

CONSTRUCTION PLANS FOR JACKSONVILLE MUNICIPAL AIRPORT

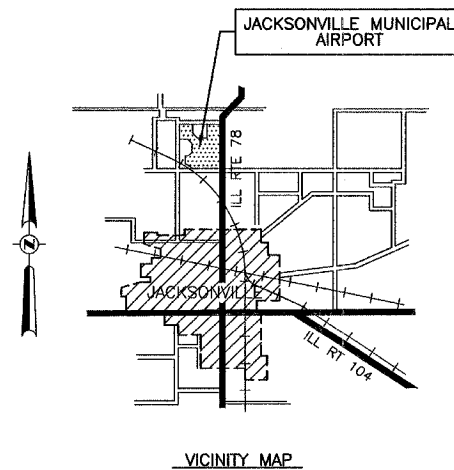
JACKSONVILLE, MORGAN COUNTY, ILLINOIS

T-HANGAR SITE DEVELOPMENT AND ACCESS PAVEMENT CONSTRUCT CONCRETE T-HANGAR FLOOR

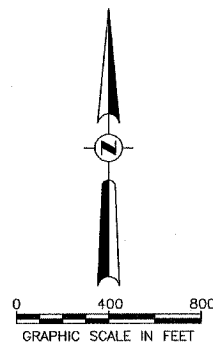
ILLINOIS PROJECT NO. IJX-3435
AIP PROJECT NO. 3-17-0054-B10

JUNE 24, 2005

FOR INDEX TO SHEETS AND
SUMMARY OF QUANTITIES
SEE SHEET NO. 3



<p>ENGINEER'S SEAL</p>	PLANS PREPARED BY : HUTCHISON ENGINEERING, INC. JACKSONVILLE, ILLINOIS	JACKSONVILLE AIRPORT AUTHORITY
	SUBMITTED <i>Gary L. Hutchison</i> DATE <i>JUNE 14, 2005</i>	APPROVED <i>[Signature]</i> CHAIRMAN DATE <i>6/14/05</i>



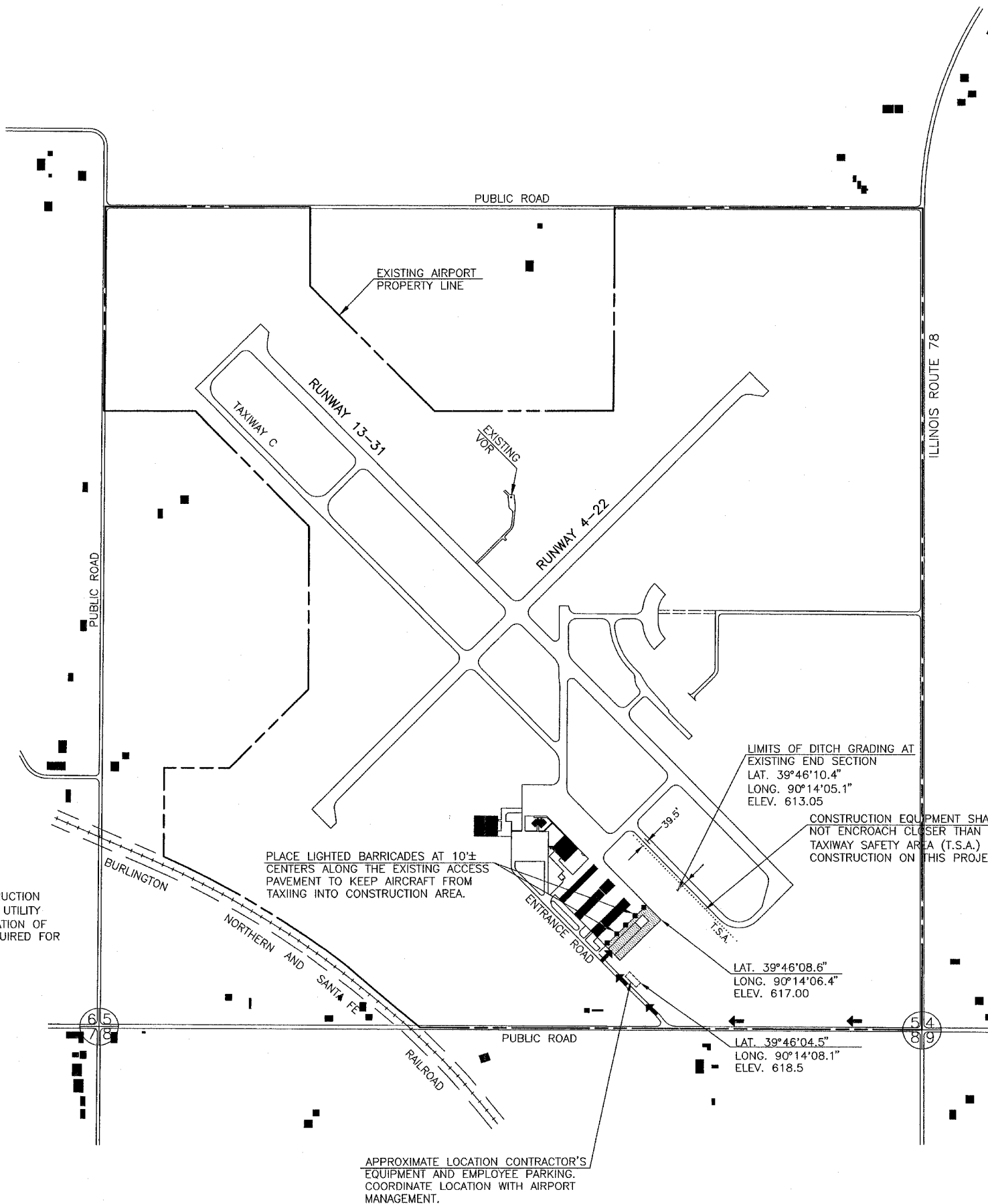
LEGEND

- EXISTING BUILDING
- AIRPORT PROPERTY LINE
- CONTRACTOR'S ACCESS/HAUL ROUTE
- T-HANGAR SITE DEVELOPMENT AND ACCESS PAVEMENT; CONSTRUCT CONCRETE T-HANGAR FLOOR
- LOCATION OF LIGHTED BARRICADES

GENERAL NOTE

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 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 - MORGAN
 CITY - JACKSONVILLE
 TOWNSHIP - T. 15 N., R. 10 W.
 SECTION NO. - 5
 ADDRESS - JACKSONVILLE MUNICIPAL AIRPORT
 1956 BALDWIN ROAD
 JACKSONVILLE, ILLINOIS 62650



CONSTRUCTION PROCEDURE NOTES

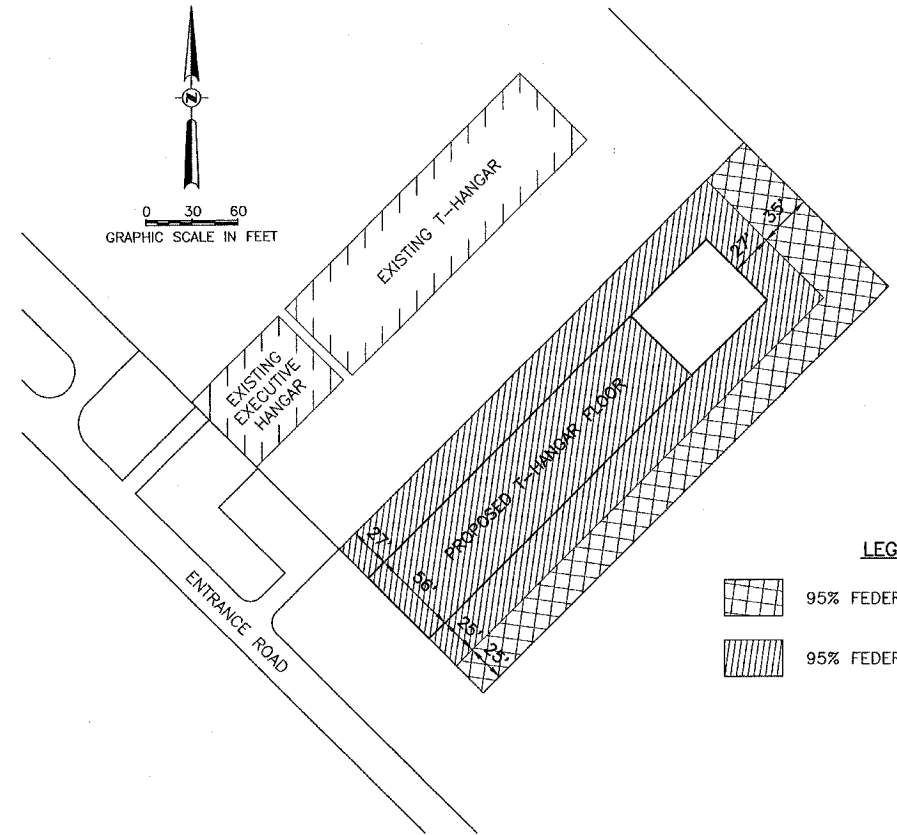
1. ALL CONTRACTOR EMPLOYEES WILL PARK THEIR PERSONAL VEHICLES IN THE AREA DESIGNATED BY THE AIRPORT MANAGER FOR USE AS A VEHICLE PARKING AREA. THE CONTRACTOR WILL BE RESPONSIBLE FOR TRANSPORTING EMPLOYEES TO THE PROPOSED CONSTRUCTION SITE. ONLY AUTHORIZED CONTRACTOR VEHICLES WILL BE ALLOWED ON THE AIR OPERATIONS AREA OF THE AIRPORT AND ON THE CONSTRUCTION SITE.
2. FLAGS WILL BE REQUIRED ON ALL CONTRACTOR'S VEHICLES AND EQUIPMENT USED ON THE AIRPORT OPERATIONS AREA AND CONSTRUCTION SITE. THE FLAGS SHALL BE THREE (3) FOOT SQUARE CHECKERED FLAGS (INTERNATIONAL ORANGE AND WHITE) DISPLAYED IN FULL VIEW ABOVE THE VEHICLE.
3. THE CONTRACTOR WILL USE THE DESIGNATED HAUL ROUTE AND EQUIPMENT STORAGE AREA SHOWN ON THIS SHEET. IT WILL BE THE CONTRACTOR'S RESPONSIBILITY TO MAINTAIN THE DESIGNATED HAUL ROUTE AND EQUIPMENT STORAGE AREA FOR THE DURATION OF THE PROJECT. ANY DAMAGE TO EXISTING PAVEMENTS USED TO HAUL MATERIAL TO THE CONSTRUCTION SITE WILL BE REPAIRED BY THE CONTRACTOR AT HIS OWN EXPENSE TO THE SATISFACTION OF THE AIRPORT MANAGER AND THE RESIDENT ENGINEER.
4. THE CONTRACTOR SHALL FURNISH, MAINTAIN, AND REMOVE ALL BARRICADES REQUIRED TO DELINEATE THE WORK AREA AND KEEP AIRCRAFT FROM ENCR OACHING INTO SAID WORK AREA. THIS REQUIREMENT SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.
5. CONSTRUCTION ACTIVITY CONTROL AND OPERATION AREA PROTECTION SHALL BE ACCOMPLISHED IN ACCORDANCE WITH FAA ADVISORY CIRCULAR NO. 150/5370-2E.
6. THE MAXIMUM CONSTRUCTION EQUIPMENT HEIGHT UTILIZED ON THE AIRPORT FOR THIS PROJECT SHALL BE 30'.
7. THIS PROJECT CONSISTS OF WORK TO CONSTRUCT T-HANGAR SITE DEVELOPMENT AND ACCESS PAVEMENT AND TO CONSTRUCT CONCRETE T-HANGAR FLOOR.
8. THIS PROJECT WILL DISTURB MORE THAN 1 ACRE OF LAND.

JACKSONVILLE MUNICIPAL AIRPORT JACKSONVILLE, ILLINOIS	
IMPROVEMENT AND SAFETY PLAN	
HUTCHISON ENGINEERING, INC. JACKSONVILLE, ILLINOIS	
DRAWN BY: T.J.D. DATE: JUNE, 2005	ILL. PROJ. NO. IJX-3435 AIP PROJ. NO. 3-17-0054-B10

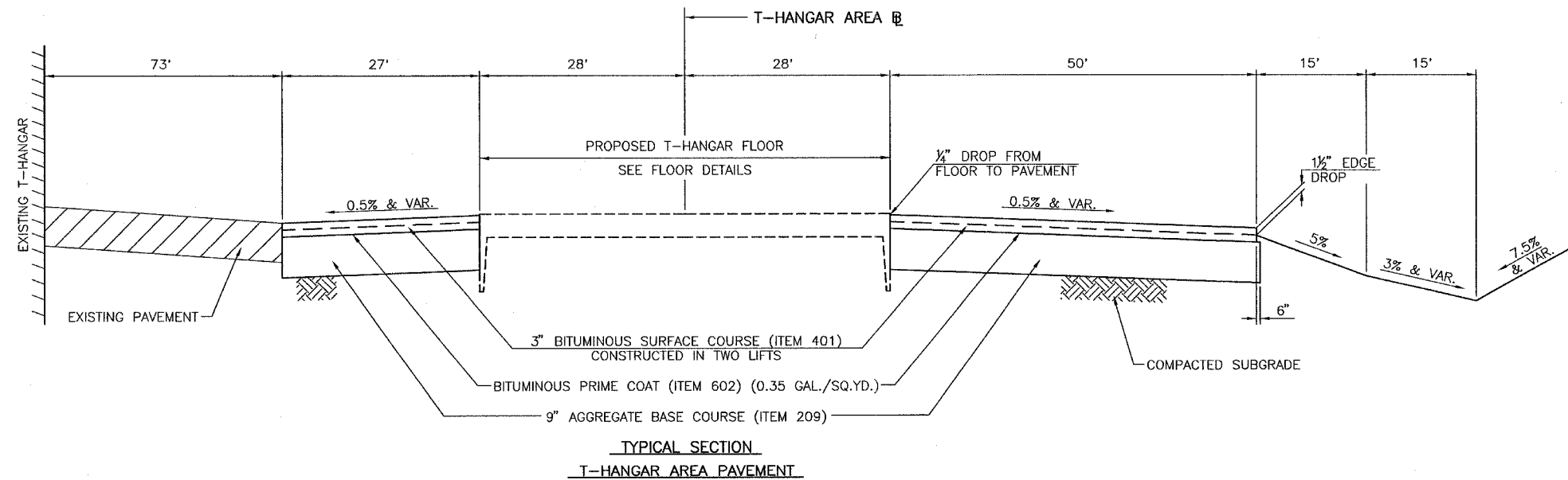
SUMMARY OF QUANTITIES								
ITEM NO.	DESCRIPTION	UNIT	AS BID QUANTITIES			AS BUILT QUANTITIES		
			TOTAL QUANTITY	95% FEDERAL 2.5% STATE 2.5% LOCAL QUANTITY	95% FEDERAL 5% LOCAL QUANTITY	TOTAL QUANTITY	95% FEDERAL 2.5% STATE 2.5% LOCAL QUANTITY	95% FEDERAL 5% LOCAL QUANTITY
AR152410	UNCLASSIFIED EXCAVATION	CU. YD.	796	796				
AR152442	OFFSITE BORROW EXCAVATION	CU. YD.	3,487	3,487				
AR152531	EXPLORATION TRENCH	LIN. FT.	20	20				
AR152532	FIELD TILE REPAIR	LIN. FT.	20	20				
AR156510	SILT FENCE	LIN. FT.	130	130				
AR156512	BALES	EACH	15	15				
AR161510	CLASS C FENCE	LIN. FT.	173	173				
AR161900	REMOVE CLASS C FENCE	LIN. FT.	190	190				
AR162504	CLASS E FENCE 4'	LIN. FT.	37	37				
AR162900	REMOVE CLASS E FENCE	LIN. FT.	20	20				
AR209510	CRUSHED AGGREGATE BASE COURSE	TON	1,864	719	1,145			
AR401610	BITUMINOUS SURFACE COURSE	TON	620	239	381			
AR401910	REMOVE & REPLACE BIT. PAVEMENT	SQ. YD.	21	21				
AR501200	PCC T-HANGAR FLOOR - COMPLETE	SQ. YD.	1,509		1,509			
AR501910	REMOVE & REPLACE PCC PAVEMENT	SQ. YD.	14	14				
AR602510	BITUMINOUS PRIME COAT	GAL.	1,273	491	782			
AR603510	BITUMINOUS TACK COAT	GAL.	180	69	111			
AR701512	12" RCP, CLASS IV	LIN. FT.	118	118				
AR701515	15" RCP, CLASS IV	LIN. FT.	154	154				
AR701518	18" RCP, CLASS IV	LIN. FT.	66	66				
AR701524	24" RCP, CLASS IV	LIN. FT.	106	106				
AR701536	36" RCP, CLASS IV	LIN. FT.	442	442				
AR701900	REMOVE PIPE	LIN. FT.	66	66				
AR751411	INLET TYPE A	EACH	2	2				
AR751412	INLET TYPE B	EACH	1	1				
AR751540	MANHOLE 4'	EACH	1	1				
AR751550	MANHOLE 5'	EACH	2	2				
AR751570	MANHOLE - SPECIAL	EACH	1	1				
AR752436	PRECAST REINFORCED CONC. FES 36"	EACH	1	1				
AR901510	SEEDING	ACRE	1.3	1.3				
AR908510	MULCHING	ACRE	1.3	1.3				

INDEX TO SHEETS	
NO.	DESCRIPTION
1	COVER SHEET
2	IMPROVEMENT AND SAFETY PLAN
3	INDEX TO SHEETS AND SUMMARY OF QUANTITIES
4	TYPICAL SECTION AND FUNDING LAYOUT
5	T-HANGAR FLOOR DETAILS
6	T-HANGAR PAVEMENT AND GRADING LAYOUT
7	STORM SEWER LAYOUT
8	STORM SEWER SPECIAL DETAILS
9	EROSION CONTROL PLAN
10-13	T-HANGAR AREA CROSS SECTIONS
14-17	STANDARD DRAWINGS

JACKSONVILLE MUNICIPAL AIRPORT JACKSONVILLE, ILLINOIS	
INDEX TO SHEETS AND SUMMARY OF QUANTITIES	
HUTCHISON ENGINEERING, INC. JACKSONVILLE, ILLINOIS	
DRAWN BY: T.J.D. DATE: JUNE, 2005	ILL. PROJ. NO. IJX-3435 AIP PROJ. NO. 3-17-0054-B10



PLAN LAYOUT OF FUNDING PARTICIPATION

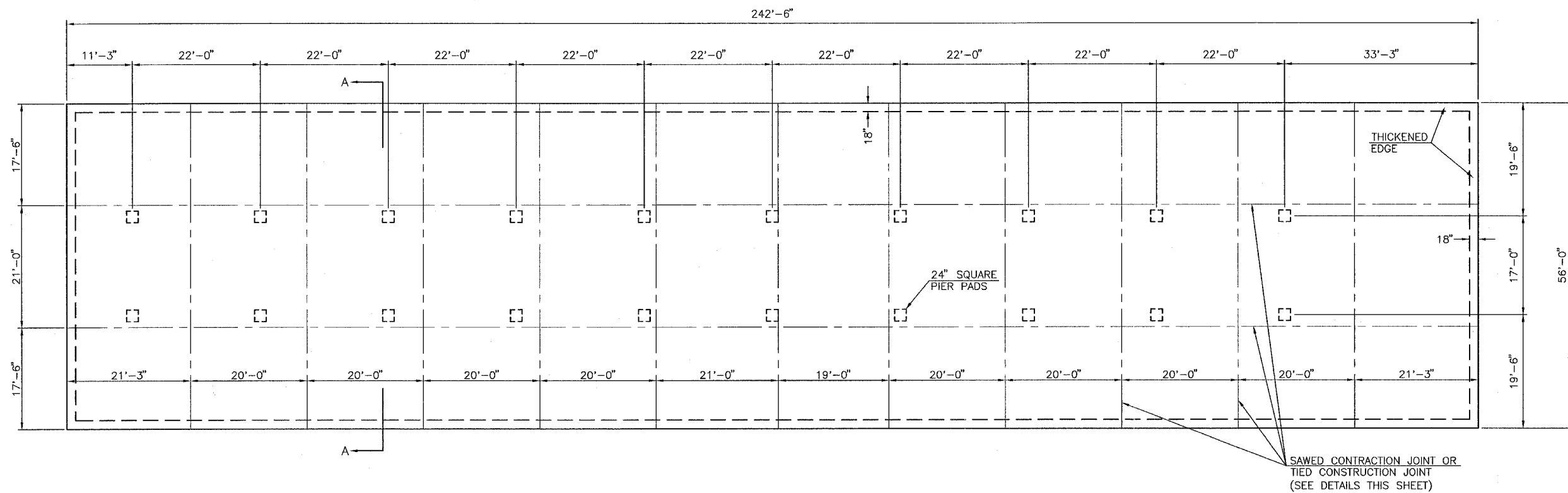


TYPICAL SECTION
T-HANGAR AREA PAVEMENT

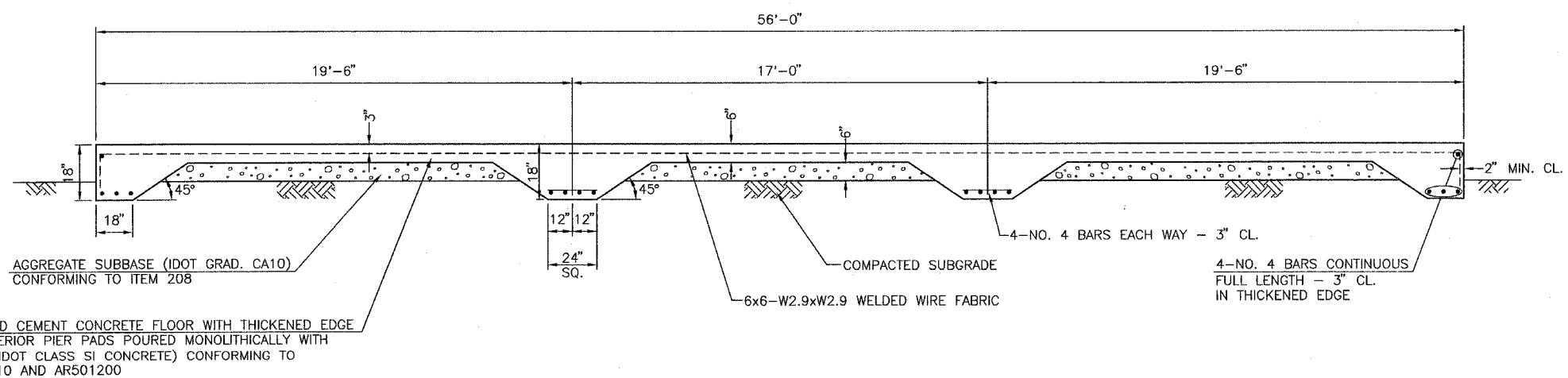
PAVEMENT CONSTRUCTION NOTES

1. THE SUBGRADE BENEATH NEW PAVEMENT AND BUILDING FLOOR LOCATIONS SHALL BE COMPACTED TO 95% OF MAXIMUM DENSITY OBTAINED BY STANDARD PROCTOR (ASTM D698). THE EMBANKMENT IN THESE AREAS SHALL BE CONSTRUCTED IN SUCCESSIVE HORIZONTAL LAYERS OF NOT MORE THAN 8 INCHES IN LOOSE DEPTH AND EACH LAYER COMPACTED TO 95% BEFORE PROCEEDING WITH THE NEXT LAYER.
2. IF THERE IS EXCESSIVE DUST ON THE NEWLY PLACED ASPHALT, AT THE DISCRETION OF THE RESIDENT ENGINEER, A LIGHT FOG TACK COAT - ITEM 603 (0.05 GALLONS PER SQUARE YARD) MAY BE APPLIED BETWEEN THE LIFTS OF BITUMINOUS SURFACE COURSE.

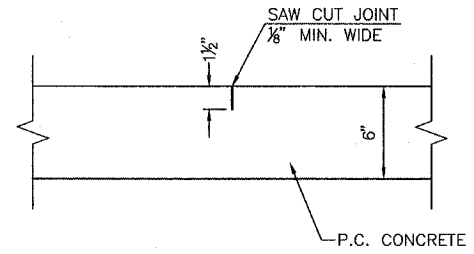
JACKSONVILLE MUNICIPAL AIRPORT JACKSONVILLE, ILLINOIS	
TYPICAL SECTION AND FUNDING LAYOUT	
HUTCHISON ENGINEERING, INC. JACKSONVILLE, ILLINOIS	
DRAWN BY: T.J.D. DATE: JUNE, 2005	ILL. PROJ. NO. IJX-3435 AIP PROJ. NO. 3-17-0054-B10



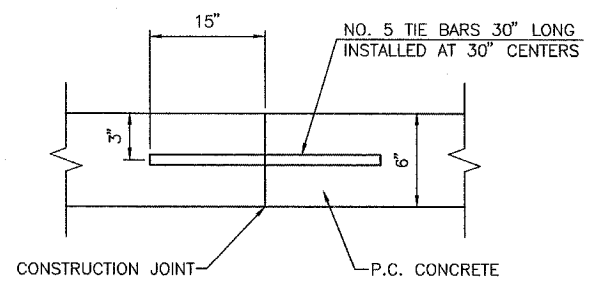
T-HANGAR FLOOR LAYOUT



SECTION A-A



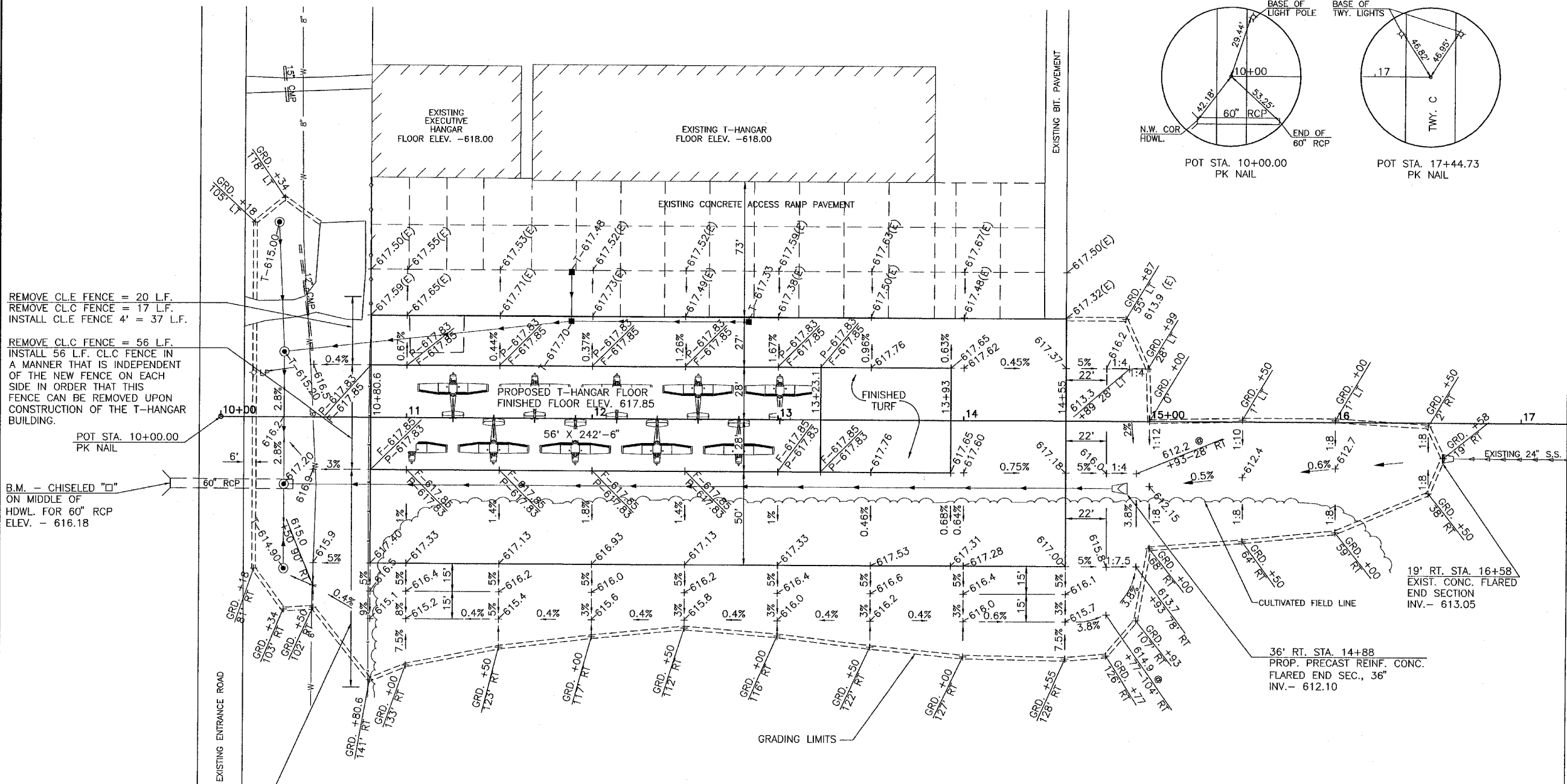
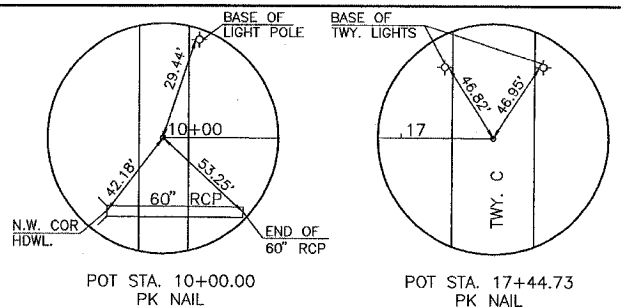
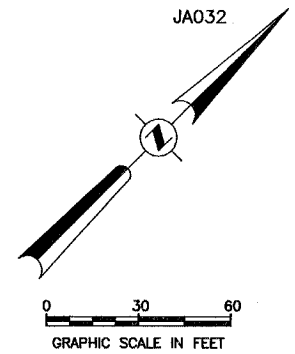
DETAIL OF SAWED CONTRACTION JOINT



DETAIL OF TIED CONSTRUCTION JOINT

PORTLAND CEMENT CONCRETE FLOOR WITH THICKENED EDGE AND INTERIOR PIER PADS POURED MONOLITHICALLY WITH FLOOR (IDOT CLASS SI CONCRETE) CONFORMING TO ITEMS 610 AND AR501200

JACKSONVILLE MUNICIPAL AIRPORT JACKSONVILLE, ILLINOIS	
T-HANGAR FLOOR DETAILS	
HUTCHISON ENGINEERING, INC. JACKSONVILLE, ILLINOIS	
DRAWN BY: T.J.D. DATE: JUNE, 2005	ILL. PROJ. NO. JX-3435 AIP PROJ. NO. 3-17-0054-B10



REMOVE C.L.E. FENCE = 20 L.F.
REMOVE C.L.C. FENCE = 17 L.F.
INSTALL C.L.E. FENCE 4' = 37 L.F.

REMOVE C.L.C. FENCE = 56 L.F.
INSTALL 56 L.F. C.L.C. FENCE IN A MANNER THAT IS INDEPENDENT OF THE NEW FENCE ON EACH SIDE IN ORDER THAT THIS FENCE CAN BE REMOVED UPON CONSTRUCTION OF THE T-HANGAR BUILDING.

B.M. - CHISELED "□"
ON MIDDLE OF
HDWL. FOR 60' RCP
ELEV. - 616.18

POT STA. 10+00.00
PK NAIL

REMOVE C.L.C. FENCE = 117 L.F.
INSTALL C.L.C. FENCE = 117 L.F.

POT STA. 17+44.73
PK NAIL

B.M. - CHISELED "□"
ON TOP OF CONCRETE
INLET 150' N.E. OF
TWY. C G
ELEV. - 616.64

EARTHWORK SUMMARY

LOCATION	EMBANKMENT	UNCLASSIFIED EXCAVATION	OFFSITE BORROW EXCAVATION
	CU. YDS.	CU. YDS.	CU. YDS.
STA. 10+18 TO STA. 16+58	4,283	796	3,487

GENERAL NOTES

- ELEVATIONS SHOWN ARE TOP OF FINISHED SURFACE ELEVATIONS. (E) SHOWN AFTER AN ELEVATION DENOTES AN EXISTING ELEVATION. (F) SHOWN BEFORE AN ELEVATION DENOTES THE FINISHED FLOOR ELEVATION FOR THE T-HANGAR BUILDING. (P) SHOWN BEFORE AN ELEVATION DENOTES THE FINISHED PAVEMENT ELEVATION ADJACENT TO THE T-HANGAR FLOOR.
- WHERE PROPOSED BITUMINOUS SURFACE ABUTS EXISTING PAVEMENT, THE EXISTING BITUMINOUS SURFACE SHALL BE SAW CUT TO PRODUCE A STRAIGHT VERTICAL FACE TO ABUT THE PROPOSED SURFACE TO. PRIOR TO SURFACING, THE VERTICAL FACE OF EXISTING PAVEMENT SHALL BE PAINTED WITH LIQUID ASPHALT. THE COST OF THIS WORK SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT.
- CLASS C FENCE SHALL CONFORM TO THE STANDARD DRAWINGS INCLUDED IN THESE PLANS FOR WOVEN WIRE FENCE.
- CLASS E FENCE SHALL CONFORM TO THE STANDARD DRAWINGS INCLUDED IN THESE PLANS FOR CHAIN LINK FENCE EXCEPT THAT A TOP RAIL SHALL BE INSTALLED ALONG THE TOP OF FENCE.

SEEDING NOTES

ALL AREAS DISTURBED BY THIS CONSTRUCTION PROJECT WITHIN THE GRADING LIMITS SHOWN IN THESE CONSTRUCTION PLANS SHALL BE LIMED, FERTILIZED, SEEDED AND MULCHED. THESE AREAS SHALL CONSTITUTE THE SEEDING AND MULCHING AREAS DESIGNATED FOR PAYMENT.

ALL OTHER AREAS DISTURBED BY THE CONTRACTOR INCLUDING THE CONTRACTOR'S PARKING AREA, HAUL ROUTES, ETC. SHALL BE REGRADED AND RESEDED AND/OR RESTORED TO THEIR ORIGINAL CONDITION BY THE CONTRACTOR AT HIS OWN EXPENSE UPON COMPLETION OF THE IMPROVEMENTS.

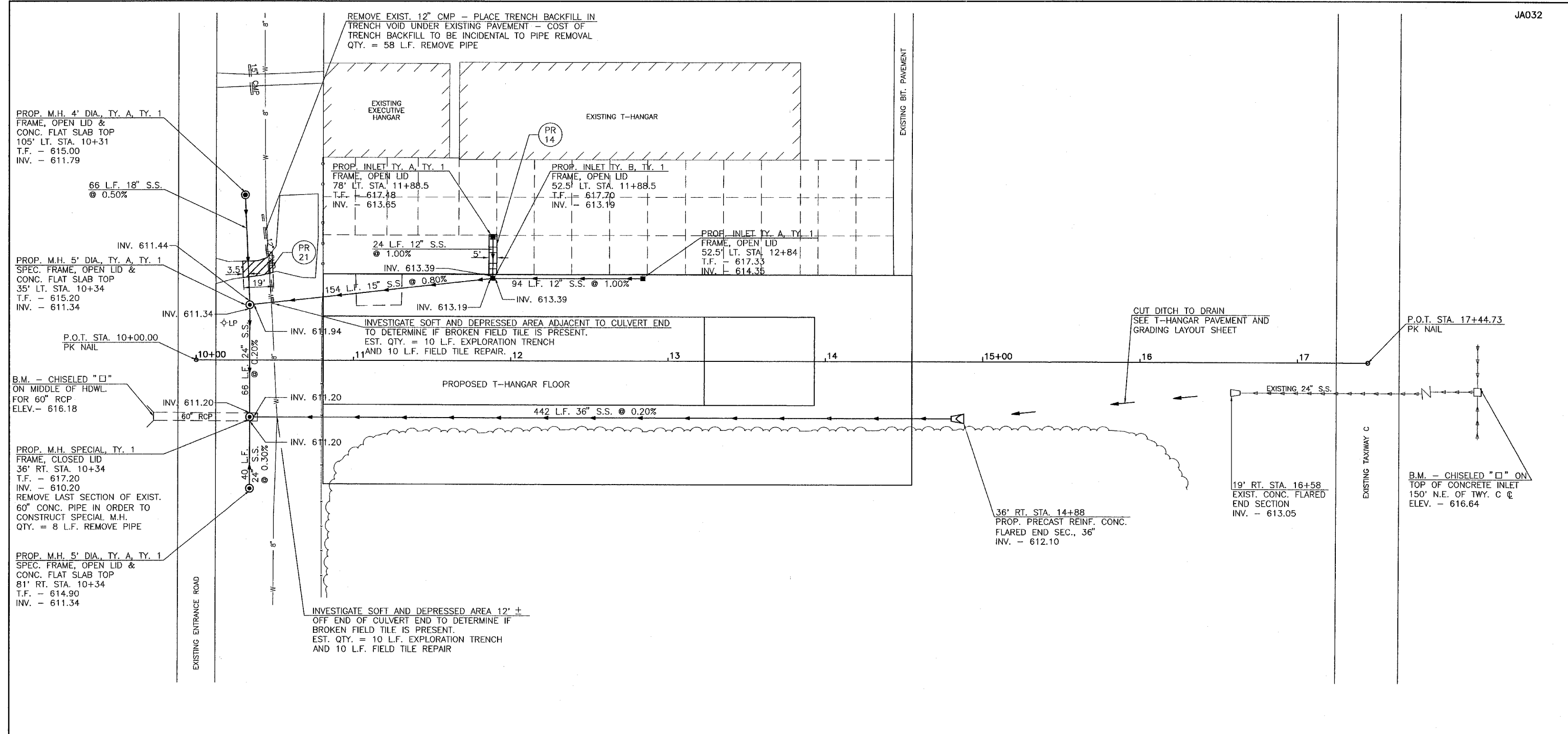
A QUANTITY OF 1.3 AC. CONSTITUTES THE AREA FOR PAYMENT.

JACKSONVILLE MUNICIPAL AIRPORT
JACKSONVILLE, ILLINOIS

**T-HANGAR PAVEMENT
AND GRADING LAYOUT**

HUTCHISON ENGINEERING, INC.
JACKSONVILLE, ILLINOIS

DRAWN BY: T.J.D. ILL. PROJ. NO. LX-3435
DATE: JUNE, 2005 AIP PROJ. NO. 3-17-0054-B10

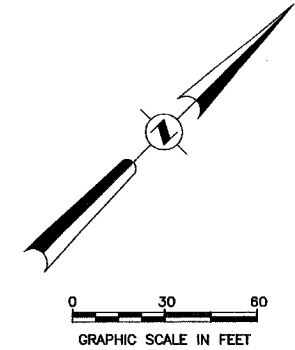


LEGEND

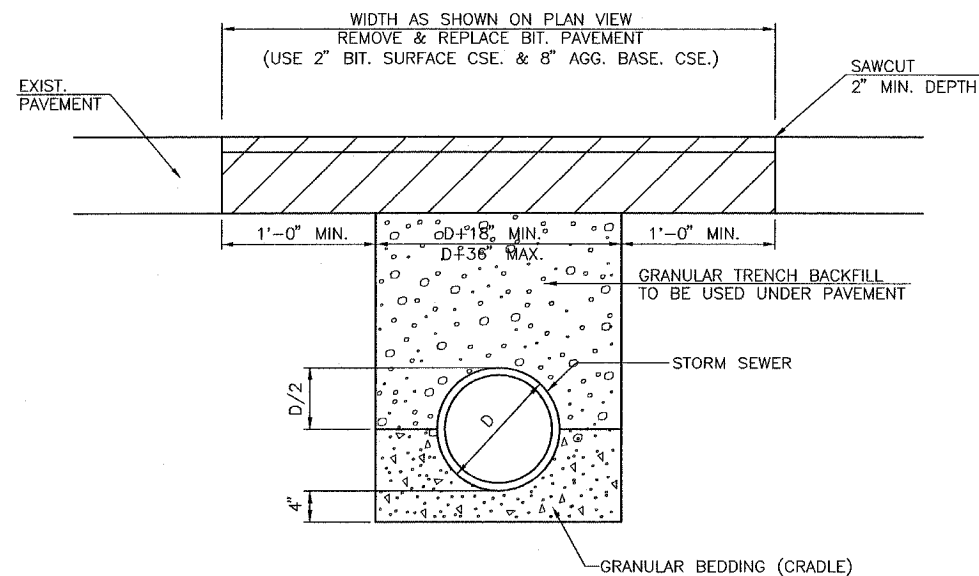
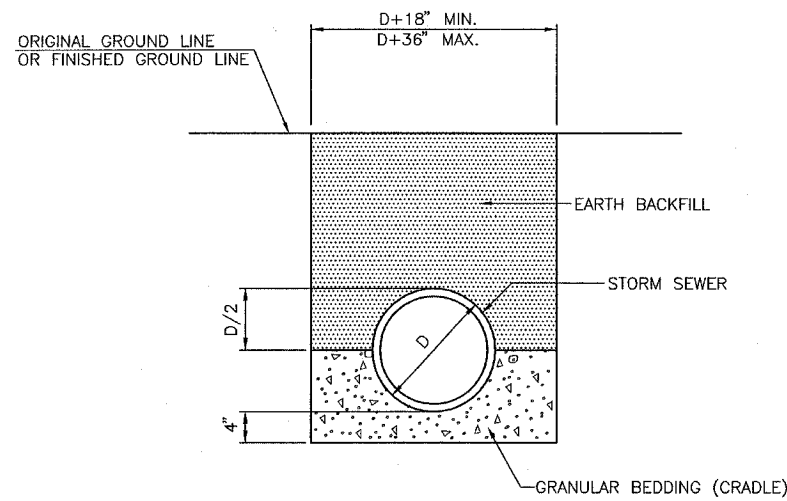
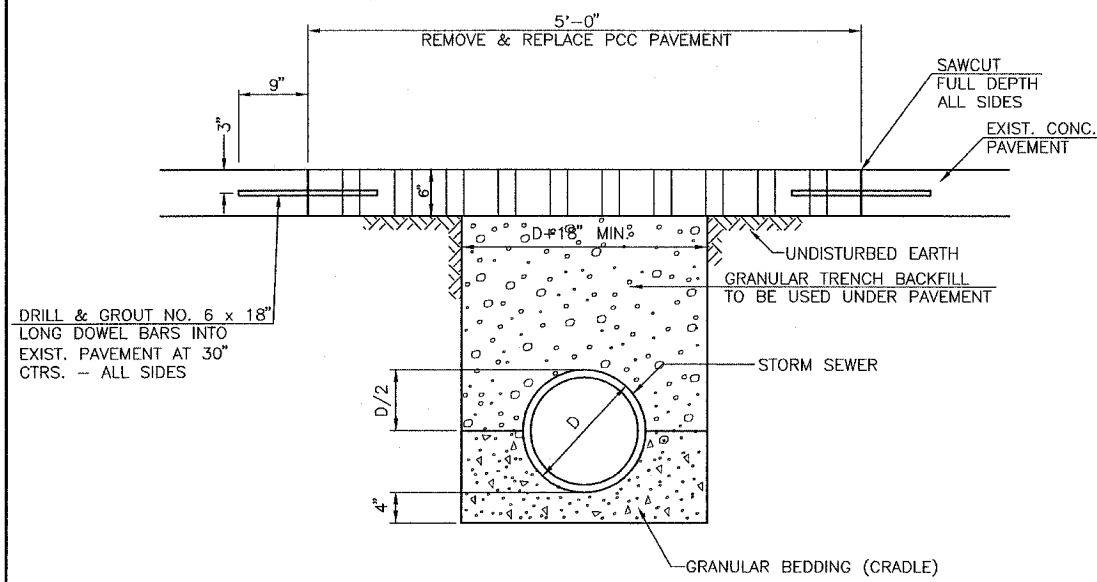
- REMOVE & REPLACE PAVEMENT, 14 SQ. YDS.
- PROPOSED STORM SEWER
- REMOVE & REPLACE BITUMINOUS PAVEMENT
- REMOVE & REPLACE PCC PAVEMENT

NOTES

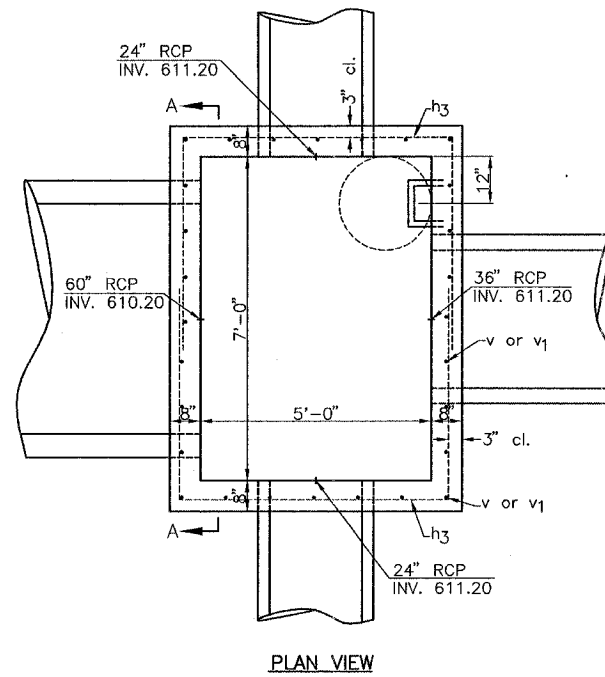
1. IN AREAS WHERE STORM SEWER IS INSTALLED UNDER EXISTING AND PROPOSED PAVEMENT, THE TRENCH SHALL BE BACKFILLED WITH COMPACTED GRANULAR MATERIAL THE FULL DEPTH OF THE TRENCH UP TO THE SUBGRADE FOR THE PAVEMENT COURSES. IN LOCATIONS WHERE EMBANKMENT IS TO BE CONSTRUCTED ABOVE THE PROPOSED STORM SEWER, THE TRENCH SHALL BE BACKFILLED UP TO THE EXISTING GROUND LINE WITH COMPACTED GRANULAR MATERIAL.
2. ALL STORM SEWER FOR THIS PROJECT SHALL BE CLASS IV, WALL B REINFORCED CONCRETE PIPE WITH RUBBER GASKET JOINTS MEETING ASTM C361 AND ASTM C443.
3. TYPE 1 SPECIAL FRAMES SPECIFIED FOR THE 5' DIAMETER MANHOLES SHALL CONFORM TO THE STANDARD DRAWINGS FOR TYPE 1 FRAME AND LIDS EXCEPT THAT THE HEIGHT OF THE FRAME SHALL NOT EXCEED 7". THE SPECIAL FRAME AND OPEN LID SHALL BE NEENAH CATALOG NO. 2502 OR AN APPROVED EQUIVALENT.
4. TYPE 1 FRAME AND OPEN LIDS SHALL BE NEENAH CATALOG NO. 2504 OR AN APPROVED EQUIVALENT. TYPE 1 FRAME AND CLOSED LID SHALL BE NEENAH CATALOG NO. R-1713 OR AN APPROVED EQUIVALENT.



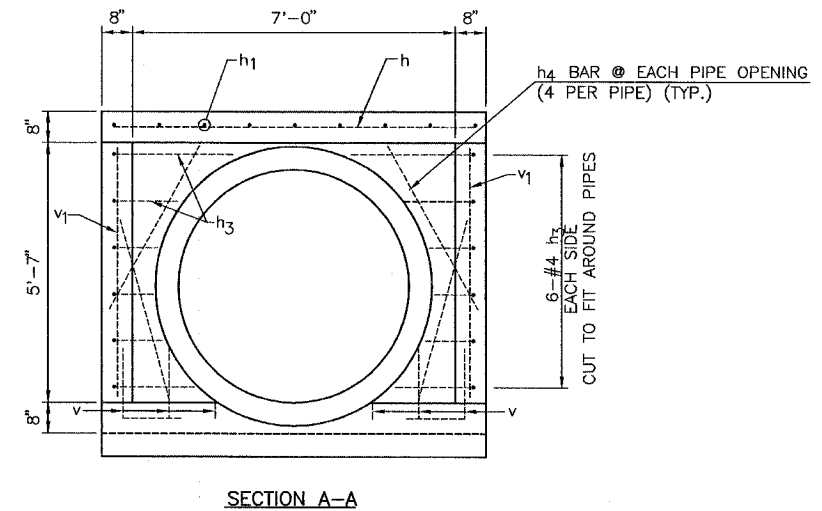
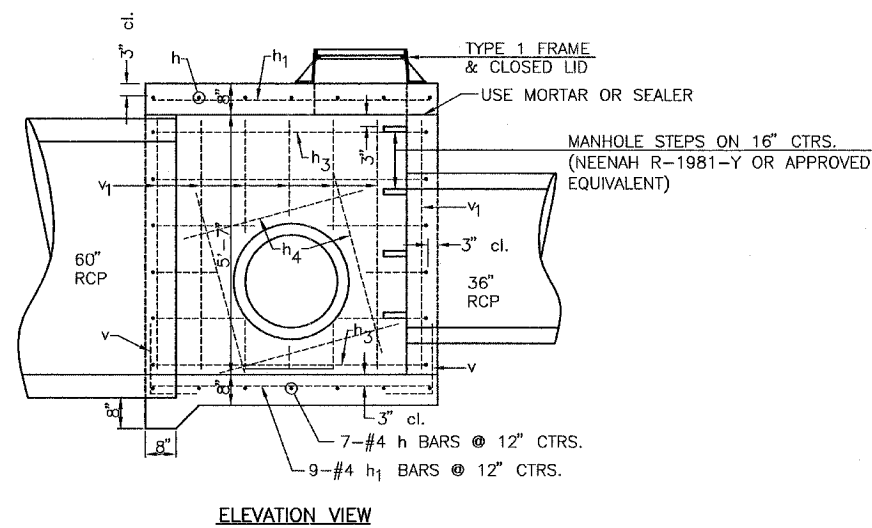
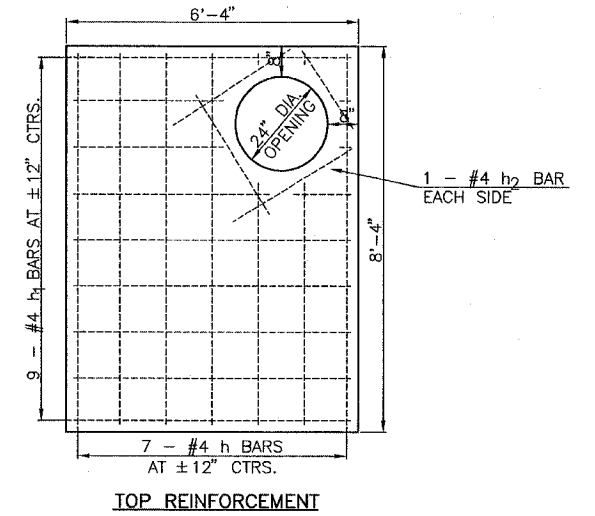
JACKSONVILLE MUNICIPAL AIRPORT JACKSONVILLE, ILLINOIS	
STORM SEWER LAYOUT	
HUTCHISON ENGINEERING, INC. JACKSONVILLE, ILLINOIS	
DRAWN BY: T.J.D. DATE: JUNE, 2005	ILL. PROJ. NO. IJX-3435 AIP PROJ. NO. 3-17-0054-B10



TYPICAL STORM SEWER TRENCH DETAILS



GENERAL NOTE
CUT REINFORCEMENT IN FIELD TO FIT AROUND PIPE OPENINGS AS REQUIRED.

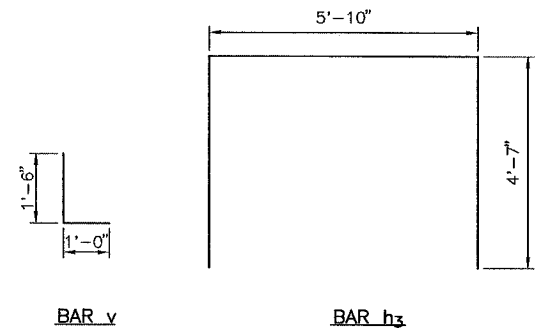


NOTES:

- MANHOLE TO BE CONSTRUCTED USING IDOT CLASS SI CONCRETE CONFORMING TO THE ITEM 610 SPECIFICATION AND SPECIAL PROVISIONS.
- A SMOOTH CONCRETE FILLET SHALL BE PROVIDED IN THE BOTTOM OF THE MANHOLE TO DIRECT FLOW FROM THE INFLUENT PIPES TO THE EFFLUENT PIPE.
- ALL CONCRETE, REINFORCEMENT BARS, MANHOLE STEPS AND THE TYPE 1 FRAME & CLOSED LID REQUIRED TO CONSTRUCT THE MANHOLE AS SHOWN IN THESE DETAILS SHALL BE INCLUDED IN THE UNIT PRICE BID PER EACH FOR MANHOLE-SPECIAL.

BAR LIST (FOR INFORMATION ONLY)

BAR	NO.	SIZE	LENGTH	SHAPE
h	14	#4	8'-0"	—
h ₁	18	#4	6'-0"	—
h ₂	4	#4	3'-0"	—
h ₃	12	#4	15'-0"	┌┐
h ₄	16	#4	4'-0"	—
v	28	#4	2'-6"	L
v ₁	28	#4	5'-4"	—
REINFORCEMENT BARS			POUND	465



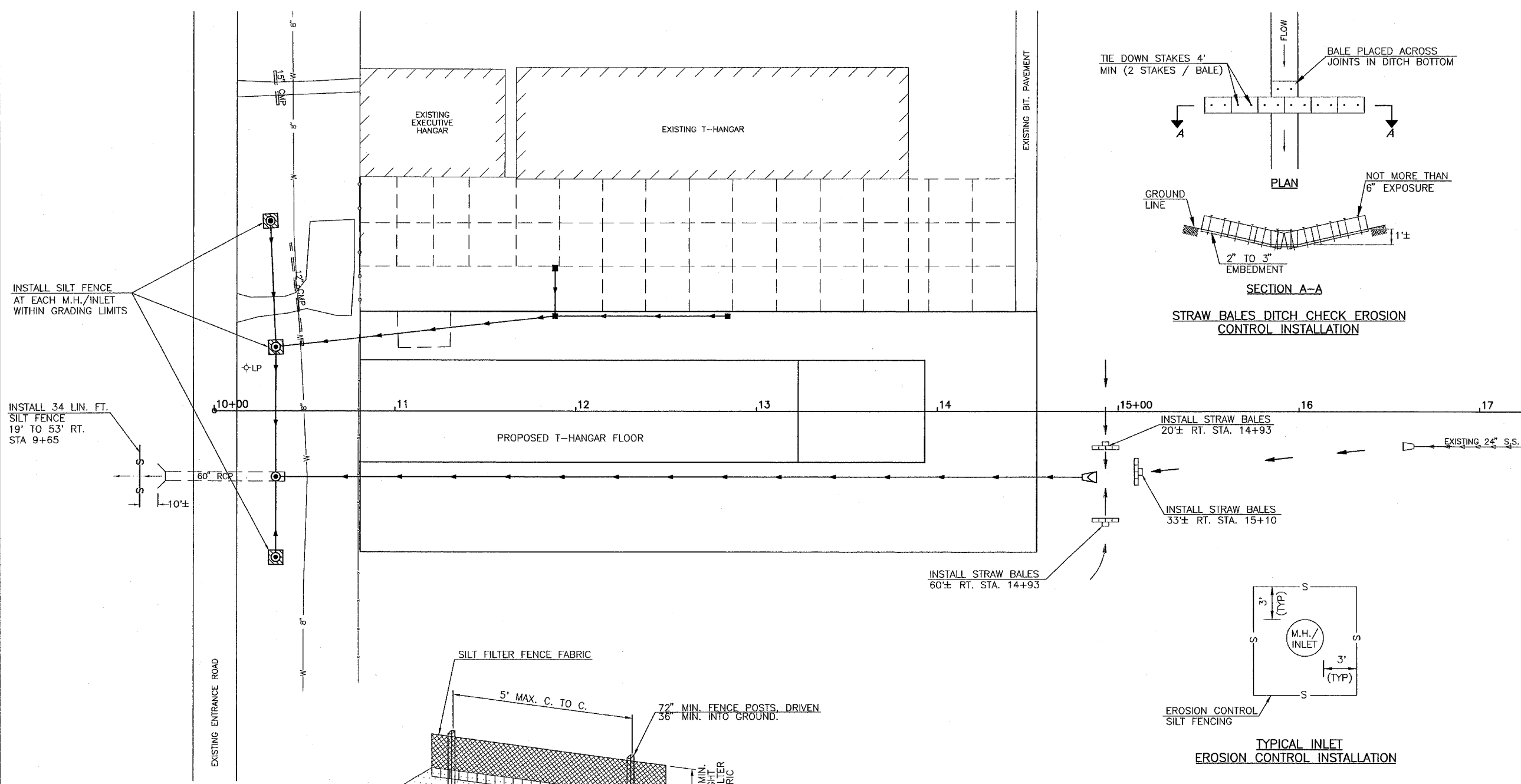
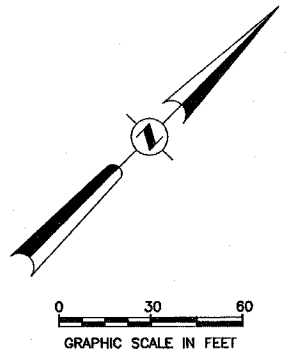
DETAILS OF MANHOLE - SPECIAL

JACKSONVILLE MUNICIPAL AIRPORT
JACKSONVILLE, ILLINOIS

STORM SEWER SPECIAL DETAILS

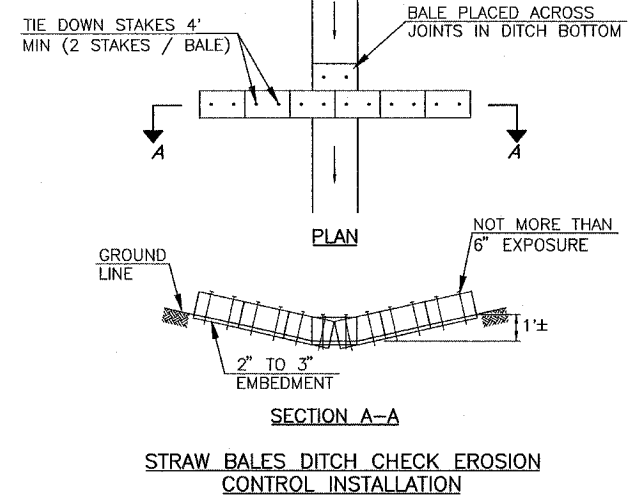
HUTCHISON ENGINEERING, INC.
JACKSONVILLE, ILLINOIS

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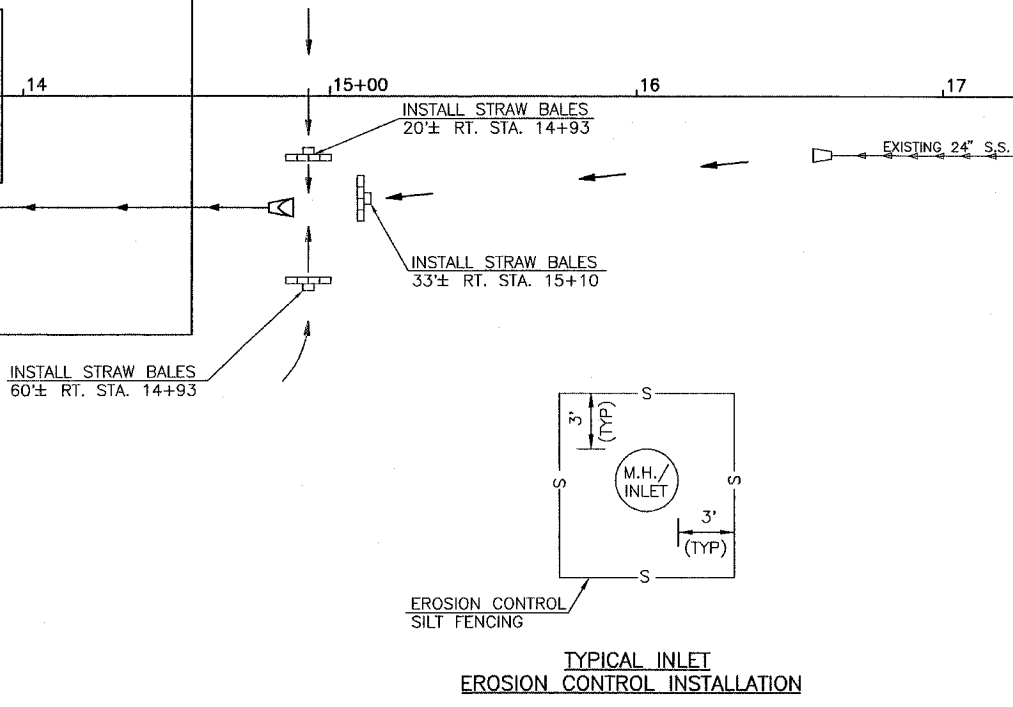


INSTALL SILT FENCE AT EACH M.H./INLET WITHIN GRADING LIMITS

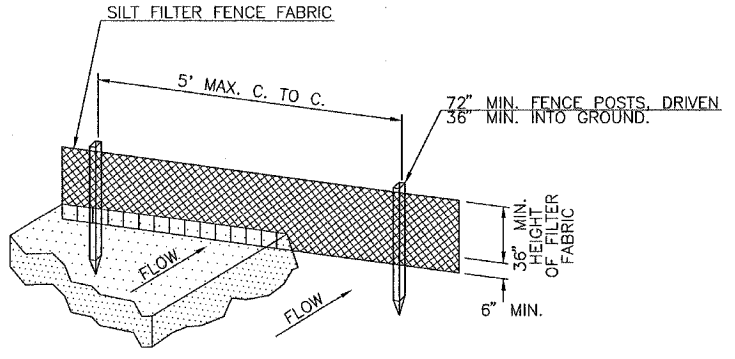
INSTALL 34 LIN. FT. SILT FENCE 19' TO 53' RT. STA 9+65



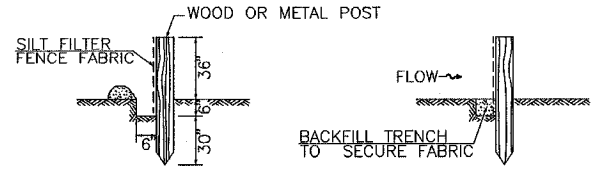
STRAW BALES DITCH CHECK EROSION CONTROL INSTALLATION



TYPICAL INLET EROSION CONTROL INSTALLATION



PERSPECTIVE VIEW



SECTION VIEW

EROSION CONTROL SILT FENCE DETAIL

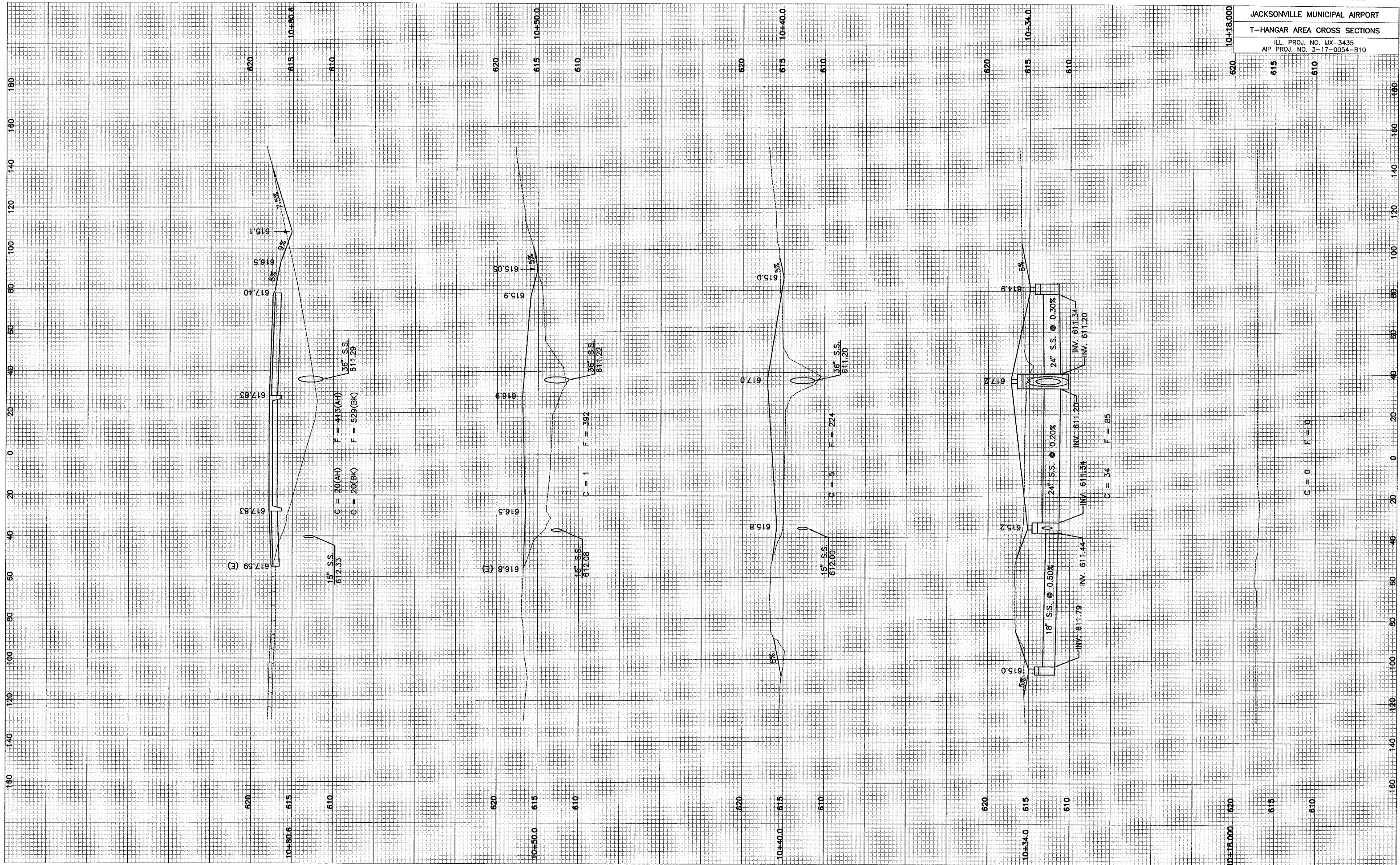
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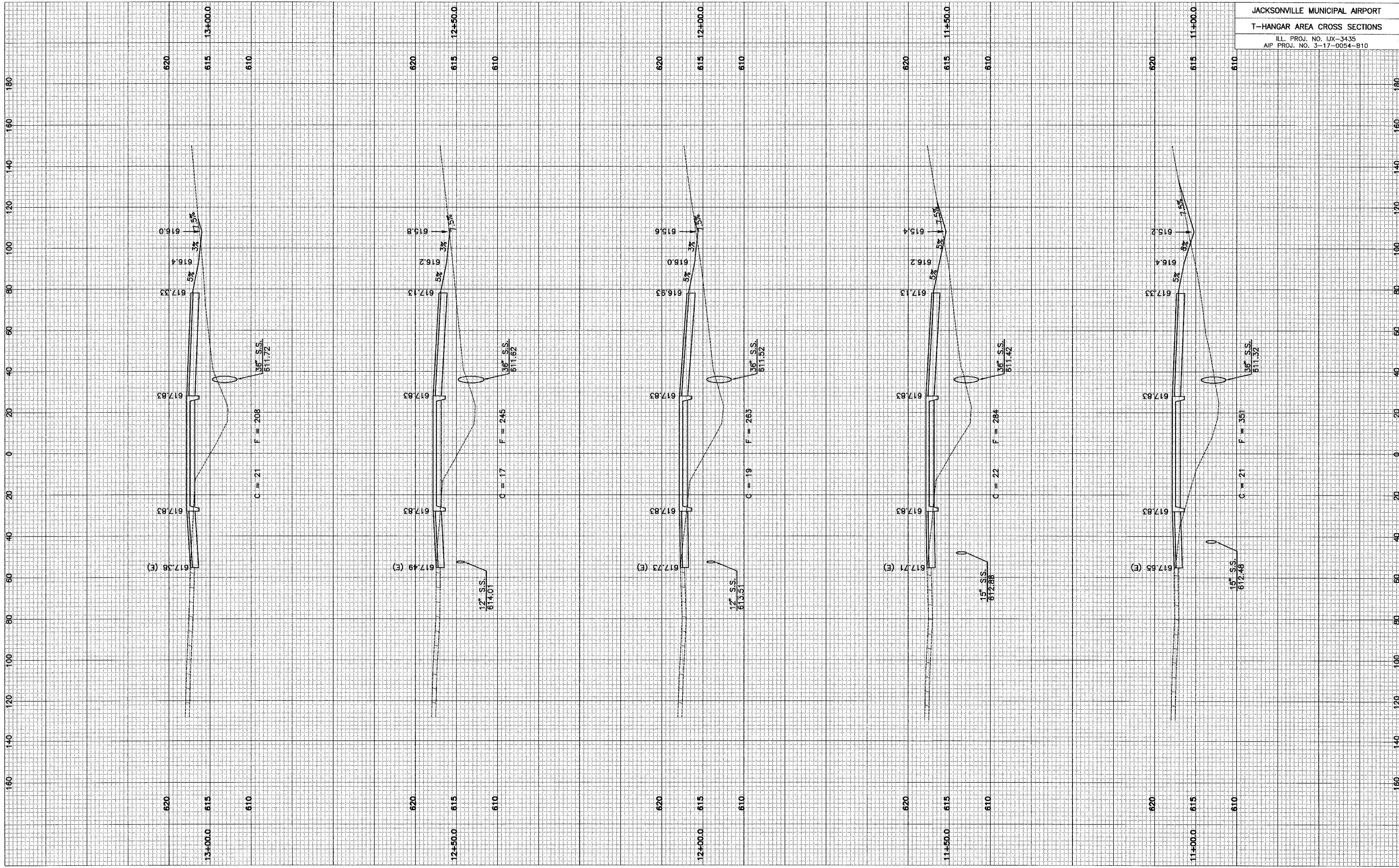
1. THE AREAS DISTURBED BY THIS CONSTRUCTION SHALL BE SEEDED AND MULCHED IN ADDITION TO THE EROSION CONTROL METHODS SHOWN ON THIS SHEET.
2. EACH MANHOLE/INLET WITHIN THE GRADING LIMITS SHALL BE SURROUNDED BY EROSION CONTROL SILT FENCE.
3. EROSION CONTROL DEVICES SHALL CONFORM TO THE ILLINOIS ENVIRONMENTAL PROTECTION AGENCY STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL - CURRENT EDITION.
4. THIS CONSTRUCTION PROJECT WILL RESULT IN THE DISTURBANCE OF MORE THAN 1 ACRE OF LAND.
5. ADDITIONAL TEMPORARY EROSION CONTROL SYSTEMS (SILT FENCE OR STRAW BALES) SHALL BE LOCATED AND CONFIGURED AS DIRECTED BY THE RESIDENT ENGINEER SHOULD THEIR USE BE REQUIRED TO CONTROL SILTATION.

LEGEND

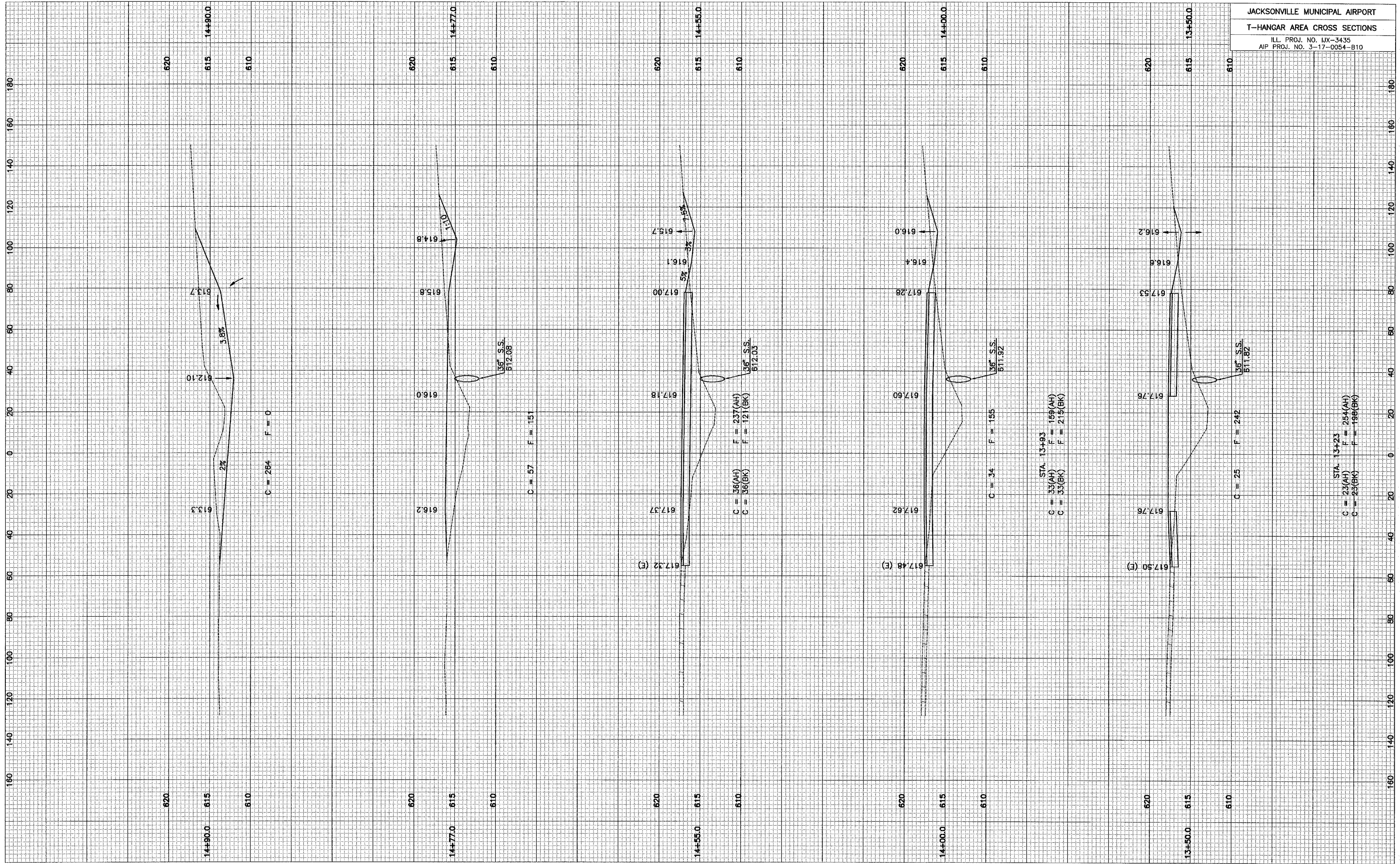
- PROPOSED SILT FENCE INSTALLATION AROUND MANHOLE/INLET
- PROPOSED EROSION CONTROL SILT FENCE
- EXISTING STORM SEWER
- PROPOSED STORM SEWER
- EXISTING DRAINAGE CHANNEL/SWALE/DITCH
- PROPOSED DRAINAGE CHANNEL/SWALE/DITCH
- PROPOSED EROSION CONTROL STRAW BALES INSTALLATION

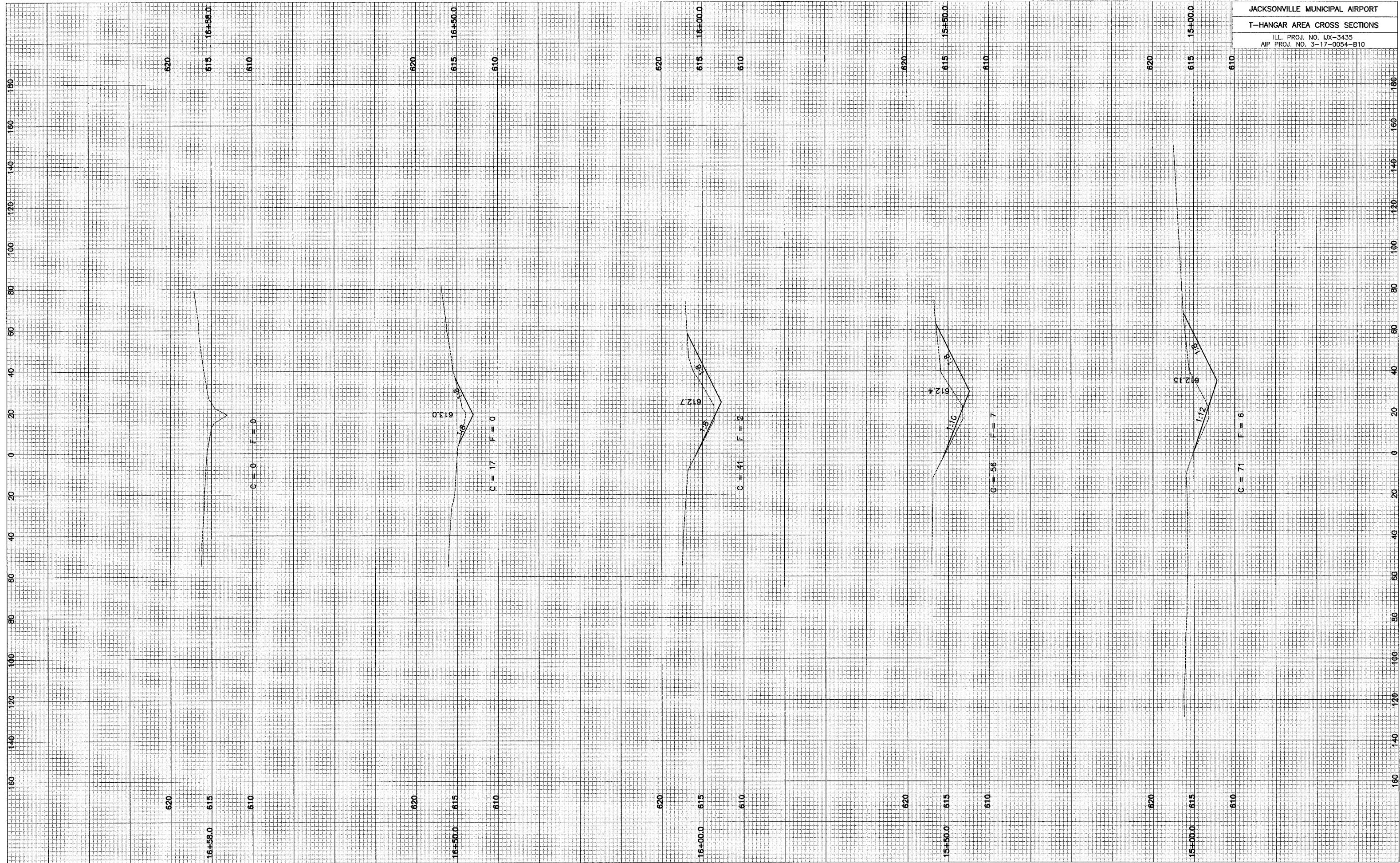
JACKSONVILLE MUNICIPAL AIRPORT JACKSONVILLE, ILLINOIS	
EROSION CONTROL PLAN	
HUTCHISON ENGINEERING, INC. JACKSONVILLE, ILLINOIS	
DRAWN BY: T.J.D. DATE: JUNE, 2005	ILL. PROJ. NO. IJX-3435 AIP PROJ. NO. 3-17-0054-B10

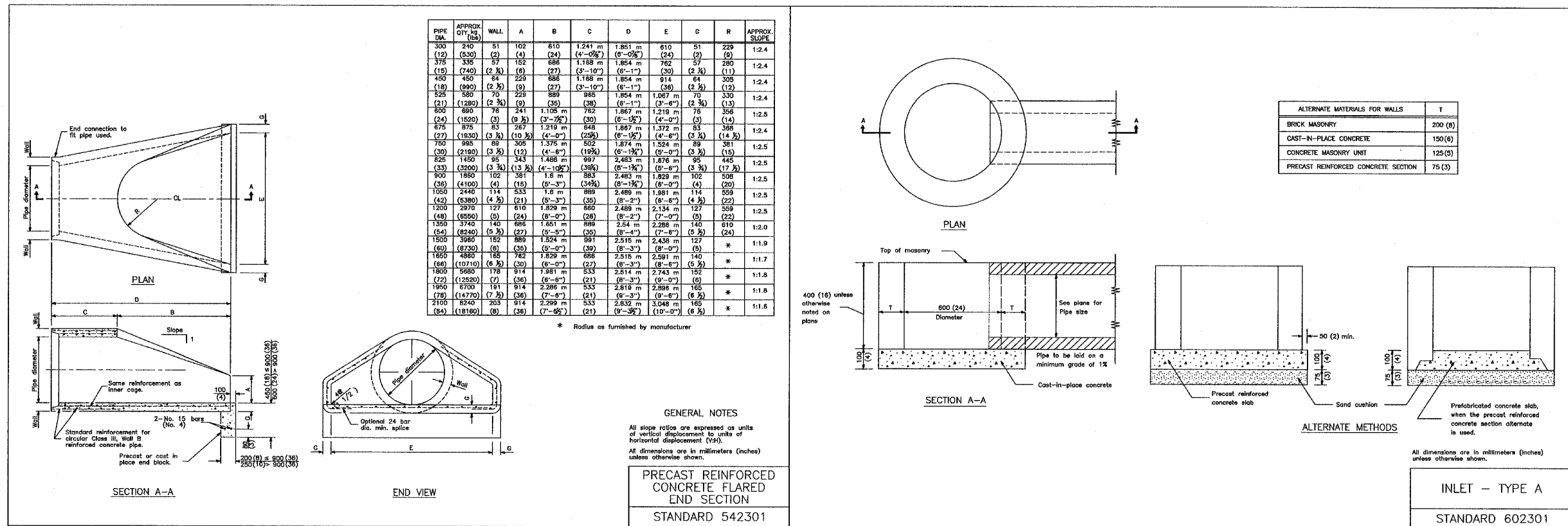




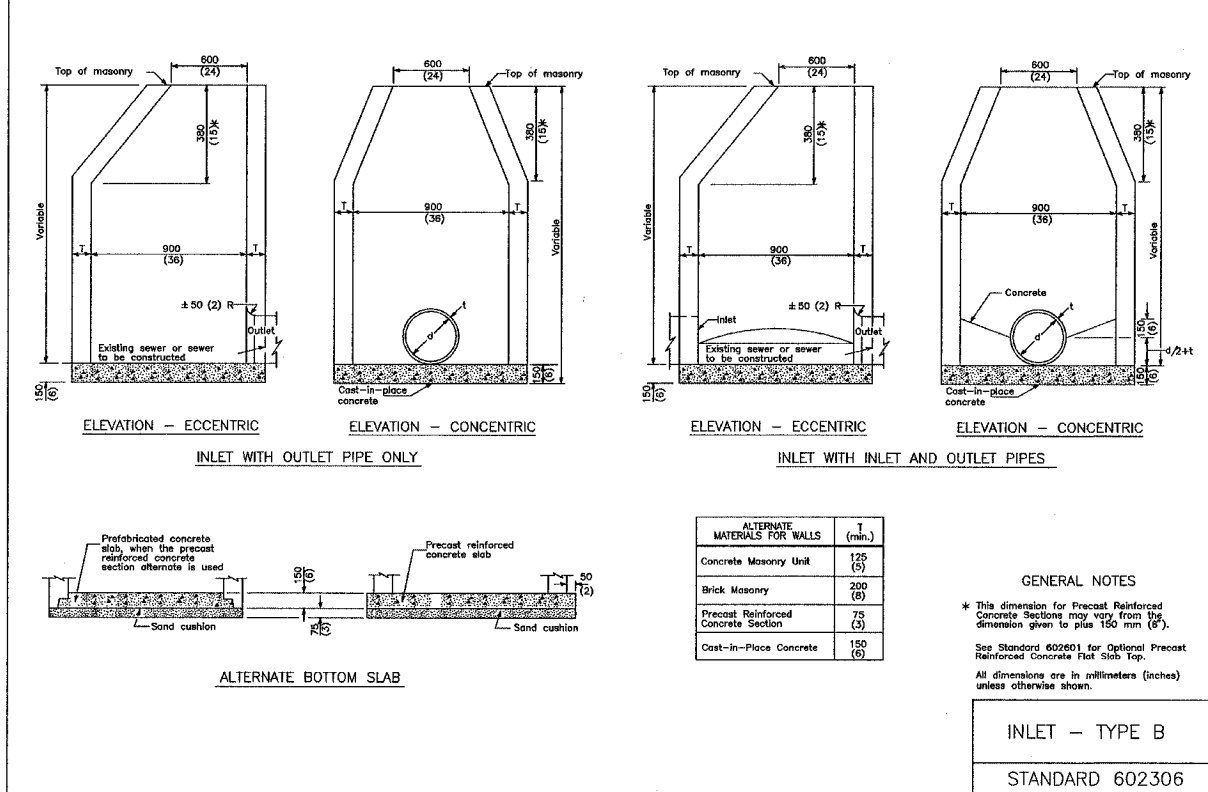
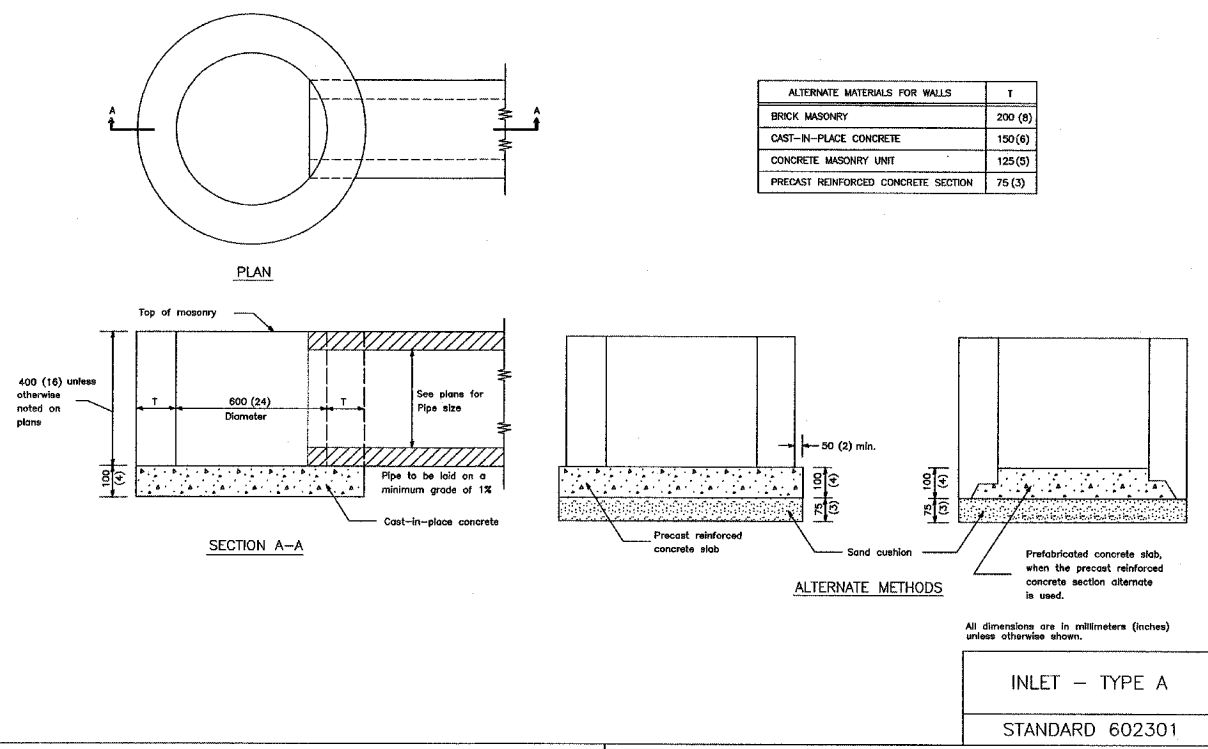
JACKSONVILLE MUNICIPAL AIRPORT
T-HANGAR AREA CROSS SECTIONS
ILL. PROJ. NO. JX-3435
AIP PROJ. NO. 3-17-0054-B10







GENERAL NOTES
 All slope ratios are expressed as units of vertical displacement to units of horizontal displacement (V:H).
 All dimensions are in millimeters (inches) unless otherwise shown.
PRECAST REINFORCED CONCRETE FLARED END SECTION
STANDARD 542301



JACKSONVILLE MUNICIPAL AIRPORT
 JACKSONVILLE, ILLINOIS

STANDARD DRAWINGS

HUTCHISON ENGINEERING, INC.
 JACKSONVILLE, ILLINOIS

DRAWN BY: T.J.D. ILL. PROJ. NO. JX-3435
 DATE: JUNE, 2005 AIP PROJ. NO. 3-17-0054-B10

ELEVATION - ECCENTRIC

ELEVATION - CONCENTRIC

ALTERNATE BOTTOM SLAB

ALTERNATE MATERIALS FOR WALLS			
	D	C	(min.)
Concrete Masonry Unit	1.2 m (4'-0")	750 (30)	125 (5)
	1.5 m (5'-0")	1,150 (45)	125 (5)
Brick Masonry	1.2 m (4'-0")	750 (30)	200 (8)
	1.5 m (5'-0")	1,150 (45)	200 (8)
Precast Reinforced Concrete Section	1.2 m (4'-0")	750 (30)	100 (4)
	1.5 m (5'-0")	1,150 (45)	125 (5)
Cast-in-place Concrete	1.2 m (4'-0")	750 (30)	150 (6)
	1.5 m (5'-0")	1,150 (45)	150 (6)

GENERAL NOTES

See Standard 602701 for details of steps.

* Dimension "C" for Precast Reinforced Concrete Sections may vary from the dimension given to plus 150 mm (6").

** See Standard 602601 for Optional Precast Reinforced Concrete Flat Slab Top.

All dimensions are in millimeters (inches) unless otherwise shown.

MANHOLE TYPE A

STANDARD 602401

PLAN (WELDED WIRE FABRIC)

PLAN (REINFORCEMENT BARS)

SECTION A-A

ALTERNATE JOINT CONFIGURATIONS

SECTION B-B

GENERAL NOTES

The flat slab top may be used in lieu of the tapered top shown on Standards 602001, 602011, 602306, 602401, or 602501 at the option of the Contractor or when field conditions prohibit the use of tapered tops.

All dimensions are in millimeters (inches) unless otherwise shown.

TABLE					
D	T	D _o	t	Reinforcement	No. 15 (No. 4) Bar size
900 (36)	150 (6)	1050 (41 3/4)	150 (6)	425 mm ² /m (20 sq. inch/ft.)	No. 15 1.2 m 480 (No. 4) (18)
1.2 m (4'-0")	150 (6)	1350 (52 3/4)	150 (6)	740 mm ² /m (35 sq. inch/ft.)	No. 15 1.35 m 660 (No. 5) (26)
1.5 m (5'-0")	200 (8)	1700 (66 7/8)	200 (8)	740 mm ² /m (35 sq. inch/ft.)	No. 15 1.5 m 810 (No. 5) (32)

CAST FRAME

SECTION A-A

SECTION B-B

SECTION C-C

SECTION D-D

CAST OPEN LID

CAST CLOSED LID

FRAME AND LIDS TYPE 1

STANDARD 604001-02

All dimensions are in millimeters (inches) unless otherwise shown.

JACKSONVILLE MUNICIPAL AIRPORT
JACKSONVILLE, ILLINOIS

STANDARD DRAWINGS

HUTCHISON ENGINEERING, INC.
JACKSONVILLE, ILLINOIS

DRAWN BY: T.J.D. ILL. PROJ. NO. IJX-3435
DATE: JUNE, 2005 AIP PROJ. NO. 3-17-0054-B10

PEDESTRIAN GATE ARRANGEMENT

VEHICLE GATE ARRANGEMENT

PULL POST ARRANGEMENT

LINE POST ARRANGEMENT

CORNER OR END POST ARRANGEMENT

FOOTING FOR LINE POST

FOOTING FOR GATE & TERMINAL POST

FOOTING FOR POST IN ROCK LEDGE

ROLL FORMED SECTION OF BRACE

ROLL FORMED SECTION OF TERMINAL & GATE POST

METHOD OF FASTENING STRETCHER BAR TO POST

METHOD OF TYING FABRIC TO TENSION WIRES

GENERAL NOTES

Full posts shall be placed at locations determined by the Engineer. They shall be placed at 200 m (660') intervals between posts to which the ends of the fabric are elamped or midway between such posts when the distance is less than 400 m (1320') and greater than 200 m (660').

X + Y shall not exceed 600 mm (24"), 750 mm (30") or 900 mm (36") as applicable, when X is 0 (0) to 225 mm (9"), 300 mm (12"), or 525 mm (21"), Y = 375 mm (15"), and the post shall be shortened as required when X exceeds 225 mm (9"), 300 mm (12"), or 525 mm (21"), Y shall be decreased correspondingly.

All dimensions are in millimeters (inches) unless otherwise shown.

Section	kg/m (lbs./ft.)
Pipe Type A 48.3 O.D. (1.90)	4.05 (2.72)
Pipe Type B 48.3 O.D. (1.90)	3.59 (2.28)
Pipe Type C 48.3 O.D. (1.90)	3.36 (2.28)
H 47.6x41.3 (1.875x1.625)	4.05 (2.72)
□	2.38 (1.60)
I	3.42 (2.30)

Section	kg/m (lbs./ft.)
Pipe Type A 60.3 O.D. (2.375)	5.43 (3.85)
Pipe Type B 60.3 O.D. (2.375)	4.63 (3.31)
Pipe Type C 60.3 O.D. (2.375)	4.80 (3.09)
Roll Formed 89.0x89.0 (3 1/2 x 3 1/2)	See detail
Sq. Tubing 83.5x83.5 (3 1/2 x 3 1/2)	8.43 (4.32)

Section	kg/m (lbs./ft.)
Pipe Type A 42.2 O.D. (1.66)	3.38 (2.27)
Pipe Type B 42.2 O.D. (1.66)	2.72 (1.83)
Pipe Type C 42.2 O.D. (1.66)	2.71 (1.82)
H 33.3x38.1 (1.31x1.5)	3.35 (2.25)
Roll Formed 41.3x31.8 (1 5/8 x 1 1/4)	See detail

Gate Opening (ft.)	Gate Opening (m)	Pipe Type A		Sq. Tubing		Pipe Type B	
		Size (O.D.)	kg/m (lbs./ft.)	Size	kg/m (lbs./ft.)	Size (O.D.)	kg/m (lbs./ft.)
Up to 1.2 (4)	Up to 2.5 (8)	60.3 (2.375)	5.43 (3.85)	83.5 (3.28)	8.43 (5.79)	60.3 (2.375)	4.63 (3.31)
Over 1.2 to 2.5 (4) (6)	Over 2.5 to 5.0 (8) (16)	73.0 (2.875)	8.62 (5.79)	76.2 (2.99)	8.80 (5.78)	73.0 (2.875)	6.91 (4.84)
Over 2.5 to 3.6 (6) (12)	Over 3.6 to 7.4 (12) (24)	86.0 (3.35)	11.26 (7.58)	76.2 (2.99)	13.10 (8.80)	86.0 (3.35)	8.49 (5.707)

* The 89.0 x 89.0 (3 1/2 x 3 1/2) sq. tubing section as detailed may be used as gate posts for single gate up to 1.8 m (6') and double gate up to 3.6 m (12').

CHAIN LINK FENCE
(Sheet 1 of 3)
STANDARD 664001

PROTECTIVE ELECTRICAL GROUNDS

INSTALLATION ON SLOPES

INSTALLATION AT STREAM CROSSINGS

INSTALLATION OVER STREAM

INSTALLATION AROUND HEADWALL

INSTALLATION AT CORNERS

CHAIN LINK FENCE
(Sheet 2 of 3)
STANDARD 664001

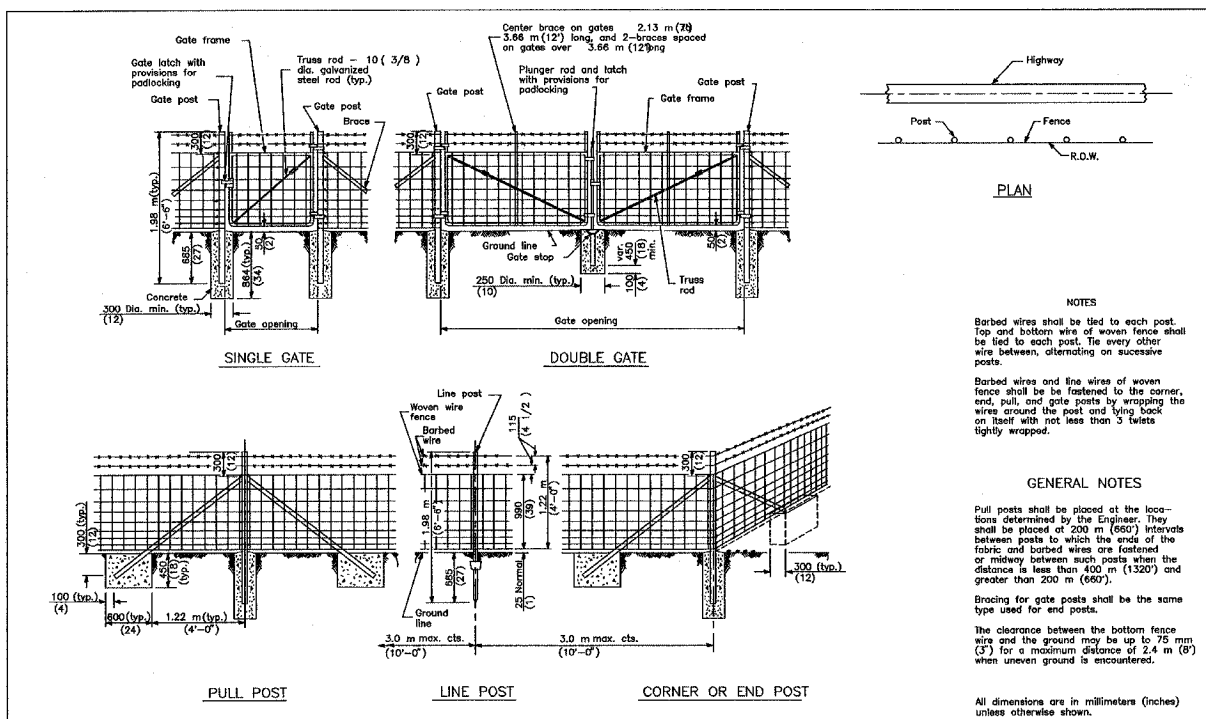
NOTE: TOP RAIL SHALL BE PROVIDED IN ACCORDANCE WITH THE SUPPLEMENTAL SPECIFICATIONS.

JACKSONVILLE MUNICIPAL AIRPORT
JACKSONVILLE, ILLINOIS

STANDARD DRAWINGS

HUTCHISON ENGINEERING, INC.
JACKSONVILLE, ILLINOIS

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DATE: JUNE, 2005 AIP PROJ. NO. 3-17-0054-1B10

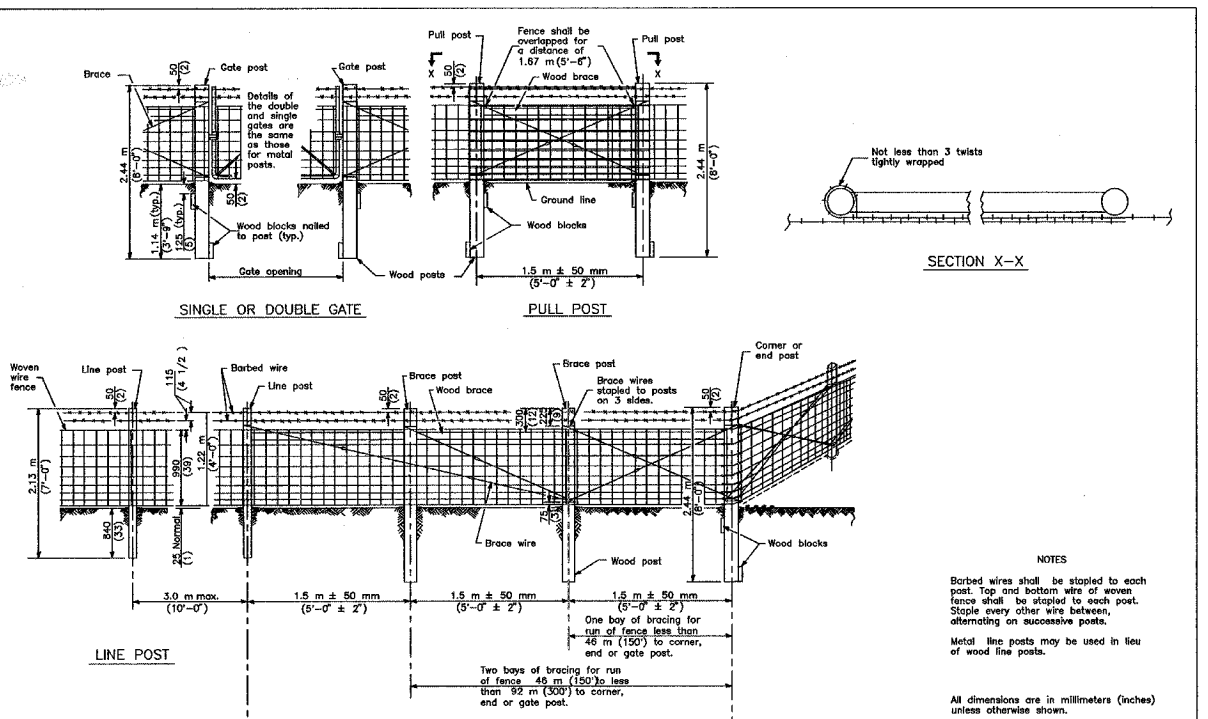


NOTES
 Barbed wires shall be tied to each post. Top and bottom wire of woven fence shall be tied to each post. Tie every other wire between, alternating on successive posts.
 Barbed wires and line wires of woven fence shall be fastened to the corner, end, pull, and gate posts by wrapping the wire around the post and tying back on itself with not less than 3 twists tightly wrapped.

GENERAL NOTES
 Pull posts shall be placed at the locations determined by the Engineer. They shall be placed at 200 m (660') intervals between posts to which the ends of the fabric and barbed wires are fastened or midway between such posts when the distance is less than 400 m (1320') and greater than 200 m (660').
 Bracing for gate posts shall be the same type used for end posts.
 The clearance between the bottom fence wire and the ground may be up to 75 mm (3") for a maximum distance of 2.4 m (8') when uneven ground is encountered.

All dimensions are in millimeters (inches) unless otherwise shown.

WOVEN WIRE FENCE
 (Sheet 1 of 4)
 STANDARD 665001



NOTES
 Barbed wires shall be stapled to each post. Top and bottom wire of woven fence shall be stapled to each post. Staple every other wire between, alternating on successive posts.
 Metal line posts may be used in lieu of wood line posts.

All dimensions are in millimeters (inches) unless otherwise shown.

WOVEN WIRE FENCE
 (Sheet 2 of 4)
 STANDARD 665001

METAL ITEMS

GATE FRAMES		CORNER, END or PULL POSTS		LINE POSTS		BRACES	
Section	kg/m (lbs./ft.)	Section	kg/m (lbs./ft.)	Section	kg/m (lbs./ft.)	Section	kg/m (lbs./ft.)
Type A: Pipe 42.2 (1.66) O.D.	3.38 (2.27)	Type A: Pipe 60.3 (2.375) O.D.	5.43 (3.65)	Type A: Pipe 33.4 (1.315) O.D.	2.50 (1.68)	Type A: Pipe 42.2 (1.66) O.D.	3.38 (2.27)
Type B: Pipe 42.2 (1.66) O.D.	2.72 (1.83)	Type B: Pipe 60.3 (2.375) O.D.	4.63 (3.11)	Type B: Pipe 33.4 (1.315) O.D.	1.99 (1.34)	Type B: Pipe 42.2 (1.66) O.D.	2.72 (1.83)
Type C: Pipe 42.2 (1.66) O.D.	2.71 (1.82)	Type C: Pipe 60.3 (2.375) O.D.	4.60 (3.09)	Type C: Pipe 33.4 (1.315) O.D.	1.98 (1.33)	Type C: Pipe 42.2 (1.66) O.D.	2.71 (1.82)
		Tubing 63.5 (2.5) Sq.	6.43 (4.32)	Tubing 25.4 (1) Sq.	2.10 (1.41)		
		Angle 6x6x(26.9) 2 x 1/2 x 1/4	6.10 (4.1)	Ang.		Angle 6x6x(26.9) 2 x 1/2 x 1/4	4.75 (3.19)
		H, I, U, structural shapes	6.10 (4.1) min.	L, C, T, U, Y or other approved structural shapes	1.68 (1.33) min.		

METAL ITEMS

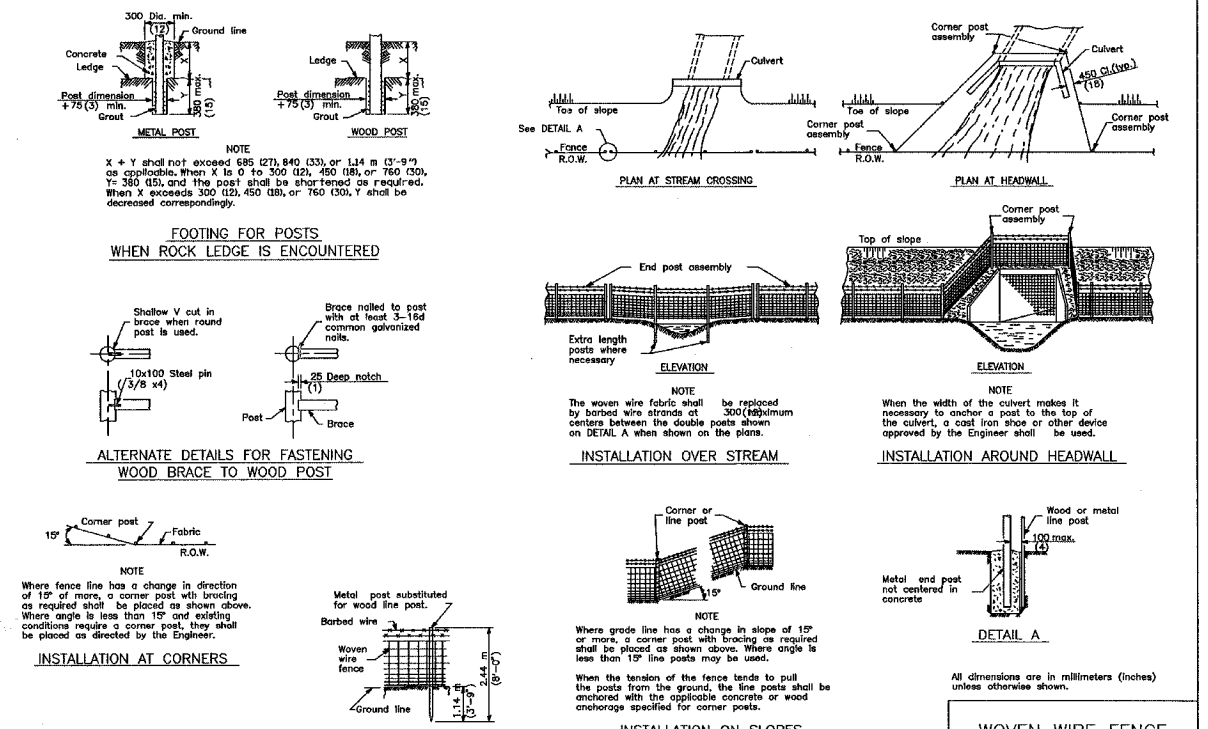
GATE POSTS			
Single gate up to 1.22 m (4 ft.) Double gate up to 2.44 m (8 ft.)		over 1.22 m to 2.44 m (4 ft. to 8 ft.) over 2.44 m to 4.88 m (8 ft. to 16 ft.)	
Section	kg/m (lbs./ft.)	Section	kg/m (lbs./ft.)
Type A: Pipe 60.3 (2.375) O.D.	5.43 (3.65)	73.0 (2.875) O.D.	8.82 (5.79)
Type B: Pipe 60.3 (2.375) O.D.	4.83 (3.11)	73.0 (2.875) O.D.	8.91 (4.64)
Type C: Pipe 60.3 (2.375) O.D.	4.80 (3.09)	73.0 (2.875) O.D.	5.53 (3.78)
Tubing 63.5 (2.5) Sq.	8.43 (4.32)	76.2 (3) Sq.	8.80 (5.78)
Angle 6x6x(26.9) 2 x 1/2 x 1/4	6.10 (4.1)	76x76x(3) 5/16	9.08 (6.1)
H, I, U, structural shapes	6.10 (4.1) min.		9.08 (6.1) min.

WOOD ITEMS

GATE, CORNER, END or PULL POSTS	BRACES and LINE POSTS	BLOCKS
150 to 175 (6 to 7) Top dia. 150x150 (6x6)	100 to 125 (4 to 5) Top dia. 100x100 (4x4)	50x200x450 (2x8x18)

All dimensions are in millimeters (inches) unless otherwise shown.

WOVEN WIRE FENCE
 (Sheet 3 of 4)
 STANDARD 665001



WOVEN WIRE FENCE
 (Sheet 4 of 4)
 STANDARD 665001

JACKSONVILLE MUNICIPAL AIRPORT
 JACKSONVILLE, ILLINOIS

STANDARD DRAWINGS

HUTCHISON ENGINEERING, INC.
 JACKSONVILLE, ILLINOIS

DRAWN BY: T.J.D. ILL. PROJ. NO. IJX-3435
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