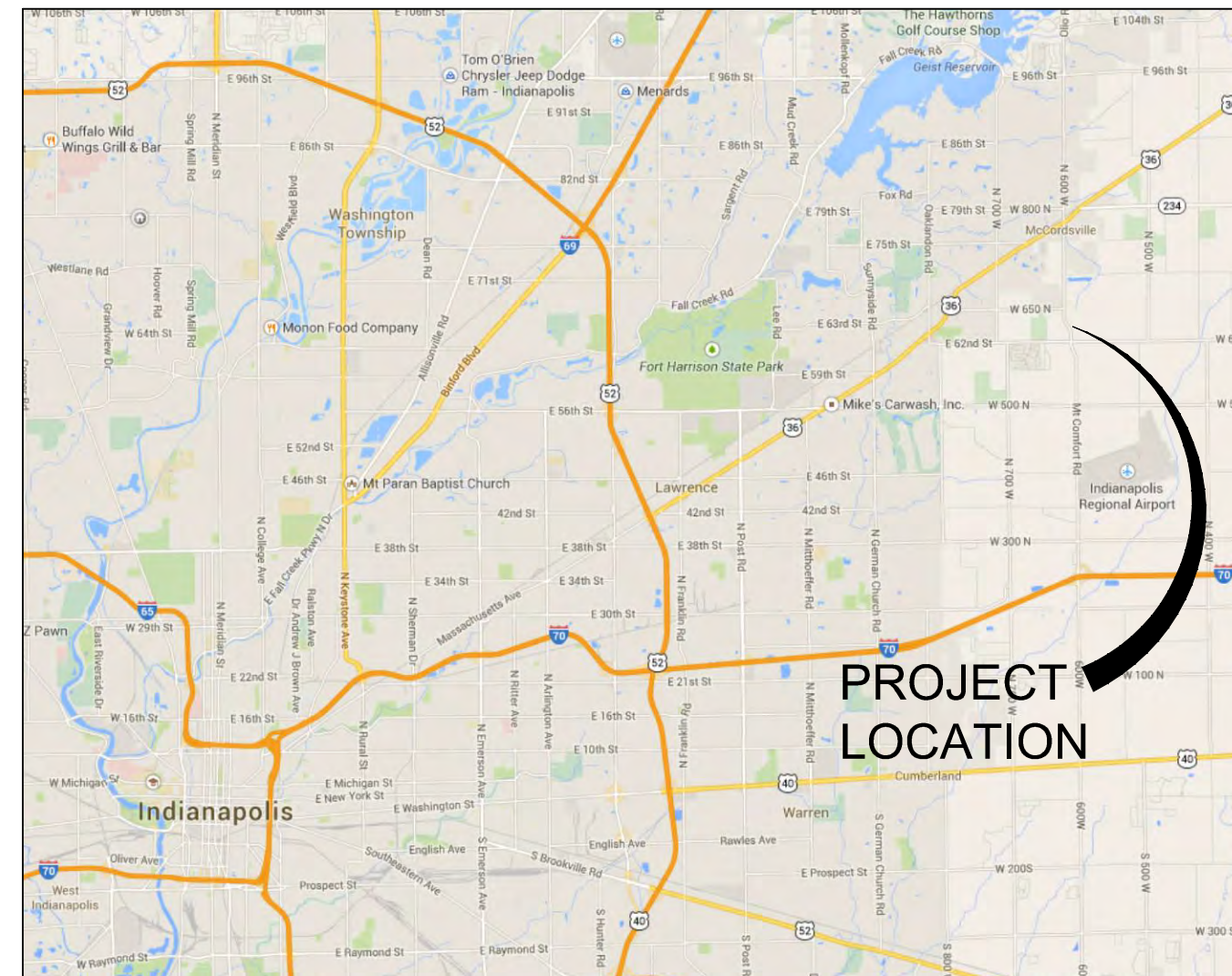


FINAL CONSTRUCTION PLANS

OUTLOOK CHRISTIAN CHURCH IMPROVEMENTS

6531 NORTH 600 WEST

McCORDSVILLE, INDIANA

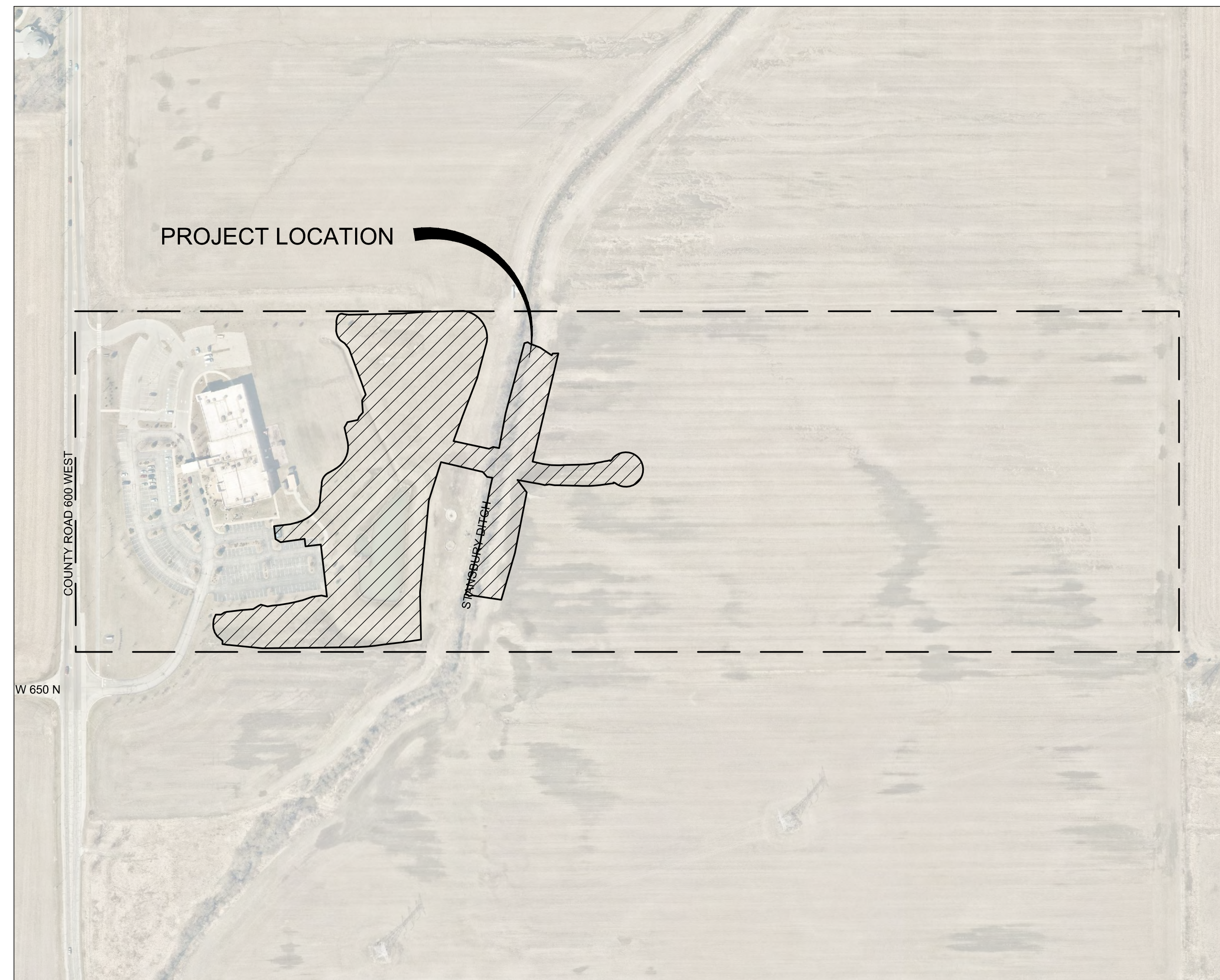


VICINITY MAP
NO SCALE

OWNER
 OUTLOOK CHRISTIAN CHURCH
 6531 NORTH 600 WEST
 McCORDSVILLE, IN 46055
 PHONE: (317) 335-6815
 CONTACT: JOE MITCHELL
 EMAIL: jmitchell@outlookchurch.org

DEVELOPER
 T&W CHURCH SOLUTIONS
 3841 W. MORRIS STREET
 INDIANAPOLIS, IN 46241
 PHONE: (317) 244-7637
 CONTACT: KURT WILLIAMS
 EMAIL: kwilliams@twcorp.net

ENGINEER
 CROSSROAD ENGINEERS, PC
 3417 SHERMAN DRIVE
 BEECH GROVE, IN 46107
 PHONE: (317) 780-1555
 CONTACT: GREGORY J. ILKO
 EMAIL: gilko@crossroadengineers.com



LOCATION MAP
NO SCALE

PLAN INDEX	
SHEET #	SUBJECT
100	TITLE SHEET
200	TOPOGRAPHICAL SURVEY
300	SITE DIMENSION PLAN
301	CULVERT PLAN
400	UTILITY PLAN
500	GRADING PLAN
600	EROSION CONTROL PLAN
601	EROSION CONTROL DETAILS
700	MISCELLANEOUS DETAILS AND SPECIFICATIONS
XS1-XS12	FLOODPLAIN CROSS SECTION

CROSSROAD ENGINEERS, PC
TRANSPORTATION & DEVELOPMENT CONSULTANTS
REGISTERED PROFESSIONAL ENGINEERS
INDIANAPOLIS, IN 46107
CROSSROADENGINEERS.COM

100
SHEET

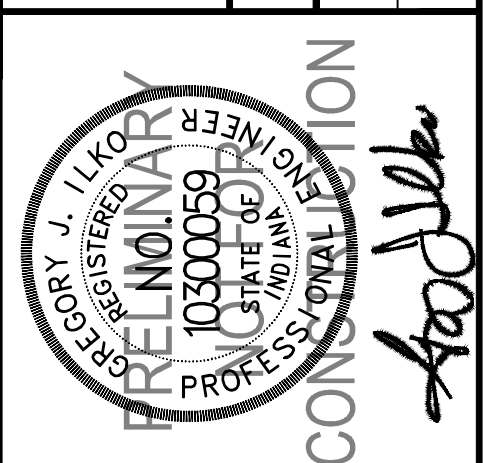
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OUTLOOK CHRISTIAN CHURCH		DRAWN	KLF/AMC
JOB No.	DATE	DESIGNED	D.M
AUGUST 23, 2019		APPR.	G.J

Gregory J. Ilko

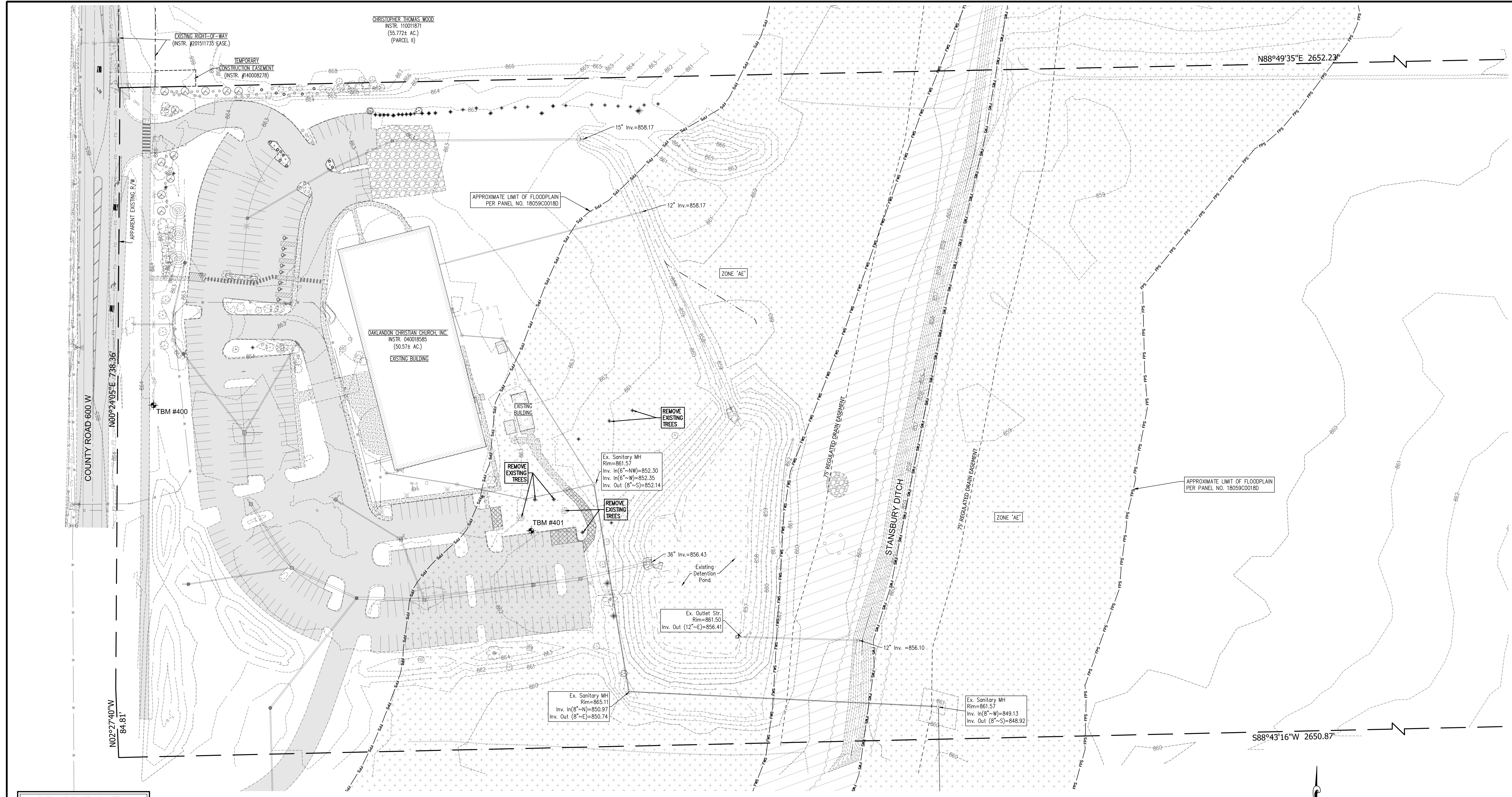
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EXISTING UTILITY SIZE AND MATERIAL INFORMATION SHOWN ON THESE PLANS ARE PER THE BEST GRAPHICAL AND VISIBLE INFORMATION AVAILABLE. CONFLICTS MAY EXIST AND IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY ALL SIZING AND MATERIAL INFORMATION PROVIDED. IF ACTUAL CONDITIONS DIFFER FROM THAT INFORMATION SHOWN ON THE PLANS, THE CONTRACTOR SHALL PRIOR TO THE INSTALLATION OF ANY PROPOSED INFRASTRUCTURE, NOTIFY THE DESIGN ENGINEER IMMEDIATELY.



UTILITIES

Note: Listed below are the Indiana Underground Plant Protection Services Contacts; Others not listed may exist.

- | | | |
|---|--|--|
| SEWER
AQUA INDIANA, INC.
8275 ALLISON POINTE TRAIL
INDIANAPOLIS, IN 46250
PHONE: (317) 577-1390
CONTACT: KERRAN TANSY | WATER
CITIZENS WATER
1220 WATERWAY BLVD.
INDIANAPOLIS, IN 46202
PHONE: (317) 264-7718
CONTACT: MARK SHOCKLEY | CABLE
COMCAST
9750 E. 150TH STREET
NOBLESVILLE, IN 46060
PHONE: (765) 646-9113
CONTACT: DALE LAMBERT |
| GAS
VECTREN ENERGY
1800 W. 26th STREET
MUNCIE, IN 47302
PHONE: (765) 287-2119
CONTACT: JON EASTHAM | MCCORDSVILLE PUBLIC WORKS
5759 W. BROADWAY
MCCORDSVILLE, IN 46055
PHONE: (317) 333-3493
CONTACT: RON CRIDER | BRIGHTHOUSE
3030 ROOSEVELT AVENUE
INDIANAPOLIS, IN 46218
PHONE: (317) 632-9077
CONTACT: JASON KIRKMAN |
| FIBER OPTIC
NINESTAR
2243 E MAIN STREET
GREENFIELD, IN 46140
PHONE: (317) 323-2090
CONTACT: JENNIFER McMILLAN | ELECTRIC
NINESTAR
2243 E MAIN STREET
GREENFIELD, IN 46140
PHONE: (317) 323-2090
CONTACT: JENNIFER McMILLAN | |

FLOODPLAIN INFORMATION

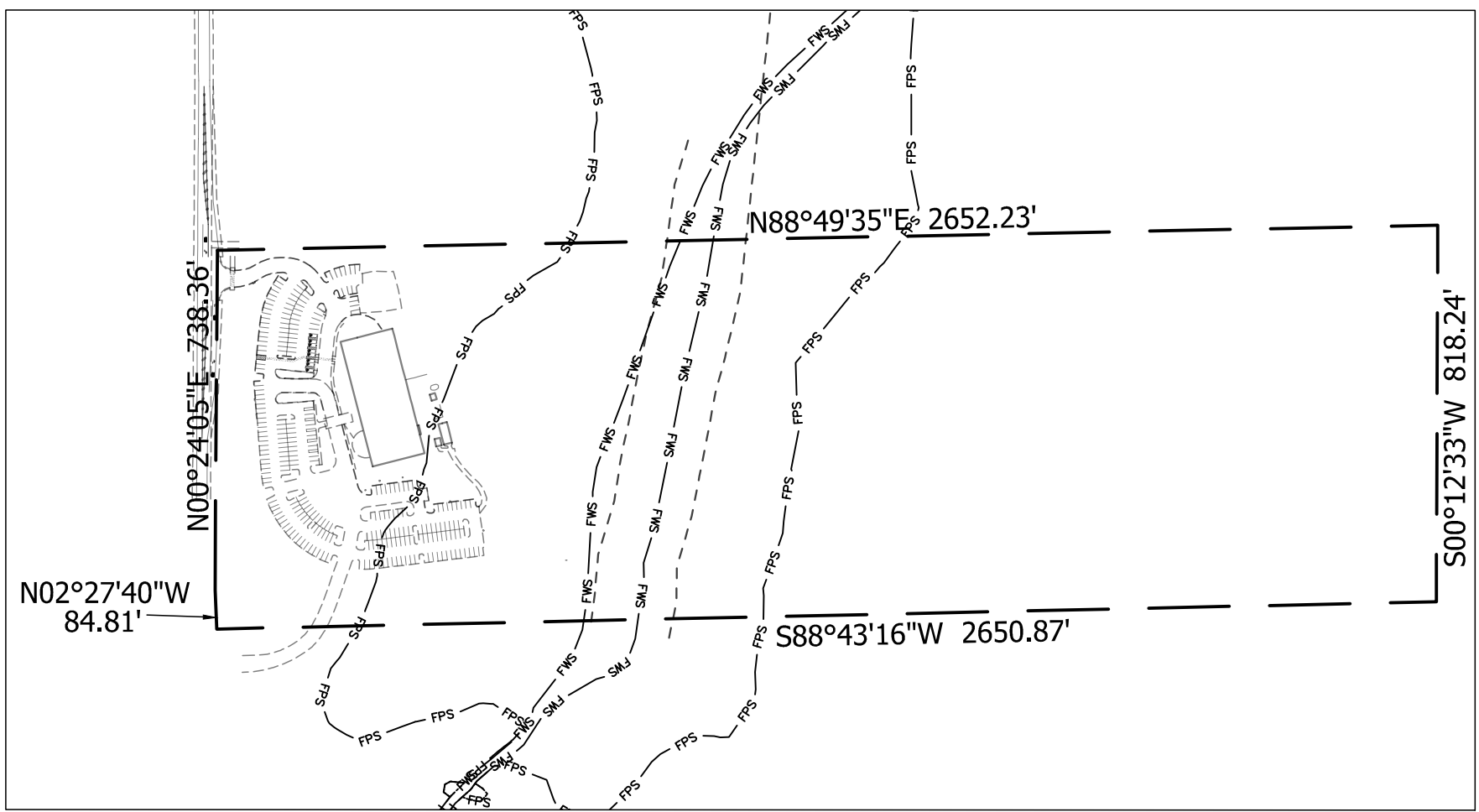
BY GRAPHIC PLOTTING ONLY, THIS TRACT OF LAND DESCRIBED HEREON LIES WITHIN ZONE "X" (AREAS OF 0.2% ANNUAL CHANCE FLOOD; AREAS OF 1% ANNUAL CHANCE FLOOD WITH AVERAGE DEPTHS OF LESS THAN 1 FOOT OR WITH DRAINAGE AREAS LESS THAN 1 SQUARE MILE; AND AREAS PROTECTED BY LEVEES FROM 1% ANNUAL CHANCE FLOOD.) AND SPECIAL FLOOD HAZARD ZONE AE AS PLOTTED ON THE FEDERAL EMERGENCY MANAGEMENT AGENCY FLOOD INSURANCE RATE MAP FOR HANCOCK COUNTY, INDIANA, COMMUNITY PANEL NO. 18059C0018D, WHICH BEARS AN EFFECTIVE DATE OF DECEMBER 4, 2007.

TOPOGRAPHICAL NOTES

- CONTRACTOR SHALL DISPOSE OF ALL MATERIALS IN ACCORDANCE WITH FEDERAL, STATE, AND LOCAL REGULATIONS.
- UTILITIES ARE GRAPHICAL REPRESENTATION PER SURVEY AND MAPPING. CONTRACTOR SHALL FIELD VERIFY ALL UTILITIES PRIOR TO CONSTRUCTION.

BENCHMARK INFORMATION

- BM #1**
BRONZE DISK END. UP 3.0" ON TOP OF 10"x10" CONC. POST; WITNESS POST 1' WEST IN SW QUADRANT OF INTERSECTION OF E. 46TH STREET & N. 800 W. (CARROLL RD.); *US COAST GEODETIC SURVEY BENCHMARK X237 947
ELEV. = 844.25 (NAVD 88)
TBM #400
RR SPIKE SET UP 1' IN WEST SIDE OF POWER POLE; 1ST POLE NORTH OF GAS RELIEF VALVE
ELEV. = 864.99
TBM #401
OUT "I" ON NORTH SIDE OF 24" DIAMETER CONCRETE LIGHT POLE BASE 3' ABOVE GROUND 4.35' EAST SOUTHEAST OF SOUTHEAST FENCE CORNER OF DUMPSTER PAD 2.5' NORTH OF EAST-WEST CURB LINE.
ELEV. = 865.23



KEYMAP
NOT TO SCALE

EXISTING LEGEND

- | | | |
|-------------------|-------------|-----------------------|
| POWERPOLE | --- 800 --- | CONTOURS |
| LIGHT POLE | --- | PROPERTY LINE |
| GUIDE WIRE | --- | RIGHT-OF-WAY |
| FIBER OPTIC RISER | --- | PAVEMENT LINE |
| WATER VALVE | --- | EASEMENT LINE |
| FIRE HYDRANT | --- | FLOODPLAIN LINE |
| WATER METER | --- | FLOODWAY LINE |
| GAS VALVE | --- | FIELD LINE |
| CLEANOUT | --- | FENCE |
| FLAG POLE | --- | CHARLINK FENCE |
| SIGN | --- | WATER EDGE LINE |
| STORM INLETS | --- | WATER LINE |
| BUSHES & STUMP | --- | CABLE TV LINE |
| TEMP. BENCHMARK | --- | OVERHEAD UTILITY LINE |
| MONUMENT FOUND | --- | FIBER OPTIC LINE |
| ASPHALT | --- | TREE LINE |
| BUILDING | --- | SANITARY SEWER |
| CONCRETE | --- | W/MANHOLE |
| GRAVEL | --- | STORM SEWER |
| REMOVAL/DEMOLISH | --- | W/END SECTION |
| FLOODPLAIN | --- | |
| FLOODWAY | --- | |

RECORD DESCRIPTION

INSTR. # 040018585
PART OF THE NORTHWEST QUARTER OF SECTION 36, TOWNSHIP 17 NORTH, RANGE 5 EAST IN HANCOCK COUNTY, INDIANA, DESCRIBED AS FOLLOWS:
BEGINNING AT A POINT ON THE WEST LINE OF SAID NORTHWEST QUARTER SECTION NORTH 00 DEGREES 17 MINUTES 02 SECONDS EAST (BASIS OF BEARINGS) 76.95 FEET FROM THE SOUTHWEST CORNER THEREOF; THENCE NORTH 0 DEGREES 17 MINUTES 02 SECONDS EAST ALONG SAID WEST LINE 823.20 FEET; THENCE NORTH 88 DEGREES 49 MINUTES 35 SECONDS EAST PARALLEL WITH THE NORTH LINE OF SAID QUARTER SECTION 2,684.08 FEET (2,675.15 FEET DEED) TO THE EAST LINE OF SAID QUARTER SECTION THENCE SOUTH 00 DEGREES 12 MINUTES 33 SECONDS WEST ALONG SAID EAST LINE 818.24 FEET; THENCE SOUTH 88 DEGREES 43 MINUTES 16 SECONDS WEST PARALLEL WITH THE SOUTH LINE OF SAID QUARTER SECTION 2,685.28 FEET TO THE POINT OF BEGINNING AND CONTAINING 50.57 ACRES, MORE OR LESS.

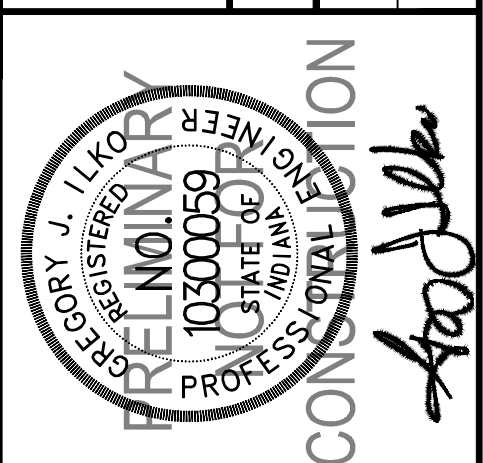
EXCEPT THAT PART CONVEYED TO HANCOCK COUNTY, INDIANA, BY A DEED RECORDED OCTOBER 6, 1993 AS INSTRUMENT NO. 9310020 IN THE OFFICE OF THE RECORDER OF HANCOCK COUNTY, INDIANA, TO-WIT:
A PART OF THE NORTHWEST QUARTER AND A PART OF THE SOUTHWEST QUARTER OF SECTION 36, TOWNSHIP 17 NORTH, RANGE 5 EAST, HANCOCK COUNTY, INDIANA, DESCRIBED AS FOLLOWS:
BEGINNING AT A POINT ON THE SOUTH LINE OF THE NORTHWEST QUARTER OF SAID SECTION SOUTH 89 DEGREES 45 MINUTES 09 SECONDS EAST 15.00 FEET FROM THE SOUTHWEST CORNER OF NORTHWEST QUARTER OF SAID SECTION, WHICH THE POINT OF BEGINNING IS ON THE EAST BOUNDARY OF COUNTY ROAD 600 WEST; THENCE NORTH 00 DEGREES 24 MINUTES 09 SECONDS EAST 900.50 FEET ALONG THE BOUNDARY OF SAID COUNTY ROAD 600 WEST TO THE NORTH LINE OF THE OWNER'S LAND; THENCE NORTH 88 DEGREES 55 MINUTES 48 SECONDS EAST 15.00 FEET ALONG SAID NORTH LINE; THENCE SOUTH 00 DEGREES 24 MINUTES 09 SECONDS WEST 738.26 FEET; THENCE SOUTH 2 DEGREES 27 MINUTES 40 SECONDS EAST 100.12 FEET; THENCE SOUTH 0 DEGREES 09 MINUTES 29 SECONDS WEST 299.81 FEET; THENCE SOUTH 6 DEGREES 29 MINUTES 17 SECONDS EAST 130.86 FEET; THENCE SOUTH 0 DEGREES 05 MINUTES 38 SECONDS WEST 40.00 FEET; THENCE SOUTH 6 DEGREES 40 MINUTES 35 SECONDS WEST 130.89 FEET; THENCE SOUTH 5 DEGREES 35 MINUTES 11 SECONDS EAST 225.70 FEET TO THE SOUTH LINE OF THE OWNER'S LAND; THENCE SOUTH 08 DEGREES 54 MINUTES 20 SECONDS WEST 42.35 FEET ALONG SAID SOUTH LINE TO THE EAST BOUNDARY OF COUNTY ROAD 600 WEST; THENCE NORTH 0 DEGREES 05 MINUTES 38 SECONDS EAST 762.77 FEET ALONG THE BOUNDARY OF SAID COUNTY ROAD 600 WEST TO THE POINT OF BEGINNING AND CONTAINING 0.790 ACRES, MORE OR LESS.

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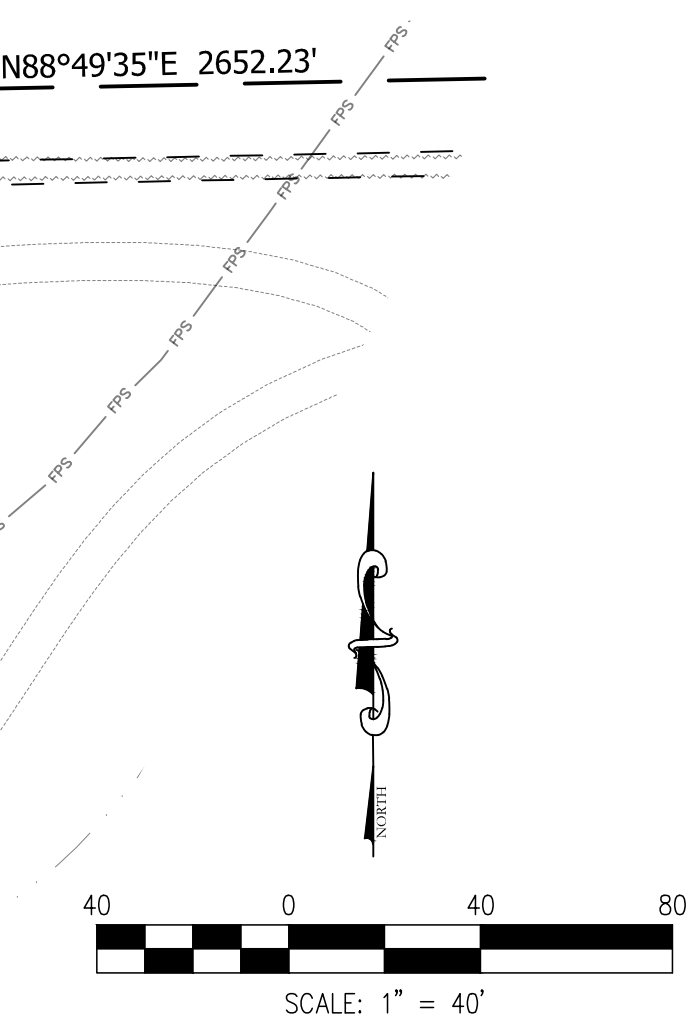
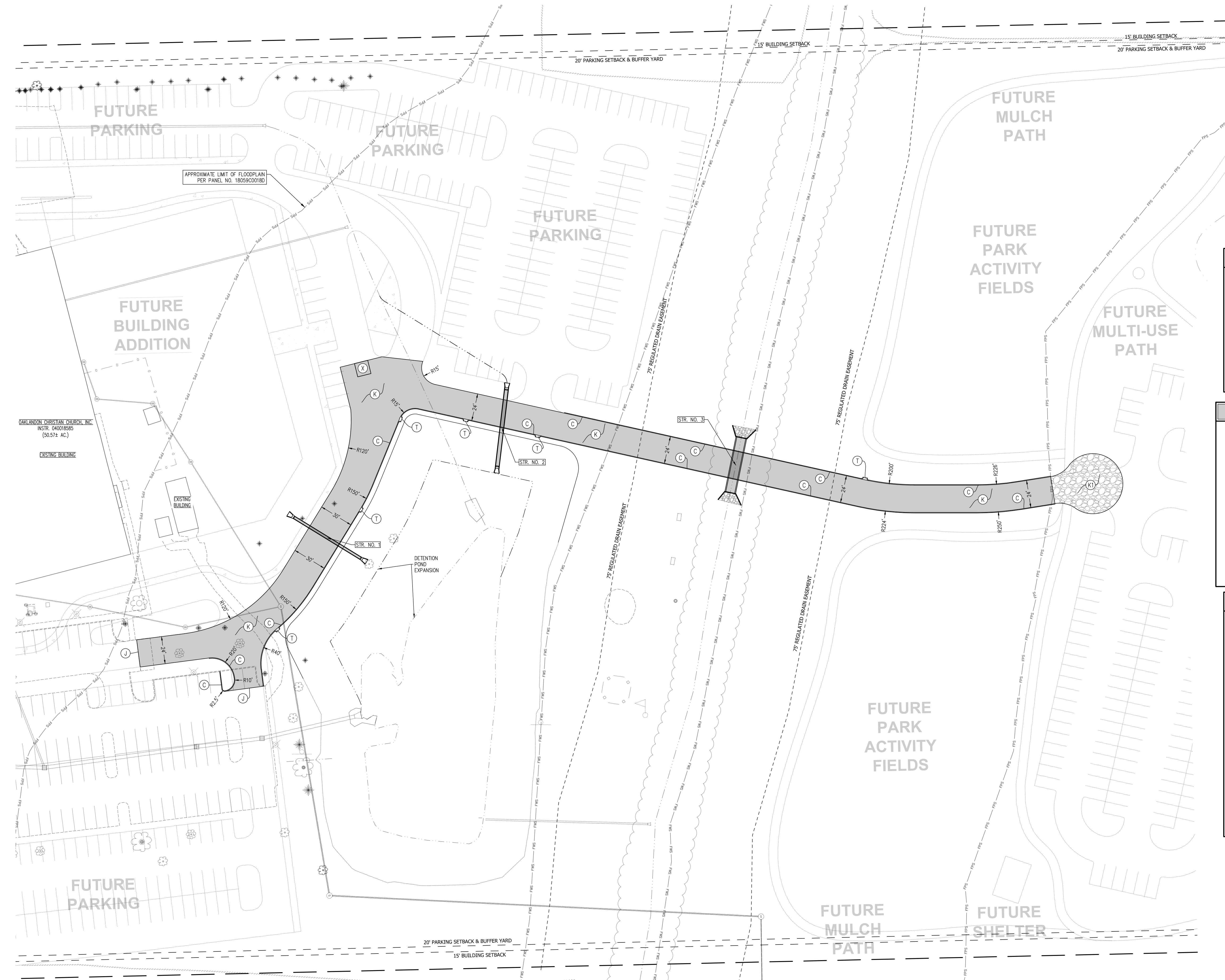
NOTE: The underground utilities shown have been located from field survey information and existing drawings. The surveyor makes no guarantees that the underground utilities comprise all such utilities in the area, either in-service or abandoned. The surveyor further does not warrant that the underground utilities shown are in the exact location indicated although the surveyor does certify that they are located as accurately as possible from information available. The surveyor has not physically located the underground utilities.

SITE DIMENSION PLAN
OUTLOOK CHRISTIAN CHURCH

JOB NO.	DATE	DESIGNED	DRAWN	CHECKED	TEN
	AUGUST 23, 2019				



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PARKING ANALYSIS

CHURCH EXISTING SEATS	= 650 SEATS
FUTURE SEATS	= 550 SEATS
TOTAL SEATS (PER MASTER PLAN)	= 1200 SEATS
REQUIRED RATIO	= 1 SPACE/3 SEATS
TOTAL REQUIRED SPACES	= 400 SPACES
EXISTING STANDARD PARKING SPACES	= 256 SPACES
EXISTING HANDICAP ACCESSIBLE SPACES	= 19 SPACES
FUTURE STANDARD PARKING SPACES	= 317 SPACES
EXISTING SPACES REMOVED BY FUTURE IMPROVEMENTS	= 24 SPACES
TOTAL PARKING SPACES (MASTER PLAN FULL BUILDOUT)	= 568 SPACES

SITE DIMENSION LEGEND

(A)	MULCH SEEDING/LANDSCAPE AREAS
(C)	STRAIGHT CONCRETE CURB (SEE DETAIL-SHEET 700)
(J)	SAWCUT
(K)	TYPICAL ASPHALT SECTION 1" HMA SURFACE 9.5mm, ON 3.0" HMA INTERMEDIATE 19.0mm, ON 6" COMPACTED AGGREGATE #53, ON COMPACTED SUBGRADE (SEE DETAIL-SHEET 700)
(K1)	TEMPORARY CUL-DE-SAC SECTION 6" COMPACTED AGGREGATE #53, ON COMPACTED SUBGRADE (SEE DETAIL-SHEET 700)
(M)	DRAINAGE SWALE
(T)	CURB TURNOUT (SEE DETAIL-SHEET 700)
(X)	TEMPORARY DUMPSTER (BY OTHERS)
(---)	PROPERTY LINE
(---)	DITCH LINE
(---)	STORM SEWER W/ END SECTIONS

- SITE DIMENSION NOTES**
- LIGHTING SHALL CONFORM TO TOWN OF McCORDSVILLE STANDARDS. CONTRACTOR SHALL COORDINATE WITH OWNER AND/OR TOWN FOR LIGHT STYLES AND LAYOUT.
 - CONTRACTOR SHALL NOTIFY ENGINEER, IF PROOF ROLL OF SUBGRADE FAILS, TO DETERMINE IF UNDERCUTTING OF SUBGRADE IS NECESSARY.
 - ALL RADI DIMENSIONS ARE TO THE PROPOSED EDGE OF ASPHALT/FACE OF CURB.
 - SIGNAGE SHALL INCLUDE ALL NECESSARY HARDWARE AND FITTINGS, INCLUDING 10 FT. OF 1 1/2 GAUGE FLANGED CHANNEL SIGN POST.
 - REFER TO ARCHITECTURAL PLANS FOR ADDITIONAL SIGNAGE. VERIFY CONFLICTS WITH OWNER.
 - CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING TRAFFIC AND PROVIDING ALL NECESSARY FLAGMAN, BARRELS, SIGNAGE, ETC. DURING CONSTRUCTION. ALL APPLICABLE M.U.T.C.D. STANDARDS SHALL GOVERN THIS WORK.
 - CONTRACTOR SHALL COORDINATE WITH APPLICABLE UTILITY COMPANIES AND BUILDING PLANS FOR WATER, CABLE, ELECTRIC, GAS, AND TELEPHONE CONNECTION SERVICE POINTS.
 - EXISTING UTILITY SIZE AND MATERIAL INFORMATION SHOWN ON THESE PLANS ARE PER THE BEST GRAPHICAL AND VISIBLE INFORMATION AVAILABLE. CONFLICTS MAY EXIST AND IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY ALL SIZING AND MATERIAL INFORMATION PROVIDED. IF ACTUAL CONDITIONS DIFFER FROM THAT INFORMATION SHOWN ON THE PLANS, THE CONTRACTOR SHALL, PRIOR TO THE INSTALLATION OF ANY PROPOSED INFRASTRUCTURE, NOTIFY THE DESIGN ENGINEER IMMEDIATELY.
 - CONTRACTOR TO COORDINATE WITH ARCHITECT AND MEP PLANS FOR ALL INTERNAL UTILITY SERVICE CONNECTIONS.
 - ALL EXISTING CURBING AND SIDEWALKS TO BE REMOVED SHALL BE SAWCUT AT THE NEAREST EXISTING JOINT BEYOND THE REMOVAL LIMITS.
 - OWNER TO SELECT EXACT SPECIES OF PROPOSED TREES AND LANDSCAPING MATERIALS.

NOTE: THE 20' BUFFERYARD ALONG THE NORTH PROPERTY LINE AND ALL PLANTINGS WITHIN SAID BUFFERYARD SHALL BE MAINTAINED IN PERPETUITY.

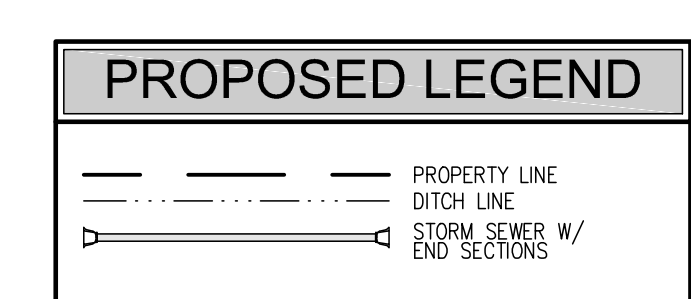
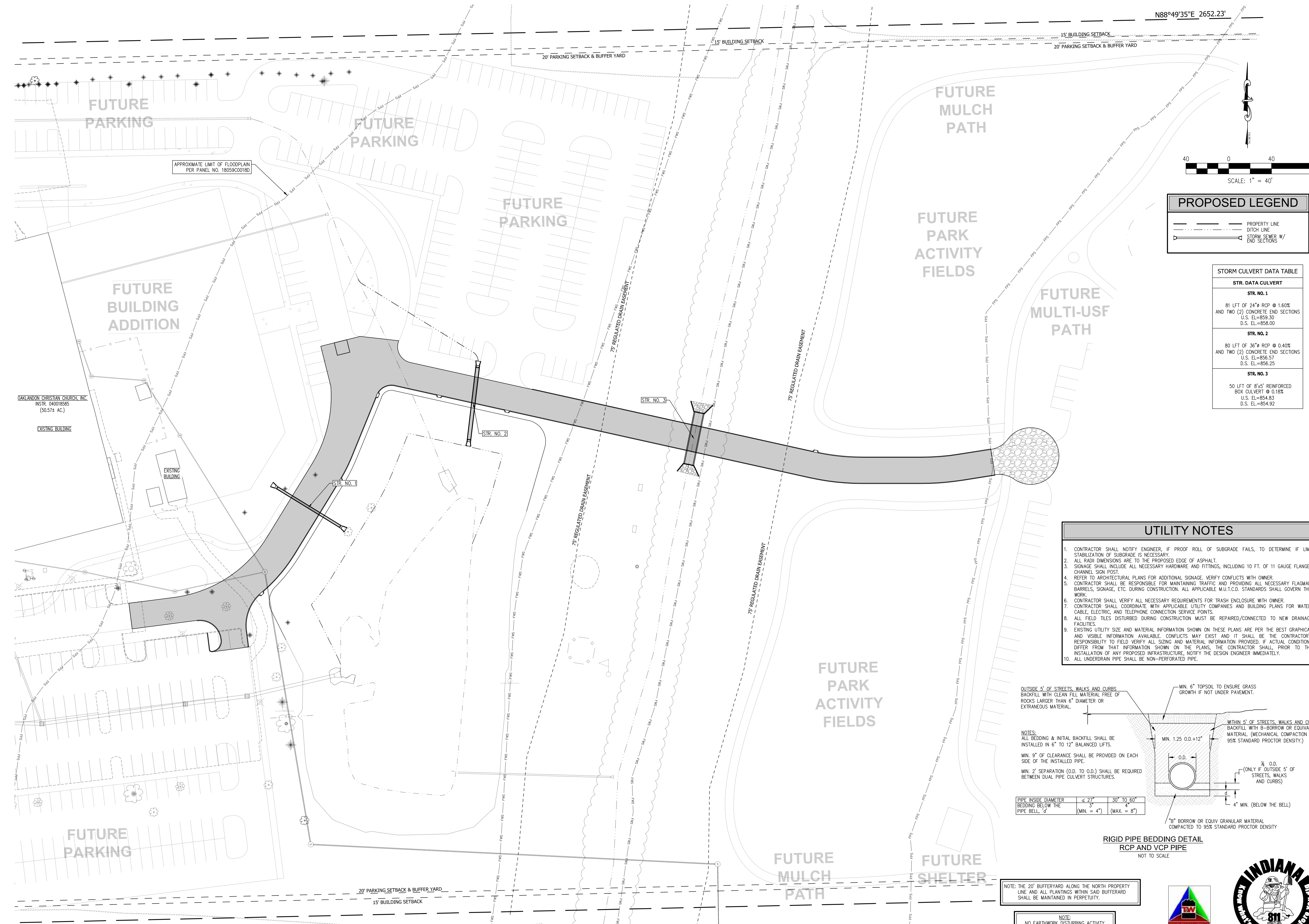
NOTE: NO EARTHWORK DISTURBING ACTIVITY MAY COMMENCE UNTIL A STORM WATER MANAGEMENT PERMIT IS OBTAINED.



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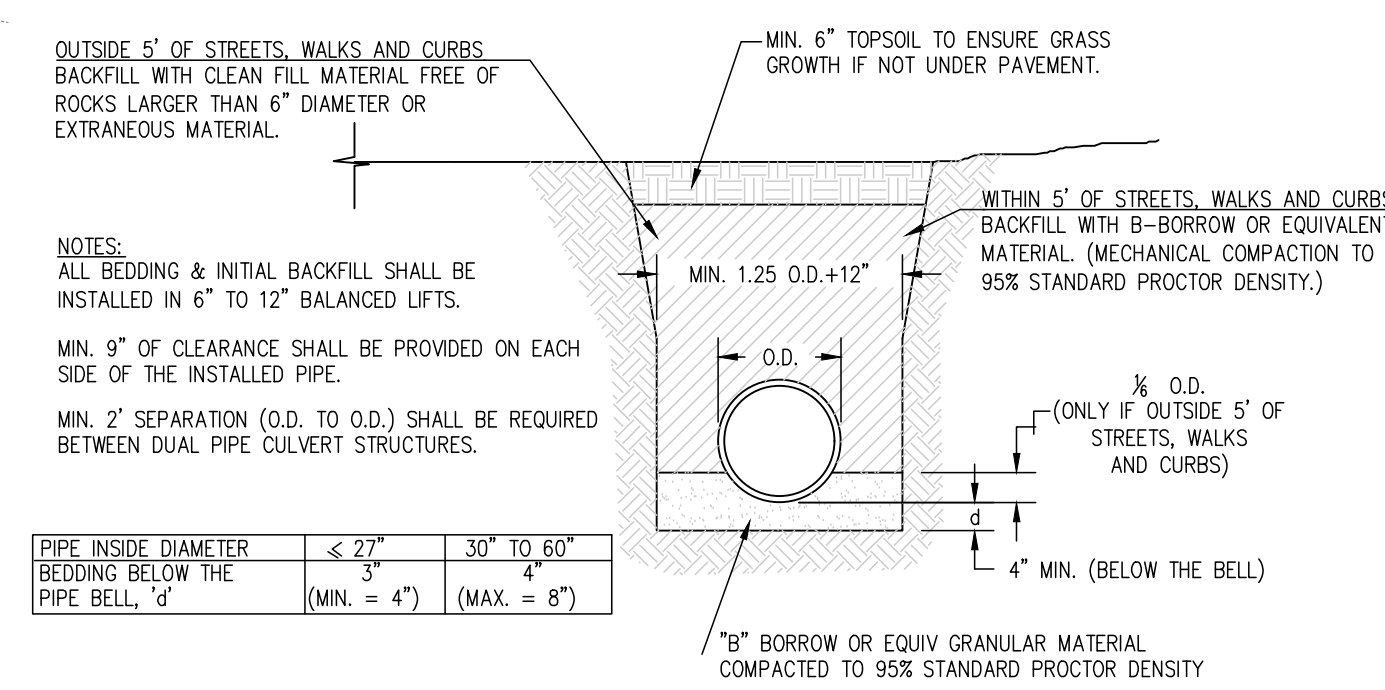


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STORM CULVERT DATA TABLE	
STR. DATA CULVERT	
STR. NO. 1	81 LFT OF 24" RCP @ 1.60% AND TWO (2) CONCRETE END SECTIONS U.S. EL.=859.30 D.S. EL.=858.00
STR. NO. 2	80 LFT OF 36" RCP @ 0.40% AND TWO (2) CONCRETE END SECTIONS U.S. EL.=856.57 D.S. EL.=856.25
STR. NO. 3	50 LFT OF 8'x5' REINFORCED BOX CULVERT @ 0.18% U.S. EL.=854.83 D.S. EL.=854.92

- UTILITY NOTES**
- CONTRACTOR SHALL NOTIFY ENGINEER, IF PROOF ROLL OF SUBGRADE FAILS, TO DETERMINE IF LIME STABILIZATION OF SUBGRADE IS NECESSARY.
 - ALL RADIUS DIMENSIONS ARE TO THE PROPOSED EDGE OF ASPHALT.
 - SIGNAGE SHALL INCLUDE ALL NECESSARY HARDWARE AND FITTINGS, INCLUDING 10 FT. OF 11 GAUGE FLANGED CHANNEL SIGN POST.
 - REFER TO ARCHITECTURAL PLANS FOR ADDITIONAL SIGNAGE. VERIFY CONFLICTS WITH OWNER.
 - CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING TRAFFIC AND PROVIDING ALL NECESSARY FLAGMAN, BARRELS, SIGNAGE, ETC. DURING CONSTRUCTION. ALL APPLICABLE M.U.T.C.D. STANDARDS SHALL GOVERN THIS WORK.
 - CONTRACTOR SHALL VERIFY ALL NECESSARY REQUIREMENTS FOR TRASH ENCLOSURE WITH OWNER.
 - CONTRACTOR SHALL COORDINATE WITH APPLICABLE UTILITY COMPANIES AND BUILDING PLANS FOR WATER, CABLE, ELECTRIC, AND TELEPHONE CONNECTION SERVICE POINTS.
 - ALL FIELD TILES DISTURBED DURING CONSTRUCTION MUST BE REPAIRED/CONNECTED TO NEW DRAINAGE FACILITIES.
 - EXISTING UTILITY SIZE AND MATERIAL INFORMATION SHOWN ON THESE PLANS ARE PER THE BEST GRAPHICAL AND VISIBLE INFORMATION AVAILABLE. CONFLICTS MAY EXIST AND IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY ALL SIZING AND MATERIAL INFORMATION PROVIDED. IF ACTUAL CONDITIONS DIFFER FROM THAT INFORMATION SHOWN ON THE PLANS, THE CONTRACTOR SHALL, PRIOR TO THE INSTALLATION OF ANY PROPOSED INFRASTRUCTURE, NOTIFY THE DESIGN ENGINEER IMMEDIATELY.
 - ALL UNDERDRAIN PIPE SHALL BE NON-PERFORATED PIPE.



NOTE: THE 20' BUFFERYARD ALONG THE NORTH PROPERTY LINE AND ALL PLANTINGS WITHIN SAID BUFFERYARD SHALL BE MAINTAINED IN PERPETUITY.

NOTE: NO EARTHWORK DISTURBING ACTIVITY MAY COMMENCE UNTIL A STORM WATER MANAGEMENT PERMIT IS OBTAINED.

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NOTE: NO EARTHWORK DISTURBING ACTIVITY MAY COMMENCE UNTIL A STORM WATER MANAGEMENT PERMIT IS OBTAINED.

NOTE: THE 20' BUFFERYARD ALONG THE NORTH PROPERTY LINE AND ALL PLANTINGS WITHIN SAID BUFFERYARD SHALL BE MAINTAINED IN PERPETUITY.

PUMP AROUND DIVERSION MATERIAL SPECIFICATIONS:

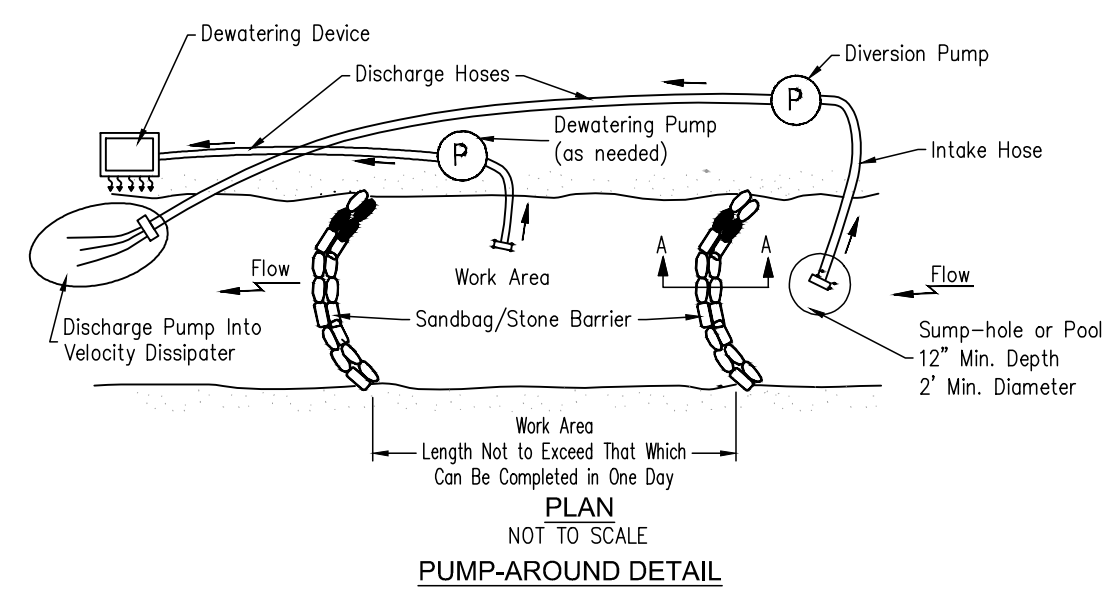
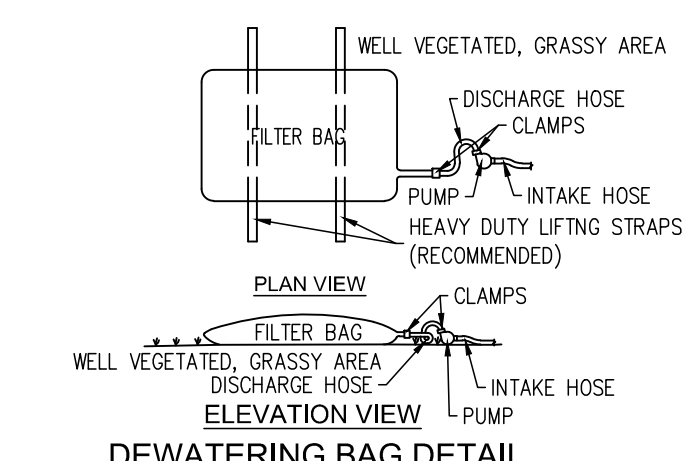
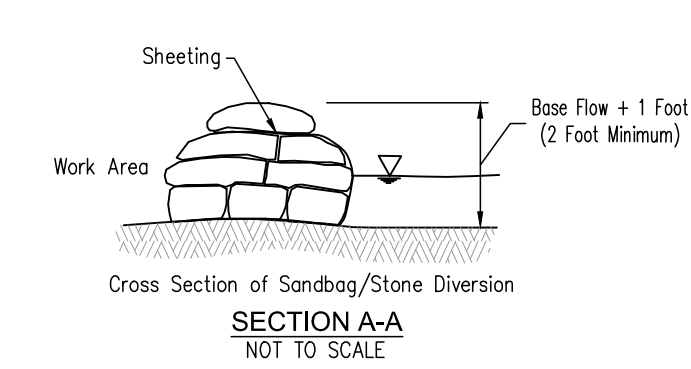
- In-stream Barrier:** Either riprap or sandbags. Sandbags maybe filled on site or pre-filled and made of butyl or polypropylene materials which are resistant to ultraviolet radiation, tearing, and puncture and should be woven tightly enough to prevent leakage of the fill material (i.e., sand, fine gravel, etc.).
- Sheeting:** Seamless polyethylene plastic sheeting with a minimum 4-mil thickness impervious and resistant to puncture, tearing and ultraviolet degradation or equivalent.
- Pumping Equipment:** Electric, diesel or gasoline venturi, vacuum, or centrifugal primed pump. Appropriately sized rigid intake and discharge pipe/hose with positive restrained joints. Necessary connectors and properly stored fuel.
- Dewatering Structure:** Sediment/grit bag per manufacturers specifications.
- Velocity Dissipator:** Riprap or sandbag lined "plunge pool" sized to be non-errosive of the discharge pipe velocity.

CONSTRUCTION RECOMMENDATIONS:

- Sandy material may be used to fill sandbags.
- The length of stream dewatered should be determined by the amount of work that can be completed in one workday. Continuous pumping adds increased costs and risks of failure and delay.
- Where possible, utilize existing pools within the stream in place of an excavated sump-hole.
- Strategic placement of the in-stream barrier can eliminate multiple installations during construction.
- Remove all large debris located within the foundation of the barrier to ensure proper seating and reduce leakage through the barrier.
- Sandbag/stone barrier should be monitored daily for leakage and repaired as necessary.

INSTALLATION GUIDELINES:

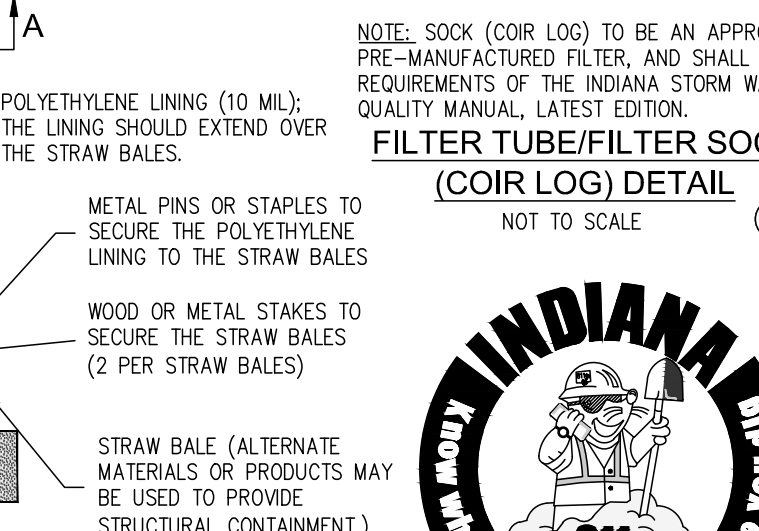
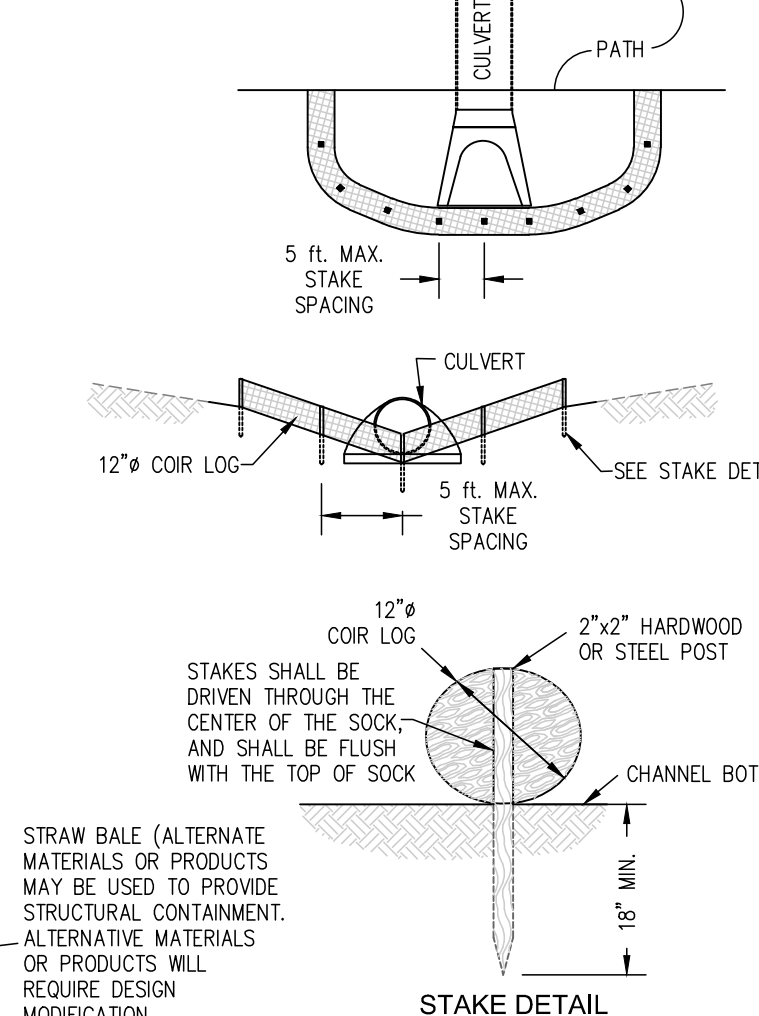
- Excavate sump hole or identify existing pool upstream of the work area.
- Install velocity dissipator downstream of the work area.
- Set up pump and hose/pipe.
- Install upstream and downstream barriers and start pump.
- Use de-watering pump and dewatering device to remove water left between the in-stream barriers after primary pump installation and as needed during construction.
- Complete in-stream construction activities and remove in-stream barriers.
- Restore/repair impacted stream areas.



ADDITIONAL EROSION CONTROL MEASURES MAY BE REQUIRED BY STATE OR COUNTY OFFICIALS

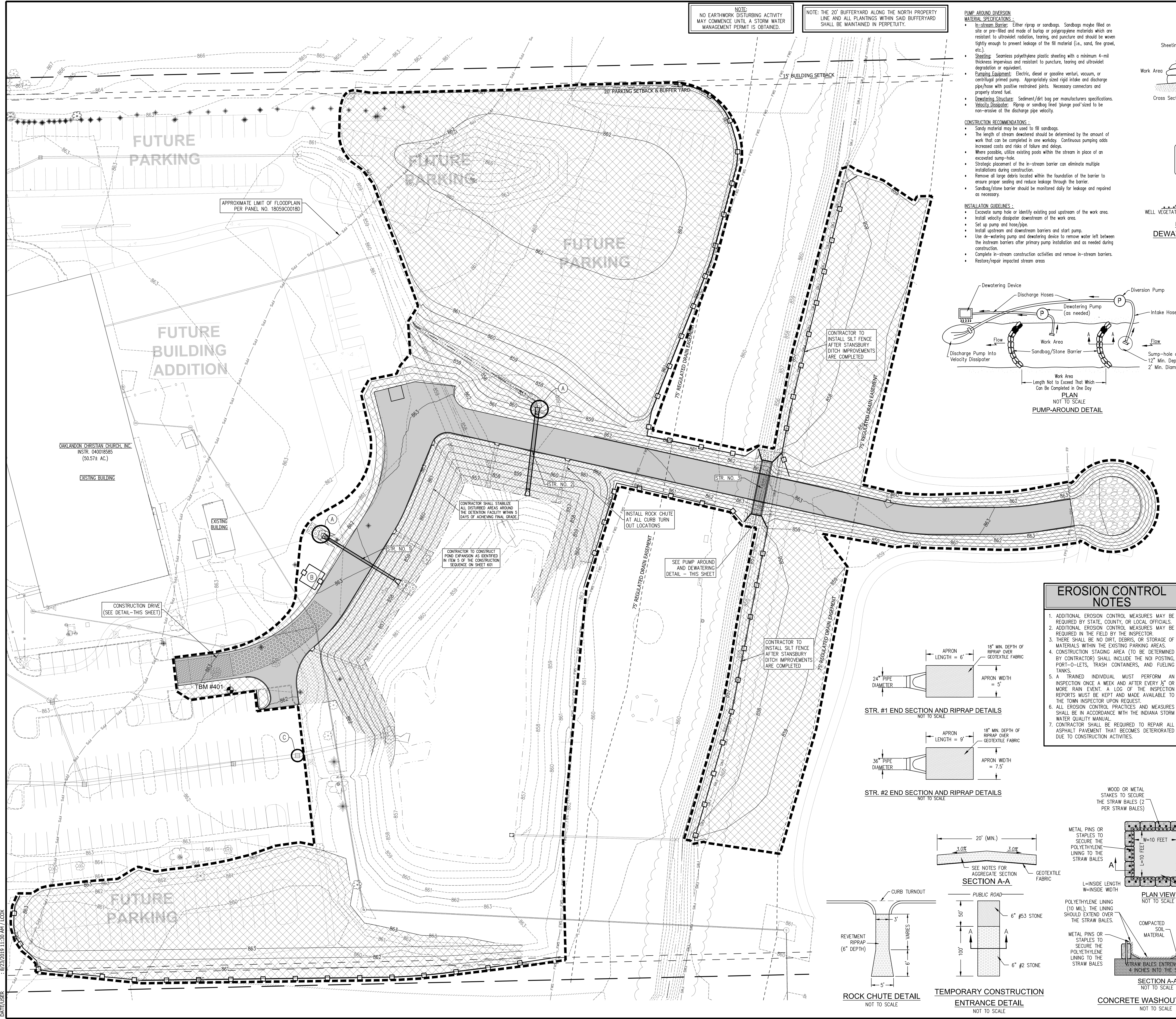
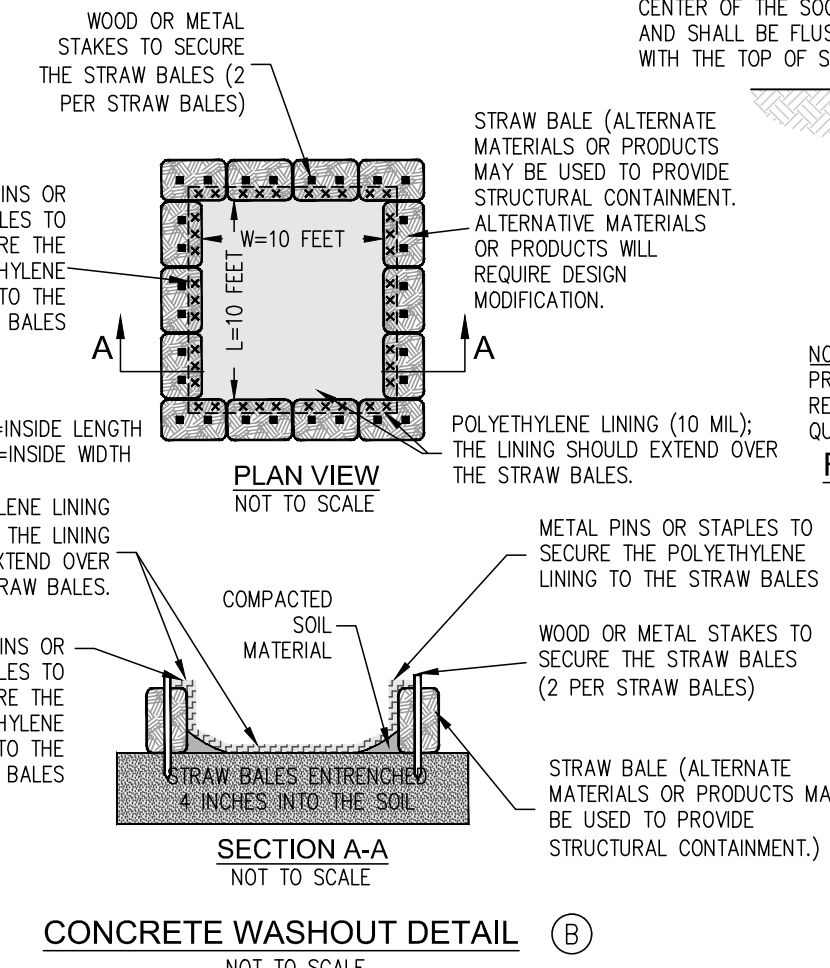
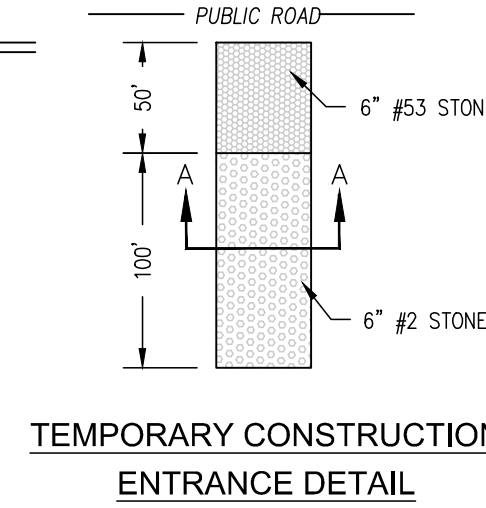
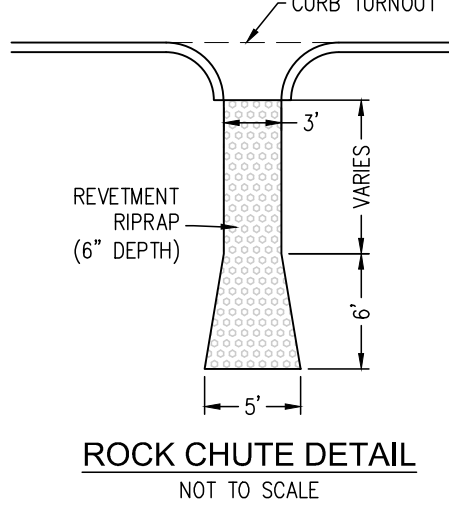
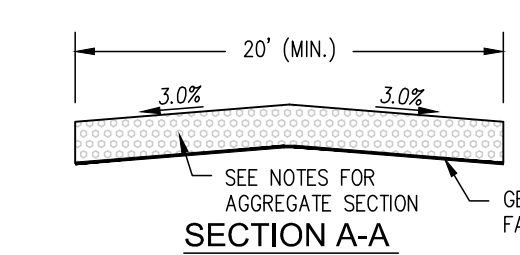
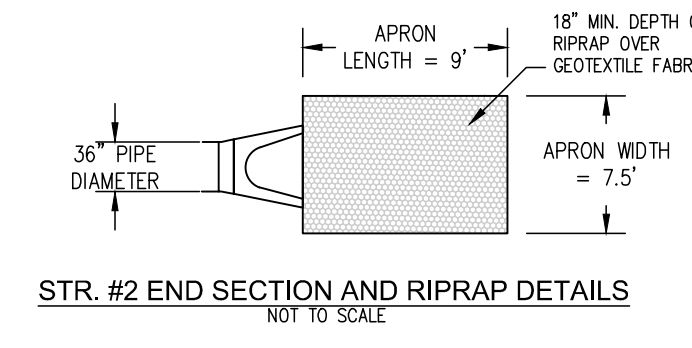
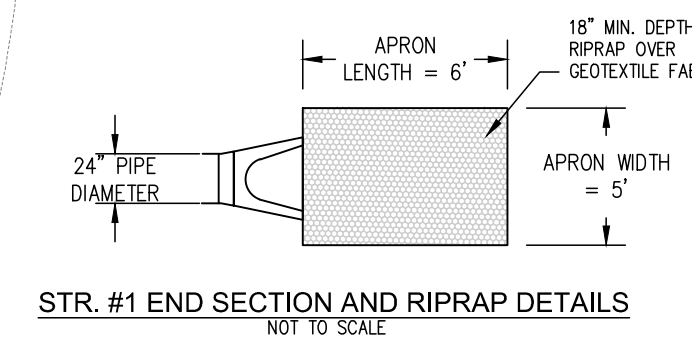
EROSION CONTROL LEGEND

- MULCHED SEEDING
- EROSION CONTROL BLANKET (NORTH AMERICAN GREEN SC-150 OR EQUAL) AND MULCHED SEEDING
- REVETMENT RIPRAP
- CONSTRUCTION DRIVE (SEE DETAIL-THIS SHEET)
- EXISTING CONTOURS
- PROPOSED CONTOURS
- SILT FENCE SLOPE CHECK (NUTEC 3 NWS-6 OR APPROVED EQUAL)
- CONSTRUCTION LIMITS
- FILTER TUBE/FILTER SOCK (COIR LOG) (SEE DETAIL-THIS SHEET)
- CONCRETE WASHOUT AREA (SEE DETAIL-THIS SHEET)
- SILT SACK INLET FILTER (SEE DETAIL-SHEET 601)



EROSION CONTROL NOTES

- ADDITIONAL EROSION CONTROL MEASURES MAY BE REQUIRED BY STATE, COUNTY, OR LOCAL OFFICIALS.
- ADDITIONAL EROSION CONTROL MEASURES MAY BE REQUIRED IN THE FIELD BY THE INSPECTOR.
- THERE SHALL BE NO DIRT, DEBRIS, OR STORAGE OF MATERIALS WITHIN THE EXISTING PARKING AREAS.
- CONSTRUCTION STAGING AREA (TO BE DETERMINED BY CONTRACTOR) SHALL INCLUDE THE NOI POSTING, PORT-O-LETS, TRASH CONTAINERS, AND FUELING TANKS.
- A TRAINED INDIVIDUAL MUST PERFORM AN INSPECTION ONCE A WEEK AND AFTER EVERY 1/2" OR MORE RAIN EVENT. A LOG OF THE INSPECTION REPORTS MUST BE KEPT AND MADE AVAILABLE TO THE TOWN INSPECTOR UPON REQUEST.
- ALL EROSION CONTROL PRACTICES AND MEASURES SHALL BE IN ACCORDANCE WITH THE INDIANA STORM WATER QUALITY MANUAL.
- CONTRACTOR SHALL BE REQUIRED TO REPAIR ALL ASPHALT PAVEMENT THAT BECOMES DETERIORATED DUE TO CONSTRUCTION ACTIVITIES.



CONSTRUCTION ENGINEER

DATE: AUGUST 23, 2019

DESIGNED: D.M.

DRAWN: KLF/JMC

CHECKED: TEN

APPR.: G.J.

EROSION CONTROL PLAN

OUTLOOK CHRISTIAN CHURCH

NO. 9

8

7

6

5

4

3

2

1

DATE

REVISIONS

BY

APPR.

SHEET **600**

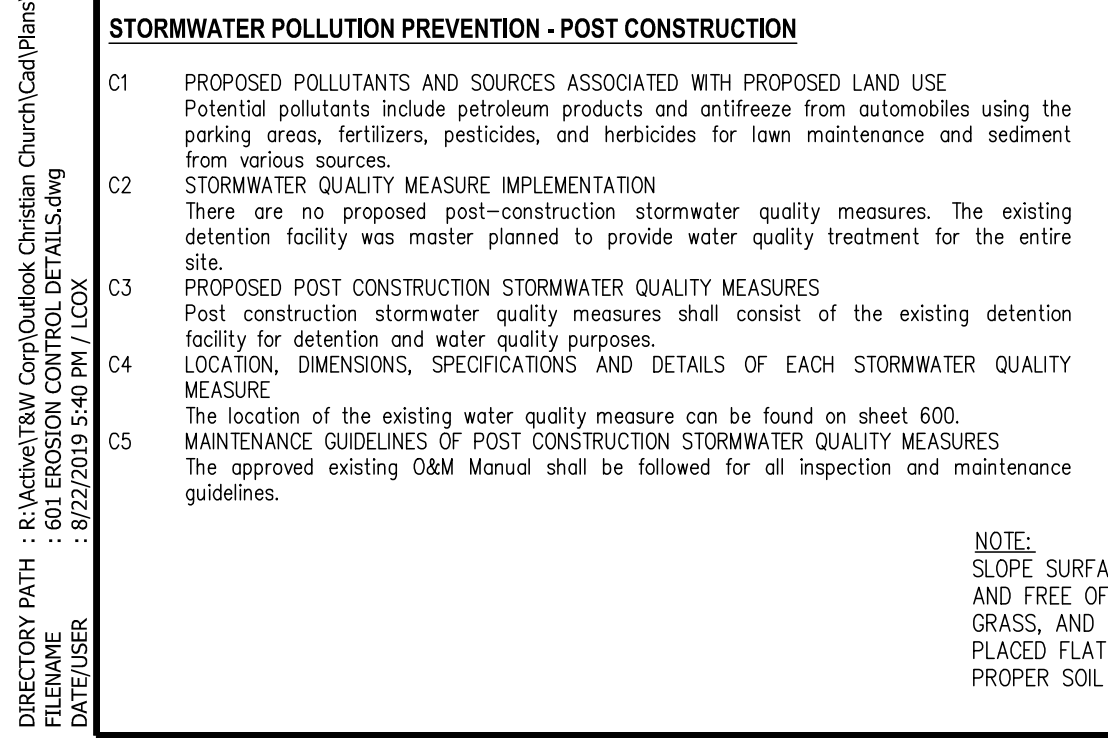
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 DATE/USER : 8/22/2019 11:30 AM / LLOOZ

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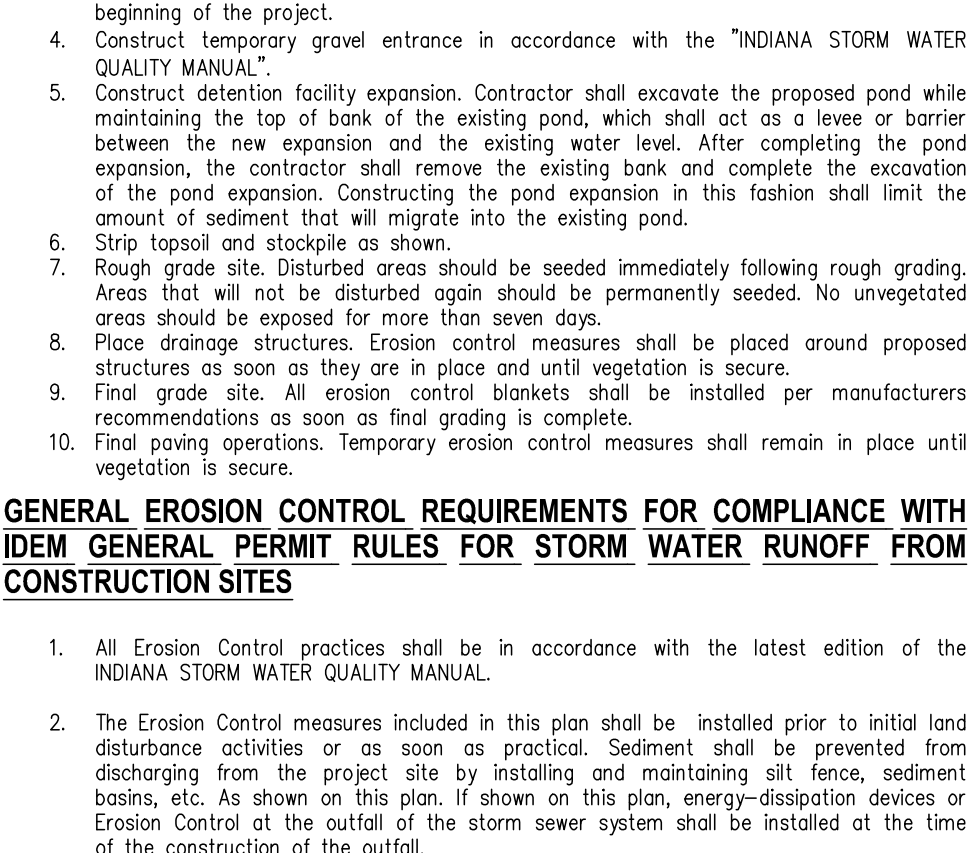
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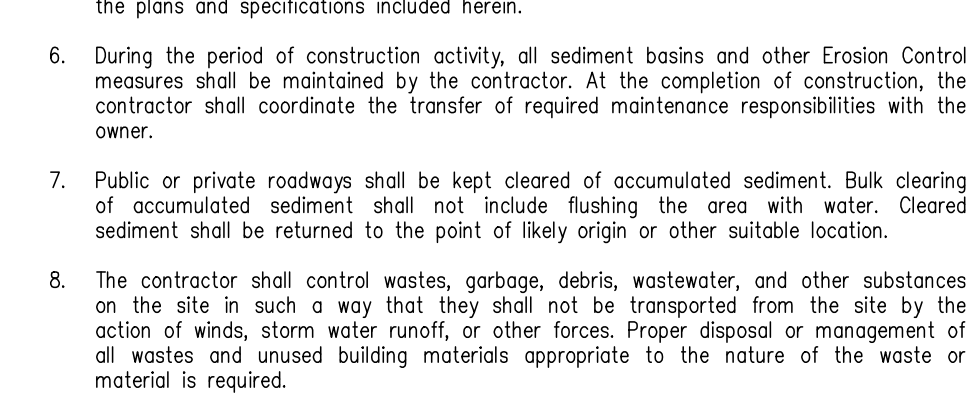
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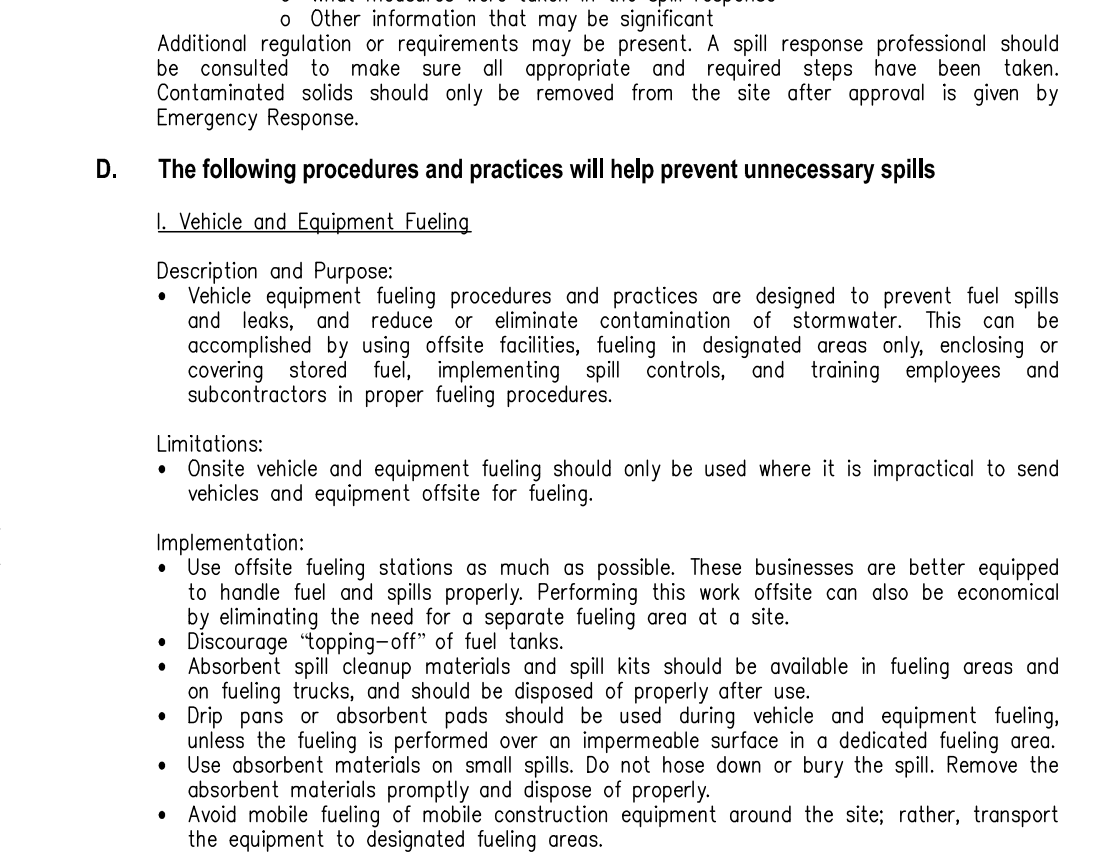
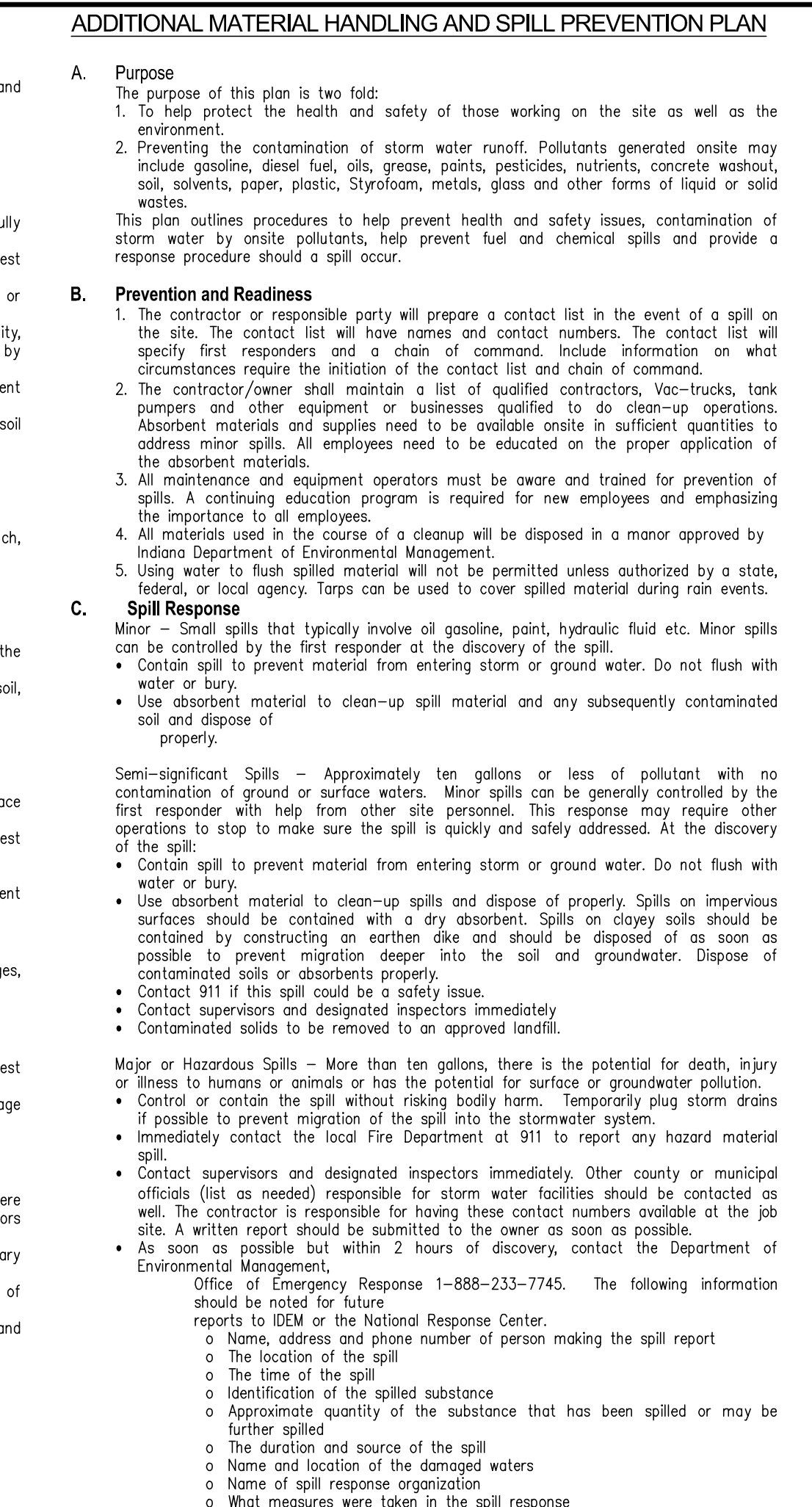
ADDITIONAL MATERIAL HANDLING AND SPILL PREVENTION PLAN
A. Purpose
1. To help protect the health and safety of those working on the site as well as the environment.
2. Preventing the contamination of storm water runoff. Pollutants generated onsite may include gasoline, diesel fuel, oils, grease, paints, pesticides, nutrients, concrete washout, solvents, paper, plastic, Styrofoam, metals, glass and other forms of liquid or solid waste.
3. The spill routines procedures to help prevent health and safety issues, contamination of storm water by onsite pollutants, help prevent fuel and chemical spills and provide a response procedure should a spill occur.
B. Prevention and Readiness
1. The contractor or responsible party will prepare a contact list in the event of a spill on the site. The contact list will have names and contact numbers. The contact list will specify first responders and a chain of command. Include information on what circumstances require the initiation of the contact list and chain of command.
2. The contractor/owner shall maintain a list of qualified contractors, Vac-trucks, tank pumpers and other equipment or businesses qualified to do clean-up operations. Absorbent materials and supplies need to be available onsite in sufficient quantities to address minor spills. All employees need to be educated on the proper application of the absorbent materials.
3. All maintenance and equipment operators must be aware and trained for prevention of spills. A continuing education program is required for new employees and emphasizing the importance to all employees of spill prevention.
4. All materials used in the course of a cleanup will be disposed in a manner approved by Indiana Department of Environmental Management.
5. Using water to flush spilled material will not be permitted unless authorized by a state, federal, or local agency. Tarp can be used to cover spilled material during rain events.
C. Spill Response
Minor - Small spills that typically involve oil, gasoline, paint, hydraulic fluid etc. Minor spills can be controlled by the first responder at the discovery of the spill.
Major or Hazardous Spills - More than ten gallons, there is the potential for death, injury or illness to humans or animals or has the potential for surface or groundwater pollution.
D. The following procedures and practices will help prevent unnecessary spills
I. Vehicle and Equipment Fueling
Description and Purpose:
Limitations:
Implementation:
II. Solid Waste Management
Description and Purpose:
Limitations:
Implementation:
III. Concrete Washout
Implementation:
IV. Vehicle Maintenance Areas
Implementation:
V. Fluids, paints, solvents and other chemicals storage and use
Purpose - To prevent spills during the use and storage of the materials
Implementation:



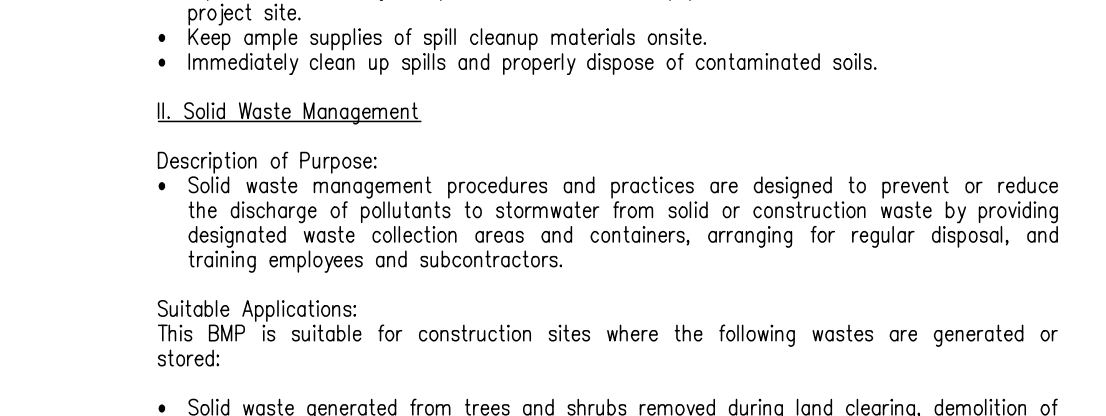
SOIL TYPE	PERCENTAGE	PERCENTAGE	PERCENTAGE	PERCENTAGE	PERCENTAGE	PERCENTAGE
Chesapeake Red Fescue	2	1	2	1	1	1
Kentucky Bluegrass	2	1	2	1	1	1
Tall Fescue	2	1	1	1	1	1
Perennial Ryegrass	2	1	1	2	1	2
Crownvetch	-	-	-	-	-	-
Red Clover	-	-	-	-	-	-
Timothy	-	-	-	-	-	-



LEVEL AND SLOPE	SPECIES	PERMANENT SEED MIXTURES	TEMPORARY SEED MIXTURES
1	1	1	1
2	1	1	1
3	1	1	1
4	1	1	1
5	1	1	1
6	1	1	1
7	1	1	1
8	1	1	1
9	1	1	1
10	1	1	1
11	1	1	1
12	1	1	1
13	1	1	1
14	1	1	1
15	1	1	1
16	1	1	1
17	1	1	1
18	1	1	1
19	1	1	1
20	1	1	1



SLOPE	SOIL	PERCENTAGE	PERCENTAGE	PERCENTAGE	PERCENTAGE	PERCENTAGE	PERCENTAGE	PERCENTAGE	PERCENTAGE
4:1	1	1	1	1	1	1	1	1	1
3:1	1	1	1	1	1	1	1	1	1
2:1	1	1	1	1	1	1	1	1	1
1:1	1	1	1	1	1	1	1	1	1
LOW FLOW CHANNEL	1	1	1	1	1	1	1	1	1
HIGH CHANNEL	1	1	1	1	1	1	1	1	1



SOIL TYPE	PERCENTAGE	PERCENTAGE	PERCENTAGE	PERCENTAGE	PERCENTAGE	PERCENTAGE
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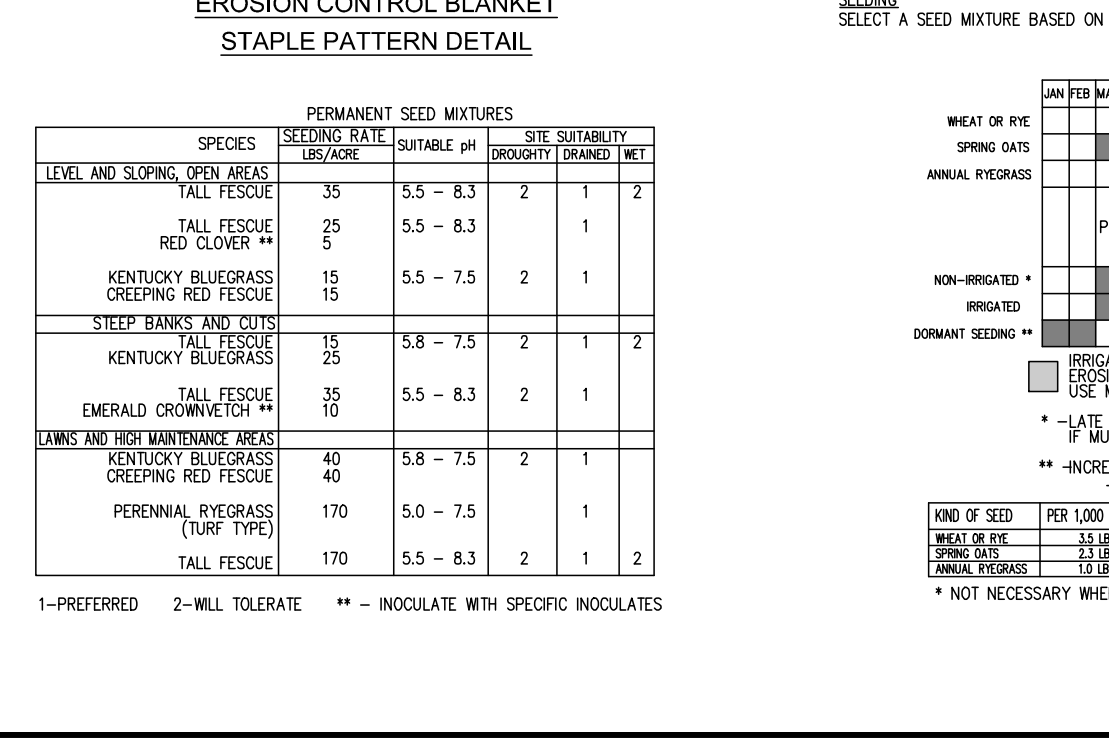
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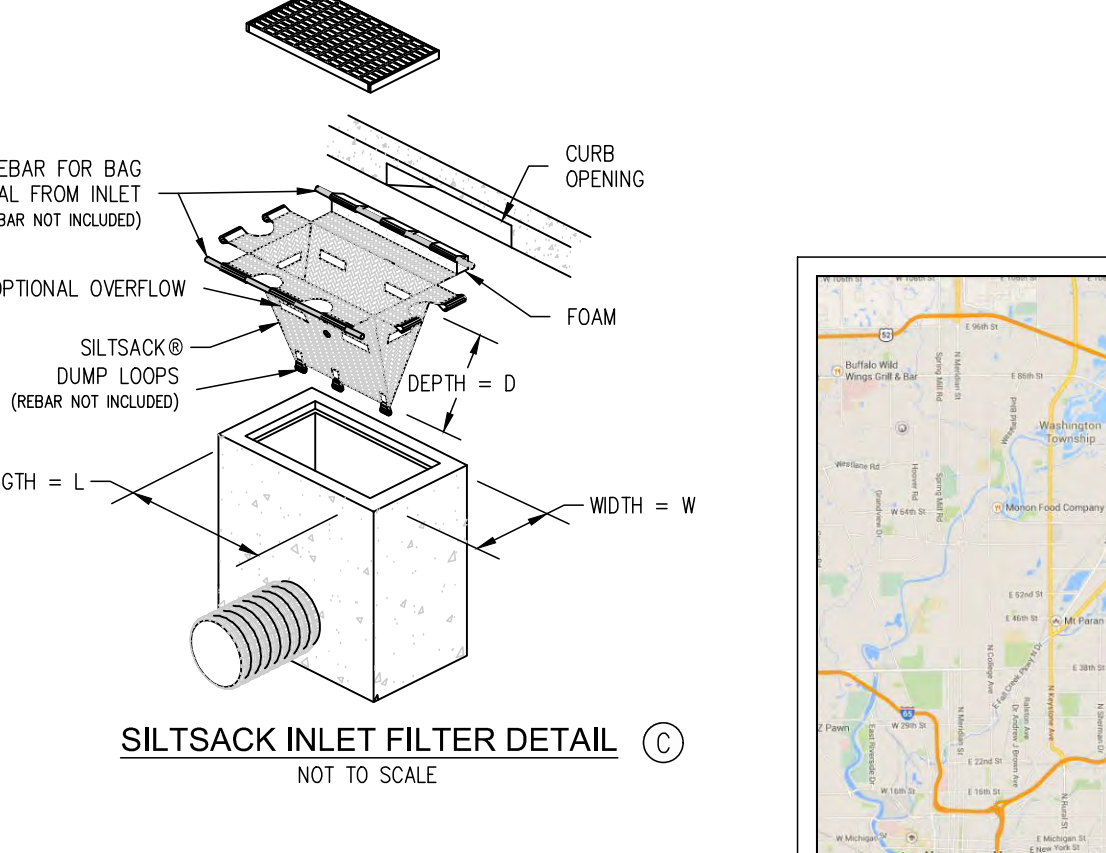
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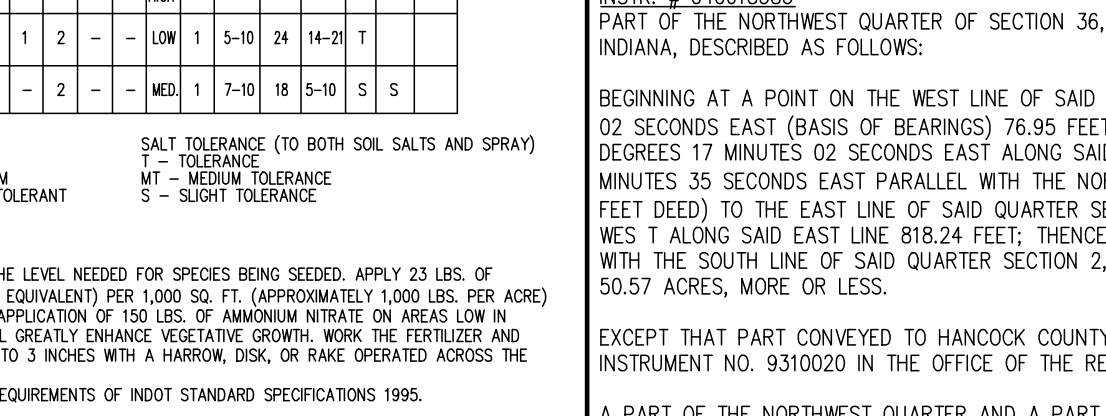
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Tall Fescue	2	1	1	1	1	1
Perennial Ryegrass	2	1	1	2	1	2
Crownvetch	-	-	-	-	-	-
Red Clover	-	-	-	-	-	-
Timothy	-	-	-	-	-	-



SLOPE	SOIL	PERCENTAGE	PERCENTAGE	PERCENTAGE	PERCENTAGE	PERCENTAGE	PERCENTAGE	PERCENTAGE	PERCENTAGE
4:1	1	1	1	1	1	1	1	1	1
3:1	1	1	1	1	1	1	1	1	1
2:1	1	1	1	1	1	1	1	1	1
1:1	1	1	1	1	1	1	1	1	1
LOW FLOW CHANNEL	1	1	1	1	1	1	1	1	1
HIGH CHANNEL	1	1	1	1	1	1	1	1	1

SOIL TYPE	PERCENTAGE	PERCENTAGE	PERCENTAGE	PERCENTAGE	PERCENTAGE	PERCENTAGE
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Red Clover	-	-	-	-	-	-
Timothy	-	-	-	-	-	-

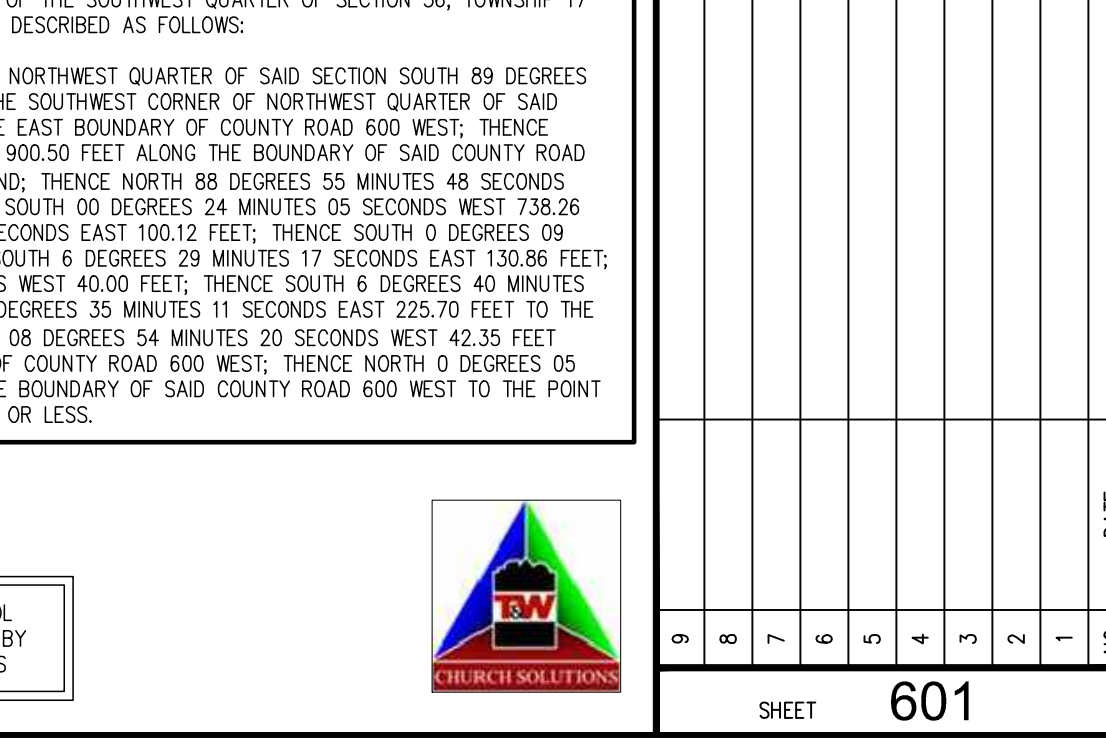
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Red Clover	-	-	-	-	-	-
Timothy	-	-	-	-	-	-

SLOPE	SOIL	PERCENTAGE	PERCENTAGE	PERCENTAGE	PERCENTAGE	PERCENTAGE	PERCENTAGE	PERCENTAGE	PERCENTAGE
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B13 MATERIAL HANDLING AND SPILL PREVENTION

STORMWATER POLLUTION PREVENTION - POST CONSTRUCTION
C1 PROPOSED POLLUTANTS AND SOURCES ASSOCIATED WITH PROPOSED LAND USE
C2 STORMWATER QUALITY MEASURE IMPLEMENTATION
C3 PROPOSED POST CONSTRUCTION STORMW

EARTHWORK

- 1. SCOPE OF WORK
A. EXTENT: THE WORK REQUIRED UNDER THIS SECTION CONSISTS OF ALL EXCAVATING, FILLING, ROUGH GRADING AND RELATED ITEMS NECESSARY TO COMPLETE THE WORK INDICATED ON THE DRAWINGS AND DESCRIBED IN THE SPECIFICATIONS...

STREETS/PARKING LOTS

- 1. SCOPE OF WORK
A. THE WORK REQUIRED UNDER THIS SECTION INCLUDES ALL CONCRETE AND BITUMINOUS PAVING AND RELATED ITEMS NECESSARY TO COMPLETE THE WORK INDICATED ON THE DRAWINGS AND DESCRIBED IN THE SPECIFICATIONS...

ASPHALT-AGGREGATE MIXTURE

- ALL BITUMINOUS MIXTURES ARE TO CONFORM TO CURRENT I.N.D.O.T. SPECIFICATIONS
A. SURFACE COURSE: HMA SURFACE 9.5mm
B. BINDER COURSE: HMA INTERMEDIATE 19.0mm
C. BASE COURSE: TYPE HMA BASE 25.0mm

SURFACE PREPARATION

- A. REMOVE LOOSE MATERIAL FROM COMPACTED SUBBASE SURFACE IMMEDIATELY BEFORE APPLYING PRIME COAT
I) PROOF ROLL SUBGRADE SURFACE WITH LOADED TRI-AXLE TRUCK (48 HOUR NOTICE IS REQUIRED TO BE GIVEN TO THE TOWN OF MCCORDSVILLE TO CHECK FOR UNSTABLE AREAS AND AREAS REQUIRING ADDITIONAL COMPACTION.

ROLLING

- A. GENERAL: BEGIN ROLLING WHEN MIXTURE WILL BEAR ROLLER WEIGHT WITHOUT EXCESSIVE DISPLACEMENT
I) COMPACT MIXTURE WITH HOT HAND TAMPORS OR VIBRATING PLATE COMPACTORS IN AREAS INACCESSIBLE TO ROLLERS
B. BREAKDOWN ROLLING: ACCOMPLISH BREAKDOWN OR INITIAL ROLLING IMMEDIATELY FOLLOWING ROLLING OF JOINTS AND OUTSIDE EDGE. CHECK SURFACE AFTER BREAKDOWN ROLLING, AND REPAIR DISPLACED AREAS BY LOOSING AND FILLING, IF REQUIRED, WITH HOT MATERIAL.

TRAFFIC AND LANE MARKINGS

- A. CLEANING: SWEEP AND CLEAN SURFACE TO ELIMINATE LOOSE MATERIAL AND DUST.
B. STRIPING: USE CHLORINATED RUBBER BASE TRAFFIC LANE-MARKING PAINT, FACTORY MIXED, QUICK-DRYING, AND NON-BLEEDING.
C. FIELD QUALITY CONTROL
A. TESTING AND INSPECTION SERVICE: I) OWNER SHALL EMPLOY A TESTING LABORATORY TO PERFORM PAVEMENT TESTING AND INSPECTION SERVICE FOR QUALITY CONTROL DURING PAVING OPERATIONS.

PAVEMENT THICKNESS

- DENSITY: TESTS SHALL BE MADE AT EACH LIFT. TEST SHALL BE AS FOLLOWS:
I) TESTS WILL BE REQUIRED AT VARIOUS TIMES AND LOCATIONS FOR SUBGRADE AND BASE COURSES FOR ASPHALT PAVING AREAS.
J. APPLICATION
A. GRADING: DO ANY NECESSARY GRADING IN ADDITION TO THAT PERFORMED IN ACCORDANCE WITH EARTHWORK SECTION TO BRING SUBGRADES, AFTER FINAL COMPACTION, TO THE REQUIRED GRADES AND SECTIONS FOR SITE IMPROVEMENTS.

STORM SEWER SYSTEMS

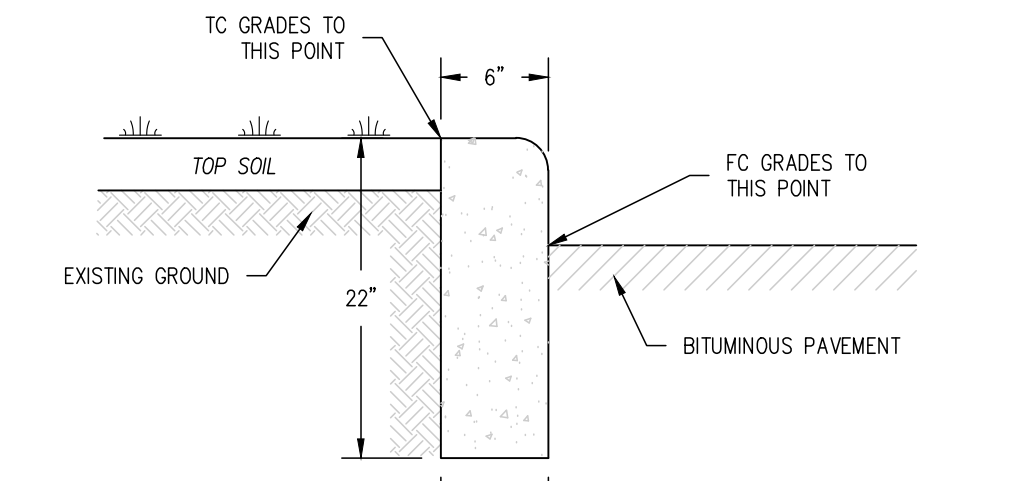
- 1. SCOPE OF WORK
A. THE WORK UNDER THIS SECTION INCLUDES ALL 10" STORM SEWERS, STORM WATER INLETS, AND RELATED ITEMS, INCLUDING EXCAVATING AND BACKFILLING NECESSARY TO COMPLETE THE WORK SHOWN ON THE DRAWINGS.
B. IN THE CASE OF ANY CONFLICTS WITH THESE SPECIFICATIONS AND LOCAL, STATE, FEDERAL SPECIFICATIONS THE MORE STRINGENT SHALL APPLY.
2. STORM SEWER CONSTRUCTION
A. STORM SEWERS
I) STORM SEWER STRUCTURES SHALL COMPLY WITH CURRENT SPECIFICATIONS OF THE TOWN OF MCCORDSVILLE AND ALL OTHER RESPONSIBLE AGENCIES IN RESPECT TO DESIGN AND QUALITY OF CONSTRUCTION.

WATER LINE SYSTEM

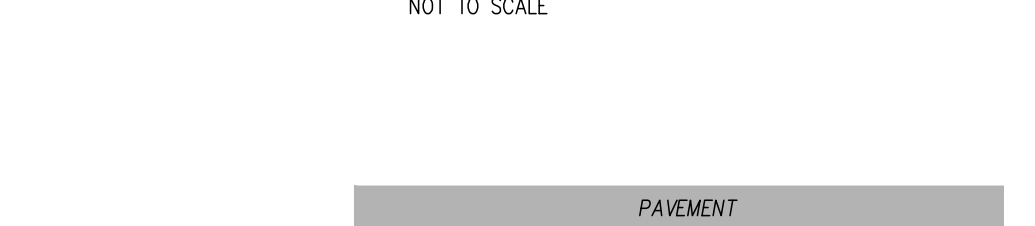
- 1. SCOPE OF WORK
A. THE WORK UNDER THIS SECTION INCLUDES ALL WATER MAIN, FIRE HYDRANTS, SERVICES AND RELATED ITEMS, INCLUDING EXCAVATING AND BACKFILLING NECESSARY TO COMPLETE THE WORK SHOWN ON THE DRAWINGS.
2. MATERIALS
A. ALL MATERIALS SHALL CONFORM TO ALL LOCAL, STATE, AND NATIONAL CODES AND SHALL BE PROVIDED AS THE ENGINEER MAY DIRECT, AND THE CONTRACT WILL BE ADJUSTED.
3. APPLICATION
A. PERMITS AND CODES: THE INTENT OF THIS SECTION OF THE SPECIFICATIONS IS THAT THE CONTRACTOR'S BID ON THE WORK COVERED HEREIN SHALL BE BASED UPON THE DRAWINGS AND SPECIFICATIONS BUT THAT THE WORK SHALL COMPLY WITH ALL APPLICABLE CODES AND REGULATIONS AS AMENDED BY ANY WAIVERS. THE CONTRACTOR SHALL FURNISH ALL BONDS NECESSARY TO GET PERMITS FOR CUTS AND CONNECTIONS TO EXISTING WATER MAINS.

SANITARY SEWER SYSTEMS

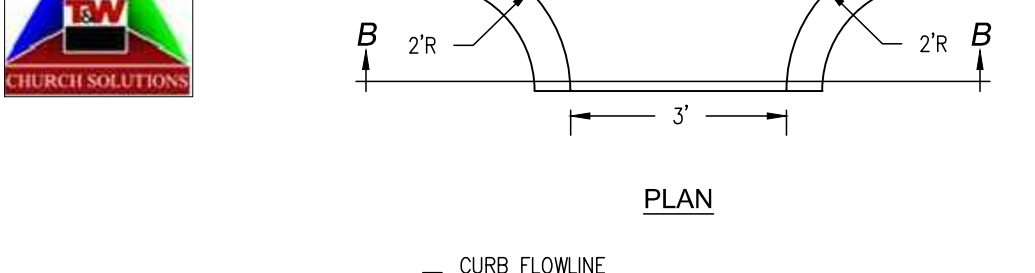
- 1. SCOPE OF WORK
A. THE WORK UNDER THIS SECTION INCLUDES ALL SANITARY SEWERS, MANHOLES, CLEANOUTS AND RELATED ITEMS INCLUDING EXCAVATING AND BACKFILLING NECESSARY TO COMPLETE THE WORK SHOWN IN THE DRAWINGS, STARTING OUTSIDE THE BUILDING WALLS TO THE END OF SEWERS SHALL BE TIGHTLY PLUGGED OR CAPPED AT THE TERMINAL POINTS, ADJUNCT TO THE BUILDING DRAIN AS SPECIFIED IN THE PLUMBING SPECIFICATIONS AND/OR ARCHITECTURAL DRAWINGS.
2. MATERIALS
A. SANITARY SEWERS
I) ALL GRAVITY PLASTIC SEWER PIPE FITTINGS SHALL CONFORM TO ASTM D3034 WITH A CELL CLASSIFICATION OF 12454-B OR 12454-C. FLEXIBLE GASKETED COMPRESSION JOINTS SHALL BE USED FOR PVC & PVC TRUSS PIPE...
B. MANHOLES
I) PRECAST REINFORCED CONCRETE MANHOLE SECTIONS AND STEPS SHALL CONFORM TO ASTM C-478 LATEST REVISION...
3. APPLICATION
A. PERMITS AND CODES: THE INTENT OF THIS SECTION OF THE SPECIFICATIONS IS THAT THE CONTRACTOR'S BID ON THE WORK COVERED HEREIN SHALL BE BASED UPON THE DRAWINGS AND SPECIFICATIONS BUT THAT THE WORK SHALL COMPLY WITH ALL APPLICABLE CODES AND REGULATIONS AS AMENDED BY ANY WAIVERS.



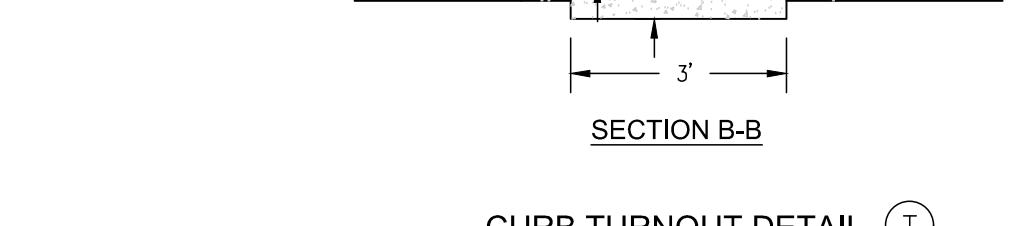
STRAIGHT CONCRETE CURB (C) NOT TO SCALE



CURB TURNOUT DETAIL (T) NOT TO SCALE



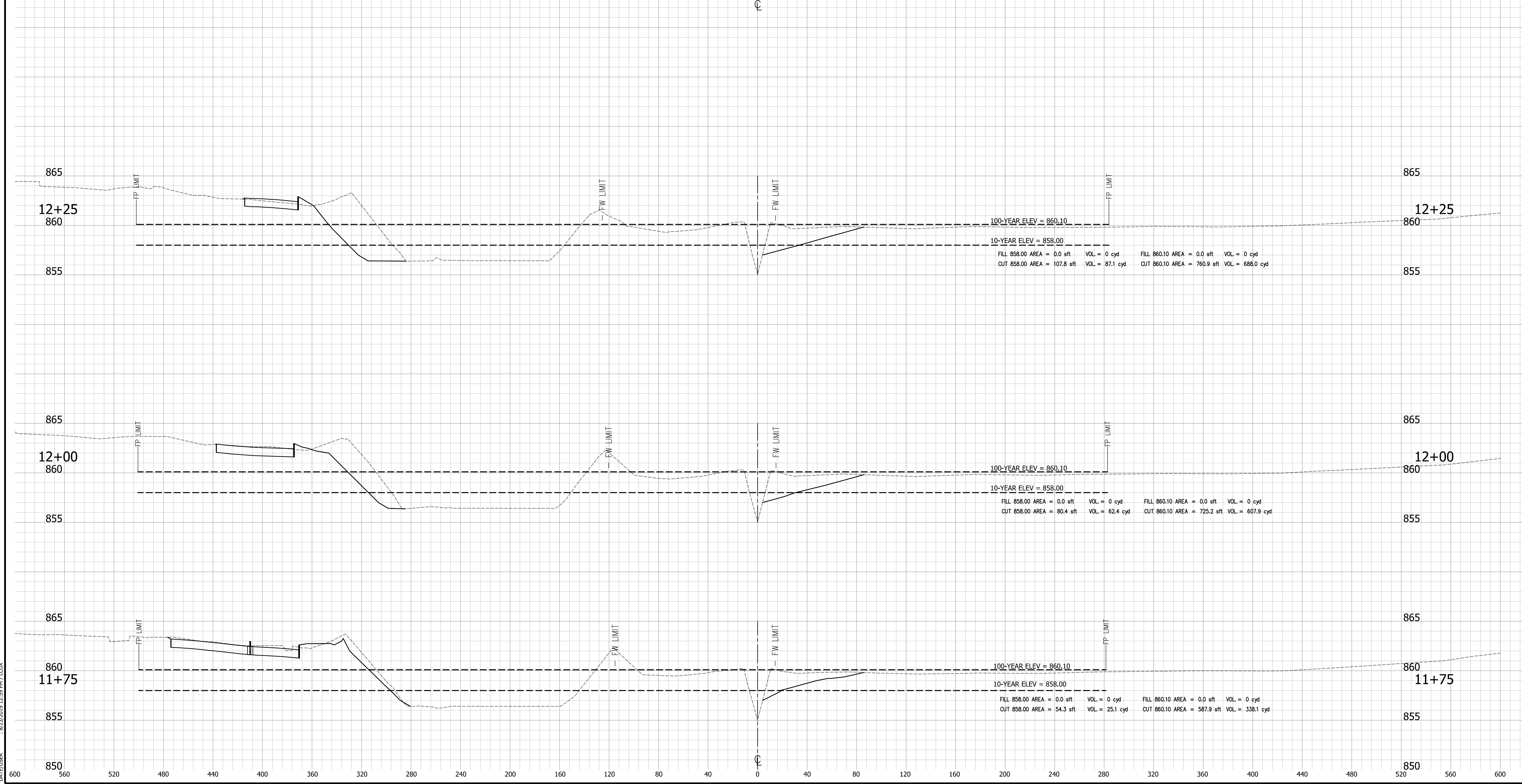
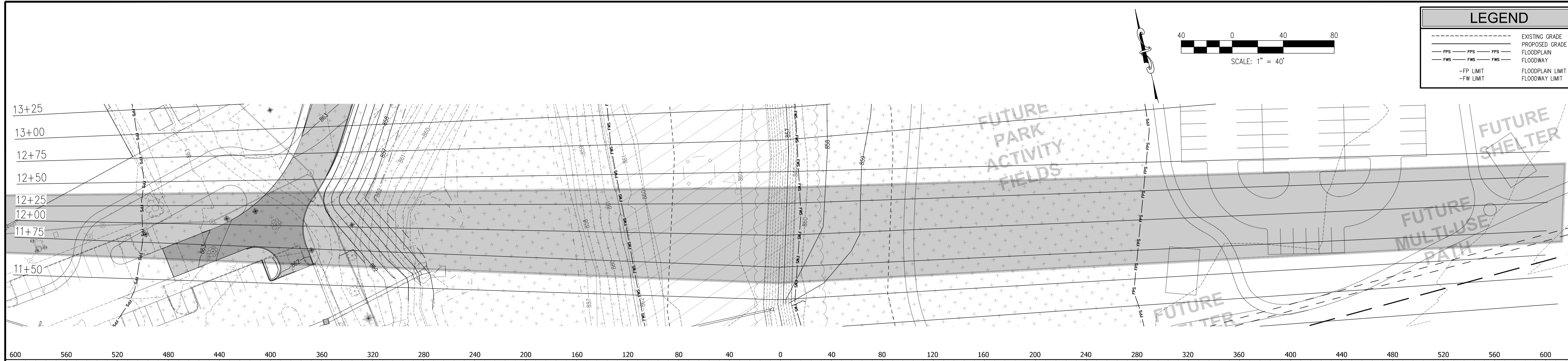
TYPICAL ASPHALT PAVEMENT SECTION (K) NOT TO SCALE



TEMPORARY CUL-DE-SAC SECTION (K1) NOT TO SCALE

MISCELLANEOUS DETAILS AND SPECIFICATIONS OUTLOOK CHRISTIAN CHURCH
PROFESSIONAL ENGINEERS AND SURVEYORS INC.
700 SHEET
DATE: AUGUST 23, 2019
DESIGNED: D.M.
APP'D: G.M.
REVISED: NO. DATE

DIRECTORY PATH: R:\Active\Draw_Comp\Outlook_ChristianChurch\Plans\2019 Full Build\OUTLUT Plans DATEUSER: 8/27/2019 10:52 AM JLOOZ



DIRECTORY PATH : R:\Active\18W Corp\Outlook Christian Church\Cad\Plans\2019 FULL BUILDOUT PLANS
 DATE/USER : 8/22/2019 12:59 PM / LCOX

LEGEND

- EXISTING GRADE
- PROPOSED GRADE
- FLOODPLAIN
- FLOODWAY
- - - FP LIMIT
- - - FW LIMIT

SCALE: 1" = 40'

CROSSROAD ENGINEERS, PC
 TRANSPORTATION & DEVELOPMENT CONSULTANTS
 10300 WISCONSIN AVE, SUITE 100
 FORT WORTH, TEXAS 76134
 CROSSROADENGINEERS.COM

FLOODPLAIN CROSS SECTION

OUTLOOK CHRISTIAN CHURCH

JOB No.	DATE	AUGUST 23, 2019	DESIGNED	D/M	DRAWN	KLF/JMC	CHECKED	TEN	C/J
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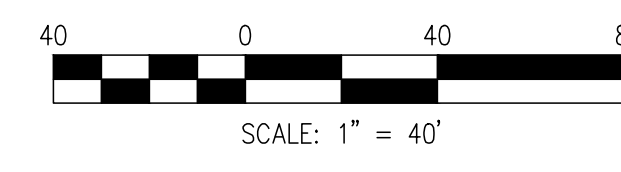
APPROVED

BY: *Gregory J. Likko*

NO.	DATE	REVISIONS

SHEET **XS4**

DATE: 8/22/2019 12:59 PM / LCOX



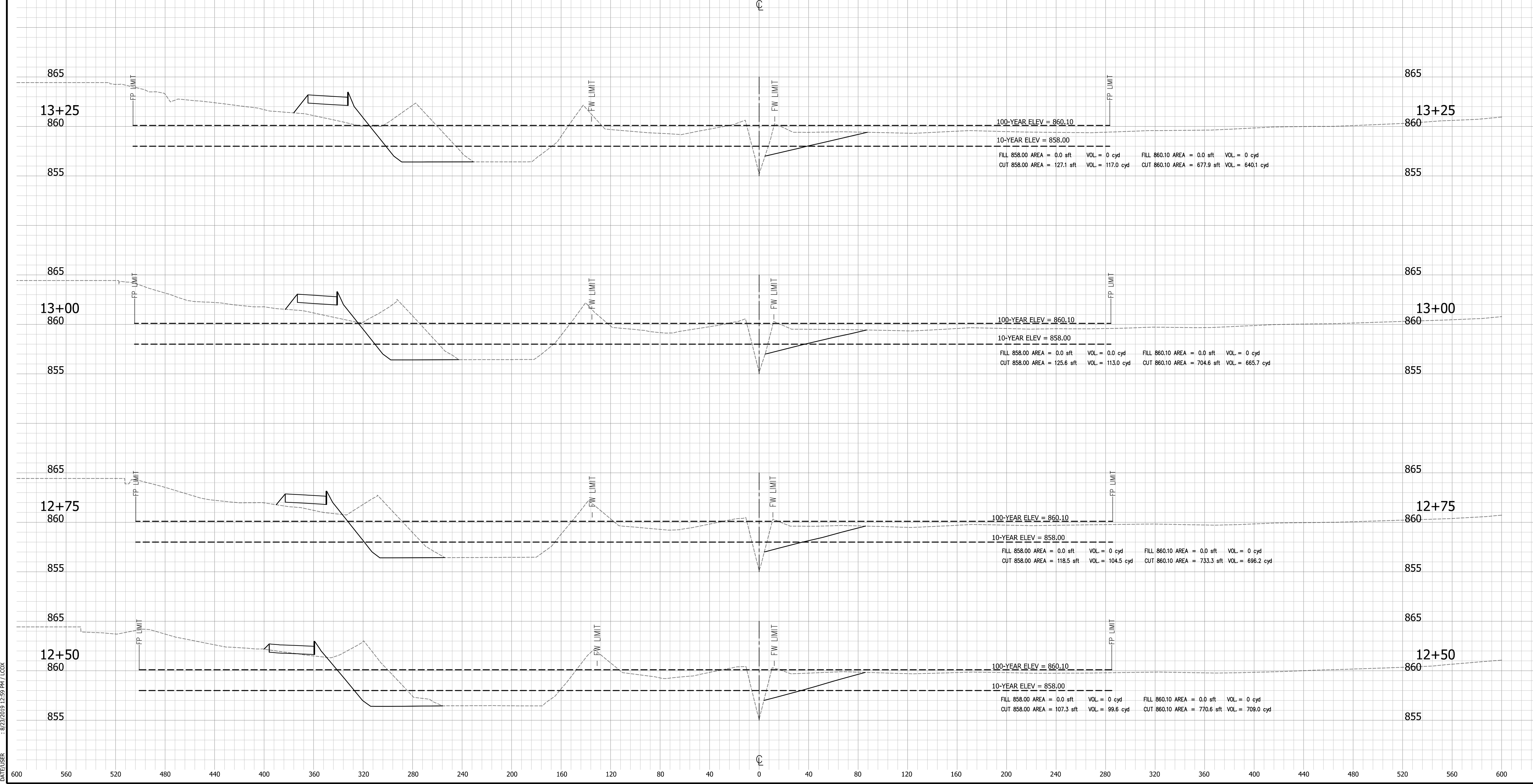
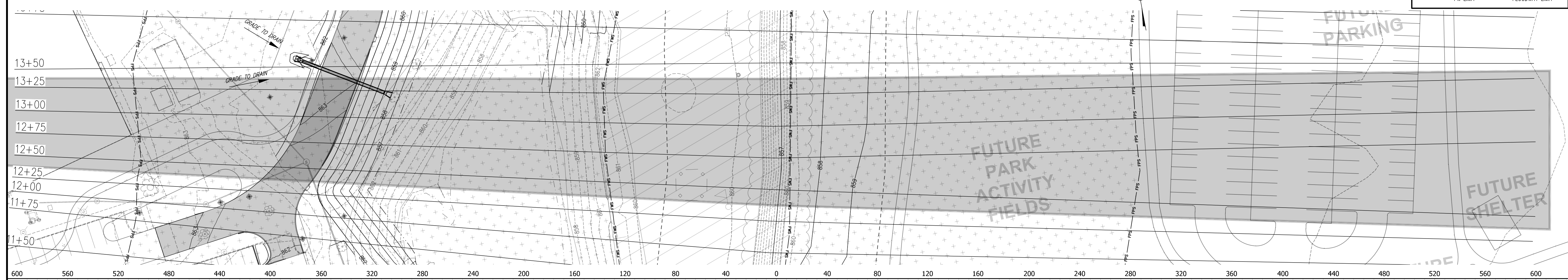
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---	PROPOSED GRADE
---	FLOODPLAIN
---	FLOODWAY
---	FLOODPLAIN LIMIT
---	FLOODWAY LIMIT

CROSSROAD ENGINEERS, PC
TRANSPORTATION & DEVELOPMENT CONSULTANTS
10300058
REGISTERED PROFESSIONAL ENGINEER
STATE OF PENNSYLVANIA
CONSULTANTS@CROSSROADS.COM

FLOODPLAIN CROSS SECTION

OUTLOOK CHRISTIAN CHURCH

DATE: AUGUST 23, 2019
JOB No. _____
DRAWN: KLF/JMC
DESIGNED: DJM
CHECKED: TEN
APPR: GJJ
SHEET: XS5



REGISTERED PROFESSIONAL ENGINEER
STATE OF PENNSYLVANIA
10300058
CONSULTANTS
GREGORY J. ILKO
APPR: *Gregory J. Ilko*

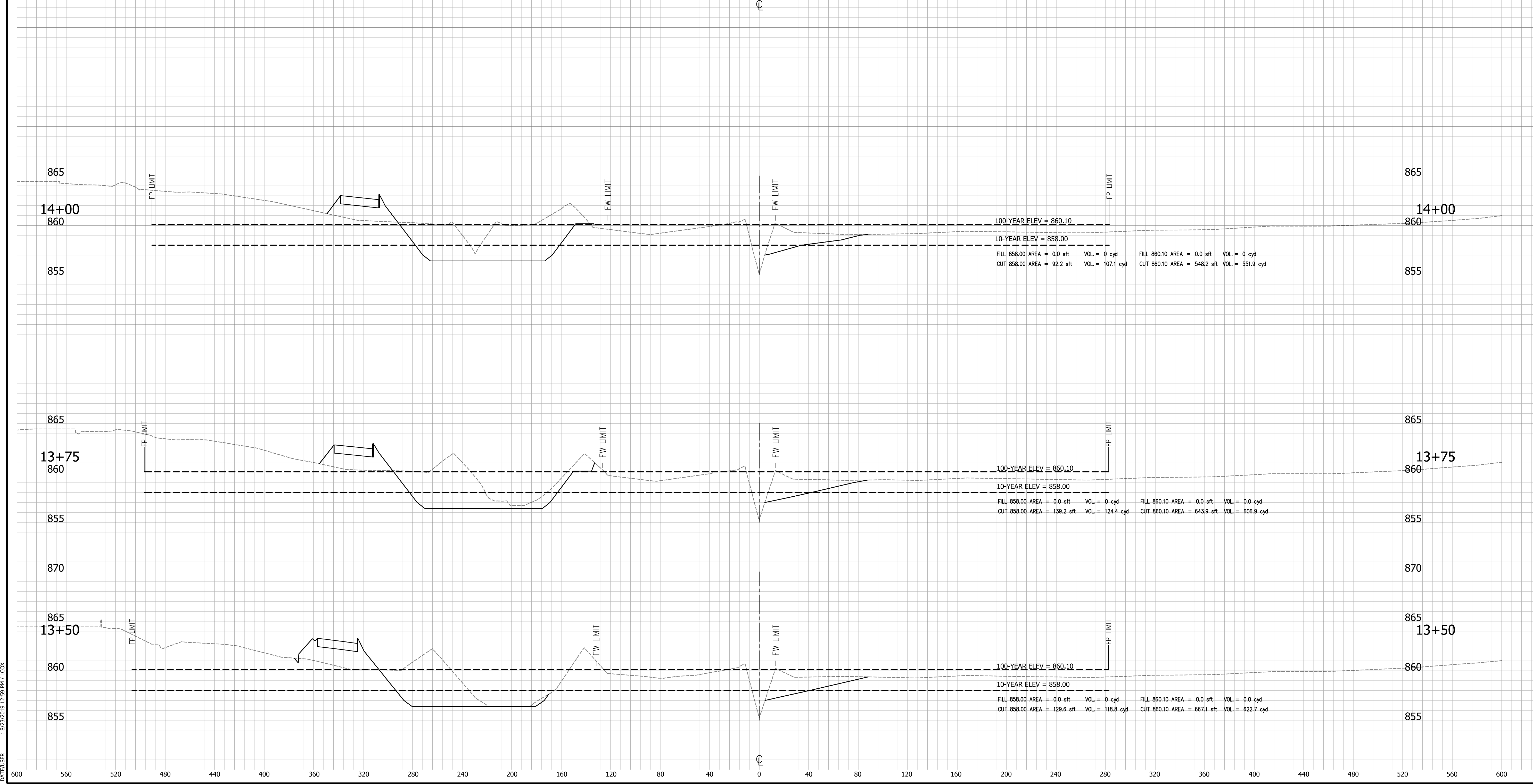
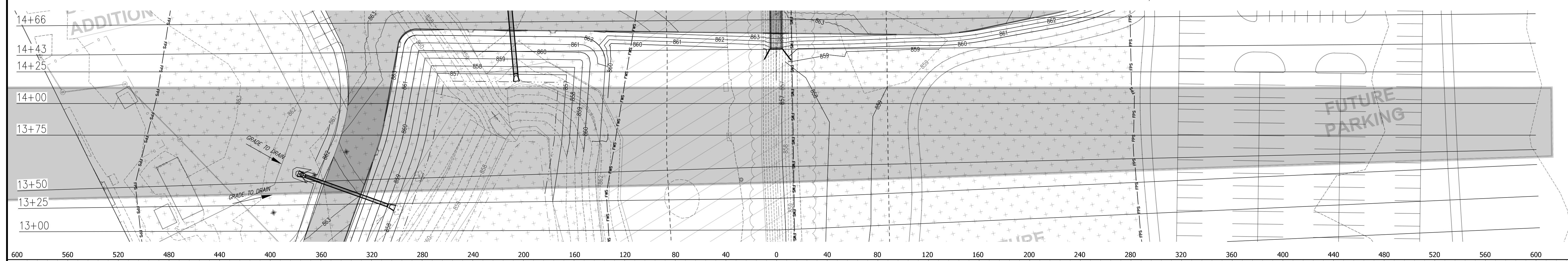
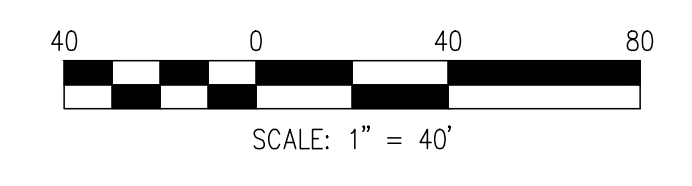
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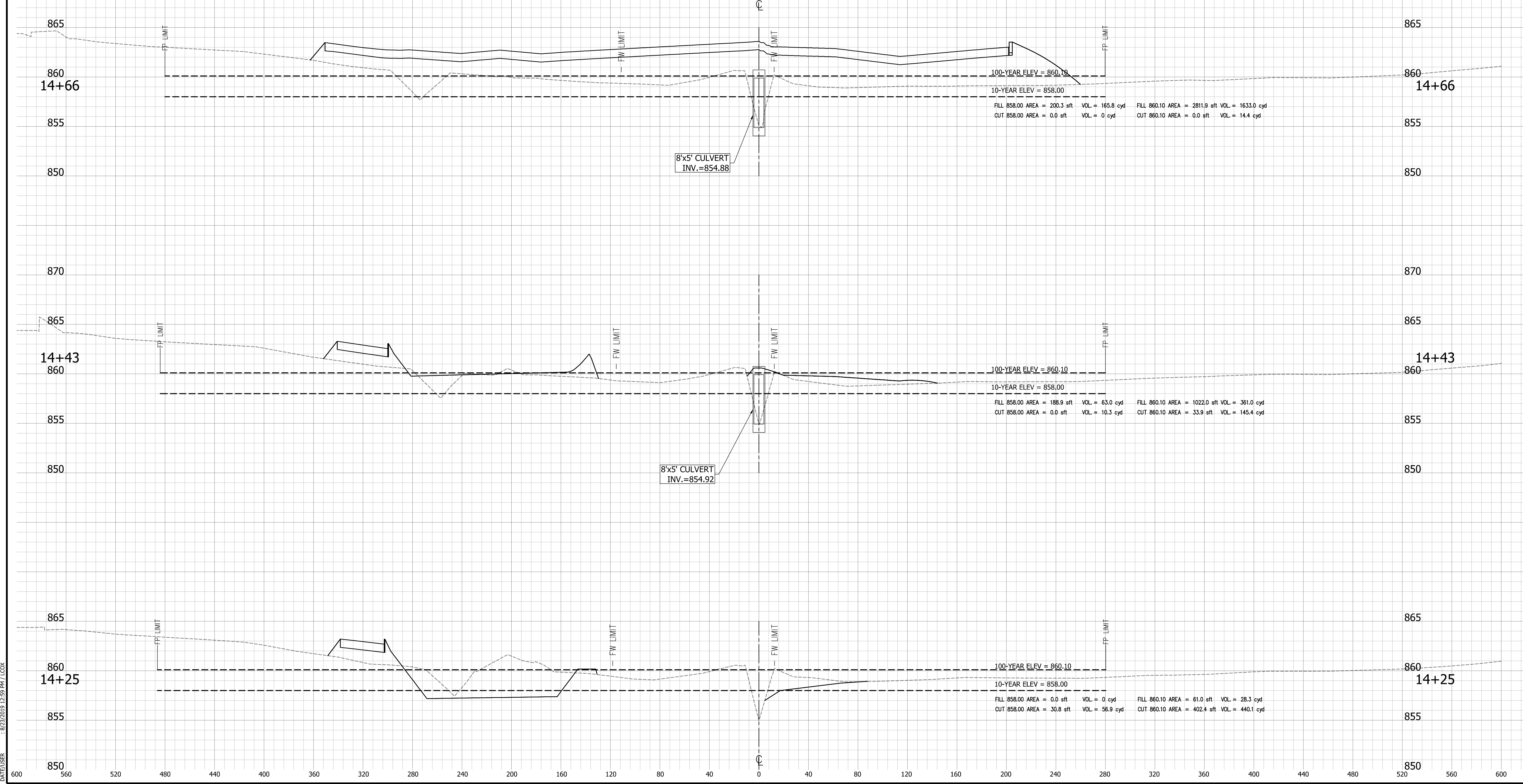
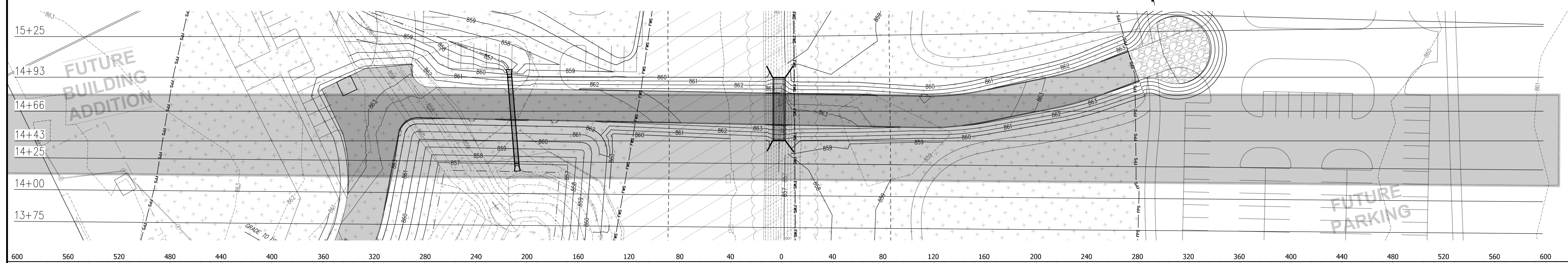
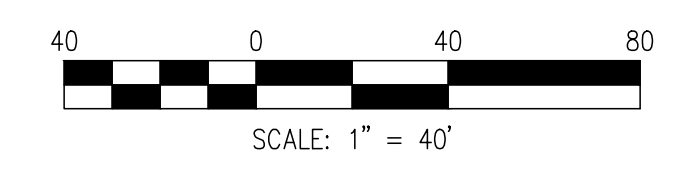
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- - - FLOODWAY LIMIT



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- EXISTING GRADE
- - - PROPOSED GRADE
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 10300058
 STATE OF MARYLAND
 PROFESSIONAL ENGINEER
 REG. NO. 10300058

FLOODPLAIN CROSS SECTION

OUTLOOK CHRISTIAN CHURCH

DATE: AUGUST 23, 2019

JOB No. _____

DRAWN: KLF/JMC

DESIGNED: DJM

CHECKED: TEN

APPR: GJJ

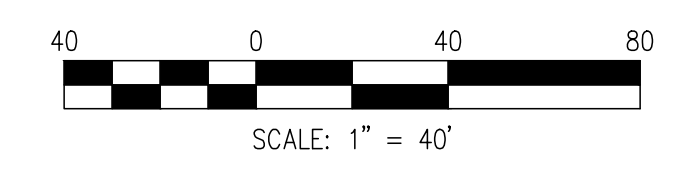
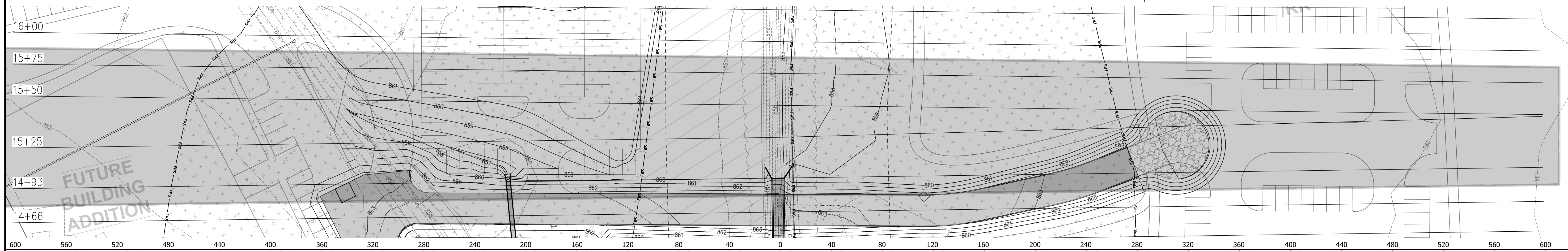
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PROFESSIONAL ENGINEER
 GREGORY J. LIKKO
 10300058
 STATE OF MARYLAND
 PROFESSIONAL ENGINEER

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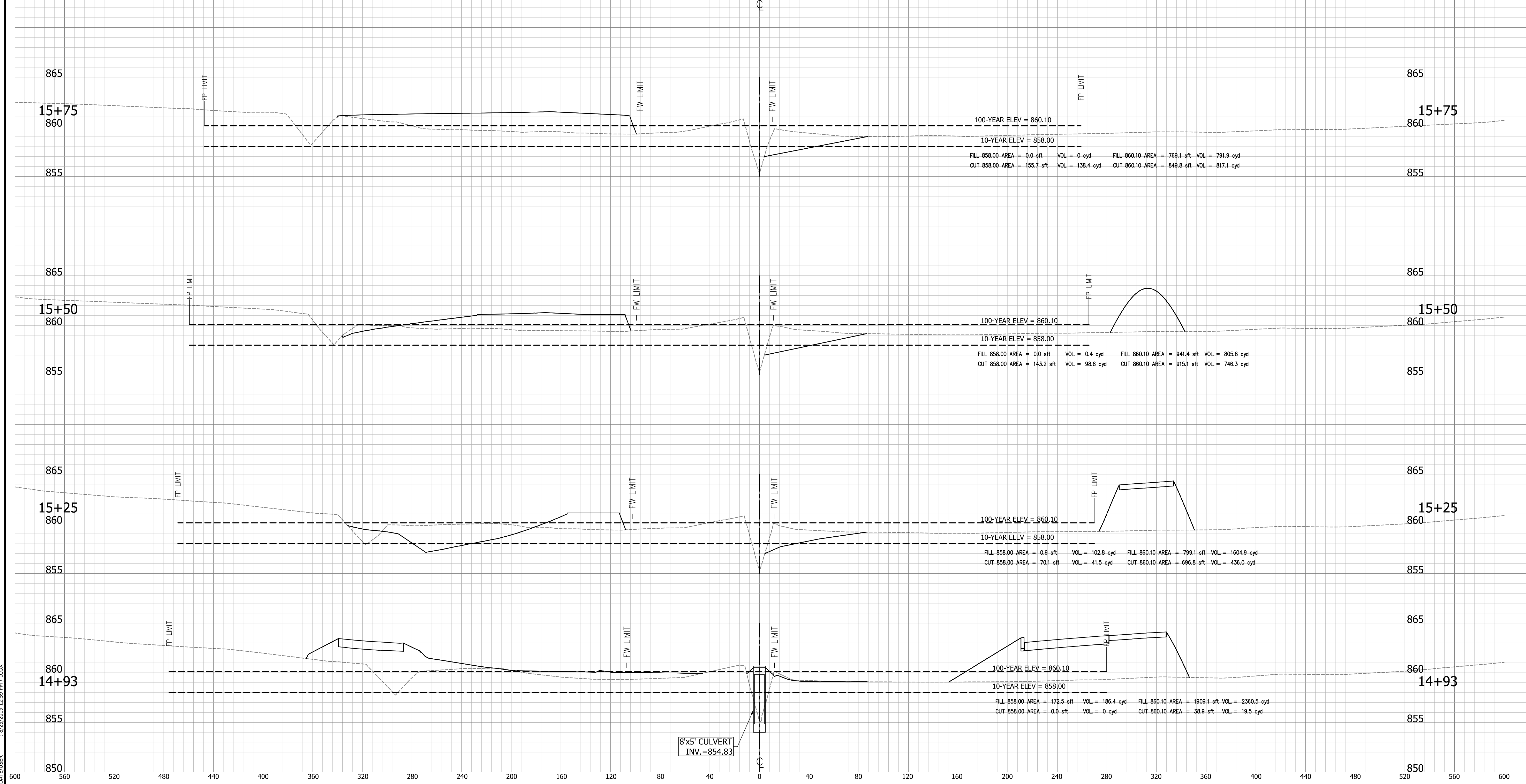


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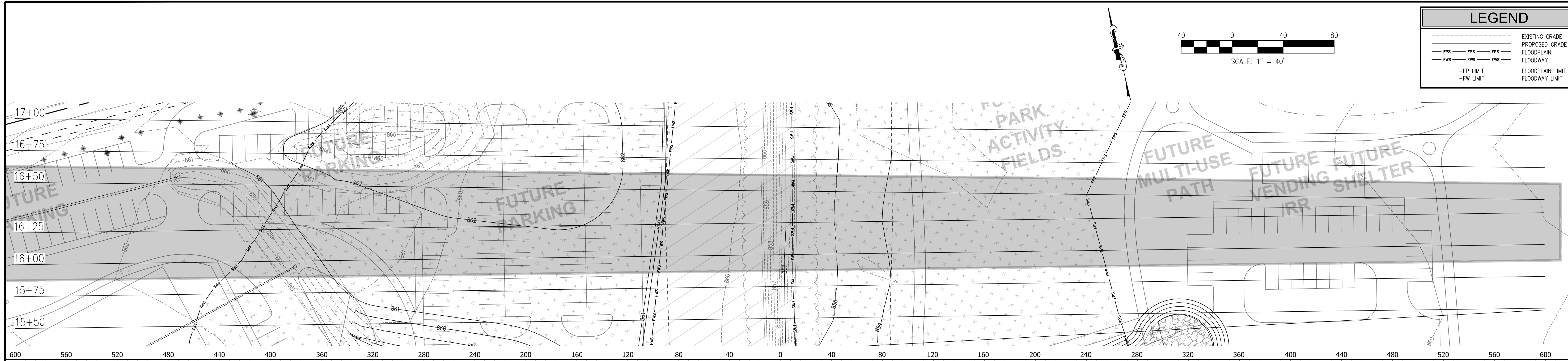
OUTLOOK CHRISTIAN CHURCH

JOB No.	DATE	DESIGNED	DRAWN	CHECKED	TEN
AUGUST 23, 2019					



8'x5' CULVERT
INV.=854.83

NO.	DATE	REVISIONS	BY	APPR.



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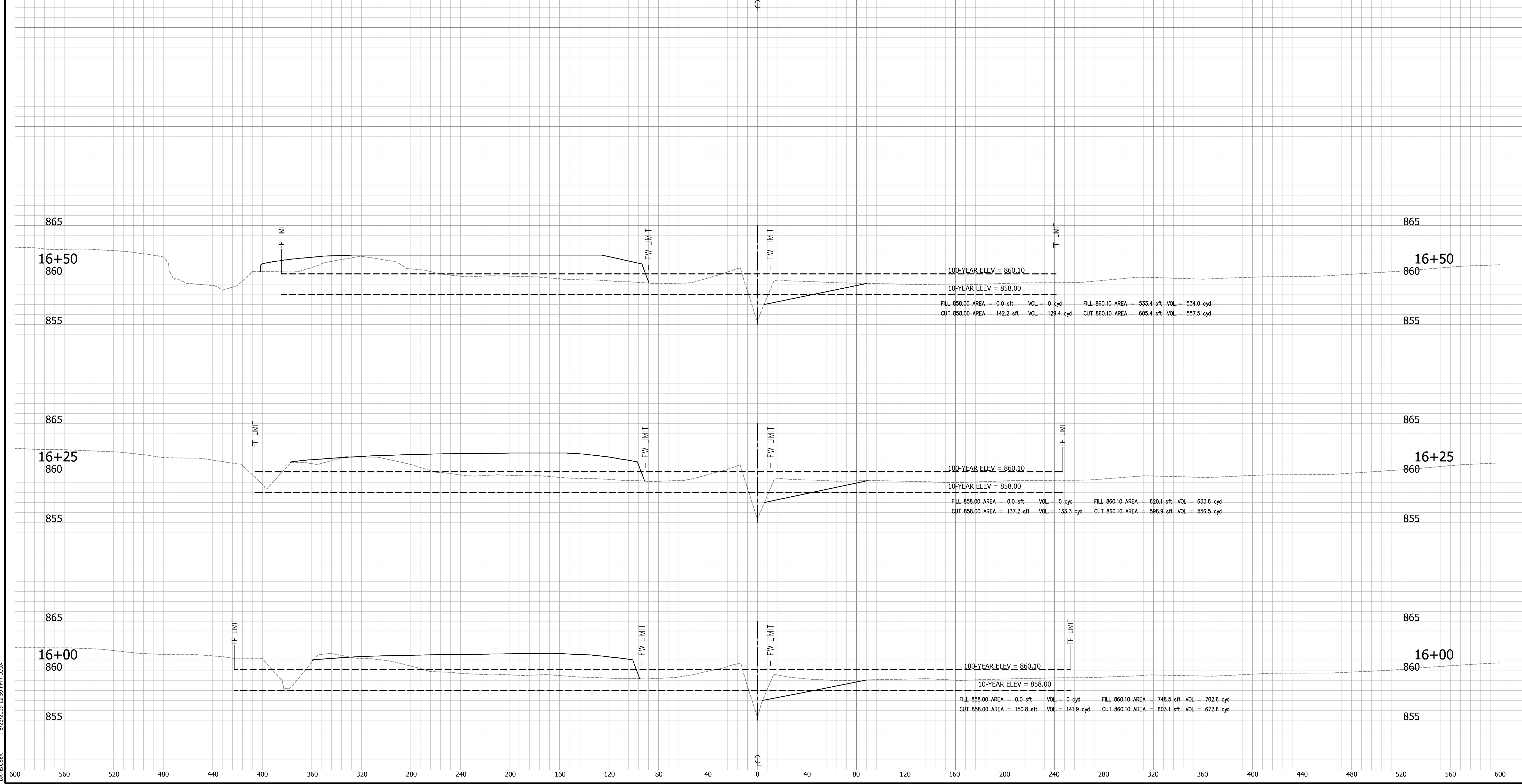
PROFESSIONAL ENGINEER
 TRANSPORTATION & DEVELOPMENT CONSULTANTS
 10300058
 STATE OF MARYLAND
 PROFESSIONAL ENGINEER

FLOODPLAIN CROSS SECTION

OUTLOOK CHRISTIAN CHURCH

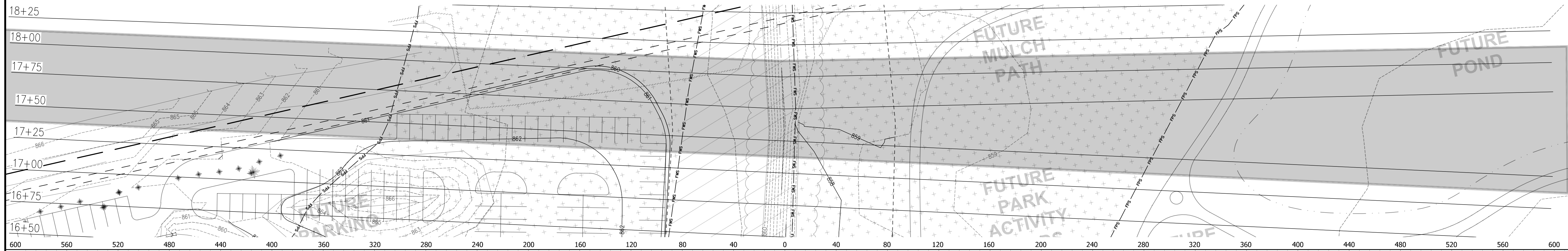
DATE: AUGUST 23, 2019
 JOB No. _____
 DRAWN: KLF/JMC
 DESIGNED: DJM
 CHECKED: TEN
 APPR: GJ

REGISTERED PROFESSIONAL ENGINEER
 STATE OF MARYLAND
 PROFESSIONAL ENGINEER
 10300058
 GREGORY J. ILKO
 APPROVED: *Gregory J. Ilko*

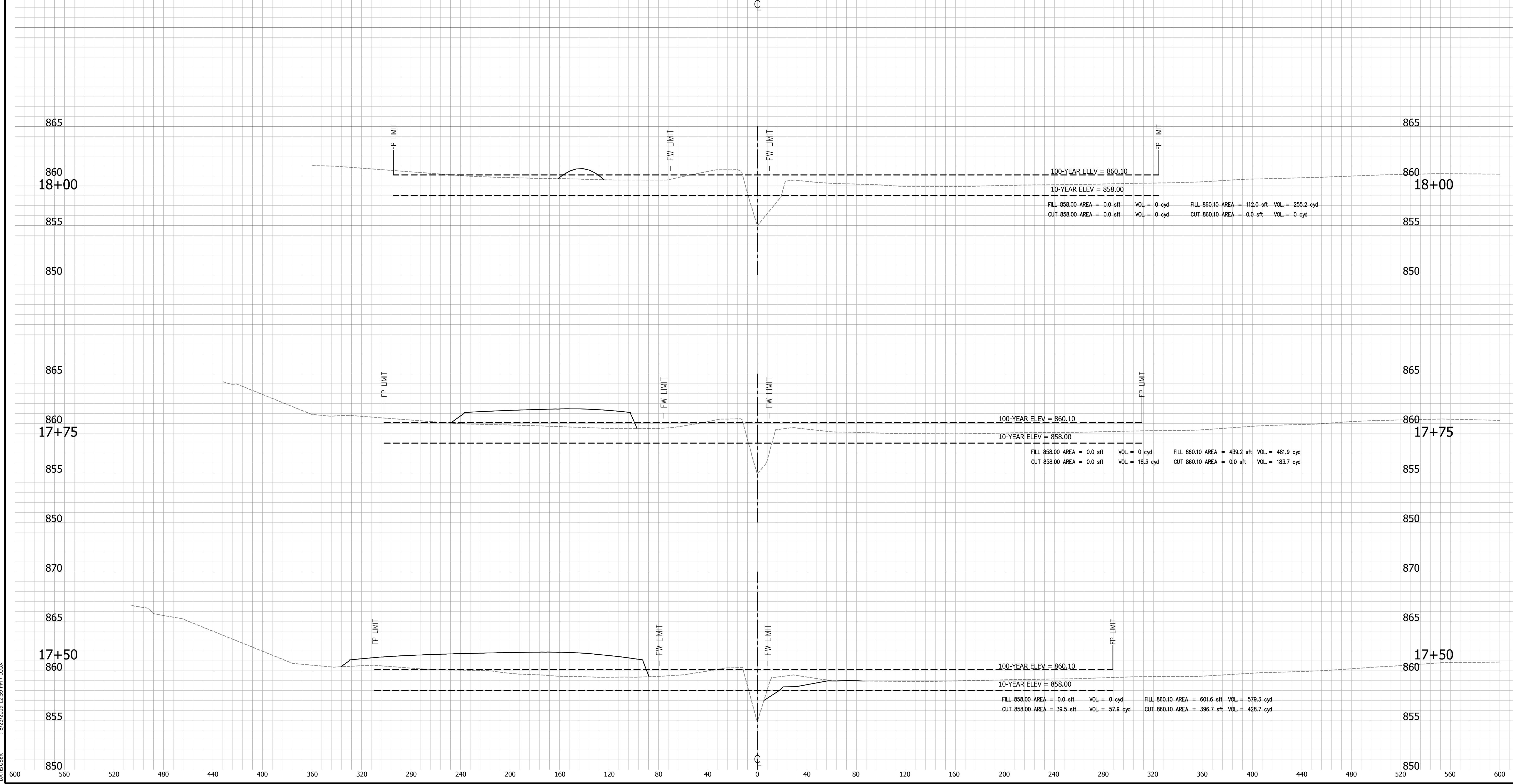
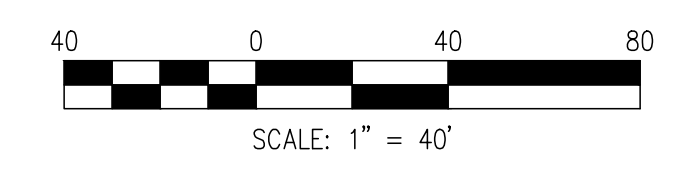


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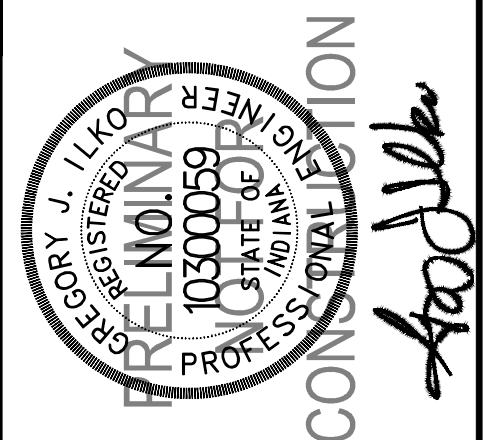
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 10300058
 STATE OF
 PENNSYLVANIA
 REGISTERED PROFESSIONAL ENGINEER
 CONSTRUCTION

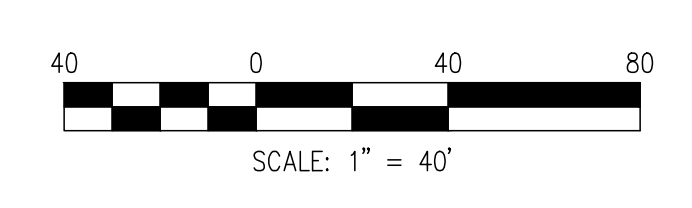
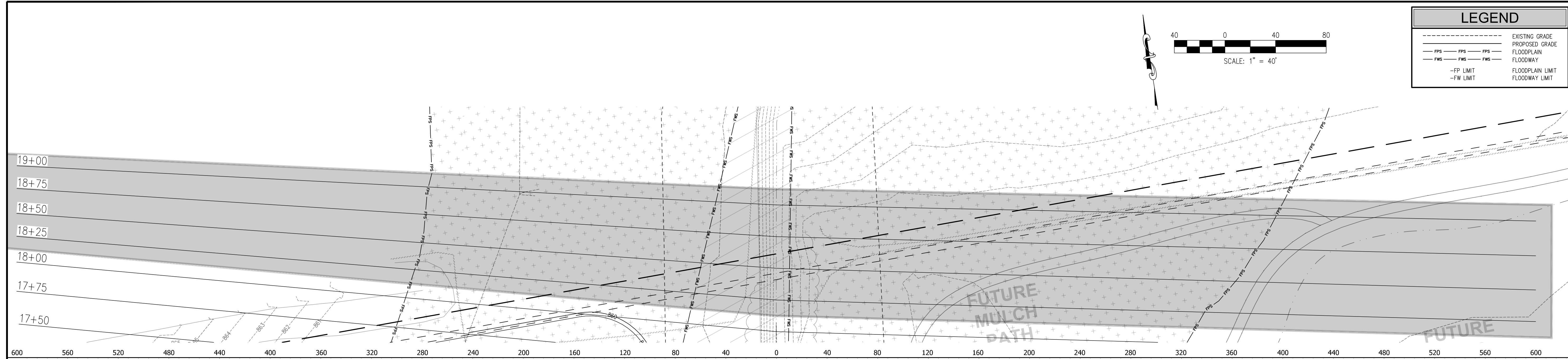
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OUTLOOK CHRISTIAN CHURCH	
JOB No.	TEN
DATE	AUGUST 23, 2019
DRAWN	KLF/JMC
DESIGNED	DJM
CHECKED	TEN
APPR.	CJ
SHEET	XS11

GREGORY J. ILKO
 REGISTERED PROFESSIONAL ENGINEER
 CONSTRUCTION
 STATE OF PENNSYLVANIA
 10300058
 CROSSROADS ENGINEERING & DEVELOPMENT CONSULTANTS, INC.

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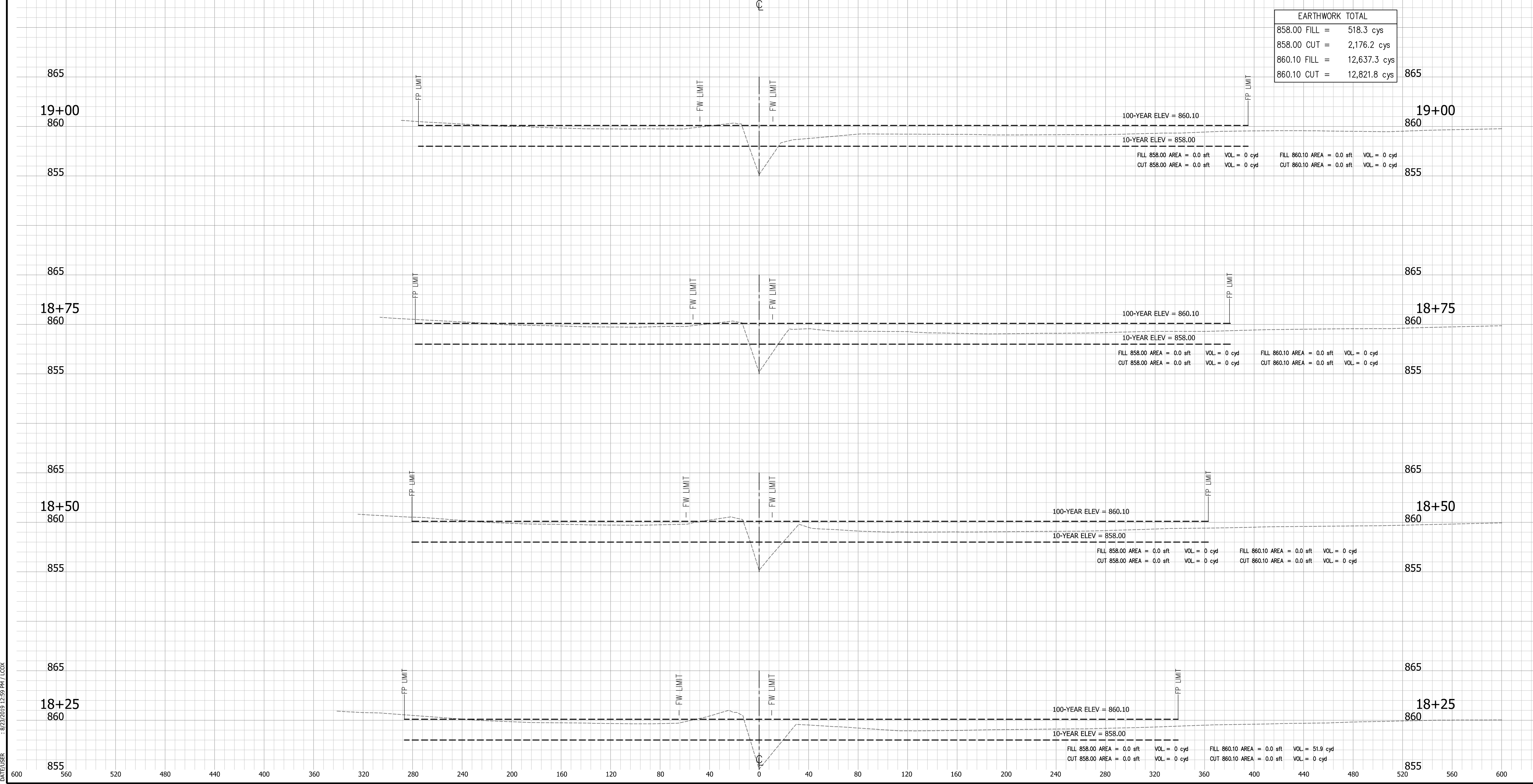


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