

5A

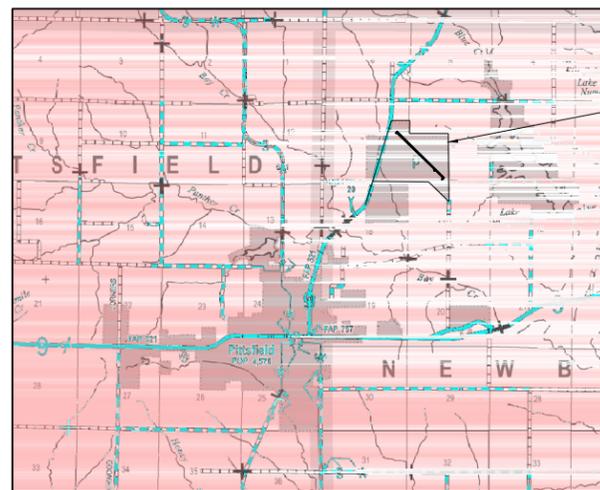
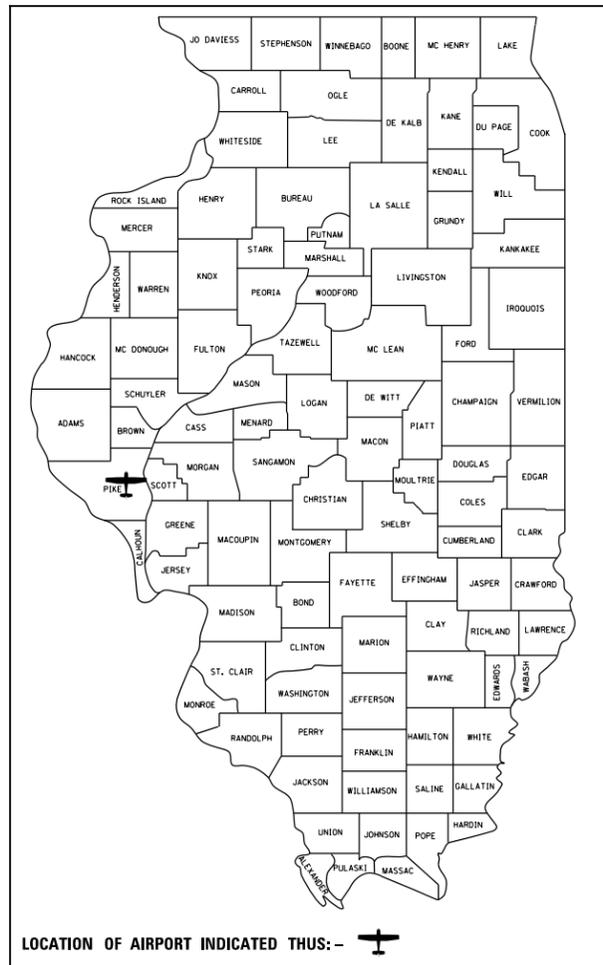
PI017

# CONSTRUCTION PLANS FOR PITTSFIELD PENSTONE MUNICIPAL AIRPORT PITTSFIELD, PIKE COUNTY, ILLINOIS

## REHABILITATE ALL 3 TAXIWAYS, NORTH PORTION OF MAIN APRON, & FBO APRON

ILLINOIS PROJECT NO. PPQ-4252  
SBG PROJECT NO. 3-17-SBGP-80/88/91/95/97/99

MAY 12, 2017

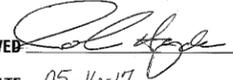


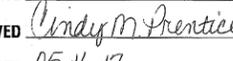
VICINITY MAP

PITTSFIELD PENSTONE MUNICIPAL AIRPORT



CITY OF PITTSFIELD, ILLINOIS

APPROVED:  MAYOR  
DATE: 05-16-17

APPROVED:  CITY CLERK  
DATE: 05-16-17

Hutchison Engineering, Inc.

SUBMITTED BY:  ENGINEER  
DATE SUBMITTED: 05-16-17  
LICS. EXP. DATE: 11-30-17

FILENAME: PP04252-ah1-cover.dgn  
PLOT DATE: 5/17/2017  
SCALE: 100,0000' / In.  
USER: jolson

DRAWN	JCW	03/13/17
CHECKED	BMB	04/07/17
APPROVED	JMO	05/15/17
REVISIONS		
NO.	BY	DATE

**Hutchison Engineering, Inc.**  
SINCE 1945  
1801 West Lafayette  
PO Box 820  
Jacksonville, Illinois 62651  
PHONE : (217)245-7164 FAX (217)243-0468

PITTSFIELD PENSTONE MUNICIPAL AIRPORT  
CITY OF PITTSFIELD, ILLINOIS  
REHABILITATE ALL 3 TAXIWAYS, NORTH PORTION OF  
MAIN APRON, & FBO APRON

COVER SHEET

HEI PROJ. NO. 4071  
ILL PROJ. NO. PPQ-4252  
SBG PROJ. NO.  
3-17-SBGP-80/88/91/95/97/99

FINAL

1

SHEET 1 OF 13

DRAWN	JCW	04/04/17
CHECKED	BMB	04/07/17
APPROVED	JMO	05/15/17

REVISIONS		
NO.	BY	DATE

GENERAL NOTES

1. OPEN PAVING JOINTS AND/OR CRACKS IN THE EXISTING SURFACE OF THE PAVEMENT OVER  $\frac{3}{8}$ " IN WIDTH SHALL BE DESIGNATED BY THE PROJECT ENGINEER IN THE FIELD TO BE REPAIRED PRIOR TO PLACING THE BITUMINOUS SURFACE COURSE. THIS WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE SPECIAL PROVISIONS FOR BITUMINOUS CRACK SEALING OR SURFACE COURSE CRACK REPAIR AT THE LOCATIONS SHOWN IN THESE PLANS.
2. THE AS BID QUANTITIES FOR CRACK SEALING HAVE BEEN ESTIMATED BY MEASURING CRACK SEALING IN SELECTED REPRESENTATIVE LOCATIONS ON THE PAVEMENT. THESE QUANTITIES MAY BE INCREASED OR REDUCED AT THE TIME OF CONSTRUCTION BASED UPON THE CRACK WORK THAT IS MARKED OUT BY THE RESIDENT ENGINEER AFTER FIELD INSPECTION OF THE PAVEMENT CRACKS.
3. ANY SOD WHICH HAS ENCRACHED UPON THE PAVEMENT EDGE SHALL BE REMOVED PRIOR TO THE PROPOSED BITUMINOUS SURFACE COURSE APPLICATION. THE ENTIRE PAVEMENT SURFACE SHALL BE SWEEPED TO REMOVE ALL LOOSE MATERIALS BEFORE THE APPLICATION OF BITUMINOUS TACK COAT. THE COST OF THIS WORK SHALL BE INCLUDED IN THE PRICE BID FOR BITUMINOUS TACK COAT.
4. A BITUMINOUS TACK COAT SHALL BE APPLIED TO THE EXISTING PAVEMENT PRIOR TO PLACING THE BITUMINOUS SURFACE COURSE. THE APPLICATION RATE SHOWN ON THE TYPICAL SECTION WAS USED TO CALCULATE THE PLAN QUANTITY. THE EXACT AMOUNT OF BITUMINOUS TACK COAT TO BE USED SHALL BE DETERMINED BY THE PROJECT ENGINEER AT THE TIME OF CONSTRUCTION.
5. THE BITUMINOUS SURFACE COURSE SHALL BE ABUTTED TO THE EXISTING PAVEMENT AT INTERSECTING PAVEMENTS AS SHOWN ON THE BITUMINOUS BUTT JOINT DETAIL. THE EXISTING PAVEMENT CONFINED WITHIN THE BITUMINOUS PAVEMENT MILLING AREA WILL BE REMOVED IN ACCORDANCE WITH THE DETAIL FROM 0 TO  $1\frac{1}{2}$ " DEPTH AT THE BUTT JOINT LOCATION. FILLING OF THE MILLED AREA WILL BE MADE USING BITUMINOUS SURFACE COURSE MIX AND WILL BE PAID FOR PER TON FOR BITUMINOUS SURFACE COURSE - METHOD I, SUPERPAVE.
6. AT LOCATIONS WHERE THE EDGE DROP FROM THE FINISHED SURFACE TO THE EXISTING TURF SHOULDER EXCEEDS  $1\frac{1}{2}$ ", THE SHOULDER SHALL BE ADJUSTED AS SHOWN IN THE TYPICAL SECTION USING SOIL OBTAINED OFF SITE THAT IS FREE OF HEAVY SOD, DECAYED VEGETATIVE MATTER, RUBBISH, AGGREGATE AND OTHER UNSUITABLE MATERIAL. THE SHOULDER ADJUSTMENT AREAS SHALL BE FERTILIZED AND SEEDED AND THE COST OF THIS WORK SHALL BE INCLUDED IN THE PRICE BID FOR SHOULDER ADJUSTMENT.
7. ALL AREAS DISTURBED BY THE CONTRACTOR INCLUDING THE CONTRACTOR'S PARKING AREA, HAUL ROADS, ETC. SHALL BE REGRADED AND RESEDED AND/OR RESTORED TO THEIR ORIGINAL CONDITION. THIS RESTORATION SHALL BE ACCOMPLISHED BY THE CONTRACTOR AT HIS OWN EXPENSE UPON COMPLETION OF THIS IMPROVEMENT PROJECT.

INDEX OF SHEETS	
NO.	DESCRIPTION
1	COVER SHEET
2	INDEX OF SHEETS, GENERAL NOTES, SUMMARY OF QUANTITIES
3	CONSTRUCTION SAFETY & PHASING PLAN
4	TAXIWAY TYPICAL SECTIONS
5	APRON TYPICAL SECTIONS
6-8	PAVEMENT LAYOUT AND ELEVATIONS
9	FUELING PAD LAYOUT PLAN
10-12	PAVEMENT MARKING LAYOUT
13	SPECIAL DETAILS

SUMMARY OF QUANTITIES				
ITEM NO.	DESCRIPTION	UNIT	AS BID QUANTITY	AS BUILT QUANTITY
AR150530	TRAFFIC MAINTENANCE	L. SUM	1	
AR152480	SHOULDER ADJUSTMENT	SQ. YD.	906	
AR401613	BIT. SURF. CSE.-METHOD I, SUPERPAVE	TON	1,935	
AR401650	BITUMINOUS PAVEMENT MILLING	SQ. YD.	7,113	
AR401655	BUTT JOINT CONSTRUCTION	SQ. YD.	1,338	
AR401661	BITUMINOUS CRACK SEALING	LIN. FT.	2,260	
AR401662	SURFACE COURSE CRACK REPAIR	SQ. YD.	185	
AR501506	6" PCC PAVEMENT	SQ. YD.	225	
AR510510	TIE DOWN	EACH	26	
AR603510	BITUMINOUS TACK COAT	GAL.	1,481	
AR620520	PAVEMENT MARKING - WATERBORNE	SQ. FT.	1,068	
AR620525	PAVEMENT MARKING - BLACK BORDER	SQ. FT.	150	

**Hutchison Engineering, Inc.**  
 SINCE 1945  
 1801 West Lafayette  
 PO Box 820  
 Jacksonville, Illinois 62651  
 PHONE : (217)245-7164 FAX (217)243-0468

**PITTSFIELD PENSTONE MUNICIPAL AIRPORT  
 CITY OF PITTSFIELD, ILLINOIS  
 REHABILITATE ALL 3 TAXIWAYS, NORTH PORTION OF  
 MAIN APRON, & FBO APRON**

**INDEX OF SHEETS, GENERAL NOTES,  
 AND SUMMARY OF QUANTITIES**

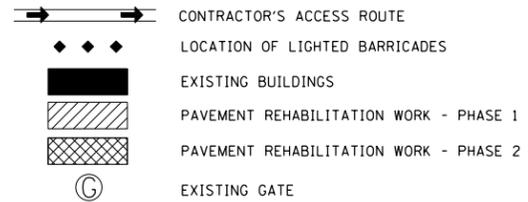
HEI PROJ. NO. 4071  
 ILL PROJ. NO. PPO-4252  
 SBC PROJ. NO.  
 3-17-SBCP-80/88/91/95/97/99

**FINAL**

**2**

CRITICAL POINTS			
NO.	LATITUDE	LONGITUDE	ELEVATION
CP-1	40° 38' 22.46"	90° 46' 49.57"	702.2
CP-2	39° 38' 24.57"	90° 47' 00.75"	706.0
CP-3	39° 38' 19.91"	90° 47' 00.64"	704.1

**LEGEND**



**GENERAL NOTES**

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING UTILITY PROPERTY FROM CONSTRUCTION OPERATIONS. PRIOR TO STARTING WORK, THE CONTRACTOR SHALL CONTACT J.U.L.I.E. (JOINT UTILITY LOCATING INFORMATION FOR EXCAVATORS) PHONE 1-800-892-0123 OR 811 TO ARRANGE FOR LOCATION OF UTILITIES IN THE WORK AREA. A MINIMUM OF FORTY-EIGHT HOURS ADVANCE NOTICE IS REQUIRED FOR NON-EMERGENCY WORK.

COUNTY - PIKE  
 CITY - PITTSFIELD  
 TOWNSHIP - T. 5 S. , R. 3 W. 4th P.M. (NEWBURG)  
 SECTION NO. - 7 & 8

**CONSTRUCTION PROCEDURE NOTES**

- ALL CONTRACTOR EMPLOYEES WILL PARK THEIR PERSONAL VEHICLES IN THE AREA DESIGNATED IN THESE PLANS FOR USE AS A VEHICLE PARKING AREA. ONLY AUTHORIZED CONTRACTOR VEHICLES WILL BE ALLOWED ON THE AIR OPERATIONS AREA OF THE AIRPORT AND ON THE CONSTRUCTION SITE.
- FLAGS WILL BE REQUIRED ON ALL CONTRACTOR'S VEHICLES AND EQUIPMENT. THE FLAGS SHALL BE THREE (3) FOOT SQUARE CHECKERED FLAGS (INTERNATIONAL ORANGE AND WHITE) DISPLAYED IN FULL VIEW ABOVE THE VEHICLE.
- THE CONTRACTOR WILL USE THE DESIGNATED ACCESS ROUTE AND EQUIPMENT STORAGE AREA SHOWN ON THIS SHEET. IT WILL BE THE CONTRACTOR'S RESPONSIBILITY TO MAINTAIN THE DESIGNATED ACCESS ROUTE AND EQUIPMENT STORAGE AREA FOR THE DURATION OF THE PROJECT. ANY DAMAGE TO EXISTING PAVEMENTS USED FOR ACCESS TO THE CONSTRUCTION SITE WILL BE REPAIRED BY THE CONTRACTOR AT HIS OWN EXPENSE TO THE SATISFACTION OF THE AIRPORT MANAGER AND RESIDENT ENGINEER.
- LIGHTED BARRICADES WILL BE EQUIPPED WITH RED FLASHING LIGHTS.
- THE CONTRACTOR SHALL FURNISH, MAINTAIN, AND REMOVE ALL BARRICADES REQUIRED TO DELINEATE THE WORK AREA AND KEEP AIRCRAFT OR GROUND VEHICLES FROM ENCROACHING INTO SAID WORK AREA. THIS REQUIREMENT SHALL BE CONSIDERED INCIDENTAL TO TRAFFIC MAINTENANCE AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.
- CONSTRUCTION ACTIVITY CONTROL AND OPERATION AREA PROTECTION SHALL BE ACCOMPLISHED IN ACCORDANCE WITH FAA ADVISORY CIRCULAR NO. 150/5370-2F (OR CURRENT).
- THE MAXIMUM CONSTRUCTION EQUIPMENT HEIGHT UTILIZED ON THE AIRPORT FOR THIS PROJECT SHALL BE 25'.
- THIS PROJECT CONSISTS OF WORK TO REHABILITATE ALL 3 TAXIWAYS, THE NORTHERN PORTION OF THE MAIN APRON, AND THE FBO APRON.
- THIS PROJECT WILL NOT DISTURB MORE THAN 1 ACRE OF TURFED LAND.
- THE PROPOSED APRON TAXILANE STRIPE SHALL BE MARKED WHILE RUNWAY 13-31 IS CLOSED.
- THE EXISTING RUNWAY DESIGN CODE IS B-II FOR RUNWAY 13-31.
- PHASE 1 - RUNWAY 13-31, THE MAIN CONNECTING TAXIWAY FROM THE APRON, AND THE NORTH PORTION OF THE MAIN APRON SHALL BE CLOSED TO AIRCRAFT TRAFFIC WHILE WORK IS ACCOMPLISHED ON THE NORTH PORTION OF THE MAIN APRON AND ON THE MAIN TAXIWAY. PLACE BARRICADES AT THE ENTRANCE TO THE NORTHERN FBO TAXIWAY AND AT THE ENTRANCE TO THE T-HANGAR TAXIWAY.
- PHASE 2 - OPEN RUNWAY 13-31, THE MAIN CONNECTING TAXIWAY, AND THE NORTH PORTION OF THE MAIN APRON TO AIRCRAFT TRAFFIC AND FUELING OPERATIONS. BARRICADES TO REMAIN IN PLACE TO DENY ACCESS TO THE NORTHERN FBO TAXIWAY AND T-HANGAR TAXIWAY WHILE WORK IS ACCOMPLISHED IN THESE AREAS.
- THE CONTRACTOR SHALL GIVE THE AIRPORT MANAGEMENT THREE DAYS NOTICE PRIOR TO STARTING ANY CONSTRUCTION WHICH WOULD NECESSITATE CLOSURE OF RUNWAYS, TAXIWAYS, AND T-HANGAR ACCESS PAVEMENTS. AIRPORT MANAGEMENT SHALL GIVE PROPER NOTICE (NOTAMS) TO THE NEAREST FAA FLIGHT SERVICE STATION PRIOR TO THE START OF CONSTRUCTION AND CLOSURE OF RUNWAYS, TAXIWAYS, AND T-HANGAR ACCESS PAVEMENTS.
- NO WORK SHALL BE PERFORMED WITHIN 66' OF AN ACTIVE TAXIWAY CENTERLINE, OR WITHIN 58' OF AN ACTIVE TAXILANE/ APRON TAXILANE.
- AIRCRAFT WILL NOT BE ALLOWED ON ANY PART OF THE APRON DURING PHASE 1.

PI017

FILENAME: PP04252-sh1-cspp.dgn		
PLOT DATE: 5/17/2017		
SCALE: 600,0000' / in.		
USER: jolson		
DRAWN	JCW	04/07/17
CHECKED	BMB	04/07/17
APPROVED	JMO	05/15/17
REVISIONS		
NO.	BY	DATE

**Hutchison Engineering, Inc.**  
 SINCE 1945  
 1801 West Lafayette  
 PO Box 820  
 Jacksonville, Illinois 62651  
 PHONE : (217)245-7164 FAX (217)243-0468

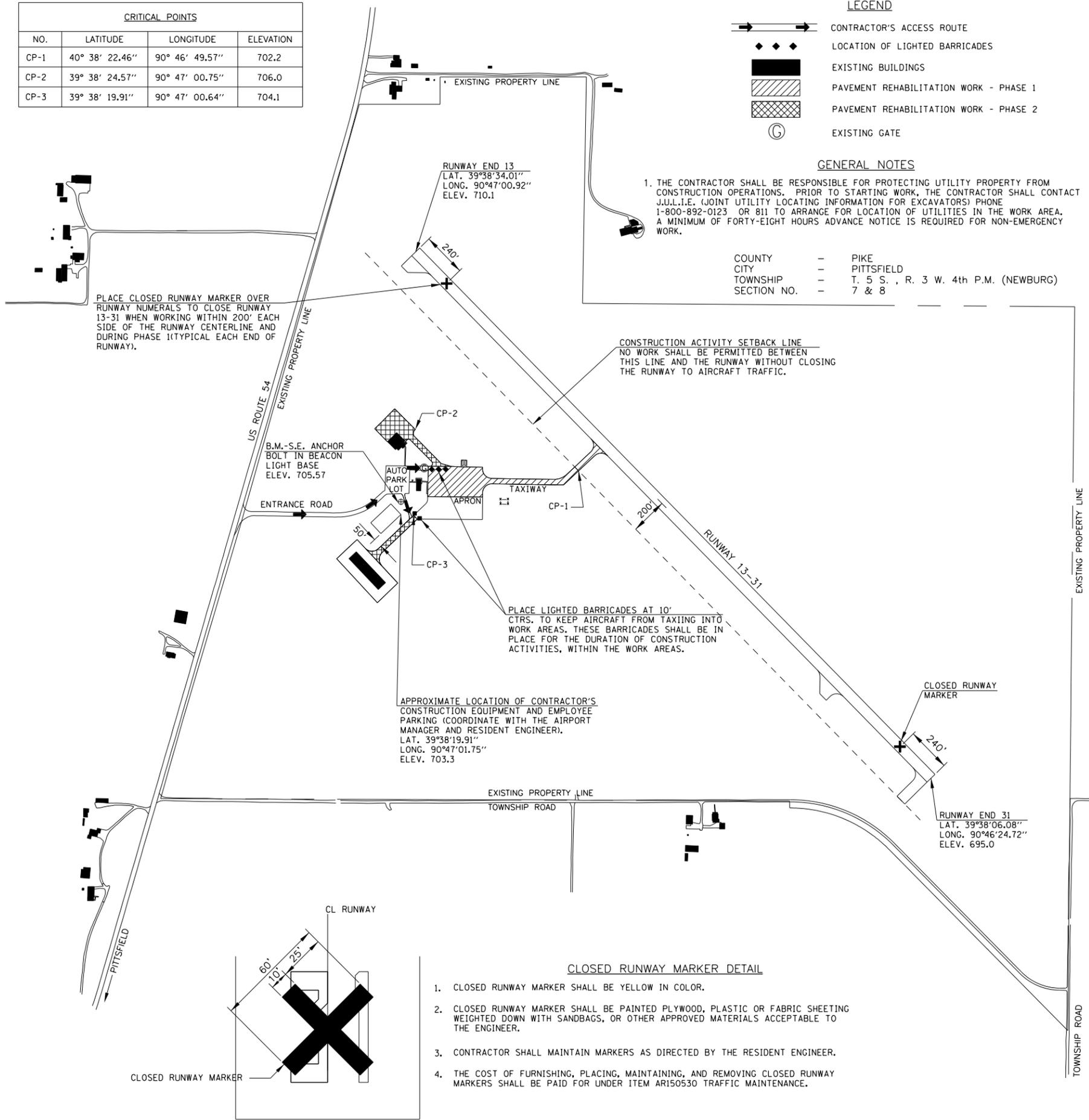
**PITTSFIELD PENSTONE MUNICIPAL AIRPORT**  
 CITY OF PITTSFIELD, ILLINOIS  
 REHABILITATE ALL 3 TAXIWAYS, NORTH PORTION OF MAIN APRON, & FBO APRON  
**CONSTRUCTION SAFETY & PHASING PLAN**

HEI PROJ. NO. 4071  
 ILL PROJ. NO. PPO-4252  
 SBC PROJ. NO. 3-17-SBCP-80/88/91/95/97/99

**FINAL**

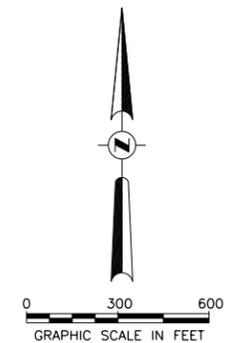
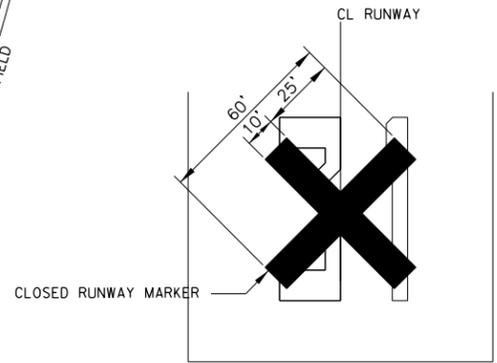
**3**

SHEET 3 OF 13



**CLOSED RUNWAY MARKER DETAIL**

- CLOSED RUNWAY MARKER SHALL BE YELLOW IN COLOR.
- CLOSED RUNWAY MARKER SHALL BE PAINTED PLYWOOD, PLASTIC OR FABRIC SHEETING WEIGHTED DOWN WITH SANDBAGS, OR OTHER APPROVED MATERIALS ACCEPTABLE TO THE ENGINEER.
- CONTRACTOR SHALL MAINTAIN MARKERS AS DIRECTED BY THE RESIDENT ENGINEER.
- THE COST OF FURNISHING, PLACING, MAINTAINING, AND REMOVING CLOSED RUNWAY MARKERS SHALL BE PAID FOR UNDER ITEM AR150530 TRAFFIC MAINTENANCE.



PI017

FILENAME: PPO4252-ah1-typical-1.dgn

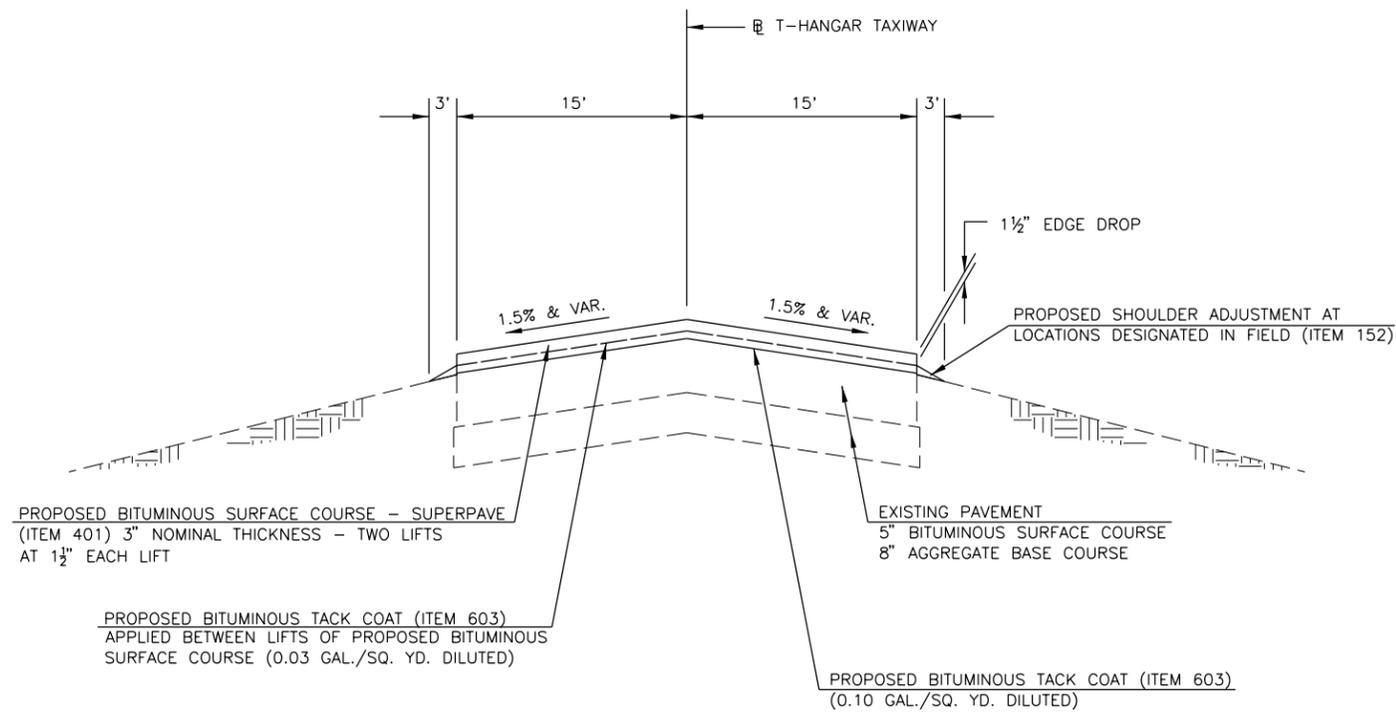
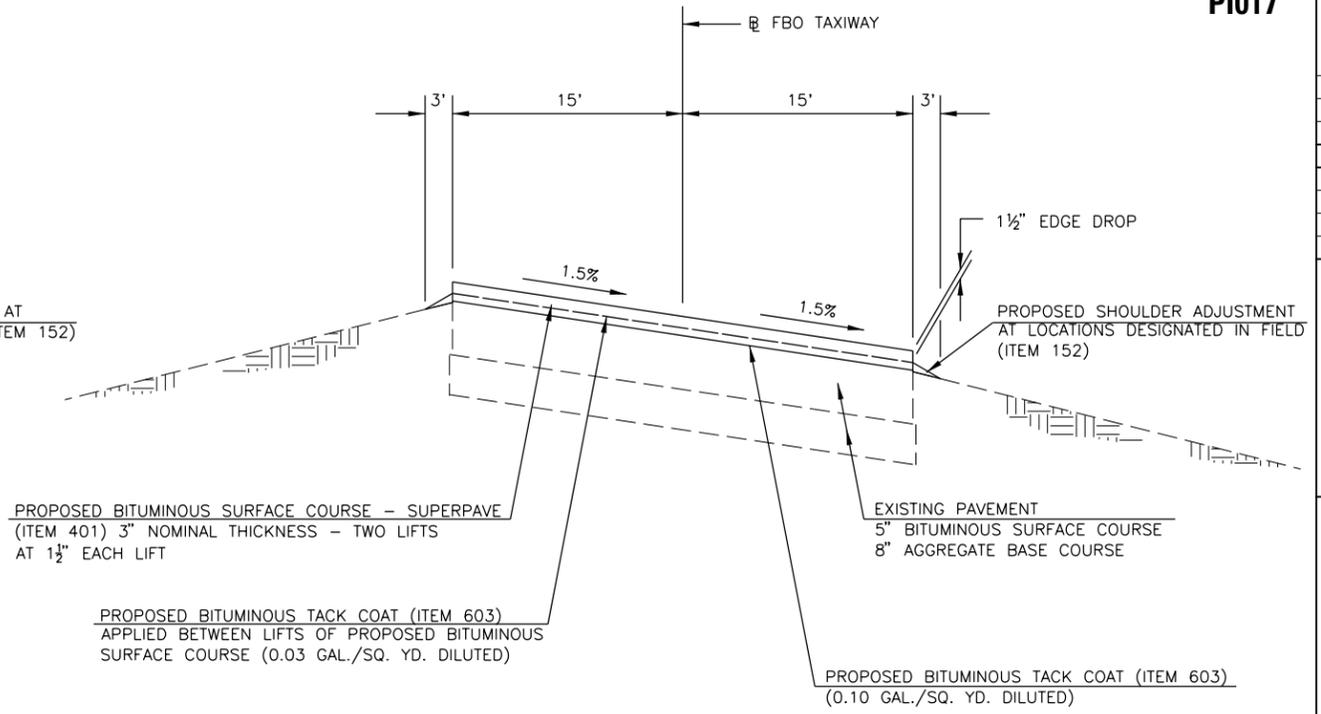
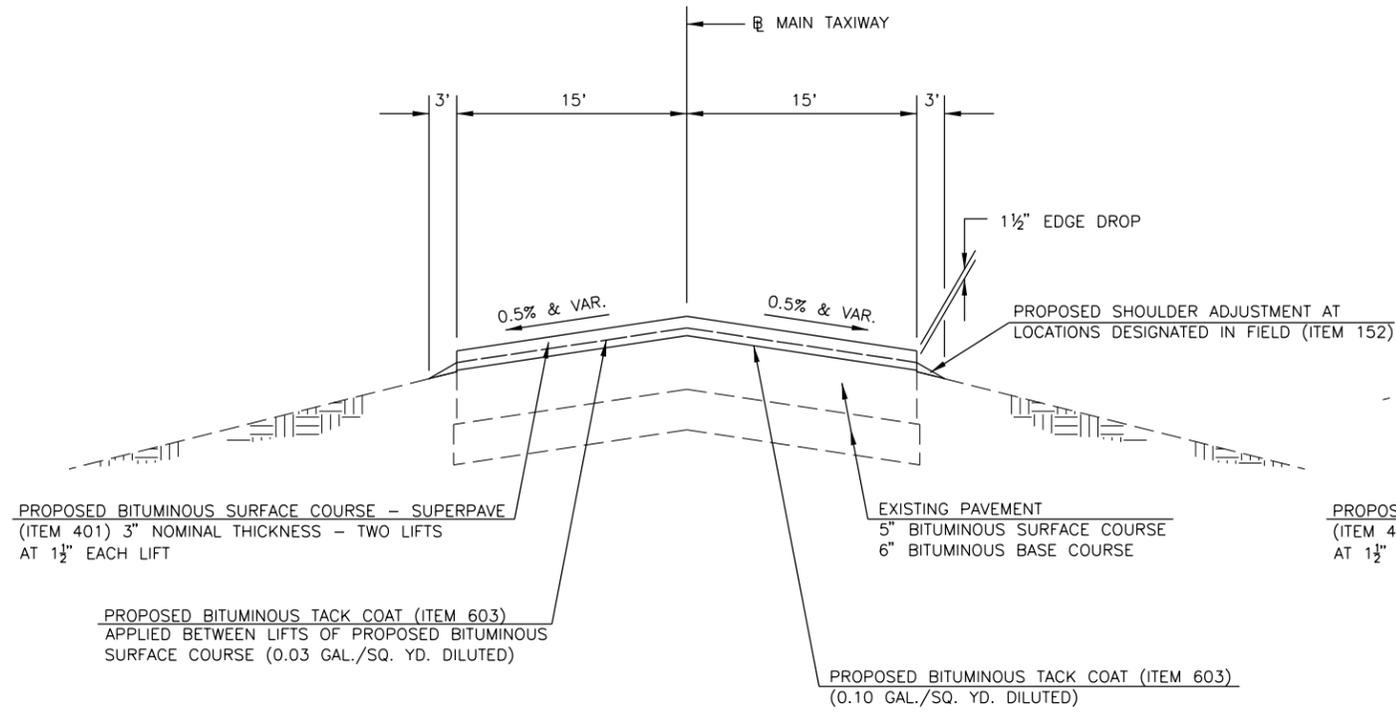
PLOT DATE: 5/15/2017

SCALE: 100,0000' / in.

USER: jolson

DRAWN	JCW	04/07/17
CHECKED	BMB	04/07/17
APPROVED	JMO	05/15/17

REVISIONS		
NO.	BY	DATE



**Hutchison Engineering, Inc.**  
SINCE 1945  
1801 West Lafayette  
PO Box 820  
Jacksonville, Illinois 62651  
PHONE : (217)245-7164 FAX (217)243-0468

PITTSFIELD PENSTONE MUNICIPAL AIRPORT  
CITY OF PITTSFIELD, ILLINOIS  
REHABILITATE ALL 3 TAXIWAYS, NORTH PORTION OF MAIN APRON, & FBO APRON

**TAXIWAY TYPICAL SECTIONS**

HEI PROJ. NO. 4071  
ILL PROJ. NO. PPO-4252  
SBC PROJ. NO. 3-17-SBCP-80/88/91/95/97/99

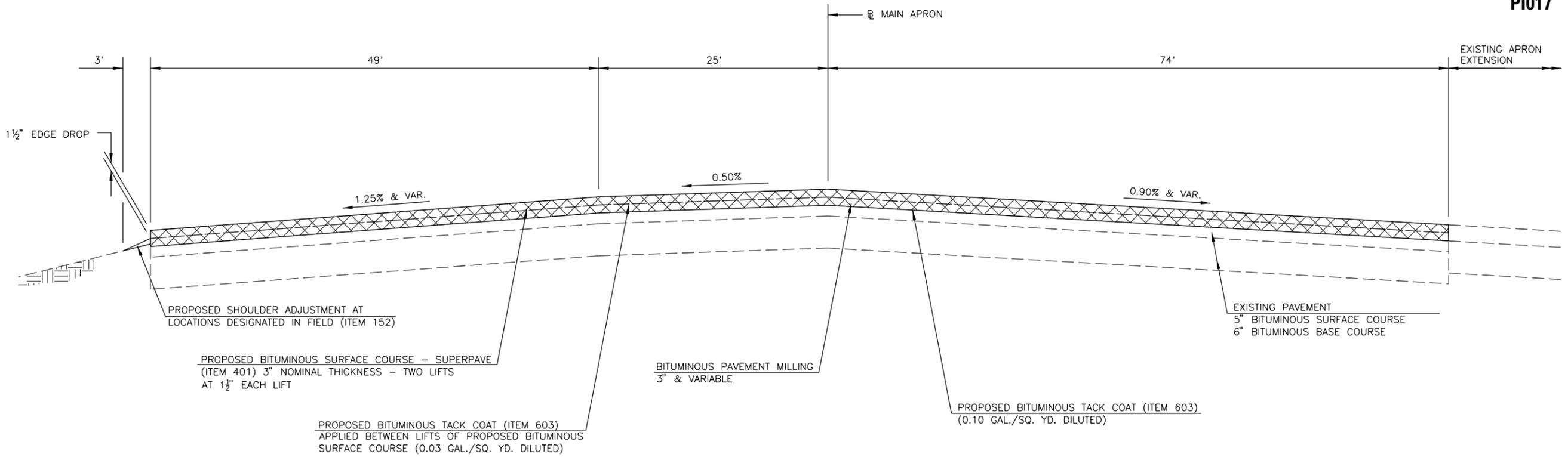
**FINAL**  
**4**  
SHEET 4 OF 13

PI017

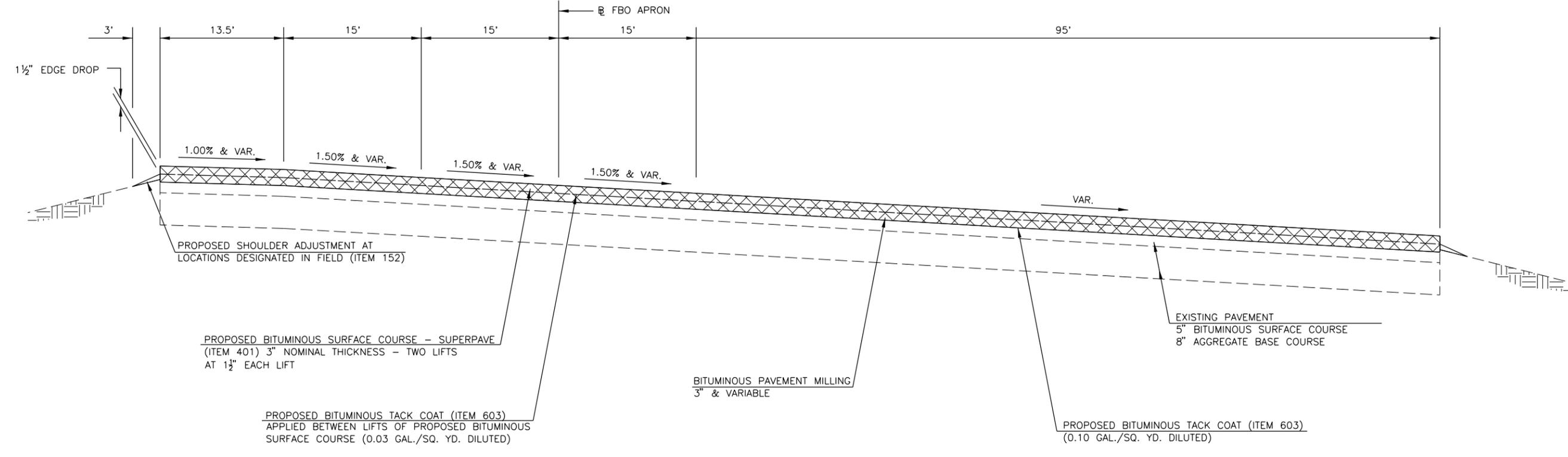
FILENAME: PP04252-ah1-1typical-2.dgn  
PLOT DATE: 5/15/2017  
SCALE: 100,0000' / in.  
USER: jolson

DRAWN	JCW	04/05/17
CHECKED	BMB	04/07/17
APPROVED	JMO	05/15/17

REVISIONS		
NO.	BY	DATE



MAIN APRON TYPICAL SECTION  
NOT TO SCALE  
STA 20+29.67 TO STA 23+29.42



FBO APRON TYPICAL SECTION  
NOT TO SCALE  
STA 305+96.95 TO STA 307+55.84

**Hutchison Engineering, Inc.**  
SINCE 1945  
1801 West Lafayette  
PO Box 820  
Jacksonville, Illinois 62651  
PHONE : (217)245-7164 FAX (217)243-0468

PITTSFIELD PENSTONE MUNICIPAL AIRPORT  
CITY OF PITTSFIELD, ILLINOIS  
REHABILITATE ALL 3 TAXIWAYS, NORTH PORTION OF MAIN APRON, & FBO APRON

APRON TYPICAL SECTIONS

HEI PROJ. NO. 4071  
ILL PROJ. NO. PPQ-4252  
SBC PROJ. NO. 3-17-SBCP-80/88/91/95/97/99

FINAL

5



BM - S.E. ANCHOR BOLT  
IN BEACON LIGHT BASE  
ELEV. 705.57

NOTES

- ELEVATIONS SHOWN ARE TOP OF FINISHED SURFACE ELEVATIONS.  
(E) SHOWN AFTER AN ELEVATION DENOTES AN EXISTING ELEVATION.
- WHERE PROPOSED BITUMINOUS SURFACE ABUTS EXISTING PAVEMENT,  
THE EXISTING PAVEMENT SHALL BE CUT TO PRODUCE A STRAIGHT  
VERTICAL FACE. PRIOR TO CONSTRUCTION OF THE BITUMINOUS SURFACE  
COURSE THE VERTICAL FACES OF ALL ABUTTING EXISTING PAVEMENT  
SHALL BE PAINTED WITH LIQUID ASPHALT. COST OF THIS WORK SHALL  
BE CONSIDERED INCIDENTAL TO THE CONTRACT.

PI017

FILENAME: PP04252-ah1-pin2.dgn

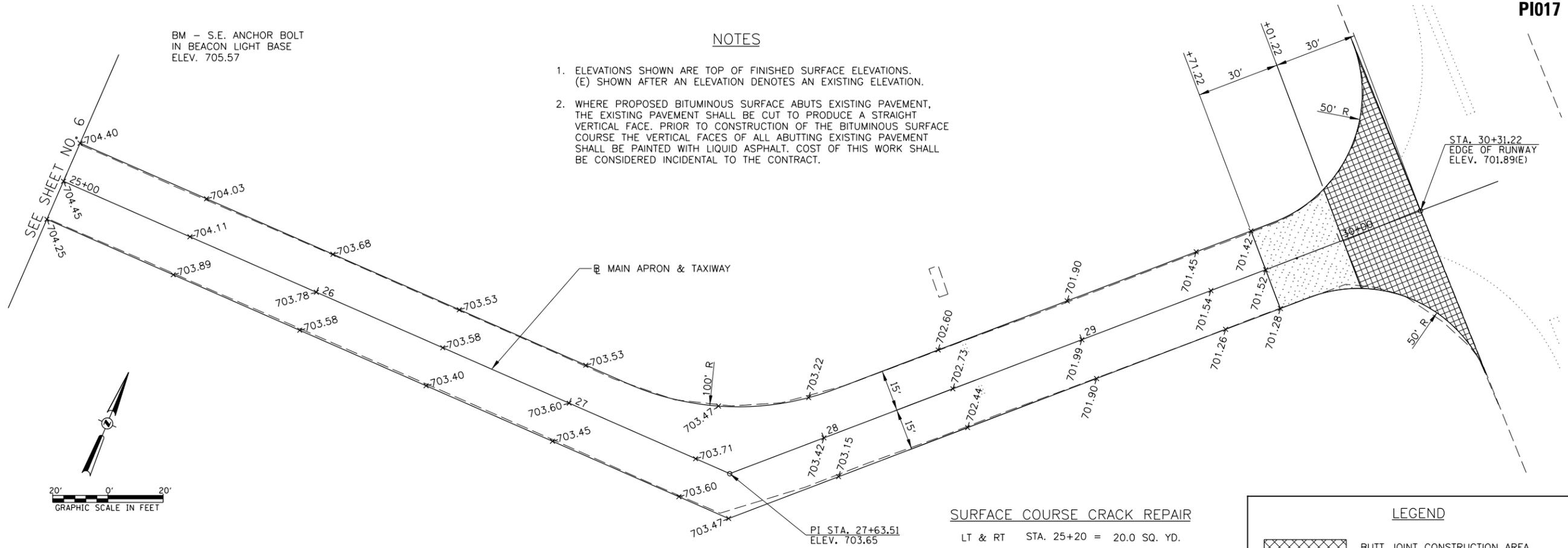
PLOT DATE: 5/15/2017

SCALE: 40.0000' / 1"

USER: jolson

DRAWN	JCW	03/23/17
CHECKED	BMB	04/07/17
APPROVED	JMO	05/15/17

REVISIONS		
NO.	BY	DATE



**LEGEND**

BUTT JOINT CONSTRUCTION AREA  
(SEE SPECIAL DETAIL)

BITUMINOUS SURFACE COURSE  
LEVELING RUNOUT AREA (1 1/2" TO 0")

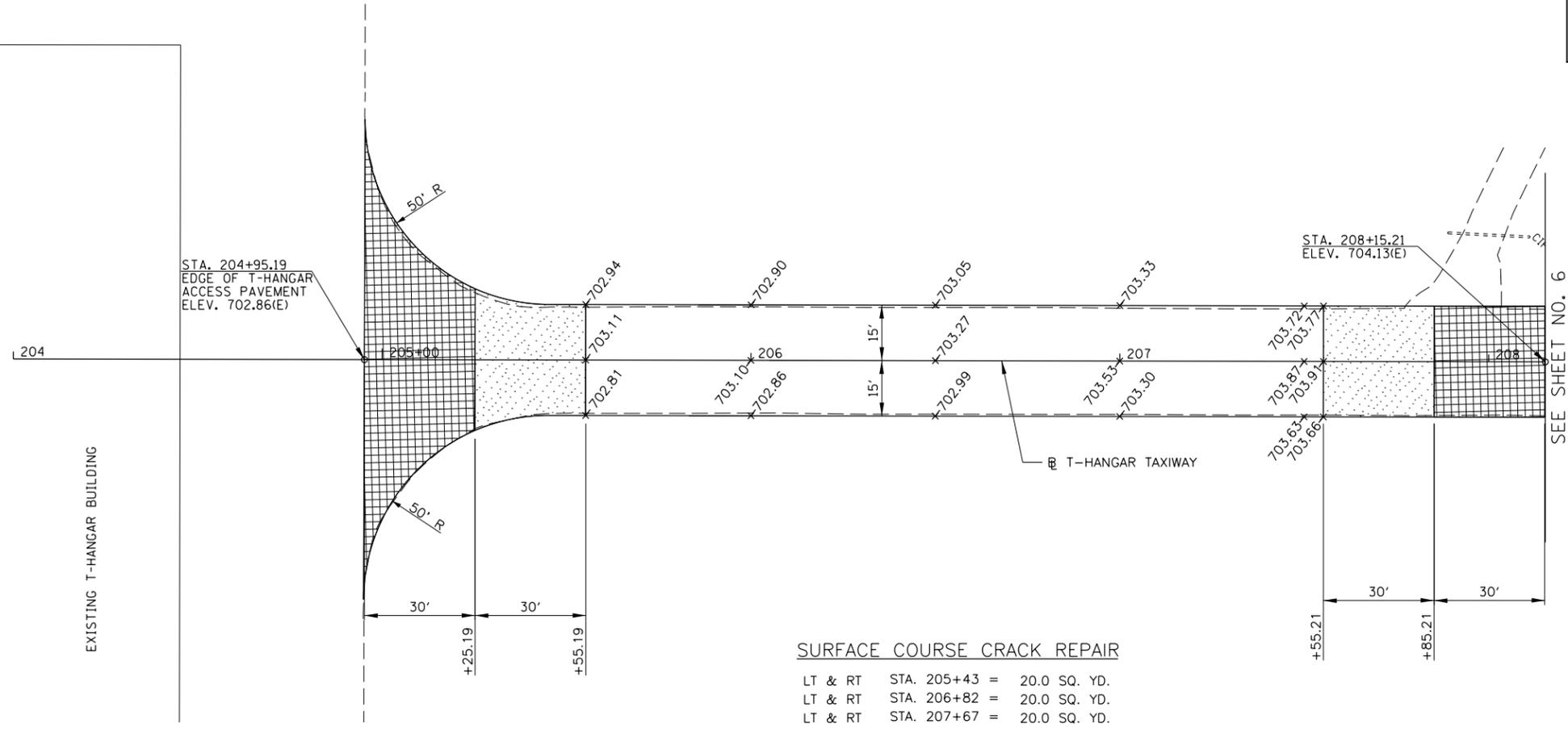
**Hutchison Engineering, Inc.**  
SINCE 1945  
1801 West Lafayette  
PO Box 820  
Jacksonville, Illinois 62651  
PHONE : (217)245-7164 FAX (217)243-0468

**PITTSFIELD PENSTONE MUNICIPAL AIRPORT**  
**CITY OF PITTSFIELD, ILLINOIS**  
**REHABILITATE ALL 3 TAXIWAYS, NORTH PORTION OF**  
**MAIN APRON, & FBO APRON**

**PAVEMENT LAYOUT & ELEVATIONS**

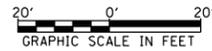
HEI PROJ. NO. 4071  
ILL PROJ. NO. PPO-4252  
SBC PROJ. NO.  
3-17-SBCP-80/88/91/95/97/99

**FINAL**  
**7**  
SHEET 7 OF 13



**SURFACE COURSE CRACK REPAIR**

LT & RT STA. 205+43 = 20.0 SQ. YD.  
LT & RT STA. 206+82 = 20.0 SQ. YD.  
LT & RT STA. 207+67 = 20.0 SQ. YD.



BM - S.E. ANCHOR BOLT  
IN BEACON LIGHT BASE  
ELEV. 705.57

**NOTES**

- ELEVATIONS SHOWN ARE TOP OF FINISHED SURFACE ELEVATIONS. (E) SHOWN AFTER AN ELEVATION DENOTES AN EXISTING ELEVATION.
- WHERE PROPOSED BITUMINOUS SURFACE ABUTS EXISTING PAVEMENT, THE EXISTING PAVEMENT SHALL BE CUT TO PRODUCE A STRAIGHT VERTICAL FACE. PRIOR TO CONSTRUCTION OF THE BITUMINOUS SURFACE COURSE THE VERTICAL FACES OF ALL ABUTTING EXISTING PAVEMENT SHALL BE PAINTED WITH LIQUID ASPHALT. COST OF THIS WORK SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT.
- EXISTING TIEDOWNS WITHIN THE LIMITS OF BITUMINOUS PAVEMENT MILLING SHALL HAVE THE CASTINGS REMOVED AND CONCRETE BASES SHALL BE ABANDONED BY REMOVING TO A DEPTH FLUSH WITH THE MILLED SURFACE. COST OF THIS WORK SHALL BE INCIDENTAL TO THE BITUMINOUS PAVEMENT MILLING.

**PI017**

FILENAME: PP04252-ah1-pin3.dgn

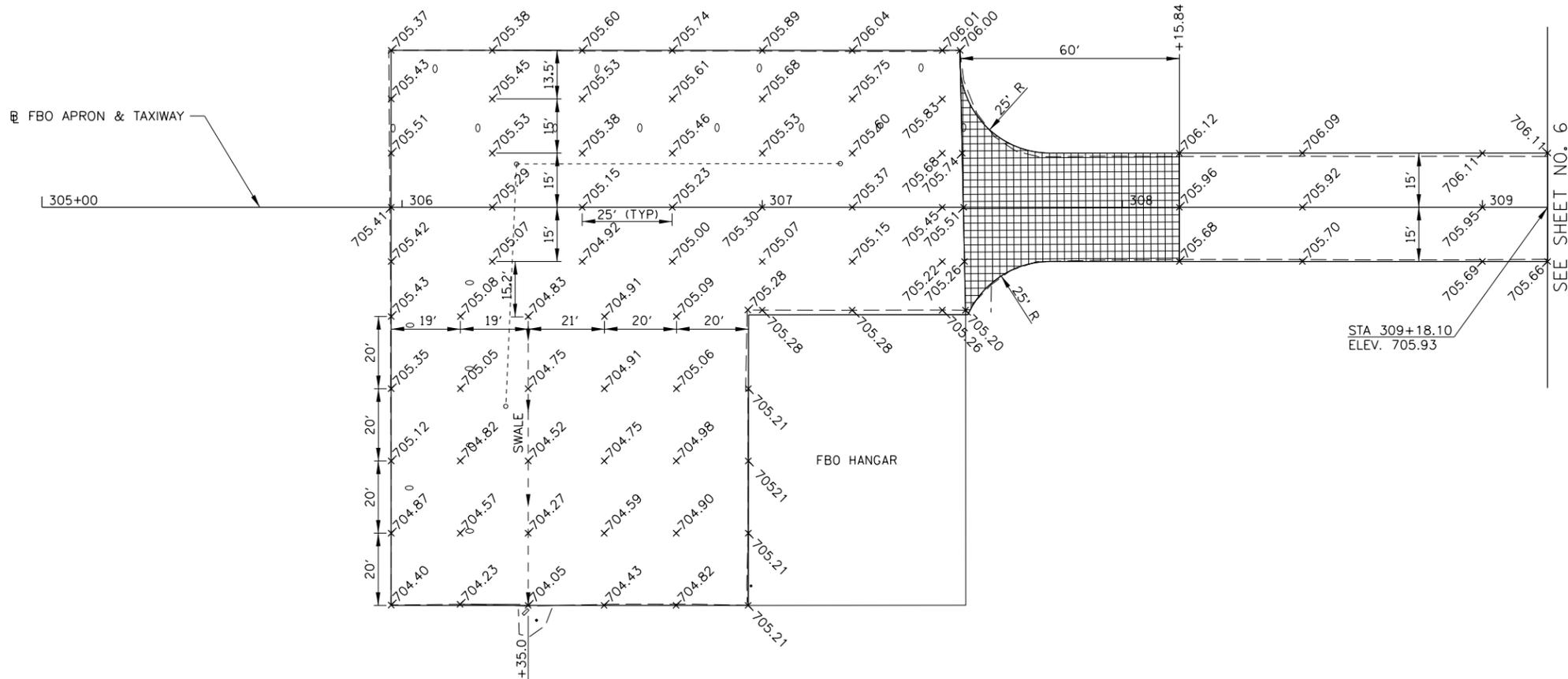
PLOT DATE: 5/15/2017

SCALE: 40.0000' / 1"

USER: jolson

DRAWN	JCW	03/23/17
CHECKED	BMB	04/07/17
APPROVED	JMO	05/15/17

REVISIONS		
NO.	BY	DATE



**SURFACE COURSE CRACK REPAIR**

LT	STA. 307+60 =	14.4 SQ. YD.
LT & RT	STA. 308+21 =	20.0 SQ. YD.
LT	STA. 308+36 =	10.0 SQ. YD.

**LEGEND**

- BUTT JOINT CONSTRUCTION AREA (SEE SPECIAL DETAIL)
- BITUMINOUS SURFACE COURSE LEVELING RUNOUT AREA (1 1/2" TO 0")
- EXISTING TIEDOWN
- EXISTING GROUND RODS WITH GROUNDING CABLE

**Hutchison Engineering, Inc.**  
SINCE 1945  
1801 West Lafayette  
PO Box 820  
Jacksonville, Illinois 62651  
PHONE : (217)245-7164 FAX (217)243-0468

**PITTSFIELD PENSTONE MUNICIPAL AIRPORT  
CITY OF PITTSFIELD, ILLINOIS  
REHABILITATE ALL 3 TAXIWAYS, NORTH PORTION OF  
MAIN APRON, & FBO APRON**

**PAVEMENT LAYOUT & ELEVATIONS**

HEI PROJ. NO. 4071  
ILL PROJ. NO. PPQ-4252  
SBC PROJ. NO.  
3-17-SBCP-80/88/91/95/97/99

**FINAL**

**8**

**SHEET 8 OF 13**

DRAWN	JCW	03/23/17
CHECKED	BMB	04/07/17
APPROVED	JMO	05/15/17

REVISIONS		
NO.	BY	DATE

**Hutchison Engineering, Inc.**  
 SINCE 1945  
 1801 West Lafayette  
 PO Box 820  
 Jacksonville, Illinois 62651  
 PHONE : (217)245-7164 FAX (217)243-0468

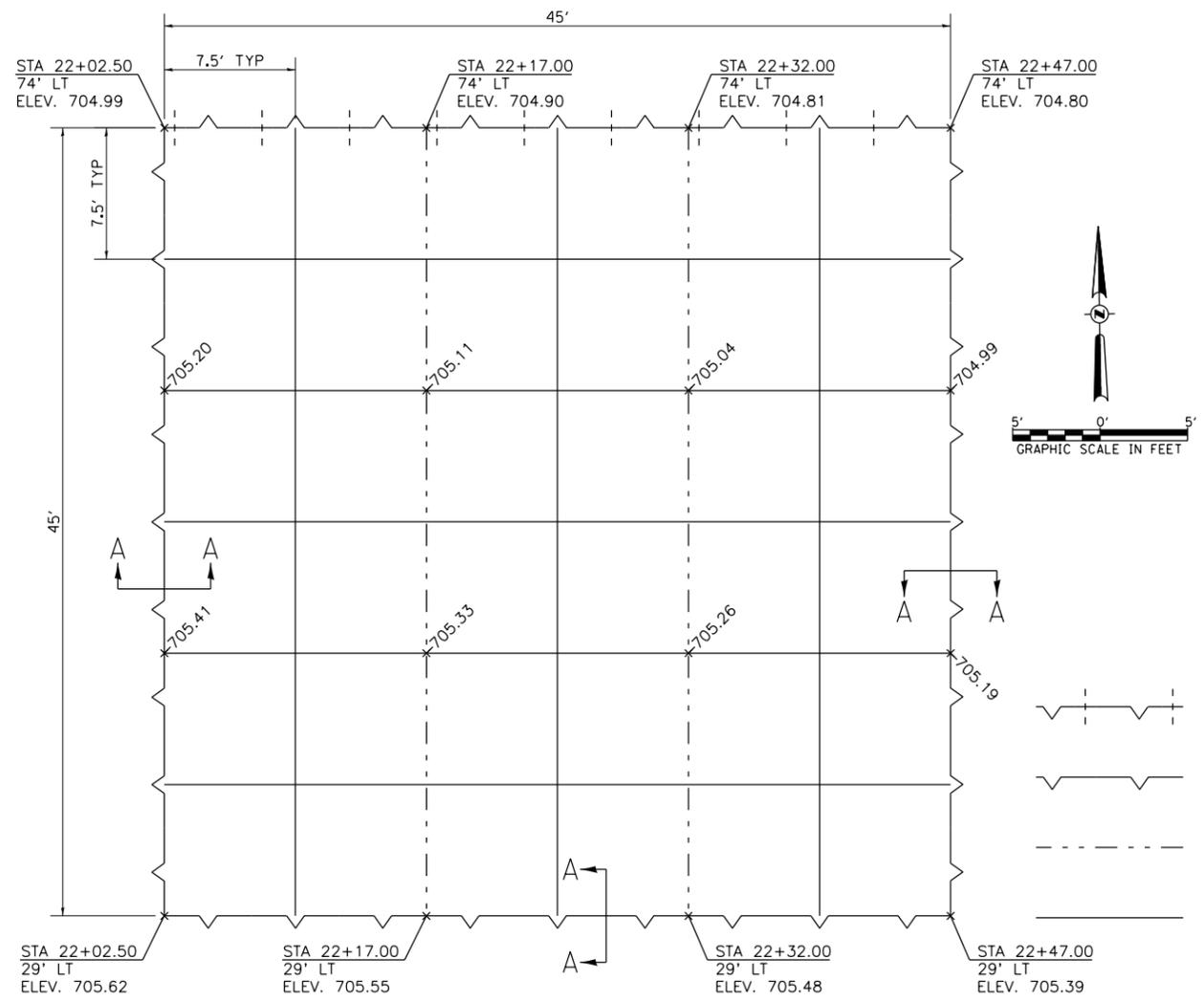
**PITTSFIELD PENSTONE MUNICIPAL AIRPORT**  
 CITY OF PITTSFIELD, ILLINOIS  
 REHABILITATE ALL 3 TAXIWAYS, NORTH PORTION OF  
 MAIN APRON, & FBO APRON  
**FUELING PAD LAYOUT PLAN**

HEI PROJ. NO. 4071  
 ILL PROJ. NO. PP0-4252  
 SBC PROJ. NO.  
 3-17-SBCP-80/88/91/95/97/99

**FINAL**

**9**

**SHEET 9 OF 13**



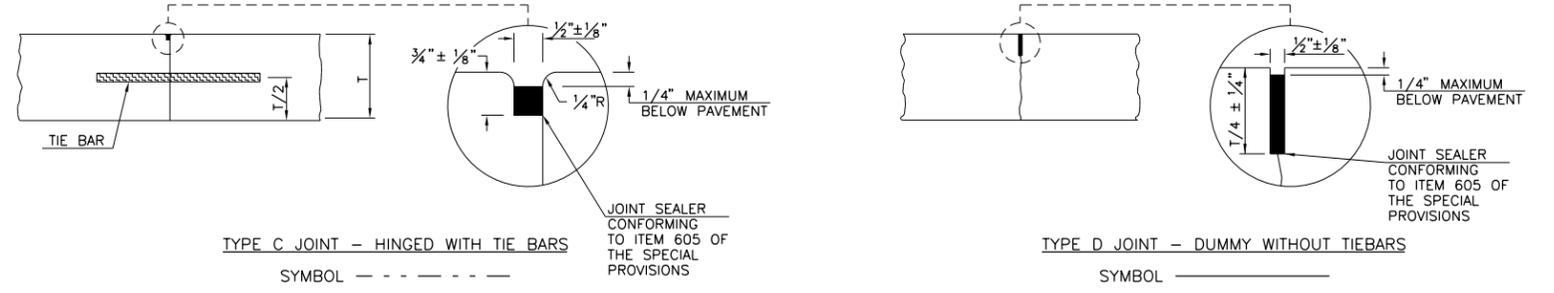
DOWEL BAR DETAILS				TIE BAR DETAILS		
T	DIA.	LENGTH	SPACING	BAR SIZE	LENGTH	SPACING
6"	3/4"	18"	12"	#5	30"	30"

**NOTES:**

- "t" REFERS TO PAVEMENT THICKNESS.
- ALL EXPOSED JOINT EDGES SHALL BE EDGED WITH AN APPROVED TOOL HAVING A RADIUS OF 1/4".
- ALL LONGITUDINAL AND TRANSVERSE CONTRACTION JOINT GROOVES SHALL BE SAWED OR FORMED. THESE JOINTS SHALL BE CUT AS SOON AFTER CONCRETE PLACEMENT AS POSSIBLE WITHOUT CAUSING THE CONCRETE TO CHIP, SPALL OR TEAR. ALL JOINTS SHALL BE CUT BEFORE UNCONTROLLED SHRINKAGE CRACKING TAKES PLACE USUALLY WITHIN 4 TO 24 HOURS OF CONCRETE PLACEMENT.
- ALL DOWEL BARS SHALL BE SECURELY HELD IN PLACE BY MEANS OF A DOWEL BAR ASSEMBLY WHICH WILL INSURE THAT THEY WILL REMAIN PARALLEL TO THE SURFACE OF THE PAVEMENT AND TO THE CENTERLINES OF THE PAVEMENT LANES. THE DOWEL BAR ASSEMBLIES SHALL BE APPROVED BY THE ENGINEER.
- ALL TIE BARS SHALL BE SECURELY HELD IN PLACE BY SUPPORT PINS OR OTHER APPROVED METHODS TO PREVENT SHIFTING DURING AND AFTER CONCRETE PLACEMENT. SUPPORT PINS SHALL BE OF SUFFICIENT LENGTH TO PENETRATE AT LEAST 6" INTO THE SUBGRADE.
- ALL TIE BARS SHALL BE PLACED AT A POINT NOT EXCEEDING 15" FROM A TRANSVERSE CONTRACTION, EXPANSION, OR CONSTRUCTION JOINT AND SPACED 30" ON CENTERS AND SHALL BE SIZED ACCORDING TO THE ABOVE TIE BAR SCHEDULE.
- WHEN THE TIE BARS ARE REQUIRED FOR LONGITUDINAL CONSTRUCTION JOINTS, ONE END OF THE TIE BAR SHALL BE BENT AND INSERTED INTO THE MIDPOINT OF THE JOINT AND THE OTHER END RIGIDLY SUPPORTED BY PINS PRIOR TO PLACING CONCRETE ON THE ADJACENT LANE. THE BENT BARS SHALL BE STRAIGHTENED TO RIGHT ANGLES WITH THE LONGITUDINAL JOINT AND EXTEND INTO THE ADJACENT LANE PARALLEL TO THE PAVEMENT SURFACE.
- DOWELS IN TRANSVERSE CONTRACTION AND CONSTRUCTION JOINTS AND IN LONGITUDINAL BUTT CONSTRUCTION JOINTS SHALL BE COATED WITH A RUST-PROOFING COMPOUND AND THE ENTIRE LENGTH GREASED WITH A HEAVY GREASE, EXCEPT AS NOTED IN THE TYPE "A" EXPANSION JOINT.
- GROOVE DEPTH FOR ALL DUMMY GROOVE JOINTS SHALL BE  $T/4 \pm 1/4"$ , BUT IN NO CASE LESS THAN  $1 1/2"$ .

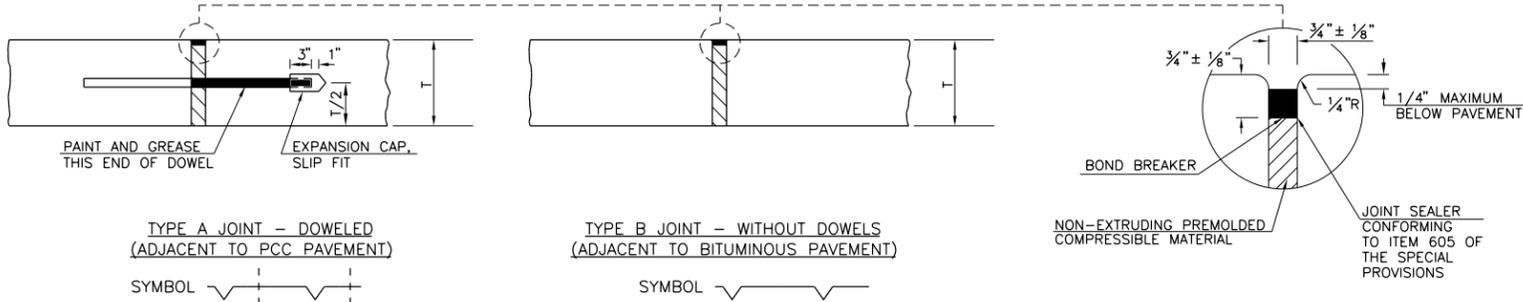
**LEGEND**

- TYPE A JOINT - EXPANSION JOINT WITH DOWELS (ADJACENT TO PCC PAVEMENT)
- TYPE B JOINT - EXPANSION JOINT WITHOUT DOWELS (ADJACENT TO BITUMINOUS PAVEMENT)
- TYPE C JOINT - CONSTRUCTION JOINT, HINGED WITH TIEBARS
- TYPE D JOINT - CONTRACTION JOINT, DUMMY WITHOUT TIEBARS



**CONSTRUCTION JOINTS**

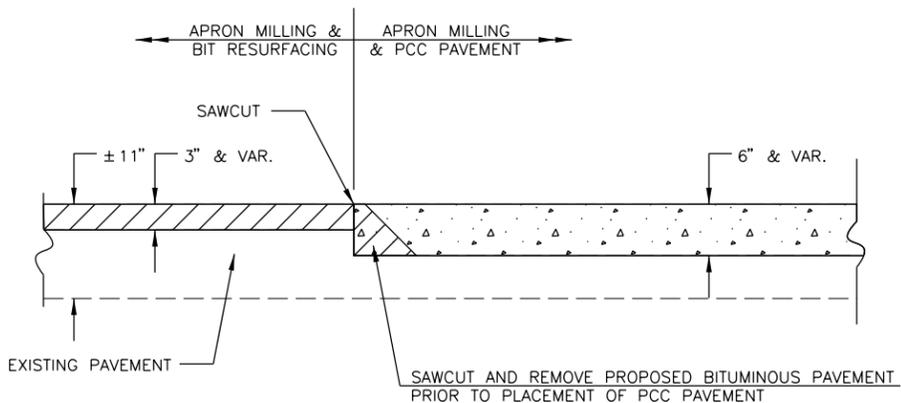
**CONTRACTION JOINTS**



TYPE A JOINT - DOWELED (ADJACENT TO PCC PAVEMENT)

TYPE B JOINT - WITHOUT DOWELS (ADJACENT TO BITUMINOUS PAVEMENT)

**EXPANSION JOINTS**



- PROPOSED BITUMINOUS SURFACE COURSE (ITEM 401)
- PROPOSED 6" PCC PAVEMENT (ITEM 501)

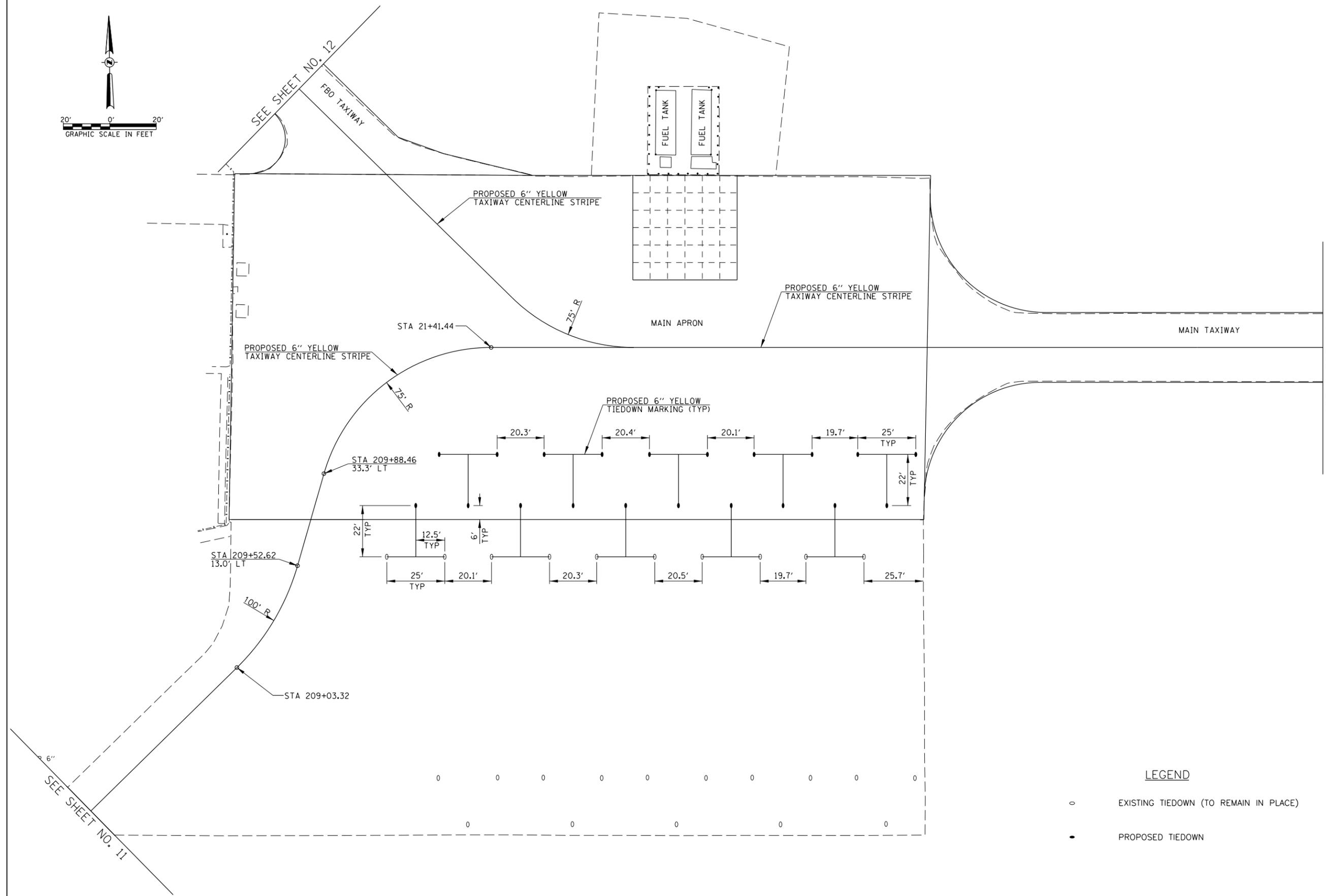
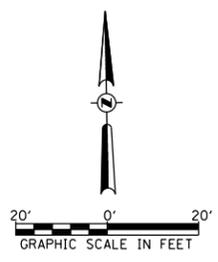
**SECTION A-A**

**NOTES**

- INCREASE BITUMINOUS PAVEMENT MILLING DEPTH FROM 3" AND VARIABLE TO 6" AND VARIABLE IN AREA OF PCC PAVEMENT.
- PLACE PROPOSED BITUMINOUS SURFACE COURSE PRIOR TO CONSTRUCTION OF PCC PAVEMENT.
- TO ACHIEVE REQUIRED DENSITY IMMEDIATELY ADJACENT TO THE CONSTRUCTION JOINT, PROPOSED BITUMINOUS SURFACE COURSE SHALL EXTEND BEYOND THE FINAL CONSTRUCTION JOINT LOCATION TO ALLOW FOR COMPACTION AGAINST AN UNCONFINED EDGE.
- AFTER THE FINAL LIFT OF BITUMINOUS SURFACE COURSE IS PLACED, THE SURFACE COURSE IN THE AREA OF THE PCC PAVEMENT SHALL BE SAWCUT AND REMOVED PRIOR TO PLACING THE PCC PAVEMENT IN SUCH A MANNER THAT THE PCC PAVEMENT CAN BE PLACED AGAINST THE SAWCUT FACE.
- THIS WORK SHALL NOT BE PAID FOR SEPARATELY, BUT SHALL BE CONSIDERED INCLUDED IN THE COST OF THE APPLICABLE PAY ITEMS.

DRAWN	JCW	03/23/17
CHECKED	BMB	04/07/17
APPROVED	JMO	05/15/17

REVISIONS		
NO.	BY	DATE



- LEGEND**
- EXISTING TIEDOWN (TO REMAIN IN PLACE)
  - PROPOSED TIEDOWN

SEE SHEET NO. 11

**Hutchison Engineering, Inc.**  
 SINCE 1945  
 1801 West Lafayette  
 PO Box 820  
 Jacksonville, Illinois 62651  
 PHONE : (217)245-7164 FAX (217)243-0468

**PITTSFIELD PENSTONE MUNICIPAL AIRPORT**  
**CITY OF PITTSFIELD, ILLINOIS**  
**REHABILITATE ALL 3 TAXIWAYS, NORTH PORTION OF MAIN APRON, & FBO APRON**  
**PAVEMENT MARKING LAYOUT**

HEI PROJ. NO. 4071  
 ILL PROJ. NO. PP0-4252  
 SBC PROJ. NO. 3-17-SBCP-80/88/91/95/97/99

**FINAL**  
**10**  
 SHEET 10 OF 13

PI017

DRAWN	JCW	03/23/17
CHECKED	BMB	04/07/17
APPROVED	JMO	05/15/17

REVISIONS		
NO.	BY	DATE

**Hutchison Engineering, Inc.**  
 SINCE 1945  
 1801 West Lafayette  
 PO Box 820  
 Jacksonville, Illinois 62651  
 PHONE : (217)245-7164 FAX (217)243-0468

**PITTSFIELD PENSTONE MUNICIPAL AIRPORT**  
**CITY OF PITTSFIELD, ILLINOIS**  
**REHABILITATE ALL 3 TAXIWAYS, NORTH PORTION OF**  
**MAIN APRON, & FBO APRON**

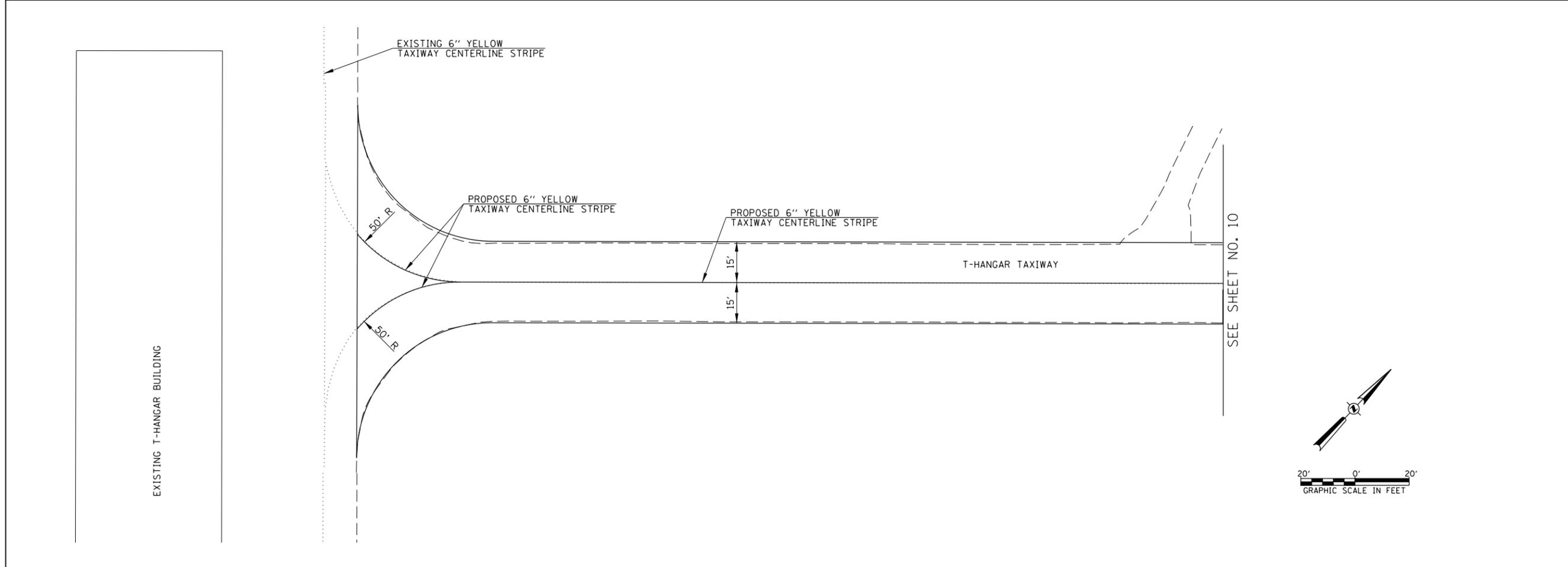
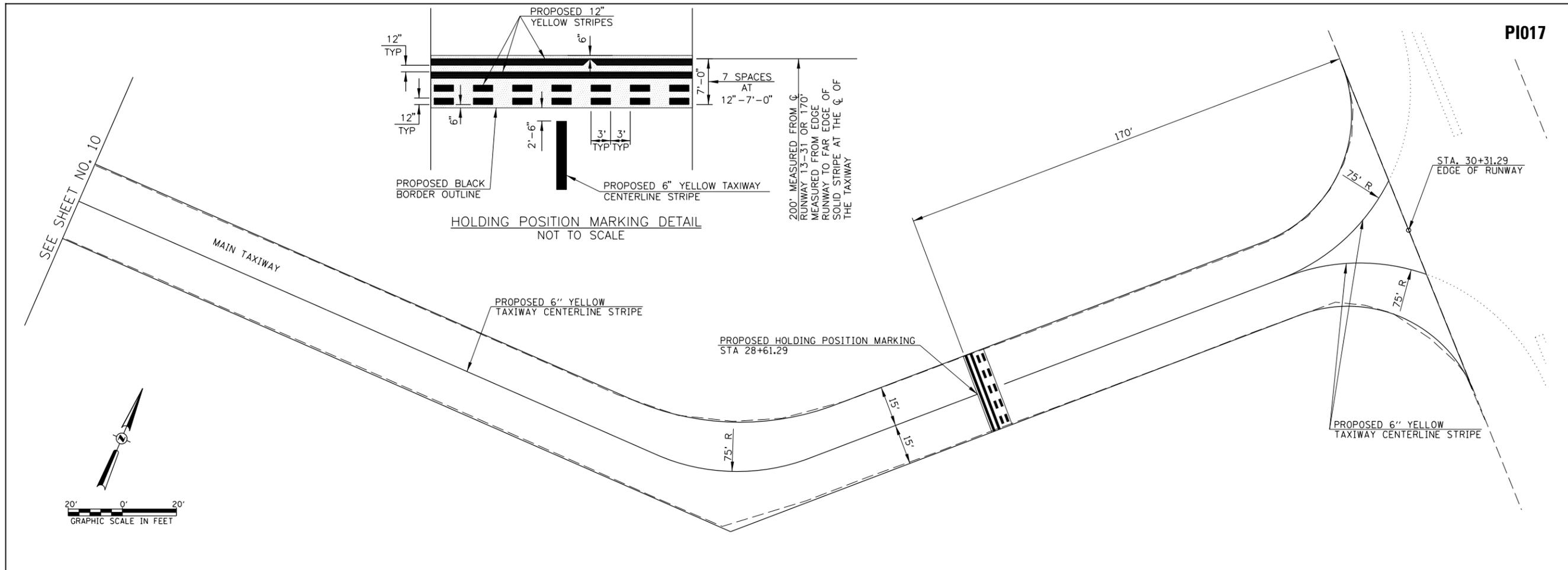
**PAVEMENT MARKING LAYOUT**

HEI PROJ. NO. 4071  
 ILL PROJ. NO. PPO-4252  
 SBC PROJ. NO.  
 3-17-SBCP-80/88/91/95/97/99

**FINAL**

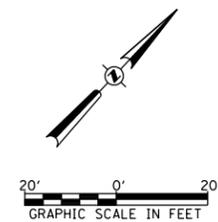
**11**

**SHEET 11 OF 13**



SEE SHEET NO. 10

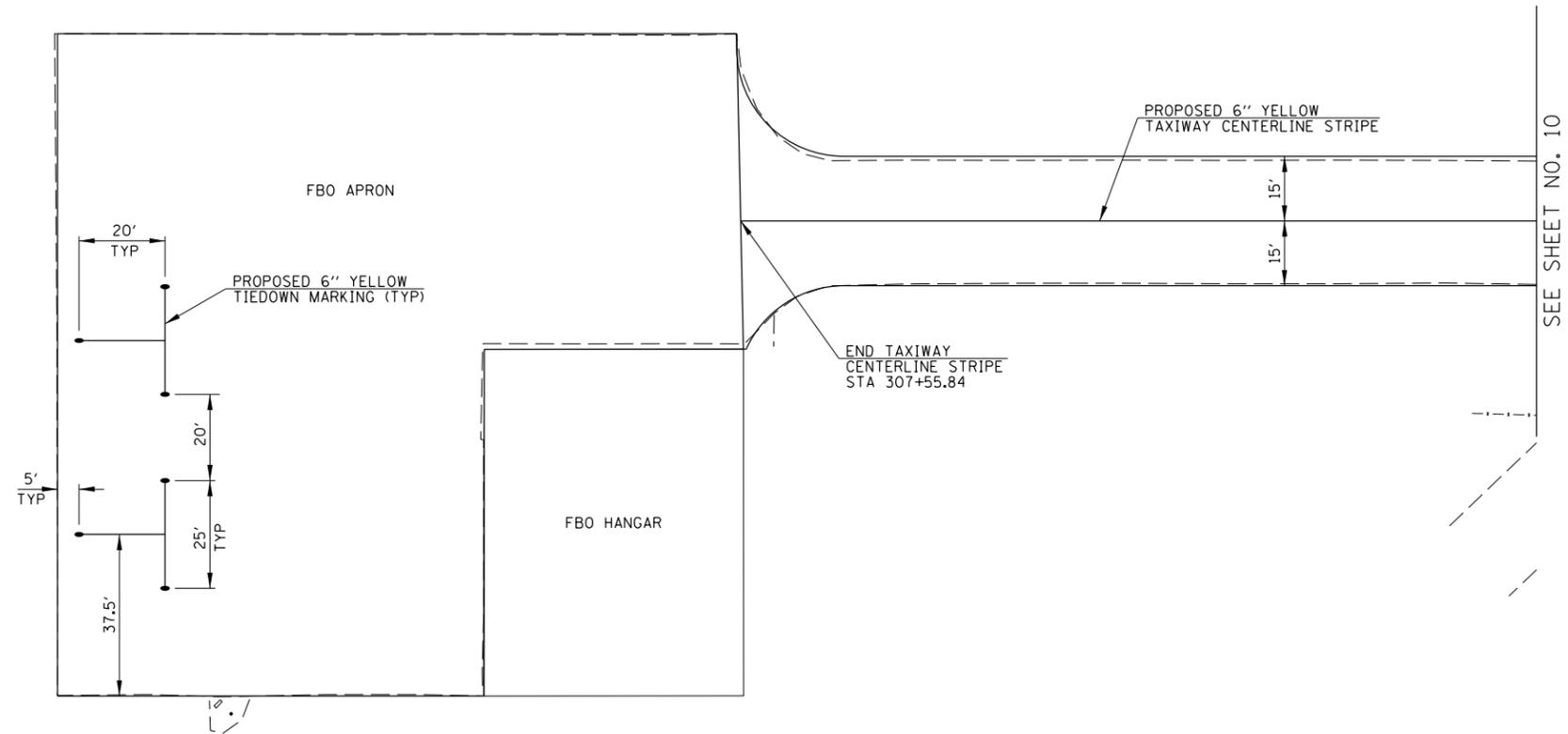
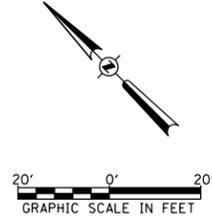
SEE SHEET NO. 10



EXISTING T-HANGAR BUILDING

DRAWN	JCW	03/23/17
CHECKED	BMB	04/07/17
APPROVED	JMO	05/15/17

REVISIONS		
NO.	BY	DATE



SEE SHEET NO. 10

**Hutchison Engineering, Inc.**  
 SINCE 1945  
 1801 West Lafayette  
 PO Box 820  
 Jacksonville, Illinois 62651  
 PHONE : (217)245-7164 FAX (217)243-0468

PITTSFIELD PENSTONE MUNICIPAL AIRPORT  
 CITY OF PITTSFIELD, ILLINOIS  
 REHABILITATE ALL 3 TAXIWAYS, NORTH PORTION OF  
 MAIN APRON, & FBO APRON

**PAVEMENT MARKING LAYOUT**

**LEGEND**

• PROPOSED TIEDOWN

HEI PROJ. NO. 4071  
 ILL PROJ. NO. PPO-4252  
 SBC PROJ. NO.  
 3-17-SBCP-80/88/91/95/97/99

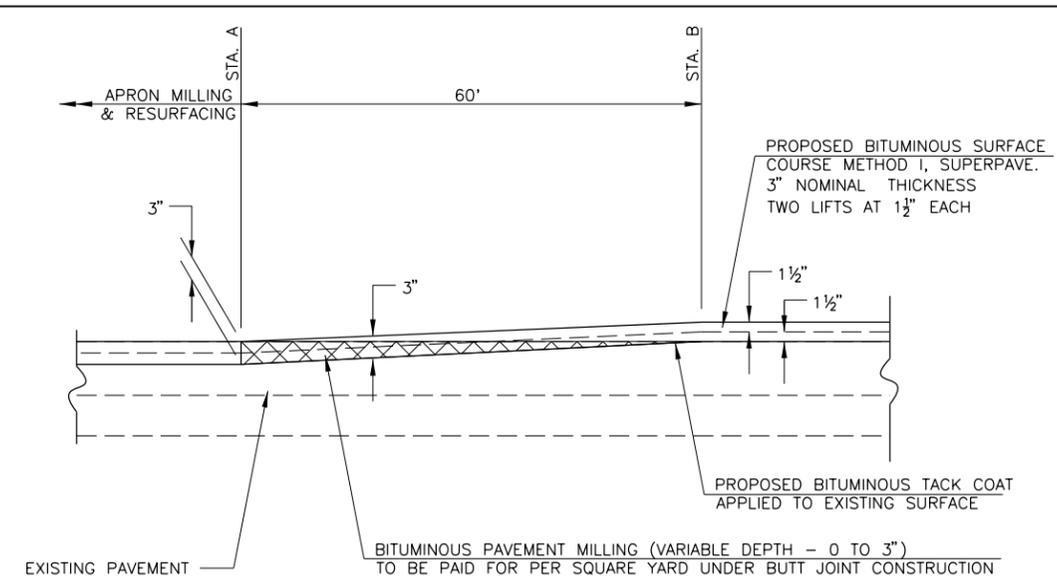
**FINAL**

**12**

PI017

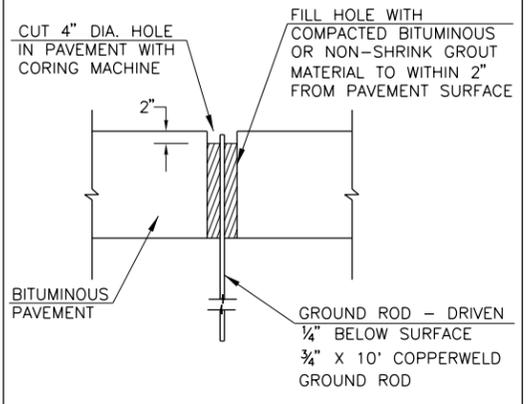
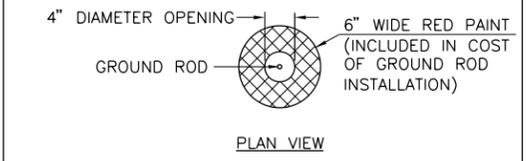
DRAWN	JCW	03/17/17
CHECKED	BMB	04/07/17
APPROVED	JMO	05/15/17

REVISIONS		
NO.	BY	DATE

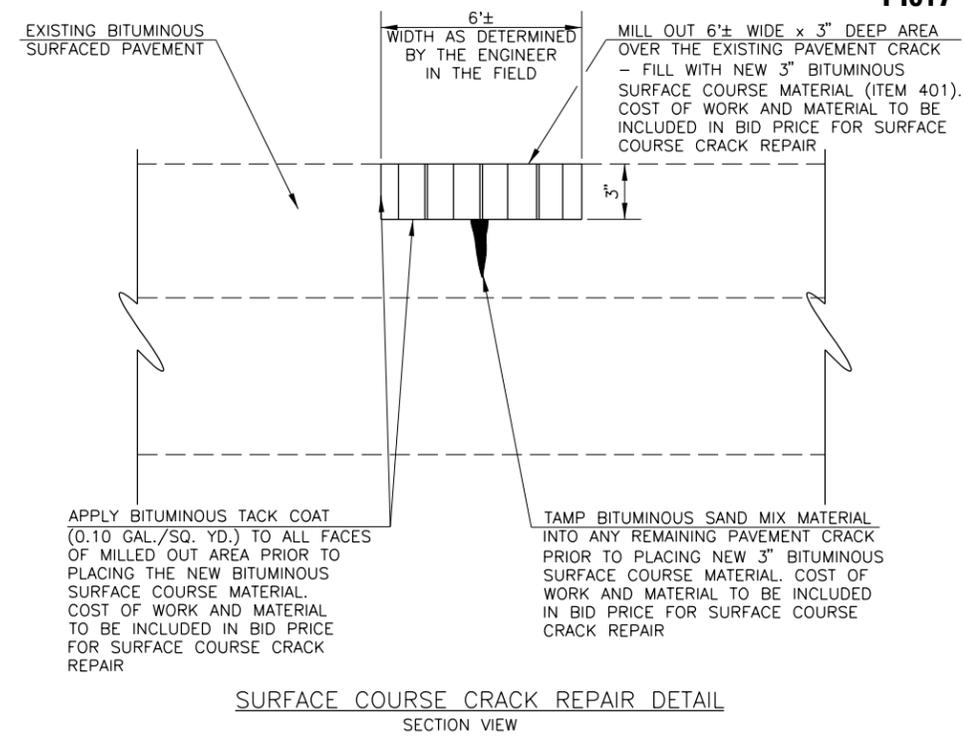


BITUMINOUS BUTT JOINT CONSTRUCTION DETAIL

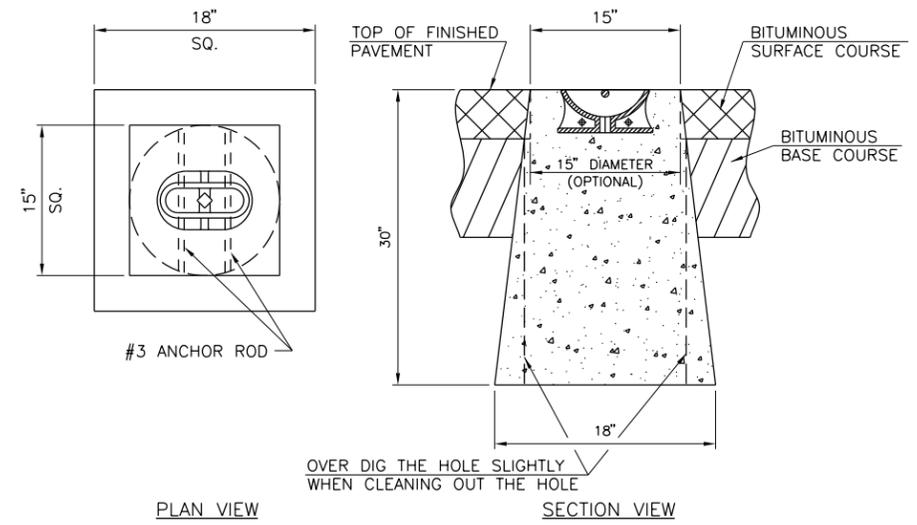
TAXIWAY	STA A	STA B
FBO	307+55.84	308+15.84
FBO	309+40.99	308+80.99
MAIN	23+29.42	23+89.42



GROUND ROD DETAIL



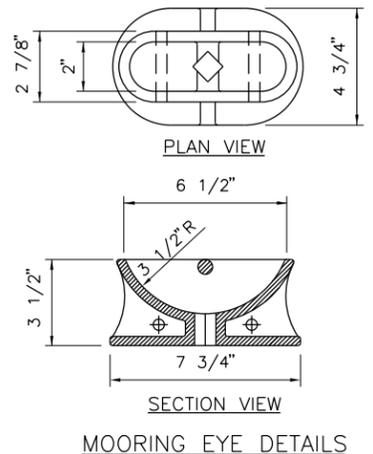
SURFACE COURSE CRACK REPAIR DETAIL



CONCRETE BASE DETAILS

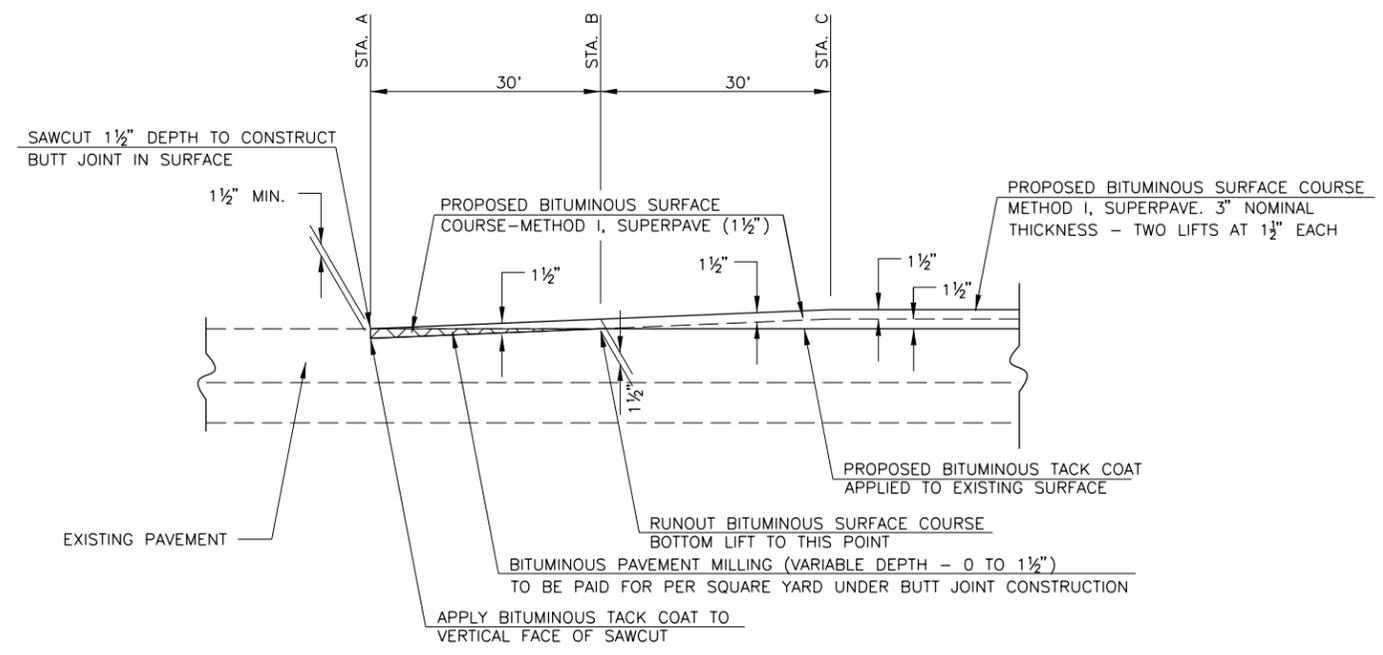
NOTES

1. CONCRETE BASE TO BE STRUCTURAL P.C. CONCRETE.
2. MOORING CASTING TO BE NEENAH SEMI-STEEL AIRPORT MOORING EYE-CATALOG NO. R-3490 OR EQUIVALENT.
3. ANCHOR RODS TO BE NO. 3 DEFORMED REINFORCING STEEL 15" LONG AND BENT DOWNWARD AT 45°.
4. INSTALLATION SHALL BE DONE AFTER COMPLETION OF BITUMINOUS SURFACE COURSE.
5. AFTER BITUMINOUS SURFACE COURSE HAS BEEN COMPLETED, OPENING SHALL BE CUT WITH A SAW OR CORED.
6. THE CONTRACTOR SHALL HAVE HAD THE OPTION OF CONSTRUCTING THE CONCRETE BASE IN THE RECTANGULAR SHAPE SHOWN ABOVE OR IN A 15" MINIMUM DIAMETER CYLINDRICAL SHAPE AS SHOWN WITH DASHED LINES IN THE DETAILS ABOVE.



MOORING EYE DETAILS

DETAIL OF TIEDOWN INSTALLATION



BITUMINOUS BUTT JOINT CONSTRUCTION DETAIL

TAXIWAY	STA A	STA B	STA B
MAIN	30+31.22	30+01.22	29+71.22
T-HANGAR	204+95.19	204+25.19	204+55.19
T-HANGAR	207+55.21	207+85.21	208+15.21

**Hutchison Engineering, Inc.**  
 SINCE 1945  
 1801 West Lafayette  
 PO Box 820  
 Jacksonville, Illinois 62651  
 PHONE : (217)245-7164 FAX (217)243-0468

**PITTSFIELD PENSTONE MUNICIPAL AIRPORT**  
 CITY OF PITTSFIELD, ILLINOIS  
 REHABILITATE ALL 3 TAXIWAYS, NORTH PORTION OF MAIN APRON, & FBO APRON

**SPECIAL DETAILS**

HEI PROJ. NO. 4071  
 ILL PROJ. NO. PP0-4252  
 SBC PROJ. NO. 3-17-SBCP-80/88/91/95/97/99

**FINAL**

**13**