

BRIDGE SCHEDULE³

| Station | Description | Length (ft) | Width (ft) | Location ¹ | Function | Location ¹ | Function | Location ¹ | Function |
|---------|---------------------|-------------|------------|-----------------------|---------------------------------|-----------------------|------------------------|-----------------------|---------------------------------|
| 134+00 | BBID Canal Crossing | N/A | N/A | Access Road, Left | No bridge ² | Patrol Road | No bridge ² | Access Road, Right | No bridge ² |
| 185+00 | BBID Canal Crossing | 100 | 20 | Access Road, Left | Bridge Needed for Temp Crossing | Patrol Road | Perm Crossing | Access Road, Right | Bridge Needed for Temp Crossing |
| 198+25 | Gas Line Crossing | 100 | 20 | Access Road, Left | Bridge Needed for Temp Crossing | Patrol Road | Perm Crossing | Access Road, Right | Bridge Needed for Temp Crossing |

Notes:

1. Left/right direction determined based on cross section looking in the direction of increased station.
2. Alternate means of crossing are available on nearby road. Canal to be temporarily taken out of service for actual crossing during non-irrigation season. Bypass pumping provided if needed.
3. Separate bridge schedule provided on CER-C-1133AQ for temporary bridges associated with work in/adjacent to Jones Inlet Canal.

NOTES:

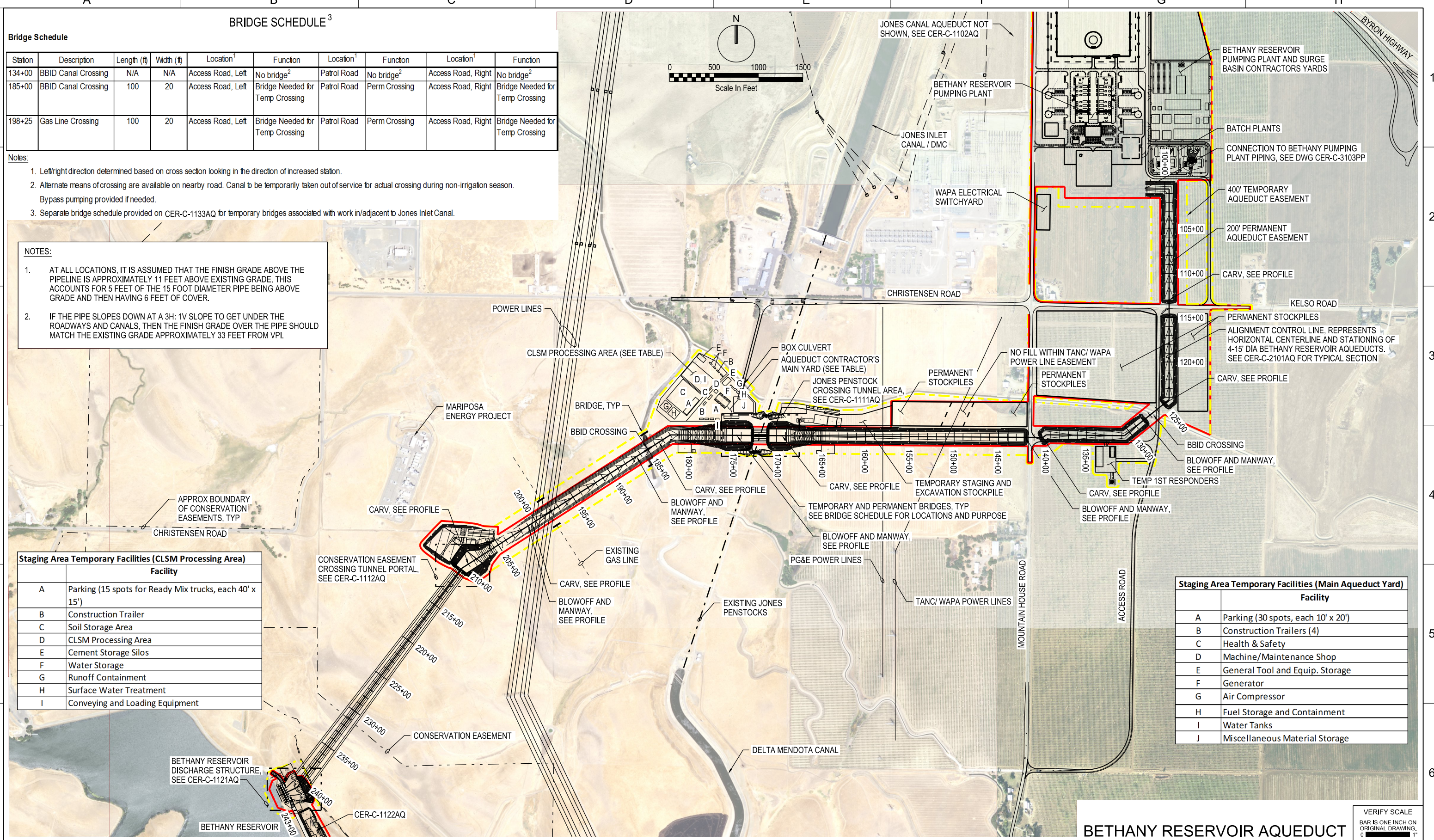
1. AT ALL LOCATIONS, IT IS ASSUMED THAT THE FINISH GRADE ABOVE THE PIPELINE IS APPROXIMATELY 11 FEET ABOVE EXISTING GRADE. THIS ACCOUNTS FOR 5 FEET OF THE 15 FOOT DIAMETER PIPE BEING ABOVE GRADE AND THEN HAVING 6 FEET OF COVER.
2. IF THE PIPE SLOPES DOWN AT A 3H: 1V SLOPE TO GET UNDER THE ROADWAYS AND CANALS, THEN THE FINISH GRADE OVER THE PIPE SHOULD MATCH THE EXISTING GRADE APPROXIMATELY 33 FEET FROM VPI.

Staging Area Temporary Facilities (CLSM Processing Area)

| Facility | Description |
|----------|---|
| A | Parking (15 spots for Ready Mix trucks, each 40' x 15') |
| B | Construction Trailer |
| C | Soil Storage Area |
| D | CLSM Processing Area |
| E | Cement Storage Silos |
| F | Water Storage |
| G | Runoff Containment |
| H | Surface Water Treatment |
| I | Conveying and Loading Equipment |

Staging Area Temporary Facilities (Main Aqueduct Yard)

| Facility | Description |
|----------|------------------------------------|
| A | Parking (30 spots, each 10' x 20') |
| B | Construction Trailers (4) |
| C | Health & Safety |
| D | Machine/Maintenance Shop |
| E | General Tool and Equip. Storage |
| F | Generator |
| G | Air Compressor |
| H | Fuel Storage and Containment |
| I | Water Tanks |
| J | Miscellaneous Material Storage |



CER-C-1101AQ_W8X97000.dgn

| | |
|-------------------------|--------------------------|
| DESIGNED R FEHRINGER | APPROVAL RECOMMENDED |
| DRAWN J SMITH | APPROVAL BY A MURDOCK |
| CHECKED K PARIS | |

CONCEPT PLANNING DOCUMENT
NOT FOR CONSTRUCTION



DCA
DELTA CONVEYANCE DESIGN & CONSTRUCTION AUTHORITY

BETHANY RESERVOIR AQUEDUCT

DELTA CONVEYANCE PROJECT
CONCEPT ENGINEERING REPORT

**BETHANY RESERVOIR AQUEDUCT
SITE PLAN A**

| | |
|---|---------------------------|
| VERIFY SCALE BAR IS ONE INCH ON ORIGINAL DRAWING. 0' 1" | |
| PROJECT NO. W8X97000 | SHEET NO. CER-C-1101AQ |
| REV | SEQUENCE NO. 95 |

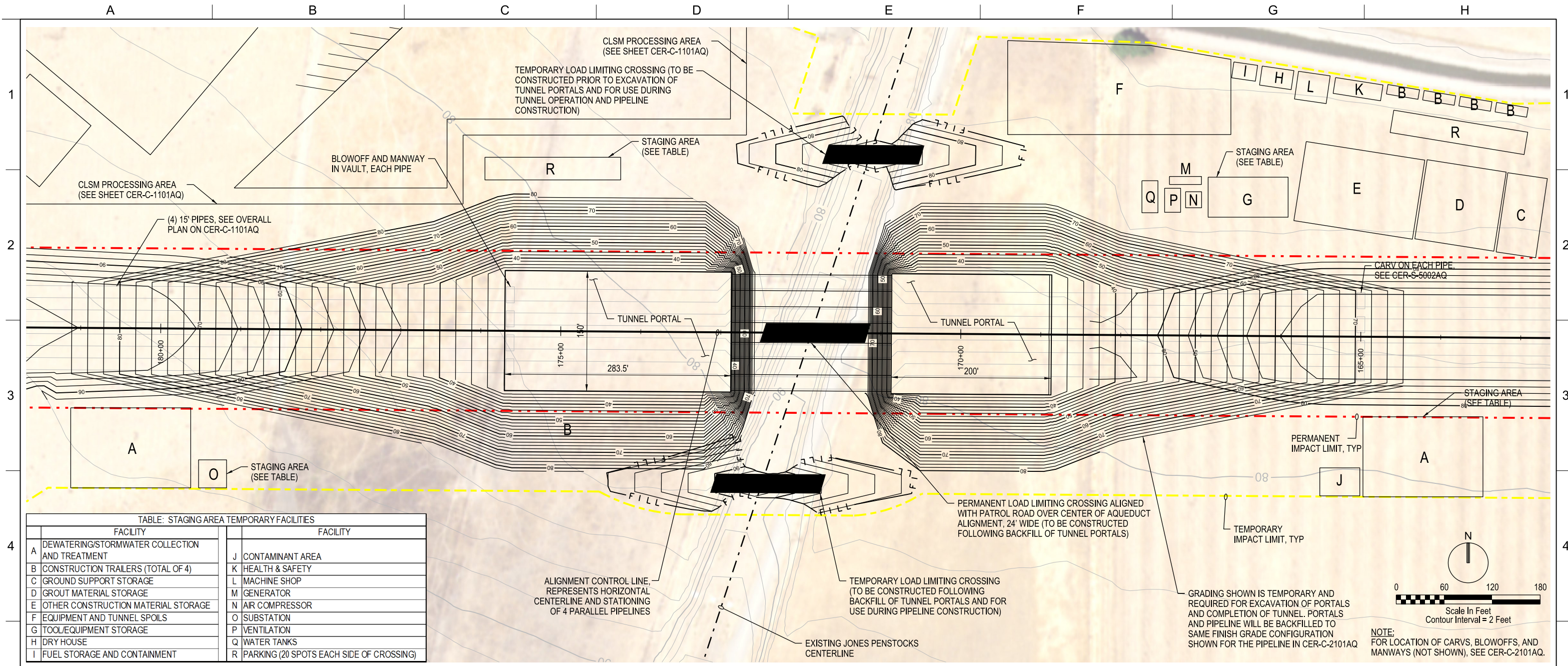
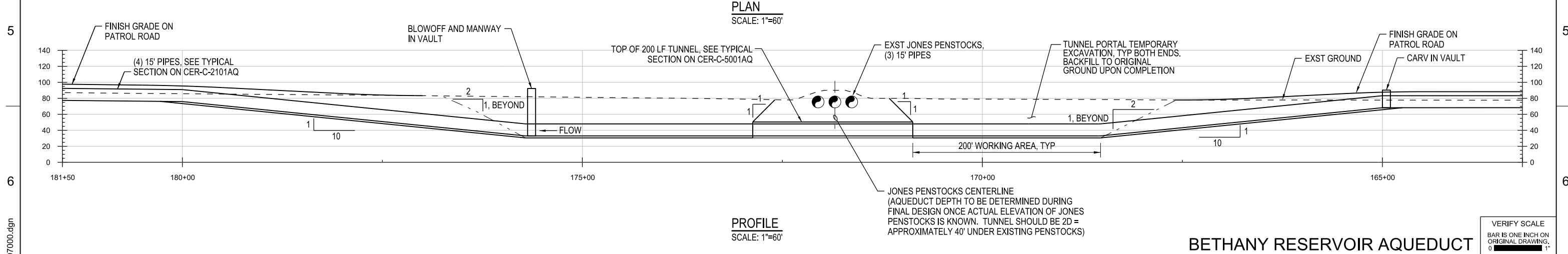


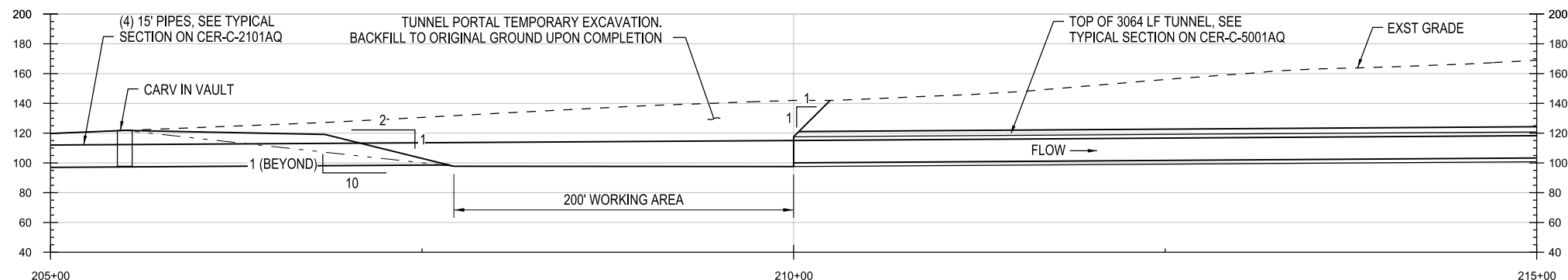
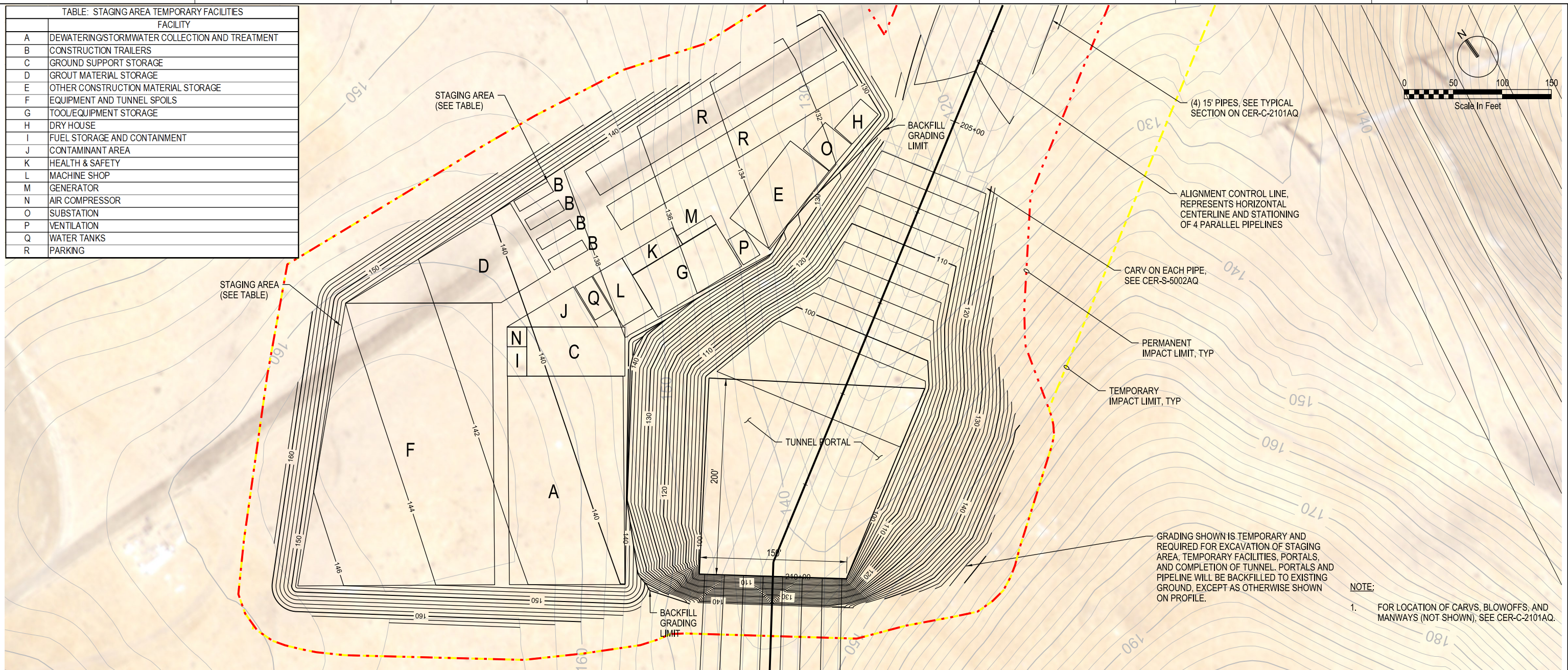
TABLE: STAGING AREA TEMPORARY FACILITIES

| FACILITY | FACILITY |
|--|--|
| A DEWATERING/STORMWATER COLLECTION AND TREATMENT | J CONTAMINANT AREA |
| B CONSTRUCTION TRAILERS (TOTAL OF 4) | K HEALTH & SAFETY |
| C GROUND SUPPORT STORAGE | L MACHINE SHOP |
| D GROUT MATERIAL STORAGE | M GENERATOR |
| E OTHER CONSTRUCTION MATERIAL STORAGE | N AIR COMPRESSOR |
| F EQUIPMENT AND TUNNEL SPOILS | O SUBSTATION |
| G TOOL/EQUIPMENT STORAGE | P VENTILATION |
| H DRY HOUSE | Q WATER TANKS |
| I FUEL STORAGE AND CONTAINMENT | R PARKING (20 SPOTS EACH SIDE OF CROSSING) |



| | | | | | | |
|--|--|--|--|---|--|--|
| <p>BETHANY RESERVOIR AQUEDUCT</p> <p>DELTA CONVEYANCE PROJECT CONCEPT ENGINEERING REPORT</p> <p>JONES PENSTOCK CROSSING TUNNEL PORTAL PLAN AND PROFILE</p> | | | <p>CONCEPT PLANNING DOCUMENT</p> <p>NOT FOR CONSTRUCTION</p> | <p>DESIGNED R FEHRINGER</p> <p>DRAWN J SMITH</p> <p>CHECKED K PARIS</p> | <p>APPROVAL RECOMMENDED</p> <p>APPROVAL BY A MURDOCK</p> | <p>VERIFY SCALE BAR IS ONE INCH ON ORIGINAL DRAWING. 0 1"</p> <p>PROJECT NO. W8X97000</p> <p>SHEET NO. CER-C-1111AQ</p> <p>REV SEQUENCE NO. 96</p> |
|--|--|--|--|---|--|--|

| TABLE: STAGING AREA TEMPORARY FACILITIES | |
|--|--|
| FACILITY | |
| A | DEWATERING/STORMWATER COLLECTION AND TREATMENT |
| B | CONSTRUCTION TRAILERS |
| C | GROUND SUPPORT STORAGE |
| D | GROUT MATERIAL STORAGE |
| E | OTHER CONSTRUCTION MATERIAL STORAGE |
| F | EQUIPMENT AND TUNNEL SPOILS |
| G | TOOL/EQUIPMENT STORAGE |
| H | DRY HOUSE |
| I | FUEL STORAGE AND CONTAINMENT |
| J | CONTAMINANT AREA |
| K | HEALTH & SAFETY |
| L | MACHINE SHOP |
| M | GENERATOR |
| N | AIR COMPRESSOR |
| O | SUBSTATION |
| P | VENTILATION |
| Q | WATER TANKS |
| R | PARKING |



CER-C-1112AQ_W8X97000.dgn

| REV | DATE | DESCRIPTION | SUB. | APPD |
|-----|----------|--|------|------|
| | SEP 2024 | DELTA CONVEYANCE PROJECT CONCEPT ENGINEERING REPORT DRAWINGS | | |

| | |
|-------------------------|--------------------------|
| DESIGNED R FEHRINGER | APPROVAL RECOMMENDED |
| DRAWN J SMITH | APPROVAL BY A MURDOCK |
| CHECKED K PARIS | |

CONCEPT PLANNING DOCUMENT

NOT FOR CONSTRUCTION

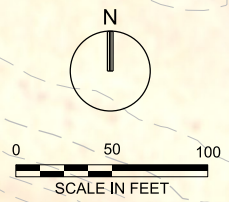
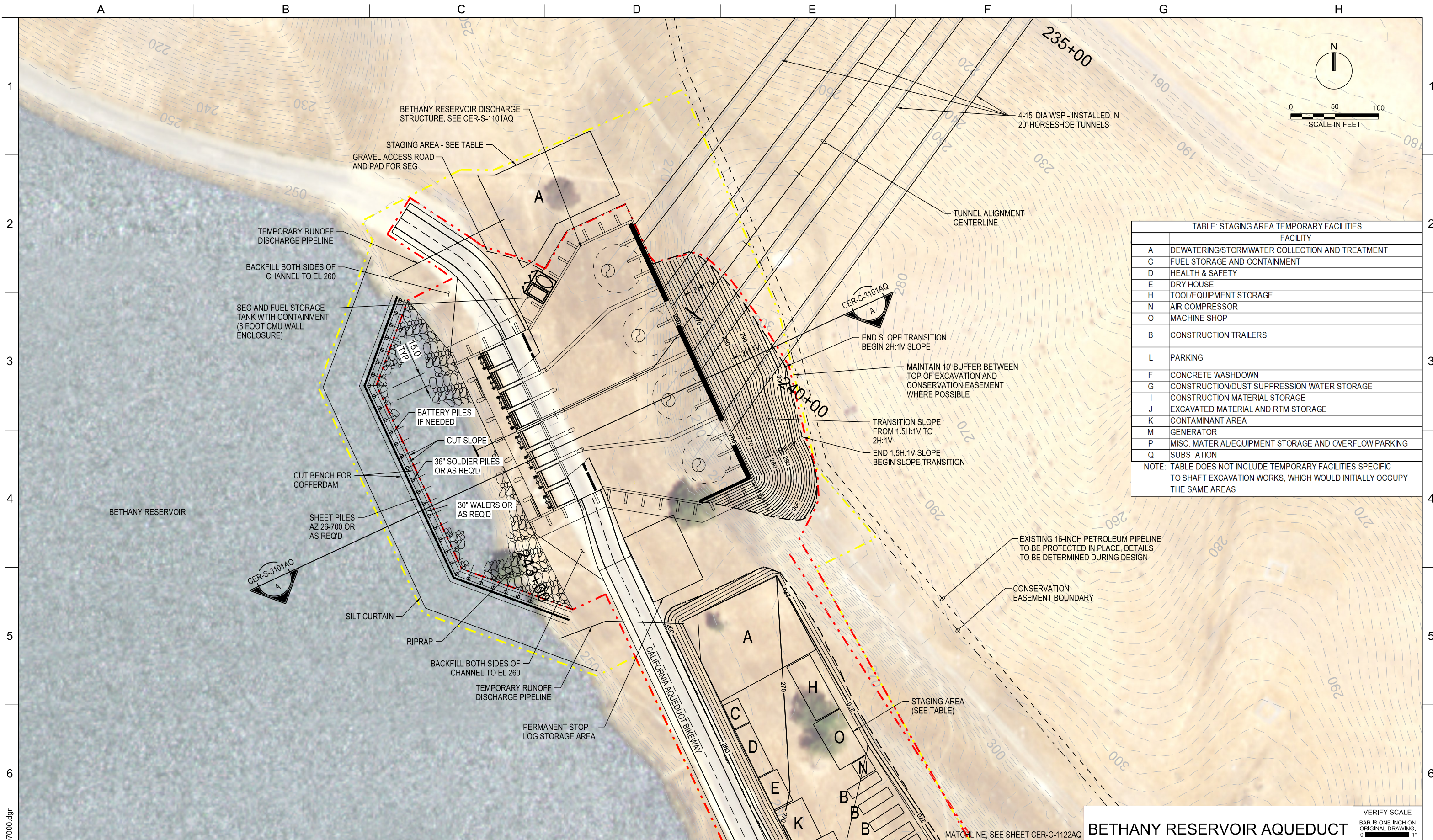


BETHANY RESERVOIR AQUEDUCT

DELTA CONVEYANCE PROJECT
CONCEPT ENGINEERING REPORT

**CONSERVATION EASEMENT CROSSING
TUNNEL PORTAL PLAN AND PROFILE**

| | |
|--|--------------------|
| VERIFY SCALE BAR IS ONE INCH ON ORIGINAL DRAWING. 0 1" | |
| PROJECT NO. W8X97000 | |
| SHEET NO. CER-C-1112AQ | |
| REV | SEQUENCE NO. 97 |



| TABLE: STAGING AREA TEMPORARY FACILITIES | |
|--|---|
| | FACILITY |
| A | DEWATERING/STORMWATER COLLECTION AND TREATMENT |
| C | FUEL STORAGE AND CONTAINMENT |
| D | HEALTH & SAFETY |
| E | DRY HOUSE |
| H | TOOL/EQUIPMENT STORAGE |
| N | AIR COMPRESSOR |
| O | MACHINE SHOP |
| B | CONSTRUCTION TRAILERS |
| L | PARKING |
| F | CONCRETE WASHDOWN |
| G | CONSTRUCTION/DUST SUPPRESSION WATER STORAGE |
| I | CONSTRUCTION MATERIAL STORAGE |
| J | EXCAVATED MATERIAL AND RTM STORAGE |
| K | CONTAMINANT AREA |
| M | GENERATOR |
| P | MISC. MATERIAL/EQUIPMENT STORAGE AND OVERFLOW PARKING |
| Q | SUBSTATION |

NOTE: TABLE DOES NOT INCLUDE TEMPORARY FACILITIES SPECIFIC TO SHAFT EXCAVATION WORKS, WHICH WOULD INITIALLY OCCUPY THE SAME AREAS

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| REV | DATE | DESCRIPTION | SUB. | APPD |
|----------|------|--|------|------|
| SEP 2024 | | DELTA CONVEYANCE PROJECT CONCEPT ENGINEERING REPORT DRAWINGS | | |

| | | | |
|----------|-------------|----------------------|-----------|
| DESIGNED | R FEHRINGER | APPROVAL RECOMMENDED | |
| DRAWN | J SMITH | APPROVAL BY | A MURDOCK |
| CHECKED | K PARIS | | |

CONCEPT PLANNING DOCUMENT
NOT FOR CONSTRUCTION



BETHANY RESERVOIR AQUEDUCT

DELTA CONVEYANCE PROJECT
CONCEPT ENGINEERING REPORT

SITE PLAN A
BETHANY RESERVOIR DISCHARGE STRUCTURE

| | |
|-------------|--------------|
| PROJECT NO. | W8X97000 |
| SHEET NO. | CER-C-1121AQ |
| REV | SEQUENCE NO. |
| | 98 |

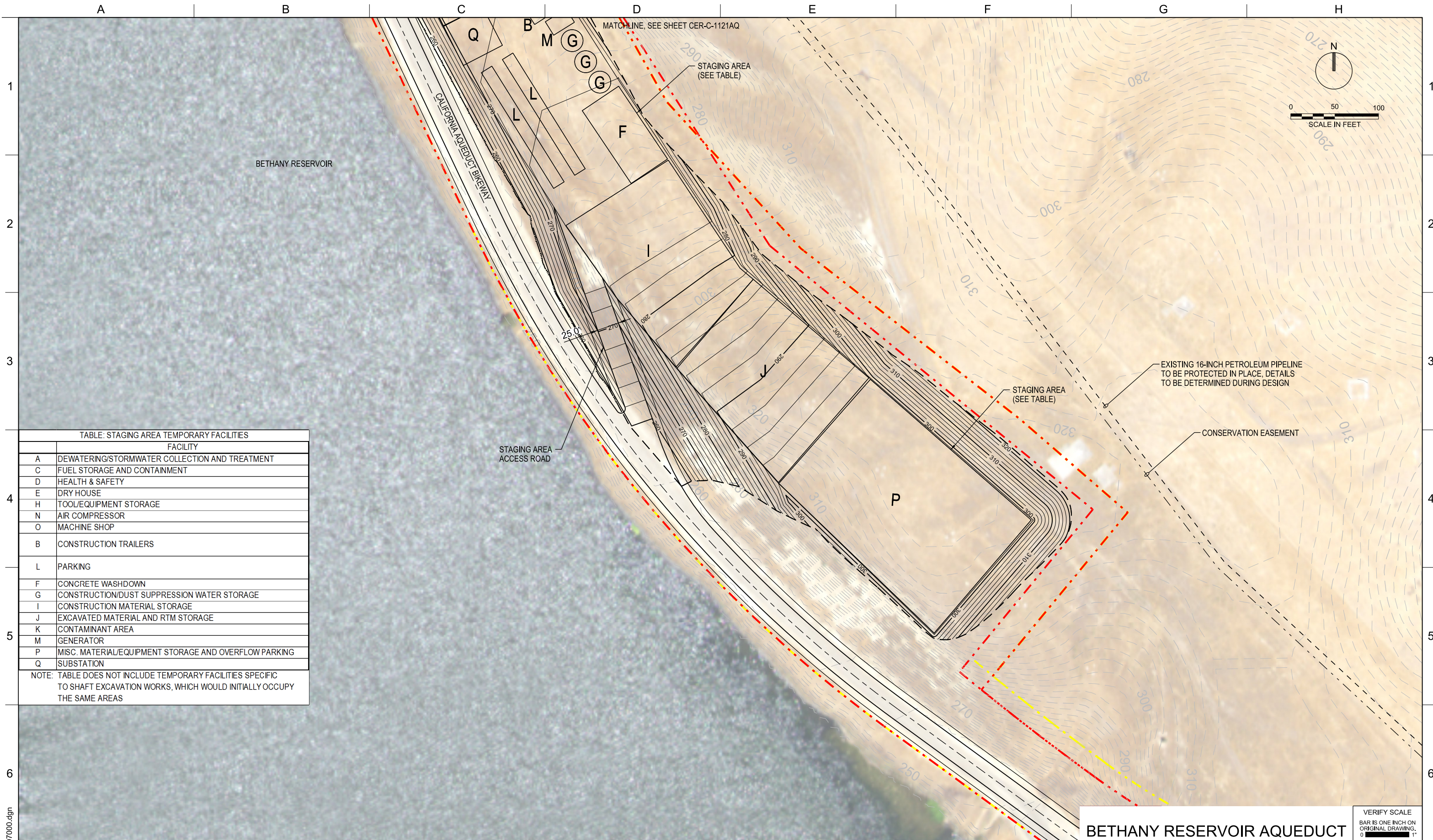


TABLE: STAGING AREA TEMPORARY FACILITIES

| FACILITY | |
|----------|---|
| A | DEWATERING/STORMWATER COLLECTION AND TREATMENT |
| C | FUEL STORAGE AND CONTAINMENT |
| D | HEALTH & SAFETY |
| E | DRY HOUSE |
| H | TOOL/EQUIPMENT STORAGE |
| N | AIR COMPRESSOR |
| O | MACHINE SHOP |
| B | CONSTRUCTION TRAILERS |
| L | PARKING |
| F | CONCRETE WASHDOWN |
| G | CONSTRUCTION/DUST SUPPRESSION WATER STORAGE |
| I | CONSTRUCTION MATERIAL STORAGE |
| J | EXCAVATED MATERIAL AND RTM STORAGE |
| K | CONTAMINANT AREA |
| M | GENERATOR |
| P | MISC. MATERIAL/EQUIPMENT STORAGE AND OVERFLOW PARKING |
| Q | SUBSTATION |

NOTE: TABLE DOES NOT INCLUDE TEMPORARY FACILITIES SPECIFIC TO SHAFT EXCAVATION WORKS, WHICH WOULD INITIALLY OCCUPY THE SAME AREAS

BETHANY RESERVOIR AQUEDUCT

DELTA CONVEYANCE PROJECT
CONCEPT ENGINEERING REPORT

SITE PLAN B
BETHANY RESERVOIR DISCHARGE STRUCTURE

VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING.
0 1"

| | |
|-------------|--------------|
| PROJECT NO. | W8X97000 |
| SHEET NO. | CER-C-1122AQ |
| REV | SEQUENCE NO. |
| | 99 |

CONCEPT
PLANNING
DOCUMENT

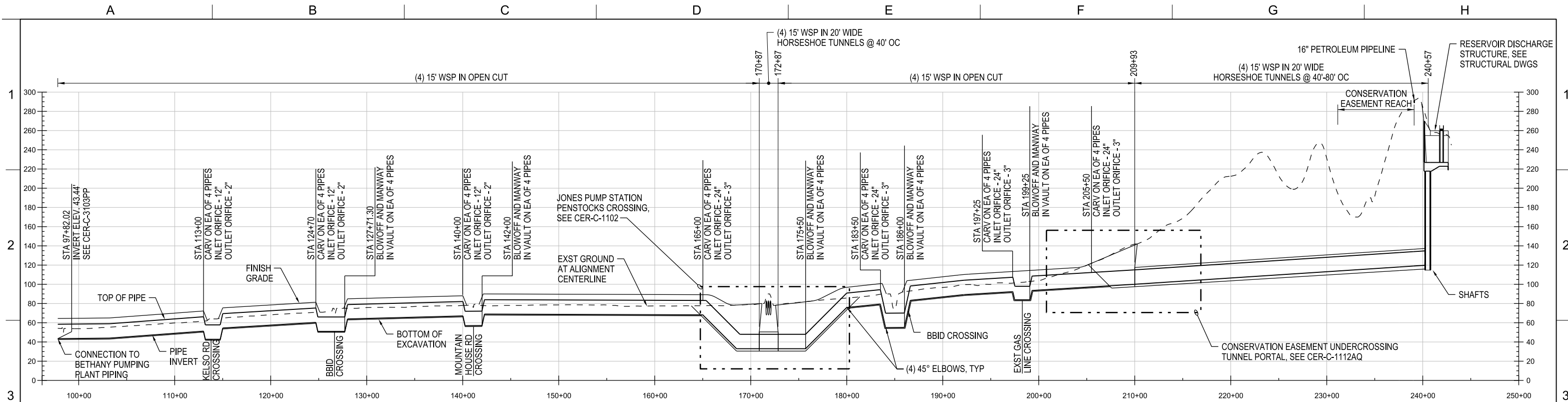
NOT FOR
CONSTRUCTION



| | | |
|----------|-------------|----------------------|
| DESIGNED | R FEHRINGER | APPROVAL RECOMMENDED |
| DRAWN | J SMITH | APPROVAL BY |
| CHECKED | K PARIS | A MURDOCK |

| REV | DATE | DESCRIPTION | SUB. | APPD |
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| SEP 2024 | DELTA CONVEYANCE PROJECT CONCEPT ENGINEERING REPORT DRAWINGS | | | |

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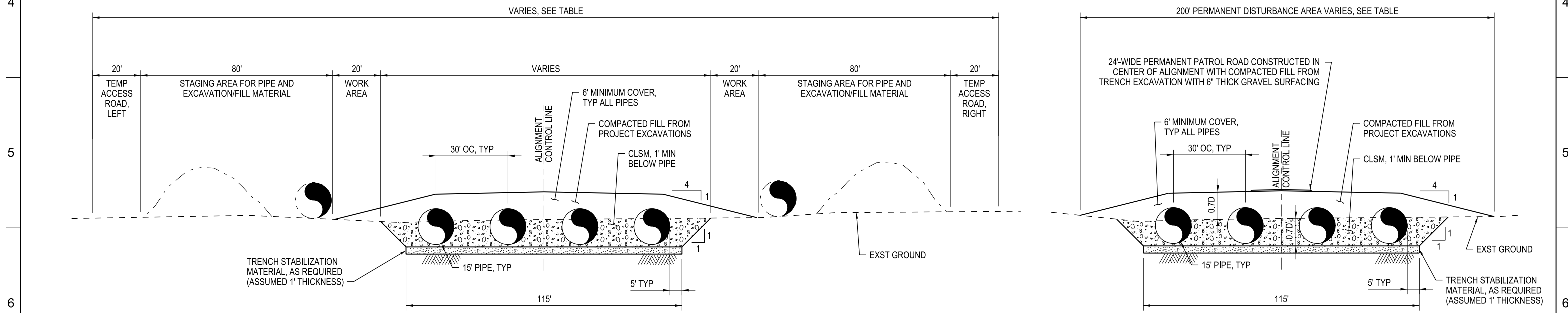
NOTES:

1. AQUEDUCT DEPTH AT CROSSINGS (ROADS, BBID CANALS, JONES PENSTOCKS, EXISTING GAS LINE) TO BE DETERMINED DURING DESIGN.
2. DRAINAGE ACROSS AQUEDUCT AREA TO BE DETERMINED DURING FINAL DESIGN. NATURAL DRAINAGE WILL BE PRESERVED.

PROFILE
 HORZ: 1"=500'
 VERT: 1"=50'

AQ PIPELINE QUANTITY & TRENCH DIMENSIONS

| Optional Design Capacity (cfs) | Number of Aqueduct Pipelines | Trench Width (Bottom of Trench) (ft) | Permanent Disturbed Width (ft) | Note |
|--------------------------------|------------------------------|--------------------------------------|--------------------------------|---|
| 7,500 | 4 | 115 | 200 | Trench dimensions and number of pipelines same as 6,000 cfs case between pumping plant and reservoir because additional capacity is delivered to DMC in separate pipeline |
| 6,000 | 4 | 115 | 200 | |
| 4,500 | 3 | 85 | 170 | |
| 3,000 | 2 | 55 | 140 | |



TYPICAL CONSTRUCTION PHASE TRENCH SECTION FOR OPEN CUT REACHES OF AQUEDUCT ALIGNMENT
 1"=20'

TYPICAL FINISHED CONDITION TRENCH SECTION FOR OPEN CUT REACHES OF AQUEDUCT ALIGNMENT
 1"=20'

BETHANY RESERVOIR AQUEDUCT

DELTA CONVEYANCE PROJECT
 CONCEPT ENGINEERING REPORT
BETHANY RESERVOIR AQUEDUCT
 PROFILE AND SECTIONS

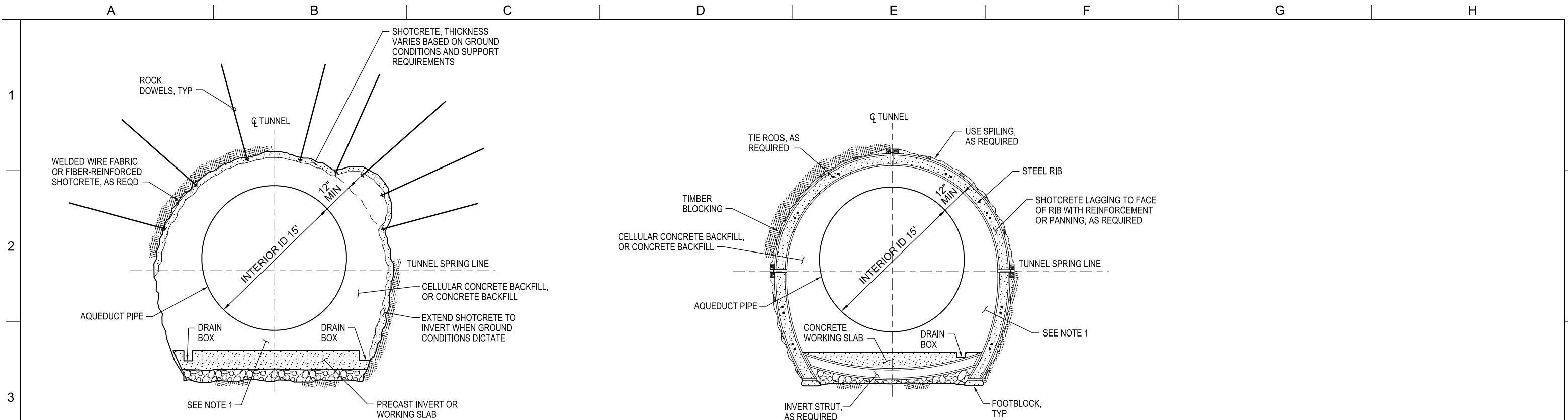
VERIFY SCALE
 BAR IS ONE INCH ON ORIGINAL DRAWING.
 0 1'

| | |
|-------------|--------------|
| PROJECT NO. | W8X97000 |
| SHEET NO. | CER-C-2101AQ |
| REV | SEQUENCE NO. |
| | 100 |

| | | | |
|----------|-------------|----------------------|-----------|
| DESIGNED | R FEHRINGER | APPROVAL RECOMMENDED | |
| DRAWN | J SMITH | APPROVAL BY | A MURDOCK |
| CHECKED | K PARIS | | |

CONCEPT PLANNING DOCUMENT
 NOT FOR CONSTRUCTION

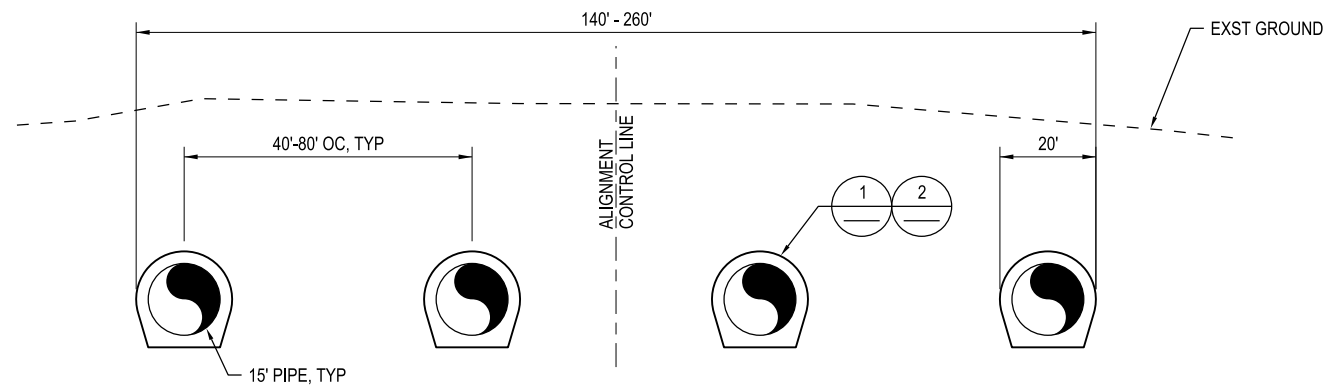




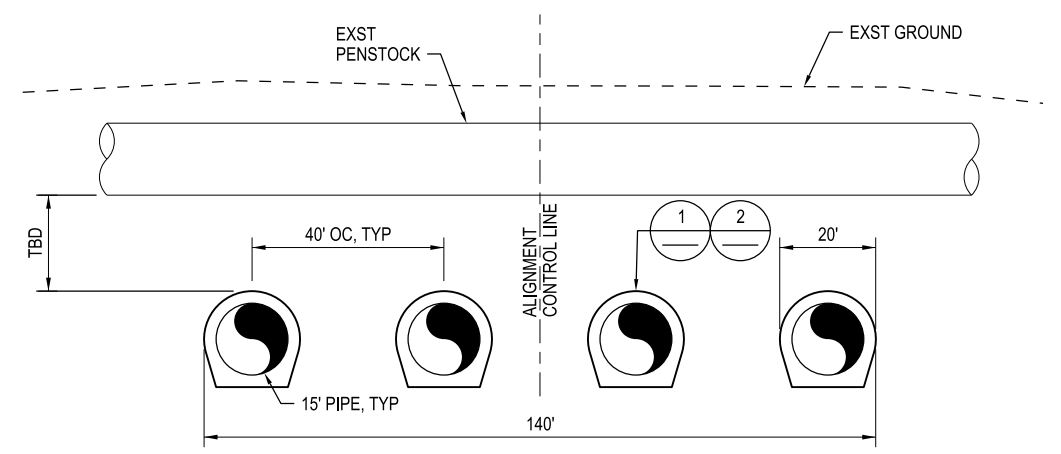
- NOTES:**
1. FOR CLARITY, THE BLOCKING OF THE PIPE TO PREVENT FLOTATION IS NOT SHOWN, BUT WILL BE REQUIRED.
 2. IF GROUNDWATER AND GROUND CONDITIONS WARRANT, SPECIAL MEASURES SUCH AS PIPE CANOPY, SPILING, BREASTING, GROUND IMPROVEMENT AND/OR DEWATERING WILL BE INSTALLED IN ADVANCE OF THE TUNNELING OPERATIONS TO MINIMIZE GROUND LOSS AND EXCESSIVE WATER INTRUSIONS.

1 INITIAL GROUND SUPPORT WITH ROCK DOWELS AND SHOTCRETE
NTS

2 INITIAL GROUND SUPPORT WITH STEEL RIBS AND SHOTCRETE
NTS



A TYPICAL TUNNEL SECTION FOR CONSERVATION EASEMENT UNDERCROSSING
NTS



B TYPICAL TUNNEL SECTION FOR JONES PENSTOCK UNDERCROSSING
NTS

CER-C-5001AQ_W8X97000.dgn

| REV | DATE | DESCRIPTION | SUB. | APPD |
|----------|------|--|------|------|
| SEP 2024 | | DELTA CONVEYANCE PROJECT CONCEPT ENGINEERING REPORT DRAWINGS | | |

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|----------|-------------|----------------------|-----------|
| DESIGNED | R FEHRINGER | APPROVAL RECOMMENDED | |
| DRAWN | J SMITH | APPROVAL BY | A MURDOCK |
| CHECKED | K PARIS | | |

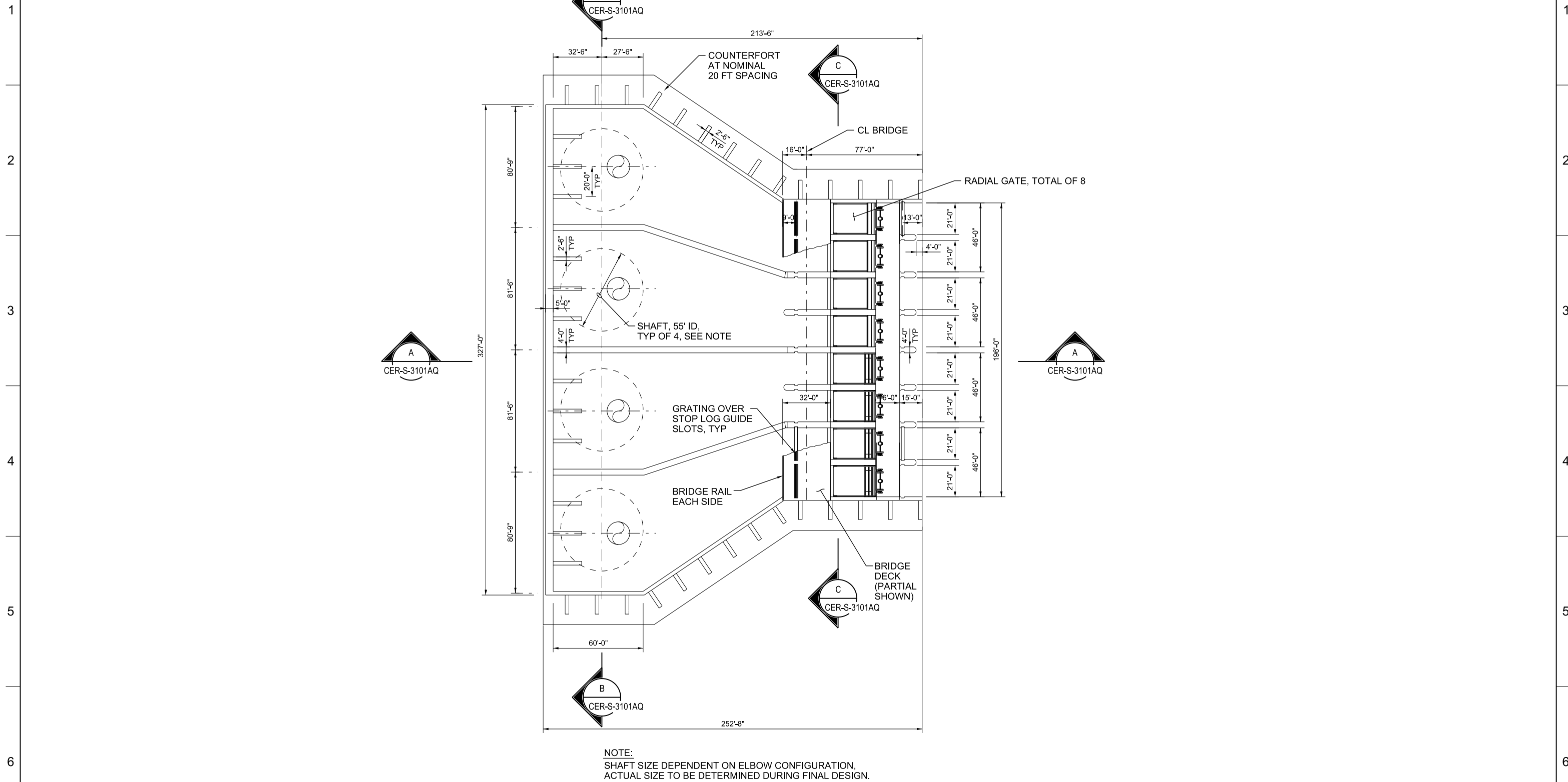
CONCEPT PLANNING DOCUMENT
NOT FOR CONSTRUCTION



BETHANY RESERVOIR AQUEDUCT
DELTA CONVEYANCE PROJECT
CONCEPT ENGINEERING REPORT
AQUEDUCT TUNNEL DETAILS

| | |
|--|--------------|
| VERIFY SCALE BAR IS ONE INCH ON ORIGINAL DRAWING. 0 1' | |
| PROJECT NO. | W8X97000 |
| SHEET NO. | CER-C-5001AQ |
| REV | SEQUENCE NO. |
| | 101 |

A B C D E F G H



NOTE:
SHAFT SIZE DEPENDENT ON ELBOW CONFIGURATION,
ACTUAL SIZE TO BE DETERMINED DURING FINAL DESIGN.

DISCHARGE STRUCTURE PLAN

1/32"=1'-0"

CER-S-1101AQ_W8X97000.dgn

| REV | DATE | DESCRIPTION | SUB. | APPD |
|----------|------|--|------|------|
| SEP 2024 | | DELTA CONVEYANCE PROJECT CONCEPT ENGINEERING REPORT DRAWINGS | | |

| | |
|----------|-------------|
| DESIGNED | R FEHRINGER |
| DRAWN | J SMITH |
| CHECKED | K PARIS |

| | |
|----------------------|-----------|
| APPROVAL RECOMMENDED | |
| APPROVAL BY | A MURDOCK |

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PLANNING
DOCUMENT

NOT FOR
CONSTRUCTION

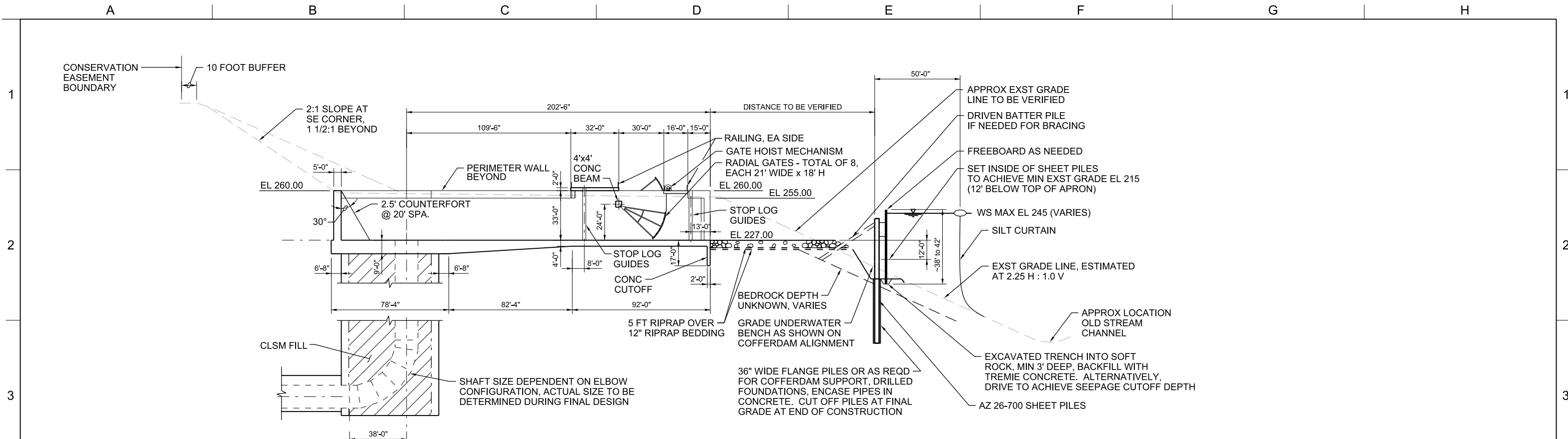


DELTA CONVEYANCE PROJECT
CONCEPT ENGINEERING REPORT

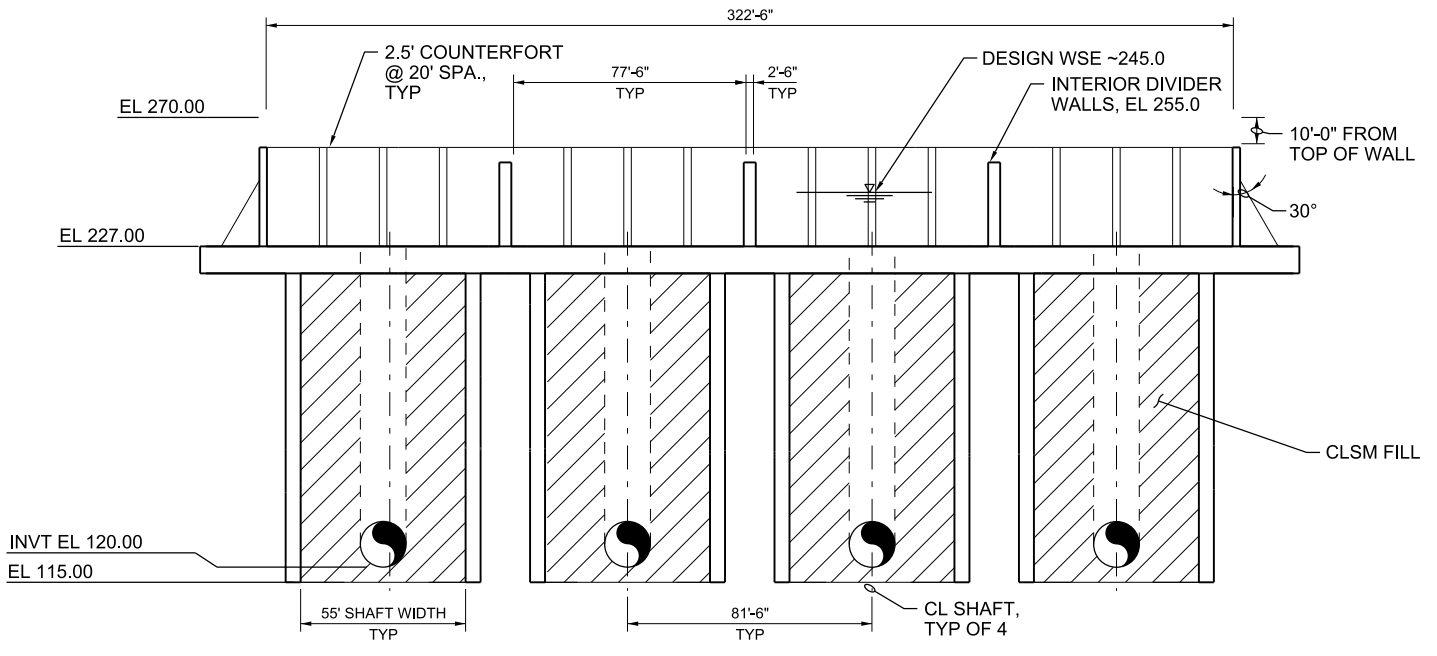
STRUCTURAL PLAN
BETHANY RESERVOIR DISCHARGE STRUCTURE

| | |
|---|--------------|
| VERIFY SCALE BAR IS ONE INCH ON ORIGINAL DRAWING. 0 1' | |
| PROJECT NO. | W8X97000 |
| SHEET NO. | CER-S-1101AQ |
| REV | SEQUENCE NO. |
| | 102 |

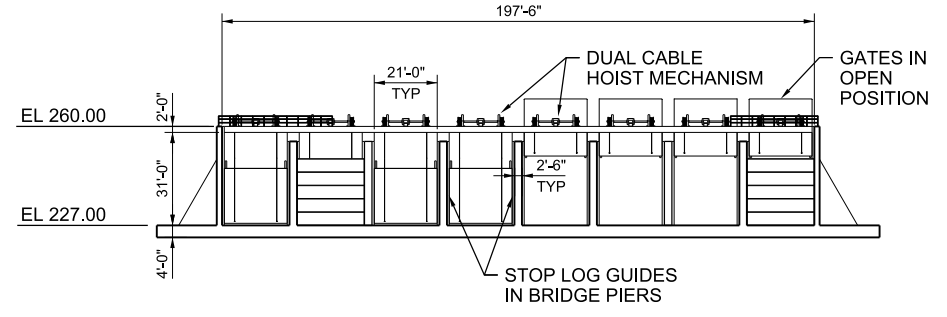
PLOT DATE:10/8/2024 PLOT TIME:8:37:57 AM



A SECTION
 1/32"=1'-0"
 CER-S-1101AQ
 CER-C-1121AQ



B SECTION
 1/32"=1'-0"
 CER-S-1101AQ



C SECTION
 1/32"=1'-0"
 CER-S-1101AQ

CER-S-3101AQ_W8X97000.dgn

| REV | DATE | DESCRIPTION | SUB. | APPD |
|----------|------|--|------|------|
| SEP 2024 | | DELTA CONVEYANCE PROJECT CONCEPT ENGINEERING REPORT DRAWINGS | | |

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|----------|-------------|----------------------|-----------|
| DESIGNED | R FEHRINGER | APPROVAL RECOMMENDED | |
| DRAWN | J SMITH | APPROVAL BY | A MURDOCK |
| CHECKED | K PARIS | | |

CONCEPT
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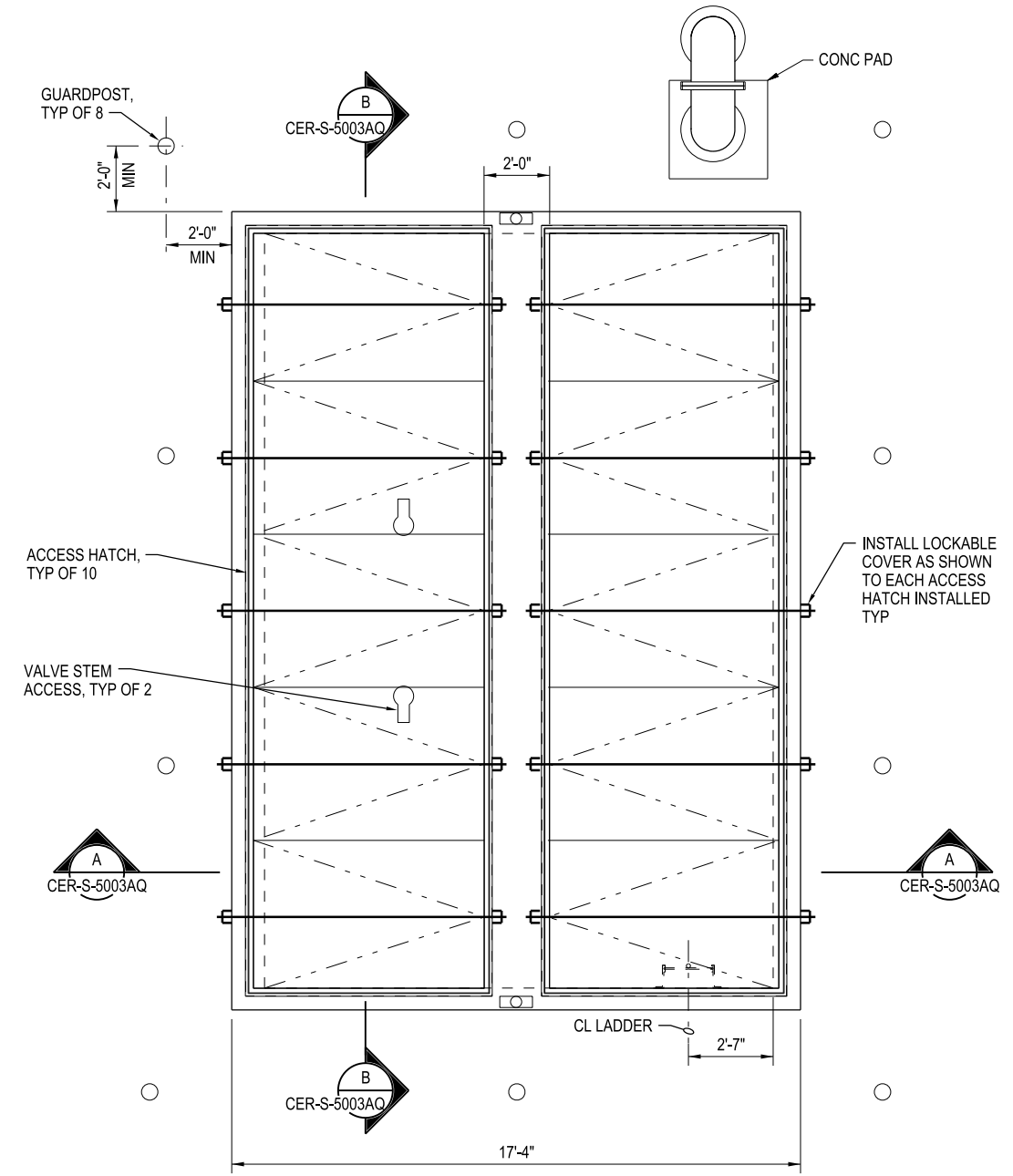
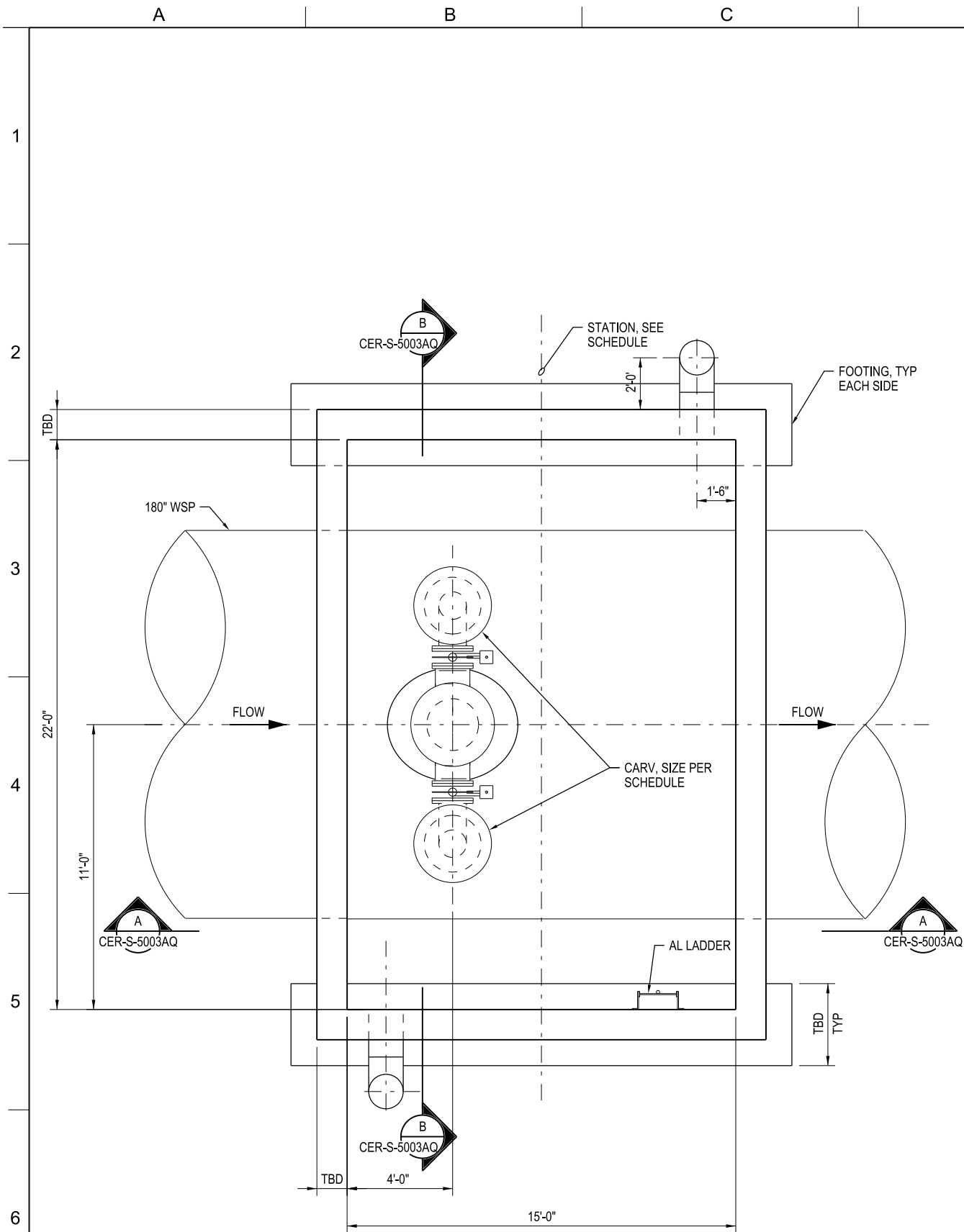


DELTA CONVEYANCE PROJECT
 CONCEPT ENGINEERING REPORT

STRUCTURAL SECTIONS
BETHANY RESERVOIR DISCHARGE STRUCTURE

| | |
|---|--------------|
| VERIFY SCALE BAR IS ONE INCH ON ORIGINAL DRAWING. 0 1' | |
| PROJECT NO. | W8X97000 |
| SHEET NO. | CER-S-3101AQ |
| REV | SEQUENCE NO. |
| | 103 |

NOTE:
 1. SEE PLAN AND PROFILE DRAWINGS FOR PIPE CENTERLINE ELEVATION, EXISTING GRADE, AND FINISH GRADE.



CER-S-5002AQ_W8X97000.dgn

| REV | DATE | DESCRIPTION | SUB. | APPD |
|----------|------|--|------|------|
| SEP 2024 | | DELTA CONVEYANCE PROJECT CONCEPT ENGINEERING REPORT DRAWINGS | | |

| | |
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| DESIGNED R FEHRINGER | APPROVAL RECOMMENDED |
| DRAWN J SMITH | APPROVAL BY A MURDOCK |
| CHECKED K PARIS | |

CONCEPT
 PLANNING
 DOCUMENT
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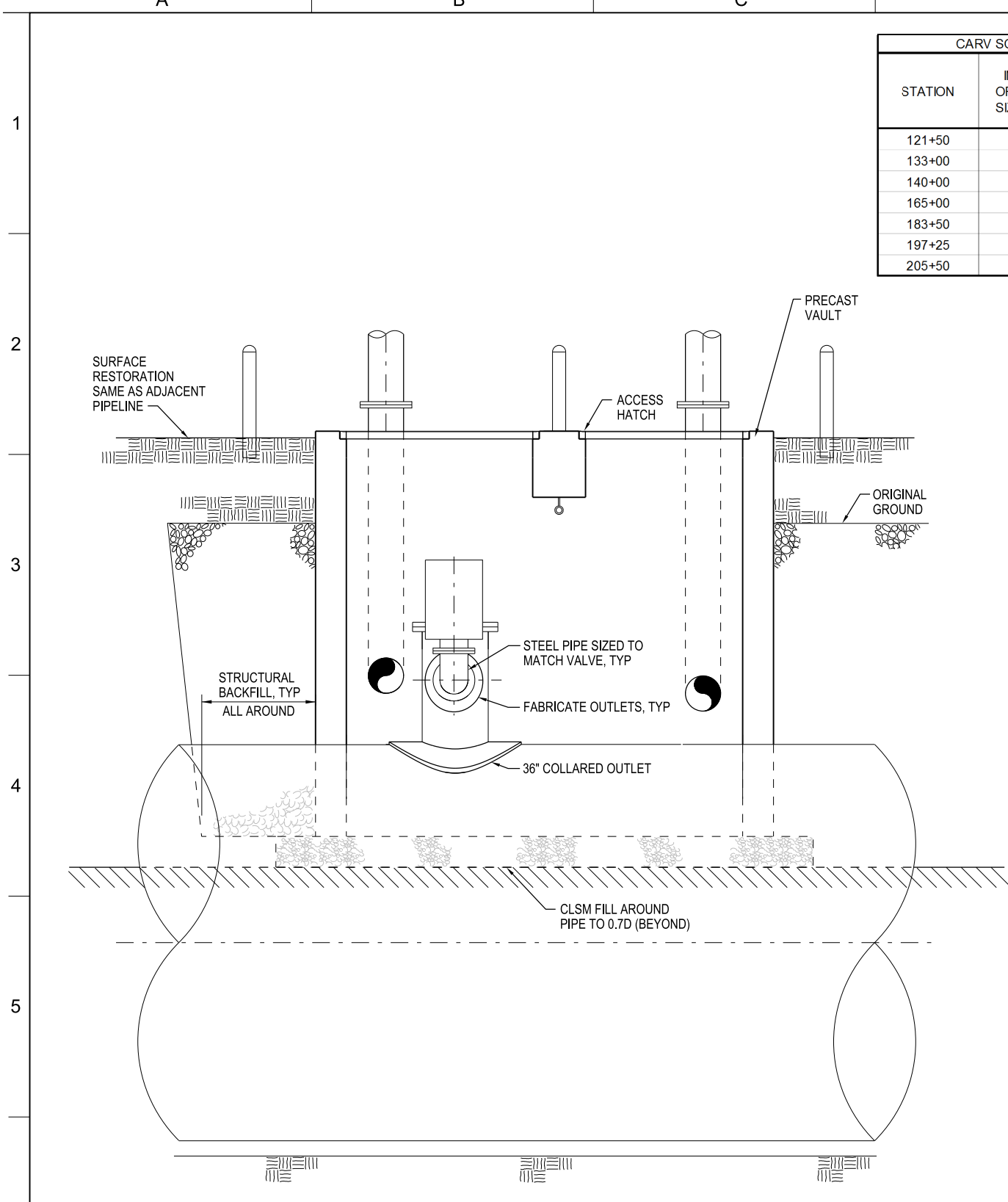


DELTA CONVEYANCE PROJECT
 CONCEPT ENGINEERING REPORT
 CARV VAULT DETAILS

| | |
|--|---------------------|
| VERIFY SCALE BAR IS ONE INCH ON ORIGINAL DRAWING. 0 | |
| PROJECT NO. W8X97000 | |
| SHEET NO. CER-S-5002AQ | |
| REV | SEQUENCE NO. 104 |

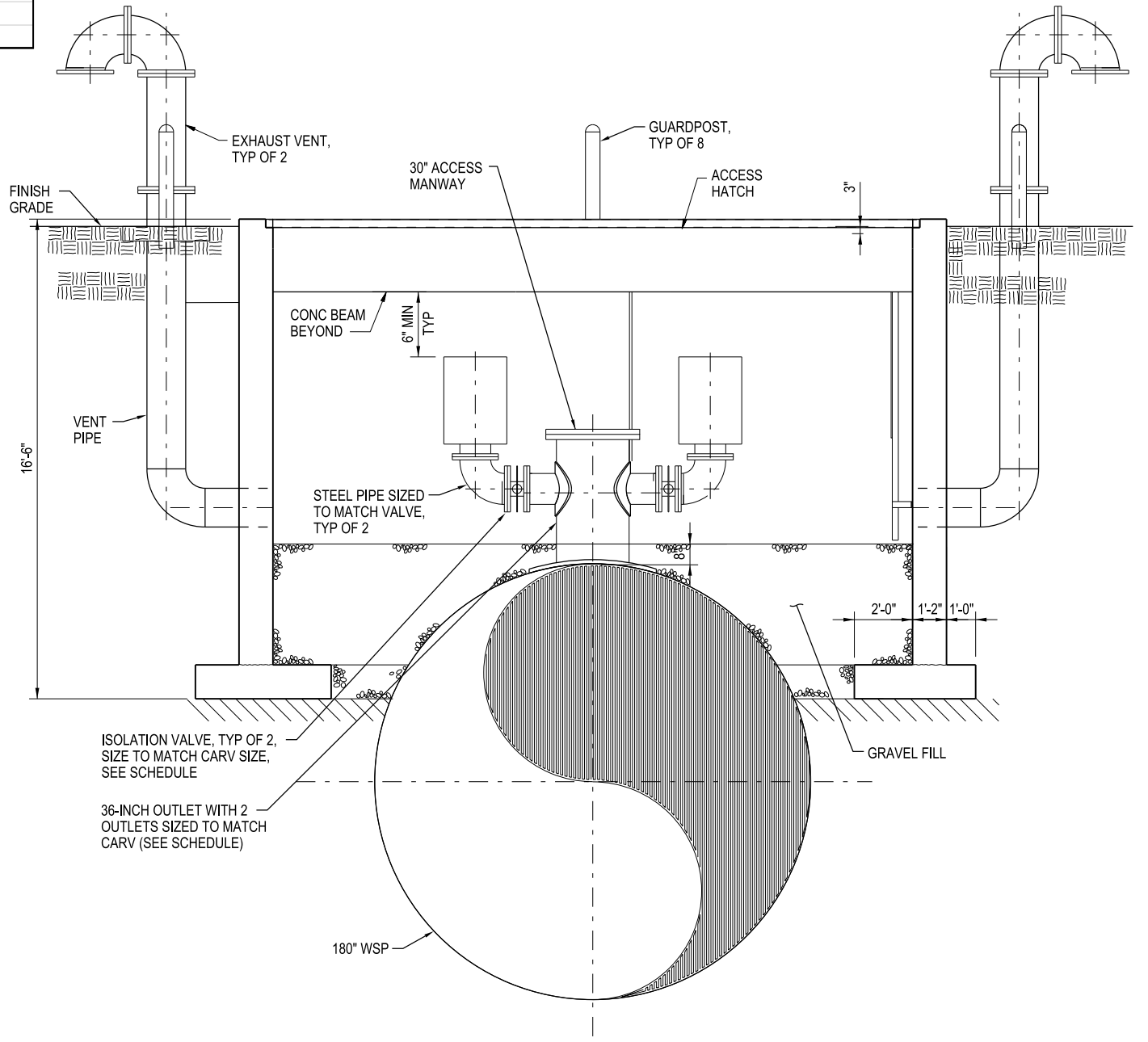
| CARV SCHEDULE | | |
|---------------|-------------------------|--------------------------|
| STATION | INLET ORIFICE SIZE (IN) | OUTLET ORIFICE SIZE (IN) |
| 121+50 | 12 | 2 |
| 133+00 | 12 | 2 |
| 140+00 | 12 | 2 |
| 165+00 | 24 | 3 |
| 183+50 | 24 | 3 |
| 197+25 | 24 | 3 |
| 205+50 | 24 | 3 |

NOTES:
 1. SEE PLAN AND PROFILE DRAWINGS FOR PIPE CENTERLINE ELEVATION, EXISTING GRADE, AND FINISH GRADE.



NOTE:
SUMPS/ DRAINS NOT SHOWN

A SECTION
 3/8"=1'-0"
 CER-S-5002AQ



B SECTION
 3/8"=1'-0"
 CER-S-5002AQ

| REV | DATE | DESCRIPTION | SUB. | APPD |
|-----|----------|--|------|------|
| | SEP 2024 | DELTA CONVEYANCE PROJECT CONCEPT ENGINEERING REPORT DRAWINGS | | |

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| DESIGNED R FEHRINGER | APPROVAL RECOMMENDED |
| DRAWN J SMITH | APPROVAL BY A MURDOCK |
| CHECKED K PARIS | |

CONCEPT
PLANNING
DOCUMENT

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CONSTRUCTION



DELTA CONVEYANCE PROJECT
CONCEPT ENGINEERING REPORT

CARV VAULT DETAILS

| | |
|---|---------------------|
| VERIFY SCALE BAR IS ONE INCH ON ORIGINAL DRAWING. 0 1' | |
| PROJECT NO. W8X97000 | |
| SHEET NO. CER-S-5003AQ | |
| REV | SEQUENCE NO. 105 |