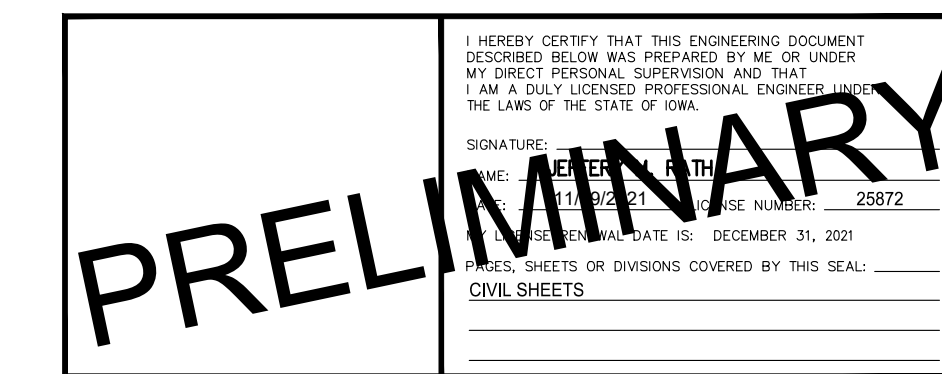


PROJECT LOCATION
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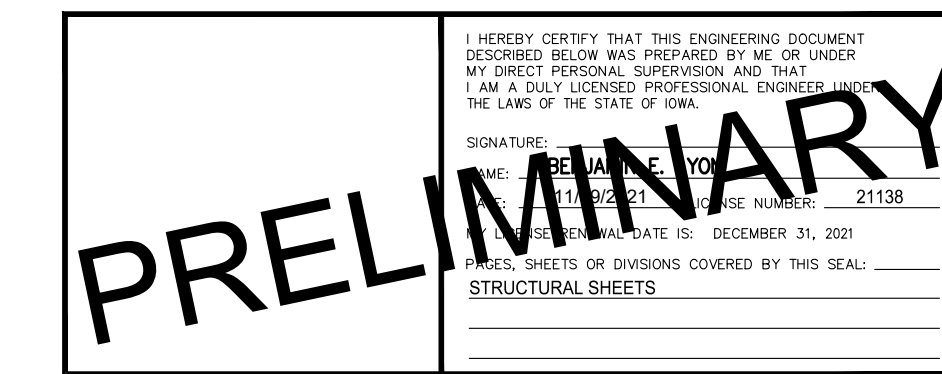
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CERTIFICATIONS:

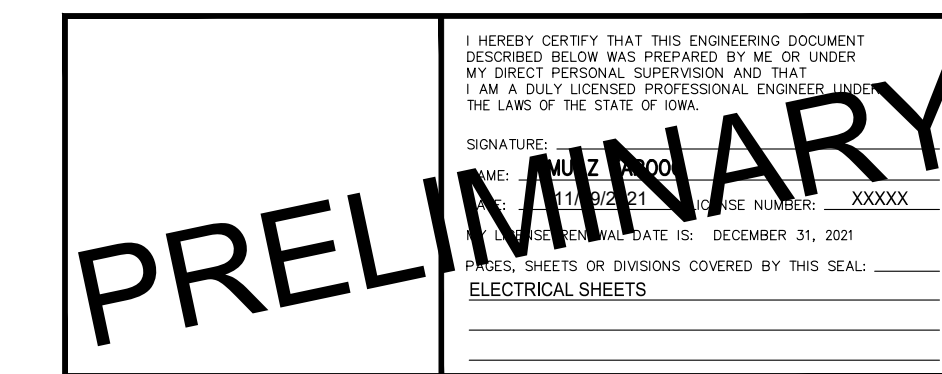
CIVIL ENGINEER



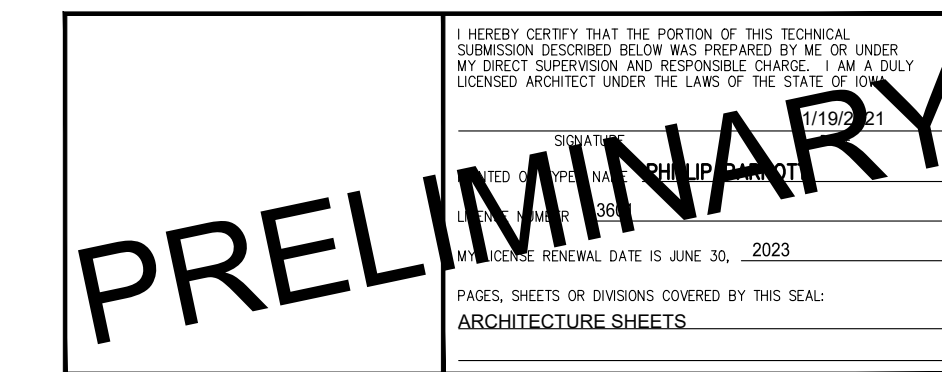
STRUCTURAL ENGINEER



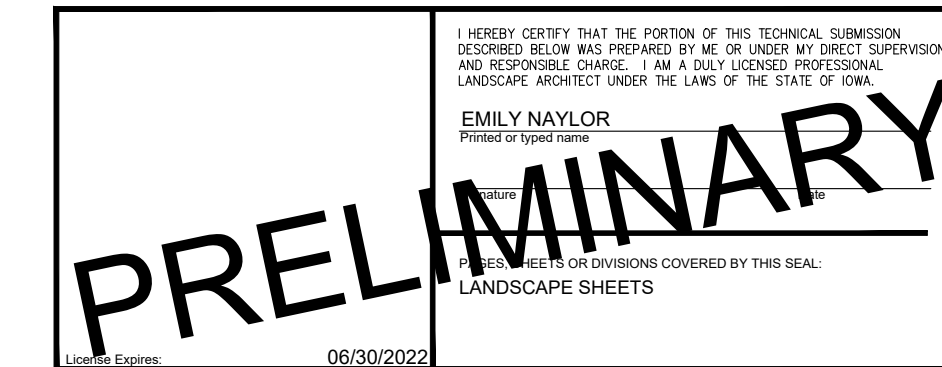
ELECTRICAL ENGINEER



ARCHITECT



LANDSCAPE ARCHITECT



CEDAR RIVER CROSSING & SUTLIFF
BRIDGE - WEST AREA IMPROVEMENTS

**PRELIMINARY
- NOT FOR
CONSTRUCTION**

11/19/2021

BID

PROJECT NO: 4215460

CLIENT NO: --

G000

SHIVEHATTERY
ARCHITECTURE + ENGINEERING
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515.223.8104 | www.shivehattery.com
Iowa | Illinois | Indiana | Nebraska | Wisconsin

JOHNSON COUNTY CONSERVATION
5473 SUTLIFF ROAD NE, SOLON, IOWA 52333

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TRENCH, EXCAVATION AND BACKFILL NOTES

- 1. TRENCH, EXCAVATION AND BACKFILL SHALL FOLLOW DIVISION 3 SUDAS SPECIFICATION SECTIONS.
2. THE CONTRACTOR SHALL MAKE PROVISIONS TO HANDLE WATER ENCOUNTERED DURING CONSTRUCTION.
3. HDPE AND PVC STORM SEWER PIPE BEDDING SHALL BE SW-103 CLASS F-2, UNLESS NOTED OTHERWISE ON THE PLANS.
4. RCP STORM SEWER PIPE BEDDING SHALL BE SW-102 CLASS R-2, UNLESS NOTED OTHERWISE ON THE PLANS.
5. SANITARY SERVICE PIPE BEDDING SHALL BE SW-103 CLASS F-3, UNLESS NOTED OTHERWISE ON THE PLANS.
6. WATER PIPE BEDDING SHALL BE PER SW-104 CLASS P-1, UNLESS NOTED OTHERWISE ON THE PLANS OR DIRECTED BY THE LOCAL MUNICIPALITY.

WATER NOTES

- 1. ALL WATER MAIN CONSTRUCTION SHALL BE PERFORMED IN ACCORDANCE WITH THE NOTES IN THE PLANS AND THE STANDARDS, SPECIFICATIONS, CODES AND ORDINANCES OF THE LOCAL GOVERNING AUTHORITIES.
2. WATER PIPE AND STRUCTURES SHALL BE FURNISHED AND INSTALLED IN ACCORDANCE WITH SUDAS DIVISION 5.
3. ALL WATER VALVES EXTENDING THROUGH PAVEMENT SHALL BE INSTALLED WITH SLIDE TYPE VALVE BOXES AND SHALL MEET SUDAS SPECIFICATION SECTION 5020.
4. ALL PROPOSED WATER SHALL FOLLOW PROPOSED GRADES WITH 5 FEET OF COVER, TYP. UNLESS OTHERWISE SPECIFIED ON PLANS.
5. WATER MAIN SHALL BE POLYVINYL CHLORIDE (PVC) PIPE IN ACCORDANCE WITH AMERICAN WATER WORKS ASSOCIATION (AWWA) STANDARD C900 DR18 WITH PUSH-ON JOINTS CONFORMING TO ASTM C900, UNLESS OTHERWISE NOTED.
6. UNLESS OTHERWISE NOTED ON THE PLANS, ALL WATER MAIN PIPE SHALL BE LAID WITH A MINIMUM COVER OF 5 FEET FROM THE PROPOSED FINISH GRADE INDICATED ON THE PLANS OR TO THE SPECIFIC TOP OF PIPE ELEVATION INDICATED ON THE PLANS FOR THE WATER MAIN.
7. CONTRACTOR SHALL INSTALL TRACER WIRE AND TRACER WIRE STATION ON ALL PROPOSED WATER LINES AS DICTATED IN SUDAS DIVISION 5 SPECIFICATIONS.
8. A WATERTIGHT PLUG SHALL BE PLACED IN THE END OF THE WATER MAIN PIPE AT THE END OF EACH CONSTRUCTION DAY.
9. UPON COMPLETION OF THE WATERMAIN CONSTRUCTION, ALL WATER MAIN SHALL BE TESTED IN ACCORDANCE WITH THE FOLLOWING MINIMUM STANDARDS:
9.1. HYDROSTATIC PRESSURE AND LEAKAGE TESTS IN ACCORDANCE WITH LOCAL REQUIREMENTS AND SPECIFICATIONS AND SHALL BE WITNESSED BY THE LOCAL GOVERNING AUTHORITY.
9.2. DISINFECTION IN ACCORDANCE WITH LOCAL REQUIREMENTS AND THE METHODS STATED IN AWWA STANDARD C651 AND WITNESSED BY THE LOCAL GOVERNING AUTHORITY.
10. WATER SERVICE PIPING AND STRUCTURES SHALL BE FURNISHED AND INSTALLED IN ACCORDANCE WITH SUDAS DIVISION 5.
11. WATER SERVICE LINES 2 INCHES IN DIAMETER OR SMALLER SHALL BE POLYETHYLENE PIPE CONFORMING TO CLASS 200 IN ACCORDANCE WITH AWWA C901.
12. WATER SERVICE FITTINGS INCLUDING CORPORATION STOPS, SERVICE BOXES, AND BUFFALO BOXES SHALL BE FURNISHED IN ACCORDANCE WITH SUDAS DIVISION 5.
13. SERVICE BOXES SHALL BE OF SUFFICIENT LENGTH TO PERMIT THE TOP TO BE INSTALLED FLUSH WITH THE FINISHED GRADE.
14. VALVES, VALVE BOXES, OR VAULTS SHALL BE FURNISHED AND INSTALLED IN ACCORDANCE WITH SUDAS DIVISION 5.
15. PRESSURE CONNECTIONS TO THE EXISTING WATER MAIN SHALL BE CONSTRUCTED IN ACCORDANCE WITH SUDAS DIVISION 5 SPECIFICATIONS AND SHALL INCLUDE THE INSTALLATION OF A FULL STAINLESS STEEL TAPPING SADDLE.
16. TEMPORARY CONNECTIONS FOR CONSTRUCTION PURPOSES TO NEWLY INSTALLED OR EXISTING WATER MAINS SHALL BE MADE AND METERED IN ACCORDANCE WITH LOCAL REQUIREMENTS.
17. REQUIRED RIM ADJUSTMENTS SHALL BE MADE WITH PRECAST CONCRETE ADJUSTING RINGS NOT TO EXCEED A MAXIMUM OF EIGHT (8) INCHES IN OVERALL HEIGHT.
18. BENDS, TEES, AND CROSSES ON 4 INCH AND GREATER WATER LINES SHALL BE PROVIDED WITH THRUST BLOCKING OR RESTRAINED JOINTS PER SUDAS DIVISION 5 AND SUDAS CHAPTER 4.

STORM SEWER NOTES

- 1. STORM SEWER PIPE AND STRUCTURES SHALL BE FURNISHED AND INSTALLED IN ACCORDANCE WITH SUDAS DIVISIONS 4 AND 6.
2. ALL STORM SEWER CONSTRUCTION SHALL BE PERFORMED IN ACCORDANCE WITH THE NOTES IN THE PLANS AND THE STANDARDS, SPECIFICATIONS, CODES, AND ORDINANCES OF THE LOCAL GOVERNING AUTHORITIES.
3. REINFORCED CONCRETE PIPE SHALL BE CLASS III, PER ASTM C76 WITH TONGUE AND GROOVE JOINTS WRAPPED WITH ENGINEERING FABRIC.
4. HDPE STORM SEWER PIPE SHALL BE TYPE S CORRUGATED EXTERIOR AND SMOOTH INTERIOR HIGH DENSITY POLYETHYLENE PIPE PER AASHTO M294 WITH WATERTIGHT JOINTS CONFORMING TO ASTM D3212.
5. PVC STORM SEWER PIPE SHALL BE POLYVINYL CHLORIDE SDR 35 PIPE PER ASTM D3034 WITH WATERTIGHT JOINTS CONFORMING TO ASTM D3212, UNLESS OTHERWISE NOTED.
6. REQUIRED STORM STRUCTURE RIM ADJUSTMENTS SHALL BE MADE WITH ADJUSTING RINGS NOT TO EXCEED A MAXIMUM OF TWELVE (12) INCHES IN OVERALL HEIGHT.
7. CONTRACTOR SHALL CONNECT ALL DRAINS INTO STORM INTAKES. SUBDRAINS SHALL BE CAPPED INSIDE INTAKE WHERE SUBDRAIN IS DRAINING AWAY.

PAVEMENT GENERAL NOTES

- 1. SEE STRUCTURAL PLANS FOR ANY SPECIAL EXCAVATION AND FILL REQUIREMENTS.
2. LIMIT OPERATIONS TO THE PUBLIC RIGHT-OF-WAYS AND EASEMENTS OR INDICATED PROJECT LIMITS.
3. ALL SLOPES IN PAVEMENT SHALL BE UNIFORM TO AVOID PONDING.
4. REMOVE AND REPLACE OR RESTORE ALL STREET SIGNS, PAVEMENT MARKINGS, SIDEWALK LAMPS, SIDEWALKS, STEPS, LANDSCAPE STRUCTURES, CURB AND GUTTER, STREETS, DRIVES, AND ALL OTHER SURFACE STRUCTURES REMOVED OR OTHERWISE DAMAGED DURING THE COURSE OF THE WORK.
5. COMPACT SUBGRADE BENEATH PAVEMENTS IN ACCORDANCE WITH GRADING NOTES.
6. MODIFIED SUBBASE FOR PAVEMENTS SHALL MEET THE LIMITS OF GRADUATION NO. 14 IOWA DOT STANDARD SPECIFICATION FOR HIGHWAY AND BRIDGE CONSTRUCTION SECTION 4123.
7. ALL SIDEWALKS SHALL BE CONSTRUCTED PER SUDAS SECTION 7030.
8. ALL PCC PAVEMENT SHALL BE PROTECTED ACCORDING TO SUDAS SECTION 7010-3.04

PAVEMENT MARKING NOTES

- 1. PAINT PARKING STRIPING AND SIDEWALK CURBS TRAFFIC PER OWNER DIRECTION AND LOCAL CODES WHERE SHOWN ON

- PLANS. MINIMUM CURING TIME FOR PAVING SHALL BE 7 DAYS.
2. PAINT STRIPING PER LOCAL CODES WHERE SHOWN ON PLANS.
3. PAVEMENT MARKINGS SHALL BE FAST DRY TRAFFIC LANE MARKING PAINT CONFORMING TO IOWA DOT STANDARD SPECIFICATION FOR HIGHWAY AND BRIDGE CONSTRUCTION, LATEST EDITION, SECTION 4183.03.
4. PAINTING SHALL NOT BEGIN UNTIL PAVEMENT SURFACE HAS BEEN POWER BROOMED AND HAND SWEEP AS NECESSARY TO REMOVE LOOSE MATERIALS AND DIRT.
5. APPLY PAINT AT MANUFACTURER'S RECOMMENDED RATES IN TWO SEPARATE COATS FOR ALL PAVEMENT MARKINGS.

PCC PAVEMENT NOTES

- 1. CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 4000 PSI AT 28 DAYS WITH 6-1/2 PERCENT ± 1/2% AIR ENTERTAINMENT AND LIMESTONE AGGREGATE 1-1/2 INCH MAXIMUM SIZE.
2. CURBS SHALL BE CAST INTEGRAL WITH CONCRETE PAVEMENT UNLESS NOTED OTHERWISE.
3. THE CONTRACTOR SHALL PROVIDE THE ENGINEER A PAVEMENT POURING DIAGRAM TO THE OWNER AND ENGINEER FOR APPROVAL PRIOR TO PAVEMENT OPERATIONS.
4. ALL JOINT TYPES REFERRED TO IN THE FOLLOWING NOTES OR ELSEWHERE ON THE PLANS ARE DETAILED IN IOWA SUDAS STANDARD DETAIL 7010.101.
5. WHERE ACCESS DRIVES INTERSECT EACH OTHER OR WHERE ACCESS DRIVES INTERSECT PARKING AREAS, THE JOINTING PLAN SHALL BE CONSTRUCTED PER IOWA SUDAS STANDARD DETAIL 7010.904.
6. PAVEMENT LONGITUDINAL JOINTS SHALL BE TYPE "KT-1" OR "L-1", TYP.
7. PAVEMENT TRANSVERSE JOINTS SHALL BE TYPE "C", TYP.
8. ALL JOINTS, INCLUDING "KT" OR "L" TYPE JOINTS, SHALL BE SEALED PER IOWA SUDAS STANDARD DETAIL 7010.101 DETAIL "A" AND IOWA SUDAS STANDARD SPECIFICATION SECTION 3.02 K.
9. INSTALL 1 INCH EXPANSION JOINT AT ALL LOCATIONS WHERE PAVEMENT ABUTS A BUILDING, STOOP, OR BACK-OF-CURB.

SURFACE RESTORATION

- 1. ALL DISTURBED AREAS NOT PAVED OR HARD SURFACE ON THE SITE SHALL RECEIVE A MINIMUM OF 6 INCHES OF TOPSOIL.
2. CONTRACTOR IS RESPONSIBLE FOR ALL NECESSARY TEMPORARY SEEDING PER SUDAS SPECIFICATIONS. OWNER IS RESPONSIBLE FOR PERMANENT SEEDING AND LANDSCAPING.

UTILITY NOTE
THE LOCATIONS OF UTILITY MAINS, STRUCTURES, AND SERVICE CONNECTIONS PLOTTED ON THIS DRAWING ARE APPROXIMATE ONLY AND WERE OBTAINED FROM RECORDS MADE AVAILABLE TO SHIVE-HATTERY, INC. THERE MAY BE OTHER EXISTING UTILITY MAINS, STRUCTURES, AND SERVICE CONNECTIONS NOT KNOWN TO SHIVE-HATTERY, INC., AND NOT SHOWN ON THIS DRAWING.

LEGEND SURVEY
PLAN MARK DESCRIPTION
BM BENCH MARK
CP CONTROL POINT
IRON ROD - FOUND
IRON ROD - SET
SECTION CORNER FOUND
MONUMENT SET
X CUT FOUND
X CUT SET
RIGHT OF WAY MARKER
NAIL FOUND
NAIL SET
STATION MARKER
SOIL BORING
RECORD BEARING/DISTANCE
MEASURED BEARING/DISTANCE
POB POINT OF BEGINNING
POR POINT OF REFERENCE

LEGEND GENERAL SITE
PLAN MARK DESCRIPTION
EXISTING STRUCTURE
GUARD POST/ BOLLARD
MAILBOX
PARKING METER
FLAGPOLE
HANDICAPPED PARKING
SHRUB
DECIDUOUS TREE
CONIFEROUS TREE
SINGLE POLE SIGN
DOUBLE POLE SIGN
TRAFFIC SIGNAL WITH ARM
TRAFFIC SIGNAL
UTILITY MARKER
RAILROAD CROSSING SIGNAL
TRAFFIC MANHOLE
WIRE FENCE
WOOD FENCE
CHAINLINK FENCE
RAILROAD
GUARD RAIL
TREE LINE
MINOR CONTOUR
MAJOR CONTOUR

LEGEND UTILITY LINES
EXISTING LINE TYPE DESCRIPTION PROPOSED LINE TYPE
OE ELECTRIC - OVERHEAD
E ELECTRIC - UNDERGROUND
G GAS MAIN
W WATER MAIN
SANITARY SEWER
SANITARY FORCE MAIN
STORM SEWER
TELEPHONE - OVERHEAD
TELEPHONE - UNDERGROUND
OC CABLE LINE - OVERHEAD
C CABLE LINE - UNDERGROUND
FO FIBER OPTICS
PROCESS/HEATING STEAM

LEGEND UTILITIES
PLAN MARK DESCRIPTION
FLOODLIGHT
LIGHT POLE OVERHANG
LIGHT POST
SIREN POLE
UTILITY POLE
GUY ANCHOR
UTILITY POLE W/ TRANSFORMER
FIRE HYDRANT
FLARED END SECTION
UTILITY END CAP
VALVE
POST INDICATOR VALVE
CABLE TV PEDESTAL
CLEANOUT
JUNCTION BOX
FIBER OPTIC BOX
MANHOLE
DRAINAGE MANHOLE
ELECTRICAL MANHOLE
SANITARY MANHOLE
TELEPHONE MANHOLE
TELEPHONE PEDESTAL
VAULT BOX
MONITORING WELL
WATER MANHOLE
WATER IRRIGATION VALVE
WATER SHUTOFF VALVE
WATER METER
HANDHOLE
SIGNAL BOX
GAS METER
ELECTRIC METER
TRANSFORMER
AIR CONDITIONER
CURB INLET
INTAKE - CIRCLE
INTAKE - RECTANGLE
INTAKE - SQUARE
RA-3 INTAKE
RA-5 INTAKE
RA-8 INTAKE
YARD HYDRANT
FIRE DEPARTMENT VALVE
GAS REGULATOR
ROOF DOWNSPOUT

LEGEND GENERAL SITE DESIGN
PLAN MARK DESCRIPTION
SPOT ELEVATION
TOP OF CURB AND GUTTER ELEVATION
SLOPE ARROW
FLOW ARROW
TRAFFIC FLOW
SILT FENCE
LIMITS
LEFT-TURN ARROW
RIGHT-TURN ARROW
THRU ARROW
LEFT/THRU ARROW
RIGHT/THRU ARROW
LEFT/RIGHT/THRU ARROW

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SHIVE-HATTERY ARCHITECTURE + ENGINEERING
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CEDAR RIVER CROSSING & SUTLIFF BRIDGE - WEST AREA IMPROVEMENTS
JOHNSON COUNTY CONSERVATION
5473 SUTLIFF ROAD NE, SOLON, IOWA 52333

PRELIMINARY - NOT FOR CONSTRUCTION

DRAWN: MLH
APPROVED: JMR
ISSUED FOR: BID
DATE: 11/19/2021
PROJECT NO: 421460
FIELD BOOK:
CLIENT NO:
CIVIL GENERAL NOTES & LEGENDS

CIVIL GENERAL NOTES & LEGENDS

C002

SURVEY CONTROL POINTS

NOTE: SEE THIS SHEET FOR CONTROL POINT (CP) LOCATIONS

1. CP#1

DESCRIPTION: 5/8" REBAR ON SOUTH SIDE OF SUTLIFF ROAD NE. 5.5 FEET SOUTH OF THE SOUTH EDGE OF PAVEMENT. 120± WEST OF THE ENTRANCE OF THE COUNTY CONSERVATION SITE AND 23 FEET NORTH OF SIGN.

N: 677569.83' ELEV: 692.51'
E: 2212945.93'

2. CP#2

DESCRIPTION: 5/8" REBAR AT EAST END OF CONSERVATION SITE NEAR THE WEST END OF THE SUTLIFF BRIDGE. 10 FEET SOUTH OF THE SOUTH EDGE OF EXISTING TRAIL, 46 FEET WEST OF THE SOUTHWEST CORNER OF THE SUTLIFF BRIDGE AND 50 FEET WEST OF THE NORTHWEST CORNER OF THE SUTLIFF BRIDGE.

N: 677447.72' ELEV: 684.51'
E: 2214091.69'

3. CP #4



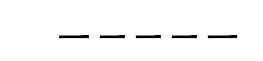
DESCRIPTION: 5/8" REBAR ON NORTH SIDE OF SUTLIFF ROAD NE WEST OF THE ENTRANCE TO THE JOHNSON COUNTY CONSERVATION MAINTENANCE BUILDING. 10 FEET NORTH OF THE NORTH EDGE OF SUTLIFF ROAD NE, 25 FEET WEST OF THE WEST EDGE OF DRIVE PAVEMENT, AND 75 FEET SOUTHWEST OF POWER POLE.

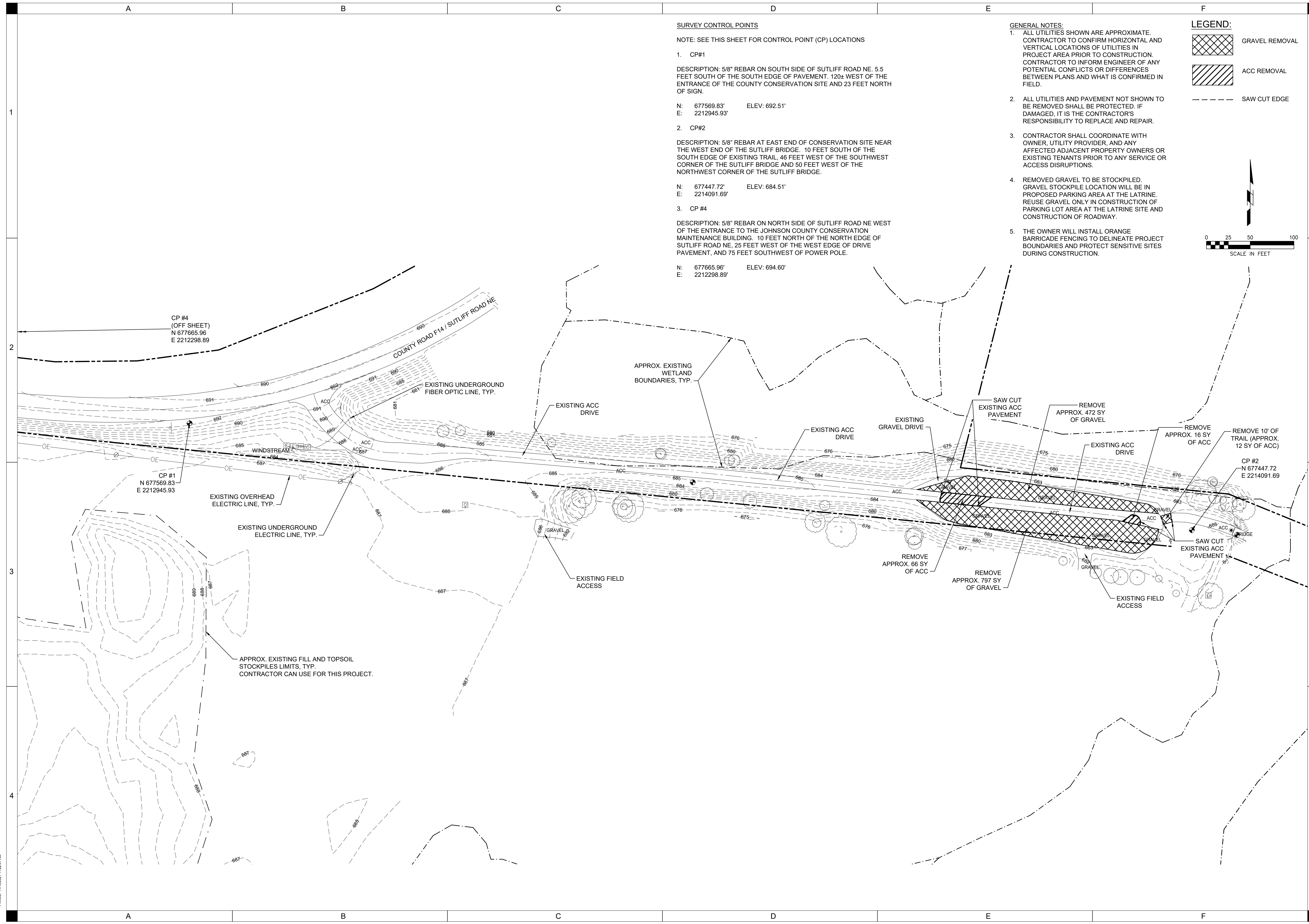
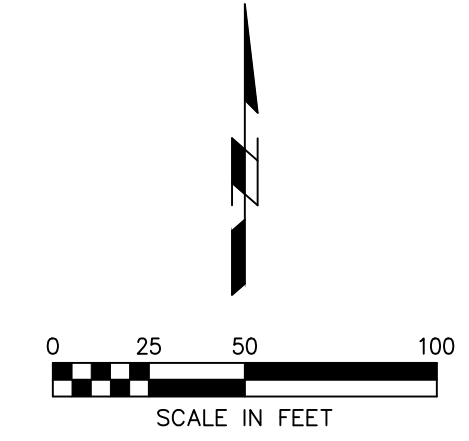
N: 677665.96' ELEV: 694.60'
E: 2212298.89'

GENERAL NOTES:

- ALL UTILITIES SHOWN ARE APPROXIMATE. CONTRACTOR TO CONFIRM HORIZONTAL AND VERTICAL LOCATIONS OF UTILITIES IN PROJECT AREA PRIOR TO CONSTRUCTION. CONTRACTOR TO INFORM ENGINEER OF ANY POTENTIAL CONFLICTS OR DIFFERENCES BETWEEN PLANS AND WHAT IS CONFIRMED IN FIELD.
- ALL UTILITIES AND PAVEMENT NOT SHOWN TO BE REMOVED SHALL BE PROTECTED. IF DAMAGED, IT IS THE CONTRACTOR'S RESPONSIBILITY TO REPLACE AND REPAIR.
- CONTRACTOR SHALL COORDINATE WITH OWNER, UTILITY PROVIDER, AND ANY AFFECTED ADJACENT PROPERTY OWNERS OR EXISTING TENANTS PRIOR TO ANY SERVICE OR ACCESS DISRUPTIONS.
- REMOVED GRAVEL TO BE STOCKPILED. GRAVEL STOCKPILE LOCATION WILL BE IN PROPOSED PARKING AREA AT THE LATRINE. REUSE GRAVEL ONLY IN CONSTRUCTION OF PARKING LOT AREA AT THE LATRINE SITE AND CONSTRUCTION OF ROADWAY.
- THE OWNER WILL INSTALL ORANGE BARRICADE FENCING TO DELINEATE PROJECT BOUNDARIES AND PROTECT SENSITIVE SITES DURING CONSTRUCTION.

LEGEND:

-  GRAVEL REMOVAL
-  ACC REMOVAL
-  SAW CUT EDGE



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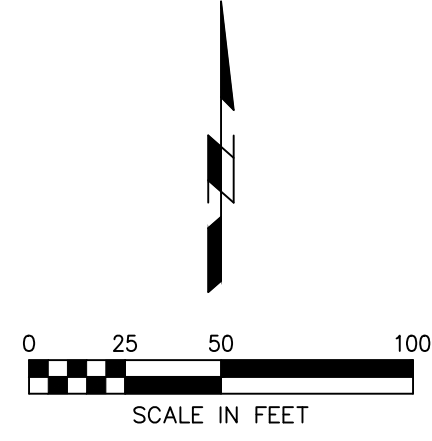
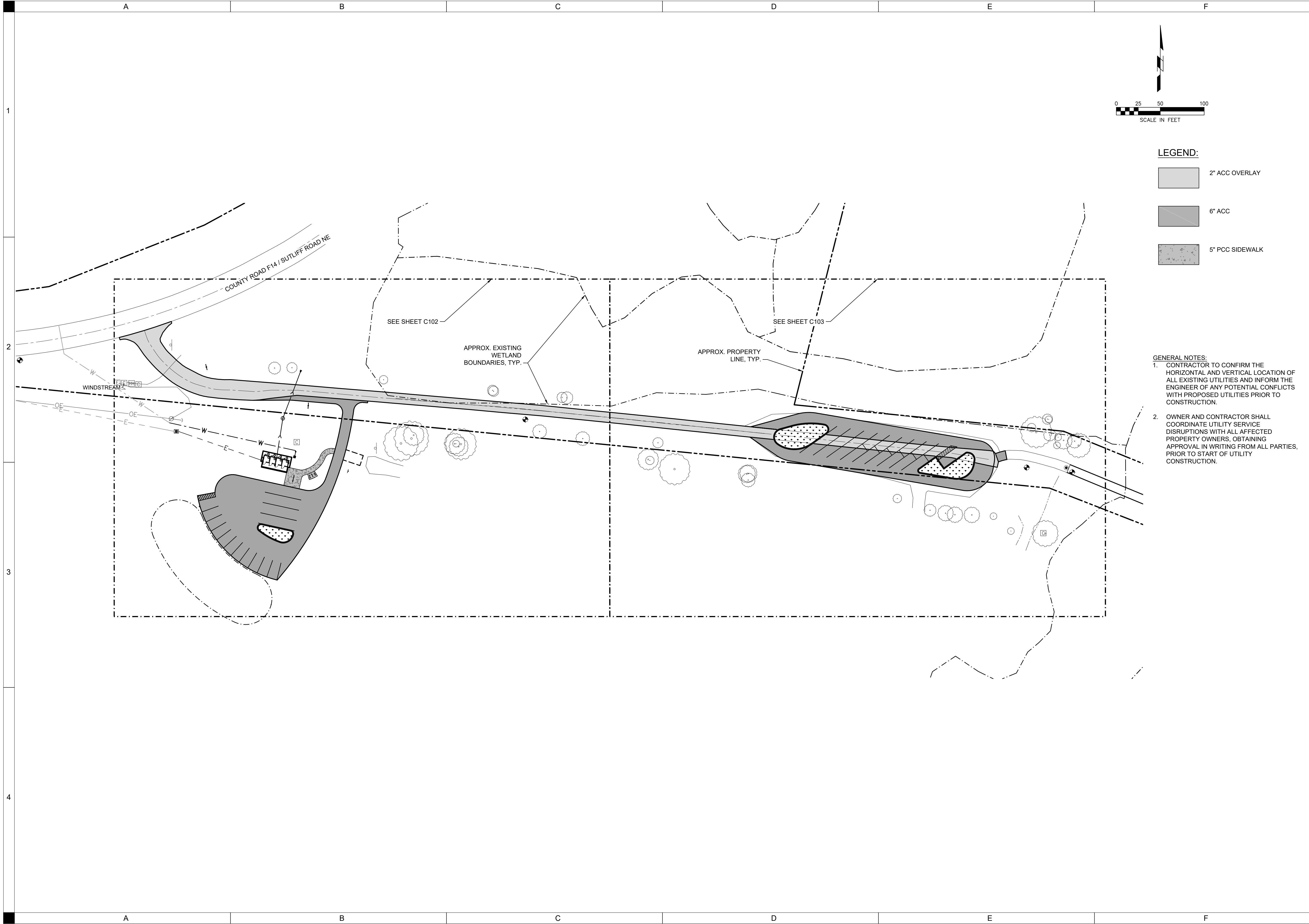
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| APPROVED: | JMR |
| ISSUED FOR: | BID |
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| FIELD BOOK: | -- |
| CLIENT NO.: | -- |

EXISTING CONDITIONS & DEMOLITION PLAN

CD01

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LEGEND:

- 2" ACC OVERLAY
- 6" ACC
- 5" PCC SIDEWALK

GENERAL NOTES:

1. CONTRACTOR TO CONFIRM THE HORIZONTAL AND VERTICAL LOCATION OF ALL EXISTING UTILITIES AND INFORM THE ENGINEER OF ANY POTENTIAL CONFLICTS WITH PROPOSED UTILITIES PRIOR TO CONSTRUCTION.
2. OWNER AND CONTRACTOR SHALL COORDINATE UTILITY SERVICE DISRUPTIONS WITH ALL AFFECTED PROPERTY OWNERS. OBTAINING APPROVAL IN WRITING FROM ALL PARTIES. PRIOR TO START OF UTILITY CONSTRUCTION.

SITE PLAN -
OVERALL

C101

**PRELIMINARY
- NOT FOR
CONSTRUCTION**

| | |
|--------------|------------|
| DRAWN: | M/LH |
| APPROVED: | JMR |
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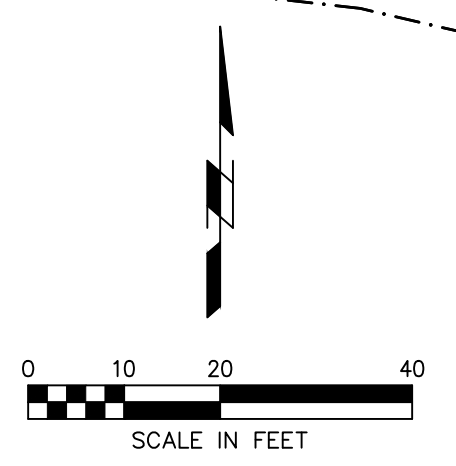
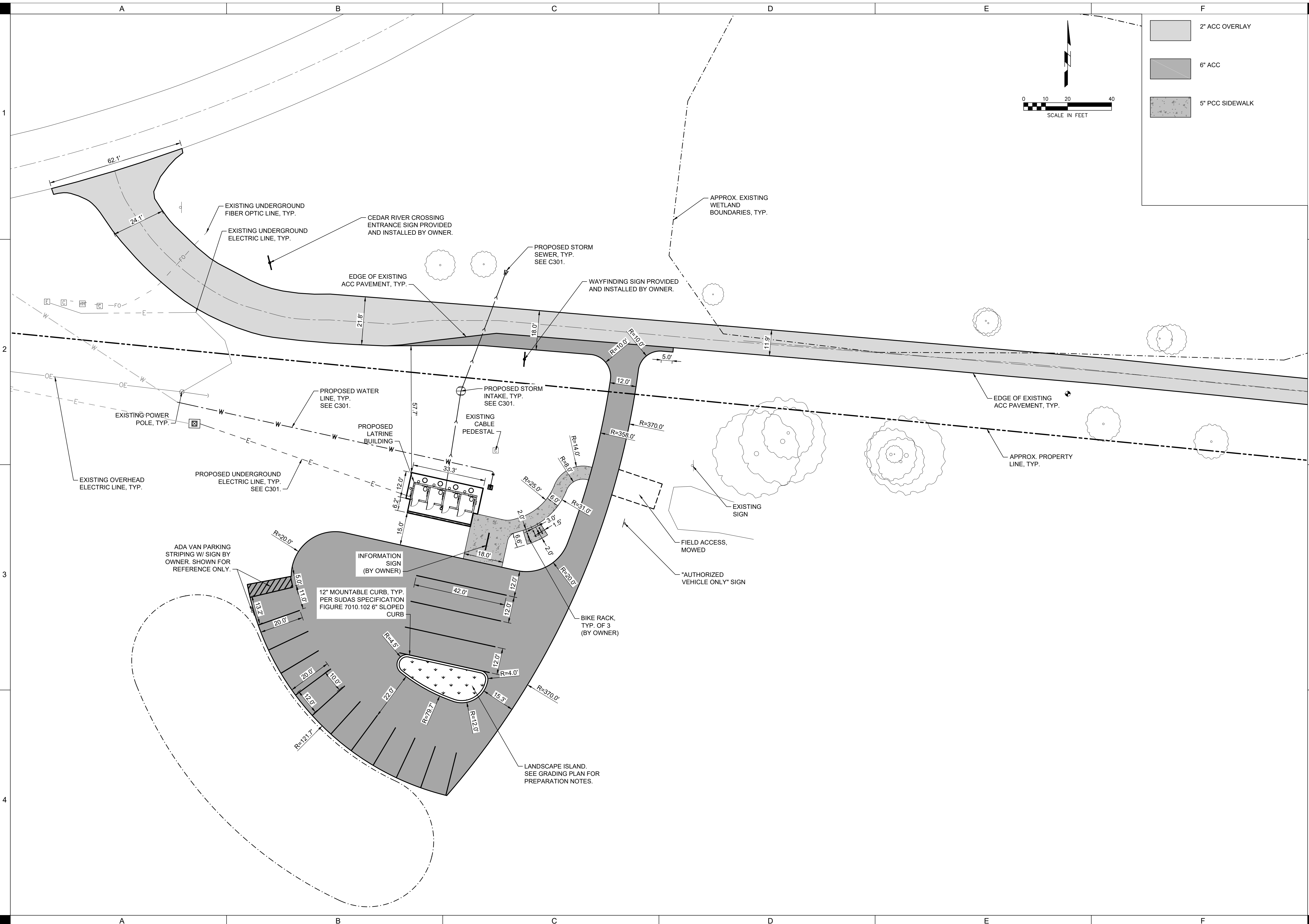
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- 2" ACC OVERLAY
- 6" ACC
- 5" PCC SIDEWALK

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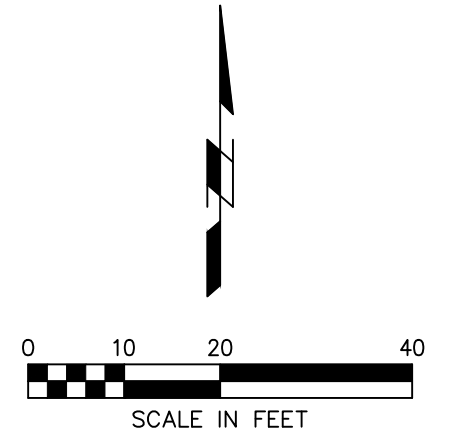
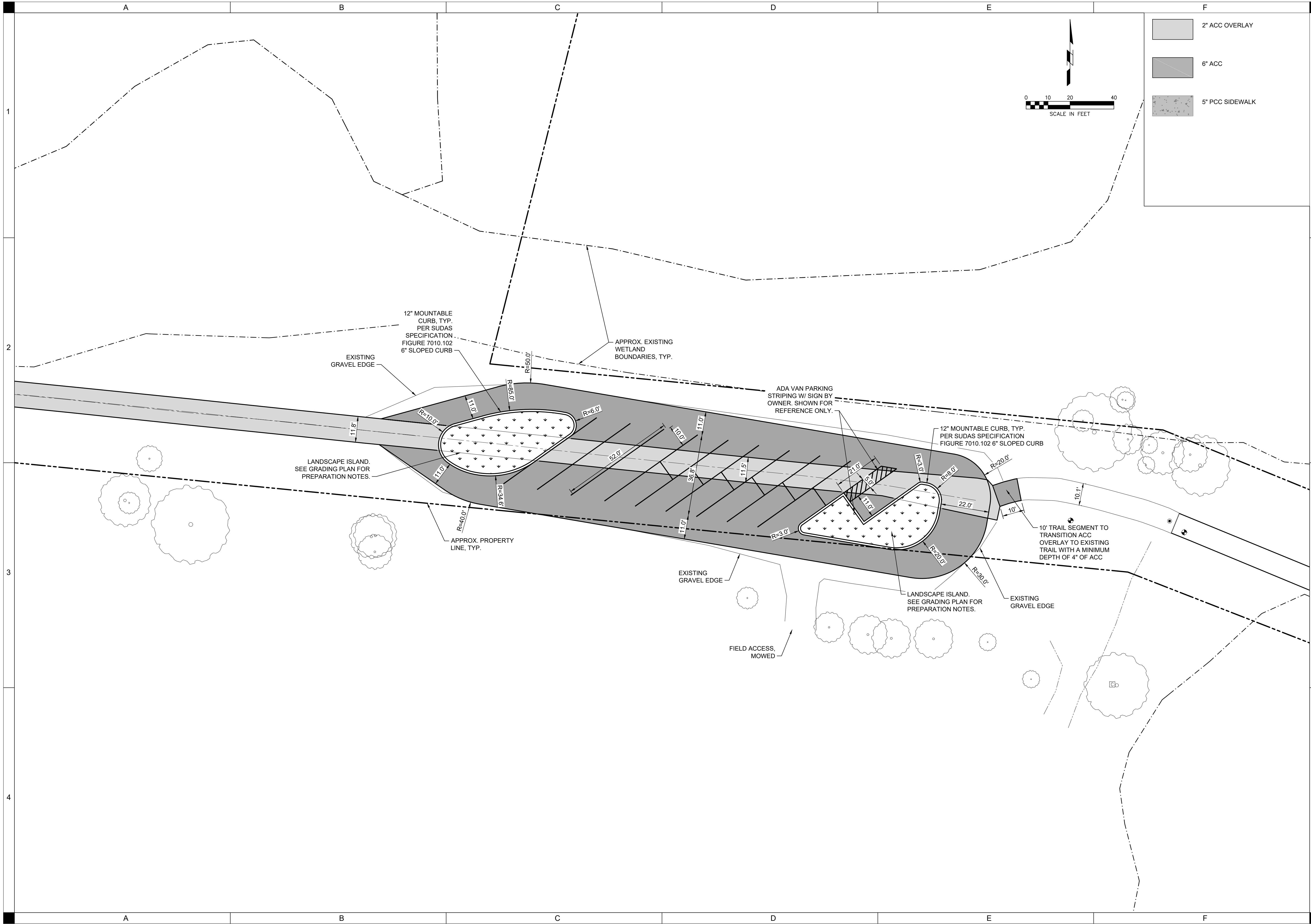
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SITE PLAN - WEST
C102

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2' ACC OVERLAY

6' ACC

5' PCC SIDEWALK

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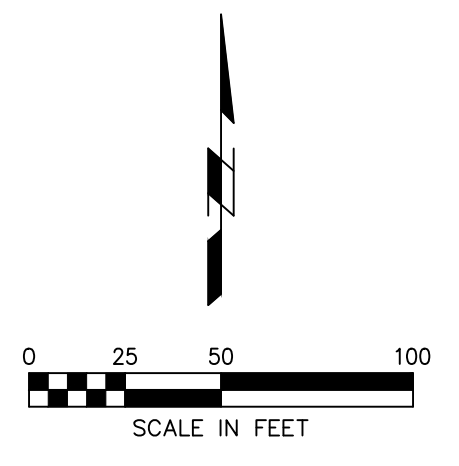
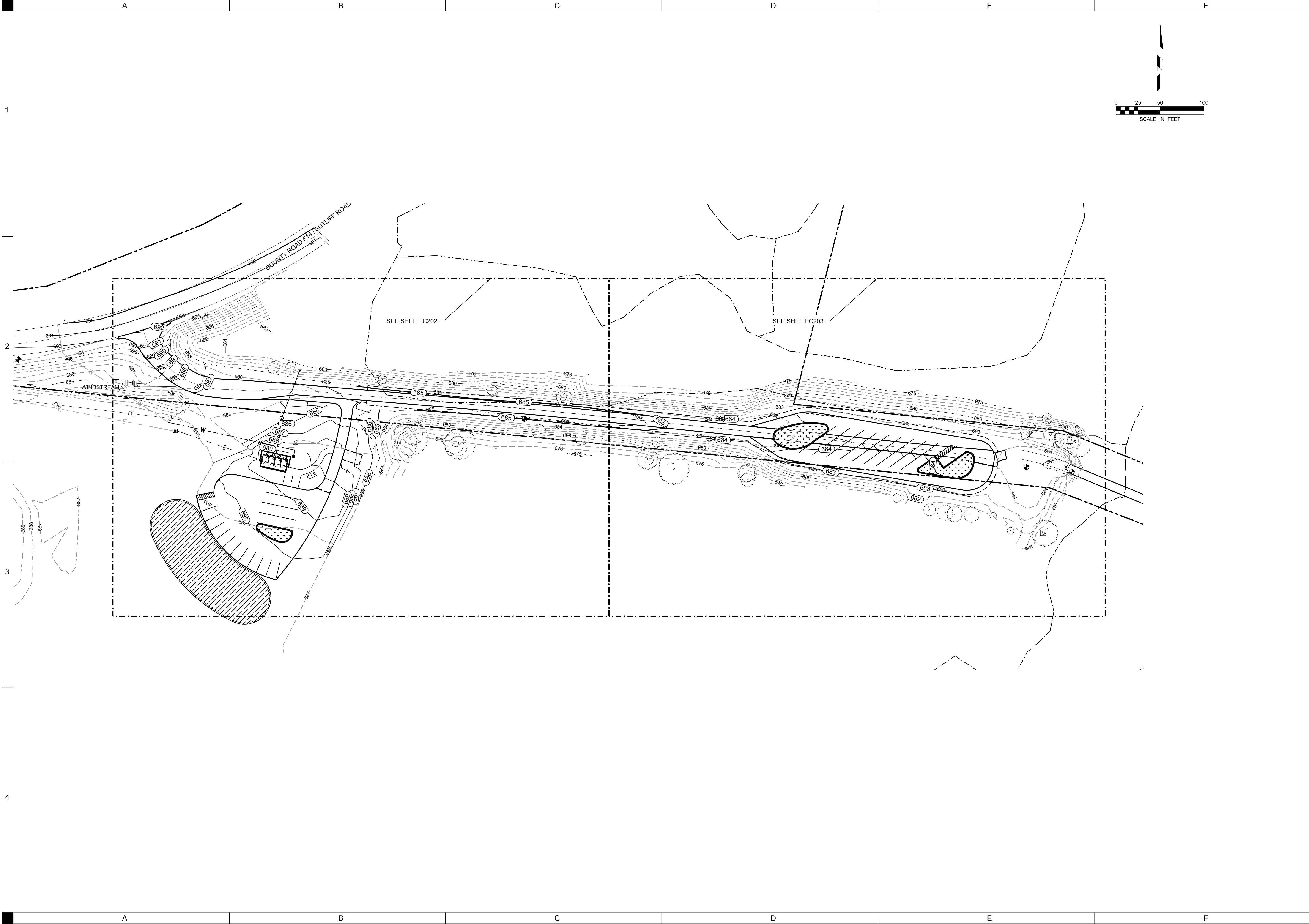
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SITE PLAN - EAST

C103

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GRADING PLAN -
OVERALL

C201

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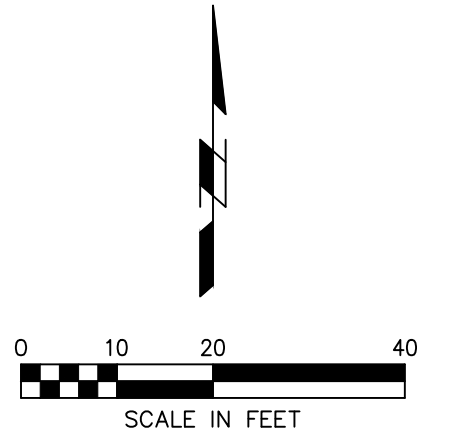
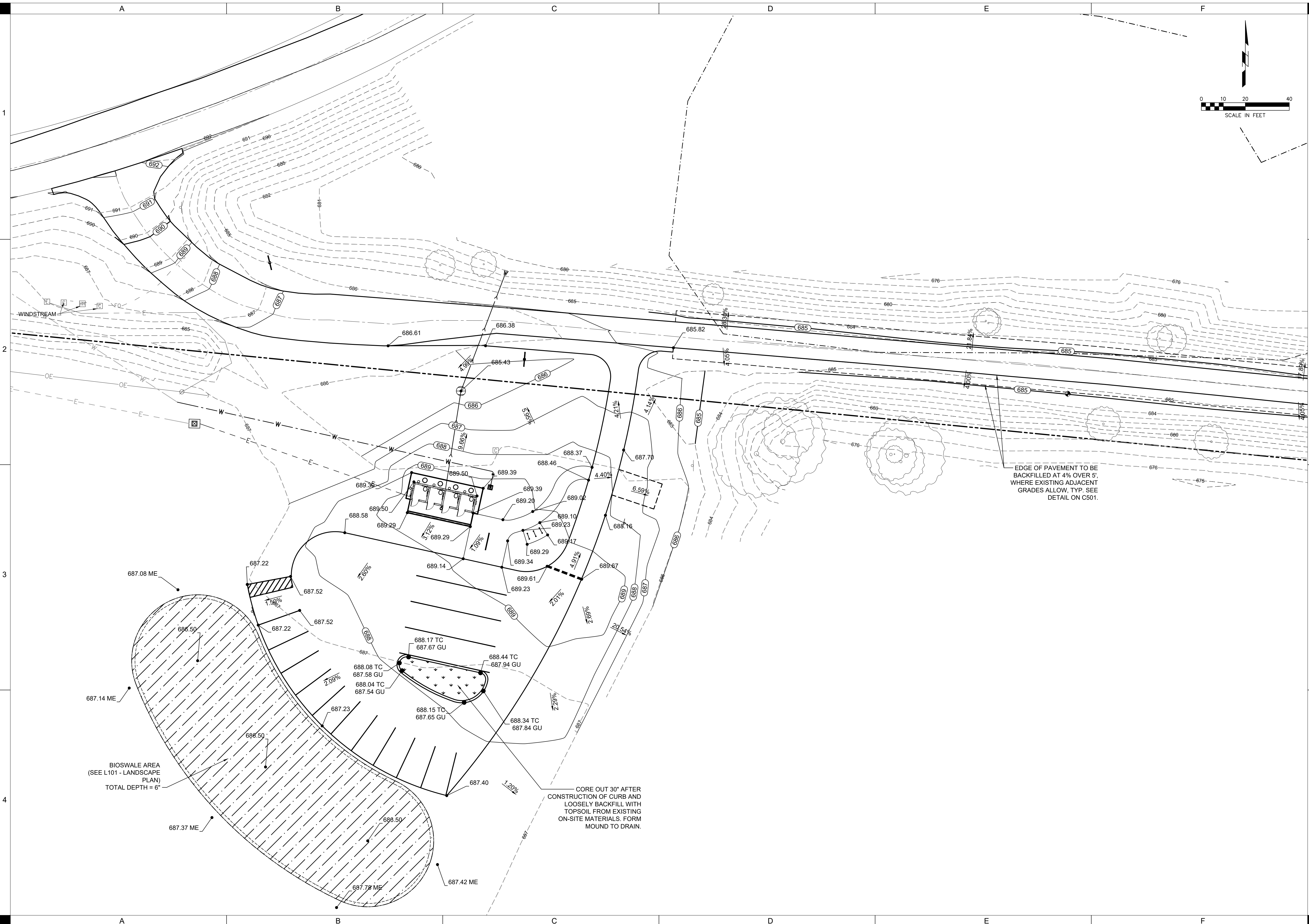
**CEDAR RIVER CROSSING & SUTLIFF
BRIDGE - WEST AREA IMPROVEMENTS**

JOHNSON COUNTY CONSERVATION
5473 SUTLIFF ROAD NE, SOLON, IOWA 52333

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GRADING PLAN -
WEST
C202

**CEDAR RIVER CROSSING & SUTLIFF
BRIDGE - WEST AREA IMPROVEMENTS**

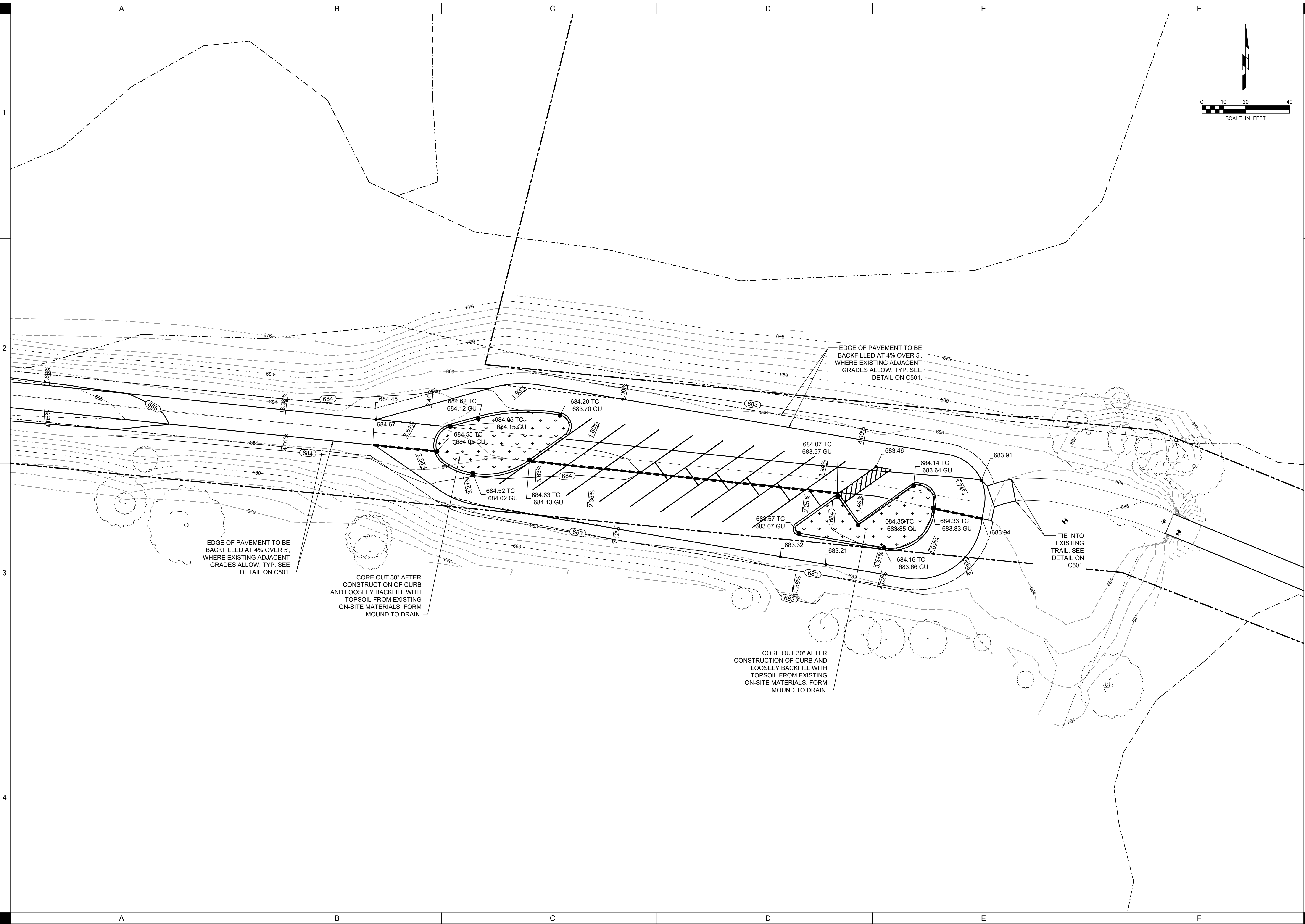
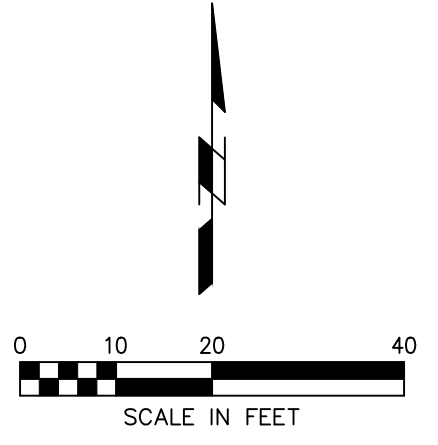
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GRADING PLAN -
EAST

C203



EDGE OF PAVEMENT TO BE
BACKFILLED AT 4% OVER 5',
WHERE EXISTING ADJACENT
GRADES ALLOW. TYP. SEE
DETAIL ON C501.

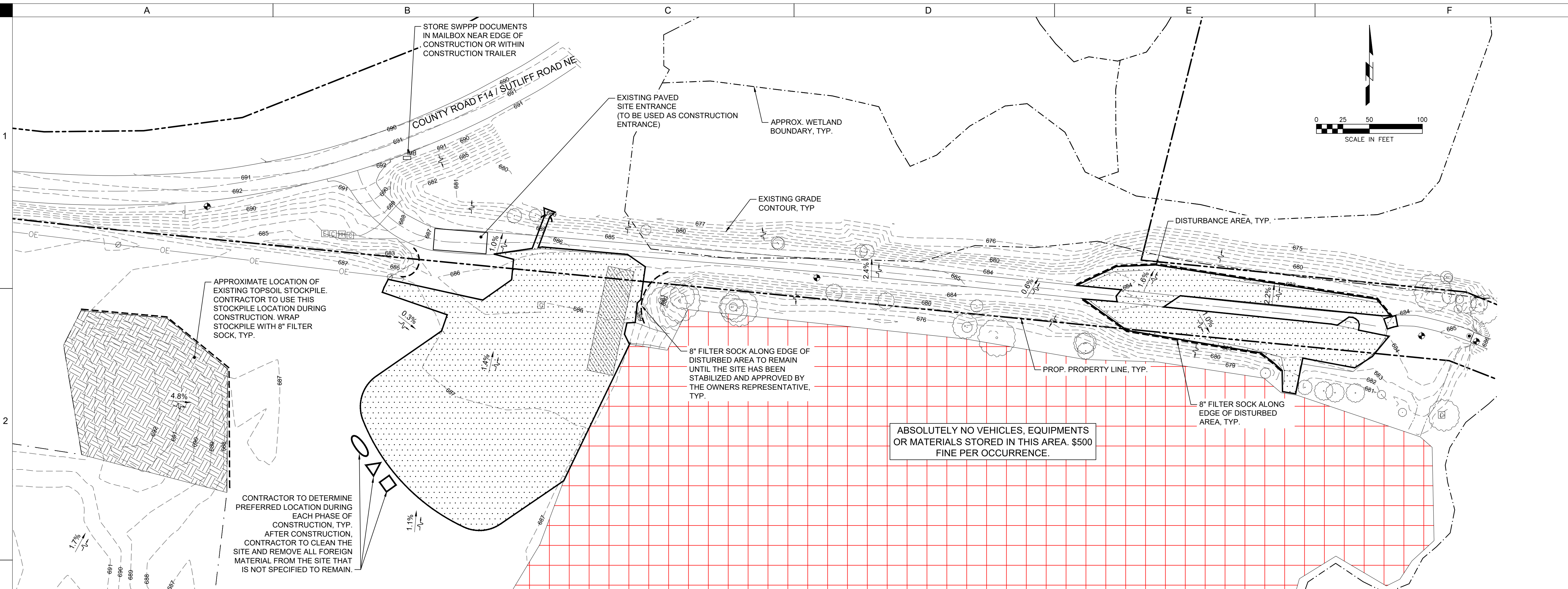
CORE OUT 30" AFTER
CONSTRUCTION OF CURB
AND LOOSELY BACKFILL WITH
TOPSOIL FROM EXISTING
ON-SITE MATERIALS. FORM
MOUND TO DRAIN.

CORE OUT 30" AFTER
CONSTRUCTION OF CURB AND
LOOSELY BACKFILL WITH
TOPSOIL FROM EXISTING
ON-SITE MATERIALS. FORM
MOUND TO DRAIN.

EDGE OF PAVEMENT TO BE
BACKFILLED AT 4% OVER 5',
WHERE EXISTING ADJACENT
GRADES ALLOW. TYP. SEE
DETAIL ON C501.

TIE INTO
EXISTING
TRAIL. SEE
DETAIL ON
C501.

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STORMWATER POLLUTION PREVENTION PLAN - PRE-DURING CONSTRUCTION

C250

STORMWATER POLLUTION PREVENTION NOTES

- EROSION/ SEDIMENTATION CONTROL MEASURES SHOULD BE INSTALLED BEFORE EARTH DISTURBING ACTIVITIES BEGIN AND ARE REQUIRED REGARDLESS OF THE TIME OF YEAR. THIS PLAN AND ITS ASSOCIATED REQUIREMENTS FOR THE PERMIT MUST BE IMPLEMENTED DURING WINTER MONTHS AS WELL.
- IT IS THE CONTRACTOR'S RESPONSIBILITY TO CONTROL EROSION/SEDIMENTATION ON THE SITE AT ALL TIMES. THE CONTROL MEASURES SHOWN ON THE PLAN ARE A MINIMUM. THE CONTRACTOR SHALL PROVIDE ADDITIONAL EROSION/SEDIMENTATION CONTROL MEASURES AS NECESSARY TO FULFILL THIS REQUIREMENT. CONTRACTOR IS REQUIRED TO MAINTAIN SWPPP DOCUMENTATION.
- THE CONTRACTOR IS REQUIRED TO USE STABILIZATION CONTROLS FOR AREAS THAT WILL NOT BE REDISTURBED FOR 14 DAYS OR MORE. STABILIZATION MEASURES WILL BE IMPLEMENTED IMMEDIATELY AFTER CONSTRUCTION ACTIVITY HAS CEASED IN THAT AREA. STABILIZATION MEASURES ARE REQUIRED TO PREVENT BOTH SEDIMENTATION AND EROSION. THE CONTRACTOR IS STRONGLY ENCOURAGED TO PROVIDE STABILIZATION CONTROLS FOR ALL DISTURBED AREAS ON SITE REGARDLESS OF THE TIME PERIOD BEFORE THEY WILL BE DISTURBED AGAIN. THE CONTRACTOR SHALL SEED DISTURBED AREAS AS SOON AS WORK IS COMPLETED AS INDICATED ON THE PLANS AND PROJECT MANUAL.
- THE CONTRACTOR SHALL USE CONTROL MEASURES AS REQUIRED TO KEEP SOILS FROM LEAVING THE SITE.
- CONTRACTOR SHALL IMPLEMENT SITE SPECIFIC BEST MANAGEMENT PRACTICES (BMPs) AS SHOWN AND REQUIRED BY THE SWPPPS/ESCC. ADDITIONAL BEST MANAGEMENT PRACTICES SHALL BE IMPLEMENTED BY THE CONTRACTOR AS DICTATED BY SITE CONDITIONS OR THE PROJECT GOVERNING AUTHORITIES AT NO ADDITIONAL COST TO THE OWNER THROUGHOUT ALL PHASES OF CONSTRUCTION.
- IF AFTER REPEATED FAILURE ON THE PART OF THE CONTRACTOR TO PROPERLY CONTROL SOIL EROSION, SEDIMENT AND/OR POLLUTION FROM THE PROJECT SITE, THE GOVERNING AUTHORITIES RESERVE THE RIGHT TO EFFECT NECESSARY CORRECTIVE MEASURES AND CHARGE ANY COSTS TO THE CONTRACTOR.
- ALL BMPs AND CONTROLS SHALL CONFORM TO THE APPLICABLE FEDERAL, STATE, OR LOCAL REQUIREMENTS, STANDARDS, AND SPECIFICATIONS OR MANUAL OF PRACTICE.
- ALL BMPs AND CONTROLS INSTALLED ON GREEN INFRASTRUCTURE SHALL REMAIN UNTIL STABILIZATION IS APPROVED BY THE OWNER.
- IN THE EVENT THAT SOILS LEAVE THE SITE, CLEANUP OF ALL SURROUNDING ROADS, DRIVES, AND PARKING LOTS SHALL BE PERFORMED ON A DAILY BASIS AT A MINIMUM AND UPON REQUEST BY OWNER'S REPRESENTATIVE AT NO ADDITIONAL COST. PAVEMENT IS TO BE SCRAPED OF DEBRIS AND MUD AND BROOMED CLEAN. MUD TRACKS ARE TO BE REMOVED AS THEY ARE CREATED.
- IF DURING CONSTRUCTION OPERATIONS ANY LOOSE MATERIALS ARE DEPOSITED IN THE FLOW LINE OF GUTTERS, DRAINAGE STRUCTURES, OR DITCHES SUCH

- THAT THE NATURAL FLOW LINE OF WATER IS OBSTRUCTED, THIS LOOSE MATERIAL SHALL BE REMOVED.
- ALL SEDIMENT SHALL BE PREVENTED FROM ENTERING ANY EXISTING STORM DRAINAGE SYSTEMS BY THE USE OF INLET PROTECTION OR OTHER APPROVED FUNCTIONAL METHODS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING SEDIMENT RESULTING FROM CONSTRUCTION ACTIVITIES ASSOCIATED WITH THIS PROJECT.
- CONSTRUCTION ACCESS POINTS TO THE SITE SHALL BE PROTECTED IN SUCH A WAY AS TO PREVENT TRACKING OF MUD OR SOIL ONTO PUBLIC THOROUGHFARES. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHTS-OF-WAY MUST BE REMOVED IMMEDIATELY BY THE CONTRACTOR.
- MAINTAIN SILT FENCING AT ALL TIMES IN AN UPRIGHT POSITION. CLEAN SILT FROM FENCING ON A REGULAR BASIS AS PER THE STANDARD SPECIFICATIONS. SILT FENCES MUST BE CLEANED OUT WHEN THEY ARE 50% FULL.
- CONTRACTOR TO LOCATE/ RELOCATE SILT FENCING/ FILTER SOCKS AS NECESSARY THROUGHOUT THE PROJECT TO CONTROL EROSION/SEDIMENTATION. SILT FENCE INSTALLATION IS TO FOLLOW SUDAS 9040.119. FILTER SOCK INSTALLATION IS TO FOLLOW SUDAS 9040.102.
- REMOVE ALL TEMPORARY EROSION/SEDIMENTATION CONTROLS NOT CALLED OUT TO REMAIN AFTER SITE HAS BEEN STABILIZED AND APPROVED BY THE OWNER'S REPRESENTATIVE. OWNER WILL REMOVE SILT FENCE AFTER SITE HAS STABILIZED.
- CONTRACTOR TO USE EXTREME CAUTION WHILE INSTALLING SILT FENCE OR OTHER EROSION CONTROL DEVICES SO AS NOT TO DAMAGE UNDERGROUND UTILITIES.
- EROSION CONTROL BLANKETS SHALL BE USED IN AREAS OF 4:1 SLOPE OR STEEPER AND ANY AREAS STABILIZED IN THE FALL FOR OVERWINTERING. OWNER WILL FURNISH AND INSTALL ALL EROSION CONTROL BLANKET AND SEEDING AFTER THE SITE IS FINAL GRADED AND SEEDED. OWNER WILL SEED ALL COVER CROPS AND PERMANENT VEGETATION.
- SANITARY WASTE DISPOSAL: PORTABLE REST ROOM FACILITIES ARE ANTICIPATED TO BE PLACED ON-SITE. IN THE EVENT THAT PORTABLE REST ROOM FACILITIES ARE USED ON-SITE, THE CONTRACTOR IS REQUIRED TO INSTALL AN EROSION CONTROL DEVICE AROUND THE FACILITY TO MINIMIZE THE RADIUS OF THE AFFECTED ZONE IN THE EVENT OF A SPILL. WASTES SHALL BE COLLECTED AND DISPOSED OF IN COMPLETE COMPLIANCE WITH LOCAL, STATE AND FEDERAL REGULATIONS. PORTABLE RESTROOM FACILITIES MUST NOT BE LOCATED NEAR DRAINAGE WAYS AND SHALL BE STAKED INTO THE GROUND.
- IDENTIFICATION OF ALLOWABLE NON-STORMWATER DISCHARGES: DURING CONSTRUCTION, WHICH INCLUDES WATER FLUSHED FROM WATER LINES, PAVEMENT AND EQUIPMENT WASHING, AND GROUNDWATER (DEWATERING), SHOULD BE FILTERED WITH APPROPRIATE METHODS AND DIRECTED AWAY FROM DRAINAGE WAY.

- POLLUTION AND SPILL PREVENTION PLANNING: POTENTIALLY HAZARDOUS MATERIALS ON THE CONSTRUCTION SITE INCLUDE FUEL, LUBRICANTS, CURING COMPOUNDS, FERTILIZERS, GREASE AND CLEANING SOLVENTS. ALL REASONABLE PRECAUTIONS WILL BE TAKEN TO PREVENT SPILLS. ANY SPILLED MATERIAL WILL IMMEDIATELY BE DIRECTED AWAY FROM STORM WATER INTAKES, DETENTION BASINS, OR DRAINAGE WAYS. SPILLED MATERIALS WILL BE CLEANED AND, IF NECESSARY, SOIL REMEDIATION PRACTICES WILL BE USED, A RECORD OF SPILLS WILL BE MAINTAINED BY THE MAIN CONTRACTOR.
- CONCRETE, PAINT AND GROUT WASHOUT AREA: THE WASHOUT AREA SHOULD BE AN APPROVED CONCRETE WASHOUT CONTAINER, COLLECTION BAG, OR WASHOUT BOX PER SUDAS 11.050. PROTECT WITH AN EROSION CONTROL DEVICE (IF USING FILTER SOCKS, STACK TWO (2) TALL). CONTRACTOR TO HAUL OFF ALL WASTE MATERIAL. ALL LOCATIONS OF CONCRETE, PAINT AND GROUT WASHOUT AREAS MUST BE PROVIDED BY THE CONTRACTOR AND IDENTIFIED ON THE PLAN (RELOCATE AS REQUIRED FOR CONSTRUCTION). THE CONTRACTOR IS REQUIRED TO INSTALL A SIGN THAT DESIGNATES THE WASHOUT AREA.
- SPILL KIT: A SPILL KIT IS REQUIRED TO BE ON-SITE AND LOCATION NOTED ON THE STORMWATER POLLUTION PREVENTION PLAN. THE SPILL KIT SHOULD BE DESIGNED TO DEAL WITH ANY HAZARDOUS MATERIALS ON-SITE.
- DUST CONTROL: THE CONTRACTOR SHALL IMPLEMENT DUST CONTROL MEASURES WHERE DUST IS GENERATED. FREQUENT WATERING OF THE SITE, SPRINKLED, VEGETATIVE COVER, MULCH, WINDBREAKS, TILLAGE, STONE AND SPRAY-ON CHEMICAL SOIL TREATMENTS (PALLIATIVES) ARE POSSIBLE DUST CONTROL MEASURES. IF THE DUST CONTROL IS NOT ACCEPTABLE IT SHALL BE CHANGED AS DIRECTED BY THE OWNER'S REPRESENTATIVE.
- STOCKPILED MATERIALS: CONTRACTOR TO IDENTIFY ALL LOCATIONS OF STOCKPILED MATERIALS ON THE STORMWATER POLLUTION PREVENTION PLAN. CONTRACTOR SHALL PROVIDE ALL EROSION/SEDIMENTATION CONTROLS AS REQUIRED TO CONTAIN MATERIALS ON-SITE. AT A MINIMUM, THE CONTRACTOR IS REQUIRED TO PROVIDE SILT FENCE/FILTER SOCKS AROUND STOCKPILED SOILS BEFORE STOCKPILE IS RE-SPREAD. IF STOCKPILE SOILS WILL REMAIN INACTIVE FOR 14 DAYS OR MORE, THEY SHALL BE SEEDED OR TARPED BY THE CONTRACTOR.
- THE CONTRACTOR SHALL AMEND THE SWPPP WHENEVER THERE IS A CHANGE IN DESIGN, CONSTRUCTION, OPERATION OR MAINTENANCE OF A STORMWATER BMP.

THE CONTRACTOR IS THE CO-APPLICANT FOR THE NPDES PERMIT AND IS REQUIRED TO DO ALL REQUIRED RECORD KEEPING. ALL RECORDS SHALL BE SUBMITTED TO THE OWNER'S REPRESENTATIVE AS THEY ARE PRODUCED.

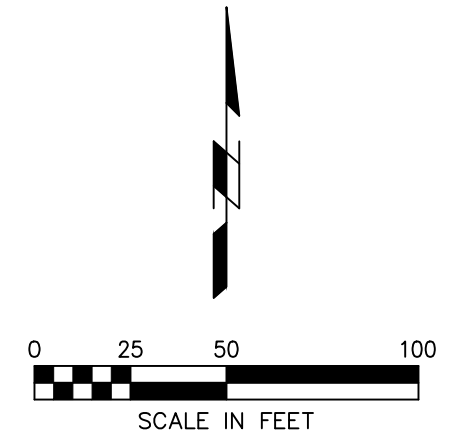
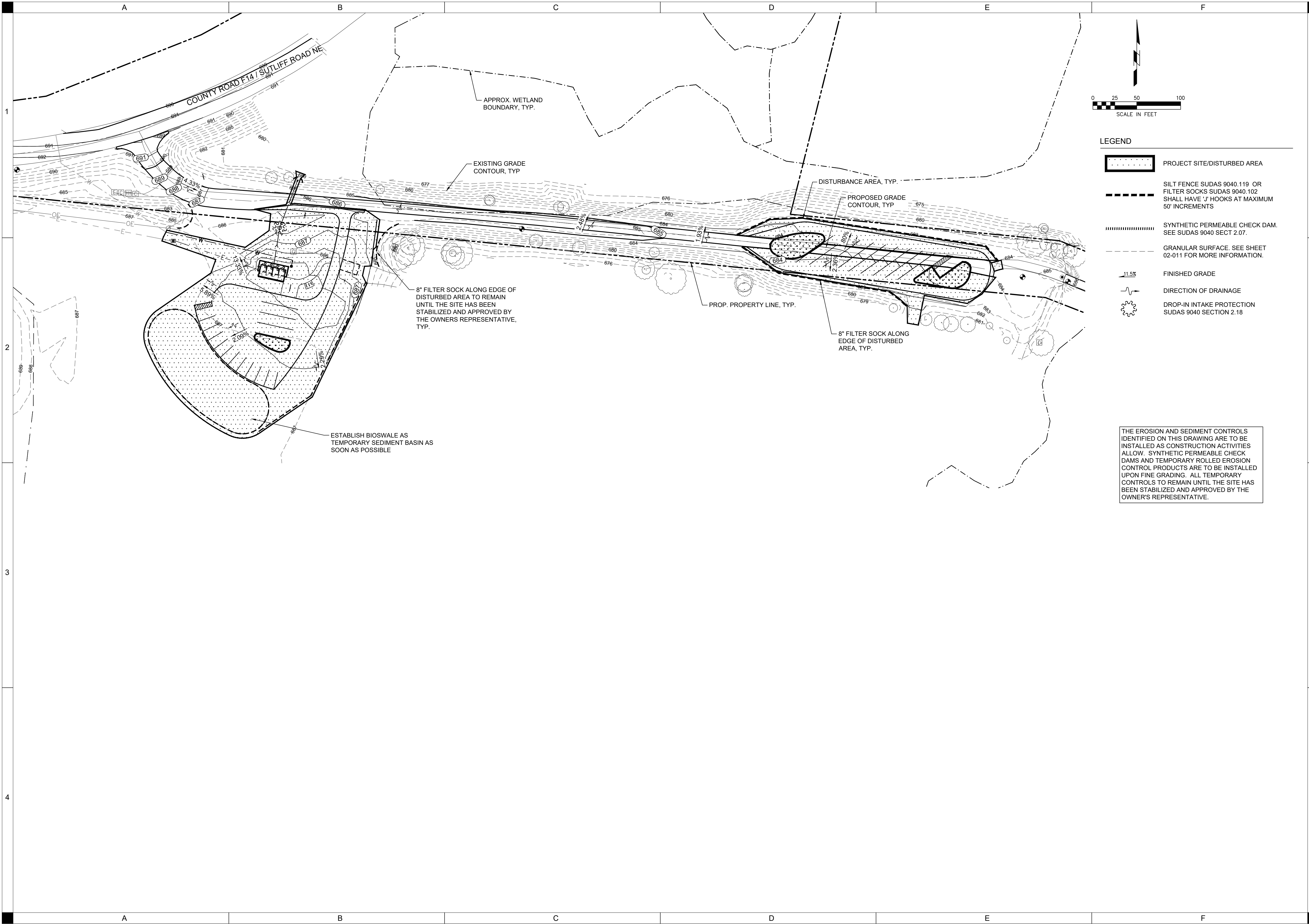
SITE INFORMATION
TOTAL DISTURBED AREA: 1.40 AC

THE SEDIMENT CONTROLS IDENTIFIED ON THIS DRAWING MUST BE INSTALLED PRIOR TO SOIL-DISTURBING ACTIVITIES AND ARE TO REMAIN THROUGHOUT CONSTRUCTION. THESE ITEMS INCLUDE, BUT ARE NOT LIMITED TO, PERIMETER CONTROLS, STABILIZED CONSTRUCTION ENTRANCES, INTAKE PROTECTION, AREAS OF CONCENTRATED FLOW AND STOCKPILE PROTECTION.




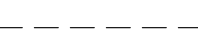
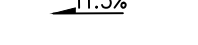
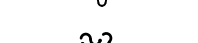
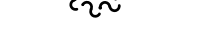
CONTRACTOR IS TO KEEP ALL CONSTRUCTION EQUIPMENT AND GRADING OR DISTURBANCE OFF OF SLOPES ALONG ALL ROADWAYS

LEGEND

- PROJECT SITE/DISTURBED AREA
- SILT FENCE SUDAS 9040.119 OR FILTER SOCKS SUDAS 9040.102 SHALL HAVE 'U' HOOKS AT MAXIMUM 50' INCREMENTS
- SILT FENCE DITCH CHECK SUDAS 9040.106
- CONTRACTOR STAGING AREA FOR PORTABLE RESTROOM FACILITIES, TEMPORARY FUEL TANKS, WASTE CONTAINERS AND OTHER HAZARDOUS CHEMICALS. RELOCATE AS REQUIRED FOR CONSTRUCTION.
- TEMPORARY TOPSOIL STOCKPILE AND ARE TO REMAIN THROUGHOUT CONSTRUCTION.
- CONCRETE, PAINT, AND GROUT WASHOUT AREA PER SUDAS SECT 11.050. CONTRACTOR TO HAUL OFF WASTE MATERIAL. SUGGESTED LOCATION. RELOCATE AS REQUIRED FOR CONSTRUCTION.
- SPILL KIT TO BE INSTALLED AND RELOCATED AS REQUIRED FOR CONSTRUCTION
- PORTABLE RESTROOM FACILITY LOCATION
- SWPPP DOCUMENT LOCATION
- EXISTING GRADE
- DIRECTION OF DRAINAGE



LEGEND

-  PROJECT SITE/DISTURBED AREA
-  SILT FENCE SUDAS 9040.119 OR FILTER SOCKS SUDAS 9040.102 SHALL HAVE 'J' HOOKS AT MAXIMUM 50' INCREMENTS
-  SYNTHETIC PERMEABLE CHECK DAM. SEE SUDAS 9040 SECT 2.07.
-  GRANULAR SURFACE. SEE SHEET 02-011 FOR MORE INFORMATION.
-  FINISHED GRADE
-  DIRECTION OF DRAINAGE
-  DROP-IN INTAKE PROTECTION SUDAS 9040 SECTION 2.18

THE EROSION AND SEDIMENT CONTROLS IDENTIFIED ON THIS DRAWING ARE TO BE INSTALLED AS CONSTRUCTION ACTIVITIES ALLOW. SYNTHETIC PERMEABLE CHECK DAMS AND TEMPORARY ROLLED EROSION CONTROL PRODUCTS ARE TO BE INSTALLED UPON FINE GRADING. ALL TEMPORARY CONTROLS TO REMAIN UNTIL THE SITE HAS BEEN STABILIZED AND APPROVED BY THE OWNER'S REPRESENTATIVE.

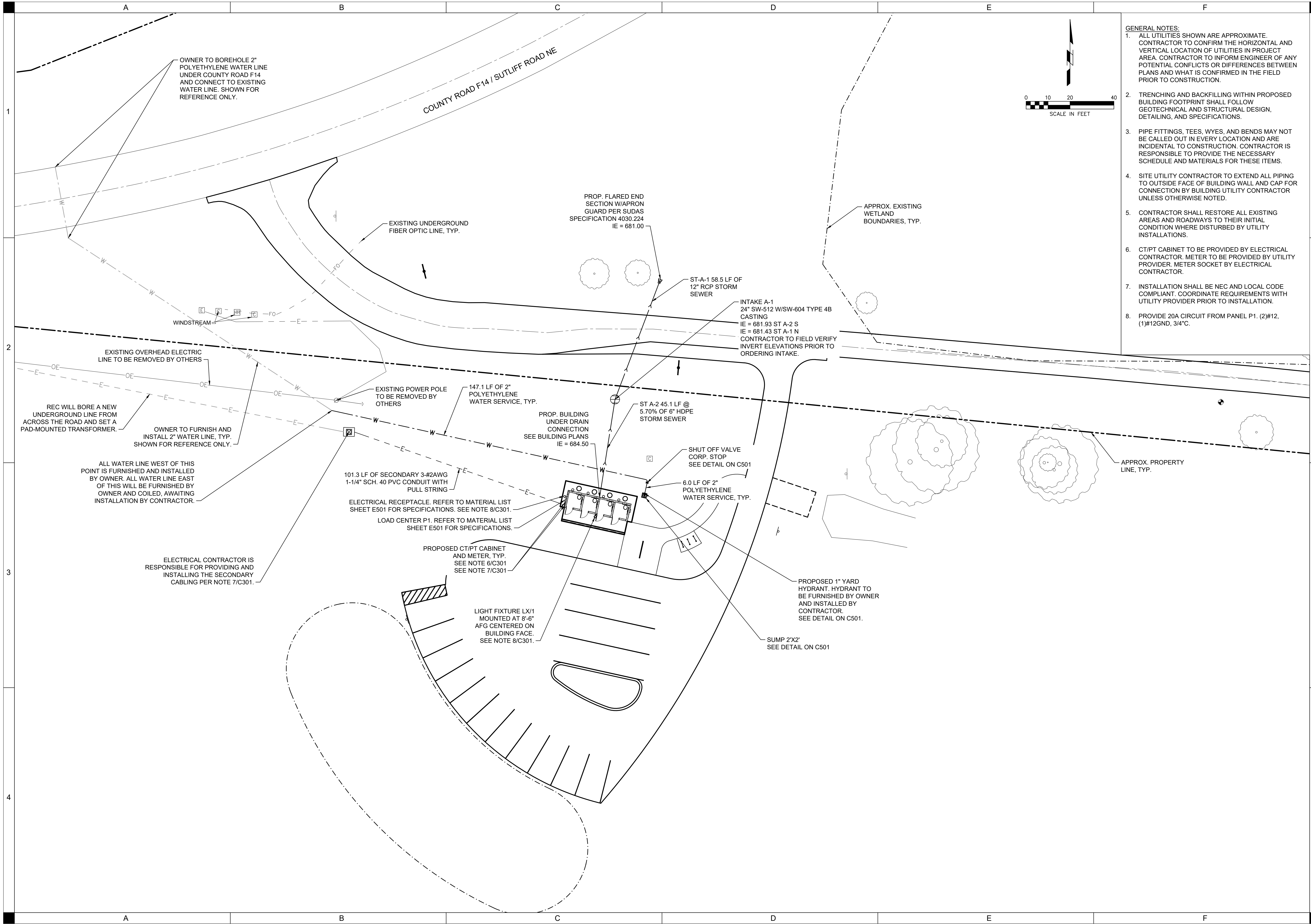
CEDAR RIVER CROSSING & SUTLIFF BRIDGE - WEST AREA IMPROVEMENTS

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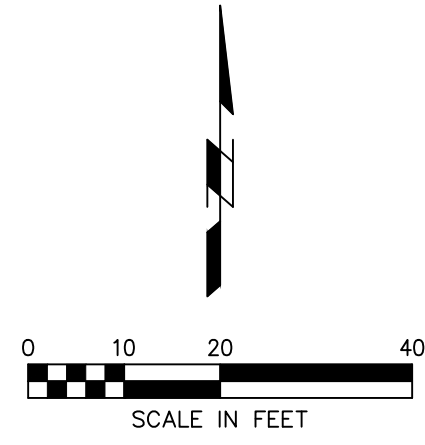
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STORMWATER
POLLUTION
PREVENTION PLAN
- POST
CONSTRUCTION

C251

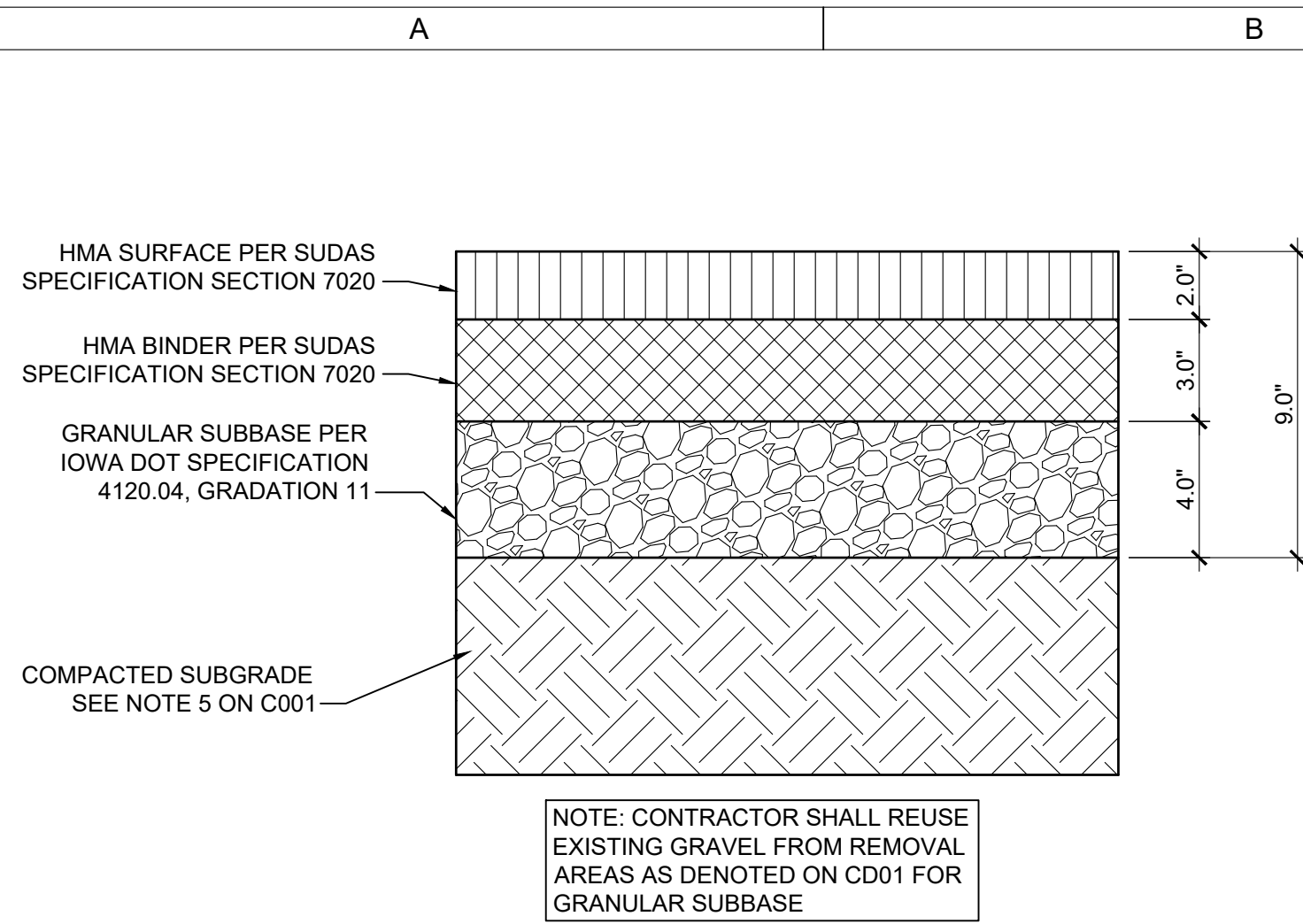


- GENERAL NOTES:**
- ALL UTILITIES SHOWN ARE APPROXIMATE. CONTRACTOR TO CONFIRM THE HORIZONTAL AND VERTICAL LOCATION OF UTILITIES IN PROJECT AREA. CONTRACTOR TO INFORM ENGINEER OF ANY POTENTIAL CONFLICTS OR DIFFERENCES BETWEEN PLANS AND WHAT IS CONFIRMED IN THE FIELD PRIOR TO CONSTRUCTION.
 - TRENCHING AND BACKFILLING WITHIN PROPOSED BUILDING FOOTPRINT SHALL FOLLOW GEOTECHNICAL AND STRUCTURAL DESIGN, DETAILING, AND SPECIFICATIONS.
 - PIPE FITTINGS, TEES, WYES, AND BENDS MAY NOT BE CALLED OUT IN EVERY LOCATION AND ARE INCIDENTAL TO CONSTRUCTION. CONTRACTOR IS RESPONSIBLE TO PROVIDE THE NECESSARY SCHEDULE AND MATERIALS FOR THESE ITEMS.
 - SITE UTILITY CONTRACTOR TO EXTEND ALL PIPING TO OUTSIDE FACE OF BUILDING WALL AND CAP FOR CONNECTION BY BUILDING UTILITY CONTRACTOR UNLESS OTHERWISE NOTED.
 - CONTRACTOR SHALL RESTORE ALL EXISTING AREAS AND ROADWAYS TO THEIR INITIAL CONDITION WHERE DISTURBED BY UTILITY INSTALLATIONS.
 - CT/PT CABINET TO BE PROVIDED BY ELECTRICAL CONTRACTOR. METER TO BE PROVIDED BY UTILITY PROVIDER. METER SOCKET BY ELECTRICAL CONTRACTOR.
 - INSTALLATION SHALL BE NEC AND LOCAL CODE COMPLIANT. COORDINATE REQUIREMENTS WITH UTILITY PROVIDER PRIOR TO INSTALLATION.
 - PROVIDE 20A CIRCUIT FROM PANEL P1. (2)#12, (1)#12GND, 3/4"C.

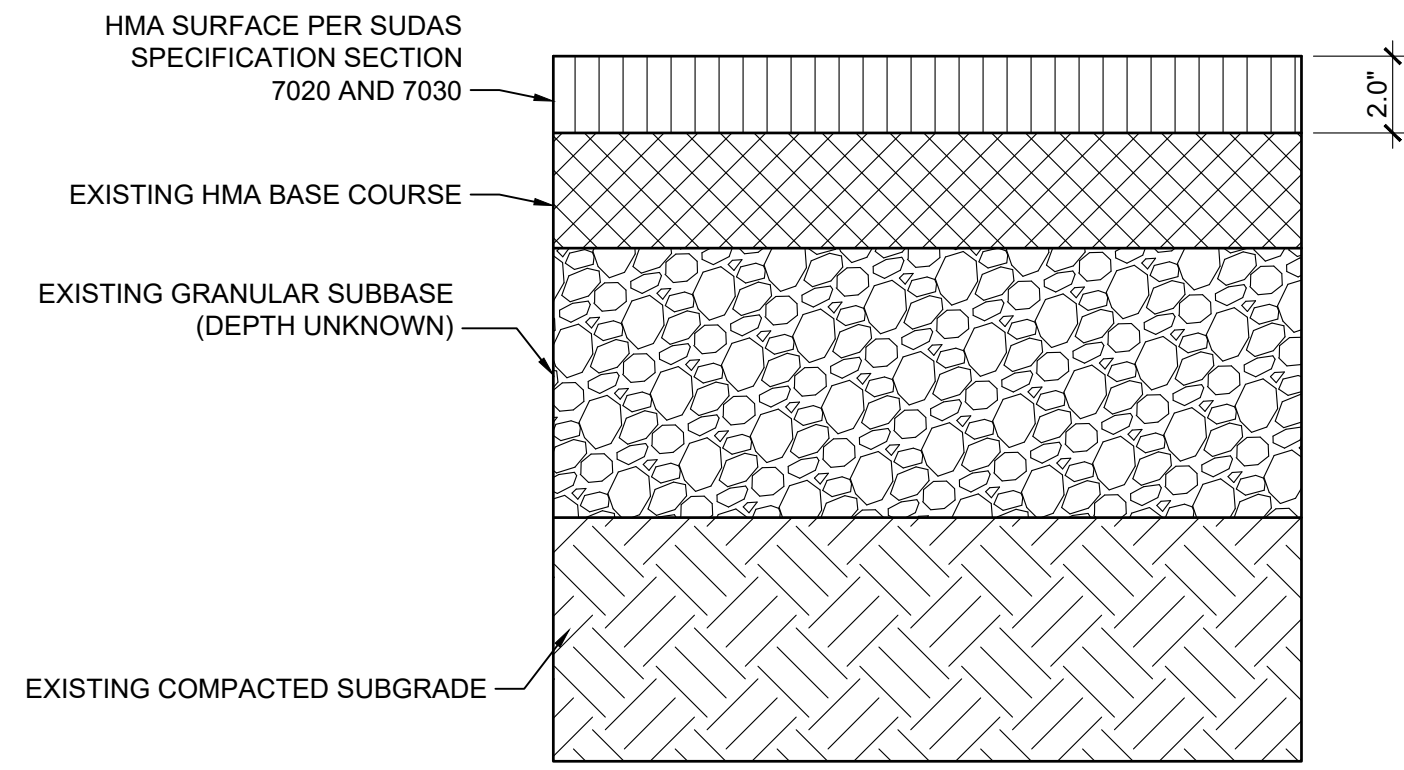


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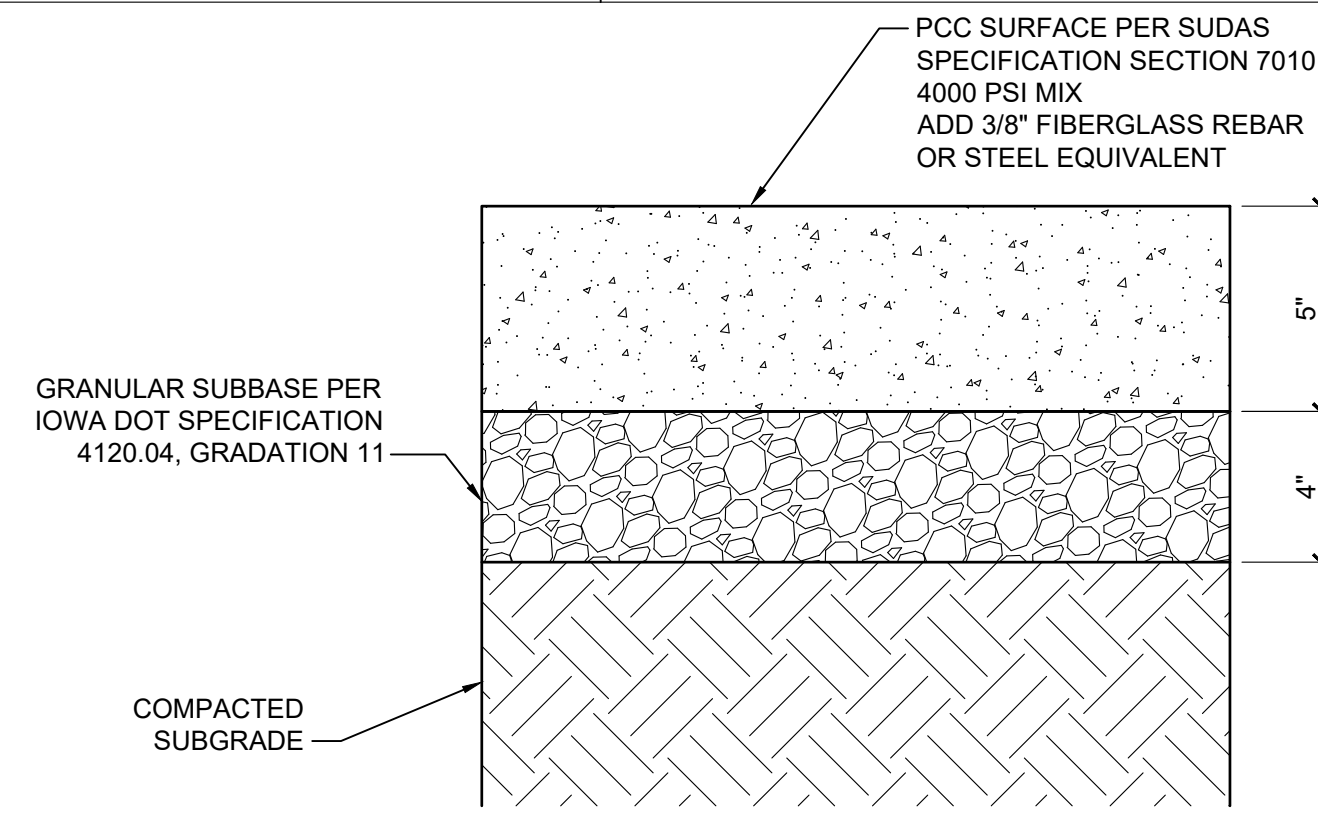
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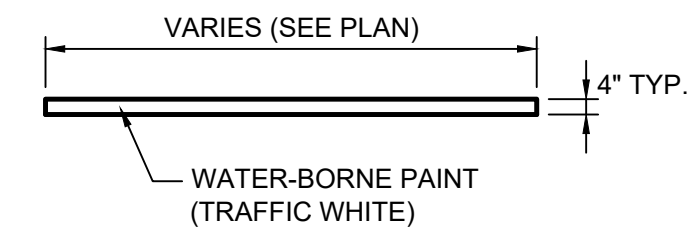
1 ACC SECTION
NOT TO SCALE



2 ACC OVER EXISTING ACC BASE COURSE
NOT TO SCALE



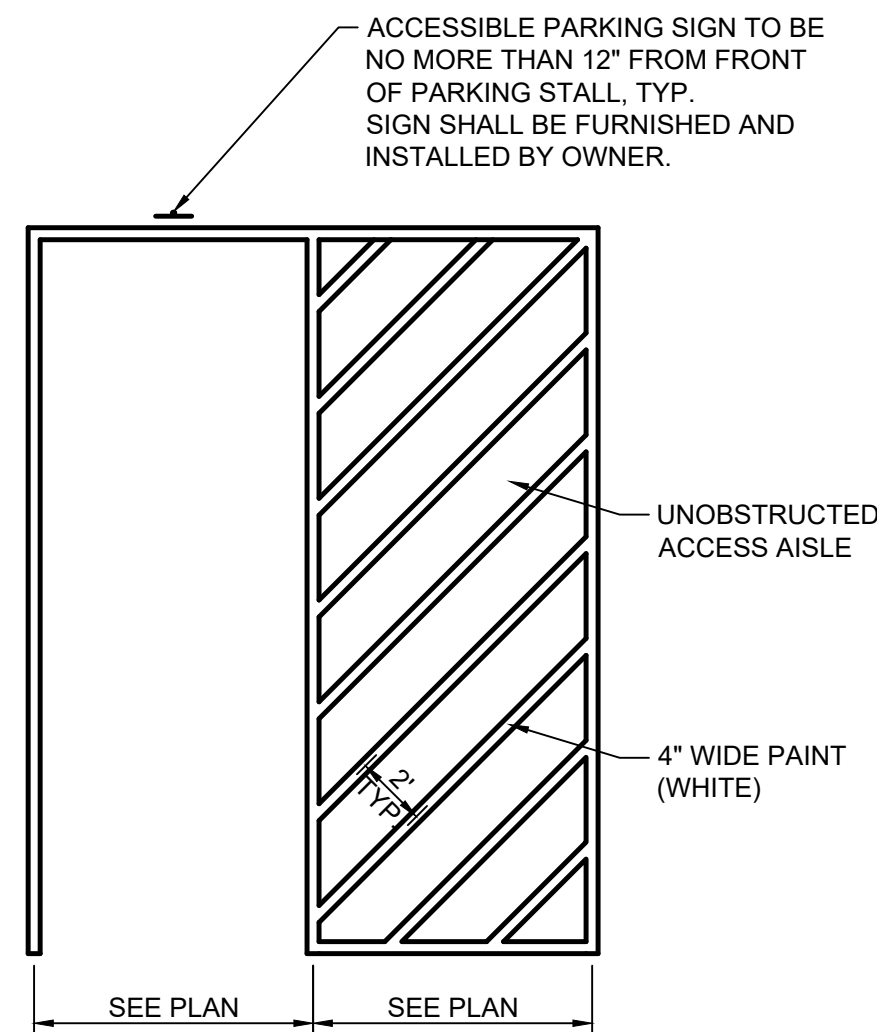
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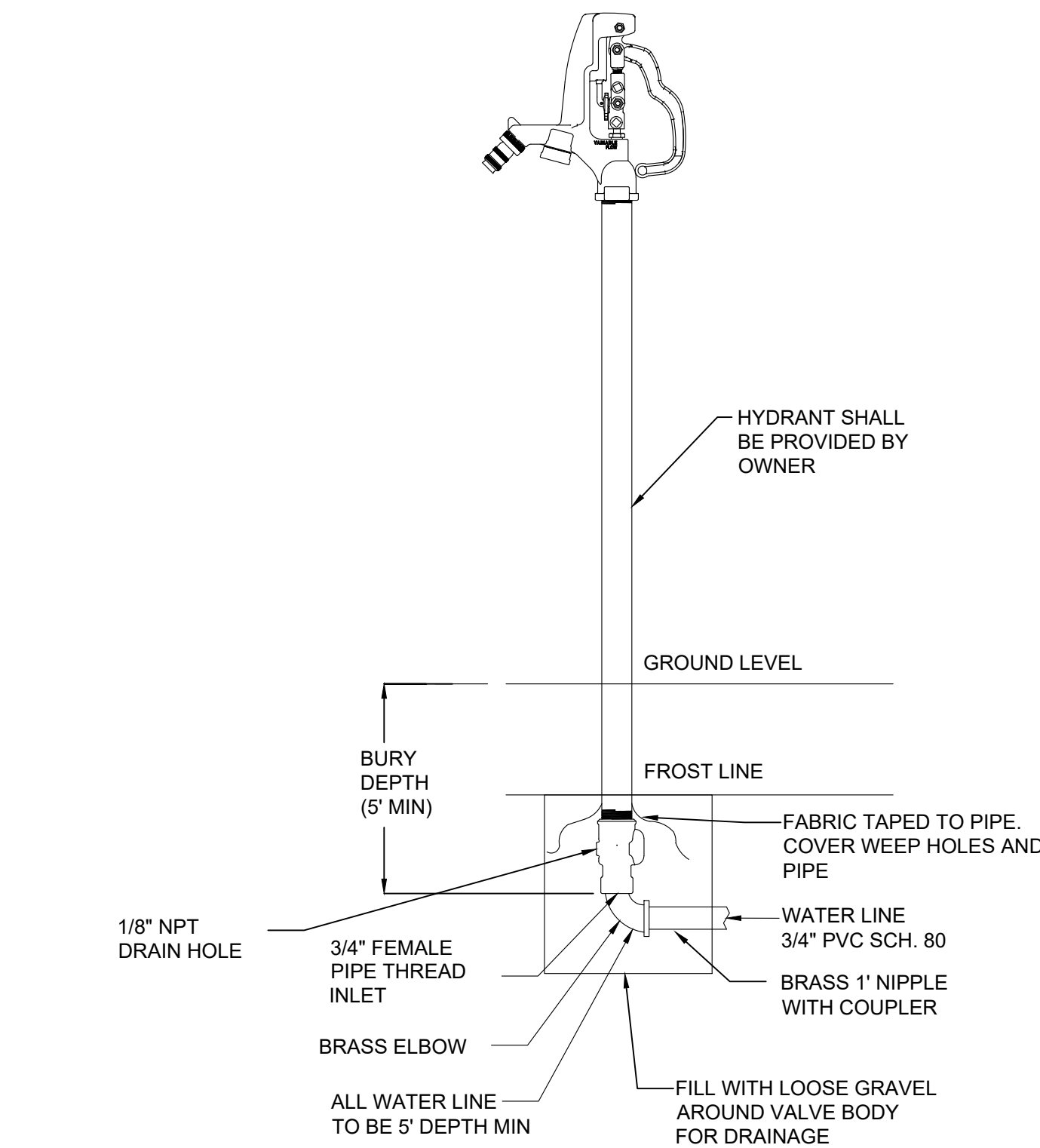
4 STANDARD STALL PAINT STRIPING
NOT TO SCALE

NOTE: CONTRACTOR SHALL REUSE EXISTING GRAVEL FROM REMOVAL AREAS AS DENOTED ON CD01 FOR GRANULAR SUBBASE

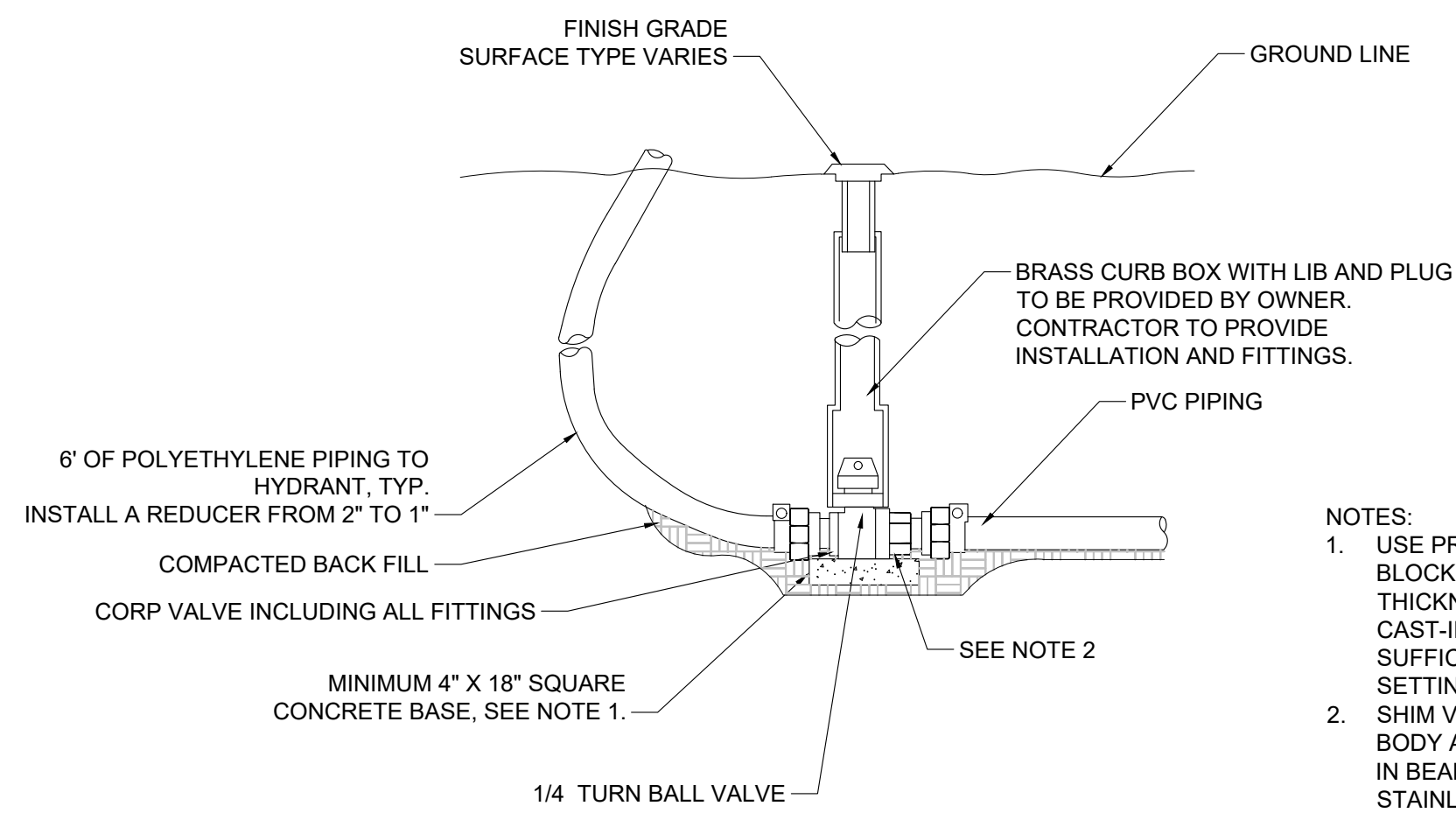
NOTE: ALL STRIPING SHALL CONFORM TO THE LATEST EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) AND LOCAL STANDARDS.



5 ACCESSIBLE PARKING SPACE STRIPING
NOT TO SCALE

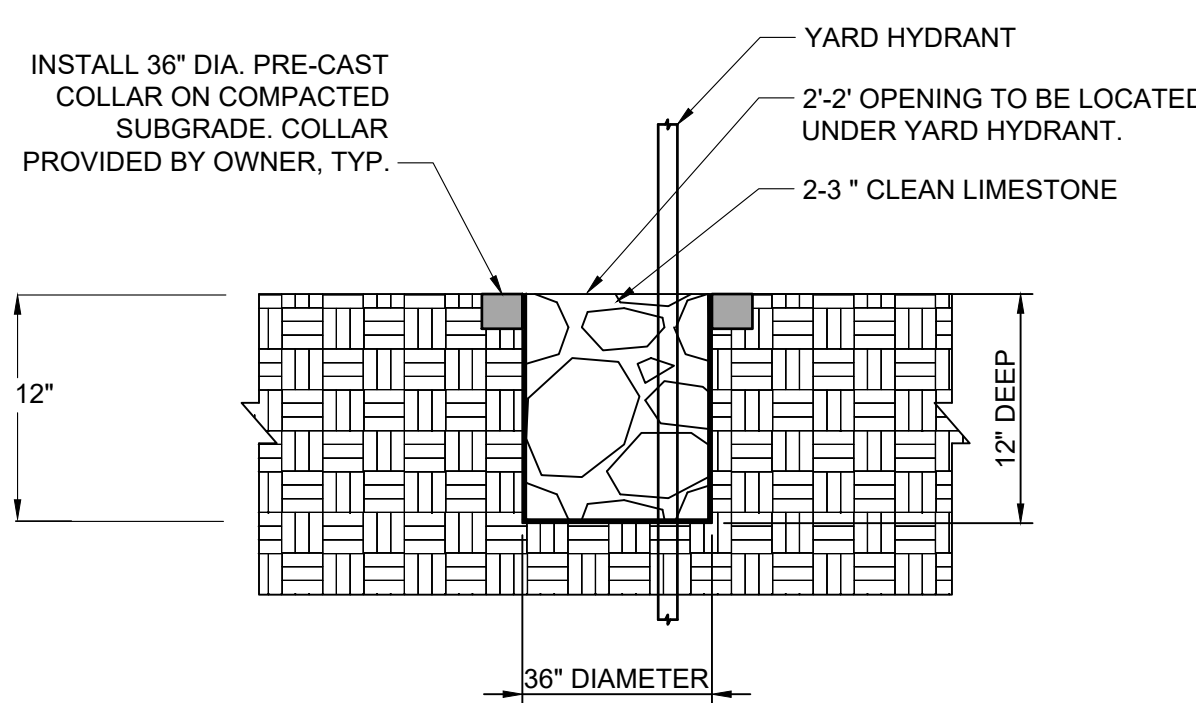


6 YARD HYDRANT DETAIL
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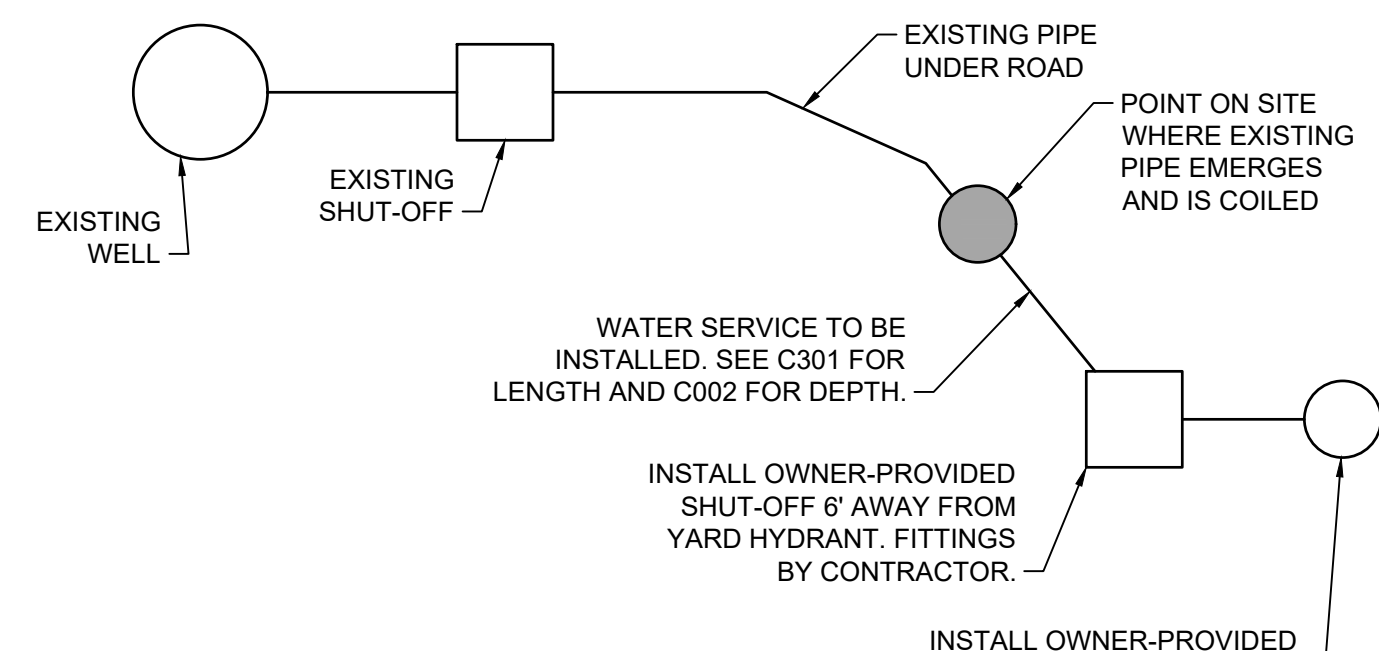


7 CURB BOX DETAIL
NOT TO SCALE

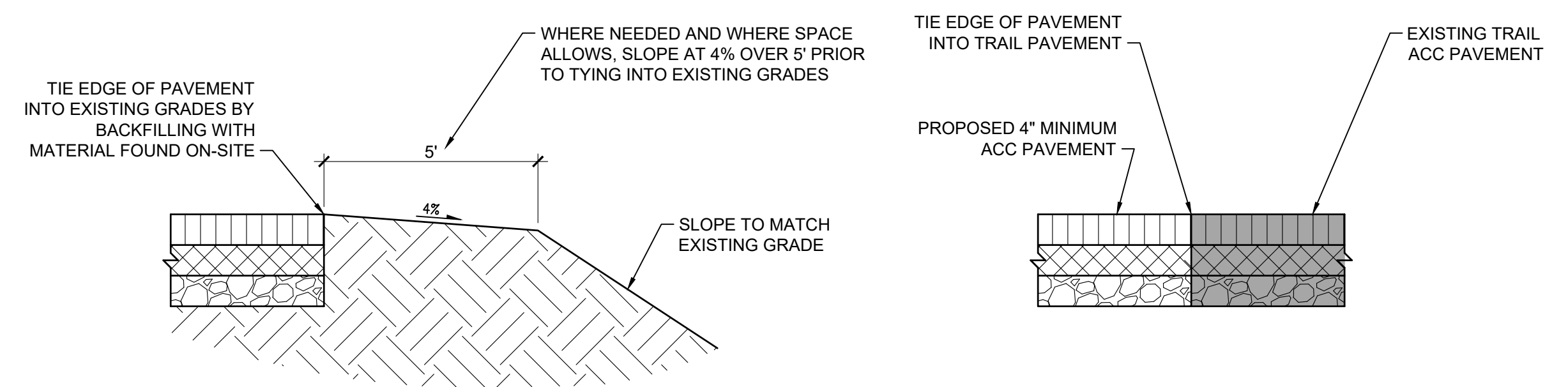
NOTES:
1. USE PRE-CAST SOLID CONCRETE BLOCKS, MINIMUM 4-INCH THICKNESS. IF BLOCKING IS CAST-IN-PLACE, ALLOW SUFFICIENT CURE TIME BEFORE SETTING FITTING.
2. SHIM VALVE FLANGES AND/OR BODY AS REQUIRED SO THEY ARE IN BEARING ON BLOCK. USE ONLY STAINLESS STEEL SHIMS.



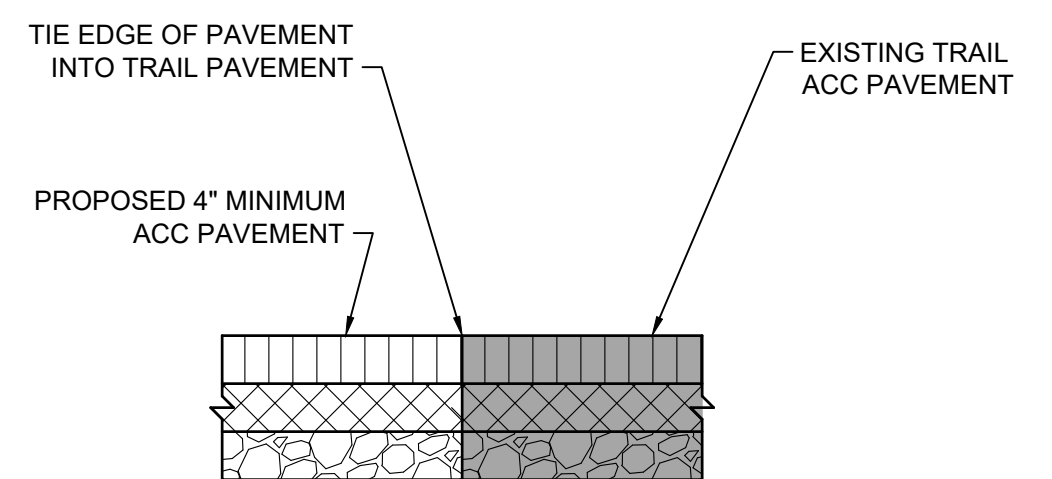
8 SUMP
NOT TO SCALE



9 WATER SERVICE SCHEMATIC
NOT TO SCALE



10 PAVING BACKFILL DETAIL
NOT TO SCALE



11 TRAIL PAVEMENT TIE-IN DETAIL
NOT TO SCALE

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MATERIAL LIST

THE SYMBOLS AND THE MATERIAL LIST ARE FOR THE CONVENIENCE OF THE CONTRACTOR. EACH CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFICATION OF QUANTITIES AND SHALL FURNISH ALL MATERIAL REQUIRED, WHETHER SPECIFIED OR NOT, TO PRODUCE A SATISFACTORY WORKING SYSTEM.

CATALOG NUMBERS SHALL NOT BE CONSIDERED COMPLETE BUT ARE GIVEN ONLY TO AID THE CONTRACTOR IN THE SEARCH FOR MATERIAL. NO MATERIAL SHALL BE ORDERED BY MANUFACTURER AND CATALOG NUMBER ONLY. EACH CONTRACTOR SHALL FIRST READ THE COMPLETE DESCRIPTION OF THE MATERIAL ON THESE DRAWINGS AND SPECIFICATIONS. THE FIRST MANUFACTURER LISTED IS THE BASIS OF DESIGN. "STANDARD COLOR" INDICATED FACTORY FINISH AVAILABLE AT NO ADDITIONAL CHARGE.

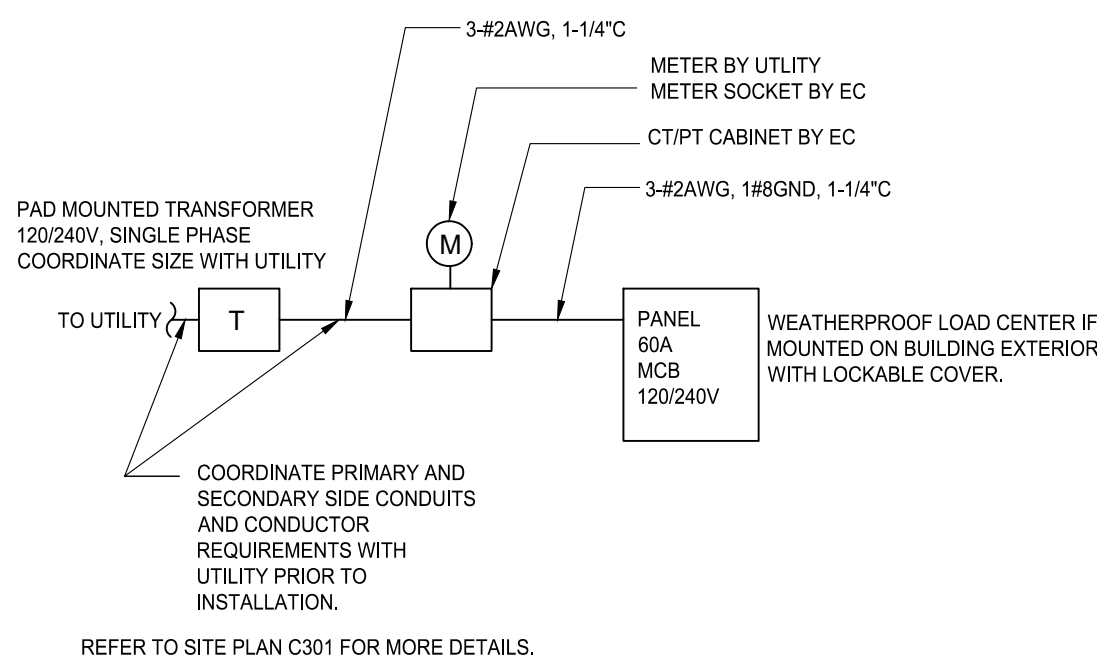
| SYMBOL | DESCRIPTION | APPROVED MANUFACTURER |
|-----------------------|--|---|
| TX1 | TRANSFORMER | FURNISHED BY OWNER |
| LOAD CENTER "P1" | LOAD CENTER, 20" WIDE SURFACE MOUNTED, 120/240V, 1 PHASE, 3 WIRE, 60A MAIN CIRCUIT BREAKER, COPPER BUS, GROUND BUS, FULLY RATED BREAKERS, NEMA 3R, LOCKABLE, UL LISTED. SERVICE ENTRANCE RATED. FURNISH WITH (1) 30A, 2P BREAKER, (3) 20A, 1P BREAKERS. | SQUARE D EATON |
| WP/GFI RECEPTACLE | DUPLEX RECEPTACLE, GROUND FAULT CIRCUIT INTERRUPTING (GFCI), DECORA STYLE, 20 AMP, 125 VOLT, 3-WIRE GROUNDING TYPE, INDUSTRIAL SPECIFICATION GRADE, STRAIGHT BLADE, NEMA 5-20R, NYLON FACE, SIDE AND BACK WIRED, TEST AND RESET BUTTONS IN FACE. LOCKOUT ACTION TO PREVENT USE IF GFCI CIRCUIT IS NOT FUNCTIONING, UL LISTED. PROVIDE WITH CAST ALUMINUM WET LOCATION WHILE-IN-USE BUBBLE COVER, LOCKABLE. | LEVITON 7899-G HUBBELL PASS & SEYMOUR COOPER |
| LIGHT FIXTURE | LED EXTERIOR WALL PACK, 4000K, TYPE IV, 980 LUMENS, INTEGRAL PHOTOCCELL, BLACK, ZERO UPLIGHT. | HUBBELL LNC-SLU-4K-4-2-PC(1) EQUAL |

GENERAL ELECTRICAL NOTES:

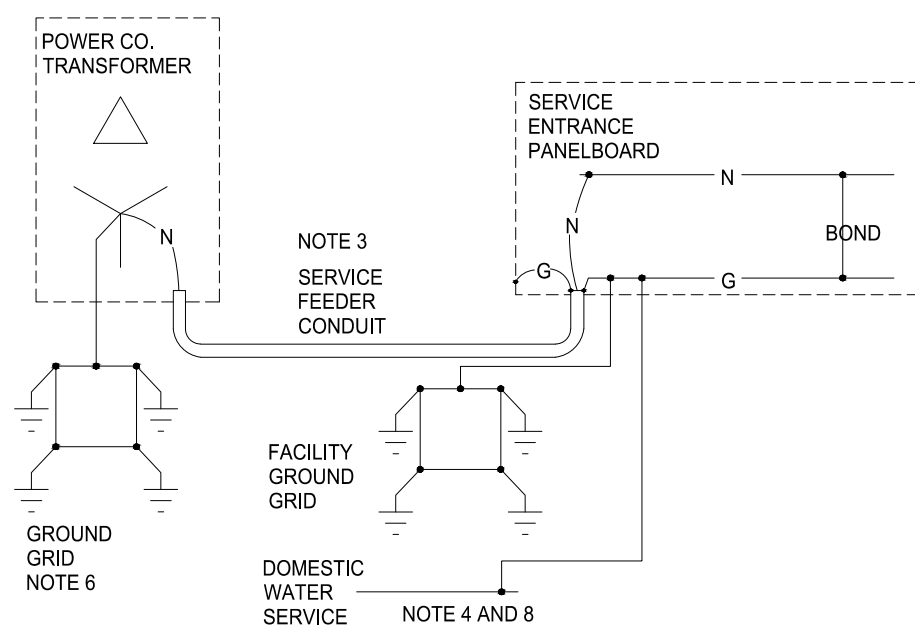
- "TX1" INDICATES NOTE USED TO DESCRIBE PRODUCT SPECIFICATION IN MATERIAL LIST.
- ALL ELECTRICAL CONDUCTORS SHALL BE COPPER.
- ABBREVIATION KEY:
 - AFB ABOVE FINISH FLOOR
 - C CONDUIT
 - EC ELECTRICAL CONTRACTOR
 - GC GENERAL CONTRACTOR
 - MC MECHANICAL CONTRACTOR
 - NIC NOT IN CONTRACT
 - NL NIGHT LIGHT
 - TYP TYPICAL
 - UG UNDERGROUND
 - #F MOUNTING HEIGHT FROM FINISHED FLOOR TO CENTERLINE
- LINE TYPE KEY:
 - NEW WORK BY ELECTRICAL CONTRACTOR (DARK SOLID LINE)
 - NEW WORK UNDERFLOOR OR UNDERGROUND BY THIS CONTRACTOR (DARK LONG DASHED LINE)
 - NEW WORK BY OTHERS AND/OR EXISTING TO REMAIN (LIGHT SOLID LINE)
- FLUSH MOUNT ALL TOGGLE SWITCHES AT +48" FROM FLOOR TO TOP OF BOX, EXCEPT WHERE OTHERWISE NOTED.
- ELECTRICAL EQUIPMENT SHALL BE MOUNTED TO AVOID IMPEDANCE OF OPERATION AND/OR ACCESS TO ELECTRICAL AND MECHANICAL EQUIPMENT. ALL MOUNTING OF ELECTRICAL GEAR ON EQUIPMENT SUPPLIED BY ANOTHER CONTRACTOR SHALL BE APPROVED IN ADVANCE BY THE OTHER CONTRACTOR.
- CONTRACTOR SHALL BE RESPONSIBLE FOR ALL OPENINGS REQUIRED IN WALLS. ALL OPENINGS SHALL BE REPAIRED TO MATCH EXISTING BY A QUALIFIED CONTRACTOR AT THE EXPENSE OF THIS CONTRACTOR. ALL CONDUITS THROUGH WALLS SHALL BE GROUTED OR SEALED INTO OPENINGS. WHERE CONDUIT PENETRATES WALLS AND FLOORS, SEAL WITH A UL LISTED SEALANT. SEAL PENETRATIONS WITH INTUMESCENT CAULK, PUTTY, OR SHEET INSTALLED PER MANUFACTURER'S RECOMMENDATION. ALL MATERIALS USED TO SEAL PENETRATIONS OF FIRE WALLS AND FLOORS SHALL BE TESTED AND CERTIFIED AS A SYSTEM PER ASTM E814 STANDARDS FOR FIRE TESTS OR THROUGH-PENETRATION FIRESTOPS AS MANUFACTURED BY 3M OR APPROVED EQUAL.
- ALL PANELBOARDS SHALL BE COMPLETE WITH TYPED CIRCUIT DIRECTORY CARD IDENTIFYING LOAD SERVED AND ASSOCIATED AREA OR ROOM LOCATED.

GENERAL CONSTRUCTION NOTES:

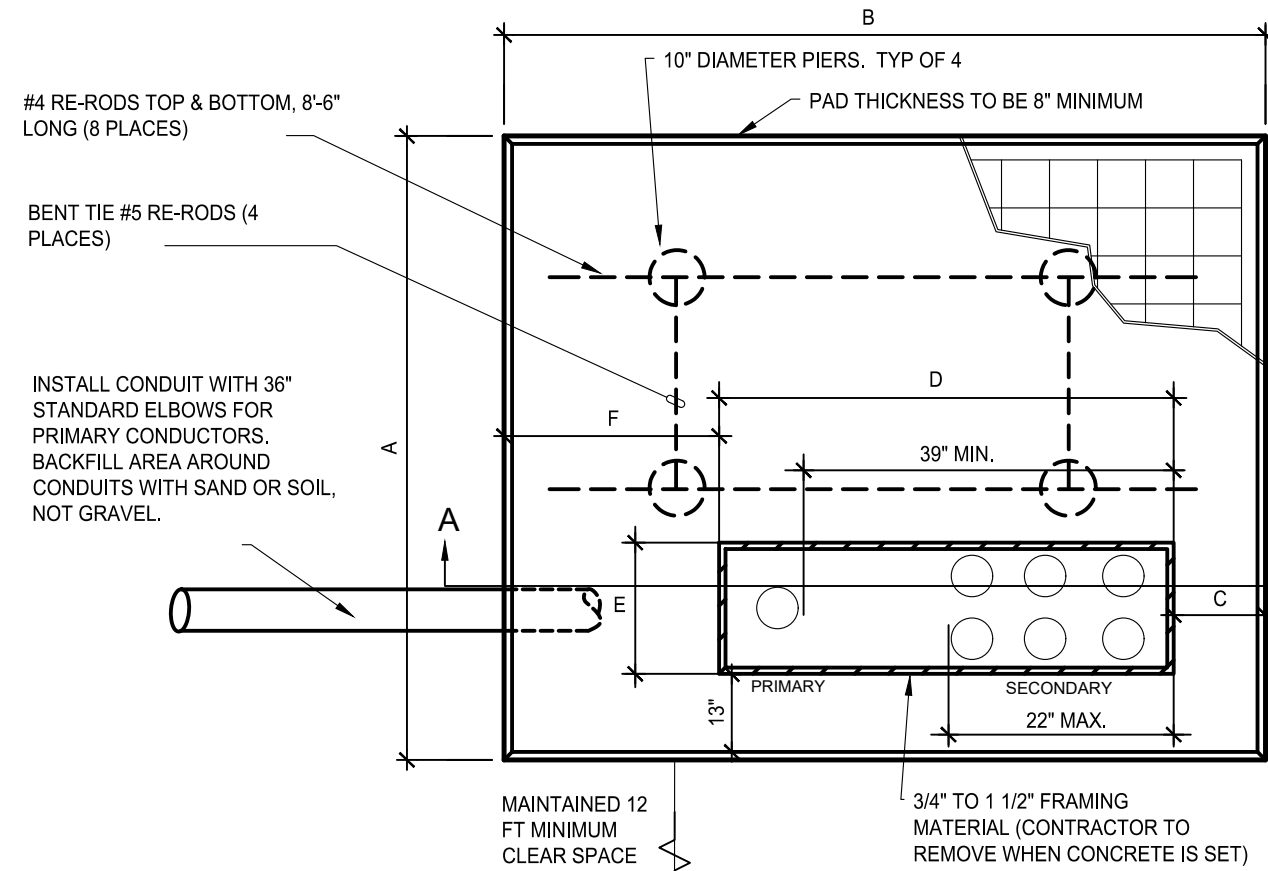
- WIRING SHALL BE #12 MINIMUM UNLESS NOTED OTHERWISE.
- CONDUIT SHALL BE 1" MINIMUM UNLESS NOTED OTHERWISE.
- ALL WORK SHALL CONFORM TO OR EXCEED THE MINIMUM REQUIREMENTS OF THE NATIONAL ELECTRICAL CODE (NEC), 2014 EDITION.
- CONTRACTOR SHALL PROVIDE ALL LABOR, MATERIAL AND EQUIPMENT REQUIRED TO COMPLETELY INSTALL ALL ELECTRICAL WORK.
- NO ENERGIZED CONDUCTORS SHALL BE EXPOSED AT ANYTIME EXCEPT WHEN THE IMMEDIATE AREA IS UNDER THE SUPERVISION OF A QUALIFIED ELECTRICIAN.
- ALL MATERIALS FURNISHED BY THE CONTRACTOR SHALL BE NEW, COMPLETE WITH MANUFACTURER'S GUARANTEE OR WARRANTY AND SHALL BE LISTED BY UNDERWRITERS LABORATORIES (UL) INC.
- ALL WORK SHALL PRESENT A NEAT MECHANICAL APPEARANCE WHEN COMPLETED.
- THIS CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CUTTING AND FITTING NECESSARY TO PROPERLY INSTALL HIS WORK. HE SHALL COORDINATE WITH OTHER TRADES TO MINIMIZE THE DAMAGE AND AMOUNT OF PATCHING REQUIRED. ALL UNDOE OR UNTIMELY MITIGATION, MARRING, OR SOILING OF FINISHED SURFACES SHALL BE REPAIRED BY THE PROPER TRADES AND PAID FOR BY THIS CONTRACTOR.
- CONTRACTOR SHALL KEEP HIS WORK AREA CLEAN OF ALL DEBRIS AND SHALL KEEP MATERIALS IN AREAS DESIGNATED BY THE OWNER.
- THE PANEL CIRCUIT NUMBER SHALL BE MARKED ON THE BACKBOX OF ALL RECEPTACLES AND LIGHT SWITCHES BY INDELIBLE PEN.
- CONDUCTORS USED THROUGHOUT THIS PROJECT SHALL BE COPPER. ALL CONDUCTORS SHALL HAVE 600 VOLT INSULATION (THW, THHN, THWN OR XHHW), SUITABLE FOR THE LOCATION PER NEC. ALL CONDUCTORS #8 OR LARGER SHALL BE STRANDED. ALL WIRING SHALL BE IN APPROVED RACEWAYS.
- SPLICES AND CONNECTIONS TO CONDUCTORS LARGER THAN #8 SHALL BE BY MEANS OF COMPRESSION TYPE. ALL CONDUCTORS #8 AND SMALLER THAT ARE TO BE PIGTAIL SPliced SHALL BE JOINED WITH WIRE NUTS.
- PROVIDE PULL, JUNCTION AND OUTLET BOXES IN ACCORDANCE WITH THE NEC. ALL BOXES SHALL BE GALVANIZED SHEET STEEL. FASTEN BOXES RIGIDLY TO STRUCTURAL SURFACES. PROVIDE ELECTRICAL GROUNDING CONNECTIONS FOR INSTALLED BOXES.
- THE ELECTRICAL SYSTEM GROUND SHALL BE PROVIDED AND IN NO CASE SHALL IT BE LESS THAN THE REQUIREMENTS OF THE NEC. THE ELECTRICAL GROUND SHALL CONSIST OF THE EQUIPMENT GROUND, GROUND SHALL BE MADE TO ALL METAL, NON-CURRENT CARRYING PARTS OF THE ELECTRICAL EQUIPMENT. GROUNDING CONDUCTORS, GREEN INSULATION, SHALL BE RUN IN THE SAME CONDUIT AS THE CURRENT CARRYING CONDUCTORS WITHOUT EXCEPTION PER NEC 250.



6 ONELINE DIAGRAM NOT TO SCALE



7 GROUNDING SYSTEM DETAIL NOT TO SCALE



| 1-PHASE KVA | SERV. SIZE | PAD MINIMUM DIMENSIONS* | | | | | |
|-------------|---------------|-------------------------|-----|-----|-----|-----|-----|
| | | A | B | C | D | E | F |
| 120/240V | | | | | | | |
| 75-500 | 100-1200 AMPS | 84" | 96" | 10" | 55" | 13" | 31" |

PRIMARY CONDUITS SHALL BE CENTERED ALONG BACK EDGE OF BOX-OUT. ALL CONDUITS SHALL EXTEND 1" MAX ABOVE TOP OF PAD (TYPICAL)

GRADE LINE
3/4" x 9" SLEEVE - PLASTIC OR GALVANIZED STEEL
1/2" x 10" GROUND ROD

* PROVIDE PAD SIZE AS REQUIRED FOR TRANSFORMER THAT IS PROVIDED, BASED ON APPROVED SUBMITTAL

SECONDARY DUCTS SHALL BE POSITIONED STARTING AT THE BACK EDGE OF THE BOX- OUT AND FILLING TOWARDS THE FRONT. ALL CONDUITS SHALL EXTEND 1" MAX ABOVE TOP OF PAD (TYPICAL)

1" CONCRETE OVER BACKFILL
6x6-6/6 W/WF PAD REINFORCEMENT (2 LAYERS)

PRIMARY DUCTS
90° ELBOWS
36" RADIUS

4 TYPICAL TRANSFORMER PAD DETAIL NOT TO SCALE

| | |
|---------------------|------------------|
| DRAWN: MLH | APPROVED: MF |
| ISSUED FOR: BID | DATE: 11/19/2021 |
| PROJECT NO: 4215460 | FIELD BOOK: -- |
| CLIENT NO: -- | |

SHIVEHATTERY
ARCHITECTURE + ENGINEERING

CEDAR RIVER CROSSING & SUTLIFF BRIDGE - WEST AREA IMPROVEMENTS

JOHNSON COUNTY CONSERVATION
5473 SUTLIFF ROAD NE, SOLON, IOWA 52333

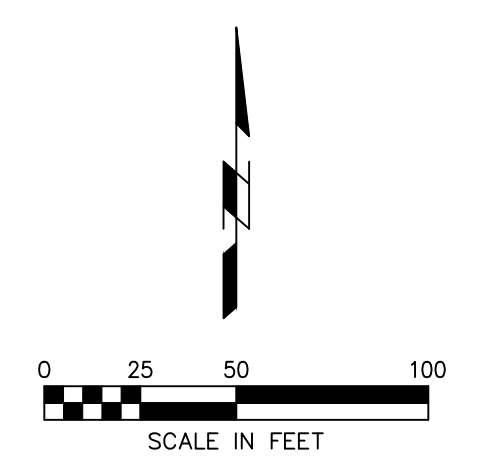
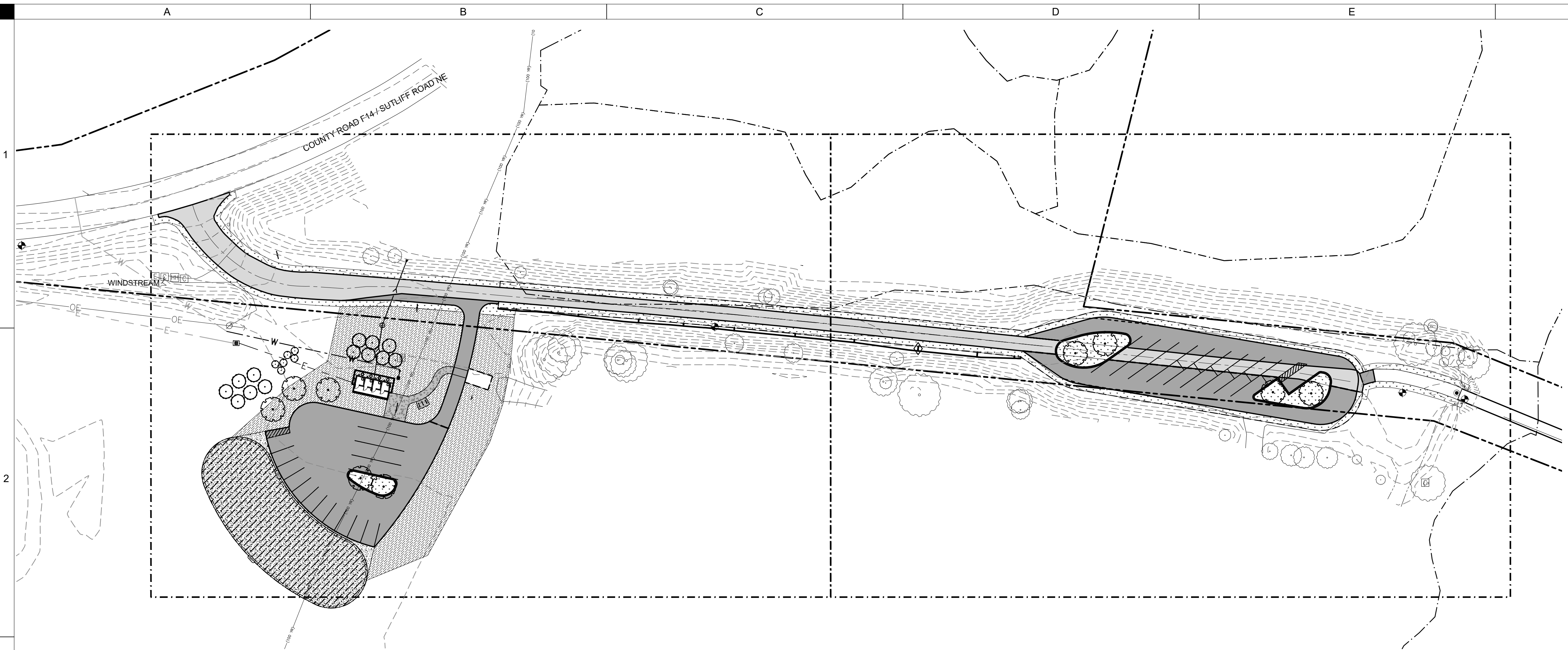
4125 Westown Pkwy, Suite 100 | West Des Moines, Iowa 50266
515.223.8104 | www.shivehattery.com
Iowa | Illinois | Indiana | Nebraska | Wisconsin

**PRELIMINARY
- NOT FOR
CONSTRUCTION**

DRAWN: EDR
APPROVED: JMR
ISSUED FOR: BID
DATE: 11/19/2021
PROJECT NO: 421460
FIELD BOOK: --
CLIENT NO: --

LANDSCAPE PLAN -
OVERALL

L101



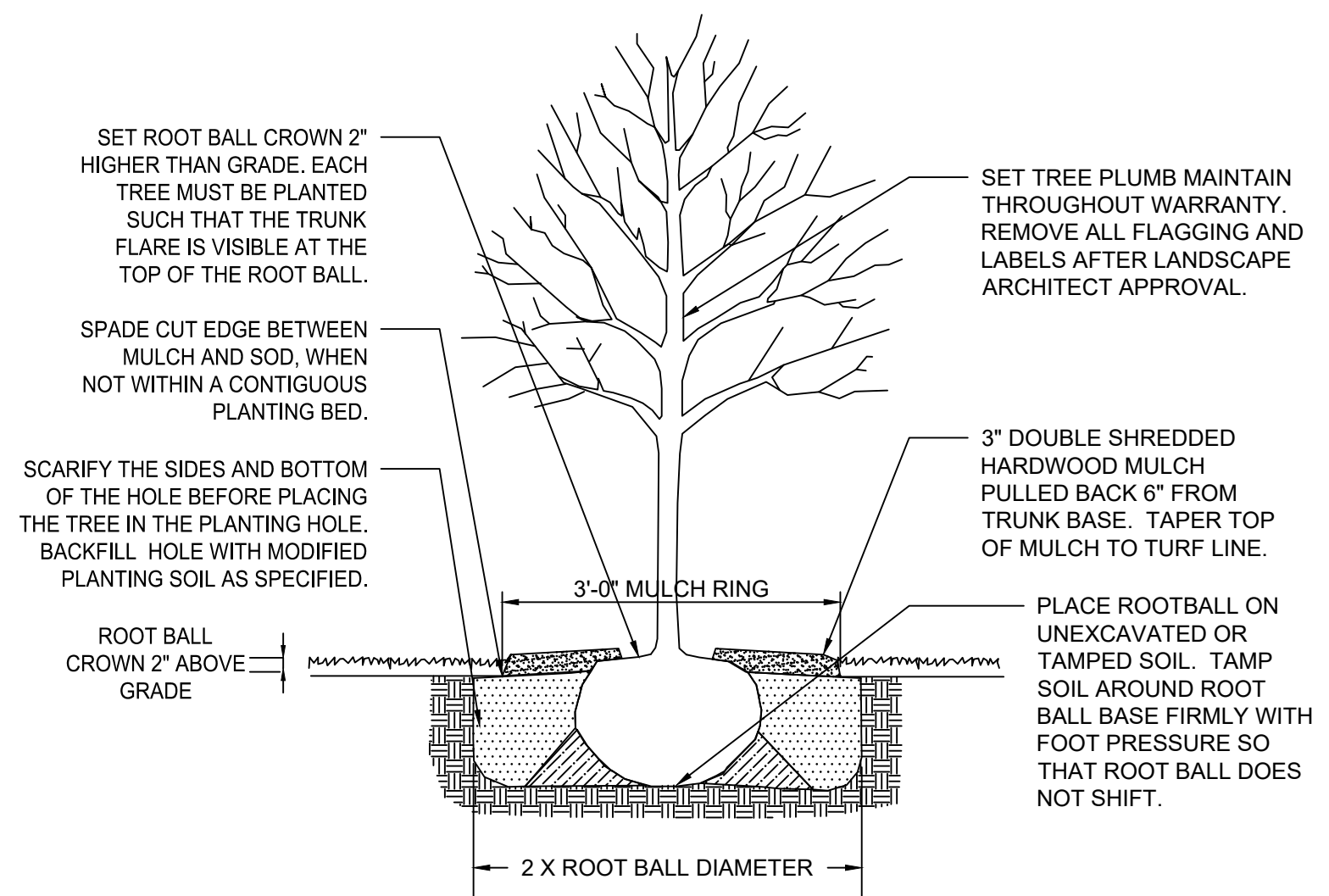
| PLANT SCHEDULE | SYMBOL | CODE | QTY | BOTANICAL NAME | COMMON NAME | ROOT | SIZE |
|----------------|--------|---------|-----------|-----------------------------------|-----------------------------------|--------|--------|
| TREES | | QUC DEC | 0 | Quercus bicolor | Swamp White Oak | 0.8 ft | 27 Cal |
| SHRUBS | | ESG ATR | 13 | Euonymus alatus | Eastern Wahoo | CONC | 1 gal |
| | | RUS SET | 8 | Rosa setigera | Prairie Rose | CONC | 2 gal |
| GROUND COVER | | SEE MD1 | 17,438 sf | Seed Mix 1 - Shungass Prairie | Seed Mix 1 - Shungass Prairie | SP | |
| | | SEE MD2 | 15,241 sf | Seed Mix 2 - Prairie Park | Seed Mix 2 - Prairie Park | SP | |
| | | SEE MD3 | 13,892 sf | Seed Mix 3 - Woodside Restoration | Seed Mix 3 - Woodside Restoration | SP | |

LANDSCAPE NOTES

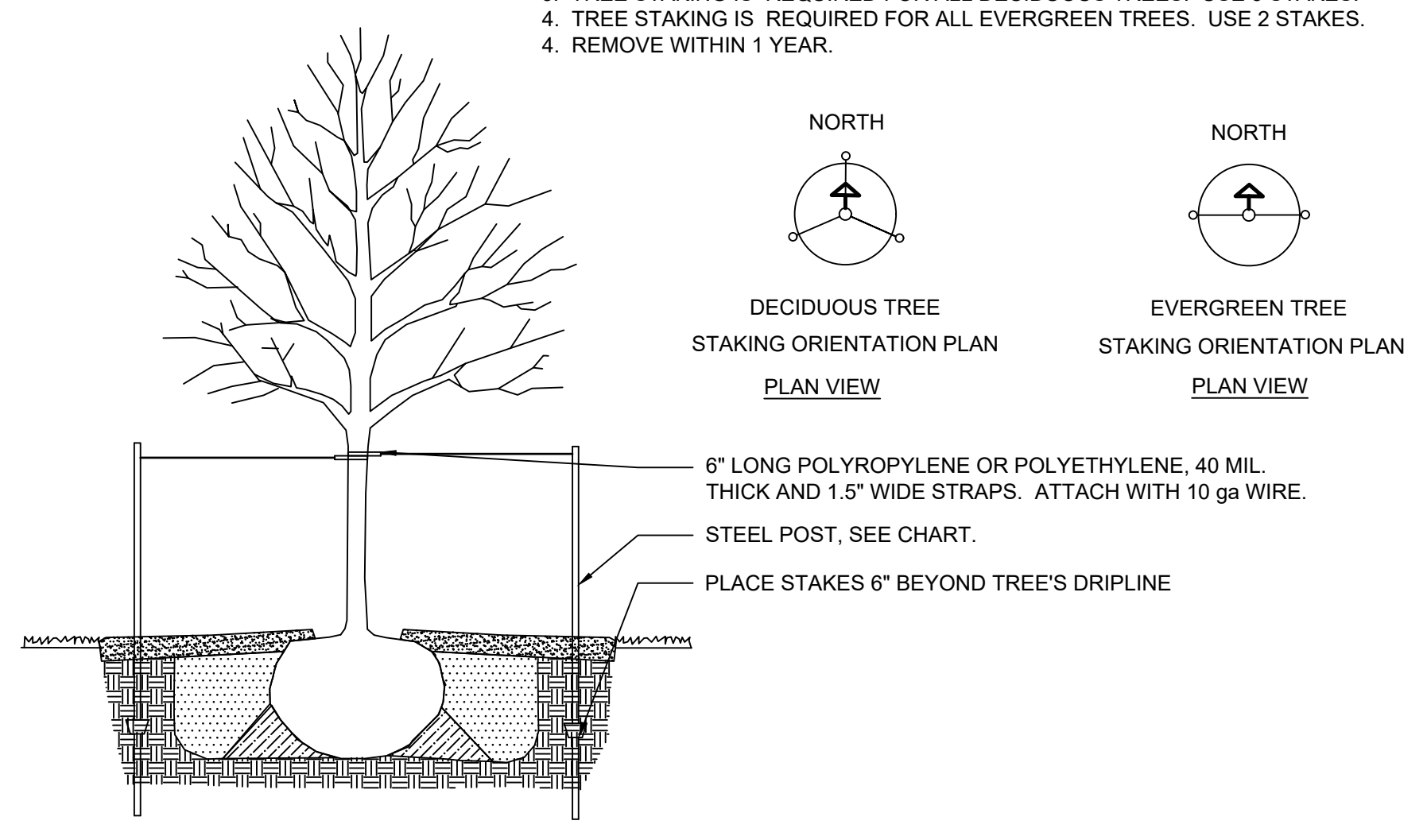
- OWNER WILL PROVIDE AND PLANT ALL TREES, SHRUBS, COVER CROP AND PERMANENT LAND COVER.
- CONTRACTOR WILL FINISH GRADE TO PREPARE FOR PLANTING AND PREPARE THE SEED BED AS PART OF THE FINISH GRADING.

NOTES:

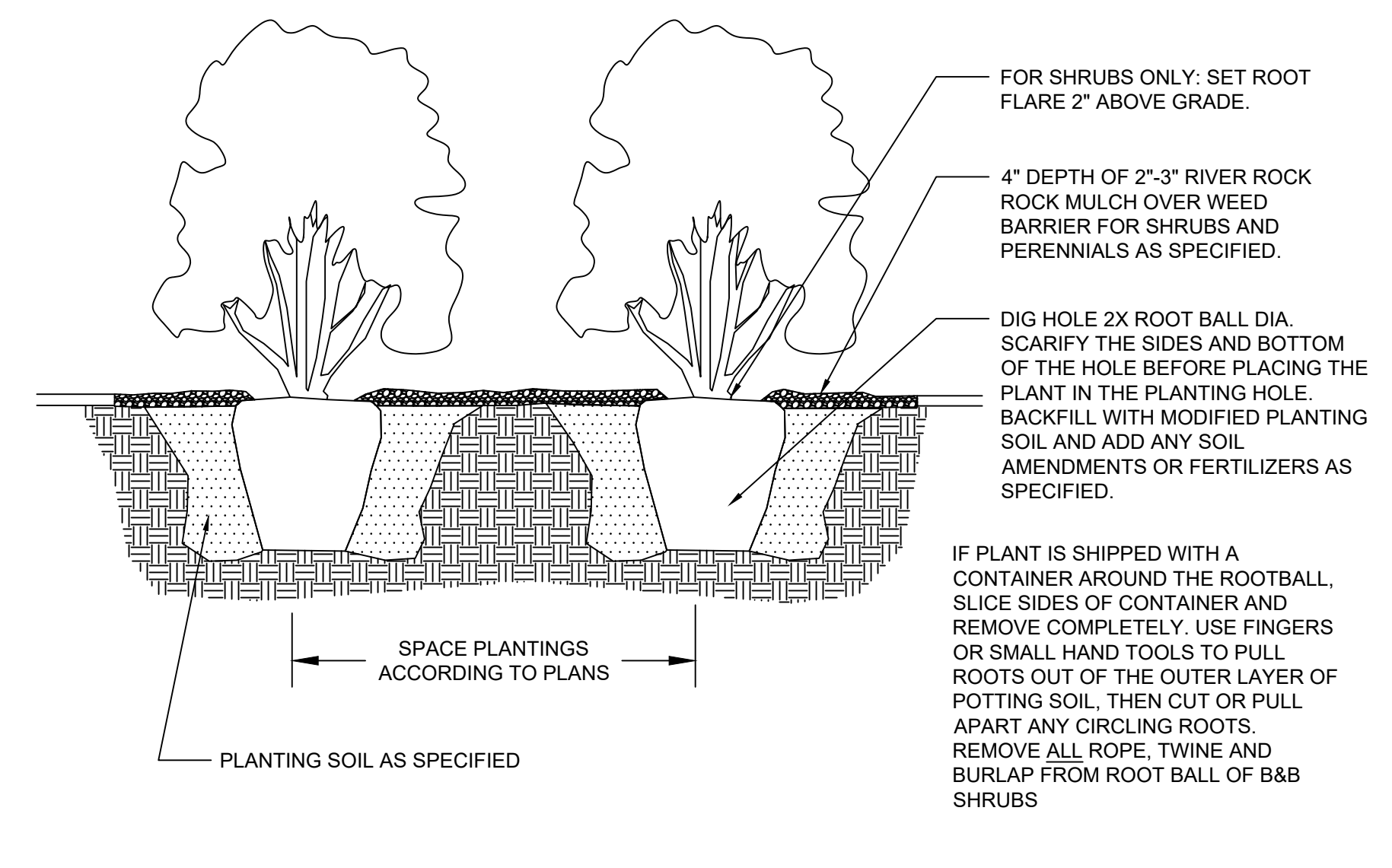
- STEEL POSTS TO BE NOTCHED OR DRILLED TO RETAIN GUY WIRES. PLACE OUTSIDE OF PLANTING HOLE. DRIVE PLUMB REGARDLESS OF GROUND SLOPE.
- TREE STAKING IS REQUIRED FOR ALL DECIDUOUS TREES. USE 3 STAKES.
- TREE STAKING IS REQUIRED FOR ALL EVERGREEN TREES. USE 2 STAKES.
- REMOVE WITHIN 1 YEAR.



A4 DECIDUOUS TREE PLANTING
NTS



C4 TREE STAKING DETAIL
NTS



E4 PERENNIAL AND SHRUB PLANTING BED
NTS

P:\Projects\104111\104111.dwg (11/19/2021 11:27:54 AM) C:\Users\jmr\OneDrive\Photos

STRUCTURAL GENERAL NOTES

1. ELEVATIONS GIVEN ON THE PLANS ARE TO TOP (UNLESS NOTED OTHERWISE) OF BEAMS, WALLS, ETC. WITH RESPECT TO THE REFERENCE ELEVATION OF THE FINISHED FLOOR. ELEVATIONS FOR LINTELS ARE TO THE BOTTOM OF LINTELS.
2. GOVERNING BUILDING CODE: 2018 INTERNATIONAL BUILDING CODE (IBC).
3. CONTRACTOR TO VERIFY ALL FIELD CONDITIONS AND DIMENSIONS PRIOR TO FABRICATION OR INSTALLATION OF ITEMS.
4. STRUCTURAL DRAWINGS SHALL BE USED IN CONJUNCTION WITH THE ARCHITECTURAL, MECHANICAL, ELECTRICAL, SHOP DRAWINGS, AND SPECIFICATIONS.
5. THE COMPLETED LATERAL-FORCE RESISTING SYSTEMS AND DIAPHRAGMS ARE REQUIRED FOR THE STRUCTURE TO RESIST LATERAL LOADS AND PROVIDE STABILITY UNDER GRAVITY LOADS. DURING THE CONSTRUCTION PROCESS, THE CONTRACTOR SHALL PROVIDE ALL REQUIRED BRACING DURING CONSTRUCTION TO MAINTAIN THE STABILITY AND SAFETY OF ALL STRUCTURAL ELEMENTS UNTIL THE LATERAL-LOAD RESISTING OR STABILITY-PROVIDING SYSTEM IS COMPLETELY INSTALLED AND THE STRUCTURE IS COMPLETELY TIED TOGETHER.
6. UNLESS OTHERWISE NOTED, DETAILS SHOWN ON ANY DRAWING ARE TO BE CONSIDERED TYPICAL FOR ALL SIMILAR CONDITIONS.
7. GOVERNING DESIGN CODE IS THE INTERNATIONAL BUILDING CODE 2018 EDITION.
 - 7.1. RISK CATEGORY: II
 - 7.2. LIVE LOADS
 - 7.2.1. FLOOR LIVE LOAD: 100 PSF
 - 7.2.2. ROOF LIVE LOAD: 20 PSF
 - 7.3. DEAD LOADS
 - 7.3.1. TYPICAL ROOF DEAD LOAD: SELF-WEIGHT OF STRUCTURE + 10 PSF
 - 7.4. SEISMIC LOAD
 - 7.4.1. RISK CATEGORY: II
 - 7.4.2. IMPORTANCE FACTOR: 1.00
 - 7.4.3. SITE CLASS: "D"
 - 7.4.4. MAPPED SPECTRAL RESPONSE COEFFICIENTS: $S_s=0.083$ $S_1=0.053$
 - 7.4.5. SEISMIC DESIGN CATEGORY: "B"
 - 7.4.6. SPECTRAL RESPONSE COEFFICIENTS: $S_{ds} = 0.089$ $S_{d1} = 0.085$
 - 7.4.7. ANALYSIS PROCEDURE USED: EQUIVALENT LATERAL FORCE PROCEDURE
 - 7.4.10. SEISMIC RESPONSE COEFFICIENT: $C_s = 0.030$
 - 7.4.11. RESPONSE MODIFICATION FACTOR: $R = 3.0$
 - 7.5. WIND PRESSURE ON BUILDING
 - 7.5.1. BASIC WIND SPEED (3-SECOND GUST): 115 MPH
 - 7.5.2. RISK CATEGORY: II
 - 7.5.3. EXPOSURE CATEGORY: C
 - 7.5.4. INTERNAL PRESSURE COEFFICIENT: ± 0.18
 - 7.5.5. COMPONENTS AND CLADDING: ZONE 4 = 24 PSF ZONE 5 = 32.5 PSF
 - 7.6. SOIL NET ALLOWABLE BEARING CAPACITY: 1500 PSF
 - 7.7. ROOF SNOW LOADS
 - 7.7.1. GROUND SNOW LOAD: 25 PSF
 - 7.7.2. FLAT-ROOF SNOW LOAD: $P_f = 21$ PSF
 - 7.7.3. SLOPED-ROOF SNOW LOAD: $P_s = 21$ PSF
 - 7.7.4. MINIMUM LOW-SLOPE SNOW LOAD: $P_m = 20$ PSF
 - 7.7.5. SNOW EXPOSURE FACTOR: $C_e = 1.0$
 - 7.7.6. SNOW LOAD IMPORTANCE FACTOR: $I = 1.0$
 - 7.7.7. THERMAL FACTOR: $C_t = 1.2$
8. CONCRETE
 - 8.1. CONCRETE SHALL BE 5,000 PSI, STRENGTH ATTAINABLE AFTER 28 DAYS (ASTM C39). SLAB-ON-GRADE CONCRETE SHALL BE 4,000 PSI AT 28 DAYS. SLUMP OF CONCRETE SHALL BE TESTED ON SITE AT TIME OF DELIVERY AND SHALL NOT EXCEED 4". ALL FORMED SURFACES SHALL BE DAMPENED; PLACE CONCRETE IN SUCCESSIVE LIFTS NOT TO EXCEED 48" IN HEIGHT IN WALLS. WHILE PLACING, VIBRATE MIXTURE AND TAMP FORMS TO ENSURE CONSOLIDATION OF MATERIAL IN FORMWORK. SEE SPECIFICATIONS FOR ADDITIONAL MATERIAL AND CURE REQUIREMENTS.
 - 8.2. CONCRETE FINISHES
 - 8.2.1. VAULT SURFACES TO RECEIVE XYPEX COATING: PREPARE CONCRETE SURFACE AND APPLY AND CURE XYPEX PRODUCT TO SURFACE OF CONCRETE PER PRODUCT MANUFACTURER RECOMMENDATIONS.
 - 8.2.2. SLAB-ON-GRADE: BROOM FINISH. APPLY CONCRETE DENSIFIER/HARDENER TO SURFACE OF FRESH CONCRETE PER MANUFACTURER REQUIREMENTS. DO NOT OVER APPLY PRODUCT. DO NOT ALLOW MATERIAL TO PUDDLE ON THE SURFACE. APPROVED PRODUCT: LIQUI-HARD ULTRA BY W.R. MEADOWS.
 - 8.2.3. FOR REMAINING SURFACES, REFER TO SPECIFICATIONS.
 - 8.3. REINFORCING: MILD STEEL REINFORCING MINIMUM YIELD STRENGTH 60 KSI, EPOXY COATED WHERE INDICATED.
 - 8.4. REINFORCEMENT PROTECTION:
 - 8.4.1. CONCRETE PLACED AGAINST EARTH: 3"
 - 8.4.2. CONCRETE PLACED IN FORMS BUT EXPOSED TO WEATHER OR EARTH:
 - 8.4.2.1. BARS #5 AND SMALLER: 2"
 - 8.4.2.2. BARS LARGER THAN #5: 2"
 - 8.4.2.3. STRUCTURAL SLABS (TOP AND BOTTOM): 2"
 - 8.5. NO SPLICES OF REINFORCEMENT PERMITTED EXCEPT AS DETAILED OR AUTHORIZED BY ENGINEER. MAKE BARS CONTINUOUS AROUND CORNERS. WHERE PERMITTED PROVIDE SPLICES BY CONTACT LAP. WHERE CLASSES ARE NOT CALLED OUT ON DRAWINGS USE CLASS "B" TENSION SPLICE.
 - 8.6. DETAIL BARS IN ACCORDANCE WITH "ACI DETAILING MANUAL", PUBLICATION SP-66, AND "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE", ACI 318.
 - 8.7. ROUGHEN ALL CONSTRUCTION JOINTS TO AN AMPLITUDE OF AT LEAST 1/4".
 - 8.8. EPOXY FOR EPOXY DOWELS SHALL BE HILTI HIT-HY 200, OR APPROVED EQUAL.

9. METALS
 - 9.1. STRUCTURAL STEEL: MINIMUM YIELD STRENGTH 50 KSI FOR WIDE FLANGES, 35 KSI FOR PIPE, 46 KSI FOR TUBES, AND 36 KSI ALL ELSE UNLESS NOTED OTHERWISE.
 - 9.2. USE STANDARD FRAMED BEAM CONNECTIONS FOR WIDE FLANGE AND CHANNEL CONNECTIONS AND SINGLE PLATE SHEAR CONNECTIONS FOR PIPE AND HSS CONNECTIONS MEETING REQUIREMENTS OF "MANUAL OF STEEL CONSTRUCTION", 14TH EDITION, WITH 3/4" MINIMUM DIAMETER A325 BOLTS (OR WELDED EQUIVALENT) UNLESS OTHERWISE NOTED. MINIMUM OF TWO (2) ROWS OF BOLTS PER CONNECTION. SIZE CONNECTION FOR 3/4 OF TOTAL UNIFORM LOAD CAPACITY OF THE BEAMS.
 - 9.3. USE E70XX ELECTRODES FOR ALL SHOP AND FIELD WELDS. PROVIDE WELD SIZE IN ACCORDANCE WITH THE AISC SPECIFICATIONS, BUT NOT LESS THAN 3/16" FILLET, CONTINUOUS UNLESS OTHERWISE NOTED. GRIND SMOOTH ALL WELDS. GRIND AND CLEAN UP WELD SPLATTER.
 - 9.4. WELDERS: SHOW CURRENT EVIDENCE OF PASSING THE APPROPRIATE A.W.S. CERTIFICATION TESTS.
 - 9.5. THERE SHALL BE NO FIELD CUTTING OF STRUCTURAL STEEL MEMBERS FOR THE WORK OF OTHER TRADES WITHOUT PRIOR APPROVAL OF THE ENGINEER.
 - 9.6. ANCHOR BOLTS SHALL BE STAINLESS STEEL, ASTM F593, ALLOY 304, CONDITION CW, WITH STAINLESS STEEL HEAVY HEX NUTS, ASTM F594, ALLOY 304, CONDITION CW, AND STAINLESS STEEL WASHERS, ASTM A240, ALLOY 304.
 - 9.7. ALL STEEL COLUMNS SHALL HAVE A 1/4" CAP PLATE WELDED TO TOP WHERE TOP IS EXPOSED.
 - 9.8. ALL BASE PLATES ARE 10"x10"x1/2" WITH (4) 3/4" DIAMETER ANCHOR BOLTS AND 1 1/2" NON-SHRINK GROUT FOR LEVELING.
 - 9.9. AFTER FABRICATION, ALL STEEL SHALL BE CLEANED OF ALL RUST, LOOSE MILL SCALE, AND OTHER FOREIGN MATERIALS. STEEL SHALL BE CLEANED IN ACCORDANCE WITH THE SPECIFICATIONS. PREP AND APPLY COATINGS TO STEEL PER MANUFACTURER'S RECOMMENDATIONS. ALL AREAS OF STRUCTURAL STEEL MEMBERS IN WHICH THE PAINTED SURFACE IS DAMAGED DURING CONSTRUCTION SHALL BE PREPARED AND PAINTED ACCORDING TO COATING MANUFACTURER'S RECOMMENDATIONS. ALL EXTERIOR EXPOSED STRUCTURAL STEEL SHALL RECEIVE THE FOLLOWING COATING SYSTEM:
 1. TNEMEC SERIES N69 H.B. EPOXOLINE II (TWO COATS AT 3 MILS.)
 2. TNEMEC SERIES 1075U ENDURA-SHIELD II (ONE COAT AT 3 MILS.)
10. SEALANTS
 - 10.1. FLOOR SEALANTS AND CONSTRUCTION JOINT SEALANTS: REFER TO ARCHITECTURAL DRAWINGS AND SPECIFICATIONS.
11. PRECAST CONCRETE
 - 11.1. PRECAST MANUFACTURER SHALL VERIFY WEIGHT OF PRECAST WITH ENGINEER PRIOR TO CONSTRUCTION.
 - 11.2. PRECAST ELEMENTS SHALL BE DESIGNED BY THE PRECAST MANUFACTURER ACCORDING TO THE APPLICABLE BUILDING CODE FOR GRAVITY AND LATERAL LOADS, INCLUDING BUILDING LOADS LISTED IN THESE NOTES AS WELL AS ANY OTHER ADDITIONAL LOADS INDICATED ON THE PLANS. SEE SPECIFICATIONS FOR DESIGN REQUIREMENTS.
 - 11.3. ALL EMBEDDED PLATES AND CONNECTIONS SHALL BE STAINLESS STEEL. CONTROL HEAT DURING WELDING OF STAINLESS STEEL TO PREVENT CRACKING OF SURROUNDING CONCRETE. PRECAST CONNECTIONS SHALL BE CONCEALED OR RECESSED AND PATCHED, EXCEPT THAT EMBEDS FLUSH WITH THE SURROUNDING PANEL SURFACE ARE ACCEPTABLE AS LONG AS CONNECTION HARDWARE DOES NOT PROJECT BEYOND THE PANEL SURFACE. CONNECTIONS SHALL NOT BE VISIBLE ON THE EXTERIOR, UNLESS SHOWN OTHERWISE IN THE DRAWINGS.
 - 11.4. VERIFY OPENINGS THROUGH FLOORS AND WALLS WITH ARCHITECTURAL, MECHANICAL, ELECTRICAL AND PROCESS REQUIREMENTS. CHANGES IN SIZE, LOCATION OR NUMBER OF OPENINGS SHALL NOT BE PERMITTED WITHOUT WRITTEN APPROVAL BY THE ENGINEER.
12. FOUNDATIONS
 - 12.1. FOUNDATIONS DESIGNED FOR ASSUMED BEARING CAPACITY LISTED ABOVE. SEE SPECIFICATIONS FOR STRUCTURAL EXCAVATION AND BACKFILL REQUIREMENTS.
 - 12.2. CONTRACTOR SHALL VERIFY IN-SITU SOIL BEARING CAPACITY AND SHALL NOTIFY ENGINEER OF ANY UNUSUAL SOIL CONDITIONS THAT ARE IN VARIANCE WITH THE ASSUMED BEARING PRESSURE.

| BUILDING ELEVATION TABLE | | |
|--------------------------|------------------|---------------------|
| BUILDING NAME | ACTUAL ELEVATION | REFERENCE ELEVATION |
| WEST SIDE BATHROOM | 689.29' | 100'-0" |

CEDAR RIVER CROSSING & SUTLIFF BRIDGE - WEST AREA IMPROVEMENTS
 JOHNSON COUNTY CONSERVATION
 5473 SUTLIFF ROAD NE., SOLON, IOWA 52333

PRELIMINARY
 - NOT FOR
 CONSTRUCTION

| | |
|-------------|------------|
| DRAWN: | DRG |
| APPROVED: | CTR |
| ISSUED FOR: | BID |
| DATE: | 11/19/2021 |
| PROJECT #: | 4215400 |
| FIELD BOOK: | |

RESTROOM STRUCTURAL GENERAL NOTES

S1.01

SHIVE-HATTERY
 ARCHITECTURE+ENGINEERING
 4125 Westown Pkwy, Suite 100 | West Des Moines, Iowa 50266
 515.223.8104 | www.shive-hattery.com
 Iowa | Illinois | Indiana | Nebraska | Wisconsin

STATEMENT OF SPECIAL INSPECTIONS

This Statement of Special Inspections is submitted as a condition for permit issuance in accordance with the Special Inspection and Structural Testing requirements of the Building Code. It includes a schedule of Special Inspection services applicable to the structural components of this project. If applicable, it includes Requirements for Seismic Resistance and/or Requirements for Wind Resistance. This Statement of Special Inspections Encompasses the following disciplines:

- Structural
- Mechanical / Electrical / Plumbing
- Architectural
- Other

The Special Inspection Coordinator shall keep records of all inspections and shall furnish inspection reports to the Building Official and the Registered Design Professional in Responsible Charge. Discovers discrepancies shall be brought to the immediate attention of the Contractor for correction. If such discrepancies are not corrected, the discrepancies shall be brought to the attention of the Building Official and the Registered Design Professional in Responsible Charge. The Special Inspection program does not relieve the Contractor of his or her responsibilities.

Interim reports shall be submitted to the Building Official and the Registered Design Professional in Responsible Charge. A Final Report of Special Inspections documenting completion of all required Special Inspections, testing and corrections of any discrepancies noted in the inspections shall be submitted prior to issuance of a Certificate of Use and Occupancy. Job site safety and means and methods of construction are solely the responsibility of the Contractor.

QUALIFICATIONS OF INSPECTORS AND TESTING TECHNICIANS

The qualifications of all personnel performing Special Inspection and testing activities are subject to the approval of the Building Official. The credentials of all Inspectors and testing technicians shall be provided if requested.

Key for Minimum Qualifications of Inspection Agents:

When the Registered Design Professional in Responsible Charge deems it appropriate that the individual performing a stipulated test or inspection have a specific certification or license as indicated below, such designations shall appear below the Agent on the Schedule.

- PE/SE Structural Engineer - A licensed SE or PE specializing in the design of building structures
- PE/GE Geotechnical Engineer - A licensed PE specializing in soil mechanics and foundations
- EIT Engineer-In-Training - A graduate engineer who has passed the Fundamentals of Engineering examination

American Concrete Institute (ACI) Certification

- ACI-CFTT Concrete Field Testing Technician - Grade 1
- ACI-CCI Concrete Construction Inspector
- ACI-LTT Laboratory Testing Technician - Grade 1 & 2
- ACI-STT Strength Testing Technician

American Welding Society (AWS) Certification

- AWS-CWI Certified Welding Inspector
- AWS/AISC-SSI Certified Structural Steel Inspector

American Society of Non-Destructive Testing (ASNT) Inspection

- ASNT Non-Destructive Testing Technician - Level II or III

International Code Council (ICC) Certification

- ICC-SMSI Structural Masonry Special Inspector
- ICC-SFSI Spray-Applied Fireproofing Special Inspector
- ICC-RCSI Reinforced Concrete Special Inspector
- ICC-SWSI Structural Steel and Welding Special Inspector
- ICC-PCSI Prestressed Concrete Special Inspector

National Institute of Certification in Engineering Technologies (NICET)

- NICET-CT Concrete Technician - Levels I, II, III, & IV
- NICET-ST Soils Technician - Levels I, II, III & IV
- NICET-GET Geotechnical Engineering Technician - Level I, II, III & IV

Exterior Design Institute (EDI) Certification

- EDI-EIFS EIFS Third Party Inspector

QUALITY ASSURANCE PLAN

Quality Assurance for Seismic Resistance:

- | | |
|---|----|
| 1. Seismic Design Category: | B |
| 2. Statement of Special Inspections for Seismic Resistance required (Y/N): | N |
| 3. Description of Seismic-Force Resisting System subject to Special Inspection and testing for Seismic Resistance: | NA |
| 4. Description of main Wind Force-Resisting System subject to Special Inspection for Wind Resistance: | NA |
| 5. Description of Wind Force-Resisting components subject to Special Inspection of Wind Resistance: | NA |
| 6. Each Contractor responsible for the construction and fabrication of a system or component described above must submit a Statement of Responsibility. | |

Quality Assurance Plan for Wind Requirements:

- | | |
|--|----|
| 1. Nominal Design Wind Speed, V _{asd} = | 90 |
| 2. Wind Exposure Category: | C |
| 3. Statement for Special Inspection for Wind Resistance Required (Y/N): | N |
| 4. Description of main Wind Force-Resisting System subject to Special Inspection for Wind Resistance: | NA |
| 5. Description of Wind Force-Resisting components subject to Special Inspection of Wind Resistance: | NA |
| 6. Each Contractor responsible for the construction or fabrication of a system or component described above must submit a Statement of Responsibility. | |

CONTRACTOR'S RESPONSIBILITY REGARDING INSPECTIONS

- The contractor is responsible for scheduling inspections and tests. Sufficient notice and lead time must be allowed for the inspection and testing to be performed without impeding construction operations.
- The contractor must cooperate with the inspections and testing agencies. Safe access must be provided to all inspection and test to be performed. This may require the contractor to provide scaffolding, ladders or lifts.
- When deficiencies are identified, the contractor must take corrective actions to comply with the contract documents or remedy the deficiencies as directed by the registered design professional.
- The special inspection and quality assurance program does not relieve the contractor of his or her responsibility to perform quality control.
- The contractor is responsible for testing services that are required for material submittals and that not part of the special inspections program (e.g. aggregate tests, concrete mix designs, testing of controlled fill, materials, etc.).

| PRECAST CONCRETE CONSTRUCTION | SERVICE | EXTENT | AGENT |
|--|---|----------|-------|
| 1. REVIEW PLANT OPERATIONS AND QUALITY CONTROL PROCEDURES | PCI CERTIFIED PLANT REQUIRED BY SPECIFICATION | PERIODIC | |
| 2. ERECTION OF PRECAST CONCRETE MEMBERS | | | |
| A. INSPECT IN ACCORDANCE WITH CONSTRUCTION DOCUMENTS | FIELD INSPECTION | PERIODIC | |
| B. PERFORM INSPECTION OF WELDING AND BOLTING IN ACCORDANCE WITH STEEL CONSTRUCTION | FIELD INSPECTION | PERIODIC | |
| 3. VERIFICATION OF IN-SITU CONCRETE STRENGTH, PRIOR TO STRESSING OF TENDONS IN POST TENSIONED CONCRETE AND PRIOR TO REMOVAL OF SHORES AND FORMS FROM BEAMS AND STRUCTURAL SLABS. | REVIEW FIELD TESTING AND LABORATORY REPORTS | PERIODIC | |

| CONCRETE CONSTRUCTION | SERVICE | EXTENT | AGENT |
|--|--|---|-------------------|
| 1. INSPECT SIZE, SPACING, COVER, POSITIONING AND GRADE OF REINFORCING STEEL AND PRESTRESSING STEEL. VERIFY THAT REINFORCING BARS ARE FREE OF FORM OIL OR OTHER DELETERIOUS MATERIALS. INSPECT BAR LAPS AND MECHANICAL SPLICES. VERIFY THAT BARS ARE ADEQUATELY TIED AND SUPPORTED OF CHAIRS OR BOLSTERS. | FIELD INSPECTION | PERIODIC | ACI-CCI, ICC-RCSI |
| 2. REINFORCING STEEL WELDING | FIELD INSPECTION | | |
| A. VERIFICATION OF WELDABILITY OF STEEL OTHER THAN ASTM A706 | | PERIODIC | |
| B. INSPECT SINGLE PASS FILLET WELDS < 5/16" | | PERIODIC | |
| C. ALL OTHER WELDS | CONTINUOUS | | |
| 3. INSPECT SIZE, POSITIONING, AND EMBEDMENT OF ANCHOR RODS. INSPECT CONCRETE PLACEMENTS AND CONSOLIDATION AROUND ANCHORS | FIELD INSPECTION | PERIODIC | |
| 4. INSPECTION OF ANCHORS AND REINFORCING STEEL POST-INSTALLED IN HARDENED CONCRETE. PER RESEARCH REPORTS INCLUDING VERIFICATION OF ANCHOR TYPE, ANCHOR DIMENSIONS, HOLE DIMENSIONS, HOLE CLEANING PROCEDURES, ANCHOR SPACING, EDGE DISTANCES, CONCRETE MINIMUM THICKNESS, ANCHOR EMBEDMENT, AND TIGHTENING TORQUE. | FIELD INSPECTION | CONTINUOUS FOR HORIZONTAL OR UPWARDLY INCLINED ORIENTATIONS TO RESIST SUSTAINED TENSION LOADS. PERIODIC FOR ALL OTHER ANCHORS | ACI-CCI, ICC-RCSI |
| 5. REVIEW CONCRETE BATCH TICKETS AND VERIFY COMPLIANCE WITH APPROVED MIX DESIGN. VERIFY THAT WATER ADDED AT THE SITE DOES NOT EXCEED THAT ALLOWED BY THE MIX DESIGN | FIELD INSPECTION | PERIODIC | ACI-CCI, ICC-RCSI |
| 6. TEST CONCRETE COMPRESSION STRENGTH (ASTM C31 & C39), SLUMP (ASTM C143), AIR-CONTENT (ASTM C231 OR C173) AND TEMPERATURE (ASTM C1064) | FIELD INSPECTION | CONTINUOUS | ACI-CFTT, ACI-STT |
| 7. INSPECT PLACEMENT OF CONCRETE AND SHOTCRETE. VERIFY THAT CONCRETE CONVEYANCE AND DEPOSITING AVOIDS SEGREGATION OR CONTAMINATION. VERIFY THAT CONCRETE IS PROPERLY CONSOLIDATED. | FIELD INSPECTION | CONTINUOUS | ACI-CCI, ICC-RCSI |
| 8. INSPECTION OF MAINTENANCE OF SPECIFIED CURING TEMPERATURE AND TECHNIQUES | FIELD INSPECTION | PERIODIC | ACI-CCI, ICC-RCSI |
| 9. INSPECTION OF FORMWORK FOR SHAPE, LINES, LOCATION, AND DIMENSIONS | FIELD INSPECTION | PERIODIC | ACI-CCI, ICC-RCSI |
| 10. CERTIFY IN-SITU CONCRETE STRENGTH, PRIOR TO STRESSING OF TENDONS IN POST-TENSIONED CONCRETE AND PRIOR TO REMOVAL OF SHORES AND FORMS FROM BEAMS AND STRUCTURAL SLAB. | FIELD TESTING AND REVIEW OF LABORATORY REPORTS | PERIODIC | |
| 11. PERFORM FLOOR FLATNESS AND/OR LEVELNESS TESTING (ASTM E1155) FOR ALL SLAB-ON-GRADE AND ELEVATED SLAB PER SPECIFICATION. | FIELD INSPECTION | PERIODIC AT ALL BOLTED CONNECTIONS | ACI-CCI, ICC-RCSI |

| SOILS | SERVICE | EXTENT | AGENT |
|---|------------------|------------|-----------|
| 1. VERIFY MATERIALS BELOW SHALLOW FOUNDATIONS ARE ADEQUATE TO ACHIEVE THE DESIGN | FIELD INSPECTION | PERIODIC | PE/GE/EIT |
| 2. VERIFY EXCAVATIONS ARE EXTENDED TO PROPER DEPTH AND HAVE REACHED PROPER MATERIAL | FIELD INSPECTION | PERIODIC | PE/GE/EIT |
| 3. PERFORM SIEVE TESTS (ASTM D422 & D1140) AND MODIFIED PROCTOR TESTS (ASTM D1557) OF EACH SOURCE OF FILL MATERIAL | FIELD INSPECTION | PERIODIC | PE/GE/EIT |
| 4. VERIFY USE OF PROPER MATERIALS, DENSITIES, AND LIFT THICKNESSES DURING PLACEMENT AND COMPACTION OF COMPACTED FILL. TEST DENSITY OF EACH LIFT OR FILL BY NUCLEAR METHODS (ASTM D2922) | FIELD INSPECTION | CONTINUOUS | PE/GE/EIT |
| 5. PRIOR TO PLACEMENT OF COMPACTED FILL, OBSERVE SUBGRADE AND VERIFY THAT THE SITE HAS BEEN PREPARED PROPERLY | FIELD INSPECTION | PERIODIC | PE/GE/EIT |

| STEEL CONSTRUCTION | SERVICE | EXTENT | AGENT |
|---|---|------------------------------------|-------|
| 1. FABRICATOR CERTIFICATION | AISC CERTIFIED FABRICATOR REQUIRED BY SPECIFICATION | | |
| 2. MATERIAL VERIFICATION. REVIEW CERTIFIED MILL TEST REPORTS AND IDENTIFICATION MARKINGS ON WIDE-FLANGE SHAPES, HIGH STRENGTH BOLTS, NUTS, AND WELDING ELECTRODES | FIELD INSPECTION | PERIODIC | |
| 3. EMBEDMENTS: VERIFY DIAMETER, GRADE, TYPE, LENGTH, AND EMBEDMENT. SEE CONCRETE CONSTRUCTION FOR ANCHORS | FIELD INSPECTION | PERIODIC | |
| 4. VERIFY MEMBER LOCATIONS, BRACES, STIFFENERS, AND APPLICATION OF JOINT DETAILS AT EACH CONNECTION COMPLY WITH CONSTRUCTION DOCUMENTS | FIELD INSPECTION | PERIODIC | |
| 5. STRUCTURAL STEEL WELDING: | | | |
| A. INSPECTION TASKS PRIOR TO WELDING (OBSERVE OR PERFORM FOR EACH WELDED JOINT OR MEMBER, THE QA TASKS LISTED IN AISC 360, TABLE N5.4-1) | FIELD INSPECTION | PERIODIC AT ALL WELDED JOINTS | |
| B. INSPECTION TASKS DURING WELDING (OBSERVE OR PERFORM FOR EACH WELDED JOINT OR MEMBER, THE QA TASKS LISTED IN AISC 360, TABLE N5.4-2) | FIELD INSPECTION | PERIODIC AT ALL WELDED JOINTS | |
| C. INSPECTION TASKS AFTER WELDING (OBSERVE OR PERFORM FOR EACH WELDED JOINT OR MEMBER, THE QA TASKS LISTED IN AISC 360, TABLE N5.4-3) | FIELD INSPECTION | PERIODIC AT ALL WELDED JOINTS | |
| D. NON-DESTRUCTIVE TESTING (NDT) OF WELDED JOINTS: | | | |
| 1) COMPLETE PENETRATION WELDS WHEN REQUIRED BY AISC 360, N5.5b | FIELD ULTRASONIC TESTING - 100% | PERIODIC | |
| 2) WELDED JOINTS SUBJECT TO FATIGUE WHEN REQUIRED BY AISC 360, APPENDIX 3, TABLE A-3.2 | FIELD RADIOGRAPHIC OR ULTRASONIC TESTING | PERIODIC | |
| 3) FABRICATOR'S NDT REPORTS WHEN FABRICATOR PERFORMS NDT | VERIFY REPORTS | EACH SUBMITTAL | |
| 6. STRUCTURAL STEEL BOLTING: | | | |
| A. INSPECTION TASKS PRIOR TO BOLTING (OBSERVE OR PERFORM TASKS FOR EACH BOLTED CONNECTION, IN ACCORDANCE WITH QA TASKS LISTED IN AISC 360, TABLE N5.6-1) | FIELD INSPECTION | PERIODIC AT ALL BOLTED CONNECTIONS | |
| B. INSPECTION TASKS DURING BOLTING (OBSERVE THE QA TASKS LISTED IN AISC 360, TABLE N5.6-2) | FIELD INSPECTION | PERIODIC AT ALL BOLTED CONNECTIONS | |
| 1) PRE-TENSIONED AND SLIP-CRITICAL JOINTS | | | |
| a. TURN-OF-NUT WITH MATCHING MARKINGS | | CONTINUOUS | |
| b. DIRECT TENSION INDICATOR | | CONTINUOUS | |
| c. TWIST-OFF TYPE TENSION CONTROL BOLT | | CONTINUOUS | |
| d. TURN-OF-NUT WITHOUT MATCHING MARKINGS | | CONTINUOUS | |
| e. CALIBRATED WRENCH | | CONTINUOUS | |
| 2) SNUG-TIGHT JOINTS | | PERIODIC | |
| C. INSPECTION TASKS AFTER BOLTING (PERFORM TASKS FOR EACH BOLTED CONNECTION IN ACCORDANCE WITH QA TASKS LISTED IN AISC 360, TABLE N5.6-3) | FIELD INSPECTION | PERIODIC AT ALL BOLTED CONNECTIONS | |
| 7. INSPECTION OF STEEL ELEMENTS OF COMPOSITE CONSTRUCTION PRIOR TO CONCRETE PLACEMENT: INSPECT SIZE, NUMBER, POSITIONING, AND WELDING OF SHEAR CONNECTORS. INSPECT STUDS FOR FULL 360 DEGREE FLASH. PING TEST ALL SHEAR CONNECTORS WITH A 3 LB HAMMER. BEND TEST ALL QUESTIONABLE STUDS TO 15 DEGREES | FIELD INSPECTION AND TESTING | PERIODIC | |
| 8. MATERIAL VERIFICATION OF COLD-FORMED STEEL DECK: IDENTIFICATION MARKINGS | FIELD INSPECTION | PERIODIC | |
| 9. CONNECTION OF COLD-FORMED STEEL DECK TO SUPPORTING STRUCTURE: INSPECT WELDING AND SIDE-LAP FASTENING OF METAL ROOF AND FLOOR DECK IS IN CONFORMANCE WITH APPROVED SUBMITTAL. | FIELD INSPECTION | PERIODIC | |
| 10. COLD-FORMED STEEL TRUSSES SPANNING 60 FEET OR GREATER: VERIFY TEMPORARY AND PERMANENT RESTRAINT/BRACING ARE INSTALLED IN ACCORDANCE WITH THE APPROVED TRUSS SUBMITTAL PACKAGE | FIELD INSPECTION | PERIODIC | |
| 11. OPEN WEB STEEL JOIST: INSPECT INSTALLATION, FIELD WELDING, FIELD BOLTING, AND BRIDGING OF JOIST IS IN CONFORMANCE WITH APPROVED SUBMITTAL | FIELD INSPECTION | PERIODIC | |

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 CEDAR RIVER CROSSING & SUTLIFF
 BRIDGE - WEST AREA IMPROVEMENTS
 JOHNSON COUNTY CONSERVATION
 5473 SUTLIFF ROAD NE, SOLON, IOWA 52333

PRELIMINARY
- NOT FOR
CONSTRUCTION

| |
|--------------------|
| DRAWN: KCC |
| APPROVED: BEL |
| ISSUED FOR: BID |
| DATE: 11/19/2021 |
| PROJECT #: 4215400 |
| FIELD BOOK: |

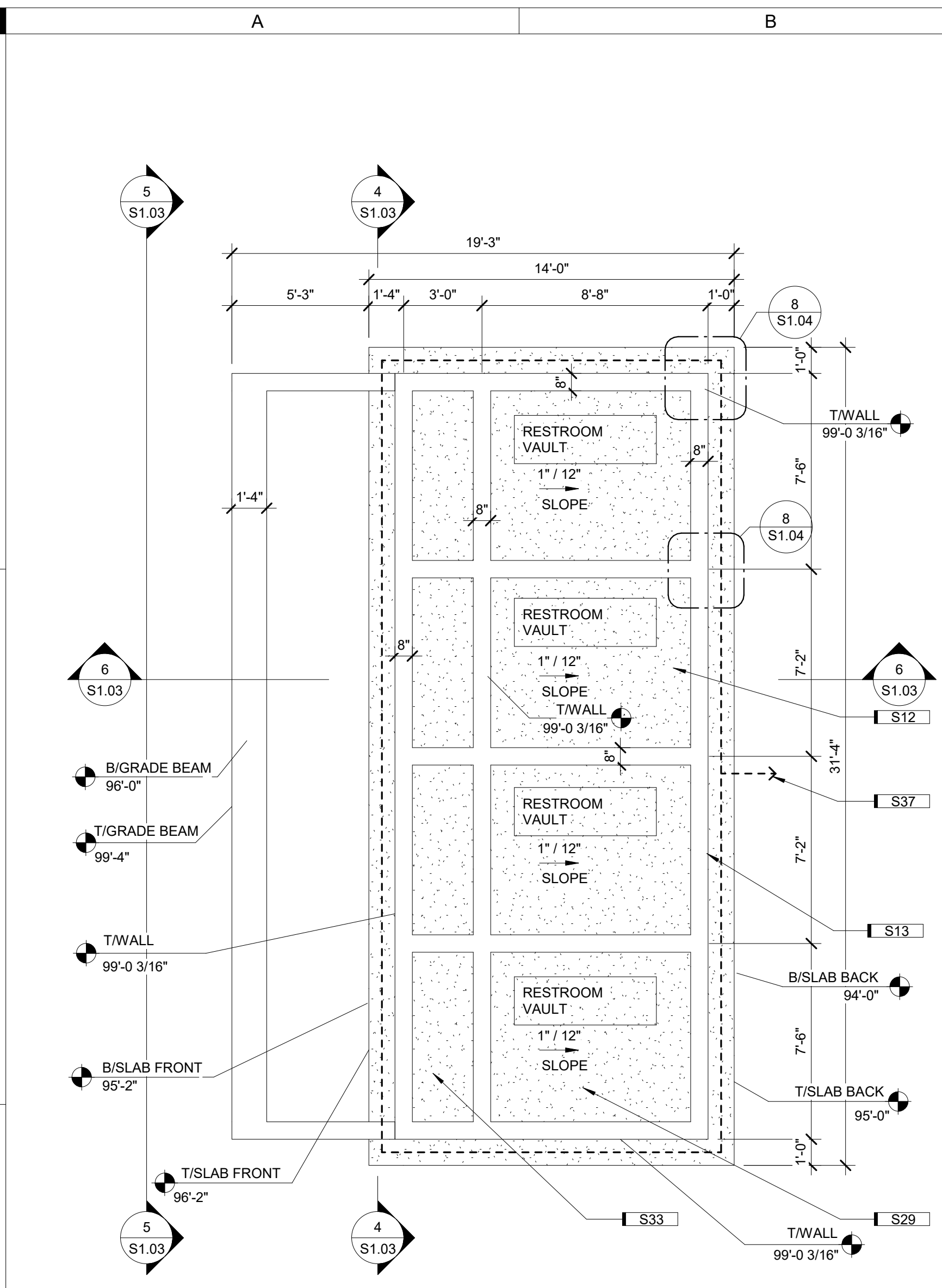
RESTROOM
SPECIAL
INSPECTIONS

S1.02

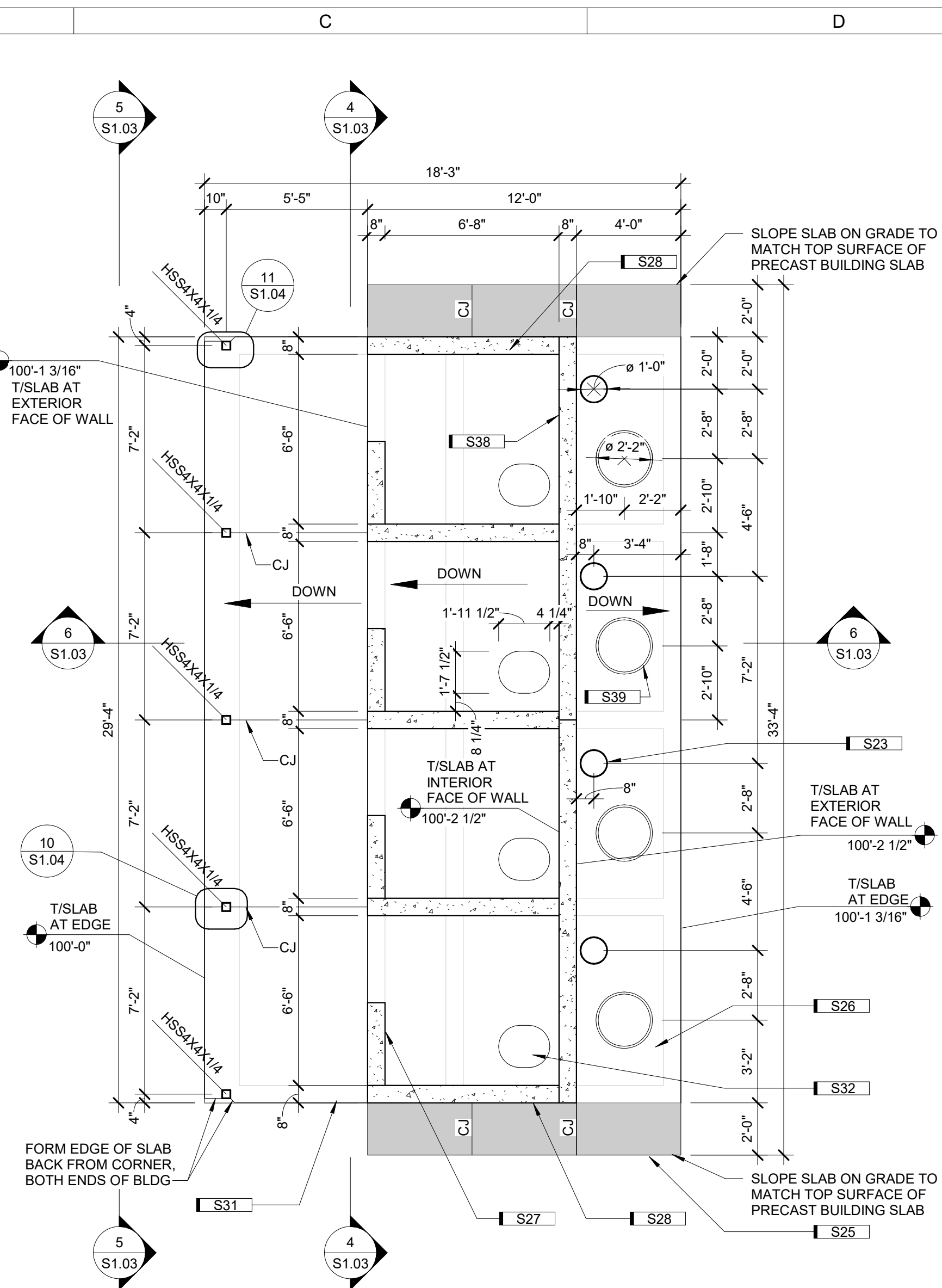
| STRUCTURAL KEYNOTE LEGEND | |
|---------------------------|--|
| Key Value | Keynote Text |
| S12 | 12" THICK CAST IN PLACE CONCRETE SLAB W/ #6 BARS AT 12" O.C. EACH WAY, TOP AND BOTTOM. CONCRETE MIXTURE SHALL CONTAIN XYPEX ADMIXTURE. |
| S13 | 8" CAST IN PLACE CONCRETE WALL. CONCRETE MIXTURE SHALL CONTAIN XYPEX ADMIXTURE. |
| S23 | 1'-0" DIAMETER VENT STACK FLOOR PENETRATION, TYP. OF 4. OPENING TO BE CORED IN THE FIELD. SEE ARCHITECTURAL FOR VENT STACK REQUIREMENTS. VERIFY REQUIRED HOLE SIZE PRIOR TO CORING HOLE. |
| S25 | 5' SLAB ON GRADE, 2'-0" WIDTH AROUND EXTERIOR EXTENTS OF VAULT PIT. 1/2" EXPANSION JOINT MATERIAL ALONG EDGE NEXT TO BUILDING, WITH SEALANT. |
| S26 | ELEVATED PRECAST CONCRETE SOLID SLAB WITH SLOPING TOP SURFACE. LOCATE SLAB JOINTS UNDER WALL PANELS ABOVE. MINIMUM 2" CLEAR COVER TO REINFORCING. |
| S27 | 8" NON LOAD BEARING PRECAST EXTERIOR WALL. |
| S28 | 8" FULL HEIGHT, LOAD BEARING PRECAST WALL. T/WALL EL. SLOPES FROM 109'-1 1/4" TO 110'-4". B/WALL SLOPES ALONG PRECAST SLAB. |
| S29 | COVER EXPOSED INTERIOR CONCRETE SURFACES OF RESTROOM FLOOR AND WALLS, INCLUDING FOUNDATION FLOOR AND WALLS, AND EXCLUDING UNDERSIDE OF PRECAST SLAB, WITH XYPEX COATING, TYP. AT ALL RESTROOM STALLS AT FACILITY. |
| S30 | 8" PRECAST SOLID SLAB ROOF PANEL SYSTEM. ALIGN ROOF PANEL JOINTS OVER WALLS BELOW. |
| S31 | 5" THICK STOOP WITH THICKENED SLABS AT EDGES. SEE DETAILS FOR REINFORCEMENT CALLOUTS. |
| S32 | TOILET RISER INTERIOR FLOOR OPENING, TYPICAL FOR EACH TOILET STALL. CAST SLEEVE INTO PRECAST FLOOR SLAB. COORDINATE FINAL OPENING SIZE WITH TOILET RISER ADAPTER. SEE ARCHITECTURAL. |
| S33 | FILL CONCRETE FOUNDATION VOID WITH SAND TO TOP OF FOUNDATION WALL. PRECAST CONCRETE SLAB TO SPAN OVER SAND. |
| S36 | EMBED CONNECTION BY PRECASTER @ 4'-0" O.C. DO NOT LOCATE CONNECTIONS AT INACCESSIBLE FOUNDATION VOID. |
| S37 | 6" Ø PERFORATED DRAINING PIPE. SEE CIVIL FOR CONNECTION TO OUTLET. SURROUND DRAIN TILE WITH 12"X12" FREE DRAINING GRANULAR FILL (DOT 4131) AND GEOTEXTILE FABRIC. |
| S38 | 8" FULL HEIGHT, LOAD BEARING PRECAST WALL. LOCATE PANEL JOINTS IN LINE WITH INTERIOR WALL PANELS TO CONCEAL JOINTS AT INTERIOR. |
| S39 | CAST IRON HEAVY DUTY MANHOLE FRAME AND SOLID LID WITH CONCEALED PICK HOLES AND 24" CLEAR OPENING, NEENAH FOUNDRY OR APPROVED EQUAL. CAST MANUFACTURER SUPPLIED FRAME INTO PRECAST FLOOR SLAB AT TIME OF CASTING PANEL. |
| S40 | EXTERIOR FACE OF GROUT AT JOINT AT BASE OF PRECAST WALL PANELS TO BE STAINED TO MATCH EXTERIOR COLOR OF PRECAST WALL PANELS, ALONG ALL FOUR SIDES OF BUILDING. |
| S41 | SHEET WATERPROOFING ON EXTERIOR FACE OF FOUNDATION WALLS. SEE ARCHITECTURAL. |

| REACTION TABLE | | SHEAR TABLE FOR WIND SHEAR TRANSFERRED TO PRECAST WALLS FROM ROOF | |
|----------------|----------|---|-------------|
| R1 | 3.0 KIPS | V1 | 0.2 KIPS/FT |
| | | V2 | 0.2 KIPS/FT |

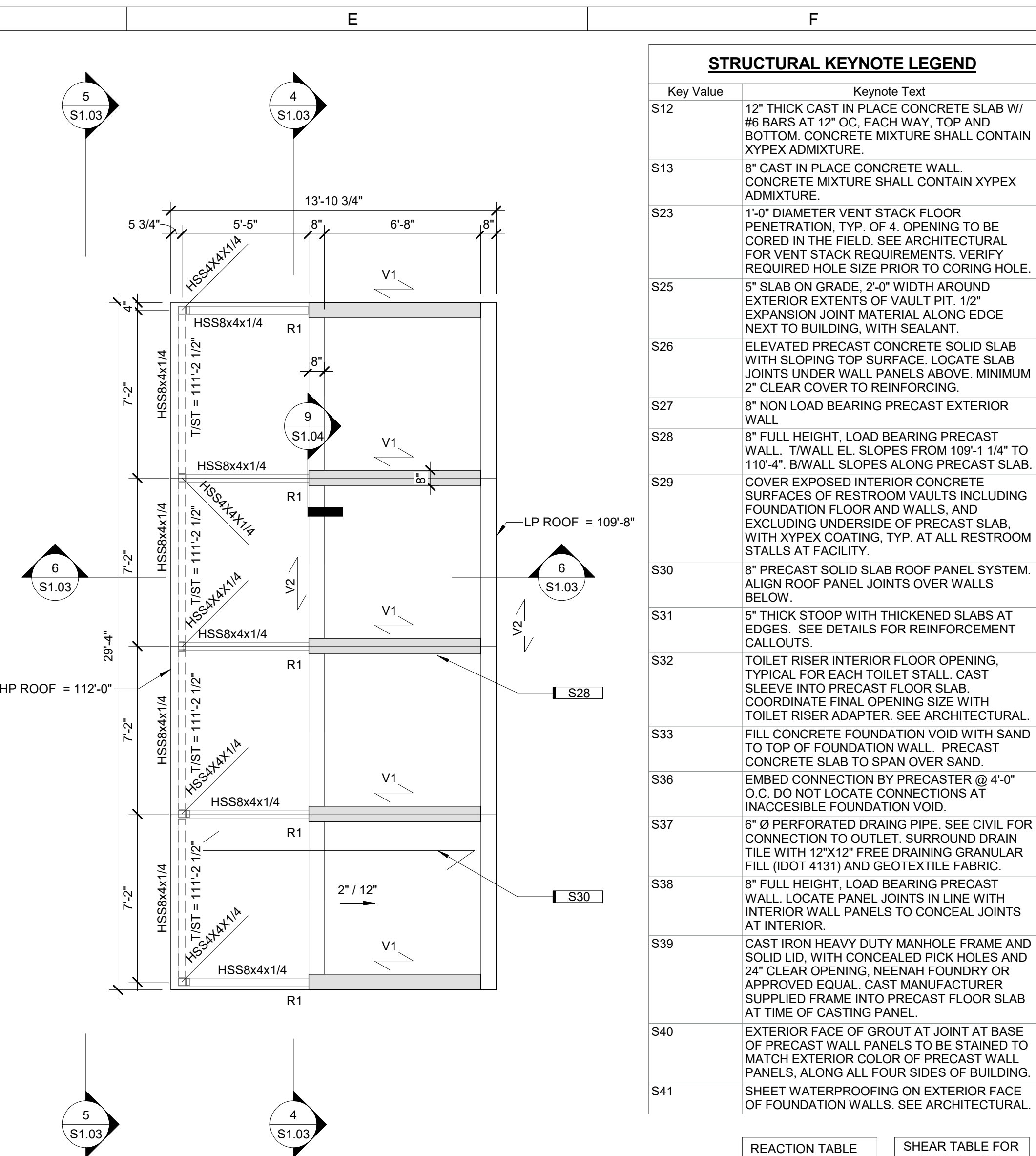
NOTE: LP = LOW POINT
HP = HIGH POINT



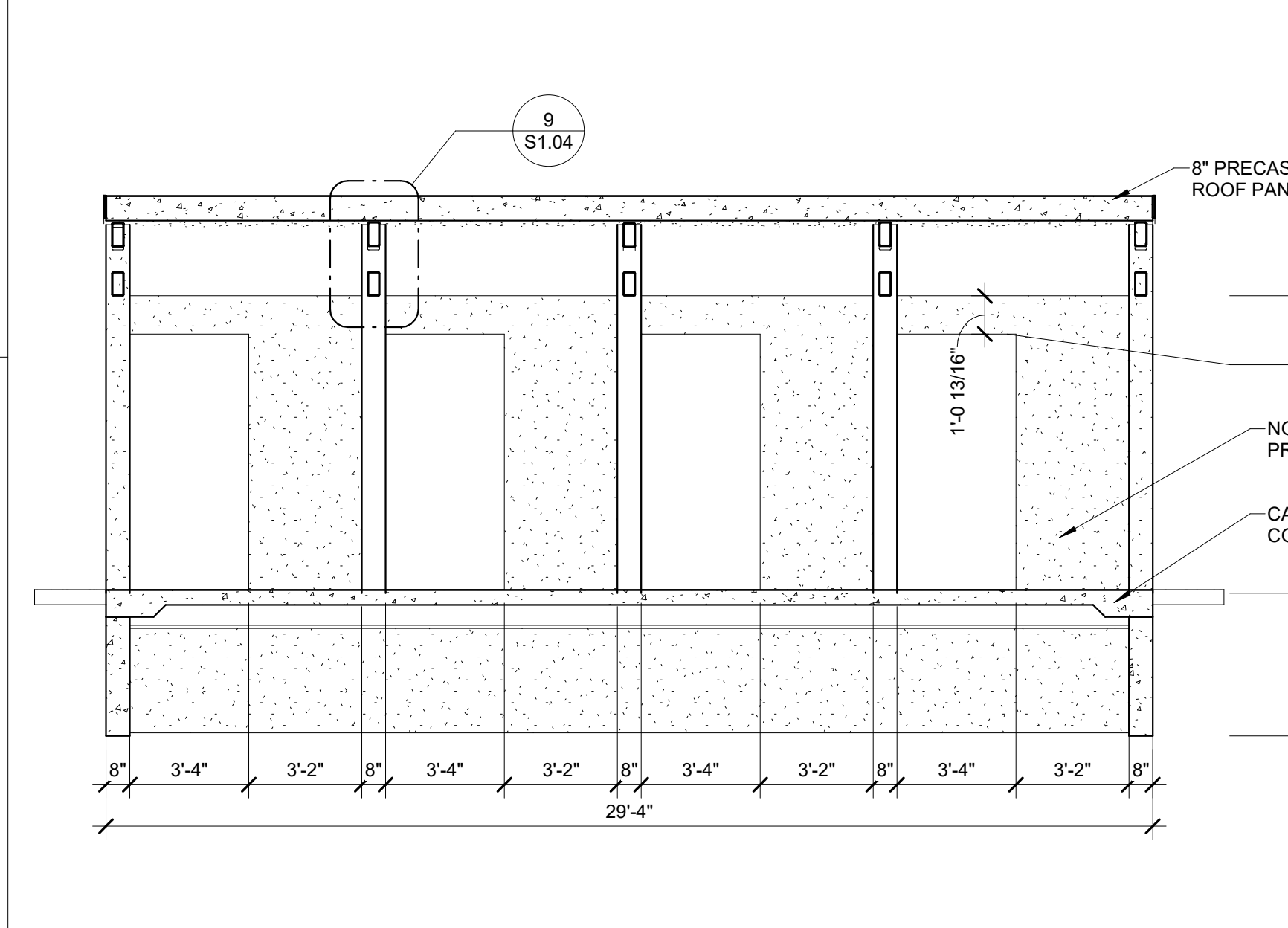
1 RESTROOM FOUNDATION PLAN
1/4" = 1'-0"



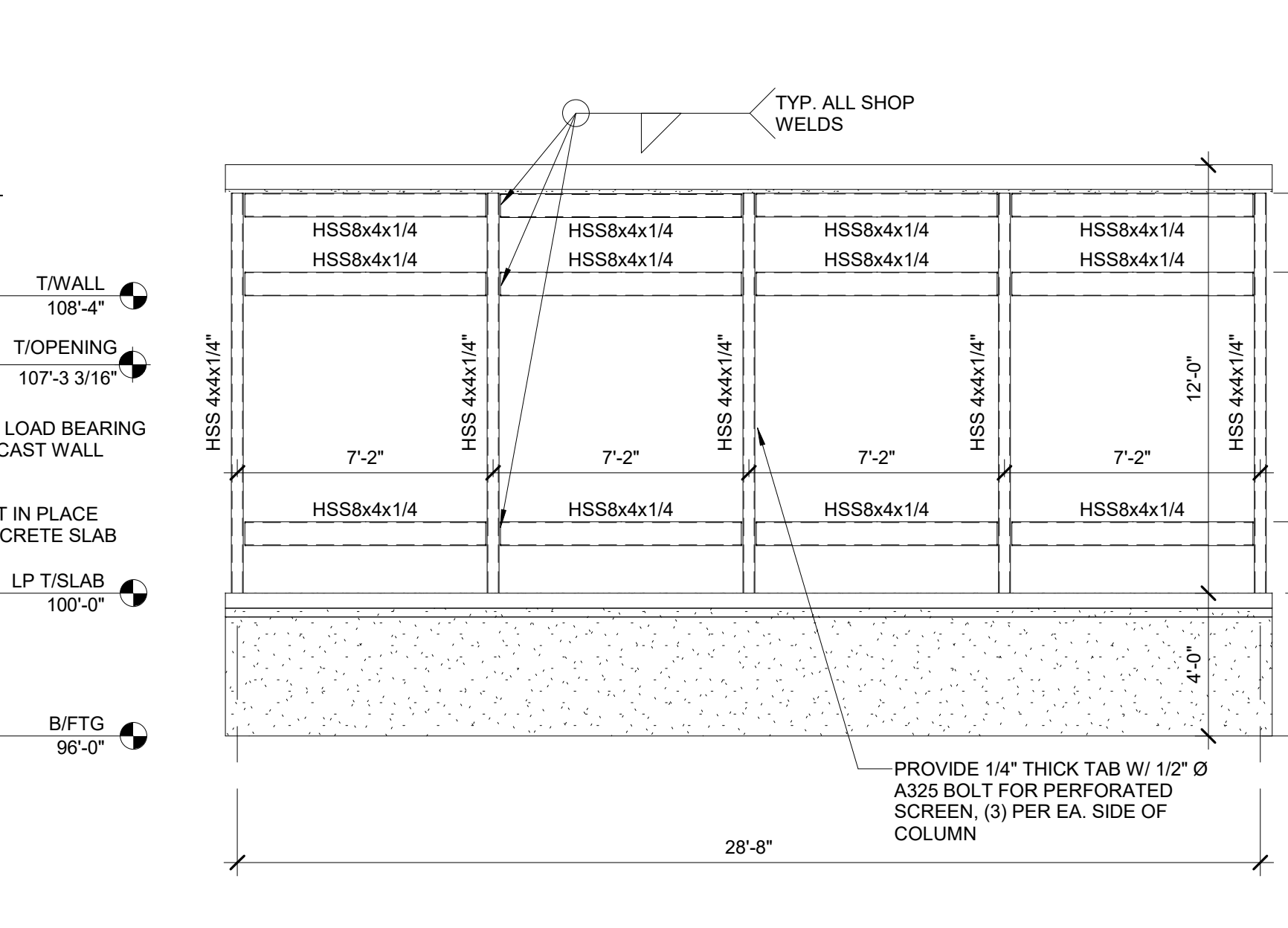
2 RESTROOM FLOOR PLAN
1/4" = 1'-0"



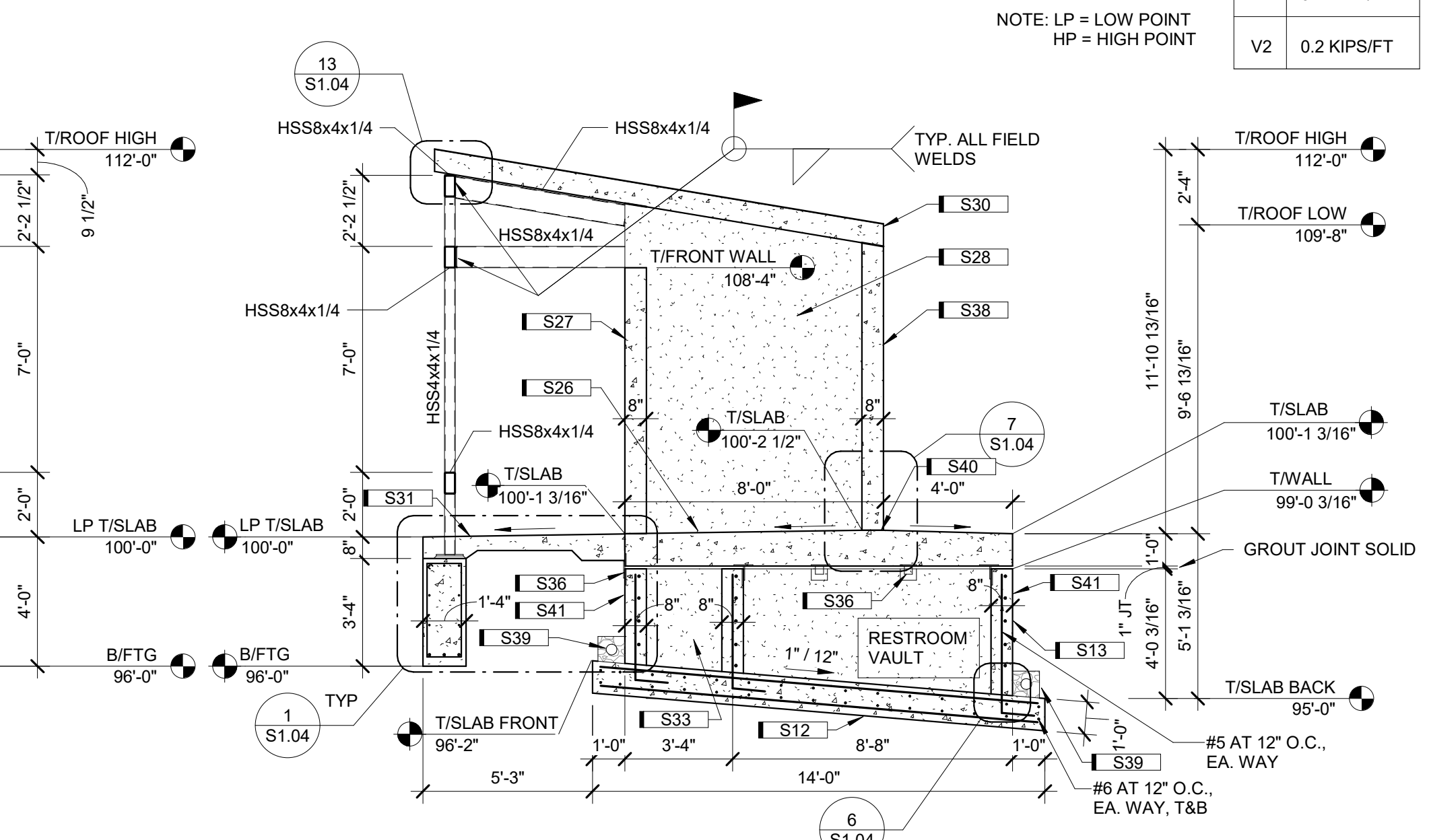
3 RESTROOM FRAMING PLAN
1/4" = 1'-0"



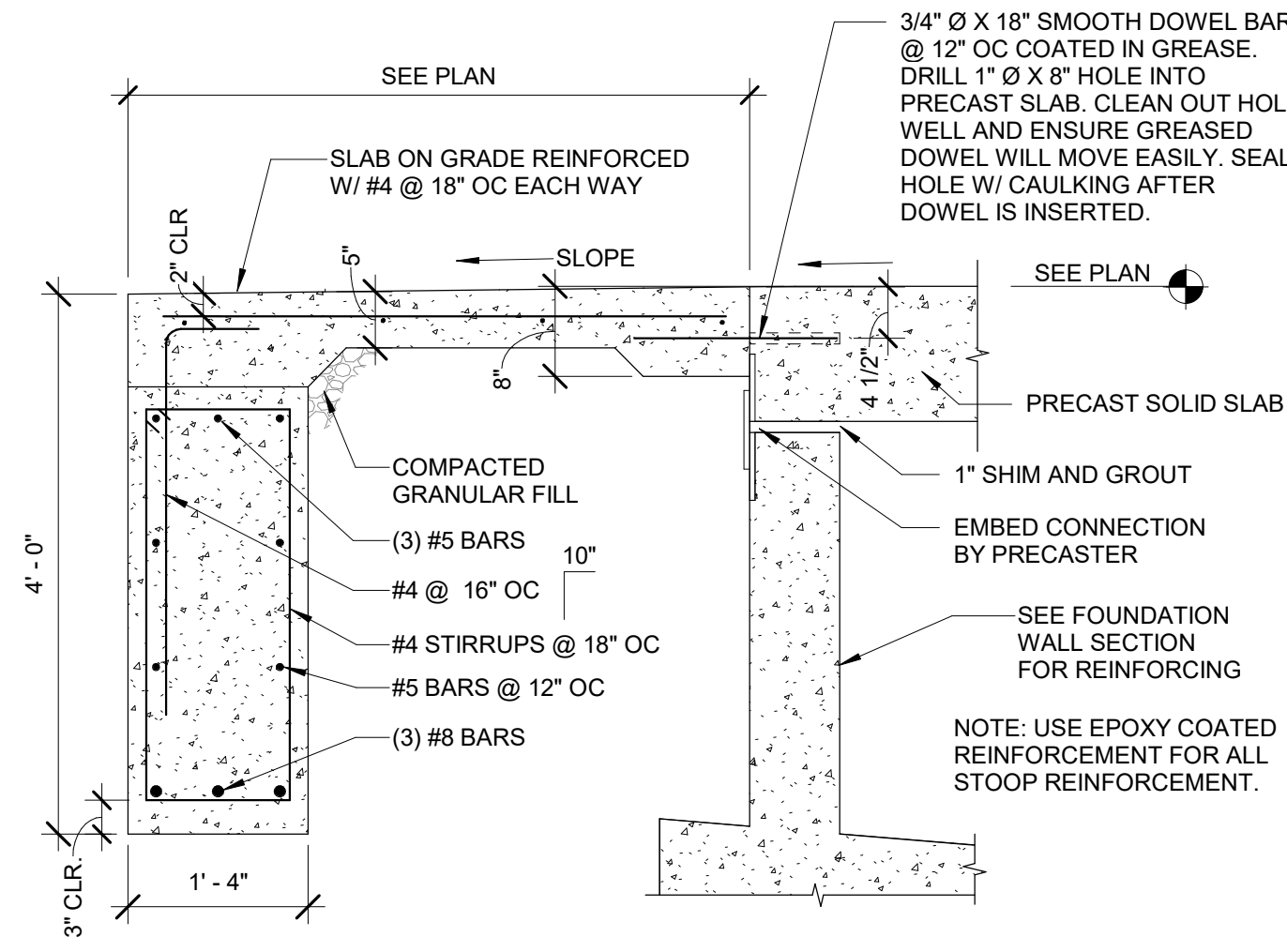
4 RESTROOM ENTRANCE ELEVATION
1/4" = 1'-0"



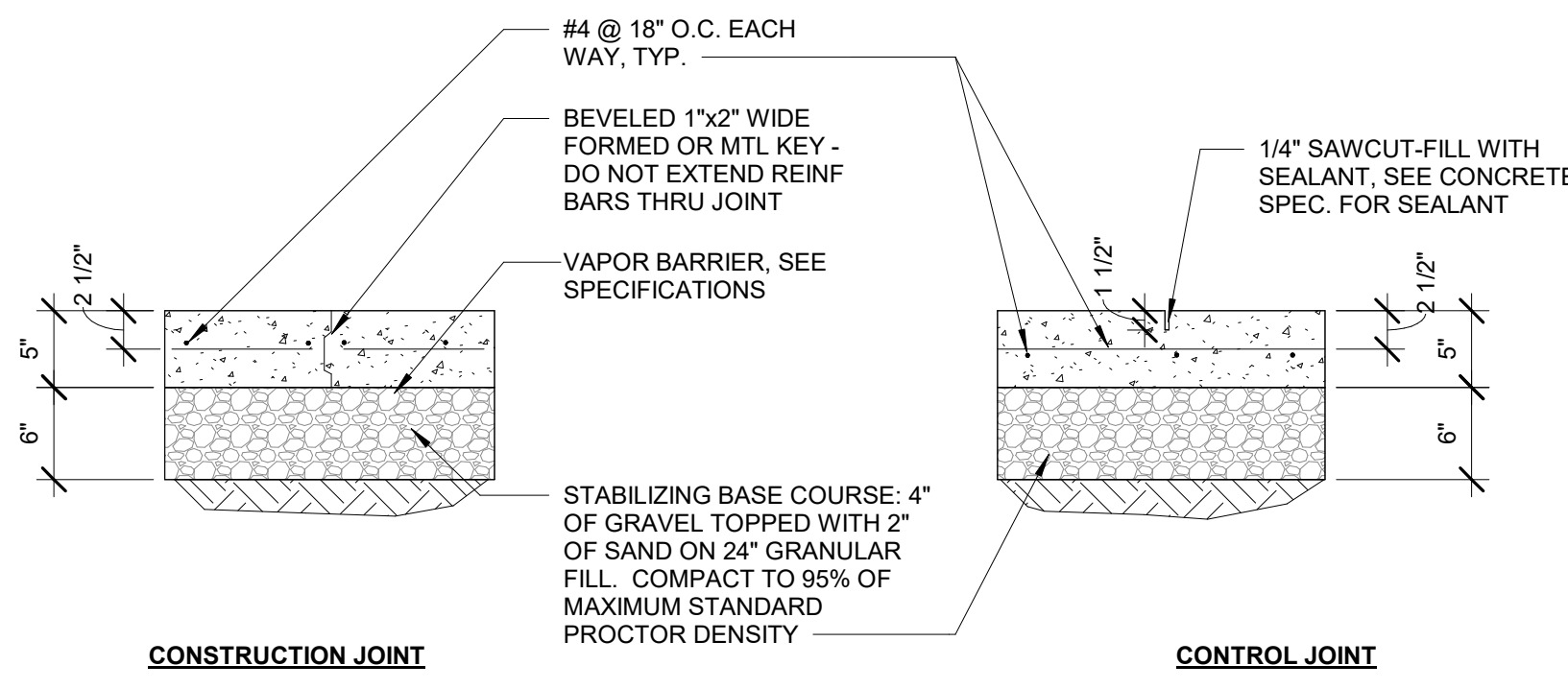
5 RESTROOM FRONT ELEVATION
1/4" = 1'-0"
NOTE: GRIND SMOOTH ALL STRUCTURAL WELDS



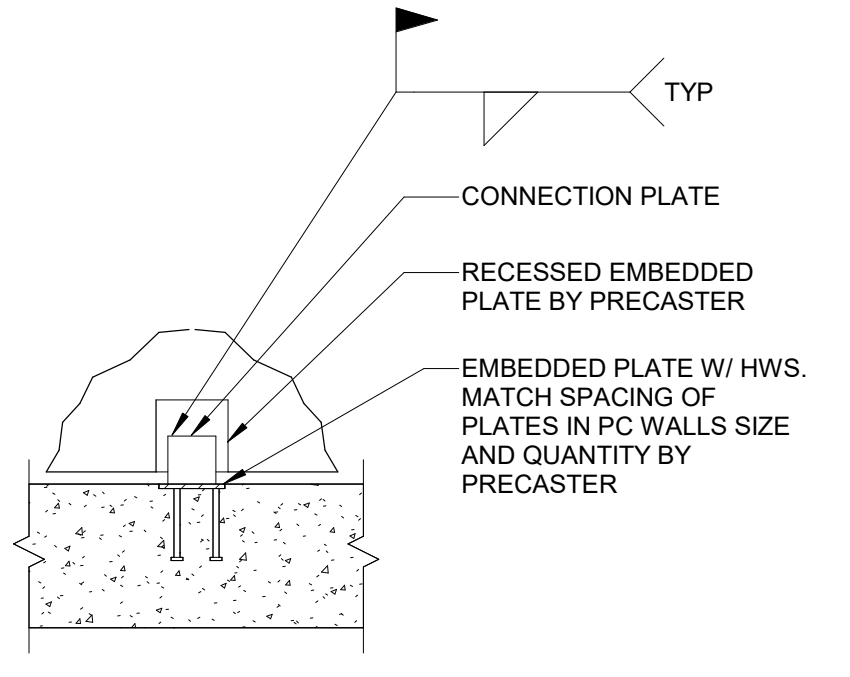
6 RESTROOM SECTION
1/4" = 1'-0"



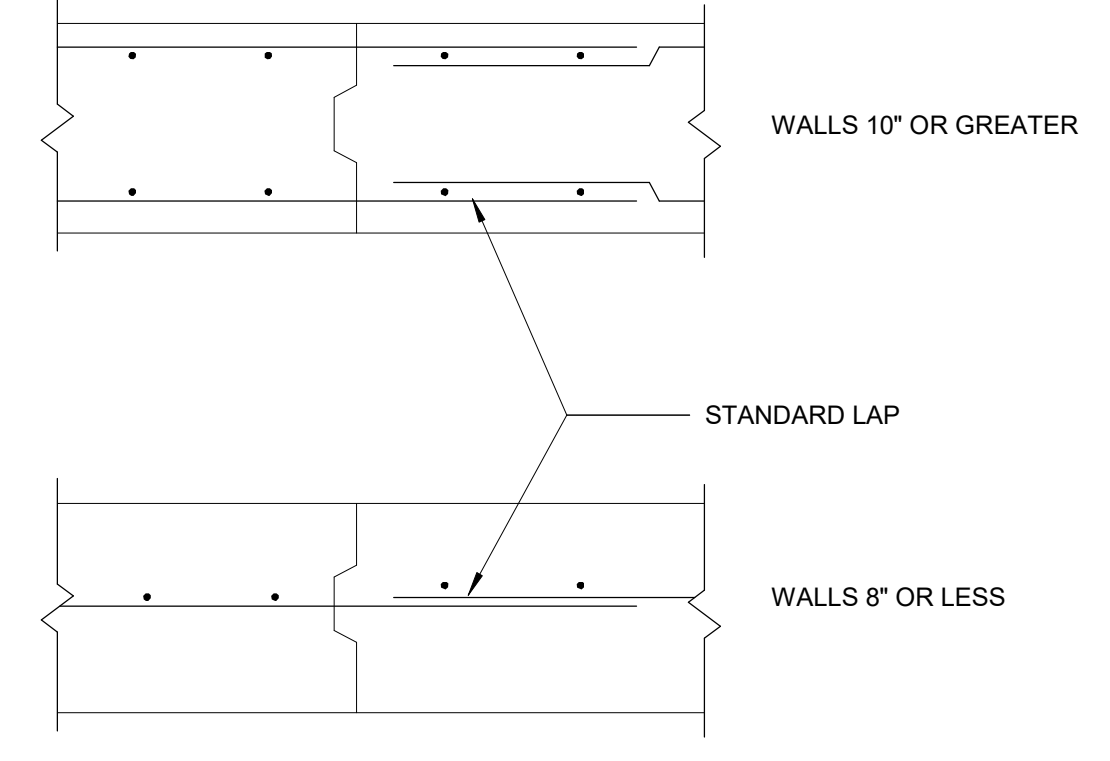
1 STOOP SECTION AT RESTROOM
3/4" = 1'-0"



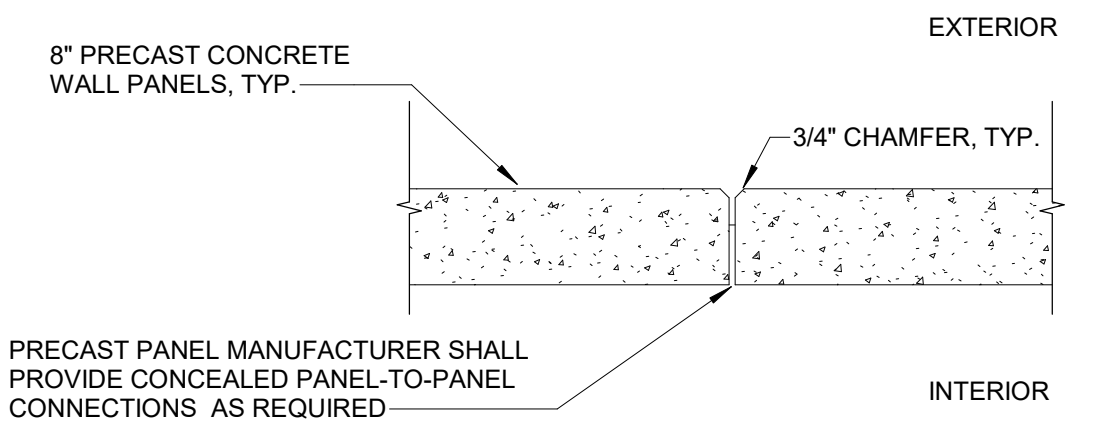
2 TYP. SLAB ON GRADE DETAIL
1" = 1'-0"



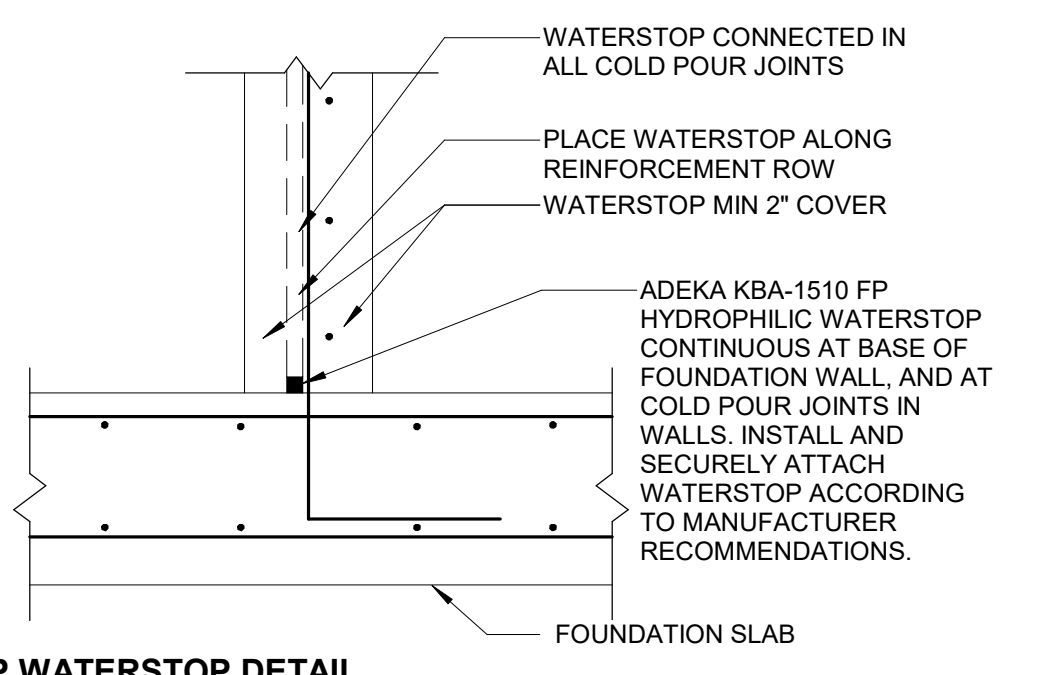
3 PRECAST PANEL CONNECTION
3/4" = 1'-0"



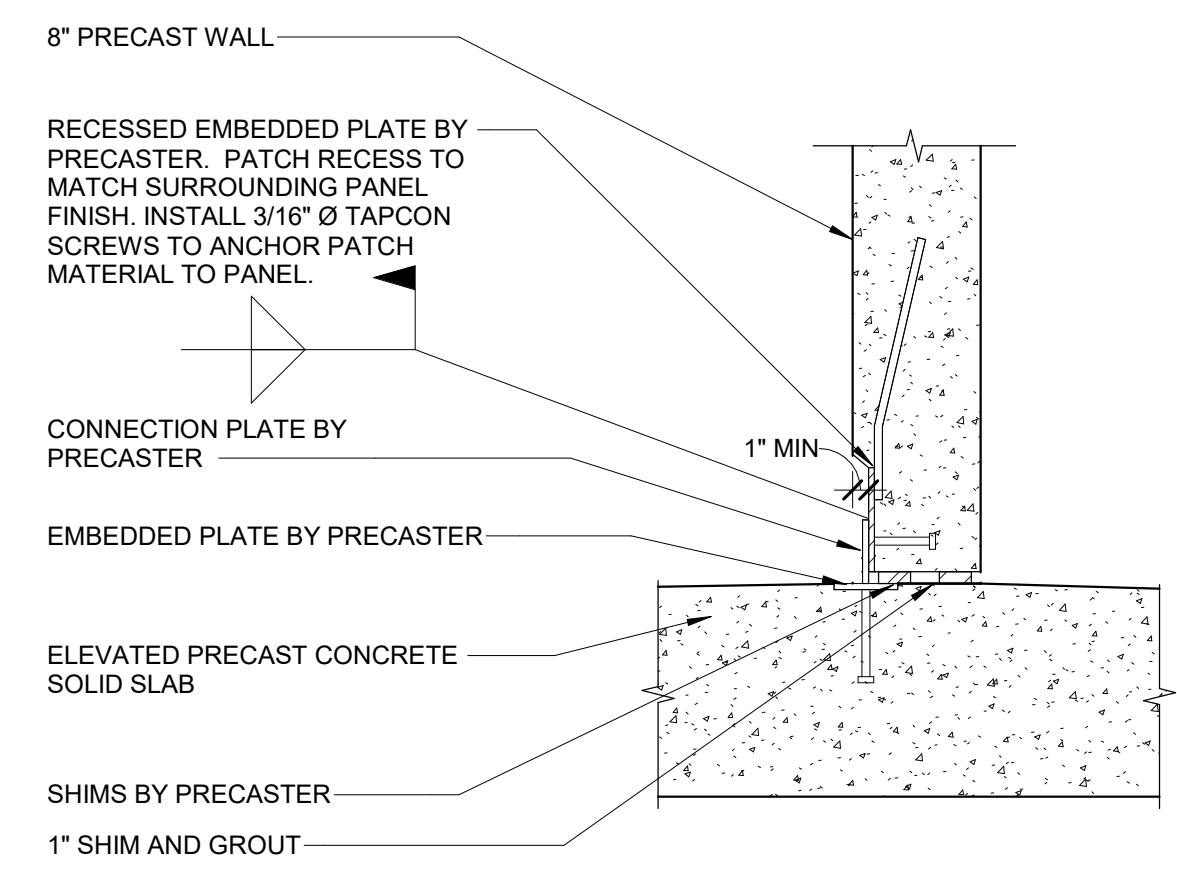
4 WALL CONSTRUCTION JOINT
1" = 1'-0"



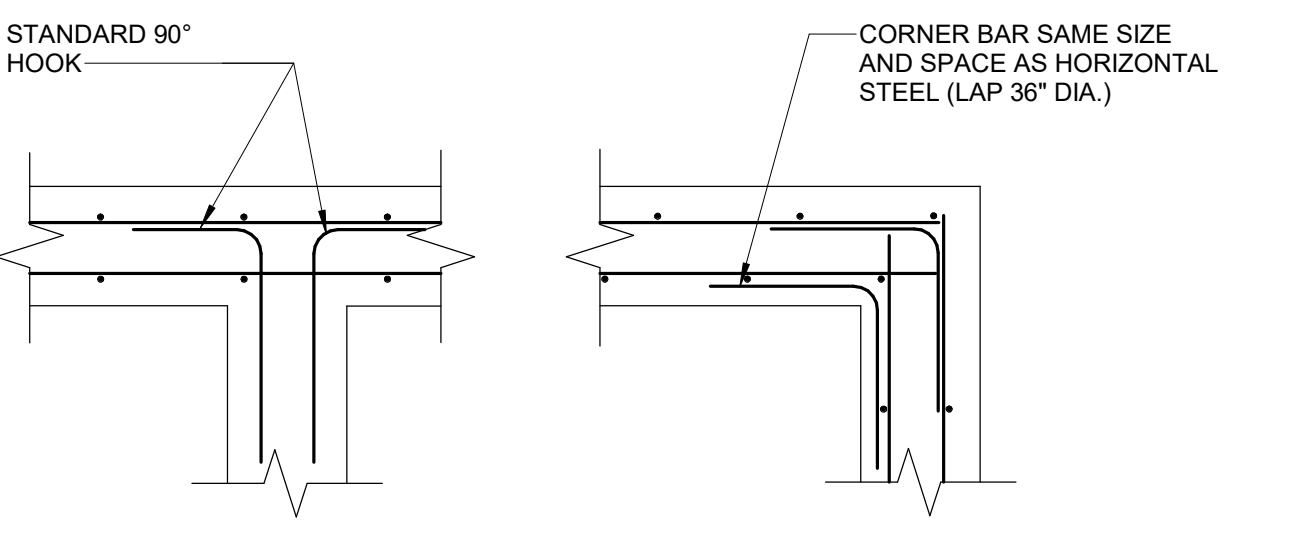
5 TYP. PRECAST PANEL JOINT
3/4" = 1'-0"



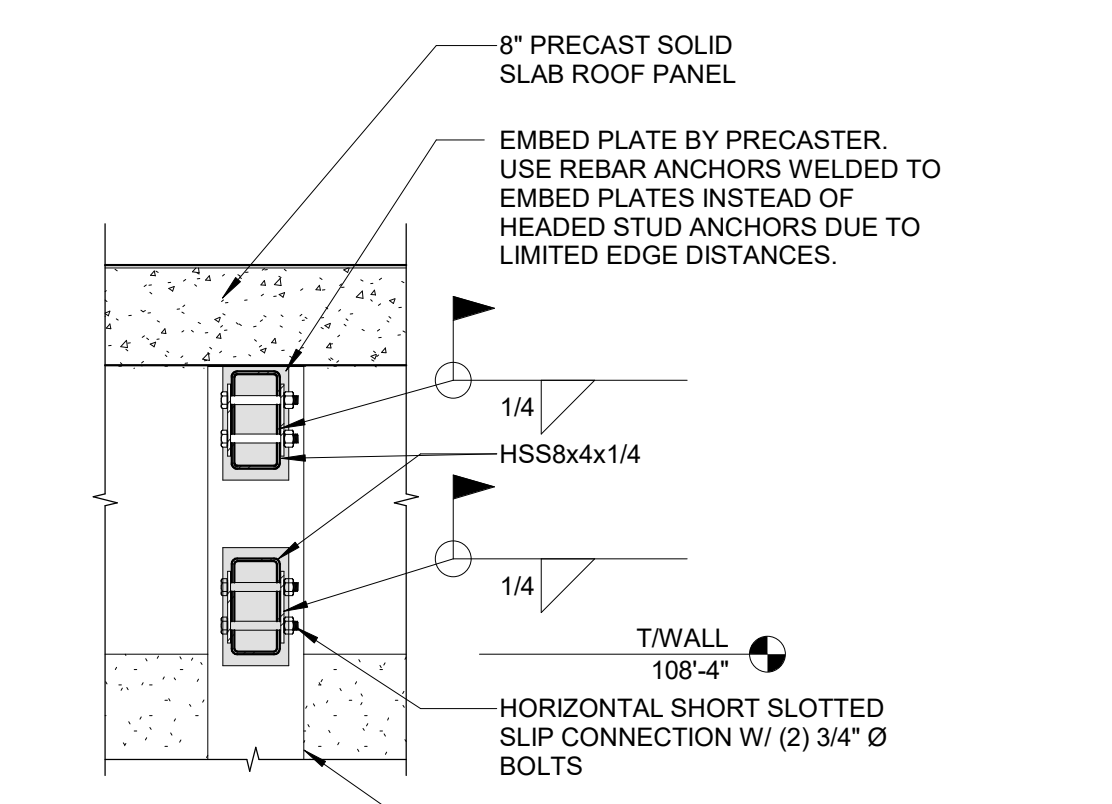
6 TYP. WATERSTOP DETAIL
1" = 1'-0"



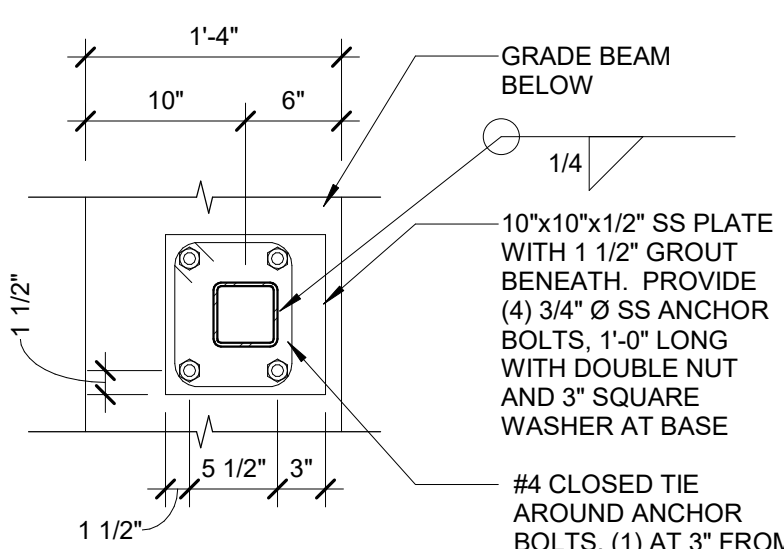
7 PRECAST WALL PANEL BASE
1" = 1'-0"



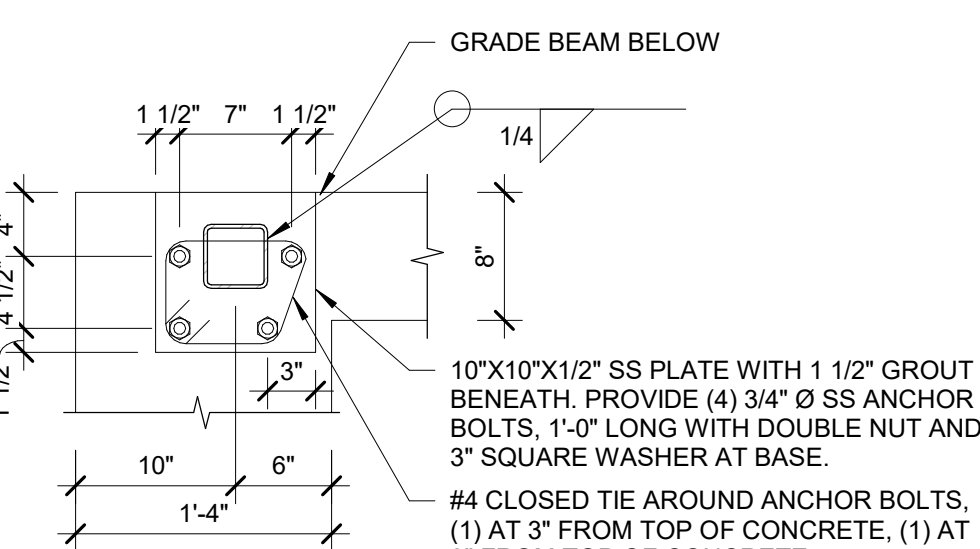
8 TYP. WALL CORNER DETAIL
1 1/2" = 1'-0"



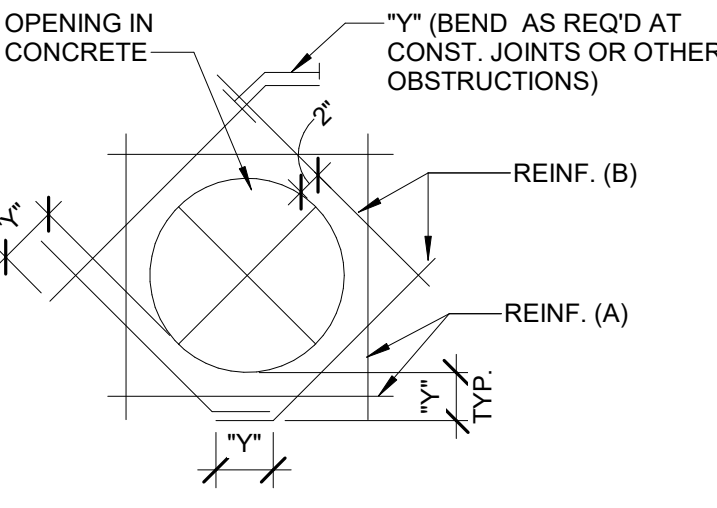
9 END WALL CONNECTION DETAIL
3/4" = 1'-0"



10 BASE PLATE DETAIL
1" = 1'-0"

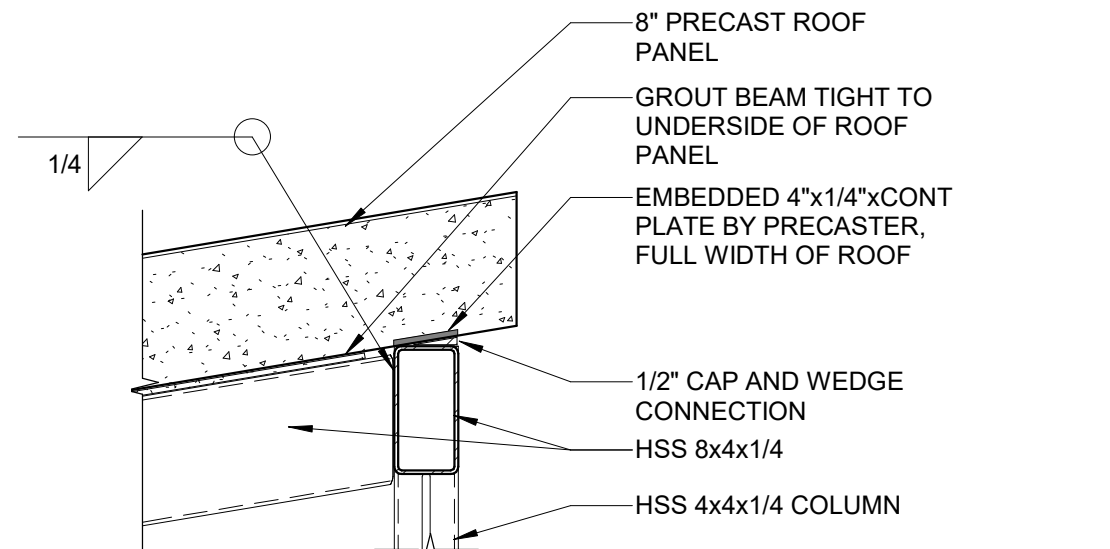


11 BASE PLATE DETAIL AT CORNER
1" = 1'-0"



- NOTES:**
- MOVE REINF. MAX OF 2" CLEAR OPENING. CUT REMAINING BAR THROUGH OPENING. WHERE REINF. MUST BE CUT, ADD REINF. "A" AT LEAST EQUAL IN AREA TO THAT WHICH IS CUT AND EXTEND BEYOND OPENING DISTANCE "Y".
 - DIAGONAL BARS "B" TO BE PLACED.
 - AT CENTERLINE OF EACH WALL WHERE ONE LAYER OF REINF. IS PROVIDED.
 - AT EACH FACE OF WALL WHERE TWO LAYERS OF REINF. ARE PROVIDED.
 - AT TOP AND BOTTOM OF ALL SLABS.
 - UNLESS OTHERWISE NOTED, SIZES OF REINF. "B" SHALL BE THE SIZE OF THE LARGEST REINF. BAR CUT.
 - Y = CLASS B LAP
 - THIS DETAIL IS TO BE USED WHEN NO OTHER DETAIL IS SPECIFIED.
 - MINIMUM REINF. "A" AND "B" AROUND ANY AND ALL OPENINGS SHALL BE (2) #6 ALL SIDES

12 REINFORCEMENT AT CONCRETE OPENINGS
3/4" = 1'-0"



13 ROOF PANEL STEEL BEAM CONNECTION
1" = 1'-0"

| | |
|-------------|------------|
| DRAWN: | DRG |
| APPROVED: | CTR |
| ISSUED FOR: | BID |
| DATE: | 11/19/2021 |
| PROJECT #: | 4215400 |
| FIELD BOOK: | |

A

B

C

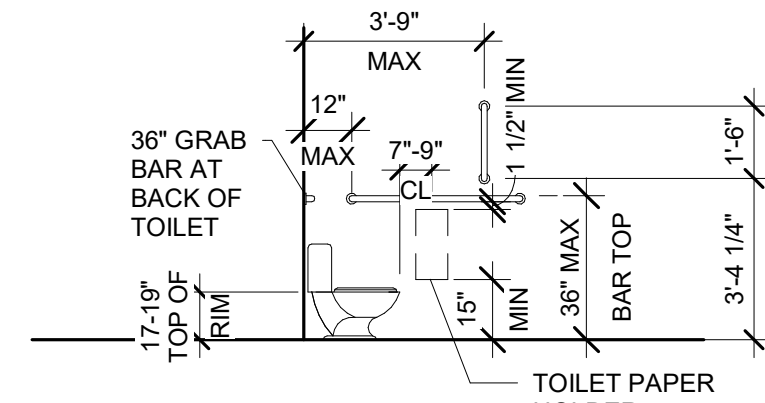
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E

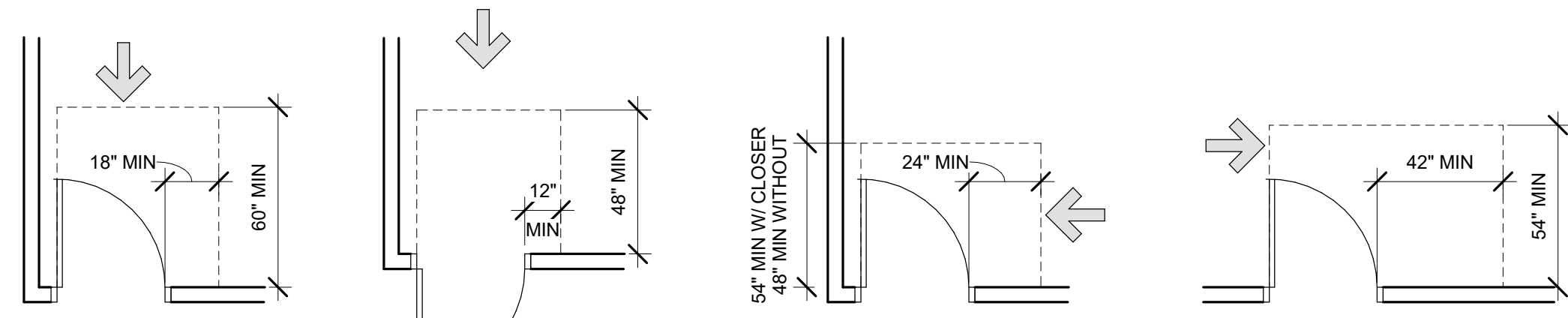
F



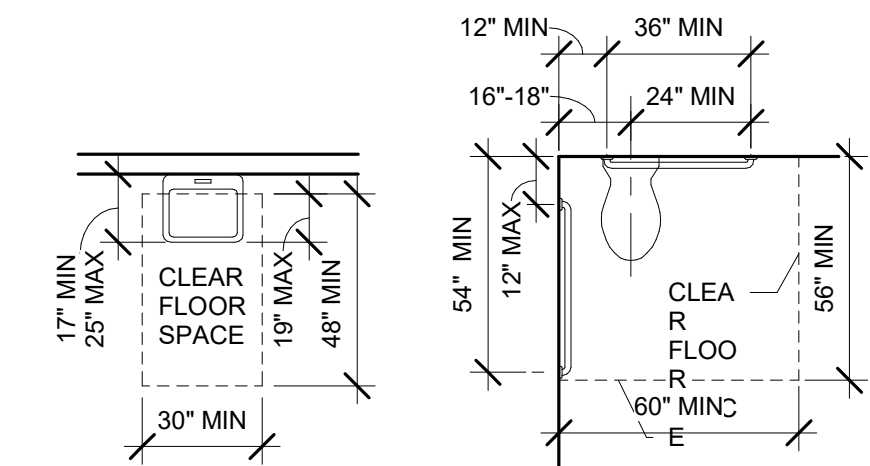
1 ACCESSORY MOUNTING DIAGRAM
1/4" = 1'-0"



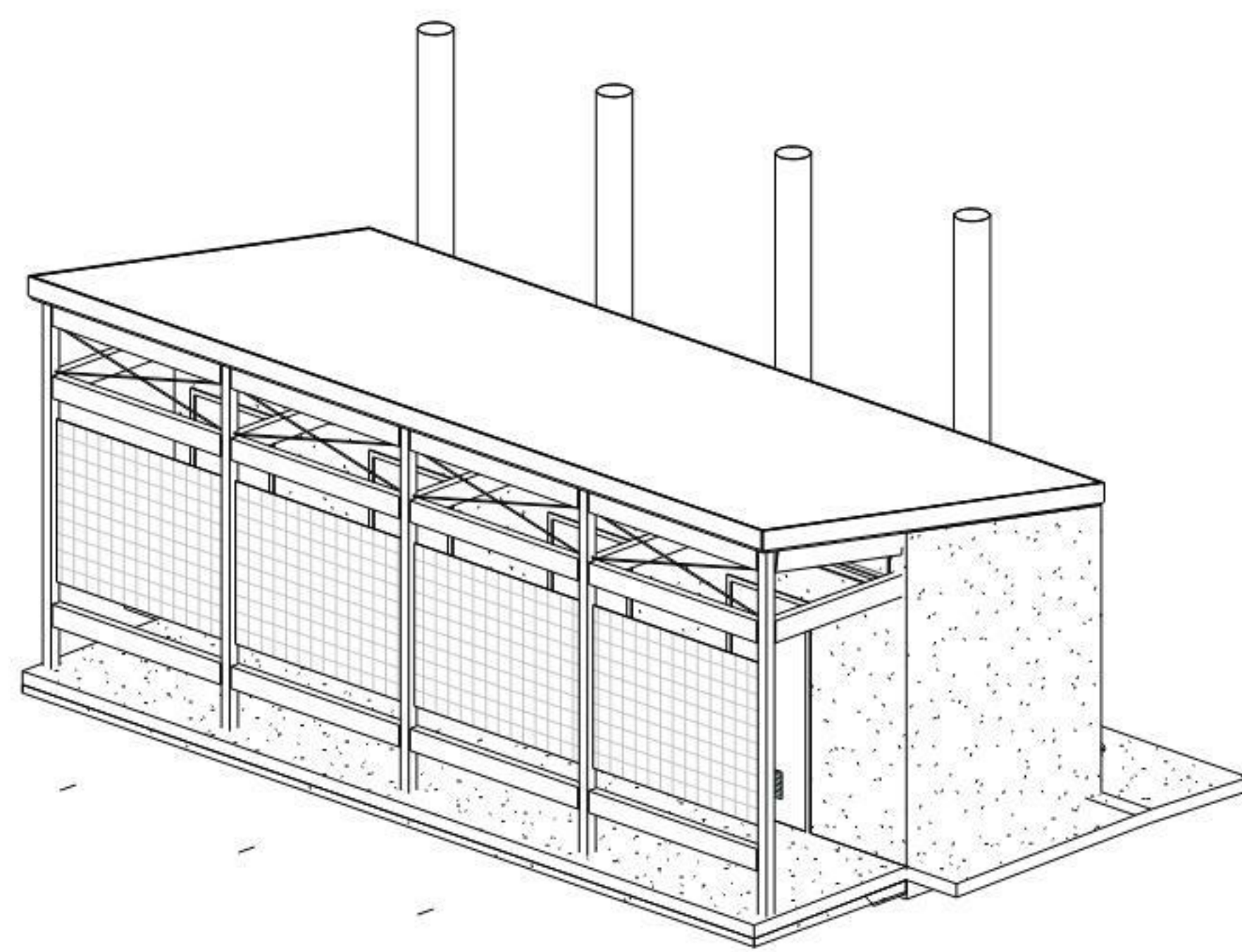
2 TYPICAL ACCESSIBILITY ELEVATIONS
1/4" = 1'-0"



3 TYPICAL DOOR CLEAR FLOOR SPACE REQUIREMENTS
1/4" = 1'-0"



4 TYPICAL FIXTURE CLEAR FLOOR SPACE REQUIREMENTS
1/4" = 1'-0"



3D VIEW

GENERAL CONSTRUCTION NOTES

- 1 CONTRACTOR SHALL COORDINATE WORK WITH ALL OTHER TRADES TO ENSURE PROPER SEQUENCING AND INSTALLATION. THIS SHALL INCLUDE ANY VENDORS CONTRACTED DIRECTLY BY OWNER.
- 2 ALL WORK SHALL BE PERFORMED AND COMPLETED IN COMPLIANCE WITH ALL APPLICABLE BUILDING CODES AND ORDINANCES.
- 3 ANY AND ALL DISCREPANCIES AND DEFICIENCIES SHALL IMMEDIATELY BE BROUGHT TO THE ATTENTION OF THE ARCHITECT.
- 4 CONTRACTOR SHALL COORDINATE WORK SCHEDULES WITH THE OWNER TO ESTABLISH CONSTRUCTION SEQUENCING.
- 5 CONTRACTORS AND MATERIAL SUPPLIERS SHALL VERIFY ALL DIMENSIONS AND CONDITIONS WHICH WILL AFFECT THEIR WORK.
- 6 REMOVE FROM THE SITE ALL DEBRIS AND MATERIALS RESULTING FROM CONSTRUCTION UNLESS NOTED OTHERWISE.
- 7 CONTRACTOR SHALL BE RESPONSIBLE FOR HOOK-UP OF ANY ELECTRICAL SERVICE OR LIGHTING REQUIRED IN WORK AREAS.
- 8 CONTRACTOR SHALL MAINTAIN ONE SET OF DRAWINGS ON SITE FOR THE PURPOSE OF RECORDING CONSTRUCTION REVISIONS. THIS RECORD SET SHALL BE RETURNED TO THE ARCHITECT UPON CONTRACT CLOSEOUT.
- 9 MAINTAIN ACCESS TO PARK AREAS IN USE OR AS DIRECTED BY OWNER.
- 10 INSTALL TEMPORARY WEATHER AND SECURITY BARRIERS AT EXTERIOR WALL OPENINGS WHEN WORK IS NOT IN PROGRESS.
- 11 COORDINATE SIZE OF ROUGH OPENINGS WITH DOOR AND WINDOW REQUIREMENTS

CODE REVIEW

- CODES
- 2015 INTERNATIONAL BUILDING CODE (IBC)
 - 2012 INTERNATIONAL ENERGY CONSERVATION CODE (IECC)
 - 2015 INTERNATIONAL FIRE CODE (IFC)
 - 2021 INTERNATIONAL MECHANICAL CODE (IMC)
 - 2010 AMERICAN WITH DISABILITIES ACT (ADA)
 - 2021 UNIFORM PLUMBING CODE (UPC) WITH STATE OF IOWA ADMMENDMENTS
 - 2020 NATIONAL ELECTRICAL CODE (NEC)

FACILITY DATA:

| | |
|------------------------------|--------------------------------------|
| AREA SIZE: | 234 SF |
| NUMBER OF PROPOSED STORIES: | ONE STORY |
| FACILITY IS NOT SPRINKLERED. | |
| CONSTRUCTION TYPE: | II-B NON-COMBUSTIBLE |
| OCCUPANCY CLASSIFICATION: | U - UTILITY |
| ALLOWABLE AREA: | 5,500 SF |
| ALLOWABLE HEIGHT: | ONE STORY, 40' |
| OCCUPANT LOAD: 234 SF | 1 OCCUPANT/TOILET ROOM = 4 OCCUPANTS |
| ACCESSIBLE REQUIREMENTS: | YES |

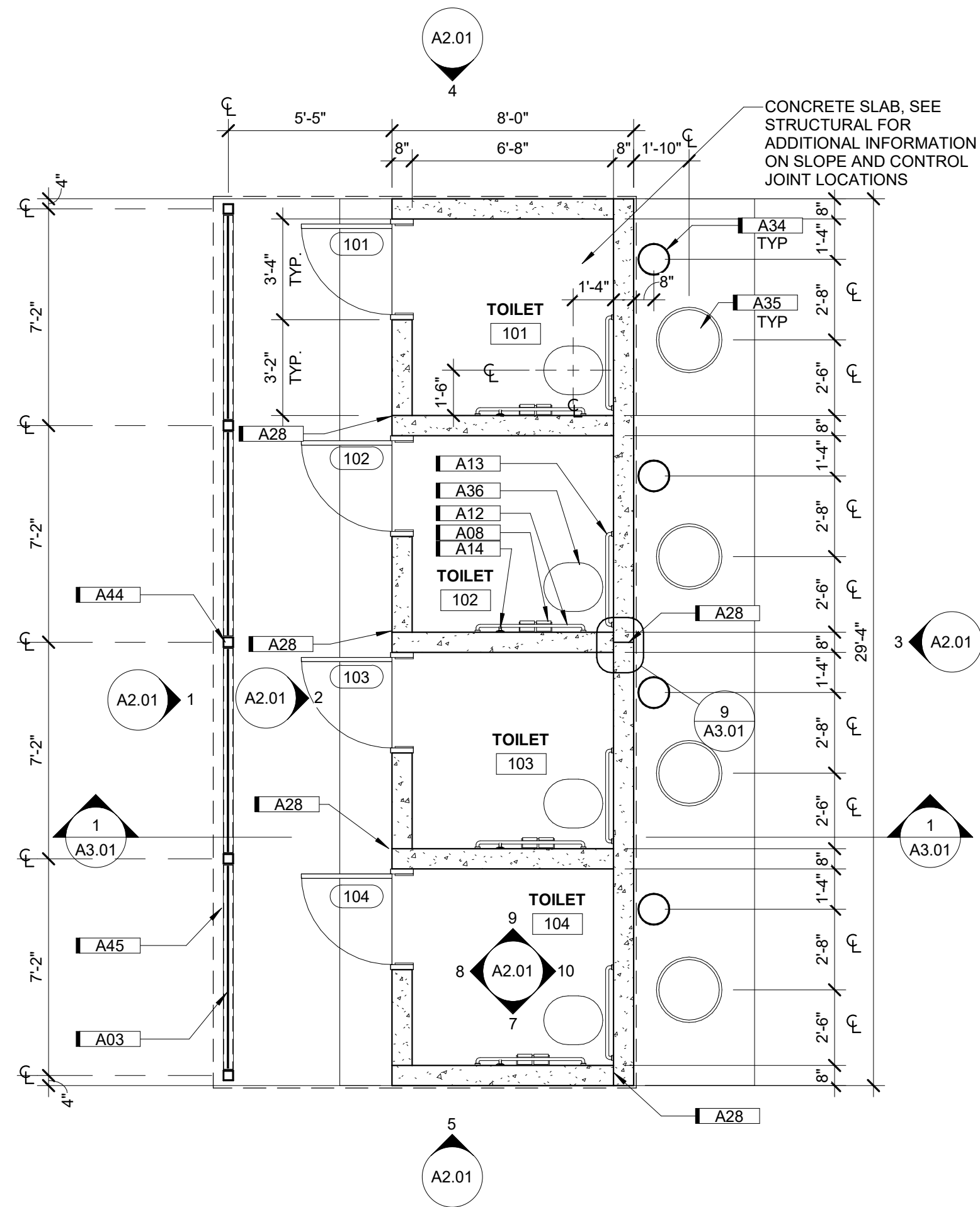
ALL RESTROOM FACILITIES AT THIS LOCATION ARE WATERLESS.
ALL WATER CLOSETS ARE WATERLESS PIT-TYPE TOILETS.
ALL LAVATORIES ARE IDENTIFIED AS HAND SANITIZERS

**PRELIMINARY
- NOT FOR
CONSTRUCTION**

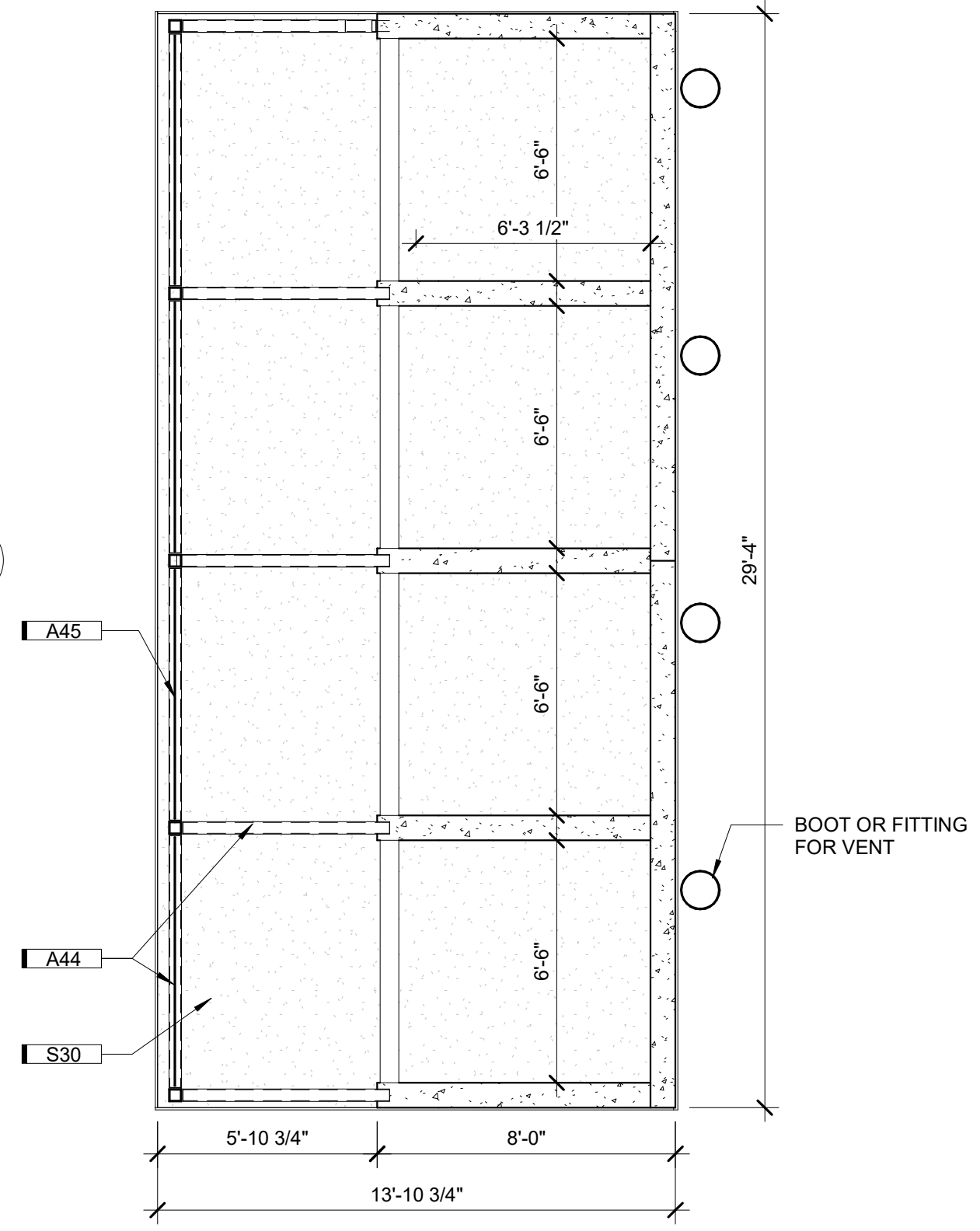
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| DRAWN: | JBM |
| APPROVED: | AD |
| ISSUED FOR: | BID |
| DATE: | 11/19/2021 |
| PROJECT #: | 4215460 |
| FIELD BOOK: | |

ARCHITECTURAL
GENERAL
INFORMATION

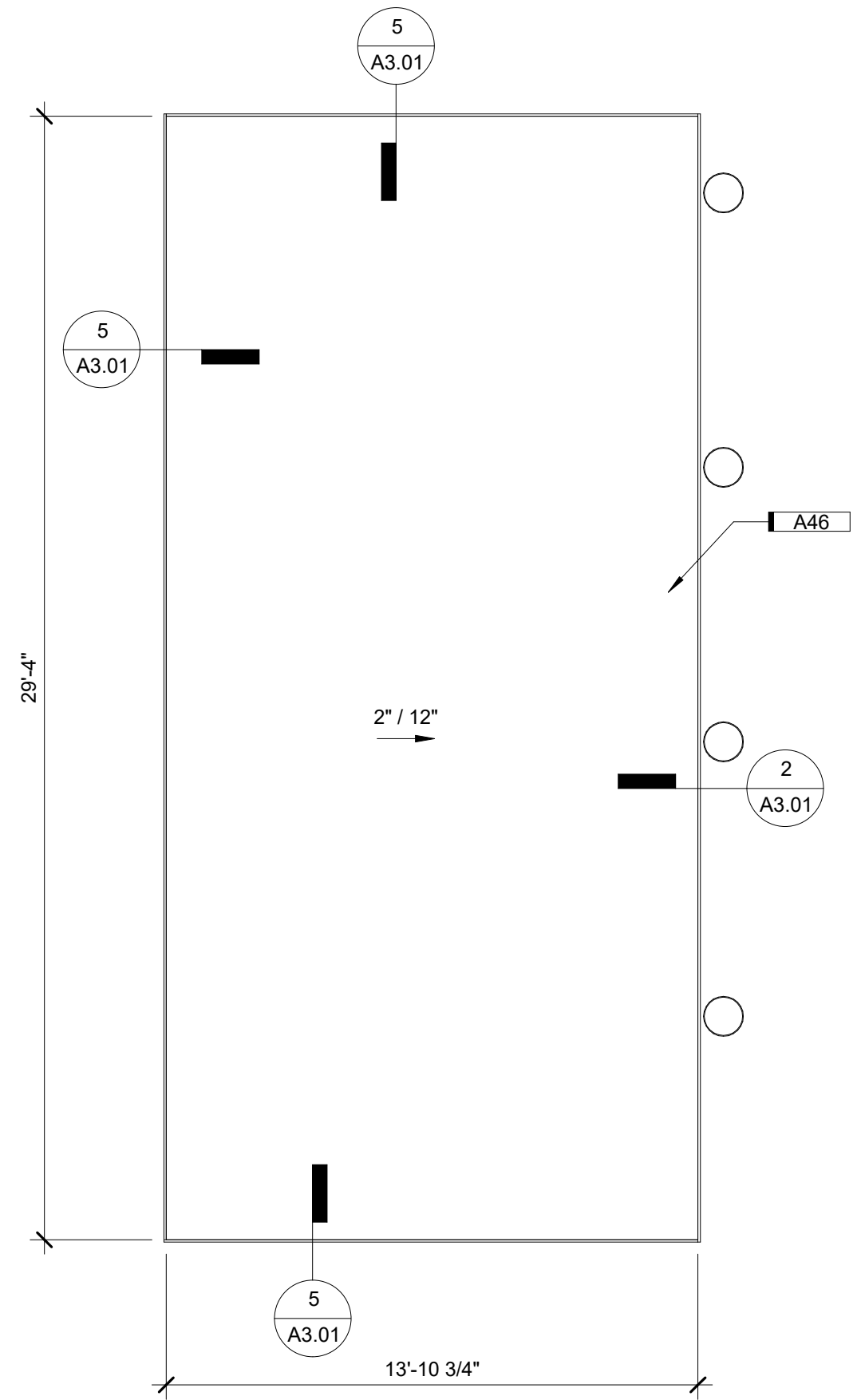
A001



1 RESTROOM FLOOR PLAN
1/4" = 1'-0"



2 RESTROOM REFLECTED CEILING PLAN
1/4" = 1'-0"



3 RESTROOM ROOF PLAN
1/4" = 1'-0"

GENERAL NOTES - ROOFING (RESTROOMS)

- THE GENERAL CONTRACTOR SHALL VERIFY ALL CONDITIONS OF THE BUILDING PRIOR TO INSTALLATION OF THE ROOF.
- NEW ROOFING CONSISTS OF:
EPDM - 60 MIL FELT BACK FULLY ADHERED ROOF MEMBRANE CONCRETE DECK
- REFER TO MANUFACTURER'S STANDARD DETAILS AND RECOMMENDATIONS FOR ANY MISCELLANEOUS DETAILS NOT SHOWN. SUBMIT ADDITIONAL MANUFACTURER APPROVED SHOP DRAWING FOR ANY NON-STANDARD DETAILS NOT SHOWN.
- ALL ROOFING WORK SHALL BE IN ACCORDANCE WITH THE NATIONAL ROOFING CONTRACTORS ASSOCIATION (NRCA) ROOFING AND WATERPROOFING MANUAL, FOURTH EDITION. ALL SHEET METAL WORK SHALL BE IN ACCORDANCE WITH THE SHEET METAL AND AIR CONDITIONING CONTRACTORS NATIONAL ASSOCIATION, INC. (SMACNA) ARCHITECTURAL SHEET METAL MANUAL, FIFTH EDITION.)
- ALL CURBS AND VENTS SHALL MEET THE 8" MINIMUM FLASHING HEIGHT REQUIREMENT. INSTALL TAPERED CRICKET ON UP-SLOPE SIDE OF CURBS 24" OR MORE WIDE. CRICKETS SHALL HAVE A 1/4" PER FOOT MINIMUM FINISHED SLOPE AWAY FROM CURB AND VALLEYS DIRECTING WATER TO THE CURB'S SIDES.
- FLASH ALL CURBS, VENTS, AND STACKS AS SHOWN IN PLANS. REFER TO MANUFACTURER'S STANDARD DETAILS AND RECOMMENDATIONS FOR ANY MISCELLANEOUS DETAILS NOT SHOWN IN THE PLANS.
- ALL PERIMETER WOOD BLOCKING SHALL BE UNIFORM AND STRAIGHT WHEN FORMING EDGES AND PROFILES. CONTRACTOR SHALL FASTEN NEW WOOD BLOCKING ACCORDING TO THE FOLLOWING REQUIREMENTS:
WOOD TO WOOD CONNECTIONS SHALL BE FASTENED WITH #12-15x3" WOOD TO WOOD FASTENERS. 2 ROWS STAGGERED 24" OC AND AT 12" OC WITH 8'-0" OF OUTSIDE CORNERS. FASTENER MUST MEET MINIMUM OF 100# PULL-OUT VALUE. SEE SPECIFICATIONS FOR APPROVED FASTENERS.
WOOD TO CONCRETE CONNECTIONS SHALL BE FASTENED WITH 1/4"x4" CONCRETE FASTENERS AT 24" OC MAX AND 12" OC WITHIN 8'-0" OF OUTSIDE CORNERS. SEE SPECIFICATIONS FOR APPROVED FASTENERS.
- IT IS THE RESPONSIBILITY OF THE GENERAL CONTRACTOR TO MAINTAIN WATERTIGHT CONDITIONS OF THE ROOF AT ALL TIMES IN AREA OF WORK. ROOF LEAKS OR WET INSULATION CAUSED BY CONTRACTOR'S DEFICIENCIES SHALL BE REPAIRED AT NO COST TO THE OWNER.
- AT COMPLETION OF PROJECT, BROOM SURFACE OF ROOF CLEAN AND ENSURE REMOVAL OF ALL DEBRIS (CONSTRUCTION OR OTHERWISE).

KEYNOTE LEGEND

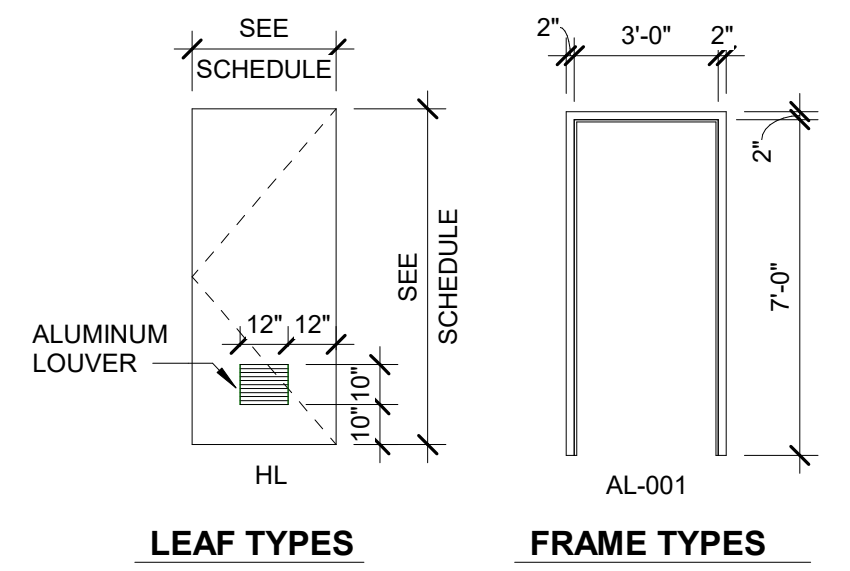
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|-----|--|
| A03 | ROOF OVERHANG |
| A08 | TOILET TISSUE DISPENSER |
| A12 | 42" GRAB BAR - TYPICAL |
| A13 | 36" GRAB BAR - TYPICAL |
| A14 | 18" GRAB BAR VERTICAL - TYPICAL |
| A28 | PRECAST CONCRETE PANEL JOINT |
| A34 | BLACK VENT STACK WITH ADAPTER TO PIT CONNECTION |
| A35 | MANHOLE COVER AND ADAPTER |
| A36 | TOILET RISER AND ADAPTER |
| A44 | PAINTED STEEL FRAMING - SEE STRUCTURAL |
| A45 | PERFORATED METAL SCREEN - PAINTED; SEE DETAIL 11, THIS SHEET, FOR PERFORATED PATTERN |
| A46 | EPDM ROOF FULLY ADHERED TO PRECAST CONCRETE DECK |
| S30 | 8" PRECAST SOLID SLAB ROOF PANEL SYSTEM. ALIGN ROOF PANEL JOINTS OVER WALLS BELOW. |

ROOM FINISH SCHEDULE

| ROOM NUMBER | ROOM NAME | FLR | BASE | WALLS | | | | CEILINGS | | REMARKS |
|-------------|-----------|------------|------|----------|----------|----------|----------|----------|--------|---------|
| | | | | NORTH | EAST | SOUTH | WEST | MTRL | HEIGHT | |
| 101 | TOILET | CONC DNSFR | - | EPXY PNT | EPXY PNT | EPXY PNT | EPXY PNT | EPXY PNT | VARIES | |
| 102 | TOILET | CONC DNSFR | - | EPXY PNT | EPXY PNT | EPXY PNT | EPXY PNT | EPXY PNT | VARIES | |
| 103 | TOILET | CONC DNSFR | - | EPXY PNT | EPXY PNT | EPXY PNT | EPXY PNT | EPXY PNT | VARIES | |
| 104 | TOILET | CONC DNSFR | - | EPXY PNT | EPXY PNT | EPXY PNT | EPXY PNT | EPXY PNT | VARIES | |

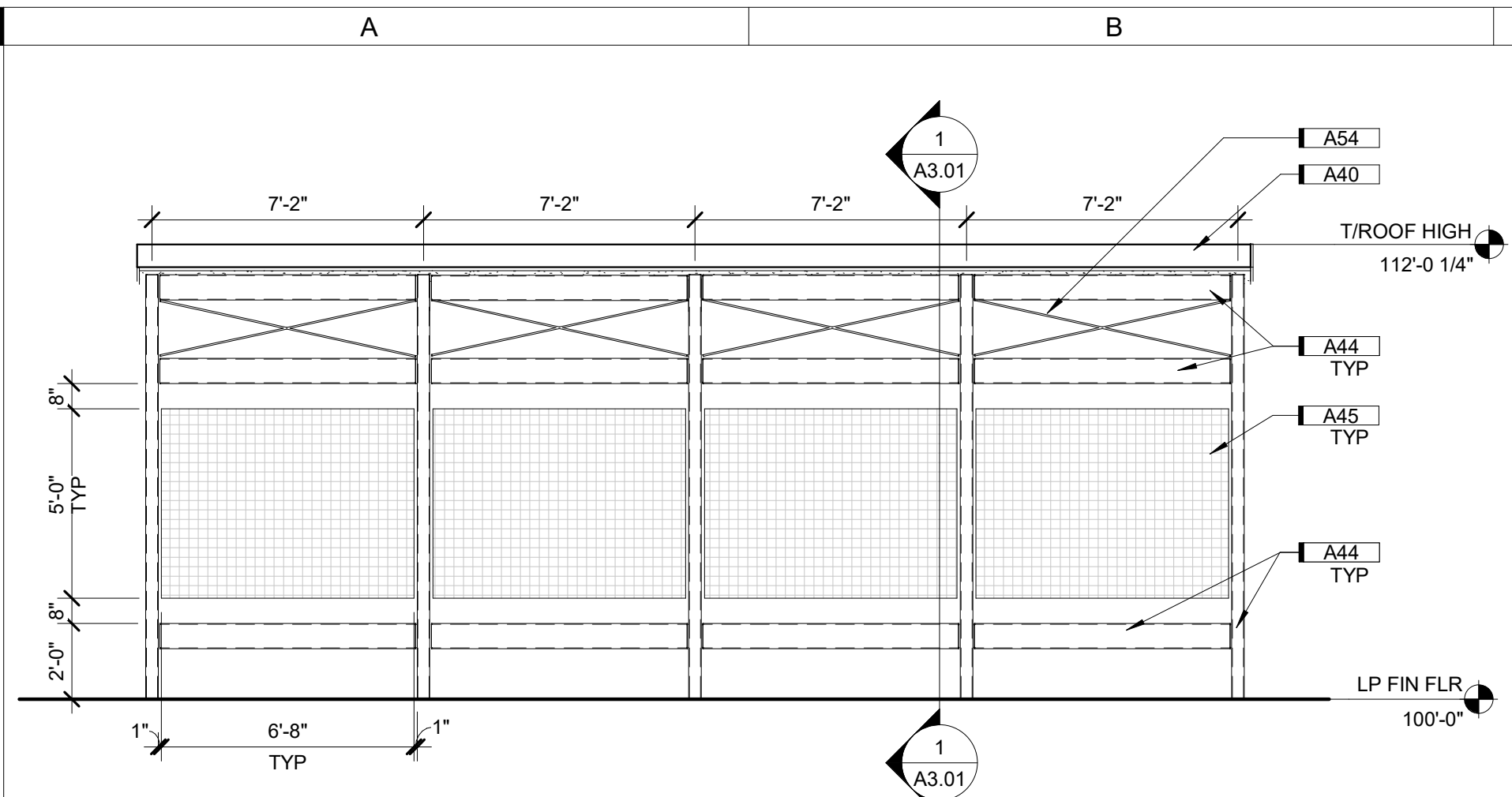
DOOR AND FRAME SCHEDULE

| DOOR NUMBER | SWING TYPE | DOOR | | | | FRAME | | | | HDWR | REMARKS |
|-------------|------------|-------|-------|--------|-----------|-----------|-----------|-----------|------|------|---------|
| | | WD | HT | TK | LEAF TYPE | LEAF MTRL | LEAF GLAZ | MTRL-TYPE | GLAZ | | |
| 101 | S | 3'-0" | 7'-0" | 1 3/4" | HL | FRP | - | AL-001 | - | HW-1 | |
| 102 | S | 3'-0" | 7'-0" | 1 3/4" | HL | FRP | - | AL-001 | - | HW-1 | |
| 103 | S | 3'-0" | 7'-0" | 1 3/4" | HL | FRP | - | AL-001 | - | HW-1 | |
| 104 | S | 3'-0" | 7'-0" | 1 3/4" | HL | FRP | - | AL-001 | - | HW-1 | |

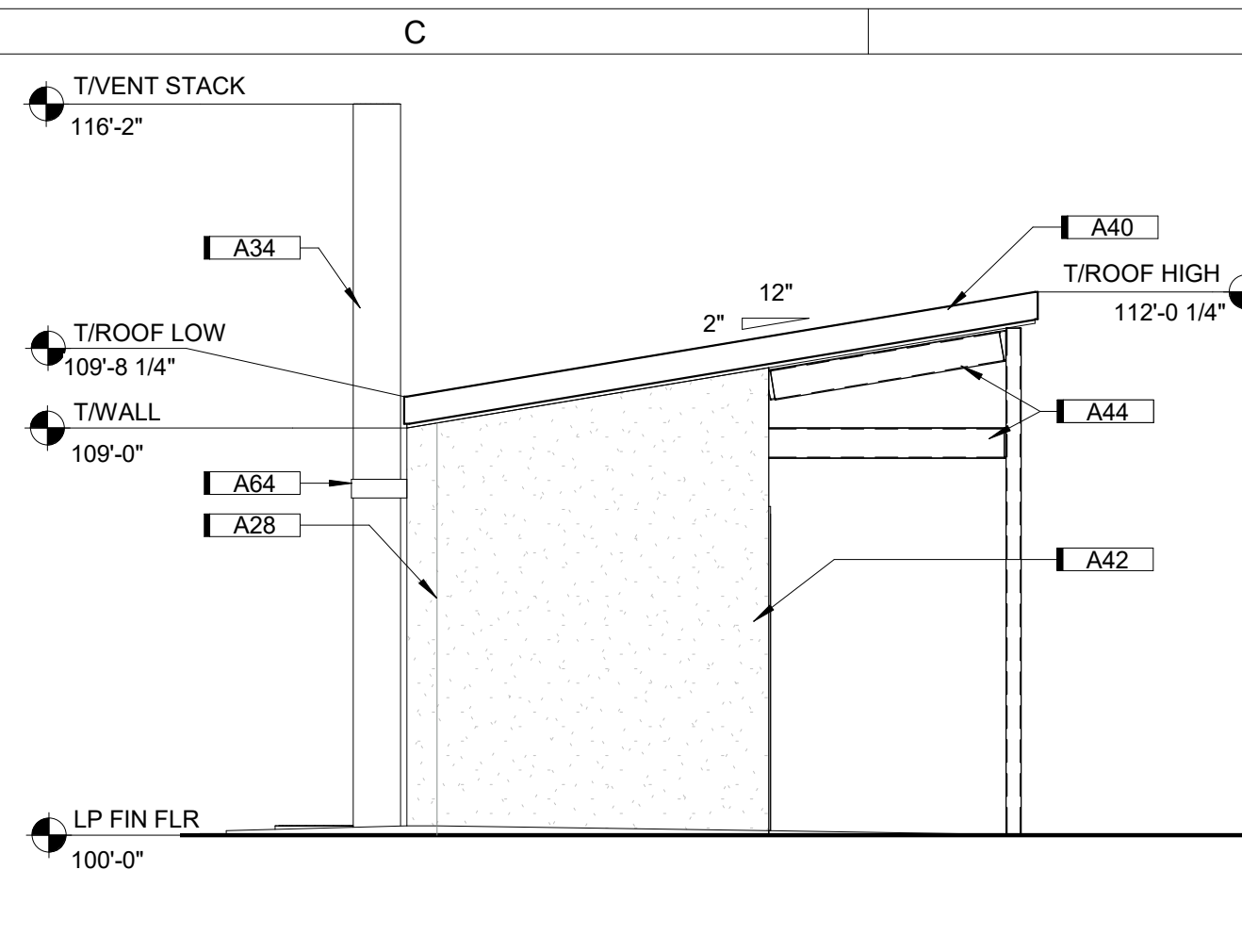


ABBREVIATIONS

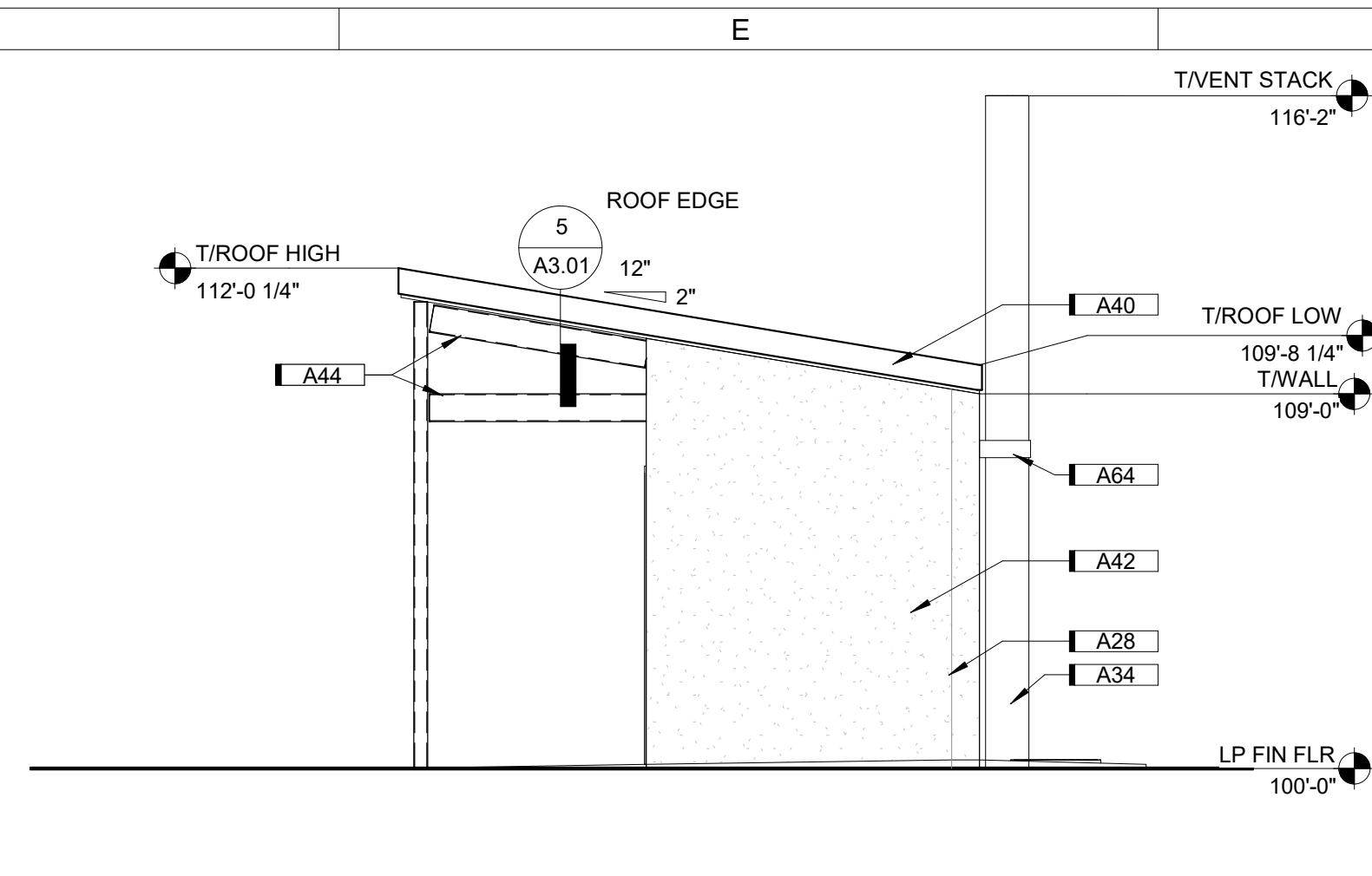
| | |
|------------|-----------------------------|
| AL | ALUMINUM |
| EXP | EXPOSED |
| EPXY PNT | EPOXY PAINT |
| F | FLUSH |
| FRP | FIBERGLASS REINFORCED PANEL |
| GLAZ | GLAZING |
| HL | HALF LOUVER |
| HDWR | HARDWARE |
| IGU | INSULATED GLAZING UNIT |
| MTRL | MATERIAL |
| S | SINGLE |
| CONC DNSFR | CONCRETE W/ DENSIIFIER |



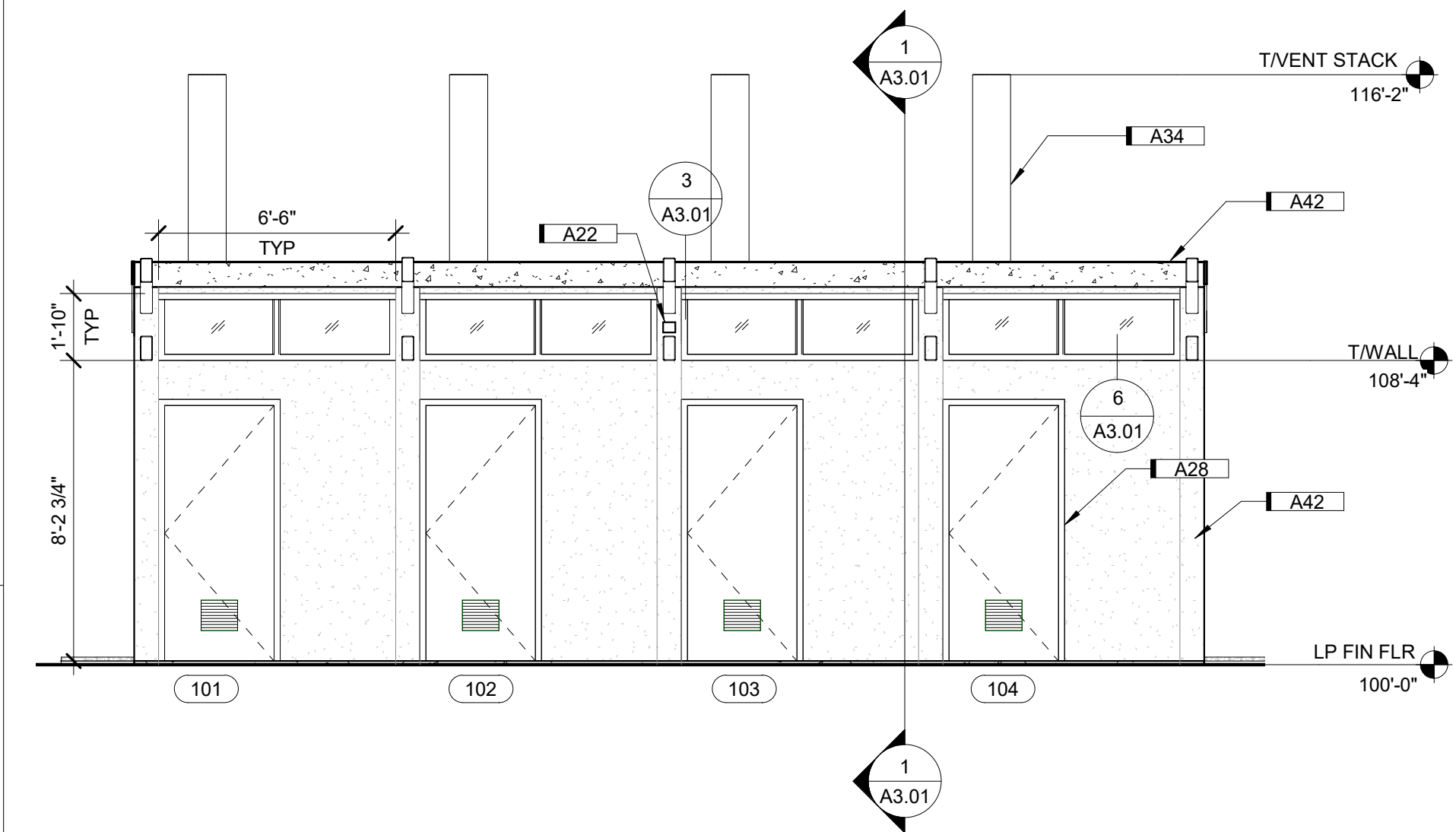
1 RESTROOM FRONT EXTERIOR ELEVATION
1/4" = 1'-0"



4 RESTROOM LEFT SIDE EXTENSION ELEVATION
1/4" = 1'-0"



5 RESTROOM RIGHT SIDE EXTENSION ELEVATION
1/4" = 1'-0"



2 RESTROOM ENTRY ELEVATION
1/4" = 1'-0"

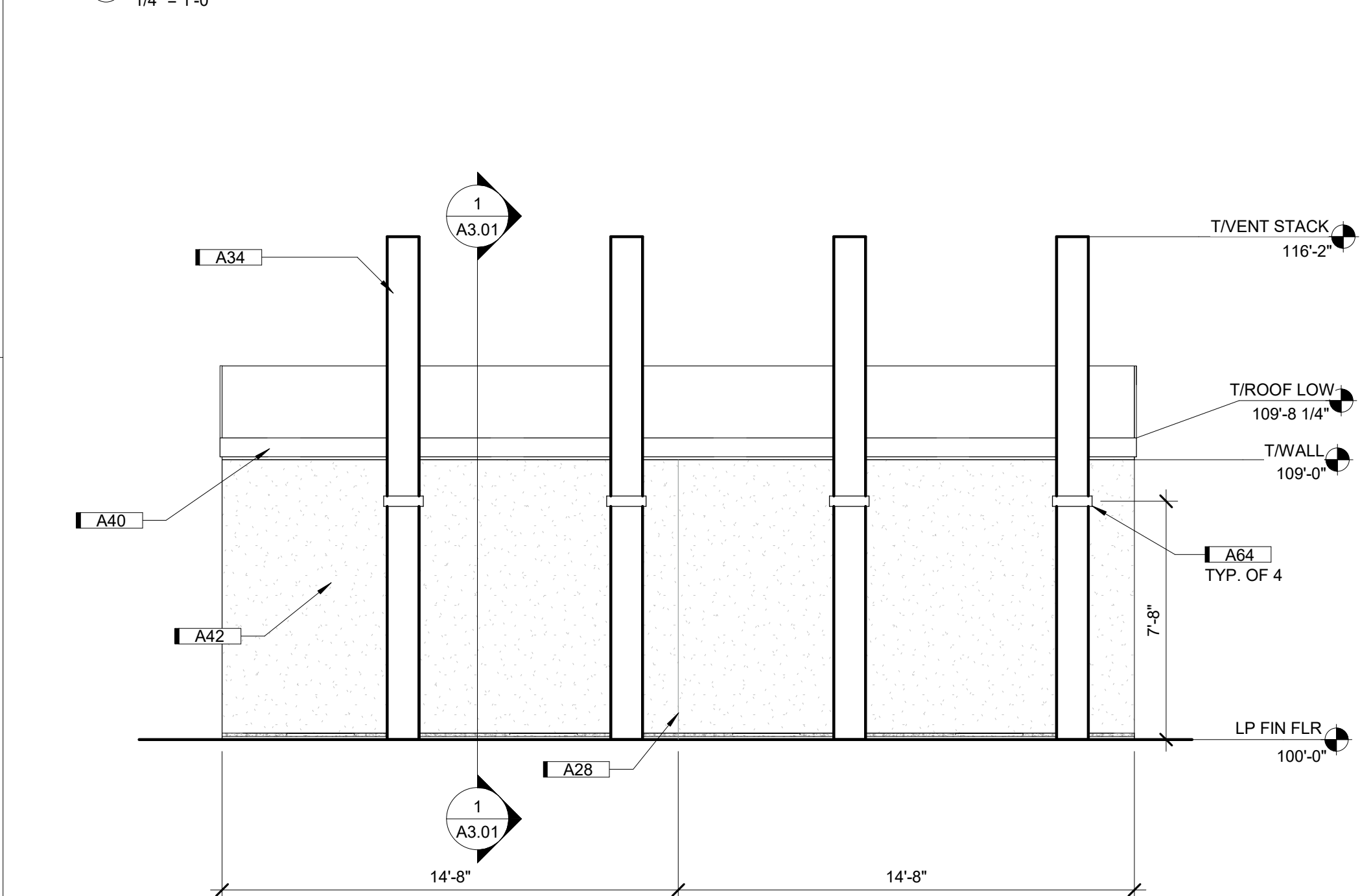


6 VENT STACK BRACKET
1 1/2" = 1'-0"

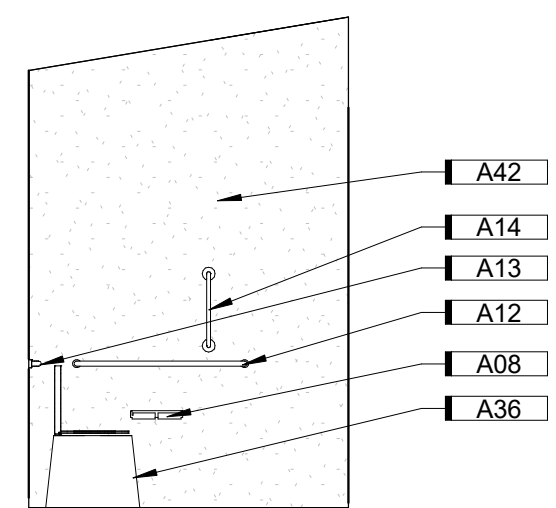
STEEL BRACKET ANCHORED TO PRECAST SIMILAR TO AS SHOWN IN PHOTO. FINISH BRACKET TO MATCH VENT STACK.

KEYNOTE LEGEND

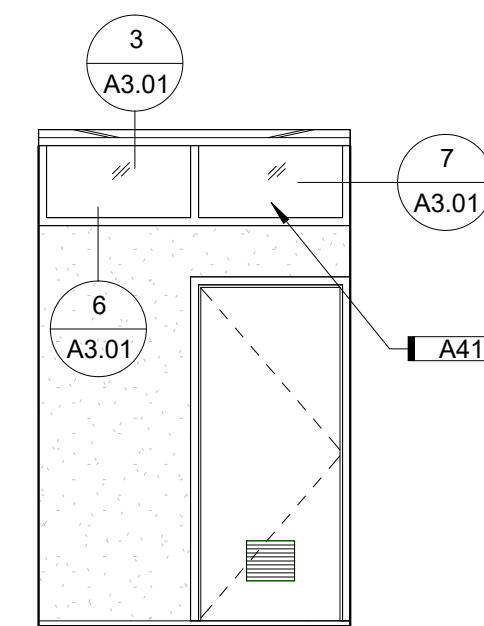
| | |
|-----|---|
| A08 | TOILET TISSUE DISPENSER |
| A12 | 42" GRAB BAR - TYPICAL |
| A13 | 36" GRAB BAR - TYPICAL |
| A14 | 18" GRAB BAR VERTICAL - TYPICAL |
| A22 | LIGHT FIXTURE - SEE ELECTRICAL |
| A28 | PRECAST CONCRETE PANEL JOINT |
| A34 | BLACK VENT STACK WITH ADAPTER TO PIT CONNECTION |
| A36 | TOILET RISER AND ADAPTER |
| A40 | PREFINISHED METAL FASCIA |
| A41 | ALUMINUM FRAMED GLAZING WITH STRUCTURALLY GASKETED VERTICAL JOINTS |
| A42 | ARCHITECTURAL PRECAST CONCRETE PANELS - COLOR TO BE SELECTED BY OWNER |
| A44 | PAINTED STEEL FRAMING - SEE STRUCTURAL |
| A45 | PERFORATED METAL SCREEN - PAINTED; SEE DETAIL 11, THIS SHEET, FOR PERFORATED PATTERN |
| A54 | STAINLESS STEEL CROSS BRACING - PIN CONNECTOR TIED INTO STEEL FLANGES WELDED TO TUBE STEEL - SEE STRUCTURAL |
| A64 | BRACKET FOR ANCHORING VENT STACK TO PRECAST PANELS. FINISH TO MATCH VENT; SEE DETAIL 6, THIS SHEET. |
| S38 | 8" FULL HEIGHT, LOAD BEARING PRECAST WALL. LOCATE PANEL JOINTS IN LINE WITH INTERIOR WALL PANELS TO CONCEAL JOINTS AT INTERIOR. |



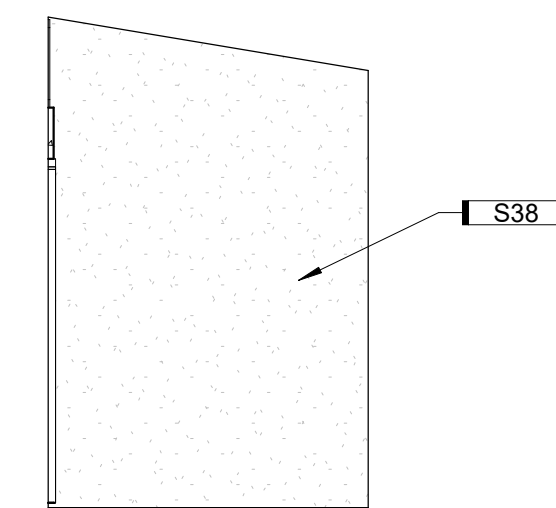
3 RESTROOM BACK EXTERIOR ELEVATION
1/4" = 1'-0"



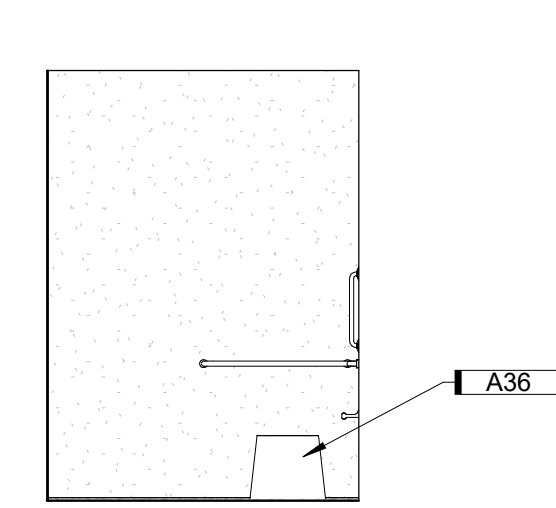
7 TYPICAL INTERIOR ELEVATION
1/4" = 1'-0"



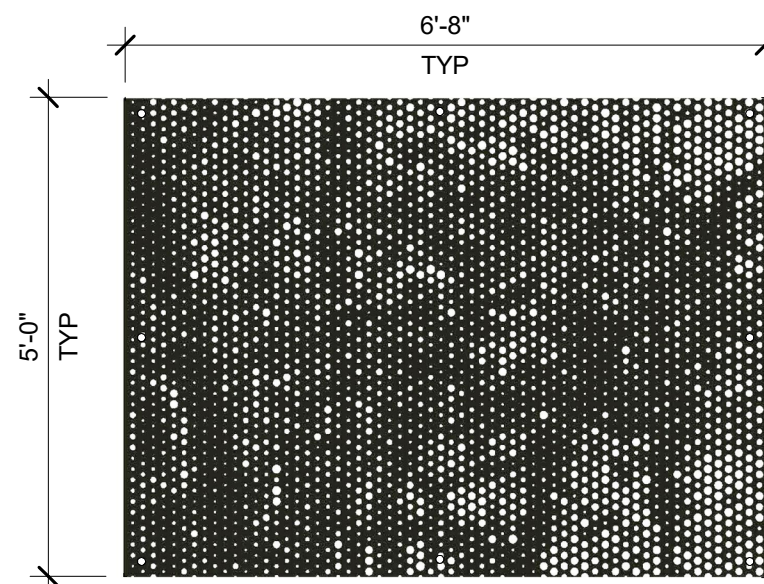
8 TYPICAL INTERIOR ELEVATION
1/4" = 1'-0"



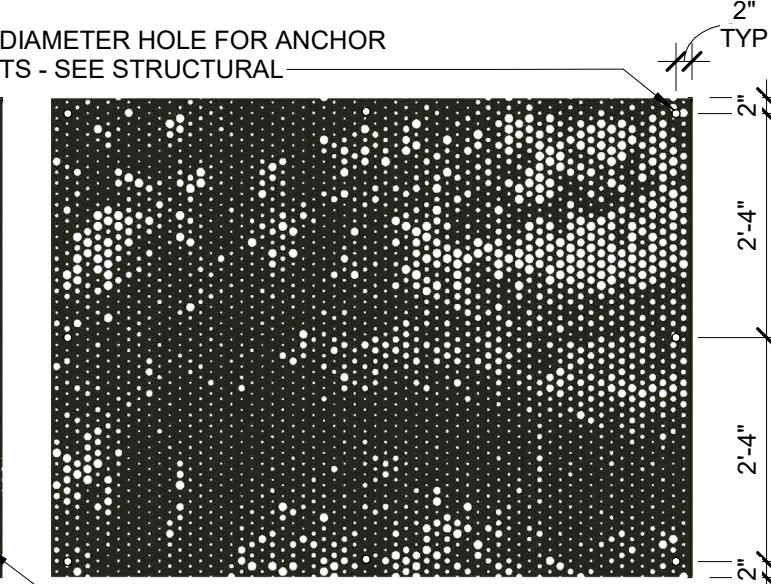
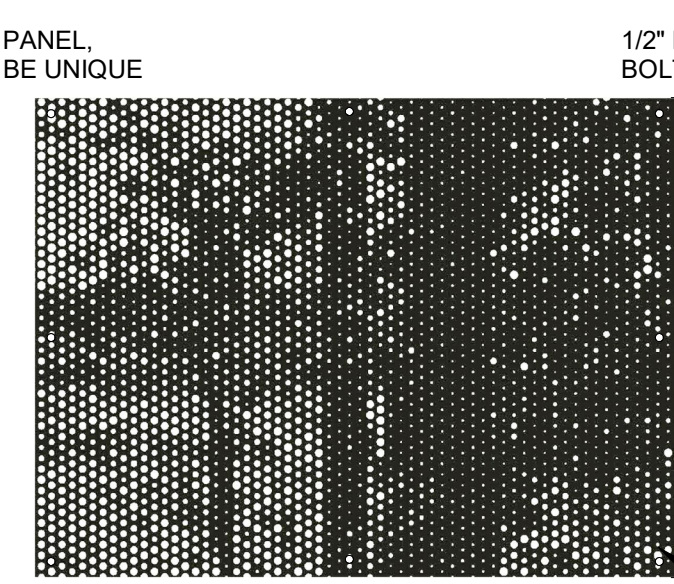
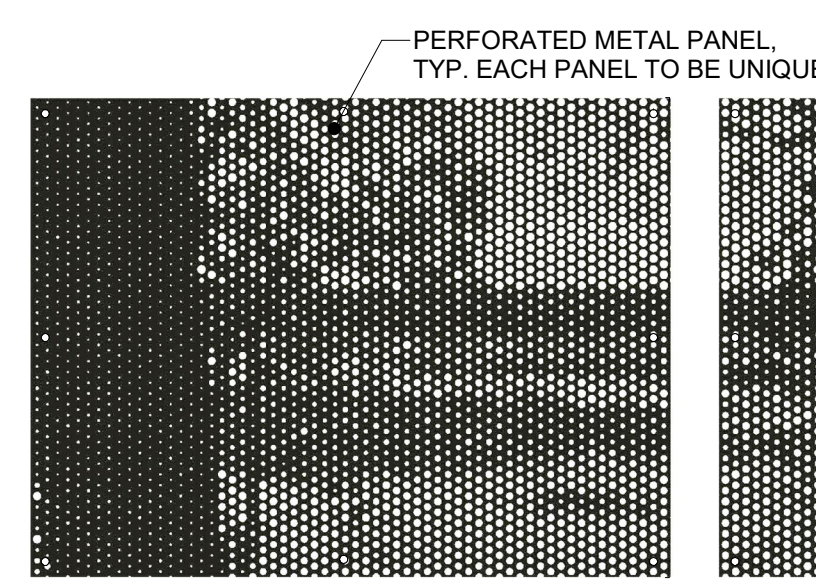
9 TYPICAL INTERIOR ELEVATION
1/4" = 1'-0"



10 TYPICAL INTERIOR ELEVATION
1/4" = 1'-0"

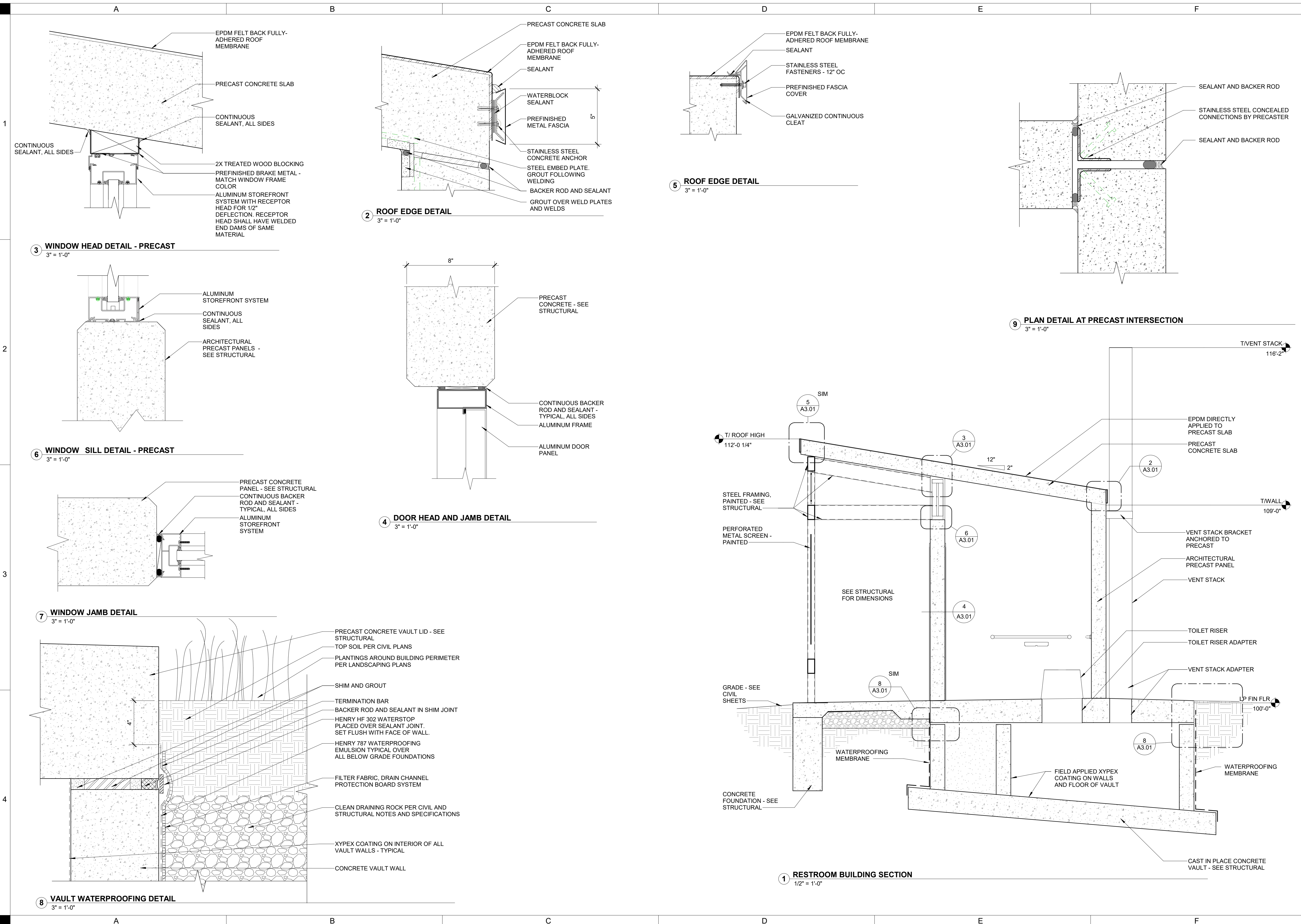


11 PERFORATED SCREEN PATTERN
1/2" = 1'-0"



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| FIELD BOOK: | |

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