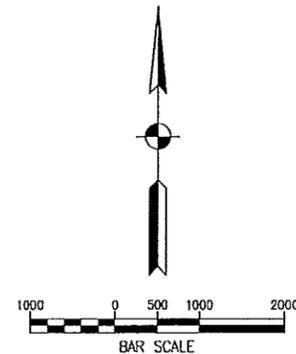
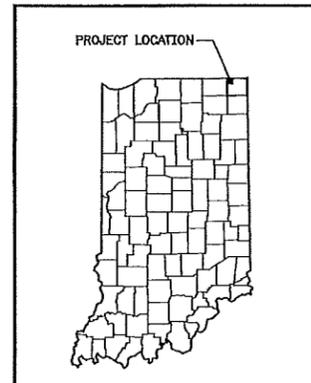
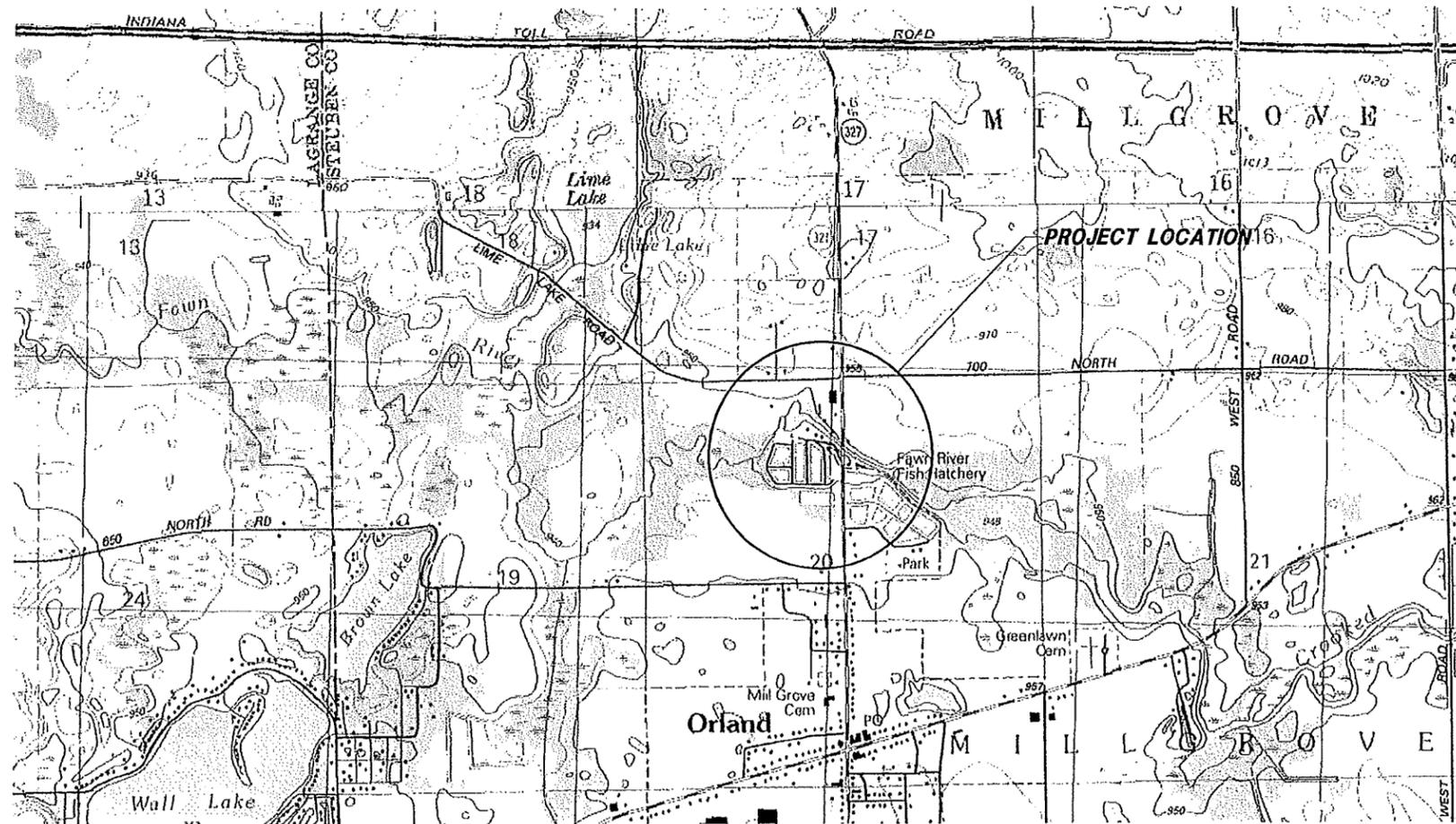


INDIANA DEPARTMENT OF ADMINISTRATION (IDOA)  
 INDIANA DEPARTMENT OF NATURAL RESOURCES (IDNR)  
 DIVISION OF ENGINEERING

PROJECT No. E020096-A  
 FAWN RIVER FISH HATCHERY  
 NEW WELL AND WATER DISTRIBUTION IMPROVEMENTS  
 MILLGROVE CIVIL TWP, STEUBEN COUNTY, INDIANA  
 NW 1/4 AND NE 1/4, SECTION 20, T. 38 N., R. 12 E.  
 SEPTEMBER, 2015

INDEX OF SHEETS

SHEET	DESCRIPTION
1	TITLE SHEET
2	LEGENDS AND INFORMATION
3	OVERALL SITE PLAN
4	SITE PLAN - EAST
5	SITE PLAN - NEW WELL
6	SITE PLAN - NORTHWEST
7	WELL PIPING DETAILS
8-9	WELL BUILDING DETAILS
10	DETAILS
11	SECTIONS
12-14	INTAKE STRUCTURE DETAILS
15	EROSION CONTROL DETAILS
16-17	ELECTRICAL

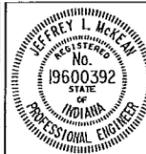


LOCATION MAP  
 STEUBEN COUNTY

INDIANA DEPARTMENT OF NATURAL RESOURCES  
 STATE OF INDIANA DEPARTMENT OF ADMINISTRATION  
 CONTRACT DOCUMENTS TO BE USED WITH THESE PLANS.

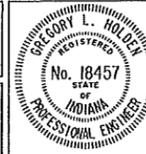
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**LFA**  
 LAWSON-FISHER ASSOCIATES P.C.  
 525 W. WASHINGTON AVENUE  
 SOUTH BEND, INDIANA 46601  
 PH. (574) 234-3167



*Jeffrey L. McKean* 9/21/15  
 SIGNATURE DATE

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 SIGNATURE DATE



INDIANA DEPARTMENT OF  
 NATURAL RESOURCES  
 FAWN RIVER FISH HATCHERY

TITLE SHEET

REVISIONS	HORIZONTAL SCALE 1"=1000'	PROJECT NUMBER 201527.00
	VERTICAL SCALE	
DRAWN: JAJ	SURVEY BOOK	SHEETS
CHECKED: JLM	DATE SEPT. 2015	1 OF 17

**EXISTING WATER AND DRAINAGE SYMBOLS**

- ⊖ BACK OF CURB INLET
- ⊙ CLEAN OUT
- ⊕ COMBINED SEWER MANHOLE
- ⊖ DRYWELL
- ⊕ FIRE HYDRANT
- ⊙ MANHOLE
- ⊕ SANITARY MANHOLE
- ⊕ SANITARY VALVE
- ⊕ STORM INLET/CATCH BASIN
- ⊕ STORM INLET/CATCH BASIN
- ⊕ STORM MANHOLE
- ⊕ WATER HANDHOLE
- ⊕ WATER METER
- ⊕ WATER SHUTOFF VALVE
- ⊕ WATER VALVE

**EXISTING UTILITIES SYMBOLS**

- ⊥ BRACE POLE
- ⊙ CABLE MARKER
- ⊕ CABLE PEDESTAL
- ⊕ CATENARY POLE
- ⊕ DETECTOR HOUSING
- ⊕ ELECTRIC HANDHOLE
- ⊕ ELECTRIC JUNCTION BOX
- ⊕ ELECTRIC MARKER
- ⊕ ELECTRIC METER
- ⊕ ELECTRIC PEDESTAL
- ⊕ ELECTRIC TRANSFORMER
- ⊕ FIBER OPTIC HANDHOLE
- ⊕ FIBER OPTIC MARKER
- ⊕ GAS MANHOLE
- ⊕ GAS MARKER
- ⊕ GAS METER
- ⊕ GAS VALVE
- ⊕ GAS VENT
- ⊕ GROUND LIGHT
- ⊕ GUY ANCHOR
- ⊕ GUY POLE
- ⊕ LIGHT POLE
- ⊕ POWER POLE
- ⊕ STRAIN POLE
- ⊕ TELEPHONE HANDHOLE
- ⊕ TELEPHONE MARKER
- ⊕ TELEPHONE PEDESTAL
- ⊕ TELEPHONE POLE
- ⊕ TRAFFIC HANDHOLE
- ⊕ TRAFFIC SIGNAL CONTROL BOX

**EXISTING MISCELLANEOUS SYMBOLS**

- ⊕ BENCHMARK
- ⊕ BUSH
- ⊕ CONIFEROUS TREE
- ⊕ CONTROL POINT
- ⊕ DECIDUOUS TREE
- ⊕ FLAG POLE
- ⊕ MAILBOX
- ⊕ MONUMENT
- ⊕ POST
- ⊕ RIGHT-OF-WAY MARKER
- ⊕ ROCK
- ⊕ SECTION CORNER
- ⊕ SIGN - SINGLE POST
- ⊕ SOIL BORING
- ⊕ STUMP

**PUBLIC UTILITY**

THE EXISTING UTILITIES LISTED BELOW AND SHOWN ON THESE PLANS REPRESENT THE BEST INFORMATION AVAILABLE AS OBTAINED ON OUR SURVEYS. THIS INFORMATION DOES NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY TO BE SATISFIED AS TO ITS ACCURACY AND THE LOCATION OF EXISTING UTILITIES.

OWNER	UTILITY
FRONTIER COMMUNICATIONS OF INDIANA CONTACT: JOE SARLL 8001 W. JEFFERSON BLVD. FORT WAYNE, INDIANA 46804 PHONE: (260) 461-3324	COMMUNICATION
IMAN INDIANA METROPOLITAN AREA NETWORK CONTACT: BILL GEIGER 914 LAKE DR., CLEAR LAKE FREMONT, INDIANA 46737 PHONE: (260) 495-2611	COMMUNICATION
NIPSCO CONTACT: DOUGLAS BENDER 801 E. 86TH AVE. MERRILLVILLE, INDIANA 46410 PHONE: (219) 647-5311	GAS & ELECTRIC
STEBEN LAKES REGIONAL WASTE DISTRICT CONTACT: TIM FREDERICK 8119 W. 150 N. ANGOLA, INDIANA 46703 PHONE: (260) 665-9865	SANITARY SEWER

CONTRACTOR SHALL CONTACT "HOLEY MOLEY" A MINIMUM OF 48 HOURS PRIOR TO ANY EXCAVATION AT 811 OR (800)-382-5544.

**GENERAL NOTES:**

- ALL ITEMS SHOWN ARE EXISTING UNLESS OTHERWISE INDICATED AS REQUIRED.
- THE CONTRACTOR SHALL LOCATE ALL UNDERGROUND UTILITIES PRIOR TO STARTING WORK AND SHALL CONDUCT HIS OPERATION IN SUCH MANNER AS TO INSURE THAT THOSE UTILITIES WILL NOT BE DISTURBED.
- ANY DAMAGE TO ACCESS ROADS, BRIDGES, PRIVATE OR PUBLIC PROPERTY, AND TO EXISTING STRUCTURE NOT SPECIFIED TO BE ALTERED AND CAUSED BY THE CONTRACTOR DURING CONSTRUCTION SHALL BE REPAIRED AT THE EXPENSE OF THE CONTRACTOR.
- PRIOR TO STARTING CONSTRUCTION THE CONTRACTOR SHALL CONDUCT CHECK SURVEYS ON EACH ASPECT OF THE WORK AS PROVIDED IN THE SPECIFICATIONS. THE RESULTS OF THE CHECK SURVEYS MAY AFFECT THE QUANTITIES.
- IF ANY ERRORS BECOME APPARENT, THEY SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO CONSTRUCTION SO THAT CLARIFICATION OR REDESIGN MAY OCCUR.
- WATER SUPPLY PIPING SHALL BE INSTALLED WITH A MINIMUM OF 5- FEET OF COVER.
- ALL ELEVATIONS REFERENCED TO NAVD 88 BASED UPON CONTROL POINTS ESTABLISHED BY IDNR IN APRIL 2001.
- ALL COORDINATES SHOWN ARE BASED ON GPS RTK MEASUREMENTS TO CONTROL POINTS ESTABLISHED BY IDNR IN APRIL 2001. THE COORDINATE SYSTEM ASSOCIATED WITH THESE POINTS IS REPORTED TO BE INDIANA STATE PLANE EAST ZONE NAD83 (97).
- SURVEY PERFORMED BY LFA UTILIZED RTK GPS OBSERVATIONS WITH CORRECTIONS BASED UPON INDIANA STATE PLANE EAST ZONE NAD83 (2011) EPOCH 2010.00.
- OBSERVED DIFFERENCES IN THESE TWO ADJUSTMENTS OF THE NAD83 DATUM WERE NEGLIGIBLE AND NO ADJUSTMENT WAS MADE TO THE CURRENT OBSERVATIONS NOR THE PUBLISHED COORDINATES FROM IDNR. THE COORDINATE VALUE OF THE CURRENT OBSERVATIONS ARE REPORTED ON THESE PLANS.

**R.O.W. PATTERNS**

- EXISTING R/W
- PROPOSED R/W
- SECTION LINE
- PROPERTY LINE

**FENCE LINES**

- TREE LINE
- EXISTING TOP OF BANK
- EDGE WATER
- EXISTING FENCE
- C.L.T.F. CHAIN LINK TYPE FENCE
- W.W.T.F. WOVEN WIRE TYPE FENCE
- S.R.T.F. SPLIT RAIL TYPE FENCE

**UTILITY PATTERNS**

- FD Tel ----- EXISTING FIBER OPTIC/TELEPHONE LINE
- OH Elec ----- EXISTING ELECTRICAL LINE
- E ----- EXISTING OVERHEAD ELECTRICAL LINE
- G ----- EXISTING GAS LINE
- T ----- EXISTING TELEPHONE LINE
- W ----- EXISTING WATER LINE
- =====  
Ex. Strm  
----- EXISTING STORM SEWER
- =====  
Ex. San  
----- EXISTING SANITARY SEWER
- =====  
Ex. Cmb  
----- EXISTING COMBINED SEWER
- =====  
----- PROPOSED STORM SEWER
- =====  
----- PROPOSED PERFORATED UNDERDRAIN

**REAL ESTATE SYMBOLS**

- ⊔ PROPERTY OWNERSHIP HOOK
- ⊔ PROPERTY LINE
- R/W

**CONTROL POINT INFORMATION**

PT. #	NORTHING	EASTING	ELEV.	DESCRIPTION
CP 1	2364869.9	463195.4	943.97	LFA CAPPED REBAR
CP 2	2365253.0	463183.9	946.39	LFA CAPPED REBAR
CP 5	2365728.2	462452.0	947.49	ALUMINUM DISC ON METAL ROD
CP 6	2365272.4	462253.6	945.60	ALUMINUM DISC ON METAL ROD
TBM A	2365359.2	463179.9	949.40	RR SPIKE -- E FACE PP (1--076--953)
TBM 7	2364880.4	463668.7	946.63	ALUMINUM DISC ON METAL ROD
TBM 8	2364620.2	464499.4	949.66	ALUMINUM DISC ON METAL ROD
BM F-30	2365087.9	463207.0	946.55	BRASS DISC IN BRIDGE DECK

NOTE:  
SEE SHEET 3 FOR MAPPED LOCATION OF CONTROL POINTS AND TBMS.

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**LFA**  
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JEFFREY L. McKEAN  
No. 19600392  
STATE OF INDIANA  
PROFESSIONAL ENGINEER

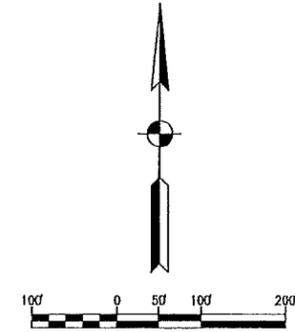
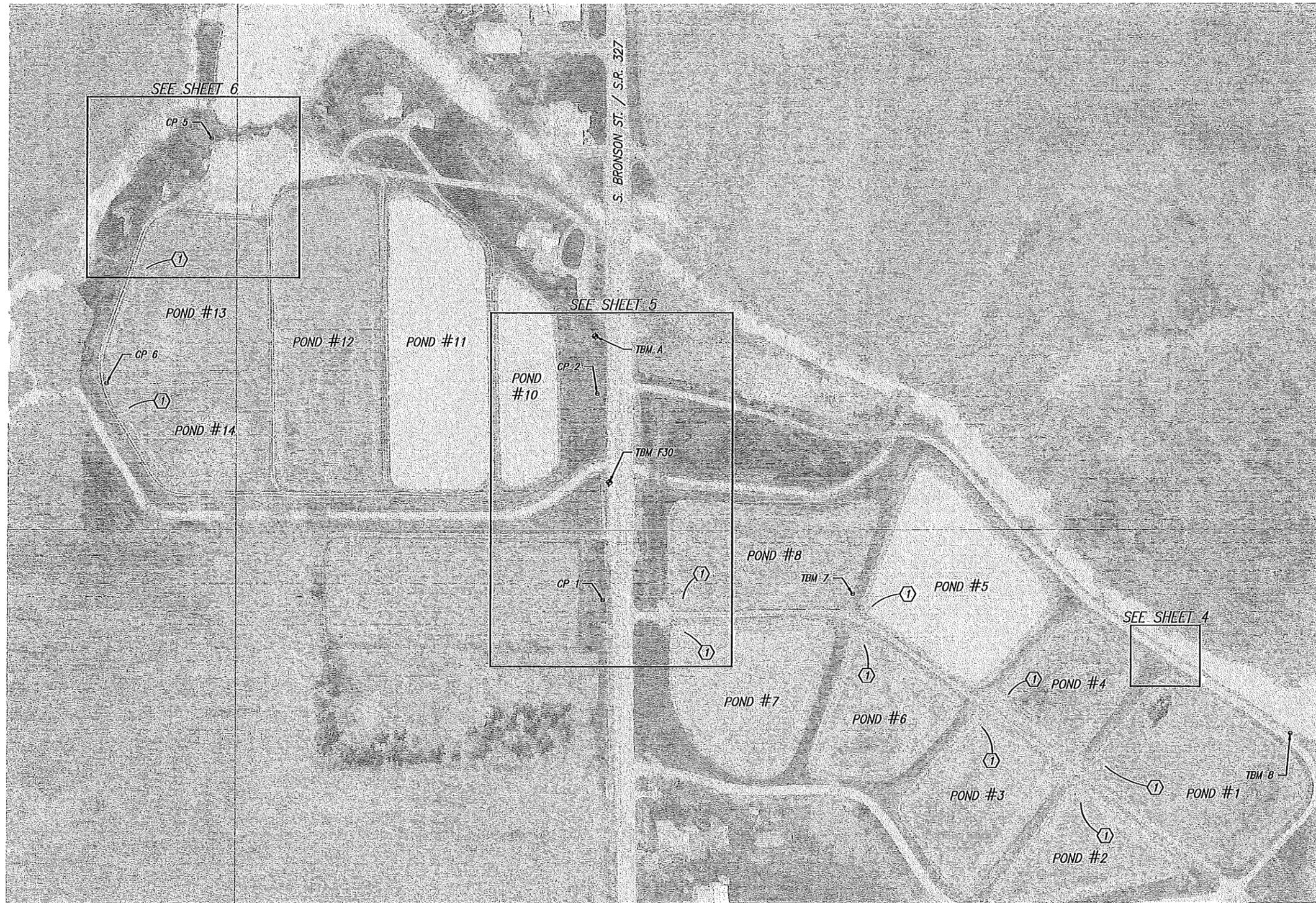
Jeffrey L. McKean 9/21/15  
SIGNATURE DATE

INDIANA DEPARTMENT OF  
NATURAL RESOURCES  
FAWN RIVER FISH HATCHERY

LEGENDS AND INFORMATION

REVISIONS	HORIZONTAL SCALE	PROJECT NUMBER
	VERTICAL SCALE	201527.00
DRAWN: JAJ	SURVEY BOOK	SHEETS
CHECKED: JLM	DATE	2 OF 17
	SEPT. 2015	

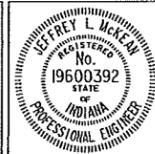
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**LEGEND:**  
 (1) ALL ABOVE GROUND WATER SUPPLY PIPE/FITTING JOINTS SHALL BE SECURED WITH A MINIMUM OF 6 EACH 1/2" DIA. 304 S.S. BOLTS AND NUTS. BOLTS SHALL BE EVENLY SPACED.

**NOTE:**  
 WATER SUPPLY PIPING SHALL BE INSTALLED WITH A MINIMUM OF 5- FEET OF COVER.

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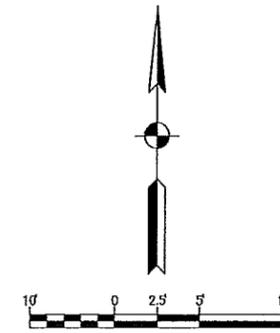
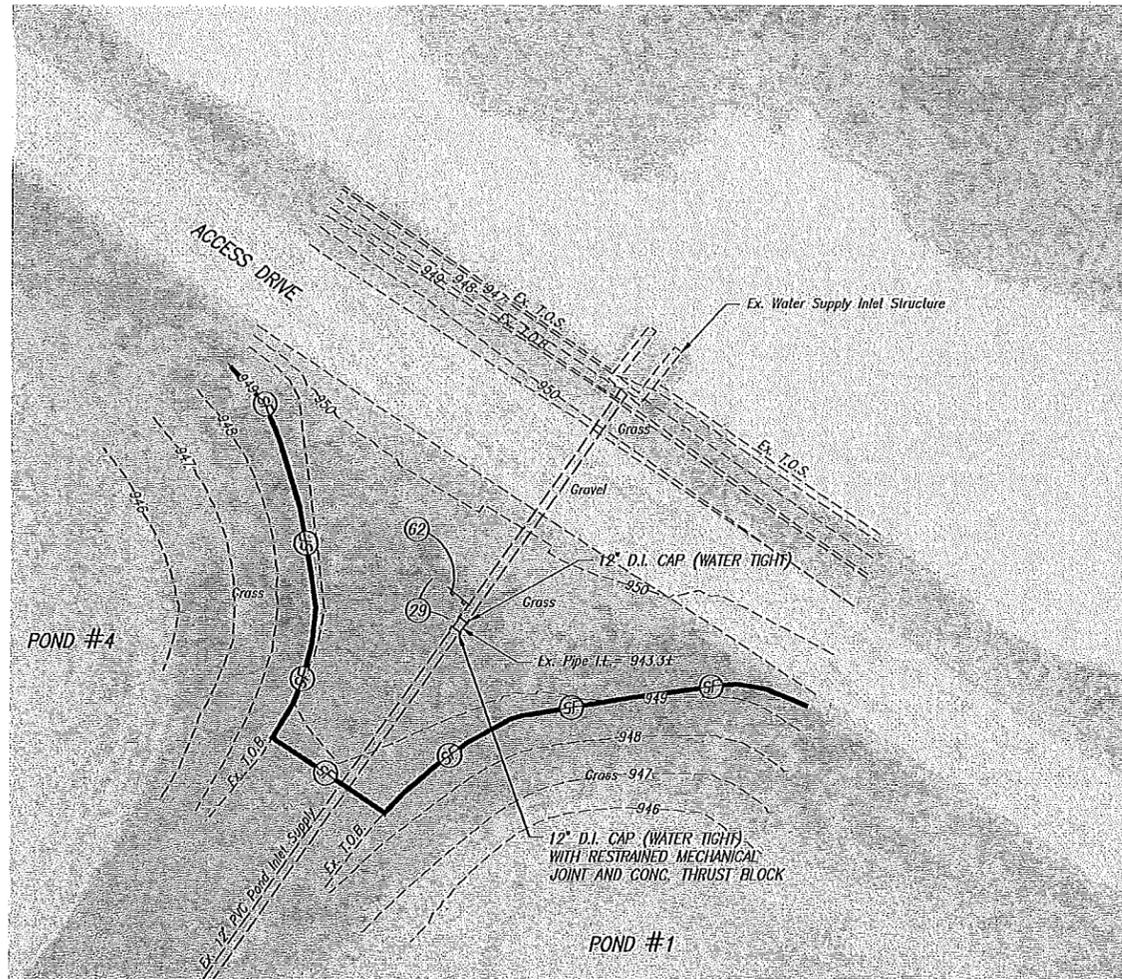
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 SIGNATURE DATE

INDIANA DEPARTMENT OF  
 NATURAL RESOURCES  
 FAWN RIVER FISH HATCHERY

OVERALL SITE PLAN

REVISIONS	HORIZONTAL SCALE 1" = 100'	PROJECT NUMBER <b>201527.00</b>
	VERTICAL SCALE	
DRAWN: JAJ	SURVEY BOOK	SHEETS
CHECKED: JLM	DATE SEPT. 2015	<b>3</b> OF <b>17</b>

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**LEGEND:**

- (29) MULCHED SEEDING
- (62) REMOVE AND RESET EXISTING SIGN. PROVIDE NEW POSTS AND CONCRETE BASE. PAINT POSTS TO MATCH EX. COLOR.
- SF— TEMPORARY SILT FENCE

**NOTES:**

1. EXISTING UTILITIES AND BURIED STRUCTURES SHOWN ARE FROM FILE DRAWINGS PROVIDED BY THE DNR. INACCURACIES MAY EXIST. CONTRACTOR SHALL VERIFY EXISTING BURIED STRUCTURES, EXISTING UNDERGROUND UTILITIES AND SITE FEATURES.
2. WATER SUPPLY PIPING SHALL BE INSTALLED WITH A MINIMUM OF 5- FEET OF COVER.

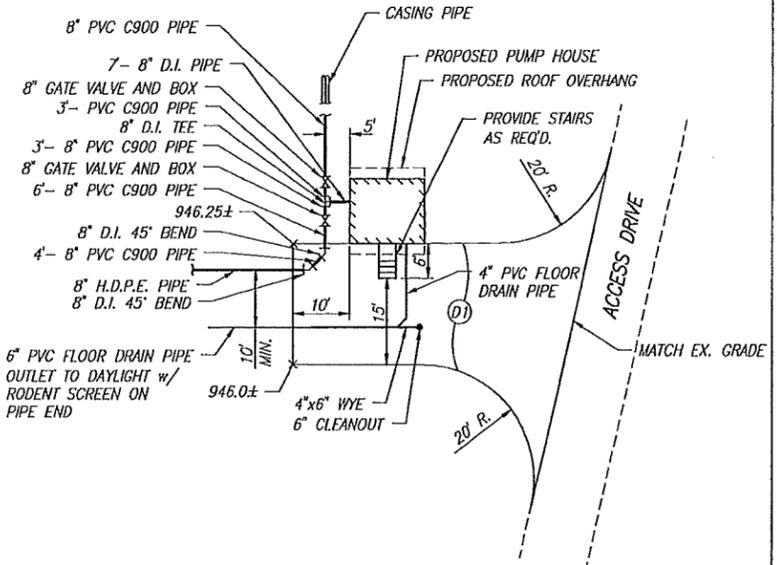
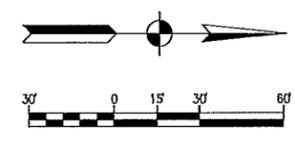
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*Jeffrey L. McKenna* 9/21/15  
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INDIANA DEPARTMENT OF  
 NATURAL RESOURCES  
 FAWN RIVER FISH HATCHERY  
 SITE PLAN  
 EAST

REVISIONS	HORIZONTAL SCALE 1"=10'	PROJECT NUMBER <b>201527.00</b>
DRAWN: JAJ	VERTICAL SCALE	SURVEY BOOK
CHECKED: JLM	DATE SEPT. 2015	SHEETS <b>4</b> OF <b>17</b>



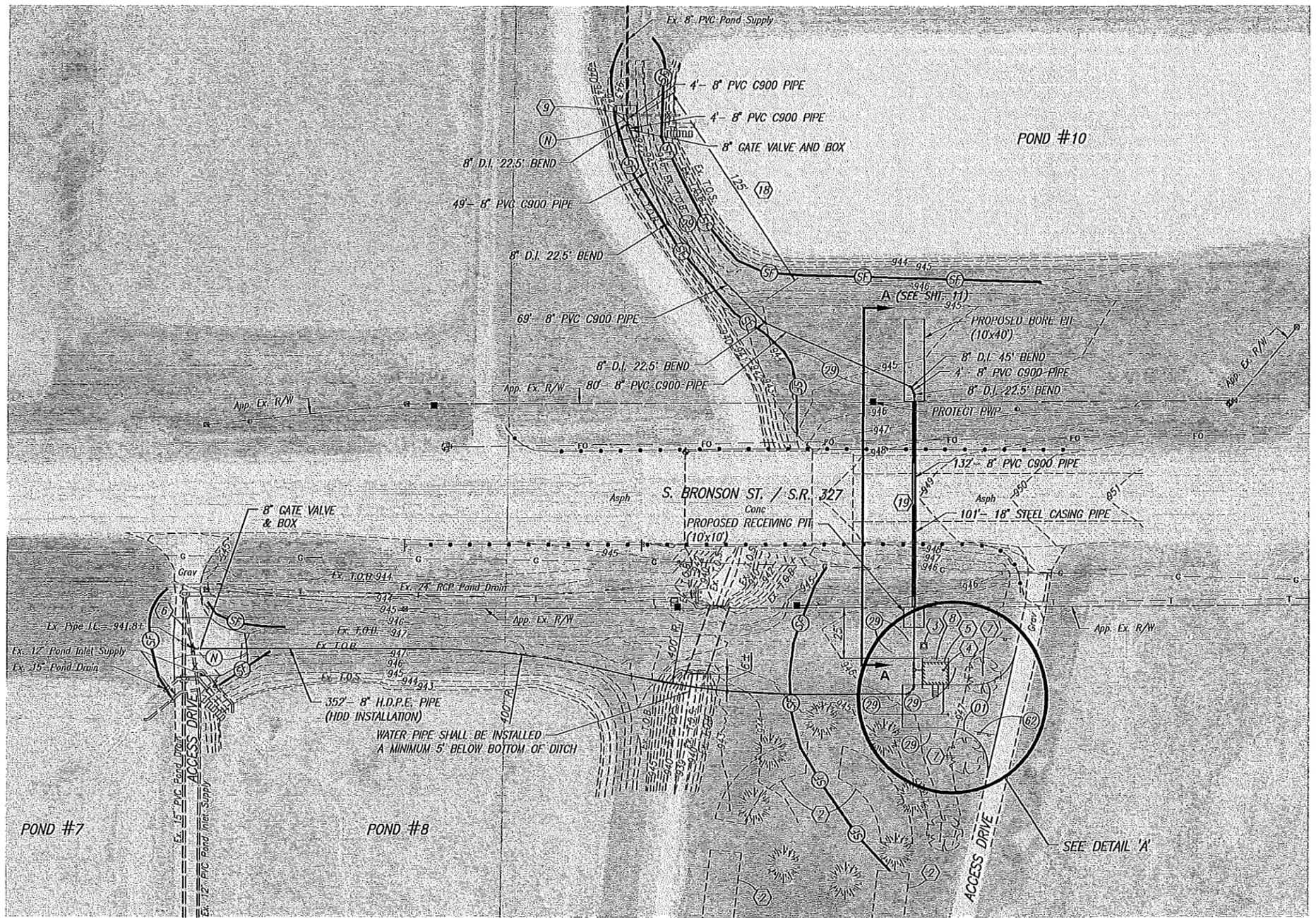
**DETAIL 'A'**  
SCALE: NONE

**LEGEND:**

- (01) ACCESS DRIVE
- (02) 6" COMPACTED AGGREGATE, SURFACE, #73 ON
- (03) 6" COMPACTED AGGREGATE, BASE, #53
- (04) 6" COMPACTED AGGREGATE SURFACE, #73
- (05) MULCHED SEEDING
- (06) REMOVE AND RESET EXISTING SIGN. PROVIDE NEW POSTS AND CONCRETE BASE. PAINT POSTS TO MATCH EXISTING COLOR.
- (07) EX. CONCRETE TANKS PREVIOUSLY BURIED AND FILLED WITH SOIL
- (08) TEST BORING BY ORTMAN DRILLING AND WATER SERVICES JUNE 13, 2014
- (09) NEW WELL (REFER TO DETAILS AND SPECIFICATIONS)  
N= 2365218.5664  
E= 463312.2391
- (10) NEW WELL BUILDING (REFER TO DETAILS AND SPECIFICATIONS)
- (11) 12"x12"x8" D.I. TEE (CUT INTO EX. PIPE). PROVIDE RESTRAINED MECHANICAL JOINT AND CONCRETE THRUST BLOCKING. PROVIDE COUPLINGS AND MISCELLANEOUS PIPE AS REQUIRED.
- (12) PROTECT TREE
- (13) RIPRAP, 12" THICK X 10' LONG X 6' WIDE CENTERED ON PIPE OVER GEOTEXTILE
- (14) REMOVE EX. 8" PVC 90° ELBOW AND REPLACE WITH 8"x8"x8" D.I. TEE. PROVIDE RESTRAINED MECHANICAL JOINTS AND CONCRETE THRUST BLOCKING. PROVIDE COUPLINGS AND MISCELLANEOUS PIPE AS REQUIRED.
- (15) TEMPORARY SILT FENCE

**NOTES:**

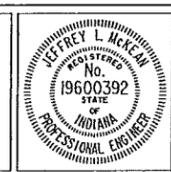
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2. INSTALL CONCRETE WASHOUTS IN LOCATIONS THAT ARE CONVENIENT AND IN CLOSE PROXIMITY TO WORK AND IN SUFFICIENT NUMBER TO ACCOMMODATE THE DEMAND OF WASHING CONCRETE FROM MIXER AND PUMP TRUCKS.
3. 100-YR FLOOD ELEV. AT WELL BUILDING= 946.4±
4. CONTRACTOR SHALL PROVIDE POSITIVE DRAINAGE AROUND WELL BUILDING AND FOR ACCESS DRIVE.
5. WATER SUPPLY PIPING SHALL BE INSTALLED WITH A MINIMUM OF 5- FEET OF COVER.



- (18) PROVIDE SPECIAL PIPE BACKFILL (MIXED WITH BENTONITE) ALONG POND EMBANKMENT. REFER TO DETAIL ON SHEET 11.
- (19) INSTALL TWO 2" PVC SCHEDULE 80 CONDUITS WITH PULL STRINGS IN EACH CONDUIT. CAP ENDS WATER TIGHT FOR FUTURE USE. PLACE CONDUIT INSIDE 18" STEEL CASING PIPE AND ADJACENT TO WATER SUPPLY PIPE. EXTEND EACH CONDUIT 5 FT. PAST STEEL CASING PIPE ON EACH END.

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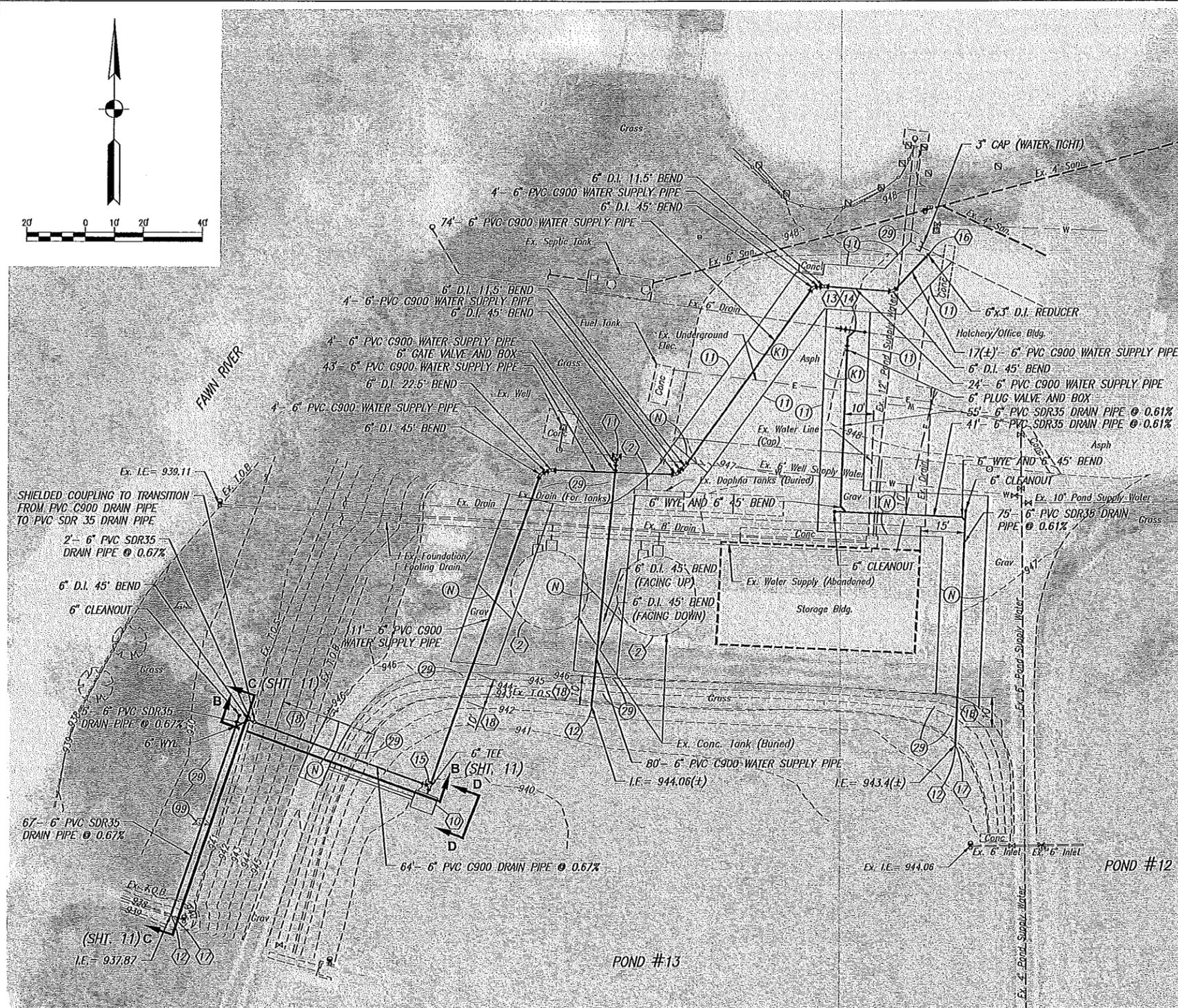
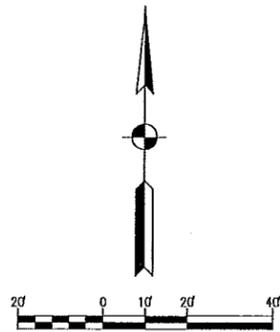
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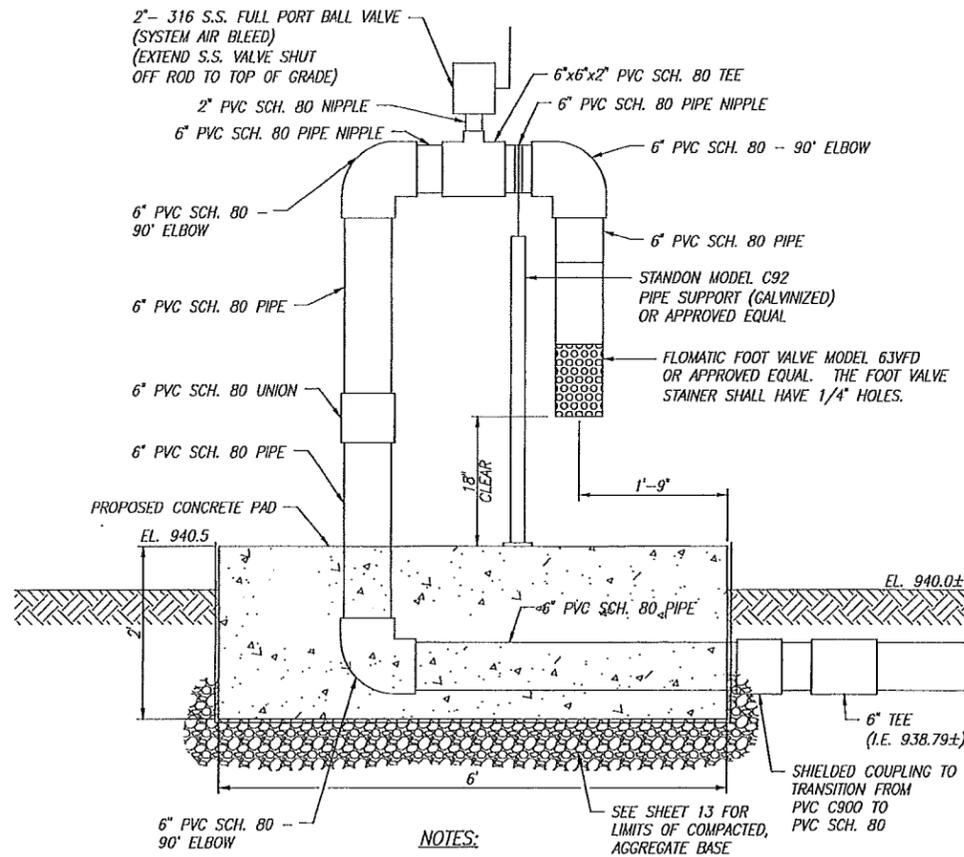
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INDIANA DEPARTMENT OF  
NATURAL RESOURCES  
FAWN RIVER FISH HATCHERY  
  
SITE PLAN  
NEW WELL

REVISIONS	HORIZONTAL SCALE AS NOTED	PROJECT NUMBER <b>201527.00</b>
	VERTICAL SCALE	
DRAWN: JAJ	SURVEY BOOK	SHEETS
CHECKED: JLM	DATE SEPT. 2015	<b>5</b> OF <b>17</b>



- LEGEND:**
- (K1) HMA FOR PATCHING  
165 #/SYS HMA, TYPE 'A', SURFACE ON  
385 #/SYS HMA, TYPE 'A', BASE ON  
6\" COMPACTED AGGREGATE BASE, #53
  - (N) 6\" COMPACTED AGGREGATE SURFACE, #73
  - (1) SAWCUT
  - (29) MULCHED SEEDING
  - (99) REMOVE
  - (2) EX. CONCRETE TANKS PREVIOUSLY BURIED AND FILLED WITH SOIL
  - (10) PROPOSED WATER INLET STRUCTURE (REFER TO DETAILS)
  - (11) 6\"x6\"x6\" D.I. TEE (CUT INTO EX. PIPE). PROVIDE RESTRAINED MECHANICAL JOINT AND CONCRETE THRUST BLOCKING. PROVIDE COUPLINGS AND MISCELLANEOUS PIPE AS REQUIRED
  - (12) PIPE OUTFALL WITH RODENT SCREEN (REFER TO DETAILS)
  - (13) CONTRACTOR SHALL POTHOLE AND VERIFY EX. DRAIN PIPE LOCATION, DIAMETER AND DEPTH. CONTRACTOR SHALL THEN VERIFY THAT PROPOSED DRAIN PIPE WILL BE ABLE TO FLOW AS PROPOSED
  - (14) 6\"x6\" WYE, 6\"- 45\" BEND, 6\"- 2 WAY CLEANOUT, 6\" PLUG VALVE & BOX (CUT INTO EX. PIPE) PROVIDE COUPLINGS AND MISCELLANEOUS PIPE AS REQUIRED
  - (15) 6\" PLUG VALVE WITH HAND WHEEL OPERATOR. VALVE OPERATOR SHALL BE ACCESSIBLE FROM TOP OF CATWALK/PLATFORM
  - (16) CONTRACTOR SHALL POTHOLE, VERIFY LOCATION AND DIAMETER OF EXISTING HATCHERY BUILDING WATER INTAKE PIPE. CUT INTO EXISTING PIPE AND CONNECT PROPOSED WATER INTAKE PIPE. PROVIDE COUPLINGS, FITTINGS AND MISCELLANEOUS PIPE AS REQUIRED
  - (17) PROVIDE DUCTILE IRON FLAP VALVE
  - (SF) TEMPORARY SILT FENCE
  - (18) PROVIDE SPECIAL PIPE BACKFILL (MIXED WITH BENTONITE) ALONG POND EMBANKMENT. REFER TO DETAIL ON SHEET 11.



- NOTES:**
- PIPE AND FITTINGS SHALL BE PVC SCHEDULE 80 WITH IRON PIPE THREAD.
  - LENGTH OF NIPPLES SHALL BE AS REQUIRED.
  - PROVIDE ALL NECESSARY FITTINGS AND COUPLINGS.

**SECTION D-D  
INTAKE STRUCTURE - PIPING  
NO SCALE**

- NOTES:**
- EXISTING UTILITIES AND BURIED STRUCTURES SHOWN ARE FROM FILE DRAWINGS PROVIDED BY THE DNR. INACCURACIES MAY EXIST. CONTRACTOR SHALL VERIFY EXISTING BURIED STRUCTURES, EXISTING UNDERGROUND UTILITIES AND SITE FEATURES.
  - INSTALL CONCRETE WASHOUTS IN LOCATIONS THAT ARE CONVENIENT AND IN CLOSE PROXIMITY TO WORK AND IN SUFFICIENT NUMBER TO ACCOMMODATE THE DEMAND OF WASHING CONCRETE FROM MIXER AND PUMP TRUCKS.
  - WATER SUPPLY PIPING SHALL BE INSTALLED WITH A MINIMUM OF 5- FEET OF COVER.

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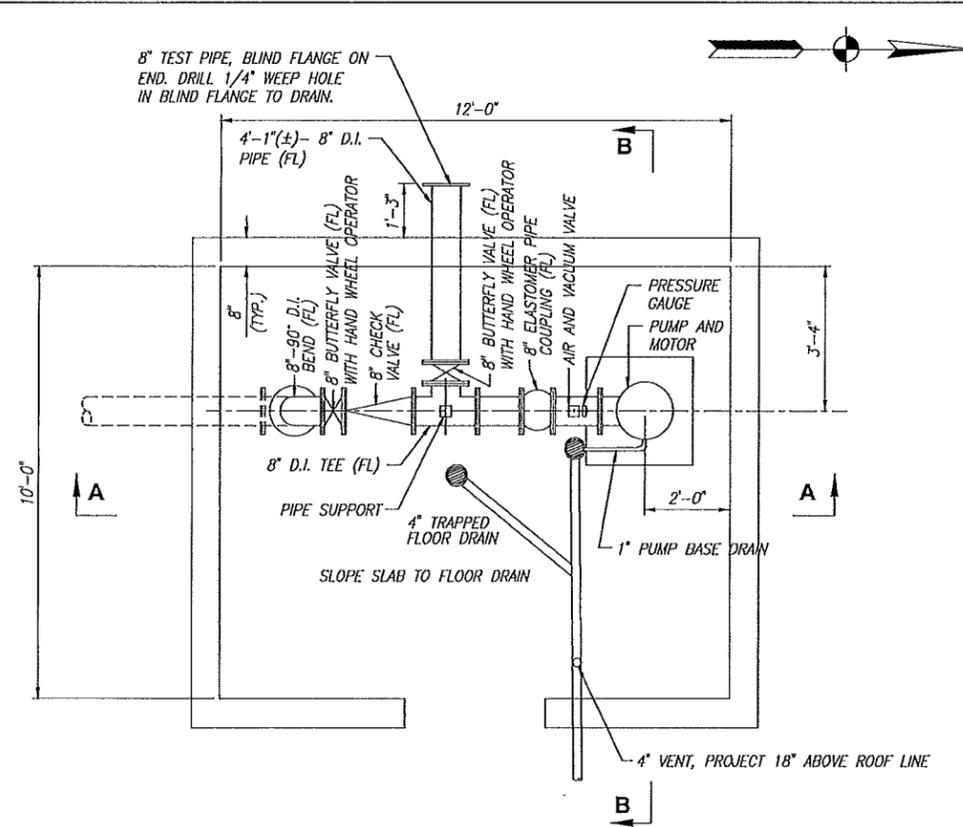
JEFFREY L. MCKEAN  
No. 19600392  
STATE OF INDIANA  
PROFESSIONAL ENGINEER

Jeffrey L. McKean 9/21/15  
SIGNATURE DATE

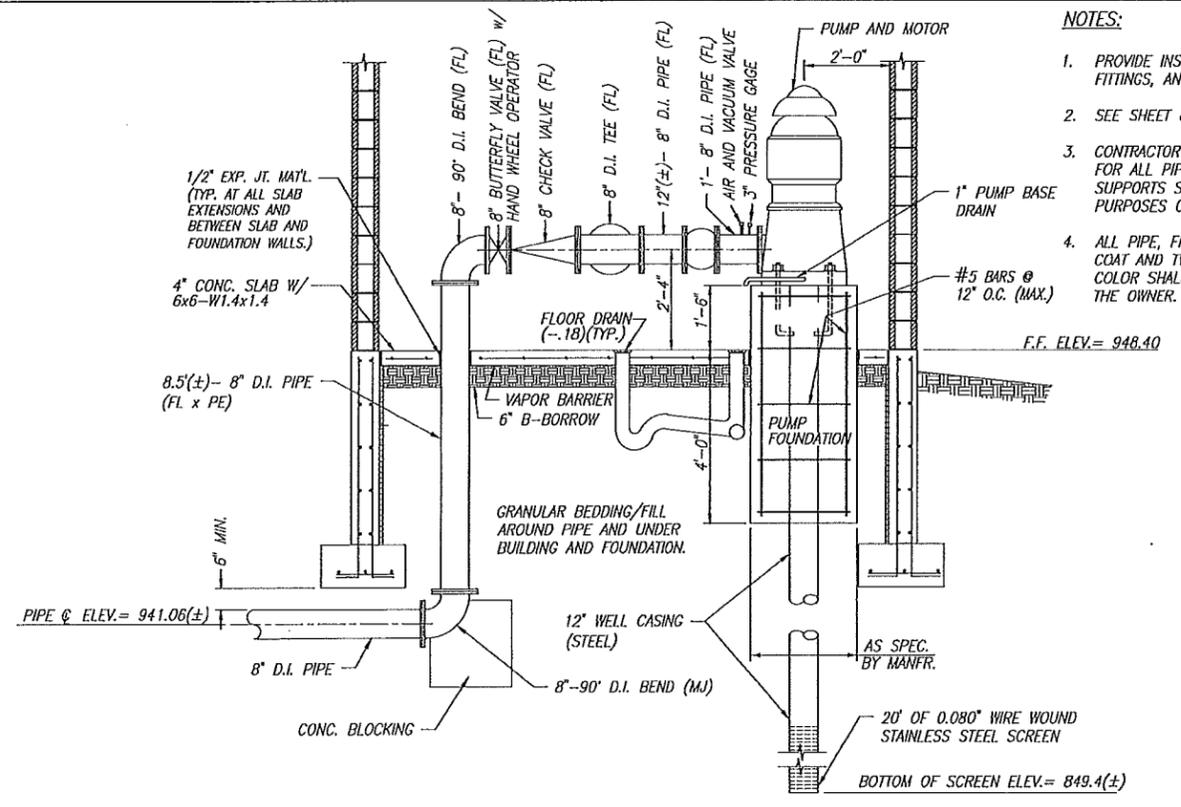
INDIANA DEPARTMENT OF  
NATURAL RESOURCES  
FAWN RIVER FISH HATCHERY

SITE PLAN  
NORTHWEST

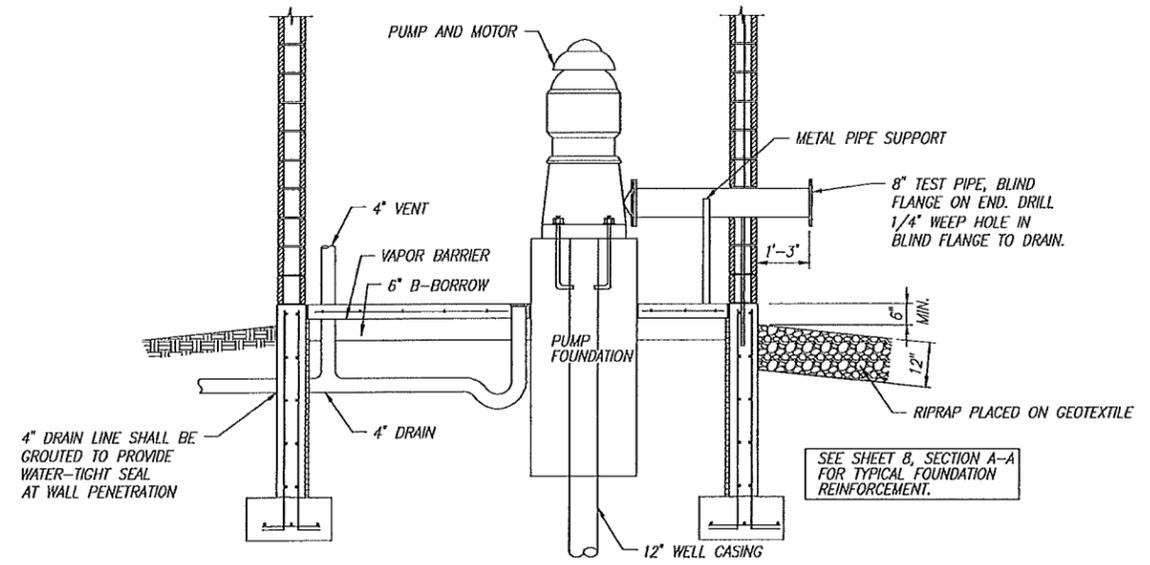
REVISIONS	HORIZONTAL SCALE AS NOTED	PROJECT NUMBER <b>201527.00</b>
DRAWN: JAJ	VERTICAL SCALE	SHEETS
CHECKED: JLM	SURVEY BOOK	<b>6</b> OF <b>17</b>
	DATE SEPT. 2015	



**PLAN**  
SCALE: 1/2" = 1'-0"



**SECTION A-A**  
SCALE: 1/2" = 1'-0"



**SECTION B-B**  
SCALE: 1/2" = 1'-0"

- NOTES:**
1. PROVIDE INSULATION JACKET ON EXPOSED WATER PIPE, FITTINGS, AND VALVES.
  2. SEE SHEET 8 FOR GENERAL BUILDING DETAILS.
  3. CONTRACTOR SHALL PROVIDE PIPE SUPPORT SYSTEM FOR ALL PIPING, VALVES, FITTINGS AND ETC. PIPE SUPPORTS SHOWN ARE FOR REPRESENTATION PURPOSES ONLY.
  4. ALL PIPE, FITTINGS AND VALVES SHALL HAVE ONE SHOP COAT AND TWO FINISH COATS OF PAINT. FINISH PAINT COLOR SHALL BE OLIVE GREEN OR AS DIRECTED BY THE OWNER.

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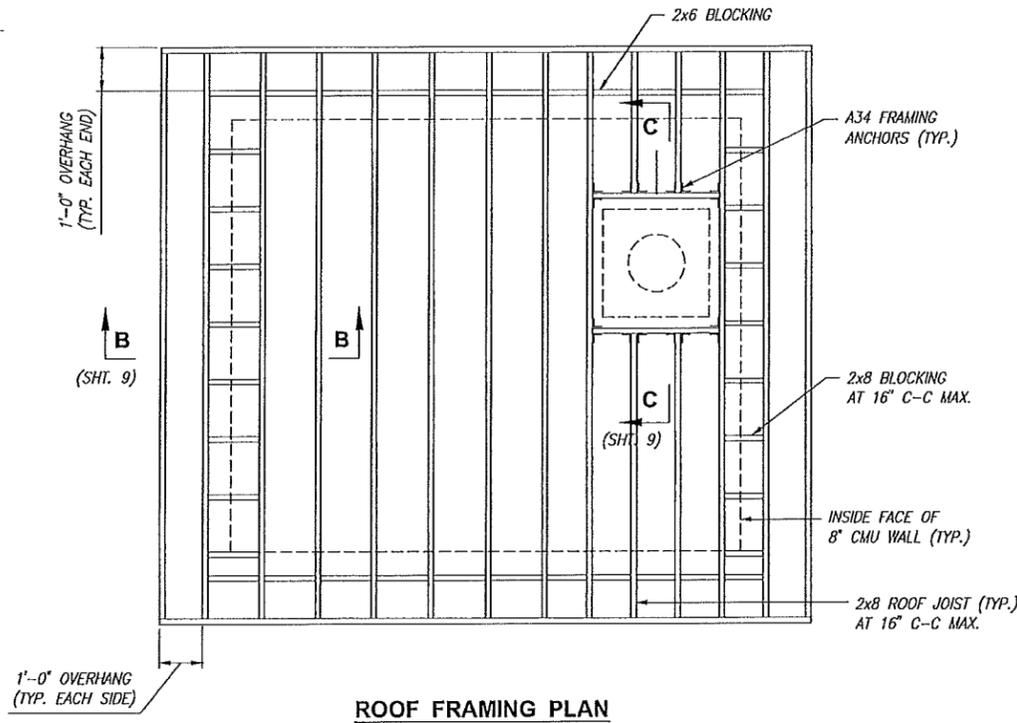
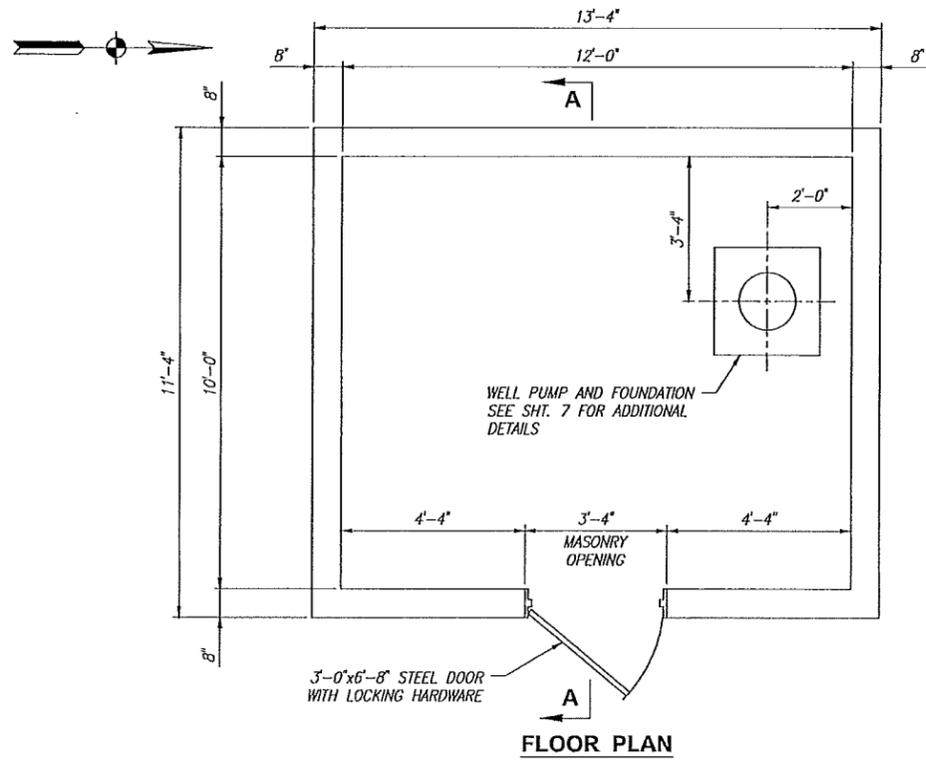
JEFFREY L. MCKEAN  
 No. 19600392  
 STATE OF INDIANA  
 PROFESSIONAL ENGINEER

*Jeffrey L. McKean*  
 SIGNATURE DATE 9/21/15

INDIANA DEPARTMENT OF  
 NATURAL RESOURCES  
 FAWN RIVER FISH HATCHERY  
 WELL PIPING DETAILS

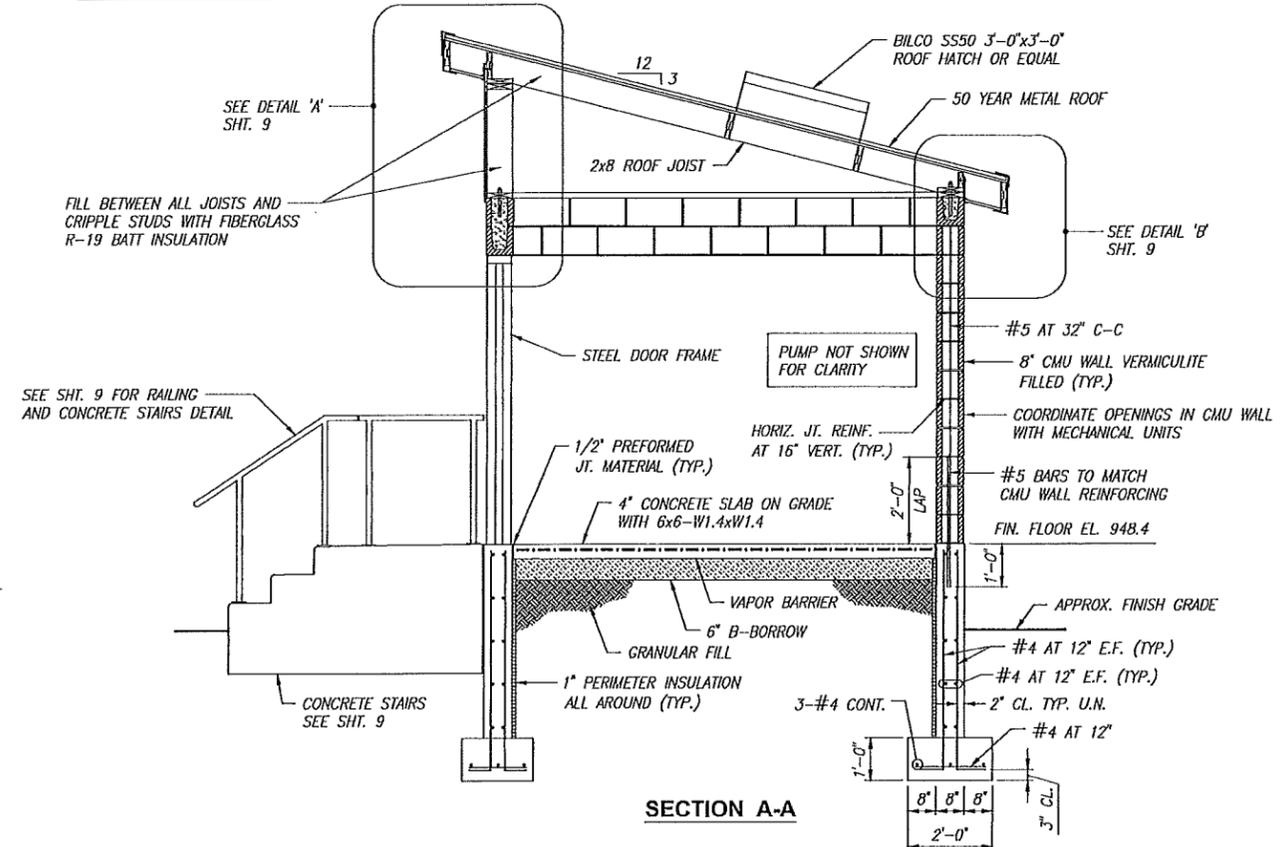
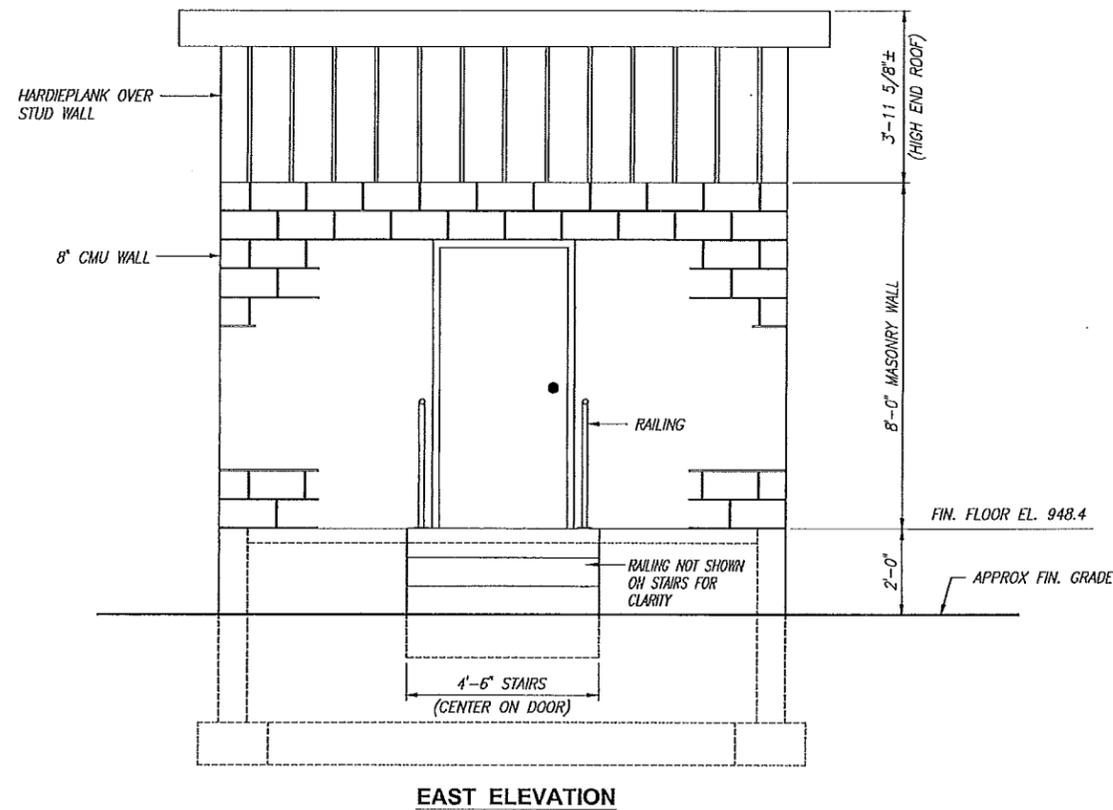
REVISIONS	HORIZONTAL SCALE AS NOTED	PROJECT NUMBER
	VERTICAL SCALE	201527.00
DRAWN: JAJ	SURVEY BOOK	SHEETS
CHECKED: JLM	DATE	7 OF 17
	SEPT. 2015	

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**ROOFING NOTES:**

1. METAL STANDING SEAM ROOF AND ACCESSORIES SHALL BE 24-GAUGE C-90 GALVANIZED STEEL, PRIMED AND FINISHED ONE SIDE.
2. PROVIDE SELF-ADHERING, COLD-APPLIED, SHEET UNDERLAYMENT, A MINIMUM OF 30 MILS THICK, CONSISTING OF SLIP-RESISTANT, POLYETHYLENE-FILM TOP SURFACE LAMINATED TO A LAYER OF BUTYL OR SBS-MODIFIED ASPHALT ADHESIVE, WITH RELEASE-PAPER BACKING. PROVIDE PRIMER WHEN RECOMMENDED BY UNDERLAYMENT MANUFACTURER.
3. PROVIDE COMPONENTS REQUIRED FOR A COMPLETE, WEATHERTIGHT PANEL SYSTEM INCLUDING TRIM, COPINGS, FASCIA, MULLIONS, SILLS, CORNER UNITS, CLIPS, FLASHINGS, SEALANTS, GASKETS, FILLERS, CLOSURE STRIPS, AND SIMILAR ITEMS. MATCH MATERIAL AND FINISH OF METAL PANELS UNLESS OTHERWISE INDICATED.
4. PROVIDE FLASHING AND TRIM FORMED FROM SAME MATERIAL AS METAL PANELS AS REQUIRED TO SEAL AGAINST WEATHER AND TO PROVIDE FINISHED APPEARANCE. LOCATIONS INCLUDE, BUT ARE NOT LIMITED TO EAVES, RAKES, CORNERS, BASES, FRAMED OPENINGS, RIDGES, FASCIAE, AND FILLERS. FINISH FLASHING AND TRIM WITH SAME FINISH SYSTEM AS ADJACENT METAL PANELS.
5. FASTEN METAL ROOF COMPONENT USING SELF-TAPPING SCREWS DESIGNED TO WITHSTAND DESIGN LOADS. COORDINATE WITH MANUFACTURER'S RECOMMENDATIONS.
6. PROVIDE SEALANT TYPE RECOMMENDED BY MANUFACTURER THAT ARE COMPATIBLE WITH PANEL MATERIALS, ARE NONSTAINING, AND DO NOT DAMAGE PANEL FINISH.
7. INSTALLATION OF METAL ROOF PANELS, UNDERLAYMENT, FASCIA, SOFFIT AND ACCESSORIES SHALL BE PER MANUFACTURER'S REQUIREMENTS.



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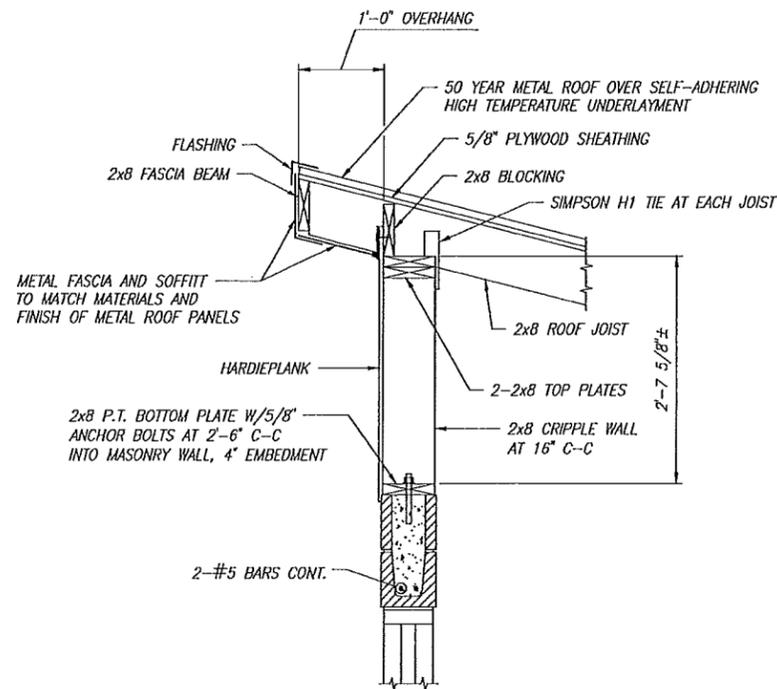
GREGORY L. HOLLOWAY  
REGISTERED PROFESSIONAL ENGINEER  
No. 18457  
STATE OF INDIANA

*Gregory L. Holloway*  
SIGNATURE  
9/21/15  
DATE

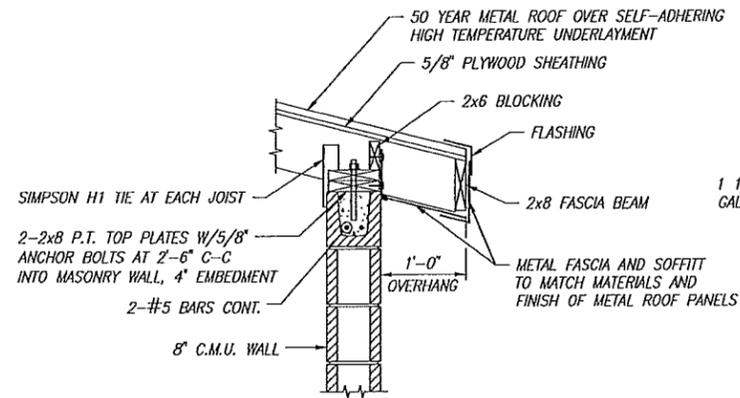
INDIANA DEPARTMENT OF  
NATURAL RESOURCES  
FAWN RIVER FISH HATCHERY  
WELL BUILDING DETAILS

REVISIONS	HORIZONTAL SCALE 1/2" = 1'-0"	PROJECT NUMBER <b>201527.00</b>
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DRAWN: DAO	SURVEY BOOK	SHEETS
CHECKED: GLH	DATE SEPT. 2015	<b>8</b> OF <b>17</b>

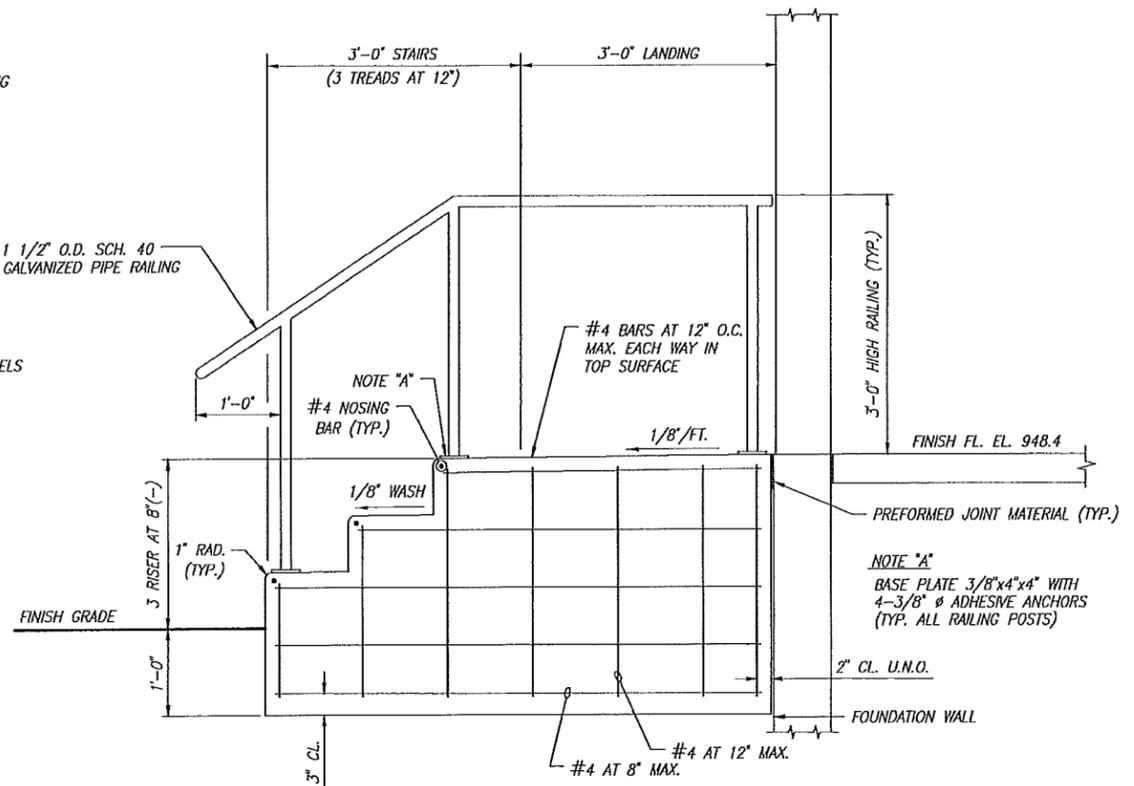
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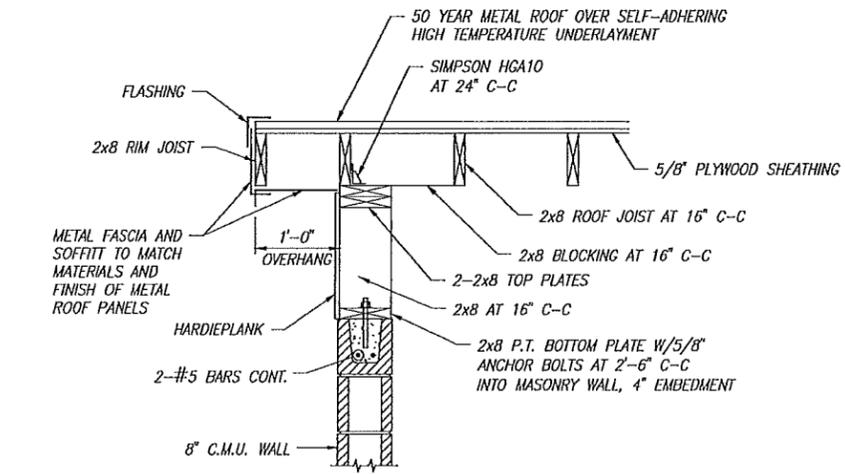
**DETAIL 'A'**  
SCALE: 1" = 1'-0"



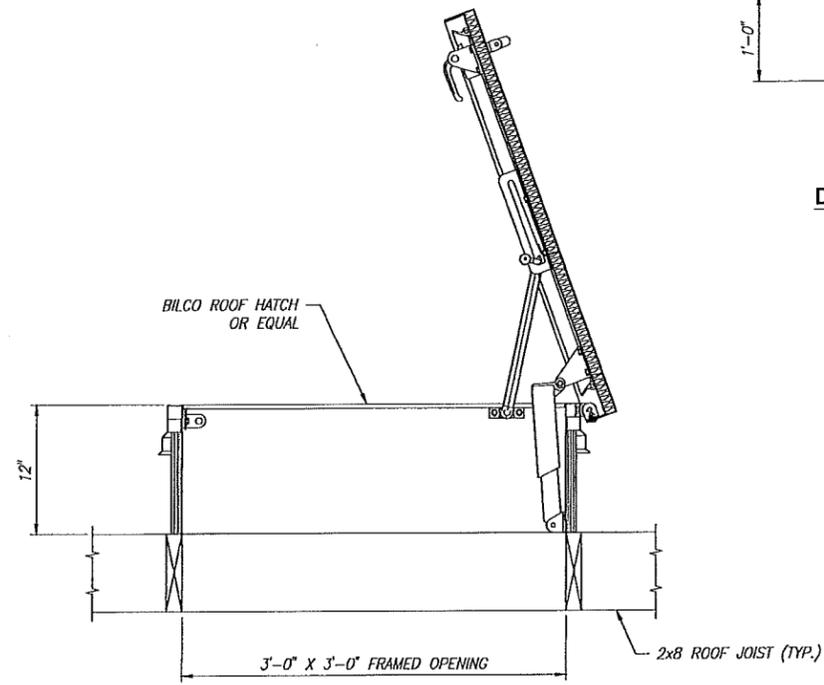
**DETAIL 'B'**  
SCALE: 1" = 1'-0"



**DETAIL OF CONCRETE LANDING, STAIRS, AND HANDRAIL**  
SCALE: 1" = 1'-0"



**SECTION B-B**  
SCALE: 1" = 1'-0"



**SECTION C-C  
ROOF HATCH CONNECTION**  
SCALE: 1 1/2" = 1'-0"

**DESIGN CRITERIA:**

- THE INTENDED BUILDING DESIGN STANDARDS AND/OR CRITERIA ARE AS FOLLOWS:
 

GENERAL	INTERNATIONAL BUILDING CODE, 2012 EDITION WITH AMENDMENTS BY THE ADMINISTRATIVE BUILDING COUNCIL OF INDIANA.
CONCRETE	ACI 318-11
MASONRY	ACI 530-11
WOOD	NDS-12
- DESIGN GRAVITY DEAD LOADS USED IN THE DESIGN OF THIS STRUCTURE ARE AS FOLLOWS:
 

ROOF	15 PSF
ALL OTHERS	ACTUAL WEIGHTS
- DESIGN GRAVITY LIVE LOADS USED IN THE DESIGN OF THIS STRUCTURE ARE AS FOLLOWS:
 

ROOF	20 PSF
------	--------
- DESIGN LATERAL LIVE LOADS USED IN THE DESIGN OF THIS STRUCTURE ARE AS FOLLOWS:
 

WIND DESIGN	105 MPH, EXP. 'C'
-------------	-------------------
- DESIGN SNOW LOADS USED IN THE DESIGN OF THIS STRUCTURE ARE AS FOLLOWS:
 

P<sub>g</sub> (GROUND SNOW LOAD) = 30 PSF, C<sub>e</sub>=1.0, I=0.80, P<sub>f</sub>=18.5 PSF

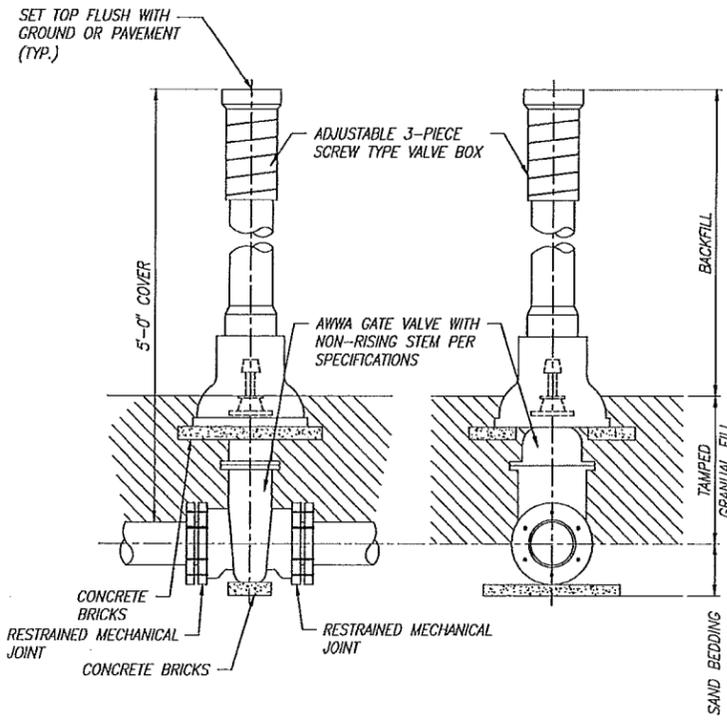
**LFA**  
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GREGORY L. HOLDER  
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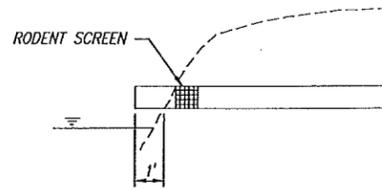
*Gregory L. Holder*  
SIGNATURE DATE 9/21/15

INDIANA DEPARTMENT OF  
NATURAL RESOURCES  
FAWN RIVER FISH HATCHERY  
PUMP HOUSE DETAILS

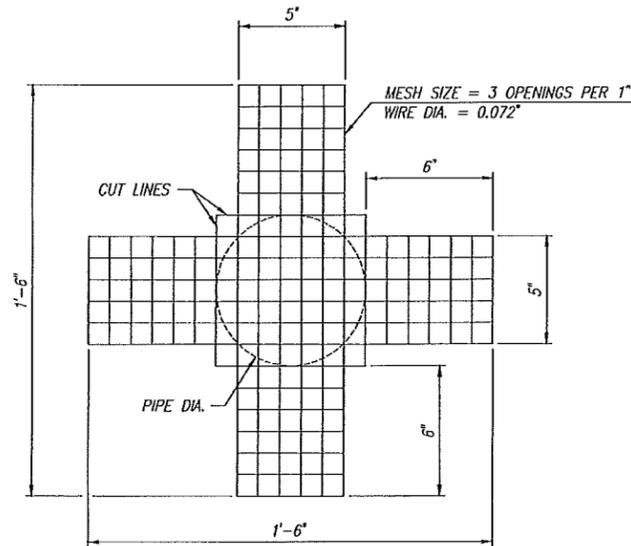
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DRAWN: DAO	SURVEY BOOK	SHEETS <b>9</b> OF <b>17</b>
CHECKED: GLH	DATE SEPT. 2015	



**GATE VALVE**  
SCALE: 1"=1'-0"



**DRAIN PIPE  
OUTFALL ELEVATION**  
SCALE: 1/2"=1'-0"



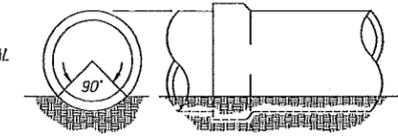
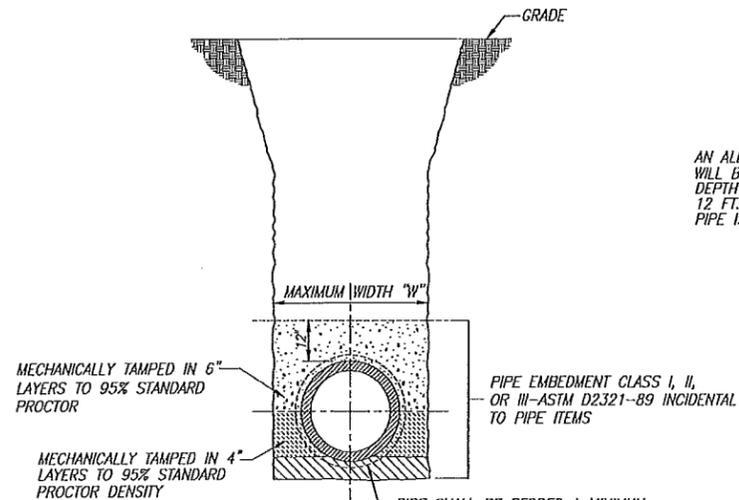
**PIPE BEDDING DETAIL**  
NO SCALE

**BACKFILL - IN STREETS, ALLEYS, OR DRIVING AREAS:**  
BACKFILL SHALL BE STRUCTURAL BACKFILL MATERIAL AND PLACED IN 6" LAYERS, SOLIDLY TAMPED TO SUB-GRADE OF STREET BASE. BACKFILL SHALL BE COMPACTED TO 100% STANDARD PROCTOR.

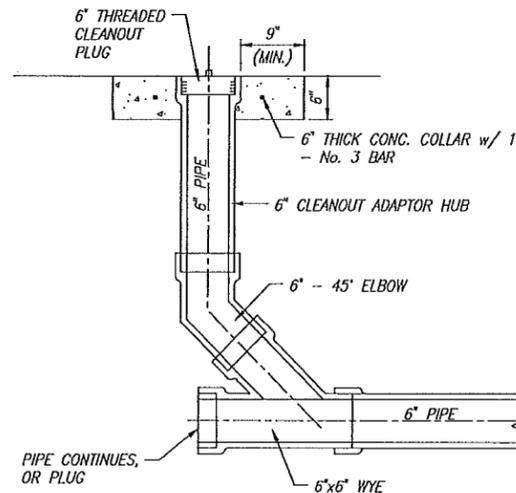
**BACKFILL - IN EASEMENT OR OPEN AREAS:**  
BACKFILL MATERIAL SHALL BE OF SUITABLE MATERIAL, FREE OF DEBRIS, ORGANIC MATERIAL, AND LARGE STONES PLACED IN 12" LAYERS, SOLIDLY TAMPED. BACKFILL SHALL BE COMPACTED TO 95% STANDARD PROCTOR.

ALLOWABLE MAXIMUM WIDTH OF TRENCH AT TOP OF PIPE	
PIPE DIA.	"W"
6"	18"
8"	24"
10"	24"
12"	30"
15"	35"
18"	39"
21"	42"
24"	45"
27"	48"
30"	53"
36"	68"
42"	75"
48"	82"

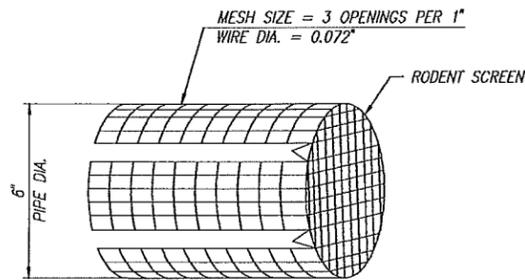
AN ALLOWABLE "W" OF 30" WILL BE PERMITTED WHERE DEPTH OF CUT EXCEEDS 12 FT. AND EXTRA STRENGTH PIPE IS SPECIFIED.



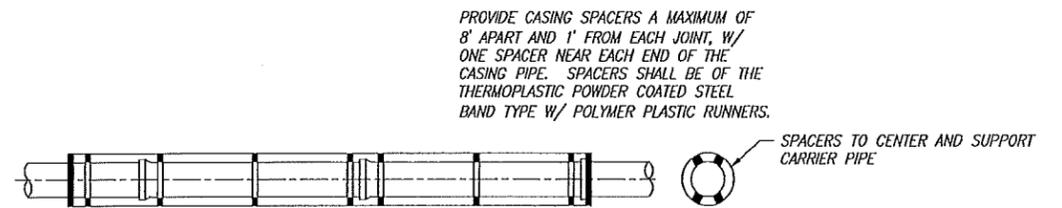
THE LOWER 90 ARC OF THE BARREL OF THE PIPE SHOULD BE IN FIRM CONTACT WITH UNDISTURBED EARTH. SMALL EXCAVATIONS SHOULD BE MADE FOR THE BELLS. THESE SHOULD BE NO LARGER THAN NECESSARY TO CLEAR THE BELL.



**TYPICAL CLEANOUT DETAIL**  
SCALE: 1"=1'-0"



**RODENT SCREEN**  
SCALE: 3"=1'-0"



**WATER SUPPLY PIPE CASING DETAIL  
PLAN VIEW**  
NO SCALE

18" DIA. STEEL CASING PIPE SHALL HAVE A MINIMUM WALL THICKNESS OF 0.25". STEEL CASING PIPE SHALL MEET ASTM-A139 - GRADE B - 35,000 PSI. THE CARRIER PIPE SHALL BE 8" DIA. H.D.P.E. DR11 PIPE.

PROVIDE TWO END SEALS PER CASING. END SEALS SHALL SEAL THE ANNULAR SPACE BETWEEN CASING PIPE AND CARRIER PIPE. END SEALS SHALL BE OF CONCRETE BRICK AND NON-SHRINK GROUT. PROVIDE WEEP HOLES.

**NOTE:**  
1. IF CLEAN OUT IS LOCATED WITHIN THE SIDEWALK OR IN AN AREA SUBJECT TO TRAFFIC, THE TOP OF THE CLEANOUT SHALL BE CAST IRON WITH A NEEMAH R-1976 CASTING AND LID OR APPROVED EQUAL.

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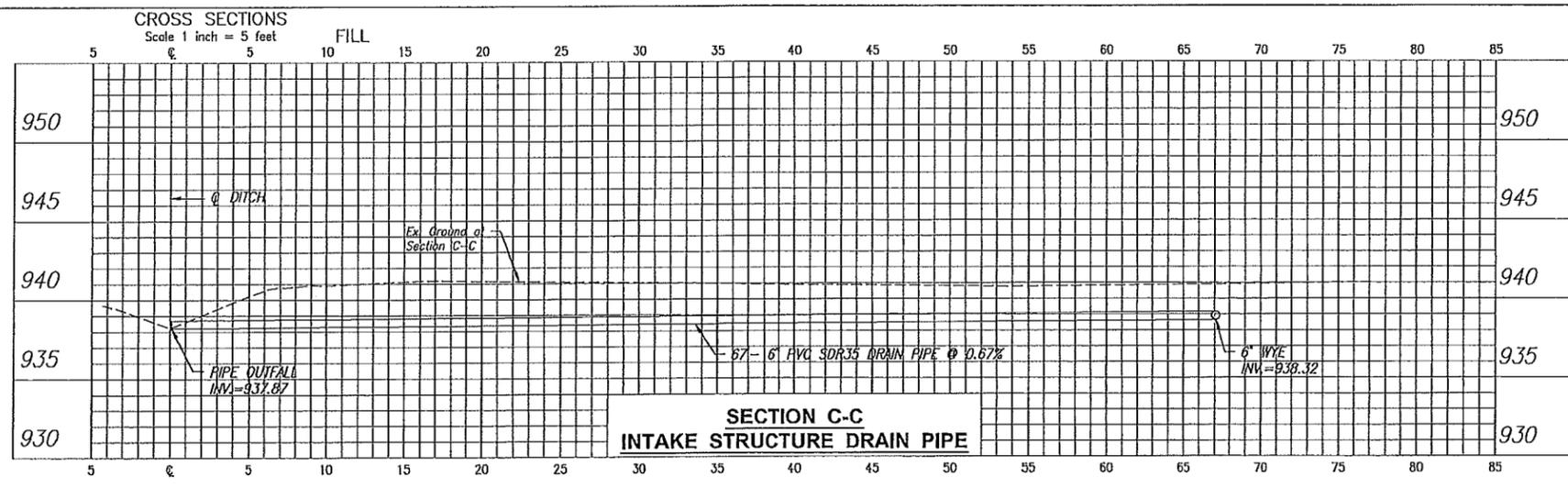
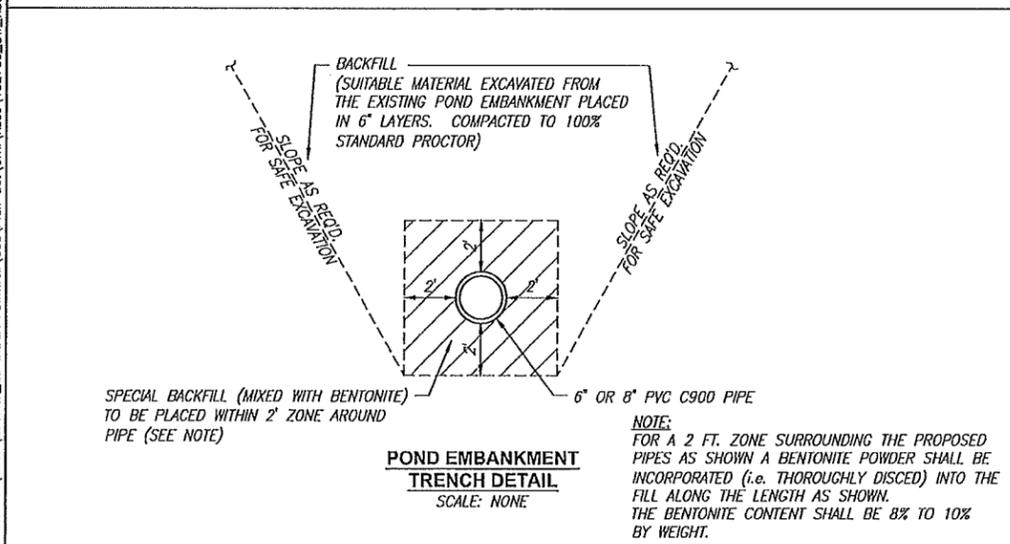
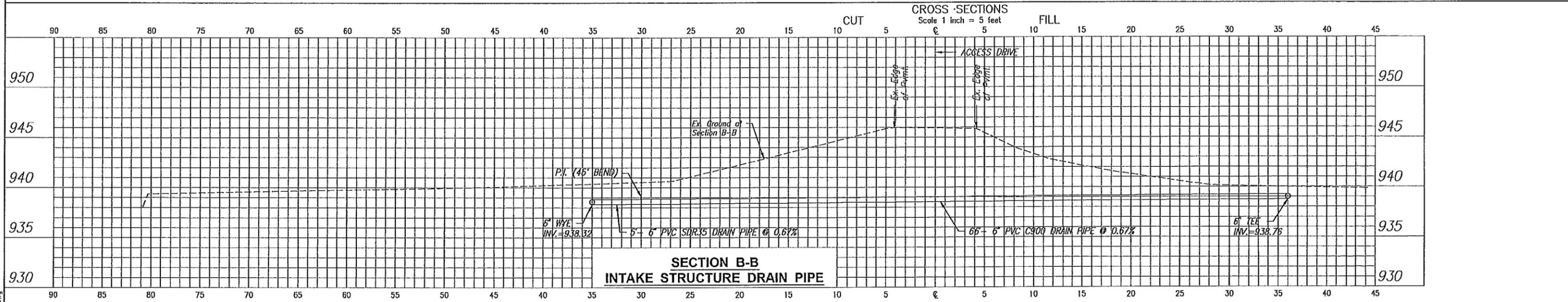
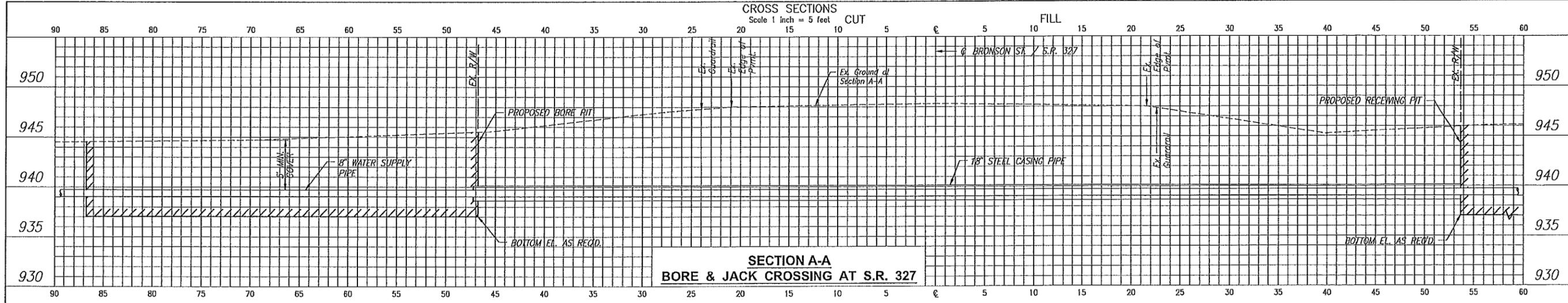
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REGISTERED  
No. 19600392  
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PROFESSIONAL ENGINEER

Jeffrey L. McKean 9/21/15  
SIGNATURE DATE

INDIANA DEPARTMENT OF  
NATURAL RESOURCES  
FAWN RIVER FISH HATCHERY  
DETAILS

REVISIONS	HORIZONTAL SCALE AS NOTED VERTICAL SCALE	PROJECT NUMBER <b>201527.00</b>
DRAWN: JAJ	SURVEY BOOK	SHEETS <b>10</b> OF <b>17</b>
CHECKED: JLM	DATE SEPT. 2015	



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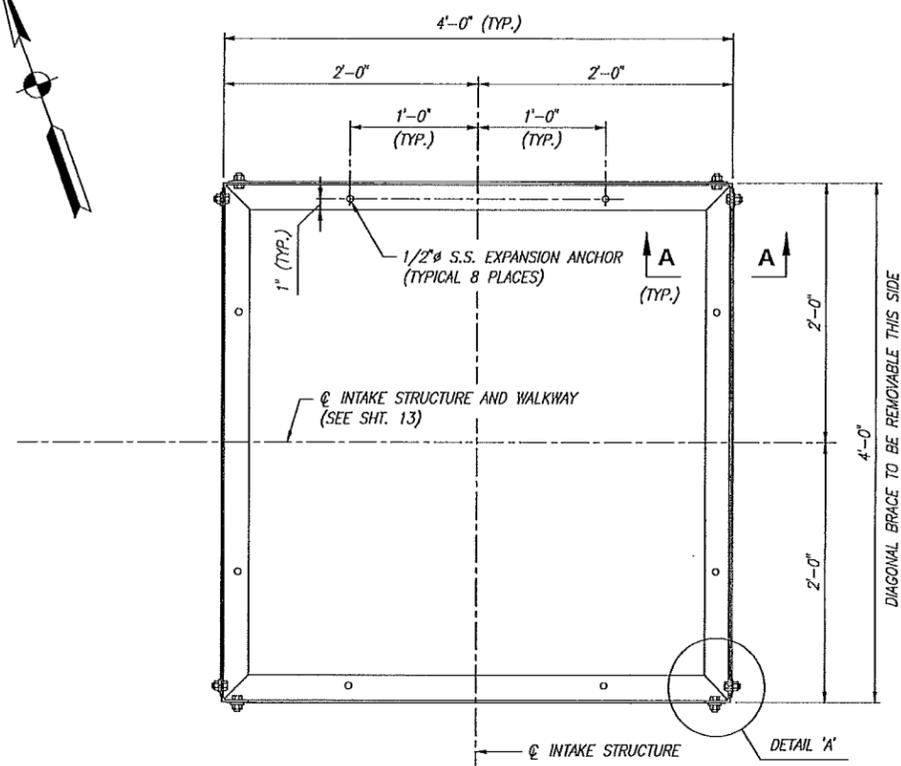


*Jeffrey L. McKean* 9/21/15  
SIGNATURE DATE

INDIANA DEPARTMENT OF  
NATURAL RESOURCES  
FAWN RIVER FISH HATCHERY

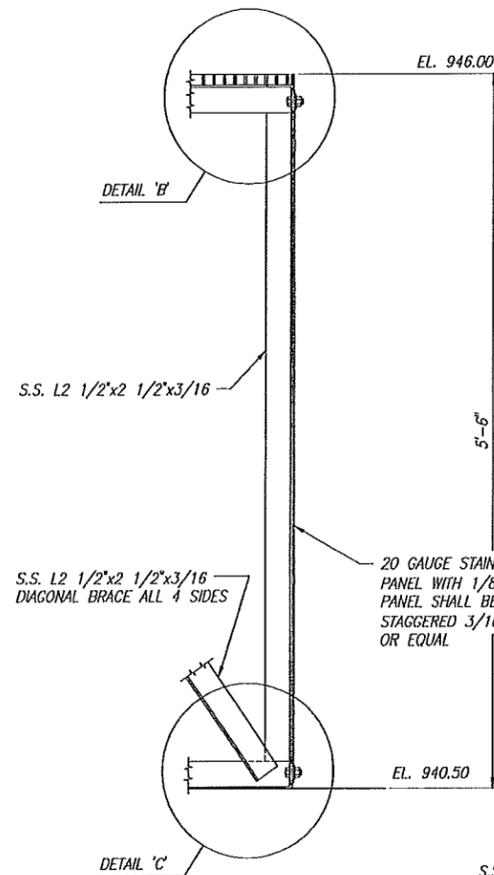
SECTIONS

REVISIONS	HORIZONTAL SCALE 1"=5'	PROJECT NUMBER <b>201527.00</b>
	VERTICAL SCALE 1"=5'	SHEETS <b>11</b> OF <b>17</b>
DRAWN: JAJ	SURVEY BOOK	
CHECKED: JLM	DATE SEPT. 2015	



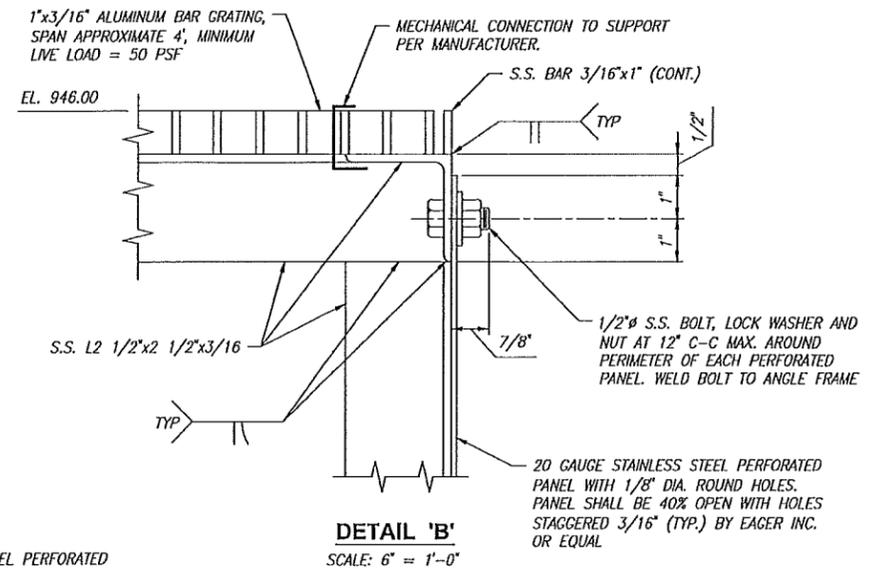
**PLAN - INTAKE STRUCTURE**

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



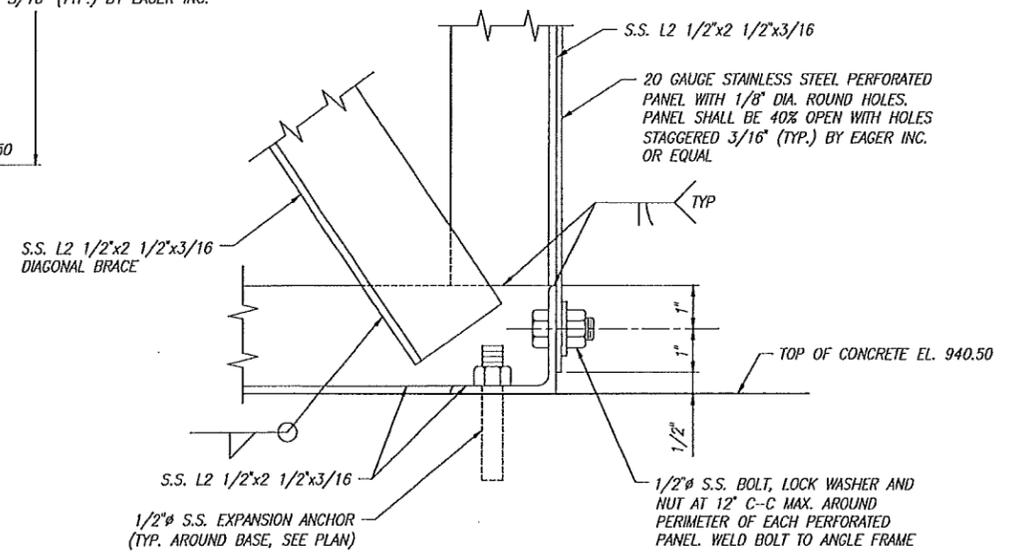
**SECTION A-A**

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



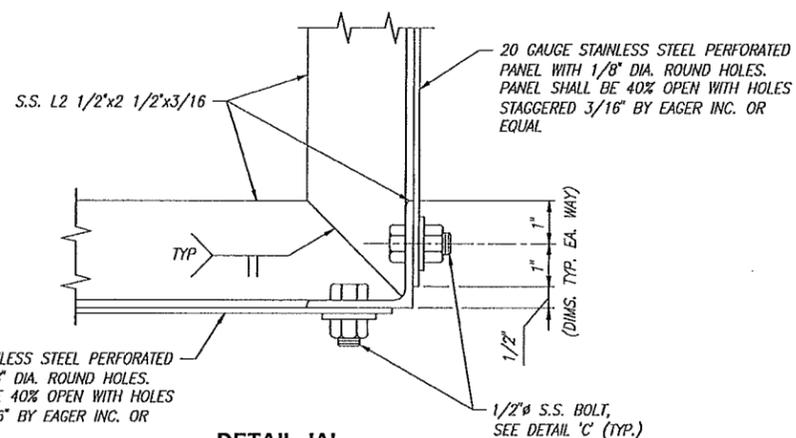
**DETAIL 'B'**

SCALE: 6" = 1'-0"



**DETAIL 'C'**

SCALE: 6" = 1'-0"



**DETAIL 'A'**

SCALE: 6" = 1'-0"

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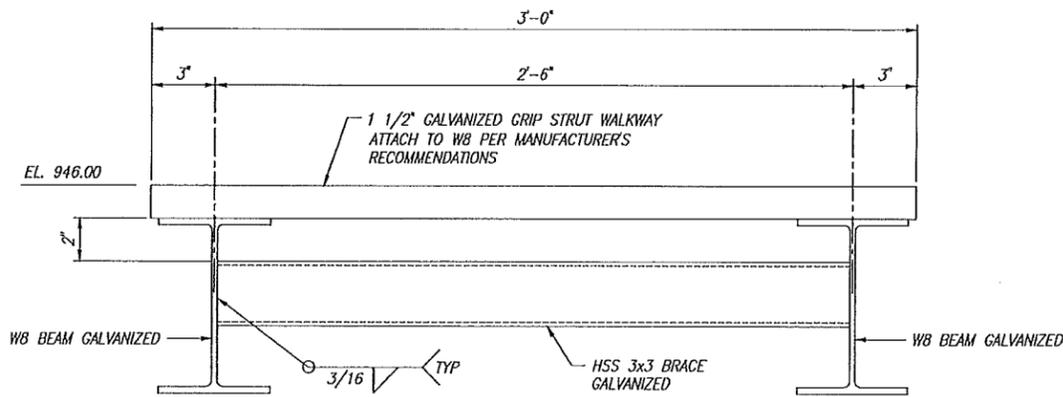
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INDIANA DEPARTMENT OF  
 NATURAL RESOURCES  
 FAWN RIVER FISH HATCHERY  
 INTAKE STRUCTURE DETAILS

REVISIONS	HORIZONTAL SCALE AS NOTED	PROJECT NUMBER <b>201527.00</b>
	VERTICAL SCALE	
DRAWN: DAO	SURVEY BOOK	SHEETS
CHECKED: GLH	DATE SEPT. 2015	<b>12</b> OF <b>17</b>



**SECTION B-B  
TYPICAL WALKWAY**  
SCALE: 3" = 1'-0"

**METALS:**

- THE CURRENT EDITIONS OF THE FOLLOWING SPECIFICATIONS SHALL APPLY AS MINIMUM REQUIREMENTS.

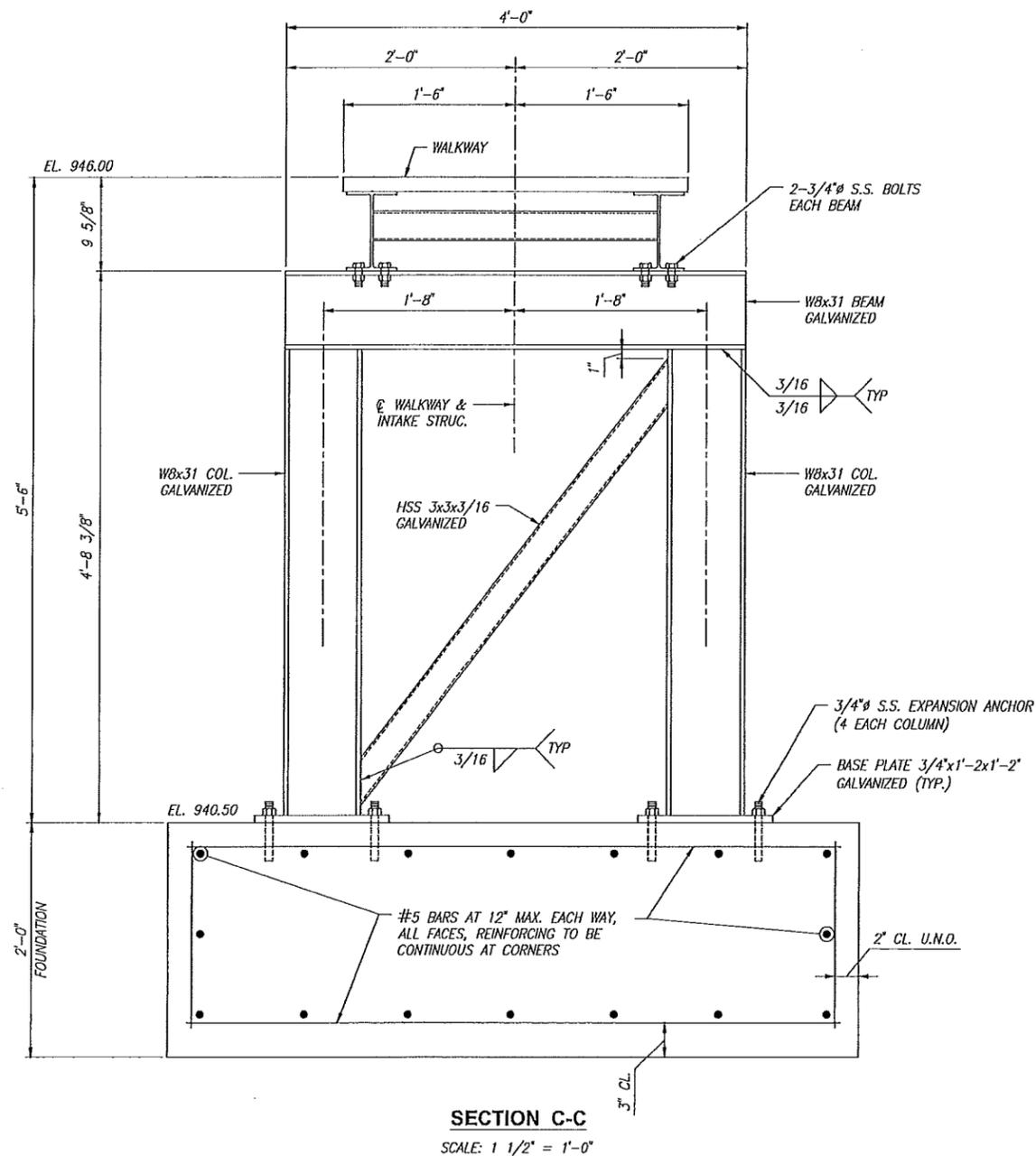
**STRUCTURAL STEEL:**

- |                                |                    |
|--------------------------------|--------------------|
| a. M, S, HP, C, MC, L SHAPES   | ASTM A36           |
| b. W SHAPE                     | ASTM A992          |
| c. HSS SHAPE, (REC. AND ROUND) | ASTM A500, GRADE B |
| d. BEARING PLATES              | ASTM A36           |
| e. HIGH-STRENGTH BOLTS         | ASTM A325          |
| f. ANCHOR BOLTS                | ASTM A307          |

**STAINLESS STEEL:**

- |                           |           |
|---------------------------|-----------|
| a. BARS AND SHAPES        | ASTM A276 |
| b. PLATES AND SHEETS      | ASTM A240 |
| c. FASTENERS AND FITTINGS | ASTM A320 |
| d. BOLTS                  | ASTM F593 |
| e. NUTS                   | ASTM F594 |

- ALL CONNECTIONS SHALL BE SHEAR TYPE CONNECTIONS, UNLESS OTHERWISE NOTED, AND DESIGNED BY THE FABRICATOR IN ACCORDANCE WITH THE AISC SPECIFICATIONS FOR LOAD AND RESISTANCE FACTOR DESIGN. MINIMUM BOLT DIAMETER SHALL BE 3/4". UNLESS OTHERWISE NOTED, ALL BOLTS SHALL BE SHEAR/BEARING TYPE AND BE "SNUG-TIGHT".
- ALL STRUCTURAL STEEL WELDING SHALL BE IN ACCORDANCE WITH AWS D1.1 USING E70XX ELECTRODES. UNLESS OTHERWISE NOTED, PROVIDE CONT. MIN. SIZED FILLET WELDS PER AISC REQUIREMENTS. ALL FILLER MATERIAL SHALL HAVE A MINIMUM YIELD STRENGTH OF 58 KSI.
- ALL STAINLESS STEEL WELDING SHALL BE IN ACCORDANCE WITH AWS D1.6 USING ELECTRODES PER AWS A5.4. UNLESS OTHERWISE NOTED PROVIDE CONT. MIN. SIZED FILLET WELDS.
- ALL WELDING SHALL BE COMPLETED BY A CERTIFIED WELDER.
- WELDED CONNECTIONS SHALL BE TOUCHED-UP WITH ZINC RICH PRIMER AT GALVANIZED STEEL.
- HOLES IN STEEL SHALL BE DRILLED OR PUNCHED. ALL SLOTTED HOLES SHALL BE PROVIDED WITH SMOOTH EDGES. BURNING OF HOLES AND TORCH CUTTING AT THE SITE IS NOT PERMITTED.
- UNLESS OTHERWISE NOTED, ALL STRUCTURAL STEEL PERMANENTLY EXPOSED TO THE WEATHER SHALL BE HOT-DIPPED GALVANIZED IN ACCORDANCE WITH ASTM A153.
- PROTECTIVE COATINGS DAMAGED DURING THE TRANSPORTING, ERECTING, AND FIELD WELDING PROCESSES SHALL BE REPAIRED IN THE FIELD TO MATCH THE SHOP APPLIED COATING.



**SECTION C-C**  
SCALE: 1 1/2" = 1'-0"

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*Gregory L. Holden*  
SIGNATURE DATE 9/21/15

INDIANA DEPARTMENT OF  
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FAWN RIVER FISH HATCHERY  
INTAKE STRUCTURE DETAILS

REVISIONS	HORIZONTAL SCALE AS NOTED	PROJECT NUMBER <b>201527.00</b>
	VERTICAL SCALE	
DRAWN: DAO	SURVEY BOOK	SHEETS
CHECKED: GLH	DATE SEPT. 2015	<b>14</b> OF <b>17</b>

**TEMPORARY SILT FENCE NOTES:**

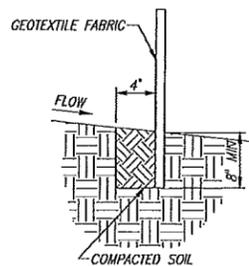
TEMPORARY PERIMETER SILT FENCES WILL BE PLACED THROUGHOUT THE PROJECT TO SERVE AS AN EROSION CONTROL PROTECTION MEASURE FOR ANY RUNOFF ASSOCIATED WITH SHEET FLOW. SILT FENCES CAPTURE SEDIMENT BY PONDING WATER TO ALLOW DEPOSITION, NOT BY FILTRATION. REFER TO CONTRACT DOCUMENTS AND SPECIFICATIONS FOR ADDITIONAL INFORMATION.

**INSTALLATION**

- LAYOUT SILT FENCE AS SHOWN ON EROSION CONTROL PLAN.
- EXCAVATE AN EIGHT-INCH DEEP BY FOUR-INCH WIDE TRENCH ALONG THE ENTIRE LENGTH OF THE FENCE LINE. INSTALLATION BY PLOWING IS ALSO ACCEPTABLE.
- INSTALL THE SILT FENCE WITH THE FILTER FABRIC LOCATED ON THE UP-SLOPE SIDE OF THE EXCAVATED TRENCH AND THE SUPPORT POSTS ON THE DOWN-SLOPE SIDE OF THE TRENCH.
- DRIVE THE SUPPORT POSTS AT LEAST 18 INCHES INTO THE GROUND, TIGHTLY STRETCHING THE FABRIC BETWEEN THE POSTS AS EACH IS DRIVEN INTO THE SOIL. A MINIMUM OF 12 INCHES OF THE FILTER FABRIC SHOULD EXTEND INTO THE TRENCH.
- LAY THE LOWER FOUR INCHES OF FILTER FABRIC ON THE BOTTOM OF THE TRENCH AND EXTEND IT TOWARD THE UP-SLOPE SIDE OF THE TRENCH.
- BACKFILL THE TRENCH WITH SOIL MATERIAL AND COMPACT IT IN PLACE.

**MAINTENANCE**

- INSPECT WITHIN 24 HOURS OF A RAIN EVENT AND AT LEAST TWICE EVERY SEVEN CALENDAR DAYS.
- IF FENCE FABRIC TEARS, STARTS TO DECOMPOSE, OR IN ANY WAY BECOMES INEFFECTIVE, REPLACE THE AFFECTED PORTION IMMEDIATELY.
- REMOVE DEPOSITED SEDIMENT WHEN IT IS CAUSING THE FILTER FABRIC TO BULGE OR WHEN IT REACHES ONE-HALF THE HEIGHT OF THE FENCE AT ITS LOWEST POINT. WHEN CONTRIBUTING DRAINAGE AREA HAS BEEN STABILIZED, REMOVE THE FENCE AND SEDIMENT DEPOSITS, GRADE THE SITE TO BLEND WITH THE SURROUNDING AREA, AND STABILIZE.



**SILT FENCE EMBEDMENT DETAIL**

SCALE: NONE

**MULCHED SEEDING NOTES:**

MULCHED SEEDING SHALL BE PLACED ON ALL DISTURBED AREAS WITHIN THE CONSTRUCTION LIMITS THAT ARE NOT PAVED OR LANDSCAPED AS NOTED IN THE SPECIFICATIONS. THIS ITEM SERVES AS A POST-CONSTRUCTION EROSION CONTROL MEASURE.

**TEMPORARY CURB & PAVED AREA INLET PROTECTION NOTES:**

TEMPORARY CURB & PAVED INLET PROTECTION SHALL BE PLACED AT EACH EXISTING AND PROPOSED OPEN CASTING STORMWATER MANHOLE AS SHOWN ON PLAN SHEETS. THESE INLET PROTECTION MEASURES REQUIRE INTENSIVE MAINTENANCE AND REQUIRE FREQUENT MONITORING, CLEANOUT, REPAIR AND/OR REPLACEMENT. WHERE APPLICABLE, TRAFFIC BARRICADES SHOULD ALSO BE INSTALLED AROUND CURB AND PAVED AREA INLET PROTECTION MEASURES TO PREVENT VEHICLES FROM HITTING THE PROTECTION DEVICES. REFER TO THE CONTRACT DOCUMENTS AND SPECIFICATIONS FOR ADDITIONAL INFORMATION AND/OR ALTERNATE METHODS.

**INSTALLATION**

- AROUND THE OUTER PERIMETER OF THE EXCAVATED AREA, LAY A RING OF RIPRAP (INDOT UNIFORM B RIPRAP) TO A HEIGHT OF 12 TO 24 INCHES ABOVE THE TOP OF THE STORM DRAIN INLET. CONSTRUCT THE AGGREGATE DONUT SUCH THAT IT HAS A 2:1 OR FLATTER OUTSIDE SLOPE AND A 3:1 OR FLATTER INSIDE SLOPE.
- COVER THE OUTSIDE FACE OF THE AGGREGATE DONUT w/ AT LEAST A 12-INCH THICK LAYER OF INDOT CA NO. 5 AGGREGATE (FOR FILTRATION). MAINTAIN A 2:1 OR FLATTER SLOPE

NOTE: IN SITUATIONS WHERE STORM WATER MAY BYPASS THE STRUCTURE, EITHER: SET THE TOP OF THE AGGREGATE DONUT AT LEAST SIX INCHES LOWER THAN THE GROUND ELEVATION ON THE DOWN-SLOPE SIDE OF THE STORM DRAIN INLET, BUILD A TEMPORARY DIKE, COMPACTED TO SIX INCHES HIGHER THAN THE AGGREGATE DONUT, ON THE DOWN-SLOPE SIDE OF THE STORM DRAIN INLET, AND/OR USE IN CONJUNCTION WITH EXCAVATED DROP INLET PROTECTION

**MAINTENANCE**

- INSPECT DAILY.
- REMOVE ACCUMULATED SEDIMENT AND REPLACE AGGREGATE AS NEEDED TO MAINTAIN FLOW.
- REMOVE ACCUMULATED SEDIMENT FROM PAVED AREA (DO NOT FLUSH WITH WATER) AFTER EACH STORM EVENT.
- DEPOSIT SEDIMENT IN AN AREA WHERE IT WILL NOT RE-ENTER THE PAVED AREA OR STORM DRAINS. WHEN THE CONTRIBUTING DRAINAGE AREA HAS BEEN STABILIZED, REMOVE AND PROPERLY DISPOSE OF ACCUMULATED SEDIMENT, AGGREGATE, HARDWARE CLOTH, AND CONCRETE BLOCKS.

**TEMPORARY SURFACE STABILIZATION NOTES:**

SOIL STABILIZATION SHALL BE INSTALLED ON ALL AREAS LEFT INACTIVE FOR FIFTEEN (15) DAYS. SEED MIXTURE, TYPE T SHALL BE USED TO ESTABLISH A TEMPORARY COVER FOR DISTURBED SOIL DURING CONSTRUCTION OPERATIONS. TEMPORARY COVER MIXTURES SHALL BE PLACED AS DIRECTED AND BE SUBJECT TO SEASONAL LIMITATIONS AS DEFINED HEREIN. THIS MIXTURE IS NOT INTENDED TO BE USED AS A PERMANENT SEED MIXTURE. THE MIX SHALL BE MULCHED IN ACCORDANCE WITH 621.05(c) OF THE 2008 INDOT STANDARD SPECIFICATIONS WHEN SLOPES EXCEED 3:1. FROM DECEMBER 1 TO MARCH 14 AND FROM JUNE 16 TO AUGUST 31, MULCHING ALONE SHALL BE USED TO STABILIZE THE SOIL. THIS MIXTURE SHALL NOT BE USED TO SATISFY THE REQUIREMENTS OF THE WARRANTY BOND. REFER TO THE CONTRACT DOCUMENTS AND SPECIFICATIONS FOR ADDITIONAL INFORMATION.

**1. SPRING MIX**

SPRING MIX SHALL BE USED FROM MARCH 15 THROUGH JUNE 15. THIS MIXTURE SHALL BE APPLIED AT THE RATE OF 150 LB/ACRE (165 Kg/Ha). THIS MIX SHALL CONSIST OF OATS.

**2. FALL MIX**

FALL MIX SHALL BE USED FROM SEPTEMBER 1 THROUGH NOVEMBER 30. THIS MIXTURE SHALL BE APPLIED AT THE RATE OF 150 LB/ACRE (165 Kg/Ha). THIS MIX SHALL CONSIST OF WINTER WHEAT.

**EROSION CONTROL GENERAL NOTES:**

- CONTRACTOR SHALL MEET THE REQUIREMENTS OF THE EROSION CONTROL PLAN, INCLUDING REQUIREMENTS IN THE PROJECT SPECIFICATIONS.
- ALL EROSION CONTROL MEASURES SHALL MEET THE REQUIREMENTS OF INDOT STANDARD SPECIFICATION SECTION 205.
- SEE EROSION CONTROL PLAN FOR TYPICAL INSTALLATION AND MAINTENANCE MEASURES. MAINTAIN ALL EROSION AND SEDIMENT CONTROL PRACTICES UNTIL CONSTRUCTION IS COMPLETED AND THE LOT IS STABILIZED.
- ESTIMATED CONSTRUCTION SEQUENCE SHALL BE AS FOLLOWS:
  - INSTALLATION OF GRAVEL CONSTRUCTION ENTRANCES/EXITS.
  - INSTALLATION OF EROSION AND SEDIMENT CONTROL MEASURES (SILT FENCE AND INLET PROTECTION ON EXISTING OPEN CASTING MANHOLES).
  - TEMPORARY SEEDING OF ANY DISTURBED AREAS THAT ARE SCHEDULED TO BE LEFT INACTIVE FOR 15 DAYS OR MORE (THROUGHOUT THE ENTIRE CONSTRUCTION PERIOD).
  - CONSTRUCTION OF PROPOSED STRUCTURE.
  - INSTALLATION OF INLET PROTECTION ON NEW OPEN CASTING INLET/MANHOLES.
  - FINAL GRADING AND PERMANENT SEEDING AND SODDING.
  - REMOVAL OF ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES ONCE ALL DISTURBED AREAS ARE STABILIZED.
  - ALL EROSION AND SEDIMENT CONTROL DEVICES ARE TO BE CHECKED, MAINTAINED, AND REPLACED WHEN NEEDED THROUGHOUT THE ENTIRE CONSTRUCTION PROCESS.

**TEMPORARY CONSTRUCTION ENTRANCE/EXIT NOTES:**

THE CONTRACTOR SHALL PROVIDE A STABLE EXISTING ENTRANCE AT THE POINTS WHERE CONSTRUCTION TRAFFIC WILL DRIVE ONTO AN EXISTING ROAD OR WILL LEAVE THE DEFINED CONSTRUCTION AREA. THIS ENTRANCE WILL SERVE THE PURPOSE TO PREVENT SOIL FROM LEAVING THE CONSTRUCTION AREA. RESTRICT ALL LOT ACCESS TO THIS ENTRANCE/EXIT. REFER TO THE CONTRACT DOCUMENTS AND SPECIFICATIONS FOR ADDITIONAL INFORMATION.

**REQUIREMENTS:**

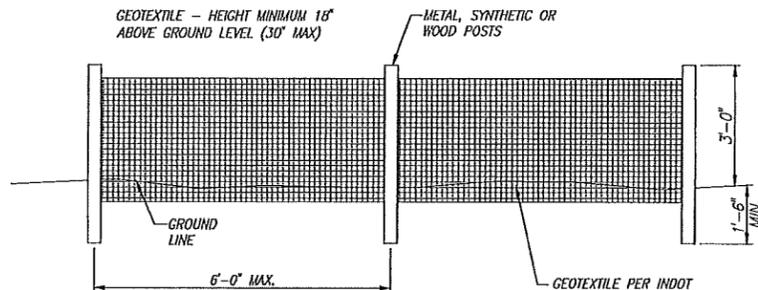
**MATERIAL:** 2-3 IN. WASHED STONE (INDOT CA NO. 2) OVER STABLE FOUNDATION. **THICKNESS:** 6 IN. MINIMUM **WIDTH:** 12 FT. MINIMUM OR FULL WIDTH OF ENTRANCE/EXIT ROADWAY, WHICHEVER IS GREATER **LENGTH:** 50 FT. MINIMUM. THE LENGTH CAN BE SHORTER FOR SMALL SITES SUCH AS FOR AN INDIVIDUAL HOME, BUT SHALL BE OF SUFFICIENT LENGTH TO PREVENT TRACKING. **WASHING FACILITY (OPTIONAL):** LEVEL AREA WITH 3 IN. WASHED STONE MINIMUM OR A COMMERCIAL RACK, AND WASTE WATER DIVERTED TO A SEDIMENT TRAP OR BASIN. **GEOTEXTILE FABRIC UNDERLINER:** REQUIRED TO PROVIDE GREATER BEARING STRENGTH.

**INSTALLATION:**

- AVOID LOCATING ON STEEP SLOPES OR AT CURVES IN PUBLIC ROADS.
- REMOVE ALL VEGETATION AND OTHER OBJECTIONABLE MATERIAL FROM THE FOUNDATION AREA, AND GRADE AND CROWN FOR POSITIVE DRAINAGE.
- IF SLOPE TOWARDS THE ROAD EXCEEDS 2%, CONSTRUCT A 6-8 IN.-HIGH WATER BAR (RIDGE) WITH 3:1 SIDE SLOPES ACROSS THE FOUNDATION AREA ABOUT 15 FT. FROM THE ENTRANCE TO DIVERT RUNOFF AWAY FROM THE ROAD (SEE PROFILE).
- INSTALL PIPE UNDER THE PAD IF NEEDED TO MAINTAIN PROPER PUBLIC ROAD DRAINAGE.
- PLACE STONE TO DIMENSIONS AND GRADE SHOWN IN THE EROSION/SEDIMENT CONTROL PLAN, LEVELING THE SURFACE SMOOTH AND SLOPED FOR DRAINAGE.
- DIVERT ALL SURFACE RUNOFF AND DRAINAGE FROM THE STONE PAD TO A SEDIMENT TRAP OR BASIN.

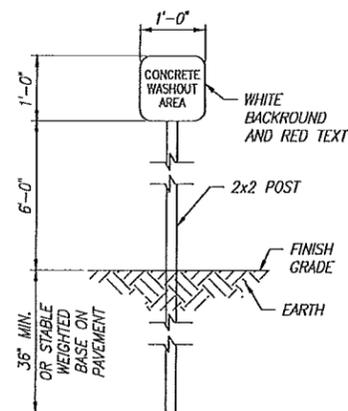
**MAINTENANCE:**

- INSPECT ENTRANCE PAD, SEDIMENT DISPOSAL AREA AND ALL OTHER EROSION CONTROL MEASURES TWICE EVERY SEVEN CALENDAR DAYS AND AFTER STORM EVENTS OR HEAVY USE. REQUIRED REPAIRS SHOULD BE COMPLETED IMMEDIATELY.
- RESHAPE PAD AS NEEDED FOR DRAINAGE AND RUNOFF CONTROL.
- TOPDRESS WITH CLEAN STONE AS NEEDED.
- IMMEDIATELY REMOVE MUD AND SEDIMENT TRACKED OR WASHED ONTO PUBLIC ROADS BY BRUSHING OR SWEEPING. FLUSHING SHOULD ONLY BE USED IF THE WATER IS CONVEYED INTO A SEDIMENT TRAP OR BASIN.
- REPAIR ANY BROKEN ROAD PAVEMENT IMMEDIATELY.



**SILT FENCE ELEVATION VIEW**

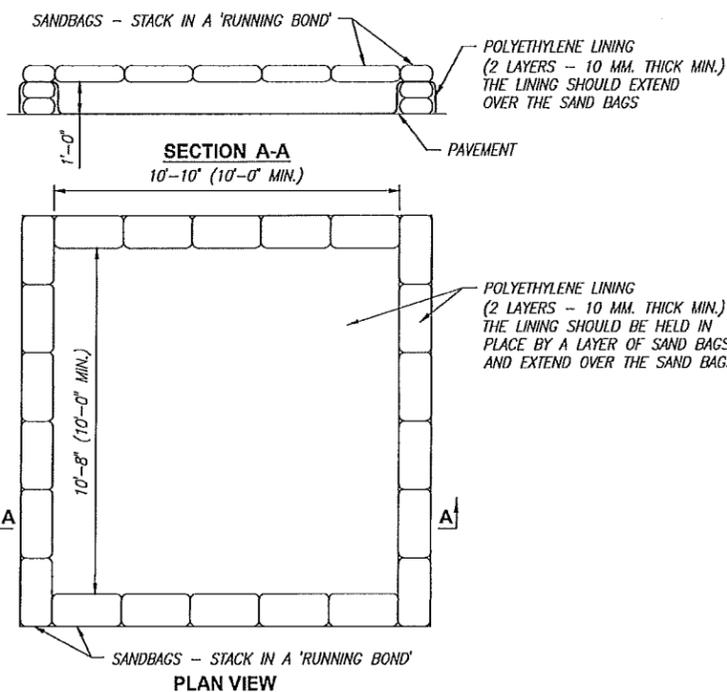
SCALE: NONE



**CONCRETE WASHOUT AREA**

**EROSION CONTROL SIGNAGE**

SCALE: 3/4"=1'-0"

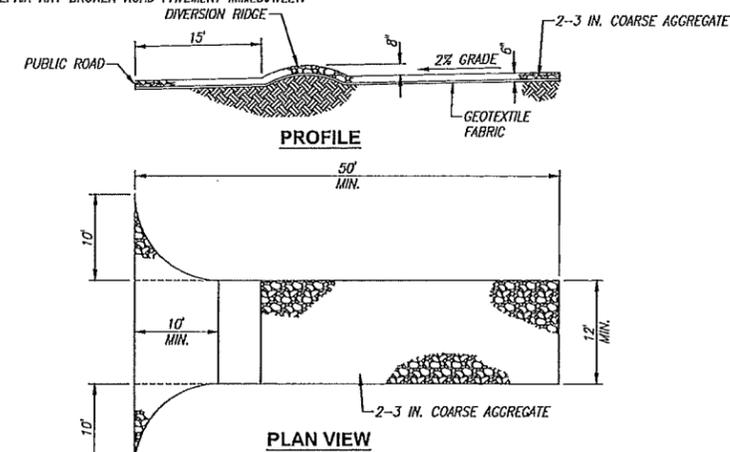


**CONCRETE WASHOUT STRUCTURE**

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

**NOTES:**

- THE MINIMUM INTERIOR DIMENSION MAY BE ADJUSTED TO FIT THE SITE. THE STRUCTURE'S INTERIOR SQUARE FOOTAGE OF 100 SF. MUST BE MAINTAINED AND THE CONTRACTOR SHALL SUBMIT ANY DESIGN ALTERATIONS TO THE ENGINEER.
- CONTRACTOR MAY USE PREFABRICATED PORTABLE CONCRETE WASHOUT SYSTEMS/CONTAINERS WITH A MINIMUM SUMP CAPACITY OF 2 CU YDS.



**TEMPORARY CONSTRUCTION ENTRANCE/EXIT DETAIL**

SCALE: N.T.S.

BUS - 9/21/2015 7:40 AM - U:\2015\201527\_00 INDOA FawnWell\Cad\Plan Set\Civil\Erosion\152700EC\_DTD1.dwg

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JEFFREY L. MCKEAN  
No. 19600392  
STATE OF INDIANA  
PROFESSIONAL ENGINEER

Jeffrey L. McKean  
SIGNATURE  
9/21/15  
DATE

INDIANA DEPARTMENT OF  
NATURAL RESOURCES  
FAWN RIVER FISH HATCHERY  
EROSION CONTROL DETAILS

REVISIONS	HORIZONTAL SCALE AS NOTED	PROJECT NUMBER
	VERTICAL SCALE	201527.00
DRAWN: JAJ	SURVEY BOOK	SHEETS
CHECKED: JLM	DATE	15 OF 17
	SEPT. 2015	



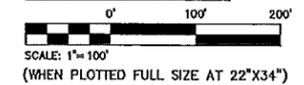
**GENERAL ELECTRICAL NOTES:**

A. COORDINATE ALL REQUIREMENTS WITH LOCAL UTILITY; NIPSCO.

**ELECTRICAL KEYED NOTES:** ○

1. NEW WELL BUILDING; SEE DETAILS ON SHEET 17.
2. EXISTING UTILITY POLE. 1-076/952.
3. EXISTING UTILITY POLE.
4. EXISTING UTILITY POLE. 1-076/953.
5. EXISTING UTILITY POLE. 489/611.
6. EXISTING 3 PHASE UTILITY PRIMARY.
7. NEW AERIAL UTILITY PRIMARY BY UTILITY.
8. NEW UTILITY POLE W/ 3 PHASE TRANSFORMER BANK, WEATHER HEAD, RISER, AND SERVICE LATERAL CONDUCTORS BY UTILITY.

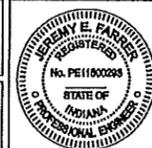
**ELECTRICAL SITE PLAN**



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 JWSIMS@JWSIMS.COM

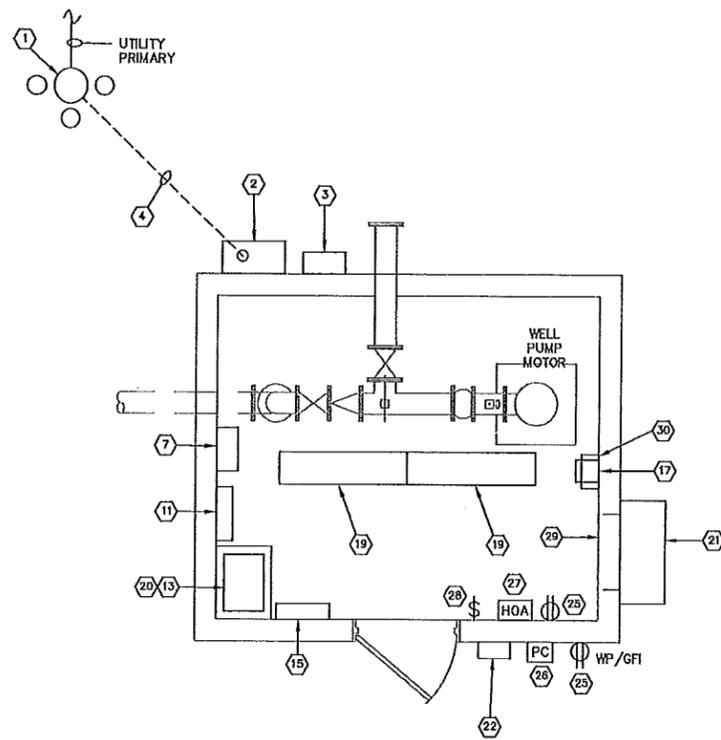
*Jeremy E. Farmer*  
 SIGNATURE  
 09/21/2015  
 DATE



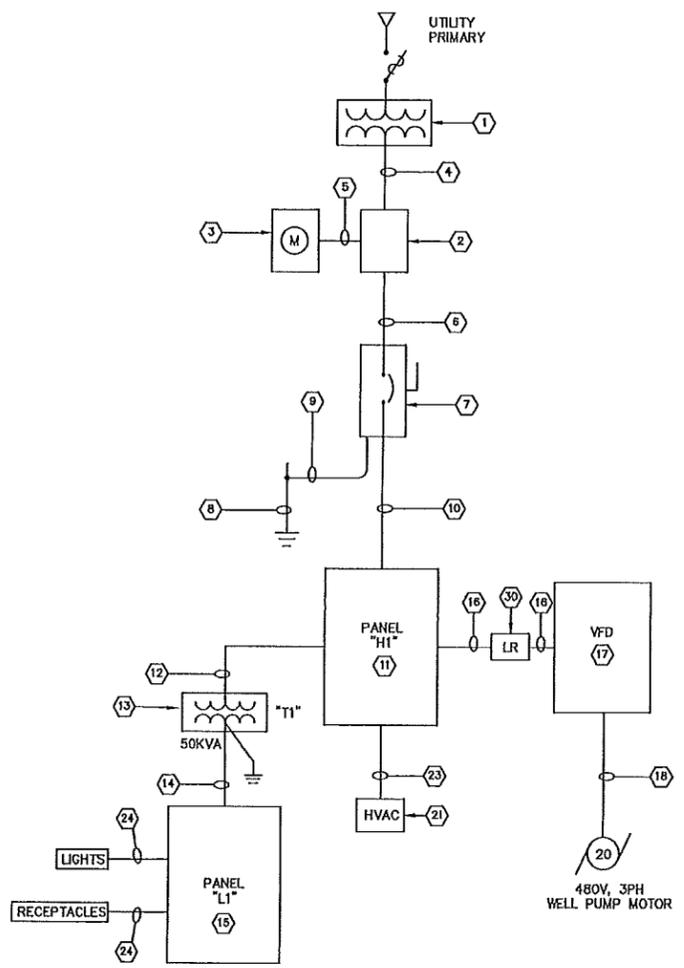
INDIANA DEPARTMENT OF  
 NATURAL RESOURCES  
 FAWN RIVER FISH HATCHERY

ELECTRICAL SITE PLAN

REVISIONS	HORIZONTAL SCALE AS NOTED	PROJECT NUMBER 201527.00
	VERTICAL SCALE	
DRAWN: TEAM	SURVEY BOOK	SHEETS 16 OF 17
CHECKED: JEF	DATE 09/21/2015	



**ELECTRICAL PLAN**  
 SCALE: 3/8"=1'-0"  
 (WHEN PLOTTED FULL SIZE AT 22"x34")

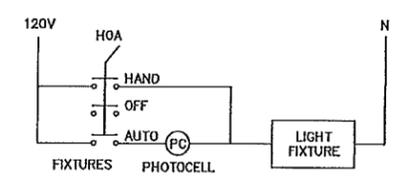


**ELECTRICAL ONE-LINE DIAGRAM**  
 SCALE: NONE

- GENERAL ELECTRICAL NOTES:**
- ALL EQUIPMENT, WIRING, CONDUIT AND DEVICES SHALL BE FURNISHED AND INSTALLED BY CONTRACTOR UNLESS OTHERWISE NOTED.
  - ALL CONDUCTORS SHALL BE COPPER UNLESS OTHERWISE NOTED.
  - ALL CONDUIT INSTALLED UNDERGROUND SHALL BE SCH 80 PVC. ALL CONDUIT SWEEP TRANSITIONS TO ABOVE GRADE SHALL BE GALVANIZED RIGID STEEL. ALL CONDUITS INSTALLED ABOVE GRADE SHALL BE RIGID ALUMINUM.
  - NOTE: INCOMING SERVICE AND POWER DISTRIBUTION EQUIPMENT SIZED TO ACCOMMODATE FUTURE POWER REQUIREMENTS.

- ELECTRICAL KEYED NOTES:**
- NEW POLE MOUNTED UTILITY TRANSFORMER BANK BY UTILITY. 277/480V, 3 PH, 4W SECONDARY.
  - NEW CT/PT CABINET SHALL BE FURNISHED & INSTALLED CONTRACTOR.
  - NEW METER BASE SHALL BE FURNISHED & INSTALLED BY CONTRACTOR, COORDINATE W/ UTILITY; NEW METER FURNISHED & INSTALLED BY UTILITY.
  - NEW UNDERGROUND SERVICE LATERAL CONDUCTORS BY UTILITY. CONTRACTOR SHALL FURNISH AND INSTALL 2" C. FOR UTILITY USE. TURN CONDUIT UP AT UTILITY POLE AND CAP +18" AFG.
  - NEW CT/PT WIRING FURNISHED AND INSTALLED BY UTILITY; CONTRACTOR SHALL FURNISH & INSTALL 2" C.
  - 4-#250 KCMIL AL., 3" C.
  - NEW 225A, 277/480V, 3PH, 4W, ENCLOSED CIRCUIT BREAKER, SERVICE ENTRANCE RATED. NEMA 12 ENCLOSURE. BOND NEUTRAL TO GROUND AT THIS LOCATION ONLY.
  - 3/4" X 10' COPPER CLAD GROUND ROD; CADWELDED TO GROUNDING ELECTRODE CONDUCTOR.
  - #2 BARE CU GROUNDING ELECTRODE CONDUCTOR.
  - 3-#250 KCMIL AL., 1-#4 CU GND, 3" C.
  - NEW 225A, 480V, 3PH, 3W, M.L.O. PANELBOARD; SEE SCHEDULE. NEMA 12 ENCLOSURE. PROVIDE INTEGRAL SURGE PROTECTION DEVICE.
  - 2-#1/0 AL., 1-#6 CU GND, 1-1/2" C.
  - NEW 480V - 120/240V, 1PH, 50KVA DRY-TYPE TRANSFORMER. NEMA 3R ENCLOSURE.
  - 3-#350 KCMIL AL, 1-#4 CU GND, 3" C.
  - NEW 250A, 120/240V, 1PH, 3W, 250A MCB PANELBOARD; SEE SCHEDULE. NEMA 12 ENCLOSURE. PROVIDE INTEGRAL SURGE PROTECTION DEVICE.

- ELECTRICAL KEYED NOTES:**
- 3-#8 CU, 1-#10 CU GND, 3/4" C.
  - NEW 480V VFD. MANUALLY CONTROLLED BY OPERATOR. VFD SHALL BE RATED TO CARRY 125% OF MOTOR FLA, CONTINUOUSLY, 33.8A MIN. NEMA 12 ENCLOSURE.
  - 3-#6 CU XHHW, 1-#10 CU THWN GND, 3/4" C.
  - NEW LED, ENCLOSED & GASKET LIGHT FIXTURES; LITHONIA #FEMALED 4L IMAFI OR APPROVED EQUAL.
  - PROVIDE 3" HIGH HOUSEKEEPING PAD. EXTEND PAD 4" ON ALL SIDES FROM TRANSFORMER.
  - 2.5 TON WALL MOUNT A/C UNIT W/ 6KW ELEC HEAT. PROVIDE BARD #W 30 A 2 - C 06 X A X X WITH EHW03A-C06 OR APPROVED EQUAL. PROVIDE UNIT WITH ALUMINUM ENCLOSURE.
  - NEW LED WALL PACK LIGHT FIXTURE; LITHONIA MODEL #TWH LED 20C 1000 50K 13M 1MVOLT DDBXD OR APPROVED EQUAL.
  - 3-#12, 1-#12 GND, 3/4" C.
  - 2-#12, 1-#12 GND, 3/4" C.
  - NEW RECEPTACLE.
  - NEW PHOTOCELL FOR LIGHTING CONTROL; SEE EXTERIOR LIGHTING CONTROL WIRING DETAIL.
  - NEW HOA SWITCH IN NEMA 12 ENCLOSURE FOR EXTERIOR LIGHTING CONTROL. SEE EXTERIOR LIGHTING CONTROL WIRING DETAIL.
  - NEW LIGHT SWITCH WITH OCCUPANCY SENSOR FOR INTERIOR LIGHTING CONTROL.
  - WALL PENETRATION FOR SUPPLY AND RETURN. COORDINATE WITH MANUFACTURER'S FINAL SHOP DRAWING SUBMITTAL. BASIS OF DESIGN IS BARD WALL MOUNT AC UNIT.
  - 3% LINE REACTOR MOUNTED ABOVE VFD. PROVIDE TRANS COIL #KDRUL3PE3R OR APPROVED EQUAL. NEMA 3R ENCLOSURE.



**EXTERIOR LIGHTING CONTROL WIRING DIAGRAM**  
 SCALE: NONE

BRANCH CIRCUIT PANELBOARD SCHEDULE									
PANEL:	LOCATION:	MOUNTING:	RATING:	MAIN:	REMARKS:				
H1		<input checked="" type="checkbox"/> SURFACE <input type="checkbox"/> FLUSH	225A, 480V 3PH, 3W.	225A, M.C.B. 225A, M.L.O.	PROVIDE OPTIONS MARKED WITH <input checked="" type="checkbox"/>				
LOAD DESIGNATION	CKT. BKRL	CKT. NO.	PHASE A	PHASE B	PHASE C	CKT. NO.	CKT. BKRL	LOAD DESIGNATION	
XFMR T1 (PANEL L1)	2P-125	1	17.0	7.2		2		WELL PUMP	
		3		17.2	7.2	4	3P-40		
		5			7.2	6			
		7	3.4			8			
		9		3.4		10	3P-15	HVAC	
		11			3.4	12			
		13				14			
		15				16		SPACE	
		17				18			
		19				20			
		21				22		SPACE	
		23				24			
		25				26			
		27				28		SPACE	
		29				30			
		N/A	27.0	27.8	10.0				

BRANCH CIRCUIT PANELBOARD SCHEDULE									
PANEL:	LOCATION:	MOUNTING:	RATING:	MAIN:	REMARKS:				
L1		<input checked="" type="checkbox"/> SURFACE <input type="checkbox"/> FLUSH	250A, 120/240V 1PH, 3W.	250A, M.C.B. 250A, M.L.O.	PROVIDE OPTIONS MARKED WITH <input checked="" type="checkbox"/>				
LOAD DESIGNATION	CKT. BKRL	CKT. NO.	PHASE A	PHASE B	PHASE C	CKT. NO.	CKT. BKRL	LOAD DESIGNATION	
LIGHTS	1P-20	1	0.2	0.0		2	1P-20	SPARE	
RECEPTACLES	1P-20	3		0.4	0.0	4	1P-20	SPARE	
SPARE	1P-20	5	0.0	0.0		6	1P-20	SPARE	
SPARE	1P-20	7		0.0	0.0	8	1P-20	SPARE	
		9	1.2	1.2		10			
FUTURE AERATOR #1		11		1.2	1.2	12		FUTURE AERATOR #8	
FUTURE AERATOR #2		13	1.2	1.2		14		FUTURE AERATOR #9	
FUTURE AERATOR #3		15		1.2	1.2	16		FUTURE AERATOR #10	
FUTURE AERATOR #4		17	1.2	1.2		18		FUTURE AERATOR #11	
FUTURE AERATOR #5		19		1.2	1.2	20		FUTURE AERATOR #12	
FUTURE AERATOR #6		21	1.2	1.2		22		FUTURE AERATOR #13	
		23		1.2	1.2	24			
FUTURE AERATOR #7		25	1.2	1.2		26		FUTURE AERATOR #14	
		27		1.2	1.2	28			
		29	1.2	1.2		30			
		31		1.2	1.2	32			
		33	1.2	1.2		34			
		35		1.2	1.2	36			
		37	0.0	0.0		38			
		39		0.0	0.0	40			
		N/A	17.0		17.2				

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INDIANA DEPARTMENT OF  
 NATURAL RESOURCES  
 FAWN RIVER FISH HATCHERY

Signature: *John E. Farber*  
 DATE: 09/21/2015

Professional Engineer Seal: JOHN E. FARBER, No. PE11800228, STATE OF INDIANA

INDIANA DEPARTMENT OF  
 NATURAL RESOURCES  
 FAWN RIVER FISH HATCHERY  
 ELECTRICAL DETAILS

REVISIONS  
 DRAWN: TEAM  
 CHECKED: JEF

HORIZONTAL SCALE AS NOTED  
 VERTICAL SCALE  
 SURVEY BOOK  
 DATE: 09/21/2015

PROJECT NUMBER: 201527.00  
 SHEETS: 17 OF 17